

# Report for Broadcom

*By Alfred Grau*

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UCI CENTER FOR RF DESIGN AND CHARACTERIZATION

## Tested Products.

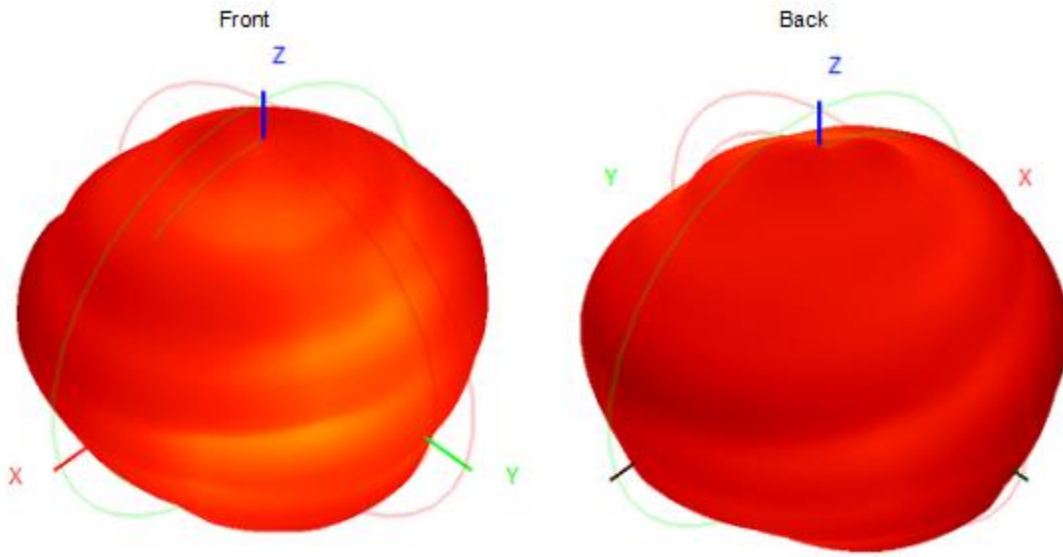
- Antenna 1: external antenna.
  - Frequency =2402MHz
  - Frequency =2404MHz
  - Frequency =2440MHz
  - Frequency =2441MHz
  - Frequency =2472MHz
  - Frequency =2480MHz

