
Antenna Reports

Main Antenna vendor: Motorola

Test lab: Motorola internal lab (by GTS RayZone2800)

Antenna model name: Midframe

Issue date: 2022/11/14

Antenna Summary Table

Check items	Information
Provided by lab	Motorola internal lab (by GTS RayZone2800)
Manufacturer/ Brand name	Motorola
Model name (Part number)	XT2309-2
Test environment	Motorola Shanghai RD team Lab with GTS RayZone2800 chamber
Test software	MaxSign Libra
List of calibrated test equipment	GTS RayZone2800 with calibrated date: On August 9, 2022
Antenna detail info.	ANT3: WiFi2.4G antenna (2.4~2.5GHz), Metal type antenna. ANT4:WiFi 5G / 6E antenna(5.15~7.125GHz), Metal antenna. ANT5: WiFi 5G / 6E antenna(5.15~7.125GHz), Metal antenna. ANT6:WiFi 2.4G antenna (2.4~2.5GHz), Metal antenna. NFC Antenna: Differential port to excite FPC coil + Ferrite sheet with dimension 32.79 mm *32.1mm * 0.25mm
Antenna gain test data	Included antenna frequency, gain pattern

Note: Antenna gain was measured in the anechoic chamber, 3D scan was exercised, and the highest numbers are reported in this document.

ANT3/4/5/6

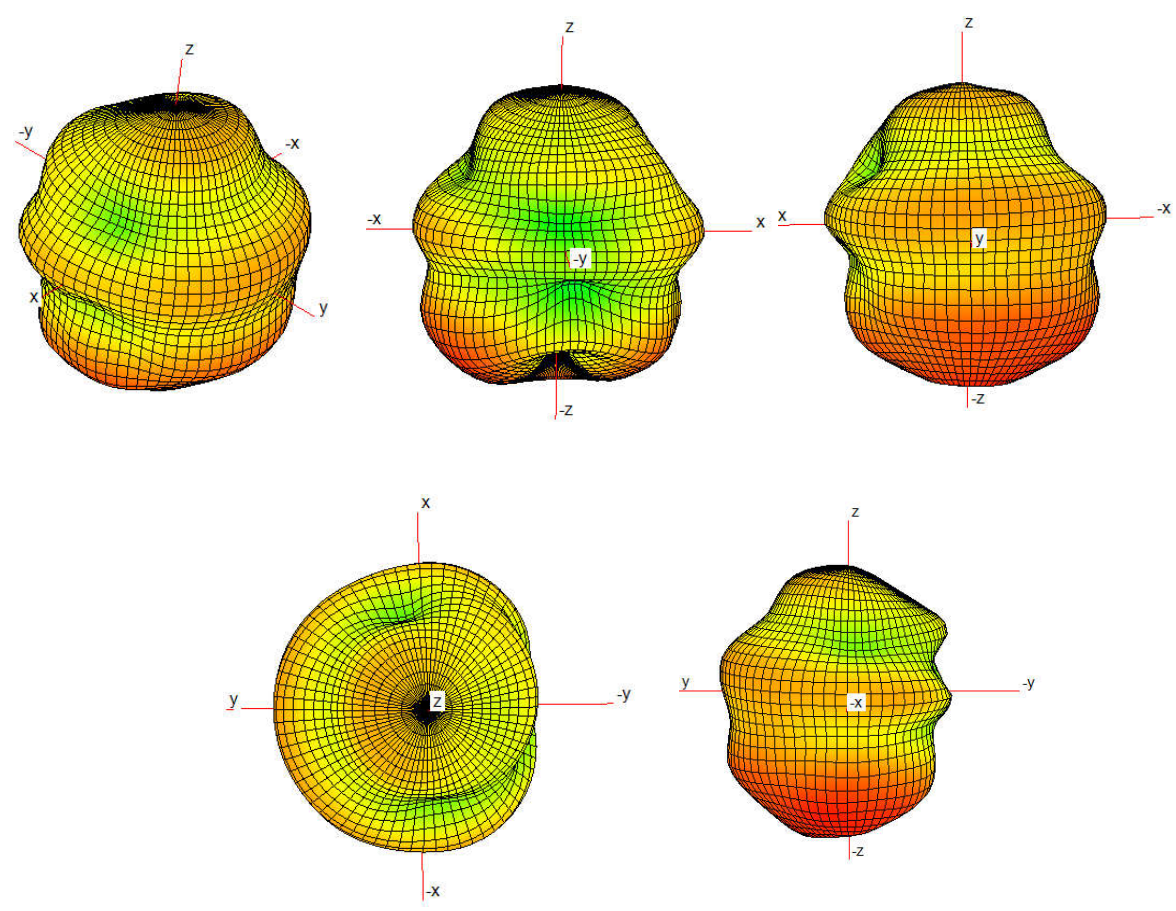
Antenna model name: Exterior metal

BT/WLAN CH0 Peak Gain (dBi)			
2400~2483.5MHz	-6.7 dBi	6E UNII-5	-8.5 dBi
5150~5250MHz	-8.1 dBi	6E UNII-6	-9.1 dBi
5250~5350MHz	-7.6 dBi	6E UNII-7	-8.8 dBi
5470~5725MHz	-7.2 dBi	6E UNII-8	-9.5 dBi
5725~5850MHz	-7.2 dBi		

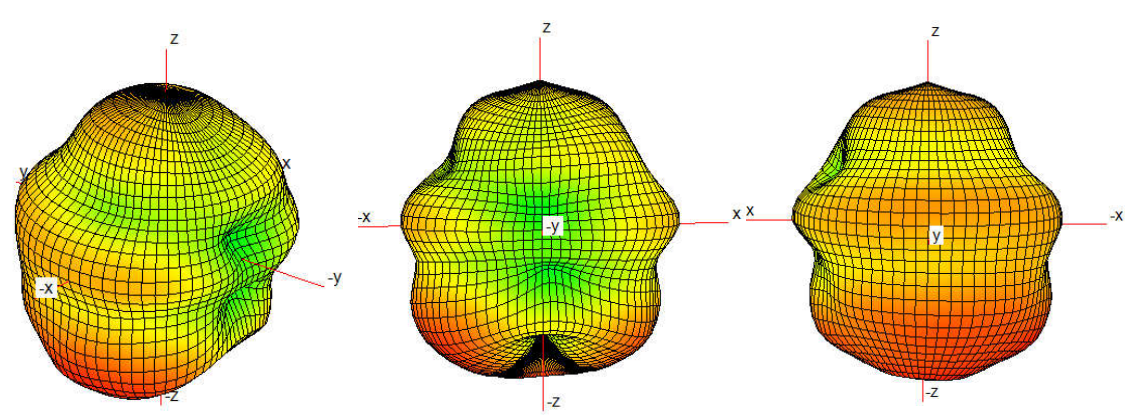
BT/WLAN CH1 Peak Gain (dBi)			
2400~2483.5MHz	-5.7dBi	6E UNII-5	-8.3 dBi
5150~5250MHz	-7.6 dBi	6E UNII-6	-8.7 dBi
5250~5350MHz	-6.8 dBi	6E UNII-7	-8.5 dBi
5470~5725MHz	-6.5 dBi	6E UNII-8	-9.2 dBi
5725~5850MHz	-7.1 dBi		

