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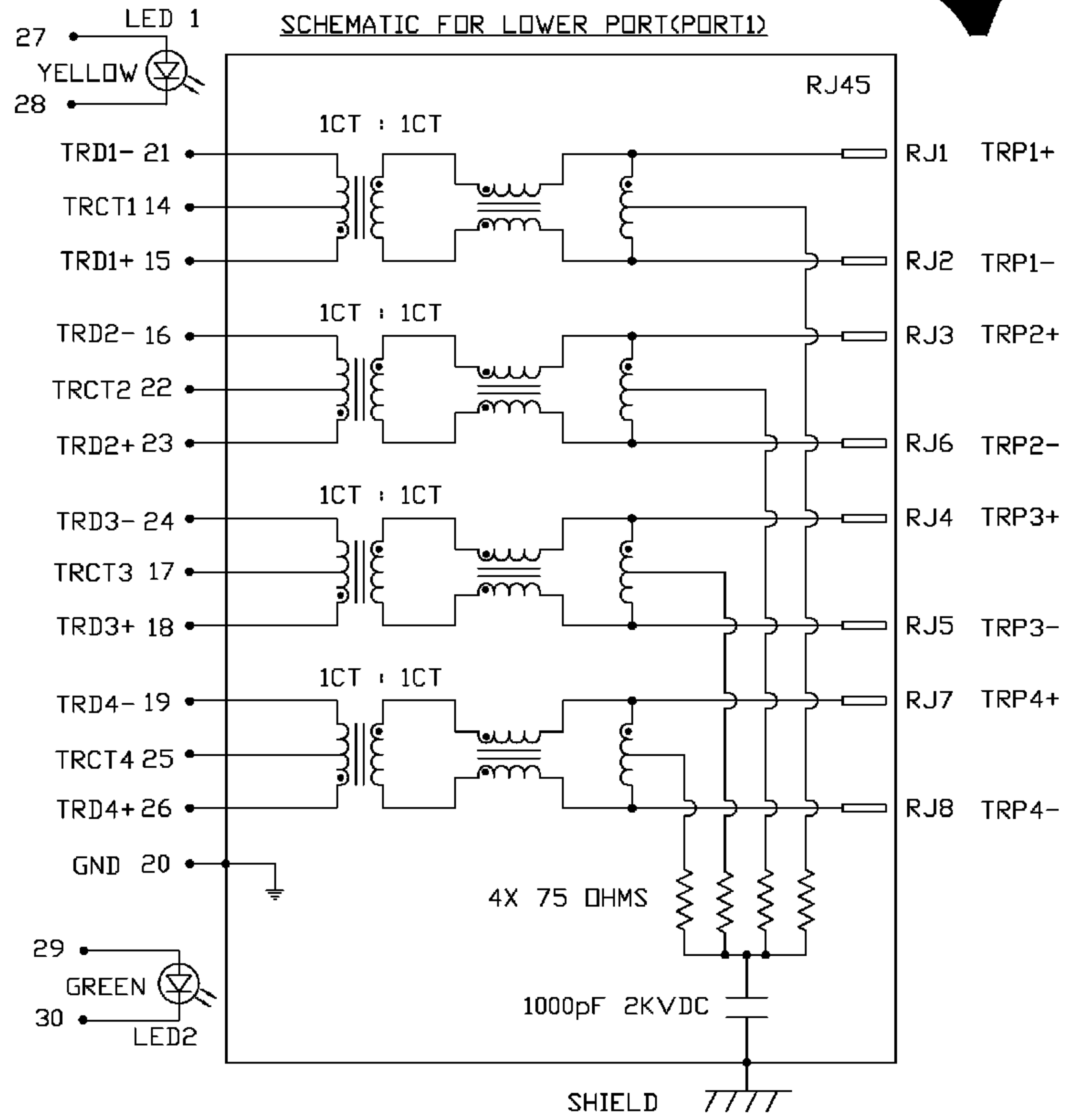
| LED 1 POLARITY |        |        | LED 2 POLARITY |        |       |
|----------------|--------|--------|----------------|--------|-------|
| PIN 27         | PIN 28 | COLOR  | PIN 29         | PIN 30 | COLOR |
| +              | -      | YELLOW | +              | -      | GREEN |

