

# RJ45, 1x4 Multi Port, 10/100/1G Base-T Magnetics Module

ARJM14 Series

Request Samples



Check Inventory



59.0 x 21.4 x 13.6 mm  
RoHS/RoHS II Compliant  
MSL Level = 1

## Features

- IEEE 802.3 compliant and UL certified
- High performance integrated magnetics for EMI suppression
- Suitable for CAT5 and CAT6 UTP cabling
- RoHS peak wave solder temperature rating 265°C
- Extended operating temperature -40 to 85°C option

## Applications

- Multiport 10/100/1G Base-T LAN
- Network Interface Cards
- High Density Data Center Switches
- NAS / Expander storage
- Data Center Servers, Routers
- Media converters

## Electrical Specifications

Parameters	Minimum	Typical	Maximum	Units	Notes
Turn Ratio ( $\pm 3\%$ )	1CT:1CT				100kHz, 0.1V
Inductance	350			$\mu\text{H}$	100kHz, 0.1V, 8mADC
Hipot	2250			VDC	1mA Max Complies with IEEE 802.3
Operating Temperature	-40		+85	°C	See options
Storage Temperature	-40		+85	°C	
Insertion Loss	-1.0			dB	0.3-100MHz
Return Loss			-18	dB	1-30MHz
			-16		30-60MHz
			-12		60-80MHz
			-10		80-100MHz
Crosstalk			-30	dB	1-100MHz
CMRR			-30	dB	1-100MHz

ARJM24 Series is RoHS/RoHS II Compliant

MSL level: 1

UL Certification Number: E503350



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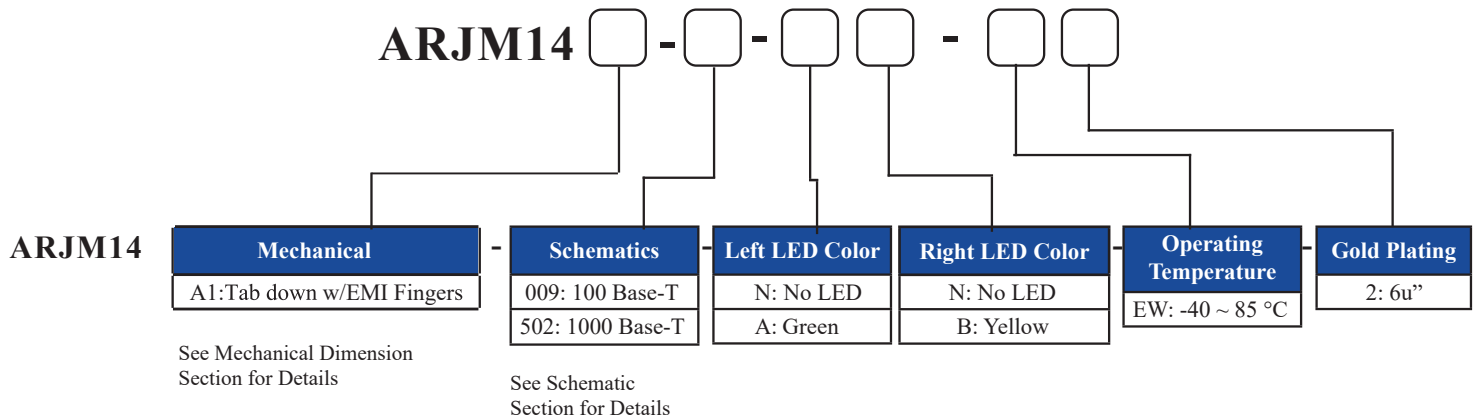


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## Part Number Identification



## Available Part Numbers

Part Number	Speed	Tab Direction	LED (Left:Right)	Operating Temperature	Solder Method	Gold Plating
ARJM14A1-009-AB-EW2	10/100 Base-T	Down	G : Y	-40°C ~ 85°C	Wave	6μ"
ARJM14A1-009-NN-EW2	10/100 Base-T	Down	none	-40°C ~ 85°C	Wave	6μ"
ARJM14A1-502-AB-EW2	1000 Base-T	Down	G : Y	-40°C ~ 85°C	Wave	6μ"