# Coordinate System Reference: Antenna-RX

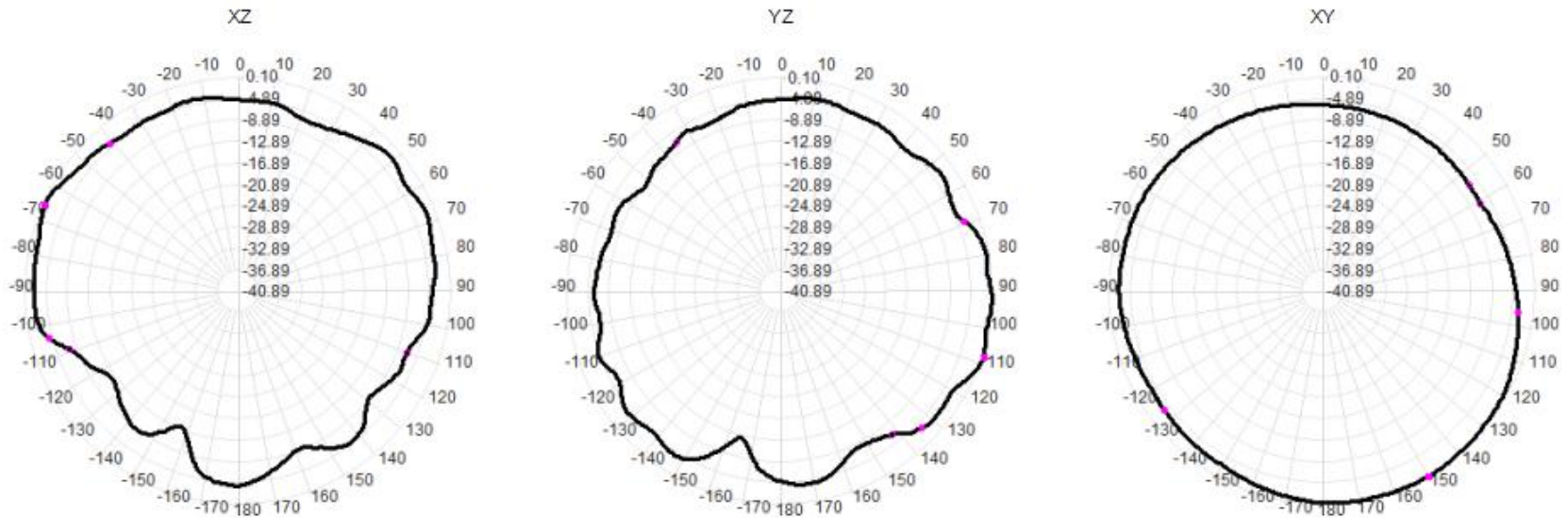


# Radiation pattern: Antenna 3D Pattern at $f = 2402\text{MHz}$

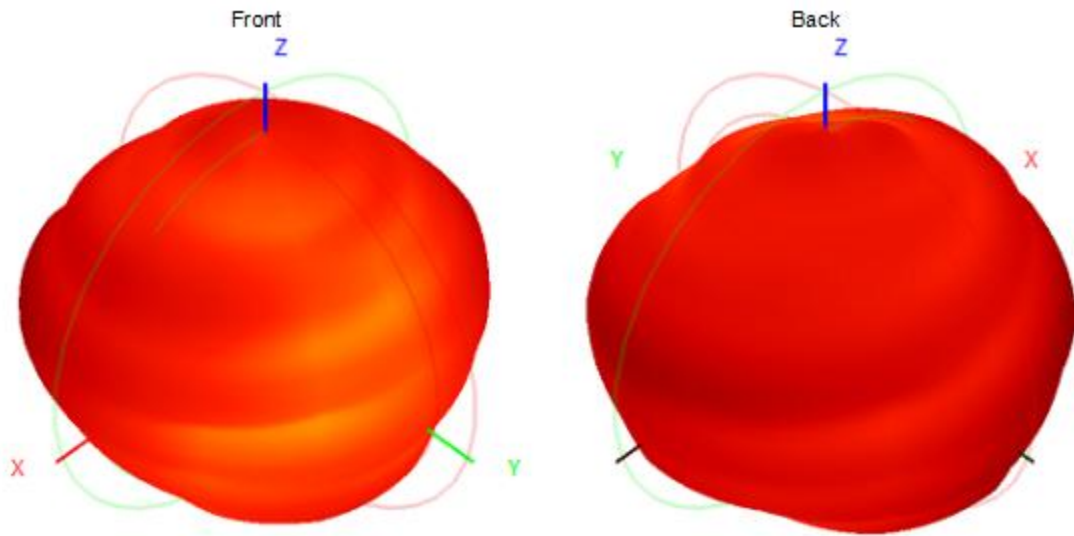
## Coordinate System Reference: Antenna-RX



