Awan AT150ED WiFi/BT Test Report

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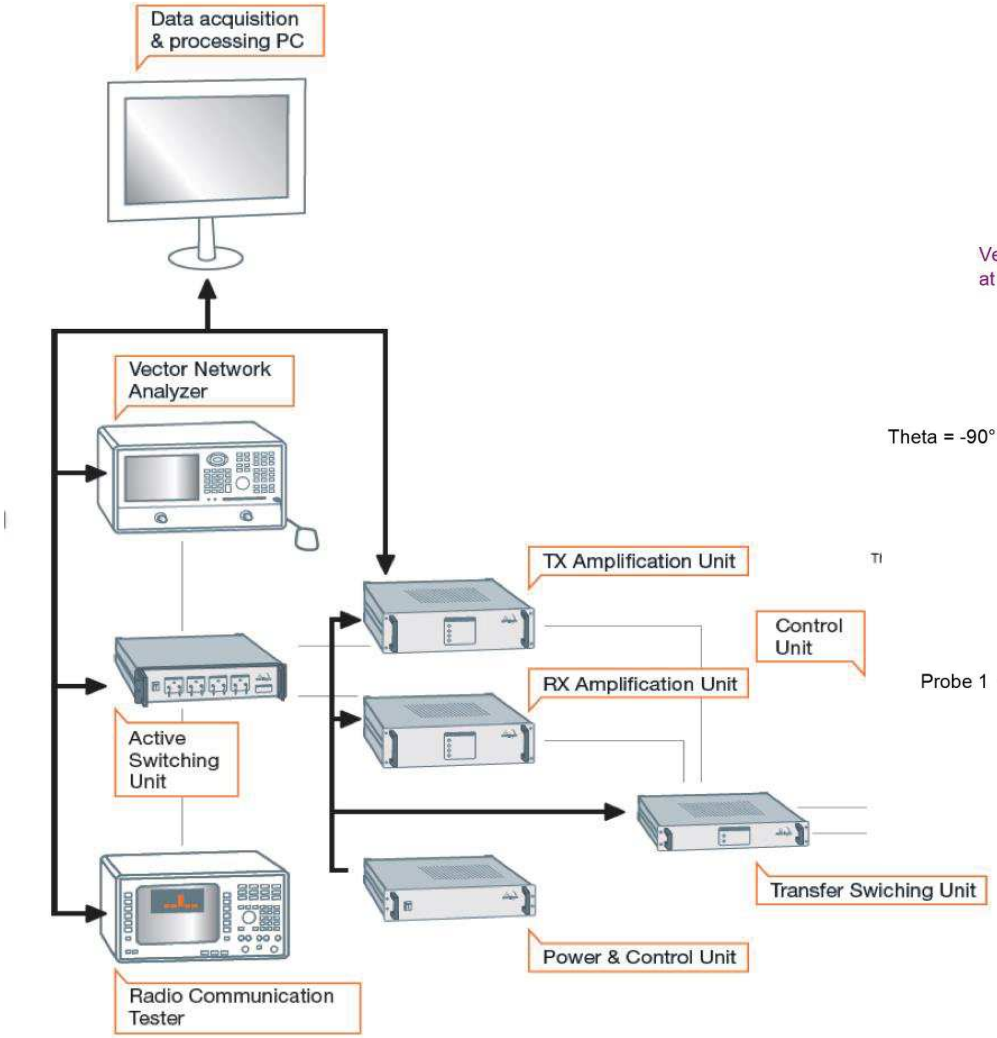
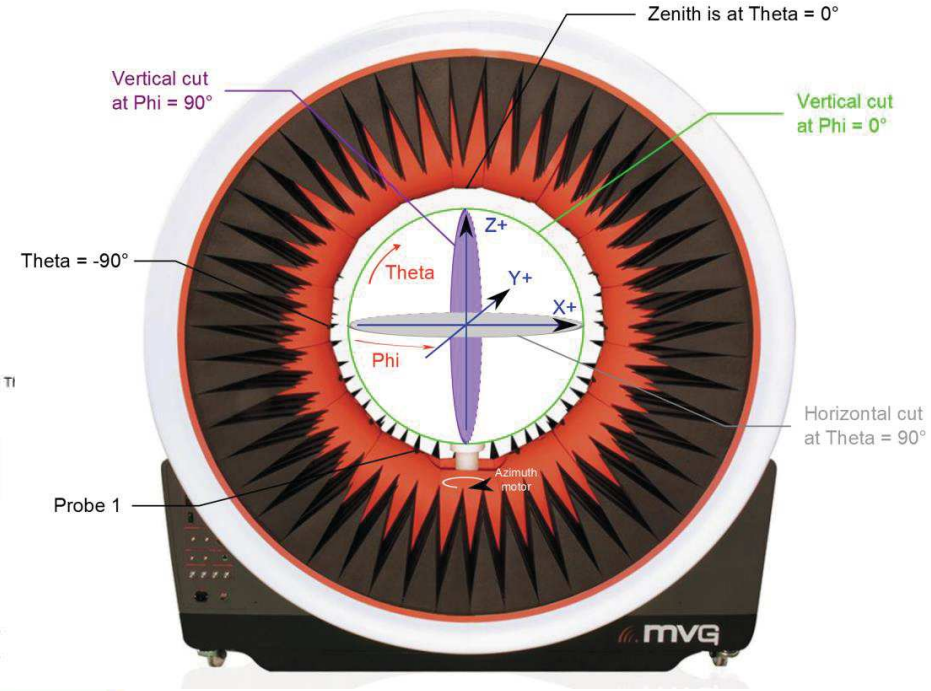
- **Antenna Testing Conditions**
  1. Test System
  2. Antenna Under Test
  3. Antenna Placement
- **Antenna RF characteristics**
  1. VSWR &Gain Table
  2. Radiation Patterns
  2. Isolation

