

1. OTA PASSIVE ANTENNA TEST REPORT

Date of Report	15/04/2025	Client's Contact person:	Jouni Lifländer
Number of pages:	32	Responsible Test engineer:	Veli-Matti Niemitalo
Testing laboratory:	Verkotan Oy Elektroniikkatie 17 90590 Oulu Finland	Client:	Haltian Oy Yrttpellontie 1 D3 90230 Oulu Finland
Tested devices	Navigator		
Testing has been carried out in accordance with:	Passive measurements per customer request		
Documentation:	The test report must always be reproduced in full; reproduction of an excerpt only is subject to written approval of the testing laboratory.		
Test Results:	The test results relate only to devices specified in this document		
Date and signatures:			
	Jani Kallankari Chief scientist	15.4.2025	

2. SUMMARY

2.1 Test Details

Devices under Test (DUT):

Product:	Navigator
Note	Different antennas were tested using 3 separate device samples. SubGHz Low Band was measured in Anechoic Chamber 1, other measurements were done in Anechoic Chamber 4. Extrapolated calibration target values were used for SubGHz Low Band measurements.
Manufacturer info:	-
SW Info:	-
DUT number:	22081 (Cellular Main, Cellular Secondary, GNSS) 21251 (SubGHz Low Band, SubGHz High Band) 21234 (Wi-Fi / Bluetooth)
Tested Frequencies [MHz]	Cellular Low Band: 695-960 MHz in 5 MHz steps Cellular Mid-High Band: 1710-2700 MHz in 10 MHz steps GNSS: 1560-1616 MHz in 2 MHz steps SubGHz Low Band: 433-435 MHz in 1 MHz steps SubGHz High Band: 865-927 MHz in 1 MHz steps Wi-Fi / Bluetooth: 2400-2485 MHz in 5 MHz steps

Testing information:

Testing performed:	14.2.2024 (Cellular, GNSS), 27.2.2024 (SubGHz Low Band), 7.3.2024 (SubGHz High Band), 15.3.2024 (WiFi/Bluetooth)
Notes:	Setup pictures in document Passive_OTA_test_report_ID5993_Navigator_15042025_Appendix
Document name:	Passive_OTA_test_report_ID5993_Navigator_15042025
Temperature °C / Humidity RH%	22±2 / 25%±10%
Measurement performed by:	Veli-Matti Niemitalo, Mikko Piilola
Document history:	26.7.2024 First Draft 31.7.2024 Second Draft, 433 MHz results included 2.8.2024 Signed Version 15.4.2025 Setup pictures moved to appendix document

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3. TEST EQUIPMENT

Main used test equipment is listed below. For full equipment list and calibration intervals, please contact the testing laboratory.

Anechoic Chamber 4 was used for Cellular Low Band, Cellular Mid-High Band, GNSS, SubGHz High Band and WiFi / Bluetooth measurements.

Anechoic Chamber 1 was used for SubGHz Low Band 433-435 MHz measurements. SubGHz Low Band measurements were done using extrapolated SD473 calibration target values.

Type of Equipment	Type	Manufacturer	Calibration date	Calibration period	Calibration due	Purpose
Diagonal Dual Polarized Horn Measurement Antenna	114960	ETS	Included in range calibration	Included in range calibration	Included in range calibration	Probe antenna
Positioning Controller	2090	EMCO	n/a	n/a	n/a	DUT alignment
3D Positioner	Custom made	ETS-Lindgren	n/a	n/a	n/a	DUT alignment
Anechoic Chamber	4	ETS-Lindgren	23.09.2023	1 year	23.09.2024	Test range
Switching System	MSN-6TD-06-DEC-SP	American Microwave	Included in range calibration	Included in range calibration	Included in range calibration	Probe selection
Switching System	SW6AD-A61	Pulsar	Included in range calibration	Included in range calibration	Included in range calibration	Probe selection
Network Analyzer	E5071B	Agilent	06.03.2023 (*1) 04.03.2024 (*2)	1 year	06.03.2024 (*1) 04.03.2025 (*2)	Measurement transmitter / receiver
Dual-Ridge Horn Antenna	SH600	MVG	20.08.2020	n/a	n/a	Calibration antenna 1-9 GHz

Table 1. Antenna pattern measurement equipment, Anechoic Chamber 4

(*1) Applies to measurements done on 14.02.2024

(*2) Applies to measurements done on 7.3.2024 & 15.3.2024

Type of Equipment	Type	Manufacturer	Calibration date	Calibration period	Calibration due	Purpose
Diagonal Dual Polarized Horn Measurement Antenna	3164-06	ETS	Included in range calibration	Included in range calibration	Included in range calibration	Probe antenna 300 MHz - 6 GHz
Positioning Controller	2090	EMCO	n/a	n/a	n/a	DUT alignment
3D Positioner	Custom made	ETS-Lindgren	n/a	n/a	n/a	DUT alignment
Anechoic Chamber	1	ETS-Lindgren	11.07.2023 (*1)	1 year	11.07.2024 (*1)	Test range
Switching System	SW6AD-A61	American Microwave	Included in range calibration	Included in range calibration	Included in range calibration	Probe selection
Network Analyzer	E5071B	Agilent	06.03.2023 (*1)	1 year	06.03.2024 (*1)	Measurement transmitter / receiver
Dual-Ridge Horn Antenna	SH600	MVG	20.08.2020	n/a	n/a	Calibration antenna 1-9 GHz
Dipole Antenna	SD473	SATIMO	19.04.2007	n/a	n/a	Calibration antenna 448-498 MHz

Table 2. Antenna pattern measurement equipment, Anechoic Chamber 1

(*1) Applies to measurements done on 27.02.2024

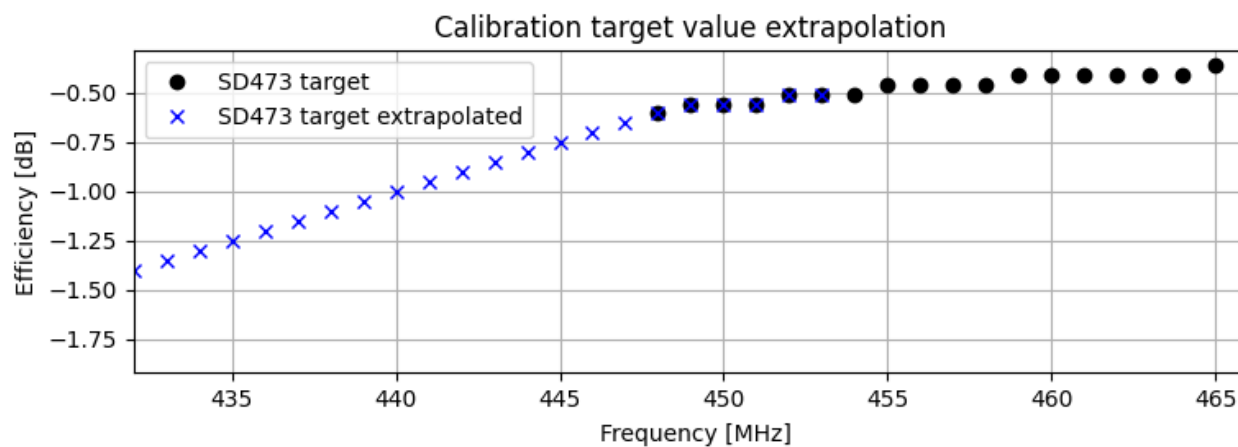


Figure 1. Extrapolation of SD473 calibration target values for 433 MHz measurement

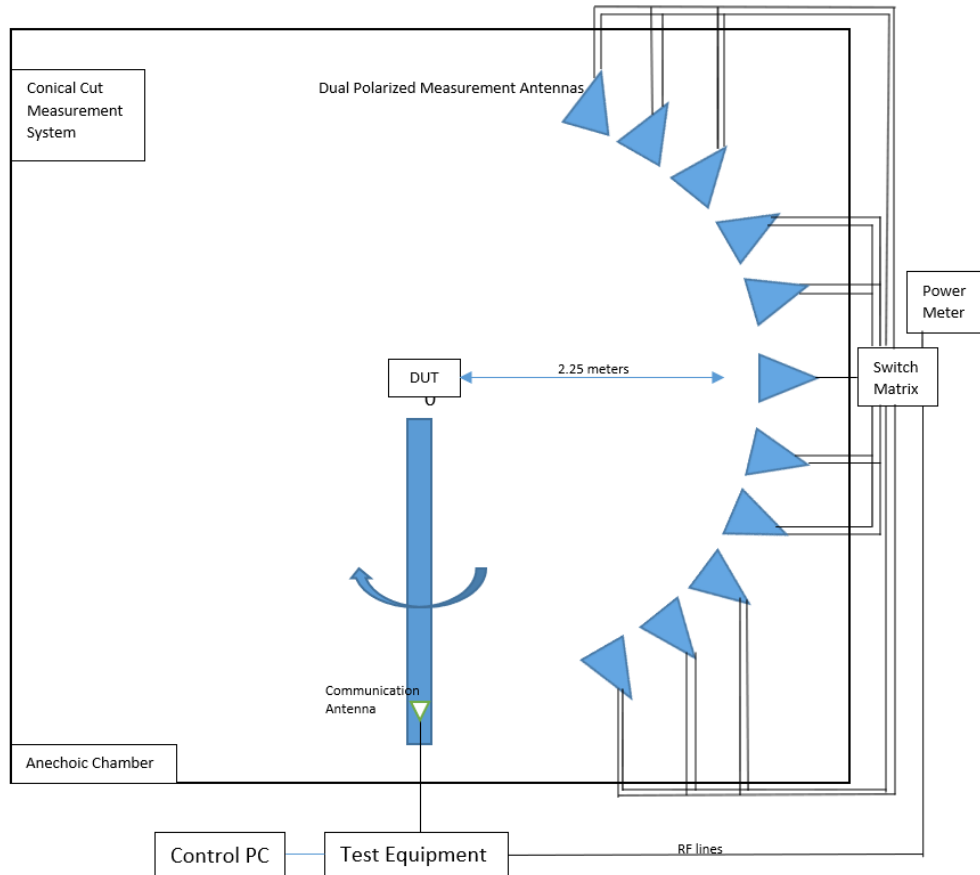


Figure 2. Laboratory 4 chamber schematic.

