

# APPROVAL SHEET

To :

Customer P/N :

UDE P/N : RUP-ZZ-0012

Description : RJ45 Tab up over USB 3.0 stack  
Through Hole  
10/100/1000 Base-T  
Contact Area : 30 $\mu$ " min.Gold  
LED: L-Green/Orange; R-Yellow



Spec No.  
RUP16029-00

Update Date  
2016/3/21

Revision  
A

Approved	Checked	Prepared



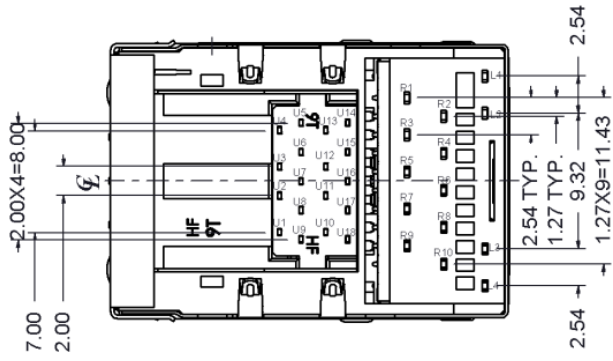
湧德電子 股份有限公司  
UDE Corp.

8F-1, No.58, Tongde 11th St., Taoyuan City, Taoyuan County (330), Taiwan  
桃園縣桃園市(330)同德十一街58號 8F之1  
TEL:+886-3-3568600 FAX:+886-3-3560611  
<http://www.ude-corp.com/>

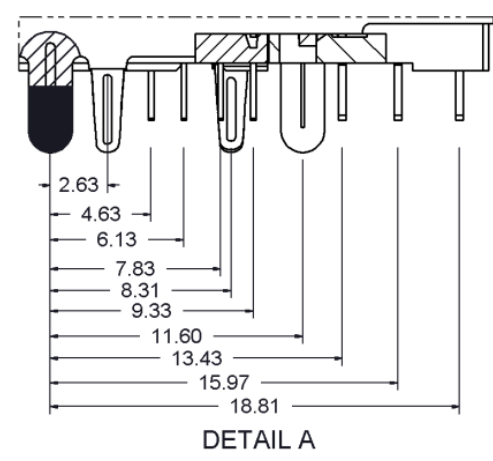
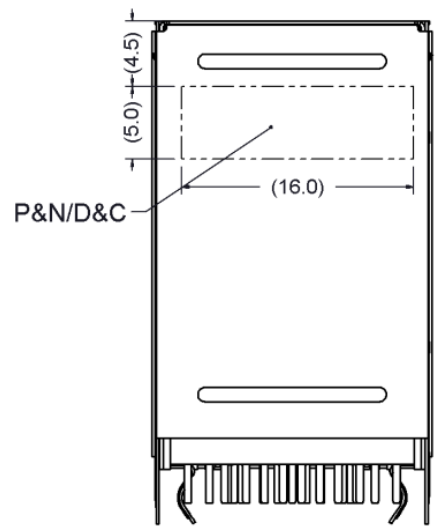
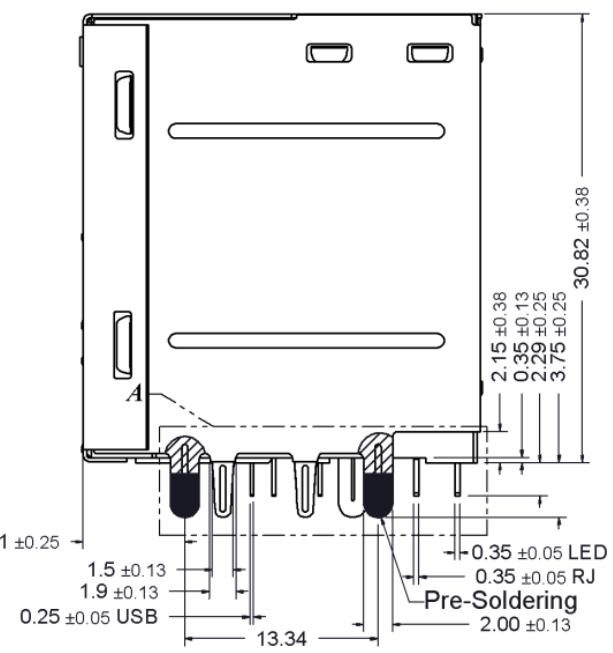
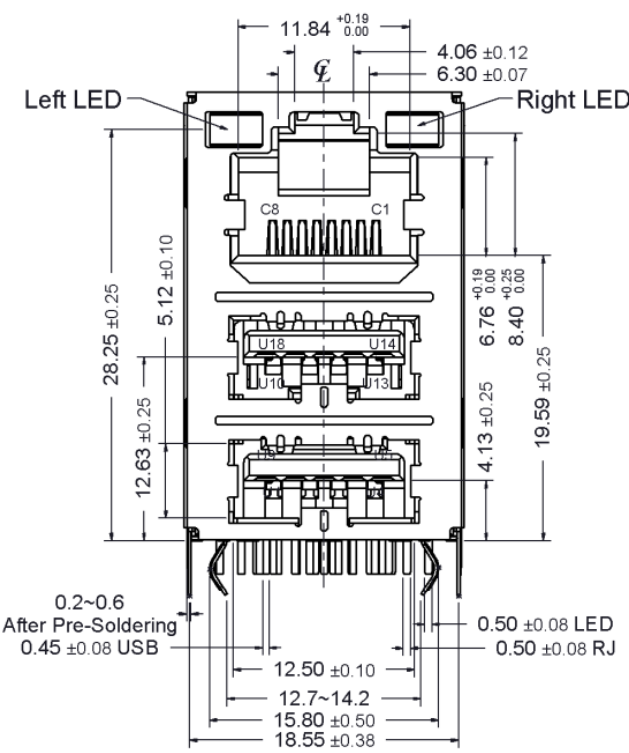
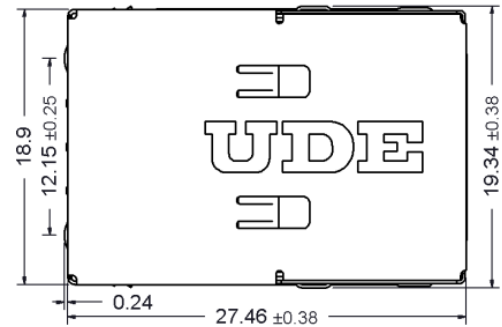
# 1. MECHANICAL DIMENSION

