

THE INFORMATION CONTAINED HEREIN IS CONSIDERED "PROPRIETARY" TO BEL FUSE INC. AND SHALL NOT BE COPIED, REPRODUCED OR DISCLOSED WITHOUT THE WRITTEN APPROVAL OF BEL FUSE INC.

LED1 POLARITY			LED2 POLARITY		
PIN 13	PIN 14	COLOR	PIN 15	PIN 16	COLOR
-	+	GREEN	+	-	YELLOW
			-	+	GREEN

RoHS  
2002/95/EC



ELECTRICAL CHARACTERISTICS @ 25°C

TURNS RATIO

TP1	1CT : 1CT ±2%
TP2	1CT : 1CT ±2%
TP3	1CT : 1CT ±2%
TP4	1CT : 1CT ±2%

OCL @ 100kHz/100mVRMS

8mA DC BIAS	350µH MIN.
-------------	------------

INS. LOSS

0.1MHz TO 1MHz	-1.1 dB MAX
1MHz TO 65MHz	-0.5 dB MAX
65MHz TO 100MHz	-0.8 dB MAX
100MHz TO 125MHz	-1.2 dB MAX

RET. LOSS (MIN)

0.5MHz-40MHz	-18 dB
40MHz-100MHz	-12+20LOG(f/80MHz) dB

CROSS TALK

100kHz - 100MHz	-33+20LOG(f/100MHz)dB MIN
-----------------	---------------------------

CM TO CM REJ

100kHz - 100MHz	-30 dB MIN
-----------------	------------

CM TO DM REJ

100kHz - 100MHz	-35 dB MIN
-----------------	------------

HIPOT (Isolation Voltage): 1500 Vrms

100% OF PRODUCT TESTED IN PRODUCTION

TO COMPLY WITH IEEE 802.3 ISOLATION REQUIREMENTS

LED 1

VF (FORWARD VOLTAGE) IF=20mA GREEN 2.2V TYP.

λD (DOMINANT WAVELENGTH) IF=20mA GREEN 565nm TYP.

LED 2

VF (FORWARD VOLTAGE) IF=20mA YELLOW 2.1V TYP.

λD (DOMINANT WAVELENGTH) IF=20mA GREEN 590nm TYP.

IF=20mA YELLOW 590nm TYP.

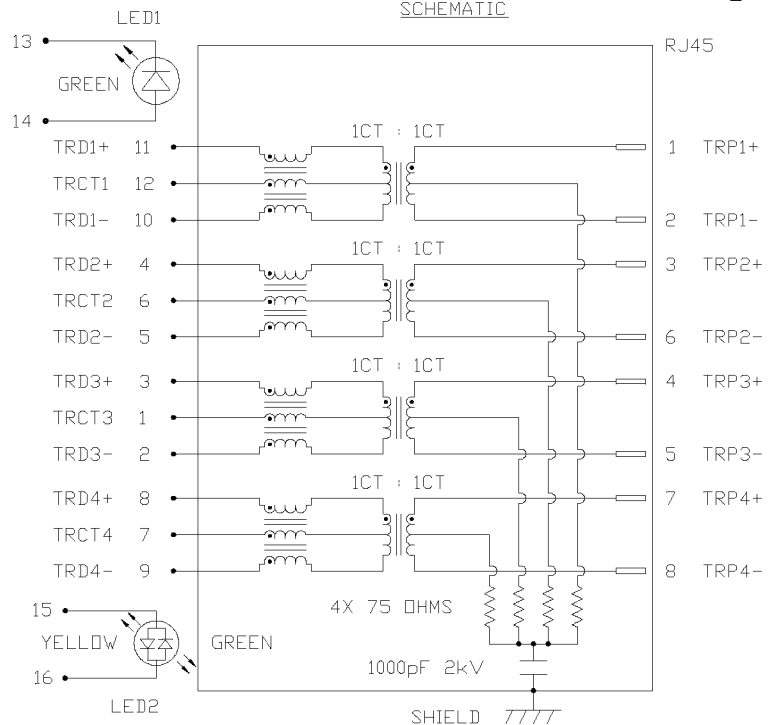
IF=20mA GREEN 565nm TYP.