PRELIMINARY



**ELECTRICAL CHARACTERISTICS @ 25°C**

|   |                           |
|---|---------------------------|
| <b>URNS RATIO</b>                       |                           |
| TP1                                     | 1CT : 1CT ±2%             |
| TP2                                     | 1CT : 1CT ±2%             |
| TP3                                     | 1CT : 1CT ±2%             |
| TP4                                     | 1CT : 1CT ±2%             |
| <b>CL @ 100kHz,100mVRMS</b>             |                           |
| 8mA DC BIAS                             | 350 uH MIN.               |
| <b>INS. LOSS</b>                        |                           |
| 100kHz TO 100MHz                        | -11 dB MAX                |
| <b>RET. LOSS (MIN)</b>                  |                           |
| 1MHz-30MHz                              | -18 dB                    |
| 30MHz-60MHz                             | -16 dB                    |
| 60MHz-80MHz                             | -14 dB                    |
| 80MHz-100MHz                            | -12 dB                    |
| <b>CM TO CM REJ</b>                     |                           |
| 100kHz - 100MHz                         | -25 dB TYP                |
| <b>CROSS TALK</b>                       |                           |
| 1MHz - 60MHz                            | -35 dB TYP                |
| 60MHz - 100MHz                          | -25 dB TYP                |
| <b>HIPDT (Isolation Voltage):</b>       | 1500 Vrms                 |
| <b>LEAKAGE INDUCTANCE</b>               |                           |
| PRIMARY W/ SECONDARY SHORTED            | 0.3uH Max. @ 1MHz         |
| <b>INTERWINDING CAPACITANCE</b>         |                           |
| PER CHANNEL (PRI. TO SEC.)              | 50pF Max @ 1MHz           |
| <b>DC RESISTANCE</b>                    |                           |
| (21-15)=(16-23)=(24-18)=(19-26)         | 1.2 ohms Max              |
| (RJ1-RJ2)=(RJ3-RJ6)=(RJ4-RJ5)=(RJ7-RJ8) | 1.2 ohms Max              |
| <b>LED 1</b>                            |                           |
| VF (FORWARD VOLTAGE)                    | IF=20mA YELLOW 2.1V TYP.  |
| λD (DOMINANT WAVELENGTH)                | IF=20mA YELLOW 590nm TYP. |
| <b>LED 2</b>                            |                           |
| VF (FORWARD VOLTAGE)                    | IF=20mA GREEN 2.2V TYP.   |
| λD (DOMINANT WAVELENGTH)                | IF=20mA GREEN 565nm TYP.  |



|                      |             |                                    |                               |                                   |                                     |           |
|----------------------|-------------|------------------------------------|-------------------------------|-----------------------------------|-------------------------------------|-----------|
| <b>ORIGINATED BY</b> | <b>DATE</b> | <b>TITLE</b>                       | <b>PART NO. / DRAWING NO.</b> | <b>STANDARD DIM. TOL. IN INCH</b> | <b>[ ] METRIC DIM. AS REFERENCE</b> |           |
| CHUNG                | 12-27-05    | 2X1 gigabit MagJack®<br>(with LED) | 0845-2D1T-E4                  | .X                                | UNIT : INCH [mm]                    | REV. : PC |
| <b>DRAWN BY</b>      | <b>DATE</b> |                                    | <b>FILE NAME</b>              | .XX                               | SCALE : N/A                         | SIZE : A4 |
| DE                   | 12-27-05    |                                    | 08452D1TE4PC.DWG              | .XXX                              |                                     | PAGE : 2  |



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| LED 3 POLARITY |        |        | LED 4 POLARITY |        |       |
|----------------|--------|--------|----------------|--------|-------|
| PIN 31         | PIN 32 | COLOR  | PIN 33         | PIN 34 | COLOR |
| +              | -      | YELLOW | +              | -      | GREEN |

PRELIMINARY



**ELECTRICAL CHARACTERISTICS @ 25°C**

**TURNS RATIO**

|     |               |
|-----|---------------|
| TP1 | 1CT : 1CT ±2% |
| TP2 | 1CT : 1CT ±2% |
| TP3 | 1CT : 1CT ±2% |
| TP4 | 1CT : 1CT ±2% |

**DCL @ 100kHz, 100mVRMS**

|             |             |
|-------------|-------------|
| 8mA DC BIAS | 350 uH MIN. |
|-------------|-------------|

**INS. LOSS**

|                  |             |
|------------------|-------------|
| 100kHz TO 100MHz | -1.1 dB MAX |
|------------------|-------------|

**RET. LOSS (MIN)**

|              |        |
|--------------|--------|
| 1MHz-30MHz   | -18 dB |
| 30MHz-60MHz  | -16 dB |
| 60MHz-80MHz  | -14 dB |
| 80MHz-100MHz | -12 dB |

**CM TO CM REJ**

|                 |            |
|-----------------|------------|
| 100kHz - 100MHz | -25 dB TYP |
|-----------------|------------|

**CROSS TALK**

|                |            |
|----------------|------------|
| 1MHz - 60MHz   | -35 dB TYP |
| 60MHz - 100MHz | -25 dB TYP |

**HIPOT (Isolation Voltage)**

|  |           |
|--|-----------|
|  | 1500 Vrms |
|--|-----------|

**LEAKAGE INDUCTANCE**

|                              |                   |
|------------------------------|-------------------|
| PRIMARY W/ SECONDARY SHORTED | 0.3uH Max. @ 1MHz |
|------------------------------|-------------------|

**INTERWINDING CAPACITANCE**

|                            |                 |
|----------------------------|-----------------|
| PER CHANNEL (PRI. TO SEC.) | 50pF Max @ 1MHz |
|----------------------------|-----------------|

