Antenna Reports

Main Antenna vendor: Motorola
Test lab: Motorola internal lab (by GTS RayZone2800)
Antenna model name: Midframe
Issue date: 2022/9/22

Antenna Summary Table

Check items	Information
Provided by lab	Motorola internal lab (by GTS RayZone2800)
Manufacturer/ Brand name	Motorola
Model name (Part number)	XT2301-4
Test environment	Motorola Beijing RD team Lab with GTS RayZone2800 chamber
Test software	MaxSign Libra
List of calibrated test equipment	GTS2800 with calibrated date: On August 9, 2022
Antenna detail info.	ANT4: WiFi2.4G antenna (2.4~2.5GHz), IFA type antenna. ANT5:WiFi 5G / 6E antenna(5.15~7.125GHz),Loop antenna. ANT6: WiFi 2.4G antenna (2.4~2.5GHz), Loop antenna. ANT7:WiFi 5G / 6E antenna(5.15~7.125GHz),Loop 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.

ANT4/5/6/7

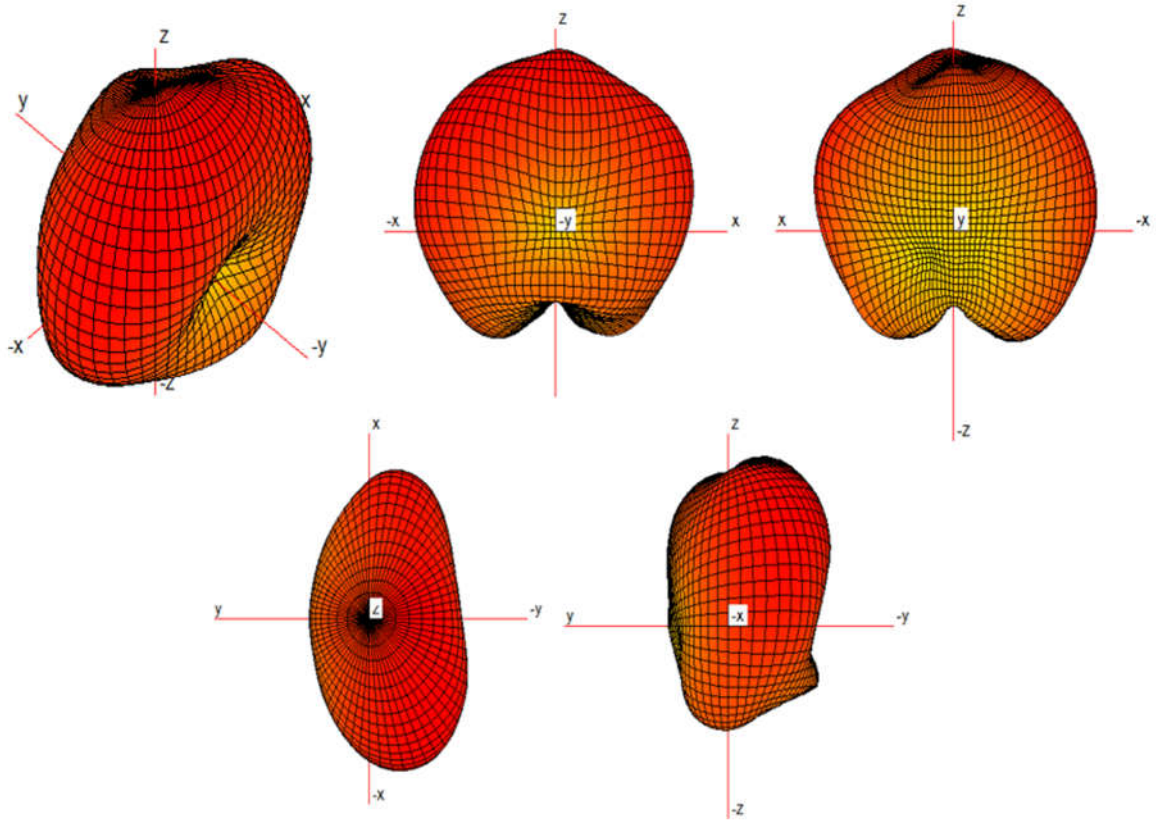
Antenna model name: Insert molding metal

