OSD860S REDUNDANT LINK DIGITAL 4/8 CHANNEL VIDEO/AUDIO/DATA/ETHERNET MULTIPLEXER
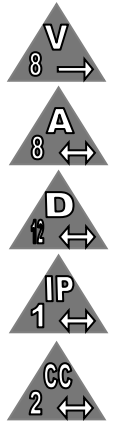
APPLICATIONS

▲ Ultra high reliability CCTV networks

▲ Video conferencing

▲ Transportation networks

▲ Industrial monitoring systems

FEATURES AND BENEFITS

▲ Uncompressed 9 bit video, 24 bit audio encoding, giving professional quality transmission

▲ Fiber optic transmission of four or eight video signals on one fiber with four RS232 and RS422 data signals (two of each) which may be one way with the video or, optionally, full duplex

▲ Optional transmission of four audio and/or four additional high speed data channels which may be one way or full duplex. Alternatively, the user may transmit eight audio or eight extra data signals, again either one way or full duplex

▲ Range of up to 160km is possible with optional 1550nm operation and high sensitivity optical receiver

▲ Available with dual SFP transceivers for redundant optical link operation

▲ Optional duplex operation over one fiber

▲ Optional 10/100 Base-T Ethernet bridging through the link

▲ Optional duplex contact closure channels

▲ Operates over singlemode fiber. Very short distance operation over multimode fiber is possible: contact OSD for details

▲ Video bandwidth of 6 MHz, SNR >63dB

▲ Audio bandwidth of 15 kHz, SNR >100dB

▲ Video inputs have 3dB overload capability

TYPICAL APPLICATION DESIGN
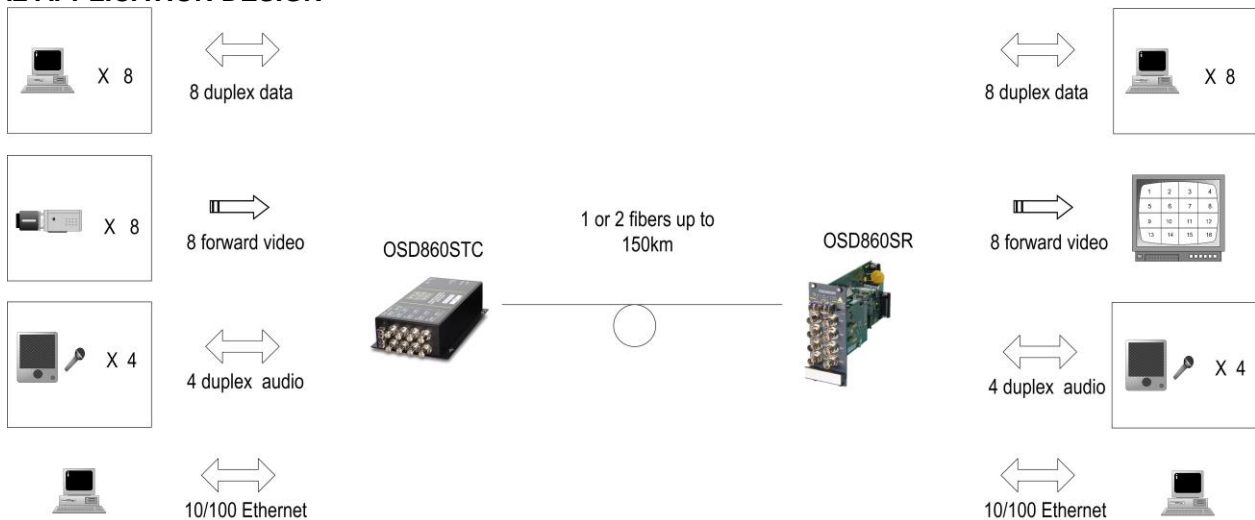
ORDERING INFORMATION
Contact OSD for a full listing of available options

OSD860ST	Transmitter Module	Option D	Forward path data
OSD860SR	Receiver Module	Option d	Reverse path data
Option NV	N video signals (N = 2, 4 or 8)	Option W	Single fiber operation
Option A	Forward path audio	Option E	10/100BaseT Ethernet Interface
Option a	Reverse path audio	Option NMS	Network Management System
Option Cc	Duplex contact closure		

SPECIFICATIONS

CHANNEL AVAILABILITY

(specify at time of order)	**Forward Path**	**Reverse Path**
Number of video channels	4 or 8	0
Number of data channels	4	0 or 4
Number of optional audio channels *	0, 4 or 8	0, 4 or 8
Number of optional high speed data channels *	0, 4 or 8	0, 4 or 8
Number of optional Ethernet interface	0 or 1	0 or 1

ELECTRICAL

	Video	**Audio**
Input/Output Impedance	75Ω	10KΩ/200Ω balanced/unbalanced
Input/Output Level	1.0Vpp nominal	0dBu nominal, 15dBu maximum
Bandwidth (±0.5dB)	10Hz to 6MHz	10Hz to 15kHz
Signal to Noise Ratio	>63dB (weighted)	>100dB (A weighted at max level)
Linearity	<0.7%, DG <0.7° DP	<0.05% total harmonic distortion

Standard Data Interface	2 x RS232 and 2 x RS422
Standard Data Rate	DC to 150kbps
Optional High Speed (HS) Data Interface	RS232 or RS422 with RS485 also available on Channel 1
Optional High Speed (HS) Data Rate	DC to 400kbps
Optional Ethernet Interface	10/100BaseT via RJ45 connector with system rate of 3.5Mbps
Data Bit Error Rate	$<1 \times 10^{-9}$
Optional Contact Closure Interface	One or two which replace one RS442 and one RS232 data channel

Video Connectors	BNC
Standard Data Connector	Female 15 pin D connector
Optional Audio/Data Connector	Female 44 pin high density D connector

OPTICAL

Transmitter wavelength	1310nm or 1550nm (including CWDM devices from 1470 to 1610nm)
Transmitter coupled power	Several options are available from –7dBm to +4dBm
Receiver sensitivity	<-22dBm (PIN)
	<-34dBm (APD)
Reverse Path Sensitivity	<-24dBm
Link budget	From 17dB to 36dB at 1310nm or 1550nm, depending on optical devices
Optical Specifications and Connectors	Refer to OSD860 SFP datasheet #102860SFP04

Notes: Many combinations of laser types and levels and receiver types and sensitivities are possible. Contact OSD for details. The OSD860S reverse path is not compatible with the OSD860 reverse path. The OSD860S is easily distinguishable because it employs one or two removeable SFP optical modules whereas the OSD860 has fixed optical connector(s)

*It is possible to configure the unit as 8 audio+0 HS data, 4 audio+4 HS data or 0 audio+8 HS data.

PHYSICAL

Power Requirements	10 to 30VDC @ 12VA (modem case)
	90 to 265 VAC @ 20VA, -48VDC power is optional (2RU enclosure)
Dimensions (mm)	100W x 208D x 50H card
	105W x 210D x 55H modem case
	483W x 210D x 88H 2RU enclosure
Weight	0.2kg (card), 1.0kg (modem case), 3.1kg (2RU enclosure)
Operating Temperature	-20 to +75°C
Relative Humidity	0 to 95% non-condensing
Chassis Current Consumption	0.50 Amp for 4-channel video version
	0.70 Amp for 8-channel video version
	Add 0.30 Amp for additional audio, data and/or Ethernet channels

Doc ID: 102860S05