



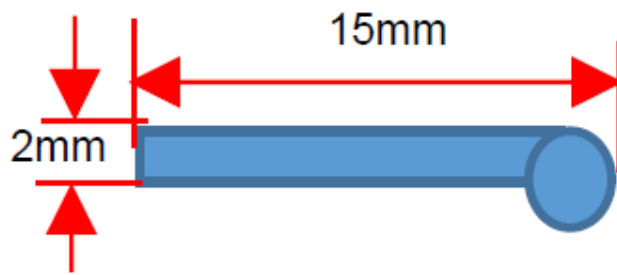
ANTENNA DATA SHEET for 2587

Version			
0.1	Draft	27.2.2024	Antti Renko
0.2	Checked by	29.2.2024	Sakari Sarkkinen
0.3	Checked by	29.04.2024	Sakari Sarkkinen

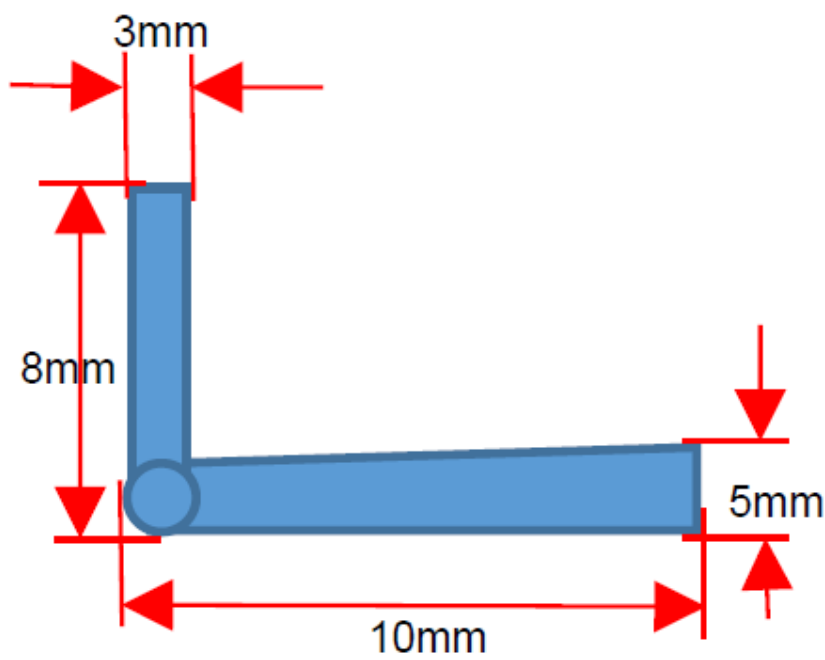
P2587 CELERWAY

SAKARI SARKKINEN

ANTTI RENKO



ANT11



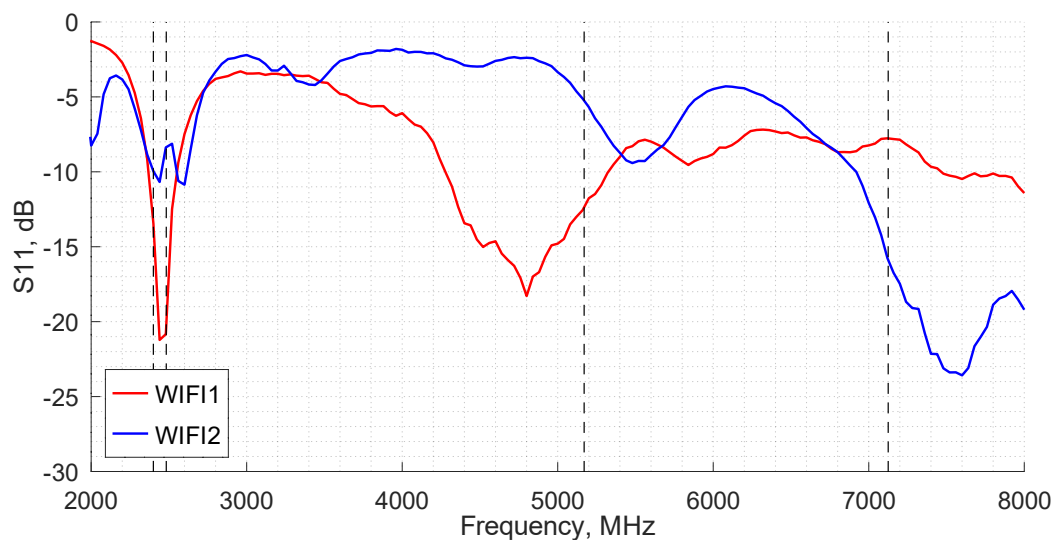
ANT10

GNSS (ANT9)	GNSS	1559-1610 MHz	GNSS: L1
WIFI1 (ANT10)	WiFi	2400-2483 MHz, 5170-5835 MHz	WiFi: 2.4 GHz, 5 GHz
WIFI2 (ANT 11)	WiFi	2400-2483 MHz, 5170-5835 MHz	WiFi: 2.4 GHz, 5 GHz