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## Materials

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**1. Housing:**

Material:  
PBT, UL94V-0  
Standard Color: Black

**2. Contact Pin:**

Material: Phosphor Bronze  
Plating (1): Nickel  
Plating (2): 100%Sn

**3. Insert:**

Material:  
PBT, UL94V-0

Contact Material: Phosphor Bronze  
Plating (1): Nickel  
Plating (2): Gold, 6u"

**4. LED:**

Material: Diffused Epoxy Lens, 0.5x0.5mm  
Carbon Steel wireframe leads

**5. Metal Shell:**

Material: Brass  
Plating (1): Nickel

**Note: Abracon LLC will not alter any material composition, without prior written notification.**



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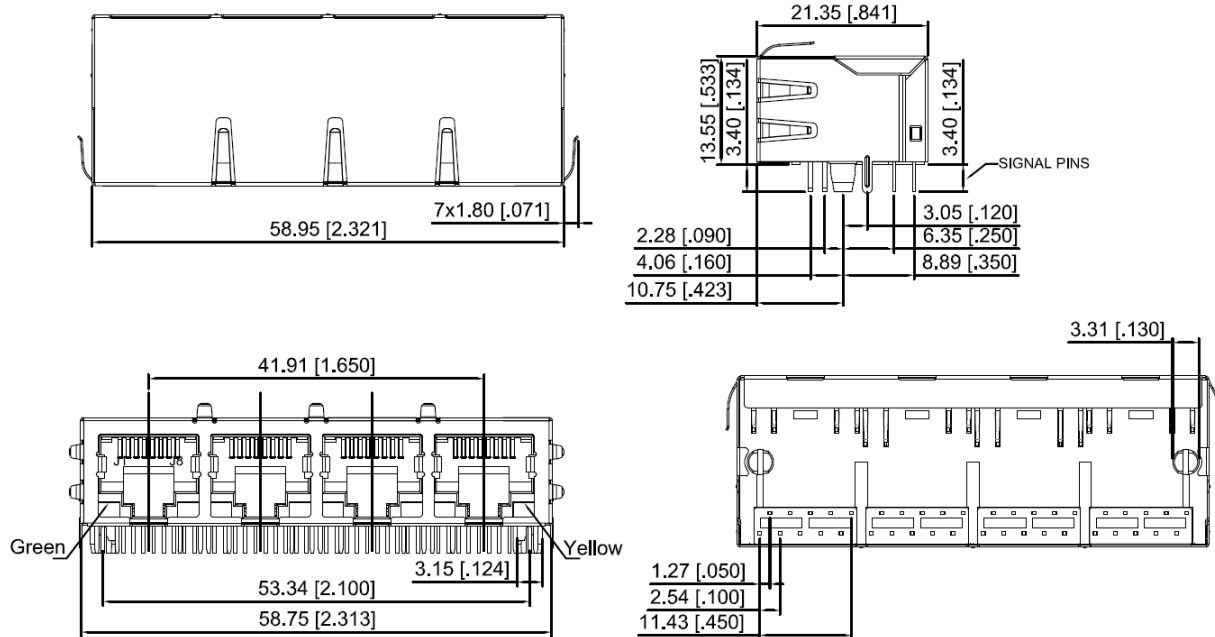
Check Inventory



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## Mechanical Specifications

A1: 1 x 4, w/ EMI Fingers



Dimensions are in mm[inches]. Unless otherwise noted, tolerance is  $\pm 0.25\text{mm}$ [0.010]

