

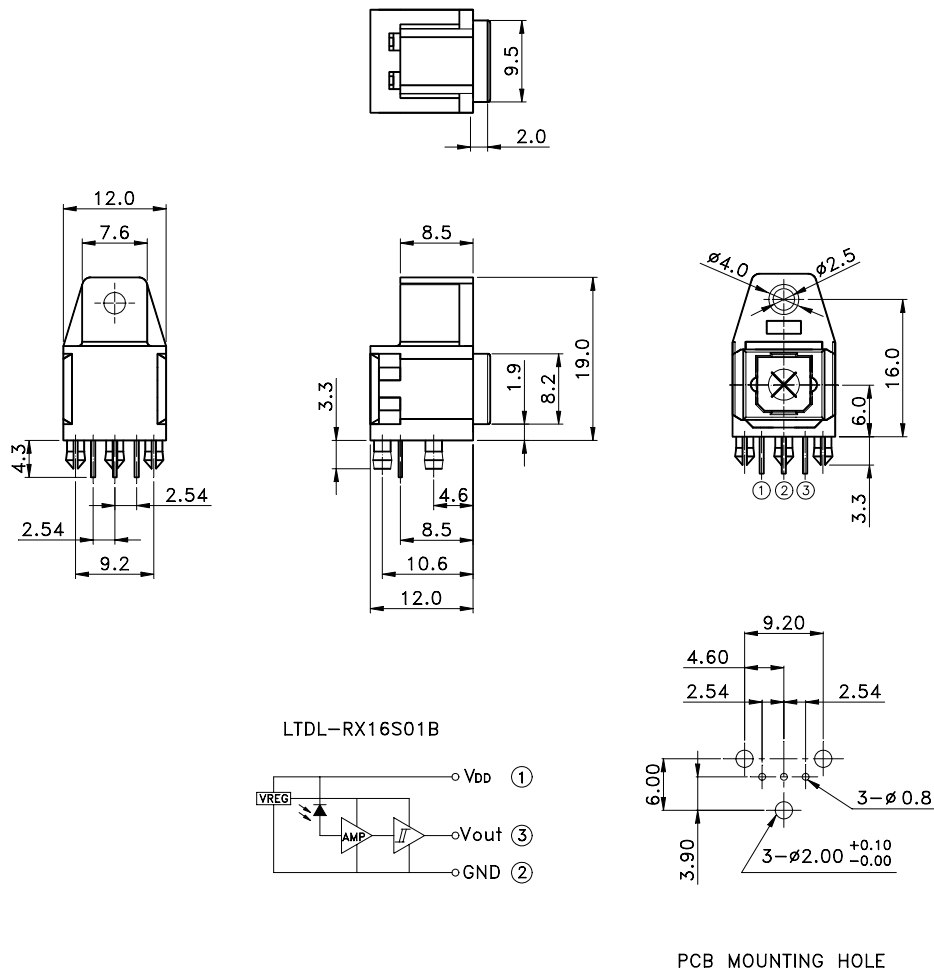
FEATURES

- * High speed transmission (16 Mbps , NRZ code)
- * TTL compatible
- * Same package as fiber optic transmitting module LTDL-TX12S01B

APPLICATIONS

- * Digital audio system
- * CD, MD & DVD players

PACKAGE DIMENSIONS



NOTES:

1. All dimensions are in millimeters (inches).
2. Tolerance is ± 0.3 mm (.012") unless otherwise noted.
3. In the absence of confirmation by device data sheets, LITE-ON takes no responsibility for any defects that may occur in equipment using any devices shown in catalogs, data book, etc. Contact LITE-ON in order to obtain the latest device data sheets before using any LITE-ON device.



