



Technical Data Sheet

Photolink- Fiber Optic Transmitter

PLT131/T1/12

Features

- High speed signal transmission (12Mbps NRZ Signal)
- TTL interface compatible
- +3~+5V single power source

Descriptions

Photolink is assembled with plastic housing and opto-electric component packaged with a 660nm AlGaAs LED and drive IC. It transforms the electrical signal to optical signal and be transmitted by 1mm diameter plastic optical fiber.

The component is operated at +3~+5V and has high performance at low dissipation current, steady light output and efficient light coupling.



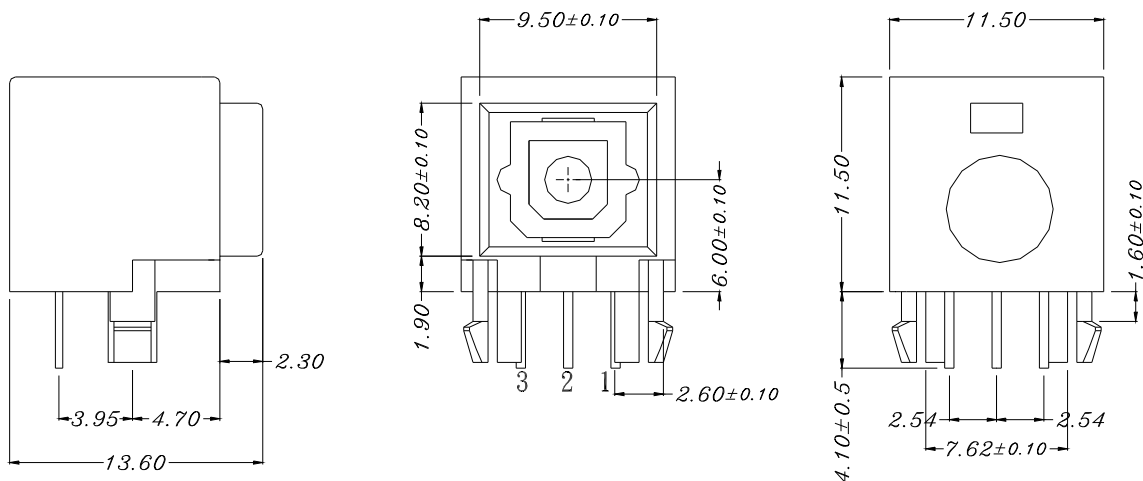
Applications

- Digital audio equipment
- CD player
- DVD player

Device Selection Guide

Chip		Operating Voltage (Vcc)	Dissipation Current(mA)		Fiber Coupling Light Output (dBm)		
Material	λ p(nm)		Typ.	Max.	Min.	Typ.	Max.
AlGaAs	660	+3.0~5.0	5.5	10	-21	--	-15

Device NO.:DPL-131-014

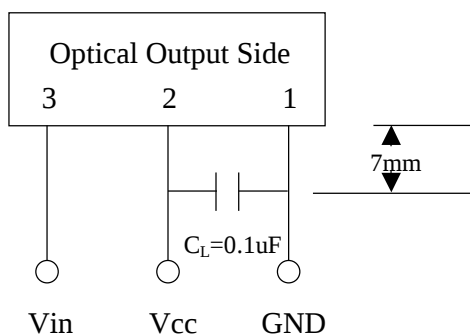


Package Dimensions

Notes: 1.All dimensions are in millimeters.
2.General Tolerance : $\pm 0.1\text{mm}$

Pin Function: 1.GND
2.Vcc
3.Vin

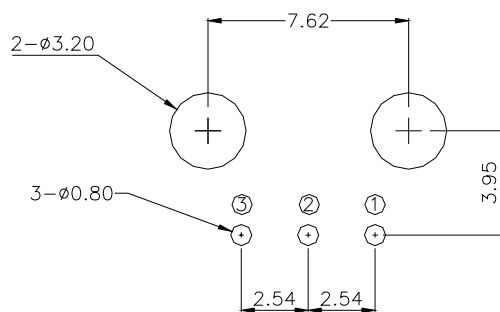
Using Method



Notes:

1. unit:mm
- 2.Dimension Tolerance: $\pm 0.1\text{mm}$
- 3.Substrate Thickness:1.6mm

PCB Layout for Electrical Circuit



Absolute Maximum Ratings(Ta = 25℃)

Parameter	Symbol	Rating	Unit
Supply Voltage	Vcc	-0.5 to 7	V
DC Input Voltage	Vin	-0.5 to Vcc+0.5	V
Storage Temperature	Tstg	-40 to 70	℃
Operating Temperature	Topr	-20 to 70	℃
Soldering Temperature	Tsol	260*	℃

* Soldering time ≤ 10 s.

