



# IR Emitter and Detector Product Data Sheet LTDL-RX16P05

Spec No.: DS50-2003-017

Effective Date: 09/26/2003

Revision: -

**LITE-ON DCC**

**RELEASE**

BNS-OD-FC001/A4

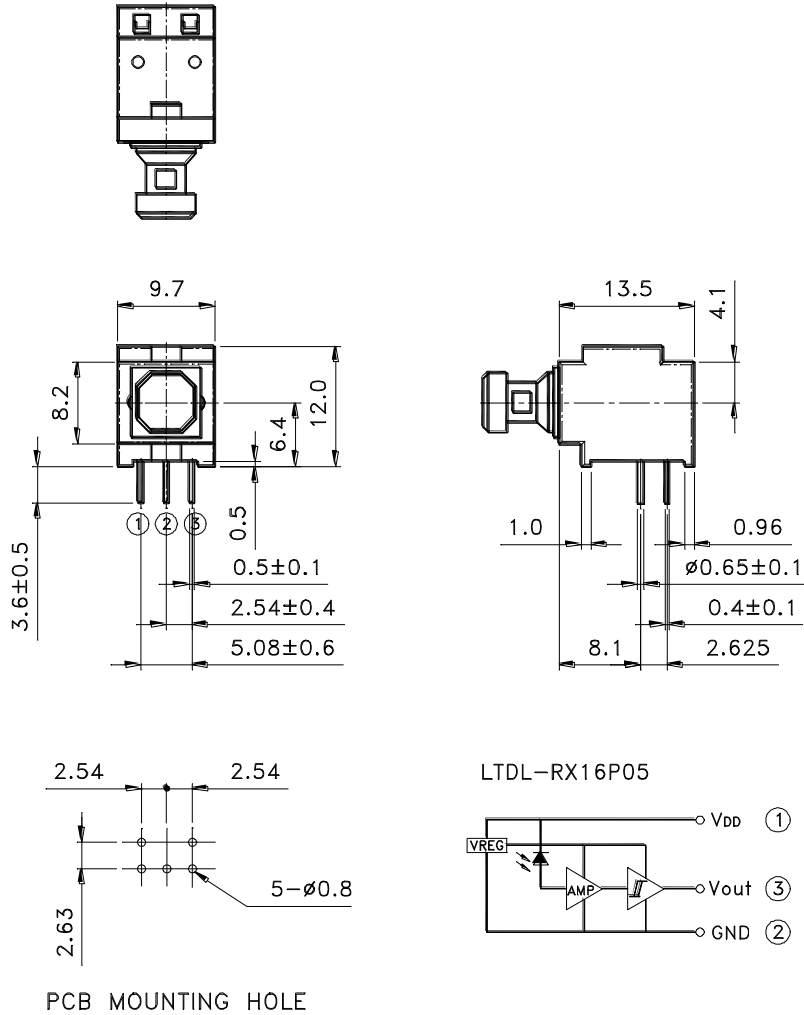
**FEATURES**

- \* High speed transmission ( 16 Mbps , NRZ code )
- \* TTL compatible
- \* Same package as fiber optic transmitting module LTDL-TX12P05

