To:
Customer P/N:

UDE P/N: GSJ-ZZ-0002

Description: RJ45 1X4 Tab Up
T/H, Slim, Sink
10G Base-T
Contact Area: 50μ" Min. Gold
LED: Without LED
Packing With Hard Tray

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RoHS
Spec No. GSJ17002-00
Update Date 2017/11/22
Revision A

<table>
<thead>
<tr>
<th>Approved</th>
<th>Checked</th>
<th>Prepared</th>
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UDE Corp.
No.13, Ln. 68, Neixi Rd., Luzhu Dist., Taoyuan City (33852), Taiwan
TEL: 886-3-3242000  FAX: 886-3-3246611
http://www.ude-corp.com/
<table>
<thead>
<tr>
<th>Issue Date</th>
<th>Revision</th>
<th>Comments</th>
<th>Operator</th>
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<tr>
<td>2017/11/22</td>
<td>A</td>
<td>Initial Release</td>
<td>Eet</td>
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</table>
1. MECHANICAL DIMENSION

Product Dimension

<table>
<thead>
<tr>
<th>Unit: mm</th>
<th>General Tolerance:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>X.X: ± 0.38</td>
</tr>
<tr>
<td></td>
<td>X.XX: ± 0.20</td>
</tr>
</tbody>
</table>

![Diagram of mechanical dimensions]

Unit:mm

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Measurement</th>
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</thead>
<tbody>
<tr>
<td>A</td>
<td>13.97</td>
</tr>
<tr>
<td>B</td>
<td>59.02 ± 0.25</td>
</tr>
<tr>
<td>C</td>
<td>59.34 ± 0.38</td>
</tr>
<tr>
<td>D</td>
<td>7.42 ± 0.25</td>
</tr>
</tbody>
</table>

Detail A

P/N&D/C

13.97X3=41.91

BACK VIEW

Detail B
Recommended PCB Layout. Component side of board
All dimension units are "mm".
All dimension tolerances are ±0.05mm unless otherwise specified.
Packing Information

- 16 pcs finished goods per tray
- 8 trays (112 pcs finished goods) per inner box
- 4 Inner boxes (448 pcs finished goods) per master carton
2. 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
3. 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 : 50μ" min. Gold
   Input Terminal : Brass, Thickness=0.35mm
   Finish : 100μ" min. Bright Tin
   Case Terminal : Brass, Thickness=0.30mm
   Finish : 100μ" min. Bright Tin
   Link Terminal : Brass, Thickness=0.35mm
   Finish : 100μ" min. Bright Tin
   Ground Terminal : Phosphor Bronze, Thickness=0.25mm
   Finish : 100μ" min. Bright Tin

Plastic Parts  <UL94V-0>
   Housing : LCP, Black
   Case : PA9T, Black
   Light Pipe : PC, Transparent

Shield Parts :
   Shell : Phosphor Bronze, Thickness=0.20mm
   Finish : 30μ" min. Nickel overall
4. Operating and Storage Temperature
   Operating Temperature : 0°C to +70°C
   Storage Temperature : -40°C to +85°C

5. 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

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.

7. Packaging and Packing
   All parts shall be packaged and packed to protect against physical damage, corrosion
   and deterioration during shipment and storage.
8. ELECTRICAL CHARACTERISTICS @ 25°C

PHY Side (INPUT)

- TRD1+ R1
- TRCT1 R7
- TRD1- R2
- TRD2+ R9
- TRCT2 R10
- TRD2- R8
- TRD3+ R3
- TRCT3 R5
- TRD3- R4
- TRD4+ R12
- TRCT4 R13
- TRD4- R11

Cable Side (RJ45 OUTPUT)

- C1 TRP1+
- C2 TRP1-
- C3 TRP2+
- C6 TRP2-
- C4 TRP3+
- C5 TRP3-
- C7 TRP4+
- C8 TRP4-

NC R6

2KV, 1000pF

Shield
## Transmitter filter & Receiver filter

**Type:** Balance low pass 100Ω impedance

**Insertion loss:**

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Loss</th>
<th>Load</th>
</tr>
</thead>
<tbody>
<tr>
<td>1~400MHz</td>
<td>-2.0dB</td>
<td>100Ω</td>
</tr>
</tbody>
</table>

**Return loss:**

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Loss</th>
<th>Load</th>
</tr>
</thead>
<tbody>
<tr>
<td>1MHz</td>
<td>-20dB</td>
<td>100Ω</td>
</tr>
<tr>
<td>100MHz</td>
<td>-20dB</td>
<td>100Ω</td>
</tr>
<tr>
<td>200MHz</td>
<td>-18dB</td>
<td>100Ω</td>
</tr>
<tr>
<td>300MHz</td>
<td>-15dB</td>
<td>100Ω</td>
</tr>
<tr>
<td>400MHz</td>
<td>-10dB</td>
<td>100Ω</td>
</tr>
<tr>
<td>500MHz</td>
<td>-8dB</td>
<td>100Ω</td>
</tr>
</tbody>
</table>

**Reflected CM to Diff Conversion (REF):**

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>50MHz</td>
<td>-30dB</td>
</tr>
<tr>
<td>100MHz</td>
<td>-27dB</td>
</tr>
<tr>
<td>200MHz</td>
<td>-24dB</td>
</tr>
<tr>
<td>300MHz</td>
<td>-22dB</td>
</tr>
<tr>
<td>400MHz</td>
<td>-21dB</td>
</tr>
<tr>
<td>500MHz</td>
<td>-20dB</td>
</tr>
</tbody>
</table>

**Reflected Diff to CM Conversion (REF):**

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>1MHz</td>
<td>-48dB</td>
</tr>
<tr>
<td>100MHz</td>
<td>-35dB</td>
</tr>
<tr>
<td>400MHz</td>
<td>-24dB</td>
</tr>
<tr>
<td>500MHz</td>
<td>-24dB</td>
</tr>
</tbody>
</table>

**CM to Diff Conversion (REF):**

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>50MHz</td>
<td>-48dB</td>
</tr>
<tr>
<td>100MHz</td>
<td>-42dB</td>
</tr>
<tr>
<td>200MHz</td>
<td>-36dB</td>
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<td>300MHz</td>
<td>-33dB</td>
</tr>
<tr>
<td>400MHz</td>
<td>-30dB</td>
</tr>
<tr>
<td>500MHz</td>
<td>-28dB</td>
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</table>

**CM to CM Attenuation (REF):**

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Loss</th>
</tr>
</thead>
<tbody>
<tr>
<td>1MHz</td>
<td>-22dB</td>
</tr>
<tr>
<td>500MHz</td>
<td>-20dB</td>
</tr>
<tr>
<td>800MHz</td>
<td>-20dB</td>
</tr>
<tr>
<td>1000MHz</td>
<td>-17dB</td>
</tr>
</tbody>
</table>
Cross Talk (REF)

- 1MHz: -34dB Min.
- 350MHz: -23dB Min.
- 500MHz: -23dB Min.

Inductance (OCL) @ 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
9. WAVE SOLDERING TEMPERATURE PROFILE

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

Temperature Profile:
- 100°C for 40 sec
- 265±3°C for 10±1 sec

Temperature Decrease: 10°C/sec or more