Light Optics

Building a brighter future

LO-SF-1G-RJ
SFP RJ45 10/100/1000 TX UTP 100m

Product Features

- Up to 1.25Gb/s bi-directional data links
- SFP form with compact RJ-45 connector
- +3.3V single power supply
- 0 to 70 °C operating case temperature
- -10 ~ 85 °C operating case temperature
- Intelligent Auto-Negotiation support for automatic duplex, speed, and flow control resolution
- 10/100/1000 BASE-T operation in host systems with SGMII interface
- Fully metallic enclosure for low EMI
- Access to physical layer IC via 2-wire serial bus
- RoHS compliant and Lead Free

Applications

- Switch to Switch interface
- 1.25 Gigabit Ethernet over Cat 5 cable

Ordering information

Part Number	Product Description
LO-SF-1G-RJ	SFP RJ45 10/100/1000 TX UTP 100m

Absolute Maximum Ratings

Parameter	Symbol	Minimum	Maximum	Unit
Storage Temperature	T_S	-40	85	°C
Relative Humidity	RH	5	95	%
Supply Voltage	V_{CC}	-0.5	4.0	V

Recommended Operating Conditions

Parameter	Symbol	Min	Typ	Max	Unit
Operating Case Temperature	T_C	0	25	70	°C
Supply Voltage	V_{CC}	3.135	3.3	3.465	V
Data Rate	-	-	10/100/1000	-	Mb/s

Transceiver Electrical Characteristics

Parameter	Symbol	Minimum	Typical	Maximum	Unit	Notes
Module Supply Current	Icc	-	-	400	mA	-
Transmitter Differential Input Voltage (TD +/-)	-	500	-	2400	mV_{P-P}	1
Receiver Differential Output Voltage (RD +/-)	-	500	-	2000	mV_{P-P}	2
Differential Input Impedance	ZTX	80	100	120	Ω	
Low speed output: Transmitter Fault(TX_FAULT) / Loss of Signal (LOS)	VOH	2.0	-	Vcc	V	3
	VOL	0	-	0.8	V	-
Low speed input: Transmitter Disable (TX_DISABLE), MOD_DEF 1, MOD_DEF 2	VIH	2.0	-	Vcc	V	4
	VIL	0	-	0.8	V	-
Data Output Rise/Fall Time	tr,Rx/ tf,Rx		180		ps	

Notes:

1. Internally AC coupled and terminated to 100Ω differential load.
2. Internally AC coupled, but requires a 100Ω differential termination or internal to Serializer/Deserializer.
3. Pulled up externally with a 4.7KΩ-10KΩ resistor on the host board to $V_{CCT,R}$.
4. Mod_Def1 and Mod_Def2 must be pulled up externally with a 4.7KΩ-10KΩ resistor on the host board to $V_{CCT,R}$.

Mechanical specifications

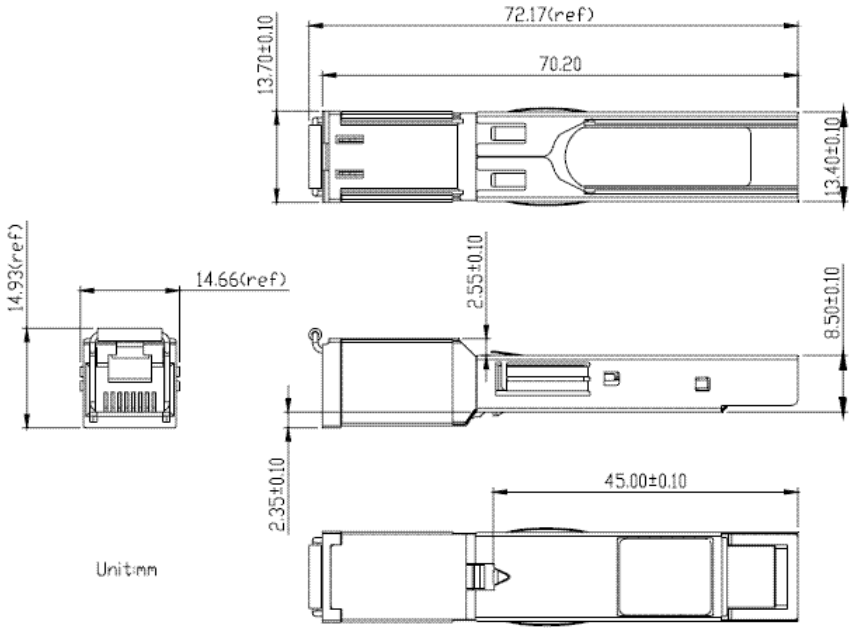

Figure 5. Outline Drawing