USB ELECTRICAL:

INSULATION RESISTANCE: 1000 MEGAΩ(MIN)

CONTACT RESISTANCE: 25 MILLIΩ(MAX)

DIELECTRIC WITHSTANDING: 750 VAC



ORIGINATED BY	DATE	TITLE
WC CHUNG	06-21-07	gigabit MagJack® Combo (single USB, 8 cores)
DRAWN BY	DATE	
WEI DE LEE	06-21-07	0821-1K1T-43-F

PART NO. / DRAWING NO.	STANDARD DIM. TOL. IN INCH	[ ] METRIC DIM. AS REFERENCE
0821K1T43-F	.X	UNIT : INCH [mm] REV. : A
FILE NAME	.XX	SCALE : N/A SIZE : A4
0821K1T43-F_A.DWG	.XXX	PAGE : 2

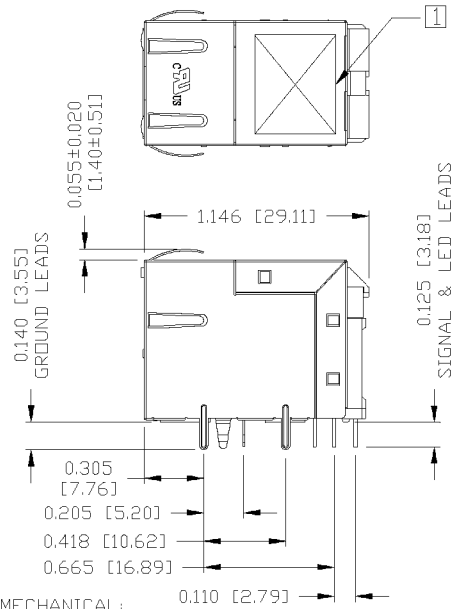
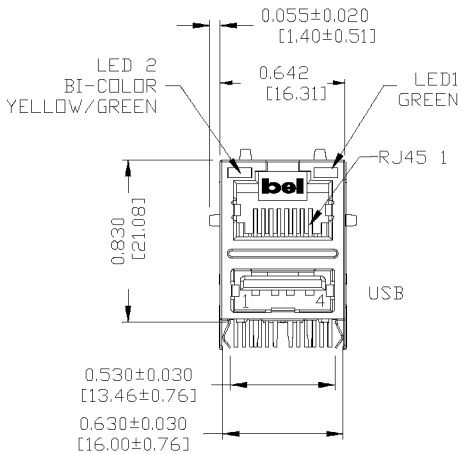
STANDARD DIM. TOL. IN INCH	[ ] METRIC DIM. AS REFERENCE
.X	UNIT : INCH [mm] REV. : A
.XX	SCALE : N/A SIZE : A4
.XXX	PAGE : 2

STANDARD DIM. TOL. IN INCH	[ ] METRIC DIM. AS REFERENCE
.X	UNIT : INCH [mm] REV. : A
.XX	SCALE : N/A SIZE : A4
.XXX	PAGE : 2



THE INFORMATION CONTAINED HEREIN IS CONSIDERED "PROPRIETARY" TO BEL FUSE INC. AND SHALL NOT BE COPIED, REPRODUCED OR DISCLOSED WITHOUT THE WRITTEN APPROVAL OF BEL FUSE INC.

MECHANICAL SPECIFICATION



RJ45 MECHCNICAL:

PLASTIC HOUSING: THERMOPLASTIC PBT  
 FLAMMABILITY RATING UL 94V-0  
 CONTACT PLATING: 30 MICRO-INCH HARD GOLD PLATING  
 PINS: TIN-COATED COPPER WIRE, DIA 0.018 INCH.  
 METAL SHIELD: NICKEL PLATED ON COPPER ALLOY.  
 (ALL GROUND LEADS ARE SOLDER DIPPED)

RoHS COMPLIANCE, PER EU DIRECTIVE 2002/95/EC.  
 JACK CAVITY CONFORMS TO FCC RULES AND REGULATIONS.

USB MECHANICAL:

MATING FORCE: 35 NEWTONS MAXIMUM  
 UNMATING FORCE: 10 NEWTONS MINIMUM  
 CONTACT: PROSPHER BRONZE,  
 30 MICRO-INCH GOLD PLATING ON CONTACT AREA  
 AND LEAD-FREE TIN ON SOLDER TAIL.

☐ MARK PART WITH MFG. LOGO, MFG. NAME, PART NUMBER, AND DATE CODE.

