Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

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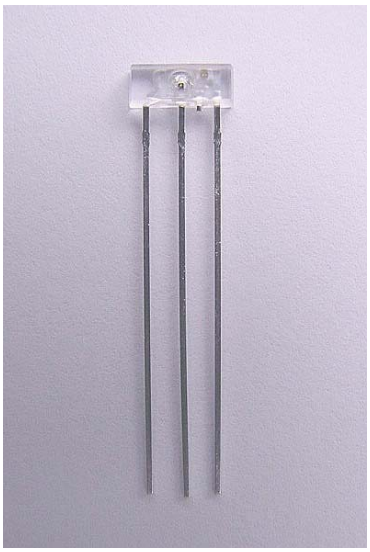
Technical Data Sheet

Photo-link Light Transmitter Unit

PLT532

Features



- High speed signal transmission（50Mbps NRZ Signal）
- TTL interface compatible
- +3~+5V single power source
- Pb Free
- The product itself will remain within RoHS compliant version.

Descriptions

The opto-electrical component is assembled with a 660nm GaAs RCLED and a driver 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 good performance at low dissipation current, steady light output and efficient light coupling.

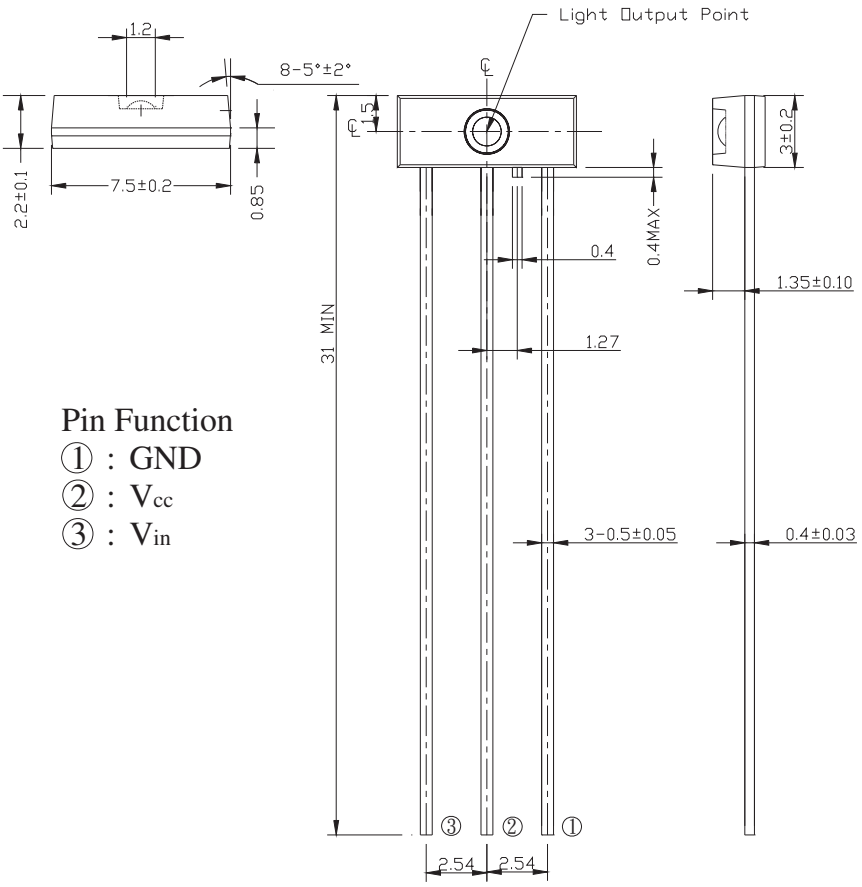
Applications

- Digital audio equipment
- CD player
- DVD player
- HDMI Digital (192kHz) Audio Interface
- Below 50Mbps Transfer Signal Market

Device Selection Guide

Chip		Operating Voltage (Vcc)	Dissipation Current(mA)		Fiber Coupling Light Output (dBm)		
Material	λ p(nm)		Typ.	Max.	Min.	Typ.	Max.
GaAs	660	+3.0~5.0	8	10	-21	---	-15

Package Dimension:



Pin Function
① : GND
② : V_{cc}
③ : V_{in}

Notes: 1.All dimensions are in mm.
2.General Tolerance: Pin length tolerance is ±0.50 mm
others are ±0.10 mm

