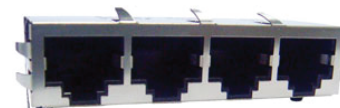


# RJ45 10/100/1000 Base-TX Tab down 1x4 Jack with Magnetic Module

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

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Compliant**

## MECHANICAL DIMENSIONS

The drawing includes the following dimensions and features:

- Top View:**
  - Overall width: 59.12
  - Overall length: 41.91
  - Pin pitch:  $@1.27 \times 7 = 8.89$
  - Pin diameter:  $32 \times \varnothing 0.9$
  - Pin spacing:  $3 \times \varnothing 1.70$
  - Pin diameter:  $2 \times \varnothing 1.70$
  - Pin diameter:  $2 \times \varnothing 3.20$
  - Pin diameter:  $16 \times \varnothing 1.00$
  - Pin spacing:  $5.08$
  - Pin spacing:  $1.04$
  - Pin spacing:  $7.85$
  - Pin spacing:  $12.93$
  - Pin spacing:  $1.04$
  - Pin spacing:  $1.04$
  - Pin spacing:  $53.34$
  - Pin spacing:  $54.84$
  - Pin spacing:  $58.93$
- Side View:**
  - Overall height: 13.60
  - LED height: 21.50
  - LED width: 3.30  $\pm 0.51$
  - LED pitch:  $2.54 \pm 0.20$
  - LED width:  $8.89 \pm 0.20$
  - LED pitch:  $3.05$
  - LED pitch:  $10.90$
  - LED pitch:  $2.54$
  - LED pitch:  $3.05$
  - LED pitch:  $8.89$
  - LED pitch:  $10.16$
  - LED pitch:  $2.28$
  - LED pitch:  $4.06$
- Detail View:**
  - Feature: PRE-SOLDERING

[illegible]

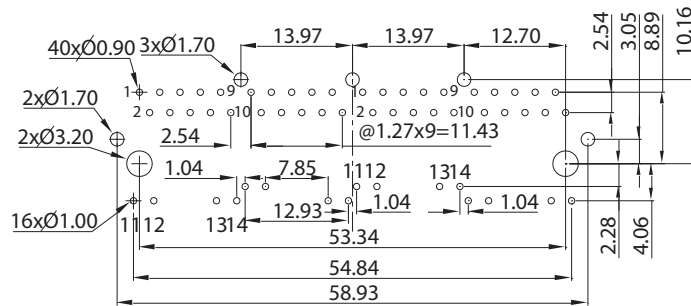


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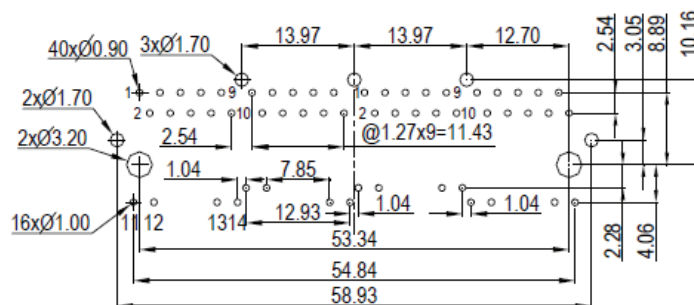
## MECHANICAL DIMENSIONS

The drawing includes the following dimensions and labels:

- Top View Dimensions:**
  - Overall width: 59.12
  - Distance between LED groups: 41.91
  - Distance between LED pins: @1.27x9=11.43
- Side View Dimensions:**
  - Module height: 13.60
  - Distance from top edge to LED pins: 21.50
  - Distance from LED pins to bottom edge: 3.30±0.51
  - Distance from LED pins to bottom edge (alternative measurement): 2.54±0.20
  - Distance from LED pins to bottom edge (alternative measurement): 8.89±0.20
  - Distance from LED pins to bottom edge (alternative measurement): 3.05
  - Distance from LED pins to bottom edge (alternative measurement): 10.90
- Labels:**
  - Left LED
  - Right LED
  - PRE-SOLDERING



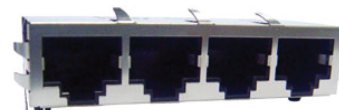
The drawing shows the mechanical specifications of the LED module. The top view indicates a total width of 59.12 and a mounting hole pitch of 1.27x9=11.43. The side view shows a total height of 13.60 and a mounting hole pitch of 2.54±0.20. Other dimensions include 21.50, 3.30±0.51, 3.05, 10.90, and 8.89±0.20.



