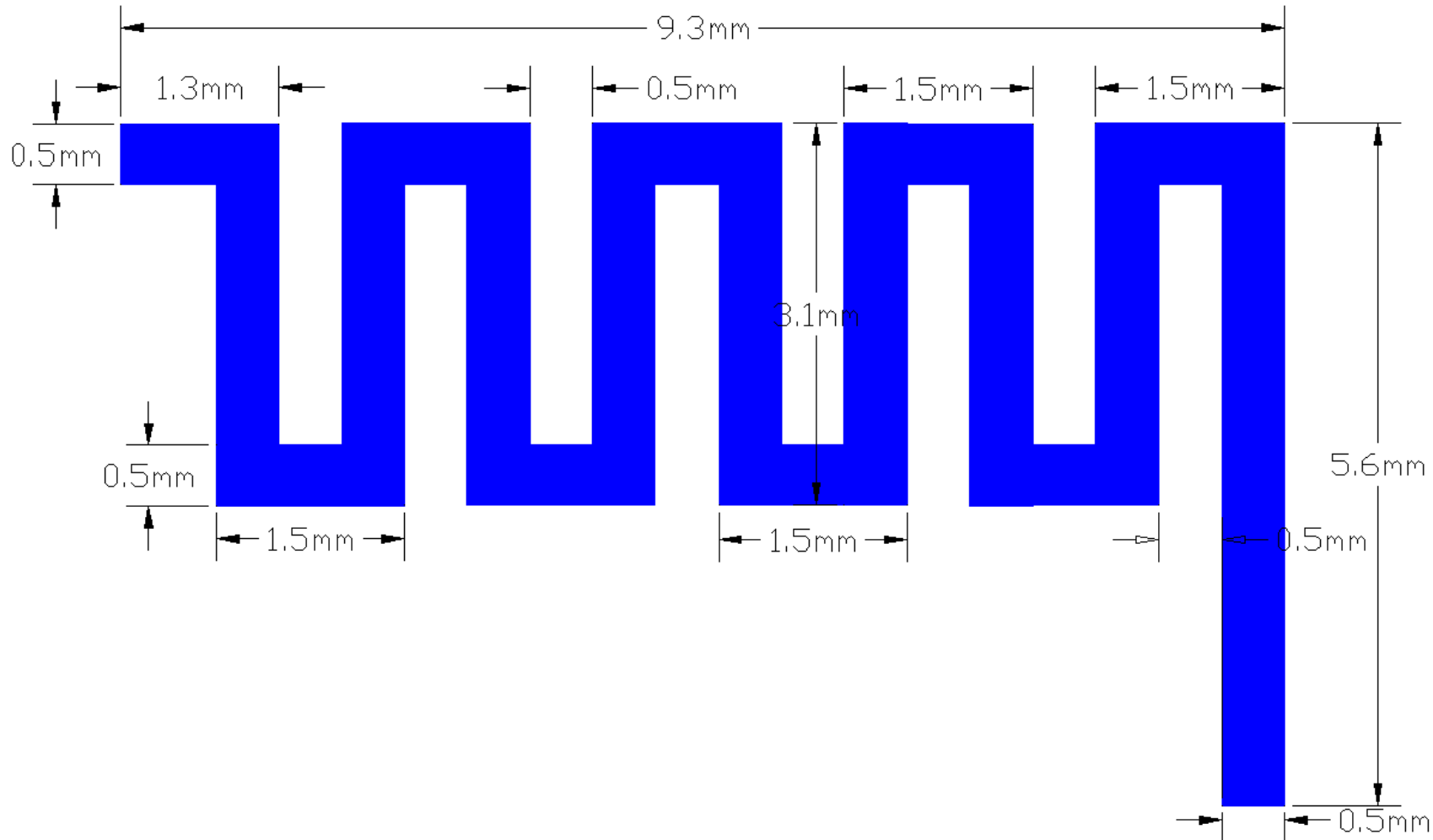


Antenna Specification

Specifications Summary

ITEM	SPEC.	
Antenna type	PCB Antenna	
Center Frequency	2402 MHz	1.33 dBi
	2441 MHz	1.59 dBi
	2480 MHz	1.78 dBi
MAX. GAIN	1.78 dBi	
Polarization	Horizontal	
Azimuth Beam Pattern	Omni-directional	
Impedance	50 Ω	
Antenna Length	3.12cm	

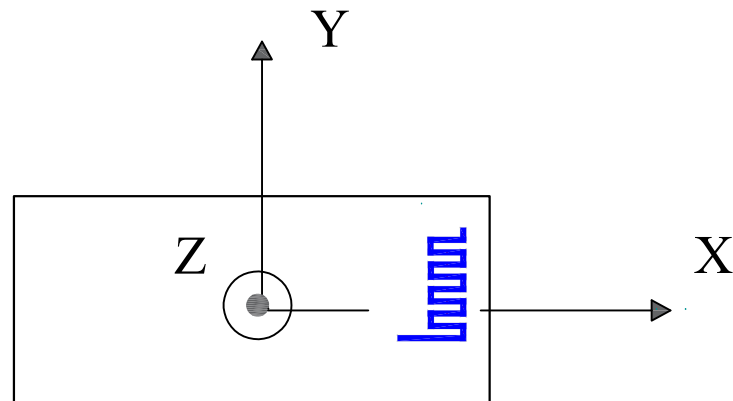
- Antenna Photo & Length(mm)



Coordinate System Reference: Antenna 1.

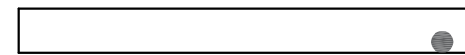
Top view

Front view

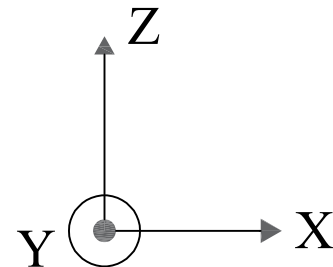


Side view

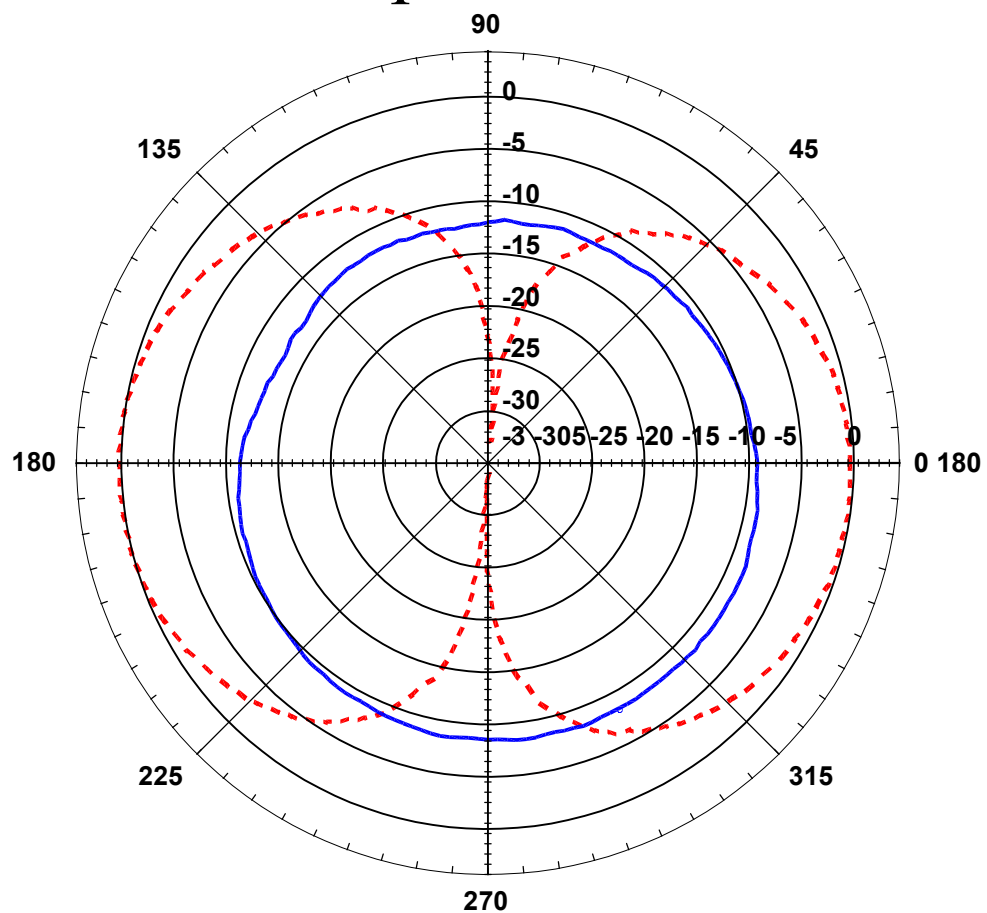
Front view



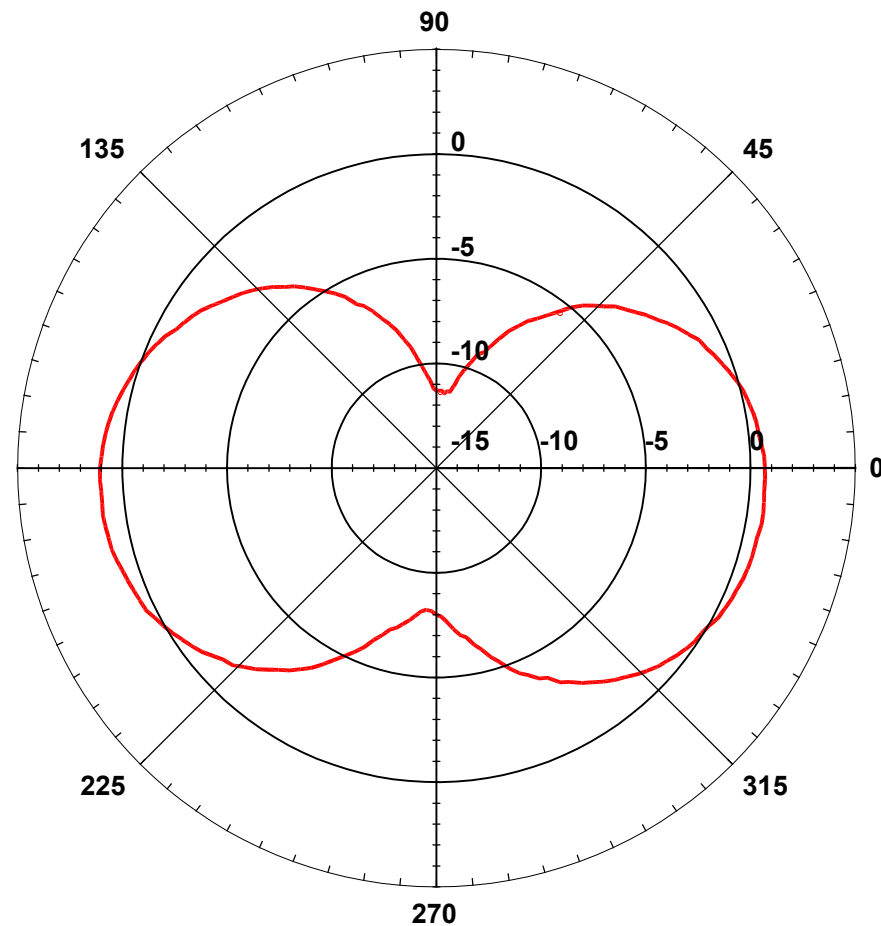
Rear view



Radiation pattern: Antenna 1. XZ Plane at $f = 2.402\text{GHz}$



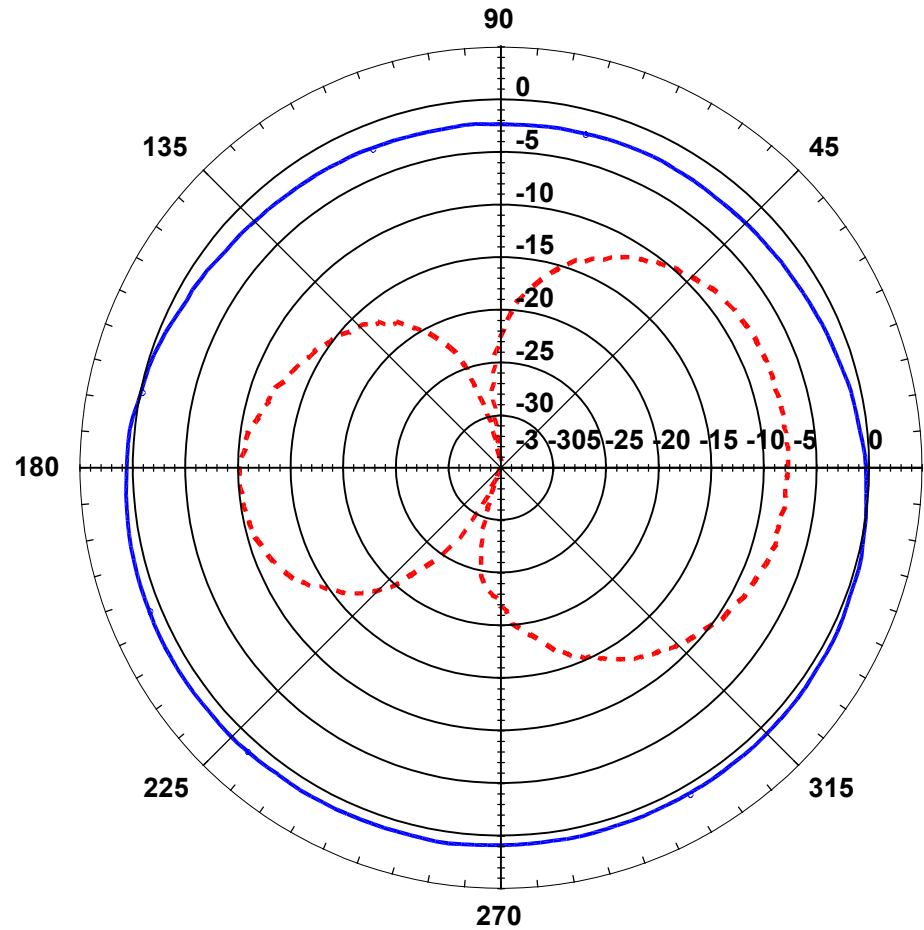
Co-cross polarization field (dBi)



Total field (dBi)

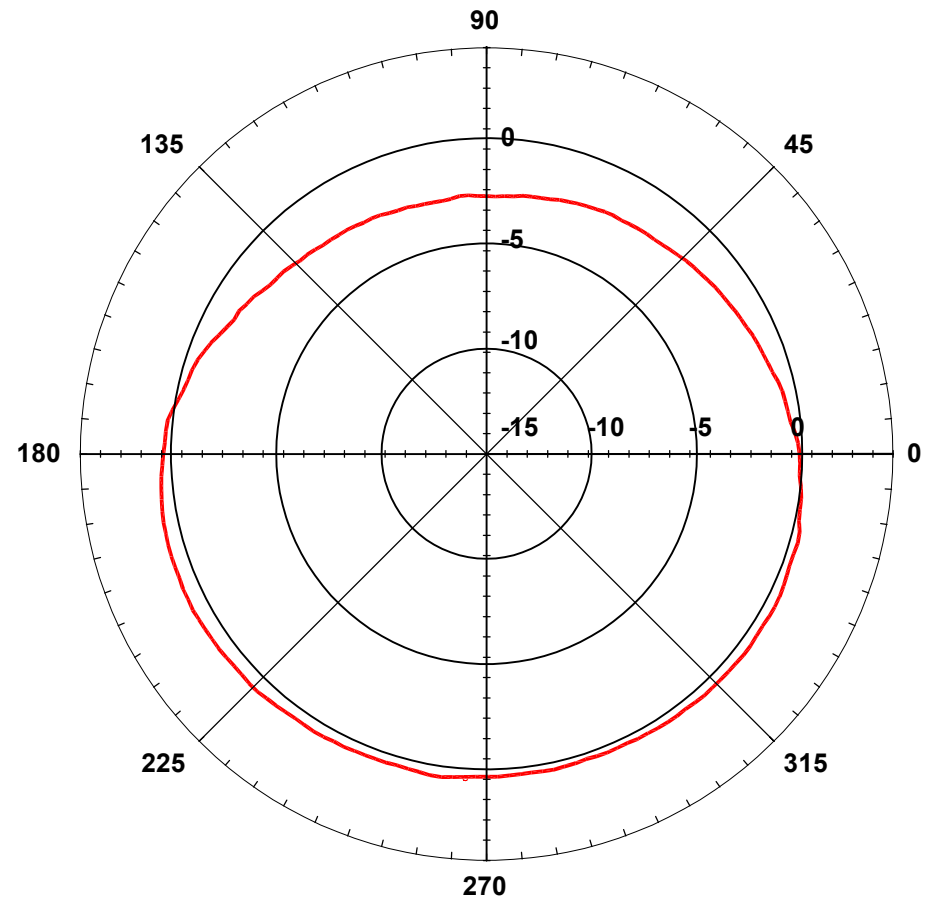
Solid line: vertical polarization
Dash line: horizontal polarization

Radiation pattern: Antenna 1. YZ Plane at $f = 2.402\text{GHz}$



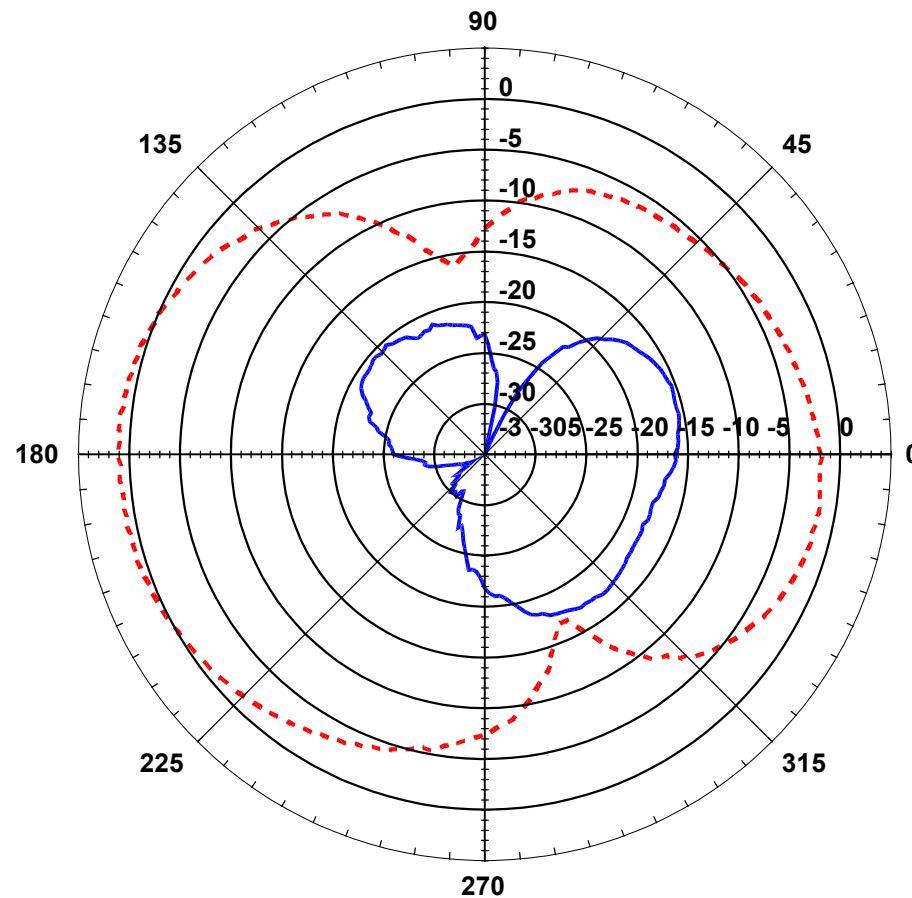
Co-cross polarization field (dBi)

Solid line: vertical polarization
Dash line: horizontal polarization

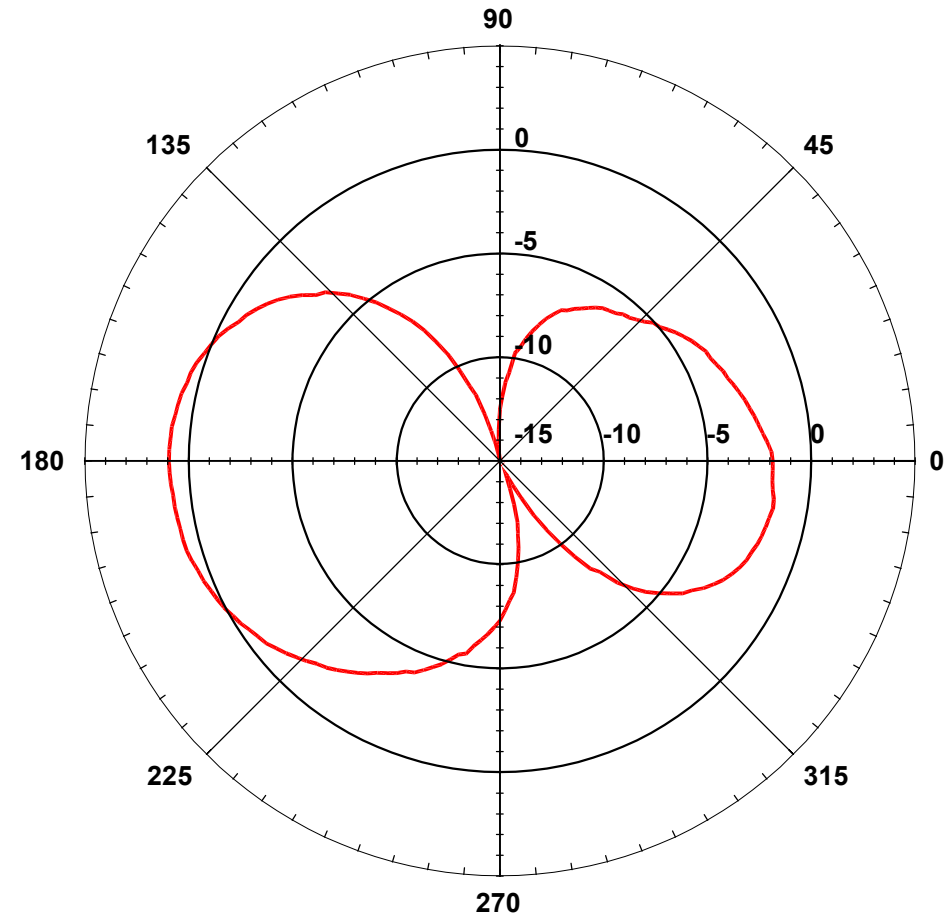


Total field (dBi)

Radiation pattern: Antenna 1. XY Plane at $f = 2.402\text{GHz}$



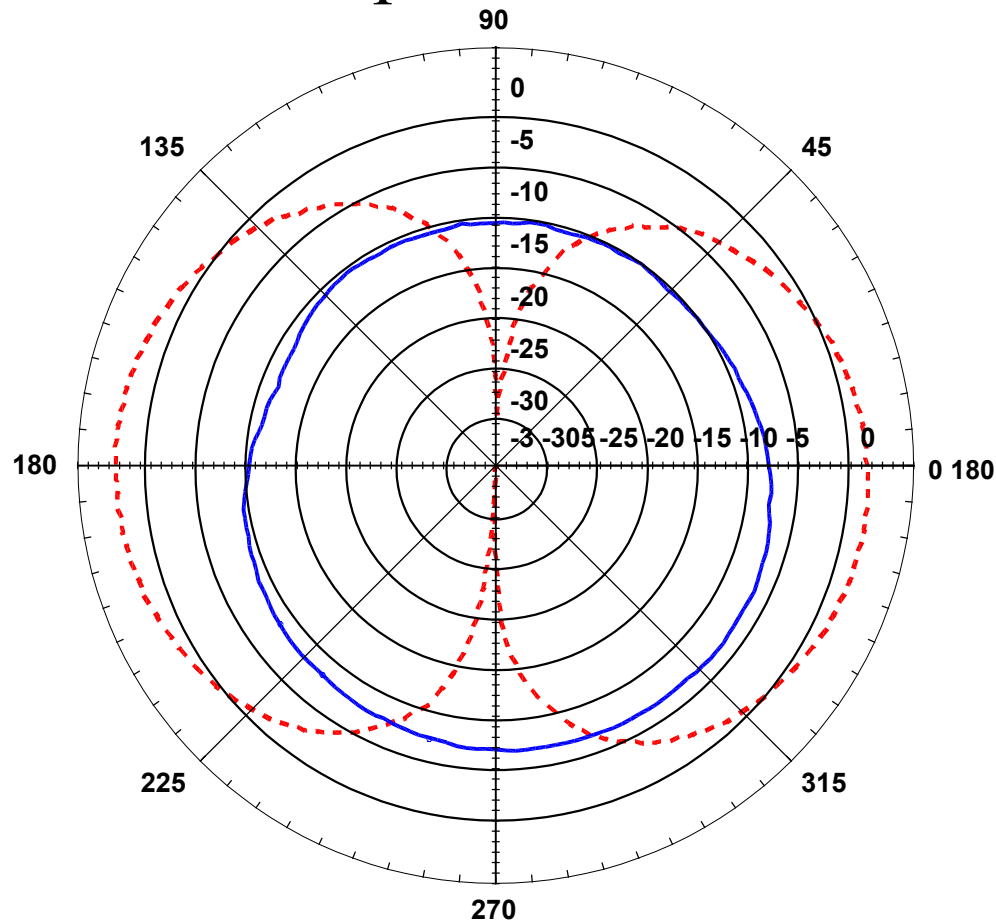
Co-cross polarization field (dBi)



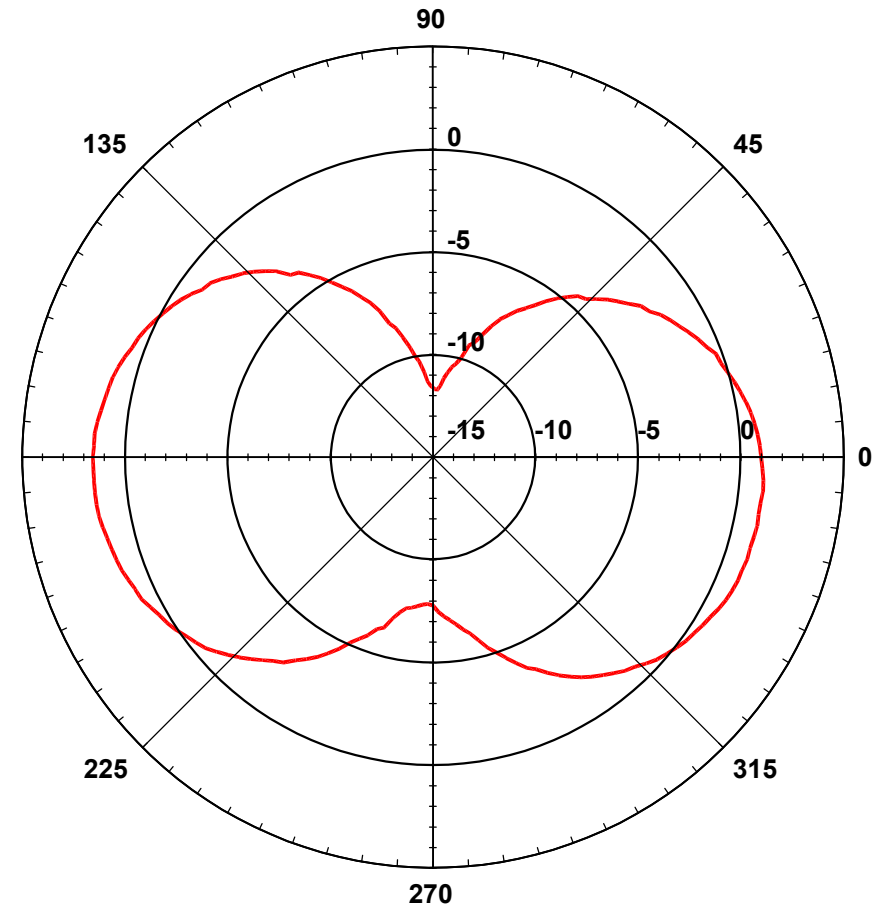
Total field (dBi)

Solid line: vertical polarization
Dash line: horizontal polarization

Radiation pattern: Antenna 1. XZ Plane at $f = 2.441\text{GHz}$



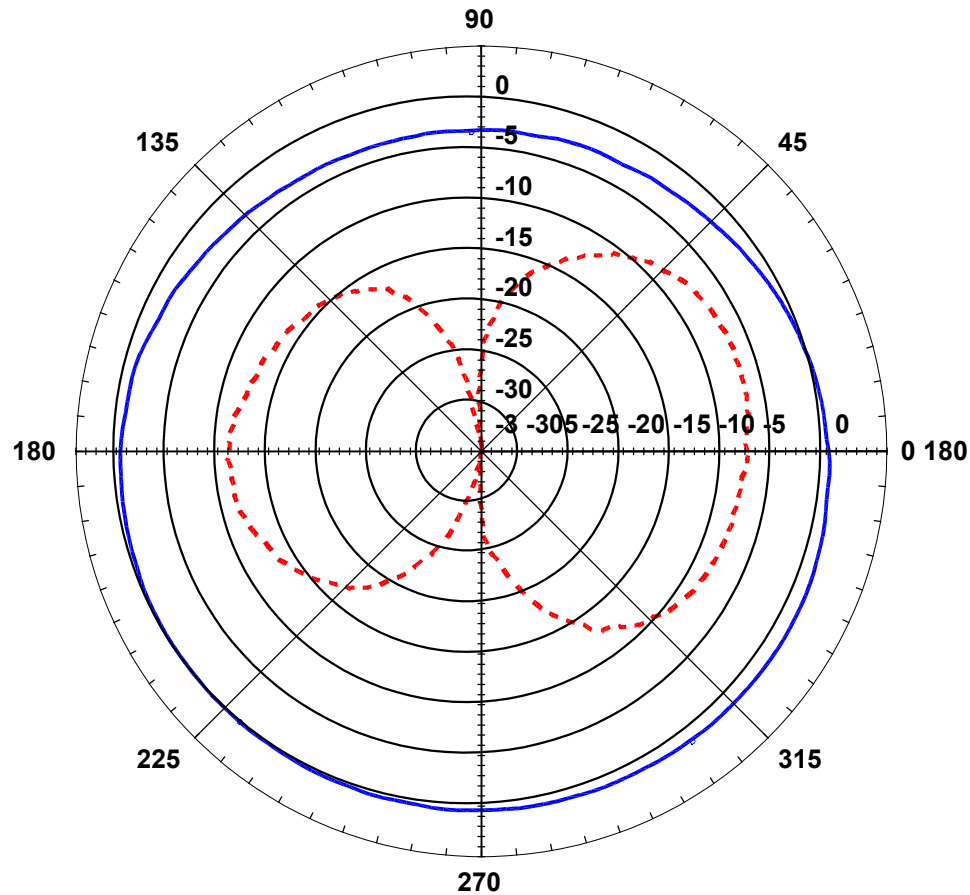
Co-cross polarization field (dBi)



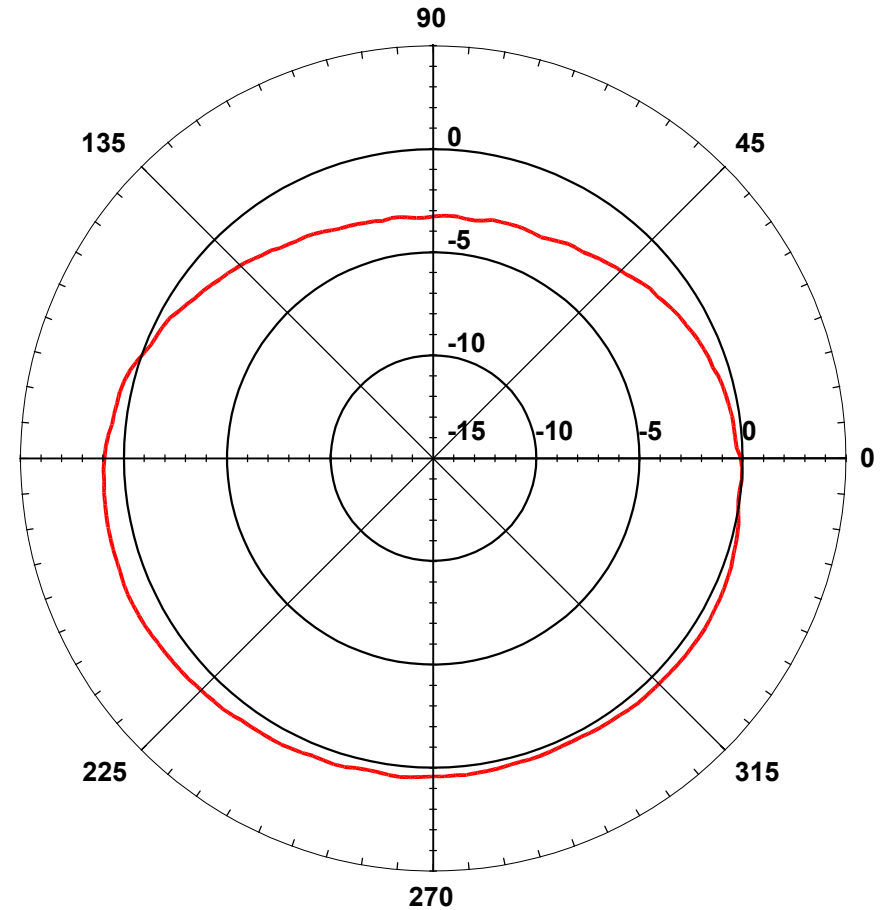
Total field (dBi)

Solid line: vertical polarization
Dash line: horizontal polarization

Radiation pattern: Antenna 1. YZ Plane at $f = 2.441\text{GHz}$



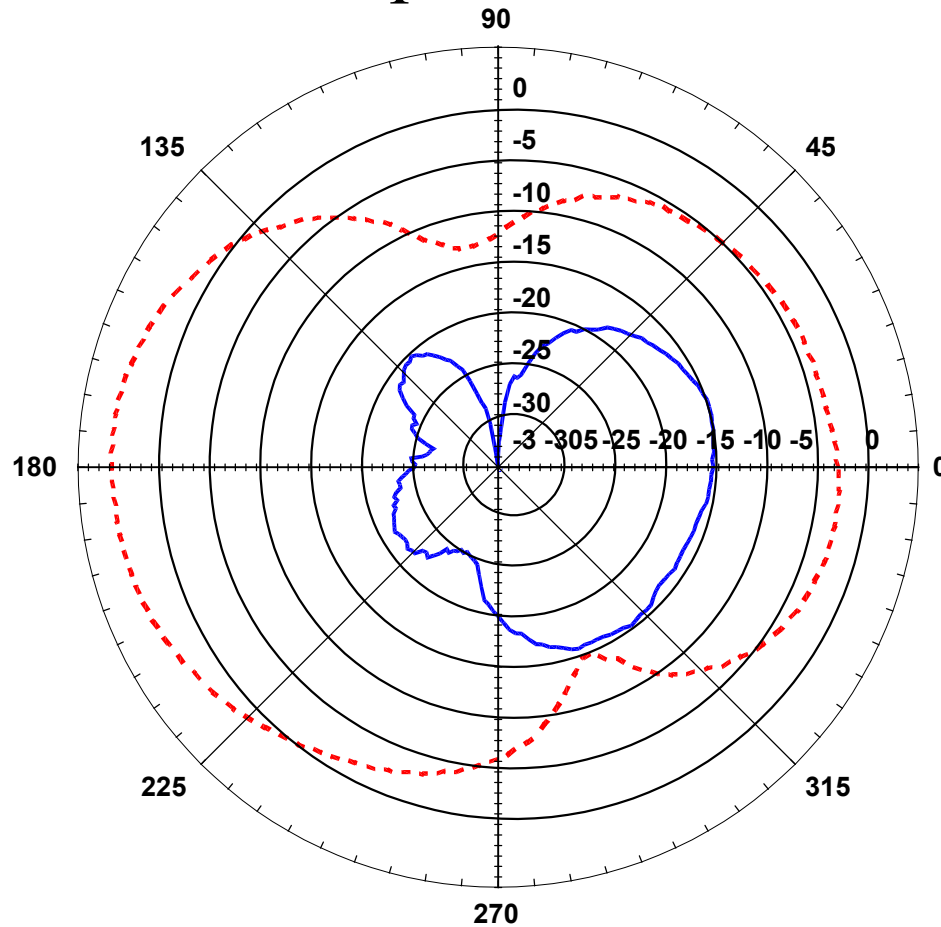
Co-cross polarization field (dBi)



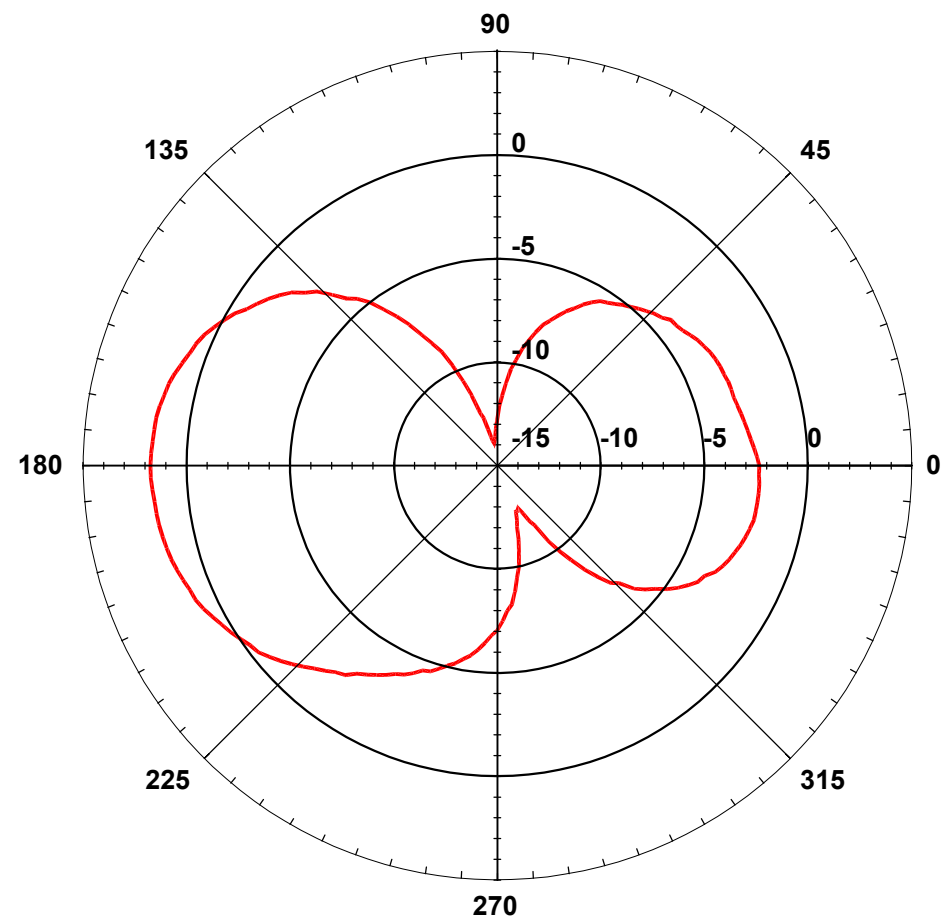
Total field (dBi)

Solid line: vertical polarization
Dash line: horizontal polarization

Radiation pattern: Antenna 1. XY Plane at $f = 2.441\text{GHz}$



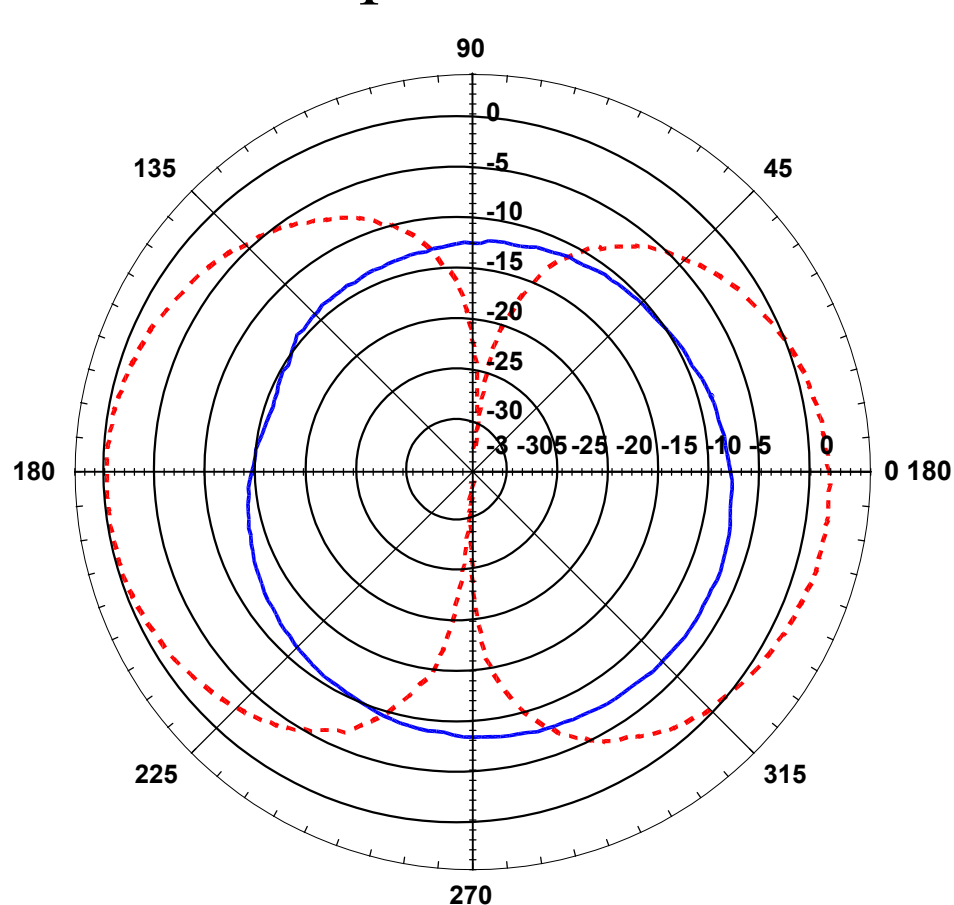
Co-cross polarization field (dBi)



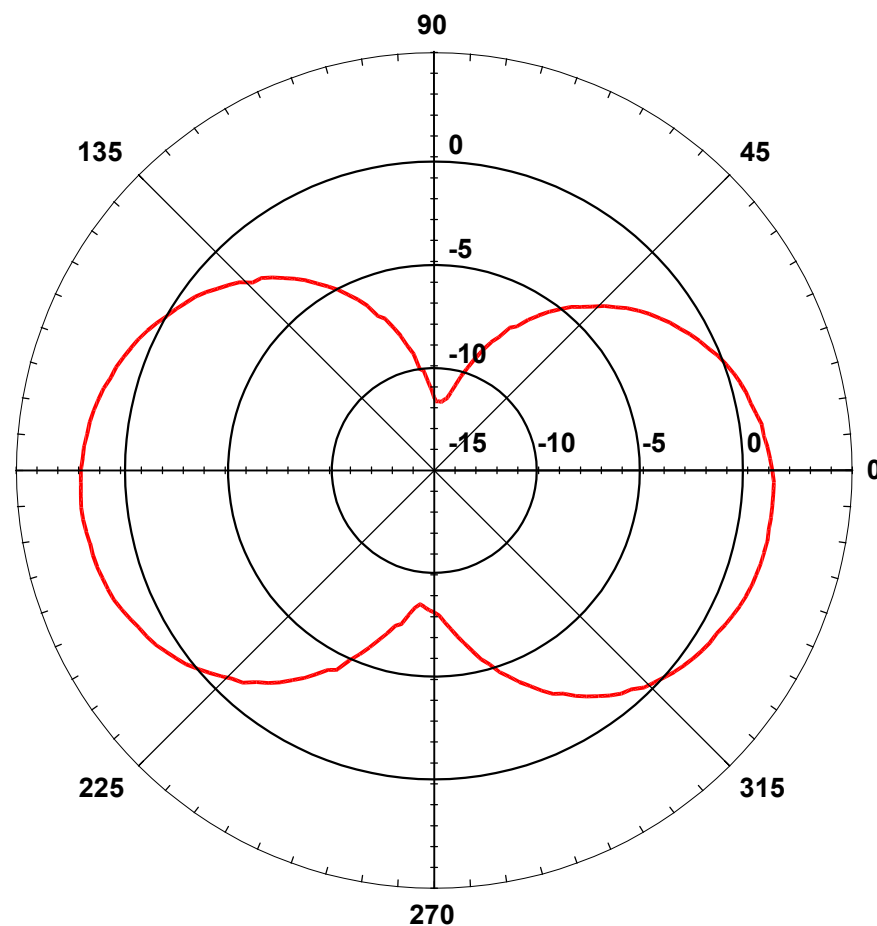
Total field (dBi)

Solid line: vertical polarization
Dash line: horizontal polarization

Radiation pattern: Antenna 1. XZ Plane at $f = 2.480\text{GHz}$



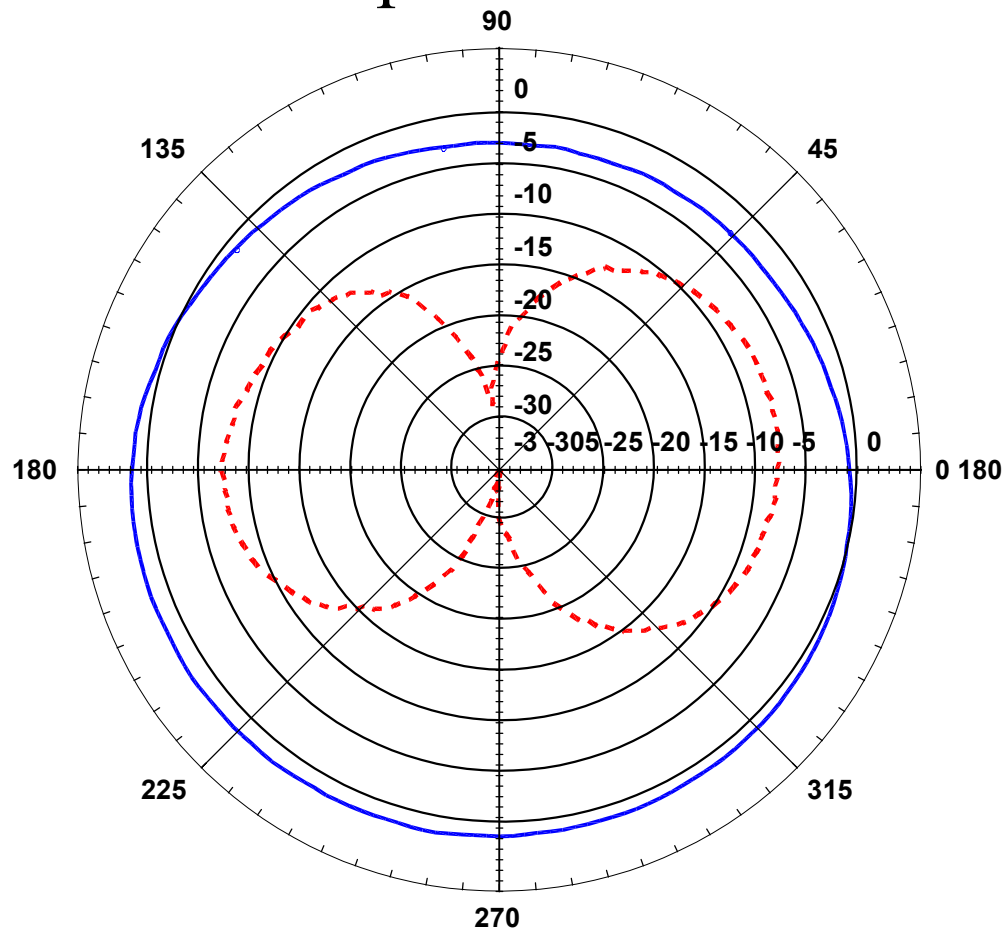
Co-cross polarization field (dBi)



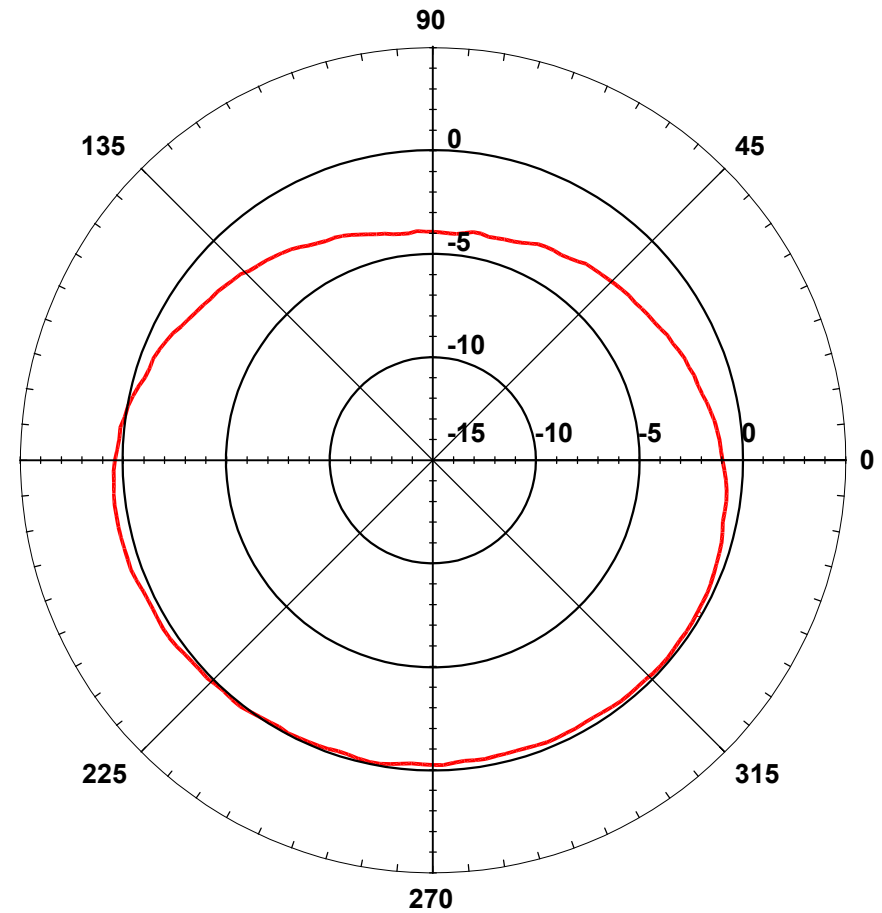
Total field (dBi)

Solid line: vertical polarization
Dash line: horizontal polarization

Radiation pattern: Antenna 1. YZ Plane at $f = 2.480\text{GHz}$



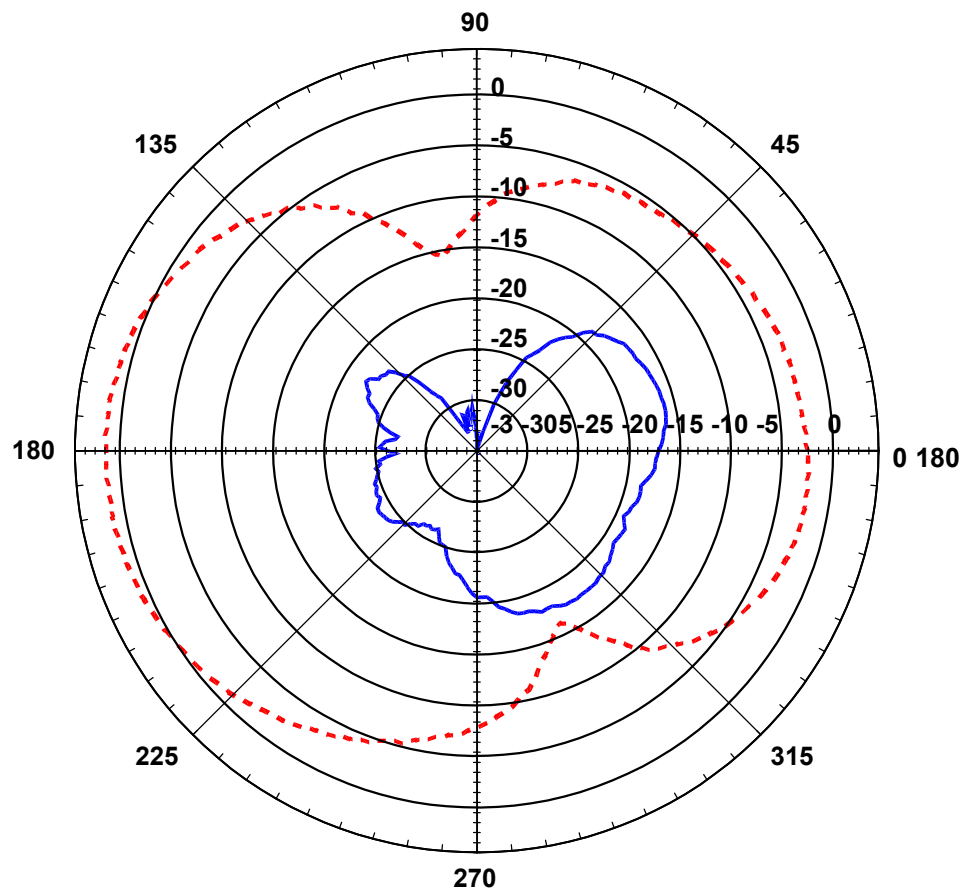
Co-cross polarization field (dBi)



Total field (dBi)

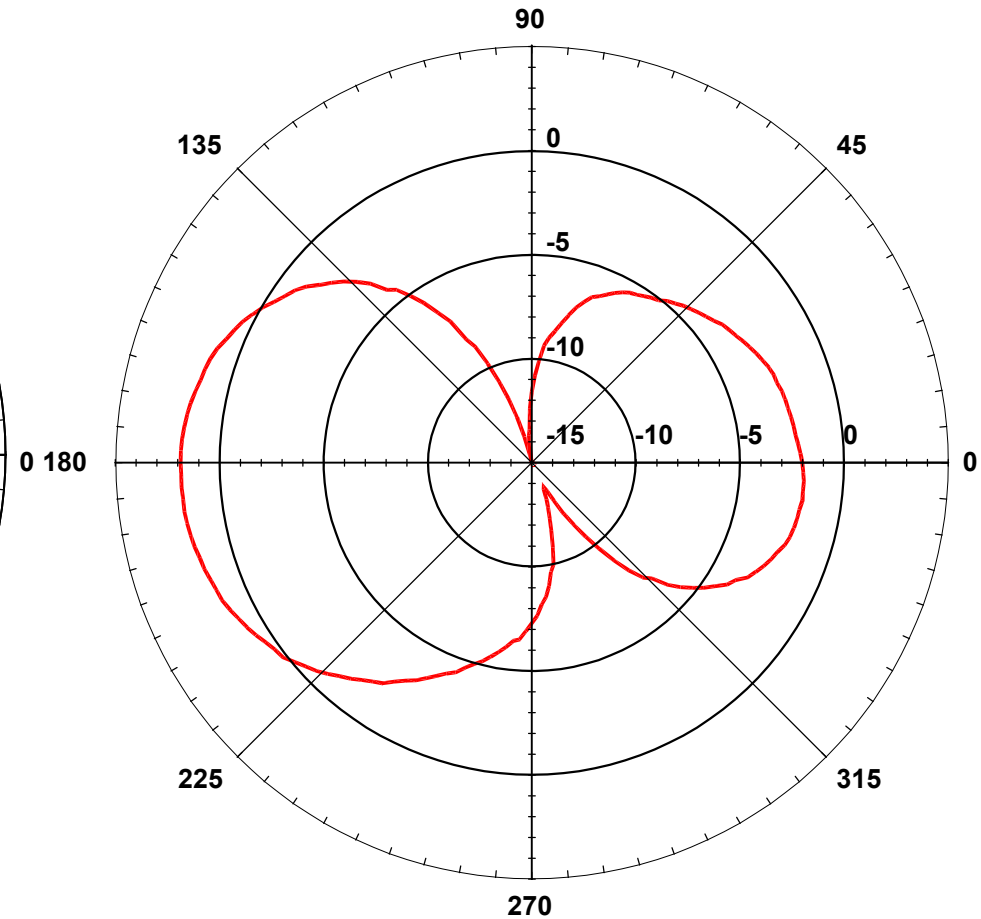
Solid line: vertical polarization
Dash line: horizontal polarization

Radiation pattern: Antenna 1. XY Plane at $f = 2.480\text{GHz}$



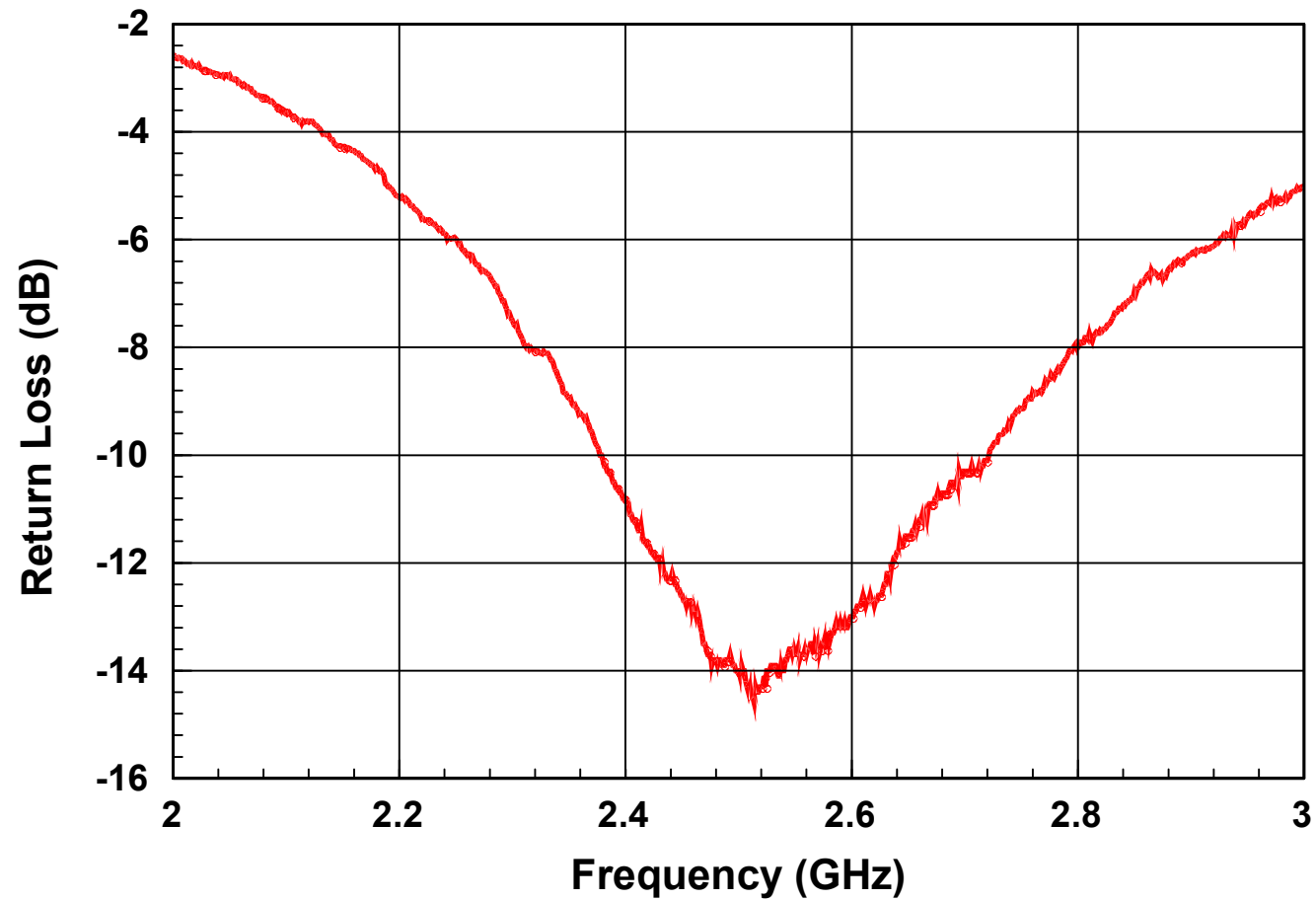
Co-cross polarization field (dBi)

Solid line: vertical polarization
Dash line: horizontal polarization



Total field (dBi)

Return Loss: Antenna 1



BW(-10dB) 13.48%

Measurements summary

	Frequency (GHz)	Plane	Return Loss (dB)	Polarization	Gain max. (dBi)	θ for Gain max.	ϕ for Gain max.
Antenna 1							
	2.402	XZ	-10.90	Vertical	-7.8	290	
	2.402	XZ	-10.90	Horizontal	0.786	182	
	2.402	YZ	-10.90	Vertical	1.33	226	
	2.402	YZ	-10.90	Horizontal	-7.75	10	
	2.402	XY	-10.90	Vertical	-15.4		20
	2.402	XY	-10.90	Horizontal	0.93		180
	2.441	XZ	-12.20	Vertical	-7.36	318	
	2.441	XZ	-12.20	Horizontal	1.32	180	
	2.441	YZ	-12.20	Vertical	0.981	204	
	2.441	YZ	-12.20	Horizontal	-8.23	24	
	2.441	XY	-12.20	Vertical	-14.1		-14
	2.441	XY	-12.20	Horizontal	1.59		180
	2.48	XZ	-13.80	Vertical	-7.95	312	
	2.48	XZ	-13.80	Horizontal	1.18	186	
	2.48	YZ	-13.80	Vertical	0.204	214	
	2.48	YZ	-13.80	Horizontal	-8.38	8	
	2.48	XY	-13.80	Vertical	-15.8		12
	2.48	XY	-13.80	Horizontal	1.78		180