

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

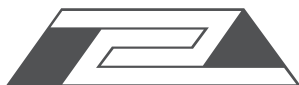
Contact Abracon for more custom configurations. See options to build a custom configuration.

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 “

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Revised: 08.04.11

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MECHANICAL DIMENSIONS

Figure 1: Mechanical drawing of the LED module. The drawing shows a top view and a side view. The top view indicates a total width of 59.12 mm and a pitch of 1.27 mm x 7 = 8.89 mm. It labels 'Left LED' and 'Right LED' on the left side. The side view shows a height of 13.60 mm, a width of 21.50 mm, and a depth of 3.30 ± 0.51 mm. It also shows a 'PRE-SOLDERING' point and dimensions 3.05 mm, 10.90 mm, 2.54 ± 0.20 mm, and 8.89 ± 0.20 mm.

Technical drawings of the LED module showing top, side, and bottom views with dimensions.

Top View:

- Overall width: 59.12
- Overall height: 13.60
- Distance between LED groups: $@1.27 \times 7 = 8.89$
- Left LED and Right LED labels.

Side View:

- Overall width: 21.50
- Overall height: 3.30 ± 0.51
- Distance from top edge to LED chip: 3.05
- Distance from LED chip to bottom edge: 2.54 ± 0.20
- Distance from LED chip to right edge: 8.89 ± 0.20
- PRE-SOLDERING label.

Bottom View:

- Overall width: 58.93
- Overall height: 10.16
- Distance between LED groups: $@1.27 \times 7 = 8.89$
- Dimensions for mounting holes and pads: $32 \times \varnothing 0.9$, $3 \times \varnothing 1.70$, $2 \times \varnothing 1.70$, $2 \times \varnothing 3.20$, $16 \times \varnothing 1.00$, 5.08 , 1.04 , 7.85 , 12.93 , 1.04 , 1.04 , 53.34 , 54.84 , 2.28 , 4.06 , 2.54 , 3.05 , 8.89 .

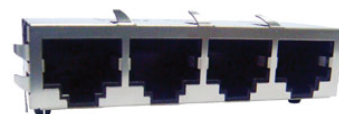
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MECHANICAL DIMENSIONS