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

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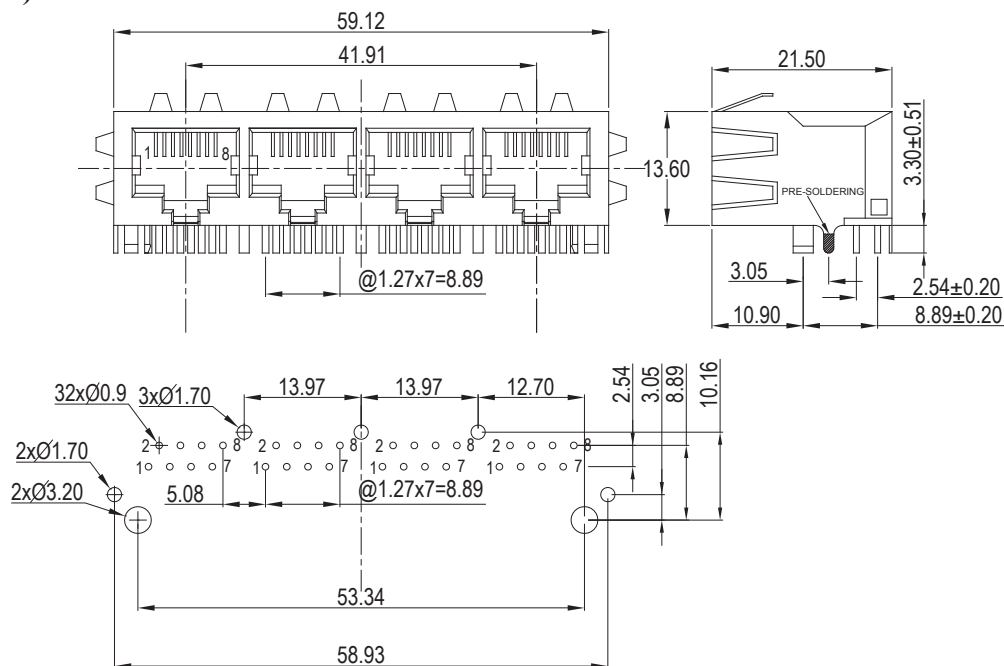
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Compliant



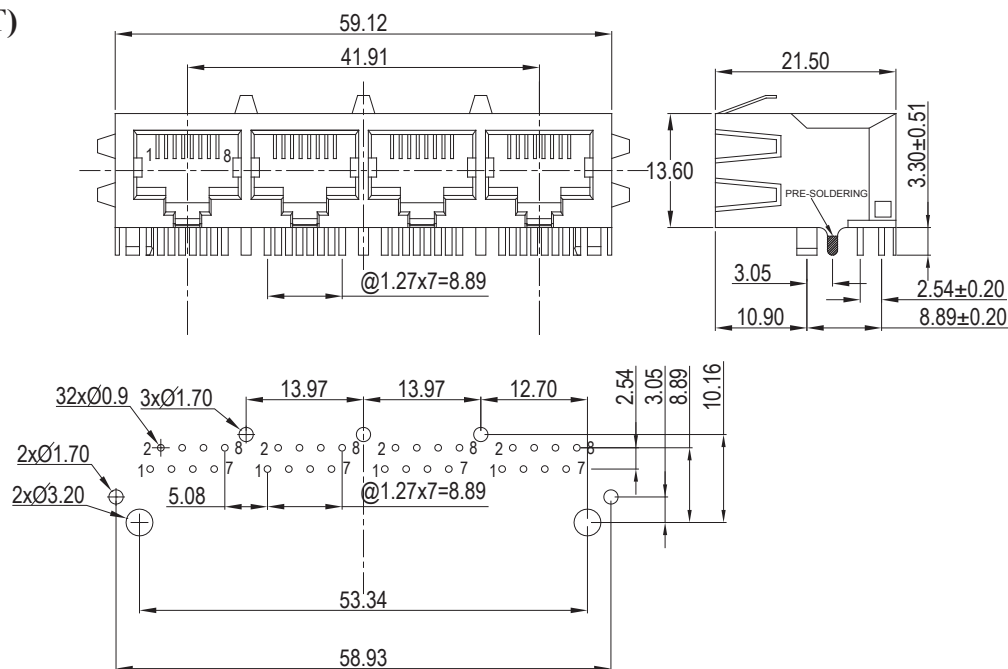
59.12 x 13.60 x 21.50 mm /  
58.40 x 13.00 x 20.54mm

## MECHANICAL DIMENSIONS

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



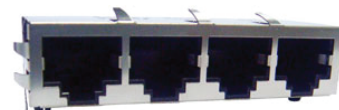
### MF (10/100 Base-T) (3 EMI Fingers)



