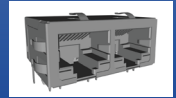


RJ45 1x2 Multiport 100/1000/2.5G/5G Base-T



ARJM12



31.2 x 21.3 x 13.6 mm
 UL Certification Number: E503350
 RoHS/RoHS II Compliant
 MSL = 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

- 10, 100, 1000, 2.5G and 5G Base-T Ethernet
- Servers, switches and routers
- Set top boxes
- VoIP & IP communications
- Video surveillance
- Broadcast video
- Industrial computers & robotics

Options and Part Identification

ARJM12 [] - [] - [] [] - [] []

| Mechanical Series | Schematics | Left LED Color | Right LED Color | Operating Temperature | Gold Plating |
|-------------------------------|------------------|----------------|-----------------|-----------------------|--------------|
| A1: Tab down, w/EMI Fingers | 009: 100 Base-T | N: No LED | N: No LED | CW: 0 ~ 70 °C | 2: 6u" |
| A2: Tab down, w/o EMI Fingers | 502: 1000 Base-T | A: Green | A: Green | EW: -40 ~ 85 °C | |
| | 805: 2.5G Base-T | B: Yellow | B: Yellow | | |
| | 811: 5G Base-T | | | | |

*See Mechanical Dimension Section for Details

*See Schematic Section for Details

Example Configurations

ARJM12 A1-009 -AB- CW2

(1 x 2, Tab down, w/ EMI, 100Base-T, w/LED G/Y, commercial grade, 6µ" Gold)

*For additional schematics, gold plating, and LED configurations, contact Abracon Sales.

RJ45 1x2 Multiport 100/1000/2.5G/5G Base-T



ARJM12



31.2 x 21.3 x 13.6 mm
 UL Certification Number: E503350
 RoHS/RoHS II Compliant
 MSL = 1

Electrical Specifications

| Parameters | Minimum | Typical | Maximum | Units | Notes |
|--------------------------|---------|---------|----------------------|--------------------|-------------------------------------|
| Turn Ratio ($\pm 3\%$) | 1CT:1CT | | | | 100kHz, 0.1V |
| Inductance | 350 | | | μH | 100kHz, 0.1V, 8mADC |
| | 200 | | | | For 2.5G Base-T only |
| | 160 | | | | For 5G Base-T only |
| Leakage Inductance | | | 0.5 | μH | 100kHz, 0.1V |
| | | | 0.3 | | For 2.5G Base-T and 5G Base-T |
| DC Resistance | | | 1.5 | Ω | |
| Hipot | 2250 | | | VDC | 1mA Max Complies with IEEE 802.3 |
| Operating Temperature | -40 | | +85 | $^{\circ}\text{C}$ | See options |
| Storage Temperature | -40 | | +85 | $^{\circ}\text{C}$ | |
| 100 Base-T | | | | | |
| Insertion Loss | -1.1 | | | dB | 0.5-100MHz |
| Return Loss | | | -18 | dB | 0.5-30MHz |
| | | | $-18+20\log(f/30)^*$ | | 30.1-60MHz |
| | | | -12 | | 60.1-80MHz |
| Crosstalk | | | -35 | dB | 0.5-40MHz |
| | | | $-33+20\log(f/50)^*$ | | 40.1-100MHz |
| CMRR | | | -30 | dB | 0.5-100MHz |
| 1000 Base-T | | | | | |
| Insertion Loss | -1.1 | | | dB | 0.5-100MHz |
| Return Loss | | | -18 | dB | 0.5-40MHz |
| | | | $-12+20\log(f/80)^*$ | | 40.1-100MHz |
| Crosstalk | | | -35 | dB | 0.5-40MHz |
| | | | $-33+20\log(f/50)^*$ | | 40.1-100MHz |
| CMRR | | | -30 | dB | 0.5-100MHz |
| 2.5G Base-T | | | | | |
| Insertion Loss | -0.5 | | | dB | 1-50MHz |
| | -1.0 | | | | 50-125MHz |
| Return Loss | | | -20 | dB | 1-40MHz |
| | | | $-20+15\log(f/40)^*$ | | 40-200MHz |
| Crosstalk | | | -30 | dB | 25-125MHz |
| 5G Base-T | | | | | |
| Insertion Loss | -0.5 | | | dB | 1-50MHz |
| | -1.0 | | | | 50-125MHz |
| | -2.0 | | | | 125-250MHz |
| Return Loss | | | -20 | dB | 1-40MHz |
| | | | $-20+15\log(f/40)^*$ | | 40-250MHz |
| Crosstalk | | | -30 | dB | 1-125MHz |
| | | | -25 | | 125-250MHz |

