

**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>

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SHEET 1 OF 4  
 DRAWING NO. SJ-51003-E  
 REV. 14

6.0 RETURN LOSS: 1MHz TO 30MHz  
 30MHz TO 60MHz  
 60MHz TO 80MHz  
 80MHz TO 100MHz

: -19dB MIN.  
 : -13dB MIN.  
 : -12dB MIN.  
 : -10dB MIN.

7.0 DIELECTRIC WITHSTAND: (J1,J2) TO (P10,P11) ; (J5,J4) TO (P3-P2)  
 (J3,J6) TO (P5,P4) ; (J8,J7) TO (P9, P8)

: 1500 VAC  
 : 1500 VAC

8.0 INSERTION LOSS: RS=RL=100 ohms  
 100KHz TO 125MHz

: -1.1 dB TYP

9.0 RISE TIME: RS=100 OHMS AND RL = 100 OHMS  
 OUTPUT VOLTAGE = 1 V peak  
 PULSE WIDTH= 112nS

: 3.0 nS MAX  
 : 3.0 nS MAX

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

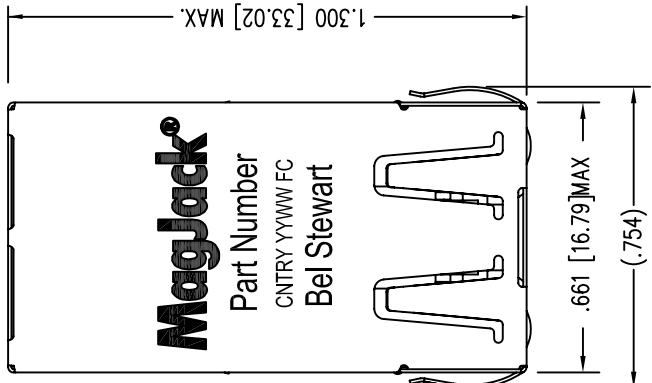
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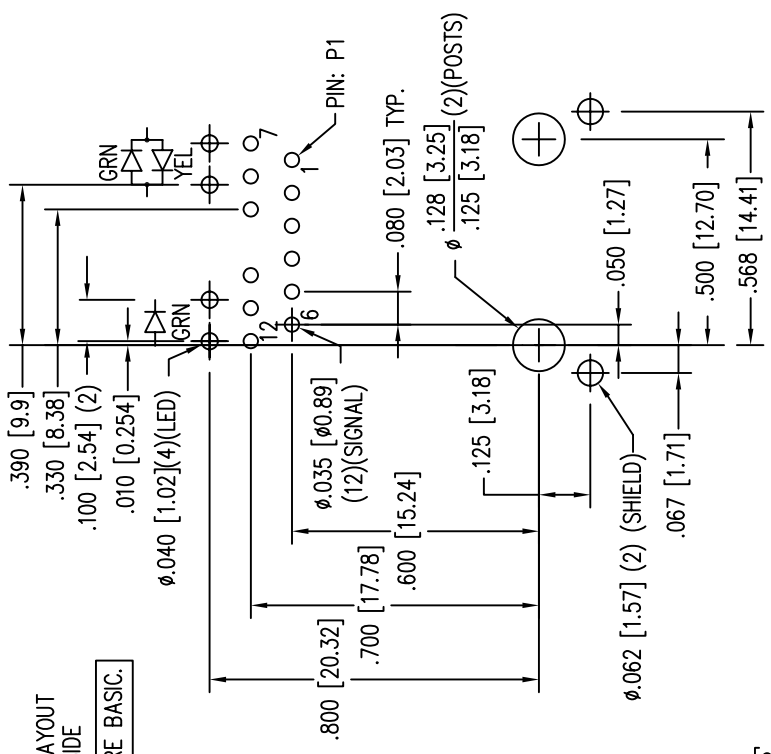
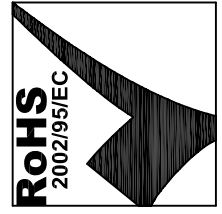
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 DRAWING NO. SI-51003-F  
 REV. 14



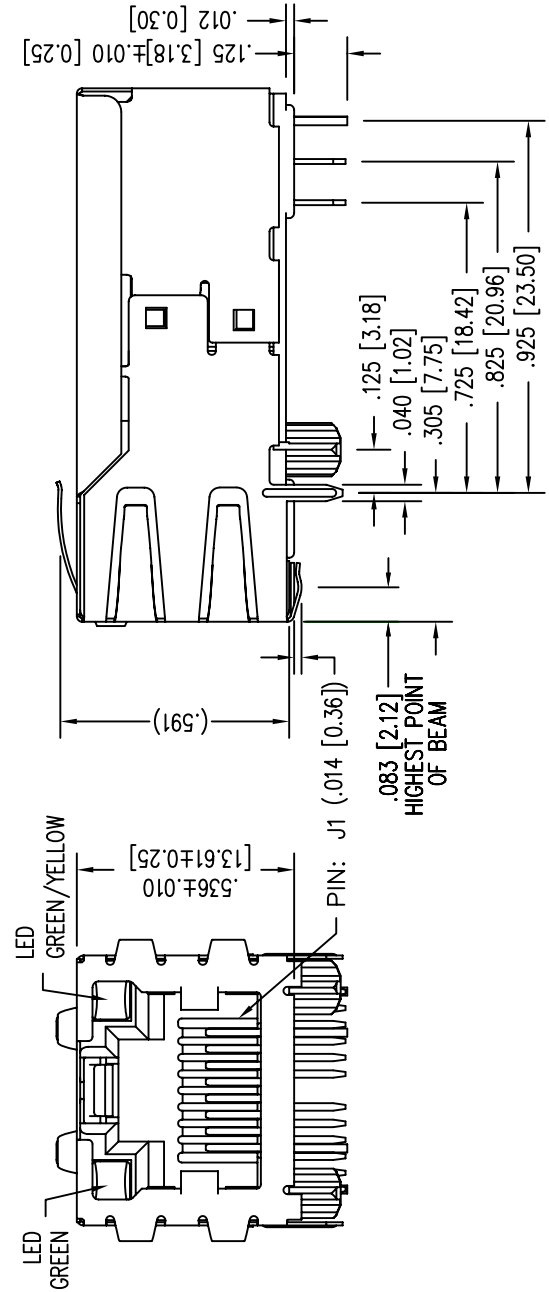
**MagJack®**  
 Part Number  
 CNTRY YYWW FC  
 Bel Stewart

