# Fiber Optic Video & Data Transmission
# 1-Channel Video + 1 Duplex Data + IP Ethernet

1 Video

Audio

1 Data

1 Ethernet

## System Design

Fiber Optic Video & Data Transmitter & Receiver VOS-10101FDET/R can transmission 1-Channel digital composite video, 1 duplex data, and 10M/100M Ethernet, Data support RS485, RS232, RS422 protocols. Ideal for Broadcast /Studio ,CCTV and Professional AV applications.

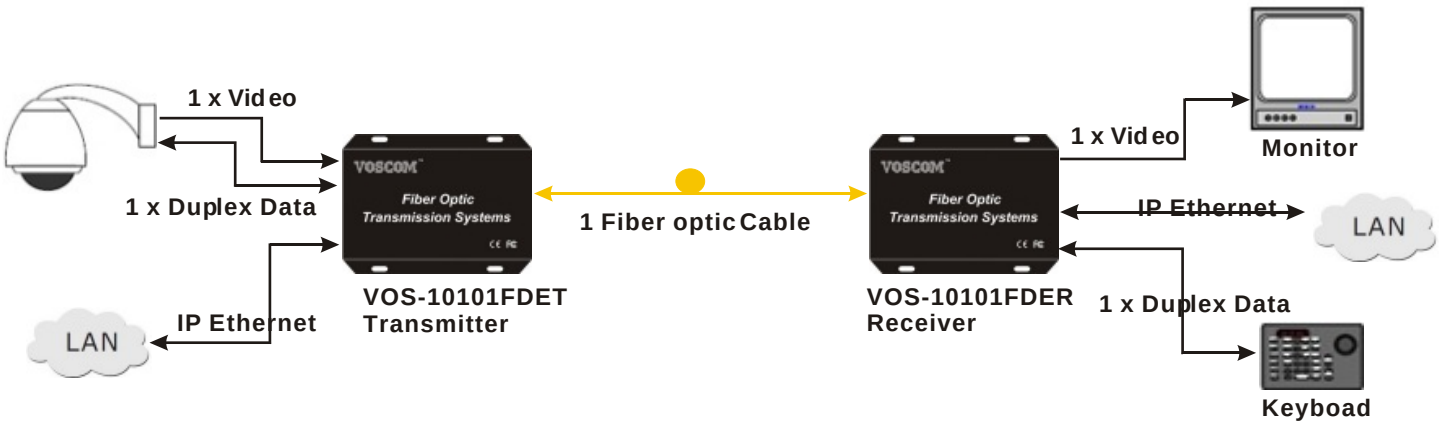

Stand-alone or rack-mount. All units of VOS-10101FDET/R come in an insert card version. The cards can be inserted into our 14-slot, 19inch 4U or 6U rack-mountable card cage (VOS-CH04 or VOS-CH06).

Single-Mode or Multi-Mode, VOS-10101FDET/R can support FC /PC or ST/PC Optical connector, can be used in Daisy-Chain system (Need to customize). The Transmission distance range according to the Optical Budget. Manufacturer's standard is: Single-mode 20km or Multi-mode 2km.

## Features

- Support Point-to-Point or Daisy-Chain connection
- Uncompressed Digital Composite Video over one fiber
- Data support RS485(2-wire or 4-wire),RS232,RS422, Contact Closure
- Compatible with all PAL, NTSC,SECAM Video Systems
- Multi-mode Fiber Support for Distances up to 2.0 km
- Single-Mode Fiber Support for Distances up to 100 km
- LED Status Provide Rapid Indication of Operating Parameters
- No EMI or RFI and no ground loops
- Stand alone or rack-mount

## Typical Configuration



## Ordering Information

| Model Number | | Fiber Mode | Wavelengths | Optical Power Budget | Maximum Transmission Distance |
|---|---|---|---|---|---|
| Transmitter | Receiver | | | | |
| VOS-10101FDEMT | VOS-10101FDEMR | Multi-Mode | 1310nm/1550nm | 16dB | 2km |
| VOS-10101FDEST | VOS-10101FDESR | Single-Mode | 1310nm/1550nm | 12dB | 20km |
| VOS-10101FDEST-4 | VOS-10101FDESR-4 | Single-Mode | 1310nm/1550nm | 18dB | 40km |
| VOS-10101FDEST-6 | VOS-10101FDESR-6 | Single-Mode | 1310nm/1550nm | 25dB | 60km |

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 Video |
| Input/output impedance: | BNC 75Ω |
| Input/output Compatibility: | PAL, NTSC, SECAM |
| Input/output voltage: | 1.0 Volt p-p |
| Bandwidth: | 6.5MHZ |
| Bit Resolution: | 8-Bit Digital Transmission |
| Differential Gain: | < 1.5% |
| Differential Phase: | < 1.5° |
| Tilt: | < 5% |
| Signal-to-Noise Ratio(SNR): | > 67 dB |

### • Data

| | |
|---|---|
| Data Formats: | RS485(2-wire or 4-wire), RS232/422,Contact Closure |
| 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: | 75Ω BNC (Gold Center Pin) |
| Data: | Terminal Block |
| Optical: | 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: | < 3W |
| Stand-Alone Dimensions: | 142mm × 107mm × 25mm |
| Card for 4U Rack Dimensions: | 145mm × 170mm × 20mm |
| Shipping Weight: | 1.8kg (include TX & RX) |

### • Environmental

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