

UTSTARCOM HOLDINGS CORP.  
Form 20-F  
April 17, 2019  
UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 20-F

REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR 12(g) OF THE SECURITIES EXCHANGE ACT OF 1934

OR

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2018.

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from                      to

OR

SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

Date of event requiring this shell company report . . . . .

Commission file number: 001-35216

UTStarcom Holdings Corp.  
(Exact name of Registrant as specified in its charter)

N/A  
(Translation of Registrant's name into English)

Cayman Islands  
(Jurisdiction of incorporation or organization)

Level 6, 28 Hennessy Road, Admiralty, Hong Kong  
(Address of principal executive offices)

Investor Relations

Level 6, 28 Hennessy Road,

Admiralty, Hong Kong

Phone: (852) 3951 9757

UTSI-IR@utstar.com

(Name, Telephone, E-mail and/or Facsimile number and Address of Company Contact Person)

Securities registered pursuant to Section 12(b) of the Act:

None

Securities registered pursuant to Section 12(g) of the Act:

Title of each class	Name of each exchange on which registered
Ordinary Shares, \$0.00375 par value	The NASDAQ Stock Market LLC

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Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act:

NONE  
(Title of Class)

Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by the annual report: 35,317,742 ordinary shares, par value US\$0.00375 per share.

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

Yes No

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or (15)(d) of the Securities Exchange Act of 1934.

Yes No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files).

Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer. See definition of "accelerated filer and large accelerated filer" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer Accelerated filer Non-accelerated filer Emerging growth company

If an emerging growth company that prepares its financial statements in accordance with U.S. GAAP, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards† provided pursuant to Section 13(a) of the Exchange Act.

† The term “new or revised financial accounting standard” refers to any update issued by the Financial Accounting Standards Board to its Accounting Standards Codification after April 5, 2012.

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing.

U.S. GAAP   International Financial Reporting Standards as issued   Other

by the International Accounting Standards Board

If “Other” has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow.

Item 17   Item 18

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes   No

(APPLICABLE ONLY TO ISSUERS INVOLVED IN BANKRUPTCY PROCEEDINGS DURING THE PAST FIVE YEARS)

Indicate by check mark whether the registrant has filed all documents and reports required to be filed by Sections 12, 13 or 15(d) of the Securities Exchange Act of 1934 subsequent to the distribution of securities under a plan confirmed by a court.

Yes   No



UTSTARCOM HOLDINGS CORP.

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## INTRODUCTION

Unless the context otherwise requires, in this annual report on Form 20-F:

- “We,” “us,” “our,” and “our company” refer to UTStarcom Holdings Corp., an exempted company incorporated under the laws of the Cayman Islands in April 2011, and its direct and indirect subsidiaries;
- “UTStarcom” refers to UTStarcom Holdings Corp.;
- “Shares” or “ordinary shares” refers to our ordinary shares, par value \$0.00375 per share;
- “China” or “PRC” refers to the People’s Republic of China, excluding, for the purpose of this annual report, Taiwan, Hong Kong and Macau; and
- “RMB” or “Renminbi” refers to the legal currency of China, “JPY” or “Japanese Yen” refers to the legal currency of Japan, “INR” or “Indian Rupee” refer to the legal currency of India, and “\$” or “U.S. dollars” refers to the legal currency of the United States.

Names of certain PRC companies provided in this annual report are translated or transliterated from their original PRC legal names.

Discrepancies in any table between the amounts identified as total amounts and the sum of the amounts listed therein are due to rounding.

This annual report on Form 20-F includes our audited consolidated financial statements for the years ended December 31, 2016, 2017 and 2018.

This annual report contains translations of certain Renminbi amounts into U.S. dollars at the rate of RMB 6.8755 to \$1.00, the noon buying rate on December 28, 2018, as set forth in the H.10 statistical release of the U.S. Federal Reserve Board. We make no representation that the Renminbi or U.S. dollar amounts referred to in this annual report could have been or could be converted into U.S. dollars or Renminbi, as the case may be, at any particular rate or at all. See “Item 3. Key Information-D. Risk Factors-Risks Relating to Conducting Business in China-Fluctuation in the value of the RMB relative to the U.S. dollar could affect our operating results and may have a material adverse effect on your investment.”

This annual report also contains translations of certain Japanese Yen amounts into U.S. dollars at the rate of JPY 109.7000 to \$1.00, the noon buying rate on December 31, 2018, as set forth in the H.10 statistical release of the U.S. Federal Reserve Board. We make no representation that the Japanese Yen or U.S. dollar amounts referred to in this annual report could have been or could be converted into U.S. dollars or Japanese Yen, as the case may be, at any particular rate or at all. Fluctuation in the value of the Japanese Yen may have a material adverse effect on your investment. See “Item 3. Key Information-D. Risk Factors-Risks Related to Our Business-Currency rate fluctuations may adversely affect our cash flow and operating results.”

Our ordinary shares are listed on the NASDAQ Stock Market, or NASDAQ, under the symbol “UTSI”. On March 21, 2013, we effected a one-for-three reverse share split of our ordinary shares. Unless otherwise specified, all share and per share information in this annual report has been retroactively adjusted to reflect this reverse share split.

On June 24, 2011, we effected a merger, or the Merger, to reorganize the corporate structure of UTStarcom, Inc., a Delaware corporation incorporated in 1991, and its subsidiaries. The Merger resulted in shares of the common stock of UTStarcom, Inc. being converted into the right to receive an equal number of ordinary shares in our capital, which were issued by us in connection with the Merger. Following the Merger, UTStarcom, Inc. became our wholly owned subsidiary and we became the parent company of UTStarcom, Inc. and its subsidiaries. See “Item 4. Information on the Company-C. Organizational Structure” for a list of our subsidiaries. We, together with our subsidiaries, continue to conduct our business in substantially the same manner as was conducted by UTStarcom, Inc. and its subsidiaries. The

transaction was accounted for as a legal re-organization of entities under common control. Accordingly, we have prepared our consolidated financial statements as if the current corporate structure had been in existence throughout all relevant periods. Our consolidated financial statements prior to the Merger reflect the financial position, results of operations and cash flows of UTStarcom, Inc. and its subsidiaries. Our consolidated financial statements as of December 31, 2017 and 2018 and for the years ended December 31, 2016, 2017 and 2018 reflect our financial position, results of operation and cash flows.

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## PART I

## ITEM 1-IDENTITY OF DIRECTORS, SENIOR MANAGEMENT AND ADVISERS

Not Applicable.

## ITEM 2-OFFER STATISTICS AND EXPECTED TIMETABLE

Not Applicable.

## ITEM 3-KEY INFORMATION

## A. Selected Financial Data

The following selected consolidated statement of operations data for the years ended December 31, 2016, 2017 and 2018 and the selected consolidated balance sheet data as of December 31, 2017 and 2018 have been derived from our audited financial statements included elsewhere in this annual report. The selected consolidated financial data should be read in conjunction with those financial statements and the accompanying notes and “Item 5. Operating and Financial Review and Prospects” below. Our consolidated financial statements are prepared and presented in accordance with United States generally accepted accounting principles, or U.S. GAAP. Our historical results do not necessarily indicate our results expected for any future periods.

Our selected consolidated statement of operations data for the years ended December 31, 2014 and 2015 and our consolidated balance sheets as of December 31, 2014, 2015 and 2016 have been derived from our audited consolidated financial statements, which are not included in this annual report.

	Years Ended December 31,				
	2018	2017	2016	2015	2014
	(in thousands, except per share amount)				
<b>Consolidated Statement of Operations Data:</b>					
Net sales(1)	\$115,944	\$98,292	\$86,512	\$117,103	\$129,420
Gross profit	\$32,268	\$33,146	\$28,356	\$27,868	\$22,128
Operating income (loss)	\$4,367	\$6,516	\$1,708	\$(4,989 )	\$(14,073 )
Net income (loss) attributable to UTStarcom Holdings					
Corp.	\$4,820	\$6,981	\$290	\$(27,158 )	\$(30,264 )
Net income (loss) per share attributable to UTStarcom					
Holdings Corp.-Basic	\$0.14	\$0.20	\$0.01	\$(0.74 )	\$(0.81 )

(1)The sales decrease from 2014 to 2016 was mainly caused by lower market demand for old products as we streamlined our business to focus more on high-gross margin products after we announced our new strategy in June 2015. In 2018, we recognized revenues in accordance with Accounting Standard Update (“ASU 2014-09”). The disclosure for the quantitative effect and the significant changes between the reported results under the new standard and those that would have been reported under legacy GAAP (i.e., ASC 605), please see Note 2 to our Consolidated Financial Statements included under Part III, Item 18 of this Annual Report on Form 20-F.

	Years Ended December 31,				
	2018	2017	2016	2015	2014
	(in thousands)				
<b>Consolidated Balance Sheet Data:</b>					
Cash and cash equivalents	\$57,049	\$79,749	\$83,922	\$77,050	\$77,824
Working capital	\$90,362	\$78,549	\$75,850	\$63,818	\$76,383
Total assets	\$177,435	\$187,044	\$178,703	\$198,379	\$279,063
Total short-term debt	\$—	\$—	\$—	\$—	\$—
Long-term debt	\$—	\$—	\$—	\$—	\$—
Total UTStarcom Holdings Corp. shareholders' equity	\$102,166	\$90,992	\$82,741	\$83,777	\$115,329

B. Capitalization and Indebtedness

Not Applicable.

C. Reasons for the Offer and Use of Proceeds

Not Applicable.

## D. Risk Factors

### Risks Related To Our Business

We have a history of operating losses and may not have enough liquidity to execute our business plan or to continue our operations without obtaining additional funding or selling additional securities. We may not be able to obtain additional funding under commercially reasonable terms or issue additional securities.

We reported net income attributable to UTStarcom Holdings Corp. of \$4.8 million, \$7.0 million, and \$0.3 million for the years ended December 31, 2018, 2017 and 2016, respectively. As of December 31, 2018, we had \$57.0 million in cash or cash equivalents. Our management considered our current financial status, business operation, market strategy, and products development in the twelve months following the issuance date of this report and believes that we will have sufficient liquidity to finance our anticipated operations, capital expenditure requirements and new business acquisitions and investments, as well as achieve projected cash collections from customers and contain expenses and cash used in operations over that period. However, we may not achieve such operating performance and our management expects to continue to implement our liquidity plans, including reducing operating expenses and improving cash collections and receivable turnover. If we cannot successfully implement our liquidity plans, it may be necessary for us to make significant changes to our business plans and strategy to maintain adequate liquidity. In addition, various other factors may negatively impact our liquidity, such as:

- our inability to achieve planned operating results, which may increase liquidity requirements beyond those considered in our business plans;
- our growth initiatives, which may increase liquidity requirements beyond those considered in our business plans;
- changes in our business conditions or the financial markets that could limit our access to existing credit facilities or make new sources of financing more-costly or commercially unviable; and
- changes in China's currency exchange control regulations, which could limit our ability to access cash outside of China to meet liquidity requirements for our operations in China, or vice-versa.

Although our management has developed liquidity plans, we may have difficulty maintaining existing relationships or developing new relationships with suppliers as a result of our current financial condition. Our suppliers may choose to provide products or services to us on more stringent payment terms than those currently in place, such as requiring advance payment or payment upon delivery, which may have a negative impact on our short-term cash flows, and in turn materially and adversely affect our ability to retain current customers, attract new customers and maintain contracts that are critical to our operations.

If we cannot meet our liquidity needs through improved operating results, we may need to obtain additional financing from financial institutions or other third parties. However, we may not be able to obtain financing under commercially reasonable terms, or at all. Additionally, we may not be able to sell additional securities to meet our liquidity needs, and any such sale of securities would dilute the ownership of our shareholders.

Our strategic plan may not be successful, which may materially and adversely affect our financial results.

On June 5, 2015, we announced a strategic plan to build on our past transition initiatives, further streamline our business model, focus on profitable broadband products and markets, and continue to monetize our investments. We expect that this strategic plan will in time result in a modified revenue profile and improve our margins. However, we may not be successful in reducing the costs, improving the efficiencies, or expanding our margins. If our current or future strategic plans for the business of our company are not as successful as originally anticipated, or at all, our company, financial prospects and results of operations may be materially and adversely affected.

Our cost-reduction initiatives and restructuring plans may not result in anticipated savings or more efficient operations. Our restructuring may disrupt our operations and adversely affect our operations and financial results.

In the past several years, we implemented certain cost-reduction initiatives and restructuring plans. However, our restructuring may not improve our results of operations and cash flows as we anticipated. Our inability to realize the benefits of our cost-reduction initiatives and restructuring plans may result in an ineffective business structure that could negatively affect our results of operations. In addition to severance and other employee-related costs, our restructuring plans may also subject us to litigation risks and expenses.

Our restructuring may also have other adverse consequences, such as employee attrition beyond our planned reduction in workforce, the loss of employees with valuable knowledge or expertise, a negative affect on employee morale and gains in competitive advantages by our competitors. Our restructuring may also place increased demands on our personnel and could adversely affect our ability to attract and retain talent, develop and enhance our products and services, service our existing customers, achieve our sales and marketing objectives and perform our accounting, finance and administrative functions.

We may undertake future cost-reduction initiatives and restructuring plans that may materially and adversely impact our operations. If we do not realize the anticipated benefits of any future restructurings, our operations and financial results could be adversely affected.

Changes in our management may cause uncertainty in, or be disruptive to, our business. Certain of our directors and management team members have been with us in those capacities for only a short time.

We have experienced significant changes in our management and our Board of Directors in recent years. In 2016, we appointed a new chief executive officer, a new chief operating officer and a new director to the board. Additionally, in November 2017, one of directors has been replaced. Future change of shareholders may also cause further change in our management and our Board of Directors. Although we have endeavored to implement any director and management transition in a non-disruptive manner, any such transition might impact our business, and give rise to uncertainty among our customers, investors, vendors, employees and others concerning our future direction and performance, which may materially and adversely affect our business, financial condition, results of operations and cash flows, and our ability to execute our business model.

In addition, because certain members of our management and board of directors have served in their respective capacities for only limited durations, we face the additional risks that these persons:

- have limited familiarity with our past practices;
- lack experience in communicating effectively within our team and with other employees and directors;
- lack settled areas of responsibility; and
- lack established track records in managing our business strategy.

We rely on a Japanese customer and an Indian customer for a significant portion of our net sales. Any deterioration of our relationship or any interruption to our ongoing collaboration with these customers, may significantly harm our business, financial condition and results of operations.

A significant portion of our net sales is derived from a Japanese customer, SoftBank Corp. and its related entities (collectively “Softbank”), and an Indian customer, Bharat Sanchar Nigam Limited and its related entities (collectively “BSNL”).

Although we have collaborated with Softbank since 2008, Softbank may not continue working with us in the future, whether due to changes in management preferences, business strategy, corporate structure or other factors. Softbank previously was one of our principal shareholders. On January 14, 2014, Softbank sold its entire stake in our Company, consisting of 4,883,875 ordinary shares. We repurchased 3,883,875 ordinary shares, and Shah Capital Opportunity Fund LP, one of our shareholders, purchased 1,000,000 ordinary shares, for a price of \$2.54 per ordinary share. After the consummation of the transaction, Softbank was no longer a related party. In 2017 and 2018, our net sales to Softbank totaled approximately \$39.5 million and \$31.9 million, respectively, representing approximately 40% and 28%, respectively, of our total net sales in 2017 and 2018. Our net sales to BSNL totaled approximately \$38.2 million and \$67.0 million, respectively, representing approximately 39% and 58%, respectively, of our total net sales in 2017 and 2018. We anticipate that our dependence on Softbank and BSNL will continue for the foreseeable future.

Consequently, our failure to continue collaborating with Softbank and BSNL may adversely affect our business, financial conditions and results of operations. Any of the following events may cause material fluctuations or declines in our net sales or liquidity position and have a material adverse effect on our financial condition and results of operations:

- changes in the regulatory environment in Japan or India that adversely affect the Softbank or BSNL businesses that we supply;

changes in the commercial environment in Japan or India that adversely affect the Softbank or BSNL businesses we supply;  
Softbank or BSNL's collaborations with our competitors;  
local manufacture requirement;  
reduction, delay or cancellation of contracts from Softbank or BSNL;  
the success of Softbank or BSNL utilizing our products; and  
failure of Softbank or BSNL to make timely payment for our products and services.

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Investigation by Taiwan Investment Commission (“TWIC”) may cause significantly negative impacts on our business in Taiwan

In February 19, 2019, UTStarcom Taiwan Ltd. (“UTTW”), one of our wholly-owned subsidiaries, received a letter from Taiwan Investment Commission (the “TWIC”) of the Ministry of Economic Affairs (the “MOEA”) requesting UTTW to provide information in relation to its shareholders background. The purpose of this investigation is to judge whether UTTW is a PRC investor under the local laws. We have provided the first response to TWIC on March 7, 2019 and may be required to provide more information in the near future.

According to Article 3 of the “Measures Governing Investment Permit to the People of Mainland Area” (the “Measures”), a PRC investor refers to any individual, juristic person, organization or any other institution from Mainland China (a “Mainland Person”) that invests in Taiwan in accordance with the Measures. A PRC investor also includes any company located in any third area (an area other than the PRC or Taiwan) and invested in by Mainland Person(s) whereby (i) the shares held or capital contributed directly or indirectly by Mainland Person(s) in aggregate exceed 30% of the total number of shares or total amount of capital contribution of said third-area company, or (ii) any Mainland Person has control over said third-area company.

Currently, the total percentage of shareholding in UTTW directly or indirectly by PRC individuals or entities is approximately 42.13%. If UTTW is determined to be a PRC investor, pursuant to the local laws in Taiwan, UTTW may be prohibited to continue its operations in Taiwan. In 2016, 2017 and 2018, the net sales contributed from Taiwan market were \$3.2 million, \$3.0 million and \$6.4 million, which accounted for 4%, 3% and 6% of our total net sales in 2016, 2017 and 2018, respectively. If UTTW is prohibited from operating in Taiwan, we may lose our Taiwan market and revenues from Taiwan, and our business, financial condition and results of operations will be adversely affected.

We have a rapidly evolving business model, and if our new product and service offerings fail to attract or retain customers or generate revenue, our growth and operating results could be harmed.

We have a rapidly evolving business model and are regularly exploring entry into new market segments and introduction of new products, features and services with respect to which we may have limited experience. In the past, we have added additional types of services and product offerings, and in some cases, we have modified or discontinued those offerings. We may continue to offer additional types of products or services in the future, but these products and services may not be successful. The additions and modifications to our business have increased its complexity and may present new and significant technological challenges, as well as strains on our management, personnel, operations, systems, technical performance, financial resources, and internal financial control and reporting functions. The future viability of our business will depend on the success of our new business model and product and service offerings, and if they fail to attract or retain customers or generate revenue, our growth and operating results could be materially and adversely affected.

Our future product sales are unpredictable and our operating results are likely to fluctuate from quarter to quarter as a result.

Our quarterly and annual operating results have fluctuated in the past and are likely to fluctuate in the future due to a variety of factors, some of which are outside of our control. Factors that may affect our future operating results include:

- the timing and size of the orders for our products;
- customer acceptance of new products we may introduce to market;
- changes in the growth rate of customer purchases of communications services;

lengthy and unpredictable sales cycles associated with sales of our products;  
cancellation, deferment or delay in implementation of large contracts;  
quality issues resulting from the design or manufacture of the products, or from the software used in the products;  
cash collection cycles in the markets where we operate;  
reliance on product, software and component suppliers which may constitute a sole source of supply or may have going concern issues;  
the decline in business activity we typically experience during the Lunar New Year holiday in China, which leads to decreased sales and collections during our first fiscal quarter;  
issues that might arise from divestiture of non-core assets or operations or the integration of acquired entities and the inability to achieve expected results from such divestitures or acquisitions;

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- shifts in our product mix or market focus; and
- availability of adequate liquidity to implement our business plan.

As a result of these and other factors, period-to-period comparisons of our operating results are not necessarily meaningful or indicative of future performance. In addition, the factors noted above may make it difficult for us to forecast our future financial performance. Furthermore, it is possible that in some future quarters our operating results will fall below our internal forecasts, public guidance or the expectations of securities analysts or investors, which may adversely affect the trading price of our ordinary shares.

Competition in our markets may lead to reduced prices, revenues and market share.

We currently face and will continue to face intense competition from both domestic and international companies in our target markets, many of which may operate under lower cost structures and have much larger sales forces than we do. Additionally, other companies not presently offering competing products may also enter our target markets. Many of our competitors have significantly greater financial, technical, product development, sales, marketing and other resources than we do. As a result, our competitors may be able to respond more quickly to new or emerging technologies and changes in service provider requirements. Our competitors may also be able to devote greater resources than we can to the development, promotion and sale of new products. These competitors may be able to offer significant financing arrangements to service providers, which may give them a competitive advantage in selling systems to service providers with limited financial resources. In many of the developing markets in which we operate or intend to operate, relationships with local governmental telecommunications agencies are important to establish and maintain through permissible means. In many such markets, our competitors may have or be able to establish better relationships with local governmental telecommunications agencies than we have, which could result in their ability to influence governmental policy formation and interpretation to their advantage. Additionally, our competitors might have better relationships with their third party suppliers and obtain component parts at reduced rates, allowing them to offer their end products at reduced prices. Moreover, the telecommunications and data transmission industries have experienced significant consolidation, and we expect this trend to continue. Increased customer concentration may increase our reliance on larger customers and our bargaining position and profit margins may suffer.

Increased competition is likely to result in price reductions, reduced profit margin and loss of market share, any one of which could materially harm our business, cash flows and financial condition. In order to remain competitive, we must continually reduce the cost of manufacturing our products through design and engineering changes and other cost control measures. We may not be successful in these efforts or in delivering our products to market in a timely manner. In addition, any redesign may not result in sufficient cost reductions to allow us to reduce the prices of our products to remain competitive or to improve or maintain our profit margin, which would cause our financial results to suffer.

To remain competitive, we may enter into contracts with low profitability or even anticipated losses if we believe it is necessary to establish a relationship with a customer or a presence in a market that we consider important to our strategy. Entering into a contract with an anticipated loss requires us to recognize a provision for the entire loss in the period in which it becomes evident rather than in later periods in which contract performance occurs. Entering into contracts with low gross margins adversely affects our reported results when the revenues from such contracts are recognized.

The average selling prices of our products may decrease, which may reduce our revenues and our gross profit.

The average selling prices of our products may decrease in the future in response to product introductions by us or our competitors or other factors, including price pressures from customers. Sales of products with low gross profit margins may adversely affect our profitability and result in losses with respect to such products. Therefore, we must continue to develop, source and introduce new products and enhancements to existing products that incorporate

features that can be sold at higher average selling prices. Failure to do so, or the failure of consumers or our direct customers to accept such new products, could cause our revenues and profitability to decline.

Our market is subject to rapid technological change and we must continually introduce new products and product enhancements that achieve market acceptance to compete effectively.

The market for broadband equipment is characterized by rapid technological developments, frequent new product introductions, changes in consumer preferences and evolving industry and regulatory standards. Our success will depend in large part on our ability to enhance our technologies and develop and introduce new products and product enhancements that anticipate changing service provider requirements, technological developments and evolving consumer preferences. We may need to make substantial capital expenditures and incur significant R&D expenses to develop and introduce new products and enhancements. If we fail to develop and introduce new products or enhancements to existing products that effectively respond to technological change on a timely basis, our business, financial condition and results of operations could be materially and adversely affected.

Certain of our products are subject to rapid changes in standards, applications and technologies. Moreover, from time to time, we or our competitors may announce new products or product enhancements, technologies or services that have the potential to replace or shorten the life cycles of our products and that may cause customers to defer purchasing our existing products, resulting in charges for inventory obsolescence reserves. Future technological advances in the communications industry may diminish or inhibit market acceptance of our existing or future products or render our products obsolete. Even if we are able to develop and introduce new products, they may not gain market acceptance. Market acceptance of our products will depend on various factors, including:

- our ability to obtain necessary approvals from regulatory organizations within the countries in which we operate and for any new technologies that we introduce;
- the length of time it takes service providers to evaluate our products, causing the timing of purchases to be unpredictable;
- the compatibility of our products with legacy technologies and standards existing in previously deployed network equipment;
- our ability to attract customers who may have pre-existing relationships with our competitors;
- product pricing relative to performance;
- the level of customer service available to support new products; and
- the timing of new product introductions meeting demand patterns.

If our products fail to obtain market acceptance in a timely manner, our business and results of operations could be materially and adversely affected.

We purchase certain key components and materials used in our products from authorized distributors of sole source suppliers. If we cannot secure adequate supplies of high quality products at competitive prices or in a timely manner, our competitive position, reputation and business could be harmed.

We purchase certain key components and materials, such as chipsets, used in our products from authorized distributors of sole source suppliers. We do not have direct contractual arrangements with the sole source suppliers of chipsets used in our products. If we are unable to obtain high-quality components and materials in the quantities required and at the costs specified by us, we may not be able to find alternative sources on favorable terms, in a timely manner, or at all. Our inability to obtain or to develop alternative sources if and as required could result in delays or reductions in manufacturing or product shipments. From time to time, there may be shortages of certain products or components. Moreover, the components and materials we purchase may be inferior quality products. If an inferior quality product supplied by a third party is used in our end product and causes a problem, our end product may be deemed responsible and our competitive position, reputation and business could suffer.

Our ability to source a sufficient quantity of high-quality, cost-effective components used in our products may also be limited by import restrictions and duties in the foreign countries where we manufacture our products. We require a significant number of imported components to manufacture our products, and these imported components may be limited by a variety of permit requirements, approval procedures, patent infringement claims, import duties and licensing requirements. Moreover, import duties on such components increase the cost of our products and may make them less competitive.

Our multinational operations may strain our resources and subject us to various economic, political, regulatory and legal risks.

We market and sell our products globally. Our existing multinational operations require significant management attention and financial resources. To continue to manage our global business, we will need to continue to take various actions, including:

- enhancing management information systems, including forecasting procedures;
- further developing our operating, administrative, financial and accounting systems and controls;
- managing our working capital and sources of financing;
- maintaining close coordination among our engineering, accounting, finance, marketing, sales and operations organizations;
- successfully consolidating a number of functions in China to eliminate functional duplication;
- retaining, training and managing our employee base;

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- reorganizing our business structure to allocate and utilize our internal resources more effectively;
- improving and sustaining our supply chain capability; and
- managing both our direct and indirect sales channels in a cost-efficient and competitive manner.

If we fail to implement or improve systems or controls or to manage any future growth and transformation effectively, our business could suffer.

Furthermore, our multinational operations are subject to a variety of risks, such as:

- the complexity of complying with a variety of foreign laws and regulations in each of the jurisdictions in which we operate;
- difficulty complying with continually evolving and changing global product and communications standards and regulations for both our end products and their component technology;
- market acceptance of our new products, including longer product acceptance periods in new markets into which we enter;
- reliance on local original equipment manufacturers, third party distributors, resellers and agents to effectively market and sell our products;
- unusual contract terms required by customers in developing markets;
- changes to import and export regulations, including quotas, tariffs, licensing restrictions and other trade barriers;
- the complexity of compliance with the varying taxation requirements of multiple jurisdictions;
- evolving and unpredictable nature of the economic, regulatory, competitive and political environments;
- reduced protection for intellectual property rights in some countries;
- longer accounts receivable collection periods; and
- difficulties and costs of staffing, monitoring and managing multinational operations, including but not limited to internal controls and compliance.

In addition, many of the global markets are less developed, presenting additional economic, political, regulatory and legal risks unique to developing economies, such as the following:

- customers that may be unable to pay for our products in a timely manner or at all;
- new and unproven markets for our products and the telecommunications services that our products enable;
- lack of a large, highly trained workforce;
- difficulty in controlling local operations from our headquarters;
- variable ethical standards and an increased potential for fraud;
- unstable political and economic environments; and
- lack of a secure environment for our personnel, facilities and equipment.

In particular, these factors create the potential for physical loss of inventory and misappropriation of operating assets. We have in the past experienced cases of vandalism and armed theft of our equipment that had been or was being installed in the field. If disruptions for any of these reasons become too severe in any particular market, it may become necessary for us to terminate contracts and withdraw from that market and suffer the associated costs and lost revenue.

Our success depends on our ability to hire and retain qualified personnel, including senior managers. If we are not successful in attracting and retaining these personnel and in managing key employee turnover, our business will suffer.

The success of our business depends in significant part upon the continued contributions of key technical and senior management personnel, many of whom would be difficult to replace. The loss of a key employee, the failure of a key employee to perform satisfactorily in his or her current position or our failure to attract and retain other key technical and senior management employees could have a significant negative impact on our operations.

Notwithstanding our recent workforce restructurings, to effectively manage our operations, we will need to recruit, train, assimilate, motivate and retain qualified employees, especially in China. Competition for qualified employees is intense, and the process of recruiting personnel in all fields, including technology, research and development, sales and marketing, finance and accounting, administration and management with the combination of skills and attributes required to execute our business strategy can be difficult, time-consuming and expensive. We must continue to implement hiring and training processes that are capable of quickly deploying qualified local residents to support our products and services knowledgeably. Alternatively, if there are an insufficient number of qualified local residents available, we might incur substantial costs importing expatriates to service new global markets. For example, we have historically experienced and continue to experience difficulty finding qualified accounting personnel knowledgeable in both U.S. and PRC accounting standards who are PRC residents. In addition, we made changes within our senior management team in China. If our current senior management in China cannot maintain and/or establish key relationships with customers, governmental entities and other relevant parties in China, our business may decline significantly. If we fail to attract, hire, assimilate or retain qualified personnel, our business would be harmed. Our recent layoffs also have an adverse effect on our ability to attract and retain critical staff. Competitors and others have in the past, and may in the future, attempt to recruit our employees. In addition, companies in the telecommunications industry whose employees accept positions with competitors frequently claim that the competitors have engaged in unfair hiring practices. We may be the subject of these types of claims in the future as we seek to hire qualified personnel. Some of these claims may result in material litigation and disruption to our operations. We could incur substantial costs in defending ourselves against these claims, regardless of their merit.

Currency rate fluctuations may adversely affect our cash flow and operating results.

Our business is subject to risk from changing foreign exchange rates because we conduct a substantial part of our business in a variety of currencies other than the U.S. dollar. In 2018, a majority of our sales were made in India and denominated in Indian Rupee. The value of INR against the U.S. dollar and other currencies may fluctuate and is affected by, among other things, changes in India's monetary or fiscal policies and political and economic conditions and supply and demand in local markets. Over the year of 2016, INR depreciated about 2.6% against the U.S. dollar. Over the year of 2017, INR appreciated about 6.0% against the U.S. dollar. Over the year of 2018, INR depreciated about 9.0% against the U.S. dollar. In addition, we also made significant sales denominated in Japanese Yen and significant purchases denominated in Renminbi. Additionally, we have exposures to emerging market currencies, which can have extreme currency volatility. Adverse movements in currency exchange rates may negatively affect our cash flow and operating results. We recorded a net foreign currency gain of \$1.5 million in 2016, a net foreign currency gain of \$0.6 million in 2017, and a net foreign currency loss of \$2.6 million in 2018. We currently do not use forward and option contracts to hedge against the risk of foreign currency rate fluctuation in the eventual net cash inflows and outflows resulting from foreign currency denominated transactions with customers, suppliers, and non-U.S. subsidiaries. Furthermore, we would be limited in our ability to hedge our exposure to rate fluctuations in certain currencies, including the Japanese Yen, Renminbi and Indian Rupee, due to PRC and India governmental currency exchange control regulations that restrict currency conversion and remittance. Even if we engage in hedging activities in the future, we may not be successful in minimizing the impact of foreign currency fluctuations. As a result, fluctuations in foreign currencies may have a material impact on our business, results of operations and

financial condition.

Currency exchange control and government restrictions on dividends may impact our ability to transfer funds outside of the China and India.

A significant portion of our business is conducted in China where the currency is the RMB and in India where the currency is the INR. Regulations in China and India permit foreign owned entities to freely convert the RMB or INR into foreign currency for transactions that fall under the “current account,” which includes trade related receipts and payments, interest and dividends. Accordingly, our PRC or Indian subsidiaries may use RMB or INR to purchase foreign exchange for settlement of such “current account” transactions without pre-approval. However, pursuant to applicable regulations in China, foreign-invested enterprises in China may pay dividends only out of their accumulated profits, if any, determined in accordance with PRC accounting standards and regulations. In calculating accumulated profits, foreign investment enterprises in China are required to allocate at least 10% of their realized profits each year, if any, to fund certain reserves, until these reserves have reached 50% of the registered capital of the enterprises.

Transactions other than those that fall under the “current account” and that involve conversion of RMB or INR into foreign currency are classified as “capital account” transactions; examples of “capital account” transaction include repatriations of investment by or loans to foreign owners, or direct equity investments in a foreign entity by a China domiciled entity. In China, “capital account” transactions will be examined and registered by banks or State Administration of Foreign Exchange (“SAFE”) in China to convert a

remittance into a foreign currency, such as U.S. dollars, and transmit the foreign currency outside of China. In India, “capital account” transactions will be examined and approved by the Reserve Bank of India (“RBI”) to convert INR into a foreign currency, such as U.S. dollars, and transmit the foreign currency outside of India.

The foreign exchange control system in China or India could be changed at any time and any such change may affect the ability of us or our subsidiaries in China or India to repatriate capital or profits, if any, outside China or India. Furthermore, SAFE, RBI or other governmental authorities have a significant degree of administrative discretion in implementing the laws and regulations and has used this discretion to limit convertibility of “current account” payments out of China or India. Whether as a result of a deterioration in the PRC or India balance of payments, a shift in the PRC or Indian macroeconomic prospects or any number of other reasons, China or India could impose additional restrictions on capital remittances abroad. As a result of these and other restrictions under the laws and regulations of the PRC or India, our PRC or India subsidiaries are restricted in their ability to transfer a portion of their net assets to the parent. We have no assurance that the relevant PRC or Indian governmental authorities in the future will not limit further or eliminate the ability of our PRC or Indian subsidiaries to purchase foreign currencies and transfer such funds to us to meet our liquidity or other business needs. Any inability to access funds in China or India, if and when needed for use by us outside of China or India, could have a material and adverse effect on our liquidity and our business.

We may not be able to take advantage of acquisition opportunities or achieve the anticipated benefits of completed acquisitions.

We have in the past acquired certain businesses, products and technologies. We will continue to evaluate acquisition prospects that would complement our existing product offerings, augment our market coverage, enhance our technological capabilities, or that may otherwise offer growth opportunities. To the extent we desire to raise additional funds for purposes not currently included in our business plan (such as taking advantage of acquisition opportunities, developing new or enhanced products, responding to competitive pressures, or raising capital for strategic purposes), additional financing for these or other purposes may not be available on acceptable terms or at all. If we raise additional funds through the issuance of equity securities, our shareholders will experience dilution of their ownership interest, and the newly issued securities may have rights superior to those of ordinary shares. If we raise additional funds by issuing debt, our ability to meet our debt service obligations will be dependent upon our future performance, which will be subject to financial, business and other factors affecting our operations, many of which are beyond our control. Additionally, debt obligations may subject us to limitations on our operations and increased leverage. In addition, acquisitions involve numerous risks, including difficulties in the assimilation of operations, technologies, products and personnel of the acquired company; failures in realizing anticipated synergies; diversion of management’s attention from other business concerns; adverse effects on existing business relationships with customers; difficulties in retaining business relationships with suppliers and customers of the acquired company; risks of entering markets in which we have no direct or limited prior experience; the potential loss of key employees of the acquired company; unanticipated costs; difficulty in maintaining controls, procedures and policies during the transition and integration process; failure of our due diligence process to identify significant issues, including issues with respect to product quality, product architecture and legal and financial contingencies; product development; significant exit charges as impairment charges if products or businesses acquired are unsuccessful or do not perform as expected; potential future impairment of our acquisitions or investments; potential full or partial write-offs of acquired assets or investments and associated goodwill; potential expenses related to the amortization of intangible assets; and, in the case of the acquisition of financially troubled businesses, challenges as to the validity of such acquisitions from third party creditors of such businesses.

We may be unable to adequately protect against the loss or misappropriation of our intellectual property, which could substantially harm our business.



We rely on a combination of patents, copyrights, trademarks, trade secret laws and contractual obligations to protect our technology. We have patents issued in the United States and internationally and have pending patent applications internationally. Additional patents may not be issued from our pending patent applications, and our issued patents may not be upheld. In addition, we have, from time to time, chosen to abandon previously filed patent and trademark applications. Moreover, we may face difficulties in registering our existing trademarks in new jurisdictions in which we operate, and we may be forced to abandon or change product or service trademarks because of the unavailability of our existing trademarks or because of oppositions filed or legal challenges to our trademark filings. The intellectual property protection measures that we have taken may not be sufficient to prevent misappropriation of our technology or trademarks and our competitors may independently develop technologies that are substantially equivalent or superior to ours. In addition, the legal systems of many foreign countries do not protect or honor intellectual property rights to the same extent as the legal system of the United States. For example, in China, the legal system in general, and the intellectual property regime in particular, are still in the development stage. It may be very difficult, time-consuming and costly for us to attempt to enforce our intellectual property rights in these jurisdictions.

We may be subject to claims that we infringe the intellectual property rights of others, which could substantially harm our business.

The industry in which we compete is moving towards aggressive assertion, licensing and litigation of patents and other intellectual property rights. From time to time, we have become aware of the possibility or have been notified that we may be infringing certain patents or other intellectual property rights of others. Regardless of their merit, responding to such claims could be

time consuming, divert management's attention and resources and cause us to incur significant expenses. In addition, although some of our supplier contracts provide for indemnification from the supplier with respect to losses or expenses incurred in connection with any infringement claim, certain contracts with our key suppliers do not provide for such protection. Moreover, certain of our sales contracts provide that we must indemnify our customers against claims by third parties for intellectual property rights infringement related to our products. There are no limitations on the maximum potential future payments under these guarantees. Therefore, we may incur substantial costs related to any infringement claim, which may substantially harm our results of operations and financial condition.

We have been and may in the future become subject to litigation to defend against claimed infringements of the rights of others or to determine the scope and validity of the proprietary rights of others. Future litigation may also be necessary to enforce and protect our patents, trade secrets and other intellectual property rights. Any intellectual property litigation or threatened intellectual property litigation could be costly, and adverse determinations or settlements could result in the loss of our proprietary rights, subject us to significant liabilities, require us to seek licenses from or pay royalties to third parties which may not be available on commercially reasonable terms, if at all, and/or prevent us from manufacturing or selling our products, which could cause disruptions to our operations.

In the event that there is a successful claim of infringement against us and we fail to develop non-infringing technology or license the proprietary rights on commercially reasonable terms and conditions, our business, results of operations and financial condition could be materially and adversely impacted.

We are subject to risks related to our financial and strategic investments in third party businesses.

From time to time, we make financial and/or strategic investments in third party businesses. We cannot be certain that such investments will be successful. In certain instances, we have lost part or all of the value of such investments, resulting in a financial loss and/or the loss of potential strategic opportunities. We recognize an impairment charge on our investment when a decline in the fair value of such investment below the cost basis is judged to be other-than-temporary. In making this determination, we review several factors to determine whether the losses are other-than-temporary, including but not limited to: (i) the length of time the investment was in an unrealized loss position, (ii) the extent to which fair value was less than cost, (iii) the financial condition and near term prospects of the issuer, and (iv) our intent and ability to hold the investment for a period of time sufficient to allow for any anticipated recovery in fair value. For the year ended December 31, 2018 and 2017, we recorded impairment charges of \$0.4 million and \$1.7 million related to investments, respectively. If we have to write down or write off our investments, or if potential strategic opportunities do not develop as planned, our financial performance may suffer. Moreover, these investments are often illiquid, such that it may be difficult or impossible for us to monetize such investments.

We could incur asset impairment charges for long-lived assets or long-term investments, which could negatively affect our future operating results and financial condition.

As of December 31, 2018, we had long-lived assets and long-term investments. We perform periodic assessments for any possible impairment of long-lived assets and long-term investments for accounting purposes. We review the recoverability of the carrying value of long-lived assets held and used and long-lived assets to be disposed of whenever events or changes in circumstances indicate that the carrying value of the assets or asset groups may not be recoverable. Any such charge may adversely affect our operating results and financial condition.

When determining whether an asset impairment has occurred or calculating such impairment for long-term investments or other long-lived asset, fair value is determined using the present value of estimated cash flows or comparable market values. Our valuation methodology requires management to make judgments and assumptions based on projected future cash flows, the timing of such cash flows, discount rates reflecting the risk inherent in future

cash flows, perpetual growth rates, the determination of appropriate comparable entities and the determination of whether a premium or discount should be applied to these comparable entities. Projections of future operating results and cash flows may vary significantly from actual results. Changes in estimates and/or revised assumptions affecting the present value of estimated future cash flows or comparable market values may result in a decrease in fair value of a reporting unit, or a decrease in fair value of long-lived assets or asset groups, our acquisitions or investments. The decrease in fair value could result in a non-cash impairment charge.

Product defect or quality issues may divert management's attention from our business and/or result in costs and expenses that could adversely affect our operating results.

Product defects or performance quality issues could cause us to lose customers and revenue or to incur unexpected expenses. Many of our products are highly complex and may have quality deficiencies resulting from the design or manufacture of such product, or from the software or components used in the product. Often these issues are identified prior to the shipment of the products and may cause delays in market acceptance of our products, delays in shipping products to customers, or the cancellation of orders. In other cases, we may identify the quality issues after the shipment of products. In such cases, we may incur unexpected expenses and diversion of resources to replace defective products or correct problems. Such pre-shipment and post-shipment quality issues could

result in delays in the recognition of revenue, loss of revenue or future orders, and damage to our reputation and customer relationships. In addition, we may be required to pay damages for failed performance under certain customer contracts, and may receive claims from customers related to the performance of our products.

We are subject to complex and evolving laws and regulations regarding privacy and data protection.

We may collect personal data while providing products, services and solutions to our customers. Our reputation may be damaged due to the collection, use, disclosure or security of personal information or other privacy-related matters, even if unfounded, which will cause us to lose users and other customers and adversely affect our operations. We strive to comply with applicable laws and regulations on data protection, as well as our privacy policies and data protection obligations in accordance with our terms of use and other obligations we may have. However, any non-compliance or perceived non-compliance with these laws, regulations or policies may lead to investigations and other lawsuits against us by government agencies or other individuals. These actions would have a negative impact on our reputation and brand, may cause us to lose users and customers, and have a negative impact on our business. Besides, any systems failure or compromise of our security that results in the unauthorized access to or release of our users' or other customers' data would greatly limit the adoption of our products and services, harm our reputation and brand, as well as affect our business.

Many jurisdictions have adopted or are adopting new data privacy and data protection laws that may impose further onerous compliance requirements, such as data localization, which prohibits companies from storing data relating to resident individuals in data centers outside the jurisdiction. The proliferation of such laws within jurisdictions and countries in which we operate may result in conflicting and contradictory requirements. PRC government authorities have promulgated laws and regulations to protect personal information from any abuse or unauthorized disclosure. Pursuant to the Order for the Protection of Telecommunication and Internet User Personal Information issued by the Ministry of Industry and Information Technology in July 2013, any collection and use of user personal information must be subject to the consent of the user, abide by the principles of legality, rationality and necessity and be within the specified purposes, methods and scopes. Besides, Personal Information Protection Act has been listed into the legislative plan, which will strengthen the supervision of the collection of personal information. Furthermore, the draft of Information Security Technology- Personal Information Security Specification ("Specification") was issued by National Information Security Standardization Technical Committee on February 1, 2019. Pursuant to the draft of the Specification, product and service providers should take technical and other necessary measures to ensure the safety of personal information, clearly demonstrate the purpose, approaches and scope of processing the personal information to the individual and acquire the authorization.

