



## Product Specification

### 1.25Gbps SFP Optical Transceiver, 550 m

#### 1. Feature:

- SFP package with LC connector
- 850nm VCSEL Laser and PIN photodetector
- Up to 550m transmission on 50/125 um MMF
- +3.3V single power supply
- LVPECL compatible data input/output interface
- Low EMI and excellent ESD protection
- Laser safety standard IEC-60825 compliant
- Compatible with RoHS

#### 2. Application:

- Ethernet
- Telecom
- Fiber Channel

#### 3. Absolute Maximum Ratings :

Parameter	Symbol	Minimum	Maximum	Units
Storage Temperature	Tst	-40	+85	°C
Supply Voltage	Vcc	0	+3.6	V
Operating Relative Humidity	RH	5	95	%

#### 4. Operation Environment :

Parameter	Symbol	Min	Typical	Max	Units
Supply Voltage	Vcc	3.15		3.45	V
Operating Case Temperature	Commercial	0		+70	°C
	Industrial	-40		+85	
Power Dissipation				1	W
Data Rate			1.25		Gbps



## 5. Optical Characteristics :

(Ambient Operating Temperature 0°C to +70°C, Vcc =3.3 V)

Parameter	Symbol	Min.	Typ.	Max.	Units
<b>Transmitter Section</b>					
Center Wavelength	$\lambda_o$	840	850	860	nm
Spectral Width(RMS)	$\Delta\lambda$	-	-	0.85	nm
Average Output Power	Po	-8	-	-3	dBm
Extinction Ratio	Er	9	-	15	dB
Rise/Fall Time(20%~80%)	Tr/Tf			0.26	ns
Total jitter	Tj			0.43	UI
Optical Eye Diagram	IEEE 802.3z and ANSI Fibre Channel Compatible				
<b>Receiver Section</b>					
Center Wavelength	$\lambda_o$	770	850	860	nm
Receiver Sensitivity	Rsen			-19	dBm
Receiver Overload	Rov	-3			dBm
Return Loss		12			dB
LOS Assert	LOS <sub>A</sub>	-32			dBm
LOS Dessert	LOS <sub>D</sub>			-19	dBm
LOS Hysteresis		0.5		5	

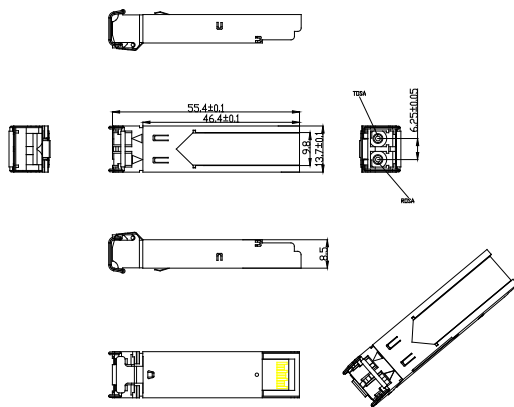


## 6. Electrical Characteristics

(Ambient Operating Temperature 0°C to +70°C, Vcc =3.3 V)

Parameter	Symbol	Min.	Typ.	Max.	unit
<b>Transmitter Section</b>					
Input Differential Impedence	Zin	90	100	110	Ohm
Data Input Swing Differential	Vin	500		2400	mV
TX Disable	Disable	2.0		Vcc	V
	Enable	0		0.8	V
TX Fault	Assert	2.0		Vcc	V
	Deassert	0		0.8	V
<b>Receiver Section</b>					
Output differential impedance	Zout		100		Ohm
Data Input Swing Differential	Vout	370		2000	mV
Rx_LOS	Assert	2.0		Vcc	V
	Deassert	0		0.8	V

## 7. Outline drawing (mm):



## 8. Ordering information :

1GSFP-SR-850	Commercial	0~70°C
1GSFP-SR-850I	Industrial	-40~85°C