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)	Figuare-1

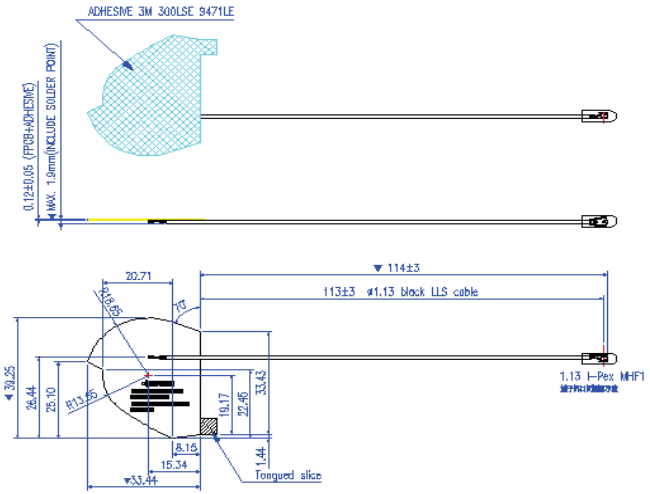


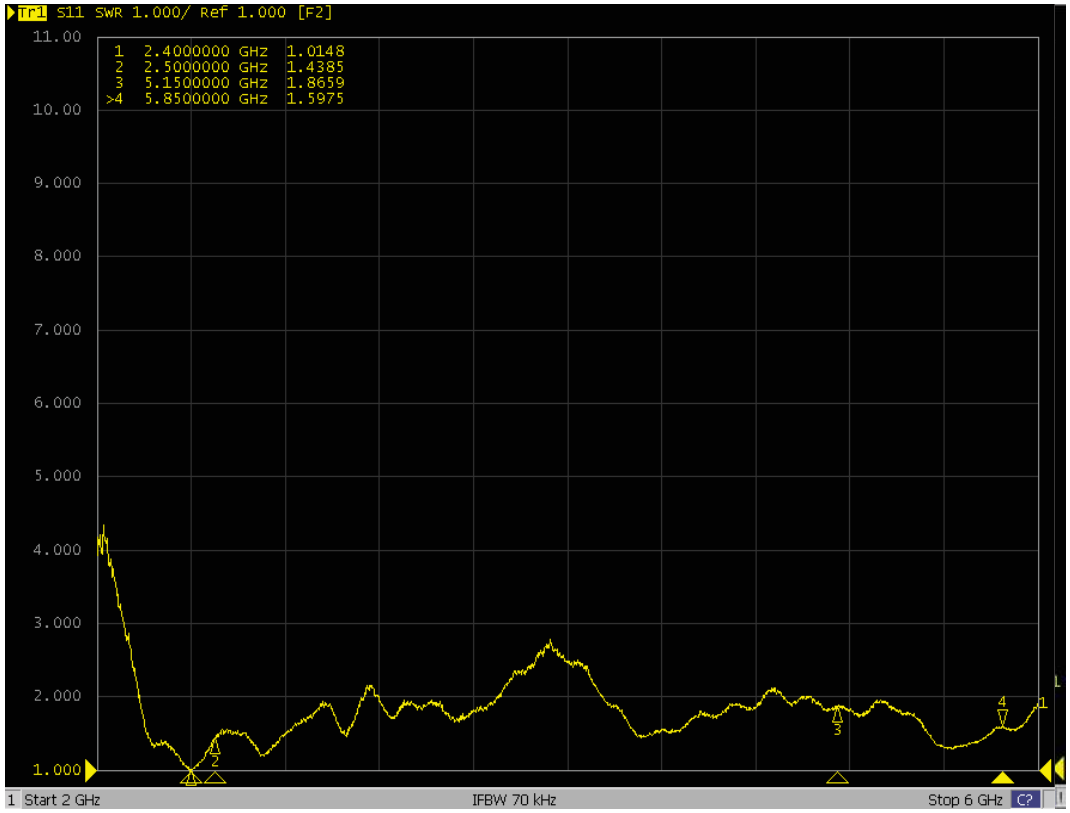
Figure-1 AYF6P-100002

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

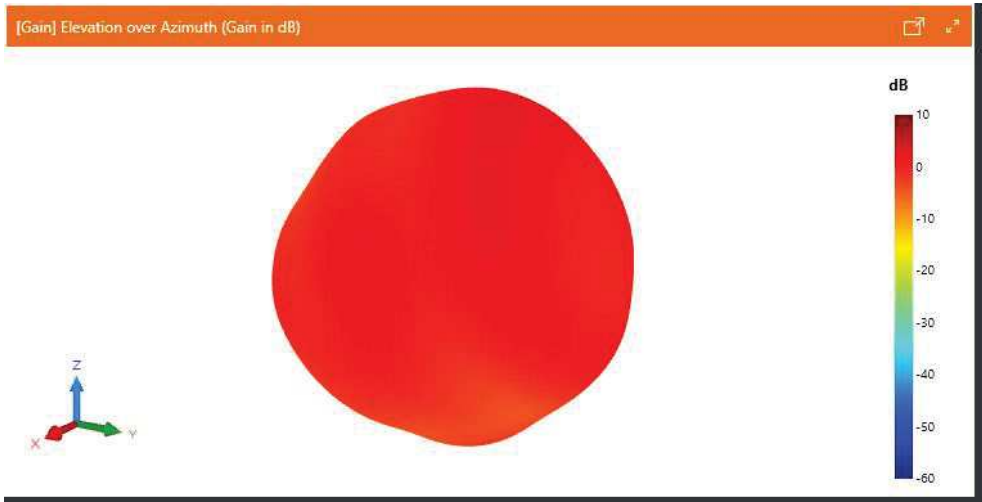


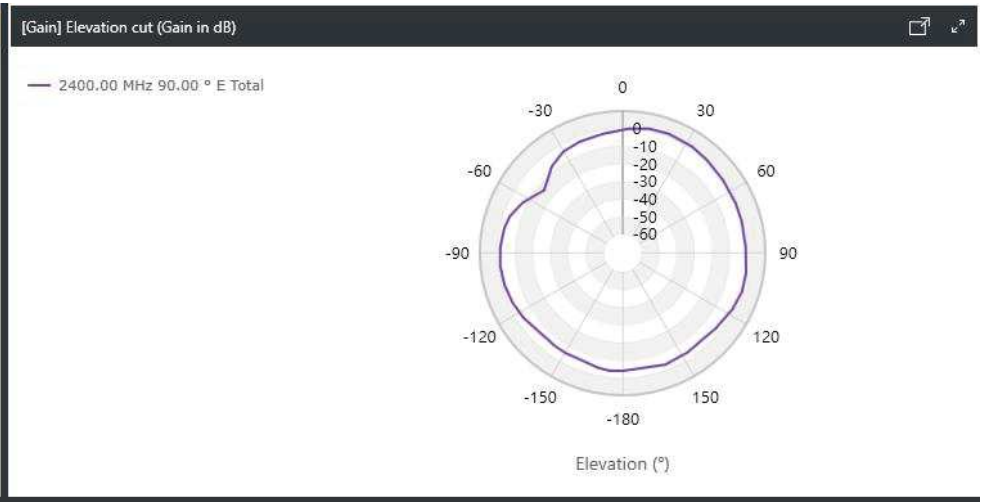
Frequency (MHz)	3D Avg. Gain(dBi)	3D Peak Gain (dBi)	Efficiency(%)
2400	-3.6	2.17	43.65
2450	-3.5	2.25	44.36
2500	-3.5	2.20	44.77
5150	-3.4	3.36	45.71
5250	-3.5	3.32	44.98
5350	-3.3	3.55	46.45
5470	-3.2	3.48	48.19
5725	-3.4	3.55	46.03
5785	-3.4	3.56	45.71
5850	-3.5	3.26	44.57

