



Shenzhen Yingfeng Antenna Technology Co., Ltd

On-board antenna Test Report

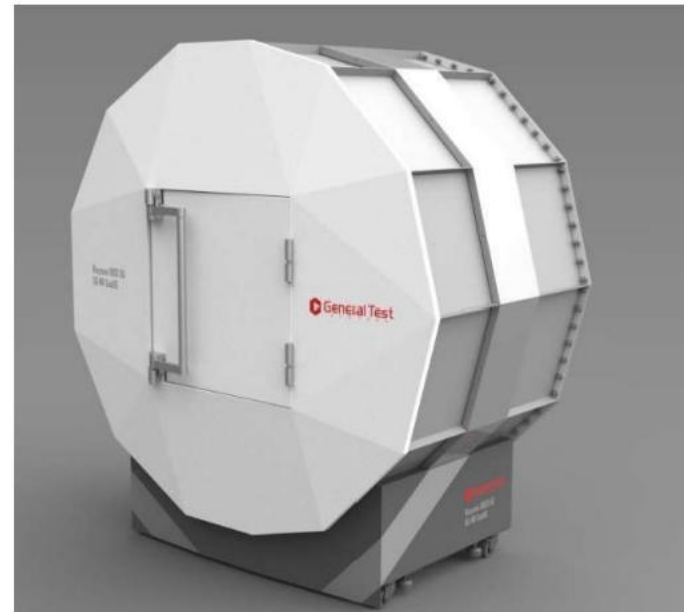
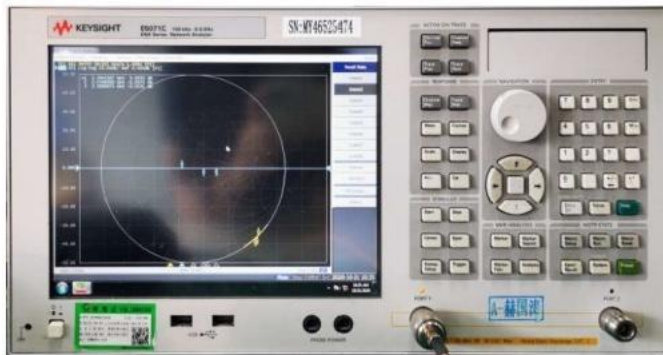
client	Core micro
product	On-board antenna
engineer	tim
telephone	18676795687
postbox	tim_zxw_01@sz-zxw.cn
date	2023-03-18

