

PoE SURGE BLOCK MODULAR JACK

General Description

NLRX78B is a modular jack for POE PD application which integrated surge block capability. This innovative design implement surge protection and rectifier function into a 16.7 x 32.5 mm modular jack that comply IEC 61000-4-5 surge test. Compare with traditional solution, NLRX78B required smaller board size to achieve same protection function, and even better.

Features

- ◆ Single Port Gigabit PoE (802.3af/at)
- ◆ IEC 61000-4-2 Contact 8KV/Air 15KV
- ◆ IEC 61000-4-5 Line to GND 6KV
- ◆ IEC 61000-4-5 DC Pair 1KV

Schematic

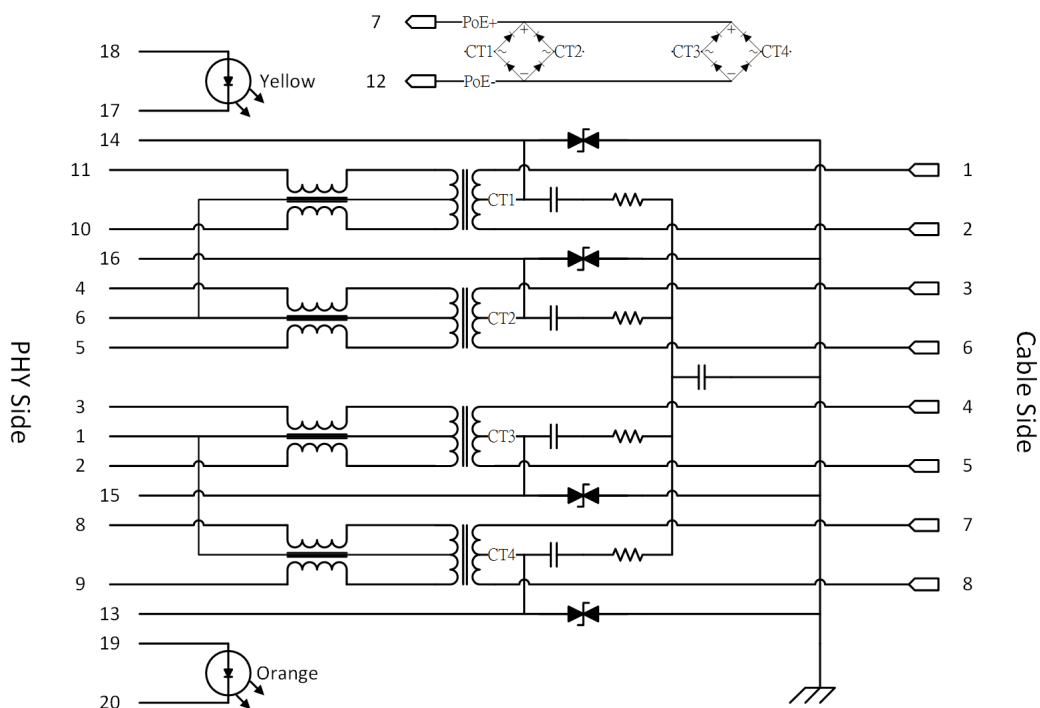


Fig.1 Equivalent Internal Circuit

DEVICE CHARACTERISTICS

Electrical Characteristics			
Parameter	Symbol	Value	Units
Line – GND Surge Rating (10/700us)	-	6	KV
DC Pair Surge Rating (1.2/50us)	-	1	KV
Maximum Operation Voltage	V _{RWM}	60	Vdc
Maximum Operation DC Current	I _{DC}	720	mA
Operation Temperature	T _J	0~70	°C
Insertion Loss @ 1MHz/100MHz	IL (Max)	-1	dB
Return Loss @ 1MHz/100MHz	RL (Min)	-10	dB
Common Mode Rejection @ 1MHz/100MHz	CMR (Min)	-30	dB
Cross Talk @ 1MHz/100MHz	XTL (Min)	-30	dB
Inductance	L _{DC} (Min)	350	uH

Material & Finish	
Position	Material
RJ Contact	Copper Alloy
RJ Contact Plating	6u" Au Min
Joint Contact Plating	100u" Matted Tin
Plastic Parts	Thermoplastic UL 94V-0
PCB	FR-4
Durability	1000 Cycles

