Motorola Solutions, Inc.
Form 424B5
February 25, 2013

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The information in this prospectus supplement and accompanying prospectus is not complete and may be changed. A registration statement relating to these securities has been filed with the Securities and Exchange Commission and is effective. This preliminary prospectus supplement and accompanying prospectus is not an offer to sell these securities and we are not soliciting offers to buy these securities in any state or other jurisdiction where the offer or sale is not permitted.

Filed Pursuant to Rule 424(b)(5)
Registration Statement No. 333-181223

Subject to Completion
Preliminary Prospectus Supplement dated February 25, 2013

PROSPECTUS SUPPLEMENT

(To prospectus dated May 8, 2012)

$

Motorola Solutions, Inc.

% Senior Notes due 2023

We are offering $ aggregate principal amount of our % Senior Notes due 2023 (the "notes").

The notes will bear interest at the rate of % per year. We will pay interest on the notes semi-annually in arrears on and of each year. We will make the first interest payment on the notes on , 2013. The notes will mature on , 2023. The notes will be our unsecured obligations and will rank equally with all of our other unsecured and unsubordinated indebtedness from time to time outstanding. We will issue the notes in minimum denominations of $2,000 and integral multiples of $1,000.

We may redeem all or a portion of the notes at any time at the redemption prices described in this prospectus supplement. Upon the occurrence of a "change of control repurchase event," we will be required to make an offer to repurchase the notes at a price equal to 101% of their principal amount plus accrued and unpaid interest to, but not including, the date of repurchase.

The notes are not and will not be listed on any securities exchange.

Investing in these securities involves certain risks. See "Risk Factors" beginning on page S-6 of this prospectus supplement and page 3 of the accompanying prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved the notes or determined that this prospectus supplement or the accompanying prospectus is accurate or complete. Any representation to the

contrary is a criminal offense.

	Initial public offering price	**Underwriting discount**	**Proceeds, before expenses, to us**
Per note	%	%	%
Total	$	$	$

The initial public offering price set forth above does not include accrued interest, if any. Interest on the notes will accrue from , 2013 and must be paid by the purchaser if the notes are delivered after , 2013.

The underwriters expect to deliver the notes in book-entry form only through the facilities of The Depository Trust Company and its participants, Clearstream Banking and the Euroclear System, on or about , 2013.

Joint Book-Running Managers

Citigroup **HSBC** **Morgan Stanley**

, 2013

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Neither we nor the underwriters have authorized anyone to provide you with any information or to make any representation other than those contained in or incorporated by reference into this prospectus supplement, the accompanying prospectus or in any free writing prospectus that we may file with the Securities and Exchange Commission (the "SEC") in connection with this offering. We do not, and the underwriters do not, take any responsibility for, and can provide no assurances as to, the reliability of any information that others may provide you. If information in this prospectus supplement is inconsistent with the accompanying prospectus, you should rely on the prospectus supplement. We are not, and the underwriters are not, making an offer of these securities in any state where the offer or sale is not permitted. You should not assume that the information provided in this prospectus supplement, the accompanying prospectus or the documents incorporated by reference in this prospectus supplement and in the accompanying prospectus is accurate as of any date other than their respective dates. Our business, financial condition, results of operations and prospects may have changed since those dates.

References to "we," "us," "our," "Motorola Solutions" and the "Company" are to Motorola Solutions, Inc. and its consolidated subsidiaries unless otherwise specified or the context otherwise requires.

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ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement is part of a registration statement that we filed with the SEC using a shelf registration process. Under this shelf process, the document we use to offer debt securities from time to time is divided into two parts. The first part is this prospectus supplement, which describes the terms of the offering of debt securities and also adds to, updates and changes information contained in the accompanying prospectus and the documents incorporated by reference into this prospectus supplement, any related free writing prospectus and the accompanying prospectus. The second part is the accompanying prospectus, which provides you with a general description of the securities we may offer. You should read this prospectus supplement and the accompanying prospectus together with additional information described under the heading "Where You Can Find More Information" in the accompanying prospectus.

The information contained or incorporated by reference in this prospectus supplement, the accompanying prospectus and any related free writing prospectus is accurate only as of the respective dates thereof, regardless of the time of delivery of this prospectus supplement, the accompanying prospectus or any related free writing prospectus, or of any sale of our debt securities.

If the description of this offering that is contained in this prospectus supplement or any related free writing prospectus differs from the description contained in the accompanying prospectus, you should rely on the information in this prospectus supplement or such free writing prospectus.