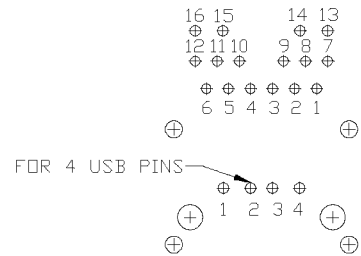
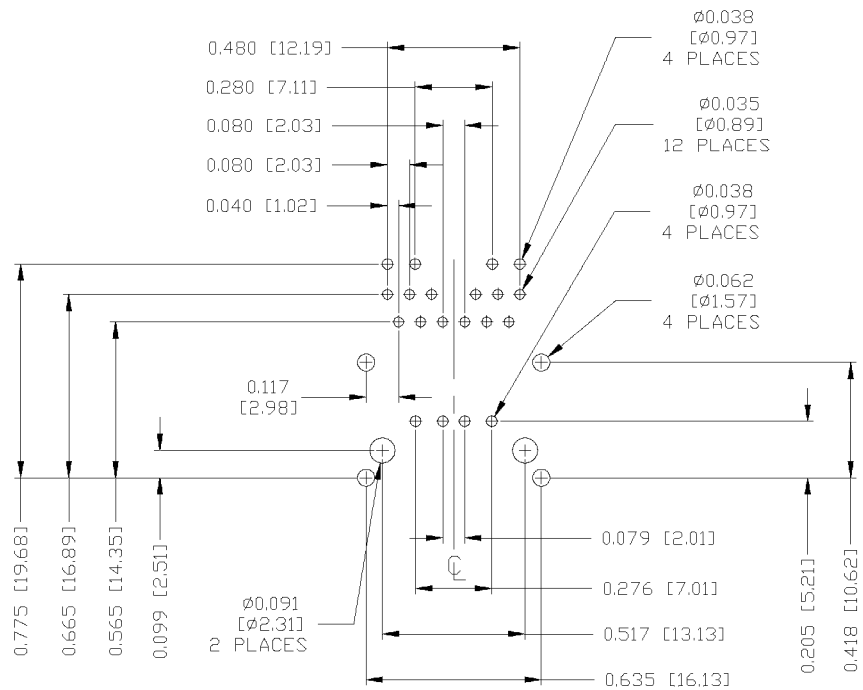
**C** **RU** **US** UL RECOGNIZED - FILE #E196366 AND E169987.

ORIGINATED BY	DATE	TITLE	PART NO. / DRAWING NO.	STANDARD DIM. TOL. IN INCH	[ ] METRIC DIM. AS REFERENCE
LIU QIN	06-21-07	gigabit MagJack ® Combo (single USB, 8 cores)	08211K1T43-F	.X	UNIT : INCH [mm] REV. : A
DRAWN BY	DATE		FILE NAME	.XX	SCALE : N/A SIZE : A4
CHEN TING	06-21-07	0821-1K1T-43-F	08211K1T43-F_A.DWG	.XXX ±0.010	PAGE : 3



THE INFORMATION CONTAINED HEREIN IS CONSIDERED "PROPRIETARY" TO BEL FUSE INC. AND SHALL NOT BE COPIED, REPRODUCED OR DISCLOSED WITHOUT THE WRITTEN APPROVAL OF BEL FUSE INC.

RECOMMENDED PCB FOOTPRINT  
COMPONENT SIDE VIEW



ORIGINATED BY LIU QIN	DATE 06-21-07
DRAWN BY CHEN TING	DATE 06-21-07

TITLE gigabit MagJack® Combo (single USB, 8 cores)
--

PART NO. / DRAWING NO. 0821K1T43-F
FILE NAME 0821K1T43-F_A.DWG

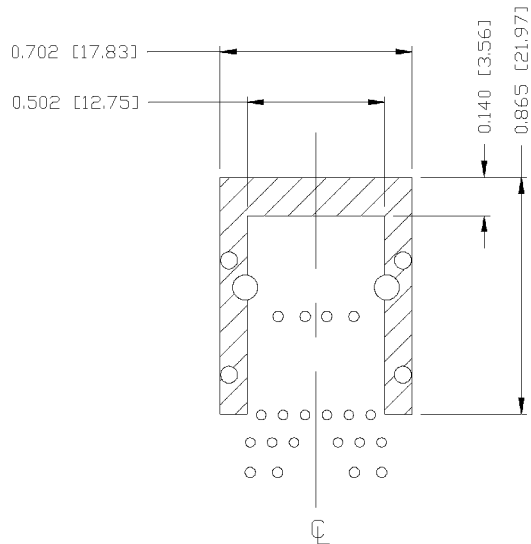
STANDARD DIM. TOL. IN INCH
.X
.XX
.XXX
±0.004

[ ] METRIC DIM. AS REFERENCE	UNIT : INCH [mm]	REV. : A
SCALE : N/A	SIZE : A4	PAGE : 4



THE INFORMATION CONTAINED HEREIN IS CONSIDERED "PROPRIETARY" TO BEL FUSE INC AND SHALL NOT BE COPIED, REPRODUCED OR DISCLOSED WITHOUT THE WRITTEN APPROVAL OF BEL FUSE INC.

