

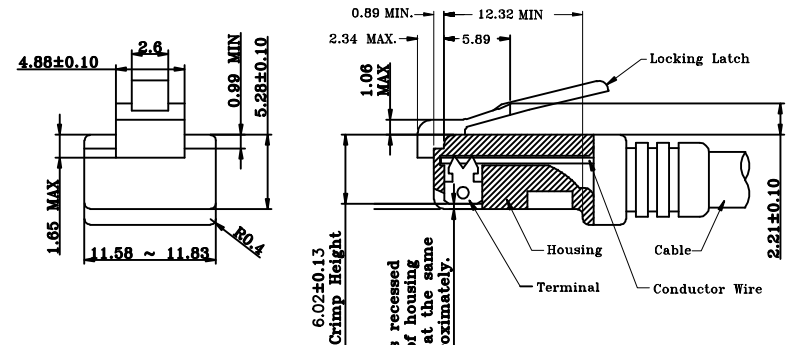
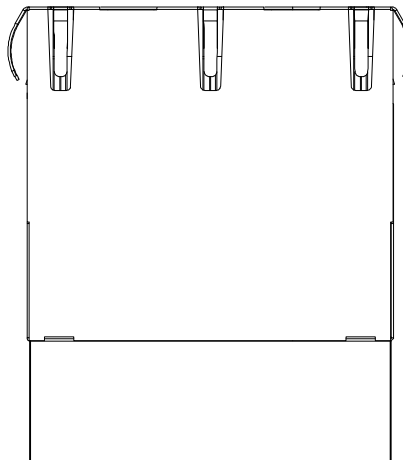
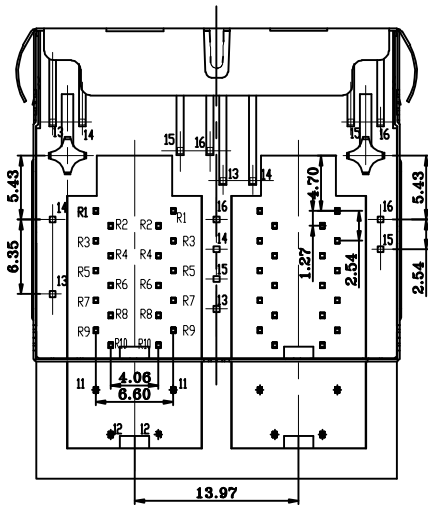
DESCRIPTION:  
RJ45 With internal Magnetics Connector  
Designed to support such applications as: Ethernet Equipment Complex, Switches, Routers, Firewalls, Servers and Hub  
Internal magnetics are 100% electrically tested for functionality per IEEE802.3af/at requirement

ELECTRICAL:  
RoHS peak wave solder temperature rating 235°C  
High performance for maximum EMI suppression  
JACK CAVITY CONFORMS TO FCC RULES AND REGULATIONS, PART 68 SUBPART F.  
INSERTION FORCE: 2 CONTACTS----350g 4 CONTACTS----500g  
6 CONTACTS----750g 8 CONTACTS----900g  
10 CONTACTS----1050g

MECHANICAL:  
RETENTION STRENGTH: 7.7Kgs BETWEEN JACK AND PLUG  
DURABILITY: 750 MATING CYCLES Mini  
HOUSING: 1) GLASS FILLED PA66 (UL 94V-0)  
2) GLASS FILLED PA46/LCP (UL 94V-0)  
3) GLASS FILLED PBT (UL 94V-0)

MATERIAL:  
SPRING WIRE:  
1) 0.2-0.45mm DIA PHOSPHOR BRONZE GOLD PLATING OVER NICKEL  
2) 0.2-0.35mm THICKNESS PHOSPHOR BRONZE ALLOY SELECTIVE GOLD PLATING OVER NICKEL;  
GOLD PLATING: 3μ#, 6μ#, 15μ#, 30μ#, 50μ#  
TOLERANCES UNLESS OTHERWISE SPECIFIED :  
0-10±0.15, 10-20±0.2, 20-40±0.25, 40-70±0.3, 270±0.4

1.Recommend Plug Dim



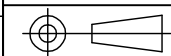
All contacts recessed below top of housing and must be at the same height approximately.

