PRODUCT SPECIFICATION

DATE:02/19/2004

cosmo ELECTRONICS CORPORATION	Photolink : KPLT1320BD	NO.60F00004	REV.
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FIBER OPTIC TRANSMITTING MODULE
FOR DIGITAL AUDIO EQUIPMENT

Features

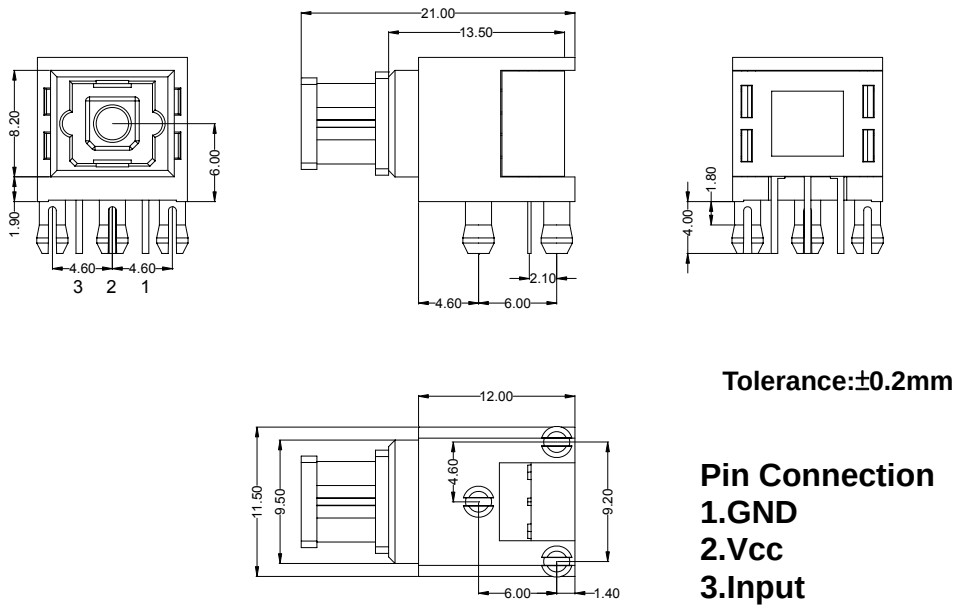
- TTL interface.
- LED is driven by differential circuit.

Applications

- Audio equipment.
- DVD player.
- Automobile.

Outline Dimensions

(Unit:mm)



Tolerance:±0.2mm

Pin Connection
1.GND
2.Vcc
3.Input

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1. Maximum Ratings（Ta=25℃）

Parameter	Symbol	Rating	Unit
Storage Temperature	T_{stg}	-40~80	℃
Operating Temperature	T_{opr}	-20~70	℃
Power Dissipation	P_{max}	120	mW
Supply Voltage	Vcc	-0.5~7	V
Input Voltage	V_{IN}	-0.5~Vcc+0.5	V
Soldering Temperature	T_{sol}	260 (Note 1)	℃

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

2. Recommended Operating Conditions

Parameter	Symbol	Min	Typ.	Max	Unit
Supply Voltage	V_{CC}	4.75	5.0	5.25	V
High-Level Input Voltage	V_{IH}	2.0	-	VCC	V
Low-Level Input Voltage	V_{IL}	0	-	0.8	V

3. Electrical and Optical Characteristics（Ta=25℃，V_{CC}=5V）

Parameter	Symbol	Condition	Min	Typ.	Max	Unit
Data Rate		NRZ Signal (Note 2)	DC	-	13.2	Mb/s
Transmission Distance		Using APF (Note 3)	0.2	-	5	m
Fiber Output Power (Note 4)	Pf		-21	-	-15	dBm
Peak Emission Wavelength	λp		630	650	690	nm
Current Consumption	Icc		-	-	13	mA
High Level Input Voltage	V_{IH}		2.0	-	-	V
Low Level Input Voltage	V_{IL}		-	-	0.8	V
Low->High Propagation delay time	t_{PLH}				150	ns
High -> Low Propagation delay time	t_{PHL}				150	ns
Pulse Width Distortion	△tw	6Mbps NRZ Signal	-25	-	25	ns
Jitter Time	△tj				25	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：All Plastic Fiber（970 / 1000nm）.

Note 4：Measure with a standard optical fiber, peak value.

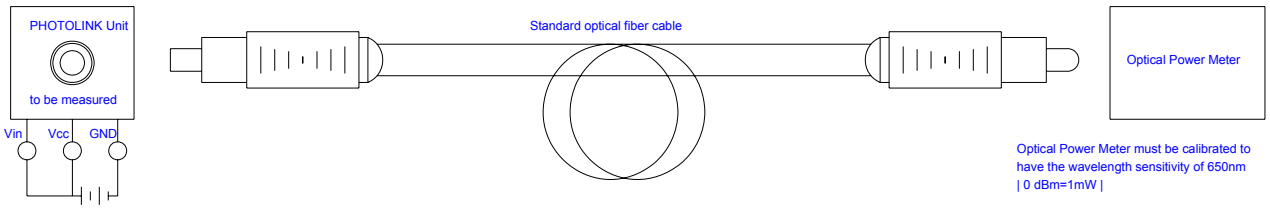
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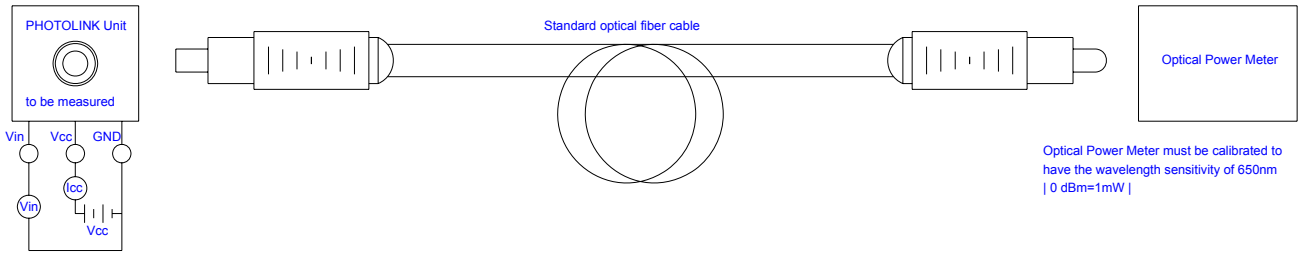
cosmo ELECTRONICS CORPORATION	Photolink : KPLT1320BD	NO.60F00004	REV.
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4. Measuring method

