

AWAN

AT150E-US DVT2 WiFi/BT

Test Report

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- **Antenna Testing Conditions**

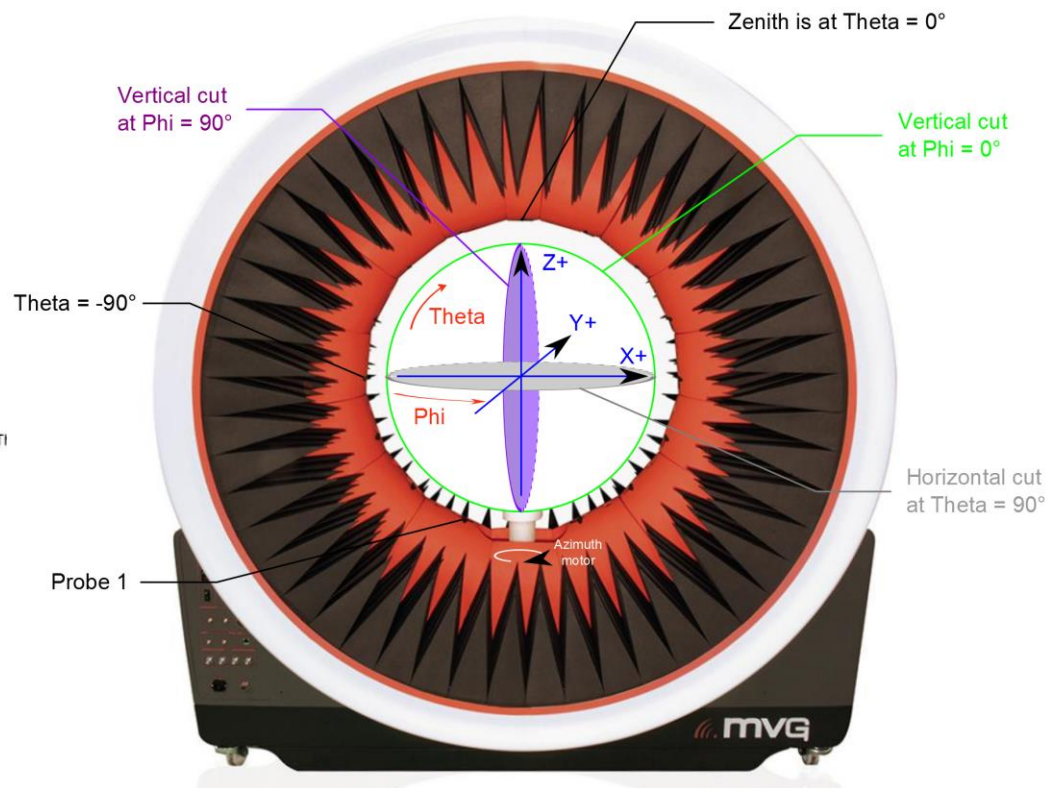
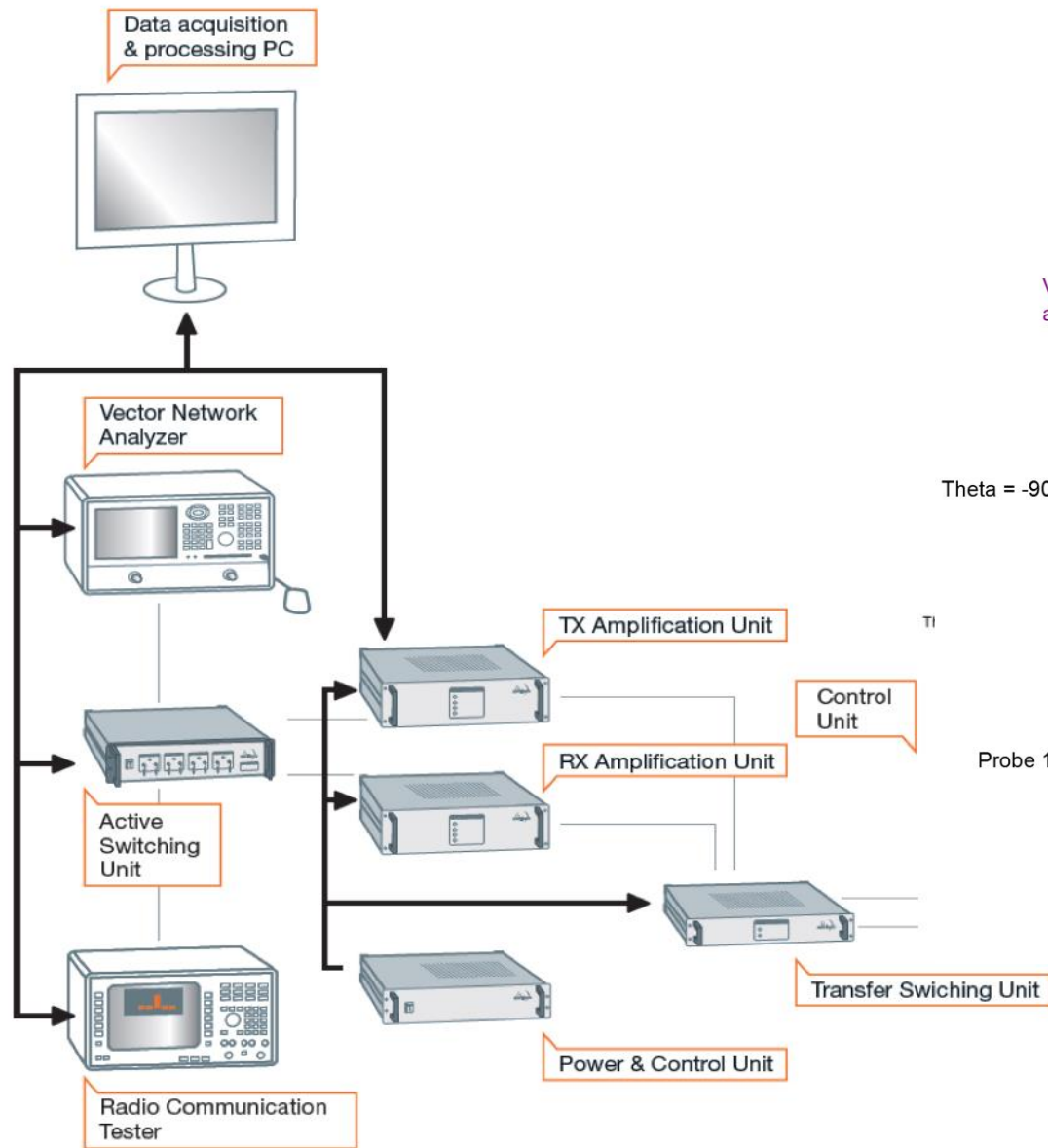
1. Test System
2. Antenna Under Test
3. Antenna Placement

- **Antenna RF characteristics**

1. VSWR & Gain Table
2. Radiation Patterns
2. Isolation

Antenna Test System

Test setup



Antenna Test System

Test Equipment

Equipment Description↴	Manufacturer	Identification no.↴	Current Calibration date↴	Next calibration date↴
Universal Radio↴ Communication tester↴	Anritsu↴	MT8820C↴	2022/07/29↴	2022/12/29↴
Network Analyzer↴	Agilent↴	E5071C↴	2022/07/29↴	2022/12/29↴
Sleeve Dipole↴	MVG↴	SD740↴	2022/07/12↴	2022/12/12↴
Dual Ridge Horn↴	MVG↴	SH800↴	2022/07/12↴	2022/12/12↴
Dipole antenna↴	MVG ↴	3126-700↴	2022/07/12↴	2022/12/12↴
Stargate-16-L probe array↴	MVG↴	Stargate-16-L↴	2022/07/12↴	2022/12/12↴
Measurement software↴	MVG↴	Wave Studio 22.1↴	N/A↴	N/A↴
Wireless protocol tester↴	R&S↴	CMW500↴	2022/07/29↴	2022/12/29↴

Antenna Under Test

WiFi/BT

Antenna Model	AYF6P-100002	
Antenna Type	PIFA Antenna for WiFi application	
Connector Material	I-PEX MHF1	
Cable Type	Ø1.13	
Polarization	Linear	
Impedance	50Ω	
Radiation pattern	Omni-directional	
Frequency	2400~2500MHz	5150~5850MHz
VSWR	2.0 Max	2.0 Max
Peak gain(dBi)	2.35~2.59	3.43~4.47
Antenna dimension	WiFi(AYF6P-100002)	Figure-1

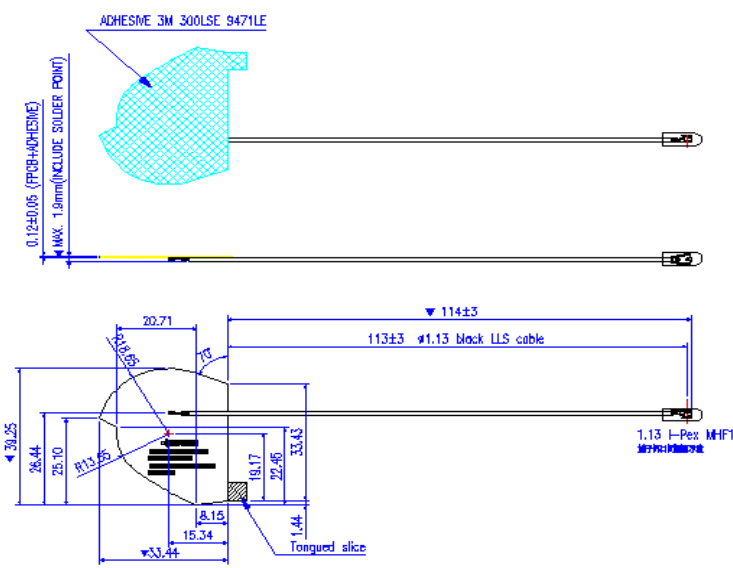
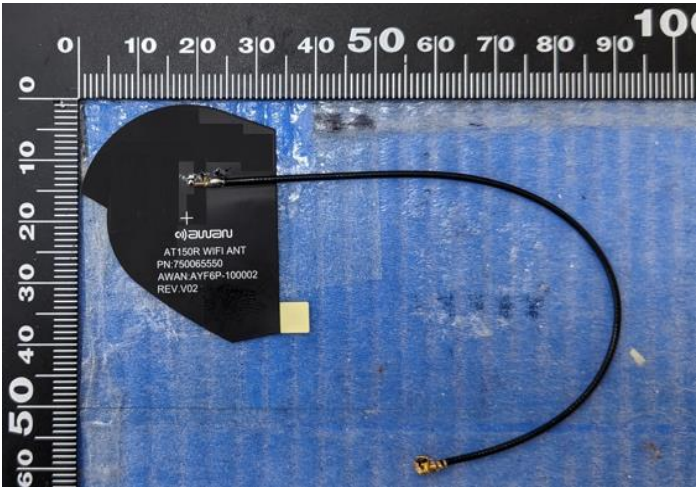
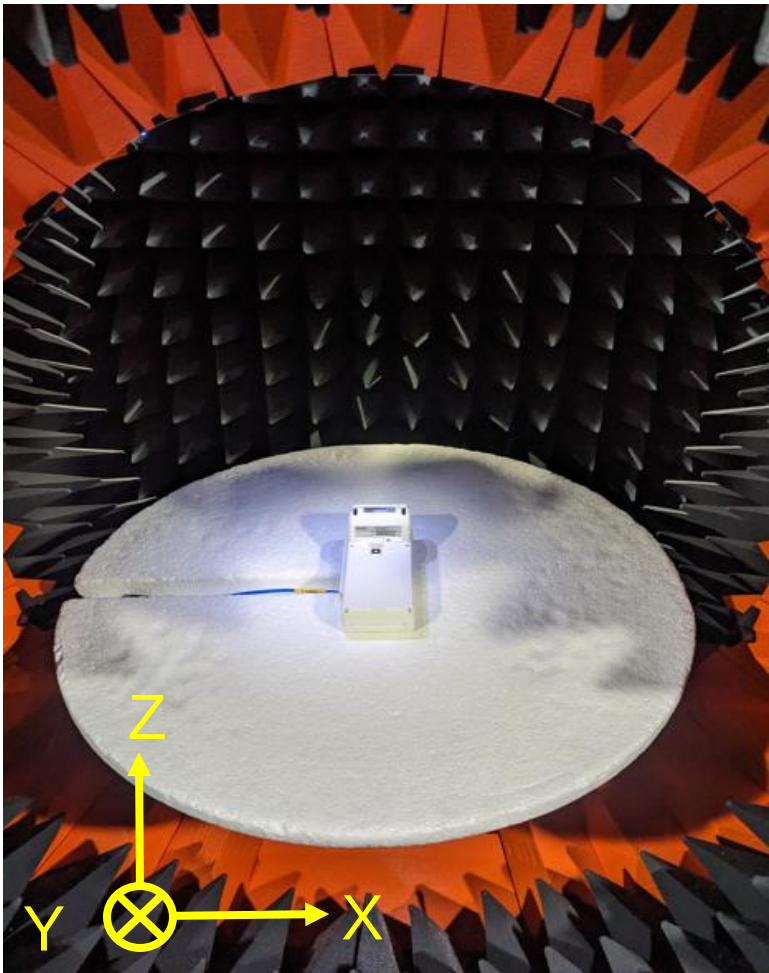


Figure-1 AYF6P-100002



Antenna Under Test

Setup photo



Description	Tester	Measured Date
Measured	William.Lee	2023/04/27

The antenna gain values are used in EMC measurement, the EIRP and/or Conducted power are compliance all FCC requirements and not exceed the limit.

