

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



ARJ14A Series

Request Samples



Check Inventory



Various sizes

RoHS/RoHS II Compliant

MSL Level = N/A

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

Electrical Specifications

Part Number	Turns Ratio $\pm 5\%$		Tab Option	EMI Fingers (see Mechanical)	LEDs	Insertion Loss (dB typ)	Return Loss (dB typ @100 Ω $\pm 15\%$)		
	TX	RX			L/R	0.3- 100 MHz	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.



5101 Hidden Creek Ln, Spicewood TX 78669
Phone: 512-371-6159 Fax: 512-351-8858
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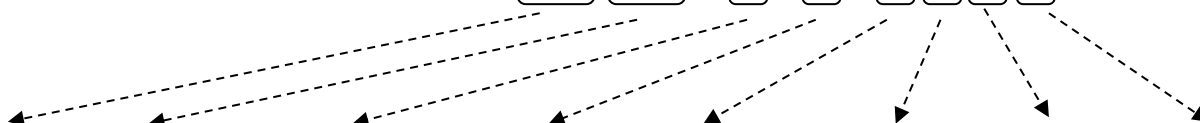
MSL Level = N/A

Environmental Specifications

- Storage Temp: -40°C TO +85°C.
- Operating Temp: 0°C TO +70°C.
- JACK CAVITY CONFORMS TO FCC RULES AND REGULATIONS PART 68, SUBPART F

Part Identification

ARJ14A - - - -



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

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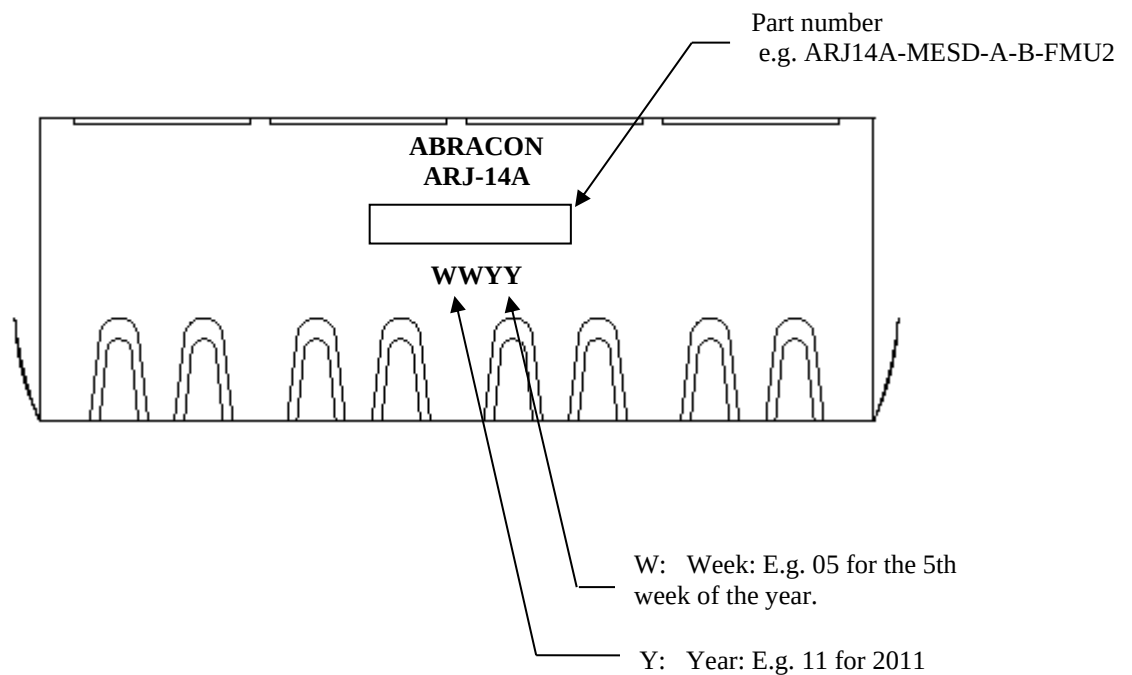


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Marking



Marking Method = Laser Marking



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Materials

1. **Housing Material:**
MATERIAL: NYLON GF (Fr50) UL94V-0

STANDARD COLOR: BLACK
2. **Insert Material:**
MATERIAL: Phos-Bronze C5210 EH---0.35mm Thickness,

Insert -PBT GF UL94V-0

1.PLATING(1) NICKEL

2.PLATING(2) 100%Sn

3.PLATING(3) GOLD (3u " ~50u ") (see options)
3. **Plate Material:**
PBT GF UL 94V-0
4. **Contact pin Material:**
MATERIAL: Phos-Bronze C5191---0.35mm Thickness

1.PLATING(1) NICKEL

2.PLATING(2) 100%Sn
5. **Shielding Material:**
BRASS C2680 PLATING NICKEL
6. **Operating life:**
750 Cycles min

Note: No material substitutions allowed without prior approval by customers in writing

