



DIVISION OF  
CORPORATION FINANCE

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

December 19, 2011

Via e-mail

Mr. Michael Gray  
Chief Financial Officer  
Mellanox Technologies, Ltd.  
350 Oakmead Parkway  
Suite 100  
Sunnyvale, California 94085

**Re: Mellanox Technologies, Ltd.  
Form 10-K for the year ended December 31, 2010  
Filed March 7, 2011  
Form 10-Q for the quarterly period ended September 30, 2011  
Filed November 4, 2011  
File No. 001-33299**

Dear Mr. Gray:

We have reviewed your filings and have the following comment. 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 by providing the requested information or by advising us when you will provide the requested response. If you do not believe our comments apply to your facts and circumstances, please tell us why in your response.

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

Form 10-Q for the Quarterly Period Ended September 30, 2011

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations, page 19

1. With respect to management's discussion and analysis of revenues and gross profit and margin, please explain how management considered Item 303 of Regulation S-K, Release 33-8350 and SAB Topic 13.B. In this regard, we note from the company's website that management evaluated revenues based on additional metrics not addressed in MD&A including sales for 40 and 20 GB/s InfiniBand based products and 10 GB Ethernet

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products as well as FDR, the impact of significant customers such as IBM and HP, sales by end market including Web 2, Storage and HPC, significant product releases and sales to geographic regions.

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.

You may contact Julie Sherman, Staff Accountant, at (202) 551-3640 or Kate Tillan, Assistant Chief Accountant, at (202) 551-3604 if you have any questions regarding these comments. In this regard, do not hesitate to contact me at (202) 551-3671.

Sincerely,

/s/ Kate Tillan for

Martin James  
Senior Assistant Chief Accountant