

# PRODUCT SPECIFICATION

DATE:05/18/2004

<b>cosmo</b> ELECTRONICS CORPORATION	Photolink : <b>KPLR1320A</b>	NO.60F01001	REV.
		SHEET 1 OF 5	1

## FIBER OPTIC Receiver Module

### Features

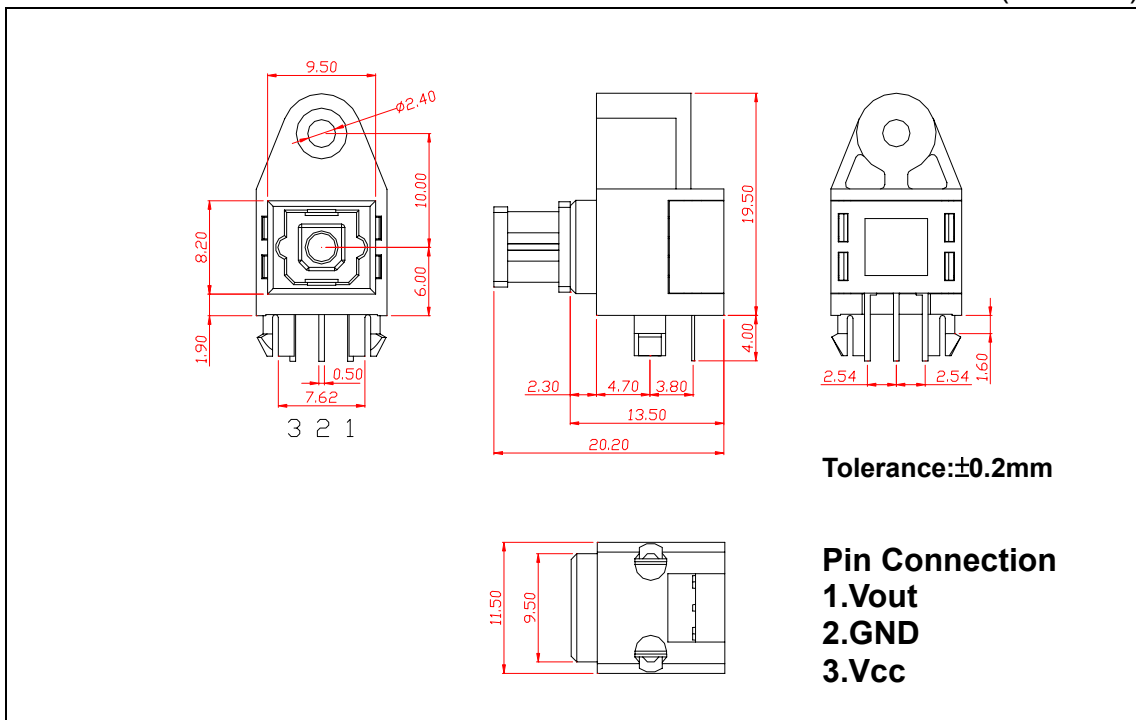
- TTL interface compatible.
- 13.2Mbps data rate(NRZ Signal).
- Directly connectable to demodulation IC.
- Supply voltage 3.3V/ 5V equipment.

### Applications

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

### Outline Dimensions

(Unit:mm)



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## 1. Maximum Ratings (Ta=25°C, Vcc=3.3V/5V)

Parameter	Symbol	Rating	Unit
Storage Temperature	T <sub>stg</sub>	-40~80	°C
Operating Temperature	T <sub>opr</sub>	-20~70	°C
Supply Voltage	V <sub>CC</sub>	-0.5~7	V
Input Voltage	V <sub>IN</sub>	-0.5~V <sub>CC</sub> +0.5	V
Soldering Temperature	T <sub>sol</sub>	260 <sup>(Note 1)</sup>	°C

Note 1 : Soldering time  $\leq$  10 seconds (At a distance of 1 mm from the package) .