*f represents the test frequency specified in MHz

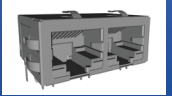


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RJ45 1x2 Multiport 100/1000/2.5G/5G Base-T



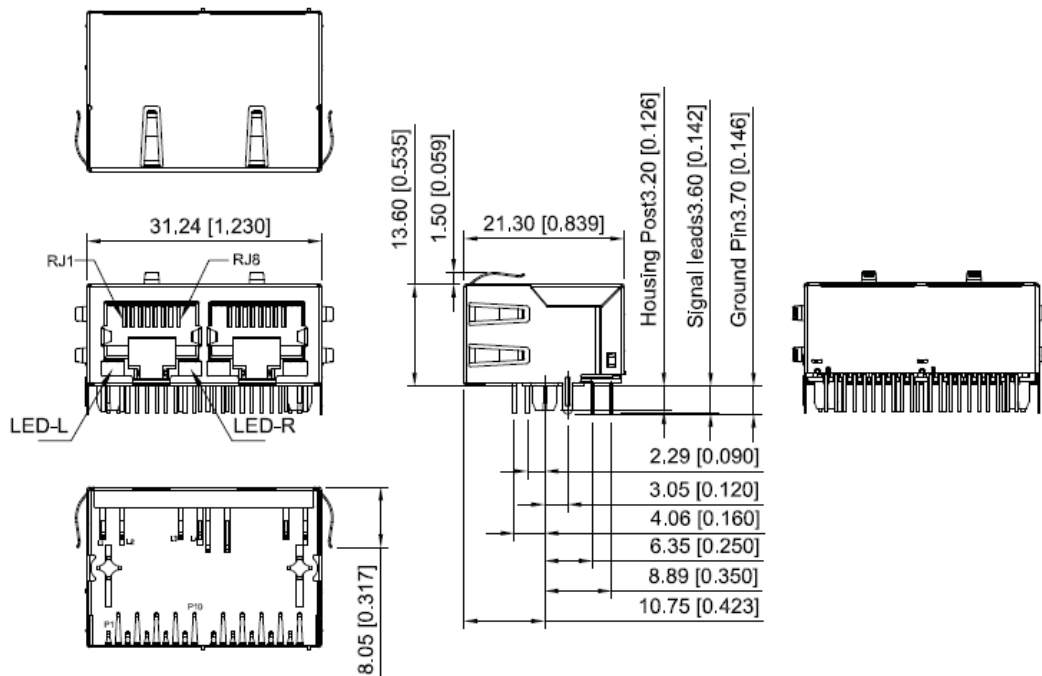
ARJM12



31.2 x 21.3 x 13.6 mm
UL Certification Number: E503350
RoHS/RoHS II Compliant
MSL = 1

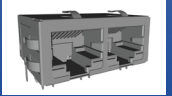
Mechanical Dimensions

A1: 1 x 2, Tab down, w/ EMI Fingers



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

RJ45 1x2 Multiport 100/1000/2.5G/5G Base-T



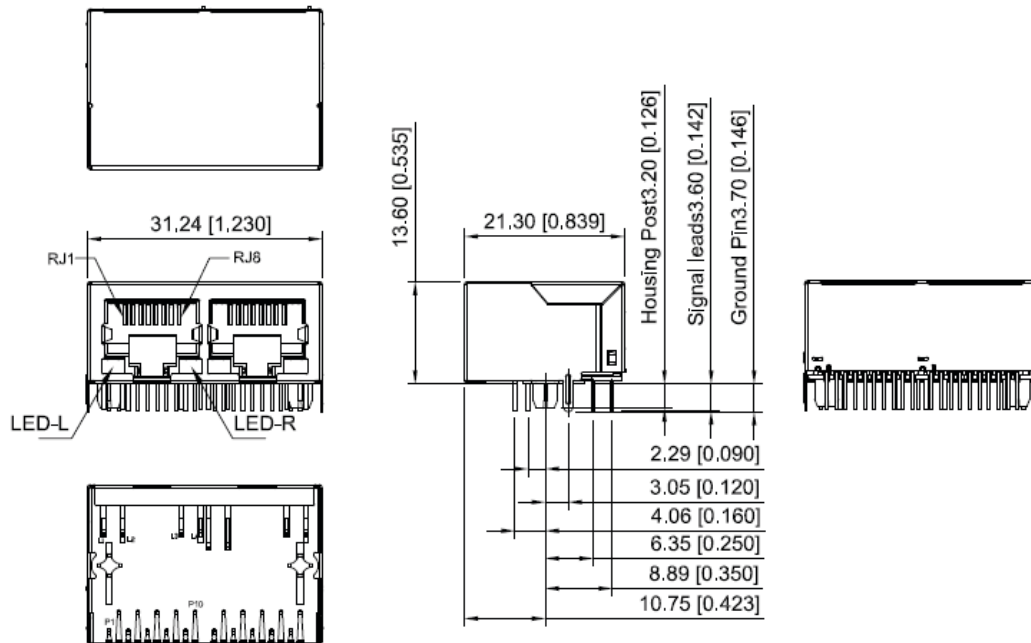
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31.2 x 21.3 x 13.6 mm
UL Certification Number: E503350
RoHS/RoHS II Compliant
MSL = 1

Mechanical Dimensions

A2: 1 x 2, Tab down, w/o EMI Finger



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

RJ45 1x2 Multiport 100/1000/2.5G/5G Base-T



ARJM12

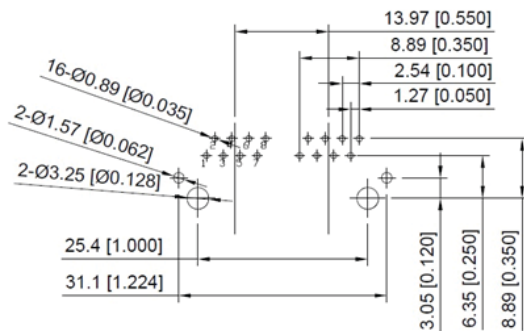


31.2 x 21.3 x 13.6 mm
 UL Certification Number: E503350
 RoHS/RoHS II Compliant
 MSL = 1

Mechanical Dimensions

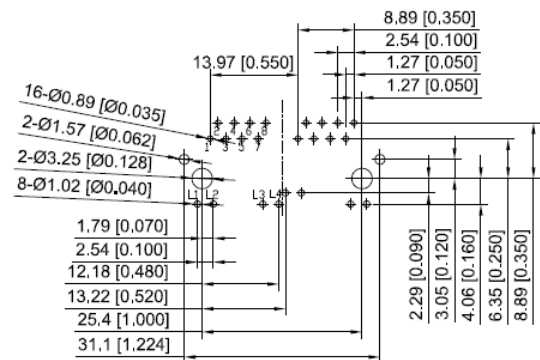
Recommended Land Pattern

8 Pins, no LED
 For 100 Base-T



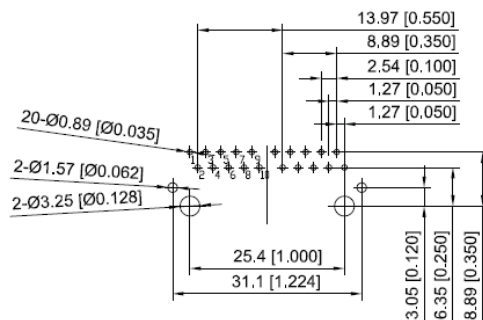
Top View Customer Board (COMP Side)

