

The Fiber Infrastructure Solution for the Pro Audio Industry PRODUCT OVERVIEW

- 1993 OPTOCORE Technology Patent
- 1996 Release of the first OPTOCORE products
- 2000 OPTOCORE becomes a network with digital connectivity
- 2002 OPTOCORE implemented by DiGiCo
- 2003 OPTOCORE GmbH incorporated
- 2008 The OPTOCORE network triples in size
- 2009 Introduction of the R-series hardware platform
- 2012 The capacity of OPTOCORE is doubled to 2Gb
- 2014 OPTOCORE devices implemented in DiGiCo fiber system
- 2014 Clear-Com OEMs OPTOCORE technology creating ProGrid series
- 2015 Launch of new M-Series MADI Switches



Over the past two decades OPTOCORE has been the most prominent provider of time critical, redundant audio, video and control infrastructure over fiber.

OPTOCORE networks are used in a wide variety of environments, including opening and closing ceremonies of the world's most important events, as well as an alternative to copper infrastructures in OB vans, stadiums, studios and theatres. OPTOCORE systems scale down to point to point portable stageboxes with mixing console integration.

OPTOCORE is based on the open AES3 and AES10 (MADI) standards providing transport, routing, format conversion as well as distribution of audio, video and control data with full management and diagnostic capabilities.

#### Development and manufacturing

All technologies and products are developed and maintained by an in house R&D team. The R&D department strives for efficient and elegant design of hardware, software and firmware, mindful of planet's resources.

All assembly, testing and burn-in of our products is performed at our manufacturing base in Munich, Germany.

#### Education and training

OPTOCORE has a deep commitment to training and education. OPTOCORE offers a series of training seminars to educate the industry about OPTOCORE network design and operation as well as give an introduction to the digital audio and fiber optics technology. OPTOCORE Certification Training (OCT) seminars are hosted regularly around the world.

OPTOCORE Certification Training (OCT) is eligible for InfoComm CTS renewal units.

#### The high bandwidth infrastructure

OPTOCORE is a high bandwidth network designed specifically to meet the requirements of professional audio and data. OPTOCORE offers a unique solution that is flexible and scalable, yet intuitive and easy to use. OPTOCORE is a modern replacement for traditional copper cable plants and manual patching.

# Open platform – the Autobahn for your audio, video and control

OPTOCORE is an open platform. Designed to transparently transport and route industry standard signal formats such as MADI, AES/EBU as well as Ethernet, DMX, MIDI, RS-485/422 and CAN BUS.

OPTOCORE converges and simplifies any cabling and patching infrastructure.

#### **OPTOCORE** Features

- De-centralized audio, video and data routing
- High capacity
- Control transport
- Low latency
- Redundancy

- Integration options
- Optical isolation
- Low cost of ownership
- Future proof hardware and software
- Scalability
- Lossless long distance transmission



# OPTOCORE TECHNICAL PARTNERS



Avid Audio Snake protocol redundant fiber transport Snake digital split and format conversion



Axys by Duran Audio Card interface – DM1-TP Analog, MADI and AES/EBU interfaces to feed the loudspeakers

Full system integration for professional video, audio and data

OPTOCORE adds intelligence, networking and control bit to BroaMan systems

#### **BroaMan** BroaMan units equipped with OPTOCORE technology

BroaMan



**Clear-Com** Intercom interfaces – X6R/V3R-FX-INTERCOM Matrix – panels redundant fiber transport Audio, data, video and intercom system integration



### DiGiCo

Direct fiber connection with the OPTOCORE network Analog, MADI and AES/EBU interfaces for Digico ring OPTOCORE preamps as well as routing control from the console



#### Fohhn

Lawo

Card Interface with FX fiber or TP Cat5 connectivity Analog, MADI and AES/EBU interfaces to feed the loudspeakers



Console – stagebox redundant fiber transport Format conversion OPTOCORE preamps control from the console



### Neumann.Berlin

AES-42 transport Digital mic intergration



■ RTS Intercom interfaces – X6R/V3R-FX-INTERCOM Matrix – panels redundant fiber transport