RoHS  
2002/95/EC



NOTES

THE SHADED AREA ON THE CUSTOMER BOARD ARE RECOMMENDED TO BE CLEAR OFF ANY VIA HOLE OR COMPONENT PAD.

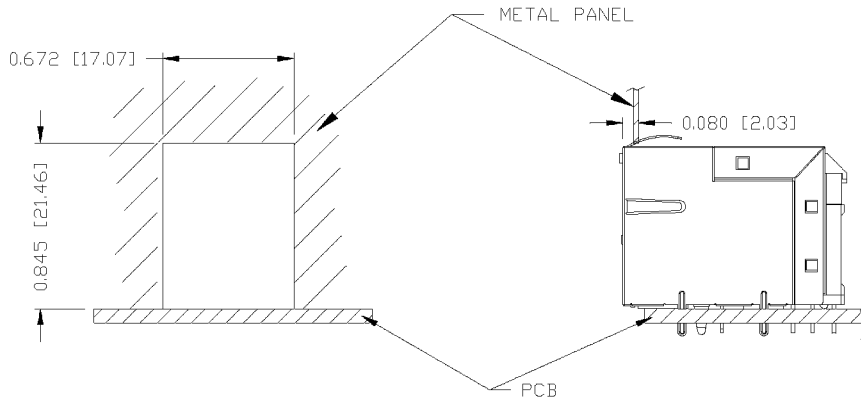
ORIGINATED BY LIU QIN	DATE 06-21-07	TITLE gigabit MagJack® Combo (single USB, 8 cores) 0821-1K1T-43-F	PART NO. / DRAWING NO. 08211K1T43-F		STANDARD DIM. TOL. IN INCH	[ ] METRIC DIM. AS REFERENCE	REV. : A	PAGE : 5	 <small>COMPONENTS OF A CONNECTED PLANET</small>	
			FILE NAME 08211K1T43-F_A.DWG	<table border="1"> <tr> <td>.X</td> <td></td> </tr> <tr> <td>.XX</td> <td></td> </tr> <tr> <td>.XXX</td> <td>±0.004</td> </tr> </table>	.X					.XX
.X										
.XX										
.XXX	±0.004									

THE INFORMATION CONTAINED HEREIN IS CONSIDERED "PROPRIETARY" TO BEL FUSE INC. AND SHALL NOT BE COPIED, REPRODUCED OR DISCLOSED WITHOUT THE WRITTEN APPROVAL OF BEL FUSE INC.

RoHS  
2002/95/EC



SUGGESTED PANEL OPENING



NOTES:

THE DISTANCE OF PANEL INSIDE SURFACE RELATIVE TO FRONT SURFACE OF PART IS ONLY A SUGGESTION. IN CASE THIS DISTANCE IS DIFFERENT, THE REQUIRED PANEL OPENING DIMENSIONS CHANGE ACCORDINGLY.

PACKING INFORMATION

PACKING TRAY : 0200-0148-48 (TOP)  
0200-0148-49 (BOTTOM)

PACKING QUANTITY : 60 PCS FINISHED GOODS PER TRAY  
8 TRAYS (480 PCS FINISHED GOODS) PER CARTON BOX

NOTE : CARDBOARDS ARE PLACED BETWEEN LAYERS OF PACKING TRAY INSIDE CARTON BOX  
(INCLUDE THE UPPERMOST AND LOWERMOST TRAY)

ORIGINATED BY LIU QIN	DATE 06-21-07	TITLE gigabit MagJack® Combo (single USB, 8 cores) 0821-1K1T-43-F	PART NO. / DRAWING NO. 08211K1T43-F	STANDARD DIM. TOL. IN INCH	[ ] METRIC DIM. AS REFERENCE			
	DRAWN BY CHEN TING			DATE 06-21-07	FILE NAME 08211K1T43-F_A.DWG	.X	UNIT : INCH [mm]	REV. : A
				.XX	SCALE : N/A	SIZE : A4		
			.XXX	±0.004	PAGE : 6			

