



# Scout RF ANT Report


Presenter:

Adam Chen

2022/11/14

# Antenna Report (2/11)



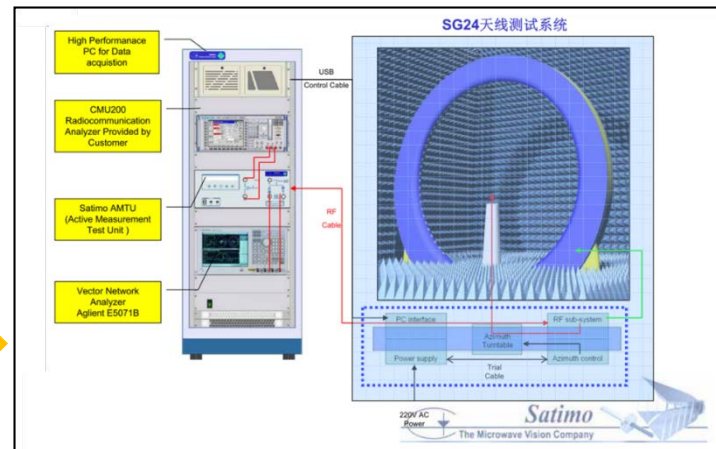
1. Test dates: **2022/09/14**
2. Test personnel names: **Jack Yeh**
3. Equipment list (including MVG software used) & calibration dates  
**SATIMO SG-24 system**   
**calibration date: every morning**

## 4. Test Instruments

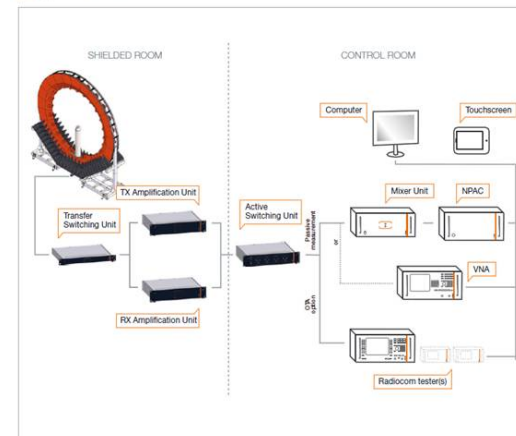
Description	Manufacturer	Model No.	Calibrated Date	Calibrated Until
Satimo		SG24	2022/11/29	2023/11/29
Keysight Network Analyzer		E5071C	2020/3/3	2023/3/3

### Test Instruments

- Test software : satimo SG24 SPM V15
- Placing DUT in chamber and using software to set the frequency for measurement ,and use software to calculate efficiency/ gain/3D raw data .



