

APPROVAL SHEET

To:

Customer P/N:

Singatron P/N: 2TJRT5-AD-0004

Description: RJ45 1X1 Tab Up
Through Hole, Long Body
10/100/1000 Base-T
Contact Area : 30 μ " min. Gold
LED:L-Green; R-Yellow
Light Pipe



Spec No.	Update Date	Revision
RT516068-00	10/6/2016	A

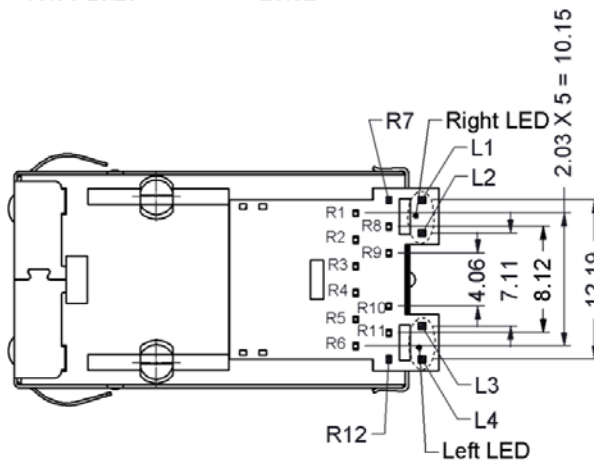
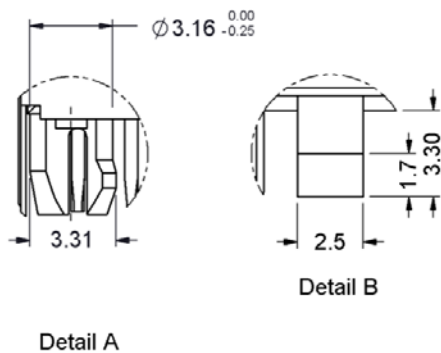
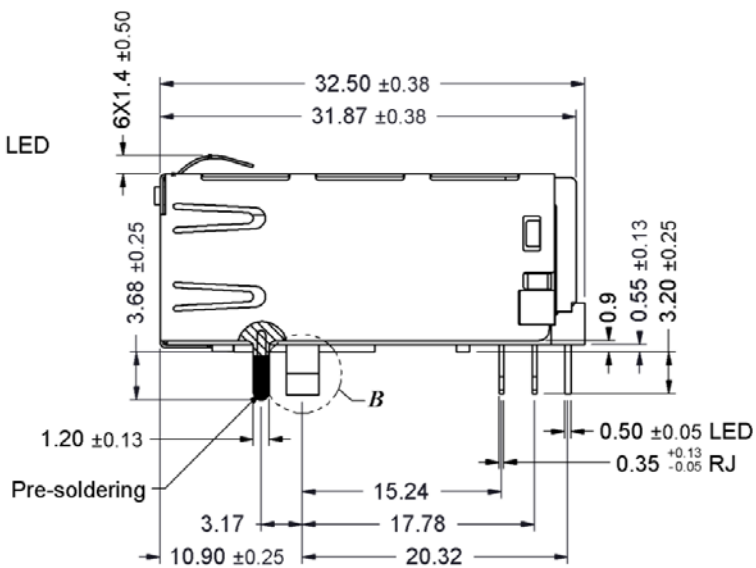
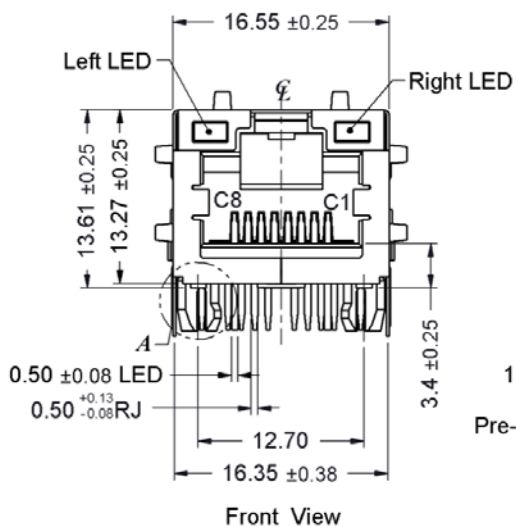
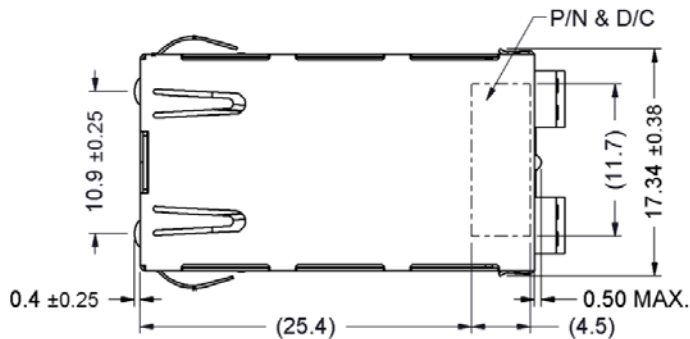
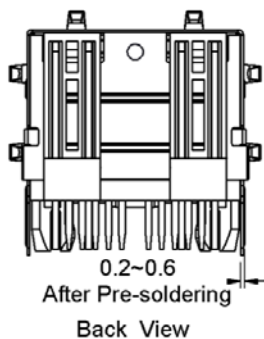
Approved	Checked	Prepared

