



Shenzhen Shun reach technology Co., LTD

Product specification

SPECIFICATION

DESCRIPTION **Chip Antenna**

PART NO. **SDC502010-PS-01-R**

VERSION **V2.1**



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1. Naming Rules

Type: SDC-ABCDEF-GH-IJ-K

1. SDC: Shortcut for Thinkte
2. ABCDEF: AB: Length(mm) CD: Width(mm)
 For example: 502010 5.0mm*2.0mm
3. G: Material (C- Ceramic P-Polymer)
4. H: Feeding (S- Single D - Dual)
5. I J: Version (01 - 99)
6. K: Package (R - Reel, T - Tape)

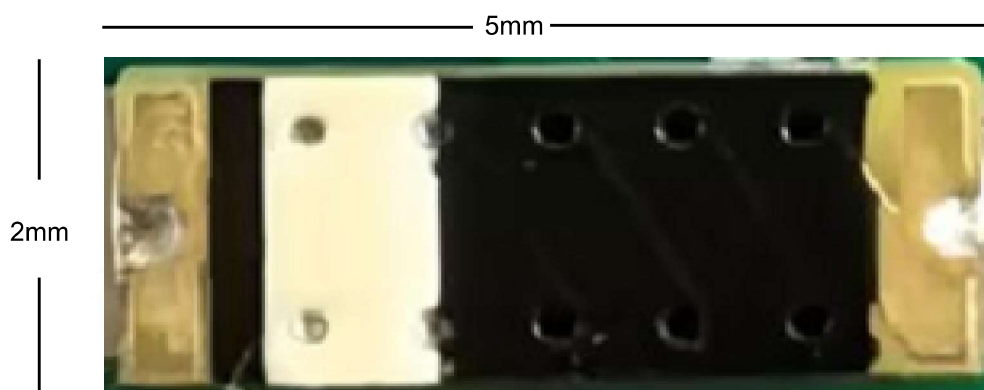


2. Antenna Specification

Outline Dimensions	5.0x2.0x1.0(mm)
Ground Plane	5.0x2.0(mm)
Frequency Range	2.4GHz ~ 2.5GHz
Impedance	50 Ohm Nominal
Bandwidth (under -10dB return loss)	100MHz (Typ.)
Radiation	Omni-directional
Peak Gain	1.85 dBi (Typ.)
Efficiency	55% (Typ.)
Polarization	Linear Polarization
Storage Temp	-40℃ ~ +85℃
Color	Black

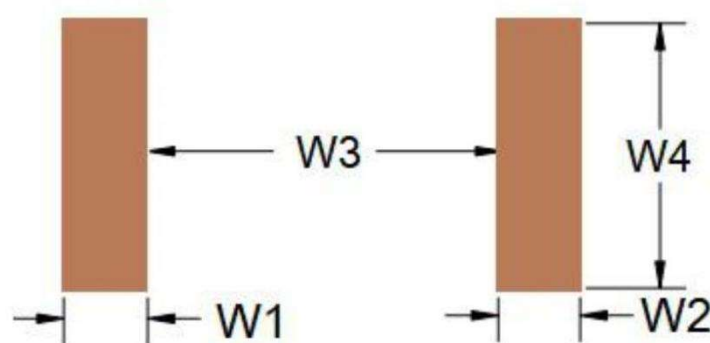


3. Antenna Dimension



Type	L	W	T	a
SKT5020	5.0 ± 0.2	2.0 ± 0.2	1.0 ± 0.2	0.6 ± 0.2

FootPrint (Unit : mm)