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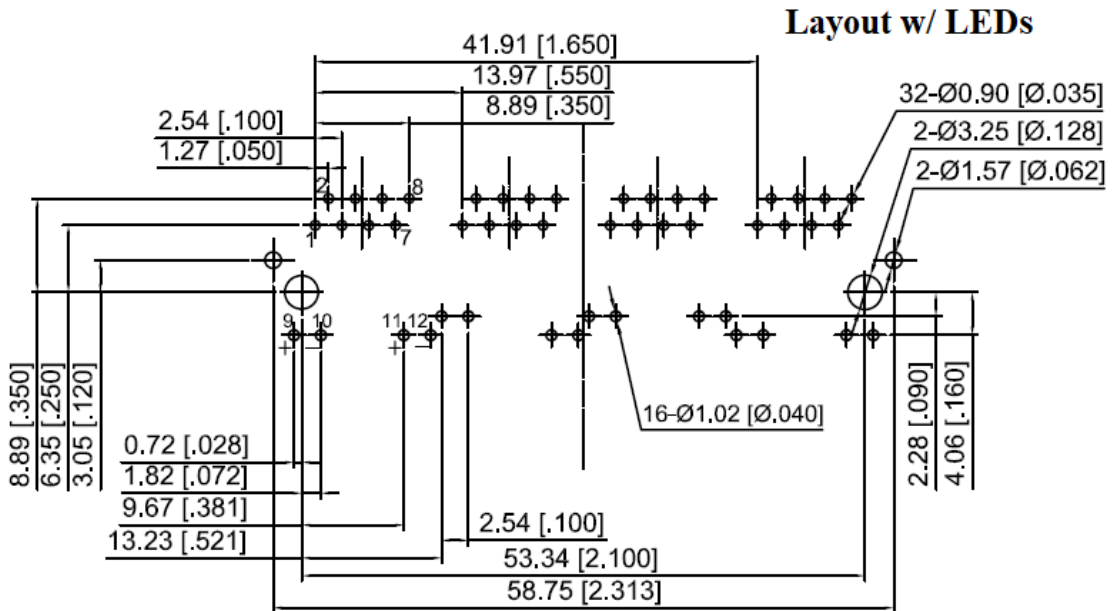
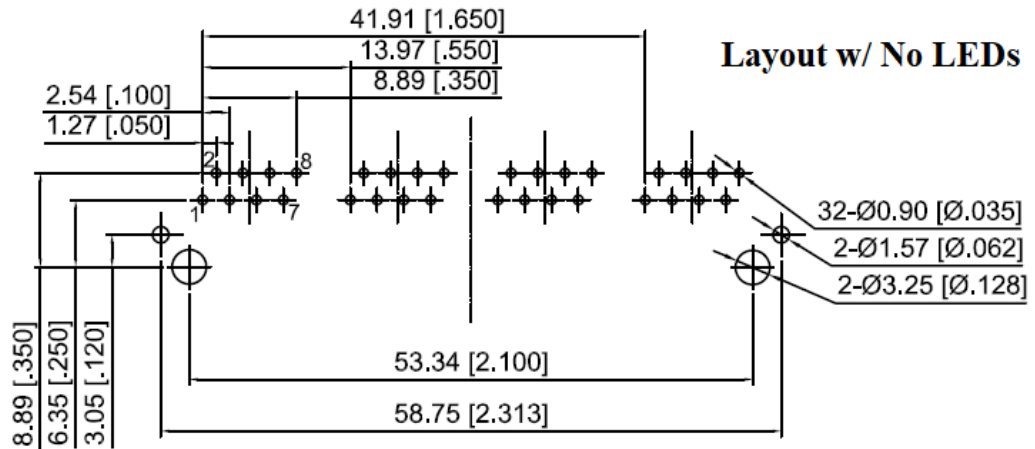
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## Recommended Layout

10/100 Base-T



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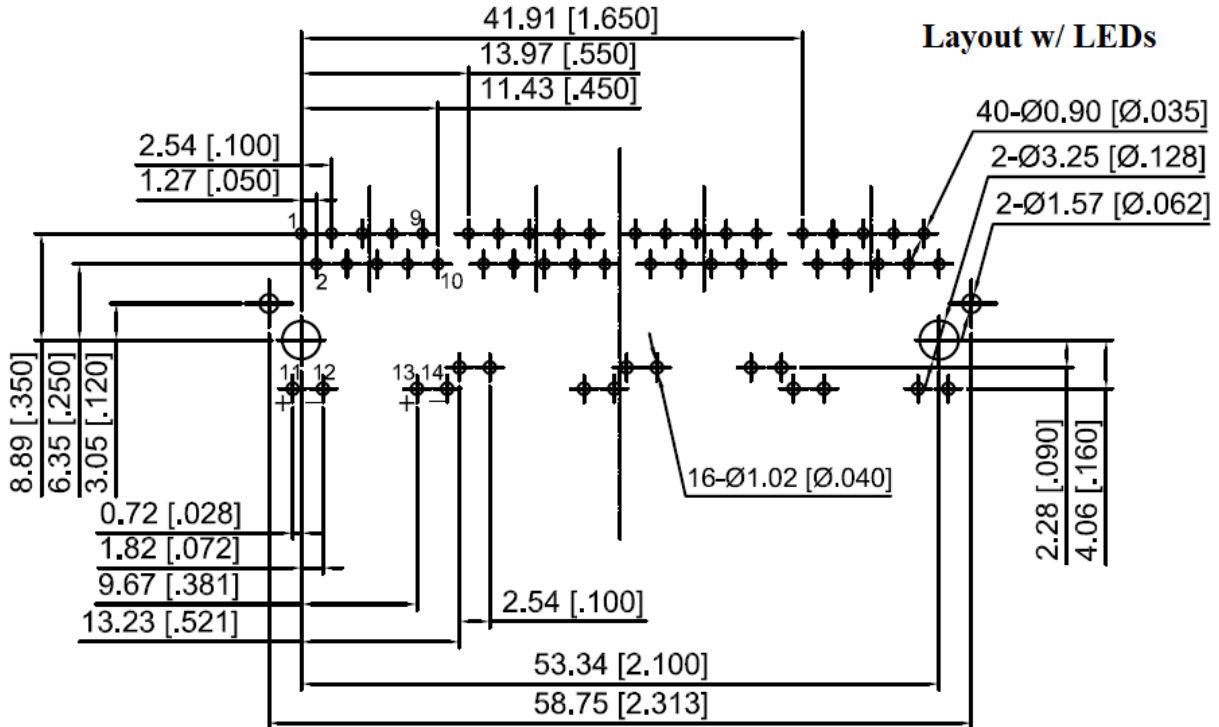


