

APPROVAL SHEET

To :

Customer P/N :

UDE P/N : GD4-ZZ-0005

Description : RJ45 1X4 Tab Down
Through Hole
10G Base-T
Contact Area : 15 μ " Min Gold
LED:L-Green; R-Yellow



Spec No.
GD417005-00

Update Date
2017/1/17

Revision
B

Approved	Checked	Prepared



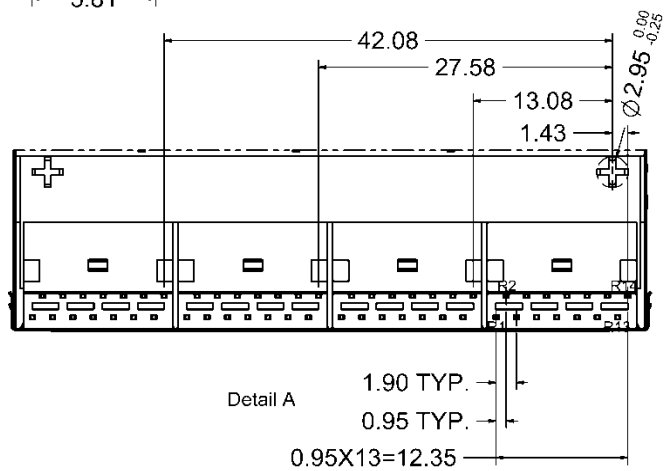
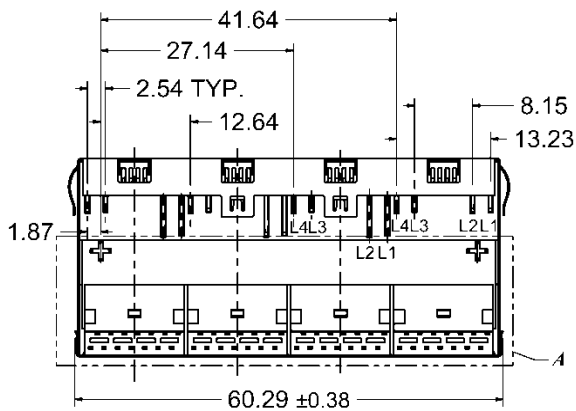
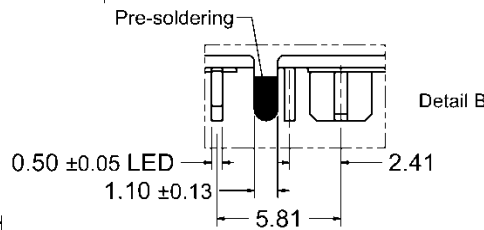
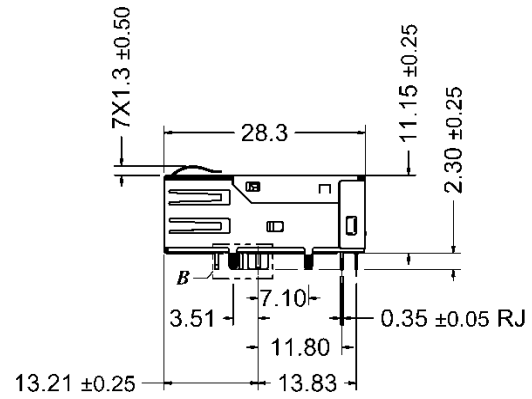
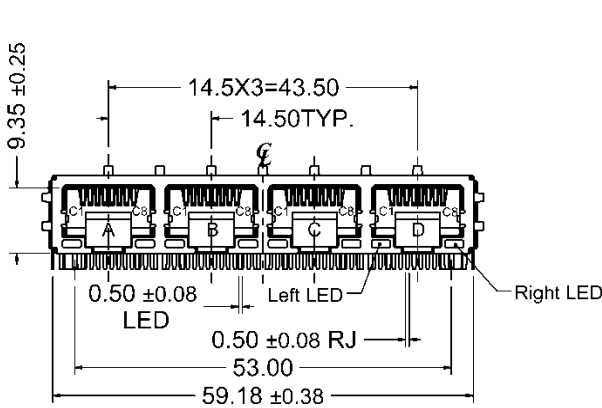
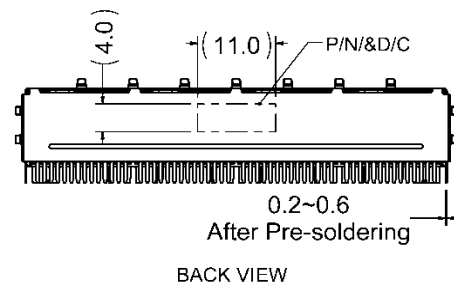
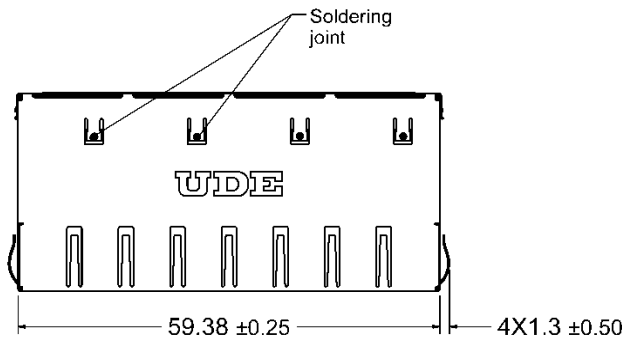
湧德電子 股份有限公司
UDE Corp.

