

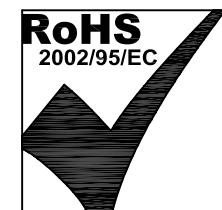
#### ELECTRICAL SPECIFICATIONS:

1.0 TURNS RATIO:  $(P4-P5-P6) : (J3-J6)$  : 1CT : 1CT  $\pm 3\%$   
 $(P3-P2-P1) : (J1-J2)$  : 1CT : 1CT  $\pm 3\%$

NOTES  
1.0 COMPLIES WITH THE EUROPEAN  
DIRECTIVE 2002/95/EC, CALLING FOR  
THE ELIMINATION OF LEAD AND OTHER  
HAZARDOUS SUBSTANCES FROM  
ELECTRONIC PRODUCTS.

2.0 UNUSED PIN P7 IS OMITTED.

2.0 INDUCTANCE:  $(P4-P6)$  : 350uH MIN. @ 0.1V, 100KHz, 8mA DC Bias  
 $(P3-P1)$  : 350uH MIN. @ 0.1V, 100KHz, 8mA DC Bias



3.0 LEAKAGE INDUCTANCE: P6-P4 (WITH J6 AND J3 SHORT) : 0.3 MAX. @ 1MHz  
P3-P1 (WITH J2 AND J1 SHORT) : 0.3 MAX. @ 1MHz

4.0 INTERWINDING CAPACITANCE:  $(P6,P5,P4)$  TO  $(J6,J3)$  : 30pf MAX @ 1MHz  
 $(P3,P2,P1)$  TO  $(J2,J1)$  : 30pf MAX. @ 1MHz

5.0 DC RESISTANCE:  $(J6-J3)=(J2-J1)$  : 1.35 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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6.0 RETURN LOSS: (P4-P6)=100 OHMS AND (P1-P3)=100 OHM REF.

1MHz TO 30MHz : 18dB MIN.  
60MHz TO 80MHz : 12dB MIN.

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

7.0 DIELECTRIC WITHSTAND: {J1, J2} TO {P1, P3} : 1500 VAC  
{J3, J6} TO {P4, P6} : 1500 VAC

8.0 INSERTION LOSS: RS=RL=100 ohms  
100KHz TO 100MHz : 1.1 dB TYP

9.0 RISE TIME: RS=100 OHMS AND RL = 100 OHMS  
OUTPUT VOLTAGE = 1 V peak : 3.0 nS MAX  
PULSE WIDTH= 112nS : 3.0 nS MAX

10.0 CROSS TALK: 1-100 MHz : 40 dB TYP

11.0 COMMON TO COMMON MODE ATTENUATION: 30MHz TO 100MHz : 35dB TYP

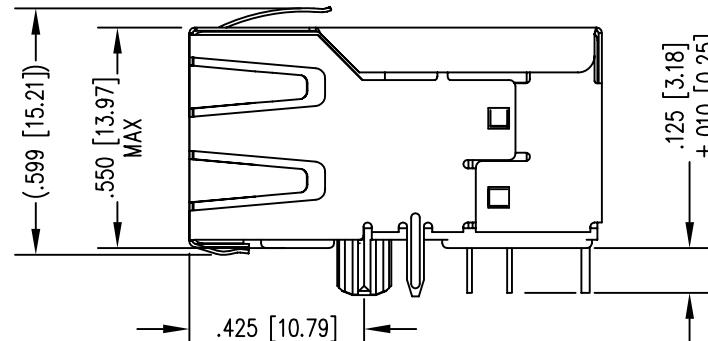
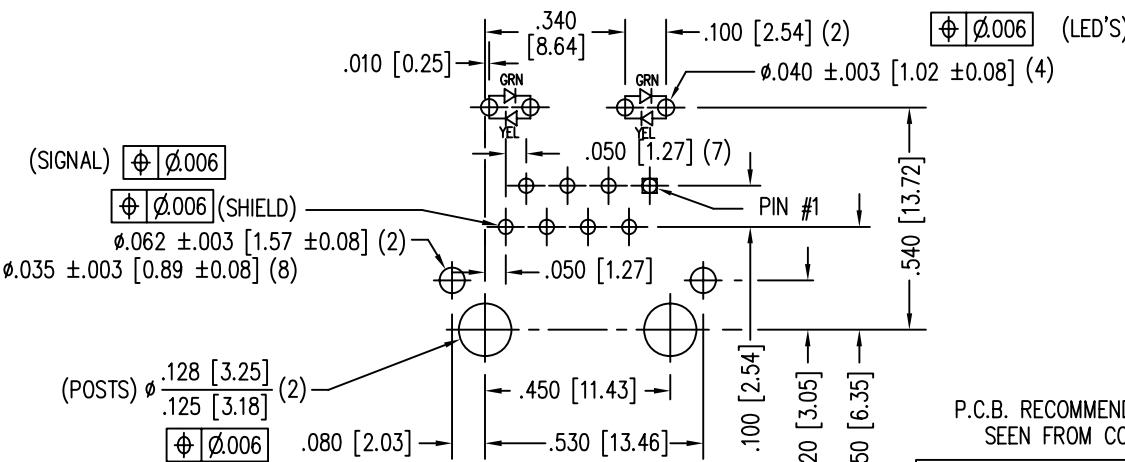
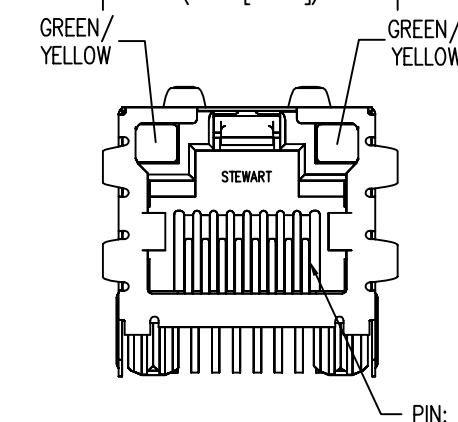
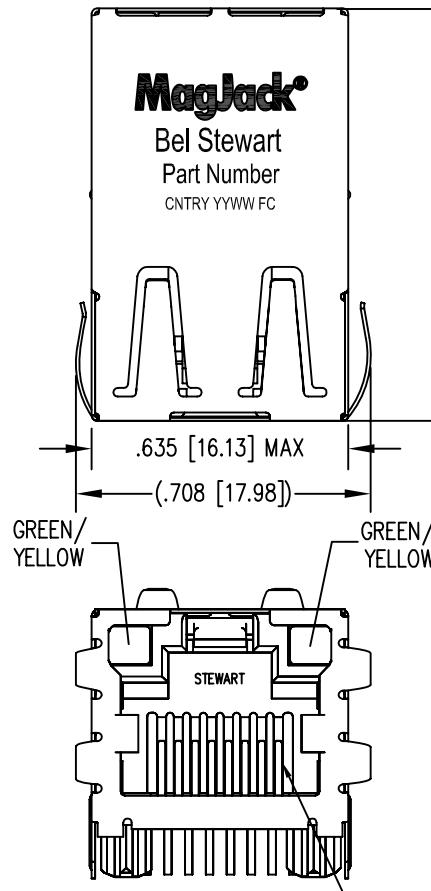
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SHEET 2 DRAWING NO. SI-50171-F REV. 12



