

RJ45 10/100/1000 Base-TX Tab down 1x4 Jack with Magnetic Module

ARJ14A

RoHS
Compliant



59.12 x 13.60 x 21.50 mm /
58.40 x 11.50 x 17.60 mm

FEATURES:

- Tab down
- Available with or without LED
- Suitable CAT 5 & 6 cable and UTP
- Comply IEEE 802.3ab
- LAN Magnetic with RJ45
- Suitable for RoHS compliant reflow

APPLICATIONS:

- 10, 100 and 1000 Base-T LAN
- NIC, LoM and PC

STANDARD SPECIFICATIONS at 25°C

Operating temperature range: 0°C to +70°C Storage temperature range: -40°C to +85°C

Part Number	Ratio ± 5%		Tab Option	EMI Fingers (see Mechanical)	LEDs L/R	Insertion Loss (dB typ) 0.3- 100 MHz	Return Loss (dB typ @100Ω±15%)		
	TX	RX					1- 10 MHz	30 MHz	60-80 MHz
ARJ14A-M□SA-MU2	1CT:1CT	1CT:1CT	DOWN	Yes/No	-	-1.2	-18	-16	-12
ARJ14A-M□SB-MU2	1CT:1CT	1CT:1CT	DOWN	Yes/No	-	-1.2	-18	-16	-12
ARJ14A-M□SC-MU2	1CT:1CT	1CT:1CT	DOWN	Yes/No	-	-1.2	-18	-16	-12
ARJ14A-M□SD-A-B-ΔMU2	1CT:1CT	1CT:1CT	DOWN	Yes	G/Y	-1.2	-18	-16	-12
ARJ14A-M□SD-MU2	1CT:1CT	1CT:1CT	DOWN	Yes/No	-	-1.2	-18	-16	-12

Part Number	Crosstalk (dB TYP)			Common Mode Rejection (dB TYP)		Hipot (Vrms)
	1 - 10 MHz	30 - 60 MHz	60 - 100 MHz	1 - 50 MHz	50 - 130 MHz	
ARJ14A-M□SA-MU2	-40	-35	-30	-30	-20	1500
ARJ14A-M□SB-MU2	-30	-30	-30	-30	-20	1500
ARJ14A-M□SC-MU2	-40	-35	-30	-30	-20	1500
ARJ14A-M□SD-A-B-ΔMU2	-40	-35	-30	-30	-20	1500
ARJ14A-M□SD-MU2	-40	-35	-30	-30	-20	1500

□: Mechanical option: E, F or I for non- LED; A or B for LED.

Δ: LED polarity option E or F

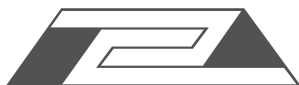
Contact Abracon for more custom configurations. See options to build a custom configuration.

OPTIONS AND PART IDENTIFICATION

ARJ14A - □ - □ - □ - □ - □ - □ - □

Mechanical	Schematic	Left LED color (e.g. B for Yellow, AB for Green-Yellow)	Right LED color (e.g. B for Yellow, AB for Green-Yellow)	LED polarity	Turns Ratio (Tx)	Turns Ratio (Rx)	Gold plating
MA ~ MI (Please see mechanical section)	SA ~ SZ (Please see schematic section)	Blank: No LED A: Green B: Yellow C: Amber D: Orange	Blank: No LED A: Green B: Yellow C: Amber D: Orange	Blank: No LED E ~ H (Please see 7.0 LED polarity section)	K: 1CT:1.41 L: 1CT:1 M: 1CT:1CT N: 1.414:1CT O: 1CT:1.41CT P: 1:2CT Q: 1:1.414CT R: 1CT:2.5	S: 1CT:1.41 T: 1CT:1 U: 1CT:1CT V: 1.414:1CT W: 1CT:1.41CT X: 1:2CT Y: 1:1.414CT Z: 1CT:2.5	1: 3u “ 2: 6u “ 3: 15u “ 4: 30u “ 5: 50u “

ABRACON IS
ISO 9001:2008
CERTIFIED



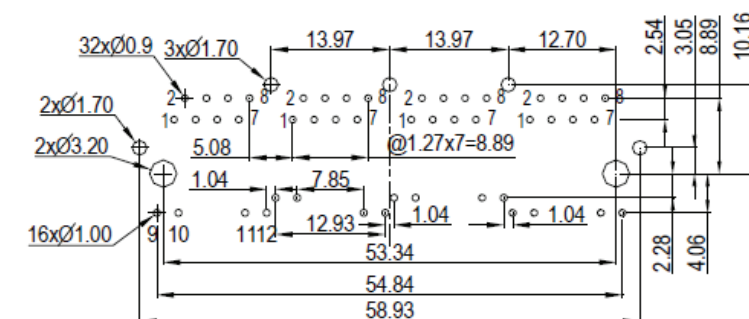
ABRACON
CORPORATION

Visit www.abracon.com for Terms & Conditions of Sale
30332 Esperanza, Rancho Santa Margarita, California 92688
tel 949-546-8000 | fax 949-546-8001 | www.abracon.com