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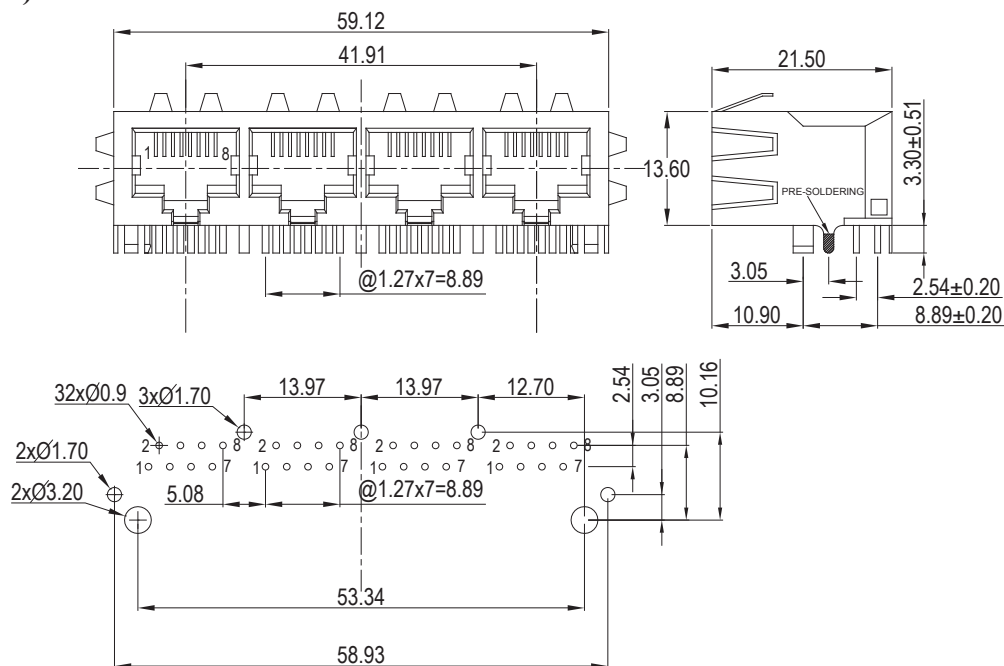
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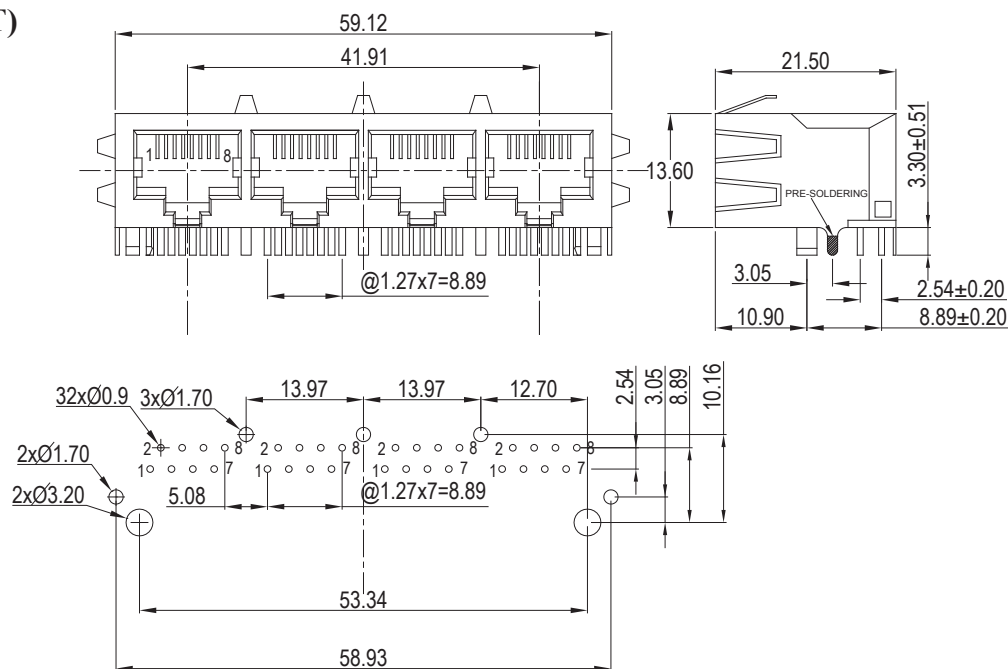
59.12 x 13.60 x 21.50 mm /
58.40 x 11.50 x 17.60 mm

MECHANICAL DIMENSIONS

ME (10/100 Base-T) (8 EMI Fingers)



MF (10/100 Base-T) (3 EMI Fingers)



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MECHANICAL DIMENSIONS

[illegible]

The technical drawings include:

- Top View:** Shows the overall dimensions of the chip. The total width is 59.12, and the total length is 53.34. The distance between the centers of the four RJ45 ports is 41.91. The distance between the centers of the two rows of pins is 12.70. The distance between the centers of the two rows of pins is 12.70. The distance between the centers of the two rows of pins is 12.70. The distance between the centers of the two rows of pins is 12.70.
- Side View:** Shows the profile of the chip. The total height is 13.60. The distance between the top and bottom surfaces is 13.60. The distance between the top and bottom surfaces is 13.60. The distance between the top and bottom surfaces is 13.60.
- Bottom View:** Shows the pin configuration and dimensions. The total width is 58.93, and the total length is 53.34. The distance between the centers of the two rows of pins is 12.70. The distance between the centers of the two rows of pins is 12.70. The distance between the centers of the two rows of pins is 12.70. The distance between the centers of the two rows of pins is 12.70.

