

### APPLICATIONS

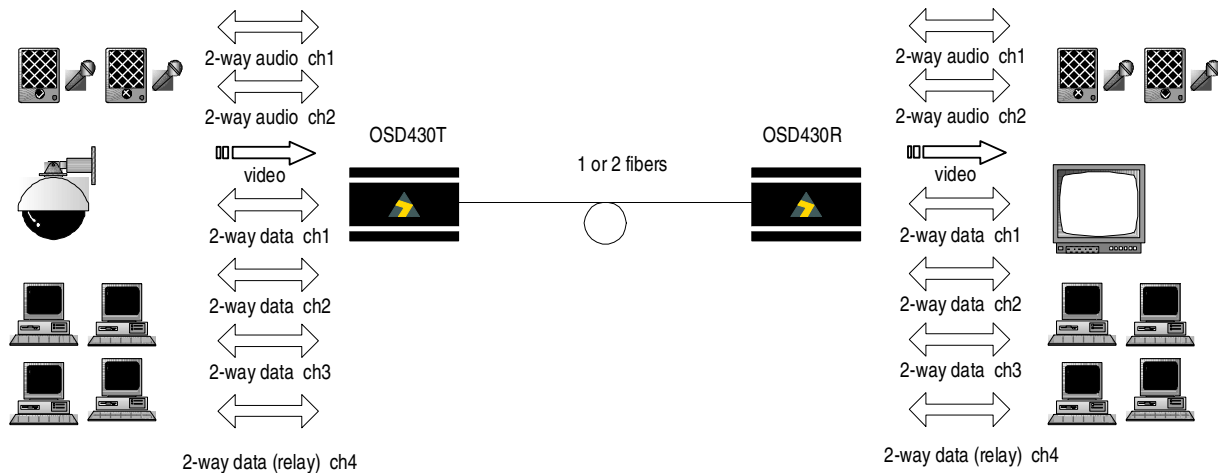
- ▲ CCTV networks requiring full duplex data and/or audio transmission between cameras and their control centre
- ▲ Transportation communications systems
- ▲ Distance learning
- ▲ Extremely high quality video conferencing



### FEATURES AND BENEFITS

- ▲ One way optic transmission of video plus full duplex transmission of
  - two audio channels
  - three data channels
  - one relay contact channel
- ▲ Video bandwidth of 10MHz
- ▲ Transmission of alarm and control signals from the camera site.
- ▲ Remote control of Pan, Tilt and Zoom for video surveillance.
- ▲ 20kHz bandwidth CD-quality digital audio
- ▲ One audio channel can be used as a full duplex 2-wire audio intercom with 100Hz to 5kHz bandwidth and associated on hook/off hook signalling with industry standard RJ11 connector
- ▲ Operating range of at least 5km on multimode and 50km on singlemode fiber with standard devices and greater than 100km with optional lasers.

### TYPICAL APPLICATION DESIGN



### ORDERING INFORMATION

OSD430AT	Video transmitter with 2 duplex stereo audio and 4 data channels	Option C	Module version
OSD430AR	Video receiver with 2 duplex audio and 4 duplex data channels	Option L	1310nm operation singlemode or multimode
OSD430BT	Video transmitter with audio and data to camera	Option LDN	1310nm and 1550nm lasers: contact factory
OSD430BR	Video receiver with audio and data to camera	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 (+1,-3dB)
Audio Input/Output Impedance	>5KΩ/200Ω
Audio Bandwidth	10Hz - 20kHz ±1dB
Audio Input & Output Level	200mV nominal, balanced or unbalanced
Audio Headroom	15dB
Audio Signal to Noise Ratio	>70dB at nominal level
Audio Distortion	<0.1%
Data Interface	TTL, RS232, RS422 and RS485
	31kHz Manchester or Biphasic possible in either direction
Data Rate	DC to >100kbps on 3 data channels
	DC to >100bps on relay channel
Audio and Data Connectors	26 pin female subminiature high density D connector
	RJ11 for 2-wire intercom
Weighted Video Signal to Noise Ratio	>60dB at -25dBm received optical power
	>50dB at -30dBm received optical power

## OPTICAL

Transmitter Wavelength	850 ± 30nm (1310nm for OSD430TL and OSD430RL)
Receiver Operating Wavelength	800 to 900nm (1270 to 1580nm for OSD430TL and OSD430RL)
OSD430T Transmitter Coupled Power	-15 to -9dBm into multimode fiber (OSD430T)
	-15 to -11dBm into singlemode fiber (OSD430TL only)
OSD430T Sensitivity	<-37dBm for >85dB Audio SNR and 1 x 10 <sup>-9</sup> BER
OSD430R Transmitter Coupled Power	-20 to -12dBm into multimode fiber (OSD430R)
	-20 to -12dBm into singlemode fiber (OSD430RL only)
OSD430R Receiver Sensitivity	<-30dBm for >50dB video SNR
OSD430R Receiver Saturation	>-12dBm
Transmission Distance	>5km for multimode, >50km for singlemode
Optical Connectors	ST standard, others optional

## PHYSICAL

	OSD430T	OSD430R
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	+12V to 24VDC @ 200mA	
Operating Temperature	-20 to +75°C	
Relative Humidity	0 to 95% non-condensing	
Indicators	Laser OK Tx Present Rx Data Present Optical Signal OK	Laser OK Rx Video Present Rx Data Present Optical Signal OK
Chassis Current Consumption (CCC)	0.20 Amp	0.20 Amp

## PIN CONFIGURATION

FUNCTION	PIN	FUNCTION	PIN	FUNCTION	PIN	FUNCTION	PIN
Data ground	1,6	Data2 input+	20	Relay input	22	Audio1 output+	16
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	RS232 input	4	Audio1 input+	24	Audio2 output+	26
Data1 output-	11	RS232 output	13	Audio1 input-	7	Audio2 output-	9