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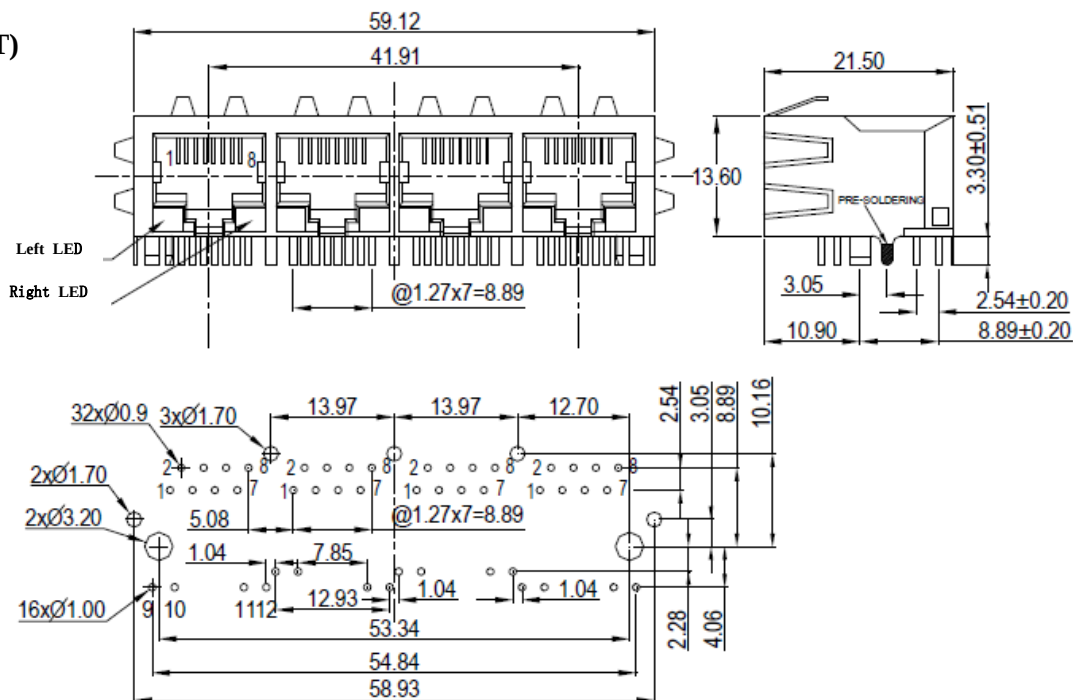
RoHS/RoHS II Compliant

MSL Level = N/A

Mechanical Dimensions

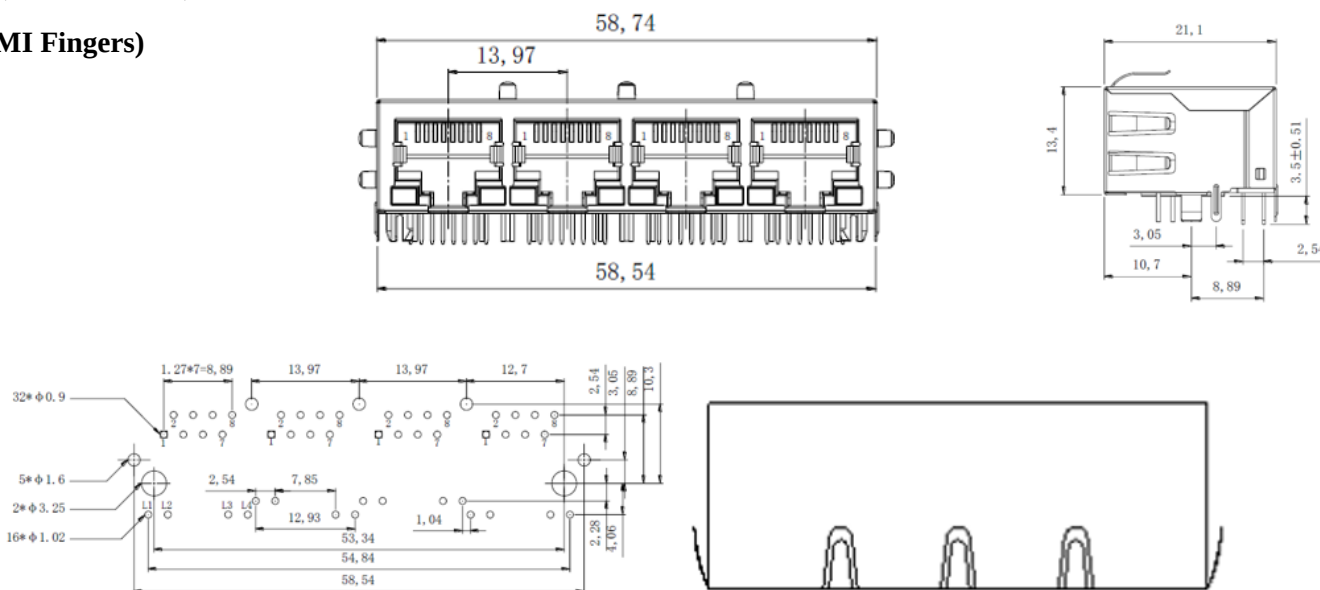
MA (10/100 Base-T)

(8 EMI Fingers)



MB (10/100 Base-T)

(3 EMI Fingers)



