

NOTES

1.0 PINS WITHOUT ELECTRICAL CONNECTION ARE OMITTED.

2.0 ALL RESISTORS ARE  $\pm 5\%$  TOLERANCE.

ELECTRICAL SPECIFICATIONS:

- |                               |                              |  |
|-------------------------------|------------------------------|--|
| 1.0 TURNS RATIO:              | (P7-P6-P8) : (J3-J6)         | : 1CT : 1CT $\pm 3\%$                    |
|                               | (P1-P3-P2) : (J1-J2)         | : 1CT : 1CT $\pm 3\%$                    |
| 2.0 INDUCTANCE:               | (P7-P8)                      | : 350uH MIN. @ 0.1V, 100KHz, 8mA DC Bias |
|                               | (P1-P2)                      | : 350uH MIN. @ 0.1V, 100KHz, 8mA DC Bias |
| 3.0 LEAKAGE INDUCTANCE:       | P7-P8 (WITH J6 AND J3 SHORT) | : 0.3uH MAX. @ 1MHz                      |
|                               | P1-P2 (WITH J2 AND J1 SHORT) | : 0.3uH MAX. @ 1MHz                      |
| 4.0 INTERWINDING CAPACITANCE: | (P7,P6,P8) TO (J6,J3)        | : 30pf TYP @ 1MHz                        |
|                               | (P1,P3,P2) TO (J2,J1)        | : 30pf TYP @ 1MHz                        |
| 5.0 DC RESISTANCE:            | (J6-J3)=(J2-J1)              | : 1.2 ohms Max.                          |

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

**MagJack<sup>®</sup>**

<http://www.stewartconnector.com>

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RECEIVE

6.0 RETURN LOSS: (P7-P8)=100 OHMS AND (P1-P2) =100 OHM REF.  
1MHz TO 30MHz : -18dB MIN.  
30MHz TO 60MHz : -(19-20 LOG (f/30MHz))  
60MHz TO 80MHz : 12dB MIN.

NOTE: 100 OHMS CONNECTED TO (J2-J1) OR (J6-J3).

