

Antenna Testing Report

Project Name : J20-BT V3.0 scanner

Antenna Manufacturer: Sunnyway Technology(CHINA)

Address : The 6th floor, Building 5, Nantaiyun Innovation Valley Center, Guangming District, Shenzhen City

Report version: May. 24th, 2024 A0

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A0	2024.05.24	Preliminary Commissioning Report
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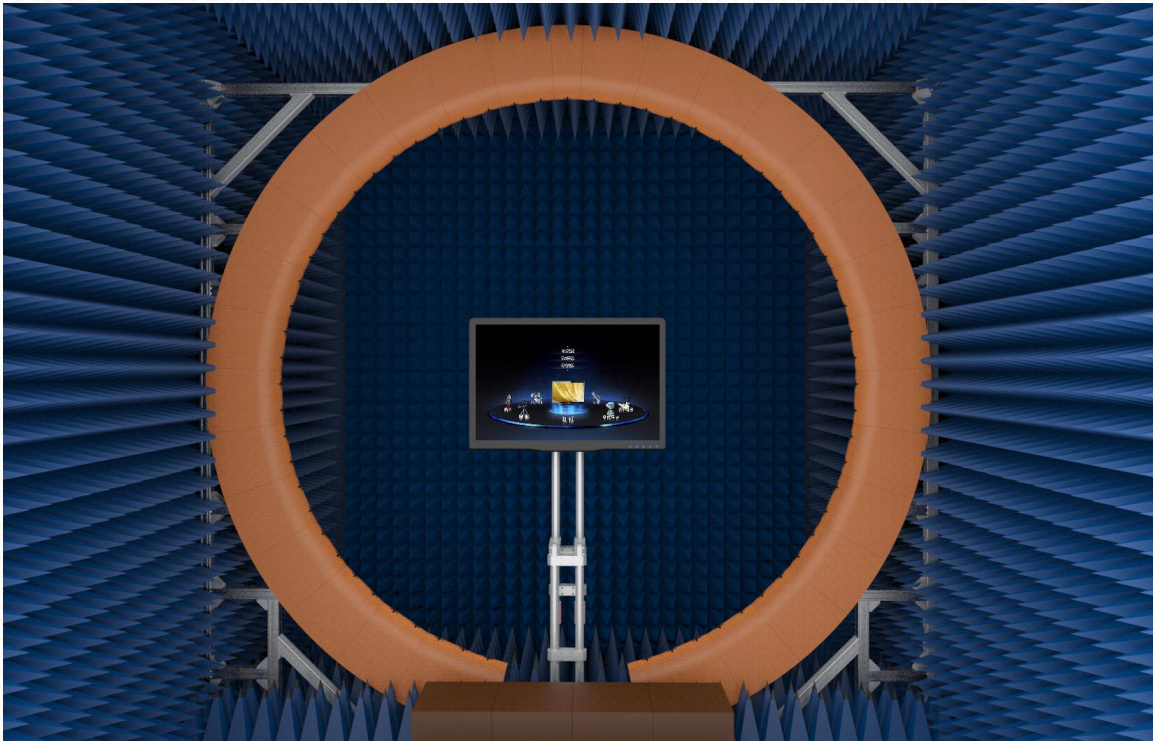
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Prototype status	Debugging machine
Device type	POS
Number of antennas	BT antenna*2
Frequency band	
	BT/2.4GHZ
Structural style	FPC+cable
Environment adjustment	No change
Matching modification	No change