Solid State Logic OPTOCORE preamps control from the console

OPTOCORE preamps control from the console

Console - stagebox redundant fiber transport

OPTOCORE preamps control from the console

Audio, data, video and intercom system integration

#### Soundcraft Console – stagebox redundant fiber transport

Format conversion

Format conversion





Studer Professional Audio

Yamaha Commercial Audio Card interfaces – Y3R-TP, YG2, YS2 Console – stagebox redundant fiber transport Format conversion OPTOCORE preamps control from the console

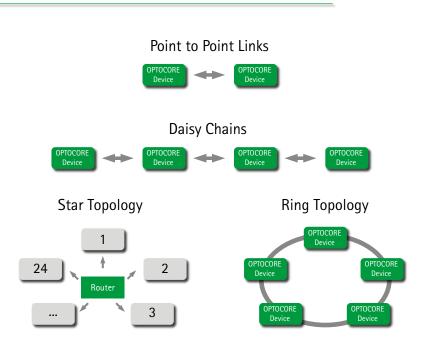
# OPTOCORE TOPOLOGY OPTIONS

# The OPTOCORE fiber network is capable of:

- up to 1024 audio input channels
- UNLIMITED number of outputs
- 32 routable Serial channels
- Composite Video transport
- Fast Ethernet transport and switching
- up to 24 device networks, expandable to 216 devices using SANE

### SANE Cat5 network is capable of:

- up to 64 audio input and output channels
- Fast Ethernet transport and switching



# OPTOCORE CAN CONNECT EVERYTHING

As an open standard platform Optocore provides universal connectivity to other third party devices.

With its ability to transport audio, video, intercom, data over long distances via native fiber protocol,

it guarantees the highest degree of flexibility and scalability in the industry.

### Fiber

- fiber-based transport platform
- longest distances between the locations
- highest channel count
- point-to-point, star or ring topology
- hum-free environment
- light weight
- low cabling cost

### Matrix

- 1024 inputs and unlimited outputs non-blocking matrix
- single-channel routing
- decentralized topology
- matrix crosspoints stored on each device indpendently
- multiple different I/O formats: MADI, AES/EBU, analog, intercom
- control from software or 3rd party equipment

#### Redundancy

- redundant fiber protocol
- redundant PSU
- redundant sync operation Word Clock and Video Sync
- extremely fast, non-audible recovery after failure

#### Integration

- integration of audio, video, intercom, sync, serial and Ethernet data
- simple integration with the Open Standards and 3rd party products
- multiple technology partners
- preamp control from 90% of digital consoles one stagebox for multiple different desks

#### State of art products

- designed, manufactured and tested in Germany
- over 20 years of experience with fiber technology and audio networks
- network invented for professional audio and video environments
- lowest, fixed latency on the market 41,6  $\mu s$
- low power consumption
- fan-less operation
- large product portfolio with MADI, AES/EBU, INTERCOM and ANALOG interfaces



# OPTOCORE ANALOG CONNECTIVITY



X6R - 16 Channel Converter



V3R - 8 Channel Converter

### Network and Digital Connectivity Options:

#### FX – The OPTOCORE fiber network module

allows the converter to be used as a part of a 24 device OPTOCORE redundant ring network.

4 Serial ports - Word Clock I/O - 2 LAN ports - 2 SANE/LAN ports

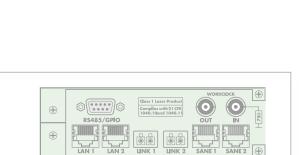
#### TP – The SANE Cat5 module

allows the converter to be used as a Cat5 expansion device for OPTOCORE FX devices or as a standalone analog – AES/EBU converter.

