

Field of application and characteristics

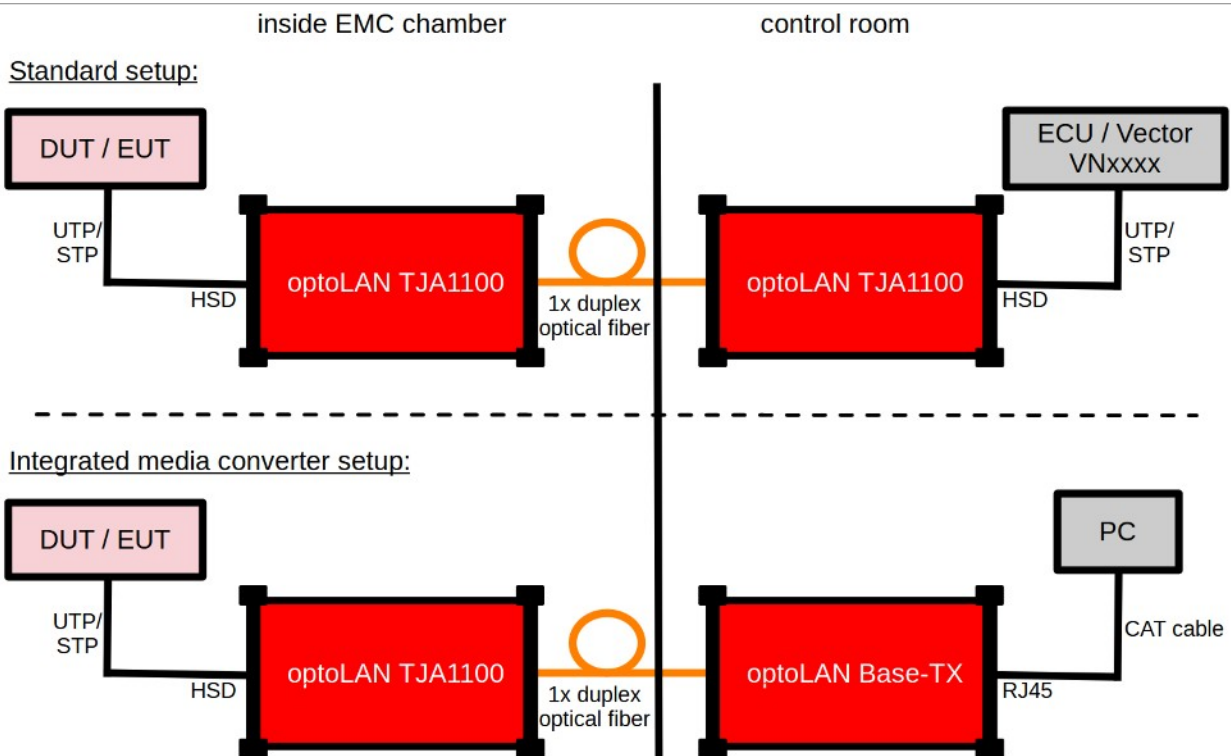
The *optoLAN 100BASE-T1 TJA1100* system can be used for the optical transmission of automotive Ethernet signals with NXP®TJA1100® chipset (unshielded twisted pair UTP Ethernet). The system can be set up with two identical transceivers or one side automotive Ethernet and the other 100BASE-TX (i.e. integrated media converter).

The devices are supplied by internal batteries and connected with an optical fiber. The standard connector is Rosenberger HSD Z (waterblue) 4 pole.

With the optical transmission, the shielded case and the high quality connector, the system is well equipped for EMI and EME tests.



Application



Technical data

Channels:	1 channel
Chipset:	NXP® TJA1100®
Data rate:	up to 100 Mbit/s
Data direction:	bidirectional
Input/Output:	Rosenberger HSD Z (or RJ45 when using the media converter in the control room)
Power supply:	integrated batteries 4 Ah, consisting of 5x NiMH cells, 6 V operating time with fully charged batteries: approx. 8 h operating time can be extended with an external battery pack

Charging connector:	Binder 712 (push-pull 12 mm PP12 or 9 mm PP9 on request)
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 optoLAN 100BASE-T1 TJA1100 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)

Accessories and options

Optical fiber - types:	FSMA, ST, FC, LC, E2000 (many combinations possible), 62.5/125 μ m or 50 μ m
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
Protective caps for optical connectors and fibers:	protective cap/cover captive cap/cover
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)
Power supply PS75:	for constantly powering the device in the control room
Adapter cables:	HSD male/female, open end ,and other plug types e.g. H-MTD, SUB-D or ix40

HSD Z connector (seen from front):

