

Date: 20-Apr-26
Re: AKTV8 BLE Antenna Characterization

Climate: 20° C, 52% RH, 989 kPa

Overview: Measurement of pattern and gain of EUT antenna

Method: The EUT is placed inside an anechoic chamber 3 meters from the receive antenna. The BLE radio is configured to +5dBm output power, CM transmissision. EUT is packaged in production intent packaging during test. Three EUT orientations were tested, each at both horizontal and vertical polarizations. The EUT is rotated 360° while measuring field strength.

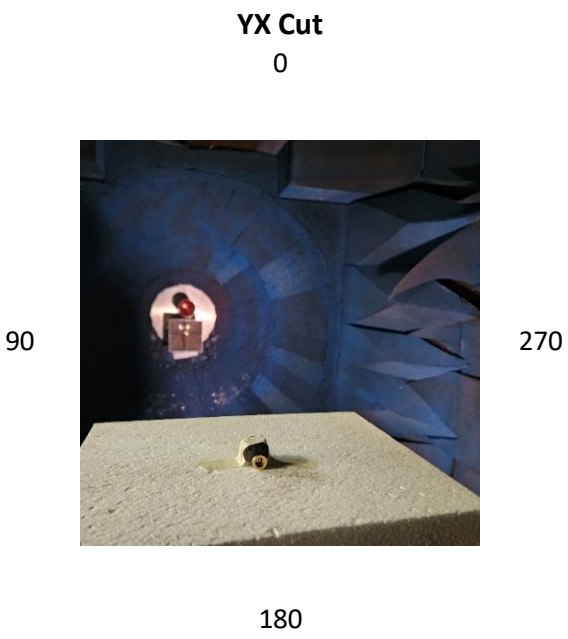
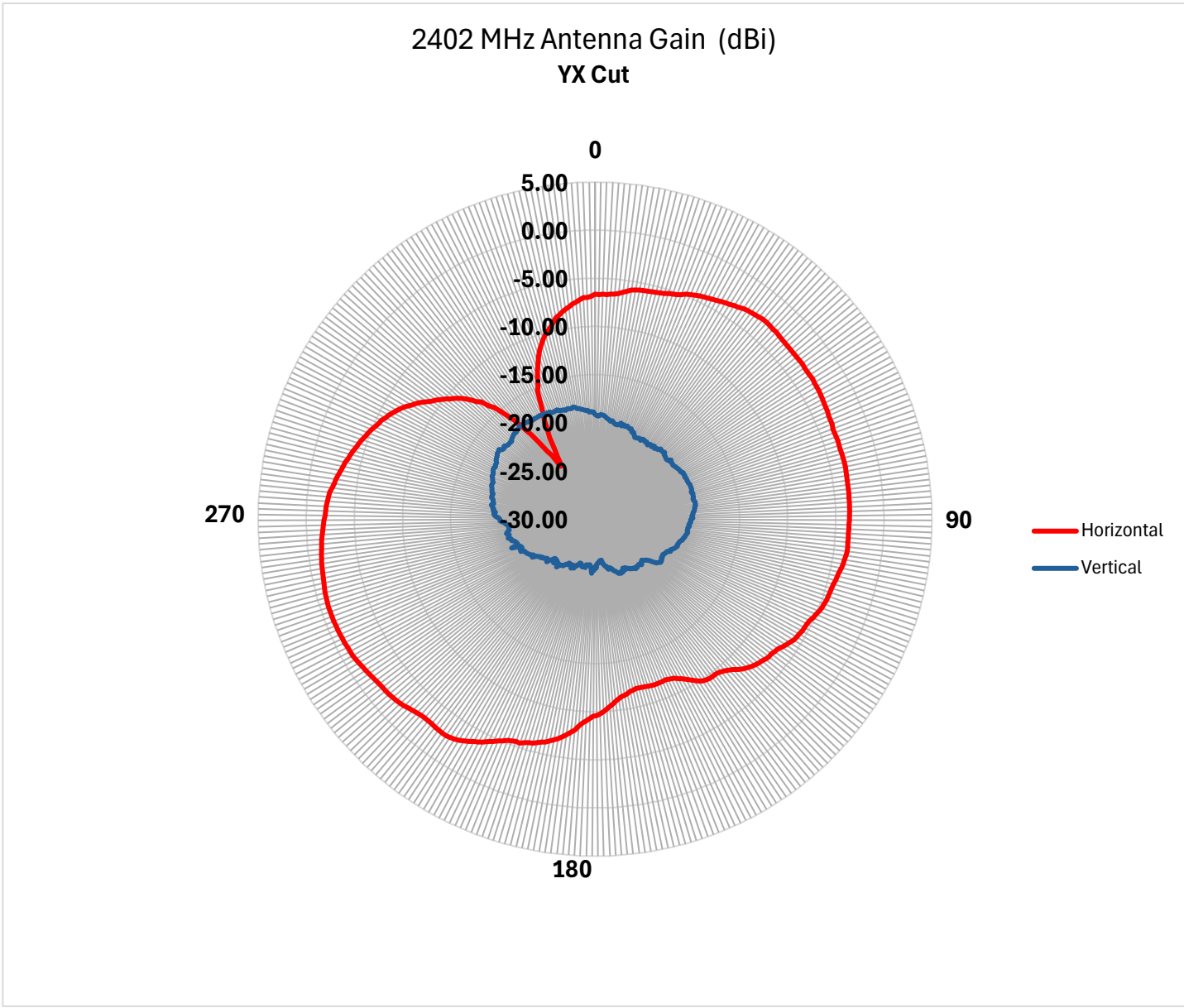
Location: Willow Run Test Labs, Inc., 3615 Grand River Rd., Williamston Michigan, 48895 USA

