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| LED1 POLARITY |        |       | LED2 POLARITY |        |       |
|---------------|--------|-------|---------------|--------|-------|
| PIN 13        | PIN 14 | COLOR | PIN 15        | PIN 16 | COLOR |
| -             | +      | GREEN | -             | +      | GREEN |

## 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 | 350µH MIN. |
|-------------|------------|

### INS. LOSS

|                  |             |
|------------------|-------------|
| 0.1MHz TO 1MHz   | -1.1 dB MAX |
| 1MHz TO 65MHz    | -0.5 dB MAX |
| 65MHz TO 100MHz  | -0.8 dB MAX |
| 100MHz TO 125MHz | -1.2 dB MAX |

### RET. LOSS (MIN)

|              |                       |
|--------------|-----------------------|
| 0.5MHz-40MHz | -18 dB                |
| 40MHz-100MHz | -12+20LOG(f/80MHz) dB |

### CROSS TALK

|                 |                           |
|-----------------|---------------------------|
| 100kHz - 100MHz | -33+20LOG(f/100MHz)dB MIN |
|-----------------|---------------------------|

### CM TO CM REJ

|                 |            |
|-----------------|------------|
| 100kHz - 100MHz | -30 dB MIN |
|-----------------|------------|

### CM TO DM REJ

|                 |            |
|-----------------|------------|
| 100kHz - 100MHz | -35 dB MIN |
|-----------------|------------|

