Voscom

12G / 3G-SDI over Fiber

VOSCOM's 12G-SDI / 3G-SDI Fiber Optic Extender provides for the digital transmission of fully uncompressed 12G-SDI, 6G-SDI, 3G-SDI & HD-SDI over fiber. support 4K UHD, 1080p video, use our 4-Channel 12G-SDI even can support 8K Video.

12G-SDI Fiber Optic Extender is an excellent choice for transporting SMPTE 2082 (12G-SDI), SMPTE 2081(6G-SDI), SMPTE 424M (3G-SDI), SMPTE 292M (HD-SDI), SMPTE 259M (SD-SDI), DVB-ASI compliant video signals over long or short distances with one fiber. In addition, the system also support Balanced or Unbalanced audio, RS422 / RS485 / RS232 serial data, Loopback output, Contact Closure and IP Ethernet transmission.

Also can customize GENLOCK, Time Code, Return Analog Video, Return 12G/3G-SDI, Remote Control, Intercom (HEADSET), Balanced Audio with XLR connector, Tally, etc.

Features

- Available in 12G-SDI and 3G-SDI Versions.
- 1~16 x Camera Feeds & 8x SDI Return Channels
- Tri-Level or Bi-Level Genlock Output
- 8x Mic Level Inputs / outputs with Phantom Power
- 8x Line Level Analog Audio Inputs / outputs
- 8x Digital Audio AES/EBU Inputs / outputs
- 1~4 x RS-232/422/485 Serial Data Channels
- 1~4 x Contact Closure for Tally
- 1~4 x Gigabit Ethernet LAN Extensions

Applications

- Truck to Control Room Links
- Control Room to Studio Links
- Outside Broadcast "B-Unit" Interconnects
- Live Music & Entertainment
- Live Cinematic Multi-cam
- Live Sports Broadcast
- ENG, EFP
- High-Definition Video Surveillance
- High-Definition Pro Audio Visual



12G-SDI with Remote & Tally V-mount



Duplex 12G-SDI



3G-SDI + Data + Ethernet



4-Channel 12G-SDI



16-Channel 12G-SDI 19inch 1U



8 x 3G-SDI + 2 x Balanced Audio + 2 x Gigabit Ethernet

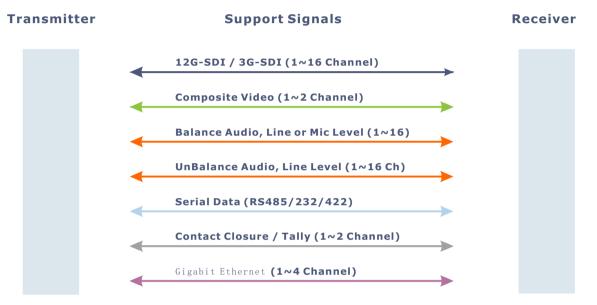
VOSCOM

Customized Support

VOSCOM 12G/3G-SDI Fiber Optic Converters offer customized solutions, with multiple functions, interfaces, and sizes for customers to choose from. Particularly in the broadcast and television industry, different cameras have distinct requirements for the functions, interfaces, and sizes of fiber optic converters. Our products adopt a modular design, which enables us to meet customers' diverse needs quickly and conveniently.

You can freely configure according to the functions, interfaces, and sizes below, and then contact us.

Multiple Functions:



Multiple Interfaces:

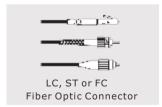
















Multiple sizes:









