

THE INFORMATION CONTAINED HEREIN IS CONSIDERED "PROPRIETARY" TO BEL FUSE INC. AND SHALL NOT BE COPIED, REPRODUCED OR DISCLOSED WITHOUT THE WRITTEN APPROVAL OF BEL FUSE INC.

| LED1 POLARITY |        |       | LED2 POLARITY |        |        |
|---------------|--------|-------|---------------|--------|--------|
| PIN 27        | PIN 28 | COLOR | PIN 29        | PIN 30 | COLOR  |
| -             | +      | GREEN | +             | -      | YELLOW |
|               |        |       | -             | +      | GREEN  |

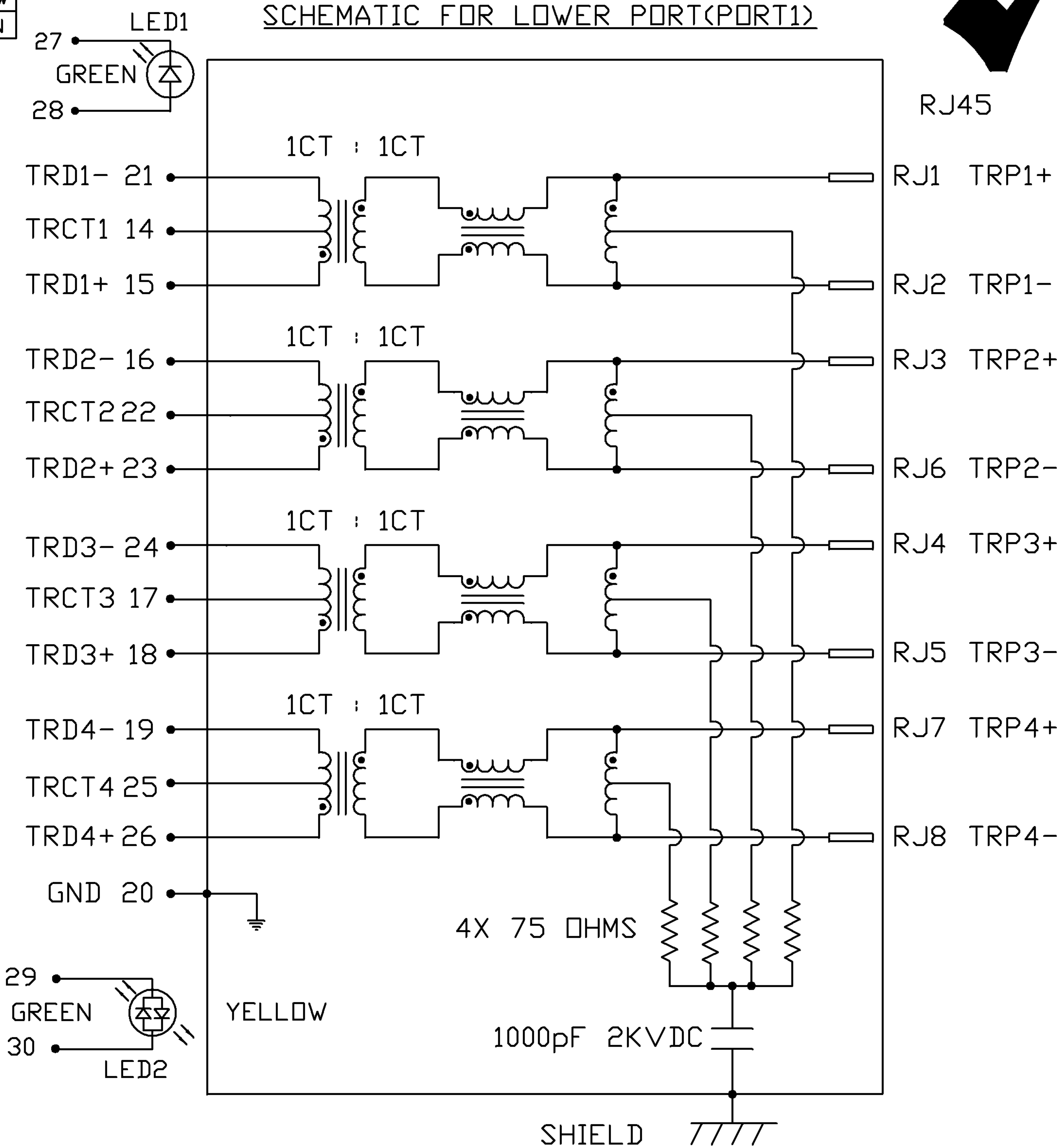
PRELIMINARY

RoHS  
2002/95/EC



ELECTRICAL CHARACTERISTICS @ 25°C

|                                                                         |                           |
|-------------------------------------------------------------------------|---------------------------|
| URNS RATIO                                                              |                           |
| TP1                                                                     | 1CT : 1CT ±2%             |
| TP2                                                                     | 1CT : 1CT ±2%             |
| TP3                                                                     | 1CT : 1CT ±2%             |
| TP4                                                                     | 1CT : 1CT ±2%             |
| DCL @ 100kHz,100mVRMS                                                   |                           |
| 8mA DC BIAS                                                             | 350 μH 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                 |
| 100% OF PRODUCT TESTED TO COMPLY WITH IEEE 802.3 ISOLATION REQUIREMENTS |                           |
| LEAKAGE INDUCTANCE                                                      |                           |
| PRIMARY W/ SECONDARY SHORTED                                            | 0.3μH Max. @ 1MHz         |
| INTERWINDING CAPACITANCE                                                |                           |
| PER CHANNEL (PRI. TO SEC.)                                              | 50pF Max @ 1MHz           |
| DC RESISTANCE                                                           |                           |
| (21-15)=(16-23)=(24-18)=(19-26)                                         | 1.2 ohms Max              |
| (RJ1-RJ2)=(RJ3-RJ6)=(RJ4-RJ5)=(RJ7-RJ8)                                 | 1.2 ohms Max              |
| OPERATING TEMPERATURE:                                                  | -40 TO +85°C              |
| LED 1                                                                   |                           |
| VF (FORWARD VOLTAGE)                                                    | IF=20mA GREEN 2.2V TYP.   |
| λD (DOMINANT WAVELENGTH)                                                | IF=20mA GREEN 565nm TYP.  |
| LED 2                                                                   |                           |
| VF (FORWARD VOLTAGE)                                                    | IF=20mA GREEN 2.2V TYP.   |
| λD (DOMINANT WAVELENGTH)                                                | IF=20mA YELLOW 2.1V TYP.  |
|                                                                         | IF=20mA GREEN 565nm TYP.  |
|                                                                         | IF=20mA YELLOW 590nm TYP. |



