

Antenna Testing Report

Customer: apical Technology

Project Name: 2337B-1

Report Number: SZ25003IA57

Manufacturer: Sunnyway Technology(CHINA)

Address: Floor 6, Building 5, Nam Tai Inno Park, Guangming District, Shenzhen

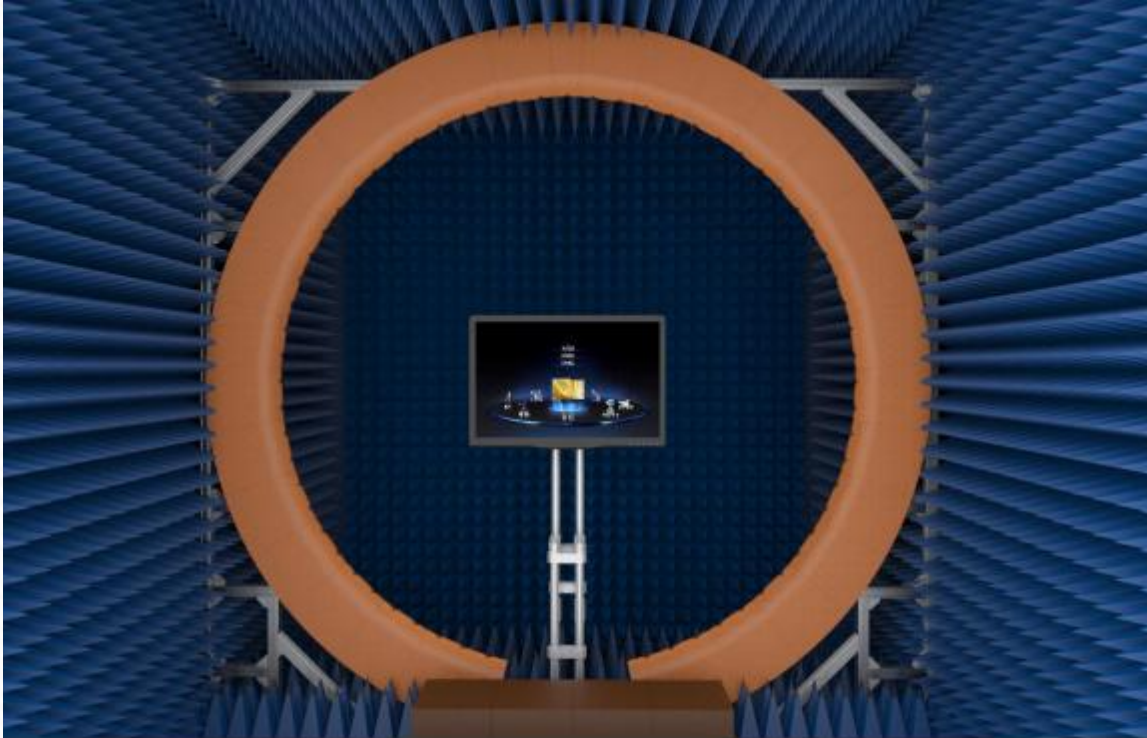
Report version: 05.15, 2025

Author:

Version	Report date	Remark
A0	2025.05.15	Latest test data
A1		
A2		
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A4		
A5		
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Prototype status	Debugging machine
Device type	car recorder
Number of antennas	WIFI antenna
Frequency band	WIFI 2.4
Structural style	brass pipe
Environment adjustment	No change
Matching modification	No change