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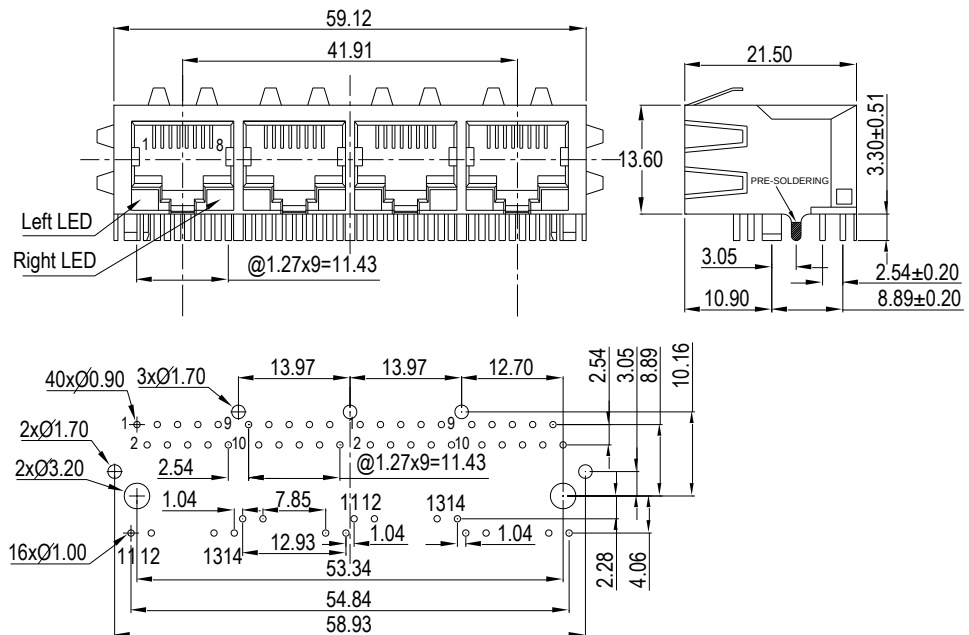


RoHS/RoHS II Compliant

MSL Level = N/A

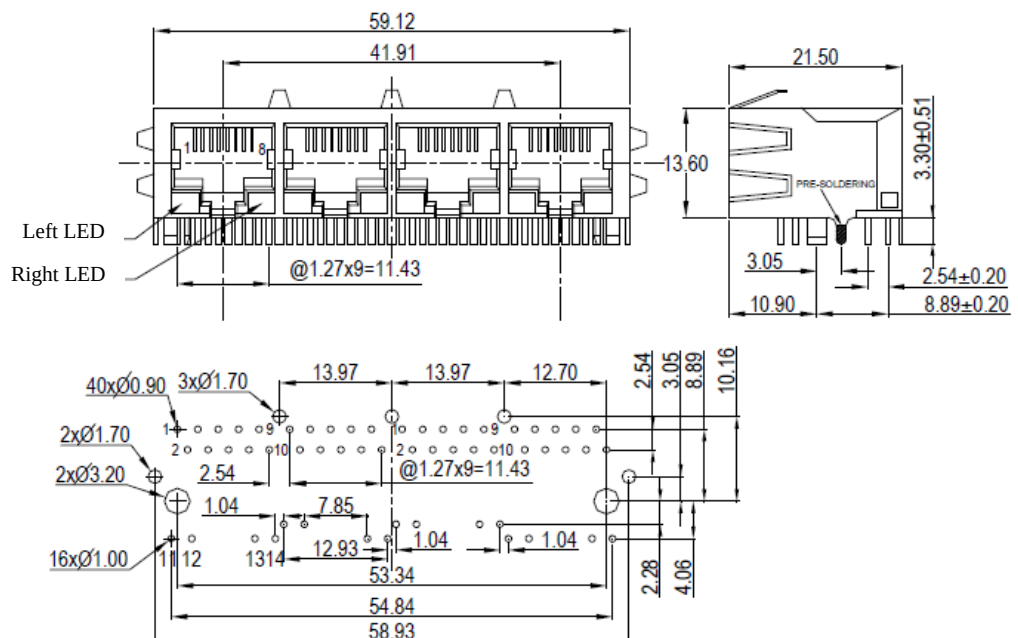
MC (1000 Base-T)

(8 EMI Fingers)



MD (1000 Base-T)

(3 EMI Fingers)



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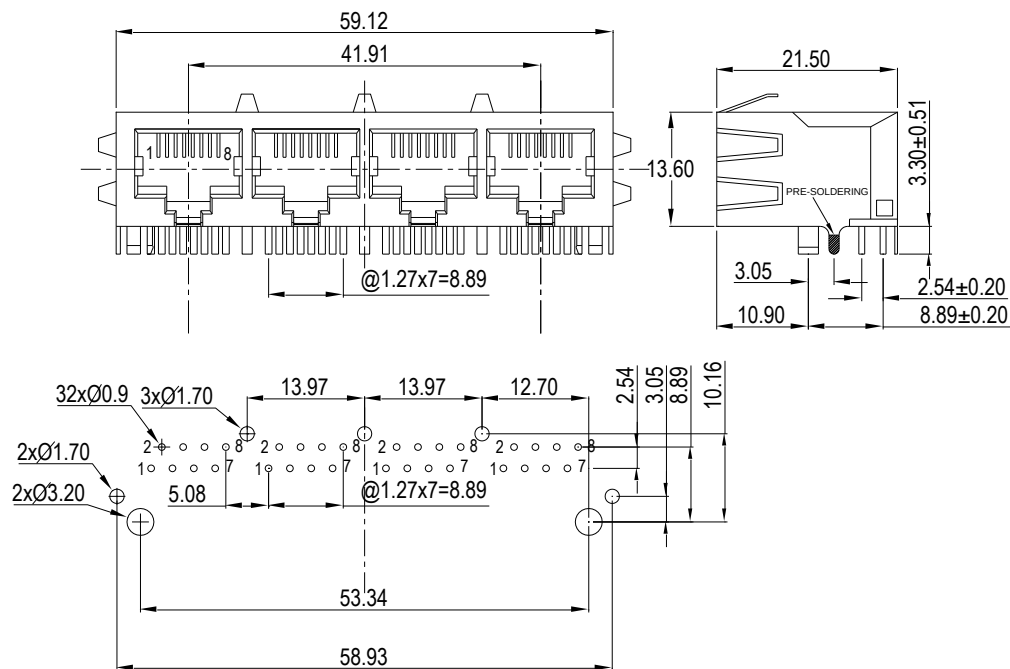
MSL Level = N/A

