

APPROVAL SHEET

To :

Customer P/N :

Part Number : GM2-MA-0004

Description : RJ45 multiport 2X2

Through Hole

5G Base-T

Contact Area : 30 μ " Min. Gold

LED : Without LED

100% RoHS material ,without exemption



RoHS HF

Halogen Free

Spec No.
GM217010-00

Update Date
2017/12/19

Revision
A

Approved	Checked	Prepared

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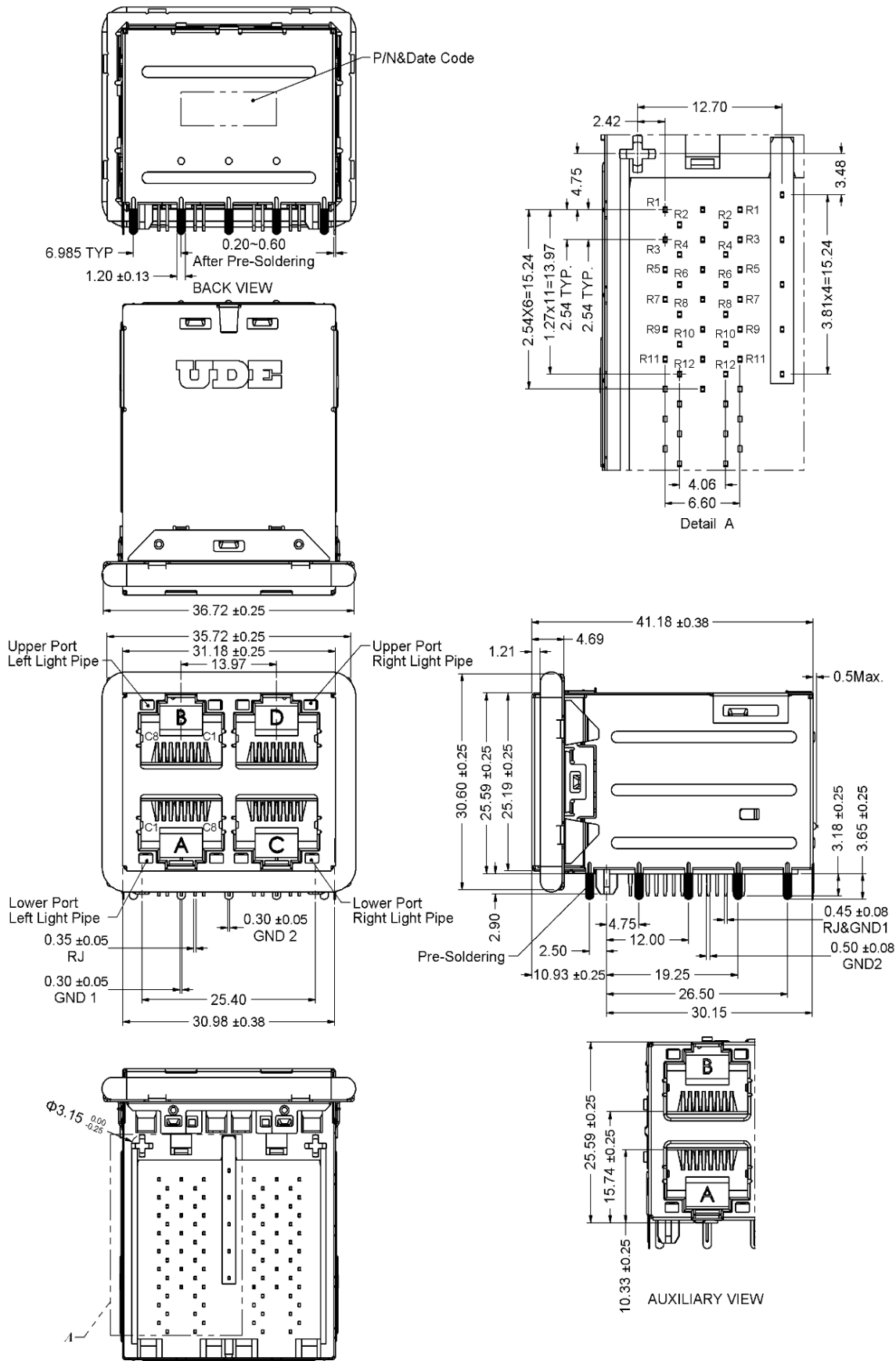
Revision History

Issue Date	Revision	Comments	Operator
2017/12/19	A	Initial Release .	Max

1. MECHANICAL DIMENSION

Product Dimension

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



Recommended PCB Layout. Component side of board

All dimension units are "mm".

