TAI-SAW TECHNOLOGY CO., LTD.

No. 3, Industrial 2nd Rd., Ping-Chen Industrial District,
Taoyuan, 324, Taiwan, R.O.C.
TEL: 886-3-4690038 FAX: 886-3-4697532
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Product Specifications Approval Sheet

Product Description: Dielectric Chip Antenna 2450MHz BW 85MHz Size2.05x1.23mm
TST Parts No.: TQ0091AA0000

Customer Parts No.:_____

Customer signature required

Company:_____

Division:_____

Approved by :_____

Date:_____

Checked by:_____ Nina Chen Nina Chen

Approved by:_____ Kazuma Lee Kazuma Lee

Date:_____ 2022/11/09

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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Print Chip Antenna 2450MHz BW 85MHz Size2.05x1.23mm

MODEL NO.: TQ0091AA0000 REV. NO.:1.0

A. Maximum Rating:

1. Maximum Power : 4W
2. Operating Temperature: -40°C to +110°C
3. Storage Temperature: -10°C to +40°C
4. Moisture Sensitivity Level: Level 1 (**MSL 1**)

RoHS Compliant
Lead free
Lead-free soldering

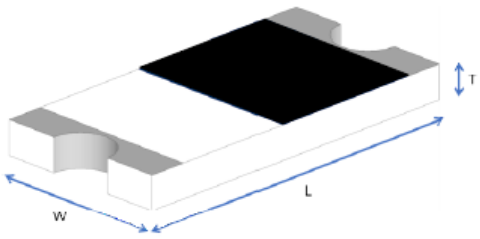
Electrostatic Sensitive Device (**ESD**)

B. Electrical Characteristics:

Item	Spec
Central Frequency	2450 MHz
Bandwidth	85MHz (min)
Return Loss	-6.5dB (max)
Peak Gain	1.72dBi
Resistance to Soldering Heats	10 sec.(@260°C)
Polarization	Linear
Azimuth	Omni-directional
Termination	Ni / Au (Leadless)

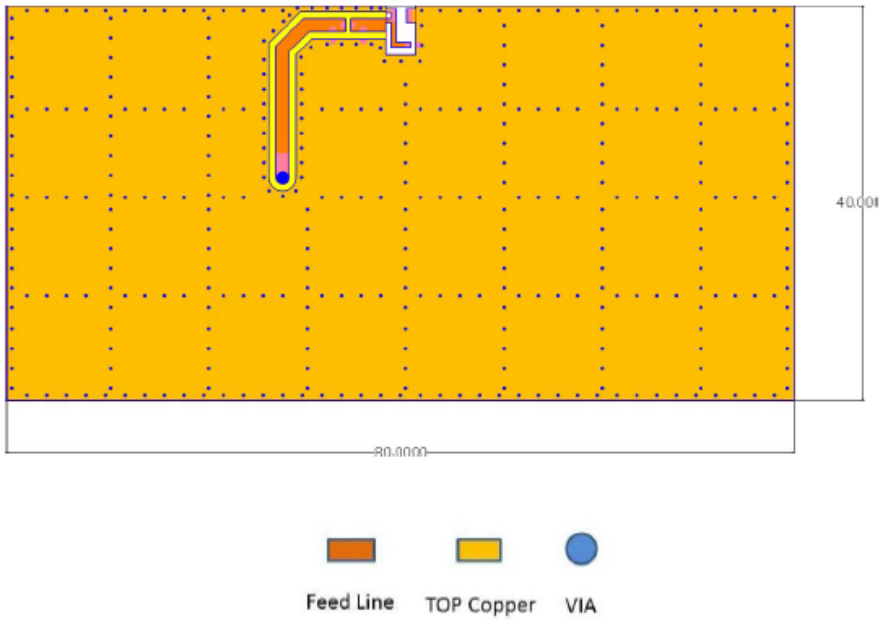
C. Dimension:

Antenna Dimension

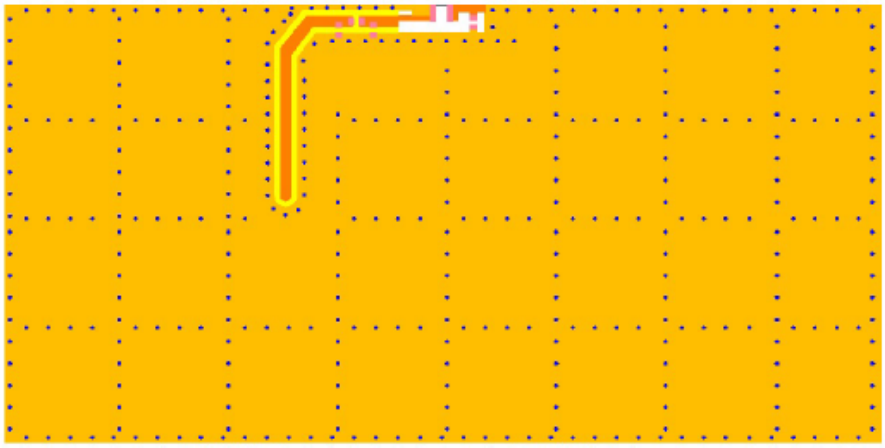


	Dimension (mm)
L	2.05 ± 0.20
W	1.23 ± 0.20
T	0.45 ± 0.20

Recommended PCB Pattern
Evaluation Board Dimension (board size 80x40mm)



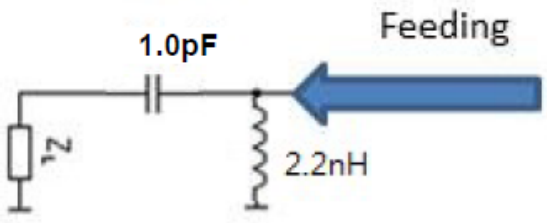
2nd Evaluation Board Dimension
Evaluation Board Dimension (board size 80x40mm)



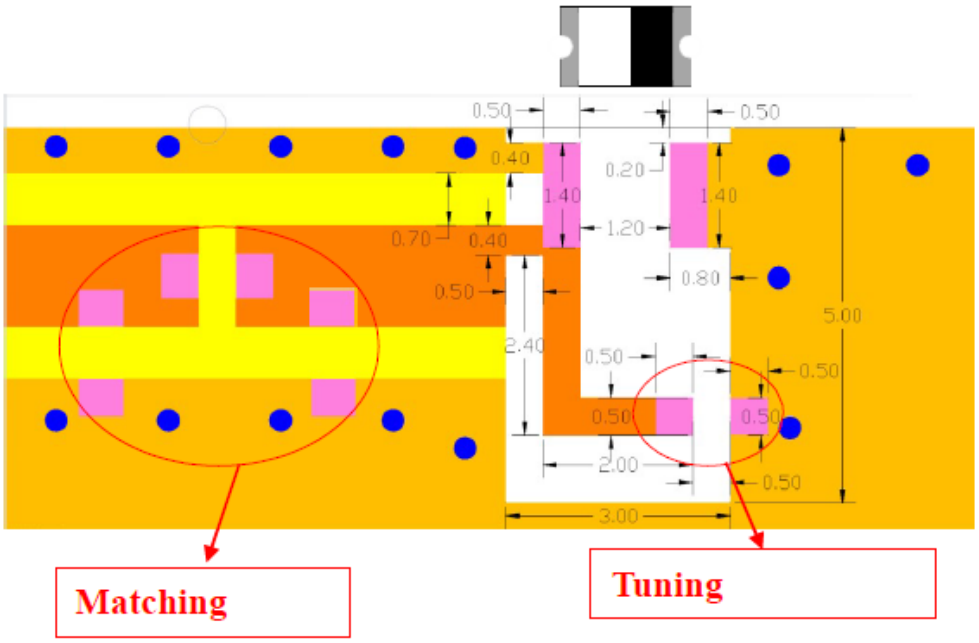
D. Matching Circuit:

Suggested Matching Circuit

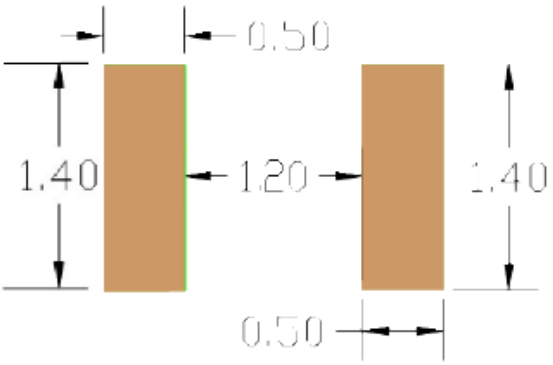
Important information:
For matching components, it is recommended to use high-precision inductors ±0.1~0.3nH and capacitors ±0.1pF



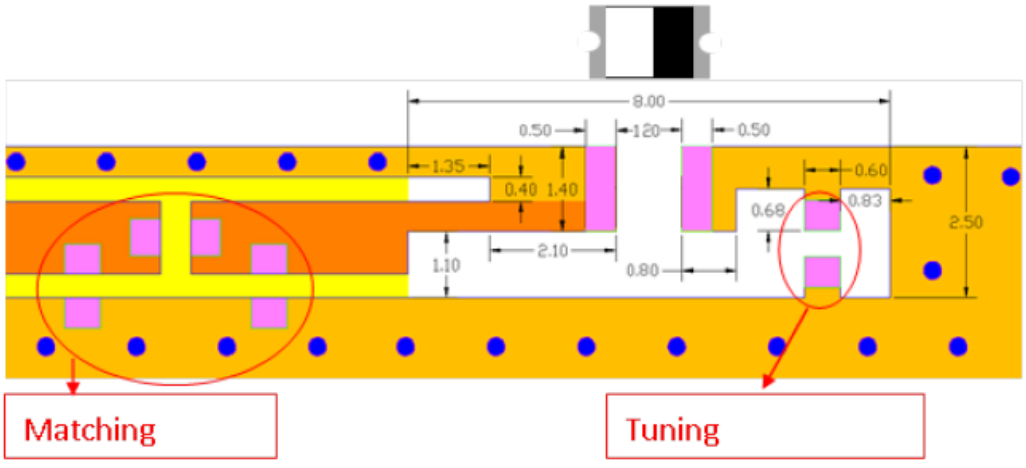
Layout Dimensions in Clearance area (Size=3.0*5.0mm)



Footprint (Unit: mm)

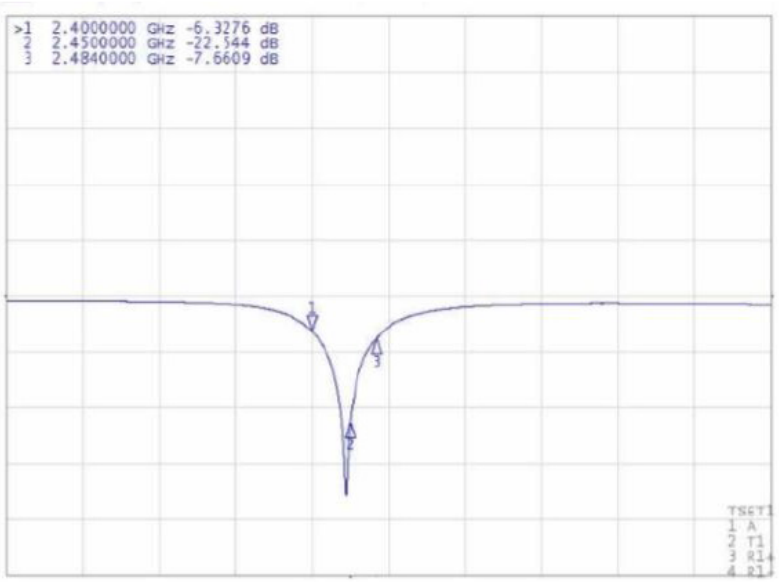


2nd Layout Dimensions in Clearance area (Size=8.0*2.5mm)