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



1.2 Recommended PCB Layout

Component Side of Board

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

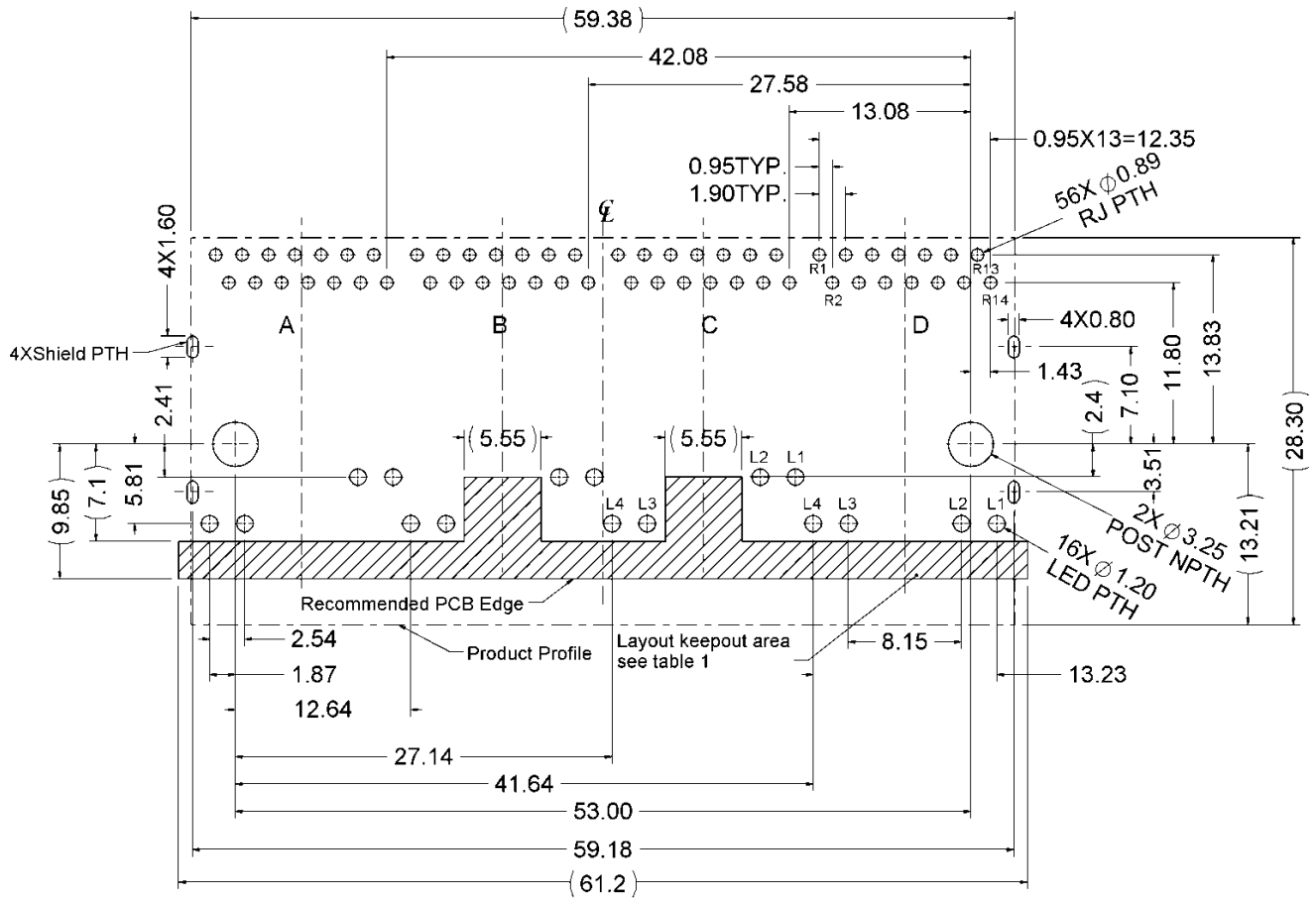
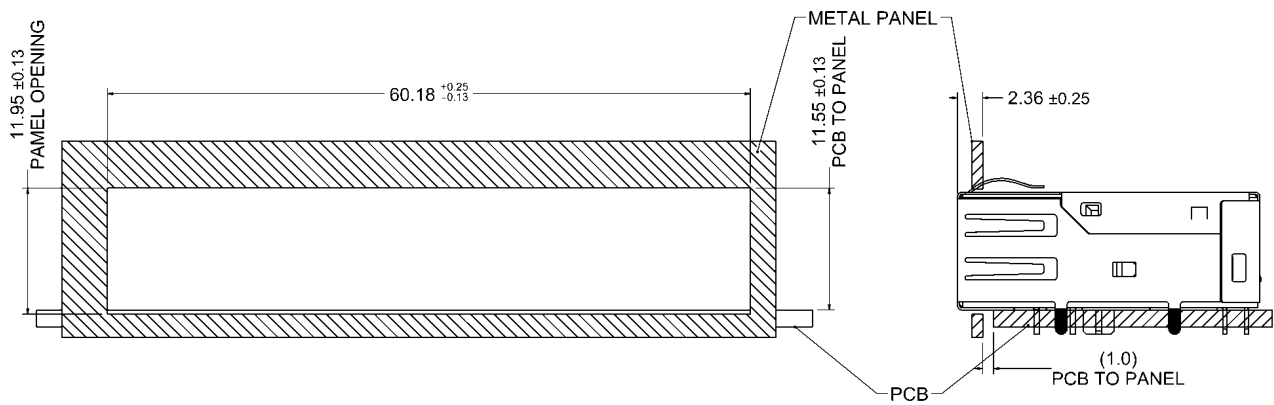


