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COMPONENTS FOR A CONNECTED PLANET®

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

**DOCUMENT / PART NO.: SI-52008-F**

**TITLE : 10/100BT,PoE; TAB UP, SHIELDED**

| ISSUE | DESCRIPTION OF CHANGE | REVIEWED BY | APPROVED BY | ECN# |
|---|---|---|---|---|
| A0 | USE NEW FORMAT AND PRODUCTION RELEASE | David Chan | Danny Kwan | 06257 |
| B0 | Update drawing format,remove PIN#6 from footprint | Bain Liu | Steve Weller | 06346 |
| B1 | Update the circuit drawing | Bain Liu | Steve Weller | 06383 |
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| PAGE | 1 | 2 | 3 | 4 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| REV. | B1 | B1 | B1 | B1 | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| PAGE | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | C5128-F REV A2 | | | |
| REV. | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | 24-0444-F REV B0 | | | |



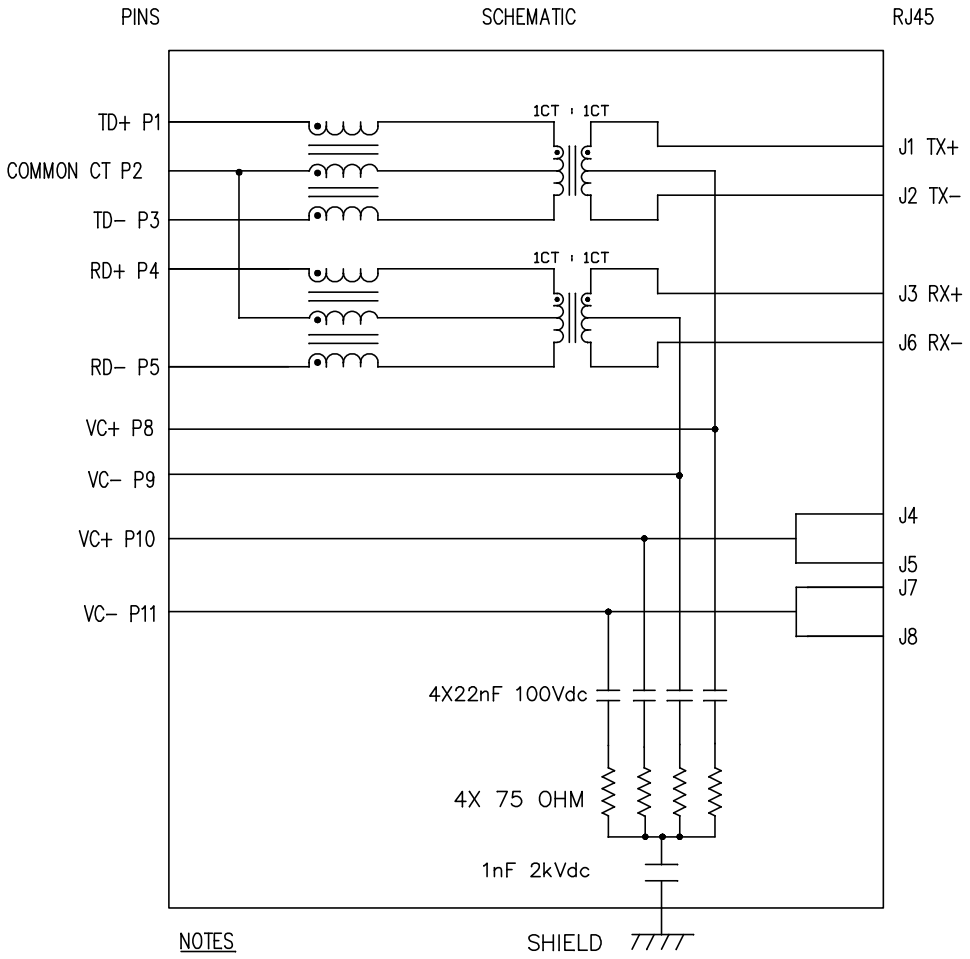
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ELECTRICAL CHARACTERISTICS @ 25° C

