

CUSTOMER NAME	Shenzhen Aoni Electronic Co.,Ltd
CUSTOMER P/N	B427JL
PART NAME	Bluetooth Antenna
DWM NO.	
APPROVAL REV.	R:A
Antenna Manufacturer Address	15thFloor, DLF city Phase5, Two Horizon Centre. Golf course Road, sector 43, Gurgaon, Haryana,122002, India

CONTRACTOR			DATE : 2025-09-01
QA CHECKED	ME CHECKED	RF CHECKED	MANAGER CHECKED

CUSTOMER		DATE :
Approved By	Checked By	Prepared By

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1. Product Application

Terminal of the antenna products can only be used for Bluetooth antenna.

2. The test environment, equipment

Item	Description	Test Condition	Requirement
2.1	Passive testing	The VSWR measurement devices are connected in sequence: Agilent 5071B Network Analyzer → measurement Cable → Customer-providing Devices.	VSWR: 2400-2500MHz ≤ 2
		Test equipment	
			
Item	Description	Test Condition	
2.2	Active test	The antenna is tested within the cell mainboard provided by clients. Follow picture shows the measurement condition of the antenna been put on the measurement device, which is used for all measurement of electric performances.	
2.3	Microwave Anechoic chamber (Satimo&ETS)	Test equipment	

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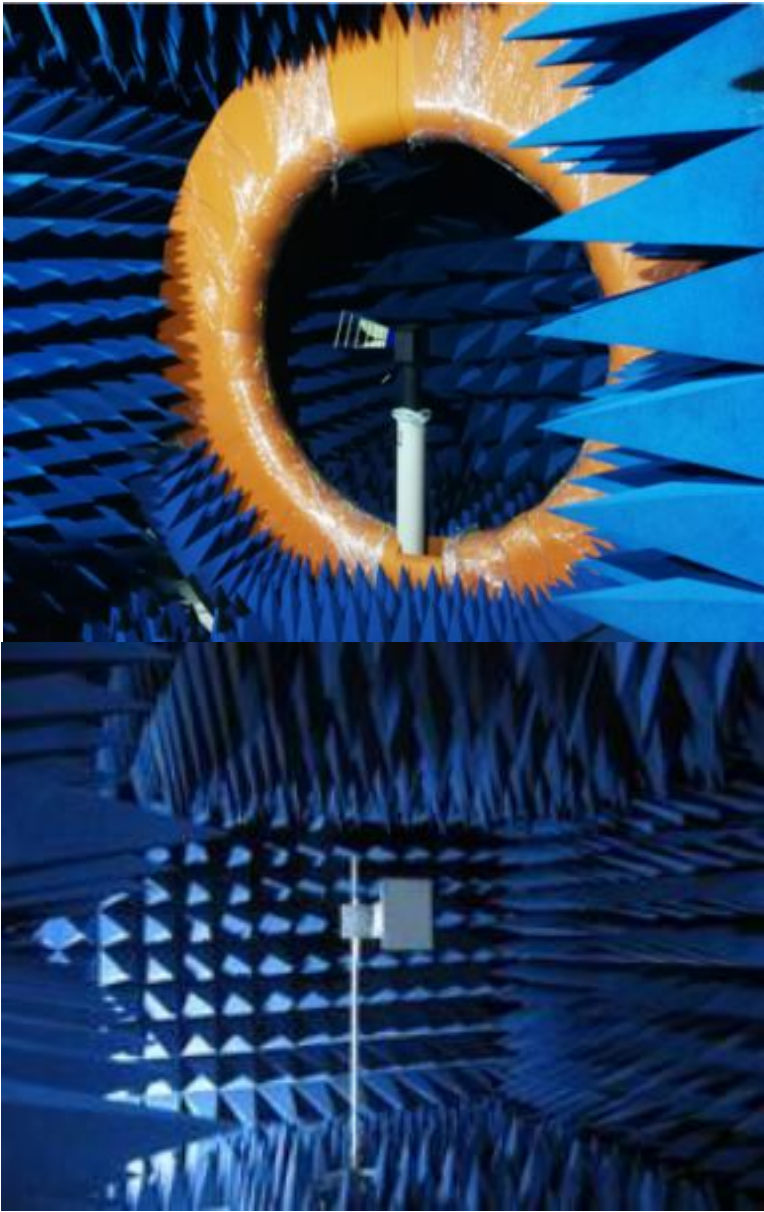
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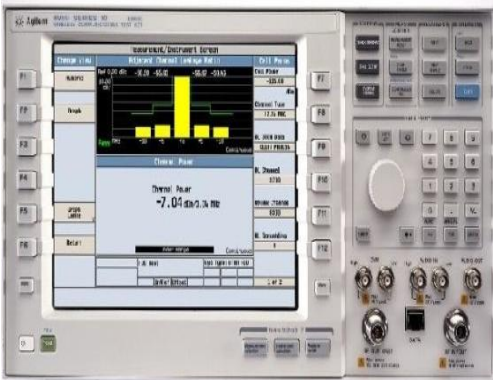
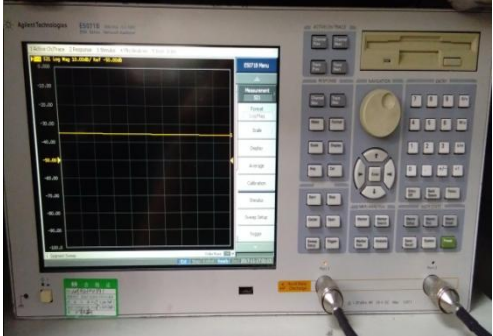
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CMW500

