



# 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 Description: Multilayer ceramic Chip Antenna 7370MHz BW 2260MHz

Size 3.2x1.6mm

TST Part No.: TQ0086AA0000

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

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

Checked by: \_\_\_\_\_ Nina Chen *Nina Chen*

Approved by: \_\_\_\_\_ Kazuma Lee *Kazuma Lee*

Date: \_\_\_\_\_ 2022/09/08

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 change



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## Multilayer ceramic Chip Antenna 7370MHz BW 2260MHz Size 3.2x1.6mm

MODEL NO.: TQ0086AA0000

REV.1

### A. Maximum Rating:

1. Input Power : 3W max
2. Operating temperature range: -40°C to +85°C
3. Storage temperature range: +5°C to +40°C
4. Moisture Sensitive Level: Level 1

RoHS Compliant  
Lead free  
Lead-free soldering

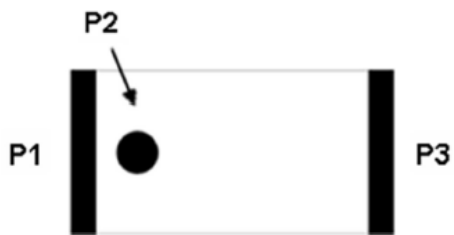
Electrostatic Sensitive Device (ESD)

### B. Electrical Characteristics:

| Item              |               | Unit | Spec               | Note |
|-------------------|---------------|------|--------------------|------|
| Center frequency  | 6240~8500 MHz | MHz  | 7370               |      |
| VSWR              | 6240~8500 MHz | dB   | 2max               |      |
| Gain              | 6240~8500 MHz | dBi  | 3~4.5              |      |
| Efficiency        | 6240~8500 MHz | %    | 70~80              |      |
| Polarization      | 6240~8500 MHz | -    | Linear             |      |
| Azimuth Beamwidth | 6240~8500 MHz | -    | Omni - Directional |      |