**DC RESISTANCE**

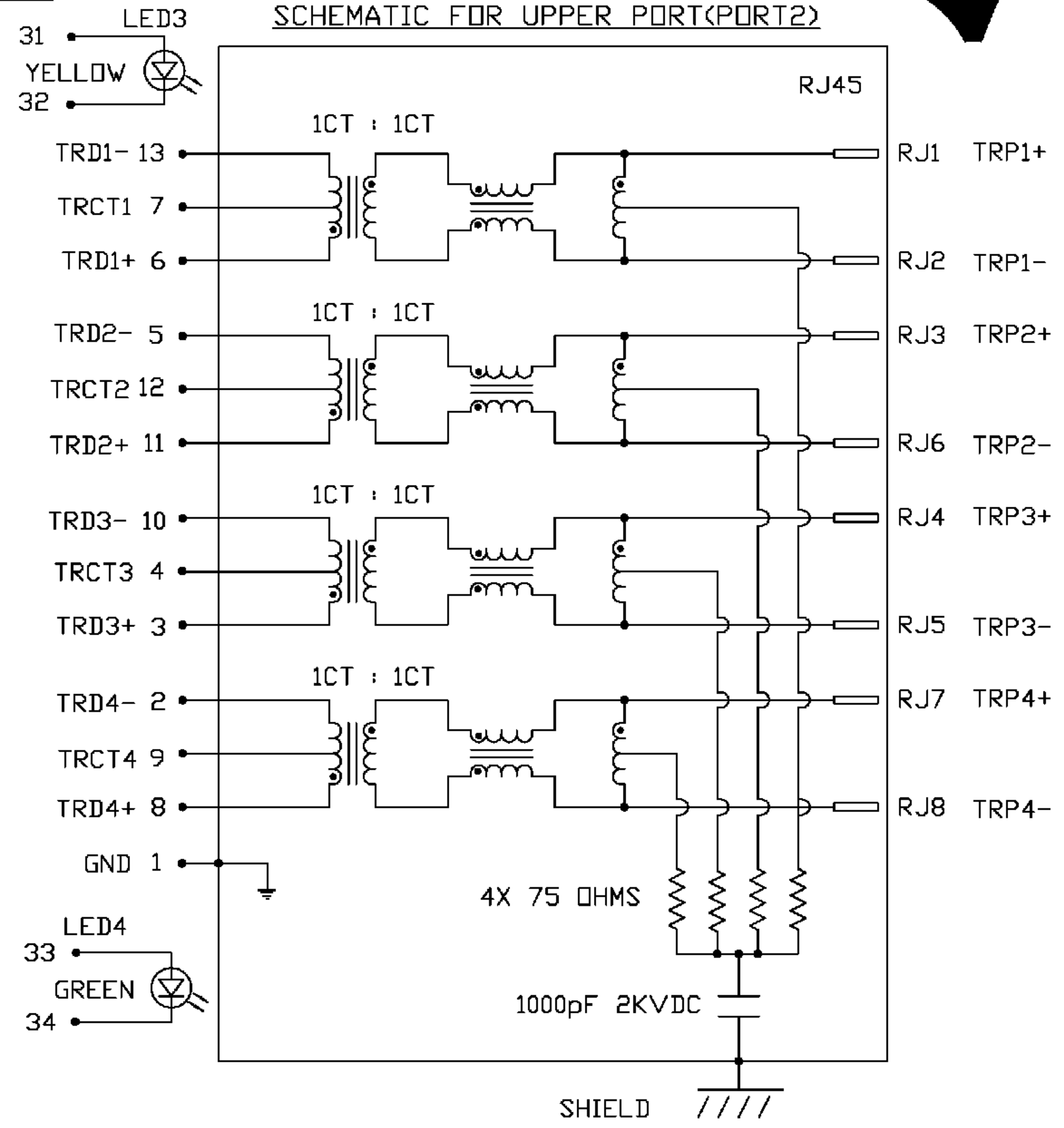
|   |              |
|---|--------------|
| (13-6)=(5-11)=(10-3)=(2-8)              | 1.2 ohms Max |
| (RJ1-RJ2)=(RJ3-RJ6)=(RJ4-RJ5)=(RJ7-RJ8) | 1.2 ohms Max |

**LED 3 (Super bright)**

|                          |                           |
|--------------------------|---------------------------|
| VF (FORWARD VOLTAGE)     | IF=20mA YELLOW 2.1V TYP.  |
| λD (DOMINANT WAVELENGTH) | IF=20mA YELLOW 590nm TYP. |