## 1.1 Product Dimension

Unit: mm	General Tolerance :	X.X : ± 0.38
		X.XX : ± 0.20



BOTTOM VIEW

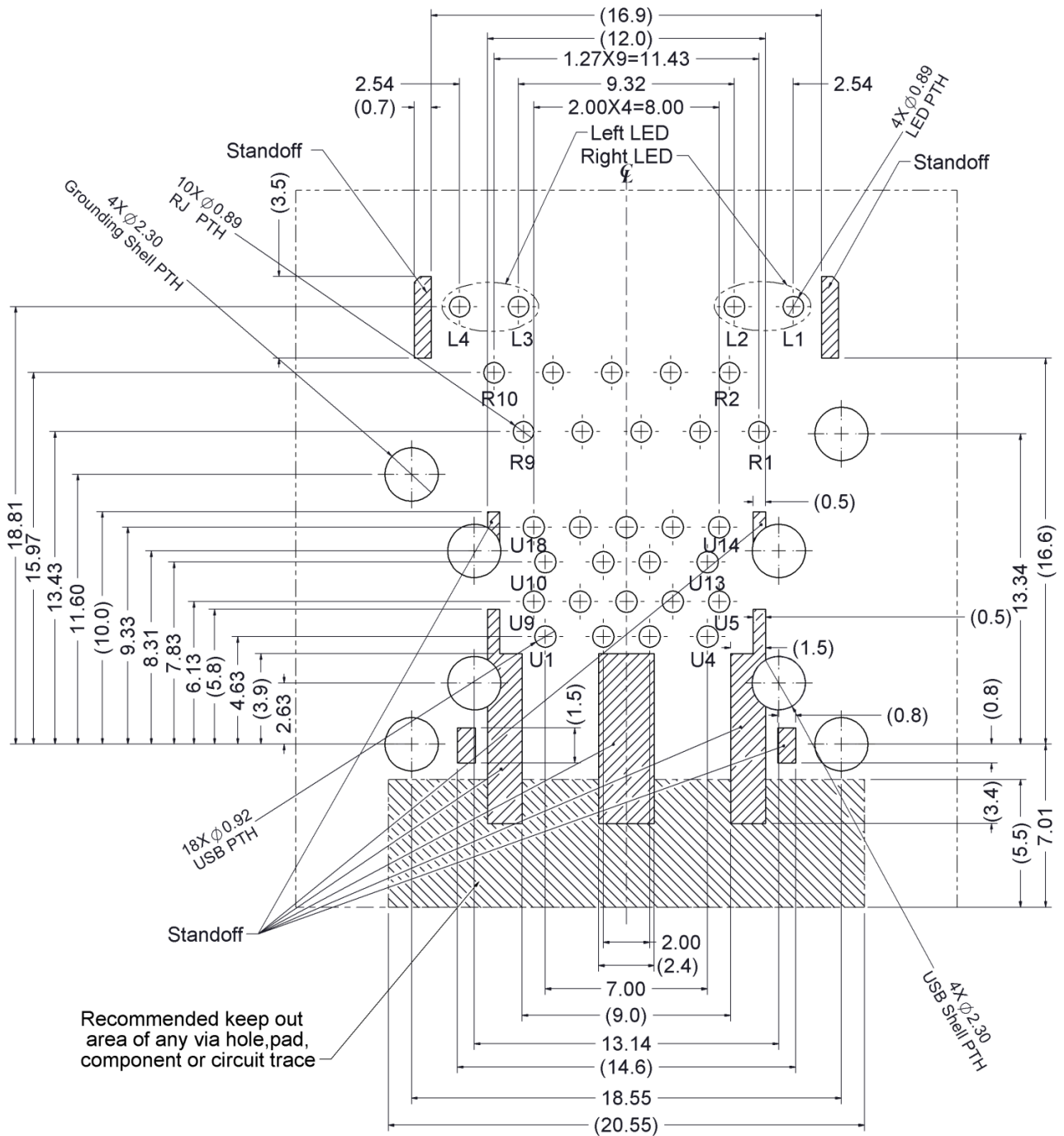


DETAIL A

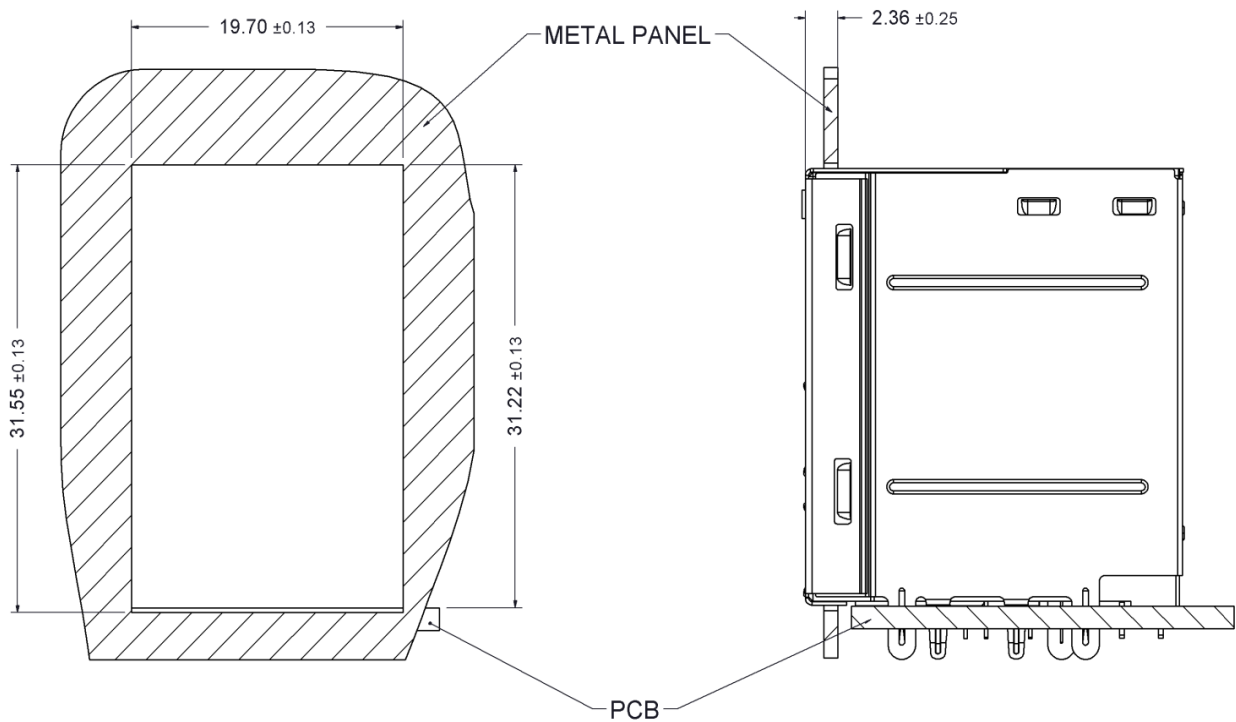
### 1.2 Recommended PCB Layout

#### Component Side of Board

All dimension tolerances are  $\pm 0.05\text{mm}$  unless otherwise specified



### 1.3 Recommended Panel Cutout



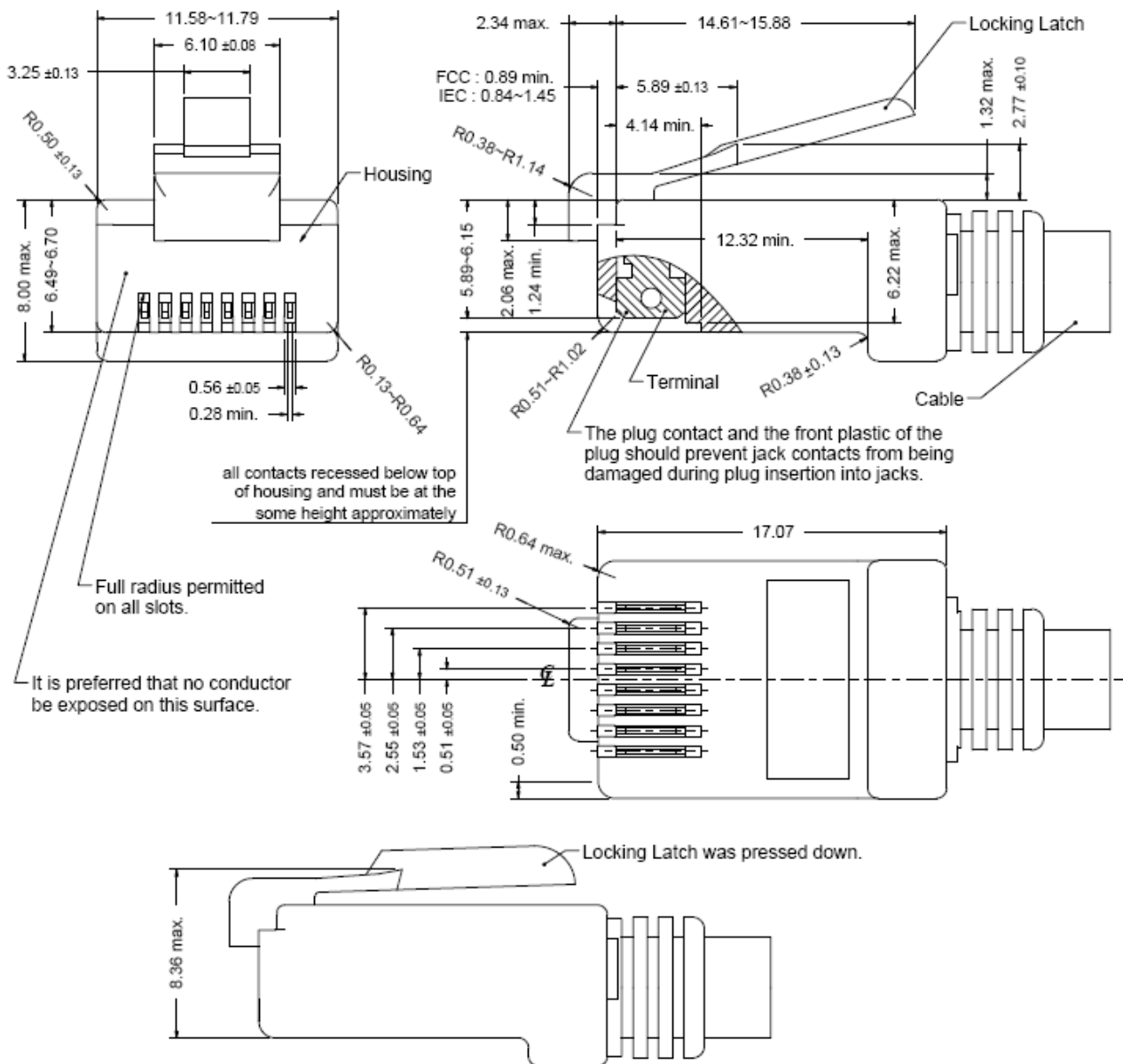
### 1.4 Packing Information

40 pcs finished goods per tray

5 trays(200 pcs finished goods) per inner box

4 Inner boxes(800 pcs finished goods) per master carton

## 1.5 Standard RJ45 Plug Specification



- All dimensions follow :

FCC subpart F, 68,500, Figure (C)(2)(i) & (C)(2)(ii) & (C)(3)(i)

IEC 60603-7

- All plugs must be meeting the requirements of plug Go & No-Go gauge.

Gauge follow : FCC subpart F, 68,500, Figure (C)(4)(i) & (C)(5)(i)

