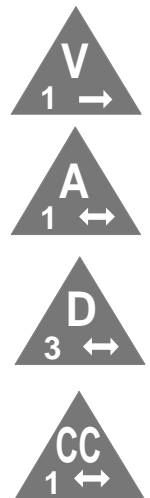


OSD820T/OSD820R DIGITAL VIDEO, AUDIO AND DATA TRANSCEIVER PAIR

APPLICATIONS

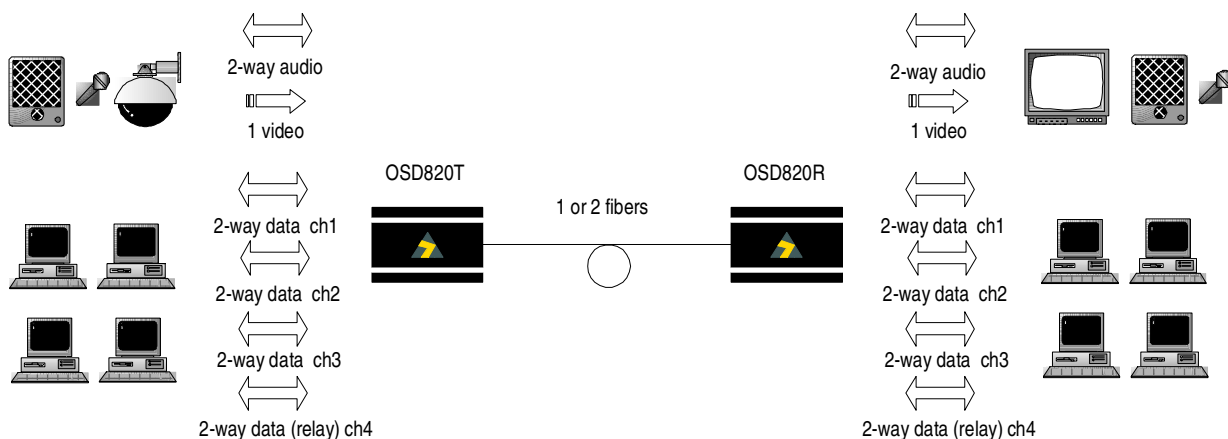
- ▲ High quality CCTV networks requiring full duplex data and/or audio transmission between cameras and their control centre
- ▲ Transportation communications systems
- ▲ Broadcast television systems
- ▲ Extremely high quality video conferencing



FEATURES AND BENEFITS

- ▲ One way optic transmission of PAL, NTSC or SECAM video plus full duplex transmission of
 - one audio channel
 - three data channels
 - one relay contact channel
- ▲ Studio quality 10 bit video and 24 bit audio maintained over all link lengths
- ▲ Remote control of Pan, Tilt and Zoom for video surveillance.
- ▲ Video bandwidth of 10MHz
- ▲ Transmission of alarm and control signals from the camera site.
- ▲ Operating range of at least 3km on multimode and 100km on singlemode fiber, depending on optical devices.
- ▲ Video inputs have 3dB overload capability and can be equalised for up to 300m of coaxial cable

TYPICAL APPLICATION DESIGN



ORDERING INFORMATION

OSD820AT	Video transmitter with 1 duplex audio and 3 duplex data channels	OSD820BT	Video transmitter with audio and data to camera
OSD820AR	Video receiver with 1 duplex audio and 3 duplex data channels	OSD820BR	Video receiver with audio and data to camera
Option C	Module version	Option LDN	1310nm and 1550nm lasers: contact factory
Option L	1310nm operation singlemode or multimode	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), 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
	31kHz Manchester or Biphasic possible in either direction
Data Rate	DC to >400kbps
	DC to >100bps on relay channel
Audio and Data Connectors	26 pin female subminiature high density D connector

OPTICAL

Transmitter Wavelength	850nm (1310nm for OSD820TL or OSD820RL options)
OSD820T Transmitter Coupled Power	-15 to -5dBm into multimode fiber
	-15 to -3dBm into singlemode fiber (OSD820TL version only)
OSD820R Transmitter Coupled Power	-20 to -14dBm into multimode fiber
	-20 to -10dBm into singlemode fiber (OSD820RL version only)
OSD820R Receiver Sensitivity	<-29dBm
OSD820R Receiver Saturation	>-3dBm
OSD820T Sensitivity	<-37dBm
OSD820T Receiver Saturation	>-10dBm
Link Distances	>2km multimode for standard 850nm OSD820 link (fiber bandwidth limited)
	>3km multimode for optional 1310nm OSD820L link (fiber bandwidth limited)
	>30km singlemode for optional 1310nm OSD820L link (fiber loss limited)
Optical Connectors	ST standard, others optional

PHYSICAL

	OSD820T	OSD820R
Dimensions of Module (mm)	104W x 144D x 25H	
Weight of Module	400g	
Dimensions of Card (mm)	25W x 208D x 100H	
Weight of Card	200g	
Power Requirements	+10V to 24VDC @ 5VA	
Operating Temperature	-20 to 75°C	
Relative Humidity	0 to 95% non-condensing	
Indicators	Laser OK Tx Video Present Data Present Optical Signal OK	Laser OK Rx Video Present Data Present Optical Signal OK
Chassis Current Consumption (CCC)	0.40 Amp	0.40 Amp

DB26 CONNECTOR PIN CONFIGURATION

FUNCTION	PIN	FUNCTION	PIN	FUNCTION	PIN
Data ground	1,6	Data2 output+	12	Relay input	22
Audio ground	15,18	Data2 output-	21	Relay n.o. output	5
Data1 input+	10	RS232 input	4	Relay n.c. output	14
Data1 input-	19	RS232 output	13	Relay output common	23
Data1 output+	2	Audio input+	24		
Data1 output-	11	Audio input-	7		
Data2 input+	20	Audio output+	16		
Data2 input-	3	Audio output-	25		