|                                 |                  |                                                              |                                        |                                                    |                                                                                                       |
|---------------------------------|------------------|--------------------------------------------------------------|----------------------------------------|----------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| ORIGINATED BY<br>CHOW WANGCHUNG | DATE<br>11-06-08 | TITLE<br>2X1 gigabit MagJack®<br>(Extend Temperature of -E4) | PART NO. / DRAWING NO.<br>0845-2R1T-DY | STANDARD DIM.<br>TOL. IN INCH<br>.X<br>.XX<br>.XXX | [ ] METRIC DIM. AS REFERENCE<br>UNIT : INCH [mm]<br>SCALE : N/A<br>REV. : PB<br>SIZE : A4<br>PAGE : 2 |
| DRAWN BY<br>LI YONGFENG         | DATE<br>11-06-08 | FILE NAME<br>0845-2R1T-DY_PB.DWG                             |                                        |                                                    |                                                                                                       |



THE INFORMATION CONTAINED HEREIN IS CONSIDERED  
"PROPRIETARY" TO BEL FUSE INC. AND SHALL NOT BE  
COPIED, REPRODUCED OR DISCLOSED WITHOUT THE  
WRITTEN APPROVAL OF BEL FUSE INC.

| LED3 POLARITY |        |       | LED4 POLARITY |        |        |
|---------------|--------|-------|---------------|--------|--------|
| PIN 31        | PIN 32 | COLOR | PIN 33        | PIN 34 | COLOR  |
| -             | +      | GREEN | +             | -      | YELLOW |
|               |        |       | -             | +      | GREEN  |

PRELIMINARY

RoHS  
2002/95/EC



ELECTRICAL CHARACTERISTICS @ 25°C

URNS RATIO

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

CL @ 100kHz,100mVRMS

|             |             |
|-------------|-------------|
| 8mA DC BIAS | 350 μH 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):

|                                  |           |
|----------------------------------|-----------|
| 100% OF PRODUCT TESTED TO COMPLY | 1500 Vrms |
|----------------------------------|-----------|

WITH IEEE 802.3 ISOLATION REQUIREMENTS

LEAKAGE INDUCTANCE

|                              |                   |
|------------------------------|-------------------|
| PRIMARY W/ SECONDARY SHORTED | 0.3μH 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 |
|-----------------------------------------|--------------|

OPERATING TEMPERATURE:

|  |              |
|--|--------------|
|  | -40 TO +85°C |
|--|--------------|

LED 3 (Super bright)

VF (FORWARD VOLTAGE)

|               |           |
|---------------|-----------|
| IF=20mA GREEN | 2.2V TYP. |
|---------------|-----------|

λD (DOMINANT WAVELENGTH)

|               |            |
|---------------|------------|
| IF=20mA GREEN | 565nm TYP. |
|---------------|------------|

LED 4 (Super bright)

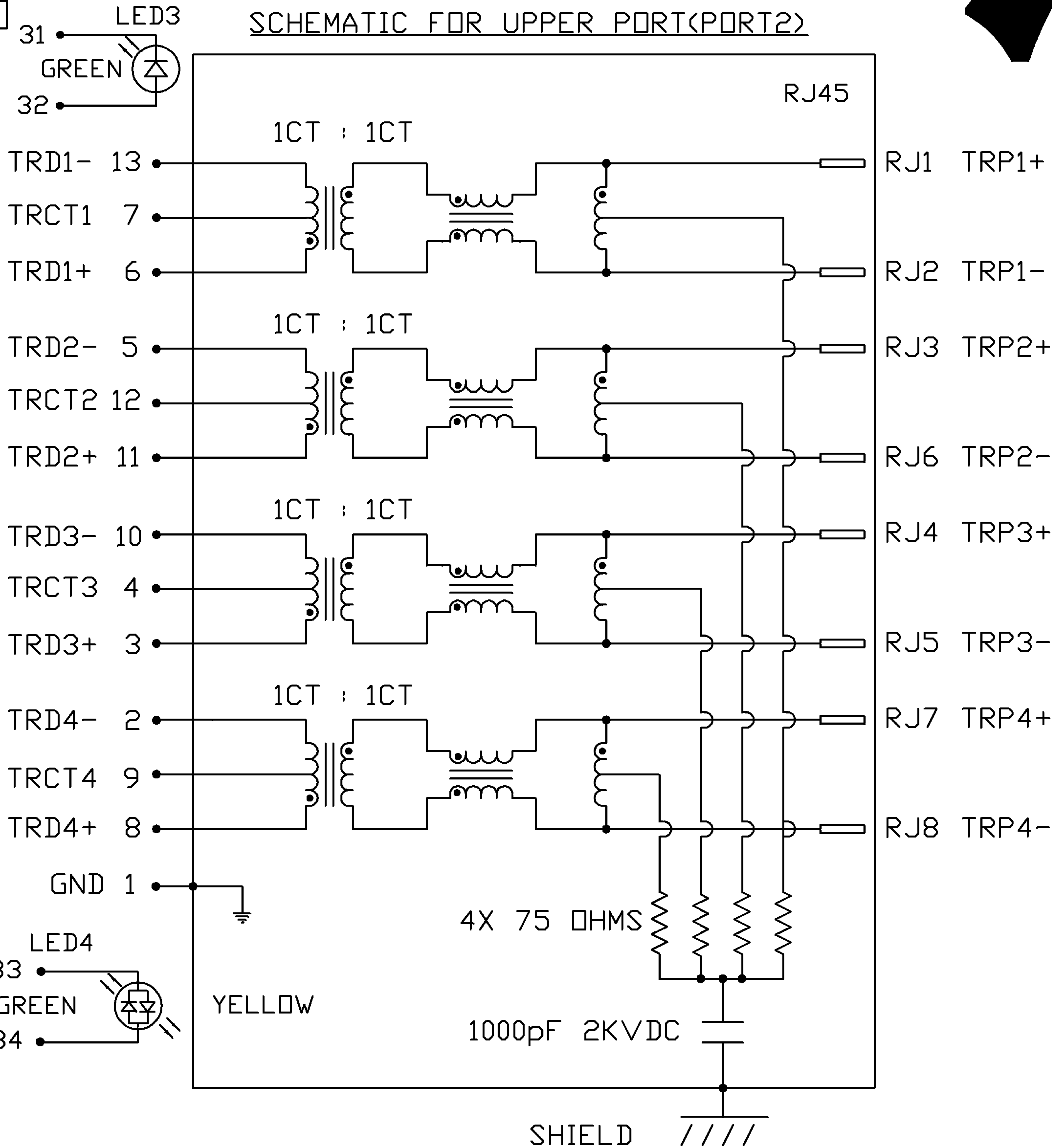
VF (FORWARD VOLTAGE)

|               |           |
|---------------|-----------|
| IF=20mA GREEN | 2.2V TYP. |
|---------------|-----------|

λD (DOMINANT WAVELENGTH)

|               |            |
|---------------|------------|
| IF=20mA GREEN | 565nm TYP. |
|---------------|------------|

