

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 13.00 x 20.54mm

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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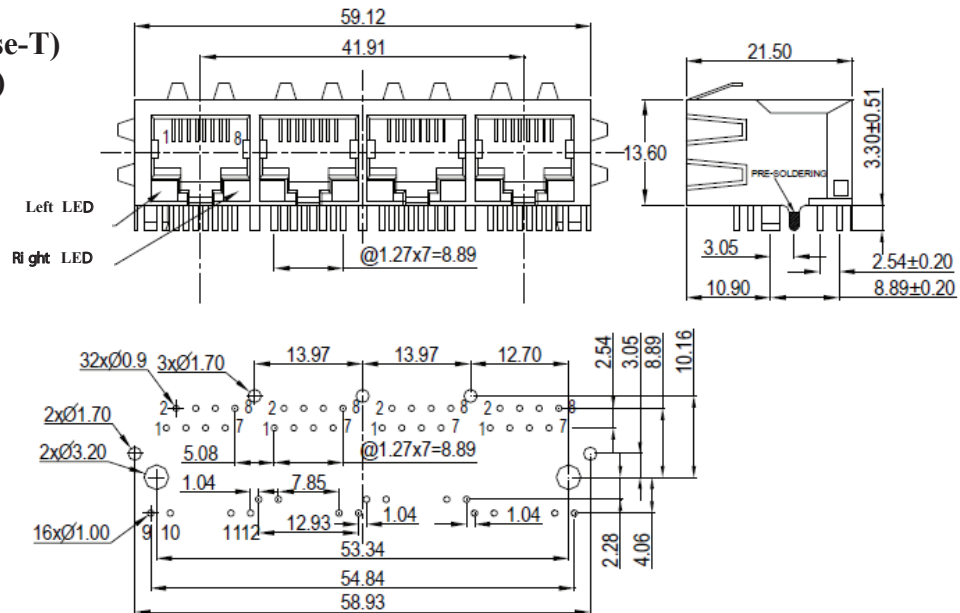
RoHS
Compliant



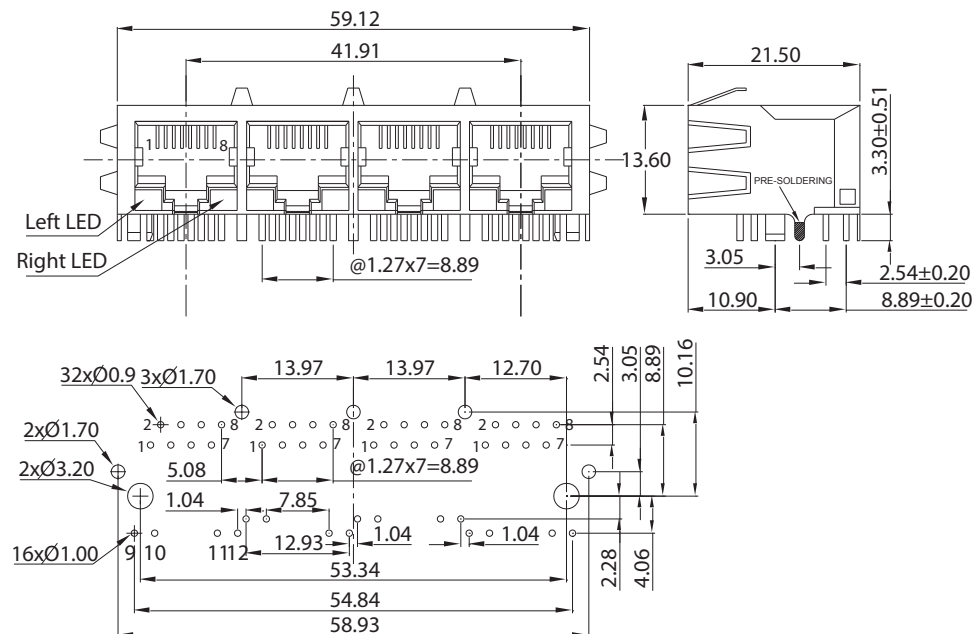
59.12 x 13.60 x 21.50 mm /
58.40 x 13.00 x 20.54mm

MECHANICAL DIMENSIONS

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



MB (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 module, including a total width of 59.12, a central section width of 41.91, and a height of 13.60. It also shows a pitch of $@1.27 \times 9 = 11.43$ for the LED array.
- Side View:** Shows the profile of the module with a total height of 21.50, a mounting hole diameter of 3.30 ± 0.51 , and a pre-soldering area with dimensions 3.05, 10.90, and 2.54 ± 0.20 . The total length of the module is 8.89 ± 0.20 .
- Bottom View:** Shows the mounting holes and their dimensions, including $40 \times \phi 0.90$, $3 \times \phi 1.70$, $2 \times \phi 1.70$, $2 \times \phi 3.20$, and $16 \times \phi 1.00$. It also shows the pitch of $@1.27 \times 9 = 11.43$ and various mounting hole dimensions such as 2.54, 1.04, 7.85, 12.93, 1.04, 53.34, 54.84, and 58.93.

