

RF antenna assembly_external_ WiFi2_5G_single_omni_4dBi Antenna test report

Document Number: -

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Revision History

Released Date	Version	Revised Record
2022/11/23	1.00	Initial version

Specification

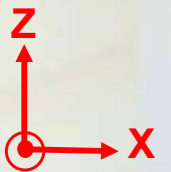
Requirements of Antenna Design

RF Function	Number of ANT	Frequency Band	Remark
WiFi2_5G	1	2400~2500 / 5150~5850 MHz	

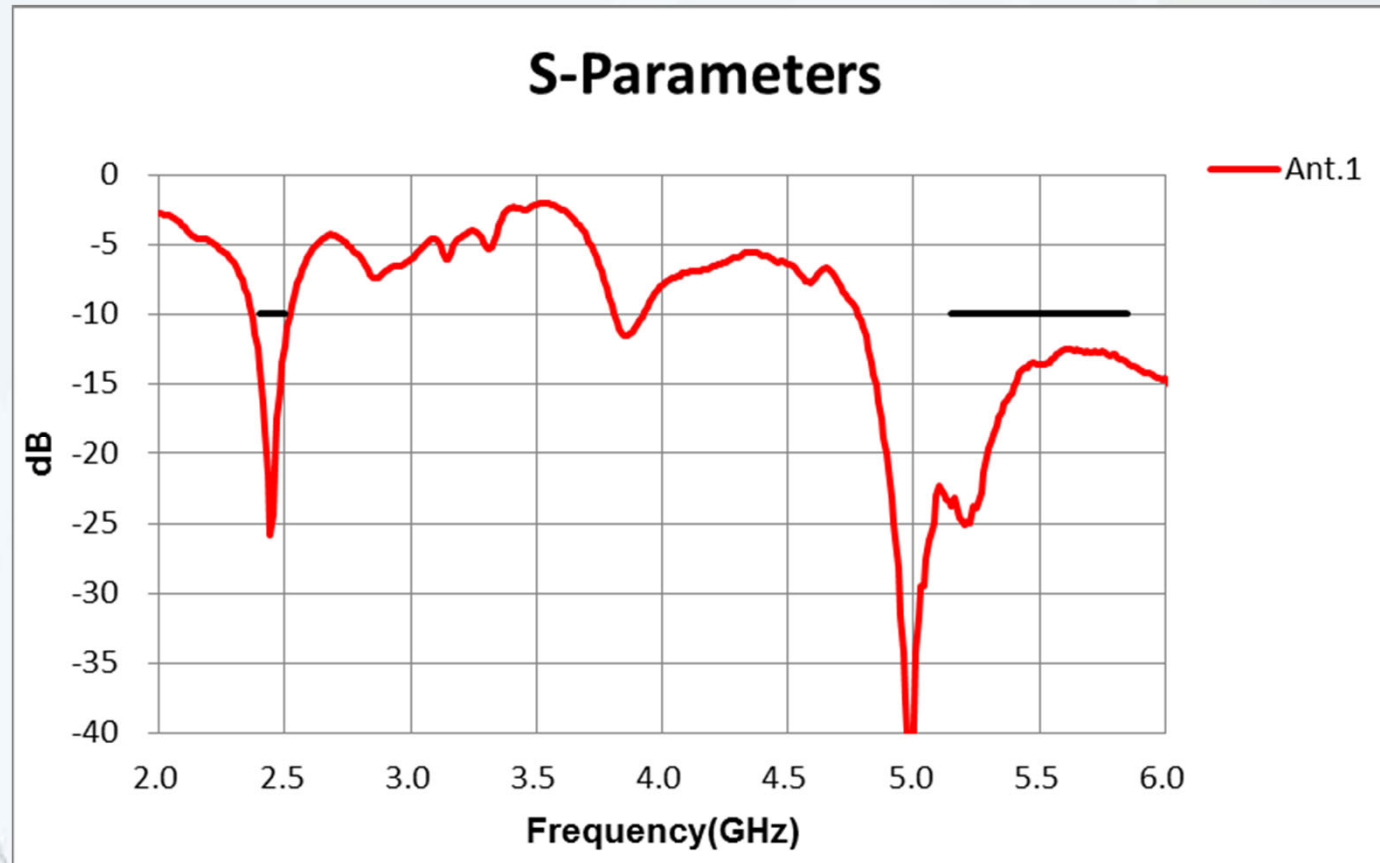
Requirements of Measurement

Test Item	Specification	Remark
Return loss	9 dB Min.	
Polarization	Linear; Vertical	
Peak gain	2400~2500MHz <3.4 / 4900~5825MHz <4.2dBi	
Efficiency	>50%	
Radiation pattern	Scale: +10~ -40dBi	