Agilent5071B
AgilentE4405B

Agilent8960



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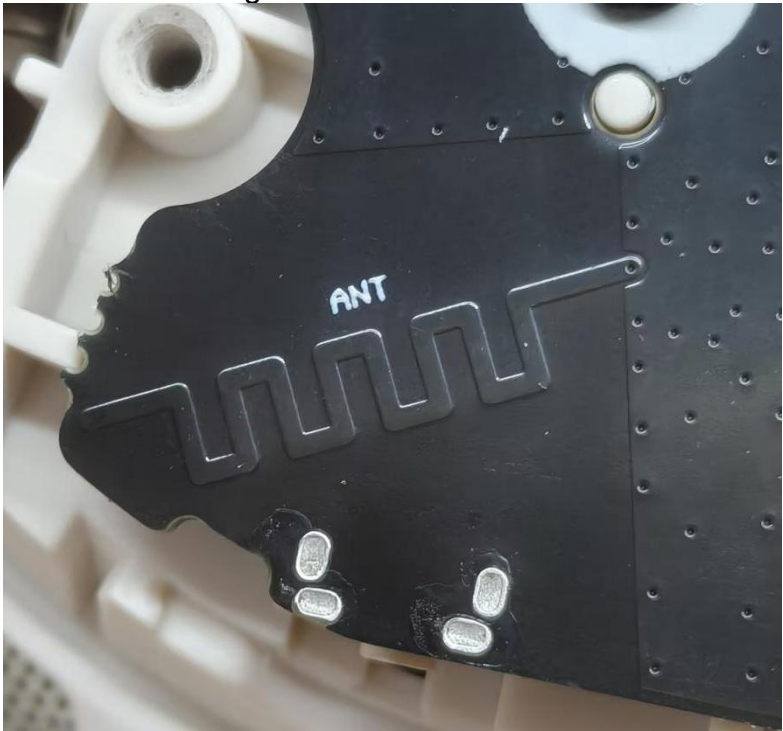
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3.Technology Parameters

Frequency Range: 2400MHz-2500MHz
Operating Humidity: 85%R.H.MAX
Temperature Rating: -40℃~+85℃

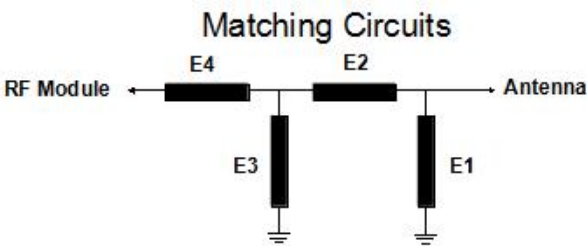
The antenna images:



Design Specifications	Typical	Units
Antenna type	PCB onboard	
Overall dimensions	11.7 * 6.7	mm