- There must be no damage to Housing and Locking Latch.

- There must be no nicks and cuts in cable.

- Durability : 750 cycles generally



## 2. REQUIREMENTS

### 2.1 Design and Construction

Product shall be of design, construction and physical dimensions specified on applicable.

### 2.2 Material

#### 2.2.1 Terminal Parts (Underplating : 50 $\mu$ " min. Nickel overall)

2.2.1.1 RJ Terminal : PH. Bronze, Thickness=0.30mm

Finish : Contact Area : 30 $\mu$ " min. Gold

Solder Tail : 100 $\mu$ " min. Mt. Tin

2.2.1.2 USB 2.0 Terminal : Bronze, Thickness=0.25mm

Finish : Contact Area : 30 $\mu$ " min. Gold

Solder Tail : 100 $\mu$ " min. Mt. Tin

2.2.1.3 USB 3.0 Terminal : Brass, Thickness=0.25mm

Finish : Contact Area : 30 $\mu$ " min. Gold

Solder Tail : 100 $\mu$ " min. Mt. Tin

2.2.1.4 Input Terminal : Brass, Thickness=0.35mm

Finish : 100 $\mu$ " min. Mt. Tin

2.2.1.5 Case Terminal : Brass, Thickness=0.35mm

Finish : 100 $\mu$ " min. Mt. Tin

2.2.1.6 LED Terminal : Brass, Thickness=0.35mm

Finish : 100 $\mu$ " min. Mt. Tin

#### 2.2.2 Plastic Parts

2.2.2.1 RJ Housing : PBT, Black <UL94V-0>

2.2.2.2 Spacer : PBT, Black <UL94V-0>

2.2.2.3 Case : PBT, Black <UL94V-0>

2.2.2.4 USB Housing : PA9T, Blue(300C) <UL94 HB>

2.2.2.5 USB Back Cover : PA9T, Blue(300C)<UL94 HB>

#### 2.2.3 Shield Parts

2.2.3.1 Front Shield : Stainless Steel, Thickness=0.25mm, unplating

2.2.3.2 Back Shield : Stainless Steel, Thickness=0.20mm, Pre-soldering

2.2.3.3 Grounding Spring : Brass, Thickness=0.20mm

Finish : 100 $\mu$ " min. Tin

### 2.3 Operating and Storage Temperature

Operating Temperature : -40°C to +85°C

Storage Temperature : -40°C to +85°C

### 2.4 RJ45 specifications

Insulation Resistance : 500MΩ min.

