

PULSEJACK™

Gigjack T12

Description:

10/100/1000 Base-TX RJ45 single port (1X1) Tab-UP with or without LEDs integrated magnetics connector (ICM), designed to support applications, such as Network Interface Cards (NIC), LAN-on-Motherboard (LOM), and PC applications.



Features and Benefits:

- ⊕ Single port Tab-UP with internal magnetics for 10/100/1000 Base-TX
- ⊕ Available with or without LEDs
- ⊕ Suitable for CAT 5 and 6 Fast Ethernet cable or better UTP
- ⊕ Internal magnetics are 100% electrically tested for HI-POT and functionality

Electrical Performance Summary:

- ⊕ Internal magnetics options available
- ⊕ Meets or exceeds IEEE 802.3ab standard for 1000Base-T
- ⊕ 350 μ H minimum OCL with 8 mA bias current
- ⊕ High performance for maximum EMI suppression
- ⊕ Minimum 1500 Vrms isolation per IEEE 802.3 requirement

Electrical Specifications @ 25°C — Operating Temperature 0°C to +70°C

Part Number	Tab Option	LEDs ³ L/R	Insertion Loss TX/RX (dB TYP)	Return Loss (dB TYP) 100 Ω ($\pm$ 15 Ω)				Crosstalk (dB TYP)			Common Mode Rejection (dB TYP)		Hipot (MIN)
			1-100 MHz	1-10 MHz	30 MHz	60-80 MHz	1-10 MHz	30-60 MHz	60-100 MHz	1-50 MHz	50-130 MHz	@ 60 Hz 1 MIN	
JK0654218Z	UP	Y-G/G	-1.0	-20	-16	-12	-40	-35	-30	-30	-20	1500 Vrms	
JK0654219	UP	G/G	-1.0	-20	-16	-12	-40	-35	-30	-30	-20	1500 Vrms	
JK065421	UP	NONE	-1.0	-20	-16	-12	-40	-35	-30	-30	-20	1500 Vrms	
JK065401 ⁴	UP	NONE	-1.0	-20	-16	-12	-40	-35	-30	-30	-20	1500 Vrms	

NOTES:

- Both transmit and receive channels meet IEEE 802.3 specifications.
- Different electrical and mechanical specifications can be accommodated. Contact Pulse Applications Engineering.
- LEDs Left/Right: **G** = green; **Y** = yellow; **Y-G** = Bicolor.
- JK065401** is supplied without EMI tabs; please refer to Mechanical drawing for explanation of EMI tabs.

RJ45 Durability Testing Rating

Part Number	Mating Force (MAX)	Unmating Force (MAX)	Durability	Plug to Jack Retention (MIN)
JK Series	5 lbs./2.268 kgs.	5 lbs./2.268 kgs.	750 Insertions	20 lbs./9.072 kgs.

