



Shenzhen Zhongke Wireless
Technology Co., Ltd.

Shenzhen zhongke wireless
technology Co.Ltd

specification
Product Specification

Customer name CustomerName: Huida _____

Project name ProjectName: HD5802.4G+5.8G black collision

blade antenna No. Partnumber: A1042742 _____

Specification Description ProductSpec: _____

Version REV: V1.0 _____

Date Date: 2024, 11. 18 _____

drawing	check	ratify approved 
Huang Yongjun	Chang-rong wang	Jiang Zhenhua

The customer acknowledged that the Customer Approve

check	approved	admit approval
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catalogue

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Electrical performance index: Electrical Performance Index

Electrical performance indicators		Electrical Specifications	
frequency range		2400-2500/5150-5850MHZ	
voltage standing-wave ratio	≤ 2.0	VSWR	≤ 2.0
gain	2.4G $\leq$ 3.8DBI 5.8G $\leq$ 5.3DBI	GAIN	2.4G $\leq$ 3.8DBI 5.8G $\leq$ 5.3DBI
radiation mode	omnidirectional	Radiation	OMNI
Polarization mode	linear polarization	Polarization	LINEAR
input impedance	50 Ω	Input Impedance	50 Ω
Mechanical performance indicators		Mechanical Specifications	
Interface form	SMAJ	Input connector	SMAJ
Antenna material	PCB+ABS	Antenna material	PCB+ABS
working temperature	-30 $^{\circ}$ C~+80 $^{\circ}$ C	Working Temperature	-30 $^{\circ}$ C~+80 $^{\circ}$ C
Working humidity	40~85%	Working Humidity	40~85%