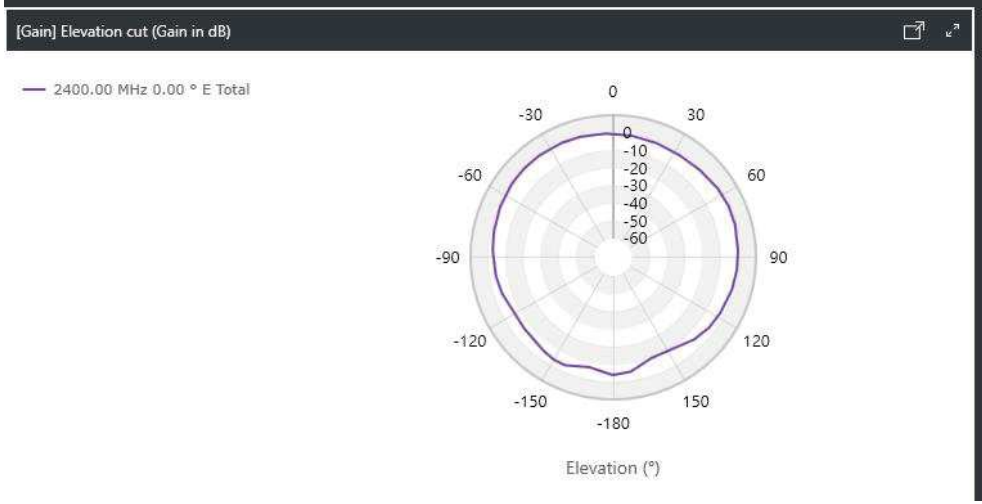
Radiation Patterns_WiFi/BT_2400MHz

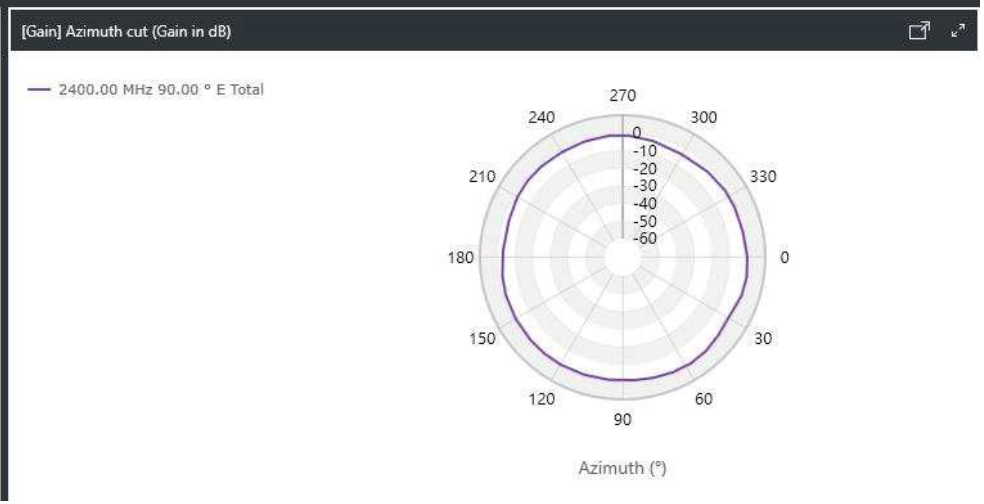
3D	ZY-Plane
ZX-Plane	XY-Plane

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





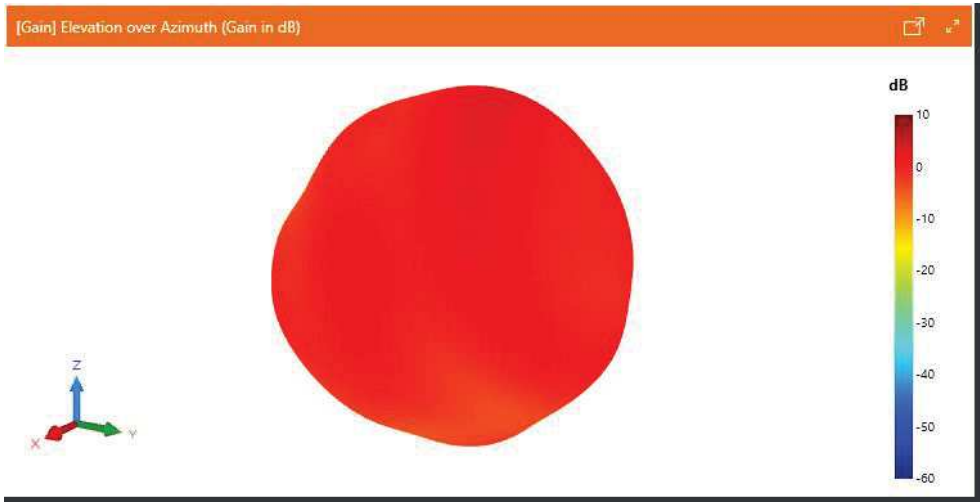


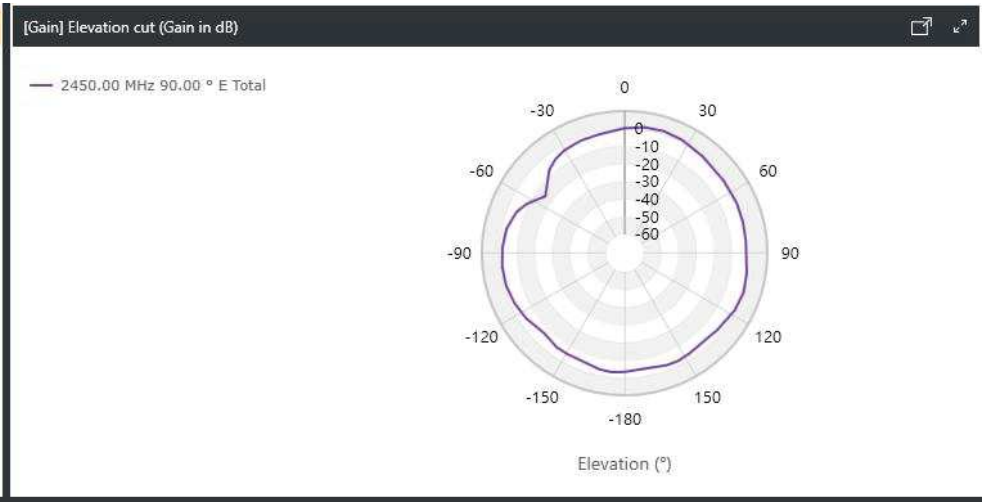


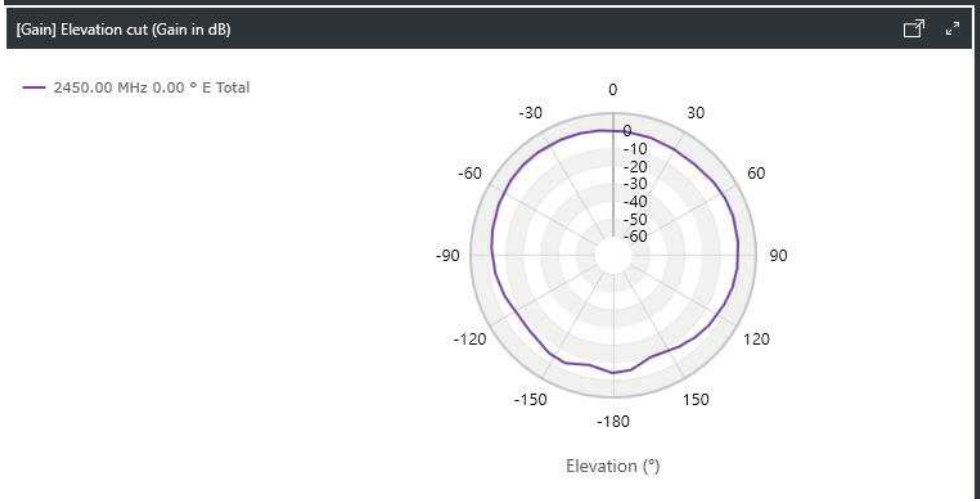
Radiation Patterns_WiFi/BT_2450MHz

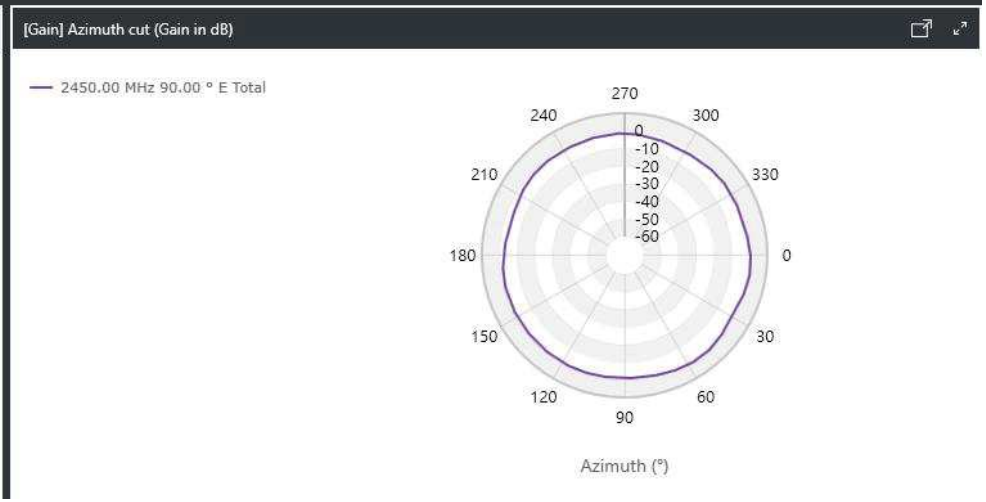
3D	ZY-Plane
ZX-Plane	XY-Plane

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





