

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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# LITEON LITE-ON TECHNOLOGY CORPORATION.

Property of Lite-On Only

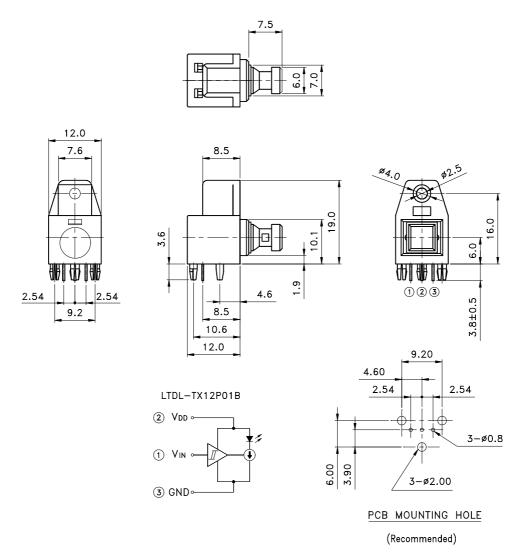
### **FEATURES**

- \* High speed transmission (13.2 Mbps, NRZ code)
- \* Build-in LED driving circuit allows connecting directly to modulation IC for digital audio equipment.
- \* Wide range of operating voltage from 3V to 5V
- \* Same package as fiber optic receiving module LTDL-RX16P01B

### **APPLICATIONS**

- \* Digital audio system
- \* CD & DVD players

### PACKAGE DIMENSIONS



### NOTES:

- 1. All dimensions are in millimeters.
- 2. Tolerance is  $\pm 0.3$  mm unless otherwise noted.

Part No.: LTDL-TX12P01B DATA SHEET Page: 1 of 4



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### ELECTRO-OPTICAL CHARACTERISTICS

ABSOLUTE MAXIMUM RATINGS AT TA=25°C

PARAMETER	MAXIMUM RATING	UNIT		
Supply Voltage (VDD)	<b>-</b> 0.5 ∼ +7	V		
Input Voltage (VIN)	-0.5 ~ V <sub>DD</sub> +0.5	V		
Operating Temperature Range	-20 °C to +70 °C			
Storage Temperature Range	-30 °C to +80 °C			
Lead Soldering Temperature [1.6mm(.063") From Body]	260°C for 5 Seconds			

### ELECTRICAL OPTICAL CHARACTERISTICS AT TA=25°C

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Data Rate	Ts	1	_	13.2	Mbps	NRZ code
Operating Voltage	V <sub>DD</sub>	2.75	_	5.25	V	
Peak Emission Wavelength	λ <sub>Peak</sub>	630	650	690	nm	
Fiber Coupling Light Output	Рс	-21	-17	-15	dBm	*1
Current Consumption	Idd	_	6	8	mA	
High Level Input Voltage	VIH	2	_	_	V	
Low Level Input Voltage	V <sub>IL</sub>	_	_	0.8	V	
"Low→High"propagation delay time	$t_{ m PLH}$	_	_	166	ns	
"High→Low"propagation delay time	$t_{ ext{PHL}}$	_	_	155	ns	*2
Pulse Width Distortion	$\Delta t_{\mathrm{W}}$	-18	_	+18	ns	
Jitter	$\Delta t_{\rm j}$	_	1	18	ns	*2

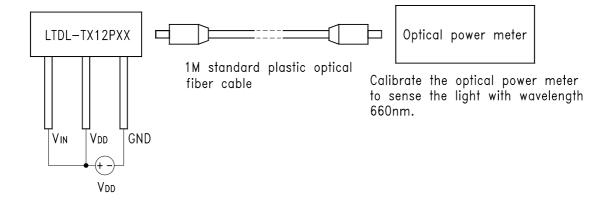
Part No.: LTDL-TX12P01B DATA SHEET Page: 2 of 4



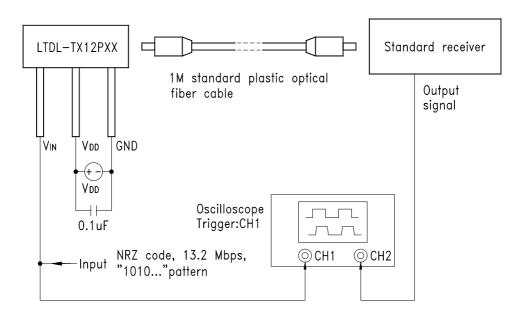
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### \*1 Measuring method of fiber coupling optical power output

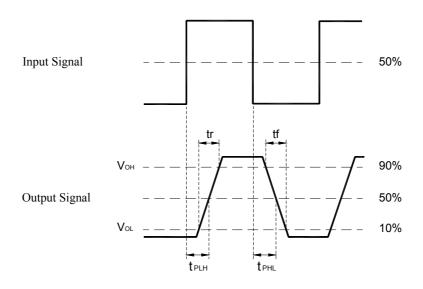


### \*2 Measuring method of pulse response and jitter



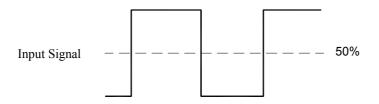
Part No.: LTDL-TX12P01B DATA SHEET Page: 3 of 4 Property of Lite-On Only

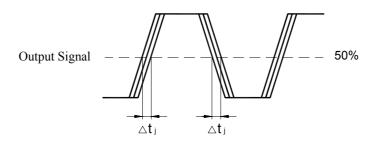
### Rise and Fall Times and Pulse Width Distortion



Pulse Width Distortion=  $\triangle tw = t_{PHL} - t_{PLH}$ 

**Jitter** 





Part No.: LTDL-TX12P01B DATA SHEET Page: 4 of 4