Engineer: John Nantz

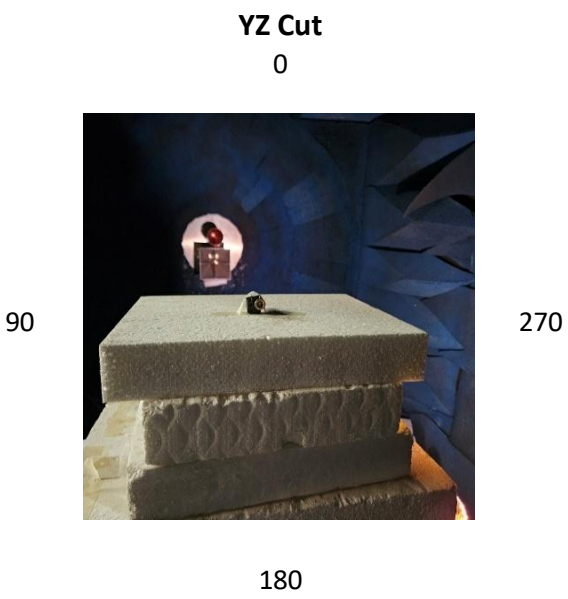
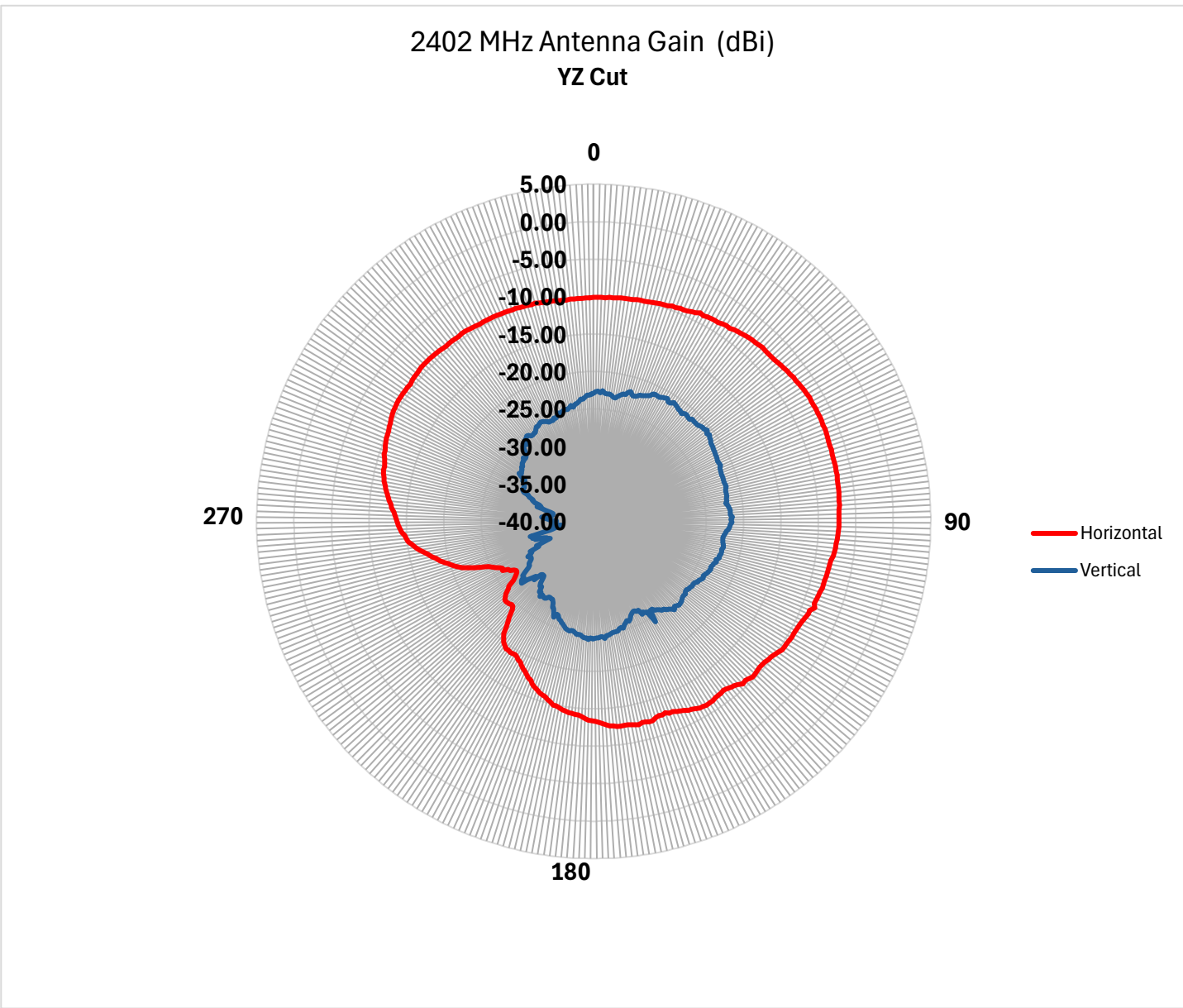
Equipment:	Description	Manufacturer	Calibration Info.
	Semi-anechoic Tapered Chamber	Willow Run Test Labs., Inc.	On Use
	Signal Analyzer	Rohde & Schwarz FSW67	Nov-26
	Double Ridge Horn	AH Systems SAS-571	Jan-27
	CAB018WHT 3.5mm Coax cable	Willow Run Test Labs., Inc.	Sep-26