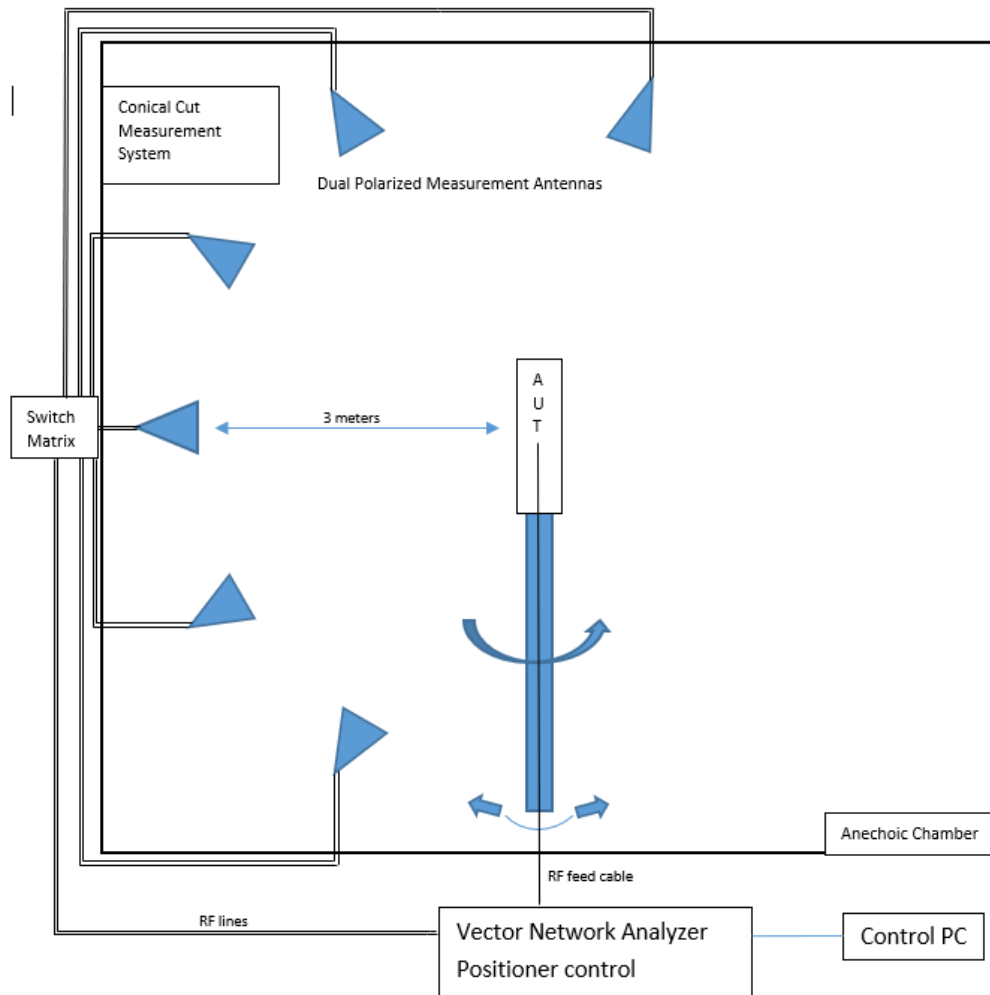


Figure 3. Laboratory 1 chamber schematic

4. RESULTS

4.1 Passive OTA measurements

4.1.1 Maximum gain and efficiency

4.1.1.1 Cellular Low Band, FS, Main Antenna

Frequency [MHz]	Max gain [dBi]	Efficiency [dB]	Frequency [MHz]	Max gain [dBi]	Efficiency [dB]	Frequency [MHz]	Max gain [dBi]	Efficiency [dB]
695	-0.3	-4.7	785	-1.0	-5.8	875	-0.3	-5.2
700	-0.5	-4.7	790	-0.9	-5.7	880	-0.4	-5.0
705	-0.6	-4.9	795	-0.9	-5.9	885	-0.5	-5.0
710	-0.7	-5.1	800	-0.8	-5.9	890	0.5	-4.5
715	-0.4	-5.0	805	-0.8	-5.9	895	0.6	-4.4
720	-0.5	-4.9	810	-0.6	-5.9	900	0.7	-4.3
725	-0.6	-5.0	815	-1.1	-6.2	905	0.7	-4.2
730	-0.5	-4.9	820	-1.0	-6.2	910	0.4	-4.4
735	-1.0	-5.2	825	-1.4	-6.5	915	0.4	-4.4
740	-1.1	-5.4	830	-1.2	-6.2	920	0.4	-4.3
745	-1.2	-5.6	835	-0.9	-5.8	925	0.3	-4.2
750	-1.2	-5.7	840	-0.9	-5.7	930	0.4	-4.1
755	-1.2	-5.8	845	-0.5	-5.3	935	0.8	-4.0
760	-1.3	-5.8	850	-0.1	-4.8	940	1.0	-3.9
765	-1.2	-5.8	855	0.0	-4.9	945	0.9	-3.9
770	-0.6	-5.6	860	-0.5	-5.1	950	1.0	-3.9
775	-0.9	-5.6	865	0.1	-4.8	955	0.8	-4.0
780	-1.0	-5.8	870	-0.5	-5.3	960	0.7	-4.0

Table 3 Cellular Low Band 695-960 MHz max gain and efficiency, Main Antenna, FS

4.1.1.2 Cellular Low Band, FS, Secondary Antenna

Frequency [MHz]	Max gain [dBi]	Efficiency [dB]	Frequency [MHz]	Max gain [dBi]	Efficiency [dB]	Frequency [MHz]	Max gain [dBi]	Efficiency [dB]
695	-1.7	-5.5	785	-2.8	-6.9	875	-2.7	-6.8
700	-1.8	-5.5	790	-3.0	-6.8	880	-2.5	-6.7
705	-2.2	-5.8	795	-2.9	-7.0	885	-2.5	-6.6
710	-2.0	-6.1	800	-3.0	-7.0	890	-2.0	-6.1
715	-2.0	-6.0	805	-2.8	-7.1	895	-1.6	-5.9
720	-1.8	-5.9	810	-2.7	-7.0	900	-1.7	-5.8
725	-1.9	-6.0	815	-3.1	-7.5	905	-1.7	-5.7
730	-2.1	-5.9	820	-3.3	-7.8	910	-1.9	-5.8
735	-2.5	-6.2	825	-3.6	-8.9	915	-1.7	-5.7
740	-2.6	-6.4	830	-4.7	-9.9	920	-1.6	-5.4
745	-2.9	-6.7	835	-4.9	-9.4	925	-1.4	-5.2
750	-3.0	-6.8	840	-4.5	-8.8	930	-1.3	-5.0
755	-3.1	-6.8	845	-3.9	-7.9	935	-1.0	-4.8
760	-3.2	-6.9	850	-3.1	-7.2	940	-0.7	-4.7
765	-3.0	-6.8	855	-3.0	-7.0	945	-1.1	-4.6
770	-2.7	-6.7	860	-3.2	-7.1	950	-0.8	-4.5
775	-2.7	-6.7	865	-2.6	-6.7	955	-0.7	-4.6
780	-2.7	-6.8	870	-3.2	-7.1	960	-0.2	-4.5

Table 4 Cellular Low Band 695-960 MHz max gain and efficiency, Secondary Antenna, FS

4.1.1.3 Cellular Mid-High Band, FS, Main Antenna

Frequency [MHz]	Max gain [dBi]	Efficiency [dB]	Frequency [MHz]	Max gain [dBi]	Efficiency [dB]	Frequency [MHz]	Max gain [dBi]	Efficiency [dB]
1710	0.3	-3.6	2050	-3.8	-9.0	2390	1.2	-4.8
1720	0.3	-3.5	2060	-2.6	-8.6	2400	0.5	-5.1
1730	0.4	-3.4	2070	-2.9	-8.2	2410	0.9	-4.9
1740	0.6	-3.3	2080	-1.9	-8.1	2420	0.9	-4.7
1750	0.7	-3.0	2090	-1.9	-7.4	2430	0.7	-5.1
1760	0.7	-3.0	2100	-0.6	-6.6	2440	0.4	-5.4
1770	1.2	-2.8	2110	-0.5	-6.3	2450	0.3	-5.4
1780	1.0	-3.0	2120	0.1	-5.8	2460	0.4	-5.3
1790	1.0	-2.9	2130	0.6	-5.4	2470	0.3	-5.4
1800	0.8	-3.0	2140	1.3	-4.6	2480	0.1	-5.4
1810	1.2	-2.9	2150	1.9	-4.4	2490	0.1	-5.6
1820	1.1	-2.9	2160	2.3	-4.1	2500	0.9	-5.0
1830	1.2	-2.9	2170	2.5	-3.8	2510	0.7	-5.1
1840	1.5	-2.8	2180	3.2	-3.3	2520	0.4	-5.4
1850	1.3	-3.0	2190	3.3	-3.3	2530	0.2	-5.8
1860	1.4	-3.1	2200	3.8	-3.1	2540	0.6	-4.9
1870	1.2	-3.3	2210	2.7	-3.2	2550	0.7	-5.0
1880	1.0	-3.4	2220	3.5	-3.1	2560	0.2	-5.2
1890	0.5	-3.6	2230	2.4	-3.4	2570	0.4	-5.2
1900	0.7	-3.7	2240	2.8	-3.6	2580	0.4	-5.0
1910	0.6	-3.9	2250	2.2	-3.8	2590	0.8	-4.7
1920	0.6	-4.2	2260	2.5	-3.7	2600	0.3	-5.0
1930	0.8	-4.4	2270	2.0	-4.0	2610	0.4	-5.1
1940	0.4	-4.7	2280	2.0	-4.0	2620	0.4	-5.3
1950	0.4	-5.1	2290	1.8	-3.9	2630	1.0	-4.7
1960	-0.3	-5.7	2300	2.3	-3.7	2640	0.6	-5.0
1970	-0.1	-6.0	2310	1.2	-4.3	2650	0.1	-5.6
1980	-1.4	-6.7	2320	1.6	-4.3	2660	0.5	-5.2
1990	-2.2	-7.4	2330	1.4	-4.3	2670	0.1	-5.4
2000	-3.6	-8.1	2340	1.3	-4.4	2680	0.2	-5.3
2010	-4.2	-8.7	2350	1.4	-4.6	2690	-0.5	-5.9
2020	-4.8	-9.0	2360	0.8	-4.7	2700	-0.4	-5.9
2030	-4.4	-9.0	2370	1.1	-4.7			
2040	-4.2	-9.5	2380	1.0	-4.6			

Table 5 Cellular Mid-High Band 1710-2700 MHz max gain and efficiency, Main Antenna, FS

4.1.1.4 Cellular Mid-High Band, FS, Secondary Antenna

Frequency [MHz]	Max gain [dBi]	Efficiency [dB]	Frequency [MHz]	Max gain [dBi]	Efficiency [dB]	Frequency [MHz]	Max gain [dBi]	Efficiency [dB]
1710	0.3	-3.7	2050	-5.8	-10.6	2390	0.9	-5.2
1720	0.1	-3.7	2060	-5.1	-10.6	2400	0.3	-5.5
1730	0.3	-3.7	2070	-6.0	-10.8	2410	0.8	-5.3
1740	0.6	-3.7	2080	-5.5	-10.6	2420	0.9	-5.2
1750	1.1	-3.4	2090	-5.1	-10.3	2430	0.8	-5.6
1760	1.1	-3.4	2100	-4.4	-9.6	2440	0.7	-5.8
1770	1.2	-3.2	2110	-3.5	-9.2	2450	0.5	-5.7
1780	0.7	-3.5	2120	-2.1	-8.2	2460	0.5	-5.7
1790	1.0	-3.4	2130	-2.4	-8.1	2470	0.6	-5.7
1800	1.2	-3.4	2140	-0.6	-6.7	2480	0.7	-5.6
1810	1.7	-3.1	2150	-0.5	-6.4	2490	1.0	-5.7
1820	1.8	-3.0	2160	0.4	-5.8	2500	1.1	-5.2
1830	1.7	-2.9	2170	1.1	-5.5	2510	1.4	-5.3
1840	1.9	-2.9	2180	1.2	-4.5	2520	0.7	-5.6
1850	1.7	-3.0	2190	2.3	-4.1	2530	0.2	-6.0
1860	1.7	-3.1	2200	2.0	-3.9	2540	1.3	-5.0
1870	2.5	-3.0	2210	2.6	-3.7	2550	0.9	-5.2
1880	2.6	-3.1	2220	2.7	-3.4	2560	0.9	-5.5
1890	2.6	-3.1	2230	2.8	-3.7	2570	0.9	-5.4
1900	2.1	-3.0	2240	2.4	-3.7	2580	1.0	-5.2
1910	1.8	-3.1	2250	2.4	-4.0	2590	1.4	-4.9
1920	1.5	-3.2	2260	2.5	-3.8	2600	1.4	-5.3
1930	1.1	-3.5	2270	2.1	-4.2	2610	0.9	-5.3
1940	1.4	-3.7	2280	2.1	-4.2	2620	1.1	-5.4
1950	0.9	-4.1	2290	2.1	-4.0	2630	1.8	-4.9
1960	0.4	-4.6	2300	2.1	-3.9	2640	1.4	-5.3
1970	0.1	-5.2	2310	1.7	-4.5	2650	0.6	-5.9
1980	-0.5	-5.9	2320	1.8	-4.5	2660	1.3	-5.3
1990	-1.1	-6.4	2330	1.2	-4.6	2670	0.7	-5.6
2000	-2.3	-7.3	2340	1.6	-4.6	2680	0.8	-5.5
2010	-3.3	-8.1	2350	1.2	-4.9	2690	0.2	-6.1
2020	-3.5	-8.8	2360	1.2	-4.9	2700	-0.4	-6.1
2030	-4.5	-9.3	2370	1.1	-5.2			
2040	-5.3	-10.2	2380	0.9	-5.0			

Table 6 Cellular Mid-High Band 1710-2700 MHz max gain and efficiency, Secondary Antenna, FS

4.1.1.5 GNSS, FS

Frequency [MHz]	Max gain [dBi]	Efficiency [dB]	Frequency [MHz]	Max gain [dBi]	Efficiency [dB]	Frequency [MHz]	Max gain [dBi]	Efficiency [dB]
1560	-2.5	-6.2	1580	-0.9	-5.1	1600	-0.6	-4.9
1562	-2.7	-6.3	1582	-1.2	-5.1	1602	-0.9	-4.9
1564	-2.6	-6.3	1584	-1.1	-5.0	1604	-0.5	-5.0
1566	-2.2	-6.1	1586	-1.3	-4.8	1606	-0.4	-5.0
1568	-1.6	-5.8	1588	-0.7	-4.7	1608	-0.5	-5.0
1570	-1.4	-5.7	1590	-1.0	-4.4	1610	-0.5	-5.0
1572	-1.1	-5.4	1592	-0.7	-4.4	1612	-1.0	-5.3
1574	-0.8	-5.1	1594	-0.7	-4.5	1614	-1.4	-5.6
1576	-0.7	-5.1	1596	-0.6	-4.6	1616	-1.8	-5.9
1578	-1.0	-5.2	1598	-0.4	-4.8			