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



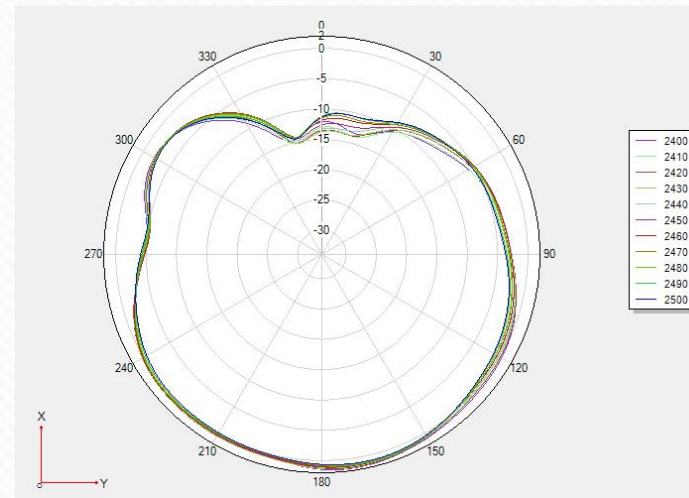
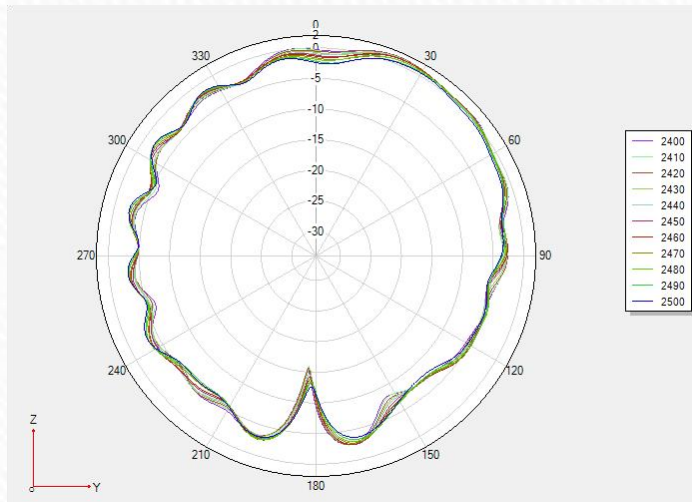
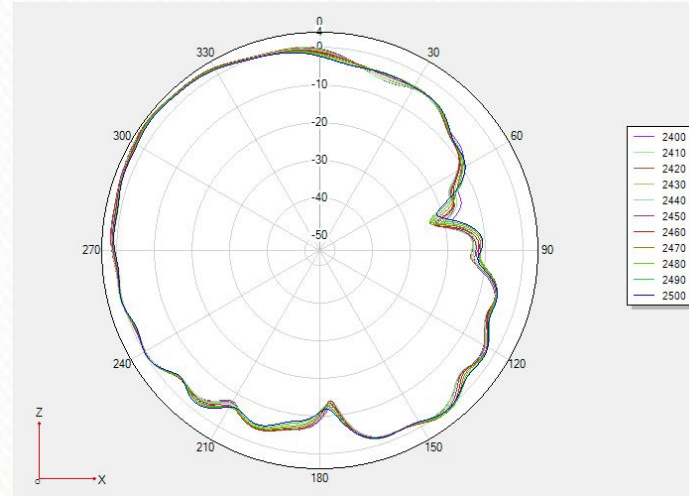
Main antenna data

Frequency/Mhz	MaxGain/dBi	Efficiency / %
2400	2.91	61.56
2410	2.98	63.67
2420	3.12	65.86
2430	3.26	66.59
2440	3.31	67.66
2450	3.66	68.03
2460	3.61	67.21
2470	3.51	66.18
2480	3.05	64.54
2490	3.36	63.66
2500	3.39	62.21