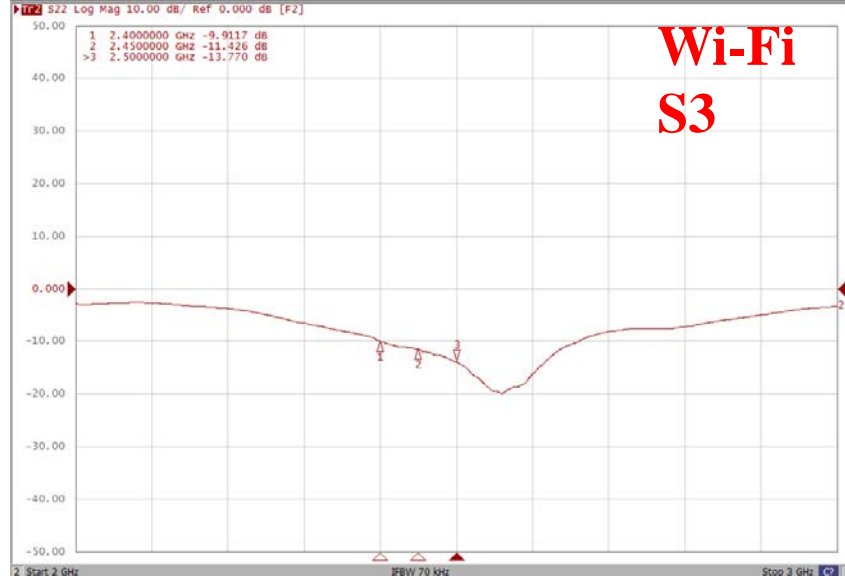
### System overview



# Antenna Report (3/11)



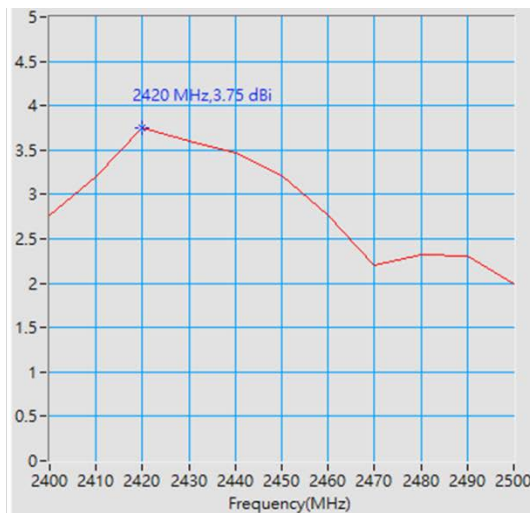
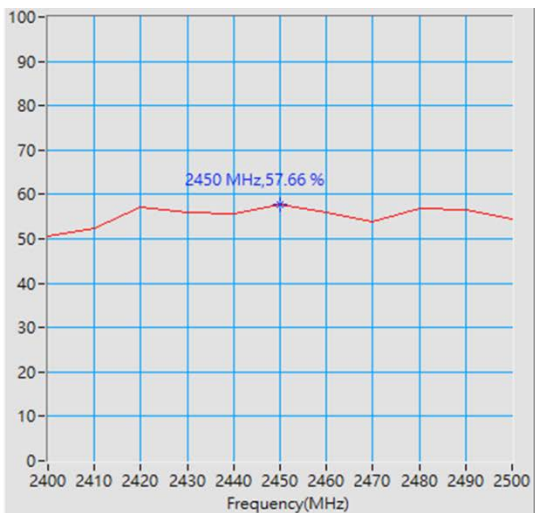
## Return Loss & Isolation **Wi-Fi**



# Antenna Report (4/11)



## Peak Gain & Efficiency @W-Fi S3



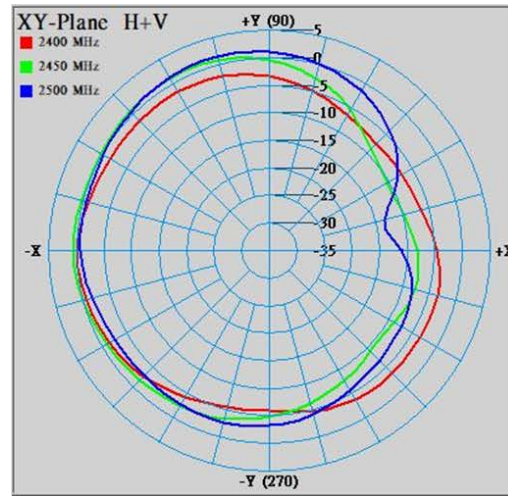
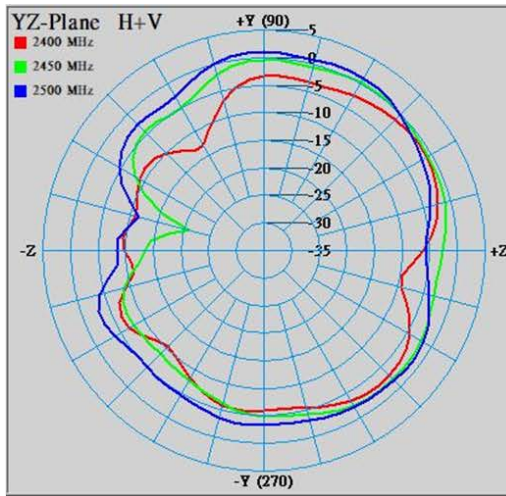
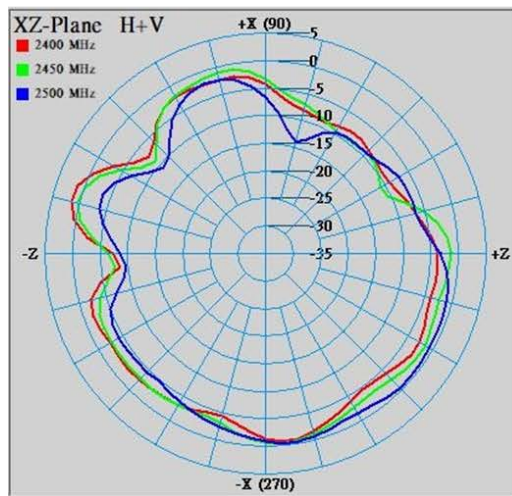
		Ant 1	
Frequency (MHz)	Efficiency (%)	Average gain(dB)	
2400	50.61	-2.96	
2450	57.66	-2.39	
2500	54.54	-2.63	



