APPROVAL SHEET

To：

Customer P/N：

UDE P/N： RU4-ZZ-0096

Description： RJ45 Tab up over USB 2.0 stack

Through Hole

2.5G Base-T

Contact Area : 30μ" Min. Gold

LED：L-Green/Orange; R-Green

RoHS

Spec No.	Update Date	Revision
RU419040-00	2019/6/19	A

Approved	Checked	Prepared

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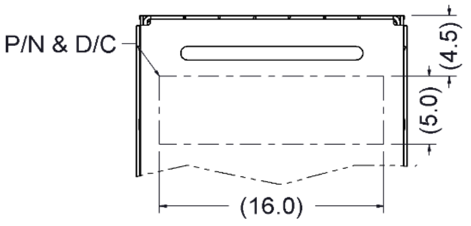
Revision History

Issue Date	Revision	Comments	Operator
2019/6/19	A	Initial Release .	Lynne

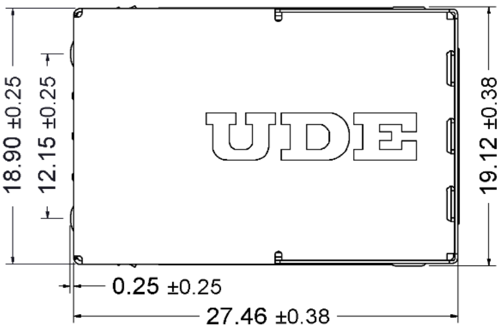
1. MECHANICAL DIMENSION

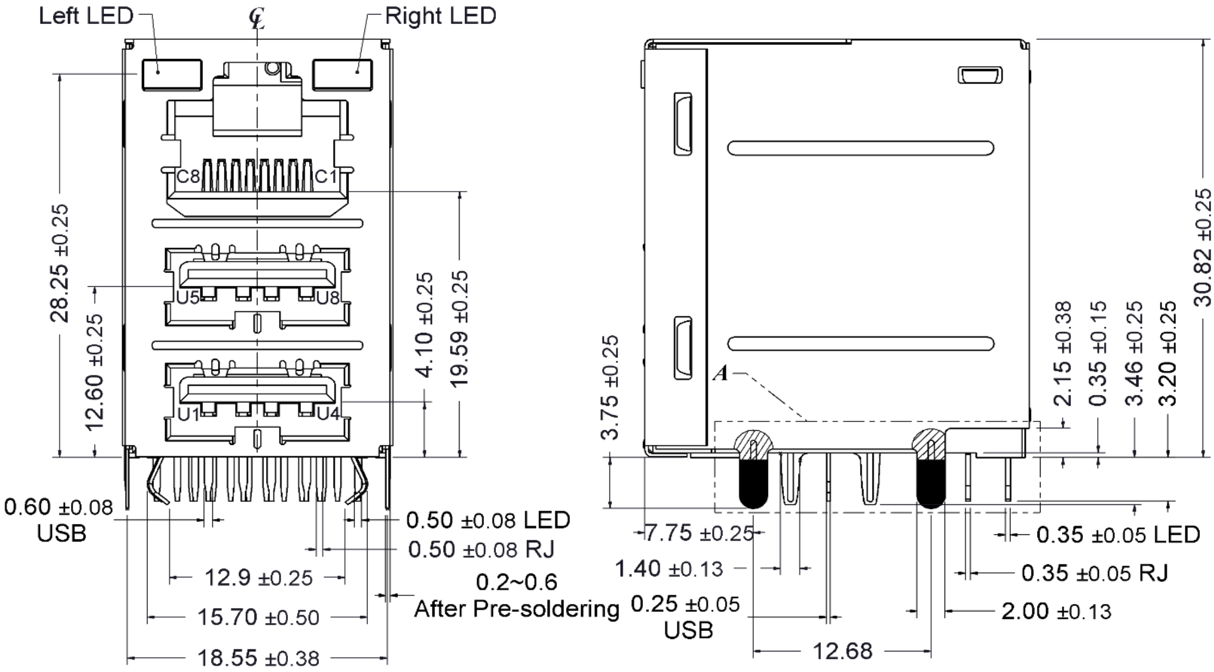
Product Dimension

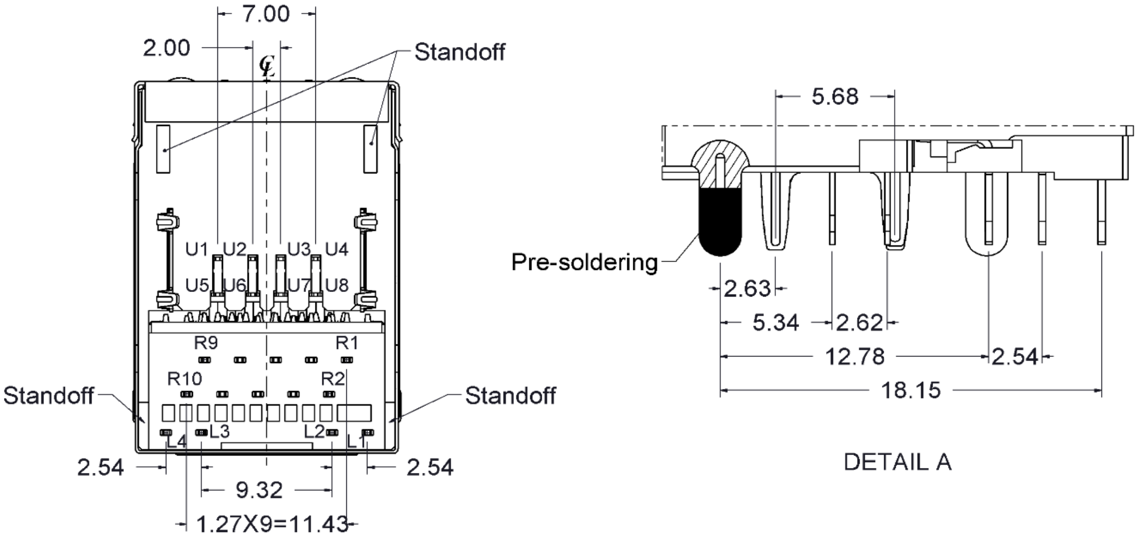
Unit:mm	General Tolerance :	X.X : ± 0.38 X.XX : ± 0.20



BACK VIEW







DETAIL A

Recommended PCB Layout. Component side of board

All dimension units are "mm".

All dimension tolerances are ±0.05mm unless otherwise specified.

