



Scout RF ANT Report

Presenter:

Adam Chen

2022/11/14

Antenna Report (2/11)

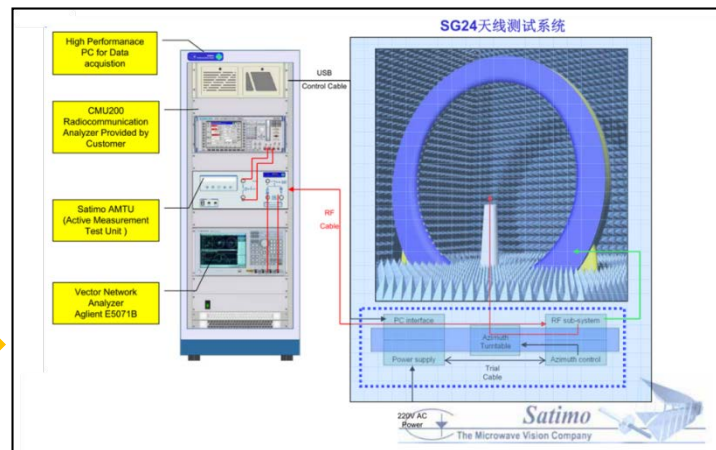


1. Test dates: **2022/09/14**
2. Test personnel names: **Jack Yeh**
3. Equipment list (including MVG software used) & calibration dates
SATIMO SG-24 system
calibration date: every morning
4. Test Instruments

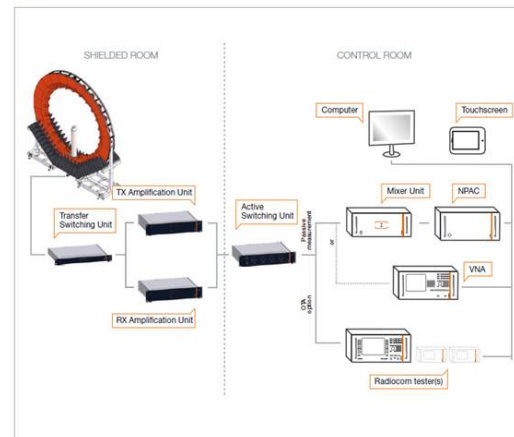
| Description | Manufacturer | Model No. | Calibrated Date | Calibrated Until |
|---------------------------|--------------|-----------|-----------------|------------------|
| Satimo | | SG24 | 2022/11/29 | 2023/11/29 |
| Keysight Network Analyzer | | E5071C | 2020/3/3 | 2023/3/3 |

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)



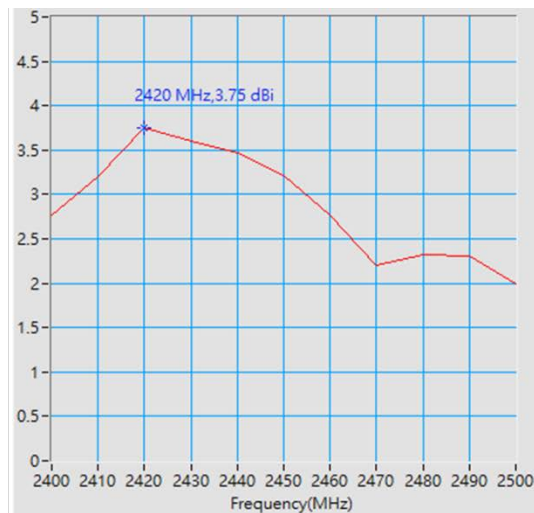
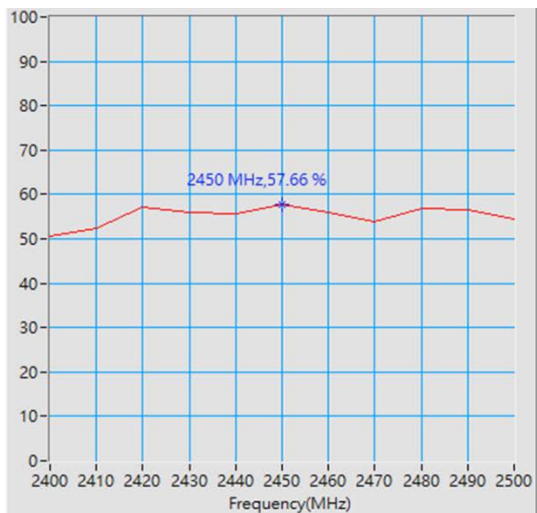
Return Loss & Isolation **Wi-Fi**



Antenna Report (4/11)



