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AAEON
RTC-1020 WiFi MIMO antenna report
Antenna type: PIFA

Rev A

11 Agu-2022

Revision History

Revision	Date	Description of changes
A	11 Aug -2022	Modify antenna

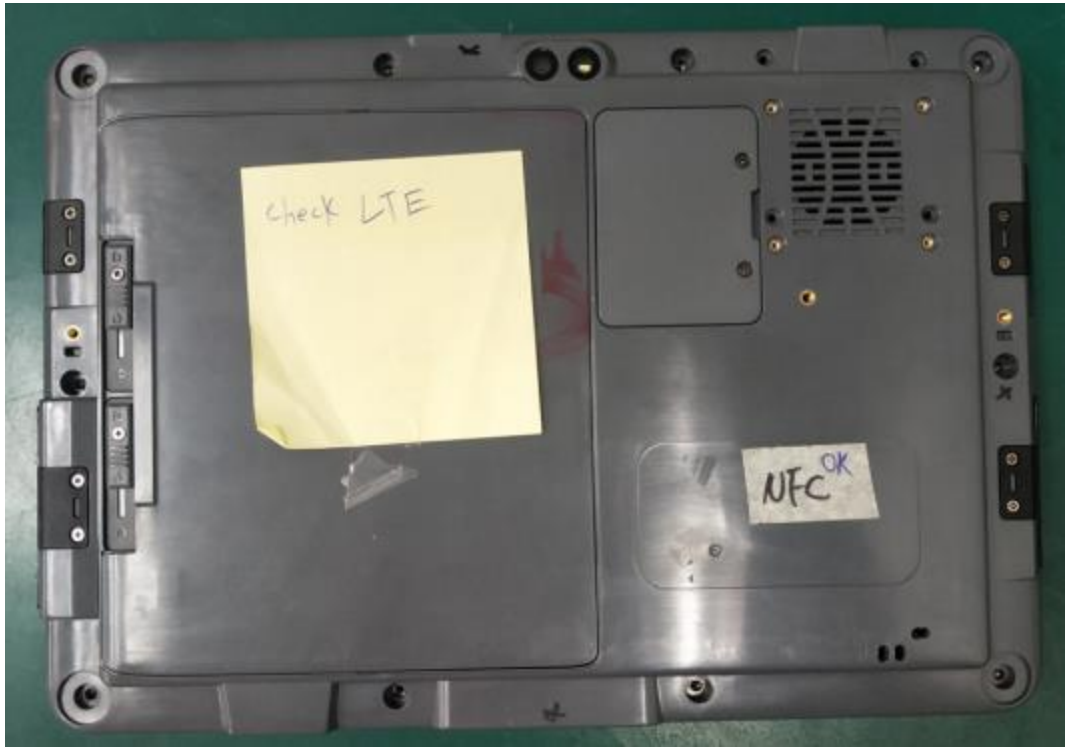
Content

1.0 Summary

- According to the AAEON requested, SINBON engineer measure antenna samples provided the result in this report.
- All the measurements are base on the test fixture shown in section 2.

