

Awan AT150ED WiFi/BT Test Report

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- **Antenna Testing Conditions**

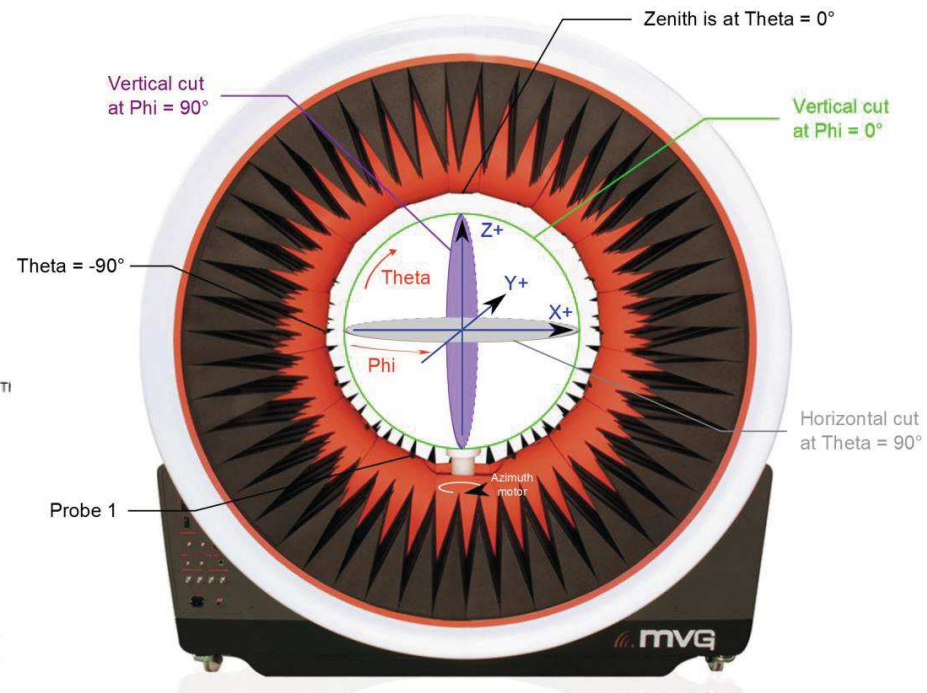
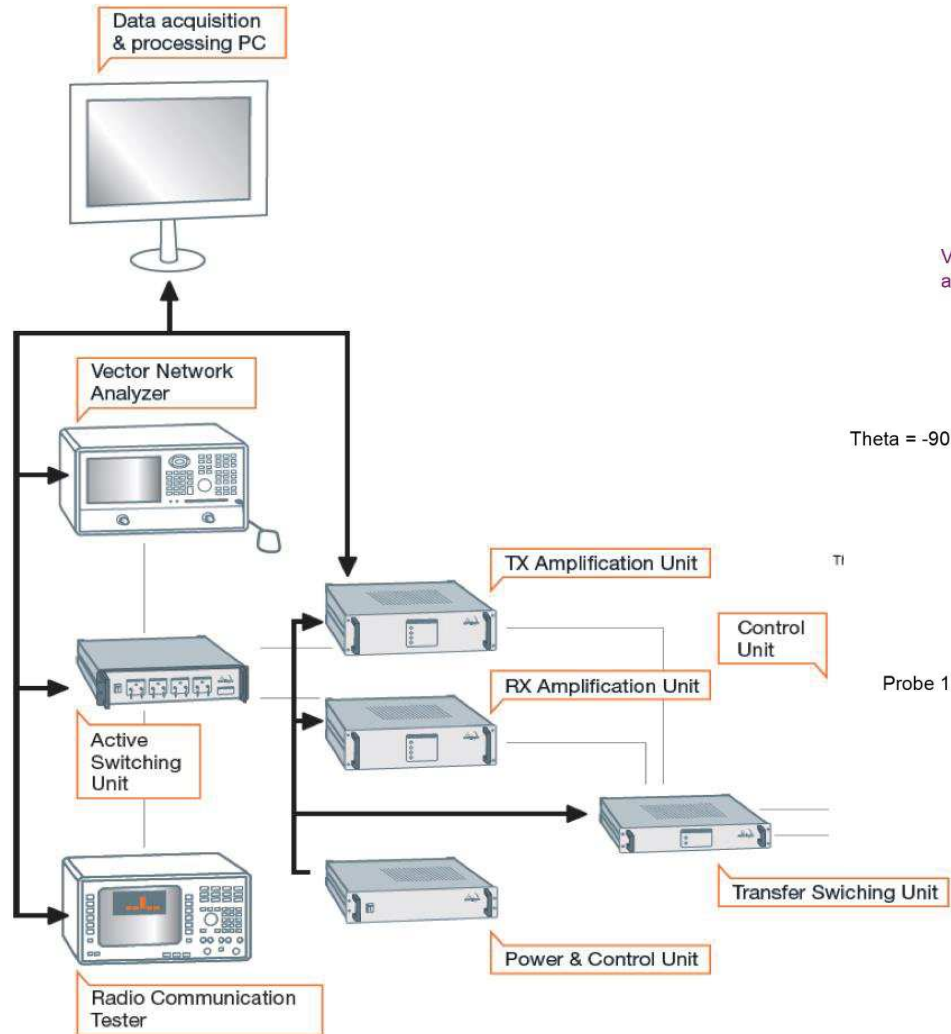
1. Test System
2. Antenna Under Test
3. Antenna Placement

- **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↴	2023/06/30	2023/12/29↴
Network Analyzer↴	Agilent↴	E5071C↴	2023/06/30	2023/12/29↴
Sleeve Dipole↴	MVG↴	SD740↴	2023/06/30	2023/12/29↴
Dual Ridge Horn↴	MVG↴	SH800↴	2023/06/30	2023/12/29↴
Dipole antenna↴	MVG↴	3126-700↴	2023/06/30	2023/12/29↴
Stargate-16-L probe array↴	MVG↴	Stargate-16-L↴	2023/06/30	2023/12/29↴
Measurement software↴	MVG↴	Wave Studio 22.1↴	N/A↴	N/A↴
Wireless protocol tester↴	R&S↴	CMW500↴	2023/06/30	2023/12/29↴

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)	2.17~2.25	3.26~3.56
Antenna dimension	WiFi(AYF6P-100002)	Figure-1

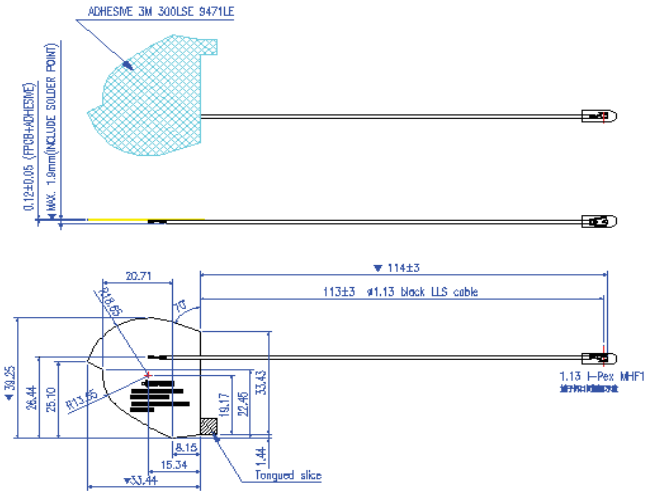


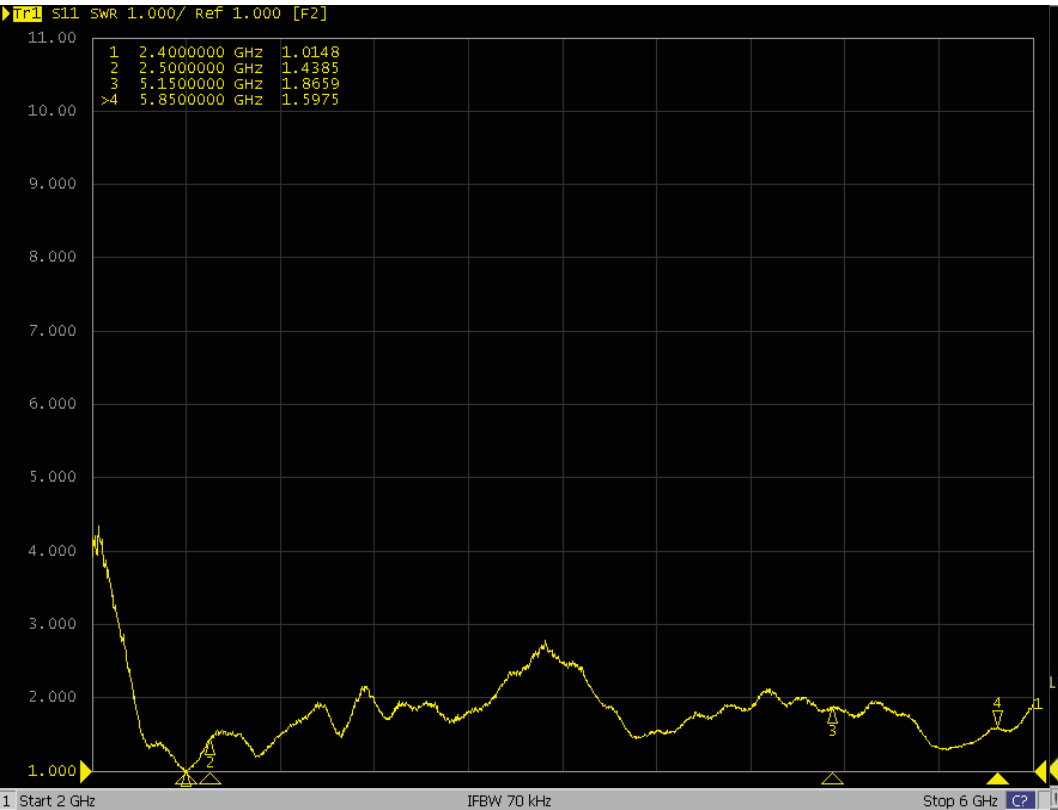
Figure-1 AYF6P-100002

Antenna Under Test

Description	Tester	Measured Date
Measured	William.Lee	2023/08/17

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.

