



# TAI-SAW TECHNOLOGY CO., LTD.

No. 3, Industrial 2nd Rd., Ping-Chen Industrial District,  
Taoyuan, 324, Taiwan, R.O.C.

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## Product Specifications Approval Sheet

Product Name: SAW Filter 2441.75 MHz SMD 1.4x1.1 mm (BW=83.5 MHz)

TST Parts No.: TA1834C (This part is compliant by AEC-Q200)

Customer Part No.: \_\_\_\_\_

|                             |
|-----------------------------|
| Customer signature required |
| Company: _____              |
| Division: _____             |
| Approved by : _____         |
| Date: _____                 |

Checked by: \_\_\_\_\_ Hayley Chou *Hayley Chou*

Approved by: \_\_\_\_\_ Andy Yu *Andy Yu*

Date: \_\_\_\_\_ 2018/12/13

1. Customer signed back is required before TST can proceed with sample build and receive orders.
2. Orders received without customer signed back will be regarded as agreement on the specifications.
3. Any specifications changes must be approved upon by both parties and a new revision of specifications shall be released to reflect the changes



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## SAW Filter 2441.75 MHz

MODEL NO.:TA1834C

REV. NO.:1.0

### A. MAXIMUM RATING:

1. Input Power Level: 23 dBm (in pass band)
2. DC Voltage :  $\pm 5V$
3. Operating Temperature:  $-40^{\circ}C$  to  $+105^{\circ}C$
4. Storage Temperature:  $-40^{\circ}C$  to  $+105^{\circ}C$
5. Moisture Sensitive Level: Level 1 (MSL1)
6. ESD: 50 V(MM), 100 V(HBM)

RoHS Compliant  
Lead free  
Lead-free soldering

Electrostatic Sensitive Device (ESD)

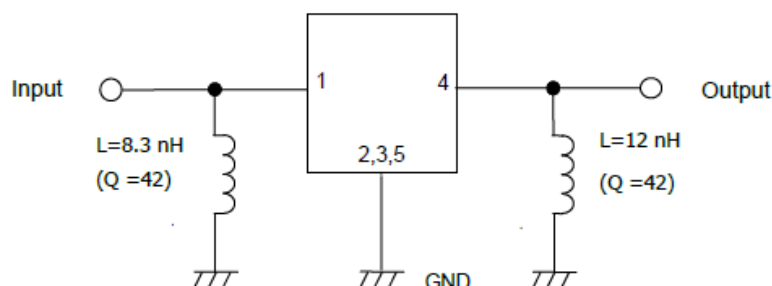
### B. ELECTRICAL CHARACTERISTICS:

Terminating source impedance:  $Z_s = 50//8.3nH \Omega$

Terminating load impedance:  $Z_L = 50//12nH \Omega$

| Item                                       | Unit | Min. | Typ.    | Max. |
|--------------------------------------------|------|------|---------|------|
| Center Frequency <b>Fc</b>                 | MHz  | -    | 2441.75 | -    |
| Insertion Loss (2400~2483.5 MHz) <b>IL</b> | dB   | -    | 3.0     | 3.9  |
| Amplitude Ripple (2400~2483.5 MHz)         | dB   | -    | 1.2     | 2.3  |
| VSWR within (2400~2483.5 MHz)              | -    | -    | 2.1     | 2.5  |
| Attenuation (Reference level from 0 dB)    |      |      |         |      |
| DC ~ 1000 MHz                              | dB   | 40   | 49      | -    |
| 1000 ~ 1570 MHz                            | dB   | 37   | 47      | -    |
| 1570 ~ 1700 MHz                            | dB   | 35   | 44      | -    |
| 1700 ~ 1880 MHz                            | dB   | 34   | 40      | -    |
| 1880 ~ 1990 MHz                            | dB   | 33   | 37      | -    |
| 1990 ~ 2170 MHz                            | dB   | 31   | 33      | -    |
| 2700 ~ 4800 MHz                            | dB   | 19   | 24      | -    |
| 4800 ~ 5000 MHz                            | dB   | 18   | 24      | -    |