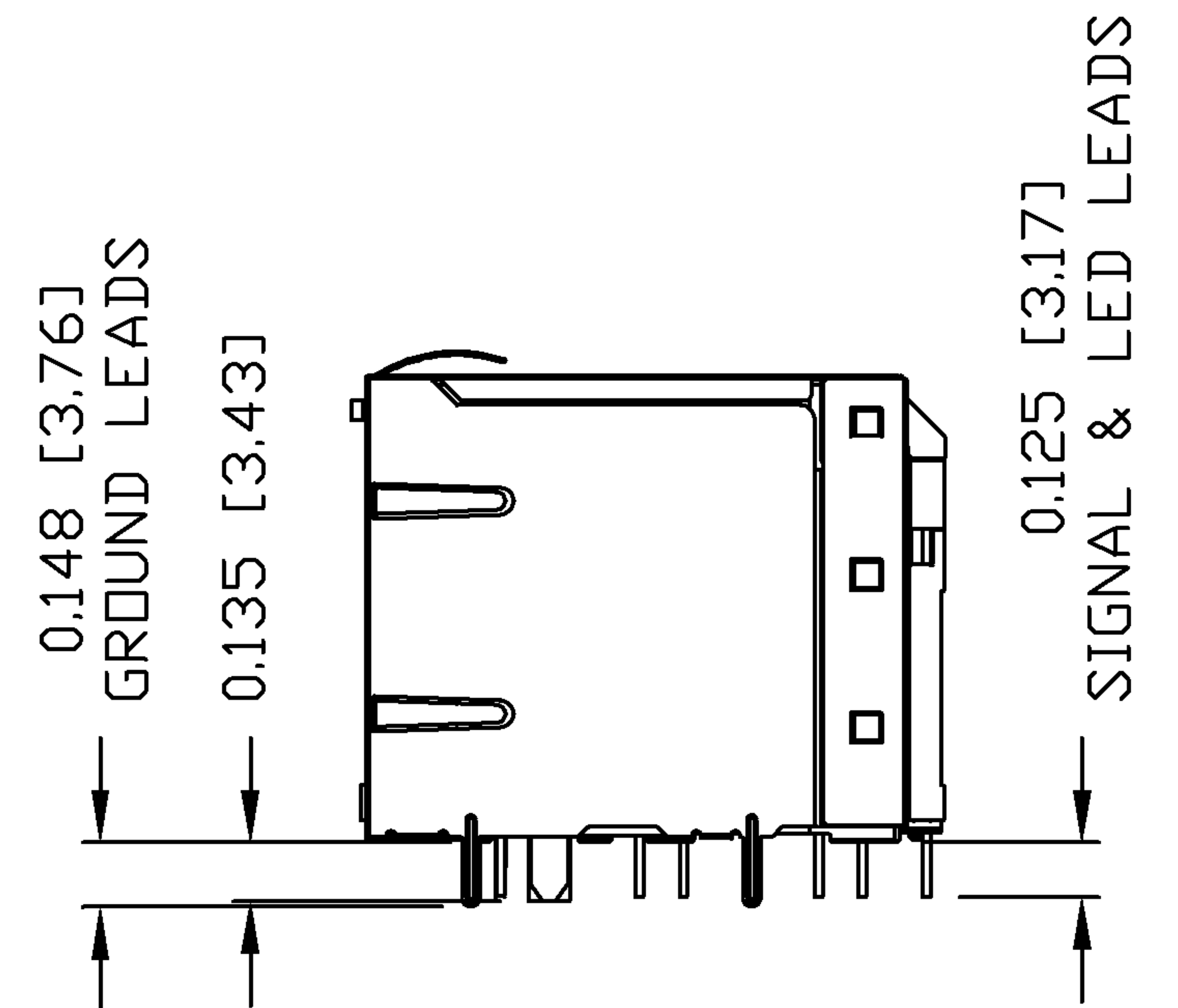
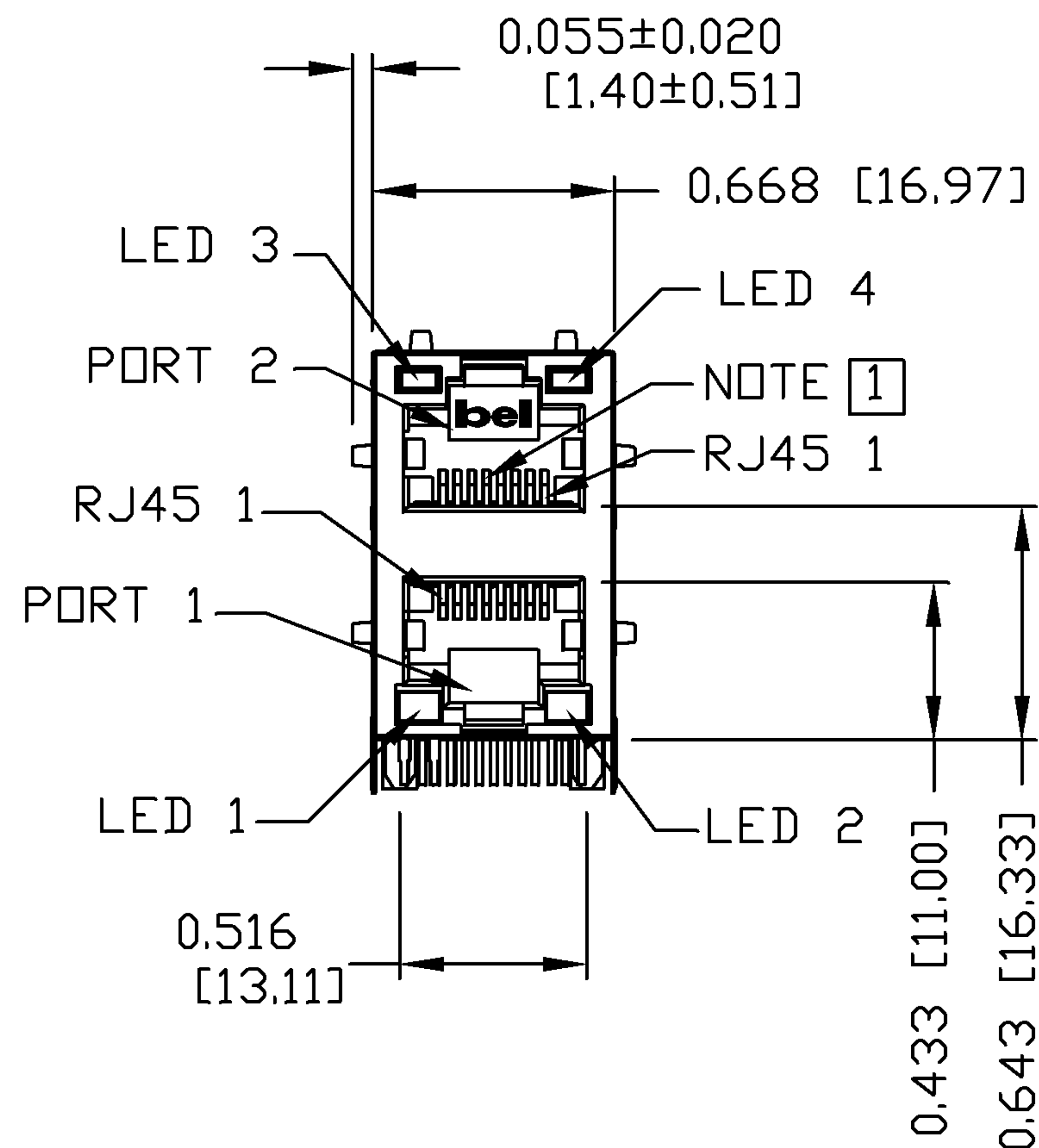
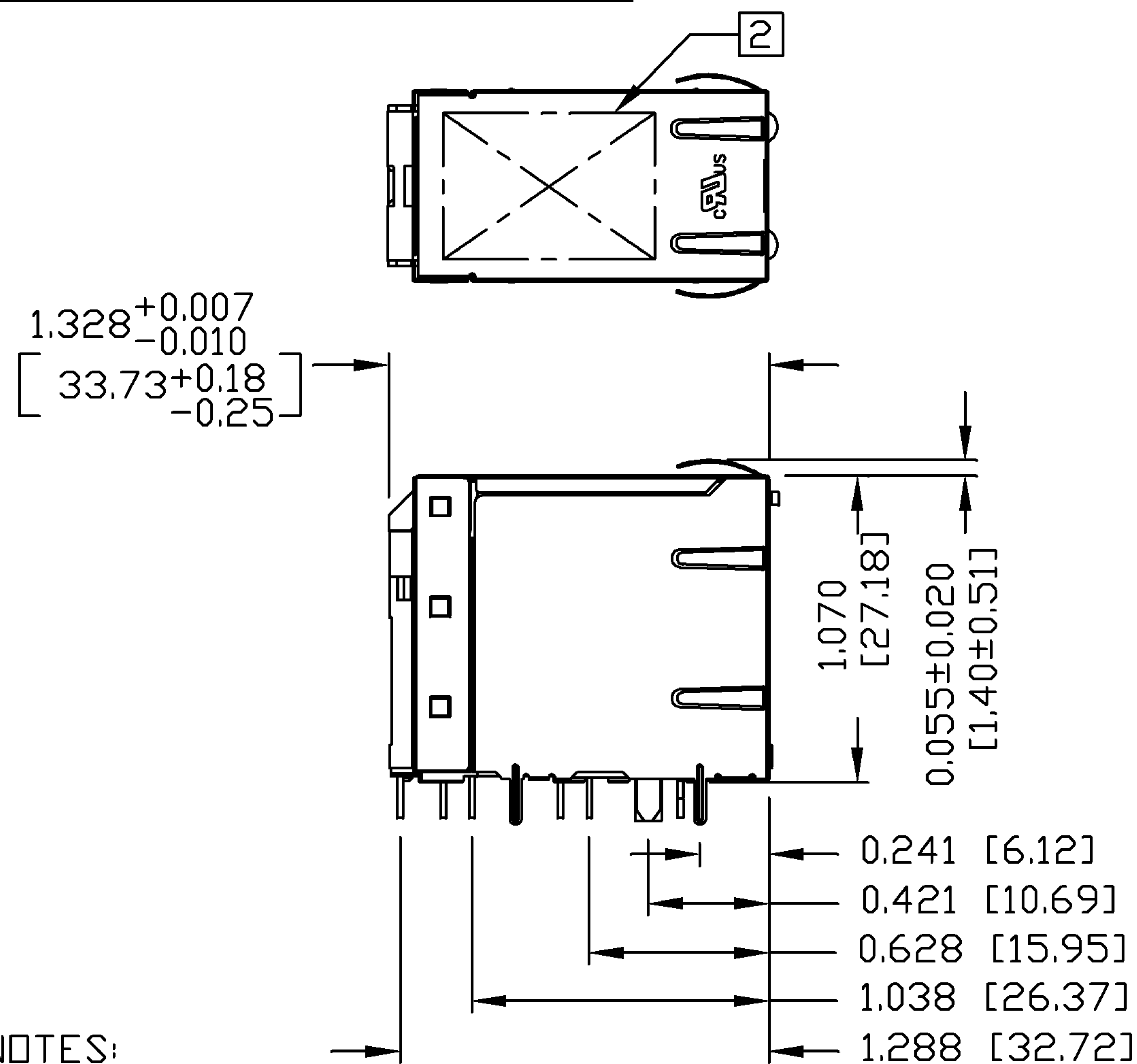