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1. MECHANICAL DIMENSION

1.1 Product Dimension

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



1.2 Recommended PCB Layout

Component Side of Board

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

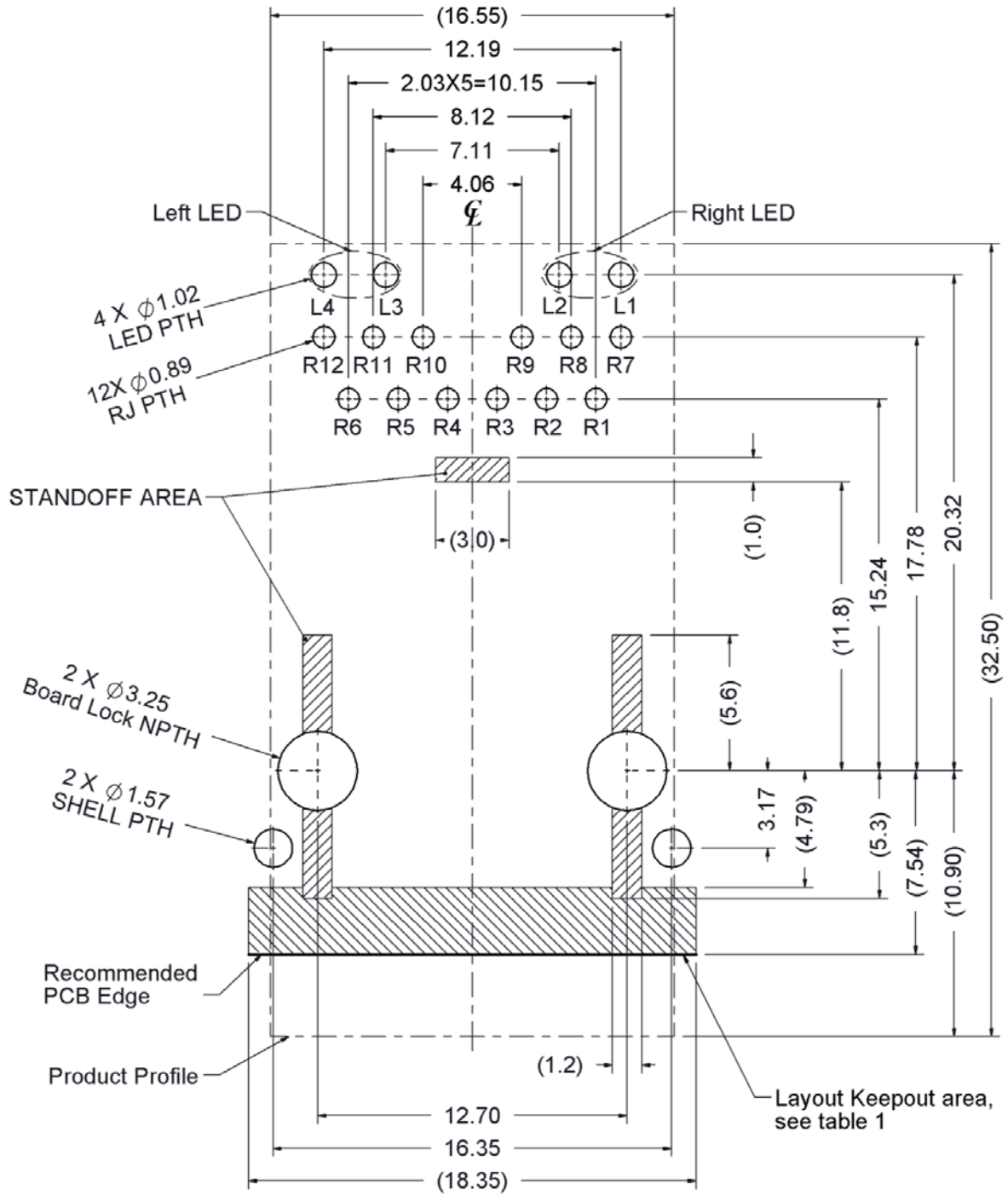
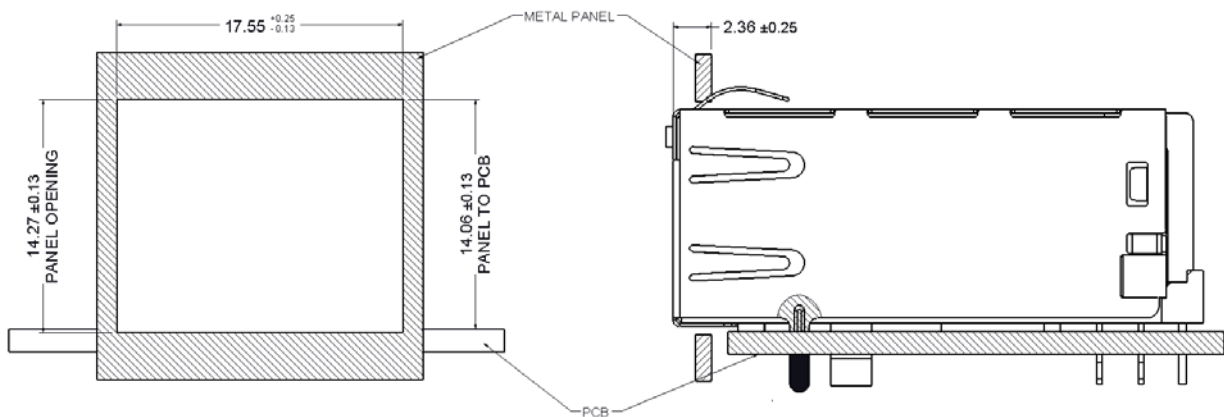


