

# RJ45 Single Port 10GBase-T Magnetic Module



ARJM11H-A1750ZADWCB

32.6 x 16.6 x 13.5 mm  
RoHS/RoHS II Compliant  
MSL = 1

## Features

- Single Port RJ45 with Magnetics
- Supports speed up to 10 Gbps
- Operating temperature range up to -40°C to +85°C
- Different Gold plating options
- Compatible with major IC's for Ethernet applications
- High performance magnetics for EMI suppression and common mode noise rejection
- 1CT:1CT TX and RX Transformers

## Applications

- Fast and gigabit Ethernet
- Hubs, Servers, Switches, Routers, Access points
- IP cameras, surveillance, and phone
- Industrial computers and robotics
- Networking and communications
- Broadcast video
- Set top box
- Test and Measurement

## Electrical Specifications

Parameters	Minimum	Typical	Maximum	Units	Notes
Inductance	200			μH	100 kHz, 0.1V
Leakage Inductance			0.3	μH	100 kHz, 0.1V
DC Resistance			1.5	Ω	
Hi-pot	1500			VDC	0.5 mA / 60 s
	1650				0.5 mA / 2 s
Insertion Loss			2.0	dB	1-400 MHz
Return Loss	22			dB	1-40 MHz
	17- $18.27 * \log(f^*/100)$				40-500 MHz
Crosstalk	30			dB	1-100 MHz
	20				100-500 MHz
CMR	30			dB	1-250 MHz
	22				250-500 MHz
Turn Ratio	1CT:1CT				± 3 %

\*f represents the test frequency specified in MHz

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## Material Specifications

Parameter	Specification		Image
Housing	Material (Housing)	Nylon 66, Black	
	Material (Plug into housing)	PBT +30%GF	
	Flammability Rating	UL94V-0	
Insert	Material	QSn6.5-0.1, 0.35 mm	
	Plating (1)	Nickel	
	Plating (2)	100% Sn	
	Plating (3)	50 u" Gold*	
Contact	Material	QSn6.5-0.1, 0.35 mm	
	Plating (1)	Nickel	
	Plating (2)	100 % Sn	
Shield	Material	Brass H65Y	
	Plating	Nickel	

\*For alternative Gold plating thickness, please contact ABRACON.

## Environmental Specifications

Parameters	Specification
RoHS	RoHS Compliant
MSL	1
Operating Temperature	-40 to +85 °C
Storage Temperature	-40 to +85 °C
Operating Life	750 cycles (min)

# RJ45 Single Port 10GBase-T Magnetic Module

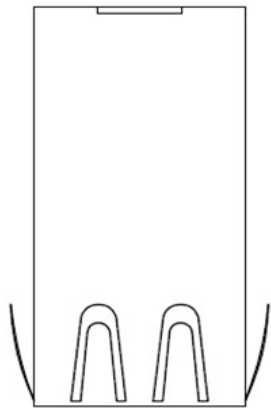


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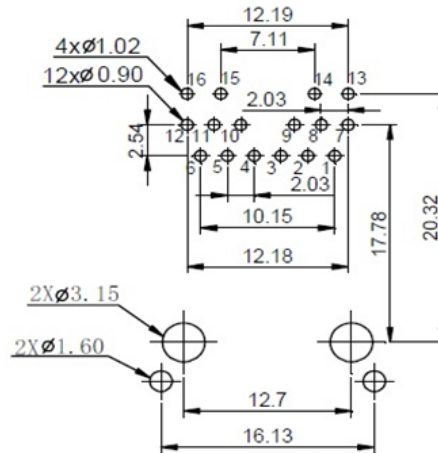
32.6 x 16.6 x 13.5 mm  
RoHS/RoHS II Compliant  
MSL = 1

## Mechanical Dimensions

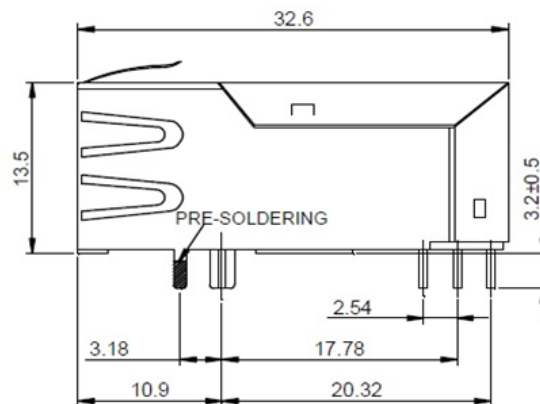
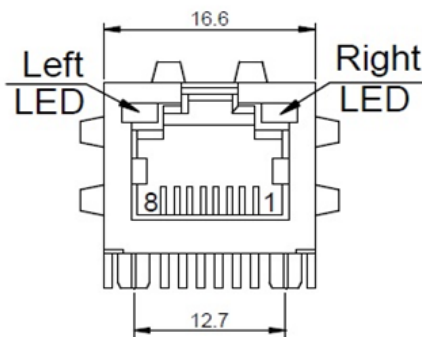
W Shield, W EMI Fingers, Tab UP



Pin Layout



PC Board Layout  
Component Side Shown



Dimensions: mm[inch]  
(Unless otherwise specified, all tolerances are ±0.25)