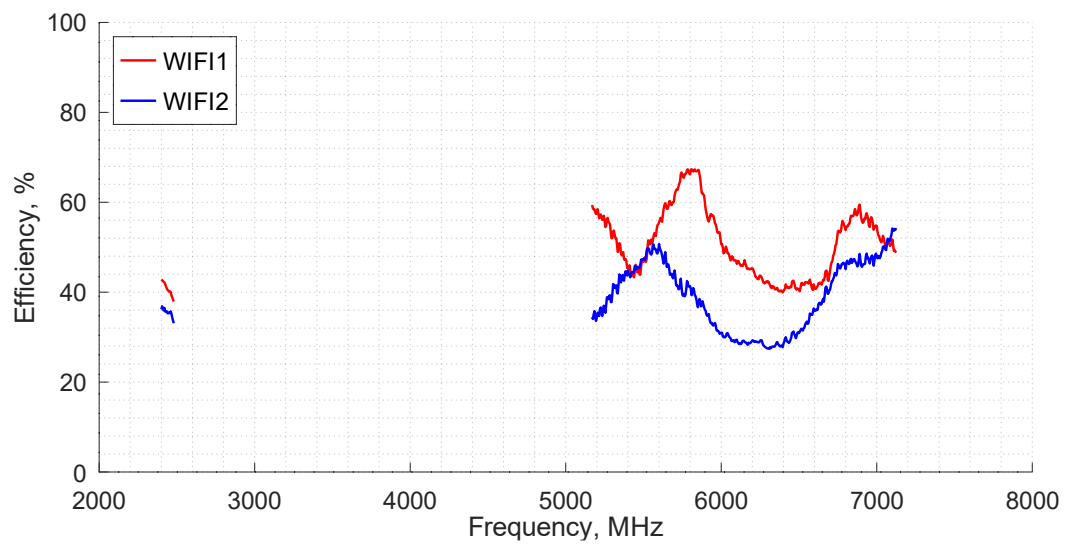
WiFi antennas				GNSS antenna			
Band	WiFi 2.4 GHz	WiFi 5 GHz		Band: GNSS L1			
Frequency, MHz	2400-2483	5170-5835		Frequency: 1559-1610 MHz			
Total efficiency, %				Total efficiency, %			
WiFi1	40.52	30.31		29.04			
WiFi2	35.3	18.75		Average gain, dB			
Average gain, dB				-5.37			
WiFi1	-3.92	-5.18		Peak gain, dBi			
WiFi2	-4.52	-7.27		-0.97			
Peak gain, dBi							
WiFi1	0.46	2.79					
WiFi2	0.22	3.61					

