



Product Name: 5*3*0.5mm ISM 915 Ceramic Chip Antenna

Part Number: SCA04-A-S01

Doc ID: WI-RD-D-140 V1.0

Feature:

- Direct SMT Process Compatible
- ISM 915MHz Supporting (902-928MHz)
- Compact Dims (5.0mm*3.0mm*0.5mm)
- Low profile

Application:

- ISM Application
- IoT Device Application
- Portable Device

Ceramic Chip Antenna Series

5.0*3.0*0.5mm ISM 915MHz Chip

MODEL: SCA04-A-S01

I. Specifications:

Category	Specifications		
Frequency (MHz)	902	915	928
Average Gain (dBi) (typical)	-4.26	-2.08	-4.57
Radiation Efficiency (%) (typical)	37.54	61.95	34.94
Peak Gain (dBi) (typical)	-0.38	1.68	-1.15
Return loss	< -3		
Test Condition	80 x 40 mm ² Evaluation Board		
Impedance	50 Ω		
Dimension	5.0 x 3.0 x 0.5mm		
Polarization	Linear		
Operation Temperature	-40~85 °C		
Storage Temperature	-40~85 °C		

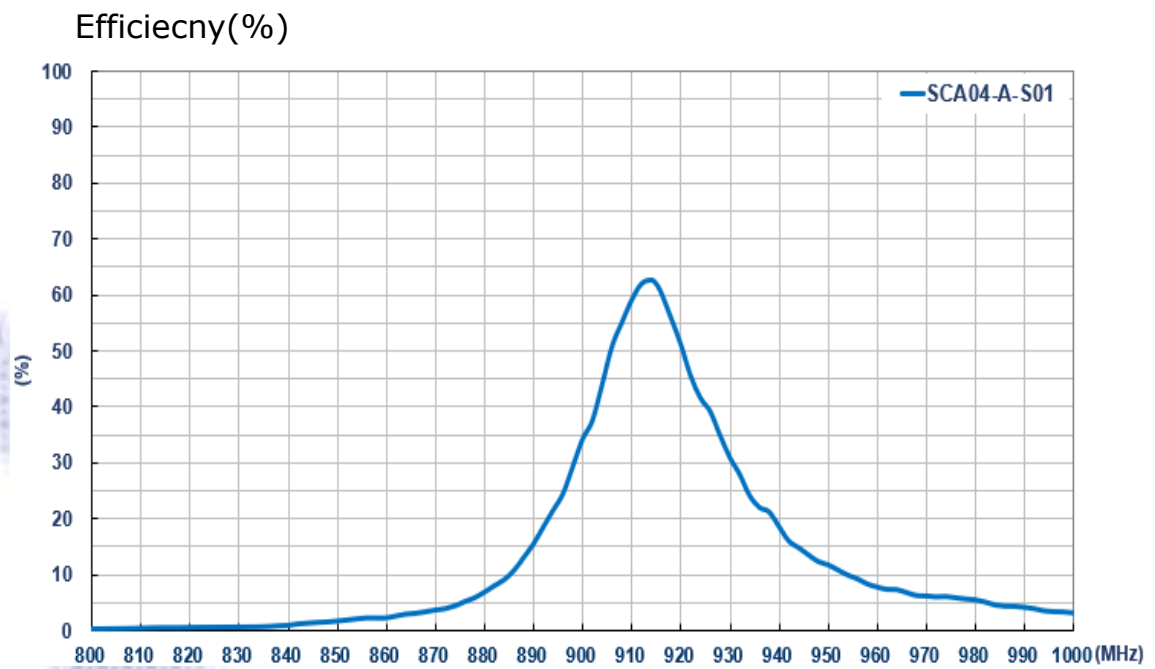
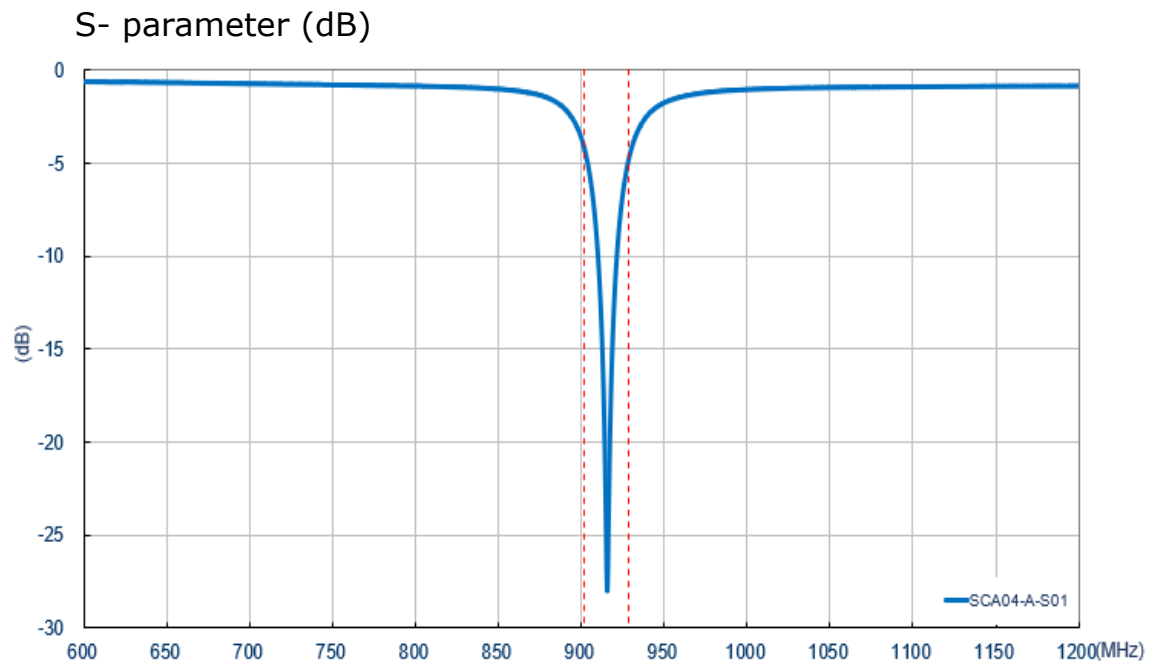
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II. Antenna Technical Parameters:

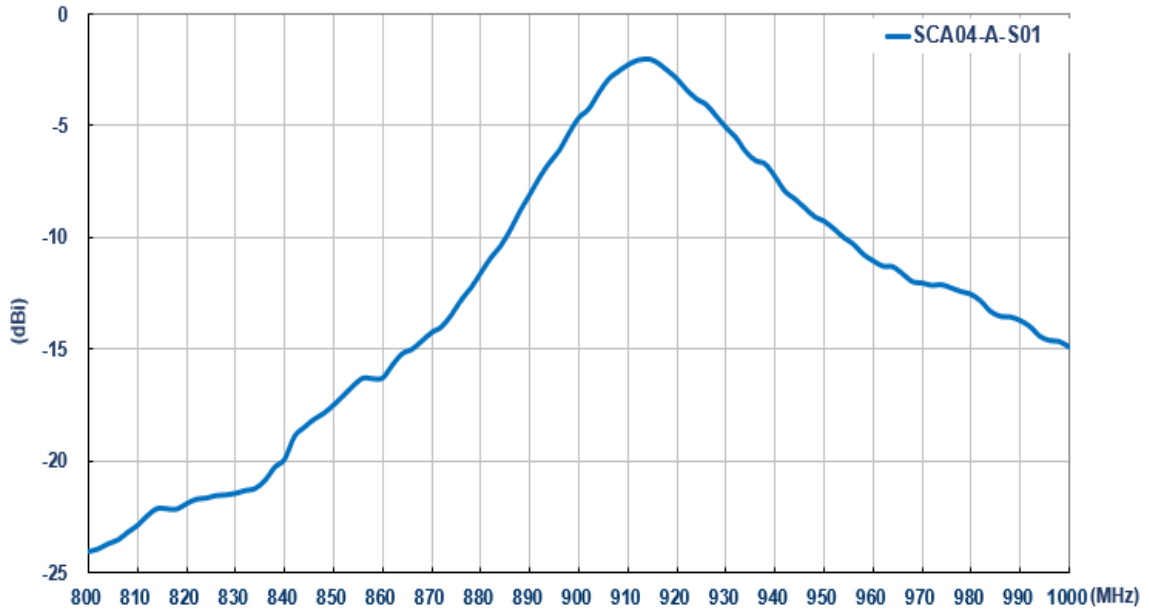
Antenna setup environment



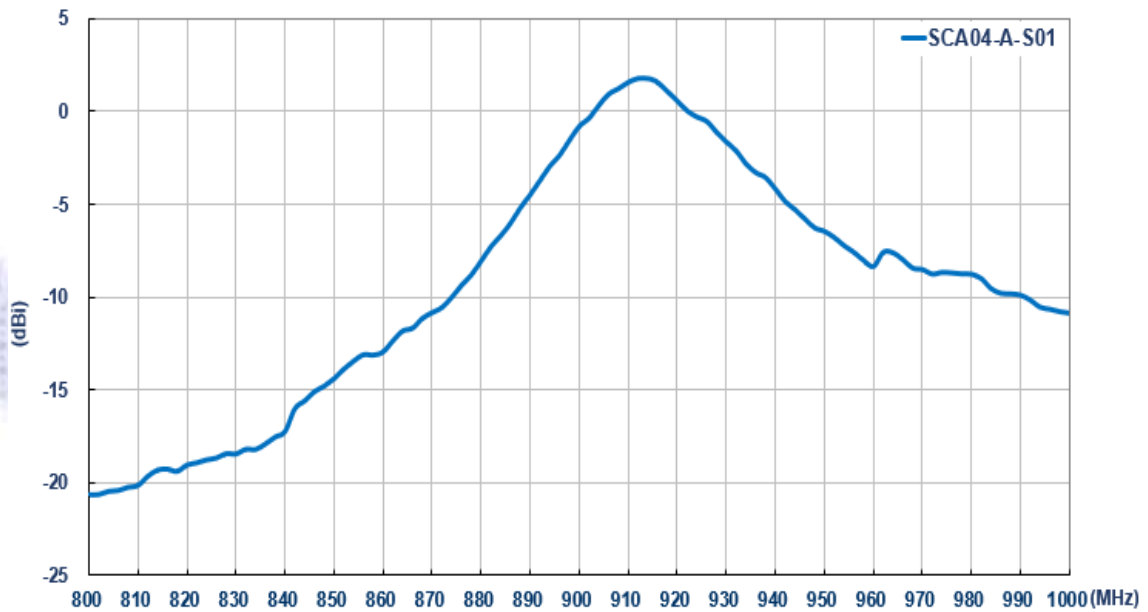
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Average Gain (dBi)

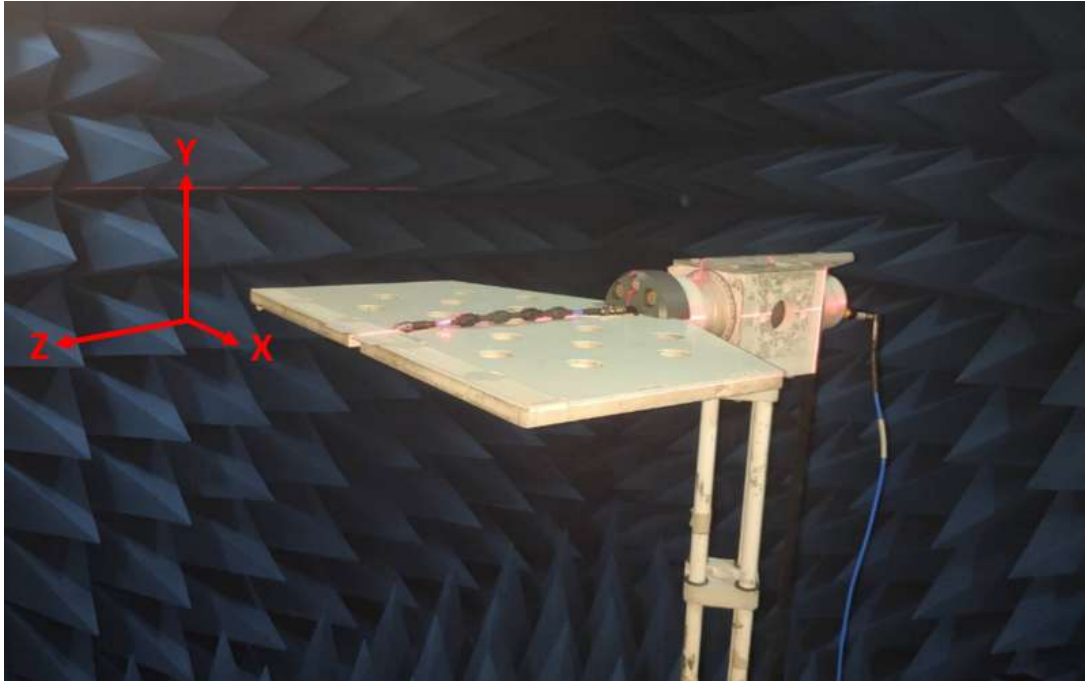


Peak Gain (dBi)



III. Radiation Pattern:

The antenna radiation patterns were measured in certified Anechoic Chamber.
The measurement setup as below,

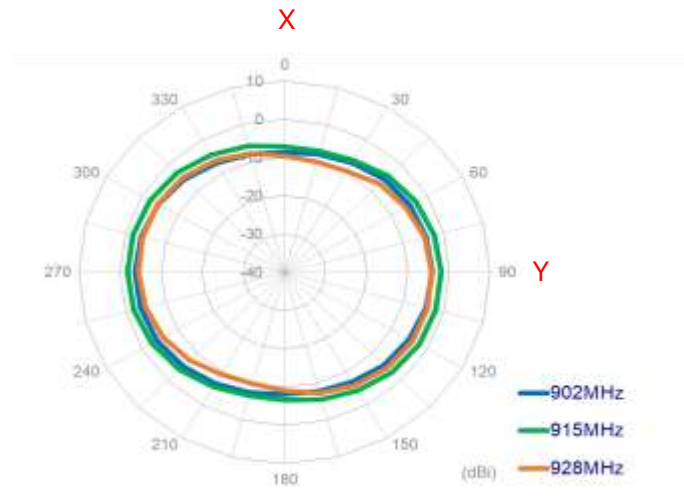


Free Space

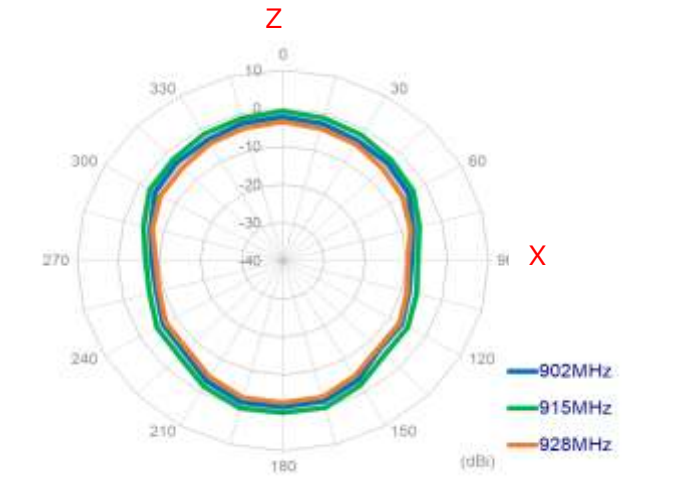
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2D Radiation Pattern

