VOSCOM

HD-SDI Fiber Optic Extender
1-Channel HD-SDI + 1 Duplex Data + IP Ethernet

1 HD-SDI

Audio

1 Data

1 Ethernet

System Design

VOS-1HD-DET/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, support 1 duplex RS232/RS485 data, and 1-channel 10M/100M IP Ethernet, also 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-DET/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-DET/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.
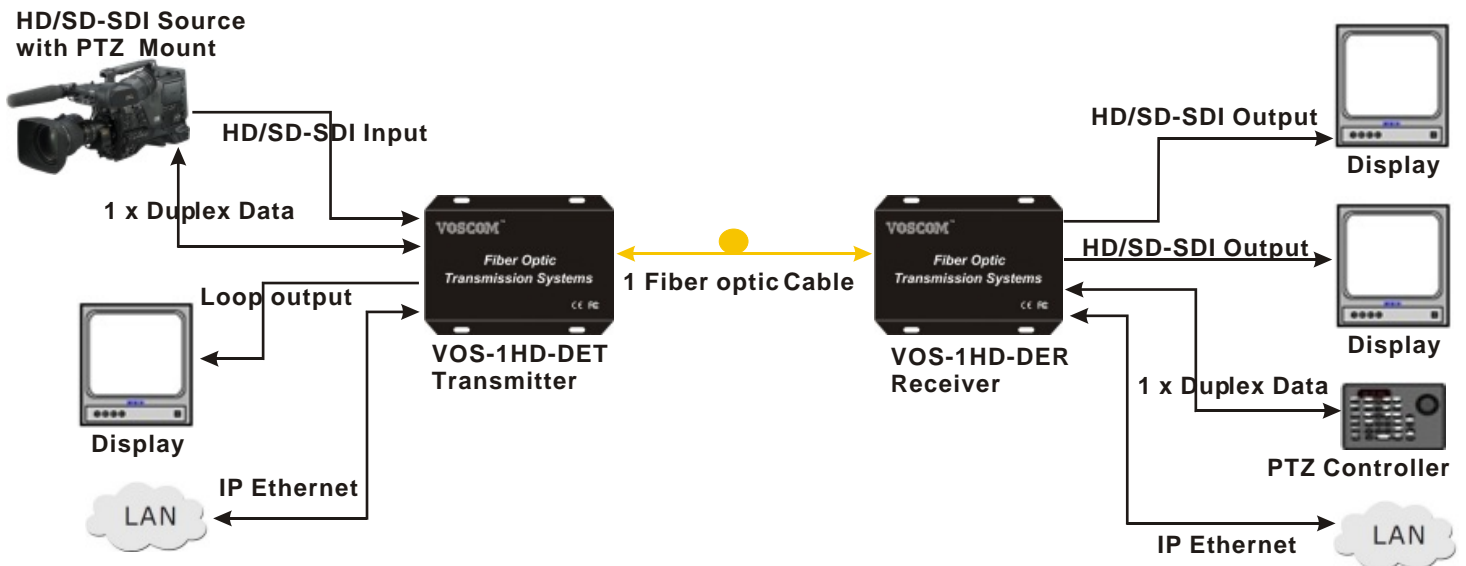
Features

- 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
- No EMI or RFI and no ground loops

Typical Configuration

HD/SD-SDI Source with PTZ Mount

HD/SD-SDI Input

1 x Duplex Data

Loop output

Display

IP Ethernet

LAN

VOS-1HD-DET Transmitter

1 Fiber optic Cable

VOS-1HD-DER Receiver

HD/SD-SDI Output

Display

HD/SD-SDI Output

Display

1 x Duplex Data

PTZ Controller

IP Ethernet

LAN

Ordering Information

Model Number		Fiber Mode	Wavelengths	Optical Power Budget	Maximum Transmission Distance
Transmitter	Receiver				
VOS-1HD-DEMT	VOS-1HD-DEMR	Multi-Mode	1310nm/1550nm	16dB	300m
VOS-1HD-DEST	VOS-1HD-DESR	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:

• Data

Data Formats:	1-Channel Duplex Rs232 & RS485 Data
Data Rate:	DC to 115.2Kbps
Bit Error Rate:	10E-9

• Ethernet/IP

Standard:	Ethernet IEEE 802.3
Data Rate:	10/100 Mbps
Connector:	RJ-45, Auto MDI/MDI-X

• Connectors

Video Connector:	75 Ohm BNC (Gold Center Pin)
Data Connector:	Terminal Block
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