

Rigetti Computing, Inc.
775 Heinz Avenue
Berkeley, CA 94710

September 12, 2022

VIA EDGAR

Division of Corporation Finance
Office of Technology
United States Securities and Exchange Commission
100 F Street, N.E.
Washington, D.C. 20549

RE: Rigetti Computing, Inc.
Registration Statement on Form S-1
File No. 333-266938

Ladies and Gentlemen:

Rigetti Computing, Inc. (the “**Registrant**”) hereby requests that the U.S. Securities and Exchange Commission (the “**Commission**”) take appropriate action to cause the above-referenced Registration Statement on Form S-1 to become effective on September 14, 2022, at 4:00 p.m., Eastern Time, or as soon thereafter as is practicable or at such later time as the Registrant may orally request via telephone call to the staff of the Commission. The Registrant hereby authorizes each of Christina Roupas and Courtney Tygesson of Cooley LLP, counsel to the Registrant, to make such request on its behalf.

Once the Registration Statement has been declared effective, please orally confirm that event with Christina Roupas of Cooley LLP, counsel to the Registrant, at (312) 881-6670, or in her absence, Courtney Tygesson at (312)881-6680.

Very truly yours,

RIGETTI COMPUTING, INC.

By: /s/ Brian Sereda

Name: Brian Sereda

Title: Chief Financial Officer

cc: Rick Danis, Rigetti Computing, Inc.
Christina Roupas, Cooley LLP
Courtney Tygesson, Cooley LLP