

# Antenna Specification

**Customer :** apical Technology

**Project Name :** DR1200

**Report Number:** SZ230671A70

**Manufacturer:** Sunnyway Technology(CHINA)

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

**Report version:** September 14, 2023

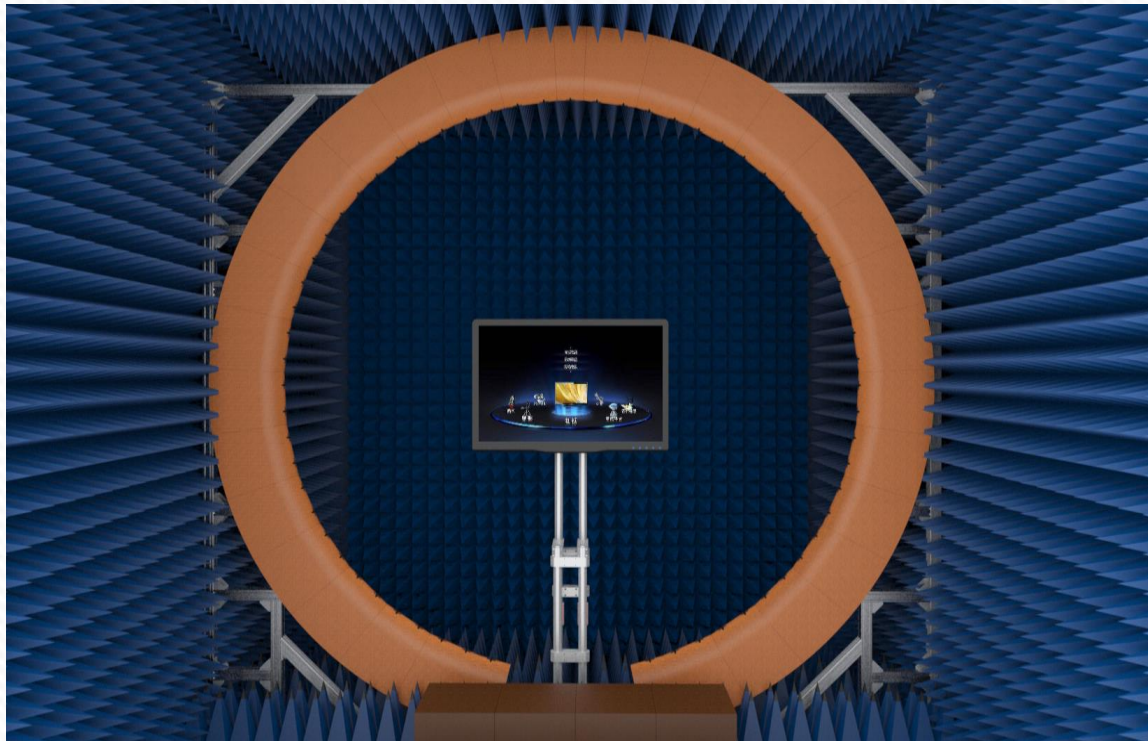
**Author:** Payne

Version	Report date	Remark
A0	2023.09.14	Active Testing Report
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Prototype status	Debugging machine
Device type	car recorder
Number of antennas	WIFI Antenna_Metal case Antenna
Frequency band	802.11b/g/n
Structural style	Hardware Steel Sheet
Environment adjustment	No change
Matching modification	No change