WIFI1 and WIFI2

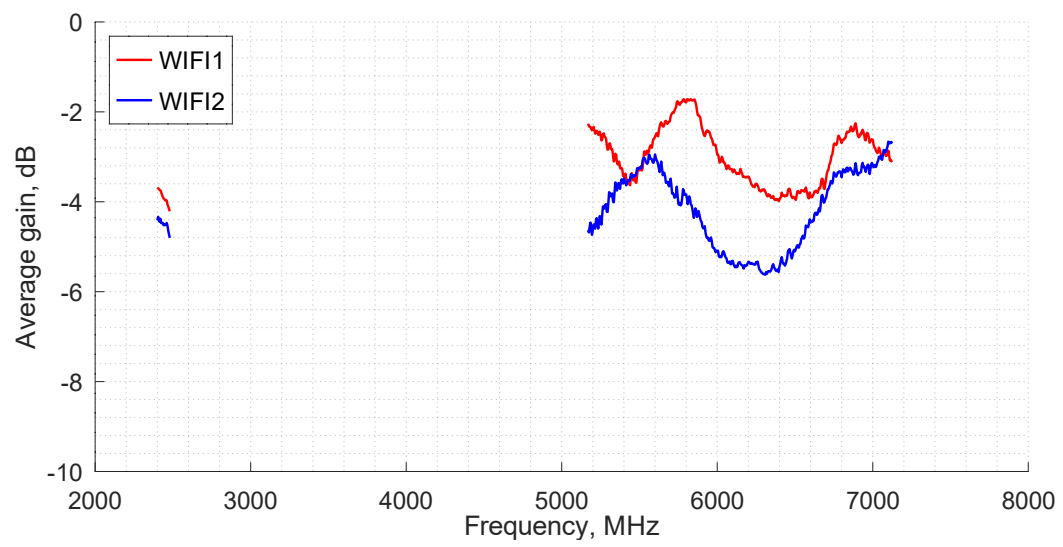
Return loss – WIFI1 and WIFI2



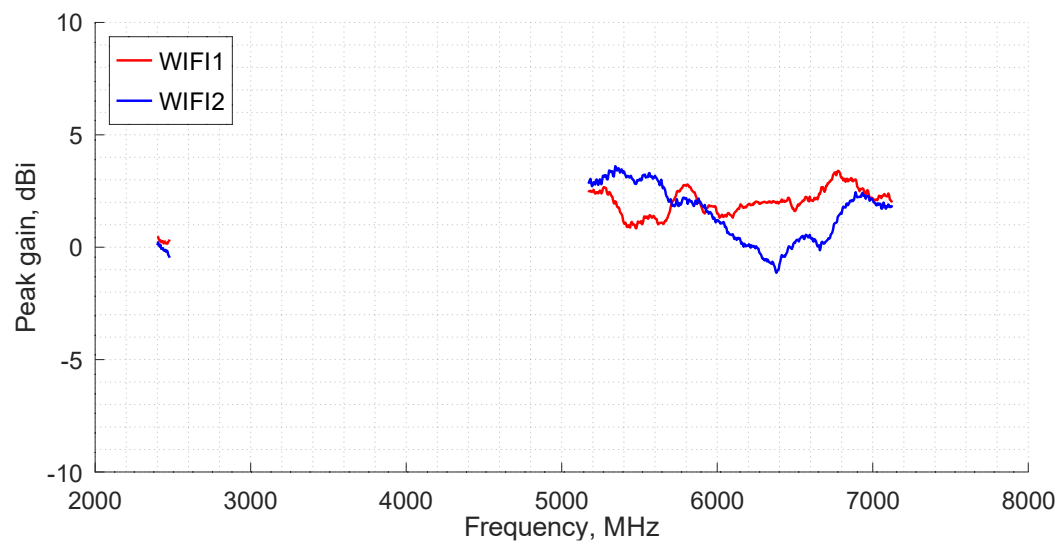
Total efficiency – WIFI1 and WIFI2



Average gain – WIFI1 and WIFI2

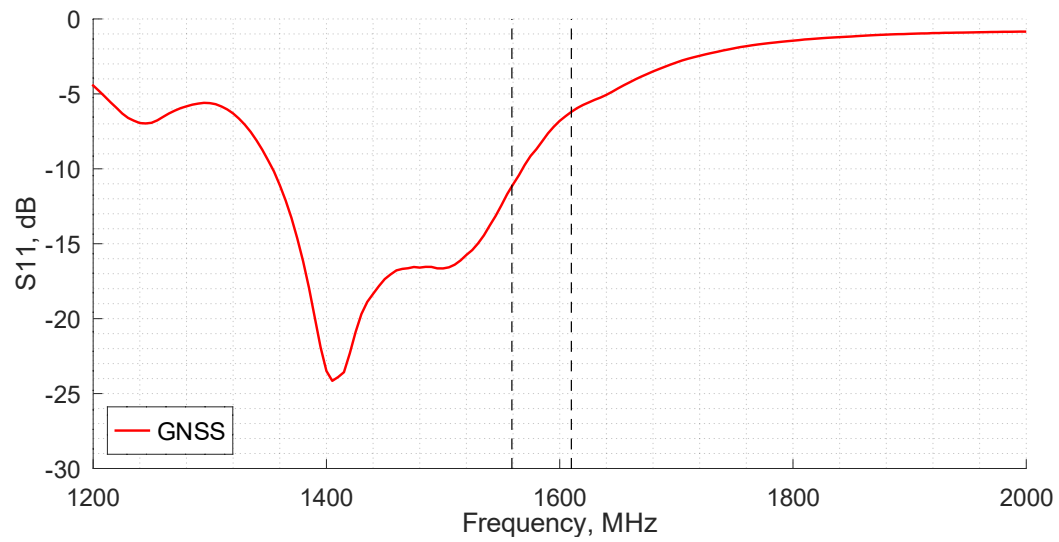


Peak gain – WIFI1 and WIFI2

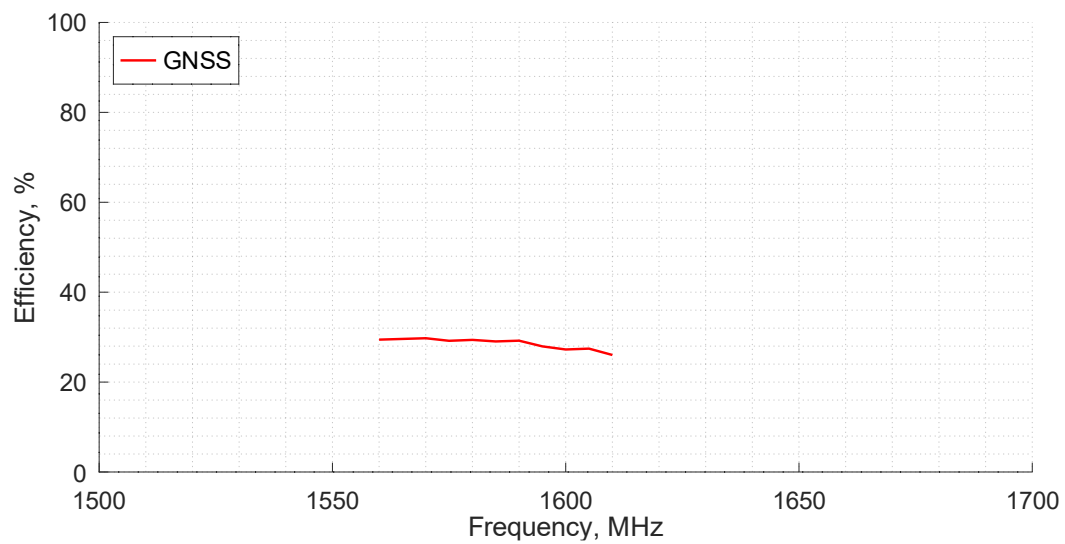


