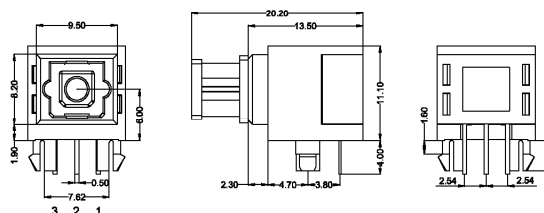


FIBER OPTIC Receiver Module

Features

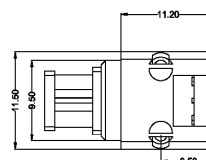
- TTL interface compatible.
- 13.2Mbps data rate(NRZ Signal).
- Directly connectable to demodulation IC.
- Supply voltage 3.3V/ 5V equipment.

Outline Dimensions (Unit:mm)



Applications

- Audio equipment.
- DVD,CD,MD player.
- Automobile.
- Sound card.
- Set top box.
- PC,Notebook.

Tolerance: $\pm 0.2\text{mm}$

Pin Connection

- 1.Vout
- 2.GND
- 3.Vcc

1. Maximum Ratings ($T_a=25^\circ\text{C}$, $V_{cc}=3.3\text{V}/5\text{V}$)

Parameter	Symbol	Rating	Unit
Storage Temperature	T_{stg}	-40~80	$^\circ\text{C}$
Operating Temperature	T_{opr}	-20~70	$^\circ\text{C}$
Supply Voltage	V_{cc}	-0.5~7	V
Input Voltage	V_{IN}	-0.5~ $V_{cc}+0.5$	V
Soldering Temperature	T_{sol}	260 (Note 1)	$^\circ\text{C}$

Note 1 :Soldering time ≤ 10 seconds (At a distance of 1 mm from the package.)2. Recommended Operating Conditions ($T_a=25^\circ\text{C}$, $V_{cc}=3.3\text{V}/5\text{V}$)

Parameter	Symbol	Min	Typ.	Max	Unit
Supply Voltage	V_{cc}	2.7	3.3	5.5	V
Operating transfer rate	T	0.1	-	13.2	Mbps
Input optical power level	PI	-24	-	-14.5	dBm

3. Electrical and Optical Characteristics : Receiver ($T_a=25^{\circ}\text{C}$, $V_{cc}=3.3\text{V}/5\text{V}$)

Parameter	Symbol	Condition	Min	Typ.	Max	Unit
Operating transfer rate	T	NRZ Signal (Note 2)	0.1	-	13.2	Mb/s
Operating voltage	V_{cc}		2.7	3.3	5.5	V
Optical Input Sensitivity	P_i		-24	-	-14.5	Bm
Peak Emission Wavelength	λ_p		-	700	-	nm
Dissipation Current	I_{cc}	Refer to Fig.(1)	-	8	15	mA
High Level Output Voltage	V_{OH}	Refer to Fig.(2)	2.4	-	-	V
Low Level Output Voltage	V_{OL}	Refer to Fig.(2)	-	-	0.4	V
Rise time	t_r	Refer to Fig.(2)	-	10	15	ns
Fall time	t_f	Refer to Fig.(2)	-	10	15	ns
Low->High Propagation delay time	t_{PLH}	Refer to Fig.(2)	-	-	180	ns
High -> Low Propagation delay time	t_{PHL}	Refer to Fig.(2)	-	-	180	ns
Pulse Width Distortion	Δtw	Refer to Fig.(2)	-20	-	20	ns
Jitter Time	Δt_j	Refer to Fig.(3)	-	-	15	ns

Note 2 : LED is ON when input signal is high, and OFF when it is low.

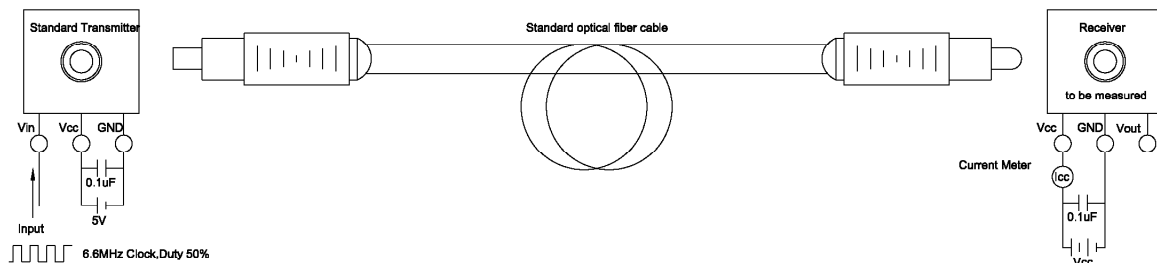
The duty factor must be maintained between 25 to 75%.

Note 3 : Measure with a standard optical fiber, peak value.