Report directory

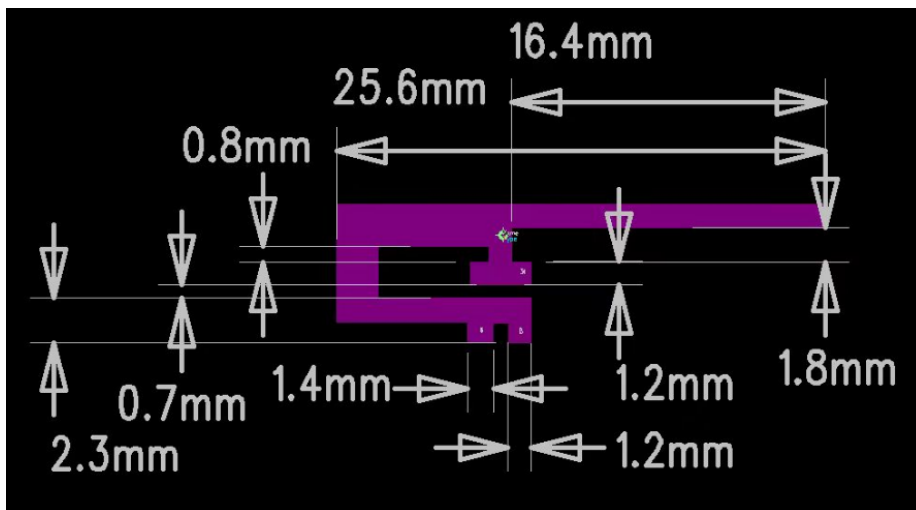
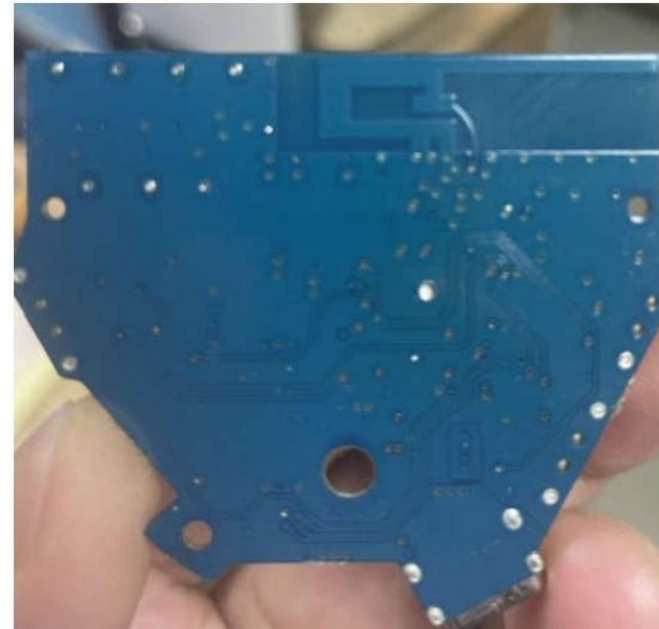
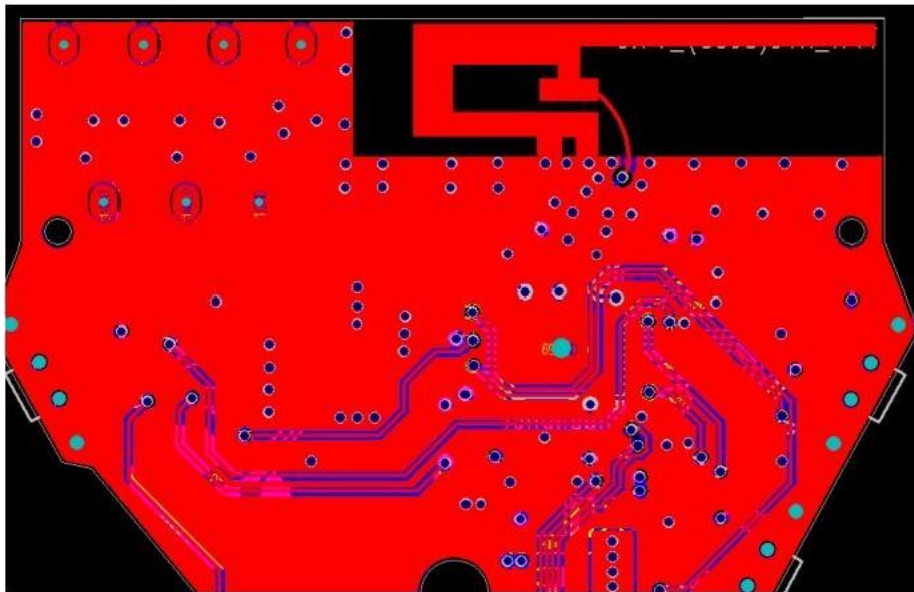
- > testing facility
- > Sample appearance
- > Matching parameters
- > Network points debugging antenna S parameters
- > Microwave dark chamber to test the antenna efficiency
field type
- > Commissioning summary

test condition

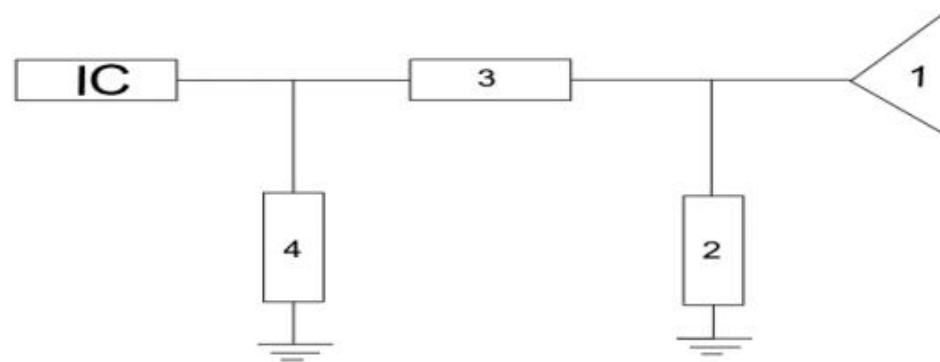
- 1. S – parameter measurement
- 2. Equipment: network analyzer (Agilent E5062A), microwave darkroom, MT8852B
- 3. Project: Impedance, echo loss, VSWR, efficiency, gain, radiation field type, sensitivity, power, frequency bias active data TRP TIS