The industry's top 64 sensors OTA chamber

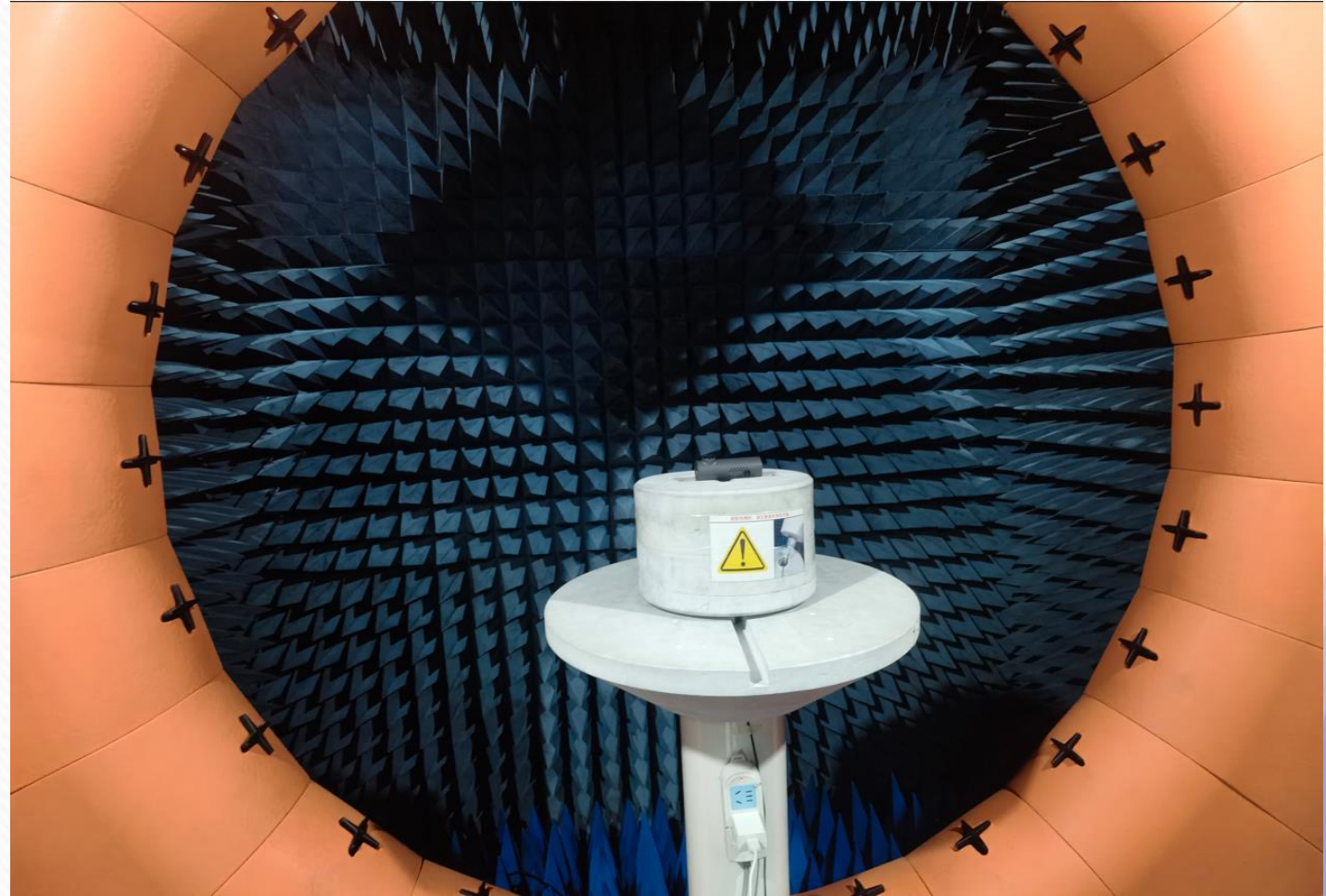
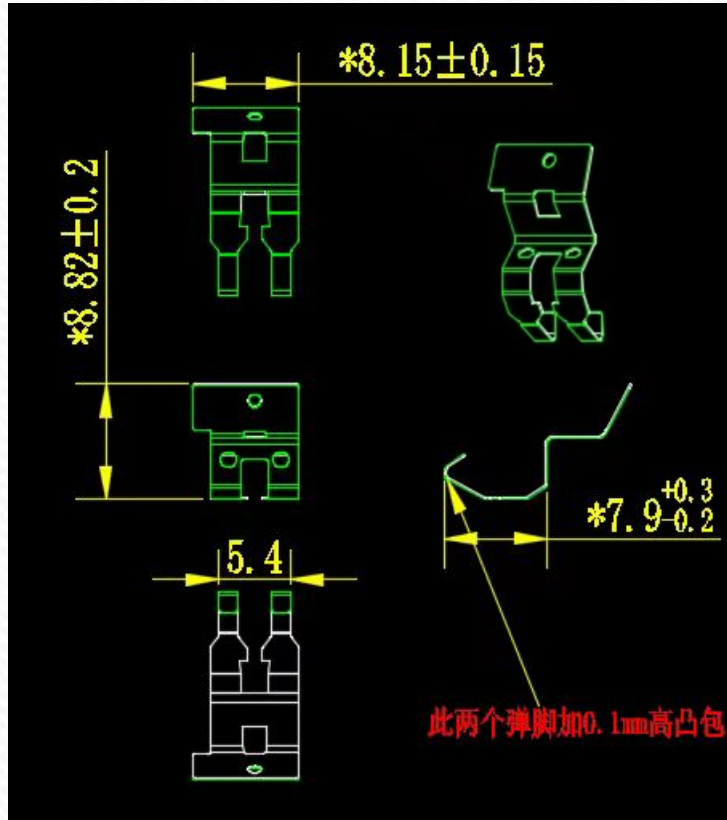
Frequency range: 400MHz-11GHz

