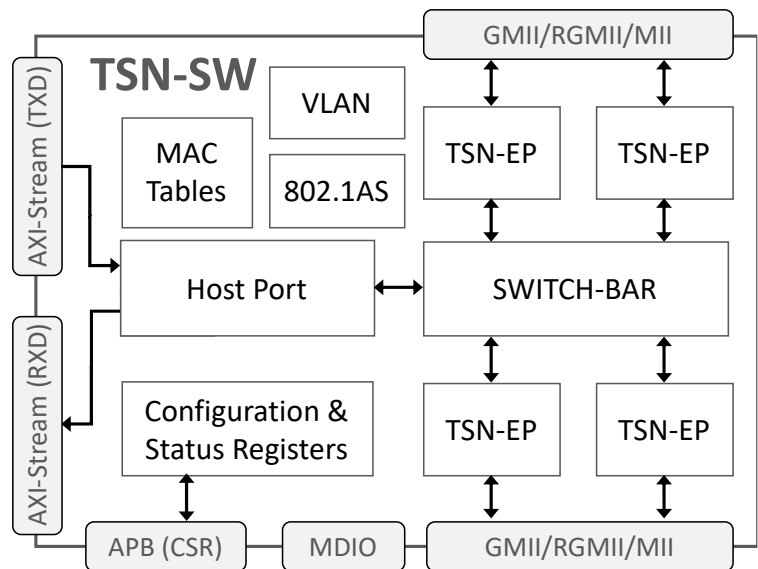


CAST Introduces Ultra-Low Latency TSN Ethernet Switch IP Core

Woodcliff Lake, NJ — October 7, 2020 — Today at the virtual TSN/A Technology and Applications Conference, silicon intellectual property provider CAST, Inc. announced a new IP core that implements a switch for Time-Sensitive Networking (TSN) Ethernet networks as increasingly used in automotive, industrial, medical, and other systems.

Having been developed for and evaluated by customers designing advanced TSN applications, the new [TSN-SW TSN Ethernet Switch](#) core offers distinct competitive advantages:

- Ultra-Low Latency** — Architected for low latency, the switch has what the company believes is the lowest sub-microsecond port-to-port latency available today, without sacrificing TSN switching features or performance. This low latency is critical for the deployment of TSN Ethernet in a wide range of automotive, industrial, healthcare and other applications with stringent real-time requirements.
- Technology Independence** — Available as synthesizable RTL or targeted netlists, customers can implement the TSN-SW in full-custom silicon or FPGA devices from Intel, Lattice, Microsemi, or Xilinx.
- Small Silicon Area** — With a compact silicon footprint, smaller than most competing IP cores, the TSN-SW allows for economical implementations even in low-cost FPGAs.
- Linux Driver Support** — The TSN-SW will come with full Linux and FreeRTOS™ Drivers plus sample applications and experienced support, simplifying and accelerating customer development efforts. (Available in early 2021 and a free upgrade to prior licensees.)



The core was developed by CAST's long-term technology partner [Fraunhofer IPMS](#). Fraunhofer IPMS' engineers achieved the TSN-SW's remarkable low latency by employing an all-hardware implementation of the necessary protocols and a *cut-through* switching architecture. They did this without reducing functionality or flexibility: The Layer-2 switch supports Ethernet bridging according to the IEEE 802.1Q-2018 standard, provides versatile frame forwarding and filtering options, and implements all the essential TSN protocols for timing synchronization, traffic-shaping, preemption, and redundancy.

The new TSN-SW core and hardware evaluation platforms for it are available now. Learn more at CAST's booth at the virtual [TSN/A Conference](#), at [CAST's website](#), or by contacting [CAST sales](#).

The TSN Switch joins CAST's industry-leading family of Automotive IP Cores, which includes TSN endpoints and bridges, CAN 2.0/FD/XL controllers, LIN and SENT bus controllers, and more. These are part of CAST's broad IP product line, which also features compression engines, microcontrollers and processors, SoC security modules, and various peripherals, interfaces, and other IP cores. Learn more by visiting [www.cast-inc.com](#), emailing info@cast-inc.com, or calling +1 201.391.8300.

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