



Ethernet-AVB/TSN

Toshiba Announces Latest Ethernet Bridge IC for Automotive and Industrial applications

New IC Supports Time-Sensitive Networking Protocol and Ethernet Bridging Transfer Rate up to 1Gbps

Düsseldorf, Germany, 22nd January 2019 – Toshiba Electronics Europe (“Toshiba”) announced today the TC9562 series, its latest member in the automotive network bridge IC product line. The TC9562 series provides advanced Ethernet capability for telematics and infotainment systems for the automotive segment.

Real-time processing and reliable data transmission is critical to support telematics, infotainment, driver assistance systems and various sensor data to enable a fully connected vehicle. New standards, including Ethernet AVB^[1] and TSN^[2], are becoming adopted in automotive and industrial applications to meet the increased performance requirements.

Toshiba's TC9562 series is designed for reliability and performance delivering Ethernet bridging capability up to 1Gbps transfer rate. The new automotive bridge IC also supports Time Sensitive Networking (TSN) protocol for various industrial and commercial applications.

The TC9562 series's advanced capabilities supports Ethernet AVB specification, specifically IEEE 802.1AS^[3] and IEEE 802.1Qav^[4], as well as TSN standards IEEE 802.1Qbv^[5], IEEE 802.1Qbu^[6] and IEEE 802.3br^[6]. The New IC also supports a broad range of interfaces including PCI Express[®] 2.0 and 1.0, I2S/TDM, RGMII, RMII, MII^[7] and an option for SGMII^[7] for expanded interfaces to various IVI SoC solutions.

"We had the pleasure of working with Toshiba to feature their Ethernet bridge IC solutions in our industry-leading Qualcomm[®] Snapdragon[™] 820A Platform," said Shyam Krishnamurthy, senior director of Qualcomm Technologies, Inc. "We look forward to continuing our combined efforts to design cutting-edge solutions to support highly advanced automotive cockpit and telematics applications."

Armin Derpmanns, General Manager, Semiconductor Marketing, Toshiba Electronics Europe, commented, "We are pleased to expand the successful automotive Ethernet bridge IC series to the market. We hope to help accelerate the Ethernet adoption in automotive applications."

The TC9562 series will be automotive qualified^[8] and packaged in P-LFBGA120 in 9mm x 9mm package. Samples shipments will start in February 2019 and volume production will start in October 2019.

For further information and the detailed product specifications please visit: <https://toshiba.semicon-storage.com/eu/product/automotive/interface-bridge.html>

Notes:

[1] Ethernet AVB: IEEE802.1 Audio/Video Bridging

[2] Ethernet TSN: IEEE802.1 Time Sensitive Networking

[3] IEEE 802.1AS: Standard for time synchronization

[4] IEEE 802.1Qav: Standard for traffic shaping

[5] IEEE 802.1Qbv: Standard for Enhancements to scheduled traffic

[6] IEEE 802.1Qbu/IEEE 802.3br: Standard for Frame preemption/ Interspersing Express Traffic

[7] SGMII, RGMII, RMII, MII: Ethernet interface. SGMII = Serial Gigabit Media Independent Interface; RGMII = Reduced Gigabit Media Independent Interface; RMII = Reduced Media Independent Interface; MII = Media Independent Interface

[8] AEC: Automotive Electronics Council. The new bridge ICs will be AEC-Q100 grade 3 qualified

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[Toshiba Electronics Europe GmbH](#) (TEE) is the European electronic components business of [Toshiba Electronic Devices and Storage Corporation](#). TEE offers European consumers and businesses a wide variety of innovative hard disk drive (HDD) products plus semiconductor solutions for automotive, industrial, IoT, motion control, telecoms, networking, consumer and white goods applications. The company's broad portfolio encompasses integrated wireless ICs, power semiconductors, microcontrollers, optical semiconductors, ASICs, ASSPs and discrete devices ranging from diodes to logic ICs.

TEE has headquarters in Düsseldorf, Germany, with branch offices in France, Italy, Spain, Sweden and the United Kingdom providing design, manufacturing, marketing and sales. Company president is Mr. Tomoaki Kumagai

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