Table 1

Layer \ Layout	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



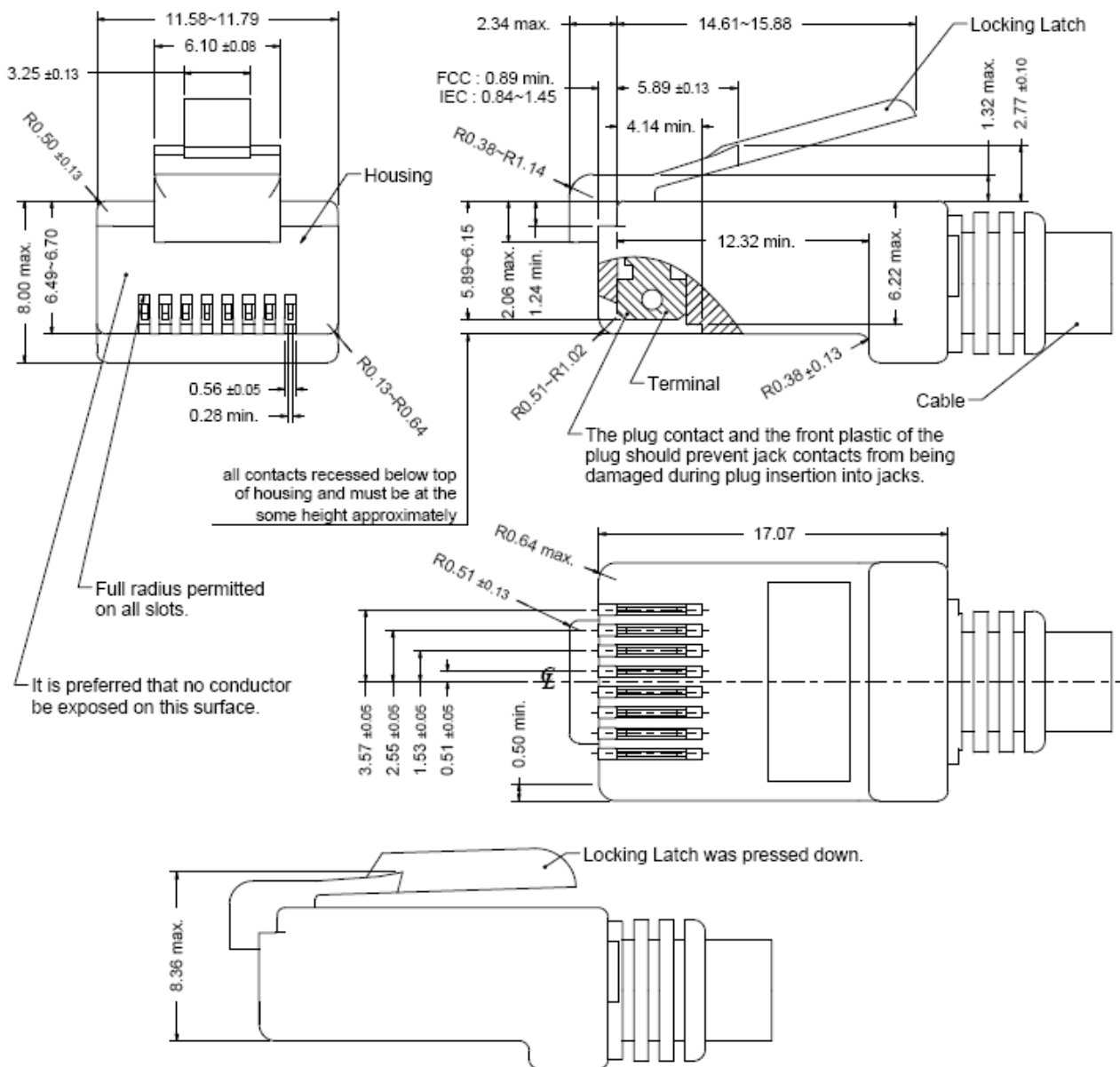
1.4 Packing Information

20 pcs finished goods per tray

8 trays(160 pcs finished goods) per inner box

4 Inner boxes(640 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 : 15 μ " min. Gold

2.2.1.2 Input Terminal : Brass, Thickness=0.35mm

Finish : 100 μ " min. Matte Tin

2.2.1.3 Case Terminal : Brass, Thickness=0.30mm

Finish : 100 μ " min. Matte Tin

2.2.2 Plastic Parts

2.2.2.1 Housing : PA9T, Black, <UL94V-0>

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

2.2.3 Shield Parts

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

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 : 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 Performance and Test Description

