

Antenna specification

Manufacturer: GEOMATE POSITIONING PTE. LTD.
Address: 13 Tampines Lane #09-53 Singapore 528479

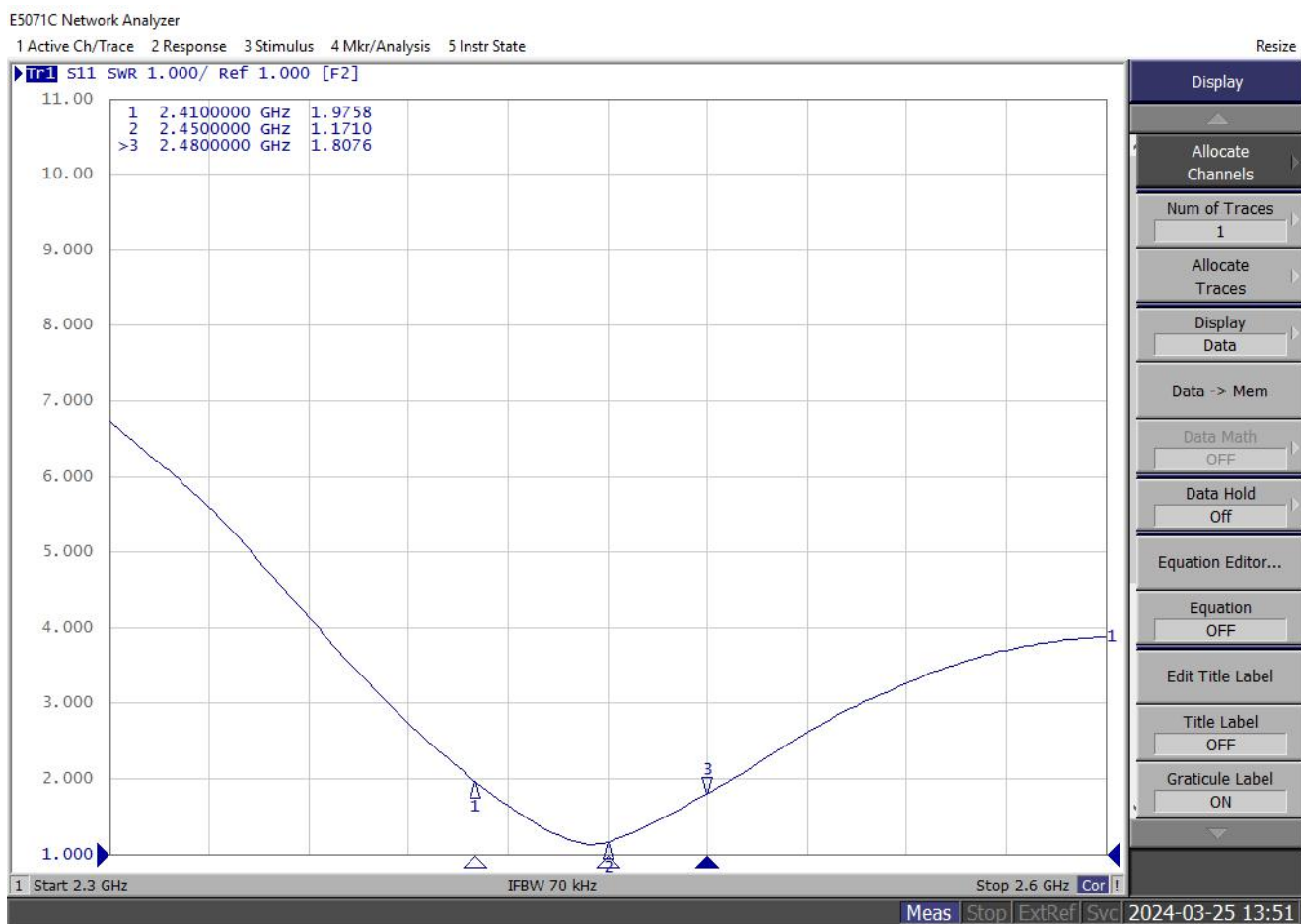
number	Item	Specifications
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1	Working Central Frequency	2441 MHz/5560MHz
2	Band Width	(2402-2480)MHz (5150-5850)MHz
3	Gain	0dBi
4	VSWR	Resonance point $\leq$ 2.0
5	Antenna type	PCB antenna
6	Azimuth Beam width	Omni - directional
7	Impedance	50ohm
8	Modulation mode	GFSK