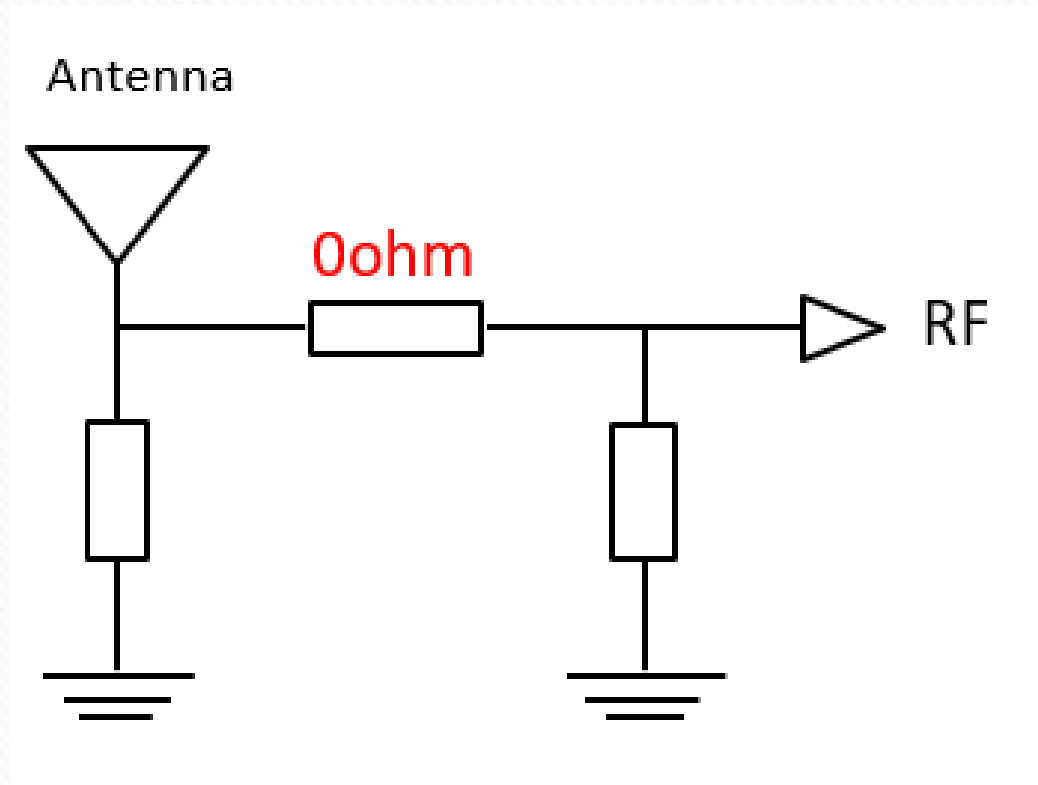
Device Llimitation: 2M

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

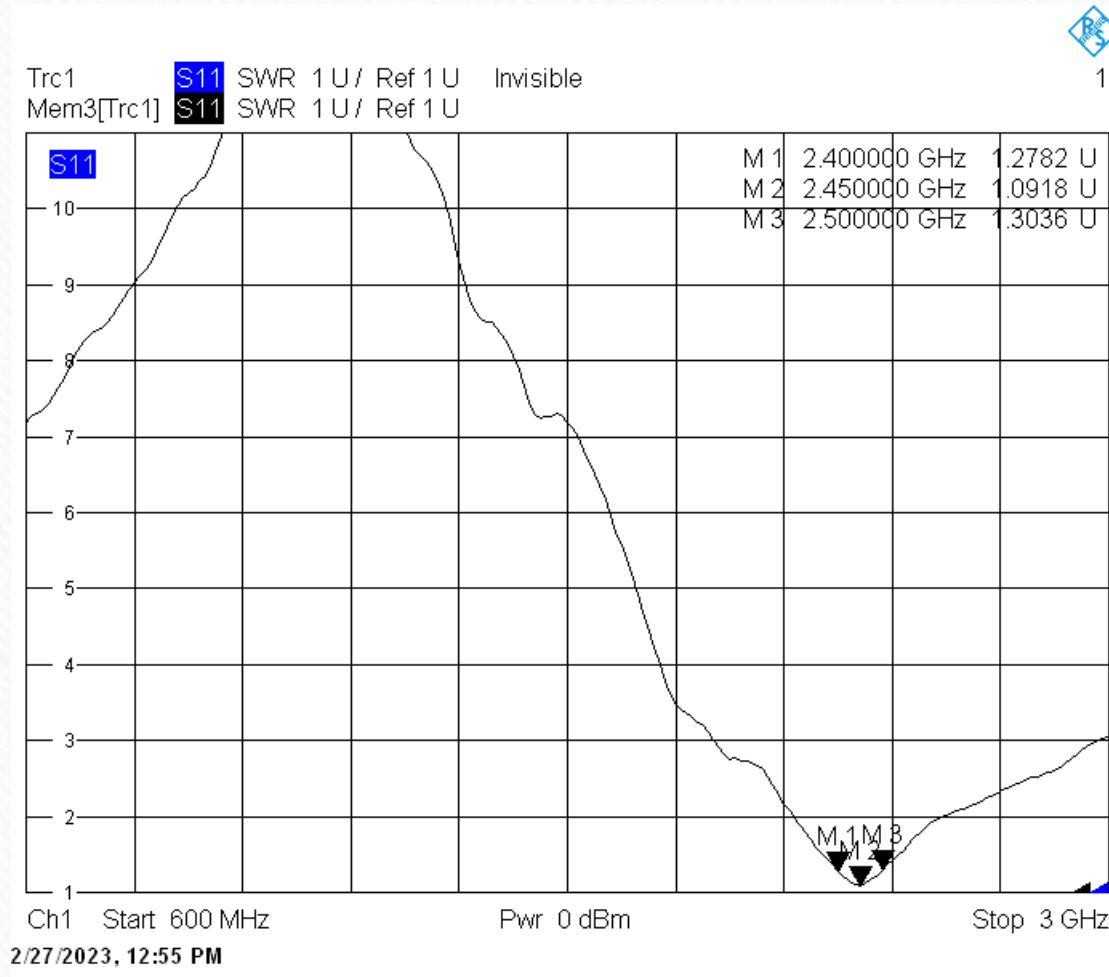






