



ACVT2 BT Antennas: Measured Peak Gain and Radiation Patterns

Sep 15, 2025

Outline

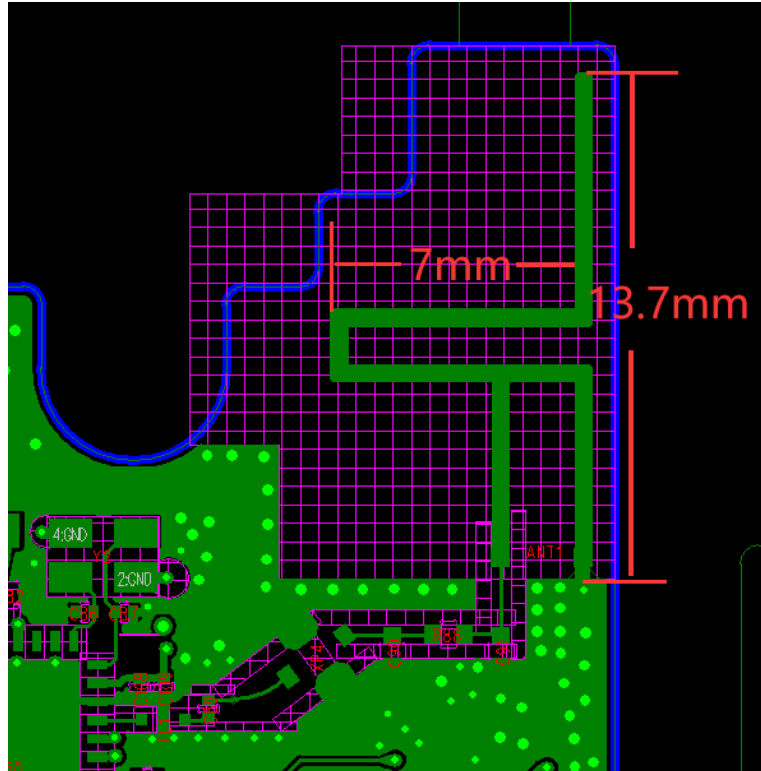
- Reference Plane for Antenna Peak Gain Measurements
- Antenna info
- Schematics of the Antenna Matching Networks
- Measured Peak Gain of antennas
- Standard Spherical Coordinate System Used in Antenna Measurements
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- Antenna Radiation Patterns
- Summary

Antenna info

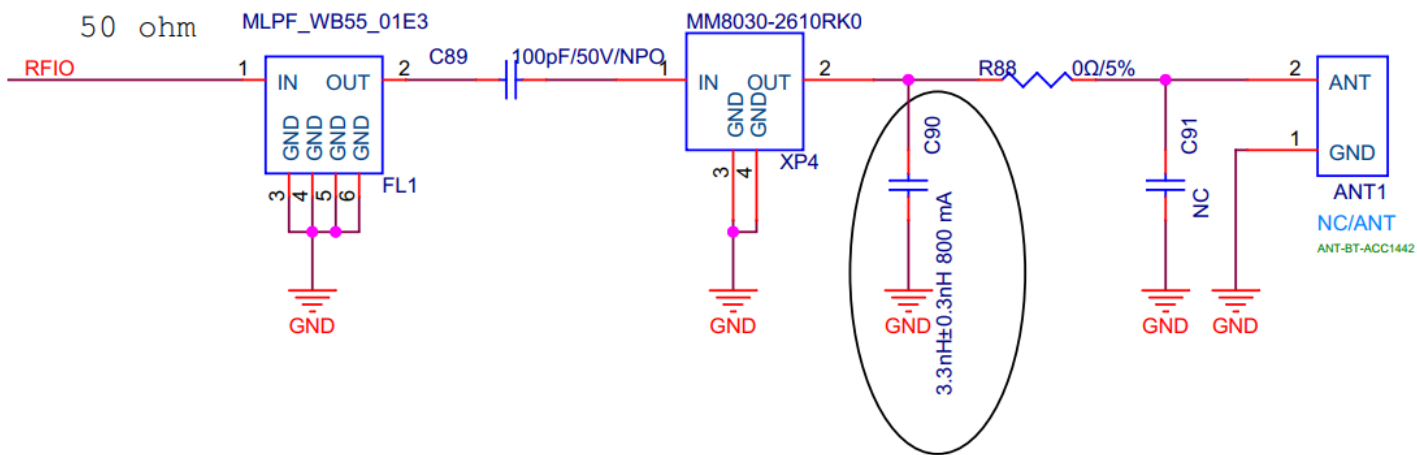
Antenna manufacturer name and address:
Tonly Technology Co., Ltd. Chenjiang Factory