3.simulation parameter

① VSWR

Mkr1: 2410MHz 1.97 Mkr2: 2450MHz 1.17 Mkr3: 2480 MHz 1.8



Antenna specification

Doc No. IS-QR-PD-010

Rev. V1.0

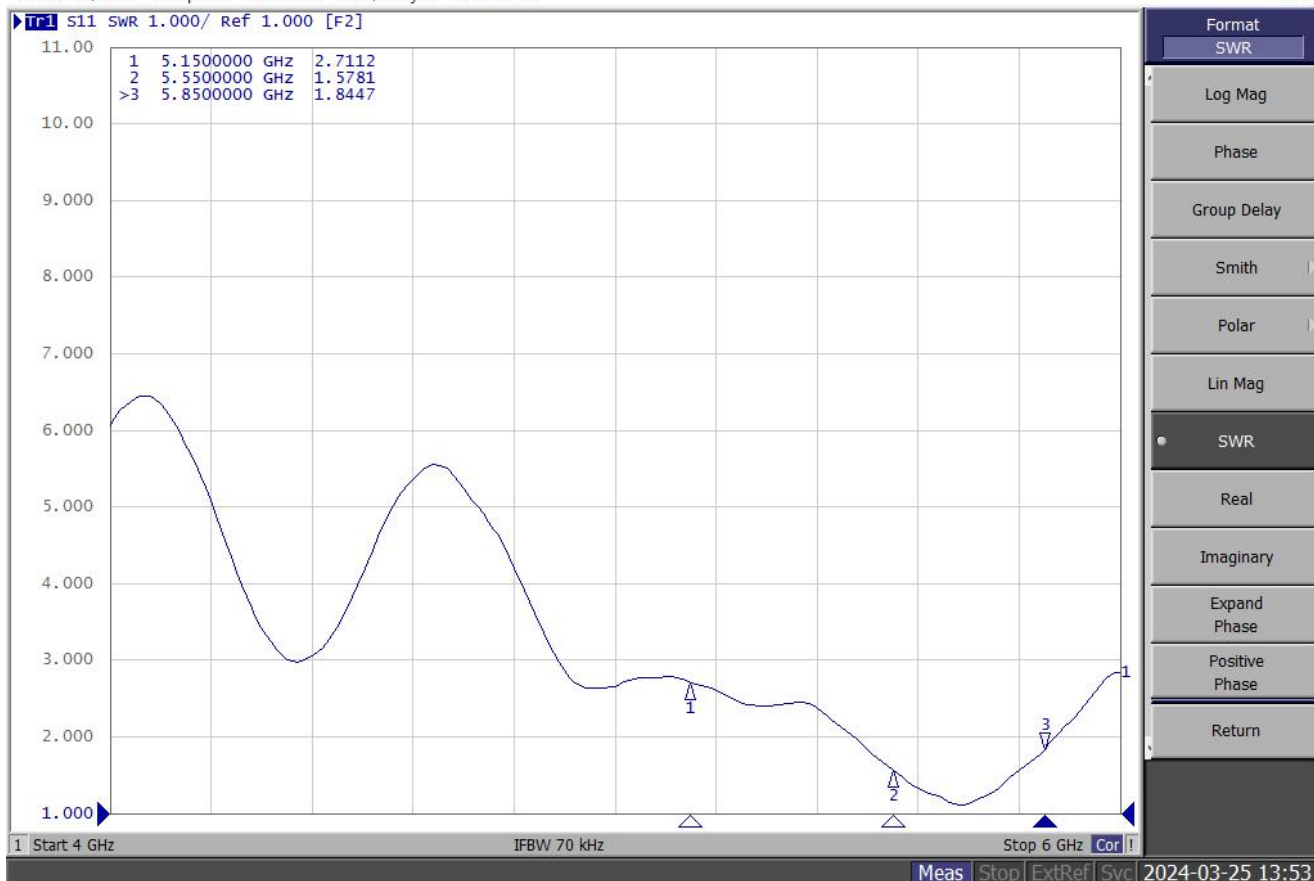
Page 4/16

Mkr1: 5150MHz 2.7 Mkr2: 5550MHz 1.57 Mkr3: 5850 MHz 1.84

E5071C Network Analyzer

1 Active Ch/Trace 2 Response 3 Stimulus 4 Mkr/Analysis 5 Instr State

Resize



②Smith Chart

Mkr1: 2410MHz 95.1 Mkr2: 2450MHz 43.7 Mkr3: 2480MHz 31.9

Antenna specification

Doc No. IS-QR-PD-010

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Page 5/16

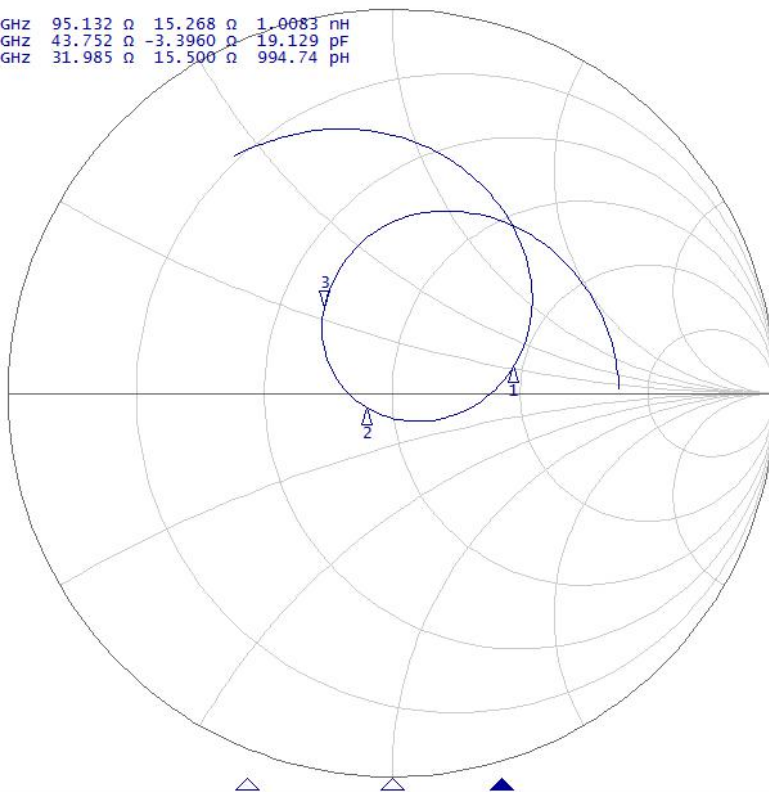
E5071C Network Analyzer

1 Active Ch/Trace 2 Response 3 Stimulus 4 Mkr/Analysis 5 Instr State

Resize

► Tr1 S11 Smith (R+jX) Scale 1.000U [F2]

1	2.410000	GHZ	95.132	Ω	15.268	Ω	1.0083	nH
2	2.450000	GHZ	43.752	Ω	-3.3960	Ω	19.129	pF
>3	2.480000	GHZ	31.985	Ω	15.500	Ω	994.74	pH



