

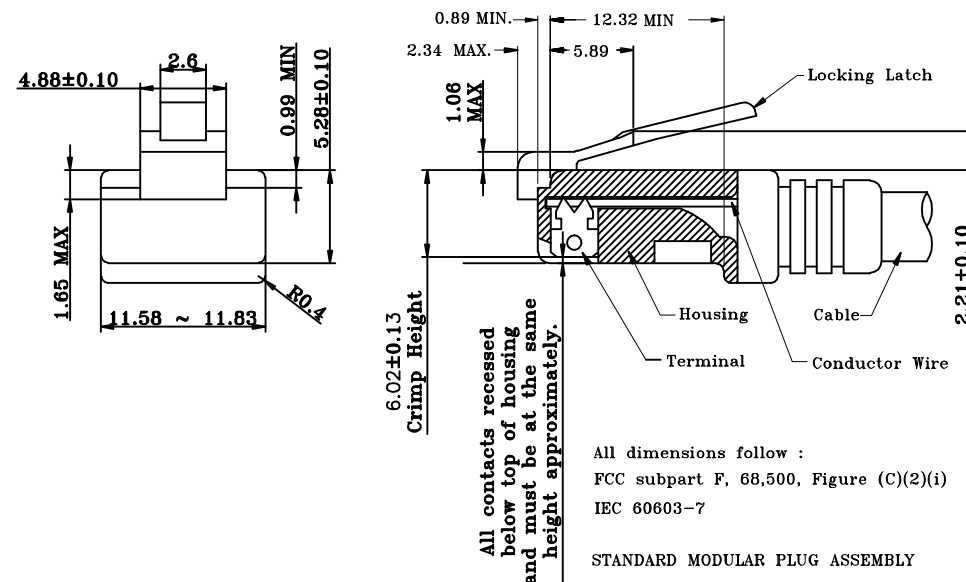


DESCRIPTION:  
RJ45 With internal Magnetics Connector  
Designed to support such applications as: Ethernet Equipment Complex,  
Switches, Routers, Firewalls, Servers and Hub  
Internal magnetics are 100% electrically tested for functionality  
per IEEE802.3af/at requirement

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

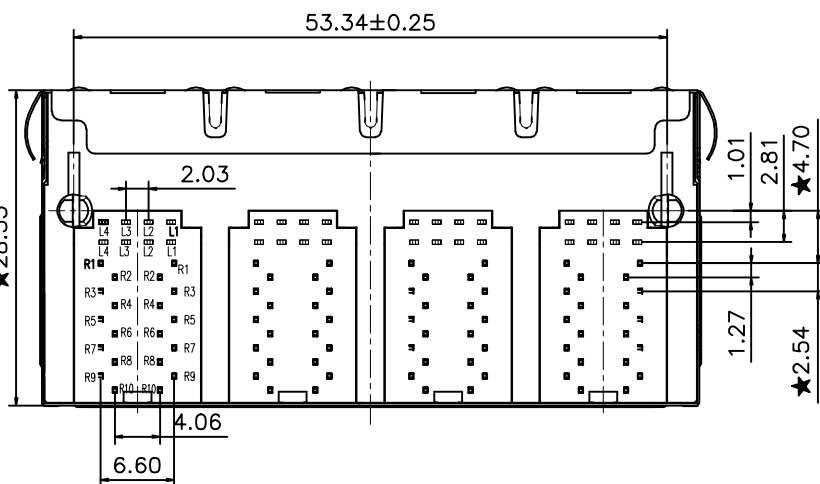
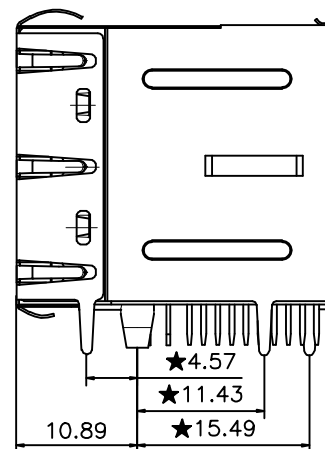
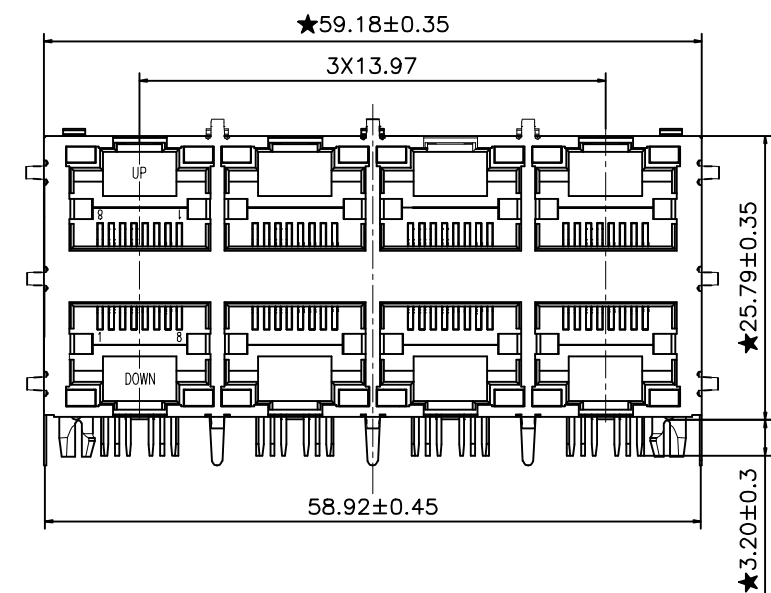
MECHANICAL:  
RETENTION STRENGTH: 7.7Kgs BETWEEN JACK AND PLUG  
DURABILITY: 750 MATING CYCLES Mini  
HOUSING: 1) GLASS FILLED PA66 (UL 94V-0)  
2) GLASS FILLED PA46/LCP (UL 94V-0)  
3) GLASS FILLED PBT (UL 94V-0)  
MATERIAL:  
SPRING WIRE:  
1) 0.2-0.45mm DIA PHOSPHOR BRONZE GOLD PLATING OVER NICKEL  
2) 0.2-0.35mm THICKNESS PHOSPHOR BRONZE ALLOY SELECTIVE GOLD  
PLATING OVER NICKEL;  
GOLD PLATING: 3μ#, 6μ#, 15μ#, 30μ#, 50μ#  
WORKING TEMPERATURE: -20°C~70°C  
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 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