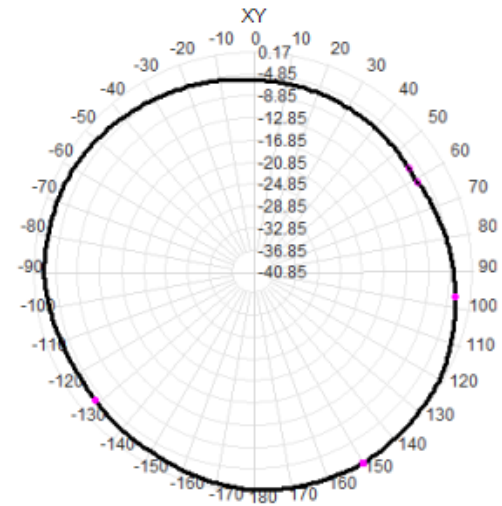
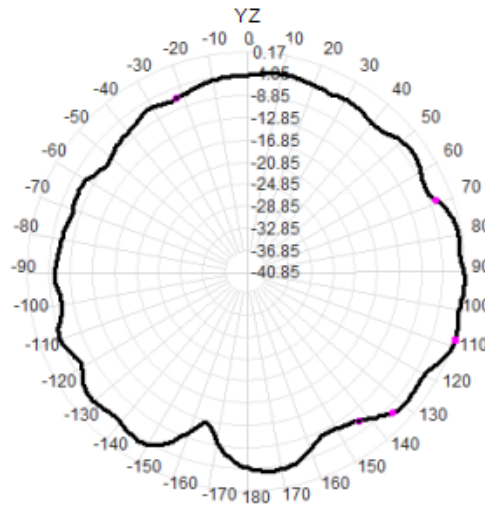
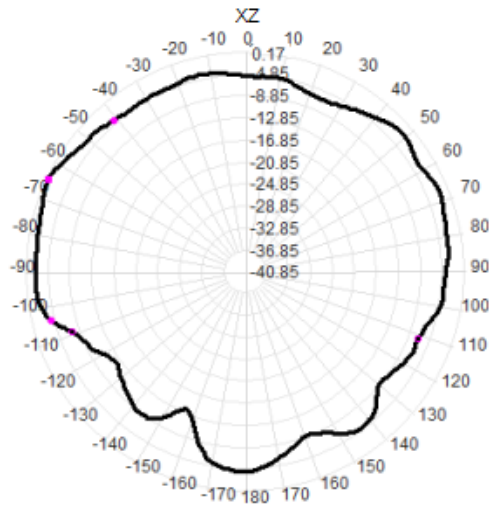
# Radiation pattern: Antenna 2D Pattern at $f = 2402\text{MHz}$



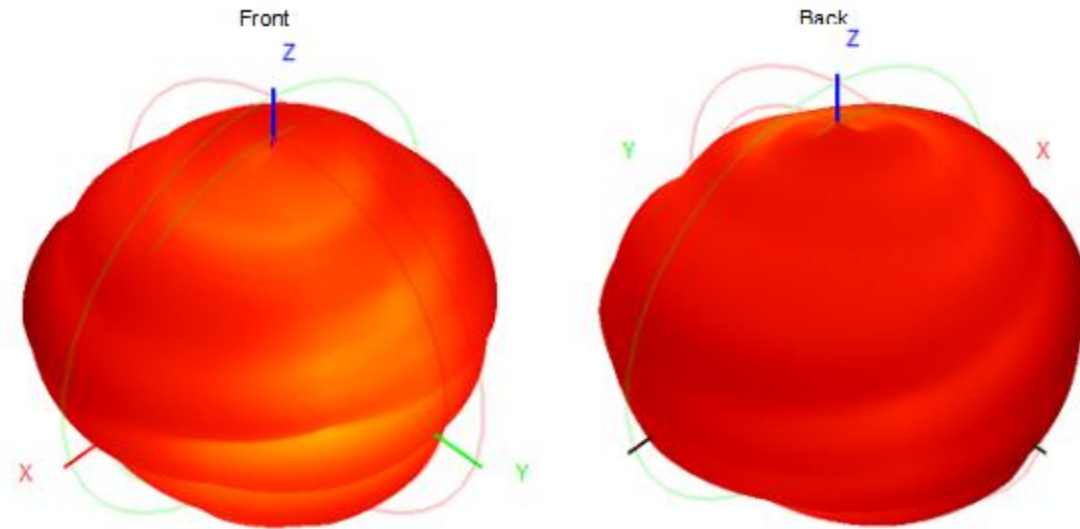
# Radiation pattern: Antenna 3D Pattern at $f = 2404\text{MHz}$



