

NOTES

- 1.0 PINS WITHOUT ELECTRICAL CONNECTION ARE OMITTED.
- 2.0 ALL RESISTORS ARE ±5% TOLERANCE.

ELECTRICAL SPECIFICATIONS:

- 1.0 TURNS RATIO: (P7-P6-P8) : (J3-J6) : 1CT : 1CT ± 3%
(P1-P3-P2) : (J1-J2) : 1CT : 1CT ± 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) : 1.4 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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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

12.0 OPERATING TEMPERATURE : 0°C TO 70°C

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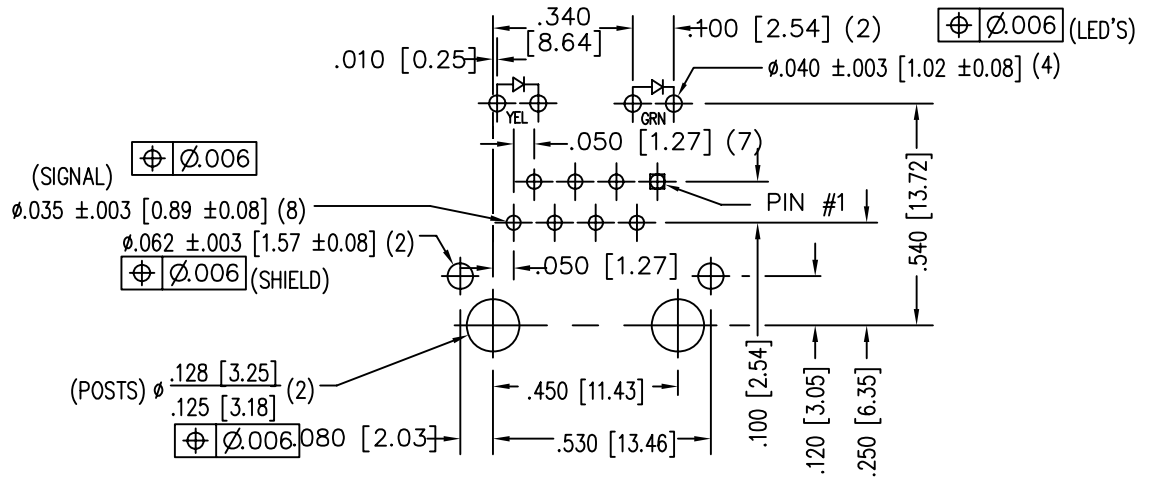
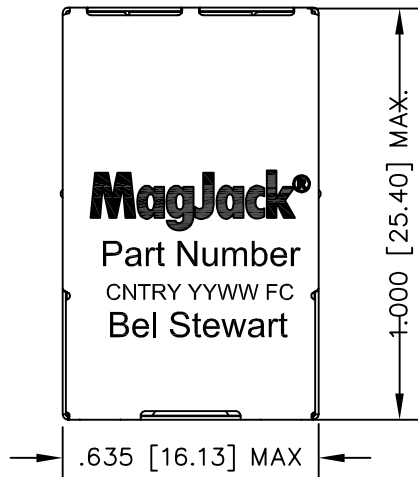
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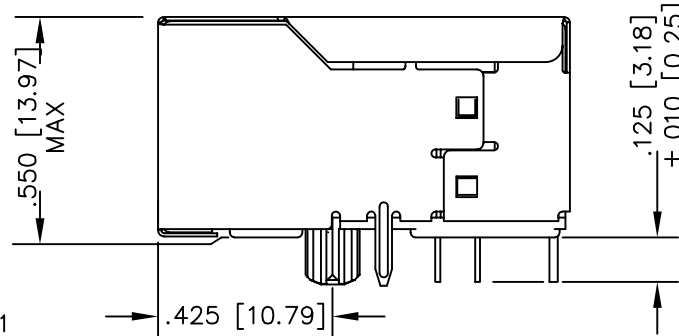
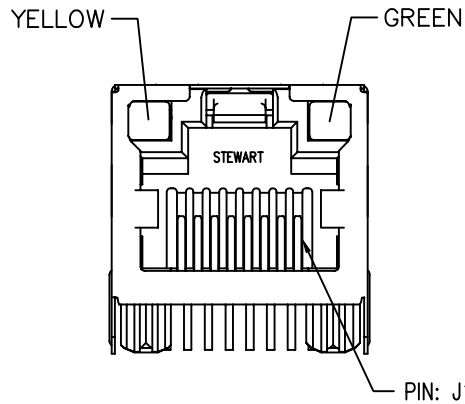
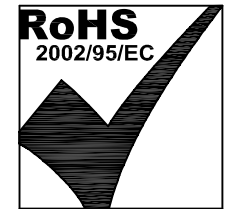
SHEET
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DRAWING NO. SI-50161-F REV. 04



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 ± 0.005 [0.13]
- REFLOW AND WAVE SOLDER COMPATIBLE -260°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)

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DRAWING NO.
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