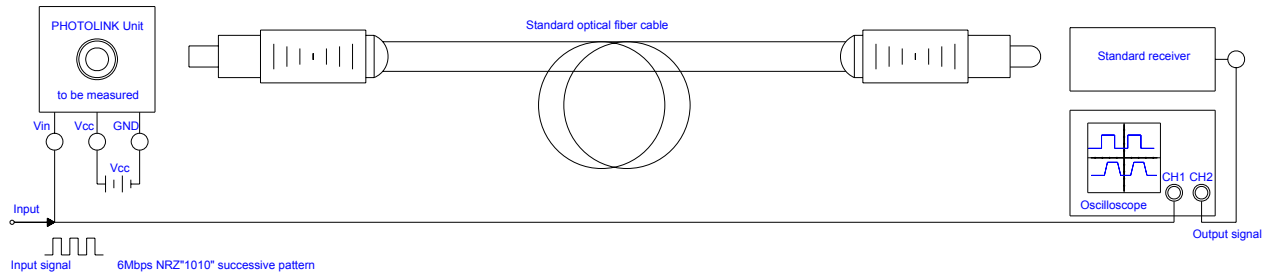
(1).Measuring method of optical output coupling fiber

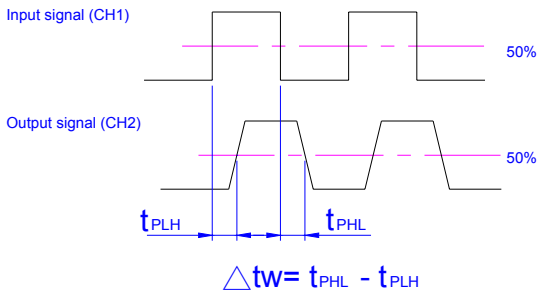


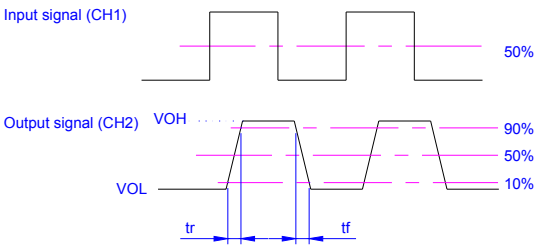
(2).Measuring method of power dissipation current and input voltage



(3).Measuring method of Pulse response





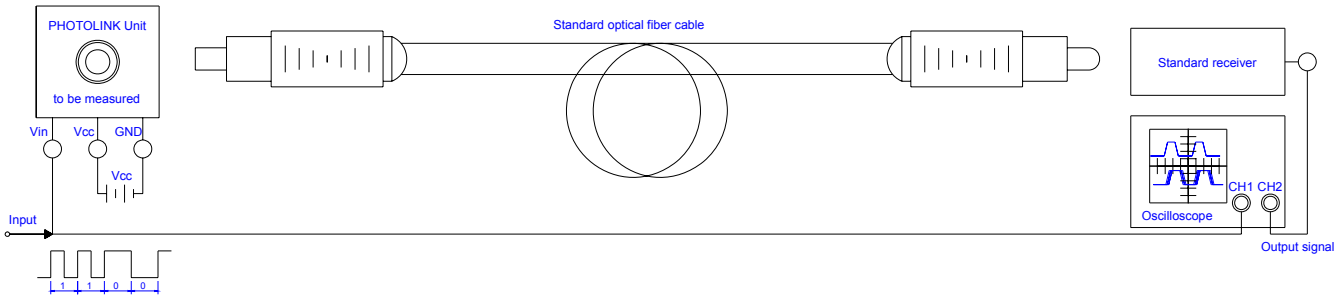


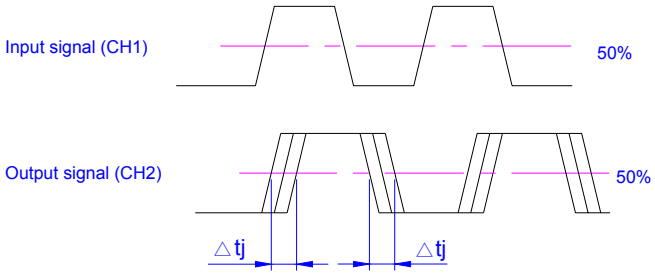
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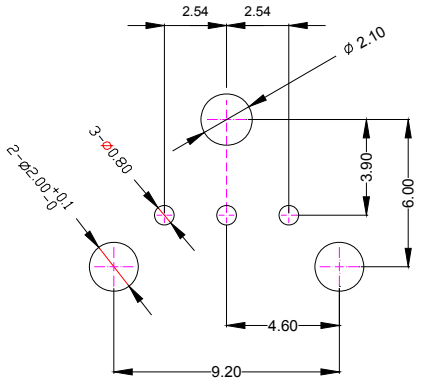
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(4).Measuring method of Jitter





5.Recommended PCB Layout



Notes:
1.Unit:mm
2.tolerance:±0.3mm