Geneva, November 25th 2019

ID Quantique's Quantis QRNG chip has obtained AEC-Q100 certification, demonstrating its resistance to harsh automotive environments

ID Quantique (IDQ), the world leader in quantum-safe security solutions, today announced that its Quantum Random Number Generator (QRNG) chip is certified for automotive environments. It is ideal for integration into automotive security applications, where its compact size and resistance to external environmental perturbations are critical.

The automotive industry is in a major transition to connect vehicles, automate vehicles and to offer Mobility-as-a-Service (MaaS). This requires the use of a V2X (vehicle-to-everything) ecosystem, where data is transmitted between the ecosystem, the vehicle sensors and the vehicle controllers using high performance secured networks.

The need to exchange data between back-end systems and vehicles – as well as between systems within a vehicle, or between vehicles – makes these systems vulnerable to cyber-attacks, which could lead to expensive vehicle recalls, significant safety risks and threats to human life. In turn, this exposes vehicle manufacturers and organisations tasked with infrastructure management to substantial liability and reputation risks.

Generating strong keys from a reliable entropy source is the cornerstone of any security system. Relying on Quantum physics, the Quantis QRNG chip (IDQ6MC1), the first AEC-Q100 Quantum Random Number Generator, designed and manufactured in collaboration with SK Telecom, is an entropy source that generates provably unbiased and unpredictable randomness with full entropy from the very first bit. It generates random numbers from the shot noise of a light source captured by a CMOS image sensor, a patented quantum technology from IDQ.

The Quantis IDQ6MC1 is ideal for securing automotive, critical infrastructure, IoT and security applications where compact size, low power consumption and resistance to strong external conditions are critical.

"With this AEC-Q100 certification, IDQ demonstrates that its Quantis QRNG chip is robust to most extreme conditions and can reliably be embedded in any security system of a connected car to ensure trusted and secured in-vehicle and V2X communications." said Grégoire Ribordy, CEO and co-founder of ID Quantique. "Using a Quantum entropy source is a first step to make the V2X ecosystem quantum resistant and prepare for the quantum computing age. And this process has to start as early as possible."

ID Quantique was the first company to develop a quantum random number generator (QRNG) in 2001 and it remains the market leader in terms of reliability, certifications and Swiss engineering, with its successive versions of hardware RNGs. It is actively developing new QRNG products for its customers in various fields like automobile, consumer electronics, computer and mobile, financial and security markets.

Read more information on the Quantis QRNG chip

Read more information on automotive solutions

Download our white paper on: "The impact of quantum technologies on the future V2X ecosystem"

About ID Quantique

Founded in 2001 as a spin-off of the Group of Applied Physics of the University of Geneva, ID Quantique is the world leader in quantum-safe crypto solutions, designed to protect data for the future. The company provides quantum-safe network encryption, secure quantum key generation and Quantum Key Distribution solutions and services to the financial industry, enterprises and government organizations globally. IDQ's quantum random number generator has been validated according to global standards and independent agencies, and is the reference in highly regulated and mission critical industries – such as security, encryption, critical infrastructure and IoT – where trust is paramount.

Additionally, IDQ is a leading provider of optical instrumentation products, most notably photon counters and related electronics. The company's innovative photonic solutions are used in both commercial and research applications.

IDQ's products are used by government, enterprise and academic customers in more than 60 countries and on every continent. IDQ is proud of its independence and neutrality, and believes in establishing long-term and trusted relationships with its customers and partners.

For more information, please visit www.idquantique.com.

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