

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

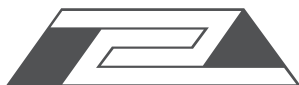
Contact Abracon for more custom configurations. See options to build a custom configuration.

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 central section width of 41.91 mm. It shows two rows of LEDs, labeled 'Left LED' and 'Right LED', with a pitch of @1.27x7=8.89 mm. The side view shows a height of 13.60 mm and a width of 21.50 mm. It also indicates a pre-soldering area with dimensions 3.05 mm, 10.90 mm, and 2.54±0.20 mm, and a total height of 3.30±0.51 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:

- Top width: 21.50
- Bottom width: 10.90
- Height from top to bottom of LED: 3.30 ± 0.51
- Distance from top to bottom of LED: 2.54
- Distance from bottom of LED to bottom of module: 8.89 ± 0.20
- Distance from bottom of LED to bottom of module: 2.54 ± 0.20
- Distance from bottom of LED to bottom of module: 3.05
- PRE-SOLDERING label.

Bottom View:

- Overall width: 58.93
- Overall height: 10.16
- Distance between LED groups: $@1.27 \times 7 = 8.89$
- Distance between LED groups: 13.97
- Distance between LED groups: 13.97
- Distance between LED groups: 12.70
- Distance between LED groups: 5.08
- Distance between LED groups: 1.04
- Distance between LED groups: 7.85
- Distance between LED groups: 12.93
- Distance between LED groups: 1.04
- Distance between LED groups: 1.04
- Distance between LED groups: 53.34
- Distance between LED groups: 54.84
- Distance between LED groups: 2.28
- Distance between LED groups: 4.06
- Distance between LED groups: 2.54
- Distance between LED groups: 3.05
- Distance between LED groups: 8.89
- Distance between LED groups: 10.16
- Distance between LED groups: 32x $\varnothing 0.9$
- Distance between LED groups: 3x $\varnothing 1.70$
- Distance between LED groups: 2x $\varnothing 1.70$
- Distance between LED groups: 2x $\varnothing 3.20$
- Distance between LED groups: 16x $\varnothing 1.00$

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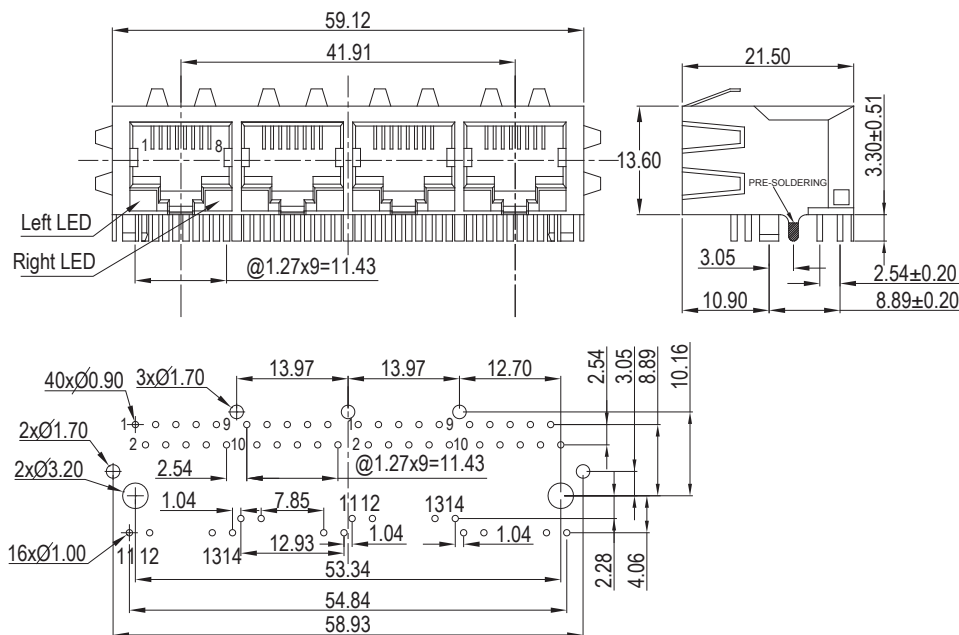
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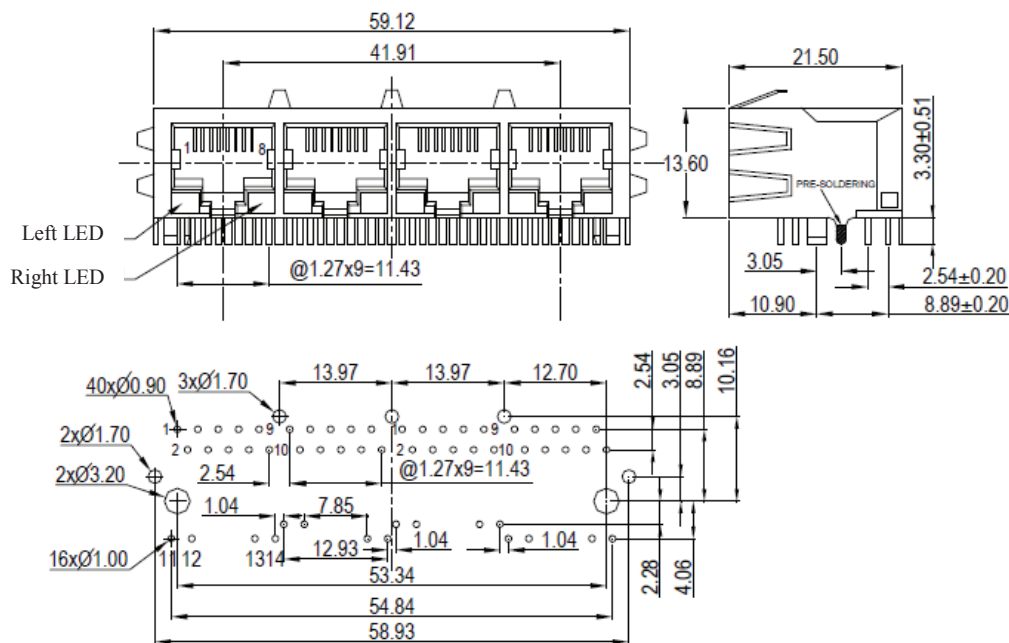
59.12 x 13.60 x 21.50 mm /
58.40 x 11.50 x 17.60 mm

