

August 17, 2022

Chad Rigetti  
Chief Executive Officer  
Rigetti Computing, Inc.  
775 Heinz Avenue  
Berkeley, CA 94710

Inc.

Statement on Form S-1  
2022

Re: Rigetti Computing,  
Registration  
Filed August 12,  
File No. 333-266810

Dear Mr. Rigetti:

We have limited our review of your registration statement to those issues we have addressed in our 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 amending your registration statement and providing the requested information. 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 any amendment to your registration statement and the information you provide in response to these comments, we may have additional comments.

Form S-1 filed August 12, 2022

General

1. We note that Ampere is not obligated to make the additional \$5 million payment for the second tranche of 500,000 shares if Ampere's capital stock is not listed by the second anniversary of the warrant subscription agreement. Generally, securities issued in a private transaction may not be registered for resale until after the private placement is completed. In this regard, we note that Ampere is not irrevocably bound to purchase the subject securities because whether Ampere chooses to list its capital stock is a condition within Ampere's control. Please refer to Question 134.01 of our Securities Act Sections Compliance and Disclosure Interpretations for guidance, and provide us with your analysis of how the registration of these shares is appropriate.

Chad Rigetti  
FirstName LastNameChad  
Rigetti Computing, Inc. Rigetti  
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August 17, NameRigetti  
2022 Computing, Inc.

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FirstName LastName  
Selling Stockholder, page 144

2. Revise to identify the natural person or persons who exercise the voting and/or dispositive powers with respect to the securities owned by Ampere Computing LLC.  
Exhibits

3. Please file your collaboration agreement with Ampere and revise your

prospectus to

summarize the material terms of this agreement. See Item  
601(b) (10) (ii) (A) of Regulation

S-K.

We remind you that the company and its management are responsible for  
the accuracy  
and adequacy of their disclosures, notwithstanding any review, comments, action  
or absence of  
action by the staff.

Refer to Rules 460 and 461 regarding requests for acceleration. Please  
allow adequate  
time for us to review any amendment prior to the requested effective date of  
the registration  
statement.

Please contact Mitchell Austin, Staff Attorney, at (202) 551-3574 or, in  
his absence,  
Joshua Shainess, Legal Branch Chief, at (202) 551-7951 with any questions.

Sincerely,

Division of

Office of

Corporation Finance

Technology