1x1 Port Tab upright RJ45 Connector with Integrated Magnetics and LED for 10/100Base-TX NIC Applications



HY951180A

Electrical Specification @25°C

RoHS Compliant (PB Free)

Isolation: 2250VDC 0.5mA 60sec (UTP Side to Chip Side)

OCL: 350uH Minimum @100KHz 100mV with 8mADC Insertion Loss: -1.0dB Maximum @300KHz ~ 100MHz

Return Loss: -20dB Minimum @1MHz $\sim 10MHz$ / -16dB Minimum @10MHz $\sim 30MHz$

-12dB Minimum @30MHz \sim 60MHz / -10dB Minimum @60MHz \sim 80MHz

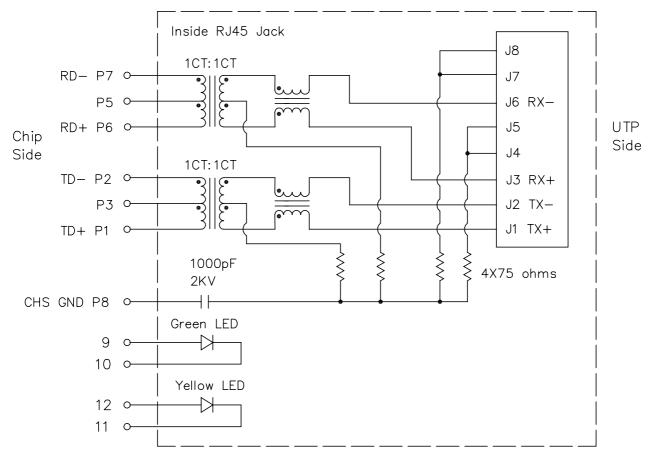
Common Mode Rejection: $-30 \, \text{dB}$ Minimum @1MHz $\sim 50 \, \text{MHz}$

-20dB Minimum @50MHz ~ 150 MHz

Crosstalk: -40 dB Typical @1MHz $\sim 30 \text{MHz}$ / -35 dB Typical @30MHz $\sim 60 \text{MHz}$

-30dB Typical @60MHz ~ 100 MHz

Schematics



Notes: Connect CHS GND to PCB Ground

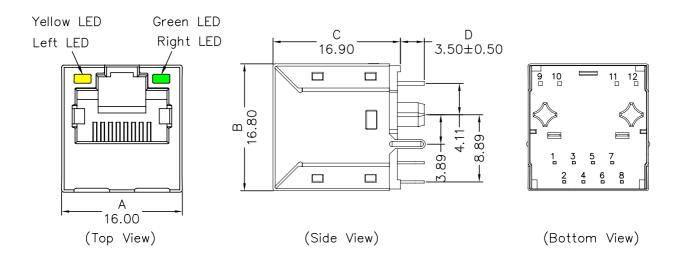
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- RoHS Compliant (Pb Free)
- Designed for Network Interface Card Application
- Meets or Exceeds IEEE802.3 standards including 350uH Min OCL with 8mADC
- High performance for EMI suppression, Crosstalk, Return Loss and Consistent Electrical
- Minimum 2250VDC isolation per IEEE802.3 requirement
- Minimize PCB space and Simplify PCB Layout
- Less magnetic components to place on PCB, Higher reliability and yields
- UL Recognized Component: File # E330599

Mechanical Dimensions:





Standard LED	Wavelength	Forward V (Min/Max)	Forward A	Туре
Green	568nm	1.8V/2.8V	20m A	squareness
Yellow	585nm	1.8V/2.8V	20mA	squareness

Dimensions in mm

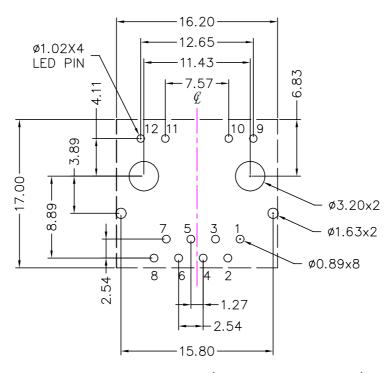
Unless otherwise specified, Tolerance: .xx ± 0.25

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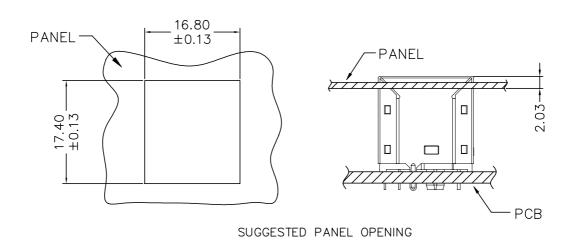
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Mechanical Dimensions:



Recommended PCB layout (Component Side View) All dimension tolerance are ± 0.08 unless otherwise specified

Suggested Panel Cutout:



Dimensions in mm

Unless otherwise specified, Tolerance: .xx ± 0.25

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Material Specification:

Housing: PA66 GF Black UL94V-0

Shield: 30u" Nickel over 0.20mm Thickness Brass

Insert: PA66 GF Black UL94V-0

Phosphor Bronze 0.30mm Thickness
Plating Area, 30u" gold over 50u" nickel
Solder Area, 100u" tin over 50u" nickel

Contact pin: PA66 GF Black UL94V-0

Phosphor Bronze; 100u" Tinning

Mechanical Performance:

Contact resistance: $30 \text{ m}\Omega$ Maximum

Mating force: 5 lbs Maximum
Unmating force: 5 lbs Maximum
Operating life: 750 Cycles Minimum

Operating and Storage Temperature:

Operating Temperature Range: $0^{\circ}\text{C} \sim +70^{\circ}\text{C}$ Storage Temperature Range: $-40^{\circ}\text{C} \sim +85^{\circ}\text{C}$

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