**LED 4 (Super bright)**

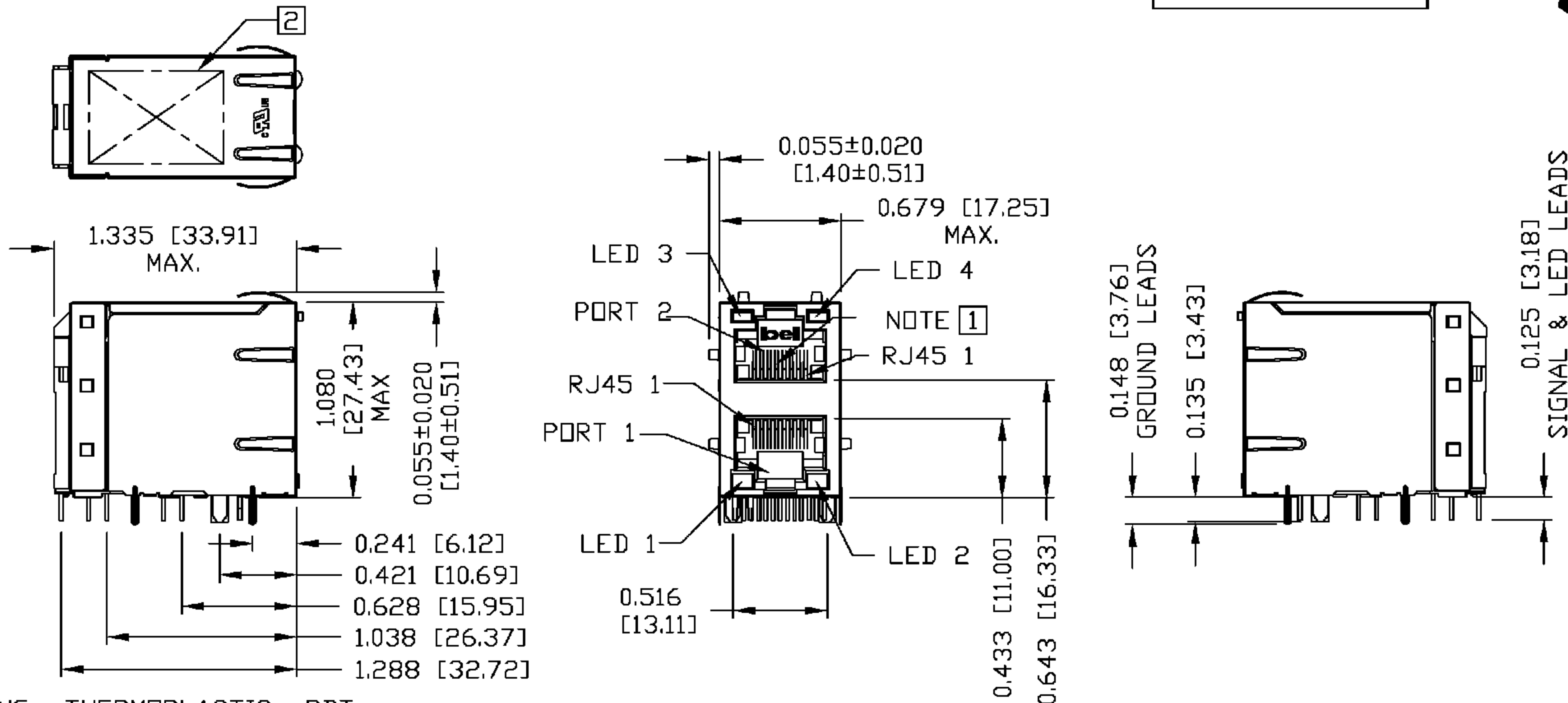
|                          |                          |
|--------------------------|--------------------------|
| VF (FORWARD VOLTAGE)     | IF=20mA GREEN 2.2V TYP.  |
| λD (DOMINANT WAVELENGTH) | IF=20mA GREEN 565nm TYP. |



|                               |                         |  |   |  |                                     |           |  |
|-------------------------------|-------------------------|--|---|--|-------------------------------------|-----------|--|
| <b>ORIGINATED BY</b><br>CHUNG | <b>DATE</b><br>12-27-05 | <b>TITLE</b><br>2X1 gigabit MagJack®<br>(with LED) | <b>PART NO. / DRAWING NO.</b><br>0845-2D1T-E4 | <b>STANDARD DIM. TOL. IN INCH</b><br>.X<br>.XX<br>.XXX | <b>[ ] METRIC DIM. AS REFERENCE</b> |           |  |
| <b>DRAWN BY</b><br>DE         | <b>DATE</b><br>12-27-05 |  | <b>FILE NAME</b><br>08452D1TE4PC.DWG          | UNIT : INCH [mm]                                       | SCALE : N/A                         | REV. : PC |  |
|                               |                         |  |   |  |                                     | PAGE : 3  |  |
|                               |                         |  |   |  |                                     |           |  |

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**NOTES:**  
 PLASTIC HOUSING: THERMOPLASTIC PBT  
 FLAMMABILITY RATING UL 94V-0  
 CONTACT PLATING: 50 MICRO-INCH HARD GOLD PLATING  
 OUTPUT PINS: TIN-COATED COPPER WIRE, DIA 0.018 INCH.  
 METAL SHIELD: NICKEL PLATED ON COPPER ALLOY.  
 (ALL GROUND LEADS ARE SOLDER DIPPED)

RoHS COMPLIANCE, PER EU DIRECTIVE 2002/95/EC.  
 [1] JACK CAVITY CONFORMS TO FCC RULES AND REGULATIONS, PART 68 SUBPART F.  
 [2] MARK PART WITH MFG LOGO, MFG NAME, PART NUMBER, AND DATE CODE.