TYPICAL APPLICATION

NLRX78B

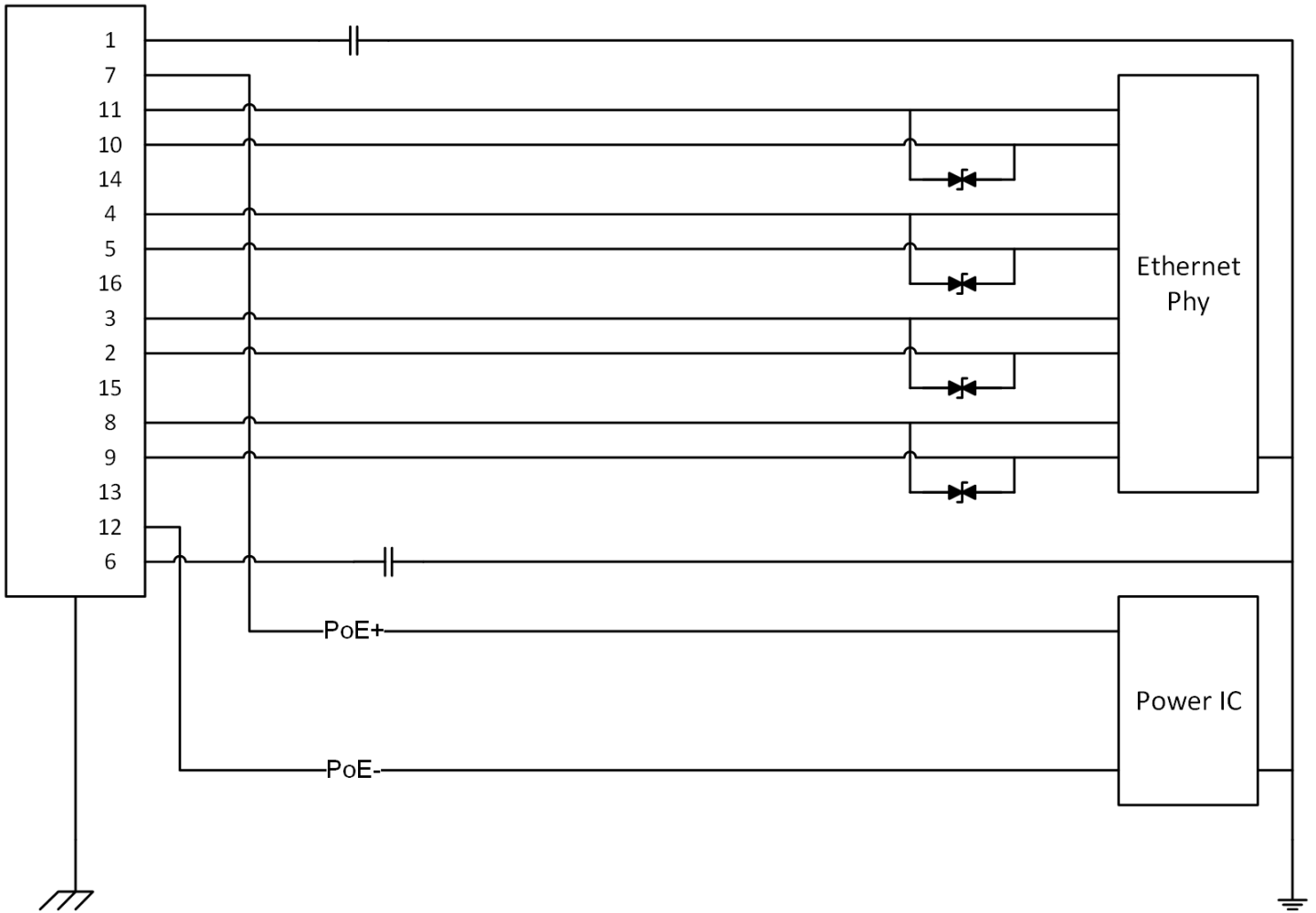
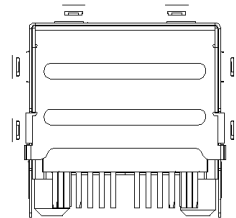
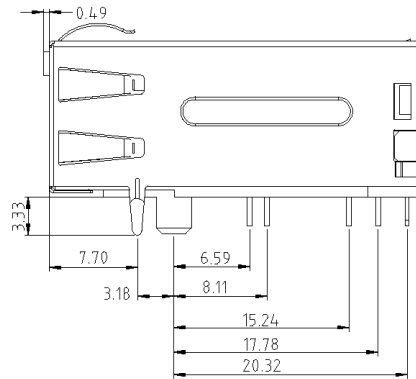
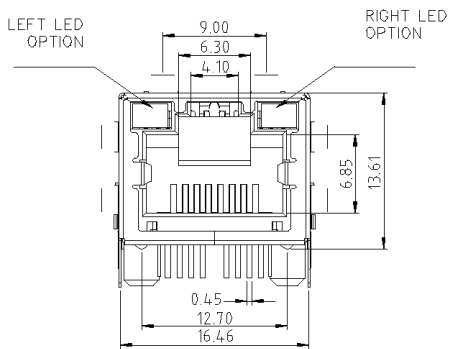
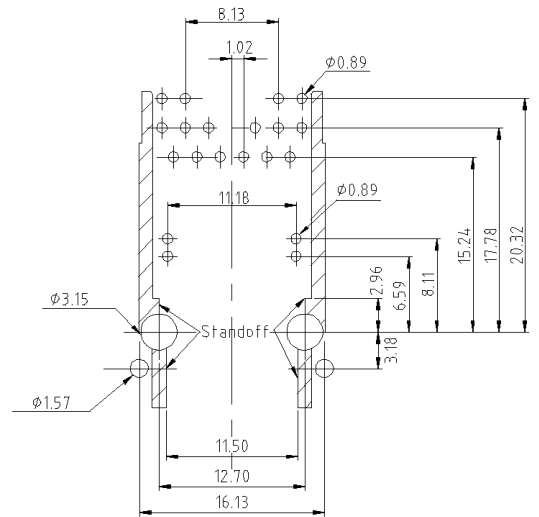
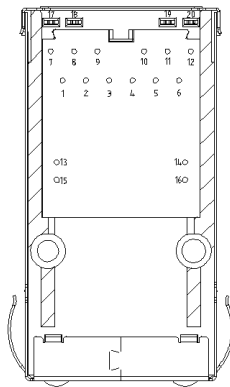
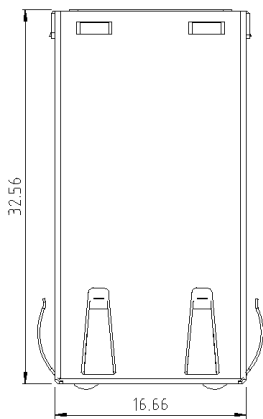


Fig.2 Typical Application

OUTLINE DIMENSION

Dimension : ± 0.25 mm



Revision History	Modification Description
Rev.1.00	Initial Release