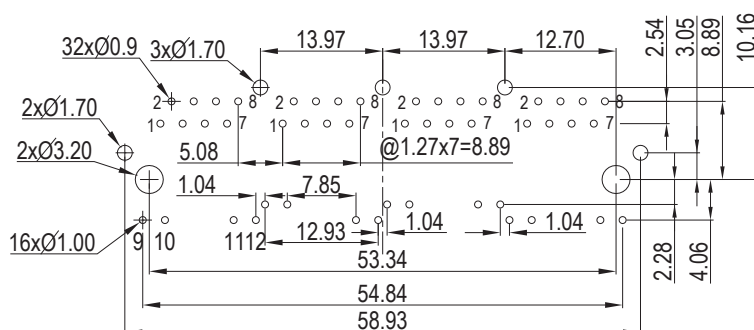
Revised: 08.04.11

**RoHS
Compliant**

MECHANICAL DIMENSIONS



The drawing shows the mechanical specifications of the LED module. The top view (left) indicates a total length of 59.12 mm and a central section width of 41.91 mm. It features four LED chips, with the leftmost one labeled 'Left LED' and the rightmost one labeled 'Right LED'. The pitch between the LED chips is specified as $@1.27 \times 7 = 8.89$ mm. The side view (right) shows a height of 13.60 mm and a mounting tab width of 21.50 mm. The mounting tab has a thickness of 3.30 ± 0.51 mm. The distance from the LED chip to the mounting tab is 3.05 mm, and the distance from the mounting tab to the next LED chip is 2.54 ± 0.20 mm. The total width of the module is $10.90 + 8.89 \pm 0.20$ mm. A 'PRE-SOLDERING' point is indicated on the mounting tab.



**RoHS
Compliant**

MECHANICAL DIMENSIONS

[illegible]

The figure consists of three views of the LED module assembly:

- Top View:** Shows the overall footprint with a total width of 59.12 mm and a central section width of 41.91 mm. It features four LED chips labeled "Left LED" and "Right LED". The pitch between components is indicated as @1.27x9=11.43.
- Side View:** Shows the profile of the module with a total height of 13.60 mm. A detail view shows the "PRE-SOLDERING" area with dimensions 21.50 mm, 3.30±0.51 mm, 3.05 mm, 10.90 mm, 2.54±0.20 mm, and 8.89±0.20 mm.
- Bottom View:** Shows the solder pads and mounting holes. Key dimensions include hole diameters (40xØ0.90, 3xØ1.70, 2xØ1.70, 2xØ3.20, 16xØ1.00), pad diameters (Ø1.04, Ø1.29, Ø1.04), and various distances (13.97, 13.97, 12.70, 2.54, 3.05, 8.89, 10.16, 2.28, 4.06). The component pitch is again @1.27x9=11.43.

**RoHS
Compliant**

MECHANICAL DIMENSIONS

[illegible]

