

1x1 Port Tab-UP RJ45 Connector
With integrated magnetics and LED
For 2.5G/5G Base-T applications
Is suitable for reflow solder mounting



HR914300AE

Electrical Specification @25°

RoHS Compliant (PB Free)

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

OCL: 180uH Minimum @100KHz 100mV with 8mADC

Insertion Loss: -1.0dB Maximum @300KHz ~ 100MHz / -1.25 Maximum @100MHz ~ 250MHz

Return Loss: -20dB Minimum @1MHz ~ 40MHz / -18dB Minimum @40MHz ~ 60MHz

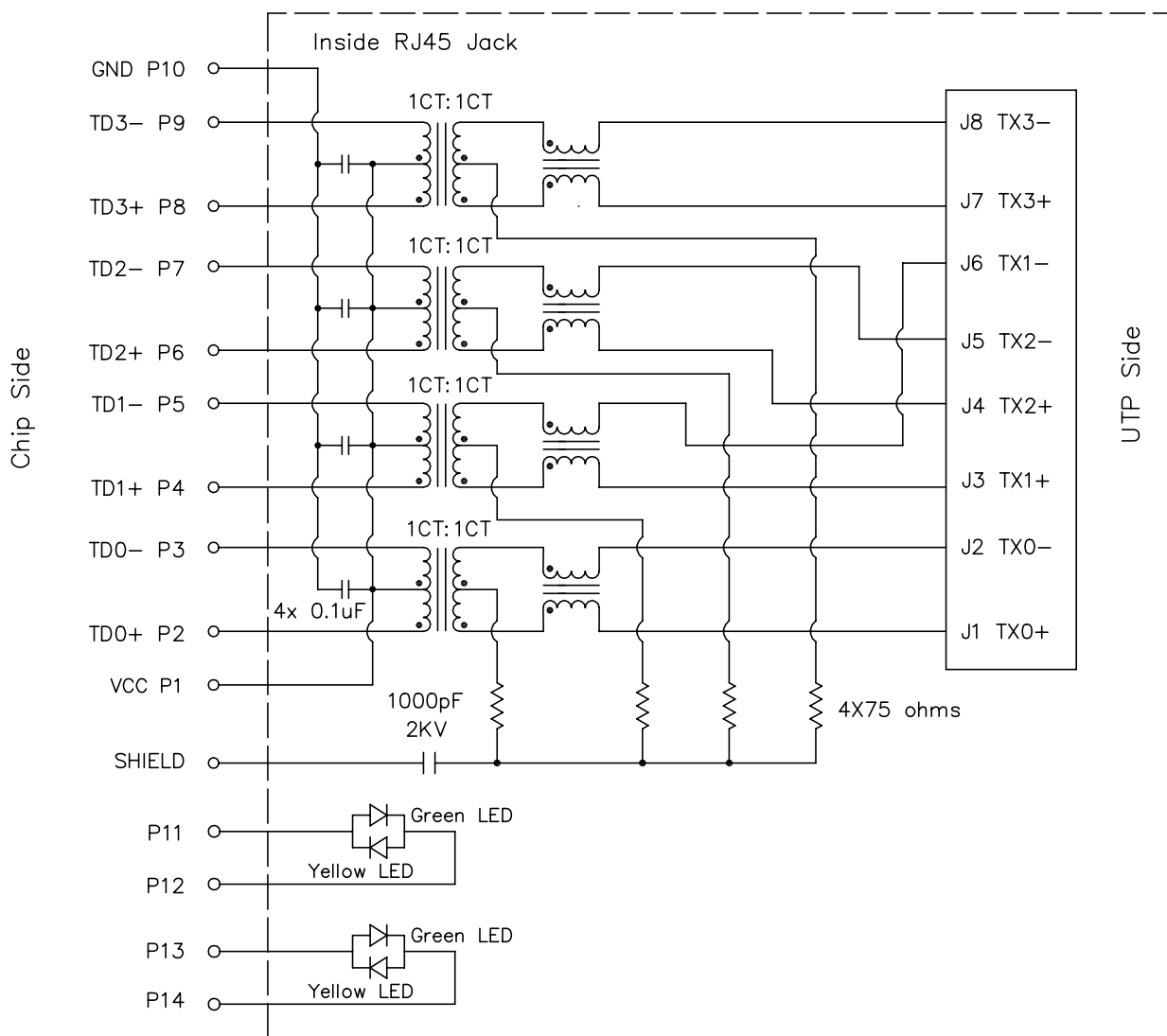
-16dB Minimum @60MHz ~ 80MHz / -14dB Minimum @80MHz ~ 100MHz

