

ELECTRICAL SPECIFICATIONS:

- 1.0 TURNS RATIO: (P3-P2) : (J4-J5) : 1 : 1 ±2%  
 (P5-P4) : (J6-J3) : 1 : 1 ±2%  
 (P9-P8) : (J8-J7) : 1 : 1 ±2%  
 (P10-P11) : (J2-J1) : 1 : 1 ±2%
- 2.0 INDUCTANCE: (P3-P2) ; (P5-P4) : 350 uH MIN. @ 0.1V, 100KHz, 8 mA DC BIAS  
 (P10-P11) ; (P9-P8) : 350 uH MIN. @ 0.1V, 100KHz, 8 mA DC BIAS
- 3.0 LEAKAGE INDUCTANCE: P3-P2 (WITH J4 AND J5 SHORT) : 0.3uH MAX. @ 1MHz  
 P5-P4 (WITH J6 AND J3 SHORT) : 0.3uH MAX. @ 1MHz  
 P9-P8 (WITH J8 AND J7 SHORT) : 0.3uH MAX. @ 1MHz  
 P10-P11 (WITH J1 AND J2 SHORT) : 0.3uH MAX. @ 1MHz
- 4.0 INTERWINDING CAPACITANCE: (P3-P2) : (J4-J5) : 35pf MAX @ 1MHz  
 (P5-P4) : (J6-J3) : 35pf MAX @ 1MHz  
 (P9-P8) : (J5-J4) : 35pf MAX @ 1MHz  
 (P10-P11) : (J2-J1) : 35pf MAX @ 1MHz
- 5.0 DC RESISTANCE: (J6-J3) ; (J2-J1) ; (J7-J8) : (J4-J5) : 1.2 ohms Max.

Bel Stewart Connector  
 11118 Susquehanna Trail, South  
 Glen Rock, Pa 17327-9199  
 717.234.7512

**MagJack**

<http://www.stewartconnector.com>

THIS DRAWING AND THE SUBJECT MATTER SHOWN THEREON ARE CONFIDENTIAL AND PROPERTY OF BEL STEWART CONNECTOR AND SHALL NOT BE REPRODUCED, COPIED, OR USED IN ANY MANNER WITHOUT PRIOR WRITTEN CONTENT OF BEL STEWART CONNECTOR. THE SUBJECT MATTER MAY BE PATENTED OR A PATENT MAY BE PENDING.

SHEET  
1 OF 4

DRAWING NO.

SI-50097 REV. 10

- 6.0 RETURN LOSS: 1MHz TO 30MHz : -19dB MIN.  
30MHz TO 60MHz : -13dB MIN.  
60MHz TO 80MHz : -12dB MIN.  
80MHz TO 100MHz : -10dB MIN.
- 7.0 DIELECTRIC WITHSTAND: (J1,J2) TO (P10,P11) ; (J5,J4) TO (P3-P2) : 1500 VAC  
(J3,J6) TO (P5,P4) ; (J8,J7) TO (P9, P8) : 1500 VAC
- 8.0 INSERTION LOSS: RS=RL=100 ohms : -1.1 dB TYP  
100KHz TO 125MHz
- 9.0 RISE TIME: RS=100 OHMS AND RL = 100 OHMS : 3.0 nS MAX  
OUTPUT VOLTAGE = 1 V peak : 3.0 nS MAX  
PULSE WIDTH= 112nS
- 10.0 CROSS TALK: 1-100 MHz :  $-[33-20 \text{ LOG } (\frac{F}{50 \text{ MHz}})] \text{ MIN.}$
- 11.0 COMMON TO COMMON MODE ATTENUATION: 1MHz TO 100MHz : -35dB TYP

Bel Stewart Connector  
11118 Susquehanna Trail, South  
Glen Rock, Pa 17327-9199  
717.234.7512