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ELECTRO - OPTICAL CHARACTERISTICS

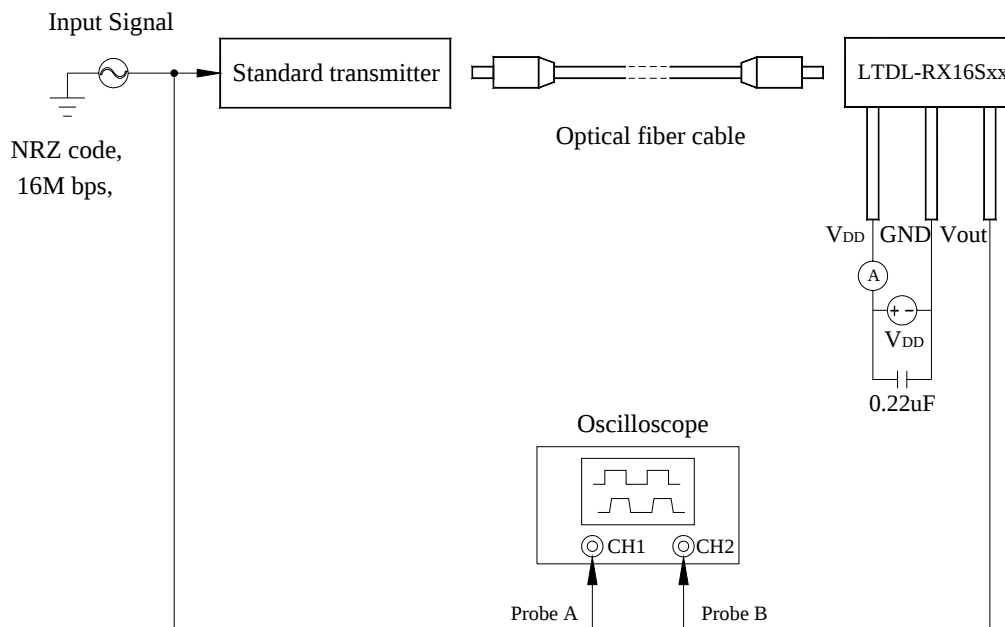
ABSOLUTE MAXIMUM RATINGS AT Ta=25

PARAMETER	MAXIMUM RATING	UNIT
Supply Voltage (V _{DD})	-0.5 ~ +6.0	V
Output Voltage (V _O)	-0.5 ~ V _{DD} + 0.3	V
Operating Temperature Range	-20 to + 70	
Storage Temperature Range	-30 to + 80	
Lead Soldering Temperature [1.6mm(.063") From Body]	260 for 5 Seconds	

ELECTRICAL OPTICAL CHARACTERISTICS AT Ta=25

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Data Rate	T _s	0.1	-	16	Mbps	NRZ signal
Operating Voltage	V _{DD}	4.75	-	5.25	V	
Peak Sensitivity Wavelength	λ_{Peak}	-	650	-	nm	
Input Sensitivity	P _i	-24	-	-14	dBm	
Dissipation current	I _{DD}	-	4	6	mA	*1
High level output voltage	V _{OH}	2.4	4.8	-	V	*1
Low level output voltage	V _{OL}	-	0.2	0.4	V	*1
“Low→High”propagation delay time	t _{PLH}	-	-	166	ns	*1
“High→Low”propagation delay time	t _{PHL}	-	-	155	ns	
Pulse width distortion	Δt_w	-18	-	+18	ns	
Jitter	Δt_j	-	1	5	ns	*1
Rise Time	t _r	-	8	20	ns	*1
Fall Time	t _f	-	8	20	ns	*1

