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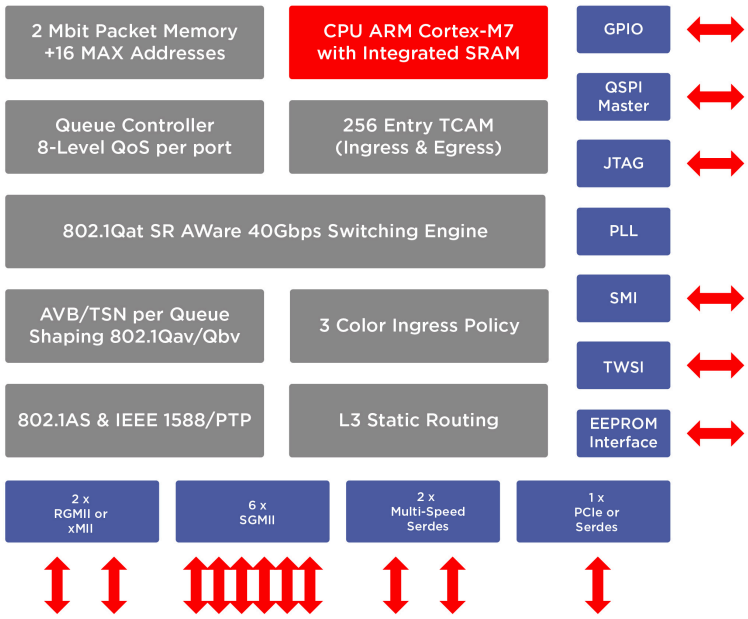
Marvell Launches High-Port Multi-Gigabit Automotive Ethernet Switches

High bandwidth automotive solutions support greater data aggregation with advanced routing and superior security capabilities

SANTA CLARA, Calif. and DETROIT, Sept. 24, 2019 /PRNewswire/ -- Marvell (NASDAQ: MRVL), today announced a family of high-port count, ultra-low latency automotive switches with multi-gigabit routing throughput capabilities. This innovative portfolio includes the industry's first high-port count aggregation switch, offering all ports at gigabit capacity enabling clustering of safety critical sensor data in an Advanced Driver Assistance System (ADAS) and data transfer over highspeed PCIe host uplink. Marvell's latest automotive offering also includes a differentiated switch with integrated 100BASE-T1 PHYs and cutting-edge routing and security features that can be utilized in large gateway applications to connect multiple domain controllers.

Experience the interactive Multichannel News Release here: https://www.multivu.com/players/English/8408953-marvell-launches-high-port-multi-gigabit-auto-ethernet-switches/



With increasing demand for advanced safety in autonomous drive vehicles and enormous data bandwidth in connected cars, Ethernet is enabling and proliferating within modern in-vehicle networks, previously dominated by low-speed legacy connections. These increasing market demands are addressed by Marvell's 88Q5072 and 88Q6113 switches with a single chip, monolithic die solution resulting in a lower BOM cost and a reduced footprint.

Marvell's automotive switches, based on the Arm® Cortex-M7 architecture, can implement advanced protocols and security software on switch, offloading the external host processor. The devices equip time sensitive networks in vehicles with added TSN features to enable low policing and filtering (IEEE 802.1Qci), and frame presumption (IEEE 802.1Qbu). The integrated L3 hardware accelerator allows multi-gigabit routing throughput up to 10Gbps without internal processor intervention. While facilitating large data transfers in vehicle networks, the devices offer efficient sleep/wake capabilities supporting TC10 standard (OPEN alliance) lowering the overall power consumption. These highly secure multi-gig Ethernet switches have been purpose-built to address the increasing risk cybercrime represents to the automotive industry. The new solutions are designed with a robust level of security features including enhanced deep packet inspection (DPI) engine and trusted boot functionality at the foundational hardware layer.

"Marvell is driving networking innovations with advanced solutions in connectivity, compute and storage, as modern vehicles transition into data centers on wheels," said Will Chu, vice president and general manager of the Automotive Business Unit at Marvell Semiconductor, Inc. "Specifically, with the introduction of our breakthrough switch portfolio, we're enabling a new generation of car zonal architectures and large backbone gateways to connect and capture enormous amounts of real-time data from multiple sources."