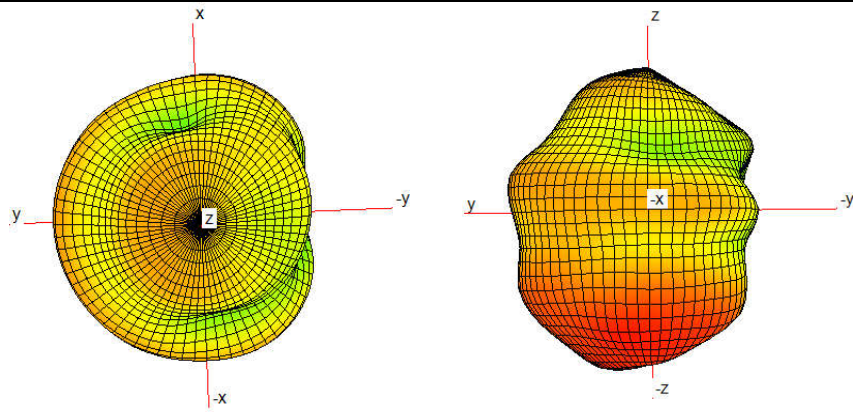
ANT6- WiFi 2.4G CH0

2420MHz

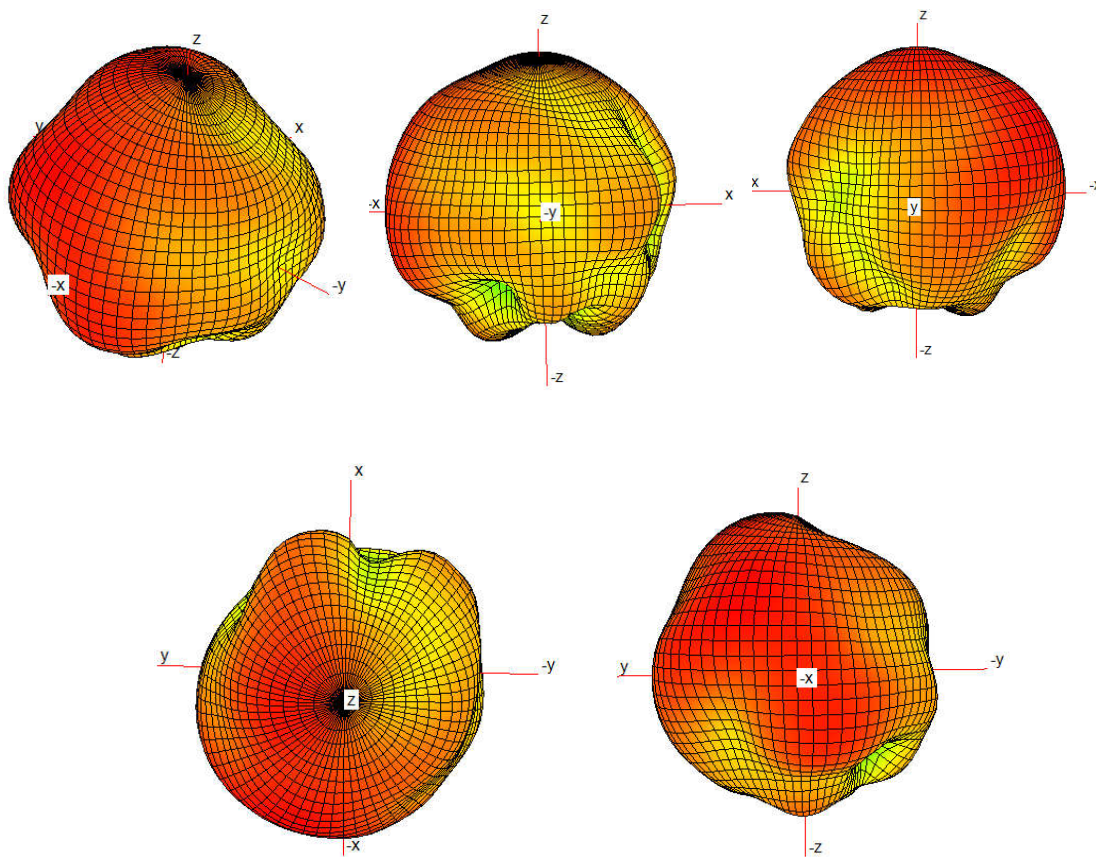


2450MHz

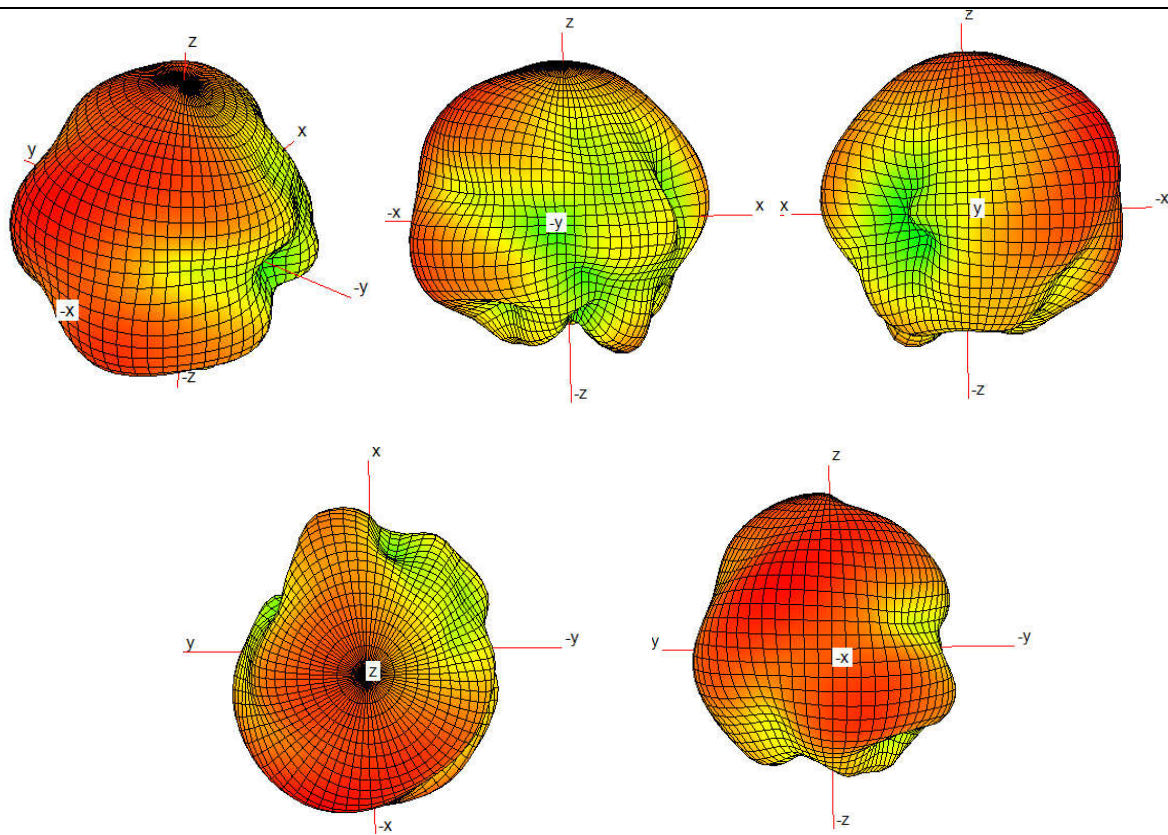




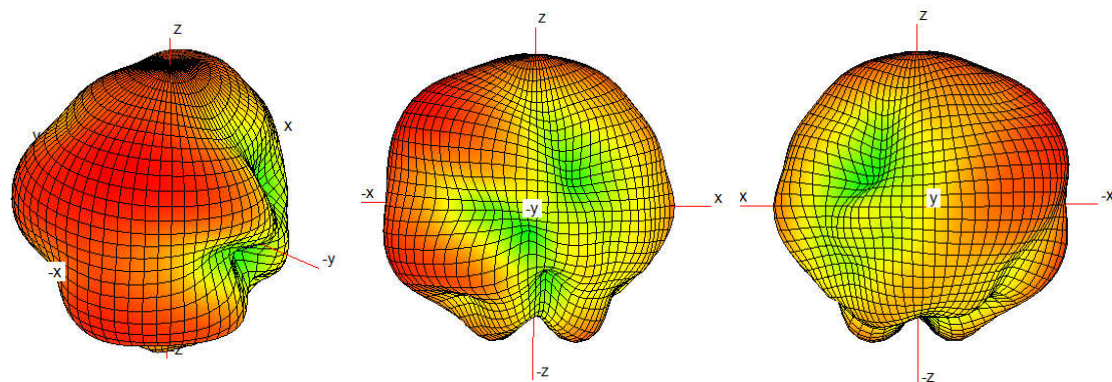