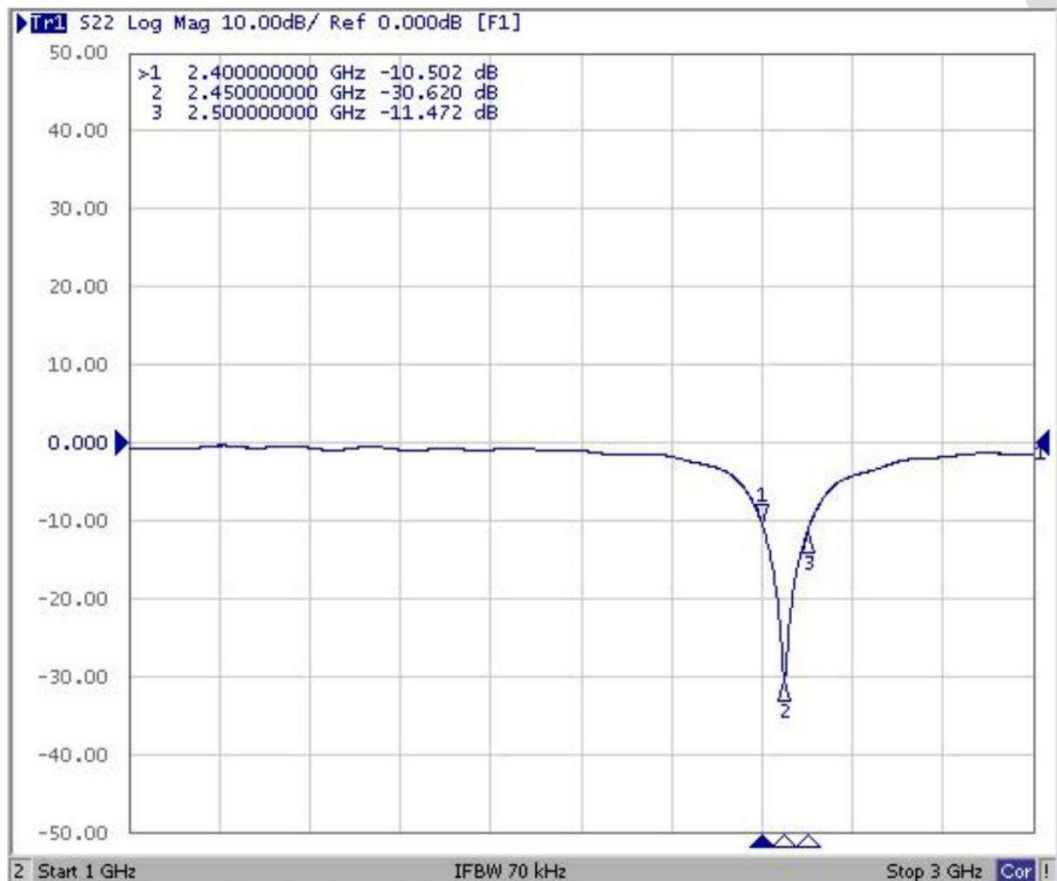


Type	W1	W2	W3	W4
SKT5020	0.6 ± 0.2	0.6 ± 0.2	3.8 ± 0.2	2.0 ± 0.2

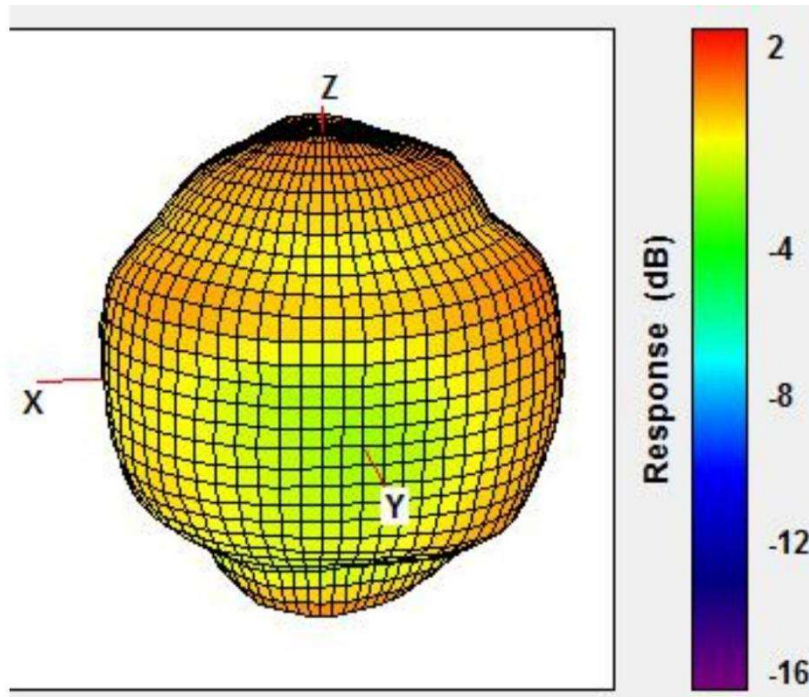


4. Test Data:

3.1 ELECTRICAL CHARACTERISTICSS11



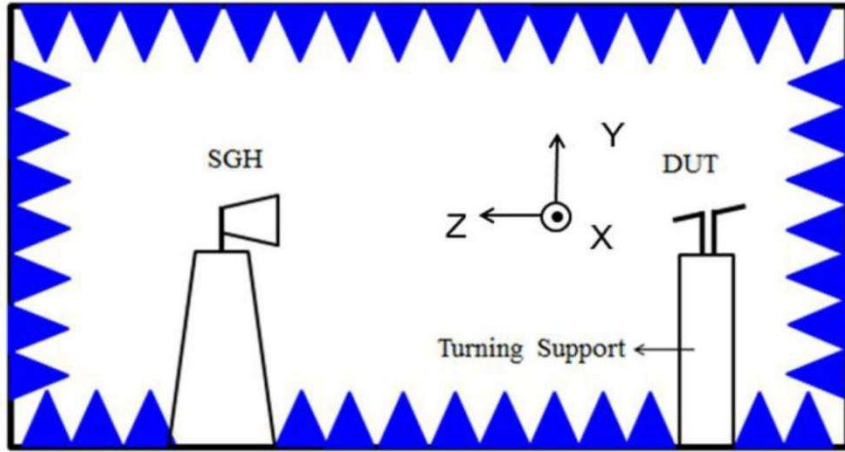