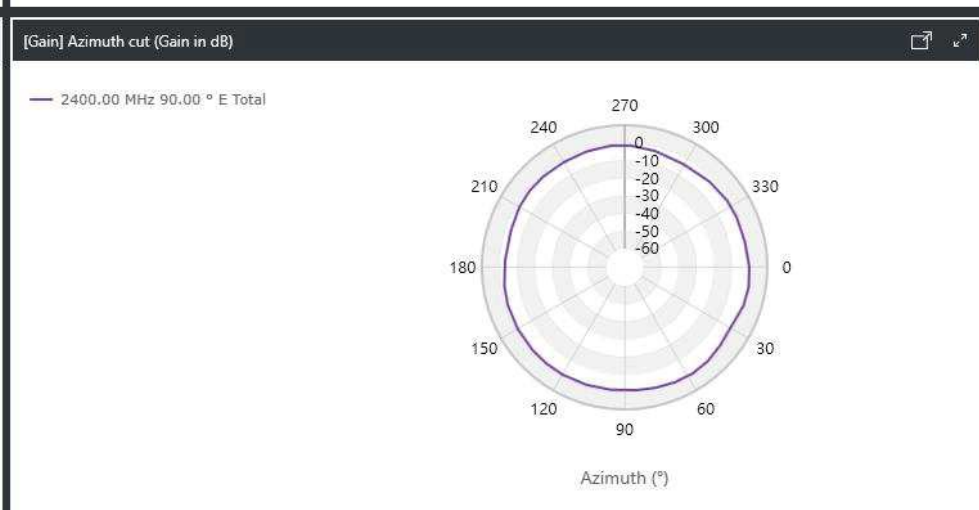
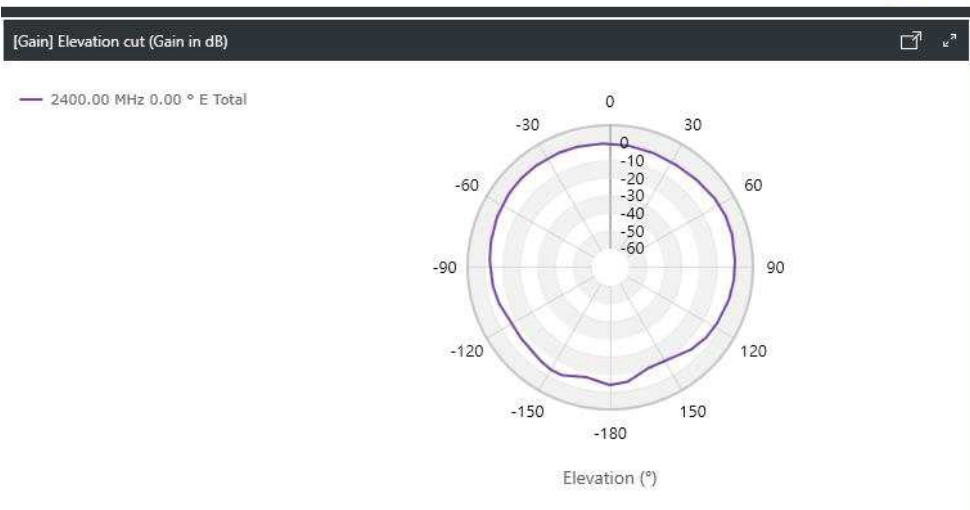
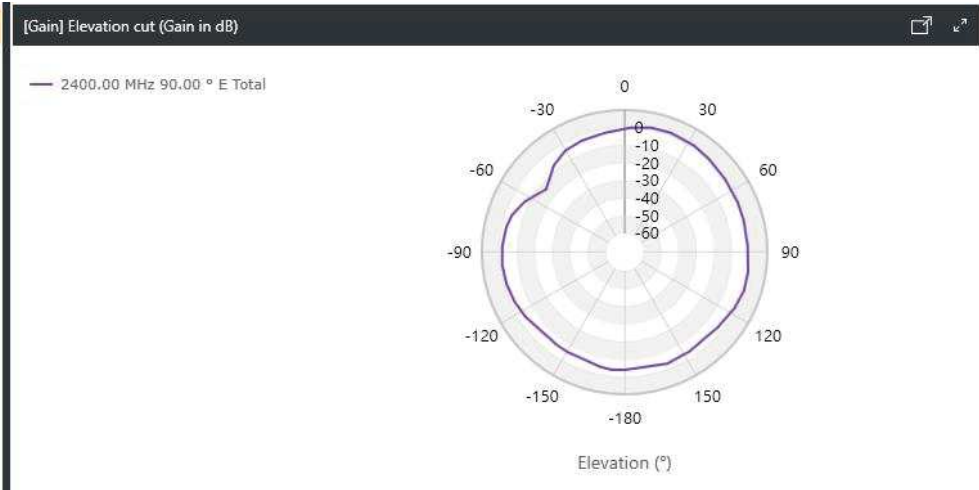
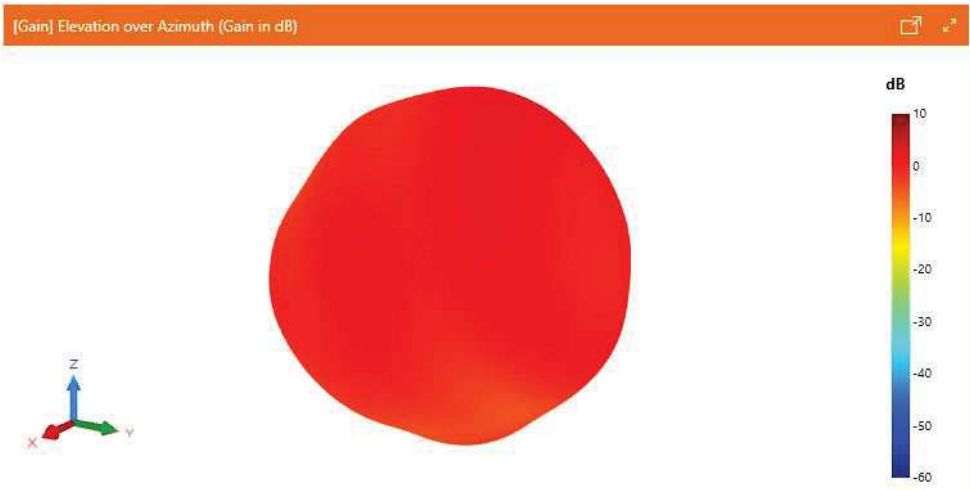
VSWR & Gain Table_WiFi/BT



Frequency (MHz)	3D Avg. Gain(dBi)	3D Peak Gain (dBi)	Efficiency(%)
2400	-3.6	2.17	43.65
2450	-3.5	2.25	44.36
2500	-3.5	2.20	44.77
5150	-3.4	3.36	45.71
5250	-3.5	3.32	44.98
5350	-3.3	3.55	46.45
5470	-3.2	3.48	48.19
5725	-3.4	3.55	46.03
5785	-3.4	3.56	45.71
5850	-3.5	3.26	44.57