## 2. Recommended Operating Conditions (Ta=25°C, Vcc=3.3V/5V)

Parameter	Symbol	Min	Typ.	Max	Unit
Supply Voltage	V <sub>CC</sub>	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 (Ta=25°C, Vcc=3.3V/5V)

Parameter	Symbol	Condition	Min	Typ.	Max	Unit
Operating transfer rate	T	NRZ Signal <sup>(Note 2)</sup>	0.1	-	13.2	Mb/s
Operating voltage	V <sub>CC</sub>		2.7	3.3	5.5	V
Optical Input Sensitivity <sup>(Note 3)</sup>	PI		-24	-	-14.5	dBm
Peak Emission Wavelength	$\lambda_p$		-	700	-	nm
Dissipation Current	I <sub>CC</sub>	Refer to Fig.(1)	-	8	15	mA
High Level Output Voltage	V <sub>OH</sub>	Refer to Fig.(2)	2.4	-	-	V
Low Level Output Voltage	V <sub>OL</sub>	Refer to Fig.(2)	-	-	0.4	V
Rise time	t <sub>r</sub>	Refer to Fig.(2)	-	10	15	ns
Fall time	t <sub>f</sub>	Refer to Fig.(2)	-	10	15	ns
Low->High Propagation delay time	t <sub>PLH</sub>	Refer to Fig.(2)	-	-	180	ns
High -> Low Propagation delay time	t <sub>PHL</sub>	Refer to Fig.(2)	-	-	180	ns
Pulse Width Distortion	$\Delta tw$	Refer to Fig.(2)	-20	-	20	ns
Jitter Time	$\Delta tj$	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.

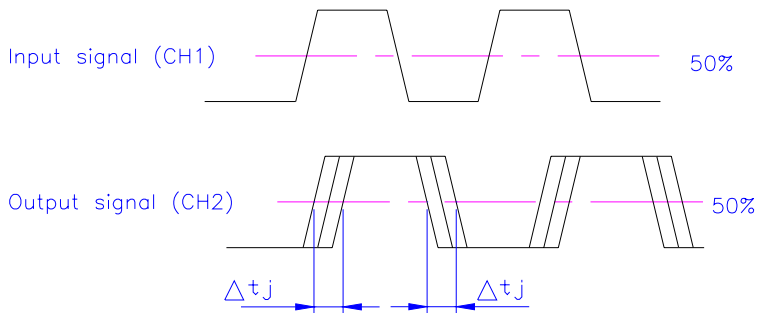
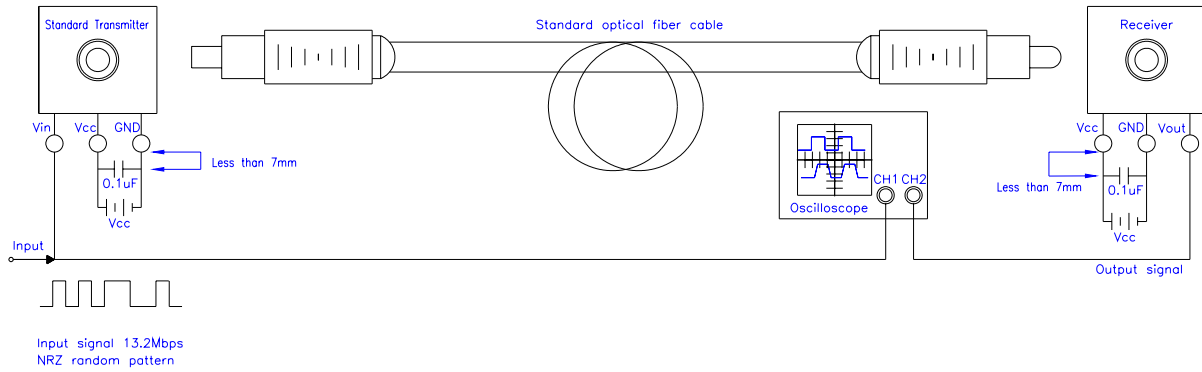


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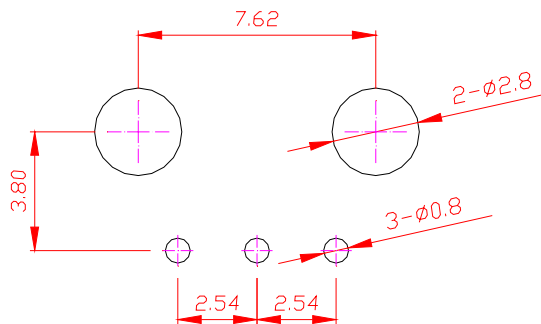
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Fig. (3).Measuring method of Jitter



