



Product Specification

Customer Name: da chuang

Project Name: 2.4G white 5DB set large folding rubber rod antenna

Product Spec: ZK-2.4G-RP.SMA.J-J195

REV: V1.0

Date: 2024.09.24

drawing	check	 approved
Huang yongjun	Wang yumei	Jiang zhenhua

Customer Approve

check	approved	approval



Index

一、 Cover	-----1
二、 Index	-----2
三、 Electrical Performance Index	-----3
四、 Test report	-----4/5
五、 Testing Equipment&Principle	-----6
六、 Product Drawing	-----7
七、 Reliability test report	-----8

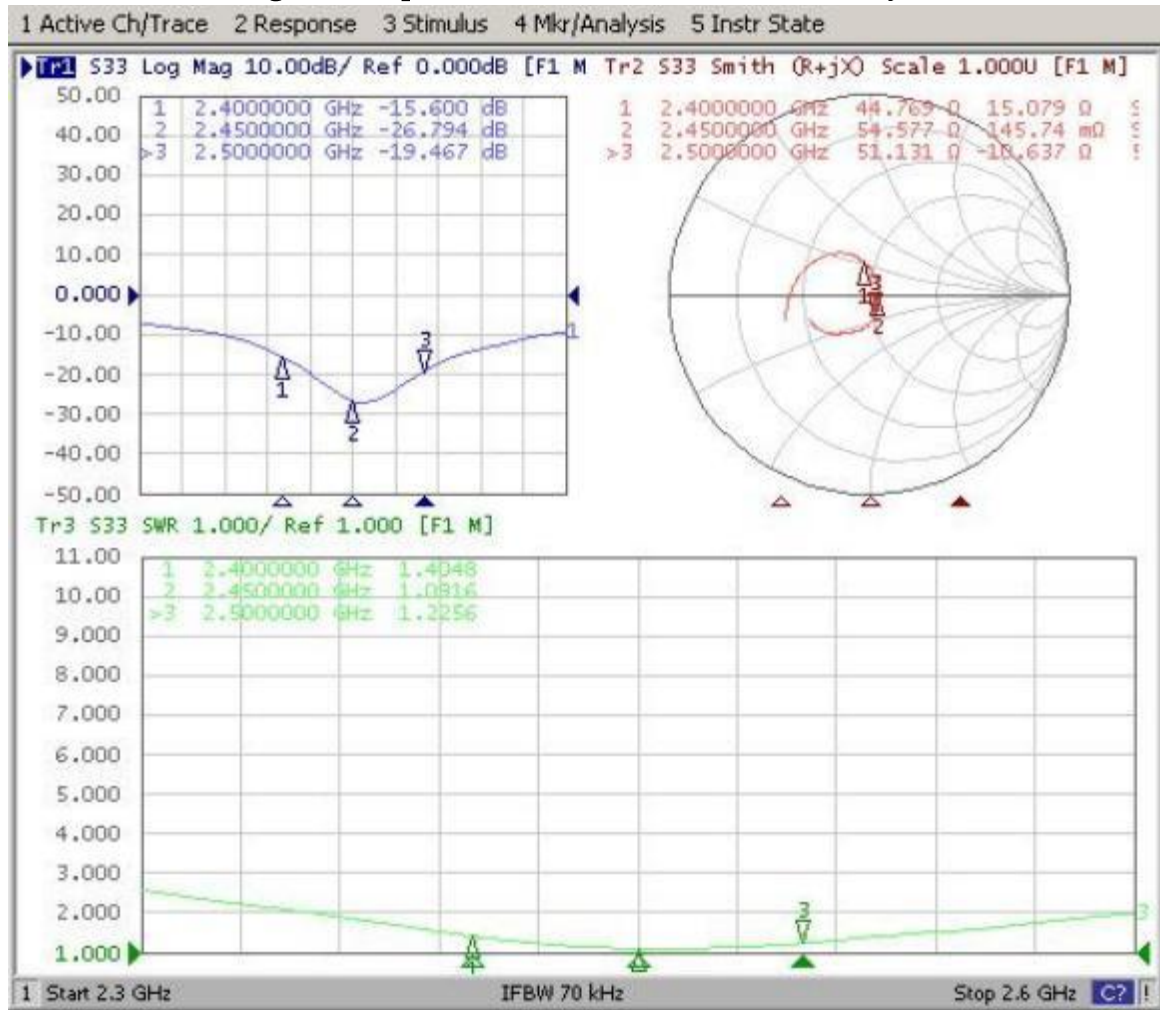


Electrical Performance Index

Electrical Specifications	
2400-2500MHZ	
VSWR	≤ 2.0
GAIN	≤ 5.0 DBI
Radiation	OMNI