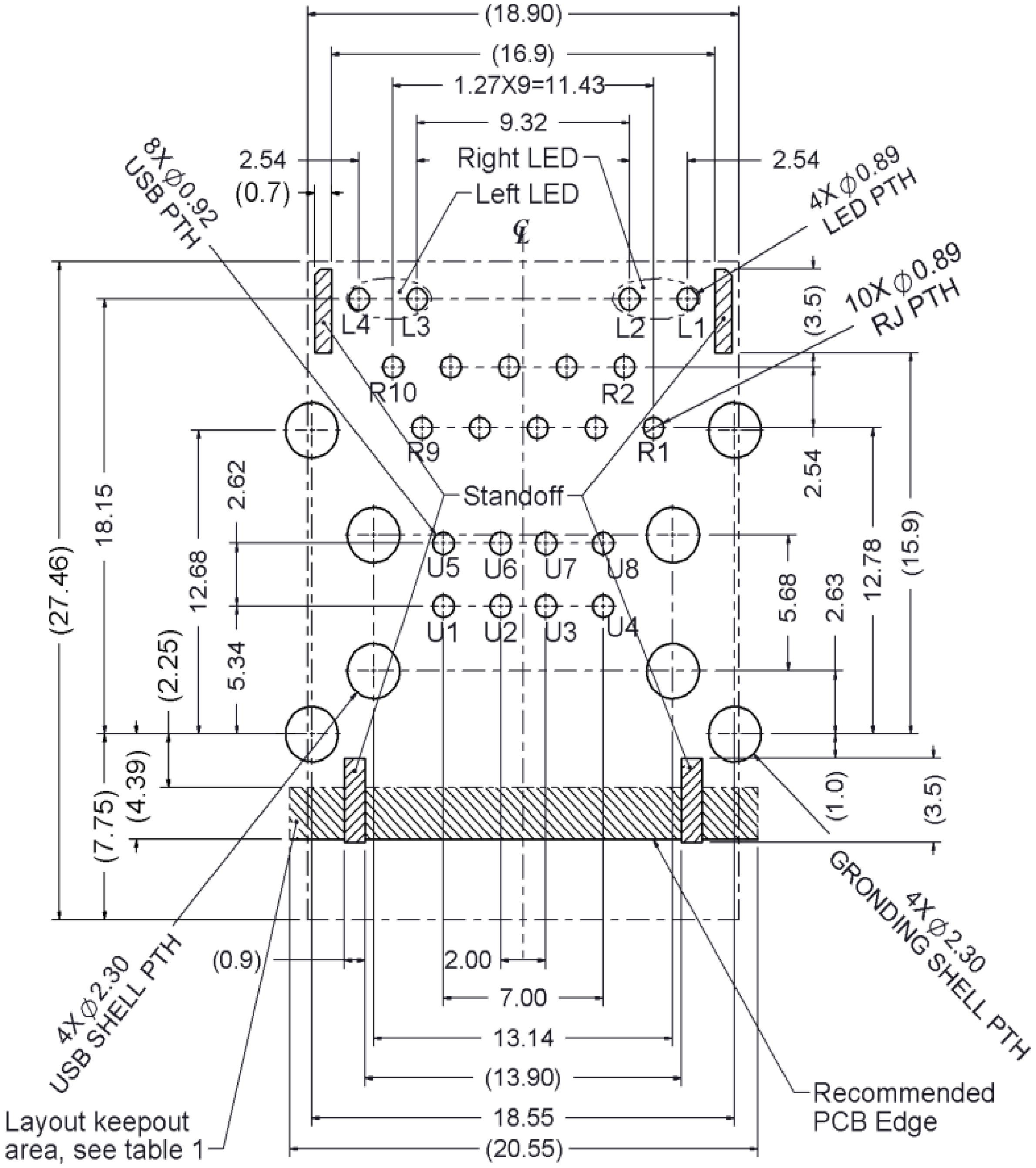