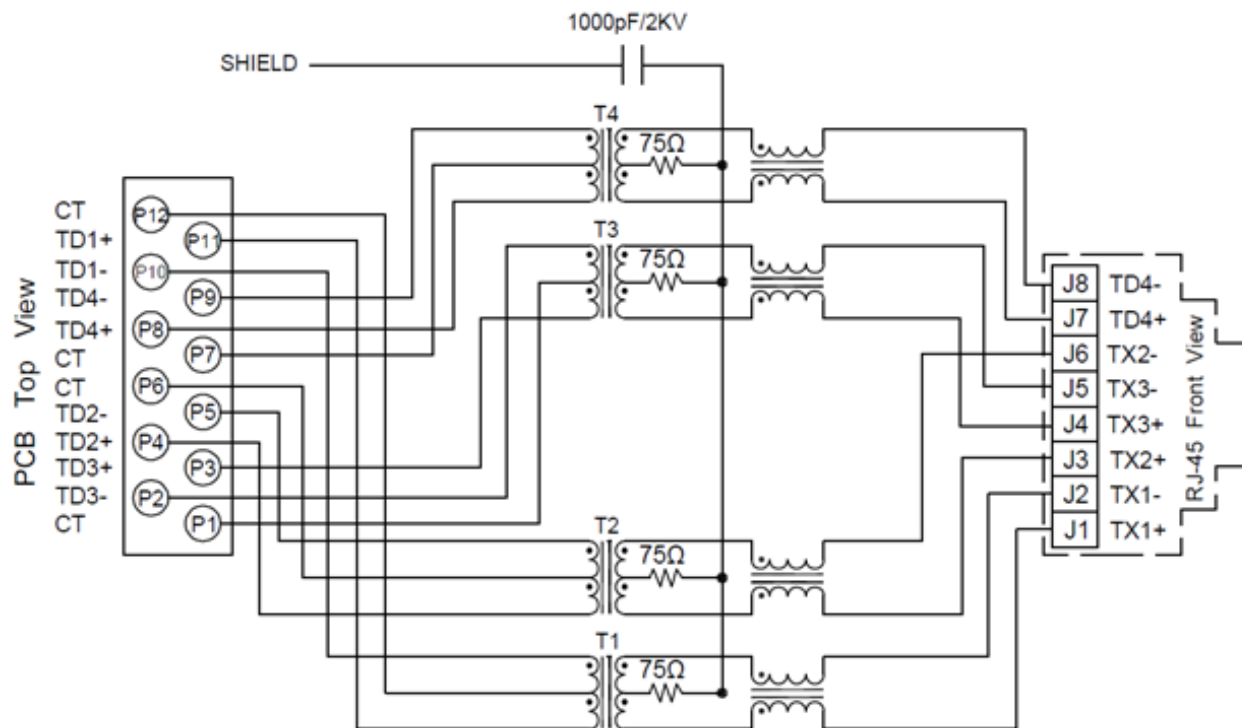
# RJ45 Single Port 10GBase-T Magnetic Module



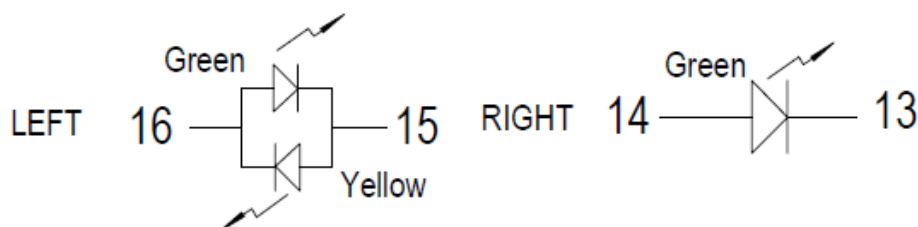
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## Schematic



## LED Specification. @ 20mA Forward Current



LED Color	Wavelength	Forward Voltage	
		Typ.	Max.
Green	565 nm	2.2 V	2.5 V
Yellow	585 nm	2.1 V	2.5 V

\*For alternative LED colors, please contact ABRACON.

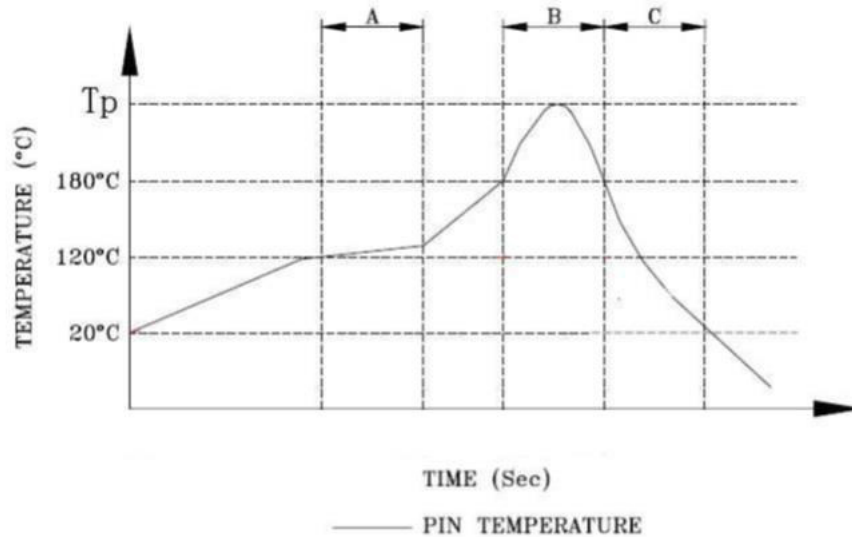
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## Wave Soldering Profile



Peak Temperature ( $T_p$ ) =  $250^{\circ}\text{C} \pm 10^{\circ}\text{C}$

Peak Time ( $t_p$ ) = 5 s (max)

## Packaging

Pieces per Carton : 840

Bulk/Tray per Carton : 14

Pieces per Bulk/Tray: 60

Dimension of the Carton: 310 x 240 x 150 mm

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