Proof plant appearance and antenna



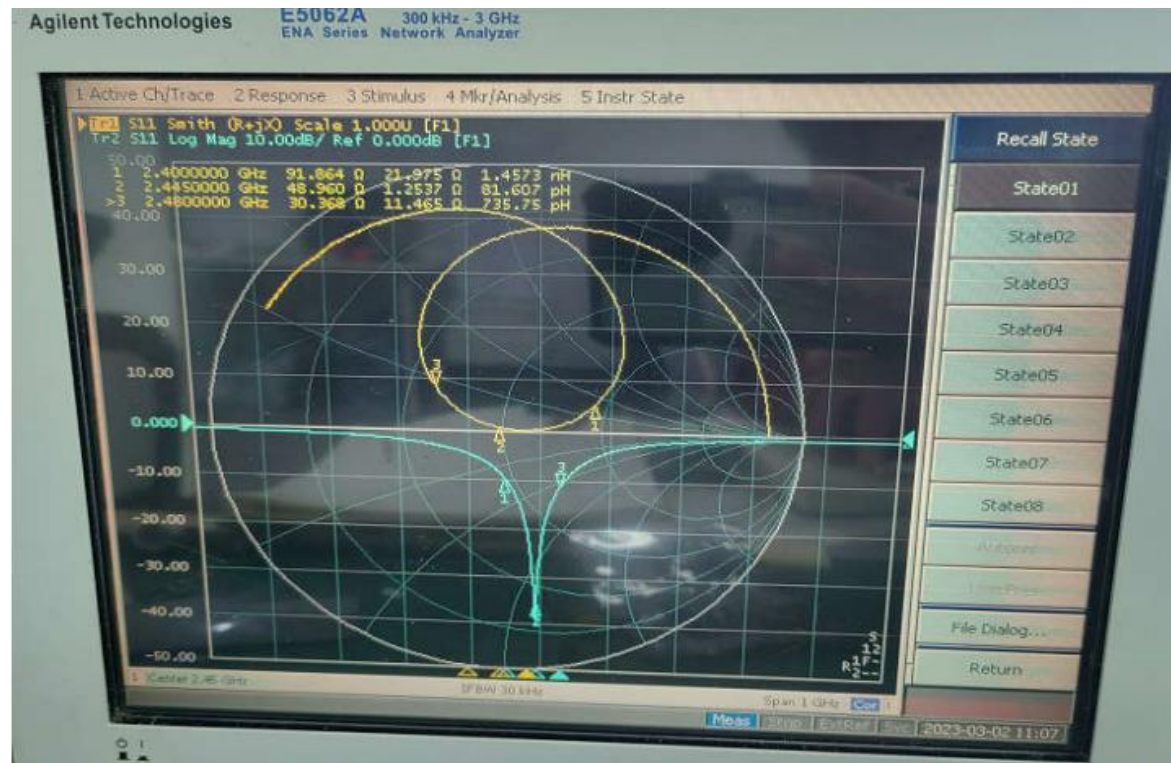
Matching parameters



number	model	specificatio ns	manufact urer	P / N	common difference
1	On-board antenna				
2	NC				
3	inductance	1.5NH/0201	Village field		$\pm 0.1\text{NH}$
4	inductance	1.2NH/0201	Village field		$\pm 0.1\text{NH}$

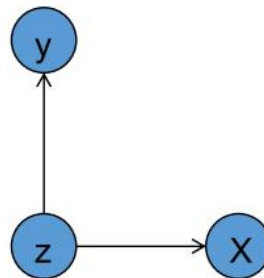
Network division debugging antenna S parameters

Debugging waveform



Microwave darkened chamber tests the antenna efficiency field type

1. Test the antenna efficiency in the microwave dark chamber

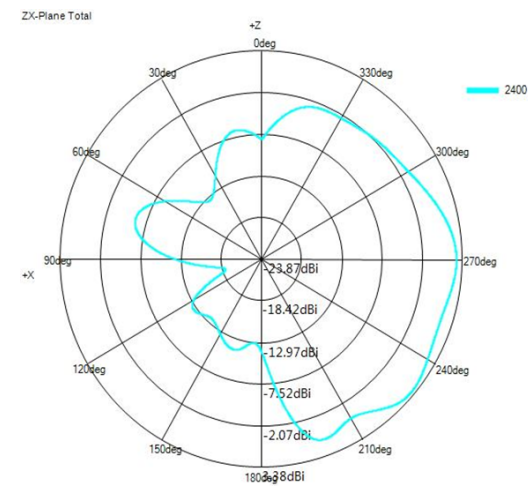
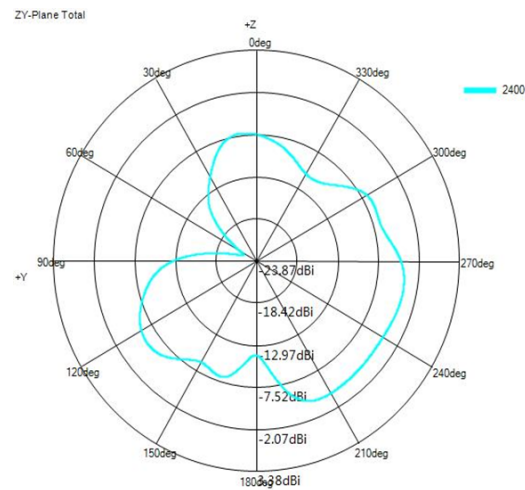
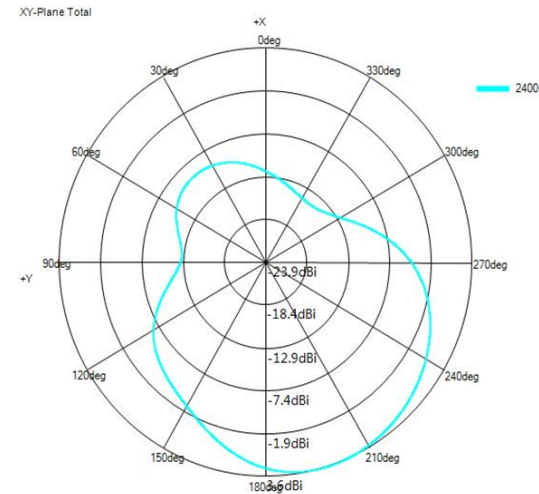
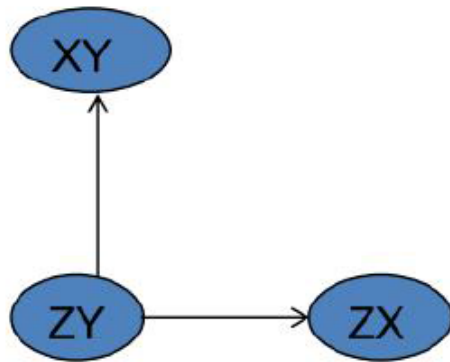