Insertion force with the latch depressed : 22N max.

Removal force with the latch depressed : 44N max.

Locking Force of Plug Latch : 50N min. @ 60+/-5 sec

Durability : 2500 cycles

### 2.5 USB 3.0 specifications

Contact Current Rating: 1A

Contact Resistance: 30mΩ Max.

Insulation Resistance : 1000MΩ min.

Dielectric Withstanding Voltage : 500Vac @ 1min

Insertion force : 35 N max at a max. rate of 12.5mm per minute

Extraction force : 10 N min and 8 N after the specified insertion/extraction

Durability : 1500 cycles for standard class

### 2.6 Performance and Test Description

Product is designed to meet electrical, mechanical and environmental performance requirements specified in below table. All tests are performed at ambient environmental conditions per MIL-STD-1344A and EIA-364 unless otherwise specified.

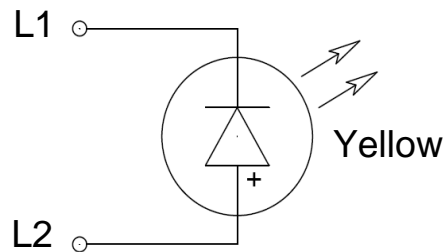
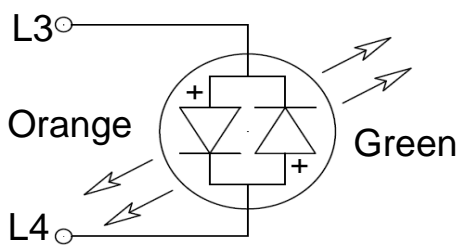
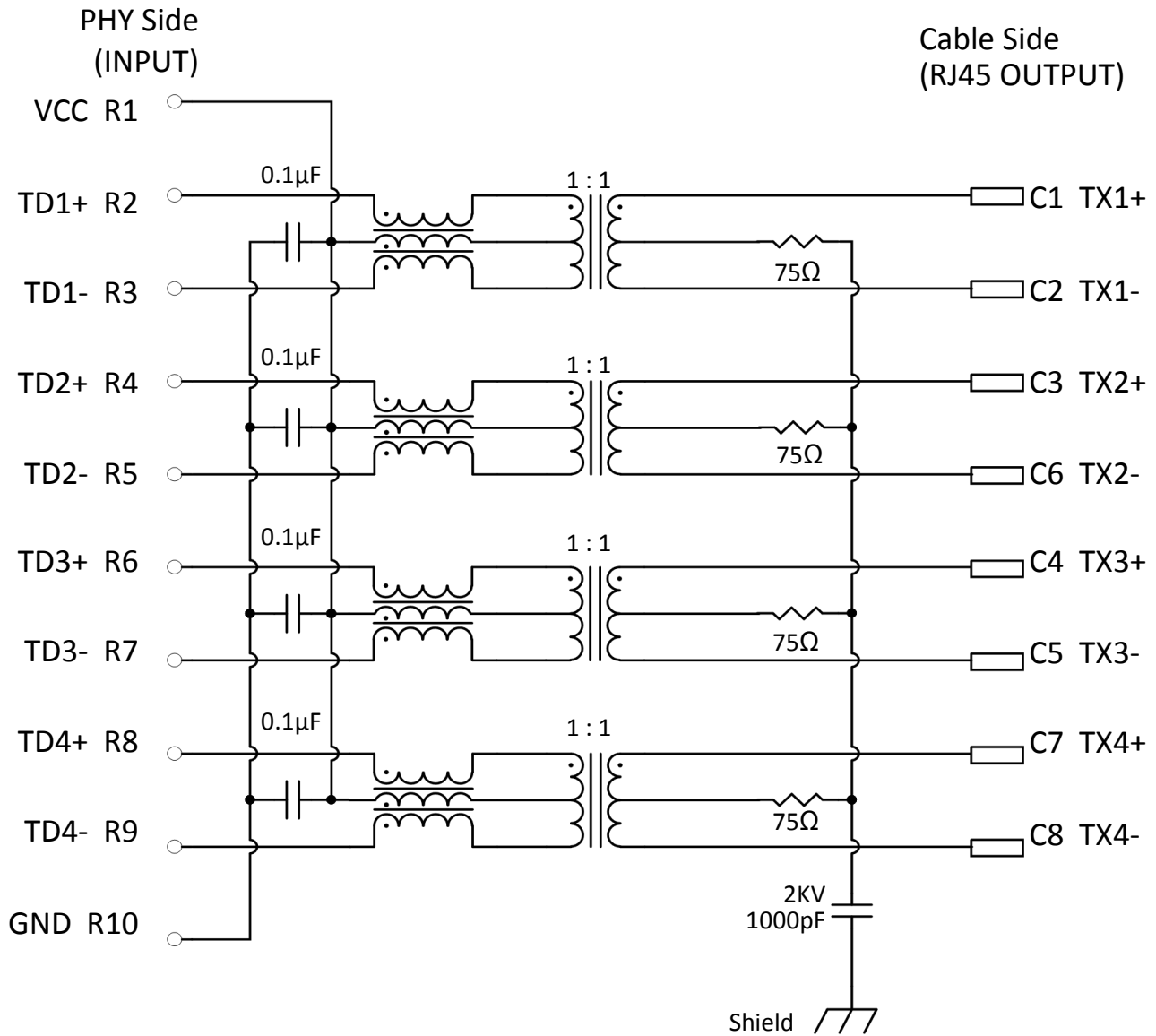
### 2.7 Packaging and Packing