# Radiation pattern: Antenna 2D Pattern at $f = 2404\text{MHz}$

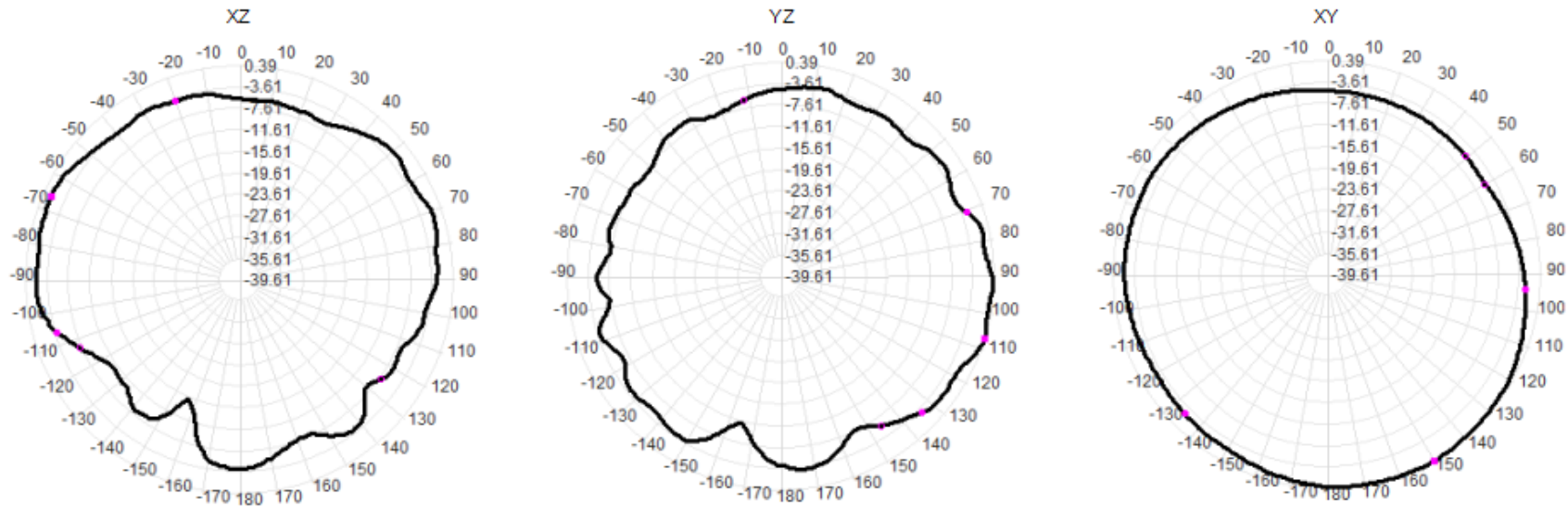


# Radiation pattern: Antenna 3D Pattern at $f = 2440\text{MHz}$

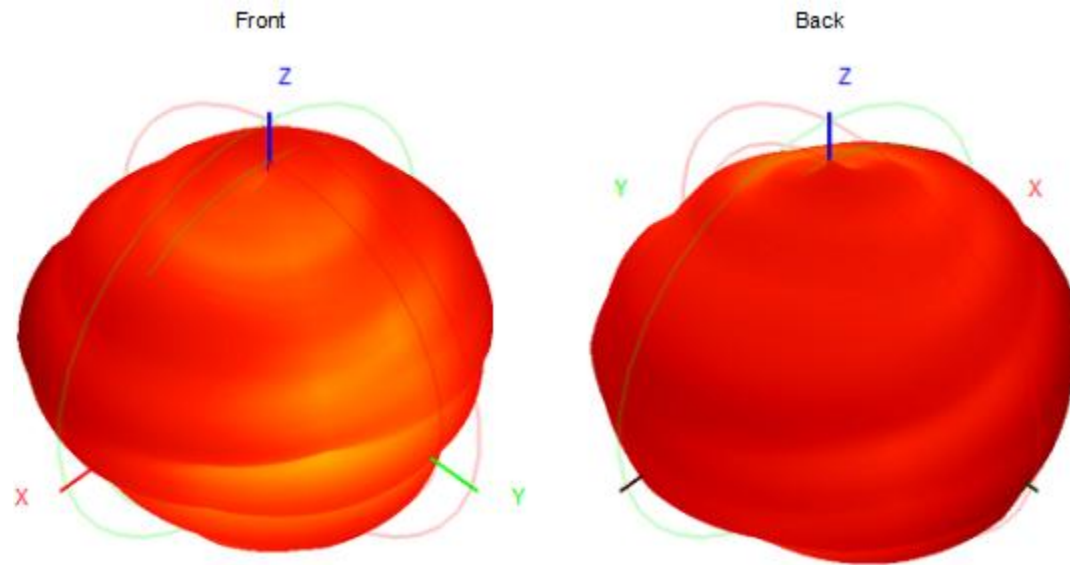