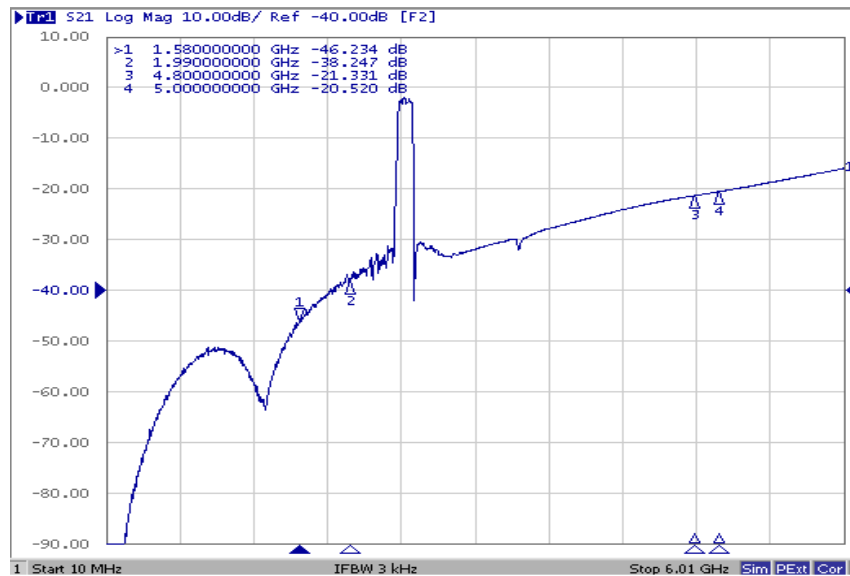
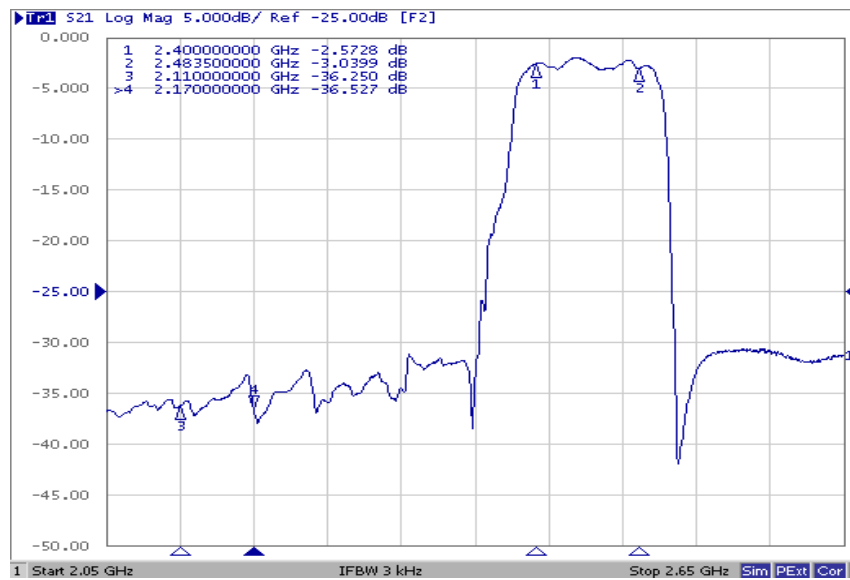
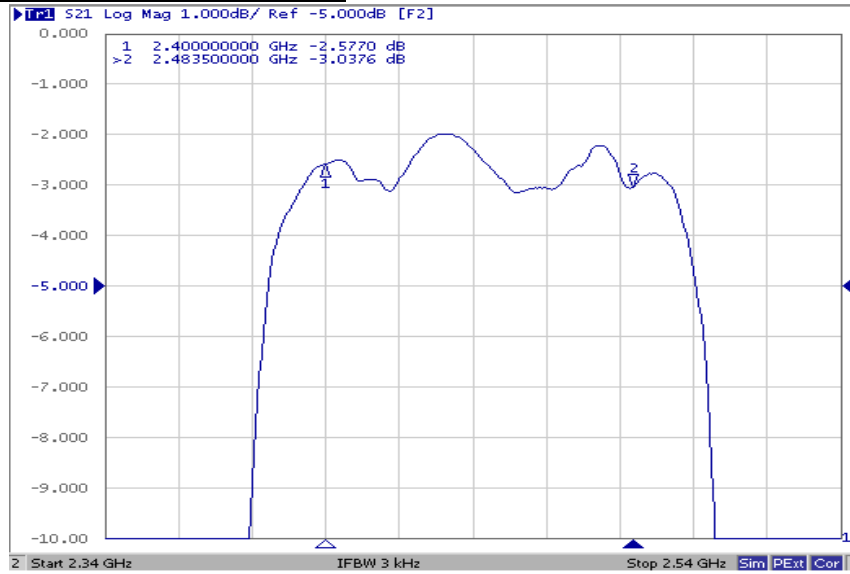
### C. MEASUREMENT CIRCUIT:



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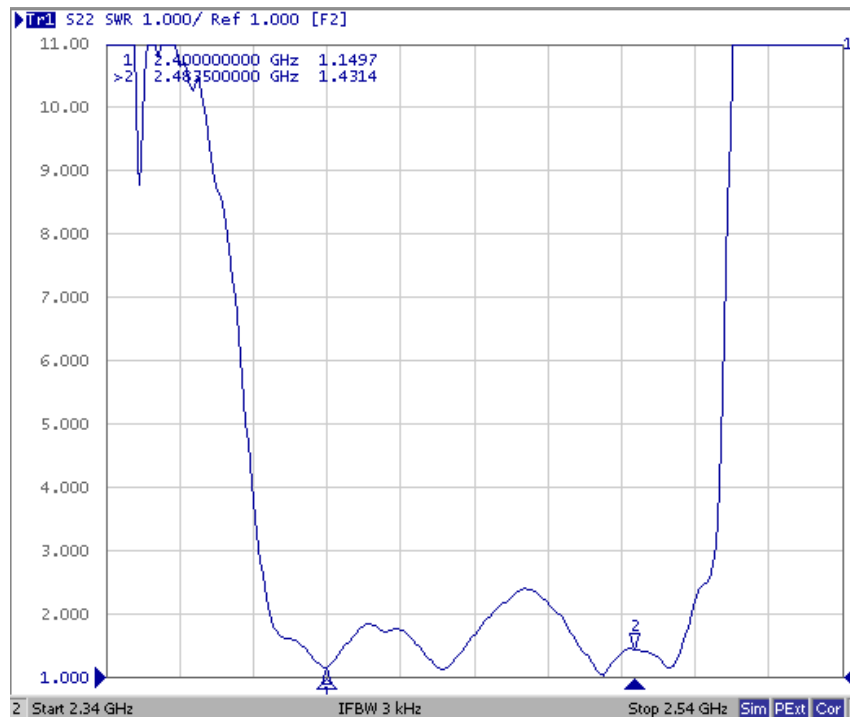
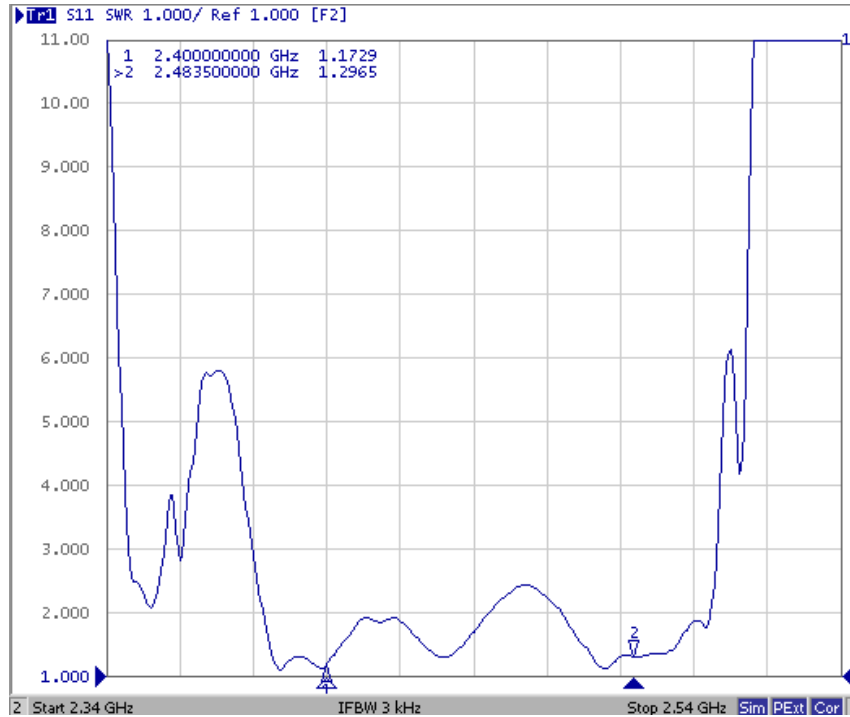
TST DCC  
Release document