ME (10/100 Base-T)

8 EMI Fingers,

No LED options

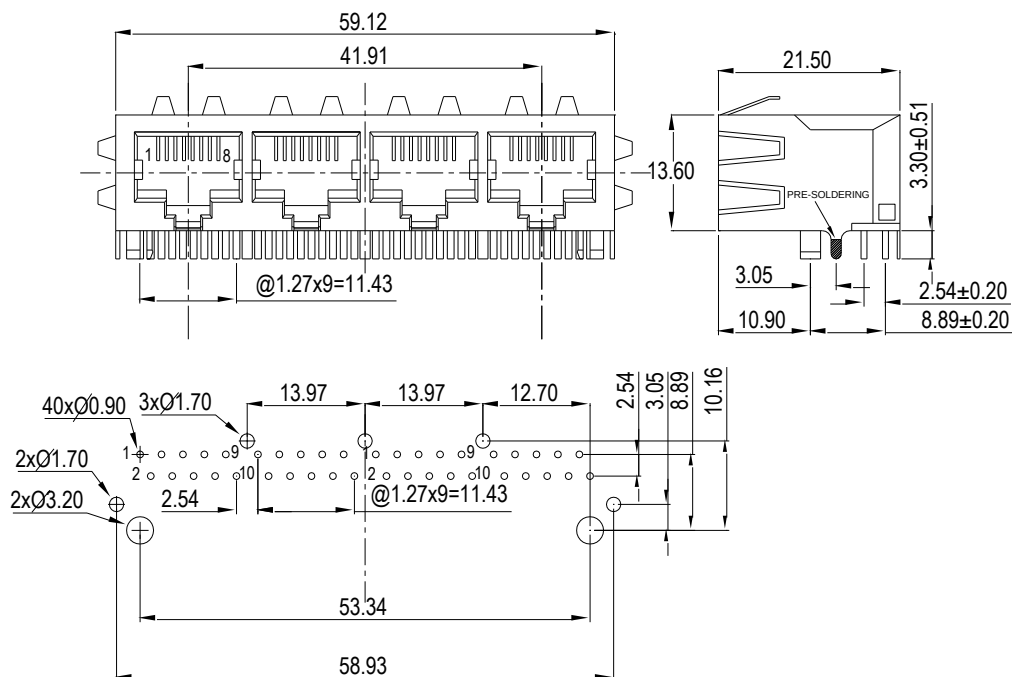
No LED options



MG (1000 Base-T)

8 EMI Fingers,

No LED options



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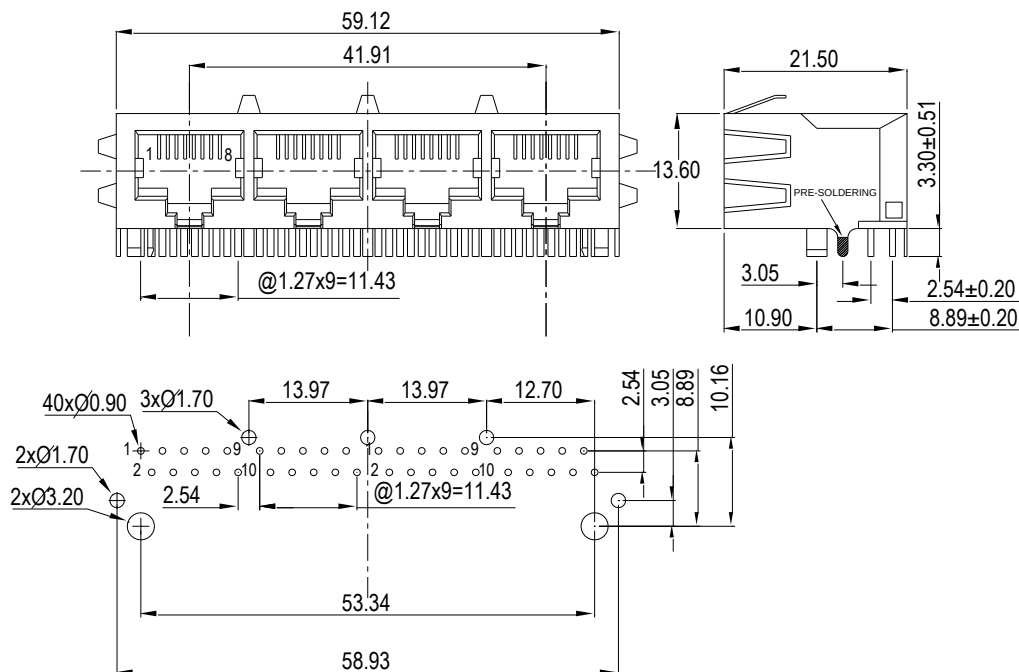
RoHS/RoHS II Compliant

MSL Level = N/A

MH (1000 Base-T)

