



Rigetti Announces Public Availability of Ankaa-2 System with a 2.5x Performance Improvement Compared to Previous QPUs

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The Company's 84-qubit Ankaa™-2 system is now publicly available to all of its customers via Rigetti Quantum Cloud Services (QCS™). The Ankaa-2 system has achieved a 98% median 2-qubit fidelity, a 2.5x performance improvement compared to the Company's previous QPUs.

BERKELEY, Calif., Jan. 04, 2024 (GLOBE NEWSWIRE) -- Rigetti Computing, Inc. (Nasdaq: RGTI) ("Rigetti" or the "Company"), a pioneer in full-stack quantum-classical computing, announced today that its 84-qubit Ankaa™-2 quantum system was made publicly available to all of its customers via Rigetti's Quantum Cloud Services (QCS™) on December 20, 2023. The Ankaa-2 system is based on Rigetti's fourth generation chip architecture that features tunable couplers and a square lattice, enabling high fidelity 2-qubit operations compared to the Company's previous systems. Ankaa-2 is also the Company's highest qubit count quantum processing unit (QPU) available to the public.

Following the internal deployment of Ankaa-1, the Company made iterative improvements through internal R&D to support enhancements to Ankaa-2. As a result, Ankaa-2 achieved a 2% median 2-qubit gate error rate — less than half the error rate of the Company's previous systems. These fidelity improvements can be attributed to a variety of technology updates to the Ankaa-2 system:

- Implementation of a new chip fabrication process, leading to qubits with fewer atomic defects that would otherwise reduce quantum coherence times
- Incorporation of new superconducting PCB technology that improves thermal performance
- Electronics improvements that generate control signals with less noise

"Rigetti's focus on improving our median 2-qubit fidelities is a crucial part of our mission to build the world's most powerful computers. Useful quantum computers will need not only a large number of qubits, but also high quality qubits. Reaching 98% fidelity on the Ankaa-2 system is the result of years of innovation and commitment from our teams across the technology stack. Now that the Ankaa-2 system is available to all of our customers and partners, I look forward to focusing on continued progress in accelerating this transformational technology," says Dr. Subodh Kulkarni, Rigetti CEO.

"I am thrilled with the progress we are making with our Ankaa-class architecture against our QPU roadmap and qubit performance. To reach quantum advantage we know we need high performance qubits, and a lot of them. We've already designed and deployed a modular architecture, tiling multiple chips together demonstrating what we believe is the way forward towards building larger systems. We believe a densely connected square lattice with tunable couplers that allows us to control qubit interactions is the foundation for driving qubit performance. A 2.5x increase in error performance against our previous QPUs, increasing our fidelities by 3%, coupled with our scaling approach, shows us that we have a promising strategy for building increasingly higher performing QPUs to help our customers solve their most pressing problems," says David Rivas, Rigetti CTO.

The public launch of the Ankaa-2 system follows the release of [the Novera™ QPU](#), Rigetti's first commercially available QPU, which is based on the same Ankaa-class architecture and designed for hands-on access to state-of-the-art quantum hardware for foundational quantum computing R&D.

About Rigetti

Rigetti is a pioneer in full-stack quantum computing. The Company has operated quantum computers over the cloud since 2017 and serves global enterprise, government, and research clients through its Rigetti Quantum Cloud Services platform. The Company's proprietary quantum-classical infrastructure provides high performance integration with public and private clouds for practical quantum computing. Rigetti has developed the industry's first multi-chip quantum processor for scalable quantum computing systems. The Company designs and manufactures its chips in-house at Fab-1, the industry's first dedicated and integrated quantum device manufacturing facility. Learn more at [rigetti.com](https://www.rigetti.com).

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Cautionary Language Concerning Forward-Looking Statements

Certain statements in this communication may be considered "forward-looking statements" within the meaning of the federal securities laws, including but not limited to, expectations with respect to the Company's business and operations, including its expectations with respect to the success and performance, including future performance improvements, of the Ankaa-2 system, its ability to improve performance on future systems, future sales or leases of the Novera QPU, customer adoption of the Ankaa-2 system and Novera QPU and ongoing use and research by customers of the Ankaa-2 system and Novera QPU. Forward-looking statements generally relate to future events and can be identified by terminology such as "commit," "may," "should," "could," "might," "plan," "possible," "intend," "strive," "expect," "intend," "will," "estimate," "believe," "predict," "potential," "pursue," "aim," "goal," "outlook," "anticipate," "assume," or "continue," or the negatives of these terms or variations of them or similar terminology. Such forward-looking statements are subject to risks, uncertainties, and other factors which could cause actual results to differ materially from those expressed or implied by such forward-looking statements. These forward-looking statements are based upon estimates and assumptions that, while considered reasonable by Rigetti and its management, are inherently uncertain. Factors that may cause actual results to differ materially from current expectations include, but are not limited to: Rigetti's ability to achieve milestones, technological advancements, including with respect to its roadmap, help unlock quantum computing, and develop practical applications; the ability of Rigetti to complete ongoing negotiations with government contractors successfully and in a timely manner; the potential of quantum computing; the ability of Rigetti to obtain government contracts and the availability of government funding; the ability of Rigetti to expand its QCS business; the success of Rigetti's partnerships and collaborations; Rigetti's ability to accelerate its development of multiple generations of quantum processors; the outcome of any legal proceedings that may be instituted against Rigetti or others; the ability to continue to meet stock exchange listing standards; costs related to operating as a public company; changes in applicable laws or regulations; the possibility that Rigetti may be adversely affected by other economic, business, or competitive factors; Rigetti's estimates of expenses and profitability; the evolution of the markets in which Rigetti competes; the ability of Rigetti to execute on its technology roadmap; the ability of Rigetti to implement its

strategic initiatives, expansion plans and continue to innovate its existing services; disruptions in banking systems, increased costs, international trade relations, political turmoil, natural catastrophes, warfare (such as the ongoing military conflict between Russia and Ukraine and related sanctions and the state of war between Israel and Hamas and related threat of a larger regional conflict), and terrorist attacks; and other risks and uncertainties set forth in the section entitled "Risk Factors" and "Cautionary Note Regarding Forward-Looking Statements" in the Company's Annual Report on Form 10-K for the year ended December 31, 2022 and Quarterly Reports on Form 10-Q for the quarters ended March 31, 2023, June 30, 2023, and September 30, 2023, and other documents filed by the Company from time to time with the SEC. These filings identify and address other important risks and uncertainties that could cause actual events and results to differ materially from those contained in the forward-looking statements. Forward-looking statements speak only as of the date they are made. Readers are cautioned not to put undue reliance on forward-looking statements, and the Company assumes no obligation and does not intend to update or revise these forward-looking statements other than as required by applicable law. The Company does not give any assurance that it will achieve its expectations.