RJ45 10/100/1000 Base-TX Tab down 1x4 Jack with Magnetic Module

ARJ14A

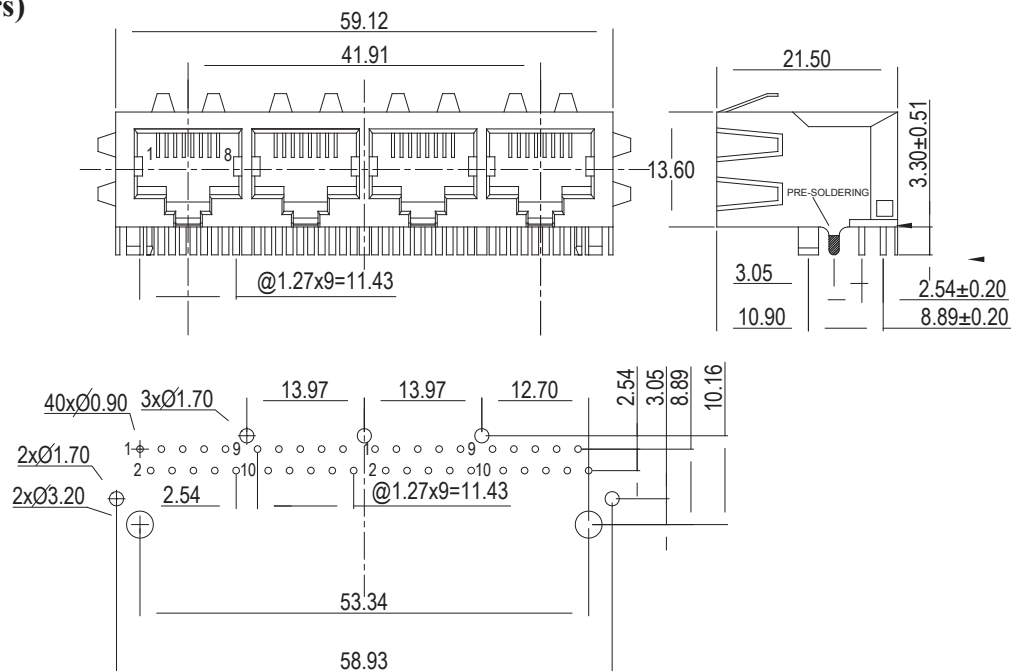
RoHS
Compliant



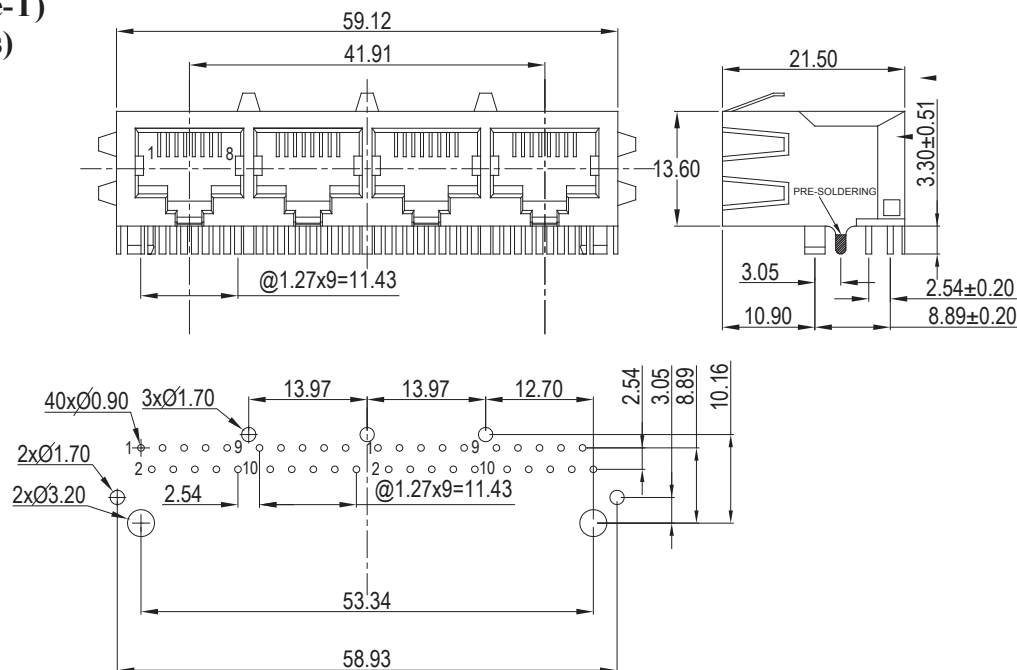
59.12 x 13.60 x 21.50 mm /
58.40 x 11.50 x 17.60 mm

MECHANICAL DIMENSIONS

MG (1000 Base-T) (8 EMI Fingers)



MH (1000 Base-T) (3 EMI Fingers)