**UL** US UL RECOGNIZED - FILE #E196366 AND E169987.

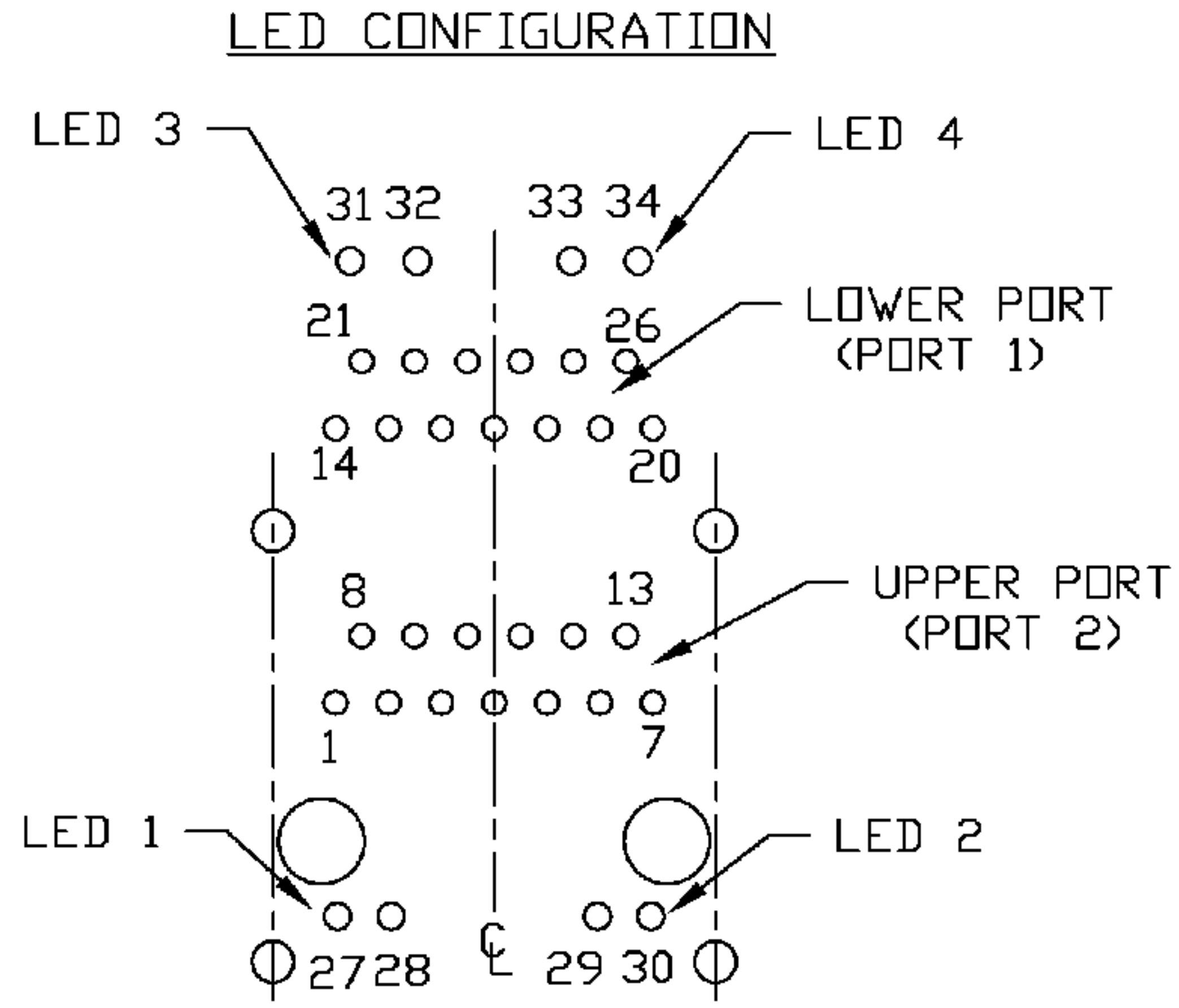
|                              |                  |   |  |                               |   |
|------------------------------|------------------|---|--|-------------------------------|---|
| ORIGINATED BY<br>BILL \KEUNG | DATE<br>12-27-05 | TITLE<br>2X1 gigabit MagJack®<br>(with LED) | PART NO. / DRAWING NO.<br>0845-2D1T-E4 | STANDARD DIM.<br>TOL. IN INCH | [ ] METRIC DIM. AS REFERENCE  |
| DRAWN BY<br>QIN              | DATE<br>12-27-05 |   | FILE NAME<br>08452D1TE4PC.DWG          | .X<br>.XX<br>.XXX             | UNIT : INCH [mm]<br>SCALE : N/A<br>REV. : PC<br>SIZE : A4<br>PAGE : 4 |
|                              |                  |   |  | ±0.010                        |   |



