



# Technical Data Sheet

## Photolink- Fiber Optic Transmitter

**PLT131/T1/12**

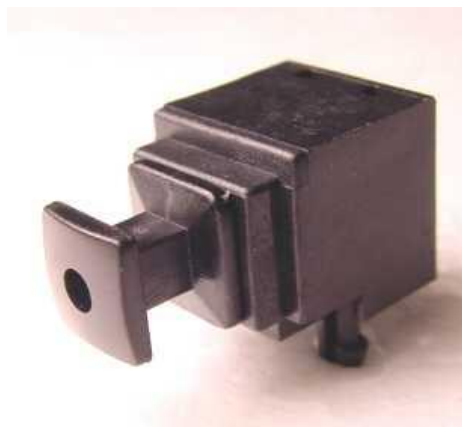
### Features

- 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.



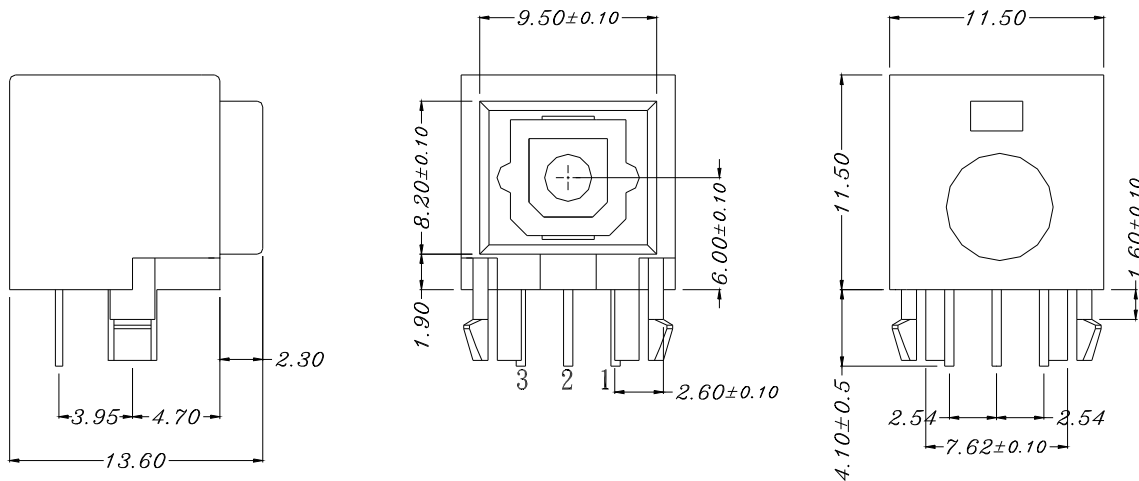
### Applications

- Digital audio equipment
- CD player
- DVD player

### Device Selection Guide

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

Device NO.:DPL-131-014

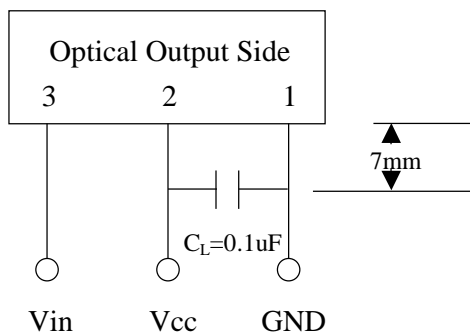


**Package Dimensions**

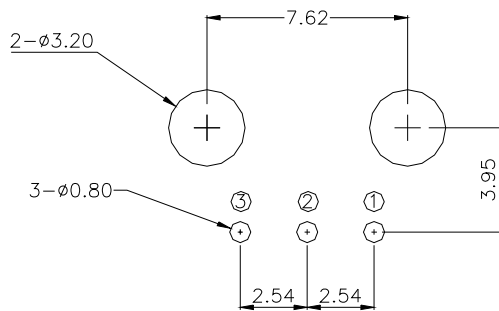
- Notes:** 1.All dimensions are in millimeters.  
2.General Tolerance :± 0.1mm

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

**Using Method**



**PCB Layout for Electrical Circuit**



- Notes:**  
1. unit:mm  
2.Dimension Tolerance:± 0.1mm  
3.Substrate Thickness:1.6mm



**Absolute Maximum Ratings( Ta = 25°C )**

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	°C
Operating Temperature	Topr	-20 to 70	°C
Soldering Temperature	Tsol	260*	°C

\* Soldering time ≤ 10 s.