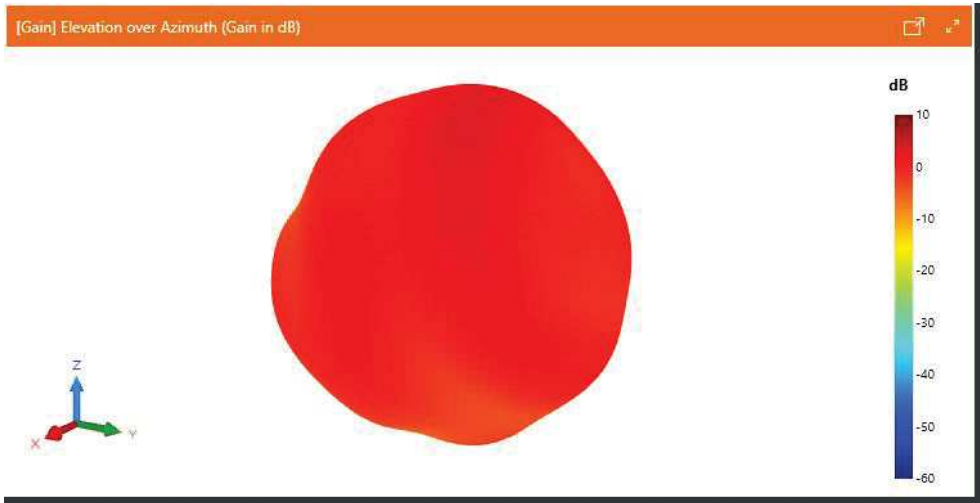


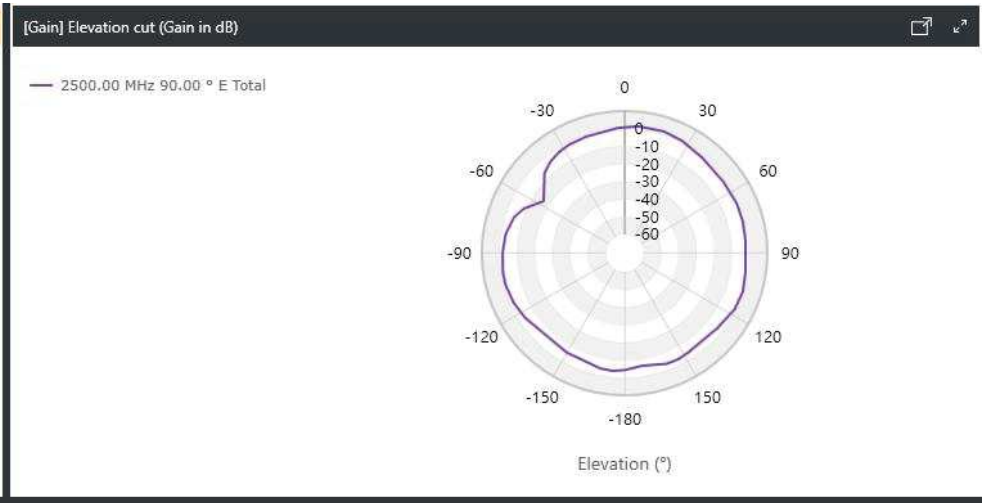


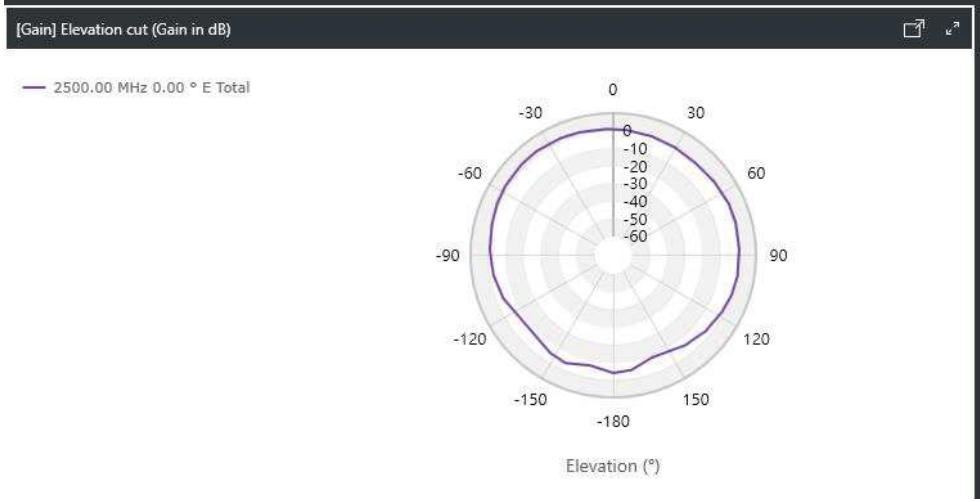
Radiation Patterns_WiFi/BT_2500MHz

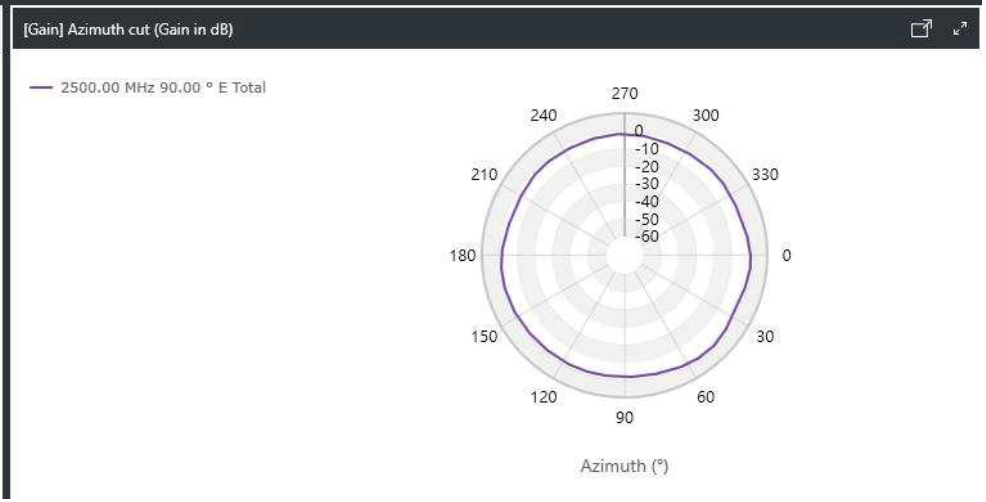
3D	ZY-Plane
ZX-Plane	XY-Plane

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





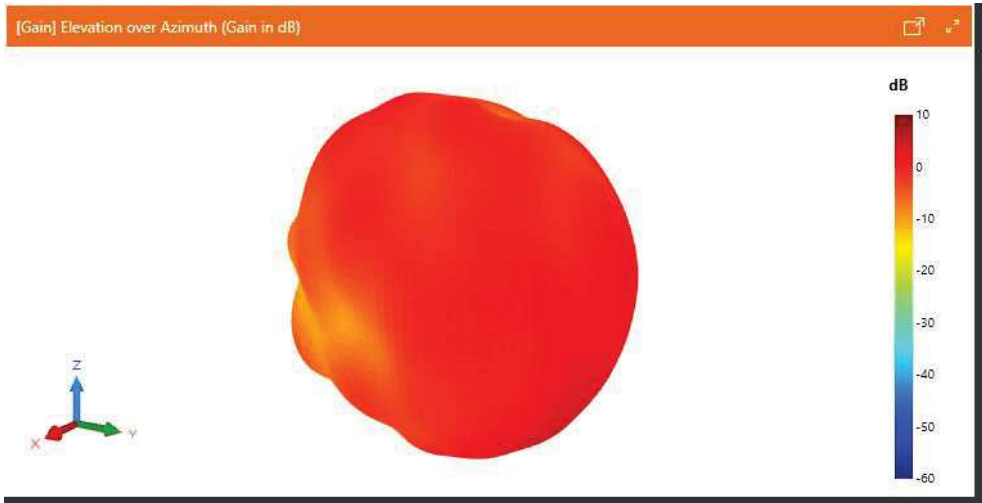


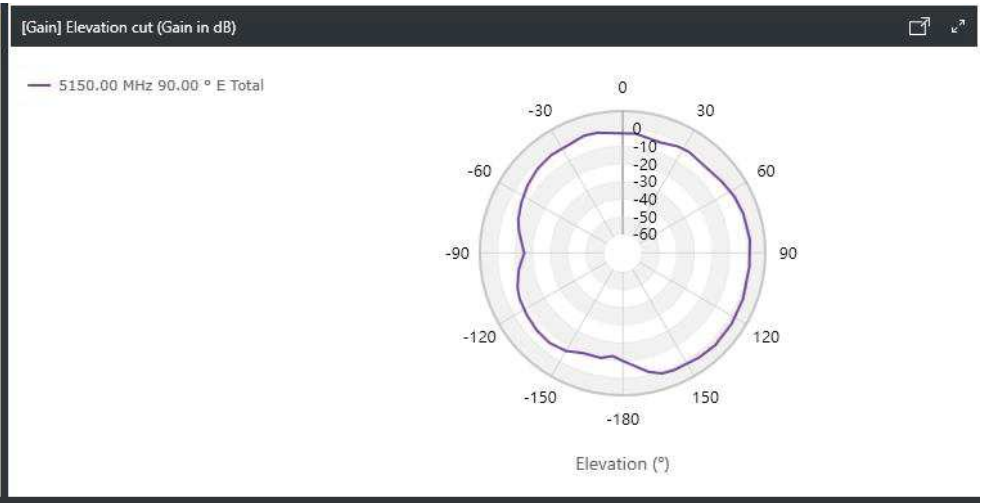


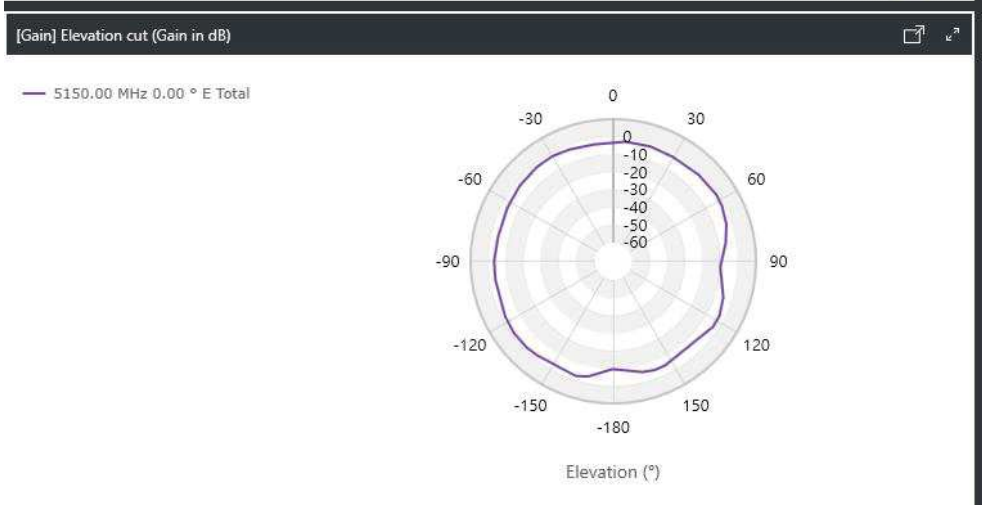
Radiation Patterns_WiFi/BT_5150MHz