All parts shall be packaged and packed to protect against physical damage 、 corrosion and deterioration during shipment and storage.



### 3. ELECTRICAL CHARACTERISTICS

#### 3.1 Schematic



Emitting Color	$\lambda_p$ (nm)	$V_f$ @ $I_f=20\text{mA}$	$I_r$ @ $V_r=5\text{V}$
Green	565	1.7 ~2.6 V	10 $\mu\text{A}$ max.
Yellow	585	1.7 ~2.6 V	10 $\mu\text{A}$ max.
Orange	610	1.7 ~2.6 V	10 $\mu\text{A}$ max.

### 3.2 Transmitter filter & Receiver filter

Type : Balance low pass 100Ω impedance

Insertion loss : 1~100 MHz -1.0dB max.

Return loss : 1~30 MHz -18dB min. load 100Ω

30~60MHz -16dB min. load 100Ω

60~80MHz -12dB min. load 100Ω

80~100MHz -10dB min. load 100Ω

### 3.3 Common Mode Rejection

@ 1~100 MHz -30dB min.

### 3.4 Cross Talk

@ 1~100 MHz -30dB min.

### 3.5 Inductance @ 100KHz, 0.1V, 8mA DC BIAS

Input(R2-R3), Input(R4-R5), Input(R6-R7), Input(R8-R9) : 350 μH min.

### 3.6 HiPot Test

Input(R2-R3) To Output(C1-C2) : 1500Vac 60s or 2250Vdc 60s

Input(R4-R5) To Output(C3-C6) : 1500Vac 60s or 2250Vdc 60s

Input(R6-R7) To Output(C4-C5) : 1500Vac 60s or 2250Vdc 60s

Input(R8-R9) To Output(C7-C8) : 1500Vac 60s or 2250Vdc 60s

## 4. DIPPING TEMPERATURE PROFILE

## Note :

The measuring point for the specified temperature shall be on the soldered part of the lead.