The industry's top 64 sensors OTA chamber

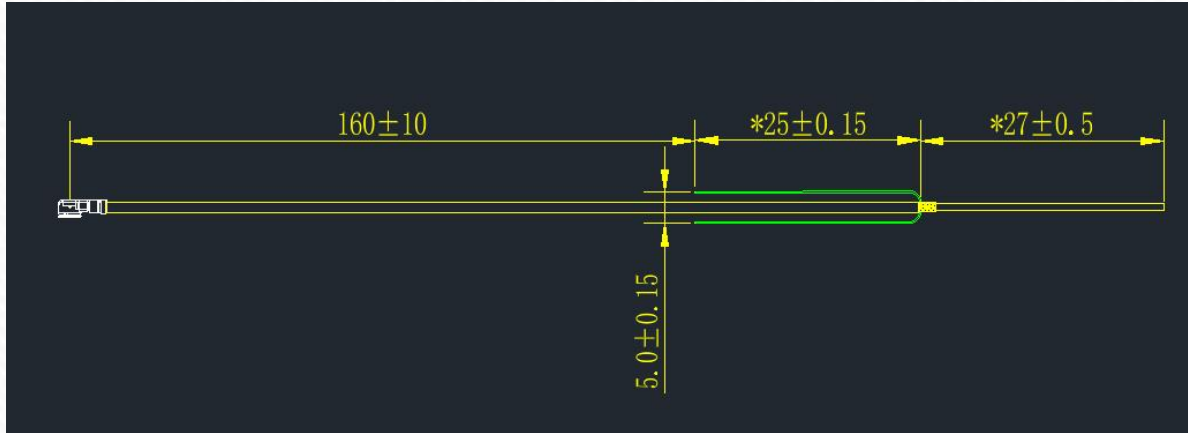
Frequency range: 400MHz-11GHz

Device Llimitation: 2M

Load-bearing limitation:100KG

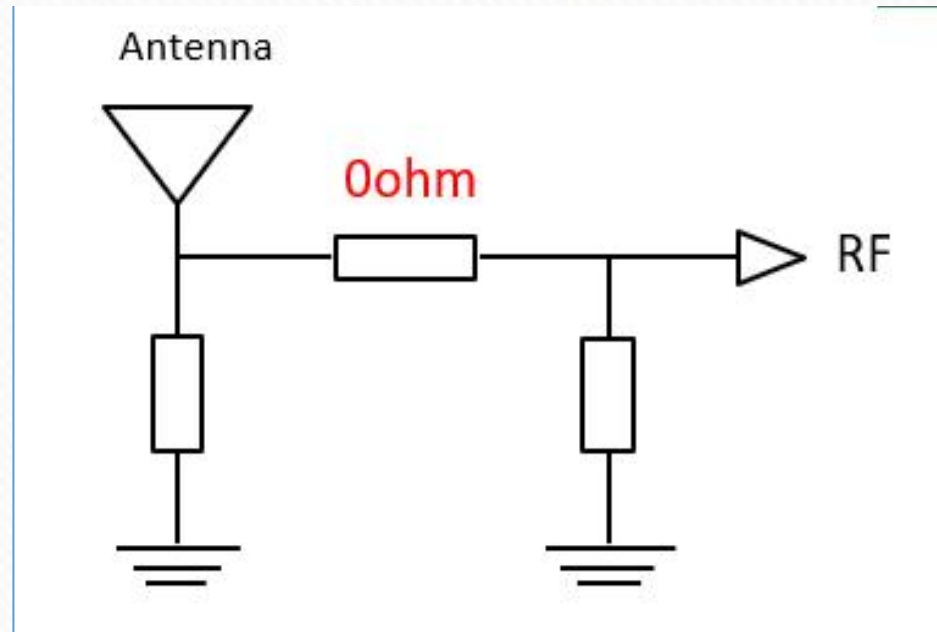
Equipments Items	Total Quantity	Quantity for Shanghai R&D	Quantity for Shenzhen R&D	Quantity for ChongQing R&D
OTA chamber	10	4	5	1
5G Tester (SP9500-CTS)	3	1	1	1
R&S Tester (high configuration CMW500)	6	3	2	1
Japan Anritsu Tester (Dual Channel 8820)	4	2	2	--
NB-IoT Tester (SP8315)	3	1	1	1
Agilent Tester (8960)	9	4	4	--
Agilent Network Analyzer (E5062A)	7	3	3	1
Agilent Network Analyzer (E5071C 8.5GHZ)	11	5	5	1
Agilent Network Analyzer (E5071B 8.5GHZ)	7	3	3	1
R&S Network Analyzer (ZND)	9	4	4	1
R&S Network Analyzer (ZVB)	3	1	1	1
OTA head hand / ear hand / arm hand	5	2	2	1
GPS/WIFI active test equipment	5	2	2	1