## D. FREQUENCY CHARACTERISTICS:

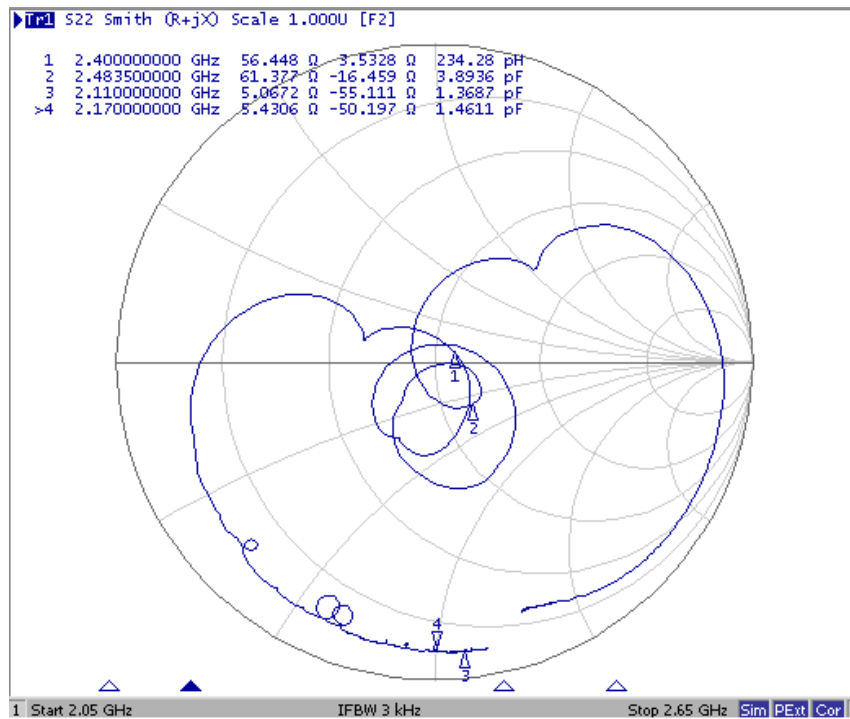
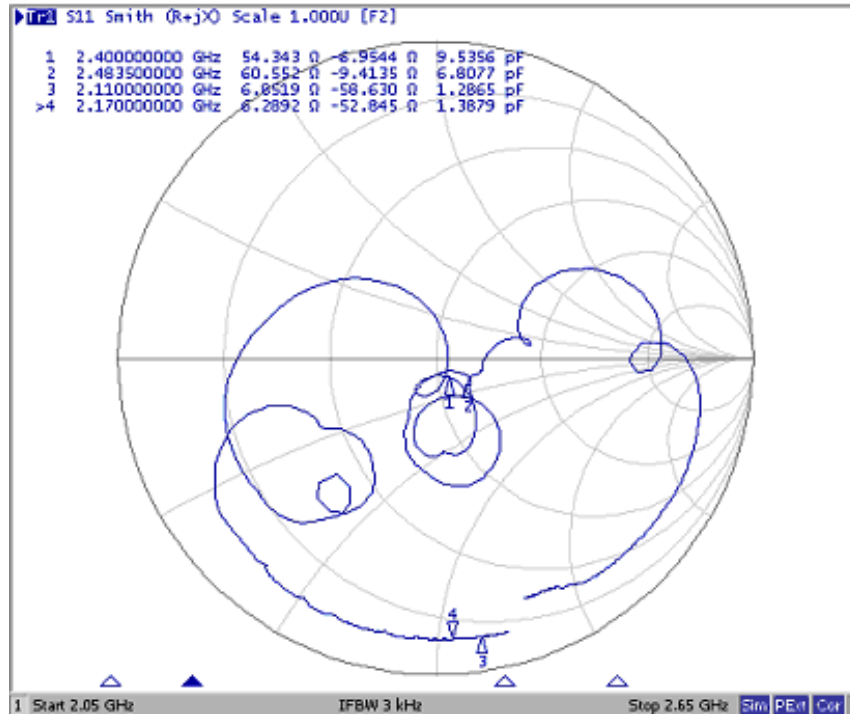