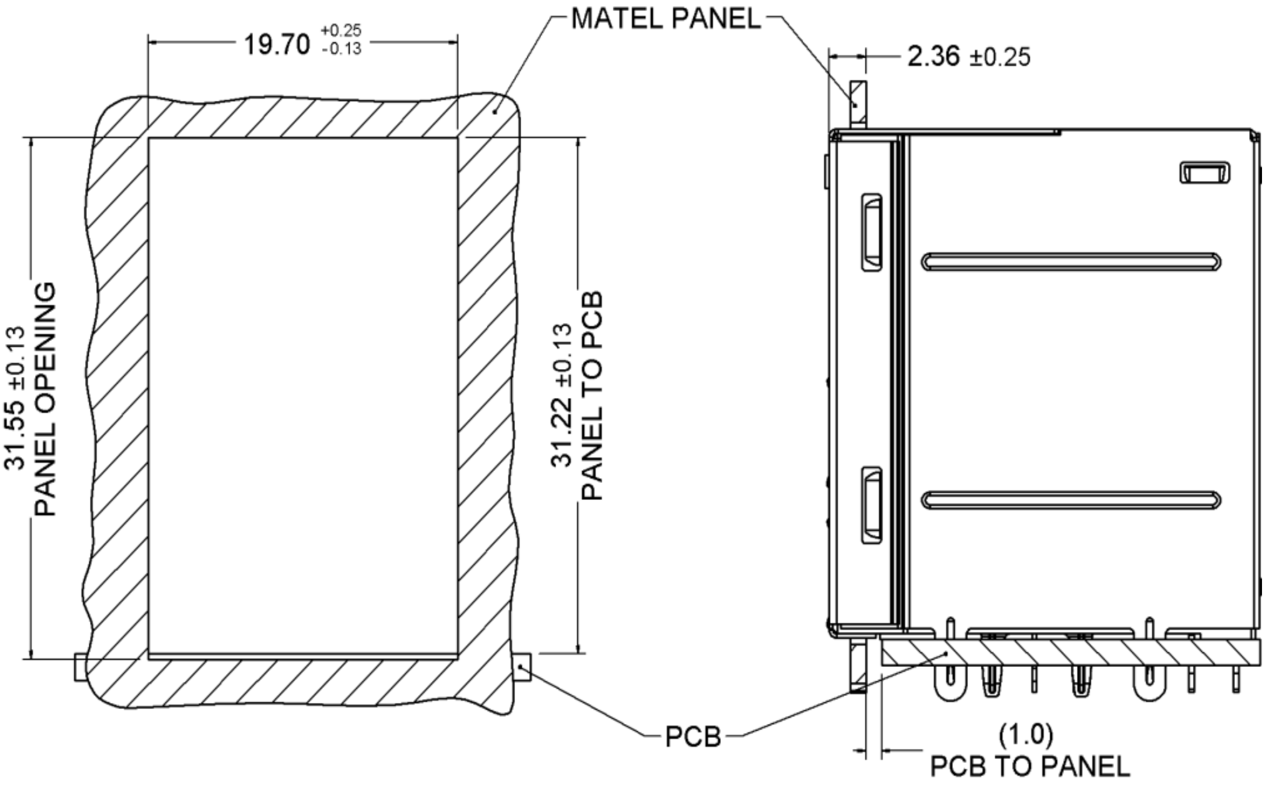