1 Start 2.3 GHz

IFBW 70 kHz

Stop 2.6 GHz

Cor

Meas

Stop

ExtRef

Svc

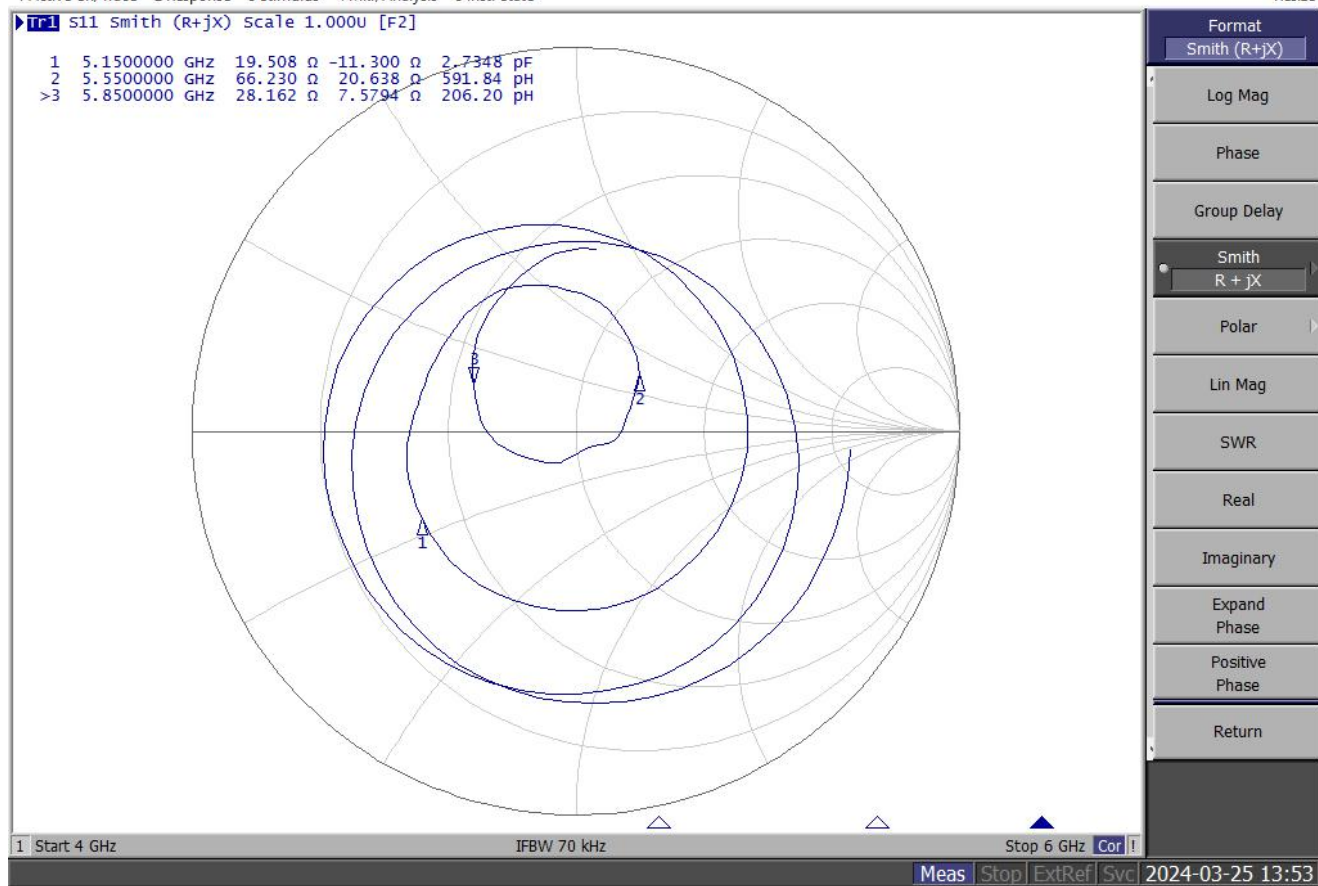
2024-03-25 13:51

Mkr1: 5150MHz 19.5 Mkr2: 5550MHz 66.2 Mkr3: 5850 MHz 28.1

E5071C Network Analyzer

1 Active Ch/Trace 2 Response 3 Stimulus 4 Mkr/Analysis 5 Instr State

Resize



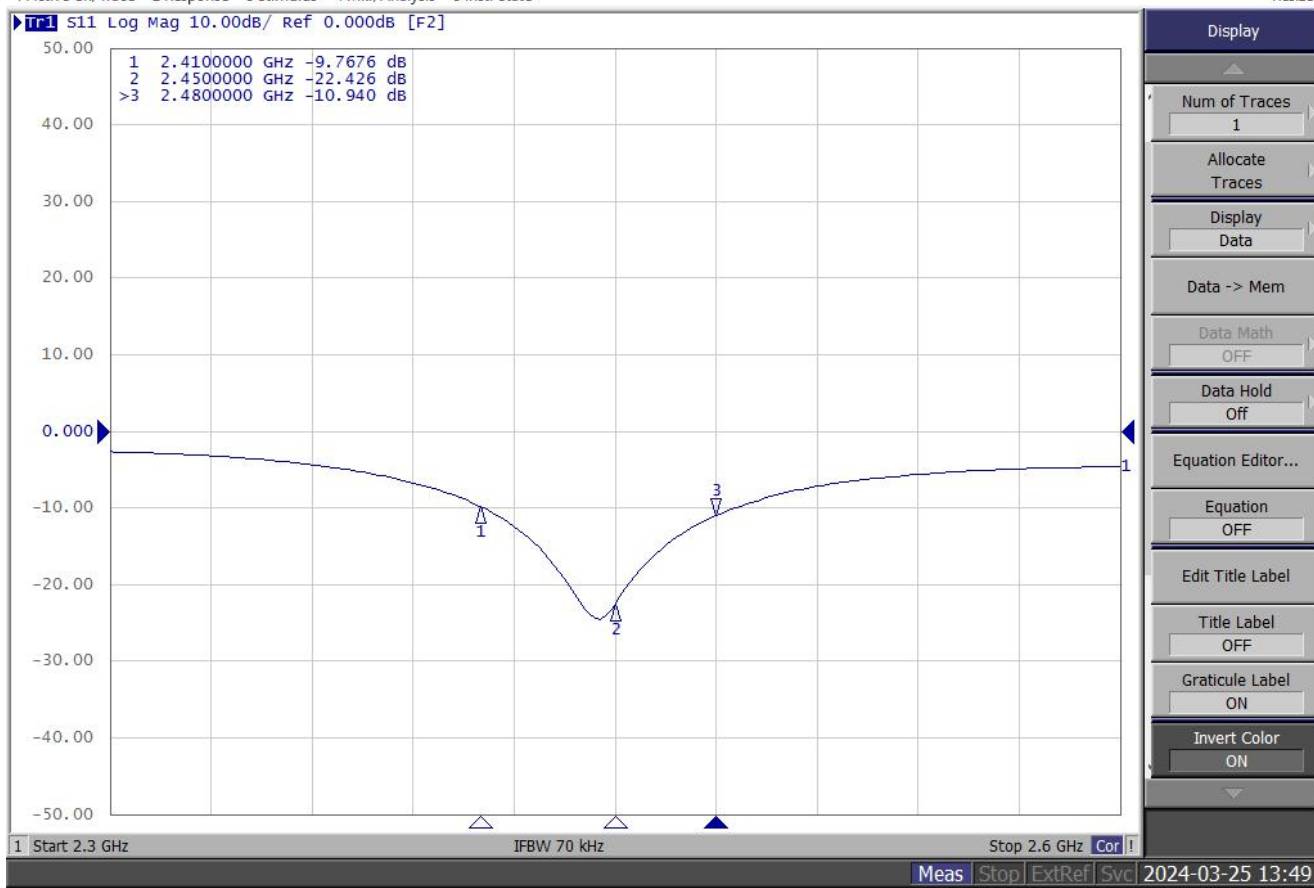
③Return Loss

Mkr1: 2410MHz -9.7 Mkr2: 2450MHz -22.4 Mkr3: 2480 MHz -10.9

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1 Active Ch/Trace 2 Response 3 Stimulus 4 Mkr/Analysis 5 Instr State