### C. Outline Drawing:

#### CONSTRUCTION

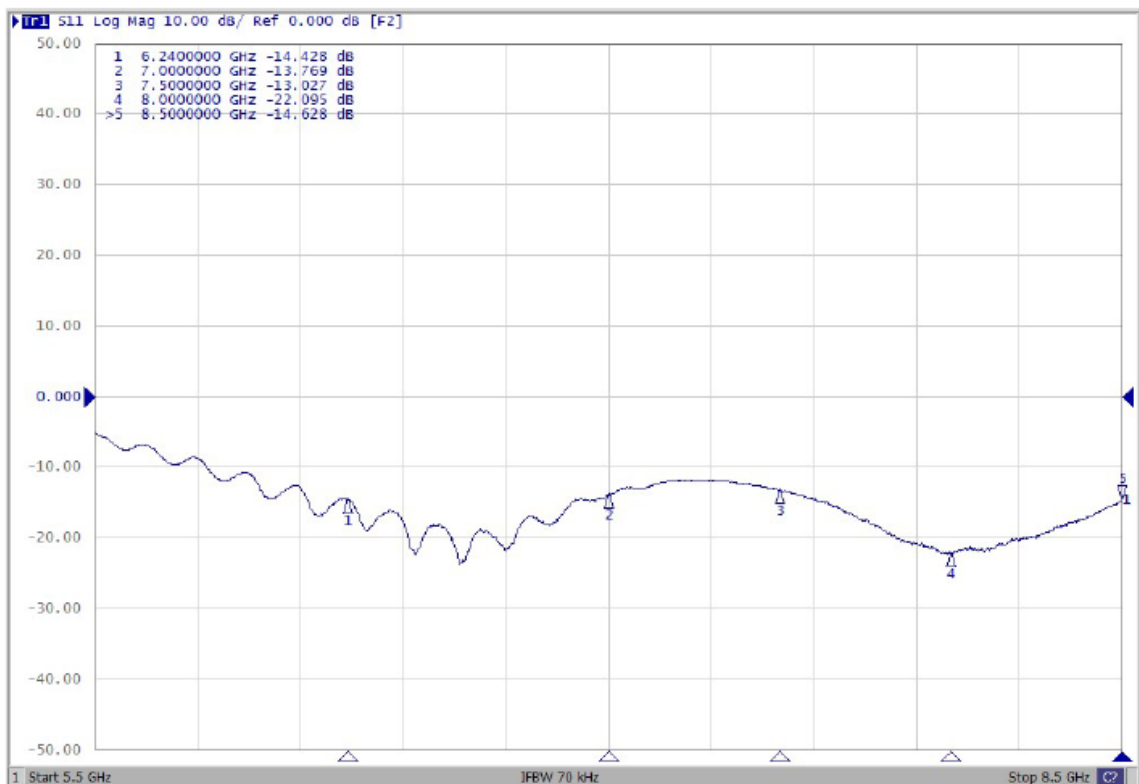


| PIN | Connection          |
|-----|---------------------|
| 1   | Feeding             |
| 2   | Identification Mark |
| 3   | Soldering terminal  |

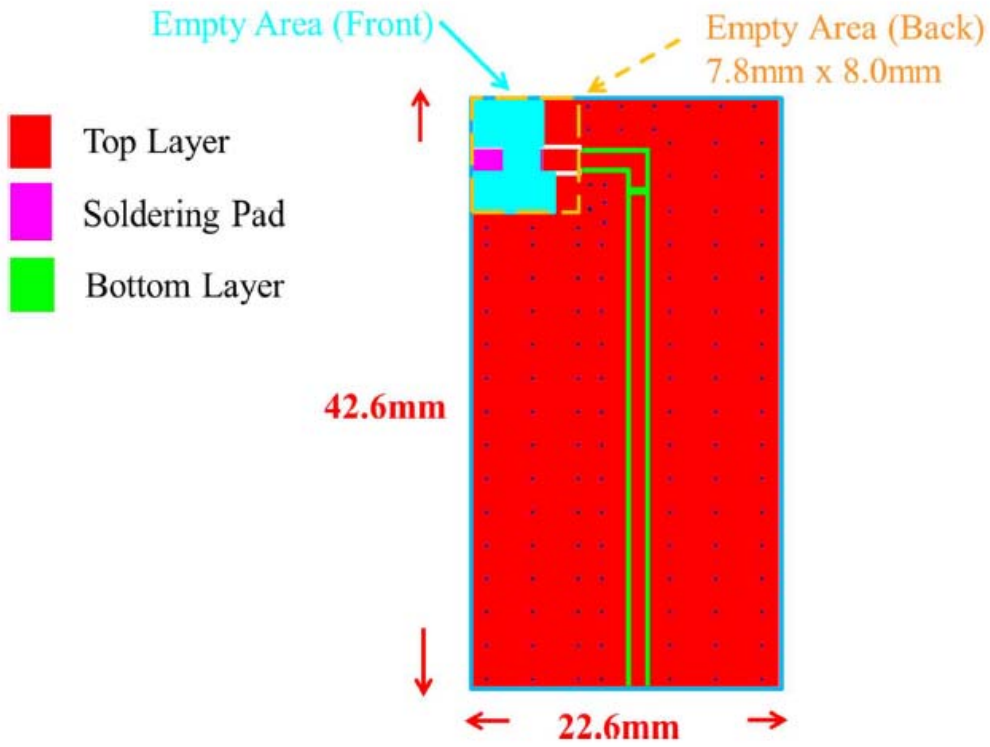
#### DIMENSIONS

| Figure | Symbol | Dimension (mm)  |
|--------|--------|-----------------|
|        | L      | $3.20 \pm 0.20$ |
|        | W      | $1.60 \pm 0.10$ |
|        | T      | $1.10 \pm 0.10$ |
|        | A      | $0.25 \pm 0.15$ |

