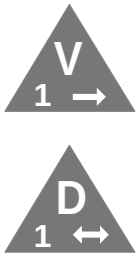
OSD8816T/OSD8816R DIGITAL VIDEO + DATA MODEM PAIR



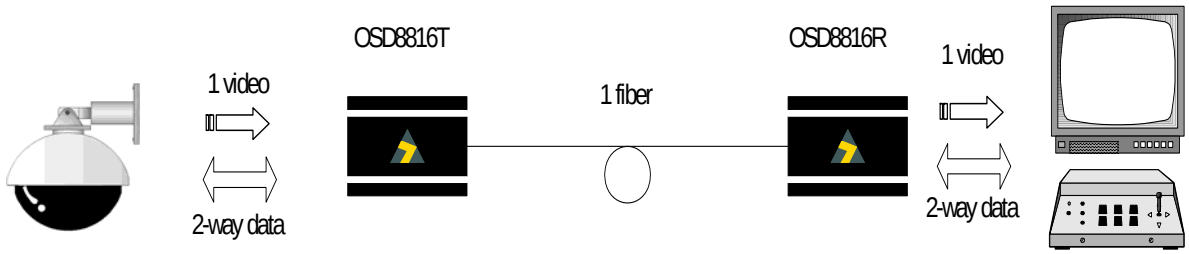
APPLICATIONS

- High quality CCTV networks requiring full duplex or reverse data transmission between cameras and their control centre
- Transportation communications systems

FEATURES AND BENEFITS

- One way optic transmission of PAL, NTSC or SECAM video plus either both way or reverse transmission of one data channel
- Broadcast quality 10 bit video maintained over all link lengths
- Video bandwidth of 10MHz
- Single fiber operation
- Remote control of Pan, Tilt and Zoom for video surveillance.
- Transmission of alarm or control signal from the camera site.
- Operating range of at least 3km on multimode and 80km on singlemode fiber, depending on optical devices.
- The same receiver (OSD8816R) used with either singlemode or multimode fiber. The OSD8816TL transmitter is used with singlemode fiber and the OSD8816T is used with multimode fiber.

TYPICAL APPLICATION DESIGN



ORDERING INFORMATION

OSD8816T	Video transmitter with 1 duplex data channel	Option L	Singlemode operation
OSD8816R	Video receiver with 1 duplex data channel	Option C	Module version
Option R	Contact transmission from OSD8816T to OSD8816R		

SPECIFICATIONS

ELECTRICAL

Video Input/Output Impedance	75Ω
Video Input/Output Level	1Vpp nominal
Video Connector	BNC
Video Bandwidth	5Hz to 10MHz ±1dB
Video Distortion	<0.7% DG, <0.7° DP
Weighted Video Signal to Noise Ratio	>65dB for 10-bit operation
(at all receive levels over full dynamic range	>63dB for 9-bit operation
Data Interface	TTL, RS232, RS422 and RS485 31kHz Manchester or Biphase possible in either direction
Optional contact transmission (from OSD8816T to OSD8816R only)	optoisolated MOSFET output at OSD8816R
Data Rate	DC to >1.0Mbps
Data Connector	8 way terminal block with screw clamps

OPTICAL

Number of fibers required	One only
OSD8816T Transmitter Wavelength	1310nm
OSD8816TL Transmitter Coupled Power	>-11dBm into singlemode fiber
OSD8816T Transmitter Coupled Power	>-14dBm into multimode fiber
OSD8816R Transmitter Wavelength	1550nm
OSD8816R Transmitter Coupled Power	>-15dBm into singlemode or multimode fiber
OSD8816R Receiver Sensitivity	<-27dBm (singlemode fiber) <-24dBm (multimode fiber)
OSD8816R Receiver Saturation	>-3dBm
OSD8816TL Sensitivity	<-36dBm (singlemode fiber)
OSD8816T Sensitivity	<-25dBm (multimode fiber)
OSD8816TL/OSD8816T Receiver Saturation	>-6dBm
Optical Link Budget and Distances	>10dB: >3km on multimode fiber @ 1310nm (fiber bandwidth limited) >16dB: >30km on singlemode fiber @ 1310nm (fiber loss limited) >30dB: >80km on singlemode fiber @1310nm for an OSD8816 link with high power devices (contact OSD for details)
Optical Connectors	ST standard, others optional

PHYSICAL

	OSD8816T	OSD8816R
Dimensions of Module (mm)	114W x 105D x 31H	
Weight of Module	350g	
Dimensions of Card (mm)	25W x 208D x 100H	
Weight of Card	200g	
Power Requirements	+9 to 40VDC or 11 to 25VAC @ 300mA	
Operating Temperature	-20 to +75°C	
Relative Humidity	0 to 95% non-condensing	
Indicators	Tx Video Present Data Present Optical Signal OK	Rx Video Present Data Present Optical Signal OK

OSD8816PP Power Adapter

Mains input	90 to 264VAC ±15%, moulded plug
DC output	+12VDC nominal, 400mA max, One 2-pin power plug on flying lead
Dimensions (mm)	65D x 45W x 48H

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Specifications contained herein are correct at the time of printing. We reserve the right to alter specifications without notice.