Resize

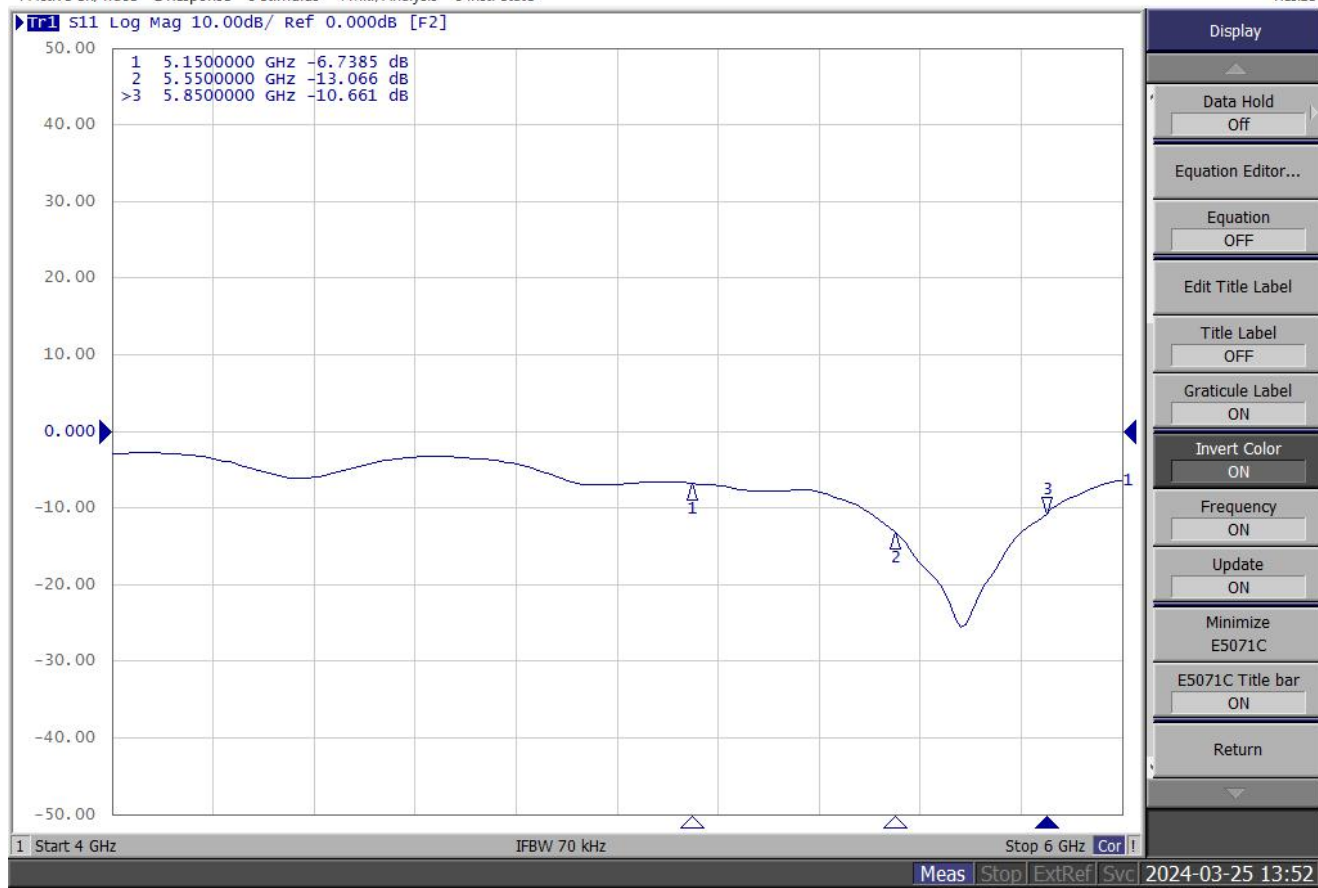


Mkr1: 5150MHz -6.7 Mkr2: 5550MHz -13 Mkr3: 5850 MHz -10.6

E5071C Network Analyzer

1 Active Ch/Trace 2 Response 3 Stimulus 4 Mkr/Analysis 5 Instr State

Resize



④Smith Chart

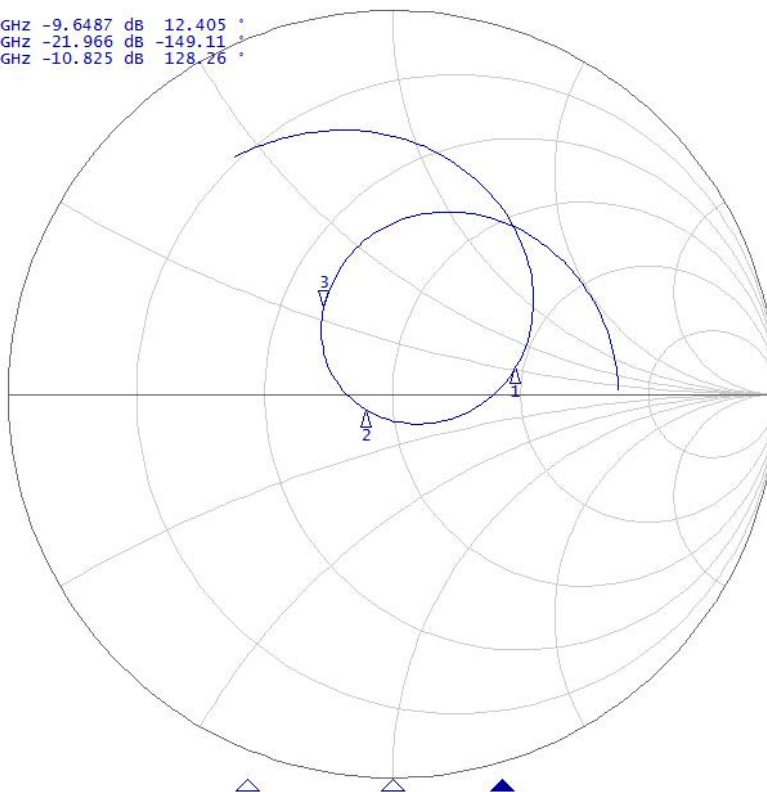
Mkr1: 2410MHz -9.6 Mkr2: 2450MHz -21.9 Mkr3: 2480 MHz -10.8

E5071C Network Analyzer

1 Active Ch/Trace 2 Response 3 Stimulus 4 Mkr/Analysis 5 Instr State

