

**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

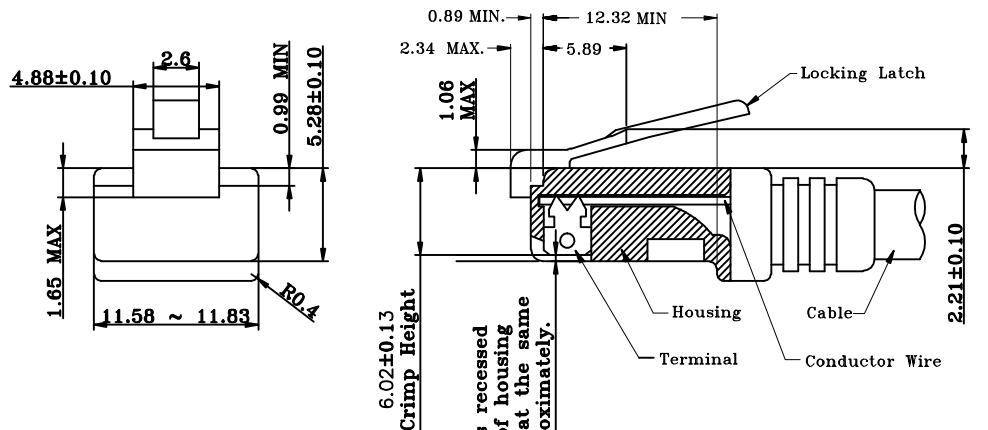
**HOUSING:**  
 1) GLASS FILLED PA66 (UL 94V-0)  
 2) GLASS FILLED PA46/LCP (UL 94V-0)  
 3) GLASS FILLED PBT (UL 94V-0)

**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  
 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(59-12)F4-03B-1013-C12
PART NO.:	10/100BASE 2X1Port W/ SHELL W/O LED

REV.	DESCRIPTION	ECN NO.	NAME	DATE
XA	NEW RELEASE	xxxx	Jason	2017-Oct-19
<b>REVISIONS</b>				

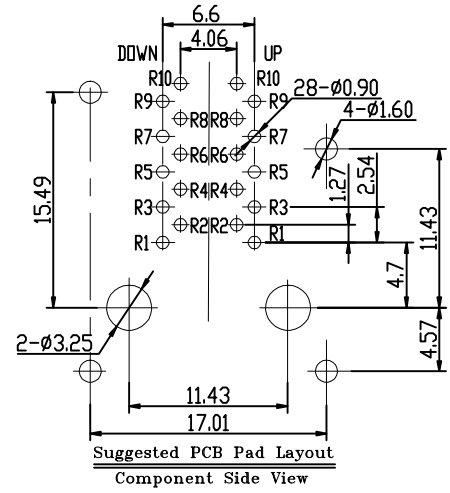
Meets or exceeds IEEE 802.3 standard for 10/100/1000 Base-TX  
 350 uH minimum OCL with 8mA DC bias current  
 Available with or without LEDs  
 Minimum 1500Vrms isolation per IEEE802.3 requirement  
 Operating temperature -40°C to +85°C  
 Storage temperature -40°C to +85°C

4.Pin Assignment For PCB Layout

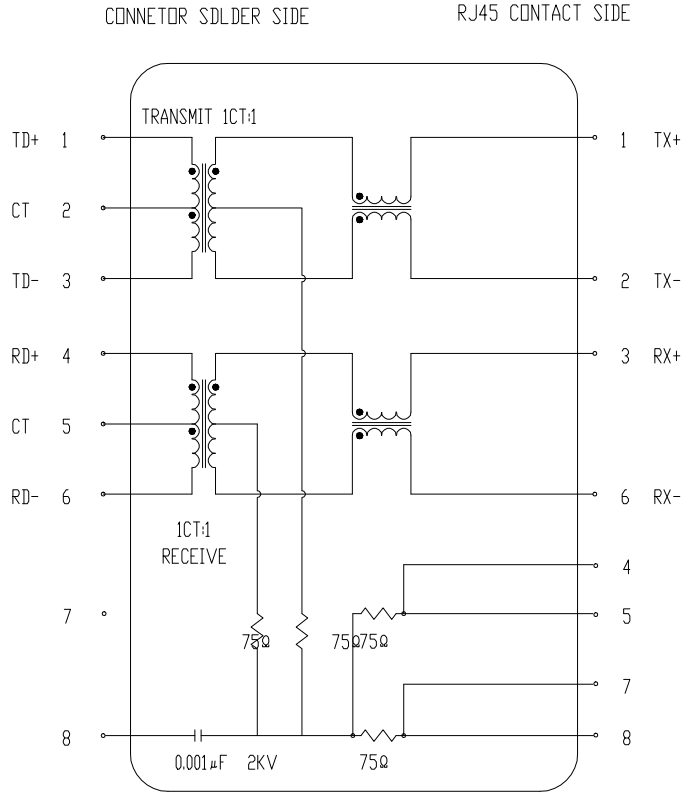


2.TRANSFORMER ELECTRICAL SPECIFICATIONS AT 25°C;

Insertion Loss (dB max.)	Return Loss (dB min.)				Cross talk (dB min.)			C.M.R. (dB min.)		Hi - pot ( Vrms )
	1-30 MHz	30-60 MHz	60-80 MHz		1-30 MHz	30-60 MHz	60-100 MHz	10-60 MHz	60-100 MHz	
-1.0	-18	-16	-12		-40	-35	-30	-40	-30	1500



3.SCHEMATIC:



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 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;  
 92: Automotive connector mother Block;  
 93: HDMI the head;  
 94: HDMI mother Block;  
 95: SMT series;  
 96: RRS 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-FC,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-Fμ; 2-3μ; 3-6μ; 4-15μ; 5-30μ;  
 6-60μ; 7-(Ni-60μ,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 outport:  
 1-2X1, 2-2X2, 4-2X4, 5-2X5, 6-2X6, 6-2X8, A-1X1;  
 B-1X2, C-1X4, D-1X5, E-1X6, T-1X8, U-(USB+RJ45), P-TAB  
 UP1X1, H-TAB UP1X2, K-TAB UP1X4;

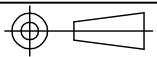
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 Dongguan BtopTech Electronic Technology Co., Ltd.

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

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