

PRODUCT SPECIFICATION

DATE:12/29/2005

cosmo ELECTRONICS CORPORATION	Photolink : KPLT1320BS	NO.60F00010	REV.
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FIBER OPTIC TRANSMITTING MODULE FOR DIGITAL AUDIO EQUIPMENT

Features

TTL interface.

LED is driven by differential circuit.

A Self-tapping hole for easy attachment to audio Equipment panels.

Applications

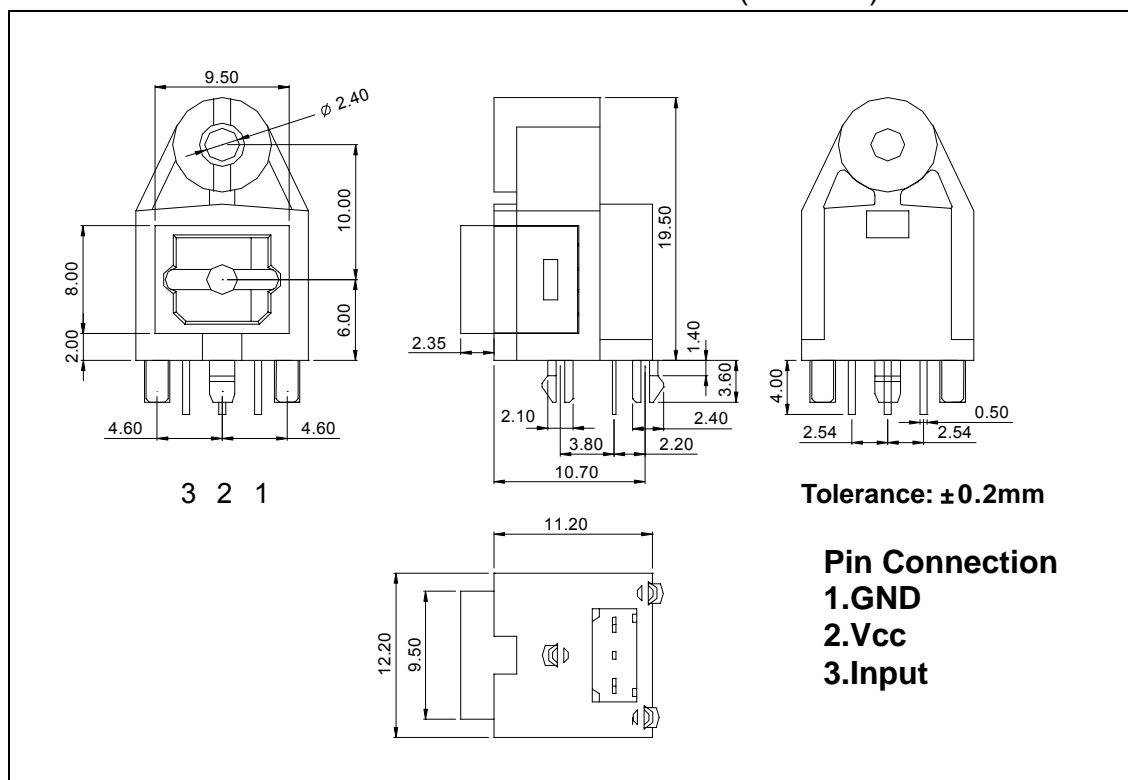
Audio equipment.

DVD player.

Automobile.

Outline Dimensions

(Unit:mm)



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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	V _{CC}	-0.5~7	V
Input Voltage	V _{IN}	-0.5~V _{CC} +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	-	V _{CC}	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)	P _f		-21	-	-15	dBm
Peak Emission Wavelength	λ _p		630	650	690	nm
Current Consumption	I _{CC}		-	-	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	t _w	6Mbps NRZ Signal	-25	-	25	ns
Jitter Time	t _j				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.

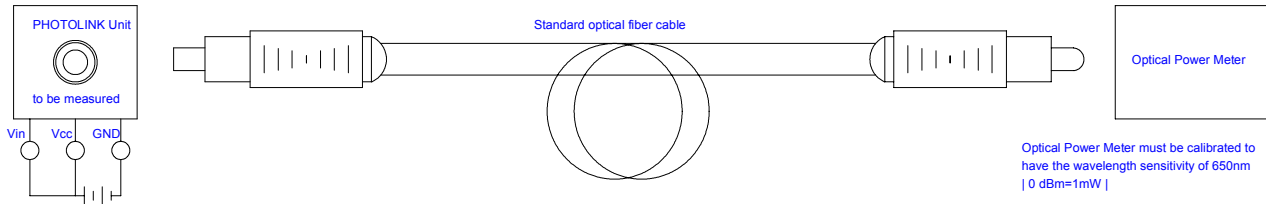
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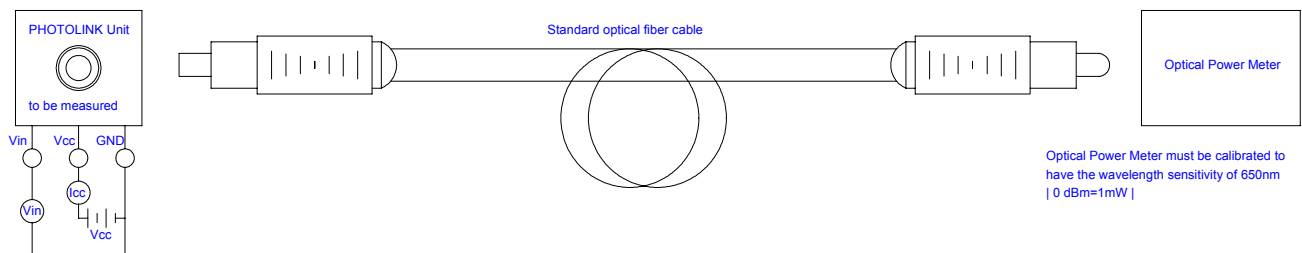
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4. Measuring method