*1 Setup of Measuring System

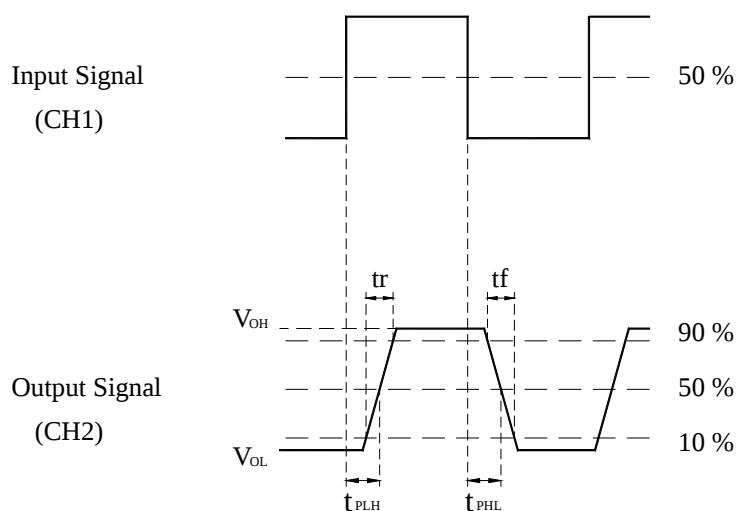


Note :

- (1) $V_{DD} = +5.0\text{ V} \pm 0.05\text{ V}$
- (2) Input signal : 16M bps, NRZ code, t_r , t_f 5ns
- (3) Characteristics of standard transmitter are according to another sheet.
- (4) The SONY POC-10 (POF, 1m) or its equivalent fiber optic cable should be used.
- (5) The Tektronix TDS380P or its equivalent oscilloscope should be used.
- (6) The probe B for the oscilloscope must be more than $1\text{M}\Omega$ and less than 10pF .
- (7) When measuring delay time, use same type and length of probe A and B.
- (8) It measures in the condition where did fiber optic cable straight, but the curve of the range within contented.

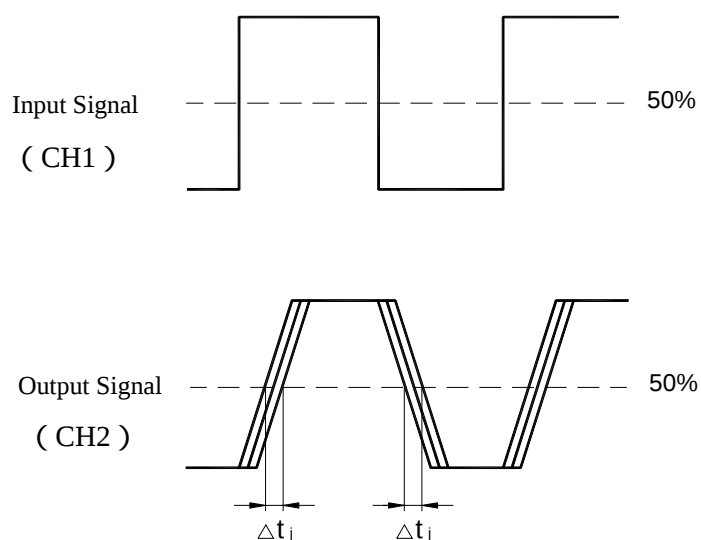
Item	Measuring Method
I_{DD}	Measured on the ammeter
V_{OH}	Measured on the oscilloscope
V_{OL}	Measured on the oscilloscope
t_{PLH}	Measured on the oscilloscope
t_{PHL}	Measured on the oscilloscope
Δt_w	Measured on the oscilloscope
t_r	Measured on the oscilloscope
t_f	Measured on the oscilloscope
Δt_j	Measured on the oscilloscope

Rise and Fall Times and Pulse Width Distortion



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

Jitter





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 - Office automation equipment
 - Telecommunication equipment 【 terminal 】
 - Test and measurement equipment
 - Industrial control
 - Audio visual equipment
 - Consumer electronics
 - (ii) Measure such as fail-safe function and redundant design should be taken to ensure reliability and safety when LITE-ON device are used for or in connection with equipment that requires higher reliability such as :
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 - Traffic signals
 - Gas leakage sensor breakers
 - Alarm equipment
 - Various safety devices, etc.
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