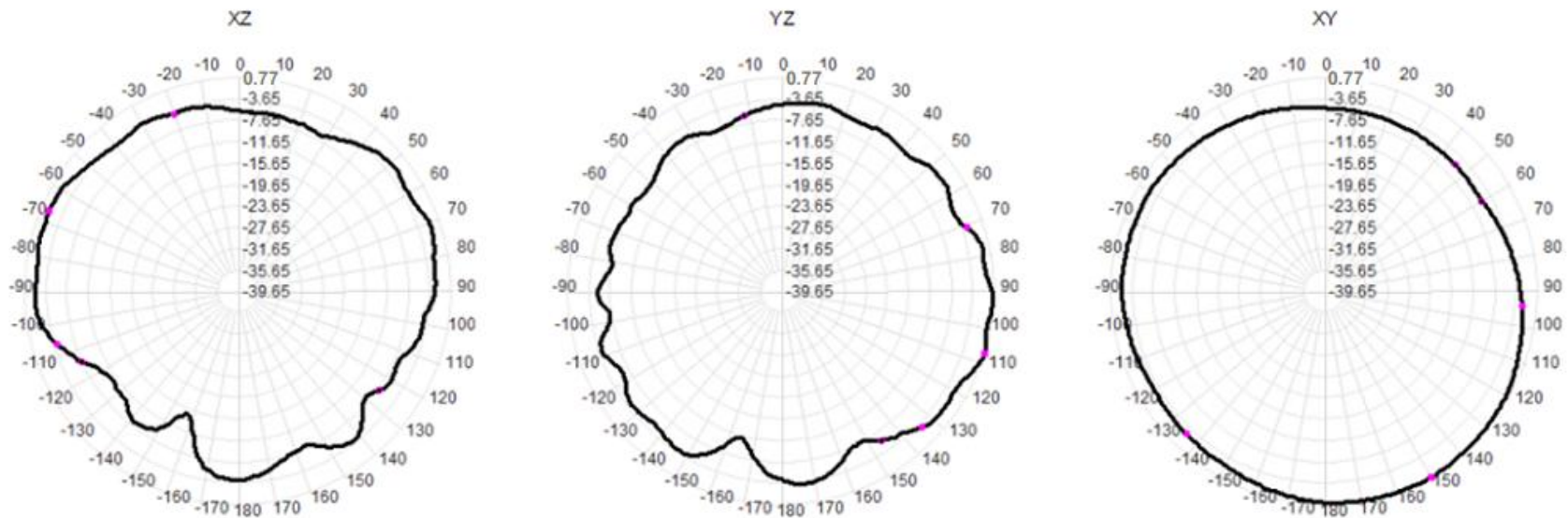
# Radiation pattern: Antenna 2D Pattern at $f = 2440\text{MHz}$



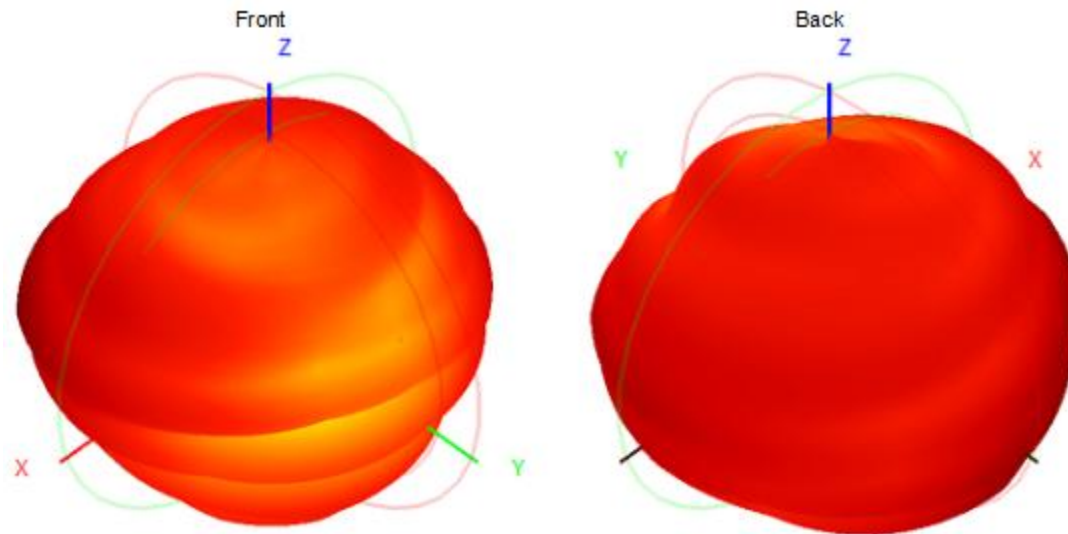
# Radiation pattern: Antenna 3D Pattern at $f = 2441\text{MHz}$