### HIPOT (Isolation Voltage): 1500 Vrms or 2250 VDC

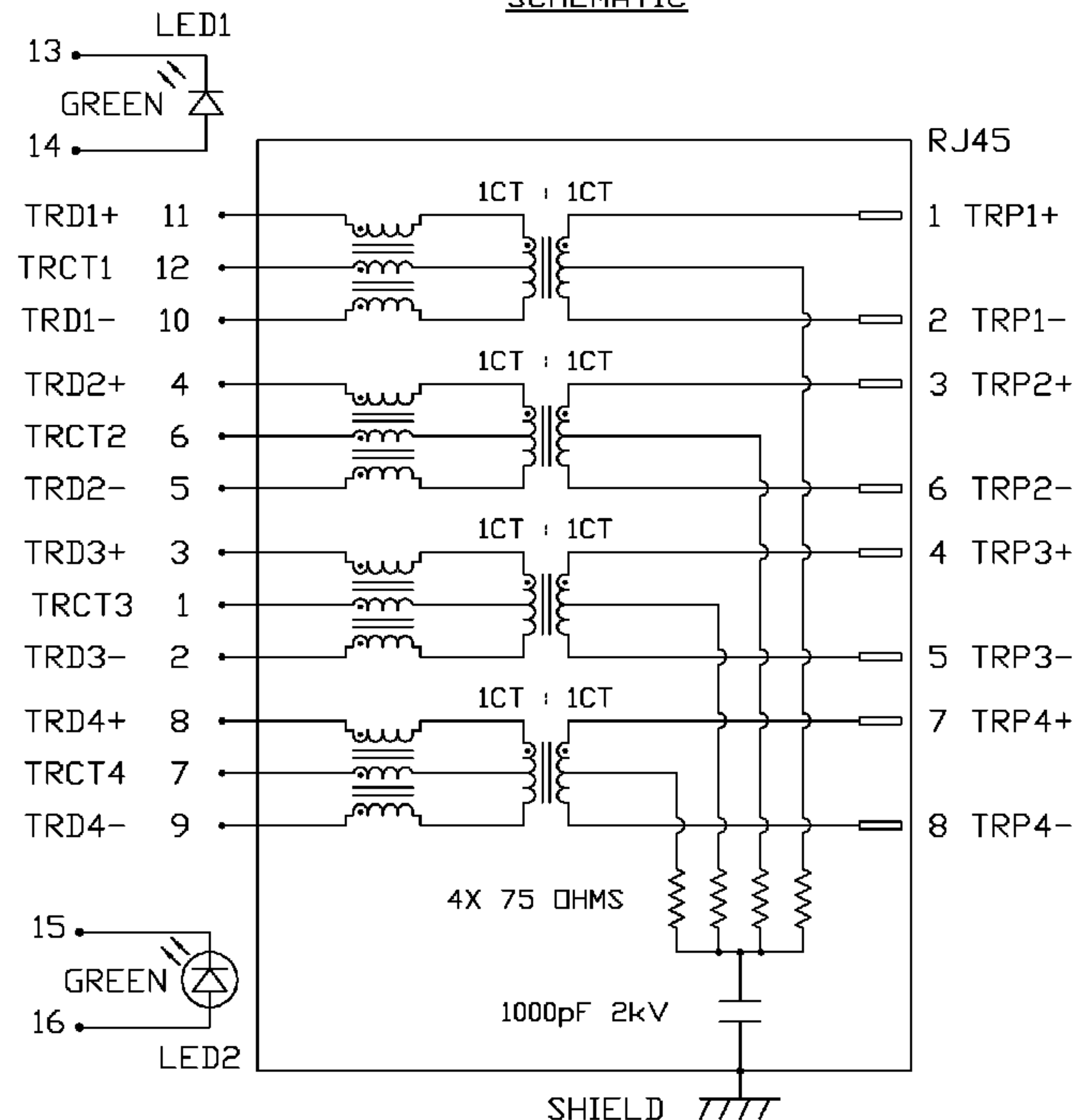
### LED 1 & 2

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

### USB ELECTRICAL:

|                          |                 |
|--------------------------|-----------------|
| INSULATION RESISTANCE:   | 1000 MEGA (MIN) |
| CONTACT RESISTANCE:      | 25 MILLI (MAX)  |
| DIELECTRIC WITHSTANDING: | 750 VAC         |