RJ45 10/100/1000 Base-TX Tab down 1x4 Jack with Magnetic Module

ARJ14A

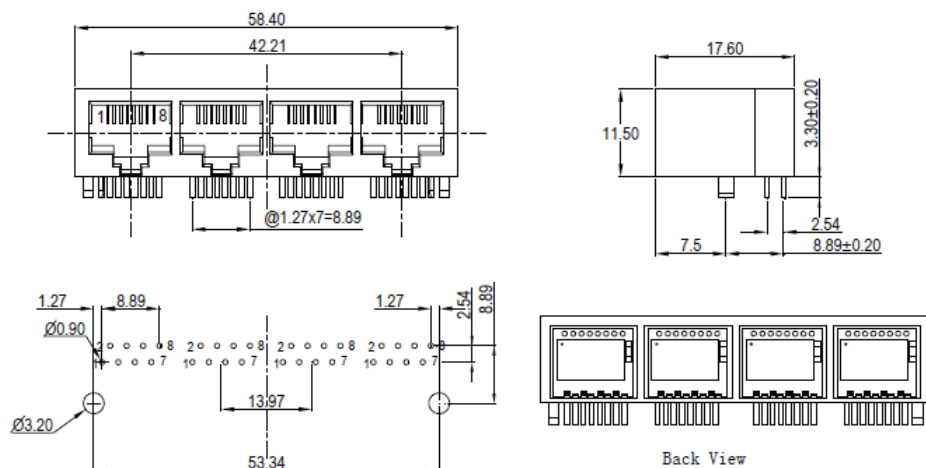
RoHS
Compliant



59.12 x 13.60 x 21.50 mm /
58.40 x 11.50 x 17.60 mm

MECHANICAL DIMENSIONS

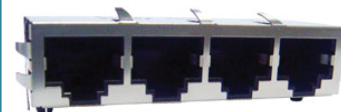
MI (10/100 Base-T)