GNSS

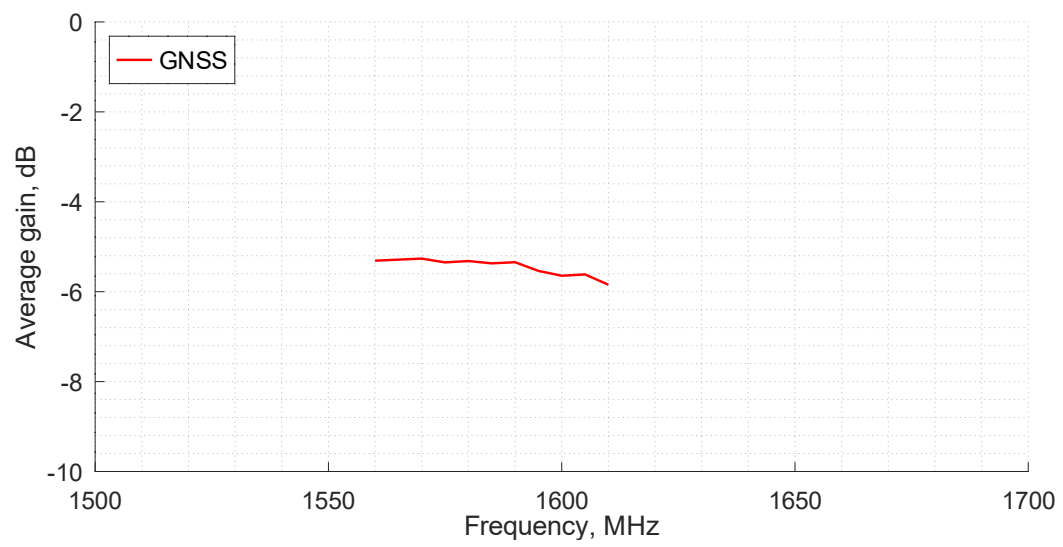
Return loss – GNSS



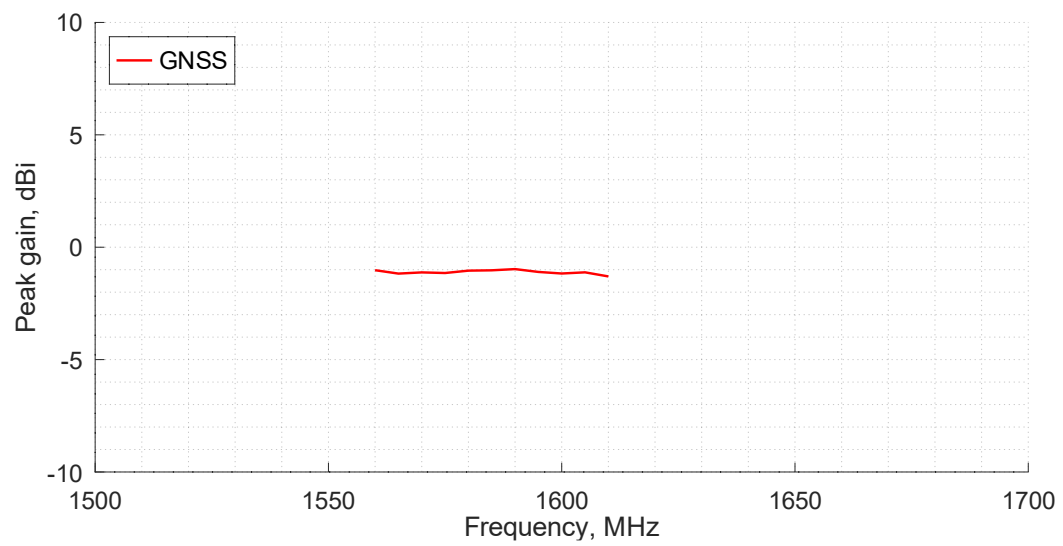
Total efficiency – GNSS



Average gain – GNSS

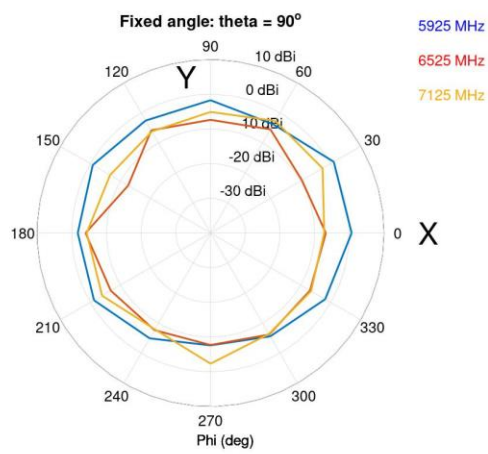
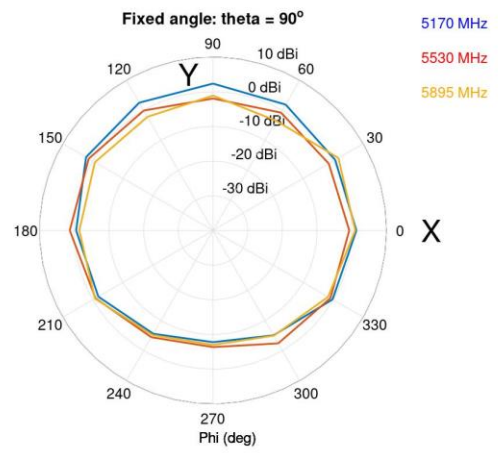
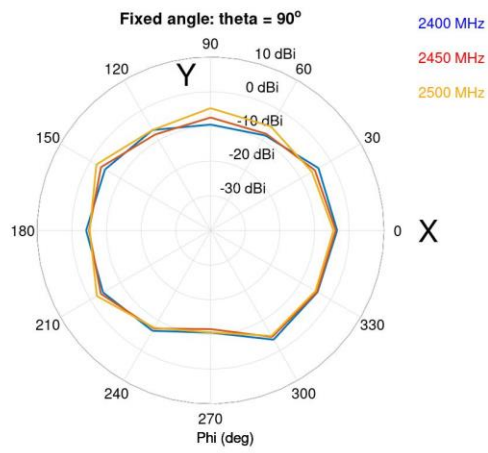


