

APPLICATIONS

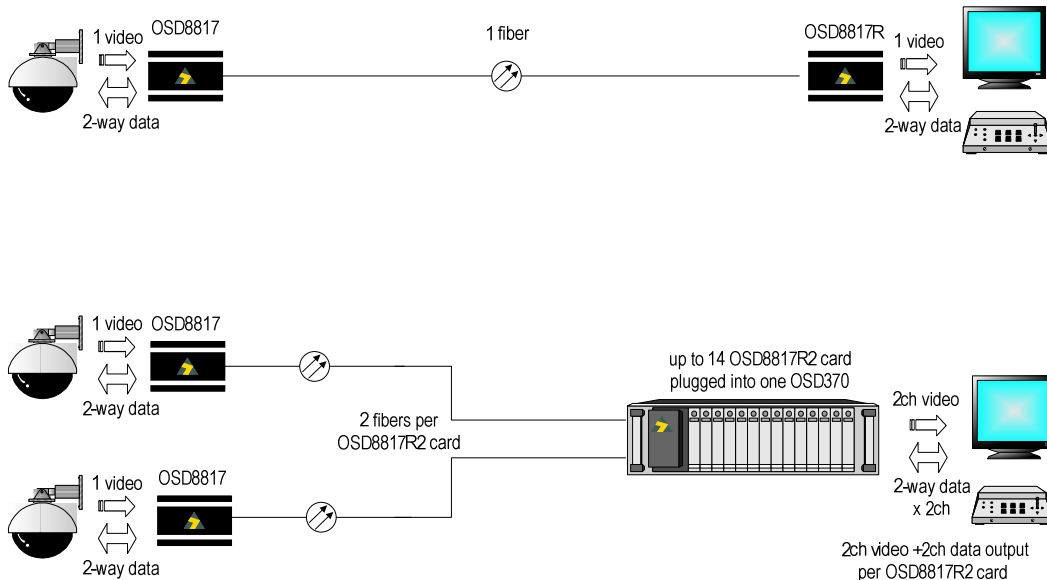
- ▲ High quality CCTV networks requiring full duplex data and contact closure transmission between cameras and their control centre
- ▲ Transportation communications systems

FEATURES AND BENEFITS

- ▲ One way optic transmission of PAL, NTSC or SECAM video plus duplex transmission of one data channel and forward path transmission of a contact closure.
- ▲ Broadcast quality 10 bit video maintained over all link lengths.
- ▲ Video bandwidth of 8MHz.
- ▲ Transmitter data interface configuration controlled by receiver.
- ▲ Single fiber operation.
- ▲ Transmitter is a very compact design that fits into most camera housings.
- ▲ Receiver available either as a single channel card (OSD8817R) or module (OSD8817RC) or as a dual channel card (OSD8817R2).
- ▲ Optional network monitoring available.
- ▲ Operates over either up to 3km of multimode fiber or up to 80km of singlemode fiber, depending on optical devices used.
- ▲ Two optional one way audio channels.



TYPICAL APPLICATION DESIGN



ORDERING INFORMATION

OSD8817T Video transmitter module with 1 duplex data channel and forward alarm channel
 OSD8817R Video receiver with 1 duplex data channel
 OSD8817R2 2-channel version of OSD8817R

Option C Module version of receiver cards
 Option A Two audio channels with the video
 Option N Network Monitoring System



SPECIFICATIONS

ELECTRICAL

Video Input/Output Impedance	75Ω
Video Input/Output Level	1Vpp nominal
Video Connector	BNC
Video Bandwidth	5Hz to 8MHz +1,-3dB
Video Distortion	<0.8% DG, <0.8° DP
Weighted Video Signal to Noise Ratio	>65dB at all receive levels over full dynamic range
Data Interface	TTL, RS422 and RS485
Data Rate	31kHz Manchester or Biphasic possible in either direction
OSD8817R System Controls (for both ends)	DC to >500kbps at less than 15% pulse width distortion
Contact transmission	RS422 or RS485
Data Connector	2W or 4W RS485
Optional One Way Audio Channels Bandwidth	Buffered input at OSD8817T, MOSFET output at OSD8817R
Audio Input/Output impedance	6-way RJ12
Audio Input Level	10Hz to 20kHz +1,-3dB
Audio Output Level	>10KΩ/<200Ω
Audio Headroom	250mVrms nominal
Audio Weighted Signal to Noise Ratio	250mVrms nominal
Audio Distortion	15dB
Audio Connector	>90dB at maximum level
	<0.05%
	3.5mm stereo socket

OPTICAL

Number of fibers required	One only
OSD8817T Transmitter Wavelength	1310nm
OSD8817T Transmitter Coupled Power	-10 to -5dBm into multimode fiber
	-13 to -6dBm into singlemode fiber
OSD8817R Transmitter Wavelength	1550nm
OSD8817R Transmitter Coupled Power	-9 to -4dBm into multimode fiber
	-10 to -5dBm into singlemode fiber
OSD8817R Receiver Sensitivity	<-27dBm
OSD8817R Receiver Saturation	>-3dBm
OSD8817T Sensitivity	<-32dBm
OSD8817T Receiver Saturation	>-3dBm
Optical Link Budget and Distances	>17dB: >3km on multimode fiber @ 1310nm (fiber bandwidth limited)
	>14dB: >30km on singlemode fiber @ 1310nm (fiber loss limited)
	>30dB: >80km on singlemode fiber @1310nm for an OSD8817 link with high power devices (contact OSD for details)
Optical Connectors	ST standard, others optional (contact OSD for details)
OSD8817T Indicators	Local Receive Sync OK
	Remote Receive Sync OK
OSD8817R Indicators	Local Receive Sync OK
(Two sets for OSD8817R2)	Remote Receive Sync OK
	Rx Video Present

PHYSICAL

Dimensions of OSD8817T Module (mm)	40W x 25H x 55L
Weight of OSD8817T Module	50g
Dimensions of OSD8817R Module (mm)	60W x 26H x 93L
Weight of OSD8817R Module	250g
Dimensions of OSD8817R Card (mm)	25W x 208D x 100H
Weight of Card	200g for OSD8817R and 250g for OSD8817R2
Power Requirements	+9 to 35VDC or 20 to 28VAC @ 3VA for OSD8817T, OSD8817R and OSD8817RC
	+9 to 35VDC or 20 to 28VAC @ 5VA for OSD8817R2 dual receiver card
Operating Temperature	-20 to +75°C
Relative Humidity	0 to 95% non-condensing
Chassis Current Consumption (CCC)	0.25 Amp for OSD8817R
	0.40 Amp for OSD8817R2

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