



DIVISION OF
CORPORATION FINANCE

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

April 2, 2012

Via E-mail

Gregory Q. Brown
Chief Executive Officer
Motorola Solutions, Inc.
1303 East Algonquin Road
Schaumburg, IL 60196

**Re: Motorola Solutions, Inc.
Form 10-K for the Year Ended December 31, 2011
Filed February 15, 2012
Form 8-K
Filed January 25, 2012
File No. 001-07221**

Dear Mr. Brown:

We have reviewed your filing and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter within ten business days and indicate that you will comply with our comments in future filings. Confirm in writing that you will do so and also explain to us how you intend to comply. If you do not believe our comments apply to your facts and circumstances or do not believe compliance in future disclosure is appropriate, please tell us why in your response.

After reviewing the information you provide in response to these comments, we may have additional comments.

Form 10-K for the Year Ended December 31, 2011

General

1. Please update us on your direct and indirect contacts with Iran, Syria, Sudan and Cuba since your predecessor Motorola Inc.'s letter to us of July 18, 2008. We note that your website includes Sudan on your location list and that it lists Iran as an "associated country" under AC Line Cord Product Number 50-16000-220R and lists Iran under AC Line Cord Product Number 50-16000-255R.
2. We also note that Future Information Technology Company ("FITCO")'s website states that it is the first official distributor of Motorola in Iran and that Advanced International

Electronic Equipment Company (“AIEE”)’s website states that it is a Motorola joint venture company based in the Middle East that provides equipment and services to a list of Middle Eastern countries including Syria. In addition, a 2011 news article reports that Motorola and several other Western companies participated in Iran’s 2010 International Telecommunications Trade Fair. 2010 and 2011 articles report Motorola and other American products being sold in Iran despite U.S. sanctions. It is not clear whether these articles and websites are referencing your products or Motorola Mobility Holdings’ products.

Iran, Syria, Sudan and Cuba are designated by the Department of State as state sponsors of terrorism and are subject to U.S. economic sanctions and export controls. Your Form 10-K does not provide disclosure about those countries. However, it includes disclosure that you operate in the Middle East, Africa and Latin America, regions that can be understood to include the referenced countries. Please describe to us the nature and extent of your past, current, and anticipated contacts with those countries, whether through subsidiaries, affiliates, or other direct or indirect arrangements, since the July 2008 letter. Your response should describe any products, materials, technology, equipment or services you have provided, directly or indirectly, to the referenced countries, including any agreements, commercial arrangements, or other contacts you have had with the governments of those countries or entities controlled by those governments.

3. Please discuss the materiality of your contacts with Iran, Syria, Sudan or Cuba described in response to the foregoing comment and whether those contacts constitute a material investment risk for your security holders. You should address materiality in quantitative terms, including the approximate dollar amounts of any associated revenues, assets, and liabilities for the last three fiscal years and the subsequent interim period. Also, address materiality in terms of qualitative factors that a reasonable investor would deem important in making an investment decision, including the potential impact of corporate activities upon a company’s reputation and share value. Various state and municipal governments, universities, and other investors have proposed or adopted divestment or similar initiatives regarding investment in companies that do business with U.S.-designated state sponsors of terrorism. Your materiality analysis should address the potential impact of the investor sentiment evidenced by such actions directed toward companies that have operations associated with Iran, Syria, Sudan and Cuba.

Item 3: Legal Proceedings, page 23

4. Where relevant, please clarify whether and how your and Motorola Mobility’s indemnification obligations affect the matters discussed. We note that Section 5.3 of the Amended and Restated Master Separation and Distribution Agreement (Exhibit 10.1) provides a framework for determining indemnification in “Litigation Matters.” For example, disclose whether you will bear sole responsibility for the settlement agreement reached in the Silverman Federal Securities Class Action Case.

Liquidity and Capital Resources, page 40

Cash and Cash Equivalents, page 41

5. We note that 79% of your cash holdings, or \$1.5 billion, is held in foreign countries and that you continue to evaluate and review various repatriation strategies to continue to efficiently repatriate cash. Since most of your revenues and operations appear to be based in the United States, please expand your disclosure to:
 - State how and why most of your cash is held in other countries, and whether there is any significant concentration of cash holdings in any one country.
 - Describe your repatriation strategies that enable you to continue to efficiently repatriate cash.
 - Address how you obtained exposure to currencies that are not traded in liquid markets and whether there is any significant risk associated with such exposure. Refer to the second paragraph on page 78.

Valuation and Recoverability of Goodwill, page 54

Goodwill, page 106

6. We note that you determined that the Government segment and Enterprise segment each meets the requirement of a reporting unit. However, we also note you refer to the iDEN infrastructure business and the Global Services elsewhere in your filing. In addition, you referred to the public safety business, advanced data capture business, the WLAN business, and the enterprise mobile computing business in your Q4 2011 Earnings Call Transcript, as well as each of your geographic regions. Explain to us, in detail, the consideration you have given to the possibility of each of these businesses and geographic regions qualifying as an operating segment and as a reporting unit.

Geographic area information, page 102

7. Please add a footnote disclosing the major countries or geographic regions grouped in “Other, net of eliminations,” which in the aggregate account for a significant share of your Net Sales and Assets outside the United States.

Form 8-K Report filed January 25, 2012

Exhibit 99.1

8. We note that your press release in Exhibit 99.1 includes a tabular presentation labeled “Non-GAAP Adjustments Bridge.” We do not believe it is appropriate to present a full non-GAAP income statement in your filings with us, including your Form 8-K earnings releases. The presentation of a full non-GAAP income statement may attach undue prominence to the non-GAAP information. Please revise in future filings to delete the full non-GAAP income statement presentation. Please refer to Instruction 2 to Item 2.02 of Form 8-K which states that certain provisions of Item 10(e) of Regulation S-K apply to disclosures under Item 2.02. We also refer you to the guidance in Question 102.10 of the Compliance and Disclosure Interpretation on Non-GAAP Financial Measures dated July 8, 2011.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes the information the Securities Exchange Act of 1934 and all applicable Exchange Act rules require. Since the company and its management are in possession of all facts relating to a company’s disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

In responding to our comments, please provide a written statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

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You may contact Kathryn Jacobson, Staff Accountant, at 202-551-3365 or Robert Littlepage, Accountant Branch Chief, at 202-551-3361 if you have questions regarding comments on the financial statements and related matters. Please contact Jonathan Groff, Staff Attorney, at 202-551-3458 or me at 202-551-3810 with any other questions.

Sincerely,

/s/ Larry Spigel

Larry Spigel
Assistant Director