Max gain: Horizontal Polarization: -0.85 dBi, Vertical Polarization: -12 dBi

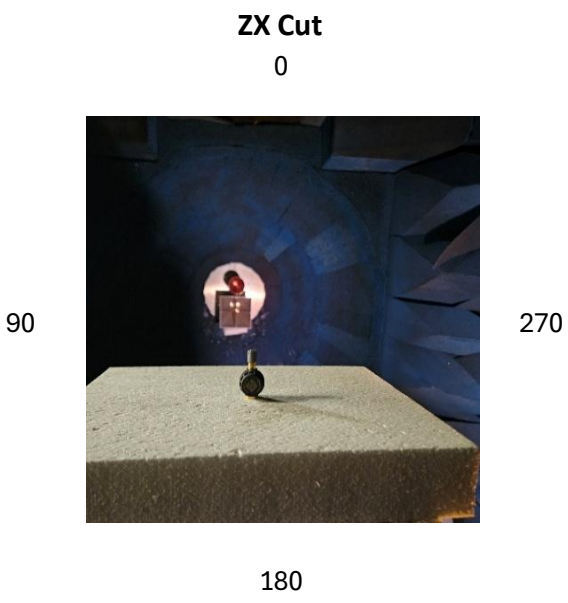
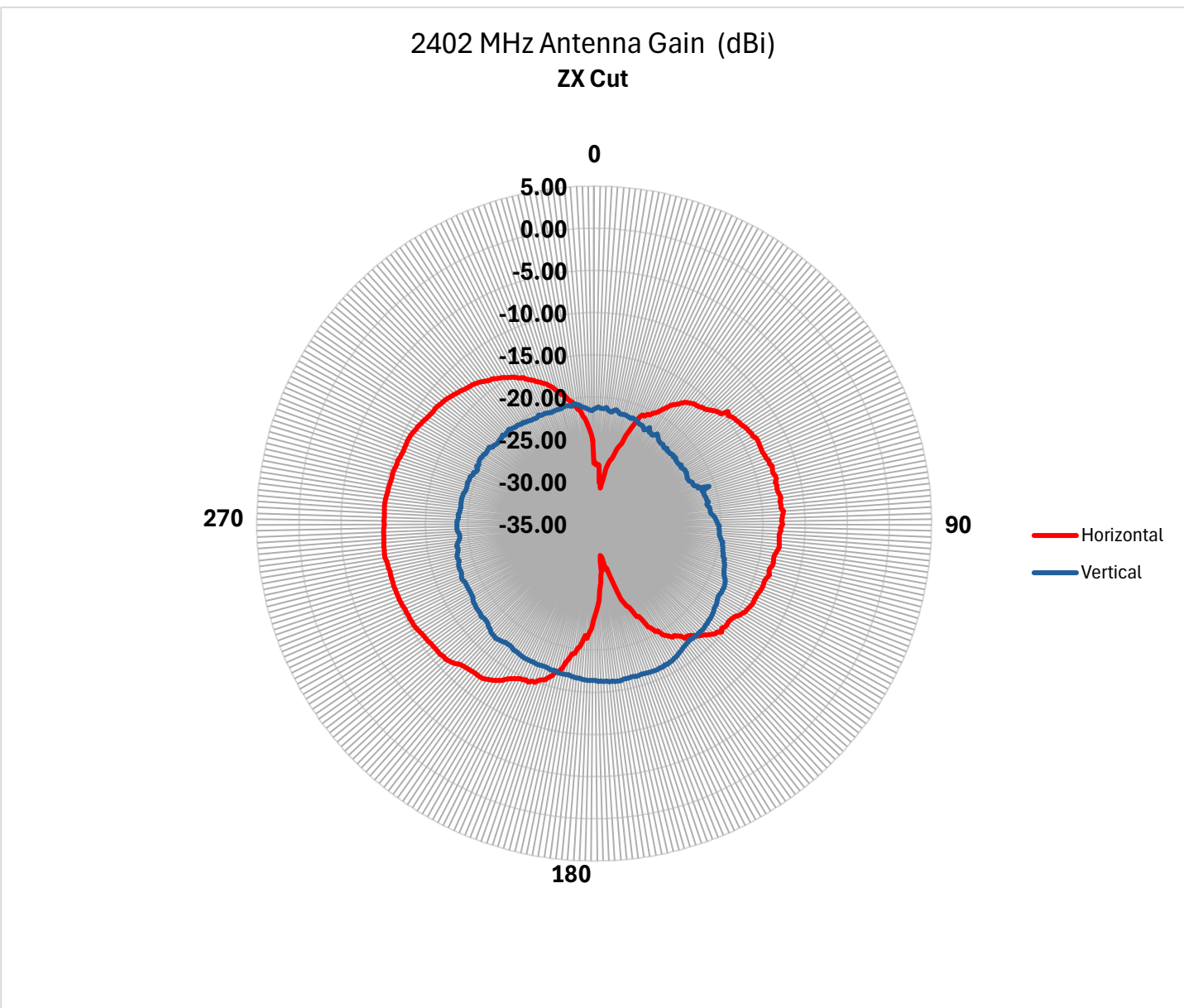
Gain (dBi)		
	Horizontal	Vertical
Min	-23.42	-25.71
Max	-0.85	-17.59
AVG	-6.25	-21.11