## SCHEMATIC



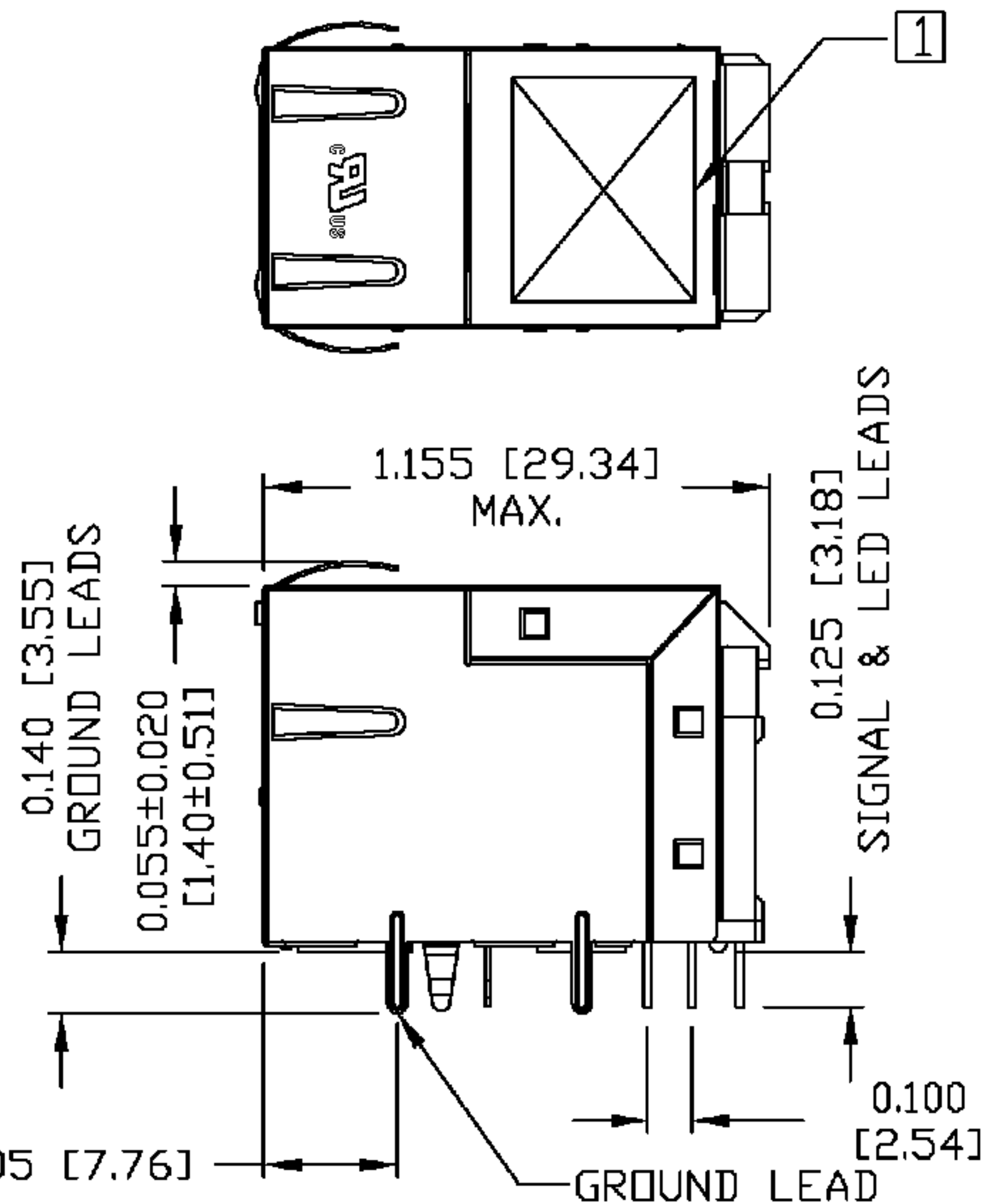
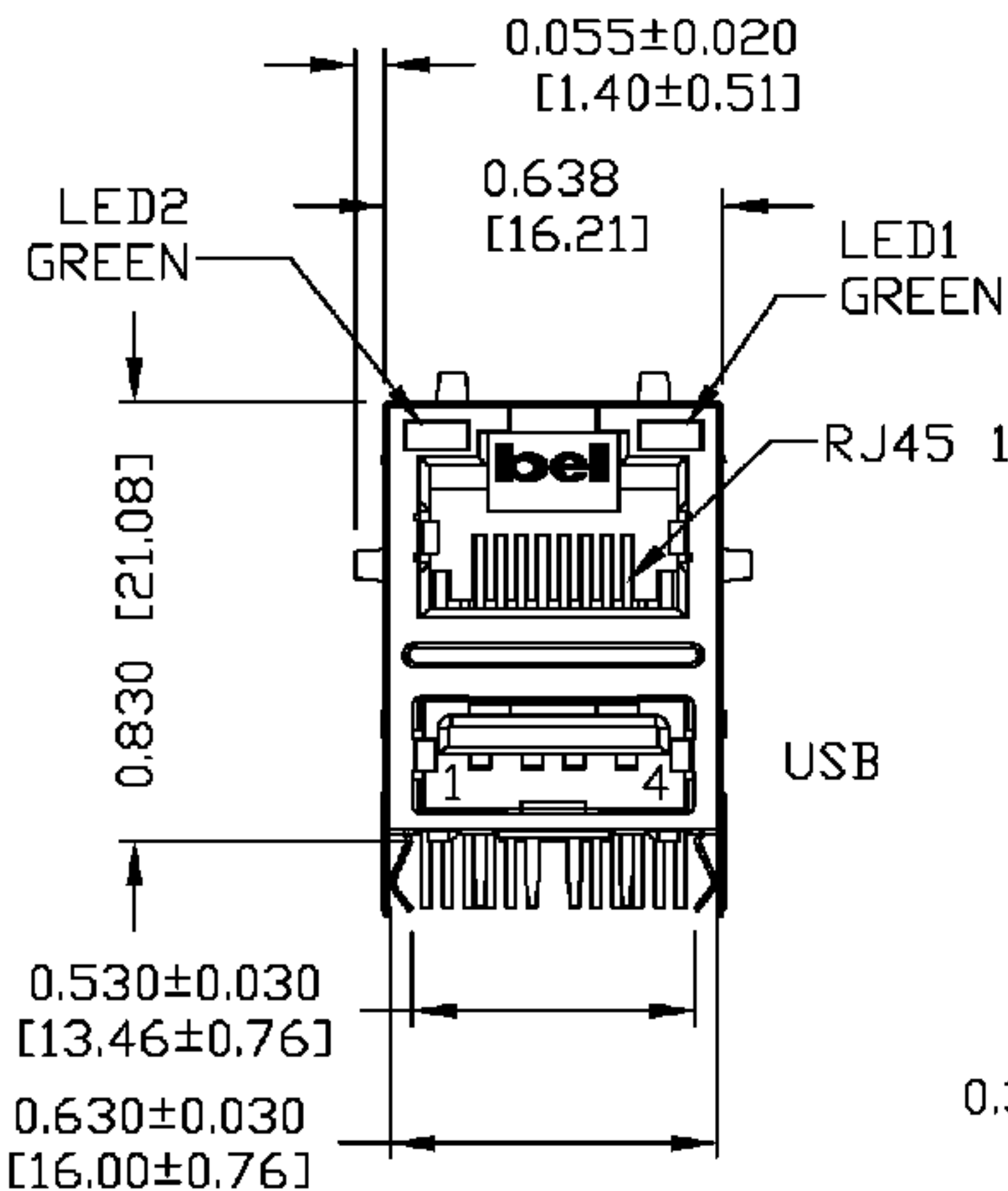
|                        |                  |                                                                  |                                            |                               |                                                                                       |                                                                                                |  |                                                                                                                                     |
|------------------------|------------------|------------------------------------------------------------------|--------------------------------------------|-------------------------------|---------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|--|-------------------------------------------------------------------------------------------------------------------------------------|
| ORIGINATED BY<br>CHUNG | DATE<br>02-16-06 | TITLE<br><br>gigabit MagJack® Combo<br><br>(single USB, 8 cores) | PART NO. / DRAWING NO.<br><br>0821-1G1T-43 | STANDARD DIM.<br>TOL. IN INCH |                                                                                       | [ ] METRIC DIM. AS REFERENCE                                                                   |  | <br><br>COMPONENTS ON A<br>CONNECTED<br>PLANET |
| DRAWN BY<br>DE         | DATE<br>02-16-06 |                                                                  | FILE NAME<br><br>08211G1T43D.DWG           | .X                            |  | UNIT : INCH [mm] REV. : D                                                                      |  |                                                                                                                                     |
|                        |                  |                                                                  |                                            | .XX                           |                                                                                       | SCALE : N/A SIZE : A4                                                                          |  |                                                                                                                                     |
|                        |                  |                                                                  |                                            | .XXX                          |                                                                                       |  PAGE : 2 |  |                                                                                                                                     |

