



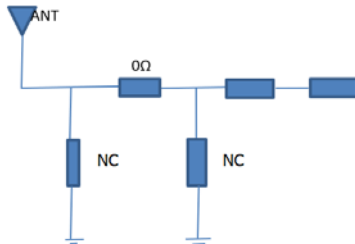
Advanced Technology & Communications

Test Report

Model Information:

Customer	Rui Chuang Ke
Model Name	XOC01
Engineer	Yang Guochang
BAND	433MHz/2400MHz
Date	2023/5/4
Antenna Version:	

Match Circuit:



product picture:

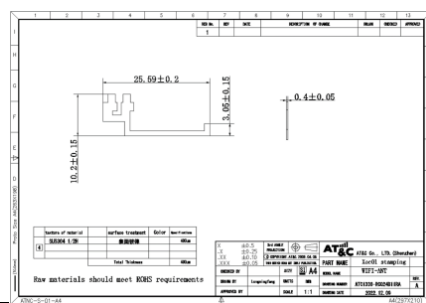


Measurement procedure

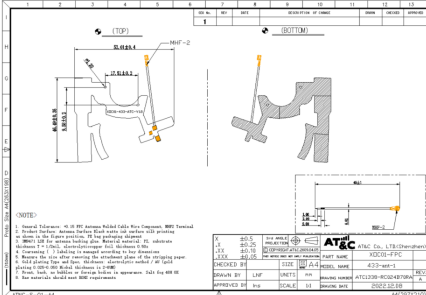
1. In the darkroom, put EUT on platform.
2. Use ROHDE&SCHWARZ CMW-500 to active test.
3. Use Agilent Technologies 5071B to passive test.
4. Record test data.

Antenna Information:

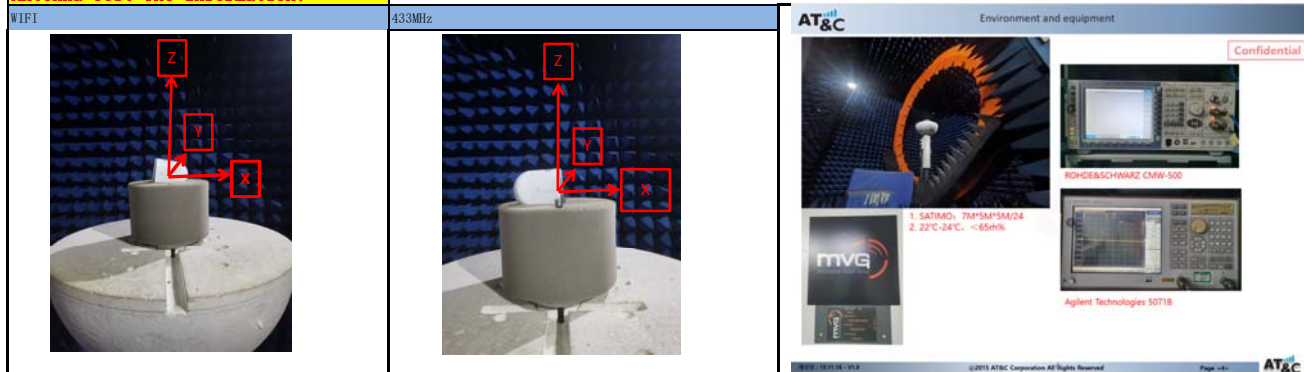
WiFi Antenna



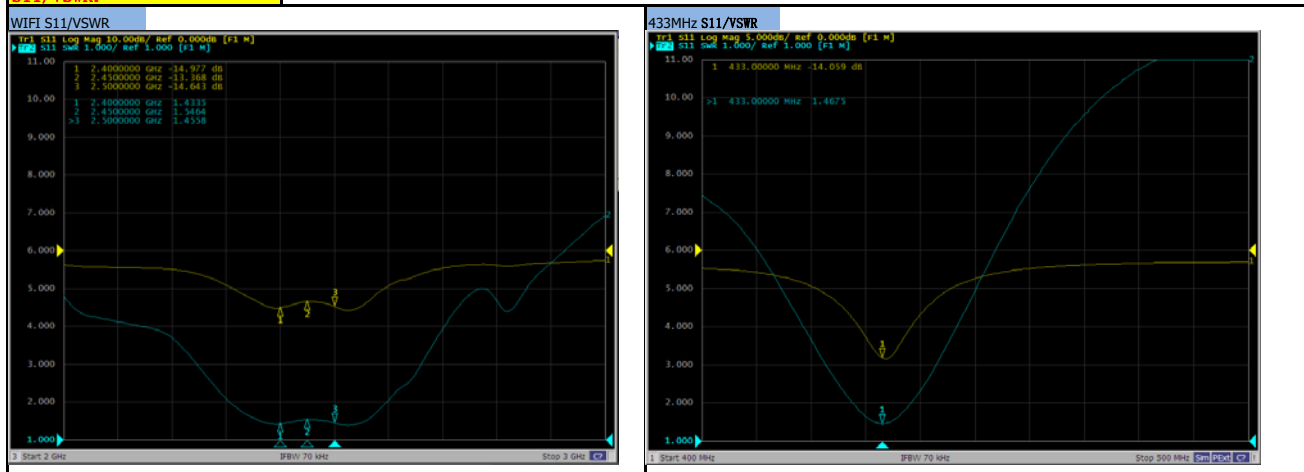
433MHz Antenna



Antenna Test The Information:



S11/VSWR:



WIFI Data of conduction:

	CH	BAND	TX	RX
WIFI B/11M	2412	1	18.5	-88
	2437	6	18.5	-88
	2462	11	19	-88
WIFI G/54M	2412	1	17	-75
	2437	6	17	-75
	2462	11	17	-75
WIFI N/MCS2	2412	1	18	-86
	2437	6	18	-86
	2462	11	18	-86

TX EVM			
	1	6	11
	802.11n	802.11n	802.11n
MCS0/BPSK/1/2	-8	-8	-9
MCS1/QPSK/1/2	-12	-12	-13
MCS2/QPSK/3/4	-15	-15	-16
MCS3/16-QAM/1/2	-17	-18	-19
MCS4/16-QAM/4/4	-20	-20	-21
MCS5/64-QAM/2/3	-22	-23	-23
MCS6/64-QAM/3/4	-25	-26	-26
MCS7/64-QAM/3/4	-28	-28	-29

Requirements(EVM Limit)	
MCS0/BPSK/1/2	802.11n(dB):-6/802.11ac (dB) :-8
MCS1/QPSK/1/2	802.11n(dB):-12/802.11ac (dB) :-12
MCS2/QPSK/3/4	802.11n(dB):-12/802.11ac (dB) :-15
MCS3/16-QAM/1/2	802.11n(dB):-15/802.11ac (dB) :-18
MCS4/16-QAM/4/4	802.11n(dB):-19/802.11ac (dB) :-20
MCS5/64-QAM/2/3	802.11n(dB):-21/802.11ac (dB) :-23
MCS6/64-QAM/3/4	802.11n(dB):-26/802.11ac (dB) :-26
MCS7/64-QAM/3/4	802.11n(dB):-28/802.11ac (dB) :-28

OTA:

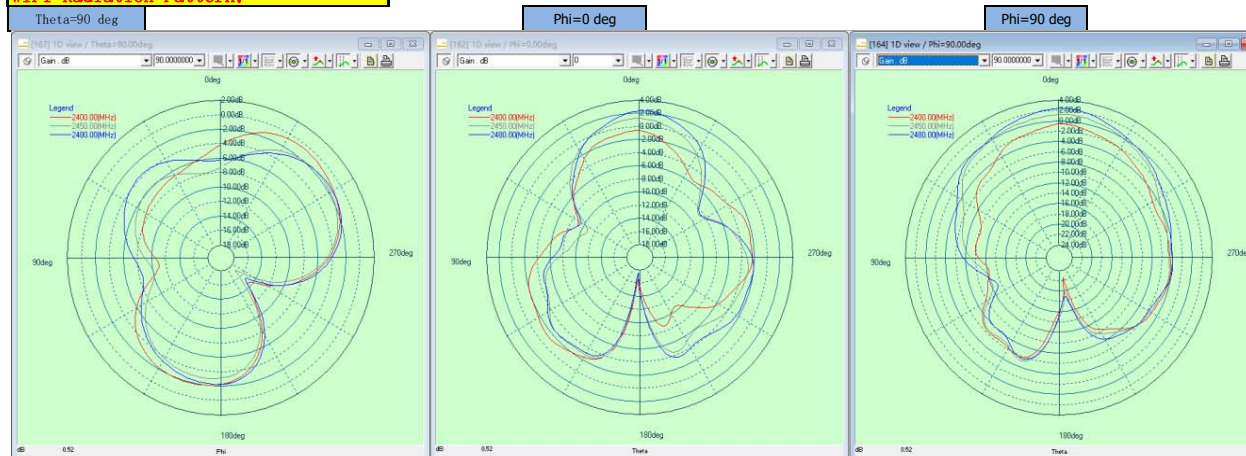
Active Test Results				
	CH	CH	TRP	TIS
WIFI B/11M	2412	1	15.02	-84.03
	2437	6	15.37	-85.09
	2462	11	16.03	-85.11
WIFI G/54M	2412	1	13.7	-72.14
	2437	6	13.91	-72.1
	2462	11	14.06	-72.12
WIFI N/MCS2	2412	1	14.84	-82.55
	2437	6	15.1	-83.06
	2462	11	15.05	-83.01

Efficiency & Gain:

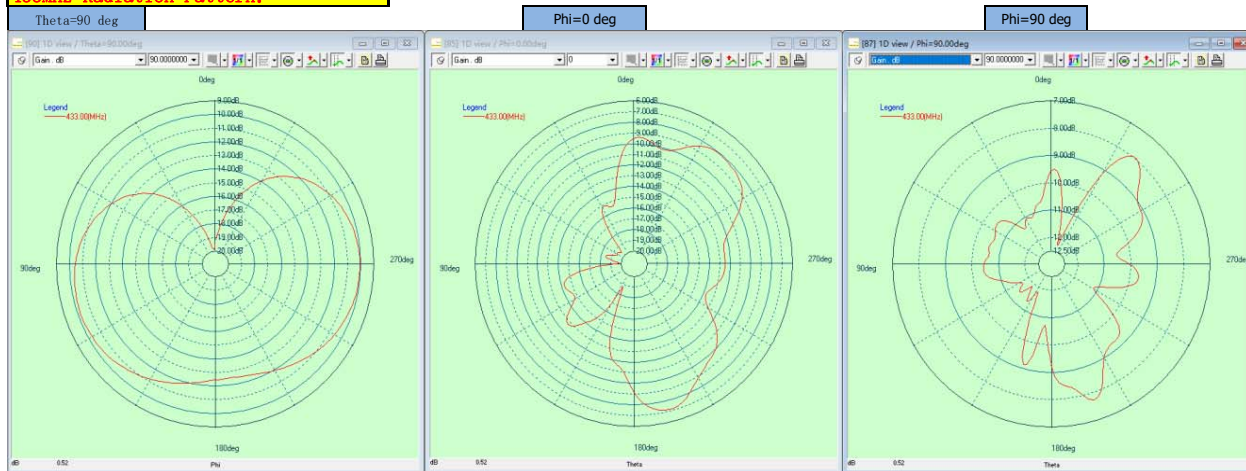
WIFI		
Frequency/MHz	Efficiency/%	Gain. dBi
2400	51%	1.76
2410	51%	1.94
2420	52%	2.07
2430	54%	2.15
2440	56%	2.67
2450	56%	2.75
2460	56%	2.60
2470	55%	2.57
2480	54%	2.33
2490	53%	2.58
2500	54%	2.48

433MHz		
Frequency/MHz	Efficiency/%	Gain. dBi
428	13%	-5.18
429	13%	-4.93
430	14%	-4.66
431	14%	-4.42
432	15%	-4.24
433	15%	-3.99
434	15%	-4.02
435	15%	-4.08
436	14%	-4.04
437	14%	-4.02
438	14%	-3.99

WIFI Radiation Pattern:



433MHz Radiation Pattern:



Antenna Summary

- 1.433MHz and WIFI test is OK;
- 2.433MHz Antenna Free air 130m-150m;
- 3.Please let me know if there is a change in the device.And if have any questions, please communicate promptly;

杨国昌