Antenna Placement

WiFi/BT

LTE Main Antenna

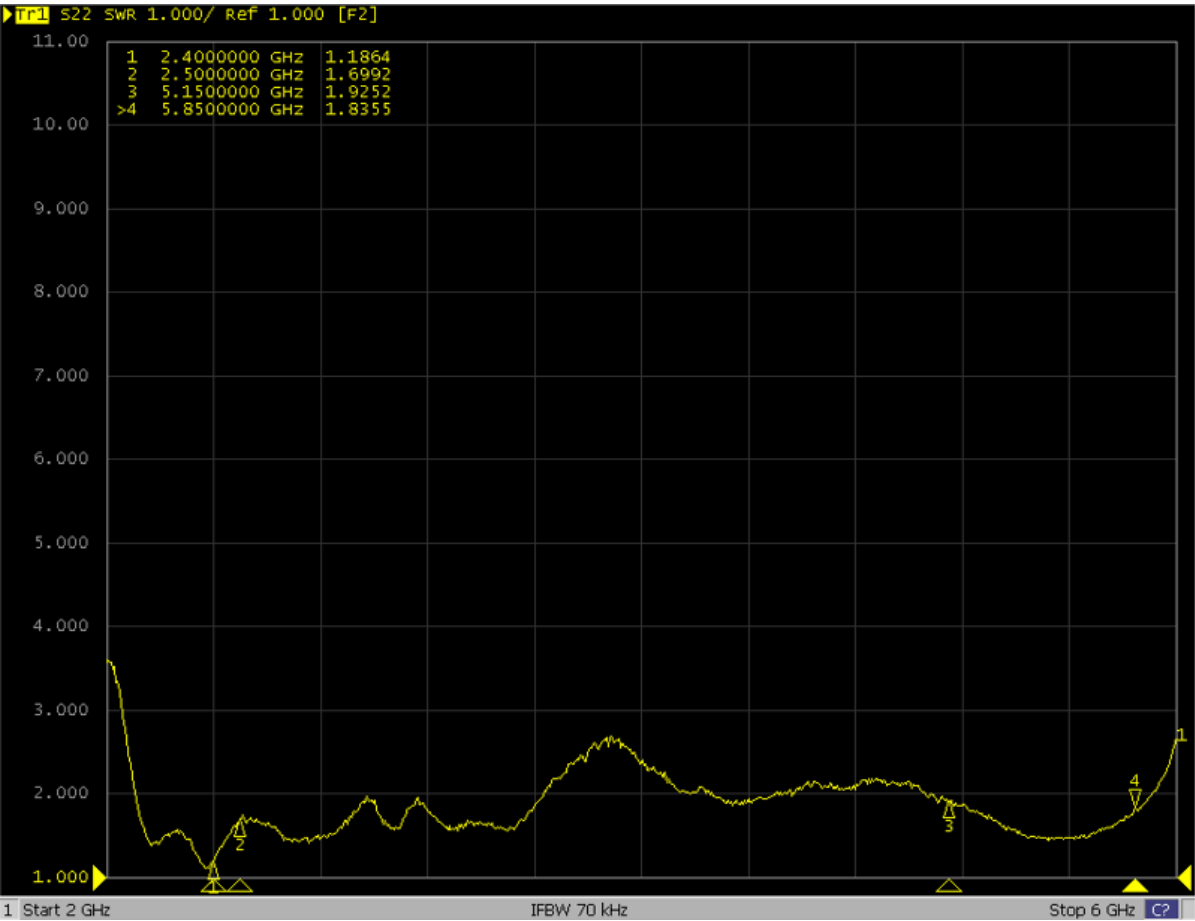


LTE Aux Antenna

WiFi/BT



VSWR & Gain Table_WiFi/BT

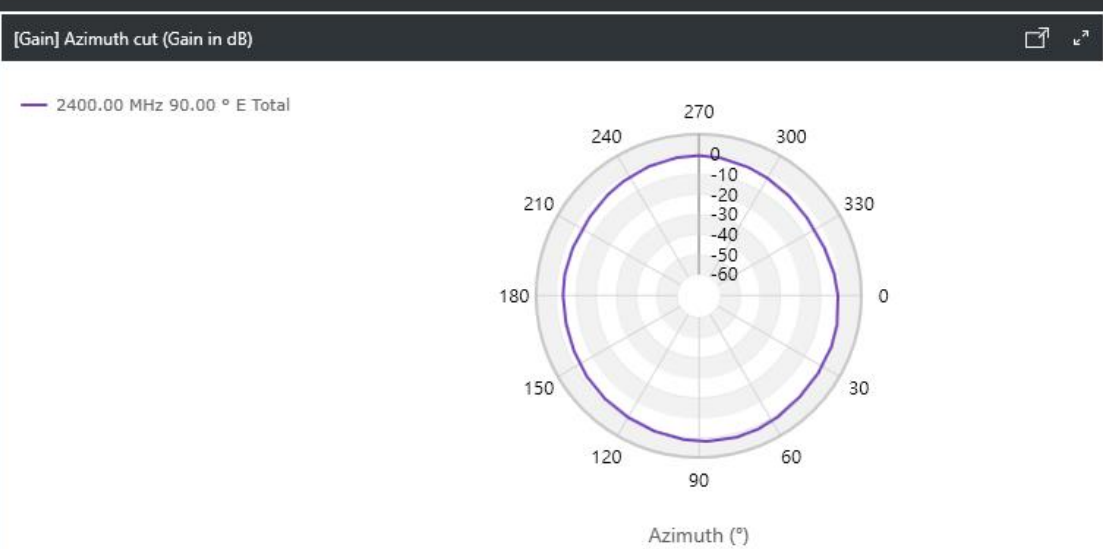
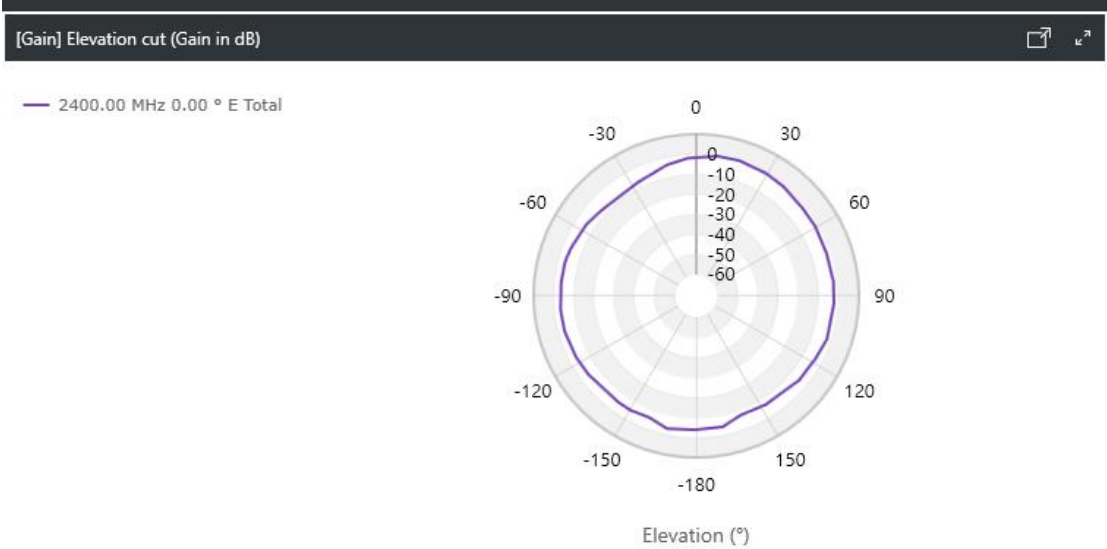
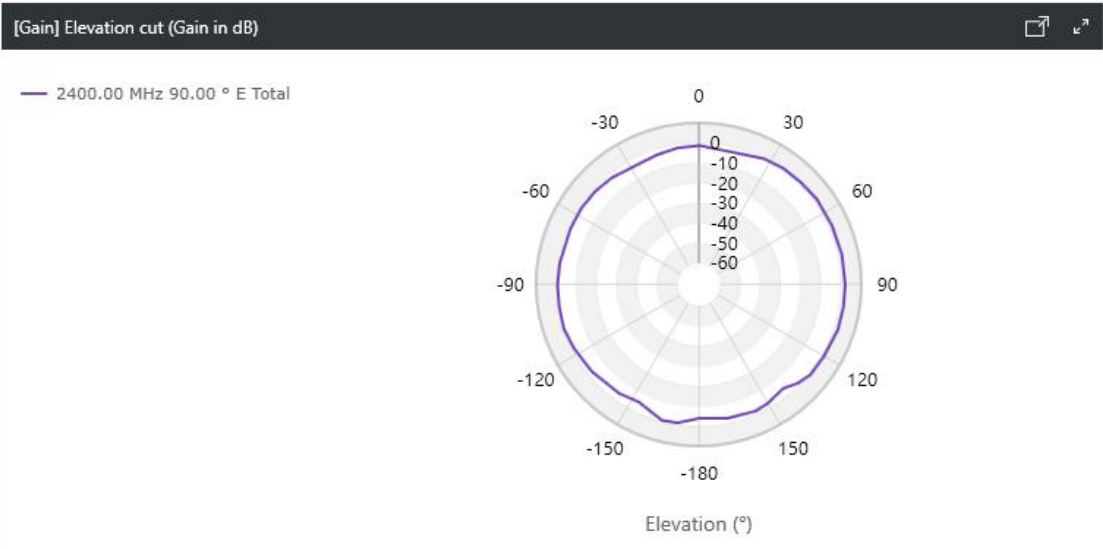
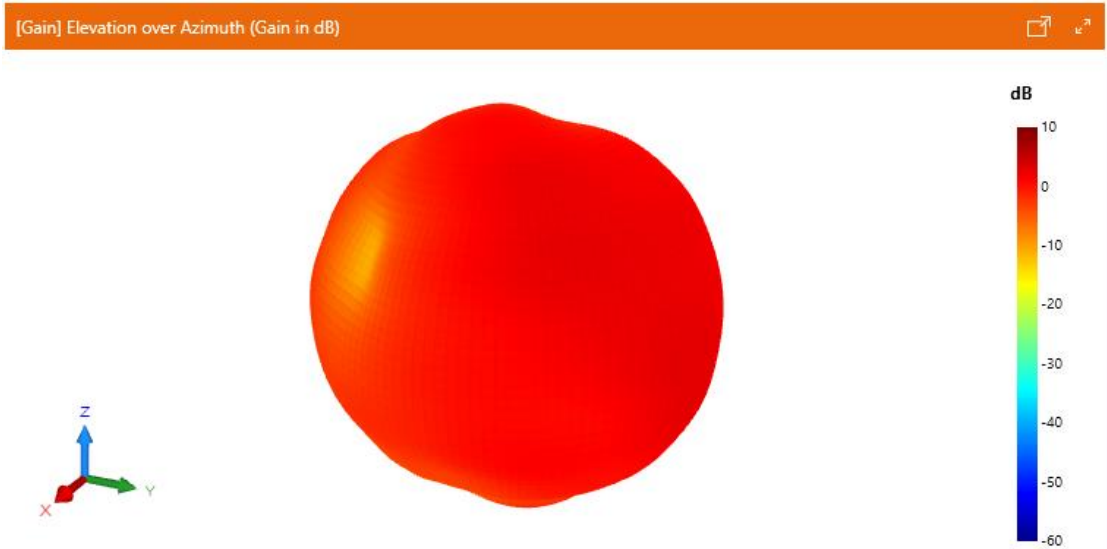


