

Dongguan BroadTop Electronic Technology Co., Ltd.

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1xN Tab Up Magnetic RJ45 Jack

B-TOP Magnetic RJ45 Modular Jack Connectors with integrated transformer for 10/100/Gigabit in right angle tab(latch) up single port configuration meet IEC60603-7 performance requirements. Tab up RJ45 LAN Jack with integrated magnetics have shields with EMI fingers on top and on both sides for effective grounding. There are 3 different mechanical parts of tab up: long body(1.3 inch/C), standard body(1 inch/B) and small body(0.85 inch/A). Integrated LEDs are available in a variety of colors.

1) 10/100 Base-TX Magnetic RJ45 LAN Jack are available in three configurations: with resistors on unused pairs but without internal capacitor, with resistors on unused pairs and internal capacitor or with Full Bob Smith termination. PoE enabled, with pin 9 and pin 10 to provide power feeding.

2) Gigabit Magnetic RJ45 LAN Jack have an integrated full Bob Smith termination, and are available in two standard configurations: with the 2KV capacitor terminated on Pin 10, or with the 2KV capacitor terminated to the shield. PoE and PoE+ enabled with long body type(Mech C), with extra pins to provide power feeding.

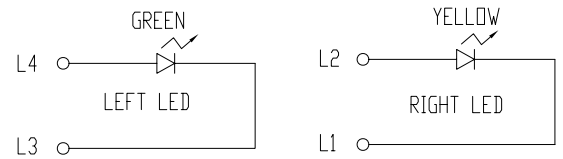
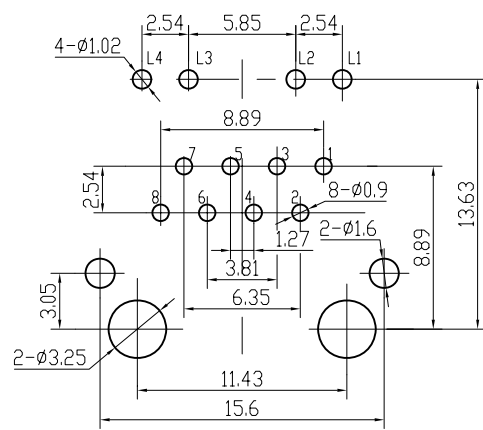
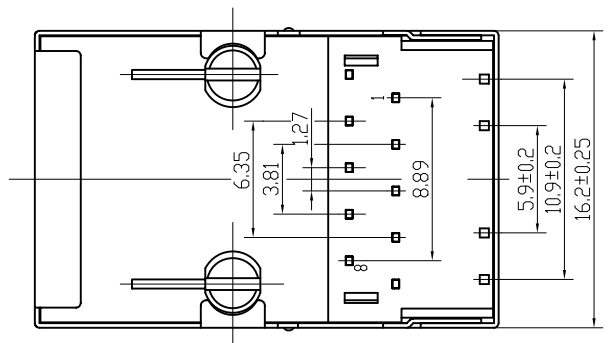
Main use: Network Interface Cards (NIC), LAN-on-Motherboard (LOM), Set-Top Box, DVD player/recorder, Switch, Hub, ADSL modems, Optical modems, Game consoles, IP Phone, and PC applications.



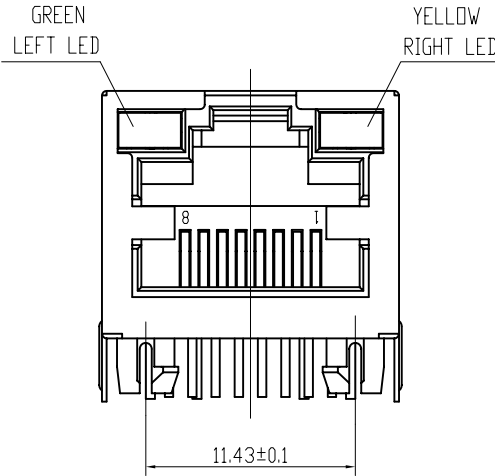
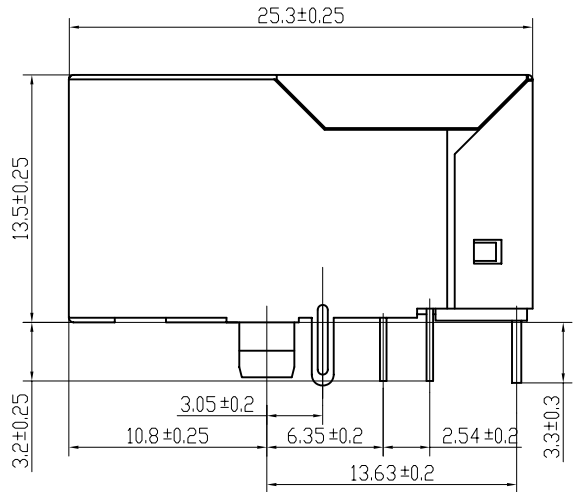
Find more tab up magnetic rj45 jack pictures in the [gallery](#).