No. 256, Zhongkai 6th Road, Chenjiang Street, Zhongkai High-tech Development Zone, Huizhou City, Guangdong Province, P.R. China

BT Antenna:
Model#: MB25167122
Photos or drawing:



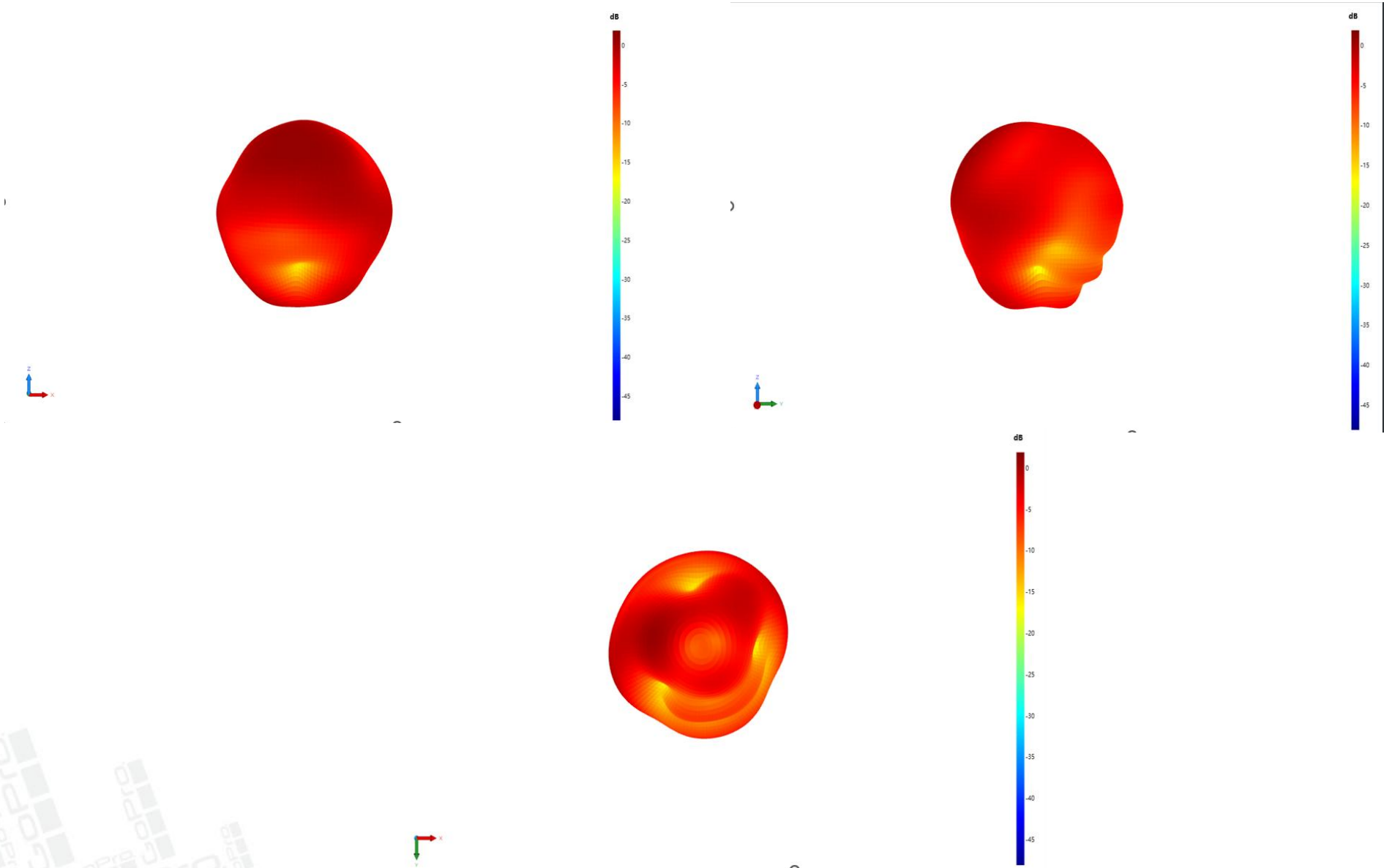
Schematic of the BT Antenna Matching Network