Peak gain – GNSS

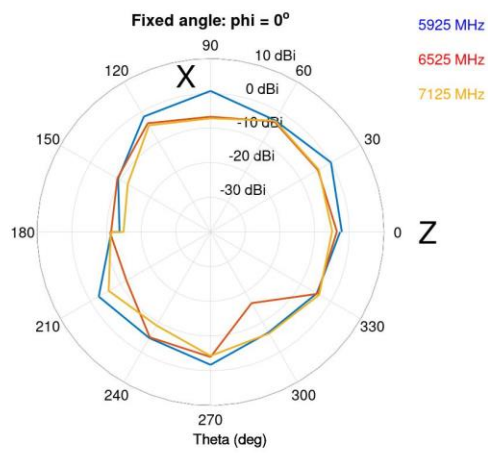
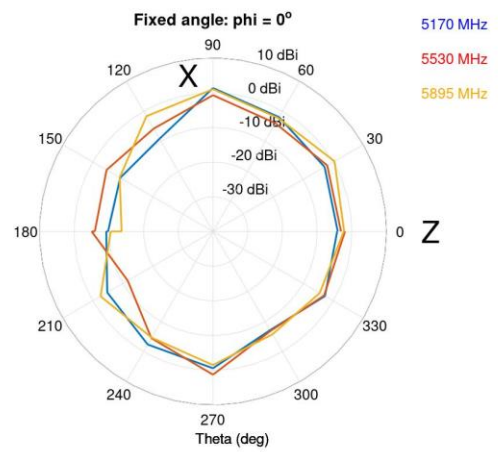
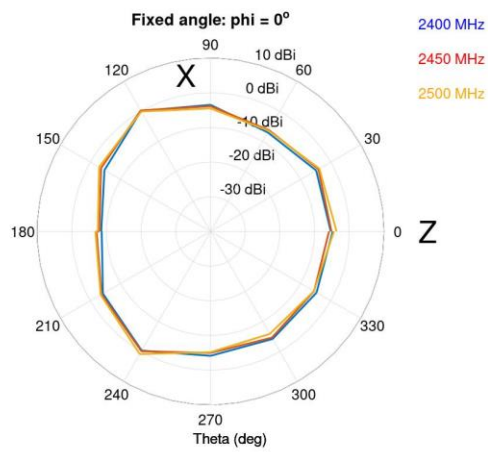


WIFI1

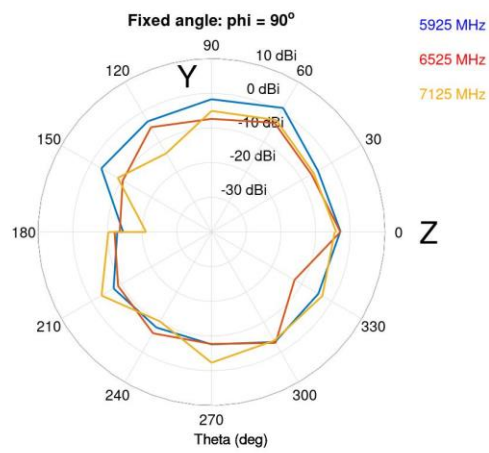
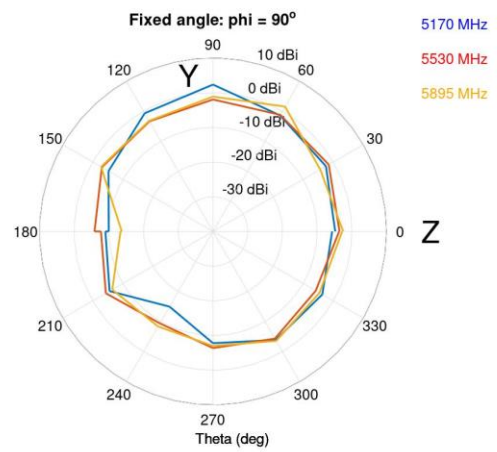
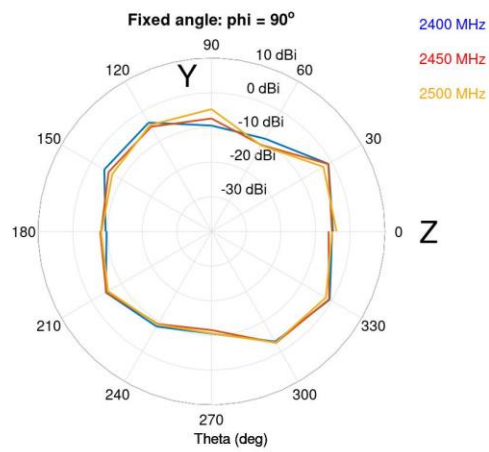
WIFI1 – XY plane



