



DIVISION OF
CORPORATION FINANCE

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

August 9, 2010

Shabtai Adlersberg
Chief Executive Officer
Audiocodes Ltd.
1 Hayarden Street
Airport City Lod 70151
Israel

**Re: Audiocodes Ltd.
Form 20-F for Fiscal Year Ended December 31, 2009
Filed June 29, 2010
File No. 000-30070**

Dear Mr. Adlersberg:

We have reviewed your filings 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 by providing your proposed disclosures to comply with Comments 5 and 6 on the Company's impairment testing of the goodwill, 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 or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your filing and the information you provide in response to these comments, we may have additional comments.

Item 1A. Risk Factors, page 4

1. We note your disclosure throughout your filing regarding the historical importance of Nortel Networks as your largest customer. We also note your analysis that you cannot be sure whether the business units sold by Nortel Networks in bankruptcy will continue to do business with the company. However it is unclear whether these business units continued to do business with the company after being sold in 2009. Revenues from Nortel Networks increased in 2009 but it is unclear how much of those revenues were generated early versus late in 2009. Please advise.
2. The numbers for inventory write-offs for the years 2007 – 2009 on page 15 are different than those discussed on page 58. Please advise.

Legal Proceedings, page 55

3. With regard to the Network Gateway Solutions' lawsuit, please advise whether the company has agreed to indemnify Patton as part of its defense of Patton in the litigation. Also, please advise whether the company believes the resolution of the litigation is likely to have a material adverse effect on the company.
4. The disclosure relating to the Nuera patent infringement lawsuit appears to be incomplete. Please disclose where this litigation is taking place. Please advise whether the company has agreed to indemnify the customer of Neura for any loss stemming from the suit. Also, please advise whether the resolution of the litigation is expected to have a material adverse effect on the company.

Item 5. Operating and Financial Review and Prospects, page 57

Critical Accounting Policies and Estimates, page 57

Goodwill, page 59

5. We note that goodwill is 22% of the total assets as of December 31, 2009. In light of the significance of your goodwill balance and the impairment charges recorded in prior year, we believe you should provide more comprehensive disclosures in your critical accounting policies regarding your impairment testing policy. The disclosure should provide investors with sufficient information about management's insights and assumptions with regard to the recoverability of your goodwill. Specifically, if the fair value of your reporting unit is not substantially in excess of the carrying value we believe you should provide the following information:
 - Percentage by which fair value exceeded carrying value as of the date of the most recent test;
 - Discussion of the degree of uncertainty associated with the key assumptions disclosed on pages 59, 60 and Note 2 (l) on page F-16. The discussion regarding uncertainty should provide specifics to the extent possible (e.g., the valuation model assumes recovery from a business downturn within a defined period of time); and
 - Description of potential events and/or changes in circumstances that could reasonably be expected to negatively affect the key assumptions.Otherwise, disclose if true, in your Critical Accounting Policies and Estimates section of Operating and Financial Review and Prospects that your reporting unit is not at risk of failing step one of the goodwill impairment test.
6. We note that you took a significant goodwill and intangible assets impairment charges of \$85 million in the fiscal year 2008. You should expand your disclosures under Item 5, to discuss your expectations regarding your future operating results and liquidity as a result

of taking an impairment charge. You should clearly explain to your investors, if true, that you expect that historical operating results will not be indicative of future operating results. You should also discuss the primary drivers in your assumptions that resulted in the goodwill impairment charge. For instance, did you significantly reduce projected future revenues or net cash flows or increase the discount rates? In addition, discuss whether and when you considered a recovery of the economy in your cash flow projections.

Research and Development, page 74

7. We note that the amounts that you have spent on research and development have declined each year from 2007 – 2009. We also note the decline for the first six months of 2010 as compared to the previous year’s comparable period. In light of your statement that you “place considerable emphasis on research and development projects,” please explain this decline and whether it is indicative of a trend.

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 and 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 that 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 Gopal Dharia, accountant, at (202) 551-3353 or Terry French, accountant branch chief, at (202) 551-3828 if you have questions regarding comments on the financial statements and related matters. Please contact Brandon Hill, attorney-advisor, at (202) 551-3268 or me at (202) 551-3810 with any other questions.

Sincerely,

Larry Spigel
Assistant Director