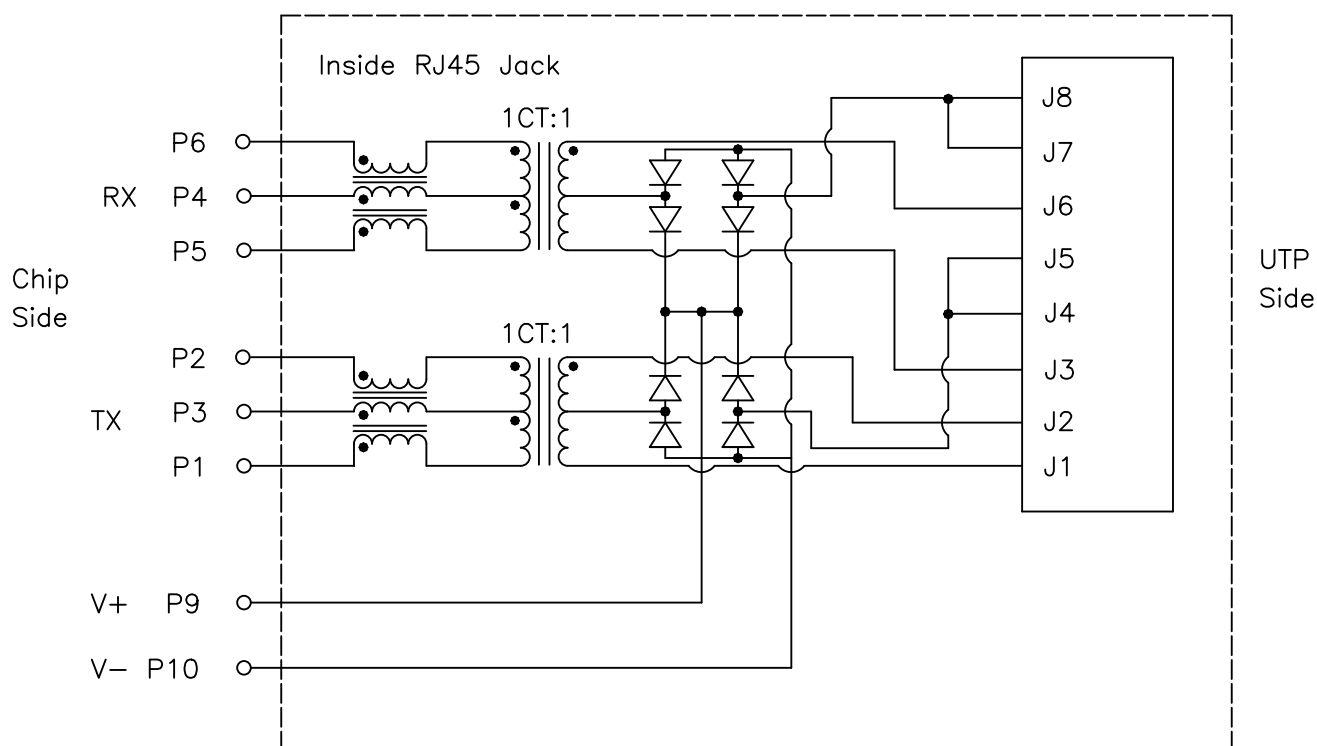


## HR993301AE

### Electrical Specification @25°C

Isolation:	2250VDC Min.	0.5mA 60sec UTP Side to Chip Side
OCL:	350uH Min.	@100KHz 100mV with 8mADC
OCL:	120uH Min.	@100KHz 100mV with 19mADC
Insertion Loss:	-1.0dB Max.	@1MHz ~ 100MHz
Return Loss:	-18dB Min.	@1MHz ~ 30MHz
Return Loss:	-13.5dB Min.	@30MHz ~ 60MHz
Return Loss:	-12dB Min.	@60MHz ~ 80MHz
Return Loss:	-10dB Min.	@80MHz ~ 100MHz
Common Mode Rejection:	-30dB Min.	@1MHz ~ 100MHz
Crosstalk:	-30dB Min.	@1MHz ~ 100MHz
PoE current:	600mA Max.	@57VDC