WIFI antenna/Antenna size

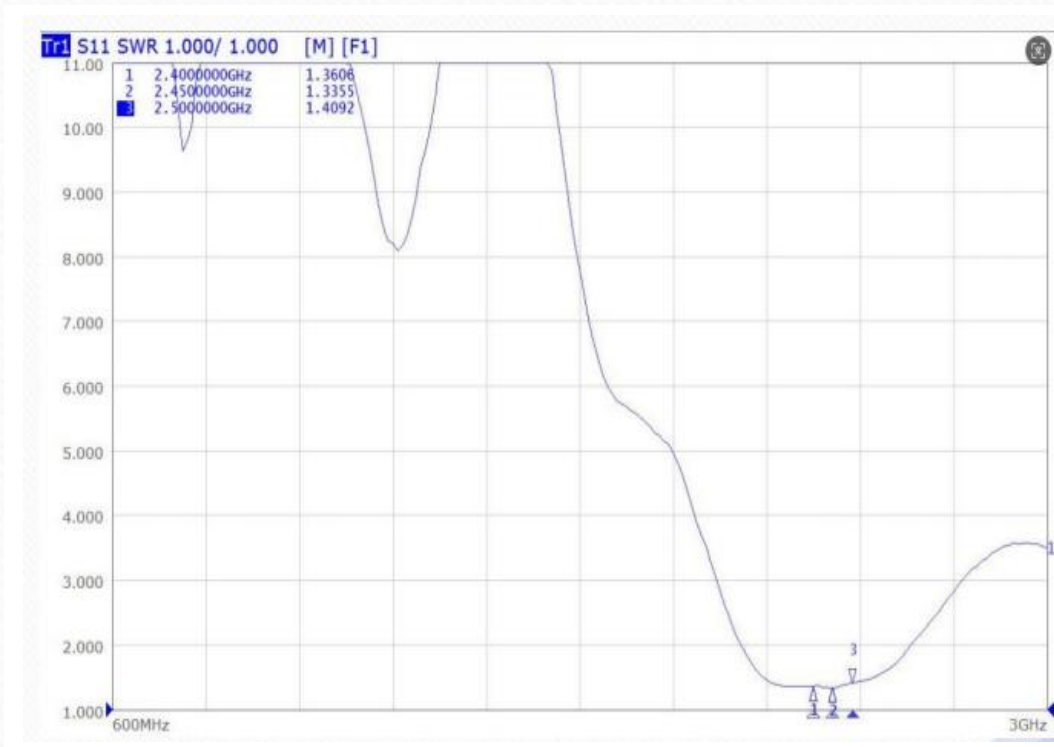


WIFI Antenna type: brass pipe

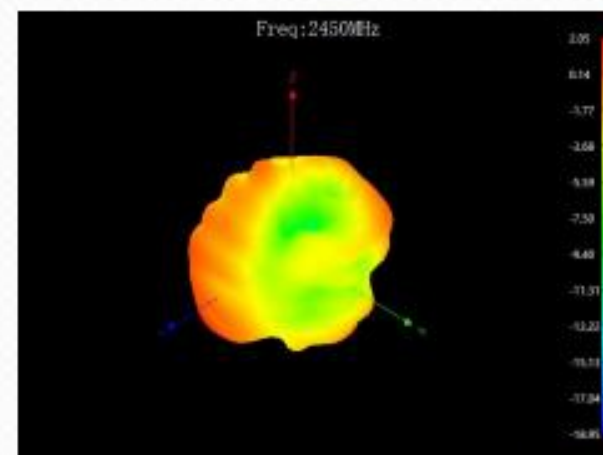
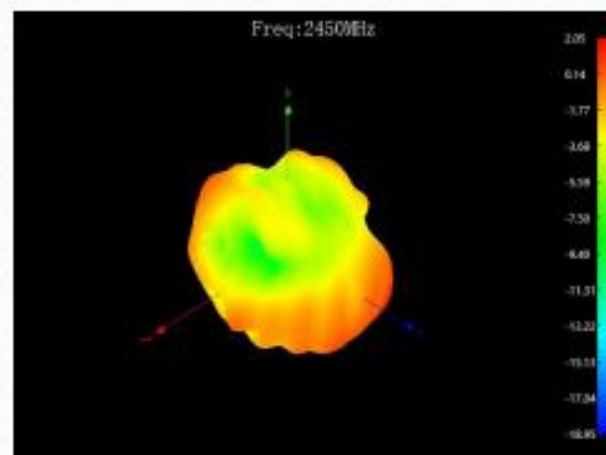