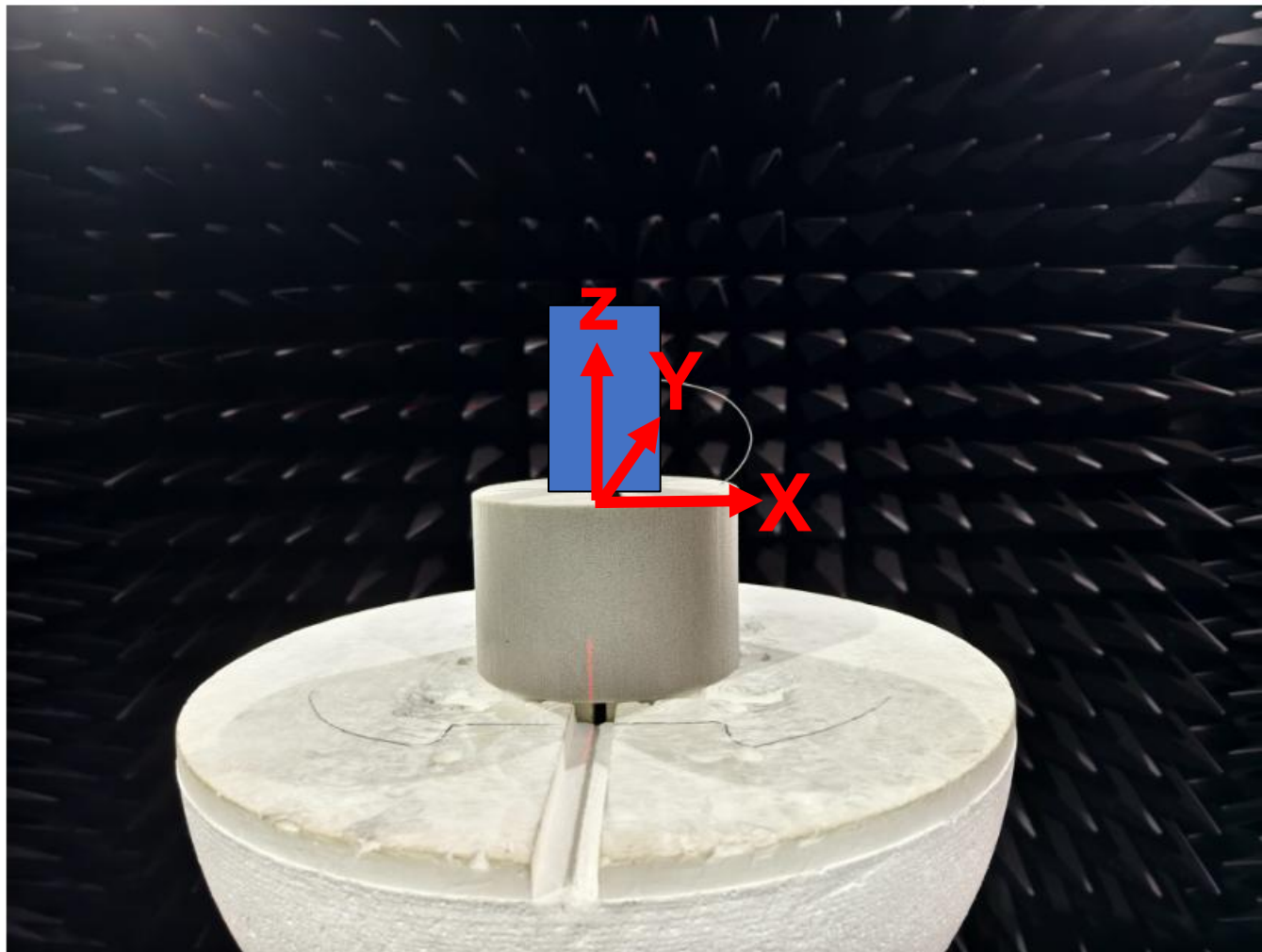
Measured Peak Gain of antennas

Band(GHz)	Frequency(MHz)	Antenna Peak Gain(dBi)
2.4 (2400-2483.5MHz)	2402	-0.16
	2440	0.22
	2480	0.45