16 AES3 I/O - Word Clock I/O - 1 LAN port - 2 SANE/LAN ports

#### Converters

include AES3 ports for conversion to and from the analog inputs and/or outputs. 16 AES3 I/O - Word Clock I/O - 1 LAN port



AFS/FRUPOPT R

AES/EBU PORT A

AES/EBU PORT B

AES/EBU PORT A

 $| \oplus$ 

Æ

WORDCLOCK

 $\mathbf{O}$ 

OUT

The X6R and V3R platform allows customizable analog, digital and network connectivity utilizing state of the art circuitry for the highest

The devices are populated at the time of manufacturing with analog,

FX - OPTOCORE fiber option

TP - SANE Cat5 option

sonic performance and ultimate reliability.

digital and network options.

Converter option

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V3R Analog Connectivity – Euroblock

#### Analog Devices:

X6R-16MI – 16 Mic Inputs X6R-DualMI – 8 Dual-Mic Inputs X6R-16LI – 16 Line Inputs X6R-16LO – 16 Line Outputs X6R-8MI/8LO – 8 Mic Inputs, 8 Line Outputs X6R-8MI/8LI – 8 Mic Inputs, 8 Line Inputs X6R-8LI/8LO – 8 Line Inputs, 8 Line Outputs

V3R-8MI – 8 Mic Inputs V3R-8LI – 8 Line Inputs V3R-8LO – 8 Line Outputs The above connectivity combinations are available with FX, TP network modules; or as standalone **Converters** 

X6R-FX-8AE/8MI – 8 AES I/O, 8 Mic Inputs X6R-FX-8AE/8LI – 8 AES I/O, 8 Line Inputs X6R-FX-8AE/8LO – 8 AES I/O, 8 Line Outputs The X6R 16 channel converter can be populated with two 8 channel input or output modules for up to 16 inputs, 16 outputs or a mix of 8 inputs and outputs.

The V3R 8 channel converter can be populated with a single 8 channel input or output module.

#### **Connectivity Options:**

**MI** – Microphone Inputs – 8 channel microphone preamp. High quality 1dB analog gain step preamplifiers.

**DualMI** – Dual Microphone Inputs – 8 channel dual microphone preamp, for a total of 16 network inputs. Each input is fed to two microphone preamps that can be independently routed and controlled on the network.

LI – Line Level Inputs - 8 channel Line Level Input module.

LO – Line Level Outputs - 8 channel Line Level Output module.

**AE** – **AES3 I/O** - 16 channel AES3 switchable I/O module. Available for FX devices in two hardware versions – with or without input Sample Rate Converters. Can be ordered in conjunction with analog input and output modules.

Redundant Power Supply, DC input and XLR panels are available as options.

# OPTOCORE INTERCOM CONNECTIVITY



X6R-INTERCOM - 8 Intercom ports with control



V3R-INTERCOM - 4 Intercom ports with control

The X6R-INTERCOM and V3R-INTERCOM platform allows customizable intercom, control and network connectivity, utilizing state of the art analog and digital circuitry for ultimate reliability.

The devices are populated at the time of manufacturing with intercom, control and network options.

### Network and Digital Connectivity Options:

#### FX – The OPTOCORE fiber network module

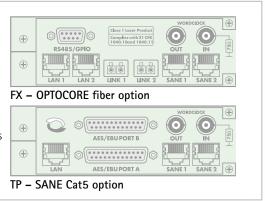
allows the intercom unit to be used as a part of a 24 device OPTOCORE redundant ring topology network.

4 Serial ports - Sync - 2 LAN ports - 2 SANE/LAN ports

#### TP – The SANE Cat5 module

allows the intercom unit to be used as a Cat5 expansion device for OPTOCORE FX devices or as a standalone analog - AES/EBU converter.

16 AES3 I/O - Word Clock I/O - 1 LAN port - 2 SANE/LAN ports





X6R-FX-Intercom-IC422/IC485/ICAES -Four-Wire or AES3 Intercom ports



V3R-FX-INTERCOM-IC444 - Line Level I/O, GPIO, DC

# The X6R-INTERCOM can be populated with two 4 input/output intercom modules for up to 8 inputs/outputs, with an intercom specific control option.

The V3R-INTERCOM can be populated with a 4 input/output intercom module with an intercom specific control option.