S11-VSWR

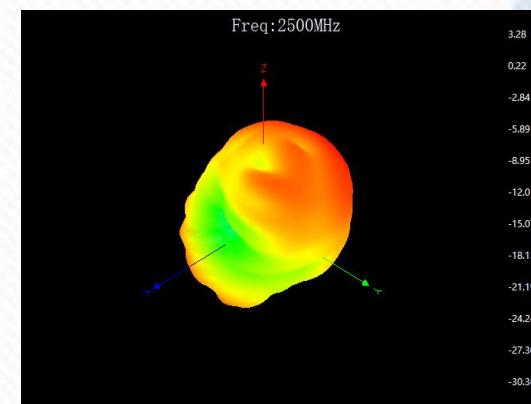
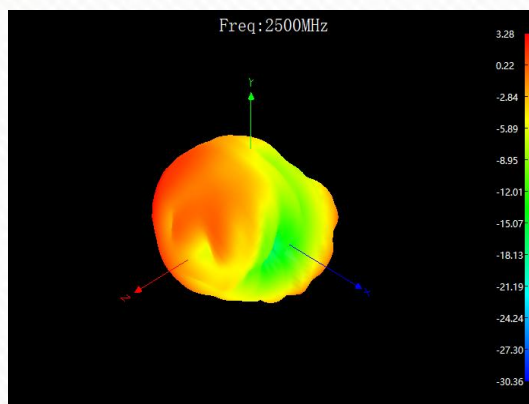
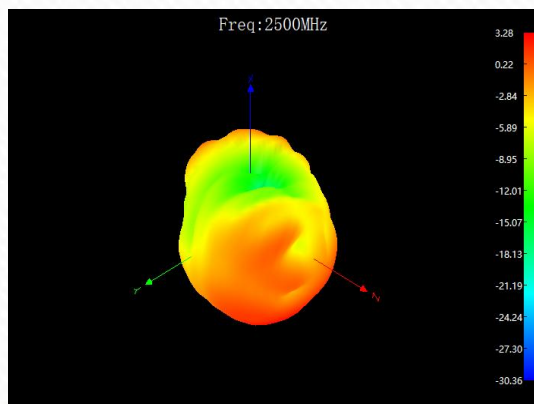
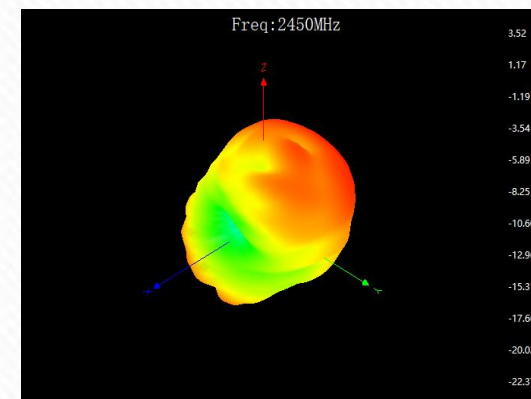
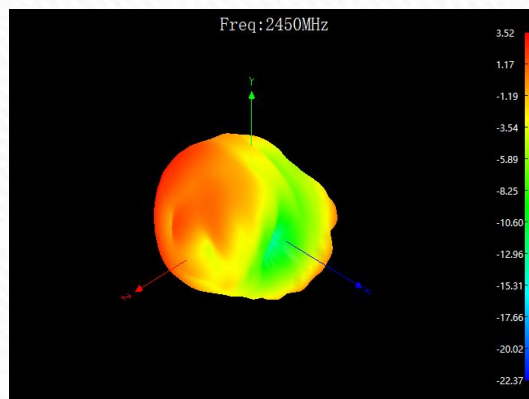
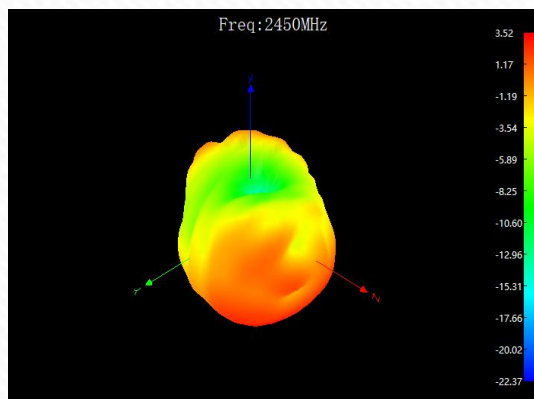
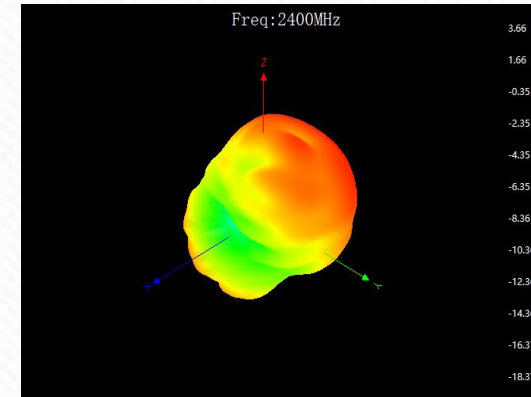
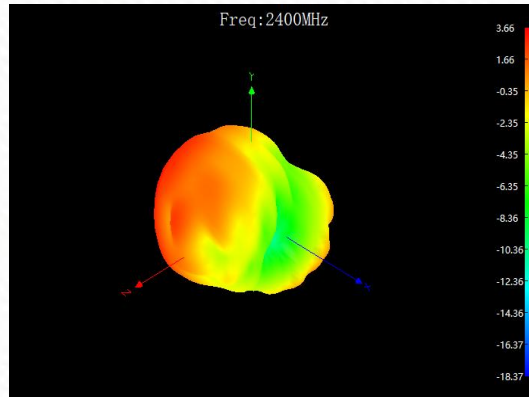
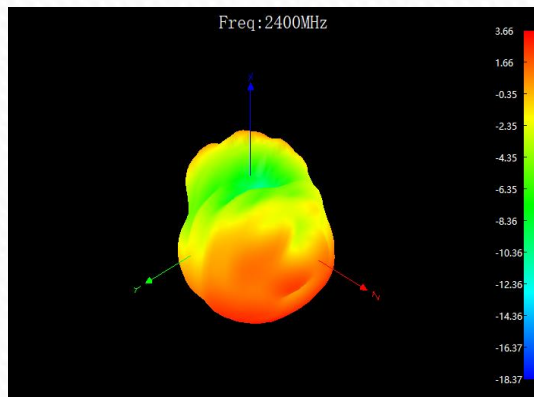


2D:



Three-in-one antenna directional pattern

3D:



- 1: For AD project, the antenna has good performance, and the parameters such as efficiency, gain and active test can achieve the use requirements
- 2: In terms of structure, the antenna is installed on the inside of the casing, which can well meet the requirements of production and assembly

Thank You

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