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PCB BOARD LAYOUT



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

1: LED intensity/wavelength measured with Photo Research PR-650 Colorimeter
 2: With a forward current of 20 mA, Absolute Maximum Ratings (Ta=25°C)

1: TOLERANCES UNLESS OTHERWISE SPECIFIED :
 0~10±0.15, 10~20±0.2, 20~40±0.25,
 40~70±0.3, ≥70±0.4

2: JACK CAVITY CONFORMS TO FCC RULES AND REGULATIONS, PART 68 SUBPART F.

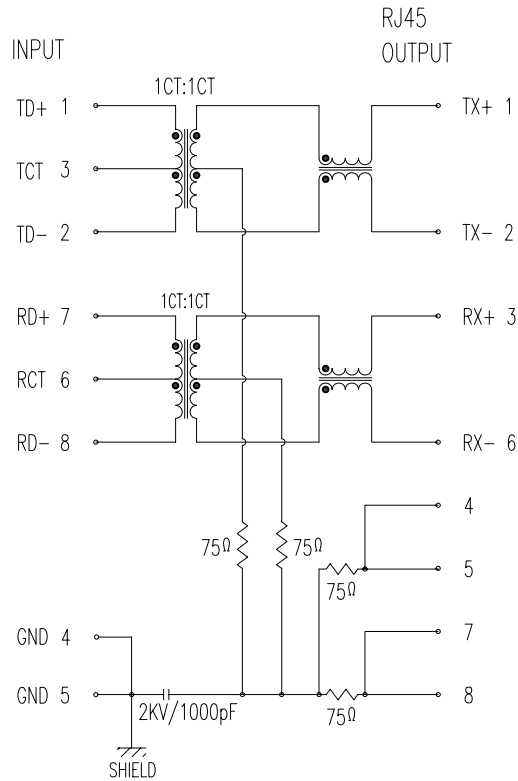
B-TOP® 东莞市博腾电子科技有限公司
 Dongguan BroadTop Electronic Technology Co., Ltd.

Designed	MATERIAL			DESCRIPTION		B50(29-15)F4-100C-P214-B52((TAB UP 1X1 G-Y LED)	REV.
Checked	SCALE 2.5:1			UNIT	MODEL NO.		
Approved	mm						

FIRST ANGLE PROJECTION
 TEL: 0769-38926198
 FAX: 0769-38926199
 Website: www.BtopTech.cn
 www.BtopTech.com

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2



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
 350uH minimum OCL with 8mA bias current
 PoE rating: 15W, 350mA, 48V (For PoE Products only)

JACK CAVITY CONFORMS TO FCC RULES AND REGULATIONS, PART 68 SUBPART F.

MECHANICAL:
 INSERTION FORCE: 2 CONTACTS----350g 4 CONTACTS----500g
 6 CONTACTS----750g 8 CONTACTS----900g
 RETENTION STRENGTH: 7.7Kgs BETWEEN JACK AND PLUG
 DURABILITY: 750 MATING CYCLES Mini