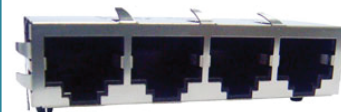
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MECHANICAL DIMENSIONS

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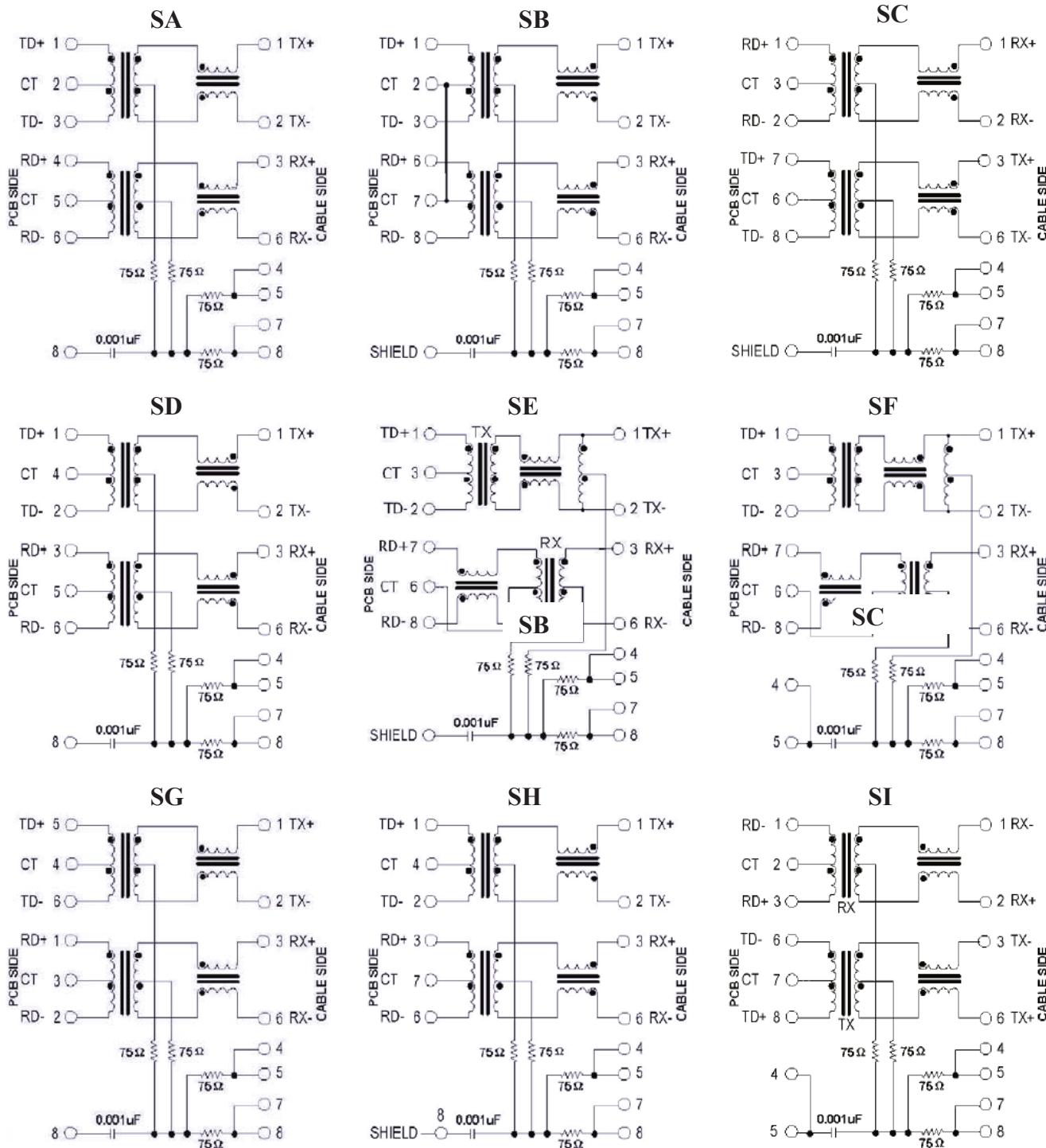
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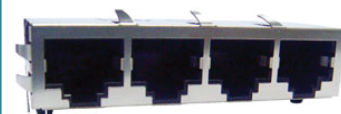
SCHEMATICS