► S11 Smith (Log/Phase) Scale 1.000U [F2]

1 2.410000 GHz -9.6487 dB 12.405 °
2 2.450000 GHz -21.966 dB -149.11 °
>3 2.480000 GHz -10.825 dB 128.26 °



1 Start 2.3 GHz

IFBW 70 kHz

Stop 2.6 GHz Cor I

Meas Stop ExtRef Svc

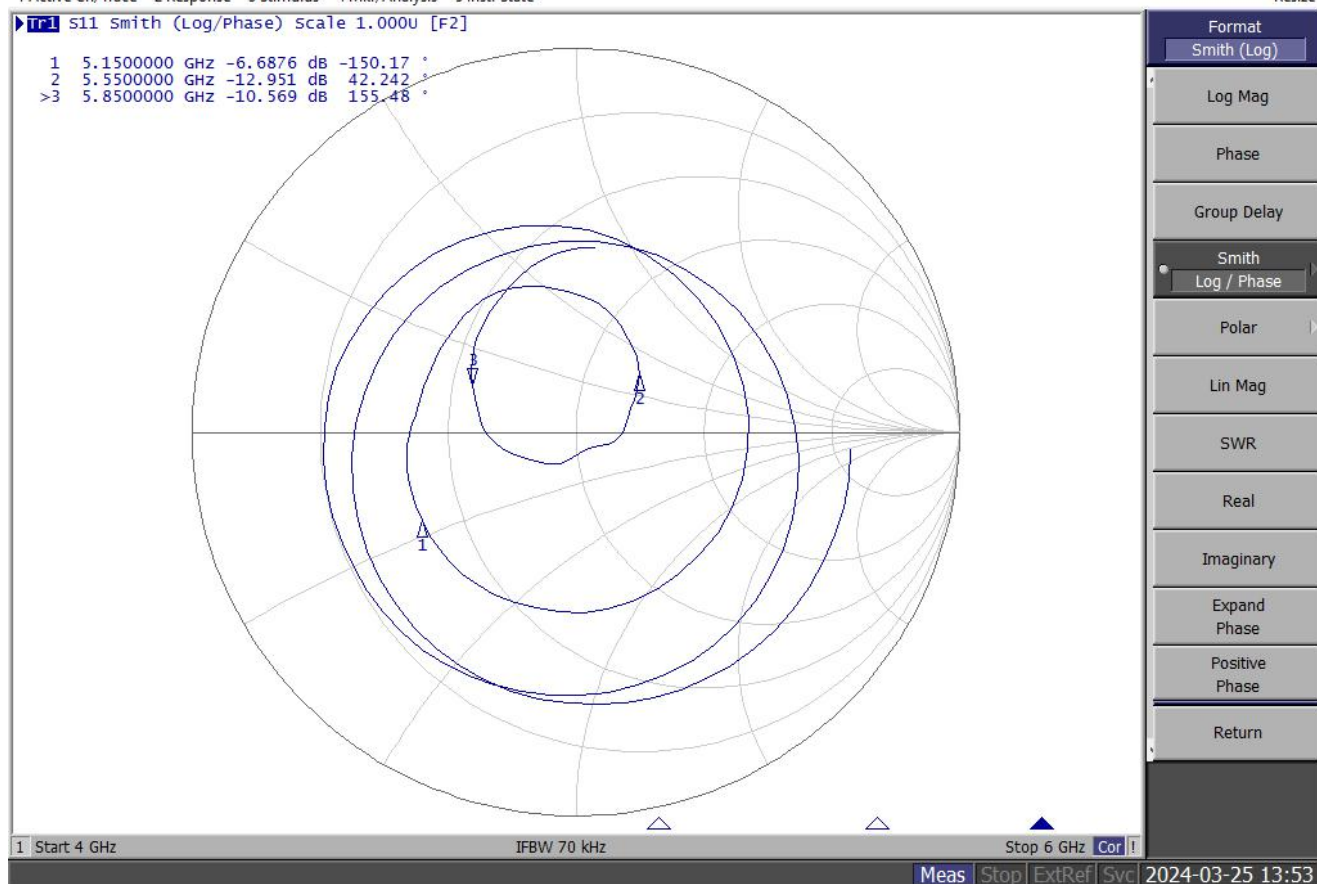
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Mkr1: 5150MHz -17.3 Mkr2: 5550MHz -11.4 Mkr3: 5850 MHz -11.6