Table1

Layout Layer	Trace	component	Grounding	Test Point	Via Hole	PTH	NPTH
Component side	X	X	O	X	X	X	O
Inner layer	O	NA	O	NA	O	X	O
Bottom side	O	O	O	O	O	X	O

X--Forbid; O--OK; NA--Not Applicable.

Recommended Panel cutout



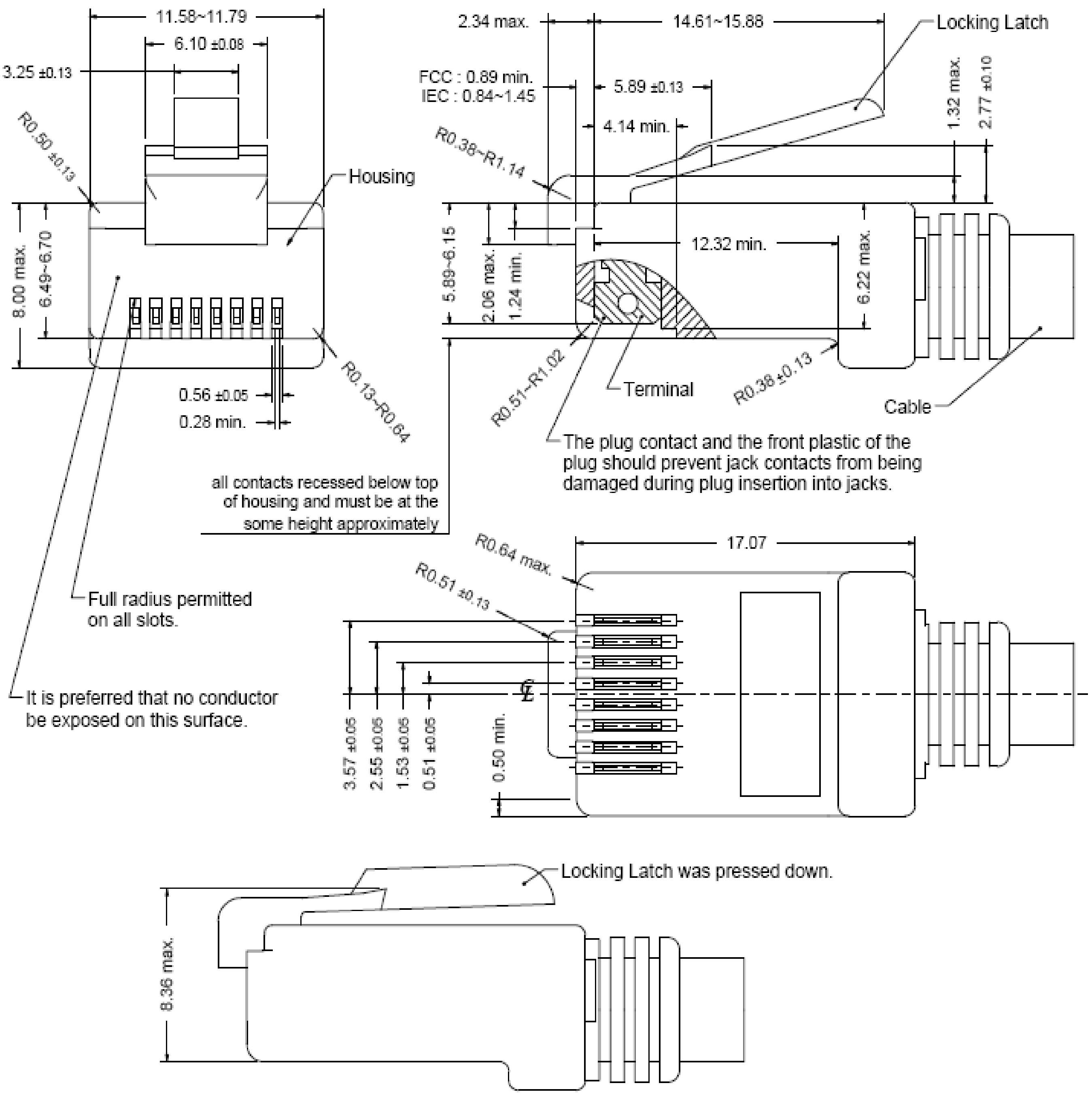
2. Packing Information

   40 pcs finished goods per tray

   5 trays(200 pcs finished goods) per inner box

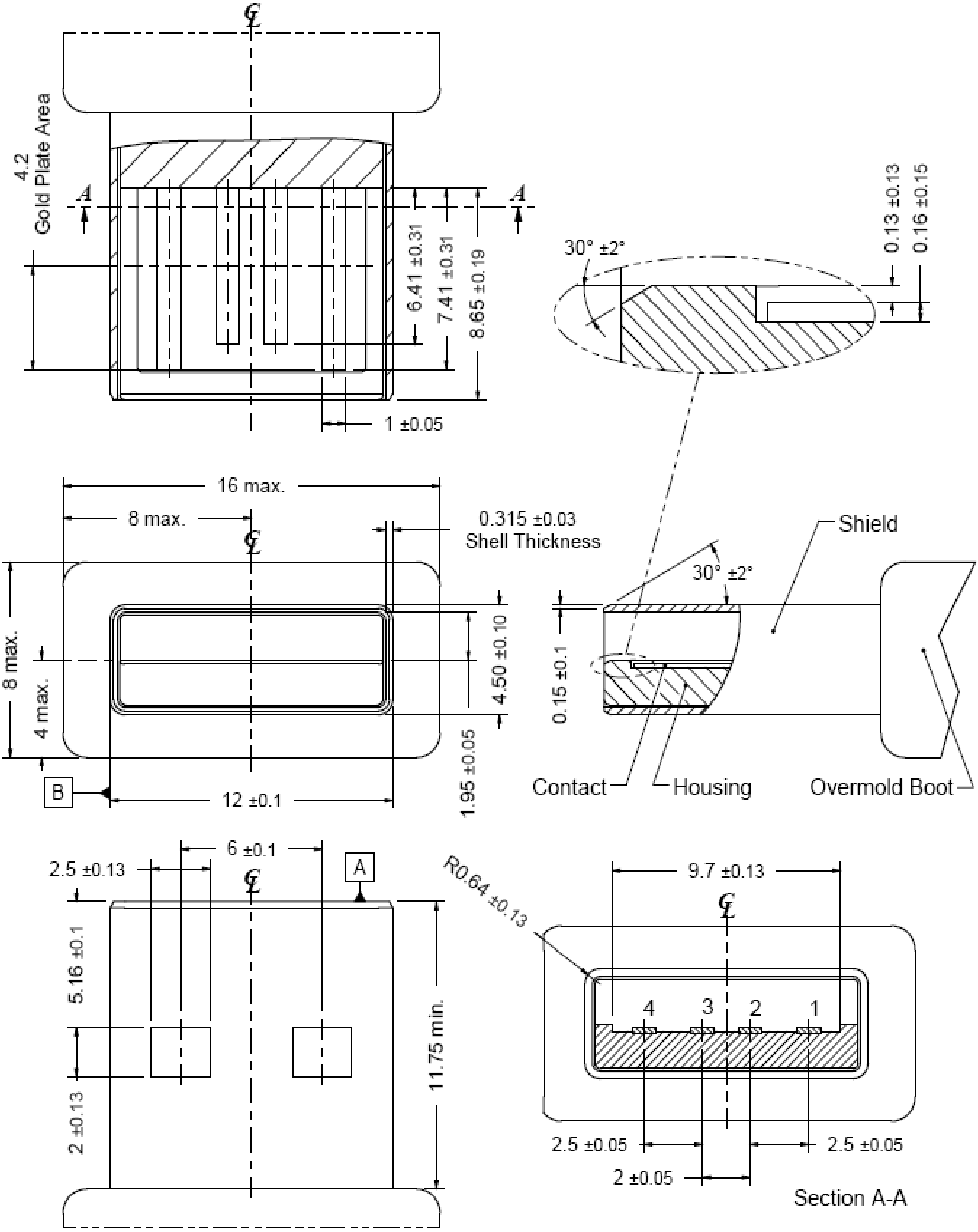
   4 Inner boxes(800 pcs finished goods) per master carton

