

Product Specification

Customer Name: 量子无限科技（惠州）有限公司

Project Name: 2.4/5.8G 小折叠胶棒天线

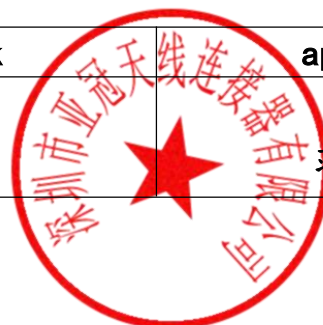
Customer P/N: 360-8783600-91

Product Spec: YG-2.4G-1.13-155-105

REV: V1.0

Date: 2023.03.07

drawing	check	approved
黄勇军	王玉美	蒋振华



Customer Approve

check	approved	approval

Testing Equipment and Principle

1. Test the equipment:

Network Analyzers :

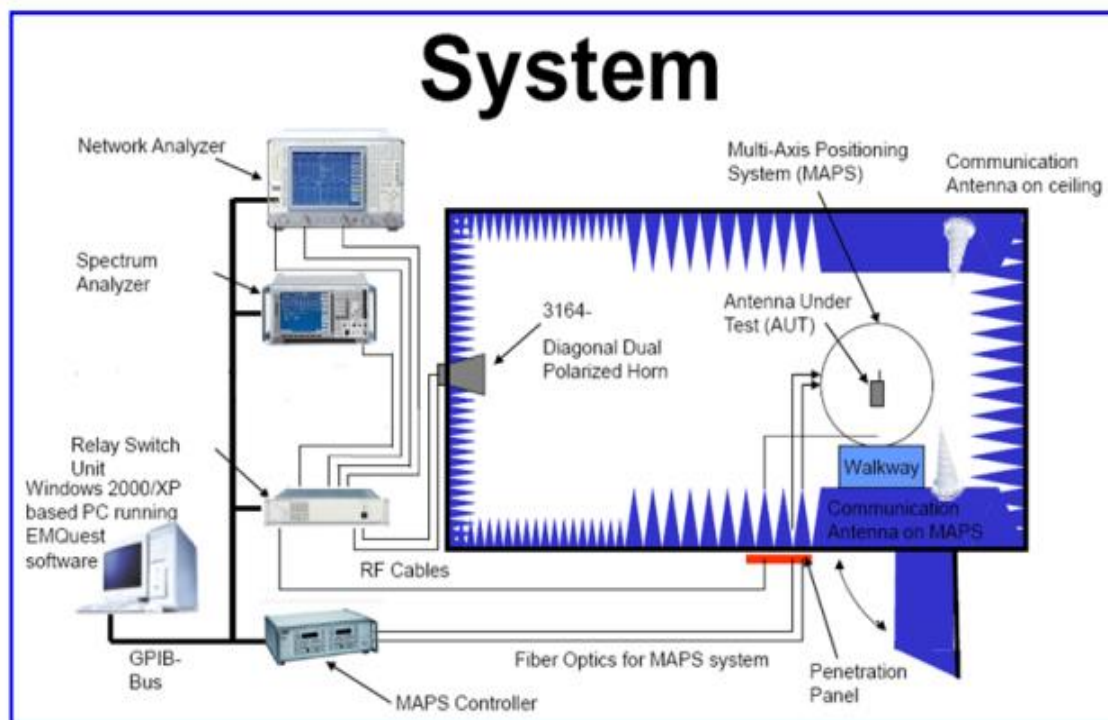
Agilent 8753D 5071B

Communications Test Set:

Agilent E5515C

3D Chamber Test System:

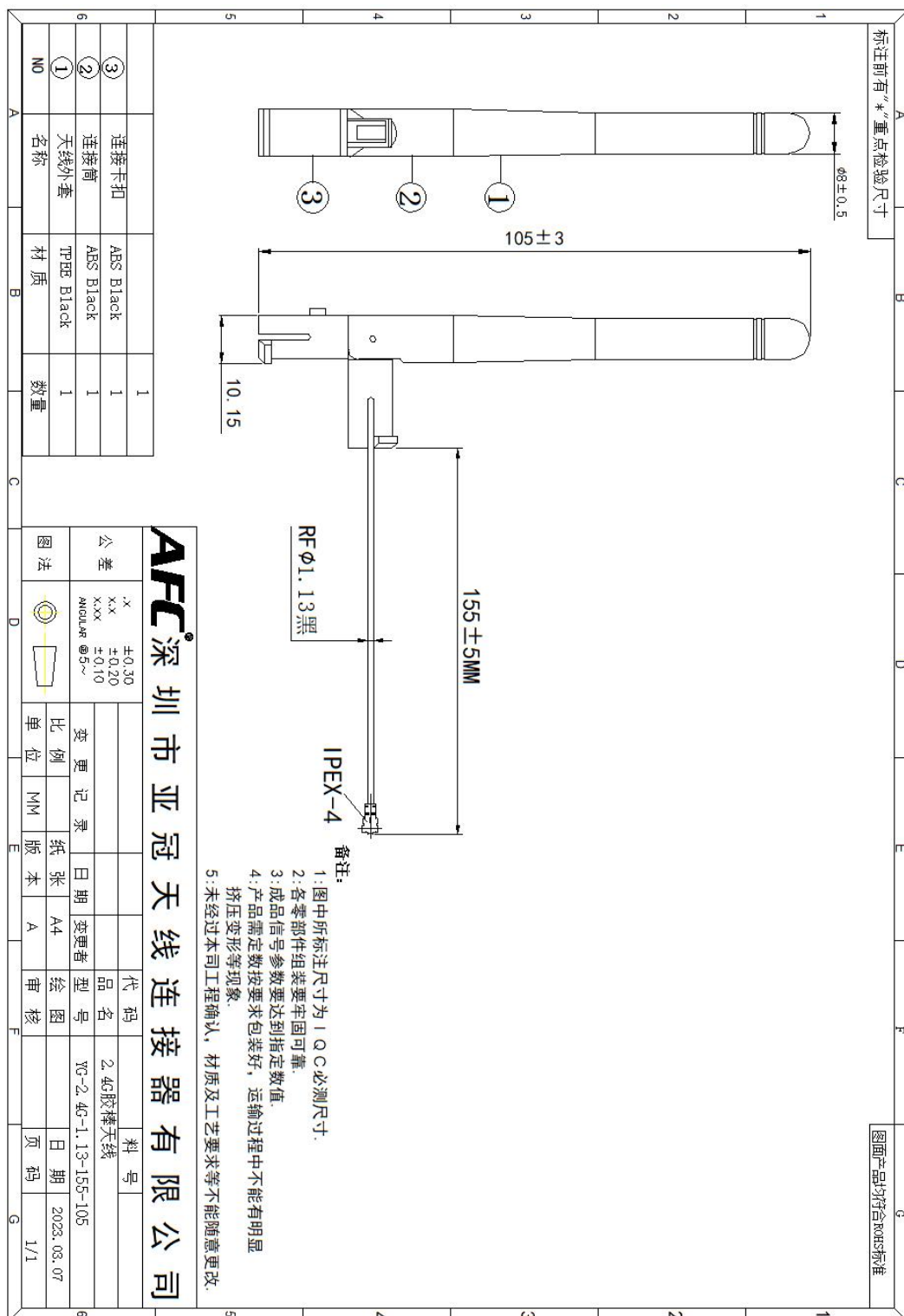
2. Test the principle:



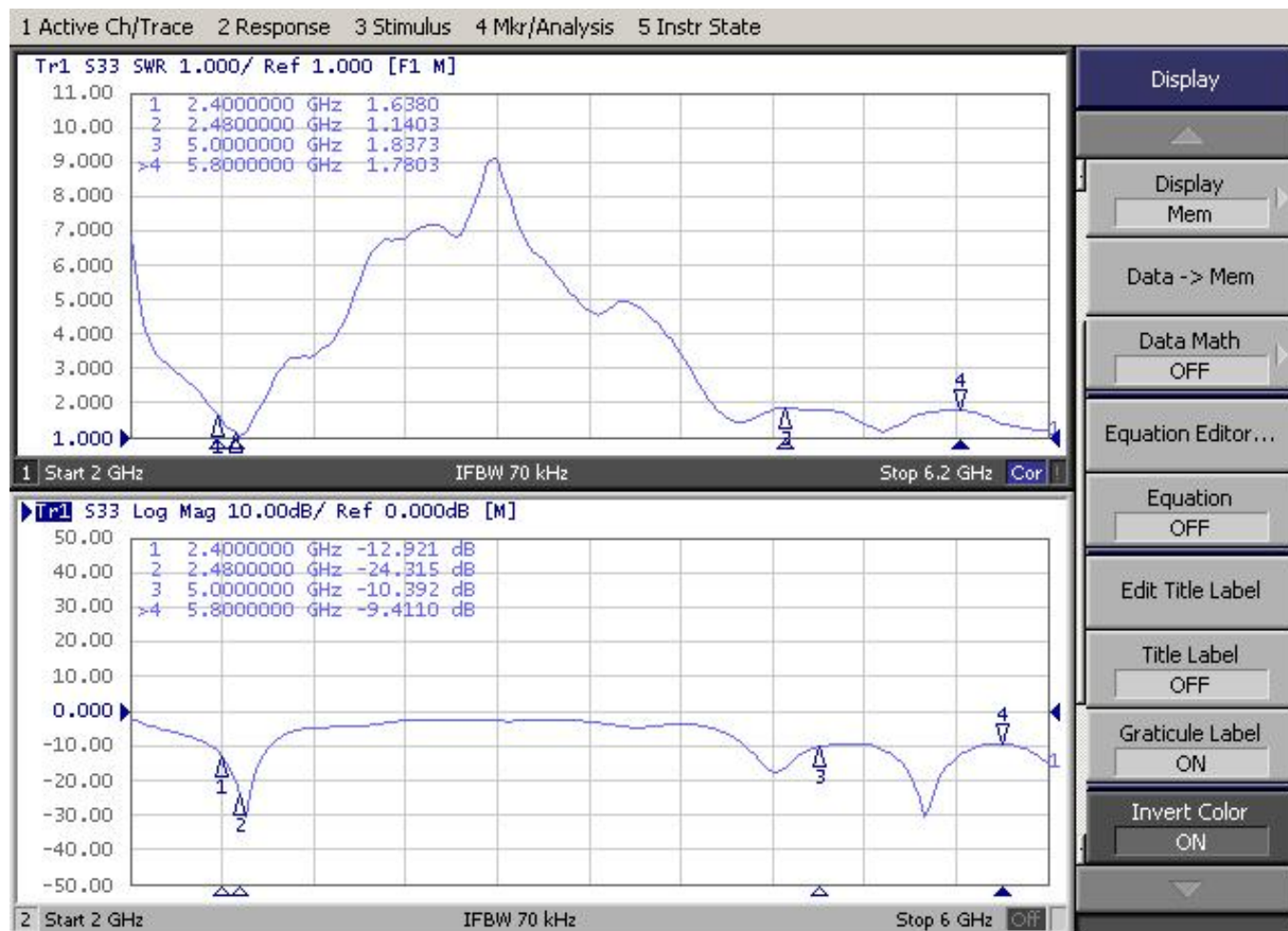
一、Electrical and mechanical properties

Electrical Specifications	
Frequency Range	2.4/5.8GHz
VSWR	≤ 2.0
GAIN	$\leq 3\text{DBI}$
Radiation	OMNI
Polarization	LINEAR
Input Impedance	50 Ω
Mechanical Specifications	
Input connector	IPEX-4
Antenna material	ABS & TPEE
Working Temperature	-30°C ~ +80°C
Working Humidity	40~85%