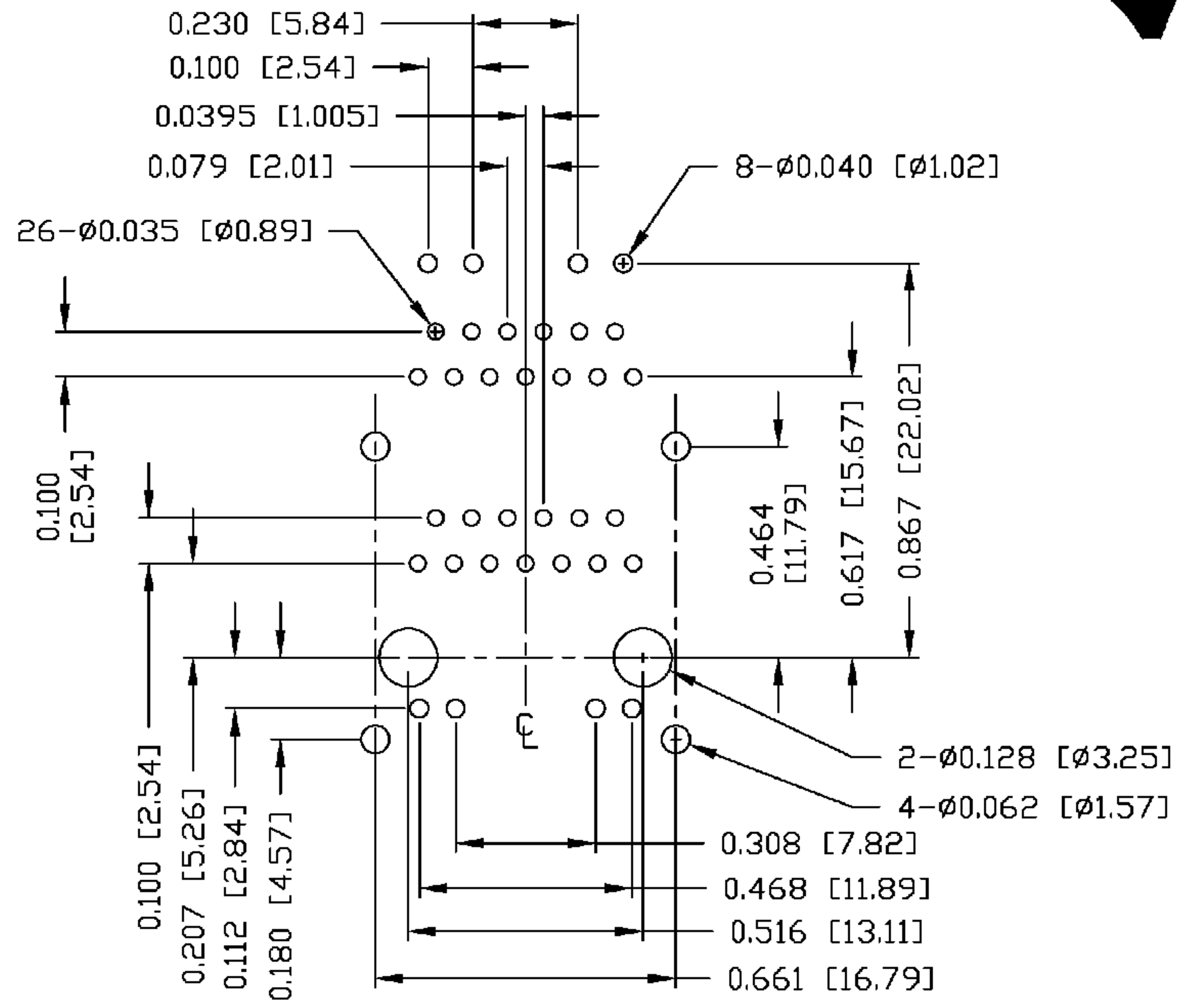
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PRELIMINARY



PIN-OUT INFORMATION  
(COMPONENT SIDE VIEW)  
(SCALE 2:1)