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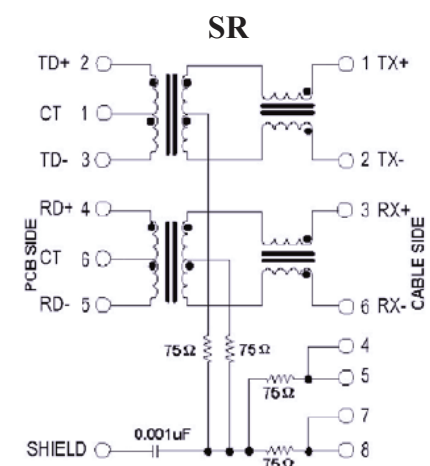
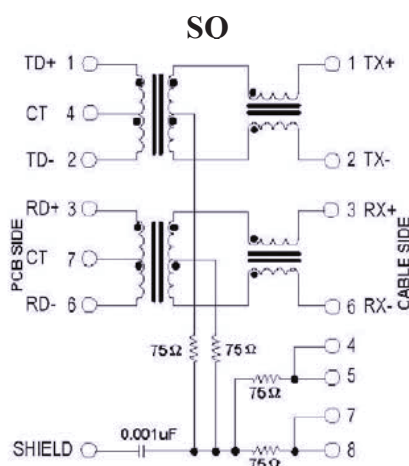
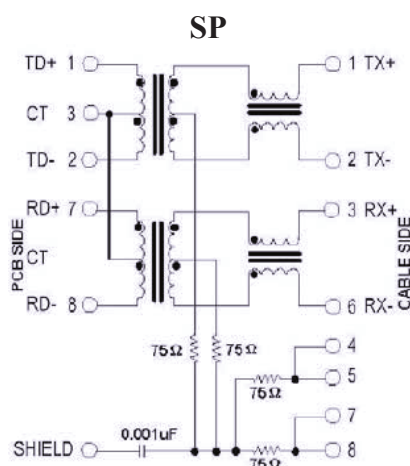
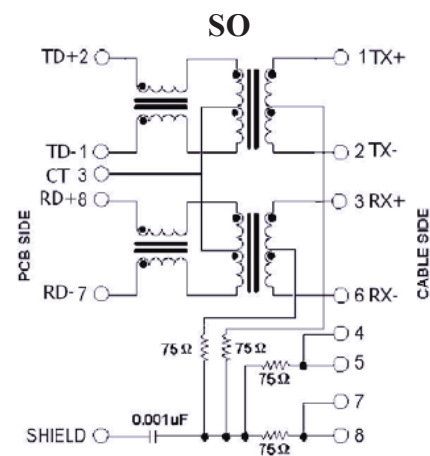
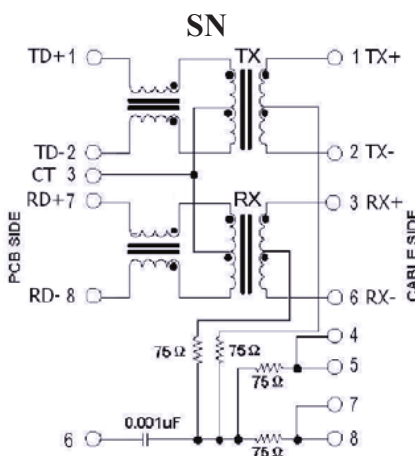