Standard Spherical Coordinate System Used in Antenna Measurements

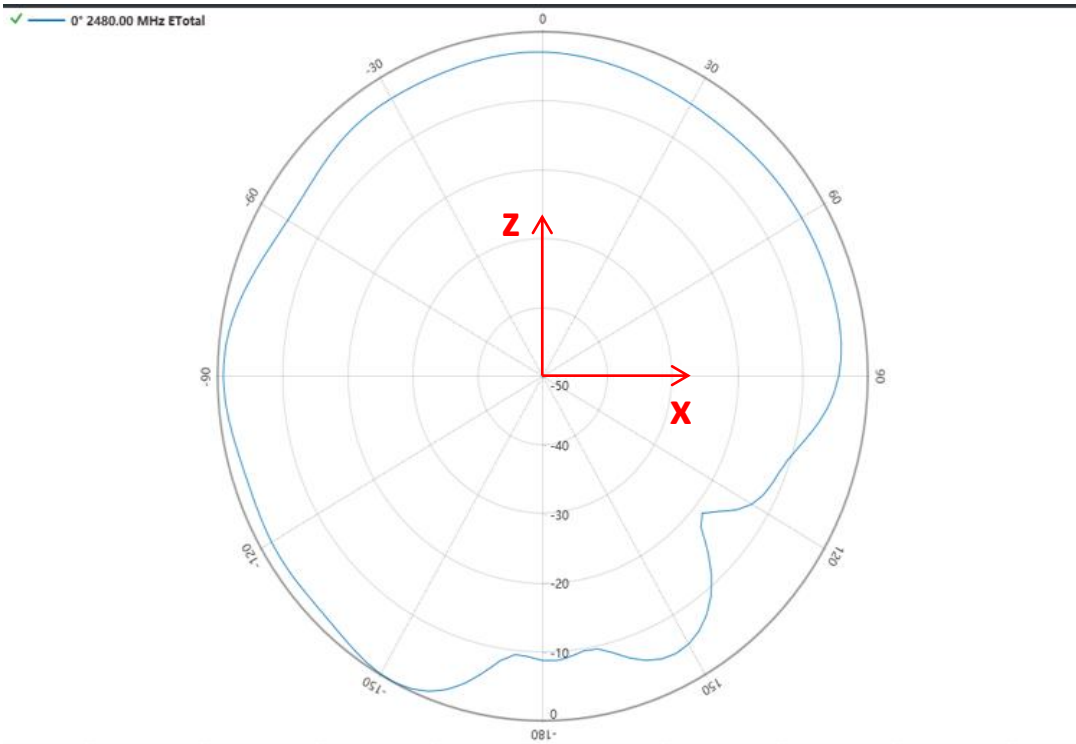


Test Setup in the Anechoic Chamber

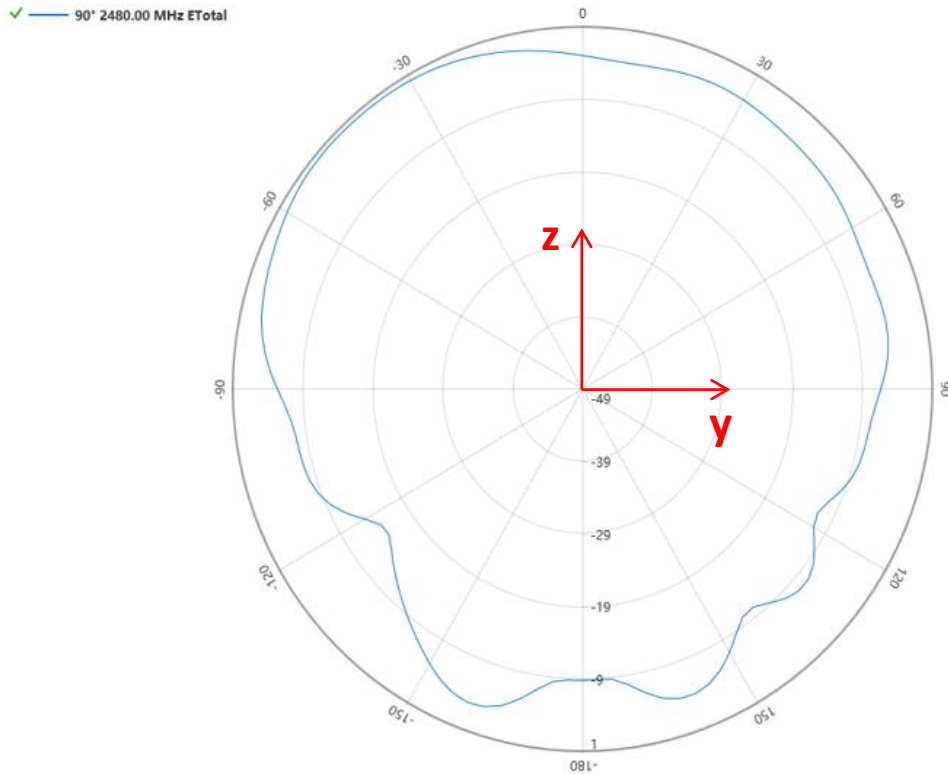


BT Antenna Radiation Patterns in the Vertical Planes

XZ plane ($\phi=0^\circ$)

