

Marvell Announces Integration Of Industry's First Secure Automotive Ethernet Switch Into NVIDIA DRIVE Pegasus Platform For Level 5 Autonomy

NVIDIA AI Car Supercomputer First to Market with Embedded Security Built into Hardware Layer

SANTA CLARA, Calif., March 27, 2018 /PRNewswire/ -- [Marvell](#) (NASDAQ:MRVL), a leader in storage, networking, and connectivity semiconductor solutions, today announced that its [industry-first 88Q5050 secure automotive Ethernet switch](#) is integrated into the NVIDIA® DRIVE™ Pegasus platform for autonomous vehicles, making it the first commercially available solution with embedded security built into the core. Marvell's secure switch can handle multi-gigabit applications for OEM car manufacturers to deliver an in-car network that supports sensor fusion, cameras, safety and diagnostics. The Marvell® embedded security technology helps to prevent vehicles from cyberattacks that can compromise a safe and seamless driving experience.

The NVIDIA DRIVE Pegasus computing platform has been designed to handle Level 5 driverless vehicles and compute over 320 trillion operations per second. The platform combines deep learning, sensor fusion, and surround vision to understand what's happening around the vehicle in real-time. The Marvell 88Q5050 layer 2 managed secure IP switch enables the fast and safe transmission of this data for next generation connected vehicles.

Automotive Ethernet has been purpose-built to address the increasing risk of cybercrime and is more secure than previous connectivity protocols used in cars, such as controller area network (CAN). The industry-leading Marvell 88Q5050 solution employs a deep packet inspection (DPI) engine and trusted boot functionality to ensure a robust level of security. The switch also supports both blacklisting and whitelisting addresses on all its Ethernet ports to further enhance its security especially against denial of service attacks.

The Marvell Ethernet switch solution is AEC-Q100 qualified and can meet the rigorous standards of the industry and withstand harsh automotive environments. It supports multiple integrated 100BASE-T1 PHYs as well as 1000BASE-T1 interfaces, and can connect with Marvell's previously announced [88Q2112 1000BASE-T1 PHY](#).

"The 88Q5050 is Marvell's latest addition to the automotive portfolio of wired and wireless network solutions and is designed to prevent malicious attacks or compromises to data streamed in and out of the vehicle. Marvell has over 20 years of Ethernet IP experience and this partnership with NVIDIA demonstrates our continued commitment to innovating and leading in automotive technology. Marvell is excited about the future of automotive and will utilize its extensive portfolio to accelerate the adoption of automotive Ethernet," said Thomas Lagatta, executive vice president of Sales and Marketing at Marvell.

"NVIDIA DRIVE enables automakers, tier 1 suppliers, and startups to accelerate production of automated and autonomous vehicles," said Gary Hicok, senior vice president of Hardware Development, NVIDIA. "Marvell's new Ethernet switch adds a robust security capability that can handle multi-gigabits of data and help combat the risk of cybercrime."

"As connected cars become more autonomous, they are generating a massively increased amount of data and are also becoming ever-more vulnerable to new types of cyberattacks. Marvell has a rich history in Ethernet technology and a renewed and enhanced focus on bringing to market innovative technologies that will shape the future of the automotive industry. The Marvell 88Q5050 automotive gigabit Ethernet solution is paving the way for secure and reliable high-bandwidth data transmission in vehicles," said Ian Riches at Strategy Analytics.

About Marvell

Marvell first revolutionized the digital storage industry by moving information at speeds never thought possible. Today, that same breakthrough innovation remains at the heart of the company's storage, networking, and connectivity solutions. With leading intellectual property and deep system-level knowledge, Marvell's semiconductor solutions continue to transform the enterprise, cloud, automotive, industrial, and consumer markets. To learn more, visit: www.marvell.com.

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