HD-SDI Fiber Optic Extender
1-Channel HD-SDI Video over Fiber

1
HD-SDI

Audio

Data

Ethernet

System Design

VOS-1HD-T/R provides for the digital transmission of 1-Channel uncompressed 1.485 Gbps HD-SDI (SMPTE 292) or 270 Mbps SD-SDI (SMPTE 259M) 1080p HD video over fiber, no audio, no data, and support one loopback output for local display, and dual outputs for two displays in the remote end.

Stand-alone or rack-mount. All HD-SDI video over Fiber of VOS-1HD-T/R comes in an insert card version. The cards can be inserted into our 16-slot, 19inch 4U rack-mountable (VOS-CH04-HD16).

Single-Mode or Multi-Mode, VOS-1HD-T/R can support FC/PC or ST/PC optical connector, the transmission distance range according to the Optical Budget. Manufacturer's standard is: Single-mode 20km, Multi-mode 300m.
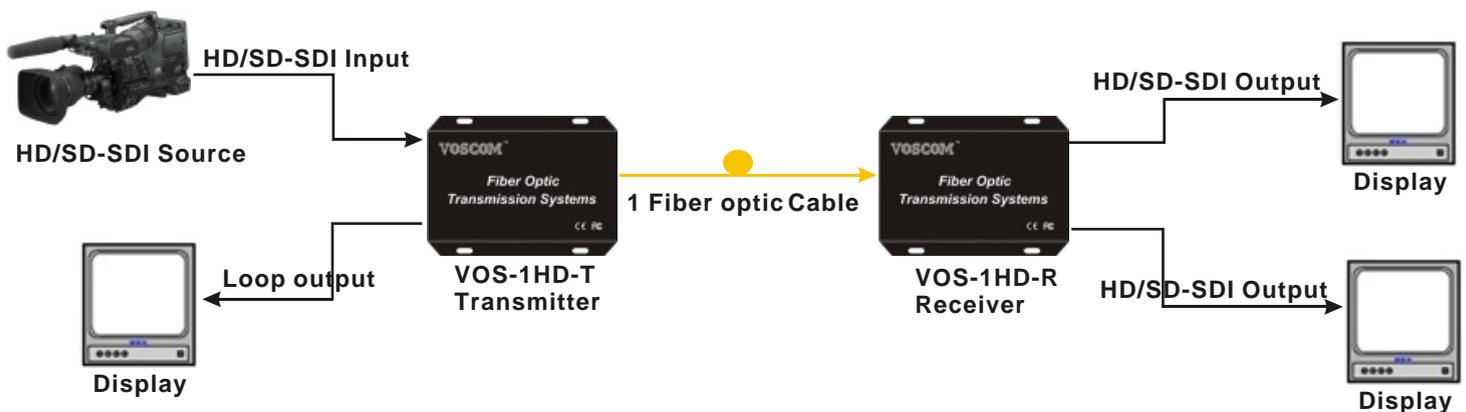
Features

• Extends uncompressed HD-SDI or SD-SDI video over fiber
• Supports SMPTE 292M, SMPTE 259M or DVB-ASI compliant
• Supports embedded digital audio stream
• Multi-mode Fiber Support for Distances up to 300m
• Single-Mode Fiber Support for Distances up to 20 km
• Real-Time Video Transmission for Exceptional Quality and Resolution
• LED Status Provide Rapid Indication of Operating Parameters
• No EMI or RFI and no ground loops
• Stand alone or rack-mount
• Produce according to customer's specifications, providing OEM

Typical Configuration

HD/SD-SDI Input

HD/SD-SDI Source

HD/SD-SDI Output

Display

1 Fiber optic Cable

Loop output

VOS-1HD-T Transmitter

VOS-1HD-R Receiver

HD/SD-SDI Output

Display

Display

Ordering Information

Model Number		Fiber Mode	Wavelengths	Optical Power Budget	Maximum Transmission Distance
Transmitter	Receiver				
VOS-1HD-MT	VOS-1HD-MR	Multi-Mode	1310nm/1550nm	16dB	300m
VOS-1HD-ST	VOS-1HD-SR	Single-Mode	1310nm/1550nm	12dB	20km

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-Ch HD-SDI or SD-SDI
Data Rate:	1.485 Gbps; 270 Mbps
Standards:	SMPTE 292M, SMPTE 259M or DVB-ASI
Max Resolution:	1920 x 1080 @ 60Hz
Equalization:	Automatic up to 200m at 1.485 Gbps and 350m at 270 Mbps of Belden 1694A
Return Loss:	> 15dB to 1.485Gbps:

• Connectors

Video Connector:	75 Ohm BNC (Gold Center Pin)
Optical Connector:	FC/PC or ST/PC Optional
Stand-Alone Power:	Screw terminal block
Rack Power:	AC line cord

• Electrical & Mechanical

Input Power Requirements:	DC 5V@2A
Power Adapter:	AC 100V~240V
Power Consumption:	< 5W
Stand-Alone Dimensions:	200mm ✕ 135mm ✕ 38mm
Card for 4U Rack Dimensions:	145mm ✕ 170mm ✕ 20mm
Shipping Weight:	2.5kg (include TX & RX)

• Environmental

Operating Temperature:	-45° C~+75° C
Storage Temperature:	-45° C~+85° C
Relative Humidity:	0%~95% (non-condensing)
MTBF:	>100,000 hours