# Overview

Our main product, digital fiber optic video transmitter can simultaneously transmit 1-128 channels of 8-bit or 10-bit digitally encoded video/return or bidirectional data/unidirectional or bidirectional audio / Ethernet / Telephone / binary input/output 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 .

**Features**

- 8-bit or 10-bit digitally encoded and non-compression video transmission
- Directly compatible with NTSC, PAL, and SECAM CCTV camera systems and support RS-232, RS-422, and RS-485 data protocols
- 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 -10c to 75c , 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.
- Optical interface: FC,ST, SC (optional)
- Abundant signal interface, such as video, data, audio, telephone, Ethernet, binary input/output and talkback
- Max range 80km

**Application**

- City traffic monitoring system
- Police and safe city monitoring system
- High way security protection and toll station system
- Building and campus monitoring system
- Industrial monitoring(airport, chemical plant, steel, oil, railway, irrigation works, mine and so on)
- Military monitoring(storage, frontier defense, guard, national defense and so on)
- Electronic power oil field, TV station program broadcasting system
- Gymnasium(live video and audio transmission)

# Specifications

## Opitcal

| | |
|---|---|
| Wavelength | 1310nm&1470nm~1610nm |
| Output Power | -10~-3dBm / -3~+2dBm |
| Optic fiber | 50/125u multimode 62.5/125u multimode 9/125u single mode |
| Rx sensitivity | -25dBm |
| Optical connector | FC ST (optional) |
| Distance | 0~2KM (MM) / 0~80KM (SM) |

## Video

| | |
|---|---|
| Number of Channels | 1 |
| Input/output impedance | BNC 75Ω (unbalance) |
| Video bandwidth | 5HZ~8MHZ |
| Standard video input/output voltage | 1.0Vp-p |
| Video voltage range | 0.6~2.0Vp-p |
| Differential Gain | < ±1.5% |
| Differential Phase | < ±1% |
| SNR | >60dB (8 bit) / >70dB (10 bit) |
| Connector | BNC |

## Audio

| | |
|---|---|
| Input/output Impedance | 600ohm(unbalance) |
| Max input/output voltage | 3.0Vp-p |
| Frequency Response | 10 Hz-20kHz @±3dB |
| SNR | > 70dB |
| Connector | Standard terminal lead |

## Data

| | |
|---|---|
| Data protocol | RS232 RS422 RS485 Manchester, BIPHASE data |
| Data rate | 0~200 Kbps |
| Error rate | $< 10^{-9}$ |
| Connector | Standard terminal lead |

## Ethernet

| | |
|---|---|
| Work mode | Full duplex/half duplex |
| Data Rate | 10/100Mbps(AUTO) |
| connection terminal | RJ45 |

## Telephone

| | |
|---|---|
| Connector | Standard RJ11 |
| Phonetic bandwidth | 8KHz |
| Work mode | Point to point hot line, program controlling switch/extension mode |
| Distortion | <1% |

## Binary input/Output

| | |
|---|---|
| Connector | Standard terminal lead |
| Signal input | Alarm, Binary input, support TTL、RS-232/422/485 or passive |

| | |
|---|---|
| | switch button |
| Signal output | Arbitrary alarm, Binary output, support TTL、RS-232/422/485 or relay output |

