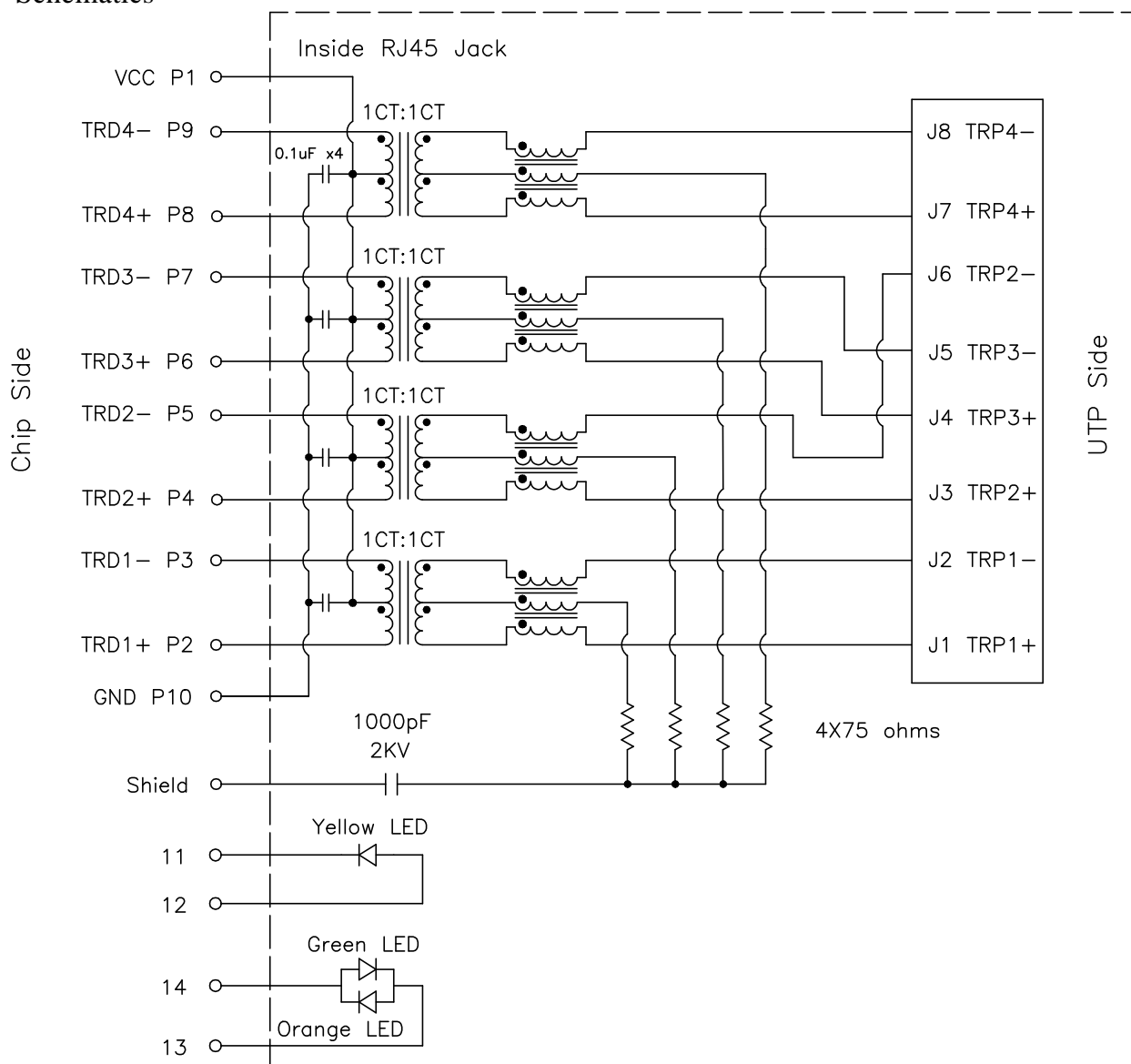


**HR851120A**

**Electrical Specification @25°C**

Isolation: 1500Vrms 0.5mA 60sec (UTP Side to Chip Side)  
 OCL: 350uH Minimum @100KHz 100mV with 8mADC  
 Insertion Loss: -1.0dB Maximum @1MHz ~ 100MHz  
 Return Loss: -16dB Minimum @1MHz ~ 30MHz / -13.5dB Minimum @30MHz ~ 60MHz  
 -12dB Minimum @60MHz ~ 80MHz / -10dB Minimum @80MHz ~ 100MHz  
 CMR: -30dB Minimum @1MHz ~ 100MHz  
 Crosstalk: -30dB Minimum @1MHz ~ 100MHz

