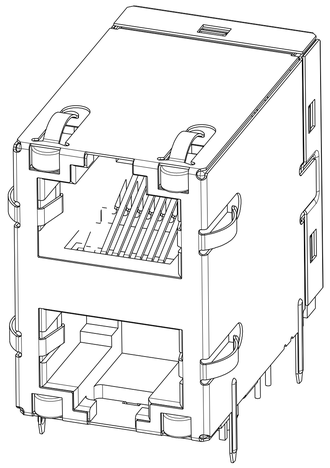
THIS DRAWING AND THE SUBJECT MATTER SHOWN THEREON ARE CONFIDENTIAL AND THE PROPERTY OF BEL/STEWART/TRP CONNECTOR AND SHALL NOT BE REPRODUCED, COPIED, OR USED IN ANY MANNER WITHOUT THE WRITTEN CONSENT OF TRP CONNECTOR.

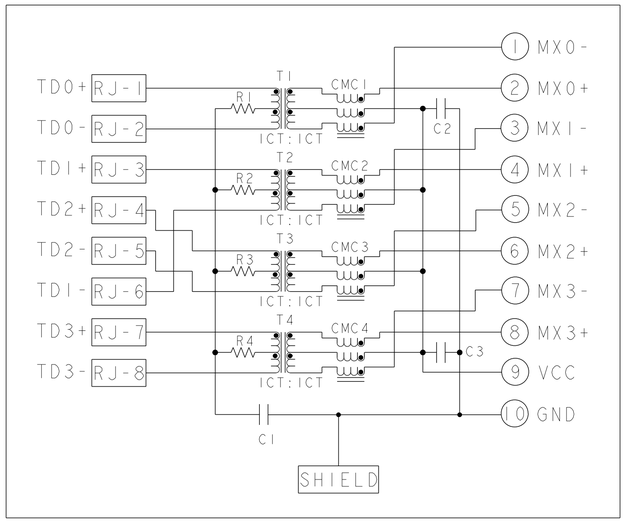
PRODUCT MAY BE PROTECTED BY ONE OR MORE OF THE FOLLOWING US PATENTS:
5736910 5939955 6425781 6428361 6554638 6840817 7123117
7429195 7717749 7808751 6217391 6149050 7924130

| REVISIONS | | | | | |
|---|---|---|---|---|---|
| P | LTR | DESCRIPTION | DATE | DWN | APVD |
| | D | EC-1411035 COMPANY LOGO CHANGE | 28DEC2014 | GZ | TY |



# S8G56ET GIGABIT CIRCUIT 2 7

## TOP AND BOTTOM PORTS




C1 = 1000pF, 2kV CAPACITOR
C2 - C3 = 10nF, 50V CAPACITORS
R1-R4 = 75 Ohms, 1/16 W, RESISTORS

1. MATERIALS:
PLASTIC HOUSING: BLACK, THERMOPLASTIC FLAMMABILITY RATING UL 94V-0
SHIELD: BRASS, PREPLATED WITH 0.76um MIN SEMI-BRIGHT NICKEL,
POST DIPPED WITH 2.54um MIN SAC SOLDER ON SOLDER TAILS,
CONTACTS: PHOSPHOR BRONZE, 1.27um MIN OVERALL NICKEL
UNDERPLATE WITH SELECT 1.27um MIN GOLD AT MATING INTERFACE
AND 2.54um MIN MATTE TIN ON SOLDER TAILS.

2 MAGNETICS
APPLICATION: 10/100/1000 BASE-T, EXTENDED TEMP
IMPEDANCE: 100 OHMS
TURNS RATIO (CHIP:CABLE): 1:1 ALL FOUR PAIRS
OPEN CIRCUIT INDUCTANCE (OCL): 350uH MIN @100kHz, 0.1VRMS,
8mADC BIAS FROM -40°C TO +85°C, ALL FOUR PAIRS
ALL FOUR PAIRS BI-DIRECTIONAL
PERFORMANCE @ 25°C:
INSERTION LOSS (IL): 1.1dB MAX FROM 0.5MHz TO 100MHz
RETURN LOSS (RL): 18dB MIN FROM 0.5MHz TO 40MHz
12-20LOG(f/80)dB MIN FROM 40.1MHz TO 100MHz
CROSSTALK ATTENUATION: 35dB MIN FROM 0.5MHz TO 40MHz
33-20LOG(f/50)dB MIN FROM 40.1MHz TO 100MHz
COMMON MODE REJECTION RATIO (CMRR): 30dB MIN FROM 0.5MHz TO 100MHz
ISOLATION VOLTAGE: 2250VDC (MAX) FOR 60 SECONDS WITH A RISE TIME OF 500V/SEC AND
WITH ALL PORTS CONNECTED

