

DATASHEET
**V3R-FX-INTERCOM
NETWORK INTERCOM UNIT**
**INTERCOM – SANE - FIBER
INTERFACE DEVICE**

Product Features

- **4 intercom inputs and 4 intercom outputs a 1RU enclosure for Optocore Fibre Network and SANE CAT5 Network by Optocore**
- **RJ45 intercom I/O interfaces for matrix and for user panels**
- **Each intercom port is compatible with Clear-Com or RTS Telex devices**
- **Transport of intercom audio and control data**
- **Can work as a 4 Line In and 4 Line Out converter**
- **Sample rates up to 192 kHz**
- **Full integration into SANE and Optocore network**
- **2 RJ45 SANE Network Ports, 2 LC duplex Fiber Network Port, 4 RS485/GPIO Ports**
- **Word clock IN and OUT**
- **Embedded internal word clock for stand-alone applications**
- **USB, RS232 and LAN port for configuration and control**
- **Full remote access with Optocore control software**
- **Upgradeable internal logic**
- **Comprehensive status control via LED banks on the front**

The V3R-FX-INTERCOM was developed to make Optocore system more flexible with intercom transport. It is possible now to take advantage of all Optocore features when communicating by intercom. V3R-FX-INTERCOM is a result of cooperation with the leading intercom manufacturers – Clear-Com and RTS Telex (V3R-FX-INTERCOM can be delivered in two different options – for Clear-Com and for RTS).

The V3R-FX-INTERCOM is based on the well known V3R-FX series architecture, with 1U height unit. The device is equipped with standard RJ45 interfaces, which makes cabling simple and cost-efficient. As a result of creating an intercom version based on V3R-FX converters, the new intercom devices are also Line-In and Line-Out converters.

The V3R-FX-INTERCOM is seamlessly integrated into the OPTOCORE® OPTICAL DIGITAL NETWORK SYSTEM. Intercom messages and control data from Clear-Com and RTS Telex user panels or matrices are sent transparently through the optical network. Each single intercom channel can be routed to every INTERCOM device in the network by the OPTOCORE CONTROL software.

Each device is equipped with 8 RJ45 intercom connections – 4 ports for panels and 4 ports for matrix. Pinout of the connectors is compatible with

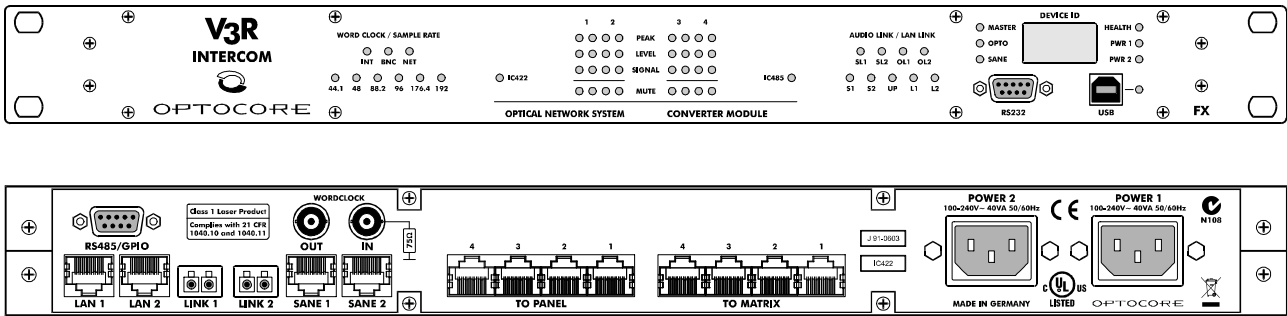
Clear-Com or RTS Telex devices (dependent of the device type), so there is no need to use special cables or adapters – a standard straight CAT5 can be used.

The Word Clock IN and OUT enable the synchronization of the units to an external source and are used to pass on the word clock from one unit to the next. For stand-alone applications, the devices are equipped with an internal word clock.

One V3R-FX-INTERCOM can exchange up to 1024 intercom channels from the fiber network, 64 intercom channels from the SANE network and 8 intercom channels from the I/O interfaces. The V3R-FX-INTERCOM units can be operated and controlled via the Optocore network with Optocore Control, without the necessity for any external data cable. For control in stand-alone applications, USB, RS232 or LAN port on the front / rear panel can be used.

The FPGA (field programmable gate array) based concept of the internal logic circuitry permits updating of the firmware ensuring a future proof state-of-the-art device.

Line Drawings



Technical Specifications

INTERCOM ports		
	4-wire Clear-Com or RTS Telex intercom standard	4 x input, 4 x output
Connector	RJ45, Clear-Com or RTS Telex convention	
SANE, LAN ports		
	Convention	
Audio	TIA - 568A/B, Optocore	200 Mbit/s
LAN	TIA - 568A/B, IEEE - 802.3	10/100 Mbit/s
Auxiliary Ports		
	Convention EIA / TIA-485	
Data channels	Digital control data	4
Data rate		Up to 10 Mbps
Impedance	Termination	330 Ω
	Source	≤ 10 Ω
Word clock		
	Hardware standard 75 Ω / BNC	
Data rate	Depending on used sample rate	44,1 / 48 / 88,2 / 96 / 176,4 / 192 kHz
Impedance	Output	75 Ω
	Input	1k / 75 Ω software switch
Optical Link		
	Input, Output, Dual – Full bandwidth	
Connection	Duplex LC	
Protocol	Optocore	
Transmission	Full duplex	
Data rate	2 x 2 Gbps	
Optical wave guide cable lengths	Multimode fiber 50 μm	≤ 700 m
	Monomode fiber 9 μm	≤ 70 km (on request)
Word clock		
	Hardware standard 75 Ω / BNC	
Data rate	44.1 kHz – 192 kHz	
Power supply		
	2 (optional) independent power supplies with function check and automatic switch-over	
Type	Switch-mode, universal input	
Mains voltage	100...240VAC, 50/60Hz, 25VA-typ, 32VA-peak	
Remote Control		
RS232 / USB / Ethernet	Control Interfaces to PC	
Dimensions		
	1 RU / 19"	
W x H x D	483 x 44 x 200mm	19.0 x 1.73 x 7.87 inch
Weight	2.7 kg	6.0 lbs