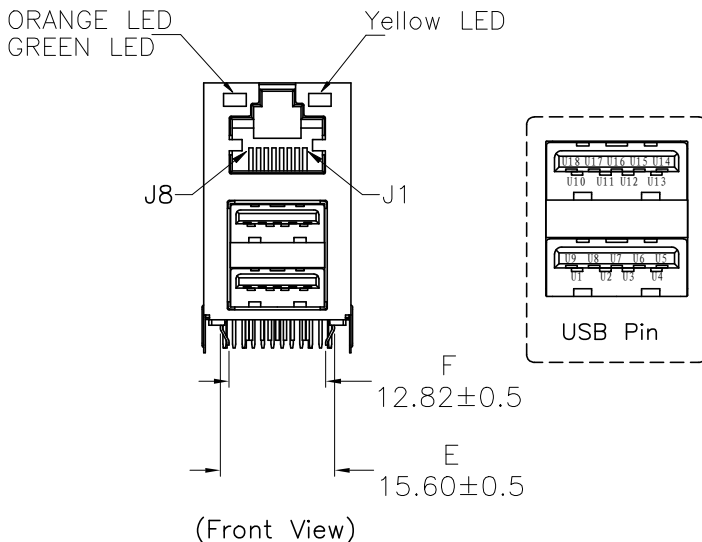
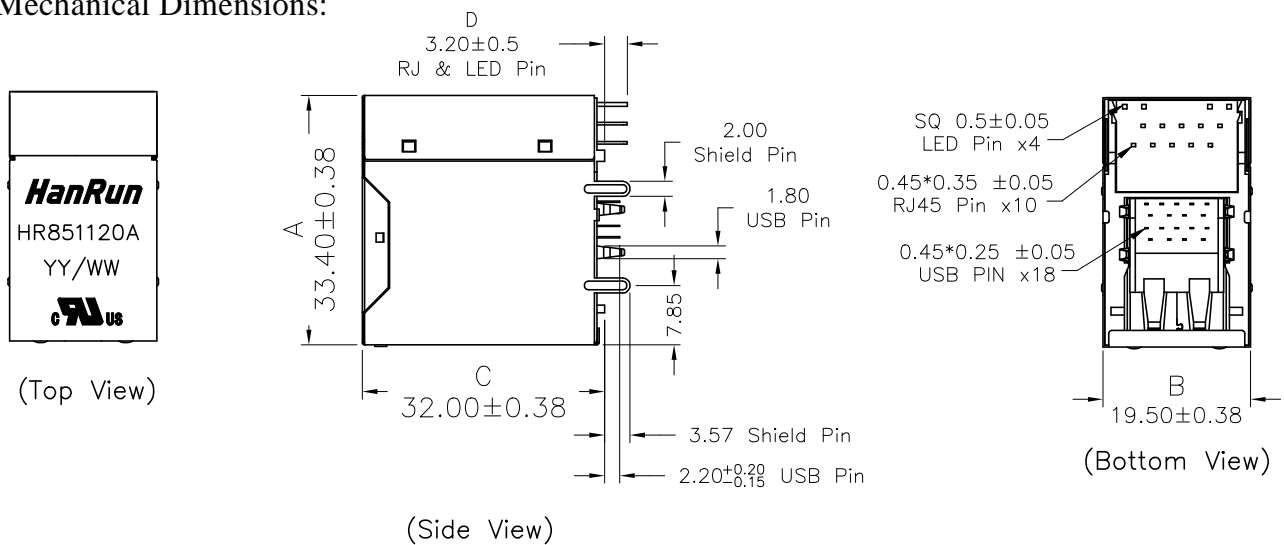
**Schematics**



**HR851120A**

- RoHS Compliant (PB Free)
- Meets or Exceeds IEEE802.3ab 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:**