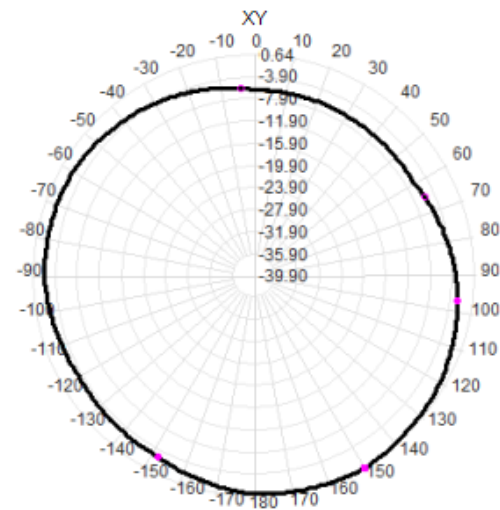
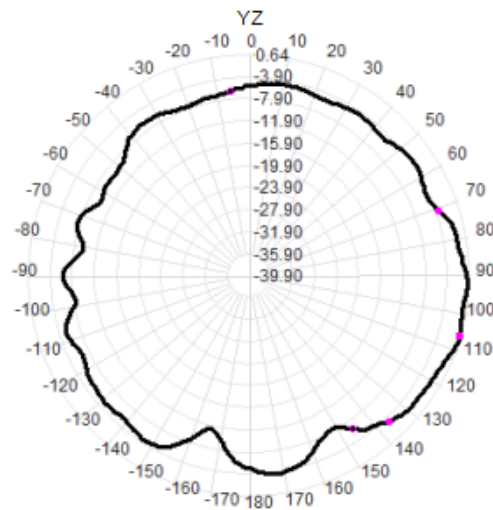
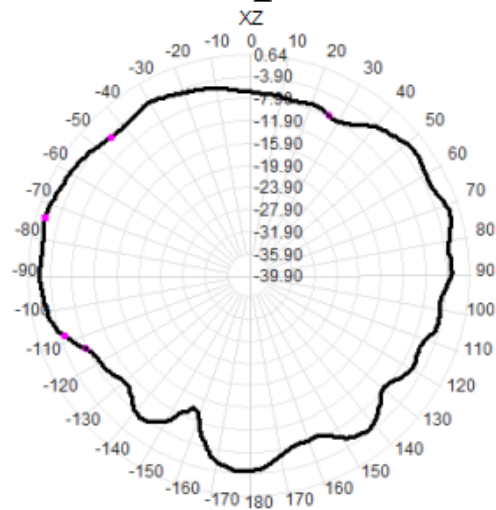
# Radiation pattern: Antenna 2D Pattern at $f = 2441\text{MHz}$



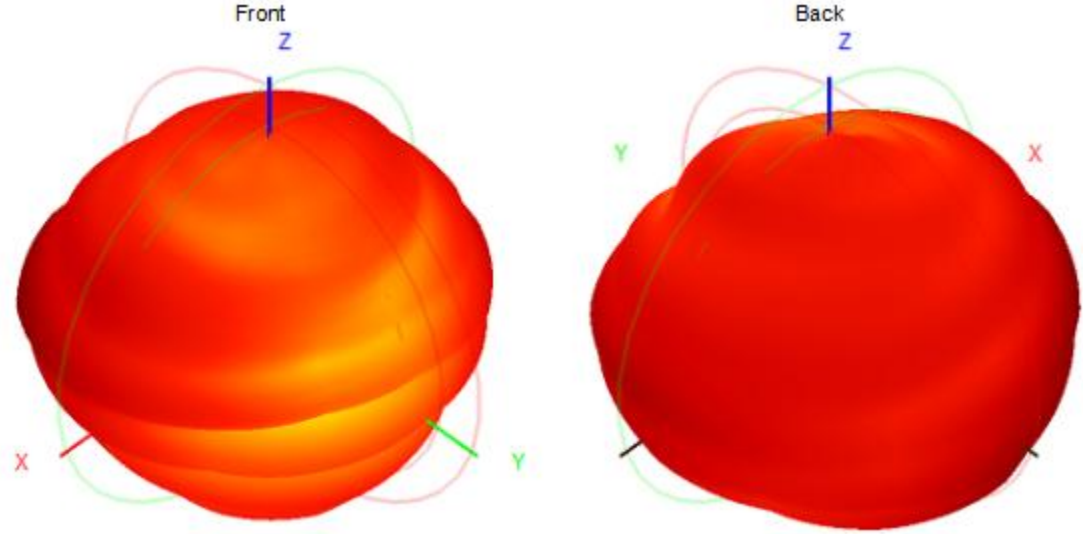
## Radiation pattern: Antenna 3D Pattern at $f = 2472\text{MHz}$