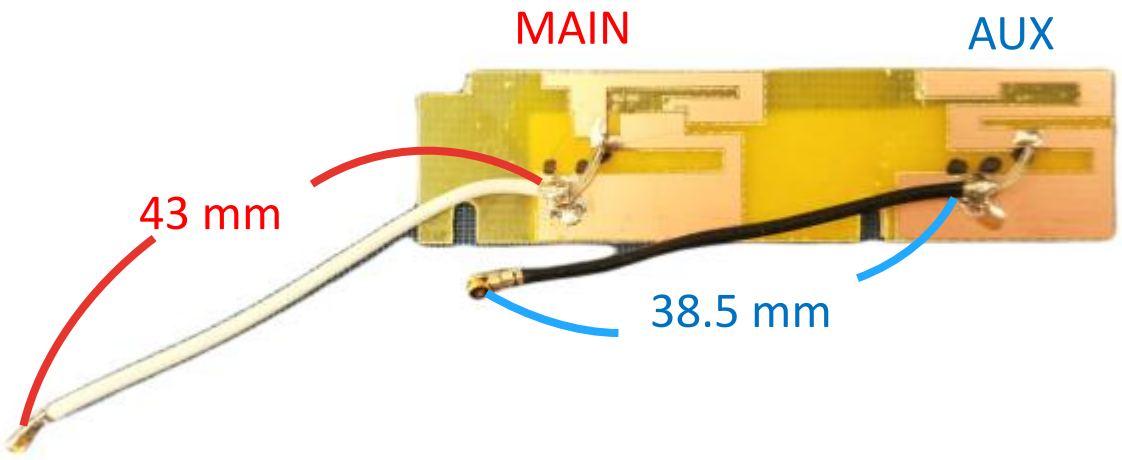
2.0 Test fixtures pictures

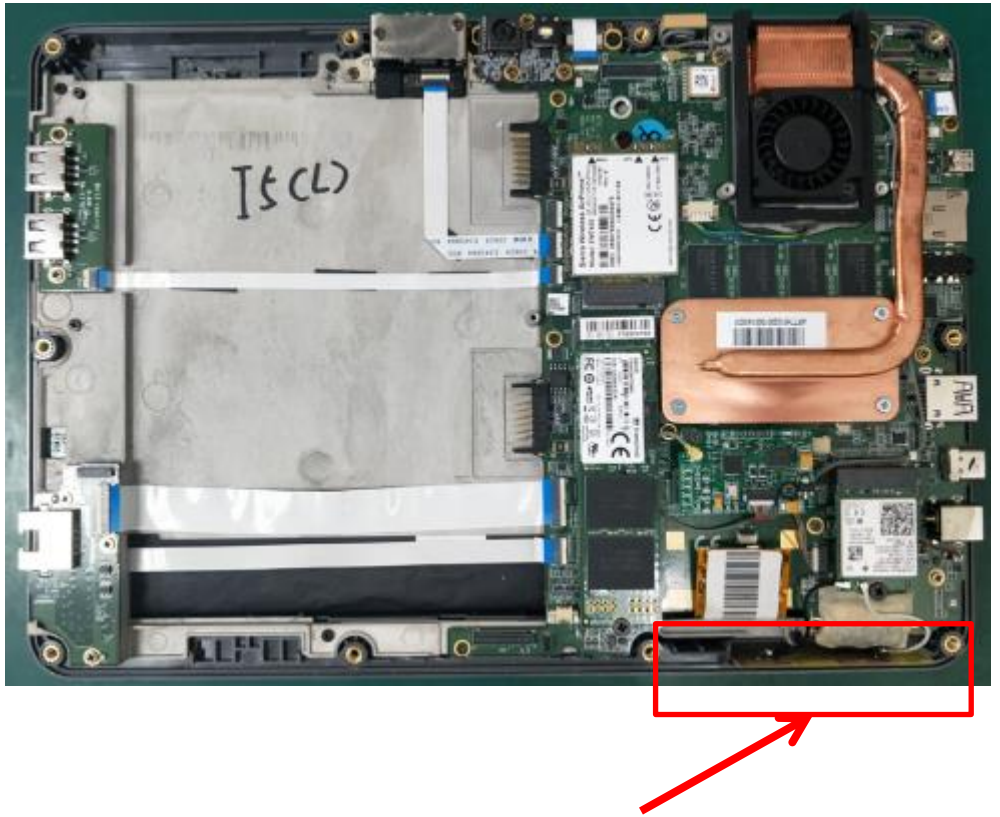
Front view



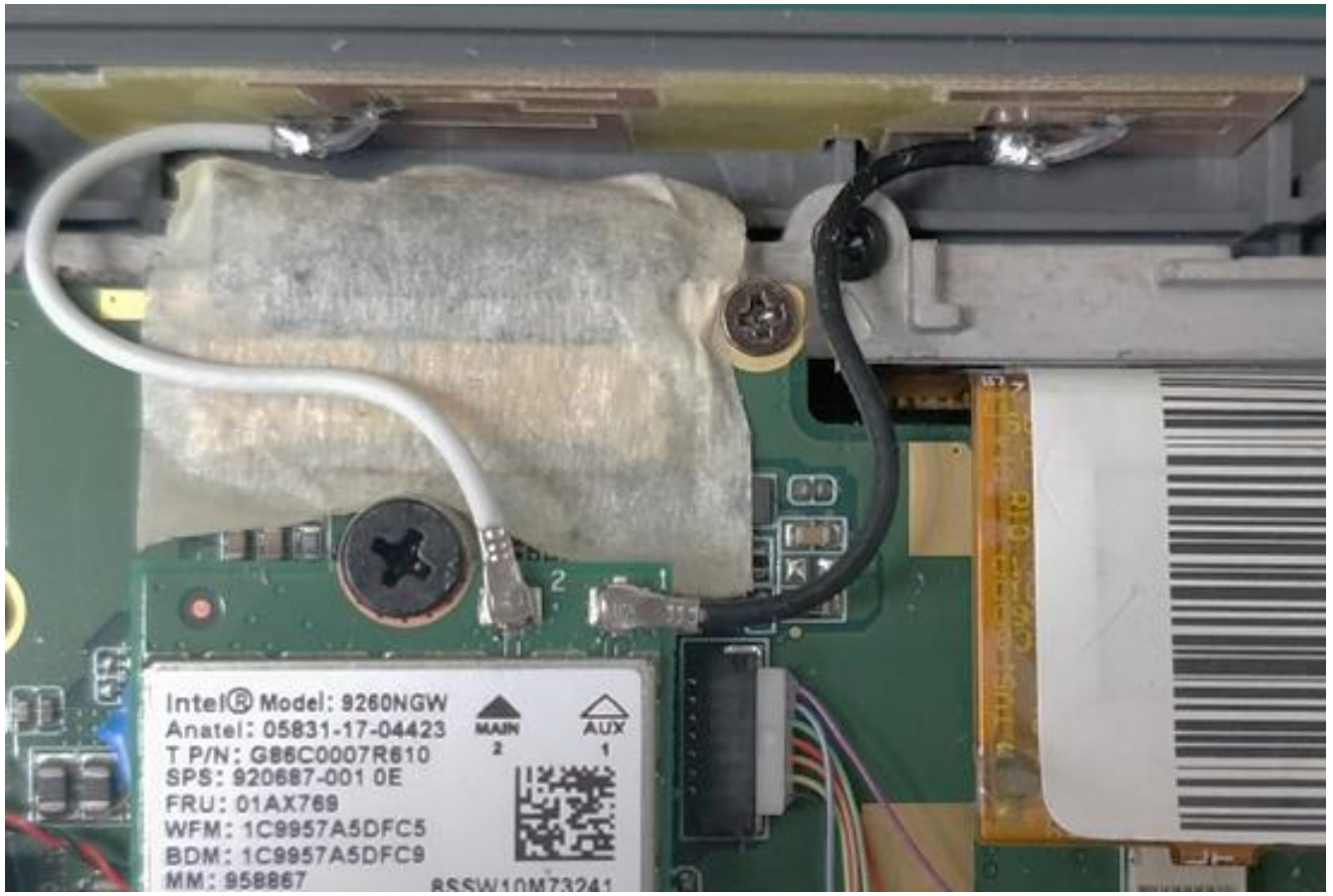
Rear view

2.0 Test fixtures pictures