BT/WLAN CH0 Peak Gain (dBi)			
2400~2483.5MHz	-6.2 dBi	**6E UNII-5**	-7.9 dBi
5150~5250MHz	-5.5 dBi	**6E UNII-6**	-8.2 dBi
5250~5350MHz	-5.5 dBi	**6E UNII-7**	-7.7 dBi
5470~5725MHz	-5.3 dBi	**6E UNII-8**	-8.1 dBi
5725~5850MHz	-5.8 dBi		

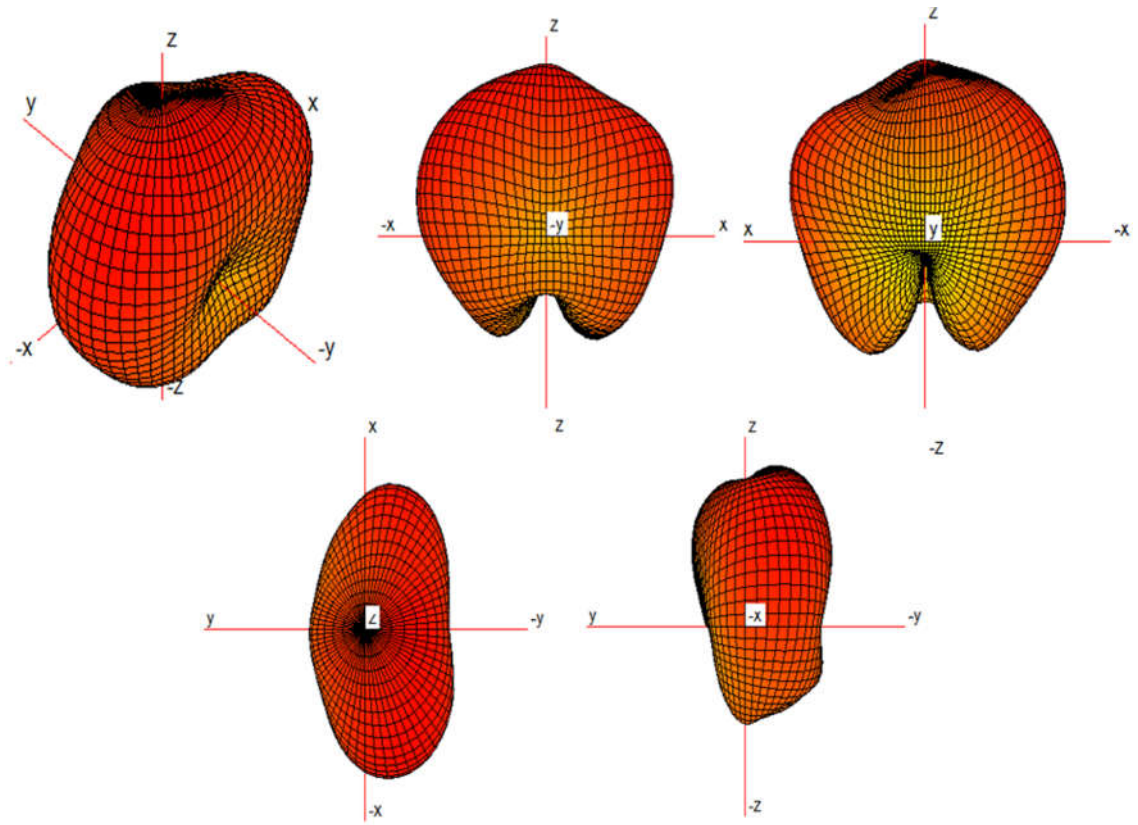
BT/WLAN CH1 Peak Gain (dBi)			
2400~2483.5MHz	-6.5dBi	**6E UNII-5**	-6.8 dBi
5150~5250MHz	-6 dBi	**6E UNII-6**	-7.5 dBi
5250~5350MHz	-6.1 dBi	**6E UNII-7**	-7.9 dBi
5470~5725MHz	-5.5 dBi	**6E UNII-8**	-7.2 dBi
5725~5850MHz	-6.1 dBi		