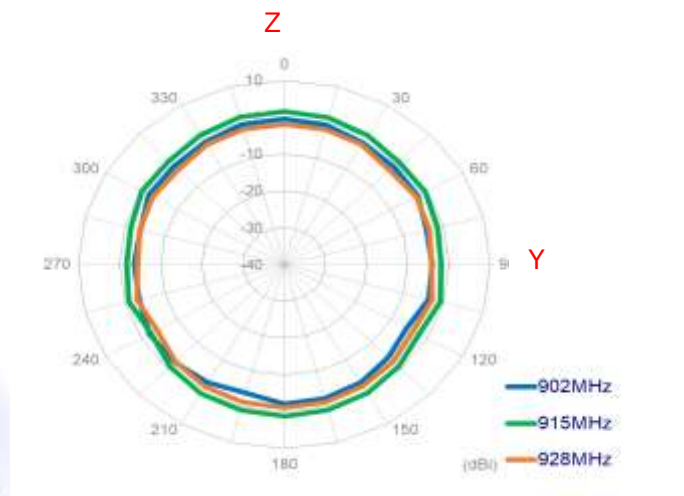
X-Y plane



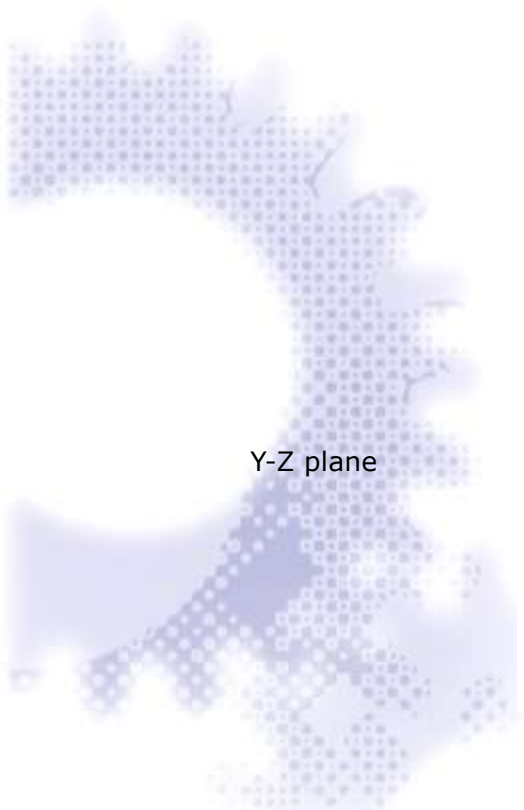
X-Z plane



Y-Z plane

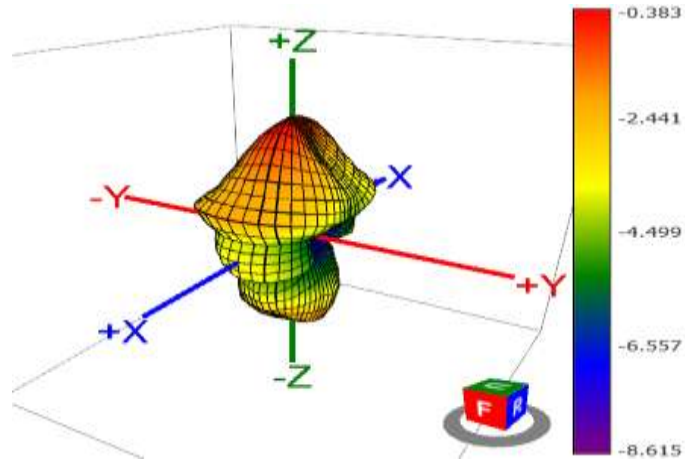


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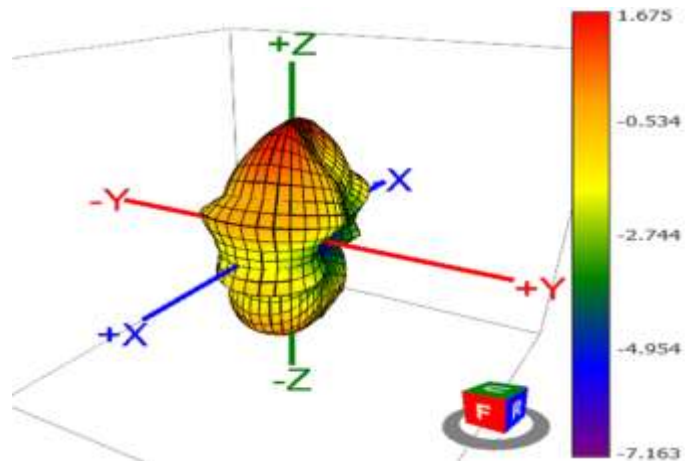


