

10/100 BASE-TX MAGNETICS SINGLE RJ45 CONNECTOR MODULE

XMG-J1B101ZCD

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- Suitable for CAT 5 & 6 Fast Ethernet Cable or better UTP.
- Meets or exceeds IEEE 802.3 standard for 100Base-T.
- 350 μ H minimum OCL with 8 mA bias current.
- Minimum 1500 Vrms isolation per IEEE 802.3 requirement.
- All materials are RoHS and UL94 V-0 compliant.
- RoHS peak solder rating 260°C.
- Meet EN60950-1 basic insulation requirement.



| Electrical Specifications @ 25°C | | | | | | | |
|----------------------------------|---------------------------|-----------|--------------------------------|--|-----------|-----------|-----------|
| Part Number | Turns Ratio ($\pm 5\%$) | | Crosstalk (dB TYP) 1-65 MHz | Return Loss 100 Ω $\pm 5\Omega$ (dB TYP) | | | |
| | TX | RX | | 1-10 MHz | 10-30 MHz | 30-60 MHz | 60-80 MHz |
| J1B101ZCD | 1CT : 1CT | 1CT : 1CT | -1 | -20 | -16 | -12 | -10 |

| Electrical Specifications @ 25°C | | | | | | |
|----------------------------------|--------------------|-----------|------------|--------------------------------|------------|------------------------------|
| Part Number | Crosstalk (dB TYP) | | | Common Mode Rejection (dB TYP) | | HI-POT (Vrms) @60MHz/1Min |
| | 1-30 MHz | 30-60 MHz | 60-100 MHz | 1-50 MHz | 50-150 MHz | |
| J1B101ZCD | -40 | -35 | -30 | -30 | -20 | 1500 |

| RJ45 Durability Testing Rating & Material Specification | | | | |
|---|----------------|-------------------|----------|--|
| Part Number | Durability | Mating Force | Shield | |
| | | | Material | Finish |
| J1B101ZCD | 750 Insertions | 5 lbs./2.268 kgs. | Brass | 10-20m inches Nickel over 10-20m inches Brass |

| RJ45 Material Specification | | | | |
|-----------------------------|----------------|--|---------------|---------------|
| Part Number | Contact | | Housing | |
| | Material | Plating Area | Material | Specification |
| J1B101ZCD | Phosphor Brass | 10-20m inches Nickel over selective gold plating 6 μ inches | Thermoplastic | UL 94 V-0 |

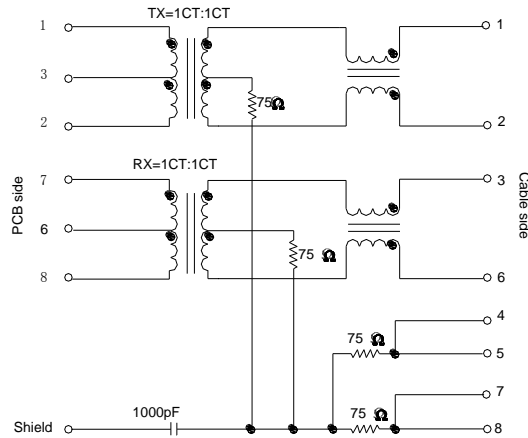
* Operating temperature range: 0°C to +70°C. Storage temperature range: -25°C to +125°C.

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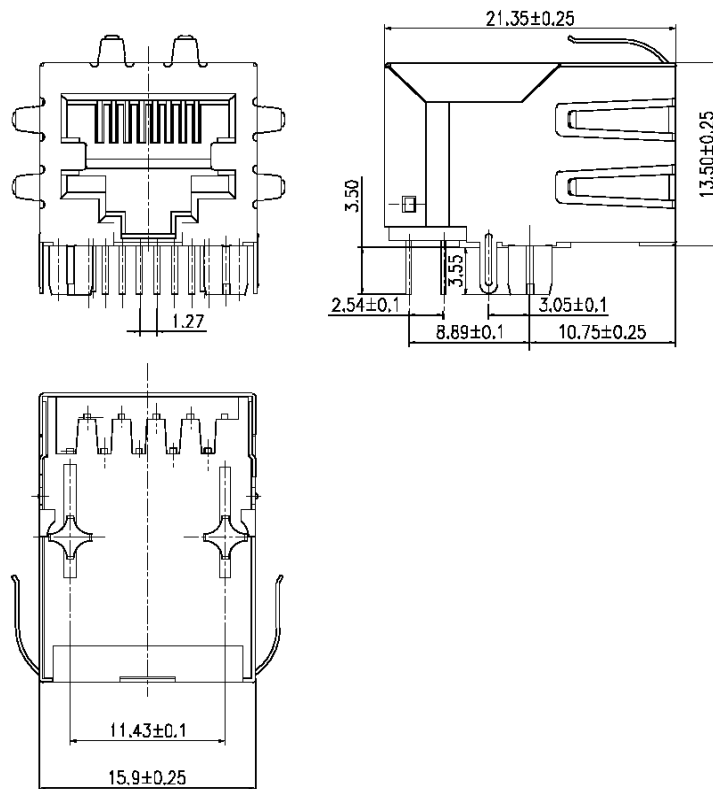
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SCHEMATIC



MECHANICAL



Units: mm[Inches]. Tolerance: ±0.25 (0.010) unless specified otherwise.

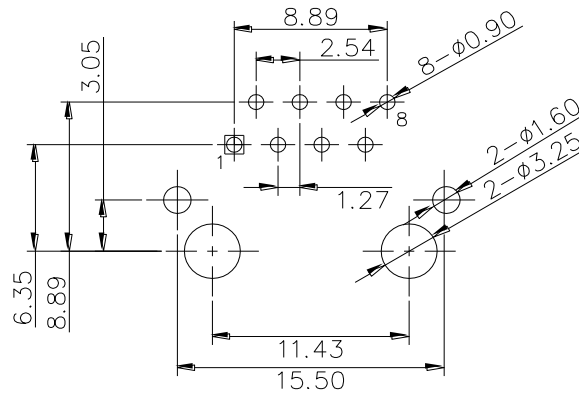
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PCB LAYOUT



RJSE1A0280-R