ANT4- WiFI 2.4G CH0

2420MHz

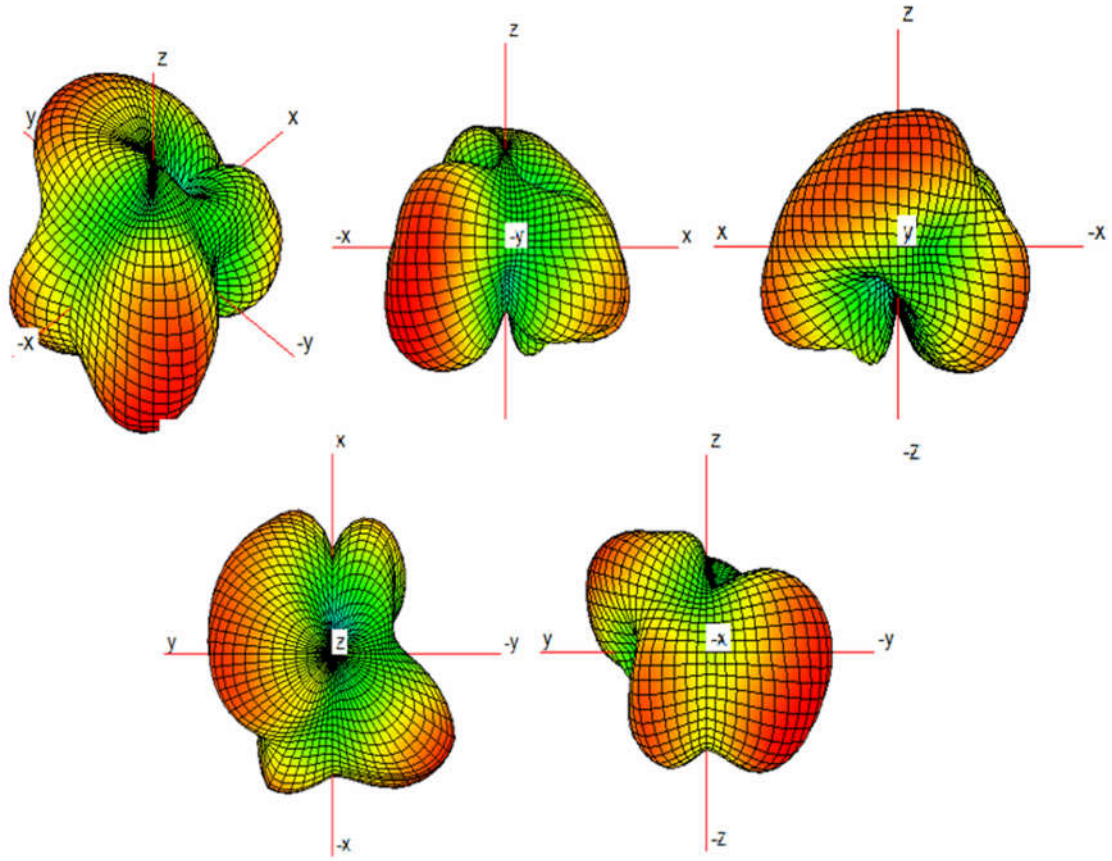


2450MHz