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1000 Base-T



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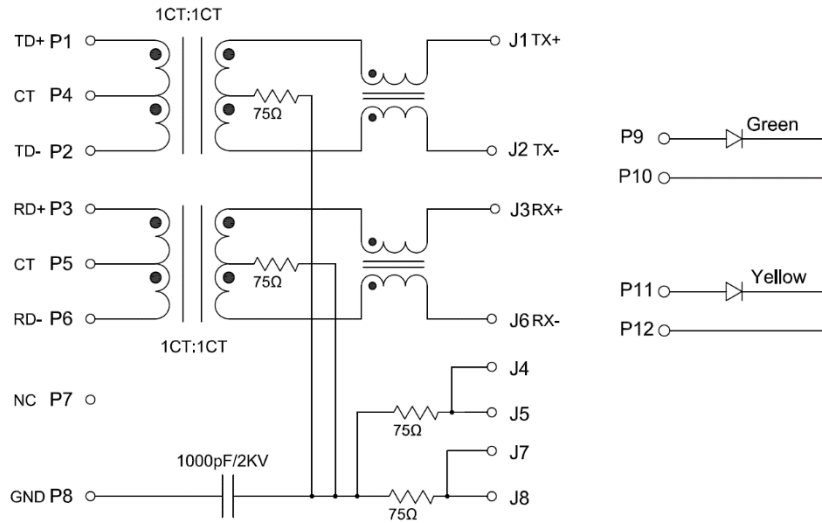
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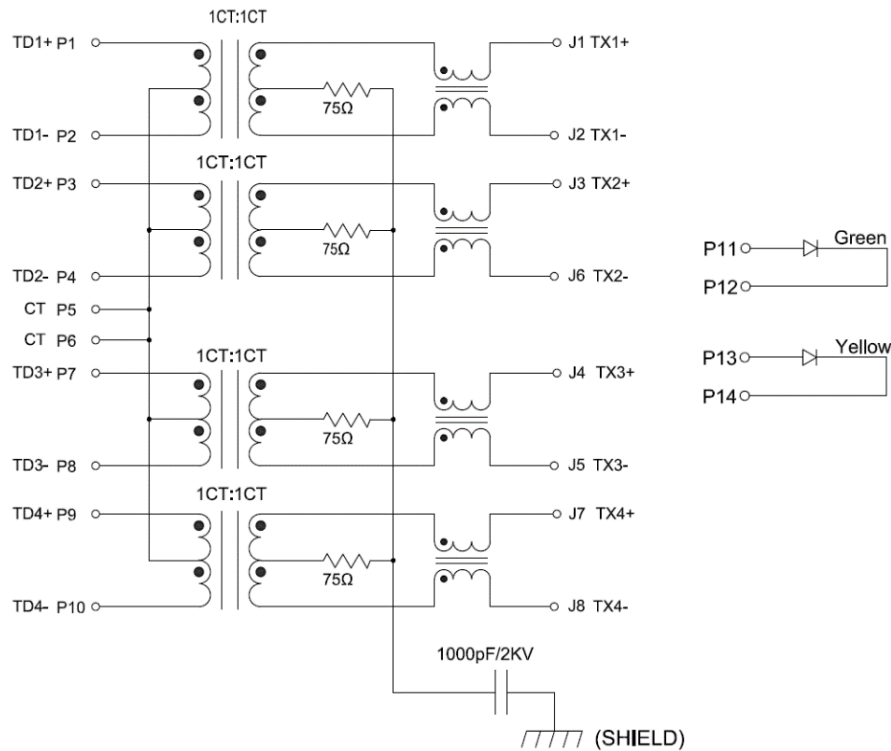
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## Schematic