3D Radiation Pattern

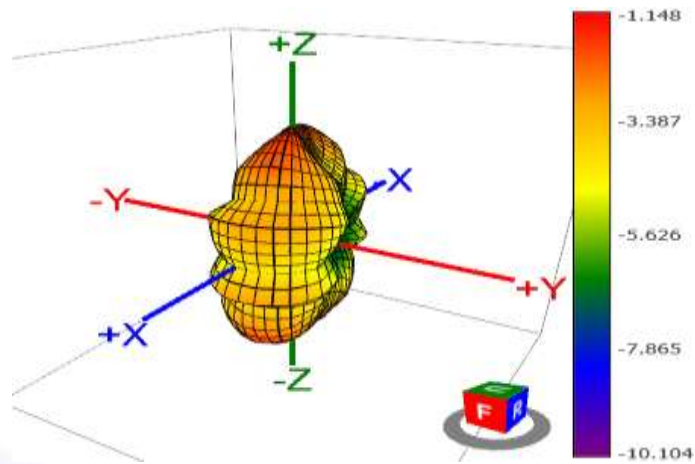
902MHz



915MHz

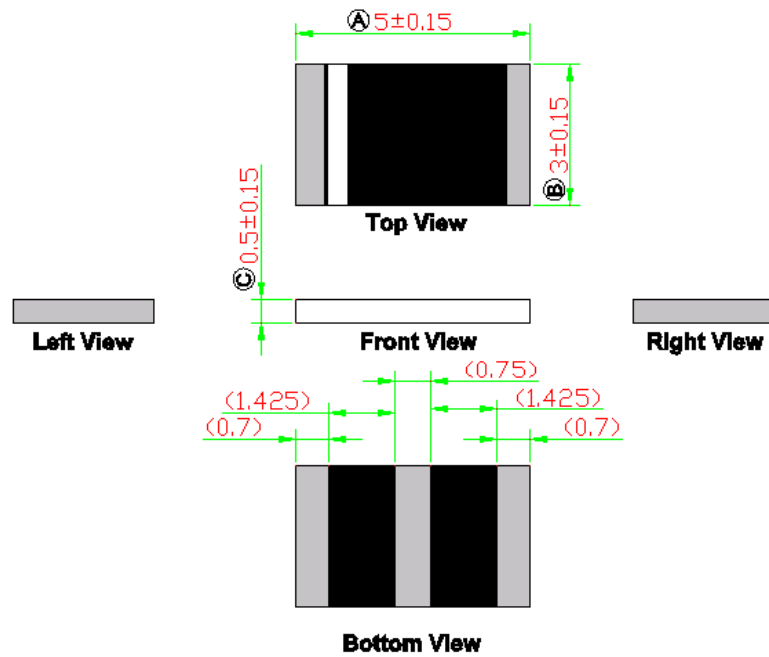


928MHz



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IV. Mechanical Drawing (Unit:mm):