Frequency (MHz)	3D Avg. Gain(dBi)	3D Peak Gain (dBi)	Efficiency(%)
2400	-3.37	2.35	46.03
2450	-3.35	2.47	46.24
2500	-3.45	2.59	45.19
5150	-3.28	4.07	46.99
5250	-3.21	4.24	47.75
5350	-3.33	4.47	46.45
5470	-3.00	4.17	50.12
5725	-3.37	3.73	46.03
5785	-3.11	3.51	48.87
5850	-3.54	3.43	44.26

Radiation Patterns_WiFi/BT_2400MHz

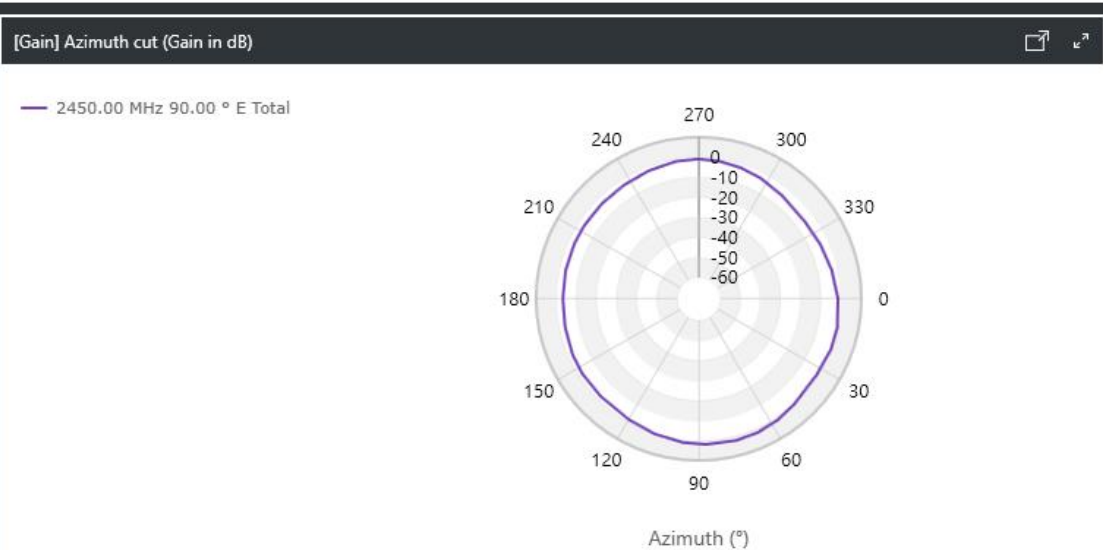
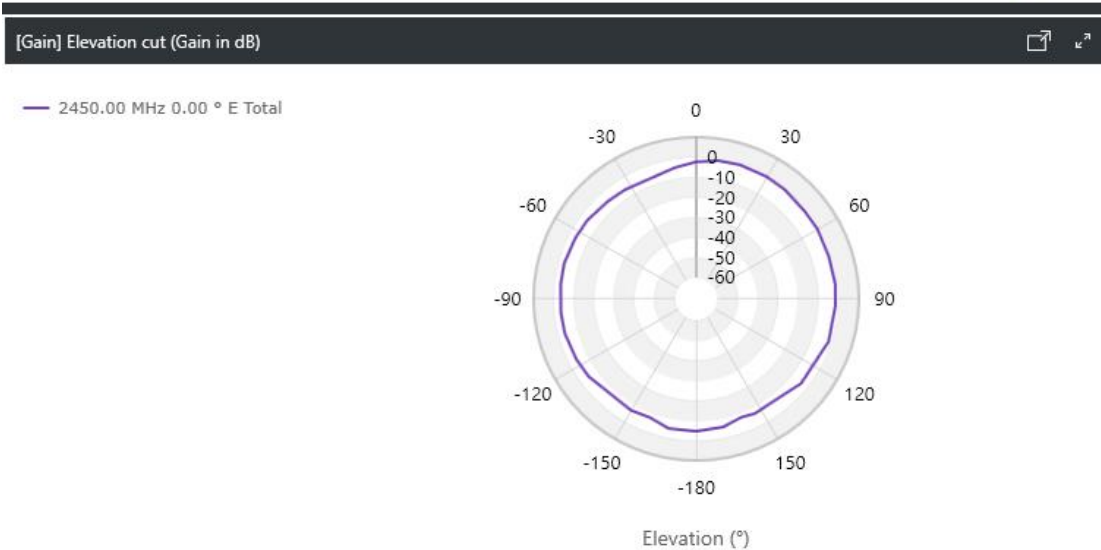
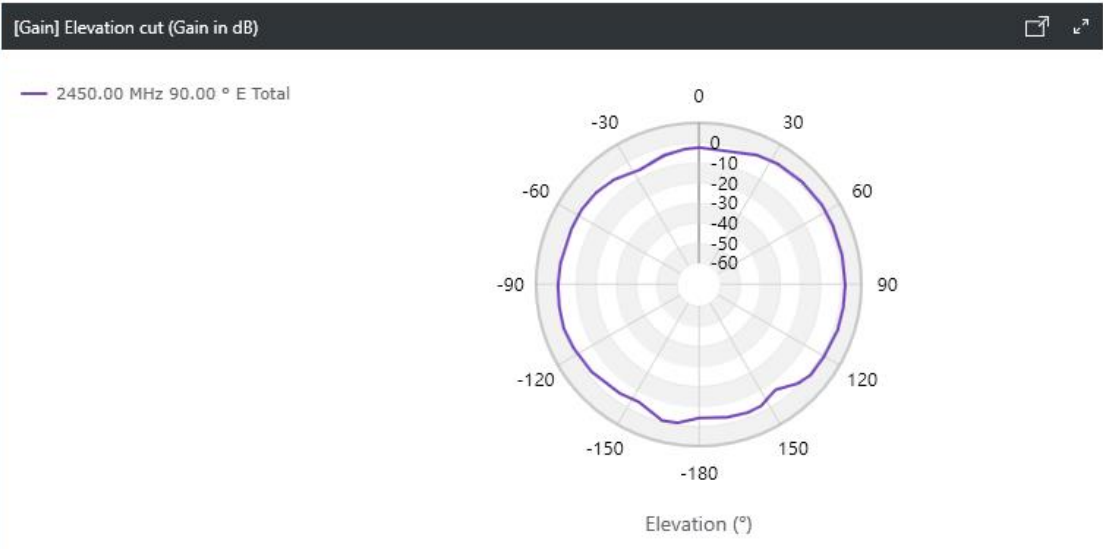
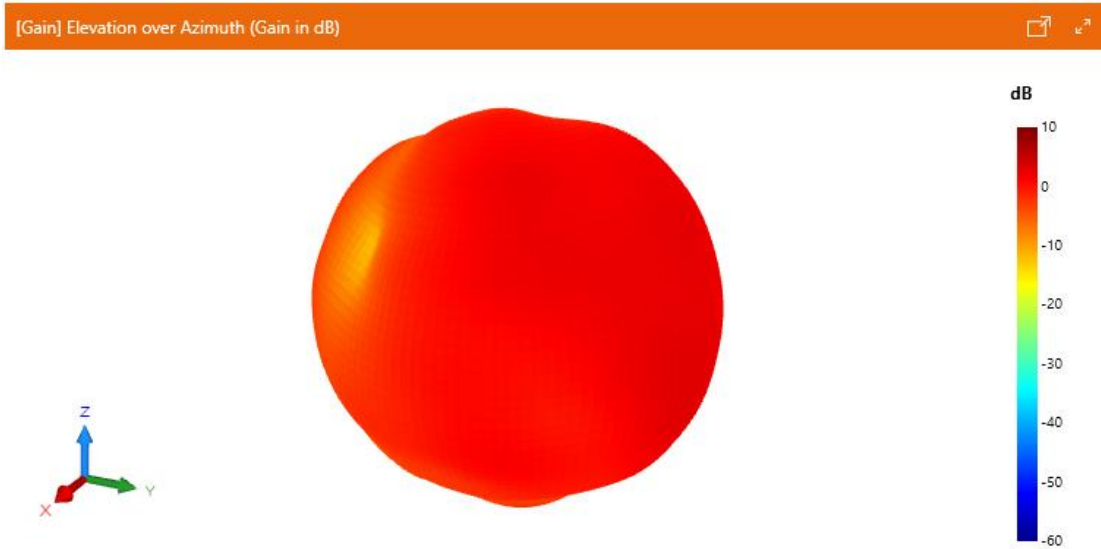
3D	ZY-Plane
ZX-Plane	XY-Plane

