

**Features**

- Transceiver unit with independent transmitter and receiver
- Compliant facility Manufacture in an ISO9001
- SC-Duplex fiber connector compatible
- +5V Signal power Supply Operation with PECL Logic Interfaces
- Operating temperature from 0°C to 70°C
- Eye Safety Certified: US 21 CFR(J),and EN 60825-(+All)
- Link of 2km with 62.5/125 μ m Multimode fiber

**Application**

- SONET/STM-1,SDH/OC-3, ATM
- FDDI

**General**

The optical transceiver is designed for use in 622.08Mbit/s data links. The transceivers provide the SC optical receptacle that is compatible with the industry standard SC connector. Both the transmitter and the receiver are packaged together with a top plastic cover and bottom shield. The transmitter consists of a InGaAsP 1310nm LD while the receiver consists of a PIN and a pre-amplifier. The transceiver operates with single +5V DC power supply.

**Performance Specifications**

**Table1. Absolute Maximum Ratings**

Parameter	Symbol	Min	Max	Unit
Storage Temperature	Ts	-40	+85	°C
Humidity	RH	5	95	%
Input Voltage	-	GND	Vcc	V
Power Supply Voltage	Vcc-Vee	-0.5	+6	V

**Note: Stress in excess of maximum absolute ratings can cause permanent damage to the module**

**Tabel 2. Operating Environment**

Parameter	Symbol	Min	Typ	Max	Unit
Power Supply Voltage	Vcc	+4.75	5.0	+5.25	V
Case Temperature	Tc	0	-	+70	°C

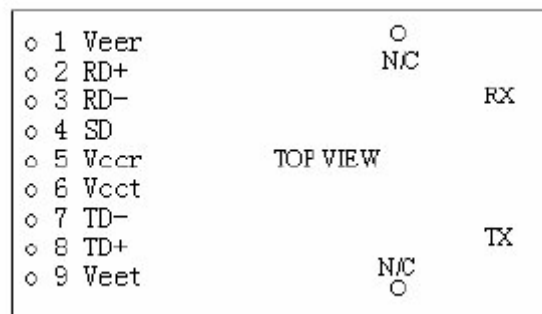
**Table 3. Transmitter Characteristics( $T_A=273k$  to  $343k$ ,  $V_{cc} = 4.75V$  to  $5.25V$ )**

Parameter	Symbol	Min	Typ	Max	Unit	
Center Wavelength	$\lambda_p$	1270	1310	1380	nm	
Spectral Width(RMS)	$\Delta\lambda$ (RMS)	-	-	7.7	nm	
Average Optical Output Power	$P_o$	-19	-16	-14	dBm	
Extinction Ratio	$E_r$	10	-	-	dB	
Power Supply Current	$I_{cc}$	-	70	180	mA	
Data Input Voltage	Low	-	$V_{cc}-1.81$	-	$V_{cc}-1.475$	v
	High	-	$V_{cc}-1.165$	-	$V_{cc}-0.88$	v
Output Eye	Compliant with Bellcore TR-NWT-000253 and IUT Recommendation G957					

**Receiver O-E Characteristics( $T_A=273k$  to  $343k$ ,  $V_{cc} = 4.75V$  to  $5.25V$ )**

Parameter	Symbol	Min	Typ	Max	Unit	
Operate wavelength	-	1260	-	1360	nm	
Receive Sensitivity	$P_r$	-	-29	- 26	dBm	
Saturation	$P_s$	-14			dBm	
Data Output Voltage	Low	-	$V_{cc}-1.86$	-	$V_{cc}-1.57$	V
	High	-	$V_{cc}-1.075$	-	$V_{cc}-0.83$	
LOS Assert Level	$P_A$	-	-	-28	dBm	
LOS Deassert Level	$P_D$	-45	-	-	dBm	
LOS Hysteresis		0.5	-	5	Db	
Power Supply Current	$I_{cc}$	-	80	100	mA	

**Pin Definitions**

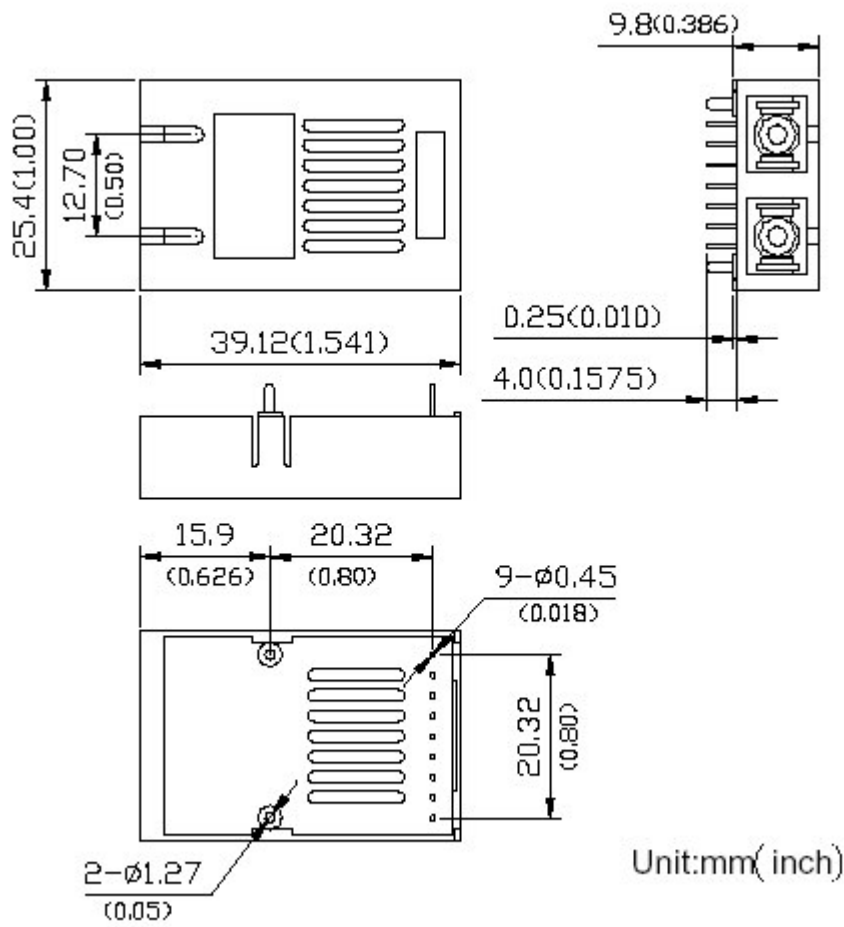


**(pin diagram)**

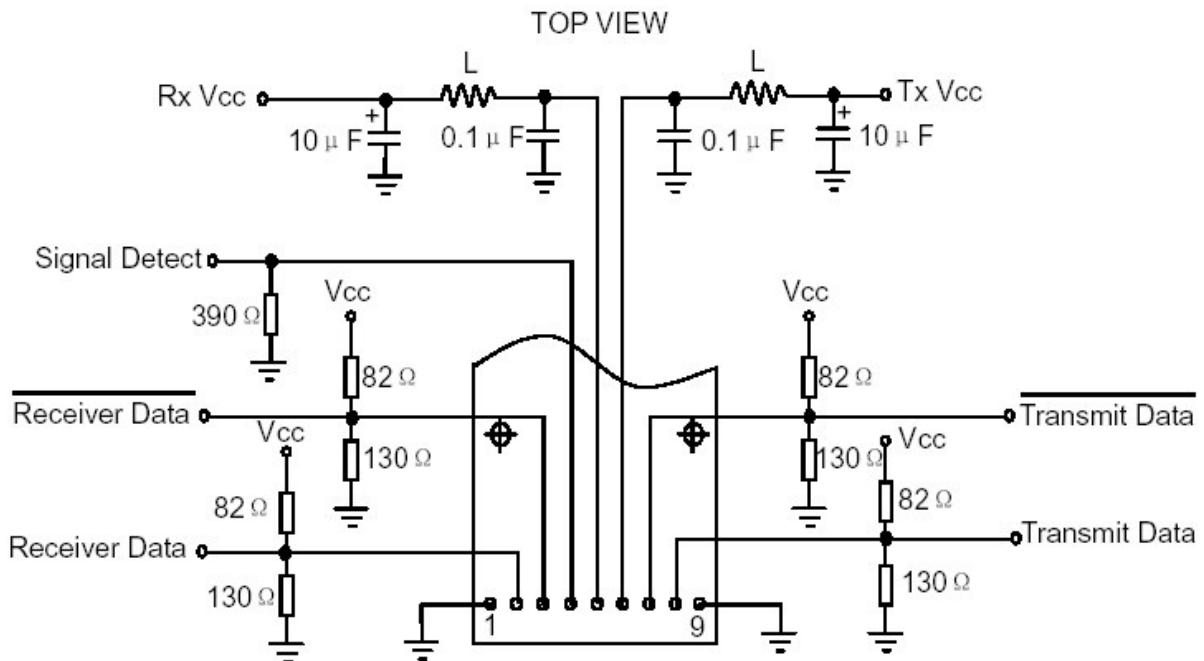
### Pin Function Definitions

Pin#	Pin Name		Logic Level	Descriptions
N/C	Mounting Studs			The two pins are not connected to the transceiver internal circuit.
1	Rx Ground	$V_{EER}$	N/C	Directly connect this pin to receiver Signal ground plane
2	Rx Output Data	RD+	PECL	
3	Rx Output Inverted Data	RD-	PECL	
4	Rx Signal Detect	SD	PECL	<b>Normal Operation:</b> Logic "1" Output, represents at receiver input. <b>Fault Condition:</b> Logic "0" output
5	Rx Power Supply	$V_{CCR}$	N/C	Provide +5V DC through the recommended power supply filter circuit. Place the filter circuit as close As possible to the $V_{CCR}$ pin
6	Tx power Supply	$V_{CCR}$	N/C	Provide +5V DC through the recommended power supply filter circuit. Place the filter circuit as close As possible to the $V_{CCT}$ pin
7	Tx Inverted Data Input	TD-	PECL	
8	Tx Data Input	TD+	PECL	
9	Tx Ground	$V_{EET}$	N/C	Directly connect this pin to transmitter signal ground plane.

**Packaged information**



**Recommend circuit**



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