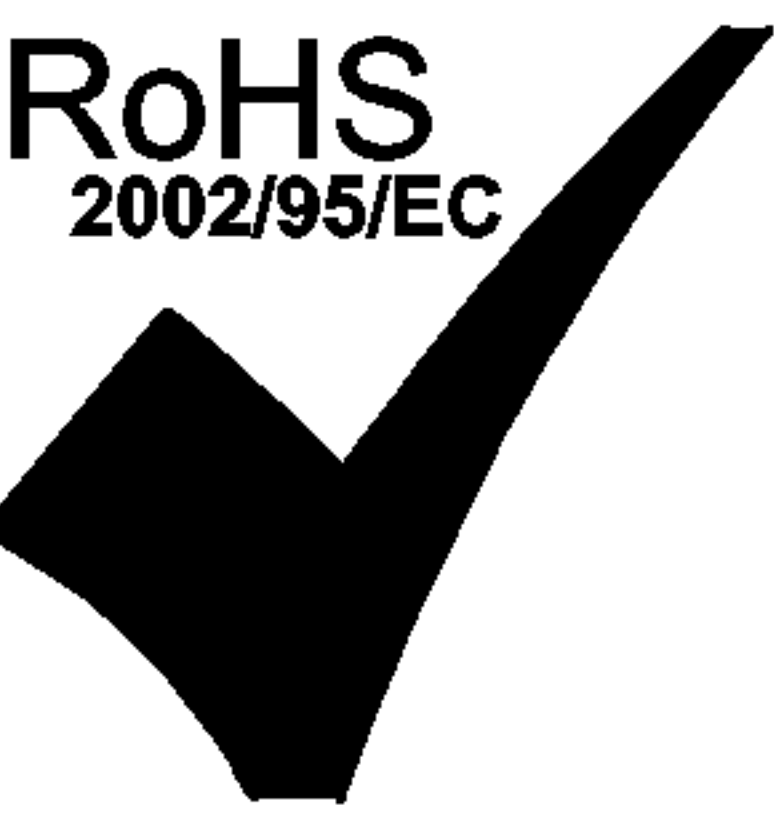
|  |                   |
|--|-------------------|
|  | YELLOW 590nm TYP. |
|--|-------------------|