WiFi1 – XZ plane

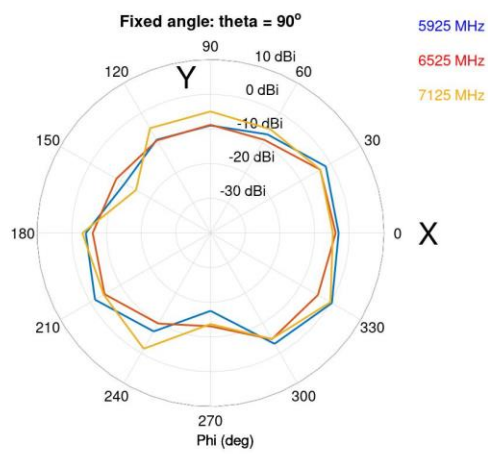
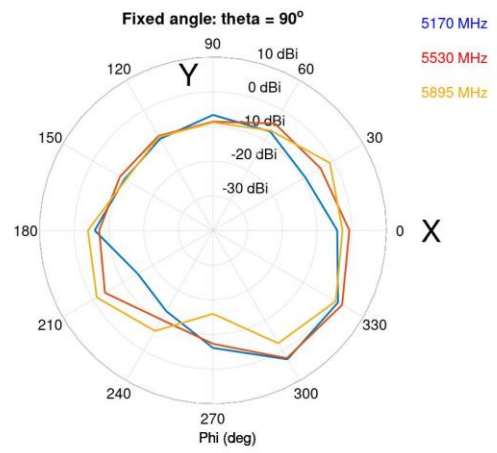
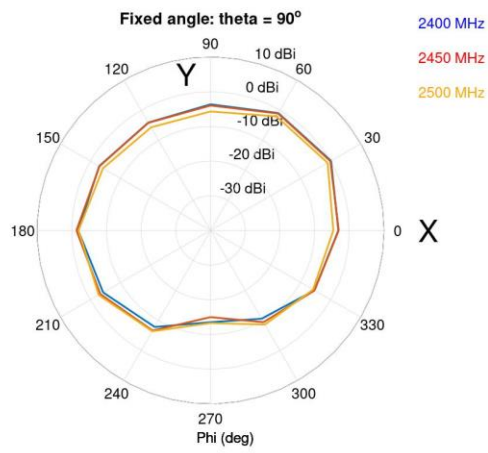


WIFI1 – YZ plane

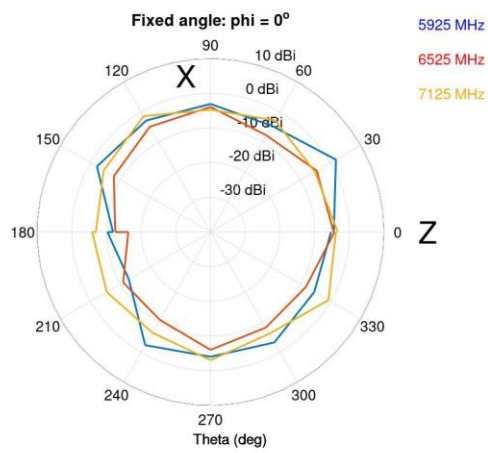
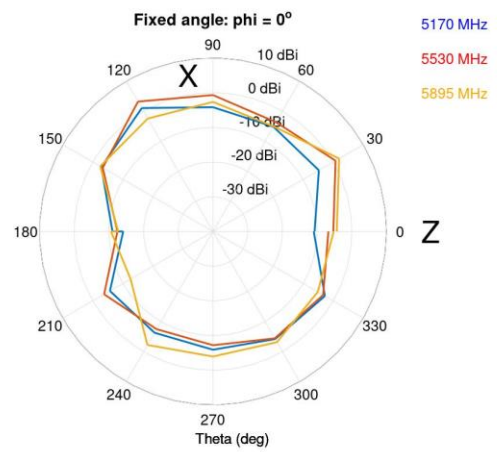
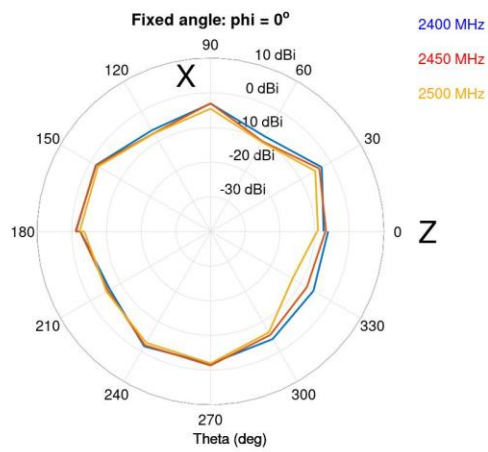