3 PART NUMBER, DATE CODE AND COUNTRY OF ORIGIN ARE LOCATED IN APPROXIMATE AREA SHOWN.DATE CODE: "YY" IS YEAR, "WW" IS WORK WEEK, "D" IS DAY OF WEEK, WITH SUNDAY=1

4 TRP CONNECTOR LOGO AND AGENCY APPROVAL LOGO ARE LOCATED IN APPROXIMATE AREA SHOWN.

5. OPERATING TEMP: FROM -40°C TO +85°C.

6. RJ45 CAVITY CONFORMS TO FCC RULES AND REGULATION PART 68 SUBPART F.

7 INDICATED MAGNETIC CONNECTIONS ARE SYMMETRICAL AND SUPPORT AUTO-MDI/MDIX.

8 DATUM AND BASIC DIMENSION ESTABLISHED BY CUSTOMER.

9 BASIC DIMENSION ESTABLISHED BY CUSTOMER, BUT MAY NOT BE GREATER THAN 5.08mm.

10 LEDS ARE DRIVEN WITH CONSTANT CURRENT AT APPROX 20mA
LED COLOR: DOMINANT WAVELENGTH (λD): GREEN 568 nm TYP. @ IF=20mA
FORWARD VOLTAGE (VF): GREEN 2.2V TYP. @ IF=20mA
DOMINANT WAVELENGTH (λD): YELLOW 588 nm TYP @ IF=20 mA
FORWARD VOLTAGE (VF): YELLOW 2.1V TYP @ IF=20 mA

11. THE PARTS ARE RECOMMENDED FOR WAVE SOLDERING PROCESS,
PEAK TEMPERATURE 260°C MAX, 10 SECONDS MAX.

| DIM A | BOTTOM LED 2 | BOTTOM LED 1 | TOP LED 2 | TOP LED 1 | PART NUMBER |
|---|---|---|---|---|---|
| 2.50 | GREEN | YELLOW | GREEN | YELLOW | 1840643-3 |
| 3.04 | GREEN | YELLOW | GREEN | YELLOW | 1-1840643-3 |
| 3.04 | GRN/YEL | GRN/YEL | GRN/YEL | GRN/YEL | 1-1840643-4 |

THIS DRAWING IS A CONTROLLED DOCUMENT.

DIMENSIONS: mm

TOLERANCES UNLESS OTHERWISE SPECIFIED:
0 PLC ±0.25
1 PLC ±0.25
2 PLC ±0.25
3 PLC ±-
4 PLC ±-
ANGLES ±-

PRODUCT SPEC: 108-104004
APPLICATION SPEC: -

DWN 30MAY2011 GABRIEL Z;FRANK LIU
CHK 30MAY2011 TONY YUAN
APVD 30MAY2011 KEITH ZHU

trp CONNECTOR a bel group — DONGGUAN CHINA

MODEL NAME: MAGJACK STACK Non-PoE

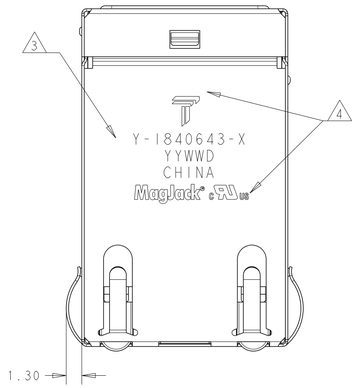
DESC: 2X1 S8G56ET GIGABIT W/ LED

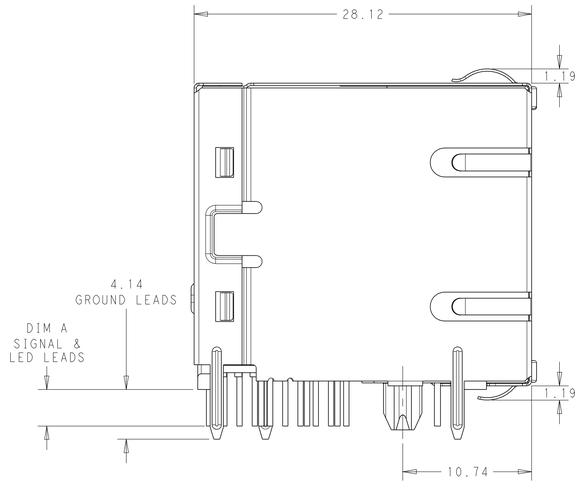
SIZE A1 | CAGE CODE | DRAWING NO C-1840643 | RESTRICTED TO -