RJ45 Material Specification

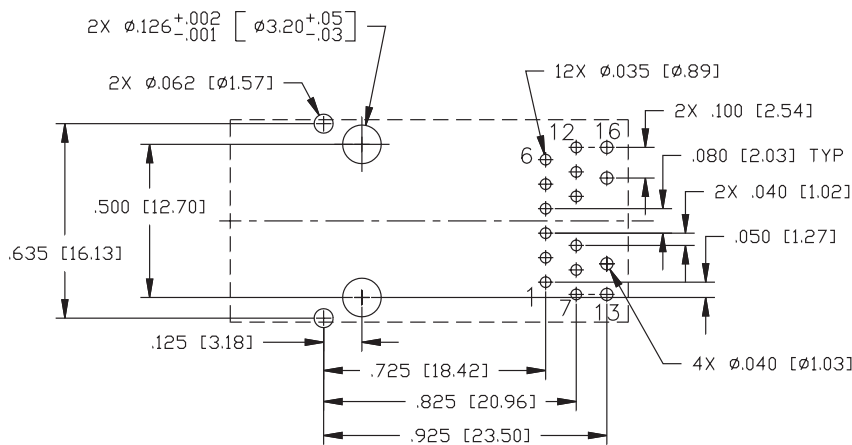
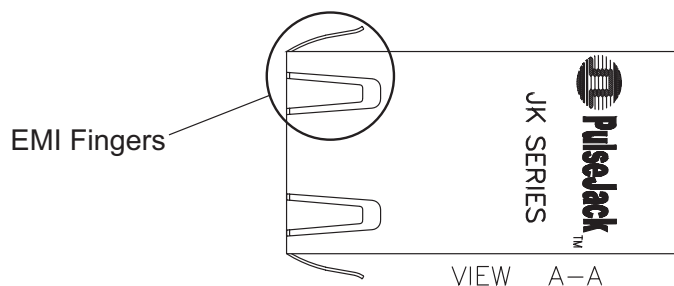
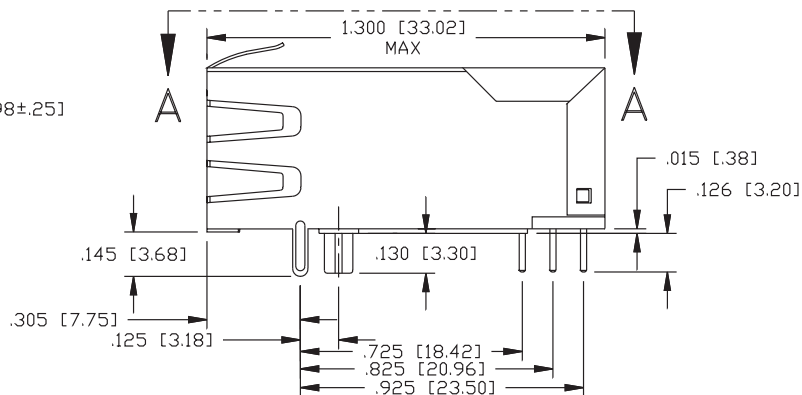
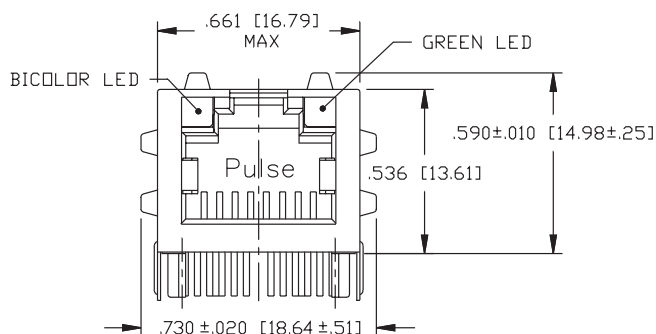
Part Number	Shield		Contact			Housing	
	Material	Finish	Material	Plating Area	Solder Area	Material	Specification
JK Series	Brass	10-20 μ inches thick nickel over 10-20 μ inches thick nickel	Phosphor Bronze	30 μ inches gold over 30-80 μ inches nickel	75-300 μ inches tin-lead over 75-300 μ inches nickel	Thermoplastic	UL 94 V-0

Notes:

- All connector part numbers starting with the series prefix JK comply to the above limits.
- Connector dimensions comply with FCC dimension requirements.