Table 7 GNSS 1560-1616 MHz gain and efficiency, FS

4.1.1.6 Wi-Fi / Bluetooth, FS

Frequency [MHz]	Max gain [dBi]	Efficiency [dB]	Frequency [MHz]	Max gain [dBi]	Efficiency [dB]	Frequency [MHz]	Max gain [dBi]	Efficiency [dB]
2400	0.4	-5.4	2430	0.9	-4.9	2460	1.2	-4.3
2405	0.2	-5.5	2435	1.2	-4.8	2465	1.5	-4.0
2410	0.2	-5.5	2440	1.4	-4.6	2470	1.7	-4.1
2415	0.2	-5.3	2445	1.2	-4.8	2475	2.0	-4.2
2420	0.3	-5.1	2450	1.1	-4.7	2480	2.2	-4.0
2425	0.7	-4.8	2455	1.2	-4.4	2485	1.7	-4.3

Table 8 Wi-Fi / Bluetooth 2400-2485 MHz gain and efficiency, FS

4.1.1.7 SubGHz Low Band, FS

SubGHz Low Band was measured using extrapolated calibration values, see *Figure 1. Extrapolation of SD473 calibration target values for 433 MHz measurement*

Frequency [MHz]	Max gain [dBi]	Efficiency [dB]
433	-6.1	-9.4
434	-6.2	-9.5
435	-6.3	-9.7

Table 9 SubGHz Low Band 433-435 MHz gain and efficiency, FS

4.1.1.8 SubGHz High Band, FS

Frequency [MHz]	Max gain [dBi]	Efficiency [dB]	Frequency [MHz]	Max gain [dBi]	Efficiency [dB]	Frequency [MHz]	Max gain [dBi]	Efficiency [dB]
865	-5.2	-8.9	886	-4.0	-7.6	907	-2.5	-6.4
866	-5.1	-8.8	887	-3.9	-7.6	908	-2.5	-6.4
867	-5.0	-8.6	888	-3.9	-7.5	909	-2.6	-6.4
868	-4.9	-8.5	889	-3.9	-7.5	910	-2.7	-6.5
869	-4.7	-8.3	890	-3.8	-7.4	911	-2.7	-6.7
870	-4.6	-8.3	891	-3.6	-7.3	912	-2.9	-6.8
871	-4.6	-8.2	892	-3.6	-7.2	913	-3.0	-6.9
872	-4.6	-8.2	893	-3.4	-7.1	914	-3.1	-7.1
873	-4.5	-8.2	894	-3.3	-7.0	915	-3.2	-7.3
874	-4.5	-8.1	895	-3.2	-7.0	916	-3.5	-7.5
875	-4.5	-8.1	896	-3.1	-6.9	917	-3.7	-7.8
876	-4.4	-8.0	897	-3.0	-6.8	918	-4.0	-8.0
877	-4.4	-7.9	898	-3.0	-6.8	919	-4.2	-8.3
878	-4.4	-7.9	899	-2.9	-6.7	920	-4.5	-8.6
879	-4.3	-7.9	900	-2.8	-6.7	921	-4.9	-9.0
880	-4.3	-7.8	901	-2.8	-6.6	922	-5.2	-9.3
881	-4.2	-7.8	902	-2.8	-6.6	923	-5.5	-9.7
882	-4.2	-7.7	903	-2.7	-6.5	924	-5.9	-10.1
883	-4.1	-7.6	904	-2.6	-6.5	925	-6.3	-10.5
884	-4.0	-7.6	905	-2.6	-6.4	926	-6.7	-10.9
885	-3.9	-7.5	906	-2.5	-6.4	927	-7.2	-11.4