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SPECIAL NOTE ON FORWARD-LOOKING STATEMENTS

Except for historical matters, the matters discussed in this prospectus and in documents incorporated by reference are forward-looking statements within the meaning of applicable federal securities law. These statements generally include words such as "believes," "expects," "intends," "anticipates," "estimates" and similar expressions. We can give no assurance that any future results or events discussed in these statements will be achieved. Any forward-looking statements represent our views only as of today and should not be relied upon as representing our views as of any subsequent date. Readers are cautioned that such forward-looking statements are subject to a variety of risks and uncertainties that could cause our actual results to differ materially from the statements contained in this prospectus. Forward-looking statements in this prospectus, including those incorporated by reference herein, may include, but are not limited to, statements about: (1) industry growth and demand, including opportunities resulting from such growth, (2) customer spending, (3) the impact of each segment's strategy, (4) the impact from the loss of key customers, (5) competitive position, (6) increased competition, (7) the impact of regulatory matters, (8) the impact from the allocation and regulation of spectrum, (9) the availability of materials and components, energy supplies and labor, (10) the seasonality of the business, (11) the firmness of each segment's backlog, (12) the competitiveness of our patent portfolio, (13) the impact of research and development, (14) the consequences of a disruption in manufacturing, (15) the ultimate disposition of pending legal matters and timing, (16) market growth/contraction, demand, spending and resulting opportunities, (17) the financial results of Psion PLC and the impact to earnings in 2013 and 2014, (18) the decline in the integrated digital enhanced network infrastructure portfolio, (19) the return of capital to shareholders through dividends and/or repurchasing shares, (20) the success of our business strategy and portfolio (21) future payments, charges, use of accruals and expected cost-saving and profitability benefits associated with our reorganization of business programs and employee separation costs, (22) our ability and cost to repatriate funds, (23) the impact of the timing and level of sales and the geographic location of such sales, (24) the impact of maintaining inventory, (25) future cash contributions to pension plans or retiree health benefit plans, (26) our ability to collect on Motorola Solutions' fund used to invest most of its U.S. dollar-denominated cash (the "Sigma Fund") and other investments, (27) our ability and cost to access the capital markets, (28) our ability to borrow and the amount available under our credit facilities, (29) our ability to retire outstanding debt, (30) our ability and cost to obtain performance related bonds, (31) adequacy of resources to fund expected working capital and capital expenditure measurements, (32) expected payments pursuant to commitments under long-term agreements, (33) the ability to meet minimum purchase obligations, (34) our ability to sell accounts receivable and the terms and amounts of such sales, (35) the outcome and effect of ongoing and future legal proceedings, (36) the impact of recent accounting pronouncements on our financial statements, (37) the expected effective tax rate and deductibility of certain items, (38) the impact of foreign currency exchange risks, (39) future hedging activity and expectations of Motorola Solutions, (40) the ability of counterparties to financial instruments to perform their obligations, and (41) other factors described in our news releases and filings with the SEC including but not limited to the factors under the heading "Risk Factors" in our Form 10-K for the year ended December 31, 2012, which is incorporated by reference herein.

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SUMMARY

The following summary contains basic information about us and about this offering. It does not contain all of the information that is important to an investment in our securities. Before you make an investment decision you should review this prospectus supplement, the accompanying prospectus, any free writing prospectus and the documents incorporated in the prospectus supplement and the accompanying prospectus in their entirety, including the risk factors, our financial statements and the related footnotes.

Our Company

Motorola Solutions is a leading provider of mission-critical communication solutions and services for enterprise and government customers. We report financial results for the following two segments:

Government: Our Government segment includes sales of public safety communications systems, commercial two-way radio systems, devices and software. Service revenues included in the Government segment are primarily those associated with the design, installation, maintenance and optimization of equipment for public safety networks.

Enterprise: Our Enterprise segment includes sales of rugged and enterprise-grade mobile computers and tablets, laser/imaging/RFID-based data capture products, wireless local area network and integrated digital enhanced network infrastructure and software. Service revenues included in the Enterprise segment are primarily maintenance contracts associated with the above products.

Motorola Solutions is a corporation organized under the laws of the State of Delaware as the successor to an Illinois corporation organized in 1928. The Company's principal executive offices are located at 1303 East Algonquin Road, Schaumburg, Illinois 60196 (telephone number (847) 576-5000).

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Summary Consolidated Financial Data

The following table presents summary consolidated financial data as of and for the periods indicated. The statements of income for the years ended December 31, 2012, 2011 and 2010 and the balance sheet data as of December 31, 2012 and 2011 have been derived from the audited consolidated financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2012 filed with the SEC, which is incorporated herein by reference. You should read the following table in conjunction with our audited consolidated financial statements and related notes in our Annual Report on Form 10-K for the year ended December 31, 2012.

