



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

June 30, 2010

Via Facsimile and U.S. Mail

Mr. Arthur Zafiropoulo  
Chief Executive Officer  
Ultratech, Inc.  
3050 Zanker Road  
San Jose, CA 95134

**Re: Ultratech, Inc.  
Form 10-K for fiscal year ended December 31, 2009  
Filed March 1, 2010  
Form 10-Q for the quarterly period ended March 31, 2010  
File No. 0-22248**

Dear Mr. Zafiropoulo:

We have reviewed your filing and have the following additional 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 revising future filings where indicated and 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 a revision is appropriate, please tell us why in your response.

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

Item 11. Executive Compensation, page 63

1. We refer to your disclosure under the caption "Elements of Compensation." Your disclosure should clearly explain how your incentive awards are specifically structured around company performance goals and individual objectives. It is not clear how you calculate the long-term component of your incentive compensation. Please note that you are required to disclose quantitative goals, except to the extent that they may be omitted pursuant to Instruction 4 of Item 402(b). Additionally, please note that qualitative goals generally need to be presented to conform to the requirements of 402(b)(2)(v). Confirm

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that you will revise in future filings to clearly describe your long-term incentive plan.

2. We refer to your disclosure under the caption "Annual Incentive Cash Compensation" on page 17 of the Form 10-K/A filed on April 29, 2010. Please tell us how you will calculate "appropriate interpolation" if any goal is attained at a level higher than the Tier III level. In addition, please confirm that you will include a discussion of this calculation in future filings.

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.

Please contact Gabriel Eckstein, Staff Attorney at (202) 551-3286 or me at (202) 551-3314 with any questions.

Sincerely,

Daniel Morris  
Special Counsel

Facsimile: Mr. Arthur Zafiropoulo, 408.577.3379