# Antenna Report (5/11)



## 2D Gain Pattern @Wi-Fi S3

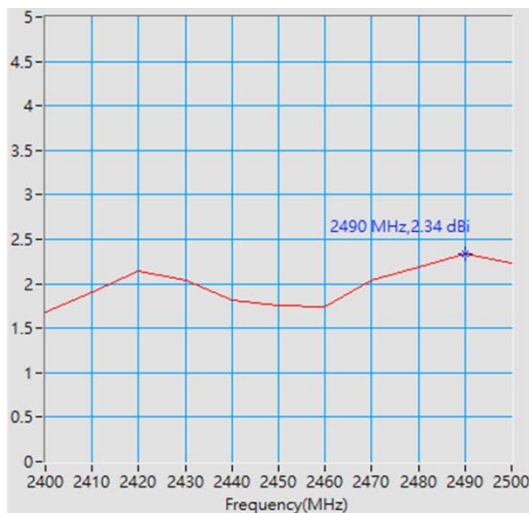
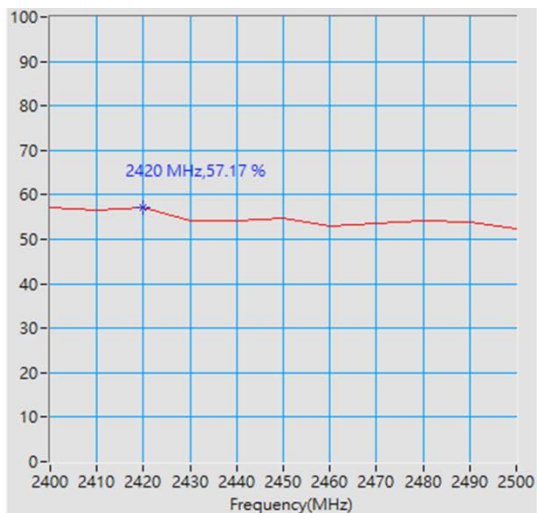


	ZX plane		ZY plane		XY plane	
Frequency [MHz]	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]
2400	1.35	-2.20	-1.01	-5.20	-0.17	-3.26
2450	1.09	-2.31	0.27	-3.27	1.02	-2.45
2500	0.97	-4.09	1.16	-2.40	1.22	-2.18

