



## Video Fiber Optical Converter

### Description:


SY video fiber optical converters can simultaneously transmit 1-64 channels of 8-bit digitally encoded broadcast quality video / return or bidirectional data / unidirectional or bidirectional audio / Ethernet / Telephone / Dry contact over one multimode or single-mode optical fiber. These multiplexers are typically used in applications where the cameras have P/T/Z capabilities. Plug and Play design ensures the ease of installation and operation. Electronic and optical adjustments are never required. LED indicators are provided for instantly monitoring system status. Devices are available for either standalone or rack-mount installation, which is suitable for different working environment.



### PRODUCT CHARACTERISTICS:

- 8-bit digitally encoded and non-compression broadcast quality video transmission
- Directly compatible with NTSC, PAL, and SECAM CCTV camera systems and support RS-232, RS-422, and RS-485 data protocols
- Support any high-resolution video signal
- Automatic compatible PAL, NTSC and SECAM video system
- Power supply and other parameter state indication, which can monitor the operation condition of system
- Support no-damage regenerative trunk of video
- Constant input optical power, and large dynamic range, no Electrical or Optical Adjustments Required.
- Special ASIC design.
- Industry-grade of operating temperature from -40 to 85, which is applied to the different working environment
- Hot-swap function
- Stand-alone type or card-type installed in 19" 2U or 4U rack-mount chassis.

**SY video fiber optical converters****Technical Specification**

Video channels	<b>1 channel</b>	
Video bandwidth	8 MHz	
Automatic compatible video system	PAL、 NTSC、 SECAM	
Video input / output impedance	75 Ω(unbalance)	
Video signal-to-noise ratio	≥67dB	
Differential gain	10%-90%APL ) DG <1% ( typical value)	
Differential phase	10%-90%APL ) DP <0.7° ( typical value)	
Video connector	BNC	

<b>Fiber-optic Specification</b>	F/O connector: FC/ST/SC TX : Power:-15 ~ -8dBm    Sensitivity : -35dBm RX : Power:-15 ~ -8dBm    Sensitivity : -35dBm Transmission Distance :20KM (single mode)    Operating Wavelength: TX1310/RX1550nm ( Transmitter ) ; TX1550/RX1310nm ( Receiver )
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**Specification of custom-made options**

<b>Data</b>	<b>Connector: Terminal Blocks</b> Encoded type : RS485 / RS422 / RS232 / Manchester Data rate : 0 - 400Kbps BER: ≤10 <sup>-9</sup>
<b>Audio</b>	<b>Connector: Terminal Blocks</b> Audio input / output impedance :600Ω(Balance/ unbalance) Audio input / output voltage :2Vp-p ( typical value) Audio input / output level :0dBm ( typical value) Video bandwidth:10HZ~12KHZ Audio digital encoded bandwidth :24bit Audio signal-to-noise ratio: S/N≥95dB (weighted)
<b>Telephone</b>	<b>Connector: RJ11</b> Bandwidth :8KHZ Features : Support call-showing function ;support H-F Operating mode : Point to point hotline mode / FXS-FXO
<b>Ethernet</b>	<b>Connector: RJ45</b> Support mode : Half duplex or Full duplex Standards : IEEE802.3 Data rate : 10M / 100Mbps Bandwidth: 25M

- Dimensions:** 11.1(L)×10.7(W)×2.8(H) cm
- Operating Voltage:** DC5V (we will offer external power supply from AC96-240V to DC5V for each unit )
- Operating Temperature:** -40 to +85
- Storing Temperature :** -55 to +85
- Humidity:** 0 to 95% non-condensing
- MTBF :** ≥ 10<sup>5</sup> hours
- Warranty :** 3 years

**Application :**  
 Intelligent Transportation System  
 Connection of Sub-network for Surveillance Center  
 Public Security Surveillance  
 High Way & Toll Station Surveillance  
 Industrial Closed Circuit Television Surveillance

**SY video fiber optical converters****Technical Specification**

Video channels	<b>2 channels</b>	
Video bandwidth	8 MHz	
Automatic compatible video system	PAL、NTSC、SECAM	
Video input / output impedance	75 Ω(unbalance)	
Video signal-to-noise ratio	≥67dB	
Differential gain	10%-90%APL ) DG <1% ( typical value)	
Differential phase	10%-90%APL ) DP <0.7° ( typical value)	
Video connector	BNC	

<b>Fiber-optic Specification</b>	F/O connector: FC/ST/SC TX : Power:-8 ~ -3dBm Sensitivity : -35dBm RX : Power:-15 ~ -8dBm Sensitivity : -24dBm Transmission Distance :20KM (single mode) Operating Wavelength: TX1310/RX1550nm ( Transmitter ) ; TX1550/RX1310nm ( Receiver )
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**Specification of custom-made options**