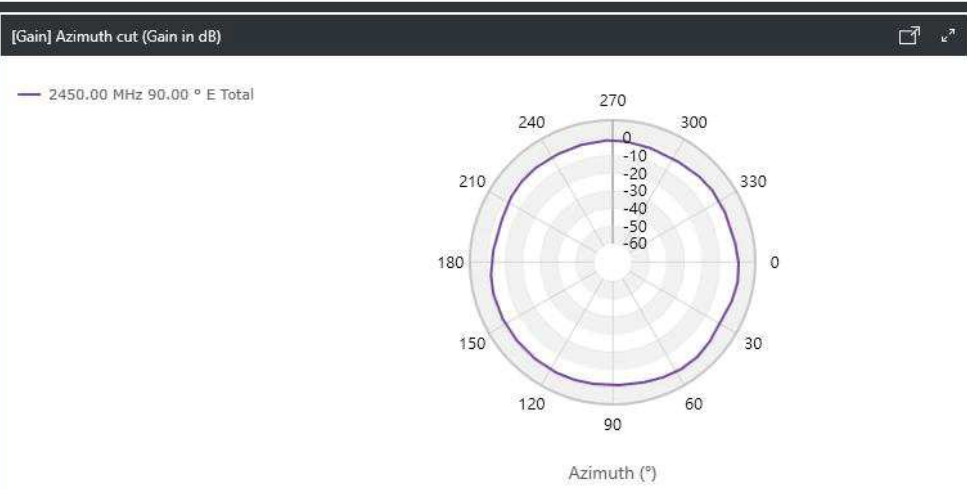
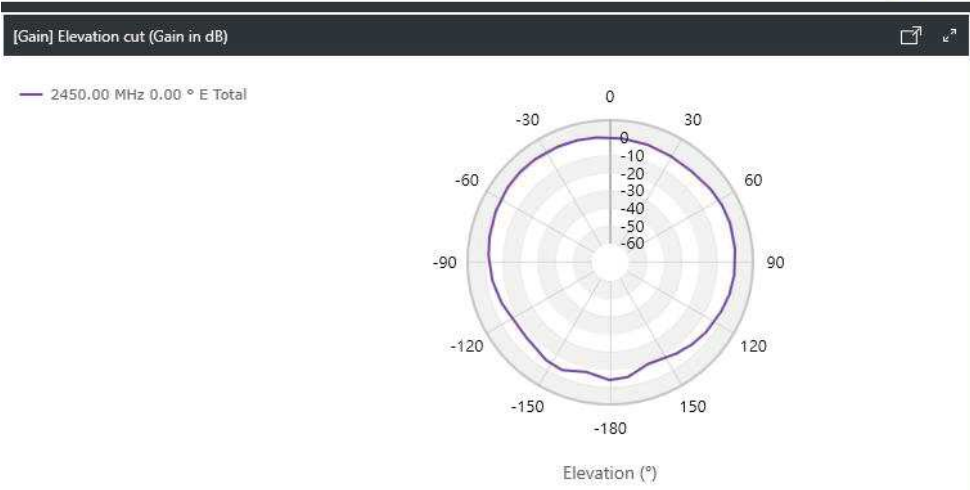
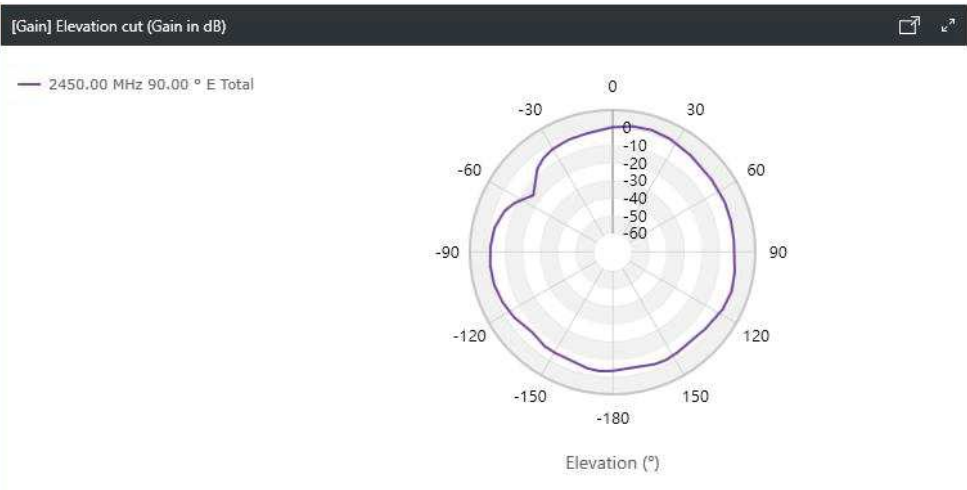
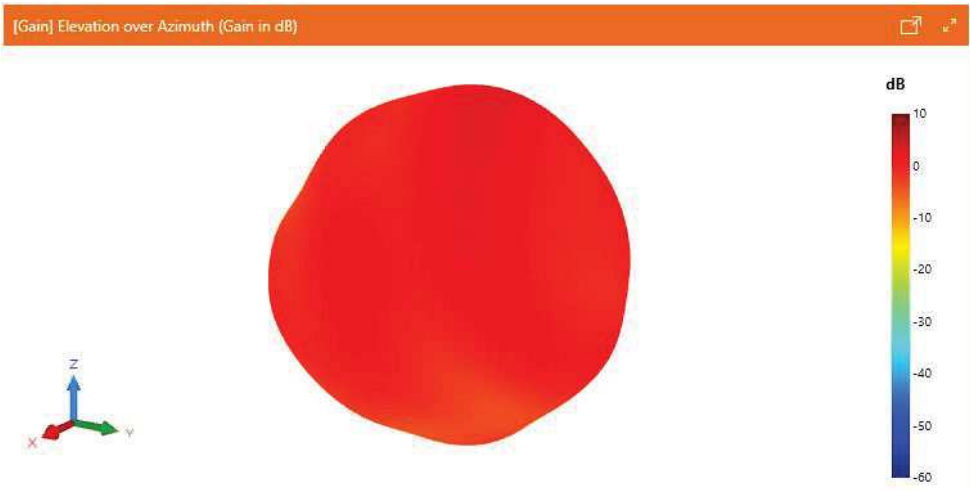
Radiation Patterns_WiFi/BT_2400MHz

3D	ZY-Plane	dB	ZY Plane	ZX Plane	XY Plane
ZX-Plane	XY-Plane	Total(Max.)	1.90	1.29	0.99



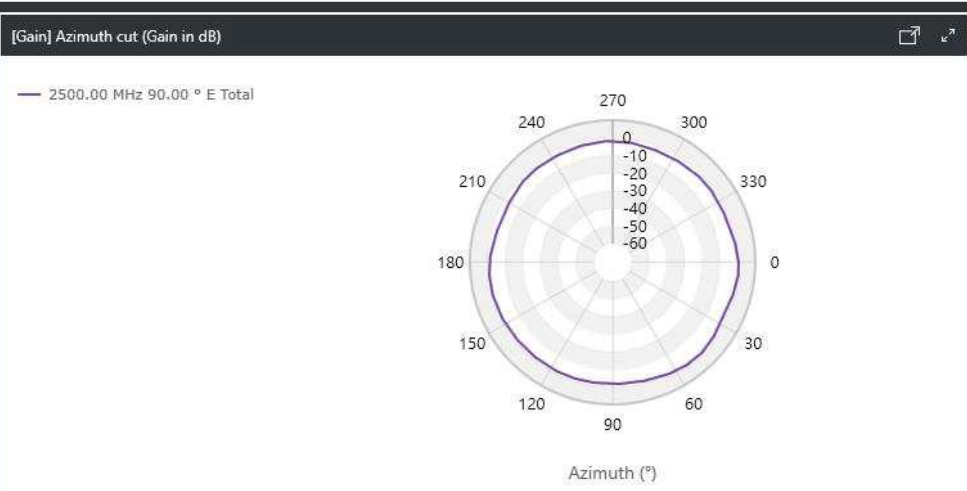
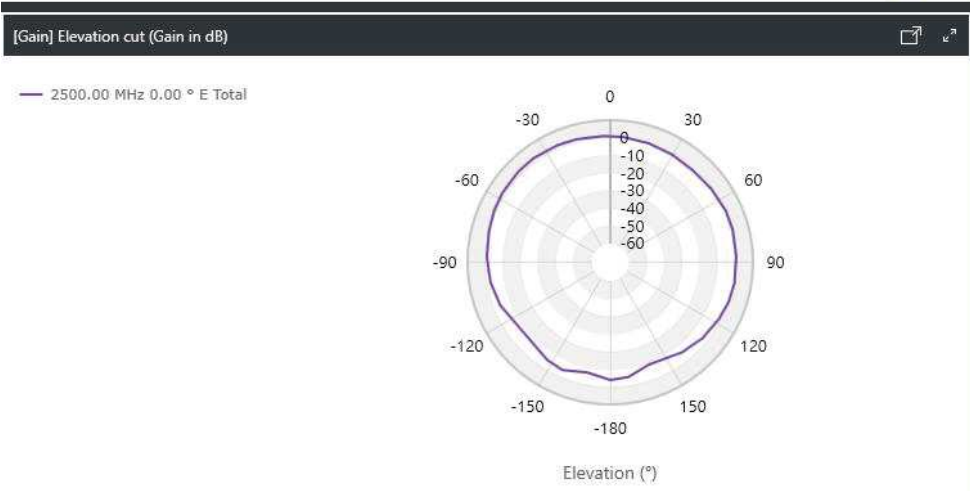
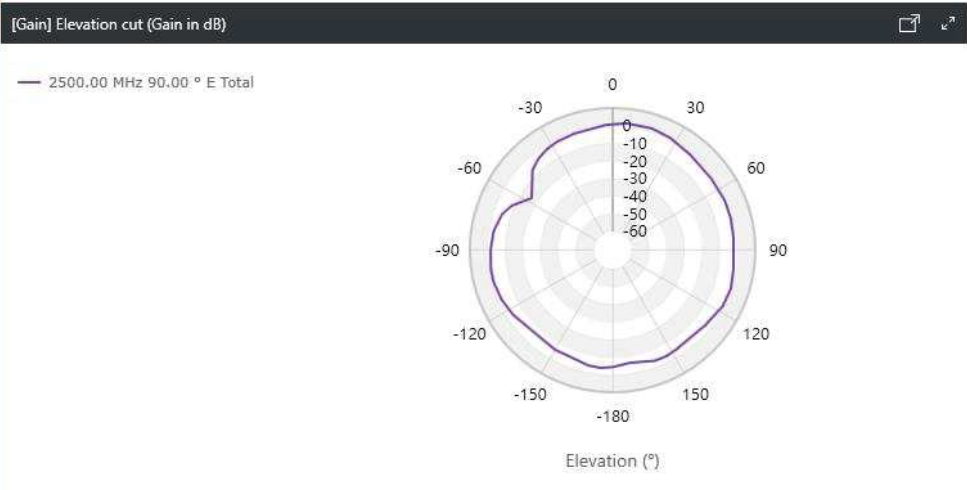
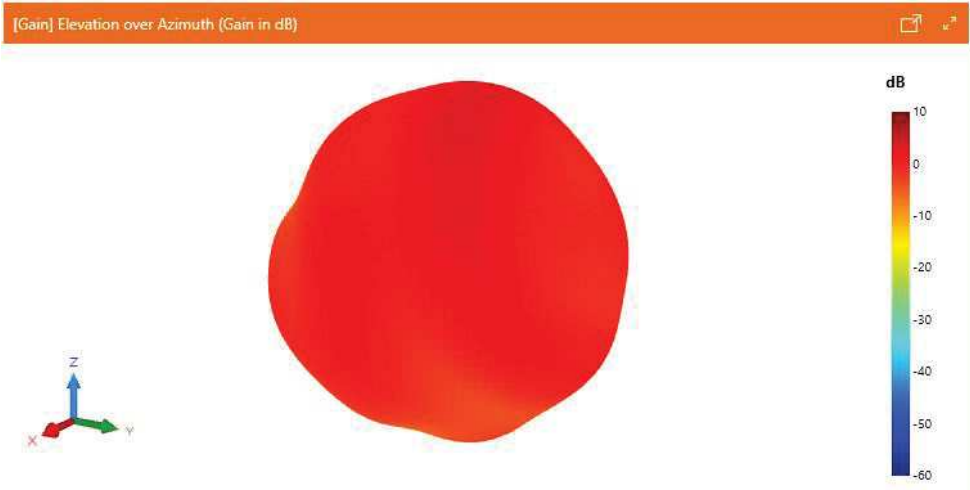
Radiation Patterns_WiFi/BT_2450MHz