# Antenna Report (6/11)



## Peak Gain & Efficiency @W-Fi S4

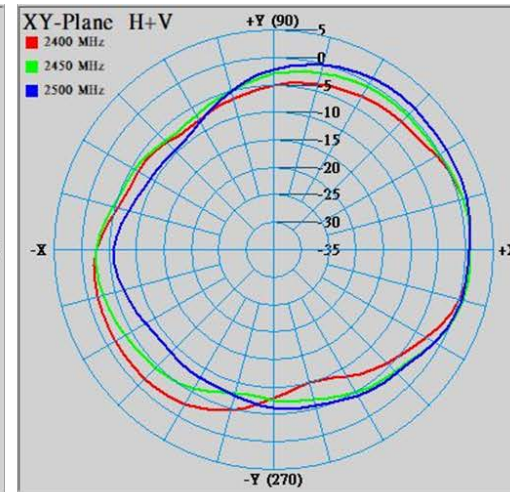
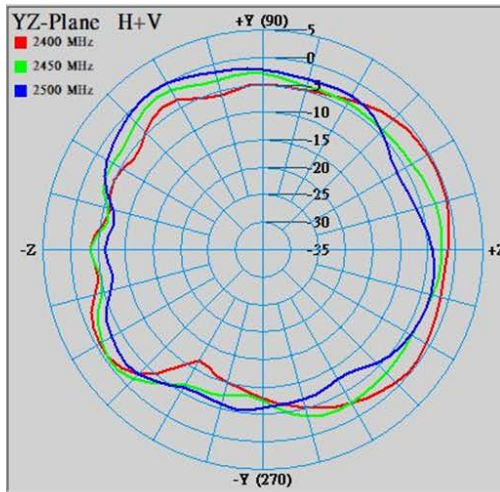
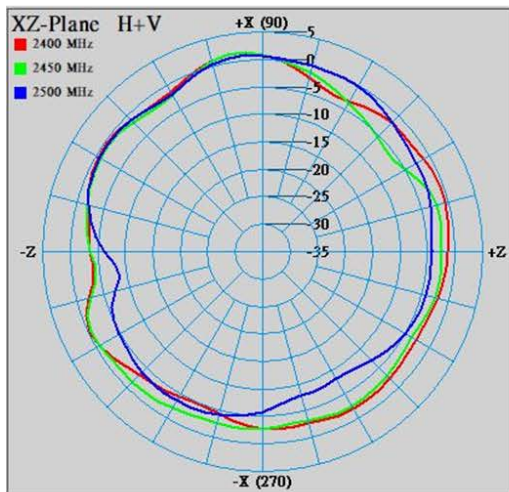


	Ant 2	
Frequency (MHz)	Efficiency (%)	Average gain(dB)
2400	57.07	-2.44
2450	54.65	-2.63
2500	52.47	-2.8