3.1 The matching test value

Element	Value
E1(0402)	1.5nH
E2(0402)	0 R
E3(0402)	0.4pF
E4(0402)	NC



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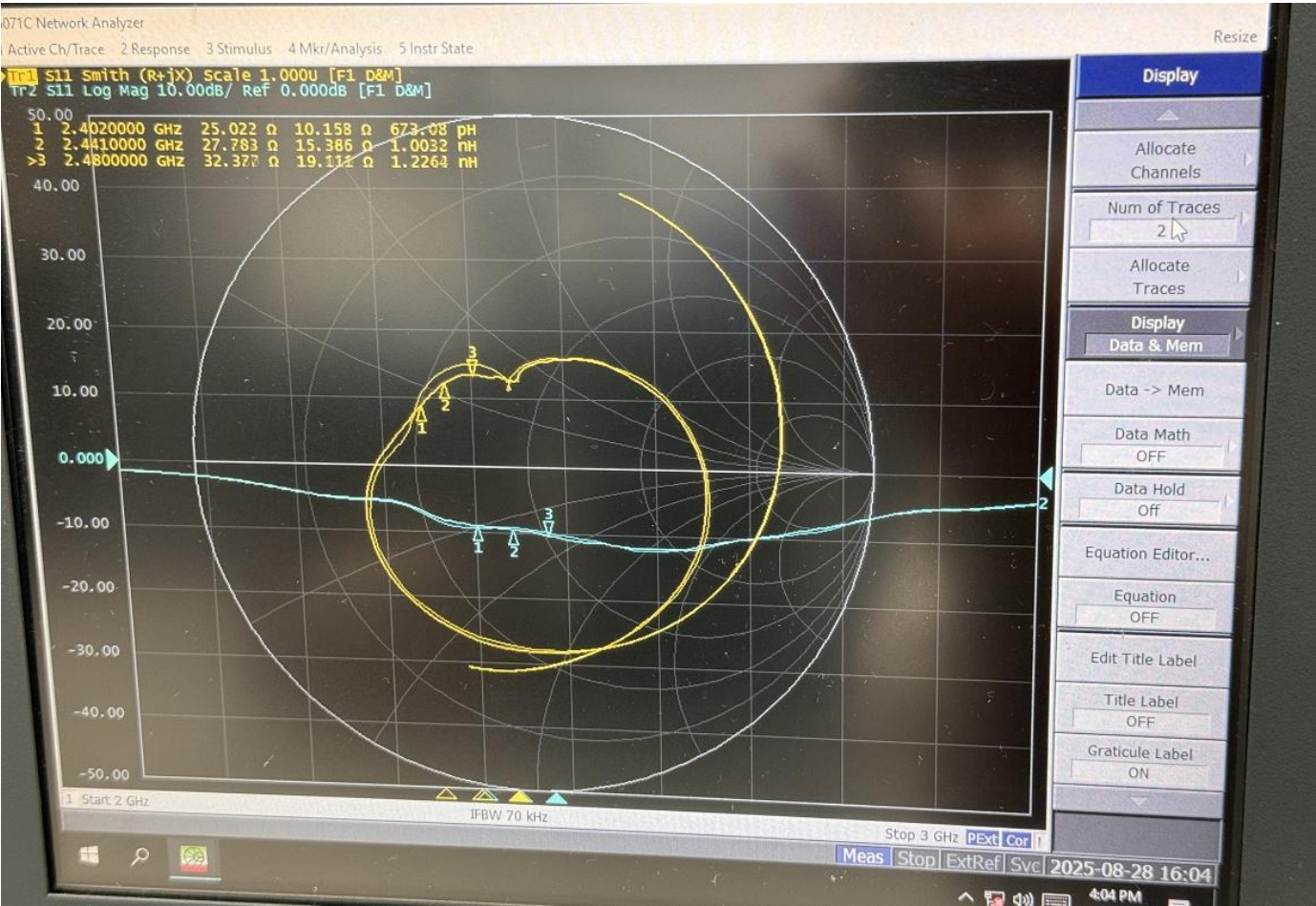
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3.2 VSWR:



3.3 Efficiency And Gain:

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHis (%)	DHis (%)	Max (dB)	Min (dB)	Directivity (dBi)	Beamwidth (3dB)	AttH (dB)	AttV (dB)
2400	42.81	-3.68	-0.3	-1.43	14.987	27.82	0.72	-13.17	4.4	30	47.11	47.35
2410	39.23	-4.06	-0.15	-1.71	13.521	25.712	0.44	-14.72	4.5	30	46.99	47.1
2420	41.39	-3.83	-0.27	-1.48	14.041	27.352	0.67	-16.05	4.5	30	46.93	47.04
2430	42.68	-3.7	-0.34	-1.38	14.163	28.518	0.77	-17.12	4.47	30	46.83	46.93
2440	42.13	-3.75	0.1	-1.44	13.712	28.42	0.71	-17.4	4.46	30	46.92	46.92
2450	42.81	-3.68	0.23	-1.32	13.785	29.026	0.83	-16.74	4.51	30	47.09	47.18
2460	40.68	-3.91	0.18	-1.37	13.071	27.605	0.78	-16.11	4.69	30	47.2	47.09
2470	43.11	-3.65	0.42	-0.96	13.856	29.256	1.19	-15.21	4.85	30	47.04	47.02
2480	41.39	-3.83	2.1	-1.06	13.247	28.146	1.09	-15.02	4.92	30	47.39	47.21
2490	44.1	-3.56	2.32	-0.75	14.088	30.009	1.4	-14.78	4.96	30	47.51	47.46
2500	41.28	-3.84	2.04	-1.12	13.085	28.195	1.03	-16.76	4.88	30	47.43	47.3