3D	ZY-Plane	dB	ZY Plane	ZX Plane	XY Plane
ZX-Plane	XY-Plane	Total(Max.)	2.08	1.64	1.03



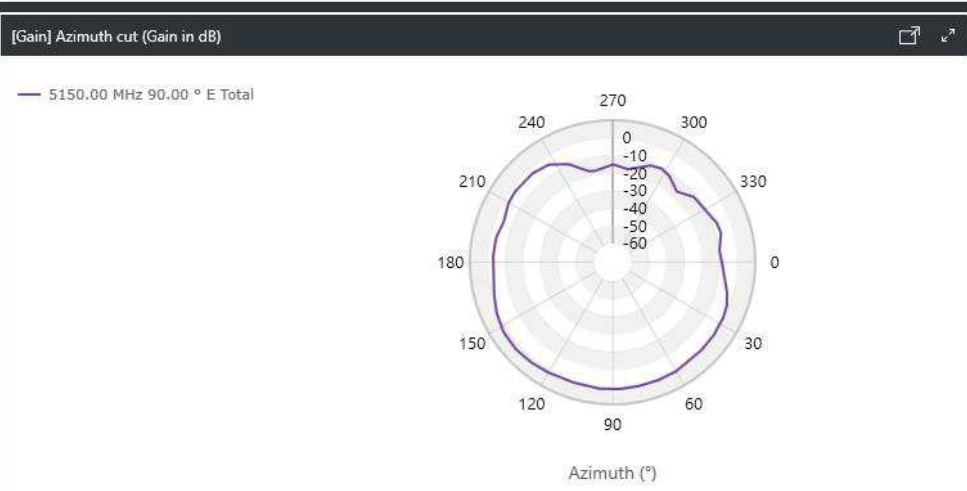
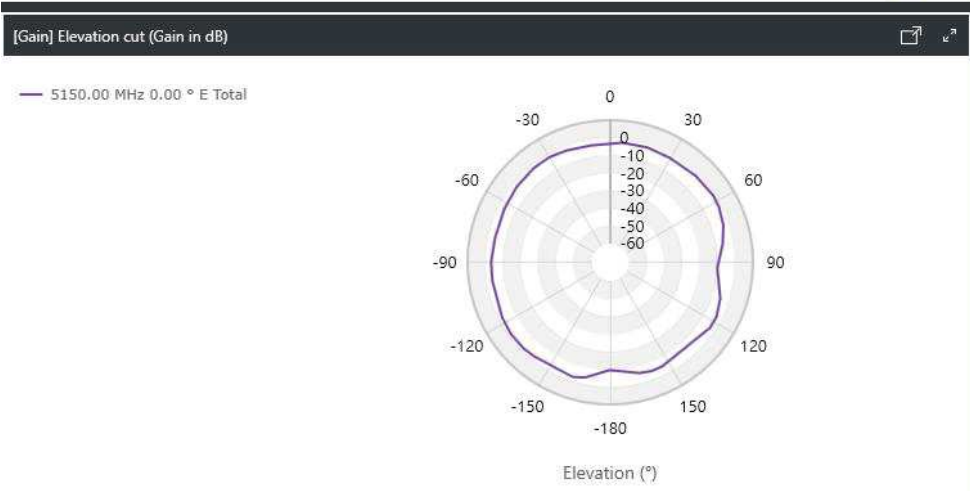
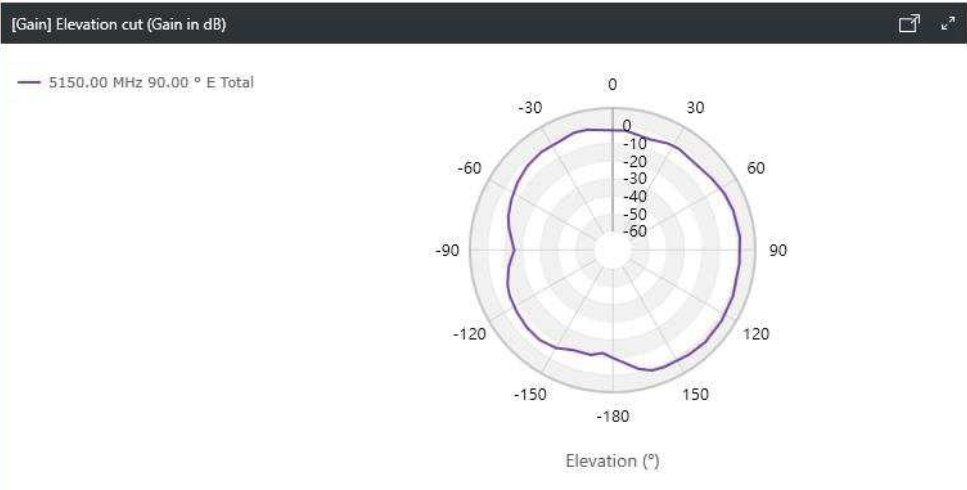
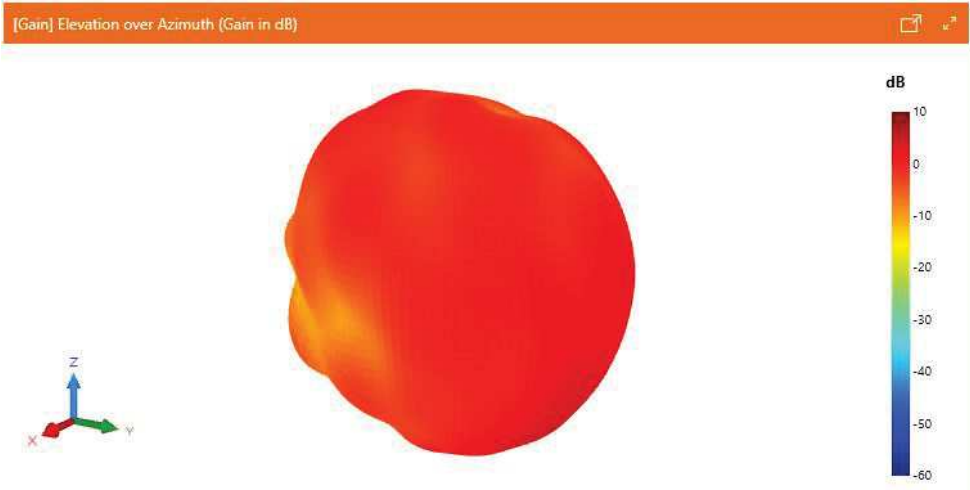
Radiation Patterns_WiFi/BT_2500MHz

3D	ZY-Plane	dB	ZY Plane	ZX Plane	XY Plane
ZX-Plane	XY-Plane	Total(Max.)	2.06	2.57	1.19