Polarizatin	LINEAR
Input Impedance	50 Ω
Mechanical Specifications	
Input connector	RP. SMA. J
Antenna materia	PCB+spring
Working Temperature	-30°C~+80°C
Working Humidity	40~85%

Test report

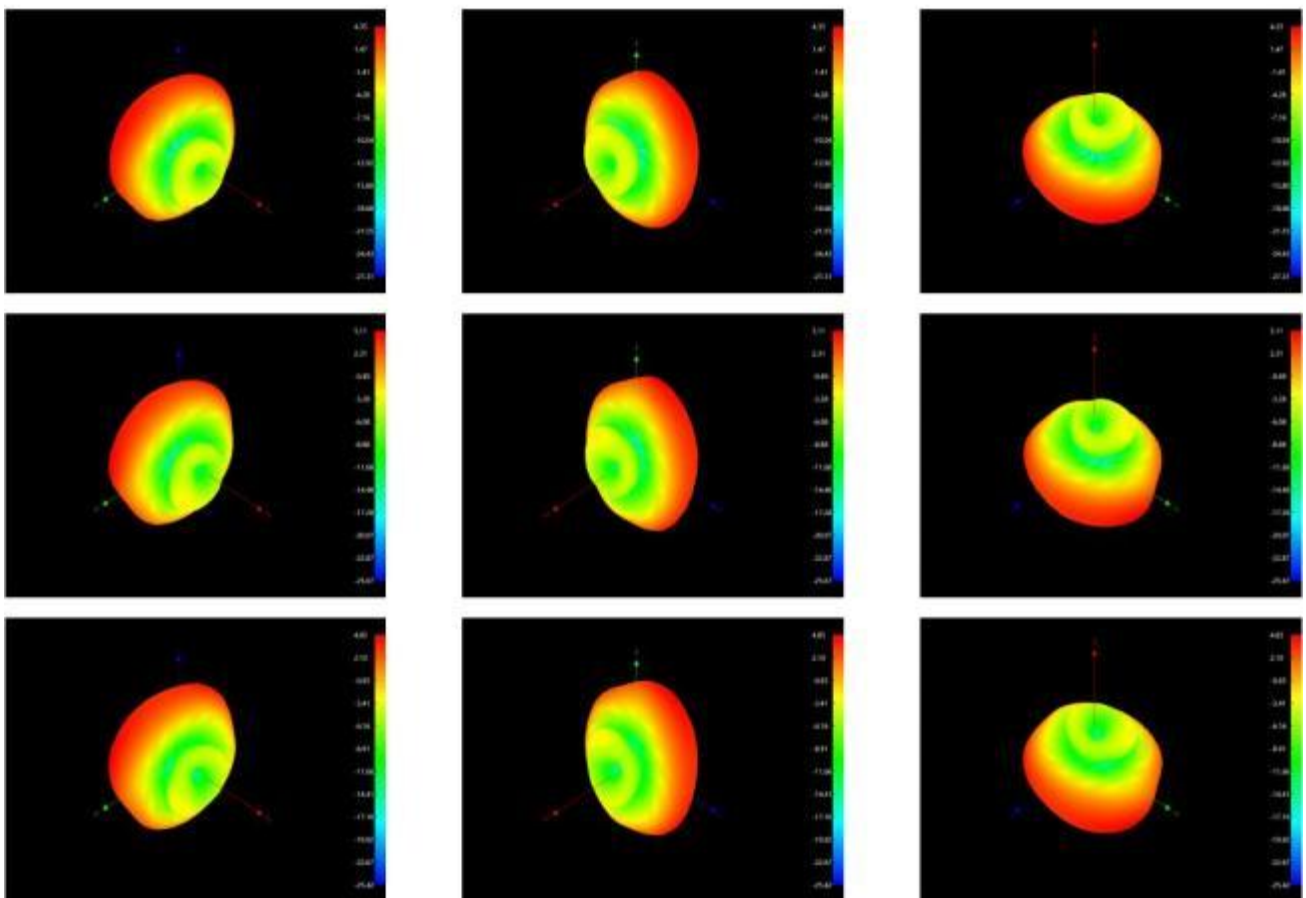
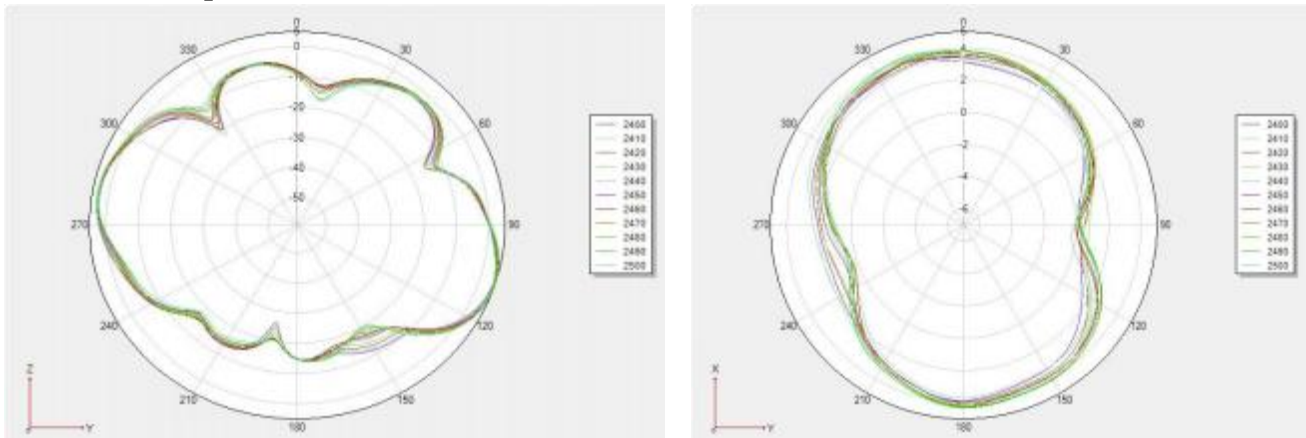
1. Antenna standing wave pattern antenna efficiency



