Antenna Specification

By *Alfred Grau*

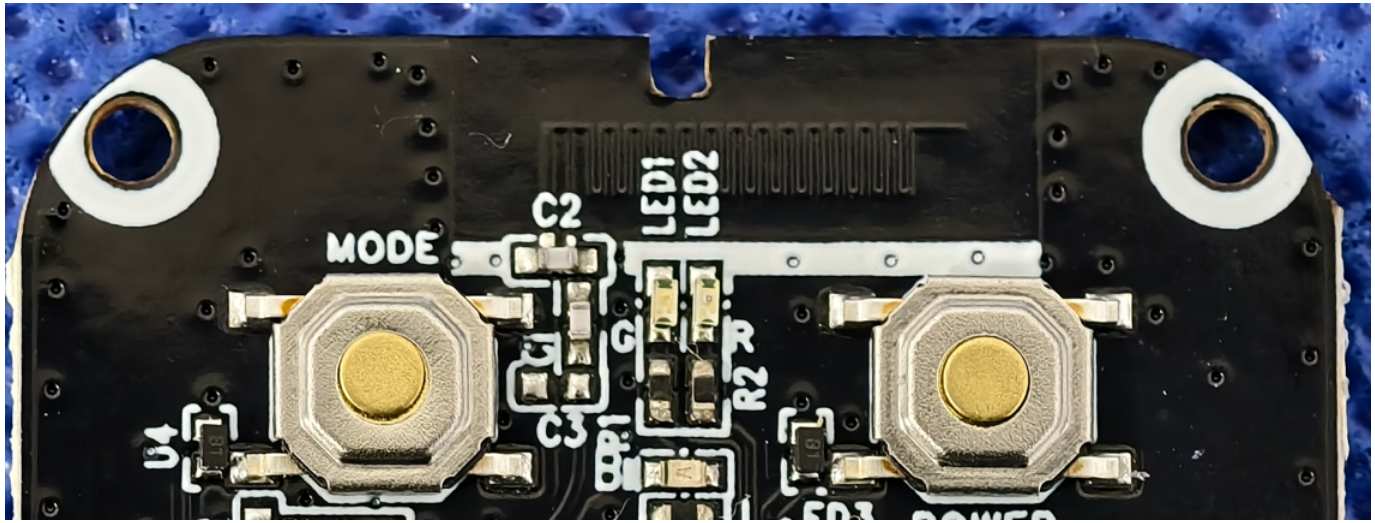
Manufacture: Shenzhen Senxia Technology Co., Ltd
Address: 1st Floor, Building 9, Shen'ao Cultural Industry Park, Dafa Pu Community, Bantian Street, Longgang District, Shenzhen

Tested Products.

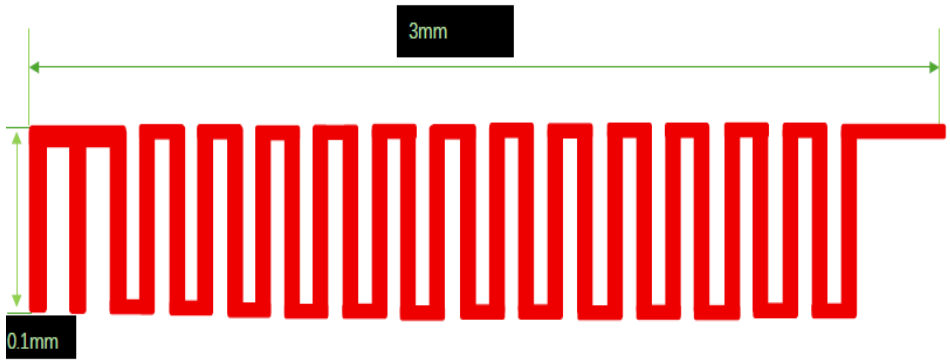
- Antenna 1: PCB antenna.
  - Frequency = 2.402GHz.
  - Frequency = 2.441GHz.
  - Frequency = 2.480GHz.

Coordinate System Reference: Antenna 1 （(Model:SX-TRACE-24G-001

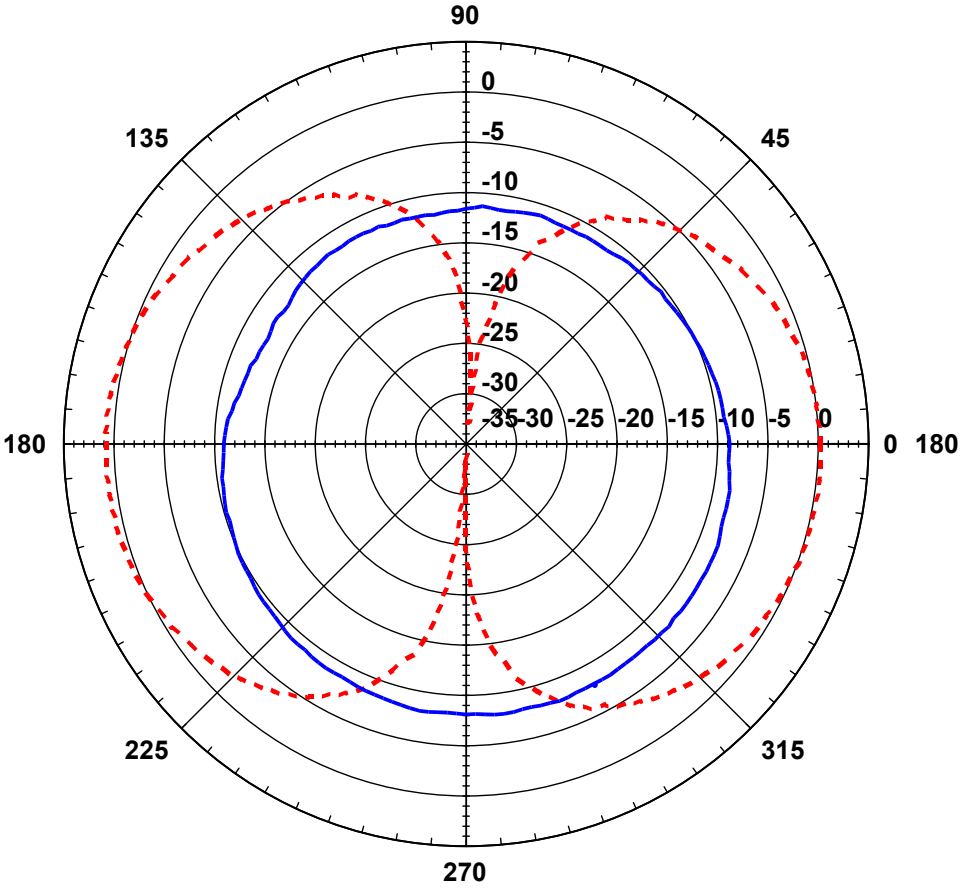
Antenna Layout & module on the system board



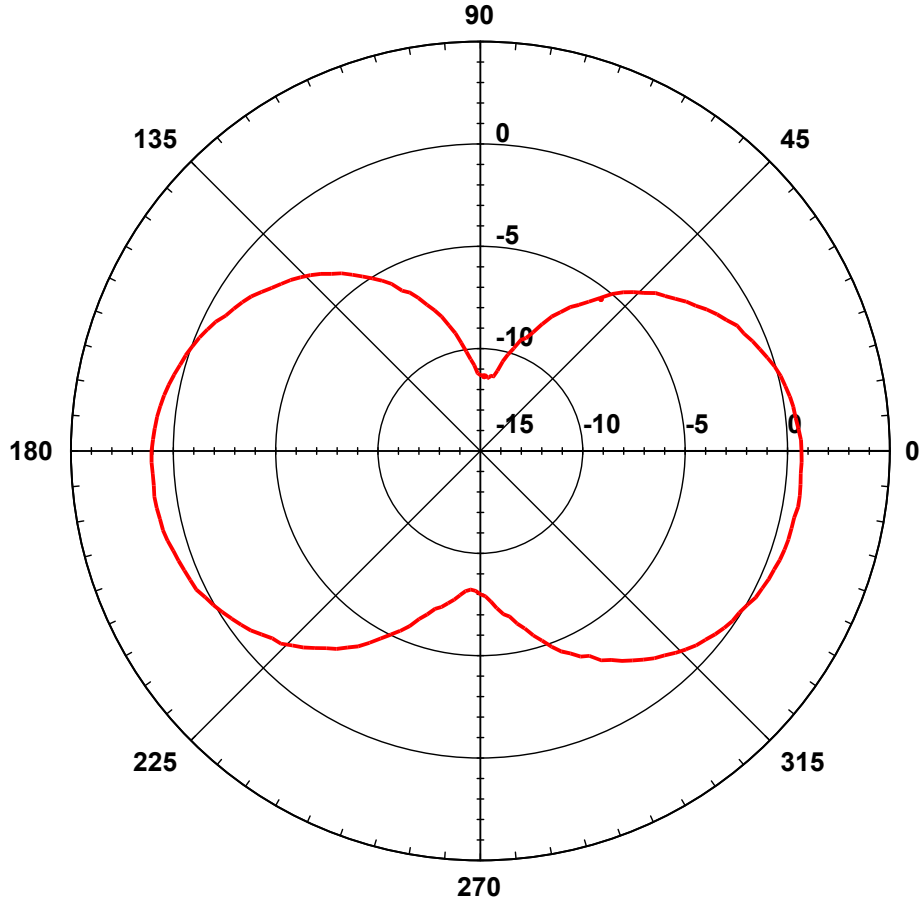
Unit: mm



Radiation pattern: Antenna 1. XZ Plane at f = 2.402GHz



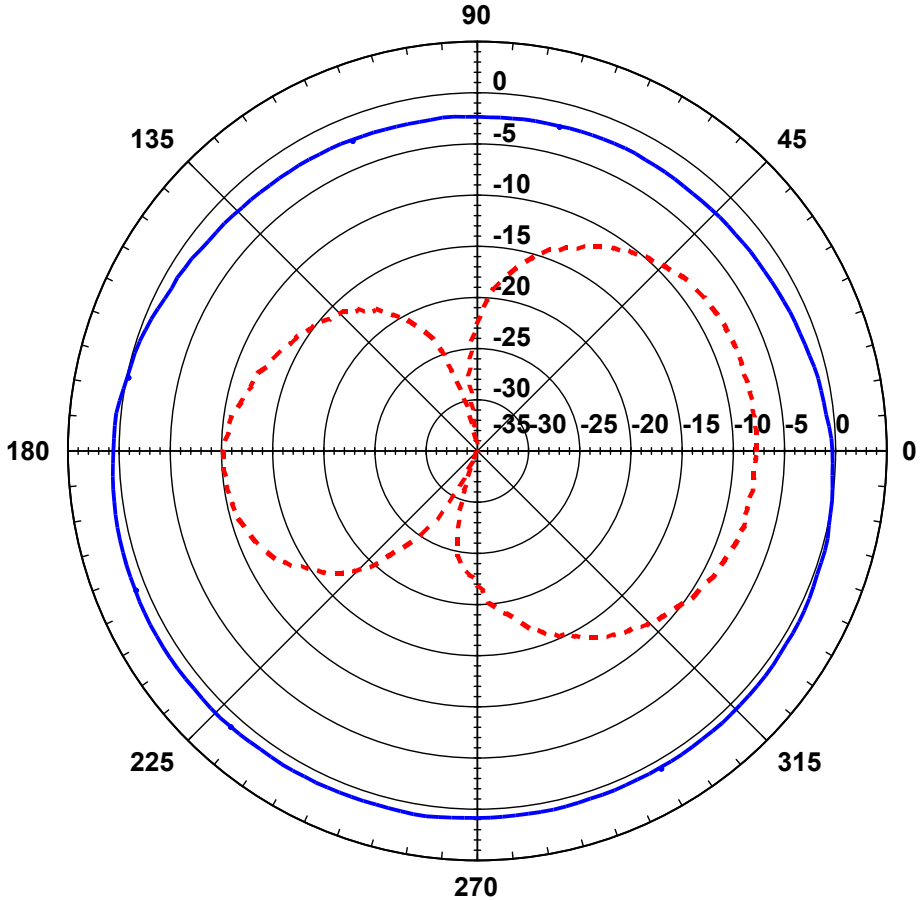
Co-cross polarization field (dBi)



Total field (dBi)

Solid line: vertical polarization
Dash line: horizontal polarization

Radiation pattern: Antenna 1. YZ Plane at f = 2.402GHz



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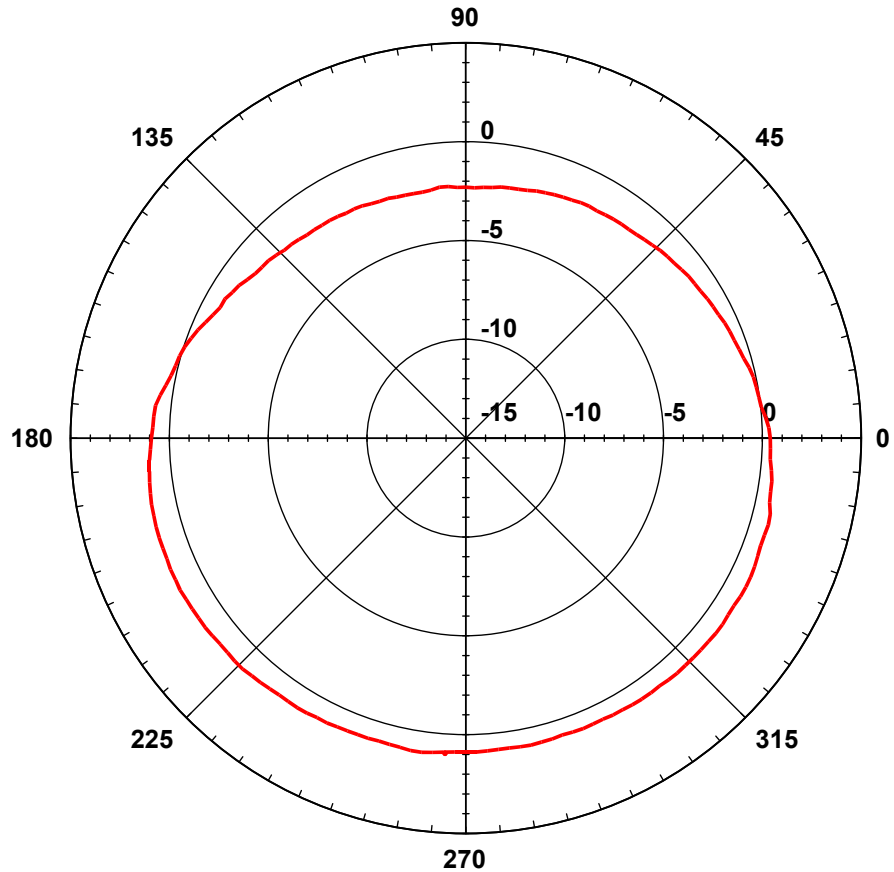

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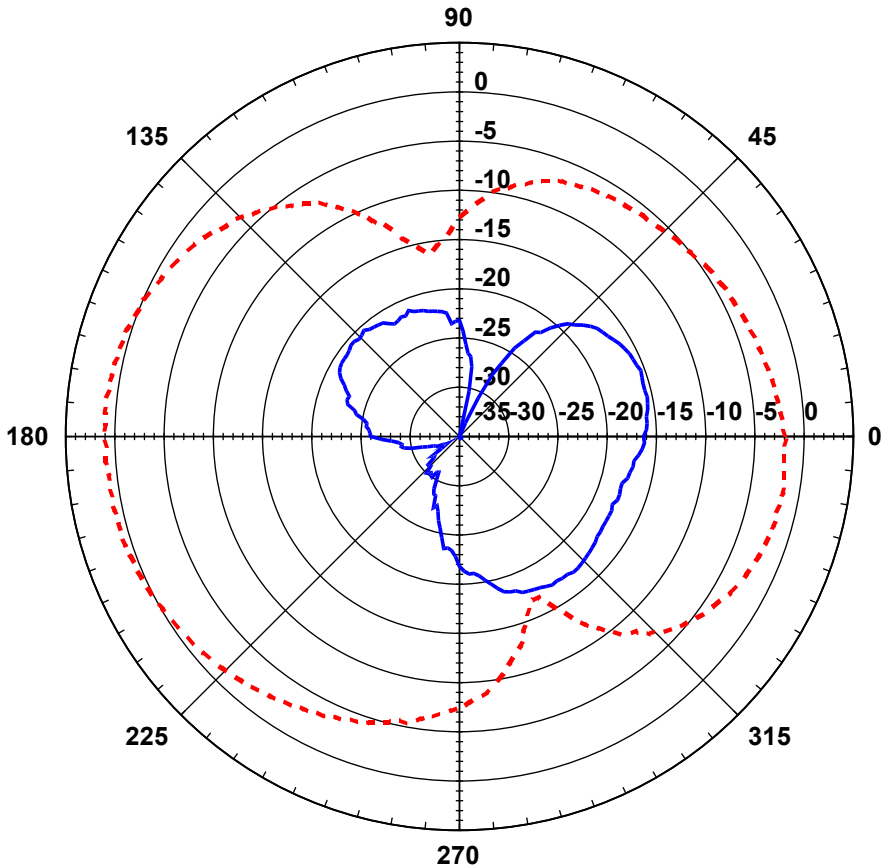

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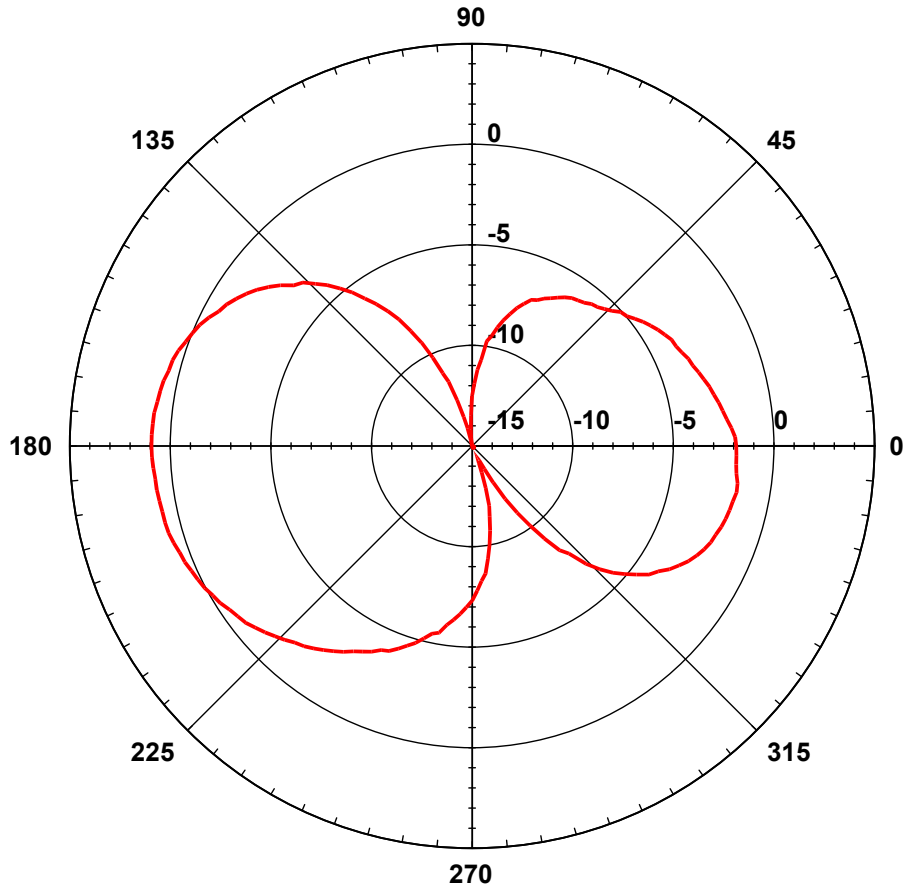

Total field (dBi)

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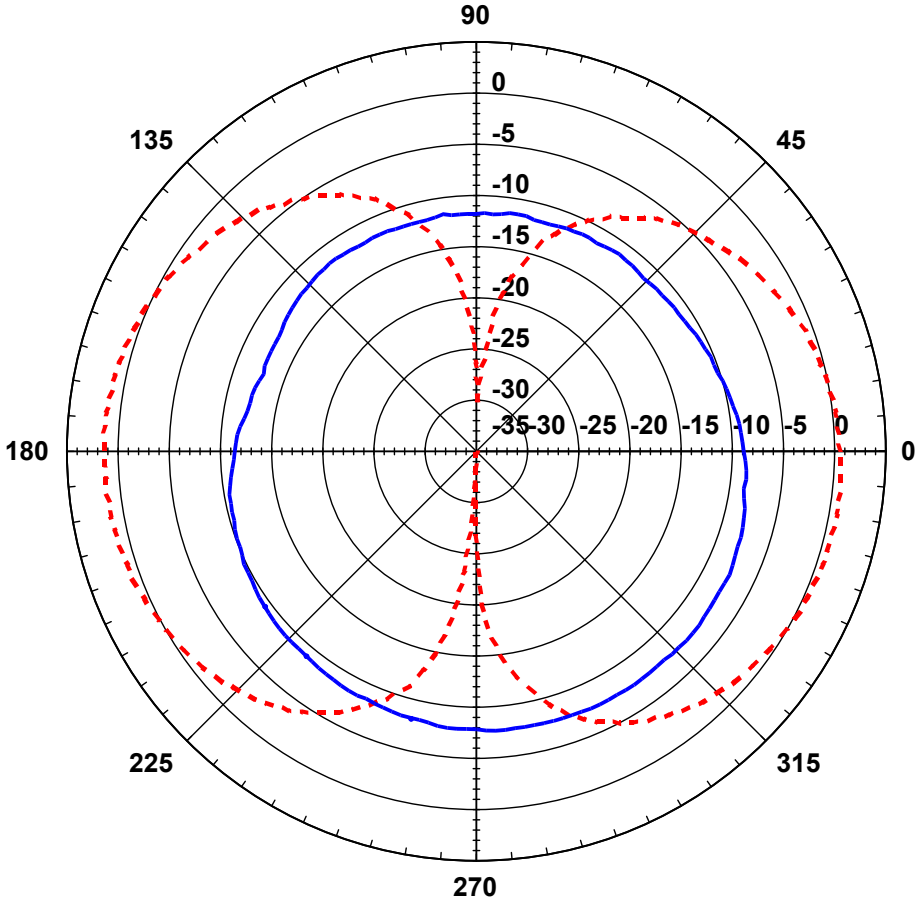
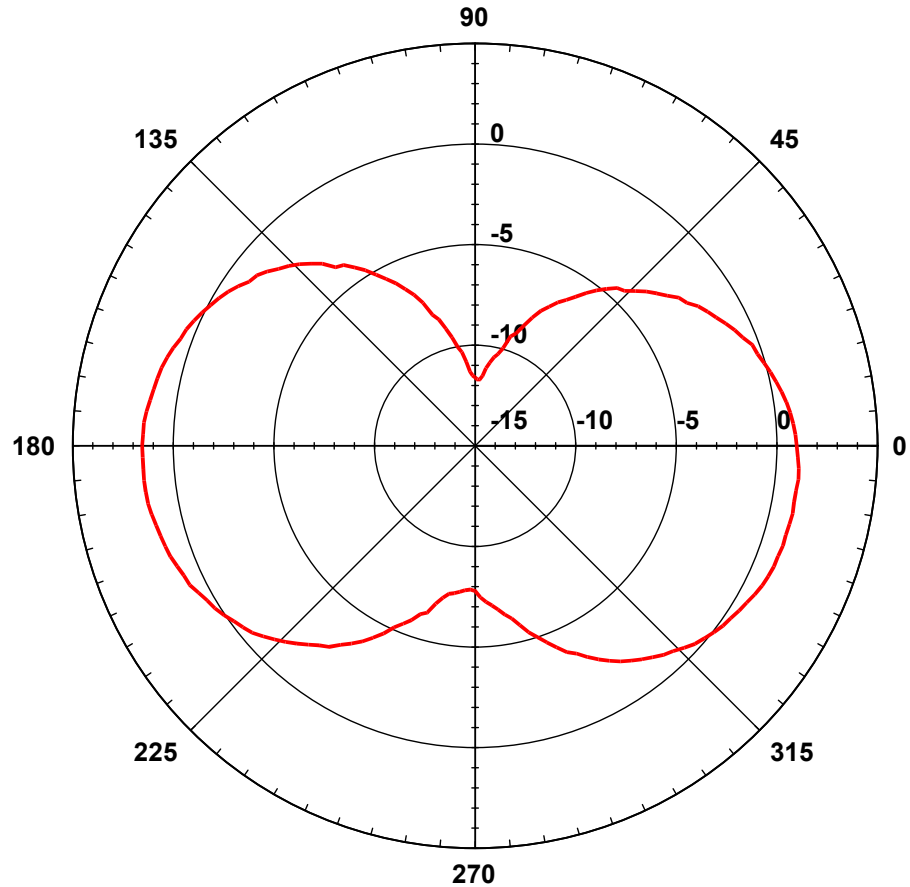
Radiation pattern: Antenna 1. XZ Plane at f = 2.441GHz



Co-cross polarization field (dBi)



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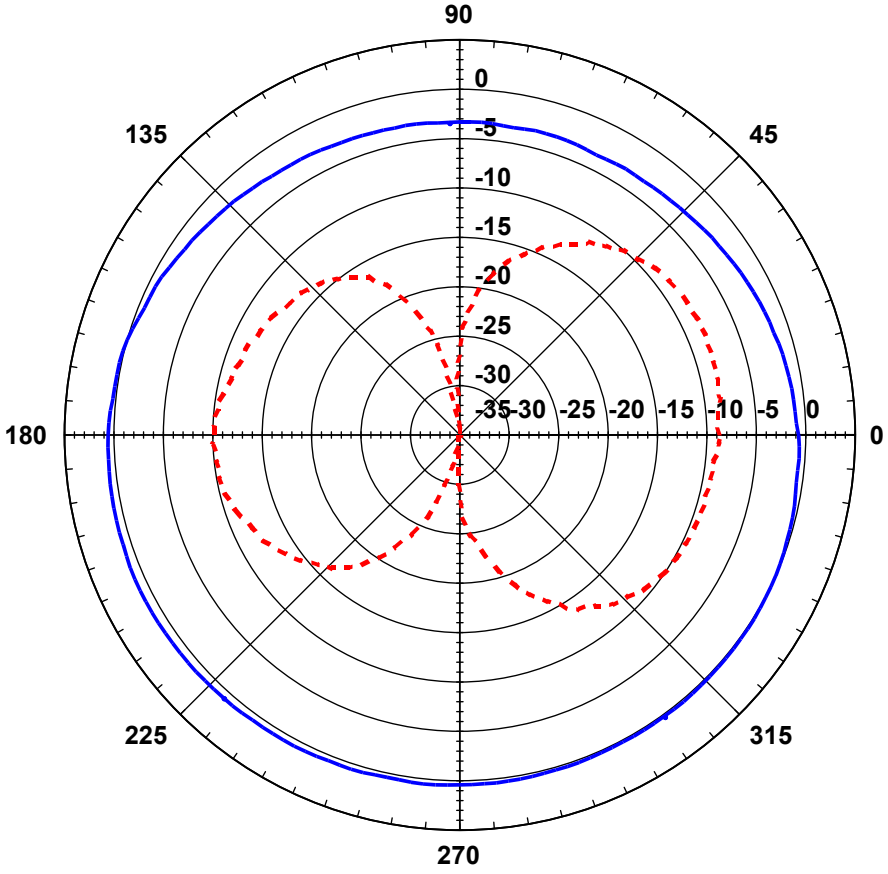
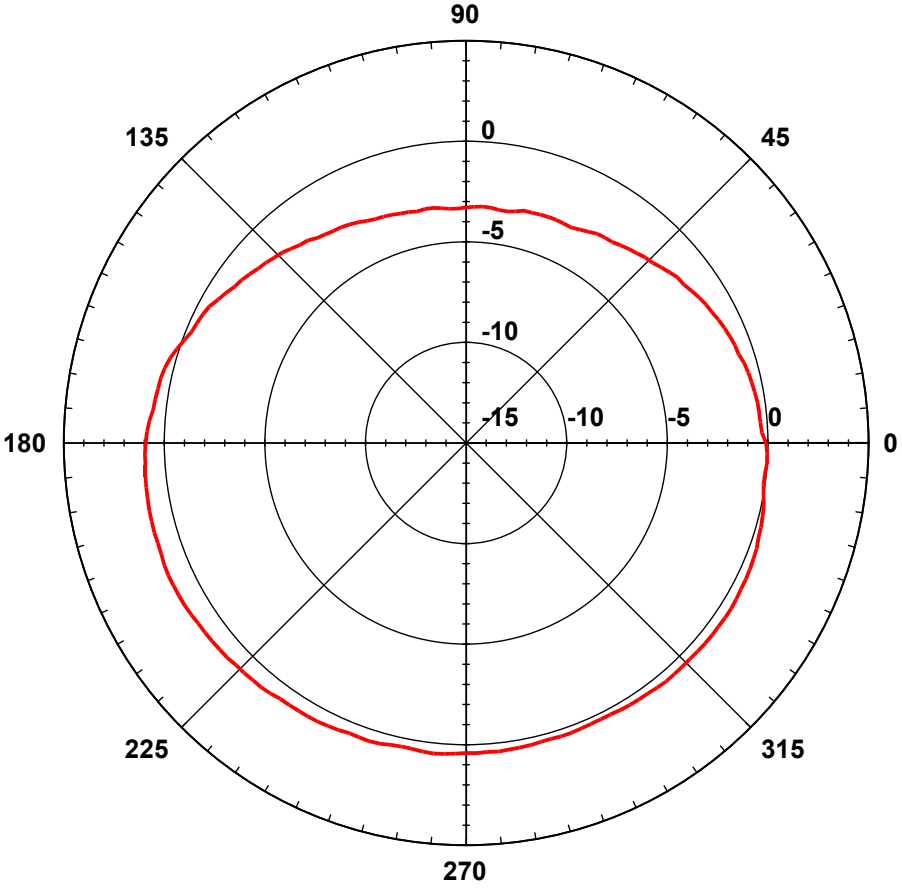


Co-cross polarization field (dBi)



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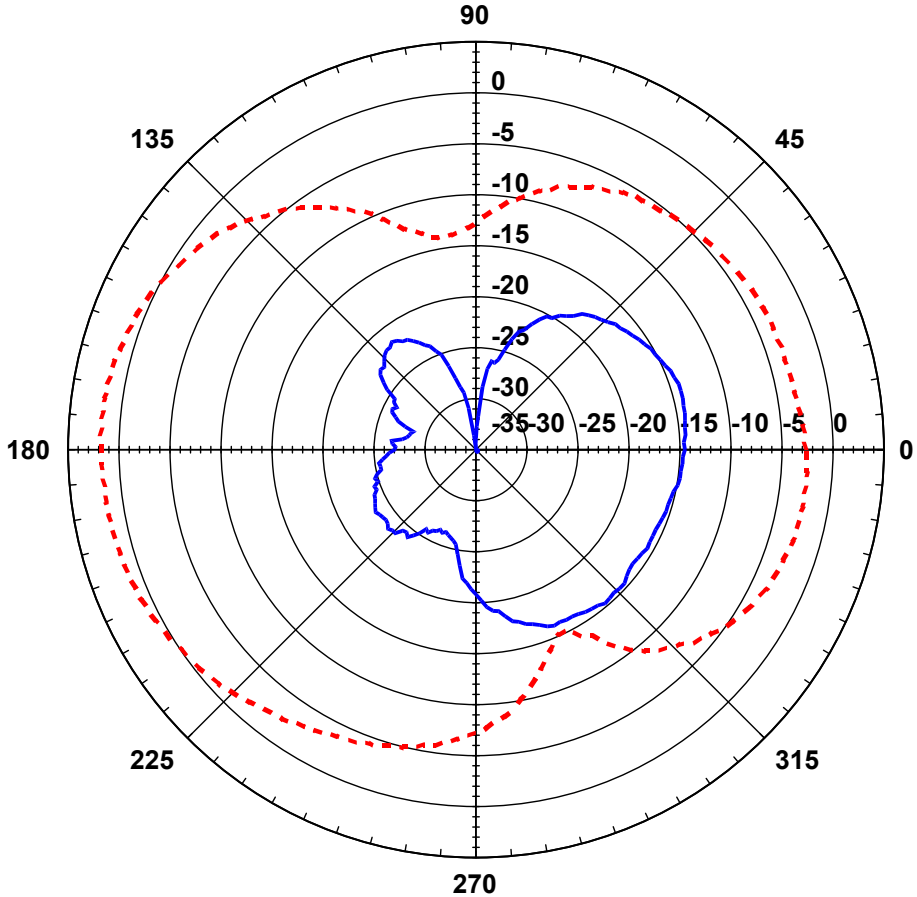

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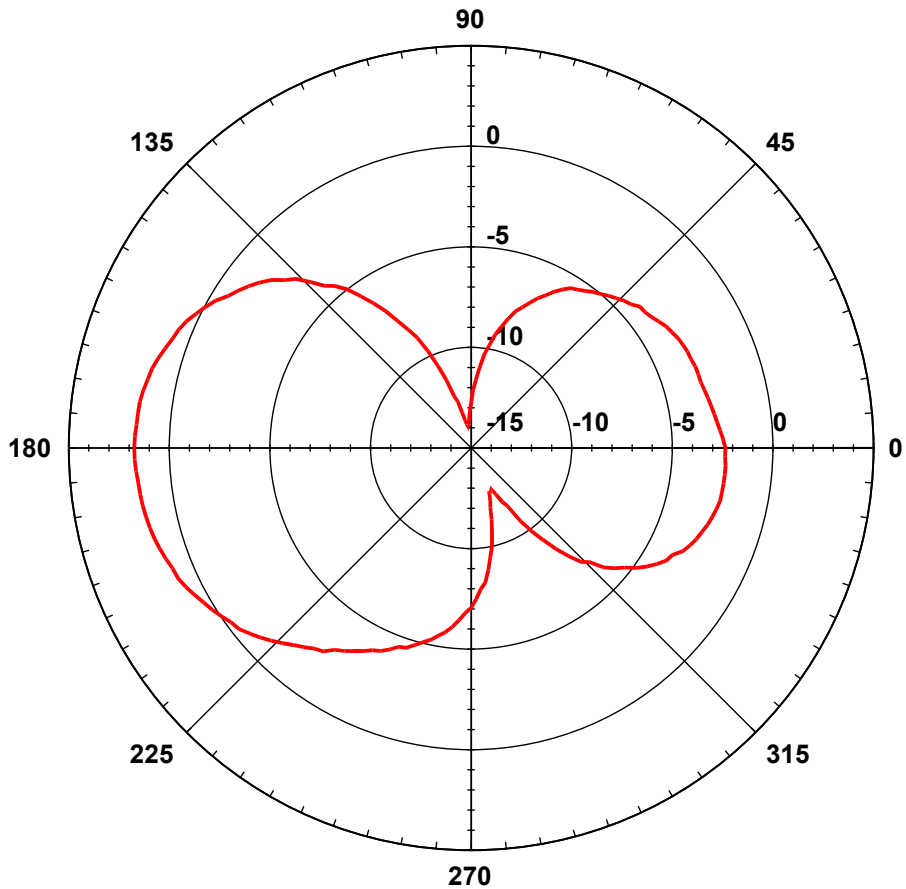

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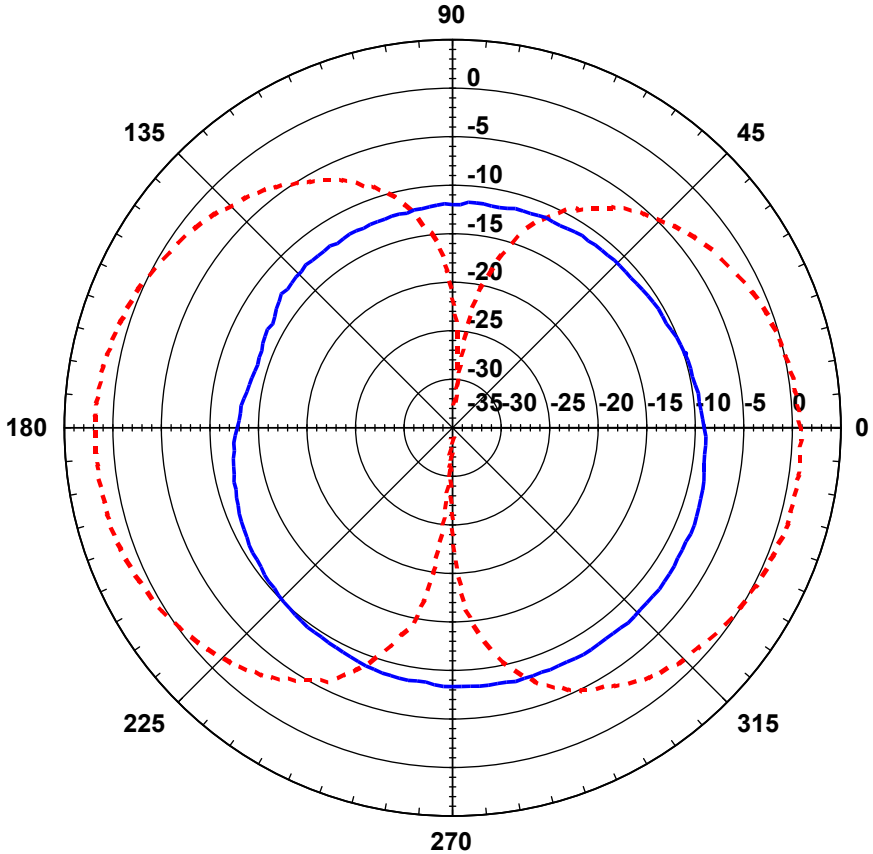
Radiation pattern: Antenna 1. XZ Plane at f = 2.480GHz



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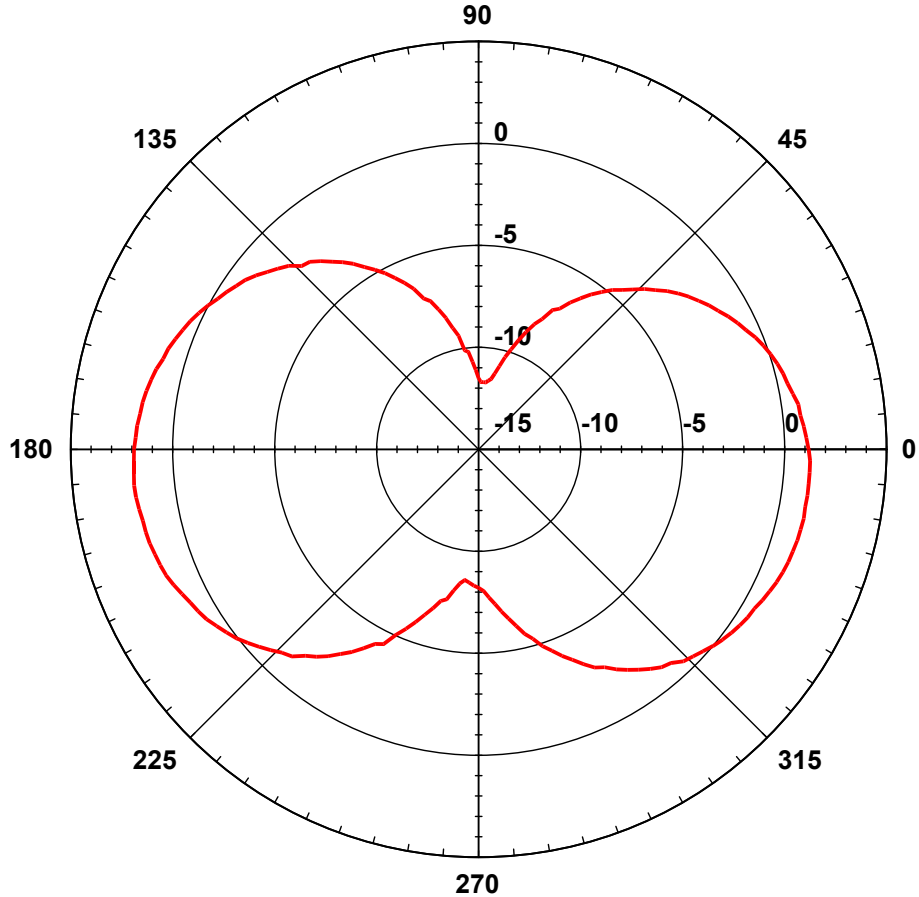

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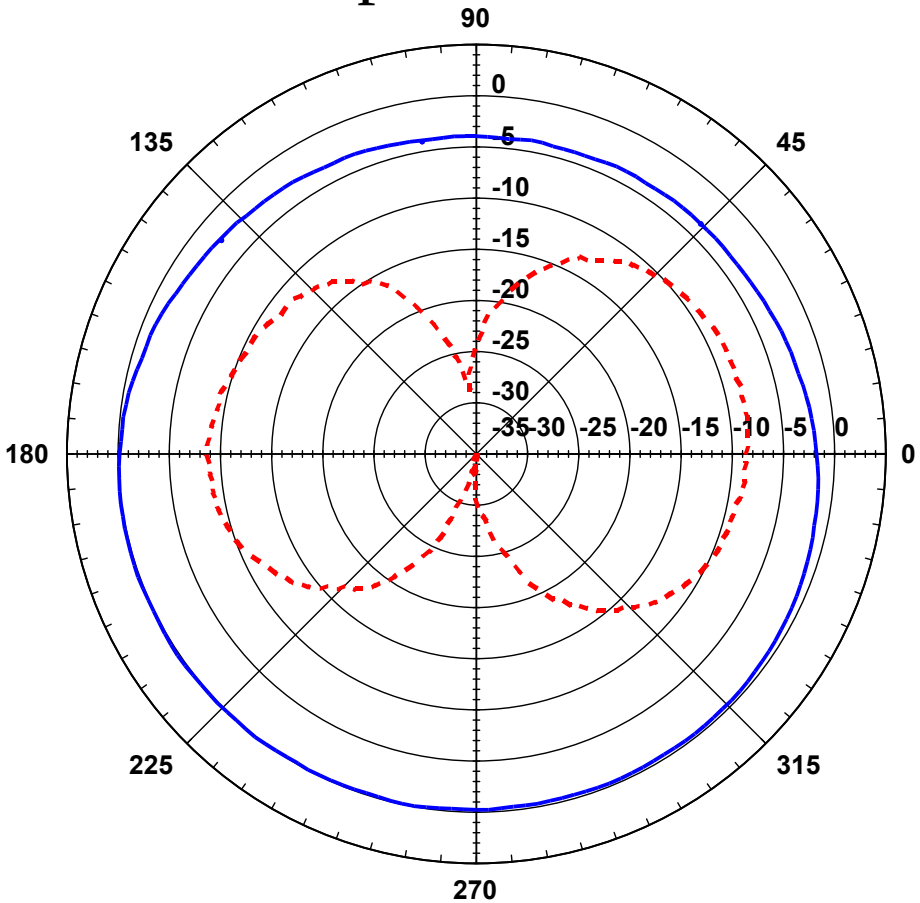

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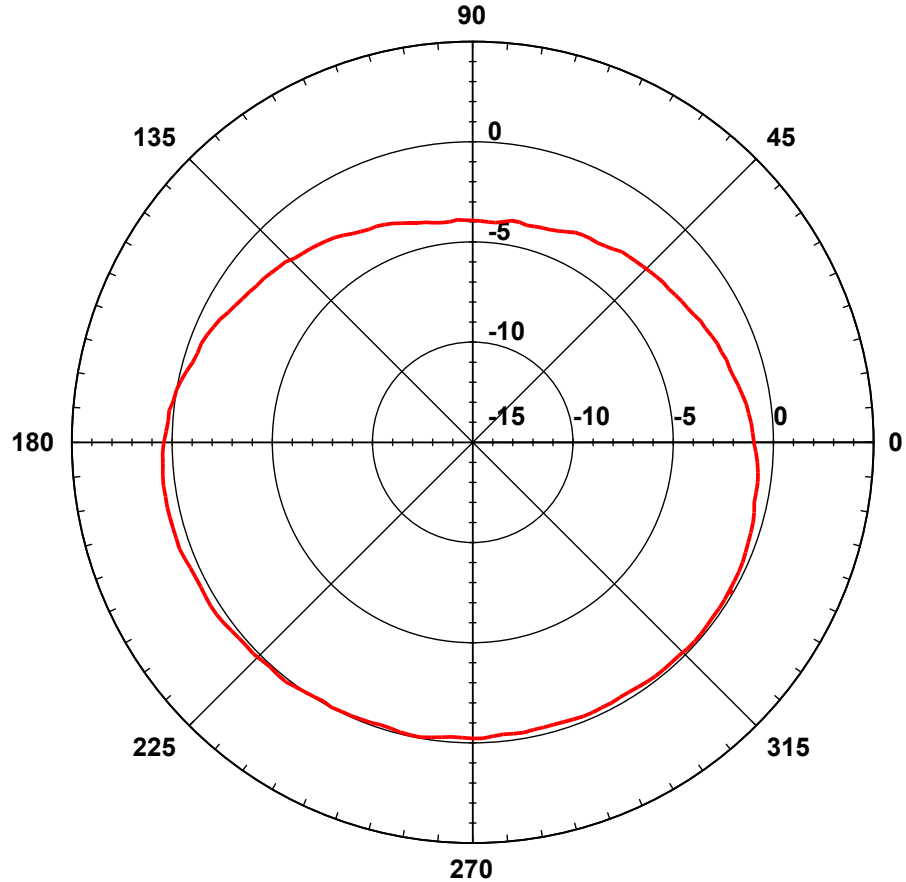

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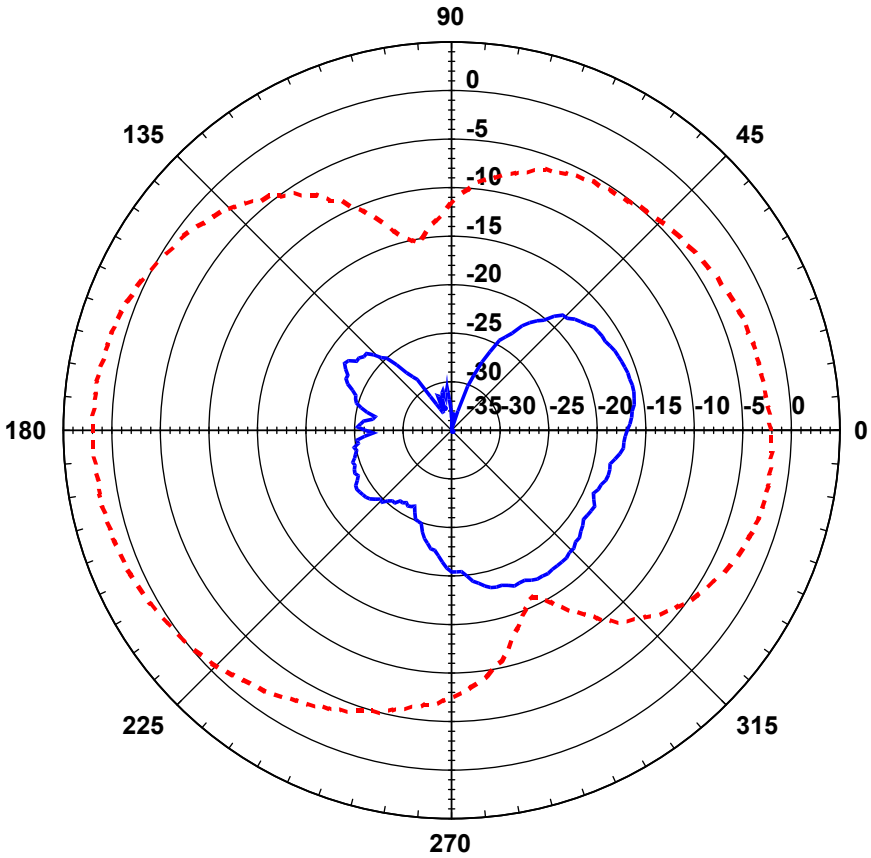

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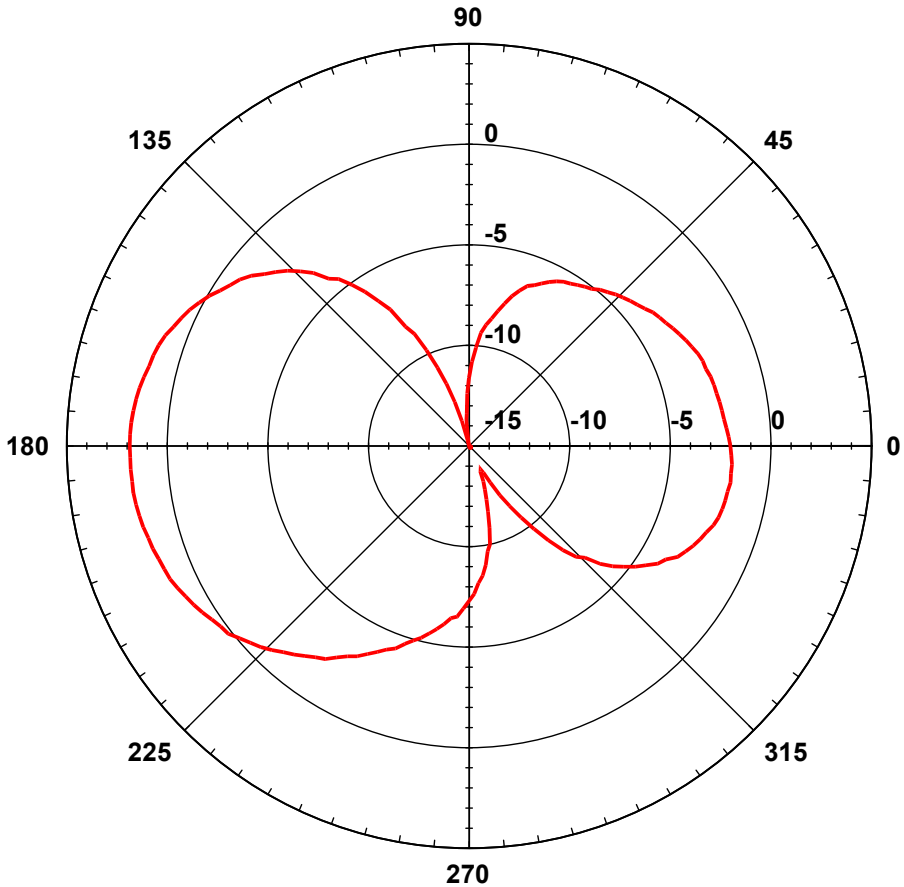

Total field (dBi)

Solid line: vertical polarization
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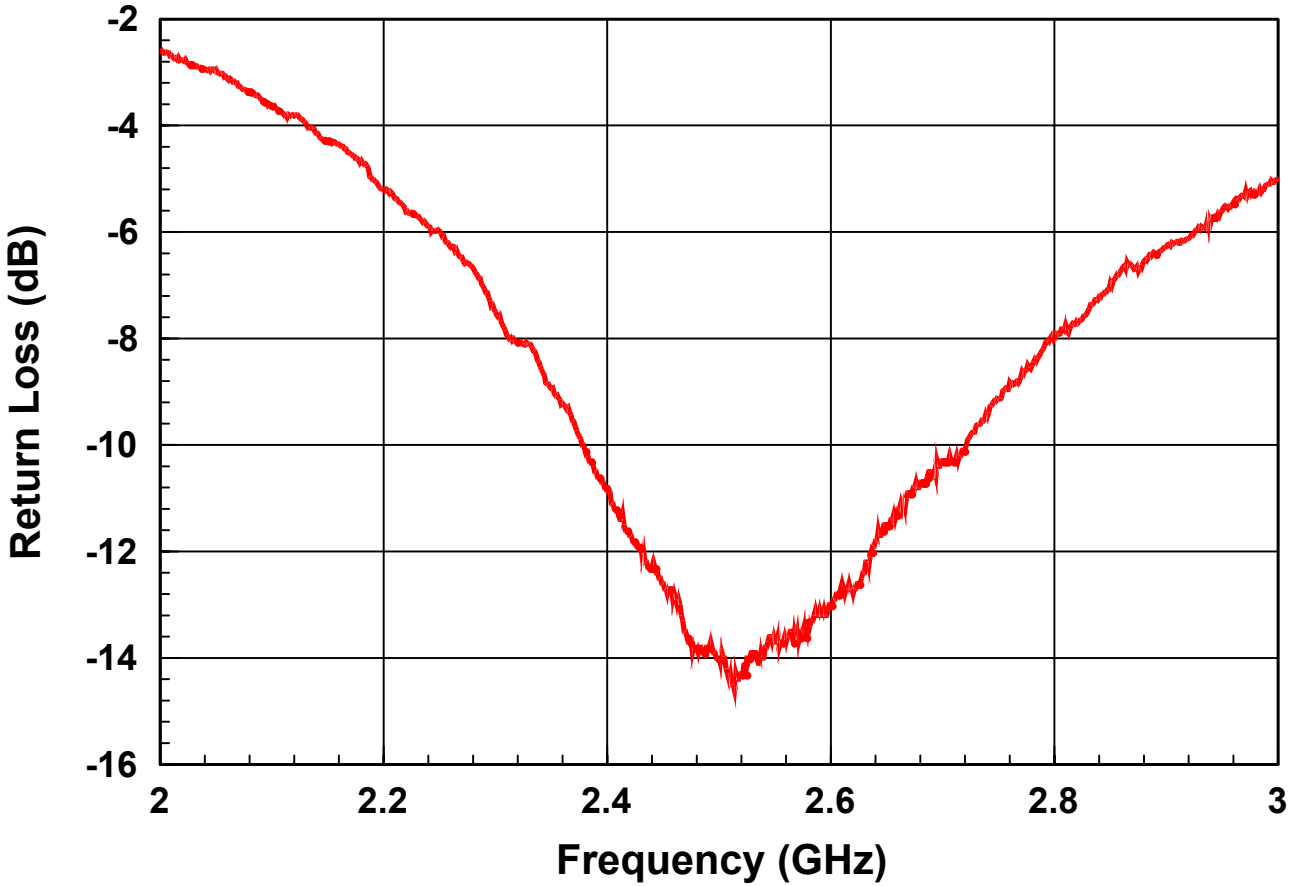
Return Loss: Antenna 1



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	1.21	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	1.74		180
	2.48	XZ	-13.80	Vertical	-7.95	312	
	2.48	XZ	-13.80	Horizontal	1.81	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	1.87		180