RJ45 10/100/1000 Base-TX Tab down 1x4 Jack with Magnetic Module

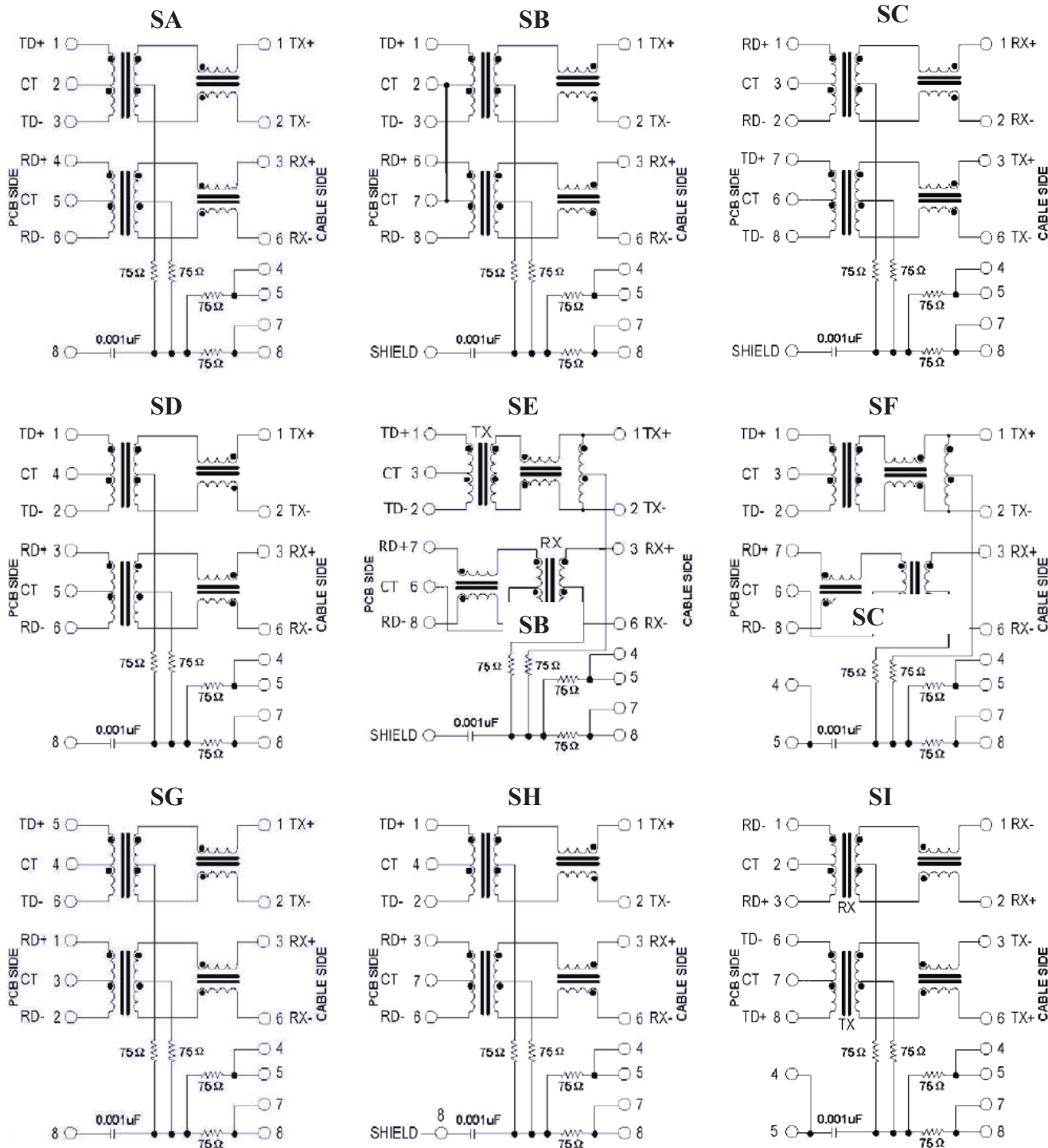
ARJ14A

RoHS
Compliant



59.12 x 13.60 x 21.50 mm /
58.40 x 11.50 x 17.60 mm

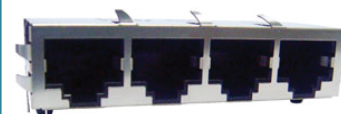
SCHEMATICS



RJ45 10/100/1000 Base-TX Tab down 1x4 Jack with Magnetic Module

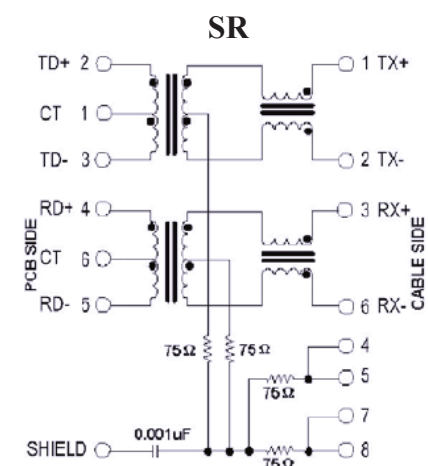
