



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

DIVISION OF
CORPORATION FINANCE

Mail Stop 3030

March 22, 2017

Via E-mail

Faraj Aalaei
President and Chief Executive Officer
Aquantia Corp.
105 E. Tasman Drive
San Jose, California 95134

**Re: Aquantia Corp.
Amendment No. 5 to
Draft Registration Statement on Form S-1
Submitted March 1, 2017
CIK No. 0001316016**

Dear Mr. Aalaei:

We have reviewed your amended draft registration statement 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 by providing the requested information and either submitting an amended draft registration statement or publicly filing your registration statement on EDGAR. 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 the information you provide in response to these comments and your amended draft registration statement or filed registration statement, we may have additional comments.

Future changes, page 28

1. Please clarify how the initiatives and reforms that you mention in the first sentence of this risk factor could have a material adverse effect on you. Also clarify how the "already enacted legislation" would have a material adverse effect on you.

Customer Demand and Product Life Cycles, page 54

2. Please address that part of prior comment 2 seeking information regarding the portion of your revenue attributable to the product that you expect to be replaced. If material, your

disclosure should make clear the extent of the historic reliance on the product being replaced, and the extent to which the replacement is occurring.

Results of Operations, page 57

Comparison of the Years Ended December 31, 2015 and 2016, page 59

3. Please discuss the reasons for the higher selling process in the data center market. Also tell us about any known price decreases taking effect in periods after the reported period for this or any other market; include the magnitude of the decrease.
4. We see that your gross profit increased by 12 points in fiscal 2016 compared to fiscal 2105. You explain that this is due to yield improvement and cost reductions from your supply chain. Please revise to disclose more specific details of the significant increase, including a discussion of specific yield improvements and cost reductions and how each was achieved.

Quarterly Revenue Trends, page 65

5. Please disclose the reasons for the decreased revenue from the enterprise infrastructure market.

Director Compensation Program, page 105

6. Please reconcile the disclosure about compensation in the first paragraph of this section with the compensation mentioned in the table in this section.

Summary Compensation Table, page 107

7. Please clarify why a 2014 bonus would be paid in 2016 as mentioned in footnote (3).

Mr. Voll, page 111

8. Please expand your prospectus disclosure to describe the compensation to be paid to Mr. Voll if he resigns for good reason as mentioned in exhibit 10.7.

Agreements with GLOBALFOUNDRIES U.S. Inc., page 123

9. Your response to prior comment 4 appears to indicate that you have agreed to pay a related person an amount that may be material for a contract that is immaterial in significance. It is unclear why such a contract ordinarily accompanies the kind of business you conduct. Please expand your response to tell us whether the agreement contains only terms, including royalty rates, similar to those in agreements that you have with licensors that are not related to you. Also please reconcile your response that the licensed intellectual property is immaterial in significance and could be replaced by

otherwise available technology with your disclosure on page 85 indicating that the technology supports a “breakthrough,” and tell us the amount of time it would take to create a product that is ready for market with replacement technology.

10. Please disclose the dollar amount involved in the transactions mentioned in the paragraph you added at the end of this section during each period required to be addressed by Instruction 1 to Regulation S-K Item 404. Also clarify the nature of the services that the related person provided.

You may contact Julie Sherman at (202) 551-3640 or Brian Cascio, Accounting Branch Chief, at (202) 551-3676 if you have questions regarding comments on the financial statements and related matters. Please contact Tom Jones at (202) 551-3602 or me at (202) 551-3617 with any other questions.

Sincerely,

/s/ Russell Mancuso

Russell Mancuso
Branch Chief
Office of Electronics and Machinery

cc: Babak Yaghmaie