3.2 Radiation Pattern



	Efficiency	Peak Gain	Directivity
2400MHz	53.45%	1.6dBi	1.75dBi
2450MHz	55.65%	1.85dBi	2.19dBi
2500MHz	53.75%	1.35dBi	1.64dBi



Chamber Coordinate System





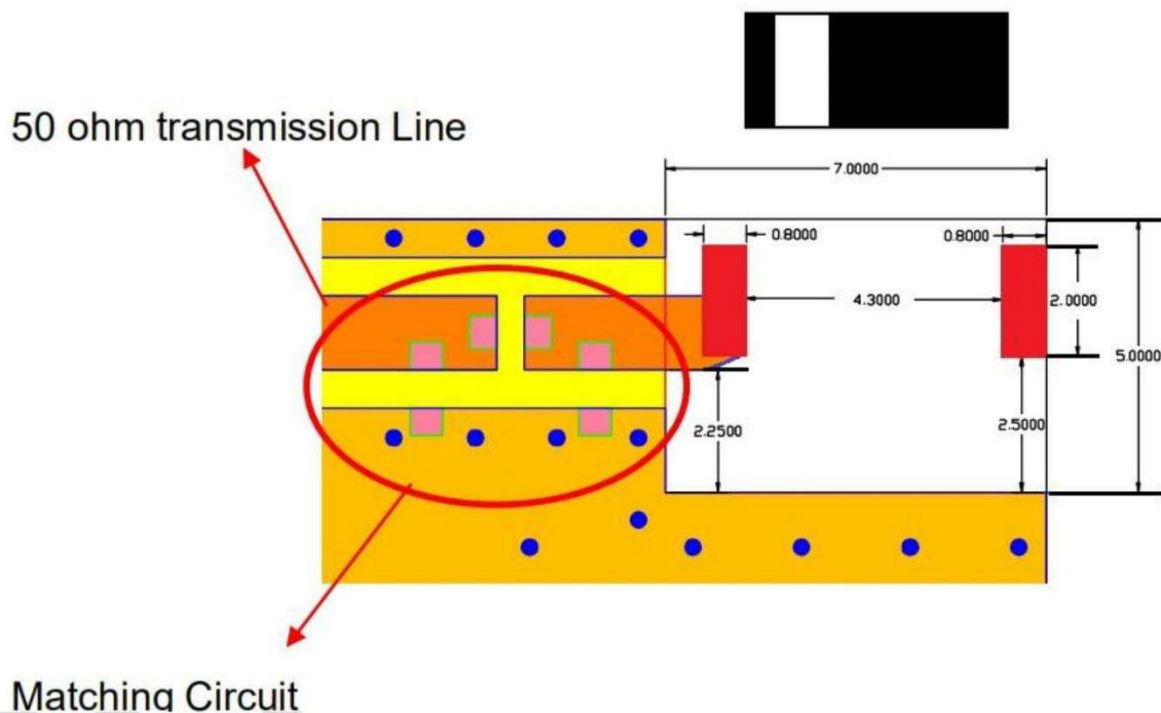
5. LayoutGuide:

Solder Land Pattern:

Land pattern for soldering is as shown below.

Matching circuit is needed for good performance, when customer's device is different.

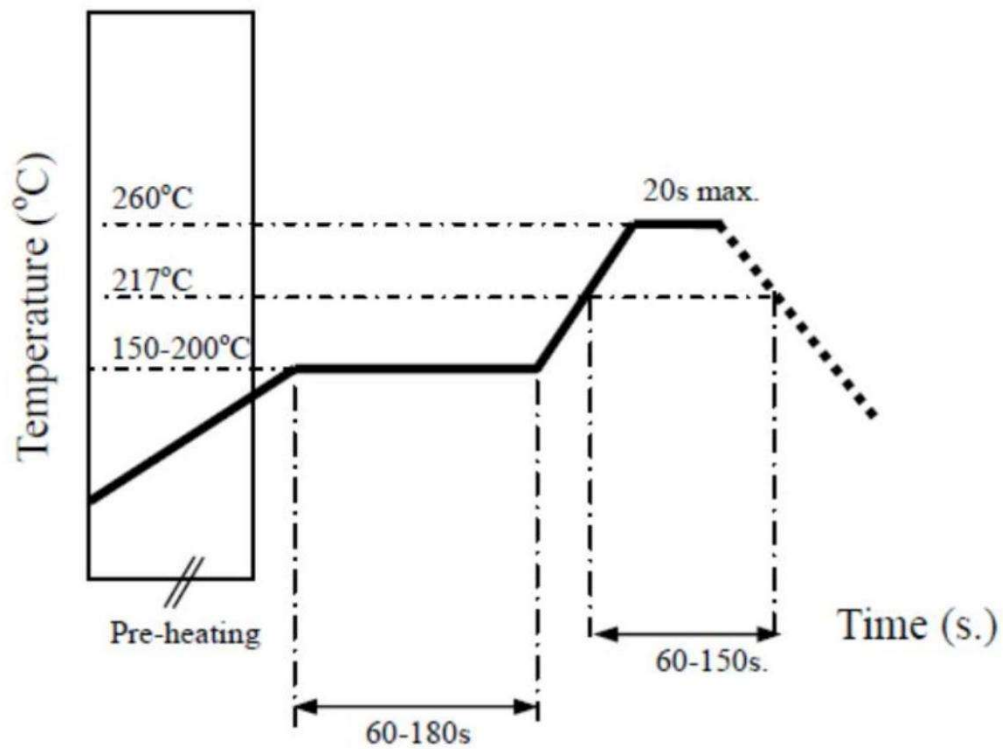
Layout Dimensions in Clearance area (Size=7.0*5.0mm)





6.Soldering Conditions:

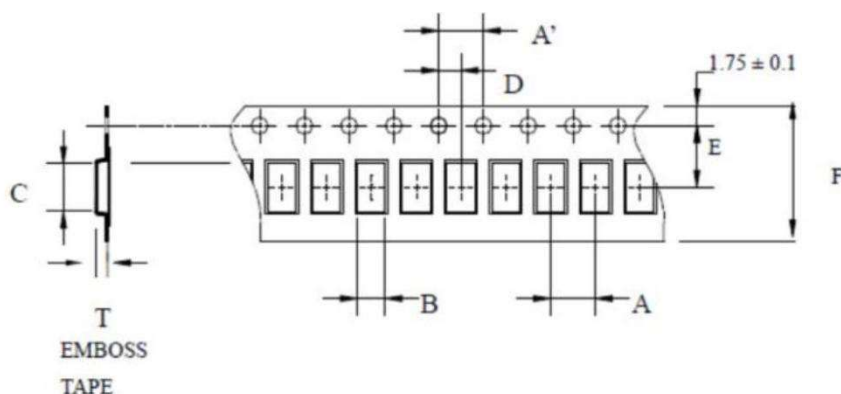
Typical Soldering Profile for Lead-free Process