Table1

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.

1.3 Recommended panel cutout



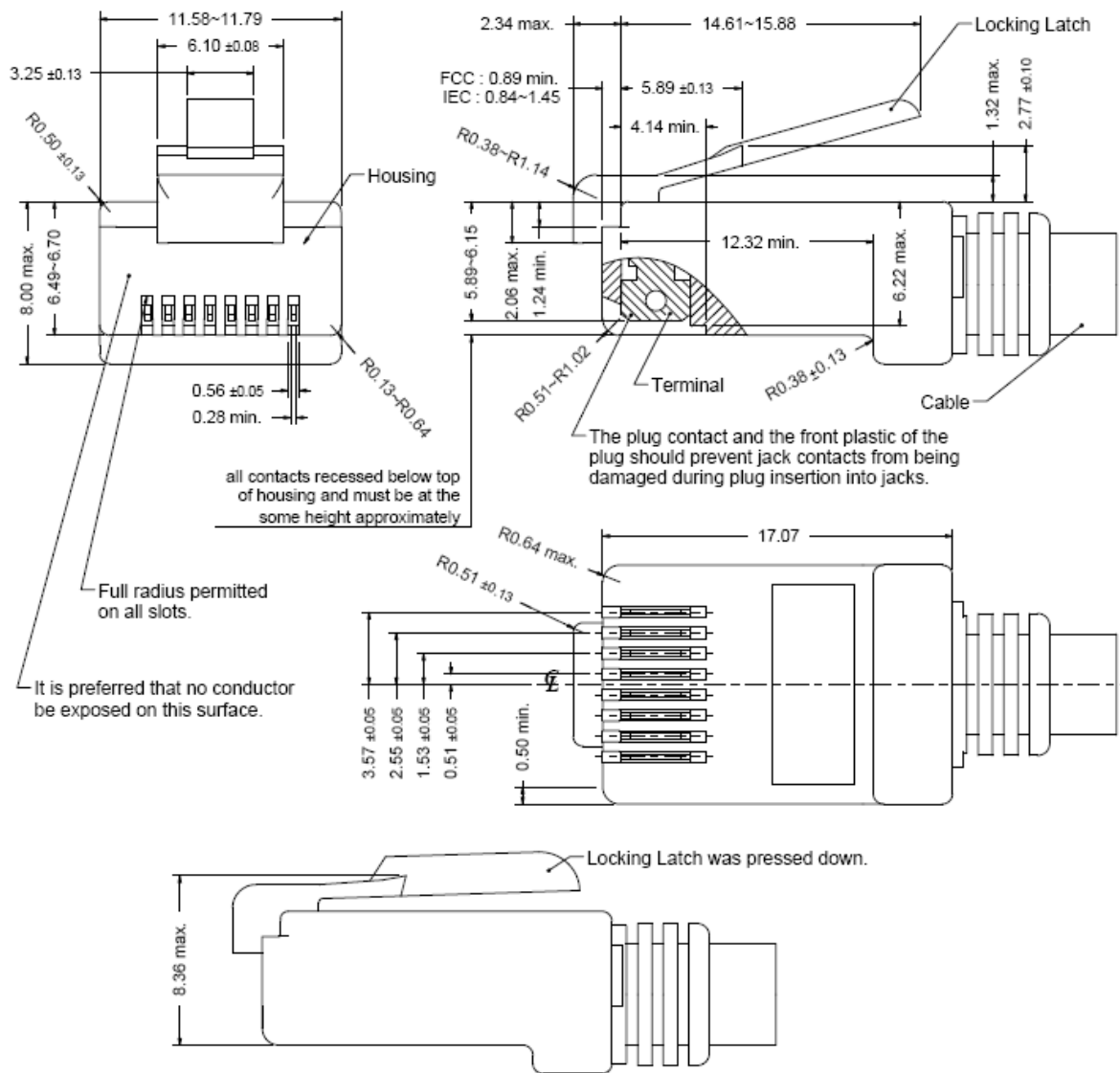
1.4 Packing Information

48 pcs finished goods per tray

6 trays(288pcs finished goods) per inner box

4 Inner boxes(1152 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 μ " min. Nickel overall)

2.2.1.1 RJ Terminal : Phosphor Bronze, Thickness=0.30mm

Finish : Contact Area : 30 μ " min. Gold

2.2.1.2 Input Terminal : Brass, Thickness=0.35mm

Finish : 100 μ " min. Bright Tin

2.2.1.3 Case Terminal : Brass, Thickness=0.30mm

Finish : 100 μ " min. Bright Tin

2.2.2 Plastic Parts <UL94V-0>

2.2.2.1 Housing : PA6T, Black

2.2.2.2 Case : PA6T, Black

2.2.2.3 Spacer : PBT, Black

2.2.2.4 Holder : PBT, Black

2.2.2.5 Light Pipe : PC, Transparent

2.2.3 Shield Parts

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

2.2.3.2 Back Shield :Stainless steel, Thickness=0.25mm

2.3 Operating and Storage Temperature

Operating Temperature : 0°C to +70°C

Storage Temperature : -40°C to +85°C

2.4 RJ45 specifications

Insulation Resistance : 500M Ω 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 Performance and Test Description