Ordering Information

Part Number	Description
VOS-4K6S	1-Channel Bi-Directional 12G-SDI + Intercom + Time Code + Remote + Tally + Gigabit Ethernet, SMPTE 304M Hybrid Cable, V-mount
VOS-4K5S	1-Channel Bi-Direcitonal 12G-SDI with Remote & Tally up to 10km, ODC Fiber Connector, V-mount
VOS-12G-T/R-MINI	Mini Type, 1-Channel 12G-SDI Fiber Optic Extender
VOS-1H12G-T/R	1-Channel 12G-SDI Fiber Optic Extender with SFP optical module
VOS-1DH12G-T/R	1-Channel Bi-Directional 12G-SDI Fiber Optic Extender, with SFP optical module
VOS-3G-T/R-Mini	Mini Type, 1-Channel 3G-SDI Fiber Optic Extender
VOS-1H3G-T/R	1-Channel 3G-SDI to Fiber Converter with SFP optical module
VOS-2H3G-T/R	2-Channel 3G-SDI over Fiber
VOS-4H3G-T/R	4-Channel 3G-SDI over Fiber
VOS-8H3G-T/R	8-Channel 3G-SDI over Fiber
VOS-16H3G-T/R	16-Channel 3G-SDI over Fiber
VOS-1H3G-DET/R	1-Channel 3G-SDI + 1 Duplex Data + IP Ethernet
VOS-1H3G-ADCET/R	1-Ch 3G-SDI + 2 Duplex Audio + 1 Duplex Data + Contact Closure + 100M Ethernet
VOS-1H3GR1-ADCET/R	1-Ch 3G-SDI + 1 Return 3G-SDI + 2 Duplex Unbalanced Audio + 1 Duplex Data + 1 Duplex Contact Closure + Gigabit Ethernet
VOS-2H3GR1-ADCET/R	2-Ch 3G-SDI + 1 Return 3G-SDI + 2 Duplex Unbalanced Audio + 1 Duplex Data + 1 Duplex Contact Closure + Gigabit Ethernet
VOS-1H3G-BLADCET/R	1-Channel 3G-SDI + 2 Duplex Balanced Audio (XLR) + 1 Duplex Data + 1 Duplex Contact Closure + Gigabit Ethernet
VOS-2H3GR1-BLADCET/R	2-Ch 3G-SDI + 1 Return 3G-SDI + 2 Duplex Balanced Audio (XLR) + 1 Duplex Data + 1 Duplex Contact Closure + Gigabit Ethernet
VOS-4H3G-BLA2ET/R	4-Channel 3G-SDI + 2 Duplex Balanced Audio (XLR) + 2 x Gigabit Ethernet
VOS-8H3G-BLA2ET/R	8-Channel 3G-SDI + 2 Duplex Balanced Audio (XLR) + 2 x Gigabit Ethernet

Details link: https://www.voscom.com/sdi-fiber-optic-extender/

12G-SDI with Time Code, Intercom, Tally, Remote & Ethernet Camera Adapter to Base Station via SMPTE Hybrid Fiber















System Design

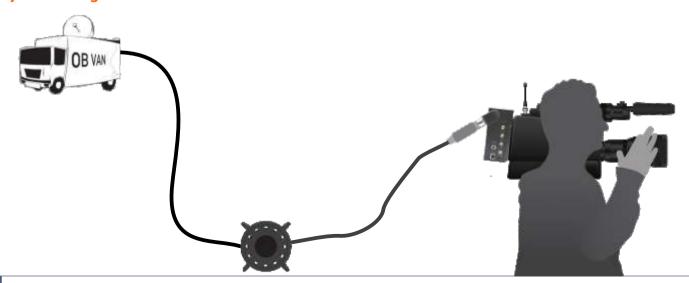
VOSCOM CineLock sereis, VOS-4K6S can transport 1-Channel 12G-SDI with PGM (Return 12G-SDI) signal from the camera to Base Station up to 300 meters via fiber cable. Full camera control is provided by the camera manufacturer's control panel via remote or a Gigabit Ethernet path. also support Time code / Genlock, Intercom and Tally.

The system puts all of the signals needed for multicamera 4K/UHDTV production onto a SMPTE hybrid fiber cable, ensuring robust, trouble-free connectivity on any studio or remote production.

Features

- Support 1-Chanenl 12G-SDI and PGM (one Return 12G-SDI)
- Support Hybrid Fiber Connector 3K.93C, SMPTE 304M
- Support Clear-com or Telex's Party Line intercom, compatible with 4-wire intercom.
- support Time Code or Genlock
- Support Tally, Remote control and Gigabit Ethernet
- Compatible with V-mount or A-mount camcorders
- LED Status Provide Rapid Indication of Operating Parameters
- Support two D-Tap 14.8V power output

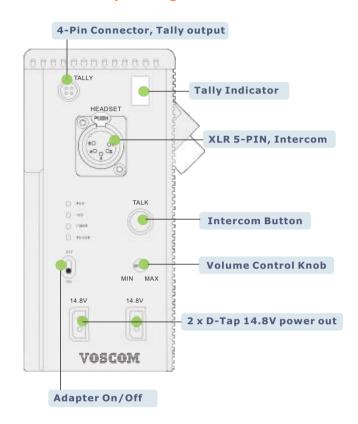
System Diagram



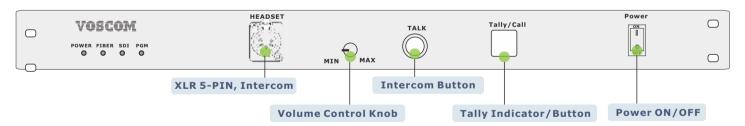
Camera Adapter Left Panel

Hybrid Fiber port, Swivel 0 **12G-SDI** Loopout SDILOOP 0 12G-SDI Inout SDLIN REMOTE 0 PGM (12G-SDI) Output PGM OUT **Time Code Output** ETH TC OUT **Gigabit Ethernet** 8-Pin Remote Port 2.5mm Remote Port

