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PATENTED: THIS PRODUCT IS COVERED BY U.S. PATENT 5,736,910



**DOCUMENT / PART NO.: SI-30135-F** 

TITLE: 10/100BT,STACK JACK, SHIELDED

| ISSUE |       | DE     | SCRI | PTIO   | N OF | CHAN | IGE |      | REVIE | WED    | вү | A | PPRO  | VED   | вч    | EC   | N# |
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| Α0    | Updat | te the | mech | nanica | draw | ing  |     |      | Bio   | an Liu |    |   | Steve | Welle | r     | 063  | 74 |
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| PAGE  | 1     | 2      | 3    | 4      |      |      |     | <br> |       |        |    |   |       |       |       |      |    |
| REV.  | A0    | A0     | A0   | Α0     |      |      |     | <br> |       |        |    |   |       |       |       |      |    |
| PAGE  |       |        |      |        |      |      |     | <br> |       |        |    |   |       | C2    | 036-F | REV  | Α0 |
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## ELECTRICAL CHARACTERISTICS @ 25°C

| ELEC | CTRICAL SPECIFICATIONS:   |   | PINS          | SCHEMATIC(LOW AND UPPER PORT)               | RJ45<br>1 |
|------|---|---|---------------|---|-----------|
| 1.0  | TURNS RATIO: (P1-P4-P2) : (J1-J2)<br>(P3-P7-P6) : (J3-J6)                             | : 1CT : 1 ±3%<br>: 1CT : 1 ±3%                      | TD+ P1 —      | 111<br>3  E                                 | J1 TX+    |
| 2.0  | INDUCTANCE: (P6-P3) : 350uH MIN. @ 0.1V, (P2-P1) : 350uH MIN. @ 0.1V,                 | 100KHz, 8mA DC Bias<br>100KHz, 8mA DC Bias          | TD- P2        | 3  {  | J2 TX-    |
| 3.0  | LEAKAGE INDUCTANCE: P6-P3 (WITH J6 AND J3 SHORT) P2-P1 (WITH J2 AND J1 SHORT)         | : 0.3uH MAX. @ 1MHz<br>: 0.3uH MAX. @ 1MHz          | RD+ P3 TCT P7 |   | J3 RX+    |
| 4.0  | INTERWINDING CAPACITANCE: (P6,P7,P3) TO (J6,J3) (P2,P4,P1) TO (J2,J1)                 | : 30pF MAX @ 1MHz<br>: 30pF MAX @ 1MHz              | RD- P6        |   | J6 RX-    |
| 5.0  | DC RESISTANCE: (J6-J3)=(J1-J2)<br>(P6-P3)<br>(P2-P1)                                  | : 1.2 ohms Max.<br>: .7 ohms Max.<br>: .7 ohms Max. |               |   | J5        |
| 6.0  | RETURN LOSS: 1MHz TO 30MHz 60MHz TO 80MHz   | : 18dB MIN.<br>: 12dB MIN.                          |               |   | J7<br>J8  |
| 7.0  |   | : 1500 VAC<br>: 1500 VAC                            |               | 4X 75 OHMS \$ \$ \$                         |           |
| 8.0  | INSERTION LOSS: RS=RL=100 ohms 100KHz TO 100MHz                                       | : 1.1 dB TYP  |               | 1000pF 2kV                                  |           |
| 9.0  | RISE TIME: RS=100 OHMS AND RL = 100 OHMS OUTPUT VOLTAGE = 1 V peak PULSE WIDTH= 112nS | : 3.0 nS MAX<br>: 3.0 nS MAX                        | P8            |   |           |
| 10.0 | CROSS TALK: 1MHz TO 100MHz  | : 40 dB TYP   | NOT           | TES_  |           |
| 11.0 | COMMON TO COMMON MODE ATTENUATION: 1MHz TO 100MHz                                     | : 35dB TYP  | 1.0           | PINS WITHOUT ELECTRICAL CONNECTION ARE OMIT | TED.      |

| ORIGINATED BY  | DATE       |
|----------------|------------|
| Zeng Xiao Chun | 2011-08-18 |
| DRAWN BY       | DATE       |
| Zhang Ru Sheng | 2011-08-18 |

MagJack®
10/100BT
STACK JACK, SHIELDED
PATENTED

TITLE

| PART NO. / DRAWING NO. | STANDA  | RD DIM. | [] METRIC DIM. AS REFERENCE |           |  |  |
|------------------------|---------|---------|-----------------------------|-----------|--|--|
| SI-30135-F             | TOL. IN | INCH    | UNIT : INCH [mm]            | REV.: A0  |  |  |
| FILE NAME              | x       |         | SCALE: N/A                  | SIZE : A4 |  |  |
| SI-30135-F.DWG         | .XX.    |         | DOALE: IVA                  | OLL . AT  |  |  |
| 31-30 133-F.DWG        | .xxx    | ±0.005  |                             | PAGE: 2   |  |  |