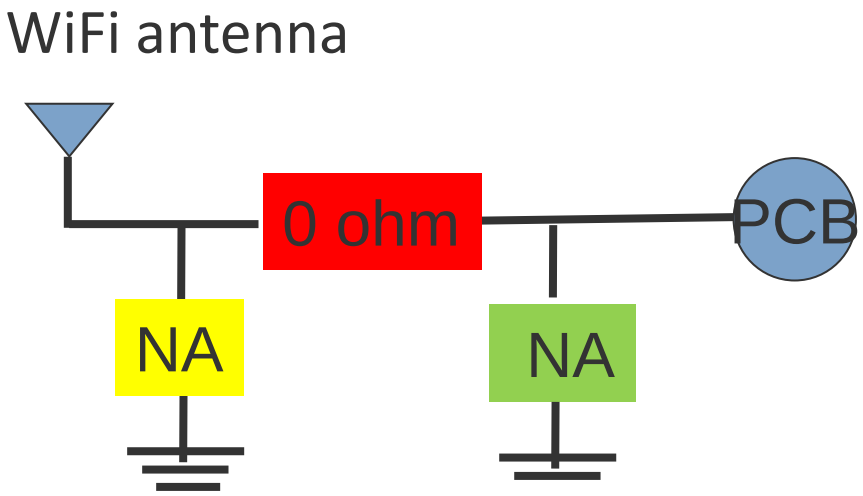


2.0 Test fixtures pictures

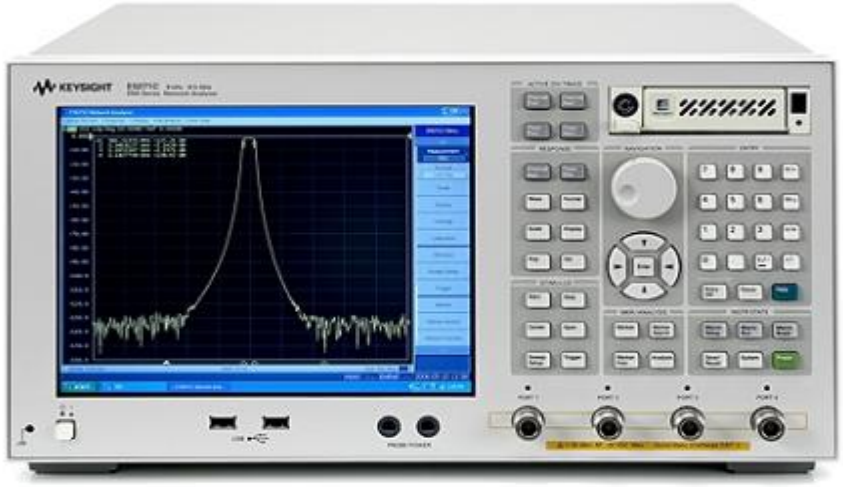


Cable routing

3.0 Matching network circuitry



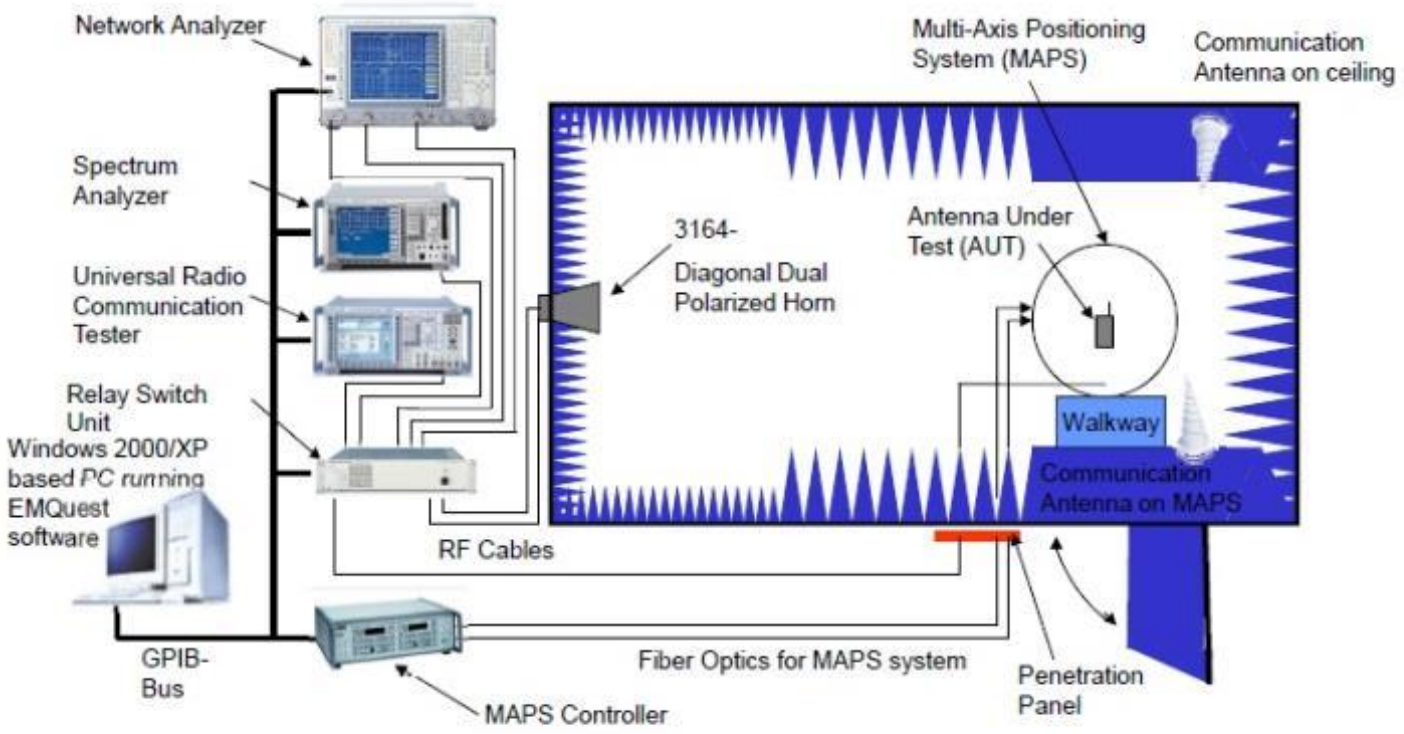
4.0 Test setup (Network Analyzer)