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 85	℃
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	λp		640	660	680	nm
Transmission Rate		NRZ Code	DC	-	50	Mbps
Fiber Coupling Output Power	Pf	*1	-21	-18	-15	dBm
Dissipation Current	Icc	*1	5	-	10	mA
High Level Input Voltage	V_{IH}		2	-	-	V
Low Level Input Voltage	V_{IL}		-	-	0.8	V
Rise Time	Tr	50Mbps	-	8	-	ns
Fall Time	Tf	50Mbps	-	8	-	ns
Low to High Delay Time	t_{pLH}	*2	-	-	50	ns
High to Low Delay Time	t_{pHL}	*2	-	-	50	ns
Pulse Width Distortion	Δtw	*2	-5	-	5	ns
Jitter	Δtj	*2	-	-	5	ns

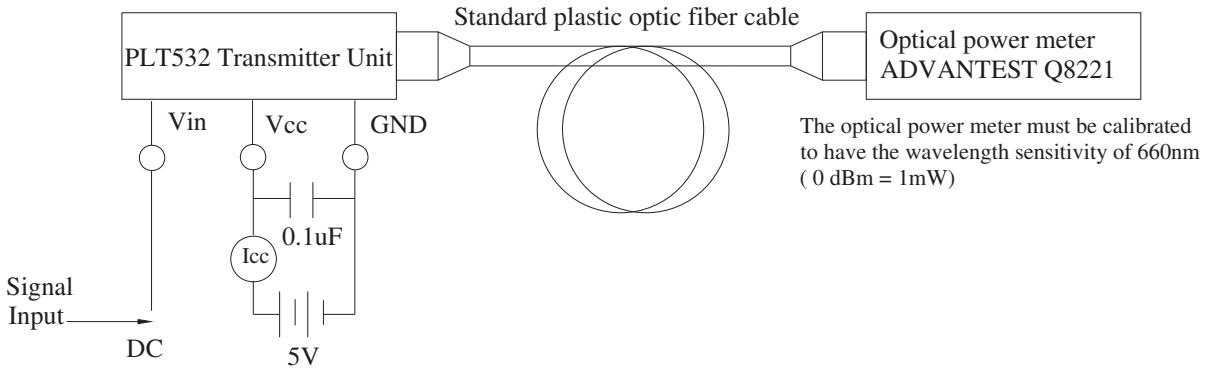
*All Plastic Optical Fiber（980/1000um）

*Circuit Layout Notice: When power is off, it must be cut off together in Vin and Vcc pin.
If it only has Vcc power-off, LED will sure to be no output power.

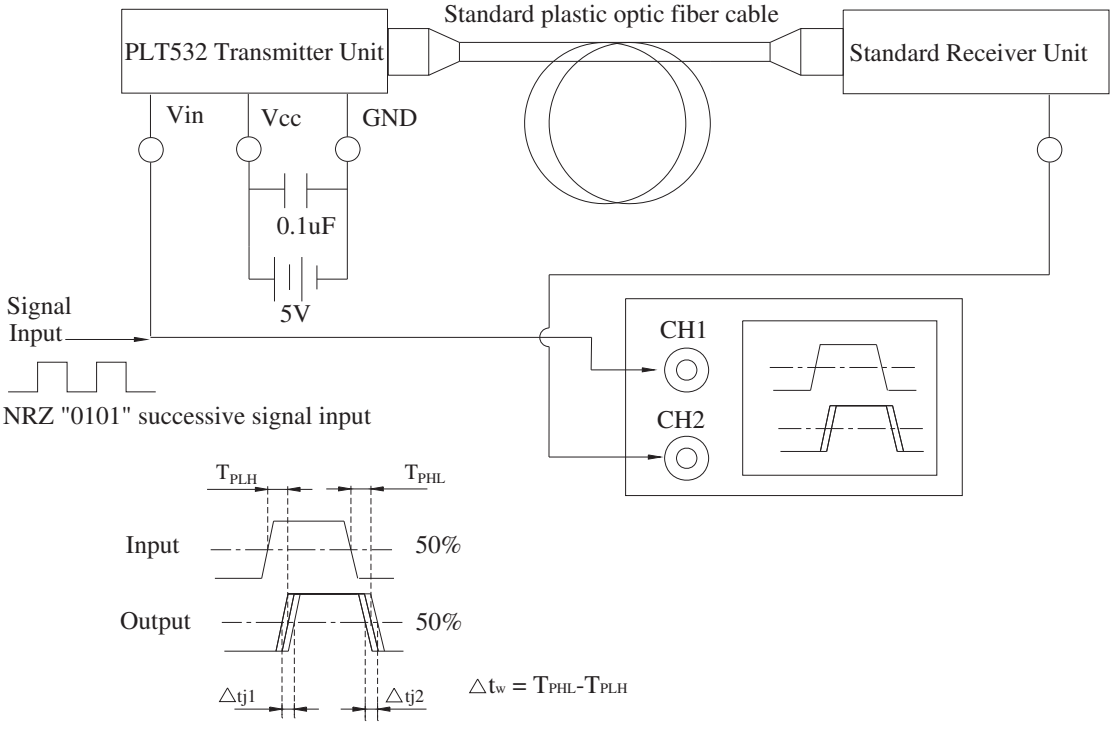
Vcc	Vin	LED Condition
2.7~5.5V	High	ON
2.7~5.5V	Low	OFF
2.7~5.5V	FLOATING	OFF
FLOATING	0~Vcc	OFF

