



## Rigetti Announces General Availability of 108-Qubit System

April 7, 2026

**Cepheus-1-108Q validates Rigetti's proprietary chiplet-based scaling architecture and is now generally available to Rigetti's customers and partners via the Rigetti Quantum Cloud Services platform and through Amazon Braket, the quantum computing service by AWS.**

BERKELEY, Calif., April 07, 2026 (GLOBE NEWSWIRE) -- Rigetti Computing, Inc. (Nasdaq: RGTI) ("Rigetti" or the "Company"), a pioneer in full-stack quantum-classical computing, today announced the general availability of its 108-qubit quantum computing system, Cepheus™-1-108Q, now accessible to customers and partners via the Rigetti Quantum Cloud Services (QCS®) Platform and through Amazon Braket, the quantum computing service by AWS.

Cepheus-1-108Q is Rigetti's highest qubit-count system to date and the industry's largest modular quantum computing system, based on Rigetti's proprietary chiplet-based architecture. The system comprises twelve interconnected 9-qubit chiplets, tripling the number of qubits and chiplets from Rigetti's previous 36-qubit system, Cepheus-1-36Q.

The system is currently performing at a 99.1% median two-qubit gate fidelity with a gate speed of ~60 ns and a 99.9% median single-gate fidelity. Rigetti is releasing Cepheus-1-108Q now in response to growing customer interest, and will continue to improve the system performance throughout 2026 as the Company advances on its roadmap.

"Cepheus-1-108Q is a milestone that validates our ambitious approach to scaling quantum computers," said Dr. Subodh Kulkarni, Rigetti CEO. "Our proprietary chiplet-based architecture is paving the way toward higher fidelity, higher qubit systems that will ultimately enable fault-tolerant quantum computing."

"We are proud of the progress we have made in delivering a system at this scale. The innovations we've developed while designing this system give us confidence in our vision and approach to building the next generation of quantum computers. We will continue to improve fidelity as we scale to higher qubit counts and deploy new systems as we reach important performance milestones while maintaining gate speeds that are roughly 1,000-10,000 times faster than other modalities such as trapped-ion and neutral-atom systems."

"The addition of Cepheus-1-108Q to Amazon Braket gives our global customers another choice as they research quantum computing applications in materials science, optimization, and quantum simulation. As the first gate-based device on Braket with over 100 qubits, Cepheus-1-108Q delivers improved fidelities that allow customers to push to wider and deeper circuits," said Eric Kessler, General Manager, Amazon Braket. "Rigetti was a launch partner for Amazon Braket, and we're excited to deepen that relationship with this launch. With Cepheus-1-108Q, we bring the third generation of Rigetti devices to our customers, following Aspen and Ankaa. We remain committed to providing researchers and enterprises around the world with access to the latest quantum hardware."

### Key Technical Advancements

The new system features several significant engineering improvements designed to maintain fidelity and performance as qubit counts grow:

- **Enhanced qubit and coupler design:** Optimized chip design enables fast two-qubit gates and higher fidelity.
- **CZ gates for error correction:** Supports high-fidelity native gates and efficient circuit compilation necessary for quantum error correction and future fault-tolerant architectures. Rigetti achieved a two-qubit gate fidelity as high as 99.9% at 28 nanoseconds on a prototype system using a proprietary implementation of an adiabatic CZ gate scheme. These gates are already in use on Cepheus-1-108Q and will continue to improve as Rigetti incorporates those prototype learnings into larger systems.
- **Upgraded control electronics:** A newly engineered control system delivers superior signal-to-noise ratio for qubit readout.
- **Advanced fabrication process:** Rigetti's Alternating-Bias Assisted Annealing technique improves qubit frequency targeting and reduces defects, contributing to higher fidelities.

During system development, Rigetti refined its architecture to mitigate coupling interactions between tunable couplers that become more pronounced beyond 100 qubits. These design improvements shifted the primary performance limitation from coupler behavior to coherence time, a key factor the Company continues to address through innovations in materials and fabrication.