**APPLICATIONS**

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

**PACKAGE DIMENSIONS**



**NOTES:**

1. All dimensions are in millimeters.
2. Tolerance is ±0.3 mm unless otherwise noted.



# LITE-ON TECHNOLOGY CORPORATION

Property of Lite-On Only

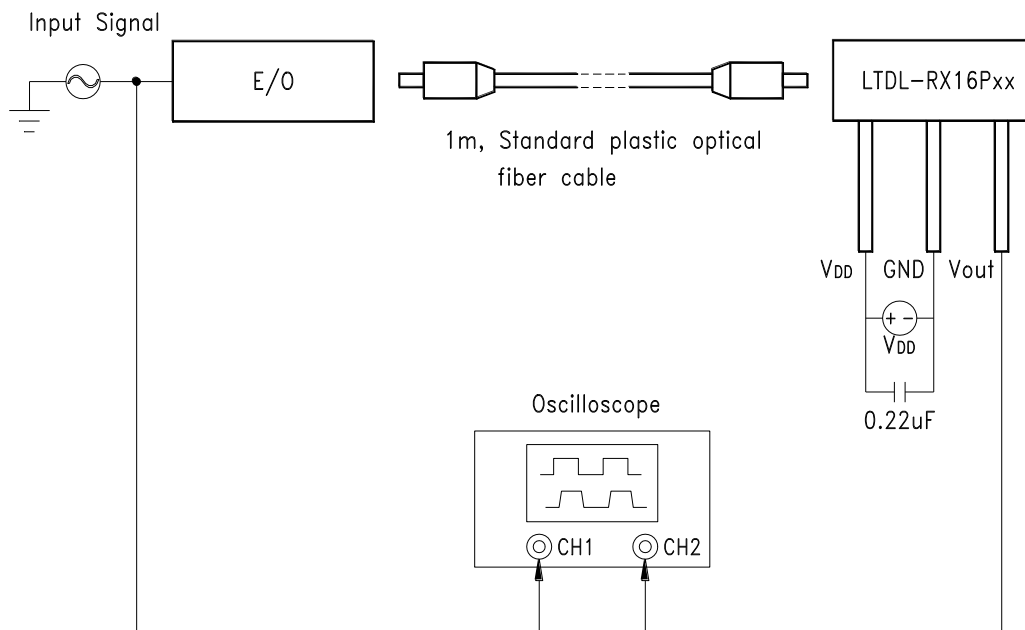
## ELECTRO—OPTICAL CHARACTERISTICS

ABSOLUTE MAXIMUM RATINGS AT Ta=25°C

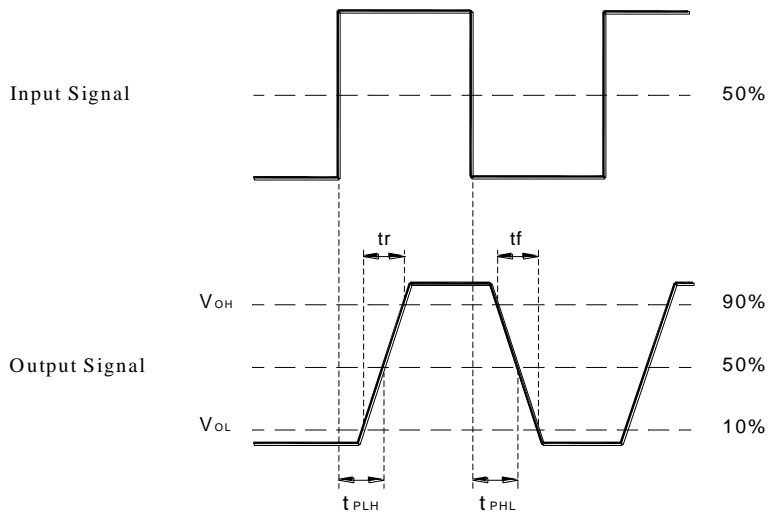
PARAMETER	MAXIMUM RATING	UNIT
Supply Voltage (V <sub>DD</sub> )	6.0	V
Output Voltage (V <sub>O</sub> )	V <sub>DD</sub> + 0.3	V
Operating Temperature Range	-20°C to + 70°C	
Storage Temperature Range	-30°C to + 80°C	
Lead Soldering Temperature [1.6mm(.063") From Body]	260°C for 5 Seconds	

ELECTRICAL OPTICAL CHARACTERISTICS AT Ta=25°C

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Data Rate	T <sub>s</sub>	0.1	—	16	Mbps	NRZ signal
Operating Voltage	V <sub>DD</sub>	4.75	—	5.25	V	
Peak Sensitivity Wavelength	λ <sub>Peak</sub>	—	650	—	nm	
Input Sensitivity	P <sub>i</sub>	-24	—	-14	dBm	
Dissipation current	I <sub>DD</sub>	2	7	10	mA	NRZ signal
High level output voltage	V <sub>OH</sub>	2.4	4.8	—	V	Dc Light , I <sub>OH</sub> = -20 μA
Low level output voltage	V <sub>OL</sub>	—	0.2	0.4	V	Dark , I <sub>OL</sub> = 0.6mA
“Low→High”propagation delay time	t <sub>PLH</sub>	—	—	166	ns	*1
“High→Low”propagation delay time	t <sub>PHL</sub>	—	—	166	ns	
Pulse width distortion	Δ t <sub>w</sub>	-18	—	+18	ns	
Jitter	Δ t <sub>j</sub>	—	1	5	ns	*1
Rise Time	t <sub>r</sub>	—	8	20	ns	*1
Fall Time	t <sub>f</sub>	—	8	20	ns	*1

**\*1 Setup of Measuring System**

**Rise and Fall Times and Pulse Width Distortion**



*Pulse Width Distortion =  $\Delta t_w = t_{PHL} - t_{PLH}$*

**Jitter**