ANT4-WIFI 5G CH1
5280MHz

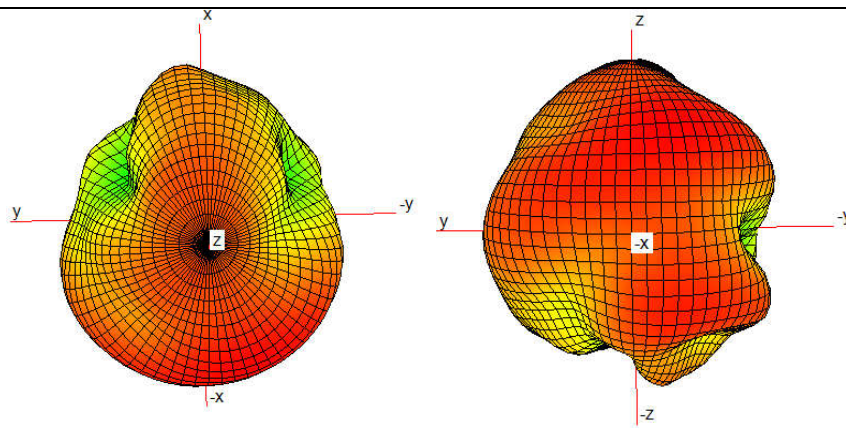


5500MHz

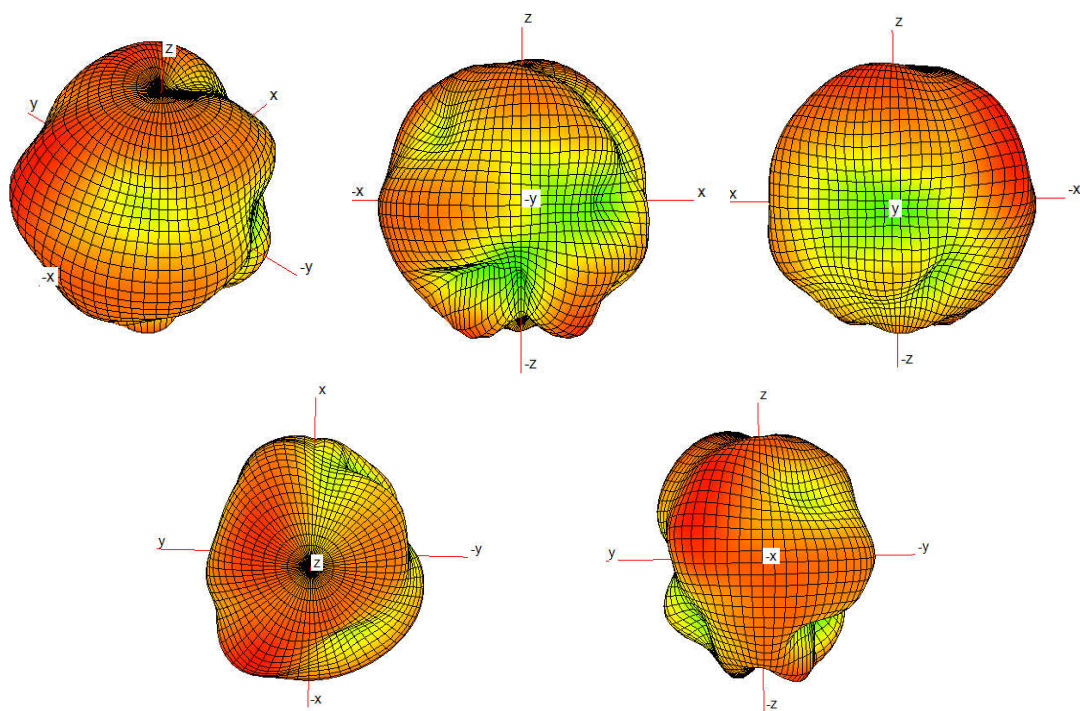


5780MHz

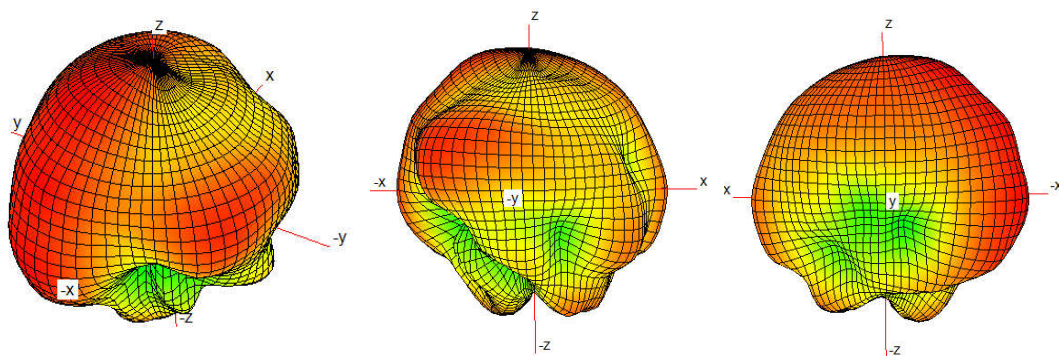