Measuring Method

*1 Measuring method of optical output coupling fiber and dissipation current



*2 Pulse response measuring method



Typical Electro-Optical Characteristics Curves

*Fig.3 Relative Output Power vs. Operating Temperature

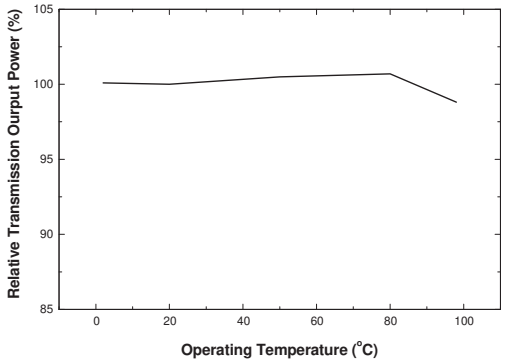


*Fig.4 Relative Output Power vs. Input Signal

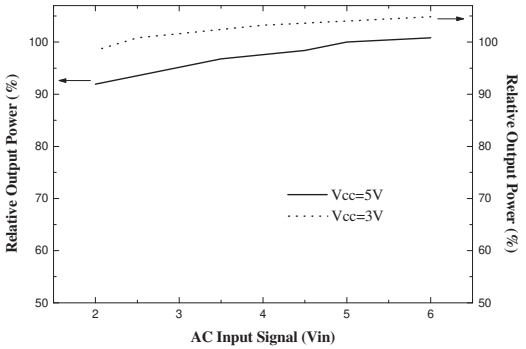


*Fig.5 Relative Output Power vs. Operating Voltage

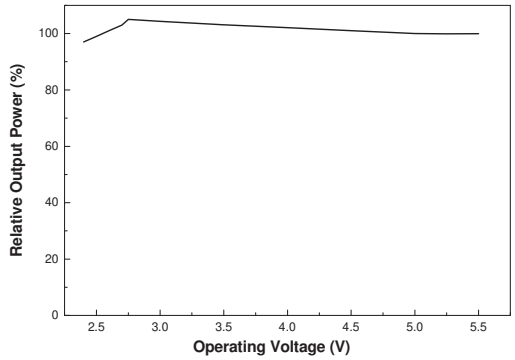
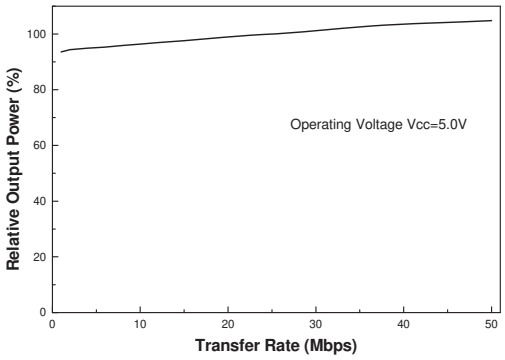


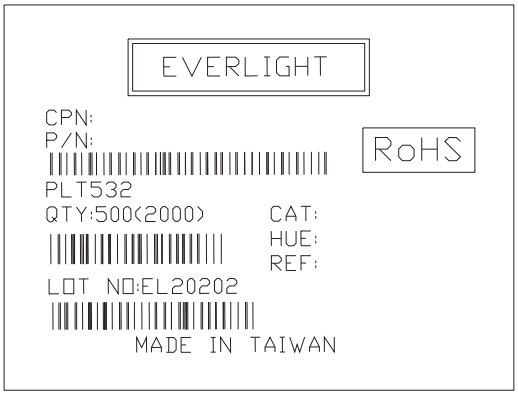
*Fig.6 Relative Output Power vs. Transfer Rate



Packing Quantity Specification

1. 500 pcs/bag
2. 4 bag/box

Label Form Specification



CPN: Customer's Production Number
P/N : Production Number
QTY: Packing Quantity
CAT: Ranks
HUE: Peak Wavelength
REF: Reference
LOT No: Lot Number
MADE IN TAIWAN: Production Place

Notes

1. Above specification may be changed without notice. EVERLIGHT will reserve authority on material change for above specification.
2. When using this product, please observe the absolute maximum ratings and the instructions for using outlined in these specification sheets. EVERLIGHT assumes no responsibility for any damage resulting from use of the product that does not comply with the absolute maximum ratings and the instructions included in these specification sheets.
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