MECHANICAL DIMENSIONS

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



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



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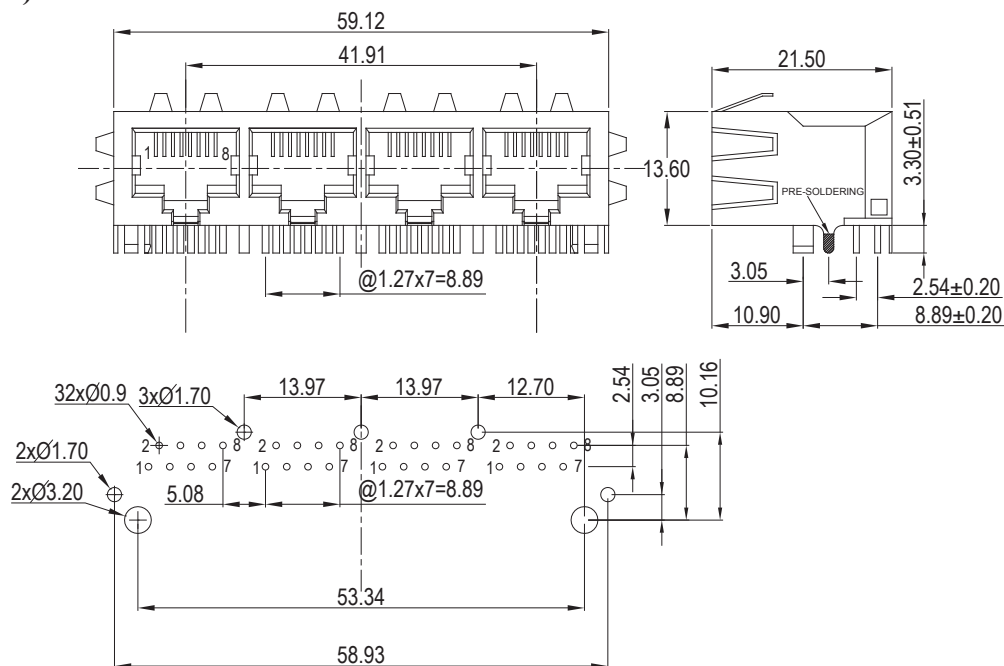
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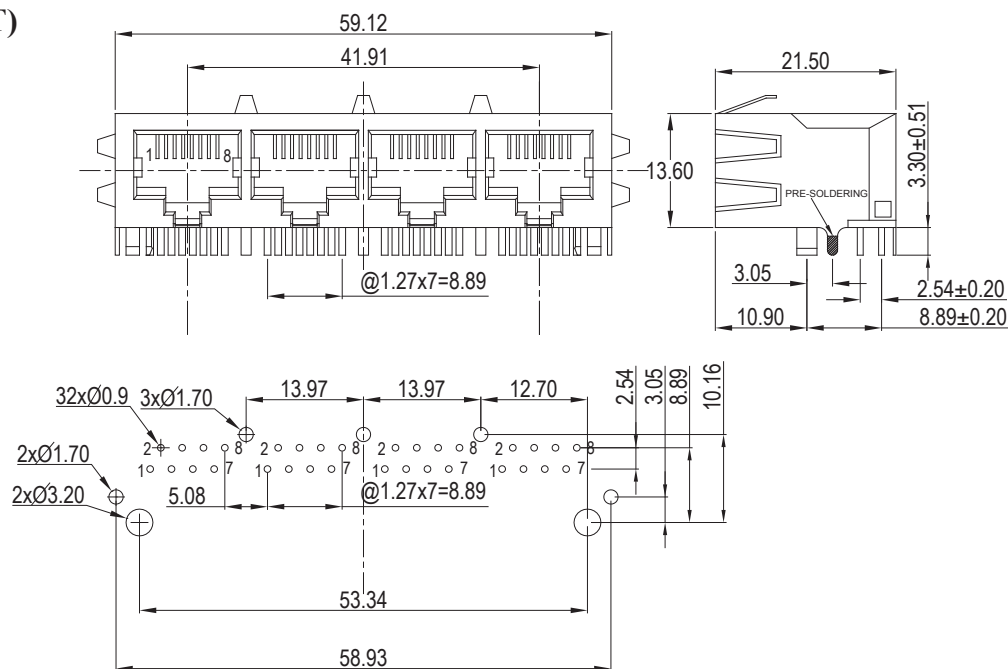
