

# WitJack

## RJ45/Single USB Combo

### RJ-501A02A(ROHS)

# Witmag

TEL: +86 755 36921672 FAX: +86 755 29454863  
 Http://www.witmag.com.cn Http://www.witmag.cn  
 E-mail:sales@witmag.com.cn

### Features

#### Description:

- ✦ RJ45/Dual USB Combo is a Through Hole integrated connector module with a single RJ45 Tab-UP in combination with one USB connector ports (refer to illustration below). The RJ45 connector internal magnetics are designed to support 10/100Base-TX applications such as LAN-on-Motherboard and PC applications.

#### Features and Benefits:

- ✦ LAN interface suitable for 10/100Base-TX applications
- ✦ RJ45/USB stacked design saves on PCB real estate
- ✦ USB module complies with USB 2.0 standards and meets CAT5 Fast Ethernet industry performance standard
- ✦ Magnetics are 100% electrically tested for HI-POT and continuity

#### Electrical Performance Summary:

- ✦ Internal magnetics options available
- ✦ Meets or exceeds IEEE 802.3 and ANSI X3.263 standards
- ✦ 350 uH minimum OCL with 8 mA bias current
- ✦ High performance for maximum EMI suppression
- ✦ Minimum 1500 Vrms isolation per IEEE 802.3i/u/af requirement
- ✦ Meets IEEE 802.3 HiPot isolation requirements

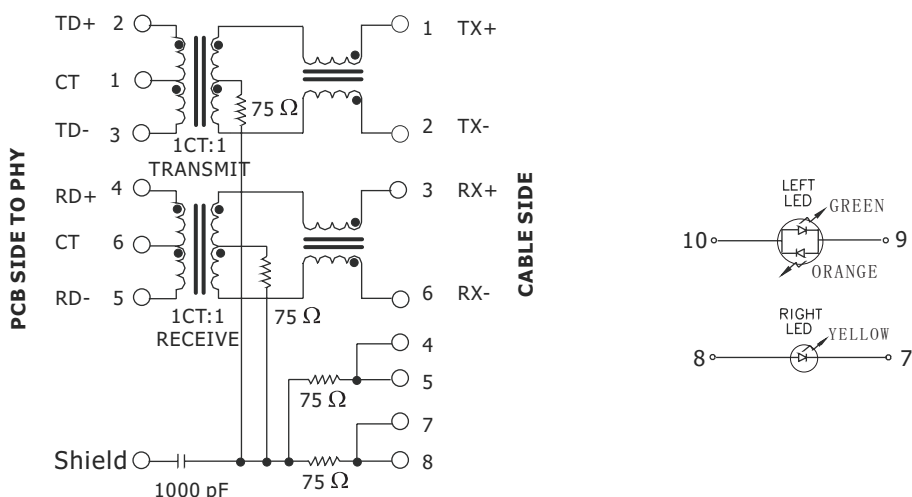
### SPEC

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) (100Ω 15Ω)				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		
RJ-501A02A	10/100	1CT:1CT	1CT:1CT	G&O/Y	-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

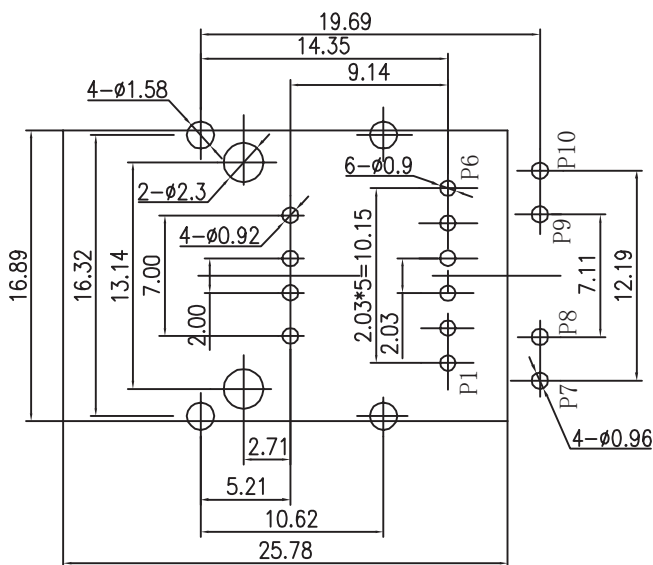
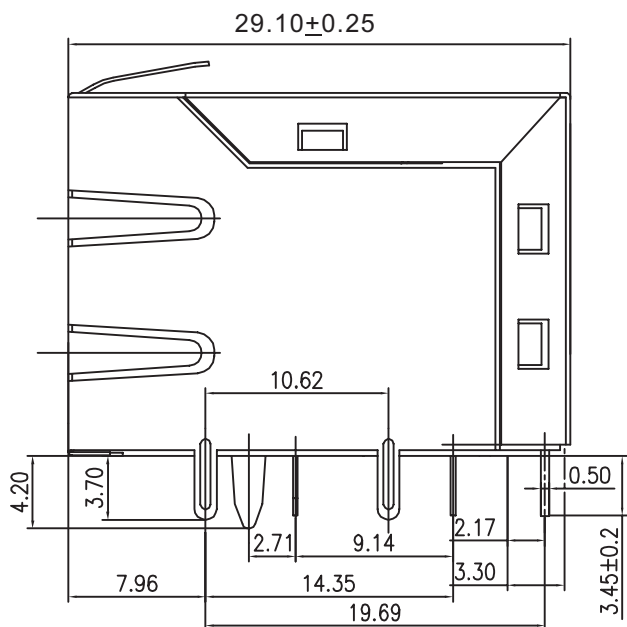