dB	ZY Plane	ZX Plane	XY Plane
Total(Max.)	1.88	0.28	2.32



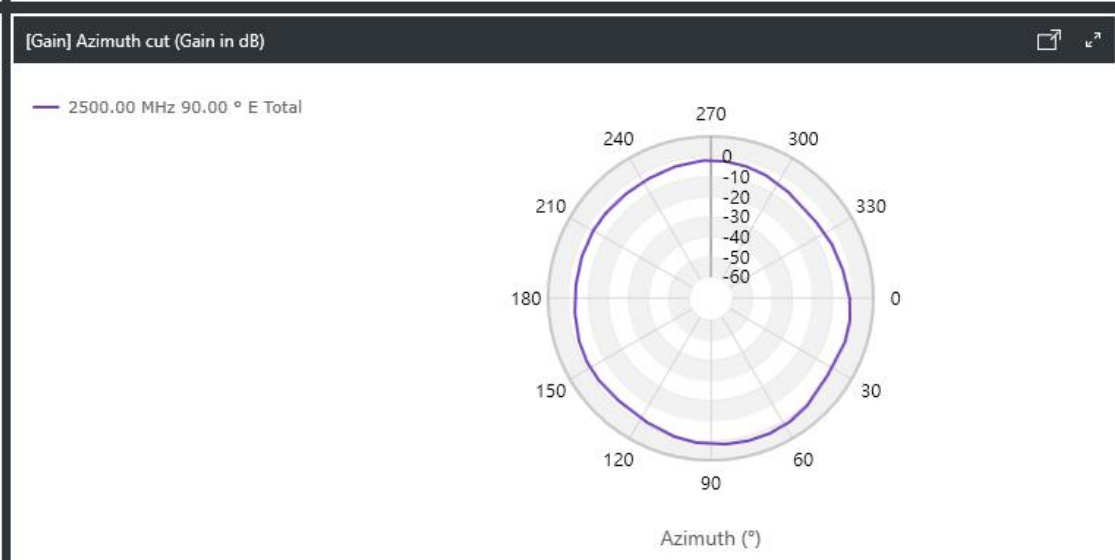
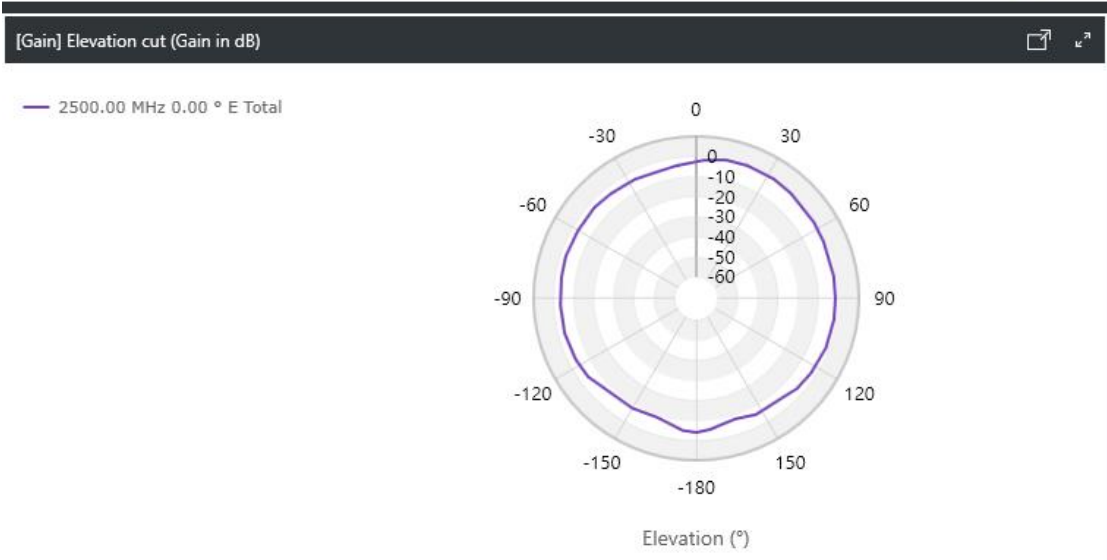
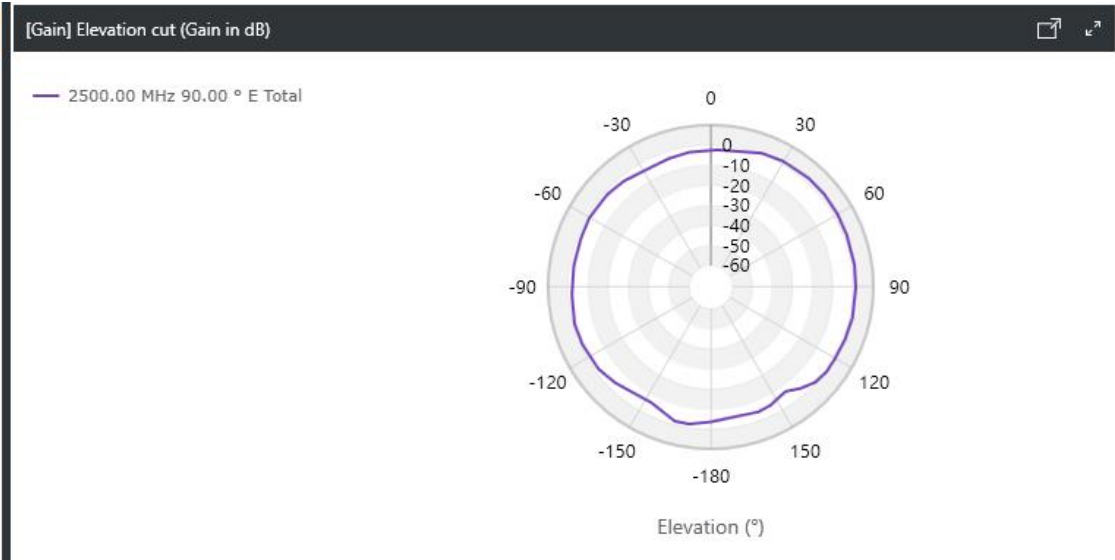
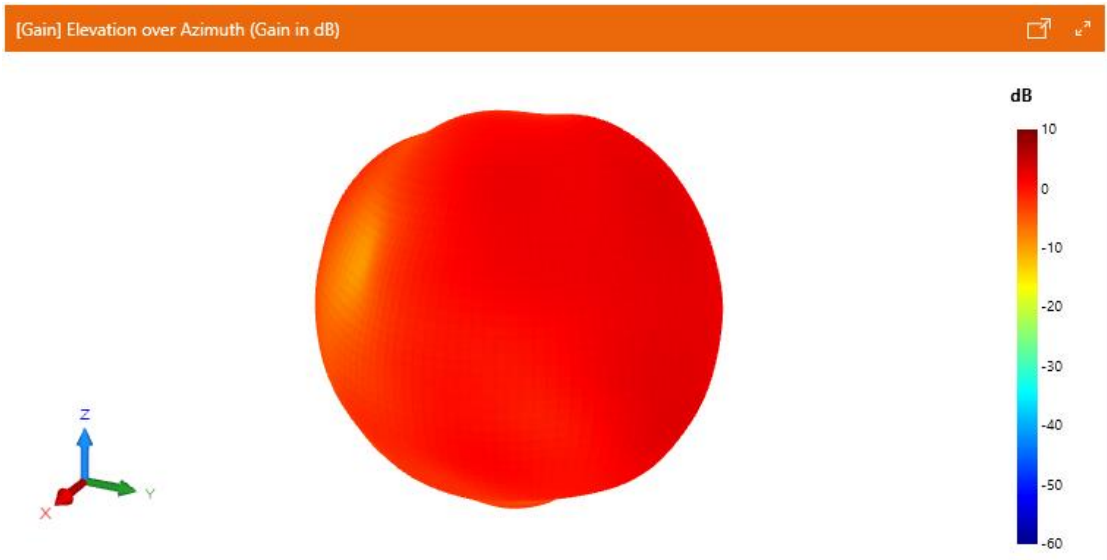
Radiation Patterns_WiFi/BT_2450MHz

3D	ZY-Plane	dB	ZY Plane	ZX Plane	XY Plane
ZX-Plane	XY-Plane	Total(Max.)	2.09	-0.33	2.47



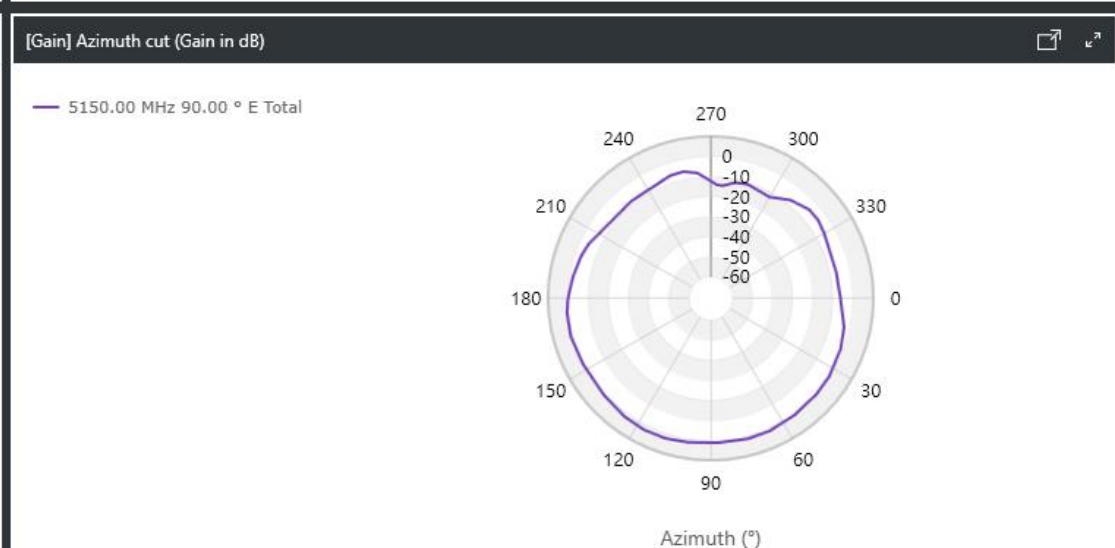
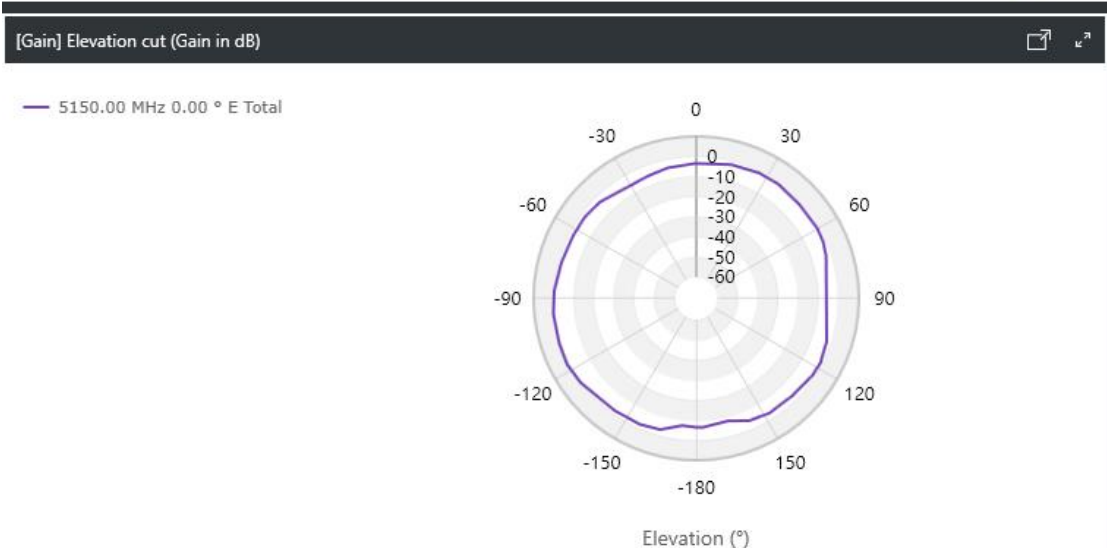
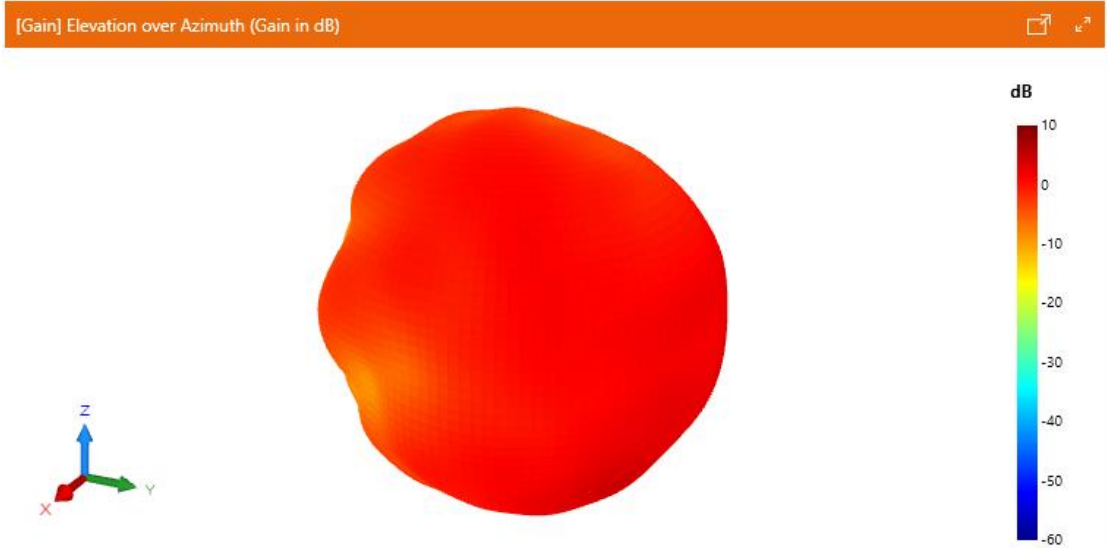
Radiation Patterns_WiFi/BT_2500MHz

3D	ZY-Plane	dB	ZY Plane	ZX Plane	XY Plane
ZX-Plane	XY-Plane	Total(Max.)	2.48	0.16	2.48