## WiFi Antenna

### VSWR



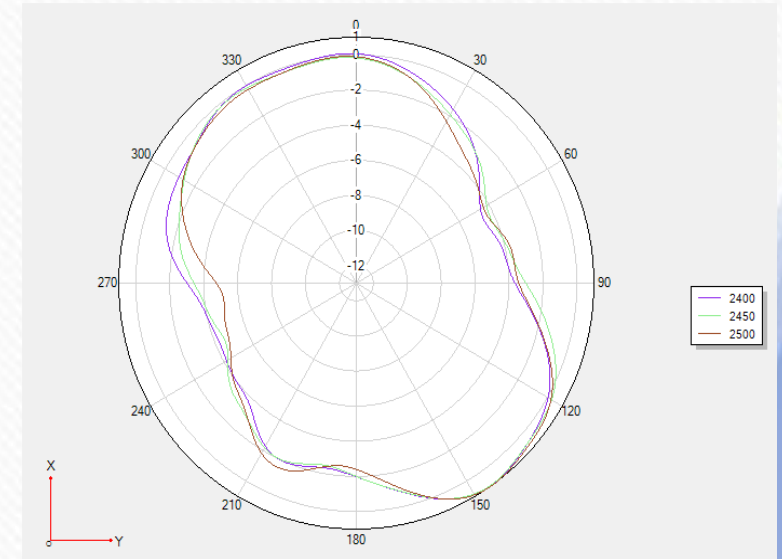
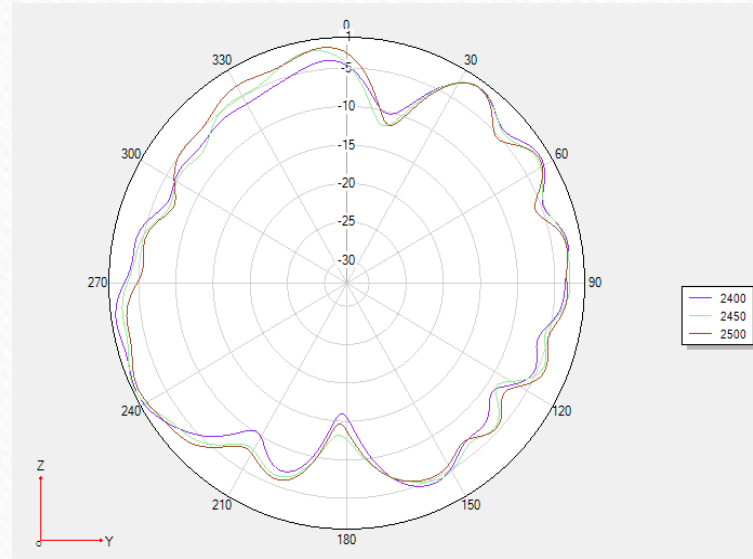
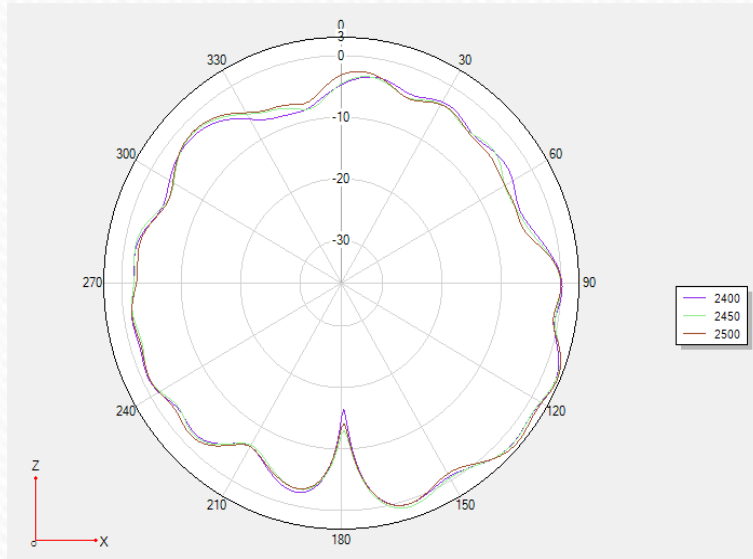


