

# WitJack

## 1X1 Tab-UP RJ45

### RJ-101D10B

# Witmag

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## Features

### Description:

- 10/100 Base-TX RJ45 1X1 Tab-UP with LEDs 8-pin integrated magnetics connector(ICM), designed to support applications, such as SOHO (ADSL modems), LAN-on-Motherboard(LOM), Hub and Switches.

### Features and Benefites:

- 1X1 Tab-UP RJ45 with internal magnetics
- Suitable for CAT 5 & 6 Fast Ethernet Cable or better UTP
- Internal magnetics are 100% electrically tested for HI-POT and functionality

### Electrical Performance Summary:

- Internal magnetics options available
- Meets or exceeds IEEE 802.3 standard for 100Base-T
- 350 uH minimum OCL with 8 mA bias current
- High performance for maximum EMI suppression
- Minimum 1500 Vrms isolation per IEEE 802.3 requirement

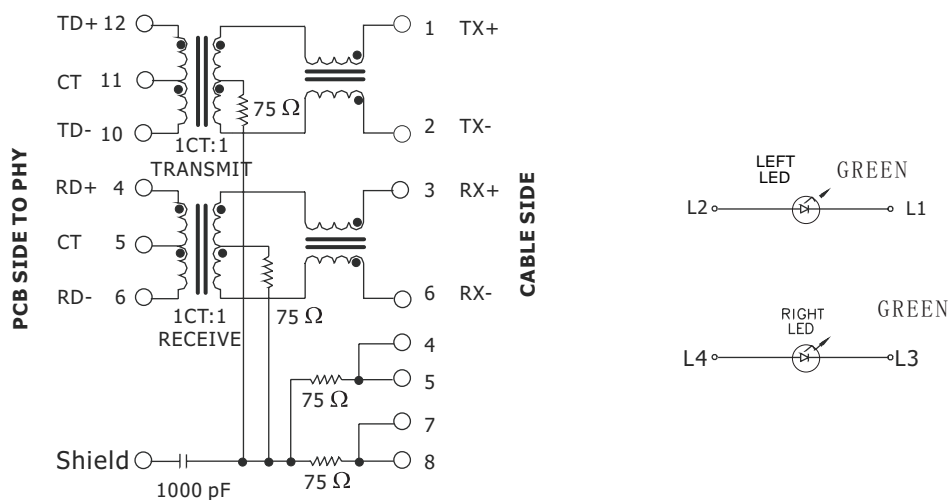
## SPEC

Electrical Specifications @25°C - Operating Temperature 0°C to 70°C

Part Number	Data Rate	Turns Ratios		LEDs L/R	Insertion Loss (dB MAX)		Return Loss (dB TYP)				Crosstalk (dB MIN)		Common Mode Rejection (dB TYP)		Hipot (Vrms MIN)
		TX	RX	L/R	1~80 MHz	1~10 MHz	30 MHz	60~80 MHz	1~10 MHz	32~60 MHz	60~100 MHz	1~50 MHz	50~130 MHz	@60 Hz	
RJ-101D10B	10/100	1CT:1CT	1CT:1CT	G&G	-1.0	-20	-16	-12	-40	-35	-30	-30	-20	1500	

- NOTE: 1. Both transmit and receive channels meet IEEE 802.3 specifications  
 2. Different electrical and mechanical specifications can be accommodated  
 3. LEDs Left/Right: G=green, Y=Yellow,

