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May 10, 2016

VIA EDGAR AND OVERNIGHT DELIVERY

U.S. Securities and Exchange Commission
Division of Corporation Finance
100 F Street, N.E.
Washington, D.C. 20459

Attention: Amanda Ravitz
Geoff Kruczek
Heather Percival

Re: **FormFactor, Inc.**
Registration Statement on Form S-4
Filed April 1, 2016
File No. 333-210549

Ladies and Gentlemen:

We are submitting this letter on behalf of FormFactor, Inc. (the “**Company**”) in response to comments from the staff (the “**Staff**”) of the Securities and Exchange Commission (the “**Commission**”) received by letter dated April 26, 2016 (the “**Comment Letter**”) relating to the above-referenced registration statement on Form S-4 of the Company, filed April 1, 2016 (the “**Registration Statement**”). The Company is concurrently filing an amendment to the Registration Statement (the “**Amended Registration Statement**”), to reflect changes in response to the Staff’s comments. In addition to the electronic filing, we are delivering a hard copy of this letter, along with three courtesy copies of the Amended Registration Statement, marked to show changes from the Registration Statement as filed on April 1, 2016.

For ease of review, we have set forth below in italics each of the comments numbered 1 through 7, as set forth in the Comment Letter, together with the Company’s responses thereto. All page references in the Company’s responses are to the Amended Registration Statement.

What Cascade Microtech's Shareholders Will Receive in the Merger, page 10

1. *We note the disclosure regarding the implied value and implied merger consideration and that the exchange ratio, including adjustments to that ratio, are not designed to preserve the value of merger consideration. Please revise here, the cover page, and pages 1 and 46 to disclose the aggregate value of the merger consideration to be received, as of the most recent practicable date.*

RESPONSE: The Company has revised its disclosure on the cover and on pages 1, 10 and 47 of the Amended Registration Statement in response to the Staff's comment.

Exchange Ratio Adjustment, page 11

2. *We note the references to possible adjustments to the exchange ratio and changes to the amount of stock and cash to be received. Please revise to clarify how those changes may alter the amount of each type of consideration to be received on a per-share basis under a reasonable range of scenarios.*

RESPONSE: The Company has revised its disclosure on page 11 and starting on page 95 of the Amended Registration Statement in response to the Staff's comment. The disclosure on page 11 under "Summary—Exchange Ratio Adjustment" has been revised to provide a cross reference to the revised disclosure starting on page 95 in the section titled "The Merger Agreement—Exchange Ratio Adjustment," where we have included additional disclosure on how adjustments to the exchange ratio may alter the amount of each type of consideration to be received on a per-share basis under a reasonable range of scenarios. The revised disclosure starting on page 95 sets forth (i) a list of the factors that influence whether there will be an adjustment and the degree of any such adjustment, (ii) information about those factors as of the most recent practicable date, (iii) a table showing the impact of various assumed values for the FormFactor closing VWAP (as defined in the Amended Registration Statement) on the mix of cash and stock merger consideration and (iv) a description of how assumed changes to the other factors could influence the likelihood that an adjustment is required and the impact of any such adjustment on the mix of cash and stock merger consideration. The assumed FormFactor closing VWAPs range from approximately 23% above the closing price of a share of FormFactor common stock on May 2, 2016 down to approximately 39% below the closing price on that date.

Background of the Merger, page 60

3. *Please revise the carryover paragraph at the bottom of page 66 to clarify the "magnitude and implications" of the pricing change referenced in your disclosure. Include in your revisions a summary of the material discussions between Cascade Microtech's board, management and advisors, including those relating to the differences in expected value as a result of the price change, and reasons for accepting a fixed price rather than a 30-day volume-weighted price, and*

the material risks and benefits considered for each mechanism. Please also clarify the impact of the decline in FormFactor's stock price that was discussed on January 22, 2016 and how such decline impacted the transaction pricing and value of the merger consideration.

RESPONSE: We have revised the disclosure on page 68 of the Amended Registration Statement to clarify the magnitude and implications of the pricing change referenced in the previous version of the disclosure and to include the summary information requested in the Staff's comment. We have also revised the disclosure on page 67 of the Amended Registration Statement to clarify the impact of the decline in FormFactor's stock price that was discussed on January 22, 2016.

