

XR4W / XT4R

XENOPT Fiber Optic Extender 4x 12G-SDI Rx / Tx



APPLICATIONS

- Live Broadcast
- 8K Screen
- 8K Camera
- Video Meeting
- Security Monitoring

DESCRIPTION

The XR4W and XT4R fiber optic extender enables long-distance transmission of four independent 12G-SDI signal lanes. Each channel operates independently and supports transmission distances of up to 20 km at the 12G-SDI data rate.

The system supports a wide operating data rate range from 125 Mbps to 11.88 Gbps. It is also backward compatible with multiple formats, including MADI, DVB-ASI, SD-SDI, HD-SDI, 3G-SDI, and 6G UHD-SDI.

Each SDI lane can be used for either transmission or reception, ensuring flexible deployment.

FEATURES

- Supports 4 independent channels at 12G / 6G / 3G / 1.5G / 270M
- Each channel automatically detects input data rates (SD, HD, 3G, 6G, 12G)
- Capable of transmitting uncompressed 8K signals up to 20 km
- Each channel supports resolutions up to 2160p @ 60 Hz
- Individual reclocking on every channel

Supported formats:

- SMPTE ST 2082-1 (11.88 Gbps)
- SMPTE ST 2081-1 (5.94 Gbps)
- SMPTE ST 424 (2.97 Gbps)
- SMPTE ST 292 (1.485 Gbps)
- SMPTE ST 259 (360 Mbps)
- DVB-ASI (270 Mbps)
- MADI (125 Mbps)

Coaxial cable equalizer (transmitter):

- 70 m @ 11.88 Gbps: < 0.2 UI output jitter
- 90 m @ 5.94 Gbps: < 0.15 UI output jitter
- 180 m @ 2.97 Gbps: < 0.1 UI output jitter
- 240 m @ 1.485 Gbps: < 0.1 UI output jitter
- 300 m @ 270 Mbps: < 0.1 UI output jitter
- Integrated CDR (Clock Data Recovery) in receiver
- LED indicators for SDI signal connection status
- 12V DC power supply
- Operating temperature range: -10°C to +55°C (power adapter not included)

TECHNICAL SPECIFICATION

Parameter	Symbol	Min	Ty	Max	Unit
48G-SDI Optical fiber extender Operating Temperature	Tc	-10		70	°C
AC to DC Power adapter Operating Temperature	Tc	0		40	°C
Operating Humidity	-	5		85 non-coud	%
Power Supply Voltage	Vcc	9	12	24	V
Power Supply current (without transceivers)	Lcc(12V)		580	620	mA
Physical Dimensions (power adapter not included)			230(W)x147(D)x37.7(H)		nm

Main Frame

BNC	Standard BNC, 75 Ohm
Transmission rate	125 Mbps to 11.88 Gbps
Standard	SMPTE ST 2082-1, SMPTE ST 2081-1, SMPTE ST 424, SMPTE ST 292-1, SMPTE ST 259, DVB-ASI (270M), MADI(125M)
RL	>15dB @1.5GHz
	>10dB @3GHz
	>7 dB @6GHz
	>4 dB @12GHz
Wavelength	1270nm/1290nm/1310nm/1330nm
Jitter	< 2.0UI @10Hz
	< 0.3UI @100KHz
Output Swing	800mV (+/-10%)
Overshoot	<10%
Rise/fall time	<135ps @3G-SDI
	<80ps @6G UHD-SDI
	<45ps @12G UHD-SDI

ORDERING INFORMATION

Part Number	OPData Rate(optical)
XR4W	4 × 12G-SDI Transmitter Optical Extender
XT4W	4 × 12G-SDI Reciver Optical Extend

Notes

For accurate order specification please contact XenOpt reseller before placing an order. The content of this document is subject to change without notice. XenOpt does not guarantee errorless or outdated information.

COMPANY INFORMATION

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PARTNER INFORMATION

Important notice

Performance figures, data and any illustrative material provided in this data sheet are contains typical values and must be specifically confirmed in writing by XenOpt before they become applicable to any particular order or contract. Specifications may change without notice.