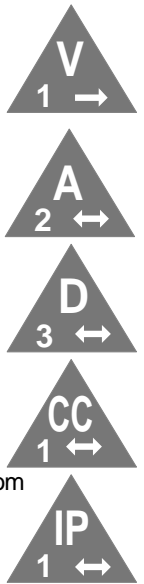


OSD840 DIGITAL VIDEO, ETHERNET DATA AND AUDIO TRANSMISSION SYSTEM

APPLICATIONS

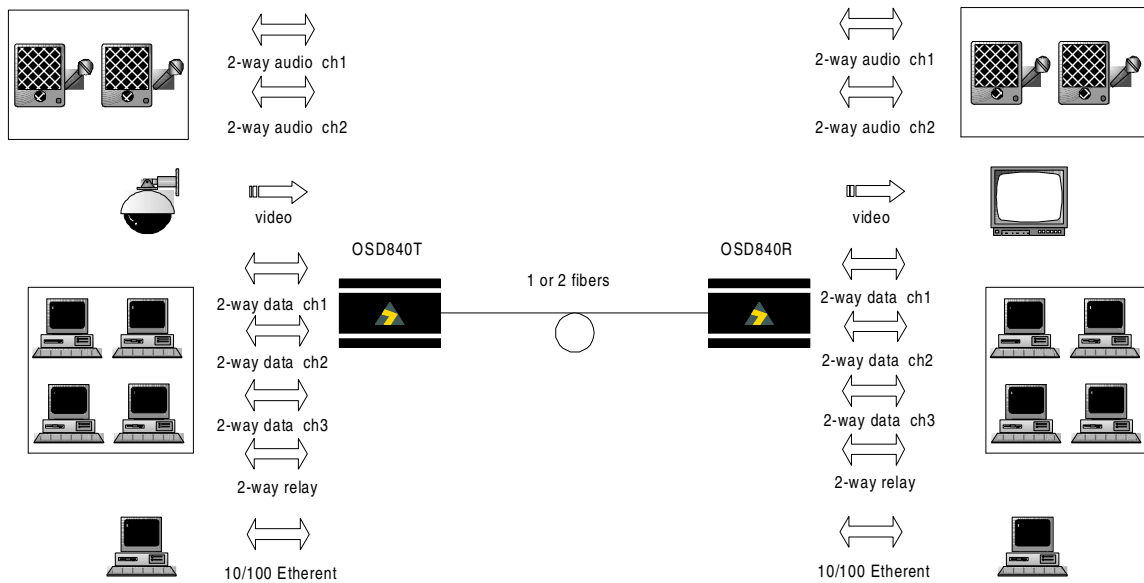
- ▲ High quality CCTV networks requiring full duplex ethernet, data and/or audio transmission between cameras and their control centre
- ▲ Transportation communications systems
- ▲ Broadcast television systems
- ▲ Extremely high quality video conferencing



FEATURES AND BENEFITS

- ▲ One way optical fiber transmission of PAL, NTSC or SECAM video plus full duplex transmission of
 - one 10/100 Base-T Ethernet channel
 - two audio channels
 - three data channels
 - one relay contact channel
- ▲ Studio quality 10 bit video and 24 bit audio
- ▲ Video bandwidth of 10MHz
- ▲ Remote control of Pan, Tilt and Zoom for video surveillance.
- ▲ Transmission of alarm and control signals from the camera site.
- ▲ Full duplex 2-wire audio intercom with 100Hz to 5kHz bandwidth and associated on hook/off hook signalling
- ▲ Operating range of at least 3km on multimode and 100km on singlemode fiber, depending on optical devices
- ▲ Video input has a 3dB overload capability and can be equalised for up to 300m of coaxial cable

TYPICAL APPLICATION DESIGN



ORDERING INFORMATION

OSD840T	Video transmitter with 1 Ethernet, 2 duplex audio and 4 data channels	Option C	Module version
OSD840R	Video receiver with 1 Ethernet, 2 duplex audio and 4 duplex data channels	Option LDN	1310nm and 1550nm lasers
		Option W	Single fiber operation



SPECIFICATIONS

ELECTRICAL

Video Input/Output Impedance	75Ω
Video Input/Output Level	1Vpp nominal
Video Connector	BNC
Video Bandwidth	5Hz to 10MHz ±1dB
Video Distortion	<0.5% DG, <0.5° DP
Weighted Video Signal to Noise Ratio	>67dB at all receive levels over the unit's full dynamic range
Audio Input/Output Impedance	>10KΩ/<200Ω
Audio Bandwidth	10Hz - 22kHz ±1dB
Audio Input & Output Level	0dBu (0.775Vrms) nominal, balanced or unbalanced
Audio Headroom	20dB balanced, 15dB unbalanced
Audio Signal to Noise Ratio	>100dB at maximum level
Audio Distortion	<0.02%
Data Interface	TTL, RS232, RS422 and RS485
Data Rate	31kHz Manchester or Biphasic possible in either direction DC to >40Kbps on 3 data channels DC to >100bps on relay channel
Audio and Data Connectors	26 pin female subminiature high density D connector
Ethernet	IEEE Ethernet standards at 10/100Mbps
Ethernet Connector	RJ45

OPTICAL

Transmitter Wavelength	850nm (1310nm for OSD840TL or OSD840RL options)
OSD840T Transmitter Coupled Power	-15 to -5dBm into multimode fiber -15 to -3dBm into singlemode fiber (OSD840TL only)
OSD840R Transmitter Coupled Power	-20 to -14dBm into multimode fiber -20 to -10dBm into singlemode fiber (OSD840RL only)
OSD840R Receiver Sensitivity	<-29dBm
OSD840R Receiver Saturation	>-3dBm
OSD840T Sensitivity	<-37dBm
OSD840T Receiver Saturation	>-10dBm
Link Distances	>2km multimode for standard 850nm OSD840 link (fiber bandwidth limited) >3km multimode for optional 1310nm OSD840L link (fiber bandwidth limited) >30km singlemode for optional 1310nm OSD840L link (fiber loss limited)
Optical Connectors	ST standard, others optional

PHYSICAL

Dimensions of Module (mm)	104W x 144D x 44H
Weight of Module	400g
Dimensions of Card (mm)	50W x 208D x 100H
Weight of Card	200g
Power Requirements	+12V to 24VDC @ 300mA
Operating Temperature	-20 to +75°C
Relative Humidity	0 to 95% non-condensing
Indicators	Laser OK Tx or Rx Video Present Rx Data Present Optical Signal OK Ethernet Transmit, Receive and Collision

Chassis Current Consumption (CCC)	0.40 Amp
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DB26 CONNECTOR PIN CONFIGURATION

FUNCTION	PIN	FUNCTION	PIN	FUNCTION	PIN	FUNCTION	PIN	FUNCTION	PIN
Data ground	1	Data2 input+	20	Relay input	22	Audio1 output+	16	Intercom	6
Audio ground	15,18	Data2 input-	3	Relay output n.o	5	Audio output-	25		
Data1 input+	10	Data2 output+	12	Relay output n.c	14	Audio2 input+	8		
Data1 input-	19	Data2 output-	21	Relay output common	23	Audio2 input-	17		
Data1 output+	2			Audio1 input+	24	Audio2 output+	26		
Data1 output-	11			Audio1 input-	7	Audio2 output-	9		