

1.25Gb/s Multimode Fiber SFP Transceiver with Dual LC Connectors

Features and Benefits

Works with Olson's Model OTDV-1250 Transport Link to provide 1.25Gb/s data over MM optical fiber at 850nm.

Single 3.3V power supply and TTL logic interface.

Hot-pluggable SFP footprint with compact dual LC optical connector.

Fully metallic enclosure assures low EMI.

Transmits 550m over 50/125 μ m multimode fiber or 300m on 62.5/125 μ m multimode fiber.

Ideal for LAN 1000BASE-T, 1.25Gb Ethernet over multimode fiber.

Can be used to create a very high quality video, audio, data, and Ethernet broadcast contribution/distribution network.



The Olson Model OTOLS-8512-02 1.25Gb 850nm Multimode Small Form Pluggable (SFP) Fiber Optic Transceiver is one module option available for the Model OTDV-1250 Transport Link, a very high quality V/A/D+Ethernet transport platform. The module is compatible with gigabit Ethernet and 1000BASE-SX and Fiber Channel FC-PH-2 for 100-M5-SN-1. The SFP 20-pin hot plug connector allows the module to be swapped in the field.

The link incorporates an 850nm VCSEL laser transmitter and an integrated GaAs detector preamplifier (IDP). The transceiver can operate up to 550m over 50/125 μ m multimode fiber or 300m over 62.5/125 μ m multimode fiber.

Ordering Information

Model OTOLS-8512-02	Transceiver, Data, SFP, 1.25Gb/s, Dual LC Connectors, MM
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System Specifications

Recommended Operating Conditions

	Min	Typ	Max	Units
Absolute Max. Ratings				
Power Supply Voltage	-0.5		+3.6	V
Storage Temperature	-40		+85	°C
Normal Operating Conditions				
Operating Temperature	0		+70	°C
Power Supply Voltage	3.15	3.3	3.45	V
Power Supply Current			190	mA
Surge Current			+30	mA
Baud Rate		1.25		GBaud
Total Supply Current			+300	mA

Physical Characteristics

	Min	Typ	Max	Units
Weight		0.8		oz.
		23		g
Dimensions (L x W x H)	2.68 x 0.47 x 0.28			in.
	68 x 12 x 7			mm

Optical and Electrical Characteristics

	Min	Typ	Max	Units
Distance (50/125µm)		550		m
Distance (62.5/125µm)		300		m
Data Rate		1.25		Gb/s
Transmitter				
Wavelength	820	850	860	nm
Spectral Width (RMS)			0.85	nm
Optical Output Power	-9.0		-4.0	dBm
Extinction Ratio	9			dB
Rise/Fall Time (20%-80%)			260	ps
Output Optical Eye	IUT-T G.957 Compliant			
Data Input Swing Differential	500		2000	mV
Input Differential Impedance	90	100	110	Ohms
Enable Tx_Disable	2.0		V _{cc} +0.3	V
Disable Tx_Enable	0		0.8	V
Tx_Fault = Fault	2.0		V _{cc} +0.3	V
Tx Fault = Normal	0		0.8	V
Tx_Disable Assert Time			10	s
Receiver				
Wavelength	760		860	nm
Sensitivity			-17	dBm
Output Differential Impedance	90	100	110	Ohms
Data Output Swing Differential	370		2000	mV
Rise/Fall Times			2.2	ns
LOS De-assert			-2.0	dBm
LOS Assert	-40			dBm
LOS High	2.0		V _{cc} +0.3	V
LOS Low			0.8	V

Performance Specifications - Electrical

	Min	Typ	Max	Units
Transmitter				
CML/PECL Inputs (Differential) (1)	400		2500	mVp
Input Impedance (Differential) (2)	85	100	115	Ohms
Tx_Disable Input Voltage - High	2		3.45	V
Tx_Disable Input Voltage - Low	0		0.8	V
Tx_Fault Output Voltage - High (3)	V _{cc} -0.5		V _{cc} +0.3	V
Tx_Fault Output Voltage - Low (4)	0		0.5	V
Receiver				
CML Outputs (Differential)(1)	400		2500	mVp
Output Impedance (Differential)	85	100	115	Ohms
Rx_LOS Output Voltage High (3)	V _{cc} -0.5		V _{cc} +0.3	V
Rx_LOS Output Voltage Low (4)	0		0.8	V
Mod_Def (0:2) Output Voltage High (5)	2.5			V
Mod_Def (0:2) Output Voltage High (5)	0		0.5	V

NOTES:

- 1) Ac coupled inputs.
- 2) R_N > 100 kOhms @ DC.

3) I_o = 400µA; Host V_{cc}.4) I_o = -4.0mA.

5) With serial ID.