Table 10 SubGHz High Band 865-927 MHz gain and efficiency, FS

4.1.2 Maximum gain (graphs)

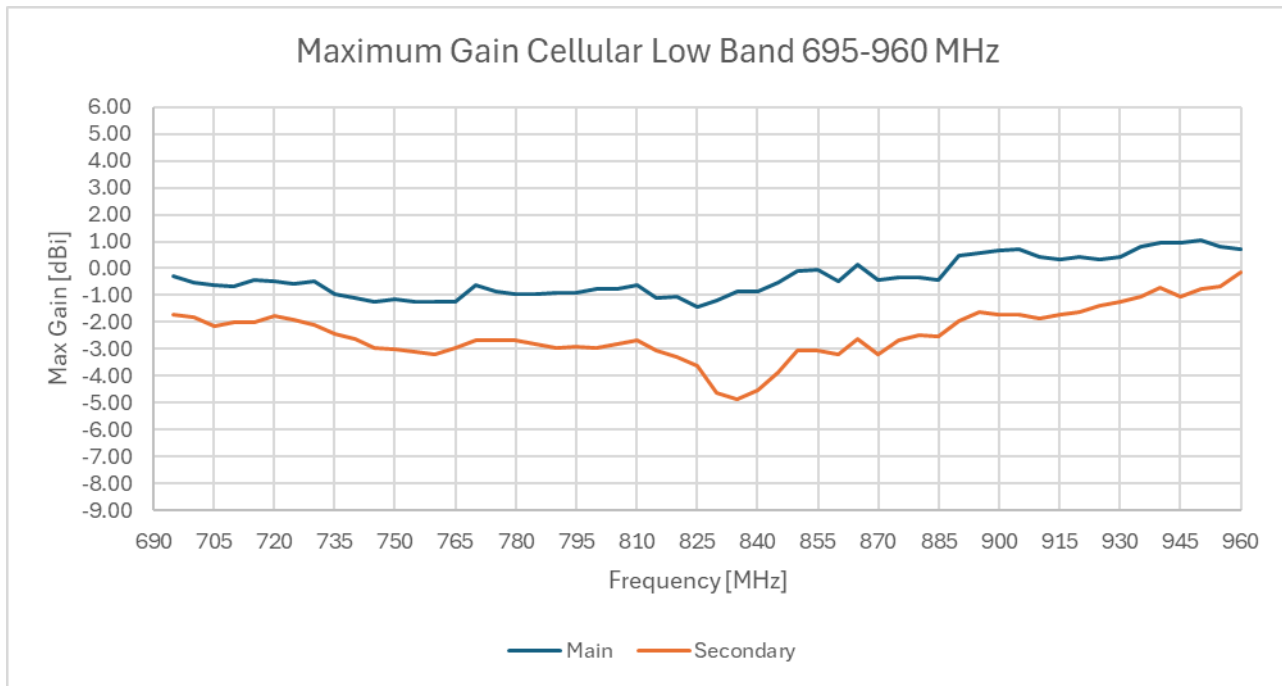


Figure 4 Maximum Gain Cellular Low Band 695-960 MHz

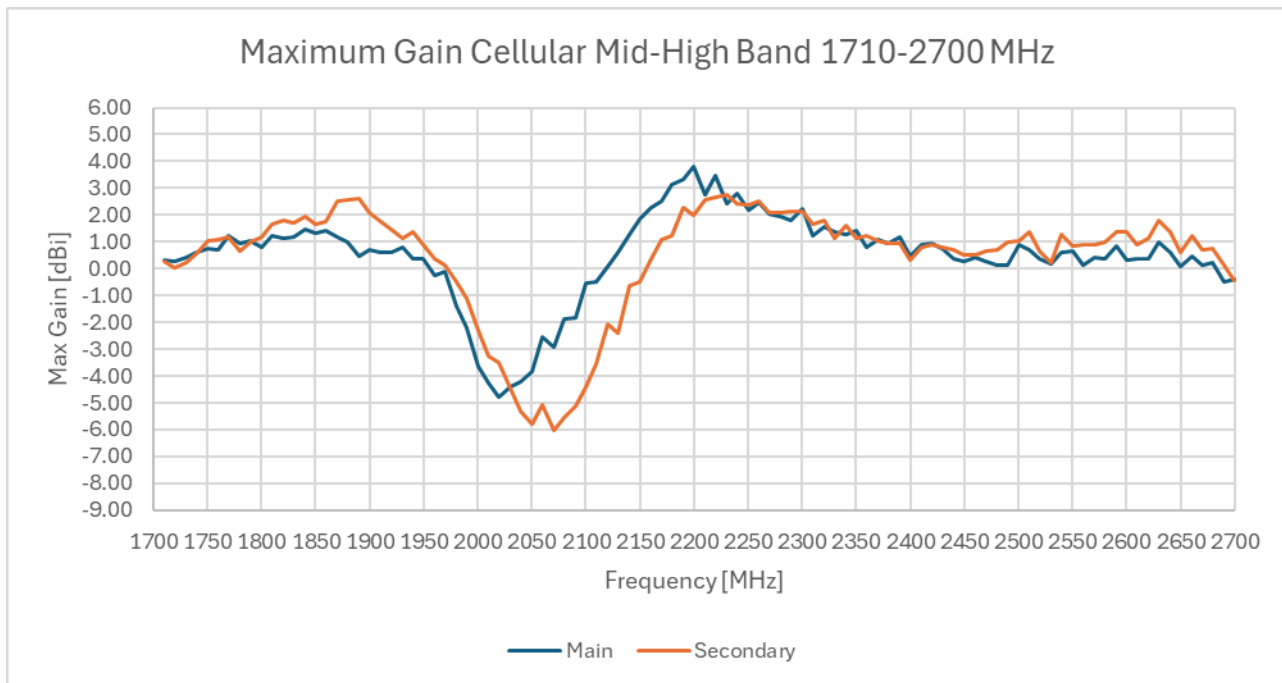


Figure 5 Maximum Gain Cellular Mid-High Band 1710-2700 MHz

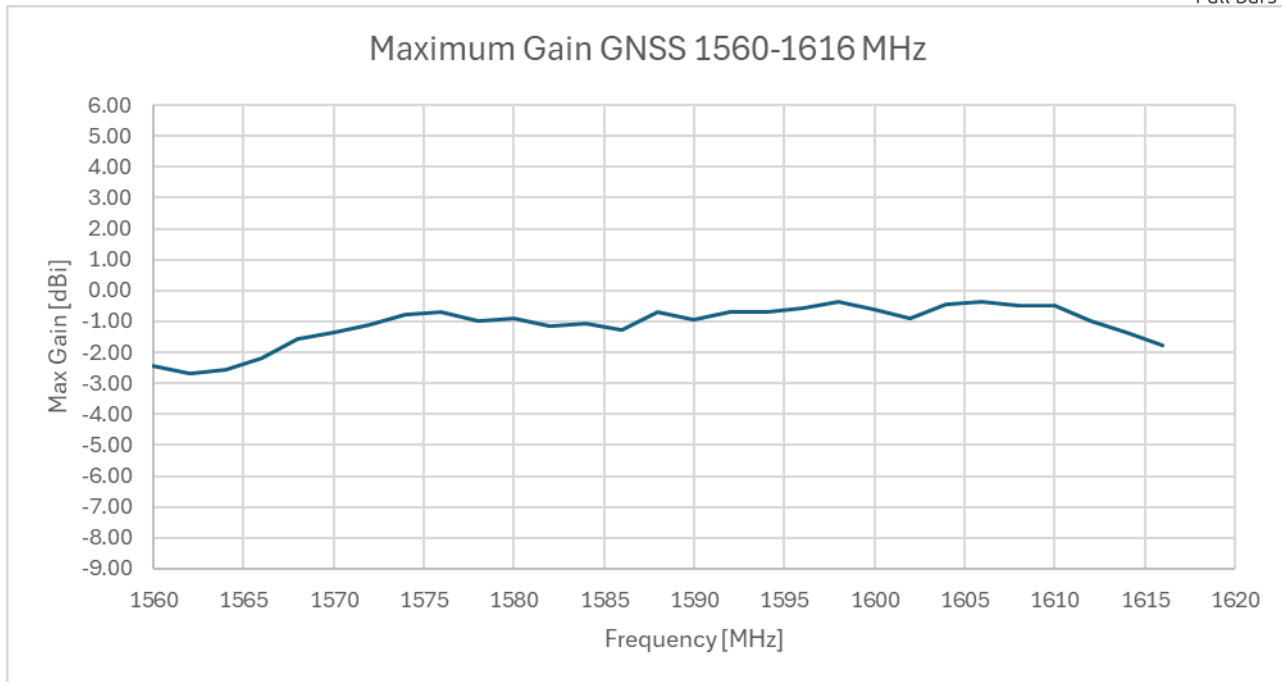


Figure 6 Maximum Gain GNSS 1560-1616 MHz

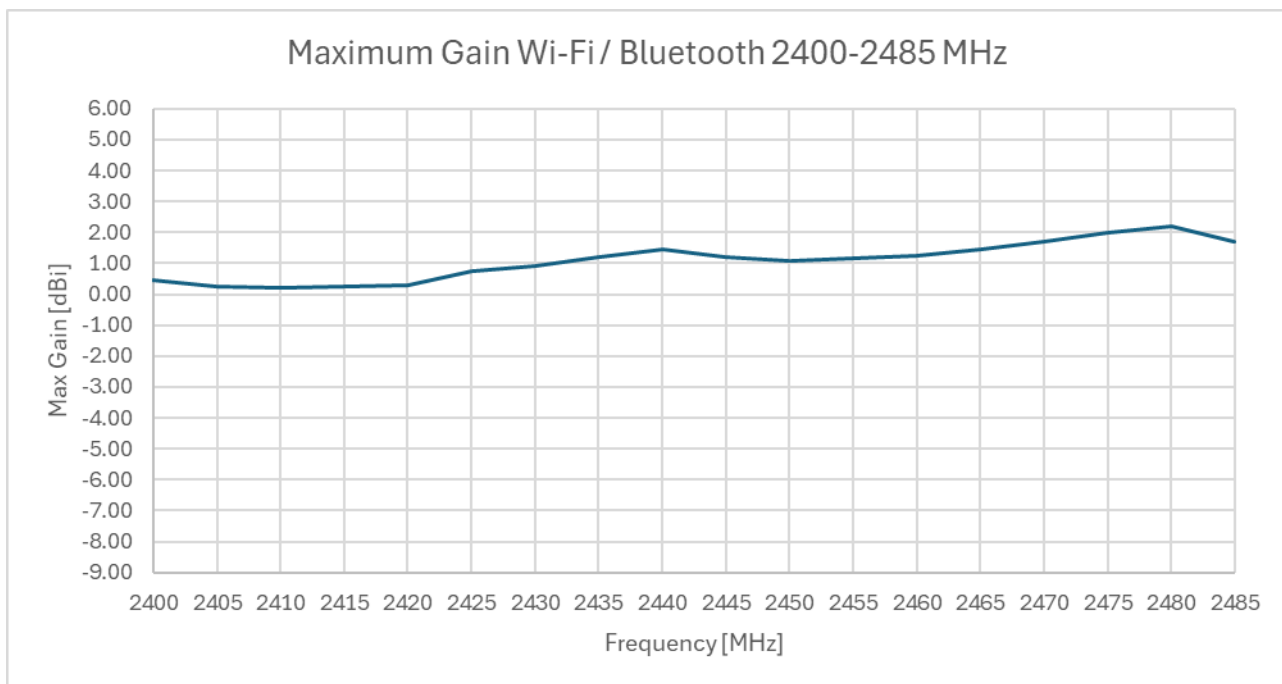


Figure 7 Maximum Gain Wi-Fi / Bluetooth 2400-2485 MHz

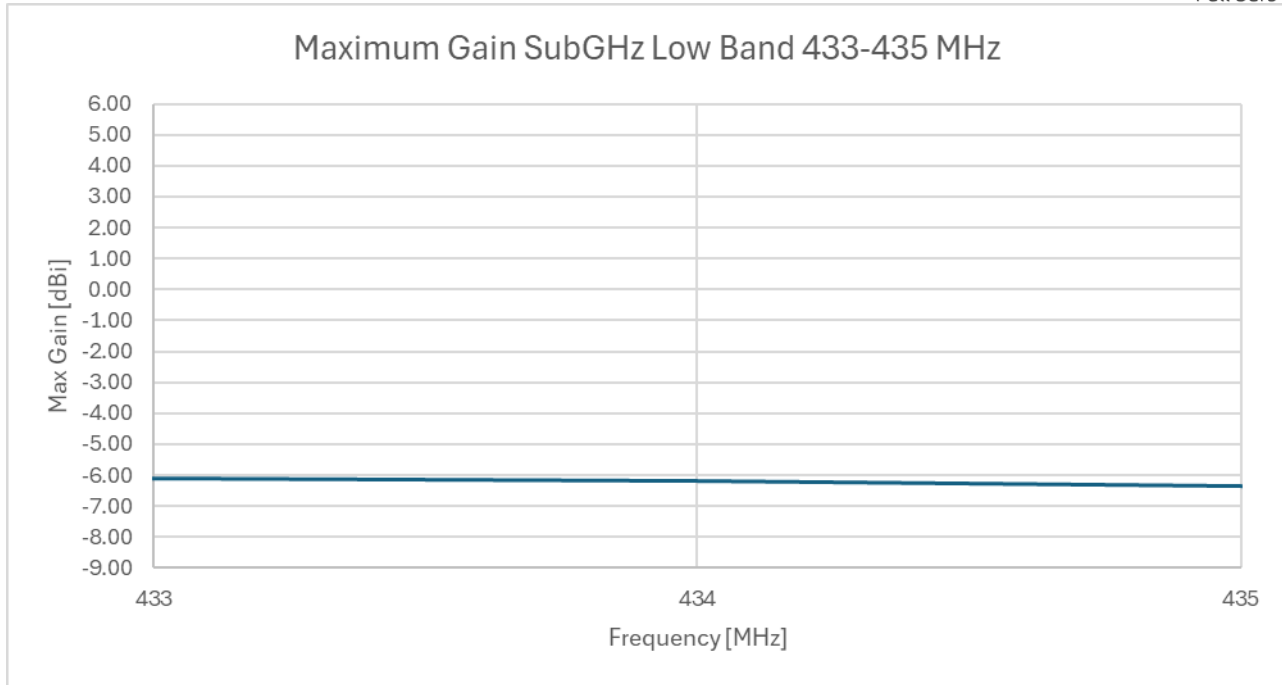


Figure 8 Maximum Gain SubGHz Low Band 433-435 MHz

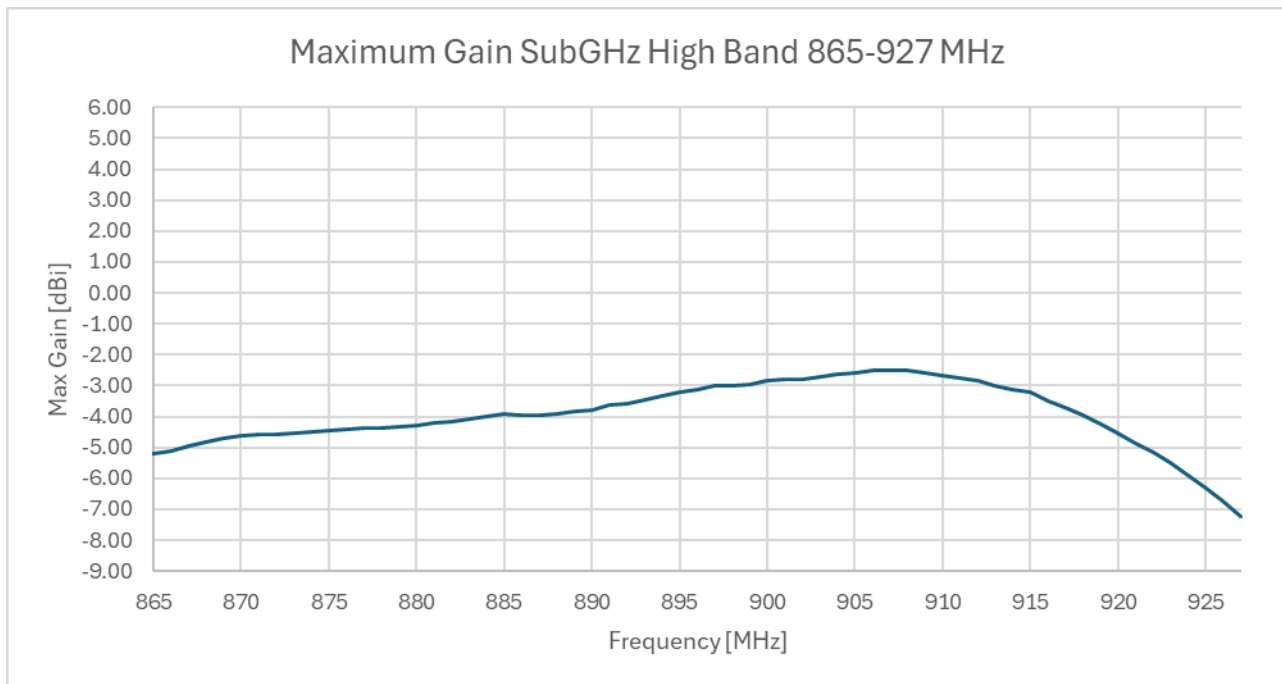


Figure 9 Maximum Gain SubGHz High Band 865-927 MHz

