



## 10/100 BASE-TX MAGNETICS SINGLE RJ45 CONNECTOR MODULE

### J1B101ZCBE

#### Feature

- Suitable for CAT 5 & 6 Fast Ethernet Cable or better UTP
- Meets or exceeds IEEE 802.3 standard for 100Base-T
- 350  $\mu$ H minimum OCL with 8 mA bias current
- Minimum 1500 Vrms isolation per IEEE 802.3 requirement
- All materials are RoHS and UL94-V0 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 $\Omega$ $\pm 5\Omega$ (dB TYP)			
	TX	RX		1-10 MHz	10-30 MHz	30-60 MHz	60-80 MHz
J1B101ZCBE	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)
	1-30 MHz	30-60 MHz	60-100 MHz	1-50 MHz	50-150 MHz	@60MHz/1Min
J1B101ZCBE	-40	-35	-30	-30	-20	1500

#### RJ45 Durability Testing Rating & Material Specification

Part Number	Durability	Mating Force	Shield	
			Material	Finish
J1B101ZCBE	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
J1B101ZCBE	Phosphor Brass	10-20m inches Nickel over selective gold plating 6 $\mu$ inches	Thermoplastic	UL 94 V-0 1

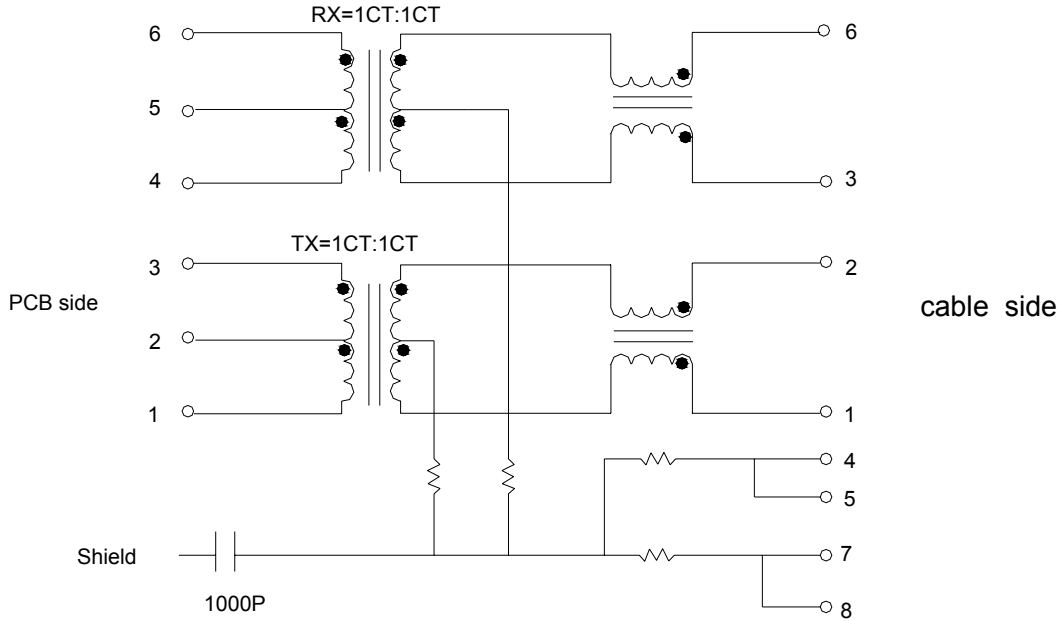
\*Operating temperature range: -0°C to +70°C..Storage temperature range: -20°C to +125°C.



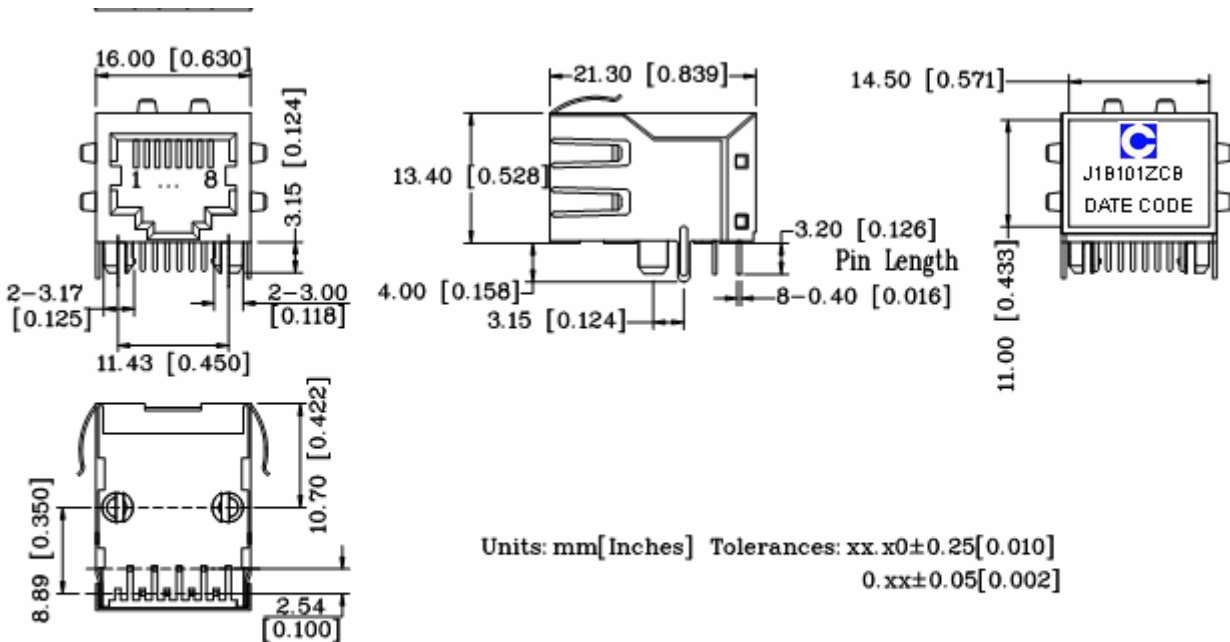
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#### Schematic



#### Mechanical

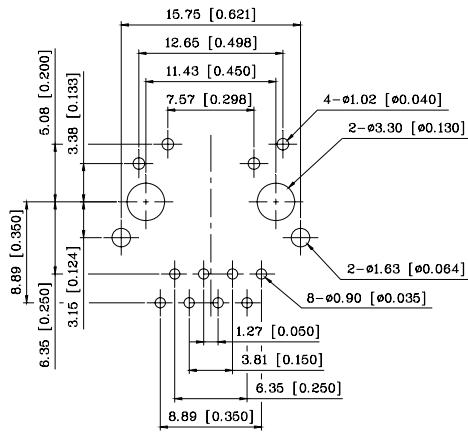




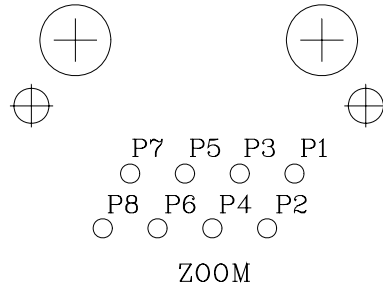
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### J1B101ZCBE

### PCB Layout Mounting Hole (Top View)



Units: mm [Inches]  
 Tolerances: xx.x0 $\pm$ 0.25 [0.010]  
 0.xx $\pm$ 0.05 [0.002]



### NOTE:

#### Datasheet Change History:

V0	2006/JuL.	Datasheet Set Up