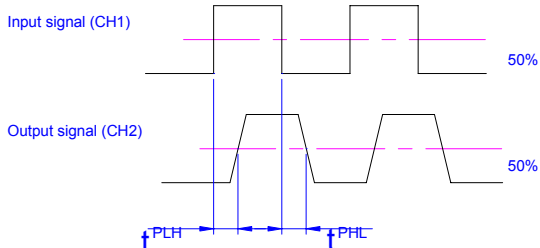
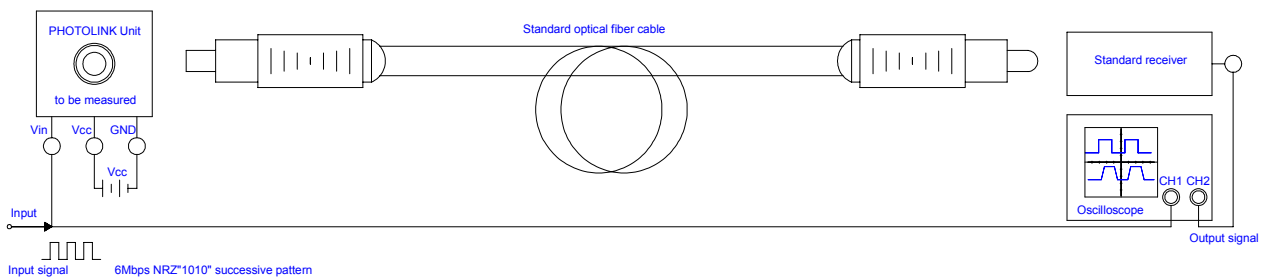
(1). Measuring method of optical output coupling fiber



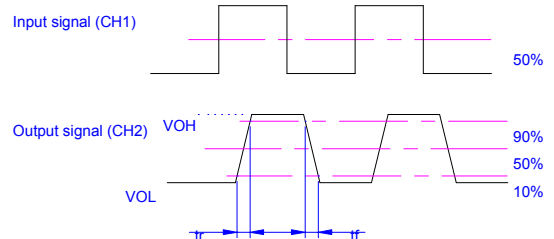
(2). Measuring method of power dissipation current and input voltage



(3). Measuring method of Pulse response



$$tw = t^{PHL} - t^{PLH}$$

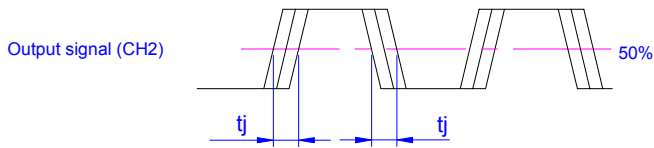
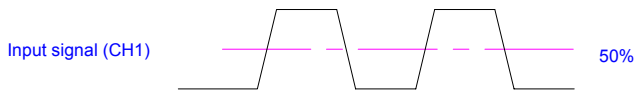
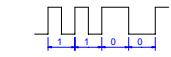
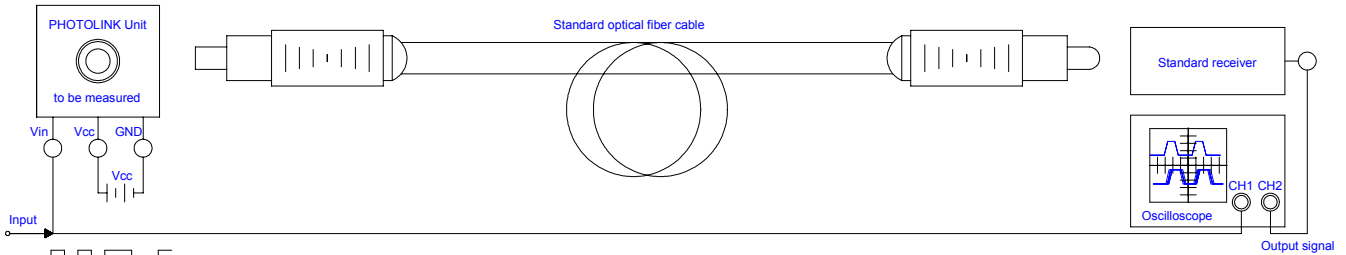


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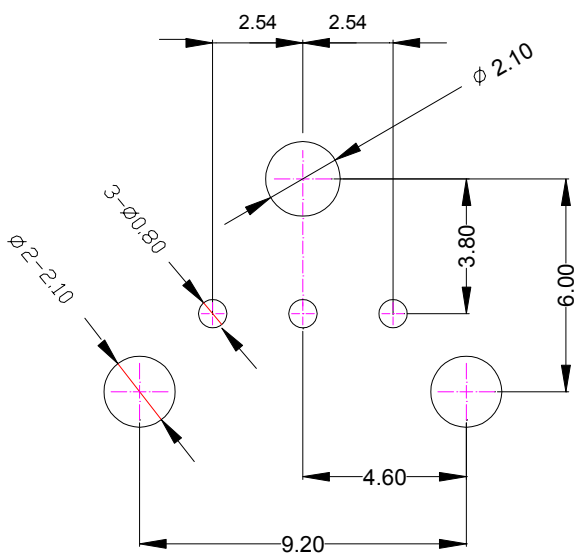
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(4).Measuring method of Jitter



5.Recommended PCB Layout



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