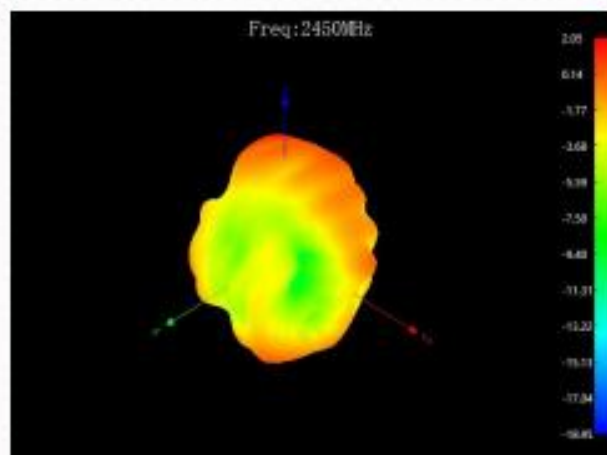
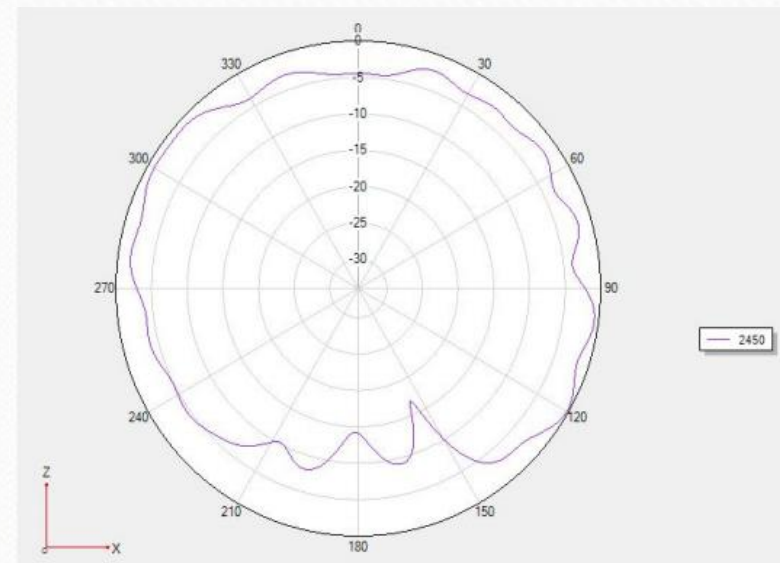
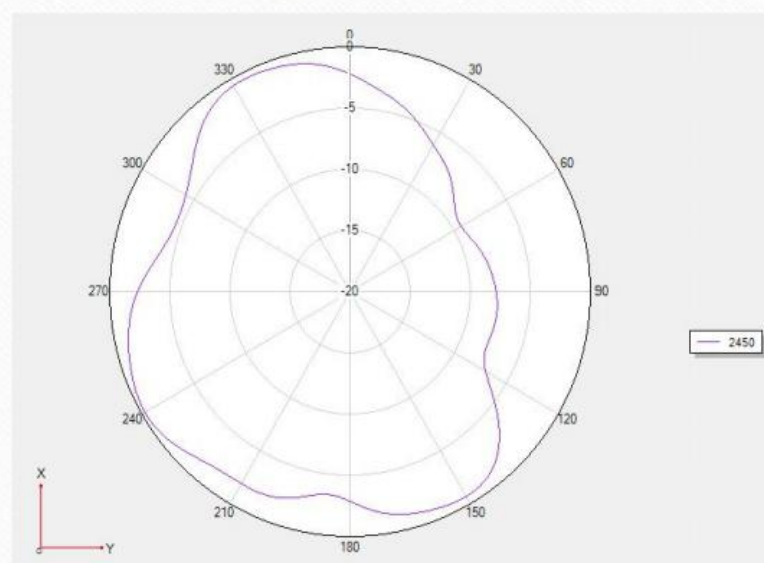
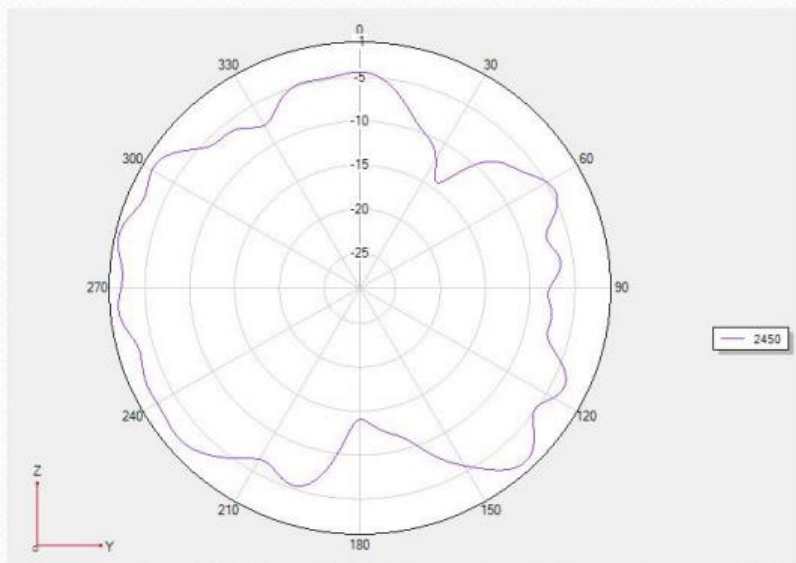
WIFI Antenna model: SZ25003IA57