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

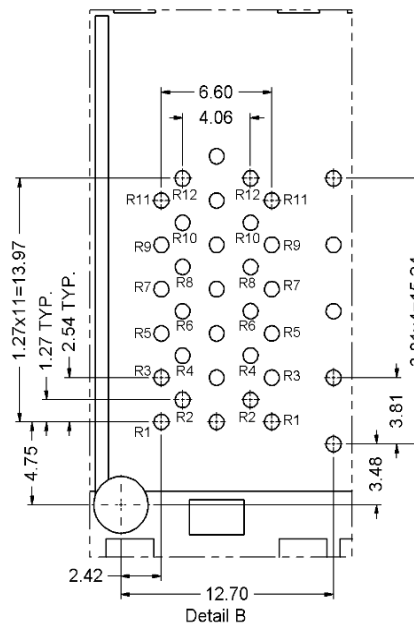
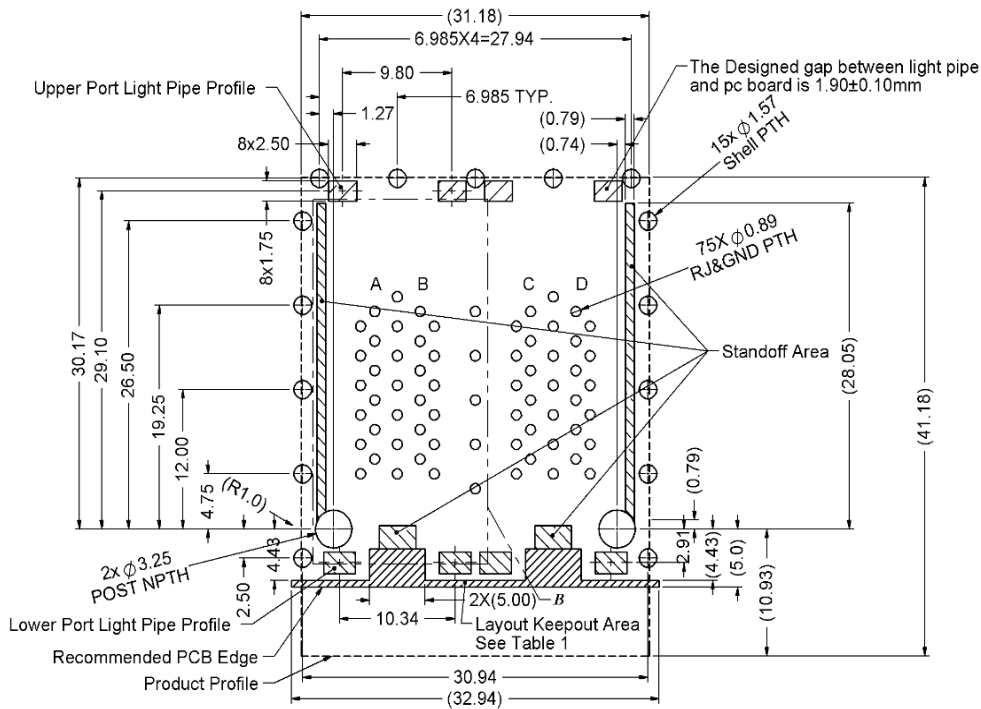
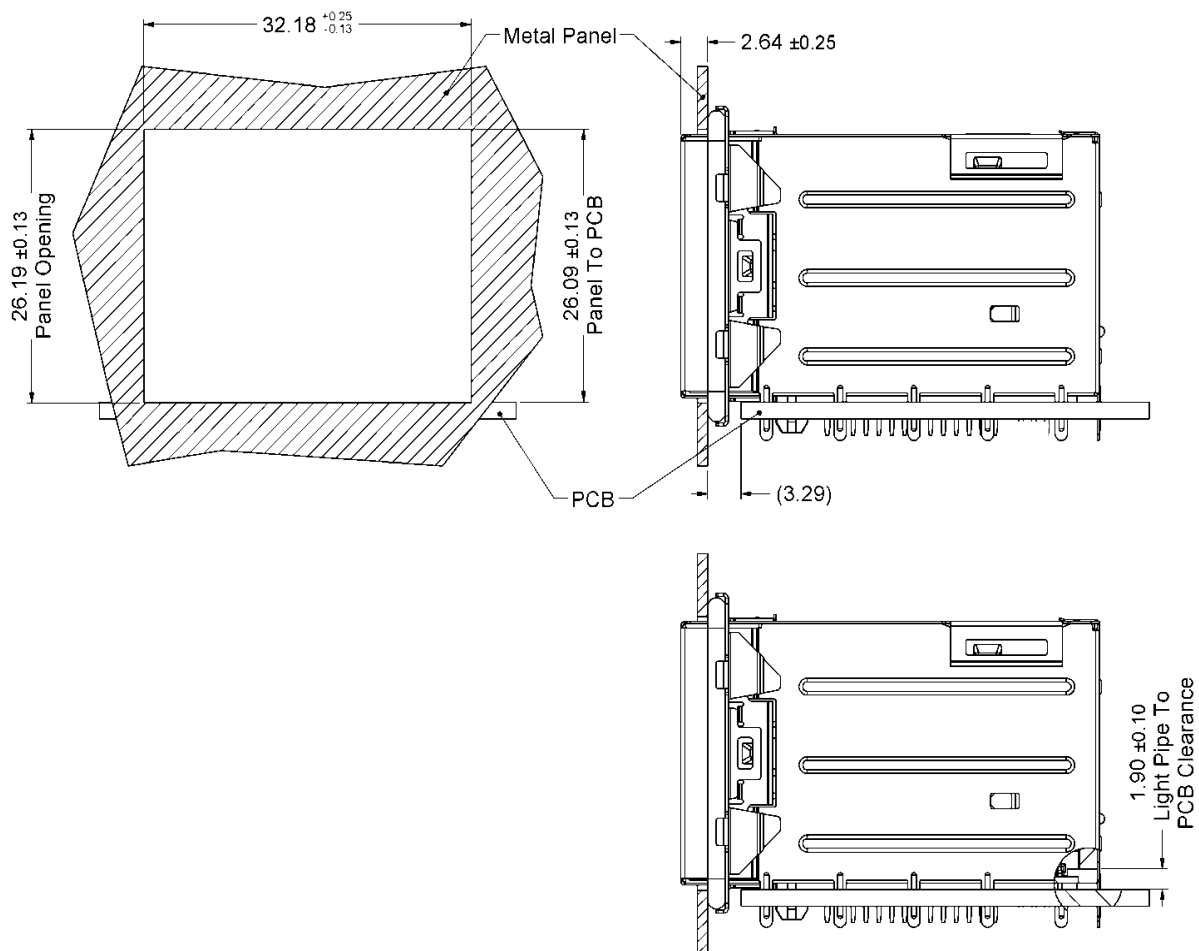