-12dB Minimum @100MHz ~ 150MHz / -9dB Minimum @150MHz ~ 250MHz

Common to Differential Mode Rejection : -30dB Minimum 1MHz ~ 250MHz

Crosstalk: -30dB Minimum 1MHz ~ 100MHz / -24dB Minimum 100MHz ~ 250MHz

Schematics

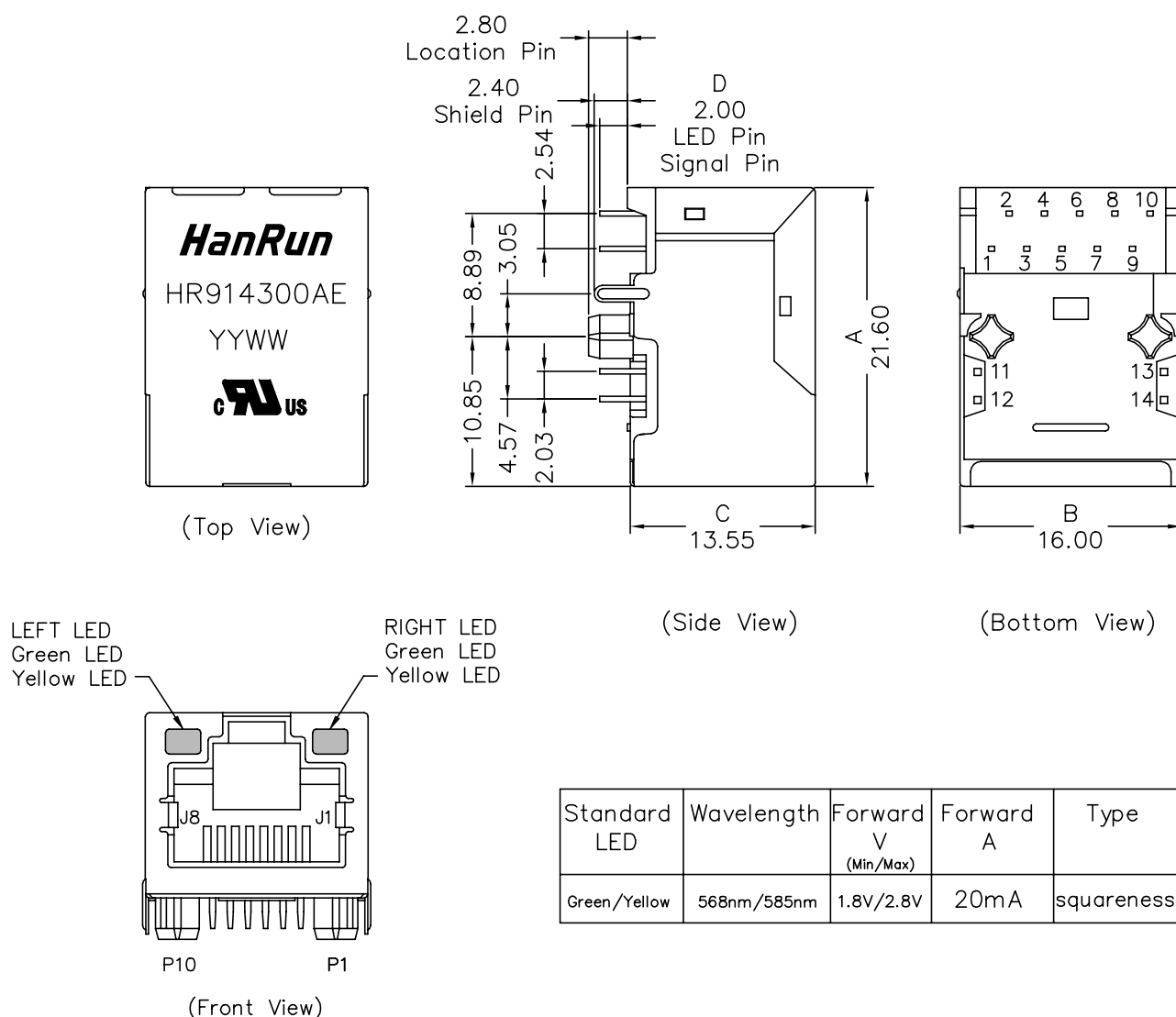


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- RoHS Compliant (PB Free)
- Meets or Exceeds IEEE802.3bz standards
- High performance for EMI suppression, Crosstalk, Return Loss and Consistent Electrical
- Minimum 2250VDC isolation per IEEE802.3 requirement
- Minimize PCB space and Simplify PCB Layout
- Less magnetic components to be placed on PCB, higher reliability and yields
- UL Recognized Component: File # E330599

