

ELECTRICAL SPECIFICATIONS:

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

2.0 INDUCTANCE:  $(P6-P5-P4)$  : 350uH MIN. @ 0.1V, 100KHz, 8mA DC Bias  
 $(P3-P2-P1)$  : 350uH MIN. @ 0.1V, 100KHz, 8mA DC Bias

3.0 LEAKAGE INDUCTANCE:  $P6-P5-P4$  (WITH  $J6$  AND  $J3$  SHORT) : 0.3 MAX. @ 1MHz  
 $P3-P2-P1$  (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:  $(J6-J3)=(J2-J1)$  : 1.2 ohms Max.

NOTES

1.0 PINS WITHOUT ELECTRICAL CONNECTION ARE OMITTED.

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-60033 REV. 12

RECEIVE

6.0 RETURN LOSS: (P6-P4)=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 (J6-J3).

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 : 1.1 dB TYP  
100KHz TO 100MHz

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: 1MHz TO 100MHz : 40 dB TYP

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

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

**MagJack**<sup>®</sup>

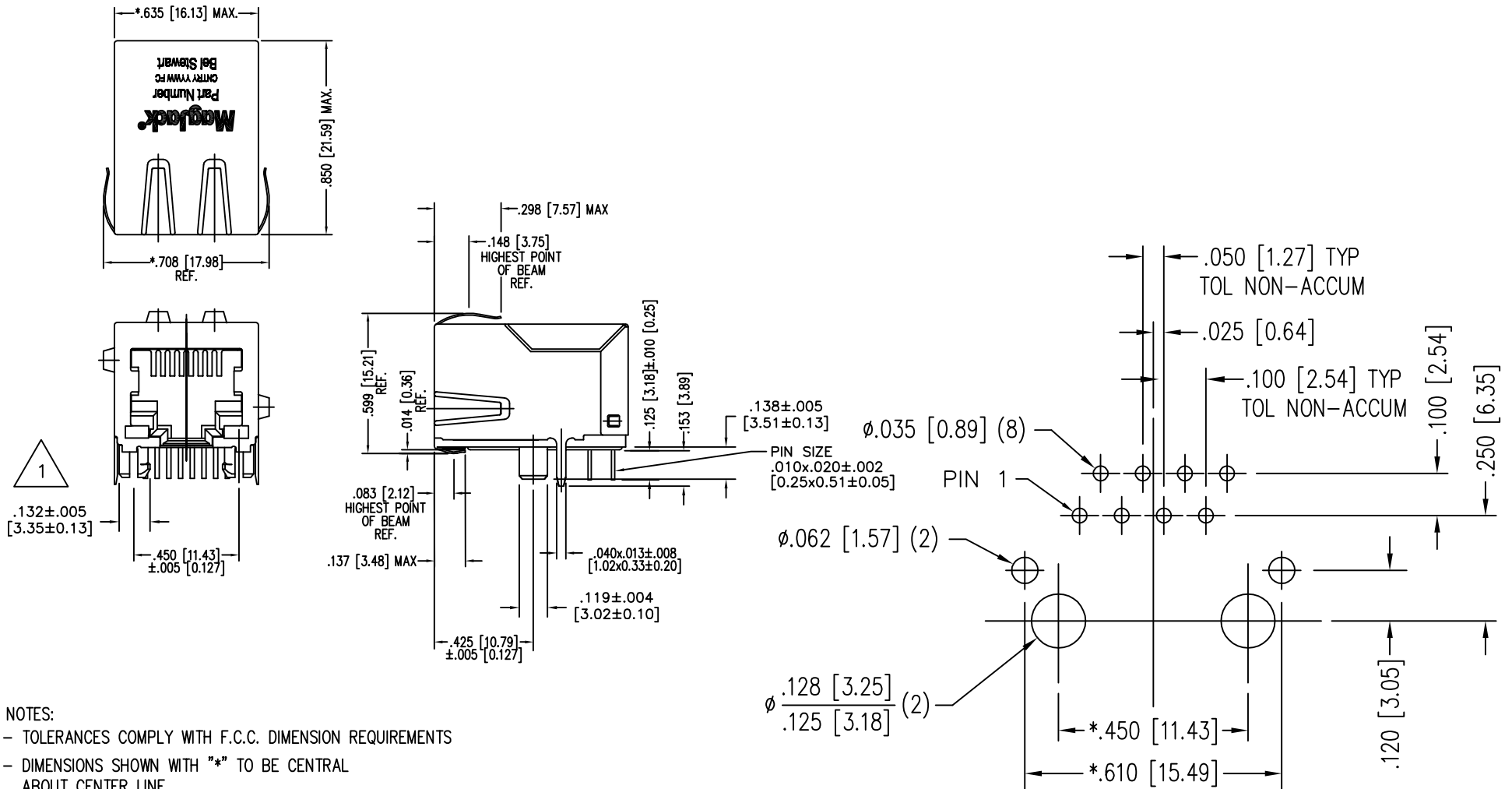
<http://www.stewartconnector.com>

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-60033 REV. 12



- NOTES:
- TOLERANCES COMPLY WITH F.C.C. DIMENSION REQUIREMENTS
  - DIMENSIONS SHOWN WITH "\*" TO BE CENTRAL ABOUT CENTER LINE
  - DIMENSIONS SHOWN ARE SUBJECT TO CHANGE WITHOUT NOTICE.