Table1

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



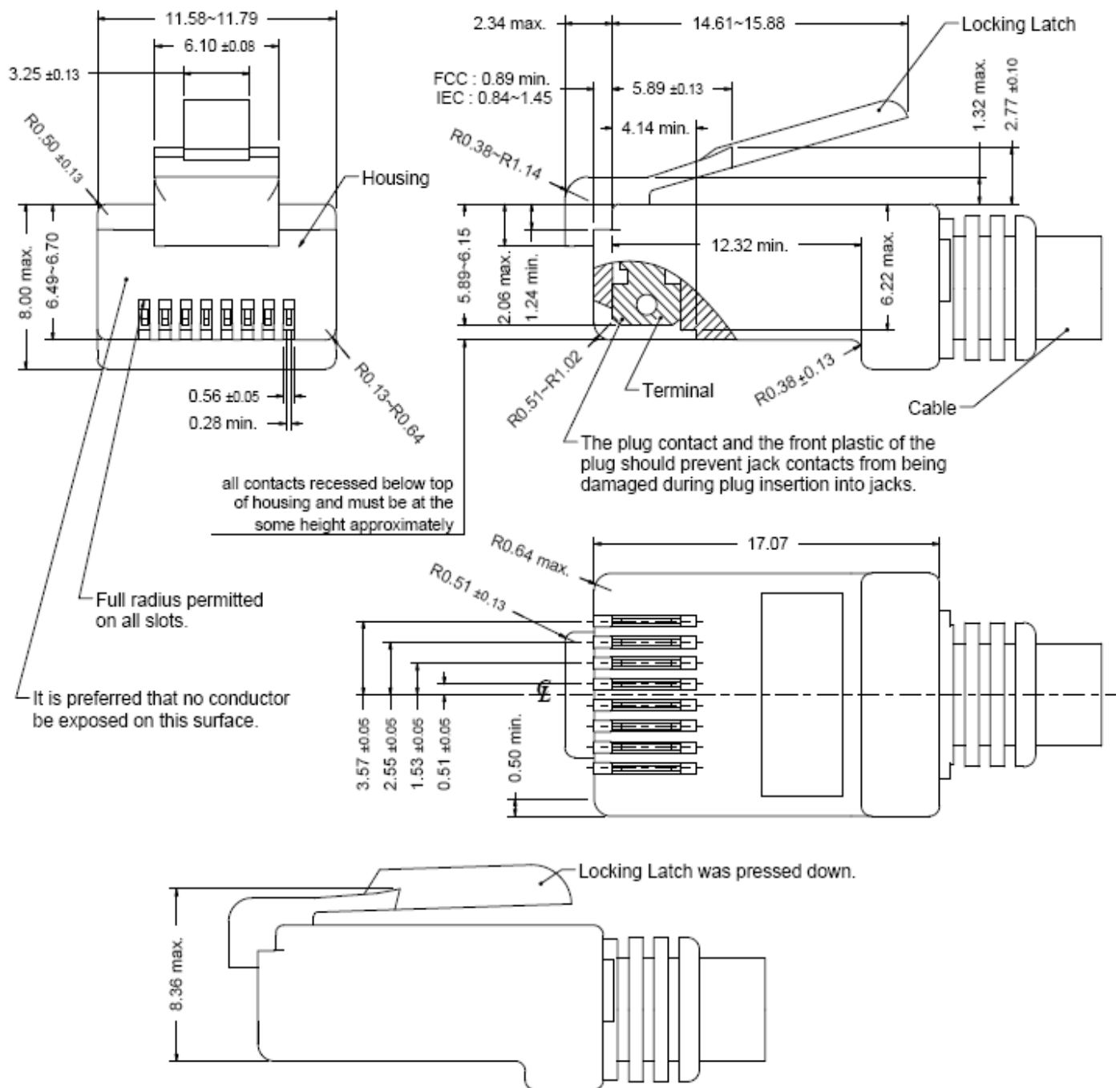
2. Packing Information

18 pcs finished goods per tray

4 trays(72 pcs finished goods) per inner box

4 Inner boxes(288 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. REQUIREMENTS

Design and Construction

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

Material

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

RJ Terminal : Phosphor Bronze, Thickness=0.25mm

Finish : Contact Area : 30 μ " min. Gold

Input Terminal : Brass, Thickness=0.35mm

Finish : 100 μ " min. Matte Tin

Case Terminal : Brass, Thickness=0.30mm

Finish : 100 μ " min. Matte Tin

Ground Terminal : Phosphor Bronze, Thickness=0.30mm

Finish : 100 μ " min. Matte Tin

Plastic Parts

Housing : PA6T, Black, <UL94V-0>

Lower Case : PA6T, Nature, <UL94V-0>

Upper Case : PA6T, Black, <UL94V-0>

Bottom Holder : PA9T, Black, <UL94V-0>

RJ IM : PA6T, Black, <UL94V-0>

Ground IM : PA6T, Black, <UL94V-0>

Light Pipe : PC, Transparent <UL94V-0>

Shield Parts

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

Front Shield : Stainless steel, Thickness=0.20mm, Pre-soldering

EMI Shield : Stainless steel, Thickness=0.30mm

5. Operating and Storage Temperature

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

Storage Temperature : -40°C to +85°C

6. 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

7. Performance and Test Description

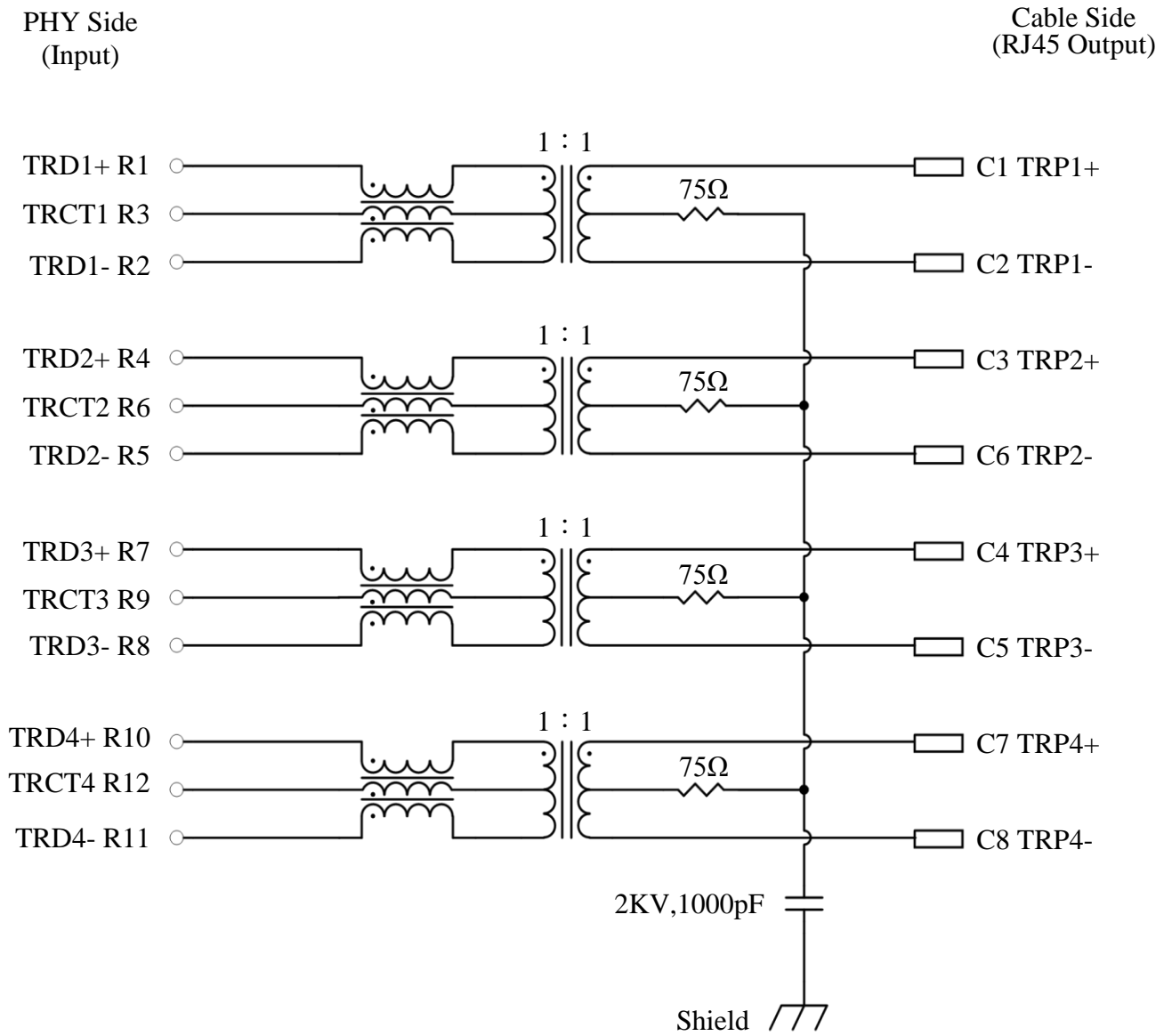
