



Single Port RJ45 CONNECTOR WITH INTEGRATED MAGNETICS, TAB UP

- 10/100/1000 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

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 | 0.5-40MHz | 40.1-100MHz |
| ARB533-5412S | 350 | 1CT:1CT | 1.1 | 18 | 12-20*log(f/80) |

Electrical Specifications @ 25°C

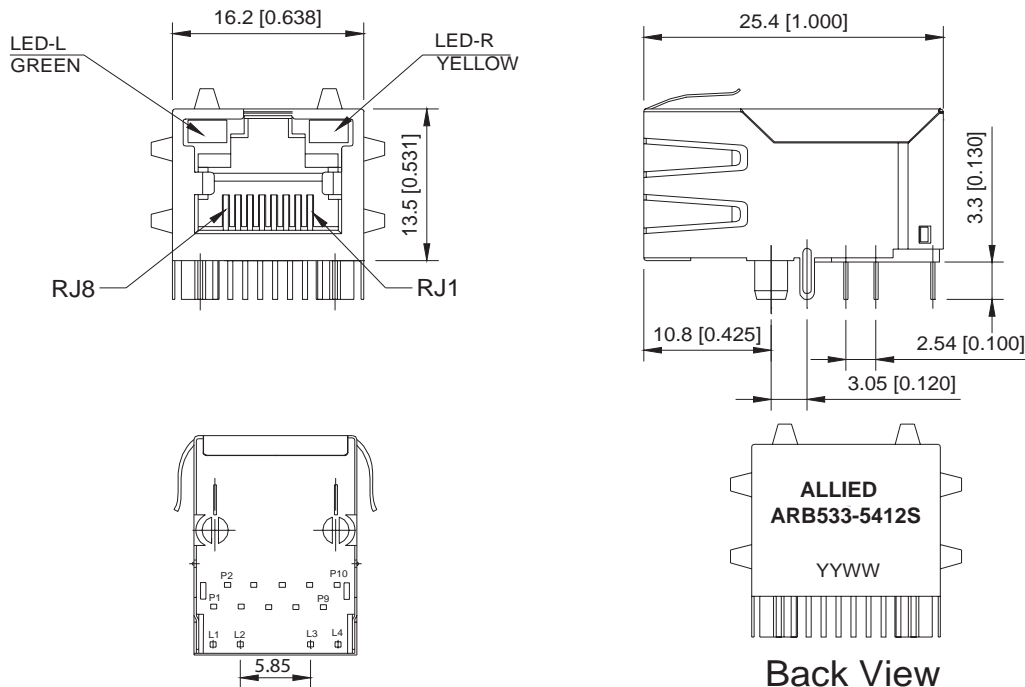
| Part Number | EMI Fingers | LED (L/R) | Cross Talk (dB Min) | | CMRR (dB Min) 0.5-100MHz | HI-POT (VDC) |
|--------------|----------------|--------------|------------------------|-----------------|--------------------------------|-----------------|
| | | | 0.5-40MHz | 40.1-100MHz | | |
| ARB533-5412S | YES | G/Y | 35 | 33-20*log(f/50) | 30 | 2250 |

All specifications subject to change without notice.

MECHANICAL

Unless otherwise specified all tolerances are: ±0.25 in mm

ARB533-5412S

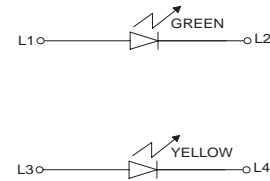
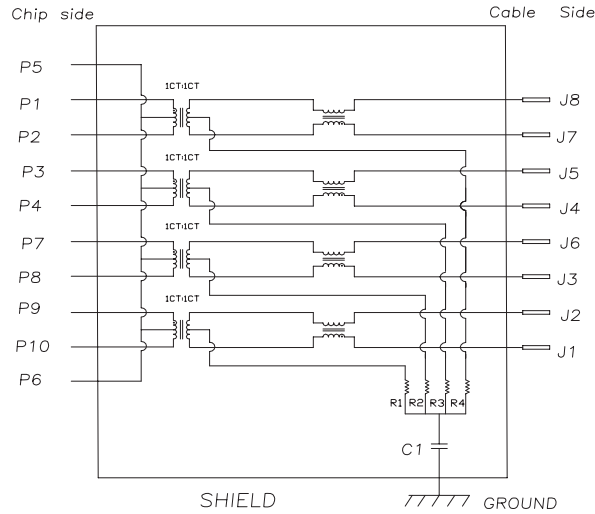




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SCHEMATICS

ARB533-5412S



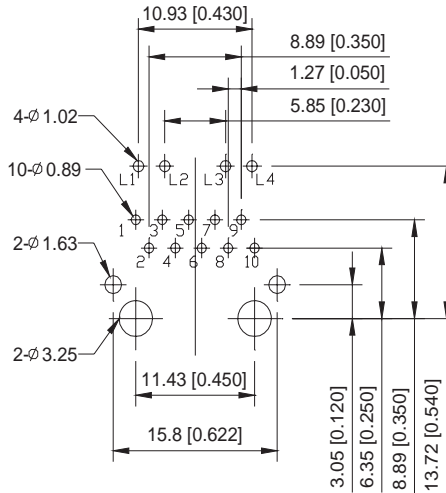
Notes:

1. R1-R4=75OHMS, 1/16W, 5% Resistors.
2. C1=1000pF, 2KV Decoupling Capacitor.
3. LED Compliant With IEC60825-1 Safety of Laser Products When operated up to 20mA.
4. LED Forward Voltage: 2.1V(TYP). LED Power Dissipation: 105mW. LED Peak Wavelength: Green=565nm, Yellow=585nm.

PCB LAYOUT

ARB533-5412S

Unless otherwise specified all tolerances are: ±0.05 in mm



MATERIALS

ARB533-5412S

- Housing: PBT, Flammability Rating 94V-0.
- Shell: C2680 Brass, 0.2mm thick, 50u"Min nickel plating.
- Mold Jack Contacts: Phosphor Bronze, 6u" Glod Plated.
- LED: Diffused Epoxy Lens, 0.5x0.5mm Carbon Steel wireframe leads.