# Antenna Report (7/11)



## 2D Gain Pattern @W-Fi S4

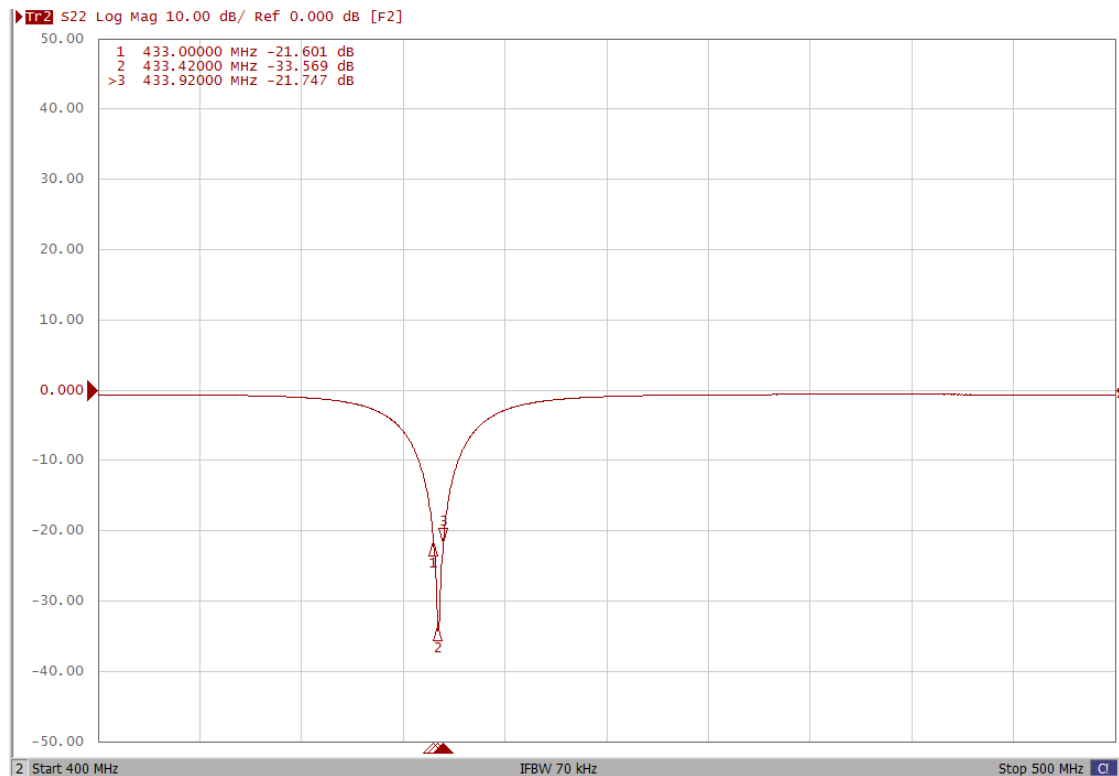


Frequency [MHz]	ZX plane		ZY plane		XY plane	
	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]
2400	1.09	-1.78	-0.30	-3.12	0.92	-3.09
2450	1.19	-2.11	-0.52	-3.46	0.95	-2.69
2500	0.92	-2.84	0.07	-3.85	1.04	-2.57

# Antenna Report (9/11)



## Return Loss Sub-G





# Antenna Report (10/11)



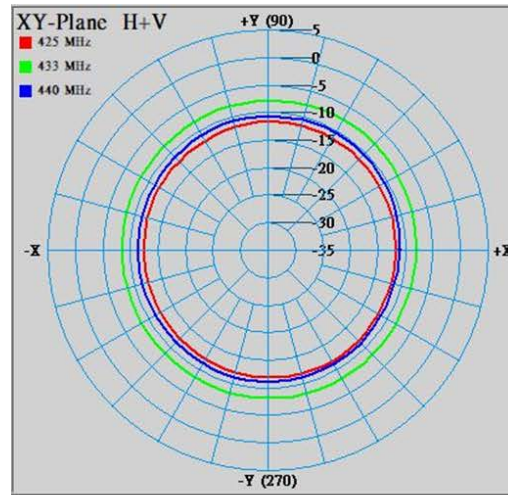
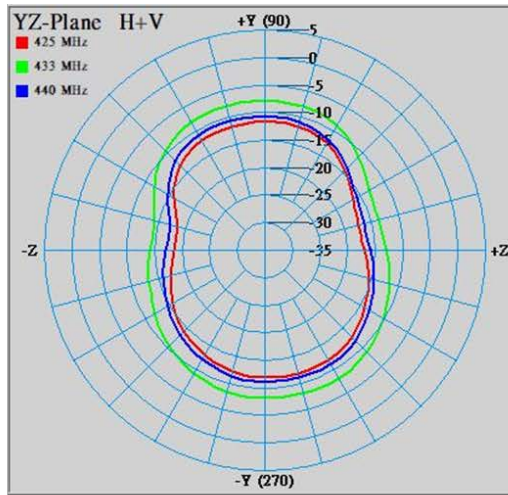
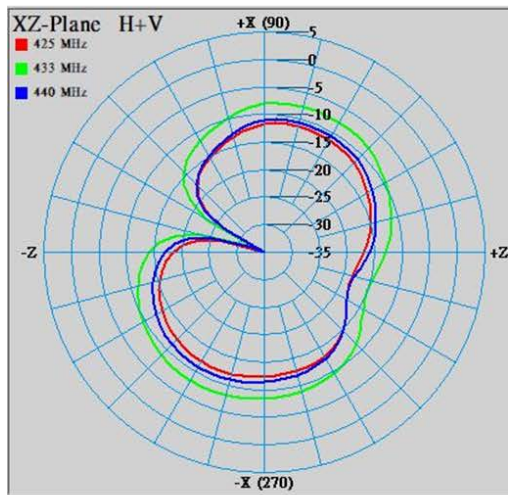
## Efficiency @Sub-G

	433MHz	
Frequency (MHz)	Efficiency (%)	Average gain(dB)
425	4.94	-13.06
433	13.77	-8.61
440	6.01	-12.21

# Antenna Report (11/11)



## 2D Gain Pattern @Sub-G



	ZX plane		ZY plane		XY plane	
Frequency [MHz]	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]
425	-11.30	-13.99	-11.65	-13.70	-11.54	-11.95
433	-7.20	-10.21	-7.83	-9.88	-7.57	-8.12
440	-10.66	-13.15	-10.66	-12.77	-10.31	-11.02



New Kinpo Group

THANK YOU FOR YOUR ATTENTION.