## Fiber Optic Serial Data Transmission
## 8-Channel Duplex Rs485 Serial Data over Fiber

### System Design

*Video*

*Data*

Fiber Optic Serial Data Transmitter & Receiver
VOS-8FOM-D485T/R provides for the digital transmission of 8-Channel duplex Rs485 serial data signal over one fiber.
Applications for PTZ Control for CCTV Surveillance Systems, Access Control System, Industirlia control, Data Control for Manufacturing / Assembly Platforms, ITS…etc.

*Audio*

Stand-alone or rack-mount. All units of VOS-8FOM-D485T/R come in an insert card version. The cards can be inserted into our our 14-slot, 19inch 4U or 6U rack-mountable card cage (VOS-CH04 or VOS-CH06). The card version of this model require two slots widths.
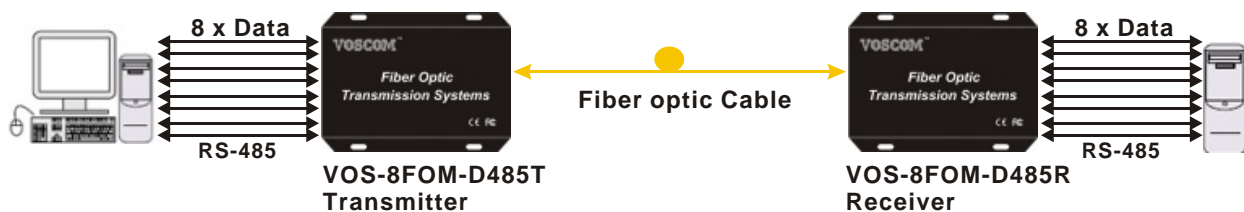
*Ethernet*

Single-Mode or Multi-Mode, VOS-8FOM-D485T/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
- Rs485 Serial data over one fiber
- 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
- Produce according to customer's specifications, providing OEM

### Typical Configuration

**8 x Data**

**RS-485**

**VOS-8FOM-D485T
Transmitter**

**Fiber optic Cable**

**8 x Data**

**RS-485**

**VOS-8FOM-D485R
Receiver**

## Ordering Information

| Model Number | | Fiber Mode | Wavelengths | Optical Power Budget | Maximum Transmission Distance |
| Transmitter | Receiver | | | | |
|---|---|---|---|---|---|
| VOS-8FOM-D485MT | VOS-8FOM-D485MR | Multi-Mode | 1310nm | 16dB | 2km |
| VOS-8FOM-D485ST | VOS-8FOM-D485SR | Single-Mode | 1310nm | 12dB | 20km |
| VOS-8FOM-D485ST-4 | VOS-8FOM-D485SR-4 | Single-Mode | 1310nm | 18dB | 40km |
| VOS-8FOM-D485ST-6 | VOS-8FOM-D485SR-6 | Single-Mode | 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

- Serial Data

  Number of Channels: 8-Channel Duplex Rs485 Serial Data
  Data Formats: Rs485 Data, 2-wire
  Data Rate: DC to 115.2Kbps
  Bit Error Rate: < 10E-9

- Connectors

  Serial 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@3A
  Power Adapter: AC 100V~240V
  Power Consumption: < 5W
  Stand-Alone Dimensions: 176.5mm × 158mm × 59mm
  Card for 4U Rack Dimensions: 145mm × 170mm × 45.4mm
  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