#### Intercom Devices:

- X6R-INTERCOM-IC422 8 Four Wire Clear-Com Matrix Ports X6R-INTERCOM-IC485 – 8 Four Wire RTS Matrix Ports X6R-INTERCOM-IC444 – 8 Line Level I/O and GPIO
- X6R-INTERCOM-ICAES 4 AES/EBU based Intercom four-wire ports

V3R-INTERCOM-IC422 – 4 Four Wire Clear-Com Matrix Ports V3R-INTERCOM-IC485 – 4 Four Wire RTS Matrix Ports V3R-INTERCOM-IC444 – 4 Line Level I/O and GPIO

The above combinations are available with **FX** and **TP** network modules.

For information about integration with a professional network for 3G/HD/SD-SDI video products please visit www.broaman.com

### **Connectivity Options:**

**IC422 – Clear-Com Four Wire Intercom Ports with Serial Control** 4 Four Wire Clear-Com Ports with Line Level and RS422 Serial Inputs and Outputs for Clear-Com key panels, matrices and interfaces.

**IC485 – RTS Four Wire Intercom Ports with Serial Control** 4 Four Wire RTS Ports with Line Level and RS485 Serial Inputs and Outputs for RTS key panels, matrices and interfaces.

**IC444 – Line Level Inputs and Outputs, GPIO and DC output** 4 Line Level inputs and outputs with optically isolated General Purpose Inputs and relay switched General Purpose Outputs. Auxiliary DC outputs to power external circuits.

#### ICAES - AES/EBU Intercom Ports

Four Ports for AES/EBU based intercom systems with fully 32 bit transparent AES3 input and output on a single RJ45 connector, allowing seamless integration with AES-based intercom systems.

Redundant Power Supply and DC input available as options.

# OPTOCORE MADI CONNECTIVITY







### M12-OPT/BNC



#### M8-BNC

M-Series standalone optical/BNC MADI switches offer single-channel routing and bridging capabilities. They can be networked and integrated with the optical OPTOCORE® and Cat5 SANE digital network systems. Single unit provides up to eight duplex MADI ports, offering up to 512 input and 512 output digital audio channels.

The devices are designed and built utilizing state of the art digital circuitry for ultimate reliability and operational flexibility.

The M-Series are the perfect main MADI hub units for a wide range of professional audio devices with MADI inputs and outputs such as digital consoles, DAW, playback devices and professional broadcast units. The huge number of channels exchanged by one M-Series device makes it the ideal and the most cost effective interface for digital console systems as well as a perfect central device offering individual channel routing feature.

#### M12-OPT

- 8 x duplex optical MADI ports 512 IN / 512 OUT
- 2 x high-speed uplinks for OPTOCORE®
- 2 x SANE ports for MADI Cat5, X6R/V3R/Y3R-TP or LAN connectivity

#### M12-BNC

- 8 x dual coaxial MADI ports 512 IN / 512 OUT
- 2 x high-speed uplinks for OPTOCORE®
- 2 x SANE ports for MADI Cat5, X6R/V3R/Y3R-TP or LAN connectivity

#### M12-OPT/BNC

- 4 x duplex optical MADI ports
- 4 x dual coaxial MADI ports
- 2 x high-speed uplinks for OPTOCORE®
- 2 x SANE ports for MADI Cat5, X6R/V3R/Y3R-TP or LAN connectivity

#### M8-OPT

- 4 x duplex optical MADI ports 256 IN / 256 OUT
- 2 x high-speed uplinks for OPTOCORE®
- 2 x SANE ports for MADI Cat5, X6R/V3R/Y3R-TP or LAN connectivity

#### M8-BNC

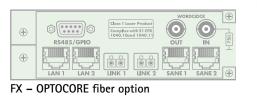
- 4 x dual coaxial MADI ports 256 IN / 256 OUT
- 2 x high-speed uplinks for OPTOCORE®
- 2 x SANE ports for MADI Cat5, X6R/V3R/Y3R-TP or LAN connectivity

### Network and Digital Connectivity Options:

#### FX – The OPTOCORE fiber network module

allows the MADI switches to be used as a part of a 24 device OPTOCORE redundant ring topology network.