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## MECHANICAL SPECIFICATION

## RECOMMENDED PCB FOOTPRINT

### COMPONENT SIDE VIEW



### USB MECHANICAL:

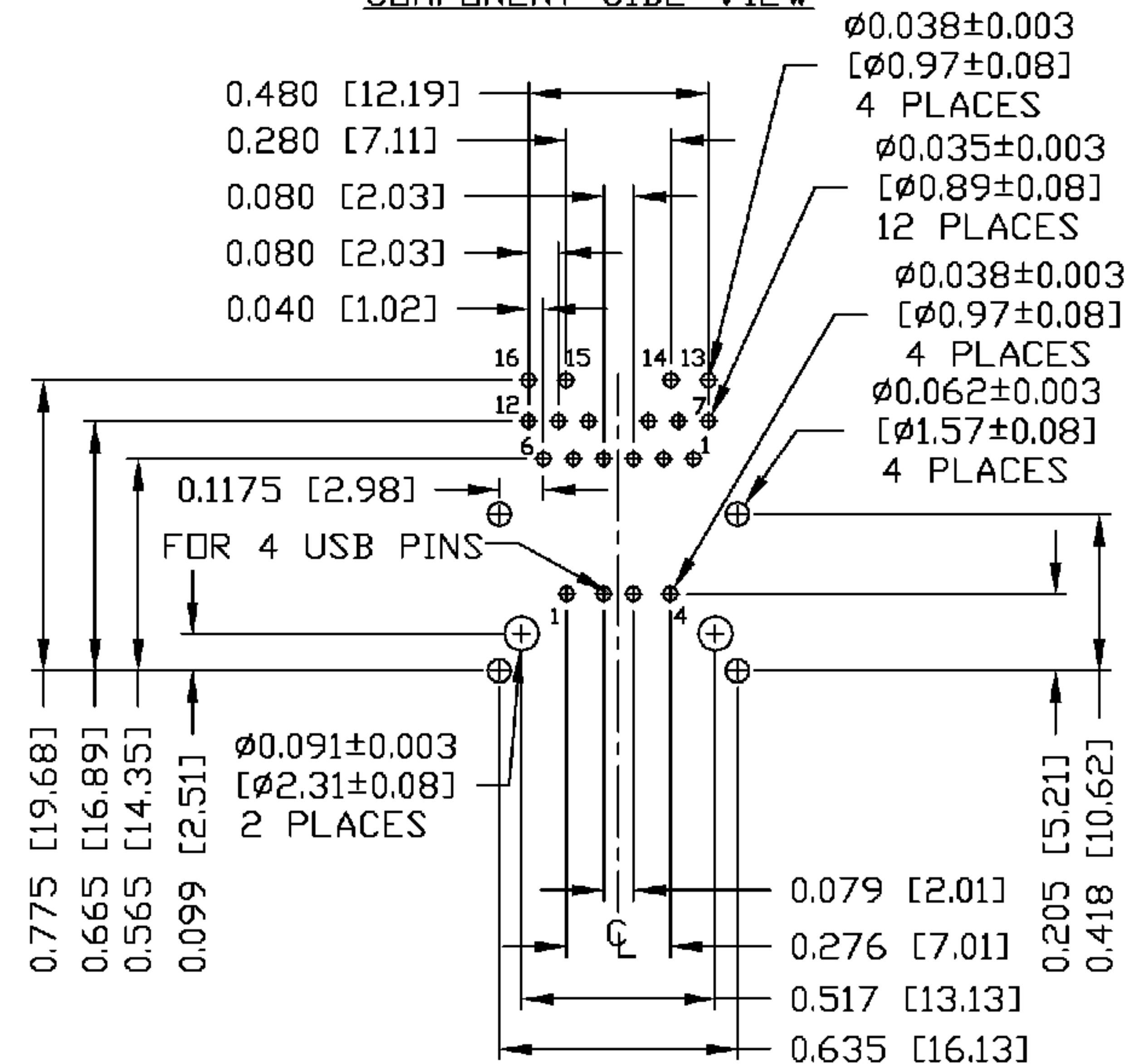
MATING FORCE: 35 NEWTONS MAXIMUM

UNMATING FORCE: 10 NEWTONS MINIMUM

CONTACT: PROSPHER BRONZE  
30 MICRO-INCH MIN GOLD PLATING ON  
CONTACT AREA AND TIN/LEAD ON SOLDER TAIL.

1. MARK PART WITH MFG LOGO, MFG NAME, PART NUMBER, AND DATE CODE.

UL US UL RECOGNIZED - FILE #E196366 AND E169987.