"Our cars are becoming more complex with every generation. They are creating much more data, requiring high-bandwidth Ethernet and pushing the limits of today's automotive switches," said Martin Schleicher, executive vice president of Business Management at Elektrobit. "By partnering with Marvell, we will be able to extend the boundaries of traditional switch firmware and continue to drive disruption in the automotive market."

"In order for autonomous driving to shift from a vision to reality, it's imperative that the safety critical information underpinning its success is transferred and processed at high speed throughout the network," said Ian Riches, vice president of the Global Automotive Practice, Strategy Analytics. "Current systems are falling short of what the industry needs. However, the new high-port multi-gigabit switches from Marvell represent significant steps towards providing the bandwidth and robustness required to help make fully autonomous driving a reality."

The Marvell 88Q6113 and 88Q5072 are currently sampling. For more information please visit:
https://www.marvell.com/automotive/ethernet/88q5072/
https://www.marvell.com/automotive/ethernet/88q6113/

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, processing, networking, security 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: https://www.marvell.com/

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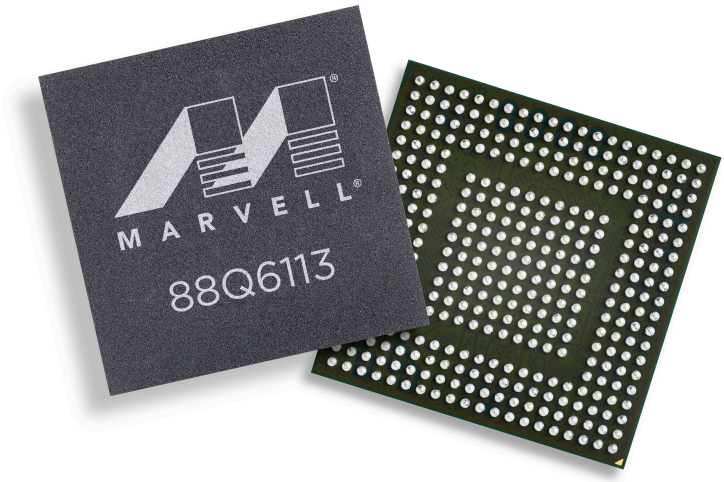

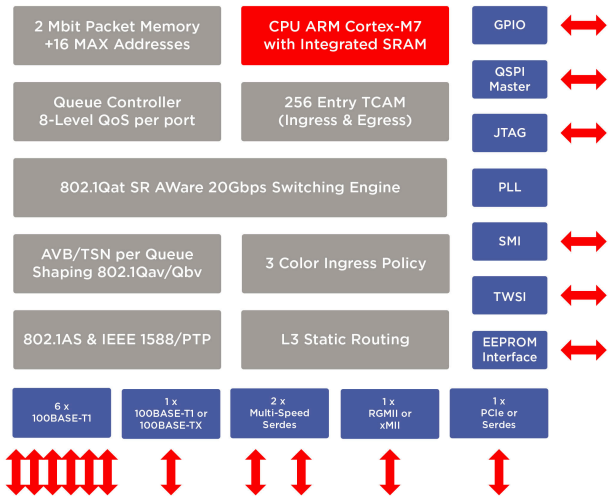

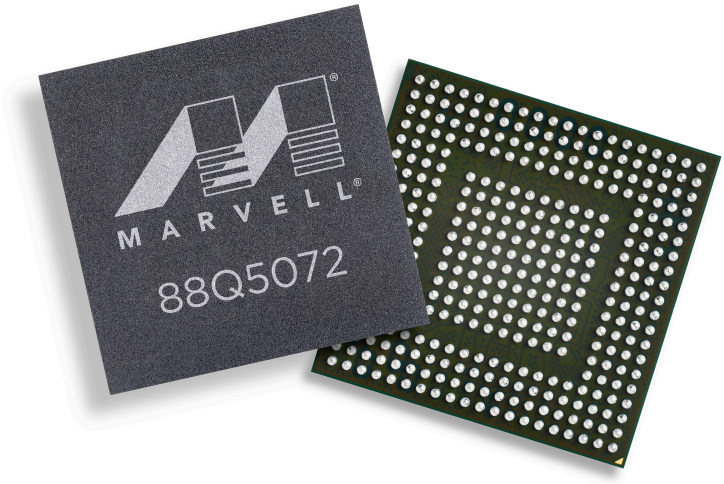

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