4 Serial ports - Word Clock I/O - 2 LAN ports - 2 SANE/LAN ports



# OPTOCORE MADI CONNECTIVITY



DD2FR-FX - 2 Optical MADI Ports with analog video



DD4MR-FX - 2 Coaxial MADI Ports with analog video

The DD2FR-FX and DD4MR-FX allow transparent, high capacity, open standard MADI connectivity to and from OPTOCORE networks.

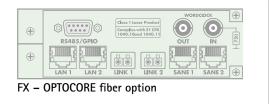
The devices are designed and built utilizing state of the art digital circuitry for ultimate reliability and operational flexibility.

### Network and Digital Connectivity Options:

#### FX – The OPTOCORE fiber network module

allows the converter to be used as a part of a 24 device OPTOCORE redundant ring topology network.

4 Serial ports - Word Clock I/O - 2 LAN ports - 2 SANE/LAN ports





DD2FR-FX – 2 Optical MADI Ports with analog video



DD4MR-FX - 2 Coaxial MADI Ports with analog video

## Connectivity Options:

### DD2FR-FX

2 Optical 64 channel MADI ports. Composite Video Input and Output.

#### DD4MR-FX

2 Coaxial 64 channel MADI ports. Composite Video Input and Output.

Redundant Power Supplies supplied as standard.

DC input optionally available.



# OPTOCORE AES/EBU CONNECTIVITY

connectivity.

connectivity and network options.



DD32R - 64 Channel AES3 device



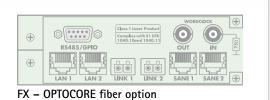
X6R - 16 Channel AES3 device

Network and Digital Connectivity Options:

#### FX – The OPTOCORE fiber network module

allows the converter to be used as a part of a 24 device OPTOCORE redundant ring topology network.

4 Serial ports - Word Clock I/O - 2 LAN ports - 2 SANE/LAN ports



The DD32R-FX and X6R allow customizable AES3 digital and network

The devices are populated at the time of manufacturing with

The devices are designed and built utilizing state of the art digital circuitry for ultimate reliability and operational flexibility.



DD32R-FX - AES Connectivity - 25DSub



X6R-FX – AES Connectivity – Euroblock

### **Connectivity Options:**

#### DD32R-FX

32 AES3 pairs. Switchable as I/O in blocks of 4 pairs. Composite Video Input and Output

X6R-FX-16AE 8 AES3 pairs. Switchable as I/O in blocks of 4 pairs.

#### X6R-FX-16AE/SRC

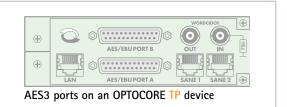
8 AES3 pairs. Switchable as I/O in blocks of 4 pairs. Inputs equipped with Sample Rate Converters.

#### X6R-FX-8AE/8MI or 8LI or 8 LO

8 AES3 pairs. Switchable as I/O in blocks of 4 pairs. 8 channel Microphone input, Line Level input/output module that can be used in place of 4 AES3 pairs.

All TP devices are equipped with 16 AES3 pairs assignable to the network, switchable as inputs or outputs in blocks of 4 pairs.

A redundant power supply (standard on DD32R-FX) and DC inputs are available as options.



#### AES/EBU Devices:

DD32R-FX – 32 AES3 pairs, Composite Video I/O

X6R-FX-16AE - 8 AES3 pairs

X6R-FX-8AE/8MI – 4 AES pairs, 8 Mic Inputs

X6R-FX-8AE/8LI – 4 AES I/O, 8 Line Inputs

X6R-FX-8AE/8LO - 4 AES I/O, 8 Line Outputs

X6R-FX-16AE/SRC - 8 AES3 pairs with Sample Rate Converters

# OPTOCORE INTERFACE CARDS



Y3R-TP - 16/16 Yamaha card



YG2 – 64/64 Yamaha master card



YS2 – 16/16 Yamaha slave card

The Y3R-TP Yamaha card with SANE allows CAT5 connection to an OPTOCORE FX or TP device.

