

F66

Antenna material requirements specification

customer: Qichang

Trade : F66

Product : Antenna

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Change History

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1.Overview

1.1 Scope

This requirement specifies F66 Product antenna technical requirements and material requirements specification.

This requirement applies F66 Product antenna selection, testing and acceptance.

1.2 Project information

Antenna Name :	<u>F66</u>
Dqwhqqd edqg :	GWB:1575.42MHz 2.4G / 5G
Dqwhqqd Yhuvlrq :	V0.1

2.Technical specifications

2.1 Test Item and equipment

List	Test Item	Equipment
S11 Parameters	Standing wave ratio, return loss	Network analyzer
Active test	TRP,TIS	Comprehensive tester, microwave darkroom
Passive testing	Gain, efficiency	Network analyzer

2.2 Description

Test tools: Agilent8960 integrated measuring instrument, R&SCMW500, all-wave far-field ETS darkroom, high-precision positioning system and its controller and computer with automatic test program

Test environment: Temperature $22^{\circ}\text{C} \pm 3^{\circ}\text{C}$, humidity $50\% \pm 15\%$

Test method: The DUT is fixed in the center position of the turntable with the H-plane, and the center position of the horn antenna is on the same horizontal line. The positioning system enables the DUT to rotate throughout the spherical surface to meet the high accuracy of three-dimensional positioning. Each RF instrument, turntable controller and PC with automatic test software communicate through GPIB interface