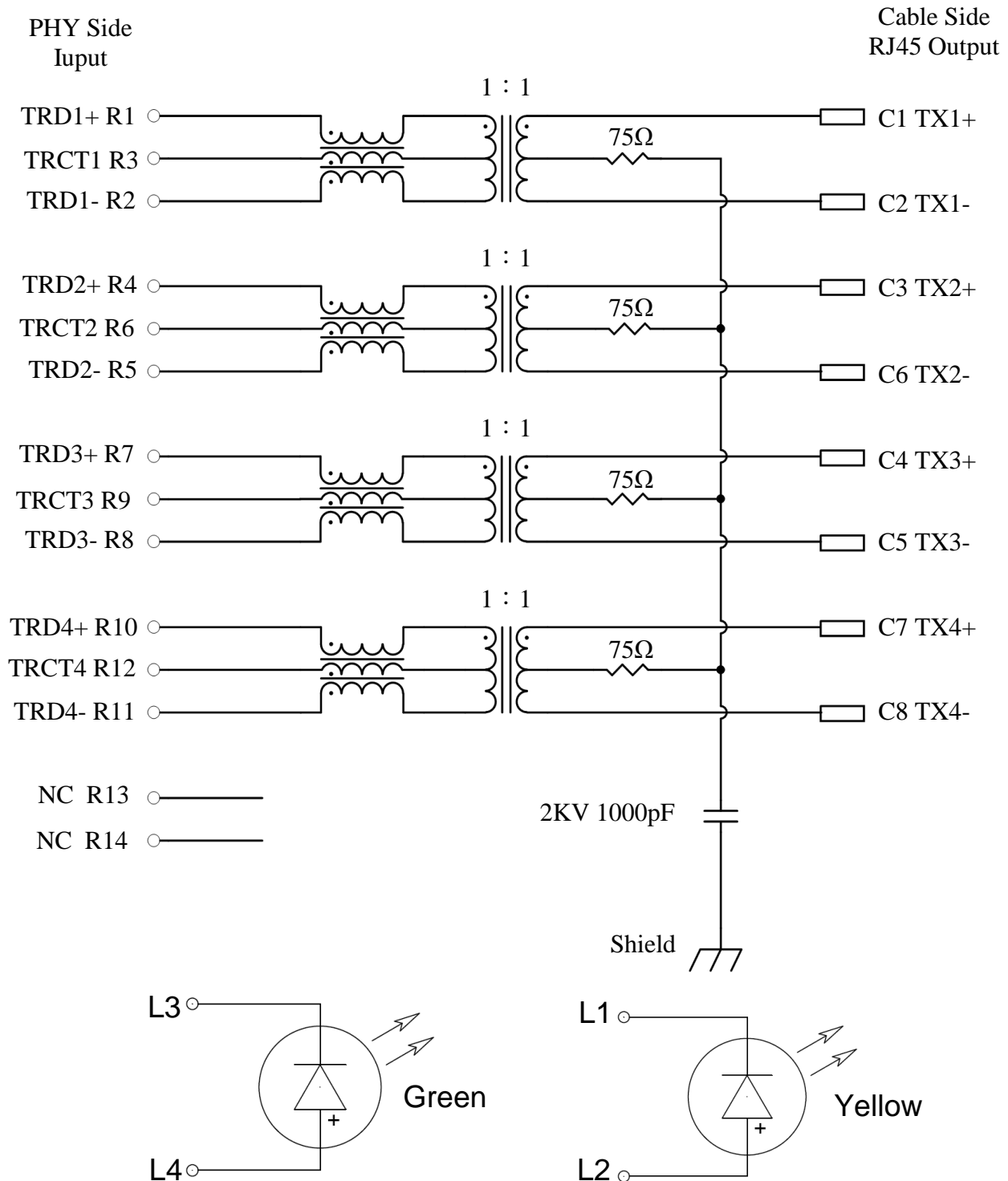
Product is designed to meet electrical, mechanical and environmental performance requirements specified in below table. All tests are performed at ambient environmental conditions per MIL-STD-1344A and EIA-364 unless otherwise specified.

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 100Ω impedance

Insertion Loss

5MHZ -0.55 dB Max

200MHZ -0.77 dB Max

400MHZ -1.41 dB Max

3.3 Return Loss

1MHz -20 dB Min load 100Ω

100MHz -20 dB Min load 100Ω

200MHz -18 dB Min load 100Ω

300MHz -15 dB Min load 100Ω

400MHz -10 dB Min load 100Ω

500MHz - 8 dB Min load 100Ω

3.4 Reflected CM to Diff Conversion(REF)

50MHZ -30 dB Min

100MHZ -27 dB Min

200MHZ -24 dB Min

300MHZ -22 dB Min

400MHZ -21 dB Min

500MHZ -20 dB Min

3.5 Reflected Diff to CM Conversion(REF)

1MHZ -48 dB Min

100MHZ -35 dB Min

400MHZ -24 dB Min

500MHZ -24 dB Min

3.6 CM to DM Conversion(REF)

50MHZ -48 dB Min

100MHZ -42 dB Min

200MHZ -36 dB Min

300MHZ -33 dB Min

400MHZ -30 dB Min

500MHZ -28 dB Min

3.7 CM to CM Attenuation

1MHZ -22 dB Min

500MHZ -20 dB Min

800MHZ -20 dB Min

1000MHZ -17 dB Min

3.8 Cross Talk

1 MHz -34 dB Min

350 MHz -23 dB Min

500 MHz -23 dB Min

3.9 Inductance @ 100KHz, 0.1V 8mA DC BIAS

Input (R1-R2), Input(R4-R5), Input (R7-R8), Input(R10-R11): 160 μ H min.

3.10 HiPot Test

Input(R1-R2) To Output(C1-C2): 1500Vac 60s or 2250Vdc 60s

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

Input(R7-R8) To Output(C4-C5): 1500Vac 60s or 2250Vdc 60s

Input(R10-R11) To Output(C7-C8): 1500Vac 60s or 2250Vdc 60s

4. WAVE SOLDERING TEMPERATURE PROFILE

Note :

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

