

### Field of application and characteristics

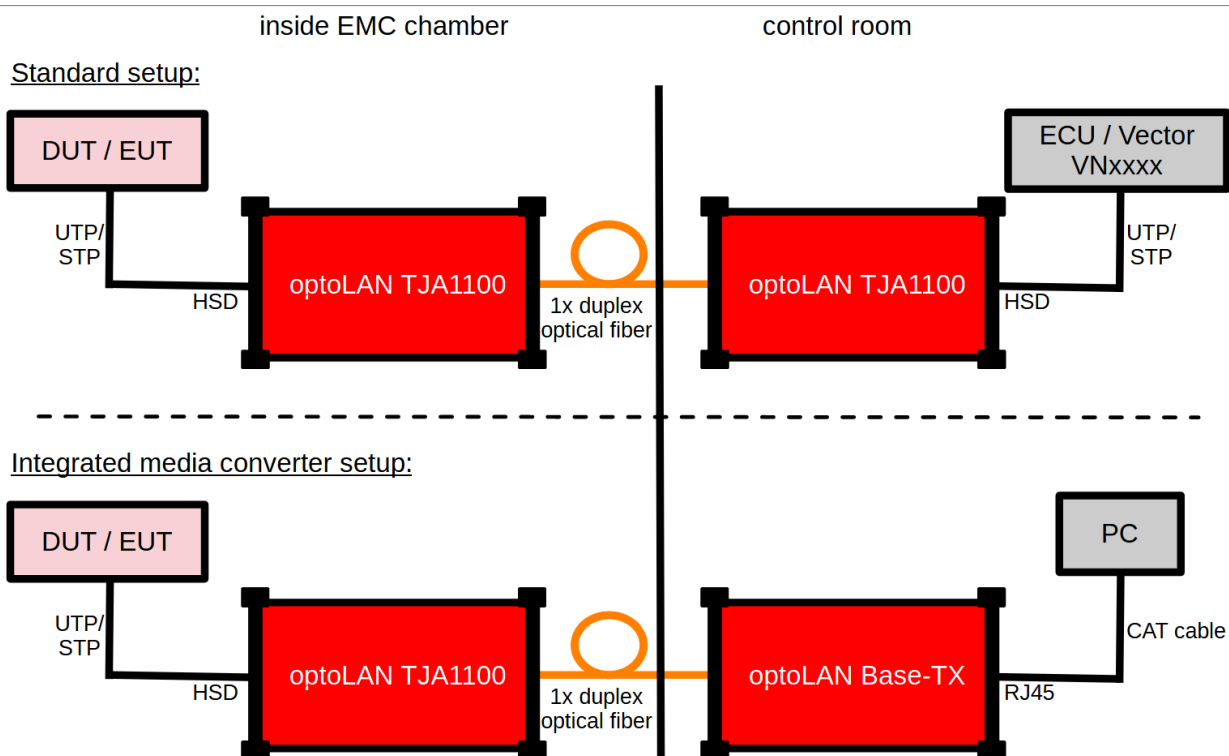
The optoLAN 100BASE-T1 TJA1100 system can be used for the optical transmission of automotive Ethernet signals with NXP®TJA1100® chipset (unshielded twisted pair UTP Ethernet). The system can be set up with two identical transceivers or one side automotive Ethernet and the other 100BASE-TX (i.e. integrated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

<b>Channels:</b>	1 channel
<b>Chipset:</b>	NXP® TJA1100®
<b>Data rate:</b>	up to 100 Mbit/s
<b>Data direction:</b>	bidirectional
<b>Input:</b>	Rosenberger HSD Z
<b>Output:</b>	Rosenberger HSD Z (or RJ45 when using the media converter in the control room )
<b>Power supply:</b>	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

<b>Charging connector:</b>	Binder 712 (push-pull 12 mm PP12 or 9 mm PP9 on request)
<b>Housing:</b>	anodized aluminum case with rubber protectors, stackable 135 mm x 86 mm x 65 mm
<b>Weight:</b>	approx. 800 g
<b>Optical connector:</b>	2x FSMA / duplex multimode fiber 62.5/125 µm, 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

<b>Optical fiber - types:</b>	FSMA, ST, FC, LC, E2000 (many combinations possible), 62.5/125 µm or 50 µm
<b>Optical fiber - lengths:</b>	0.5 m – >100 m
<b>Optical fiber - feedthrough:</b>	FSMA/FSMA, ST/FSMA, ST/ST, FC/FC
<b>Optical fiber - cleaning:</b>	Fiber optic cleaning set
<b>Optical connector - protective caps:</b>	protective cap/cover for male FSMA optical fibers captive cap/cover for male FSMA optical fibers (connected to the cable => does not get lost)
<b>Optical connector - protective caps:</b>	protective cap/cover of FSMA optical input/output of mk devices captive cap/cover of FSMA optical input/output of mk devices
<b>External battery pack BP60:</b>	for run time enhancement of the device in the EMC chamber 4 Ah or 10 Ah (additional high capacity charger needed)
<b>Power supply PS75:</b>	for constantly powering the device in the control room
<b>Adapter cables:</b>	HSD male/female, open end ,and other plug types e.g. H-MTD, SUB-D or ix40

### HSD Z connector (seen from front):