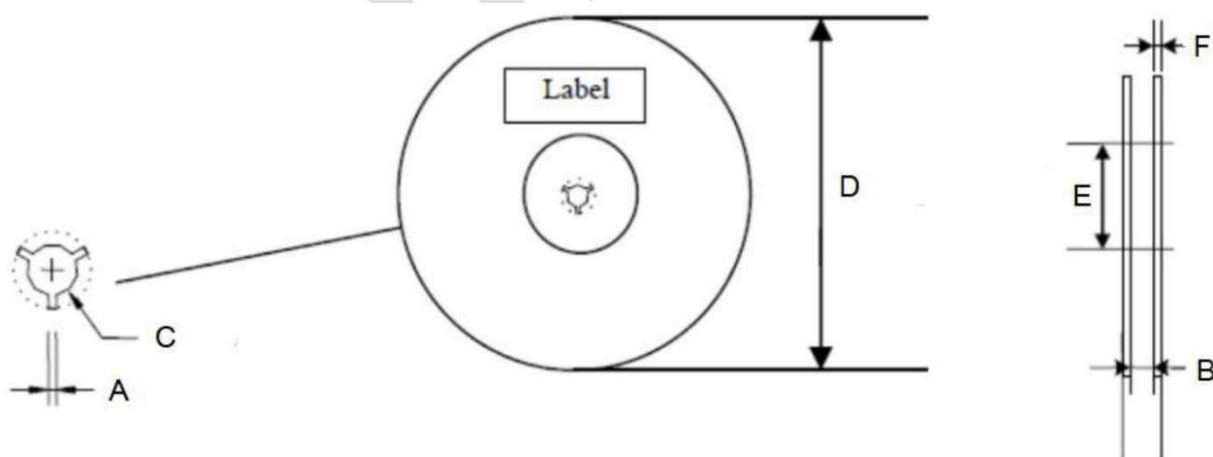
7. Taping Specifications:

Tape Dimensions (Unit: mm) & Quantity



Type	A	A'	B	C	D	E	F	T	Quantity/ Reel	Type Material
SKT5020	4.0 ±0.1	4.0 ±0.1	2.60 ±0.1	5.60 ±0.1	2.0 ±0.05	5.2 ±0.1	12.00 ±0.1	1.35 ±0.1	5,000pcs	Plastic (Embossed)

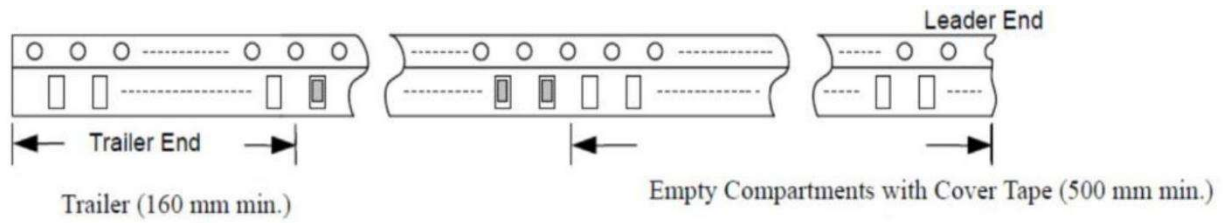
Reel Dimensions (Unit: mm)



Type	A	B	C	D	E	F
SKT5020	2.3 ±0.5	17 ±0.5	13.5 ±0.5	330 ±3	120 ±3	1.4 ±0.2



Leader and Trailer Tape



Soldering Conditions:

- (1) Temperature: 5~35°C, relative humidity (RH): 45~75%.
- (2) Non-corrosive environment