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

ARJ14A

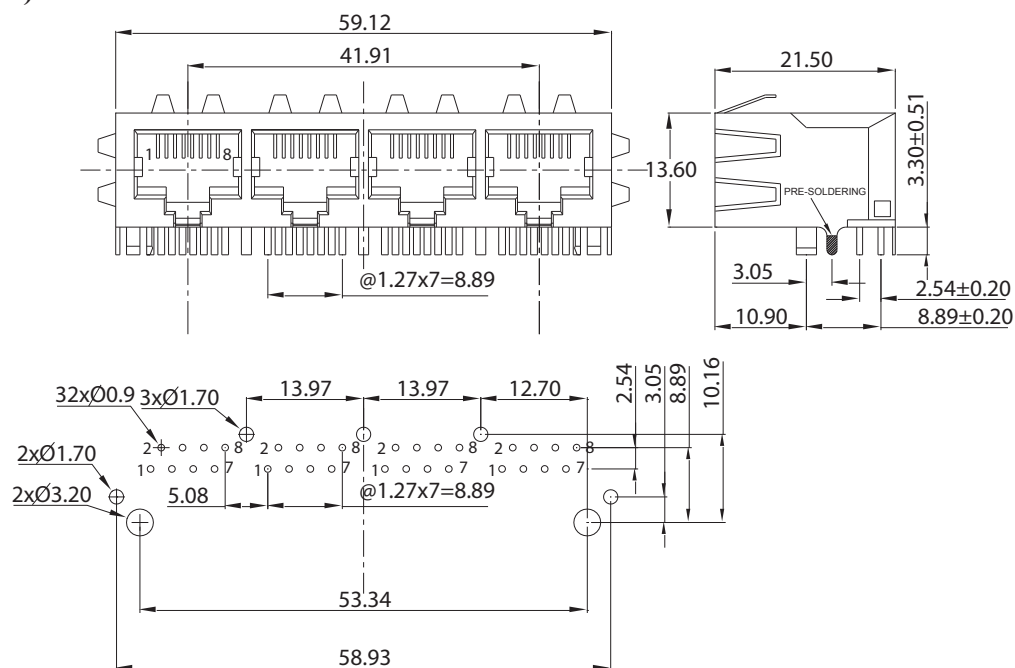
RoHS  
Compliant



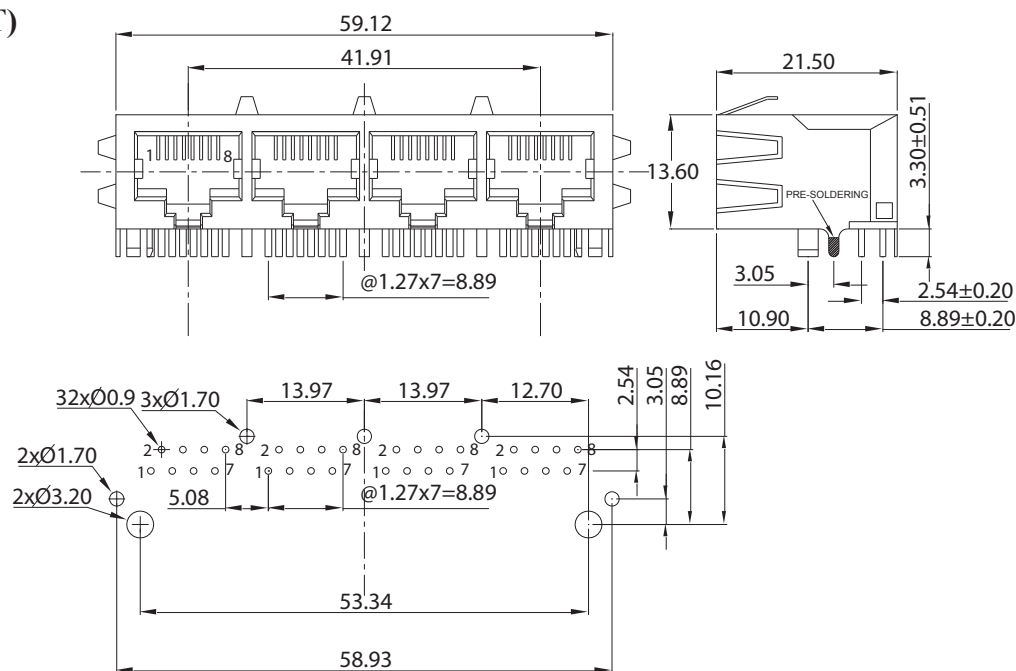
59.12 x 13.60 x 21.50 mm /  
58.40 x 13.00 x 20.54mm