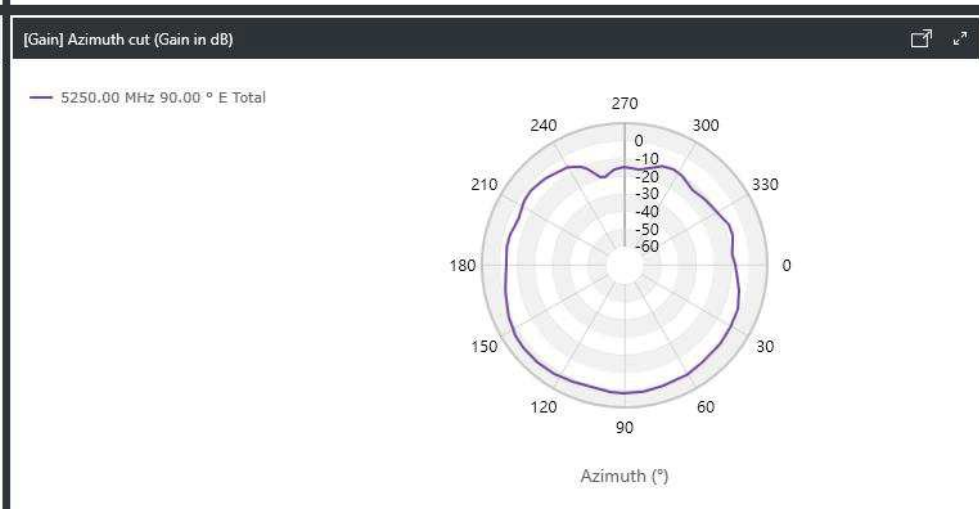
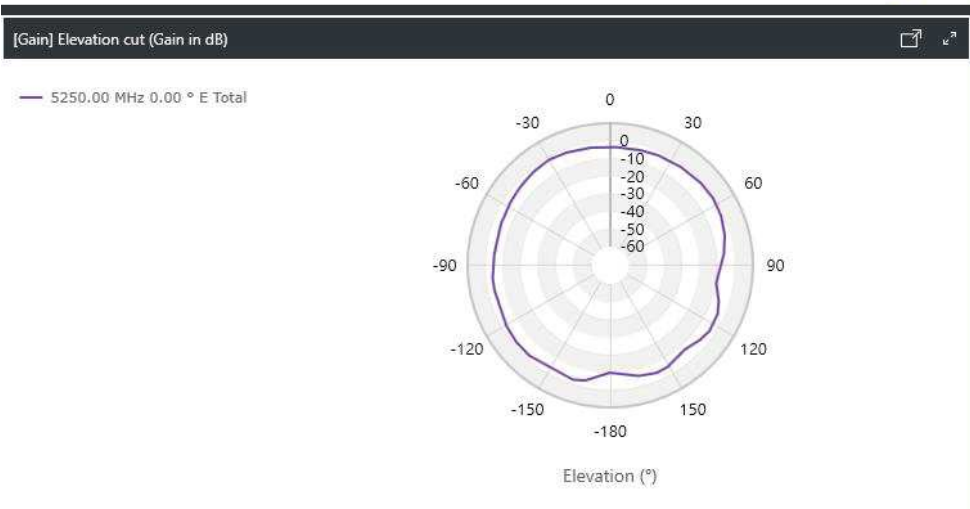
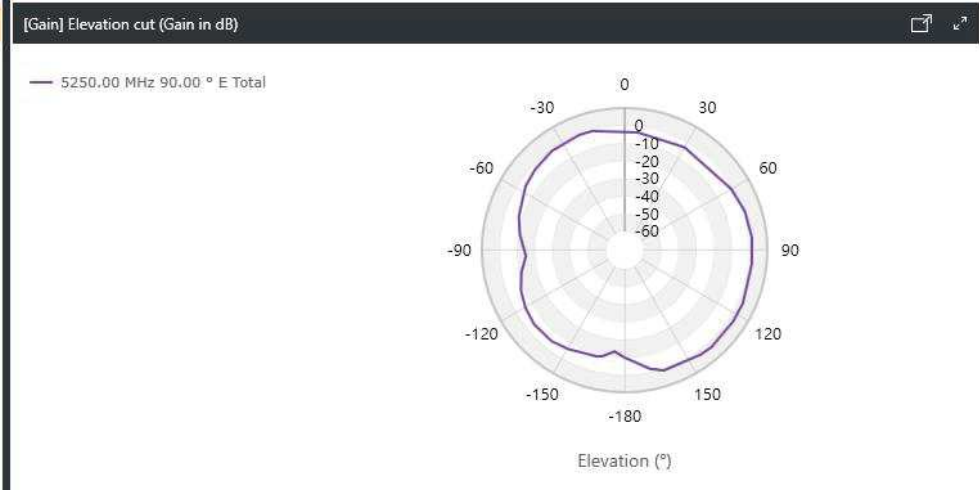
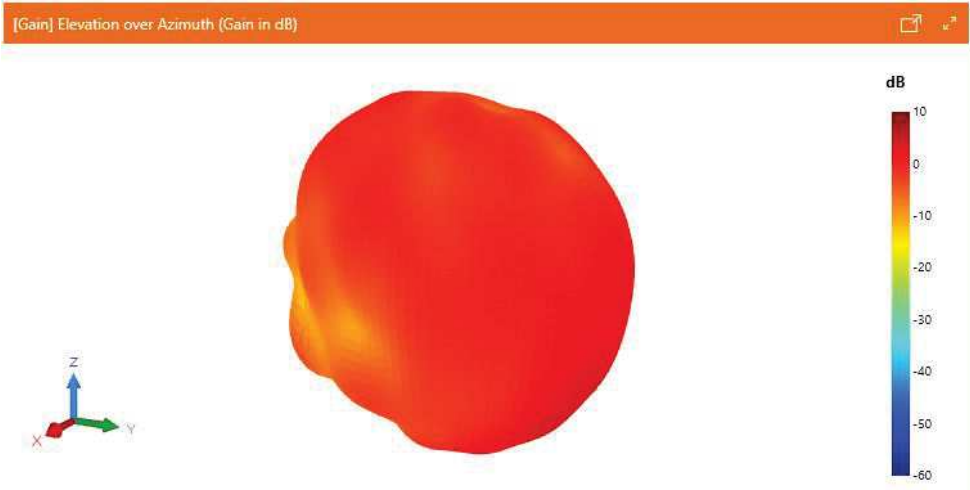
Radiation Patterns_WiFi/BT_5150MHz

3D	ZY-Plane	dB	ZY Plane	ZX Plane	XY Plane
ZX-Plane	XY-Plane	Total(Max.)	2.99	-0.73	2.99



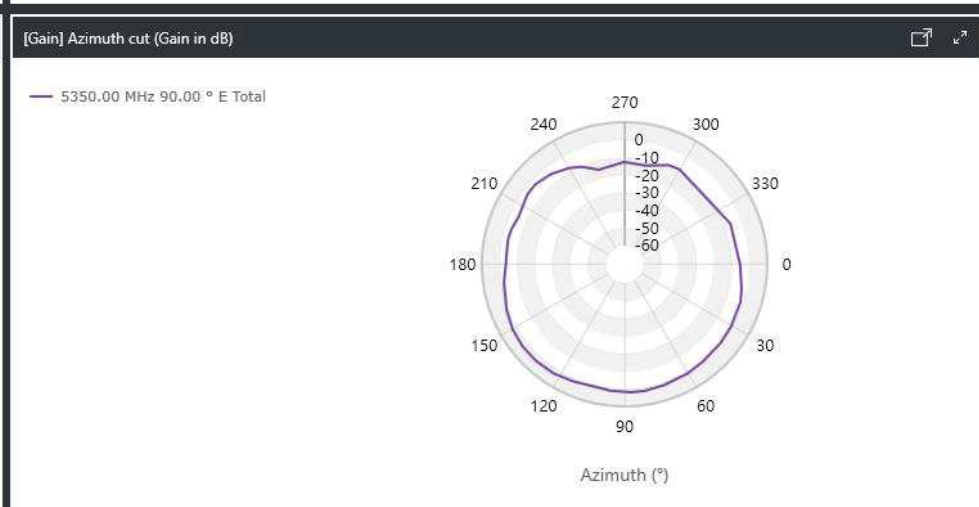
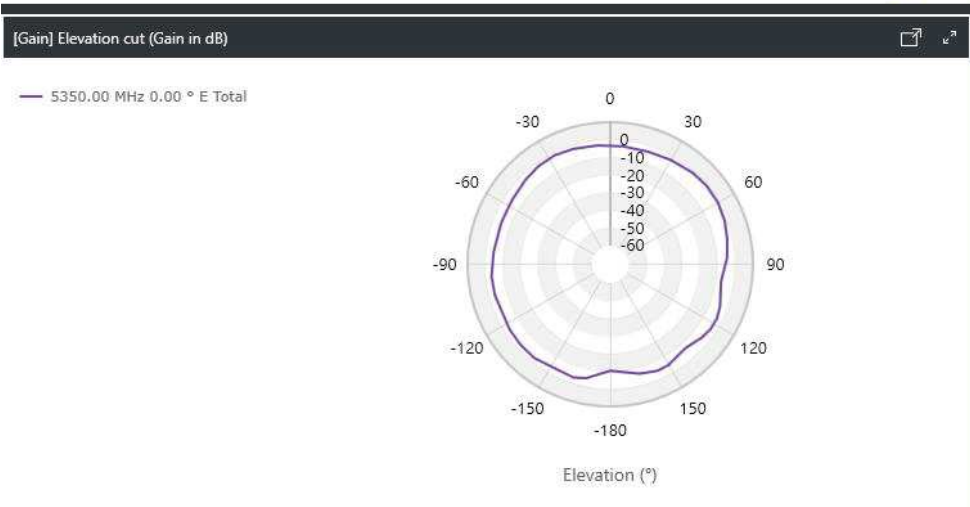
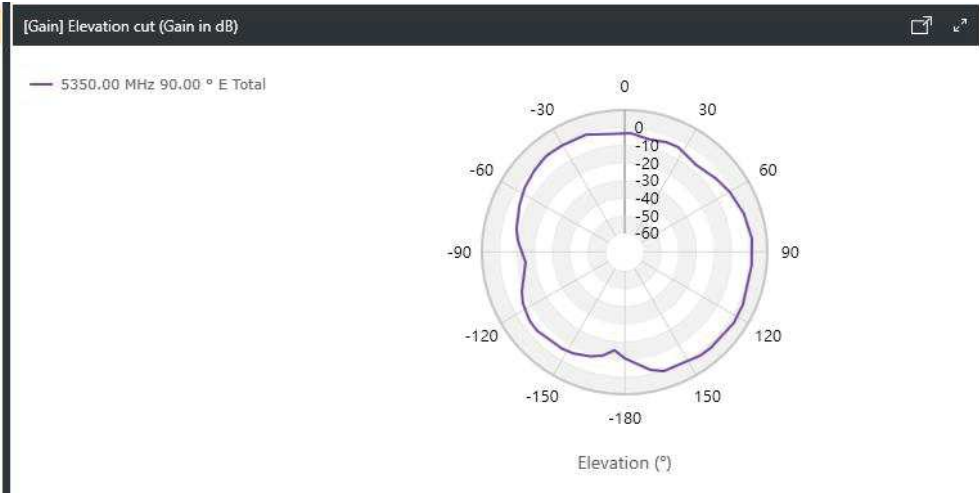
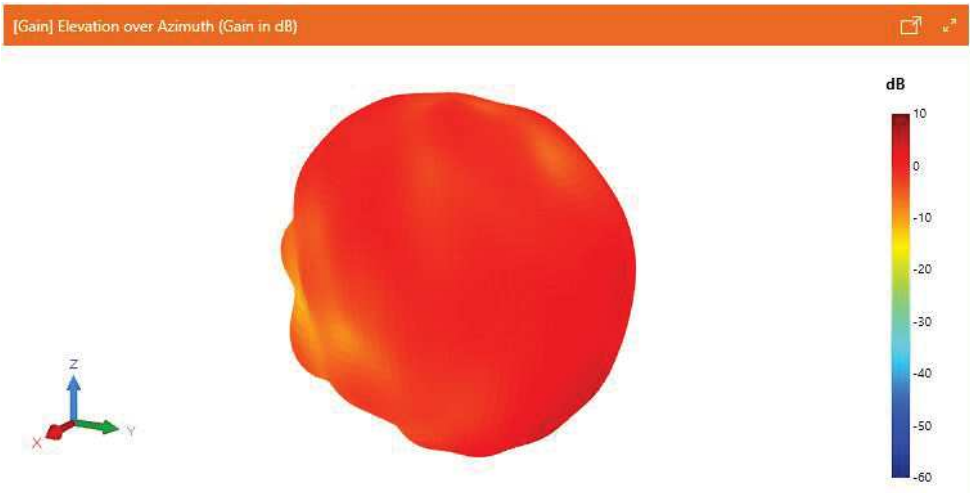
Radiation Patterns_WiFi/BT_5250MHz