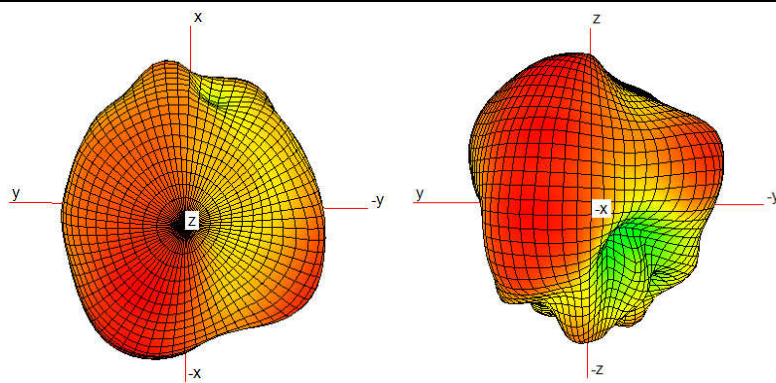


ANT4-WIFI 6E CH1
6000MHz

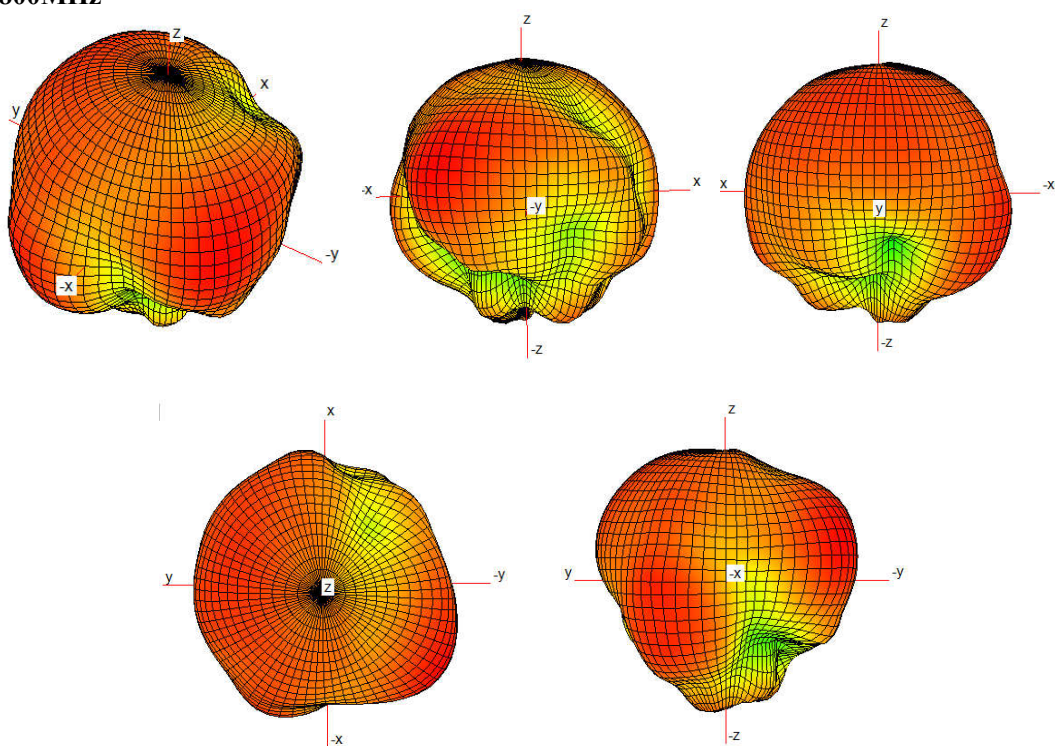


6500MHz

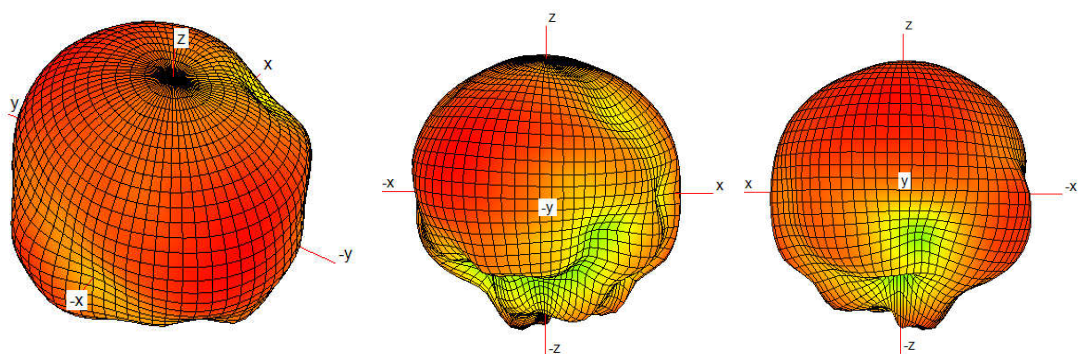


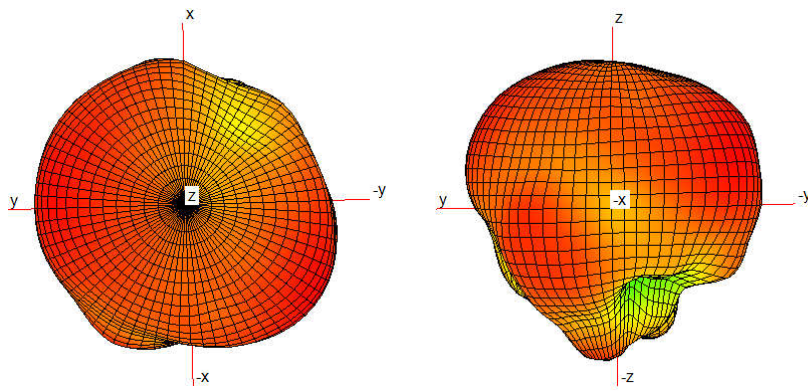


