

APPROVAL SHEET

MODEL: SP95
Antenna Layout

SENA Technology Co.,Ltd

Table of contents

1. Revision History
2. Product Information
 - 2.1 General Features
 - 2.2 Electrical Specifications
3. Pattern Specifications
4. Electrical Characteristics
 - 4.1 VSWR
 - 4.2 Smith Chart
 - 4.3 3D-PLOT
 - 4.4 Gain-Plane
5. Passive Measurement
6. Measurement Process

1. Revision History

No.	Before	After	Reason	Date
1				
2				
3				
4				
5				
6				
7				

2. Product Information

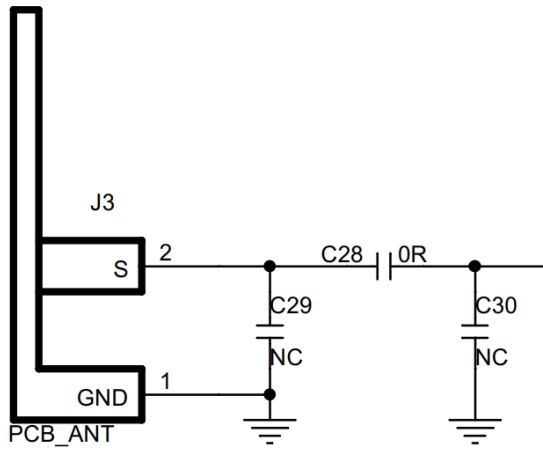
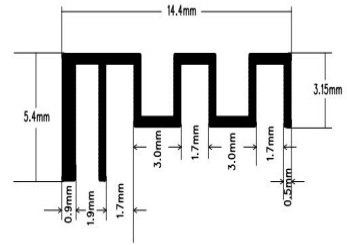
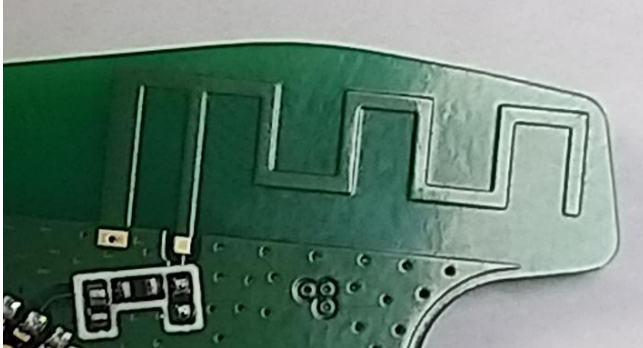
2.1 General Features

Part Number	GradiANT
Antenna Type	PCB Pattern Antenna
Application	WiFi

2.2 Electrical Specifications

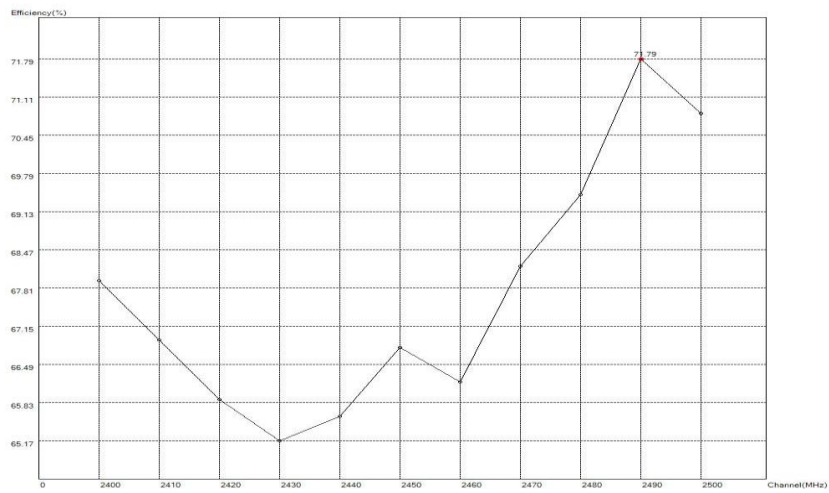
Frequency Rangel (TX)		2400MHz ~2500MHz	
Frequency Rangel (RX)		2400MHz ~2500MHz	
Impedance		50Ω	
V.S.W.R	TX	2400Mhz	2500Mhz
		5 ↓	5 ↓
	RX	2400Mhz	2500Mhz
		5 ↓	5 ↓
Radiation Pattern		Omni-Directional	
Polarization		Linear	

