



DIVISION OF  
CORPORATION FINANCE

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

Mail Stop 6010

August 10, 2007

Via U.S. Mail and Fax (49-241-8909-32)

Mr. Wolfgang Breme  
Executive Vice President and Chief Financial Officer  
AIXTRON Aktiengesellschaft  
Kackertstrasse 15-17  
D-52072 Aachen  
Federal Republic of Germany

**Re: AIXTRON Aktiengesellschaft  
Form 20-F for the year ended December 31, 2006  
Filed March 15, 2007  
File No. 000-51196**

Dear Mr. Breme:

We have reviewed your filings and have the following comments. We have limited our review to only your financial statements and related disclosures and do not intend to expand our review to other portions of your documents. Where indicated, we think you should revise your document in response to this comment. If you disagree, we will consider your explanation as to why our comment is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. Our comments ask you to provide us with information so we may better understand your disclosure. After reviewing this information, we may raise additional comments.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comment or on any other aspects of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Form 20-F for the year ended December 31, 2006

Financial Statements

Report of Independent Registered Public Accounting Firm, page 88

1. We note that your auditor opined on your financial statements prepared in conformity with International Financial Reporting Standards, as adopted by the European Union (EU). However, we note in footnote 1, that you prepared your financial statements in accordance with IFRS, the interpretations adopted by the International Accounting Standards Board (IASB) and Section 315a of HGB (German Commercial Law). Please reconcile this difference in disclosure and tell us whether your financial statements were prepared in accordance with IFRS as published by the IASB or IFRS as adopted by the EU.
2. If you prepared your financial statements in accordance with IFRS as adopted by the EU, please provide us with, and in future filings present, a reconciliation of any differences between IFRS as published by the IASB or IFRS as adopted by the EU in accordance with SEC Release No. 33-8567. In addition, please address any differences arising from the reference to Section 315a of HGB. Further, please discuss your conclusions on the impact of the incorrect disclosure on an investor's decision and the need to amend the Form 20-F to provide correct disclosure.

As appropriate, please respond to the comments within 10 business days or tell us when you will provide us with a response. Please furnish a cover letter with your response that provides any requested information. Detailed cover letters greatly facilitate our review. Please understand that we may have additional comments after reviewing your response to our comment.

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 all information required under the Securities Exchange Act of 1934 and that they have provided all information investors require for an informed investment decision. 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 connection with responding to our comment, please provide, in writing, a statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;

Wolfgang Breme  
AIXTRON Aktiengesellschaft  
August 10, 2007  
Page 3

- 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.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in our review of your filing or in response to our comments on your filing.

You may contact Praveen Kartholy at (202) 551-3778 or me at (202) 551-3605 if you have questions regarding this comment. In this regard, do not hesitate to contact Brian Cascio, Accounting Branch Chief, at (202) 551-3676.

Sincerely,

Gary Todd  
Reviewing Accountant