6800MHz



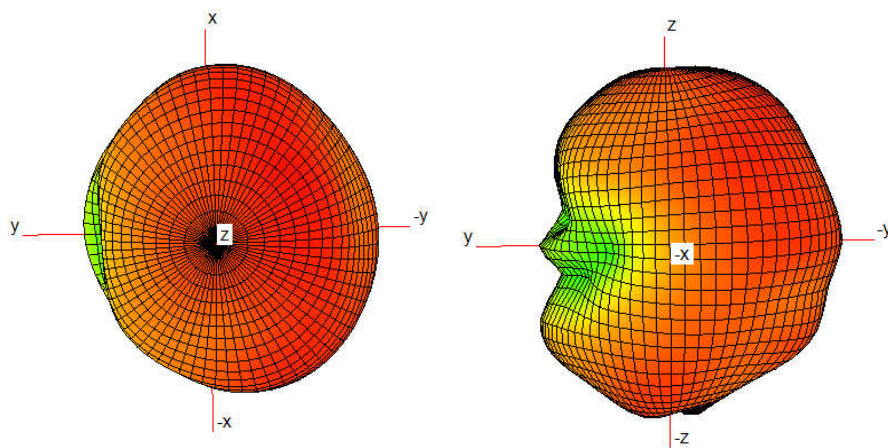
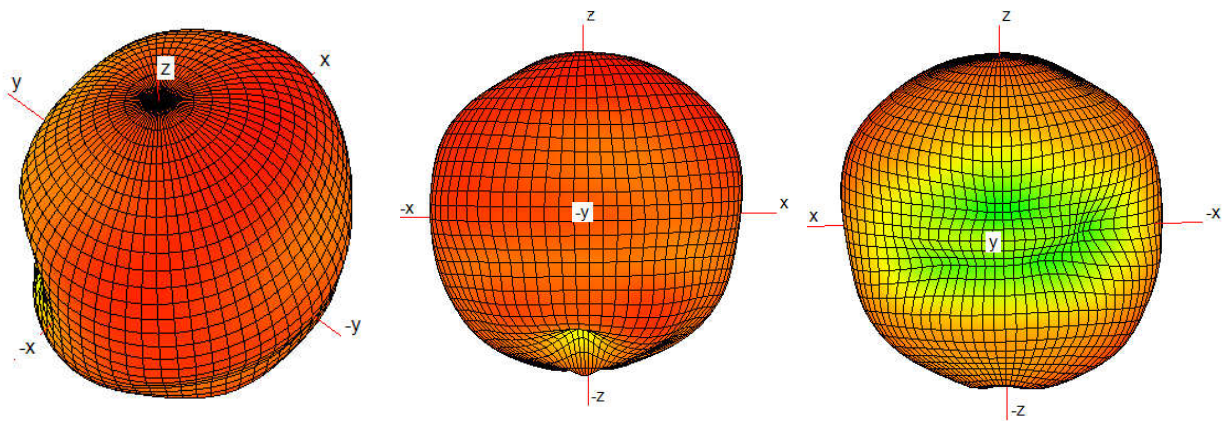
7000MHz



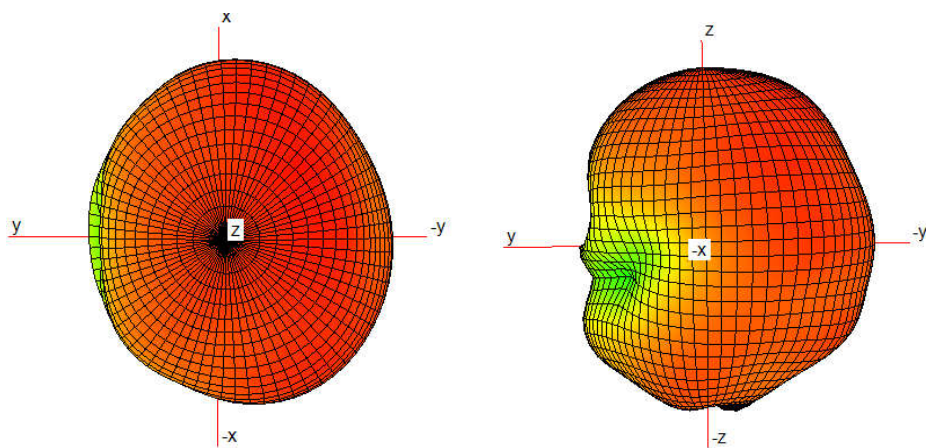
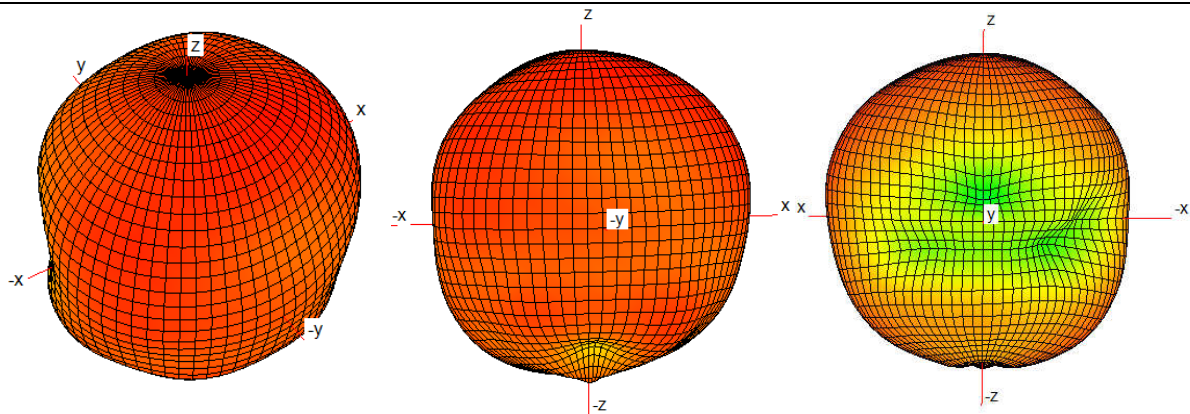