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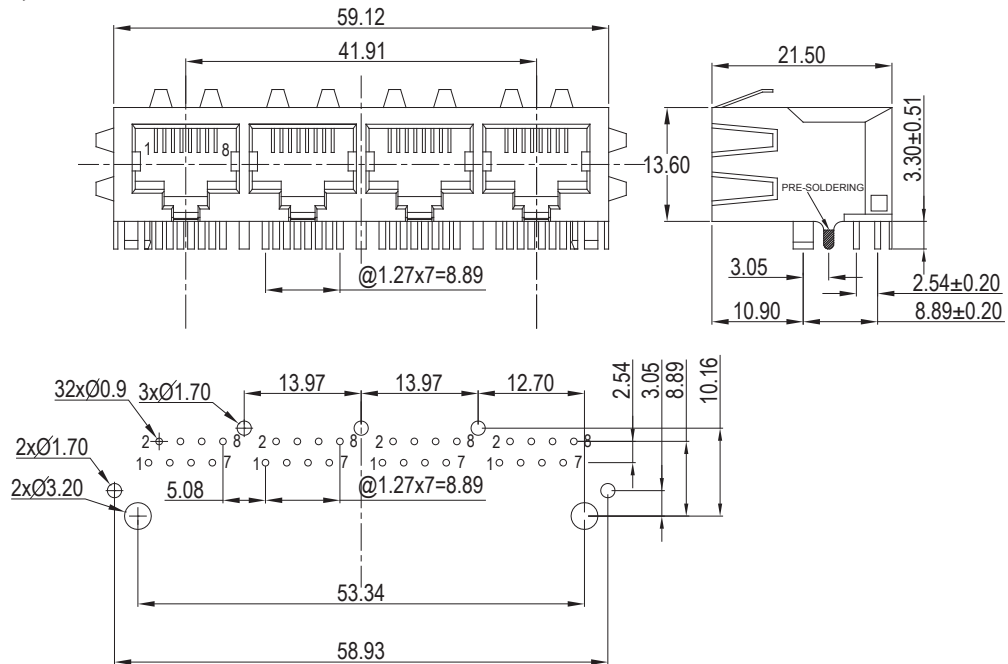
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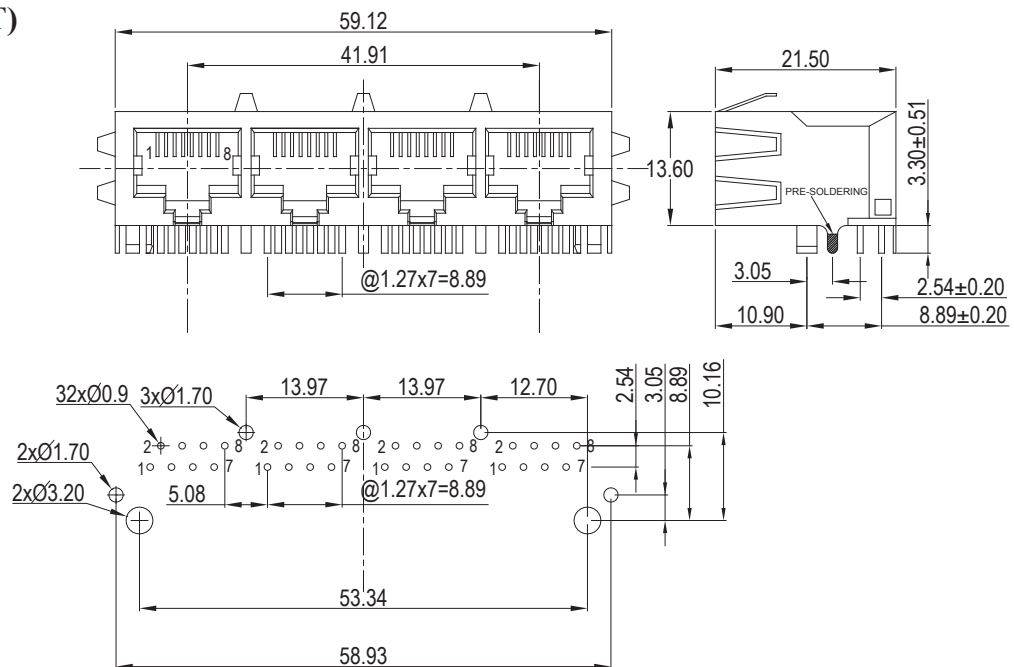
59.12 x 13.60 x 21.50 mm /
58.40 x 13.00 x 20.54mm

