

# HR871181A

## Electrical Specification @25°C

RoHS Compliant (PB Free)

Isolation: 1500Vrms 0.5mA 60sec (J1 $\sim$ 8 to P1 $\sim$ 6) OCL: 350uH Minimum @100KHz 100mV with 8mADC Insertion Loss: -1.0dB Maximum @300KHz  $\sim$  100MHz

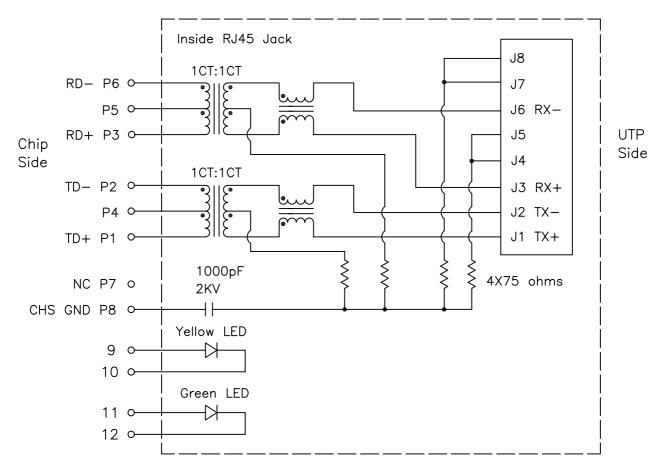
Return Loss: -20dB Minimum @1MHz  $\sim 10$ MHz / -16dB Minimum @10MHz  $\sim 30$ MHz -12dB Minimum @30MHz  $\sim 60$ MHz / -10dB Minimum @60MHz  $\sim 80$ MHz

Common Mode Rejection: -30dB Minimum @1MHz ~ 50MHz

−20dB Minimum @50MHz ~ 150MHz

Crosstalk:  $-40 \, \text{dB}$  Minimum @1MHz  $\sim 30 \, \text{MHz}$  /  $-35 \, \text{dB}$  Minimum @30MHz  $\sim 60 \, \text{MHz}$   $-30 \, \text{dB}$  Minimum @60MHz  $\sim 100 \, \text{MHz}$ 

#### **Schematics**



Notes: Connect CHS GND to PCB Ground

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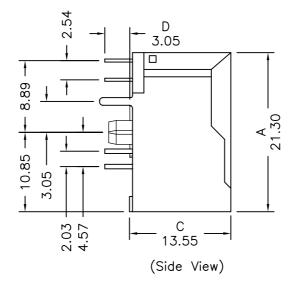


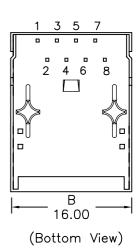
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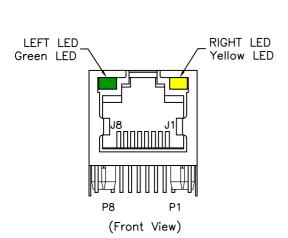
- RoHS Compliant (PB Free)
- Meets or Exceeds IEEE802.3 standards including 350uH Min OCL with 8mADC
- High performance for EMI suppression, Crosstalk, Return Loss and Consistent Electrical
- Minimum 1500Vrms isolation per IEEE802.3 requirement
- Minimize PCB space and Simplify PCB Layout
- Less magnetic components to be placed on PCB, higher reliability and yields
- UL Recognized Component: File # E330599

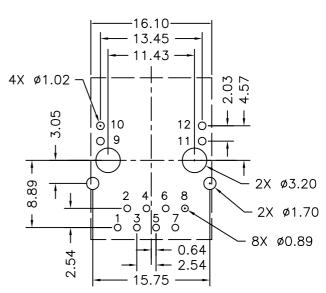
## Mechanical Dimensions:











(Component Side View)
(Mounting Pattern)

Dimensions in mm

Unless otherwise specified, Tolerance: .xx  $\pm 0.25$ 

REV.01

# 1x1 Port Tab-UP RJ45 Connector with Integrated Magnetics and LED



# HR871181A

#### General Specifications:

RoHS Compliant (PB Free)

Operating Temperature Range:  $0^{\circ}C \sim +70^{\circ}C$ Storage Temperature Range:  $-40^{\circ}C \sim +85^{\circ}C$ UL Recognized Component: File # E330599

#### Materials and Finish:

Housing: Thermoplastic Black per UL 94V-0

Shield: 50 micro-inch Nickel over 0.01 inch copper alloy

Contact: Phosphor Bronze, base material

RJ Contact Plating: 100% tin plating with nickel underplating, 30u" gold plating on contact area

LED (Green): Frwd Voltage:  $1.8 \sim 2.8 V$ 

Drive Current: 20mA

Wave Length:  $568 \sim 573$  nm typ.

LED (Yellow): Frwd Voltage: 1.8 ~ 2.8V

Drive Current: 20mA

Wave Length:  $585 \sim 592 \text{ nm typ}$ .

RJ45 Jack cavity conforms to FCC rules and regulation Part 68.

Material	Trade name	chemical marking	UL flame class
housing	PBT	PBT	94V-0
insert	PBT/phosphor bronze	PBT/C5191	94V-0
shield	Brass	C2680	
PCB	FR4	Fiber glass	94V-0
resin	TCS270-260	SILICONE	94V-0

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