ANT3- WiFi 2.4G CH1

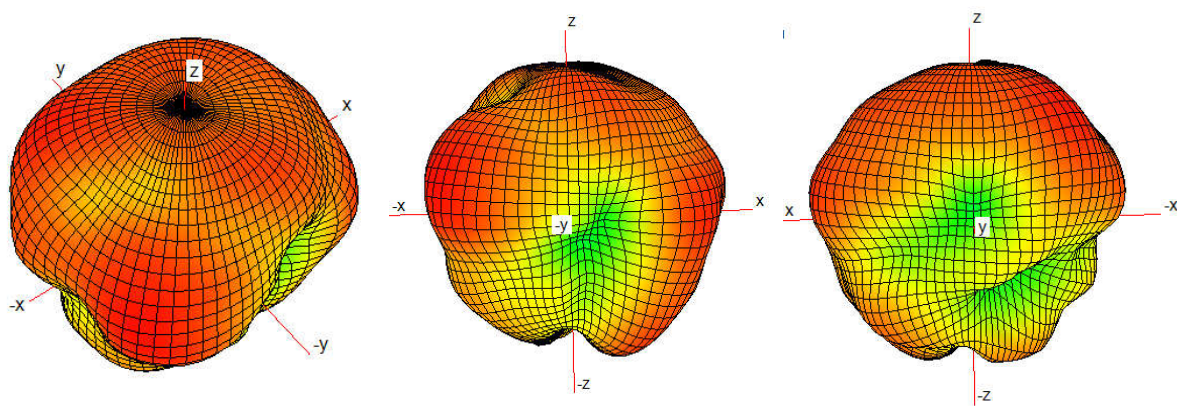
2420MHz

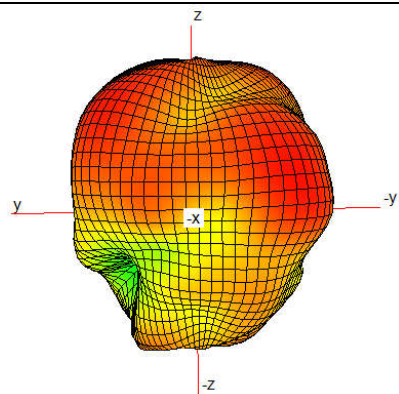
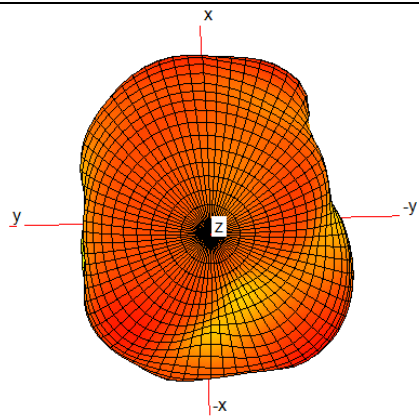


2450MHz

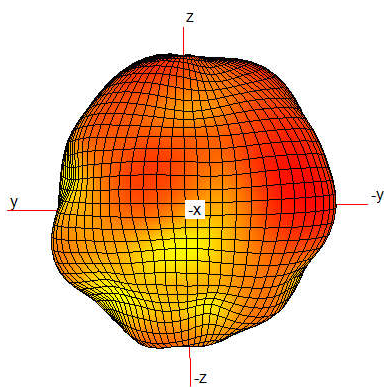
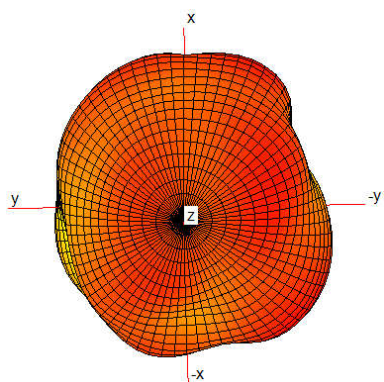
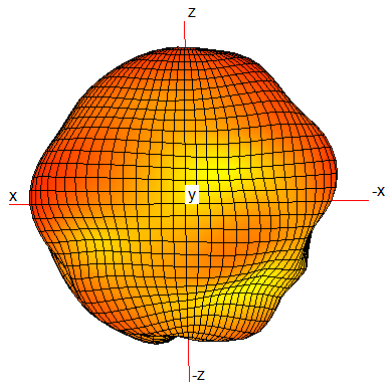
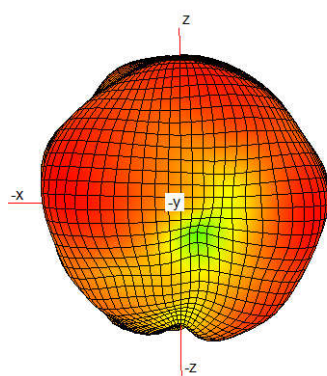
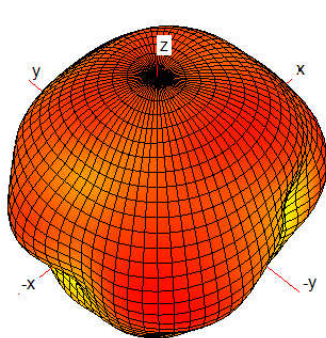