E5071C Network Analyzer

1 Active Ch/Trace 2 Response 3 Stimulus 4 Mkr/Analysis 5 Instr State

Resize



⑤Phase

Mkr1: 2410MHz 59 Mkr2: 2450MHz -98 Mkr3: 2480MHz 174

Antenna specification

Doc No. IS-QR-PD-010

Rev. V1.0

Page 11/16

E5071C Network Analyzer

1 Active Ch/Trace 2 Response 3 Stimulus 4 Mkr/Analysis 5 Instr State

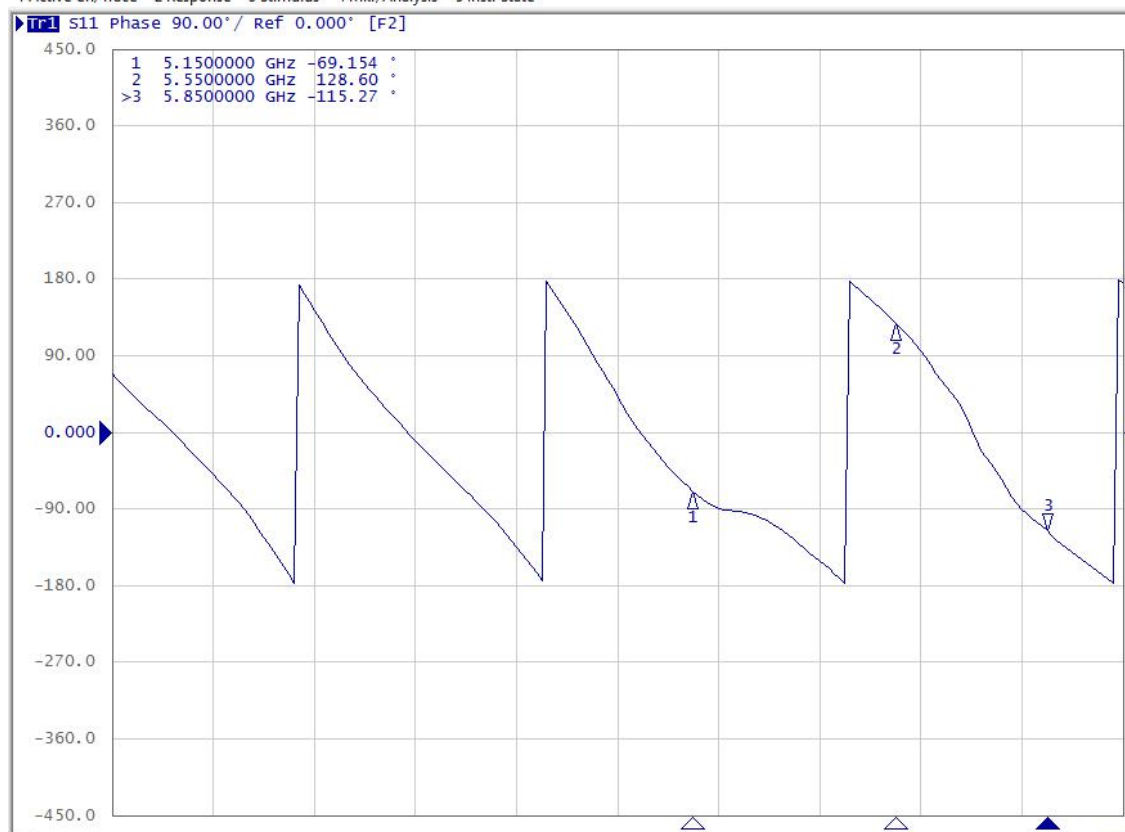
Resize



Mkr1: 5180MHz -69.1 Mkr2: 5560MHz 128.6 Mkr3: 5825 MHz -115.2

E5071C Network Analyzer

1 Active Ch/Trace 2 Response 3 Stimulus 4 Mkr/Analysis 5 Instr State



Resize

Display

Data Hold

Off

Equation Editor...