Feature assessment	Please check according to the measurement
10% Low	☐
20% Medium	☐
30% High	☒

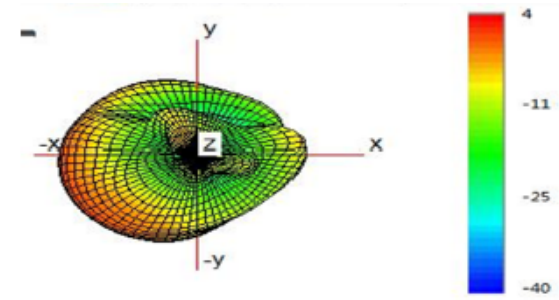
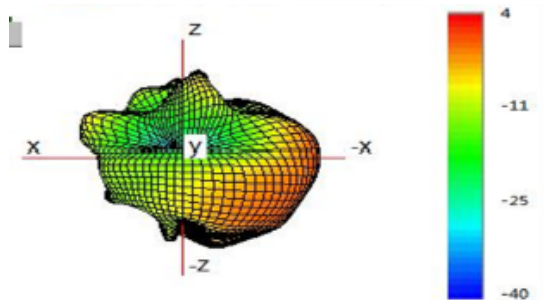
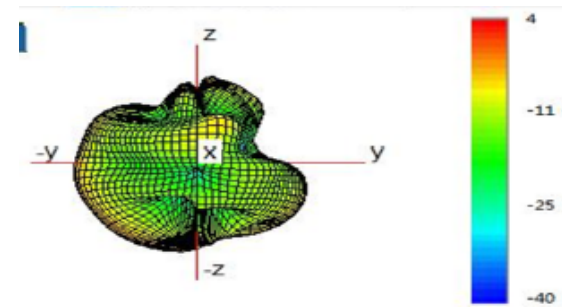
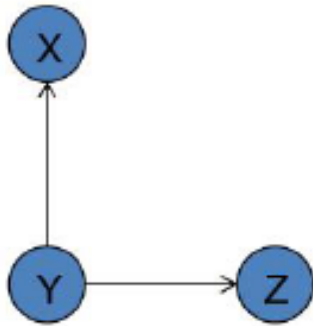
Microwave darkchamber tests antenna efficiency

Freq(MHz)	Gain(dBi)	Efficiency(dB)	Efficiency(%)
2400	3.29850124	-3.373961001	45.98369861
2410	3.099172132	-3.443796858	45.25018032
2420	2.930891944	-3.518389766	44.4796154
2430	2.84713153	-3.517643458	44.4872596
2440	2.713885663	-3.566086049	43.99379179
2450	2.586076127	-3.627803567	43.37301809
2460	2.484565241	-3.65685638	43.08383579
2470	2.398339925	-3.713319714	42.52732132
2480	2.463478169	-3.709596406	42.56379662
2490	2.517936472	-3.76306151	42.04301464
2500	2.522671569	-3.819238851	41.50267743

2D diagram of the microwave dark chamber



3D diagram of the microwave dark chamber



Sum up

Specification

FrequencyRange	2400 – 2500MHz
Type of Antenna Directivity	PCB Printed Antenna
Directivity	Omnidirection
Polarization	Vertical
Gain	3.3dBi
Attachment Type	Internalmounted
Manufacture	Shenzhen YingfengAntenna Technolog yCo.,Ltd.
Address	Room 501, No.185, Pingshan Village, No.2, Lishan Road, Pingshan Community, Taoyuan Street, Nanshan District, Shenzhen, China