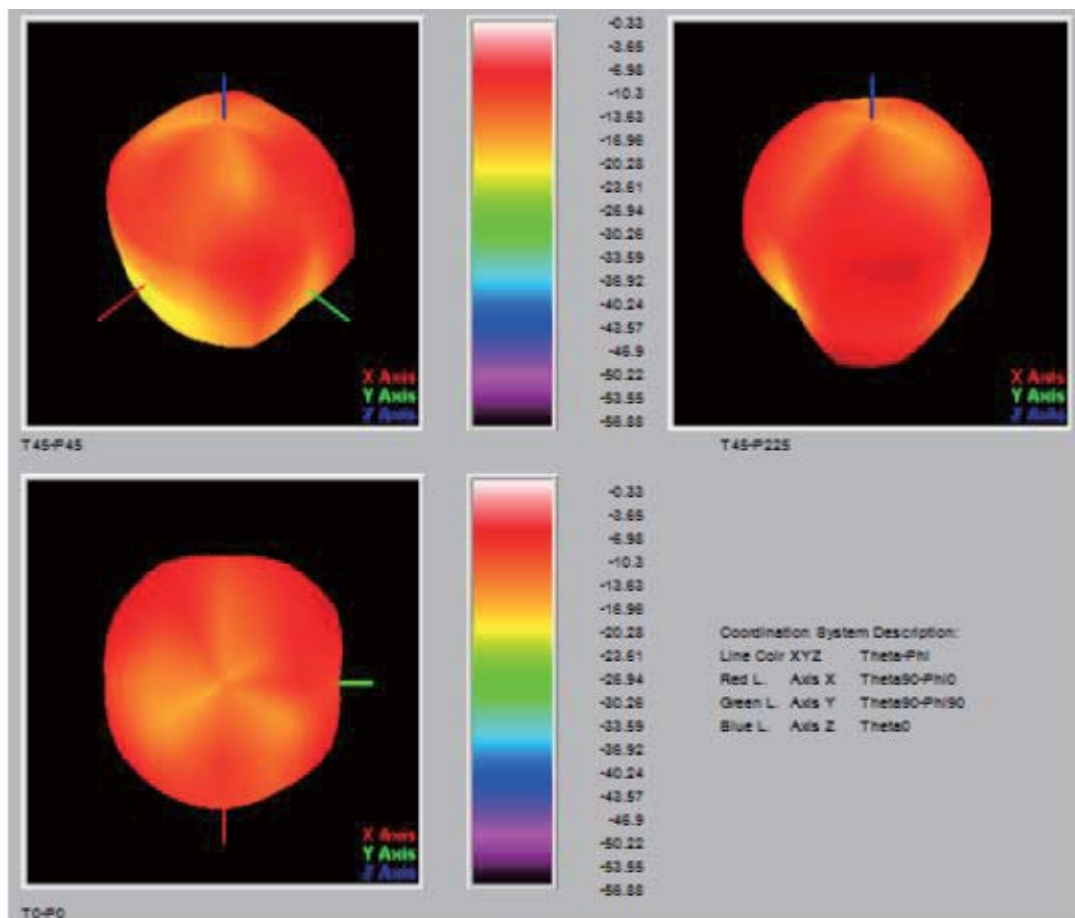
2.2.1 Antenna efficiency

Freq (MHz)	Effi (%)	Gain (dBi)	Freq (MHz)	Effi (%)	Gain (dBi)	Freq (MHz)	Effi (%)	Gain (dBi)
1550	36.2	-0.35	2400	44.6	1.38	5100	33.1	0.35
1560	36.4	-0.25	2420	45.2	1.42	5200	34.4	0.41
1570	35.6	-0.29	2440	47.7	1.50	5300	35.8	0.47
1575	35.2	-0.33	2450	46.4	1.46	5400	36.0	0.52
1580	34.8	-0.42	2460	45.3	1.42	5500	34.7	0.44
1590	33.7	-0.50	2480	44.5	1.34	5600	32.1	0.31
			2500	43.4	1.27	5700	33.2	0.36
						5800	32.6	0.29
						5900	32.0	0.22

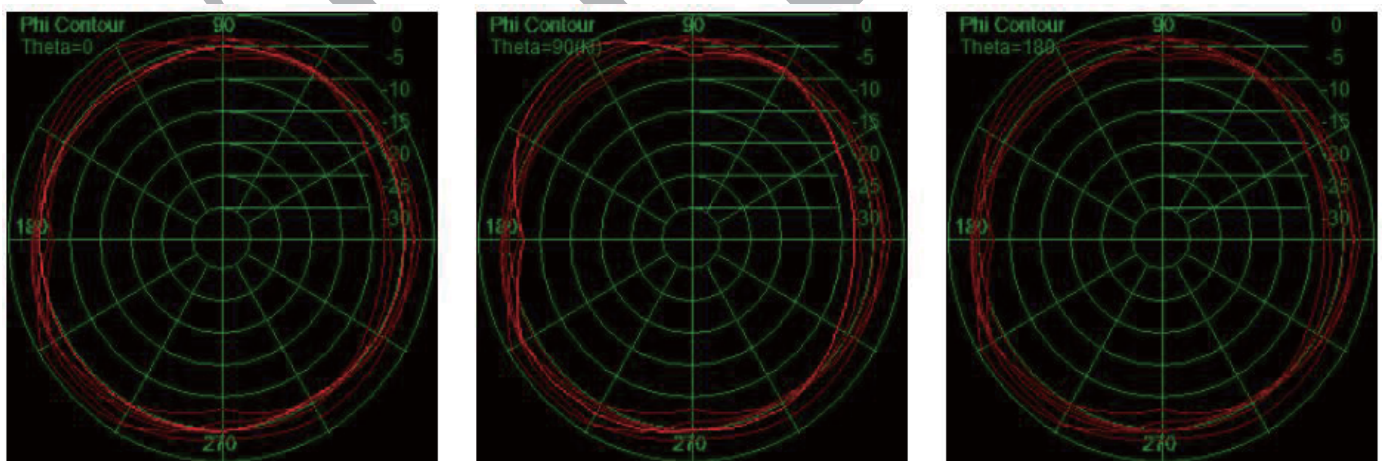
2.2.2 Active antenna parameters

	802.11	信道号	TRP (db)	TIS (dbm)
WIFI	11b	CH1	13.38	-82.11
		CH6	13.40	-82.76
		CH11	13.15	-82.20
	11g	CH1	12.04	-71.78
		CH6	12.29	-72.46
		CH11	12.15	-72.29
	11n	CH1	11.26	-68.12
		CH7	11.58	-68.75
		CH13	11.43	-68.08
	11a	CH36	9.12	-71.03
		CH64	10.43	-71.58
		CH165	10.28	-71.64

