

**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