



RCU-1_ANT Antenna Test Report

RFI | Date 2025/3/27

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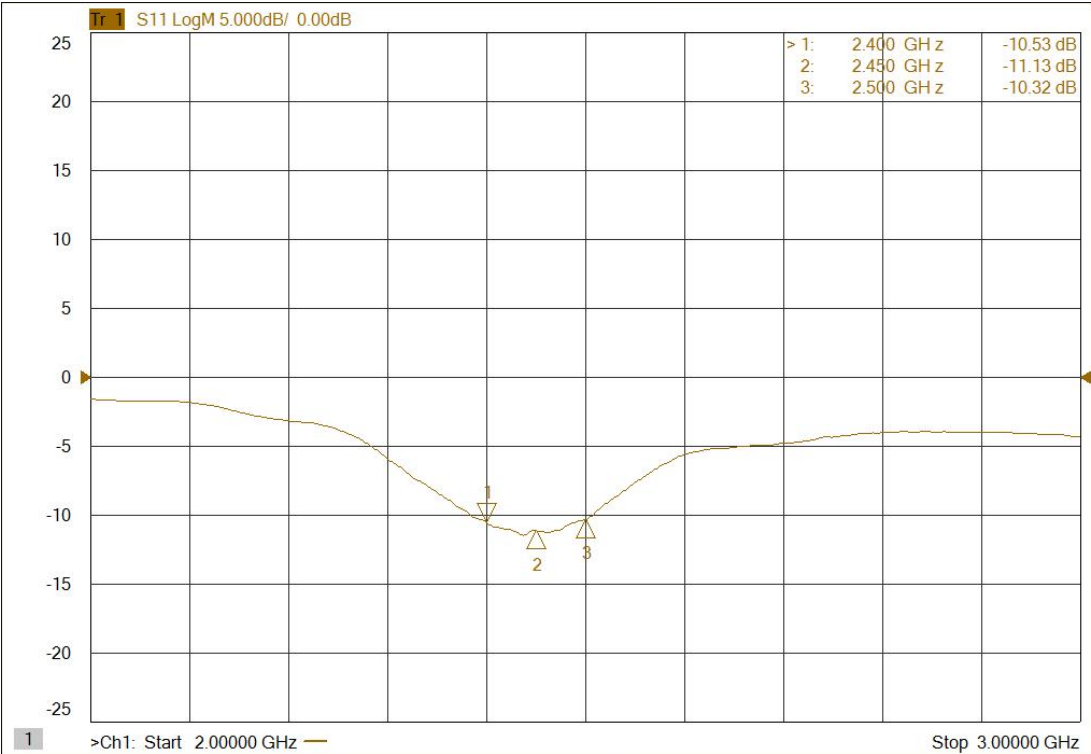
Antenna Design and Specification

Requirements of Measurement

Item	Specification
Antenna Model	RCU-1_ANT
Antenna Type	PIFA
Operating Frequency (MHz)	2400-2500
Bandwidth	100MHz
Return Loss	10 dB Typical
Polarization	Linear
Azimuth Bandwidth	Omni-directional
Peak Gain	3.64 dBi (Max.)
Impedance	50Ω
Material	PCB
Maximum Power	1W
Radiation	Omni directional
Efficiency	68.55% (Max.)

Return Loss (S11)

BT [2400 – 2500 MHz]



Results Summary

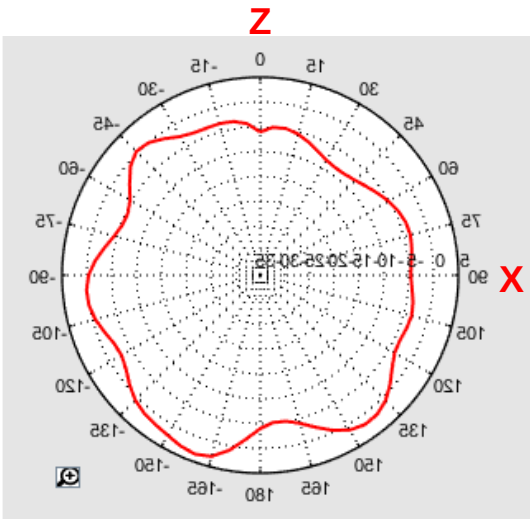
Peak gain & Efficiency – BT

Frequency (MHz)	Avg. Gain (dB)	Efficiency (%)	Peak Gain (dBi)
2400	-1.64	68.55	3.64
2410	-1.74	66.99	3.60
2420	-1.81	65.92	3.56
2430	-1.87	65.01	3.52
2440	-1.96	63.68	3.47
2450	-2.03	62.66	3.42
2460	-2.17	60.67	3.34
2470	-2.33	58.48	3.27
2480	-2.27	59.29	3.42
2490	-2.34	58.34	3.44
2500	-2.44	57.02	3.36