ANT5- WiFi 5G CH0
5280MHz

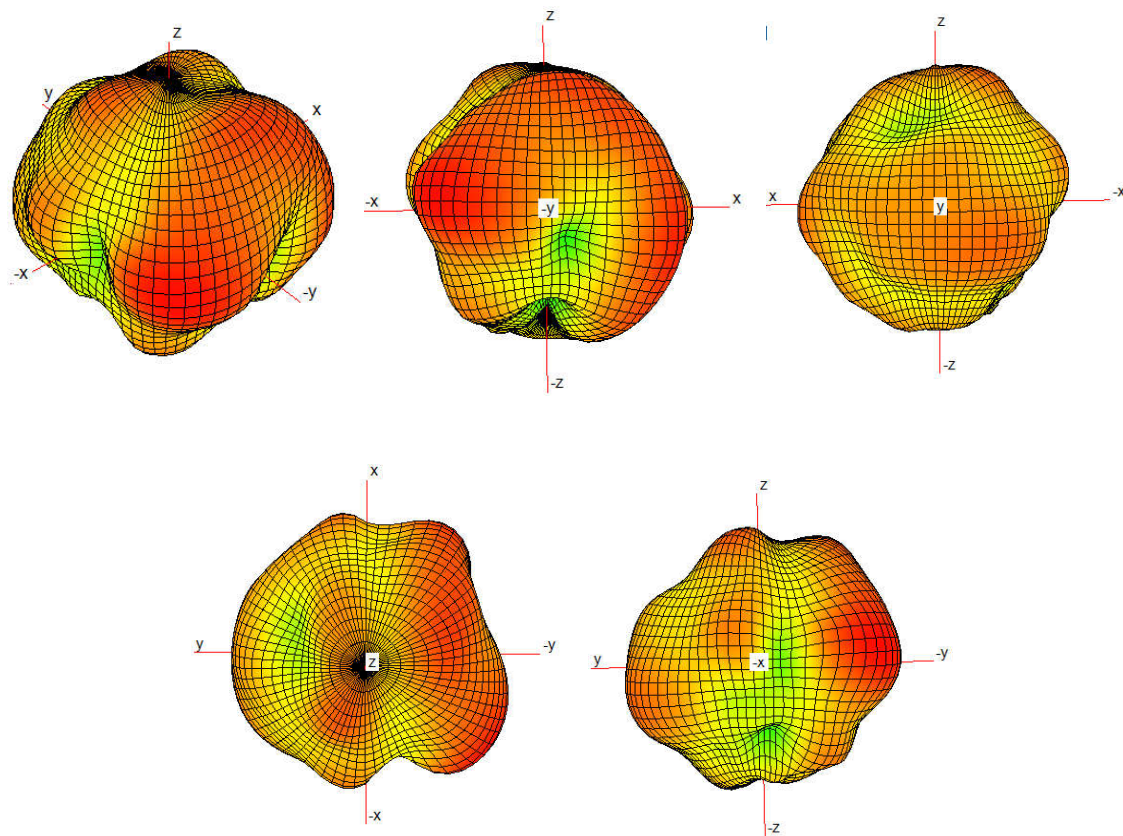




5500MHz

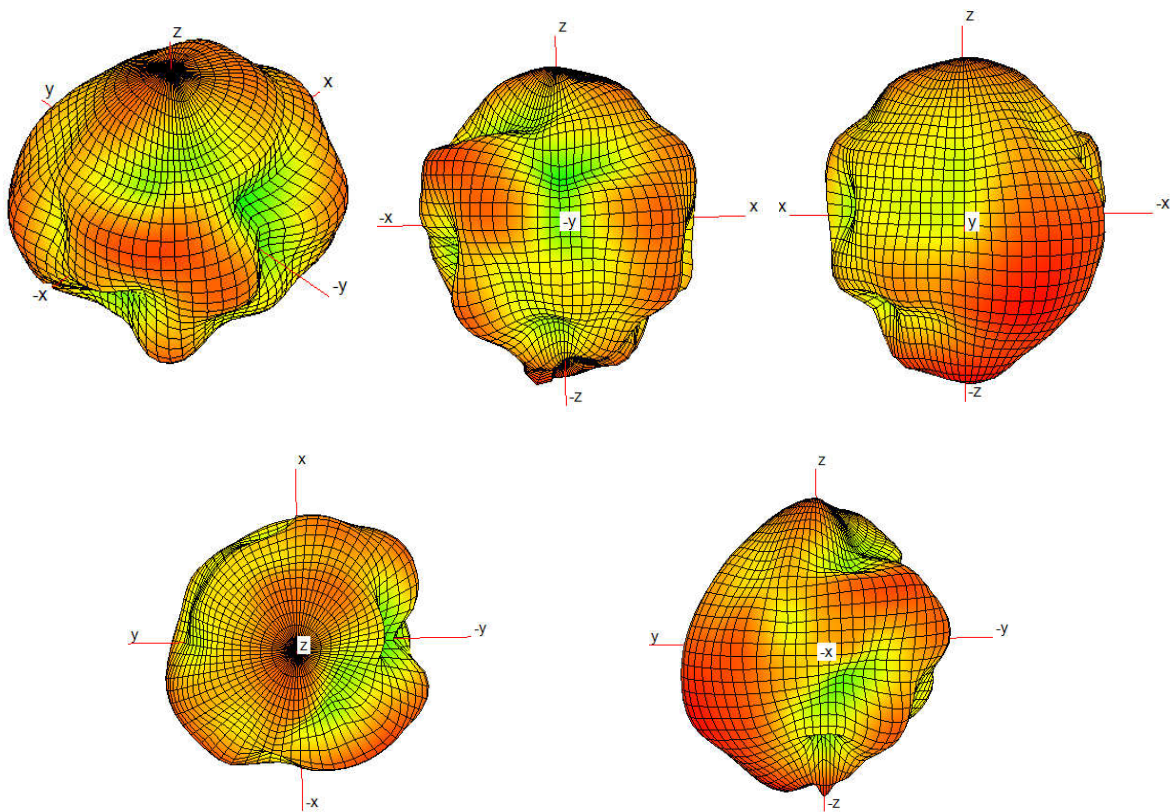


5780MHz

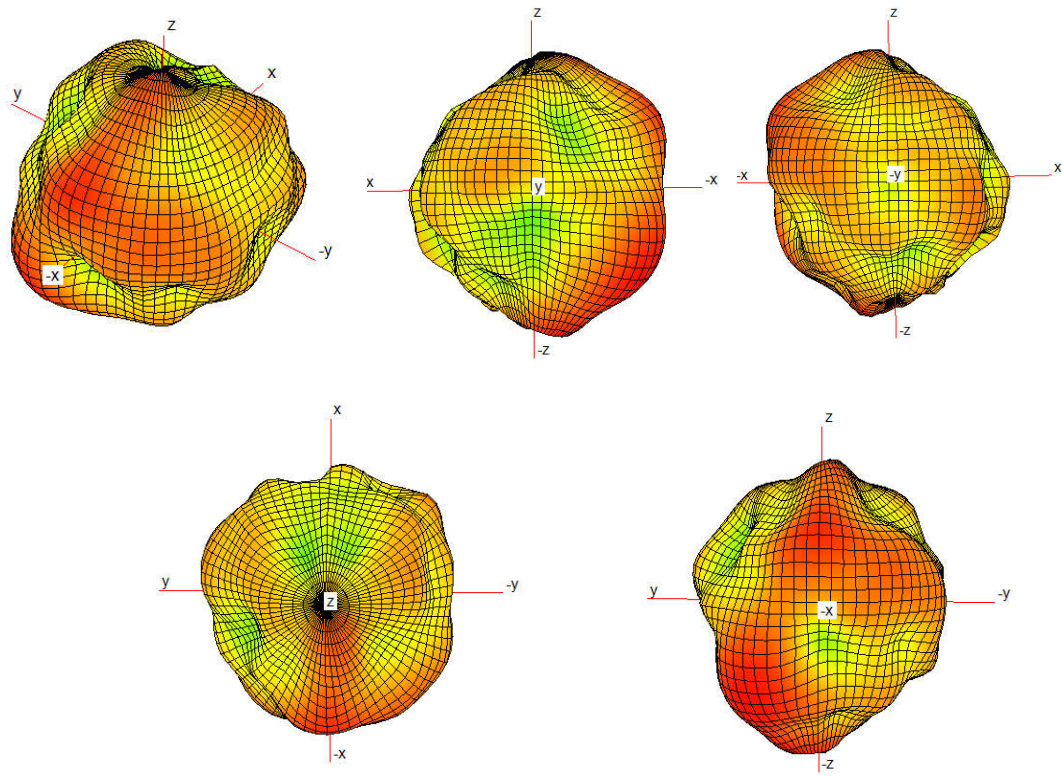


ANT5- WiFi 6E CH0

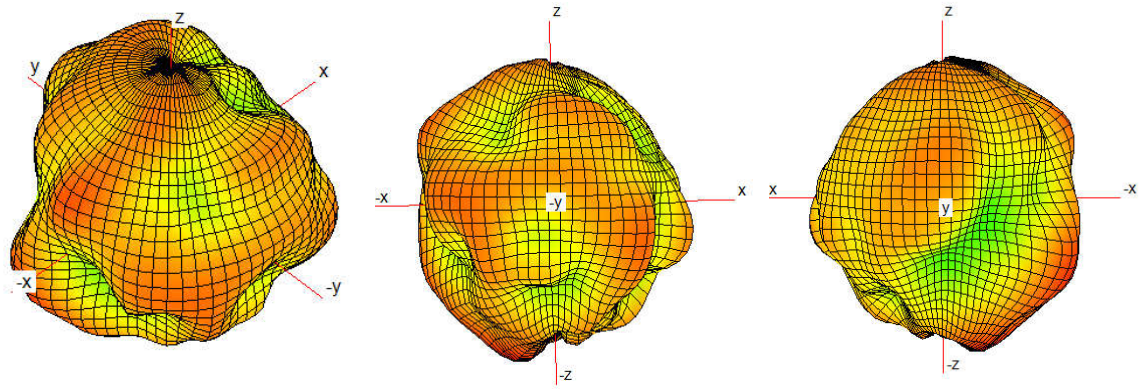
6000MHz

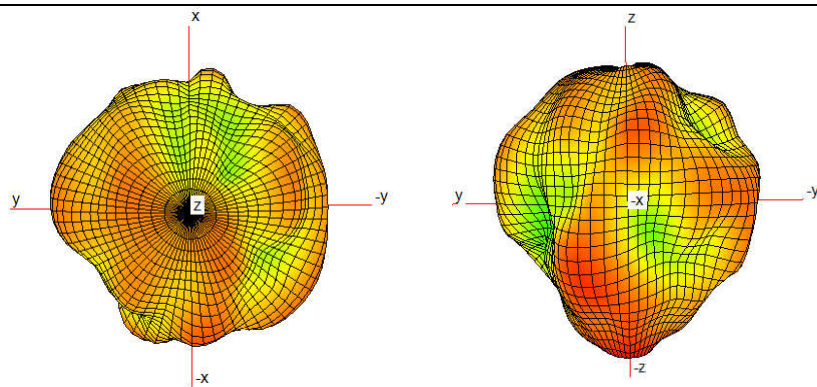


6500MHz

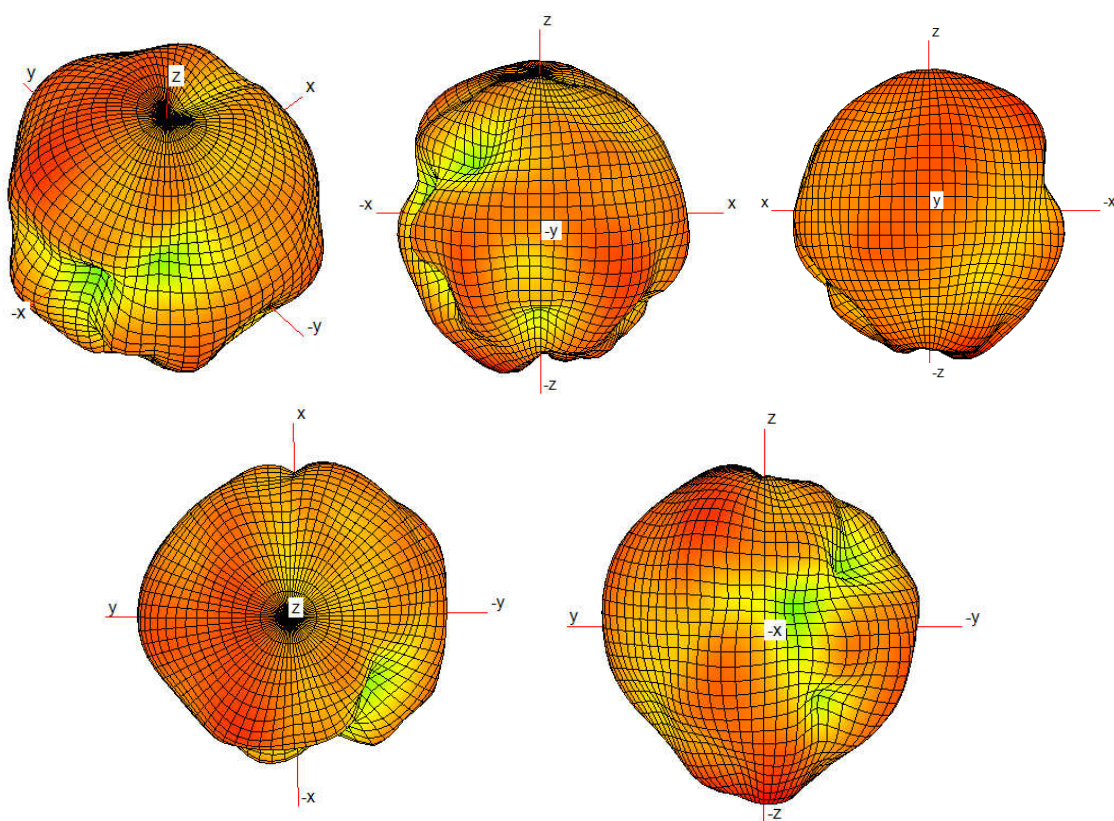


6800MHz





7000MHz



**MOTOROLA****MOBILE DEVICES
Companion Products****MATERIAL or METHODS
Specification**

PN SA38D60107

TITLE: ASSY WIRELESS CHARGE COIL

REVISION DATE: **15-SEP-2022**

MEMO:

ISSUE: **A**PAGE: **1 of 4**

REV.	MEMO	NAME	DATE	CHANGES
A		Yufei Tong	9-15-2022	-Initial Release
B				-
C				-

--- Revision History Continued on Next Page ---

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MOTOROLA

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PAGE: **2 of 4**

Coil Module Material : FPC Type

Module	Module PN	Material	Material PN	Vendor
WPC	FAACLO11M101A0	FPC	F20CL011001A0	Anyuanda
		Nanocrystalline	FAACLO110192A0MQ	Sunway
		Graphite	F2QCL011101A0	FRD
		Mylar	F2QCL011201A0	Huabida
		Foam	F2QCL011301A0	Huabida

Material List

Specification

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 MOTOROLA MOBILE DEVICES Companion Products	MATERIAL or METHODS Specification	PN SA38D60107	
TITLE: ASSY WIRELESS CHARGE COIL			
REVISION DATE: 15-SEP-2022	MEMO:	ISSUE: A	PAGE: 3 of 4

Finished priduct Performance test standard (with Graphite)				
Item	Unit or description	specification		
		Min	Type	Max
Ls (Inductance)	uH@100kHz Before Reliability	8	8.2	8.4
	uH@100kHz After Reliability	7.8	/	8.6
Rdc (DC Resistance)	mΩ 100kHz Before Reliability	/	/	255
	mΩ 100kHz After Reliability	/	/	260
Rac (AC Resistance)	mΩ@100kHz Before Reliability	/	/	330
	mΩ@100kHz After Reliability	/	/	340
Q	@100kHz Before Reliability	15	/	/
	@100kHz After Reliability	14.5	/	/

N=11 turns.

MEP: LA71FP002-1H

Specification

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