12G-SDI Fiber Optic Extender
4K UHD 1-Channel Bi-Directional 12G-SDI

1

12G-SDI

Audio

Data

Ethernet

System Design

VOS-1DH12G-T/R enables fiber-optic transmission of 1-channel uncompressed Bi-Directional 12G-SDI, 6G-SDI, or 3G-SDI. with a 1/4-inch screw mount, conveniently powered via a V-mount portable power supply.
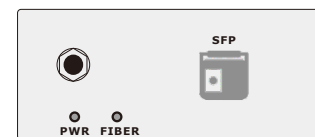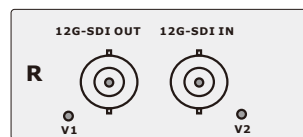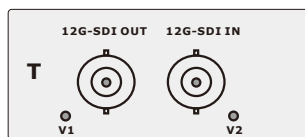
Stand-alone or rack-mount. All 12G-SDI video over Fiber of VOS-1DH12G-T/R comes in an insert card version. The cards can be inserted into our 16-slot, 19inch 2U or 4U rack (VOS-CH02, VOS-CH04).
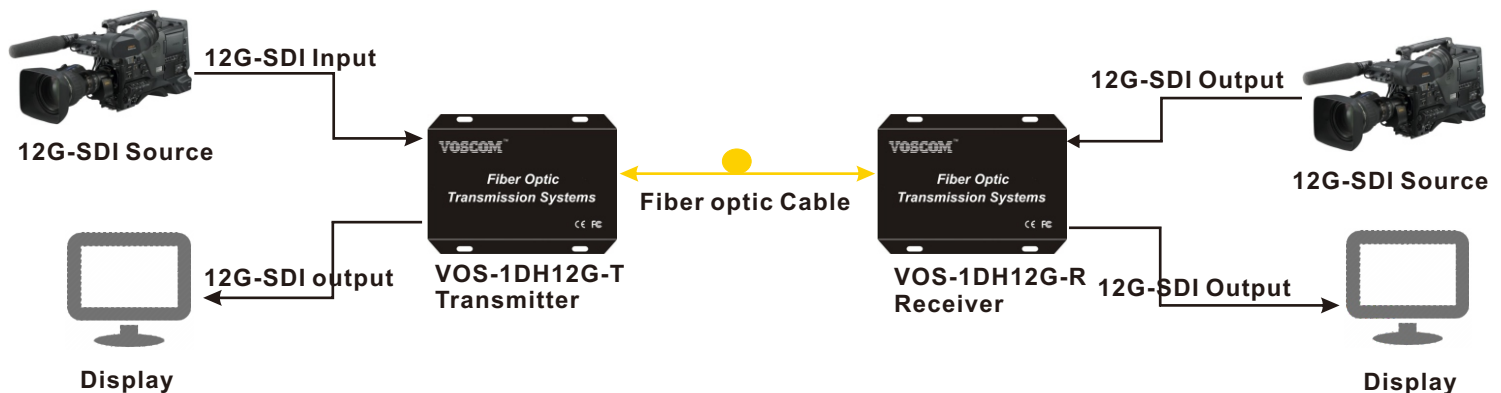
Panel

T	12G-SDI OUT	12G-SDI IN
	V1	V2

R	12G-SDI OUT	12G-SDI IN
	V1	V2

	SFP
PWR FIBER	

Features

• Support SMPTE 2082 / 2081 / 424M / 292M / 259M or DVB-ASI compliant

• Automatic detection and re-clocking of 12G, 6G, 3G,1.5G, 270M SDI data rates

• Supports embedded digital audio stream

• Coax inputs are equalized(EQ), Coax outputs are with driving function (CD)

• Standard SFP Module with LC connector support Single-mode 10km

• LED Status Provide Rapid Indication of Operating Parameters

• No EMI or RFI and no ground loops

• Stand alone or rack-mount

• Plug and Play

Typical Configuration

12G-SDI Input

12G-SDI Source

12G-SDI output

VOS-1DH12G-T Transmitter

Fiber optic Cable

VOS-1DH12G-R Receiver

12G-SDI Output

12G-SDI Source

12G-SDI Output

Display

Display

Ordering Information

Model Number		Fiber Mode	Wavelengths	Optical Power Budget	Maximum Transmission Distance
Transmitter	Receiver				
VOS-1DH12G-T	VOS-1DH12G-R	Single-Mode	1270~1330nm	12dB	10km

Note:

• The Optical Power Budget data fit Mulit-mode(62.5/125 μm),Single-Mode(9/125 μm).

• When using 50/125 μm multimode fiber, subtract 3 dB from the optical power budget.

• Optical transmission distance is limited to optical loss of the fiber and any additional loss introduced by connectors, splices and patch panels.

• Maximum transmission distance is also limited by fiber bandwidth.

• Power adapter is manufactured by third party and is supplied with fitted screw-terminal output cables.Power adapter included (for standalone) US, European, UK or Australian power plug.

• Please feel free to consult factory for any special requirement and customization

Specification

• Video

Number of Channels: 1-Channel Bi-Directional 12G-SDI

Data Rate: 270 Mbps, 1.483 Gbps, 1.485 Gbps, 2.967 Gbps, 2.970 Gbps, 5.934 Gbps, 5.940 Gbps, 11.868 Gbps, 11.880 Gbps - Auto Select

Standards: SMPTE 2082(12G-SDI), SMPTE 2081(6G-SDI), SMPTE 424M (3G-SDI)
SMPTE 292M (HD-SDI), SMPTE 259M (SD-SDI)

Max Resolution: 4K UHD 2160 @ 60Hz

• Optical

Optical Connector: LC (SFP)
Fiber Type: Single-Mode, Singe-Fiber
Rate: 12Gbps
Tx Output Power: 0~-3dB
Receiver Sensitivity: >-12dB

• Electrical & Mechanical

Input Power Requirements: DC 5V~36V
Power Adapter: AC100V~240V
Power Consumption: <1.5W
Stand-Alone Dimensions: 98mm x 70mm x 26mm
Shipping Weight: 0.5kg (include TX & RX)

• Connectors

Video Connector: 75 Ohm BNC (Gold Center Pin)
IEC169-8 standard
Optical Connector: LC (SFP)
Power Connector: DC 5.5-2.1mm

• Environmental

Operating Temperature: -20°C ~+75°C
Storage Temperature: -40°C~+85°C
Relative Humidity: 0%~95% (non-condensing)
MTBF: >100,000 hours