Peak Gain & Efficiency @Wi-Fi S3

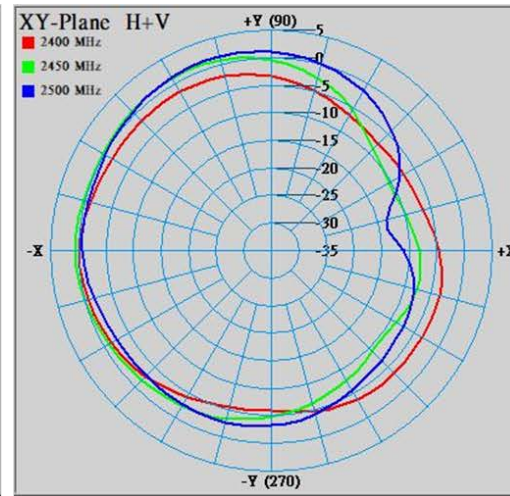
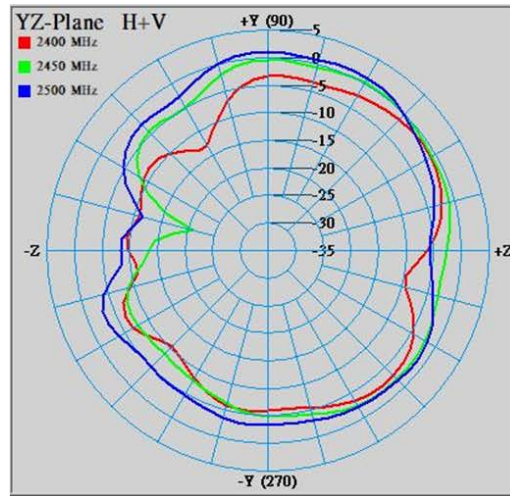
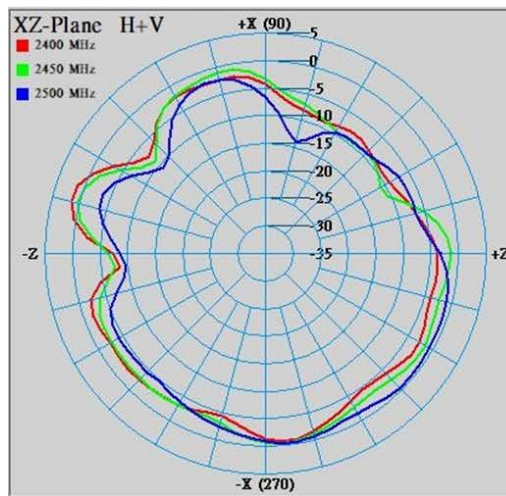


| Ant 1 | | |
|-----------------|----------------|------------------|
| Frequency (MHz) | Efficiency (%) | Average gain(dB) |
| 2400 | 50.61 | -2.96 |
| 2450 | 57.66 | -2.39 |
| 2500 | 54.54 | -2.63 |

Antenna Report (5/11)



2D Gain Pattern @Wi-Fi S3

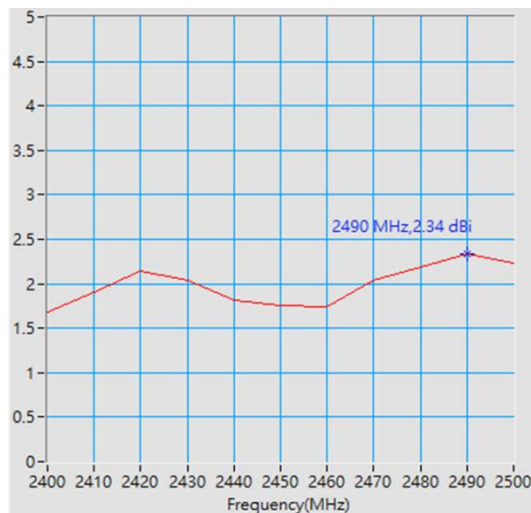
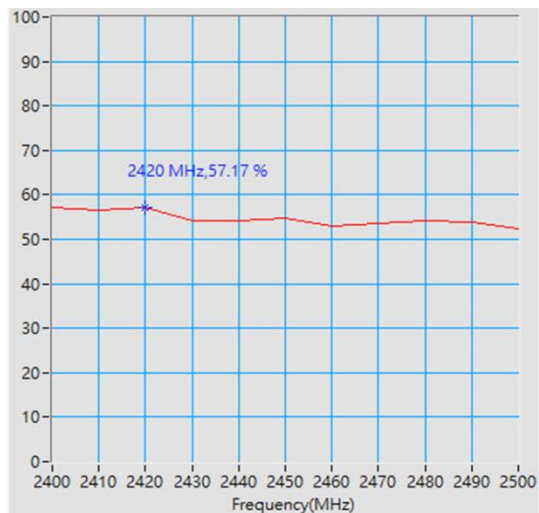


| | ZX plane | | ZY plane | | XY plane | |
|-----------------|----------------|--------------|----------------|--------------|----------------|--------------|
| Frequency [MHz] | Max Value [dB] | Average [dB] | Max Value [dB] | Average [dB] | Max Value [dB] | Average [dB] |
| 2400 | 1.35 | -2.20 | -1.01 | -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 @Wi-Fi S4