| ORIGINATED BY | DATE     | TITLE                       | PART NO. / DRAWING NO. | STANDARD DIM. | [ ] METRIC DIM. AS REFERENCE |
|---------------|----------|-----------------------------|------------------------|---------------|------------------------------|
| CHOW WANCHUNG | 11-06-08 | 2X1 gigabit MagJack®        | 0845-2R1T-DY           | TOL. IN INCH  | UNIT : INCH [mm] REV. : PB   |
| DRAWN BY      | DATE     | (Extend Temperature of -E4) | FILE NAME              | .X            | SCALE : N/A SIZE : A4        |
| LI YONGFENG   | 11-06-08 |                             | 0845-2R1T-DY_PB.DWG    | .XX           | PAGE : 3                     |
|               |          |                             |                        | .XXX          |                              |

THE INFORMATION CONTAINED HEREIN IS CONSIDERED "PROPRIETARY" TO BEL FUSE INC. AND SHALL NOT BE COPIED, REPRODUCED OR DISCLOSED WITHOUT THE WRITTEN APPROVAL OF BEL FUSE INC.

PRELIMINARY



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.

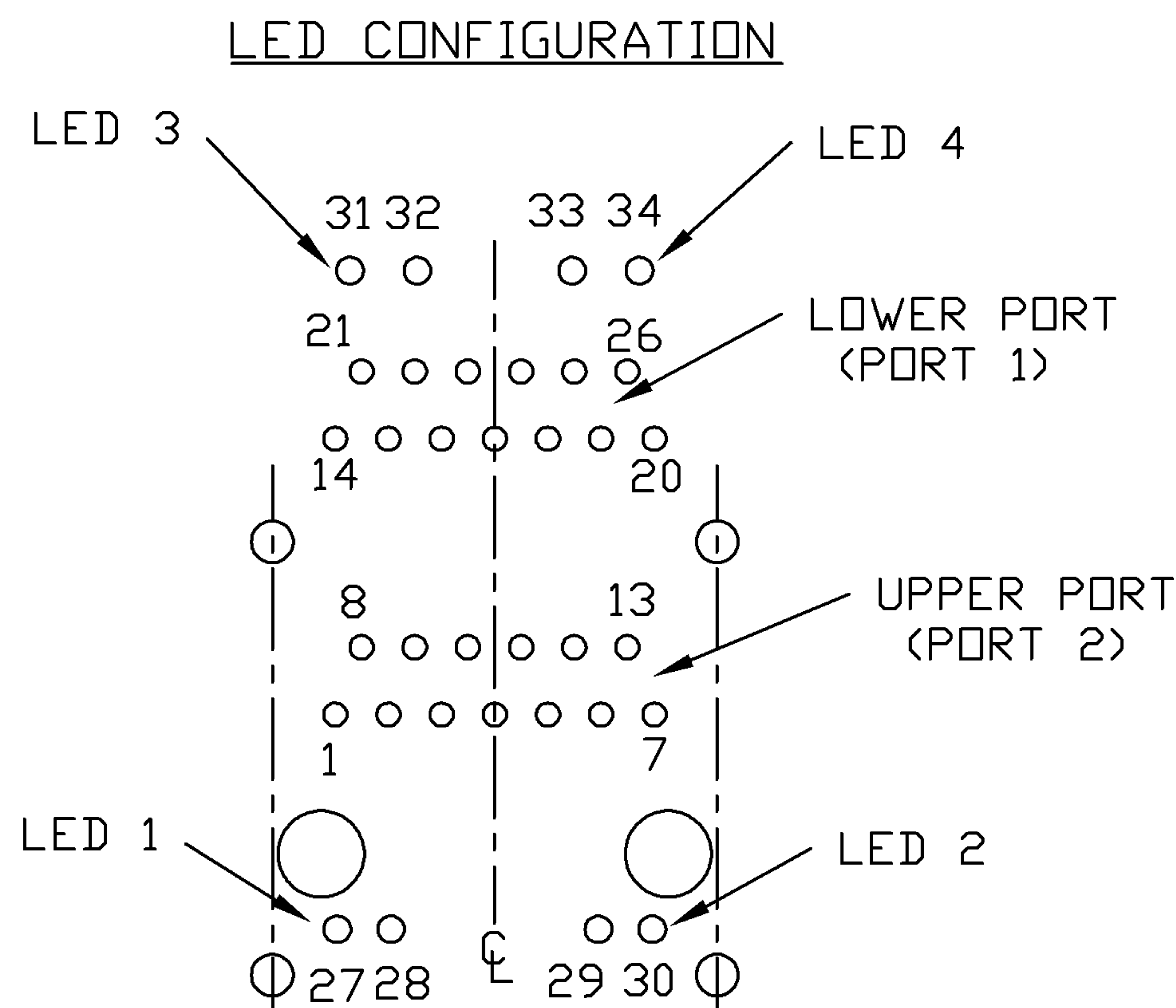
[2] MARK PART WITH MFG LOGO, MFG NAME, PART NUMBER, AND DATE CODE.

cULusUL RECOGNIZED - FILE #E196366 AND E169987.