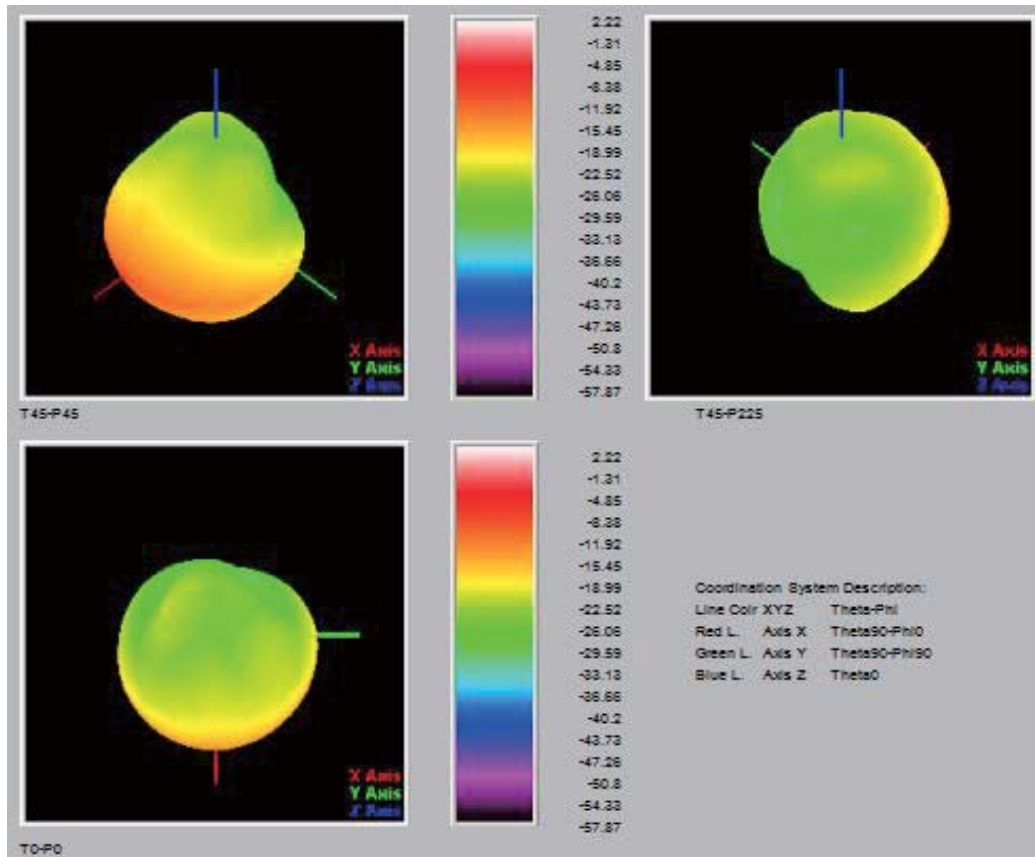
2.2.3 Antenna pattern—GPS



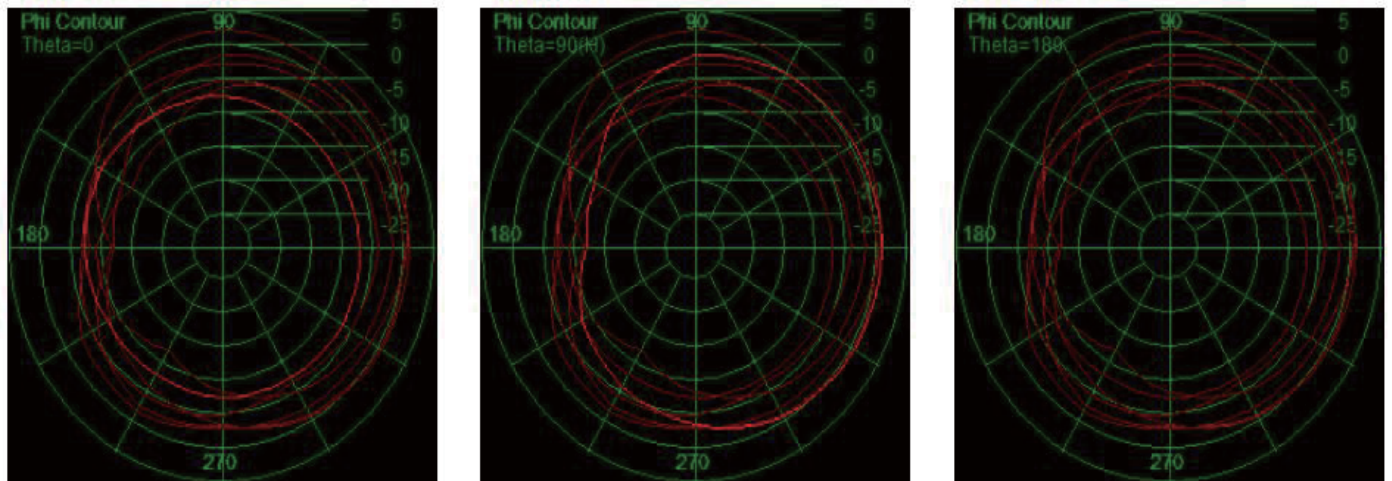
2.2.4 Antenna Plan—GPS



