

DATA SHEET
**DD8RP
REPEATER / MEDIA
CONVERTER MODULE**
**OPTICAL DIGITAL
NETWORK DEVICE**

Product Features

- Repeater and media converter
- 4 independent LINK interfaces with receptacles for SFPs.
- SFPs with dual LC type connectors, multimode or monomode
- Protocol independent
- Usable in four independent networks with different protocols
- DC 12 V power inlet for outdoor and mobile applications
- AC power supply 400 V tolerant
- 1 USB and 1 RS232 port for configuration and control
- Upgradeable internal logic
- Comprehensive status control via LED banks on the front
- LEDs indicate status, operation state and malfunction

The DD8RP features two possible applications. It can operate as a repeater in an Optocore network, if distances between devices are longer than 700 m and the standard multimode fiber cables are used. Alternatively, it can function as media converter from multimode to monomode fiber connections and vice versa. The four repeaters / media converters work protocol independent; they can be implemented in networks based on protocols such as Ethernet as well. The unit is specially designed for low power consumption; it provides a DC 12 V power inlet. Battery packs can supply the power, if no mains supply is available. This can immensely simplify outdoor applications.

The flexibility to use the DD8RP as repeater and converter is achieved by receptacles for SFP (Small Form-factor Pluggable) optical transceivers. Eight receptacles form the four independent LINK interfaces; each LINK can consist of two SFPs with dual LC type connectors. The function of a LINK as repeater or converter depends on the implemented optical transceiver. This allows the configuration exactly appropriate for the application. E.g., one LINK may extend the distance between two Optocore devices in an OPTOCORE® OPTICAL DIGITAL

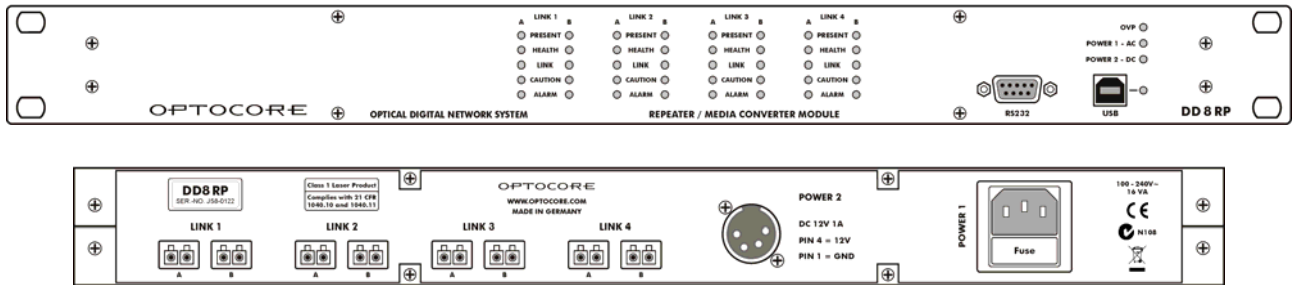
NETWORK, while the other LINKS are used in completely different networks with non-Optocore protocols.

LEDs on the front give detailed information about the status and operating state of each LINK. They indicate if a malfunction of any connection could influence the high quality data transmission.

Two power supplies with automatic switchover and individual connectors provide a high grade of safety. The first power supply is for AC mains input including the unique 400 V tolerant Optocore design. An OVP (Over Voltage Protection) status LED indicates over voltage, in this case the normal function of the device is suppressed. The second power supply is for DC 12 V, equipped with a male 4-pin connector. The DC power supply is compatible with battery packs, UPSs (Uninterruptible Power Supply) or standard AC adapters.

Due to SMD production, the DD8RP fulfills the demand of highest digital standards occupying only one rack unit of a 19" rack. The FPGA (field programmable gate array) based concept of the internal logic circuitry permits updating of the hardware via the units remote ports, ensuring a continual state-of-the-art device.

Line Drawings



Technical Specifications

Link Ports	Input, output dual – full bandwidth	
Connection	Small Form Pluggable (SFP) optical transceiver	8 Duplex LC
Compatible Protocol	Protocol independent	
Transmission	Full duplex	
Data rate	100 Mbps to 1 Gbps	
Optical wave guide cable lengths	e.g. Multimode fiber 50 µm	≤ 700 m
	e.g. Monomode fiber 9 µm	≤ 70 km
Power 1	Automatic switch-over to DC power supply	
Type	Switch-mode, universal input	
Mains voltage	100 ... 240 V, 400 V _{AC} tolerant	
Frequency	50 ... 60 Hz	
Power 2		
Type	12 V DC, compatible to battery packs, UPS, standard AC adapters	
Voltage	9 – 15 V AC or DC	
Power consumption	0,6 VA – idle, plus 0,45 / 0,6 VA per SFP installed (multimode / monomode)	
12 V device connector	4 pole XLR male	
12 V cable connector	4 pole XLR female (e.g. Neutrik NC4FX)	
Remote Control		
RS232	Convention EIA / TIA-232	R x D, T x D / 57 600 Baud
USB Port	Interface to PC	
Dimensions	1 RU / 19"	
W x H x D	483 x 44 x 136 mm	19.2 x 1.73 x 5,35 inch
Weight	2.0 kg	4.4 lbs