Product is designed to meet electrical, mechanical and environmental performance requirements specified in below table.

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

8. Packaging and Packing

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

9. ELECTRICAL CHARACTERISTICS @ 25°C



Transmitter filter & Receiver filter

Type : Balance low pass 100Ω impedance

Insertion loss :	1~50MHz	-0.5dB Max.
	50~125MHz	-1.0dB Max.
	125~300MHz	-2.0dB Max.

Return loss :	1~50MHz	-20dB min.	load 100Ω
	50~200MHz	$-20+8*\log(\text{Freq MHz}/50\text{MHz})$	dB Min load 100Ω
	200~300MHz	$-15+30*\log(\text{Freq MHz}/200\text{MHz})$	dB Min load 100Ω

Reflected CM to Diff Conversion(REF)

1MHz	-30dB min.
50MHz	-30dB min.
100MHz	-27dB min.
200MHz	-24dB min.
300MHz	-22dB min.

CM to DM Conversion(REF)

1~50MHz	-35dB min.
125MHz	-30dB min.
200MHz	-27dB min.
300MHz	-24dB min.

Reflected Diff to CM Conversion (REF)

1~10MHz	-48dB min.
10~300MHz	$-48+19*\log(\text{Freq MHz}/10\text{MHz})$

CM to CM Attenuation (REF)

1~200MHz	-25dB min.
200~300MHz	-20dB min.

Cross Talk (REF)

1~125MHz	-30dB min.
125~200MHz	-25dB min.
200~300MHz	-25dB min.

ANEXT (REF)

1 MHz -57 dB min.

300 MHz -57 dB min.

Inductance @ 25°C, 100KHz, 100mV, 8mA DC BIAS

Input(TRD1+,TRD1-); (TRD2+,TRD2-); (TRD3+,TRD3-); (TRD4+,TRD4-): 160uH min.

HiPot Test

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

10. WAVE SOLDERING TEMPERATURE PROFILE

Note :

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