<b>Data</b>	<b>Connector: Terminal Blocks</b> Encoded type : RS485 / RS422 / RS232 / Manchester Data rate : 0 - 400Kbps BER: ≤10 <sup>-9</sup>
<b>Audio</b>	<b>Connector: Terminal Blocks</b> Audio input / output impedance :600Ω(Balance/ unbalance) Audio input / output voltage :2Vp-p ( typical value) Audio input / output level :0dBm ( typical value) Video bandwidth:10HZ~12KHZ Audio digital encoded bandwidth :24bit Audio signal-to-noise ratio: S/N≥95dB (weighted)
<b>Telephone</b>	<b>Connector: RJ11</b> Bandwidth :8KHZ Features : Support call-showing function ;support H-F Operating mode : Point to point hotline mode / FXS-FXO
<b>Ethernet</b>	<b>Connector: RJ45</b> Support mode : Half duplex or Full duplex Standards : IEEE802.3 Data rate : 10M / 100Mbps Bandwidth: 25M

**Dimensions** : 19.2(L)x17.3(W)x2.8(H) cm**Operating Voltage**: DC5V (we will offer external power supply from AC96-240V to DC5V for each unit )**Operating Temperature**: -40 to +85**Storing Temperature** : -55 to +85**Humidity**: 0 to 95% non-condensing**MTBF** : ≥ 10<sup>5</sup> hours**Warranty** : 3 years**Application :**

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**SY video fiber optical converters**

<b>Technical Specification</b>	
Video channels	<b>4 channels</b>
Video bandwidth	8 MHz
Automatic compatible video system	PAL、 NTSC、 SECAM
Video input / output impedance	75 Ω(unbalance)
Video signal-to-noise ratio	≥67dB
Differential gain	10%-90%APL ) DG <1% ( typical value)
Differential phase	10%-90%APL ) DP <0.7° ( typical value)
Video connector	BNC
<b>Fiber-optic Specification</b>	F/O connector: FC/ST/SC TX : Power:-8 ~ -3dBm    Sensitivity : -35dBm RX : Power:-15 ~ -8dBm    Sensitivity : -24dBm Transmission Distance :20KM (single mode)    Operating Wavelength: TX1310/RX1550nm ( Transmitter ); TX1550/RX1310nm ( Receiver )
<b>Specification of custom-made options</b>	
<b>Data</b>	<b>Connector: Terminal Blocks</b> Encoded type : RS485 / RS422 / RS232 / Manchester Data rate : 0 - 400Kbps BER: ≤10 <sup>-9</sup>
<b>Audio</b>	<b>Connector: Terminal Blocks</b> Audio input / output impedance :600Ω(Balance/ unbalance) Audio input / output voltage :2Vp-p ( typical value) Audio input / output level :0dBm ( typical value) Video bandwidth:10HZ~12KHZ Audio digital encoded bandwidth :24bit Audio signal-to-noise ratio: S/N≥95dB (weighted)
<b>Telephone</b>	<b>Connector: RJ11</b> Bandwidth :8KHZ Features : Support call-showing function ;support H-F Operating mode : Point to point hotline mode / FXS-FXO
<b>Ethernet</b>	<b>Connector: RJ45</b> Support mode : Half duplex or Full duplex Standards : IEEE802.3 Data rate : 10M / 100Mbps Bandwidth: 25M

**Dimensions** :19.2(L)×17.3(W)×2.8(H) cm**Operating Voltage:** DC5V (we will offer external power supply from AC96-240V to DC5V for each unit )**Operating Temperature:** -40 to +85**Storing Temperature** : -55 to +85**Humidity:** 0 to 95% non-condensing**MTBF** : ≥ 10<sup>5</sup> hours**Warranty** : 3 years**Application :**

- Intelligent Transportation System
- Connection of Sub-network for Surveillance Center
- Public Security Surveillance
- High Way & Toll Station Surveillance
- Industrial Closed Circuit Television Surveillance