Antenna Placement & Solution

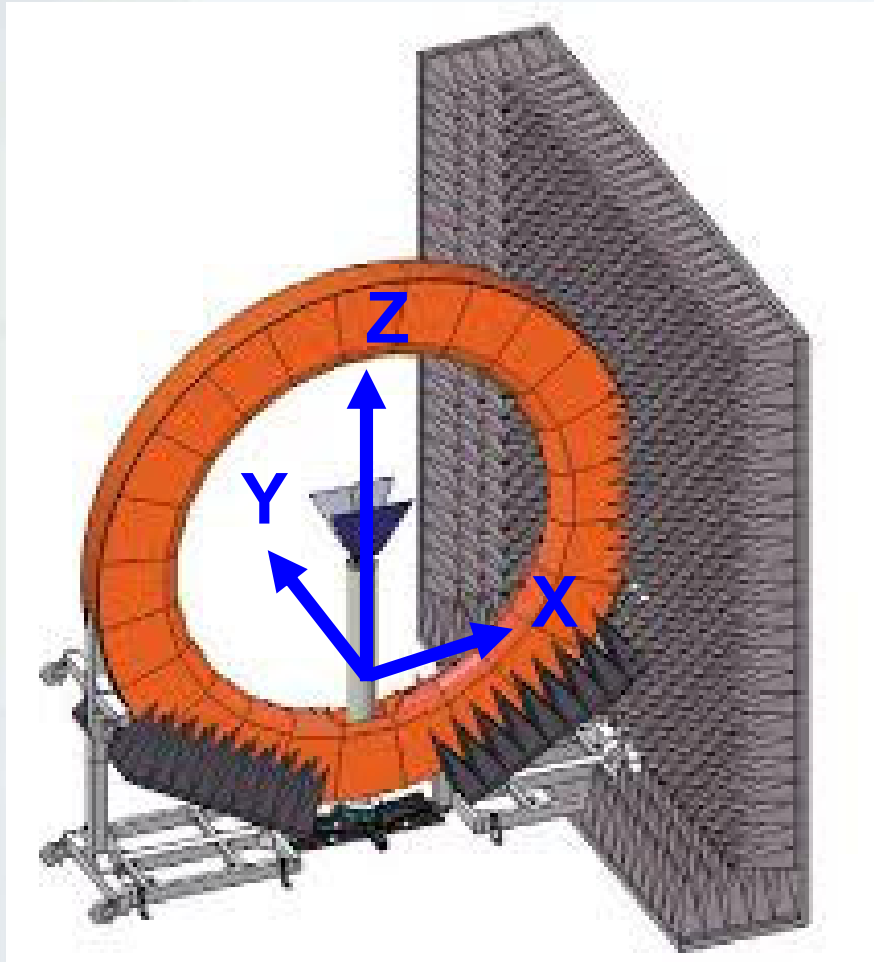


VSWR Results



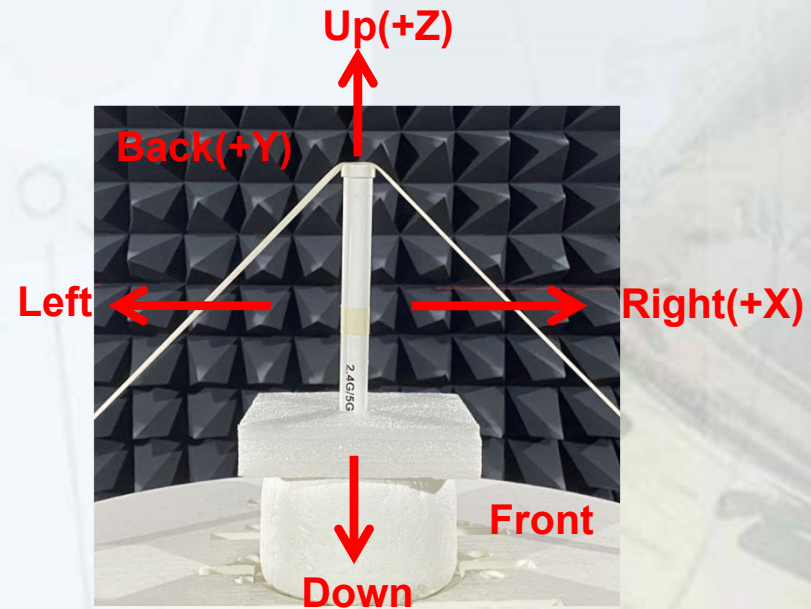
Test Setup for Radiation Pattern Measurement