3. 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

4. Standard USB 2.0 Plug Specification



- All dimensions follow : Universal Series Bus Specification 2.0 (April 27,2000)

Figure 6-9. USB Series A Plug Interface Drawing

5. REQUIREMENTS

Design and Construction

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

Material

Terminal Parts (Underplating : 50μ" min. Nickel overall)

RJ Terminal : Phosphor Bronze, Thickness=0.30mm

Finish Contact Area : 30u" min. Gold

USB Terminal : Phosphor Bronze, Thickness=0.25mm

Finish Contact Area : 30u" min. Gold

Solder Tail : 100μ" min. Bright Tin

Input Terminal : Brass, Thickness=0.35mm

Finish : 100μ" min. Bright Tin

Case Terminal : CP Wire, Diameter=0.40mm

Finish : 100μ" min. Bright Tin

Plastic Parts <UL94V-0>

Housing : PBT, Black

Case : PF2A5-151J(b), Black

Spacer : PBT, Black

Shield Parts

Front Shield : stainless steel, Thickness=0.25mm, unplating

Back Shield : stainless steel, Thickness=0.20mm, Pre-soldering

USB Kink : Brass, Thickness=0.25mm

Finish : 100μ" min. Tin over 30μ" min. Nickel overall

6. Operating and Storage Temperature

Operating Temperature : 0°C to +70°C

Storage Temperature : -40°C to +85°C

7. RJ45 specifications

Insulation Resistance : 500MΩ min.

Insertion force with the latch depressed : 20N max.

Removal force with the latch depressed : 20N max.

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

Durability : 2500 cycles

8. USB 2.0 specifications

Insulation Resistance : 1000MΩ min.

Dielectric Withstanding Voltage : 500Vac @1min.

Insertion force : 35N max.

Removal force : 10N min.

Durability : 1500 cycles

9. Performance and Test Description

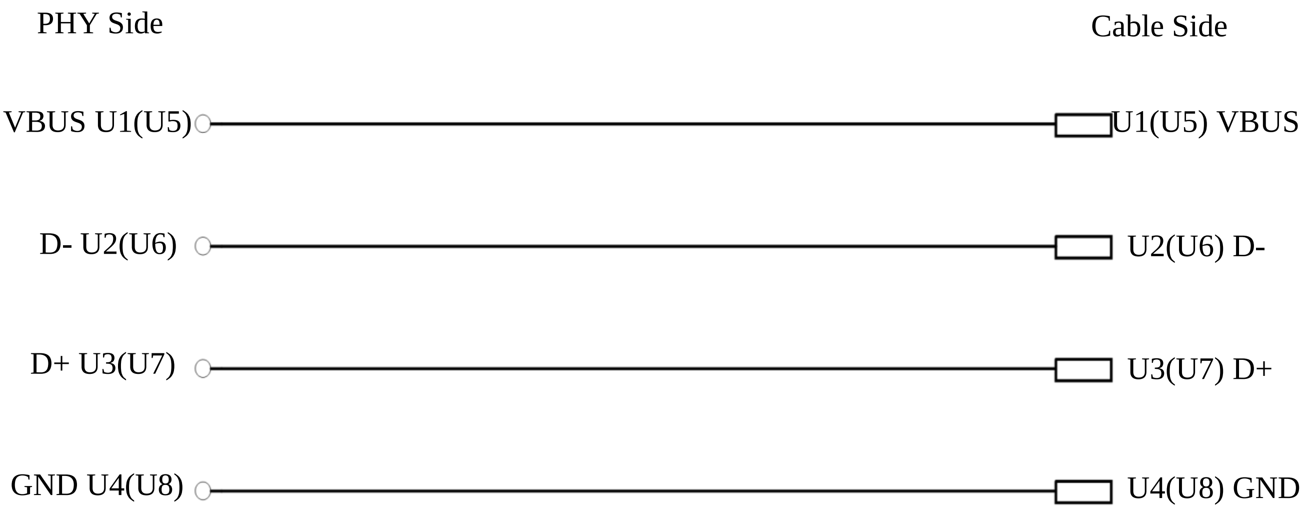
Product is designed to meet electrical, mechanical and environmental performance requirements specified in below table.