In order for us to maintain or become compliant with applicable laws as they come into effect, it may require substantial expenditures on resources to continually evaluate our policies and processes and adapt to new requirements that are or become applicable to us. Complying with any additional or new regulatory requirements on a jurisdiction-by-jurisdiction basis would impose significant burdens and costs on our operations or may require us to alter our business practices. While we strive to protect our users' privacy and data security and to comply with material data protection laws and regulations applicable to us, it is possible that our practices are, and will continue to be, inconsistent with certain regulatory requirements. Our international business operations could be adversely affected if these laws and regulations are interpreted or implemented in a manner that is inconsistent with our current business practices or that requires changes to these practices. If these laws and regulations materially limit our ability to collect and use user data, our ability to continue our current operations without modification, develop new services or features of the products and expand our user base will be impaired. Any failure or perceived failure by us to comply with applicable data privacy laws and regulations, including in relation to the collection of necessary end-user consents and providing end-users with sufficient information with respect to our use of their personal data, may result in fines and penalties imposed by regulators, governmental enforcement actions (including enforcement orders requiring us to cease collecting or processing data in a certain way), litigation and/or adverse publicity. Proceedings against

us—regulatory, civil or otherwise—could force us to spend money and devote resources in the defense or settlement of, and remediation related to, such proceedings.

Business interruptions could adversely affect our business.

Our operations are vulnerable to interruption by fire, earthquake, power loss, telecommunications failure, external interference with our information technology systems, incidents of terrorism and other events beyond our control that affect us, either directly or indirectly through one or more of our key suppliers. Also, our operations and markets in China, Japan and India are located in areas prone to earthquakes. We do not have a detailed disaster recovery plan, and the occurrence of any events like these that disrupt our business could harm our business and operating results.

Failure to achieve and maintain effective internal control in accordance with Section 404 of the Sarbanes-Oxley Act of 2002 could have a material adverse effect on our business and share price.

We are subject to reporting obligations under the United States securities laws. The U.S. Securities and Exchange Commission (“SEC”), as required by Section 404 of the Sarbanes-Oxley Act of 2002, or the Sarbanes-Oxley Act, requires that we establish and maintain an effective internal control structure and procedures for financial reporting and include a report of management on our internal control over financial reporting in our annual report. Our Annual Report on Form 20-F must contain an assessment by management of the effectiveness of our internal control over financial reporting and must include disclosure of any material weaknesses in internal control over financial reporting that we have identified.

As of December 31, 2018, we have identified material weakness in our internal control over financial reporting and have concluded that our internal controls over financial reporting were not effective as of December 31, 2018. The requirements of Section 404 of the Sarbanes-Oxley Act are ongoing and also apply to future years. We expect that our internal control over financial reporting will continue to evolve as we continue in our efforts to transform our business. Although we are committed to continue to improve our internal control processes and we will continue to diligently and vigorously review our internal control over financial reporting in order to ensure compliance with the Section 404 requirements, any control system, regardless of how well designed, operated and evaluated, can provide only reasonable, not absolute, assurance that its objectives will be met. In addition, successful remediation of the control deficiencies identified as of December 31, 2018 is dependent on our ability to hire and retain qualified employees and consultants. Therefore, we cannot be certain that in the future additional material weakness or significant deficiencies will not exist or otherwise be discovered. See "Item 15-Controls and Procedures" contained in UTStarcom Holdings Corp.'s Annual Report on Form 20-F for the fiscal year ended December 31, 2018".

#### Risks Relating to Conducting Business in China

Uncertainties with respect to China's economic, political and social condition, as well as government policies, could adversely affect our business and results of operations.

A significant portion of our business operations are conducted in China. Accordingly, our results of operations, financial condition and prospects are subject to a significant degree to economic, political and legal developments in China. China's economy differs from the economies of most developed countries in many respects, including with respect to the amount of government involvement, level of development, growth rate, control of foreign exchange, and allocation of resources. Although the PRC government has implemented measures emphasizing the utilization of market forces for economic reform, the reduction of state ownership of productive assets, and the establishment of improved corporate governance in business enterprises, a substantial portion of productive assets in China is still owned by the government. In addition, the PRC government continues to play a significant role in regulating industry development by imposing industrial policies. The PRC government also exercises significant control over China's economic growth by allocating resources, controlling payment of foreign currency-denominated obligations, setting monetary policy, regulating financial services and institutions and providing preferential treatment to particular industries or companies. While the PRC economy has experienced significant growth in the past decades, growth has been uneven across different regions and among various economic sectors of China. The PRC government has implemented various economic and political policies and laws and regulations to encourage economic development and guide the allocation of resources. Some of these measures may benefit the overall PRC economy, but may also have a negative effect on us. Our financial condition and results of operations could be materially and adversely affected by government control over capital investments or changes in tax regulations that are applicable to us. In addition, the PRC government has implemented in the past certain measures to control the pace of economic growth. For example, from time to time, the PRC government may implement monetary, fiscal and other policies or otherwise make efforts to alter the investment-driven growth model of China's economy, which could result in decreased capital expenditures by our end customers in China, reduce their demand for our products, and adversely affect our business and results of operations.

There are uncertainties regarding the interpretation and enforcement of PRC laws, rules and regulations.

A significant portion of our operations are conducted in the PRC, and are governed by PRC laws, rules and regulations. Our PRC subsidiaries are subject to laws, rules and regulations applicable to foreign investment in China. The PRC legal system is a civil law system based on written statutes. Unlike the common-law system, prior court decisions may be cited for reference but have limited precedential value.

In 1979, the PRC government began to promulgate a comprehensive system of laws, rules and regulations governing economic matters in general. The overall effect of legislation since that time has significantly enhanced the protections afforded to various forms of foreign investment in China. However, China has not developed a fully integrated legal system, and recently enacted laws, rules and regulations may not sufficiently cover all aspects of economic activities in China or may be subject to significant degrees of interpretation by PRC regulatory agencies. In particular, because these laws, rules and regulations are relatively new, and because of the limited number of published decisions and the nonbinding nature of such decisions, because the laws, rules and regulations often give the relevant regulator significant discretion in how to enforce them, the interpretation and enforcement of these laws, rules and regulations involve uncertainties and can be inconsistent and unpredictable. In addition, the PRC legal system is based in part on government policies and internal rules, some of which are not published on a timely basis or at all, and which may have a retroactive effect. As a result, we may not be aware of our violation of these policies and rules until after the occurrence of the violation.

Any administrative and court proceedings in China may be protracted, resulting in substantial costs and diversion of resources and management attention. Since PRC administrative and court authorities have significant discretion in interpreting and implementing statutory and contractual terms, it may be more difficult to evaluate the outcome of administrative and court proceedings and the level of legal protection we enjoy than in more developed legal systems. These uncertainties may impede our ability to enforce the contracts we have entered into and could materially and adversely affect our business, financial condition and results of operations.

Fluctuations in the value of the RMB relative to the U.S. dollar could affect our operating results and may have a material adverse effect on your investment.

We prepare our financial statements in U.S. dollars, while we conduct a significant portion of our operations in China where the only legitimate currency for use within is RMB. The value of RMB against the U.S. dollar and other currencies may fluctuate and is affected by, among other things, changes in China's monetary or fiscal policies and political and economic conditions and supply and demand in local markets. Since July 21, 2005, the PRC government changed its decade-old policy of pegging the value of the RMB to the U.S. dollar. Following the removal of the U.S. dollar peg, the RMB appreciated more than 20% against the U.S. dollar over the following three years. Between July 2008 and June 2010, this appreciation halted and the exchange rate between the RMB and the U.S. dollar remained within a narrow band. Since June 2010, the RMB has started to appreciate slowly against the U.S. dollar, though there have been periods when the U.S. dollar has appreciated against the RMB. On August 11, 2015, the People's Bank of China ("PBOC") allowed the RMB to depreciate by approximately 2% against the U.S. dollar. Since then and until the end of 2016, the RMB has depreciated against the U.S. dollar by approximately 10%. Over 2017, RMB rose almost 6.3% against the U.S. dollar partly because of the weakened U.S. dollar but mainly due to Chinese government's policy to keep the currency stable in avoidance of capital flight outside of China. Over 2018, RMB depreciated almost 5.7% against the U.S. dollar.

It is difficult to predict how market forces or PRC or U.S. government policy may affect the exchange rate between the RMB and the U.S. dollar in the future.

As we have significant operations in China, any significant revaluation of the RMB may materially and adversely affect our cash flows, revenue, earnings and financial position, and the value of, and any dividends payable on, our ordinary shares in U.S. dollars.

We may be deemed a PRC resident enterprise under the Enterprise Income Tax Law and be subject to PRC taxation on our worldwide income.

The Enterprise Income Tax Law, or (the "EIT Law") provides that enterprises established outside of China whose "de facto management bodies" are located within China are considered "resident enterprises" and are generally subject to the uniform 25% enterprise income tax rate on their worldwide income (including dividend income received from subsidiaries). Under the Implementing Regulations for the EIT Law, "de facto management body" is defined as a body that has material and overall management and control over the manufacturing and business operations, personnel and human resources, finances and treasury, and acquisition and disposition of properties and other assets of an enterprise. Since substantially all of our operational management is currently based in the PRC, it is unclear whether PRC tax authorities would require (or permit) us to be treated as a PRC-resident enterprise. If we are treated as a resident enterprise for PRC tax purposes, we will be subject to PRC tax on our worldwide income at the 25% uniform tax rate, which could have an impact on our effective tax rate and an adverse effect on our net income and the results of operations, although dividends distributed from our PRC Subsidiaries to us could be exempted from Chinese dividend withholding tax, since such income is exempted under the EIT Law for PRC-resident recipients.

Dividends payable by us to our foreign investors and profits on the sale of our shares may be subject to tax under PRC tax laws.

Under the Implementing Regulations for the EIT Law, PRC income tax at the rate of 10% is applicable to dividends payable to investors that are "non-resident enterprises," not having an establishment or place of business in the PRC, or which do have such establishment or place of business but the relevant income is not effectively connected with the establishment or place of business, to the extent that such dividends have their sources within the PRC. Similarly, any profits realized through the transfer of shares by such investors are also subject to 10% PRC income tax if such profits



are regarded as income derived from sources within the PRC. It is unclear whether dividends we pay with respect to our share, or the profits you may realize from the transfer of our shares, would be treated as income derived from sources within the PRC and be subject to PRC tax. If we are required under the Implementing Regulations for the EIT Law to withhold PRC income tax on dividends payable to our non-PRC investors that are “non-resident enterprises,” or if you are required to pay PRC income tax on the transfer of our shares, the value of your investment in our shares may be materially and adversely affected.

There are uncertainties with respect to Value-Added Tax Rates relating to the tax liabilities of our PRC subsidiaries.

On March 20, 2019, the Announcement of the Ministry of Finance, the State Administration of Taxation and the General Administration of Customs on Issuing Relevant Policies for Deepening the Reform of Value-Added Tax were promulgated and became effective on April 1, 2019, together with other two relevant announcements and one circular. It indicates that the current Value-Added Tax rate of 16 percent in sale and imported goods will be reduced to 13 percent, and the current Value-Added Tax rate of 10 percent in other categories of sale and imported goods will be reduced to 9 percent from April 1, 2019. Besides, the scope of business Value-Added Tax deductions will be expanded. Furthermore, the refund system of the period-end excess input Value-Added Tax for trial implementation will be adopted from April 1, 2019. However, it may be difficult to predict whether the Value-Added Tax Rates will not be changed in the future, which could have a material adverse effect on our financial condition and results of operations.

PRC regulations establish more complex procedures for acquisitions conducted by foreign investors which could make it more difficult for us to pursue growth through acquisitions.

On August 8, 2006, six PRC regulatory agencies, namely, the PRC Ministry of Commerce, the State-owned Assets Supervision and Administration Commission of State Council (“SASAC”), the State Administration of Taxation, the State Administration for Industry and Commerce, the China Securities Regulatory Commission (“CSRC”), and SAFE, jointly adopted the Regulations on Mergers and Acquisitions of Domestic Enterprises by Foreign Investors, or the M&A Rule, which became effective on September 8, 2006 and was amended on June 22, 2009. The M&A Rule established new procedures and requirements that could make merger and acquisition activities by foreign investors more time-consuming and complex, including requirements in some instances that the Ministry of Commerce be notified in advance of any change-of-control transaction in which a foreign investor takes control of a PRC domestic enterprise. On February 3, 2011, the General Office of the State Council promulgated the Notice on Launching the Security Review System for Mergers and Acquisitions of Domestic Enterprises by Foreign Investors, or the M&A Security Review Notice, which became effective on March 6, 2011. The M&A Security Review Notice provides for certain circumstances under which foreign investors’ acquisition of domestic enterprises shall be subject to the security review of the PRC governments. The security review assesses such acquisition’s impact on national security, stable operation of national economy, basic living of the people, and R&D capacity for key technologies related to national security. On August 25, 2011, the Ministry of Commerce of PRC promulgated the Regulation of Ministry of Commerce on Implementation of the Security Review System for Mergers and Acquisitions of Domestic Enterprises by Foreign Investors, or the M&A Security Review Regulation, which became effective on September 1, 2011. The M&A Security Review Regulation stipulates the requirements of application documents and security review procedures of the Ministry of Commerce. In the future, we may grow our business in part by acquiring complementary businesses. Complying with the requirements of the M&A Rule, the M&A Security Review Notice and the M&A Security Review Regulation to complete such transactions could be time-consuming, and any required approval processes, including obtaining approval from the Ministry of Commerce or its provincial affiliates, may delay or inhibit our ability to complete such transactions, which could affect our ability to expand our business or maintain our market share.

Strengthened scrutiny over acquisition transactions by the PRC tax authorities may have a negative impact on our acquisition strategy.

In connection with the EIT Law, the Ministry of Finance and SAT jointly issued, on April 30, 2009, the Notice on Issues Concerning Process of Enterprise Income Tax in Enterprise Restructuring Business, or Circular 59. Circular 59 became effective retroactively on January 1, 2008. Under this circular, non-PRC-resident enterprises may be subject to income tax on capital gains generated from their transfers of equity interests in PRC resident enterprises. The PRC tax authorities have the discretion under Circular 59 to make adjustments to the taxable capital gains based on the difference between the fair value of the equity interests transferred and the cost of the investment. In addition, by promulgating and implementing the circulars, the PRC tax authorities have strengthened their scrutiny over the direct or indirect transfer of equity interests in a PRC resident enterprise by a non-PRC-resident enterprise.

On February 3, 2015, the SAT issued the Notice on Several Issues regarding Enterprise Income Tax for Indirect Transfer of Assets by Non-resident Enterprises, or SAT Bulletin 7, which specifies that the SAT is entitled to redefine the nature of an equity transfer where offshore vehicles are interposed for tax avoidance purposes and without reasonable commercial purpose, specifically, further specified the criteria for judging reasonable commercial purpose, and the legal requirements for the voluntary reporting procedures and filing materials in the case of indirect transfer of assets. Pursuant to this Bulletin, an “indirect transfer” of assets, including equity interests in a PRC resident enterprise, by non-PRC resident enterprises may be re-characterized and treated as a direct transfer of PRC taxable assets, if such arrangement does not have a reasonable commercial purpose and was established for the purpose of avoiding payment of PRC enterprise income tax. As a result, gains derived from such indirect transfer may be subject to PRC enterprise

income tax. According to SAT Bulletin 7, “PRC taxable assets” include assets attributed to an establishment in China, immoveable properties located in China, and equity investments in PRC resident enterprises, in respect of which gains from their transfer by a direct holder, being a non-PRC resident enterprise, would be subject to PRC enterprise income taxes.

SAT Bulletin 7 listed several factors to be taken into consideration by tax authorities in determining whether an indirect transfer has a reasonable commercial purpose. However, despite these factors, an indirect transfer satisfying all the following criteria shall be deemed to lack reasonable commercial purpose and be taxable under the PRC laws: (i) 75% or more of the equity value of the intermediary enterprise being transferred is derived directly or indirectly from the PRC taxable properties; (ii) at any time during the one year period before the indirect transfer, 90% or more of the asset value of the intermediary enterprise (excluding cash) is comprised directly or indirectly of investments in the PRC, or 90% or more of its income is derived directly or indirectly from the PRC; (iii) the functions performed and risks assumed by the intermediary enterprise and any of its subsidiaries that directly or indirectly hold the PRC taxable properties are limited and are insufficient to prove their economic substance; and (iv) the foreign tax payable on the gains derived from the indirect transfer of the PRC taxable properties is lower than the potential PRC tax on the direct transfer of such assets. Nevertheless, the indirect transfer falling into the scope of the safe harbor under SAT Bulletin 7 may not be subject to PRC tax and such safe harbor includes qualified group restructuring, public market trading and tax treaty exemptions. On October 17, 2017, the SAT promulgated the Announcement of the State Administration of Taxation on Issues Concerning the Withholding of Non-resident Enterprise Income Tax at Source (“SAT Circular 37”), which became effective on December 1, 2017,

and at the same time repealed the Notice on Strengthening the Management on Enterprise Income Tax for Non-resident Enterprises Equity Transfer, or Circular 698. SAT Circular 37, among other things, simplified procedures of withholding and payment of income tax levied on non-resident enterprises.

Under SAT Bulletin 7, the entities or individuals obligated to pay the transfer price to the transferor shall be the withholding agent and shall withhold the PRC tax from the transfer price. If the withholding agent fails to do so, the transferor shall report to and pay the PRC tax to the PRC tax authorities. In case neither the withholding agent nor the transferor complies with the obligations under SAT Bulletin 7, other than imposing penalties such as late payment interest on the transferors, the tax authority may also hold the withholding agent liable and impose a penalty of 50% to 300% of the unpaid tax on the withholding agent, provided that such penalty imposed on the withholding agent may be reduced or waived if the withholding agent has submitted the relevant materials in connection with the indirect transfer to the PRC tax authorities in accordance with SAT Bulletin 7.

Since we pursue acquisitions as one of our growth strategies, and have conducted and may conduct acquisitions involving complex corporate structures, the PRC tax authorities may, at their discretion, adjust the capital gains and impose tax return filing obligations on us or request us to submit additional documentation for their review in connection with any of our acquisitions, thus causing us to incur additional acquisition costs.

Restrictions on direct foreign investments in certain business sectors may require that we enter into contractual arrangements with our PRC business partners, which are subject to potential risks and uncertainties.

We anticipate that providing value-added support services to businesses in the telecom and cable sectors will be a significant component of our future business model. We will provide operators engaging in these businesses with services, including equipment installation, system installation and maintenance, technical services and other value-added services, in return for on-going revenue. We anticipate that these value-added support services will play an important role in the growth of our business.

Direct foreign investments are subject to certain restrictions with respect to the operating of telecom and cable sectors. Under the “Telecommunications Regulations” issued by the State Council on September 25, 2000, firstly amended on July 29, 2014 and secondly amended on February 6, 2016, the “Provisions on Administration of Foreign Invested Telecommunications Enterprises” issued by the State Council on December 11, 2001, firstly amended on September 10, 2008 and secondly amended on February 6, 2016, the “Notice of the Ministry of Industry and Information Technology on Removing the Restrictions on Foreign Equity Ratios in Online Data Processing and Transaction Processing (Operating E-commerce) Business” (Gongxinbutong [2015] No.196) issued by the Ministry of Industry and Information Technology on June 19, 2015, and Special Administrative Measures for Access of Foreign Investment (Negative List) (2018 Edition) issued by National Development and Reform Commission (“NDRC”), together with the PRC Ministry of Commerce the shareholding of foreign investors is limited to up to 49% for basic telecom business and up to 50% for almost all value-added telecom business, only E-commerce business (our business not included) allows foreign equity to reach to 100%.

Because of the regulatory restrictions on direct foreign investments in the telecom and cable sectors, we may conduct business through contractual relationships with PRC business partners that are licensed or qualified to operate such businesses, or the Operating Companies. Our PRC subsidiaries may directly or indirectly provide certain technology services to the Operating Companies through an arrangement of technology service agreements and will receive service fees directly or indirectly from the Operating Companies. To ensure the payment of the service fee by the Operating Companies, the shareholders of the Operating Companies may pledge their equity interests in the Operating Companies to our PRC subsidiaries or affiliates. There may also be a call option arrangement so that our PRC subsidiaries may purchase the equity interests in the Operating Companies if permitted by the laws of the PRC.

The contractual arrangements are subject to potential risks and uncertainties and may not be as effective in providing operational control and economic benefits as direct equity ownership. The 2019 Law of Foreign Investment does not mention concepts including “de facto control” and “controlling through contractual arrangements,” nor does it specify the regulation on controlling through contractual arrangements. However, the 2019 Law of Foreign Investment stipulates that “foreign investment includes foreign investors invested in China through any other methods under laws, administrative regulations, or provisions prescribed by the State Council,” which correspondingly means there are possibilities that State Council may promulgate future laws, administrative regulations or provisions to stipulate contractual arrangements as a way of foreign investment and our contractual arrangements would be regarded as foreign investment. If that is the case, whether our contractual arrangements will be deemed to be in violation of the foreign investment access requirements and how our contractual arrangements will be handled are subject to uncertainties. Besides, PRC tax authorities may scrutinize the contractual arrangements for whether the technology service fee paid by the Operating Companies to our PRC subsidiaries or affiliates will substantially reduce the income tax and business tax payable by the Operating Companies. Additionally, there is uncertainty with respect to the attitude of judicial authorities on the enforceability of the contractual arrangements in the event the Operating Companies or their shareholders breach the contracts. The inability to participate in the telecom, cable and/or media sectors as presently expected through the contractual arrangements or the inability to enforce our rights under such contractual arrangements could result in a negative impact on our business.

PRC regulation of loans to, and direct investment in, PRC entities by offshore holding companies and governmental control of currency conversion may restrict or prevent us from using the offshore capital we raise to make loans to our PRC subsidiaries, or to make additional capital contributions to our PRC subsidiaries.

In utilizing the proceeds of any offshore fund raising, we, as an offshore holding company, are permitted under PRC laws and regulations to provide funding to our PRC subsidiaries, which are treated as foreign-invested enterprises under PRC laws, through loans or capital contributions. However, loans by us to our PRC subsidiaries to finance their activities cannot exceed statutory limits and must be registered with the local counterpart of SAFE and capital contributions to our PRC subsidiaries are subject to the requirement of making necessary filings in the Foreign Investment Comprehensive Management Information System, and registration with other governmental authorities in China.

SAFE promulgated the Notice of the State Administration of Foreign Exchange on Reforming the Administration of Foreign Exchange Settlement of Capital of Foreign-invested Enterprises, or Circular 19, effective on June 1, 2015, in replacement of the Circular on the Relevant Operating Issues Concerning the Improvement of the Administration of the Payment and Settlement of Foreign Currency Capital of Foreign Invested Enterprises, or SAFE Circular 142, the Notice from the State Administration of Foreign Exchange on Relevant Issues Concerning Strengthening the Administration of Foreign Exchange Businesses, or Circular 59, and the Circular on Further Clarification and Regulation of the Issues Concerning the Administration of Certain Capital Account Foreign Exchange Businesses, or Circular 45. According to Circular 19, the flow and use of the RMB capital converted from foreign currency-denominated registered capital of a foreign-invested company is regulated such that RMB capital may not be used for the issuance of RMB entrusted loans, the repayment of inter-enterprise loans or the repayment of banks loans that have been transferred to a third party. Although Circular 19 allows RMB capital converted from foreign currency-denominated registered capital of a foreign invested enterprise to be used for equity investments within the PRC, it also reiterates the principle that RMB converted from the foreign currency-denominated capital of a foreign-invested company may not be directly or indirectly used for purposes beyond its business scope. Thus, it is unclear whether SAFE will permit such capital to be used for equity investments in the PRC in actual practice. SAFE promulgated the Notice of the State Administration of Foreign Exchange on Reforming and Standardizing the Foreign Exchange Settlement Management Policy of Capital Account, or Circular 16, effective on June 9, 2016, which reiterates some of the rules set forth in Circular 19, but changes the prohibition against using RMB capital converted from foreign currency-denominated registered capital of a foreign-invested company to issue RMB entrusted loans to a prohibition against using such capital to issue loans to non-associated enterprises. Violations of SAFE Circular 19 and Circular 16 could result in administrative penalties. Circular 19 and Circular 16 may significantly limit our ability to transfer any foreign currency we hold to our PRC subsidiaries, which may adversely affect our liquidity and our ability to fund and expand our business in the PRC.

In light of the various requirements imposed by PRC regulations on loans to, and direct investment in, PRC entities by offshore holding companies, we cannot assure you that we will be able to complete the necessary government registrations or obtain the necessary government approvals on a timely basis, if at all, with respect to future loans to our PRC subsidiaries or future capital contributions by us to our PRC subsidiaries. As a result, uncertainties exist as to our ability to provide prompt financial support to our PRC subsidiaries when needed. If we fail to complete such registrations or obtain such approvals, our ability to use foreign currency, including the proceeds we received from this offering, and to capitalize or otherwise fund our PRC operations may be negatively affected, which could materially and adversely affect our liquidity and our ability to fund and expand our business.

PRC regulations relating to offshore investment activities by PRC residents and employee stock options granted by overseas-listed companies may increase our administrative burden. If our shareholders who are PRC residents, or our PRC employees who are granted or exercise stock options, fail to make any required registrations or filings, we may be unable to distribute profits and may become subject to fines and other legal or administrative sanctions under

PRC laws.

SAFE promulgated the Circular on Relevant Issues Relating to Domestic Resident's Investment and Financing and Roundtrip Investment through Special Purpose Vehicles, or SAFE Circular 37, in July 2014 that requires PRC residents or entities to register with SAFE or its local branch in connection with their establishment or control of an offshore entity established for the purpose of overseas investment or financing. In addition, such PRC residents or entities must update their SAFE registrations when the offshore special purpose vehicle undergoes material events relating to any change of basic information (including change of such PRC citizens or residents, name and operation term), increases or decreases in investment amount, transfers or exchanges of shares, or mergers or divisions. According to the Notice on Further Simplify and Improve Administrative Policies Regarding Foreign Direct Investment issued by the SAFE on February 13, 2015, starting from June 1, 2015, all new such registrations (different from make-up registrations) will be handled by the authorized local banks instead of the local SAFE branches.

SAFE Circular 37 was issued to replace the Notice on Relevant Issues Concerning Foreign Exchange Administration for PRC Residents Engaging in Financing and Roundtrip Investments via Overseas Special Purpose Vehicles, or SAFE Circular 75. If our shareholders who are PRC residents or entities do not complete their registration with the local SAFE branches, our PRC subsidiaries may be prohibited from distributing their profits and proceeds from any reduction in capital, share transfer or liquidation to us, and we may be restricted in our ability to contribute additional capital to our PRC subsidiaries. Moreover, we also face regulatory uncertainties that could restrict our ability to adopt additional share incentive plans for our directors and employees under PRC law. Each of our directors and major shareholders has completed SAFE registration in connection with our financings and share transfer.

However, we cannot compel our beneficial owners to comply with SAFE registration requirements. As a result, we cannot assure you that all of our shareholders or beneficial owners who are PRC residents or entities have complied with, and will in the future make or obtain any applicable registrations or approvals required by, SAFE regulations.

On March 28, 2007, SAFE promulgated the Application Procedure of Foreign Exchange Administration for Domestic Individuals Participating in Employee Stock Holding Plan or Stock Option Plan of Overseas Listed Company, or the Stock Option Rule, to regulate foreign exchange procedures for PRC individuals participating in employee stock holding and stock option plans of overseas companies. Under the Stock Option Rule, a PRC domestic individual must comply with various foreign exchange procedures through a domestic agent institution when participating in any employee stock holding plan or stock option plan of an overseas listed company. Certain domestic agent institutions, such as the PRC subsidiaries of an overseas listed company, a labor union of such company that is a legal person or a qualified financial institution, among others things, shall file with SAFE and be responsible for completing relevant foreign exchange procedures on behalf of PRC domestic individuals, such as applying to obtain SAFE approval for exchanging foreign currency in connection with owning stock or stock option exercises. Concurrent with the filing of such applications with SAFE, the PRC subsidiary, as a domestic agent, must obtain approval from SAFE to open a special foreign exchange account at a PRC domestic bank to hold the funds in connection with the stock purchase or option exercise, any returns based on stock sales, any stock dividends issued and any other income or expenditures approved by SAFE. The PRC subsidiary also is required to obtain approval from SAFE to open an overseas special foreign exchange account at an overseas trust bank to hold overseas funds used in connection with any stock purchase. The domestic agent institution is required to make a quarterly filing with SAFE to update SAFE with relevant information, including the exercise of options by employees, the holding of shares by employees and the funds in the special foreign exchange account and the overseas special foreign exchange account.

Under the Stock Option Rule, all proceeds obtained by PRC domestic individuals from sales of stock shall be fully remitted back to China after relevant overseas expenses are deducted. The foreign exchange proceeds from these sales can be converted into RMB or transferred to the individual's foreign exchange savings account after the proceeds have been remitted back to the special foreign exchange account opened at the PRC domestic bank. If the stock option is exercised in a cashless exercise, the PRC domestic individuals are required to remit the proceeds to the special foreign exchange account. The Stock Option Rule does not provide for specific forms of penalties for noncompliance but provides that SAFE may impose penalties in accordance with the Foreign Exchange Administration Regulation, Implementing Rules for Individual Foreign Exchange Regulation and other related PRC regulations under which the penalties for noncompliance with foreign exchange administration rules include fines against both our company and our implicated employees.

On February 15, 2012, SAFE promulgated the Circular on Certain Foreign Exchange Issues Relating to Domestic Individuals' Participation in Stock Incentive Plan of Overseas Listed Company, or the New Stock Option Rule. Upon the effectiveness of the New Stock Option Rule on February 15, 2012, the Stock Option Rule became void, although the basic requirements and procedures provided under the Stock Option Rule are kept unchanged in the New Stock Option Rule, i.e., the domestic employees participating in a stock incentive plan of an overseas listed company shall appoint the PRC subsidiary of the overseas listed company or a domestic qualified agent to make the registration of the stock incentive plan with SAFE and handle all foreign exchange-related matters of the stock incentive plan through the special bank account approved by SAFE. The New Stock Option Rule clarifies that the domestic subsidiary of an overseas listed company shall include the limited liability company, partnership and the representative office directly or indirectly established by such overseas listed company in China and the domestic employees shall include the directors, supervisors, senior management and other employees of the domestic subsidiary, including the foreign employees of the domestic subsidiary who continuously reside in China for no less than one year.



Similar to the Stock Option Rule, the New Stock Option Rule requires that the annual allowance with respect to the purchase of foreign exchange in connection with stock holding or stock option exercises shall be subject to the approval of SAFE. The New Stock Option Rule further requires that the material amendments of the stock incentive plan shall be filed with SAFE within three months following the occurrence of the material amendments. The domestic agent shall also make a quarterly update to SAFE to disclose the information with respect to the stock option exercises, the stock holding and foreign exchange matters. If the domestic employees or the domestic agent fails to comply with the requirements of the New Stock Option Rule, SAFE may require a remedy and even impose administrative penalties that SAFE deems appropriate.

We and our PRC employees who have been granted stocks or stock options are subject to the Stock Option Rule and the New Stock Option Rule. In May 2008, UTStarcom (China) Co., Ltd (“UTSC”), our former PRC subsidiary, made a filing with SAFE’s Beijing branch as required by the Stock Option Rule for UTSC’s PRC employees who participate in our employee stock option plans and UTSC obtained approval to open a special foreign exchange account at a PRC domestic bank. Subject to the Stock Option Rule, UTSC submitted material amendments of the stock incentive plan for its PRC employees in June 2011. Along with this submission, UTSC, as the domestic subsidiary of our overseas listed company, submitted on behalf of UTStarcom Telecom Co., Ltd (“HUTS”), the materials for the necessary filings for their PRC employees who participate in our employee stock option plan, which was officially accepted by SAFE’s Beijing branch in December 2011, but the final approval was not issued until March 31, 2012 when the New Stock Option Rule became effective. After the effectiveness of the New Stock Option Rule, we do not need to make a new registration for UTSC, HUTS and UTStarcom (Chongqing) Telecom Co., Ltd (“CUTS”), but as required by SAFE, the application materials will have to be adjusted. Before we submitted the adjusted application material to SAFE, we divested our IPTV equipment

business in August 2012, and as a result, UTSC is no longer our subsidiary. In addition, CUTS and UTStarcom (Beijing) Technologies (“UTST”) completed the cancellation registration on September 18, 2013 and December 3, 2014 respectively. Therefore, we were required to make adjustments to the filings with SAFE for HUTS. On December 4, 2018, HUTS obtained the relevant approval from SAFE Zhejiang Branch and was allowed to set the foreign exchange special account. In the future, we are also required to comply with other requirements applicable to HUTS which have completed the registration, including a quarterly update to SAFE, the registration of material amendments to our stock incentive plan and the registration for the foreign employees of our PRC subsidiaries when they continuously reside in China for no less than one year.

The enforcement of the laws on Employment Contracts and other labor-related regulations in the PRC may adversely affect our business and our results of operations.

On June 29, 2007, the National People’s Congress of China enacted the laws on Employment Contracts, or the Employment Contract Law, which became effective on January 1, 2008, amended on December 28, 2012. The Employment Contract Law established new restrictions and increased costs for employers to dismiss employees, including specific provisions related to fixed- term employment contracts, temporary employment, probation, consultation with the labor union and employee assembly, employment without a contract, dismissal of employees, compensation upon termination and overtime work, and collective bargaining. According to the Employment Contract Law, an employer is obliged to sign a labor contract with an unlimited term with an employee if the employer continues to hire the employee after the expiration of two consecutive fixed-term labor contracts subject to certain conditions or after the employee has worked for the employer for ten consecutive years. The employer also has to pay compensation to an employee if the employer terminates an unlimited-term labor contract. Such compensation is also required when the employer refuses to renew a labor contract that has expired, unless it is the employee who refuses to extend the expired contract or resign. In addition, under the Regulations on Paid Annual Leave for Employees, which became effective on January 1, 2008 and its Implementation Rules on Paid Annual Leave for Employees, which became effective on September 18, 2008, employees who have served more than one year for an employer are entitled to a paid vacation ranging from 5 to 15 days, depending on their accumulative total length of service. Employers who fail to allow for such vacation time must compensate their employees three times their regular salaries for each vacation day disallowed, unless such employers can provide evidence, such as a copy of a written notice provided to their employees, that suggests the employers made arrangements for their employees to take such annual leaves, but such employees voluntarily waived taking their leaves or such employees waived their right to such vacation days in writing.

Registered public accounting firms in China, including our independent registered public accounting firm, are not inspected by the U.S. Public Company Accounting Oversight Board, which deprives us and our investors of the benefits of such inspection.

Auditors of companies whose shares are registered with the SEC, and traded publicly in the United States, including our independent registered public accounting firm, must be registered with the U.S. Public Company Accounting Oversight Board (the “PCAOB”) and are required by the laws of the United States to undergo regular inspections by the PCAOB to assess their compliance with the laws of the United States and professional standards applicable to auditors. Our independent registered public accounting firm is located in, and organized under the laws of, the PRC, which is a jurisdiction where the PCAOB, notwithstanding the requirements of U.S. law, is currently unable to conduct inspections without the approval of the Chinese authorities. In May 2013, PCAOB announced that it had entered into a Memorandum of Understanding on Enforcement Cooperation with the CSRC and the PRC Ministry of Finance, which establishes a cooperative framework between the parties for the production and exchange of audit documents relevant to investigations undertaken by PCAOB, the CSRC or the PRC Ministry of Finance in the United States and the PRC, respectively. PCAOB continues to be in discussions with the CSRC and the PRC Ministry of Finance to permit inspections in the PRC of audit firms registered with PCAOB and audit Chinese companies that

trade on U.S. exchanges.

Inspections of other firms that the PCAOB has conducted outside China have identified deficiencies in those firms' audit procedures and quality control procedures, which may be addressed as part of the inspection process to improve future audit quality. This lack of PCAOB inspections in China prevents the PCAOB from fully evaluating audits and quality control procedures of our independent registered public accounting firm. As a result, we and investors in our common stock are deprived of the benefits of such PCAOB inspections. The inability of the PCAOB to conduct inspections of auditors in China makes it more difficult to evaluate the effectiveness of our independent registered public accounting firm's audit procedures or quality control procedures as compared to auditors outside of China that are subject to PCAOB inspections, which could cause investors and potential investors in our stock to lose confidence in the audit procedures and reported financial information and the quality of our audited financial statements.

## Risks Related to the Performance of Our Ordinary Shares

Our share price is highly volatile. Our shareholders may not be able to resell their ordinary shares at or above the price they initially paid for our shares, or at all.

The trading price of our shares has fluctuated significantly since our initial public offering in March 2000. Our share price could be subject to wide fluctuations in the future in response to many events or factors, including those discussed in the preceding risk factors relating to our operations, as well as:

- actual or anticipated fluctuations in operating results, actual or anticipated gross profit as a percentage of net sales, levels of inventory, our actual or anticipated rate of growth and our actual or anticipated earnings per share;
- changes in expectations as to future financial performance or changes in financial estimates or buy/sell recommendations of securities analysts;
- changes in governmental regulations or policies in Japan, China, India and other countries in which we do business;
- our, or a competitor's, announcement of new products, services or technological innovations;
- changes in our senior management;
- the operating and stock price performance of other comparable companies;
- news and commentary emanating from the media, securities analysts or government bodies in China relating to us and to our industry in general;
- fluctuations in the exchange rates between the Renminbi, the Japanese yen, India Rupee and the U.S. dollar;
- the operating and share price performance of other comparable companies; and
- sales or anticipated sales of additional ordinary shares.

General market conditions and domestic or international macroeconomic factors unrelated to our performance may also affect our share price. For these reasons, investors should not rely on recent trends to predict future share prices or financial results. Furthermore, following periods of volatility in a company's securities, securities class action litigation against a company is sometimes instituted. We have experienced substantial costs and the diversion of management's time and resources on this type of litigation and may do so in the future.

Some of our shareholders have significant influence over our management and affairs, which they could exercise against the best interests of our shareholders.

Entities affiliated with Shah Capital Management, or collectively, Shah Capital, E-Town International Holding (Hong Kong) Co. Limited, or E-Town, The Smart Soho International Limited, or Smart Soho, and Tonghao (Cayman) Limited, or Tonghao, beneficially owned approximately 22.6%, 10.6%, 14.0% and 9.8%, respectively, of our outstanding shares as of March 31, 2019. E-Town also has the right to designate a member of our board of directors. As a result, Shah Capital, E-Town, Smart Soho and Tonghao have the ability to influence all matters submitted to our shareholders for approval, as well as our management and affairs. Matters that could require shareholder approval include:

- election and removal of directors;
- our merger or consolidation with or into another entity; and
- sale of all or substantially all of our assets.

This concentration of ownership may delay or prevent a change of control or discourage a potential acquirer from making a tender offer or otherwise attempting to obtain control of us, which could decrease the market price of our ordinary shares.

We may need additional capital, and the sale of additional ordinary shares or other equity securities could result in additional dilution to our shareholders.

We believe that our current cash and cash equivalents will be sufficient to meet our anticipated cash needs for the foreseeable future. We may, however, require additional cash resources due to changed business conditions or other future developments, including any investments or acquisitions we may decide to pursue. If these resources are insufficient to satisfy our cash requirements,

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we may seek to sell additional equity or debt securities or obtain a credit facility. The sale of additional equity securities could result in dilution to our shareholders. The incurrence of indebtedness would result in increased debt service obligations and could result in operating and financing covenants that would restrict our operations. It is uncertain whether financing will be available in amounts or on terms acceptable to us, if at all.

We are a “foreign private issuer,” and our disclosure obligations differ from those of U.S. domestic reporting companies. As a result, we may not provide you the same information as U.S. domestic reporting companies or we may provide information at different times, which may make it more difficult for you to evaluate our performance and prospects.

Under the Exchange Act, we as a foreign private issuer are subject to reporting obligations that, to some extent, are more lenient and less frequent than those of U.S. domestic reporting companies. For example, we are not required to issue quarterly reports or proxy statements. We are not required to disclose detailed individual executive compensation information. Furthermore, our directors and executive officers are not required to report equity holdings under Section 16 of the Exchange Act and are not subject to the insider short-swing profit disclosure and recovery regime.

As a foreign private issuer, we are also exempt from the requirements of Regulation FD (“Fair Disclosure”) which, generally, are meant to ensure that select groups of investors are not privy to specific information about an issuer before other investors. However, we are still subject to the anti-fraud and anti-manipulation rules of the SEC, such as Rule 10b-5 under the Exchange Act. Since many of the disclosure obligations imposed on us as a foreign private issuer differ from those imposed on U.S. domestic reporting companies, you should not expect to receive the same information about us and at the same time as the information provided by U.S. domestic reporting companies.

We are a Cayman Islands company and, because judicial precedent regarding the rights of shareholders may be more limited under Cayman Islands law than under U.S. law, you may have less protection of your shareholder rights than you would under U.S. law.

Our corporate affairs are governed by our memorandum and articles of association, the Cayman Islands Companies Law and the common law of the Cayman Islands. The rights of shareholders to take action against the directors, the rights of minority shareholders to institute actions and the fiduciary responsibilities of our directors to our shareholders are to a large extent governed by the common law of the Cayman Islands. The common law of the Cayman Islands is derived in part from comparatively limited judicial precedent in the Cayman Islands as well as from English common law, the latter of which has persuasive, but not binding, authority on a court in the Cayman Islands. The rights of our shareholders and the fiduciary responsibilities of our directors under Cayman Islands law may not be as clearly established as they would be under statutes or judicial precedents in the United States. In particular, the Cayman Islands have a different body of securities law than the United States. In addition, Cayman Islands companies may not have standing to initiate a shareholder derivative action before the federal courts of the United States. As a result, our public shareholders may encounter more difficulty in protecting their interests against actions taken by the management, the board of directors or the controlling shareholders of our company than they would as shareholders of a public company incorporated in the United States.

You may have difficulty enforcing judgments obtained against us.

We are a Cayman Islands company, and we conduct a significant portion of our operations in the PRC. Substantially all of our assets are located outside of the United States. In addition, some directors and officers are residents of countries other than the United States and a substantial portion of their assets are located outside of the United States. As a result, it may be difficult for you to bring an action against our directors and officers in the United States. Even if you are successful in bringing an action, it may still be difficult for you to enforce judgments obtained in U.S. courts based on the civil liability provisions of the U.S. federal securities laws against us and our officers and directors.

Although there is no statutory enforcement in the Cayman Islands of judgments obtained in the federal or state courts of the United States (and the Cayman Islands are not a party to any treaties for the reciprocal enforcement or recognition of such judgments other than, in certain circumstances, Australian judgments), a judgment obtained in such jurisdiction will be recognized and enforced in the courts of the Cayman Islands at common law, without any re-examination of the merits of the underlying dispute, by an action commenced on the foreign judgment debt in the Grand Court of the Cayman Islands, provided such judgment (a) is given by a foreign court of competent jurisdiction, (b) imposes on the judgment debtor a liability to pay a liquidated sum for which the judgment has been given, (c) is final, (d) is not in respect of taxes, a fine or a penalty; and (e) was not obtained in a manner and is not of a kind the enforcement of which is contrary to natural justice or the public policy of the Cayman Islands.

We have incurred additional costs as a result of being a public company, which could negatively impact our net income and liquidity.