MECHANICAL DIMENSIONS

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



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



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MECHANICAL DIMENSIONS

1)

59.12

41.91

13.60

@1.27x7=8.89

21.50

3.30±0.51

PRE-SOLDERING

3.05

10.90

2.54±0.20

8.89±0.20

32xØ0.9

3xØ1.70

13.97

13.97

12.70

2.54

3.05

8.89

10.16

2xØ1.70

2xØ3.20

5.08

@1.27x7=8.89

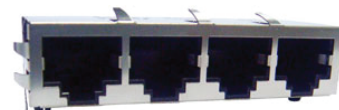
53.34

58.93

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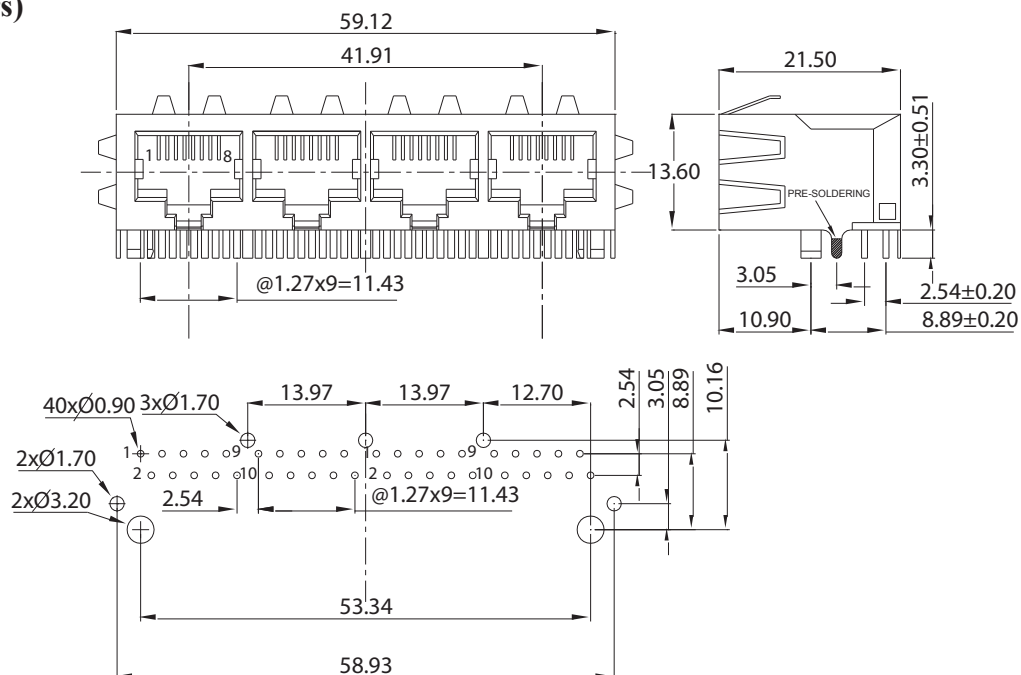
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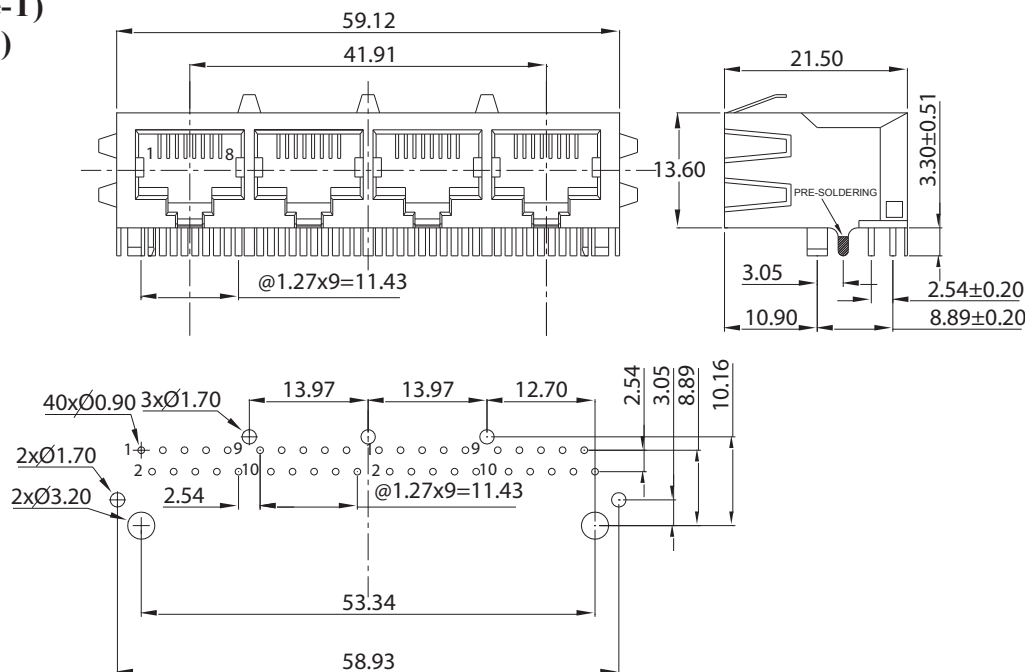
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MECHANICAL DIMENSIONS