MATERIAL:
 HOUSING: 1) GLASS FILLED PA66 (UL 94V-0)
 2) GLASS FILLED PA46/LCP (UL 94V-0)
 3) GLASS FILLED PBT (UL 94V-0)
 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
 SHIELDING: 0.12-0.24mm THICKNESS COPPER ALLOY WITH TIN PLATED
 GOLD PLATING: 3μ", 6μ", 15μ", 30μ", 50μ"
 WORKING TEMPERATURE: -40°C~85°C
 TOLERANCES UNLESS OTHERWISE SPECIFIED : 0~10±0.15, 10~20±0.2, 20~40±0.25, 40~70±0.3, >70±0.4



ELECTRICAL SPECIFICATIONS AT 25°C

Insertion Loss dB max	Return Loss dB min		Crosstalk (dB TYP)	Common Mode Rejection (dB TYP)	Hipot (vrms)
	1-125MHz	30- 80MHz			
1-125MHz	1-30MHz	30- 80MHz	1- 100MHz	1-100MHz	
-1.2	-18	-18+20log(f/30MHz)	-30	-30	1500/0.5mA OR 2250DC/0.1mA

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; BX: 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: SMI series; 96: BUS for switches

Family code (sequence id): 1-99

Type of product code: G: Gigabit RJ45 transformer; F: 100Base RJ45 transformer; V: 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-F μ"; 2-3 μ"; 3-6 μ"; 4-15 μ"; 5-30 μ"; 6-50 μ"; 7-(Ni-50 μ" Sn-80-120 μ")

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 out port: 1-2X1" 2-2X2" 4-2X4" 5-2X5" 6-2X6" B-2X8" A-1X1" B-1X2" C-1X4" D-1X5" E-1X6" F-1X8" U-(USB-RJ45)" P-TAB UP1X1" H-TAB UP1X2" K-TAB UP1X4"

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Designed

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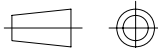
Approved

MATERIAL

DESCRIPTION

BT F4-100C -40°C - +85°C

FIRST ANGLE PROJECTION



TEL: 0769-38926198
 FAX: 0769-38926199
 Website: www.BtopTech.cn
 www.BtopTech.com

SCALE

1.8:1

UNIT

mm

MODEL NO.

B80010010011

REV.

Product List

Check the full list on [website](#).

Part Number	Ports	Mech Drawing	Size	Speed	Schematic	PoE	LED	EMI Spring	Gold Plating
BT50S(27-11)F4-03A-P213-B52	1x1	A	21.35*15.9*13.5	100M	F4-03A		G/Y	No	6u"
B50S(27-12)F4-239-P123-B52	1x1	A	21.35*15.9*13.5	100M	F4-239		Y/G	Yes	6u"
B50S(27-16)F4-117-P223-B52	1x1	A	21.35*15.9*13.5	100M	F4-117		G/Y	Yes	6u"
B50S(27-19)F4-03A-P223-B52	1x1	A	21.35*15.9*13.5	100M	F4-03A		G/Y	Yes	6u"
B50S(27-22)F4-03A-P213-B52	1x1	A	21.35*15.9*13.5	100M	F4-03A		G/Y	No	6u"
B50S(28-07)G8-85-P223-B52	1x1	A	21.35*15.9*13.5	Gigabit	G8-85		G/Y	Yes	6u"
B50S(28-09)G8-96-P023-B52	1x1	A	21.35*15.9*13.5	Gigabit	G8-96		None	Yes	6u"
B50S(28-16)G8-09-P623-B52	1x1	A	21.35*15.9*13.5	Gigabit	G8-09		GO/Y	Yes	6u"
B50S(28-20)G8-96-P323-B52	1x1	A	21.35*15.9*13.5	Gigabit	G8-96		G/G	Yes	6u"
B50S(28-21)G12-95-P626-B52	1x1	A	21.35*15.9*13.5	Gigabit	G12-95		GY/G	Yes	50u"
B50S(28-27)G8-140-P623-B52	1x1	A	21.35*15.9*13.5	Gigabit	G8-140		GO/Y	Yes	6u"
B50S(28-29)G12-95-P223-B52	1x1	A	21.35*15.9*13.5	Gigabit	G12-95		G/Y	Yes	6u"
B50S(28-31)G8-164-P223-B52	1x1	A	21.35*15.9*13.5	Gigabit	G8-164		G/Y	Yes	6u"
B50S(28-39)G8-174-P623-B52	1x1	A	21.35*15.9*13.5	Gigabit	G8-174		G/GY	Yes	6u"
B50S(28-40)PF6-258A-P223-B52	1x1	A	21.35*15.9*13.5	100M	PF6-258A	PoE	G/Y	Yes	6u"
B50S(28-42)G8-98-P223-B52	1x1	A	21.35*15.9*13.5	Gigabit	G8-98		G/Y	Yes	6u"
B50S(28-43)G8-09-P223-B52	1x1	A	21.35*15.9*13.5	Gigabit	G8-09		G/Y	Yes	6u"
B50S(28-45)G8-107-P123-B52	1x1	A	21.35*15.9*13.5	Gigabit	G8-107		Y/G	Yes	6u"
B50S(28-48)G8-208-P623-B52	1x1	A	21.35*15.9*13.5	Gigabit	G8-208		GO/Y	Yes	6u"
B50(29-01)F4-100-P213-B52	1x1	B	25.4*16.2*13.5	100M	F4-100		G/Y	No	6u"
B50(29-02)F5-190-P213-B52	1x1	B	25.4*16.2*13.5	100M	F5-190		G/Y	No	6u"
B50(29-03)F4-24-P213-B52	1x1	B	25.4*16.2*13.5	100M	F4-24		G/Y	No	6u"
B50(29-06)FP4-198-P613-B52	1x1	B	25.4*16.2*13.5	100M	FP4-198	PoE	GO/Y	No	6u"
B50(29-07)F4-24-P223-B52	1x1	B	25.4*16.2*13.5	100M	F4-24		G/Y	Yes	6u"
B50(29-15)F4-100C-P214-B52	1x1	B	25.4*16.2*13.5	100M	F4-100C		G/Y	No	15u"