## MECHANICAL DIMENSIONS

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



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



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

ARJ14A

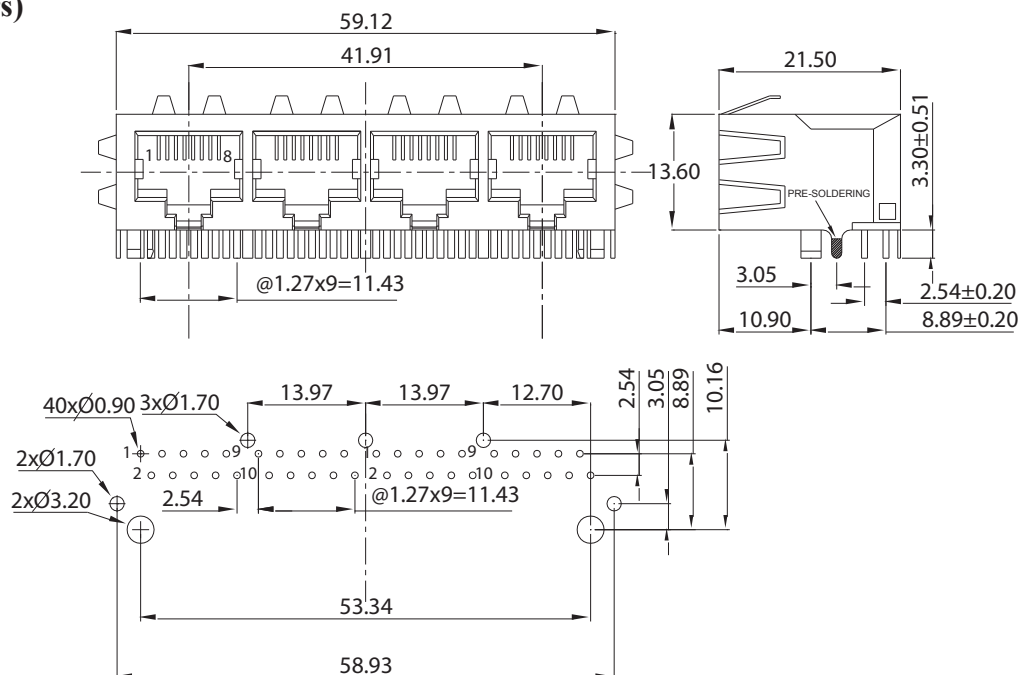
**RoHS**  
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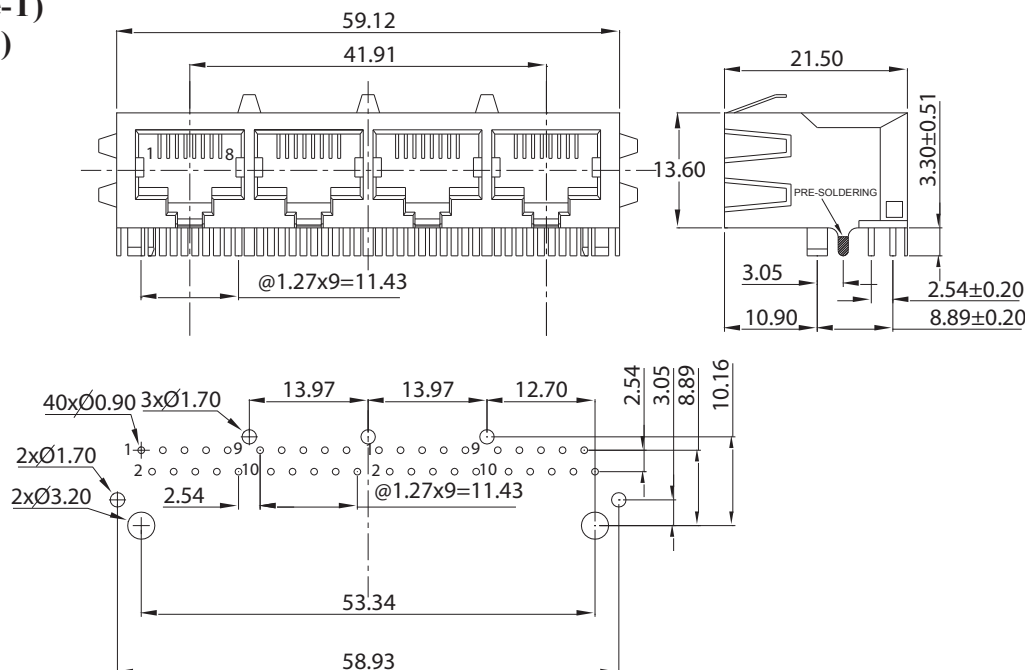
59.12 x 13.60 x 21.50 mm /  
58.40 x 13.00 x 20.54mm

## MECHANICAL DIMENSIONS

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



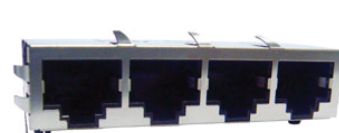
### MH (1000 Base-T) (3 EMI Fingers)



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

ARJ14A

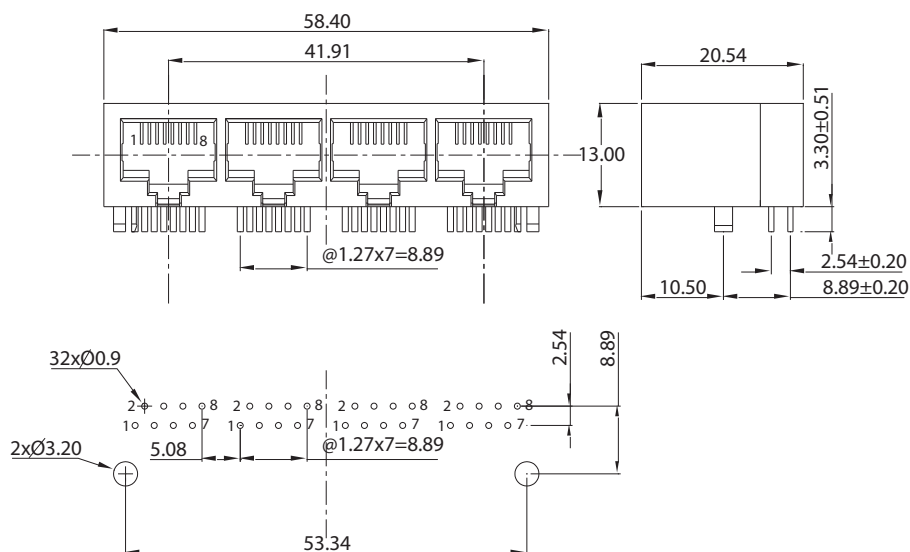
RoHS  
Compliant



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## MECHANICAL DIMENSIONS

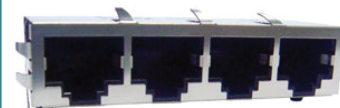
### MI (10/100 Base-T)