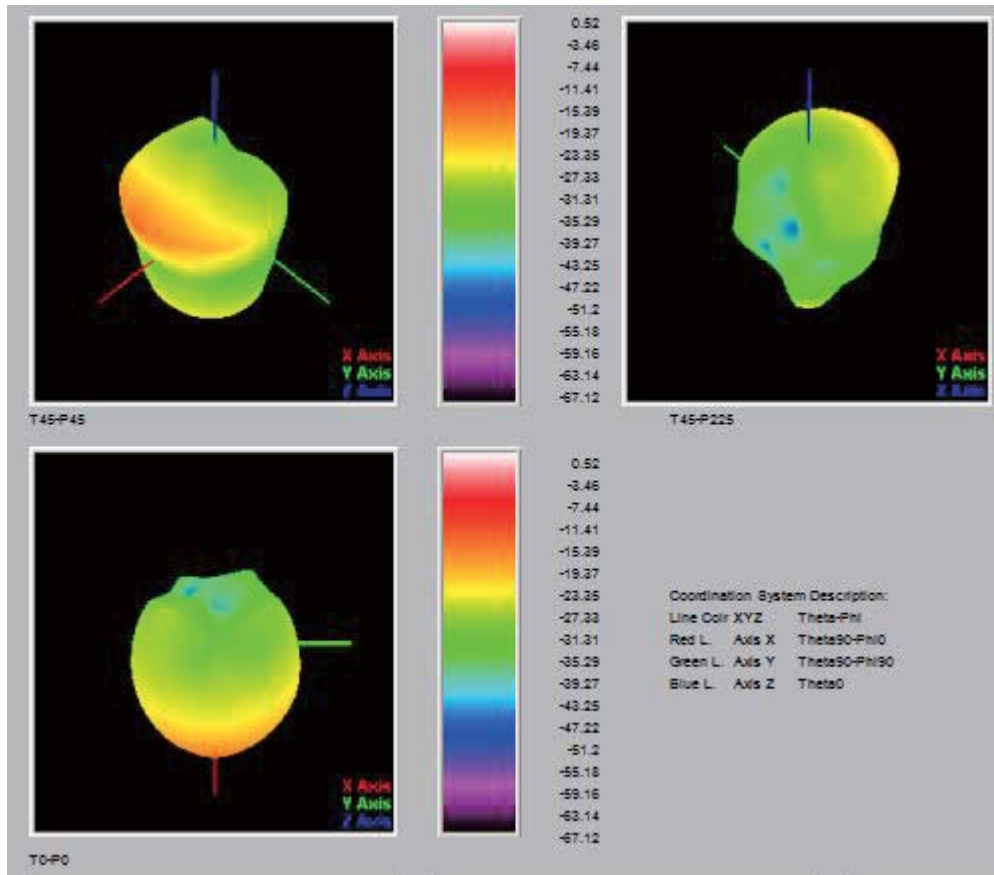
2.2.5 Antenna pattern—2.4G



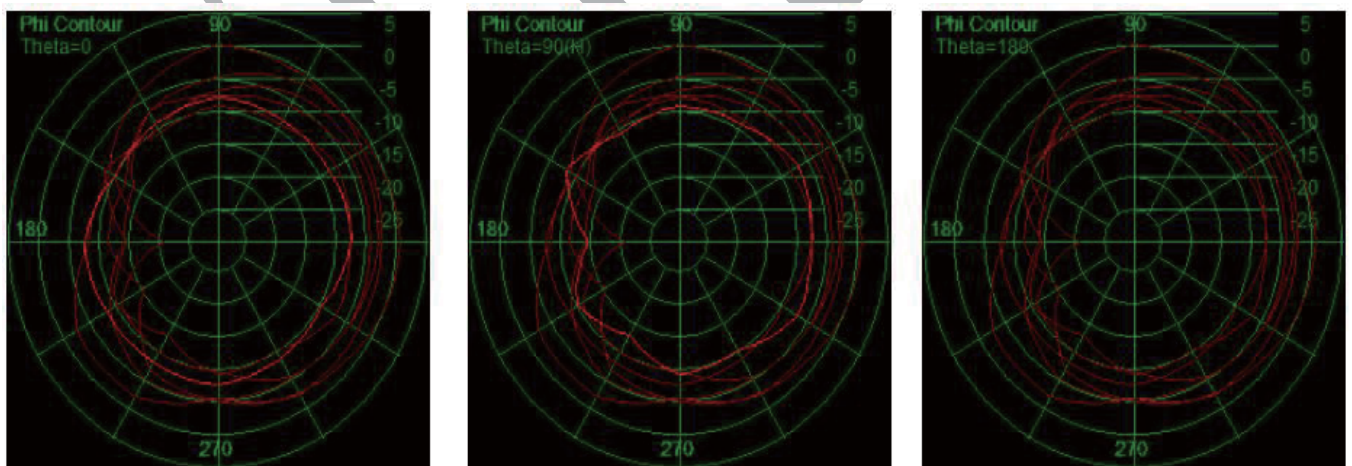
2.2.6 Antenna Plan—2.4G



2.2.7 Antenna pattern——5G