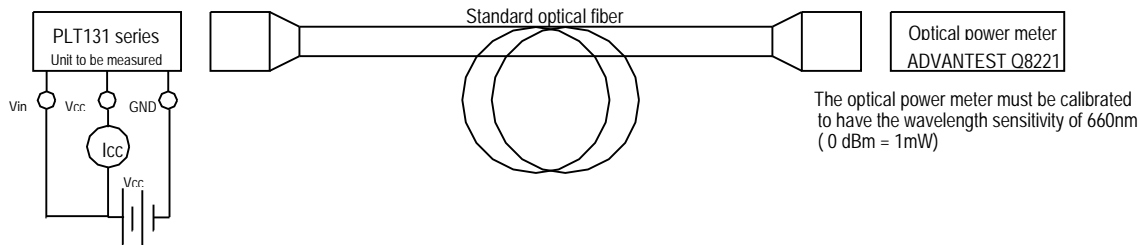
**Electro-Optical Characteristics**

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	$\lambda_p$		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 <sub>IH</sub>		2	-	-	V
Low Level Input Voltage	V <sub>IL</sub>		-	-	0.8	V
Low to High Delay Time	t <sub>pLH</sub>	*3	-	-	180	ns
High to Low Delay Time	t <sub>pHL</sub>	*3	-	-	180	ns
Pulse Width Distortion	$\Delta tw$	*3	-30	-	30	ns

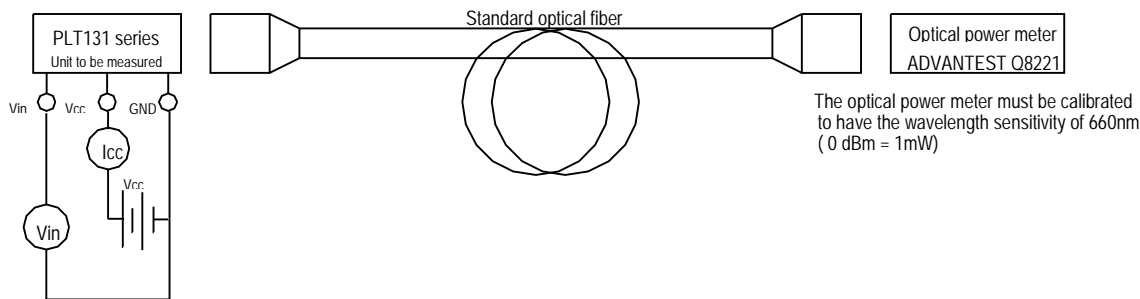
\*All Plastic Optical Fiber ( 970/1000um )

**Measuring Method**

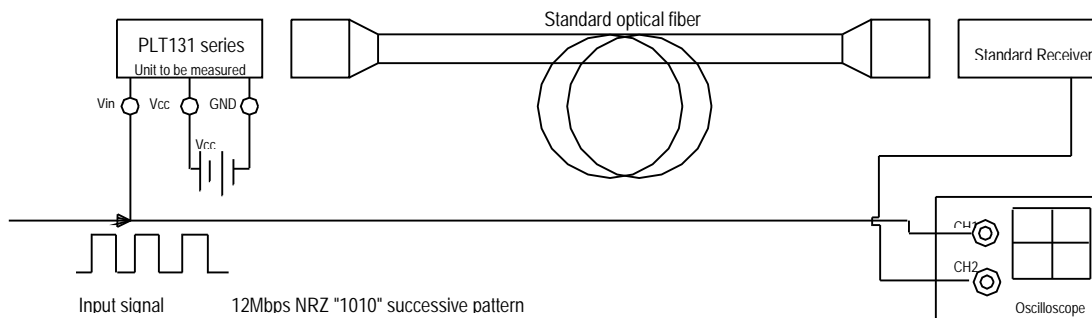
**\*1 Measuring method of optical output coupling fiber**



**\*2 Input voltage/power dissipation measuring method**



**\*3 Pulse response measuring method**



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**Device NO.:DPL-131-014**