4.1.3 Efficiency (graphs)

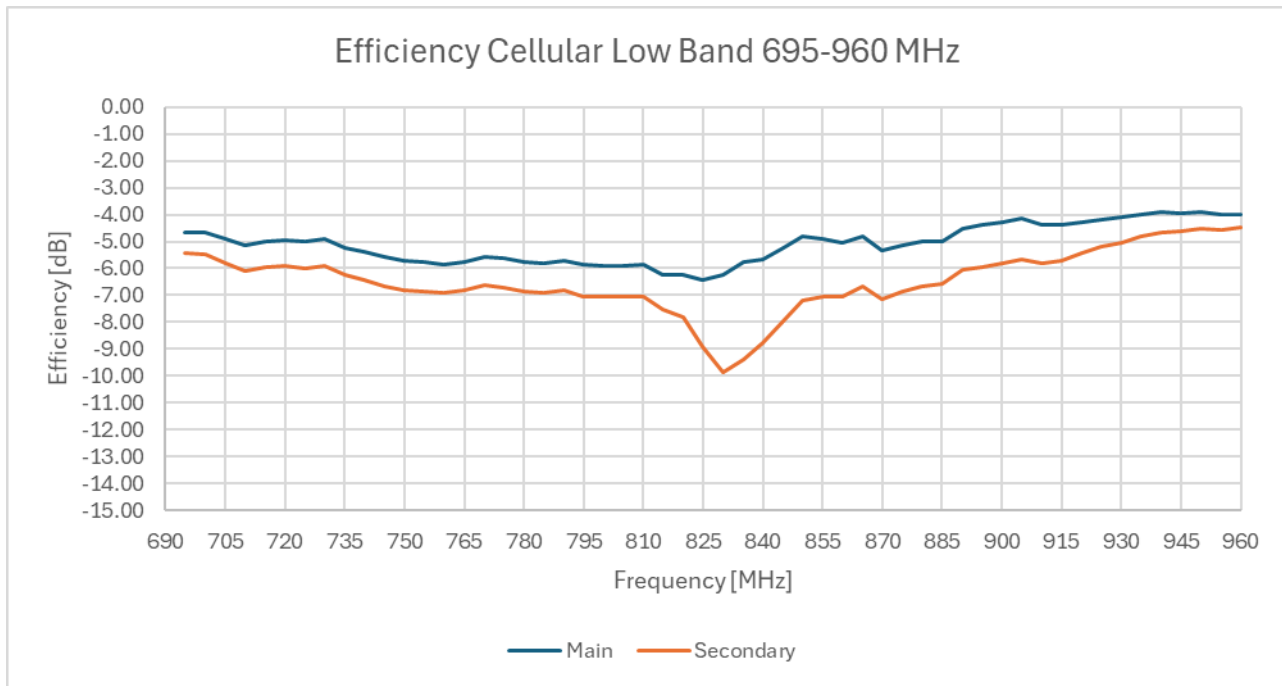


Figure 10 Efficiency Cellular Low Band 695-960 MHz

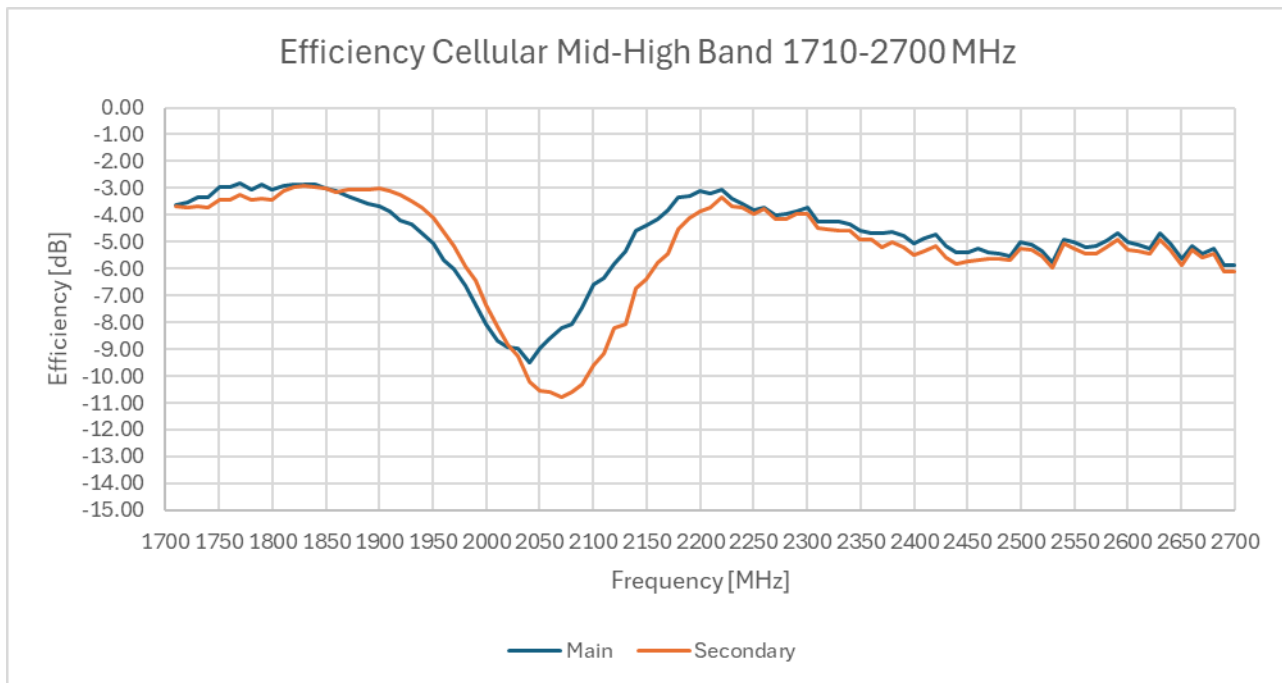


Figure 11 Efficiency Cellular Mid-High Band 1710-2700 MHz

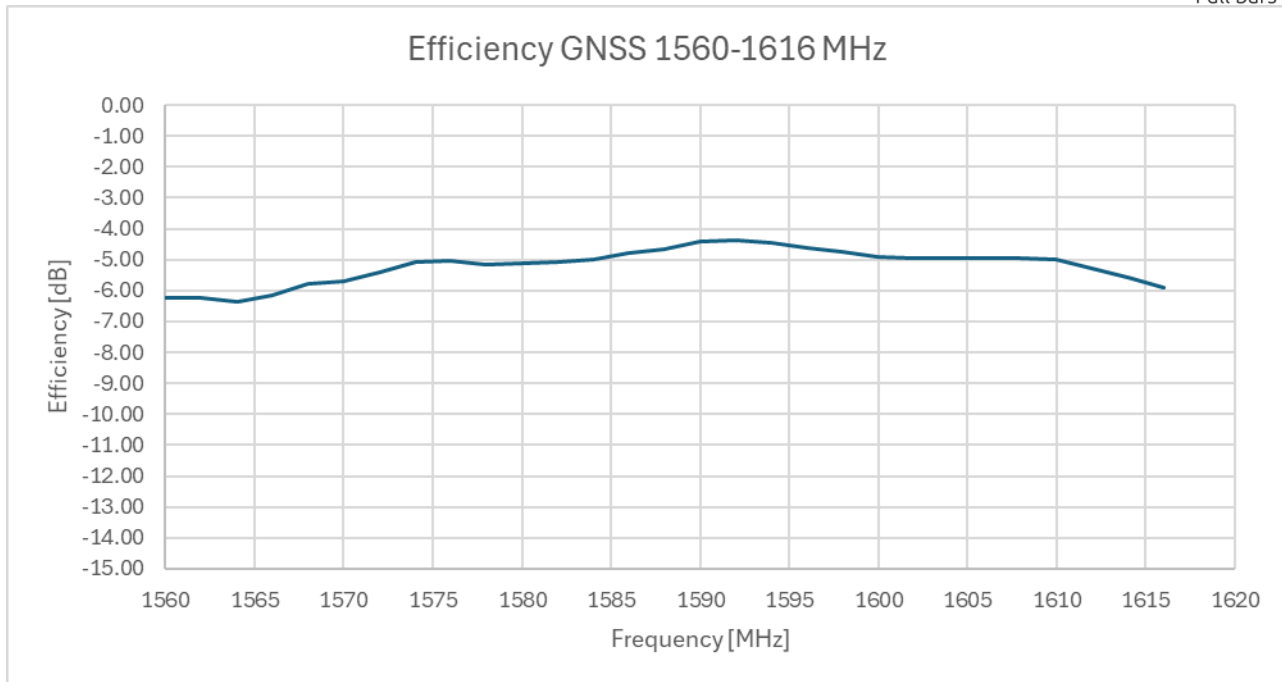


Figure 12 Efficiency GNSS 1560-1616 MHz

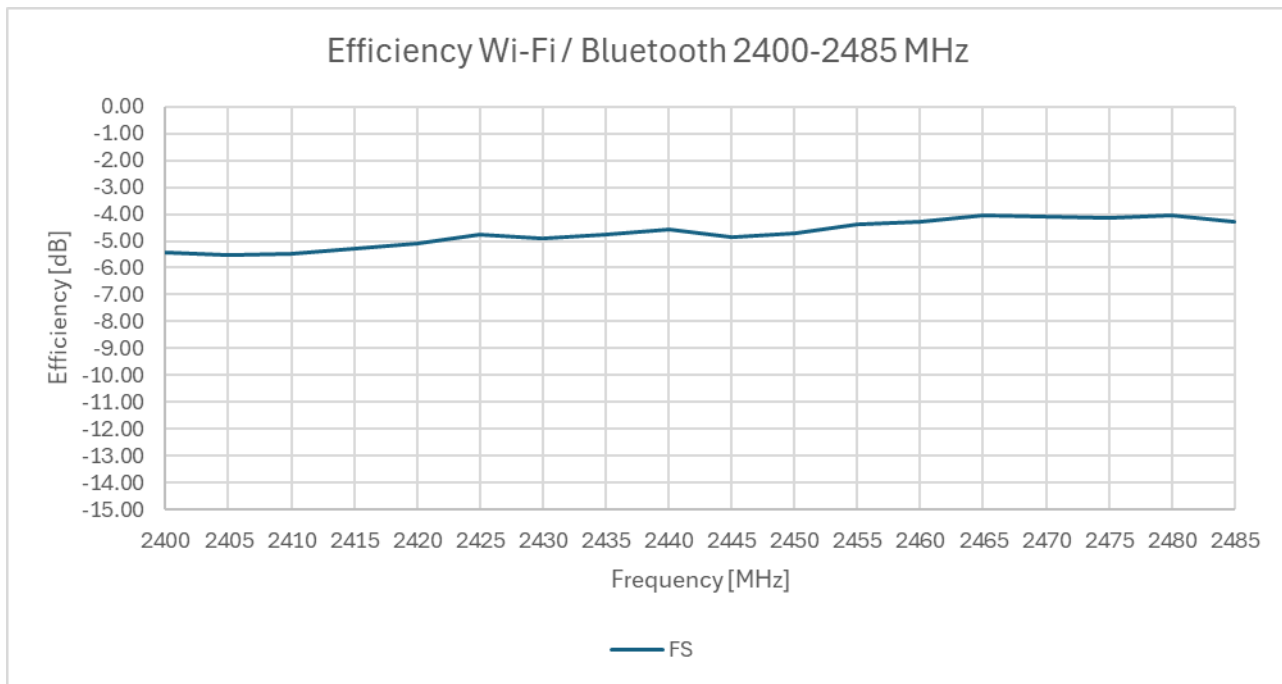


Figure 13 Efficiency Wi-Fi / Bluetooth 2400-2485 MHz

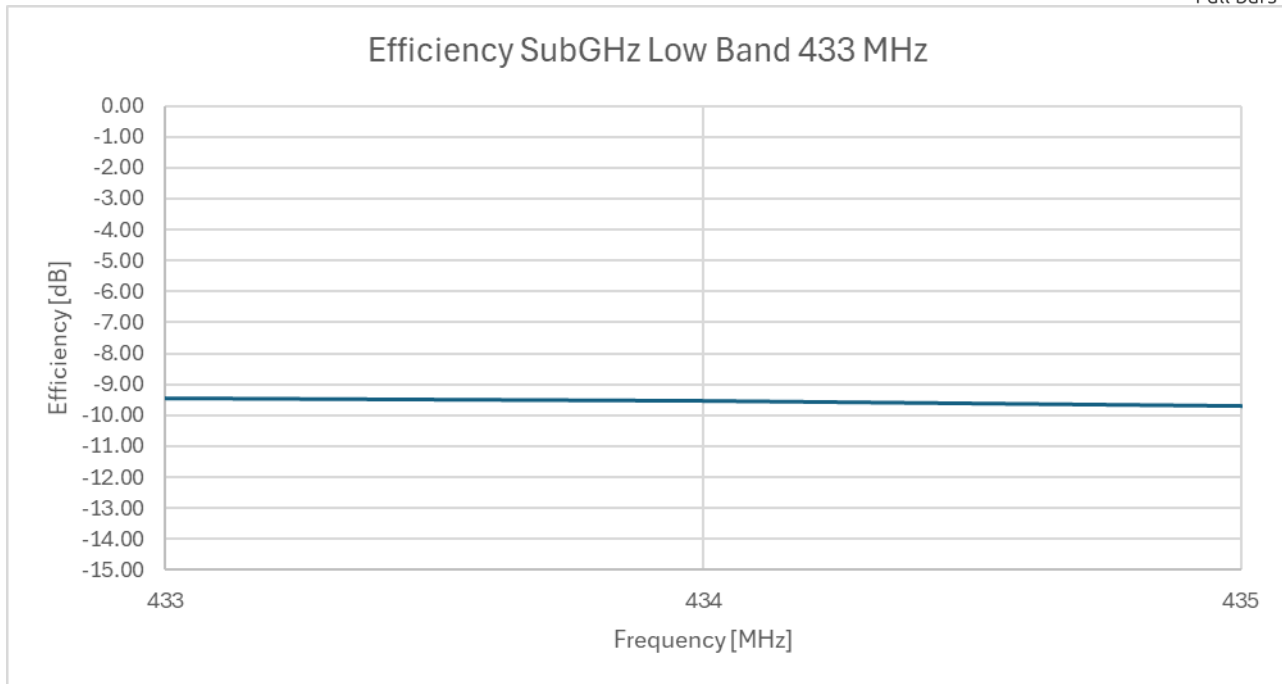


Figure 14 Efficiency SubGHz Low Band 433-435 MHz

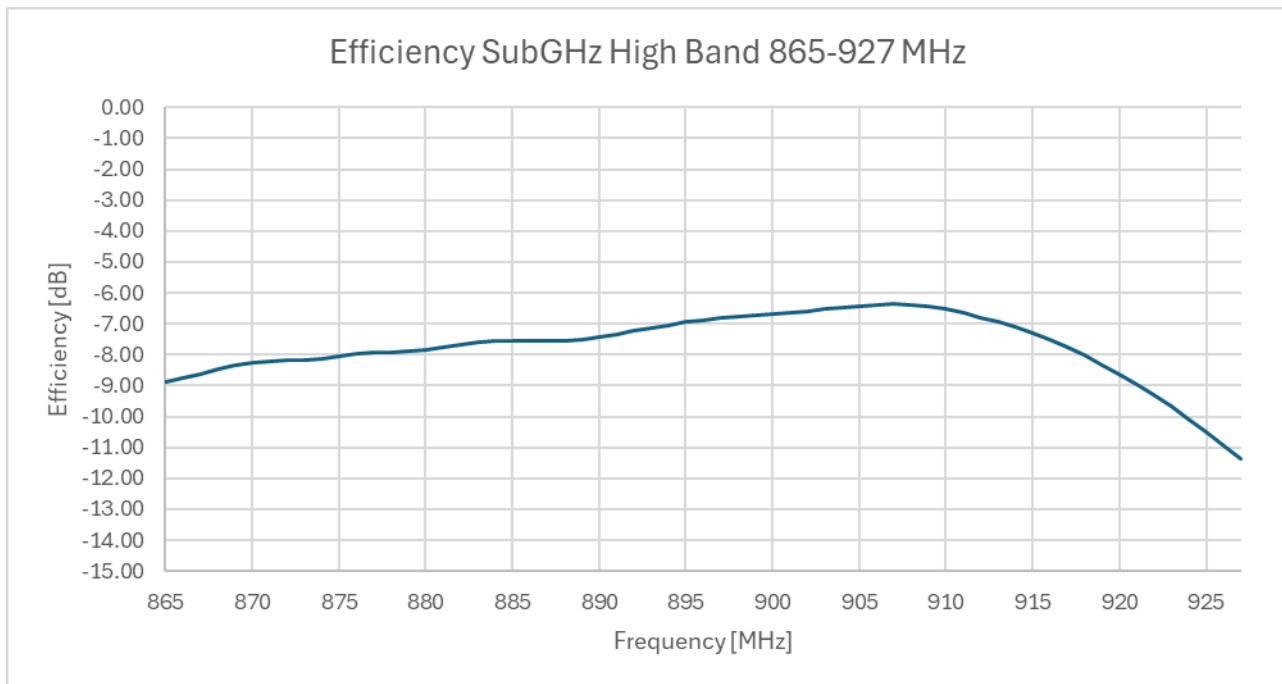
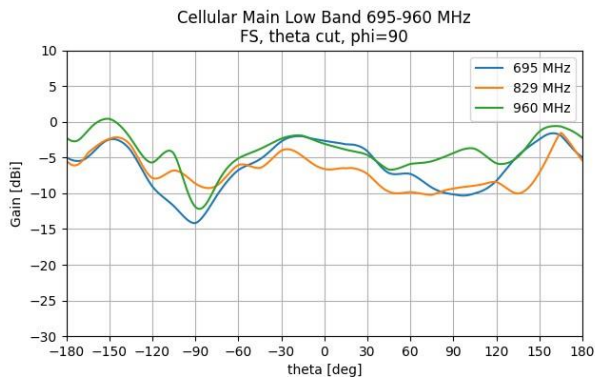
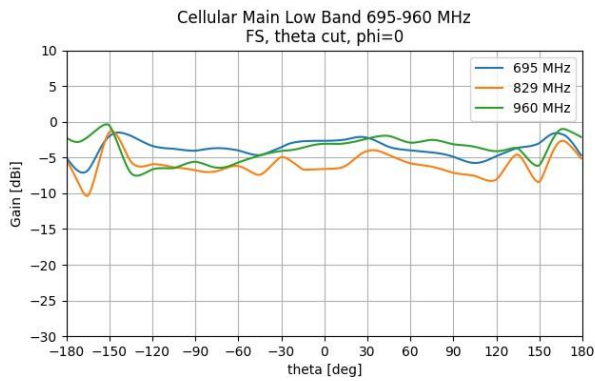
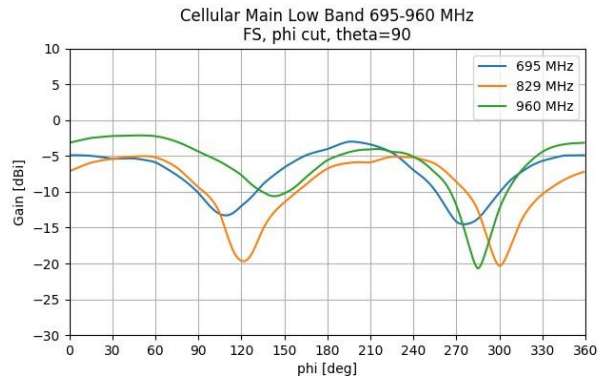


