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

FESDI-16V12GT/FESDI-16V12GR

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 displays 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 FIBERSTAMP 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	>380mVP-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 Wavelength	Built-in 18-channel CWDM multiplexer
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

Important Notice

Performance figures,data and any illustrative material provided in this data sheet are typical and must be specifically confirmed in writing by FIBERSTAMP before they become applicable to any particular order or contract. In accordance with the FIBERSTAMP policy of continuous improvement specifications may change without notice.

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Revision History

Revision	Date	Description
V0	Sep-15-2026	Advance Release.