8 Pins, w/ LED
 For 100 Base-T



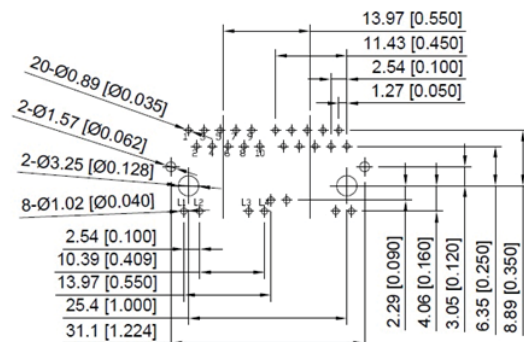
Top View Customer Board (COMP Side)

10 Pins, no LED
 For 1000/2.5G/5G Base-T



Top View Customer Board (COMP Side)

10 Pins, w/ LED
 For 1000/2.5G/5G Base-T



Top View Customer Board (COMP Side)

Dimensions: mm[inch]



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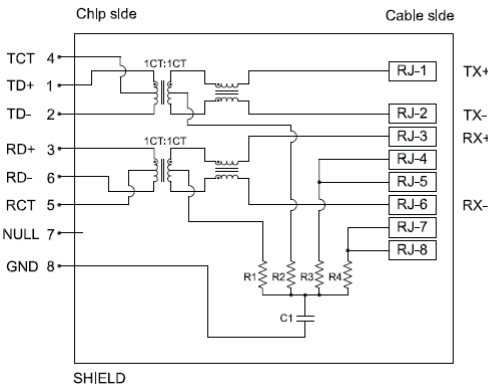
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31.2 x 21.3 x 13.6 mm
 UL Certification Number: E503350
 RoHS/RoHS II Compliant
 MSL = 1

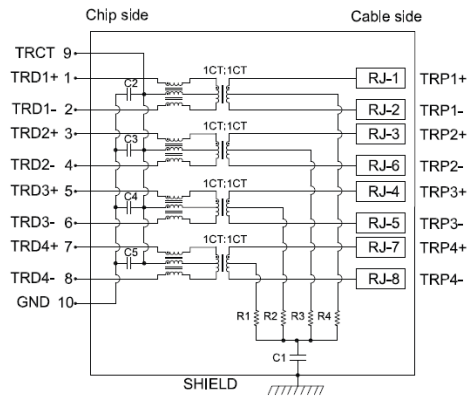
Schematic

009 (100 Base-T)



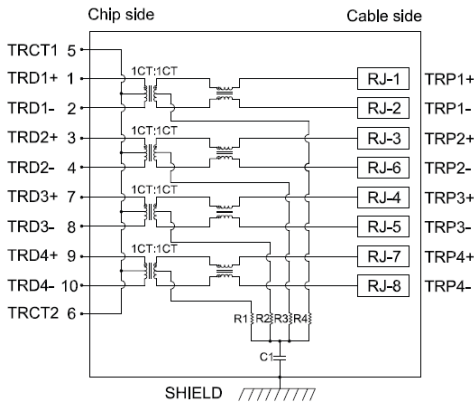
Note:
 R1-R4=75 OHMS, Resistors.
 C1=2KV 1000pF, Capacitor.

805 (2.5G Base-T)



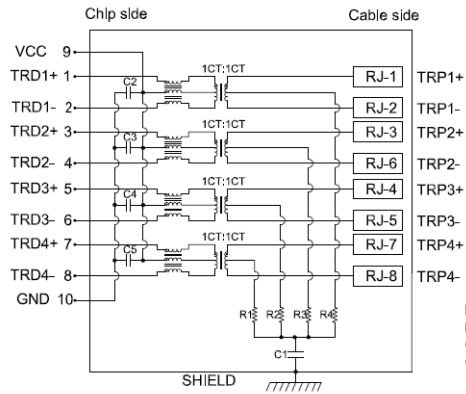
Note:
 R1-R4=75 OHMS, Resistors.
 C1=2KV 1000pF, Capacitor.
 C2-C5=100V 100nF, Capacitor.

502 (1000 Base-T)



Note:
 R1-R4=75 OHMS, Resistors.
 C1=2KV 1000pF, Capacitor.

811 (5G Base-T)



Note:
 R1-R4=75 OHMS, Resistors.
 C1=2KV 1000pF, Capacitor.
 C2-C5=100V 100nF, Capacitor.