P.C.B. RECOMMENDED HOLE LAYOUT  
 SEEN FROM COMPONENT SIDE  
 ALL CENTERLINE DIMENSIONS ARE BASIC.



STANDARD LED	WAVELENGTH	FORWARD V (MAX)	* (TYP)
YELLOW	590 nm	2.5 V	2.1 V
GREEN	565 nm	2.5 V	2.2 V

\* WITH A FORWARD CURRENT OF 20 mA (TYP)



NOTES:

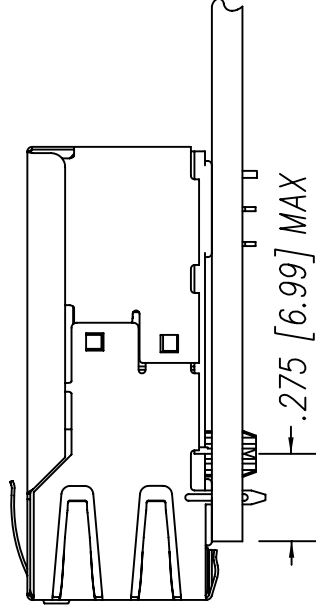
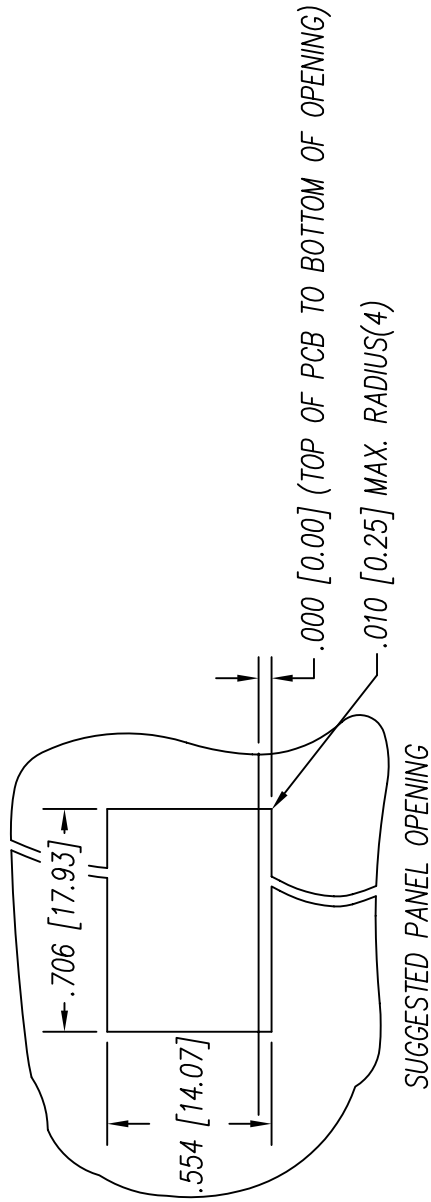
- CONNECTOR MATERIALS:  
 HOUSING: THERMOPLASTIC UL94 V-0  
 CONTACT/SHIELD: COPPER ALLOY  
 SHIELD PLATING: NICKEL OR TIN  
 CONTACT PLATING: SELECTIVE GOLD,  
 50 MICRO-INCHES MIN. IN CONTACT AREA.
- PIN NOT ELECTRICALLY CONNECTED MAYBE OMITTED.  
 SEE ELECTRICAL DRAWING FOR OMITTED PINS.
- TOLERANCES COMPLY WITH F.C.C. DIMENSION REQUIREMENTS.
- ALL TOLERANCES NOT OTHERWISE SPECIFIED TO BE ±.005 [0.13]
- REFLOW AND WAVE SOLDER COMPATIBLE -260°C FOR  
 10 SECONDS MAX.

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1. THE SUGGESTED PANEL OPENING IS INTENDED TO GIVE THE USER THE ABILITY TO HAVE REASONABLE JACK / PANEL CLEARANCES YET MAINTAIN RELIABLE GROUNDING CAPABILITY.
2. ALL TOLERANCES NOT OTHERWISE SPECIFIED TO BE  $\pm 0.005$  [0.13]

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 4 OF 4

DRAWING NO.

SI-51003-F

REV. 01

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