Chamber Information



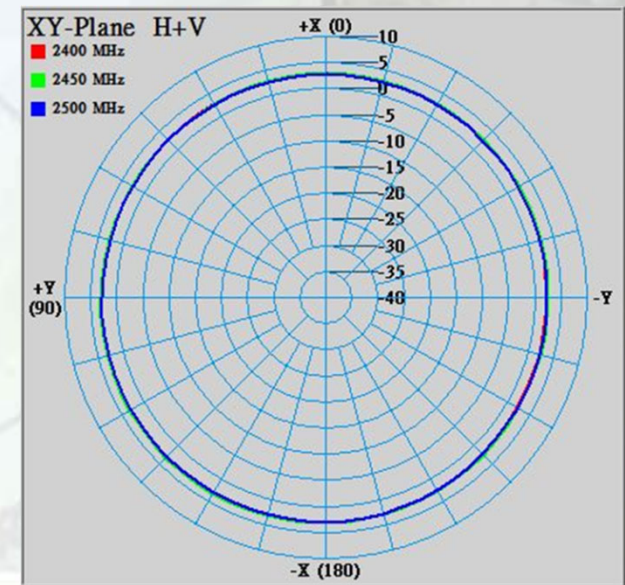
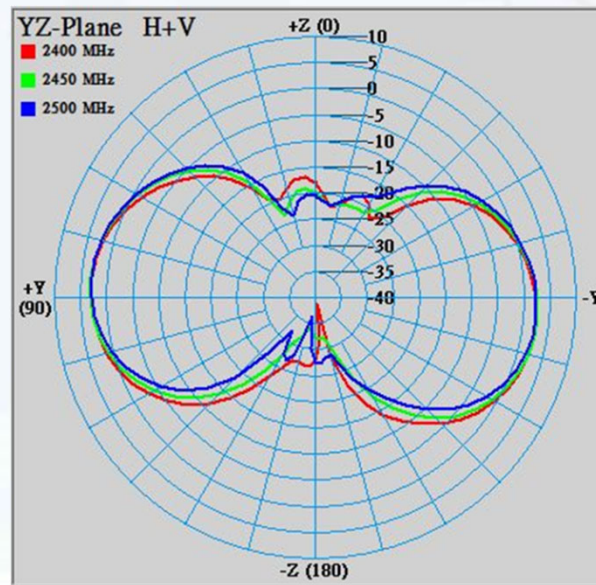
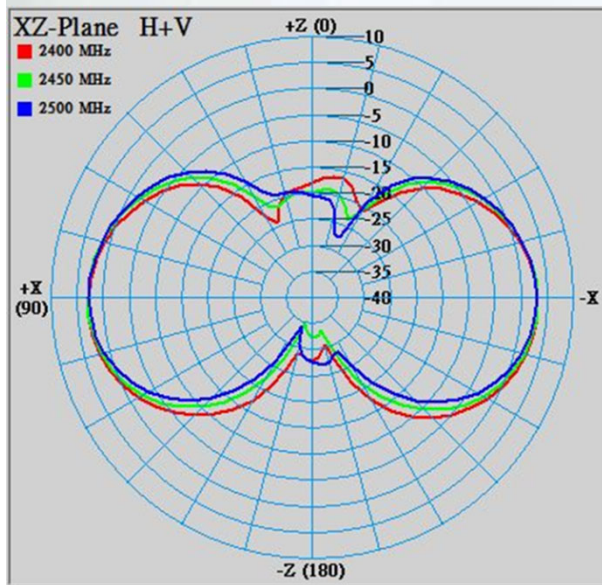
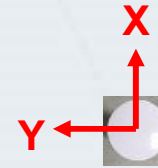
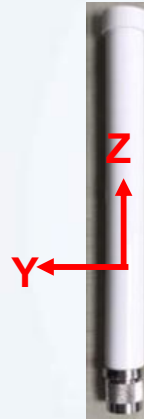
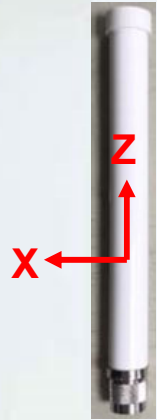
- **SATIMO SG-24L Multi-Probe Antenna Measurement System**

