

## Submitted for ISO standardization

The CAN XL and CAN FD Light specifications will be included in the latest editions of the ISO 11898-1 and ISO 11898-2 standards.



(Source: Adobe Stock)

In January, the ISO TC (technical committee) 22, SC (sub-committee) 31, WG (working group) 3 discussed the integration of the CiA 610-1 ([CAN XL data link layer and physical coding sub-layer](#)), CiA 610-3 ([CAN XL physical attachment unit sub-layer](#)), and CiA 601-4 (CAN SIC physical attachment unit sub-layer). Additionally, the CiA 604-1 (CAN FD Light) will be introduced as annex to ISO 11898-1. CiA members can download these CiA specifications free of charge. Non-members can subscribe to the CiA 600 series, which includes soon the above-mentioned specifications. The one-year subscription covers all CiA 600 series documents released within the subscription period.

CAN XL is the third generation of CAN lower layers. It features data fields from 1 byte to 2048 byte and some embedded OSI layer management fields. This includes the 8-bit SDU-type field indicating which higher-layer protocol is used. This allows to use different higher OSI layers on the same network segment.

Additionally, there is the VCID (virtual CAN network identifier)

embedded in the CAN XL protocol. This 8-bit field allows to run up to 256 instances of the same higher OSI layer approach. This makes CAN XL suitable for backbone networks. The CAN XL physical layer is scalable. It can be used with CAN high-speed transceivers as specified in the current ISO 11898-2 standard or with CAN SIC XL transceivers compliant with CiA 610-3. Enabling the PWM (pulse-width modulation) coding allows bit-rates of 10 Mbit/s and more depending on the used network topology and the selected electro-mechanical components.

[CW](#)