二、Antenna structure size diagram



三、Passive test data



四、Gain efficiency test data

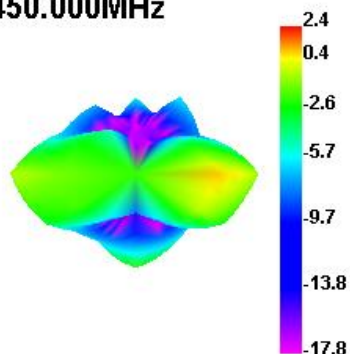
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)
2400	41.49	-3.82	1.75	-0.4
2410	39.91	-3.99	1.66	-0.49
2420	35.95	-4.44	1.18	-0.97
2430	37.64	-4.24	1.62	-0.53
2440	41.01	-3.87	1.96	-0.19
2450	39.99	-3.98	1.96	-0.19
2460	41.31	-3.84	2.29	0.14
2470	41.46	-3.82	2.46	0.31
2480	37.29	-4.28	2.03	-0.12
2490	36.41	-4.39	1.9	-0.25
2500	36.28	-4.4	1.72	-0.43

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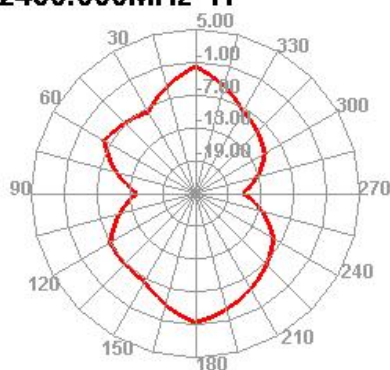
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)
5000	30.03	-3.23	1.76	1.39
5050	37.99	-3.2	2.1	1.05
5100	36.07	-3.84	1.59	1.35
5150	37.8	-3.56	1.61	1.54
5200	34.98	-3.56	2.23	1.08
5250	40.83	-3.48	2.86	1.41
5300	37.32	-3.63	2.28	1.83
5350	39.84	-3.56	2.32	1.17
5400	38.29	-2.17	2.21	1.06
5450	37.03	-2.94	2.57	1.42
5500	36.93	-3.1	2.54	1.39
5550	38.23	-3.2	2.16	1.01
5600	38.77	-3.41	2.38	1.23
5650	36.62	-3.73	1.93	1.72
5700	39.28	-3.33	2.03	1.18
5750	35.52	-3.93	2.72	1.87
5800	34.35	-3.13	1.39	1.76
5850	32.74	-3.69	2.62	1.47
5900	36.13	-2.8	2.48	2.33