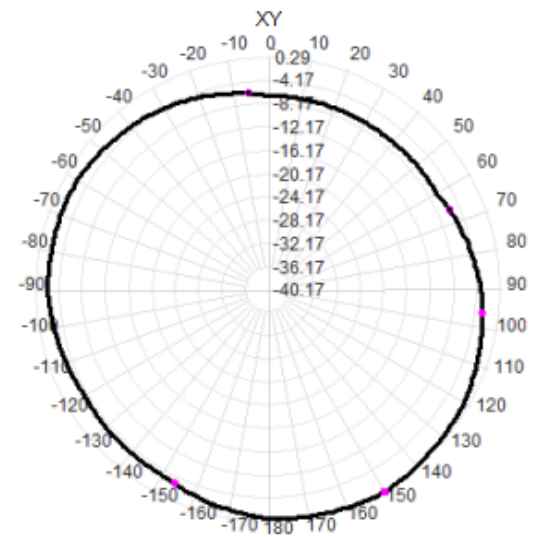
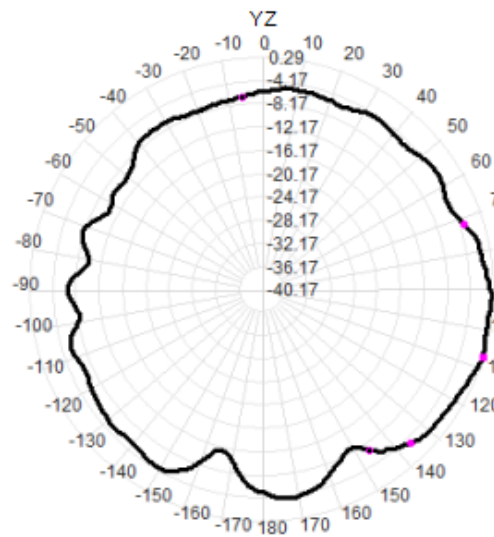
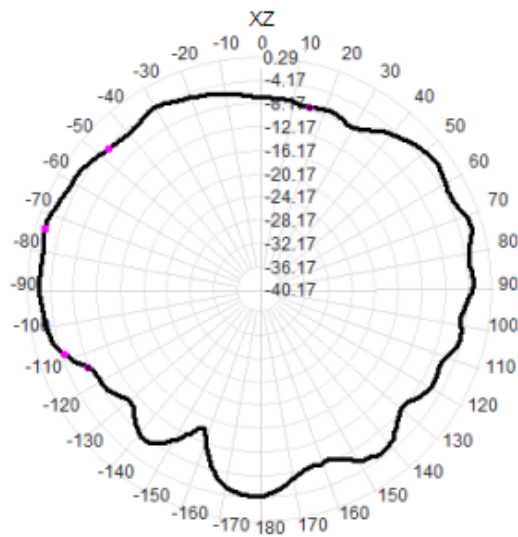
# Radiation pattern: Antenna 2D Pattern at $f = 2472\text{MHz}$