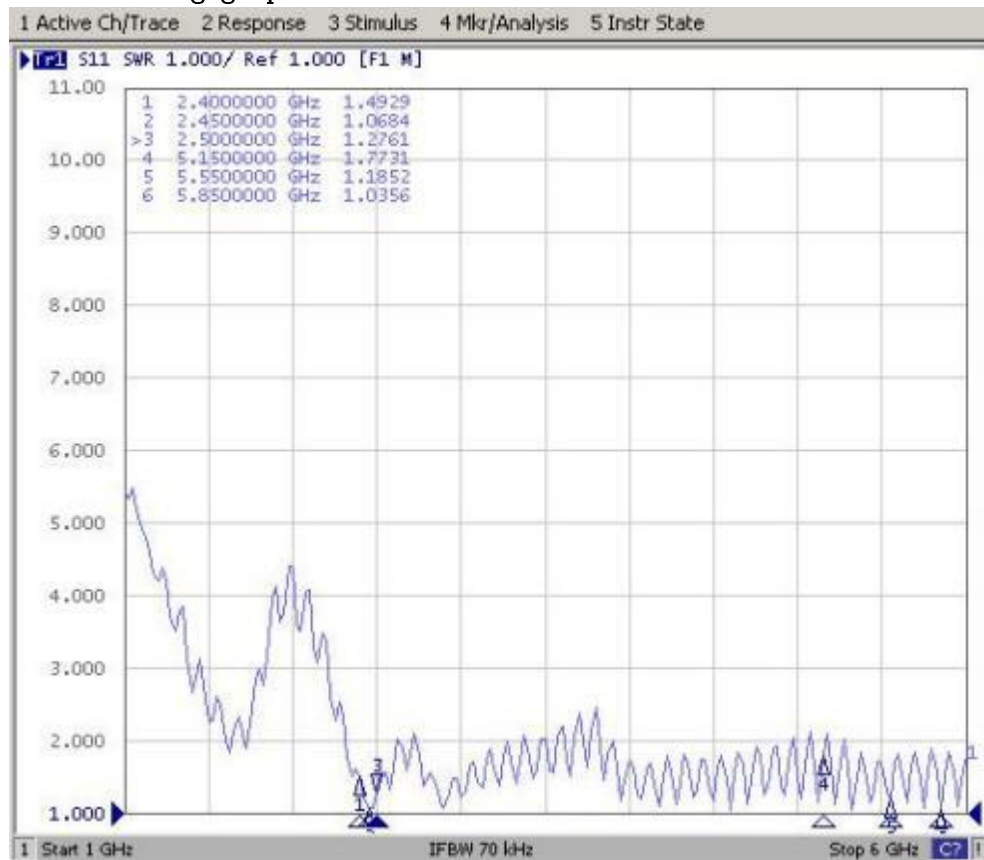


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Test report: Test report

1. The antenna standing graph



2. Antenna gain and efficiency

Frequency/Mhz	Efficiency /%	MaxGain/dBi
2400	36.56	2.41
2405	36.39	2.19
2410	37.76	2.47
2415	37.93	2.3
2420	38.37	2.36
2425	39.54	2.34
2430	39.72	2.33
2435	39.99	2.41
2440	41.02	2.52
2445	41.3	2.62
2450	41.5	2.73
2455	41.21	2.79
2460	41.69	2.94
2465	41.3	2.87
2470	41.11	2.93
2475	40.93	2.86
2480	41.11	2.86
2485	41.21	2.83
2490	40.93	2.81
2495	40.74	2.81
2500	40.46	2.69
5000	27.86	1.61
5050	30.62	2.09
5100	27.73	1.74