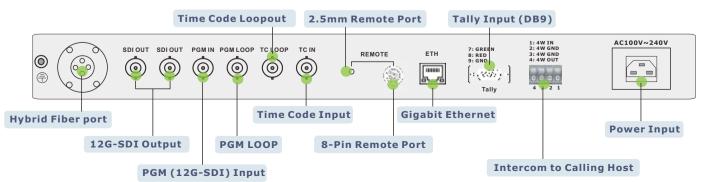
Camera Adapter Right Panel



Base Station Front Panel



Base Station Rear Panel



Ordering Information

Part Number	Description
VOS-4K6S-CU	Camera Unit: 1-Channel 12G-SDI + PGM (Return 12G-SDI) + Time Code + Remote + Intercom + Tally + Gigabit Ethernet, SMPTE 304M, 3K.93C Hybrid Connector V-mount or A-mount 2 x D-tap 14.8V power output
VOS-4K6S-BU	Base Unit: 1-Channel 12G-SDI + PGM (Return 12G-SDI) + Time Code + Remote + Intercom + Tally + Gigabit Ethernet, SMPTE 304M, 3K.93C Hybrid Connector 19inch 1U rack AC100V~240V power input

Specification

Specification			
• 12G-SDI		• Time Code	
Connector: Data Rate:	1-Ch Bi-Directional 12G-SDI 75 Ohm BNC 12G-SDI, 6G-SDI 3G-SDI, HD-SDI - Auto Select SMPTE 2082(12G-SDI),	Type: Input: Output: Connector:	Unbalanced, 3Vp-p max
	SMPTE 2081(6G-SDI),	• Ethernet	
Max Resolution:	SMPTE 424M (3G-SDI), SMPTE 292M (HD-SDI) 4K UHD @ 60Hz		1-Channel 1000 Mbps RJ-45, Auto MDI/MDI-X
• Intercom		• Optical	
	2 5-pin XLR, Headset (Camera) 5-pin XLR, Headset (Base) 4-wire to Calling Host (Base) +4dBu nominal	Connector:	SMPTE 304M 3K.93C EDW (Camera unit) 3K.93C FXW (Base unit) 300meters
		• Electrical & Mechanical	
• Remote		Camera Unit	
	8-pin Remote port for RCP-1500/3500	Power Adpater:	105mm x 74mm x 158mm
Connector2:	2.5mm Remote port for RCP RM-30BP	Base Unit	1.55 kg
• Tally		Output Power: Power Adpater:	
Channels: Connector:	4-pin (Camera unit)	Size: Weight:	440mm x 325mm x 45mm (1U 3.0kg
	DB-9(Base unit)	Operating Temperature: Relative Humidity:	

Voscom

Bi-Directional 12G-SDI with Remote & Tally **Camera Adapter to Base Station over Fiber**





VOSCOM CineLock sereis, VOS-4K5S can transport 1-Channel 12G-SDI with PGM (Return 12G-SDI) signal from the camera to Base Station up to 10km via fiber cable. Full camera control is provided by the camera manufacturer's control panel via remote, the remote support 2.5mm port and 8-PIN remote port, It can perfectly interoperate with RCP, like SONY RM-30BP, RCP-1500/3500, etc.

The system puts all of the signals needed for multicamera 4K/UHDTV production onto one fiber cable, ensuring robust, trouble-free connectivity on any studio or remote production.