## Reflection Functions:

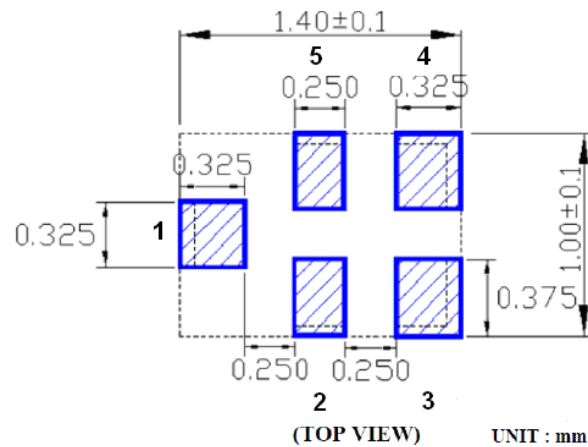
### VSWR



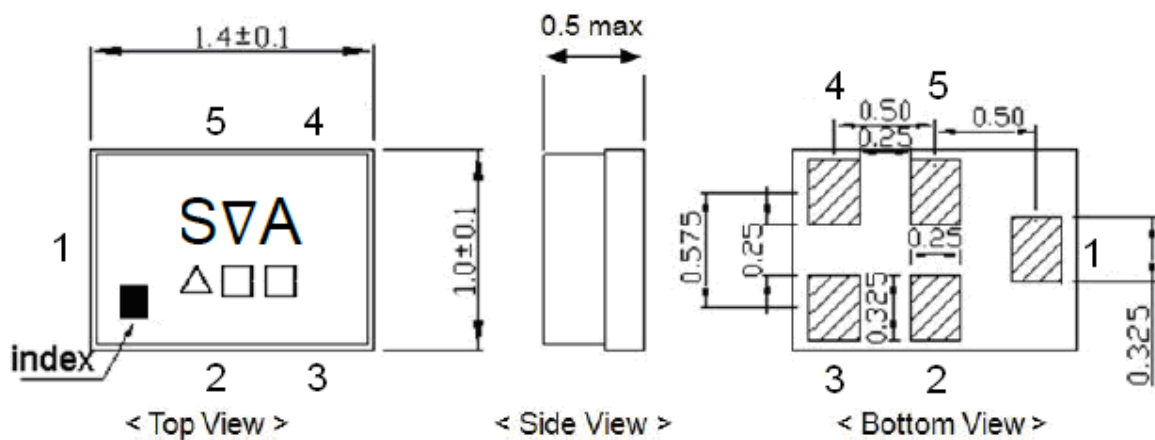
## Smith Chart



### E. PCB Footprint:



### F. OUTLINE DRAWING (Mass Production):



### Pin Configuration

| Pin No. | Symbol | Function       |
|---------|--------|----------------|
| 1       | IN     | Unbalanced pin |
| 2       | GND    | Ground         |
| 3       | GND    | Ground         |
| 4       | OUT    | Unbalanced pin |
| 5       | GND    | Ground         |

△ : Date Code

□ : Lot No. (Indicated by 0~9 or A to Z and a to z, except I, O, i, o and l)

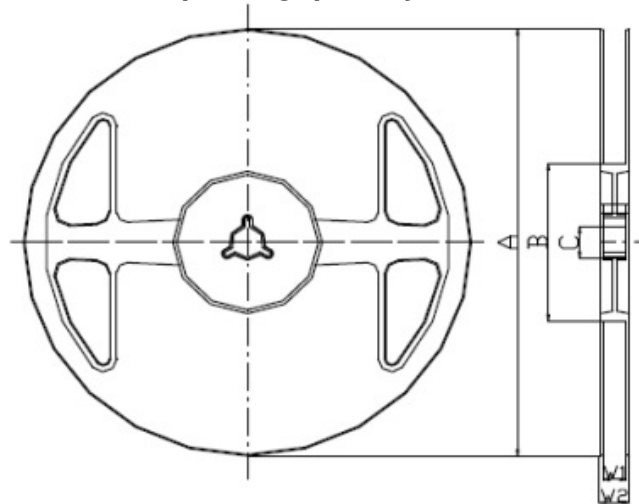
### Date Code:

| Year | Jan. | Feb. | Mar. | Apr. | May | Jun. | Jul. | Aug. | Sep. | Oct. | Nov. | Dec. |
|------|------|------|------|------|-----|------|------|------|------|------|------|------|
| 2017 | A    | B    | C    | D    | E   | F    | G    | H    | J    | K    | L    | M    |
| 2018 | N    | P    | Q    | R    | S   | T    | U    | V    | W    | X    | Y    | Z    |
| 2019 | a    | b    | c    | d    | e   | f    | g    | h    | j    | k    | l    | m    |
| 2020 | n    | p    | q    | r    | s   | t    | u    | v    | w    | x    | y    | z    |