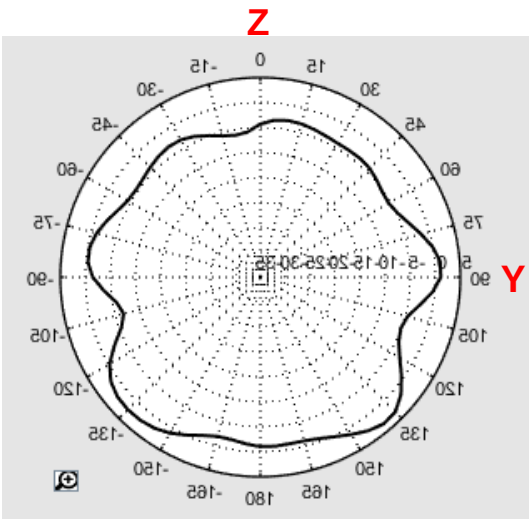
2D Radiation Pattern Results

BT@ 2400MHz

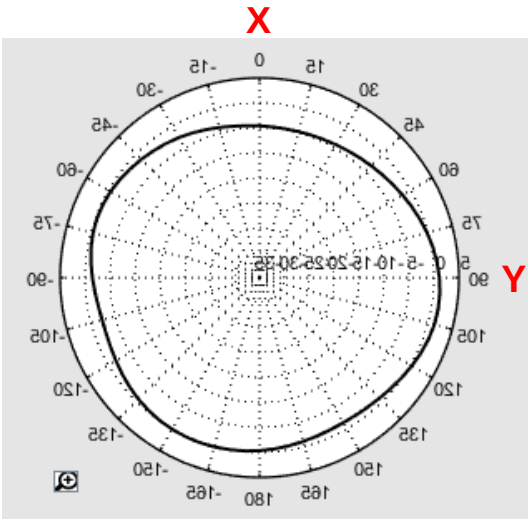
X-Z plane @ 2400MHz



Y-Z plane @ 2400MHz



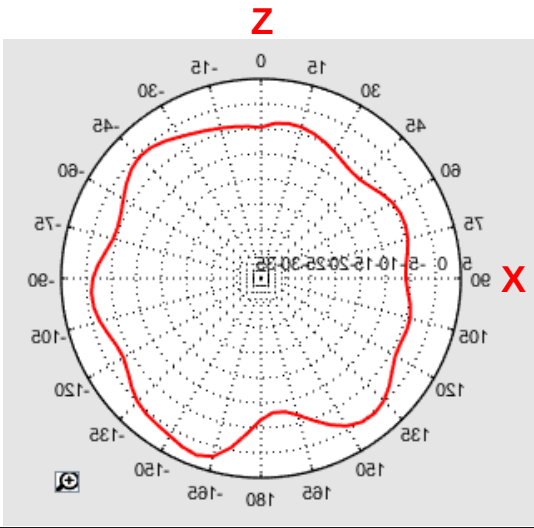
X-Y plane @ 2400MHz



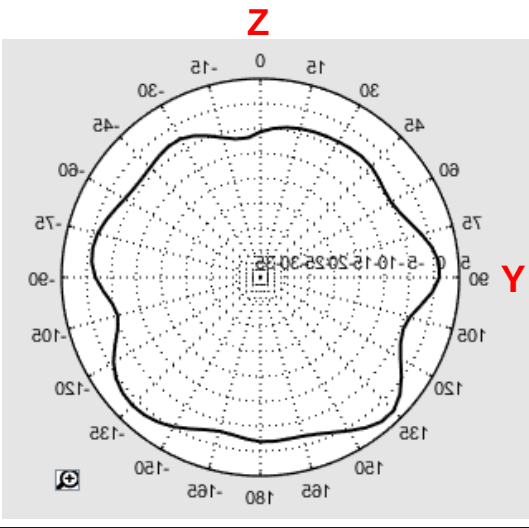
2D Radiation Pattern Results

BT@ 2450MHz

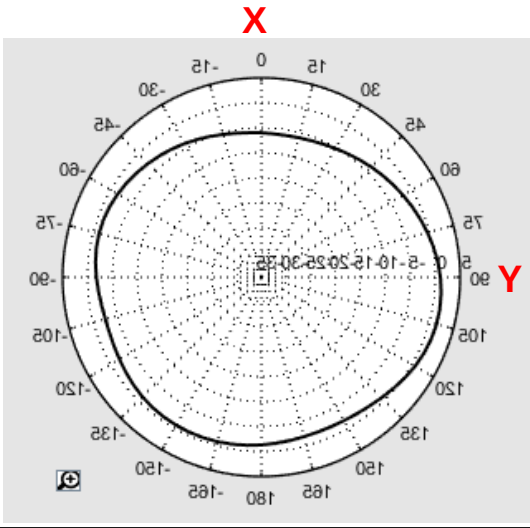
X-Z plane @ 2450MHz



Y-Z plane @ 2450MHz



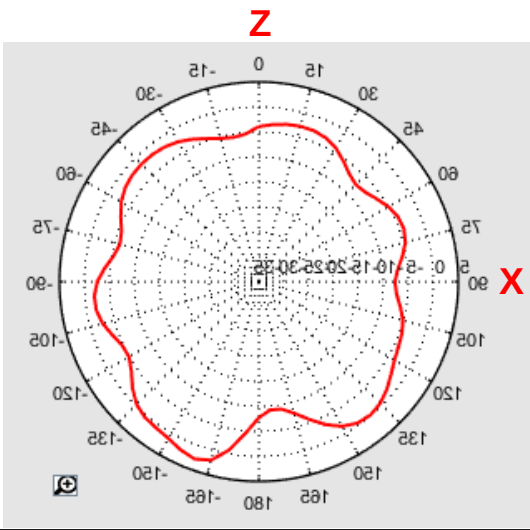
X-Y plane @ 2450MHz



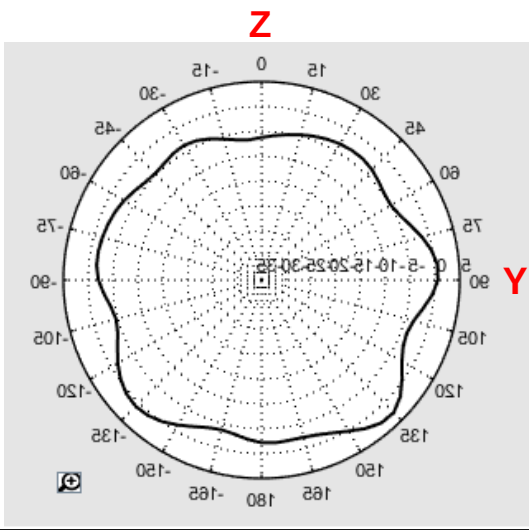
2D Radiation Pattern Results

BT@ 2500MHz

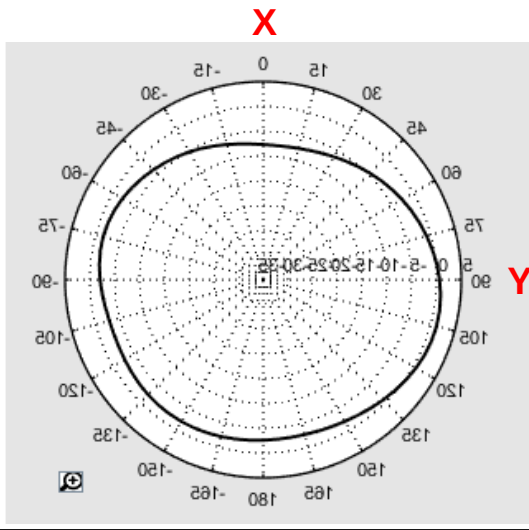
X-Z plane @ 2500MHz



Y-Z plane @ 2500MHz



X-Y plane @ 2500MHz



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