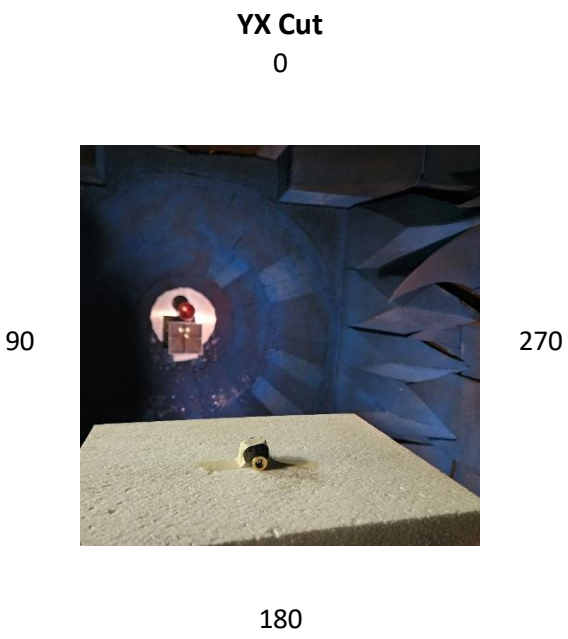
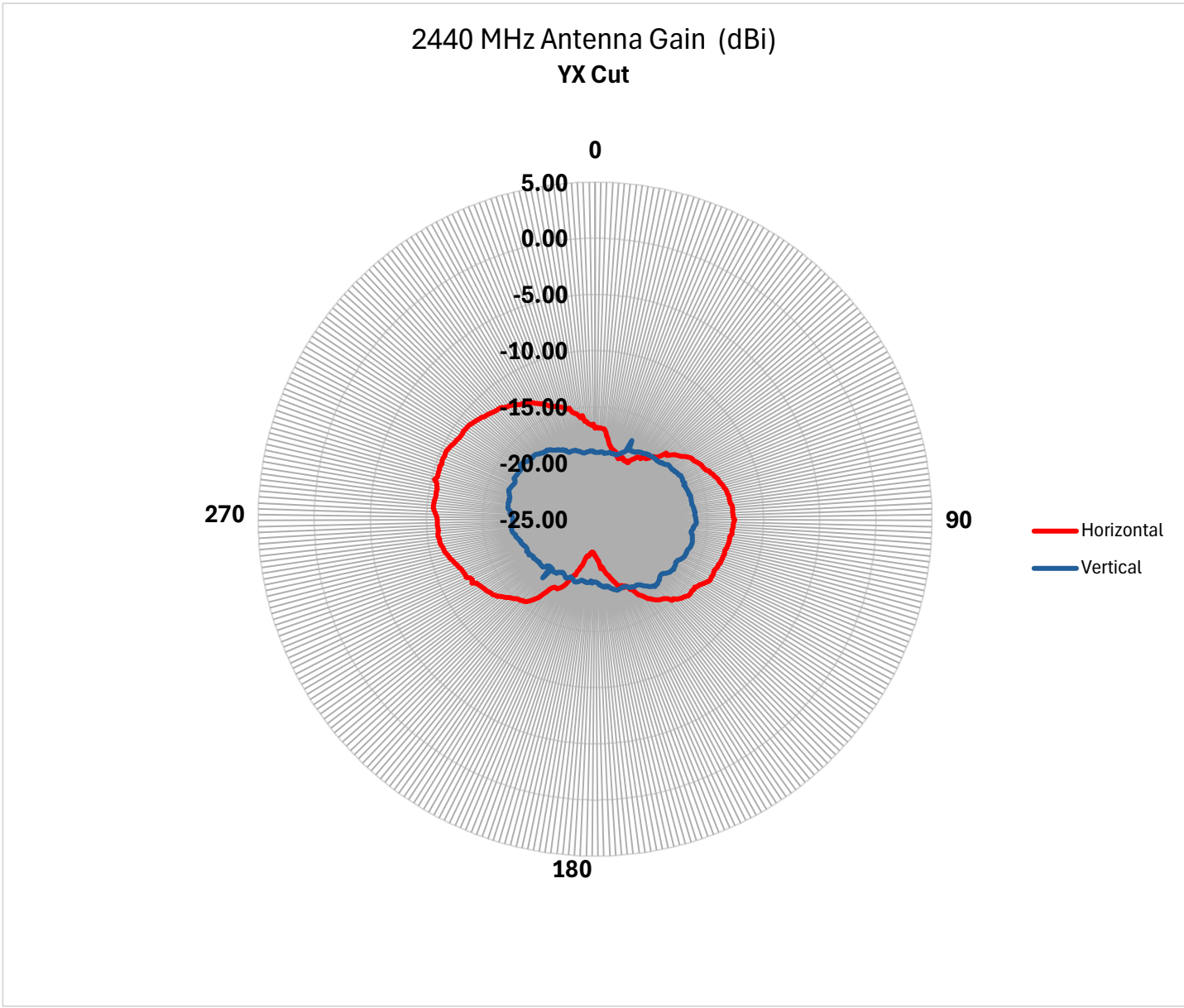
Gain (dBi)		
	Horizontal	Vertical
Min	-27.79	-35.68
Max	-6.71	-20.57
AVG	-12.09	-25.77