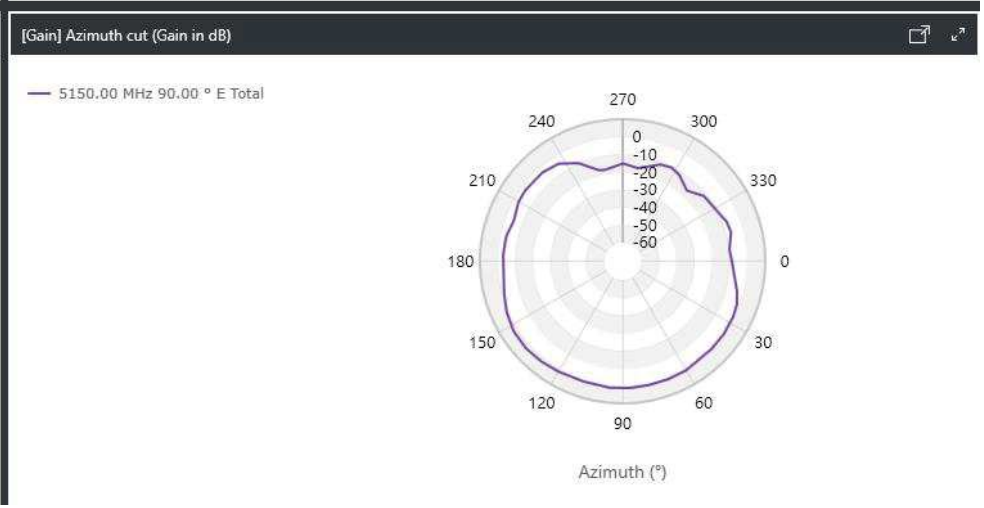
3D	ZY-Plane
ZX-Plane	XY-Plane

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





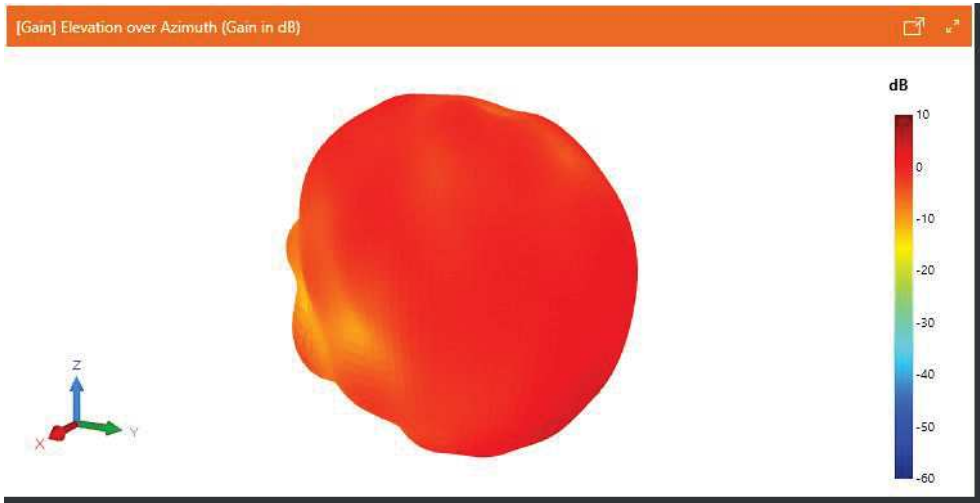


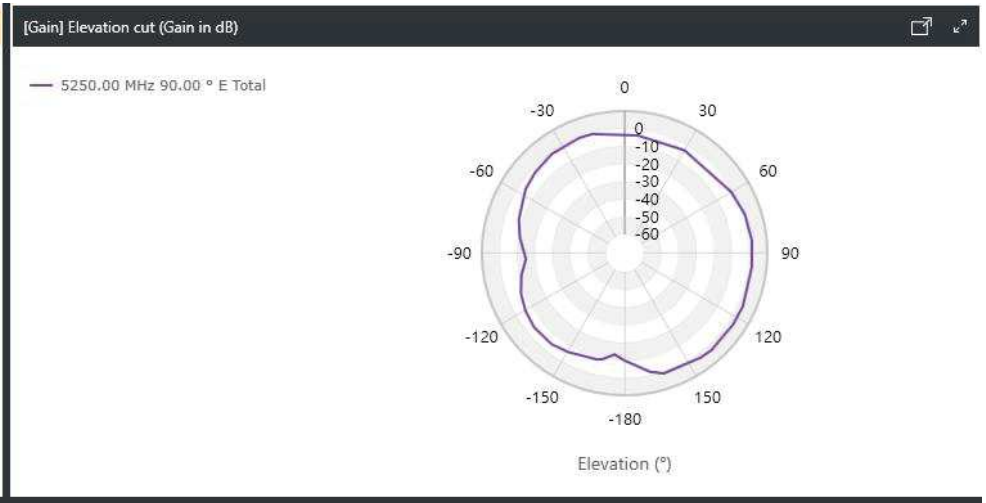


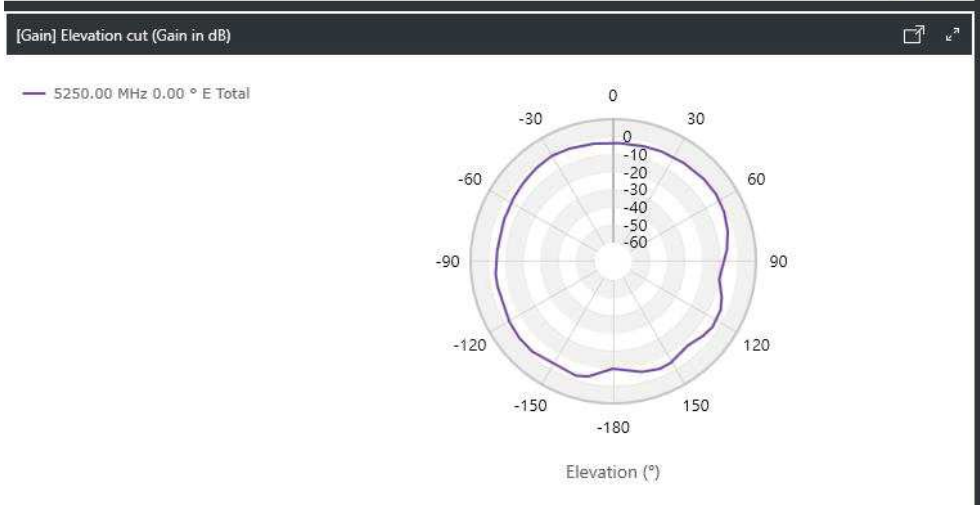
Radiation Patterns_WiFi/BT_5250MHz

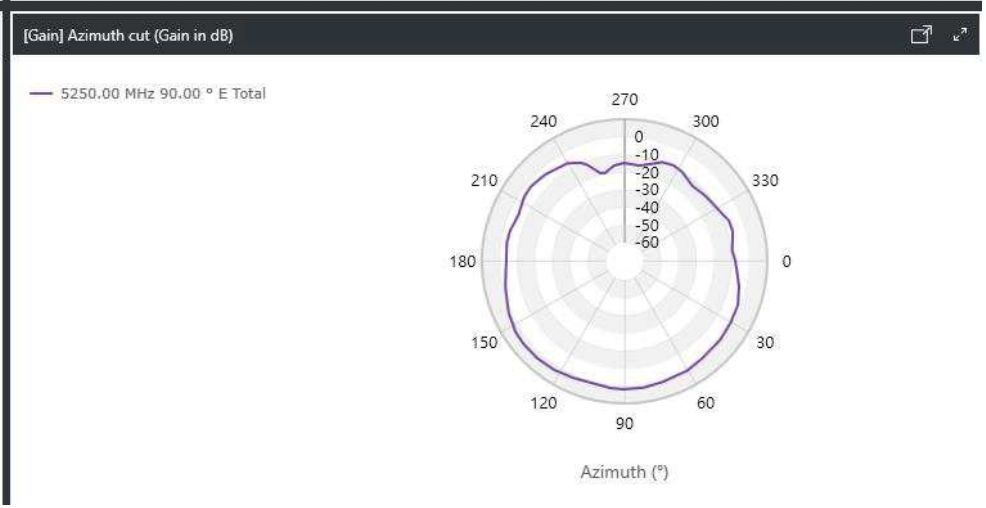
3D	ZY-Plane
ZX-Plane	XY-Plane

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





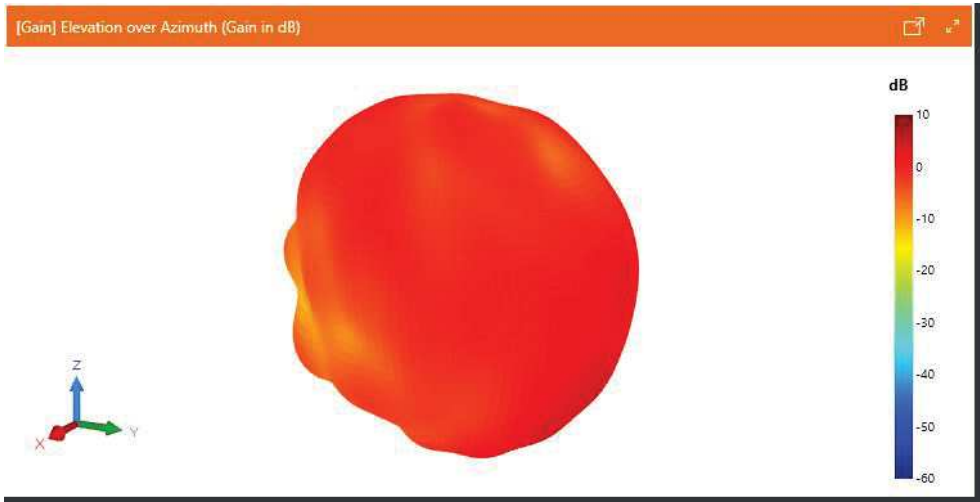


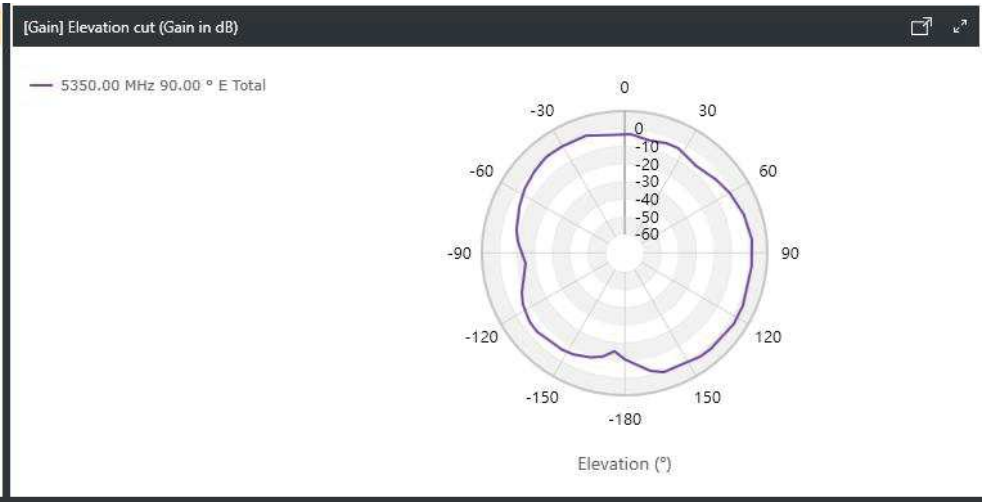