	Years Ended December 31,		
	2012	**2011**	**2010**
	(in millions of dollars)		
Operating Results:			
Net sales	$ 8,698	$ 8,203	$ 7,617
Cost of sales	4,350	4,057	3,805
Gross margin	4,348	4,146	3,812
Selling, general and administrative expenses	1,963	1,912	1,874
Research and development expenditures	1,075	1,035	1,037
Other charges	54	341	150
Operating earnings	1,256	858	751
Other income (expense):			
Interest expense, net	(66)	(74)	(129)
Gains on sales of investments and businesses, net	39	23	49
Other	(14)	(69)	(7)
Total other expense	(41)	(120)	(87)
Earnings from continuing operations before income taxes	1,215	738	664
Income tax expense (benefit)	337	(3)	403
Earnings from continuing operations	878	741	261
Earnings (loss) from discontinued operations, net of tax	3	411	389
Net earnings	$ 881	$ 1,152	$ 650
Earnings (loss) attributable to noncontrolling interests		(6)	(17)
Net earnings attributable to Motorola Solutions, Inc.	881	1,158	633
Earnings per common share			
Basic:			
Continuing Operations	$ 3.01	$ 2.24	$ 0.73
Discontinued Operations		1.23	1.17
	$ 3.01	$ 3.47	$ 1.90
Diluted:			
Continuing Operations	$ 2.95	$ 2.20	$ 0.72
Discontinued Operations	0.01	1.21	1.15
	$ 2.96	$ 3.41	$ 1.87
Balance Sheet:			
Total assets	$ 12,679	$ 13,929	$ 25,577
Long-term debt	1,859	1,130	2,098
Total debt	1,863	1,535	2,703
Total stockholders' equity	3,290	5,274	10,987

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Ratios of Earnings to Fixed Charges

The following are the unaudited consolidated ratios of earnings to fixed charges for each of the years in the three-year period ended December 31, 2012:

Years Ended December 31,		
2012	**2011**	**2010**
10.4	5.4	3.5

For purposes of computing the ratios of earnings to fixed charges, we have divided earnings before income tax expense plus fixed charges by fixed charges. Fixed charges consist of interest costs and estimated interest included in rentals (one-third of net rental expense).

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The Offering

Issuer	Motorola Solutions, Inc.
Securities Offered	$ aggregate principal amount of % senior notes due 2023.
Maturity	The notes will mature on , 2023.
Interest Rate	The notes will bear interest at the rate of % per year from the original issuance date.
Interest Payment Dates	We will pay interest on the notes semiannually in arrears each and . We will make the first interest payment on , 2013.
Use of Proceeds	We estimate that the net proceeds of this offering will be approximately $ million (after deducting underwriting discounts and commissions and estimated offering expenses payable by us). We will use the net proceeds from the sale of the notes for general corporate purposes, which may include working capital expenditures, fixed asset expenditures, pension contributions, acquisitions, repurchases of common stock or other capital transactions.
Ranking of Notes	The notes are our direct, unsecured and unsubordinated obligations and rank equal in priority with all of our existing and future unsecured and unsubordinated indebtedness and senior in right of payment to any future subordinated indebtedness.
Optional Redemption	We may redeem the notes, in whole at any time or in part, from time to time at redemption prices determined as set forth under the heading "Description of the Notes Optional Redemption."
Change of Control Repurchase Event	Upon the occurrence of a "change of control repurchase event," as defined under "Description of the Notes Purchase of Notes upon a Change of Control Repurchase Event," we will be required to make an offer to purchase the notes at a price equal to 101% of their principal amount, plus accrued and unpaid interest to, but not including, the date of repurchase.
Certain Covenants	The indenture governing the notes contains covenants limiting our ability and our domestic subsidiaries' ability to: create certain liens; enter into sale and leaseback transactions involving any principal property; and consolidate or merge with, or convey, transfer or lease all or substantially all our assets to, another person.