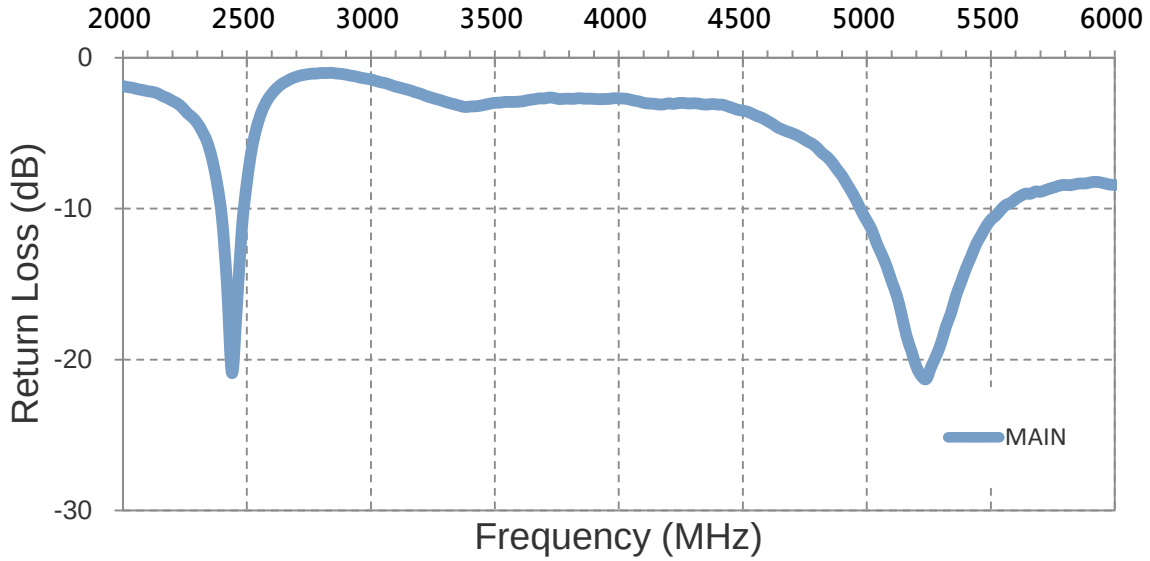
VSWR / S11 measurements were performed using an Agilent E5071C Network Analyzer and the test fixture shown in section 2. The testing was performed in free space. The complete VSWR and isolation plots are provided in section 5.0.

