

1x1 Port Tab-UP RJ45 Connector  
with Integrated Magnetics and LED  
for 10/100Base-T Applications  
is suitable for reflow solder mounting



## HR925531AE

### Electrical Specification @25°C

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

OCL: 350uH Minimum @100KHz 100mV with 8mADC

Insertion Loss: -1.0dB Maximum @1MHz ~ 100MHz

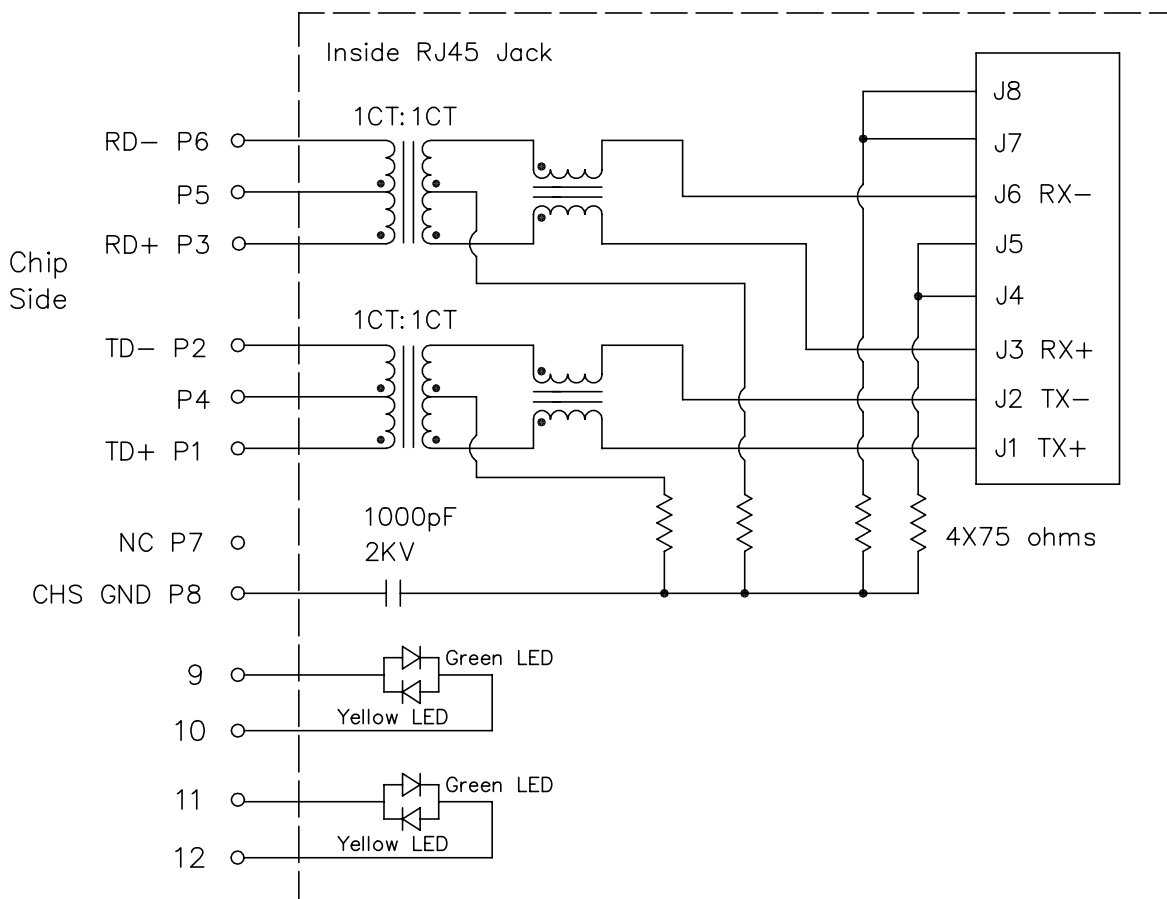
Return Loss: -18dB Minimum @1MHz ~ 30MHz / -14dB Minimum @30MHz ~ 60MHz  
-12dB Minimum @60MHz ~ 80MHz / -10dB Minimum @80MHz ~ 100MHz

