



DIVISION OF
CORPORATION FINANCE

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

March 10, 2025

Fumihide Esaka
Chief Executive Officer
Ambiq Micro, Inc.
6500 River Place Boulevard
Building 7, Suite 200
Austin, TX 78730

**Re: Ambiq Micro, Inc.
Amendment No. 2 to Draft Registration Statement on Form S-1
Submitted on February 13, 2025
CIK 0001500412**

Dear Fumihide Esaka:

We have reviewed your amended draft registration statement and have the following comments.

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 a comment applies 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 this letter and your amended draft registration statement or filed registration statement, we may have additional comments. Unless we note otherwise, any references to prior comments are to comments in our June 21, 2022 letter.

Draft Registration Statement on Form S-1 filed on February 13, 2025

Business, page 79

1. We note disclosure regarding the importance of artificial intelligence (AI) to your business. Please revise your business section to more fully discuss the current state of AI and the potential obstacles to broad-based AI adoption. In addition, more fully discuss the current state of AI regulation within the United States and your other markets. Please also update your risk factor section as applicable.

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Overview, page 79

2. We note your statement here and elsewhere that you are a "leading provider of ultra-low-power semiconductor solutions". Please disclose the basis for such statement. Clarify the criteria on which you based this statement, such as revenue or market share.

Employees, page 94

3. We note your disclosure that you have employees located in the US, China, Taiwan and Singapore. Please clarify specifically your distribution of your employees by location. Please refer to our prior comment 6 in our June 21, 2022 letter.

Principal Stockholders, page 120

4. We note the inclusion of Scott Goodwin as the Chief Financial Officer on page 95. Please advise as to why Scott Goodwin was excluded from the list of Named Executive Officers within the table of Principal Stockholders.

Exhibits

5. Please file the material contracts required by Item 601(b)(10) of Regulation S-K as exhibits to your registration statement. For example, we note references to advisor agreements with Ms. Stevenson and Mr. Hill.

Please contact Kevin Stertz at 202-551-3723 or Kevin Woody at 202-551-3629 if you have questions regarding comments on the financial statements and related matters. Please contact Sarah Sidwell at 202-551-4733 or Jay Ingram at 202-551-3397 with any other questions.

Sincerely,

Division of Corporation Finance
Office of Manufacturing

cc: Courtney M.W. Tygesson