

Report for 2.4G Antenna

By Alfred Grau

Manufacturer: Find Future Technology (Shenzhen) Co., Ltd

301, Building 6, No.8 Huamei Road, Tantou Community, Songgang Street

Baoan District, Shenzhen, Guangdong, China City??

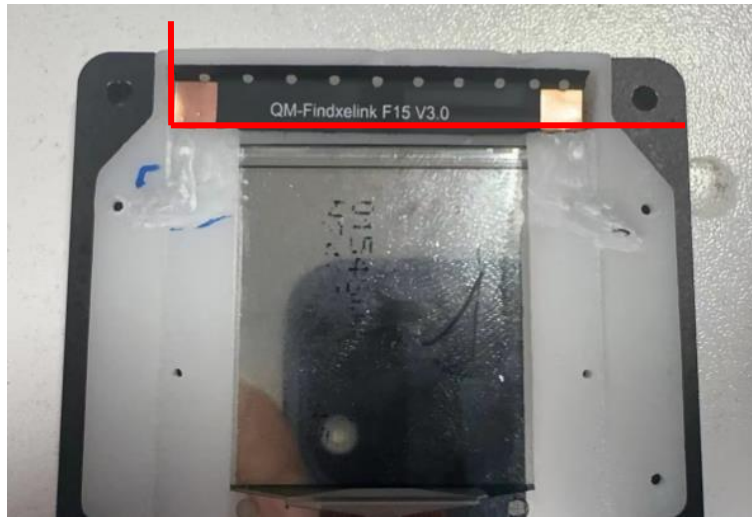
UCI CENTER FOR RF DESIGN AND CHARACTERIZATION

Tested Products.

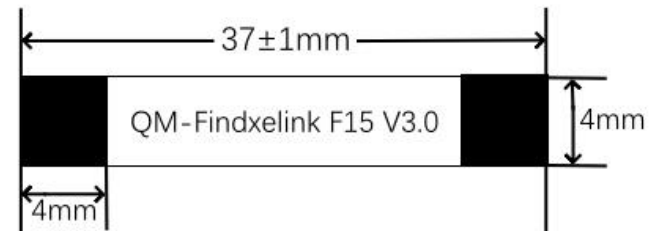
- Antenna 1: integrated antenna.
 - Frequency = 2.402GHz.
 - Frequency = 2.441GHz.
 - Frequency = 2.480GHz.

Coordinate System Reference: Antenna 1.

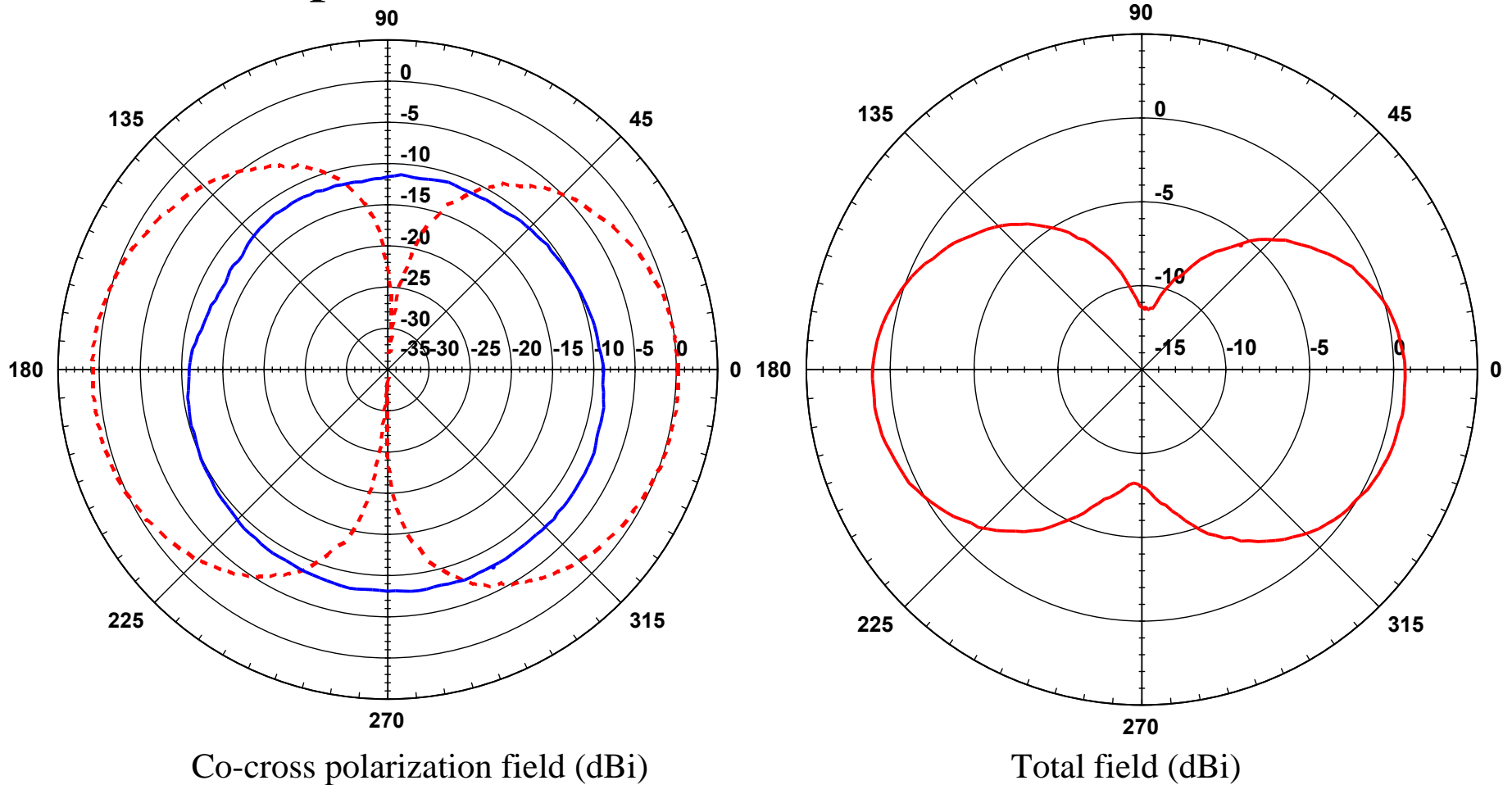
Align the antenna
and stick it together
on both sides



Antenna size

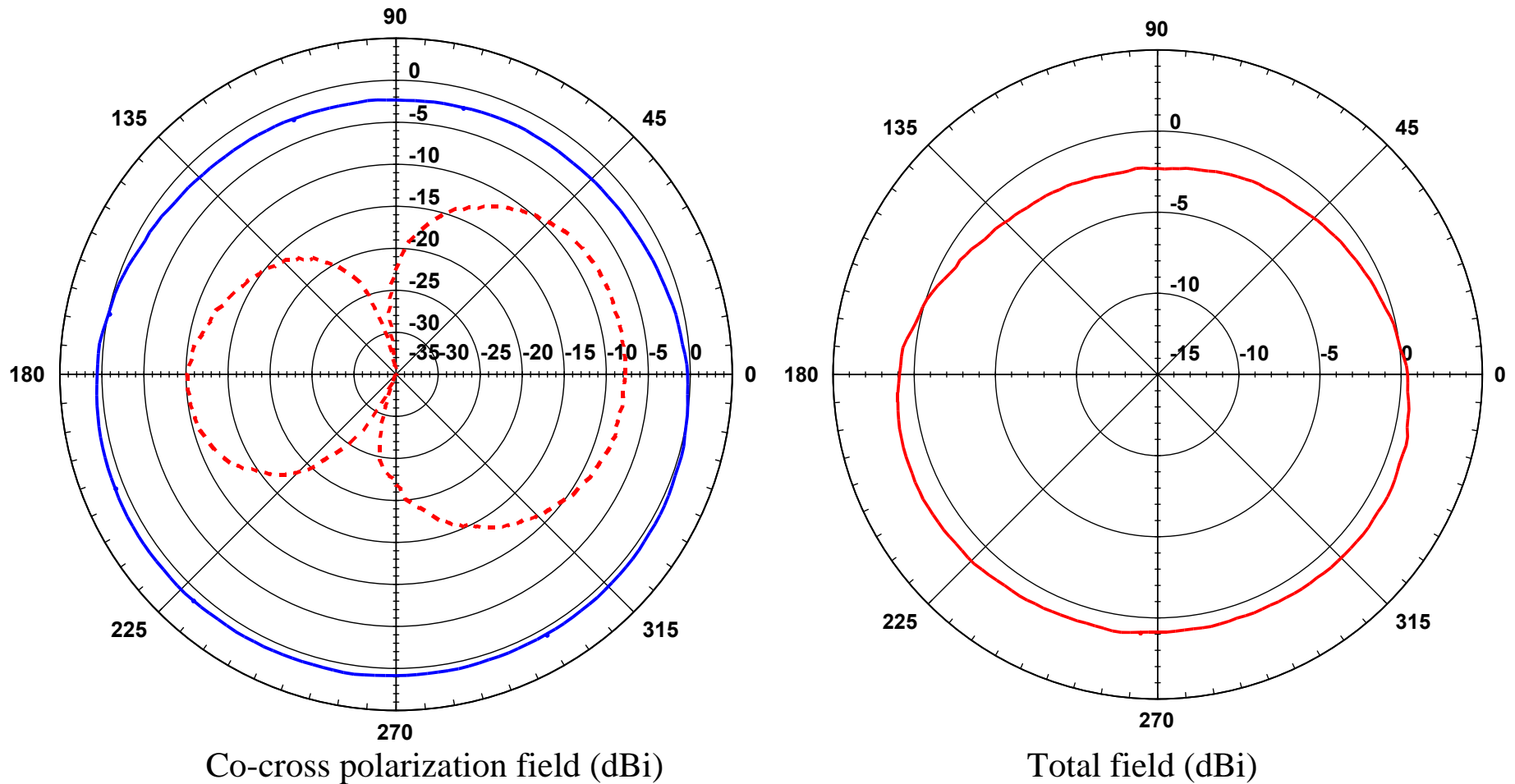


Radiation pattern: Antenna 1. XZ Plane at $f = 2.402\text{GHz}$



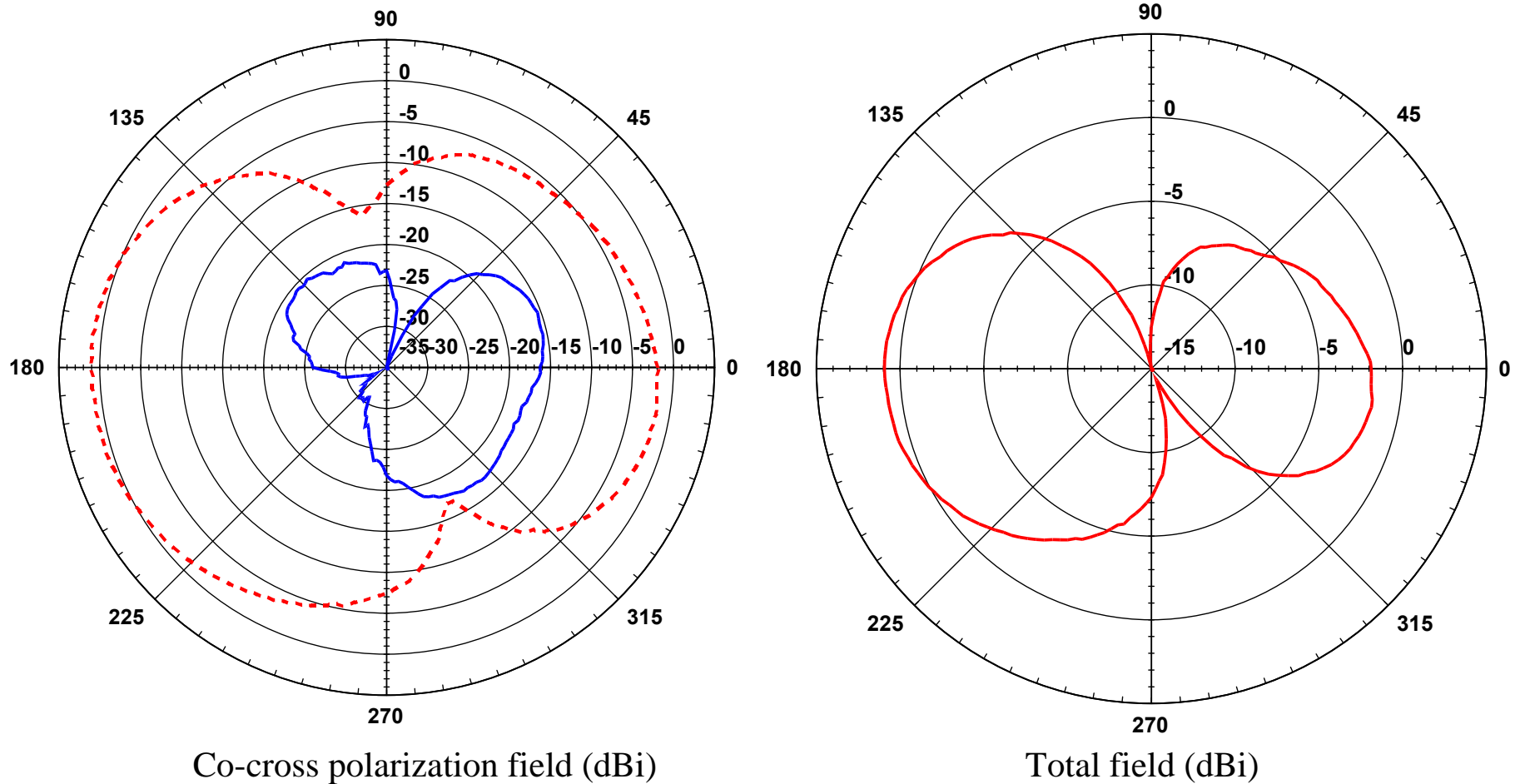
Solid line: vertical polarization
Dash line: horizontal polarization

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



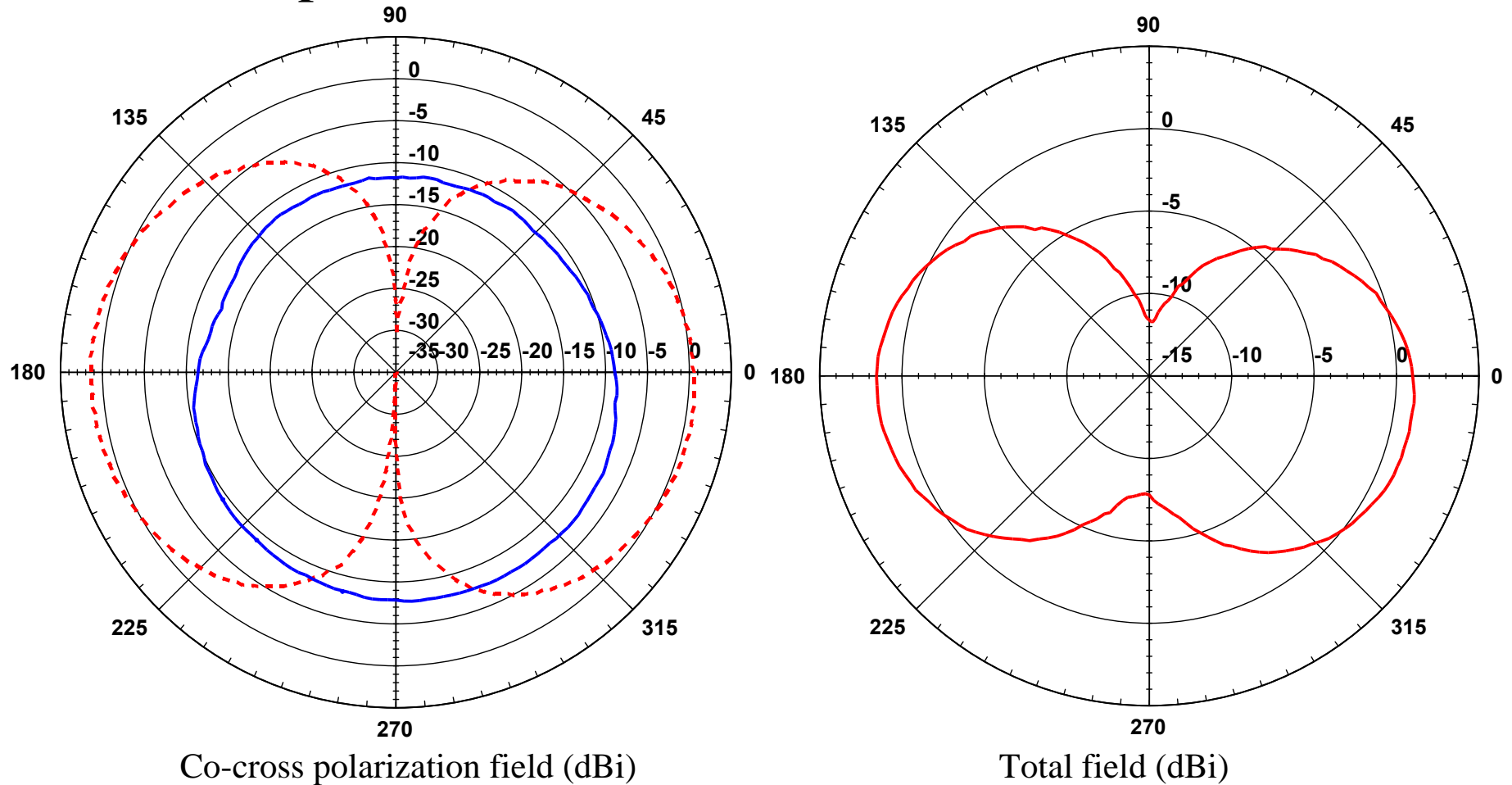
Solid line: vertical polarization
Dash line: horizontal polarization

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



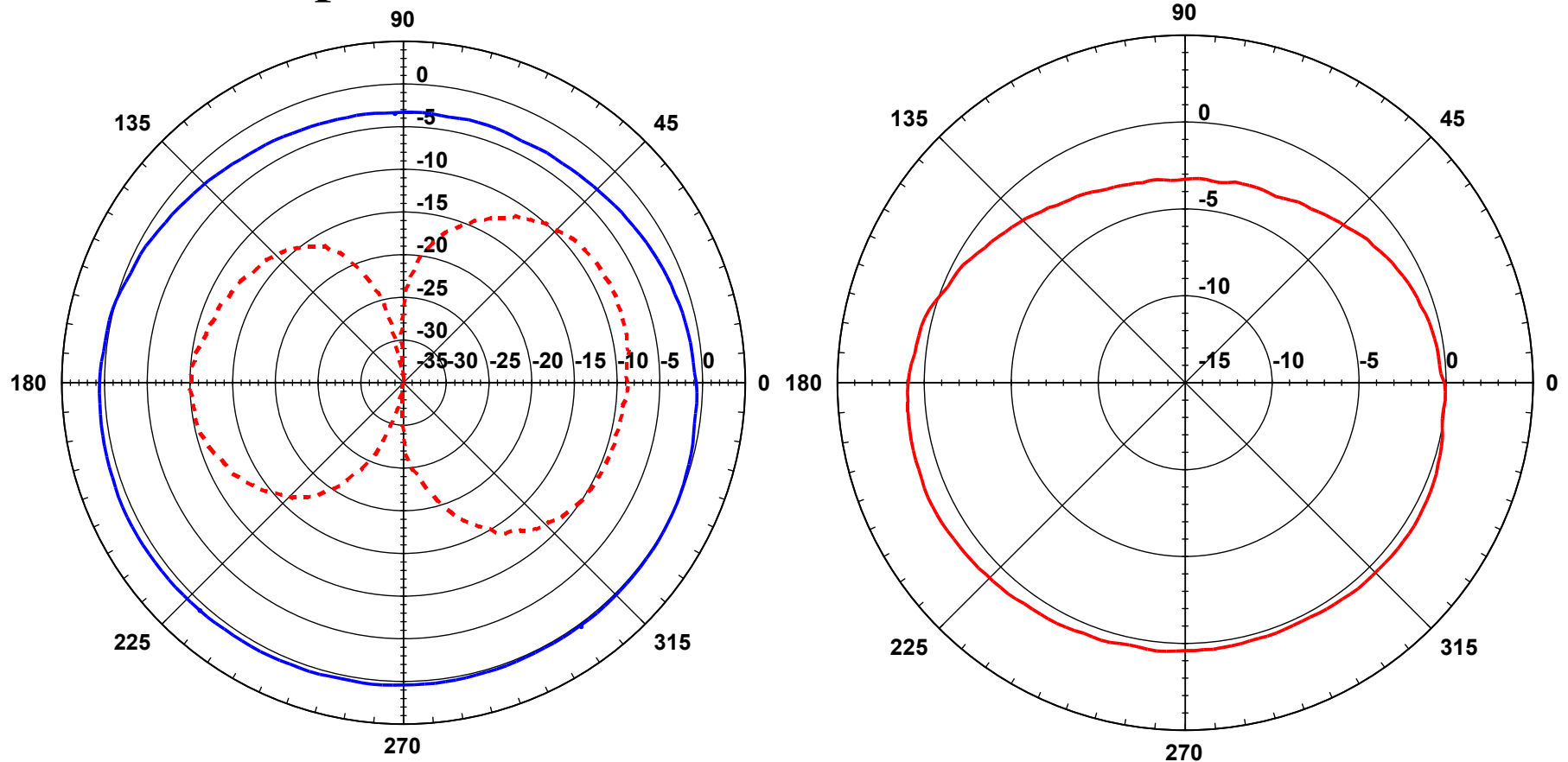
Solid line: vertical polarization
Dash line: horizontal polarization

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



Solid line: vertical polarization
Dash line: horizontal polarization

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

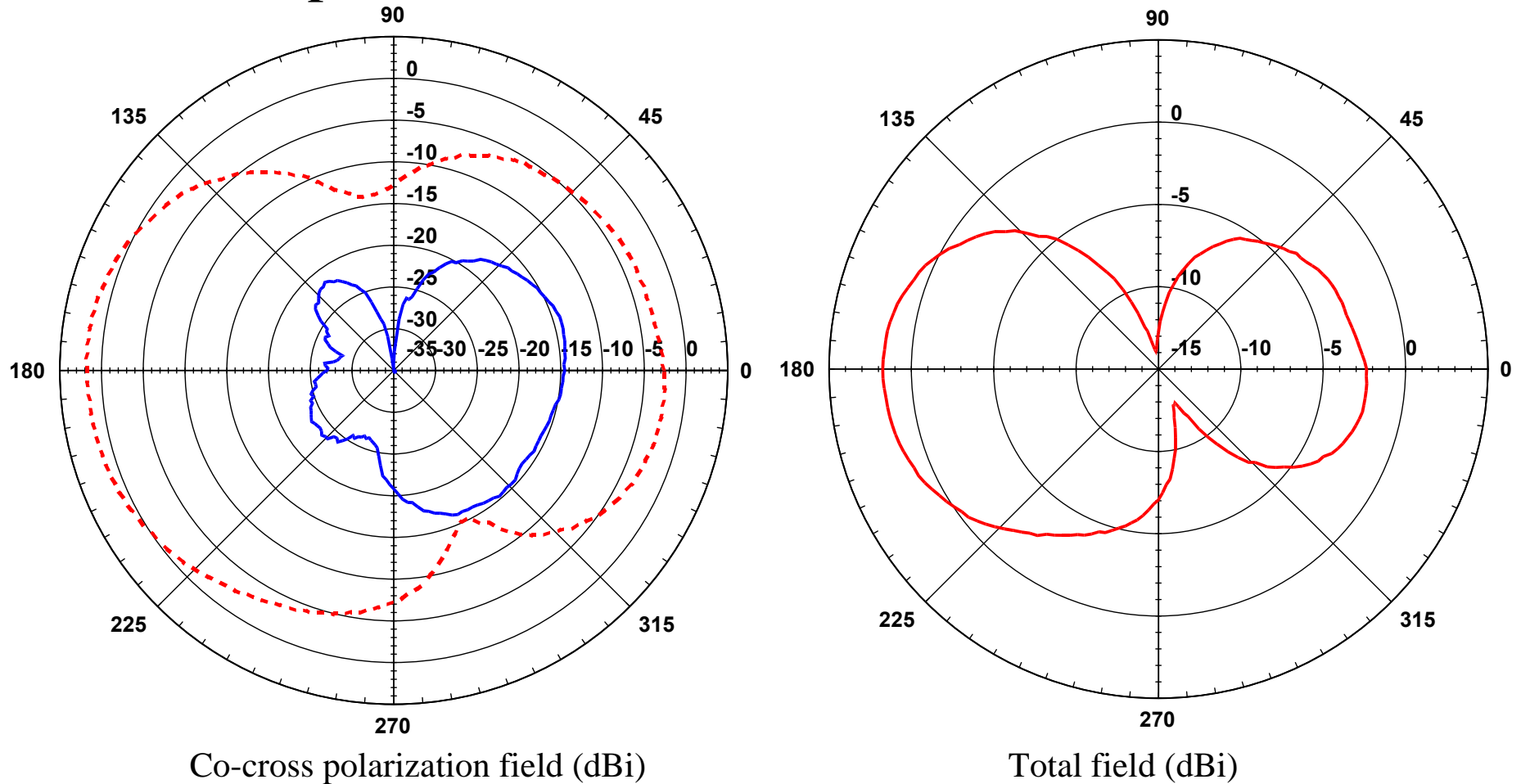


Co-cross polarization field (dBi)

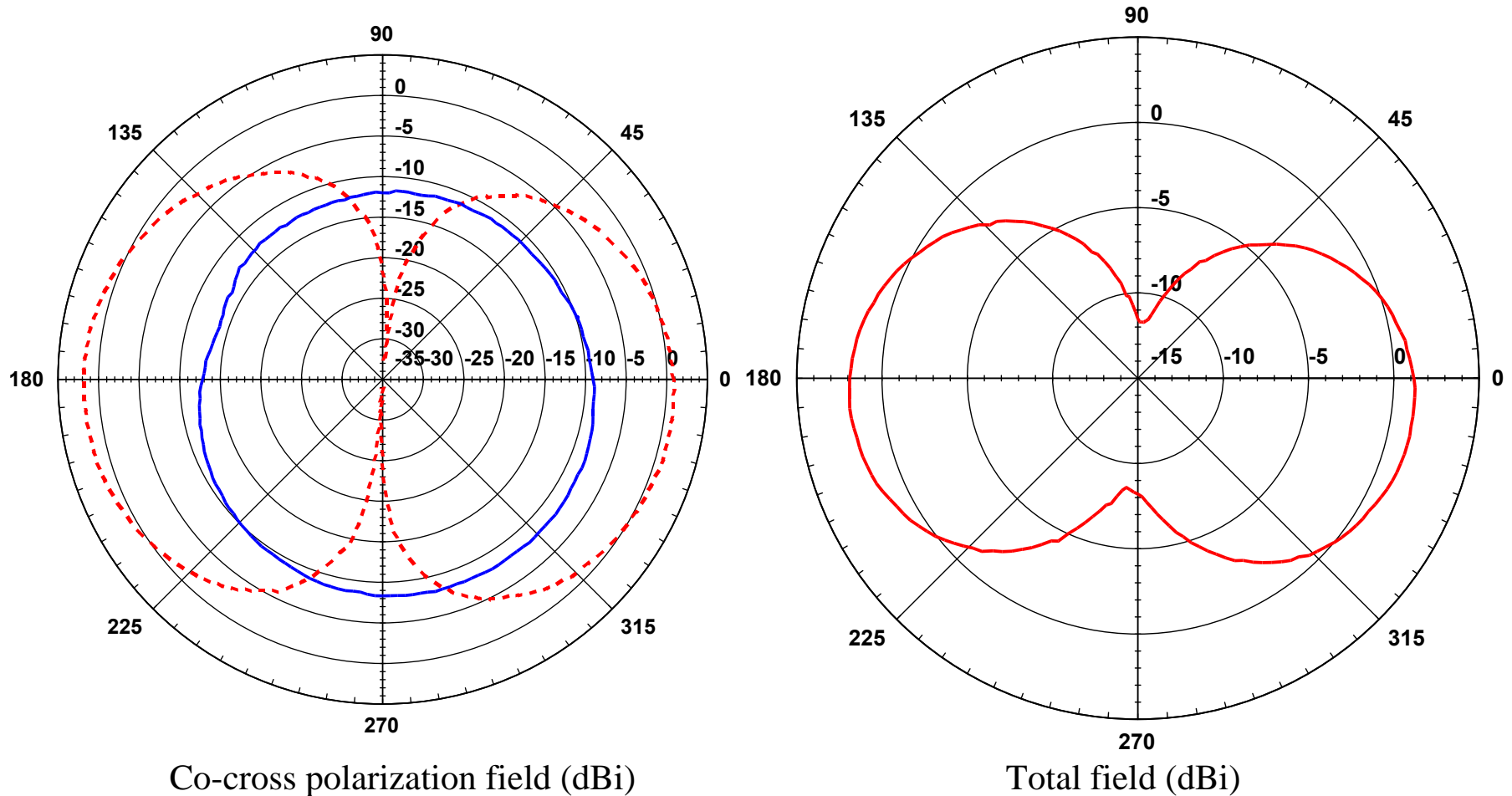
Total field (dBi)

Solid line: vertical polarization
Dash line: horizontal polarization

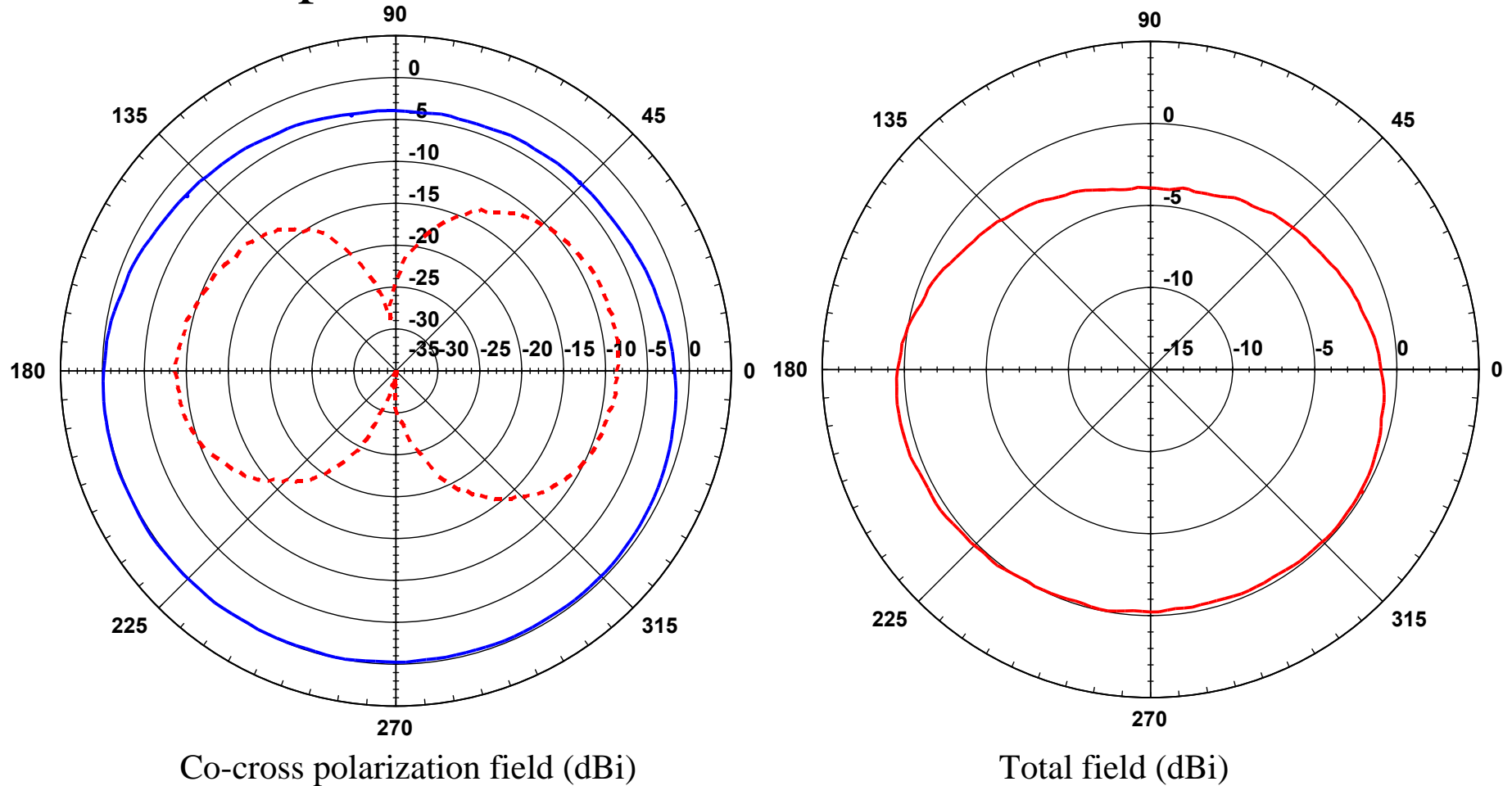
Radiation pattern: Antenna 1. XY Plane at $f = 2.441\text{GHz}$



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

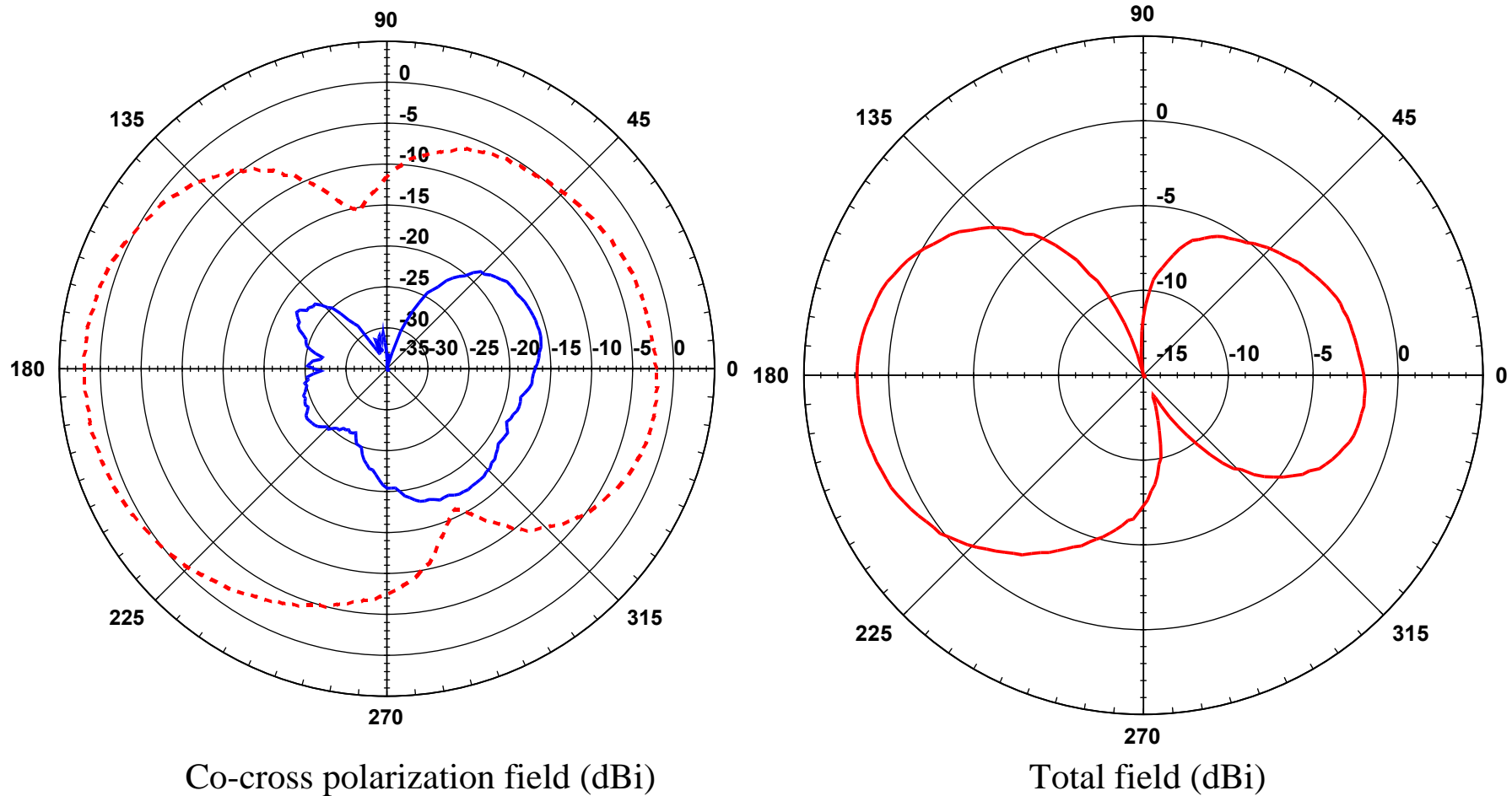


Radiation pattern: Antenna 1. YZ Plane at $f = 2.480\text{GHz}$



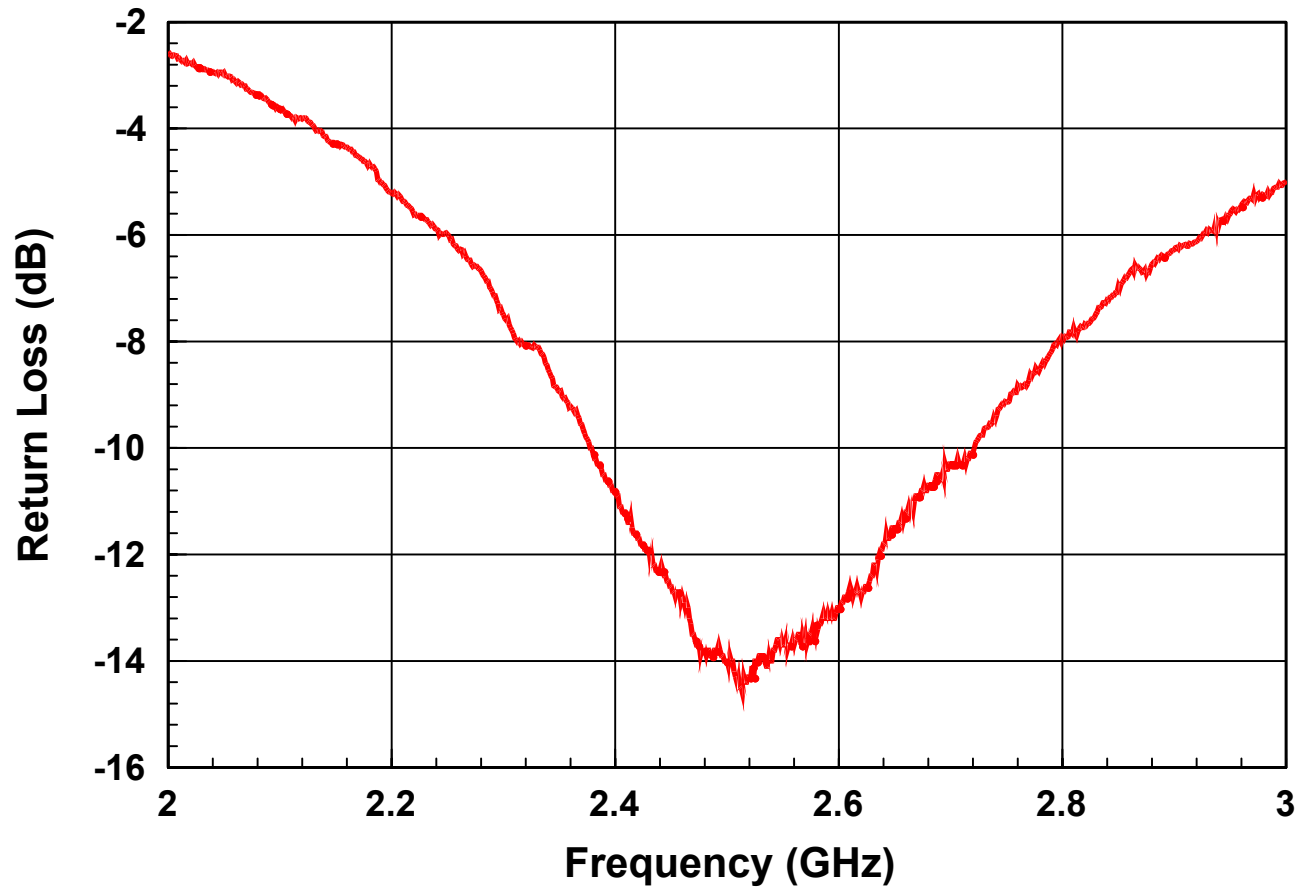
Solid line: vertical polarization
Dash line: horizontal polarization

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



Solid line: vertical polarization
Dash line: horizontal polarization

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	1.72		180
	2.48	XZ	-13.80	Vertical	-7.95	312	
	2.48	XZ	-13.80	Horizontal	1.61	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	1.67		180