OPTICAL SYSTEMS DESIGN

DIGITAL VIDEO/AUDIO/DATA MULTIPLEXERS

OSD870 DIGITAL 4 CHANNEL VIDEO MULTIPLEXER

APPLICATIONS

- CCTV networks
- Transportation networks
- Industrial monitoring systems

FEATURES AND BENEFITS

- Uncompressed 10 bit video encoding, giving studio quality transmission
- ▲ Fiber optic transmission of four PAL, NTSC or SECAM video signals on one fiber, eight channels available with optional wavelength division multiplexing (WDM)
- Range of up to 200km is possible with optional optical devices

TYPICAL APPLICATION DESIGN



- ▲ Video bandwidth in excess of 10MHz, SNR >67dB
- Immunity to electrical interference, with complete end-toend isolation
- ▲ Video inputs have 3dB overload capability and can be equalised for up to 300m of coaxial cable.



ORDERING INFORMATION

Contact OSD for a full listing of available options

OSD871/13-7	Transmitter with –7dBm 1310nm FP laser
OSD871/13+2	Transmitter with +2dBm 1310nm FP laser
OSD871/15-7	Transmitter with –7dBm 1550nm DFB laser
OSD871/15+2	Transmitter with +2dBm 1550nm DFB laser
OSD871/15+6	Transmitter with +6dBm 1550nm DFB laser

OSD873 OSD873A Option C Option U Receiver APD Receiver Module Version 1RU Version



CHANNEL AVAILABILITY

Number of video channels	4 one way, 8 optional with WDM
ELECTRICAL	
Input/Output Impedance Input/Output Level Bandwidth Weighted Signal to Noise Ratio Differential Gain Differential Phase Video Connector	75Ω composite video 1.0Vpp nominal 5Hz to 10.0MHz ± 1dB >67dB over the full dynamic range of the receiver <0.5% <0.5° BNC
Alarms	Laser Fail on OSD871 Low Received Optical Power on OSD873
Alarm Connector	Female 9-pin D connector
Controls	Coaxial cable equalisation for each channel on OSD871 None on OSD873
OPTICAL	
Transmitter Wavelength Transmitter Coupled Power Receiver Sensitivity	1310nm or 1550nm several options are available between –7 to +6dBm <-24dBm (PIN) <-34dBm (APD)
Receiver Saturation	>0dBm (PIN) >-5dBm (APD)
Link Budget Operating Distance Optical Connectors Optical Line Rate	From 17dB to 40dB at 1310nm or 1550nm From 30km to over 200km, depending on optical devices used ST standard, FC is optional 1.35Gbps
PHYSICAL	
Power Requirements	+9V to 35V DC or 22V to 28V AC @ 10VA for card or module 90 to 265 VAC @ 15VA for 1RU case version
Dimensions (mm)	25W x 208D x 100H card 104W x 104D x 25H (module) 483W x 210D x 44H (1RU case)
Weight	0.4kg (card) 1.0kg (module) 2.2kg (1RU case)
Operating Temperature Relative Humidity	-20 to +75℃ 0 to 95% non-condensing
Chassis Current Consumption	0.80 Amp