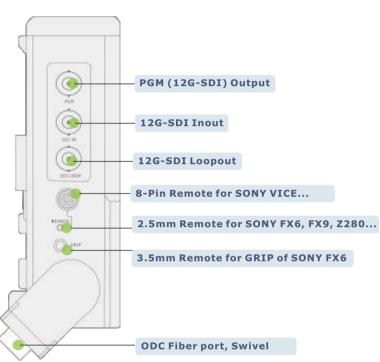
Features

- Support 1-Chanenl 12G-SDI and PGM (one Return 12G-SDI)
- 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
- Coax inputs are equalized(EQ), Coax outputs are with driving function (CD)
- Support Battery Mount (V or A-mount), also support 9~18V power input
- Support Remote 2.5mm and 8-Pin port, and 3.5mm for GRIP of SONY Fx6
- Support 12-pin port Hirose for the LENS control
- Dual Fiber or Singe-fiber, ODC connector, up to 10km
- LED Status Provide Rapid Indication of Operating Parameters

System Diagram



Camera Adapter Left Panel

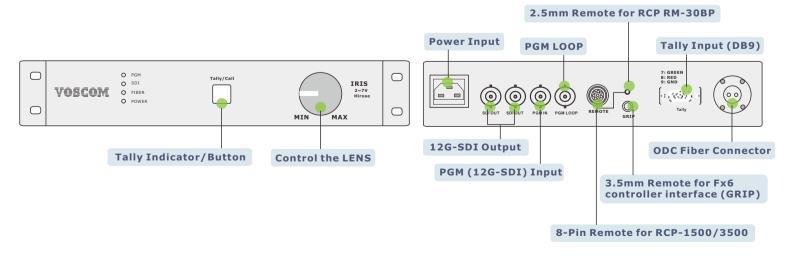


Camera Adapter Right Panel



Base Station Front Panel

Base Station Rear Panel



Ordering Information

Part Number	Description
VOS-4K5S-CU	Camera Unit: 1-Channel 12G-SDI + PGM (Return 12G-SDI) + Remote + Tally V-mount or A-mount Battery power supply or D-tap power input
VOS-4K5S-BU	Base Unit: 1-Channel 12G-SDI + PGM (Return 12G-SDI) + Remote + Tally Stand-alone AC100V~240V power input

Specification

• 12G-SDI		• Optical	
Connector: Data Rate:	1-Ch Bi-Directional 12G-SDI 75 Ohm BNC 12G-SDI, 6G-SDI 3G-SDI, HD-SDI - Auto Select SMPTE 2082(12G-SDI), SMPTE 2081(6G-SDI), SMPTE 424M (3G-SDI), SMPTE 292M (HD-SDI) 4K UHD @ 60Hz	Distance:	Single-Mode, Dual-Fiber 10km 12Gbps 0~-3dB
• Remote		• Electrical & Mechanical	
	8-pin Remote port for RCP-1500/3500	Power Input:	V or A-mount, 9~18VDC D-Tap 9~18V input
Connector2:	2.5mm Remote port for RCP RM-30BP	Weight:	95mm x 47mm x 158mm 0.8kg
Connector3:	3.5mm Remote port for GRIP of SONY FX6		210mm x 180mm x 44mm
• Tally		Weight:	1.5Kg
Channels: Connector:	2 4-pin (Camera unit) DB-9(Base unit)	Operating Temperature: Relative Humidity:	0°C ~+50°C 0%~95% (non-condensing)

12G-SDI Fiber Optic Extender, Mini Type 4K UHD 1-Channel 12G-SDI, 6G-SDI, 3G-SDI



Audio



Data

VOSCOM Mini 12G-SDI Fiber Converter support 1-Channel uncompressed 12G-SDI over one core fiber, also support 6G-SDI, 3G-SDI and HD-SDI. Integrated design combining video processing and optic-electric conversion, with high level of integration and small size, offer unmatched flexibility and cost efficiency. 12G-SDI over one single-mode fiber, the distance up to 10km.

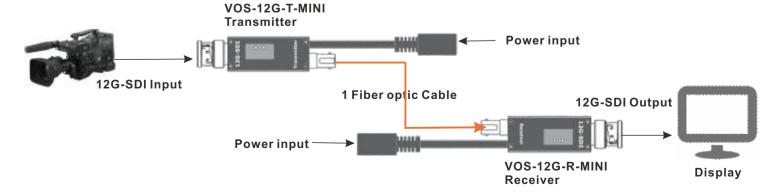
Ethernet

VOSCOM 12G-SDI Fiber converters use a compact, low-profile enclosure that works well in tight spaces around and behind equipment racks, trucks and on camera. and the converters meet all relevant SMPTE specifications, and offering electrical isolation to eliminate potential ground loop problems for a rugged, versatile solution that is suitable for a variety of applications.