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

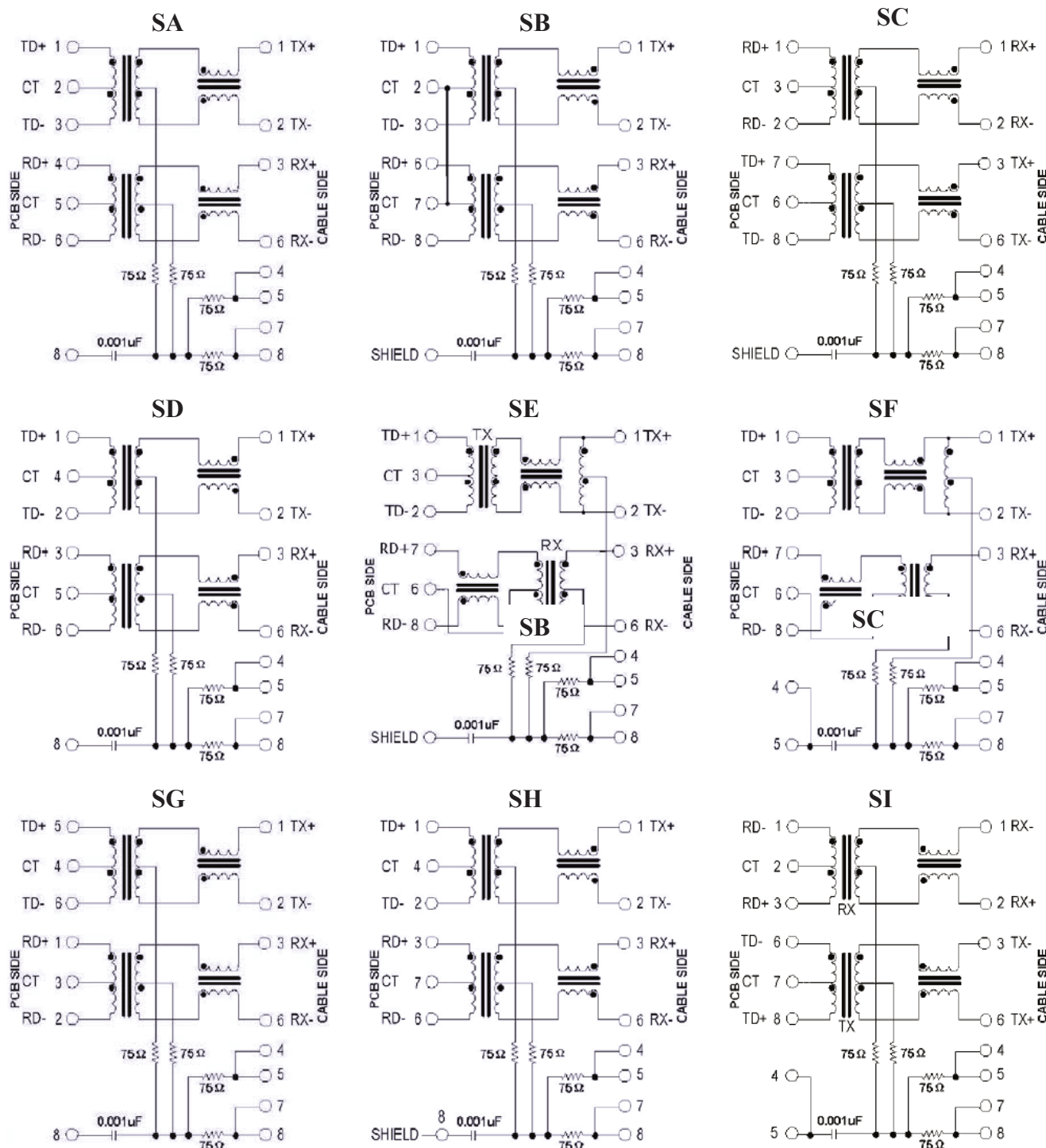
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58.40 x 13.00 x 20.54mm

