OSD151 SYNCHRONOUS/ASYNCHRONOUS RS422/TTL TRANSCEIVER
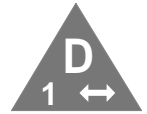
APPLICATIONS

▲ Long distance synchronous RS422 links

▲ Secure communications

▲ Hazardous environments

▲ Factory automation

FEATURES AND BENEFITS

▲ TTL or RS422 operation

▲ Extends link lengths to more than 3km

▲ Full duplex, asynchronous operation from DC to 200kbps or synchronous operation to 2.5Mbps

▲ Power provided via D connector or by external source

▲ EMI/RFI resistant metal enclosure

▲ More secure than copper cables

▲ Small size, low cost, robust and reliable

TYPICAL APPLICATION DESIGN
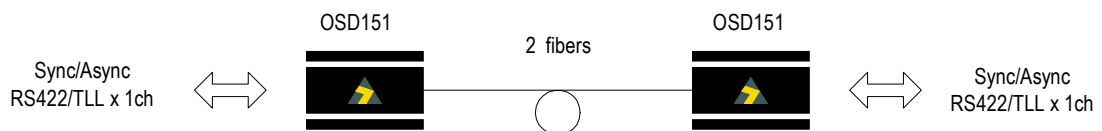
ORDERING INFORMATION

OSD151	Synchronous/Asynchronous Fiber Optic RS422/TTL Transceiver
OSD151L	Singlemode Synchronous/Asynchronous Fiber Optic RS422/TTL Transceiver

OPTICAL SYSTEMS DESIGN PTY LTD 7/1 Vuko Pl. Warriewood N.S.W. Australia 2102
Telephone: + 61 2 9913 8540 Fax: + 61 2 9913 8735 Website: www.osd.com.au E-mail: sales@osd.com.au

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SPECIFICATIONS

ELECTRICAL

Data Rate	DC to 200kbps in asynchronous mode 1kbps to 2.5Mbps in synchronous mode
Pulse Distortion and Jitter	<±100ns over full dynamic range for synchronous transmission <±500ns over full dynamic range for asynchronous transmission
Input	RS422 levels
Output	RS422 levels
Controls	Synchronous/asynchronous selection

OPTICAL

Wavelength	850nm nominal (1310nm for the OSD151L)
Coupled Transmit Power	>-18 to -16dBm into 62.5/125um multimode fiber >-20 to -16dBm into singlemode fiber (OSD151L only)
Receiver Sensitivity	<-35dBm for 1×10^{-9} BER
Optical Link Budget	>17dB at 850nm (>5km of multimode fiber) >15dB at 1310nm (>25km of singlemode fiber)
Receiver Saturation	>-16dBm

PHYSICAL

Electrical Connector	25 pin female D Connector for power and data
Optical Connector	ST standard
Power Connector	1.3mm socket on side of case
Operating Temperature	-20 to +75°C
Relative Humidity	0 to 95% non-condensing
Power Requirements	8 to 14 VDC at less than 200mA via D connector or power socket
Weight	120g
Dimensions (mm)	15H x 44W x 80D (excluding optical connectors)

PIN CONFIGURATION

Pin 1	Protective Ground Pin	Pin 9	+12VDC Power Input
Pin 2	Transmit Data +(To OSD151)	Pin 10	Transmit Clock +(To OSD151)
Pin 3	Transmit Data -(To OSD151)	Pin 11	Transmit Clock -(To OSD151)
Pin 4	Receive Data +(From OSD151)	Pin 12	Receive Clock +(From OSD151)
Pin 5	Receive Data -(From OSD151)	Pin 13	Receive Clock -(From OSD151)
Pin 7	Signal Ground		Rest not used