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MECHANICAL DIMENSIONS

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



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



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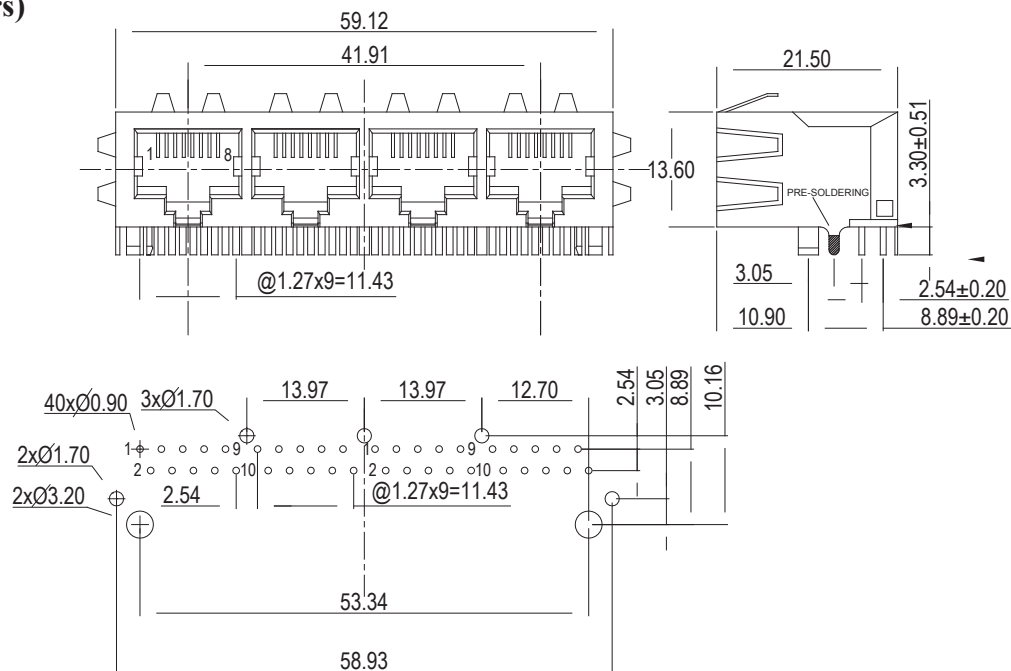
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MECHANICAL DIMENSIONS