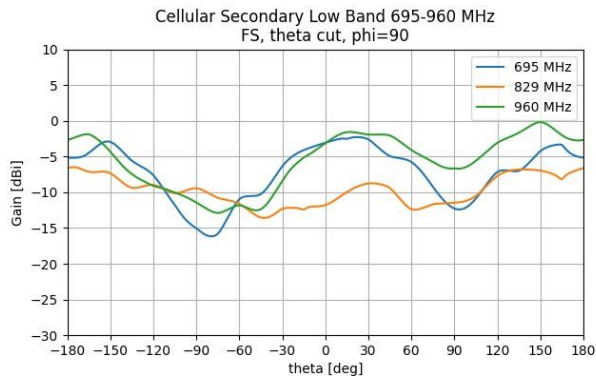
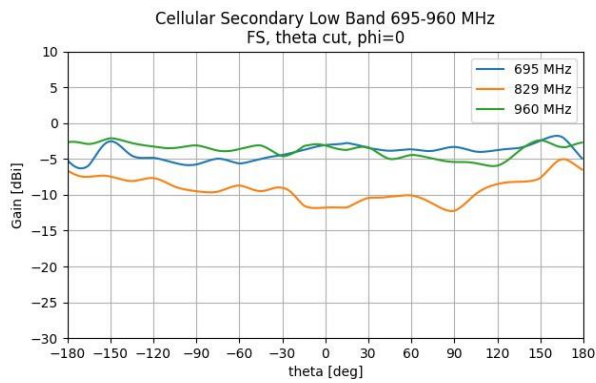
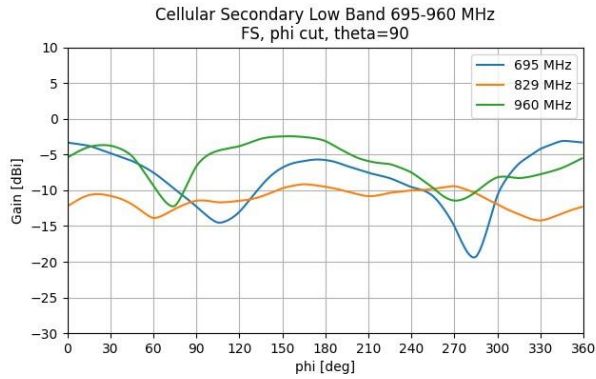
Figure 15 Efficiency SubGHz High Band 865-927 MHz

5. ANTENNA PATTERN CUTS

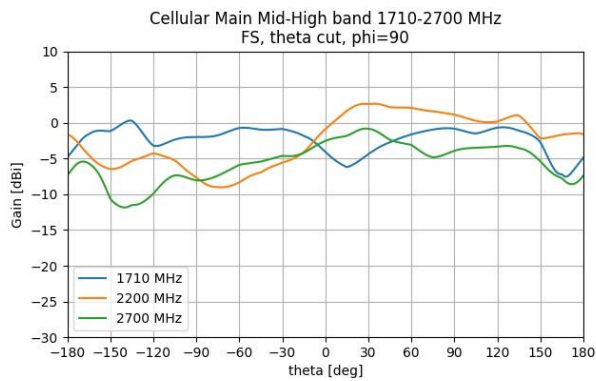
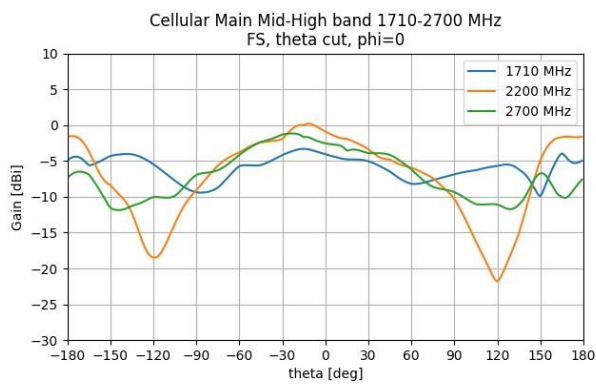
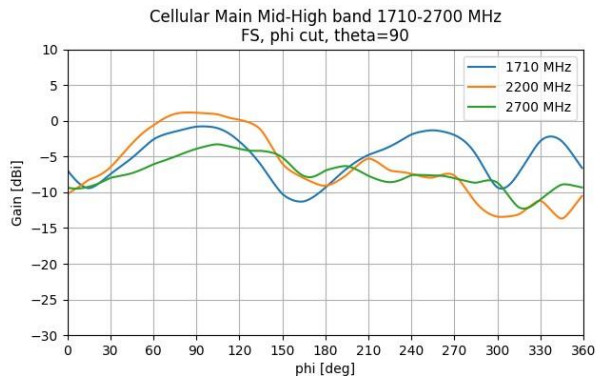
5.1 Cellular Low Band 695-960 MHz, Main Antenna



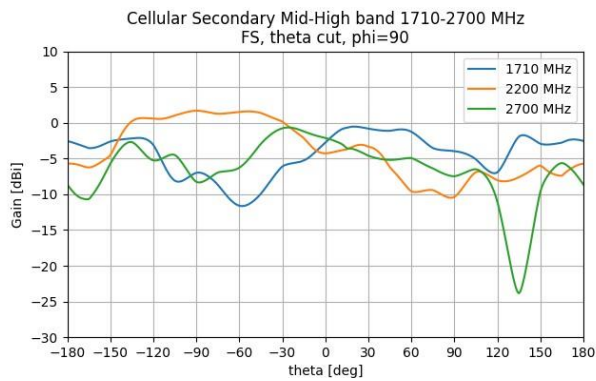
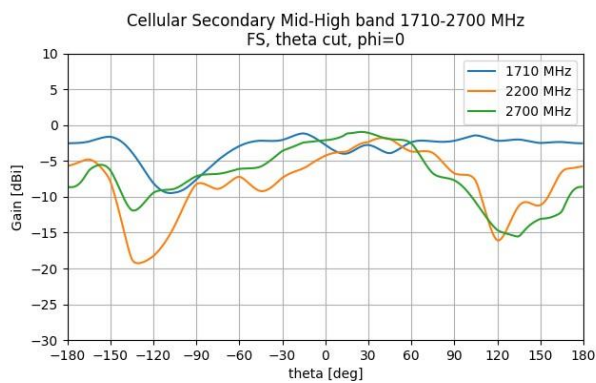
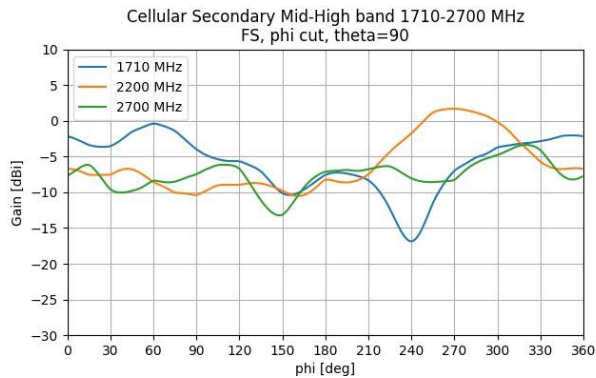
5.2 Cellular Low Band 695-960 MHz, Secondary Antenna



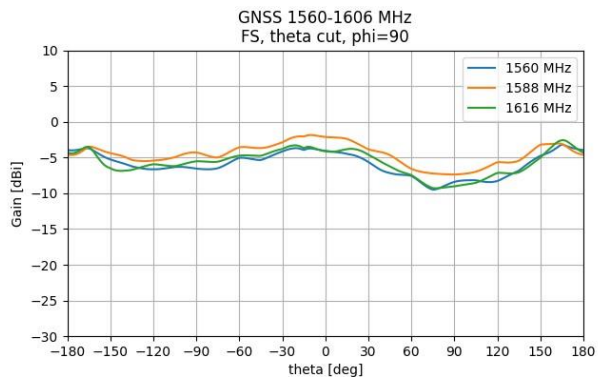
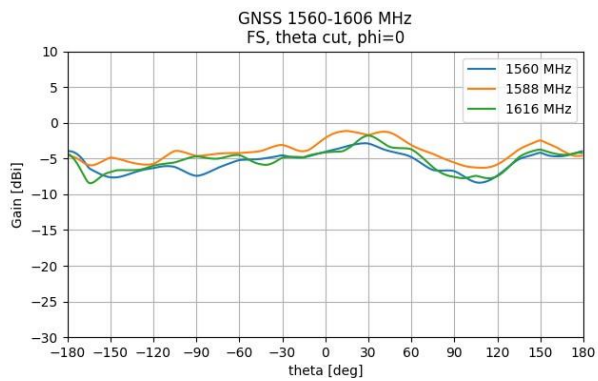
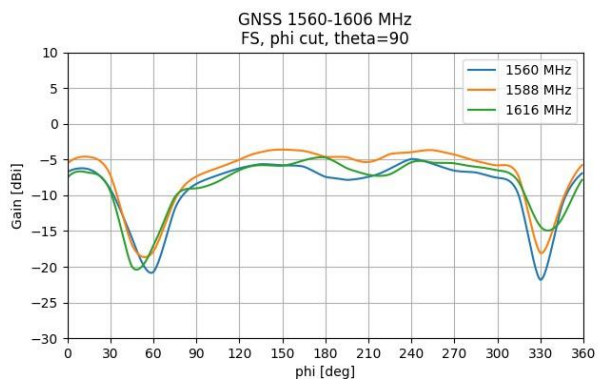
5.3 Cellular Mid-High Band 1710-2700 MHz, Main Antenna



