

SPECIFICATION

Shenzhen Strongpower Communication Co., Ltd

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SD-D01 Antenna

Guest	ATEL	Frequency	BT:2402-2480MHz
Name	SD-D01		
ID		Colour	Natural quality
RF Design	宋旭辉	Structure	周 俊
Technical director	傅以成	Date	2024.01.22

Customer confirmation:

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一、 BT Antenna

1. Specification

This report mainly provides the test status of various electrical and structural performance parameters of SD-D01 BT antenna.

1.1 Electrical specification standard

1.1.1 Electrical performance index

Antenna operating band: 2402MHz to 2480MHz. The following table is an indicator of the electrical performance of Ruiqiang designed and mass-produced antennas

1.2 Antenna composition: steel sheet composition.

2. The Equipment of Active Test (Test environment)

Multi-Probe OTA Measurement System $4 \times 4 \times 4$ (m)
CMW500 E5071B
network analyzer-R&S ZVL

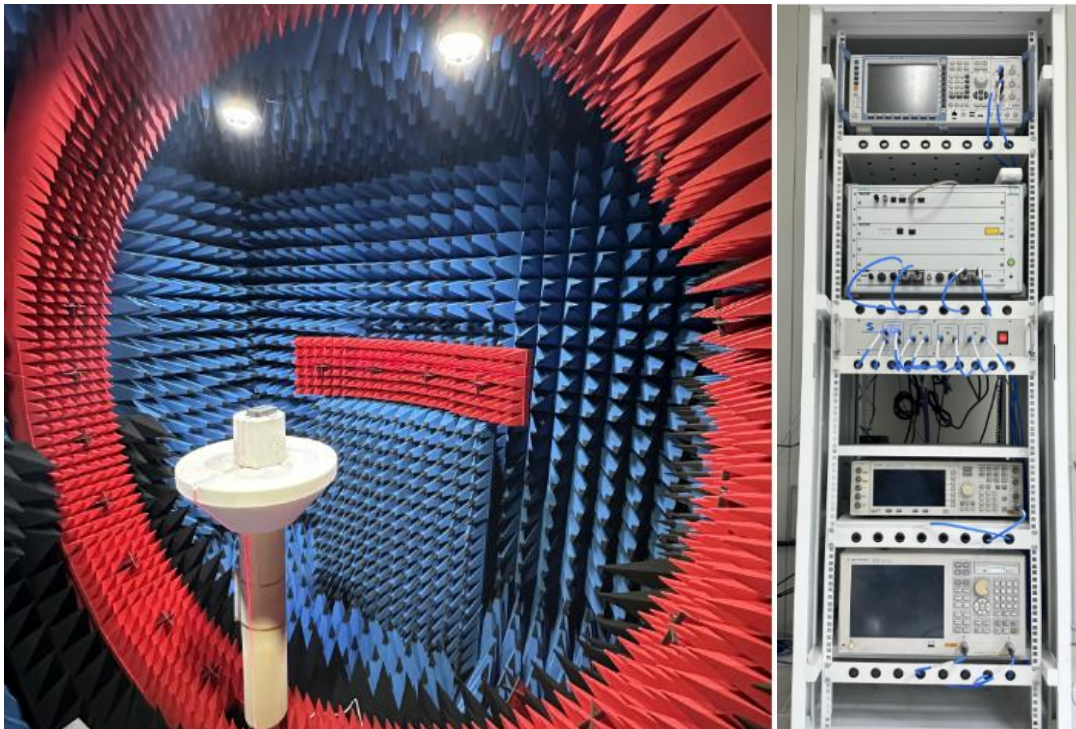
3. Test

3.1 VSWR Test

3.1.1 Test connection: The VSWR test device is connected as follows: R&S ZVL network analyzer →

test line → test machine

Actual measurement (see next page for drawings)



3.2 Gain and efficiency, power (TRP), sensitivity (TIS) testing

3.2.1 Test site:

Microwave darkroom: The test frequency range is 400MHz - 6GHz, the static zone range is 50cm

circle, and the reflectivity is less than -50 dB.

3.2.2 Test instrument:

R&S ZVL network analyzer, CMW500, E5071B, Multi-Probe OTA Measurement System, printer, etc.

3.2.3 Test data:

In the microwave darkroom, the efficiency and gain related values of the test are shown in the table below:

BT			
频率(MHz)	增益(dBi)	效率(dB)	效率(%)
2400	1.95	-3.41	45.65
2410	1.78	-3.66	43.07
2420	2.3	-3.16	48.31
2430	2.42	-2.91	51.13
2440	1.77	-3.41	45.62
2450	1.38	-3.59	43.76
2460	1.5	-3.49	44.74
2470	1.56	-3.37	46
2480	1.61	-3.42	45.55
2490	1.09	-3.97	40.07
2500	1.07	-4.07	39.19

4. Conclusion

This antenna is designed on the basis of the prototype provided by the customer, the electrical parameters and structural performance have reached the technical requirements, please confirm!

5. Attached chart

(Return loss, Smith chart and VSWR parameter chart)

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