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



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



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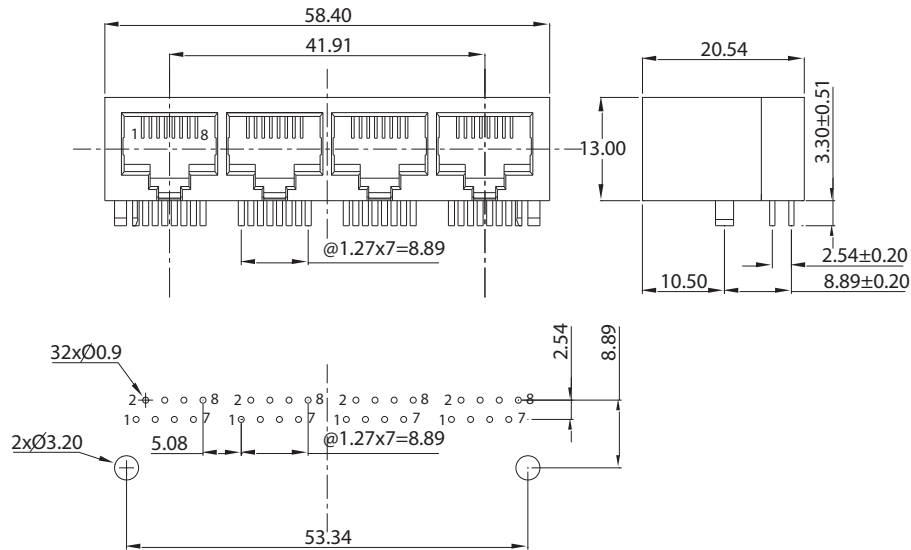
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MECHANICAL DIMENSIONS

MI (10/100 Base-T)



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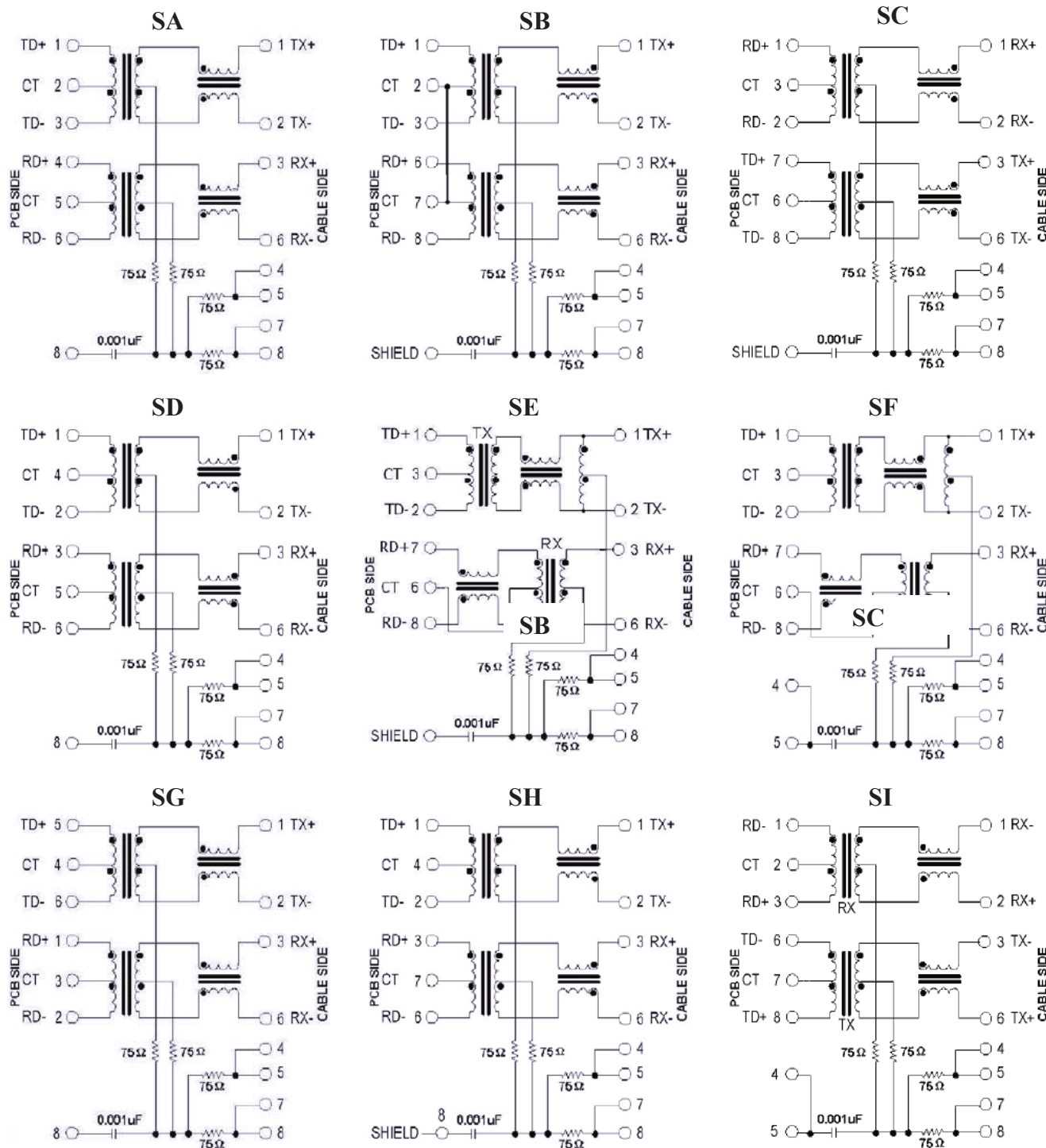
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SCHEMATICS