# Radiation pattern: Antenna 3D Pattern at $f = 2480\text{MHz}$

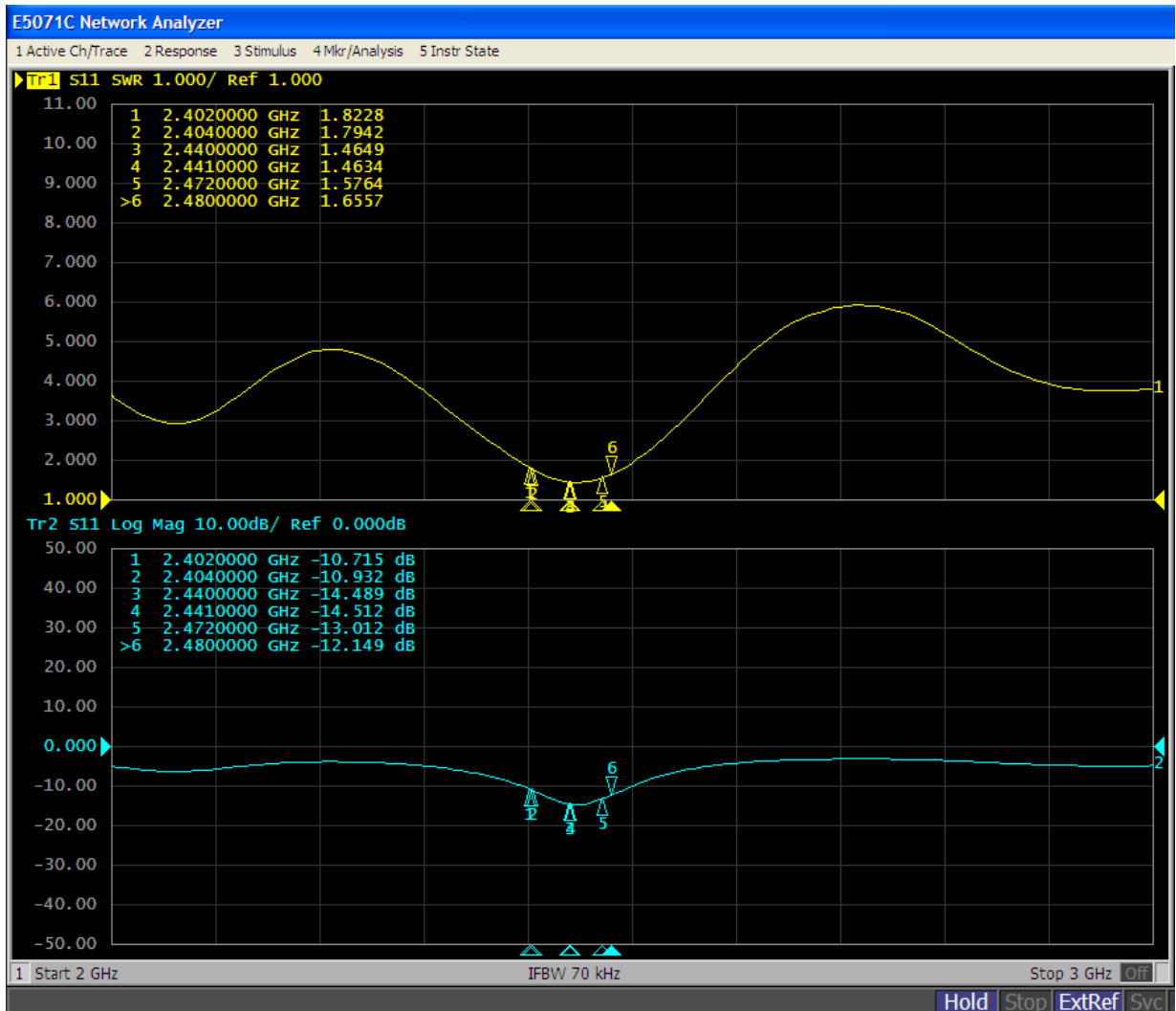


# Radiation pattern: Antenna 2D Pattern at $f = 2480\text{MHz}$



# Return Loss: Antenna 1





# Measurements summary

Frequency ID	1	2	3	4	5	6
Frequency (MHz)	2402.0	2404.0	2440.0	2441.0	2472.0	2480.0
Gain (dBi)	0.42	0.51	0.61	0.77	0.64	0.39
Efficiency (%)	41.28	42.21	44.03	45.02	43.67	42.61

2.4GFPC/OD0.81mm/L=60mm