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	Each of these covenants is subject to a number of significant exceptions. You should read "Description of Debt Securities Restrictive Covenants" in the accompanying prospectus for a description of these covenants.
Form and Denominations	We will issue the notes in fully registered form only in denominations of $2,000 and integral multiples of $1,000 in excess thereof. Each of the notes will be represented by one or more global securities registered in the name of a nominee of The Depository Trust Company, or DTC. You will hold beneficial interests in the notes through DTC, and DTC and its direct and indirect participants will record your beneficial interests in their books. We will not issue certificated notes, except in the limited circumstances described under "Debt Securities Global Securities" in the accompanying prospectus.
Further Issuances	We may create and issue additional notes ranking equally with the notes initially offered in this offering and otherwise similar in all respects (other than the issue date and, if applicable, the payment of interest accruing prior to the issue date of such further notes or the first payment of interest following the issue date of such further notes). These additional notes, if issued, would be consolidated and form a single series with the notes. See "Description of the Notes Further Issuances" in this prospectus supplement.
Absence of Public Market for the Notes	The notes are a new issue of securities and there is currently no established trading market for the notes. We do not intend to apply for a listing of the notes on any securities exchange or an automated dealer quotation system. Accordingly, there can be no assurance as to the development or liquidity of any market for the notes. The underwriters have advised us that they currently intend to make a market in the notes. However, they are not obligated to do so, and any market making with respect to the notes may be discontinued at any time without notice.
Governing Law	New York.
Risk Factors	For a discussion of the factors that you should carefully consider before deciding to purchase the notes, see "Risk Factors" beginning on page S-6 of this prospectus supplement, page 3 of the accompanying prospectus and under the heading "Risk Factors" in the Form 10-K referenced herein.

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RISK FACTORS

Investing in the notes involves risk. We are subject to various regulatory, operating and other risks as a result of the nature of our operations and the marketplace in which we operate. Many of these risks are beyond our control and several pose significant challenges to our business, operations, revenues, net income and cash flows. These risks are described in Part I, Item 1A, Risk Factors, of our annual report on Form 10-K for the year ended December 31, 2012. The risks described therein are not the only ones we face. Additional risks of which we are not presently aware or that we currently believe are immaterial may also harm our business. In deciding whether to invest in the notes, you should carefully consider these risks and the risks described below in addition to the other information contained or incorporated by reference in this prospectus supplement and the accompanying prospectus. Our business, results of operations and financial condition may be materially adversely affected due to any of these risks or events arising therefrom.

Risks Related to the Notes

Because the notes are not secured and are effectively subordinated to the rights of secured creditors, the notes will be subject to the prior claims of any secured creditors, and if a default occurs, we may not have sufficient funds to fulfill our obligations under the notes.

The notes are unsecured obligations, ranking equally with other senior unsecured indebtedness. Although we currently only have immaterial amounts of secured indebtedness at the foreign subsidiary level, the indenture governing the notes permits us to incur secured debt under specified circumstances. If we incur secured debt, our assets will be subject to prior claims by our secured creditors. In the event of bankruptcy, insolvency, liquidation, reorganization, dissolution or other winding up of Motorola Solutions, assets that secure debt will be available to pay obligations on the notes only after all debt secured by those assets has been repaid in full. Holders of the notes will participate in any remaining assets ratably with all of their respective unsecured and unsubordinated creditors, including trade creditors. If Motorola Solutions incurs any additional obligations that rank equally with the notes, including trade payables, the holders of those obligations will be entitled to share ratably with the holders of the notes in any proceeds distributed upon our bankruptcy, insolvency, liquidation, reorganization, dissolution or other winding up. This may have the effect of reducing the amount of proceeds paid to you. If there are not sufficient assets remaining to pay all these creditors, all or a portion of the notes then outstanding would remain unpaid.

We may depend on the receipt of dividends or other intercompany transfers from our subsidiaries to meet our obligations under the notes. Claims of creditors of our subsidiaries will have priority over your claims with respect to the assets and earnings of our subsidiaries.

The notes are our obligations exclusively and not of any of our subsidiaries. We conduct a significant portion of our operations through our subsidiaries. We may therefore be dependent upon dividends or other intercompany transfers of funds from our subsidiaries in order to meet our obligations under the notes and to meet our other obligations. However, our subsidiaries are separate legal entities that have no obligation to pay any amounts due under the notes or to make any funds available therefor, whether by dividends, loans or other payments. Generally, creditors of our subsidiaries will have claims to the assets and earnings of our subsidiaries that are superior to the claims of our creditors, except to the extent the claims of our creditors are guaranteed by our subsidiaries. As of December 31, 2012, our subsidiaries accounted for approximately $6.5 billion, or 51%, of our total consolidated assets, excluding intercompany balances, and had approximately $2.1 billion of outstanding liabilities, including trade payables but excluding intercompany liabilities.

In the event of the bankruptcy, insolvency, liquidation, reorganization, dissolution or other winding up of Motorola Solutions, the holders of the notes will not receive any amounts with respect to the notes until after the payment in full of the claims of creditors of our subsidiaries.

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We are permitted to incur more debt, which may intensify the risks associated with our current leverage, including the risk that we will be unable to service our debt.

The indenture governing the notes does not limit the amount of additional debt that we may incur. If we incur additional debt, the risks associated with our leverage, including the risk that we will be unable to service our debt, will increase.