7.0 DIELECTRIC WITHSTAND: (J3, J6) TO (P7, P8) : 1500 VAC  
(J1, J2) TO (P1,P2) : 1500 VAC

8.0 INSERTION LOSS: RS=RL=100 ohms : -1 dB MAX  
1-65MHz

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: 1-65MHz : -35 dB MIN

11.0 COMMON TO COMMON MODE ATTENUATION: 30MHz TO 100MHz : -30dB MAX  
100MHz TO 130MHz : -20dB MAX

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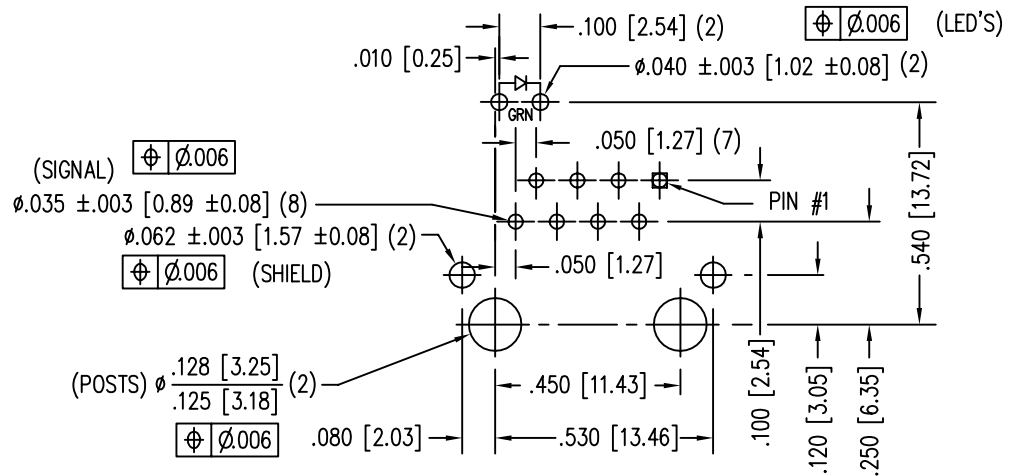
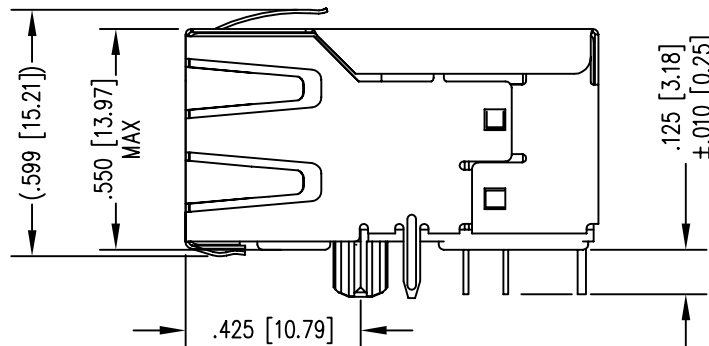
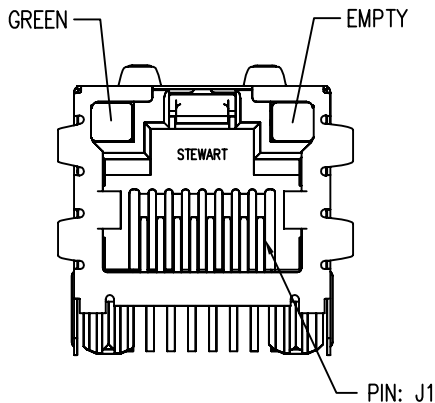
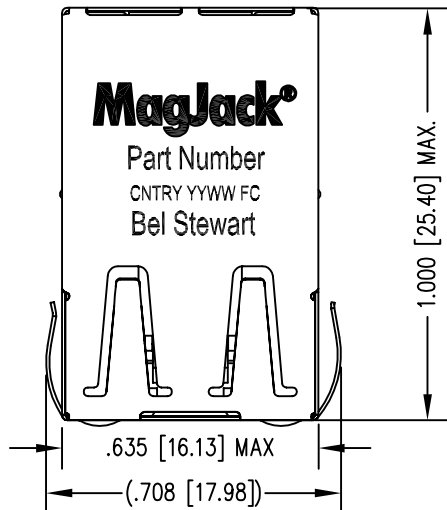
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P.C.B. RECOMMENDED HOLE LAYOUT  
SEEN FROM COMPONENT SIDE

ALL CENTERLINE DIMENSIONS ARE BASIC.

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]
- WAVE SOLDER COMPATIBLE - PREHEAT 125°C/90SECS.  
HIGH TEMPERATURE REFLOW COMPATIBLE - 230°C/90 SEC MAX.

LED SPECIFICATION			
STANDARD LED	WAVELENGTH	Forward V (MAX)	*(TYP)
GREEN	565 nm	2.5 V	2.2 V

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

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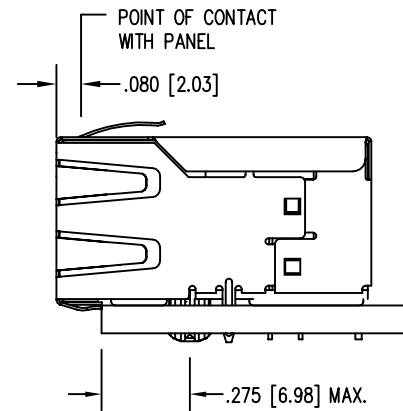
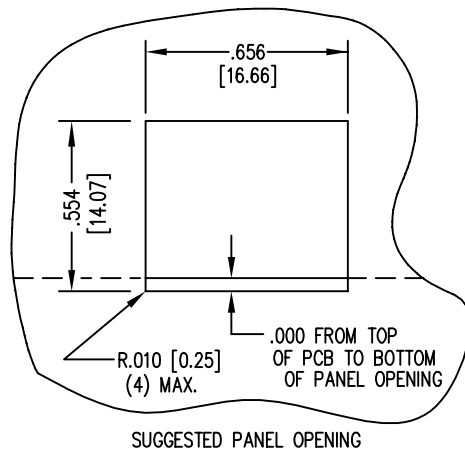
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SI-50202 REV. 01



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  $\pm .005$  [0.13]

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