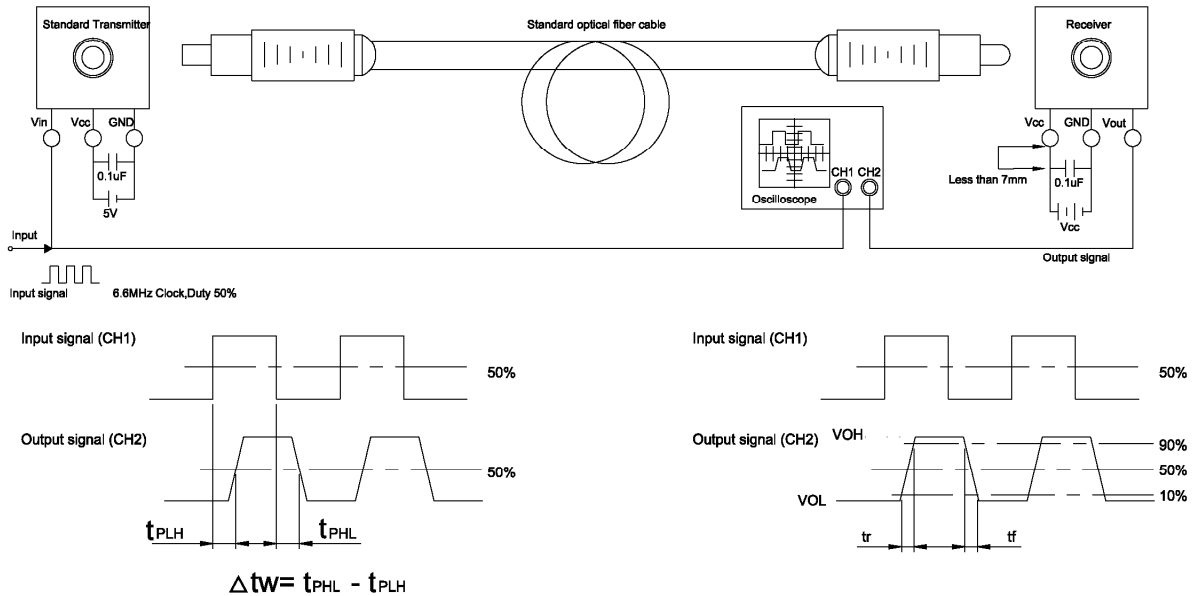
4. Measuring method

(1). Measuring Supply Current

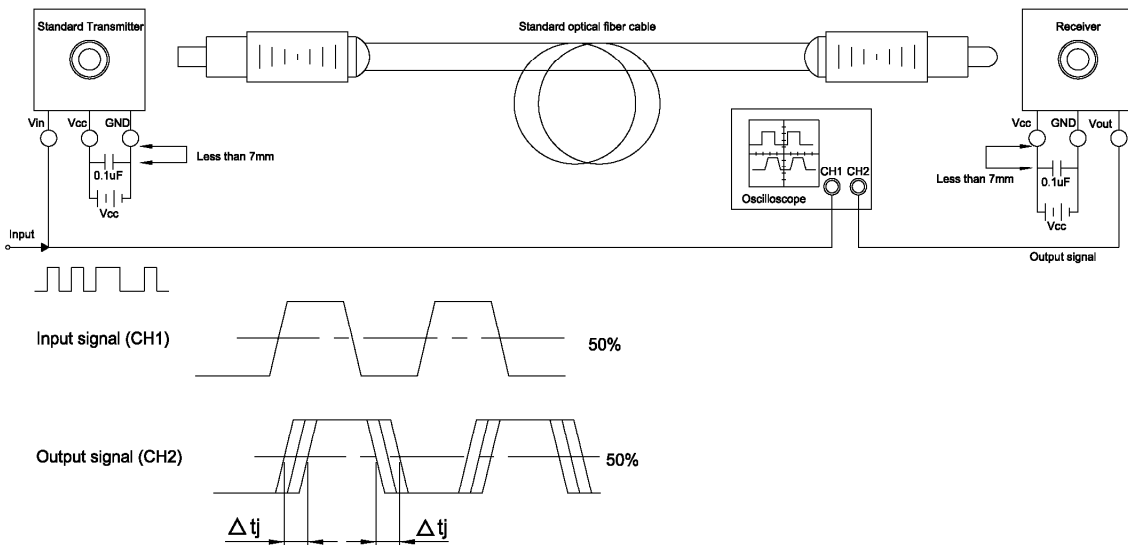
	Input test Conditions	Measuring method
Supply Voltage	$V_{cc}=5.0\text{V}$	DC Average current
Fiber coupling light output	$P_c=-14.5\text{dBm}$	
Standard transmitter input signal	13.2Mbps NRZ	



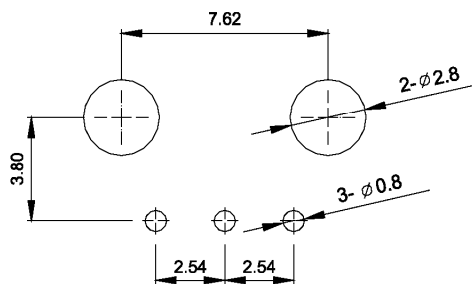
(2).Measuring method of Output Voltage and Pulse response



(3).Measuring method of Jitter



5.Recommended PCB Layout



Notes:
1.Unit:mm
2.Tolerance: 0.3mm