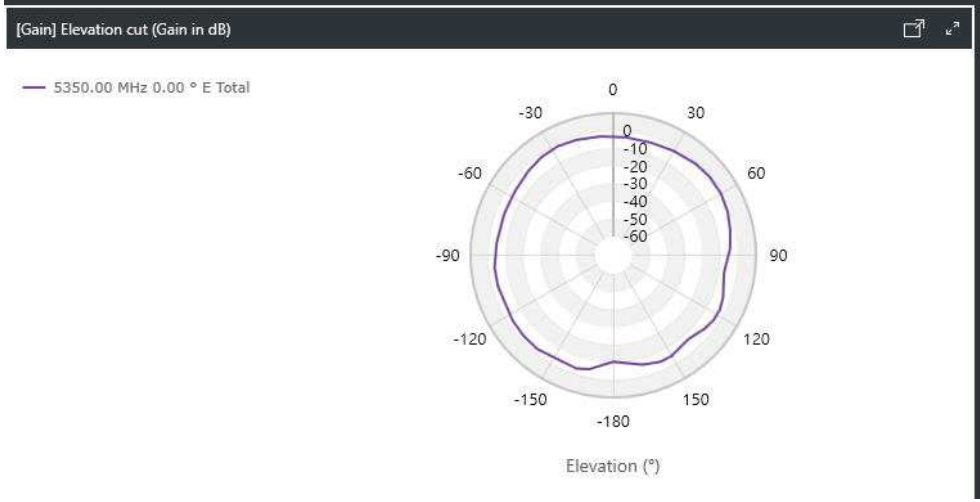
Radiation Patterns_WiFi/BT_5350MHz

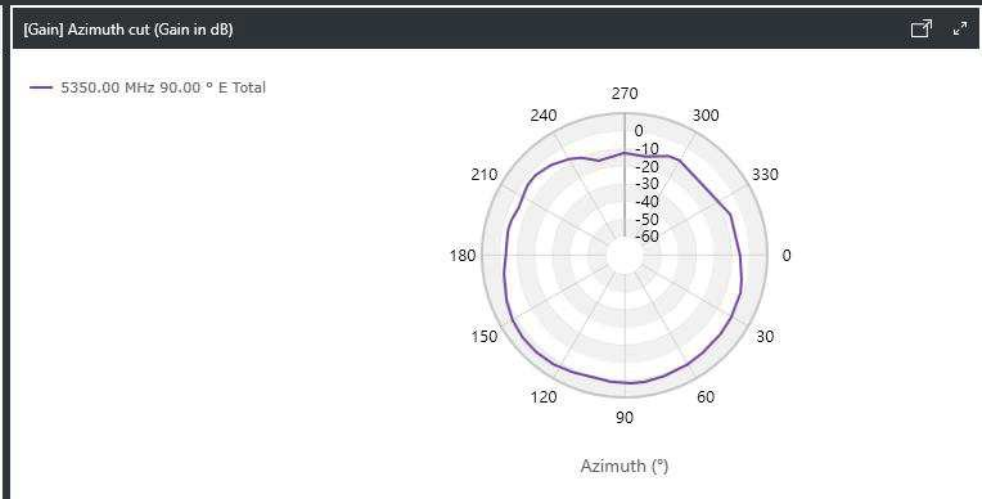
3D	ZY-Plane
ZX-Plane	XY-Plane

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





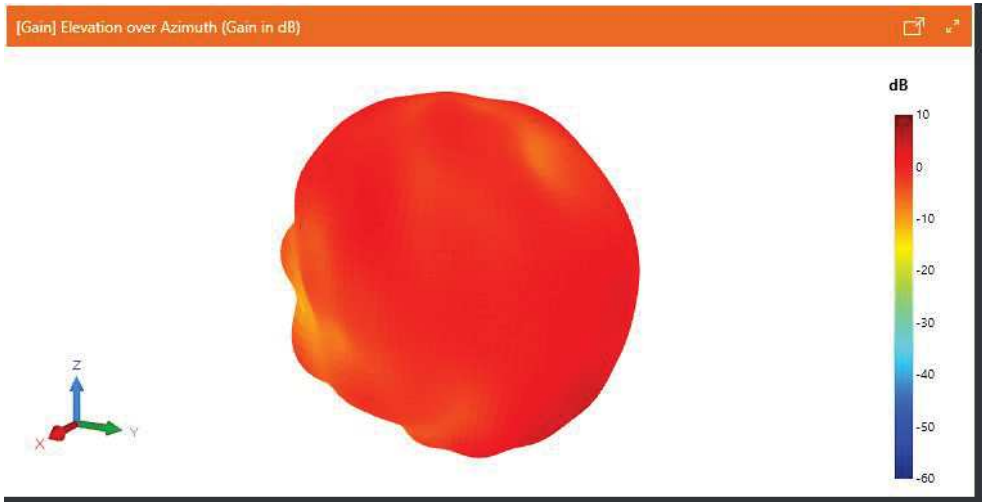


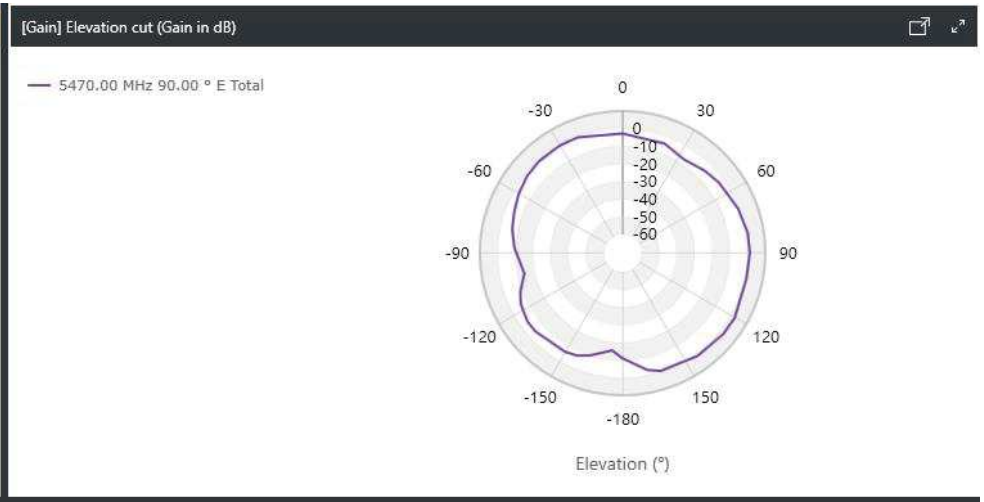


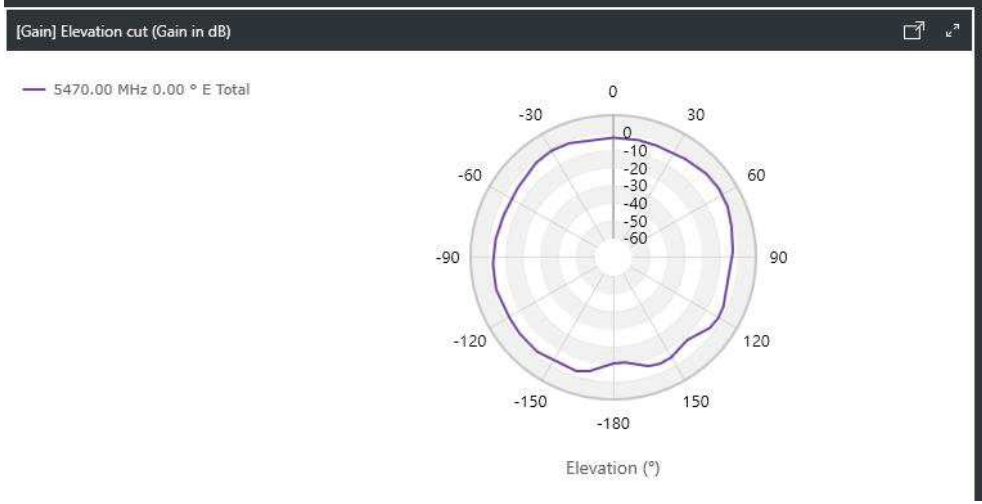
Radiation Patterns_WiFi/BT_5470MHz

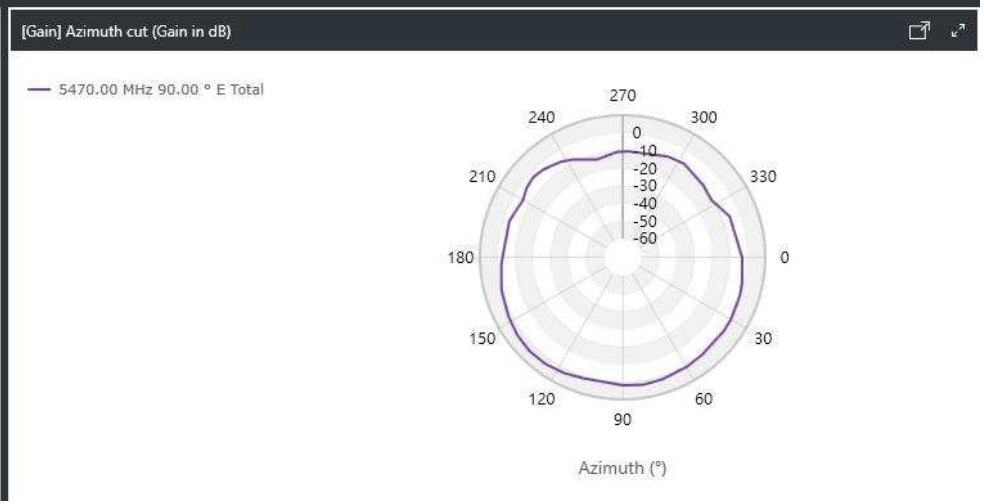
3D	ZY-Plane
ZX-Plane	XY-Plane

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





