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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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## **DATASHEET**

# Photo-link Light Transmitter Unit EAPLTAA6



#### **Features**

- High speed signal transmission(16Mbps NRZ Signal)
- TTL interface compatible
- +3~+5V single power source
- The product itself will remain within RoHS compliant version.

#### **Description**

The opto-electrical component is assembled with a 660nm AlGaInP LED 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

#### **Device Selection Guide**

Chip		Operating Voltage	Dissipation Current (mA)		Fiber Coupling Light Output (dBm)		
Material	λp(nm)	(Vcc)	Biooipation	sarrone (mrt)			. , ,
Material	πρ(ιιιιι)	(100)	Тур.	Max.	Min.	Тур.	Max.
AlGaInP	660	+3.0~5.0	5.5	10	-21		-15



## 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	ōC
Operating Temperature	Topr	-40 to 85	ōС
Soldering Temperature	Tsol	260*	ōC
Human Body Model ESD	НВМ	3K	V
Machine Model ESD	MM	300	V

Notes: Soldering time  $\leq$  10 seconds.

## **Recommended Operating Conditions**

Parameter	Symbol	Conditions	MIN.	TYP.	MAX.	Unit
Supply Voltage	Vcc	-	2.7	3.0	5.50	٧

## **Electro-Optical Characteristics (Ta=25℃)**

Parameter	Symbol	Conditions	MIN.	TYP.	MAX.	Unit
Peak Emission Wavelength	λр		640	660	680	nm
Transmission Rate		NRZ Signal	DC	-	16	Mbps
Fiber Coupling Output Power	Pf	* Measuring Method 1	-21	-	-15	dBm
Dissipation Current	Icc	* Measuring Method 1	3	-	10	mA
High Level Input Voltage	Vih		2	-	-	V
Low Level Input Voltage	Vil		-	-	0.8	V
Rise Time	Tr	[1] ; *2 NRZ Code	-	15	20	ns
Fall Time	Tf	VFLED = 2.0V	-	15	20	ns
Low to High Delay Time	tpLH	* Measuring Method 2	-	-	100	ns
High to Low Delay Time	tpHL	* Measuring Method 2	-	-	100	ns
Pulse Width Distortion	Δtw	* Measuring Method 2	-15	-	15	ns
Jitter	Δtj	* Measuring Method 2	-	1.5	15	ns

<sup>\*</sup>Note 1 : All Plastic Optical Fiber ( 980/1000um )



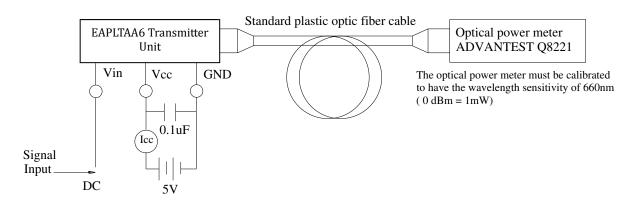
\*Circuit Layout Notice:

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

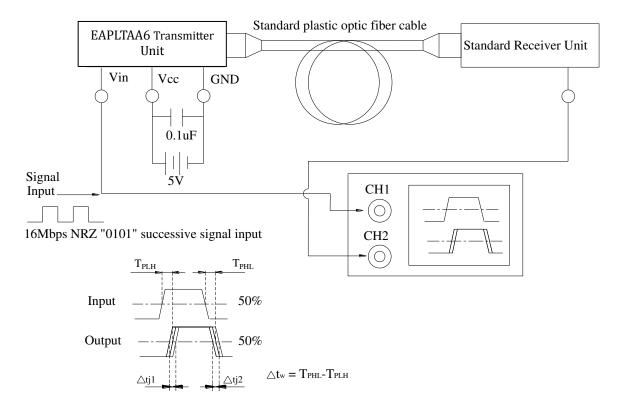
Vcc	Vin	LED Condition
2.7~5.5V	High	ON
2.7~5.5V	Low	OFF
2.7~5.5V	FLOATING	OFF
FLOATING	0~Vcc	OFF

### **Measuring Method**

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

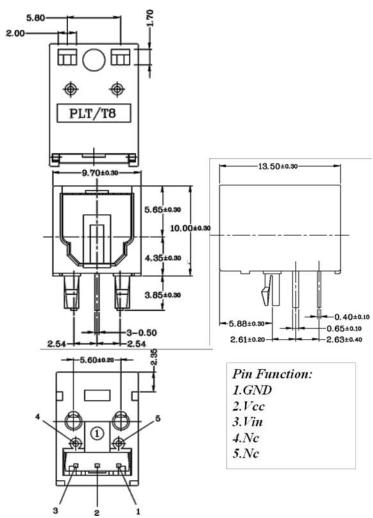


\*2 Pulse response measuring method



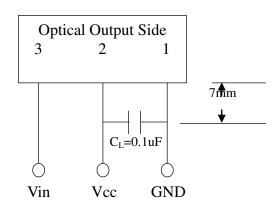


## **Package Dimension**

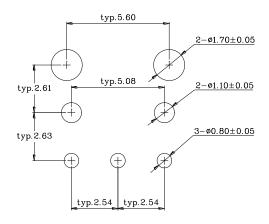


Note: 1.All dimensions are in millimeters. 2.General Tolerance: ±0.3mm

## **Using Method**



## **PCB Layout for Electrical Circuit**





#### **Moisture Resistant Packing Materials**

#### **Label Explanation**



· CPN: Customer's Product Number

• P/N: Product Number

QTY: Packing Quantity

CAT: Luminous Intensity RankHUE: Dom. Wavelength Rank

• REF: Forward Voltage Rank

· LOT No: Lot Number

• X: Month

· Reference: Identify Label Number

#### **Packing Quantity Specification**

- 1. 60 pcs/tube
- 2. 36 tube/inner box
- 3. 4 inner box/outside box

#### **Notes**

- 1. Above specification may be changed without notice. Everlight Americas 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 Americas assumes no responsibility for any damage resulting from use of the product which does not comply with the absolute maximum ratings and the instructions included in these specification sheets.
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