3D	ZY-Plane	dB	ZY Plane	ZX Plane	XY Plane
ZX-Plane	XY-Plane	Total(Max.)	2.59	-0.71	3.15



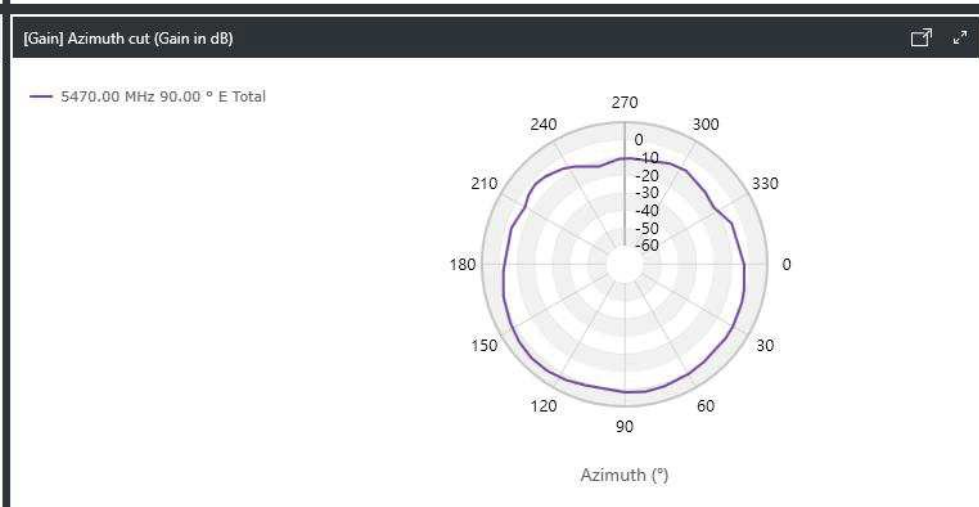
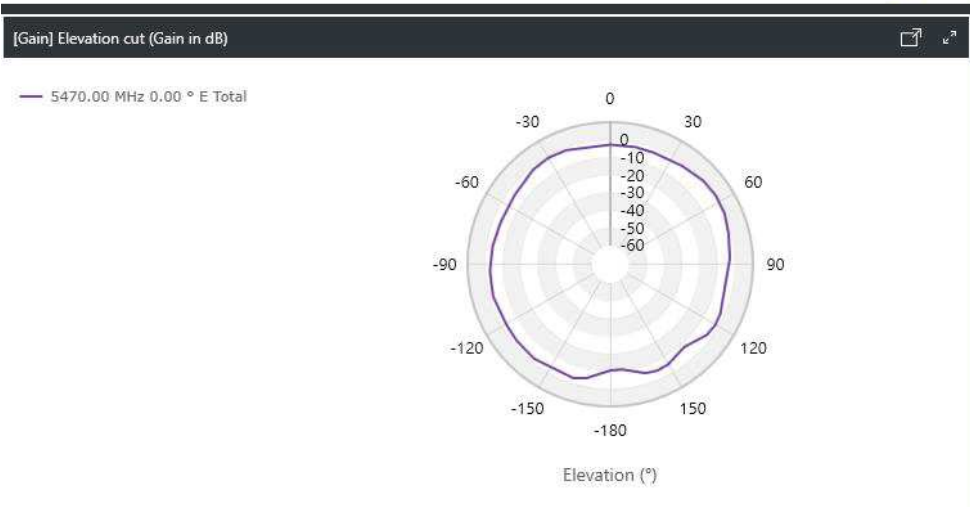
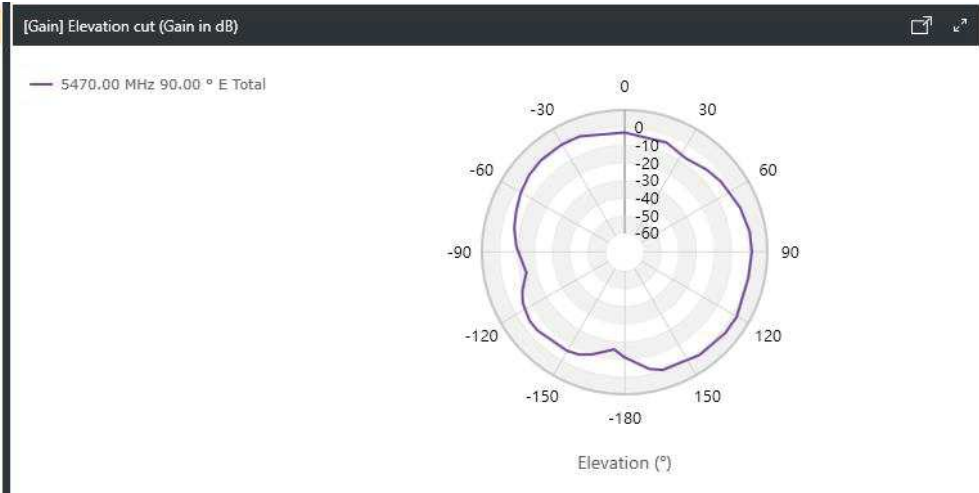
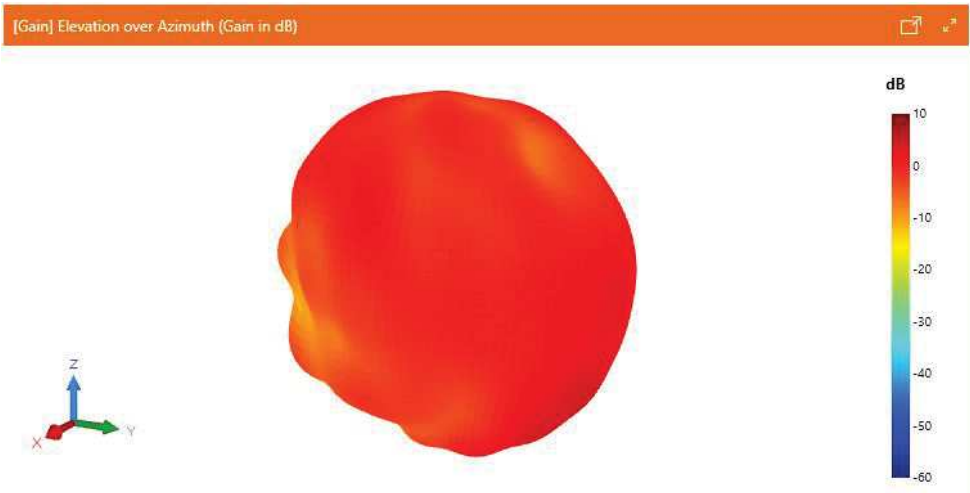
Radiation Patterns_WiFi/BT_5350MHz

3D	ZY-Plane	dB	ZY Plane	ZX Plane	XY Plane
ZX-Plane	XY-Plane	Total(Max.)	3.06	-0.18	3.55