## 5.Recommended PCB Layout



**Notes:**  
 1.Unit:mm  
 2.tolerance:±0.3mm

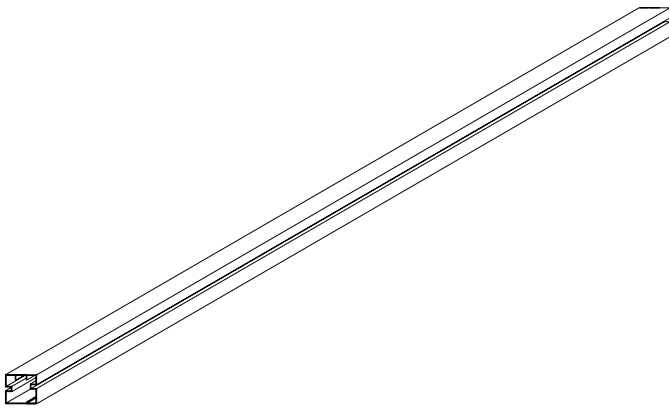
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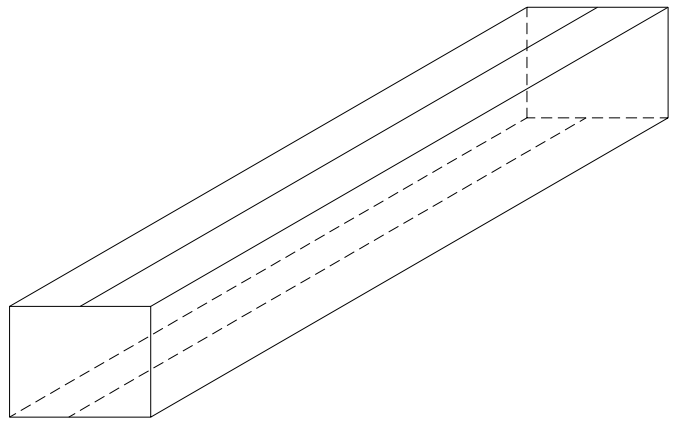
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## 6.Package Information

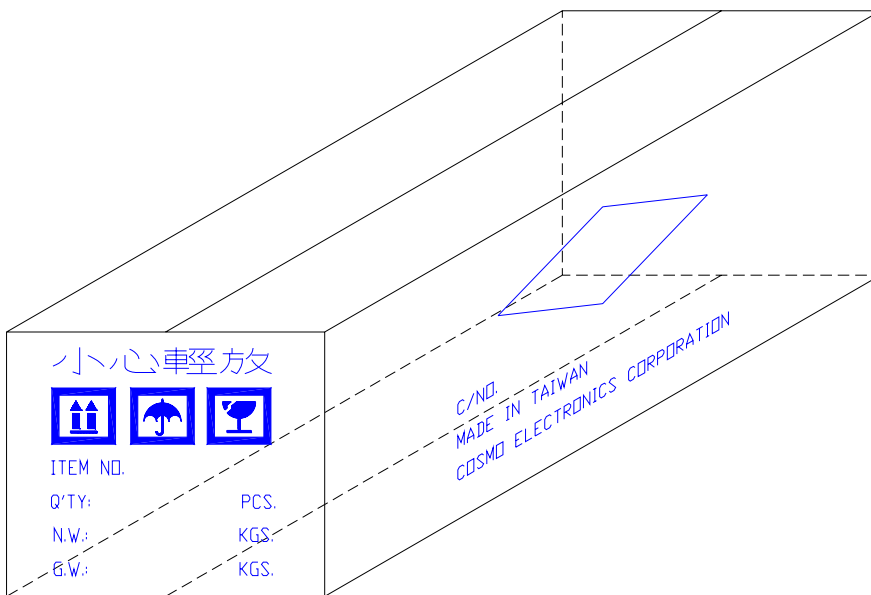
Item	Quantity	Total	Size(Long*Width*High)
Tube	50	50 pcs	640*27.2*25.2 mm
Inner Box	20 Tube/Box	1000 pcs	660*156*122 mm
Outer Box	4 Inner Box/Outer Box	4000 pcs	690*342*284 mm



50pcs/Tube



1000pcs/Inner Box



4000pcs/Outer Box