### Roadmap

Rigetti plans to continue to improve the fidelity of its individual chiplets and expects Cepheus-1-108Q to reach a median 99.5% two-qubit gate fidelity later this year. Rigetti intends to update its technology roadmap later this year, once it has incorporated the results of this work, including how the Company plans to reach quantum advantage in about three years.

For more information on Amazon Braket, please visit <https://aws.amazon.com/braket/>.

### About Rigetti

Rigetti is a pioneer in full-stack quantum computing. Rigetti quantum computers are based on superconducting qubits, which are widely believed to be the leading qubit modality given their maturity, clear path to scaling, and fast gate speeds. Current Rigetti quantum computing systems achieve gate speeds of 50-70ns, which is about 1,000 times faster than other modalities such as ion traps and neutral atoms.

The Company operates quantum computers over the cloud through its Rigetti Quantum Cloud Services (QCS) platform, enabling global enterprise, government, and research clients to pursue R&D. The Company's proprietary quantum-classical infrastructure provides high-performance integration

with public and private clouds for practical quantum computing.

Rigetti sells on-premises 9-108 qubit quantum computing systems, supporting national laboratories and quantum computing centers. Rigetti's 9-qubit Novera QPU supports a broader R&D community with a high-performance, on-premises QPU designed to plug into a customer's existing cryogenic and control systems.

Rigetti developed the industry's first multi-chip quantum processor for scalable quantum computing systems. Leveraging this proprietary technology, Rigetti deployed the industry's largest multi-chip quantum computer in 2025 with Cepheus-1-36Q, based on four 9-qubit chiplets tiled together. 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 <https://www.rigetti.com/>.

**Rigetti Computing Media Contact:**

[press@rigetti.com](mailto:press@rigetti.com)

**Amazon Braket Media Contact:**

Mayar Abdelrahim

[abmayar@amazon.com](mailto:abmayar@amazon.com)

**Cautionary Language and Forward-Looking Statements**

Certain statements in this communication may be considered "forward-looking statements" within the meaning of the federal securities laws, including statements with respect to the Company's expectations with respect to its future success and performance, including the Company continuing to improve the system performance throughout 2026 as the Company advances on its roadmap; the chiplet-based architecture paving the way toward higher fidelity, higher qubit systems that will ultimately enable fault-tolerant quantum computing; the confidence in the Company's vision and approach to building the next generation of quantum computers; the improvement to fidelity as the Company scales to higher qubit counts and deploy new systems as we reach important performance milestones while maintaining gate speeds; expectations for Cepheus 1 108Q to reach a median 99.5% two qubit gate fidelity later this year; and intentions to update the technology roadmap later this year. These forward-looking statements are based upon estimates and assumptions that, while considered reasonable by the Company and its management, are inherently uncertain. Factors that may cause actual results to differ materially from current expectations include, but are not limited to: the Company's ability to achieve milestones, technological advancements, including with respect to its technology roadmap; Company's ability to deliver products to customers in time or at all, including actions by customers, such as controls over their facilities and cancelling orders; the ability of the Company to obtain government and national contracts successfully and in a timely manner and the availability of such funding; the potential of quantum computing; the success of the Company's partnerships and collaborations; the Company's ability to accelerate its development of multiple generations of quantum processors; the outcome of any legal proceedings that may be instituted against the Company or others; the ability to maintain relationships with customers and suppliers and attract and retain management and key employees; costs related to operating as a public company; changes in applicable laws or regulations, including those related to exports; the possibility that the Company may be adversely affected by other economic, business, or competitive factors; the Company's estimates of expenses and profitability; the evolution of the markets in which the Company competes; the ability of the Company to implement its strategic initiatives and expansion plans; the expected use of proceeds from the Company's past and future financings or other capital; the sufficiency of the Company's cash resources; unfavorable conditions in the Company's industry, the global economy or global supply chain, including rising inflation and interest rates, deteriorating international trade relations, political turmoil, natural catastrophes, warfare, 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, 2025 and other documents filed by the Company from time to time with the Securities and Exchange Commission. 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.