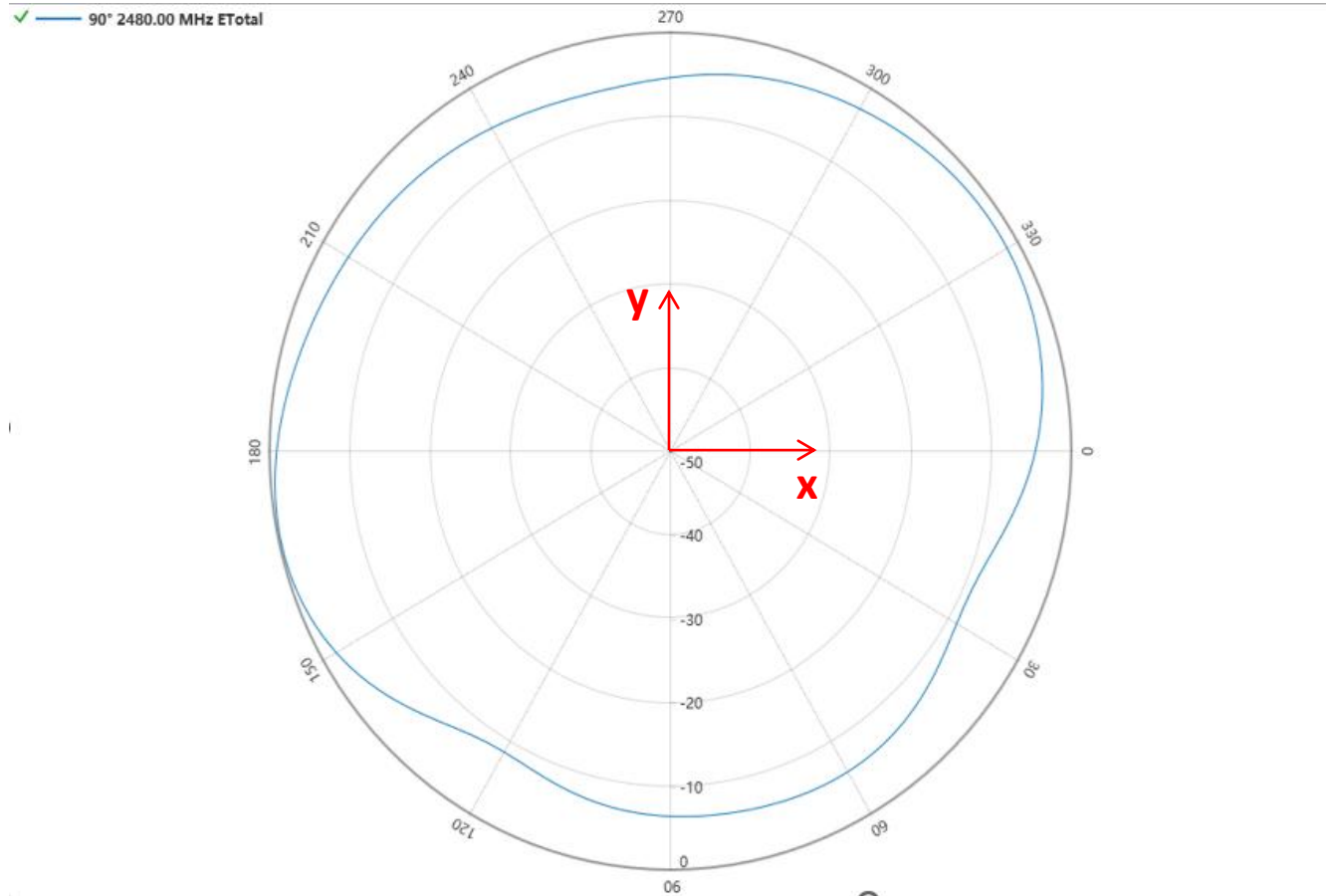


YZ plane ($\phi=90^\circ$)