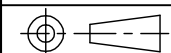
东莞市博腾电子科技有限公司

Dongguan BtopTech Electronic Technology Co., Ltd.

TITLE: B59(111-110)T8-241-4623-C12(2X4PORT G-G EMI)

PART NO.: 2X4Port 2.5/5/10G BASE W/ SHELL W/LED

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: 1 of 2  
DWG. SIZE: A4  
LAYER: XXXX

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

DRAWN:

CHECKED:

APPROVED:

REV.	DESCRIPTION	ECN NO.	NAME	DATE
XA	NEW RELEASE	xxxx	Jason	2017-Oct-19

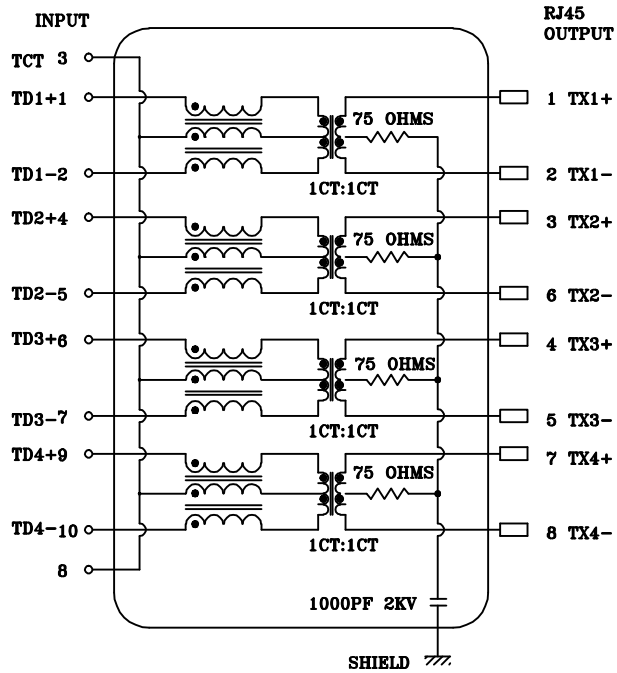
### REVISIONS

Meets or exceeds IEEE 802.3 standard for 2.5/5G/10G Base  
200 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

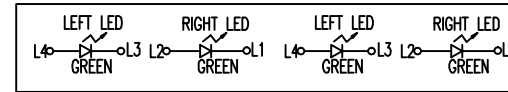
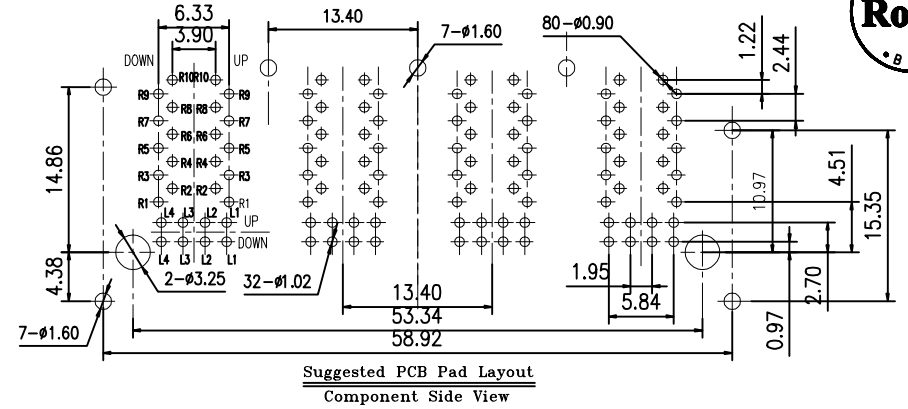
2. TRANSFORMER ELECTRICAL SPECIFICATIONS AT 25°C:

Insertion Loss (dB max.)			Return Loss (dB min.)				C.M.R. (dB min.)	Hi - pot ( Vrms )
1-40 MHz	40-125 MHz	125-650 MHz	1-40 MHz	40-100 MHz	100-400 MHz	125-500 MHz	1-250 MHz	60Hz/1min.
-0.8	-1.2	-3.0	-18	-14	-8	-5	-40	1500

3. SCHEMATIC:



4. Pin Assignment For PCB Layout



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

"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 (degrees after nickel plated)  
1-8μ; 2-3μ; 3-6μ; 4-15μ; 5-30μ;  
6-50μ; 7-(Ni-50μ, Sn-80-120μ)

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

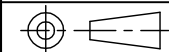
Products output:  
1-2X1; 2-2X2; 4-2X4; 5-2X5; 6-2X6; 8-2X8; A-1X1;  
B-1X2; C-1X4; D-1X5; E-1X6; T-1X8; U-(USB+RJ45); P-TAB  
UP1X1; H-TAB UP1X2; K-TAB UP1X4;

**B-TOP** 东莞市博腾电子科技有限公司  
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REVISIONS