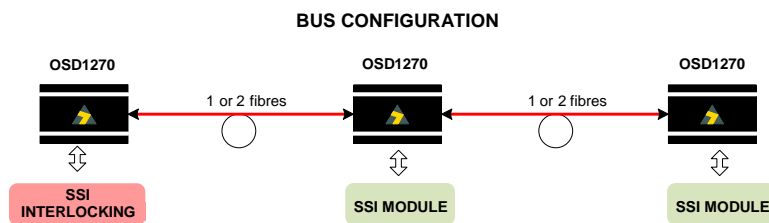
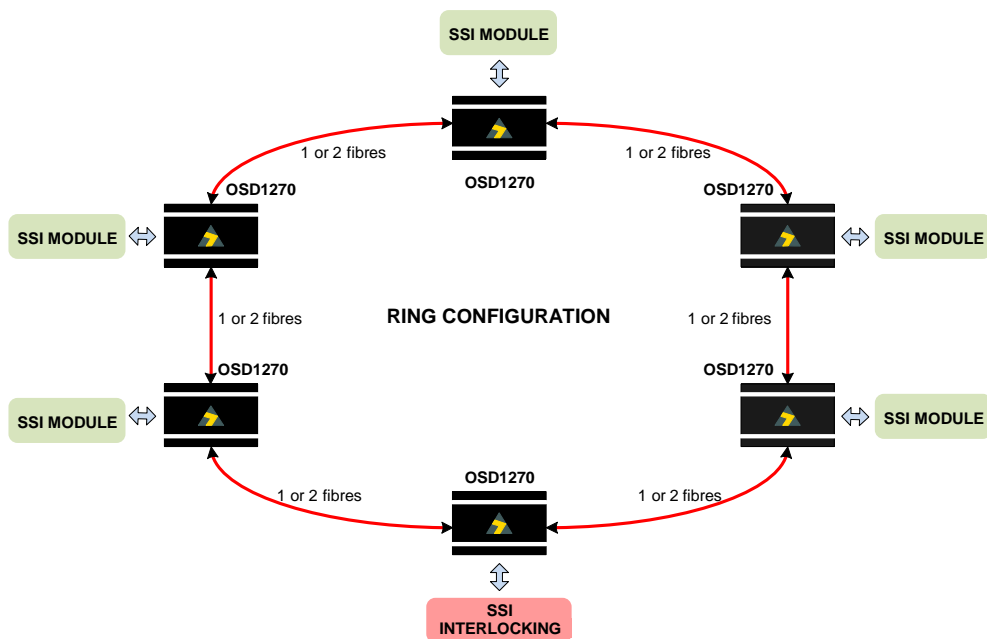


Product Information Sheet

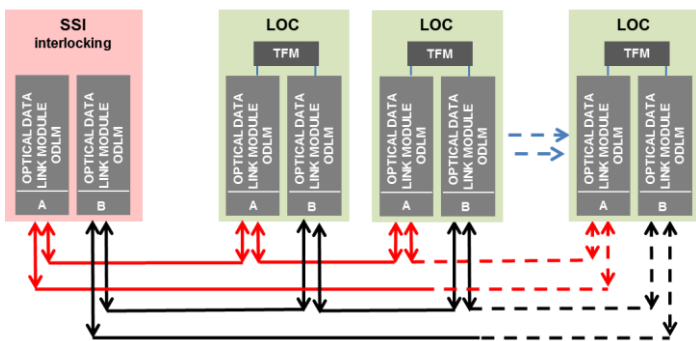
OPTICAL DATA LINK MODULE

Type: ODLM



Optical Data Link Module (ODLM)

- Replaces the standard SSI Data Link Module (DLM) with a physically compatible unit that transmits the SSI signal over optical fibres rather than copper
- Completely compatible with all SSI system elements such as TCPs, TFMs, etc
- Compatible with both multimode and single mode fibre
Extends module separation to several kilometres of multimode fibre and to over a hundred kilometres of single mode fibre, depending on optical devices
- Two fibres in each direction is standard but single fibre operation is optional
- Provides extreme immunity to electrical interference and complete end-to-end isolation
- Provides comprehensive Built in test features and an optional CLI based Graphical User Interface (GUI) Network Management System (NMS)
- Can optionally transport secondary information such as 10/100BaseT Ethernet
- Up to 63 units can be placed in a bus or ring topology
- Extremely robust electronics and packaging designed for the severe environments typical of railway applications



ELECTRICAL

Data interface	Optically isolated 0 - 20mA current loop
Data and power connector	50-way ITT Cannon Trident bulkhead plug
Data rate	10kbps
Bit error rate	$<1 \times 10^{-10}$
Optional Ethernet interface	10/100BaseT
Ethernet configuration	Bridging switch
Ethernet throughput	50Mbps
Ethernet connector	RJ45

OPTICAL

Optical Port Connector	SFP (LC connectors for 2-fibre operation and SC for 1-fibre operation)
SFP Options	OSDSFP100LFX – 2 fibre, SFP Plug-in Transceiver @ 1310nm OSDSFP100WLFxA – 1 fibre, SFP Plug-in Transceiver (Tx @ 1310nm, Rx @ 1550nm) OSDSFP100WLFxB – 1 fibre, SFP Plug-in Transceiver (Tx @ 1550nm, Rx @ 1310nm)
Transmit Optical Power	-15 to -8dBm into single mode fibre (See SFP datasheet #10210003 for options)
Receiver Sensitivity	<-33dBm
Receiver Saturation	>-3dBm
Standard Optical Link Budget >18dB:	>10km on multimode fibre @ 1310nm >40km on single mode fibre @ 1310nm

NOTE: Special configurations to cover longer distances are also available

INDICATORS

Copper Transmit Data Present	Amber (1 only)
Receiver Optical Signal OK	Green/Red (2, 1 per port)
Receive Sync OK	Green/Red (2, 1 per port)
Laser OK	Green/Red (2, 1 per port)
Receive Data Present	Amber (2, 1 per port)
Receive Bit Error	Red (2, 1 per port)
Transmitter Switched to Local Crystal	Red (2, 1 per port)

CONTROLS and MONITORING

Master/Slave Operation	User settable by means of a shorting plug
Optional Network Management System:	
NMS interface	USB 2.0 (Virtual COM port)
NMS connector	USB Type B

PACKAGING AND ENVIRONMENTAL

Dimensions (mm) excluding flanges and connectors	96W x 244D x 256H (Physically compatible with standard DLM)
Weight	1.8kg
Operating Temperature	-20 to +75°C
Relative Humidity	0 to 95% non-condensing
Power Requirements	90 to 240VAC @ 10VA