3.4 2D and 3D field patterns:

2D:

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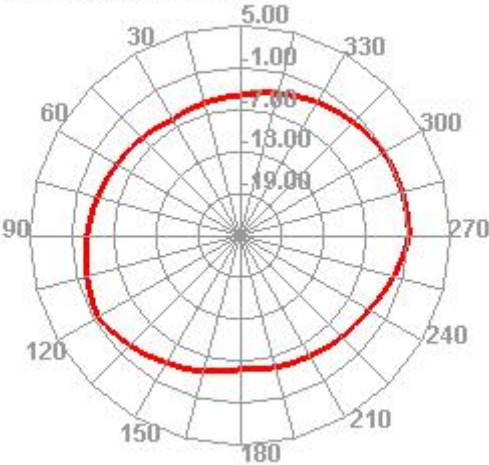
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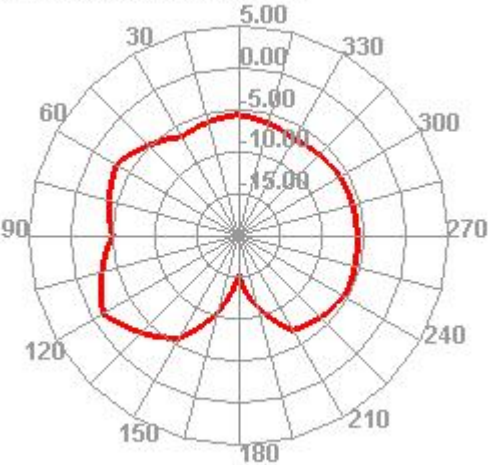
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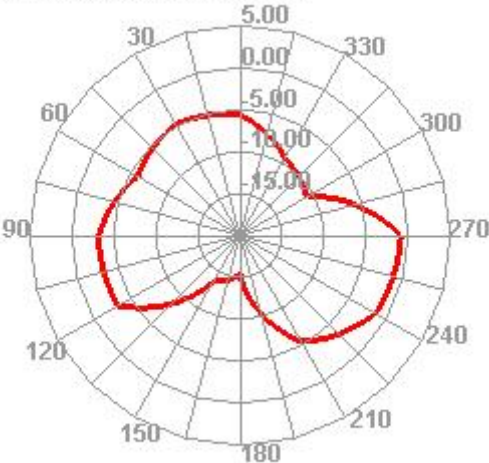
2400.000MHz H