We are a public company listed in the United States and as such, we have incurred and will continue to incur significant legal, accounting and other expenses that we did not incur as a private company. In addition, the Sarbanes-Oxley Act of 2002 and rules and regulations implemented by the SEC and NASDAQ require significantly heightened corporate governance practices for public companies. As a result, we have incurred additional legal, accounting and financial compliance costs and many of our corporate activities have become time-consuming and costly. If we fail to comply with these rules and regulations, we could become the subject of a governmental enforcement action, investors may lose confidence in us and the market price of our ordinary shares could decline.

Our failure to timely file periodic reports with the SEC or satisfy the ongoing NASDAQ listing requirements could result in the delisting of our shares from the NASDAQ, affect the liquidity of our shares and cause us to default on covenants contained in contractual arrangements.

If we are unable to maintain compliance with the conditions for continued listing required by NASDAQ, then our ordinary shares may be subject to delisting from NASDAQ. NASDAQ Listing Rule 5450(a) (1) requires that our shares trade above \$1.00 per share. Our shares traded below \$1.00 for periods in 2012 and 2013, and on March 15, 2013 we received formal notice from NASDAQ that we were not in compliance with NASDAQ's Listing Rules. While we returned to full compliance on April 11, 2013, our shares may trade below \$1.00 per share again in the future. In addition, we failed to file our annual report on Form 20-F for 2016 on a timely basis, but regained compliance after filing such report in November 2017. If our ordinary shares are delisted from NASDAQ, our ordinary shares may not be eligible to trade on any national securities exchange or the over-the-counter market. If our ordinary shares are no longer traded through a market system, their liquidity may be greatly reduced, which could negatively affect their price. In addition, we may be unable to obtain future equity financing, or use our ordinary shares as consideration for mergers or other business combinations. A delisting from NASDAQ may also have other negative implications, including the potential loss of confidence by suppliers, customers and employees, the loss of institutional investor interest, and fewer business development opportunities and could lead to a default under certain of our contractual arrangements.

We believe that we will be treated as a U.S. corporation for U.S. federal income tax purposes.

As discussed more fully under "Item 10. Additional Information-E. Taxation-U.S. Federal Income Taxation," we have been treating UTStarcom as a U.S. corporation for all purposes of the U.S. Internal Revenue Code of 1986, as amended (the "Code"). As a result, we will be subject to U.S. federal income tax on our worldwide income. In addition, if UTStarcom pays dividends to a Non-U.S. Holder, as defined in the discussion under the section "Item 10. Additional Information-E. Taxation-U.S. Federal Income Taxation," we will be required to withhold U.S. income tax at the rate of 30%, or such lower rate as may be provided in an applicable income tax treaty. Each investor should consult its own tax advisor regarding the U.S. federal income tax position of UTStarcom and the tax consequences of holding our shares.

#### ITEM 4-INFORMATION ON THE COMPANY

##### A. History and Development of the Company

UTStarcom, Inc. was originally incorporated in 1991 as a Delaware corporation. In April 2011, we were incorporated as UTStarcom Holdings Corp. as an exempted company under the laws of the Cayman Islands. On June 24, 2011, we effected the Merger to reorganize the corporate structure of UTStarcom, Inc., and its subsidiaries. The Merger resulted in the shares of common stock of UTStarcom, Inc. being converted into the right to receive an equal number of ordinary shares in our capital, which were issued by us in connection with the Merger. Following the Merger, UTStarcom, Inc. became our wholly-owned subsidiary and we became the parent company of UTStarcom, Inc. and its subsidiaries. The transaction was accounted for as a legal re-organization of entities under common control. See "Item 4. Information on the Company-C. Organizational Structure" for a listing of our subsidiaries. We, together with our subsidiaries, continue to conduct our business in substantially the same manner as was conducted by UTStarcom, Inc. and its subsidiaries.

On March 31, 2017, we received a preliminary non-binding proposal letter dated March 31, 2017 from Shah Capital Opportunity Fund LP, Himanshu H. Shah, Mr. Lu and his affiliates, and Tenling Ti, to acquire all of our outstanding shares not currently owned by them in a going private transaction for \$2.15 per ordinary share in cash, subject to certain conditions. Our Board of Directors had formed a special committee consisting of two independent and



disinterested directors, Sean Shao and Xiaoping Li to consider the proposal.

On October 24, 2017, the special committee of our board of directors received a notice from Shah Capital Opportunity Fund LP, Himanshu H. Shah, Hong Liang Lu and certain of his affiliates and Tenling Ti to withdraw the preliminary non-binding take-private proposal.

Our ordinary shares are traded on NASDAQ under the same ticker symbol “UTSI,” under which UTStarcom, Inc.’s common stock had previously traded. Our registered office in the Cayman Islands is located at the offices of Maples Corporate Services Limited, PO Box 309, Uglan House, Grand Cayman, KY1-1104, Cayman Islands. Our telephone number at this address is +1 (345) 949 8066. Our agent for service of process in the United States is CT Corporation System and its address is 208 LaSalle Ave, Suite 814, Chicago IL 60604, USA. Our principal executive offices are located at Level 6, 28 Hennessy Road, Admiralty, Hong Kong. We can be reached by telephone at +852-3951-9757.

## B. Business Overview

Our core business is providing next-generation broadband telecommunication network products, solutions and services. As a global telecom infrastructure provider, we focus on delivering innovative carrier-class packet optical, network synchronization and broadband access (both Wireless and fixed line) products and solutions, coupled with Software Defined Networking (“SDN”) platform, optimized for mobile backhaul, metro aggregation, broadband access and value added services.

Our networking technologies enable access, aggregation and transports of high-speed data, voice and video. The product lines include Packet Transport Network (“PTN”), Packet Aggregation Network (“PAN”), Multi-Services Access Network (“MSAN”), Carrier Wi-Fi solution and Software Defined Network (“SDN”) controller.

In addition to the well-established product lines mentioned above, which we sell to our customers worldwide, UTStarcom is actively involved in new products and solutions developments in several key target areas including network synchronization, intelligent platforms for smart retail store, and smart merchandising machines. The new products and solutions utilize the experience and knowledge we have accumulated over the years in our key areas of expertise including optical communications, broadband access technologies, as well as hardware and software design.

We support full cycle in-house R&D and manufacturing equipped with advanced design, test and measurement tools. Our manufacturing is focused on production of high quality telecom equipment with comprehensive quality control process certified by LRQA for ISO9001/14001, OHSAS18001, QC080000, which results in very high equipment reliability. As a part of our efforts to support our customers on all stages of network planning, deployment and operation, we provide full range of pre- and post-sale services including turn-key deployments as may be required by our customers.

### Packet Optical Products

PTN product line is represented by NetRing Transport Network (“NetRing TN”) Series products that are based on the Multi-Protocol Label Switch Transport Profile (“MPLS-TP”) and Carrier Ethernet (“CE”) technologies, and includes a complete line of network nodes from compact metro access boxes to high-performance core devices. This product line combines packet switch/forwarding, packet optical transport and time/clock synchronization technologies to meet customers’ metro networking requirements through support of wide range of protocols, standards and interfaces including TDM (“SDH/SONET”), ATM, and Ethernet, coupled with highest reliability and carrier-class set of features. It is a highly flexible, reliable, scalable and cost-effective solution designed for efficient use in key applications such as mobile backhaul, multiservice metro aggregation, enterprise Carrier Ethernet services, and broadband access and aggregation. The product line offers a broad feature set, including network-wide time/clock synchronization, carrier class sub 50ms recovery resiliency, guaranteed Quality of Service (“QoS”) and Service Level Agreement (“SLA”) enforcement, end-to-end multi-layer Operation Administration & Maintenance (“OAM”), and a wide range of interfaces. Products are managed via a comprehensive centralized network management system, which allows customers to aggregate the management of large-scale networks up to 50,000 nodes. Large volumes of NetRing TN products have already been deployed worldwide. Due to introduction of NG-PTN and PAN products, most of demand from our customers in 2017-2018 shifted to these new products, resulting in large orders for high bandwidth devices with 100GE TN765, and various PAN products. In the same time, in 2017-2018 we continued seeing significant demand for mature PTN products including TN703 and TN705 from our existing customers, as well as demand for expansions.

The Next Generation Packet Transport Network (“NG-PTN”) portfolio offers some important improvements including high efficient hardware and software architecture, high port density, high speed 100GE interface, low power consumption and overall capital and operating expense savings. The TN765, higher layer aggregation / core platform

of NG-PTN product line aims to help operators enhance profitability by extending capacity, throughput and deployment flexibility of MPLS-TP networks. It offers enhanced throughput of 1Tbps, multiple 100 GE interfaces and a large number of 10GE interfaces for more efficient network deployment. The growing demand for 100GE interface has been driving NG-PTN sales.

The Packet Aggregation Network (“PAN”) solution introduced in 2017 is based on technologies similar to PTN, but optimized for high-performance aggregation scenarios. The portfolio includes three products: TN703B (1RU rack-mountable, 8Gbps switching capacity), TN705B (4RU rack-mountable, 40Gbps switching capacity), TN725B (4RU rack-mountable, 80Gbps switching capacity). Due to high demand in India and in order to comply with India governmental regulations, PAN Series products are manufactured in India. We shipped over 16,000 units of PAN products in 2017-2018 and we expect to see new deals involving PAN products in 2019-2020.

#### Network Synchronization

The SyncRing product family was specifically designed for highly accurate time and frequency synchronization over packet switched network based on PTP (IEEE1588v2) and Synchronous Ethernet technologies. The product family includes XGM Series grand master devices and XBC Series boundary clock switches centrally managed by our proven OMC-O NMS network management platform. The SyncRing solution is mainly aimed at mobile network operators due to its ability to meet the stringent synchronization

accuracy requirements of LTE/LTE-A and 5G networks, as well as to meet lower TCO targets that are especially critical for the swiftly growing segment of small cell deployments. The SyncRing product is designed for cluster distributed timing architecture to meet complex requirements of emerging 5G mobile technology.

In addition to existing SyncRing products XGM20 Grand Master (PRTC-A class T-GM) and XBC510 Boundary Clock (T-BC Class A) designed primarily for LTE/LTE-A applications, in 2018 we introduced PRTC-B class T-GM Grand Master product XGM30. Featuring significantly improved accuracy, higher availability, extended management capabilities, the XGM30 enables mobile network operators to cost-effectively meet the stringent time synchronization requirements of LTE/LTE-A and 5G networks.

In 2017-2018, the SyncRing solution was deployed in the LTE mobile network of one of the largest Mobile network operators (“MNO”) in Japan. It was one of the first commercial deployments of sync-over-packet solution on mobile networks in Japan, featuring large-scale deployment of XBC510 + XGM20. Following the launch of 5G technology and start of 5G networks rollout, we expect volume shipments of the new 5G-ready XGM30 product to increase significantly.

#### SkyFlux Advanced Networking Platform

The SkyFlux advanced networking platform addresses the needs for service agility, automation and efficiency, and designed to provide an efficient solution for 4G/5G backhaul, high-volume traffic aggregation and provider edge scenarios, data center interconnect and others. The solution is based on the Source Routing technology that implements the paradigm of source routing. It is an excellent match for SDN-based control with centralized PCE enabling service agility and automation sought after by operators today: centralized intelligence with full network view and data analytics capabilities are seamlessly used to define optimal path at the source. Furthermore, this paradigm enables powerful network programming concept to turn networks into a fully programmable environment, enabling easy implementation of sophisticated scenarios such as traffic engineering, services chaining and more.

The SkyFlux advanced networking platform will provide support of high-speed interfaces up to 100GE/200GE/400GE, high port density, wide range of services including L2/L3VPN and EVPN, and of course will support full set of carrier-class features: sub-50ms protection, QoS, OAM, hardware redundancy. The SkyFlux platform includes SkyFlux UAR (Universal Aggregation Router) Series based on SRv6 technology, and SkyFlux SPN (Slicing Packet Network) Series based on SPN technology.

The first product in SkyFlux UAR Series, the SkyFlux UAR500 was announced available for POC in 2018. The product was one of the first SRv6-enabled products ever to pass interoperability testing in EANTC lab (Berlin). The SkyFlux UAR500 was also successfully demonstrated in several live demo events, including public live demo event during MPLS + SDN + NFV World Congress 2018 (Paris), as well as several demonstrations to our customers. We are currently working on implementation of SPN (Slicing Packet Network) technology in SkyFlux SPN product line. SPN technology combines Segment Routing MPLS, FlexE and high bandwidth support integrated with SDN to enable even greater network flexibility, excellent capacity and scalability, extra low latency, network slicing, and high timing accuracy all of which are essential characteristics of transport networks for 5G mobile technology. We expect to release the first products with SPN technology support in 2019.

#### SDN Platform

UTStarcom offers a suite of products based on SDN technology combined in a SOO™ Network (Software-defined Open Packet Optical) solution which answers the needs of telecom operators for the next generation intelligent network, helping them to reduce capital expenditures and operating expenses, while enhancing overall network performance, availability and bandwidth efficiency and improving the customer experience. With SOO network

operators gain unprecedented programmability, automation, and network control, which enables them to build highly scalable, flexible networks that readily adapt to changing business needs.

The solution successfully passed Proof of Concept (“PoC”) testing with major Tier-1 operators in Tokyo in 2015. We won few commercial contracts for the development of SDN key function modules. Two of them (Middleware Qx driver and service provisioning tool FMS automation) have successfully passed technical evaluation and field trial, and moved to commercial deployment in 2018. Another two key function modules that we are delivering now are Topology Resource Management (TRM) and Path Calculation Management (PCM). We also focus on in-house development of the fully-functional SDN controller SOO Station R3.x for control and management of the SkyFlux advanced networking platform.

#### Carrier Wi-Fi Products

Our Carrier Wi-Fi product line includes a complete carrier-grade solution for a managed wireless access network: Wireless Access Controllers, Network Management System, and Wi-Fi Access Points (“AP”) for carrier and MSO markets and various deployment scenarios. Our Wireless Access Controllers portfolio provides a great scalable solution suited for different customers (“Carrier”, Enterprise) and different deployment scenarios. It includes the hardware-based MSG series of Wireless Access Controllers, and MSC-C cloud-based Wireless Access Controller featuring planning, configuration, control, as well as operation and maintenance functions implemented in the cloud.

We have successfully deployed carrier Wi-Fi solution since 2013. In 2016 we added support of the newest 802.11ac Wave 2 technology to our portfolio of Wireless Access Points implemented in UIA3340, UOA5340D, and other latest products. Growing demand from the India market resulted in the recent deployment of a large Carrier Wi-Fi network in two cities of India. In 2017, we shipped eight units of MSG2000 Wireless Access Controllers and about 10,000 Wireless Access Points for that project. In 2018 we had 2 more large wins including a large-scale rural public Wi-Fi hotspot network and a project for wireless internet connectivity in over 1000 gram panchayats (clusters of villages), which involves sizable amounts of products including Wi-Fi Access Points, Wireless Access Controllers, PoE Switches. We expect to see strong demand for wireless broadband products from India and other markets in 2019.

#### MSAN Products

MSAN offers a wide range of services over twisted pair copper and optical fiber including IPTV, High-Speed Internet Access, POTS, VoIP. UTStarcom's iAN Multimedia Network Edge is a leading MSAN platform with accumulated over 40 million lines installed worldwide. The latest iAN platform-iAN1200 series MSAN portfolio accommodates carrier-grade broadband access, telephony and data service, and supports a range of technologies such as POTS, ADSL/ADSL2/ADSL2+, VDSL2, SHDSL (EFM) which allows service providers to serve highly interactive and bandwidth intensive applications, enabling operators to offer value added "Triple Play" and broadband business services and migration to NGN while maintaining the traditional telephony services. The MSAN B1200 product line includes high (iAN B1205F), medium (iAN B1205E) and low (iAN B1205) capacity devices acting act as a traditional TDM based DLC, IPDSLAM, Media Gateway platform integrated into a single device and supports seamless migration from V5/AN to VoIP/AG and IMS Access.

The MSAN B1200 Series products were widely deployed and expanded since 2015 to 2017, with shipments accumulating to about 1 Million ports. Driven by strong NGN (Next Generation Network) deployment needs from India, we received in 2018 large orders for MSAN products and related installation and integration services, with total volume over 4 Million subscriber ports. We expect to see continued demand for MSAN products moving forward in 2019 and beyond.

#### goBox Smart Retail Platform

UTStarcom leverages its cutting-edge information and communication technologies to help retail market players improve competitiveness and transform their business to the era of "Smart Retail". The Smart Retail paradigm that relies on advanced capabilities of modern information and communication technologies offers endless opportunities to help retailers attract more customers to their stores and improve efficiency of their retail business.

UTStarcom's Smart Retail solution includes centralized cloud-based intelligence and operation, and local hardware-based goBox control gateway in a next generation vending machine, commercial refrigerator or a smart cabinet that enables connectivity to the cloud, and serves as a central point to integrate sensing, payment, security and value-added services like advertising.

The platform integrates various advanced technologies, including cloud-based big data analytics, AI-based visual image recognition, facial recognition, highly-accurate weight sensing and more. The solution is designed to automate and streamline retail business, attract new customers, optimize cost, and bring retail business to the era of Smart Retail.

The solution is available as the goBox series of fully integrated ready-to-deploy smart commercial refrigerators including goBox-GC303, goBox-GC390 and goBox-GC810, or as standalone goBox control gateways and smart store components that can be integrated and tailored for variety of retail uses.

In 2018 we shipped significant amounts of goBox products, and expect to see growing demand for these products as the Smart Retail market is gaining momentum.

## MARKETS AND CUSTOMERS

The table below describes net sales by geographic region for the fiscal years ended December 31, 2018, 2017 and 2016.

	Years Ended December 31,							
	2018	% of net Sales	2017	% of net sales	2016	% of net sales		
(in thousands, except percentages)								
<b>Net Sales by Region</b>								
China	\$3,146	3 %	\$2,926	3 %	\$4,021	5 %		
India	70,106	60 %	42,352	43 %	33,021	38 %		
Japan	35,504	31 %	49,185	50 %	45,561	52 %		
Taiwan	6,445	6 %	3,018	3 %	3,217	4 %		
Other	743	1 %	811	1 %	692	1 %		
<b>Total</b>	<b>\$115,944</b>	<b>100 %</b>	<b>\$98,292</b>	<b>100 %</b>	<b>\$86,512</b>	<b>100 %</b>		

Our products and services are used primarily in Asia. In 2018, India exceeded Japan, and became the largest market. In 2018, 2017, and 2016, India represented 60%, 43% and 38% of our net sales, respectively. Japan was one of our largest markets, representing 31%, 50% and 52% of our net sales in 2018, 2017 and 2016, respectively.

Our key target geographical markets for the deployment of our broadband infrastructure products are India, Japan, Taiwan and other Asia Pacific markets. We believe these geographical markets provide a significant opportunity given their relatively low broadband penetration rates and strong consumer demand for new broadband services. We observe consistently high interest in our products in the India market, and see potential for growth there for many of our product lines including optical transport and aggregation, fixed and wireless broadband access. We expect more upgrade projects and new deployments to expand our market share for broadband Internet network equipment in India.

Our customers, typically telecommunications and cable service providers, enable delivery of wireless, wire line and broadband access services including data, voice, and/or television to their subscribers. They include, but are not limited to, local, regional, national and international telecommunications carriers, including broadband, cable, Internet, wire line and wireless providers. Telecommunications and cable service providers typically require extensive proposal review, product certification, test and evaluation and network design and, in most cases, are associated with long sales cycles. Our customers' networking requirements are influenced by numerous variables, including their size, the number and types of subscribers that they serve, the relative tele-density (the number of phone lines per 100 persons) of the geography served, their subscriber demand for IP communications and access services in the served geography. A significant portion of our net sales is derived from a Japanese customer, Softbank, which is also one of our former shareholders. In 2018, our net sales to Softbank totaled approximately \$31.9 million, representing approximately 28% of our total net sales. We anticipate that our dependence on Softbank will continue for the foreseeable future. See "Item 3. Key Information-D. Risk Factors-Risks Related to Our Business-We rely on a Japanese customer for a significant portion of our net sales. Any deterioration of our relationship or any interruption to our ongoing collaboration with this customer may significantly harm our business, financial condition and results of operations." Another significant portion of our net sales is derived from an India customer, Bharat Sanchar Nigam Ltd. ("BSNL"). In 2018, our net sales to BSNL totaled approximately \$67.0 million, representing approximately 58% of our total net sales. Additionally, during 2017 and 2018, we won important projects with BSNL.

## COMPETITION

We compete in the telecommunications equipment market, providing IP-based core infrastructure products, and services for transporting data, voice and television traffic across IP-based networks. The markets in which we compete are characterized by rapid change, converging technologies, and a migration to IP-based networking and communications solutions that offer relative advantages to our customers and their subscribers. These market factors represent a competitive threat to UTStarcom. We compete with numerous vendors in each product and market category. The overall number of our competitors providing new products and solutions may increase. Also, the composition of competitors may change as we increase our activity in various technology markets. In particular, we have experienced price-focused competition from competitors in Asia, and we anticipate this will continue.

We believe our competitive strengths are derived from three main factors: our ability to introduce and deploy well-developed IP-based technologies and products; our reputation for providing a customer-centric business model; and our ability to solve complex problems. Our competitive disadvantages include our relatively smaller size in terms of revenues, working capital, and financial resources and headcount; our lack of historical sales to many of the largest carriers in well-established markets and our lack of consumer brand recognition in markets.

The broadband infrastructure market is subject to intense competition worldwide from numerous global and regional competitors, including some of the world's largest companies. These companies leverage pricing, payment terms and



their pre-existing customer relationships. Specific competitors in this segment include Cisco, Juniper, Nokia, Alcatel-Lucent, Coriant, CIENA Corporation, ECI Telecom, Huawei Technologies, and ZTE Corporation.

## OPERATIONS

### Sales, Marketing and Customer Support

We pursue a direct sales and marketing strategy in Japan, India, Taiwan, and South Asia, targeting sales to telecommunications operators and equipment distributors with closely associated customers. We maintain sales and customer support sites in Japan, India and Taiwan. Our customer service operations in Hangzhou and Chengdu China, serve as both a technical resources and liaisons to our product development organization.

Additionally, we maintain our Sales and Marketing presence in the United States, through our subsidiary, Virtual Gateway Labs, Inc. in Silicon Valley, to market and support our products and services in this key target market.

### Manufacturing, Assembly and Testing

The manufacturing operations consist of circuit board assembly, final system assembly, software installation and testing. We assemble circuit boards primarily using surface mount technology. Assembled boards are individually tested prior to final assembly and tested again at the system level prior to system shipment. We use internally developed functional and parametric tests for quality management and process control and have developed an internal system to track quality statistics at a serial number level. System final testing and packaging are conducted at our own facilities as well as contracted to third parties.

We currently manufacture our products at our Hangzhou, China facility.

### RESEARCH AND DEVELOPMENT

We believe it is essential to continue to develop and introduce new and enhanced products if we are to maintain our competitive position. While we use competitive analyses and technology trends as factors in our product development plans, the primary input for new products and product enhancements comes from soliciting and analyzing information about service providers' needs. We have been able to cost-effectively hire highly skilled technical employees from a large pool of qualified candidates in China. We also have a development center in India to take advantage of the talent pool available there, and to support our operations in India. Our R&D centers are ISO 9001-2000 certified.

In the past we have made, and expect to continue to make, significant investments in research and development. For the years ended December 31, 2018, 2017 and 2016 our R&D expenses totaled \$12.7 million, \$9.9 million, and \$8.5 million, respectively. The continuous increase in 2017 and 2018 were primarily due to continuing investment in product development and new technology.

### INTELLECTUAL PROPERTY

Our ability to compete depends in part on our proprietary technology. We rely on a combination of patent, copyright trademark and trade secret laws, as well as confidentiality agreements and licensing arrangements, to establish and protect our proprietary rights. In addition, we have, from time to time, chosen to abandon previously filed applications. Patents may not be issued and any patents issued may not cover the scope of the claims sought in the applications. Additionally, issued patents may be found to be invalid or unenforceable in the courts of those countries where we hold or have filed for such patents or patent applications. Our U.S. patents do not afford any intellectual property protection in China or other international jurisdictions. Additionally, patents that we hold in countries other than the United States do not afford any intellectual property protection in the United States. Please refer to the discussion of risks associated with our intellectual property in "Item 3. Key Information-D. Risk Factors-Risks Related to Our Business-We may be unable to adequately protect against the loss or misappropriation of our intellectual property, which could substantially harm our business."

### SEASONALITY

Although we experience some seasonality typical of the telecommunications industry, our revenues and earnings have not demonstrated consistent seasonal characteristics. In contrast, our results of operation are generally impacted more significantly by factors such as customer concentration and the timing of revenue recognition.

### RAW MATERIALS

We source and purchase components comprising of active and passive electronic parts, mechanical and electrical parts, OEM and third party parts in the open markets from China and overseas. Prices for these component parts

typically vary with the global and local supply and demand dynamics as well as raw material price fluctuations. Component part price volatility is also affected by one-off events such as the earthquake in Japan and flooding in Thailand resulting in short-term electronic component and hard drive shortages respectively. See “Item 3. Key Information-D. Risk Factors-Risks Related to Our Business.”

## REGULATIONS

Multiple government bodies are involved in regulating and administering affairs in the telecommunications and information technology industries in China, Japan and India, among which the Ministry of Industry and Information Technology (“MIIT”), NDRC, SASAC and State Administration of Press, Publication, Radio, Film and Television (“SAPPRFT”) play the leading roles. These government agencies have broad discretion and authority over all aspects of the telecommunications and information technology industry in China, including but not limited to, setting the telecommunications tariff structure, granting carrier licenses and frequencies, approving equipment and products, granting product licenses, approving of the form and content of transmitted data, specifying technological standards as well as appointing carrier executives, all of which may impact our ability to do business in China. See “Item 3. Key Information-D. Risk Factors-Risks Relating to Conducting Business in China.”

### C. Organizational Structure

We are a holding company incorporated in the Cayman Islands.

The following table sets forth our subsidiaries, including their country of incorporation or residence and our ownership interest in such subsidiaries.

Name	Place of Incorporation or Organization	Proportion of Ownership Interest	
UTStarcom, Inc.	U.S.A	100	%
UTStarcom International Products, Inc.	U.S.A	100	%
Issanni Communications, Inc.	U.S.A	100	%
UTStarcom Telecom Co., Ltd.	China	100	%
UTStarcom Hong Kong Ltd.	Hong Kong SAR	100	%
UTStarcom Japan KK	Japan	100	%
UTStarcom, S.A. de C.V.	Mexico	100	%
UTStarcom Taiwan Ltd.	Taiwan	100	%
UTStarcom Network Solutions—Redes de Nova Geração Ltd	Brazil	100	%
UTStarcom India Telecom Pvt	India	100	%
UTStarcom (Thailand) Limited	Thailand	100	%
MyTV Corporation	Cayman Island	100	%
UTStarcom (Philippines), Inc.	Philippines	100	%
UTStarcom Hong Kong Investment Holding Ltd.	Hong Kong SAR	100	%
Virtual Gateway Labs, Inc.	U.S.A	100	%
Hangzhou USTAR Technologies Ltd.	China	100	%

### D. Property, Plant and Equipment

Our principal executive offices are located in Hong Kong, China. Our research and development, manufacturing and back office functions are located at our office facilities in Hangzhou, China.

In July 2016, we entered into a new non-cancellable lease agreement for our office facilities in Hangzhou, China. Under the term of this lease agreement, we have leased 16,211 square meters (approximately 174,493 square feet) of gross floor area, through July 31, 2021. In addition, we lease 2,824 square feet of properties in North America. We lease sales and customer support offices in several countries covering Japan, India, Taiwan and the United States. We believe our facilities are suitable and adequate to meet our current needs.

### ITEM 4A-UNRESOLVED STAFF COMMENTS

None.

### ITEM 5 OPERATING AND FINANCIAL REVIEW AND PROSPECTS

The following discussion of our financial condition and results of operations is based upon and should be read in conjunction with our consolidated financial statements for the periods specified and their related notes included in this

Annual Report on Form 20-F, as well as “Item 3. Key Information-A. Selected Financial Data.” This report contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act, including, without limitation, statements regarding our expectations, beliefs, intentions or future strategies that are signified by the words “expect,” “anticipate,” “intend,” “believe,” or similar language. All forward-looking statements included in this Annual Report are based on information available to us on the date hereof, and we assume no obligation to update any such forward-looking statements. In evaluating our business, you should carefully consider the information provided under “Item 3. Key Information-D. Risk Factors.” Actual results could differ materially from those projected in the forward-looking statements. We caution you that our businesses and financial performance are subject to substantial risks and uncertainties.

## A. Operating Results

### OVERVIEW

We are a global telecom infrastructure provider dedicated to developing technology that will serve the rapidly growing demand for bandwidth from cloud-based services, mobile, streaming and other applications. We work with carriers globally, from Asia to the Americas, to meet this demand through a range of innovative broadband packet optical transport and wireless/fixed-line access products and solutions. We focus on delivering innovative carrier-class broadband transport and access products and solutions, optimized for mobile backhaul, metro aggregation, broadband access and Wi-Fi data offloading. Collectively, our range of solutions is designed to expand and modernize telecommunications networks through smooth network system integration, lower operating costs and increased broadband access. We also provide the carriers with increased revenue opportunities by enhancing their subscribers' user experience. The majority of our business is based in Japan, India, Taiwan, China and other Asian markets.

We differentiate ourselves with products designed to reduce network complexity, integrate high performance capabilities and allow a simple transition to next generation networks. We design our products to facilitate cost-effective and efficient deployment, maintenance and upgrades.

Our customers can easily integrate our products, which are IP-based, with other industry standard hardware and software. Additionally, we believe we can introduce new features and enhancements that can be cost-effectively added to our customers' existing networks. IP-based devices can be changed or upgraded in modules, saving our customers the expense of replacing their entire system installation. Our strategic priorities are summarized as follows:

- Focus primarily on providing a suite of IP-based solutions and broadband products and related services;
- Maintain our position in Japan, India and Taiwan while solidifying our presence in selective geographical markets in Asia;
- Leverage our strong reputation with telecom carriers and cable operators and our ability to solve complex network problems; and
- Improve our financial position by executing announced restructuring initiatives and reducing operating expense levels.

### Divestitures

On August 31, 2012, we completed a sale of our IPTV business to an entity founded by our former CEO. We paid a total consideration of approximately \$30.0 million related to the net liabilities transferred. In connection with this transaction, we recorded a net loss of \$17.5 million during 2012.

Since the economic risks and benefits of the un-assigned contracts had been transferred to the buyer of the IPTV business, we recorded a portion of the payment made to the buyer at the time of the divestiture as the deferred service cost to offset such liabilities related to those un-assigned contracts. We tried to settle these contracts and sent termination letters to customers individually. When the legal obligation expired, we wrote off both the related liabilities and deferred cost which had no impact on the statement of operation. During 2018, we reviewed and assessed all contracts and termination letters, and concluded there were no legal obligations. As the result, we closed these accounts. As of December 31, 2018, there were no liabilities and deferred costs related to these remaining un-assigned contracts due to the expiration of the legal obligations.

### Acquisition

On March 28, 2018, we became an investor of Hangzhou uSTAR Technologies Limited, or ("uSTAR"), a newly established joint venture ("JV") Company. In April 2018, we invested \$1.8 million to acquire 49% of uSTAR's equity interest and used the equity method to account for this investment.

In December 2018, we invested an additional \$1.9 million to purchase the remaining interest of uSTAR from our JV partner. After that transaction, we own 100% equity interest of uSTAR and we consolidate uSTAR from the acquisition date. We assessed the fair value of all the assets and liabilities in uSTAR, and concluded there was no Goodwill occurred during the transaction.

During the period between April 2018 to the date we acquired control of uSTAR, we recorded \$0.4 million equity loss in connection with uSTAR.

#### Investments

In September 2004, we invested \$2.0 million in Series A preferred stock of ImmenStar, Inc., which was then acquired by Cortina Systems, Inc., or Cortina in February 2007. In 2015 and 2016, through the sale of shares and proceeds received, we recognized gains of \$1.6 million and \$0.1 million, respectively, which were included in Other Income.

In October 2004, we invested \$3.0 million in Series D preferred convertible stock of GCT Semiconductor, Inc., or GCT, which designs, develops and markets integrated circuit products for the wireless communications industry. This investment represents approximately a 0.4% interest in GCT. This investment is accounted for using the cost method. We assess the fair value at every year-end. In 2012 and 2016, we recorded \$2.1 million and \$0.8 million investment impairment, respectively. As of December 31, 2016, the book value of the investment was zero.

In 2008, 2010, 2011 and 2012, we invested \$0.5 million, \$0.7 million, \$0.7 million and \$0.6 million, respectively, into SBI NEO Technology, or SBI, to maintain a partnership interest of approximately 2%. We concluded that we do not have a controlling interest in SBI and account for the investment in SBI using the cost method. In 2014, 2015, and 2016, we received \$0.1 million, \$0.26 million and \$0.7 million from SBI to reduce our investment. In 2016, we recorded impairment of \$0.2 million. In 2017, we received a final refund of \$0.5 million and the book value of the investment was reduced to zero.

In December 2010, we invested \$2.1 million into Aceland Investments Limited, or Aceland. In the second quarter of 2011, we extended a shareholder loan to Aceland in the amount of \$7.1 million with a maturity date of December, 31, 2015. We owned an approximately 35% interest in Aceland and accounted for the investment in Aceland using the equity method. In 2015, we recorded a \$1.0 million impairment charge to the Aceland investment. In 2016, we received \$6.7 million cash to offset the Aceland investment and realized a \$1.0 million gain of foreign exchange. In 2017 and 2018, we realized a \$0.2 million and \$0.3 million equity loss as a result of the depreciation of the US Dollar deposit, respectively. As of December 31, 2018, the book value of the investment was \$2.1 million.

On August 31, 2012, we completed the sale of our IPTV business to UTStarcom Hong Kong Holdings Ltd. which is controlled by our former Chief Executive Officer. On the same day, we purchased a \$20.0 million Convertible Bond from UTStarcom Hong Kong Holdings Ltd. which bears interest at 6.5% per annum and matured on August 31, 2017. On April 7, 2015, we entered an agreement with UTStarcom Hong Kong Holdings Ltd. for the conversion of the \$20.0 million Convertible Bond. Pursuant to the agreement, UTStarcom Hong Kong Holdings Ltd. paid \$10.0 million in cash to us as partial repayment of the principal of the Convertible Bond. The remaining principal and interest of the Convertible Bond were converted to 14% of equity interest of UTStarcom Hong Kong Holdings Ltd. We used the cost method to account for this investment. During 2015, we assessed the fair value of UTStarcom Hong Kong Holdings Ltd, and recorded a \$6.5 million impairment charge on this investment. During 2017, we assessed the fair value of UTStarcom Hong Kong Holdings Ltd, and concluded no impairment had occurred. During 2018, we assessed the fair value of UTStarcom Hong Kong Holdings Ltd, and recorded a \$0.4 million impairment charge. As of December 31, 2018, the book value of this investment was \$3.1 million.

In November 2012, we invested \$8.0 million in Series B Preferred Stock of AioTV Inc, (“AioTV”), representing a 44% equity interest of AioTV. The Preferred Stock was classified as available-for-sale security as it was not considered to be in-substance common stock due to the redemption feature. In December 2015 and October 2016, we invested in a convertible bond of \$0.5 million that matured on March 28, 2017 and of \$0.3 million that matured on October 7, 2017, respectively. All convertible bonds bear interest at 10.0% per annum. During 2016, we assessed the fair value of the investment, and recorded a \$4.3 million impairment charge relating to this investment. On May 30, 2017, we converted all the existing Preferred Shares of AioTV into common shares of AioTV, and converted \$0.5 million convertible bond issued in December 2015 into common shares of AioTV. After this conversion, we deemed that we have significant influence in AioTV and began to use the equity method to account for the investment in AioTV. On the same day, we signed a “Note Purchase Agreement” with AioTV. Pursuant to the agreement, the valuation cap of AioTV was reduced to \$0.16 million, and we promised to purchase a \$0.8 million convertible promissory note including \$0.32 million of existing convertible bond issued in October 2016. As the result of these transactions, we recorded \$1.3 million investment impairment in the second quarter of 2017. We invested \$0.1 million and \$0.38 million in the second and third quarter of 2017, respectively, in the convertible promissory note. In the third quarter of 2017, we recorded \$0.1 million in losses for the common stock investment to reflect our 45% share of AioTV’s losses.



After the common stock was reduced to zero, we started and will continued to record our 45% share of AioTV's losses against our convertible promissory note until the carrying value of the convertible promissory note investment balance is reduced to zero. In the third and fourth quarters of 2017, we recorded \$0.2 million and \$0.2 million respectively in losses to reflect our 45% share of AioTV's losses. At 2017 year-end, we assessed the fair value of AioTV, and concluded that a \$0.4 million impairment charge to this investment was necessary. As of December 31, 2017, the book value of this investment was zero. On December 19, 2018, we entered into the assignment and assumption agreement to transfer the Company's all equity interests and debt interests in AioTV to a third party with a cash consideration of \$1 by the buyer. This transaction was closed at April 11, 2019.

#### CRITICAL ACCOUNTING POLICIES AND ESTIMATES

Our financial condition and results of operations are based on certain critical accounting policies and estimates, which include judgments, estimates and assumptions on the part of management. Estimates are based on historical experience, knowledge of economic and market factors and various other assumptions that management believes to be reasonable under the circumstances. Actual results may differ from those estimates. The following summary of critical accounting policies and estimates highlights those areas of significant judgment in the application of our accounting policies that affect our financial condition and results of operations.

## Revenue Recognition

Effective January 1, 2018, we recognize revenues in accordance with Accounting Standard Update ASU 2014-09 Revenue from Contracts with Customers (“ASU 2014-09”), as amended. ASU 2014-09 was codified in the Accounting Standards Codification (“ASC”) as topic 606 (“ASC 606”). The core principle of ASU 2014-09 is that revenue is recognized upon transfer of control of promised products or services to customers in an amount that reflects the consideration we expect to receive in exchange for those products or services. To determine the appropriate amount of revenue to be recognized for arrangements determined to be within the scope of ASU 2014-09, for each customer contract, we performed the following five steps:

1. Identify the contract with a customer;
2. Identify the performance obligations in the contract;
3. Determine the transaction price;
4. Allocate the transaction price to the performance obligations in the contract; and
5. Recognize revenue when or as the Company satisfies a performance obligation.

We account for a contract with a customer that is within the scope of ASC 606 when all of the following criteria are met: (i) the arrangement has been approved by the parties and the parties are committed to perform their respective obligations, (ii) each party's rights regarding the goods or services to be transferred can be identified, (iii) the payment terms for the goods or services to be transferred can be identified, (iv) the arrangement has commercial substance and (v) collection of substantially all of the consideration to which the Company will be entitled in exchange for the goods or services that will be transferred to the customer is probable.

Performance obligations promised in a contract are identified based on the services and the products that will be transferred to the customer that are both capable of being distinct, whereby the customer can benefit from the service either on its own or together with other resources that are readily available from third parties or from us, and are distinct in the context of the contract, whereby the transfer of the services and the products is separately identifiable from other promises in the contract. Our performance obligations consist of (i) sales of communication equipment with embedded software, (ii) provision of installation and commission service, and (iii) provision of annual maintenance service. The software component is not considered distinct as the software component is integral to the functionality of the communication equipment.

The transaction price is determined based on the consideration to which we expect to be entitled in exchange for transferring services to the customer. Some sales agreements have performance guarantees covering a certain timeframe. If there is an underperformance event, we may incur liquidation damages as a percentage of the total purchase price. Such performance guarantees represent a form of variable consideration and are estimated at the contract inception at the best estimate and updated at the end of each reporting period as additional performance data becomes available and only to the extent that it is probable that a significant reversal of any revenue will not occur. Variable consideration includes estimates for sales credits, which are based on historical level and specific criteria outlined in the sales contracts, and other factors known at the time. We generally invoice customers for equipment and services upon meeting certain milestones. Customer invoices are generally due within 30 to 90 days after issuance. Our contracts with customers typically do not include significant financing components as the period between the transfer of performance obligations and timing of payment are generally within one year.

We allocate the transaction price based on the estimated standalone selling price. We develop assumptions that require judgment to determine the standalone selling price for each performance obligation identified in the contract. We utilize key assumptions to determine the standalone selling price, which may include other comparable transactions, pricing considered in negotiating the transaction and the estimated costs. Certain variable consideration is allocated specifically to one or more performance obligations in a contract when the terms of the variable consideration relate to the satisfaction of the performance obligation and the resulting amounts allocated to each performance obligation are consistent with the amounts the Company would expect to receive for satisfying each performance obligation.

Revenue is recognized when a customer obtains control of promised goods or services at an amount that reflects the consideration that is expected to be received in exchange for those goods or services. For performance obligations, we utilize judgment to assess the nature of combined performance obligation determine whether a performance obligation is satisfied over time or at a point in time.

Revenue from sales of communication equipment is recognized at a point in time, which is generally upon delivery. Revenue from provision of installation and commission service is recognized at a point in time when the service is completed. Revenue from provision of annual maintenance services is recognized over time on a ratable basis over the contract term.

We adopted ASC 606 using the modified retrospective method in the first quarter of 2018. We have completed a detailed review of revenue contracts representative of our business segments and revenue streams as of the adoption date. We established new accounting policies, implemented systems and processes (including more extensive use of estimates), and internal controls necessary to support the requirements of the new standard.

The cumulative effect of the changes made to our January 1, 2018 balance sheet for adoption of the new standard were as follows:

	Balance as of	Adoption adjustment due	Balance as of
	December 31, 2017	to ASC 606	January 1, 2018
	In thousands		
<b>Assets</b>			
Deferred contract costs, prepaid expenses and other current assets	\$37,772	\$ (9,846 )	\$27,926
Total current assets	166,813	(9,846 )	156,967
Total assets	187,044	(9,846 )	177,198
<b>Liabilities</b>			
Deferred Revenue	7,286	(2,543 )	4,743
Customer Advance	21,828	(15,223 )	6,605
Total current liabilities	88,264	(18,409 )	69,855
Deferred income tax liability	—	—	—
Total Liabilities	96,052	(18,409 )	77,643
<b>Stockholders' Equity</b>			
Accumulated earnings	(1,226,173)	8,563	(1,217,610)
Total stockholders' equity	90,992	8,563	99,555
Total liabilities and stockholders' equity	\$187,044	\$ (9,846 )	\$177,198

In accordance with the requirements of ASC 606, the disclosure for the quantitative effect and the significant changes between the reported results under the new standard and those that would have been reported under legacy GAAP (i.e., ASC 605) on our consolidated income statement and balance sheet was as follows:

For the Twelve Months Ended December 31, 2018		
Balances Without		
As Reported	Adoption of	Effect of Change
-		
ASC 606	ASC 606	Higher/(Lower)
In thousands		

Income Statement			
Revenue	\$ 115,944	\$ 60,438	\$ 55,506
Cost of Net Sales	83,676	32,409	51,267
Gross Profit	32,268	28,029	4,239
Net income	\$4,820	\$ 581	\$ 4,239

	As of December 31, 2018		
	As Reported -	Balances Without Adoption of	Effect of Change
	ASC 606	ASC 606	Higher/(Lower)
	In thousands		
<b>Balance Sheet</b>			
<b>Assets</b>			
Accounts receivable	\$60,666	\$31,060	\$ (29,606 )
Deferred contract costs, prepaid expenses and other current assets	\$21,853	\$73,120	\$ 51,267
<b>Liabilities</b>			
Customer advances	561	26,582	(26,021 )
Deferred Revenue	3,947	3,826	121
<b>Stockholders' Equity</b>			
Accumulated earnings	\$(1,212,790)	\$(1,217,029)	\$ 4,239

The variance between the revenue under ASC 606 and ASC 605 is due to the timing difference between the delivery date of the stand-alone value of goods and services under ASC 606 and the receipt date of customer acceptance under ASC 605. Under ASC 605, revenue is recognized in accordance with receiving the final acceptance to ensure the entire project delivered as a turn-key project is essential to functionality while ASC 606 specifically separated performance obligation so that the revenue related to product

and services may be recognize separately. Under ASC 605, given the uncertainty about customer acceptance until the customer completes its internal testing and validation, the Company deferred revenue recognition of equipment sales until the issuance of the final acceptance certificate to confirm contract fulfillment. Under ASC 606, the Company can objectively determine that control of equipment has been transferred to the customer in accordance with the agreed-upon specification in the contract. The basis is that a customer acceptance is a mere formality and has no bearing on the Company's determination when the customer has assumed control of the equipment. This determination was based on historical experience with similar contracts for similar goods as well as the Company's testing procedures to ensure contractually agreed-upon specifications were met prior to shipment to the customer. As of December 31, 2018, there were instances where equipment had been delivered to a specific customer but final acceptance had not been received.