Frequency/Mhz	Efficiency / %	MaxGain/dBi
2400	57.54	2.3
2410	55.59	2.23
2420	56.89	2.3
2430	56.75	2.3
2440	57.02	2.22
2450	57.68	2.35
2460	55.34	2.14
2470	60.53	2.64
2480	60.39	2.63
2490	60.26	2.77
2500	58.08	2.51

Item	Measurement	Standard	Band	Channel	Total-1#机器	Total-2#机器
1	TRP	WIFI (Station)	WIFI_B (11M)	1	13.42	13.86
2	TRP	WIFI (Station)	WIFI_B (11M)	7	14.4	14.17
3	TRP	WIFI (Station)	WIFI_B (11M)	13	15.94	13.85
4	TIS(EIRP)	WIFI (Station)	WIFI_B (11M)	1	-80.25	-80.17
5	TIS(EIRP)	WIFI (Station)	WIFI_B (11M)	7	-80.32	-80.06
6	TIS(EIRP)	WIFI (Station)	WIFI_B (11M)	13	-82.97	-81.66
7	TRP	WIFI (Station)	WIFI_G (54M)	1	12.02	12.35
8	TRP	WIFI (Station)	WIFI_G (54M)	7	12.38	13.19
9	TRP	WIFI (Station)	WIFI_G (54M)	13	13.13	12.36
10	TIS(EIRP)	WIFI (Station)	WIFI_G (54M)	1	-67.23	-65.47
11	TIS(EIRP)	WIFI (Station)	WIFI_G (54M)	7	-66.64	-65.38
12	TIS(EIRP)	WIFI (Station)	WIFI_G (54M)	13	-66.61	-66.85
13	TRP	WIFI (Station)	WIFI_N_ISM (65M)	1	12.14	12.06
14	TRP	WIFI (Station)	WIFI_N_ISM (65M)	7	11.17	11.83
15	TRP	WIFI (Station)	WIFI_N_ISM (65M)	13	11.97	11.33
16	TIS(EIRP)	WIFI (Station)	WIFI_N_ISM (65M)	1	-64.47	-64.39
17	TIS(EIRP)	WIFI (Station)	WIFI_N_ISM (65M)	7	-63.56	-63.4
18	TIS(EIRP)	WIFI (Station)	WIFI_N_ISM (65M)	13	-63.67	-63.92

The DR1200 project only needs to install the antenna to achieve good antenna performance without other environmental changes.





Good antenna performance test results

# Thank You

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