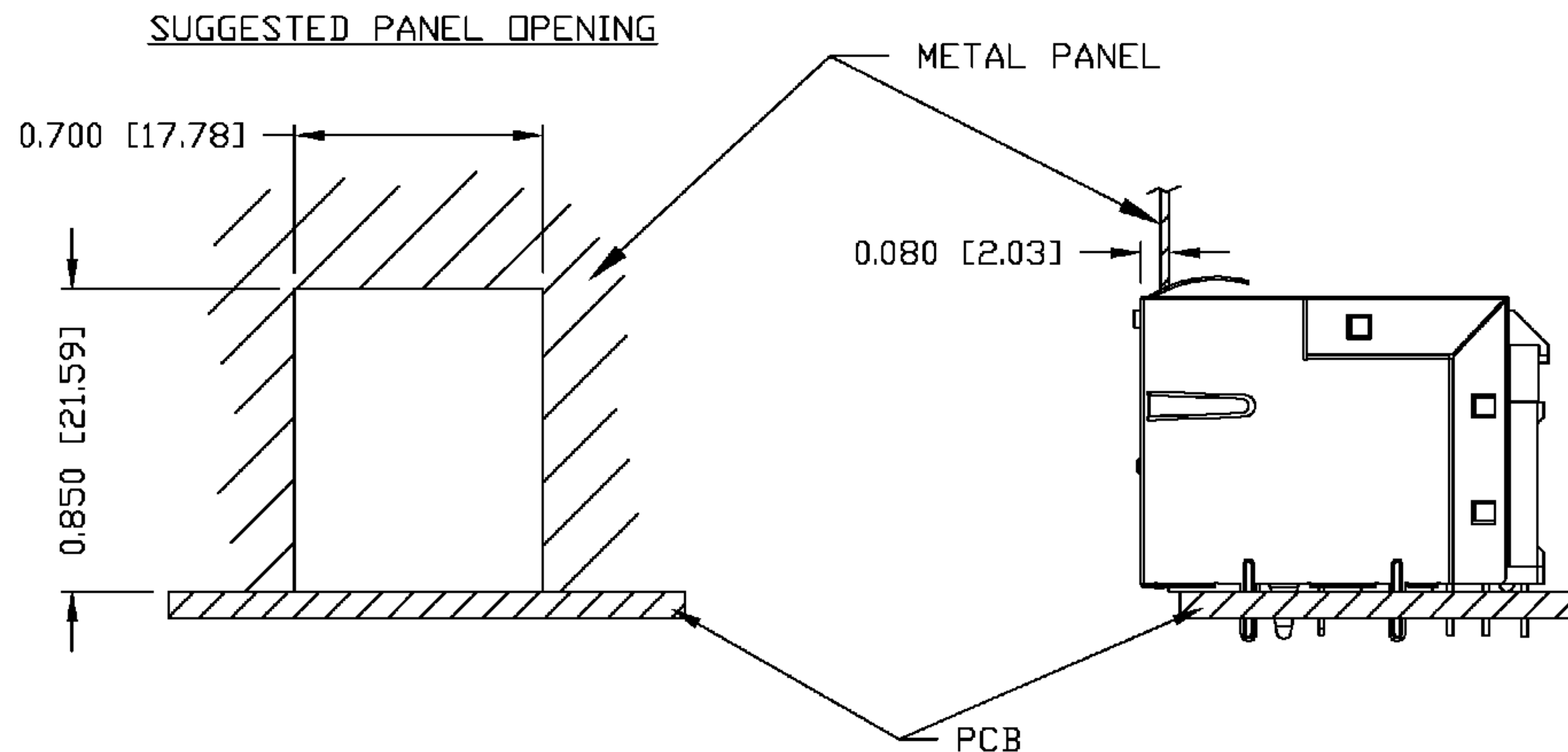


### RJ45 MECHCNICAL:

PLASTIC HOUSING: THERMOPLASTIC PBT  
FLAMMABILITY RATING UL 94V-0  
CONTACT PLATING: 30 MICRO-INCH HARD GOLD PLATING  
PINS: TIN-COATED COPPER WIRE, DIA 0.018 INCH.  
METAL SHIELD: NICKEL PLATED ON COPPER ALLOY.  
(ALL GROUND LEADS ARE SOLDER DIPPED)