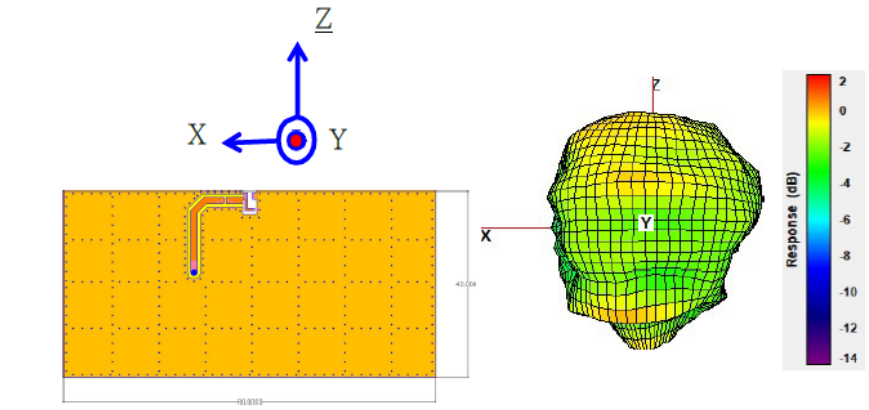


E. Frequency Characteristics:

Return Loss

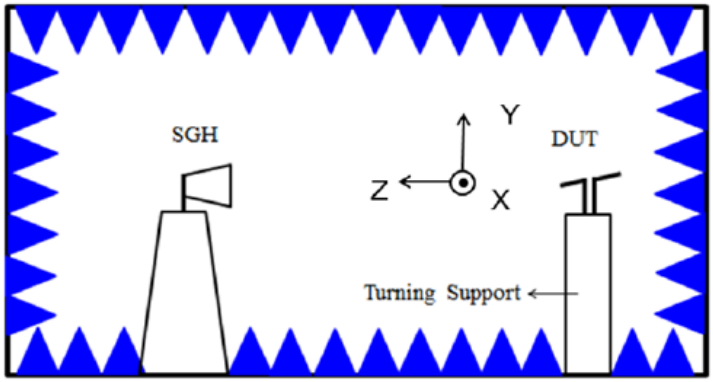


Radiation Pattern



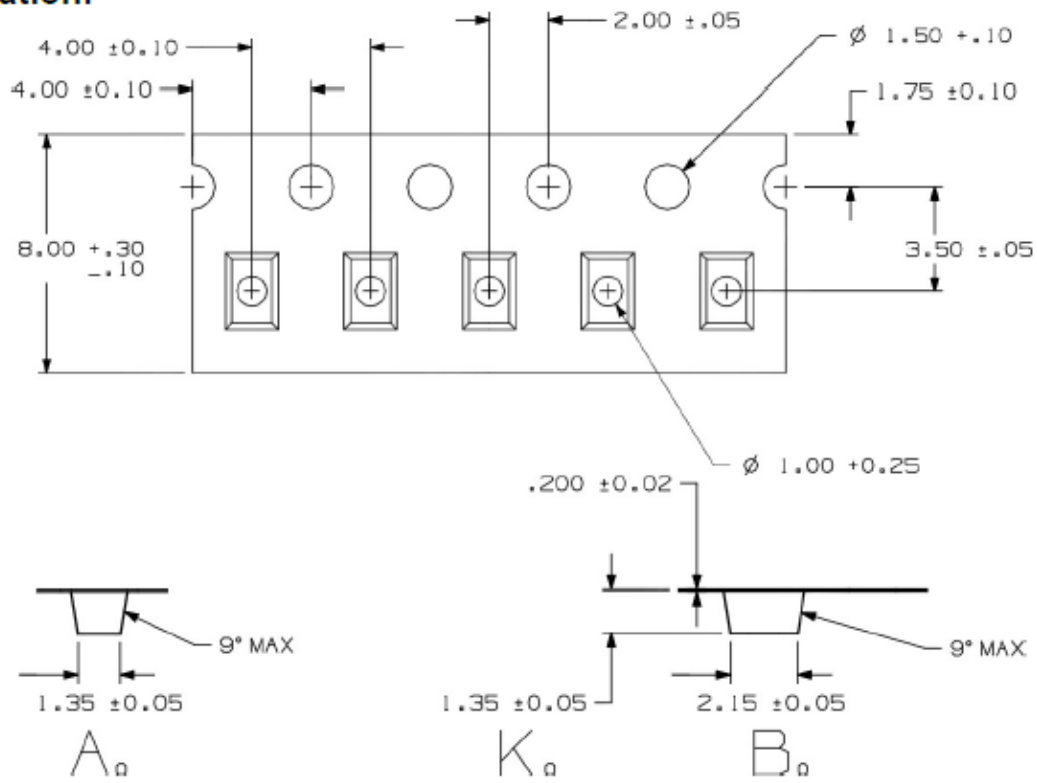
	Efficiency	Peak Gain	Directivity
2400MHz	63.12 %	1.62dBi	3.61dBi
2450MHz	70.56 %	1.72dBi	3.23dBi
2500MHz	65.48 %	1.64dBi	3.47dBi