3 EMI Fingers,

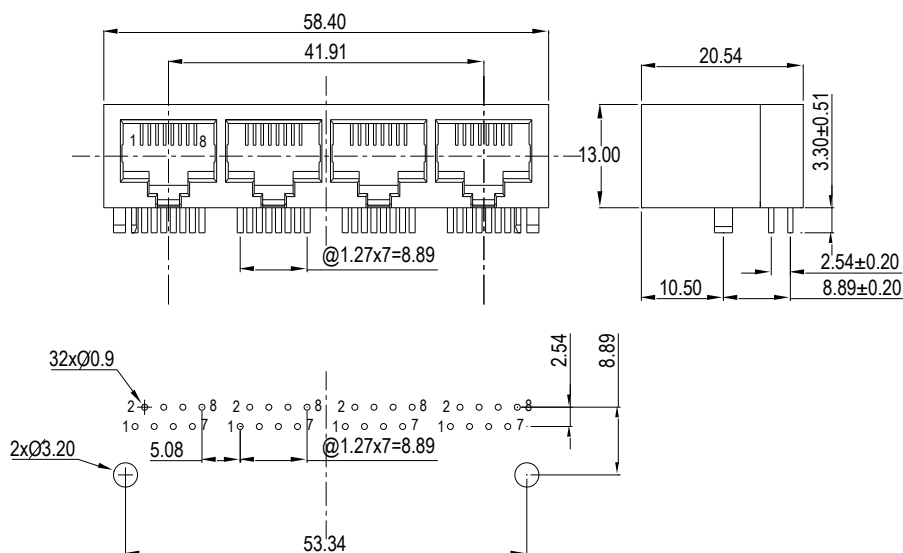
No LED options



MI (10/100 Base-T)

No EMI Fingers,

No LED options



Dimension: mm. All tolerances are ±0.25 unless otherwise specified

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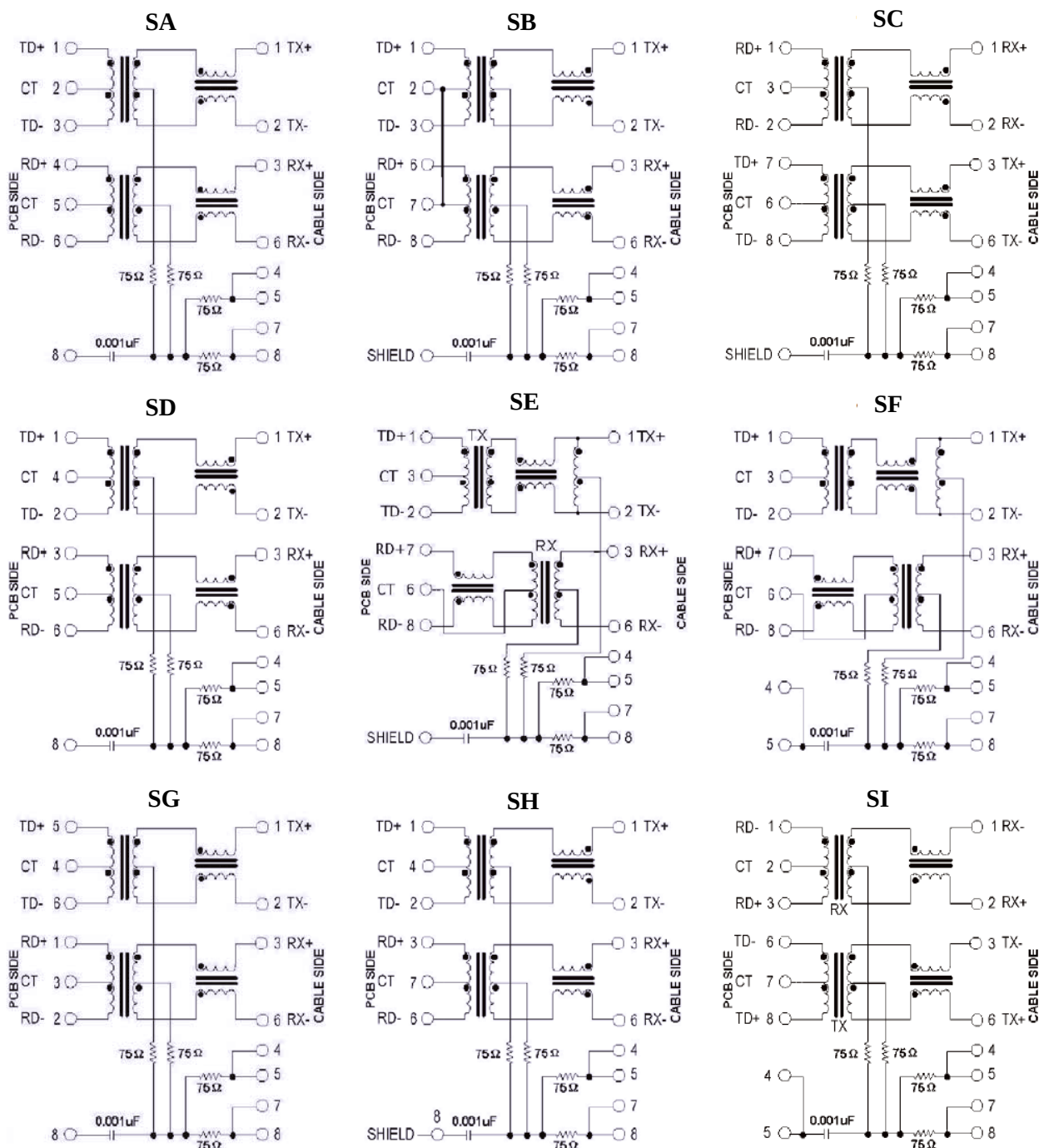