Radiation Patterns_WiFi/BT_5150MHz

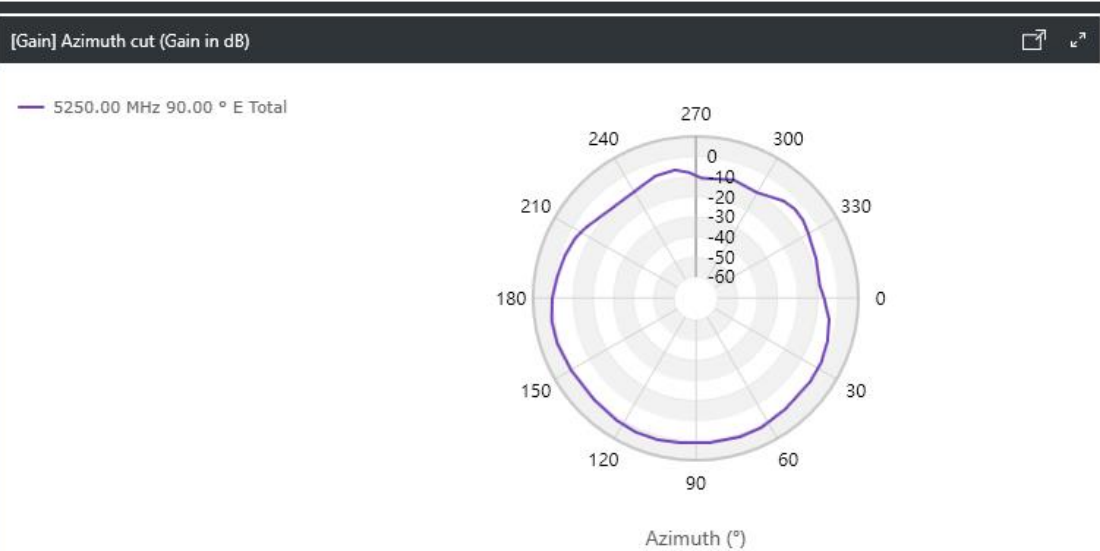
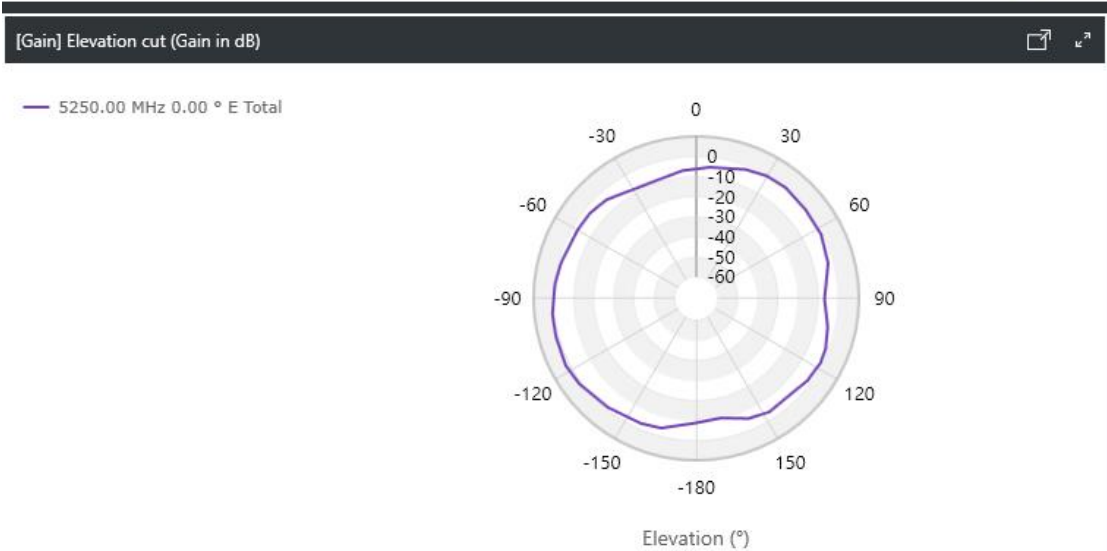
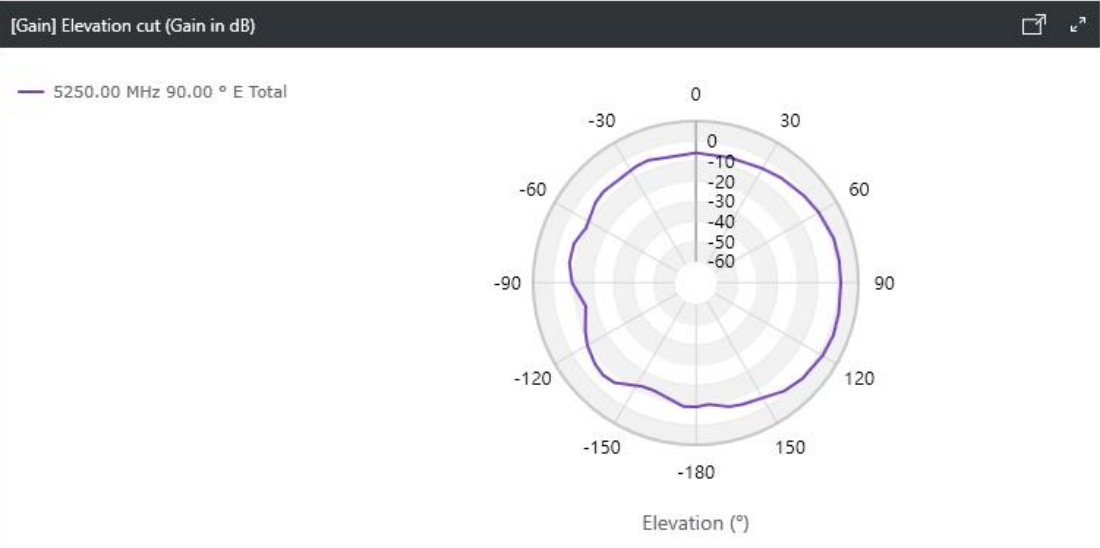
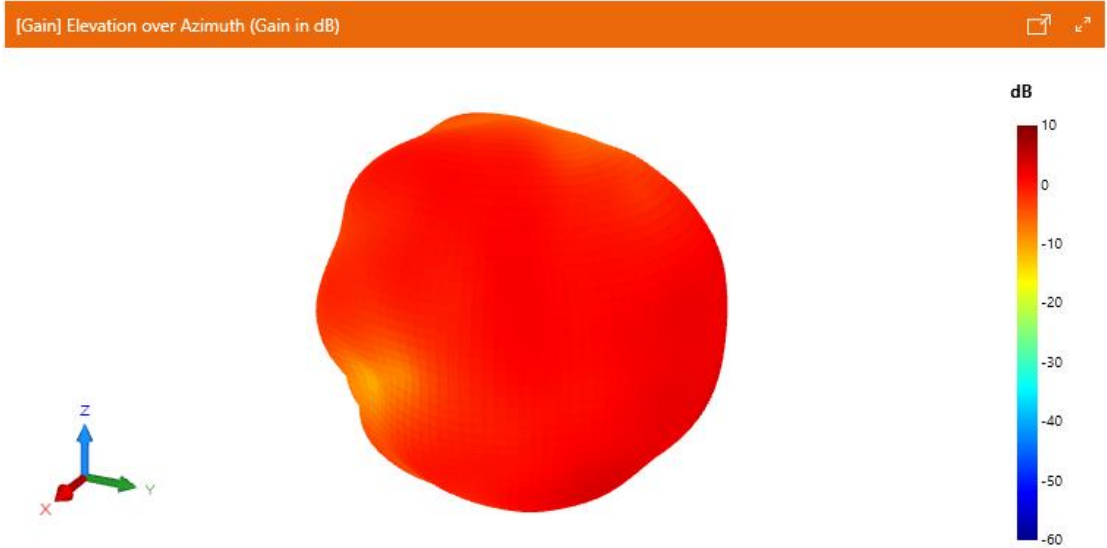
3D	ZY-Plane	dB	ZY Plane	ZX Plane	XY Plane
ZX-Plane	XY-Plane	Total(Max.)	2.09	1.21	2.33



Radiation Patterns_WiFi/BT_5250MHz

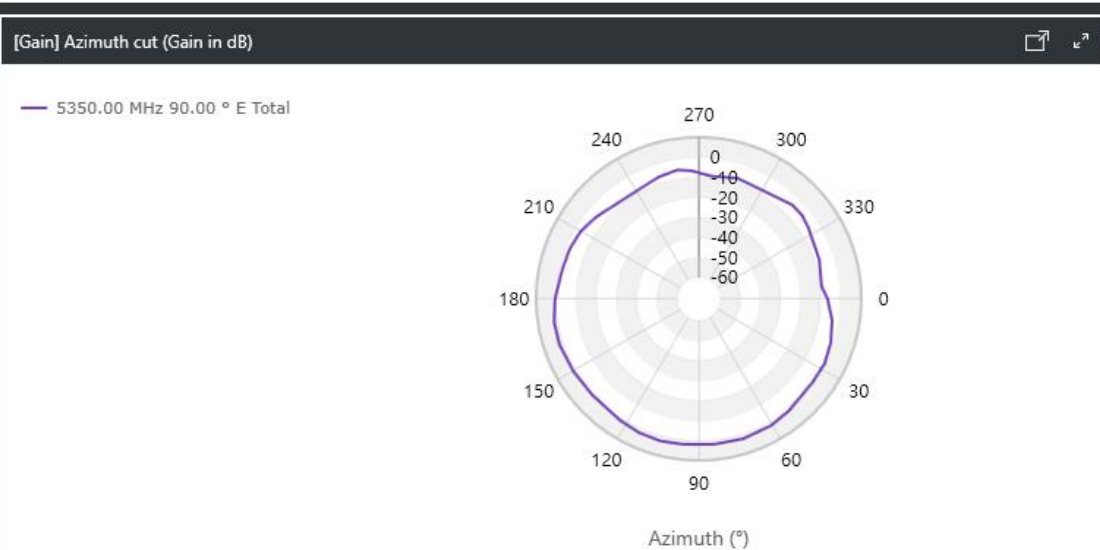
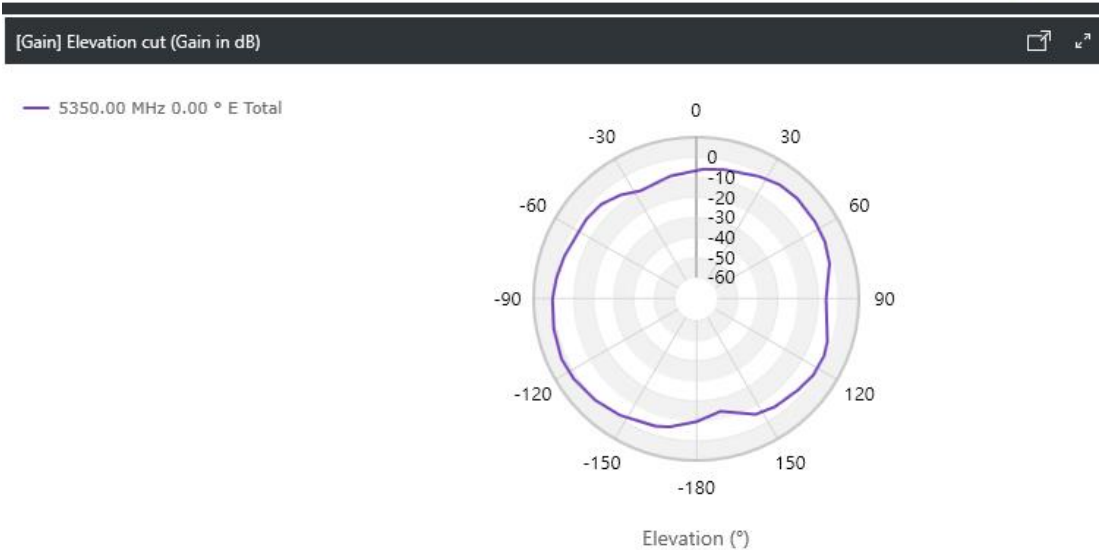
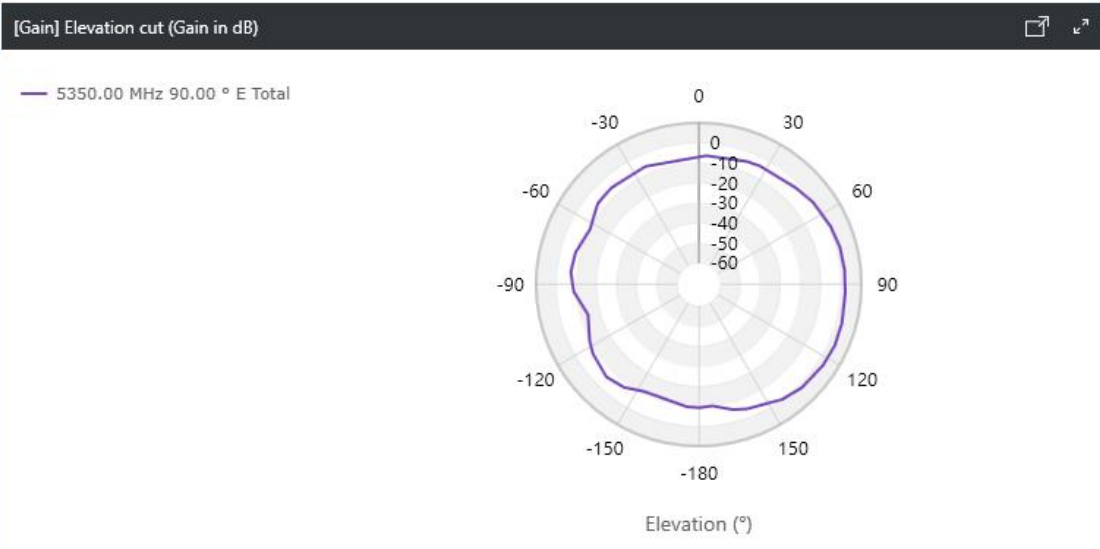
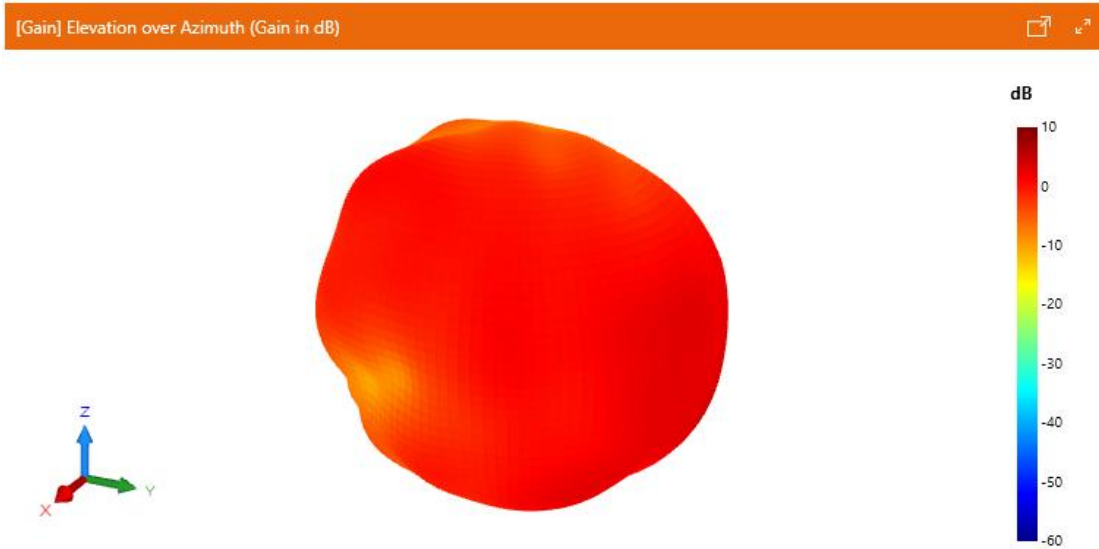
3D	ZY-Plane
ZX-Plane	XY-Plane