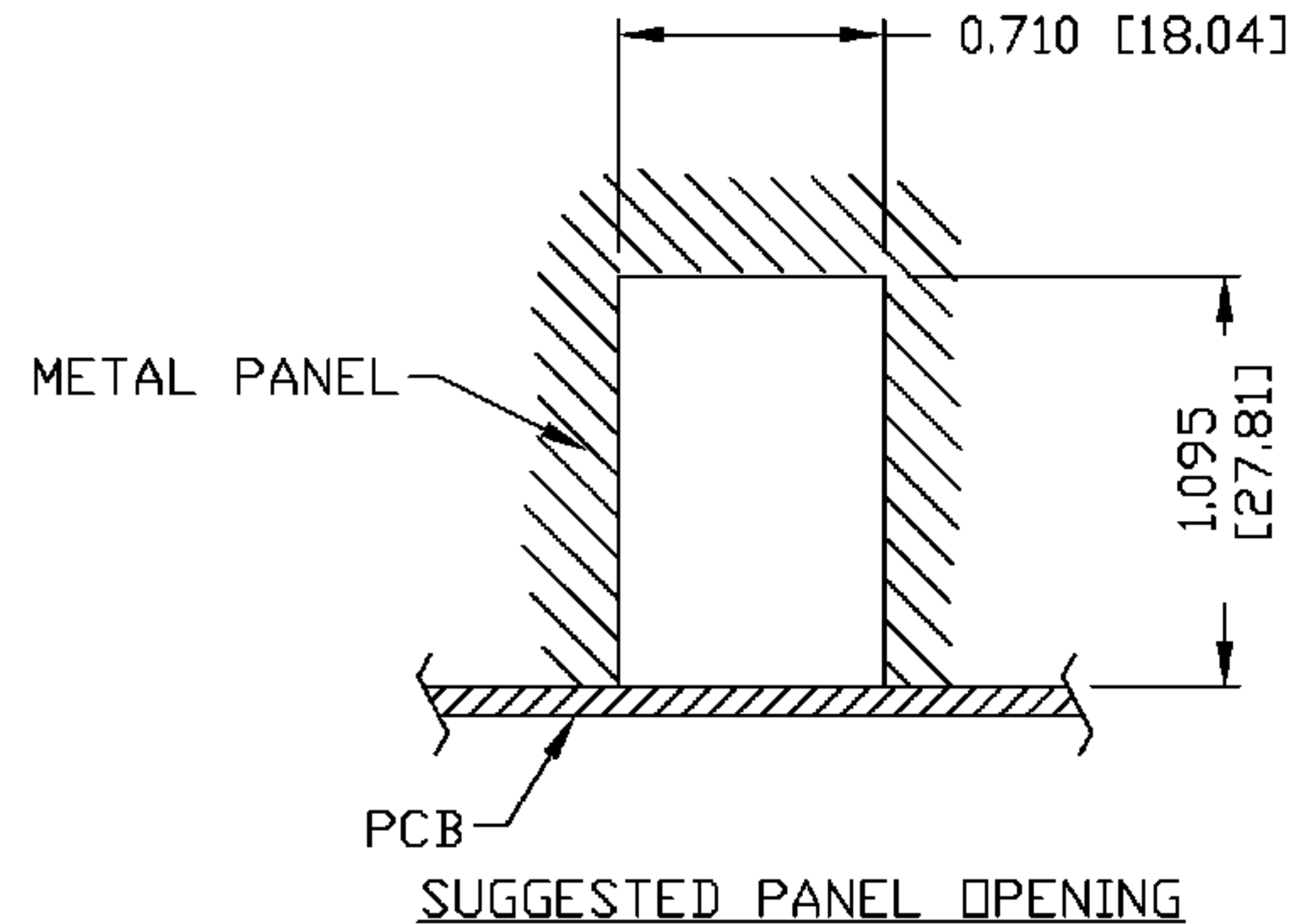
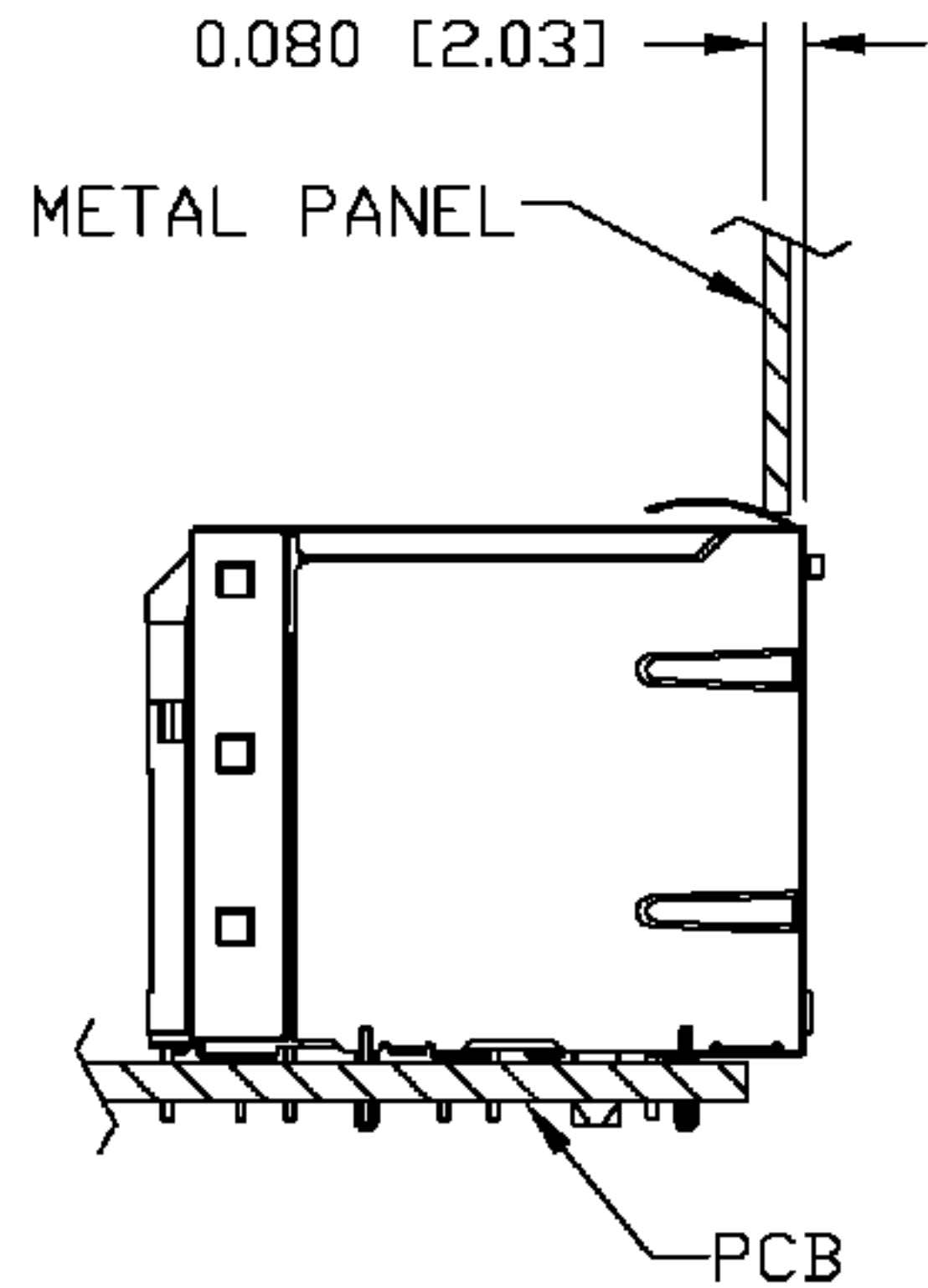
SUGGESTED FOOTPRINT  
(COMPONENT SIDE VIEW)  
(SCALE 2:1)