The Y3R-TP card is capable of 16 inputs and outputs. Multiple cards can be daisy chained from a 64 channel input / 64 channel output SANE port on an OPTOCORE FX device.

The Y3R-TP card is capable of transporting and converting the Yamaha HA Remote protocol and Fast Ethernet.

The YG2 and YS2 Yamaha cards allow a redundant fiber connection of a Yamaha mixing console console to a 1Gbit OPTOCORE network.

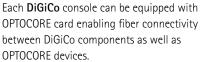
The YG2 card is capable of 64 inputs and outputs and connection to multiple YS2 slave cards.

A YG2 card is capable of transporting and converting the Yamaha HA Remote protocol and Fast Ethernet.

# OPTOCORE OEM MODULES

OPTOCORE is a worldwide known fiber technology provider. Our technology can be found in 3rd party equipment, which can be all integrated with the OPTOCORE products to create small or large digital fiber system.





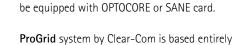


FOHHN column loudspeakers can be equipped

with OPTOCORE or SANE card.







Duran Audio Axys column loudspeakers can



Fiber broadcast solutions from **BroaMan** utilise OPTOCORE technology.

on OPTOCORE technology and design.



**MUX22** – all-in-one-box device from BroaMan portfolio is a hybrid solution which integrates professional video with OPTOCORE technology for intercom, AES/EBU, MADI, analog audio and data.



**Route66** – the most powerful, flexible device allowing protocol independent routing up to 40 inputs and outputs. With unique feature of automatic fiber optic routing the most advanced device in the Broaman lineup.

#### For more information about BroaMan products please visit www.broaman.com

# **OPTOCORE ACCESSORIES**

OptoCable 4/150



OptoCon 4/1

Custom cables, connectors and accessories available upon request

## OptoCable 4/150

150m rugged environment cable mounted to Expanded Beam plugs on a special rubber cable drum OCD-R

# OptoCon 4/1 - OptoCon 4/2

One or two expanded beam bulkheads mounted on a 1 U front panel Each bulkhead is equipped with 2 lenses (maximum: 4)





The software enables complete control over an OPTOCORE network. It enables access to the patching matrix of all devices in the entire network and lets you remotely control and monitor connected devices, such as converter modules (gain setting, phantom power, input and output level readings).

#### **OPTOCORE** Control

The software allows the configuration of and access to the complete network, audio, data and video MATRIX, the naming and gain of all inputs, the configuration of the word clock, the provision of phantom power for all mic inputs, the storage and recall of the configuration set-up to/from PC hard disk, as well as the real-time level display of the individual channels.

#### Supervising the Network

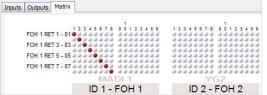
Working in ON-LINE mode gives the possibility to control the complete network. Software automatically and in the real time alerts the system manager after every significant event, such as input clipping, fiber/CAT5 disconnection, RS232/USB/LAN connection status. A log window will automatically pop up on event, if desired.

#### Input-output, Matrix and Patch

Any input of the system can be routed to any output by means of the Matrix tab. One input can be routed to more than one output.

#### **Output Tab** Inputs Outputs Ma 1-16 -6 dB ne Ret 1 2 Stage Ret 2 ID 1:2 FOH 1 RET 2 4 dB 3 Stage Ret 3 ID 1:3 FOH 1 RET 3 -10 dB 4 Stage Ret 4 ID 1:4 FOH 1 RET 4 4 dB 5 Stage Ret 5 ID 1:5 FOH 1 RET 5 4 dB -6 dB 6 Stage Ret 6 ID 1:6 FOH 1 RET 6 7 Stage Ret 7 ID 1:7 FOH 1 RET 7 4 dB L DE 8 Stage Ret 8 ID 1:8 FOH 1 RET 8 0 dB

#### Patching Matrix



#### **RS485 and Video Settings**

RS485 and video patch is confirmed by the local setting window, locally or via the network.