WIFI2

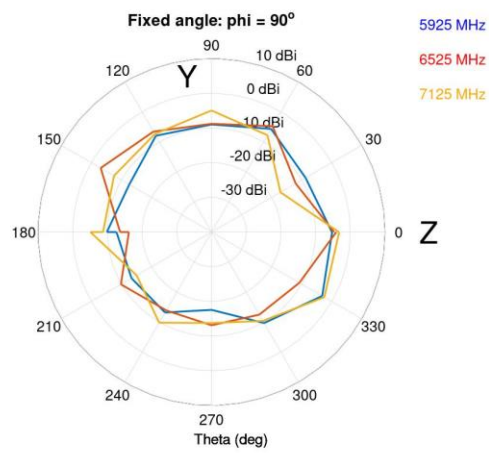
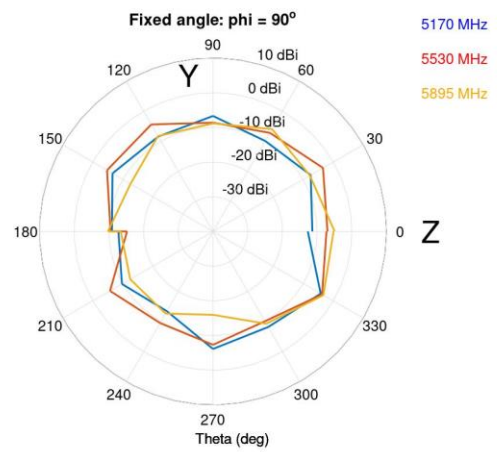
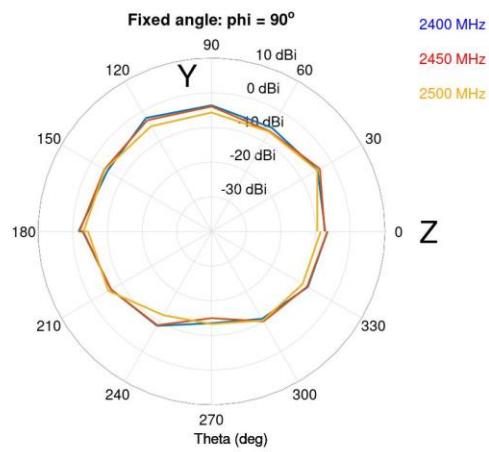
WIFI2 – XY plane



WiFi2 – XZ plane

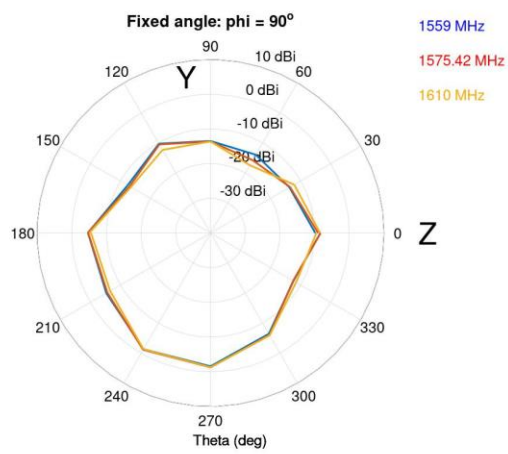
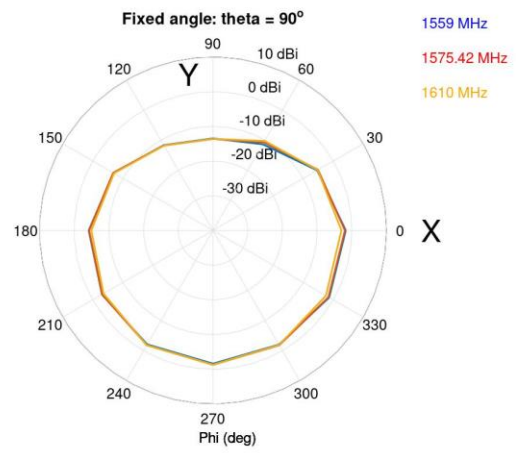
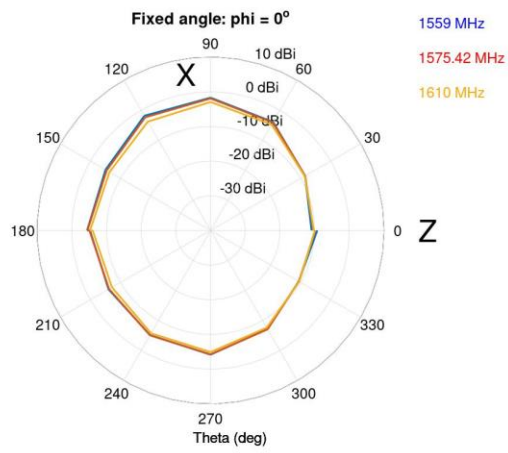