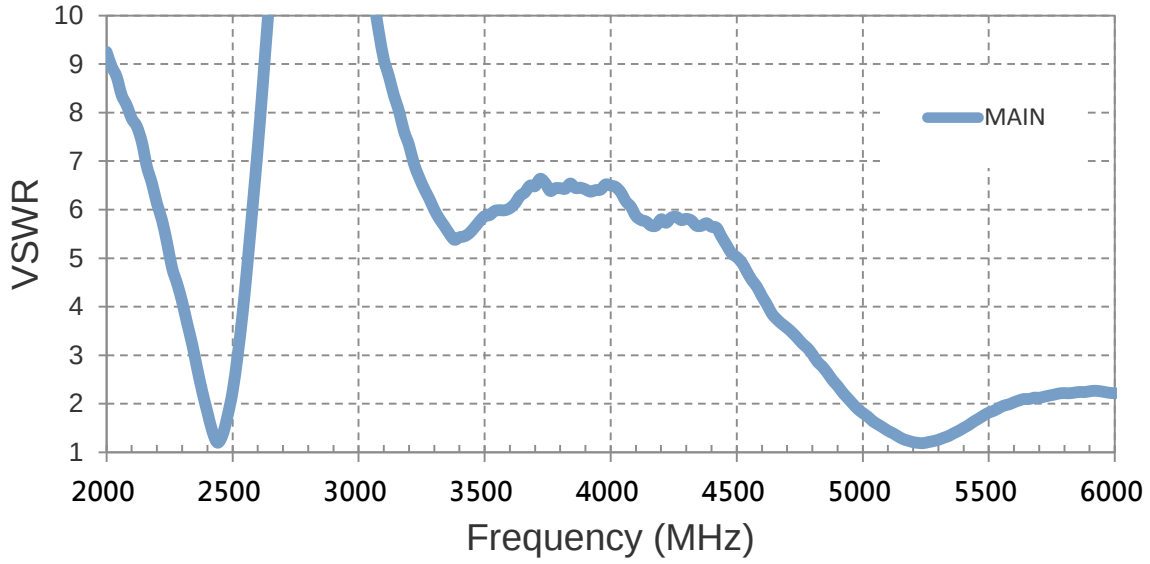
4.1 Laboratory equipment

4.2 ETS Chamber - AMS-8500

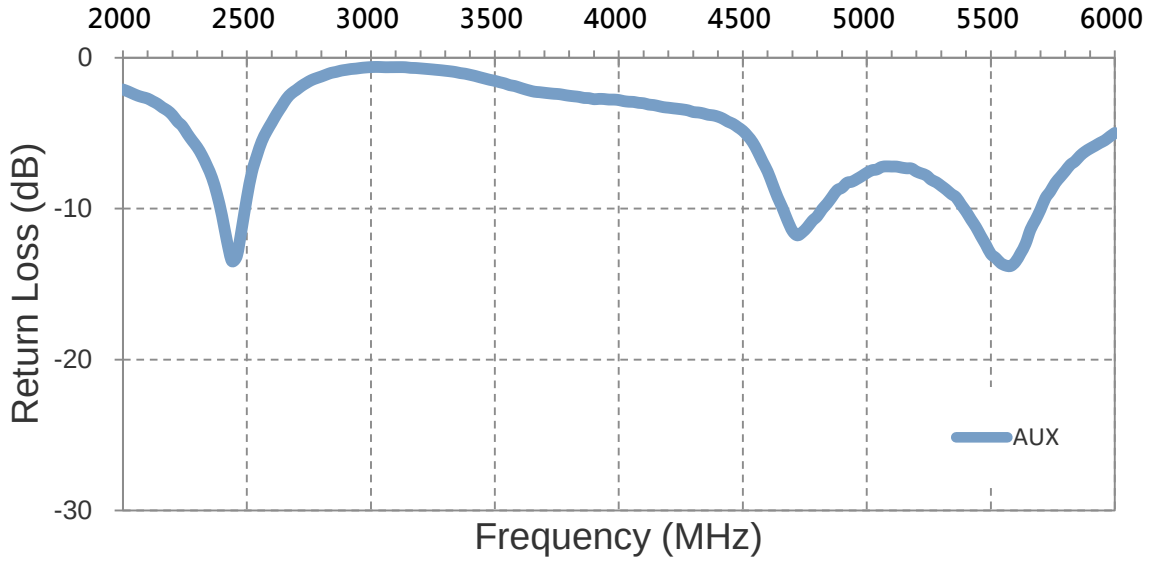


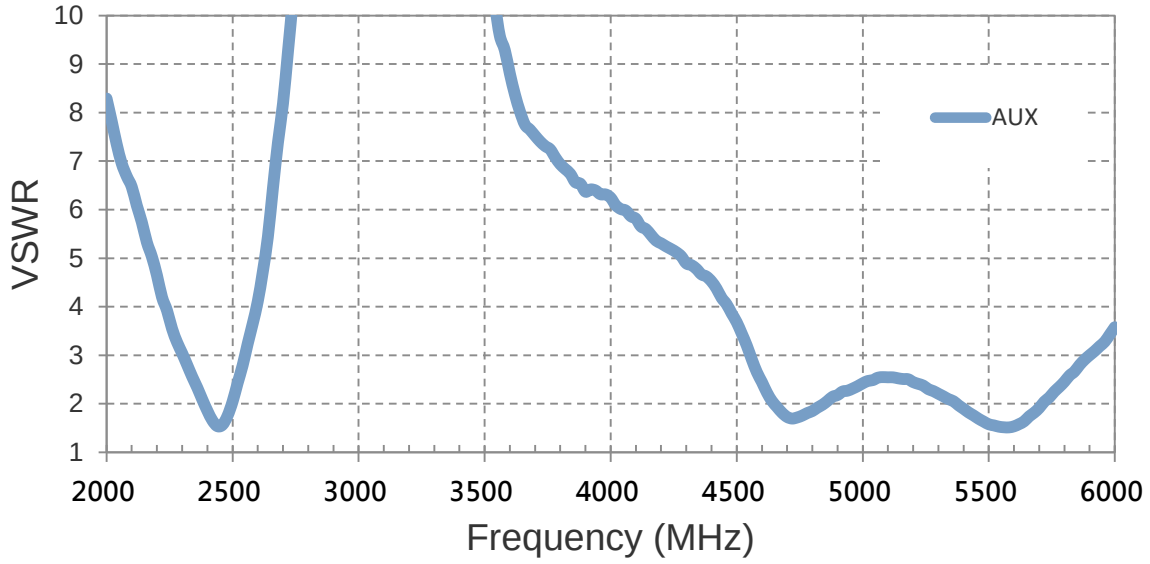
5.0 WiFi antenna(MAIN) S11/VSWR





5.0 WiFi antenna(AUX) S11/VSWR



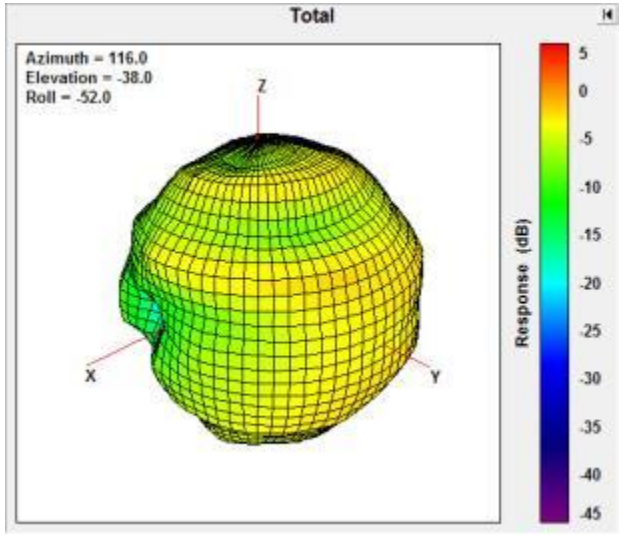


5.1 WiFi MIMO antenna efficiency

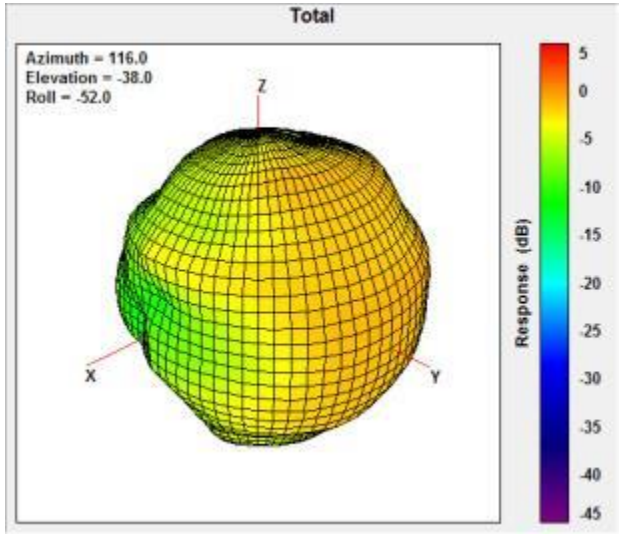
MHz	MAIN			AUX		
	Efficiency (dB)	Efficiency (%)	Peak Gain (dBi)	Efficiency (dB)	Efficiency (%)	Peak Gain (dBi)
2400	-4.6	34.9	1.3	-5.1	30.9	1.9
2410	-4.4	36.7	1.4	-5.1	30.6	1.9
2420	-4.1	39.2	1.6	-5.0	31.8	2.1
2430	-3.8	41.4	1.6	-4.9	32.6	2.3
2440	-3.7	42.5	1.3	-4.8	33.0	2.4
2450	-3.6	43.7	0.9	-4.7	33.7	2.5
2460	-3.6	44.0	0.5	-4.7	34.0	2.7
2470	-3.7	42.6	-0.1	-4.7	33.8	2.7
2480	-3.9	41.0	-0.2	-4.7	33.6	2.8
2490	-4.1	39.0	-0.1	-4.8	33.2	2.8
2500	-4.4	36.2	-0.2	-4.9	32.1	2.8
5150	-3.1	48.8	3.7	-3.2	47.8	1.8
5250	-3.0	50.4	3.6	-3.1	49.1	1.6
5350	-3.0	50.0	2.7	-3.1	49.0	3.0
5470	-2.9	51.5	2.3	-2.8	52.0	1.9
5600	-3.1	48.8	2.4	-3.1	49.0	1.7
5725	-3.1	49.4	2.3	-2.9	50.8	2.6
5785	-3.4	45.6	1.7	-3.1	49.5	3.2
5875	-3.7	43.0	1.4	-3.6	43.6	1.9