#### Operating Leases

We lease office space under operating lease agreements with an initial lease term up to five years. Rental expense is recognized from the date of initial possession of the leased property on a straight-line basis over the term of the lease.

#### Restructuring Liabilities, Litigation and Other Contingencies

We account for our restructuring plans using the guidance provided in ASC 420 "Exit or Disposal Cost Obligations" and ASC 712 "Compensation-Nonretirement Postemployment Benefits." We account for litigation and contingencies in accordance with ASC 450, "Contingencies", which requires that we record an estimated loss from a loss contingency when information available prior to issuance of our financial statements indicates that it is probable that an asset has been impaired or a liability has been incurred at the date of the financial statements and the amount of loss can be reasonably estimated.

#### Stock-Based Compensation

Stock-based compensation expense for all share-based payment awards granted is determined based on the grant-date fair value. Stock-based compensation expense for restricted stock awards is measured based on the closing fair market value of our ordinary share on the date of grant. Stock-based compensation expense for stock options is estimated at the grant date based on each option's fair value as calculated by the Black-Scholes option pricing model, or Black-Scholes model. Stock-based compensation is expensed ratably on a straight-line basis over the requisite service period, which is generally the vesting term of the share-based payment awards. The performance-based restricted stock units are subject to the attainment of goals determined by the Compensation Committee of our board of directors. We record the relevant stock-based compensation for the performance-based restricted stock units based on the probability of meeting the performance conditions.

Determining the appropriate fair value model and calculating the fair value of share-based payment awards require the input of subjective assumptions, including the expected term of the share-based payment awards and stock volatility. We estimate an expected term of options granted based on our historical exercise and cancellation data for vested options. We use historical volatility as management believes it is more representative of future stock price trends than implied volatility due to the relatively small number of actively traded options on our ordinary shares available to determine implied volatility. The assumptions used in calculating the fair value of share-based payment awards represent management's best estimates, but these estimates involve inherent uncertainties and compensation expense could be materially different in the future. Because changes in the subjective assumptions can materially affect the estimated value, in management's opinion, the existing valuation models may not provide an accurate measure of the fair value of our employee stock options. In addition, we are required to estimate the expected forfeiture rate and recognize expense only for those shares expected to vest. If our actual forfeiture rate is materially different from our estimate, the stock-based compensation expense could be significantly different from what we have recorded in the

current period.

We account for equity instruments issued to consultants and vendors in exchange for goods and services following the provisions of ASC 505-50, "Equity-Based Payments to Non-Employees" (formerly FASB Staff Positions Emerging Issues Task Force Issue No. 96-18 and 00-18). The measurement date for the fair value of the equity instruments issued is determined at the earlier of (i) the date at which a commitment for performance by the consultant or vendor is reached or (ii) the date at which the consultant or vendor's performance is complete. In the case of equity instruments issued to consultants, the fair value of the equity instrument is recognized over the term of the consulting agreement.

#### Product Warranty

We provide a warranty on our equipment for a period generally ranging from one to two years from the time of final acceptance. At times, we have entered into arrangements to provide limited warranty services for periods longer than two years. We provide for the expected cost of product warranties at the time that revenue is recognized based on an assessment of past warranty experience and when specific circumstances dictate. We assess the adequacy of our recorded warranty liability every quarter and make adjustments to the liabilities if necessary. Specific warranty accruals are reversed upon the expiration of the warranty period and are recorded as reduction of cost of sales. From time to time, we may be subject to additional costs related to non-standard warranty claims from our customers. If and when this occurs, we estimate additional accruals based on historical experience, communication with our customers and various assumptions that we believe to be reasonable under the circumstances. Such additional warranty accruals are recorded in the period in which the additional costs are identified.

## Receivables

Although we evaluate customer credit worthiness prior to a sale, we provide an allowance for doubtful accounts for the estimated loss on trade and notes receivable when collection may no longer be reasonably assured. We assess collectability of receivables based on a number of factors including analysis of creditworthiness, our customer's historical payment history and current economic conditions, our ability to collect payment and on the length of time an individual receivable balance is outstanding. Our policy for determining the allowance for doubtful accounts includes both specific allowances for balances known to be uncollectible and a formula-based portfolio approach, based on aging of the accounts receivable, as a precursor to a management review of the overall allowance for doubtful accounts. This formula-based approach involves aging of our accounts receivable and applying a percentage based on our historical experience, and results in the allowance being computed based on the aging of the receivables. We evaluate the percentages applied to each category of aged accounts receivable periodically based on actual history of write-offs and collections and refine this formula-based approach accordingly for use in future periods. Receivable balances are written-off when we have sufficient evidence to indicate that they are uncollectible.

## Inventories

Inventories consist of product held at our manufacturing facility and warehouses, as well as finished goods at customer sites for which the customer has taken possession, but based on specific contractual terms, title has not yet passed to the customer. We may ship inventory to existing customers that require additional equipment to expand their existing networks prior to the signing of an expansion contract. Our inventories are stated at the lower of cost or market value, based on the FIFO method of accounting. Reserves are based on our assumptions about future market conditions and customer demand, including projected changes in average selling prices resulting from competitive pricing pressures. We continually monitor inventory valuation for potential losses and obsolete inventory at our manufacturing facilities as well as at customer sites. If actual market conditions are less favorable than those projected by management, additional reserves may be required. If actual market conditions are more favorable than anticipated, inventory previously reserved may be sold to customers, resulting in lower cost of sales and higher income from operations than expected in that period.

## Deferred Costs

Since the adoption of ASC 606 effective from January 1, 2018, deferred cost balance is insignificant amount, which is the amortized amount of post-contract customer support over a long period of time (for example, seven years) the deferred revenue and related deferred costs of goods sold over the post-contract support period.

## Income Taxes

We are subject to income taxes in both the United States and numerous foreign jurisdictions. Significant judgment is required in evaluating our tax positions and determining the provision for income taxes. During the ordinary course of business, there are many transactions and calculations for which the ultimate tax determination is uncertain. We recognize the tax benefit (expense) from an uncertain tax position only if it is more likely than not the tax position will be sustained on examination by the taxing authorities, based on the technical merits of the position. We recognize interest expense and penalties related to income tax matters as part of the provision for income taxes.

We recognize deferred income taxes as the difference between the tax bases of assets and liabilities and their financial statement amounts based on enacted tax rates. Management judgment is required in the assessment of the recoverability of our deferred tax assets based on its assessment of projected taxable income. Numerous factors could affect our results of operations in the future. If there is a significant decline in our future operating results, management's assessment of the recoverability of our deferred tax assets would need to be revised, and any such



adjustment to our deferred tax assets would be charged to income in that period. If necessary, we record a valuation allowance to reduce deferred tax assets to an amount which management believes is more likely than not to be realized. Changes in estimates of taxable income in the future could result in reversal of the valuation allowances which would be credited to income in the year of reversal.

On December 22, 2017, the 2017 Tax Cuts and Jobs Act (the “Tax Act”) was enacted. The Tax Act significantly revises the U.S. corporate income tax by, among other things, lowering the statutory corporate income tax rate (“federal tax rate”) from 35% to 21% effective January 1, 2018, implementing a modified territorial tax system, and imposing a mandatory one-time transition tax on accumulated earnings of foreign subsidiaries.

In December 2017, the SEC issued Staff Accounting Bulletin No. 118 (“SAB 118”), which addresses how a company recognizes provisional amounts when a company does not have the necessary information available, prepared or analyzed (including computations) in reasonable detail to complete its accounting for the effect of the changes in the Tax Act. The measurement period ends when a company has obtained, prepared and analyzed the information necessary to finalize its accounting, during an up to one-year measurement period. We recorded what we believed to be a reasonable estimate during the SAB 118 measurement period which lasted from December 2017 to December 2018. In December 2018, we finalized the accounting treatment of the income tax effects of the Tax Act.

## Investments

Our investments consist principally of bank notes, debt and equity securities classified as available for sale and cost and equity investment in privately held companies. The investments in equity securities of privately held companies in which we hold less than 20% voting interest and on which we do not have the ability to exercise significant influence are accounted for under ASC 325, “Investments-Other” using the cost method. Under the cost method, these investments are carried at cost less impairment, if any. The investments in equity securities of privately held companies in which we hold at least 20% but less than 50% voting interests, and on which we have the ability to exercise significant influence are accounted for under ASC 323, “Investments-Equity Method and Joint Ventures” using the equity method. Investments in debt securities that are classified as available for sale are measured at fair value on the balance sheets under ASC 320, Investments-Debt and Equity Securities. Unrealized holding gains and losses for available-for-sale securities (including those classified as current assets) will be excluded from earnings and reported in other comprehensive income until realized except as indicated in the following paragraph.

We recognize an impairment charge when a decline in the fair value of its investments below the cost basis is judged to be other-than-temporary. In making this determination, we review several factors to determine whether the losses are other-than-temporary, including but not limited to: (i) the length of time the investment was in an unrealized loss position, (ii) the extent to which fair value was less than cost, (iii) the financial condition and near term prospects of the issuer, and (iv) our intent and ability to hold the investment for a period of time sufficient to allow for any anticipated recovery in fair value. The determination of fair value of the investment involves considering factors such as current economic and market conditions, the operating performance of the companies including current earnings trends and forecasted cash flows, and other company and industry specific information. Investment impairments recorded as other-than-temporary were \$0.4 million, \$1.7 million, and \$5.3 million, for the years ended December 31, 2018, 2017 and 2016, respectively.

## Impairment of Long-Lived Assets

We review our long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. If undiscounted expected future cash flows are less than the carrying value of the assets, an impairment loss is recognized based on the excess of the carrying amount over the fair value of the assets. Long-lived assets that are to be disposed of by sale are measured at the lower of book value or fair value less cost to sell.

## Advances

Advances from customers represent cash received from customers before revenue recognition for the purchase of the Company’s products.

## RECENT ACCOUNTING PRONOUNCEMENTS

See Note 2 to our Consolidated Financial Statements included under Item 18 of this Annual Report on Form 20-F for a full description of recent accounting pronouncements, including the expected dates of adoption and estimated effects on results of operations and financial condition, which is incorporated herein by reference.

## RESULTS OF OPERATIONS

Our reporting segments are as follows:

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Equipment-Sales of equipment, including network infrastructure and application products. Network infrastructure products mainly include broadband products. Network application products mainly include wireless infrastructure technologies.

Services-Providing services and support for our equipment products and also the new operational support segment.

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## Net Sales

Sales by Segment	Years Ended December 31,								
	2018	% of net sales		2017	% of net sales		2016	% of net sales	
	(in thousands, except percentages)								
Equipment	\$97,680	84	%	\$77,283	79	%	\$61,735	71	%
Services	18,264	16	%	21,009	21	%	24,777	29	%
Total	\$115,944	100	%	\$98,292	100	%	\$86,512	100	%
Net Sales by Region									
China	\$3,146	3	%	\$2,926	3	%	\$4,021	5	%
India	70,106	60	%	42,352	43	%	33,021	38	%
Japan	35,504	31	%	49,185	50	%	45,561	53	%
Taiwan	6,445	6	%	3,018	3	%	3,217	4	%
Other	743	1	%	811	1	%	692	1	%
Total	\$115,944	100	%	\$98,292	100	%	\$86,512	100	%

## Fiscal 2018 vs. 2017

Net sales increased by 18.0% to \$115.9 million for 2018 compared to \$98.3 million for 2017.

Sales from equipment were \$97.7 million for 2018, an increase of \$20.4 million compared to \$77.3 million for 2017. The increase was mainly due to expedited revenue recognition under new accounting standard applied in 2018 which was partially offset by decreased sales in Japan.

Sales from services were \$18.3 million for 2018, a decrease of \$2.7 million compared to \$21.0 million for 2017. The decrease was primarily attributable to lower outsourced business and India service revenue.

## Fiscal 2017 vs. 2016

Net sales increased by 13.6% to \$98.3 million for 2017 compared to \$86.5 million for 2016.

Sales from equipment were \$77.3 million for 2017, an increase of \$15.5 million compared to \$61.7 million for 2016. The increase was mainly due to the increased sales quantities of the 100G PTN products in Japan and TPS in India.

Sales from services were \$21.0 million for 2017, a decrease of \$3.8 million compared to \$24.8 million for 2016. The decrease primarily attributable to higher one-time India services revenue attained in 2016.

## Cost of Sales

Cost of Sales by Segment	Years Ended December 31,					
	2018	% of net sales	2017	% of net sales	2016	% of net sales
	(in thousands, except percentages)					
Equipment	\$72,082	74 %	\$50,636	66 %	\$41,472	67 %
Services	11,594	63 %	14,510	69 %	16,684	67 %
Total	\$83,676	72 %	\$65,146	66 %	\$58,156	67 %

Cost of sales consists primarily of material and labor costs associated with manufacturing, assembly and testing of products, costs associated with installation and customer training, warranty costs, fees to agents, inventory and contract loss provisions and overhead. Cost of sales also includes import taxes and tariffs on components and assemblies.

## Fiscal 2018 vs. 2017

Cost of sales was \$83.7 million, or 72% of net sales for 2018 compared to \$65.1 million, or 66.0% of net sales, for 2017. The cost of sales percentage in 2018 was a slight higher due to increased sales from India where the margin was lower and decreased sales in Japan where the margin was higher.

Cost of sales from equipment was \$72.1 million, or 74% of net sales, for 2018, compared to \$50.6 million, or 66% of net sales for 2017.

Cost of sales from services were \$11.6 million, or 63% of net sales, for 2018, compared to \$14.5 million, 69% of net sales for 2017.

#### Fiscal 2017 vs. 2016

Cost of sales was \$65.1 million, or 66.3% of net sales for 2017 compared to \$58.2 million, or 67.2% of net sales, for 2016.

Cost of sales from equipment was \$50.6 million, or 66% of net sales, for 2017, compared to \$41.5 million, or 67% of net sales for 2016. The cost of sales percentage between 2017 and 2016 mixed by regions are essentially flat.

Cost of sales from services were \$14.5 million, or 69% of net sales, for 2017, compared to \$16.7 million, 67% of net sales for 2016.

#### Gross Profit

Gross profit by Segment	Years Ended December 31,					
	2018	Gross Profit %	2017	Gross Profit %	2016	Gross Profit %
	(in thousands, except percentages)					
Equipment	\$25,598	26 %	\$26,647	34 %	\$20,263	33 %
Services	6,670	37 %	6,499	31 %	8,093	33 %
Total	\$32,268	28 %	\$33,146	34 %	\$28,356	33 %

Our gross profit has been affected by changes in average selling prices, material costs, product mix, the impact of warranty charges and contract loss provisions, as well as inventory reserve. Our gross profit, as a percentage of net sales, varies among our product families. We expect that our overall gross profit, as a percentage of net sales, will fluctuate in the future as a result of shifts in product mix, and stages of the product life cycle.

#### Fiscal 2018 vs. 2017

Gross profit was \$32.3 million, or 28% of net sales, for 2018, compared to \$33.1 million, or 34% of net sales, for 2017.

Sales of equipment earned a gross profit of \$25.6 million, with a gross profit margin of 26%, for 2018, compared to a gross profit of \$26.6 million, with a gross profit margin of 34% for 2017. The decrease in gross margin was due to sales region shift from Japan to India in 2018 which resulted in unfavorable gross margin result.

Sales of service earned a gross profit of \$6.7 million, or 37% of net sales of Services for 2018, compared to gross profit of \$6.5 million, or 31% for 2017. The increase was primarily due to service product mix.

Fiscal 2017 vs. 2016

Gross profit was \$33.1 million, or 33.7% of net sales, for 2017, compared to \$28.4 million, or 32.8% of net sales, for 2016.

Sales of equipment earned a gross profit of \$26.6 million, with a gross profit margin of 34%, for 2017, compared to a gross profit of \$20.3 million, with a gross profit margin of 33% for 2016. The gross margin between 2017 and 2016 remained flat.

Sales of service earned a gross profit of \$6.5 million, or 31% of net sales of Services for 2017, compared to gross profit of \$8.1 million, or 33% for 2016. The slight decrease was primarily due to service product mix.

## Operating Expenses

The following table summarizes our operating expenses:

	Years Ended December 31,					
	2018		2017		2016	
	% of net sales		% of net sales		% of net sales	
	(in thousands, except percentages)					
Selling, general and administrative	\$15,156	13 %	\$16,777	17 %	\$18,146	21 %
Research and development	12,745	11 %	9,853	10 %	8,502	10 %
Total operating expenses	\$27,901	24 %	\$26,630	27 %	\$26,648	31 %

Selling, general and administrative expenses, or SG&A, include compensation and benefits, professional fees, sales commissions, provision for doubtful accounts receivable and travel and entertainment costs. Research and development, or R&D, expenses consist primarily of compensation and benefits of employees engaged in research, design and development activities, cost of parts for prototypes, related equipment depreciation and third party development expenses. We believe that continued and prudent investment in R&D is critical to our long-term success, and we will evaluate appropriate investment levels.

## SELLING, GENERAL AND ADMINISTRATIVE

## Fiscal 2018 vs. 2017

SG&A expenses were \$15.2 million for 2018, a decrease of 9.7 %, or \$1.6 million, as compared to \$16.8 million for 2017. The decrease was mainly due to the absence of one-time expenses related to professional fee, caused by the privatization plan which was abandoned in October 2017 and the auditor change in 2017.

## Fiscal 2017 vs. 2016

SG&A expenses were \$16.8 million for 2017, a decrease of 7.5%, or \$1.4 million, as compared to \$18.1 million for 2016. The decrease was mainly due to the one-time reclassification of VGL expense and accelerated stock based compensation cost for resigned executives in 2016. This change was partially offset by an increase in professional fee, caused by the privatization plan which was abandoned in October 2017 and the auditor change in 2017.

## RESEARCH AND DEVELOPMENT

## Fiscal 2018 vs. 2017



R&D expenses were \$12.7 million in 2018, an increase of 29.4%, or \$2.9 million, compared to \$9.9 million in 2017. The increase was due to our continuing investment in 5G technology and product development.

Fiscal 2017 vs. 2016

R&D expenses were \$9.9 million in 2017, an increase of 15.9%, or \$1.4 million, compared to \$8.5 million in 2016. The increase was due to higher headcount to strengthen the research and development team.

#### STOCK-BASED COMPENSATION EXPENSE

The following table summarizes the stock-based compensation expense in our consolidated statement of operations:

	Years Ended December 31,		
	2018	2017	2016
	(in thousands)		
Cost of net sales	\$ 66	\$ 12	\$ 1
Selling, general and administrative	901	793	2,193
Research and development	130	61	44
Total	\$ 1,097	\$ 866	\$ 2,238

As of December 31, 2018, there was approximately \$2.0 million of total unrecognized compensation cost, as measured, related to unvested stock options and restricted stock and restricted stock units. This cost is expected to be recognized over a weighted-average period of 1.87 years.

Fiscal 2018 vs. 2017

Stock-based compensation expense was \$1.1 million in 2018, increasing 26.7%, or \$0.2 million, compared to \$0.9 million in 2017. The increase was primarily due to higher employee participation in 2018.

Fiscal 2017 vs. 2016

Stock-based compensation expense was \$0.9 million in 2017, decreasing 61%, or \$1.4 million, compared to \$2.2 million in 2016. The decrease was primarily due to the reversal of expenses related to our former CFO as a result of his resignation in 2017 and additional expenses incurred in 2016 due to the accelerated vesting of awards for our former CEO as part of his severance payment package.

OTHER INCOME (EXPENSE)

INTEREST INCOME

Fiscal 2018 vs. 2017

Interest income was \$1.7 million and \$1.2 million for 2018 and 2017, respectively. The increase in interest income for 2018 was a result of higher interest rates.

Fiscal 2017 vs. 2016

Interest income was \$1.2 million and \$0.9 million for 2017 and 2016, respectively. The increase in interest income for 2017 was a result of the increase of India term deposits.

INTEREST EXPENSE

Fiscal 2018 vs. 2017

Interest expense was \$0.1 million and \$0.1 million for 2018 and 2017, respectively. The change in interest expense for 2018 as compared to 2017 was immaterial.

Fiscal 2017 vs. 2016

Interest expense was \$0.1 million and \$0.1 million for 2017 and 2016, respectively. The change in interest expense for 2017 as compared to 2016 was immaterial.

OTHER INCOME (EXPENSE), NET

Fiscal 2018

Other expense, net was \$0.6 million for 2018. Other expenses, net for 2018 primarily consisted of a \$2.6 million loss on foreign exchange, a \$0.5 million gain from reversal of water conservancy fund in China, and a \$0.9 million gain on liquidation of subsidiary.

Fiscal 2017

Other income, net was \$3.0 million for 2017. Other income, net for 2017 primarily consisted of a \$0.6 million gain on foreign exchange and a \$1.7 million gain from cumulative translation adjustment that was recognized as a part of the liquidation of an entity.

Fiscal 2016

Other income, net was \$2.7 million for 2016. Other income, net for 2016 primarily consisted of a \$1.5 million gain on foreign exchange, \$0.8 million tax reserve reversal, and \$0.1 million realized gain from the Cortina investment.

INVESTMENT IMPAIRMENT

Fiscal 2018

Investment impairment for 2018 was \$0.4 million, decreasing 78.1%, or \$1.3 million compared to 2017. Investment impairment for 2018 relates to the investment on UTStarcom Hong Kong Holdings Ltd. Please see Note 7 to our Consolidated Financial Statements included under Part III, Item 18 of this Annual Report on Form 20-F.

Fiscal 2017

Investment impairment for 2017 was \$1.7 million, decreasing 68.3%, or \$5.3 million compared to 2016. Investment impairment for 2017 relates to the investment on AioTV. Please see Note 7 to our Consolidated Financial Statements included under Part III, Item 18 of this Annual Report on Form 20-F.

Fiscal 2016

Investment impairment for 2016 was \$5.3 million, decreasing 67.4%, or \$11.0 million compared to 2015. Investment impairment for 2016 reflects the \$4.3 million impairment on investment on AioTV, \$0.2 million impairment on SBI investment, and \$0.8 million impairment on GCT investment. Please see Note 7 to our Consolidated Financial Statements included under Part III, Item 18 of this Annual Report on Form 20-F.

EQUITY GAIN (LOSS)

Fiscal 2018

Equity losses were \$0.6 million in 2018.

In 2018, we recorded a \$0.26 million loss from our 35% equity investment in Aceland and a \$0.35 million loss from our 49% equity investment in uSTAR before we acquired 100% equity as of December 15, 2018.

Fiscal 2017

Equity losses were \$0.7 million in 2017.

We held a 35% equity interest in Aceland and 45% equity interests in AioTV. We use the equity method to account for these two investments. In 2017, we recorded a \$0.2 million loss from our investment in Aceland and a \$0.5 million loss from our investment in AioTV.

Fiscal 2016

Equity gains from Aceland were \$1.0 million in 2016.

We held a 35% equity interest in Aceland and use the equity method to account for this investment. In 2016, we recorded a \$1.0 million realized gain on foreign exchange in Aceland.

INCOME TAX EXPENSE (BENEFIT)

FASB ASC 740-10 establishes criteria for recognizing or continuing to recognize only more-likely-than-not tax positions, which may result in income tax expense volatility in future periods. While we believe that we have adequately provided for all tax positions, amounts asserted by taxing authorities could be greater than our accrued position. Accordingly, additional provisions on income tax related matters could be recorded in the future as revised

estimates are made or the underlying matters are settled or otherwise resolved.

For a full reconciliation of our effective tax rate to the U.S. federal statutory rate of 21% and further explanation of our provision for taxes, see Note 11 to our Consolidated Financial Statements included under Part III, Item 18, which is incorporated herein by reference.

#### Fiscal 2018 vs. 2017

Income tax benefit was \$0.3 million in 2018, decreasing \$1.6 million, from \$1.3 million of income tax expense in 2017. The decrease in income tax expenses in 2018 as compared with 2017 was primarily due to income tax expenses in India decreased significantly resulting from income before income taxes in India decreased significantly as well as the lower income tax rate in India for 2018. Our effective tax rate was 7.1% in 2018, compared to 15.3% in 2017, primarily due to the fluctuations of income before income taxes between the years.

#### Fiscal 2017 vs. 2016

Income tax expense was \$1.3 million in 2017, increasing \$0.5 million, from \$0.8 million of income tax expense in 2016. The increase in income tax expense in 2017 compared with 2016 was primarily due to a \$2.5 million transfer pricing reserve that was released in 2016. Our effective tax rate was 15.3% in 2017, compared to 85.6% in 2016, primarily due to the fluctuations of income before income taxes between the years.

## Net Income Attributable to UTStarcom Holdings Corp.

As a result of the foregoing, net income attributable to UTStarcom Holdings Corp. was \$4.8 million, \$7.0 million and \$0.3 million in 2018, 2017 and 2016, respectively.

## Foreign Currency Risk

See “Item 11. Quantitative and Qualitative Disclosures About Market Risk-Foreign Exchange Rate Risk” for information regarding the impact of foreign currency fluctuations on us.

## Government Policies

For information regarding governmental economic, fiscal, monetary or political policies or factors that have materially affected, or could materially affect, our operations or our shareholders’ investments, see “Item 3. Key Information-D. Risk Factors-Risks Relating to Conducting Business in China” and “Item 10. Additional Information-E. Taxation.”

## B. Liquidity and Capital Resources

The following table sets forth a summary of our cash and cash equivalent and bank note balances as of the dates indicated.

	December 31, 2018 (in thousands)	December 31, 2017	Change
Cash and cash equivalents	\$ 57,049	\$ 79,749	\$(22,700)
Restricted cash	16,651	20,937	(4,286 )
Total	\$ 73,700	\$ 100,686	\$(26,986)

The following table sets forth a summary of our cash flows for the periods indicated:

	Years Ended December 31,		
	2018	2017	2016
	(in thousands)		
Cash provided by (used in) operating activities	\$(26,106)	\$3,838	\$5,732
Cash provided by (used in) investing activities <sup>(1)</sup>	2,245	(3,877)	5,941
Cash used in financing activities	(2,424 )	(27 )	(4,400)
Effect of exchange rate changes on cash and cash equivalents	(701 )	2,112	(1,723)
Net increase (decrease) in cash, restricted cash and cash equivalents <sup>(1)</sup>	\$(26,986)	\$2,046	\$5,550

<sup>(1)</sup> We adopted ASU2016-18 in 2018, and retrospectively adjusted 2017 and 2016 balances.

Cash and cash equivalents, consisting primarily of bank deposits and money market funds, are recorded at cost which approximates fair value because of the short-term nature of these instruments. As of December 31, 2018, cash and cash equivalents of approximately \$8.9 million, \$19.5 million and \$6.0 million were held by our subsidiaries in China, Japan and the U.S., respectively.

The PRC government imposes currency exchange controls on “non-current accounts” in China. Regulations in China permit foreign owned entities to freely convert the RMB into foreign currency for transactions that fall under the “current account,” which includes trade related receipts and payments, interest and dividends. Accordingly, our PRC subsidiaries may use RMB to purchase foreign exchange for settlement of such “current account” transactions without pre-approval. However, pursuant to applicable regulations, foreign-invested enterprises in China may pay dividends only out of their accumulated profits, if any, determined in accordance with PRC accounting standards and regulations. In calculating accumulated profits, foreign investment enterprises in China are required to allocate at least 10% of their accumulated profits each year, if any, to fund certain reserve funds unless these reserves have reached 50% of the registered capital of the enterprises.

Other transactions that involve conversion of RMB into foreign currency are classified as “capital account” transactions; examples of “capital account” transactions include repatriations of investments by or loans to foreign owners, or direct equity investments in a foreign entity by a China domiciled entity. “Capital account” transactions will be examined and registered by banks in China to convert a remittance into a foreign currency, such as U.S. dollars, and transmit the foreign currency outside of China. As a result of these and other restrictions under PRC laws and regulations, our China subsidiaries are restricted in their ability to transfer a portion of their net assets to the parent.

## 2018 Cash Flows

Net cash used in operating activities during 2018 was \$26.1 million. During the year ended December 31, 2018, our operating activities were significantly affected by the following:

Net income of \$4.8 million adjusted by non-cash income items, mainly including \$2.5 million in tax provision reversals, \$0.02 million gain on disposal of assets, \$0.9 million gain on liquidation of a subsidiary, partially offset by non-cash charges, including \$0.7 million in changes in deferred income taxes, \$0.7 million of depreciation, \$0.4 million of investment impairment, \$1.1 million in share based compensation, \$0.6 million in equity losses from associates, \$0.8 million provision for doubtful accounts receivable.

Changes in operating assets and liabilities used net cash of \$31.7 million. The cash inflow included \$6.6 million from inventory and deferred cost, \$5.5 million from prepaids and other assets, \$23.2 million from account payable, offset by the cash outflow of \$44.8 million from account receivable, \$6.0 million from customer advances and \$4.9 million from deferred revenue, \$10.4 million from other liabilities, \$0.9 million from income tax payable.

Net cash provided by investing activities during 2018 was \$2.2 million, including cash inflows of \$3.1 million from proceeds of the short-term investment, partially offset by the cash outflow of \$0.2 million purchasing of property, plant and equipment and \$0.7 million of acquisition uSTAR (net of cash acquired).

Net cash used in financing activities during 2018 was \$2.4 million, consisted of \$2.5 million for repurchases of ordinary shares and \$0.1 million from proceeds from exercise of stock options. See Note 9 to our Consolidated Financial Statements included under Part III, Item 18 of this Annual Report on Form 20-F for additional discussion.

## 2017 Cash Flows

Net cash provided by operating activities during 2017 was \$3.8 million. During the year ended December 31, 2017, our operating activities were significantly affected by the following:

Net income of \$7.0 million adjusted by non-cash income items, mainly including \$1.4 million in tax provision reversals, \$1.7 million in cumulative translation adjustment release for a liquidation entity, \$1.1 million in changes in deferred income taxes, partially offset by non-cash charges, including \$0.6 million of depreciation, \$1.7 million of investment impairment, \$0.9 million in share based compensation, \$0.7 million in equity losses from associates.

Changes in operating assets and liabilities used net cash of \$2.8 million. The cash inflow included \$1.4 million from account receivable, \$1.2 million from inventory and deferred cost, \$5.2 million from account payable, \$7.1 million from other liabilities, offset by the cash outflow of \$7.3 million from prepaids and other assets, \$7.2 million from customer advances and \$3.2 million from deferred revenue.

Net cash used in investing activities during 2017 was \$3.9 million, including cash outflows of \$3.2 million to purchase short-term investments, \$0.4 million to purchase investment interests and \$0.7 million of purchasing of property, plant and equipment, partially offset by the cash inflow of \$0.5 million from proceeds from sale of investment interests.

Net cash used in financing activities during 2017 was \$0.1 million, consisted of \$0.1 million for repurchases of ordinary shares and \$0.1 million from proceeds from exercise of stock options. See Note 9 to our Consolidated



Financial Statements included under Part III, Item 18 of this Annual Report on Form 20-F for additional discussion.

#### 2016 Cash Flows

Net cash provided by operating activities during 2016 was \$5.7 million. During the year ended December 31, 2016, our operating activities were significantly affected by the following:

Net income of \$0.1 million adjusted by non-cash income items, mainly including \$3.3 million in tax provision reversals, \$0.1 million in short-term investment gain, \$1.0 million in equity income from associates, partially offset by non-cash charges, including \$1.2 million of depreciation, \$5.3 million of investment impairment, \$2.2 million in share based compensation, \$1.6 million provision for doubtful accounts receivable and \$0.8 million of changes in deferred income tax benefit.

Changes in operating assets and liabilities used net cash of \$1.1 million. The cash inflow included \$2.8 million from other assets, \$7.4 million from account payable and \$3.2 million from other liabilities, offset by the cash outflow of \$2.0 million from account receivable, \$0.2 million from inventory and deferred cost, \$0.8 million from income tax payable, \$1.1 million from customer advances and \$10.6 million from deferred revenue.

Net cash provided by investing activities during 2016 was \$5.9 million, including cash inflows of \$6.7 million from the repayment of investment in Aceland, \$0.6 million refund from SBI investment and \$0.3 million from Inphi investment, partially offset by the cash outflow of \$1.5 million of purchasing of property, plant and equipment and \$0.3 million convertible bonds issued by the AioTV.

Net cash used in financing activities during 2016 was \$4.4 million, consisted of \$4.1 million for repurchases of ordinary shares and \$0.3 million for acquisition of non-controlling interests. See Note 9 to our Consolidated Financial Statements included under Part III, Item 18 of this Annual Report on Form 20-F for additional discussion.

#### Accounts Receivable, Net

Accounts Receivable increased by \$43.8 million to \$60.7 million as of December 31, 2018 from \$16.9 million as of December 31, 2017. As of December 31, 2018, our allowance for doubtful accounts was \$2.1 million on gross receivable of \$62.8 million. The significant increase in Accounts Receivable was from India in 2018. There were \$0.1 million and nil account receivable write-offs in 2018 and 2017, respectively. Additionally, there was \$0.8 million adjustment for ASC 606 which is reflected in retained earnings at the beginning of 2018.

#### Inventories and Deferred Costs

The following table summarizes our inventories and deferred costs:

	December 31, 2018	December 31, 2017	Increase/ (Decrease)
	(in thousands)		
<b>Inventories:</b>			
Raw materials	\$ 1,665	\$ 3,610	\$ (1,945 )
Work in process	2,992	2,674	318
Finished goods	21,731	10,855	10,876
<b>Total inventories</b>	<b>\$ 26,388</b>	<b>\$ 17,139</b>	<b>\$ 9,249</b>
Short-term deferred costs	\$ 449	\$ 23,545	\$ (23,096 )
Long-term deferred costs	\$ —	\$ 277	\$ (277 )

Inventories consist of product held at our manufacturing facility and warehouses, as well as finished goods at customer sites for which the customer has taken possession, but based on specific contractual terms, title has not yet passed to the customer. Finished goods at customer sites were approximately \$14.4 million and \$10.6 million as of December 31, 2018 and 2017, respectively.

There were no significant inventory write-offs in 2018, 2017 and 2016.

Since the adoption of ASC 606 effective from January 1, 2018, deferred cost balance is insignificant amount, which is the amortized amount of post-contract customer support over a long period of time (for example, seven years) the deferred revenue and related deferred costs of goods sold over the post-contract support period.

#### LIQUIDITY

We recorded net income attributable to UTStarcom Holdings Corp. of \$4.8 million and operating income of \$4.4 million for the year ended December 31, 2018. We recorded a net income attributable to UTStarcom Holdings Corp. of \$7.0 million and an operating income of \$6.5 million for the year ended December 31, 2017. Our accumulated deficit decreased from \$1,226.2 million as of December 31, 2017 to \$1,212.8 million as of December 31, 2018.

Net cash used in operating activities was \$26.1 million in 2018, and net cash used in operating activities were \$3.8 million in 2017, respectively. As of December 31, 2018, we had cash and cash equivalents of \$57.0 million, of which \$8.9 million was held by our subsidiaries in China. The amount of cash available for transfer from the PRC subsidiaries for use by our non-PRC subsidiaries is limited both by the liquidity needs of the subsidiaries in China and by PRC-government mandated limitations including currency exchange controls on transfers of funds outside of China.

We have reduced operating expenses over the last three years, which increased R&D expenses over that period. Our management believes that the continuing efforts to stream-line our operations will enable our fixed cost base to be better aligned with operations, market demand and projected sales level. If projected sales do not materialize, we will need to take further actions to reduce costs and expenses or explore other cost reduction options. Our management believes that both our PRC and non-PRC operations will have enough liquidity to finance working capital and capital expenditure needs for more than of 12 months subsequent to the date our financial statements are issued. However, we have concentrated our business in Asia, particularly Japan, India and China. Any unforeseen prolonged economic and/or political risk in these markets could affect our customers in making their

respective investment decisions and could have a material impact on the foregoing assessment. There can be no assurance that additional financing, if required, will be available on terms satisfactory to us or at all, and if funds are raised in the future through issuance of preference shares or debt, these securities could have rights, privileges or preference senior to those of our ordinary shares and newly issued debt could contain debt covenants that impose restrictions on our operations. Further, any sale of newly issued debt or equity securities could result in additional dilution to our current shareholders.

#### C. Research and Development, Patents and Licenses

We believe that an integral part of our future success will depend on our ability to develop and enhance our services. Our product development efforts and strategies consist of incorporating new technologies from third parties as well as continuing to develop our own proprietary technology.

We have utilized and will continue to utilize the products and services of third parties to enhance our platform of technologies and services to provide competitive and diverse IP-based network solutions to our users. In addition, we plan to continue to expand our technologies, products and services through products and services developed internally. We will seek to continually improve and enhance our existing services to respond to rapidly evolving competitive and technological conditions. For the years ended December 31, 2018, 2017, and 2016, we spent \$12.7 million, \$9.9 million, and \$8.5 million, respectively, on R&D activities. R&D expenses are expensed as incurred.

#### D. Trend Information

Although we experience some seasonality typical of the telecommunications industry, such as seasonally weak first quarters, our revenues and earnings have not demonstrated consistent seasonal characteristics.

For a discussion of significant recent trends in our financial condition and results of operations, please see “Item 5. Operating and Financial Review and Prospects-A. Operating Results” and “Item 5. Operating and Financial Review and Prospects-B. Liquidity and Capital Resources.”

#### E. Off-Balance Sheet Commitments and Arrangements

As of and during the year ended December 31, 2018, we had no off balance sheet arrangements.

#### F. Contractual Obligations and Other Commercial Commitments

The following table summarizes our significant contractual obligations as of December 31, 2018:

	Payments Due by Period				
	Total	Less than 1 year	1-3 years	3-5 years	More than 5 years
	(in thousands)				
Operating leases	\$3,435	\$ 1,674	\$ 1,761	\$ —	\$ —
Outstanding Letters of credit	16,651	8,828	4,916	2,346	561
Purchase commitments	31,715	28,450	3,097	168	—
Total	\$51,801	\$38,952	\$ 9,774	\$ 2,514	\$ 561

#### Operating leases

We lease certain facilities under non-cancelable operating leases that expire at various dates in 2018 and 2021. In March 2011, we entered into the lease for a R&D and administrative office in Hangzhou, China. The lease became

effective on March 7, 2011 and expired in July 2016. In April 2013, we gave up a portion of this leased space and negotiated an early termination to the contract with respect to that portion, and paid \$0.1 million in early termination penalties. During 2014, we also gave up a portion of the lease due to its vacancy through the contractual early termination process and \$0.1 million was incurred and paid as the penalty. In July 2016, we entered into a new non-cancellable lease agreement for our office facilities in Hangzhou, China. The lease contract will be expired on July 31, 2021.

#### Letters of credit

We issue standby letters of credit primarily to support international sales activities outside of China and in support of purchase commitments. When we submit a bid for a sale, often the potential customer will require that we issue a bid bond or a standby letter of credit to demonstrate our commitment through the bid process. In addition, we may be required to issue standby letters of credit as guarantees for advance customer payments upon contract signing or performance guarantees. The standby letters of credit usually expire six to twelve months from date of issuance without being drawn by the beneficiary thereof. As of December 31, 2018, our outstanding letters of credit approximated \$16.7 million. These balances are included in the balance of Short-term restricted cash and Long-term restricted cash.

#### Purchase commitments

We are obligated to purchase raw materials and work-in-process inventory under various orders from various suppliers, all of which should be fulfilled without adverse consequences material to our operations or financial condition.

#### Intellectual property

Certain sales contracts include provisions under which customers would be indemnified by us in the event of, among other things, a third-party claim against the customer for intellectual property rights infringement related to our products. There are no limitations on the maximum potential future payments under these guarantees. We have not accrued any amounts in relation to these provisions as no such claims have been made and we believe we have valid enforceable rights to the intellectual property embedded in our products.

#### Uncertain tax positions

As of December 31, 2018, we had \$17.5 million of gross unrecognized tax benefits, of which \$0.8 million related to tax benefits that, if recognized, would affect the annual effective tax rate. The remaining \$16.6 million gross unrecognized tax benefits, if recognized, would affect certain deferred tax assets.

#### G. Safe Harbor

This Annual Report on Form 20-F contains forward-looking statements regarding future events and our future results that are subject to the safe harbors created under the Securities Act of 1933 and the Securities Exchange Act of 1934. Forward-looking statements are based on current expectations, estimates, forecasts and projections about us, our future performance and the industries in which we operate as well as on our management's assumptions and beliefs. Such statements relate to, among other things:

- our business expectations regarding contract awards and telecom carriers;
- our plan to expand our market position in IP-based and broadband products;
- our expectations regarding the growth rates and telecom capital expenditure budgets of certain geographic regions;
- our anticipation regarding the growth of China's gross domestic product;
- our plan to grow in certain geographic regions; our expectations regarding growth in certain segments, uncertainties in obtaining future contracts in India; our intention to make significant investment in research and development, or R&D;
- our expectations regarding the IPTV or Internet TV markets;
- our plans to allocate resources to Internet TV;
- our anticipation regarding our new products on the cable market;
- our expected financial results;
- our expectations about our efforts to streamline our operations, new accounting pronouncements, liquidity and access to credit facilities and cash in our China subsidiary; sufficiency of liquidity and our ability to obtain funding or sell additional securities;
- our relationships with suppliers, vendors and clients; our expectation regarding the current economic environment;
- our expectation regarding the impact of our strategy and the PRC government's policies on our financial results;
- changes in our board of directors and management;
- our expectations regarding litigation and the impact of legal proceedings and claims;
- our expectations that quarterly operating results will fluctuate from quarter to quarter; our expectations regarding competition and our ability to compete successfully in the markets for our products; our expectations regarding industry trends;



our expectations that average selling prices of our products will continue to be subject to significant pricing pressures; our expectations regarding future growth based on market acceptance of our products; our expectations regarding revenue and gross margin; our expectations regarding the growth in business and operations; our expectations regarding our multinational operations; our ability to attract and retain highly skilled employees; our plans regarding the effect of foreign exchange rates; our expectations regarding acquisitions and investments; our continued efforts relating to the protections of our intellectual property, including claims of patent infringement; our expectations regarding future impairment review of our goodwill, intangible assets, and other long-lived assets; our expectations regarding costs of complying with environmental, health and safety laws; our expectations regarding defects in our products; our expectations regarding the effectiveness of our internal control over financial reporting; our estimations regarding stock-based compensation; our plans regarding cash dividends; and our expectations regarding our facilities and the sufficiency of our facilities. Statements that contain words like “expects,” “anticipates,” “may,” “will,” “targets,” “projects,” “intends,” “plans,” “believes,” “estimates,” or variations of such words and similar expressions are also forward-looking statements.