3. Pattern Specifications

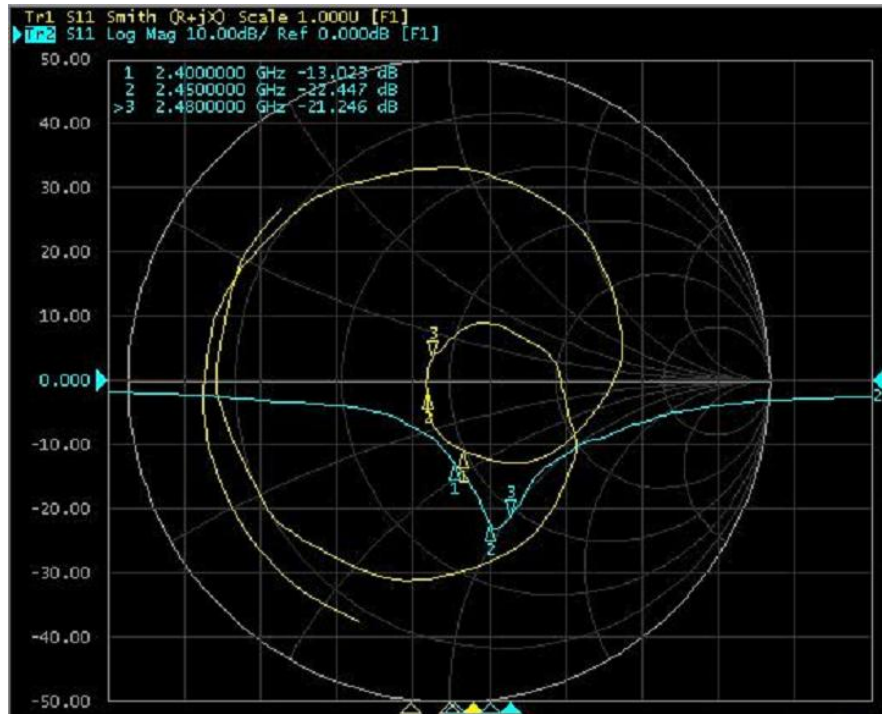


4. Electrical Characteristics

4.1 VSWR

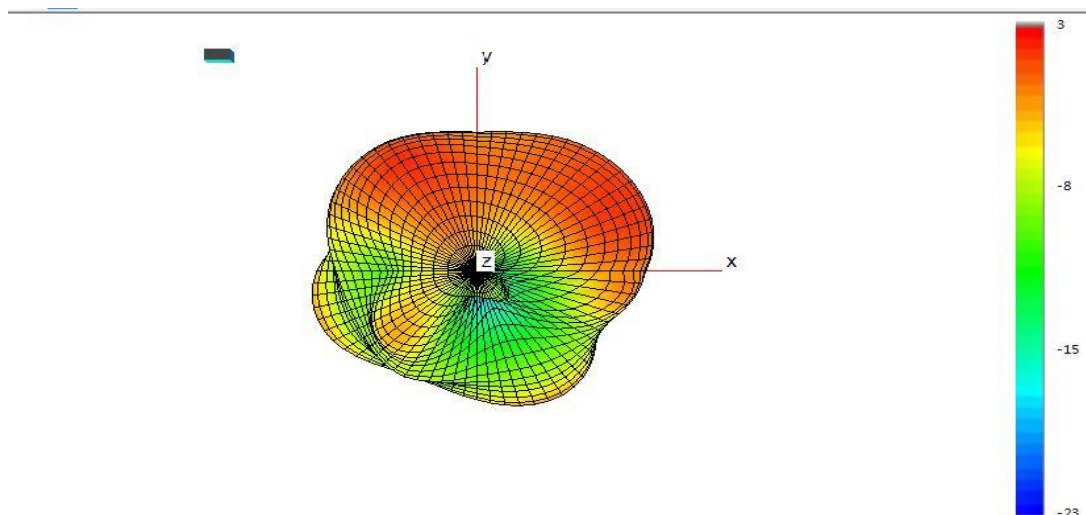


4.2 Smith Chart

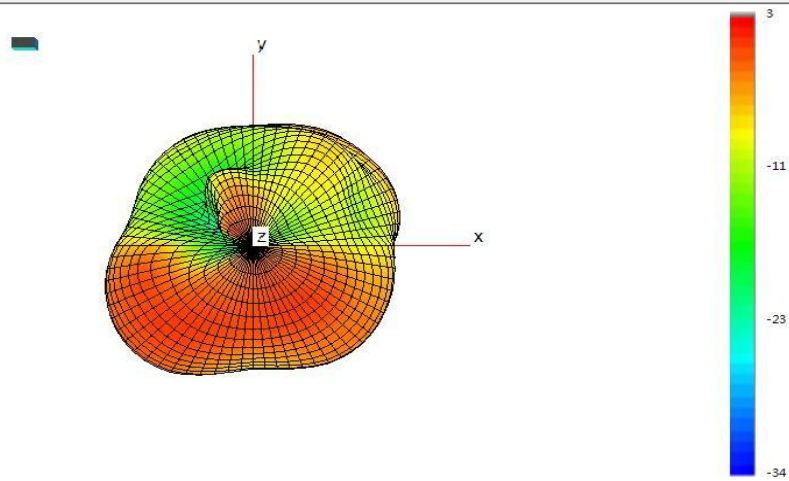


4.3 3D-PLOTS

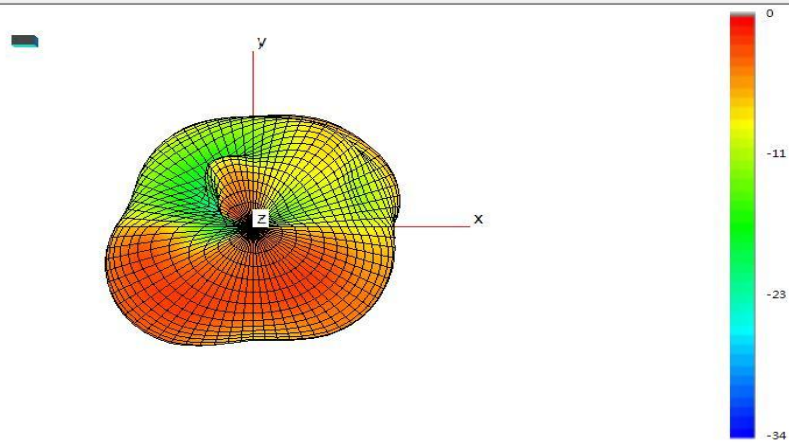
2400Mhz



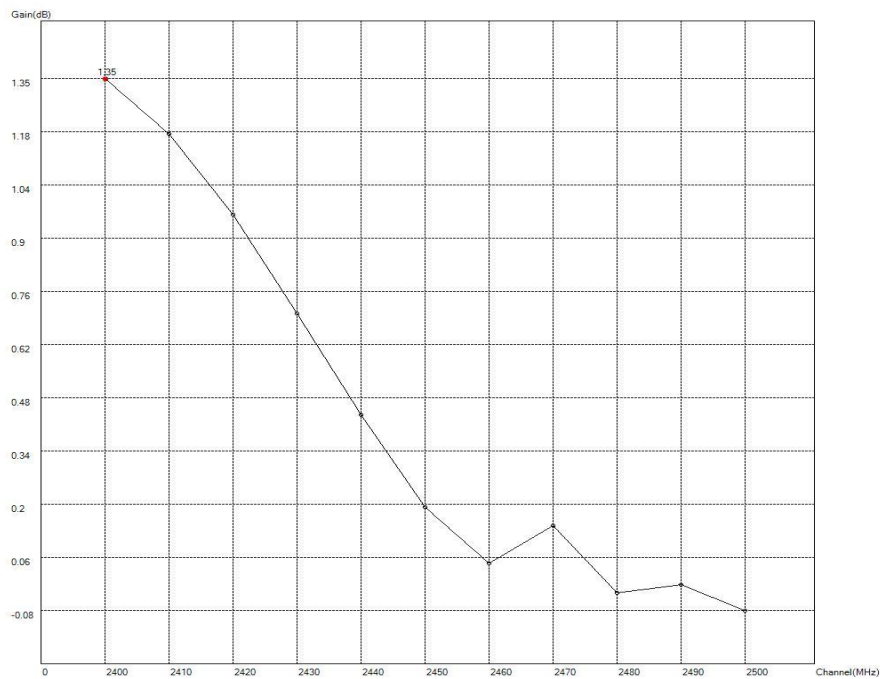
2450Mhz



