

16-Channel 12G-SDI + 2-Channel IP HD Digital Video Managed Optical Transceiver

PN: G-SDI-E-16*12G-TX-IP-NMS Transmitter
G-SDI-E-16*12G-RX-IP-NMS Receiver



Product Features

- Transmits 16 channels of 12G-SDI ultra-HD video and 2 independent Gigabit Ethernet channels over a single fiber
- SDI signals automatically adapt to 12G-SDI, 3G-SDI, HD-SDI and SD-SDI
- LCD screen showing the operating status of the optical transceiver:
 - 1) Optical interface type
 - 2) Laser operating wavelength
 - 3) Transmit / receive optical power
 - 4) Optical module operating temperature and main-board supply voltages from the dual power supplies
 - 5) Input / output status of each channel
- Front-panel LED indicators for SDI input / output signals, optical signals and power
- IP data transmission supports IEEE 802.3, IEEE 802.3U, IEEE 802.3X and IEEE 802.1d
- IP data transmission supports 10/100/1000 Mbps auto-negotiation
- Network management function with SNMP and web-based monitoring
- Dual independent power supplies with redundant backup

Key Management Features

- The management unit is built on an ARM Cortex-M3 CPU, providing web-based device status viewing and configuration.
- The system also supports local and remote connections for basic configuration and monitoring of network parameters.
- The network port supports 10M / 100M operation with auto-negotiation, and automatically adapts to crossover or straight-through Ethernet cables.
- Network boot configuration supports both static IP and DHCP.
- The system supports the Network Time Protocol (NTP) and can update the time automatically over the network.

Product Description

The Gigalight 16-channel 12G-SDI optical transceiver consists of a Transmitter and a Receiver interconnected over a two-fiber link. It transports 16 channels of 12G-SDI ultra-HD 4K video together with 2 independent Gigabit Ethernet signals. Each 12G-SDI input is equipped with a multi-rate cable equalizer and provides one 12G-SDI loop-through output per channel, while the output stage incorporates a built-in distribution amplifier with two 12G-SDI outputs per channel.

Specifications

12G-SDI Video Input		12G-SDI Video Output	
Input Channels	16 channels (1 loop-through output per channel)	Output Channels	16 channels (distributed output per channel)
Input Level	>380mV _{P-P}	Output Level	800mV _{P-P} ±10%
Input Return Loss	>10dB (11.88GHz)	Overshoot / Undershoot	≤±10%
		Maximum Jitter	≤0.3UI (12Gbps)
Ethernet Channels (Optional)			
Supported Protocols	IEEE 802.3, 10M / 100M / 1000M, 10/100/1000M auto-negotiation		
Number of IP Channels	2		
Operating Mode	Full-duplex or half-duplex		
Physical Interface	RJ45 * 2		
Optical Link Parameters			
Optical	Built-in 18-channel CWDM multiplexer		

Wavelength	
Transmit Optical Power per Channel	-2 to +2
Receive Optical Power per Channel	-12 to -3
Transmission Distance	0 to 10KM
Optical Connector	LC (SC/PC, FC/PC optional)
Power Supply	AC 100-265V, dual power supplies, <20W, CE certified
Dimensions	19-inch 2U chassis, 430 x 230 x 86 mm