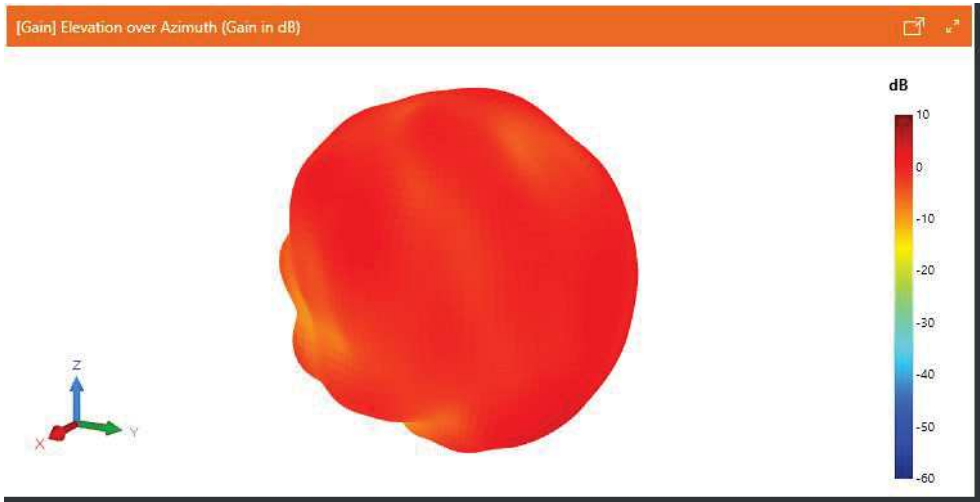


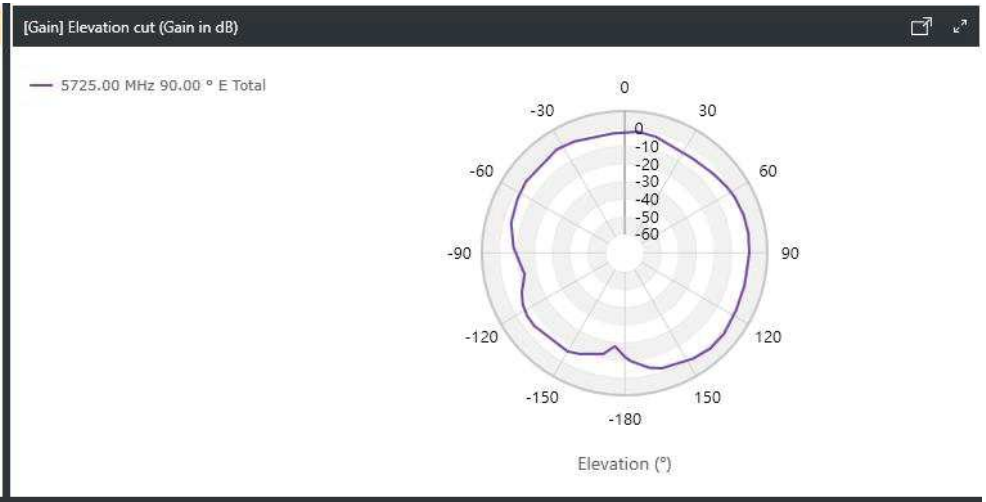


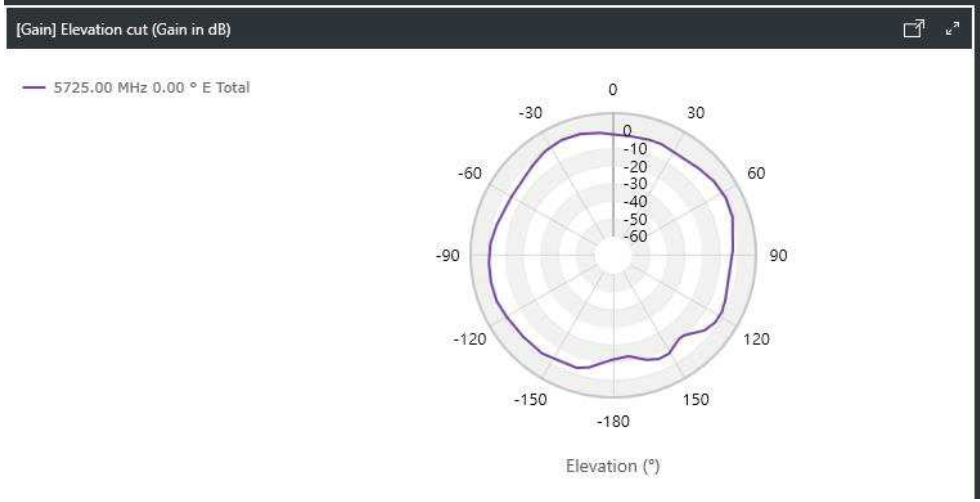
Radiation Patterns_WiFi/BT_5725MHz

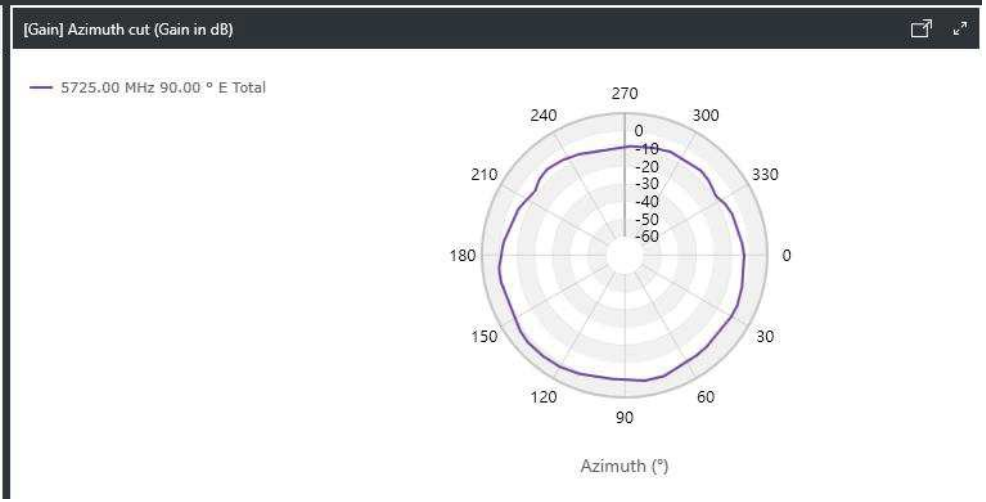
3D	ZY-Plane
ZX-Plane	XY-Plane

dB	ZY Plane	ZX Plane	XY Plane
Total(Max.)	1.93	1.20	2.86





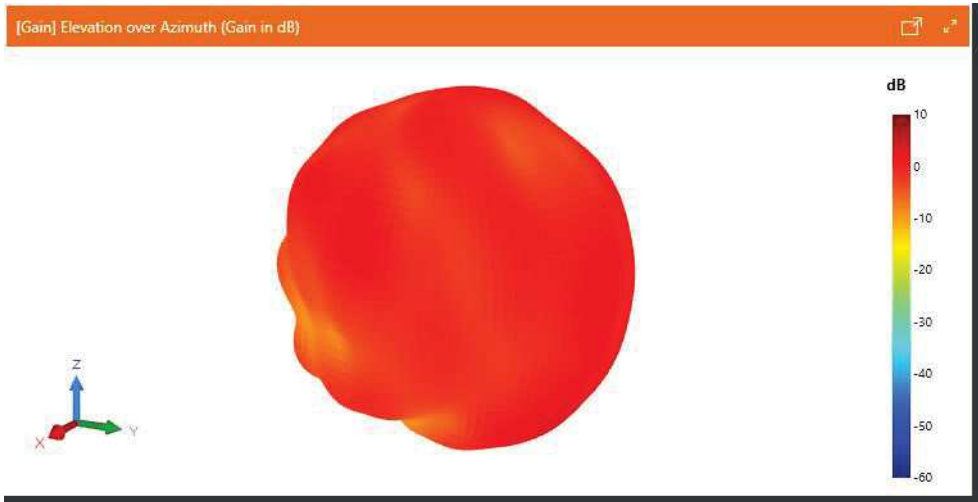


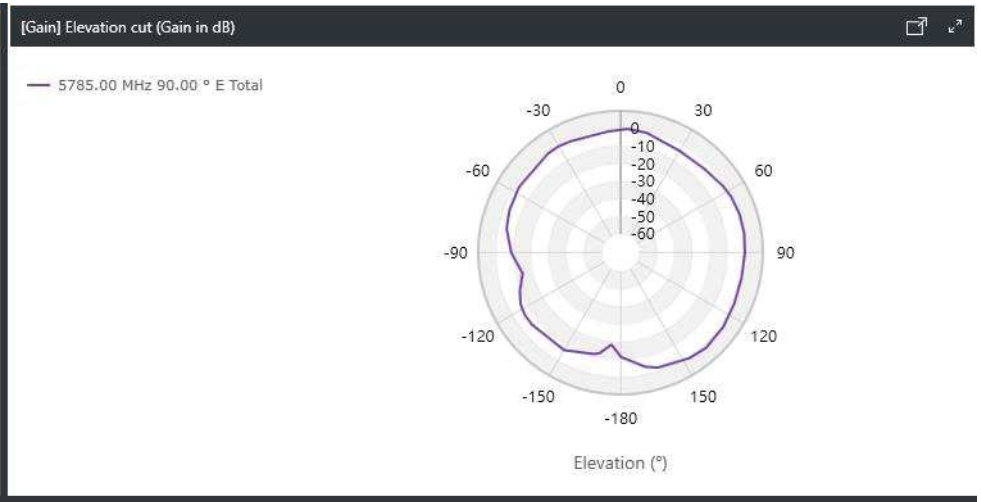


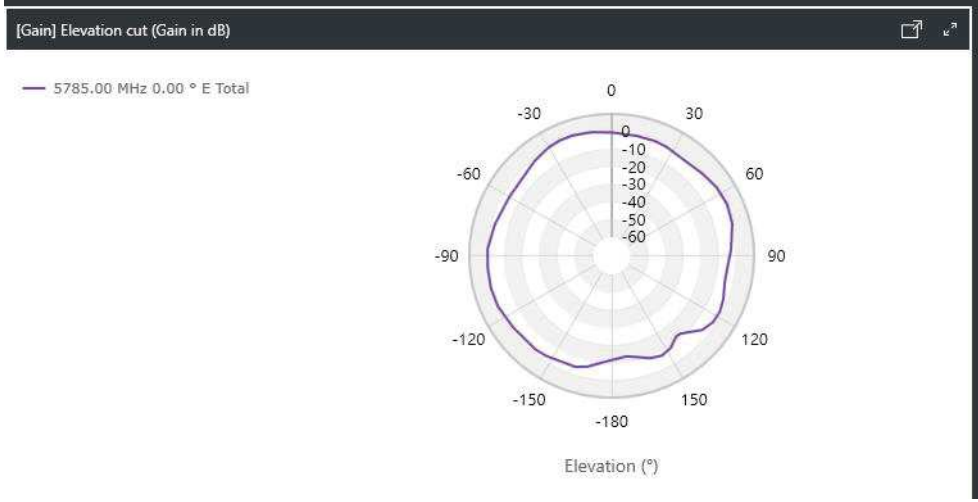
Radiation Patterns_WiFi/BT_5785MHz