| | |
|---|---|
| 1.0 TURNS RATIO: | |
| (P1–P3):(J1–J2) | 1CT : 1CT ±2% |
| (P4–P5):(J3–J6) | 1CT : 1CT ±2% |
| 2.0 DC RESISTANCE: | |
| (P1–P3):(P4–P5) | 1.4 OHMS |
| (J1–J2):(J3–J6) | 1.2 OHMS |
| 3.0 INDUCTANCE: | |
| (P1–P3) | 350uH MIN. @ 0.1V, 100KHz, 8mA DC BIAS |
| (P4–P5) | 350uH MIN. @ 0.1V, 100KHz, 8mA DC BIAS |
| 4.0 LEAKAGE INDUCTANCE: | |
| (P4–P5) WITH J6 AND J3 SHORT | 0.3uH MAX. @ 1MHz |
| (P1–P3) WITH J2 AND J1 SHORT | 0.3uH MAX. @ 1MHz |
| 5.0 INTERWINDING CAPACITANCE: | |
| (P4,P5) TO (J3,J6) | 60pF TYP @ 1MHz |
| (P1,P2,P3) TO (J1,J2) | 60pF TYP @ 1MHz |
| 6.0 RETURN LOSS: (P1–P3)=100 OHMS REF. AND (P4–P5)=100 OHM REF. | |
| 1MHz TO 30MHz | –18dB MIN. |
| 30MHz TO 60MHz | –(19–20LOG(f/30MHz)) |
| 60MHz TO 80MHz | 12dB MIN. |
| 7.0 DIELECTRIC WITHSTAND: | |
| (J3,J6) TO (P4,P5) | 1500Vms |
| (J1,J2) TO (P1,P3) | 1500Vrms |
| 8.0 INSERTION LOSS: RS=RL=100 OHMS | |
| 1MHz–65MHz | –1dB MAX |
| 9.0 RISE TIME: RS=RL=100 OHMS | |
| OUTPUT VOLTAGE = 1V PEAK | 3.0nS MAX |
| PULSE WIDTH = 112nS | 3.0nS MAX |
| 10.0 CROSS TALK: | |
| 1MHz–65MHz | –35dB MIN. |
| 11.0 CM TO CM ATTENUATION: | |
| 30MHz TO 100MHz | –30dB MIN. |
| 100MHz TO 130MHz | –20dB MIN. |
| 12.0 BALANCED DC LINE CURRENT: | 350mA MAX @ 57 VDC CONTINUOUS<br>500mA MAX @ 57 VDC FOR 200 MILLSECONDS |




NOTES

1.0 DESIGNED TO SUPPORT IEEE 802.3

| | | | | | |
|---|---|---|---|---|---|
| ORIGINATED BY: Zeng Xiaochun | DATE: 2012-04-18 | TITLE: MagJack® 10/100BT,PoE TAB UP,SHIELDED PATENTED | PART NO. / DRAWING NO.: SI-52008-F | STANDARD DIM. TOL. IN INCH: .X, .XX, .XXX ±0.005 | [ ] METRIC DIM. AS REFERENCE |
| DRAWN BY: Duan Jun | DATE: 2012-04-18 | | FILE NAME: SI-52008-F.DWG | | UNIT : INCH [mm] / REV. : B1 |
| | | | | | SCALE : N/A / SIZE : A4 |
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bel COMPONENTS FOR A CONNECTED PLANET



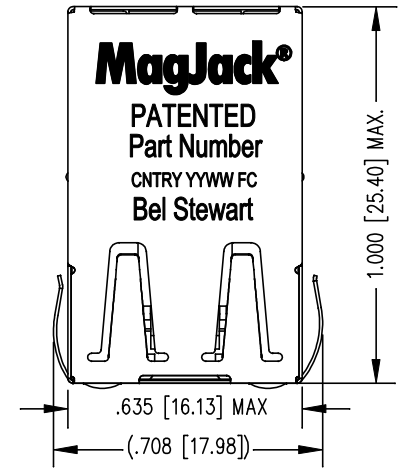
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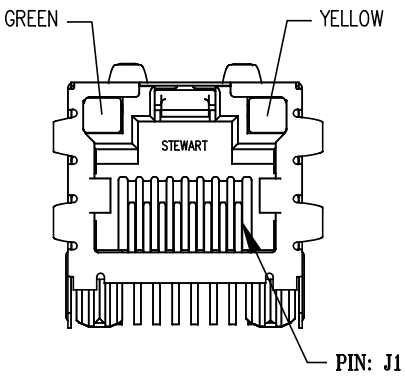
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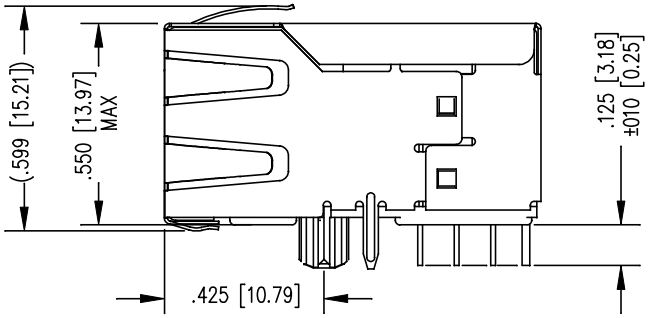
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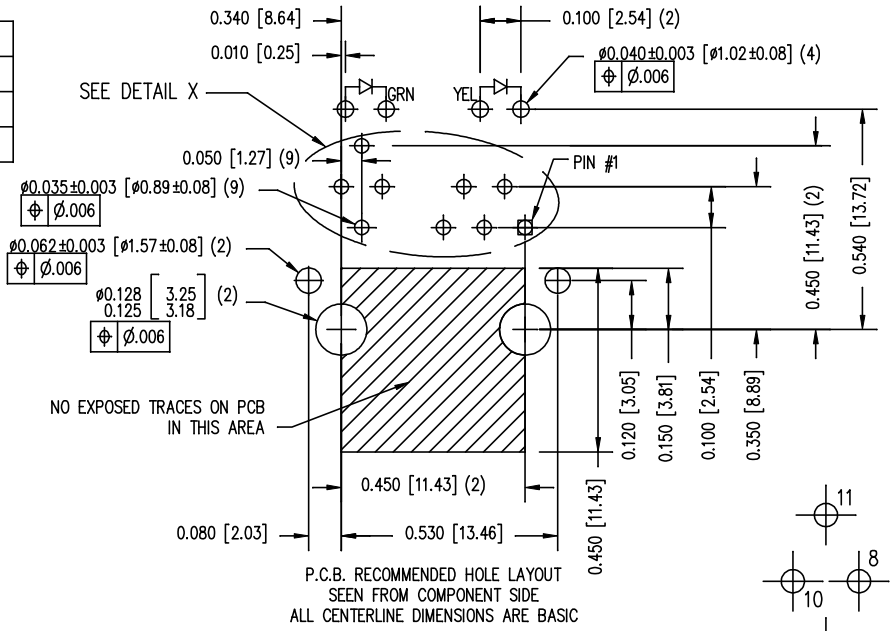
| LED SPECIFICATION | | | |
|---|---|---|---|
| STANDARD LED | WAVELENGTH | FOWARD V (MAX) | * (TYP) |
| GREEN | 565 nm | 2.5 V | 2.2 V |
| YELLOW | 590 nm | 2.5 V | 2.1 V |