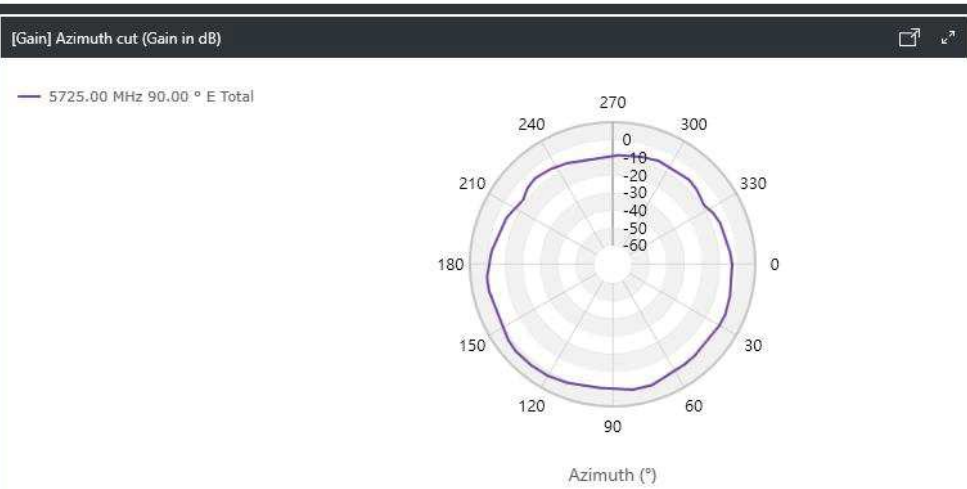
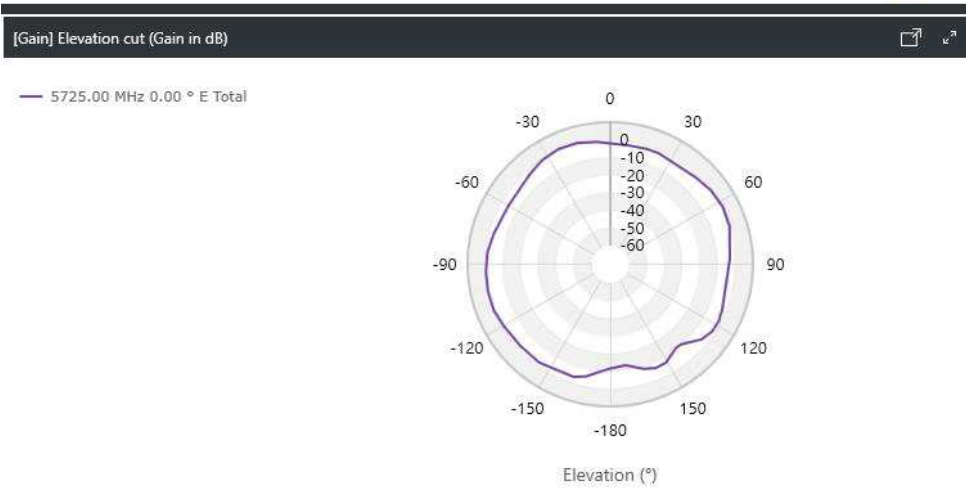
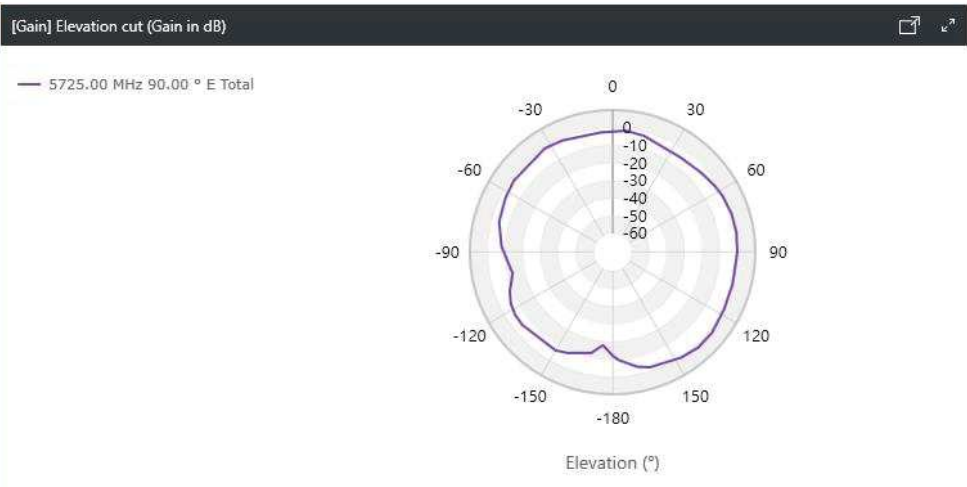
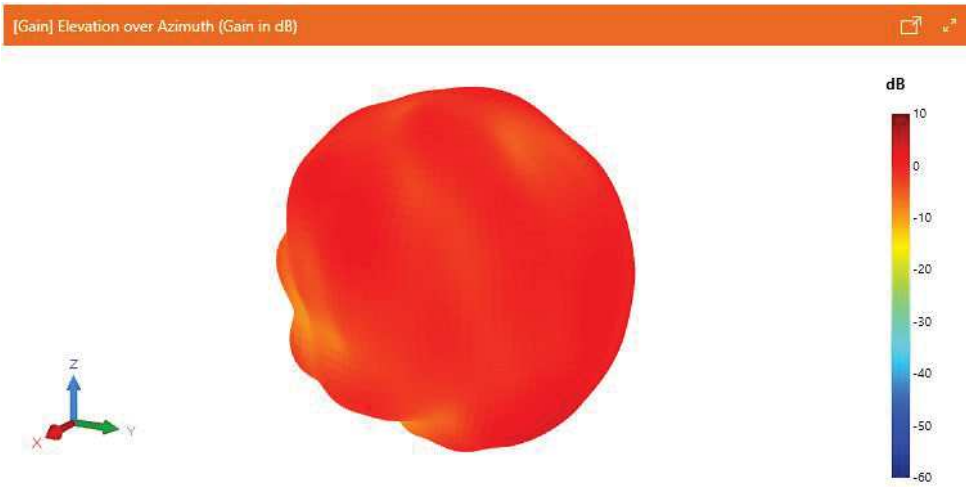
Radiation Patterns_WiFi/BT_5470MHz

3D	ZY-Plane	dB	ZY Plane	ZX Plane	XY Plane
ZX-Plane	XY-Plane	Total(Max.)	3.03	0.69	3.88



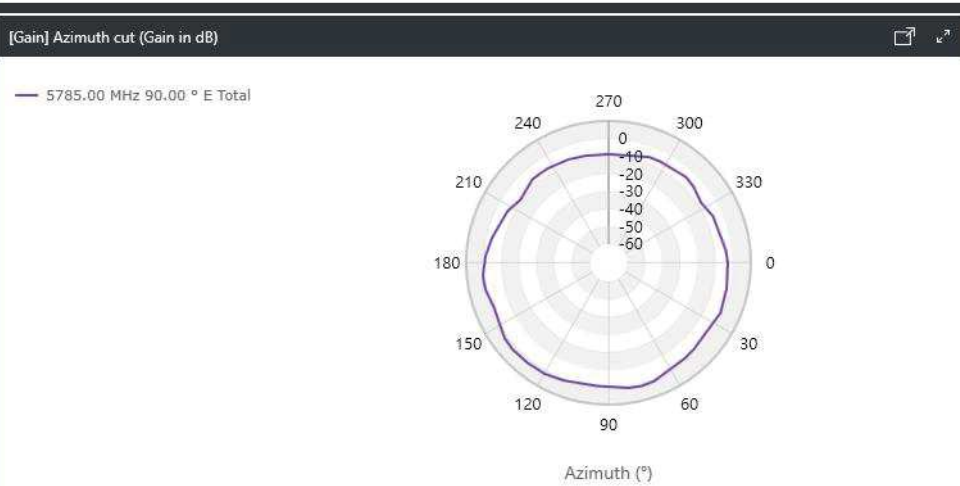
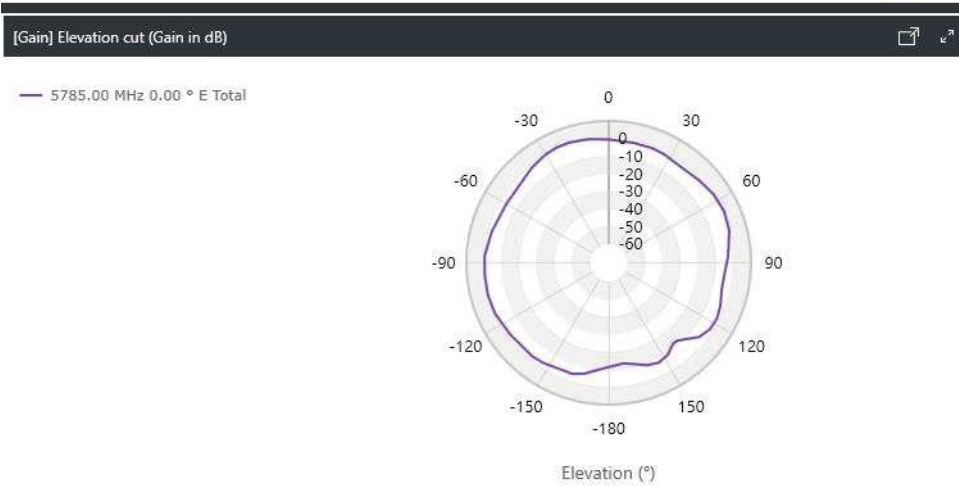
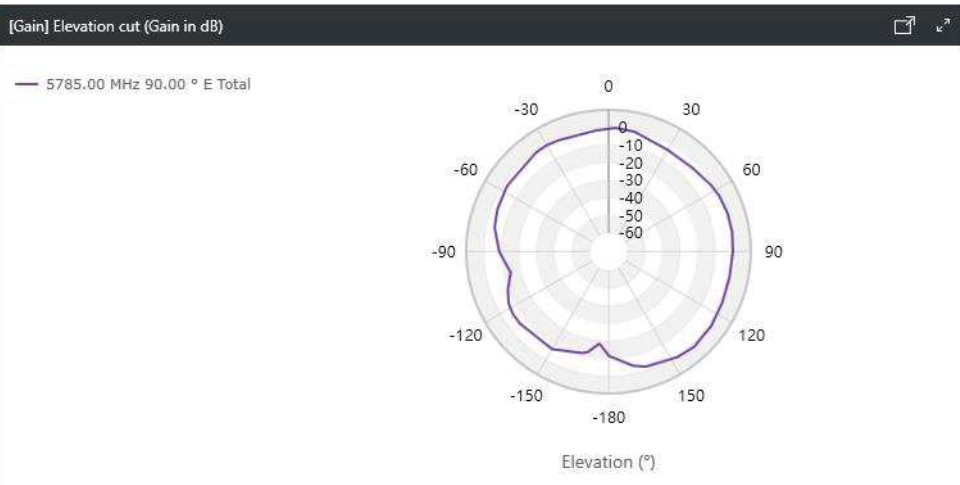
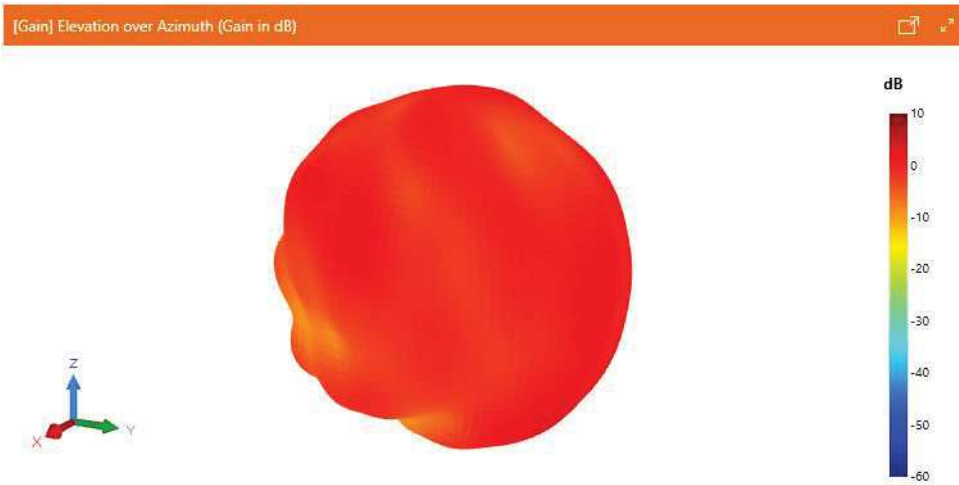
Radiation Patterns_WiFi/BT_5725MHz