WiFi2 – YZ plane



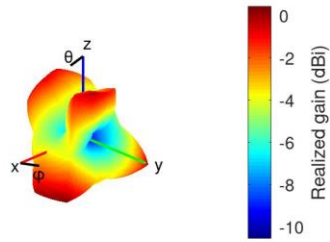
GNSS

GNSS – XY plane, XZ plane and YZ plane

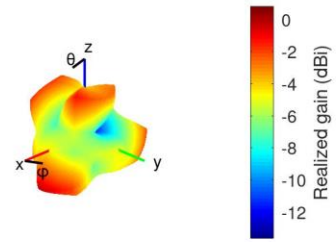


WIFI1

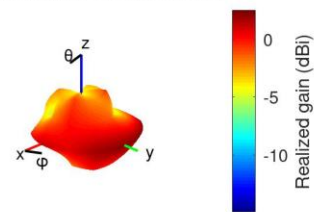
2400.00 MHz $G_{\max}=0.45$ dBi $G_{\min}=-10.55$ dBi



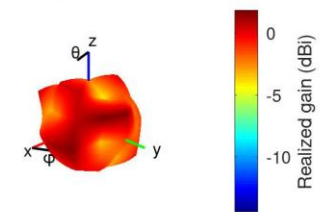
2500.00 MHz $G_{\max}=0.82$ dBi $G_{\min}=-13.64$ dBi



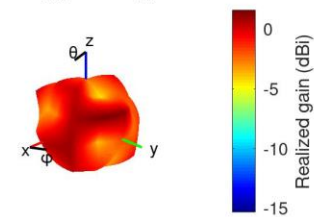
5170.00 MHz $G_{\max}=2.51$ dBi $G_{\min}=-14.97$ dBi



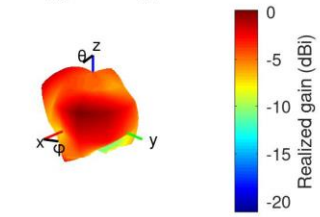
5895.00 MHz $G_{\max}=1.85$ dBi $G_{\min}=-14.47$ dBi



5925.00 MHz $G_{\max}=1.58$ dBi $G_{\min}=-15.33$ dBi

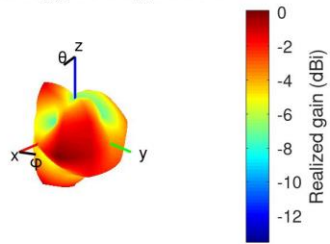


7125.00 MHz $G_{\max}=0.17$ dBi $G_{\min}=-21.14$ dBi

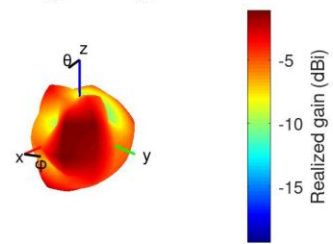


WIFI2

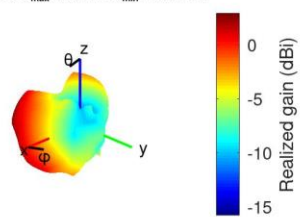
2400.00 MHz $G_{\max}=0.09$ dBi $G_{\min}=-13.55$ dBi



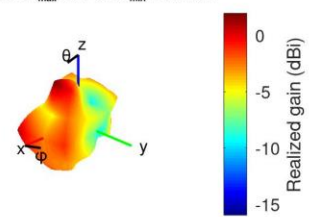
2500.00 MHz $G_{\max}=-1.05$ dBi $G_{\min}=-19.40$ dBi



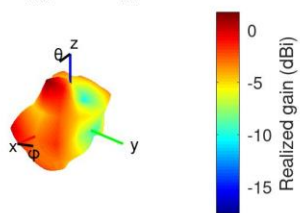
5170.00 MHz $G_{\max}=2.90$ dBi $G_{\min}=-15.78$ dBi



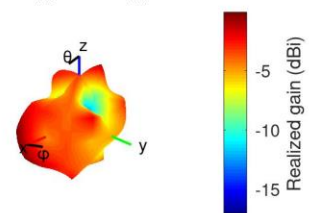
5895.00 MHz $G_{\max}=1.97$ dBi $G_{\min}=-15.96$ dBi



5925.00 MHz $G_{\max}=1.73$ dBi $G_{\min}=-17.57$ dBi

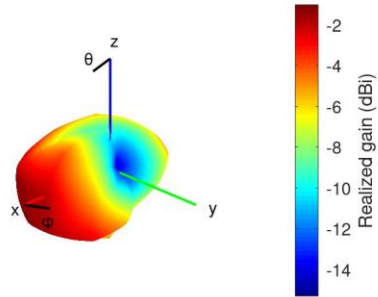


7125.00 MHz $G_{\max}=-0.10$ dBi $G_{\min}=-17.07$ dBi

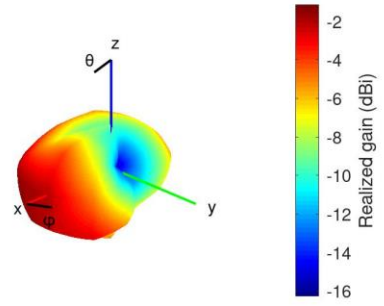


GNSS

1559.00 MHz $G_{\max}=-1.02$ dBi $G_{\min}=-15.30$ dBi



1575.42 MHz $G_{\max}=-1.15$ dBi $G_{\min}=-16.26$ dBi



1610.00 MHz $G_{\max}=-1.30$ dBi $G_{\min}=-18.46$ dBi