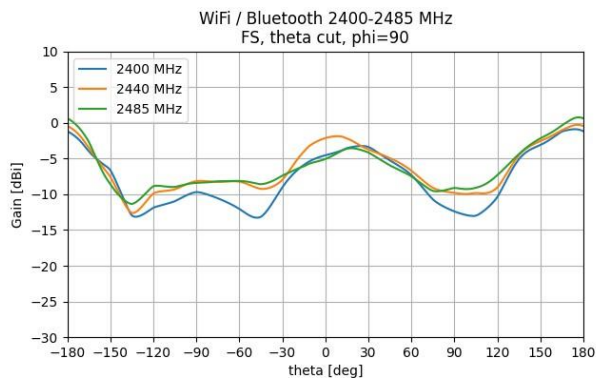
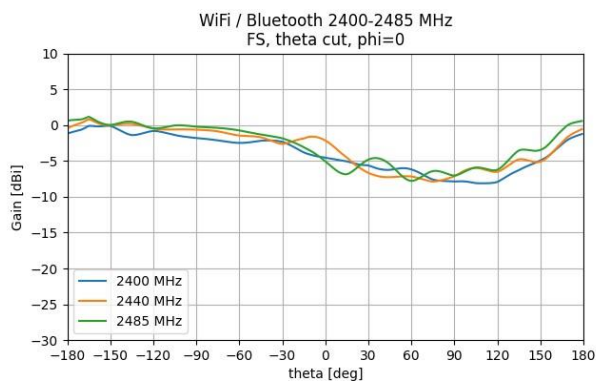
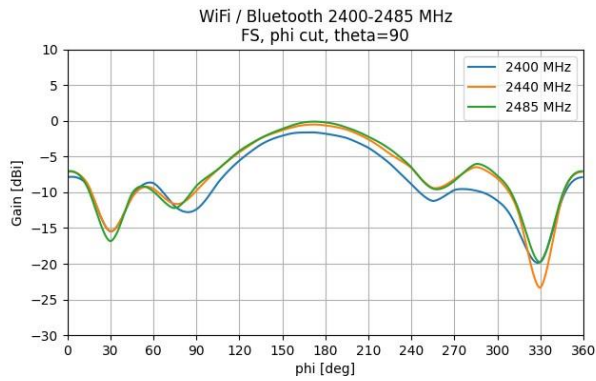
5.4 Cellular Mid-High Band 1710-2700 MHz, Secondary Antenna



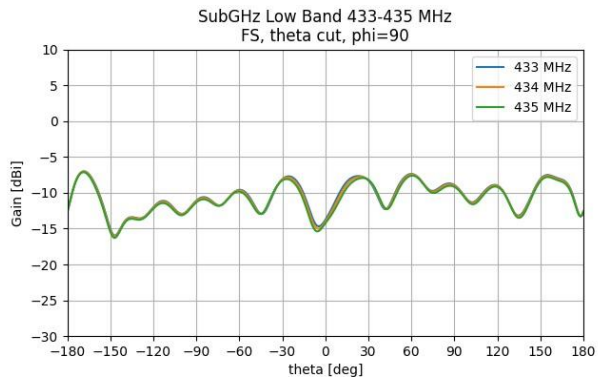
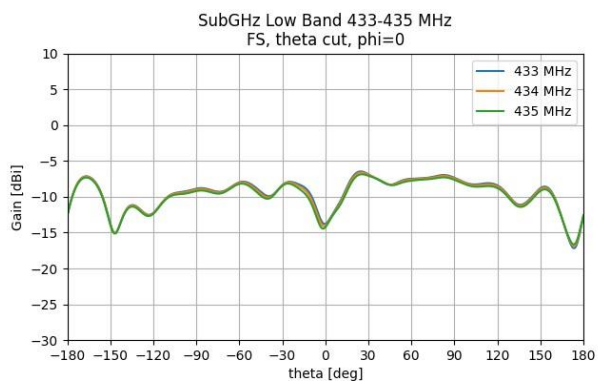
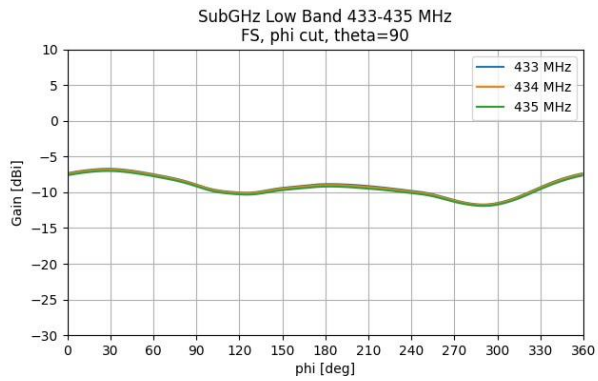
5.5 GNSS 1560-1616 MHz



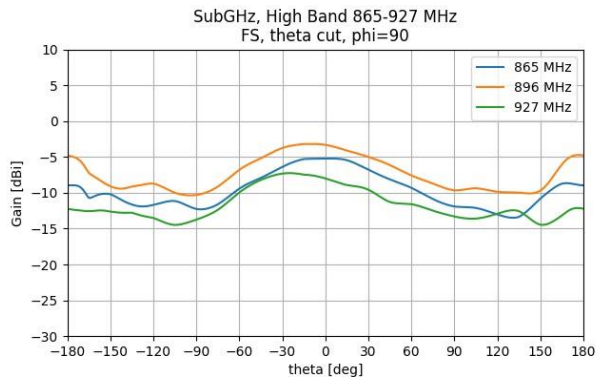
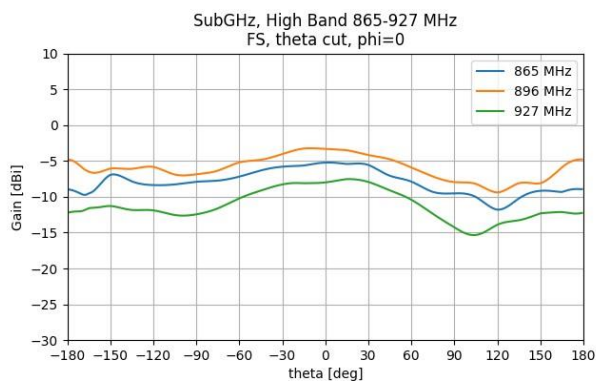
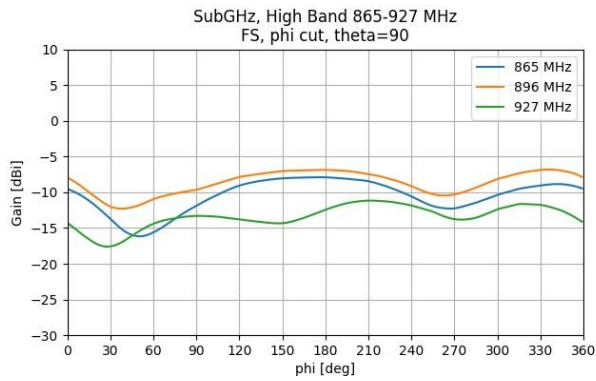
5.6 Wi-Fi / Bluetooth 2400-2485 MHz



5.7 SubGHz, Low Band 433-435 MHz

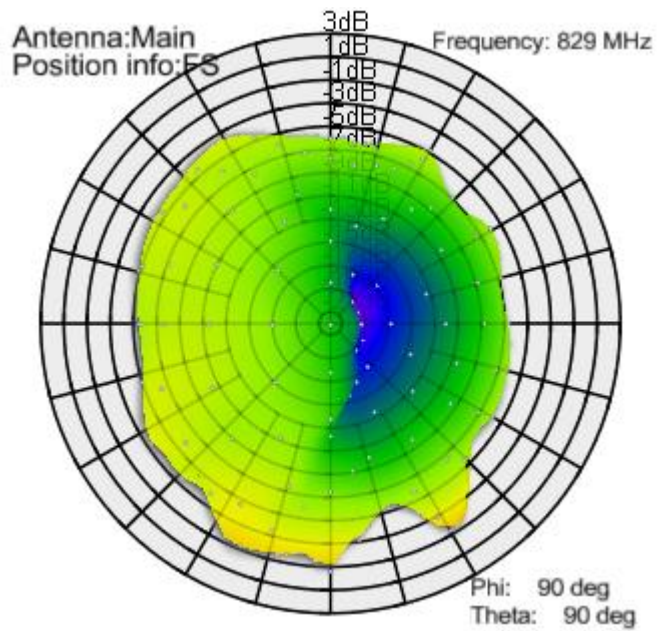
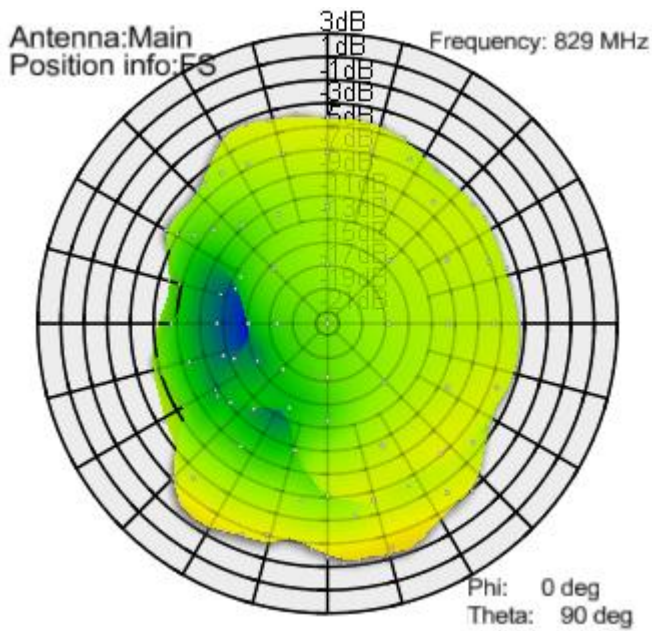


5.8 SubGHz, High Band 865-927 MHz

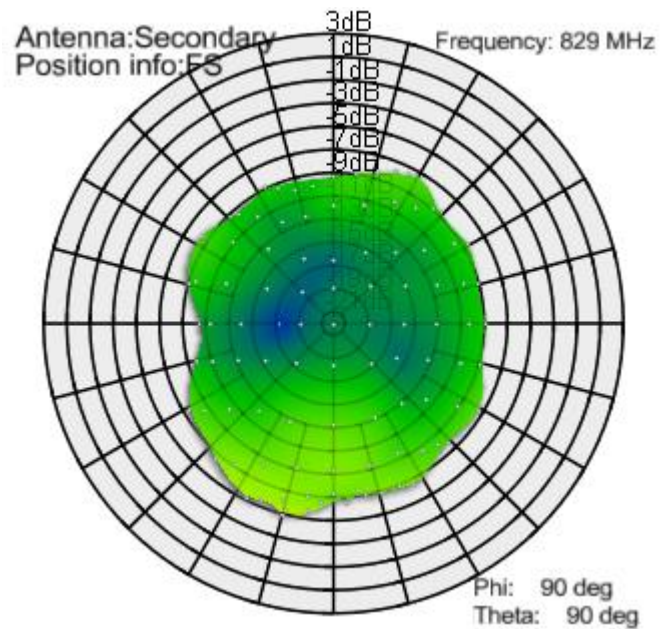
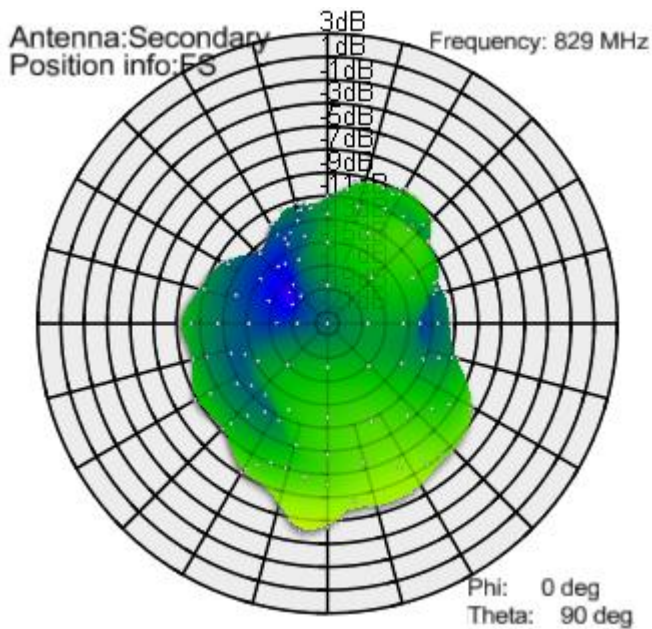