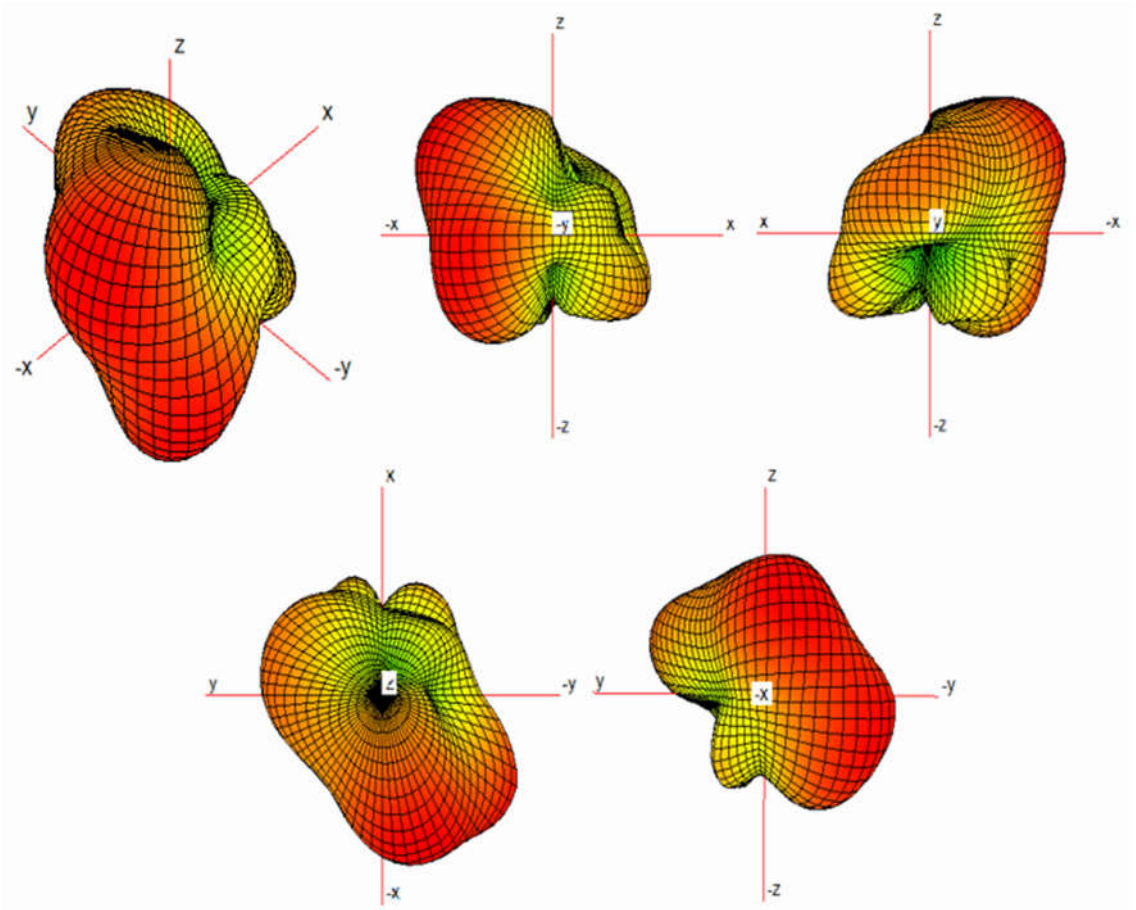


ANT5-WIFI 5G CH1