Readers are cautioned that these forward-looking statements are only predictions and are subject to risks and uncertainties related to, among other things, our ability to execute on our business plan and implement certain restructuring actions, China’s control of currency exchanges, ongoing litigation, our ability to introduce and deploy IP-based technologies and products, our ability to satisfy certain security and supply chain standards in India, impact of economic and/or political risks in Asia on our customers’ investment decisions, the number of competitors and the composition of competitors, additional warranty expense and inventory reserves, availability of future financing, our ability to manage our resources and other items discussed in Part I, “Item 3. Key Information-D. Risk Factors” of this Annual Report on Form 20-F. Therefore, actual results may differ materially and adversely from those expressed in any forward-looking statements. We do not guarantee future results, and actual results, developments and business decisions may differ from those contemplated by the forward-looking statements. We undertake no obligation to update these forward-looking statements to reflect events or circumstances occurring after the date of this Form 20-F.

## ITEM 6-DIRECTORS, SENIOR MANAGEMENT AND EMPLOYEES

### A. Directors and Senior Management

The following table sets forth information about our directors and executive officers as of the date of this annual report. The business address of all of our directors and executive officers is Level 6, 28 Hennessy Road, Admiralty, Hong Kong.

Name	Age	Position
Tim Ti	54	Chief Executive Officer and Board Director
Zhaochen Huang	56	Chief Operating Officer
Eric Lam	69	Vice President, Finance
Steven Chen	46	Senior Vice President, Product Development
Himanshu Shah	53	Chairman of Board of Directors
Wendong Zhang	42	Independent Director
Hong Liang Lu	65	Independent Director
Sean Shao	62	Independent Director

### Biographical Information



Tim Ti has served as our Chief Executive Officer since January 2016, and as a director of the Board since November 2016. Mr. Ti brings more than twenty years of business and management expertise to the Company. Mr. Ti previously served as the CEO of Virtual Gateway Labs, Inc., a subsidiary of UTStarcom. Prior to that, Mr. Ti served various roles at UTStarcom, including Senior Vice-President of Advanced Network Architecture Technologies, Senior Vice-President of Research & Development, and General Manager of the Broadband Business Unit. Before joining UTStarcom, Mr. Ti was the Director of Application & Marketing of Advanced Communication Devices Corporation, which was acquired by UTStarcom in 2001. He received a Master of Science degree in Computer Engineering from Santa Clara University in 1993.

Dr. Zhaochen Huang has served as our Chief Operating Officer since January 2016. Dr. Huang brings more than twenty-five years of business and management expertise to the Company. He previously served as the Vice-President, Global Operations, at UTStarcom and General Manager of UTStarcom India. Prior to that, Dr. Huang served various positions at Soliton Systems, K.K. including General Manager of Soliton Systems USA and VP of Research and Development of Soliton Systems Shanghai. Prior to that, Dr. Huang served at SECOM Co., LTD. and Nanjing Institute of Solid Device. He received a Doctor of Engineer's degree in Electrical and Electronics from Tokyo Institute of Technology.

Eric Lam is Vice President of Finance responsible for overseeing UTStarcom's global finance and accounting function since October, 2016. During his previous tenure with UTStarcom, he has held various senior financial management positions supporting sales and global supply chain operations. Prior to rejoining UTStarcom, Eric served as a special advisor to Shanghai Phicomm Communications. His professional career includes senior financial and operational management positions with The Gillette Company, Hewlett Packet Corporation, China Light and Power and other multinationals, as well as, start-up companies. Eric has multi-faceted global and international experience spanning the high technology, semi-conductor, energy, consumer products and defense industries. Eric was educated in the United States, earning a bachelor's degree from Tufts University and a master's in business administration degree from Columbia Business School.

Steven Chen has more than twenty years of experience in the telecom industry. Mr. Chen currently serves as Senior Vice President of Product & Technology and has led the function since May, 2016. Previously he served various management roles in product management, marketing and R&D. Before joining UTStarcom in 2003, Mr. Chen served as leader of product marketing and technical at Hangzhou ECI Telecommunication Co. Ltd. He received an MBA degree from Zhejiang University in 2009 and a Bachelor of System Engineering from Xiamen University in 1995.

Himanshu H. Shah has served as our Chairman of the board since June 2014 and Director of the board since November 2013. Mr. Shah is the Founder President and Chief Investment Officer of Shah Capital since January 2005 and a managing general partner of Shah Capital Opportunity Fund LP since July 2006. Previously, he was a VP and Senior Portfolio Manager at UBS Financial Services. He has over 27 years of investing experience in global capital markets including providing strategic counsel to numerous public companies. Mr. Shah is an Executive Chairman of Marius Pharmaceuticals, a private pharmaceuticals company based in Raleigh.. He is a Director of the Board of Vitamin Shoppe, Inc, US based retailer of nutritional supplements, since April 2018. Mr. Shah received a Bachelor of Commerce in 1987 from Gujarat University, India and an MBA in 1991 from the University of Akron, Ohio.

Wendong Zhang has served as the director since November, 2017. Ms. Zhang received an MBA degree from the Graduate University of Chinese Academy of Sciences. She earned a Bachelor degree in Economics at Minzu University of China. Ms. Zhang is experienced in the areas of investment and financial management, strategic management and organization restructuring. Since 2018, she has been the deputy general manager of Beijing E-town International Investment & Development Co., Ltd., as well as to the leaders of its subsidiaries. Before that, she had various management roles at Beijing E-town, Orient Cultural Asset Management Co., Ltd. and Sheng Andi Investment Management Consulting Co., Ltd.

Hong Liang Lu has served as our director since June 1991. Mr. Lu served as Chairman of the Board from March 2003 to December 2006 and from July 2008 to August 2009. From June 1991 until July 2008, Mr. Lu served as our Chief Executive Officer and from June 1991 until July 2007 he also served as our President. In June 1991, Mr. Lu cofounded UTStarcom, Inc. under its prior name, Unitech Telecom, Inc., which subsequently acquired StarCom Network Systems, Inc. in September 1995. From 1986 through December 1990, Mr. Lu served as President and Chief Executive Officer of Kyocera Unison, a majority-owned subsidiary of Kyocera International, Inc. Mr. Lu served as President and Chief Executive Officer of Unison World, Inc., a software development company from 1983 until its merger with Kyocera in 1986. From 1979 to 1983, Mr. Lu served as Vice President and Chief Operating Officer of

Unison World, Inc. Mr. Lu holds a B.S. in Civil Engineering from the University of California at Berkeley.

Sean Shao currently serves as independent director and chairman of the audit committee of: 21Vianet Group, Inc., a carrier-neutral internet data center services provider listed on NASDAQ since August 2015; Jumei International Holding Ltd., an e-commerce company listed on NYSE since May 2014; LightInTheBox Holdings Co. Ltd., an e-commerce company listed on NYSE since June 2013; UTStarcom Holdings Corp., a provider of broadband equipment and solutions listed on NASDAQ since October 2012 and China Biologic Products, Inc., a biopharmaceutical company listed on NASDAQ since July 2008. He served as the chief financial officer and a Board member of Trina Solar Limited from 2006 to 2008 and from 2015 to 2017, respectively. In addition, Mr. Shao served from 2004 to 2006 as the chief financial officer of ChinaEdu Corporation, an educational service provider, and of Watchdata Technologies Ltd., a Chinese security software company. Prior to that, Mr. Shao worked at Deloitte Touche Tohmatsu CPA Ltd. for approximately a decade. Mr. Shao received his master's degree in health care administration from the University of California at Los Angeles in 1988 and his bachelor's degree in art from East China Normal University in 1982. Mr. Shao is a member of the American Institute of Certified Public Accountants.

#### Relationships among Directors or Executive Officers; Right to Nominate Directors

There are no family relationships among any of our directors or executive officers. There are also no arrangements or understandings with any person pursuant to which any of our directors or executive officers were selected, except with respect to the selection of the director nominee designated by BEIID. See "Item 6. Directors, Senior Management and Employees-C. Board Practices."

## B. Compensation

### Compensation of Directors and Executive Officers

In 2018, we paid an aggregate of \$2,483,310 in cash compensation and granted 374,984 restricted shares under our 2017 Plan to our directors and executive officers. In 2017, we paid an aggregate of \$1,796,374 in cash compensation and granted 46,473 restricted shares under our 2017 Plan to our directors and executive officers.

### Equity Incentive Plan

On November 4, 2016, our board of directors approved our 2017 Equity Incentive Plan, or the 2017 Plan. The 2017 Plan provides for the grant of the following types of incentive awards: (i) stock options, (ii) stock appreciation rights, (iii) restricted stock, (iv) restricted stock units, (v) performance shares and performance units, and (vi) other stock or cash awards. Those who are eligible for awards under the 2017 Plan include employees, directors and consultants who provide services to us and our affiliates.

The 2006 Equity incentive plan expired on December 31, 2016, and as of December 31, 2018, 1,583,278 ordinary shares available for grant under this plan were transferred to the 2017 equity incentive plan.

As of December 31, 2018, 1,512,623 shares underlying options and restricted stock awards and units were outstanding.

The following table summarizes significant ranges of outstanding and exercisable stock options as of December 31, 2018:

Range of Exercise Prices	Number of shares Outstanding as of 12/31/2018	Weighted Average Remaining Contractual Term	Weighted Average Exercise Price	Number of shares Exercisable as of 12/31/2018	Weighted Average Exercise Price
\$ 2.24 - \$ 2.24	206,450	4.08	\$ 2.24	73,150	\$ 2.24

As of December 31, 2018, we had total unvested restricted stock awards of approximately 1.31 million shares, with a weighted average grant date fair value of \$2.94.

## C. Board Practices

Our board of directors currently consists of five directors. We believe that most of the non-executive members of our board of directors are an “independent directors” as that term is used in the NASDAQ corporate governance rules.

No shareholder has the contractual right to designate persons to be elected to our board of directors except BEIID. In accordance with the Stockholders Rights Agreement we entered into as of February 1, 2010 with BEIID, Ms. Wendong Zhang has been appointed to our Board as the nominee of BEIID and as a Class II Director to serve on each committee of our board of directors. Notwithstanding the forgoing, our amended and restated memorandum and articles of association provide that directors will be elected upon a resolution passed at a duly convened shareholders meeting by holders of a majority of our outstanding shares being entitled to vote in person or by proxy at such meeting, to hold office until the expiration of their respective terms. There is no minimum shareholding or age limit requirement for qualification to serve as a member of our board of directors.

We have a staggered board that is divided into three classes, designated as Class I, consisting of two directors, Class II, consisting of one director, and Class III, consisting of two directors, with no more than one class eligible for reelection at any annual shareholder meeting, or AGM. The terms of our Class I and Class II directors and Class III will expire on the date of our next AGM. The division of our board of directors into three classes with staggered three-year terms may delay or prevent a change of our management or a change in control. For information regarding when each of our current directors became a member of our board of directors, please see “Item 6. Directors, Senior Management and Employees-A. Directors and Senior Management.”

#### Board Committees and Related Functions

The principal standing committees of the board of directors are the Audit Committee, the Compensation Committee and the Nominating and Corporate Governance Committee. We have adopted a charter for each of these committees. Each committee’s members and functions are described below.

#### Audit Committee

Our Audit Committee consists of Sean Shao, Hong Liang Lu and Wendong Zhang, each of whom meets the independence standards of NASDAQ and the SEC. Sean Shao is the Chairman of our Audit Committee. Members of our Audit Committee meet the criteria for “independence” set forth in rule 10A-3(b)(1) under the Securities Exchange Act of 1934, as amended, and the listing standards of the NASDAQ Stock Market; have not participated in the preparation of the consolidated financial statements of

UTStarcom or any of its current subsidiaries at any time during the past three years; and are able to read and understand fundamental financial statements, including a company's balance sheets, income statements, statement of shareholder's equity and statements of cash flow. Mr. Shao has been determined by the board of directors to qualify as an "audit committee financial expert" under applicable SEC and NASDAQ rules. The Audit Committee oversees our accounting and financial reporting processes and the audits of the financial statements of our Company. The Audit Committee, among other duties and responsibilities:

- reviews and approves the annual appointment of our independent registered public accounting firm;
  - discusses and reviews in advance the scope and fees of the annual audit;
- reviews the results of the audit with the independent registered public accounting firm and discusses the foregoing with our management;
- reviews and approves non-audit services of the independent registered public accounting firm;
- reviews compliance with our existing major accounting and financial reporting policies;
- review the quality, adequacy and effectiveness of the internal controls and any significant deficiencies or material weaknesses in internal controls;
- reviews and approves all related party transactions that would require disclosure pursuant to the rules of the SEC and the policies and procedures related to such transactions; and
- provides oversight and monitoring of our management and their activities with respect to our financial reporting process.

#### Compensation Committee

Our Compensation Committee consists of Hong Liang Lu, Wendong Zhang and Sean Shao. Hong Liang Lu is the Chairman of our Compensation Committee. The Compensation Committee, among other duties and responsibilities:

- approves and oversees the total compensation package for our executives, including their base salaries, incentives, deferred compensation, equity-based compensation, benefits and perquisites;
- reviews and approves corporate goals and objectives relevant to the compensation of our Chief Executive Officer, or the CEO, evaluate CEO performance, and determine CEO compensation based on this evaluation, (iii) review the CEO's performance evaluation of all executive officers and approve pay decisions, (iv) review periodically and make recommendations to the board of directors regarding any equity or long-term compensation plans; and
- administer these plans.

#### Nominating and Corporate Governance Committee

Our Nominating and Corporate Governance Committee consists of Hong Liang Lu, Wendong Zhang and Sean Shao, each of whom meets the independence standards of NASDAQ and the SEC. Hong Liang Lu is the Chairman of our Nominating and Corporate Governance Committee. The Nominating and Corporate Governance Committee's responsibilities include the selection of director nominees for the Board and the development and annual review of our governance principles. The Nominating and Corporate Governance Committee, among other duties and responsibilities:

- assists the Board by actively identifying individuals qualified to become Board members;
- recommends director nominees to the board of directors for election at the next annual meeting of shareholders;
- recommends chairs and members of each committee to the board of directors;
- monitors significant developments in the law and practice of corporate governance and of the duties and responsibilities of directors of public companies;
- leads the board of directors in its annual performance self-evaluation, including establishing criteria to be used in connection with such evaluation;
- reviews Board compensation and recommends to the board of directors any changes in Board compensation;

- oversees compliance with our Code of Business Conduct and Ethics; and
- develops and recommends to the Board and administers our corporate governance guidelines.

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## Duties of Directors

In summary, our directors and officers owe the following fiduciary duties under Cayman Islands law:

- duty to act in good faith in what the directors believe to be in the best interests of our company as a whole;
- duty to exercise powers for the purposes for which those powers were conferred and not for a collateral purpose;
- directors should not properly fetter the exercise of future discretion;
- duty to exercise powers fairly as between different sections of shareholders;
- duty not to put themselves in a position in which there is a conflict between their duty to our company and their personal interests; and
- duty to exercise independent judgment.

In addition to the above, directors also owe a duty of care which is not fiduciary in nature. This duty has been defined as a requirement to act as “a reasonably diligent person” having both:

- the general knowledge, skill and experience that may reasonably be expected of a person carrying out the same functions as are carried out by that director in relation to our company; and
- the general knowledge skill and experience which that director has.

As set out above, directors have a duty not to put themselves in a position of conflict and this includes a duty not to engage in self-dealing, or to otherwise benefit as a result of their position. However, in some instances what would otherwise be a breach of this duty can be forgiven and/or authorized in advance by the shareholders provided that there is full disclosure by the directors. This can be done by way of permission granted in the memorandum and articles of association or alternatively by shareholder approval at general meetings.

## Shareholder Suits

Our Cayman Islands counsel is not aware of any reported class action having been brought in a Cayman Islands court. Derivative actions have been brought in the Cayman Islands courts, and the Cayman Islands courts have confirmed the availability for such actions. In most cases, we will be the proper plaintiff in any claim based on a breach of duty owed to us, and a claim against (for example) our officers or directors usually may not be brought by a shareholder. However, based on English authorities, which would in all likelihood be of persuasive authority and be applied by a court in the Cayman Islands, exceptions to the foregoing principle apply in circumstances in which:

- a company is acting, or proposing to act, illegally or beyond the scope of its authority;
- the act complained of, although not beyond the scope of the authority, could be effected if duly authorized by more than the number of votes which have actually been obtained; or
- those who control our company are perpetrating a “fraud on the minority.”

Our shareholder may have a direct right of action against us where the individual rights of that shareholder have been infringed or are about to be infringed.

## Indemnification Agreements

We have entered into indemnification agreements with each of our directors and executive officers that generally require that we indemnify and hold an indemnitee harmless to the fullest extent permitted by law for liabilities arising out of the indemnitee’s current or past association with us, any of our subsidiaries or another entity where he or she is or was serving at our request as a director or officer or in a similar capacity that involves services with respect to any employee benefit plan.

## D. Employees



As of December 31, 2018, we had approximately 461 full-time employees worldwide. From time to time, we also employ part-time employees and hire contractors. Our employees are not represented by any collective bargaining agreement and we have never experienced a work stoppage. We believe that we have good employee relations. During 2018 and 2017, we adopted a series of restructuring initiatives targeted at retaining to profitability, as a result of which, we reduced our headcount from 481 in 2017 to 461 in 2018. However, during 2018, the headcount was 461, which was mainly due to investment in business development.

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The following table sets forth information regarding our staff as of December 31, 2018:

Manufacturing and supply chain	150
Research and development	162
Marketing, sales and support	104
Administration and other support	45
Total	461

#### E. Share Ownership

The following table sets forth certain information with respect to beneficial ownership of our ordinary shares as of March 31, 2018 by:

- Each current director;
- Each current executive officer;
- All of our current directors and executive officers as a group; and
- Each person who is known to us to beneficially own more than 5% of our ordinary shares.

The percentage of shares beneficially owned and votes held by each listed person is based upon 35,616,335 ordinary shares outstanding as of March 31, 2019 together with options that are exercisable within 60 days from March 31, 2019 and shares issuable upon vesting of restricted shares within 60 days from March 31, 2019 for each shareholder. Beneficial ownership is determined in accordance with the rules of the SEC.

Name and Address of Beneficial Owner(1)	Shares Beneficially Owned (2)	Percent of Total Outstanding (2)	
<b>Directors and Executive Officers</b>			
Tim Ti	*	*	
Zhaocheng Huang	*	*	
Eric Lam	*	*	
Xiaofeng Chen	*	*	
Wendong Zhang	—	—	
Hong Liang Lu <sup>(4)</sup>	1,158,300	3.3	%
Sean Shao	*	*	
Himanshu Shah <sup>(5)</sup>	8,041,000	22.6	%
All current directors and executive officers as a group	10,327,938	29.0	%
<b>Principal Shareholders</b>			
Entities affiliated with Himanshu Shah and Shah Capital Management <sup>(5)</sup>	8,041,000	22.6	%
The Smart Soho International Limited <sup>(3)</sup>	5,000,000	14.0	%
E-Town International Holding (Hong Kong) Co. Limited <sup>(6)</sup>	3,787,878	10.6	%
Tonghao (Cayman) Limited	3,500,000	9.8	%
Talent Transmission, Ltd. <sup>(3)</sup>	2,718,758	7.6	%

\*Less than 1%

(1)

Unless otherwise indicated, the address for all beneficial owners is c/o 4th Floor, South Wing, 368 Liuhe Road, Binjiang District, Hangzhou, P.R. China.

<sup>(2)</sup>The percentage of beneficial ownership was calculated based on the total number of our ordinary shares outstanding as of March 31, 2019. Beneficial ownership is determined in accordance with the rules of the SEC and generally includes voting power or investment power with respect to securities. Shares subject to options which are exercisable within 60 days of March 31, 2019 and shares underlying restricted share units that will vest within 60 days of March 31, 2019 are deemed to be outstanding and to be beneficially owned by the person holding such options or restricted share units for the purpose of computing the percentage ownership of such person, but are not deemed to be outstanding and to be beneficially owned for the purpose of computing the percentage ownership of any other person. The number of shares beneficially owned has been adjusted to reflect our one-for-three reverse splits effected on March 21, 2013.

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- (3) Shares information was from the latest available 13D on SEC website.
- (4) Includes (i) 801,828 Ordinary Shares, (ii) 26,925 Ordinary Shares registered in the name of Lu Charitable Remainder Trust, of which Mr. Lu is the trustee, (iii) 16,408 Ordinary Shares registered in the name of the Lu Family Trust, of which Mr. Lu is a trustee and of which Mr. Lu and his spouse are beneficiaries, (iv) 76,304 Ordinary Shares registered in the name of The Lu Family Limited Partnership, of which Mr. Lu is a general partner, (v) 10,000 Ordinary Shares registered in Hong Lu Traditional IRA, and (vi) 226,835 Ordinary shares registered in Hong Lu and Lucy Lu JTWROS.
- (5) Includes 8,041,000 Ordinary Shares owned by Shah Capital Opportunity Fund. Shah Capital management is the investment manager of Shah Capital Opportunity Fund. Mr. Shah is the president and chief investment officer of Shah Capital Management. The address of the principal business office of Shah Capital and Shah Capital Opportunity Fund L.P. is 8601 Six Forks Road, Suite 630, Raleigh, NC 27615, USA.
- (6) Information based on Schedule 13D, Amendment No. 1, jointly filed with the SEC on October 1, 2010 by E-Town and BEIID. As the parent company of E-Town (Hong Kong), BEIID has the power to direct the vote of the 11,363,636 (or 3,787,878 after reverse share split) shares and the disposition of the shares of 11,363,636 (or 3,787,878 after reverse share split) held by E-Town. The address of the principal business office of BEIID and E-Town is 23th-25<sup>th</sup> Floor, Tower A, Yicheng Fortune Center No. 22, Ronghua Middle Road, Beijing Economic-Technological Development Area, Beijing, PRC.

None of the shareholders known by us to beneficially own 5% or more of our outstanding shares as of March 31, 2018, have voting rights that are different from the voting rights of our other shareholders.

To our knowledge, except as disclosed above, we are not owned or controlled, directly or indirectly, by another corporation, by any foreign government or by any other natural or legal person or persons, severally or jointly.

To our knowledge, there are no arrangements the operation of which may at a subsequent date result in us undergoing a change in control.

As of March 31, 2019, our directors and executive officers held options to purchase an aggregate of 139,800 ordinary shares under our existing equity incentive plans. The per share exercise prices of these options held by our directors and executive officers were \$2.24 and the expiration date of such options was on January 29, 2023. In addition, as of Mar 31, 2019, our directors and executive officers held 173,925 restricted shares, 297,897 restricted share units and 615,289 performance stock units issuable upon vesting.

## ITEM 7-MAJOR SHAREHOLDERS AND RELATED PARTY TRANSACTIONS

### A. Major Shareholders

Please refer to “Item 6. Directors, Senior Management and Employees-E. Share Ownership.”

### B. Related Party Transactions

In 2016, we paid \$0.2 million to Tim Ti, the Chief Executive Officer of the Company, for remuneration for service to Virtual Gateway Labs, Inc..

### C. Interests of Experts and Counsel

Not Applicable.

## ITEM 8-FINANCIAL INFORMATION

### A. Consolidated Statements and Other Financial Information

See “Item 18. Financial Statements” for our audited consolidated financial statements filed as part of this Annual Report on Form 20-F.

#### Legal Proceedings

We are currently not a party to any material legal or administrative proceedings, and we are not aware of threatened material legal or administrative proceedings against us. We may from time to time become a party to various legal or administrative proceedings arising in the ordinary course of our business.

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## Dividend Policy

To date, we have not paid any cash dividends on our ordinary shares. We currently anticipate that we will retain any available funds to finance the growth and operation of our business and we do not anticipate paying any cash dividends in the foreseeable future. Certain present or future agreements may limit or prevent the payment of dividends on our ordinary shares. Additionally, our cash held in countries outside the United States may be subject to certain control limitations or repatriation requirements, limiting our ability to use this cash to pay dividends. Please refer to the discussion in “Item 5. Operating and Financial Review and Prospects-B. Liquidity and Capital Resources.”

## B. Significant Changes

We have not experienced any significant changes since the date of our audited consolidated financial statements included in this Annual Report on Form 20-F.

## ITEM 9-THE OFFER AND LISTING

### A. Offer and Listing Details

The following table sets forth the highest and lowest sale prices per share of our ordinary shares following the Merger and of UTStarcom, Inc.’s common stock prior to the Merger, as reported on NASDAQ for the periods indicated. The sale prices per share set forth below have been adjusted to reflect our one-for-three reverse share split effected on March 21, 2013.

	High	Low
<b>Annual highs and lows</b>		
2014	\$3.58	\$2.42
2015	\$3.06	\$1.60
2016	\$2.49	\$1.66
2017	\$6.51	\$1.69
2018	\$6.50	\$2.59
<b>Quarterly highs and lows</b>		
Second Quarter 2017	\$2.34	\$1.94
Third Quarter 2017	\$2.40	\$1.97
Fourth Quarter 2017	\$6.51	\$2.30
First Quarter 2018	\$6.50	\$4.66
Second Quarter 2018	\$5.16	\$3.96
Third Quarter 2018	\$4.14	\$3.35
Fourth Quarter 2018	\$3.98	\$2.59
First Quarter 2019	\$4.11	\$2.70
<b>Monthly highs and lows</b>		
September 2018	\$3.96	\$3.43
October 2018	\$3.98	\$3.45
November 2018	\$3.82	\$3.28
December 2018	\$3.62	\$2.59
January 2019	\$3.48	\$2.70
February 2019	\$4.11	\$3.33
March 2019	\$3.99	\$3.67

B. Plan of Distribution

Not Applicable.

C. Markets

Our ordinary shares are traded on NASDAQ under the ticker symbol "UTSI," under which UTStarcom, Inc.'s common stock has traded since its initial public offering on March 2, 2000.

D. Selling Shareholders

Not Applicable.

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E. Dilution

Not Applicable.

F. Expenses of the Issue

Not Applicable.

ITEM 10-ADDITIONAL INFORMATION

A. Share Capital

Not Applicable.

B. Memorandum and Articles of Association

Our amended and restated memorandum and articles of association, as amended, are filed herein with this Annual Report on 20-F as Exhibit 1.1.

C. Material Contracts

We have not entered into any material contracts other than in the ordinary course of business and other than those described in “Item 4. Information on the Company” or elsewhere in this Annual Report on 20-F.

D. Exchange Controls

Currency exchange control and government restrictions on dividends may impact our ability to transfer funds outside of the China and India

A significant portion of our business is conducted in China where the currency is the RMB and in India where the currency is the INR. Regulations in China and India permit foreign owned entities to freely convert the RMB or INR into foreign currency for transactions that fall under the “current account,” which includes trade related receipts and payments, interest and dividends. Accordingly, our PRC or Indian subsidiaries may use RMB or INR to purchase foreign exchange for settlement of such “current account” transactions without pre-approval. However, pursuant to applicable regulations in China, foreign-invested enterprises in China may pay dividends only out of their accumulated profits, if any, determined in accordance with PRC accounting standards and regulations. In calculating accumulated profits, foreign investment enterprises in China are required to allocate at least 10% of their realized profits each year, if any, to fund certain reserves, until these reserves have reached 50% of the registered capital of the enterprises.

Transactions other than those that fall under the “current account” and that involve conversion of RMB or INR into foreign currency are classified as “capital account” transactions; examples of “capital account” transaction include repatriations of investment by or loans to foreign owners, or direct equity investments in a foreign entity by a China domiciled entity. In China, “capital account” transactions will be examined and registered by banks or State Administration of Foreign Exchange (“SAFE”) in China to convert a remittance into a foreign currency, such as U.S. dollars, and transmit the foreign currency outside of China. In India, “capital account” transactions will be examined and approved by the Reserve Bank of India (“RBI”) to convert INR into a foreign currency, such as U.S. dollars, and transmit the foreign currency outside of India.

The foreign exchange control system in China or India could be changed at any time and any such change may affect the ability of us or our subsidiaries in China or India to repatriate capital or profits, if any, outside China or India. Furthermore, SAFE, RBI or other governmental authorities have a significant degree of administrative discretion in implementing the laws and regulations and has used this discretion to limit convertibility of “current account” payments out of China or India. Whether as a result of a deterioration in the PRC or India balance of payments, a shift in the PRC or Indian macroeconomic prospects or any number of other reasons, China or India could impose additional



restrictions on capital remittances abroad. As a result of these and other restrictions under the laws and regulations of the PRC or India, our PRC or India subsidiaries are restricted in their ability to transfer a portion of their net assets to the parent. We have no assurance that the relevant PRC or Indian governmental authorities in the future will not limit further or eliminate the ability of our PRC or Indian subsidiaries to purchase foreign currencies and transfer such funds to us to meet our liquidity or other business needs. Any inability to access funds in China or India, if and when needed for use by us outside of China or India, could have a material and adverse effect on our liquidity and our business.

#### E. Taxation

The following summary of the material Cayman Islands, People's Republic of China and United States federal income tax consequences of an investment in our ordinary shares is based upon laws and relevant interpretations thereof in effect as of the date of this Annual Report on Form 20-F, all of which are subject to change. This summary does not address all possible tax consequences relating to an investment in our ordinary shares, such as the tax consequences under state, local and other tax laws.

##### Cayman Islands Taxation

The Cayman Islands Government (or any other taxing authority in the Cayman Islands) currently does not levy taxes on individuals or corporations based upon profits, income, gains or appreciation, and there is no taxation in the Cayman Islands in the nature of inheritance tax or estate duty. There are no other taxes that are likely to have a material impact on us that may be levied by the Government of the Cayman Islands except for stamp duty which may be applicable on instruments executed in, or brought within the jurisdiction of the Cayman Islands. No stamp duties or other similar taxes or charges are payable under the laws of the Cayman Islands in respect of the execution or delivery of any of the documents relating the proposed merger or the performance or enforcement of any of them, unless they are executed in or thereafter brought within the jurisdiction of the Cayman Islands for enforcement purposes or otherwise. There are no exchange control regulations or currency restrictions in the Cayman Islands.

##### People's Republic of China Taxation

The New EIT Law, and the implementation regulations for the New EIT Law issued by the PRC State Council, became effective as of January 1, 2008. The New EIT Law provides that enterprises established outside of China whose "de facto management bodies" are located in China are considered "resident enterprises" and are generally subject to the uniform 25% corporate income tax rate as to their worldwide income. Under the implementation regulations for the New EIT Law issued by the PRC State Council, a "de facto management body" is defined as a body that has material and overall management and control over the manufacturing and business operations, personnel and human resources, finances and treasury, and acquisition and disposition of properties and other assets of an enterprise. In April 2009, the SAT released Circular 82. Under Circular 82, a foreign enterprise "controlled by a PRC enterprise or a PRC enterprise group" will be considered as a resident enterprise if all of the following conditions are satisfied: (i) the senior management personnel responsible for its daily operations and the place where the senior management departments discharge their responsibilities are located primarily in the PRC; (ii) its finance and human resources related decisions are made by or are subject to the approval of institutions or personnel located in the PRC; (iii) its major assets, books and records, company seals and minutes of its board of directors and shareholder meetings are located or kept in the PRC; and (iv) senior management personnel or 50% or more of the members of its board of directors with voting power of the enterprise reside in the PRC.

On September 1, 2011, the SAT issued Circular 45, to further prescribe the rules concerning the recognition, administration and taxation of a foreign enterprise "controlled by a PRC enterprise or PRC enterprise group." Currently we are not recognized as a PRC resident enterprise, but there is a risk that we may be recognized by the PRC tax authorities as a PRC resident enterprise. Pursuant to Circular 45, if we are recognized as a PRC resident enterprise, our worldwide income may be subject to enterprise income tax in China at a rate of 25%, and we would be required to file provisional enterprise income tax returns quarterly and complete an annual settlement before May 31 of each year for the preceding year at the in-charge tax bureau. Further, we would be obliged to withhold the enterprise income tax when we distribute dividends to non-resident enterprise holders of our ordinary shares, and the individual income tax when we distribute dividends to non-resident individual holders of our ordinary shares. Under the New EIT Law and implementation regulations issued by the State Council, PRC income tax at the rate of 10% is applicable to dividends payable to investors that are "non-resident enterprises," which do not have an establishment or place of business in the PRC, or which have such establishment or place of business but the relevant income is not effectively connected with

the establishment or place of business, and PRC income tax at the rate of 20% is applicable to dividends payable to the investors that are “non-resident individuals,” subject to the provision of any applicable agreement for the avoidance of double taxation and to the extent such dividends have their sources within the PRC.

Circular 45 further clarifies that the capital gains derived by the non-resident enterprises from the alienation of shares of the foreign-incorporated resident enterprise are considered as China-sourced income. Under the New EIT Law and implementation regulations issued by the PRC State Council, non-resident enterprise holders of our ordinary shares may be subject to enterprise income tax in China at a rate of 10% on the capital gains derived from the transfer of our ordinary shares. Non-resident individual holders of our ordinary shares may be subject to PRC income tax at a rate of 20% on the capital gains derived from the transfer of our ordinary shares to the extent such capital gains are considered as China-sourced income.

For a discussion of the PRC tax consequences of an investment in our ordinary shares, see “Item 3. Key Information-D. Risk Factors-Risks Relating to Conducting Business in China-Under the Enterprise Income Tax Law, or the EIT Law”, we may be classified as a “resident enterprise” of the PRC, which could result in unfavorable tax consequences to us and to non-PRC shareholders.

## U.S. Federal Income Taxation

The following discussion describes material U.S. federal income tax consequences to U.S. Holders and Non-U.S. Holders (each as defined below) of an investment in our ordinary shares. This discussion applies only to investors that hold the ordinary shares as capital assets and, in the case of U.S. Holders, that have the U.S. dollar as their functional currency. This discussion is based on the tax laws of the United States, including the U.S. Internal Revenue Code of 1986, as amended, or the Code, U.S. Treasury regulations in effect, or, in some cases, proposed, as of the date of this Annual Report, as well as judicial and administrative interpretations thereof available on or before such date. All of the foregoing authorities are subject to change, which change could apply retroactively and could affect the tax consequences described below.

The following discussion does not deal with the tax consequences to any particular investor or to persons in special tax situations, including, without limitation:

- banks and certain other financial institutions;
- dealers in securities or currencies;
- insurance companies, regulated investment companies and real estate investment trusts;
- brokers and/or dealers;
- traders that elect the mark-to-market method of accounting;
- tax-exempt entities;
- expatriates or entities subject to the U.S. anti-inversion rules;
- persons liable for alternative minimum tax;
- persons holding ordinary shares as part of a straddle, hedging, constructive sale, conversion transaction or integrated transaction;
- persons holding ordinary shares through a bank, financial institution or other entity, or a branch thereof, located, organized or resident outside the United States;
- persons who acquired ordinary shares through the exercise of an employee stock option or otherwise as compensation;
- persons that actually or constructively own 10% or more of our voting stock; or
- persons holding ordinary shares through partnerships or other pass-through entities.

**(YOU SHOULD CONSULT YOUR OWN TAX ADVISORS ABOUT THE APPLICATION OF THE U.S. FEDERAL INCOME TAX RULES TO THEIR PARTICULAR CIRCUMSTANCES AS WELL AS ANY TAX CONSEQUENCES TO THEM OF THE PURCHASE, OWNERSHIP AND DISPOSITION OF ORDINARY SHARES ARISING UNDER THE FEDERAL ESTATE OR GIFT TAX LAWS OR THE LAWS OF ANY STATE, LOCAL OR NON-U.S. JURISDICTION AND UNDER ANY APPLICABLE TAX TREATY.)**

If a partnership (including any entity treated as a partnership for U.S. federal income tax purposes) holds ordinary shares, the tax treatment of a partner in such partnership will depend on the status of the partner and the activities of the partner and the partnership. If you are a partnership holding ordinary shares, or a partner in such a partnership, you should consult your own tax advisors.

## Treatment of the UTStarcom as a U.S. Corporation for U.S. Federal Income Tax Purposes

Although UTStarcom is organized as a Cayman Islands corporation, we have been treating UTStarcom as a U.S. corporation for U.S. federal income tax purposes pursuant to Section 7874 of the Code as a result of the Merger. As such, UTStarcom generally is treated as subject to U.S. federal income tax as if it were organized under the laws of the United States or a state thereof. Because we generally treat UTStarcom as a U.S. corporation for all purposes under the Code, we do not intend to treat UTStarcom as a “passive foreign investment company,” as such rules apply only to non-U.S. corporations for U.S. federal income tax purposes.

The remainder of this discussion assumes that UTStarcom is treated as a U.S. corporation for all U.S. federal income tax purposes.

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## Tax Consequences of the Ownership and Disposition of Ordinary Shares to U.S. Holders

The discussion below of the U.S. federal income tax consequences to “U.S. Holders” will apply to you if you are the beneficial owner of ordinary shares and you are, for U.S. federal income tax purposes:

- a citizen or resident of the United States;
- a corporation (or other entity taxable as a corporation for U.S. federal income tax purposes) organized under the laws of the United States, any state thereof or the District of Columbia or otherwise treated as such under applicable U.S. tax law;
- an estate whose income is subject to U.S. federal income taxation regardless of its source; or
- a trust that (1) is subject to the supervision of a court within the United States and the control of one or more U.S. persons or (2) has a valid election in effect under applicable U.S. Treasury regulations to be treated as a U.S. person.

Distributions. UTStarcom does not currently anticipate paying distributions on its ordinary shares. In the event that distributions are paid, however, the gross amount of such distributions will be included in the gross income of a U.S. Holder as dividend income on the date of receipt to the extent that the distribution is paid out of current or accumulated earnings and profits, as determined under U.S. federal income tax principles. Such dividends will be eligible for the dividends-received deduction allowed to corporations in respect of dividends received from other U.S. corporations. Dividends received by non-corporate U.S. holders, including individuals, may be subject to reduced rates of taxation under current law. A U.S. holder may be eligible to claim a foreign tax credit with respect to any PRC withholding tax imposed on dividends paid by us. However, the foreign tax credit rules are complex, and their application in connection with Section 7874 of the Code in the presence of the Agreement Between the Government of the United States of America and the Government of the People’s Republic of China for the Avoidance of Double Taxation and the Prevention of Tax Evasion with Respect to Taxes on Income, or the U.S.-PRC Tax Treaty, are not entirely clear at this time. U.S. Holders should consult their own tax advisors with respect to any benefits they may be entitled to under the foreign tax credit rules and the U.S.-PRC Tax Treaty.

To the extent that dividends paid on our ordinary shares exceed current and accumulated earnings and profits, the distributions will be treated first as a tax-free return of tax basis on our ordinary shares, and to the extent that the amount of the distribution exceeds tax basis, the excess will be treated as capital gain.

Sale or Other Disposition. U.S. Holders of our ordinary shares will recognize taxable gain or loss on any sale, exchange, or other taxable disposition of ordinary shares equal to the difference between the amount realized for the ordinary shares and the U.S. Holder’s tax basis in those ordinary shares. This gain or loss generally will be capital gain or loss. Non-corporate U.S. Holders, including individuals, may be eligible for reduced tax rates if the ordinary shares have been held for more than one year. The deductibility of capital losses is subject to limitations. A U.S. Holder may be eligible to claim a foreign tax credit with respect to any PRC withholding tax imposed on gain from the sale or other disposition of our ordinary shares. However, the foreign tax credit rules are complex, and their application in connection with Section 7874 of the Code in the presence of the U.S.-PRC Tax Treaty are not entirely clear at this time. U.S. Holders should consult their own tax advisors with respect to any benefits they may be entitled to under the foreign tax credit rules and the U.S.-PRC Tax Treaty.

Medicare Surtax. Certain U.S. Holders who are individuals, trusts or estates are required to pay a 3.8% tax on, among other things, dividends on and capital gains from the sale or other disposition of shares of stock. U.S. holders should consult their own advisors regarding the effect, if any, of this legislation on their ownership and disposition of our ordinary shares.

## Tax Consequences of the Ownership and Disposition of Ordinary Shares to Non-U.S. Holders

The discussion below of the U.S. federal income tax consequences to “Non-U.S. Holders” will apply to you if you are the beneficial owner of ordinary shares and you are, for U.S. federal income tax purposes:

- a non-resident alien individual;
- a foreign corporation; or
- a foreign trust.

Special rules, not discussed here, may apply to certain Non-U.S. Holders, such as:

- certain former citizens or residents of the United States;

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- controlled foreign corporations;
- passive foreign investment companies;
- corporations that accumulate earnings to avoid U.S. federal income tax;
- investors in pass-through entities that are subject to special treatment under the Code.

Further, this discussion assumes that no item of income or gain recognized by any Non-U.S. Holder with respect to the ordinary shares is effectively connected with the conduct of a trade or business within the United States.

**Distributions.** UTStarcom does not currently anticipate paying distributions on its ordinary shares. In the event that distributions are paid, however, such distributions will constitute dividends for U.S. tax purposes to the extent paid out of current or accumulated earnings and profits, as determined under U.S. federal income tax principles. To the extent that dividends paid on UTStarcom ordinary shares exceed current and accumulated earnings and profits, the distributions will be treated first as a tax-free return of tax basis on the ordinary shares, and to the extent that the amount of the distribution exceeds tax basis, the excess will be treated as capital gain. Any dividends paid to a Non-U.S. Holder by UTStarcom are treated as income derived from sources within the United States and generally will be subject to U.S. federal income tax withholding at a rate of 30% of the gross amount of the dividends, or at a lower rate provided by an applicable income tax treaty if Non-U.S. Holders provide proper certification of eligibility for the lower rate (usually on IRS Form W-8BEN or W-8BEN-E).

If Non-U.S. Holders are eligible for a reduced rate of U.S. withholding tax pursuant to an applicable income tax treaty, such Non-U.S. Holders may obtain a refund of any excess amounts withheld by timely filing an appropriate claim for refund with the IRS.

**Sale or Other Disposition.** Any gain realized upon the sale or other disposition of UTStarcom ordinary shares generally will not be subject to U.S. federal income tax unless:

- the holder is an individual who is present in the United States for 183 days or more in the taxable year of the disposition, and certain other conditions are met; or
- UTStarcom is or has been a “U.S. real property holding corporation,” or USRPHC, for U.S. federal income tax purposes at any time during the shorter of the five-year period ending on the date of disposition or the period during which such Non-U.S. Holder has held the ordinary shares.

Non-U.S. Holders whose gain is described in the first bullet point above will be subject to a flat 30% U.S. federal income tax rate on the gain derived from the sale, which may be offset by U.S.-source capital losses, even though such Non-U.S. Holders are not considered to be residents of the United States. A corporation will be a USRPHC if the fair market value of its U.S. real property interests equals or exceeds 50% of the aggregate value of its real property interests (U.S. and non-U.S.) and its assets used or held for use in a trade or business. Because we do not currently own significant U.S. real property, we believe, but our special United States counsel has not independently verified, that we are not currently and will not become a USRPHC. However, because the determination of whether we are a USRPHC depends on the fair market value of our U.S. real property relative to the fair market value of our other business assets, there can be no assurance that we will not become a USRPHC in the future. Even if we become a USRPHC, however, as long as our ordinary shares are regularly traded on an established securities market, such ordinary shares will be treated as U.S. real property interests only if you actually or constructively hold more than five percent of such regularly traded ordinary shares at any time during the applicable period that is specified in the Code.

#### Backup Withholding and Information Reporting

Payments of dividends or of proceeds on the disposition of stock made to a holder of UTStarcom ordinary shares may be subject to information reporting and backup withholding at a current rate of 24% for taxable years beginning after December 31, 2017, and before January 1, 2026 unless such holder provides a correct taxpayer identification number on IRS Form W-9 (or other appropriate withholding form) or otherwise establishes an exemption from backup



withholding, for example by properly certifying your non-U.S. status on a Form W-8BEN, W-8BEN-E or another appropriate version of IRS Form W-8. Payments of dividends to holders generally must be reported annually to the IRS, along with the name and address of the holder and the amount of tax withheld, if any. A similar report is sent to the holder. Pursuant to applicable income tax treaties or other agreements, the IRS may make these reports available to tax authorities in the holder's country of residence.