6. ANTENNA PATTERNS

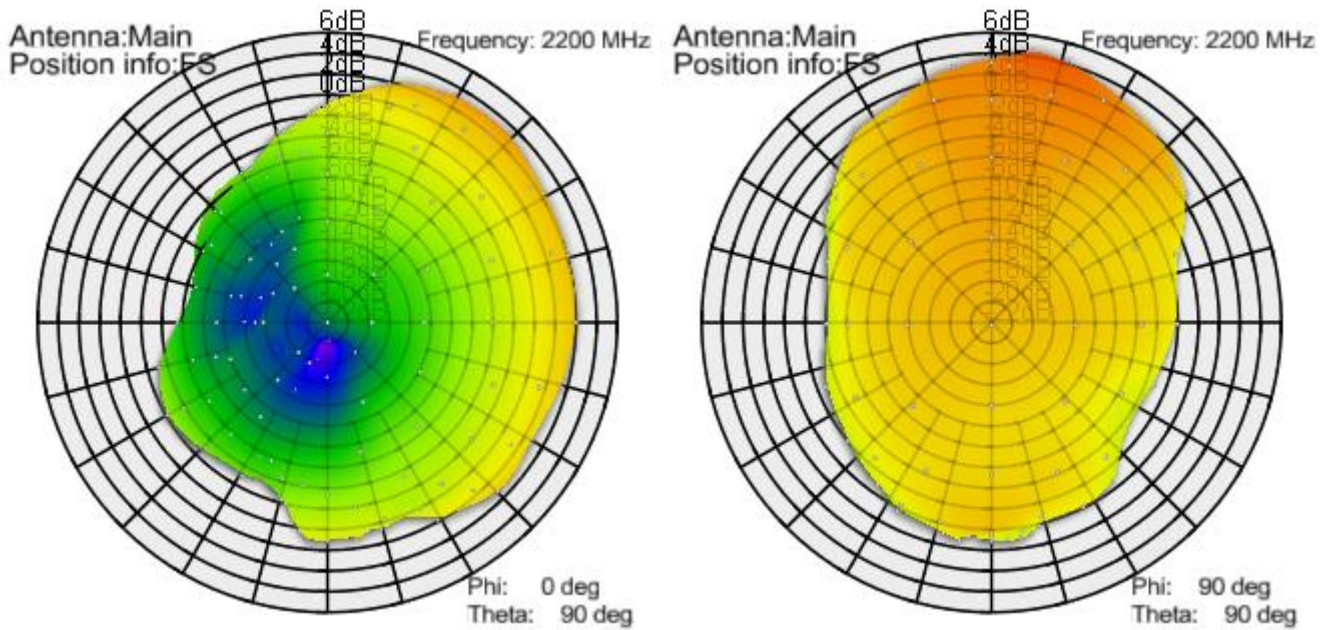
6.1 Cellular Low Band 695-960 MHz, Main Antenna



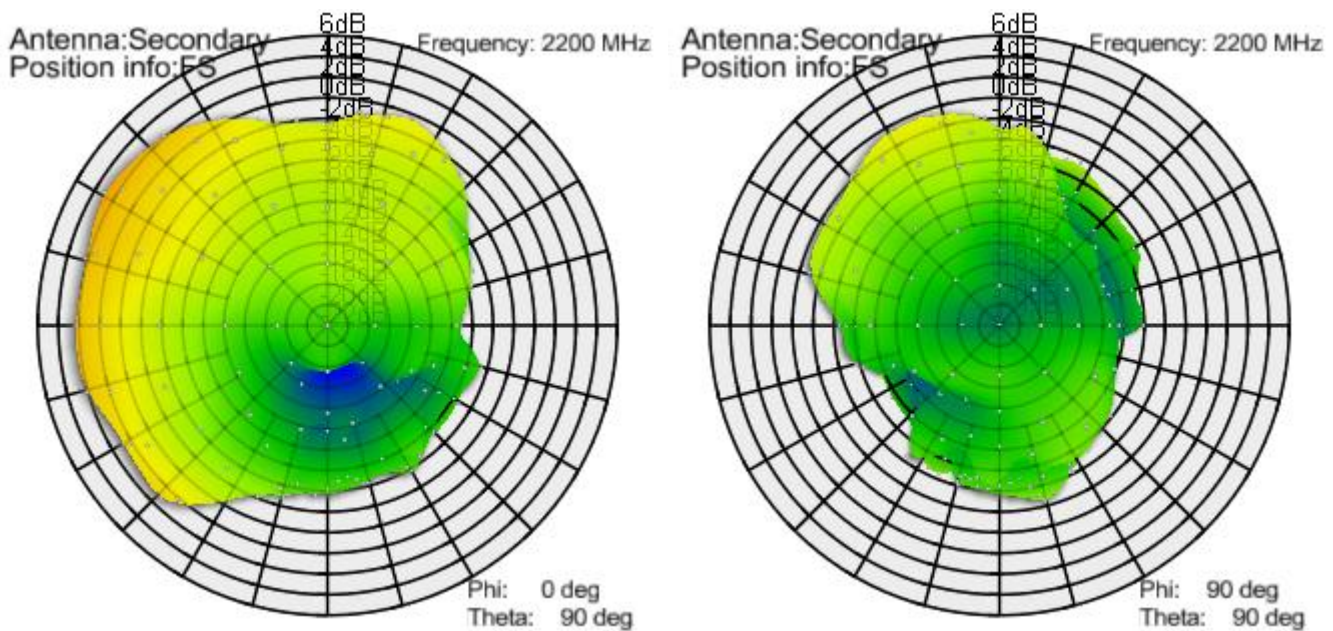
6.2 Cellular Low Band 695-960 MHz, Secondary Antenna



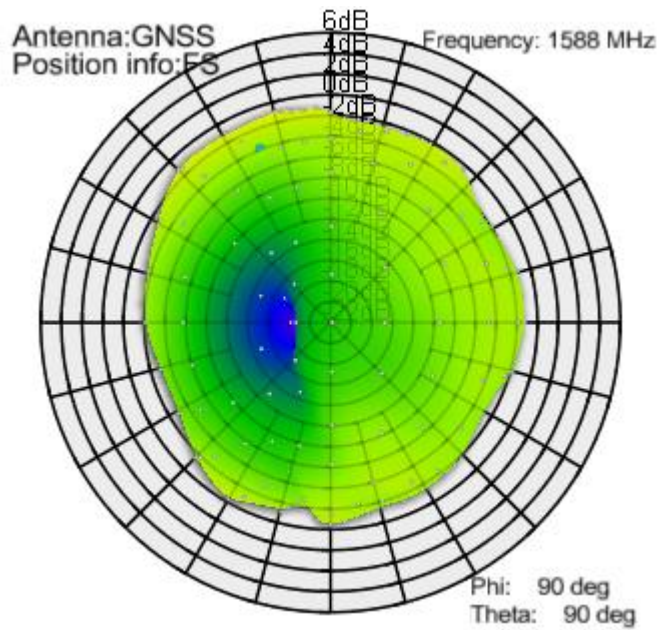
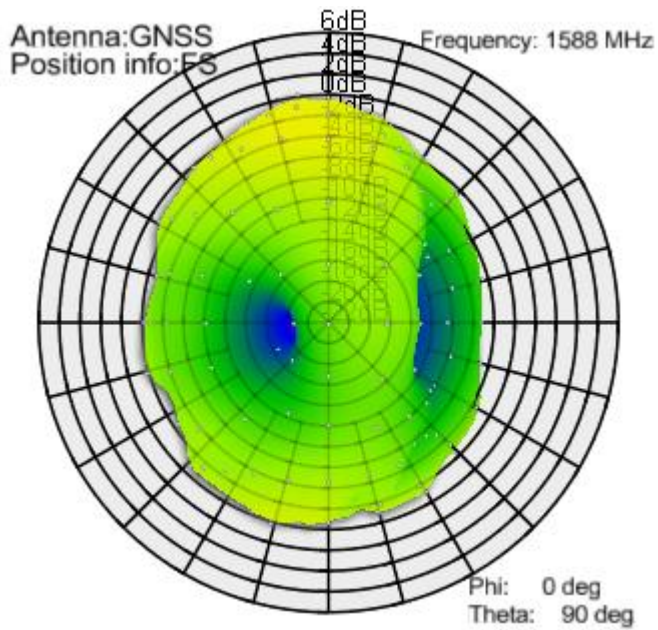
6.3 Cellular Mid-High Band 1710-2700 MHz, Main Antenna



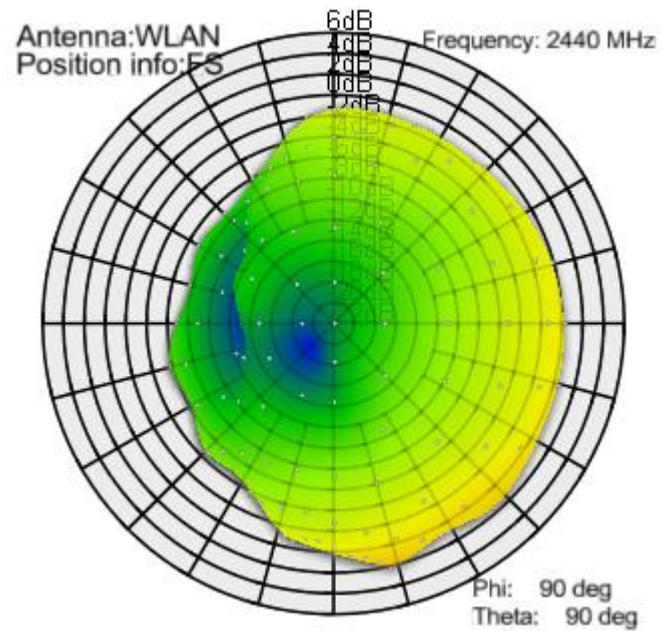
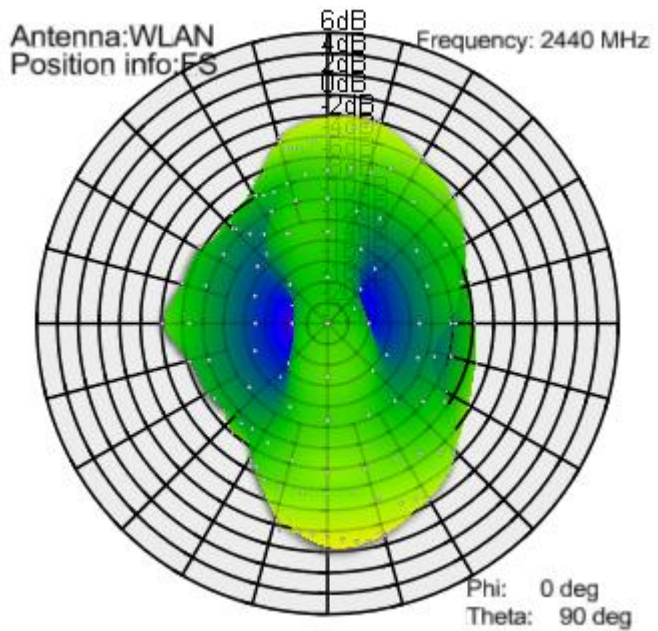
6.4 Cellular Mid-High Band 1710-2700 MHz, Secondary Antenna



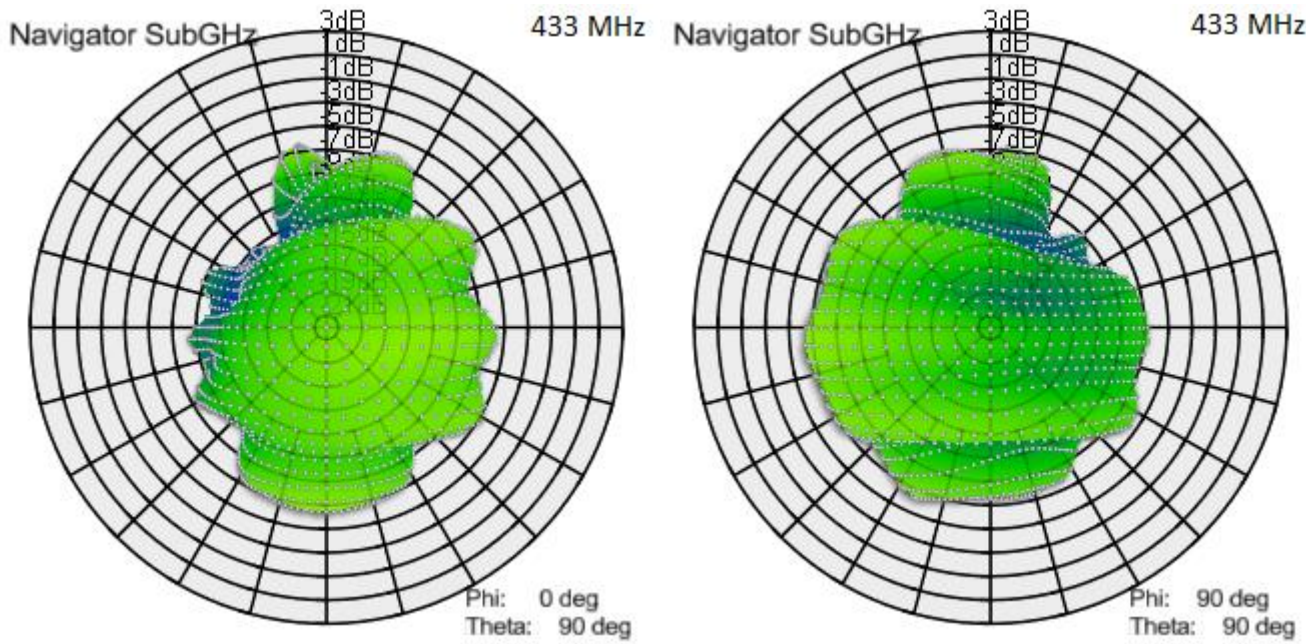
6.5 GNSS 1710-2700 MHz, 1560-1616 MHz



6.6 Wi-Fi / Bluetooth: 2400-2485



6.7 SubGHz Low Band 433-435 MHz



6.8 SubGHz High Band: 865-927 MHz

