

**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.

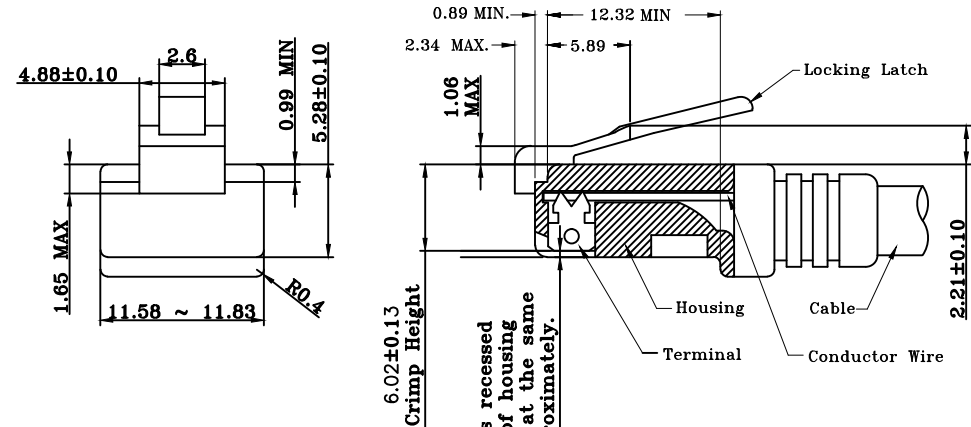
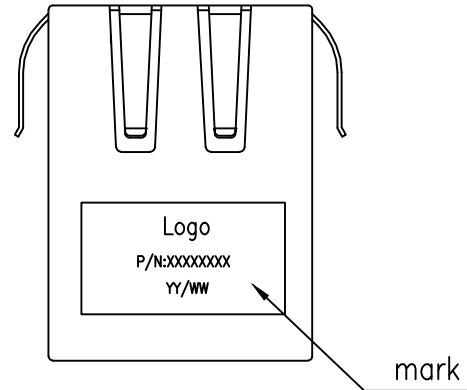
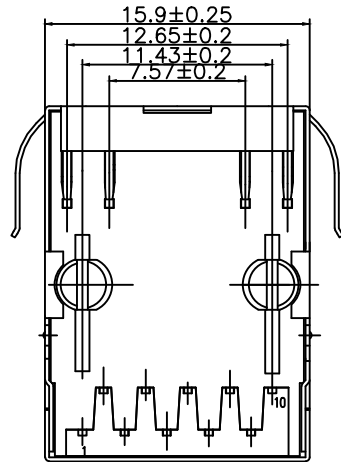
**INSERTION FORCE:**  
2 CONTACTS----350g 4 CONTACTS----500g  
6 CONTACTS----750g 8 CONTACTS----900g  
10 CONTACTS----1050g

**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, ≥70±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  
Btop Tech Dongguan BtopTech Electronic Technology Co., Ltd.

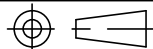
**DIM. TOL.**  
X ±0.30  
X.X ±0.20  
X.XX ±0.15  
X.XXX ±0.10  
**GENERAL ANGLE:**  
±3°

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

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

**DRAWN:**  
**CHECKED:**  
**APPROVED:**

**TITLE:** B50(02-86)G8-09-A223-B52  
**PART NO.:** TAB-DOWN 21.6 1X1Port 10/100/1000BASE W/ SHELL W/ LED



|      |             |         |       |             |
|------|-------------|---------|-------|-------------|
| XA   | NEW RELEASE | xxxx    | Jason | 2018-May-19 |
| REV. | DESCRIPTION | ECN NO. | NAME  | DATE        |