Mechanical

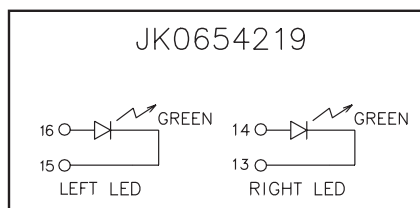
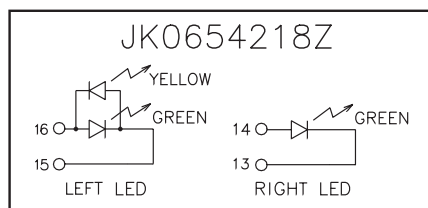
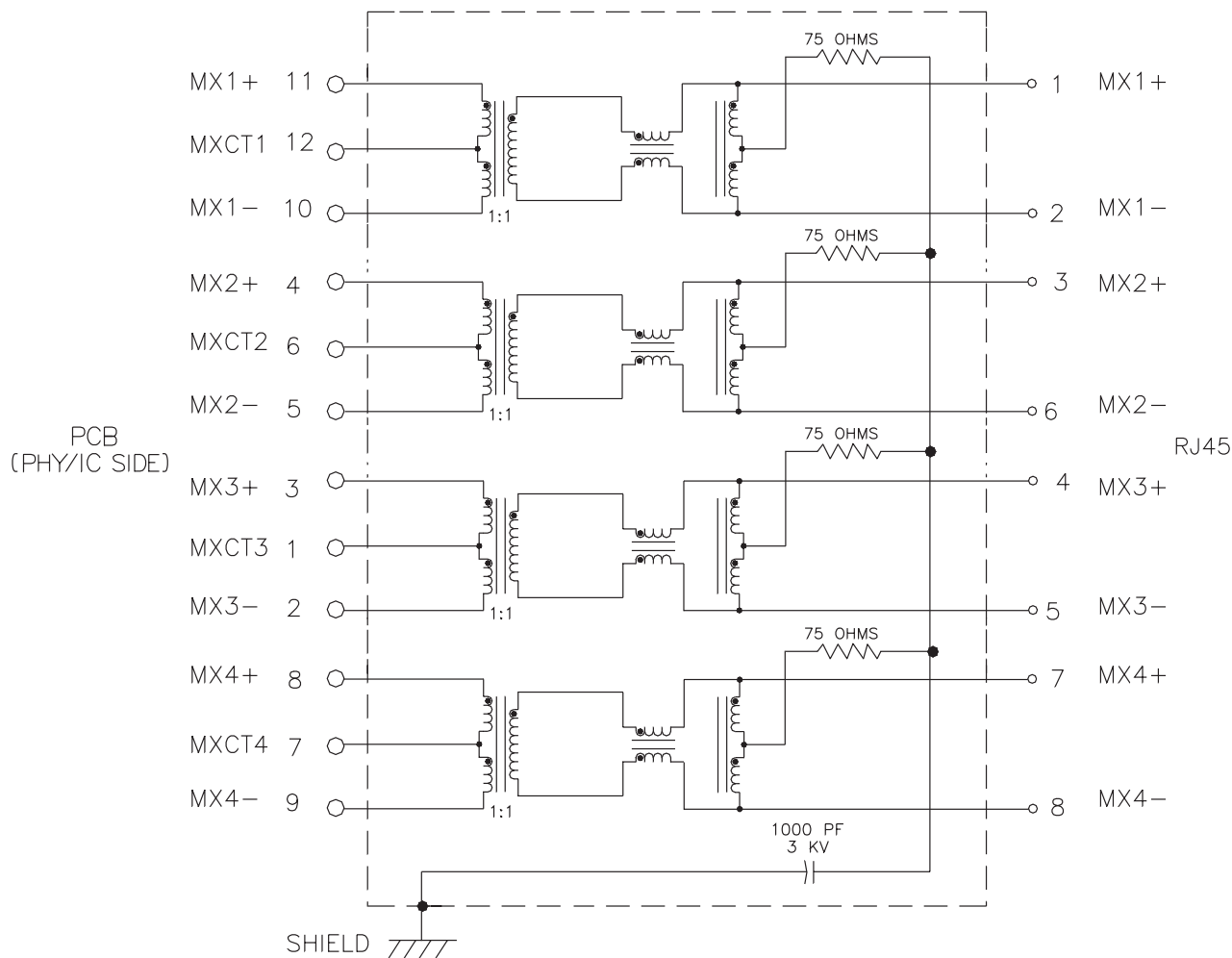
JK0654X1XX



SUGGESTED PC BOARD LAYOUT VIEWED FROM COMPONENT SIDE
PCB LAYOUT DIMENSIONS TO BE ±.003 UNLESS OTHERWISE SPECIFIED

Schematic

JK0654X1XX



For More Information :

UNITED STATES (Worldwide)

12220 World Trade Drive
San Diego, CA 92128
U.S.A.
<http://www.pulseeng.com>
TEL: 858 674 8100
FAX: 858 674 8262

UNITED KINGDOM (Northern Europe)

1 & 2 Huxley Road
The Surrey Research Park
Guildford, Surrey GU2 5RE
United Kingdom
TEL: 44 1483 401700
FAX: 44 1483 401701

FRANCE (Southern Europe)

Zone Industrielle
F-39270
Orgelet
France
TEL: 33 3 84 35 04 04
FAX: 33 3 84 25 46 41

SINGAPORE (Southern Asia)

150 Kampong Ampat
#07-01/02
KA Centre
Singapore 368324
TEL: 65 6287 8998
FAX: 65 6280 0080

TAIWAN, R.O.C. (Northern Asia)

3F-4, No. 81, Sec. 1
HsinTai Wu Road
Hsi-Chih, Taipei Hsien
Taiwan, R.O.C.
Tel: 886 2 2698 0228
FAX: 886 2 2698 0948

HONG KONG (China/Hong Kong)

19/F, China United Plaza
1008 Tai Nan West Street
Cheung Sha Wan, Kowloon
Hong Kong, China
TEL: 852 2788 6588
FAX: 852 2776 1055

DISTRIBUTOR

Performance warranty of products offered on this data sheet is limited to the parameters specified. Data is subject to change without notice. Other brand and product names mentioned herein may be trademarks or registered trademarks of their respective owners.