## SCHEMATICS



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

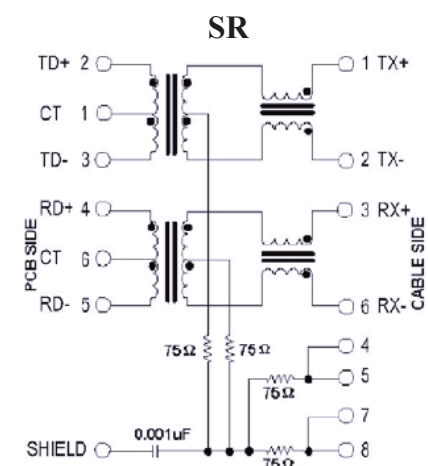
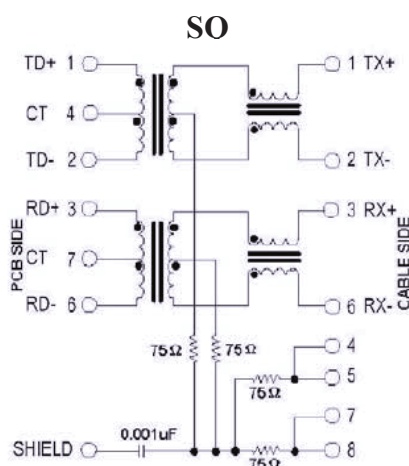
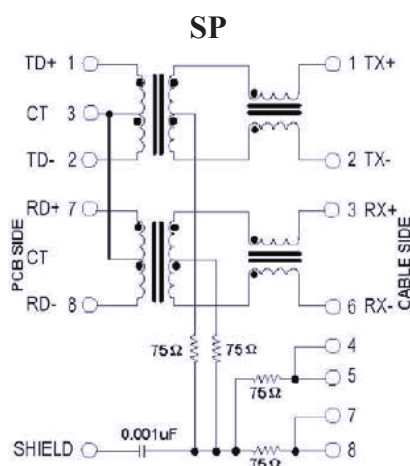
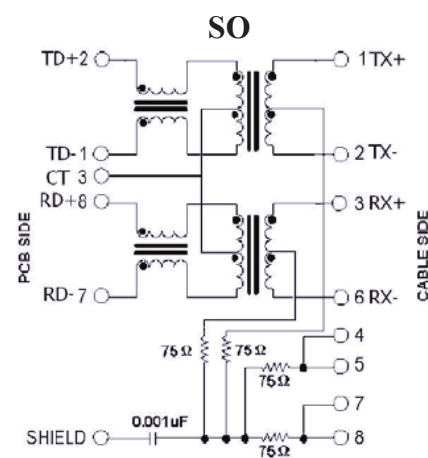
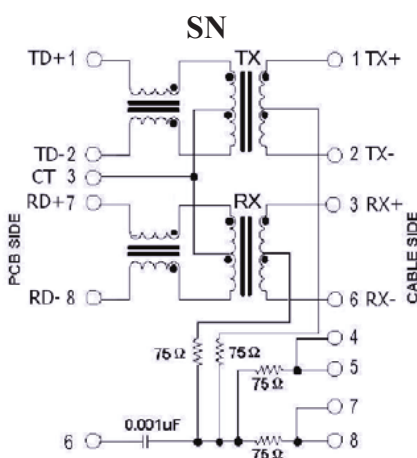
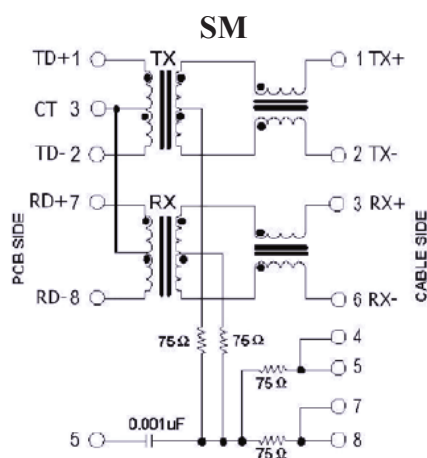
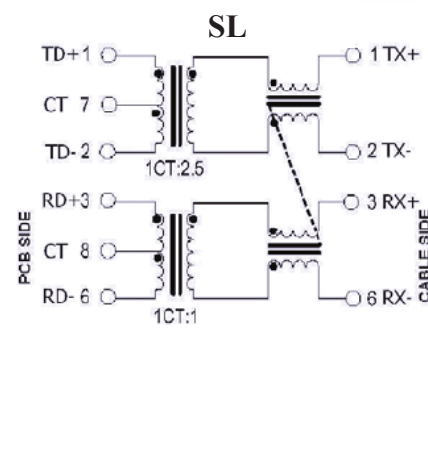
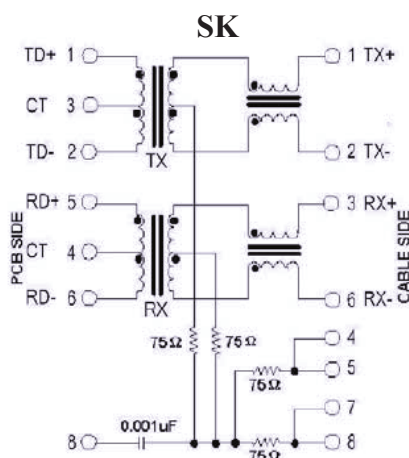
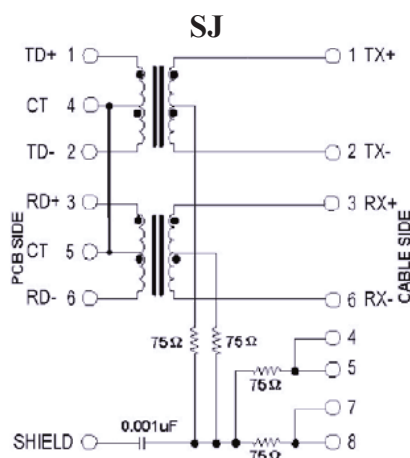
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58.40 x 13.00 x 20.54mm