All dimensions follow :  
FCC subpart F, 68,500, Figure (C)(2)(i)  
IEC 60603-7  
STANDARD MODULAR PLUG ASSEMBLY

- NOTES : 1. Tolerance : PCB ±0.05mm  
Connector ±0.25mm  
2. Connector dimensions comply with FCC 68.5 dimension requirements

**B-TOP** 东莞市博腾电子科技有限公司  
Dongguan BtopTech Electronic Technology Co., Ltd.

|                |       |            |        |
|----------------|-------|------------|--------|
| DIM.           | TOL.  | UNIT:      | mm     |
| X              | ±0.30 | SCALE:     | 1:1    |
| X.X            | ±0.20 | SHEET:     | 1 of 2 |
| X.XX           | ±0.15 | DWG. SIZE: | A4     |
| X.XXX          | ±0.10 | LAYER:     | XXXX   |
| GENERAL ANGLE: |       | ±3°        |        |



WEBSITE: WWW.BTOPTECH.COM  
WWW.BTOPTECH.CN  
TEL: 0769-38928198  
FAX: 0769-38928199

DRAWN:

CHECKED:

APPROVED:

TITLE: B59(318-72)GP8-235-2623-C12

PART NO.: 2X2Port 10/100/1000BASE PoE W/ SHELL W/ LED

|      |             |         |       |             |
|------|-------------|---------|-------|-------------|
| XA   | NEW RELEASE | xxxx    | Jason | 2018-Nov-29 |
| REV. | DESCRIPTION | ECN NO. | NAME  | DATE        |

REVISIONS

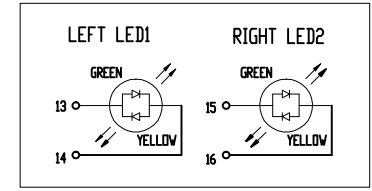
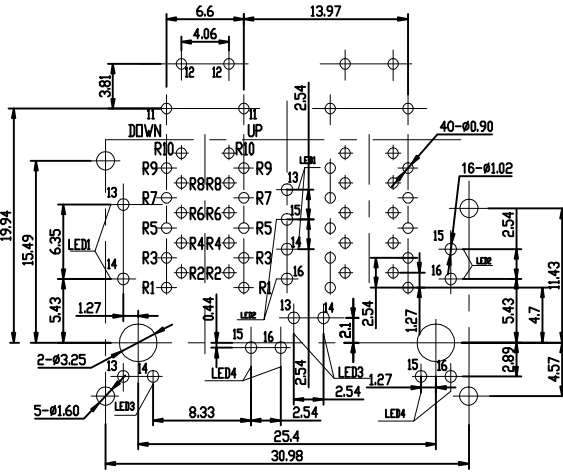
Meets or exceeds IEEE 802.3 standard for 10/100/1000 Base-T  
 350 uH minimum OCL with 8mA DC bias current  
 Available with or without LEDs  
 Minimum 1500Vrms isolation per IEEE802.3 requirement  
 DC Current/Voltage Rating-PoE+: 720mA MAX @57VDC(Continuous)  
 Operating temperature -40°C to +85°C  
 Storage temperature -40°C to +85°C

4.Pin Assignment For PCB Layout



2.TRANSFORMER ELECTRICAL SPECIFICATIONS AT 25°C;

| Insertion Loss (dB max.) | Return Loss (dB min.) |           |           |            | Cross talk (dB min.) |           |            | C.M.R. (dB min.) |            | Hi - pot ( Vrms ) |
|--------------------------|-----------------------|-----------|-----------|------------|----------------------|-----------|------------|------------------|------------|-------------------|
| 1-125MHz                 | 1-30 MHz              | 30-60 MHz | 60-80 MHz | 80-100 MHz | 1-30 MHz             | 30-60 MHz | 60-100 MHz | 10-60 MHz        | 60-100 MHz | 60Hz/1min.        |
| -1.2                     | -18                   | -16       | -12       | -10        | -40                  | -35       | -30        | -40              | -30        | 1500              |