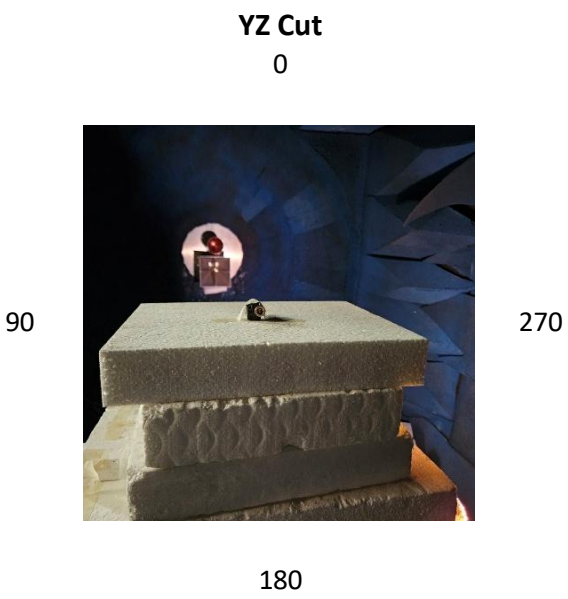
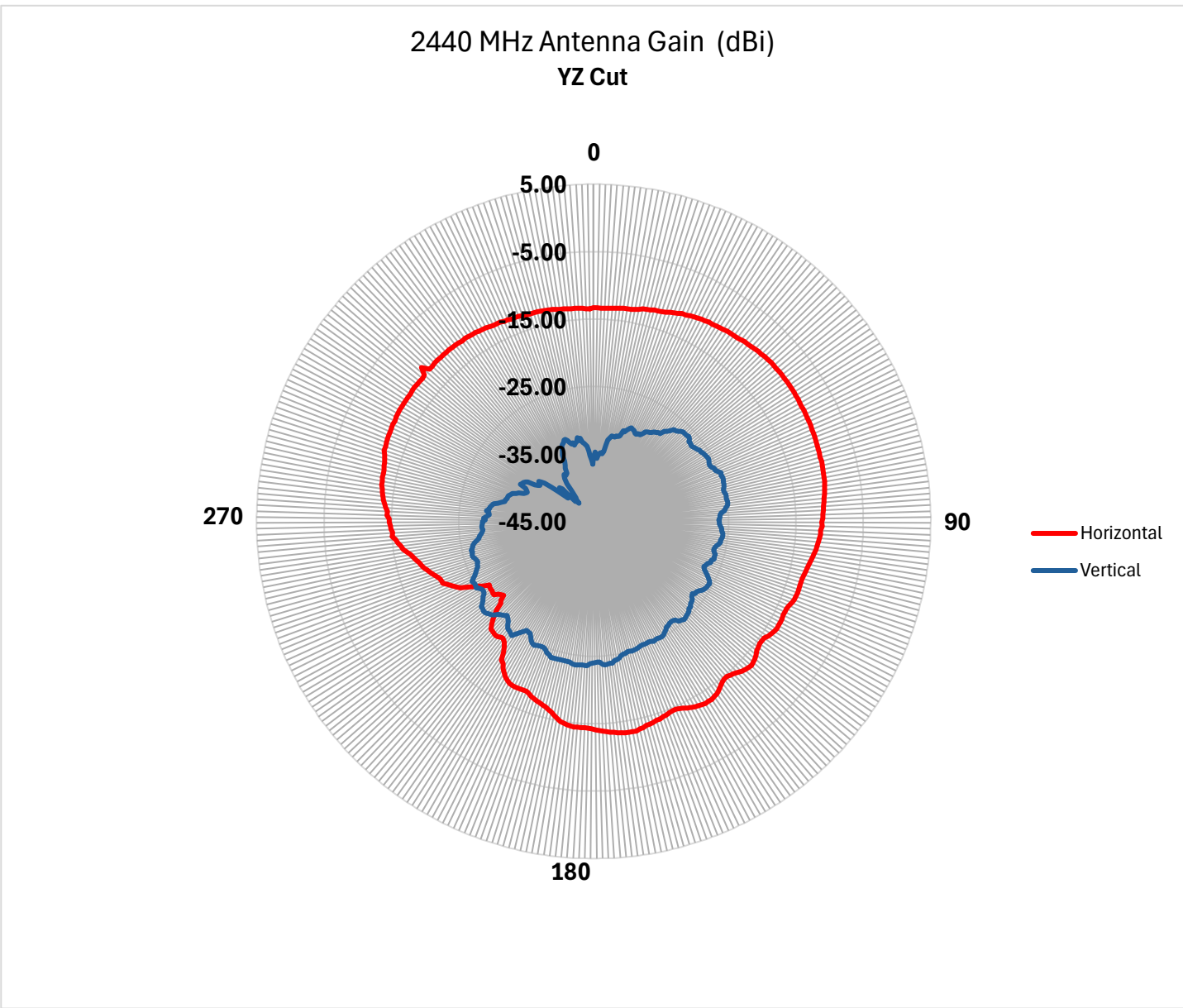
Gain (dBi)		
	Horizontal	Vertical
Min	-31.12	-22.79
Max	-9.89	-16.11
AVG	-16.11	-19.28