### D. Frequency Characteristics:

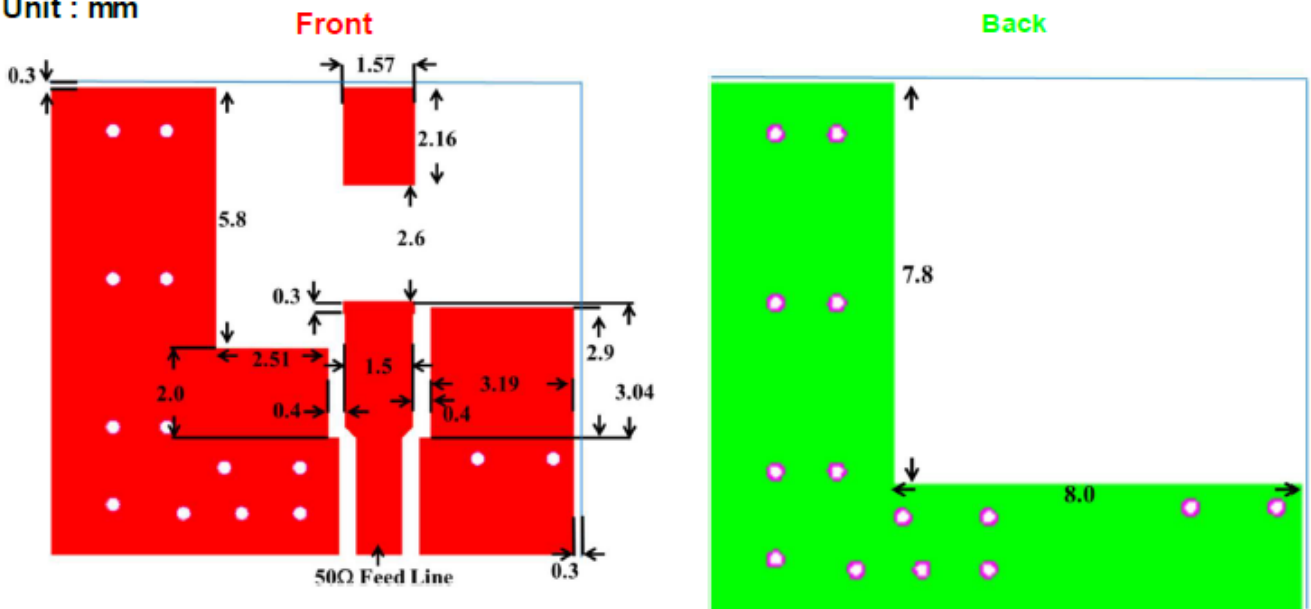


**E. PCB Footprint:**

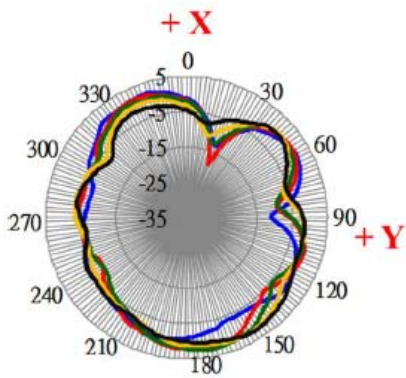
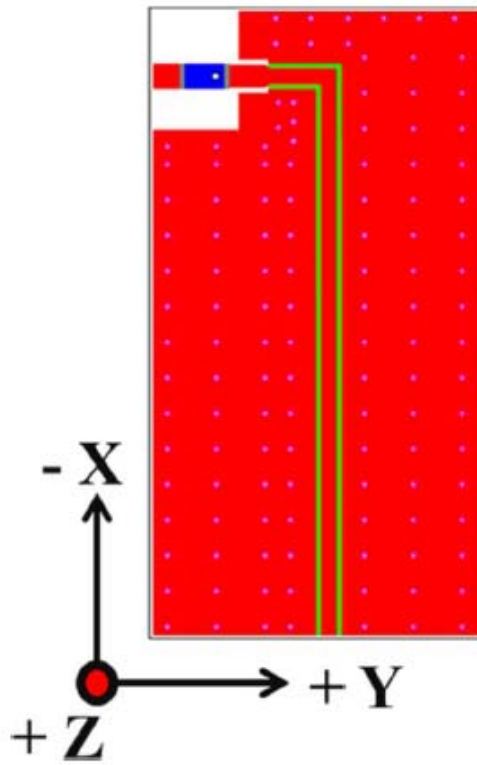


