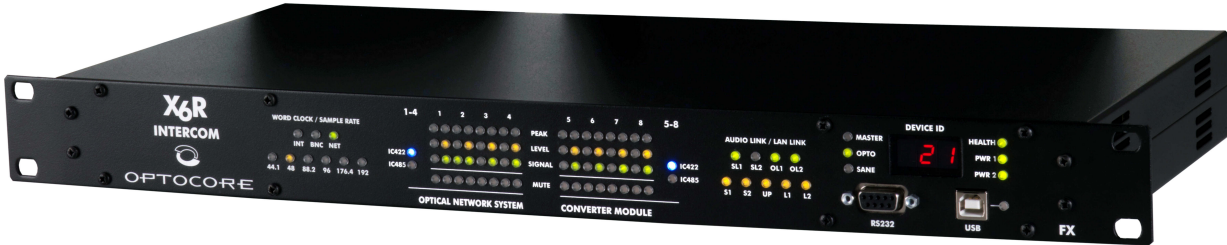


DATASHEET
**X6R-FX-INTERCOM-
IC422/IC485/ICAES
NETWORK INTERCOM UNIT**
**INTERCOM – SANE –
FIBER
INTERFACE**

Product Features

- **8 Four-Wire Intercom Ports compatible with ClearCom (IC422), RTS/Telex (IC485), AES/EBU based (ICAES)**
- **Duplicated Four-Wire Intercom Port wiring with reversed I/O and Rx/Tx**
- **Individually routable inputs and outputs**
- **Seamless transport of audio and control data**
- **Sample rates up to 192 kHz**
- **Full integration into SANE and Optocore networks**
- **Optocore FX module**
 - 2 x Optocore 2Gbps ports
 - 2 x SANE/LAN ports
 - 2 x LAN ports
 - 4 x RS485/422 ports
 - Word Clock I/O
- **Optionally redundant power supplies**
- **Passively cooled device**
- **Full control with the Optocore Control software**
- **LAN, USB and RS232 ports for configuration and control**
- **Upgradeable internal logic**
- **Comprehensive front panel status indicators**

The X6R-FX-INTERCOM has been developed to seamlessly integrate intercom systems into Optocore and SANE, synchronous audio, video and control networks.

The X6R-FX-INTERCOM is based on the V3R/X6R-FX series hardware platform and is the result of technical partnerships with some of the world's leading intercom manufacturers.

The X6R-FX-INTERCOM is available in three different hardware configurations; IC422 for Clear-Com and IC485 for RTS/Telex and ICAES for AES/EBU based systems e.g. Riedel, Clear-Com.

The X6R-FX-INTERCOM is equipped with 8 RJ45 four-wire Intercom Ports that are duplicated with reversed wiring. 8 ports are wired for connection to intercom key-panels or interfaces and 8 ports for connection to the intercom matrix. ICAES is equipped with 4 ports.

The pinout of the Intercom Ports is compatible with Clear-Com (IC422), RTS Telex (IC485) or Riedel (ICAES) devices (device dependent) without the need for special cables and adapters. Any standard CAT5 cable can be used to allow for simple and cost efficient cabling.

Each Intercom Port can be independently routed to any Optocore device on the network, using the Optocore Control software.

The X6R-FX-INTERCOM can be used as a generic networked audio line level input and output converter or digital AES/EBU I/O.

The X6R-FX-INTERCOM is a rackmountable 1RU device.

The X6R-FX-INTERCOM is a silent, convection cooled device.

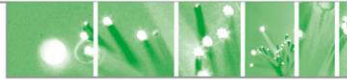
The X6R-FX-INTERCOM seamlessly integrates into the OPTOCORE® OPTICAL DIGITAL NETWORK SYSTEM. Intercom audio and control data from Clear-Com, RTS/Telex, Riedel intercom key-panels, interfaces and matrixes are transmitted transparently over Optocore and SANE networks.

The X6R-FX-INTERCOM is capable of receiving and transmitting any of the 1024 intercom and audio channels on the Optocore network or the 64 intercom and audio channels available on the SANE network.

The X6R-FX-INTERCOM can be operated over the Optocore network using the Optocore Control software, without any external data cabling. System control is provided with LAN, USB or RS232 connectors on all Optocore devices

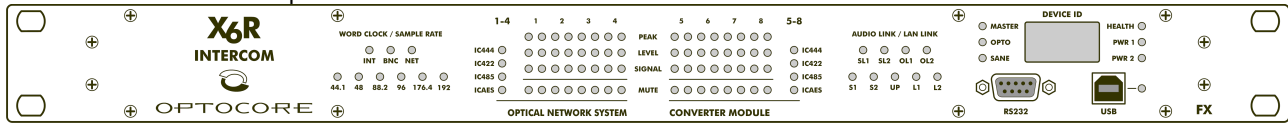
The Word Clock IN and OUT allows the network to be synchronized from an external source. The Optocore network is capable of distributing high quality, low-jitter clock around a facility to synchronize external devices. For stand-alone applications, Optocore devices are equipped with an internal word clock generator.

The FPGA (field programmable gate array) based concept of the internal logic circuitry and microprocessors allows for field upgradeability of the device. Ensuring a future proof state-of-the-art device.

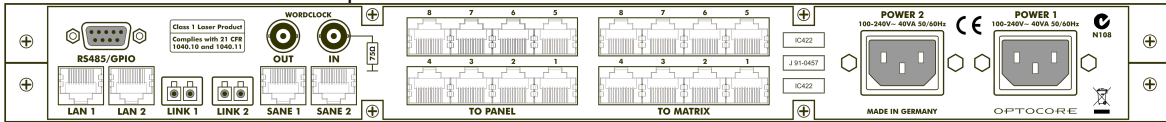


Line Drawings

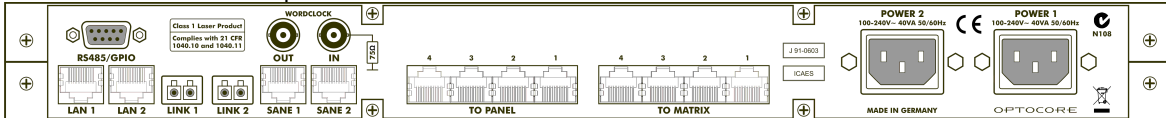
X6R-FX-INTERCOM front panel



X6R-FX-INTERCOM IC485/IC422 rear panel



X6R-FX-INTERCOM ICAES rear panel



Technical Specifications

INTERCOM ports	Hardware standard: IC422/IC485: FCC-RJ45	8 x inputs, 8 x outputs
Analog Line Input	Impedance	10 kΩ
	Maximum input level	+18 dBu
	SNR	115 dB (A-weighted)
	THD+N @ -1dBFS	≥ 100 dB
Analog Line Output	Impedance	45 Ω
	Maximum input level	+18 dBu
	SNR	115 dB (A-weighted)
	THD+N @ -1dBFS	≥ 98 dB
Serial I/O		
- IC422	EIA / TIA – 422	
- IC485	EIA / TIA – 485	
AES ports with ICAES	Convention EIA / TIA - 422	
Data rate	Depending on selected sample rate	Up to 30 Mbit/s per channel
Impedance	Termination	120 Ω-switchable / ≥ 96 kΩ
	Source	≤ 10 Ω, Multi-drop feature
Drive level	Output	≥ 2 V _{pp}
Zero level	Referring to GND	+ 1.7 V
Sense level	Input	≥ 400 mV _{pp}
CM-voltage at bus terminals	Referring to GND	- 7 V ... + 12 V
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 fibre 50 µm	≤ 700 m
	Monomode fibre 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 Interface 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