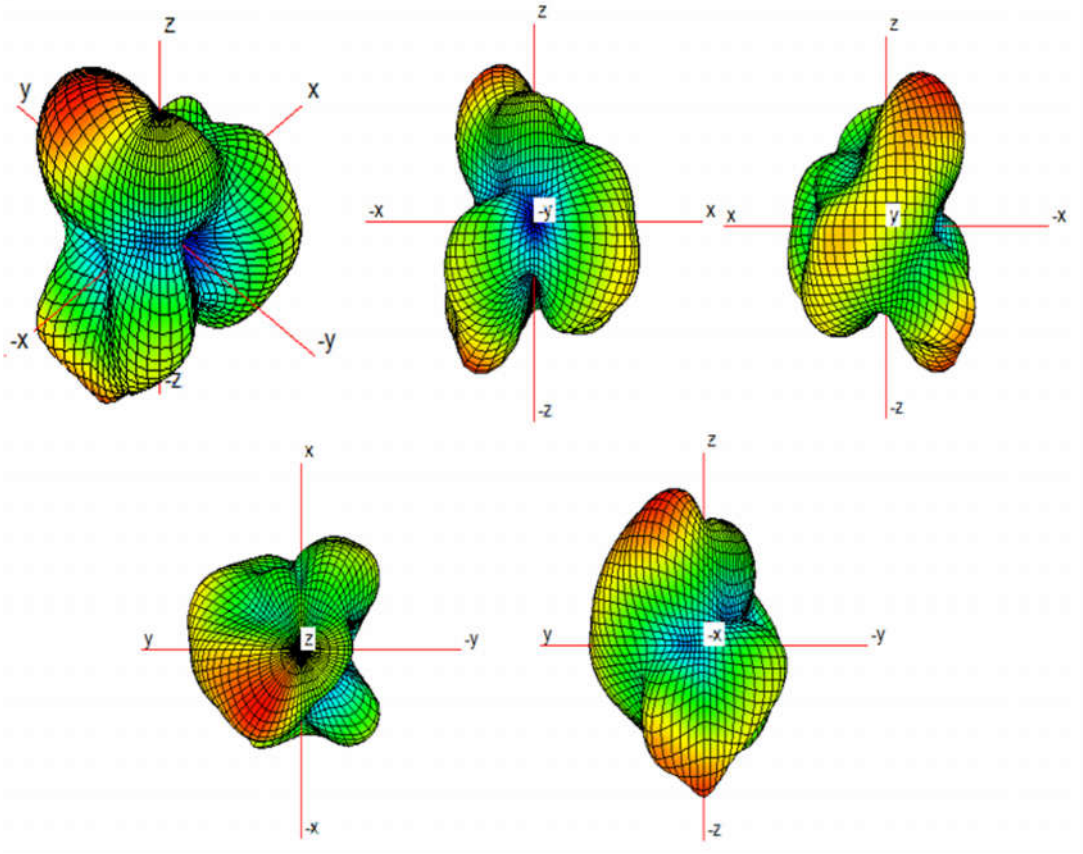
5280MHz



5500MHz

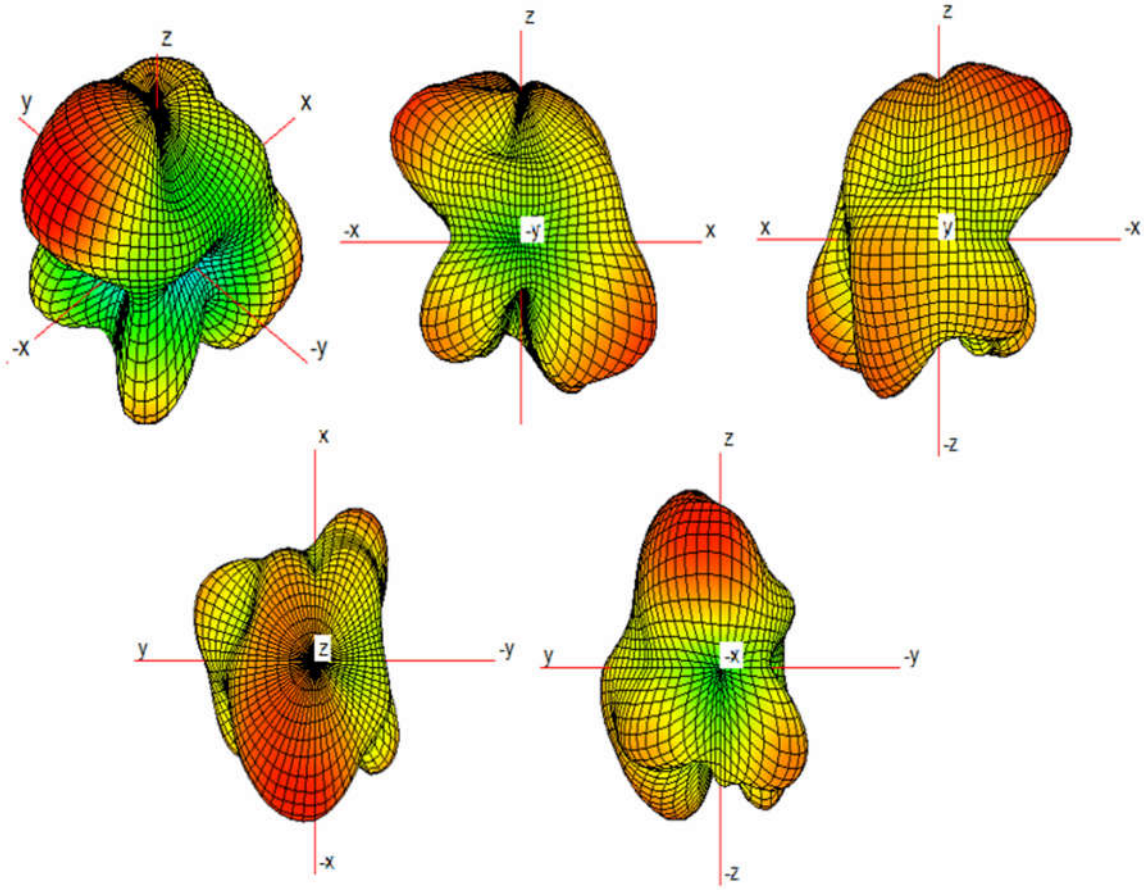