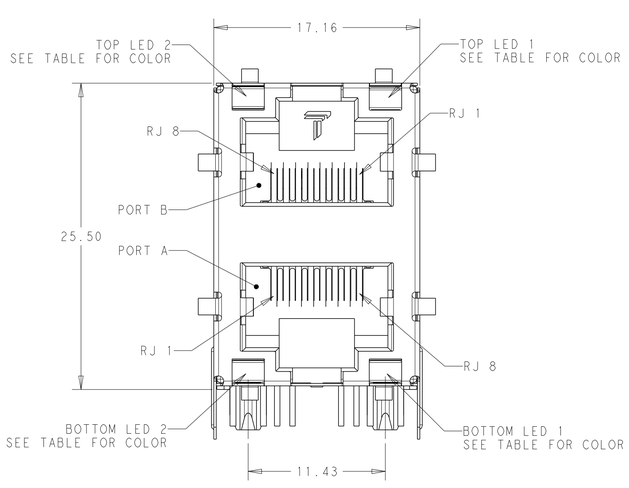
CUSTOMER DRAWING | SCALE 4:1 | SHEET 1 OF 4 | REV D

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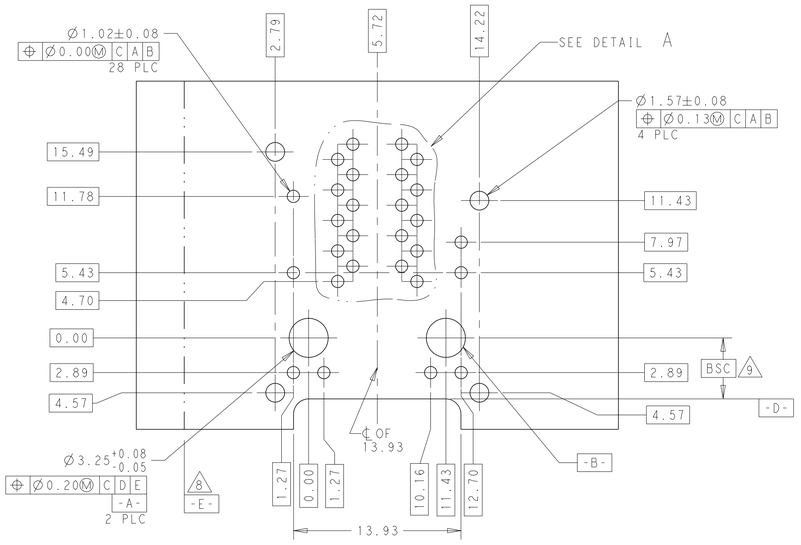
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SIZE A1 | CAGE CODE | DRAWING NO C-1840643 | RESTRICTED TO -

CUSTOMER DRAWING | SCALE 4:1 | SHEET 2 OF 4 | REV D

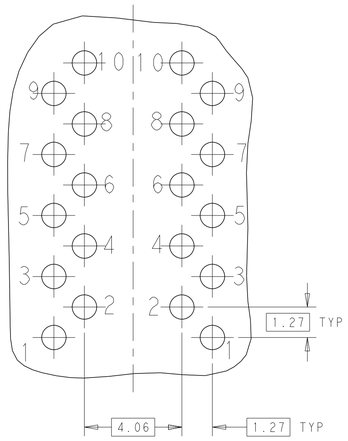
xxxxx

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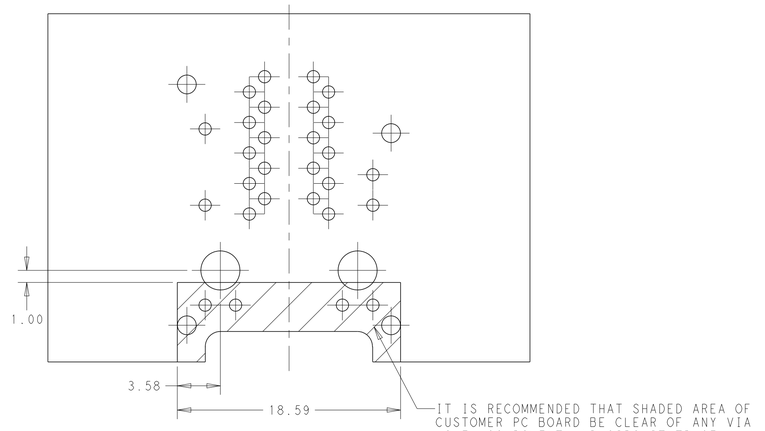