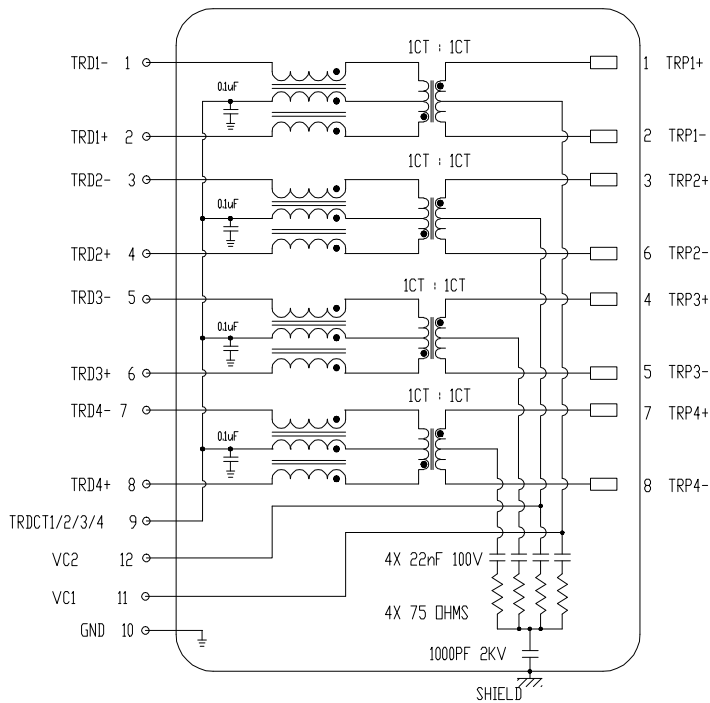


| Standard LED Color | LED Wavelength | Forward (V MAX) | Typical (V TYP) | Luminous Intensity |
|--------------------|----------------|-----------------|-----------------|--------------------|
| Green              | 560-580 nm     | 2.5V            | 2.1-2.2V        | 9-25 MCD           |
| Yellow             | 580-610 nm     | 2.5V            | 2.1-2.2V        | 9-30 MCD           |
| Orange             | 580-610 nm     | 2.5V            | 2.1-2.2V        | 50-100 MCD         |

3.SCHEMATIC:

PHY Side

Cable Side



Suggested PCB Pad Layout Component Side View

LED Specification

5.ORDER INFORMATION

B N (Z) G X - M-A B C D - E H I

"B" with the company code

Series of products:  
 60:Double deck RJ45 connector+transformer series(in side long footprint);  
 59:Double deck RJ45 connector+transformer series(in vertical footprint);  
 50: Single RJ45 + transformer series;  
 52/53/55/56 LED/56/57/59: Ordinary RJ45 series;DX: that strip line series;  
 40: Conversion said Connectivity  
 80: Series that UK;  
 91: Automotive connector public Block;  
 92: Automotive connector mother Block;  
 93: HDMI the head;  
 94: HDMI mother Block;  
 95: SMT series;  
 96: RHS for switches

Family code (sequence id) :1-99

Type of product code:  
 G: Gigabit RJ45 transformer;  
 F: 100Base RJ45 transformer;  
 W: for no transformer RJ45 products;  
 M: Series for board-to-board code  
 Number of magnetic ring

The No. of circuit

Product definition LOGO:  
 1-Press "B-TOP";2-No "B-TOP";  
 3- Other companies LOGO

Product definition plastic materials:  
 1-PA66,2-PA46, 3-PA, 4-PA6, 5-PBT,  
 6-ABS, 7-PA9T,8-PC,9-LCP

Pin definition of the product:  
 F-Pin after; B-Pin back; C- No definition of the product

Electroplating product definition:  
 gold-plated terminals(degree after nickel plated)  
 1-Fu; 2-3u;3-6u; 4-15u; 5-30u;  
 6-50u;7-(Ni-50u,Sn-80-120u).

Product shielding definition:  
 0-no shielding shell; 1-without shielding shell shrapnel;  
 2-shielding a shell shrapnel; 3-a half-shield shell;

Products luminous definition:  
 0- No LED; 1-Left Yellow Right Green; 2- Left Green Right Yellow; 3- Double Green; 4- Double Yellow; 5- LED straight for the pin; 6- A special definition; 7- Single linear LEDs

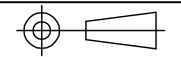
Products output:  
 1-2X1;2-2X2;4-2X4; 5-2X5; 6-2X6; 8-2X8; A-1X1;  
 B-1X2; C-1X4; D-1X5; E-1X6; T-1X8; U-(USB+RJ45); P-TAB  
 UPIX1; H-TAB UPIX2; K-TAB UPIX4.

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DIM. TOL.  
 X ±0.30  
 X.X ±0.20  
 X.XX ±0.15  
 X.XXX ±0.10  
 GENERAL ANGLE:  
 ±3°



UNIT: mm  
 SCALE: 1:1  
 SHEET: 2 of 2  
 DWG. SIZE: A4  
 LAYER: XXXX

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