Equation

OFF

Edit Title Label

Title Label

OFF

Graticule Label

ON

Invert Color

ON

Frequency

ON

Update

ON

Minimize

E5071C

E5071C Title bar

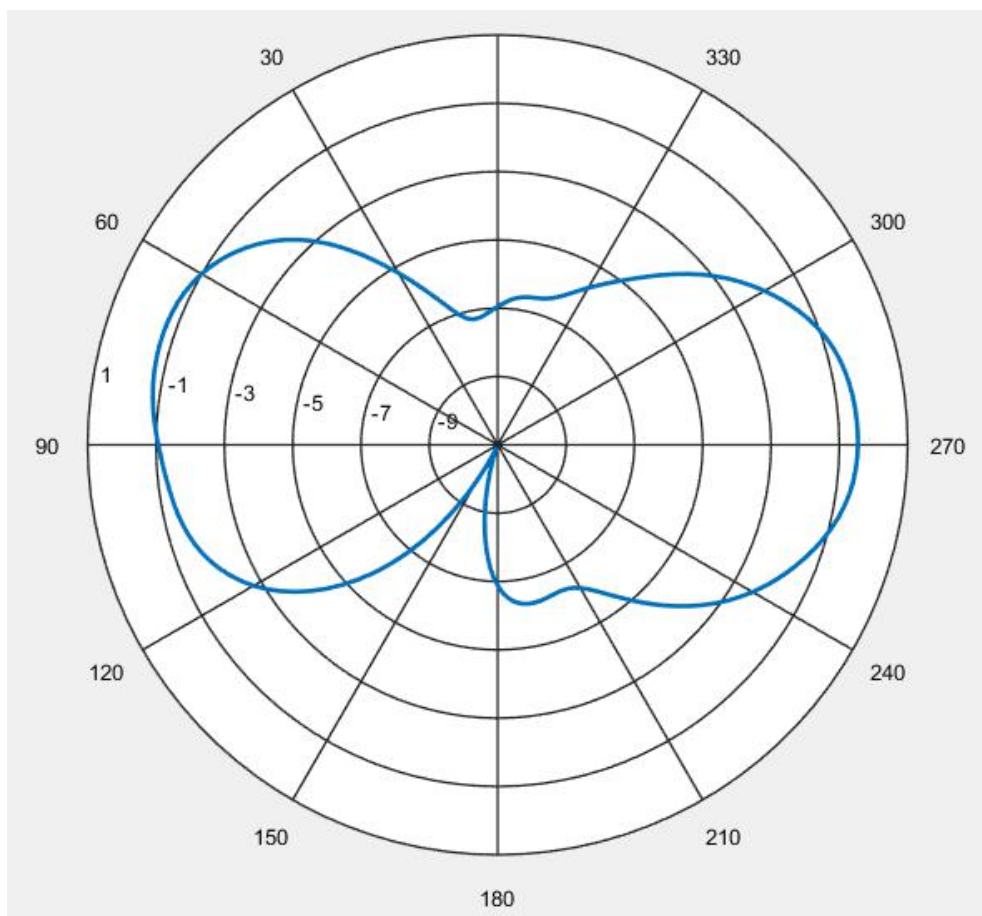
ON

Return

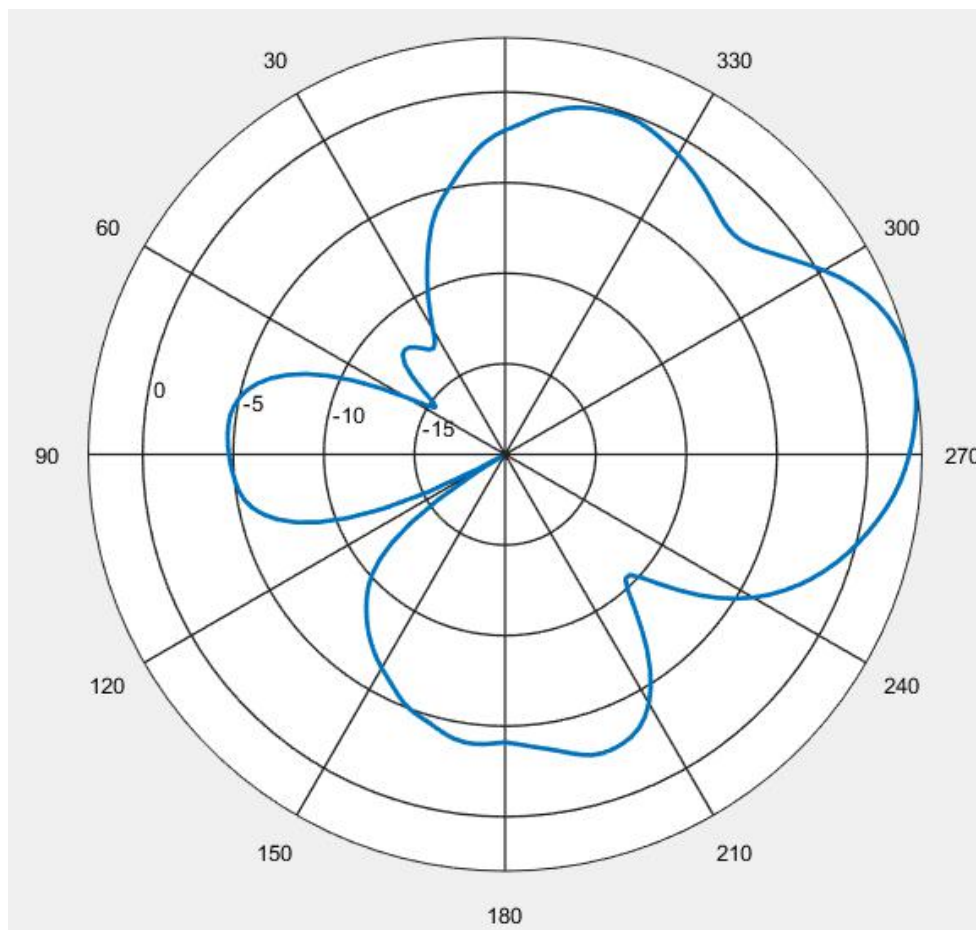
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Meas Stop ExtRef Svc 2024-03-25 14:27