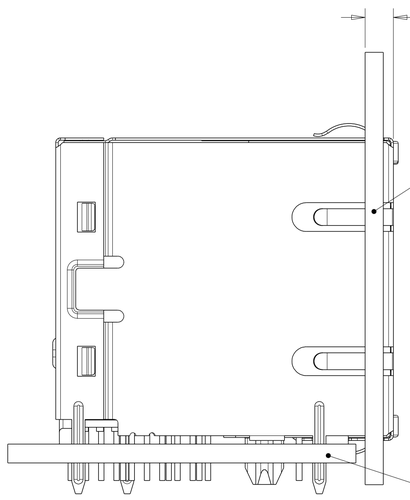

RECOMMENDED PCB LAYOUT
COMPONENT SIDE VIEW



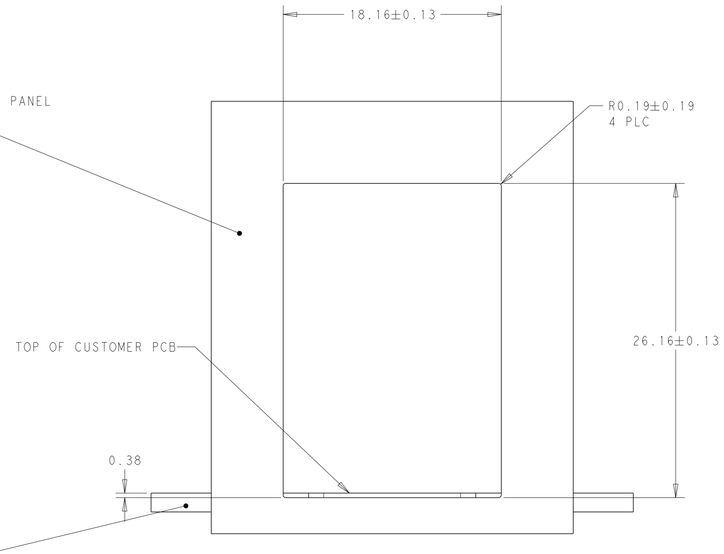




DETAIL A
SCALE 8:1



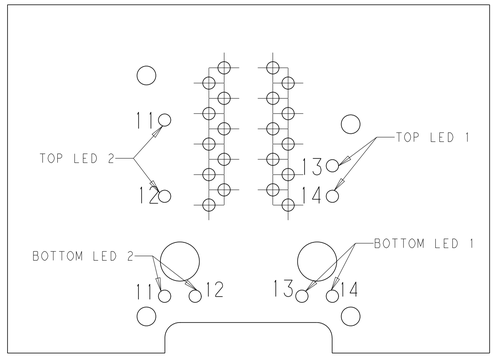

SHOWN WITH PANEL AND
CUSTOMER PCB ASSEMBLY




SUGGESTED PANEL CUTOUT DIMENSIONS

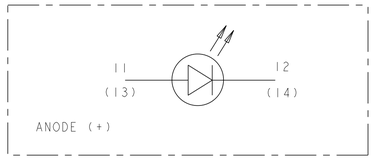
| | | | |
|---|---|---|---|
| THIS DRAWING IS A CONTROLLED DOCUMENT. | | DWN 30MAY2011 GABRIEL Z;FRANK LIU | trp CONNECTOR a bel group — DONGGUAN CHINA |
| | | CHK 30MAY2011 TONY YUAN | |
| DIMENSIONS: mm | TOLERANCES UNLESS OTHERWISE SPECIFIED: 0 PLC ±0.25; 1 PLC ±0.25; 2 PLC ±0.25; 3 PLC ±-; 4 PLC ±-; ANGLES ±- | APVD 30MAY2011 KEITH ZHU | DESC 2X1 S8G56ET GIGABIT W/ LED |
| PRODUCT SPEC 108-104004 | APPLICATION SPEC - | MODEL NAME MAGJACK STACK Non-PoE | SIZE A1 · CAGE CODE · DRAWING NO C-1840643 · RESTRICTED TO - |
| | | CUSTOMER DRAWING | SCALE 4:1 · SHEET 3 OF 4 · REV D |

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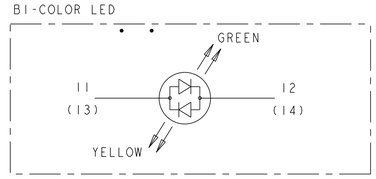


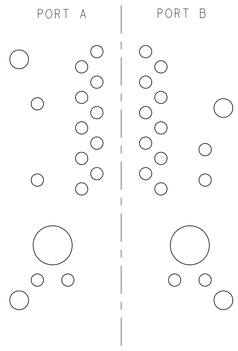

LED HOLE DESIGNATIONS
VIEWED FROM COMPONENT SIDE

SINGLE COLOR LED




BI-COLOR LED




PORT ASSIGNMENT
COMPONENT SIDE VIEW

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