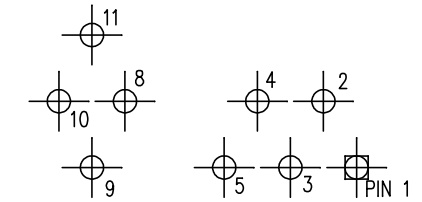
*WITH A FORWARD CURRENT OF 20 mA (TYP)




DETAIL X

NOTES:

1. CONNECTOR MATERIALS:
   HOUSING: THERMOPLASTIC UL94 V-0
   CONTACT/SHIELD: COPPER ALLOY
   SHIELD PLATING: NICKEL OR TIN
   CONTACT PLATING: 50 MICRO-INCH SELECTIVE HARD GOLD PLATING OR EQUIVALENT 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. REFLOW AND WAVE SOLDER COMPATIBLE -260° C FOR 10 SECONDS MAX.

| ORIGINATED BY | DATE | TITLE | PART NO. / DRAWING NO. | STANDARD DIM. TOL. IN INCH | | [ ] METRIC DIM. AS REFERENCE | |
|---|---|---|---|---|---|---|---|
| Zeng Xiaochun | 2012-04-18 | MagJack® 10/100BT,PoE TAB UP,SHIELDED PATENTED | SI-52008-F | .X | | UNIT : INCH [mm] | REV. : B1 |
| DRAWN BY | DATE | | FILE NAME | .XX | | SCALE : N/A | SIZE : A4 |
| Duan Jun | 2012-04-18 | | SI-52008-F.DWG | .XXX | ±0.005 | | PAGE : 3 |

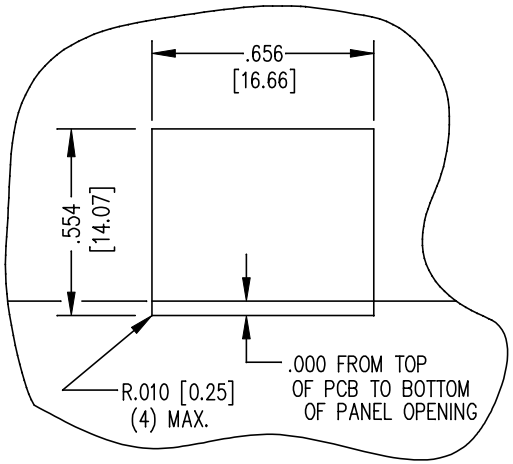
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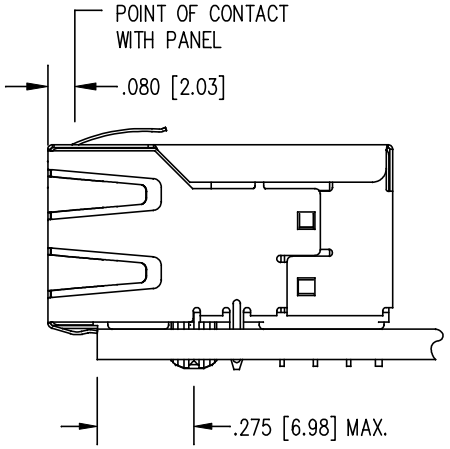
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SUGGESTED PANEL OPENING




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 | MagJack® | PART NO. / DRAWING NO. | STANDARD DIM. TOL. IN INCH | [ ] METRIC DIM. AS REFERENCE | |
| Zeng Xiaochun | 2012-04-18 | | 10/100BT,PoE | SI-52008-F | .X | UNIT : INCH [mm] | REV. : B1 |
| DRAWN BY | DATE | | TAB UP,SHIELDED | FILE NAME | .XX | SCALE : N/A | SIZE : A4 |
| Duan Jun | 2012-04-18 | | PATENTED | SI-52008-F.DWG | .XXX ±0.005 | | PAGE : 4 |

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