

### Fiber Optic Video & Audio & Data Transmission

1-Channel Video + 2 Simplex Audio + 1 Duplex Data over Fiber

1 →  
Video

#### System Design

Fiber Optic Video & Audio & Data Transmitter / Receiver  
VOS-1210FFDT/R provides for the digital transmission of 1-Channel Composite Video and 2 Simplex audio and duplex data. Data support RS485, RS232, RS422 protocols. Ideal for Broadcast /Studio, CCTV audio and Professional AV applications.



2 →  
Audio

Stand-alone or rack-mount. All units of VOS-1210FFDT/R come in an insert card version. The cards can be inserted into our 14-slot, 19inch 4U rack-mountable card cage (VOS-CH04).

1 ↔  
Data

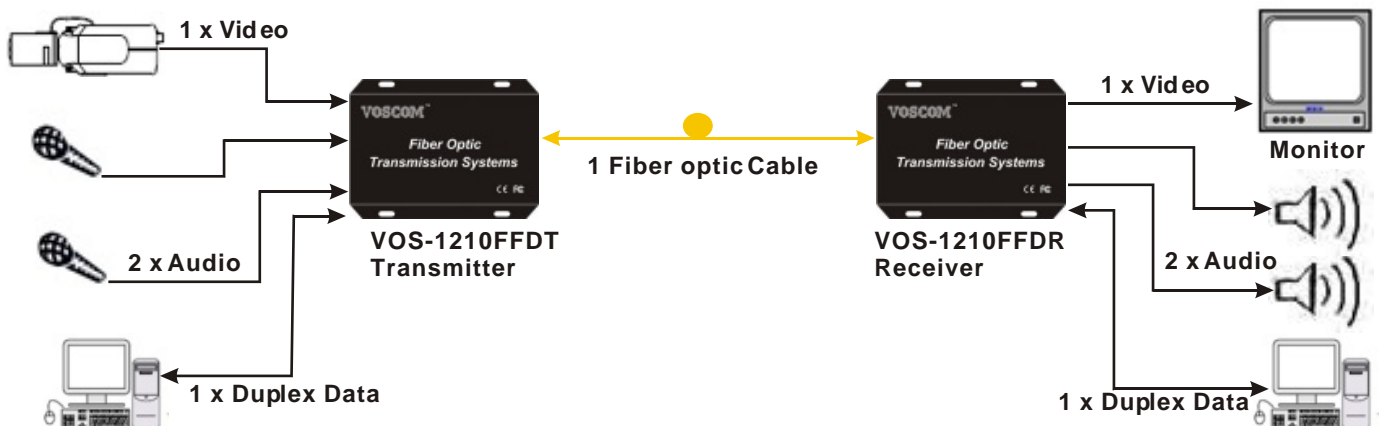
Single-Mode or Multi-Mode, VOS-1210FFDT/R can support FC /PC or ST/PC Optical connector, can be used in Daisy-Chain system (Need to customize). The Transmission distance range according to the Optical Budget.

Ethernet

#### Features

- Support Point-to-Point or Daisy-Chain connection
- Uncompressed Digital Composite Video over one fiber
- 24-Bit Digitally Encoded Audio 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
- Support Coarse Wavelength Division Multiplexing (CWDM)
- Stand alone or rack-mount
- Produce according to customer's specifications, providing OEM

#### Typical Configuration



# Video & Audio & Data over Fiber

## Ordering Information

Model Number		Fiber Mode	Wavelengths	Optical Power Budget	Maximum Transmission Distance
Transmitter	Receiver				
VOS-1210FFDMT	VOS-1210FFDMR	Multi-Mode	1310nm/1550nm	16dB	2km
VOS-1210FFDST	VOS-1210FFDSR	Single-Mode	1310nm/1550nm	12dB	20km

### Note:

- The Optical Power Budget data fit Multit-mode(62.5/125  $\mu$ m), Single-Mode(9/125  $\mu$ m).
- When using 50/125  $\mu$ 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

<ul style="list-style-type: none"> <li>• Video                             <ul style="list-style-type: none"> <li>Number of Channels: 1-Channel Video</li> <li>Input/output impedance: BNC 75<math>\Omega</math></li> <li>Input/output Compatibility: PAL, NTSC, SECAM</li> <li>Input/output voltage: 1.0 Volt p-p</li> <li>Bandwidth: 6.5MHZ</li> <li>Bit Resolution: 8-Bit Digital Transmission</li> <li>Differential Gain: &lt; 1.5%</li> <li>Differential Phase: &lt; 1.5<math>^{\circ}</math></li> <li>Tilt: &lt; 5%</li> <li>Signal-to-Noise Ratio(SNR): &gt; 67 dB</li> </ul> </li> <li>• Audio                             <ul style="list-style-type: none"> <li>Number of Channels: 2-Channel Simplex Audio</li> <li>Audio input/output Level: 6 dBm</li> <li>Audio in/output impedance: 600<math>\Omega</math> Balanced/Unbalanced</li> <li>Bandwidth: 10Hz ~ 20KHz</li> <li>Bit Resolution: 24-Bit</li> <li>Signal-to-Noise Ratio(SNR): &gt; 80 dB</li> </ul> </li> <li>• Data                             <ul style="list-style-type: none"> <li>Data Formats: RS485(2-wire or 4-wire), RS232/422, Contact Closure</li> <li>Data Rate: DC to 115.2Kbps</li> <li>Bit Error Rate: 10E-9</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Connectors                             <ul style="list-style-type: none"> <li>Video: 75<math>\Omega</math> BNC (Gold Center Pin)</li> <li>Audio: Terminal Block</li> <li>Data: Terminal Block</li> <li>Optical: FC (standard), ST Optional</li> <li>Stand-Alone Power: Screw terminal block</li> <li>Rack Power: AC line cord</li> </ul> </li> <li>• Electrical &amp; Mechanical                             <ul style="list-style-type: none"> <li>Input Power Requirements: DC 5V@2A</li> <li>Power Adapter: AC 100V~240V</li> <li>Power Consumption: &lt; 3W</li> <li>Stand-Alone Dimensions: 142mm <math>\times</math> 107mm <math>\times</math> 25mm</li> <li>Card for 4U Rack Dimensions: 145mm <math>\times</math> 170mm <math>\times</math> 20mm</li> <li>Shipping Weight: 1.8kg (include TX &amp; RX)</li> </ul> </li> <li>• Environmental                             <ul style="list-style-type: none"> <li>Operating Temperature: -45<math>^{\circ}</math> C ~ +75<math>^{\circ}</math> C</li> <li>Storage Temperature: -45<math>^{\circ}</math> C ~ +85<math>^{\circ}</math> C</li> <li>Relative Humidity: 0%~95% (non-condensing)</li> <li>MTBF: &gt;100,000 hours</li> </ul> </li> </ul>
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Due to continuous improvement, all products specifications are subject to change without further notice. Contact us for custom requirements. E-mail: [Sales@voscom.com](mailto:Sales@voscom.com) Website: [www.voscom.com](http://www.voscom.com)