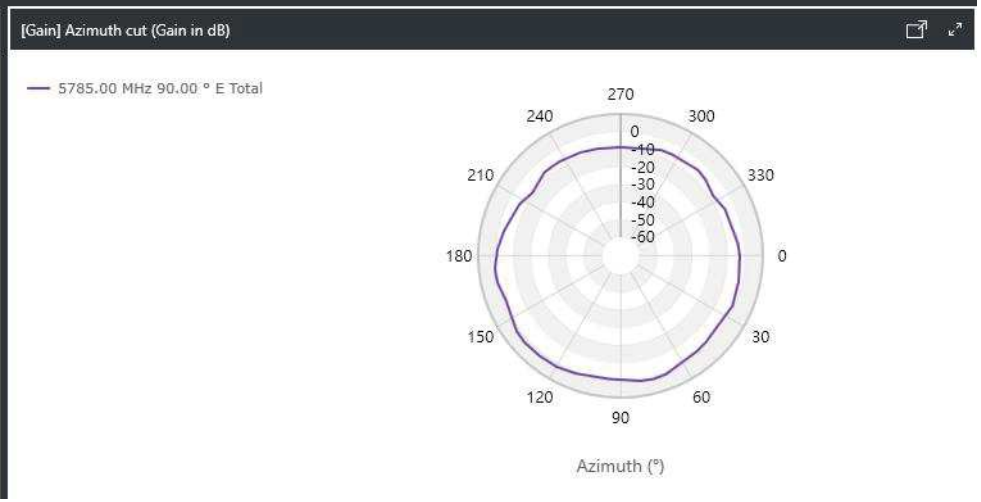
3D	ZY-Plane
ZX-Plane	XY-Plane

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





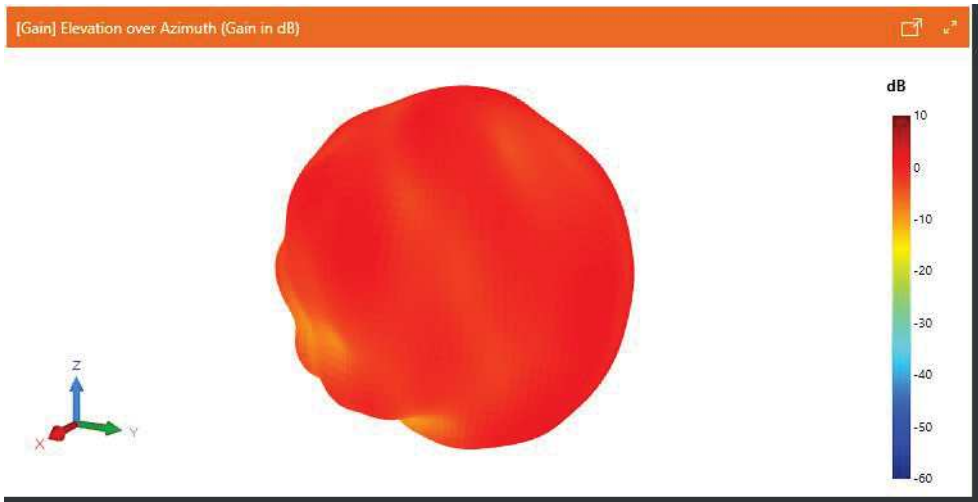


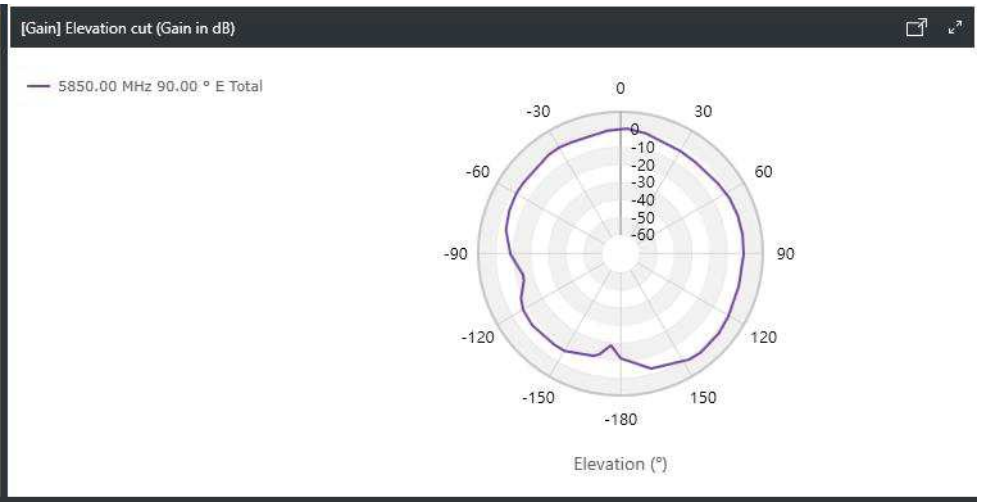


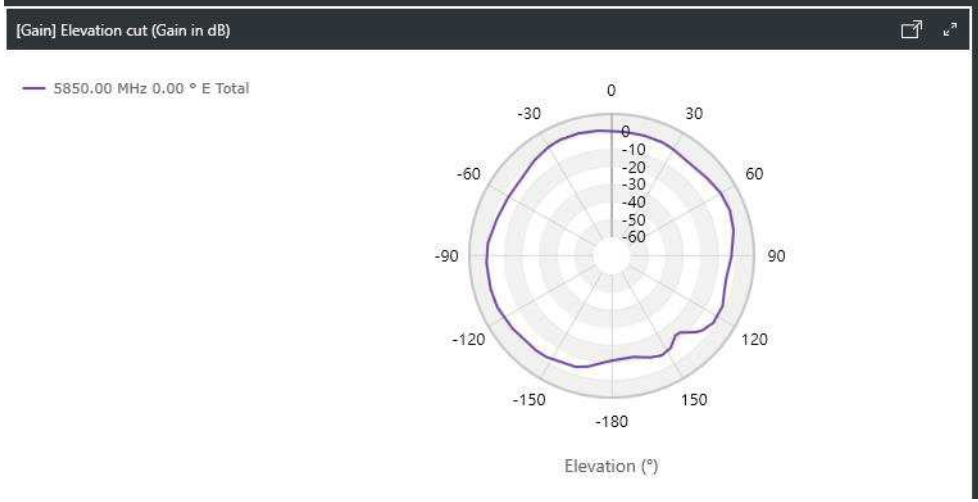
Radiation Patterns_WiFi/BT_5850MHz

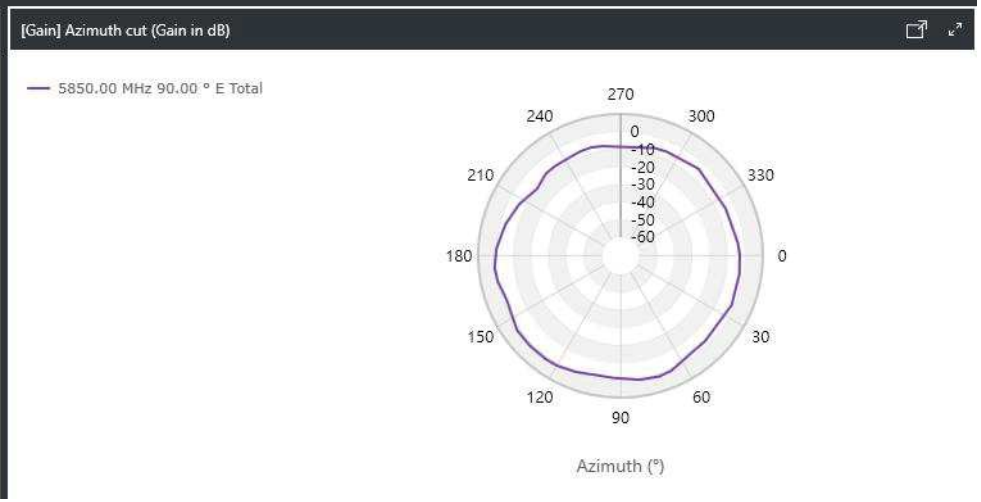
3D	ZY-Plane
ZX-Plane	XY-Plane

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







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THANKYOU