五、Directional test data

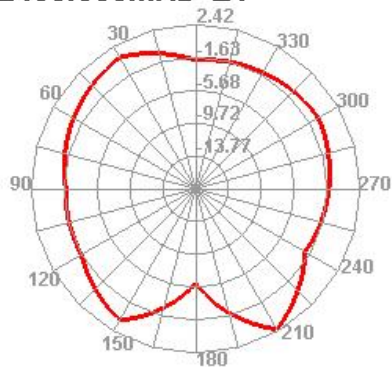
2450.000MHz



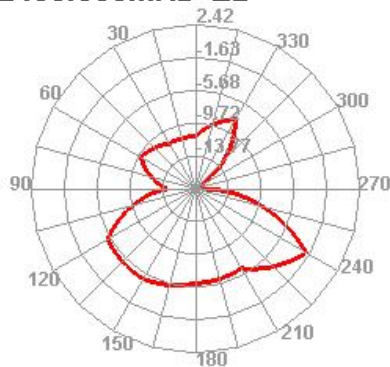
2450.000MHz H



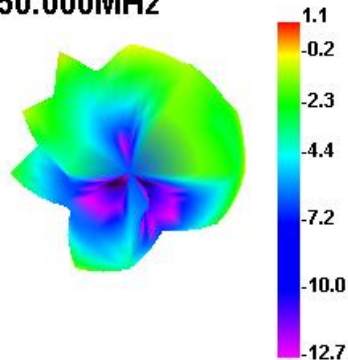
2450.000MHz E1



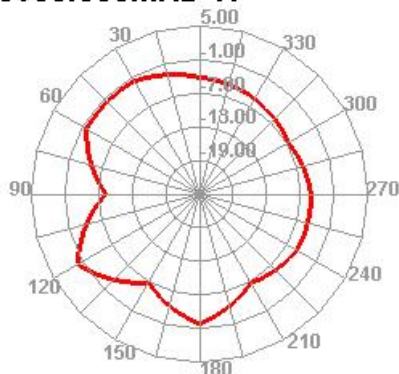
2450.000MHz E2



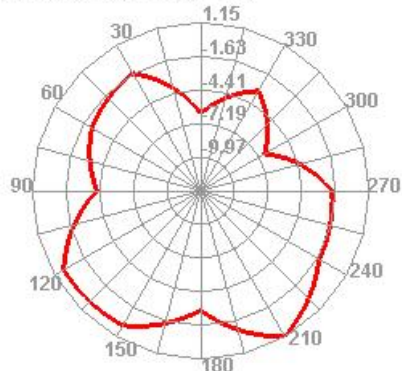
5650.000MHz



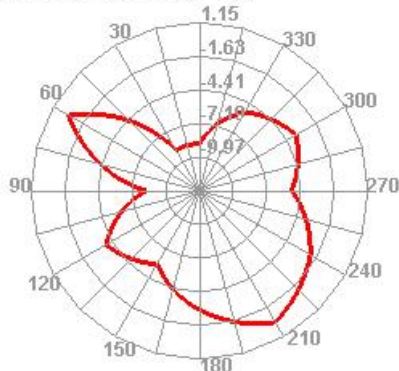
5650.000MHz H



5650.000MHz E1



5650.000MHz E2



六、Reliability test report

project	Test condition	specification
Storage environment	Test temperature, humidity, and air pressure without specifying the following: 1. The temperature ranges from -40°C to +85°C 2. Relative humidity is 45%-85% 3. The air pressure is 86kpa-106kpa	Electrical and mechanical properties are normal
High and low temperature test	Five cycles were performed between 70°C and -40°C, and then under normal conditions 1 to 2 hours, check the appearance quality.	The dimensions shall meet the requirements and shall meet the requirements Mechanical and electrical properties
Resistance to constant heat and humidity test	The relative humidity was $95\pm 3\%$, and the test temperature was 40°C. The electrical properties were measured within 5 minutes after the sample was taken out, and the sample was in the normal bar After 1 to 2 hours, check the appearance quality	The dimensions shall meet the requirements and shall meet the requirements Mechanical and electrical properties
Vibration test	Vibration frequency range of 10-55HZ, displacement amplitude: 0.35MM, acceleration amplitude: 50.0M/S, frequency sweep cycle: 30 times	Electrical and mechanical properties are normal
Drop test	1M altitude in accordance with the vertical axis of the direction of free fall 3 times	Electrical and mechanical properties are normal

Code for product packaging

Product name/specification

一、Label requirement

Purchase order number	*****
Material code	*****
Name specification	*****
Quantity/unit	*****
remarks	*****

二、Packing requirement

Job description:

1. Inner packing:

Product 50PCS a small bag

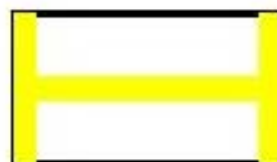
2. Outer packing:

Quantity/box according to actual quantity

Note:

1. Whether to add partition board, pearl cotton;

2. Attachment of labels, such as ROHS, etc;



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