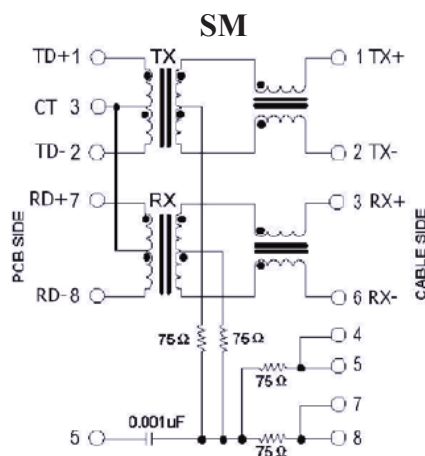
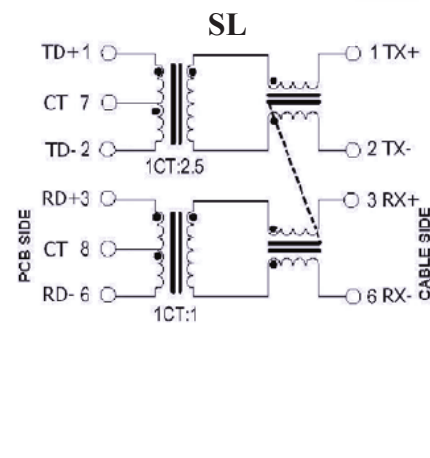
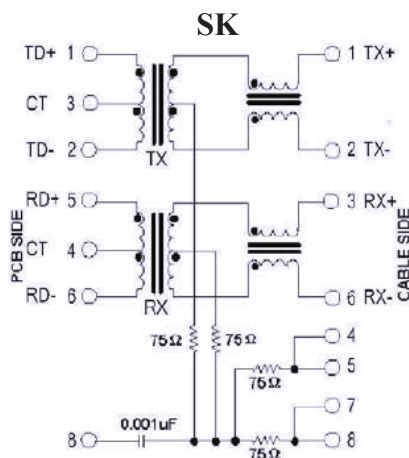
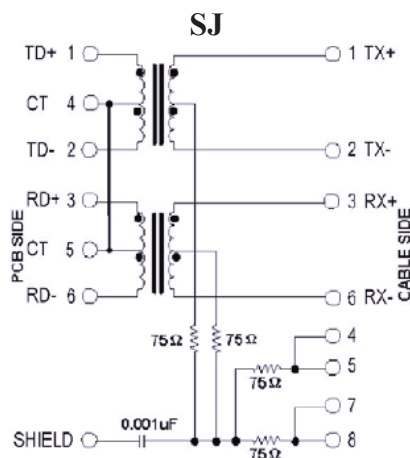
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SCHEMATICS - continued