All tests are performed at ambient environmental conditions per MIL-STD-1344A and EIA-364 unless otherwise specified.

10 Packaging and Packing

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

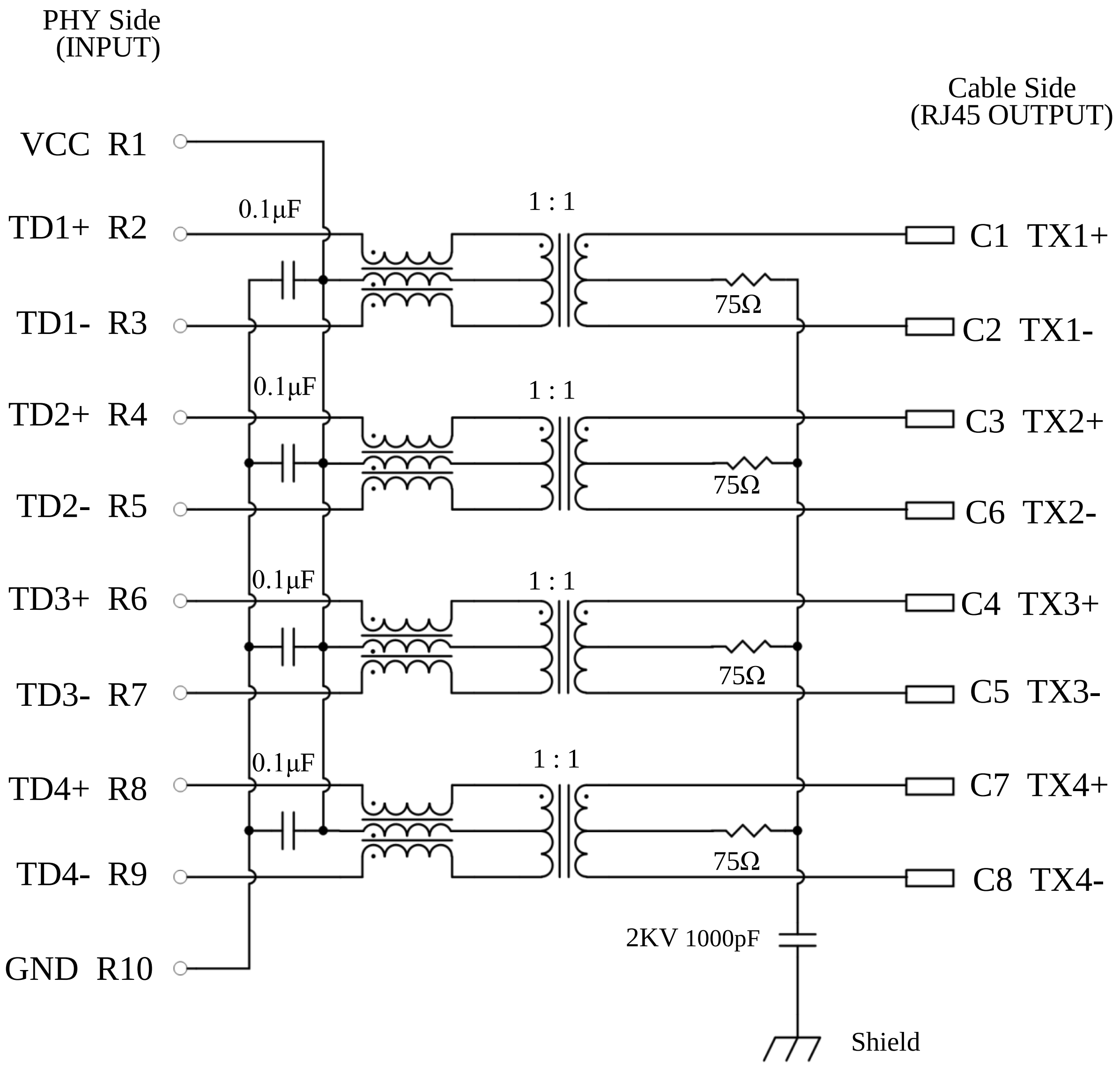
11. USB 2.0 Standard-A Schematic

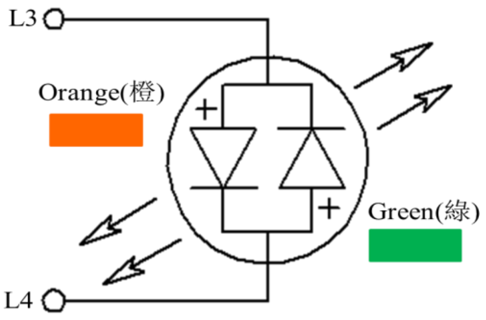


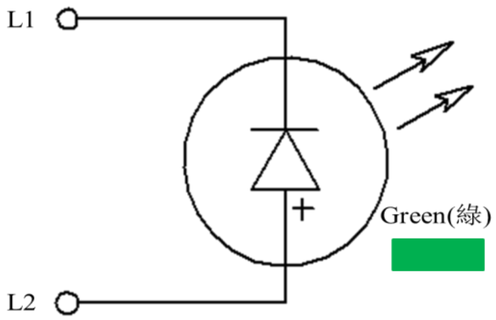
USB 2.0 Standard-A Pin Assignment

Pin Number	Signal Name	Description	Mating Sequence
U1&U5	VBUS	Power	Second
U2&U6	D-	USB 2.0 Differential pair	Third
U3&U7	D+		
U4&U8	GND	Ground for power return	Second
Shell	Shield	Connector metal shell	First

12. ELECTRICAL CHARACTERISTCS @25℃







Emitting Color	λp (nm)	Vf @If=20mA	Ir @Vr=5V
Green	570	1.7 ~2.6 V	10μA max.
Orange	605	1.7 ~2.6 V	10μA max.

Transmitter filter & Receiver filter

Type : Balance low pass 100Ω impedance

Insertion loss :	1~50MHz	-0.5dB max.