B50(29-18)F4-03B-P613-B52	1x1	B	25.4*16.2*13.5	100M	F4-03B		GR/GR	No	6u"
B50(29-30)F4-17-P223-B52	1x1	B	25.4*16.2*13.5	100M	F4-17		G/Y	Yes	6u"
B50(29-33)F5-190-P213-B52	1x1	B	25.4*16.2*13.5	100M	F5-190		G/Y	No	6u"
B50(29-31)F4-240-P223-B52	1x1	B	25.4*16.2*13.5	100M	F4-240		G/Y	Yes	6u"
B50(29-35)F5-83-P213-B52	1x1	B	25.4*16.2*13.5	100M	F5-83		G/Y	No	6u"
B50(29-36)F4-24A-P223-B92	1x1	B	25.4*16.2*13.5	100M	F4-24A		G/Y	Yes	6u"
B50(29-53)F4-263-P223-B52	1x1	B	25.4*16.2*13.5	100M	F4-263		G/Y	Yes	6u"
B50(29-59)F4-100-P613-B92	1x1	B	25.4*16.2*13.5	100M	F4-100		G/GY	No	6u"
B50(29-60)F4-24-P113-B52	1x1	B	25.4*16.2*13.5	100M	F4-24		Y/G	No	6u"
B50(30-08)F4-262-P003-C52	1x1	B	25.4*16.2*13.5	100M	F4-262		None	No	6u"
B50(31-02)F4-42A-P003-B52	1x1	B	25.4*16.2*13.5	100M	F4-42A		None	No	6u"
B50(36-06)F5-190-P013-B52	1x1	B	25.4*16.2*13.5	100M	F5-190		None	No	6u"
B50(02-02)G8-87-P213-B52	1x1	B	25.4*16.2*13.5	Gigabit	G8-87		G/Y	No	6u"
B50(02-05)G8-27-P213-B52	1x1	B	25.4*16.2*13.5	Gigabit	G8-27		G/Y	No	6u"
B50(02-06)G8-86-P613-B52	1x1	B	25.4*16.2*13.5	Gigabit	G8-86		G/GO	No	6u"
B50(02-09)G8-86-P613-B52	1x1	B	25.4*16.2*13.5	Gigabit	G8-86		GO/Y	No	6u"
B50(02-10)G8-91-P613-B52	1x1	B	25.4*16.2*13.5	Gigabit	G8-91		GO/Y	No	6u"
B50(02-13)G8-09-P213-B52	1x1	B	25.4*16.2*13.5	Gigabit	G8-09		G/Y	No	6u"
B50(02-19)G8-91-P123-B52	1x1	B	25.4*16.2*13.5	Gigabit	G8-91		Y/G	Yes	6u"
B50(02-22)G8-91-P624-B52	1x1	B2	25.4*16.2*13.5	Gigabit	G8-91		GO/Y	No	15u"
B50(02-23)G8-120-P223-B12	1x1	B	25.4*16.2*13.5	Gigabit	G8-120		G/Y	Yes	6u"
B50(02-26)G8-140-P623-B52	1x1	B2	25.4*16.2*13.5	Gigabit	G8-140		GO/Y	Yes	6u"
B50(02-28)G8-140-P023-B52	1x1	B2	25.4*16.2*13.5	Gigabit	G8-140		None	Yes	6u"
B50(02-29)G8-98-P223-B52	1x1	B	25.4*16.2*13.5	Gigabit	G8-98		G/Y	Yes	6u"
B50(02-30)G8-140-P623-B52	1x1	B	25.4*16.2*13.5	Gigabit	G8-140		GO/Y	Yes	6u"
B50(02-33)G8-197-P613-B92	1x1	B	25.4*16.2*13.5	Gigabit	G8-197		G	No	6u"
B50(02-36)G8-91-P623-B52	1x1	B	25.4*16.2*13.5	Gigabit	G8-91		GO/Y	Yes	6u"
B50(150-07)GP8-15-P623-F52	1x1	C	32.6*16.6*13.5	Gigabit	GP8-15	PoE	GO/Y	Yes	6u"
B50(150-22)G8-12-P323-F52	1x1	C	32.6*16.6*13.5	Gigabit	G8-12		G/G	Yes	6u"
B50(150-53)GP12-106-P623-F12	1x1	C	32.6*16.6*13.5	Gigabit	GP12-106	PoE	GO/Y	Yes	6u"
B50(150-57)G8-13-P623-F52	1x1	C	32.6*16.6*13.5	Gigabit	G8-13		GY/G	Yes	6u"
B50(150-58)GP8-15-P623-F12	1x1	C	32.6*16.6*13.5	Gigabit	GP8-15	PoE	GY/G	Yes	6u"