5780MHz

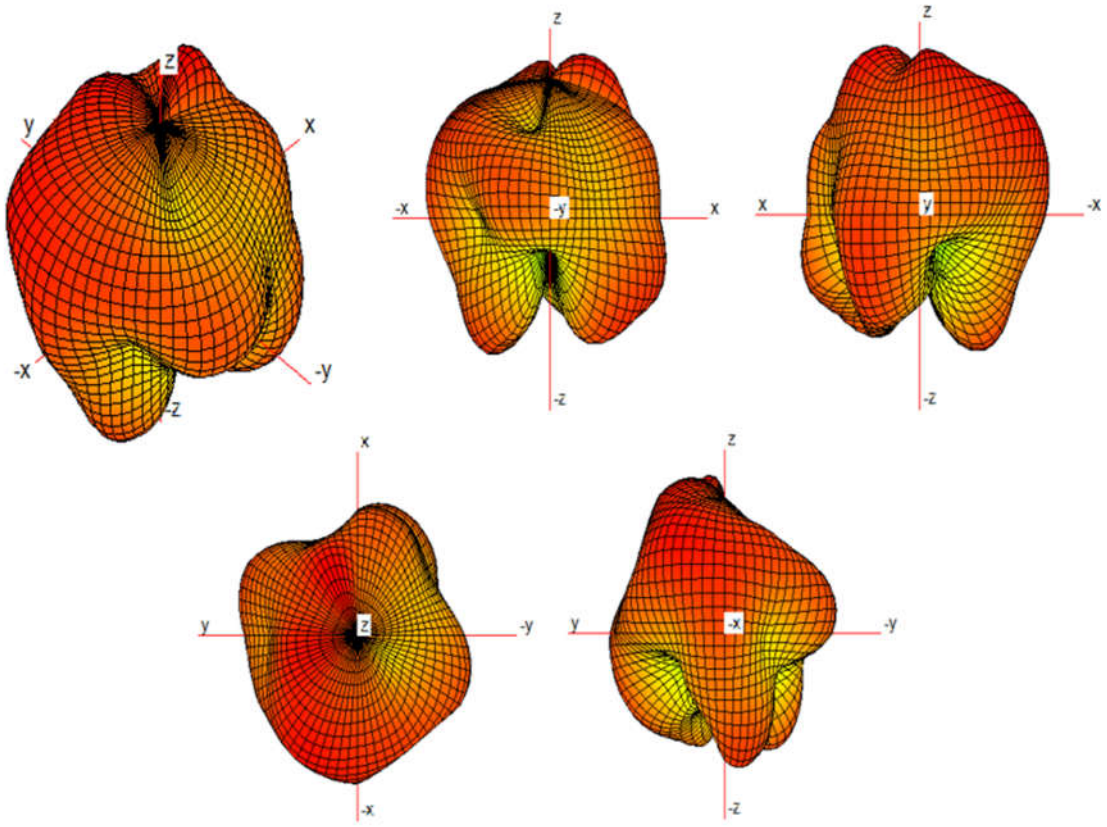


ANT5-WIFI 6E CH1