	50~125MHz	-1.0dB max.
	125~200MHz	-2.0dB max.
Return loss :	1~40MHz	-20dB min.
	40~200MHz	-20+15*log(Freq MHz/40MHz) dB min.

Reflected CM to Diff Conversion(REF)

1MHz	-30dB min.
50MHz	-30dB min.
100MHz	-27dB min.
200MHz	-24dB min.

CM to DM Conversion(REF)

1-50MHZ	-35 dB min
125MHZ	-30 dB min
200MHZ	-25 dB min

Reflected Diff to CM Conversion(REF)

1-10MHZ	-48 dB min
10-200MHz	-48+19*log(Freq MHz/10MHz) dB min

CM to CM Attenuation (REF)

1-200MHZ	-25 dB min

Cross Talk

1~40MHz	-35dB min.
40~125MHz	-35+15log((Freq MHz/40MHz)) dB min.

Inductance (OCL) @ 100KHz, 0.1V, 8mA DC BIAS

Input(TD1+,TD1-) ; (TD2+,TD2-) ; (TD3+,TD3-) ; (TD4+,TD4-) : 180 μH min.

HiPot Test

PHY Side(input) To Cable Side(output) : 1500Vac 60s or 2250Vdc 60s

13. WAVE SOLDERING TEMPERATURE PROFILE

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