# WitJack RJ45/Single USB Combo RJ-501A02A(ROHS)

Mechanicals

# Witmag

TEL: +86 755 36921672 FAX: +86 755 29454863  
Http://www.witmag.com.cn Http://www.witmag.cn  
E-mail:sales@witmag.com.cn

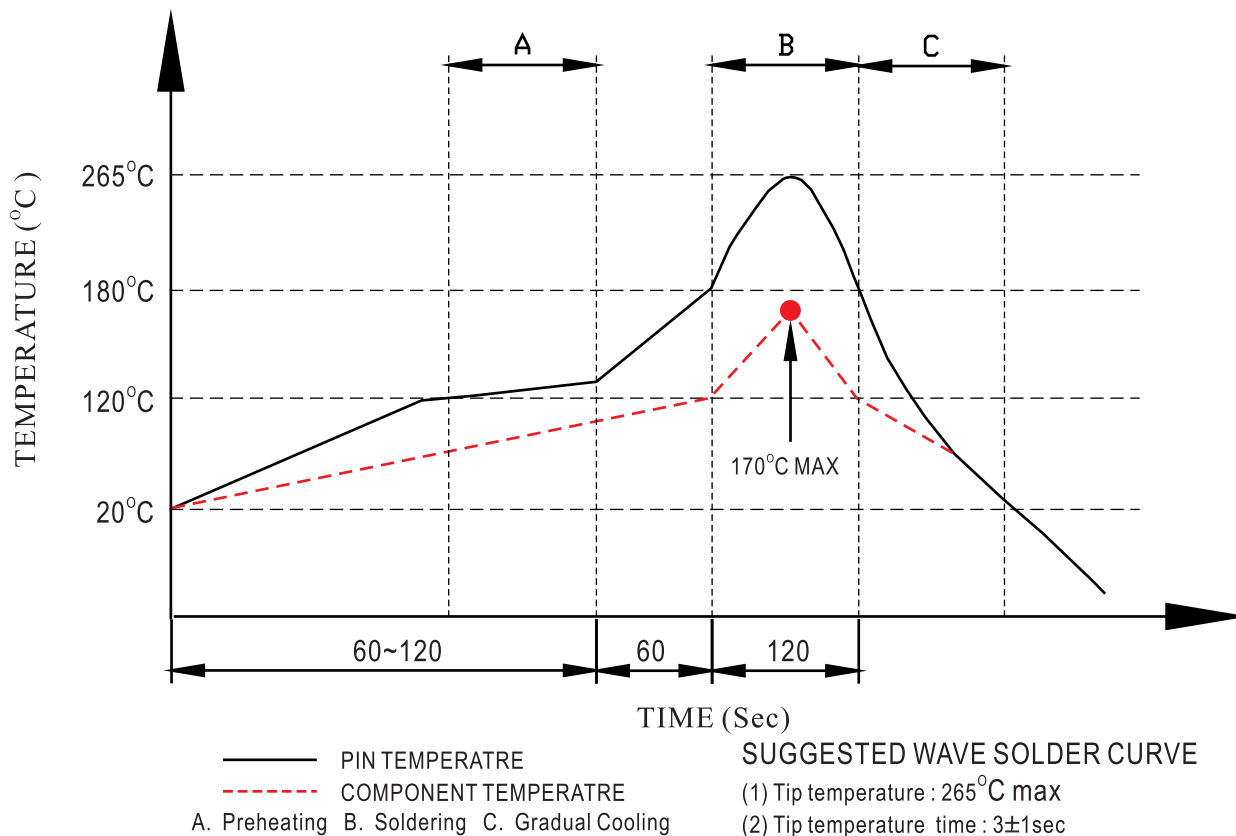


P. C. B RECOMMENDED HOLE LAYOUT SEEN FROM COMPONENT SIDE.

ALL CENTERLINE DIMENSIONS ARE BASIC

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

**Profile of wave solder**



\*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