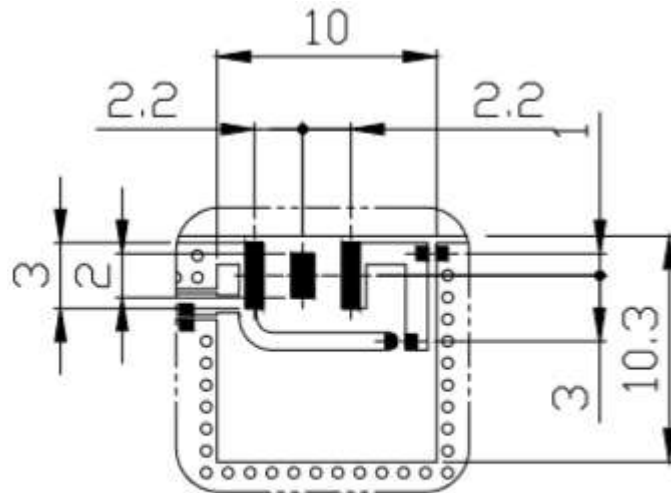
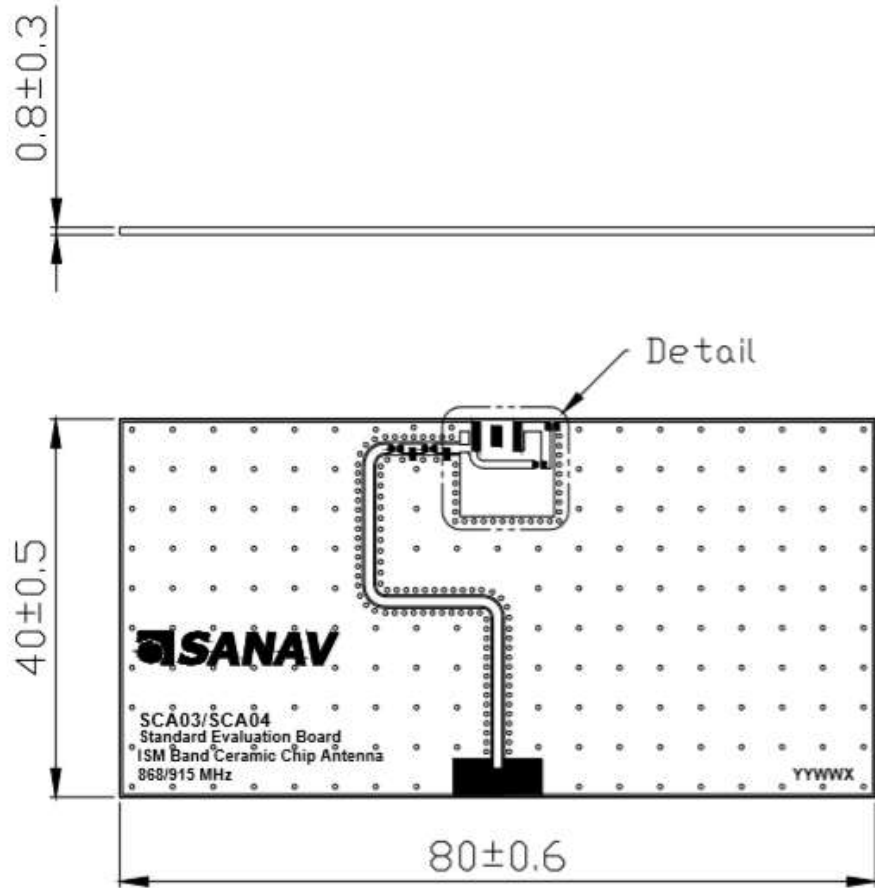
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Pin Definition