5150	30.97	1.97
5200	29.04	2.61

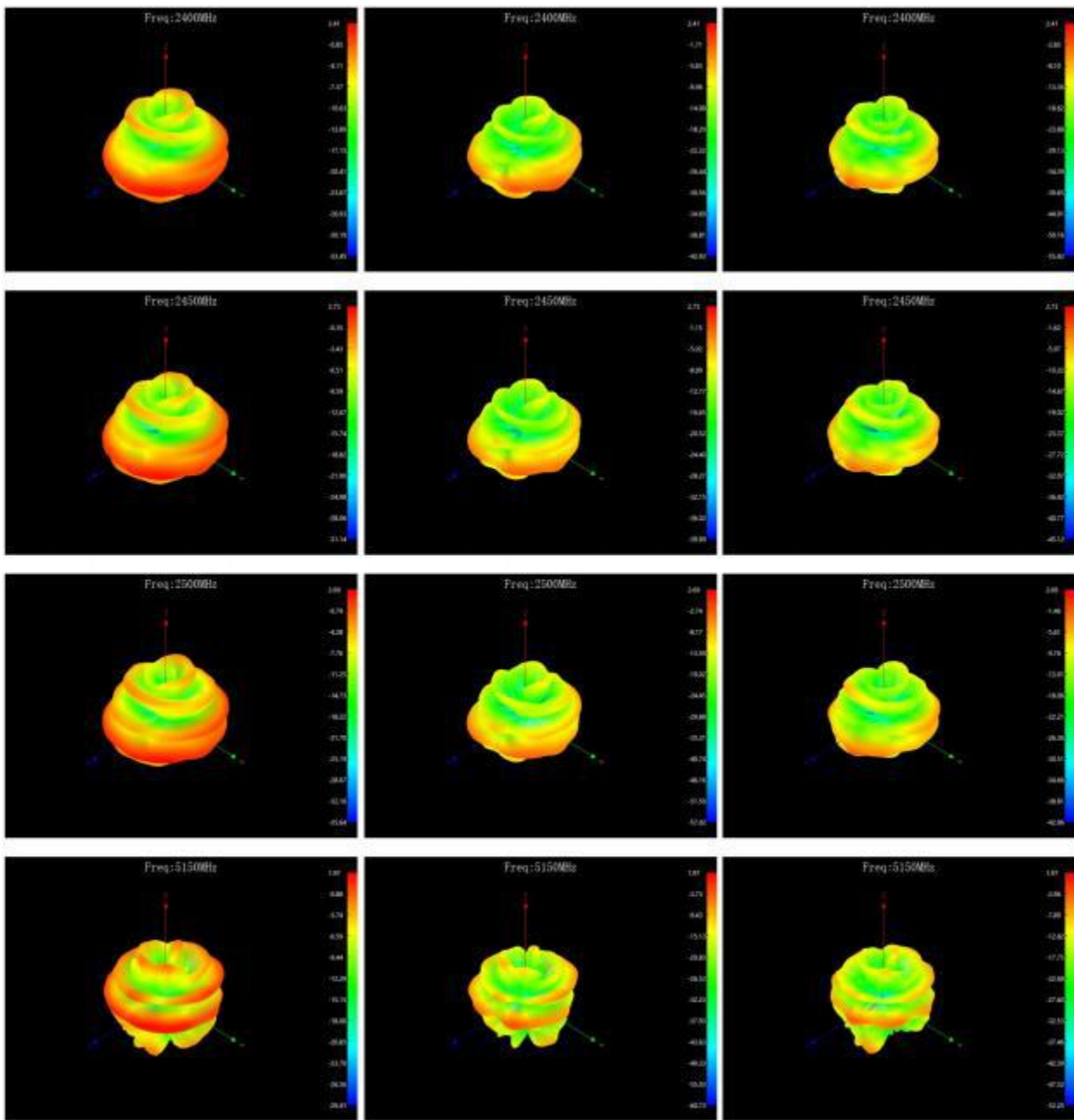


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5250	31.19	3.17
5300	31.41	3.26
5350	32.73	4.13
5400	32.89	3.94
5450	35.81	4.96
5500	34.83	4.38
5550	35.81	4.52
5600	34.36	4.33
5650	35.97	3.98
5700	33.96	3.62
5750	33.19	3.43
5800	31.99	4.32
5850	30.27	2.47
5900	29.72	2.3
5950	29.11	2.17
6000	28.77	1.79

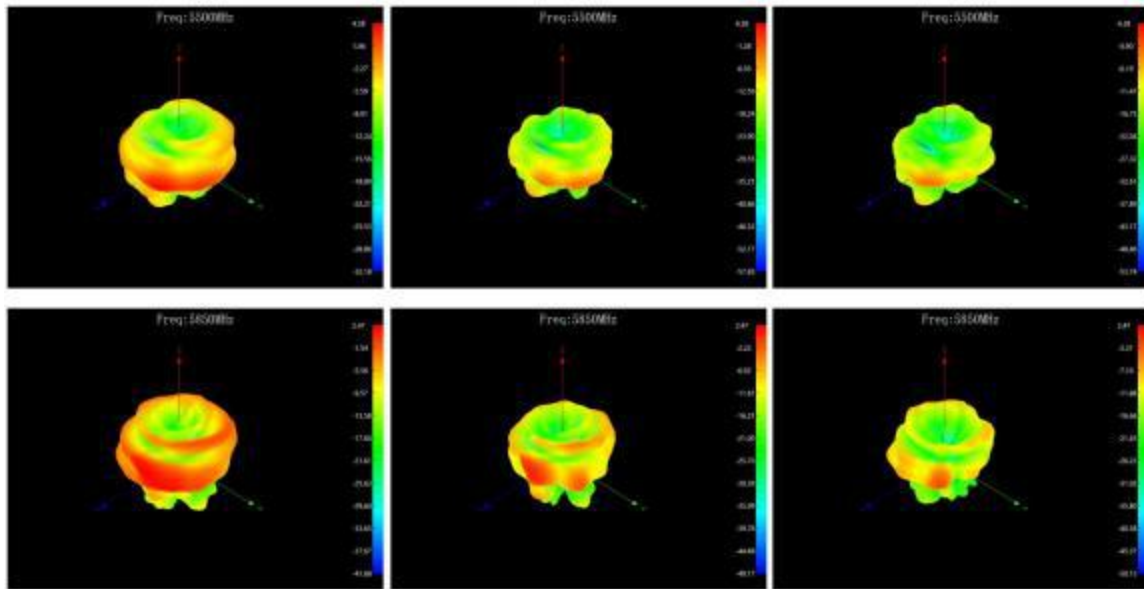
3. Apple diagram and direction diagram of the antenna





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Test equipment and principle Testing Equipme nt and Principle

1. Test equipment:

Network Analyzer Network Analyzers:

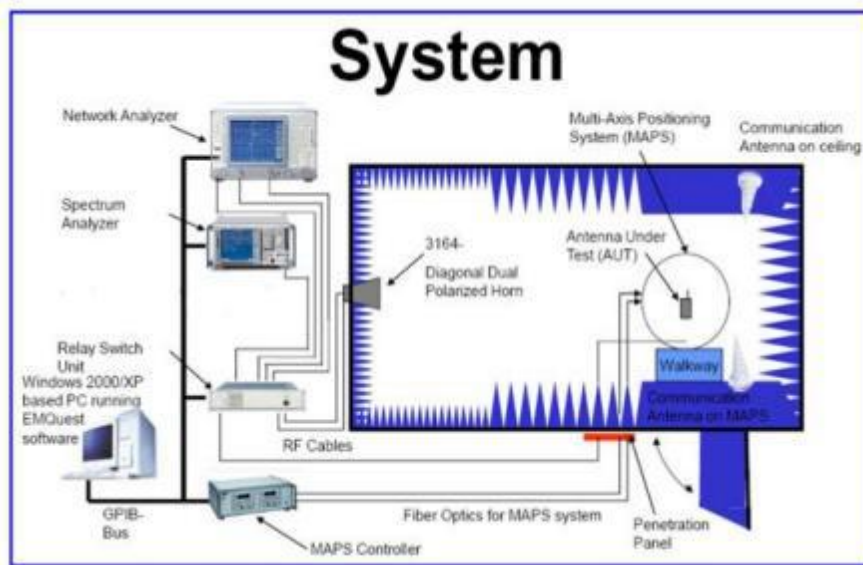
Agilent 8753D 5071B

Integrated Tester Communications Test Set:

Agilent E5515C

3D darkroom Test System 3D Chamber TestSystem:

2. Test principle:





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Engineering drawing: Product Drawing



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Reliability test report: Reliability test report

test item		test method	ask	bear fruit
C1	V.S.W. R. Electrobbs	Design the netzter parameters for testing	According to the material specifications to be tested	pass
M1	antenna gain	Design the parameters of the antenna dark chamber for testing	According to the material specifications to be tested	pass
M2	Vibration Shake	GB/T2423.48-2008 Amplitude: 0.03 inch(1.5mm); Freq: 20 to 80to 20 Hz3directions; 2 hours for each direction amplitude 1.5mm; frequency 20~80~20Hz; 2H each of the 3 directions	1. No Visual Damage 2. FrequencyTol. ≤5% No obvious poor appearance; frequency offset of 5%	pass
M6	Random Drop Drop	GB/T2423.8-1995 Single: Height: 1.0 Meter; 3directions; 1 time for each direction single antenna, 1m high; 1 time in each of the 3 directions	1. No parts separated, fracture 2. FrequencyTol. ≤5% No fall off or fracture; frequency offset of 5%	pass
E3	Dimension Size	Inspection of dimension, color, material, package, surfaceprocess. Check the dimensions, color, materials, packaging, and surface treatment	Directive DUT specification Compliance with the specifications to be tested	pass
E4	Temperature and Humidity Chamber Constant temperature and humidity	GB/ T2423.3-2006 Temp: 80° C/ 12H; -40° C / 12 HRH: 90%; Time: 24H temperature 80° C test 12H to-40° C test 12H; humidity 90%; time 24H	After 2 Hours Recovery 1. No Visual Damage 2. FrequencyTol. ≤5% After 2H, there was no obvious poor appearance; frequency offset of 5%	pass
E5	Thermal Shock Hot and cold shock	GB/ T 2423.22- 2008- 40° C (30 minutes) to+ 80° C (30minutes); Cycles: 24 -40° C 30 to 80° C 30 cycle; a total of 24 cycles	After 2 Hours Recovery 1. No Visual Damage 2. FrequencyTol. ≤5% After 2H recovery, there was no obvious poor appearance; frequency offset of 5%	pass

R1	Aging test Aging	GB/T 2423.2- 2008Temp: 80° C;Time: 24 hours Temperature at 80° C, and test at 24H	After 2 Hours Recovery 1. No Visual Damage 2. FrequencyTol. ≤5% No obvious poor appearance; frequency offset of 5%	pass
M1	RoHS	With Reference to IEC62321:2008 with flow chart Reference to the IEC 62321 test process	Directive RoHS2015 / 863 / EU meets the RoHS2015 / 863 / EU standard	pass



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Product packaging specification: Code for product packaging

Product name / regulation

1. labeling requirement

Purchase order number	*****
material code	*****
Product name specification	*****
Quantity / unit	*****
remarks	*****

Purchase order number	*****
material code	*****
Product name specification	*****
Quantity / unit	*****
remarks	*****

matters need attention:

1. Whether to add a partition, pearl cotton;
2. Attachment of labels, such as ROHS;

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