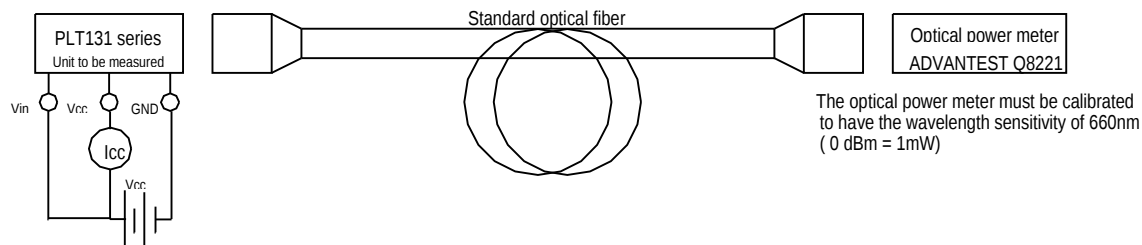
Electro-Optical Characteristics

Parameter	Symbol	Conditions	MIN.	TYP.	MAX.	Unit
Operating Voltage	Vcc	Low Voltage	2.75	3.00	3.25	V
		High Voltage	4.75	5.00	5.25	V
Peak Emission Wavelength	λ_p		640	660	680	nm
Transmission Rate		NRZ Code	DC	-	12	Mbps
Transmission Distance		Using APF*	0.2	-	20	m
Fiber Coupling Output Power	Pf	*1	-21	-18	-15	dBm
Dissipation Current	Icc	*2	3	-	10	mA
High Level Input Voltage	V _{IH}		2	-	-	V
Low Level Input Voltage	V _{IL}		-	-	0.8	V
Low to High Delay Time	t _{pLH}	*3	-	-	180	ns
High to Low Delay Time	t _{pHL}	*3	-	-	180	ns
Pulse Width Distortion	Δtw	*3	-30	-	30	ns

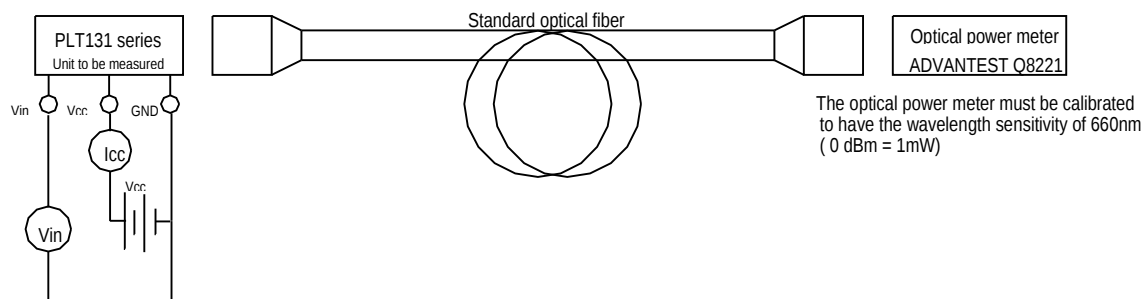
*All Plastic Optical Fiber (970/1000um)

Measuring Method

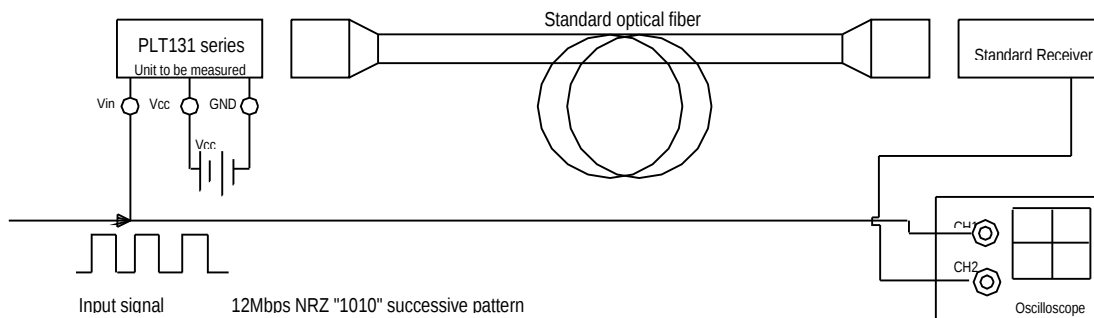
*1 Measuring method of optical output coupling fiber



*2 Input voltage/power dissipation measuring method



*3 Pulse response measuring method



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Device NO.:DPL-131-014