Backup withholding is not an additional tax; rather, the U.S. income tax liability of persons subject to backup withholding will be reduced by the amount of tax withheld. If withholding results in an overpayment of taxes, a refund or credit may generally be obtained from the IRS, provided that the required information is furnished to the IRS in a timely manner.

#### Foreign Account Tax Compliance Act

Sections 1471 through 1474 of the Code, commonly known as “FATCA,” generally impose a U.S. federal withholding tax of 30% on dividends and the gross proceeds of a disposition of our ordinary shares paid to a “foreign financial institution” (as specially defined under these rules) unless such institution enters into an agreement with the U.S. government to withhold on certain payments and to collect and provide to the U.S. tax authorities substantial information regarding U.S. account holders of such institution (which includes certain equity and debt holders of such institution, as well as certain account holders that are foreign entities with U.S. owners). FACTA also generally imposes a U.S. federal withholding tax of 30% on dividends and the gross proceeds of a disposition of our ordinary shares paid to a non-financial foreign entity unless such entity provides the withholding agent with a certification identifying the direct and indirect U.S. owners of the entity. Under certain circumstances, a Non-U.S. Holder might be eligible for refunds or credits of such taxes. This legislation generally will apply to payments of gross proceeds only if made on or after January 1, 2017. An intergovernmental agreement between the United States and an applicable foreign country may modify these requirements. Prospective investors are encouraged to consult with their own tax advisors regarding the possible implications of FATCA on their investment in our ordinary shares.

#### F.Dividends and Paying Agents

Not Applicable.

#### G.Statement by Experts

Not Applicable.

#### H.Documents on Display

The documents concerning our Company referred to in this document and required to be made available to the public are available at the offices of UTStarcom Holdings Corp. at Fourth Floor, South Wing, 368 Liuhe Road, Binjiang District, Hangzhou, P.R. China.

In addition, we previously filed with the SEC our registration statement on Form F-4 (Registration No. 333-173828, as amended) and prospectus under the Securities Act, with respect to our ordinary shares.

We are subject to the periodic reporting and other informational requirements of the Securities Exchange Act of 1934, as amended, or the Exchange Act. Under the Exchange Act, we are required to file reports and other information with the SEC. Specifically, we are required to file annually a Form 20-F no later than four months after the close of each fiscal year, which is December 31. Copies of reports and other information, when so filed, may be inspected without charge and may be obtained at prescribed rates at the public reference facilities maintained by the Securities and Exchange Commission at 100 F Street, N.E., Room 1580, Washington, D.C. 20549. The public may obtain information regarding the Washington, D.C. Public Reference Room by calling the Commission at 1-800-SEC-0330. The SEC also maintains a web site at [www.sec.gov](http://www.sec.gov) that contains reports, proxy and information statements, and other information regarding registrants that make electronic filings with the SEC using its EDGAR system. As a foreign private issuer, we are exempt from the rules under the Exchange Act prescribing the furnishing and content of quarterly reports and proxy statements, and officers, directors and principal shareholders are exempt from the reporting and short-swing profit recovery provisions contained in Section 16 of the Exchange Act.

#### I.Subsidiary Information

See “Item 4. Information on the Company- C. Organizational Structure” for information about our subsidiaries.

#### ITEM 11-QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are exposed to the impact of interest rate changes, changes in foreign currency exchange rates and changes in the stock market.

#### Interest Rate Risk

Our exposure to market risk for changes in interest rates relates primarily to our investment portfolio. The fair value of our investment portfolio would not be significantly affected by either a 10% increase or decrease in interest rates due mainly to the short term nature of most of our investment portfolio. However, our interest income can be sensitive to changes in the general level of U.S. and China interest rates since the majority of our funds are invested in instruments with maturities of less than one year. In a declining interest rate environment, as short term investments mature, reinvestment occurs at less favorable market rates. Given the short term nature of certain investments, anticipated declining interest rates will negatively impact our investment income.

We maintain an investment portfolio of various holdings, types and maturities. We do not use derivative financial instruments. We place our cash investments in instruments that meet high credit quality standards, as specified in our investment policy guidelines. Our policy is to limit the risk of principal loss and to ensure the safety of invested funds by generally attempting to limit market risk. Our cash and cash equivalents are not subject to significant interest rate risk due to the short maturities of these instruments. As of December 31, 2018, the carrying value of our cash and cash equivalents approximated fair value. As of December 31, 2018, approximately \$8.9 million, \$19.5 million and \$6.0 million were held by subsidiaries in China, Japan and US.

The table below represents carrying amounts and related weighted-average interest rates of our investment portfolio at December 31, 2018 and 2017:

	December 31,			
	2018	2017		
	(in thousands)			
Cash and cash equivalents	\$57,049	\$79,749		
Average interest rate	2.23	% 1.02	%	
Restricted cash short-term	\$8,827	\$12,099		
Average interest rate	2.61	% 0.99	%	
Short-term investments	\$—	\$3,143		
Average interest rate	—	% 2.86	%	
Restricted cash long-term	\$7,824	\$8,839		
Average interest rate	3.15	% 1.68	%	
Total investment securities	\$73,700	\$103,830		
Average interest rate	2.37	% 1.13	%	

### Equity Investment Risk

We have invested in several privately-held companies as well as investment funds which invest primarily in privately held companies, many of which can still be considered in the start-up or development stages. These investments are inherently risky, as the market for the technologies or products they have under development is typically in the early stages and may never materialize.

### Foreign Exchange Rate Risk

As a multinational company, we conduct our business in a wide variety of currencies and are therefore subject to market risk for changes in foreign exchange rates. We expect to continue to expand our business globally and, as such, expect that an increasing proportion of our business may be denominated in currencies other than U.S. dollars. As a result, fluctuations in foreign currencies may have a material impact on our business, results of operations and financial condition.

In 2018, the majority of our foreign-currency denominated sales have been made in Japan, denominated in Japanese yen. The balance of our cash and cash equivalents held in Japanese Yen was \$8.1 million at December 31, 2018. Historically, the exchange rate between Japanese Yen and U.S. dollar has been volatile. Additionally, the majority of our expenses are denominated in RMB. Due to China's currency exchange control regulations, we are limited in our ability to convert and repatriate RMB, as well as in our ability to engage in foreign currency hedging activities in China. The balance of our cash and cash equivalents held in RMB was \$5.5 million at December 31, 2018. Since

China unpegged the RMB from the U.S. dollar in July 2005 through December 31, 2018, the RMB has appreciated by approximately 16.9% versus the U.S. dollar. We also made significant sales in Indian rupees in 2018.

We may manage foreign currency exposures using forward and option contracts to hedge and thus minimize exposure to the risk of the eventual net cash inflows and outflows resulting from foreign currency denominated transactions with customers, suppliers, and non-U.S. subsidiaries; however, we are not currently hedging any such transactions. As our foreign currency balances are not currently hedged, any significant revaluation of our foreign currency exposures may materially and adversely affect our business, results of operation and financial condition. We do not enter into foreign exchange forward or option contracts for trading purposes.

## ITEM 12-DESCRIPTION OF SECURITIES OTHER THAN EQUITY SECURITIES

### A. Debt Securities

Not Applicable.

### B. Warrants and Rights

Not Applicable.

C. Other Securities

Not Applicable.

D. American Depositary Shares

Not Applicable.

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## PART II

### ITEM 13-DEFAULTS, DIVIDEND ARREARAGES AND DELINQUENCIES

Not Applicable.

### ITEM 14-MATERIAL MODIFICATIONS TO THE RIGHTS OF SECURITY HOLDERS AND USE OF PROCEEDS

See “Item 10. Additional Information” for a description of the rights of securities holders, which remain unchanged.

### ITEM 15-CONTROLS AND PROCEDURES

#### Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our chief executive officer and our VP Finance, has performed an evaluation of the effectiveness of our disclosure controls and procedures, as such term is defined under Rules 13a 15(e) and 15d 15(e) promulgated under the Exchange Act as of the end of the period covered by this report. Based upon that evaluation, our management has concluded that, as of December 31, 2018, our disclosure controls and procedures were ineffective because of the material weakness described below under “Management’s Annual Report on Internal Control over Financial Reporting.” We have undertaken the remedial steps to address the material weaknesses in our disclosure controls and procedures as set forth below under “Management’s Plan for Remediation of Material Weaknesses.”

#### Management’s Annual Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rule 13a 15(f) under the Exchange Act, for our Company. Internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of consolidated financial statements in accordance with U.S. GAAP and includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of a company’s assets, (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of consolidated financial statements in accordance with U.S. GAAP, and that a company’s receipts and expenditures are being made only in accordance with authorizations of a company’s management and directors, and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of a company’s assets that could have a material effect on the consolidated financial statements.

Internal control over financial reporting cannot provide absolute assurance of achieving financial reporting objectives because of its inherent limitations. Internal control over financial reporting is a process that involves human diligence and compliance and is subject to lapses in judgment and breakdowns resulting from human failures. Internal control over financial reporting also can be circumvented by collusion or improper override. Because of such limitations, there is a risk that material misstatements may not be prevented or detected on a timely basis by internal control over financial reporting. However, these inherent limitations are known features of the financial reporting process, and it is possible to design into the process safeguards to reduce, though not eliminate, this risk.

As required by Section 404 of the Sarbanes Oxley Act of 2002 and related rules promulgated by the Securities and Exchange Commission, our management, including our chief executive officer and VP Finance, assessed the effectiveness of internal control over financial reporting as of December 31, 2018 using the criteria set forth in the

report “Internal Control-Integrated Framework (2013)” published by the Committee of Sponsoring Organizations of the Treadway Commission.

A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of a company’s annual or interim financial statements will not be prevented or detected on a timely basis. As a result of management’s evaluation of our internal control over financial reporting, the following material weakness in our internal control over financial reporting was identified as of December 31, 2018.

(i) The Company did not have sufficient resources with an appropriate level of knowledge and experience in U.S. GAAP to properly account for complex accounting issues under U.S. GAAP. Complex issues such as investment accounting, impairment assessment and loss contract reserve may not be accounted for properly in the future.

The material weakness described above may result in misstatement of the Company’s consolidated financial statements that would result in a material misstatement to the Company’s quarterly or annual consolidated financial statements that would not be prevented or detected. As a result of the material weakness, management has concluded that our internal control over financial reporting was ineffective as of December 31, 2018.



### Management's Plan for Remediation of Material Weaknesses

Our management has been engaged in, and continues to be engaged in making necessary changes and improvements to the overall design of its control environment to address the material weaknesses in internal control over financial reporting and the ineffectiveness of the Company's disclosure controls and procedures described above.

(i) To remediate the material weakness described above with respect to controls over complex transactions, we have and plan to continue to (1) retain additional accounting personnel with appropriate knowledge and experience; (2) provide more comprehensive training on U.S. GAAP to our accounting team and other relevant personnel; (3) conduct peer financial statements review and validation within finance team for items that are complex in nature; and (4) continue to engage an external consultant to review the accounting of our complex transactions. We plan to continue to assess our standardized processes to further enhance the effectiveness of our financial review, including the analysis and monitoring of financial information in a consistent and thorough manner.

### Changes in Internal Control over Financial Reporting

Management has evaluated, with the participation of our chief executive officer and VP Finance whether any changes in our internal control over financial reporting that occurred during our last fiscal year have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting. Based on the evaluation we conducted, management has concluded that, other than controls implemented for the remediation of the material weakness in internal control over financial reporting identified in 2016 as disclosed above, no such changes occurred during the period covered by this annual report on Form 20-F.

### Attestation Report of the Independent Public Accounting Firm

This annual report on Form 20-F does not include an attestation report of our independent public accounting firm because we are neither an accelerated filer nor a large accelerated filer, as such terms are defined in Rule 12b-2 under the Exchange Act.

### ITEM 16A-AUDIT COMMITTEE FINANCIAL EXPERT

Our board of directors has determined that Mr. Sean Shao qualifies as an Audit Committee Financial Expert as defined by the applicable rules of the SEC and that Mr. Shao is "independent" as that term is defined in NASDAQ Marketplace Rule 5605(c)(2)(A). Please refer to "Item 6. Directors, Senior Management and Employees-A. Directors and Senior Management-Biographical Information" for a brief biographical listing of Mr. Shao's relevant experience.

### ITEM 16B-CODE OF ETHICS

We have adopted a Code of Business Conduct and Ethics, or Code of Ethics that applies to all employees including our principal executive officers. The Code of Ethics is designed to promote: (i) honest and ethical conduct, including the ethical handling of actual or apparent conflicts of interest between personal and professional relationships, (ii) full, fair, accurate, timely and understandable disclosure in reports and documents that we are required to file to the SEC and in other public communications, (iii) compliance with applicable laws, rules and regulations, (iv) the prompt internal reporting of violations of the Code of Ethics to an appropriate person or entity, and (v) accountability for adherence to the Code of Ethics.

As a supplement to the Code of Ethics, we have also adopted a Code of Ethics for Chief Executive Officer and Senior Financial Officers, or Code of Ethics for Financial Officers, which is designed to highlight the legal and ethical obligations of the Chief Executive Officer and financial officers. The Code of Ethics for Financial Officers imposes

upon applicable officers certain additional internal reporting requirements for acts committed in violation of the Code of Ethics and/or the securities laws.

Copies of the Code of Ethics and the Code of Ethics for Financial Officers are available on our website at <http://www.utstar.com>. Any amendment or waiver of the Code of Ethics or Code of Ethics for Financial Officers pertaining to a member of our Board or one of our executive officers will be disclosed on our website at <http://www.utstar.com>. Information contained in our website is not incorporated by reference into this Form 20-F and you should not consider information on our website to be part of this Form 20-F.

## ITEM 16C-PRINCIPAL ACCOUNTANT FEES AND SERVICES

## Disclosure of Fees Charged by Independent Accountants

The aggregate fees billed for professional accounting services by Grant Thornton for the fiscal year ended December 31, 2018 and 2017 are as follows:

	Years Ended	
	December 31,	
	2018	2017
	(in thousands)	
Audit fees <sup>(1)</sup>	\$ 540	\$ 460
Audit-related fees <sup>(2)</sup>	8	—
Tax fees <sup>(3)</sup>	—	—
All other fees <sup>(4)</sup>	57	94
Total	\$ 605	\$ 554

(1) Audit fees are fees for professional services rendered for the integrated audit of our consolidated financial statements, for review of interim consolidated financial information included in quarterly reports or earnings releases, and for services that are normally provided by Grant Thornton in connection with statutory and regulatory filings or engagements in 2017 and 2018.

(2) Audit-related fees represent aggregate fees paid or accrued for professional services rendered for accounting consultations and other procedures performed with respect to certain UTStarcom acquisition and divestiture efforts.

(3) Tax fees are fees for tax services related to tax compliance, tax planning and tax advice.

(4) All other fees are fees for an online accounting research tool and out of pocket expenses.

The Audit Committee has determined that the provision to us by independent registered public accounting firms of non-audit services as listed above is compatible with independent registered public accounting firms maintaining its independence.

## Audit Committee Pre-approval Policies and Procedures

Our Audit Committee has adopted procedures which set forth the manner in which the committee will review and approve all audit and non-audit services to be provided by an independent registered public accounting firm before that firm is retained for such services. The pre-approval procedures are as follows:

- Any audit or non-audit service to be provided to us by the independent accountant must be submitted to the Audit Committee for review and approval, with a description of the services to be performed and the fees to be charged.
- The Audit Committee in its sole discretion then approves or disapproves the proposed services and documents such approval, if given, through written resolutions or in the minutes of meetings, as the case may be.

## ITEM 16D-EXEMPTIONS FROM THE LISTING STANDARDS FOR AUDIT COMMITTEES

Not Applicable.



## ITEM 16E-PURCHASES OF EQUITY SECURITIES BY THE ISSUER AND AFFILIATED PURCHASERS

On November 12, 2014, our board of directors approved a share repurchase program of up to \$40 million of our outstanding shares over the next 24 months, and subsequently extended to November 2018 approved by our board of directors. On November 4, 2018, our board of directors approved for extension of the repurchase plan to November 2019. During the repurchase program period, we will maintain flexibility to turn the program to an accelerated repurchase program and/or a cash tender offer, and we are not obligated to make repurchases at any specific time or situation. Our board of directors will review the share repurchase program periodically and may authorize adjustment of its terms and size accordingly. We plan to fund any share repurchases made under this program from our available cash balance. Purchases under the program are as follows:

Period	Total Number of shares (or Units) purchased	Average price paid per share (or unit)	Total number of shares (or units) purchased as part of publicly announced plans or programs	Maximum approximate dollar value that may yet be purchased under the Plans
December 2014	166,421	\$ 2.63	166,421	\$ 39,561,613
January 2015	207,272	\$ 2.90	373,693	\$ 38,960,627
February 2015	191,685	\$ 2.75	565,378	\$ 38,434,451
March 2015	150,038	\$ 2.68	715,416	\$ 38,032,006
April 2015	142,696	\$ 2.65	858,112	\$ 37,654,473
May 2015	27,443	\$ 2.17	885,555	\$ 37,594,886
June 2015	328,703	\$ 2.01	1,214,258	\$ 36,935,426
July 2015	156,320	\$ 1.91	1,370,578	\$ 36,636,344
August 2015	145,975	\$ 1.95	1,516,553	\$ 36,352,399
September 2015	103,300	\$ 2.02	1,619,853	\$ 36,143,984
October 2015	55,500	\$ 2.22	1,675,353	\$ 36,020,775
November 2015	21,370	\$ 2.20	1,696,723	\$ 35,973,850
December 2015	33,000	\$ 2.20	1,729,723	\$ 35,901,220
January 2016	165,392	\$ 2.20	1,895,115	\$ 35,538,178
February 2016	80,660	\$ 2.12	1,975,775	\$ 35,367,443
March 2016	176,386	\$ 2.01	2,152,161	\$ 35,012,890
April 2016	505,593	\$ 1.80	2,657,754	\$ 34,102,109
May 2016	390,648	\$ 2.02	3,048,402	\$ 33,313,145
June 2016	146,542	\$ 1.99	3,195,944	\$ 33,021,480
July 2016	76,210	\$ 1.93	3,271,154	\$ 32,874,525
August 2016	239,104	\$ 2.05	3,510,258	\$ 32,384,860
September 2016	36,500	\$ 2.16	3,546,758	\$ 32,306,056
October 2016	—	—	3,546,758	\$ 32,306,056
November 2016	112,200	\$ 1.98	3,658,958	\$ 32,083,499
December 2016	125,420	\$ 1.98	3,784,378	\$ 31,835,274
January 2017	12,380	\$ 1.99	3,796,758	\$ 31,810,649
February 2017	—	—	3,796,758	\$ 31,810,649
March 2017	60,359	\$ 1.89	3,857,117	\$ 31,696,485
April 2017	—	—	3,857,117	\$ 31,696,485
May 2017	—	—	3,857,117	\$ 31,696,485
June 2017	—	—	3,857,117	\$ 31,696,485

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July 2017	—	—	3,857,117	\$ 31,696,485
August 2017	—	—	3,857,117	\$ 31,696,485
September 2017	—	—	3,857,117	\$ 31,696,485
October 2017	—	—	3,857,117	\$ 31,696,485
November 2017	—	—	3,857,117	\$ 31,696,485
December 2017	—	—	3,857,117	\$ 31,696,485
January 2018	—	—	3,857,117	\$ 31,696,485
February 2018	—	—	3,857,117	\$ 31,696,485
March 2018	—	—	3,857,117	\$ 31,696,485
April 2018	76,940	\$ 4.91	3,934,057	\$ 31,318,604
May 2018	66,660	\$ 4.90	4,000,717	\$ 30,992,244
June 2018	99,742	\$ 4.31	4,100,459	\$ 30,561,925
July 2018	77,661	\$ 3.98	4,178,120	\$ 30,252,886
August 2018	91,763	\$ 3.73	4,269,883	\$ 29,910,383
September 2018	60,802	\$ 3.83	4,330,685	\$ 29,677,303
October 2018	74,391	\$ 3.90	4,405,076	\$ 29,387,290
November 2018	—	—	4,405,076	\$ 29,387,290
December 2018	75,806	\$ 2.85	4,480,882	\$ 29,171,485
January 2019	60,942	\$ 3.14	4,541,824	\$ 28,980,292
February 2019	4,875	\$ 3.46	4,546,699	\$ 28,963,424
March 2019	—	—	4,546,699	\$ 28,963,424
April 2019	—	—	4,546,699	\$ 28,963,424

ITEM 16F-CHANGE IN REGISTRANT'S CERTIFYING ACCOUNTANT

Not Applicable

ITEM 16G-CORPORATE GOVERNANCE

We are incorporated in the Cayman Islands and our corporate governance practices are governed by applicable Cayman Islands law as well as our memorandum and articles of association. In addition, because our ordinary shares are listed on NASDAQ, we are subject to NASDAQ's corporate governance requirements.

NASDAQ Marketplace Rule 5620(a) requires each issuer to hold an annual meeting of shareholders no later than one year after the end of the issuer's fiscal year end. However, NASDAQ Marketplace Rule 5615(a)(3) permits a foreign private issuer like us to follow home country practices in lieu of certain requirements of Rule 5600, provided that such foreign private issuer discloses in its annual report filed with the SEC each requirement of Rule 5600 that it does not follow and describes the home country practice followed in lieu of such requirement. We follow home country practice with respect to annual meetings and did not hold an annual shareholder meeting in 2018. Our Cayman Islands counsel has provided a letter to NASDAQ certifying that under Cayman Islands law, we are not required to hold annual shareholder meetings. We may, however, hold annual shareholder meetings in the future if there are significant issues that require shareholders' approvals.

ITEM 16H-MINE SAFETY DISCLOSURE

Not Applicable.

PART III

ITEM 17-FINANCIAL STATEMENTS

We have elected to provide financial statements pursuant to Item 18.

ITEM 18-FINANCIAL STATEMENTS

The consolidated financial statements of UTStarcom Holdings Corp. and its subsidiaries are included at the end of this Annual Report.

## ITEM 19-EXHIBITS

		Incorporated		
		by Reference		
		From		
Exhibit			Exhibit	
Number	Description	Form	Number	Date Filed
1.1	<u>Amended and Restated Memorandum and Articles of Association.</u>	20-F	1.1	4/26/2013
4.1	<u>Form of Indemnification Agreement (incorporated by reference to Exhibit 10.1 of Form F-4 (File No. 333-173828) filed with the SEC on April 29, 2011</u>	F-4	10.1	4/29/2011
4.2	<u>Stockholder Rights Agreement, made as of February 1, 2010, by and between UTStarcom, Inc. and Beijing E-town International Investment and Development Co., Ltd.</u>	8-K	4.1	2/4/2010
4.3	<u>Stockholder Rights Agreement, made as of February 1, 2010, by and among UTStarcom, Inc., Elite Noble Limited and Shah Capital Opportunity Fund L.P.</u>	8-K	4.2	2/4/2010
4.4	<u>2017 Equity Incentive Plan, as adopted on January 1, 2017.</u>	S-8	4.1	11/15/2018
4.5	<u>Form of Stock Option Award Agreement for use under 2017 Equity Incentive Plan.</u>	Filed herewith	—	—
4.6	<u>Form of Stock Option Agreement for Directors and Officers for use under the 2017 Equity Incentive Plan.</u>	Filed herewith	—	—
4.7	<u>Form of Notice of Grant of Restricted Stock for use under the 2017 Equity Incentive Plan.</u>	Filed herewith	—	—
4.8	<u>Form of Notice of Grant of Restricted Stock Units for use under the 2017 Equity Incentive Plan.</u>	Filed herewith	—	—
4.9	<u>Form of Notice of Grant of Performance Shares for use under the 2017 Equity Incentive Plan.</u>	Filed herewith	—	—
4.10	<u>Form of Notice of Grant of Performance Units for use under the 2017 Equity Incentive Plan.</u>	Filed herewith	—	—
4.11	<u>UTStarcom, Inc. Amended and Restated Executive Involuntary Termination Severance Pay Plan.</u>	10-Q	10.2	5/8/2009
4.12	<u>Letter dated November 13, 2017 from GHP Horwath, P.C.</u>	20-F	4.14	11/14/2017
4.13	<u>Letter dated November 14, 2017 from Crowe Horwath LLP</u>	20-F	4.15	11/14/2017
8.1	<u>Subsidiaries of UTStarcom Holdings Corp.</u>	Filed herewith	—	—
12.1	<u>Certification of Chief Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.</u>	Filed herewith	—	—
12.2	<u>Certification of Principal Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.</u>	Filed herewith	—	—
13.1	<u>Certification of Chief Executive Officer Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.</u>	Filed herewith	—	—
13.2			—	—



	<u>Certification of Principal Financial Officer Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.</u>	Filed herewith
15.1	<u>Consent of Grant Thornton</u>	Filed herewith
101.INS	XBRL Instance Document	Filed herewith
101.SCH	XBRL Taxonomy Extension Schema Document	Filed herewith
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document	Filed herewith
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document	Filed herewith
101.LAB	XBRL Taxonomy Extension Label Linkbase Document	Filed herewith
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document	Filed herewith

SIGNATURES

The registrant hereby certifies that it meets all of the requirements for filing on Form 20-F and that it has duly caused and authorized the undersigned to sign this annual report on its behalf.

UTSTARCOM HOLDINGS  
CORP.

Date: April 17, 2019 By: /s/ Tim Ti

Name: Tim Ti

Title: Chief Executive Officer

UTSTARCOM HOLDINGS CORP.

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Board of Directors and Shareholders

UTStarcom Holdings Corp.

Opinion on the financial statements

We have audited the accompanying consolidated balance sheets of UTStarcom Holdings Corp. (a Cayman Islands corporation) and subsidiaries (the “Company”) as of December 31, 2018 and 2017, the related consolidated statements of comprehensive income, changes in shareholders’ equity, and cash flows for each of the three years in the period ended December 31, 2018, and the related notes and schedules (collectively referred to as the “financial statements”). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2018, in conformity with accounting principles generally accepted in the United States of America.

Change in accounting principle

As discussed in Note 2 to the consolidated financial statements, the Company has changed its method of accounting for revenue from contracts with customers due to the adoption of the ASC 606, “Revenue from contracts with customers.” The Company adopted the new revenue standard using the modified retrospective method with an adjustment to retained earnings as of January 1, 2018 for the cumulative effect of adoption.

Basis for opinion

These financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on the Company’s financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (“PCAOB”) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company’s internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ GRANT THORNTON

We have served as the Company's auditor since 2017.

Shanghai, China

April 17, 2019

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## UTSTARCOM HOLDINGS CORP.

## CONSOLIDATED BALANCE SHEETS

(In thousands, except per share data)

	December 31, 2018	December 31, 2017
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$ 57,049	\$ 79,749
Short-term investments	—	3,143
Accounts receivable, net of allowances for doubtful accounts of \$2,124 and \$2,339, respectively	60,666	16,911
Inventories	26,388	17,139
Deferred costs	449	23,545
Prepaid and other current assets	6,776	14,227
Short-term restricted cash	8,827	12,099
Total current assets	160,155	166,813
Property, plant and equipment, net	1,258	1,714
Long-term investments	5,224	5,856
Long-term deferred costs	—	277
Long-term deferred tax assets	2,307	3,012
Long-term restricted cash	7,824	8,839
Other long-term assets	667	533
Total assets	177,435	187,044
<b>LIABILITIES AND SHAREHOLDERS' EQUITY</b>		
Current liabilities:		
Accounts payable	50,757	27,452
Income taxes payable	6,996	7,952
Customer advances	561	21,828
Deferred revenue	968	7,286
Other current liabilities	10,511	23,746
Total current liabilities	69,793	88,264
Long-term deferred revenue	2,979	4,135
Other long-term liabilities	2,497	3,653
Total liabilities	75,269	96,052
Commitments and contingencies (Note 8)		
Shareholders' equity:		
Ordinary shares: \$0.00375 par value; 250,000 authorized shares; 39,799 and 39,363 shares issued at December 31, 2018 and December 31, 2017, respectively; 35,318 and 35,506 shares outstanding at December 31, 2018 and December 31, 2017, respectively	123	122

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Additional paid-in capital	1,264,160	1,263,006
Treasury stock, at cost: 4,481 and 3,857 shares at December 31, 2018 and December 31, 2017, respectively	(10,899 )	(8,374 )
Accumulated deficit	(1,212,790 )	(1,226,173 )
Accumulated other comprehensive income	61,572	62,411
Shareholders' equity	102,166	90,992
Total liabilities and shareholders' equity	\$ 177,435	\$ 187,044

See accompanying notes to consolidated financial statements

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## UTSTARCOM HOLDINGS CORP.

## CONSOLIDATED STATEMENT OF COMPERHENSIVE INCOME

(In thousands, except per share data)

	Years ended December 31,		
	2018	2017	2016
Net sales			
Products	\$97,680	\$77,283	\$61,735
Services	18,264	21,009	24,777
	115,944	98,292	86,512
Cost of net sales			
Products	72,082	50,636	41,472
Services	11,594	14,510	16,684
	83,676	65,146	58,156
Gross profit	32,268	33,146	28,356
Operating expenses:			
Selling, general and administrative	15,156	16,777	18,146
Research and development	12,745	9,853	8,502
Total operating expenses	27,901	26,630	26,648
Operating income	4,367	6,516	1,708
Interest income	1,749	1,177	871
Interest expense	(47 )	(48 )	(55 )
Other income (expense), net	(644 )	2,976	2,748
Equity gain (loss) of associates	(613 )	(687 )	984
Investment impairment	(370 )	(1,690 )	(5,336 )
Income before income taxes	4,442	8,244	920
Income tax benefit (expense)	378	(1,263 )	(788 )
Net income	4,820	6,981	132
Net loss attributable to non-controlling interests	—	—	158
Net income attributable to UTStarcom Holdings Corp.	\$4,820	\$6,981	\$290
Net income per share attributable to UTStarcom Holdings Corp.-			
Basic	\$0.14	\$0.20	\$0.01
Net income per share attributable to UTStarcom Holdings Corp.-			
Diluted	\$0.13	\$0.19	\$0.01
Weighted average shares outstanding-Basic	35,642	35,467	35,806
Weighted average shares outstanding-Diluted	36,319	36,176	36,402
Net Income	4,820	6,981	132
Other comprehensive income (loss), net of tax			
Net change in cumulative translation adjustment	(839 )	409	532



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Comprehensive income	3,981	7,390	664
Comprehensive loss attributable to non-controlling interests	—	—	158
Comprehensive income attributable to UTStarcom Holding Corp.	\$3,981	\$7,390	\$822

See accompanying notes to consolidated financial statements

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## UTSTARCOM HOLDINGS CORP.

## CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY

(In thousands, except share data)

	Common Stock Shares outstanding (In thousands, except number of shares)	Additional Paid-in Capital Amount	Treasury Stock	(Accumulated Deficit)	Accumulated Other Comprehensive Income	Non- controlling interest	Total Stockholders' Equity	
Balance at December 31, 2015	36,735,314	\$ 122	\$ 1,259,767	\$(4,138 )	\$(1,233,444 )	\$ 61,470	\$ —	\$ 83,777
Repurchase of ordinary shares	(2,054,655 )	—	—	(4,096 )	—	—	—	(4,096 )
Restricted stock issued and restricted								
stock units released	543,894	—	—	—	—	—	—	—
Stock-based compensation	—	—	2,238	—	—	—	—	2,238
Net income	—	—	—	—	290	—	(158 )	132
Acquisition of non-controlling interests	—	—	—	—	—	—	158	158
Other comprehensive income:								
Foreign currency translation	—	—	—	—	—	570	—	570
Recognition due to closure of the								
subsidaries	—	—	—	—	—	(38 )	—	(38 )
Balance at December 31, 2016	35,224,553	\$ 122	\$ 1,262,005	\$(8,234 )	\$(1,233,154 )	\$ 62,002	\$ —	\$ 82,741
Repurchase of ordinary shares	(72,739 )	—	—	(140 )	—	—	—	(140 )
Restricted stock issued and restricted								
stock units released	302,886	—	866	—	—	—	—	866
	51,666	—	135	—	—	—	—	135

Common stock issued upon option exercise								
Net income	—	—	—	—	6,981	—	—	6,981
Other comprehensive income:								
Foreign currency translation	—	—	—	—	—	2,112	—	2,112
Recognition due to closure of the subsidiaries	—	—	—	—	—	(1,703 )	—	(1,703 )
Balance at December 31, 2017	35,506,366	\$ 122	\$ 1,263,006	\$(8,374 )	\$(1,226,173 )	\$ 62,411	\$ —	\$ 90,992
Repurchase of ordinary shares	(623,765 )	—	—	(2,525 )	—	—	—	(2,525 )
Restricted stock issued and restricted								
stock units released	399,991	—	1,097	—	—	—	—	1,097
Common stock issued upon option exercise	35,150	1	79	—	—	—	—	80
Cumulative effect of change in revenue recognition accounting principle	—	—	—	—	8,563	—	—	8,563
Acquisition of non-controlling interests	—	—	(22 )	—	—	—	—	(22 )
Net income	—	—	—	—	4,820	—	—	4,820
Other comprehensive income:								
Foreign currency translation	—	—	—	—	—	(839 )	—	(839 )
Balance at December 31, 2018	35,317,742	\$ 123	\$ 1,264,160	\$(10,899)	\$(1,212,790 )	\$ 61,572	\$ —	\$ 102,166

See accompanying notes to consolidated financial statements

## UTSTARCOM HOLDINGS CORP.

## CONSOLIDATED STATEMENTS OF CASH FLOWS

(In thousands)

	Years ended December 31,		
	2018	2017	2016
<b>CASH FLOWS FROM OPERATING ACTIVITIES:</b>			
Net income	\$4,820	\$6,981	\$132
Adjustments to reconcile net income to net cash provided by (used in)			
operating activities:			
Depreciation	702	628	1,208
Net gain on disposal of assets	(21)	—	(62)
Gain on cumulative translation adjustment recognition from liquidation	—	(1,703)	(38)
of subsidiaries			
Gain on liquidation of a subsidiary	(909)	—	—
Gain on release of tax liability due to expiration of statute of limitations	(2,462)	(1,409)	(3,272)
Equity loss (gain) of associates	613	687	(984)
Investment impairment	370	1,690	5,336
Gain on sale of short- term investment	—	—	(83)
Stock-based compensation expense	1,097	866	2,238
Provision for doubtful accounts receivable	812	4	1,564
Deferred income taxes	705	(1,092)	771
Changes in operating assets and liabilities			
Accounts receivable	(44,815)	1,413	(1,966)
Inventories and deferred costs	6,565	1,212	(190)
Prepays and other assets	5,540	(7,280)	2,821
Accounts payable	23,193	5,183	7,393
Income taxes payable	(929)	(26)	(751)
Customer advances	(6,044)	(7,218)	(1,054)
Deferred revenue	(4,930)	(3,172)	(10,556)
Other liabilities	(10,413)	7,074	3,225
Net cash provided by (used in) operating activities	(26,106)	3,838	5,732
<b>CASH FLOWS FROM INVESTING ACTIVITIES:</b>			
Purchase of property, plant and equipment	(225)	(732)	(1,527)
Proceeds from sales of property, plant and equipment	—	—	85
Acquisition of uSTAR, net of cash acquired	(673)	—	—
Purchase of short-term investments	—	(3,164)	—
Purchase of investments	—	(481)	(300)
Proceeds from sale of investments	—	500	7,683
Proceeds from sale of short-term investments	3,143	—	—
Net cash provided by (used in) investing activities (1)	2,245	(3,877)	5,941
<b>CASH FLOWS FROM FINANCING ACTIVITIES:</b>			
Proceeds from exercise of stock options	101	113	—

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Acquisition of non-controlling interests	—	—	(304 )
Repurchase of ordinary shares	(2,525 )	(140 )	(4,096 )
Net cash used in financing activities	(2,424 )	(27 )	(4,400 )
Effect of exchange rate changes on cash and cash equivalents	(701 )	2,112	(1,723 )
Net increase (decrease) in cash and cash equivalents (1)	(26,986 )	2,046	5,550
Cash, restricted cash and cash equivalents at beginning of year (1)	100,686	98,640	93,090
Cash, restricted cash and cash equivalents at end of year (1)	\$73,700	\$100,686	\$98,640
Supplemental disclosure of cash flow information:			
Cash paid:			
Interest	\$47	\$48	\$55
Income taxes	\$1,221	\$2,012	\$3,311

(1)The Company adopted ASU 2016-18 in 2018, and adjusted the 2017 and 2016 balances retrospectively.

See accompanying notes to consolidated financial statements

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## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

### NOTE 1-BASIS OF PRESENTATION, LIQUIDITY

UTStarcom Holdings Corp., and its wholly owned subsidiaries (collectively, the “Company”), a Cayman Islands corporation incorporated in 2011, is a global telecom infrastructure provider dedicated to developing technology that will serve the rapidly growing demand for bandwidth from mobile, streaming and other applications. The Company works with carriers from Asia to the Americas, to meet this demand through a range of innovative broadband packet optical transport and wireless/fixed-line access products and solutions.

UTStarcom Inc. was founded in 1991 and started trading on NASDAQ in 2000. On June 24, 2011, the stockholders of UTStarcom Inc. approved the proposed merger (the “Merger”), to reorganize UTStarcom, Inc. as a Cayman Islands company. Pursuant to the approval of the shareholders, UTSI Mergeco Inc., a Delaware corporation and a wholly-owned subsidiary of UTStarcom Holdings Corp., merged with and into the existing public company, UTStarcom, Inc., which is incorporated under the laws of the State of Delaware. As a result of the reorganization, UTStarcom Holdings Corp. became the parent company of UTStarcom, Inc. and its subsidiaries.

Also pursuant to the Merger, the Company issued an equal number of ordinary shares in exchange for the common stock of UTStarcom, Inc. The Company’s business is conducted in substantially the same manner as was conducted by UTStarcom, Inc. The transaction was accounted for as a legal re-organization of entities under common control. The accompanying consolidated financial statements include the accounts of the Company and its wholly- and majority-owned subsidiaries. All intercompany accounts and transactions have been eliminated in the preparation of the consolidated financial statements. The non-controlling interests in consolidated subsidiaries are shown separately in the consolidated financial statements.

The accompanying Consolidated Balance Sheets as of December 31, 2018 and 2017, and the Consolidated Statements of Operations and Comprehensive Income for each of the three years ended December 31, 2018, 2017 and 2016 have been prepared by the Company in conformity with generally accepted accounting principles in the United States (“US GAAP”).

The accompanying consolidated financial statements are presented on the basis that the Company is a going concern. The going concern assumption contemplates the realization of assets and the satisfaction of liabilities in the normal course of business and considers the Company’s current financial status, business operation, market strategy, and products development in the twelve months following the issuance date of these financial statements. The Company has concluded there was no substantial doubt about the Company’s ability to continue as a going concern.

The Company earned net income attributable to UTStarcom Holdings Corp. of \$4.8 million, \$7.0 million and \$0.3 million during the years ended December 31, 2018, 2017, and 2016, respectively. As of December 31, 2018 and 2017, the Company had an accumulated deficit of \$1,212.8 million and \$1,226.2 million, respectively. The Company used net cash from operations of \$26.1 million, and generated net cash inflow from operation of \$3.8 million and \$5.7 million during the years ended December 31, 2018, 2017 and 2016, respectively.

As of December 31, 2018 and 2017, the Company had cash and cash equivalents of \$57.0 million and \$79.7 million, of which \$8.9 million and \$7.9 million, respectively, were held by subsidiaries in China. China imposes currency exchange controls on certain transfers of funds to and from China. The Company’s China subsidiaries are subject to pre-approval from the State Administration of Foreign Exchange (“SAFE”) for non-domestic financing. Additionally, the amount of cash available for transfer from the China subsidiaries for use by the Company’s non-China subsidiaries

is also limited both by the liquidity needs of the subsidiaries in China and the restriction on foreign currency exchange by Chinese-government mandated limitations including currency exchange controls on certain transfers of funds outside of China. The Company's China subsidiaries have no accumulated profit as of December 31, 2018 determined in accordance with Chinese accounting standards that can be paid as dividends. In 2018, 2017 and 2016, the Company's China subsidiaries did not pay dividends.

## NOTE 2-SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

### Use of Estimates:

The preparation of consolidated financial statements in conformity with US GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. Significant judgment and estimates are used for revenue recognition, allowances for doubtful accounts and sales returns, tax valuation allowances, inventory write-down, impairment of property, plant and equipment, deferred costs, accrued product warranty costs, provisions for contract losses, investment impairments, going concern assessment, stock-based compensation expense, and loss contingencies among others. Actual results could differ materially from those estimates.

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Cash and Cash Equivalents:

Cash and cash equivalents consist of highly liquid instruments with maturities of three months or less when acquired. Approximately 10.6%, or \$6.0 million of cash and cash equivalents were held by the Company's subsidiaries in the United States as of December 31, 2018. The remainder was held by the other UTStarcom entities throughout the world. As of December 31, 2018, approximately 15.7%, or \$8.9 million, of the Company's cash and cash equivalents were held by its subsidiaries in China, and China imposes currency exchange controls on transfers of funds outside of China.

Restricted Cash:

As of December 31, 2018, the Company had short-term restricted cash of \$8.8 million, and long-term restricted cash of \$7.8 million. As of December 31, 2017, the Company had short-term restricted cash of \$12.1 million, and had long-term restricted cash of \$8.8 million. These amounts primarily collateralize the Company's issuances of performance bonds, warranty bonds, and standby and commercial letters of credit.

Investments:

The Company's investments consist principally of debt and equity securities classified as "available for sale," and cost and equity method investments in privately held companies. The investments in equity securities of privately held companies in which the Company does not have the ability to exercise significant influence are accounted for under ASC 325, "Investments-Other" using the cost method. Under the cost method, these investments are carried at cost less impairment, if any. The investments in equity securities of privately held companies in which the Company has the ability to exercise significant influence, but does not own a majority equity interest or otherwise control are accounted for under ASC 323, "Investments-Equity Method and Joint Ventures" using the equity method. Investments in debt securities classified as available for sale are measured at fair value on the balance sheets under ASC 320, "Investments-Debt and Equity Securities." Unrealized holding gains and losses for available-for-sale securities (including those classified as current assets) are excluded from earnings and reported in other comprehensive income until realized except as indicated in the following paragraph.

The Company recognizes an impairment charge when a decline in the fair value of its investments below the cost basis is judged to be other-than-temporary. The Company reviews several factors to determine whether the losses are other-than-temporary, including but not limited to: (i) the length of time the investment was in an unrealized loss position, (ii) the extent to which fair value was less than cost, (iii) the financial condition and near term prospects of the issuer, and (iv) the Company's intent and ability to hold the investment for a period of time sufficient to allow for any anticipated recovery in fair value. The determination of fair value of the investment involves considering factors such as current economic and market conditions, the operating performance of the companies including current earnings trends and forecasted cash flows, and other company and industry specific information. Investment impairments recorded as other-than-temporary were \$0.4 million, \$1.7 million, and \$5.3 million, for the years ended December 31, 2018, 2017 and 2016, respectively.

Revenue Recognition:

Effective January 1, 2018, The Company recognizes revenue in accordance with ASC 606. The core principle of ASC 606 is that revenue is recognized upon transfer of control of promised products or services to customers in an amount that reflects the consideration we expect to receive in exchange for those products or services. To determine the appropriate amount of revenue to be recognized for arrangements determined to be within the scope of ASC 606, for



each customer contract, we performed the following five steps:

1. Identify the contract with a customer;
2. Identify the performance obligations in the contract;
3. Determine the transaction price;
4. Allocate the transaction price to the performance obligations in the contract; and
5. Recognize revenue when or as the Company satisfies a performance obligation.