Common Mode Rejection: -35dB Minimum @1MHz ~ 30MHz

-32dB Minimum @30MHz ~ 60MHz / -30dB Minimum @60MHz ~ 100MHz

Crosstalk: -32dB Minimum @1MHz ~ 60MHz / -30dB Minimum @60MHz ~ 100MHz

### Schematics



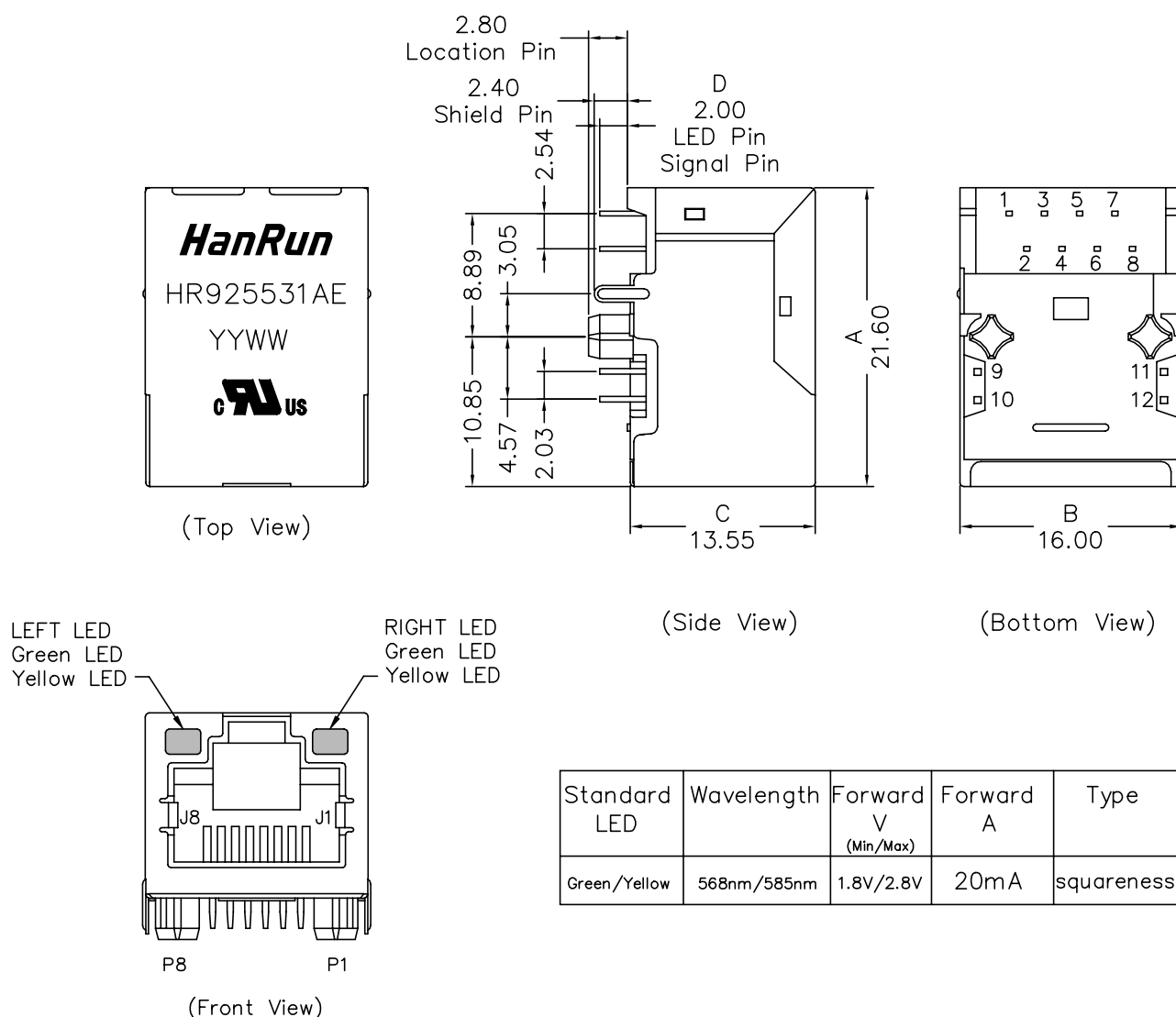
Notes: Connect CHS GND to PCB Ground

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- RoHS Compliant (PB Free)
- UL Recognized Component: File # E330599
- Meets or Exceeds IEEE802.3u 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

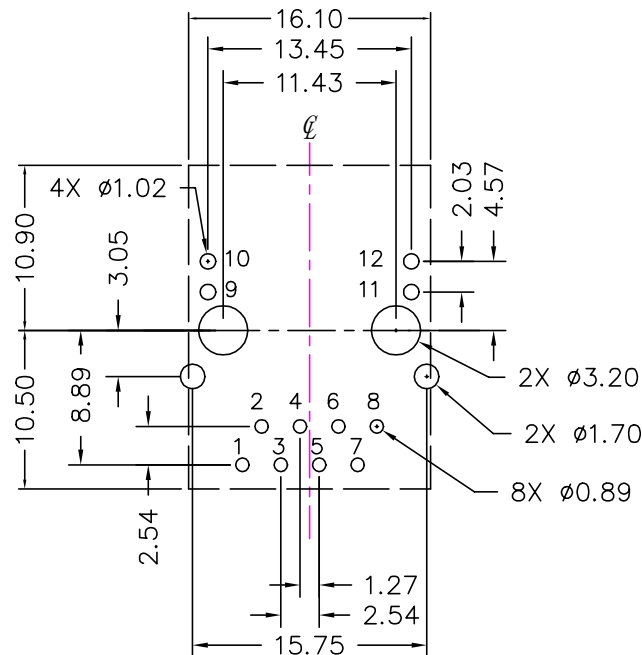
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2 of 5