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ZX-Plane	XY-Plane	Total(Max.)	1.93	1.20	2.86



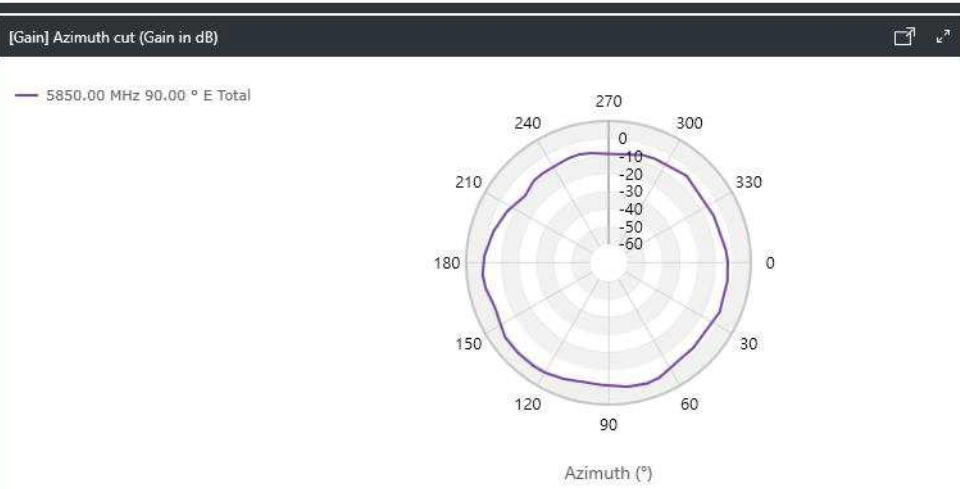
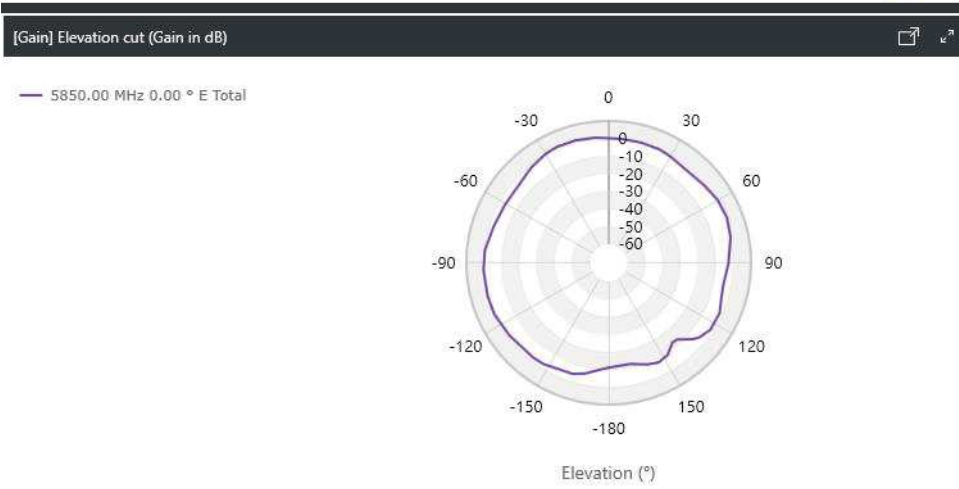
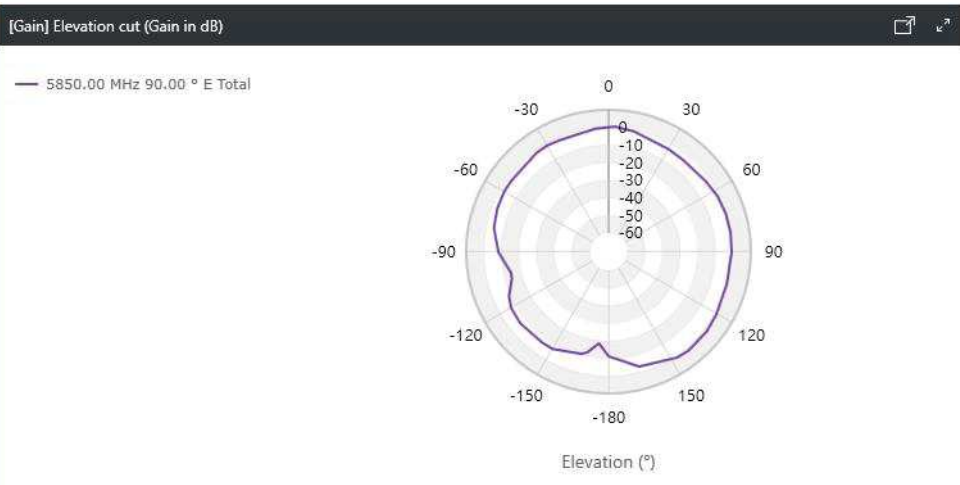
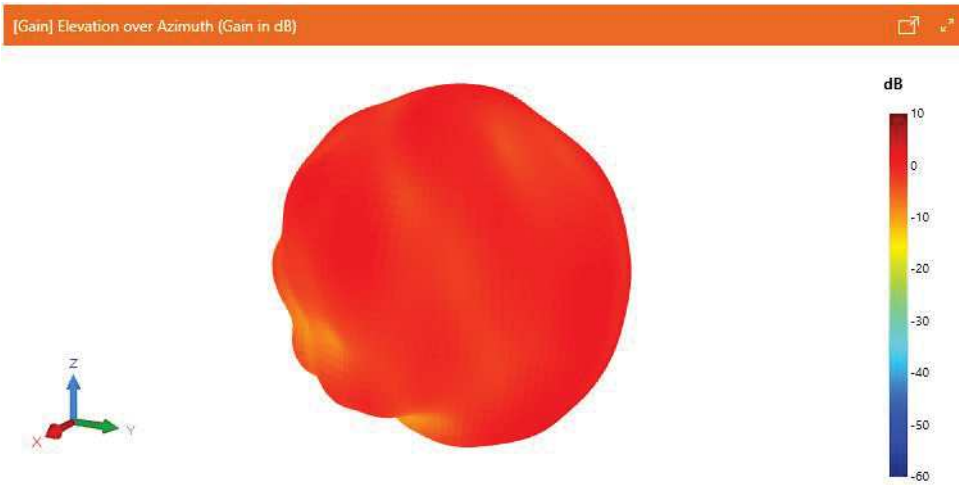
Radiation Patterns_WiFi/BT_5785MHz

3D	ZY-Plane	dB	ZY Plane	ZX Plane	XY Plane
ZX-Plane	XY-Plane	Total(Max.)	1.69	1.51	2.39



Radiation Patterns_WiFi/BT_5850MHz

3D	ZY-Plane	dB	ZY Plane	ZX Plane	XY Plane
ZX-Plane	XY-Plane	Total(Max.)	1.30	1.57	1.92





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THANK YOU