dB	ZY Plane	ZX Plane	XY Plane
Total(Max.)	2.38	1.96	2.19



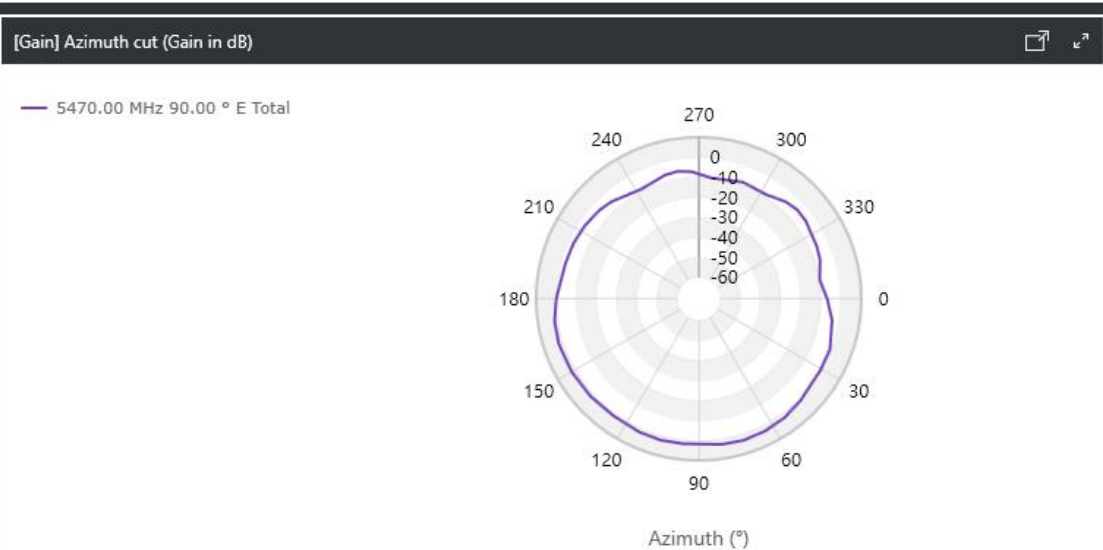
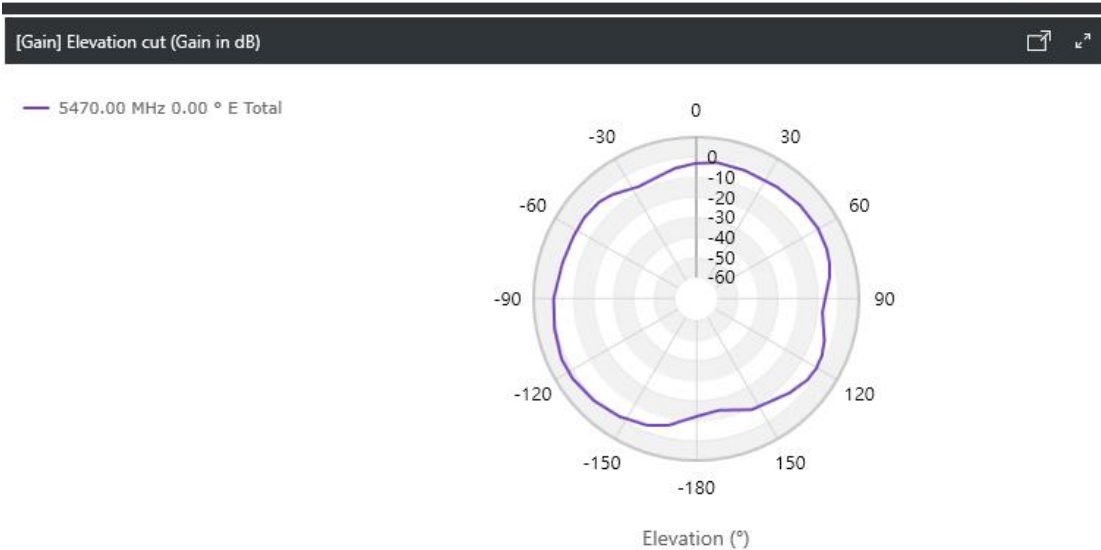
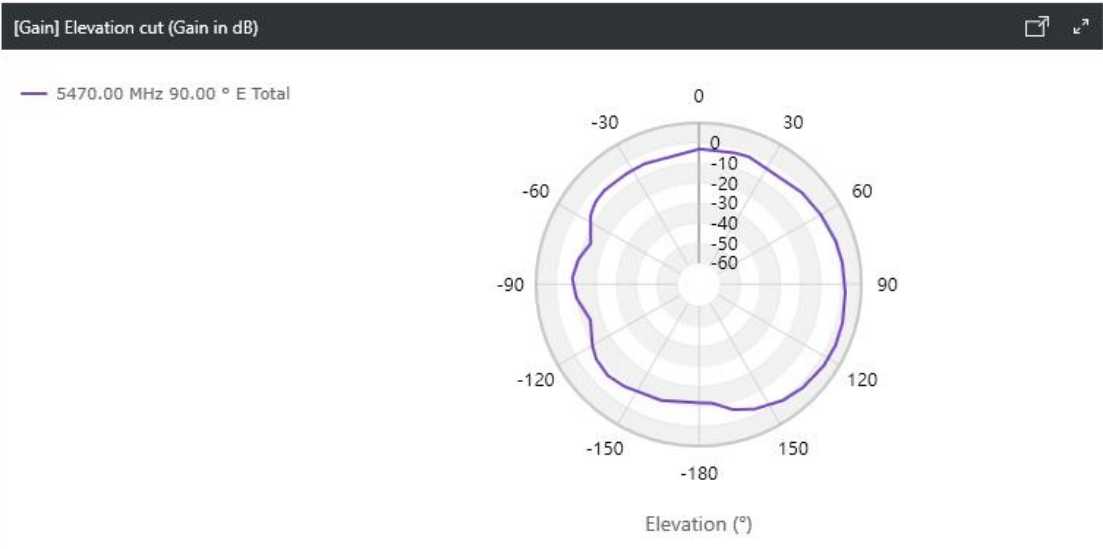
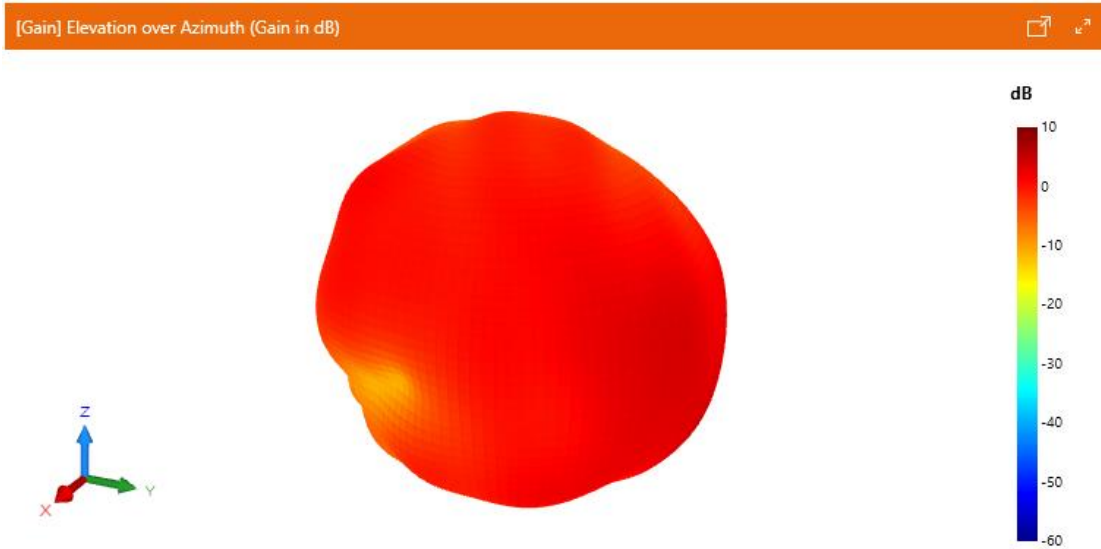
Radiation Patterns_WiFi/BT_5350MHz

3D	ZY-Plane	dB	ZY Plane	ZX Plane	XY Plane
ZX-Plane	XY-Plane	Total(Max.)	3.02	2.45	2.35