|                                     |                         |  |   |                                   |                                     |                                 |
|-------------------------------------|-------------------------|--|---|-----------------------------------|-------------------------------------|---------------------------------|
| <b>ORIGINATED BY</b><br>BILL \KEUNG | <b>DATE</b><br>12-27-05 | <b>TITLE</b><br>2X1 gigabit MagJack®<br>(with LED) | <b>PART NO. / DRAWING NO.</b><br>0845-2D1T-E4 | <b>STANDARD DIM. TOL. IN INCH</b> | <b>[ ] METRIC DIM. AS REFERENCE</b> |                                 |
| <b>DRAWN BY</b><br>QIN              | <b>DATE</b><br>12-27-05 |  | <b>FILE NAME</b><br>08452D1TE4PC.DWG          | .X<br>.XX<br>.XXX                 | ±0.004                              | UNIT : INCH [mm]<br>SCALE : N/A |



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**NOTE:**  
 THE DISTANCE OF PANEL INSIDE SURFACE RELATIVE TO FRONT SURFACE OF PART IS ONLY A SUGGESTION. IN CASE THIS DISTANCE IS DIFFERENT, THE REQUIRED PANEL OPENING DIMENSIONS CHANGE ACCORDINGLY.

PACKING INFORMATION

PACKING TRAY: 0200-9999-H5 (TOP)  
 0200-9999-H6 (BOTTOM)  
 PACKING QUANTITY: 40 PCS FINISHED GOODS PER TRAY  
 6 TRAYS (240 PCS FINISHED GOODS) PER CARTON BOX.

NOTE: CARDBOARD ARE PLACED BETWEEN LAYERS OF PACKING TRAY INSIDE CARTON BOX.  
 (INCLUDE THE UPPERMOST AND LOWEREST TRAY)

|               |          |                                    |                        |                            |                              |
|---------------|----------|------------------------------------|------------------------|----------------------------|------------------------------|
| ORIGINATED BY | DATE     | TITLE                              | PART NO. / DRAWING NO. | STANDARD DIM. TOL. IN INCH | [ ] METRIC DIM. AS REFERENCE |
| BILL\KEUNG    | 12-27-05 | 2X1 gigabit MagJack®<br>(with LED) | 0845-2D1T-E4           | .X                         | UNIT : INCH [mm] REV. : PC   |
| DRAWN BY      | DATE     |                                    | FILE NAME              | .XX                        | SCALE : N/A SIZE : A4        |
| QIN           | 12-27-05 |                                    | 08452D1TE4PC.DWG       | .XXX ±0.004                | PAGE : 6                     |



# Mouser Electronics

Authorized Distributor

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Bel:

[0845-2D1T-E4](#)