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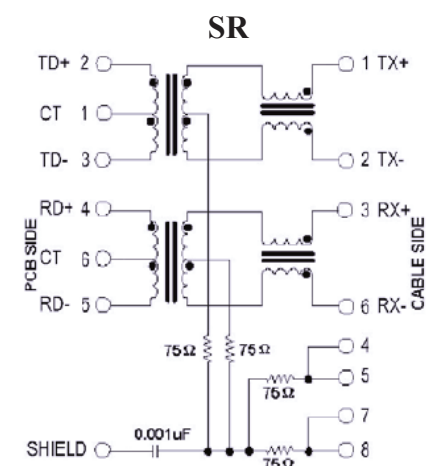
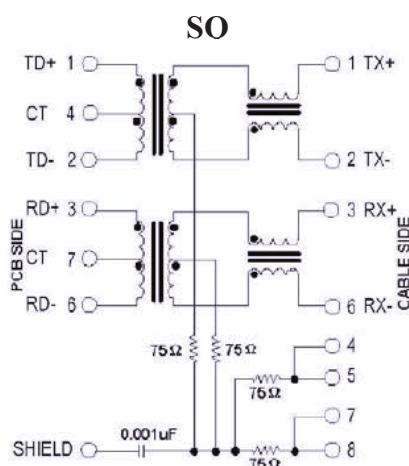
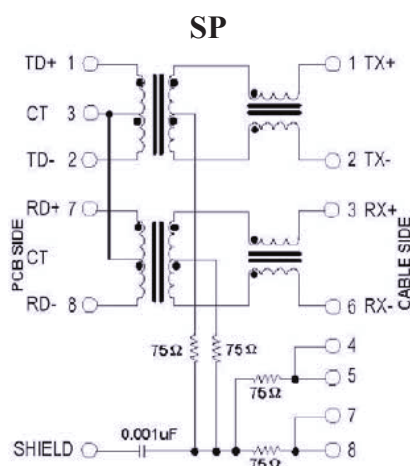
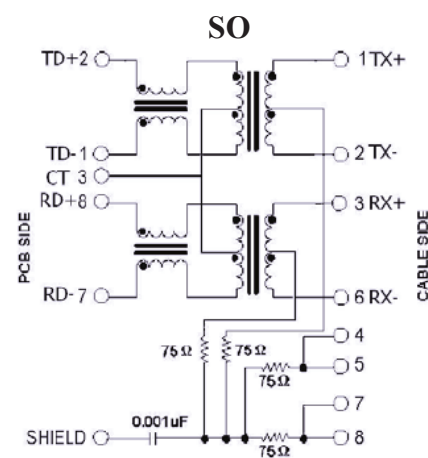
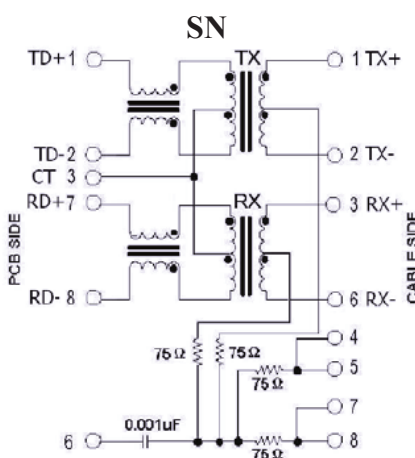
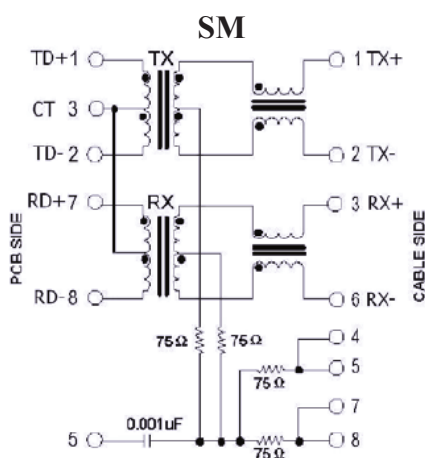
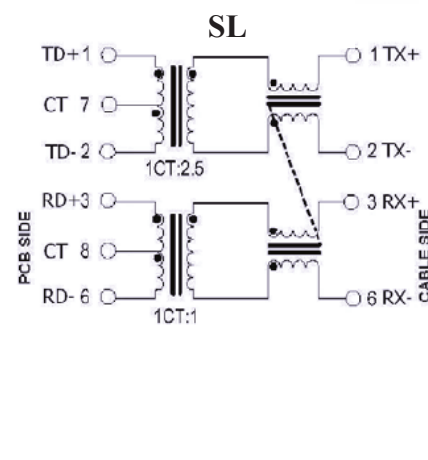
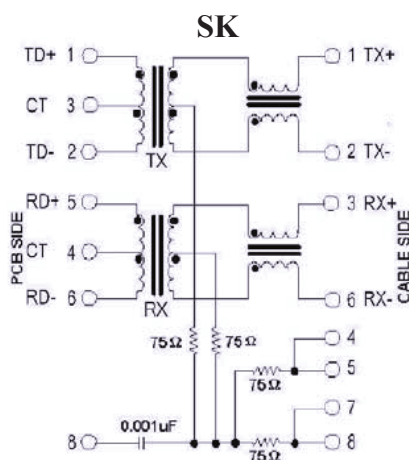
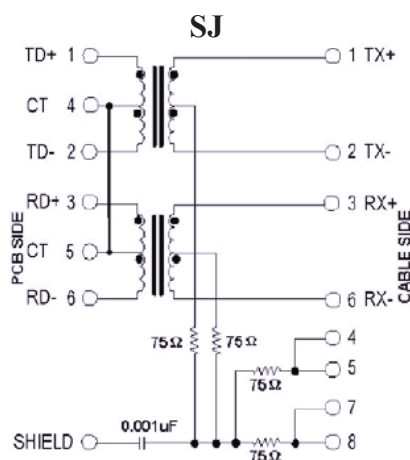
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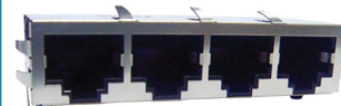
SCHEMATICS - continued



