

# Fibre Optic Transmitter Jack multicomp<sup>PRO</sup>

RoHS  
Compliant



## Features

- High speed signal transmission (16Mbps, NRZ signal )
- Input TTL compatible
- +3 to +5V power source

## Descriptions

The light transmitting unit is a standard-package product with connector and opto-electric component packaged with LED and drive IC. The function of unit changes the electric signal into light signal and be transmitted by plastic fiber.

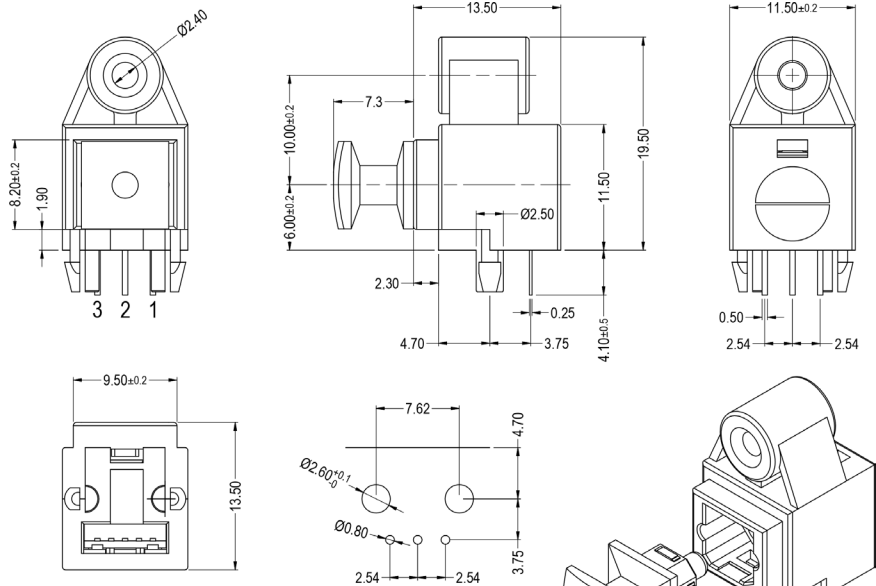
The unit is operated at single+3V to +5V and the input signal is TTL compatible. This has a maximum operating speed of 16 Mbps. The light signal is coupled into plastic fiber by connector. The unit has high performance at low dissipation current, steady light output and efficient light coupling.

## Applications

- Audio equipment
- DVD player
- PC, Notebook
- Sound card

## Diagram

Pin	Function
1	GND
2	Vcc
3	Vin



Description	Material	UL
Body	Black PBT	UL94 V-0 E323954
Rear Body	Black PBT	UL94 V-0 E323954
Cover	Black PBT	UL94 V-0 E323954
IC	Bright TIN Plate	n/a

Dimensions : Millimetres

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## Specification

Chip		Operating Voltage (Vcc)	Dissipation Current(mA)	Fiber Coupling Light Output (dBm)		
IC (dBm) Material	LED $\lambda$ (nm)		Typ.	Min.	Typ.	Max.
Si	650	2.7 to 5.5	5.5	-21	-	-15

## 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	
Power Dissipation	P	120	mW
Storage Temperature	Tstg	-30 to +80	°C
Operating Temperature	Topr	-20 to +70	°C
Soldering Temperature	Tsol	260*	°C

\* Soldering time  $\leq$  5s / 2times.

\*Don't touch flux soldering and white Gas

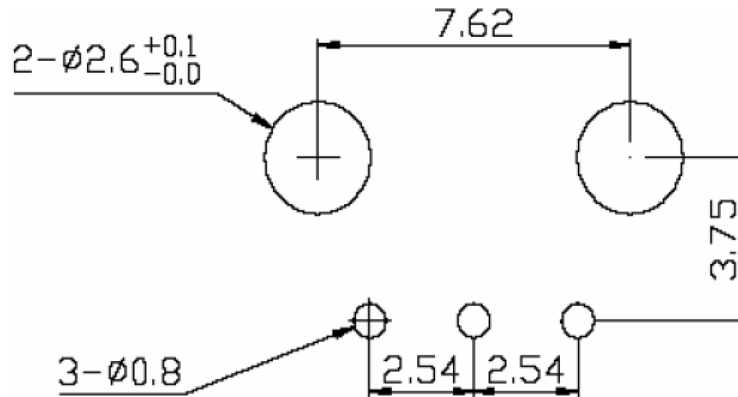
## Electro-Optical Characteristics

Parameter	Symbol	Conditions	MIN.	TYP.	MAX.	Unit
Operating Voltage	Vcc	-	2.7	-	5.5	V
Peak Detective Wavelength	$\lambda$ p	-	640	-	670	nm
Transfer Speed		NRZ signal	DC	-	16	Mbps
Receiving Distance		Using APF	0.2	-	20	m
Pulse Width Distortion	$\Delta$ tw	16Mbps NRZ Signal	-25	-	25	ns
Fiber Coupling Light Output	Pf	*1	-21	-17	-15	dBm
Dissipation Current	Icc	*2	-	5	10	mA
High Level Input Voltage	VIH		2	-	-	v
Low Level Input Voltage	VIL		-	-	0.8	v
Rise Time	t <sub>r</sub>	*3	-	30	40	ns
Fall Time	t <sub>f</sub>	*3	-	20	30	ns
Low $\rightarrow$ High propagation delay time	t <sub>PLH</sub>	*3	-	-	100	ns
High $\rightarrow$ Low propagation delay time	t <sub>PHL</sub>	*3	-	-	100	ns
Jitter	$\Delta$ tj	*3	-	1.5	15	ns

Light transmitting unit satisfies EIAJ CP-1201 digital audio interface standard.

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## PCB Layout For Electrical Circuit



### Notes:

1. Unit: mm
2. Unspecified tolerance:  $\pm 0.3$ mm
3. Substrate Thickness: 1.6mm

## Part Number Table

Description	Part Number
Fibre Optic Transmitter Jack, 16 Mbps, -21dBm, 5.5V, 5.5mA	MP-FCR6842031T

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