

**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

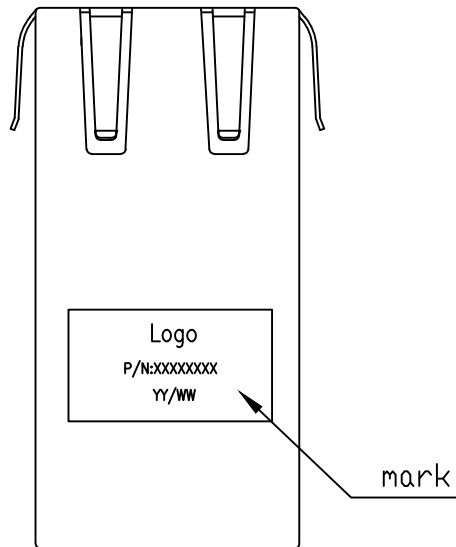
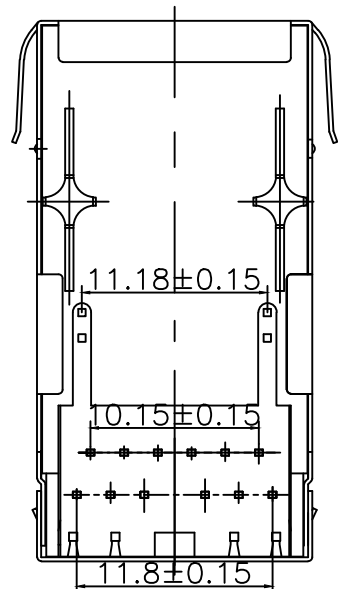
**ELECTRICAL:**  
RoHS peak wave solder temperature rating 235°C  
High performance for maximum EMI suppression  
JACK CAVITY CONFORMS TO FCC RULES AND REGULATIONS, PART 68 SUBPART F.

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

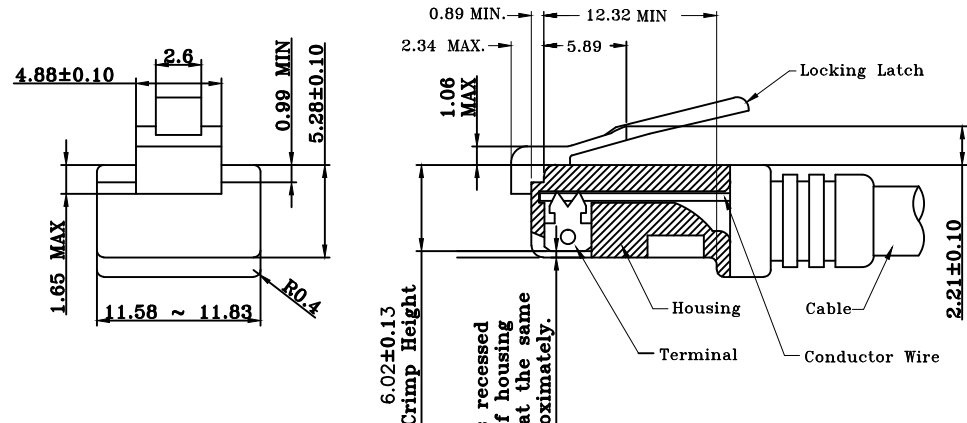
**MECHANICAL:**  
RETENTION STRENGTH: 7.7Kgs BETWEEN JACK AND PLUG  
DURABILITY: 750 MATING CYCLES Mini

**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.

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

<b>WEBSITE:</b>	WWW.BTOPTECH.COM
<b>TEL:</b>	0769-38928198
<b>FAX:</b>	0769-38928199
<b>DRAWN:</b>	
<b>CHECKED:</b>	
<b>APPROVED:</b>	

<b>TITLE:</b>	B50(150-94)GP8-15G-P123-F52
<b>PART NO.:</b>	TAB-UP 1.3INch 1X1Port 10/100/1000BASE PoE W/ SHELL W/ LED

<b>XA</b>	<b>NEW RELEASE</b>	<b>xxxx</b>	<b>Jason</b>	<b>2019-Feb-19</b>
<b>REV.</b>	<b>DESCRIPTION</b>	<b>ECN NO.</b>	<b>NAME</b>	<b>DATE</b>