6.0 Radiation Pattern(MAIN)

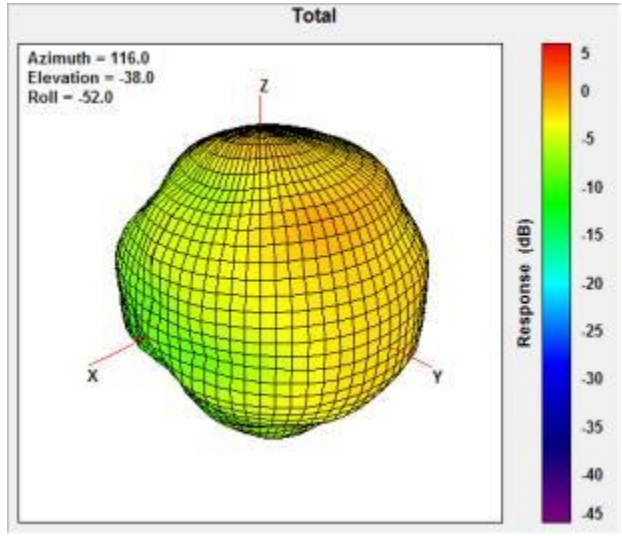
2400 MHz



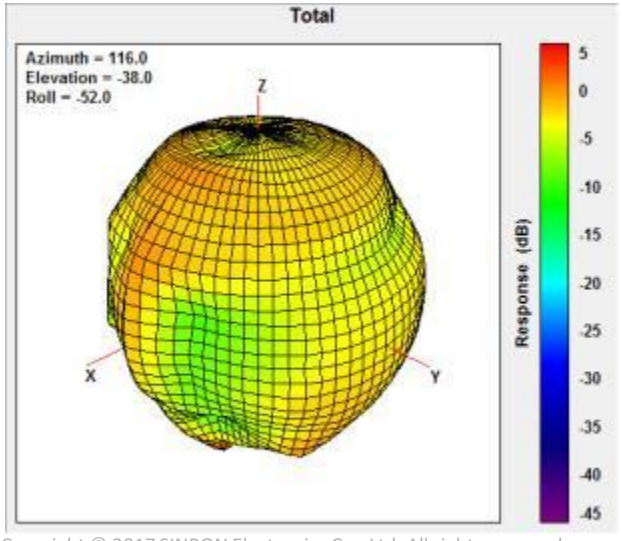
2450 MHz



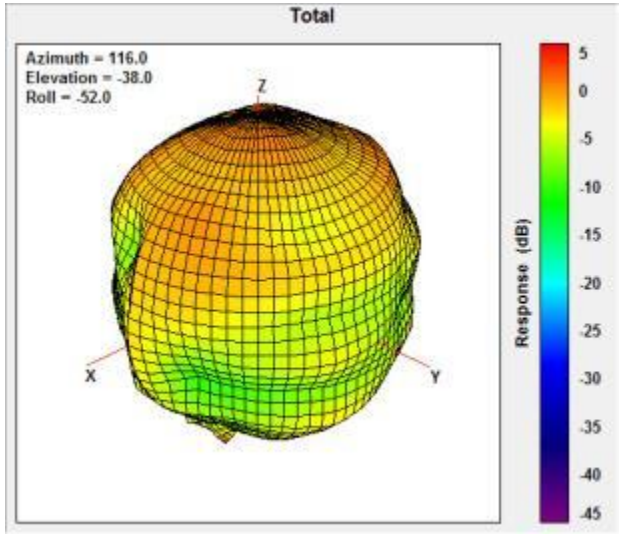
2500 MHz



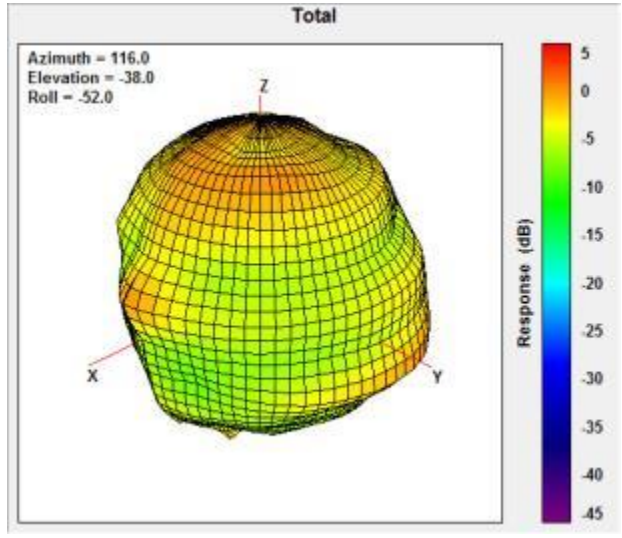
5150 MHz



5470 MHz

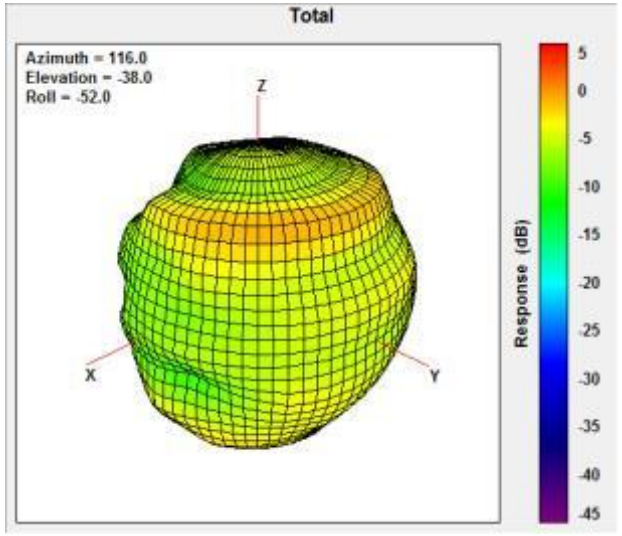


5875 MHz

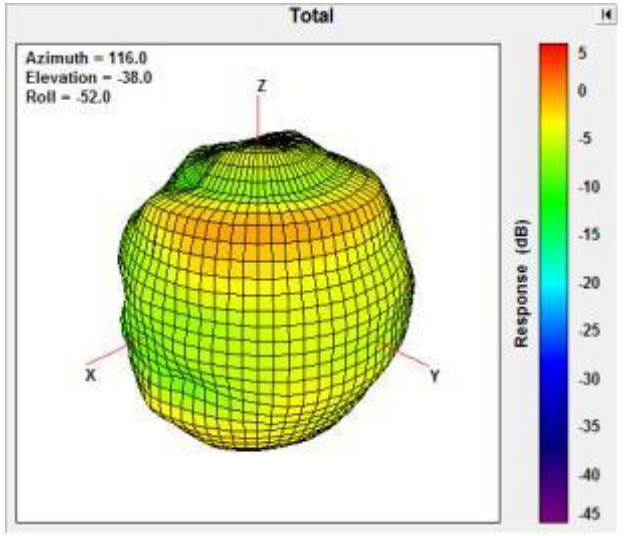


6.0 Radiation Pattern(AUX)

