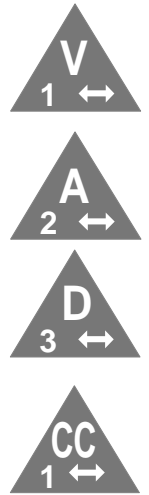


APPLICATIONS

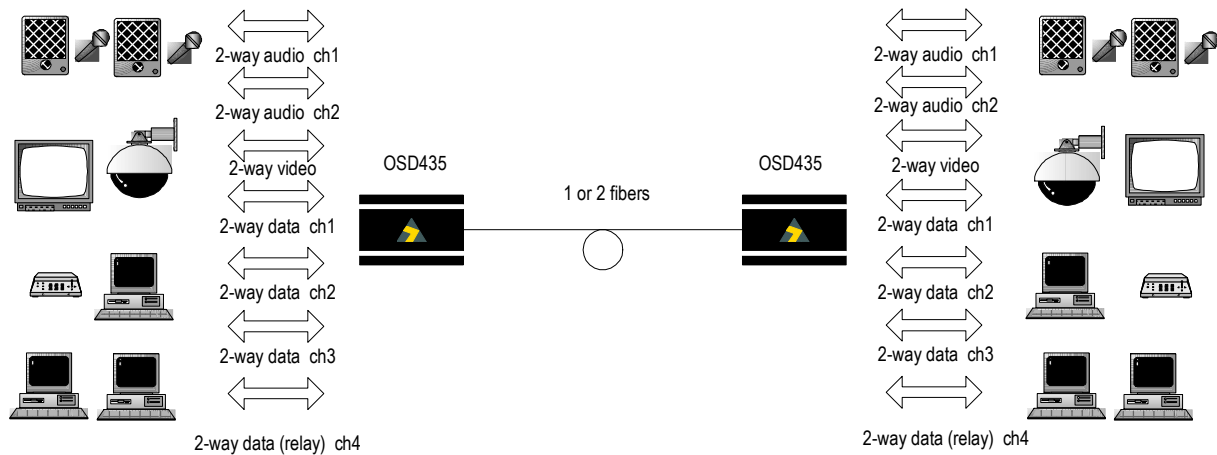
- ▲ CCTV networks requiring full duplex video, audio and/or data transmission between cameras and the control centre
- ▲ Transportation communications systems
- ▲ Distance learning
- ▲ Extremely high quality video conferencing



FEATURES AND BENEFITS

- ▲ Full duplex transmission of
 - one video channel
 - two audio channels
 - three data channels
 - one relay contact channel
- ▲ Transmission of alarm and control signals from the camera site.
- ▲ Remote control of Pan, Tilt and Zoom for video surveillance
- ▲ Video bandwidth of 10MHz
- ▲ 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

OSD435	Full duplex video transceiver with 2 audio and 4 data channels	Option LDN	1310nm and 1550nm lasers: contact factory for available options and ordering details
Option C	Module version	Option W	Single fiber operation
Option L	1310nm operation singlemode or multimode		



SPECIFICATIONS

ELECTRICAL

Video Input/Output Impedance	75Ω
Video Input/Output Level	1Vpp nominal
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 Biphase supported in either direction
Data Rate	DC to >100kbps on 3 data channels DC to >100bps on relay channel
Video, Audio and Data Connectors	44 pin female subminiature high density D connector RJ11 for 2-wire intercom
Weighted Video Signal to Noise Ratio (pk luminance/rms noise over 5.5MHz)	>60dB at -25dBm received optical power >50dB at -30dBm received optical power

OPTICAL

Transmitter Wavelength	850 ± 30nm (1310nm for "L" option)
Receiver Operating Wavelength	800 to 900nm (1270 to 1580nm for OSD435L)
OSD435 Transmitter Coupled Power	-15 to -11Bm into multimode fiber (OSD435) -15 to -12dBm into singlemode fiber (OSD435L only)
OSD435 Receiver Sensitivity	<-30dBm for 50dB SNR
OSD435 Receiver Saturation	>-12dBm
Transmission Distance	>5km for multimode, >50km for singlemode
Optical Connectors	ST standard, others optional

PHYSICAL

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 or AC @ 3.5VA
Operating Temperature	-20 to+75°C
Relative Humidity	0 to 95% non-condensing
Indicators	Laser OK Tx Video Present Rx Video Present Data Link OK

Chassis Current Consumption (CCC)	0.30 Amp
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44 PIN D CONNECTOR PIN CONFIGURATION

FUNCTION	PIN	FUNCTION	PIN	FUNCTION	PIN	FUNCTION	PIN
Video input	16	Audio 2 input+	12	Data 1 input+	20	RS232 input	8
Video input ground	1	Audio 2 input -	27	Data 1 input -	35	RS232 output	23
Video output	30	Audio 2 output+	42	Data 1 output+	6	Relay input	38
Video output ground	15	Audio 2 output -	13	Data 1 output -	21	Relay n.o. output	9
Audio 1 input+	40	Audio ground	2,14	Data 2 input+	36	Relay n.c. output	24
Audio 1 input -	11	Audio ground	17,25	Data 2 input -	7	Relay common output	39
Audio 1 output+	26	Audio ground	28,29,31	Data 2 output+	22	Digital ground	5,10
Audio 1 output -	41	Audio ground	32,43,44	Data 2 output -	37	Laser alarm	19
						Receiver alarm	34