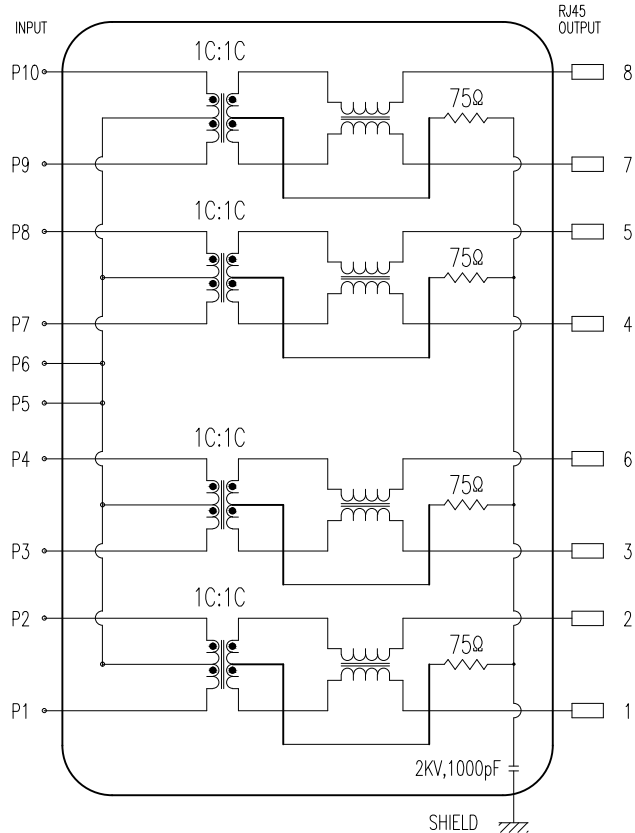
REVISIONS

Meets or exceeds IEEE 802.3 standard for 10/100/1000 Base-TX  
 350 uH minimum OCL with 8mA DC bias current  
 Available with or without LEDs  
 Minimum 1500Vrms isolation per IEEE802.3 requirement  
 Operating temperature 0°C to +70°C  
 Storage temperature -40°C to +85°C

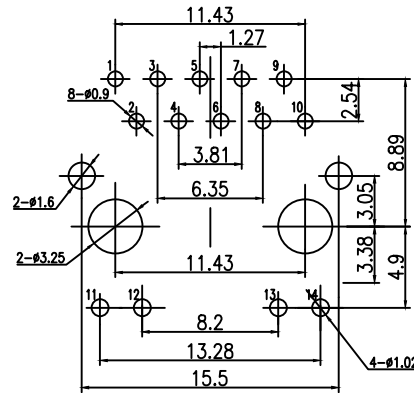
2. TRANSFORMER ELECTRICAL SPECIFICATIONS AT 25°C;

| 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            |

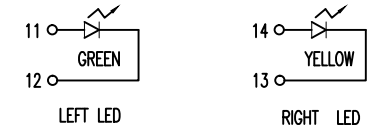
3. SCHEMATIC:



4. Pin Assignment For PCB Layout



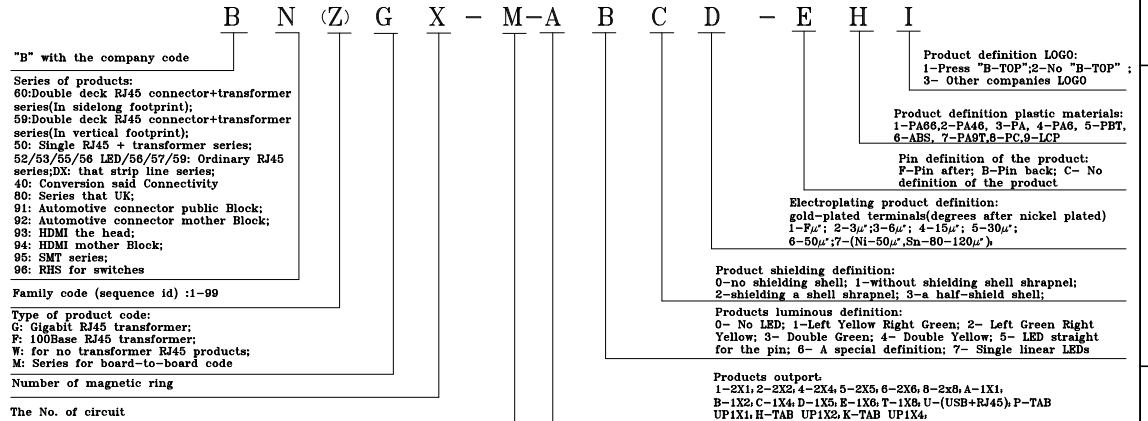
Suggested PCB Pad Layout  
Component Side View



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

LED Specification

5. ORDER INFORMATION

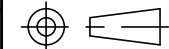


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TITLE: B50(02-86)G8-09-A223-B52

PART NO.: TAB-DOWN 21.6 1X1Port 10/100/1000 BASE W/ SHELL W/ LED

DIM. 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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REVISIONS