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

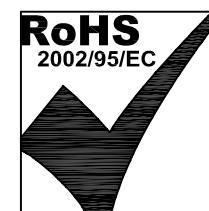
ALL CENTERLINE DIMENSIONS ARE BASIC.

NOTES:

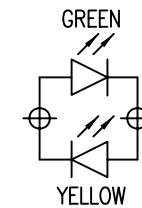
1. CONNECTOR MATERIALS:  
HOUSING: THERMOPLASTIC UL94 V-0  
CONTACT/SHIELD: COPPER ALLOY  
SHIELD PLATING: NICKEL OR TIN  
CONTACT PLATING: SELECTIVE GOLD,  
50 MICRO-INCHES MIN. IN CONTACT AREA.
2. PIN NOT ELECTRICALLY CONNECTED MAYBE OMITTED.  
SEE ELECTRICAL DRAWING FOR OMITTED PINS.
3. TOLERANCES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

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

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



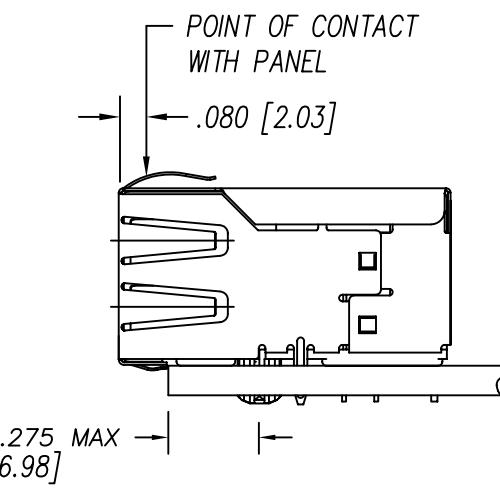
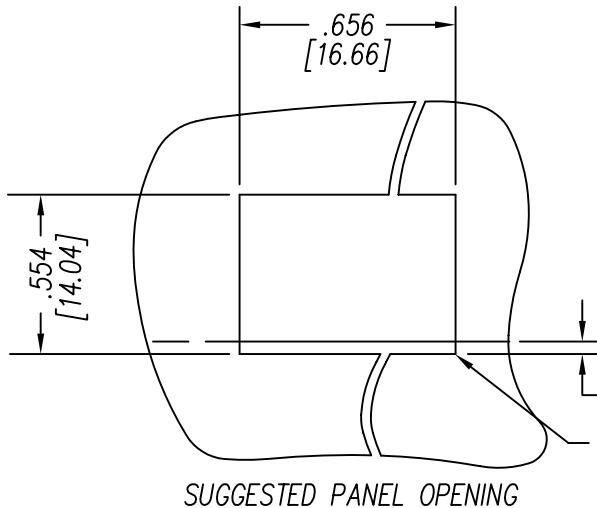
BICOLOR LED POLARITY



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|       |   |             |            |      |    |
|-------|---|-------------|------------|------|----|
| SHEET | 4 | DRAWING NO. | SI-50171-F | REV. | 02 |
|-------|---|-------------|------------|------|----|