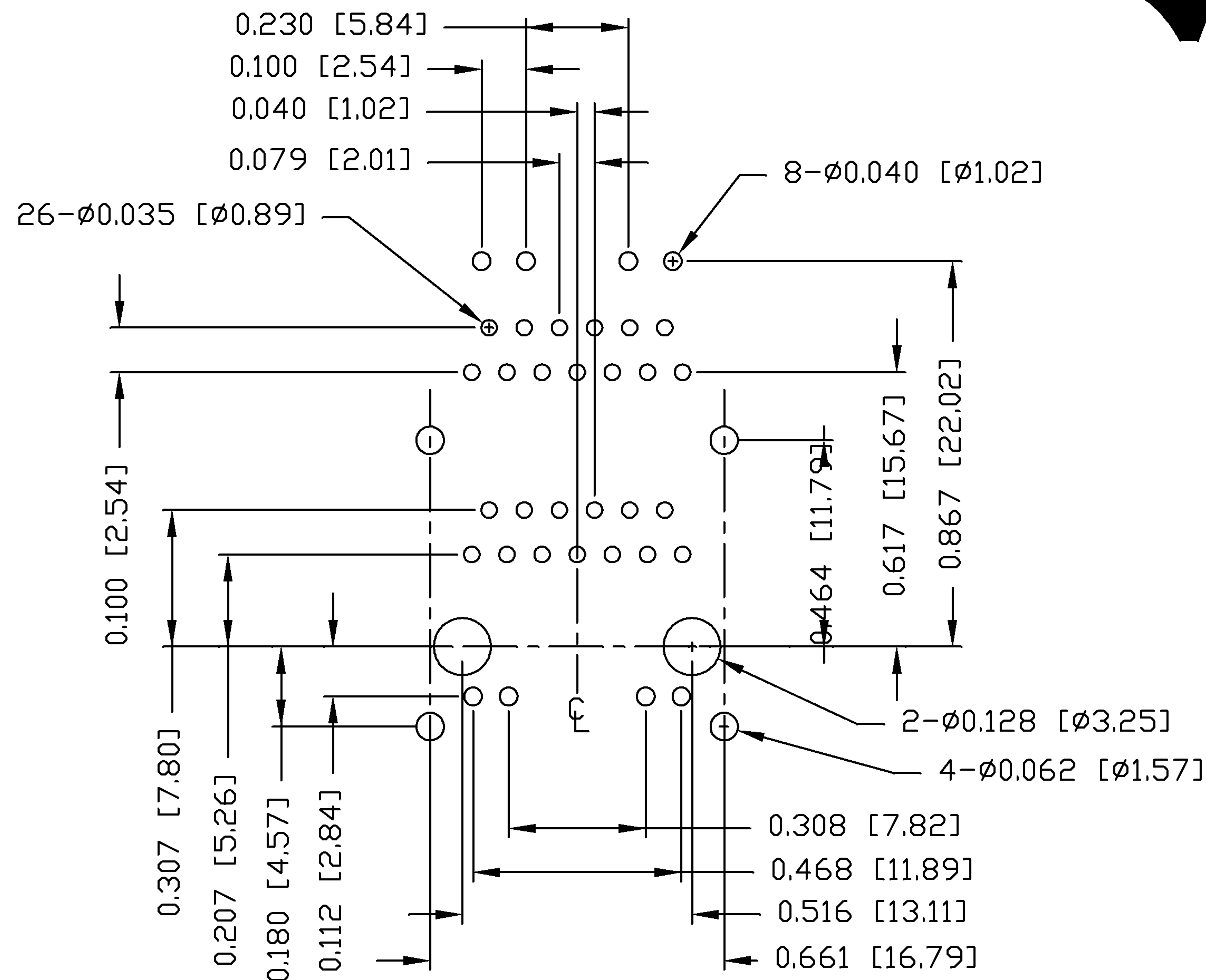
| ORIGINATED BY | DATE     | TITLE                                               | PART NO. / DRAWING NO.                               | STANDARD DIM. |        | [ ] METRIC DIM. AS REFERENCE |           | <br>COMPONENTS FOR A<br>CONNECTED<br>PLANET |
|---------------|----------|-----------------------------------------------------|------------------------------------------------------|---------------|--------|------------------------------|-----------|----------------------------------------------------------------------------------------------------------------------------------|
|               |          |                                                     |                                                      | TOL. IN INCH  |        | UNIT : INCH [mm]             | REV. : PB |                                                                                                                                  |
| CHEN BILL     | 11-06-08 | 2X1 gigabit MagJack®<br>(Extend Temperature of -E4) | 0845-2R1T-DY<br><br>FILE NAME<br>0845-2R1T-DY_PB.DWG | .X            |        | SCALE : N/A                  | SIZE : A4 |                                                                                                                                  |
| DRAWN BY      | DATE     |                                                     |                                                      | .XX           |        |                              | PAGE : 4  |                                                                                                                                  |
| XIAN JIAXIN   | 11-06-08 |                                                     |                                                      | .XXX          | ±0.010 |                              |           |                                                                                                                                  |