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

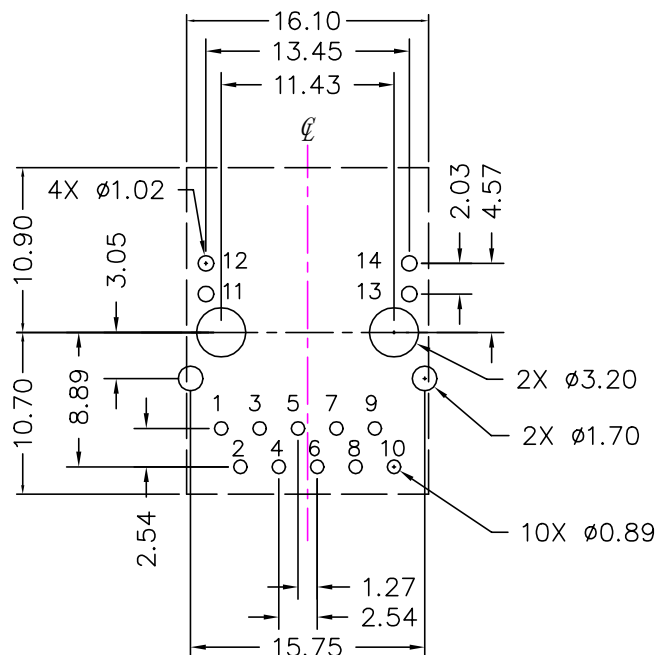
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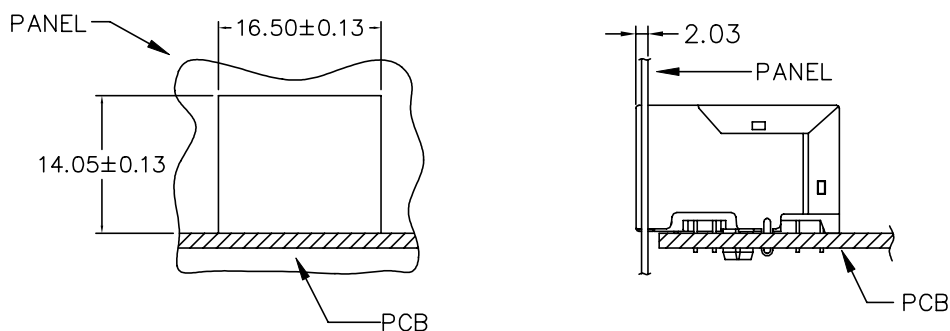
PCB Layout:



Recommended PCB layout (Component Side View)

All dimension tolerance are ± 0.08 unless otherwise specified

Suggested Panel Cutout:



SUGGESTED PANEL OPENING

Dimensions in mm

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REV.: 00

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Material Specification:

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

Mechanical Performance:

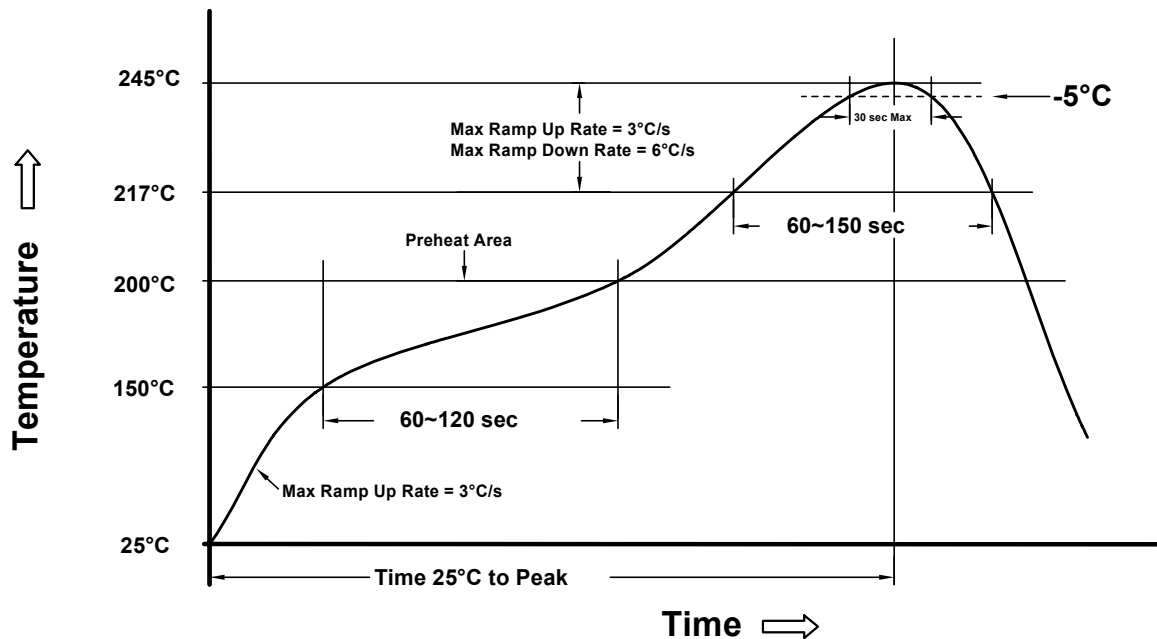
Mating force: 5 lbs Maximum
Unmating force: 5 lbs Maximum
Operating life: 750 Cycles Minimum

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 ≤ 2 cycles