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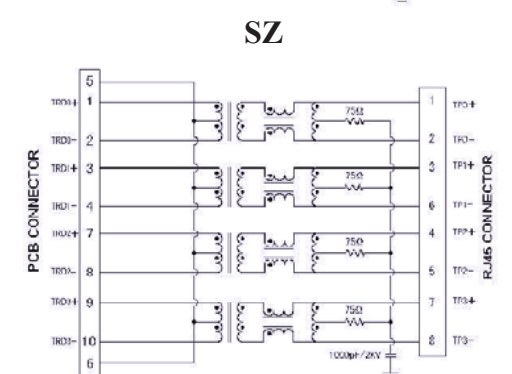
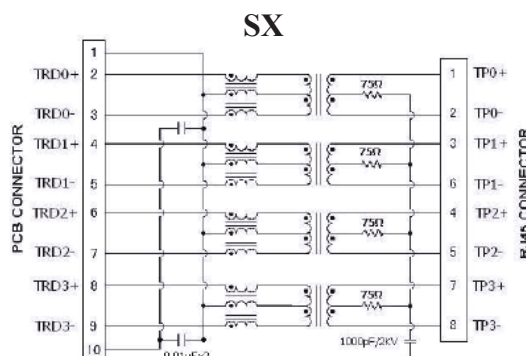
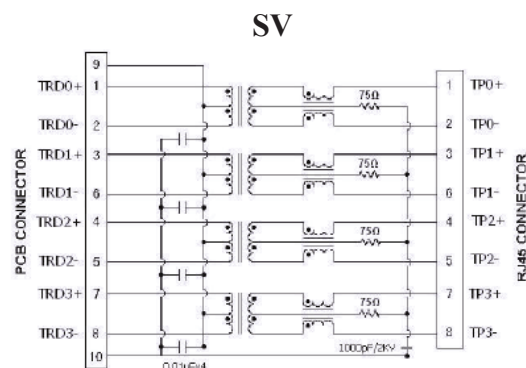
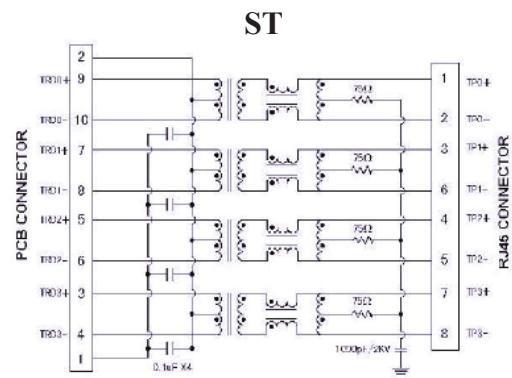
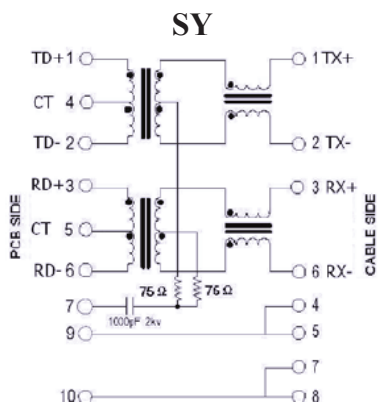
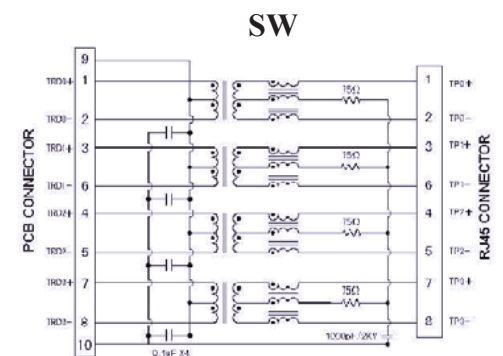
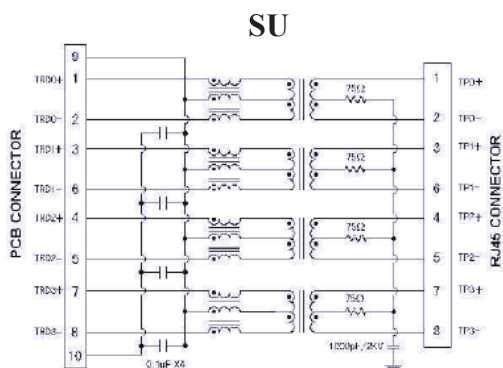
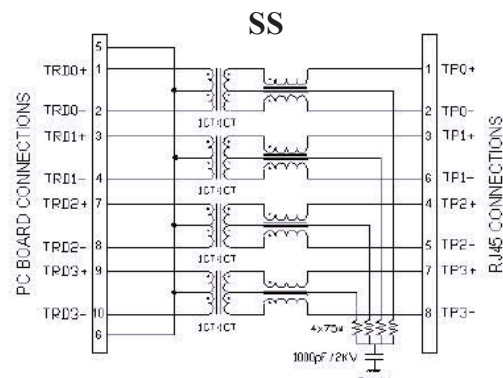
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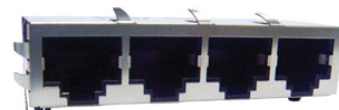
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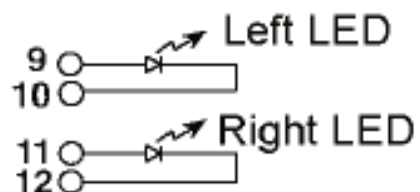