|                        |                  |                                                                  |                                            |                               |        |                                                                                       |           |                                                                     |
|------------------------|------------------|------------------------------------------------------------------|--------------------------------------------|-------------------------------|--------|---------------------------------------------------------------------------------------|-----------|---------------------------------------------------------------------|
| ORIGINATED BY<br>ANTON | DATE<br>02-16-06 | TITLE<br><br>gigabit MagJack® Combo<br><br>(single USB, 8 cores) | PART NO. / DRAWING NO.<br><br>0821-1G1T-43 | STANDARD DIM.<br>TOL. IN INCH |        | [ ] METRIC DIM. AS REFERENCE                                                          |           | <div>bel</div> <div>COMPONENTS FOR A<br/>CONNECTED<br/>PLANET</div> |
| DRAWN BY<br>TING       | DATE<br>02-16-06 |                                                                  | FILE NAME<br><br>08211G1T43D.DWG           | .X                            |        | UNIT : INCH [mm]                                                                      | REV. : D  |                                                                     |
|                        |                  |                                                                  |                                            | .XX                           |        | SCALE : N/A                                                                           | SIZE : A4 |                                                                     |
|                        |                  |                                                                  |                                            | .XXX                          | ±0.010 |  | PAGE : 3  |                                                                     |

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#### NOTES:

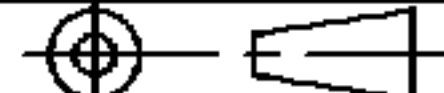
THE DISTANCE OF PANEL INSIDE SURFACE RELATIVE TO FRONT SURFACE OF PART IS ONLY A SUGGESTION.  
IN CASE THIS DISTANCE IS DIFFERENT, THE REQUIRED PANEL OPENING DIMENSIONS CHANGE ACCORDINGLY.

#### PACKING INFORMATION

PACKING TRAY : 0200-0148-48 (TOP)  
0200-0148-49 (BOTTOM)

PACKING QUANTITY : 60 PCS FINISHED GOODS PER TRAY  
8 TRAYS (480 PCS FINISHED GOODS) PER CARTON BOX

NOTE : CARDBOARDS ARE PLACED BETWEEN LAYERS OF PACKING TRAY INSIDE CARTON BOX  
(INCLUDE THE UPPERMOST AND LOWERMOST TRAY)

|               |          |                 |                                                 |               |        |                                                                                       |                                                                                       |                                                                                       |           |
|---------------|----------|-----------------|-------------------------------------------------|---------------|--------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|-----------|
| ORIGINATED BY | DATE     | TITLE           | PART NO. / DRAWING NO.                          | STANDARD DIM. |        | [ ] METRIC DIM. AS REFERENCE                                                          |                                                                                       |  |           |
| ANTON         | 02-16-06 |                 | 0821-1G1T-43                                    | TOL. IN INCH  |        | UNIT : INCH [mm]                                                                      |                                                                                       |                                                                                       | REV. : D  |
| DRAWN BY      | DATE     |                 | gigabit MagJack® Combo<br>(single USB, 8 cores) | FILE NAME     | .X     |  | SCALE : N/A                                                                           |                                                                                       | SIZE : A4 |
| TING          | 02-16-06 | 08211G1T43D.DWG |                                                 | .XX           |        |                                                                                       |  |                                                                                       | PAGE : 4  |
|               |          |                 |                                                 | .XXX          | ±0.004 |                                                                                       |                                                                                       |                                                                                       |           |