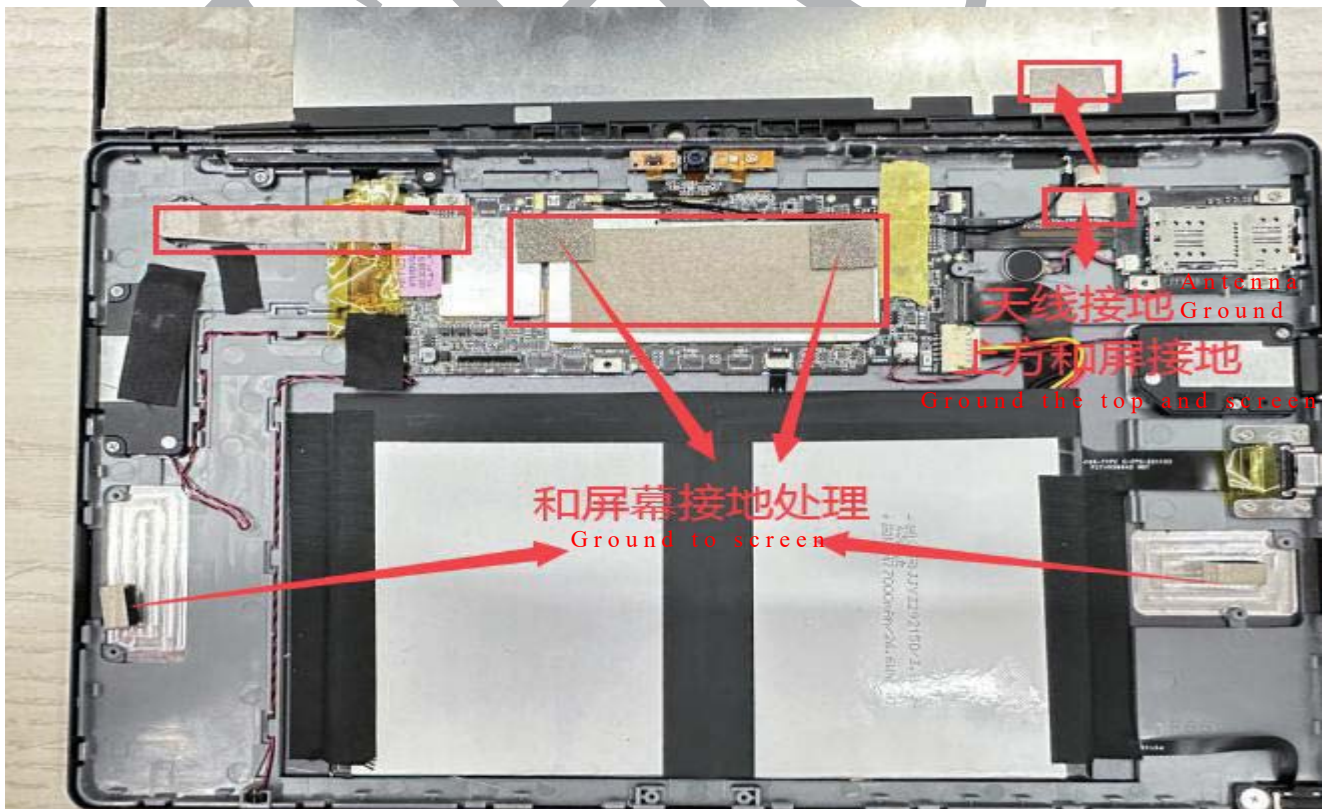
2.2.8 Antenna Plan——5G



2.2.9 GPS measurement for star search



2.2.10 Environment Processing





3.Engineering drawings

