

**HR851178A**

**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: -1.1dB Maximum @100KHz ~ 100MHz

Return Loss: -16dB Minimum @1MHz ~ 40MHz

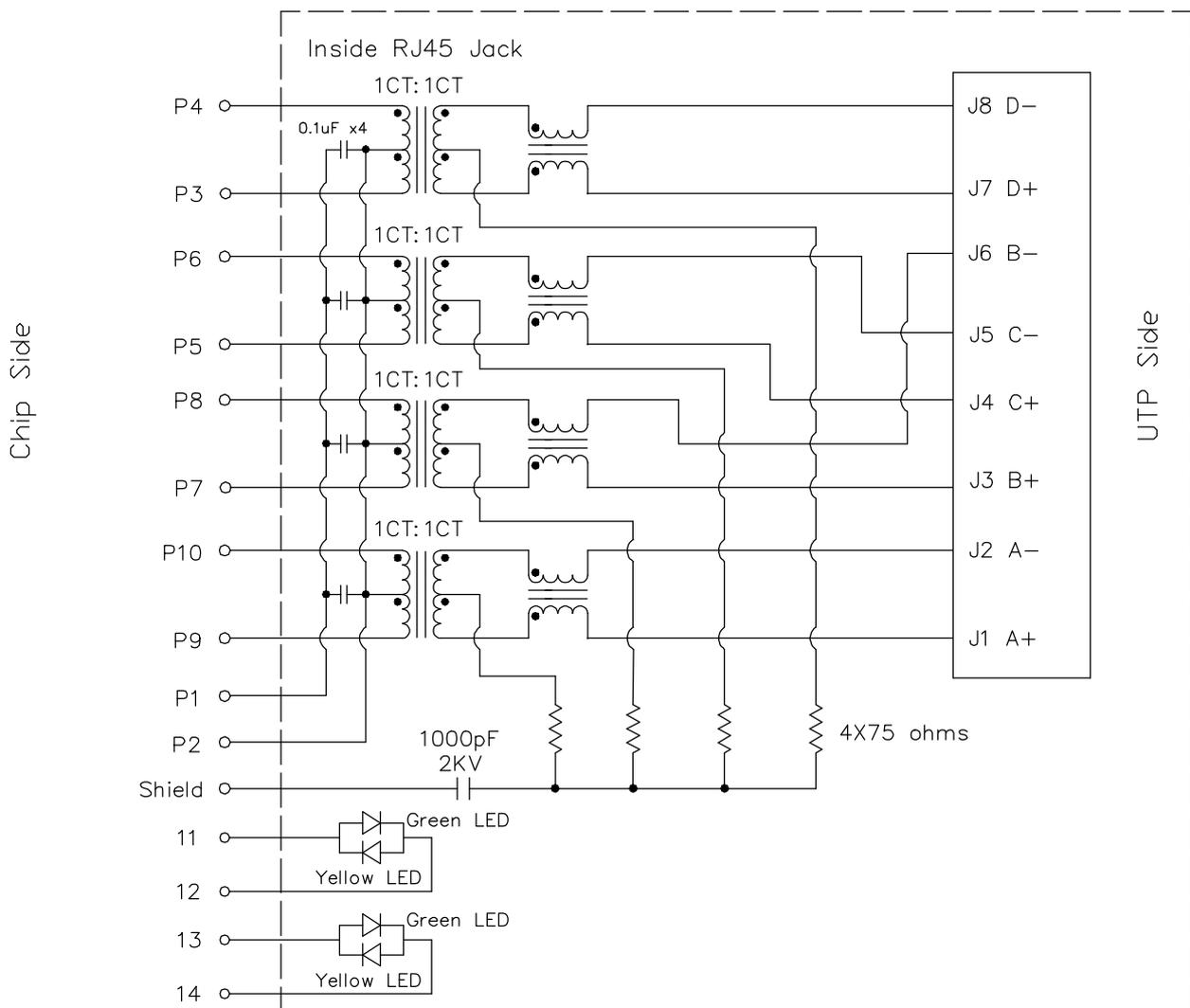
-13.5dB Minimum @60MHz / -12dB Minimum @80MHz