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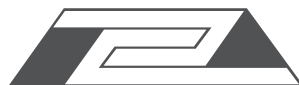
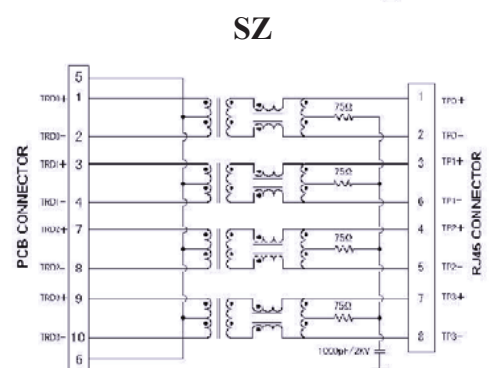
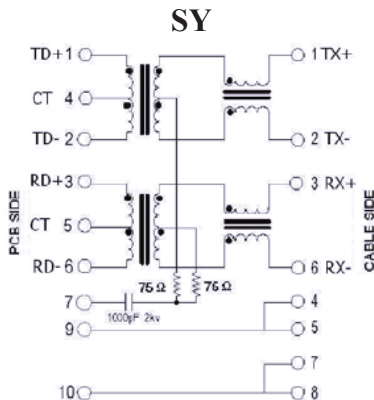
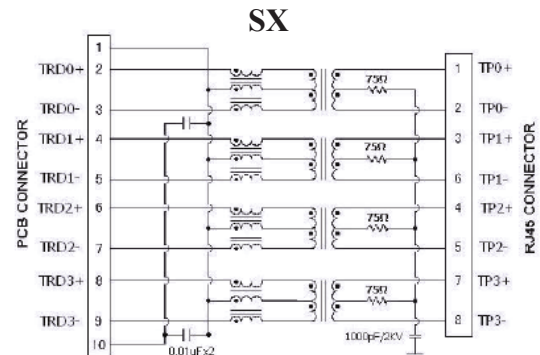
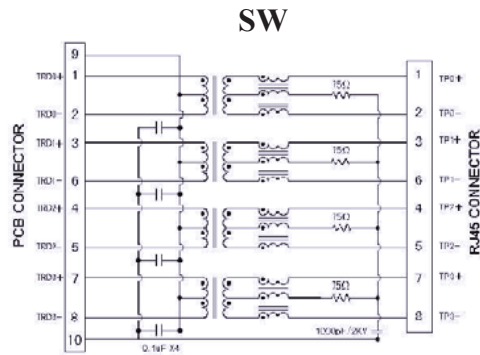
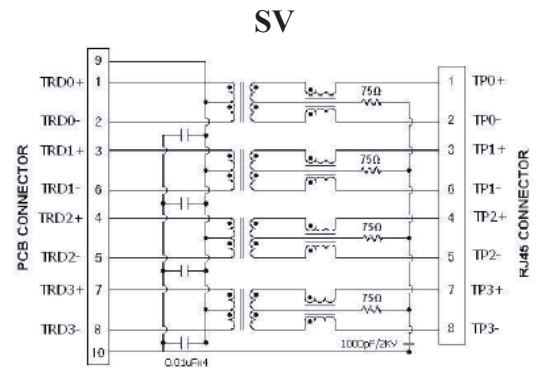
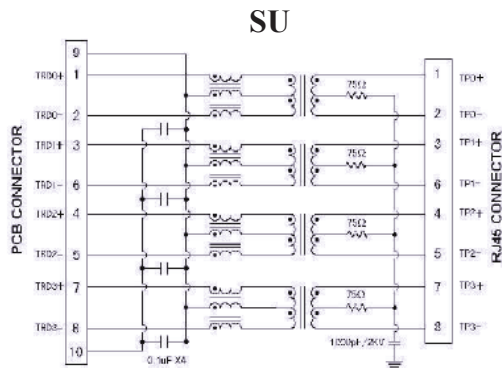
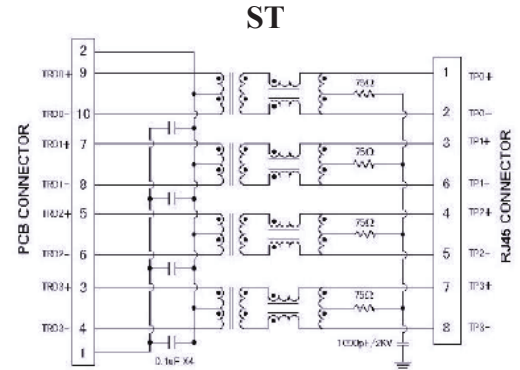
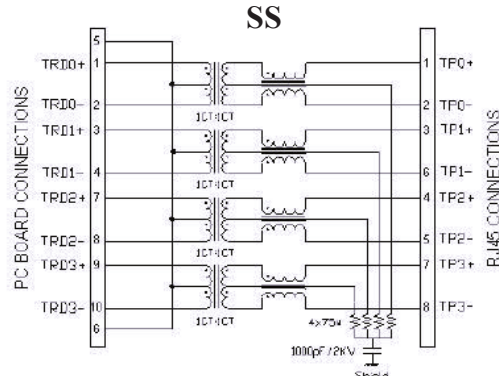