Antenna on Test Board ( Thickness 0.8 mm)

Unit : mm

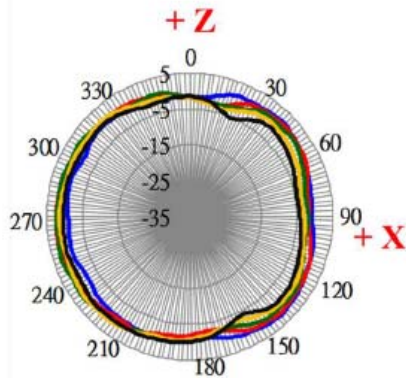


# Radiation Patterns



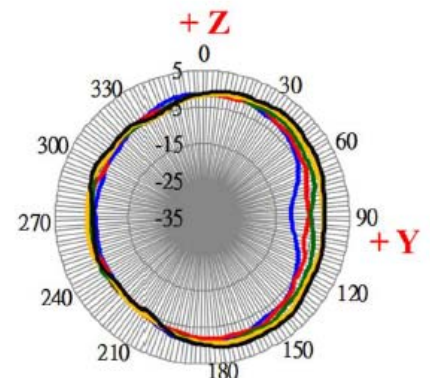
**XY Plane**

- 6240 MHz
- 7000 MHz
- 7500 MHz
- 8000 MHz
- 8500 MHz



**ZX Plane**

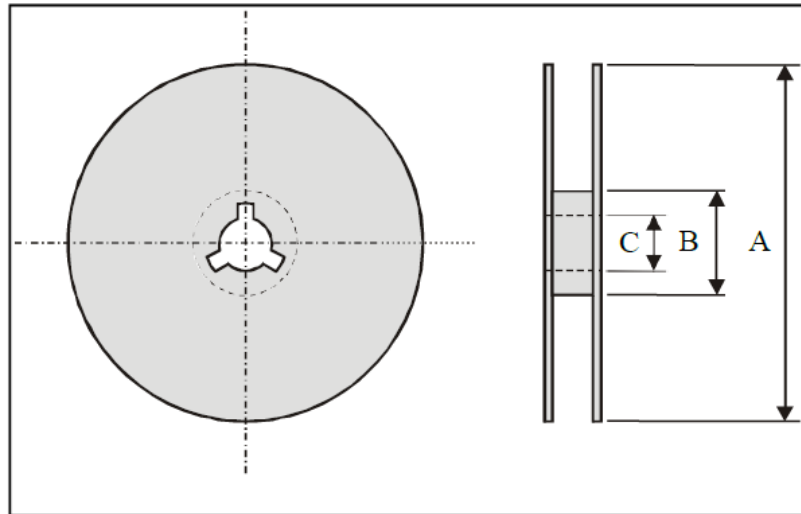
- 6240 MHz
- 7000 MHz
- 7500 MHz
- 8000 MHz
- 8500 MHz