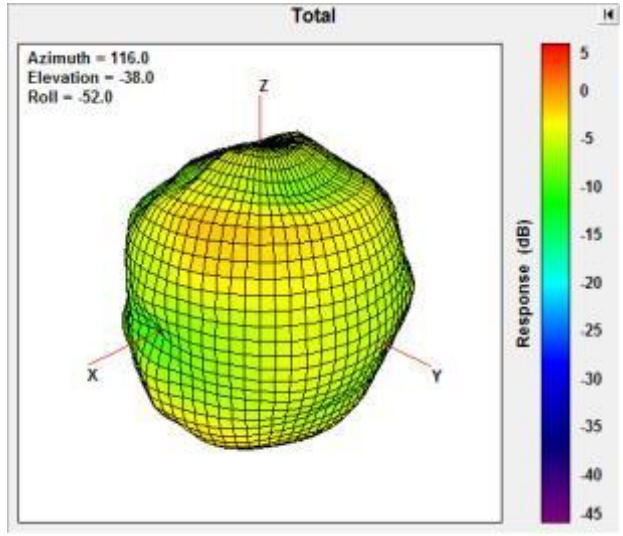
2400 MHz



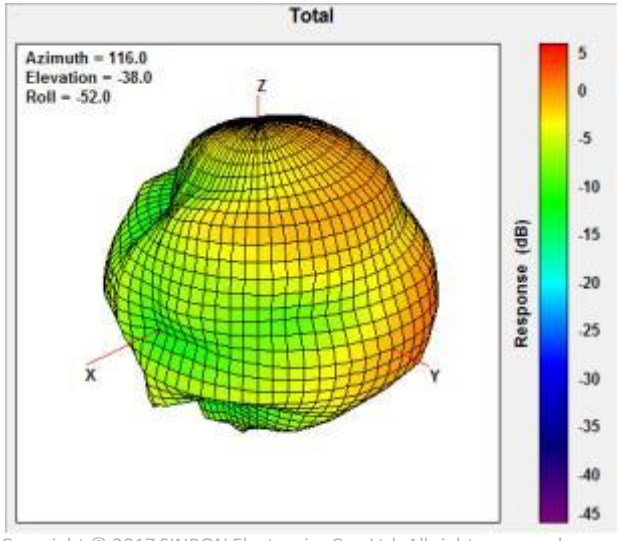
2450 MHz



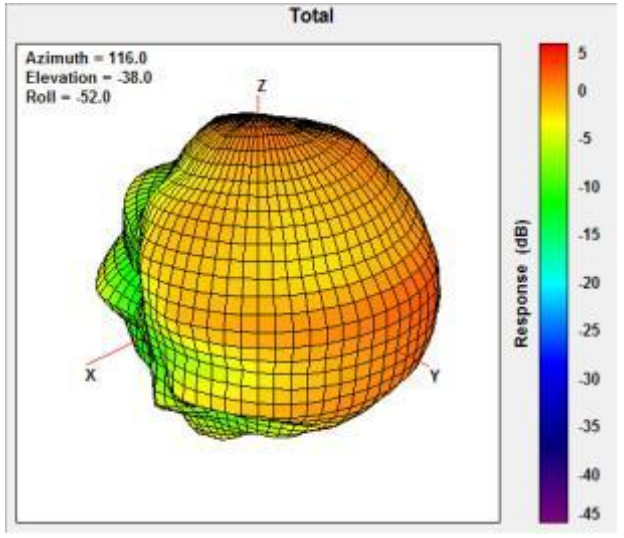
2500 MHz



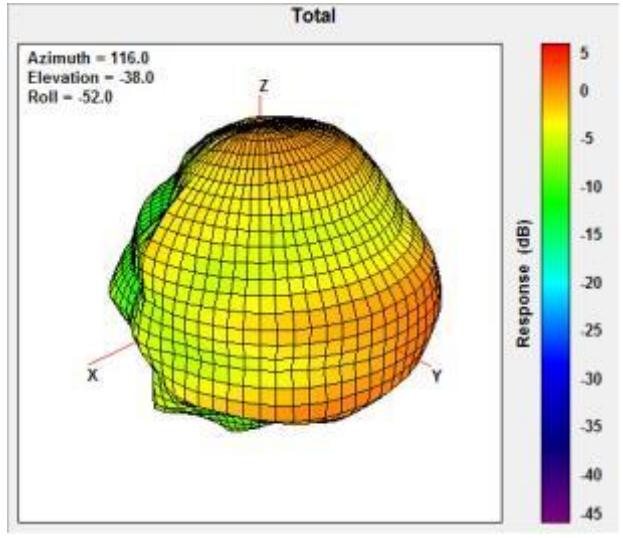
5150 MHz



5470 MHz



5875 MHz



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thank you

danke děkuji ありがとう merci gracias
grazie kiitos תודות köszi tak tack