B50(150-60)G8-12-P623-F12	1x1	C	32.6*16.6*13.5	Gigabit	G8-12		GY/G	Yes	6u"
B50(150-68)GP8-15C-P023-F52	1x1	C	32.6*16.6*13.5	Gigabit	GP8-15C	PoE+	None	Yes	6u"
B50(150-72)G8-13-P323-F52	1x1	C	32.6*16.6*13.5	Gigabit	G8-13		G/G	Yes	6u"
B50(150-73)G8-12-P623-F52	1x1	C	32.6*16.6*13.5	Gigabit	G8-12		GO/Y	Yes	6u"
B50(150-85)GP8-15A-P113-F52	1x1	C	32.6*16.6*13.5	Gigabit	GP8-15A	PoE+	Y/G	No	6u"
B50(150-88)GP8-15-P623-F52	1x1	C	32.6*16.6*13.5	Gigabit	GP8-15	PoE	GY/GY	Yes	6u"
B50(150-90)GP8-218-P023-B52	1x1	C	32.6*16.6*13.5	Gigabit	GP8-218	PoE	None	Yes	6u"
B50(151-01)F4-27-P622-F12	1x1	C	32.6*16.6*13.5	100M	F4-27		GY/Y	Yes	6u"
B50(151-02)FP4-150-P622-F12	1x1	C	32.6*16.6*13.5	100M	FP4-150	PoE	G/GO	Yes	6u"
B50(151-03)FP4-150-P623-F12	1x1	C	32.6*16.6*13.5	100M	FP4-150	PoE	GO/GO	Yes	6u"
B50(151-06)F4-243-P223-F52	1x1	C	32.6*16.6*13.5	100M	F4-243		G/Y	Yes	6u"
B50(152-02)F4-27-P023-F52	1x1	C	32.6*16.6*13.5	100M	F4-27		None	Yes	6u"