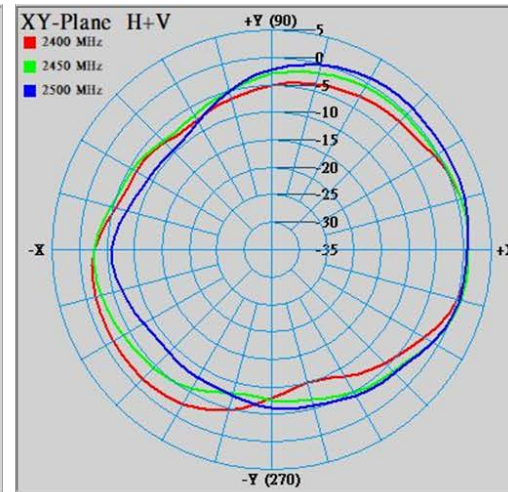
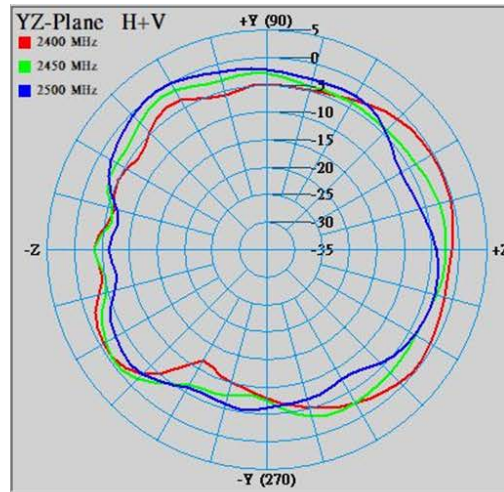
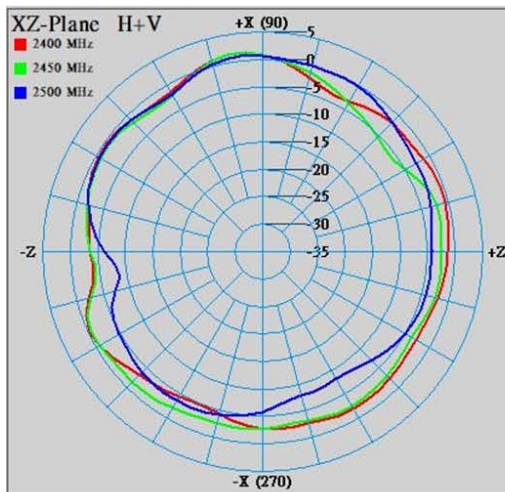


| Ant 2 | | |
|-----------------|----------------|------------------|
| Frequency (MHz) | Efficiency (%) | Average gain(dB) |
| 2400 | 57.07 | -2.44 |
| 2450 | 54.65 | -2.63 |
| 2500 | 52.47 | -2.8 |

Antenna Report (7/11)