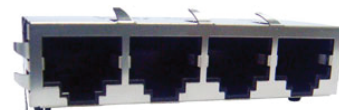
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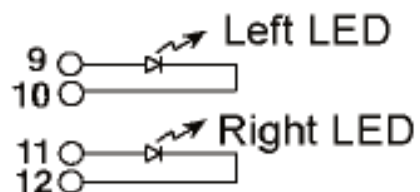


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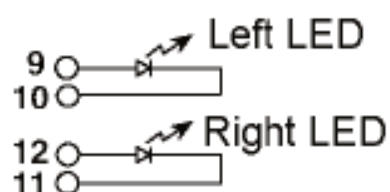
LED POLARITY

8PIN:

E

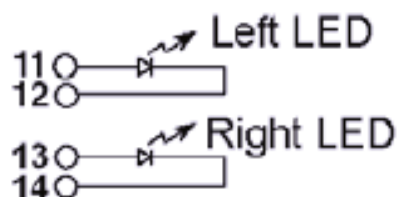


F

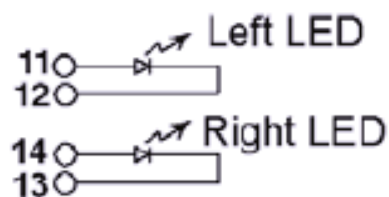


10PIN:

G



H



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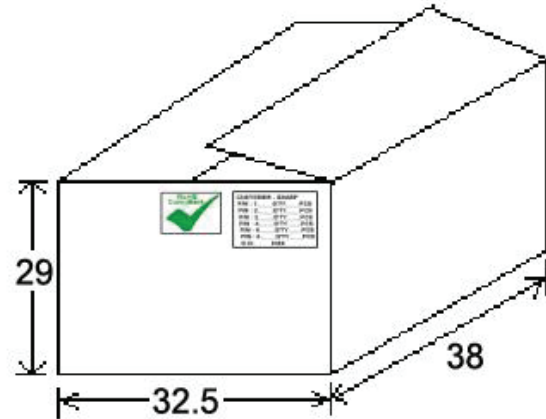
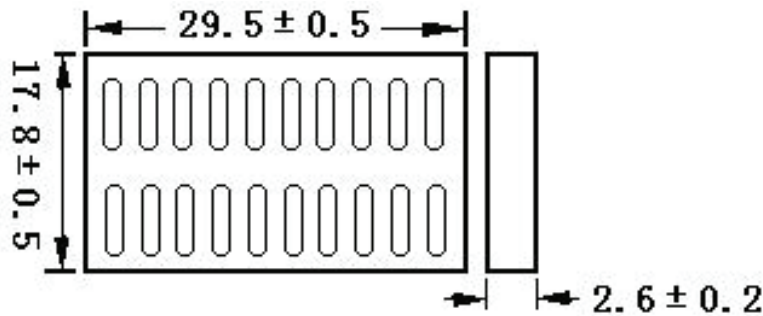


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PACKING: 20pcs/tray

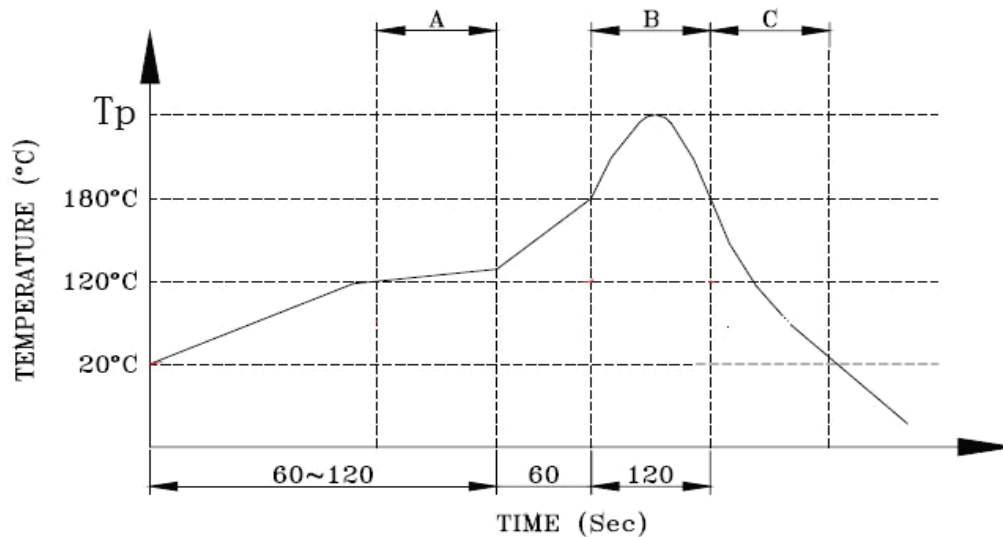
Packaging material: PET

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

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