**ZY Plane**

**F. Packing:**

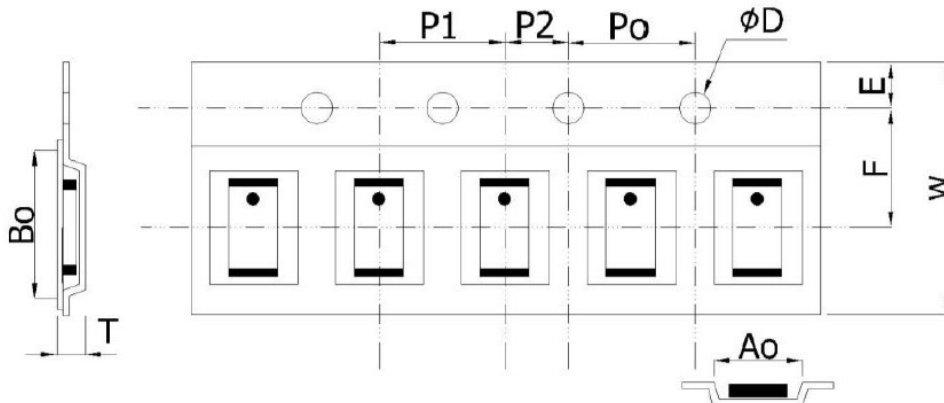
1. Reel Dimension



|                |       |        |        |
|----------------|-------|--------|--------|
| Index          | A     | B      | C      |
| Dimension (mm) | Φ 178 | Φ 60.0 | Φ 13.5 |

Typing Quantity: 2000 pieces per 7" reel

2. Tape Dimension



Plastic Tape specifications (unit :mm)

|                |                |                |                |                |                     |
|----------------|----------------|----------------|----------------|----------------|---------------------|
| Index          | A <sub>0</sub> | B <sub>0</sub> | Φ D            | T              | W                   |
| Dimension (mm) | 1.81± 0.10     | 3.42 ± 0.10    | 1.55 ± 0.05    | 1.26 ± 0.10    | 8.20 +0.10<br>-0.30 |
| Index          | E              | F              | P <sub>0</sub> | P <sub>1</sub> | P <sub>2</sub>      |
| Dimension (mm) | 1.75 ± 0.10    | 3.50 ± 0.05    | 4.00 ± 0.10    | 4.00 ± 0.10    | 2.00 ± 0.10         |

### G. Recommended Reflow Profile:

Typical examples of soldering processes that provide reliable joints without any damage are given in Fig. This product could sustain by reflow process three times, and the temperature below 260 °C.

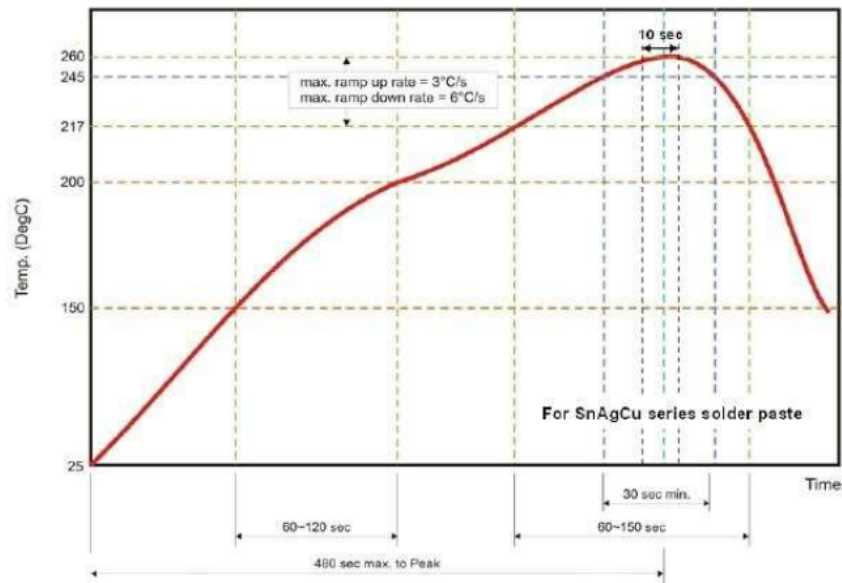


Fig. Infrared soldering profile