The provisions in the indenture that govern the notes relating to change of control transactions will not necessarily protect you in the event of a highly leveraged transaction.

The provisions contained in the indenture will not necessarily afford you protection in the event of a highly leveraged transaction that may adversely affect you, including a reorganization, restructuring, merger or other similar transaction involving us. These transactions may not involve a change in voting power or beneficial ownership or, even if they do, may not involve a change of the magnitude required under the definition of change of control repurchase event to trigger these provisions, notably, that the transactions are accompanied or followed within 90 days by a downgrade in the rating of the notes offered under this prospectus supplement. Except as described under "Description of the Notes Purchase of Notes upon a Change of Control Repurchase Event," the indenture does not contain provisions that permit the holders of the notes to require us to repurchase the notes in the event of a takeover, recapitalization or similar transaction.

We may not be able to repurchase all of the notes upon a change of control repurchase event.

As described under "Description of the Notes Purchase of Notes upon a Change of Control Repurchase Event," we will be required to offer to repurchase the notes upon the occurrence of a change of control repurchase event. We may not have sufficient funds to repurchase the notes in cash at such time or have the ability to arrange necessary financing on acceptable terms. In addition, our ability to repurchase the notes for cash may be limited by law or the terms of other agreements relating to our indebtedness outstanding at the time.

Negative covenants in the indenture will have a limited effect.

The indenture governing the notes contains negative covenants that apply to us and our domestic subsidiaries. These covenants are, however, subject to a number of significant exceptions that will permit us, in various circumstances, to create liens on our assets and to enter into sale and leaseback transactions. See "Description of Debt Securities Restrictive Covenants" in the accompanying prospectus. Holders of the notes may become structurally or contractually subordinated to new lenders who enter into transactions with us or our domestic subsidiaries in reliance on these exceptions.

There is no prior market for the notes. If one develops, it may not be liquid.

We do not intend to list the notes on any national securities exchange or to seek their quotation on any automated dealer quotation system. We cannot assure you that any liquid market for the notes will ever develop or be maintained. Further, there can be no assurance as to the liquidity of any market that may develop for the notes, your ability to sell your notes or the price at which you will be able to sell your notes. Future trading prices of the notes will depend on many factors, including prevailing interest rates, our financial condition and results of operations, the then-current ratings assigned to the notes and the market for similar securities. Any trading market that develops would be affected by many factors independent of and in addition to the foregoing, including:

- time remaining to the maturity of the notes;
- outstanding amount of the notes;
- the terms related to optional redemption of the notes; and

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- level, direction and volatility of market interest rates generally.

The underwriters have advised us that they currently intend to make a market in the notes following the offering. However, the underwriters have no obligation to make a market in the notes and they may stop at any time without notice.

Ratings of the notes may change after issuance and affect the market price and marketability of the notes.

We currently expect that, prior to issuance, the notes will be rated by Moody's Investors Service Inc., Standard & Poor's and Fitch Ratings Inc. Such ratings are limited in scope, and do not address all material risks relating to an investment in the notes, but rather reflect only the view of each rating agency at the time the rating is issued. An explanation of the significance of such rating may be obtained from such rating agency. Such credit ratings may not be issued or remain in effect for any given period of time or such ratings may be lowered, suspended or withdrawn entirely by the rating agencies, if, in each rating agency's judgment, circumstances so warrant. It is also possible that such ratings may be lowered in connection with future events, such as future acquisitions. Any lowering, suspension or withdrawal of such ratings, or the announcement that such ratings are under review for a possible downgrade may have an adverse effect on the market price or marketability of the notes.

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USE OF PROCEEDS

We estimate that the net proceeds of this offering will be approximately $ million (after deducting underwriting discounts and commissions and estimated offering expenses payable by us). We will use the net proceeds from the sale of the notes for general corporate purposes, which may include working capital expenditures, fixed asset expenditures, pension contributions, acquisitions, repurchases of common stock or other capital transactions.

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CAPITALIZATION

The following table sets forth our consolidated short-term debt and capitalization as of December 31, 2012:

on an actual basis, and

on an as adjusted basis to give effect to the sale of the notes.

From time to time, we may issue additional debt or equity securities. This table should be read in conjunction with "Summary Consolidated Financial Data" appearing elsewhere in this prospectus supplement and our consolidated financial statements, including the notes thereto, which are incorporated herein by reference.

	December 31, 2012	
	Actual	As Adjusted
	(in millions of dollars)	
Short-Term Debt		
Current portion of long-term debt	$ 4	$ 4
Total short-term debt	$ 4	$ 4

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