4. Radiation Patterns

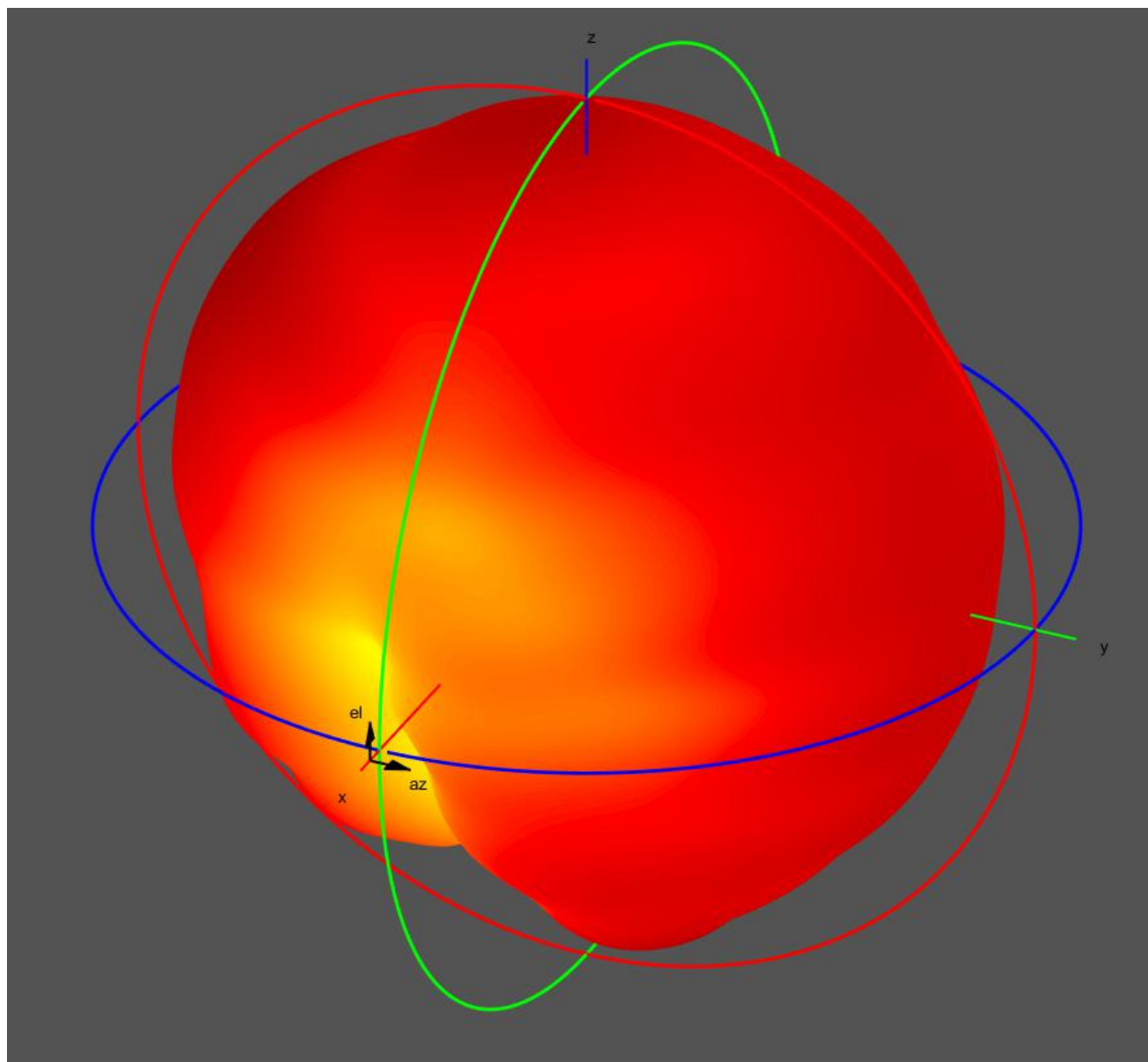


2450MHz

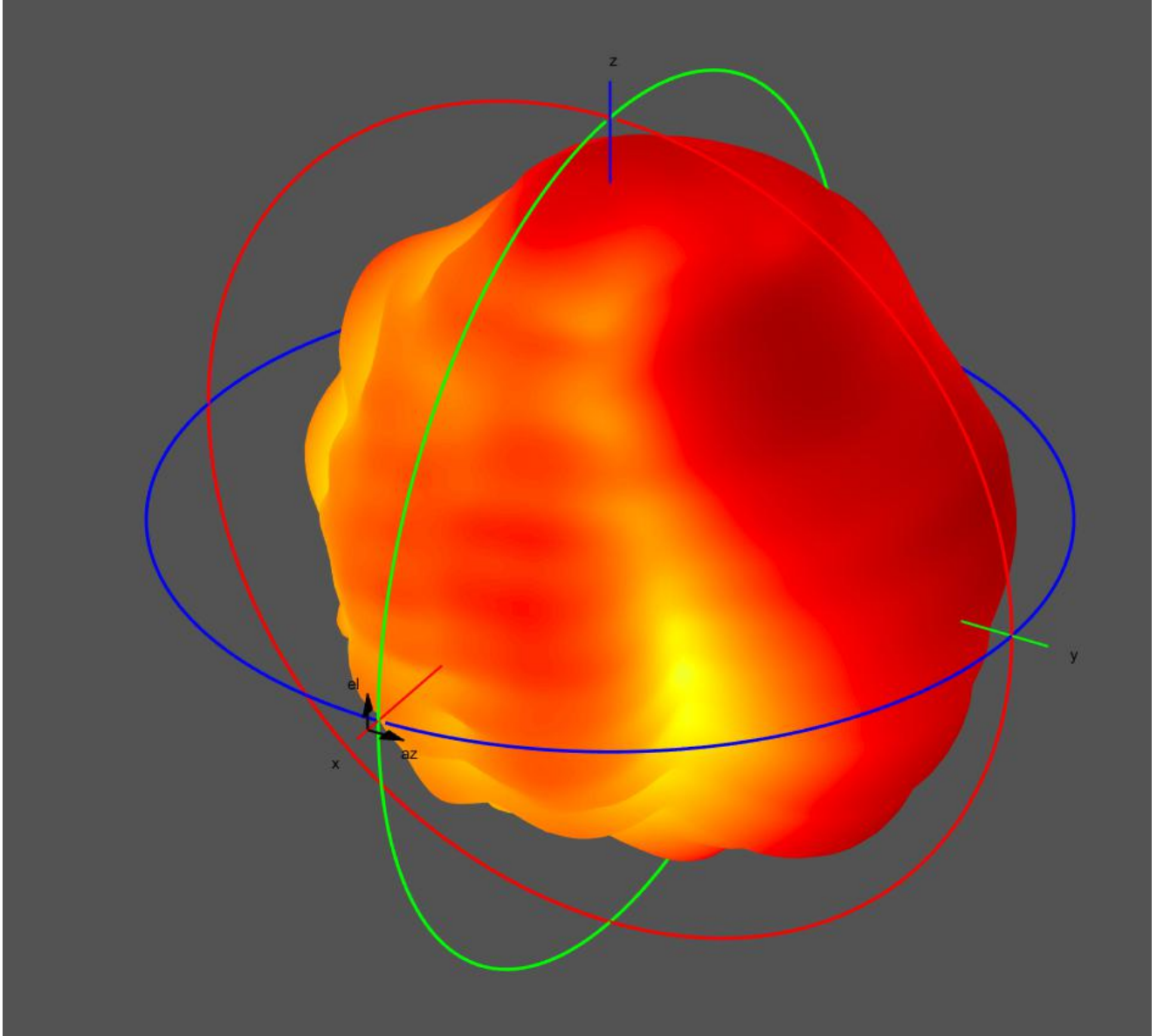


5550MHz

- 3D Radiation patterns



2450MHz



5550MHz