PRODUCT BRIEF

BRIGHTLANE™ automotive Ethernet switch

7-port unmanaged automotive switch

Infineon's first-generation automotive BRIGHTLANE™ Ethernet switch, 88EA6321, is a 7-port Ethernet gigabit capacity switch that is fully compliant with IEEE802.3 automotive standard with audio/video bridging capabilities and supports energy efficient Ethernet for reduced power consumption.

The 7-port Ethernet switch offers 2 integrated IEEE 10/100/1000BASE-T/TX/T ports, 2x RGMII/xMII (2 ports can be configured to be 1GMII) ports, and 1 SGMII / SerDes port. The switch offers remote management capabilities, providing easy access and configuration of the device.

This switch utilizes AVB technologies to identify and reserve network resources for AVB traffic streams and precise streaming capabilities to for time sensitive multimedia streams such as digital audio, video to be sent over Ethernet network with low latency and robust quality of service. The low-latency is achieved with advanced features like cut-through switching fabric with increased routing performance. The switch can support timing synchronization in network architectures that require transmission of clock signals over Ethernet.

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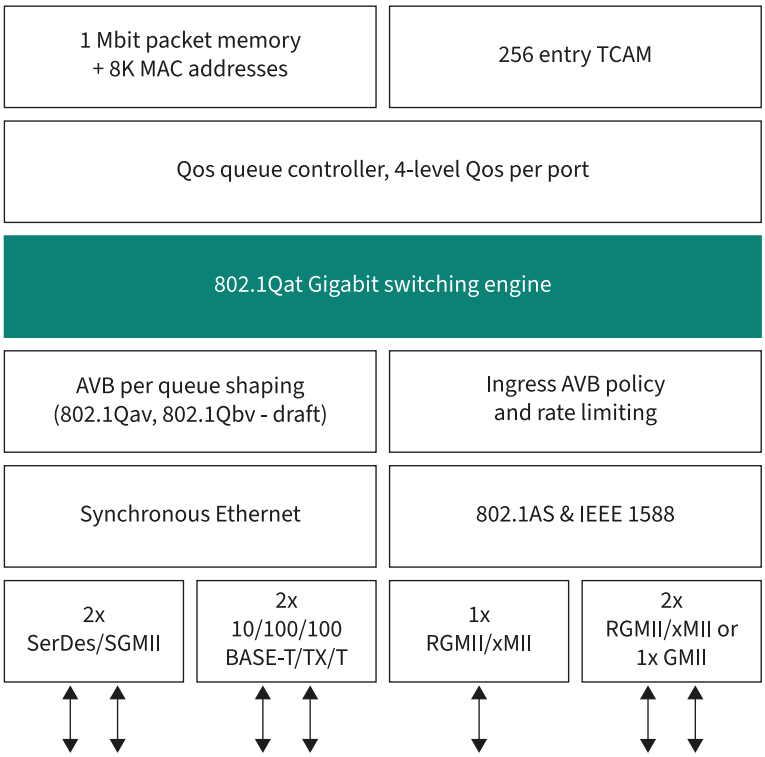

PRODUCT BRIEF

Key features

Features	Benefits
I/O interfaces	– 2x IEEE 10/100/1000BASE-T/TX/T – 3x RGMII / xMII (2 ports can be configured to be 1 GMII) – 2x SerDes/SGMII – MDI interface – Configurable GPIOs – Single dual color LED support – 25 MHz external clock source
Package characteristics	– 128-pin LQFP package, 0.4 mm pitch, 14 x 14 mm
EEPROM	– Supports 2-wire 24C01/24C02/24C04 to configure attached EEPROMs and slave configurations

Key features

– Support Audio/Video Bridging (AVB)
– AEC-Q100 grade 2 qualified
– Support for 10 KB Jumbo frames
– Cut-through switch fabric for low latency
– PHYs support Energy Efficient Ethernet (EEE) as per 802.3az
– Wake-on LAN and wake on frame detection

Target applications

– Gateway
– In-vehicle infotainment
– Body domain controller
– Media converter

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