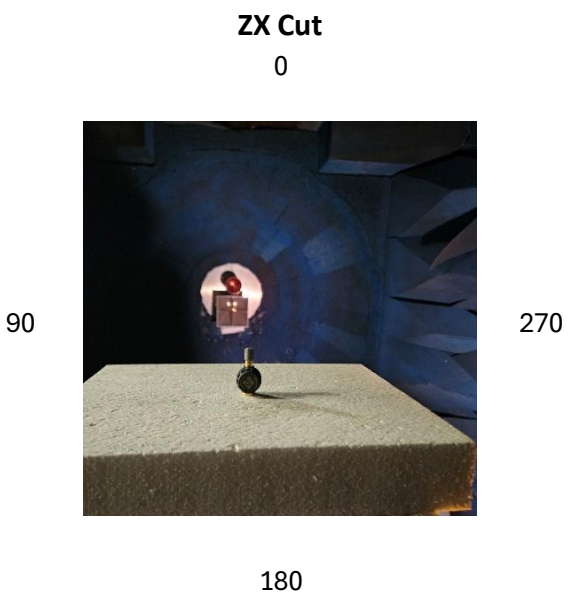
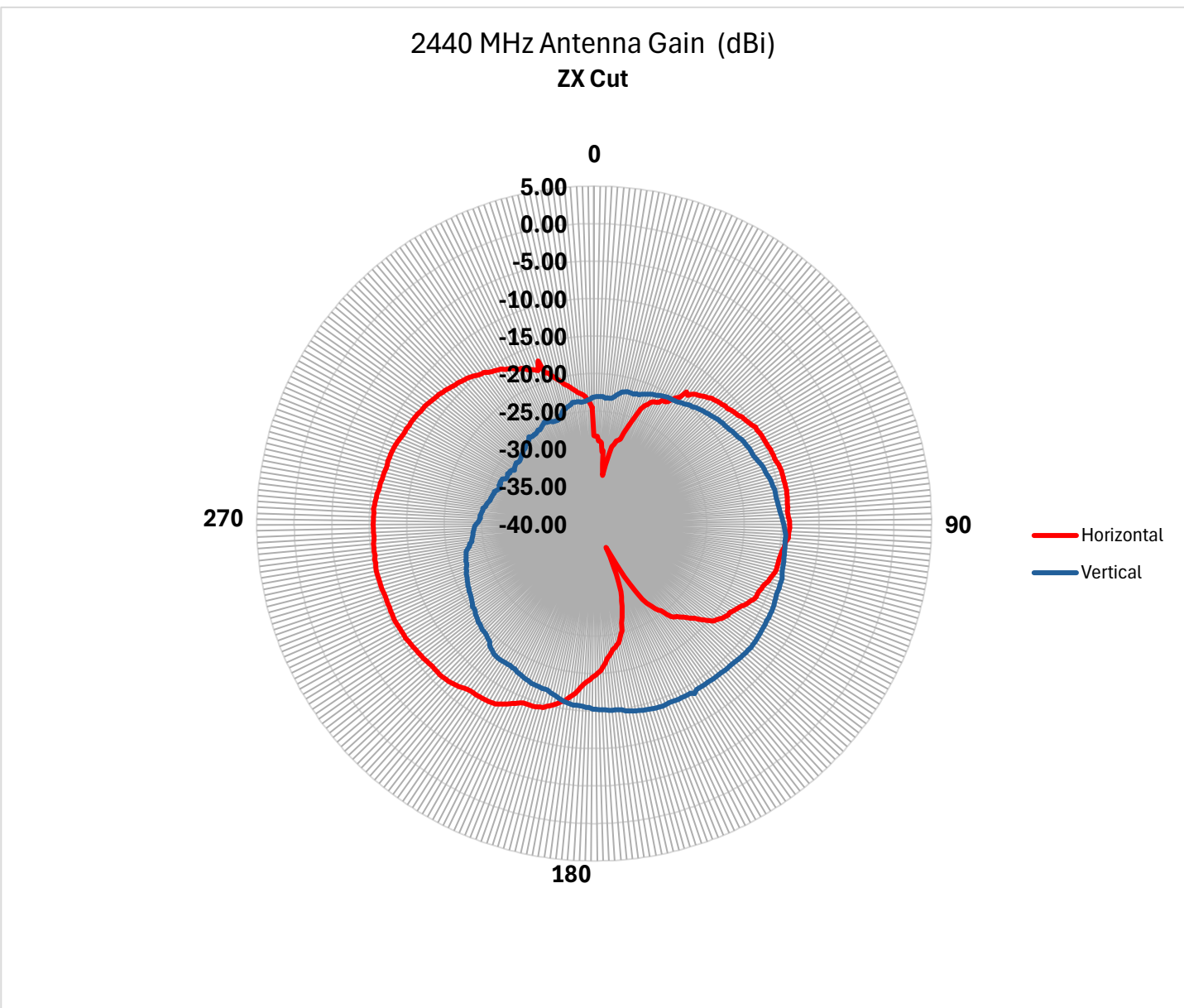
	Gain (dBi)	
	Horizontal	Vertical
Min	-22.06	-19.47
Max	-10.29	-15.98
AVG	-15.09	-17.83