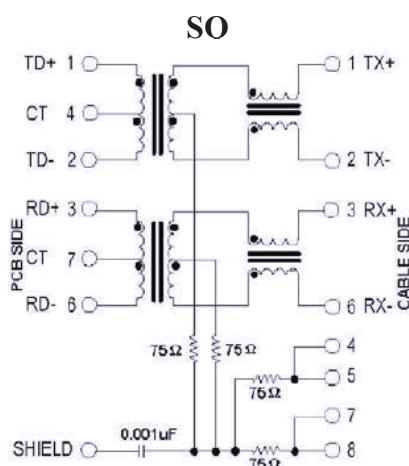
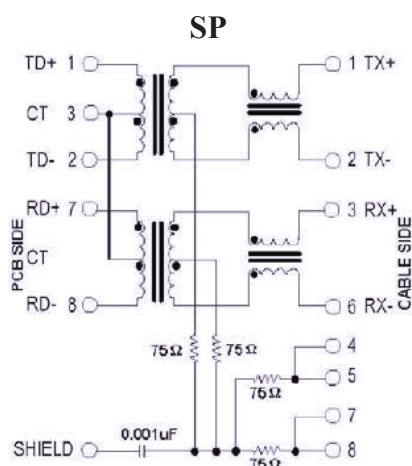
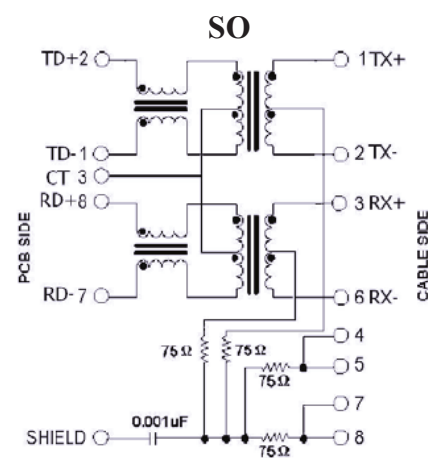
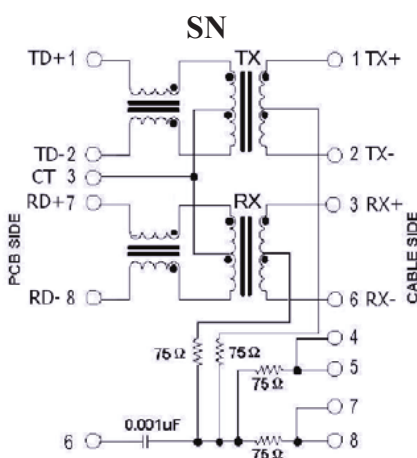
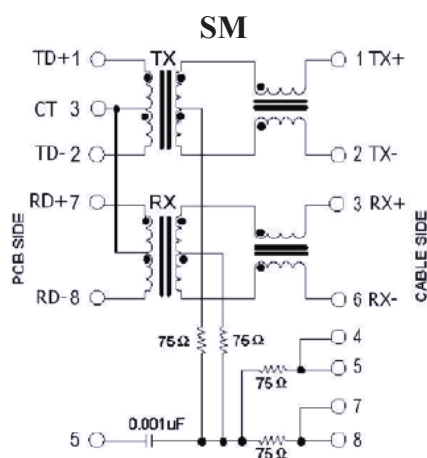
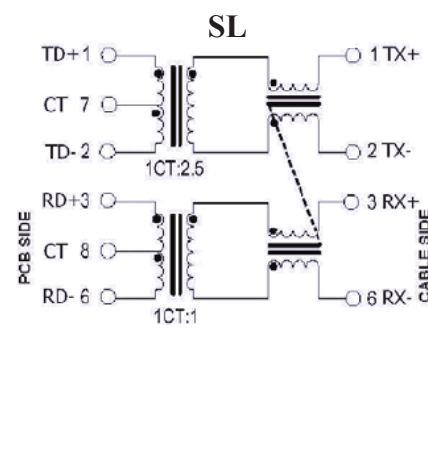
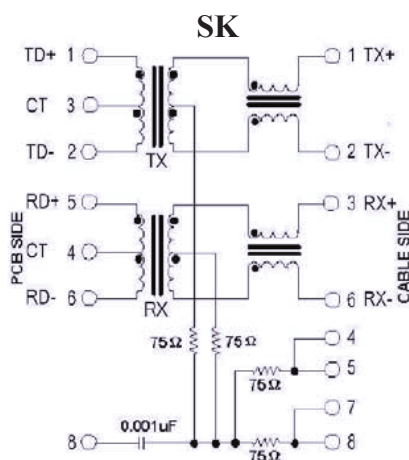
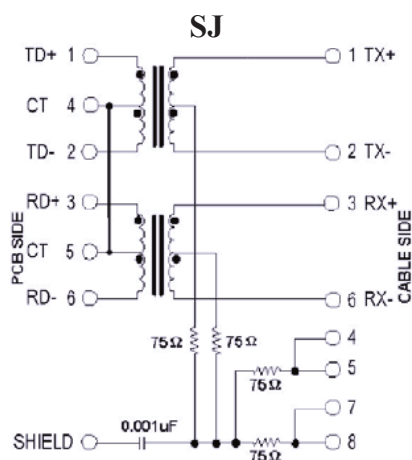
ARJ14A