**SY video fiber optical converters****Technical Specification**


Video channels	<b>8 channels</b>	
Video bandwidth	8 MHz	
Automatic compatible video system	PAL、NTSC、SECAM	
Video input / output impedance	75 Ω(unbalance)	
Video signal-to-noise ratio	≥67dB	
Differential gain	10%-90%APL ) DG <1% ( typical value)	
Differential phase	10%-90%APL ) DP <0.7° ( typical value)	
Video connector	BNC	
<b>Fiber-optic Specification</b>	F/O connector: FC/ST/SC TX : Power:-8 ~ -3dBm    Sensitivity : -35dBm RX : Power:-15 ~ -8dBm    Sensitivity : -24dBm Transmission Distance :20KM (single mode)    Operating Wavelength: TX1310/RX1550nm ( Transmitter ); TX1550/RX1310nm ( Receiver )	
<b>Specification of custom-made options</b>		
<b>Data</b>	<b>Connector: Terminal Blocks</b> Encoded type : RS485 / RS422 / RS232 / Manchester Data rate : 0 - 400Kbps BER: ≤10 <sup>-9</sup>	
<b>Audio</b>	<b>Connector: Terminal Blocks</b> Audio input / output impedance :600Ω(Balance/ unbalance) Audio input / output voltage :2Vp-p ( typical value) Audio input / output level :0dBm ( typical value) Video bandwidth:10HZ~12KHZ Audio digital encoded bandwidth :24bit Audio signal-to-noise ratio: S/N≥95dB (weighted)	
<b>Telephone</b>	<b>Connector: RJ11</b> Bandwidth :8KHZ Features : Support call-showing function ;support H-F Operating mode : Point to point hotline mode / FXS-FXO	
<b>Ethernet</b>	<b>Connector: RJ45</b> Support mode : Half duplex or Full duplex Standards : IEEE802.3 Data rate : 10M / 100Mbps Bandwidth: 25M	

**Dimensions** :19.2(L)×17.3(W)×5.6(H) cm**Operating Voltage:** DC5V (we will offer external power supply from AC96-240V to DC5V for each unit )**Operating Temperature:** -40 to +85**Storing Temperature** : -55 to +85**Humidity:** 0 to 95% non-condensing**MTBF** : ≥ 10<sup>5</sup> hours**Warranty** : 3 years**Application :**

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**SY video fiber optical converters****Technical Specification**

Video channels	<b>16 channels</b>	
Video bandwidth	8 MHz	
Automatic compatible video system	PAL、 NTSC、 SECAM	
Video input / output impedance	75 Ω(unbalance)	
Video signal-to-noise ratio	≥67dB	
Differential gain	10%-90%APL ) DG <1% ( typical value)	
Differential phase	10%-90%APL ) DP <0.7° ( typical value)	
Video connector	BNC	

<b>Fiber-optic Specification</b>	F/O connector: LC (SFP) Tx Power:-8~-3dBm Rx Sensitivity: -22dBm Transmission Distance :20KM (single mode)    Operating Wavelength: TX1310/RX1550nm ( Transmitter ) ; TX1550/RX1310nm ( Receiver )
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**Specification of custom-made options**

<b>Data</b>	<b>Connector: Terminal Blocks</b> Encoded type : RS485 / RS422 / RS232 / Manchester Data rate : 0 - 400Kbps BER: ≤10 <sup>-9</sup>
<b>Audio</b>	<b>Connector: Terminal Blocks</b> Audio input / output impedance :600Ω(Balance/ unbalance) Audio input / output voltage :2Vp-p ( typical value) Audio input / output level :0dBm ( typical value) Video bandwidth:10HZ~12KHZ Audio digital encoded bandwidth :24bit Audio signal-to-noise ratio: S/N≥95dB (weighted)
<b>Telephone</b>	<b>Connector: RJ11</b> Bandwidth :8KHZ Features : Support call-showing function ;support H-F Operating mode : Point to point hotline mode / FXS-FXO
<b>Ethernet</b>	<b>Connector: RJ45</b> Support mode : Half duplex or Full duplex Standards : IEEE802.3 Data rate : 10M / 100Mbps Bandwidth: 25M

**Dimensions** :48.3(L)×22(W)×4.4(H) cm ( 19" 1U )**Operating Voltage:** DC5V (we will offer external power supply from AC96-240V to DC5V for each unit )**Operating Temperature:** -40 to +85**Storing Temperature** : -55 to +85**Humidity:** 0 to 95% non-condensing**MTBF** : ≥ 10<sup>5</sup> hours**Warranty** : 3 years**Application :**

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## Ordering information

### Video/Data/Audio/Ethernet/Telephone Multiplexer

**SY – S 4V 1D A En 3 – T/R F M**

Brand : SY

M : Neutral

S : Single-mode

M : Multi-mode

Channels of video :

1~64V : 1~64channels positive video

positive return bidirectional

Blank : No data

1~n D : 1~n channel unidirectional data

HD : Half duplex

positive return bidirectional

Blank : No audio

1~nA : 1~n channel unidirectional mono audio

positive return bidirectional

Blank : No special choice

O : Dry contact

En : n-channel ethernet

Pn : n-channel telephone

positive return bidirectional

Data coding 1 : RS232

2 : RS422

3 : RS485

T : Transmitter

R : Receiver

F/O connector C : SC

F : FC

T : ST

L : LC

Blank: Normal-type

M : Mini-type

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