A12 (10/100 Base-T)



502 (1000 Base-T)



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## LED SPECIFICATION. @20mA Forward Current

AB option (Left: Green – Right: Yellow)

Color	Green	Yellow
Wavelength	565nm Typ	585nm Typ
Forward Voltage	2.2V Typ	2.1V Typ

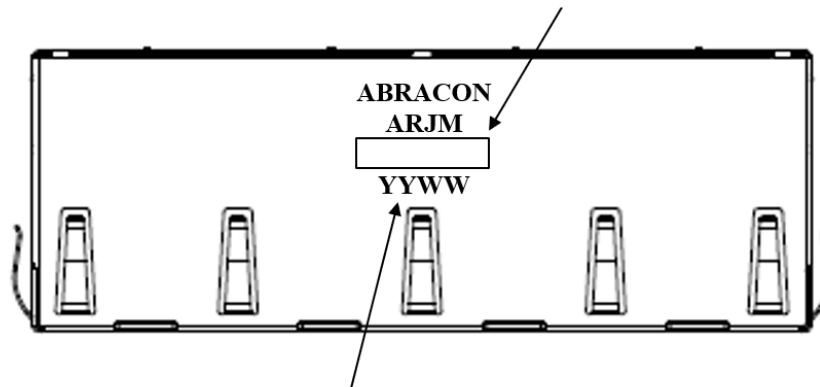
NN option (no LEDs)

## Part Marking

Part number

XXXX-XXX-XX-XXX

e.g. 14A1-009-AB-EW2



YY: Year: E.g. 21 for 2021

WW: Week: E.g. 05 for the 5<sup>th</sup> week of the year.

Marking Method = Laser Marking



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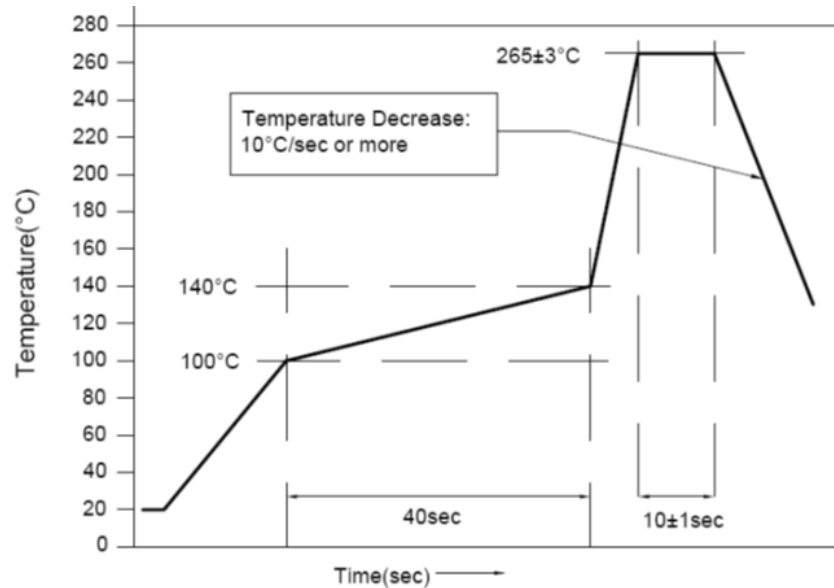


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## Wave Profile



## Packaging

Series	Approximate Weight / Pc	Approximate Weight / Carton	Qty / Carton (pcs)	Tray / Carton	Pcs/ Tray	Carton Dimensions (LxWxH)
ARJM14	21.0g	11.0Kg	400	20	20	340 x 215 x 275 mm

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