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



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MECHANICAL DIMENSIONS

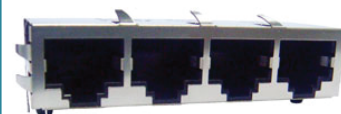
The technical drawings include:

- Front View:** Shows four modules with dimensions: overall width 58.40, module pitch 42.21, and pin spacing @1.27x7=8.89.
- Side View:** Shows the profile of one module with dimensions: top width 17.60, height 11.50, mounting hole offset 3.30±0.20, base width 7.5, and pin offset 2.54 / 8.89±0.20.
- Back View:** Shows the component layout on the reverse side with dimensions: total length 53.34, segment lengths 1.27, 8.89, 13.97, 2.54, and 8.89, and circular features with diameters Ø0.90 and Ø3.20.

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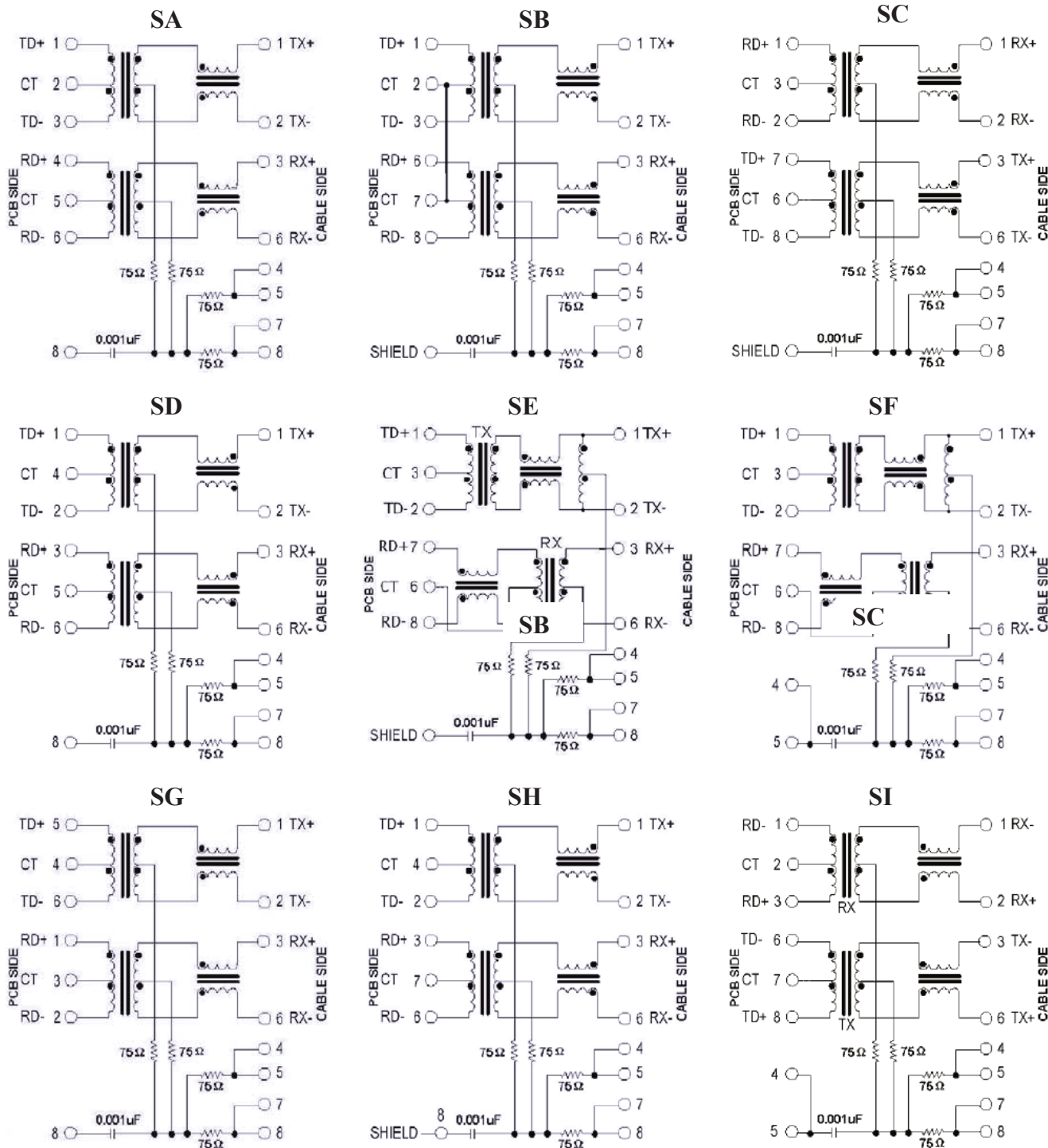
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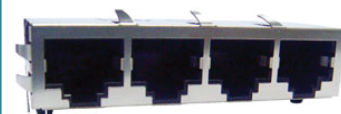
SCHEMATICS