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)
- Support Single-mode fiber up to 10km
- LED Status Provide Rapid Indication of Operating Parameters
- No EMI or RFI and no ground loops
- Plug and Play

Typical Configuration



12G-SDI Fiber Optic Extender

Ordering Information

Model Number		Fiber Mode	Wayolongtha	Optical	Maximum
Transmitter	Receiver	riberMode	Wavelengths	Power Budget	Transmission Distance
VOS-12G-T-MINI	VOS-12G-R-MINI	Single-Mode	1470nm	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 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		• Electrical & Mechanical	
Optical Connector: Fiber Type: Rate: Tx Output Power: Receiver Sensitivity:	Single-Mode, Single-Fiber 12Gbps 0~-3dB	Input Power Requirements: Power Adapter: Power Consumption: Stand-Alone Dimensions: Shipping Weight:	AC100V~240V <1.5W
• Connectors		• Environmental	
Video Connector: Optical Connector: Power Connector:	•	Operating Temperature: Storage Temperature: Relative Humidity: MTBF:	-40°C~+85°C 0%~95% (non-condensing)

12G-SDI Fiber Optic Extender 4K UHD 1-Channel 12G-SDI / 6G-SDI / 3G-SDI



System Design

VOS-1H12G-T/R enables fiber-optic transmission of 1-channel uncompressed 12G-SDI, 6G-SDI, or 3G-SDI. It features a loop output for local monitoring and dual outputs for remote displays.

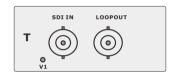
Stand-alone or rack-mount. All 12G-SDI video over Fiber of VOS-1H12G-T/R comes in an insert card version. The cards can be inserted into our 16-slot, 19inch 2U or 4U rack (VOS-CH02, VOS-CH04).

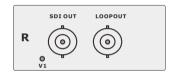
04).

Audio

Panel

Data





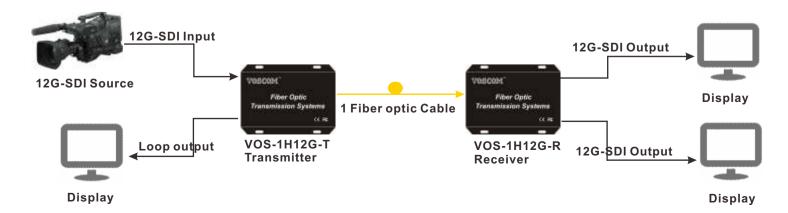


Ethernet

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 20km
- 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 Fiber Optic Extender

Ordering Information

Model Number		Fiber Mode	Wayolongtha	Optical	Maximum Transmission
Transmitter	Receiver	ribei Mode	Wavelengths	Power Budget	Distance
VOS-1H12G-T	VOS-1H12G-R	Single-Mode	1270~1330nm	12dB	20km

Note:

- The Optical Power Budget data fit Mulit-mode(62.5/125 µm), Single-Mode(9/125 µm).
- \bullet When using 50/125 μ m 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 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		• Electrical & Mechanical	
, ,	Single-Mode, Singe-Fiber 12Gbps >-6dB	Input Power Requirements: Power Adapter: Power Consumption: Stand-Alone Dimensions: Shipping Weight:	AC100V~240V <1.5W
• Connectors		• Environmental	
Video Connector: Optical Connector: Power Connector:	· · ·	•	

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



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.

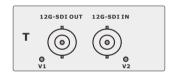


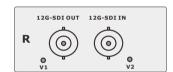
Audio

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

Data





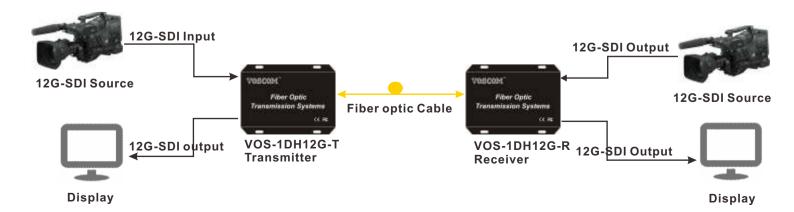


Ethernet

Features

- Support SMPTE 2082 / 2081 / 424M / 292M / 259M or DVB-ASI compliant
- \bullet 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 Fiber Optic Extender

Ordering Information

Model Number		Eibar Mada	Wayalangtha	Optical	Maximum
Transmitter	Receiver	Fiber Mode	Wavelengths	Power Budget	Transmission Distance
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).
- \bullet When using 50/125 μ m 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		• Electrical & Mechanical	
, ,	Single-Mode, Singe-Fiber 12Gbps 0~-3dB	Input Power Requirements: Power Adapter: Power Consumption: Stand-Alone Dimensions: Shipping Weight:	AC100V~240V <1.5W
• Connectors		• Environmental	
Video Connector: Optical Connector: Power Connector:	· · · ·	•	