## SCHEMATICS - continued



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

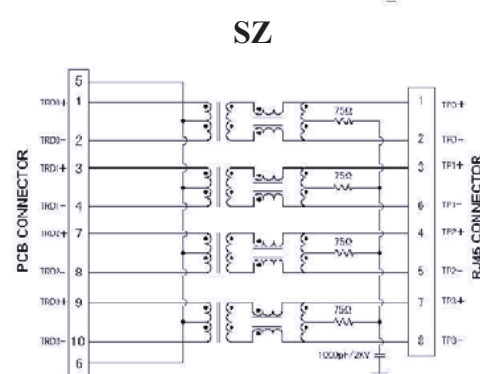
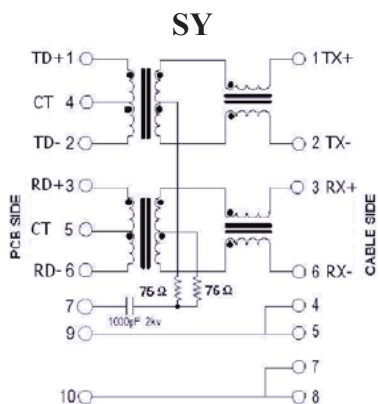
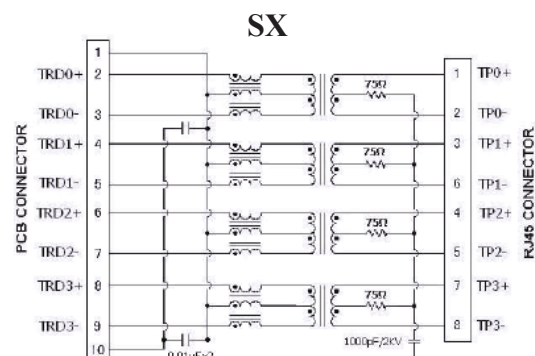
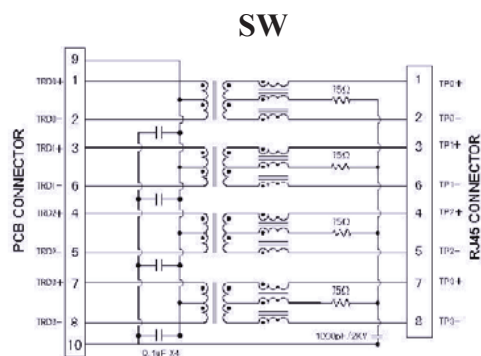
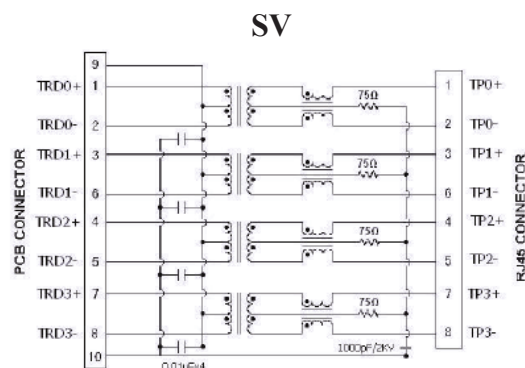
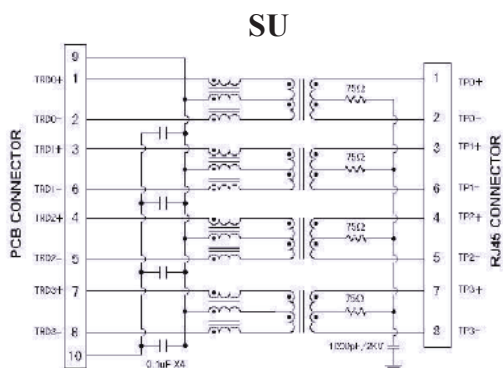
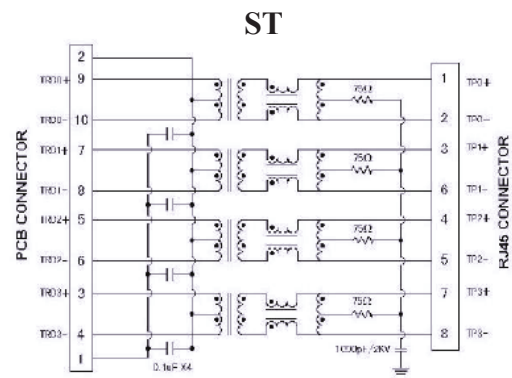
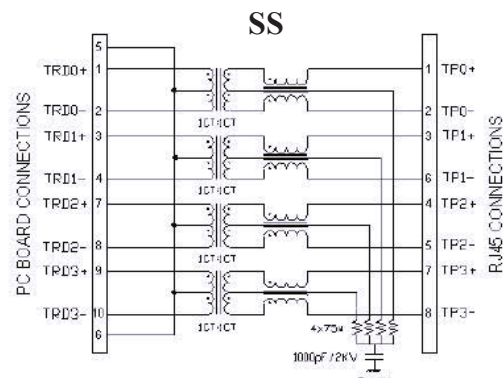
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## SCHEMATICS