2. Antenna efficiency

Frequency/Mhz	Efficiency / dB	Efficiency / %	MaxGain/dBi
2400	-1.31	73.96	4.35
2410	-1.11	77.45	4.84
2420	-1.02	79.07	4.65
2430	-0.98	79.8	5.01
2440	-0.92	80.91	4.52
2450	-0.86	82.04	5.11
2460	-0.85	82.22	5.03
2470	-0.92	80.91	5.3
2480	-1.03	78.89	5.14
2490	-1.16	76.56	5.07
2500	-1.28	74.47	4.85

3. Antenna pattern



Testing Equipment and Principle

1. Test equipment:

Network Analyzers :

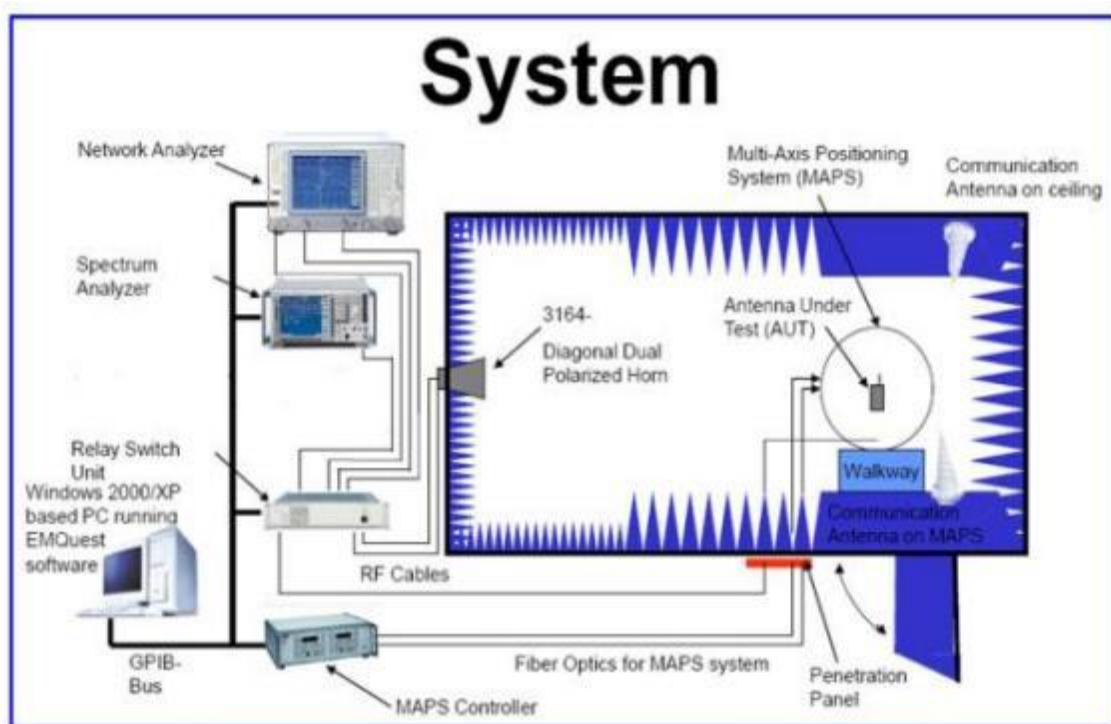
Agilent 8753D 5071B

Communications Test Set:

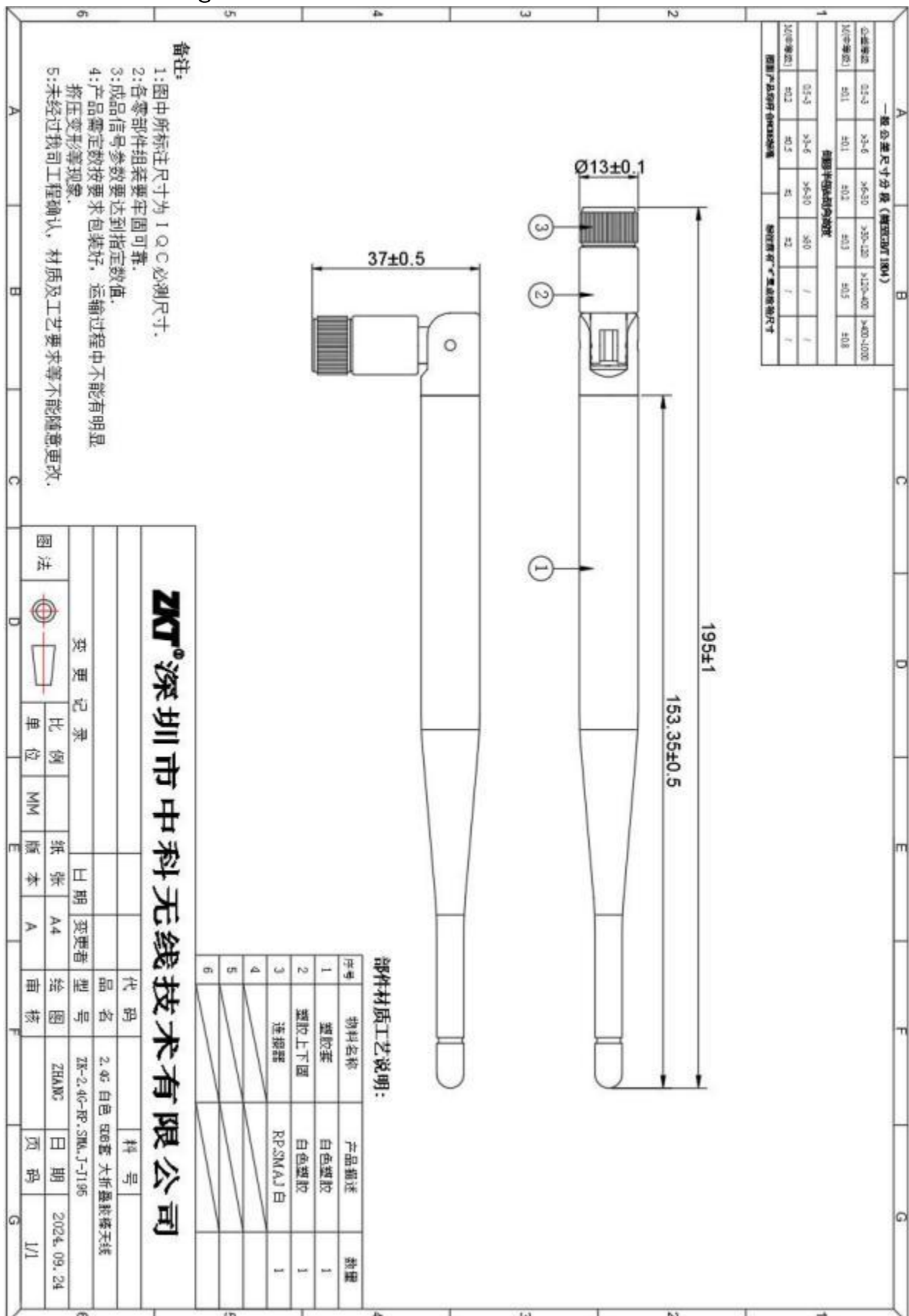
Agilent E5515C

3D Chamber Test System:

2. Testing Principles:



Product Drawing



Reliability test report

Test project		test method	requirement	result
C1	V. S. W. R.	Design network analyzer parameters for testing	Compliant with the specifications of the test substance	pass
M1	Antenna gain	Design antenna darkroom parameters for testing	Compliant with the specifications of the test substance	pass
M2	Vibration	GB / T2423.48-2008 Amplitude: 0.03 inch (1.5mm); Freq: 20 to 80to 20 Hz3 directions; 2 hours for each direction	1. No Visual Damage 2. Frequency Tol. $\leq 5\%$	pass
M6	Random Drop	GB / T2423.8-1995 Single: Height: 1.0 Meter; 3 directions; 1 time for each direction Single antenna, 1m high; 1 time in each of the 3 directions	1. No parts separated 、 fracture 2. Frequency Tol. $\leq 5\%$	pass
E3	Dimension	Inspection of dimension, color, material, package, surface process.	Directive DUT specification	pass
E4	Temperature and Humidity Chamber	GB / T 2423.3-2006 Temp: 80° C / 12 H; -40° C / 12H RH: $\geq 90\%$; Time: 24H	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol. $\leq 5\%$	pass
E5	Thermal Shock	GB / T 2423.22 - 2008 - 40° C (30 minutes) to + 80° C (30 minutes); Cycles: 24 - 40° C	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol. $\leq 5\%$	pass
R1	Aging test	GB / T 2423.2 - 2008 Temp: 80° C; Time: 24 hours	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol. $\leq 5\%$	pass
M1	RoHS	With Reference to IEC 62321:2008 with flow chart	Directive RoHS 2015/863/EU	pass