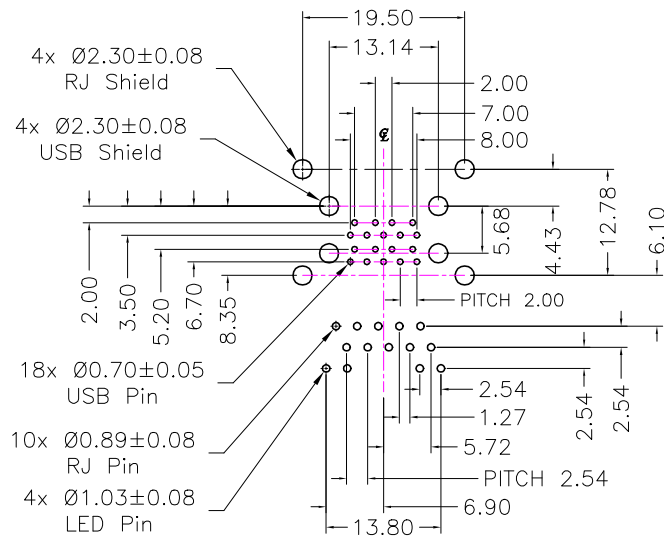
Standard LED	Wavelength	Forward V (Min/Max)	Forward A
Green/Orange	568nm/600nm	1.8V/2.8V	20mA
Yellow	585nm	1.8V/2.8V	20mA

Dimensions in mm  
Unless otherwise specified, Tolerance: .xx ±0.25

REV.: 010

**HR851120A**

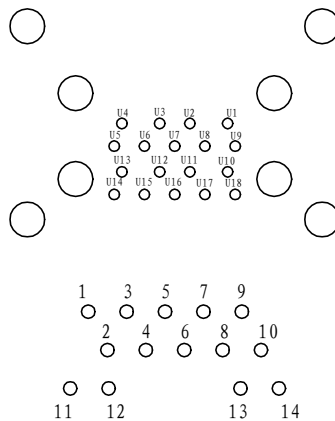
**PCB Layout:**



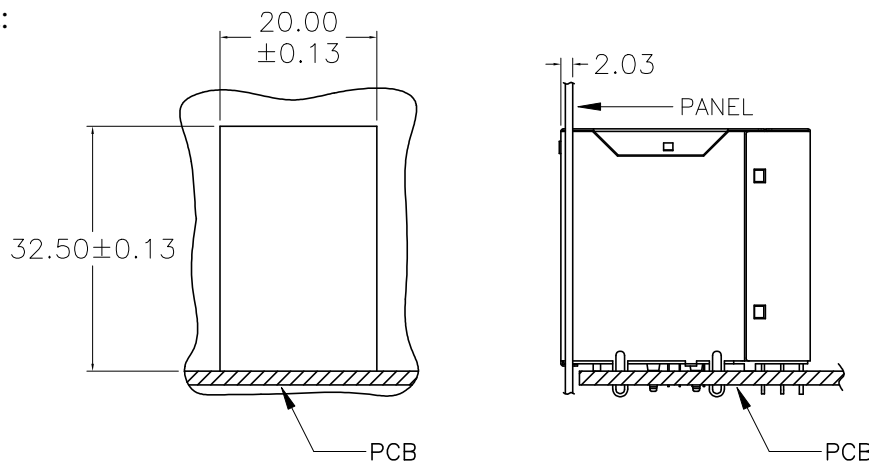
Recommended PCB layout (Component Side View)

All dimension tolerance are  $\pm 0.08$  unless otherwise specified

**Pin Assignment:**



**Pin Assignment:**



## HR851120A

### Material Specification:

RJ Housing: PBT GF Black UL94V-0  
RJ Shield: 30u" Nickel over 0.20mm Thickness Brass  
RJ Insert: PA66 GF Black UL94V-0  
    Phosphor Bronze 0.35mm Thickness  
    Plating Area, 30u" gold over 50u" nickel  
    Solder Area, 100u" tin over 50u" nickel  
RJ Contact pin: PA66 GF Black UL94V-0  
    Phosphor Bronze 0.35mm Thickness  
    100u" tin plating with nickel underplating  
LED Conductor: PC Transparent UL94V-0  
USB Contact: Phosphor Bronze  
    15u" Gold plating on contact area  
    100u" tin plating on solder tails  
    50u" nickel underplating overall  
USB Shield: Brass, 80u" nickel plated over all  
USB Housing: PA46 GF Blue UL94V-0

### Mechanical Performance:

RJ Mating force: 5 lbs Maximum  
RJ Unmating force: 5 lbs Maximum  
RJ Operating life: 750 Cycles Minimum  
USB Mating force: 7.868 lbs Maximum  
USB Unmating force: 2.248 lbs Minimum  
USB Operating life: 1500 Cycles Minimum

### Operating and Storage Temperature:

Operating Temperature Range: 0°C ~ +70°C  
Storage Temperature Range: -40°C ~ +85°C