2500Mhz



4.4 Gain-Plane



5. Passive Measurement

Freq (MHz)	Gain (dB)	Efficiency (dB)	Efficiency (%)
2400.00	1.97	-1.68	67.95
2410.00	2.01	-1.74	66.92
2420.00	2.01	-1.81	65.89
2430.00	1.94	-1.86	65.17
2440.00	1.90	-1.83	65.60
2450.00	1.95	-1.75	66.79
2460.00	1.92	-1.79	66.19
2470.00	2.05	-1.66	68.19
2480.00	2.15	-1.58	69.44
2490.00	2.22	-1.44	71.79
2500.00	2.15	-1.50	70.84

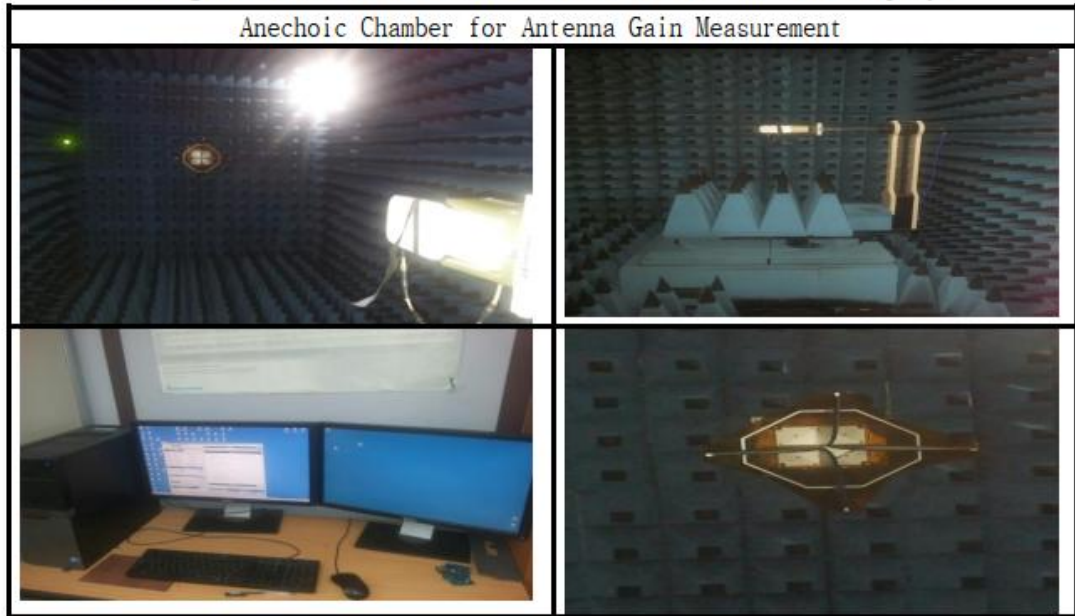
6. Measurement Process

6.1 SWR / Return Loss

	Set Condition
Network Analyzer	Agilent 8753ES
Cable	Semi-rigid (40mm, 60mm)
Test condition	

6.2 Gain

Antenna gain is measured in the anechoic chamber of this company.



6.3 Gain Test Block Diagram