- Angle between probes: 15°
- Frequency range: 400 MHz – 9 GHz
- Chamber Room Size: 5m L x 5m W x 5m H



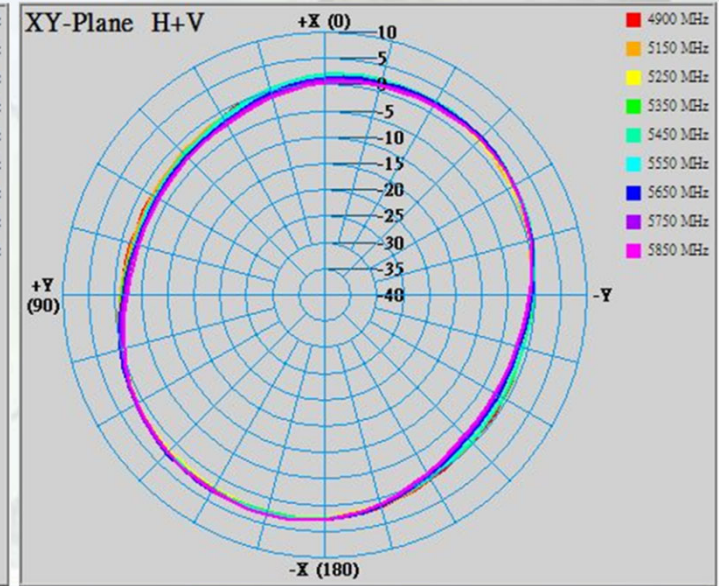
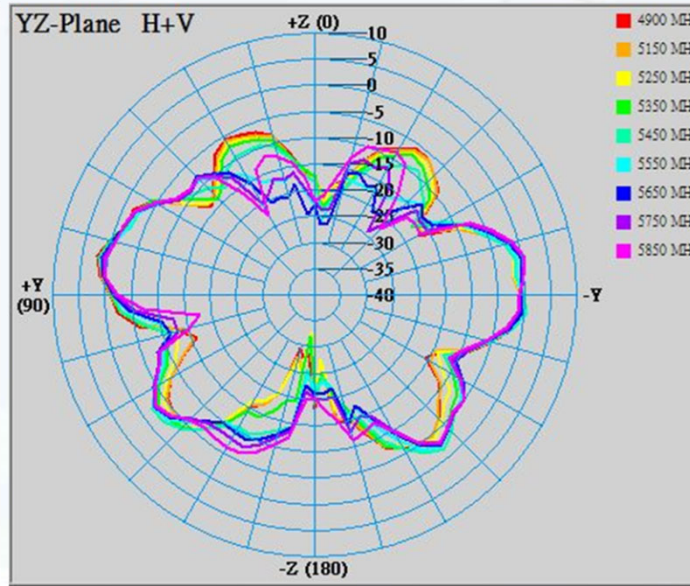
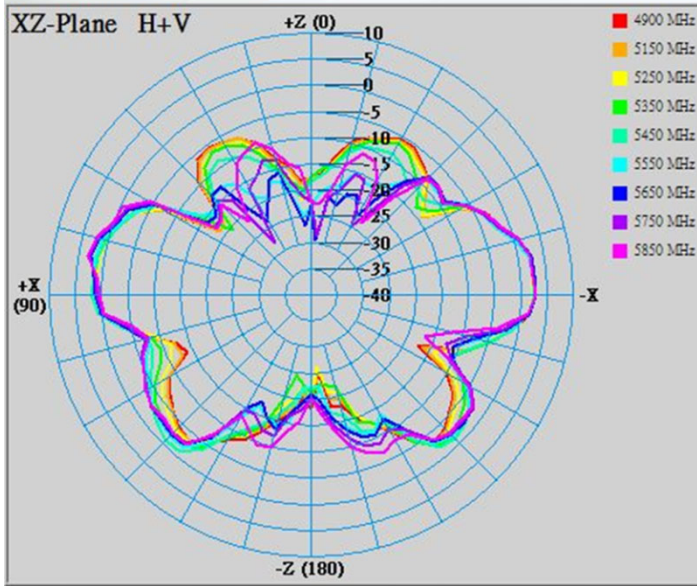
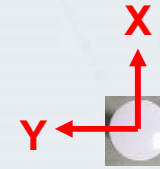
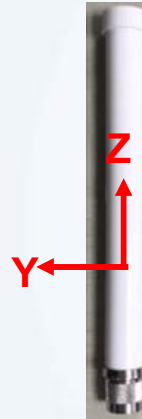
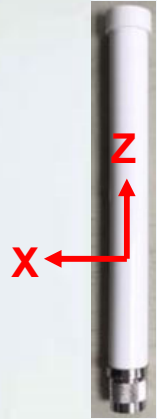
2D Radiation Pattern Results