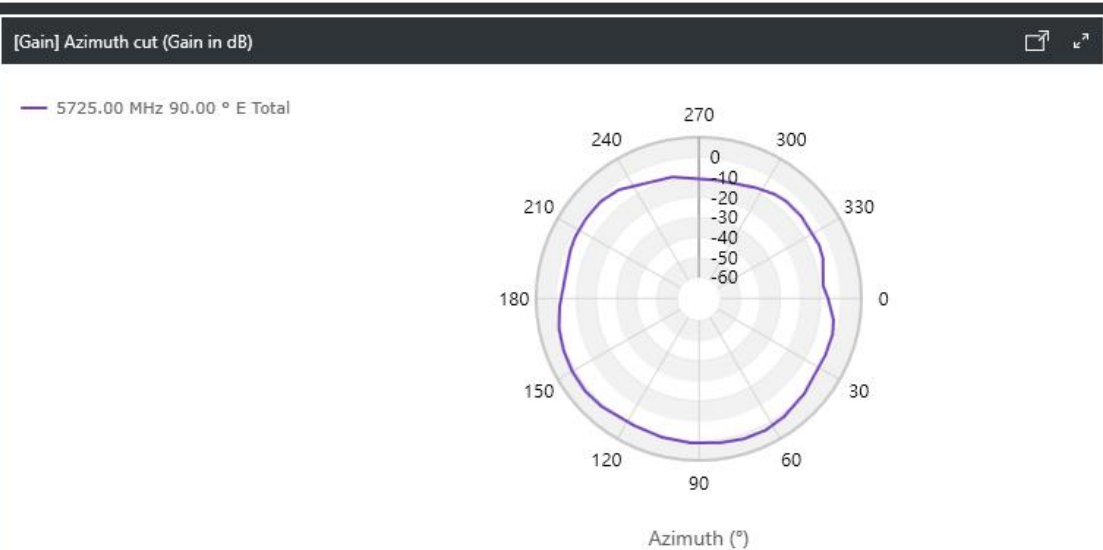
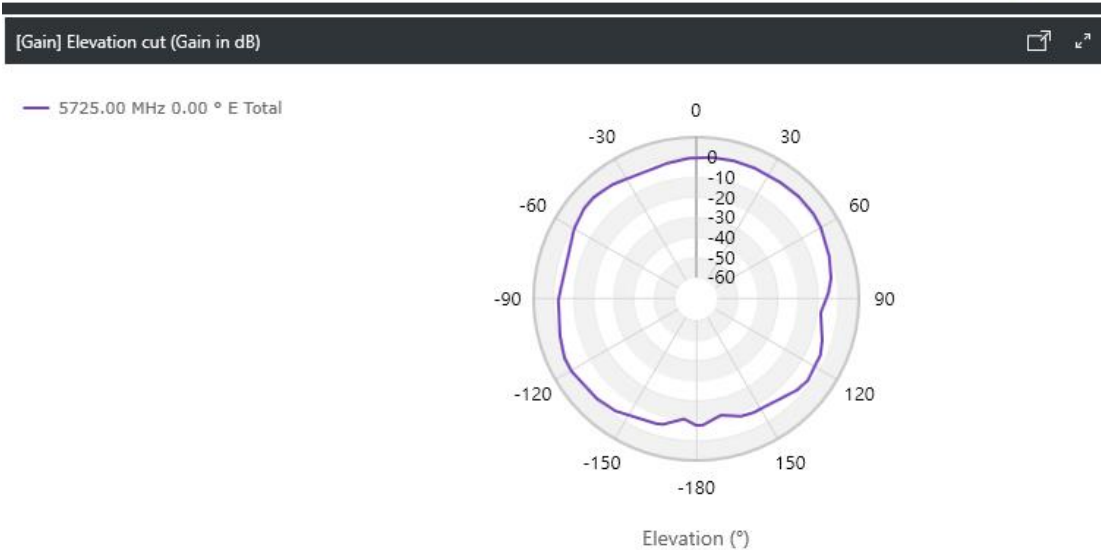
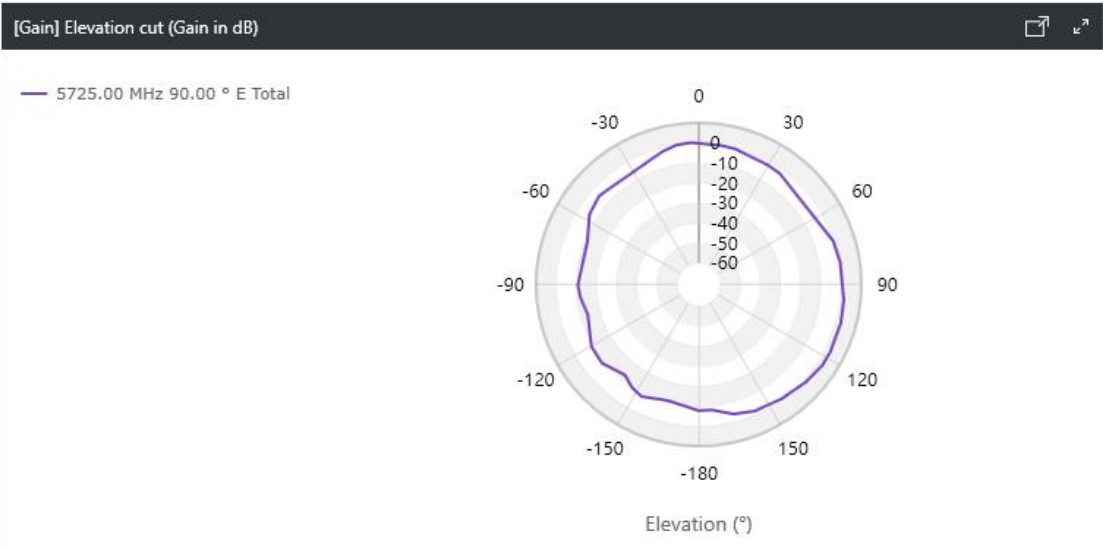
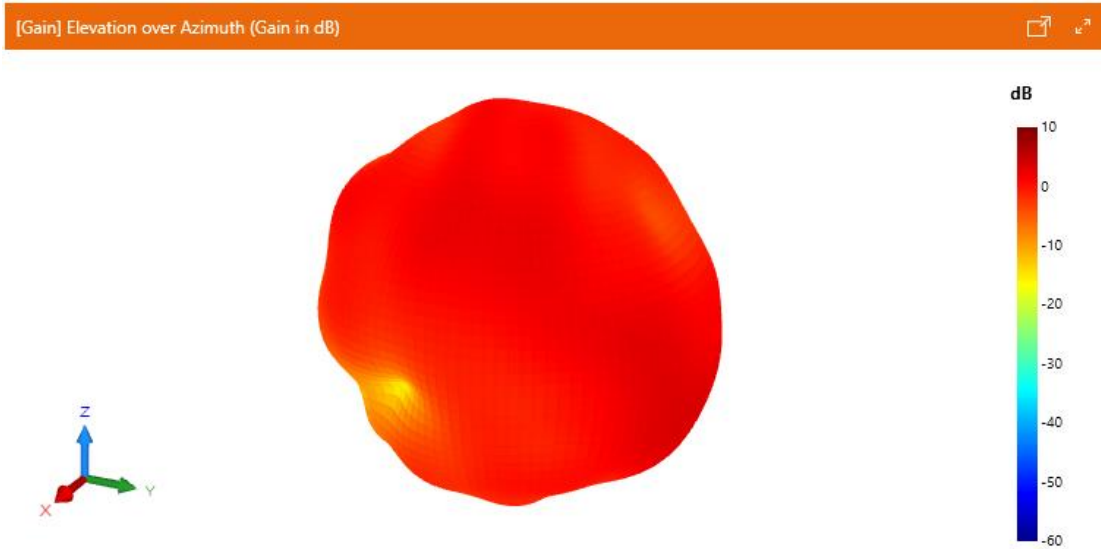
Radiation Patterns_WiFi/BT_5470MHz

3D	ZY-Plane	dB	ZY Plane	ZX Plane	XY Plane
ZX-Plane	XY-Plane	Total(Max.)	3.43	2.60	3.17



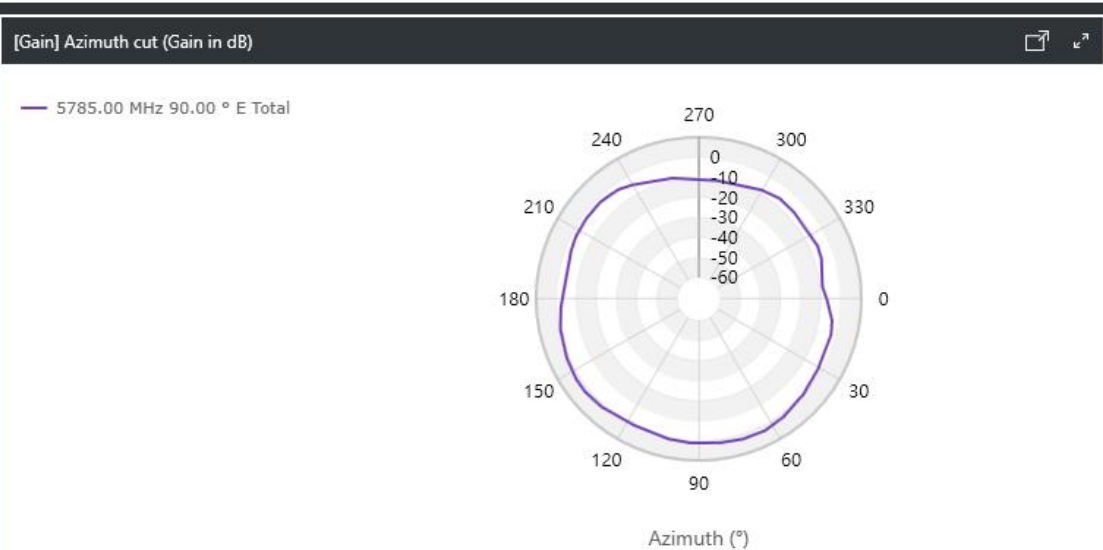
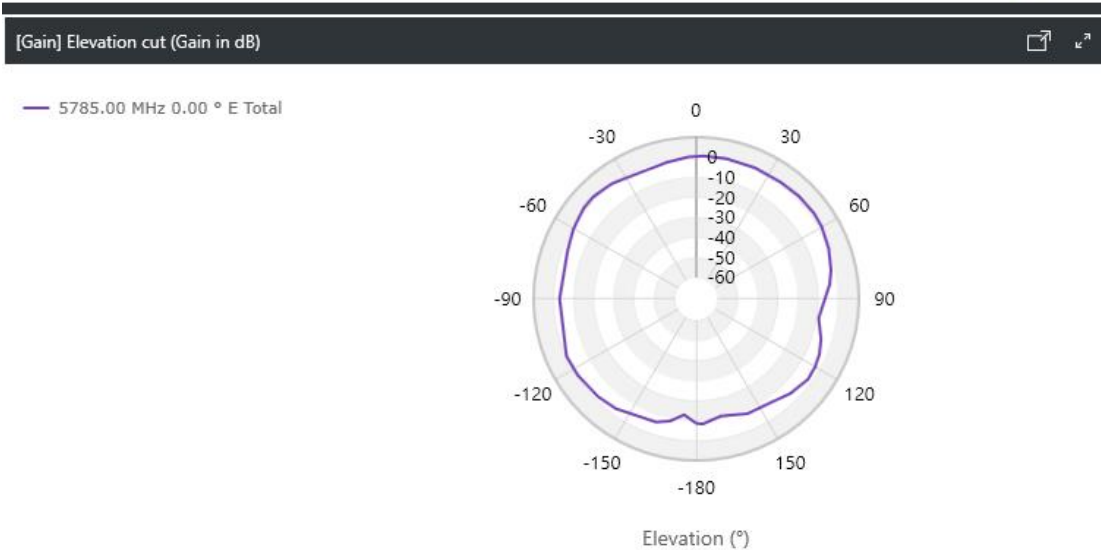
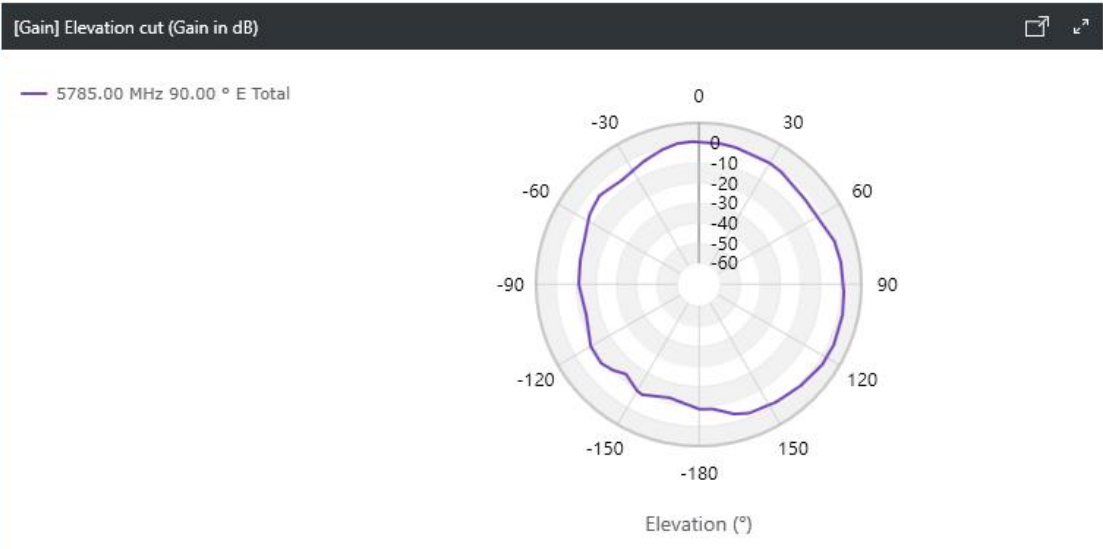
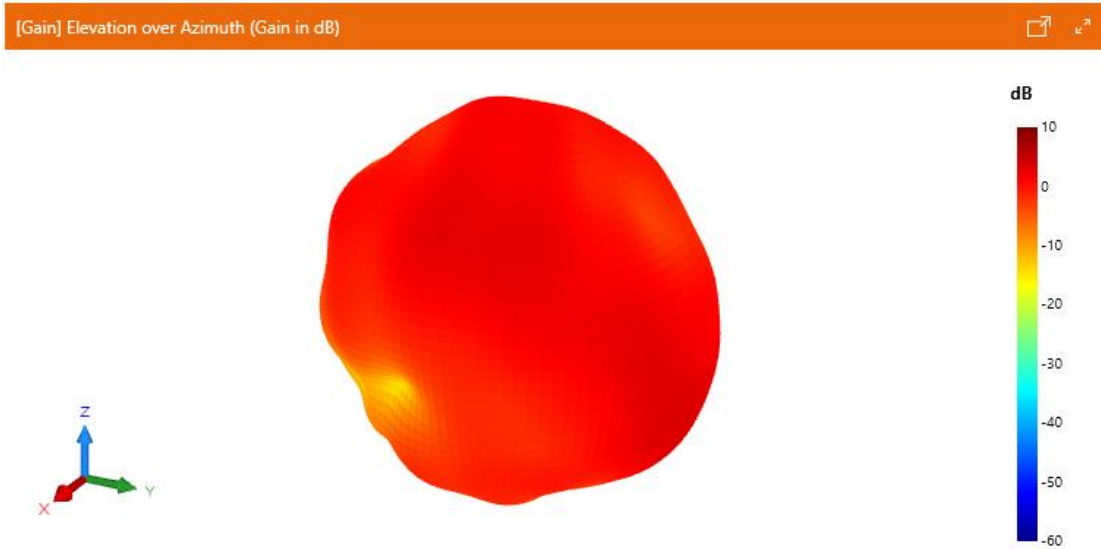
Radiation Patterns_WiFi/BT_5725MHz