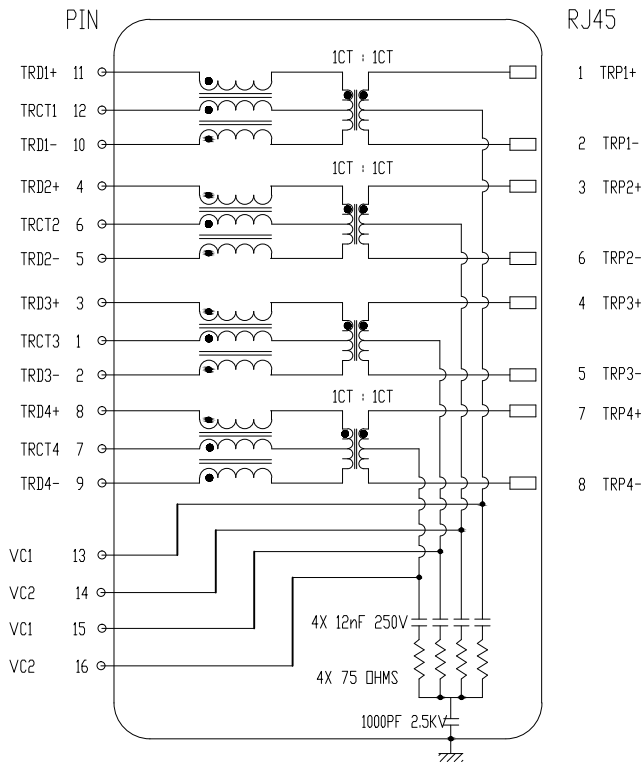
REVISIONS

Meets or exceeds IEEE 802.3 standard for 10/100/1000 Base-T  
 350 uH minimum OCL with 18mA DC bias current  
 Available with or without LEDs  
 Minimum 1500Vrms isolation per IEEE802.3 requirement  
 DC Current/Voltage Rating-PoE: 1.37A MAX @57VDC(Continuous)  
 Operating temperature -40°C to +85°C  
 Storage temperature -40°C to +85°C

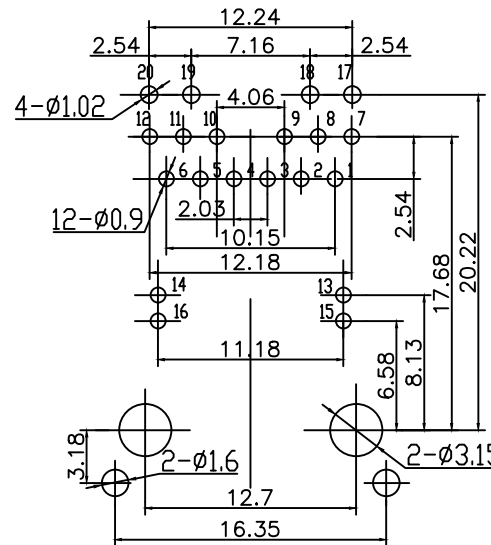
2. TRANSFORMER ELECTRICAL SPECIFICATIONS AT 25°C;

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.
-1.5	-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

5. ORDER INFORMATION

"B" with the company code

Series of products:  
 60: Double deck RJ45 connector+transformer series(In sidelong 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;  
 93: 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:  
 C: 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

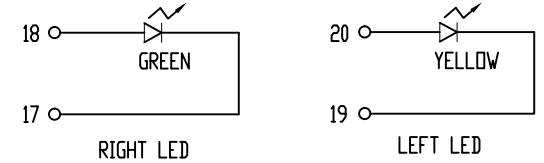
Electroplating product definition:  
 gold-plated terminals(degrees after nickel plated)  
 1-Fu; 2-3u; 3-6u; 4-15u; 5-30u;  
 6-50u; 7-(Ni-50u; Sn-80-120u)

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  
 UP1X1, H-TAB UP1X2, K-TAB UP1X4;

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



LED Specification

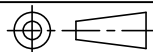
Standard LED Color	LED Wavelength	Forward (V MAX)	Typical (V TYP)	Luminous Intensity
Green	560-580 nm	2.5V	2.1-2.2V	9-25 MCD
Yellow	580-610 nm	2.5V	2.1-2.2V	9-30 MCD
Orange	580-610 nm	2.5V	2.1-2.2V	50-100 MCD

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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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REVISIONS