-10dB Minimum @100MHz

Common Mode Rejection: -30dB Minimum @1MHz ~ 100MHz

Crosstalk: -30dB Minimum @1MHz ~ 100MHz

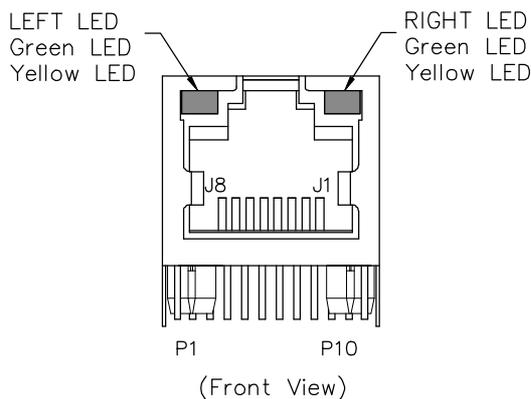
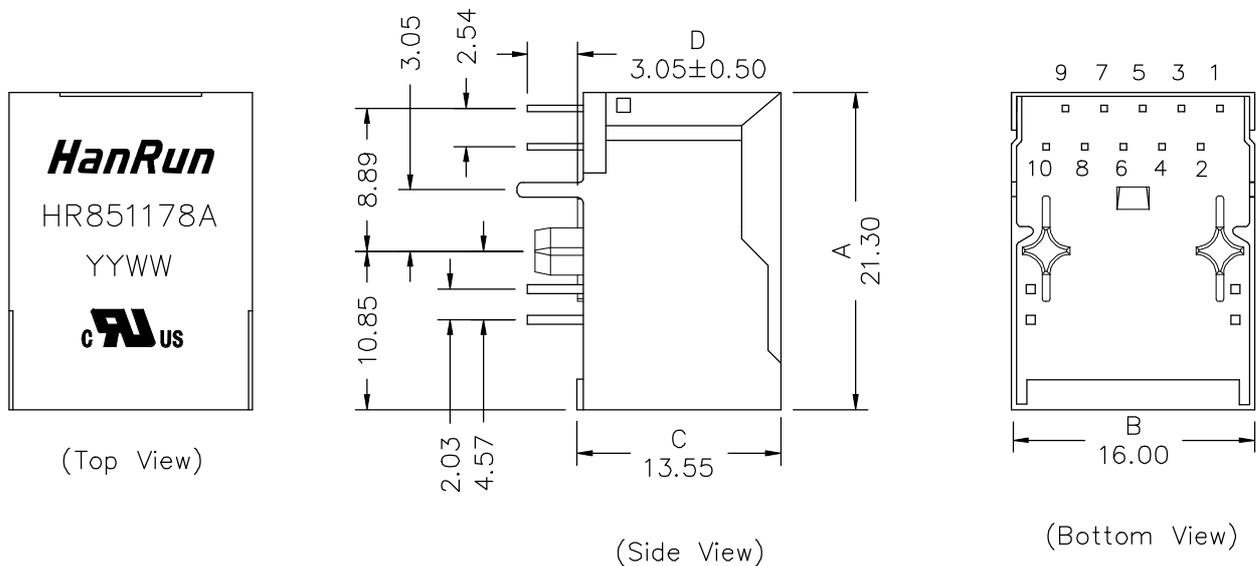
**Schematics**



**HR851178A**

- RoHS Compliant (PB Free)
- UL Recognized Component: File # E330599
- Meets or Exceeds IEEE802.3ab 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 be placed on PCB, higher reliability and yields