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ZX-Plane	XY-Plane	Total(Max.)	2.78	1.51	2.63



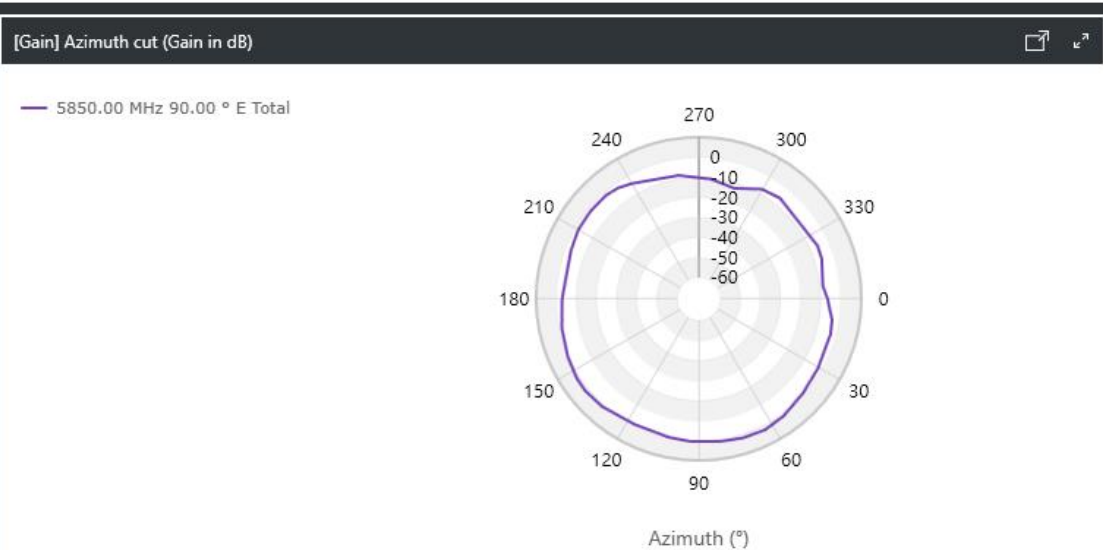
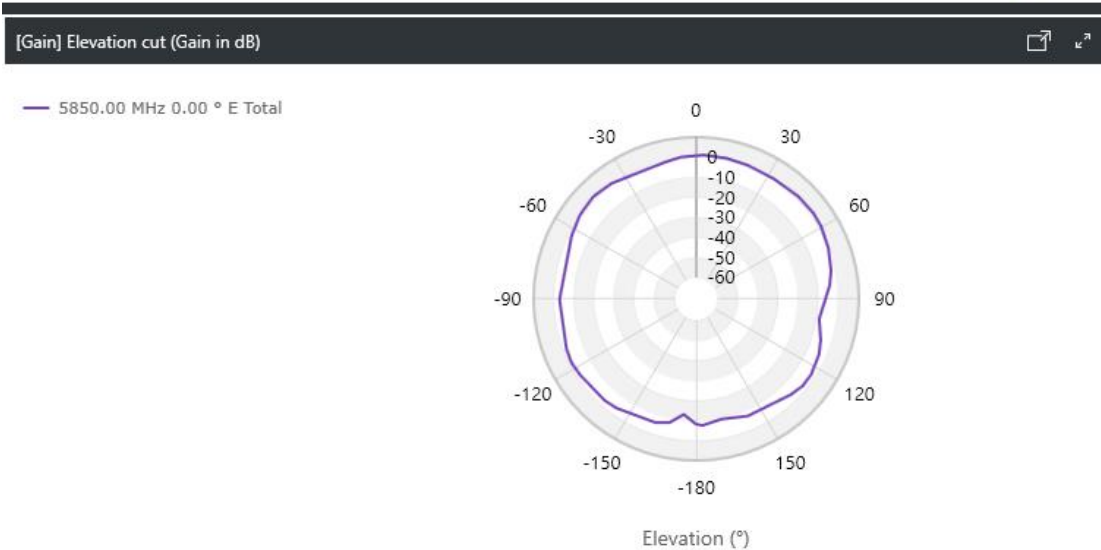
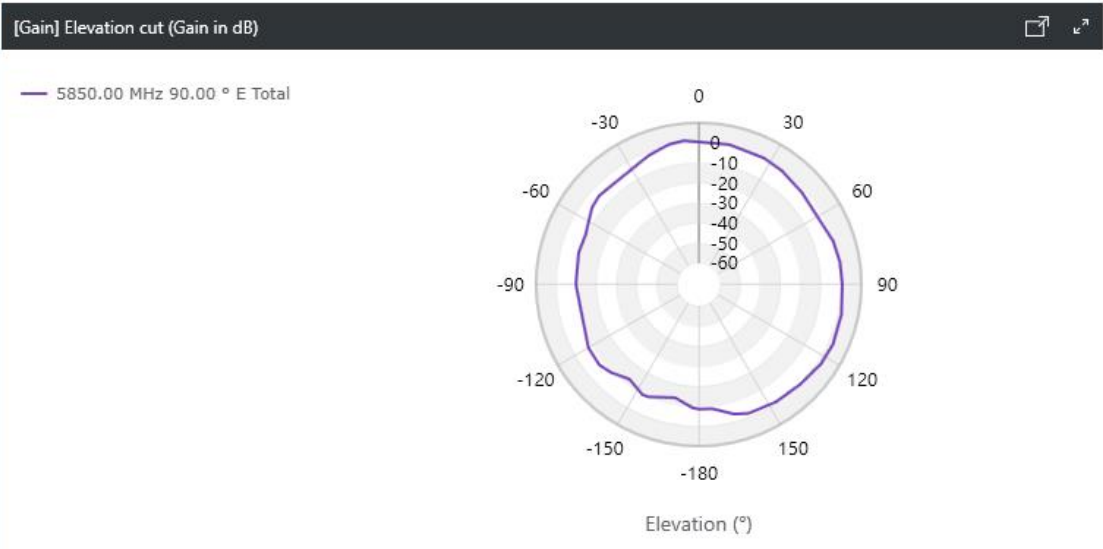
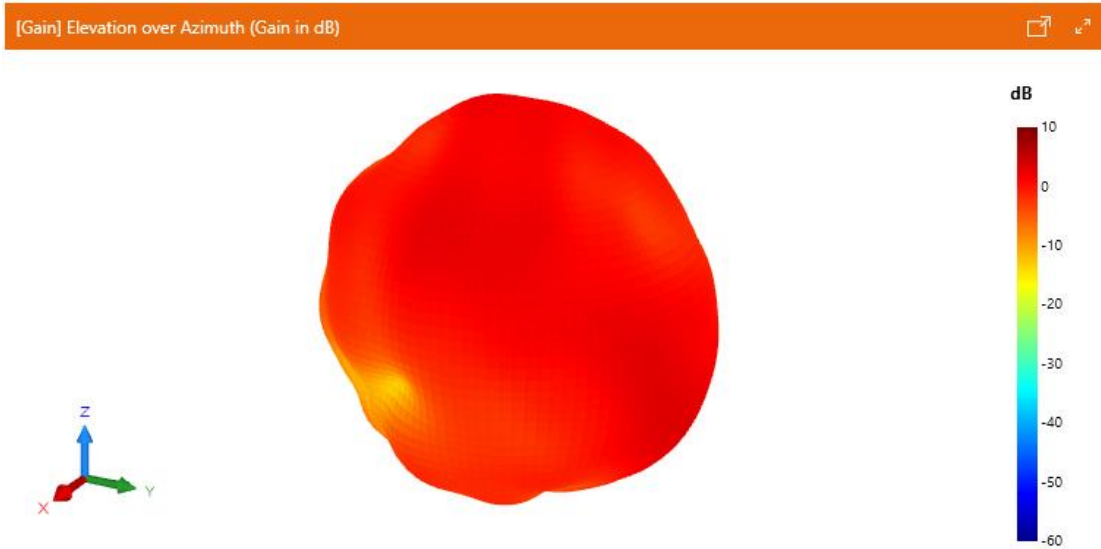
Radiation Patterns_WiFi/BT_5785MHz

3D	ZY-Plane	dB	ZY Plane	ZX Plane	XY Plane
ZX-Plane	XY-Plane	Total(Max.)	2.57	1.87	2.54



Radiation Patterns_WiFi/BT_5850MHz

3D	ZY-Plane	dB	ZY Plane	ZX Plane	XY Plane
ZX-Plane	XY-Plane	Total(Max.)	2.57	1.79	2.48





THANK YOU