## Schematics

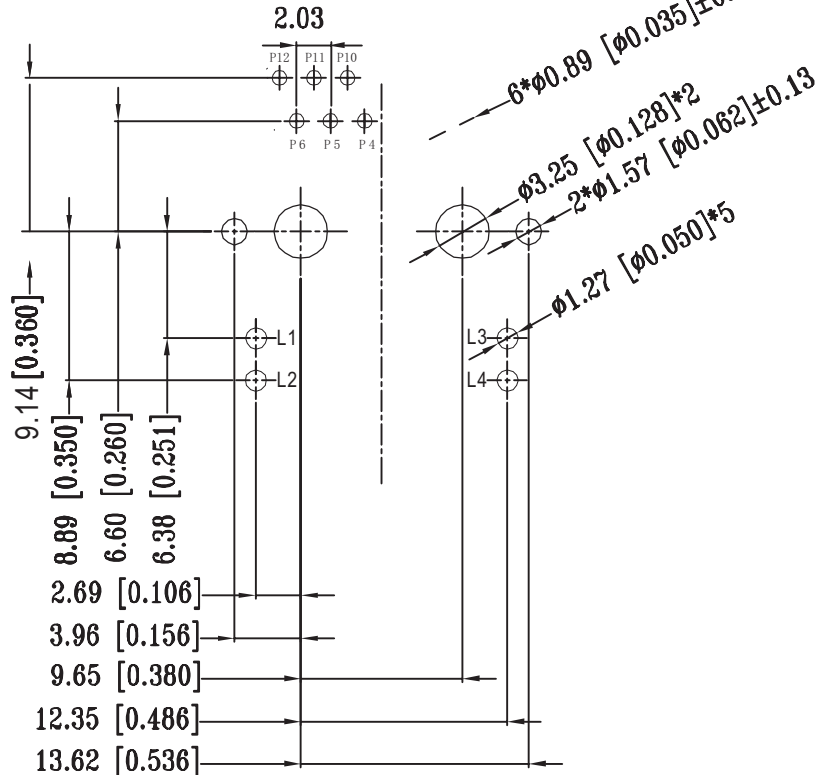
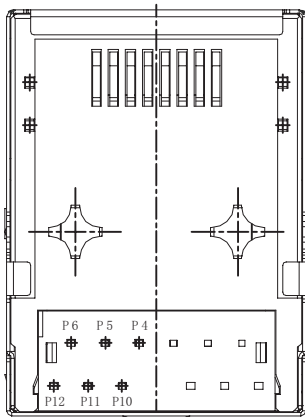
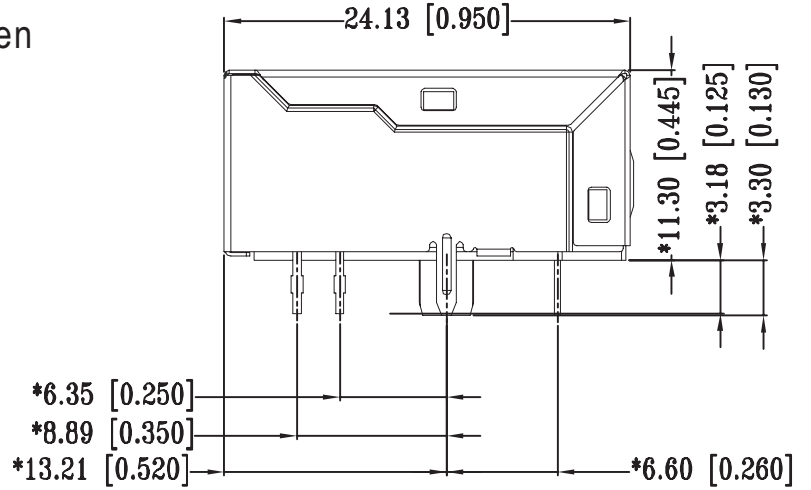
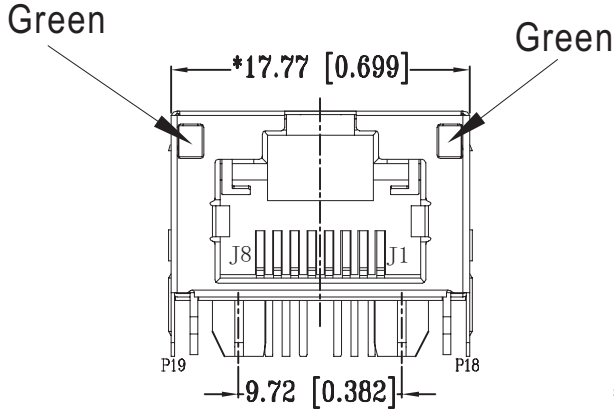


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**Mechanicals**

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P. C. B RECOMMENDED HOLE LAYOUT SEEN FROM COMPONENT SIDE.

