



NEWS RELEASE

# Keysight Technologies Acquires Quantum Benchmark

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Market-leading quantum computing solutions augment Keysight's quantum portfolio

SANTA ROSA, Calif.--(BUSINESS WIRE)-- Keysight Technologies, Inc. (NYSE: KEYS), a leading technology company that delivers advanced design and validation solutions to help accelerate innovation to connect and secure the world, announced today it has acquired **Quantum Benchmark**, a leader in error diagnostics, error suppression and performance validation software for quantum computing.

Based in Kitchener, Ontario, Canada, Quantum Benchmark was a privately held company backed by venture funds VanEdge Capital and **Quantonation**. Quantum Benchmark provides software solutions for improving and validating quantum computing hardware capabilities by identifying and overcoming the unique error challenges required for high-impact quantum computing.

"Joining forces with Keysight is a strategic and timely opportunity to accelerate the development and delivery of our industry-leading solutions," said Joseph Emerson, Ph.D., Quantum Benchmark CEO, Founder and Chief Scientist.

"Together, we bring the world closer to achieving the break-through applications of quantum computing including the design of energy-efficient materials, the acceleration of drug discovery, the promise of quantum machine learning, and so much more."

Quantum computing is an emerging technology that is expected to simulate real-world systems and tackle problems that are otherwise intractable with conventional computing. Quantum systems use qubits (quantum bits) to process data. As quantum computing technology evolves, the ability of quantum computers to perform meaningful computations is determined by the number of qubits, as well as by the quality of those qubits. Performance-limiting errors invariably arise in qubit hardware and present the key challenge to large-scale

quantum computing. Quantum Benchmark's technology improves the quality of the qubits across all quantum hardware platforms and delivers solutions at both ends of the quantum market. It helps quantum hardware makers design better qubits and helps quantum end-users stabilize the performance of those qubits for their specific use-cases.

Quantum Benchmark's technology is based on years of research by several of the world's leading experts in quantum computing at the University of Waterloo's Institute for Quantum Computing. The acquisition of Quantum Benchmark supports Keysight's goal to deliver a comprehensive quantum portfolio addressing customer needs across the physical, protocol, and application layers. Quantum Benchmark represents Keysight's third acquisition in the quantum space after Signadyne in 2016 and Labber Quantum in 2019.

"As the quantum ecosystem continues to form, Keysight is committed to providing customers with a full suite of solutions for the overall quantum stack. We are pleased to announce the addition of Quantum Benchmark to our portfolio, providing unique capabilities for solving complex qubit error and validation challenges," said Kailash Narayanan, president of Commercial Communications at Keysight. "The talented Quantum Benchmark team will be a valuable addition to Keysight and will further our mission to accelerate innovation to connect and secure the world."

## About Quantum Benchmark

Quantum Benchmark is a leading software solution provider that enables error characterization, error suppression, error correction, and performance validation for quantum computing hardware. Quantum Benchmark is led by a team of the world's top research scientists and engineers in quantum computing with the mission of enabling quantum computers to solve real-world problems. More information is available at [www.quantumbenchmark.com](http://www.quantumbenchmark.com).

## About Keysight Technologies

Keysight delivers advanced design and validation solutions that help accelerate innovation to connect and secure the world. Keysight's dedication to speed and precision extends to software-driven insights and analytics that bring tomorrow's technology products to market faster across the development lifecycle, in design simulation, prototype validation, automated software testing, manufacturing analysis, and network performance optimization and visibility in enterprise, service provider and cloud environments. Our customers span the worldwide communications and industrial ecosystems, aerospace and defense, automotive, energy, semiconductor, and general electronics markets. Keysight generated revenues of \$4.2B in fiscal year 2020. For more information about Keysight Technologies (NYSE: KEYS), visit us at [www.keysight.com](http://www.keysight.com).

Additional information about Keysight Technologies is available in the newsroom at <https://www.keysight.com/go/news> and on **Facebook, LinkedIn, Twitter, and YouTube**.

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