

Model:
VDS2478-E

Description

The VDS2478-E model provides for the simultaneous transmission of 4 video signals, 8 audio signals, 7 data signals and Ethernet over one multimode or single mode optical fiber. The use of 10-bit video sampling provides extremely high video quality. DIP selectable RS-232, RS-422, RS-485 2-wire or 4-wire, Manchester or Bi-phase and contact closure signal. The modules are available in either stand-alone or rack mount versions.



CHANNEL AVAILABILITY

(Specify at time of order)

Number of Video
Number of Audio
Number of Data
Number of Ethernet

Forward Path

0 to 4
0 to 8
0 to 7
1

Reverse Path

0 to 4
0 to 8
0 to 7
1

Features

- 4-channel video with 8-channell audio, 7-channel data and Ethernet transmitters and receivers
- 10 bit uncompressed digital video
- 24 bit digitally encoded audio
- Factory default setting RS-232 data protocol, DIP selectable RS-422, RS-484 2-wire or 4-wire, Manchester or Bi-phase and contact closure
- 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
VDS2478-E-MT	1310/1310nm	MM	2Km
VDS2478-E-MR			
VDS2478-E-MT	1310/1550nm	SM	20km (40/60/80km optional)
VDS2478-E-MR			

*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 (X4)

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

Audio (X8)

Input/output level	2Vp-p
Total harmonic distortion	≤1%
Bandwidth (-3 dB)	20~15KHz
Encoding	24bit
Input/output impedance	600Ω or 100KΩ
SNR	≥70 dB
Connector type	Terminal Block with Screw Clamps
Ethernet Rate	10/100Mbps

Data (X7)

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

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

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)

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

