

COOPERATION

## CAN XL support for IP core

**Silicon intellectual (IP) property provider Cast and developer Fraunhofer IPMS announced CAN XL support for their Classical CAN and CAN FD controller IP core CAN-CTRL. The product is also ISO 26262 certified.**

CAN XL is a data communications protocol under development since 2018 by the CAN XL Special Interest Group organized by CAN in Automation (CiA) with the participation of automotive and semiconductor representatives (including Fraunhofer IPMS). The goal is to give the CAN protocol “extra-large” capabilities by increasing its data payload size – to 2048 byte – and its transmission bit rate – up to 10 Mbit/s – while retaining interoperability with Classical CAN and CAN FD. CAN XL thus extends the benefits of the CAN protocol to more demanding applications, providing an intermediate step between signal-oriented CAN FD and service-oriented high-speed Ethernet networks.

Aimed at early adopters, the CAN XL option for Cast’s CAN-CTRL IP core adds support for CiA’s 610-1 CAN XL data link layer and physical signaling specification. It includes all the expected technical functions and features, plus any future updates required to match the final ratified ISO specification (free for customers with a maintenance agreement). Demonstrations and evaluation versions are available now through Cast.

“For automotive engineers, CAN XL fills a bandwidth gap between the CAN bus they love and the emerging TSN Ethernet backbone they need,” said Marcus Pietzsch, leader of the ASIC and FPGA Design group at Fraunhofer IPMS. “Forward-looking customers have been seeking a means to evaluate CAN XL in their own networks and develop early products for some time. Being involved in the specification process, we have waited until now to ship a capability that should actually match or come very close to the final ISO standard.”

The CAN XL option further improves one of the most capable and reliable CAN cores available, said Cast. The CAN-CTRL supports the original Bosch protocol and the ISO 11898-1:2015 standard, handles time-triggered operation (TTCAN, as per 11898-4 level 1), is optimized for the Autosar architecture and the SAE J1939 protocol, and features a safety-enhanced version ready for ISO-26262 ASIL-B certification, explained the company.



(Source: Cast)

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