

**10 bit digital video with reverse data**

Model:  
VDS1450-T  
VDS1450-R

**Description**

The VDS1450 model provides for the simultaneous transmission of 10bit digital encoding 4 video signal and 1 reverse data signals over one multimode or single mode optical fiber



**CHANNEL AVAILABILITY**

(Specify at time of order)

	<u>Forward Path</u>	<u>Reverse Path</u>
Number of Video	0 to 4	
Number of Audio	0 to 2	0 to 2
Number of Data	0 to 3	0 to 3
Number of Ethernet		

**Features**

- 4-channel video with 1-channel data transmitters and receivers
- 10 bit uncompressed digital video
- Video input with AGC (Automatic gain control)
- Anti-lightning chips on both Video and Data interface
- No In-field Electrical or Optical Adjustments Required
- NTSC, PAL, SECAM auto compatible
- Power, Video Presence, Data In/Out, and Fiber Status Indicating LED's to Monitor System Performance
- Hot swappable rack-mount cards
- 12 VDC or 24 VAC power supply
- Industry standard connectors

**Ordering information**

Models	Wavelength	Fiber Type	MAX. Distance
VDS1450-MT VDS1450-MR	1310/1310nm	MM	2Km
VDS1450-MT VDS1450-MR	1310/1550nm	SM	20km (40/60/80 km optional)

\*Optical transmission distance is limited to optical loss of the fiber and additional loss introduced by connectors, splices and patch panels. Distance can also be limited by fiber bandwidth. \*\*For 50/125 Fiber, subtract 4 dB from optical power budget.



## Specifications

### Video (4x)

Video format	PAL/ NTSC/SECAM
Video Input	0.5 ~ 2Vpp
Video Output	1Vp-p
Bandwidth (-3 dB)	8 MHz
Encoding	10bit
Differential gain	≤1%
Differential phase	≤1°
SNR	≥63 dB
Connector type	BNC 75Ω

### Data

Data Protocol	RS-232, RS-422, 2 or 4-wire RS-485 and Manchester
Data rate	DC to 115 Kbps
Data Rate:	<10 <sup>-9</sup>
Connectors	Terminal Block with Screw Clamps

### Optical

Wavelengths	1310/1550nm
Fiber type	SM/MM
Budget (system)	12dB
Output power	-5 ~ -10dBm
Receiver Sensitivity	-24dBm
Connector type	FC (SC or ST optional)

### Power/Environmental

Stand-alone	6W
Rack-mount	6W
Power adaptor	220VAC to 12VDC/1A
Operating temperature	-40°C to +70°C
Relative humidity	< 95% (non-condensing)
MTBF	>100,000 Hrs

### Mechanical

Stand-alone Dimensions (mm)	260L x 205W x 45H
Rack-mount Dimensions (mm)	260L x 173W x 40H
Stand-alone Weight (kg)	2.5
Rack-mount Weight (kg)	1.5

## System Design

