



## Single Port RJ45 CONNECTOR WITH INTEGRATED MAGNETICS, TAB DOWN

- 10/100 Base-T Ethernet Application
- Meets IEEE 802.3 & ANSI X 3.263 standards
- Impedance: 100OHMS
- Transmit open circuit inductance (OCL): 350uH (MIN) @100KHz,0.1VRMS with 8mA DC Bias
- Always EU RoHS/ELV Compliant, wave solder capable to 265°C
- RJ45 jack cavity conforms to FCC rules and regulations Part 68, SUB Part F
- Standard operating temp: 0°C to +70°C (see footnote)
- Industrial operating temp: -40°C to +85°C (see footnote)

### Electrical Specifications @ 25°C

Part Number	OCL(uH Min) @ 100kHz, 0.1V	Turns Ratio chip: cable (±3%)	Insertion Loss (dB Max)	Return Loss (dB Min)		
	With 8mA DC Bias		0.5-100MHz	0.5-30MHz	30.1-60MHz	60.1-80MHz
AR1007-1000_	350	1CT:1CT	1.1	18	18-20*log(f/30)	12

### Electrical Specifications @ 25°C

Part Number	EMI Fingers	LED (L/R)	Cross Talk (dB Min)		CMRR (dB Min) 0.5-100MHz	HI-POT (VDC)
			0.5-40MHz	40.1-100MHz		
AR1007-1000_	NO	NO	35	33-20*log(f/50)	30	2250

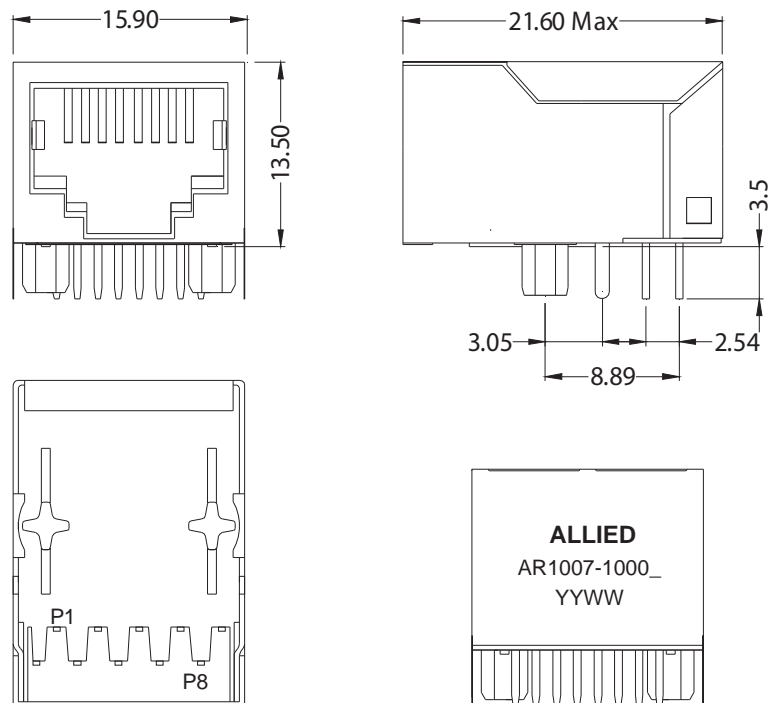
\*Complete part number by inserting "S" for Standard Temp. or "I" for Industrial Temp.

All specifications subject to change without notice.

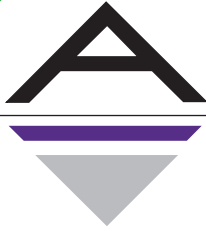
## MECHANICAL

Unless otherwise specified all tolerances are: ±0.25 in mm

AR1007-1000\_



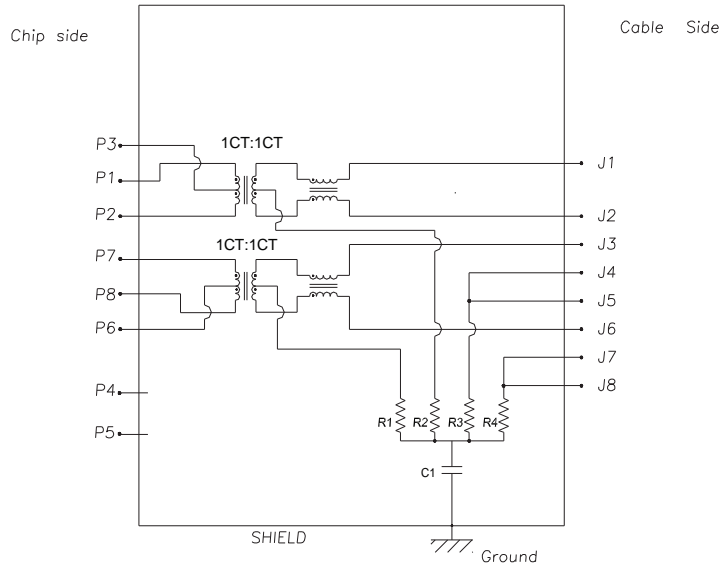
Back View



# Single Port RJ45 CONNECTOR WITH INTEGRATED MAGNETICS, TAB DOWN

## SCHEMATICS

AR1007-1000\_



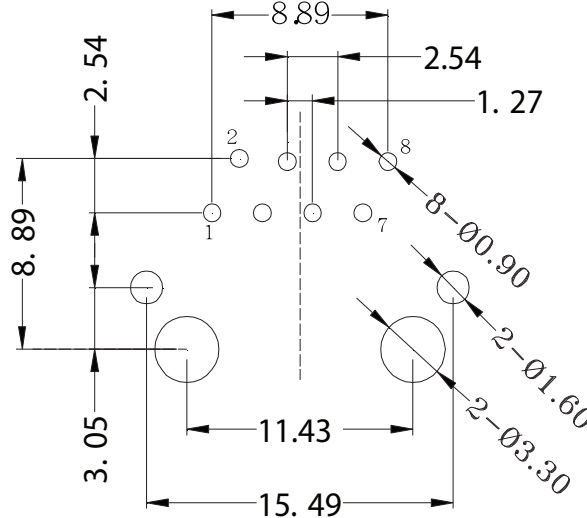
Notes:

1. R1-R4=75OHMS, 1/16W, 5% Resistors.
2. C1=1000pF, 2KV Decoupling Capacitor.

## PCB LAYOUT

AR1007-1000\_

Unless otherwise specified all tolerances are:  $\pm 0.05$  in mm



## MATERIALS

AR1007-1000\_

- Housing: PBT, Flammability Rating 94V-O.
- Shell: C2680 Brass, 0.20mm thick, 50u" Min nickel plating.
- Mod Jack Contacts: Phosphor Bronze, 0.35mm thick, 6u" Gold plated.