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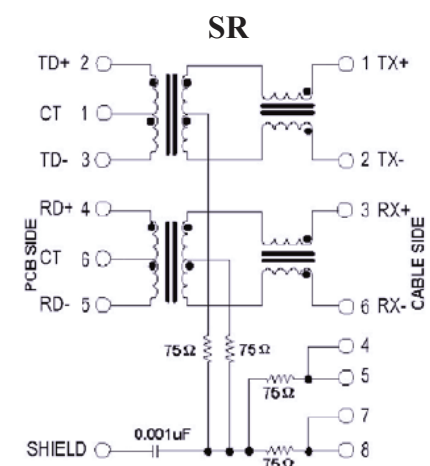
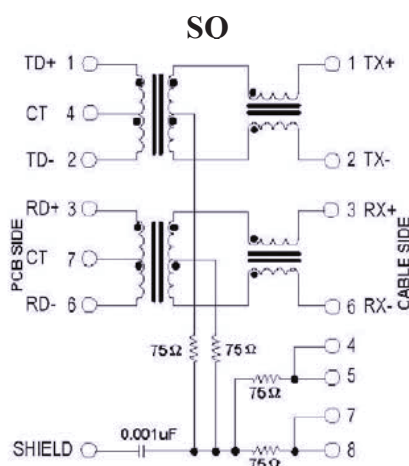
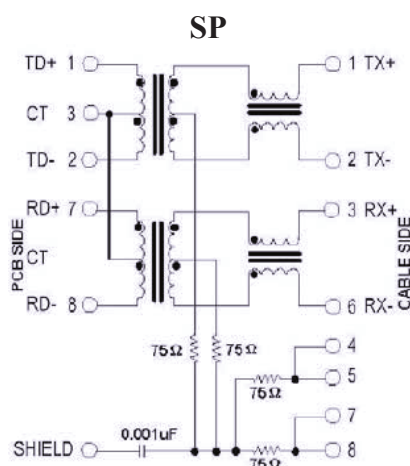
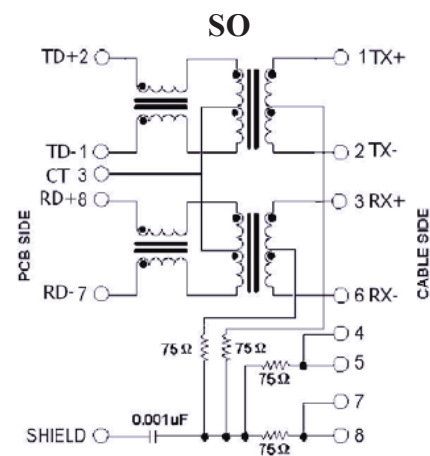
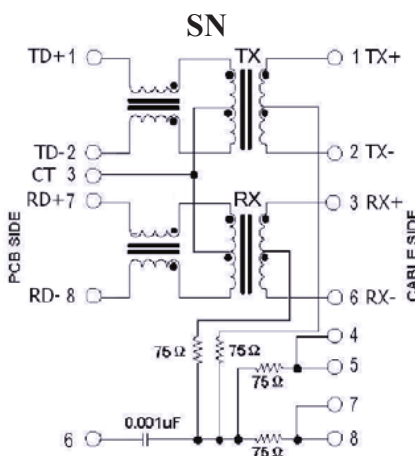
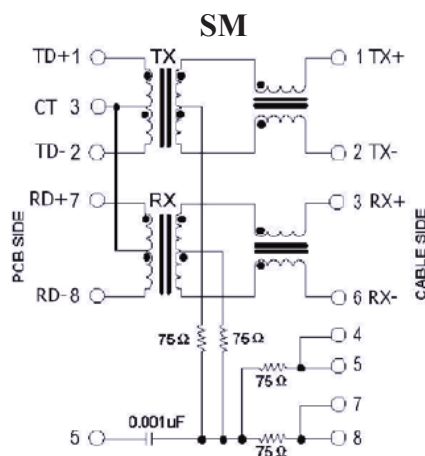
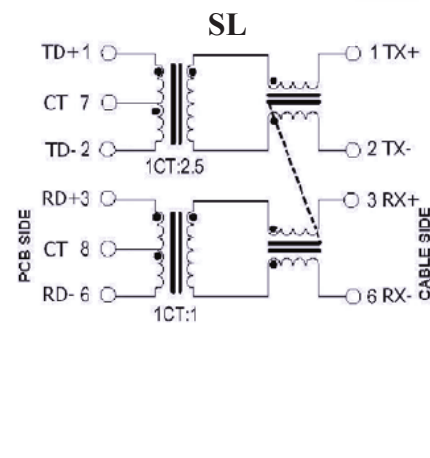
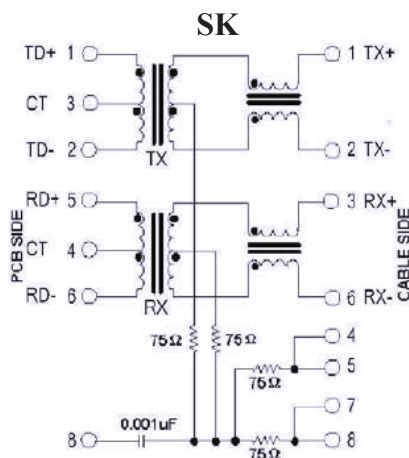
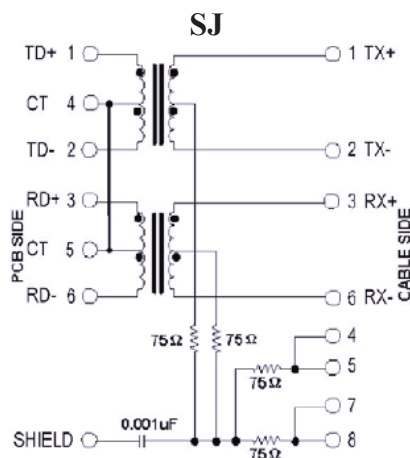
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SCHEMATICS - continued



