

SPECIFICATION FOR APPROVAL

Product Name	Handheld Terminal
Product Type	FPC Antenna
SPECIFICATION	700~960MHz, 1.7~2.7GHz 1575MHZ 2.4/5G
Date of issue	2025.011.19
Released version	V1.0
Owner	Zhang hao

1. Overview

Antenna status

Please refer to Harper 1.3 _Antenna specification-Test Setup Photos

2. Antenna testing environment

2.1 The antenna input characteristic test is conducted using the Agilent E5071C vector network analyzer.

2.2 The antenna radiation characteristics test was conducted using the Satimo SG24 3D near-field microwave anechoic chamber, as shown in Figure 4. The test coordinate system is shown in Figure 3.

The SAR test was carried out using the DASY5 testing system.

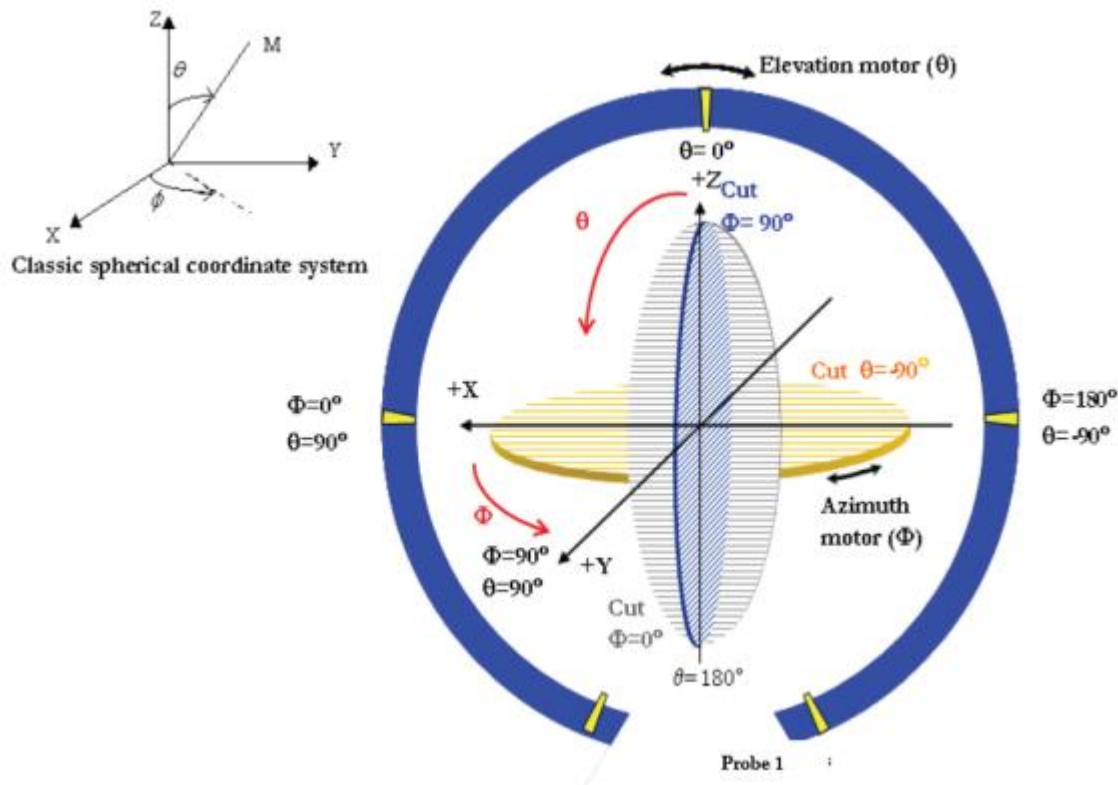


Photo 2 3D Microwave Anechoic Chamber Test Coordinate System(back view)

Please refer to Harper 1.3 _Antenna specification-Test Setup Photos

Photo 3Physical object corresponding coordinates

Please refer to Harper 1.3 _Antenna specification-Test Setup Photos

Photo 4 Passive anechoic chamber image

3. Antenna test result

WIFI antenna

Frequency(MHz)	2400	2500	5150	5850
S11(dB)	-14	-16	-10	-10

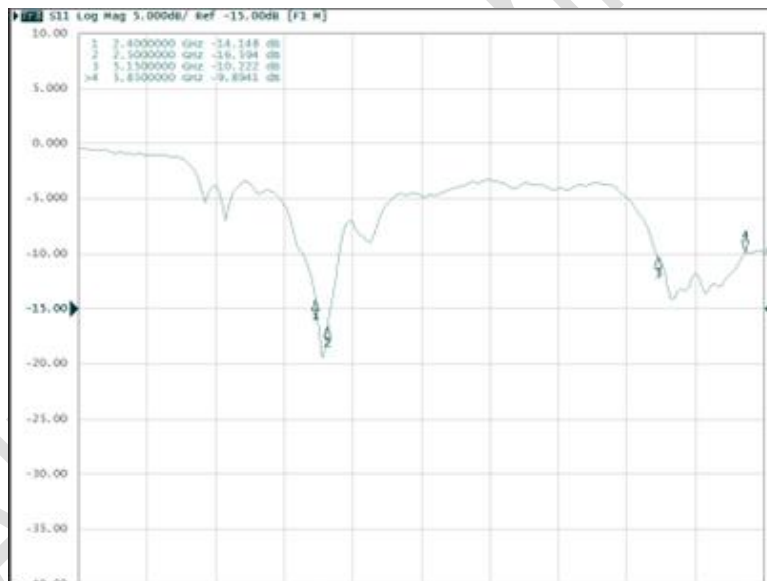


Photo 8 WIFI reflection loss

3.2 Antenna efficiency

WIFI ANT

Fre/MHz	Eff%	Ave Gain	Peak Gain	Fre/MHz	Eff%	Ave Gain	Peak Gain
2400	0.41	-3.92	1.60	5150	0.35	-4.59	0.79
2410	0.41	-3.87	1.52	5200	0.38	-4.24	1.31

2420	0.41	-3.84	1.66	5250	0.37	-4.29	1.21
2430	0.42	-3.74	1.63	5300	0.38	-4.19	1.22
2440	0.42	-3.77	1.70	5350	0.35	-4.50	1.16
2450	0.42	-3.74	1.60	5400	0.35	-4.59	0.91
2460	0.42	-3.75	1.61	5450	0.35	-4.57	0.89
2470	0.42	-3.81	1.59	5500	0.37	-4.35	1.22
2480	0.41	-3.90	1.55	5550	0.37	-4.30	1.37
2490	0.39	-4.05	1.46	5600	0.39	-4.14	0.94
2500	0.38	-4.24	1.39	5650	0.37	-4.28	1.68
				5700	0.39	-4.10	1.39
				5750	0.38	-4.24	1.71
				5800	0.40	-3.95	1.74
				5850	0.43	-3.69	1.68

3.3 The results of the active testing

	BAND	TRP	TIS
11b	1	15.3	-84.5
	7	15.5	-84.2
	13	15.5	-84.1
11a (6Mbps、 54Mbps)	36	12.9	-72.6
	64	12.3	-73.1
	165	15.5	-73.4