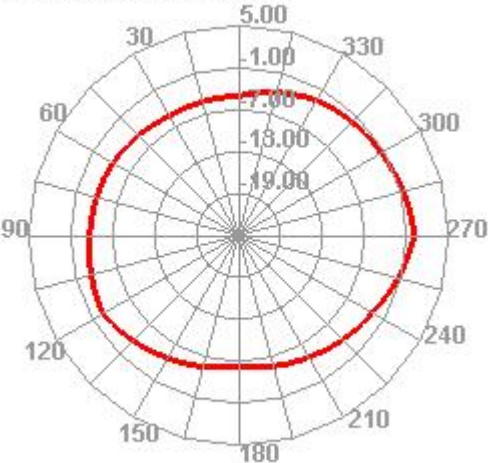
2400.000MHz E1



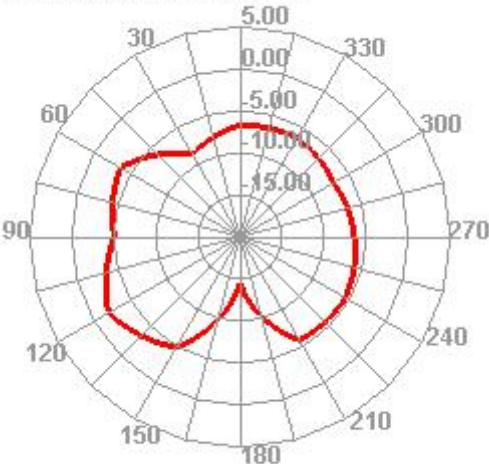
2400.000MHz E2



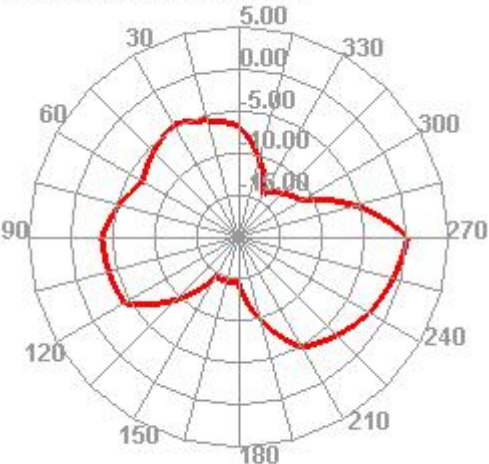
2440.000MHz H



2440.000MHz E1



2440.000MHz E2



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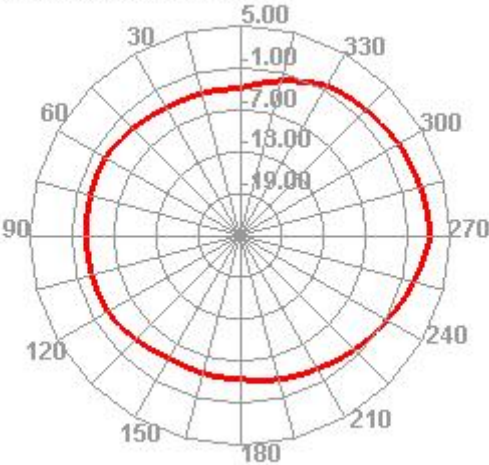
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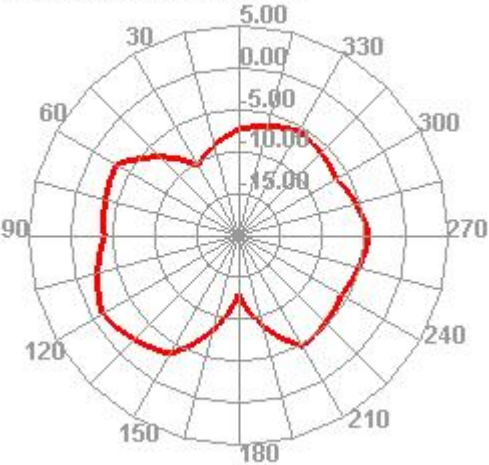
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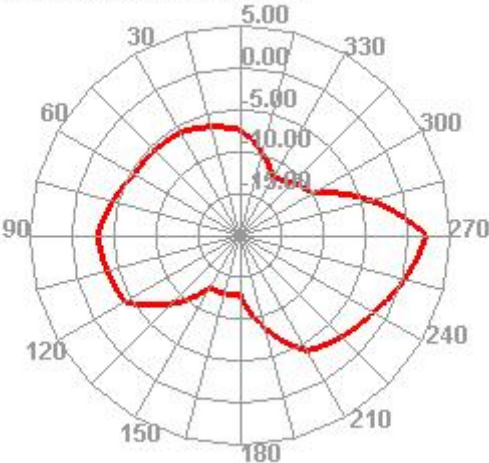
2480.000MHz H



2480.000MHz E1



2480.000MHz E2



3D:

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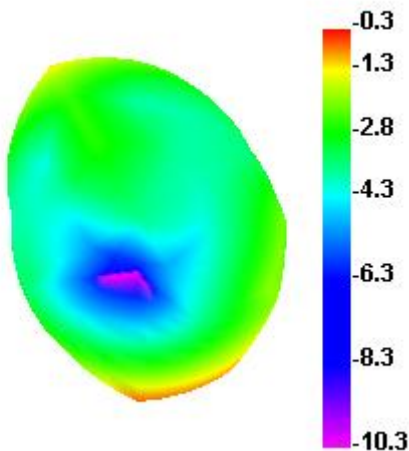
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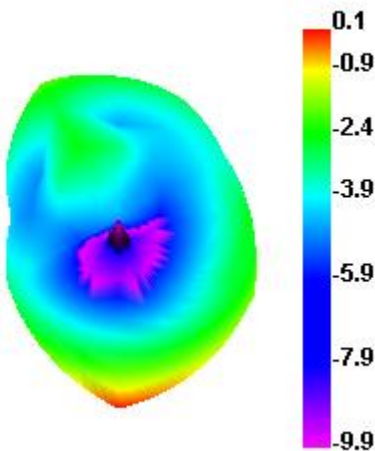
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2400.000MHz



2440.000MHz



2480.000MHz