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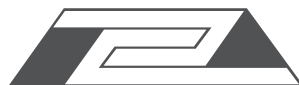
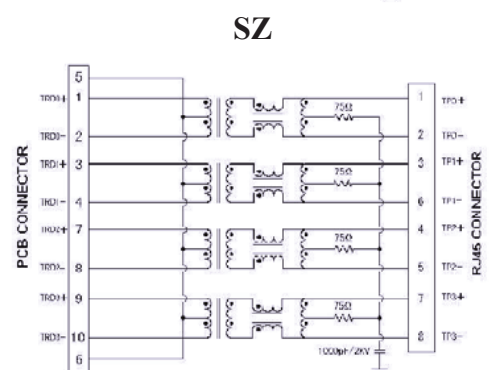
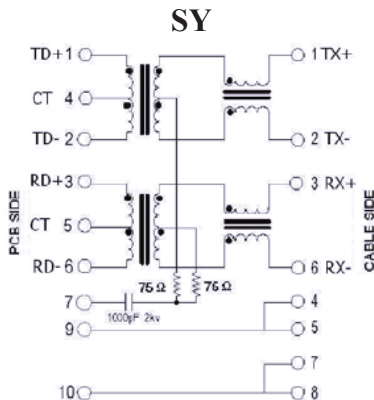
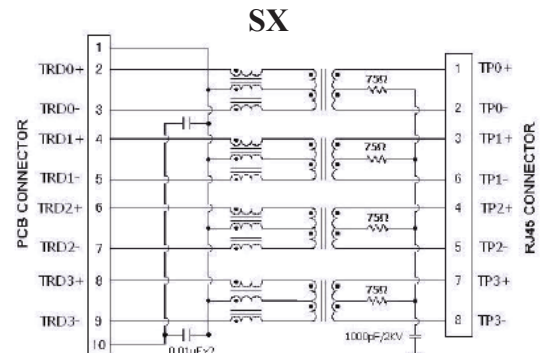
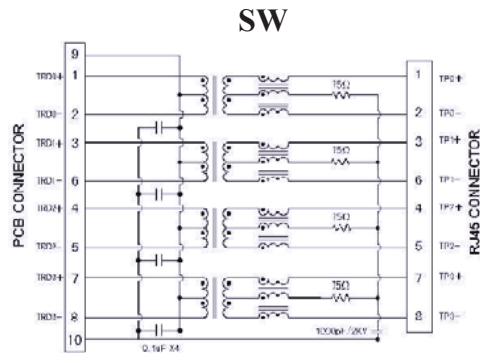
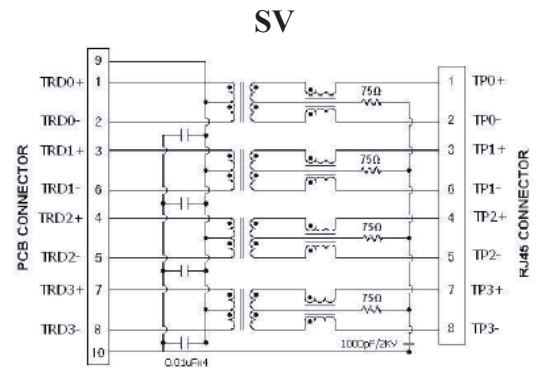
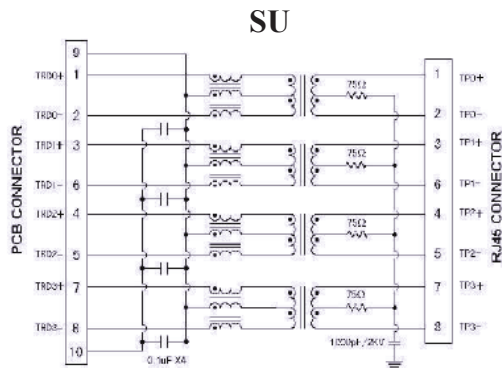
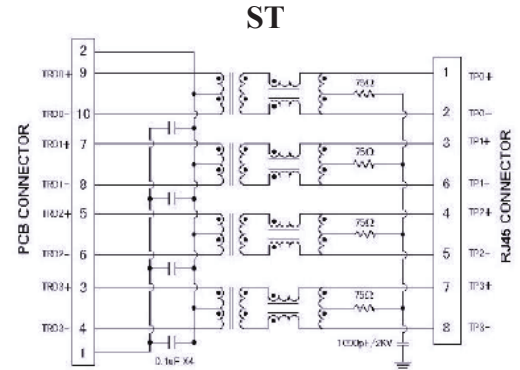
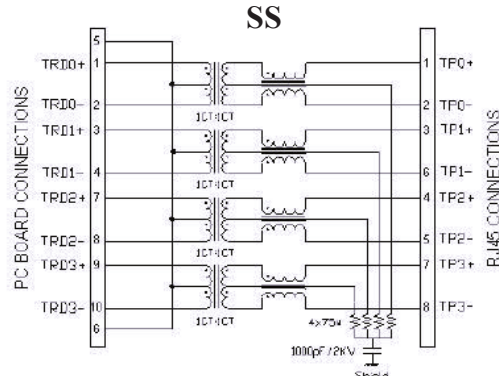