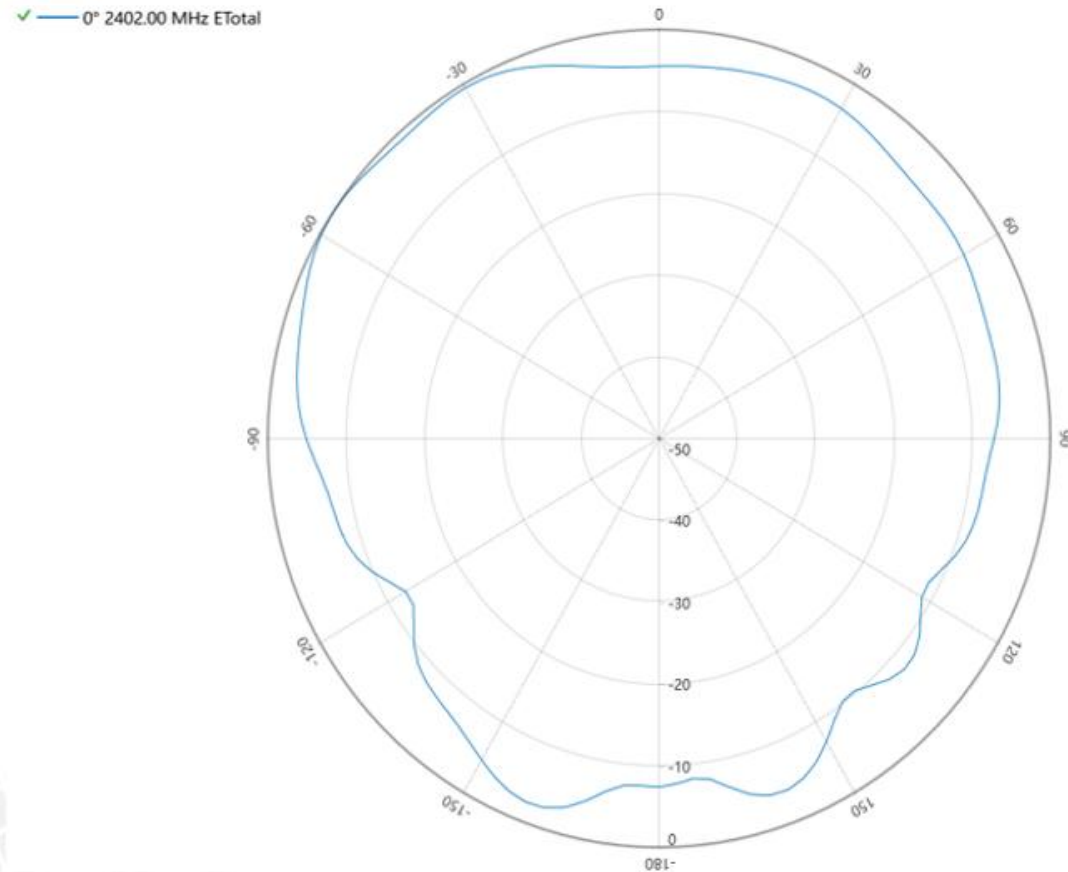


BT Antenna Radiation Patterns in the Horizontal Plane

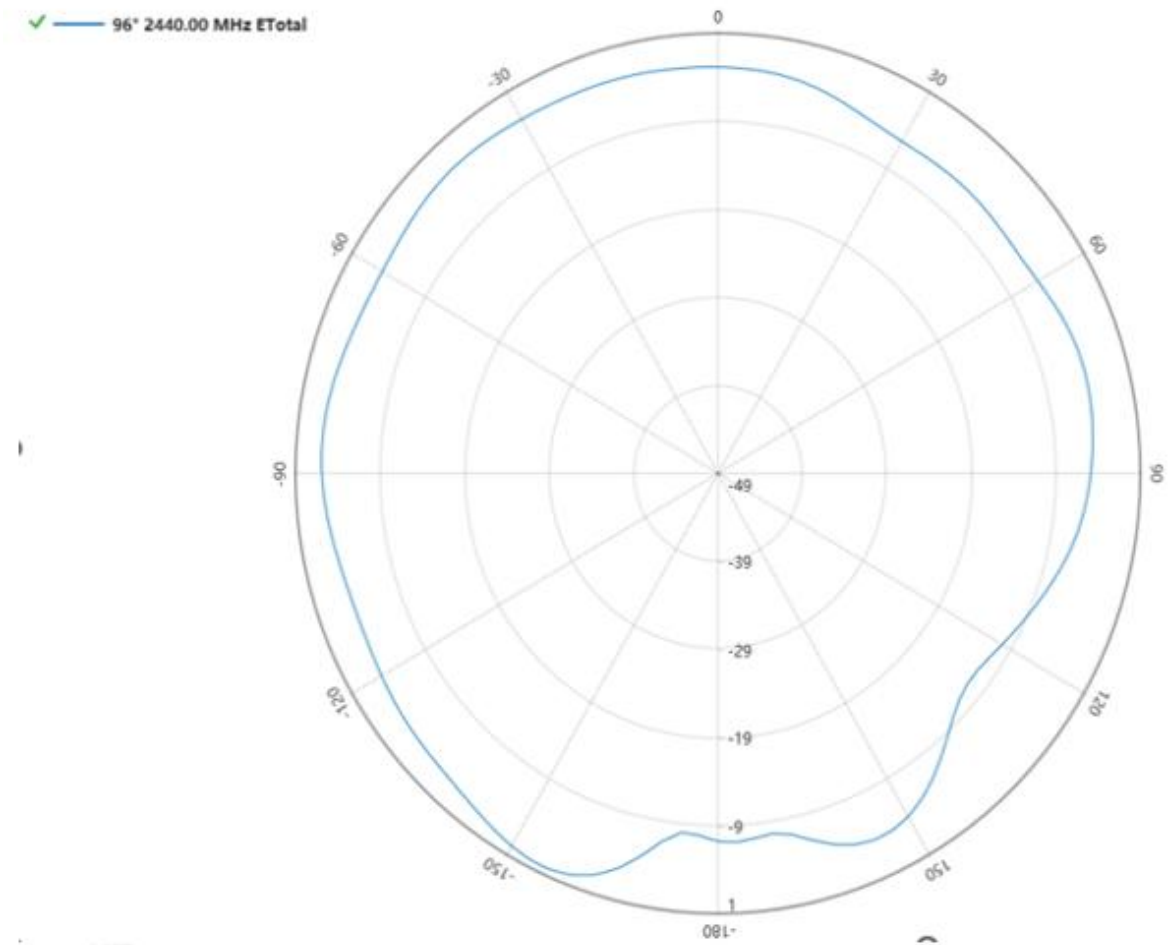
XY plane ($\theta=90^\circ$)



BT Antenna Radiation Pattern at 2402 MHz, in $\phi=0^\circ$ plane



BT Antenna Radiation Pattern at 2440 MHz, in $\phi=96^\circ$ plane



BT Antenna Radiation Pattern at 2480 MHz, in $\phi=81^\circ$ plane