Various sizes

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MSL Level = N/A

Schematics



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



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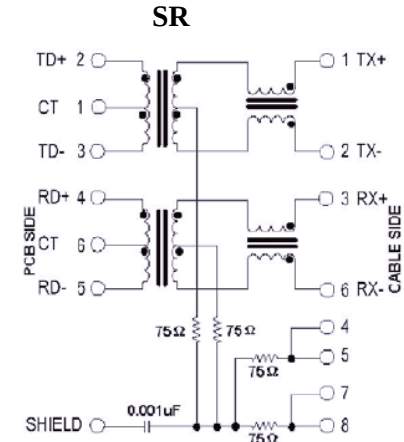
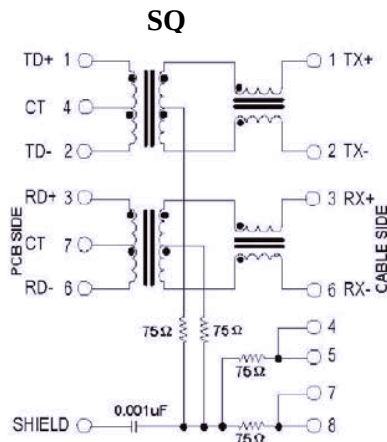
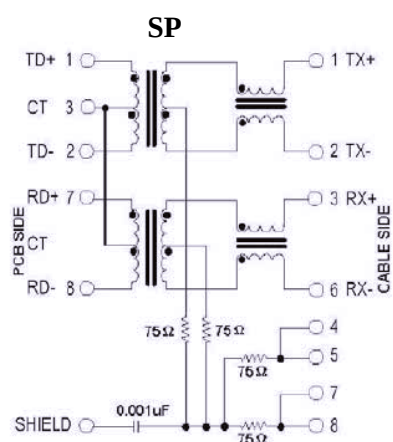
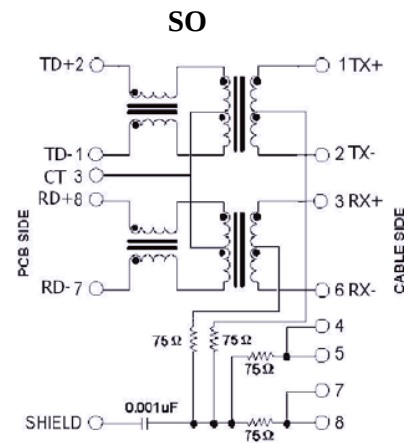
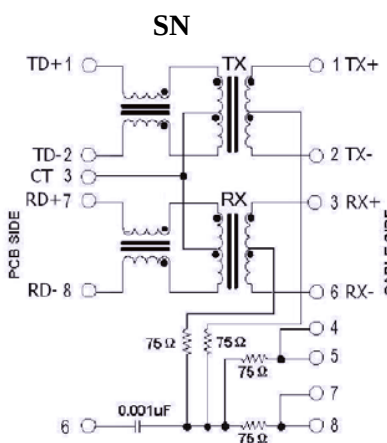
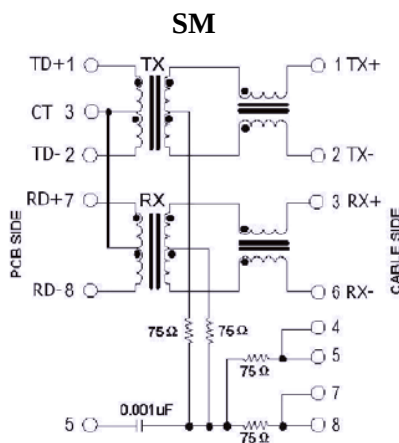
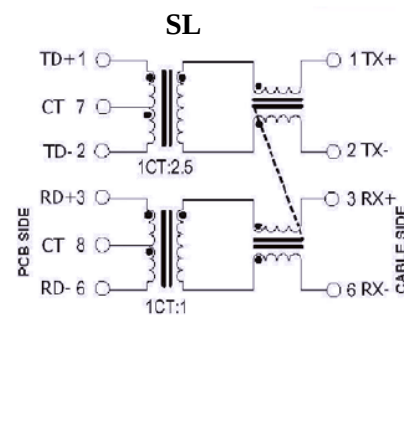
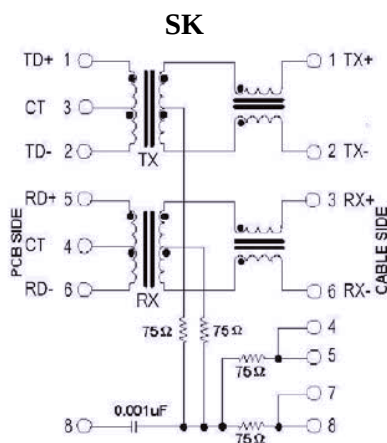