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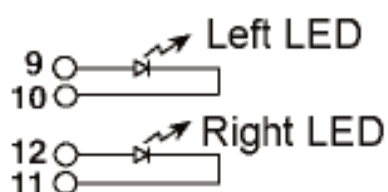
LED POLARITY

8PIN:

E

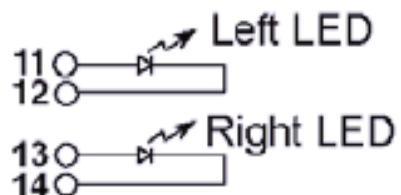


F

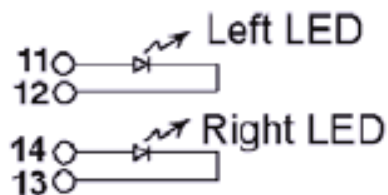


10PIN:

G



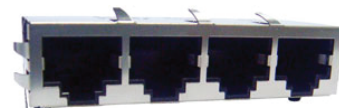
H



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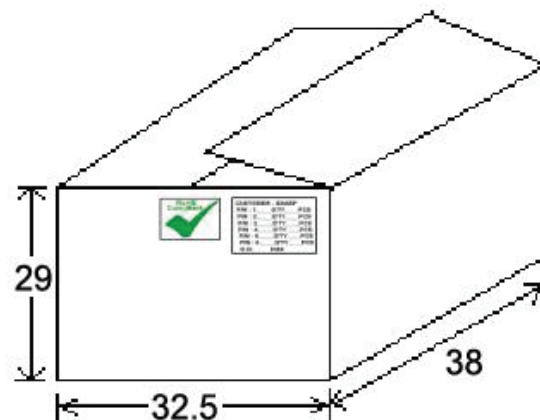
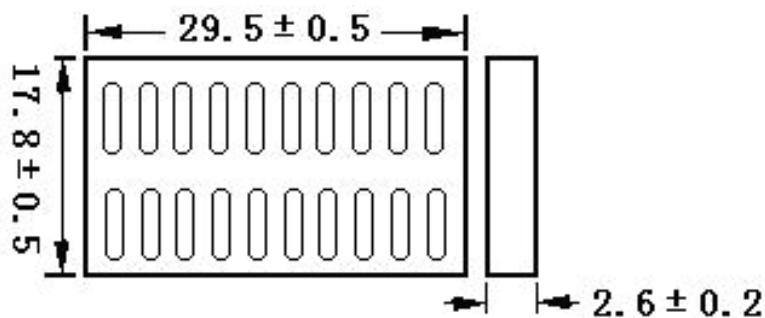


59.12 x 13.60 x 21.50 mm /
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PACKING: 20pcs/tray

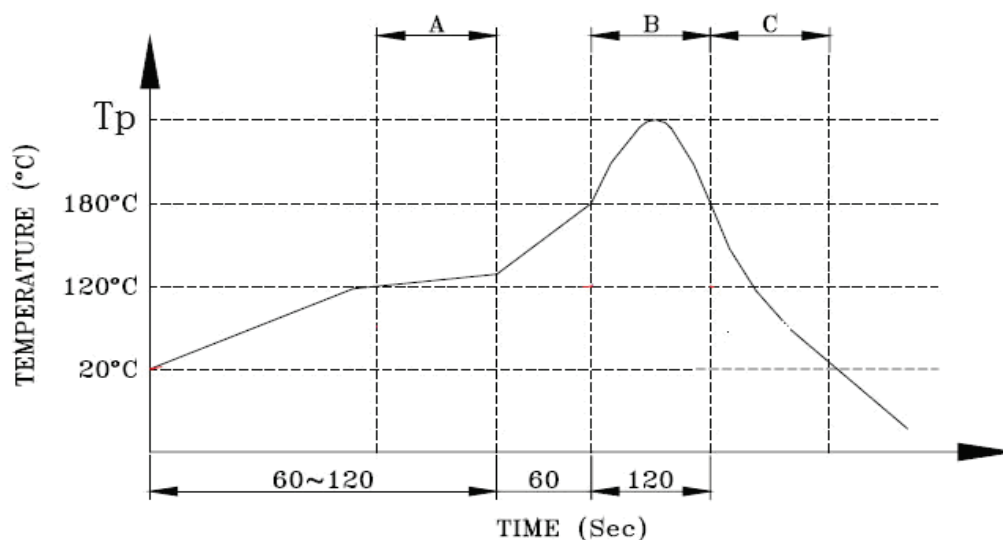
Packaging material: PET

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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