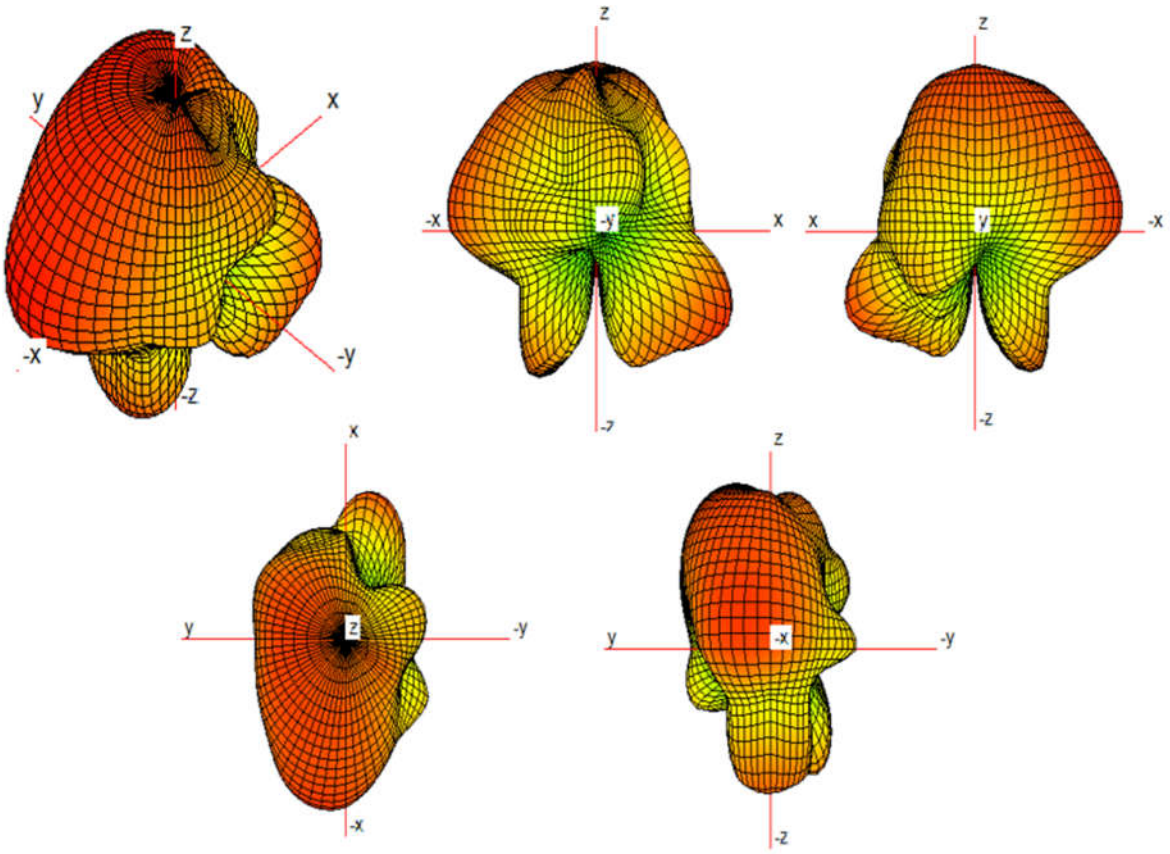
6000MHz



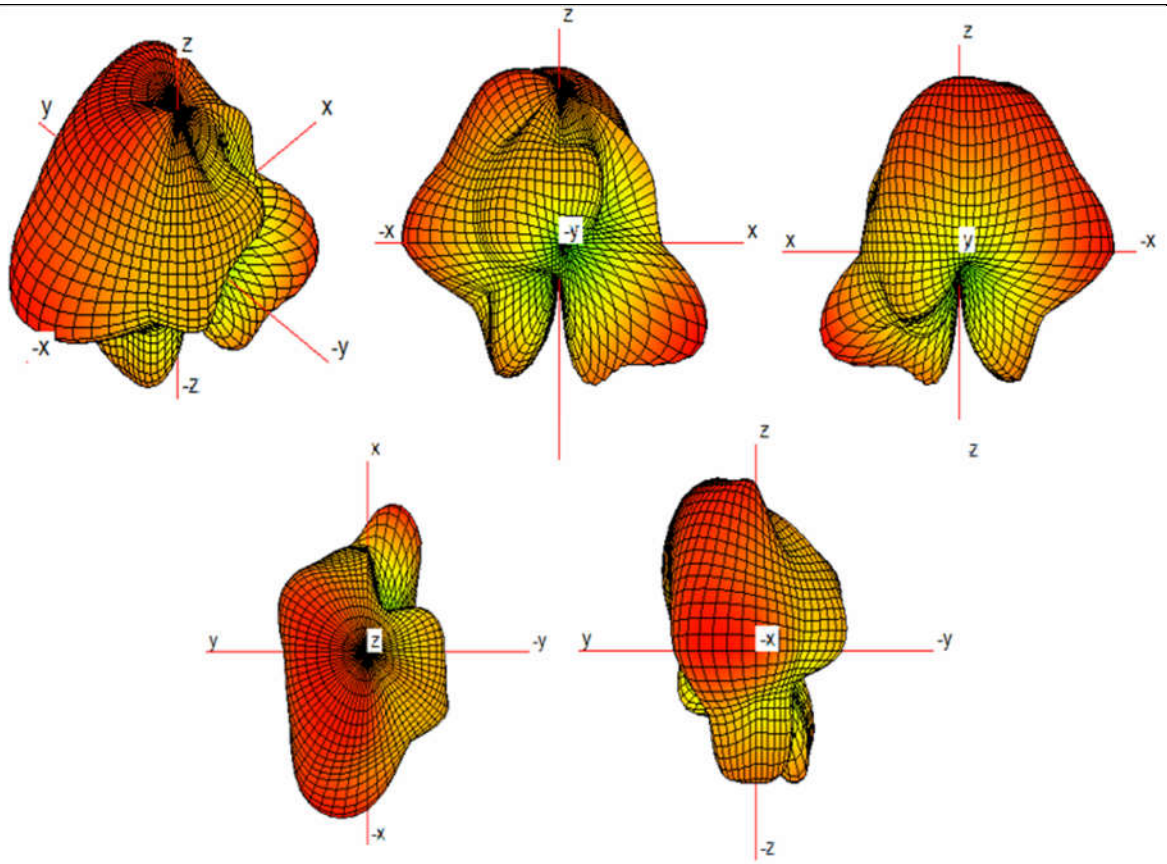