THE INFORMATION CONTAINED HEREIN IS CONSIDERED "PROPRIETARY" TO BEL FUSE INC. AND SHALL NOT BE COPIED. REPRODUCED OR DISCLOSED WITHOUT THE 0.950[24.13] WRITTEN APPROVAL OF BEL FUSE INC. ø.062 ±.003 [1.57 ±0.08] (6) (SHIELD) 0.525[13.34] -0.400[10.16] 0.350[8.89] 0 0 <del>-</del> 0 0 0.100[2.54] 0.100[2.54] 0.050[1.27]TYP 0 0 0 0 0 0 TOL NON-ACCUM 0.609[15.47] 0 0 0 0 0 0 (SIGNAL) 0 0 0 0.350[8.89] ø.035 ±.003 [0.89 ±0.08] (8) 0 0 0 0 0 0 PIN #1 (2) 0.100[2.54]TYP TOL NON-ACCUM TYPICAL HOLE LAYOUT (4 POSITIONS)  $\oplus$ MagJack\* 0.180[4.57] PATENTED [28.02] MAX. 0.110[2.79] (2) Part Number 1.000[25.40] CNTRY YYWW FC Bel Stewart 1.084[27.53] 1.103 Ø0.128 3.25 0.125 3.17 1.110[28.20] (2) P.C.B. RECOMMENDED HOLE LAYOUT SEEN FROM COMPONENT SIDE ALL CENTERLINE DIMENSIONS ARE BASIC. BOTTOM SURFACE OF JACK -(PCB SURFACE)

( .148 [3.75] ) (11)

( 1.063 [27.00] )

[25.50] MAX.

.004

.083 [2.11] (4)

.243 [6.17] ±.005 --

[0.57]

.023

-( 1.306 [33.17] )

1.229 [31.22] MAX.

PIN #1 (2) -0 0 0.660[16.76] 0.448[11.38] <del>-10</del>-000 0.231[5.87]

## NOTES:

.125 [3.18] ±.010 [.0.25] (32)

- 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 ±.005 [0.13]
- 5. WAVE SOLDER COMPATIBLE PREHEAT 125°C/90SECS.

|                | Janu       |       |
|----------------|------------|-------|
| ORIGINATED BY  | DATE       | TITLE |
| Zeng Xiao Chun | 2011-08-18 |       |
| DRAWN BY       | DATE       | 1     |
| Zhang Ru Sheng | 2011-08-18 |       |

10/100BT

[4.57])

.180

STACK JACK, SHIELDED PATENTED

| PART NO. / DRAWING NO. | STANDA       | RD DIM. | [] METRIC DIM. AS REFERENCE |          |  |
|------------------------|--------------|---------|-----------------------------|----------|--|
| SI-30135-F             | TOL. IN INCH |         | UNIT : INCH [mm]            | REV.: A0 |  |
| FILE NAME              | X            |         | SCALE: N/A                  | SIZE: A4 |  |
| SI-30135-F.DWG         | .XX.         |         | DOALE: IVA                  | OLL . AT |  |
| 31-30 133-7.0449       | .xxx         | ±0.005  |                             | PAGE: 3  |  |

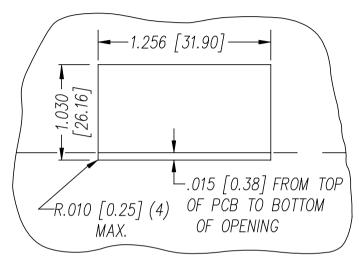


**RoHS** 

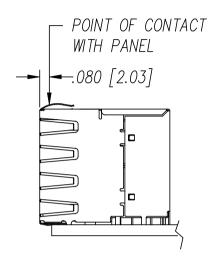
-.040 [1.02] (7) ±.005

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SUGGESTED PANEL OPENING (N.T.S.)



- 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 ±.005 [0.13]

| ORIGINATED BY  | DATE       | TITLE |
|----------------|------------|-------|
| Zeng Xiao Chun | 2011-08-18 |       |
| DRAWN BY       | DATE       | 1     |
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|------------------------|--------------|---------|-----------------------------|-----------|--|
| SI-30135-F             | TOL. IN INCH |         | UNIT : INCH [mm]            | REV.: A0  |  |
| FILE NAME              | .х           |         | SCALE: N/A                  | SIZE : A4 |  |
| SI-30135-F.DWG         | .XX.         |         |                             | OLL . AT  |  |
| 31-30 133-1 .DWG       | .xxx         | ±0.005  |                             | PAGE: 4   |  |