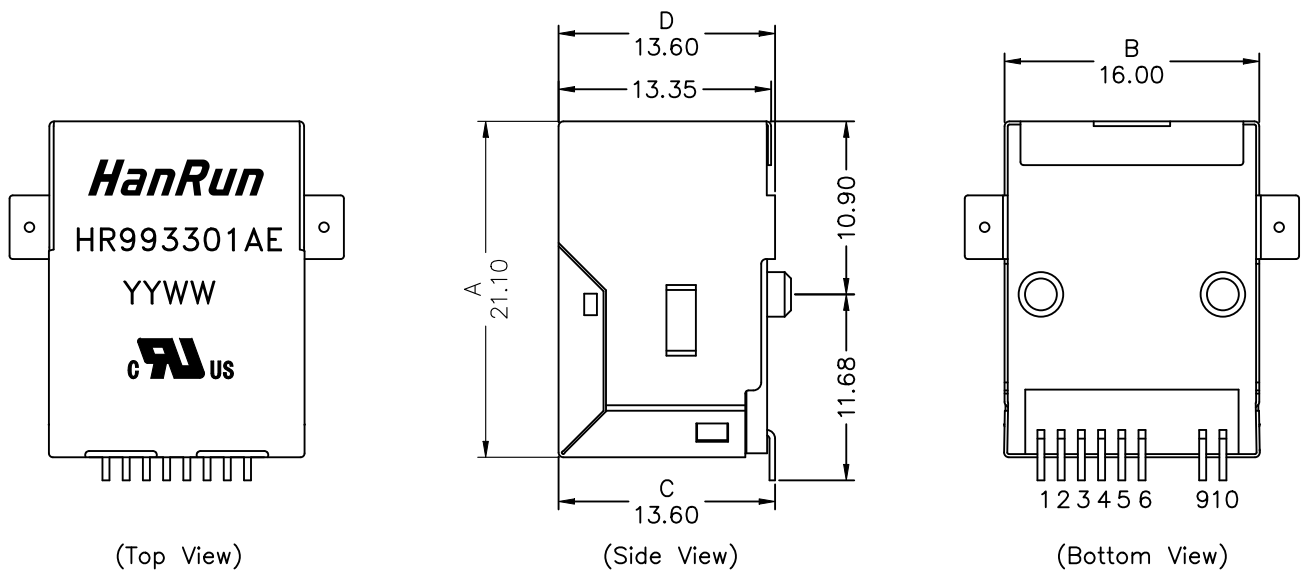
### Schematics



## HR993301AE

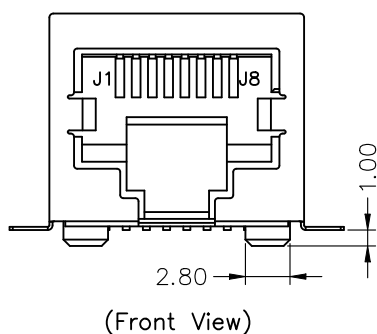
- RoHS Compliant
- Meets or Exceeds IEEE802.3at standards including 350uH Min OCL with 8mADC
- High performance for EMI suppression, Crosstalk, Return Loss and Consistent Electrical
- Minimum 2250VDC isolation per IEEE802.3 requirement
- Minimize PCB space and Simplify PCB Layout
- Less magnetic components to be placed on PCB, higher reliability and yields
- UL Recognized Component: File # E330599

### Mechanical Dimensions:



Remark:

1.Remove Pin#7,#8



Dimensions in mm

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

REV.: A1

2 of 5

DRAWN:

CHECKED:

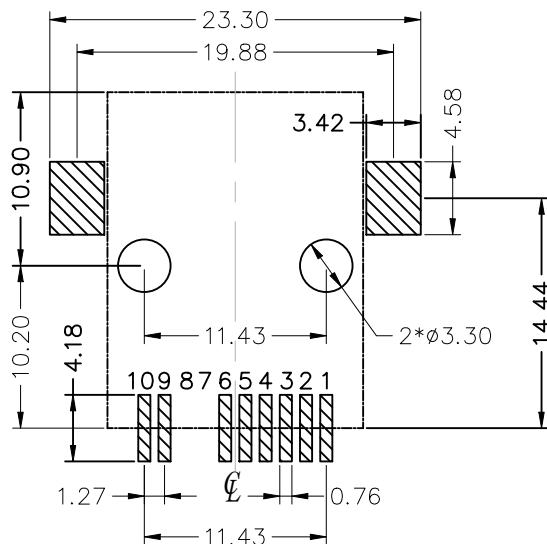
APPROVED:

Tel: (0760)86103511 86103508 Fax: (0760)86103686 Post code: 528416

E-Mail: sales@hanrun.com <http://www.hanrun.com>

HR993301AE

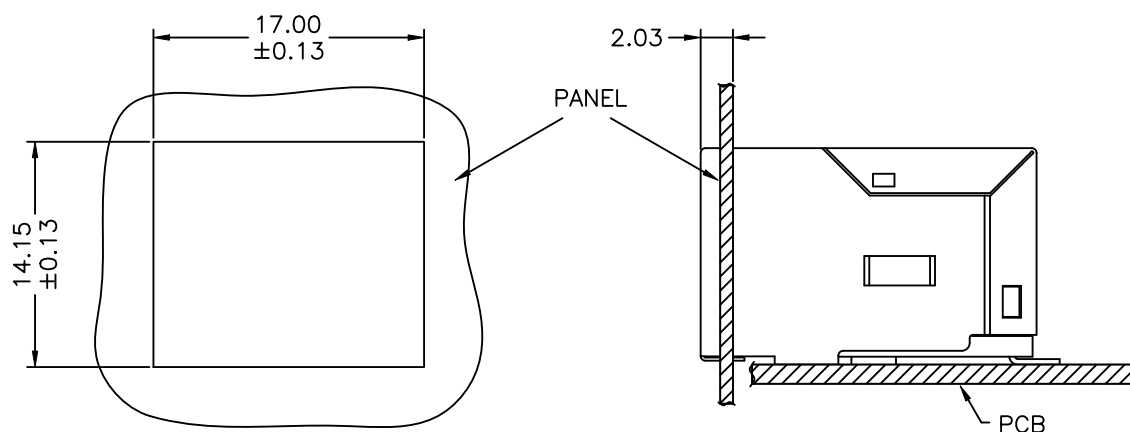
### Mechanical Dimensions:



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.: A1

3 of 5

DRAWED:

CHECKED:

APPROVED:

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## HR993301AE

### Material Specification:

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

### Mechanical Performance:

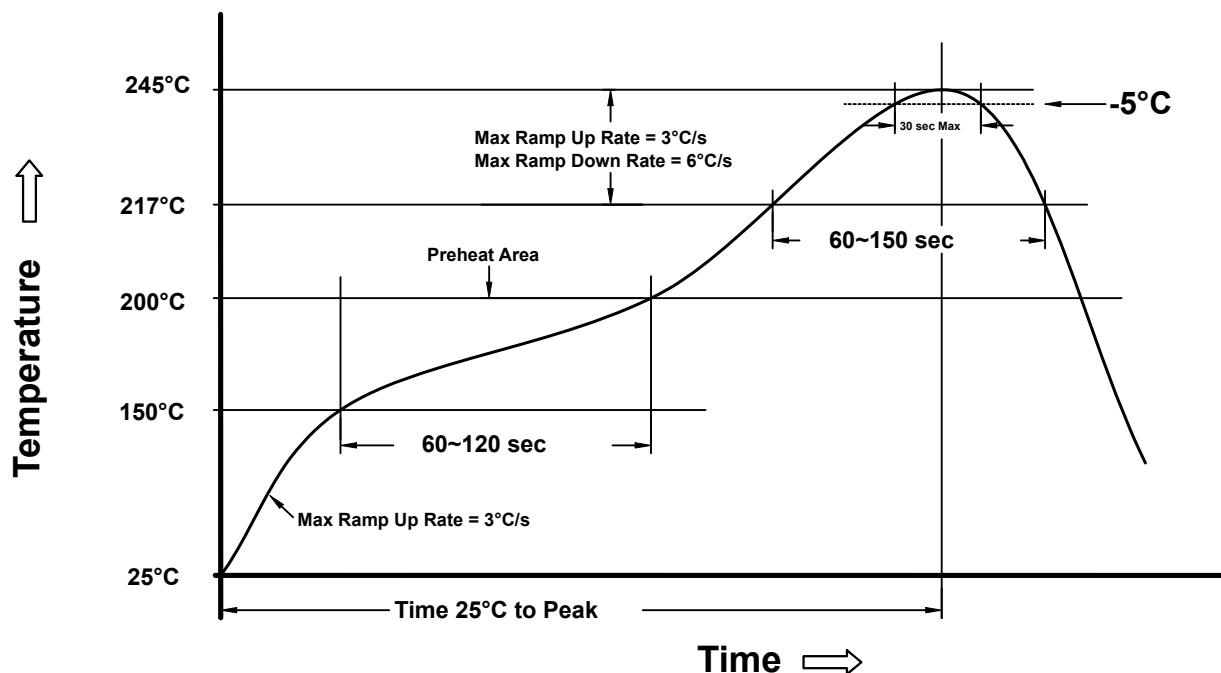
Mating force: 5 lbs Maximum  
Unmating force: 5 lbs Maximum  
Plug to Jack Retention force: 12 lbs Minimum  
Operating life: 750 Cycles Minimum

### Operating and Storage Temperature:

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

## HR993301AE

### Lead-free Recommended Soldering Profile



#### 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