**MagJack**<sup>®</sup>

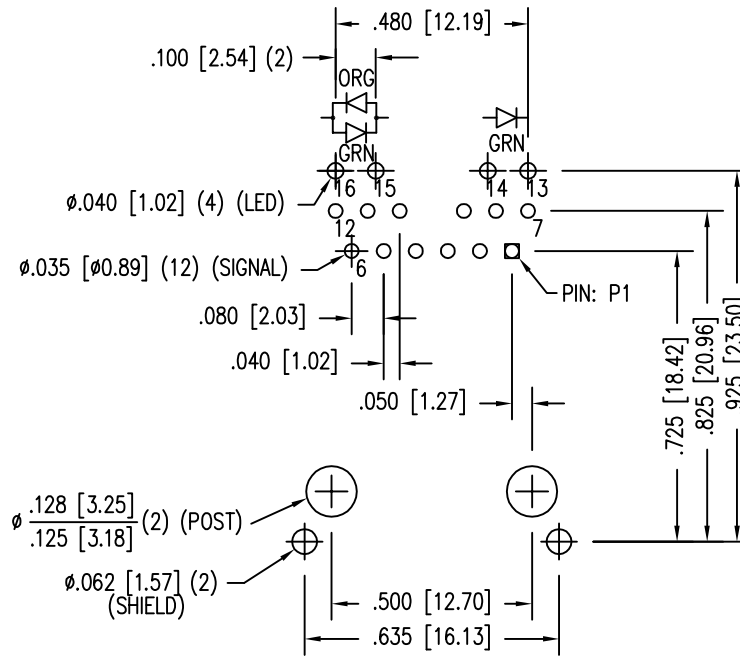
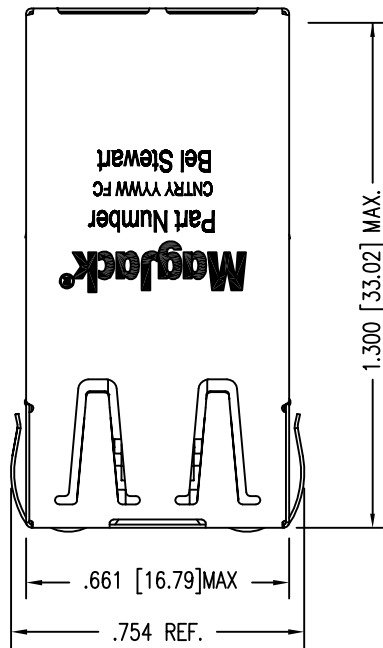
<http://www.stewartconnector.com>

THIS DRAWING AND THE SUBJECT MATTER SHOWN THEREON ARE CONFIDENTIAL AND PROPERTY OF BEL STEWART CONNECTOR AND SHALL NOT BE REPRODUCED, COPIED, OR USED IN ANY MANNER WITHOUT PRIOR WRITTEN CONTENT OF BEL STEWART CONNECTOR. THE SUBJECT MATTER MAY BE PATENTED OR A PATENT MAY BE PENDING.

SHEET  
2 OF 4

DRAWING NO.

SI-50097 REV. 10



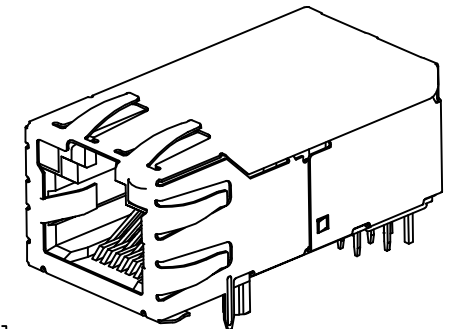
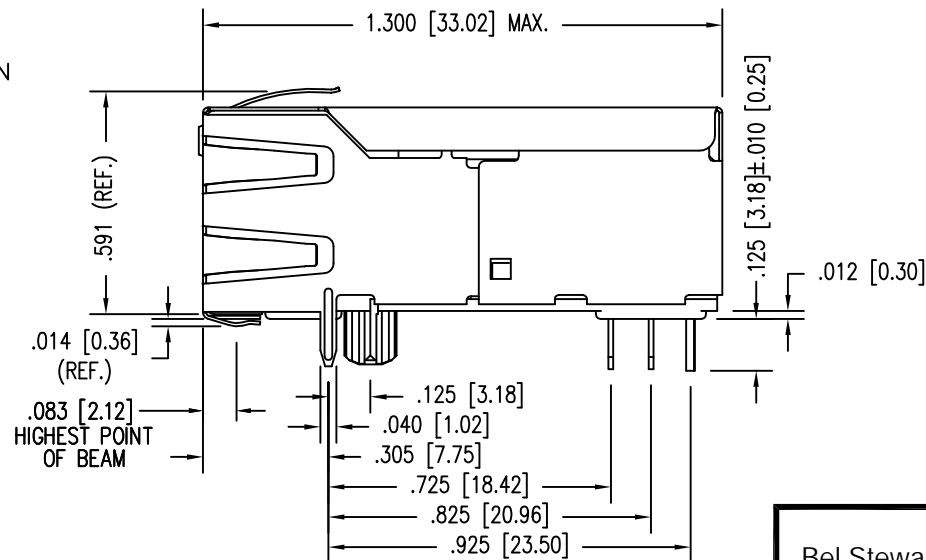
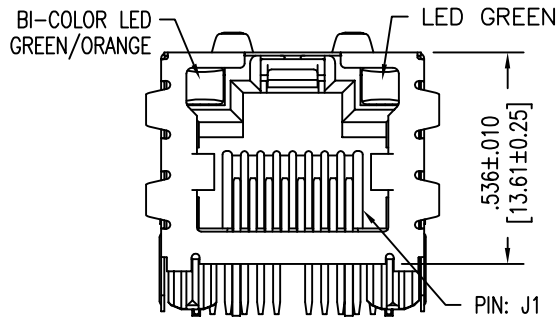
P.C.B. RECOMMENDED HOLE LAYOUT  
SEEN FROM COMPONENT SIDE  
TOLERANCE ±.003 [0.08] UNLESS OTHERWISE SPECIFIED

NOTES:

- CONNECTOR MATERIALS:  
HOUSING: THERMOPLASTIC UL94 V-0  
CONTACT/SHIELD: COPPER ALLOY  
SHIELD PLATING: NICKEL OR TIN  
CONTACT PLATING: SELECTIVE GOLD,  
50 MICRO-INCHES MIN. IN CONTACT AREA.
- PIN NOT ELECTRICALLY CONNECTED MAYBE OMITTED.  
SEE ELECTRICAL DRAWING FOR OMITTED PINS.
- TOLERANCES COMPLY WITH F.C.C. DIMENSION REQUIREMENTS.
- THE SUGGESTED PANEL OPENING IS INTENDED TO GIVE  
USER THE ABILITY TO HAVE REASONABLE JACK/PANEL  
CLEARANCES, YET MAINTAIN GROUNDING CAPABILITY.
- SOLDER REFLOW COMPATABLE - 230°C/90 SEC MAX.

STANDARD LED	WAVELENGTH	* Forward V (MAX)	(TYP)
GREEN	565 nm	2.5 V	2.2 V
ORANGE	605 nm	2.5 V	2.0 V

\*WITH A FORWARD CURRENT OF 20 mA



Bel Stewart Connector  
11118 Susquehanna Trail, South  
Glen Rock, Pa 17327-9199  
717.234.7512

**MagJack**

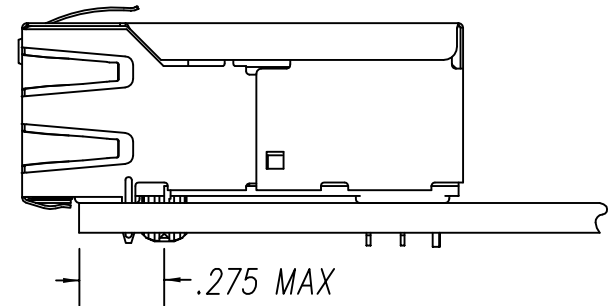
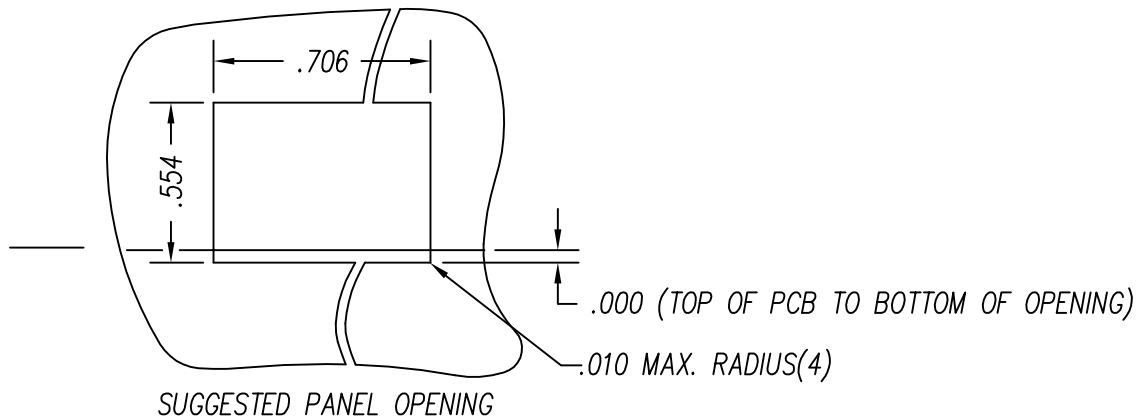
<http://www.stewartconnector.com>

THIS DRAWING AND THE SUBJECT MATTER SHOWN THEREON ARE CONFIDENTIAL AND PROPERTY OF BEL STEWART CONNECTOR AND SHALL NOT BE REPRODUCED, COPIED, OR USED IN ANY MANNER WITHOUT PRIOR WRITTEN CONTENT OF BEL STEWART CONNECTOR. THE SUBJECT MATTER MAY BE PATENTED OR A PATENT MAY BE PENDING.

SHEET  
3 OF 4

DRAWING NO.

SI-50097 REV. 03



THE SUGGESTED PANEL OPENING IS INTENDED TO GIVE THE USER THE ABILITY TO HAVE REASONABLE JACK / PANEL CLEARANCES YET MAINTAIN RELIABLE GROUNDING CAPABILITY.

CT720034X1/24-0190

THIS DRAWING AND THE SUBJECT MATTER SHOWN THEREON ARE CONFIDENTIAL AND PROPERTY OF BEL STEWART CONNECTOR AND SHALL NOT BE REPRODUCED, COPIED, OR USED IN ANY MANNER WITHOUT PRIOR WRITTEN CONTENT OF BEL STEWART CONNECTOR. THE SUBJECT MATTER MAY BE PATENTED OR A PATENT MAY BE PENDING.

Bel Stewart Connector  
11118 Susquehanna Trail, South  
Glen Rock, Pa 17327-9199  
717.234.7512

**MagJack**

<http://www.stewartconnector.com>

SHEET  
4 OF 4

DRAWING NO.

SI-50097 REV. 03