Chamber Coordinate System

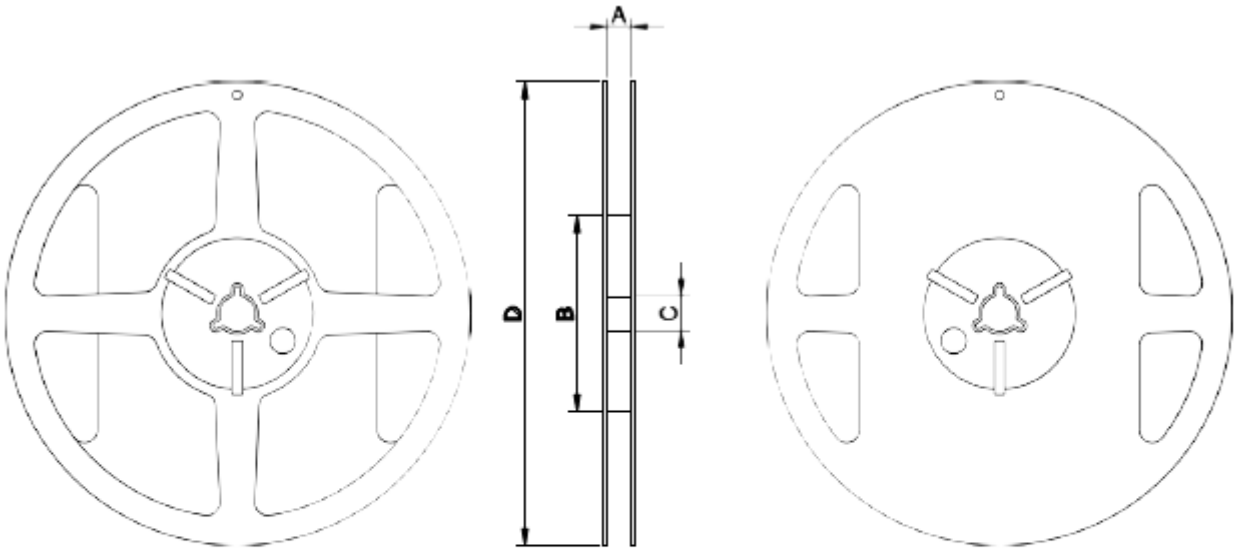


F. Packing:

Tape Specification:



Reel Specification: (7'', Φ180 mm)



7" x 8 mm

Tape Width(mm)	A(mm)	B(mm)	C(mm)	D(mm)	Chip/Reel(pcs)
8	9.0±0.5	60±2	13.5±0.5	178±2	3000

G. Recommended Solder Profile: