



# Single Port RJ45 CONNECTOR WITH INTEGRATED MAGNETICS, TAB DOWN

- 100 Base-T Ethernet Application
- Meets IEEE 802.3 & ANSI X 3.263 standards
- 15w,350mA,48V POE Rating
- 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
- Rise Time: 2.5 nano-seconds from 10 to 90 percent
- 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 With 8mA DC Bias	Turns Ratio chip: cable (±3%)	Insertion Loss (dB Max)		Return Loss (dB Min)	
			0.5-100MHz	0.5-30MHz	30.1-60MHz	60.1-80MHz
AR1033-13D1_	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		
AR1033-13D1_	YES	G-O/Y	35	33-20*log(f/50)	30	2250

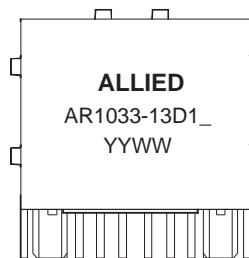
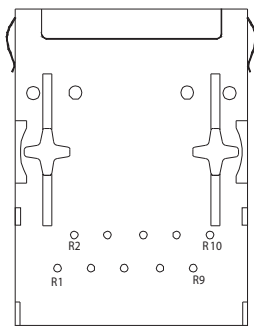
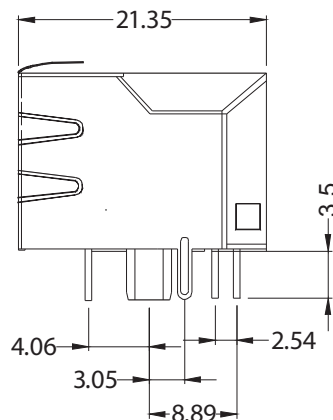
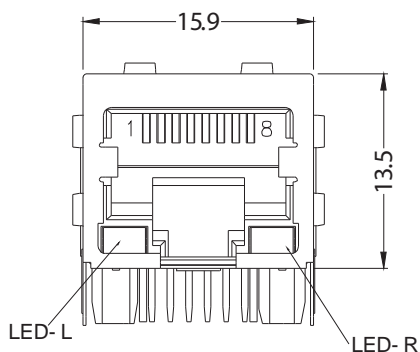
\*Complete part number by inserting "S" for Standard Temp. or "I" for Industrial Temp.

All specifications subject to change without notice.

## MECHANICAL

Unless otherwise specified all tolerances are: ±0.25 in mm

AR1033-13D1\_



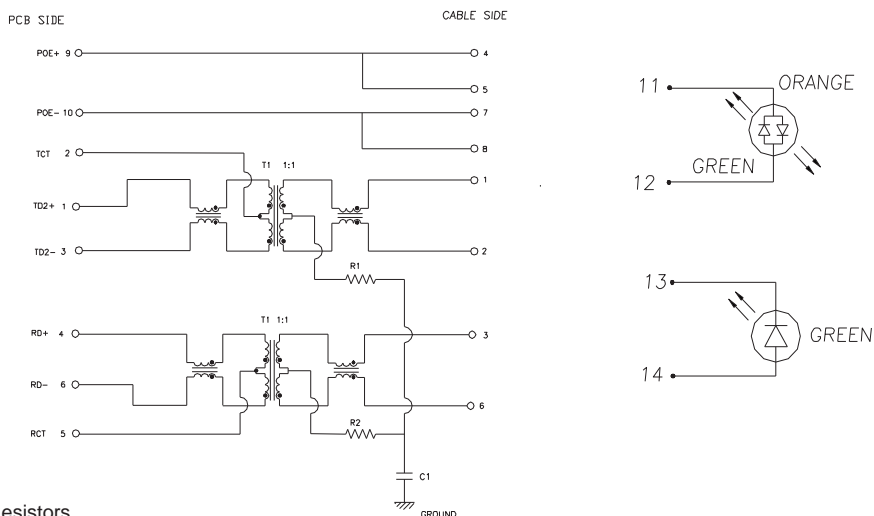
BACK VIEW



# Single Port RJ45 CONNECTOR WITH INTEGRATED MAGNETICS, TAB DOWN

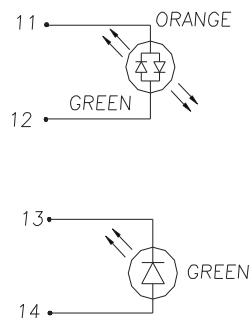
## SCHEMATICS

AR1033-13D1\_



Notes:

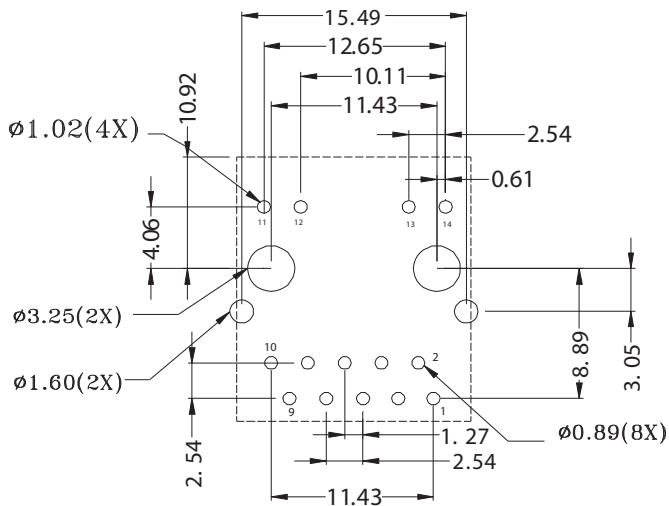
1. R1-R2=75OHMS, 1/16W, 5% Resistors.
2. C1=1000pF, 2KV Decoupling Capacitor.
3. LED Compliant With IEC60825-1 Safety of Laster Products When operated Up to 20mA.
4. LED Forward Voltage: 2.1V(TYP).
5. LED Power Dissipation: 105mW.
6. LED Peak Wavelength: Green=565nm, Yellow=585nm, Orange=606nm



## PCB LAYOUT

AR1033-13D1\_

Unless otherwise specified all tolerances are: ±0.05 in mm



## MATERIALS

AR1033-13D1\_

- Housing: PBT, Flammability Rating 94V-O.
- Shell: C2680 Brass, 0.25mm thick, 80 + 150u" Min nickel plating.
- Mod Jack Contacts: Phosphor Bronze, 0.35mm thick, Gold plated.
- LED: Diffused Epoxy Lens, 0.5x0.5mm Carbon Steel wireframe leads.