PRELIMINARY



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

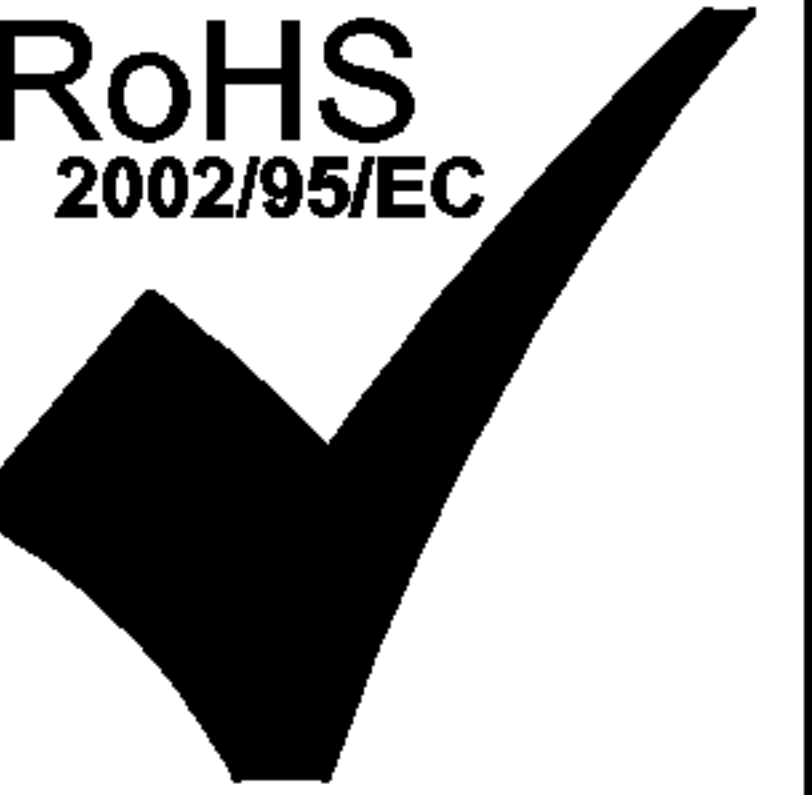


**SUGGESTED FOOTPRINT**  
(COMPONENT SIDE VIEW)  
(SCALE 2:1)

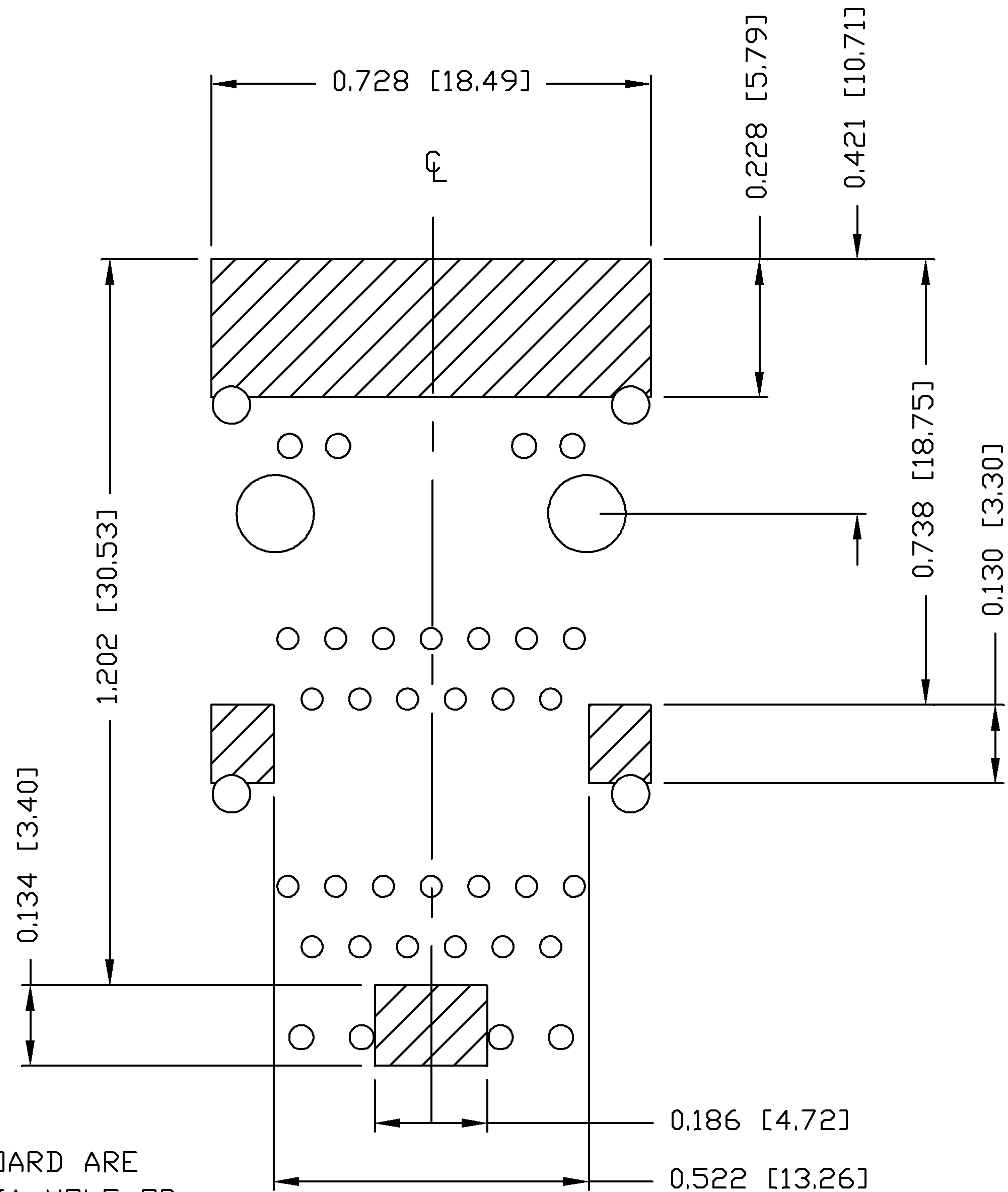
|                            |                  |                                                                      |                                        |                               |        |                                                                                       |           |                                                                                                                                  |
|----------------------------|------------------|----------------------------------------------------------------------|----------------------------------------|-------------------------------|--------|---------------------------------------------------------------------------------------|-----------|----------------------------------------------------------------------------------------------------------------------------------|
| ORIGINATED BY<br>CHEN BILL | DATE<br>11-06-08 | TITLE<br><br>2X1 gigabit MagJack®<br><br>(Extend Temperature of -E4) | PART NO. / DRAWING NO.<br>0845-2R1T-DY | STANDARD DIM.<br>TOL. IN INCH |        | [ ] METRIC DIM. AS REFERENCE                                                          |           | <br>COMPONENTS FOR A<br>CONNECTED<br>PLANET |
| DRAWN BY<br>XIAN JIAXIN    | DATE<br>11-06-08 |                                                                      | FILE NAME<br>0845-2R1T-DY_PB.DWG       | .X                            |        | UNIT : INCH [mm]                                                                      | REV. : PB |                                                                                                                                  |
|                            |                  |                                                                      |                                        | .XX                           |        | SCALE : N/A                                                                           | SIZE : A4 |                                                                                                                                  |
|                            |                  |                                                                      |                                        | .XXX                          | ±0.004 |  | PAGE : 5  |                                                                                                                                  |

THE INFORMATION CONTAINED HEREIN IS CONSIDERED "PROPRIETARY" TO BEL FUSE INC. AND SHALL NOT BE COPIED, REPRODUCED OR DISCLOSED WITHOUT THE WRITTEN APPROVAL OF BEL FUSE INC.