2D Gain Pattern @Wi-Fi S4

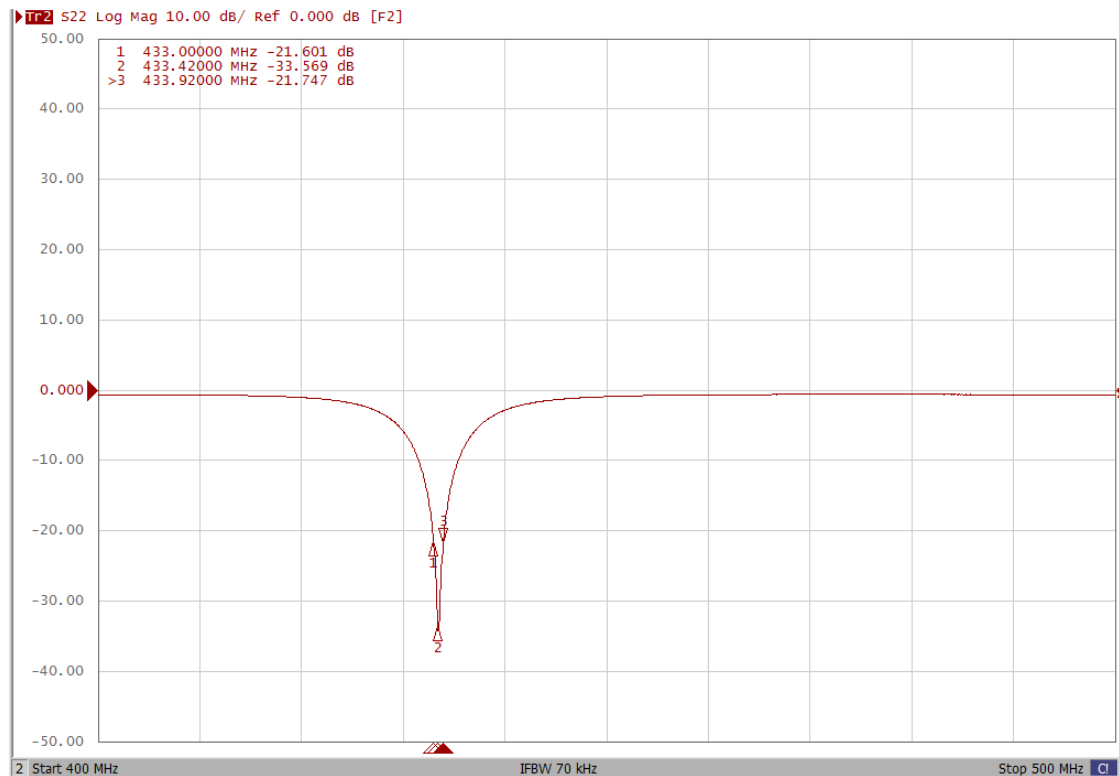


| | ZX plane | | ZY plane | | XY plane | |
|-----------------|----------------|--------------|----------------|--------------|----------------|--------------|
| Frequency [MHz] | Max Value [dB] | Average [dB] | Max Value [dB] | Average [dB] | Max Value [dB] | Average [dB] |
| 2400 | 1.09 | -1.78 | -0.30 | -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)



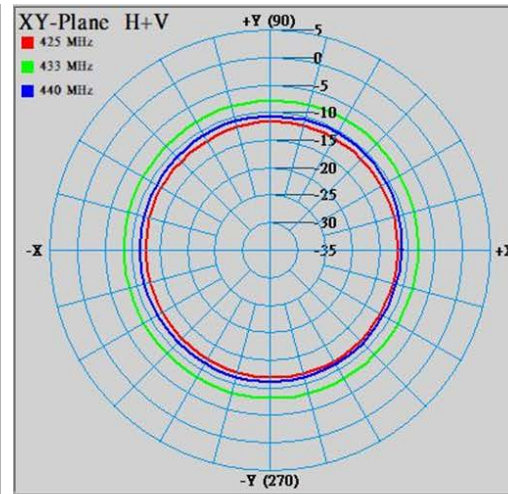
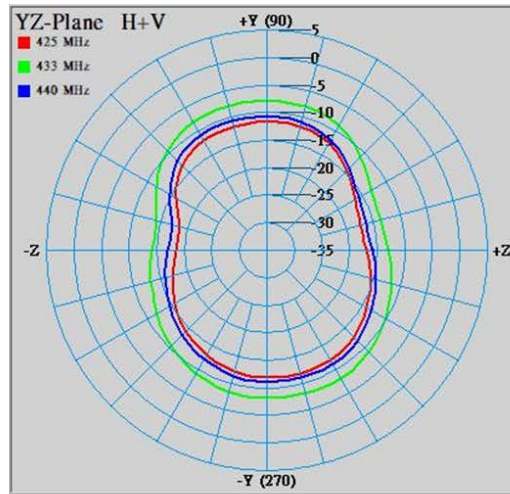
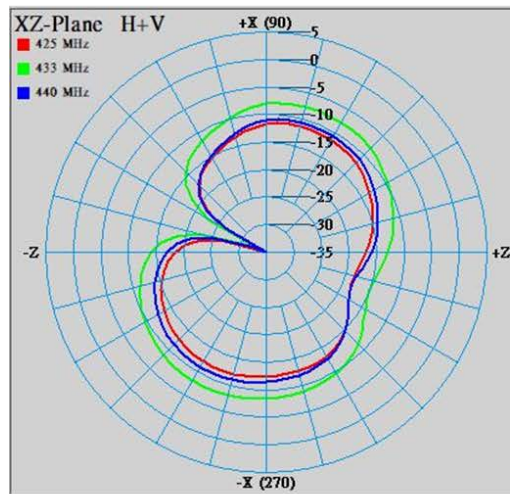
Efficiency @Sub-G

| | 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.