

# RJ45 Dual Port 10GBase-T Magnetic Module



ARJM21A-J3752ZZEWCB

41.1 x 17.0 x 27.1 mm  
RoHS/RoHS II Compliant  
MSL = 1

## Features

- Dual Port RJ45 with Magnetics
- Supports speed up to 10 Gbps
- Operating temperature range up to 0°C to +70°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	180			μH	100 kHz, 0.1V with 0 mA DC Bias
Leakage Inductance			0.4	μH	100 kHz, 0.1V
DC Resistance			1.0	Ω	
Hipot	2250			VDC	60 s
Insertion Loss			3.0	dB	100 kHz
		1.4	2.0		1-400 MHz
Return Loss	22			dB	1-100 MHz
	22-20.75log(*f/100)				100-500 MHz
Crosstalk	28			dB	1-100 MHz
	19				100-500 MHz
CMR	30			dB	1-40 MHz
	28				40-100 MHz
	26				100-500 MHz
DCR	30			dB	1-250 MHz
	22				250-500 MHz
Turn Ratio	1CT : 1CT				± 2%

\*f represents the test frequency specified in MHz

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## Material Specifications

Parameter	Specification	
Housing	Material	Glass Filled PA6T, Black
	Flammability Rating	UL94V-0 (RoHS)
Contact	Material	Phosphor Bronze, 50-100 u" (min)
	Plating (1)	Nickel
	Plating (2)	**Gold, 50 u"
Shield	Material	Copper Alloy, 0.2mm
Jack Cavity	In conformance with the FCC Rules and Regulations Part 68 Subpart F	

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

## Environmental Specifications

Parameters	Specification
RoHS	RoHS Compliant
MSL	1
Operating Temperature	0 °C to +70 °C
Storage Temperature	-40 °C to +85 °C