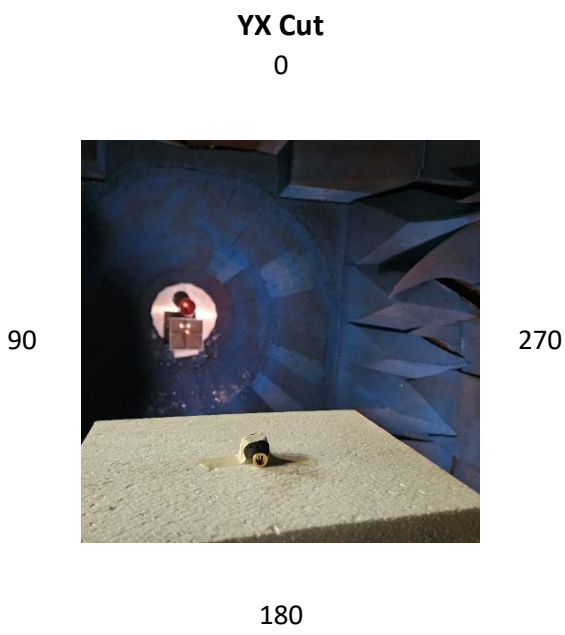
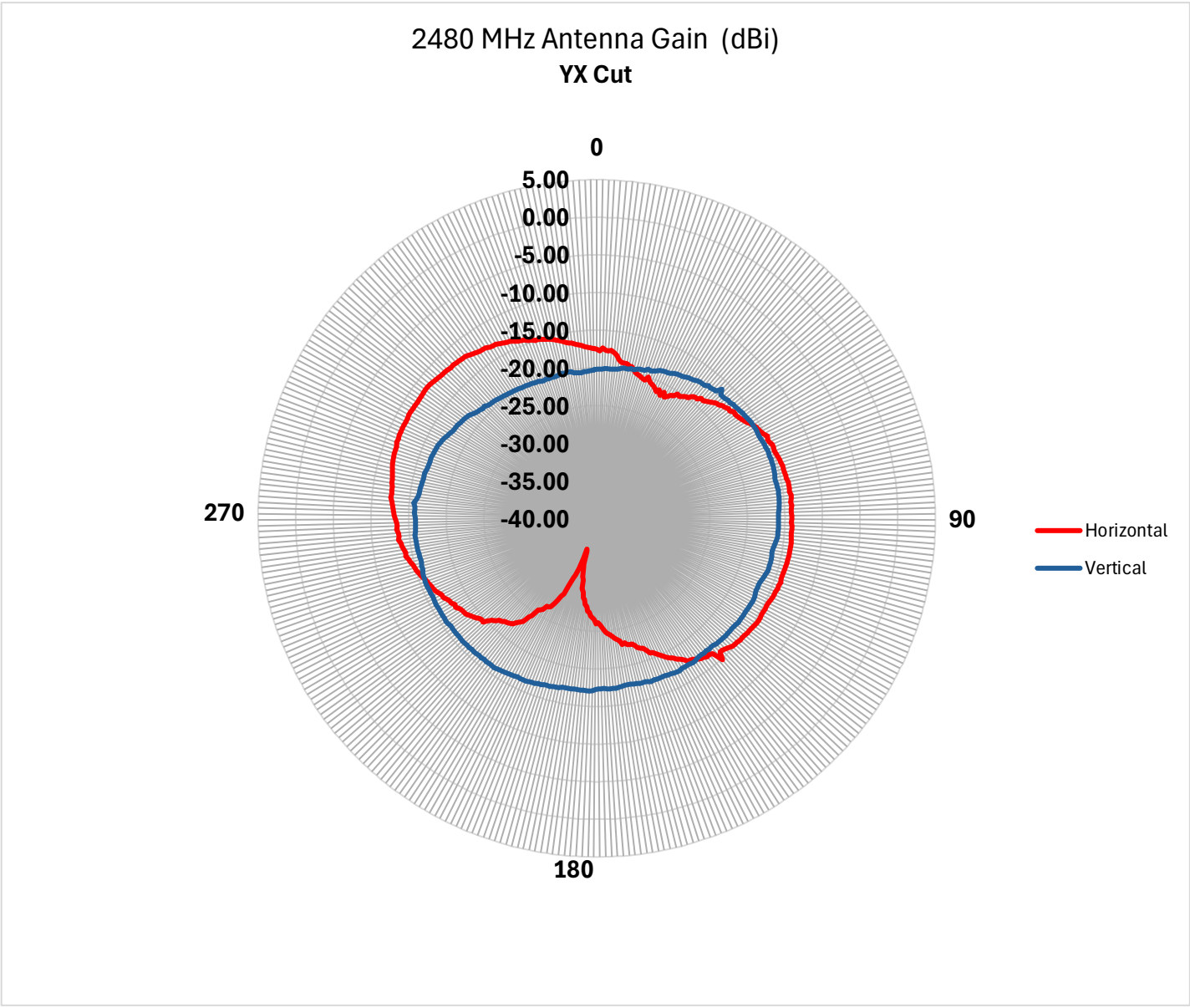
	Gain (dBi)	
	Horizontal	Vertical
Min	-27.73	-41.51
Max	-9.62	-23.57
AVG	-14.16	-28.42