**G. PACKING:** (Ref: WI-75M03)

**1. REEL DIMENSION**

(Please refer to FR-75D10 for packing quantity)



**Materials of Reel**

Material : Polystyrene + Carbon

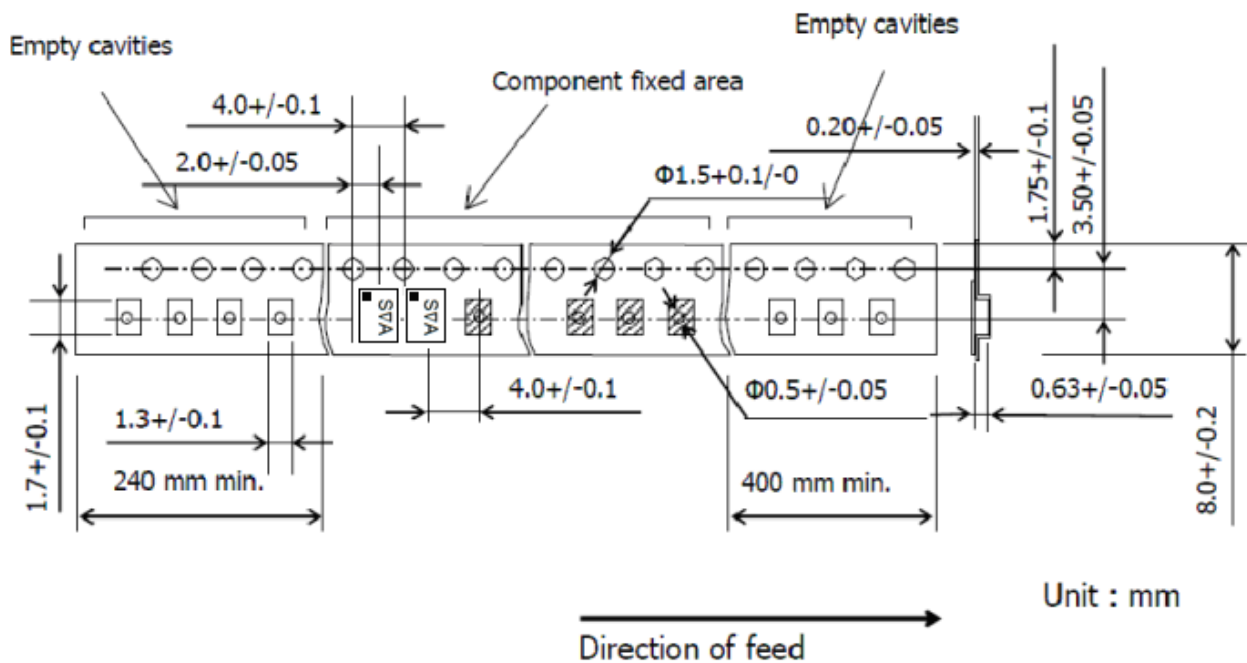
Color : Black

Surface resistance (reference value) :  $10^9 \Omega/\text{sq}$  Max.

Unit : mm

| Code | Quantity  | A                      | B                   | C                   | W1              | W2             |
|------|-----------|------------------------|---------------------|---------------------|-----------------|----------------|
| Z    | 3,000 pcs | $\phi 180.0 +0.0/-1.5$ | $\phi 66.0 +/-.0.5$ | $\phi 13.0 +/-.0.2$ | $9.0 +1.0/-0.0$ | $11.4 +/-.1.0$ |

**2. TAPE DIMENSION**



Unit : mm

#### H. Recommended Reflow Profile:

1. Preheating shall be fixed at 150~180°C for 60~90 seconds.
2. Ascending time to preheating temperature 150°C shall be 30 seconds min.
3. Heating shall be fixed at 220°C for 50~80 seconds and at 260°C+0/-5°C peak (20~40sec).
4. Time: 2 times.