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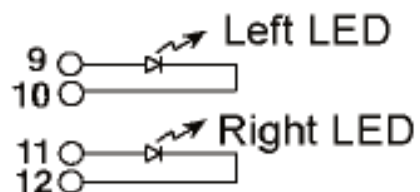


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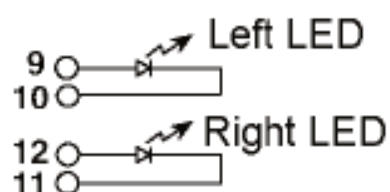
LED POLARITY

8PIN:

E

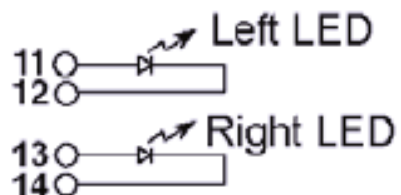


F

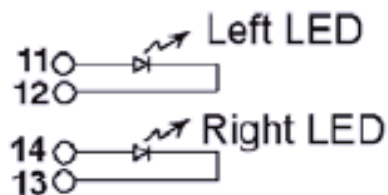


10PIN:

G



H



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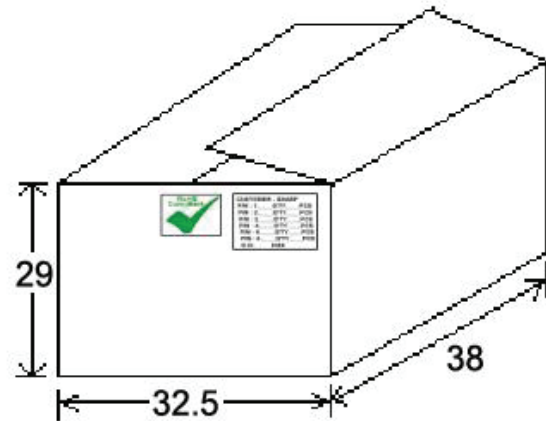
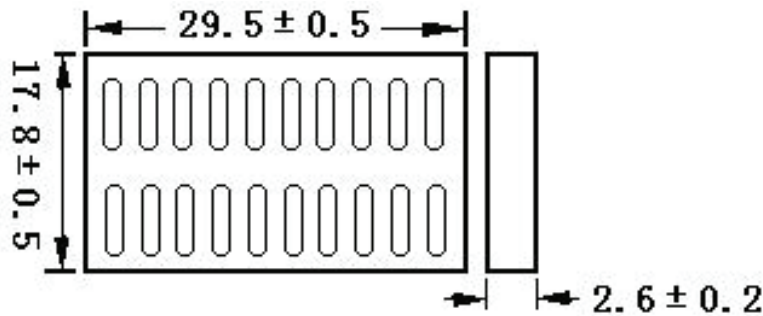


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PACKING: 20pcs/tray

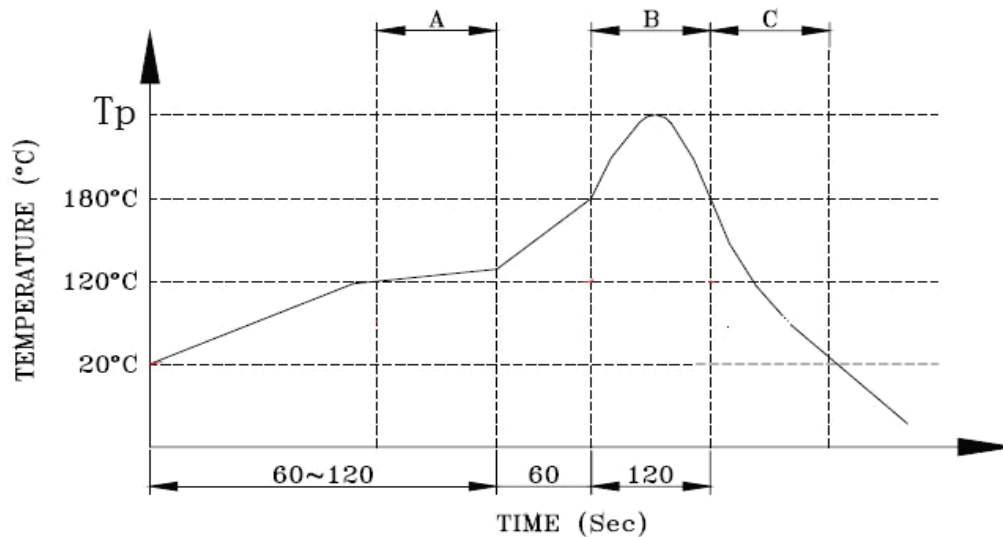
Packaging material: PET

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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