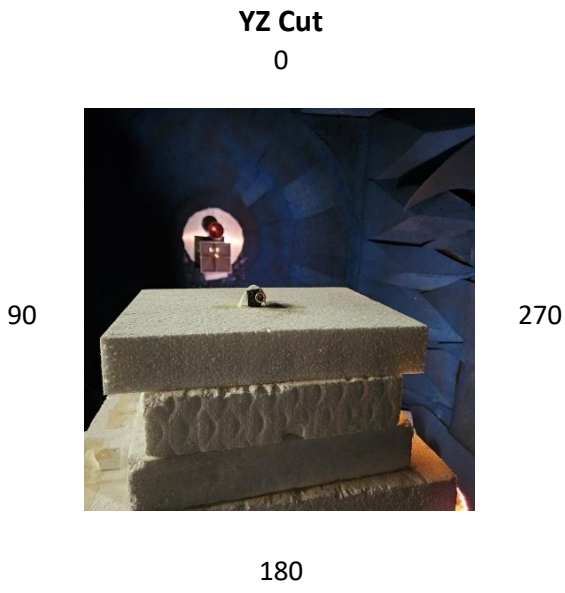
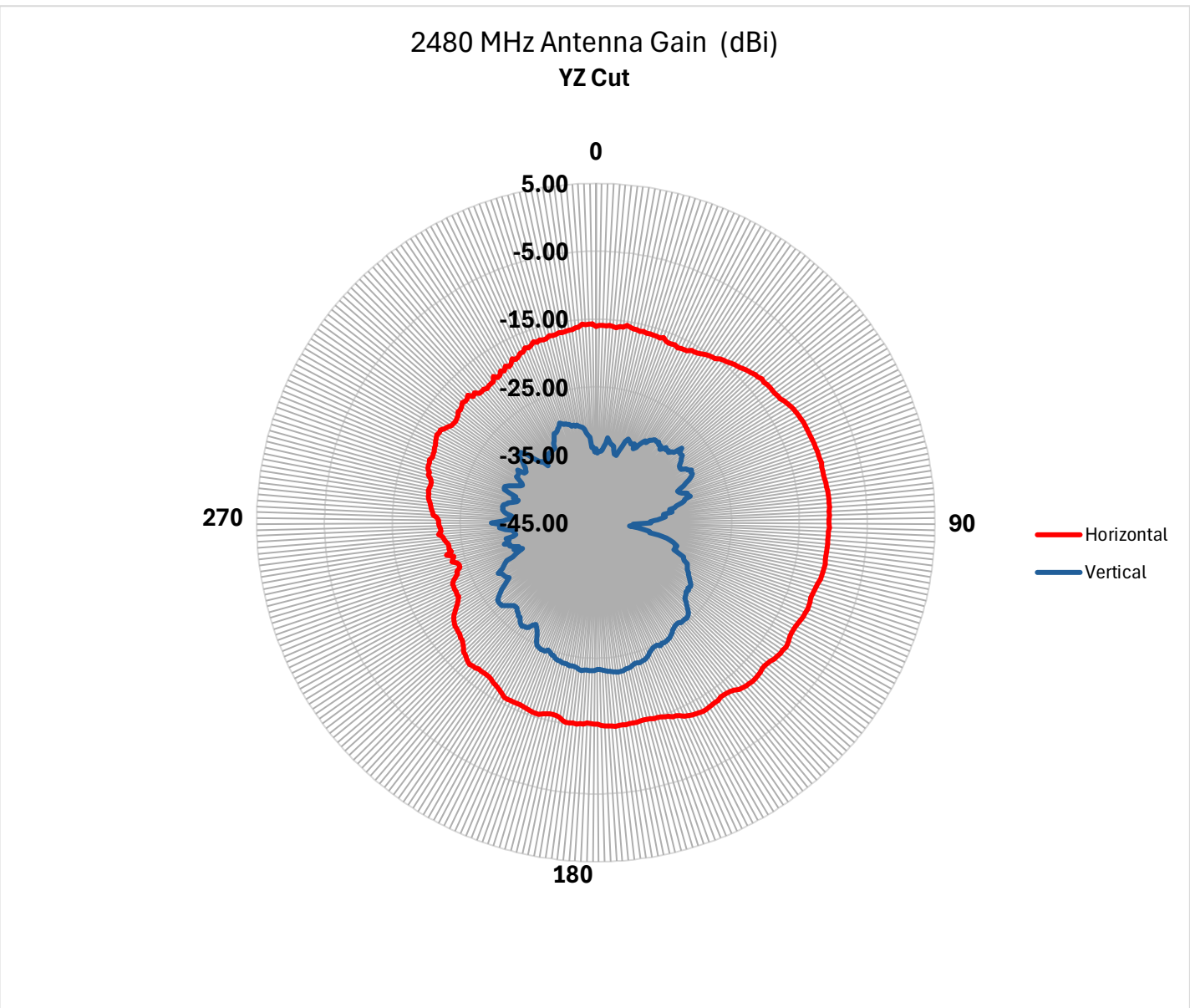
	Gain (dBi)	
	Horizontal	Vertical
Min	-36.48	-27.19
Max	-10.28	-13.36
AVG	-17.18	-19.53



	Gain (dBi)	
	Horizontal	Vertical
Min	-35.68	-20.56
Max	-11.51	-15.51
AVG	-17.53	-17.20



	Gain (dBi)	
	Horizontal	Vertical
Min	-23.91	-40.04
Max	-10.45	-22.70
AVG	-15.88	-29.85



	Gain (dBi)	
	Horizontal	Vertical
Min	-29.70	-24.92
Max	-11.82	-11.99
AVG	-16.23	-17.19