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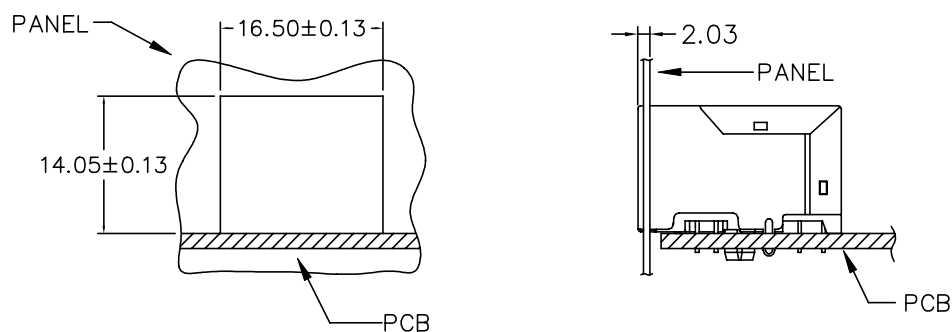
PCB Layout:



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

3 of 5

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### Material Specification:

Housing: PA9T Black UL94V-0  
Shield: 50u" Nickel over 0.20mm Thickness Brass  
Insert: PA9T Black UL94V-0  
Phosphor Bronze 0.35mm Thickness  
Plating Area, 30u" gold over 50u" nickel  
Solder Area, 100u" tin over 50u" nickel

### Mechanical Performance:

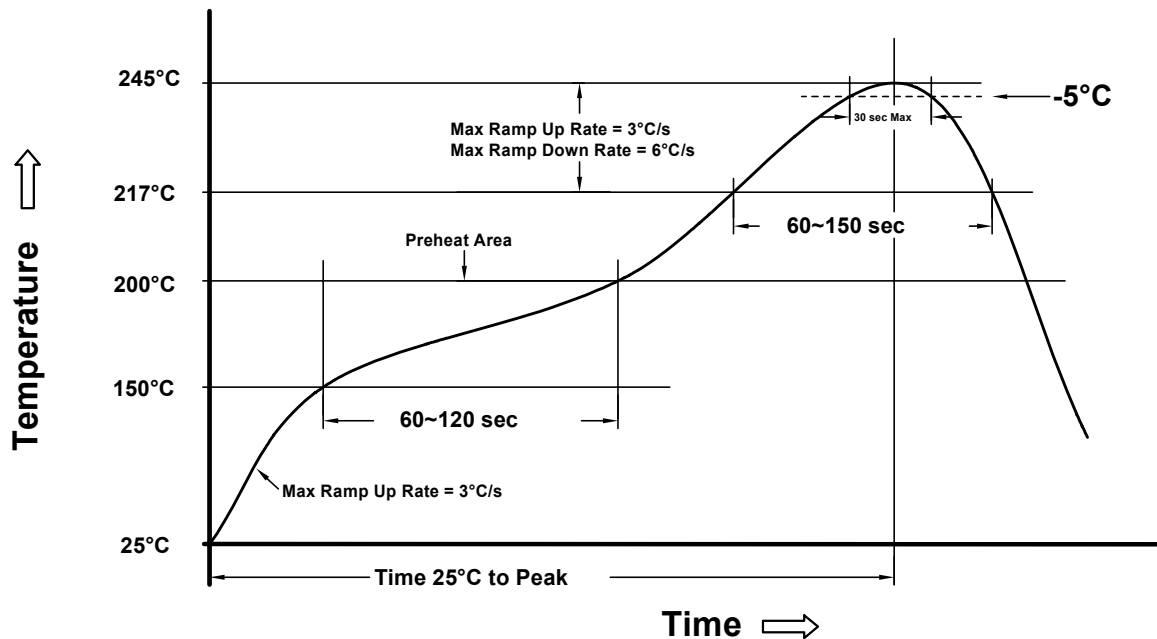
Mating force: 5 lbs Maximum  
Unmating force: 5 lbs Maximum  
Operating life: 750 Cycles Minimum

### Operating and Storage Temperature:

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

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Remarks:

- peak temperature = 245°C
- Maximum preheat rate = 3°C / sec
- Ramp up rate = 3°C / sec max
- Time above 217°C = 60 sec min / 150 sec max
- Maximum cooling rate = 6°C / sec
- T 25°C to peak = 8 min max
- preheat Time = 60 ~ 120 sec
- The number of allowed cycles in IR reflow  $\leq 2$  cycles