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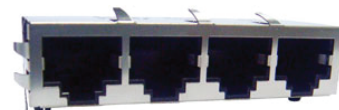
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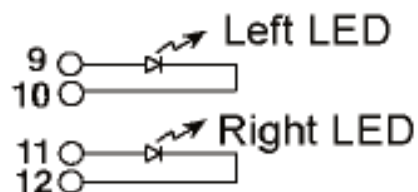


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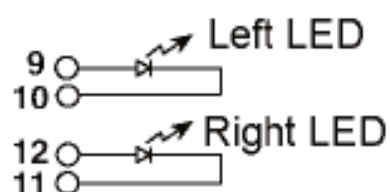
## LED POLARITY

### 8PIN:

E

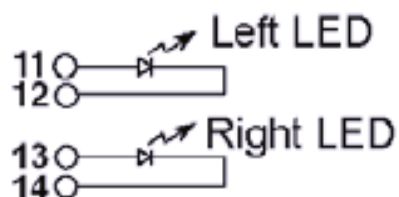


F

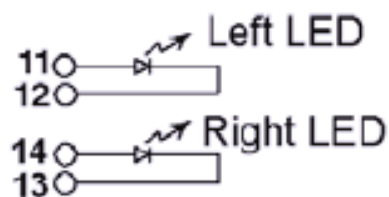


### 10PIN:

G



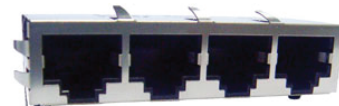
H



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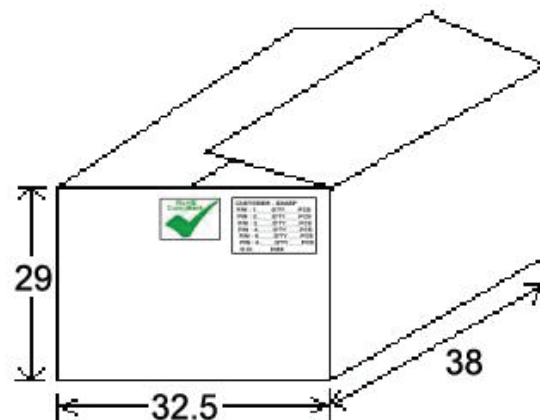
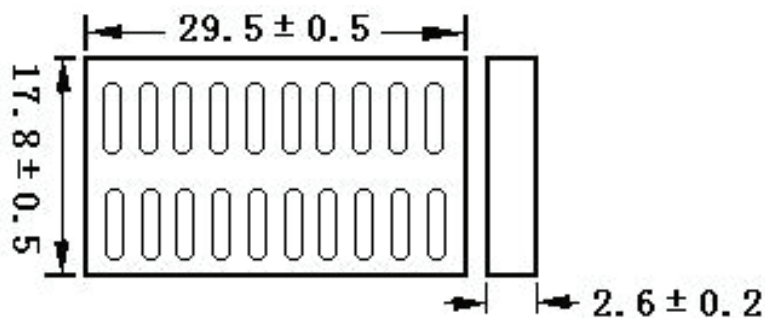


59.12 x 13.60 x 21.50 mm /  
58.40 x 13.00 x 20.54mm

## PACKING: 20pcs/tray

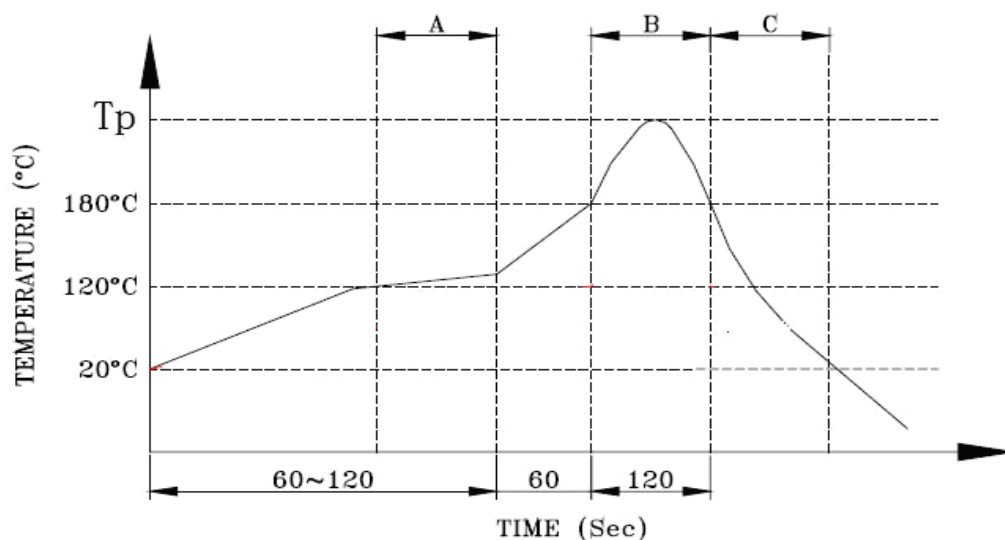
Packaging material: PET

Outer carton unit 400 pcs/ 20 Trays/box



Dimensions: cm

## REFLOW PROFILE:



A. Preheating B. Soldering C. Gradual Cooling

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

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