**Mechanical Dimensions:**



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

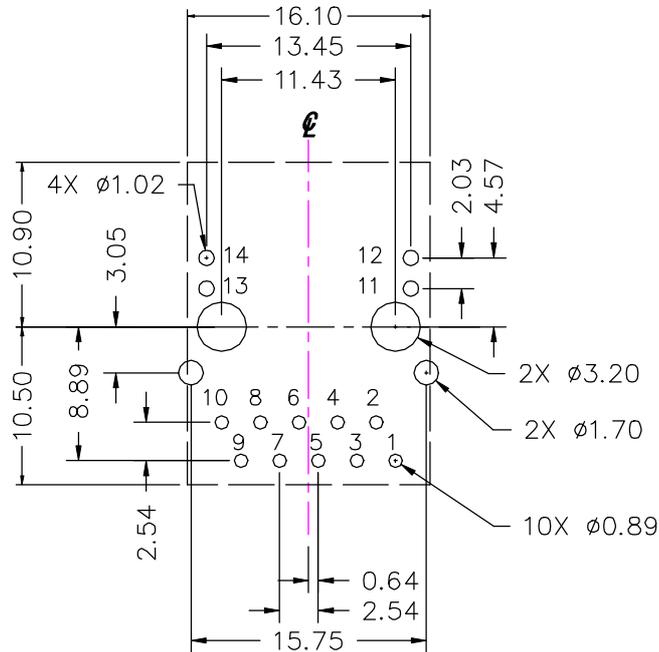
Dimensions in mm

Unless otherwise specified, Tolerance: .xx ±0.25

REV.: 00

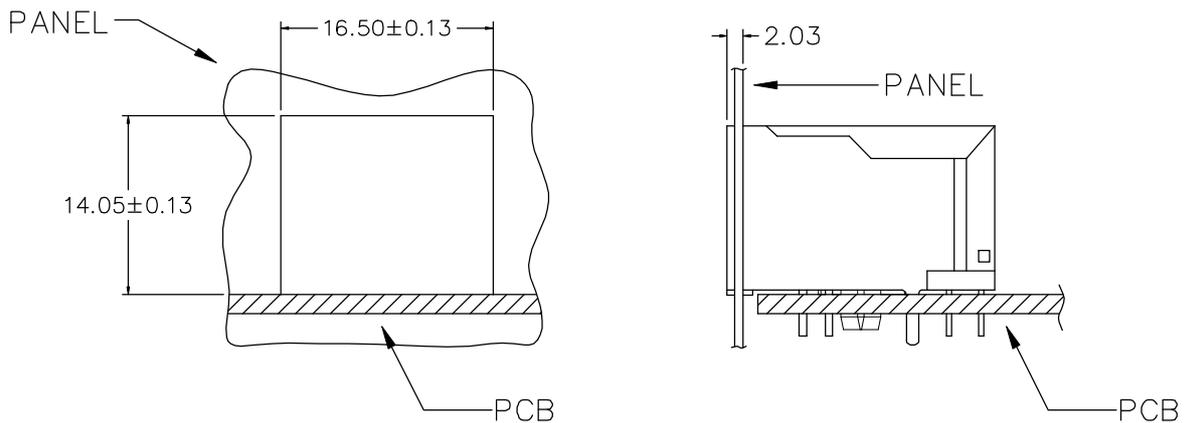
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PCB Layout:



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

Suggested Panel Cutout:



SUGGESTED PANEL OPENING

Dimensions in mm

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

REV.: 00

## HR851178A

### Material Specification:

Housing: PBT GF Black UL94V-0

Shield: 50u" Nickel over 0.20mm Thickness Brass

Insert: PBT GF Black UL94V-0

Phosphor Bronze 0.35mm Thickness

Plating Area, 30u" gold over, 50u" nickel

Solder Area, 100u" tin-lead over, 50u" nickel

### Mechanical Performance:

Mating force: 5 lbs Maximum

Unmating force: 5 lbs Maximum

Plug to Jack Retention force: 20 lbs Minimum

Operating life: 750 Cycles Minimum

### Operating and Storage Temperature:

Operating Temperature Range: 0°C ~ +70°C

Storage Temperature Range: -40°C ~ +85°C