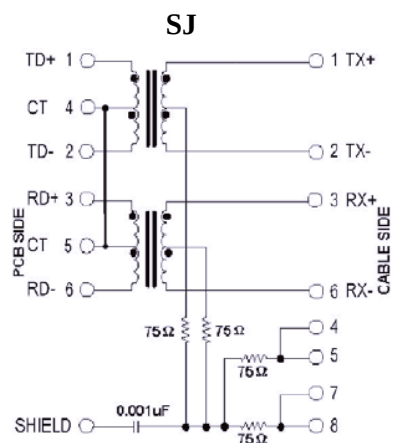
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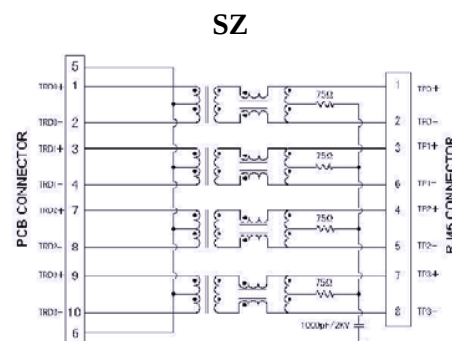
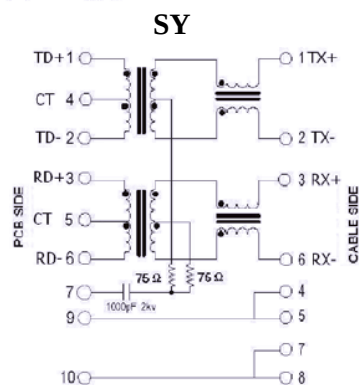
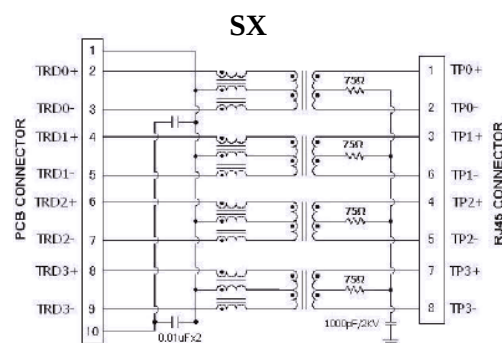
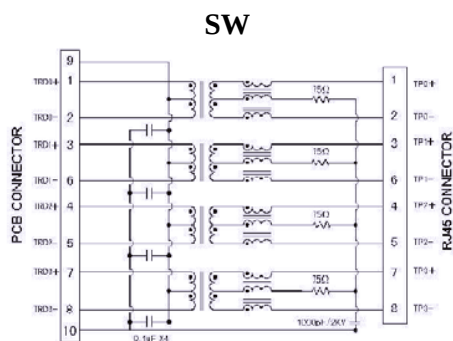
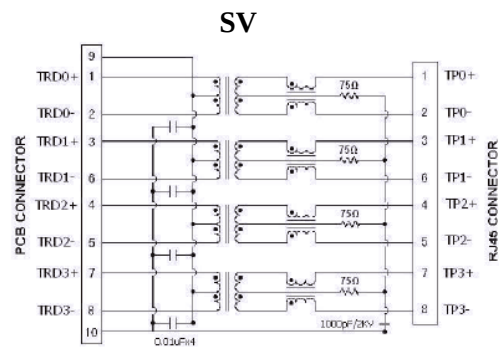
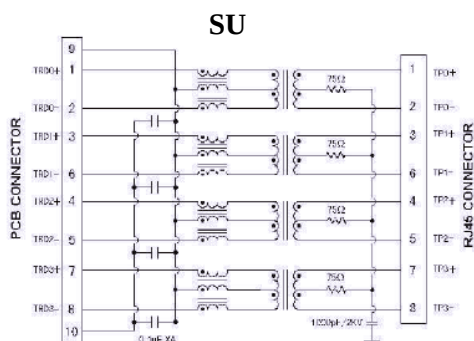
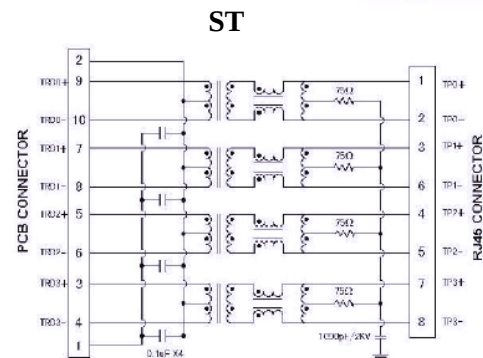
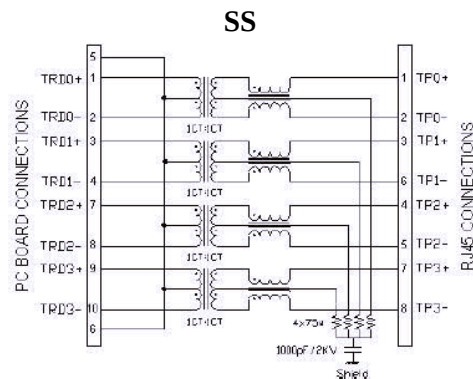
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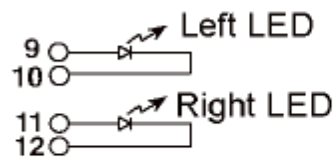
RoHS/RoHS II Compliant