ALL CENTERLINE DIMENSIONS ARE BASIC

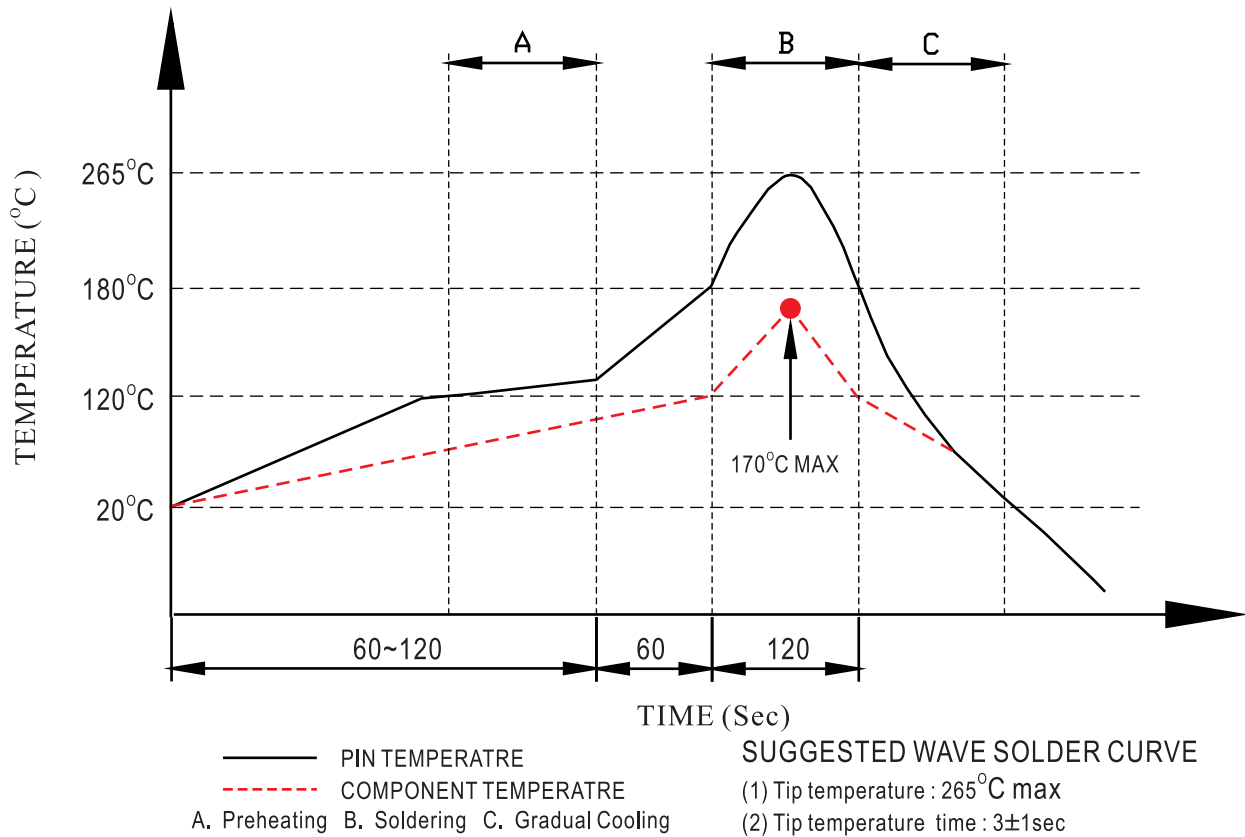
ALL TOLERANCES NOT OTHERWISE SPECIFIED TO BE  $\pm 0.25$ mm

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**Profile of wave solder**



— PIN TEMPERATURE  
 - - - COMPONENT TEMPERATURE  
 A. Preheating B. Soldering C. Gradual Cooling

**SUGGESTED WAVE SOLDER CURVE**  
 (1) Tip temperature : 265°C max  
 (2) Tip temperature time : 3±1sec

\*The melting point of Sn99.3/Cu0.7

**REQUIREMENTS**

- ◆ Material
  - ✧ Terminal Parts(Underphating:30u" min. Nickel overall)
    - RJ Terminal: PH. Bronze, Thickness=0.3mm, Finish: Contact Area: 6u" Gold
    - Input Terminal: Brass, Thickness=0.35mm, Finish: 100u" min. Mt. Tin
    - Case Terminal: Brass, Thickness=0.3mm, Finish: 100u" min. Tin
  - ✧ Plastic Parts<UL94V-0>
    - Housing: Thermoplastic, Black
    - Case: Thermoplastic, Black
    - Spacer: Thermoplastic, Black
    - Light Pipe: Thermoplastic, Black
  - ✧ Shield Parts
    - Front Shield: Stainless, Thickness=0.2mm, unplating
    - Back Shield: Stainless, Thickness=0.2mm, Pre-soldering
- ◆ Operating and Storage Temperature
  - Operating Temperature: 0°C to +70°C
  - Storage Temperature: -40°C to +85°C
- ◆ RJ45 Specifications
  - Insulation Resistance 500MΩmin
  - Insertion force with the latch depressed 22N max
  - Removal force with the latch depressed 44N max
  - Locking Force of Plug Latch: 50N min. @60±5 sec
  - Durability: 750 cycles MIN