RoHS  
2002/95/EC

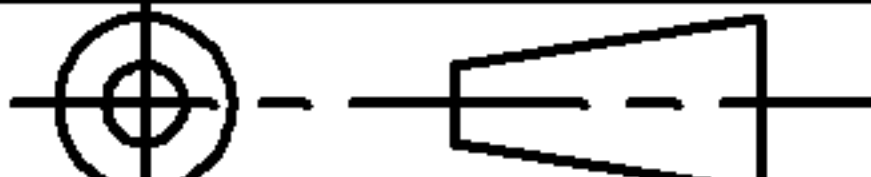


PRELIMINARY



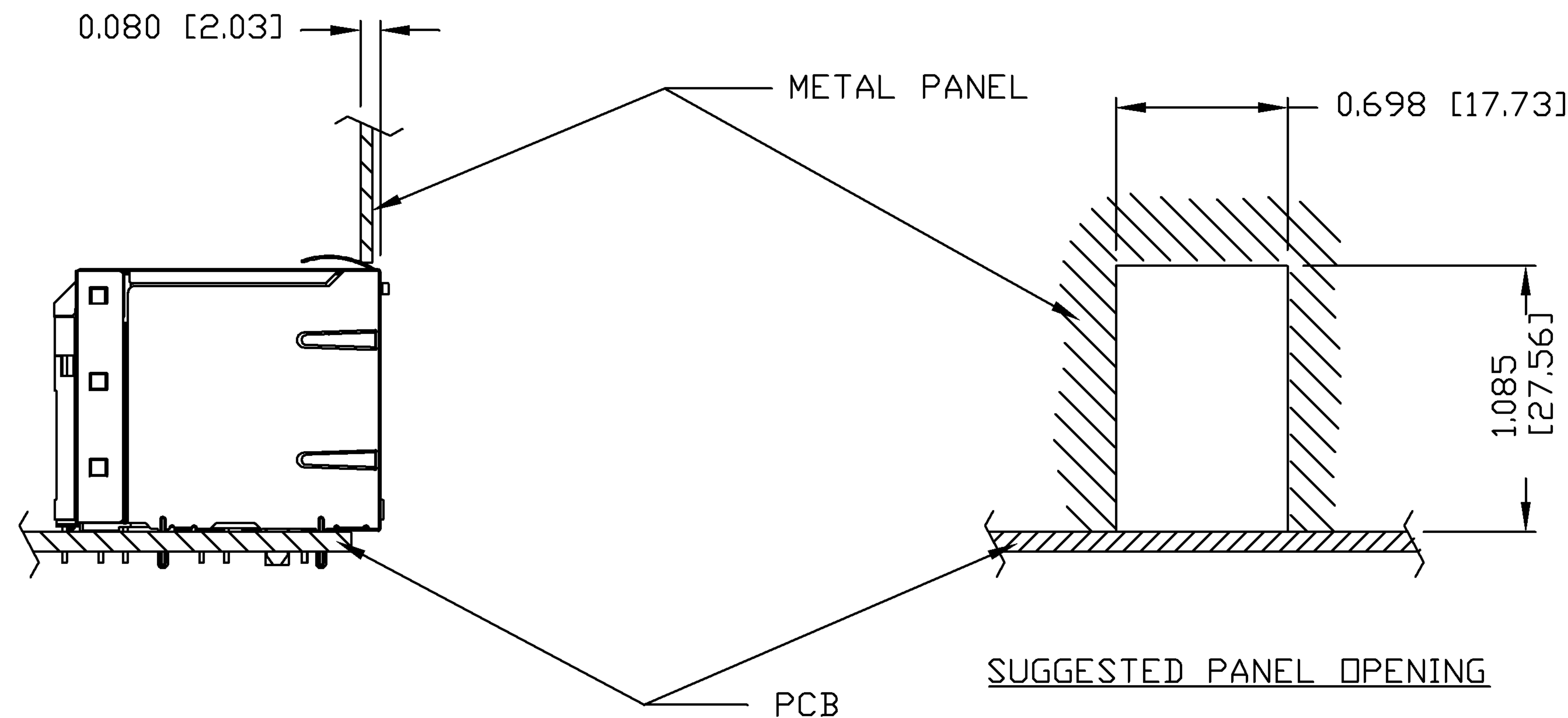
NOTES

THE SHADED AREA ON THE CUSTOMER BOARD ARE RECOMMENDED TO BE CLEAR OFF ANY VIA HOLE OR COMPONENT PAD.

|               |          |                                                                      |                        |      |               |        |                              |                                                                                       |                                                                                                                                  |
|---------------|----------|----------------------------------------------------------------------|------------------------|------|---------------|--------|------------------------------|---------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| ORIGINATED BY | DATE     | TITLE<br><br>2X1 gigabit MagJack®<br><br>(Extend Temperature of -E4) | PART NO. / DRAWING NO. |      | STANDARD DIM. |        | [ ] METRIC DIM. AS REFERENCE |                                                                                       | <br>COMPONENTS FOR A<br>CONNECTED<br>PLANET |
| CHEN BILL     | 11-06-08 |                                                                      | 0845-2R1T-DY           |      | TOL. IN INCH  |        | UNIT : INCH [mm] REV. : PB   |                                                                                       |                                                                                                                                  |
| DRAWN BY      | DATE     |                                                                      | FILE NAME              |      | .X            |        | SCALE : N/A SIZE : A4        |                                                                                       |                                                                                                                                  |
| XIAN JIAXIN   | 11-06-08 |                                                                      | 0845-2R1T-DY_PB.DWG    |      | .XX           |        | PAGE : 6                     |                                                                                       |                                                                                                                                  |
|               |          |                                                                      |                        | .XXX |               | ±0.004 |                              |  |                                                                                                                                  |

THE INFORMATION CONTAINED HEREIN IS CONSIDERED "PROPRIETARY" TO BEL FUSE INC. AND SHALL NOT BE COPIED, REPRODUCED OR DISCLOSED WITHOUT THE WRITTEN APPROVAL OF BEL FUSE INC.

PRELIMINARY



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<br>CHEN BILL | DATE<br>11-06-08 | TITLE<br><br>2X1 gigabit MagJack®<br><br>(Extend Temperature of -E4) | PART NO. / DRAWING NO.<br><br>0845-2R1T-DY | STANDARD DIM.<br>TOL. IN INCH |                                                                                       | [ ] METRIC DIM. AS REFERENCE |                                                                                       | <br>COMPONENTS FOR A<br>CONNECTED<br>PLANET |
| DRAWN BY<br>XIAN JIAXIN    | DATE<br>11-06-08 |                                                                      | FILE NAME<br><br>0845-2R1T-DY_PB.DWG       | .X                            |  | UNIT : INCH [mm]             | REV. : PB                                                                             |                                                                                                                                  |
|                            |                  |                                                                      |                                            | .XX                           |                                                                                       | SCALE : N/A                  | SIZE : A4                                                                             |                                                                                                                                  |
|                            |                  |                                                                      |                                            | .XXX                          |                                                                                       | ±0.004                       |  |                                                                                                                                  |
|                            |                  |                                                                      |                                            |                               |                                                                                       |                              |                                                                                       |                                                                                                                                  |