MSL Level = N/A

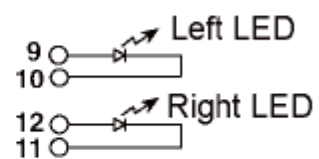
LED polarity

8PIN:

E

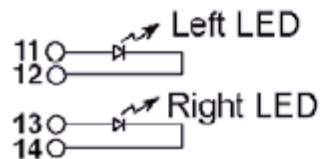


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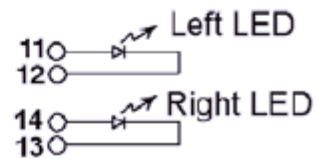


10PIN:

G



H



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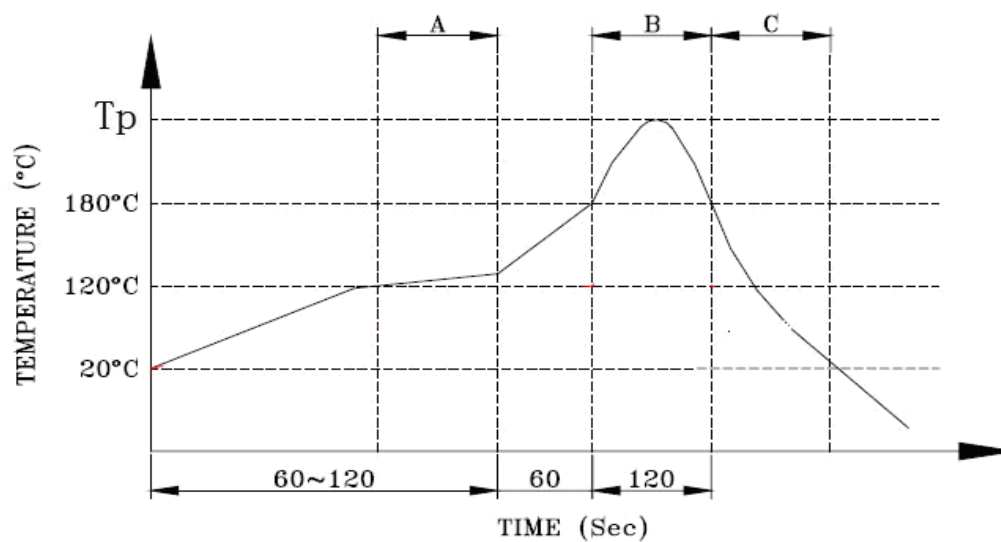


Various sizes

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MSL Level = N/A

Reflow Profile



—— PIN TEMPERATURE

A. Preheating B. Soldering C. Gradual Cooling

Zone	Description	Temperature	Times
1	Preheat	150°C ~ 180°C	60 ~ 120 sec.
2	Peak heat	Tp 250°C±10°C	5 sec. MAX

Ref.

Solder paste: Sn/3.0Ag/0.5Cu

Ramp up rate: 3°C/s Max.

Ramp down rate: 6°C/s Max.

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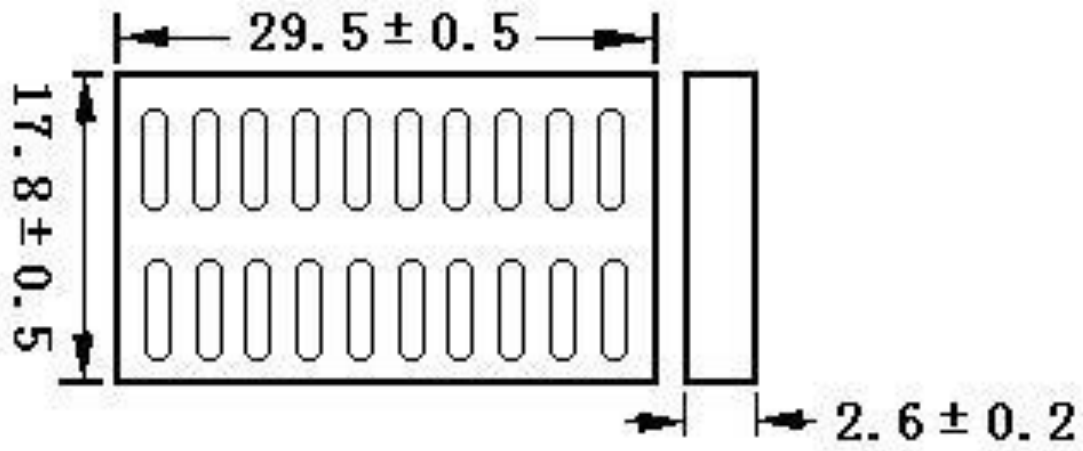
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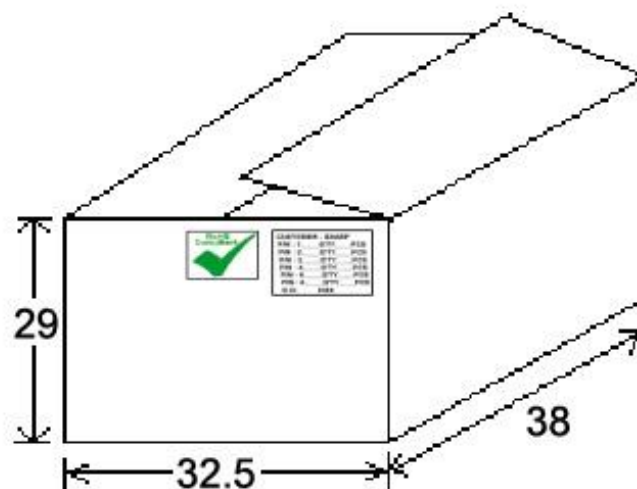
Packing

20pcs/tray

Packaging material: PET



Outer carton unit : 400 pcs/ 20 Trays/box



Dimensions: cm



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