Contact Abracon Sales for additional configurations.



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ARJM12



31.2 x 21.3 x 13.6 mm
UL Certification Number: E503350
RoHS/RoHS II Compliant
MSL = 1

Materials

Housing:

Material:
PBT, UL94V-0
Standard Color: Black

Insert:

Material:
PBT, UL94V-0
Contact Material: Phosphor Bronze
Plating (1): Nickel
Plating (2): Gold, 6u"

Metal Shell:

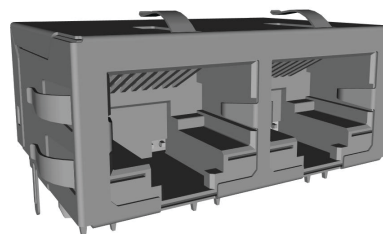
Material: Brass
Plating (1): Nickel

Contact Pin:

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

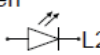

LED:

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



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

**LED Specification. @20mA Forward Current
AB (Left: Green – Right: Yellow) :**

| LED-L | LED-R |
|--|---|
| Green L1 →  L2 | Yellow L3 →  L4 |

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

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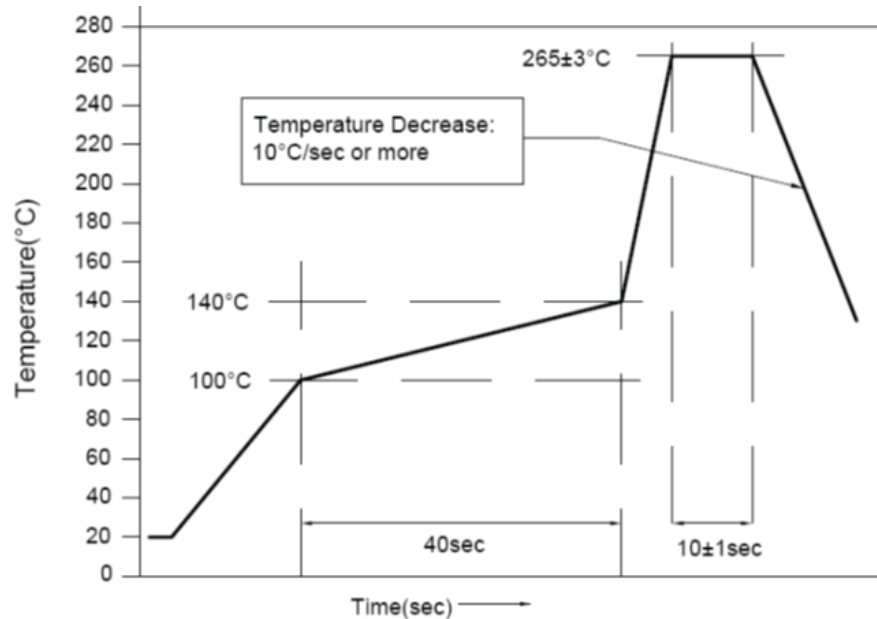


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31.2 x 21.3 x 13.6 mm
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Wave Soldering Profile



Packaging

| Series | Approximate Weight / Pc | Approximate Weight / Carton | Qty / Carton (pcs) | Carton Dimensions (LxWxH) |
|--------|-------------------------|-----------------------------|--------------------|---------------------------|
| ARJM12 | 10.82 g | 5040 g | 350 | 340 x 215 x 275 mm |

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- Поставка оригинальных импортных электронных компонентов напрямую с производств Америки, Европы и Азии, а так же с крупнейших складов мира;
- Широкая линейка поставок активных и пассивных импортных электронных компонентов (более 30 млн. наименований);
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Помощь Конструкторского Отдела и консультации квалифицированных инженеров;
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- Поставка электронных компонентов под контролем ВП;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- При необходимости вся продукция военного и аэрокосмического назначения проходит испытания и сертификацию в лаборатории (по согласованию с заказчиком);
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«FORSTAR» (основан в 1998 г.)

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(Применяются в телекоммуникациях гражданского и специального назначения, в средствах связи, РЛС, а так же военной, авиационной и аэрокосмической отраслях промышленности).



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Электронная почта: ocean@oceanchips.ru

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