PIN	1	2	3
Soldering Pad	Signal	Tuning / Ground	N/C

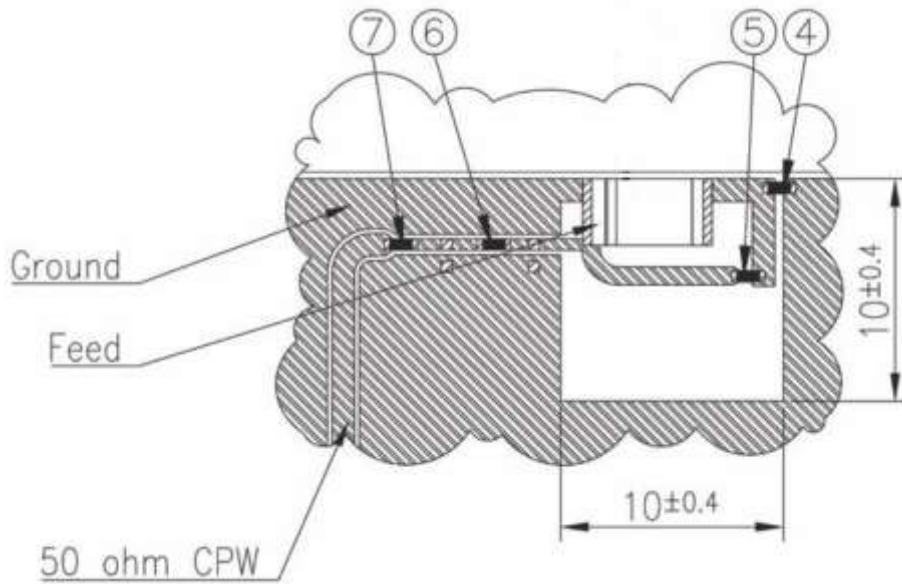
V. SCA04-A-S01



Detail
Scale: 2:1

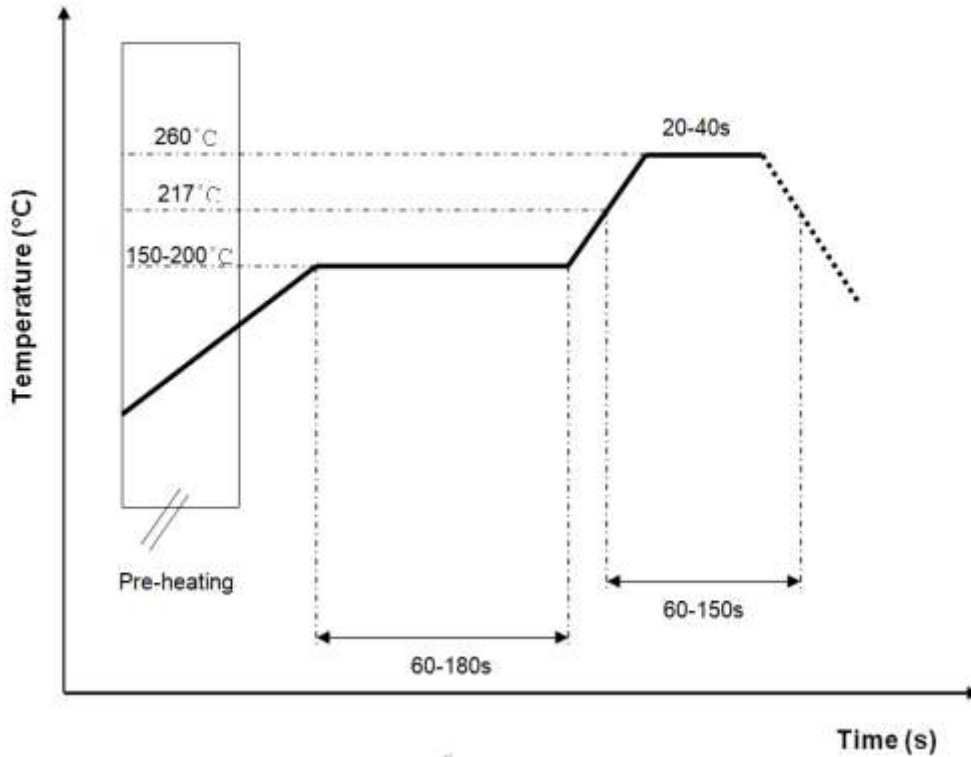
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VI. Matching Circuit:



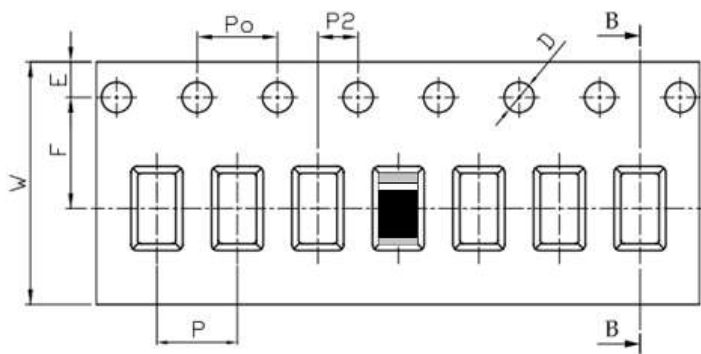
	Component Location	Value
Matching Circuit	4	3.3pF
	5	2.7pF
	6	2.7nH
	7	22pF

VII. Reflow Profile:



VIII. Packaging Information:

- a) Quantity per Reel: 6000 pieces/Reel
- b) Tape & Reel
Tape Drawing



Feature	Specifications	Tolerances
W	12.00	±0.30
P	8.00	±0.10
E	1.75	±0.10
F	5.50	±0.10
P2	2.00	±0.10
D	1.50	+0.10 -0.00
Po	4.00	±0.10
10Po	40.00	±0.20