# RJ45 Dual Port 10GBase-T Magnetic Module

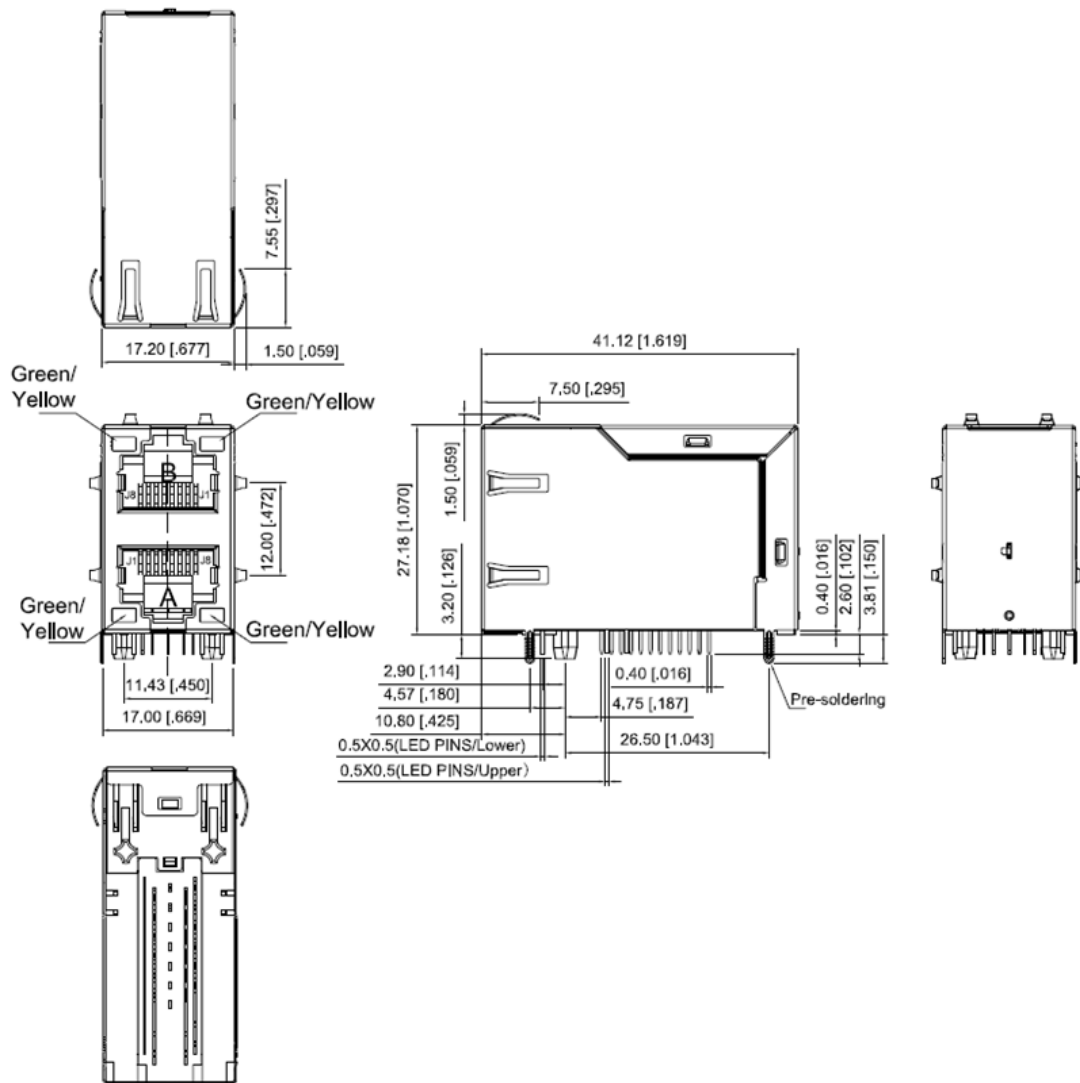


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## Mechanical Dimensions

W Shield, W EMI Fingers, Tab UP/DOWN



Dimensions: mm[inch]  
(Unless otherwise specified, all tolerances are  $\pm 0.25$ [0.010])

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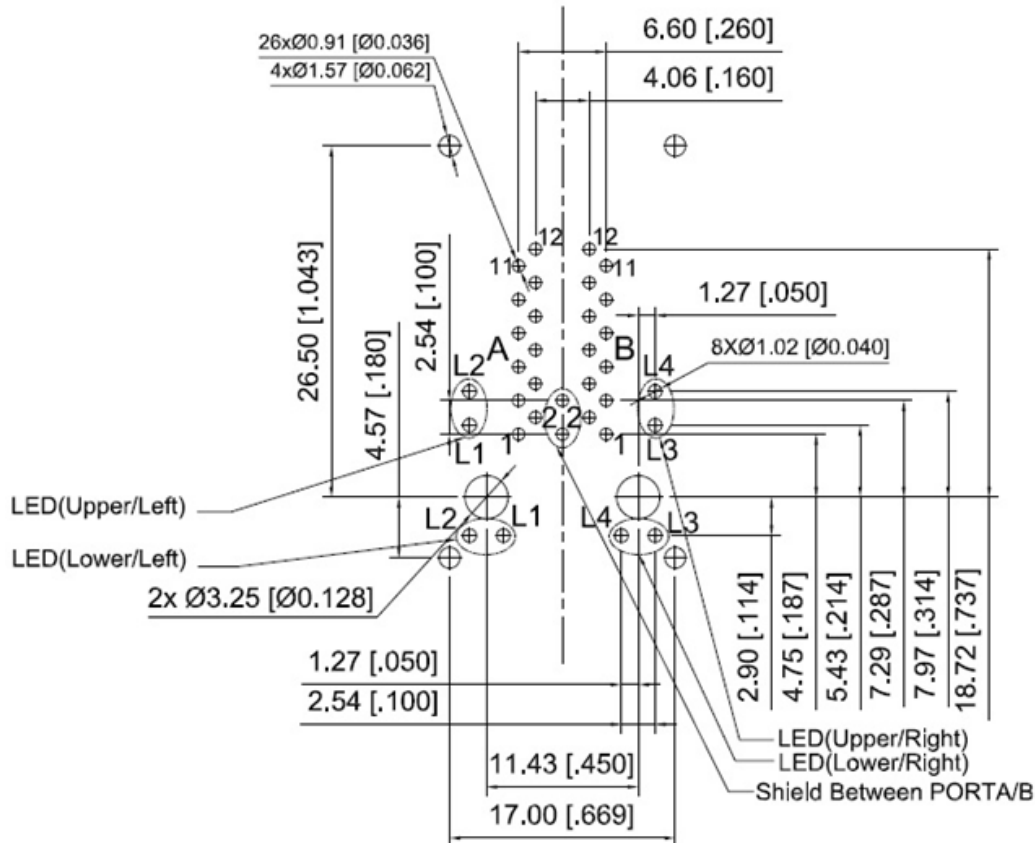


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## Mechanical Dimensions

### Pin Layout



Dimensions: mm[inch]  
(Unless otherwise specified, all tolerances are ±0.05[0.002])