**Total Weight:** 1kg/pair（with power and package）

**Size：** 85*52*22

**Operating Voltage:** DC 5V (we will offer external power supply from AC100-240V to DC 5V for each unit)

**Operating Temperature :** -10℃~ +75℃

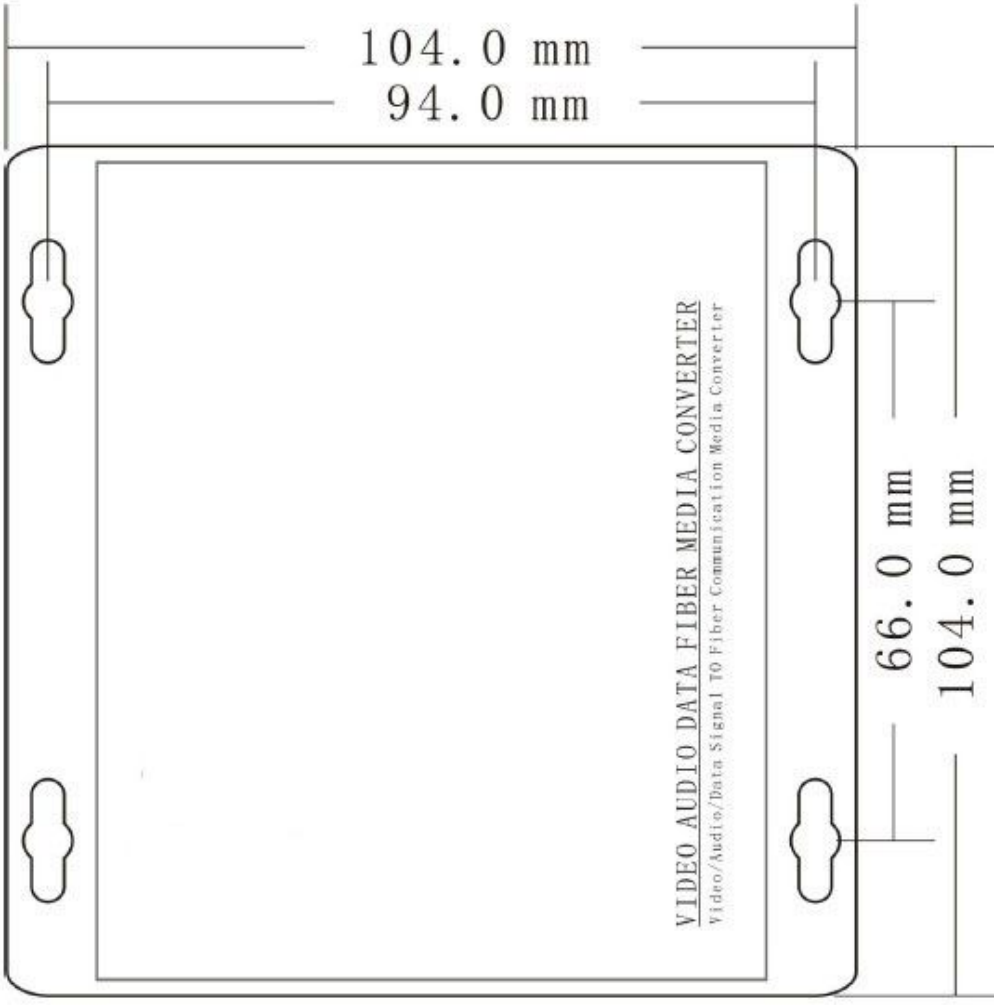
**Storing Temperature :** -40℃~ +85℃

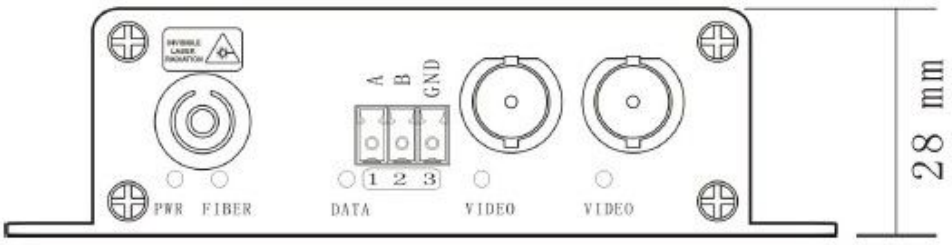
**Humidity:** 0~95% Non-condensing

**MTBF :** ≥ 100000Hours

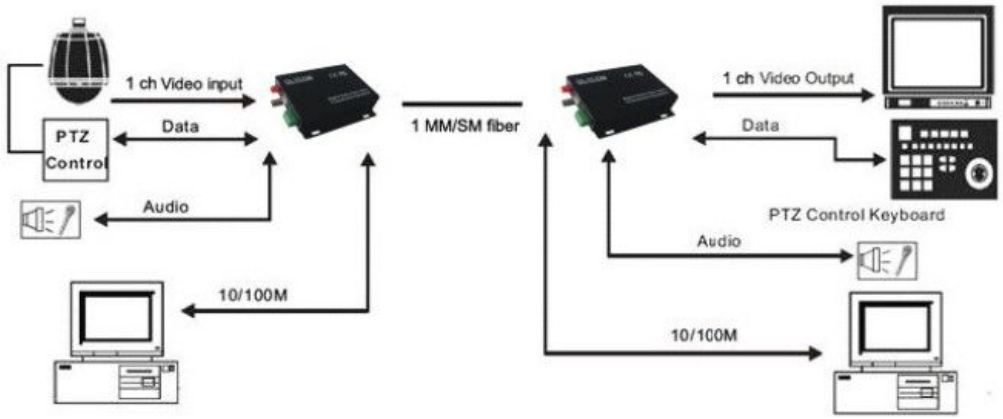
**Warranty:** 3 years

**Standalone Dimensions:**






## System design:




## Ordering information

B a b c d e f g h i -(j k)

A：AV；V：VGA；D：DVI；H：HDMI

T：Transmitter，R：receiver

Number of Forward Video Channels，0~9：0~9 Channels；

H：16 Channels；X 32 Channels

Number of Reverse Video Channels，0~9：0~9 Channels；

H：16 Channels；X 32 Channels

Number of Forward Audio or Data Channels，0~9：0~9 Channels；

H：16 Channels；X 32 Channels

Number of Forward Audio or Data Channels，0~9：0~9 Channels；

H：16 Channels；X 32 Channels

M：multimode fiber，S：single mode fiber

S：single fiber，D：dual fiber，M：multi- fiber

Optical connector，1：FC/PC；2：ST/PC；3：SC/PC；4：FC/APC；5：SC/APC

A：Audio Signals； D：Data signals； K：Binary input/Output Signals. The front Arabic number represents the number of signal channel； E：Ethernet signals. The front Arabic number represents the number of signal channel； P：Telephone signals