The Company accounts for a contract with a customer that is within the scope of ASC 606 when all of the following criteria are met: (i) the arrangement has been approved by the parties and the parties are committed to perform their respective obligations, (ii) each party's rights regarding the goods or services to be transferred can be identified, (iii) the payment terms for the goods or services to be transferred can be identified, (iv) the arrangement has commercial substance and (v) collection of substantially all of the consideration to which the Company will be entitled in exchange for the goods or services that will be transferred to the customer is probable.

Performance obligations promised in a contract are identified based on the services and the products that will be transferred to the customer that are both capable of being distinct, whereby the customer can benefit from the service either on its own or together with other resources that are readily available from third parties or from us, and are distinct in the context of the contract, whereby the transfer of the services and the products is separately identifiable from other promises in the contract. Our performance obligations consist of (i) sales of communication equipment with embedded software, (ii) provision of installation and commission service, and (iii) provision of annual maintenance service. The software component is not considered distinct as the software component is integral to the functionality of the communication equipment.

The transaction price is determined based on the consideration to which we expect to be entitled in exchange for transferring services to the customer. Some sales agreements have performance guarantees covering a certain timeframe. If there is an underperformance event, the Company may incur liquidation damages as a percentage of the total purchase price. Such performance guarantees represent a form of variable consideration and are estimated at the contract inception at the best estimate and updated at the end of each reporting period as additional performance data becomes available and only to the extent that it is probable that a significant reversal of any revenue will not occur. Variable consideration includes estimates for sales credits, which are based on historical level and specific criteria outlined in the sales contracts, and other factors known at the time. The Company generally invoices customers for equipment and services upon meeting certain milestones. Customer invoices are generally due within 30 to 90 days after issuance. The Company's contracts with customers typically do not include significant financing components as the period between the transfer of performance obligations and timing of payment are generally within one year.

The Company allocates the transaction price based on the estimated standalone selling price. The Company develops assumptions that require judgment to determine the standalone selling price for each performance obligation identified in the contract. The Company utilizes key assumptions to determine the standalone selling price, which may include other comparable transactions, pricing considered in negotiating the transaction and the estimated costs. Certain variable consideration is allocated specifically to one or more performance obligations in a contract when the terms of the variable consideration relate to the satisfaction of the performance obligation and the resulting amounts allocated to each performance obligation are consistent with the amounts the Company would expect to receive for satisfying each performance obligation.

Revenue recognized when a customer obtains control of promised goods or services at an amount that reflects the consideration that is expected to be received in exchange for those goods or services. The Company utilizes judgment to assess the nature of the combined performance obligation determine whether a performance obligation is satisfied over time or at a point in time.

Revenue from sales of communication equipment is recognized at a point in time, which is generally upon delivery. Revenue from provision of installation and commission service is recognized at a point in time when the service is completed. Revenue from provision of annual maintenance services is recognized over time on a ratable basis over the contract term.

The Company adopted ASC 606 using the modified retrospective method in the first quarter of 2018. The Company has completed a detailed review of revenue contracts representative of its business segments and the revenue streams as of the adoption date. The Company is established new accounting policies, implementing systems and processes (including more extensive use of estimates), and internal controls necessary to support the requirements of the new standard.

The cumulative effect of the changes made to our January 1, 2018 balance sheet for adoption of the new standard were as follows:

	Balance as of December 31, 2017	Adjustments Due to Adoption of Topic 606	Balance as of January 1, 2018
	In thousands		
<b>Assets</b>			
Deferred contract costs, prepaid expenses and other current assets	\$37,772	\$ (9,846 )	\$27,926
Total current assets	166,813	(9,846 )	156,967
Total assets	187,044	(9,846 )	177,198
<b>Liabilities</b>			
Deferred Revenue	7,286	(2,543 )	4,743
Customer Advance	21,828	(15,223 )	6,605
Total current liabilities	88,264	(18,409 )	69,855
Deferred income tax liability	—	—	—
Total Liabilities	96,052	(18,409 )	77,643
<b>Stockholders' Equity</b>			
Accumulated earnings	(1,226,173)	8,563	(1,217,610)
Total stockholders' equity	90,992	8,563	99,555
Total liabilities and stockholders' equity	\$187,044	\$ (9,846 )	\$177,198

In accordance with the requirements of the new standard, the disclosure for the quantitative effect and the significant changes between the reported results under the new standard and those that would have been reported under legacy GAAP (i.e., ASC 605) on our consolidated income statement and balance sheet was as follows:

	For the Twelve Months Ended December 31, 2018		
	Balances Without		
As Reported	Adoption of	Effect of Change	
-ASC 606	ASC 606	Higher/(Lower)	
In thousands			
<b>Income Statement</b>			
Revenue	\$ 115,944	\$ 60,438	\$ 55,506
Cost of Net Sales	83,676	32,409	51,267
Gross Profit	32,268	28,029	4,239
Net income	\$4,820	\$ 581	\$ 4,239

	As of December 31, 2018		
	Balances Without		
As Reported	Adoption of	Effect of Change	
-ASC 606	ASC 606	Higher/(Lower)	
In thousands			
<b>Balance Sheet</b>			
<b>Assets</b>			
Accounts receivable	\$60,666	\$31,060	\$ (29,606 )
Deferred contract costs, prepaid expenses and other current assets	\$21,853	\$73,120	\$ 51,267
<b>Liabilities</b>			
Customer advances	561	26,582	(26,021 )
Deferred Revenue	3,947	3,826	121
<b>Stockholders' Equity</b>			
Accumulated earnings	\$(1,212,790)	\$(1,217,029)	\$ 4,239

The variance between the revenue under ASC 606 and ASC 605 is due to the timing difference between the delivery date of the stand-alone value of goods and services under ASC 606 and the receipt date of customer acceptance under ASC 605. Under ASC 605, revenue is recognized in accordance with receiving the final acceptance to ensure the entire project delivered as a turn-key project is essential to functionality while ASC 606 specifically separated performance obligation so that the revenue related to product and services may be recognize separately. Under ASC

605, given the uncertainty about customer acceptance until the customer completes its internal testing and validation, the Company deferred revenue recognition of equipment sales until the issuance of the final acceptance certificate to confirm contract fulfillment. Under ASC 606, the Company can objectively determine that control of equipment has been transferred to the customer in accordance with the agreed-upon specification in the contract. The basis is that a customer acceptance is a mere formality and has no bearing on the Company's determination when the customer has assumed control of the equipment. This determination was based on historical experience with similar contracts for similar goods as well as the Company's testing procedures to ensure contractually agreed-upon specifications were met prior to shipment to the customer. As of December 31, 2018, there were instances where equipment had been delivered to a specific customer but final acceptance had not been received.

Revenue recognition prior to January 1, 2018:

The Company recognized revenue when title and risk of loss have transferred, persuasive evidence of arrangement exists, the sales price is fixed or determinable and collectability is reasonably assured. Certain of the Company's product offerings contain multiple deliverables including hardware with embedded software, back office hosting services, unspecified software upgrades and enhancements related to the software embedded in these products through service contracts, which are considered separate units of accounting. For products under these arrangements, the software and non-software components function together to deliver the tangible product's essential functionality.

The Company allocated revenue to each element in these multiple-element arrangements based upon the relative selling prices of each deliverable. In applying the relative selling price method, the Company determined the selling price for each deliverable using vendor specific objective evidence (VSOE), if it exists, or third-party evidence (TPE) of selling price. If neither VSOE nor TPE of selling price existed for a deliverable, the best estimate of selling price (BESP) was then used for that element. BESP represents the price at which the Company would transact a sale if the element were sold on a standalone basis. The Company determined BESP for an element by considering multiple factors including, but not limited to, the Company's go-to-market strategy, pricing practices, internal costs, gross margin, market conditions and geographies. Revenue allocated to each element was then recognized when the other revenue recognition criteria were met for that element.

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Product Warranty:

The Company provides a warranty on its equipment and terminal sales for periods generally ranging from one to two years from the time of final acceptance. At times, the Company has entered into arrangements to provide limited warranty services for periods longer than two years. The Company provides for the expected cost of product warranties at the time that revenue is recognized based on an assessment of past warranty experience and when specific circumstances dictate. The Company assesses the adequacy of its recorded warranty liability every quarter and makes adjustments to the liabilities if necessary. From time to time, the Company may be subject to additional costs related to non-standard warranty claims from its customers. If and when this occurs, the Company estimates additional accruals based on historical experience, communication with its customers and various assumptions that the Company believes to be reasonable under the circumstances. Such additional warranty accruals are recorded in the period in which the additional costs are identified. Specific warranty accruals are reversed upon the expiration of the warranty period and are recorded as reduction of cost of sales.

Receivables:

Although the Company evaluates customer credit worthiness prior to a sale, the Company provides an allowance for doubtful accounts for the estimated loss on trade when collection may no longer be reasonably assured. The Company assesses collectability of receivables based on a number of factors including analysis of creditworthiness, the Company's historical collection history and current economic conditions, its ability to collect payment and on the length of time an individual receivable balance is outstanding. The Company's policy for determining the allowance for doubtful accounts includes both specific allowances for balances known to be doubtful of recovery and a formula-based portfolio approach, based on aging of the accounts receivable, as a part of management's review of the overall allowance for doubtful accounts. This formula-based approach involves aging of the Company's accounts receivable and applying a percentage based on the Company's historical experience. The Company evaluates the percentages applied to each category of aged accounts receivable periodically based on actual history of write-offs and collections and refines this formula-based approach accordingly for use in future periods. Receivable balances are written-off when the Company has sufficient evidence to prove that they are uncollectible.

Inventories:

Inventories consist of product held at the Company's manufacturing facility and warehouses, as well as finished goods at customer sites for which the customer has taken possession, but based on specific contractual terms, title has not yet passed to the customer. The Company may ship inventory to existing customers that require additional equipment to expand their existing networks prior to the signing of an expansion contract. Inventories are stated at the lower of cost or market value, based on the first-in-first-out ("FIFO") method of accounting. Reserve are based on assumptions about future market conditions and customer demand, including projected changes in average selling prices resulting from competitive pricing pressures. The Company continually monitors inventory valuation for potential losses and obsolete inventory at its manufacturing facilities as well as at customer sites. If actual market conditions are less favorable than those projected by management, additional reserves may be required. If actual market conditions are more favorable than anticipated, the previously reserved inventory may be sold to customers, resulting in lower cost of sales and higher income from operations than expected in that period.

Deferred Costs:

Since the adoption of ASC 606 effective from January 1, 2018, deferred cost balance is insignificant amount, which is the amortized amount of post-contract customer support over a long period of time (for example, seven years) the

deferred revenue and related deferred costs of goods sold over the post-contract support period.

Before the adoption of ASC 606 since January 1, 2018, for certain significant legacy contracts that required us to provide post-contract customer support over a long period of time (for example, seven years) for which we have been unable to establish vendor specific objective of fair value upon delivery of all elements except for post-contract support, we amortize the deferred revenue and related deferred costs of goods sold over the post-contract support period. We assess the recoverability of the deferred cost based on the project status of executed contracts that are in-progress and also their future collectability. As customers were unwilling to have customer contracts assigned to the buyer, we are still the primary obligor for most of the contracts. Therefore, we were not able to derecognize the related liabilities of those un-assigned contracts. Since all of the economic risks and benefits of the un-assigned contracts had been transferred to the buyer of the IPTV equipment business, we have recorded a portion of the payment made to the buyer at the time of the divestiture as the deferred cost to offset the remaining liabilities related to those un-assigned contracts. We tried to settle these contracts and sent termination letters to customers individually. When the legal obligation was expired, we wrote off both liabilities and deferred cost, which had no impact on the statement of operation. During 2018, we reviewed and assessed all contracts and termination letters, and concluded there were no remaining legal obligations. As the result, we closed these accounts. As of December 31, 2018, there were no liabilities and deferred costs related to these remaining un-assigned contracts due to the expiration of the legal obligations.

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#### Property, Plant and Equipment:

Property, plant and equipment are recorded at cost and are stated net of accumulated depreciation. Depreciation is provided for on a straight-line basis over the estimated useful lives of the related assets. Leasehold improvements are amortized on a straight-line basis over the shorter of the estimated useful lives or the term of the lease. When assets are disposed, the cost and related accumulated depreciation are removed from the accounts and the resulting gains or losses are included in results of operations. The Company generally depreciates its property, plant and equipment over the following periods:

	Years
Equipment and furniture	5
Computers and software	2 - 3
Automobiles	5
Leasehold improvements	Lesser of the lease term or estimated useful life

Depreciation expense was \$0.7 million, \$0.6 million, and \$1.2 million, for the years ended December 31, 2018, 2017 and 2016, respectively.

#### Impairment of Long-Lived Assets:

Long-lived assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. If undiscounted expected future cash flows are less than the carrying value of the assets, an impairment loss is recognized based on the excess of the carrying amount over the fair value of the assets. Long-lived assets that are to be sold are measured at the lower of book value or fair value less cost to sell.

#### Advances:

Advances from customers represent cash received from customers before revenue recognition for the purchase of the Company's products.

#### Advertising Costs:

The Company expenses all advertising costs as incurred. Payment to customers for marketing development costs are accounted for as incurred as a reduction of the revenue associated with customers. For the years ended December 31, 2018, 2017 and 2016, advertising costs totaled \$0.1 million, \$0.1 million, and \$0.1 million, respectively.

#### Operating Leases:

The Company leases office space under operating lease agreements with initial lease terms up to five years. Rental expense is recognized from the date of initial possession of the leased property on a straight-line basis over the term of the lease.

#### Stock-Based Compensation:



Stock-based compensation expense for all share-based payment awards granted to employees is determined based on the grant-date fair value. Stock-based compensation expense for restricted stock awards is measured based on the closing fair market value of the Company's ordinary shares on the date of grant. Stock-based compensation expense for stock options is estimated at the grant date based on each option's fair value as calculated by the Black-Scholes model. Stock-based compensation is expensed ratably on a straight-line basis over the requisite service period, which is generally the vesting term of the share-based payment awards. The performance-based restricted stock units are subject to the attainment of goals determined by the Compensation Committee of the Company's Board of Directors. The Company records the relevant stock-based compensation for the performance-based restricted stock units based on the probability of meeting the performance conditions.

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## Accumulated Other Comprehensive Income (“AOCI”):

AOCI mainly consisted of foreign currency translation adjustments and the unrealized gain. The changes in AOCI, including the amounts reclassified to income, were as follows:

	Foreign currency translation and unrealized gains (losses), net of tax (in thousands)
Balance at December 31, 2016	\$ 62,002
Unrecognized gain on foreign currency translation	2,112
Gain reclassified from AOCI to income	(1,703 )
Balance at December 31, 2017	\$ 62,411
Unrecognized loss on foreign currency translation	(839 )
Gain reclassified from AOCI to income	—
Balance at December 31, 2018	\$ 61,572

As of December 31, 2018, no accumulated other comprehensive income or loss was attributable to non-controlling interests.

The Company reclassifies foreign currency translation adjustments from AOCI to income upon sale or upon complete or substantially complete liquidation of investments in foreign entities, when the amounts attributable to the entities and accumulated in the translation adjustment component of equity is both: (a) removed from the separate component of equity; and (b) reported as part of the gain or loss on sale or liquidation of the investment for the period during which the sale or liquidation occurs. During 2016, the Company recognized and reclassified \$0.1 million to net income from cumulative translation adjustment previously recorded in accumulated to other comprehensive income upon the liquidation of two entities. During 2017, the Company recognized and reclassified \$1.7 million to net income from cumulative translation adjustment previously recorded in accumulated other comprehensive income upon the liquidation of one entity. The prior cumulative translation adjustment primarily resulted from the difference between the local functional currency and the Company’s reporting currency.

## Income Taxes:

The Company is subject to income taxes in both the United States and numerous foreign jurisdictions. Significant judgment is required in evaluating the Company’s tax positions and determining its provision for income taxes. During the ordinary course of business, there are many transactions and calculations for which the ultimate tax determination is uncertain. The Company recognizes the tax benefit (expense) from an uncertain tax position only if it is more likely than not the tax position will be sustained on examination by the taxing authorities, based on the technical merits of the position. The Company recognizes interest expense and penalties related to income tax matters as part of the provision for income taxes.

The Company recognizes deferred income taxes as the difference between the tax bases of assets and liabilities and their consolidated financial statement amounts based on enacted tax rates. Management judgment is required in the assessment of the recoverability of the Company’s deferred tax assets based on its assessment of projected taxable

income. Numerous factors could affect the Company's results of operations in the future. If there was a significant decline in the Company's future operating results, its assessment of the recoverability of its deferred tax assets would need to be revised, and any such adjustment to its deferred tax assets would be charged to income in that period. If necessary, the Company records a valuation allowance to reduce deferred tax assets to an amount management believes is more likely than not to be realized. Changes in estimates of taxable income in the future could result in reversal of the valuation allowances which would be credited to income in the year of reversal.

On December 22, 2017, the 2017 Tax Cuts and Jobs Act (the "Tax Act") was enacted. The Tax Act significantly revises the U.S. corporate income tax by, among other things, lowering the statutory corporate income tax rate ("federal tax rate") from 35% to 21% effective January 1, 2018, implementing a modified territorial tax system, and imposing a mandatory one-time transition tax on accumulated earnings of foreign subsidiaries.

In December 2017, the SEC issued Staff Accounting Bulletin No. 118 ("SAB 118"), which addresses how a company recognizes provisional amounts when a company does not have the necessary information available, prepared or analyzed (including computations) in reasonable detail to complete its accounting for the effect of the changes in the Tax Act. The measurement period ends when a company has obtained, prepared and analyzed the information necessary to finalize its accounting, during an up to one-year measurement period. The Company recorded what it believed to be a reasonable estimate during the SAB 118 measurement period which lasted from December 2017 to December 2018. In December 2018, the Company finalized the accounting treatment of the income tax effects of the Tax Act.

## Financial Instruments:

Financial instruments consist of cash and cash equivalents, short and long-term investments, notes receivable, accounts receivable and payable and accrued liabilities. The carrying amounts of cash and cash equivalents, bank notes, accounts receivable and payable, notes receivable, and accrued liabilities approximate their fair values because of the short-term nature of those instruments. The fair value of long term investments in debt and equity securities is determined based on quoted market prices or available information about investees.

## Foreign Currency Translation:

The Company's operations are conducted through international subsidiaries where the local currency is the functional currency and the financial statements of those subsidiaries are translated from their respective functional currencies into U.S. Dollars which is the functional currency of the Company. All foreign currency assets and liabilities are translated at the period-end exchange rate and all revenues and expenses are translated at the average exchange rate for the period. The effects of translating the financial statements of foreign subsidiaries into U.S. Dollars are reported as a cumulative translation adjustment, a separate component of accumulated other comprehensive income in shareholders' equity.

The foreign currency translation gain (loss) related to the remeasurement of transactions denominated in other than the functional currency is included in other income (expense), net on the Company's Consolidated Statements of Operations and Comprehensive Income. In connection with this remeasurement process, the Company recorded a \$2.6 million loss, and gains of \$0.6 million and of \$1.5 million for the years ended December 31, 2018, 2017 and 2016, respectively.

## Earnings per Share:

Basic earnings per share is computed by dividing the net loss available to shareholders by the weighted average number of the Company's ordinary shares outstanding, as applicable, during the period, which excludes unvested restricted stock. Diluted earnings per share reflects the amount of net loss available to each ordinary share outstanding during the period plus number of additional shares that would have been outstanding if potentially dilutive securities had been issued. The Company's potentially dilutive ordinary shares include outstanding stock options, unvested restricted stock, restricted stock units and performance-based units. The following table summarizes the total potential ordinary shares that were excluded from the diluted per share calculation, because their effect was anti-dilutive.

	Years ended December 31,		
	2018	2017	2016
	(in thousands)		
Anti-dilutive stock options and awards/units outstanding	—	—	605
Total(1)	—	—	605

(1) Calculated using the treasury stock method, which assumes proceeds are used to reduce the dilutive effect of outstanding stock awards. Assumed proceeds include the unrecognized deferred compensation of share awards, and assumed tax proceeds from excess stock-based compensation deductions.

For the years ended December 31, 2018, 2017 and 2016, 1.5 million, 1.2 million and 1.4 million potential ordinary shares were dilutive. After the dilution, the diluted earnings per share during the years ended December 31, 2018 and

2017 were as follows.

	2018	2017
	(in thousands, except per shares amounts)	
Net Income attributable to UTStarcom Holdings Corp.	\$ 4,820	\$ 6,981
Weighted average shares outstanding—Diluted	36,319	36,176
Net Income per shares attributable to UTStarcom Holdings Corp.—Diluted	\$ 0.13	\$ 0.19

#### Recent Accounting Pronouncements:

In February 2016, the Financial Accounting Standards Board (“FASB”) issued ASU No. 2016-02, Leases (Topic 842) (“ASU 2016-02”), as amended, which generally requires lessees to recognize operating and financing lease liabilities and corresponding right-of-use assets on the balance sheet and to provide enhanced disclosures surrounding the amount, timing and uncertainty of cash flows arising from leasing arrangements. The Company adopted the new standard effective January 1, 2019 and elected the package of practical expedients permitted under the transition guidance, which allows to carryforward our historical lease classification, and initial direct costs for any leases that exist prior to adoption of the new standard. The Company will also keep leases with an initial term of 12 months or less off the balance sheet and recognize the associated lease payments in the consolidated statements of income on a straight-line basis over the lease term. The Company estimates approximately \$2.5 million would be recognized as total right-of-use assets and total lease liabilities on its consolidated balance sheet as of January 1, 2019. Other than additional disclosure, the Company does not expect the new standard to have a material impact on its other consolidated financial statements.

In February 2018, the FASB issued ASU 2018-02, Income Statement – Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income (“ASU 2018-02”). ASU 2018-02 gives entities the option to reclassify the stranded tax effects resulting from the tax law and tax rate changes under the Tax Act from AOCI to retained earnings. The option to reclassify tax effects under ASU 2018-02 only applies to the income tax effects of tax law and tax rate changes under the Tax Act, and does not apply to other tax effects, such as those resulting from prior changes in tax laws. The amendment is effective for all entities for fiscal years beginning after December 15, 2018 and for all interim periods within those fiscal years. Entities should apply the amendments either retrospectively to each period (or periods) in which the entity records the effect of the tax rate changes under the Tax Act, or at the beginning of the annual or interim period in which the amendments are adopted. The adoption of this standard update is not expected to have a material impact on the Company’s consolidated financial statements.

In March 2018, the Financial Accounting Standards Board (“FASB”) issued ASU 2018-05, “Income Taxes (Topic 740): Amendments to SEC Paragraphs Pursuant to SEC Staff Accounting Bulletin No. 118” (“ASU 2018-05”). ASU 2018-05 adds the SEC’s guidance released on December 22, 2017 in SAB 118 regarding the Tax Reform Act to the FASB Accounting Standards Codification. The Company adopted ASU 2018-05 in March 2018.

#### NOTE 3-DIVESTITURES

During the year ended December 31, 2012, the Company completed its divestiture of the IPTV equipment business.

##### IPTV operations

On August 31, 2012, the Company completed a sale of its IPTV business to an entity founded by our former CEO (the “Buyer”), for an aggregate purchase price of \$30.0 million related to the net liabilities transferred. In connection with this transaction, we recorded a net loss of \$17.5 million during 2012.

The Company is still the primary obligor for certain contracts that some customers were not willing to assign to the Buyer. Even though the Company signed back-to-back contracts to transfer all obligations and associated economic risks and benefits to the Buyer, from the customer point of view, the Company is still the sole and only obligor to their contracts. If the Buyer fails to fulfill its obligations with respect to these un-assigned contracts with the Company, the Company is still obligated to fulfill its obligations under the un-assigned contracts. Therefore, the Company did not derecognize the related liabilities of those un-assigned contracts. According to the back-to-back contracts with the Buyer, all of the obligations and associated economic risks and benefits of the un-assigned customer contracts were transferred to the Buyer. Therefore, the Company recorded the portion of the payment made to the Buyer at the time of the divestiture as service cost payment to fulfill the remaining liabilities related to those un-assigned contracts. The Company tried to settle these contracts and sent termination letters to customers individually. When the legal obligation expired, the Company wrote off both liabilities and deferred cost which did not affect the consolidated statement of income. During 2018, the Company reviewed and assessed all contracts and termination letters, and concluded there were no legal obligations. As the result, the Company closed these accounts. As of December 31, 2018, there were no liabilities and deferred costs related to these remaining un-assigned contracts due to expiration of the legal obligations.

#### NOTE 4-ACQUISITION

On March 28, 2018, the Company became an investor of uSTAR, a JV Company. In April 2018, the Company invested \$1.8 million to acquire 49% of uSTAR’s equity interest. The Company used the equity method to account for

this investment.

In December 2018, the Company invested an additional \$1.9 million to purchase the remaining shares of uSTAR from its JV partner. After that transaction, the Company owned 100% equity interest of uSTAR and we consolidated uSTAR from the acquisition date. The Company assessed the fair value of all the assets and liabilities in uSTAR, and concluded there was no Goodwill occurred during the transaction. Below is the purchase price allocation schedule as of the acquisition date:

Assets	Fair Value (In thousands)
Net working capital	\$ 3,597
Long-term assets	66
Total net assets	3,663
Purchase price (51%)	\$ 1,868

During the period between April 2018 to the date we acquired control of uSTAR, the Company recorded \$0.4 million equity loss in connection with uSTAR.

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## NOTE 5-COMPREHENSIVE INCOME

Total Comprehensive Income for the years ended December 31, 2018, 2017 and 2016 consisted of the following:

	Years ended December 31,		
	2018	2017	2016
	(in thousands)		
Net income	\$ 4,820	\$ 6,981	\$ 132
Other comprehensive income (loss)			
Net Change in Foreign currency translation	(839 )	409	532
Total comprehensive income	3,981	7,390	664
Comprehensive loss attributable to non-controlling interests(1)	—	—	158
Comprehensive income attributable to UTStarcom Holdings Corp.	\$ 3,981	\$ 7,390	\$ 822

(1)Comprehensive loss attributable to non-controlling interests consisted solely of net loss.

## NOTE 6-BALANCE SHEET DETAILS

The following tables provide details of selected balance sheet items:

	December 31,	
	2018	2017
	(in thousands)	
<b>Inventories:</b>		
Raw materials	\$ 1,665	\$ 3,610
Work in process	2,992	2,674
Finished goods(1)	21,731	10,855
Total Inventory	\$ 26,388	\$ 17,139

(1)Includes finished goods at customer sites of approximately \$14.4 million and \$10.6 million at December 31, 2018 and 2017, respectively, for which the customer has taken possession, but based on specific contractual terms, title has not yet passed to the customer and for which revenue has not yet been recognized.

	December 31,	
	2018	2017
	(in thousands)	
<b>Prepaid and other current assets</b>		
Prepaid tax	\$ 3,468	\$ 3,927
Advance to suppliers (1)	982	6,542
Other receivable	794	983
Prepaid others	1,532	2,775



Total Prepaid and other current assets \$6,776 \$ 14,227

- (1) The \$6.5 million advance to supplier as of December 31, 2017 was for obtaining a price discount.

	December 31, 2018	December 31, 2017
	(in thousands)	
Property, plant and equipment, net:		
Leasehold improvements	\$1,893	\$ 1,768
Automobiles	323	1,885
Computer and Software	4,878	6,028
Equipment and Furniture	23,556	25,681
Total	30,650	35,362
Less: accumulated depreciation	(29,392)	(33,648)
Total Property, plant and equipment, net	\$1,258	\$ 1,714

During the years ended December 31, 2018, 2017 and 2016, the Company wrote-off \$3.3 million with accumulated depreciation of \$3.3 million, \$0.6 million with accumulated depreciation of \$0.6 million, and \$19.6 million with accumulated depreciation of \$19.6 million of fully depreciated property, plant and equipment, respectively.

	December 31, 2018      2017 (in thousands)	
<b>Other current liabilities:</b>		
Accrued contract costs(1)	\$ 353	\$ 7,734
Accrued payroll and compensation	5,224	7,040
Warranty costs	91	51
Accrued professional fees	602	897
Accrued other taxes	1,087	3,133
Other	3,154	4,891
<b>Total other current liabilities</b>	<b>\$ 10,511</b>	<b>\$ 23,746</b>

(1) Accrued contract costs include \$7.3 million cost related to product and service sales contracts from India as of December 31, 2017.

	December 31, 2018      2017 (in thousands)	
<b>Other long-term liabilities</b>		
Non-current income tax payable	\$ 1,327	\$ 2,530
Other long-term liabilities	1,170	1,123
<b>Total other long-term liabilities</b>	<b>\$ 2,497</b>	<b>\$ 3,653</b>

#### NOTE 7-CASH, CASH EQUIVALENTS AND SHORT AND LONG TERM INVESTMENTS

Cash and cash equivalents, consisting primarily of bank deposits and money market funds, are recorded at cost which approximates fair value because of the short-term nature of these instruments.

Short-term investments consist of available-for-sale securities and held to maturity investments with original maturities longer than three months and less than twelve months when acquired. Long-term investments consist of cost and equity method investments in privately held companies.

The Company recognizes an impairment charge when a decline in the fair value of its investments below the cost basis is judged to be other-than-temporary. In making this determination, the Company reviews several factors to determine whether the losses are other-than-temporary, including but not limited to: (i) the length of time the investment was in an unrealized loss position, (ii) the extent to which fair value was less than cost, (iii) the financial condition and near term prospects of the issuer, and (iv) the Company's intent and ability to hold the investment for a period of time sufficient to allow for any anticipated recovery in fair value.

The following table shows the break-down of the Company's total long-term investments as of December 31, 2018 and December 31, 2017:

	Accounting Method	December 31, 2018	December 31, 2017
(in thousands)			
UTStarcom Hong Kong Holdings Ltd	Cost	\$3,129	\$ 3,499
GCT Semiconductor, Inc.	Cost	—	—
Cortina	Cost	—	—
SBI	Cost	—	—
<b>Total Investments using Cost Method</b>		<b>3,129</b>	<b>3,499</b>
ACELAND	Equity	2,095	2,357
UiTV	Equity	—	—
AioTV	Equity	—	—
<b>Total Investments using Equity Method</b>		<b>2,095</b>	<b>2,357</b>
<b>Total Investments</b>		<b>\$5,224</b>	<b>\$ 5,856</b>

#### UTStarcom Hong Kong Holdings Ltd.,

On August 31, 2012, the Company completed the sale of our IPTV business to UTStarcom Hong Kong Holdings Ltd. to its former Chief Executive Officer. On the same day, the Company purchased a \$20.0 million Convertible Bond from UTStarcom Hong Kong Holdings Ltd. which bears interest at 6.5% per annum and matured on August 31, 2017. On April 7, 2015, the Company entered an agreement with UTStarcom Hong Kong Holdings Ltd. for the conversion of the \$20.0 million Convertible Bond. Pursuant to the agreement, UTStarcom Hong Kong Holdings Ltd. paid \$10.0 million in cash as partial repayment of the principal of the Convertible Bond. The remaining principal and interest of the Convertible Bond were converted to 14% of equity interest of UTStarcom Hong Kong Holdings Ltd. The Company used the cost method to account for this investment. The Company assesses the fair value every year-end. In 2015, the Company recorded \$6.5 million investment impairment. During 2018, the Company assessed the fair value of UTStarcom Hong Kong Holdings Ltd, and recorded a \$0.4 million impairment charge. As of December 31, 2018, the book value of this investment was \$3.1 million.

#### GCT Semiconductor

In October 2004, the Company invested \$3.0 million in Series D preferred convertible stock of GCT Semiconductor, Inc., or GCT, which designs, develops and markets integrated circuit products for the wireless communications industry. This investment represents approximately a 0.4% interest in GCT. The Company assesses the fair value every year-end. In 2012 and 2016, the Company recorded \$2.1 million and \$0.8 million investment impairment, respectively. As of December 31, 2016, the book value of the investment was zero.

#### Cortina

In September 2004, the Company invested \$2.0 million in Series A preferred stock of ImmenStar, Inc., which was then acquired by Cortina Systems, Inc., (“Cortina”) in February 2007. In 2016 and 2015, through the sale of shares and proceeds received, the Company recognized gains of \$0.1 million and \$1.6 million, respectively, which were included in Other Income.

#### SBI NEO Technology A Investment LPS, or SBI

In 2008, 2010, 2011 and 2012, the Company invested \$0.5 million, \$0.7 million, \$0.7 million and \$0.6 million, respectively, into SBI, to maintain a partnership interest of approximately 2%. The Company concluded that it does not have a controlling interest in SBI and accounts for the investment in SBI using the cost method. In 2014, 2015, and 2016, the Company received \$0.1 million, \$0.26 million and \$0.7 million, respectively, from SBI to reduce its investment. In 2016, the Company recorded impairment of 0.2 million. In 2017, the Company received a final refund of \$0.5 million and the book value of the investment was reduced to zero.

#### Aceland Investment Limited

In December 2010, the Company invested \$2.1 million into Aceland Investments Limited, or Aceland. In the second quarter of 2011, the Company extended a shareholder loan to Aceland in the amount of \$7.1 million with a maturity date of December, 31, 2015. The Company owned an approximately 35% interest in Aceland and accounted for the investment in Aceland using the equity method. In 2015, the Company recorded a \$1.0 million impairment charge to the Aceland investment. In 2016, Aceland returned capital of \$6.7 million to the Company through a cash payment and the Company realized a \$1.0 million gain of foreign exchange. In 2017 and 2018, the Company realized a \$0.2 million and \$0.3 million equity loss as a result of the depreciation of the US Dollar deposit, respectively. As of December 31, 2018, the book value of the investment was \$2.1 million.

## AioTV Inc.

In November 2012, the Company invested \$8.0 million in Series B Preferred Stocks of AioTV, at \$0.320937 per share. The Preferred Stock was classified as available-for-sale security as it was not considered to be in-substance common stock due to the redemption feature. The Company owned a 45% equity interest in AioTV as of December 31, 2017. To estimate its fair value in 2016, the Company used the option-pricing method and Ross and Rubinstein Binomial Model (“Binomial-Model”), which is based on the fair value of invested capital evaluated by an income approach. The significant inputs for the valuation model included the following:

	Year Ended December 31, 2016	
Total fair value of invested Capital as at valuation date (in thousands)	900	
Risk free rate of interest	0.80	%
Dividend yield	0.00	%
Expiration date	November 14, 2017	
Volatility	41	%

The fair value of the invested capital has been determined using income approach including a discounted cash flow model and unobservable inputs including assumptions of projected revenue, expenses, capital spending, other costs and a discount rate of 50% by using the weighted average cost of capital method in 2016.

Risk free rate of interest adopted for the valuation was estimated based on the US Sovereign Strips Curve plus default risk spread between US and China.

Dividend yield was assumed to be 0.00% considering that AioTV plans to retain profit for corporate expansion and hence have no plan to distribute dividends in the near future.

Expiration date is the expected date of illiquidity event estimated by management.

The expected equity volatility was estimated based on the annualized standard deviation of the daily stock price return of comparable companies for the period before the valuation date and with a similar time span as to expiration.

Based on the above assessment of the preferred stock, the Company concluded the fair value was less than the book value of the preferred stock as of December 31, 2016, which will not recover in foreseeable future, thus for the year ended December 31, 2016, the Company recorded a \$4.3 million in impairment charges in investment impairments.

On December 7, 2015, the Company invested \$0.5 million in a convertible bond of AioTV. The convertible bond bears interest at 10.0% per annum and matured on May 7, 2016 which was subsequently extended to March 28, 2017. The Company converted the bond to 2,269,856 common shares at the conversion price of \$0.253790596 per share on May 30, 2017. In the fourth quarter of 2016, the Company invested an additional \$0.3 million in convertible bonds issued by AioTV. The convertible bond bears interest at 10% per annum and matured on October 6, 2017. The convertible bonds are classified as an AFS security and are subject to fair value accounting. During 2016, and in connection with the fair value analysis of the investment capital, the Company assessed the fair value of these convertible bonds, and concluded that there was no impairment.

As of December 31, 2016, the carrying amount on the investment of AioTV was \$1.7 million, including \$0.9 million preferred shares and \$0.8 million convertible bonds.

On May 30, 2017, the Company converted all the existing 25,527,008 Series B Preferred Shares of AioTV into 25,527,008 common shares of AioTV at a conversion price of \$0.320937 per share, and converted \$576,068 of the principal amount and the accrued and unpaid interests of the \$0.5 million convertible debenture issued on December 7, 2015 into 2,269,856 common shares of AioTV at a conversion price of \$0.253790596 per share. After this conversion, the Company deemed to have significant influence in AioTV and began to use the equity method to account for the investment in AioTV.

On May 30, 2017, the Company signed a "Note Purchase Agreement" with AioTV. Pursuant to the agreement, the valuation cap of AioTV was reduced to \$0.16 million, and the Company promised to purchase \$0.8 million convertible promissory note including \$0.32 million existing convertible bond issued in October 2016. As the result, the Company recorded \$1.3 million investment impairment in the second quarter of 2017. We invested \$0.1 million and \$0.38 million in the second and third quarter of 2017, respectively, in a convertible promissory note. In the third quarter of 2017, the Company recorded \$0.1 million in losses to reflect its 45 share of AioTV's losses. After the recorded balance of common stock is reduced to zero, the Company records 45% share of AioTV's losses against our convertible promissory note investment balance until the carrying value of the convertible promissory note investment balance is reduced to zero. In the third and fourth quarter of 2017, the Company recorded \$0.2 million and \$0.2 million, respectively, in losses to reflect its 45% share of AioTV's losses. As of December 31, 2017, the Company assessed the fair value of AioTV, and recorded a \$0.4 million impairment charge to this investment, reducing its book

value to zero.

On December 19, 2018, the Company entered into the assignment and assumption agreement to transfer the Company's all equity interests and debt interests in AioTV to a third party with a cash consideration of \$1 by the buyer. This transaction was closed at April 11, 2019.

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The Company presents the below summarized financial information of the Company's equity method investees.

	Condensed Year Ended December 31, 2018 (in thousands)	Condensed Year Ended December 31, 2017 (in thousands)	Condensed Year Ended December 31, 2016 (in thousands)
<b>Operating data:</b>			
Revenue	\$ 6,131	\$ 6,943	\$ —
Gross profit	\$ 4,847	\$ 4,841	\$ —
Income (loss) from operations	\$ (911 )	\$ (2,776 )	\$ 950
Net income (loss)	\$ (4,422 )	\$ (2,104 )	\$ 2,812
Net income (loss) attributable to Equity method investees	\$ (262 )	\$ (687 )	\$ 984

	Year Ended December 31, 2018 (in thousands)	Year Ended December 31, 2017 (in thousands)	Year Ended December 31, 2016 (in thousands)
<b>Balance sheet data:</b>			
Current assets	\$ 13,550	\$ 20,527	\$ 18,616
Long-term assets	\$ 1,289	\$ 2,545	\$ 105
Current liabilities	\$ (9,672 )	\$ (70,213 )	\$ (11,669 )
Long-term liabilities	\$ (53,071 )	\$ —	\$ —
Non-controlling interests	\$ —	\$ —	\$ —

### Fair Value Measurements

Fair value is defined as the price that would be received from selling an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. As such, fair value is a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset or liability. The accounting guidance also establishes a three-tier fair value hierarchy which requires the Company to use observable market data, when available, and to minimize the use of unobservable inputs when determining fair value. The fair value hierarchy prioritizes the inputs into three levels that may be used in measuring fair value as follows:

Level 1-observable inputs such as quoted prices in active markets for identical assets or liabilities.

Level 2-inputs other than the quoted prices in active markets for identical assets or liabilities that are observable either directly or indirectly.

Level 3-unobservable inputs based on the Company's assumptions.

The Company's financial instruments consist principally of cash and cash equivalents, short-term investments, restricted cash, accounts receivable, long-term investments, accounts payable and certain accrued expenses. Short-term investments consist of bank notes and term deposits with maturities longer than three months and less than one year when acquired. As of December 31, 2018 and 2017, the respective carrying values of financial instruments



except for long-term investments approximated their fair values based on their short-term maturities. As of December 31, 2018, the combined fair value of the entity's long-term investments in available-for-sale Level 3 convertible bond and redeemable securities was nil.

The following is a summary of available-for-sale investment as of December 31, 2017:

	Cost	Cash	Impairment	Transfer-	Realized	Estimated
	(in thousands)	Collection	charges and	out from	gain	fair value
			equity losses	available-		
				for- sale		
				investments		
Shares of a private company	\$479	\$ (479 )	\$ —	\$ —	\$ —	\$ —
Convertible bonds of privately-held company	800	—	(408)	(392)	—	—
Preferred convertible shares of private company	900	—	(900)	—	—	—
Total available-for-sale investments	\$2,179	\$ (479 )	\$ (1,308 )	\$ (392 )	\$ —	\$ —

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There were no financial assets measured and recognized at fair value on a recurring basis and classified under the appropriate level of the fair value hierarchy for the year ended December 31, 2018 and 2017.

The following is the changes in financial assets using unobservable inputs (Level 3) for the years ended December 31, 2017.

	Amount In thousands
As of December 31, 2016	\$ 1,700
Less: Impairment charges	(1,308)
Less: Transfer-out from available-for-sale investments	(392)
As of December 31, 2017 and 2018	\$ —

#### NOTE 8-COMMITMENTS AND CONTINGENCIES

##### Leases

The Company entered into various non-cancelable operating, office space, manufacturing facilities leases. Future minimum lease payments under all non-cancelable operating leases with an initial term in excess of one year as of December 31, 2018 are as follows:

	Amount (in thousands)
2019	\$ 1,674
2020	1,112
2021	649
2022	—
2023	—
Thereafter	—
Total	\$ 3,435

Rent expense for the years ended December 31, 2018, 2017 and 2016 was \$2.1 million, \$1.9 million and \$1.4 million, respectively.

##### Contractual obligations and commercial commitments

##### Letters of credit:

The Company issues bid bond, commercial letters of credit or standby letters of credit primarily to support international sales activities outside of China and in support of purchase commitments. When the Company submits a bid for a sale, often the potential customer will require that the Company issue a bid bond or a standby letter of credit to demonstrate its commitment through the bid process. In addition, the Company may be required to issue standby letters of credit as guarantees for advance customer payments upon contract signing or performance guarantees. The standby letters of credit usually expire without being drawn by the beneficiary thereof. Finally, the Company may issue commercial letters of credit in support of purchase commitments. As of December 31, 2018, the Company's outstanding letters of credit approximated \$16.7 million. These balances are included in the balance of Short-term restricted cash and Long-term restricted cash.

Purchase commitments:

The Company is obligated to purchase raw materials and work-in-process inventory under various orders from various suppliers, all of which should be fulfilled without adverse consequences material to the Company's operations or financial condition. At December 31, 2018, the Company had outstanding purchase commitments, including agreements that are non-cancelable and cancelable, approximating \$31.7 million.

Intellectual property:

Certain sales contracts include provisions under which customers are indemnified by the Company in the event of, among other things, a third party claim against the customer for intellectual property rights infringement related to the Company's products. There are no limitations on the maximum potential future payments under these guarantees. The Company has not accrued any amounts in relation to these provisions as no such claims have been made and the Company believes it has valid enforceable rights to the intellectual property embedded in its products.

Uncertain Tax Positions:

As of December 31, 2018, the Company had \$17.5 million of gross unrecognized tax benefits, of which \$0.8 million related to tax benefits that, if recognized, would affect the annual effective tax rate. The remaining \$16.6 million gross unrecognized tax benefits, if recognized, would affect certain deferred tax assets.