#### Specials

The OPTOCORE control protocol can be used by interested manufacturers or customers to control OPTOCORE devices directly from hardware other than a computer (mixing

#### **OPTOCORE** Control Software – Input Tab

desks, media controller, control boxes, etc.). This is currently being implemented by various manufacturers, including DiGiCo<sup>®</sup>, Soundcraft, LAWO, Solid State Logic and Yamaha<sup>®</sup>, allowing gain/phantom control of analog OPTOCORE devices (X6, X6R, V3R) directly from their digital consoles.

OK

Cancel

OPTOCORE Control software can be downloaded free of charge from the OPTOCORE Website.

# ## 10 1 - MON_PM5D - VG2 ## 10 2 - FOHL V/6 - D02FR-FX		15 (10 (12 )10 31 20 21 22 23 24							
# 2 - X6R-8DualMic 16 In	1-16		17-12						
# 3 - XSR-8DualMic 16 In	Name Output	Gain Ph Level	Name Output	Gain Ph Leve					
# 4 - XSR-8DualMic 16 In # 5 - XSR-16LineOut 16 Out	1 Preamp 1 Mic 1 10 1:1 PMSD In 1	15d8 🕶 🗹	17 Preamp 1 Mic 9 ID 1:9 PHSD In 9	39 d8 🔹 📝					
6 - X6R-16LineOut 16 Out	2 Preamp 1 Mc 2 10 1:2 PMS0 In 2	51d0 + 🗍	18 Preamp 1 Mic IX ID 1:10 PM5D In 20	27 d9 🔫 📝 🗍					
ID 7 - S8_C - X6R-FX-8DualMie	3 Preamp 1 Mc 3 ID 1:3 PMSD In 3	\$1.08 - D	19 Preamp 1 Mic 1: ID 1:11 PMSD In 11	15 08 - 0					
MID 8 - S8_R - X6R-FX-8DualMic MID 9 - Main L - X6R-FX-8AES/8LineOut	4 Preamp 1 Mc 4 10 1:4 PMSD In 4	47.68 -	20 Freamp 1 Mic 12 1D 1:12 PMSD In 12	0.6 + E					
D 10 - Main_C - X5R-FX-8AES/8LineOut	5 Preamp 1 Hic 5 ID 1:5 PMSD In 5	15:00 - 10	21 Preamp 1 Mic L' ID 1:13 PMSD In 13	30 48 - 12					
ID 11 - Main_R - XSR-FX-8AES/SLineOut ID 12 - Delev1 L - XSR-FX-8AES/SLineOut	6 Preamp 1 Mc 6 ID 1:6 PMSD In 6	19 08 + (0)	22 Preamp 1 Mic 1+ ID 1:14 PMSD In 14	0.08 - 171					
ID 13 - Delay1_R - X6R-FX-8AE5/8LineOut	7 Preamp 1 Mc 7 ID 1:7 PMSD In 7	28 48 -	22 Preamp 1 Mic 11 ID 1:15 PHSD In 15	58 d8 +					
D 14 - Oely 21 - Y84-X9445Skin-Oot     D 15 - Oely 21 - Y84-X9445Skin-Oot     D 15 - Oemme, PA - Y84-X9445Skin-Oot     D 15 - Comme, PA - Y84-X9416tecom     D 15 - Comme, MOI - Y85-X9416tecom     D 15 - Comme, MOI - Y85-X14tecom     D 18 - Comme, MOI - Y85-X14tecom     D 18 - Comme, MOI - Y85-X14tecom     D 18 - Comme, MOI - Y85-X14tecom	a Preamp 1 Mc 8 ID 1:8 PMSD In 8	0.08 + 12	24 Preamp 1 Mic M ID 1:15 PMSD In 16	0.00 - 111					
	9 Preamp 2 Mc 1 ID 2r1 V/6 In 1	47.68 • [7]	25 Prearto 2/Mc 9 ID 2/9 V6 (h 9	15.08 - 191					
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	11 Preamp 2 Mc 3 10 213 V6 In 3	0.00 +	27 Preamp 2Mic 1: 10 2:11 v6 In 11	15 d0 +					
	12 Preamp 2 Mc 4 ID 2:4 V6 In 4	40.68 •	26 Preamp 2 Mic 12 ID 2:12 V6 In 12	0.00 + [1]					
	13 Preamp 2 Mic 5 ID 215 W6 In 5	39 dB • 🕢	29 Preamp 2Mc I: ID 2:13 V6 In 13	27 d8 • 🛛					
	14 Preamp 2 Mic 6 10 216 Vi6 In 6	60-40 + [Y]	30 Preamp 2 Mic 1+ ID 2:14 V6 In 14	0d8 - []][					
SB_L	15 Preamp 2 Mc 7 1D 2:7 W6 In 7	0.08 • 🖸 ••••••	31 Preamp 2 Mic 1! ID 2:15 V6 In 15	15.68 • •					