△ 1 NOT DIRECTLY MEASURED.

- STANDARD 50 MICRO-INCH SELECTIVE
- HIGH TEMPERATURE REFLOW COMPATABLE - 230°C/90 SEC MAX.
- 50 MICRO-INCH SELECTIVE GOLD PLATING

CT640237

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

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

**MagJack**<sup>®</sup>

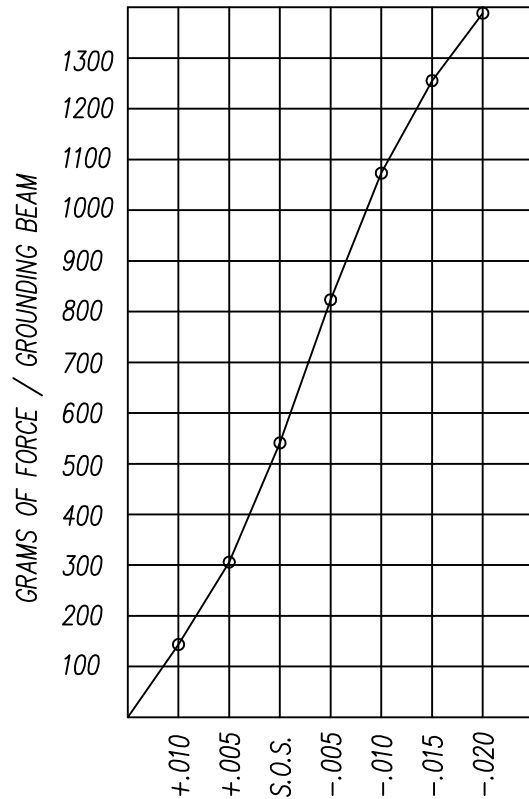
<http://www.stewartconnector.com>

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.

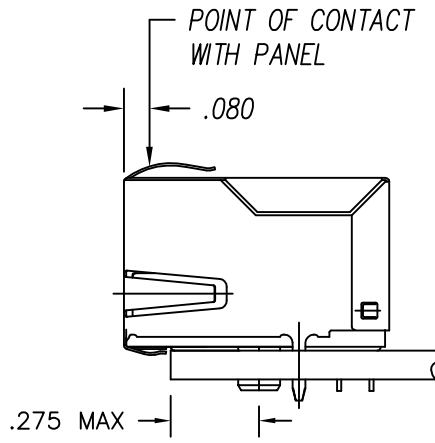
SHEET  
3 OF 4

DRAWING NO.

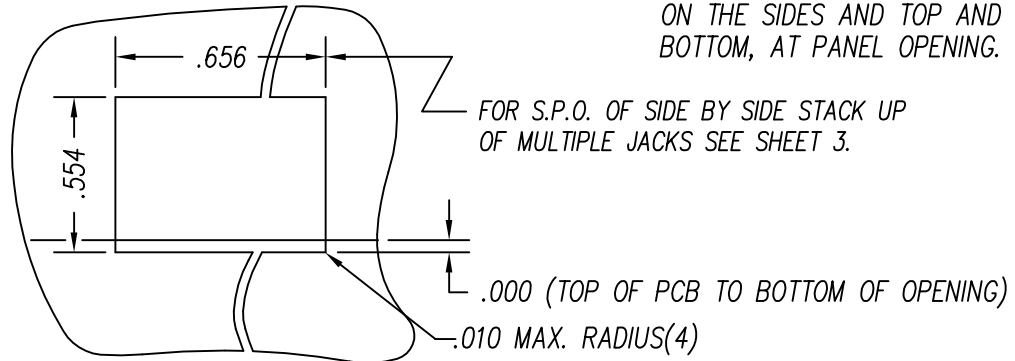
SI-60033 REV. 01



PANEL GROUNDING BEAM DEFLECTION  
S.O.S. = SUGGESTED OPENING SIZE



THE SUGGESTED PANEL OPENING IS INTENDED TO GIVE THE USER THE ABILITY TO HAVE REASONABLE JACK / PANEL CLEARANCES YET MAINTAIN RELIABLE GROUNDING CAPABILITY. THESE VARIABLES CAN BE ADJUSTED IN EITHER DIRECTION BUT MAY CARRY SOME CONSEQUENCES IN THE FORM OF LOWER MATING FORCES OR TIGHTER ASSEMBLY TOLERANCES. FORCE VALUES ON THE GRAPH ARE GENERAL AVERAGES TAKEN AT THE POINT OF CONTACT SHOWN ABOVE. THE SUGGESTED PANEL OPENING INCLUDES APPROXIMATELY .020 CLEARANCE ON THE SIDES AND TOP AND .013 ON THE BOTTOM, AT PANEL OPENING.



FOR S.P.O. OF SIDE BY SIDE STACK UP OF MULTIPLE JACKS SEE SHEET 3.

SUGGESTED PANEL OPENING

CT640237

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 4 OF 4	DRAWING NO. SI-60033	REV. 01
-----------------	-------------------------	------------