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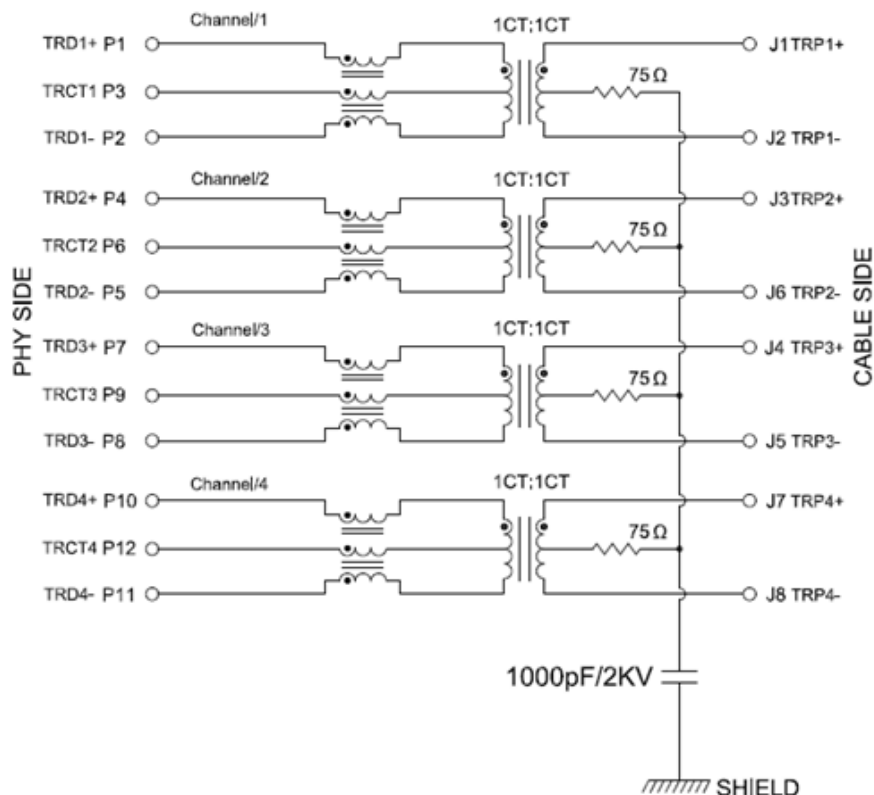
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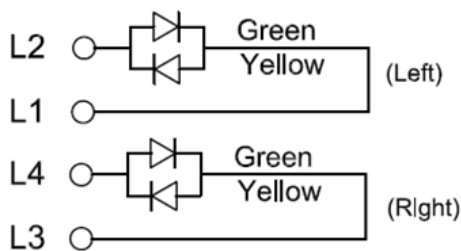
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## Schematic



## LED Specification. @ 20mA Forward Current



LED Color	Wavelength	Forward Voltage	
		Typ.	Max.
Green	565 nm	2.2 V	2.4 V
Yellow	590 nm	2.1 V	2.5 V

\*For alternative LED colors, please contact ABRACON.

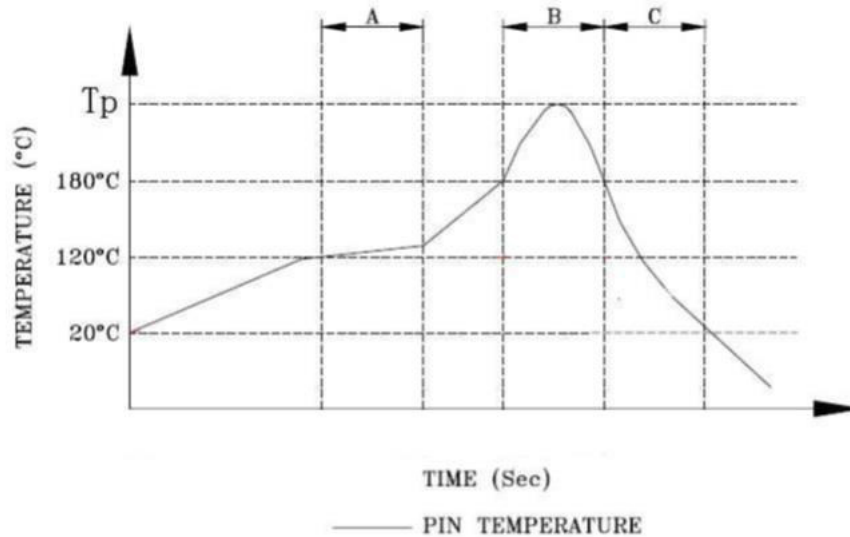
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## Wave Soldering Profile



A. Preheating B. Soldering C. Gradual Cooling

Peak Temperature ( $T_p$ ) = 260 °C (max)

Peak Time ( $t_p$ ) = 10 s (max)

## Packaging

Pieces per Tray: 20

Pieces per Carton: 60

Weight of a Carton: 2.5 Kg

Dimension of the Carton: 360 x 210 x 175 mm

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