S11-VSWR



Frequency/Mhz	Efficiency / dB	Efficiency / %	MaxGain/dBi
2400	-1.68	67.92	2.25
2410	-1.62	68.87	2.56
2420	-2.44	57.02	1.19
2430	-2.36	58.08	1.62
2440	-2.36	58.08	1.19
2450	-2.03	62.66	2.05
2460	-2.18	60.53	1.18
2470	-2.25	59.57	1.41
2480	-2.36	58.08	0.74
2490	-2.3	58.88	1.25
2500	-2.38	57.81	0.82



Measurement	Band	Channel	Total
TRP	WIFI_B (1M)	1	16.08
TRP	WIFI_B (1M)	6	15.86
TRP	WIFI_B (1M)	11	15.89
TIS(EIRP)	WIFI_B (11M)	1	-84.86
TIS(EIRP)	WIFI_B (11M)	6	-84.84
TIS(EIRP)	WIFI_B (11M)	11	-84.63
TRP	WIFI_G (6M)	1	15.9
TRP	WIFI_G (6M)	6	15.8
TRP	WIFI_G (6M)	11	15.22
TIS(EIRP)	WIFI_G (54M)	1	-70.6
TIS(EIRP)	WIFI_G (54M)	6	-70.79
TIS(EIRP)	WIFI_G (54M)	11	-70.63
TRP	WIFI_N_ISM (6.5M)	1	15.68
TRP	WIFI_N_ISM (6.5M)	6	15.24
TRP	WIFI_N_ISM (6.5M)	11	15.37
TIS(EIRP)	WIFI_N_ISM (65M)	1	-69.13
TIS(EIRP)	WIFI_N_ISM (65M)	6	-70.64
TIS(EIRP)	WIFI_N_ISM (65M)	11	-70.4

The above is the latest validation test data.

Thank You

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