Litigation:

The Company is a party to other litigation matters and claims that are normal in the course of operations, and while the results of such litigation matters and claims cannot be predicted with certainty, management of the Company believes that the final outcome of such matters will not have a material adverse impact on the Company's financial position, results of operations or cash flows.

NOTE 9-COMMON STOCK REPURCHASE AND ISSUANCE

On November 12, 2014, the Company's Board of Directors approved a share repurchase program of up to \$40.0 million of its ordinary shares outstanding over the 24 months through 2016. On November 4, 2016, the Company's Board of Directors approved an extension for this program to November 2018. On November 4, 2018, the Company's Board of Directors approved an extension for this program to November 2020. For the years ended December 31, 2018, 2017 and 2016, the Company repurchased 623,765, 72,739 and 2,054,655 shares at the cost of \$2.5 million, \$0.1 million and \$4.1 million, respectively. All of the repurchased shares under the repurchase program are classified as treasury shares of the Company until they are retired or reissued.

NOTE 10-COMMON STOCK AND STOCK INCENTIVE PLANS

Stock Incentive Plans

As of December 31, 2017, the Company has the stock incentive plans described below. Substantially all outstanding awards are subject to potential accelerated vesting in the event of a change in control of the Company. The Company repurchases and cancels its ordinary shares forfeited with respect to the tax liability associated with certain vesting of restricted stock and restricted stock unit grants under these plans.

2017 Equity Incentive Plan:

The 2017 Equity Incentive Plan, or (the "2017 Plan"), was approved by the Board of Director on November 4, 2016, and will expire on December 31, 2021. The 2017 Plan provides for the grant of the following types of incentive awards: (i) stock options, (ii) stock appreciation rights, (iii) restricted stock, (iv) restricted stock units, (v) performance shares and performance units, and (vi) other stock or cash awards ("Award," and collectively, "Awards"). Those who are eligible for Awards under the 2017 Plan include employees, directors and consultants who provide services to the Company and its affiliates.

The maximum aggregate number of shares that may be awarded and sold under the Plan is 2,000,000 Shares plus (i) any shares that, as of December 31, 2016, have been reserved but not issued pursuant to any awards granted under UTStarcom Holdings Corp.'s Amended and Restated 2006 Equity Incentive Plan (the "2006 Plan"), and (ii) any shares subject to stock options or similar awards granted under the 2006 Plan that expire or otherwise terminate without having been exercised in full and Shares issued pursuant to awards granted under the 2006 Plan that are forfeited to or repurchased by the Company. The shares may be authorized but unissued, or reacquired common stock.

As of December 31, 2018, 1,512,623 shares underlying options and restricted stock awards and units were outstanding under the 2017 Plan. The 2006 Equity incentive plan expired on December 31, 2016, and as of December 31, 2018, 1,583,278 ordinary shares available for grant under this plan were transferred to the 2017 equity incentive plan.

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## Stock Award and Stock Option Activity

During 2018, the Company granted equity awards primarily consisting of restricted stock, restricted stock units, stock options and performance shares. Such awards generally vest over a period of four years from the vesting start date. Restricted stock has the voting rights of ordinary shares and the shares underlying restricted stock are issued and outstanding. As of December 31, 2018, the number of ordinary shares available for issuance pursuant to future grants under the 2017 plan, including remaining unissued shares under Prior Plans that have been transferred into the 2017 plan were 2,456,631. The 2006 Plan expired on December 31, 2016, and as of December 31, 2018, 1,583,278 shares were transferred to the 2017 Plan that was approved by the Board of Director on November 4, 2016. The following table summarizes the Company's stock option activities:

	Number of shares outstanding (in thousands)	Weighted average exercise price
Options Outstanding, December 31, 2016	605	\$ 2.78
Options granted	—	—
Options exercised	(52	) 2.62
Options forfeited or expired	(309	) 3.22
Options Outstanding, December 31, 2017	244	\$ 2.26
Options granted	—	—
Options exercised	(35	) 2.24
Options forfeited or expired	(3	) 4.17
Options Outstanding, December 31, 2018	206	\$ 2.24

Under the Plans, the Company granted restricted stock awards. Restricted stock awards are unvested stock awards that may include grants of restricted stock or grants of restricted stock units. Such awards generally vest over a period of four years from the date of grant. Restricted stock has the voting rights of ordinary share and the shares underlying restricted stock are considered to be currently issued and outstanding. Restricted stock units do not have the voting rights of ordinary shares, and the shares underlying the restricted stock units are not considered issued and outstanding. The expense for such awards is based on the fair market value of the shares at the date of grant and is recognized on a straight-line basis over the requisite service period. The grant of restricted stock awards is deducted from the shares available on a one to one basis for grant under the Company's stock plan. Unvested restricted awards as of December 31, 2018 and changes during the year ended December 31, 2018 is summarized below:

	Shares (in thousands)	Weighted average grant date fair value
Total nonvested restricted stock at December 31, 2016	1,438	\$ 2.28
Granted	76	2.34
Vested	(364	) 2.27

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Forfeited	(229	) 3.64
Total nonvested restricted stock at December 31, 2017	921	\$ 1.96
Granted	789	3.53
Vested	(379	) 2.37
Forfeited	(25	) 3.33
Total nonvested restricted stock at December 31, 2018	1,306	\$ 2.77

During 2017, 0.4 million shares of restricted stock awards vested. The total fair value of restricted stock awards vested, as measured on the date of vesting, during 2017 was \$0.8 million. During 2017, the Company also granted 0.1 million restricted stock awards.

During 2018, 0.4 million shares of restricted stock awards vested. The total fair value of restricted stock awards vested, as measured on the date of vesting, during 2018 was \$0.9 million. During 2018, the Company also granted 0.8 million restricted stock awards.

The following table summarizes significant ranges of outstanding and exercisable stock options as of December 31, 2018:

Range of Exercise Prices	Number of shares Outstanding as of 12/31/2018	Weighted Average Remaining Contractual Term	Weighted Average Exercise Price	Number of shares Exercisable as of 12/31/2018	Weighted Average Exercise Price
\$ 2.24 \$ 2.24	206,450	4.08	\$ 2.24	73,150	\$ 2.24

	Number of shares	Weighted average exercise price
Options exercisable as of December 31, 2018	73,150	\$ 2.24
Options vested and expected to vest as of December 31, 2018	206,450	\$ 2.24

The intrinsic value represents the total pre-tax intrinsic value and is calculated as the difference between the market value as reported by NASDAQ on December 31, 2018 of \$2.27 and the exercise price of the in-the-money shares. During 2018, the total pre-tax intrinsic value of options exercised was negligible. The weighted average remaining contractual life of options exercisable was 1.08 years, and the weighted average remaining contractual life of options expected to vest was 4.08 years as of December 31, 2018.

#### 2006 Equity Incentive Plan:

The 2006 Equity Incentive Plan, or 2006 Plan, was implemented on July 21, 2006 after being adopted by the Board of Directors on June 6, 2006 and approved by the Company's stockholders on July 21, 2006, and expired on December 31, 2016. The 2006 Plan replaces the 1997 Plan, the 2001 Plan, and the 2003 Plan, (collectively, the "Prior Plans"), and no further awards will be granted pursuant to the Prior Plans. The 2006 Plan provides for the grant of the following types of incentive awards: (i) stock options, (ii) stock appreciation rights, (iii) restricted stock, (iv) restricted stock units, (v) performance shares and performance units, and (vi) other stock or cash awards. Those who are eligible for Awards under the 2006 Plan include employees, directors and consultants who provide services to the Company and its affiliates.

The maximum aggregate number of shares that may be awarded and sold under the 2006 Plan is 1,500,000 shares, which was amended on January 4, 2016, to add an additional 1,500,000 shares to the 2006 Plan, plus (i) any shares that have been reserved but remain unissued under the Prior Plans as of July 21, 2006, and (ii) any shares subject to stock options or similar awards granted under the Prior Plans that expire or become exercisable without having been exercised in full and shares issued pursuant to awards granted under the Prior Plans that are forfeited to or repurchased by the Company. As of December 31, 2016, the number of shares transferred from the Prior Plans to the 2006 plan totaled 8,474,347. As of December 31, 2016, 2,042,798 options and restricted stock awards and units were outstanding under the 2006 Plan.

The Board of Directors or the Compensation Committee of the Board, or Compensation Committee, administers the 2006 Plan. Subject to the terms of the 2006 Plan, the Administrator has the sole discretion to select the employees, consultants, and directors who will receive Awards, determine the terms and conditions of Awards, and to interpret the provisions of the 2006 Plan and outstanding Awards. Options granted under the 2006 Plan generally vest and



become exercisable over four years.

Awards granted under the 2006 Plan are generally not transferable, and all rights with respect to an Award granted to a participant generally may be exercised during a participant's lifetime only by the participant; provided, however, that with the Administrator's approval, a participant may (i) transfer an Award to a participant's spouse or former spouse pursuant to a court-approved domestic relations order which relates to the provision of child support, alimony payments or marital property rights, or (ii) transfer an Award by gift to or for the benefit of the participant's immediate family.

The exercise price of all stock options and stock appreciation rights granted under the 2006 Plan must be at least equal to 100% of the fair market value of the ordinary share on the date of grant (or at least 110% of such fair market value for an incentive stock option, or ("ISO"), granted to a shareholder with greater than 10% voting power of the Company's stock). The maximum term of a stock option granted to any participant must not exceed seven years from the date of grant or five years for an ISO granted to a shareholder with greater than 10% of the voting power of the ordinary share. The Administrator will determine the terms and conditions of all other Awards granted under the 2006 Plan.

The 2006 Plan expired on December 31, 2016, and 960,940 shares were transferred to the 2017 Plan that was approved by the Board of Director on November 4, 2016.

#### Stock-Based Compensation

Stock-based compensation expense for stock options is estimated at the grant date based on each option's fair value as calculated by the Black-Scholes model. The Black-Scholes model was developed for use in estimating the fair value of short-lived exchange traded options that have no vesting restrictions and are fully transferable. In addition, option pricing models require the input of highly subjective assumptions, including the expected stock price volatility over the term of the awards, actual and projected employee stock option exercise behaviors, risk-free interest rate and expected dividends.

The Company uses historical volatility as management believes it is more representative of future stock price trends than implied volatility due to the relatively small number of actively traded options on the Company's ordinary shares available to determine implied volatility. The Company estimates an expected term of options granted based upon the Company's historical exercise and cancellation data for vested options. In addition, separate groups of employees that have similar exercise behavior are considered separately. The expected term of employee stock purchase plan shares is the average of the remaining purchase periods under each offering period. The Company bases the risk free interest rate used in the option valuation model on U.S. Treasury zero-coupon issues with remaining terms similar to the expected term on the options. The Company does not anticipate paying any cash dividends in the foreseeable future and therefore uses an expected dividend yield of zero in the option valuation model. The Company is required to estimate forfeitures at the time of grant and revise those estimates in subsequent periods if actual forfeitures differ from those estimates. The Company uses historical data to estimate pre-vesting option forfeitures and record stock-based compensation expense only for those awards that are expected to vest.

The fair values of stock-based payment awards excluding non-employee, were estimated using the Black-Scholes option pricing model with the following assumptions:

	Years ended	
	December 31,	
Stock Options:	2016	
Expected term in years	4.75	
Weighted average risk-free interest rate	1.30	%
Expected dividend rate	0.00	%
Volatility	51.60	%

At December 31, 2018, there was approximately \$2.0 million of total unrecognized compensation cost, as measured, related to unvested stock options and restricted stock and restricted stock units, which is expected to be recognized over a weighted-average period of 1.87 years.

At December 31, 2017, there was approximately \$0.8 million of total unrecognized compensation cost, as measured, related to unvested stock options and restricted stock and restricted stock units, which is expected to be recognized over a weighted-average period of 1.23 years.

The following table summarizes the stock-based compensation expense recognized in the Company's Consolidated Statement of Operations:

	Years Ended December 31,		
	2018	2017	2016
	(in thousands)		
Cost of net sales	\$ 66	\$ 12	\$ 1
Selling, general and administrative	901	793	2,193
Research and development	130	61	44
Total	\$ 1,097	\$ 866	\$ 2,238

## NOTE 11—INCOME TAXES

## Cayman Islands

Under the current tax laws of Cayman Islands, the Company and its subsidiaries are not subject to tax on their income or capital gains. In addition, upon of dividends by the Company to its shareholders, no Cayman Islands withholding tax will be imposed.

## United States and Foreign Income Taxes

United States and foreign income (loss) before income taxes and minority interest were as follows:

	Years Ended December 31,		
	2018	2017	2016
	(in thousands)		
United States	\$13,381	\$(29,673)	\$7,905
Foreign	(8,939)	37,917	(6,985)
	\$4,442	\$8,244	\$920

The components of the provision (benefit) for income taxes are as follows:

	Years Ended December 31,		
	2018	2017	2016
	(in thousands)		
<b>Current</b>			
Federal	\$ —	\$ —	\$ —
State	—	—	—
Foreign	\$ (890 )	\$ 2,355	17
<b>Total Current</b>	<b>\$ (890 )</b>	<b>\$ 2,355</b>	<b>\$ 17</b>
<b>Deferred</b>			
Federal	—	—	—
State	—	—	—
Foreign	512	(1,092)	771
<b>Total Deferred</b>	<b>512</b>	<b>(1,092)</b>	<b>771</b>
<b>Total</b>	<b>\$ (378 )</b>	<b>\$ 1,263</b>	<b>\$ 788</b>

On December 22, 2017, the United States government enacted the Tax Cuts and Jobs Act, commonly referred to as the Tax Reform Act. The Tax Reform Act includes significant changes to the U.S. income tax system including but not limited to: a federal corporate rate reduction from 35% to 21%; limitations on the deductibility of interest expense and executive compensation; repeal of the Alternative Minimum Tax (“AMT”); full expensing provisions related to business assets; creation of new minimum taxes such as the base erosion anti-abuse tax (“BEAT”) and Global Intangible Low Taxed Income (“GILTI”) tax; and the transition of U.S. international taxation from a worldwide tax system to a modified territorial tax system, which will result in a one time U.S. tax liability on those earnings which have not previously been repatriated to the U.S. (the “Transition Tax”). The provisional impacts of this legislation are outlined below:

Beginning January 1, 2018, the U.S. corporate income tax rate will be 21%. The Company is required to recognize the impacts of this rate change on its deferred tax assets and liabilities in the period enacted. However, as the Company has a full valuation allowance on its net deferred tax asset, any deferred tax recognized due to the change in rate will be offset with a change in the valuation allowance. The Company completed its analysis of the impact of the U.S. corporate income tax rate change from 35% to 21% which resulted in no overall impact to the financial statements.

The Tax Reform Act also repealed the corporate AMT for tax years beginning on or after January 1, 2018 and provides for existing alternative minimum tax credit carryovers to be refunded beginning in 2018. The Company has approximately \$1 million in refundable credits. The Company has not yet completed its analysis and is not yet able to reasonably estimate the effect of this provision of the Tax Act.

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The Transition Tax on unrepatriated foreign earnings is a tax on previously untaxed accumulated and current earnings and profits ("E&P") of the Company's foreign subsidiaries. To determine the amount of the Transition Tax, the Company must determine, among other factors, the amount of post-1986 E&P of its foreign subsidiaries, as well as the amount of non-U.S. income taxes paid on such earnings. Based on the reasonable estimate of the Transition Tax, the Company recorded a provisional estimate of \$0 deemed repatriation tax liability as of December 31, 2017 as a result of accumulated deficit in earnings and profits as of November 1, 2017 and December 31, 2017. The company completed its analysis of the impact of the Transition Tax during the year ended December 31, 2018 and did not recognize any additional tax expense.

The Tax Reform Act creates a new requirement that GILTI income earned by foreign subsidiaries must be included currently in the gross income of the U.S. shareholder. Due to the complexity of the new GILTI tax rules, the Company is continuing to evaluate this provision of the Tax Act. Under U.S. GAAP, the Company is permitted to make an accounting policy election to either treat taxes due on future inclusions in U.S. taxable income related to GILTI as a current period expense when incurred or to factor such amounts into the Company's measurement of its deferred taxes. Based on the Transition Tax, there is net tested loss from all the CFCs therefore the Company has \$0 GILTL inclusion and no GILTI tax due.

During the year ending December 31, 2018 we finalized our accounting for the Tax Act and there was no material change from the estimate made in 2017. There was not a material impact related to the one-time transition tax on the mandatory deemed repatriation of foreign earnings. The analysis of US tax reform impact is completed according to the requirement of SAB118 except for the refundable AMT credit.

Additionally, the Tax Reform Act may further limit the Company's ability to utilize foreign tax credits in the future. The Tax Reform Act introduces a new credit limitation basket for foreign branch income. Income from foreign branches would now be allocated to this specific tax credit limitation basket which cannot offset income in other baskets of foreign income. Under the Tax Reform Act, foreign taxes imposed on the foreign branch profits will not offset U.S. non-branch related foreign source income. Additional guidance is needed to determine how this will impact the Company and any future utilization of foreign tax credit carryforwards.

As of December 31, 2018, the Company had gross unrecognized tax benefits of approximately \$17.5 million and had certain deferred tax assets and the federal tax benefit of state income tax items totaling \$16.6 million. Of the total \$17.5 million gross unrecognized tax benefits, \$0.8 million related to tax benefits that, if recognized, would impact the annual effective tax rate. The Company has reduced its unrecognized tax benefits by approximately \$1.2 million during 2018 mainly due to statute of limitations expirations.

The Company's policy is to recognize interest expense and penalties related to the above unrecognized tax benefits as a component of income tax expense. The Company had accrued interest and penalties of approximately \$0.4 million as of December 31, 2018 and approximately \$0.4 million as of December 31, 2017.

The Company is subject to taxation in the U.S. federal jurisdiction and various U.S. state and foreign jurisdictions. The Company is also under audit by the taxing authorities in China on a recurring basis. The material jurisdictions that the Company is subject to examination are in the United States and China. The Company's tax years for 2007 through 2018 are still open for examination in China. The Company's tax years for 2010 through 2018 are still open for examination in the United States.

FASB ASC 740-10 establishes criteria for recognizing or continuing to recognize only more-likely-than-not tax positions, which may result in income tax expense volatility in future periods. While the Company believes that it has adequately provided for all tax positions, amounts asserted by taxing authorities could be greater than the Company's accrued position. Accordingly, additional provisions on income tax related matters could be recorded in the future as revised estimates are made or the underlying matters are settled or otherwise resolved.

A summary of the Company's unrecognized tax benefits is as follows:

	Years Ended December 31,		
	2018	2017	2016
	(in thousands)		
Beginning balance-gross unrecognized tax benefits (UTB's)	\$18,728	\$20,137	\$22,694
Lapse of statute of limitations	(1,232 )	(1,409 )	(2,557 )
Ending balance—UTB	17,496	18,728	20,137
UTB's as a credit in deferred taxes	(14,604)	(14,604)	(14,604)
Federal benefit of state taxes	(2,063 )	(2,063 )	(2,063 )
UTB's that would impact the effective tax rate	\$829	\$2,061	\$3,470

In establishing its deferred income tax assets and liabilities, the Company makes judgments and interpretations based on the enacted tax laws and published tax guidance applicable to its operations. The Company records deferred tax assets and liabilities and evaluates the need for valuation allowances to reduce the deferred tax assets to realizable amounts. The likelihood of a material change in the Company's expected realization of these assets is dependent on future taxable income and its ability to use foreign tax credit carryforwards and carrybacks.



A summary of the components of net deferred tax assets is as follows:

	December 31, 2018	December 31, 2017
	(in thousands)	
<b>Deferred Tax Assets</b>		
Deferred revenue and customer advances, net	\$27	\$ 663
Prepaid expense	28	—
Net operating loss carryforward	164,512	165,408
Tax credit carryforwards	32,958	60,807
Writedown/amortization of intangible assets and goodwill	241	1,421
Fixed assets	3,500	3,448
Demo equipment income	4,439	4,415
Other	14,205	13,230
<b>Total Deferred Tax Assets</b>	<b>219,910</b>	<b>249,392</b>
<b>Deferred Tax Liabilities</b>		
Prepaid expense	—	(29)
Allowance and reserves	(10,671 )	(9,689)
Accrued warranties	(302)	(330)
<b>Total Deferred Tax Liabilities</b>	<b>(10,973)</b>	<b>(10,048)</b>
<b>Total Net Deferred Tax Assets</b>	<b>\$208,937</b>	<b>\$ 239,344</b>
<b>Less: Valuation Allowance</b>	<b>\$(206,630)</b>	<b>\$( 236,332 )</b>
<b>Total Net Deferred Tax Assets</b>	<b>2,307</b>	<b>3,012</b>

As of December 31, 2018, the Company's U.S. federal net operating loss carryforwards were \$556.3 million and expire in varying amounts between 2025 and 2034. As of December 31, 2018, state net operating loss carryforwards were \$292.1 million and expire in varying amounts between 2019 and 2038. The Company has concluded that these federal and state net operating losses did not meet the more likely than not standard contained in FASB ASC 740-10 and has therefore placed a \$137.2 million valuation allowance against the related deferred tax assets. In the event the tax benefits related to the valuation allowance are realized, an immaterial amount would be credited to paid-in capital. As of December 31, 2018, the Company also had net operating loss carryforwards ("NOLs") in China of approximately \$69.1 million. The China net operating loss carryforwards will expire in varying amounts between 2019 and 2029. The Company has also concluded that these China net operating losses did not meet the more likely than not standard and has therefore placed a \$10.4 million valuation allowance against the related deferred tax assets. As of December 31, 2018, the Company had NOLs in countries other than the U.S. and China. These NOLs are approximately \$100.4 million. The majority of the NOLs do not expire and can be carried forward indefinitely. However, the Company concluded majority of these losses did not meet the more likely than not standard and has therefore placed a valuation allowance of \$16.9 million against the related deferred tax assets.

As of December 31, 2018, the Company has U.S. alternative minimum tax credit carryforwards of \$1.0 million which have an indefinite life. The Company also has U.S. research and development credit carryforwards of \$5.5 million, \$2.5 million of the credits have an indefinite life and \$3 million of the credits expire in varying amounts between 2019 and 2023. The Company has U.S. foreign tax credits of \$26.4 million which expire in varying amounts between 2019 and 2028. The Company has concluded that these U.S. tax credit carryforwards did not meet the more likely than not standard contained in FASB ASC 740-10 and has therefore placed a \$32.9 million valuation allowance against the related deferred tax assets.



The difference between the Company's effective income tax amount and the federal statutory amount are reconciled below:

	Years Ended December 31,		
	2018	2017	2016
	(in thousands)		
Federal tax (benefit) at statutory rate	\$1,120	\$2,885	\$322
Stock compensation expense	184	295	463
Effect of differences in foreign tax rates	2,113	(6,793)	4,475
Summary of Interpretation No. 48 ("Fin 48") Reserve	(1,230)	(1,478)	(2,465)
Change in deferred tax valuation allowance	(1,679)	5,971	(3,015)
Other	(886 )	383	1,008
Total Tax Expense	\$(378 )	\$1,263	\$788

On June 24, 2011, the Company effected the Merger to reorganize the corporate structure of UTStarcom, Inc., a Delaware corporation incorporated in 1991, and its subsidiaries. The Merger resulted in shares of the common stock of UTStarcom, Inc. being converted into the right to receive an equal number of ordinary shares in our capital, which were issued by us in connection with the Merger. Following the Merger, UTStarcom, Inc. became our wholly-owned subsidiary and the Company became the parent company of UTStarcom, Inc. and its subsidiaries. The Company, together with its subsidiaries, continues to conduct its business in substantially the same manner as was conducted by UTStarcom, Inc. and its subsidiaries. The transaction was accounted for as a legal re-organization of entities under common control. The Company remains subject to U.S. taxes at a statutory rate of 35% and reduced to 21% effective January 1, 2018.

The China Corporate Income Tax Law (“CIT Law”) became effective on January 1, 2008. Under the CIT Law, China’s dual tax system for domestic enterprises and foreign investment enterprises (“FIEs”) was effectively replaced by a unified system. The new law establishes a tax rate of 25% for most enterprises and a reduced tax rate of 15% for certain qualified high technology enterprises.

The CIT Law provides the reduced 15% enterprise income tax rate for qualified high and new technology enterprises. One of the Company’s China subsidiaries, HUTS, through which the majority of our business in China is conducted obtained the High and New Technology Enterprise Certificate, or (“High-tech Certificate”), from the relevant approval authorities on September 19, 2008, and thereafter were approved to pay CIT at the reduced tax rate of 15%. The approval for the reduced 15% tax rate is valid for three years and applies retroactively from January 1, 2008, subject to possible re-assessment by the approval authorities. During the re-assessment, the tax authority may suspend the implementation of the reduced 15% rate. HUTS’s High-tech Certificate renewal was approved on November 13, 2017. HUT’s approval extended the reduced 15% tax rate terms for three years . However, since HUTS is currently in significant loss position, the reduced in tax rate will not have a material adverse impact on the business or liquidity until HUTS begin to generate profit and deplete all the net operating loss carry forwards.

As of September 30, 2005, the Company did not believe it was more likely than not that it would generate a sufficient level and proper mix of taxable income within the appropriate period to utilize all the deferred tax assets in China and the United States. As a result of the review undertaken at September 30, 2005, the Company has concluded that it was appropriate to establish a full valuation allowance for the net deferred tax assets in China and the United States wherein the cumulative losses weigh heavily in the overall assessment. The Company has continued to provide full valuation allowances since 2005 as it did not believe it was more likely than not that it would generate sufficient taxable income within the appropriate period to utilize those deferred tax assets.

In 2018, the change in deferred tax valuation allowance of \$1.7 million is primarily attributable to the tax expense related to continuing to provide full valuation allowance on the Company’s deferred tax assets at December 31, 2018 in the United States and China. In 2017, the change in deferred tax valuation allowance of \$6.0 million is primarily attributable to the tax expense related to continuing to provide full valuation allowance on the Company’s deferred tax assets at December 31, 2017 in the United States and China. In 2016, the change in deferred tax valuation allowance of \$3.0 million is primarily attributable to the tax expense related to continuing to provide a full valuation allowance on the Company’s deferred tax assets at December 31, 2016 in the United States and China.

In 2018, 2017, and 2016, there was no income tax benefit related to tax credits.

#### NOTE 12-OTHER INCOME, NET

Other income, net consists of the following:

	Years ended December 31,		
	2018	2017	2016
	(in thousands)		
Foreign exchange gains (loss)	\$(2,610)	\$619	\$1,459
Gain from the currency translation adjustment	—	1,703	38
Tax reversal for expiration of the statute of limitations <sup>(1)</sup>	—	—	807
Reversal of water conservancy fund	468	—	—
Gain on liquidation of subsidiary <sup>(3)</sup>	909	—	—
Realized investment gain <sup>(2)</sup>	—	—	83
Other	589	654	361
Total	\$(644 )	\$2,976	\$2,748

(1) When the Company divested its Korean subsidiary in 2009, the Company provided a tax reserve as it offered indemnification to the buyer for the uncertain tax positions arising in the periods before the divestiture. In 2016, approximately \$0.8 million of such tax reserve was released due to expiration of statute of limitations.

(2) The Company received 124,395 shares of Inphi on November 14, 2014 to exchange for the 1% interest in Cortina. Management assessed the shares and classified them as available-for-sale securities and subject to fair value accounting. In

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the first quarter of 2015, the Company sold the 124,395 shares of Inphi stock for a total cash consideration of \$2.4 million, which resulted in a realized gain of \$0.6 million in Other Income. In the second quarter of 2015, the Company also received \$0.7 million in cash proceeds in connection with the sale of assets that had a \$0 net carrying value, resulting in a realized gain in Other Income. In the fourth quarter of 2015, another \$0.3 million was released from escrow deposited by Inphi during the transaction and the Company recorded as a realized gain in Other Income. In the second quarter of 2016, another \$0.1 million was released from escrow deposited by Inphi during the transaction and the Company recorded as a realized gain in Other Income.

(3) The Company closed the subsidiary of Ireland in June, 2018 and booked \$0.9 million disposal gain.

#### NOTE 13-NET INCOME PER SHARE

The following table sets forth the computation of basic and diluted net income per share for the years ended December 31, 2018, 2017 and 2016:

	Years Ended December 31,		
	2018	2017	2016
	(in thousands)		
<b>Numerator:</b>			
Net income attributable to UTStarcom Holdings Corp.	\$ 4,820	\$ 6,981	\$ 290
<b>Denominator:</b>			
Weighted average shares outstanding-Basic	35,642	35,467	35,806
Potentially dilutive common stock equivalents-stock options and restricted			
stock	677	709	596
Weighted average shares outstanding-Diluted	36,319	36,176	36,402
Net Income per share attributable to UTStarcom Holdings Corp.- Basic	0.14	\$ 0.20	\$ 0.01
Net Income per share attributable to UTStarcom Holdings			
Corp.-Diluted	\$ 0.13	\$ 0.19	\$ 0.01

The dilutive effect of share-based awards is reflected in diluted net loss per share by application of the treasury stock method, which includes consideration of unamortized share-based compensation expense and the dilutive effect of in-the-money options and unvested restricted stock units. Under the treasury stock method, the amount the employee must pay for exercising stock options and unamortized share-based compensation expense are assumed proceeds to be used to repurchase hypothetical shares. An increase in the fair market value of the Company's ordinary share can result in a greater dilutive effect from potentially dilutive awards.

For the years ended December 31, 2018 and 2017, 1.5 million and 1.2 million potential ordinary shares were dilutive.

#### NOTE 14-SEGMENT REPORTING

The Company's reporting segments are as follows:

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Equipment- Sales of equipment, including network infrastructure and application products. Network infrastructure products mainly include broadband products. Network application products mainly include wireless infrastructure technologies.

Services-Providing services and support for our equipment products and also the new operational support segment. The Company's Chief Operating Decision Makers make financial decisions and resource allocations based on information they receive from their internal management system and currently evaluate the operating performance and allocates resources to the reporting segments based on segment revenue, gross profit and income before income taxes. Cost of sales and direct expenses in relation to production are assigned to the reporting segments. The accounting policies used in measuring segment assets and operating performance are the same as those used at the consolidated level.

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Summarized below are the Company's segment net sales, gross profit and income before income taxes for the years ended December 31, 2018, 2017 and 2016 based on the current reporting segment structure.

Sales by Segment	Years Ended December 31,					
	2018	% of net sales	2017	% of net sales	2016	% of net sales
	(in thousands, except percentages)					
Equipment	\$97,680	84 %	\$77,283	79 %	\$61,735	71 %
Services	18,264	16 %	21,009	21 %	24,777	29 %
Total	\$115,944	100 %	\$98,292	100 %	\$86,512	100 %

Gross profit by Segment	Years Ended December 31,					
	2018	Gross Profit %	2017	Gross Profit %	2016	Gross Profit %
	(in thousands, except percentages)					
Equipment	\$25,598	26 %	\$26,647	34 %	\$20,263	33 %
Services	6,670	37 %	6,499	31 %	8,093	33 %
Total	\$32,268	28 %	\$33,146	34 %	\$28,356	33 %

Segment Margin and Income before income taxes	Years ended December 31,		
	2018	2017	2016
	(in thousands)		
Equipment	\$13,398	\$16,847	\$12,010
Services	6,670	6,499	8,093
Total Segment Margin	20,068	23,346	20,103
General and Corporate	(15,626)	(15,102)	(19,183)
Income before income taxes	\$4,442	\$8,244	\$920

General and corporate expenses include all un-allocated expenses such as sales and marketing, general and administration and common R&D expenses, equity income (loss) of associates, and investment impairment.

Sales are attributed to a geographical area based upon the location of the customer. Sales data by geographical area are as follows:

Net Sales by Region	Years Ended December 31,					
	2018	% of net Sales	2017	% of net sales	2016	% of net sales
	(in thousands, except percentages)					
China	\$3,146	3 %	\$2,926	3 %	\$4,021	5 %

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India	70,106	60	%	42,352	43	%	33,021	38	%
Japan	35,504	31	%	49,185	50	%	45,561	52	%
Taiwan	6,445	6	%	3,018	3	%	3,217	4	%
Other	743	1	%	811	1	%	692	1	%
Total	\$115,944	100	%	\$98,292	100	%	\$86,512	100	%

Long-lived assets, consisting of property, plant and equipment, by geographical area are as follows:

	December 31,	
	2018	2017
	(in thousands)	
China	\$1,058	\$1,369
Other	200	345
Total long-lived assets	\$1,258	\$1,714

## NOTE 15-CREDIT RISK AND CONCENTRATION

### Financial Risks:

Financial instruments, which potentially subject the Company to concentrations of credit risk, consist principally of cash, cash equivalents, short-term investments and accounts and notes receivable. The Company places its temporary cash and short-term investments with several financial institutions. Approximately \$51.0 million and \$46.0 million of the Company's cash and cash equivalents and short-term investments were on deposit in accounts outside the U.S. at December 31, 2018 and 2017, respectively, of which approximately \$8.9 million and \$7.9 million were held by subsidiaries in China. China imposes currency exchange controls on certain transfers of funds to and from China. The Company's China subsidiaries are subject to pre-approval from the State Administration of Foreign Exchange ("SAFE") for non-domestic financing. Additionally, the amount of cash available for transfer from the China subsidiaries for use by the Company's non-China subsidiaries is also limited both by the liquidity needs of the subsidiaries in China and the restriction on foreign currency exchange by Chinese-government mandated limitations including currency exchange controls on certain transfers of funds outside of China.

The Company's exposure to market risk for changes in interest rates relates primarily to its investment portfolio. The fair value of its investment portfolio would not be significantly affected by either a 10% increase or decrease in interest rates due mainly to the short-term nature of most of its investment portfolio with the exception of the available-for-sale securities. The investment classified as available-for-sales securities is reported at fair value. It will be measured subsequently at fair value on the balance sheets with unrealized gains and losses will be recorded in accumulated other comprehensive income (loss) in shareholders' equity. Any negative events or deterioration in financial well-being with respect to the counterparties of the long-term investments and the underlying collateral may cause material losses to the Company and have a material effect on the Company's financial condition and results of operations. In addition, the Company's interest income can be sensitive to changes in the general level of U.S. and China interest rates since the majority of its funds are invested in instruments with maturities of less than one year. In a declining interest rate environment, as short-term investments mature, reinvestment occurs at less favorable market rates. Given the short-term nature of certain investments, declining interest rates will not negatively impact the Company's investment income.

The Company maintains an investment portfolio of various holdings, types and maturities. The Company does not use derivative financial instruments. The Company places its cash investments in instruments that meet high credit quality standards, as specified in its investment policy guidelines. The Company's policy is to limit the risk of principal loss and to ensure the safety of invested funds by generally attempting to limit market risk.

The Company's available-for-sale securities are reported at fair value, with unrealized gains and losses recorded in accumulated other comprehensive loss in shareholders' equity. Any negative events or deterioration in financial well-being with respect to the counterparties of these investments may cause material losses to the Company and have a material effect on the Company's financial condition and results of operations.

### Concentration of Credit Risk and Major Customers:

At December 31, 2018 and 2017, the Company's accounts receivable balance included amounts due from customer A, representing approximately 1% and 2% of the Company's total accounts receivable, net of allowances for doubtful accounts, respectively.

At December 31, 2018 and 2017, the Company's accounts receivable balance included amounts due from customer B, representing approximately 93 % and 87% of the Company's total accounts receivable, net of allowances for doubtful accounts, respectively.



The following customers accounted for 10% or more of the Company's net revenues:

	For the years ended December 31,		
	2018	2017	2016
Customer A	28 %	40 %	50 %
Customer B	58 %	39 %	35 %

Country Risks:

The Company's main operating functions inclusive of R&D, manufacturing and related supports as well as its core management team are in China. The Company's operations in China are subject to special considerations and significant risks not typically associated with companies in the United States. These include risks associated with, among others, the political, economic

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and legal environments and foreign currency exchange. The Company's results may be adversely affected by, among other things, changes in the political, economic and social conditions in China, and by changes in governmental policies with respect to laws and regulations, changes in China's telecommunications industry and regulatory rules and policies, anti-inflationary measures, currency conversion and remittance abroad, and rates and methods of taxation.

In addition, the major customers of the Company are based in Japan and India. Therefore, our results of operations may be adversely affected by the political and business relationship between as well as other events affecting Japan or India in general. From time to time there have been tensions and conflicts among China, Japan and India. Adverse changes in political and economic policies, geopolitical uncertainties, and international conflicts may lead to a reduction in our sales. Any future conflicts among China, Japan and India have an adverse impact on the political and business relationship of the countries. Furthermore, events affecting Japan or India in general, such as natural disasters, or a local currency devaluation may also have a negative impact on our business, financial condition and results of operations.

#### NOTE 16-RELATED PARTY TRANSACTIONS

In 2016, the Company paid \$0.2 million to Tim Ti, the Chief Executive Officer of the Company, for remuneration for service to Virtual Gateway Labs, Inc.. These amounts were expensed as employee compensation.

#### NOTE 17-SUBSEQUENT EVENTS

(1) On December 19, 2018, the Company entered into the assignment and assumption agreement to transfer the Company's all equity interests and debt interests in AioTV to a third party with a cash consideration of \$1 by the buyer. This transaction was closed at April 11, 2019.

(2) On January 31, 2019, Tonghao (Cayman) Limited entered into a Purchase Agreement with Shah Capital Opportunity Fund LP and Hongliang Lu and Lu's related parties(Lu Sellers), to purchase from Shah Opportunity and the Lu Sellers an aggregate of 9,200,000 Ordinary Shares, at a per share price of US\$5.35, or approximately an aggregate purchase price of US\$49,220,000 . The closing of the purchase and sale is subject to approval by relevant US and Chinese authorities.

## SCHEDULE I

## UTSTARCOM HOLDINGS CORP. (UNCONSOLIDATED-PARENT COMPANY BASIS)

## REGISTRANT BALANCE SHEETS

(In thousands, except par value)

	December 31,	
	2018	2017
	(in thousands)	
<b>ASSETS</b>		
Investment in subsidiaries	\$ 115,285	\$ 101,817
Total assets	115,285	101,817
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>		
Current liabilities:		
Accounts payable-intercompany	13,119	10,825
Total current liabilities	13,119	10,825
Total liabilities	13,119	10,825
Stockholders' equity:		
Ordinary shares: \$0.00375 par value; 250,000 authorized shares; 39,799 and		
39,363 shares issued at December 31, 2018 and December 31, 2017, respectively;		
35,318 and 35,506 shares outstanding at December 31, 2018 and December 31,		
2017, respectively		
	123	122
Additional paid-in capital	1,264,160	1,263,007
Treasury stock, at cost: 4,481 and 3,857 shares at December 31, 2018 and		
December 31, 2017, respectively		
	(10,899 )	(8,374 )
Accumulated deficit	(1,212,790)	(1,226,174)
Accumulated other comprehensive income	61,572	62,411
Total stockholders' equity	102,166	90,992
Total liabilities and stockholders' equity	\$ 115,285	\$ 101,817

The accompanying notes are an integral part of these consolidated financial statements.

## UTSTARCOM HOLDINGS CORP. (UNCONSOLIDATED-PARENT COMPANY BASIS)

## CONDENSED INFORMATION AS TO THE RESULTS OF OPERATIONS OF THE REGISTRANT

(In thousands)

	Years ended December 31,		
	2018	2017	2016
	(in thousands)		
Sales			
Unrelated parties	\$ —	\$ —	\$ —
Related parties	—	—	—
Intercompany	—	—	—
Cost of sales			
Unrelated parties	—	—	—
Related parties	—	—	—
Intercompany	—	—	—
Gross profit	—	—	—
Operating expenses:			
Selling, general and administrative	697	852	671
Research and development	—	—	—
Total operating expenses	697	852	671
Operating loss	(697 )	(852 )	(671 )
Interest income	—	—	—
Interest expense	—	—	—
Other income, net	—	—	—
Loss before income taxes and equity in loss of affiliated companies	(697 )	(852 )	(671 )
Equity in net income (loss) of affiliated companies	5,517	7,833	803
Income tax benefit (expense)	—	—	—
Net income (loss) and comprehensive income (loss)	\$ 4,820	\$ 6,981	\$ 132

The accompanying notes are an integral part of these financial statement

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UTSTARCOM HOLDINGS CORP.

NOTES TO CONDENSED FINANCIAL STATEMENTS

NOTE 1-BASIS OF PRESENTATION

UTStarcom Holdings Corp., or the Company, a Cayman Island corporation, is the parent company of all UTStarcom Holdings Corp. subsidiaries. The condensed financial statements of the Company have been prepared pursuant to the rules and regulations of the SEC and in conformity with U.S. GAAP. The Company determined cash flow activities during the period were not material and therefore omitted the statement of cash flows from these financial statements.

On June 24, 2011, the Company effected a merger, or the Merger, to reorganize the corporate structure of UTStarcom, Inc., a Delaware corporation incorporated in 1991, and its subsidiaries. As a result of the reorganization, UTStarcom Holdings Corp. became the parent company of UTStarcom, Inc. and its subsidiaries. Pursuant to the Merger, the Company issued an equal number of ordinary shares in exchange for the common stock of UTStarcom, Inc. Given the reorganization of the corporate structure on June 24, 2011, the prior period numbers have been adjusted as if the new corporate structure had been in place since the beginning of the earliest period presented in the above condensed financial statements.

The Company is generally a holding company of certain subsidiaries, or collectively subsidiaries. The condensed financial statements of the Company have been prepared with the assumption that the current corporate structure has been in existence throughout all relevant periods.

The Company records its investment in subsidiaries under the equity method of accounting as prescribed in ASC 323-10, "The Equity Method of Accounting for Investments in Common Stock." Such investment is presented on the balance sheet as "Investment in affiliated companies" and the subsidiaries' profit or loss are recognized based on the effective shareholding percentage as "Equity in net income (loss) of affiliated companies" on the results of operations.

Certain information and footnote disclosures normally included in financial statements prepared in accordance with U.S. GAAP have been condensed or omitted. The footnote disclosures contain supplemental information relating to the operations of the Company and, as such, these statements should be read in conjunction with the notes to the consolidated financial statements of the Company.

The Company is a shell company and does not have any activities. Operating expenses for the Company for the years ended December 31, 2018, 2017 and 2016 consisted mainly of the retaining fee for the Board of Directors, its director and officer insurance expenses and the expenses associated with investor relations. As the Company does not have any cash activity, the recorded expenses were paid on behalf of the Company by UTStarcom, Inc., its subsidiary, and statements of cash flows have been omitted.

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## SCHEDULE II

## UTSTARCOM HOLDINGS CORP.

## VALUATION AND QUALIFYING ACCOUNTS AND RESERVES

For the Years Ended December 31, 2018, 2017, and 2016

Description	Balance at beginning of the period	Charged (credited) to costs and expenses	Credited to other accounts	(Deductions) Adjustments <sup>(1)</sup>	Balance at end of the period
Year ended December 31, 2018					
Allowance for doubtful accounts	\$ 2,437	\$ 812	\$ (280 )	\$ (845 )	\$ 2,124
Tax valuation allowance	\$ 236,332	\$ (1,679 )	\$ —	\$ (28,023 )	\$ 206,630
Year ended December 31, 2017					
Allowance for doubtful accounts	\$ 2,339	\$ (56 )	\$ 154	\$ —	\$ 2,437
Tax valuation allowance	\$ 329,523	\$ 6,162	\$ —	\$ (99,353 )	\$ 236,332
Year ended December 31, 2016					
Allowance for doubtful accounts	\$ 4,564	\$ 1,564	\$ —	\$ (3,789 )	\$ 2,339
Tax valuation allowance	\$ 328,397	\$ (3,016 )	\$ 4,142	\$ —	\$ 329,523

(1) Represents write-offs of allowance for doubtful accounts and foreign exchange adjustments.

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