#### Local Settings

Device													
Info							Video/Ethernet t	ansport setup					
Туре	DD4MR-FX				In	Channel 1 🔫	Out	Disabled	Υ.				
Firmware revision 2.21						Ethernet	System Local						
General							Port setup						
ID	3 Master priority					Standard	Channels						
Clock setup						MADI 1 In	AES10-2003 (64/3	els) 🔻	64	•			
Sample rate	48 kH;	z v					MADI 1 Out	AES 10-2003 (64/3	els) 🔻	64	•		
Clock source	Auto		•	75	Ohm ter	mination	MADI 2 In	MADI 2 In AES10-2003 (64/32 cha				•	
RS485 setup	(					1	MADI 2 Out	AES10-2003 (64/3	els) 🔻	64	•		
In	Channel 1-4				MADI Cat 2 In	AES10-2003 (64/3	els) 🔻	64					
Out	Channel Port											_	
Port 1	Channel 5 🔹 🔻		RS485 🔻		MADI Cat 2 Out				64	*			
Port 2	Channel 6 👻			RS485 🔻			Device		I/O config	uration	ŝ.		
Port 3	Channel 7 🔹		RS485 •		TP 2			16 In					
					TP 3			16 In	16 In 🔹				
Port 4	Channel 8   RS485				TP 4	X6R-8MicIn/8LineI	in 🔹		•				
Ethernet setup Setup mode			Auto 2	24x8 +			TP 5	X6R-16LineOut			)ut 👻		
IP address	192		168 0	0	TP 6	X6R-8LineIn/8Line	8/8 Standard		•				
				255	0	TP 7	Generic 🔹 16			ut			
Subnet mask		1.	100.00		1970.03		TP 8	X6R-8Intercom	•	8/8 Stan	dard	•	
MAC	38	97	229	0	0	0	Number of inputs	restricted to 256.	currently selected 256				

#### Log Window





# SELECTED OPTOCORE SYSTEMS IN OPERATION

### Broadcast

NRK – Norway SIS Live – UK Arena TV – UK BBC – UK NBC Studios – USA Mediaset OB Van 27 – Italy Coronation Street – UK Videohouse – Belgium SR – Germany





#### Installations

Cirque du Soleil Michael Jackson the ONE -Las Vegas, Nevada, USA Royal Opera House – Muscat, Oman Hard Rock Live – Biloxi, Mississippi, USA National Theatre – London, UK Komische Oper – Berlin, Germany Moscow Art Theatre – Moscow, Russia New Zealand Parliament – Wellington, New Zealand Olympic Stadium – Berlin, Germany Pittsburgh Hockey Arena, Consol Energy Center – Pittsburgh, Pennsylvania, USA

#### Live sound and events

2015 South East Asia Games – Singapore 2015 European Games – Baku, Azerbaijan 2014 Winter Olympic Games – Sochi, Russia 2012 Summer Olympic Games – London, UK 2008 Summer Olympic Games, – Beijing, China 2004 Summer Olympic Games, – Athens, Greece Kuwait 50th Constitution Day – Kuwait City, Kuwait Coldplay "Mylo Xyloto" World Tour Grammy Awards – Los Angeles, USA

# For a full reference list please visit www.optocore.com











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