4. *As a related matter, we note the reference here to a preliminary analysis by Stifel, and similar references throughout this section. Please revise to provide the disclosures required by Item 4(b) to Form S-4 and file the reports, opinions or appraisals as exhibits, as required by Item 21(c) to Form S-4. Please also provide us with copies of any board books prepared by the financial advisors and related to the transaction.*

RESPONSE: The Stifel related disclosures on pages 63 (the April 28, 2015 board meeting), 64 (the December 14, 2015 board meeting), 64 (the December 15, 2015 board meeting), 65 (the December 18, 2015 board meeting), 65 (the December 22, 2015 board meeting), 67 (the January 22, 2016 board meeting) and 67-68 (the January 28, 2016 board meetings) of the Amended Registration Statement all reference preliminary information that was presented prior to the finalization of the terms of the transaction and was not presented in connection with the fairness opinion ultimately delivered by Stifel to the Cascade Microtech board of directors at its meeting on February 3, 2016 in connection with the board's approval of the transaction (which opinion is the only "report, appraisal or opinion" required by Item 4(b) of Form S-4 to be summarized in the S-4). Rather, this preliminary information was refined over time and superseded by the information presented by Stifel to the Cascade Microtech board of directors in connection with the fairness opinion and underlying analyses that were delivered to the Cascade Microtech board of directors at the February 3, 2016 meeting and subsequently confirmed in writing, which are summarized in detail on pages 69 and 77-88 of the Amended Registration Statement. We believe the disclosures in the Amended Registration Statement relating to Stifel, including the additional detail provided in response to the Staff's comment, provide shareholders with the material aspects of the Cascade Microtech board of director's decision-making process based on Stifel's input. Based on these considerations and long-standing practice for transactions that are not subject to Rule 13e-3 under the Securities Exchange Act of 1934, we respectfully submit that Form S-4 does not require further disclosure to meet the requirements of Item 4(b) of Form S-4, including Item 1015(b)(6) of Regulation M-A.

Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., counsel to Stifel, will confidentially provide copies of board books related to the transaction prepared by Stifel pursuant to Rule 12b-4 under the Securities Exchange Act of 1934, as amended, and Rule 418 under the Securities Act of 1933, as amended. Counsel to Stifel will request confidential treatment of the board books pursuant to 17 C.F.R. § 200.83.

5. *We note the disclosure regarding negotiations concerning the total dollar value of the consideration to be received and \$8.80 price per FormFactor common share used in calculating the exchange ratio. Please revise to clarify how the parties determined the relative proportions of cash and stock to be received in the offer, including the .6534 ratio for the stock component.*

RESPONSE: The Company has revised its disclosure on pages 68-69 of the Amended Registration Statement in response to the Staff's comment.

6. *Please clarify the issues in (1) in the last paragraph on page 64 and how those issues were resolved.*

RESPONSE: In response to the Staff's comment, we have revised the disclosure on pages 65-66 of the Amended Registration Statement to clarify the issues discussed between Mr. Burger and Dr. Slessor on December 28, 2015 and how issues related to retention agreements were resolved in the final version of the indication of interest signed by Cascade Microtech and FormFactor on December 30, 2015.

Signatures, page II-5

7. *The first paragraph of text on this page is inconsistent with the signatures requirements of Form S-4. Please revise.*

RESPONSE: The Company has revised its disclosure on page II-5 of the Amended Registration Statement in response to the Staff's comment.

The Company acknowledges the following and will also include acknowledgement of the following in any request for acceleration of the effective date of the registration statement relating to this offering:

- should the Commission or the Staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the Staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the Company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- the Company may not assert Staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

We appreciate your assistance in this matter. Please do not hesitate to call me at 650-752-2011 with any questions you may have respecting the foregoing.

Very truly yours,

/s/ Sarah K. Solum

Sarah K. Solum

Enclosures

cc: Michael Slessor (FormFactor, Inc.)
Michael Ludwig (FormFactor, Inc.)
Jason Cohen (FormFactor, Inc.)
Roy Tucker (Perkins Coie LLP)
David Matheson (Perkins Coie LLP)