RoHS
Compliant



59.12 x 13.60 x 21.50 mm /
58.40 x 11.50 x 17.60 mm

SCHEMATICS - continued



RJ45 10/100/1000 Base-TX Tab down 1x4 Jack with Magnetic Module

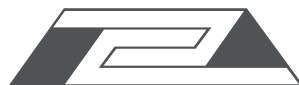
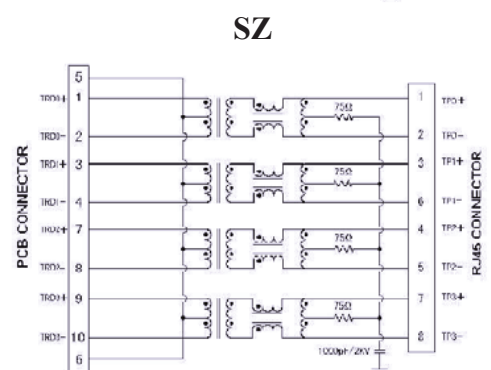
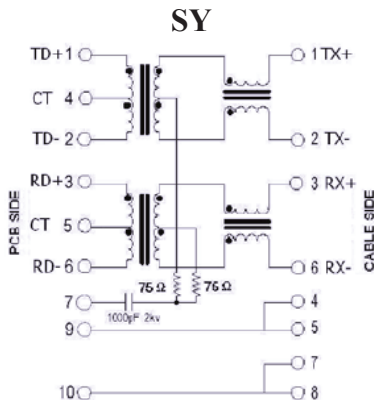
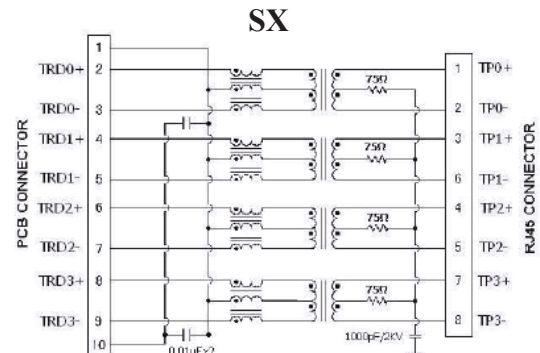
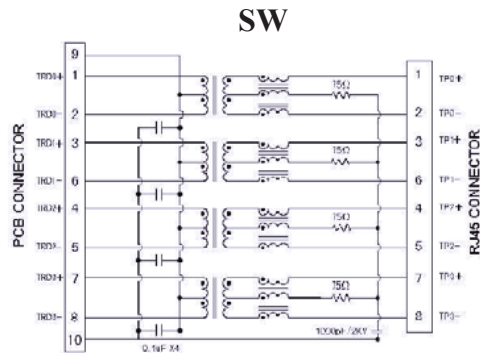
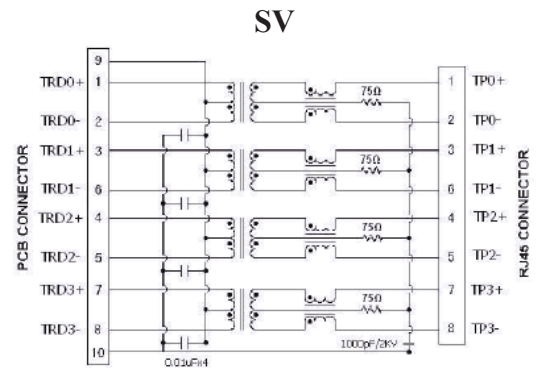
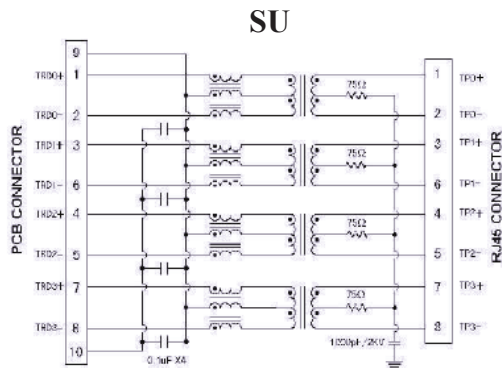
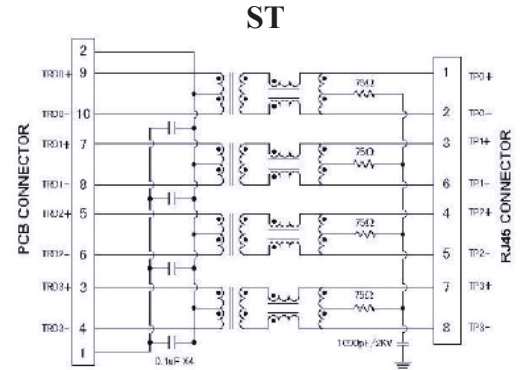
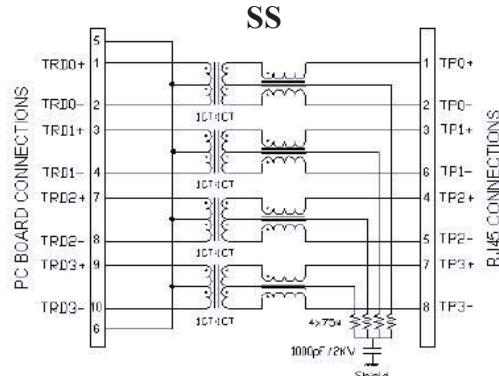


59.12 x 13.60 x 21.50 mm /
58.40 x 11.50 x 17.60 mm

RoHS
Compliant

ARJ14A

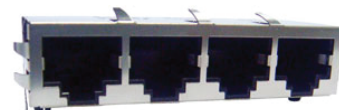
SCHEMATICS



RJ45 10/100/1000 Base-TX Tab down 1x4 Jack with Magnetic Module

ARJ14A

RoHS
Compliant

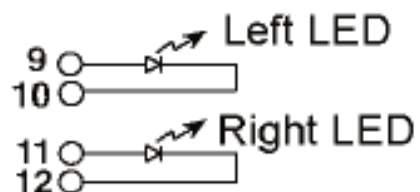


59.12 x 13.60 x 21.50 mm /
58.40 x 11.50 x 17.60 mm

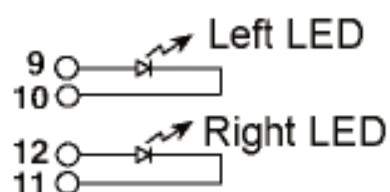
LED POLARITY

8PIN:

E

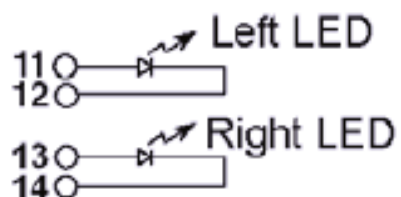


F

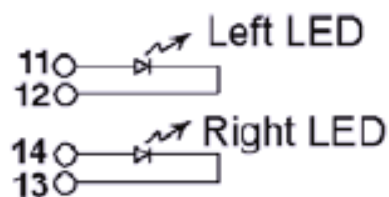


10PIN:

G



H



RJ45 10/100/1000 Base-TX Tab down 1x4 Jack with Magnetic Module

ARJ14A

RoHS
Compliant

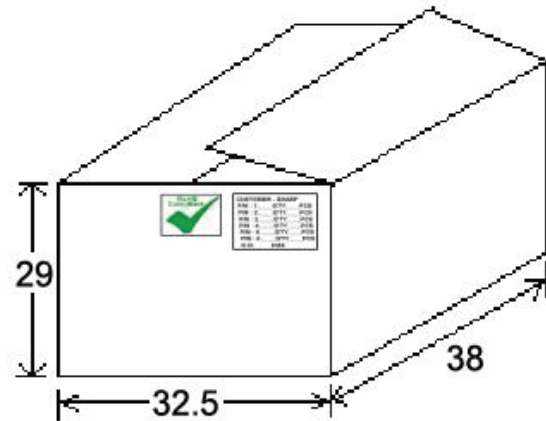
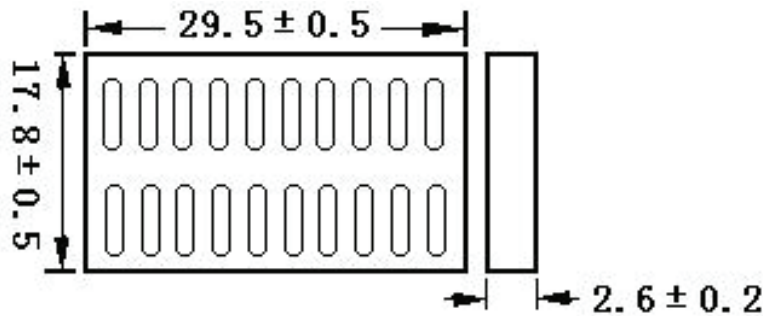


59.12 x 13.60 x 21.50 mm /
58.40 x 11.50 x 17.60 mm

PACKING: 20pcs/tray

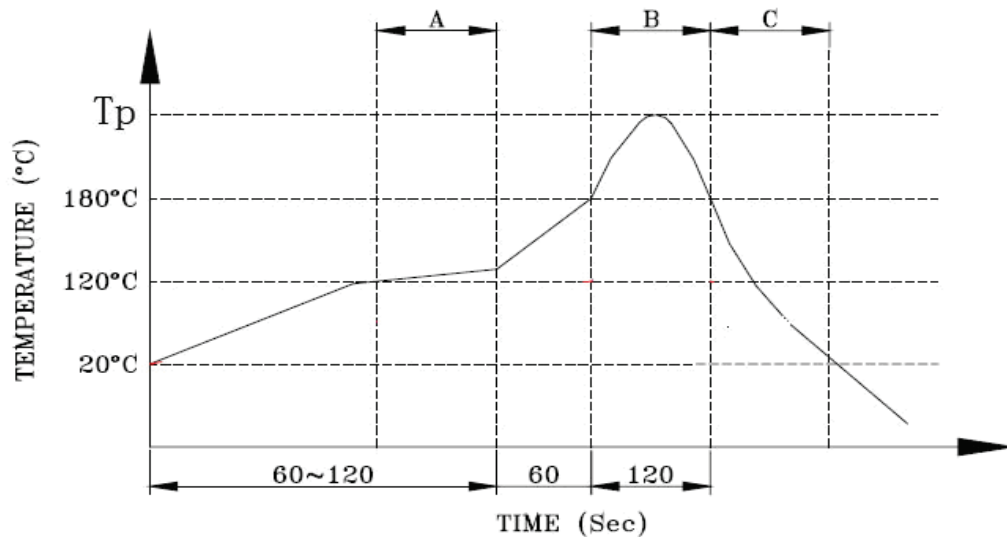
Packaging material: PET

Outer carton unit 400 pcs/ 20 Trays/box



Dimensions: cm

REFLOW PROFILE:



A. Preheating B. Soldering C. Gradual Cooling

Peak temperature(T_p) : $250 \pm 10^\circ\text{C}$
Peak temperature(T_p) time : 5sec max

ATTENTION: Abracon Corporation's products are COTS – Commercial-Off-The-Shelf products; suitable for Commercial, Industrial and, where designated, Automotive Applications. Abracon's products are not specifically designed for Military, Aviation, Aerospace, Life-dependant Medical applications or any application requiring high reliability where component failure could result in loss of life and/or property. For applications requiring high reliability and/or presenting an extreme operating environment, written consent and authorization from Abracon Corporation is required. Please contact Abracon Corporation for more information.

ABRACON IS
ISO 9001:2008
CERTIFIED



ABRACON
CORPORATION

Visit www.abracon.com for Terms & Conditions of Sale
30332 Esperanza, Rancho Santa Margarita, California 92688
tel 949-546-8000 | fax 949-546-8001 | www.abracon.com

Revised: 08.04.11