

Field of application and characteristics

The *opto*CAN-FD SIC system can be used for the optical transmission of high speed CAN signals with transmission rates of up to 8 Mbit/s.

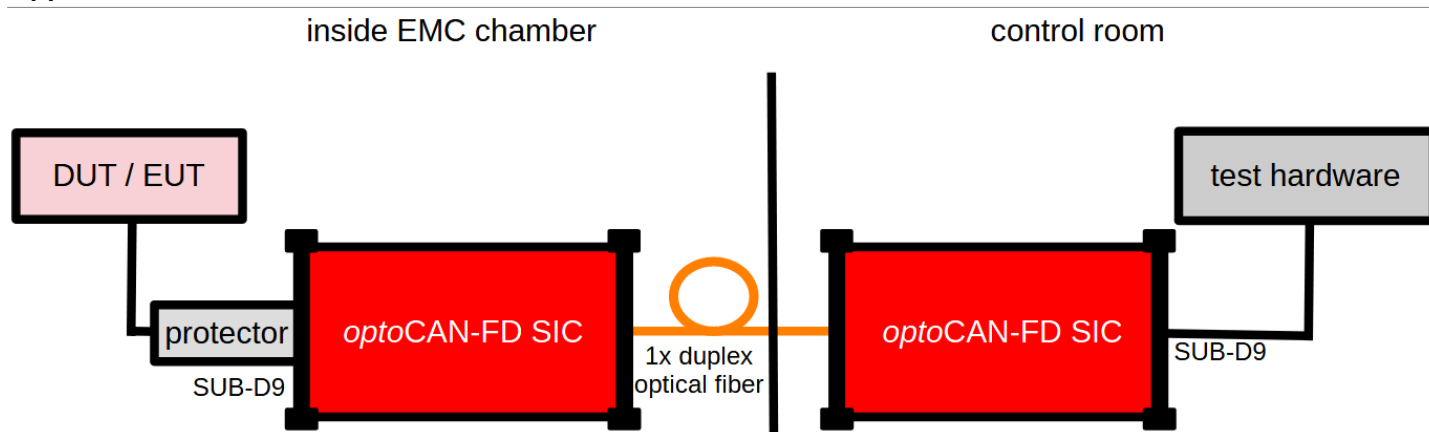
A transceiver of the series TJA146x is used for signal improvement capability (= SIC). According to the specification of the chipset, the TJA146x reduces the overshoot of signals and due to a higher signal integrity it enables higher data rates even in more complex topologies.

The *opto*CAN-FD SIC is compatible to the *opto*CAN-FD, *opto*CAN-FD-D, *opto*CAN-HS, and the *opto*CAN-HS-D.



The system consists of two battery supplied transceivers connected to each other with an optical fiber. With the optical transmission and the shielded case, the system is well equipped for EMI and EME tests with automotive standards such as CISPR 25 class 5.

Application



Technical data

Channels:	1 channel
Data rate:	up to 8 Mbit/s (max. 20m optical fiber recommended, depends on data rate and sample point)
Data direction:	bidirectional
Input:	SUB-D 9 pin female
Output:	SUB-D 9 pin female
CAN Transceiver:	TJA1462BT

CAN choke:	B82789C0513N002; 51 μ H (other chokes on request)
Termination:	termination switchable between 60 Ω , 120 Ω , open/infinite (external protector 120 Ω)
Power supply:	integrated batteries 4 Ah, consisting of 5x NiMH cells, 6 V operating time with fully charged batteries: approx. 30 h operating time can be extended with an external battery pack
Charging connector:	push-pull 12 mm PP12, Binder 712. On request: push-pull 9 mm PP9
Housing:	anodized aluminum case with rubber protectors, stackable 135 mm x 86 mm x 65 mm
Weight:	approx. 800 g
Optical connector:	2x FSMA / duplex multimode fiber 62.5/125 μ m, 850 nm

Scope of delivery

- 2x optoCAN-FD SIC transceiver
- 1x 20 m duplex multimode optical fiber (OM1) FSMA/FSMA
- 2x charger for the integrated batteries, AC plug types available: A(US), C(EU), G(UK) and I(AUS)
- 1x external protector with 120 Ω (for EMI, BCI and ESD tests)

Accessories and options

up to 13 interfaces (CAN, LIN, LAN, USB and etc.) can be installed in one housing
device in the chamber will be the standard battery supplied mobile device
(19" base unit 2HU required)

19" rack mount:



up to five interfaces (LIN, CAN and etc.) in one compact housing, see opto5x datasheet for more information

opto5x:



Optical fiber - types:	FSMA, ST, FC, LC, E2000 (combinations possible), 62.5/125 µm or 50 µm
Optical fiber - lengths:	0.5 m – >100 m
Optical fiber - feedthrough:	FSMA/FSMA, ST/FSMA, ST/ST, FC/FC
Optical fiber - cleaning:	Fiber optic cleaning set
Optical connector - protective caps:	protective cap/cover for male FSMA optical fibers captive cap/cover for male FSMA optical fibers (connected to the cable => does not get lost)
Optical connector - protective caps:	protective cap/cover of FSMA optical input/output of mk devices captive cap/cover of FSMA optical input/output of mk devices
External battery pack BP60:	for run time enhancement of the device in the EMC chamber 4 Ah or 10 Ah (additional high capacity charger needed) PS75-5m (suitable charger for Binder 712 devices) PS75-5m PP12 (suitable charger for push pull 12mm devices)
Power supply:	for constantly powering the device in the control room (does not charge the device) AC plug types available: A(US), C(EU), G(UK) and I(AUS)

SUB-D connector:

