

Features

- Transceiver unit with independent transmitter and receiver
- Fast Ethernet 100BASE compliant
- Compliant facility Manufacture in an ISO9001
- SC-Duplex fiber connector compatible
- +5V Signal power Supply Operation with PECL Logic Interfaces
- 2km transmission distance with MMF
- Eye Safety Certified: US 21 CFR(J),and EN 60825-(+All)

Application

- SONET/STM-1,SDH/OC-3, ATM
- 100Base Fast Ethernet links
- FDDI

General

The optical transceiver is designed for use in 155mbit/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 LED while the receiver consists of a PIN and a pre-amplifier. The transceiver operate 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	+3.6	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	+3.1	3.3	+3.5	V
Case Temperature	Tc	0	25	+70	°C

Tabel 3. Transmitter Characteristics(T_A=273k to 343k, Vcc =4.75V to5.25V)

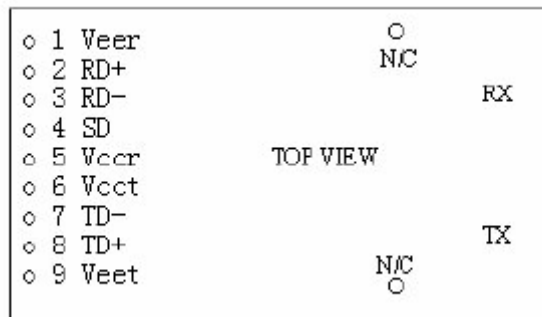
Parameter	Symbol	Min	Ty p	Max	Unit
Center Wavelength	λ_p	1270	1310	1380	nm
Spectral Width(RMS)	$\Delta\lambda$ (RMS)	-	-	200	nm

Average Optical Output Power	Po	-22	-1 8	-14	dBm
Extinction Ratio	Er	8	-	-	dB
Optical Rise/Fall Time	Trise/fall (20%-80%)	-	-	3.1	ns
Data Input Voltage	Low	-	Vcc-1.81	-	Vcc-1.475 v
	High	-	Vcc-1.165	-	Vcc-0.88 v
Output Eye	Compliant with ITU-T G.957/100Base Fast Ethernet				

Receiver O-E Characteristics(T_A=273k to 343k, V_{cc} =4.75V to5.25V)

Parameter	Symbol	Min	Typ	Max	Unit
Operate wavelength	-	1260	-	1360	nm
Receive Sensitivity	Pr	-	-35	- 33	dBm
Saturation	Ps	-14			dBm
Data Output Voltage	Low	-	Vcc-1.86	-	Vcc-1.57 V
	High	-	Vcc-1.075	-	Vcc-0.83
LOS Assert Level	P _A	-	-	-33	dBm
LOS Deassert Level	P _D	-45	-	-	dBm
LOS Hysteresis		1.5	-	-	dB

Pin Definitions



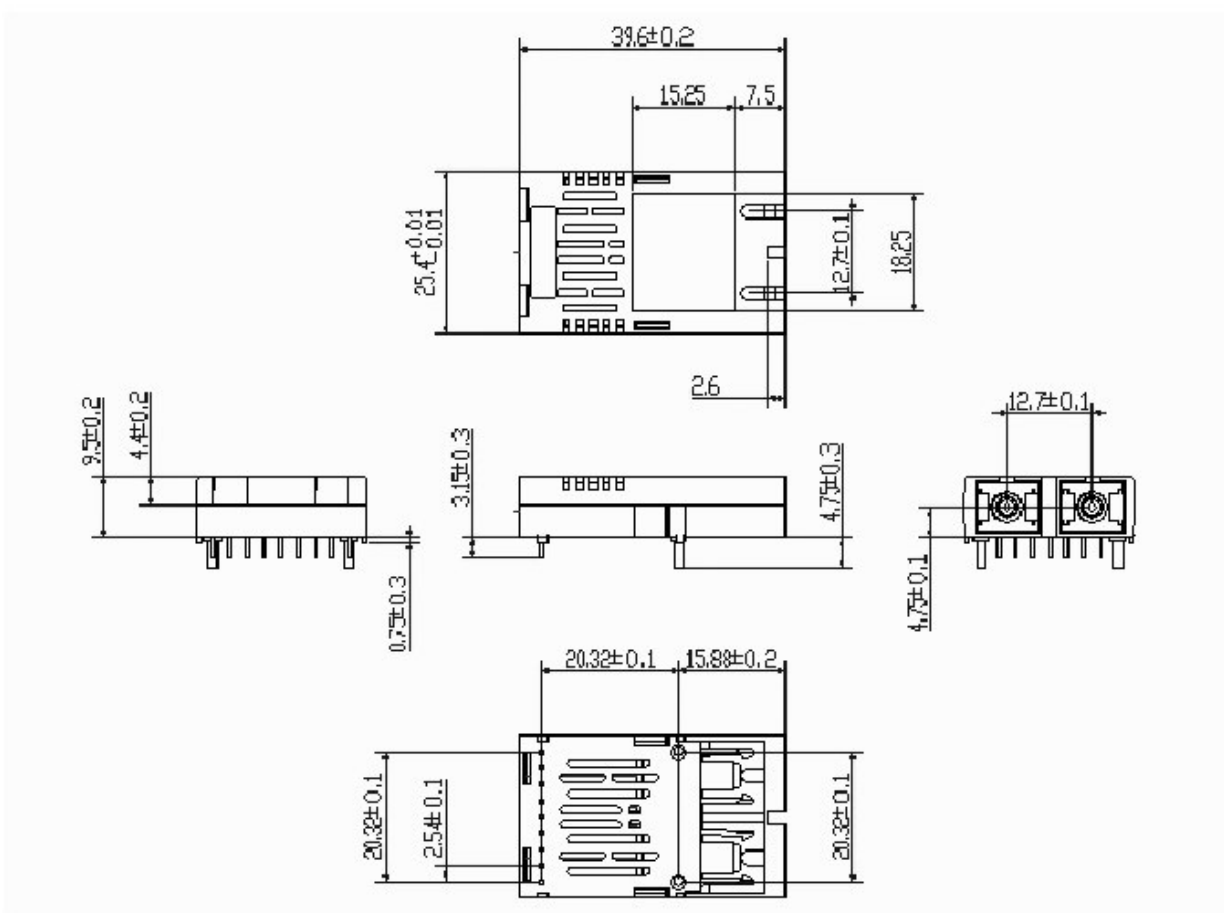
(pin diagram)

Pin Function Definitions

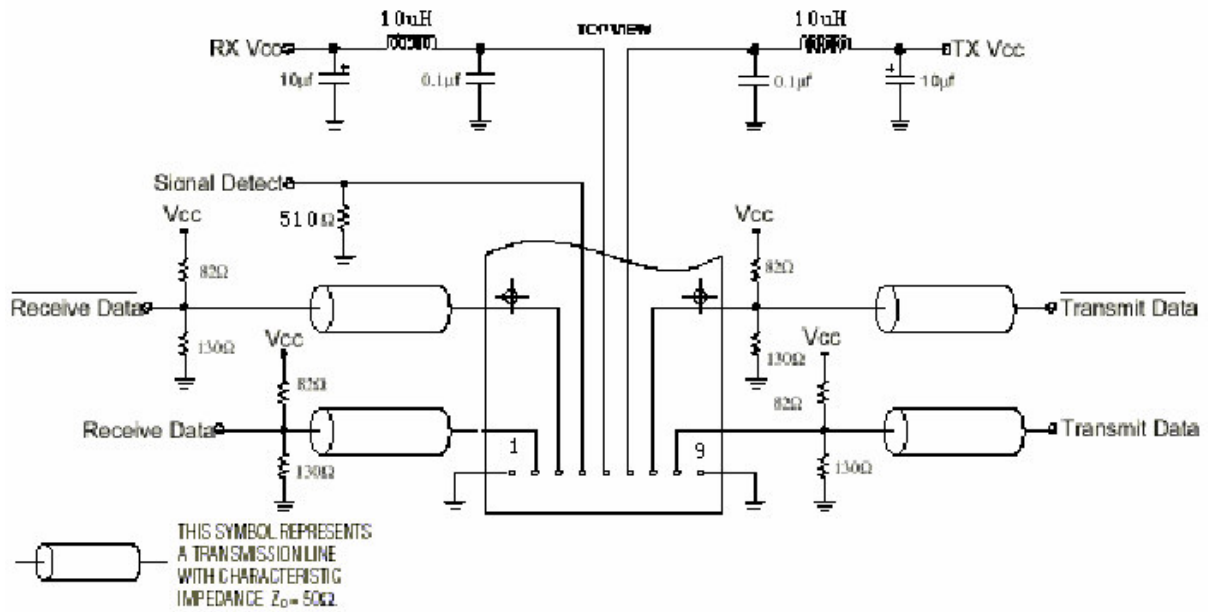
Pin#	Pin Name	Descriptions
1	V _{EER}	Rx Ground
2	RD+	Rx Output Data
3	RD-	Rx Output Inverted Data
4	SD	Rx Signal Detect
5	V _{CCR}	Rx power supply
6	V _{CCT}	Tx power supply
7	TD-	Tx Inverted Data Input
8	TD+	Tx Data Input
9	V _{EET}	Tx Ground

Package information

(unit: mm)



Recommended Circuit



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