2400-2500 MHz



2D Radiation Pattern Results

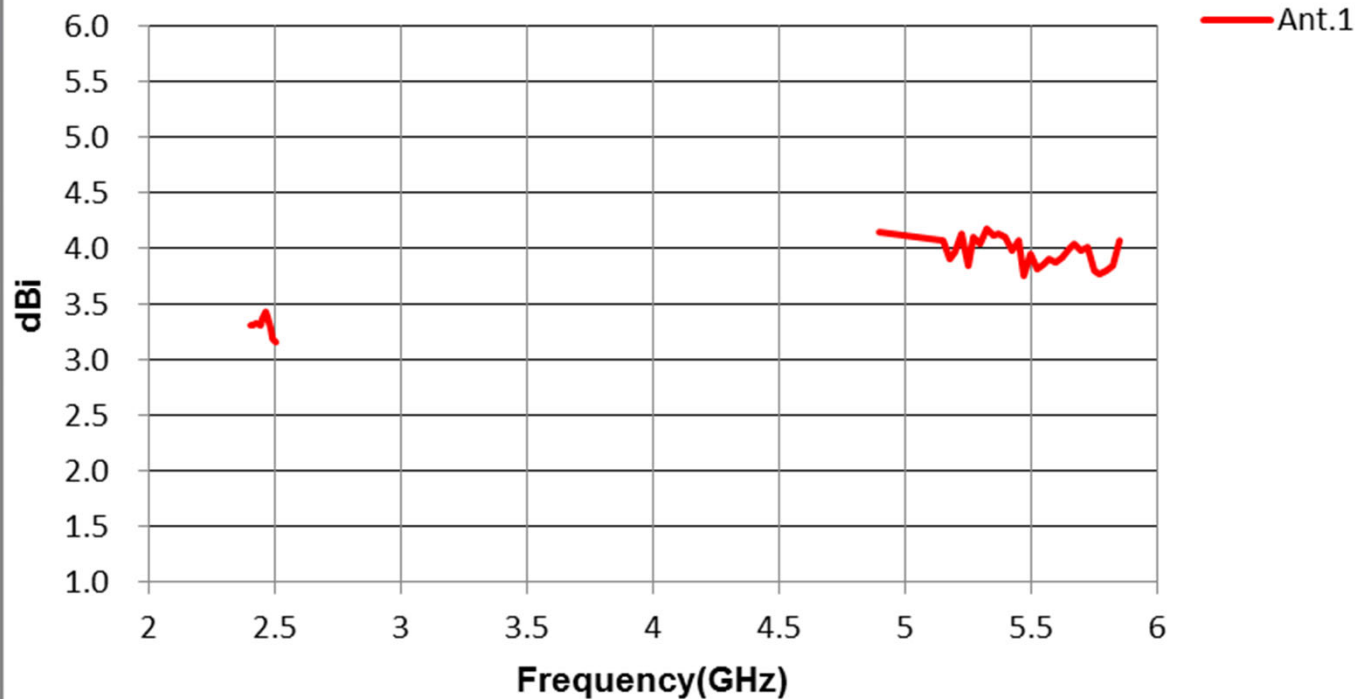
5150-5850 MHz



Results Summary

Peak gain

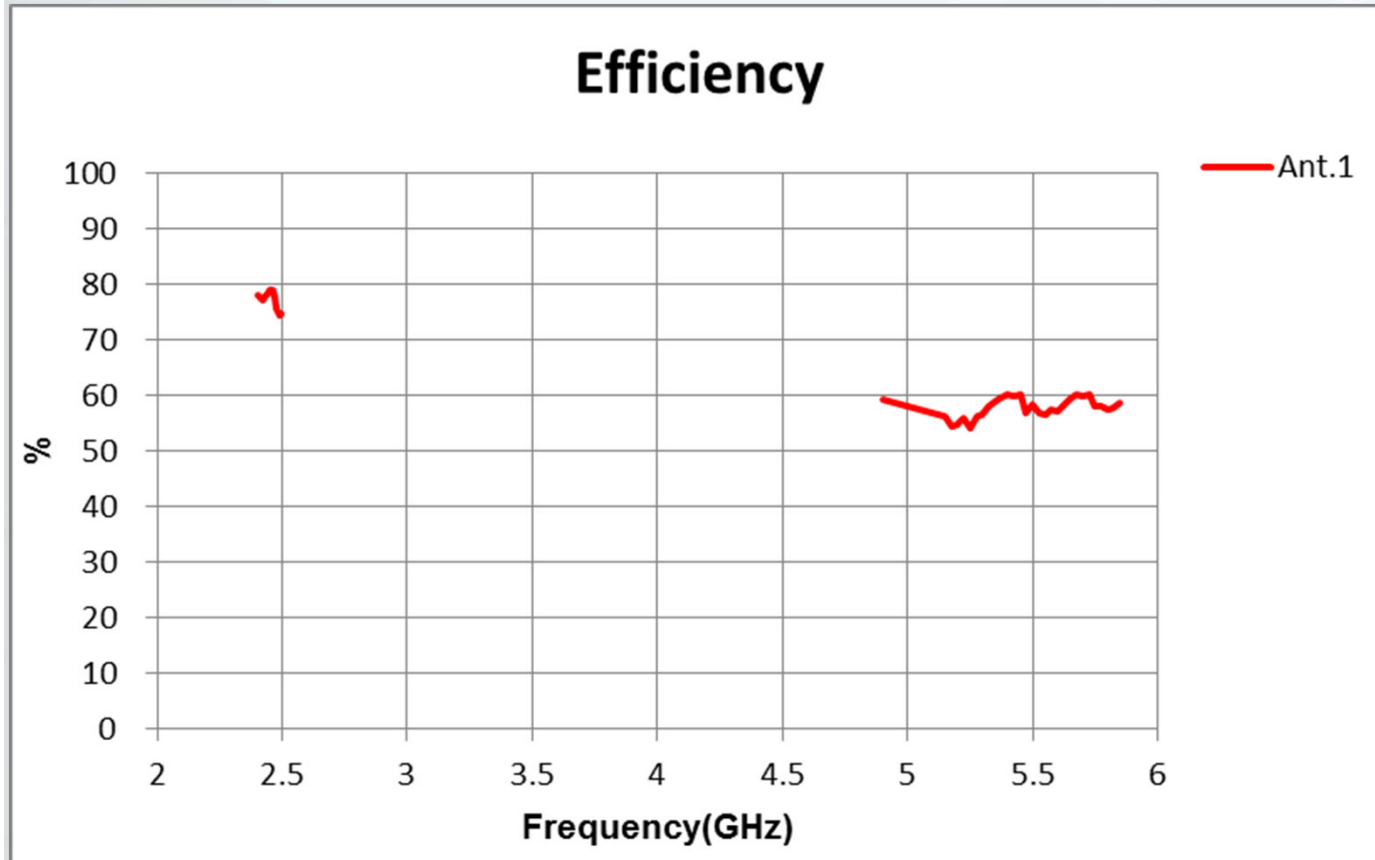
Peak Gain



Frequency (MHz)	Ant1 Gain(dBi)
2400	3.30
2450	3.36
2500	3.15
4900	4.15
5150	4.08
5250	3.85
5350	4.12
5450	4.07
5550	3.87
5650	4.00
5750	3.80
5850	4.08

Results Summary

Efficiency



Frequency (MHz)	Ant1 Efficiency(%)
2400	78
2450	79
2500	75
4900	59
5150	56
5250	54
5350	59
5450	60
5550	57
5650	59
5750	58
5850	59