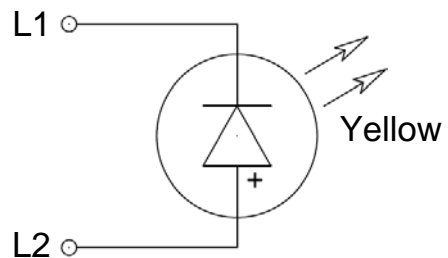
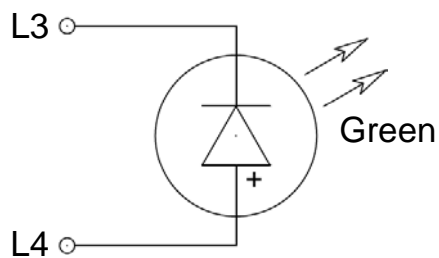
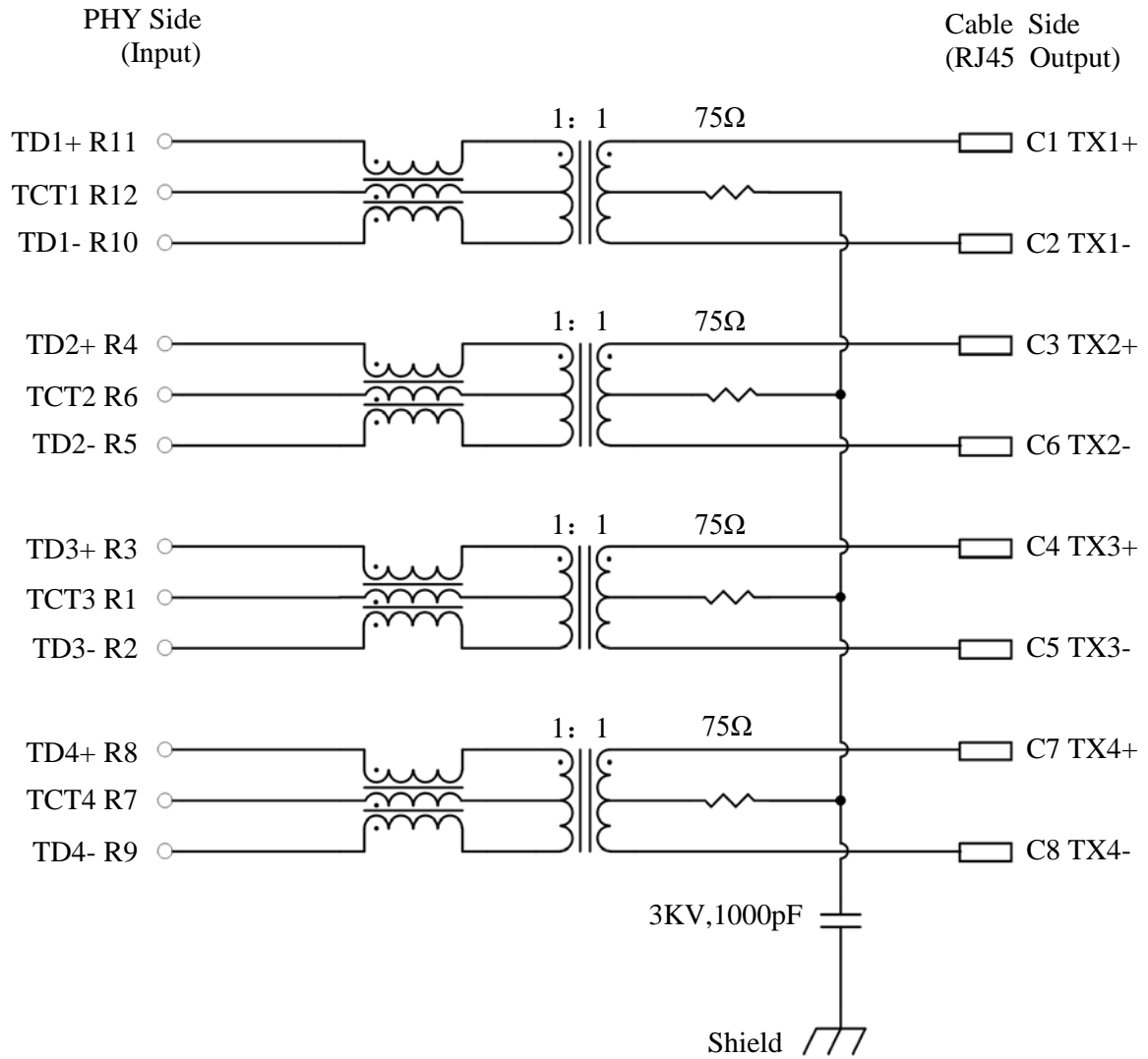
Product is designed to meet electrical, mechanical and environmental performance requirements specified in below table. All tests are performed at ambient environmental conditions per MIL-STD-1344A and EIA-364 unless otherwise specified.

2.6 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 @ 25°C

3.1 Schematic



Emitting Color	λ_p (nm)	V_f @ $I_f=20\text{mA}$	I_r @ $V_r=5\text{V}$
Green	570	1.7 ~ 2.6 V	10 μA max.
Yellow	588	1.7 ~ 2.6 V	10 μA max.

3.2 Transmitter filter & Receiver filter

Type : Balance low pass 100 Ω impedance

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

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

30~60MHz -16dB min. load 100 Ω

60~80MHz -12dB min. load 100 Ω

80~100MHz -10dB min. load 100 Ω

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(R11-R10), Input(R4-R5), Input(R3-R2), Input(R8-R9) : 350 μ H min.

3.6 HiPot Test

Input(R11-R10) To Output(C1-C2) : 1500Vac 60s or 2250Vdc 60s

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

Input(R3-R2) 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.