6500MHz



6800MHz

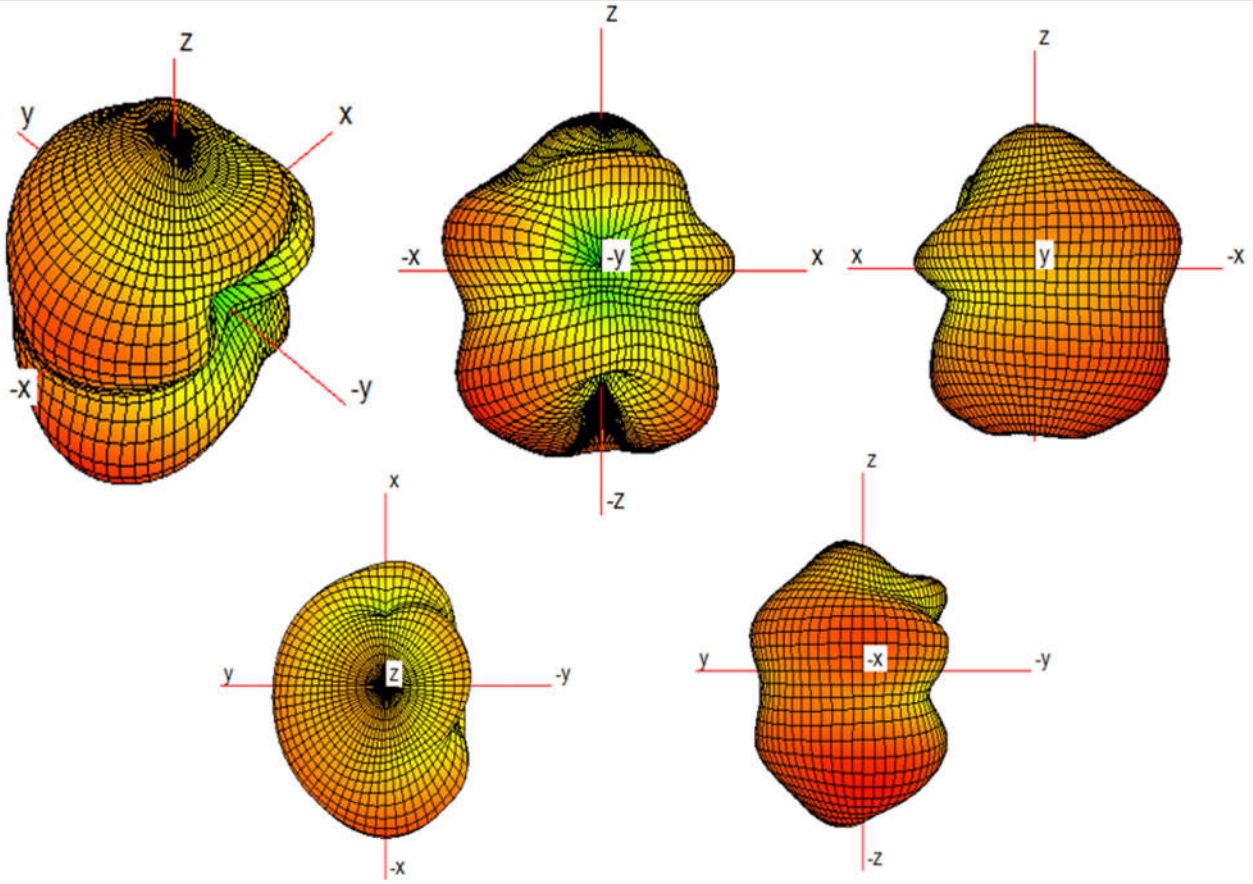


7000MHz

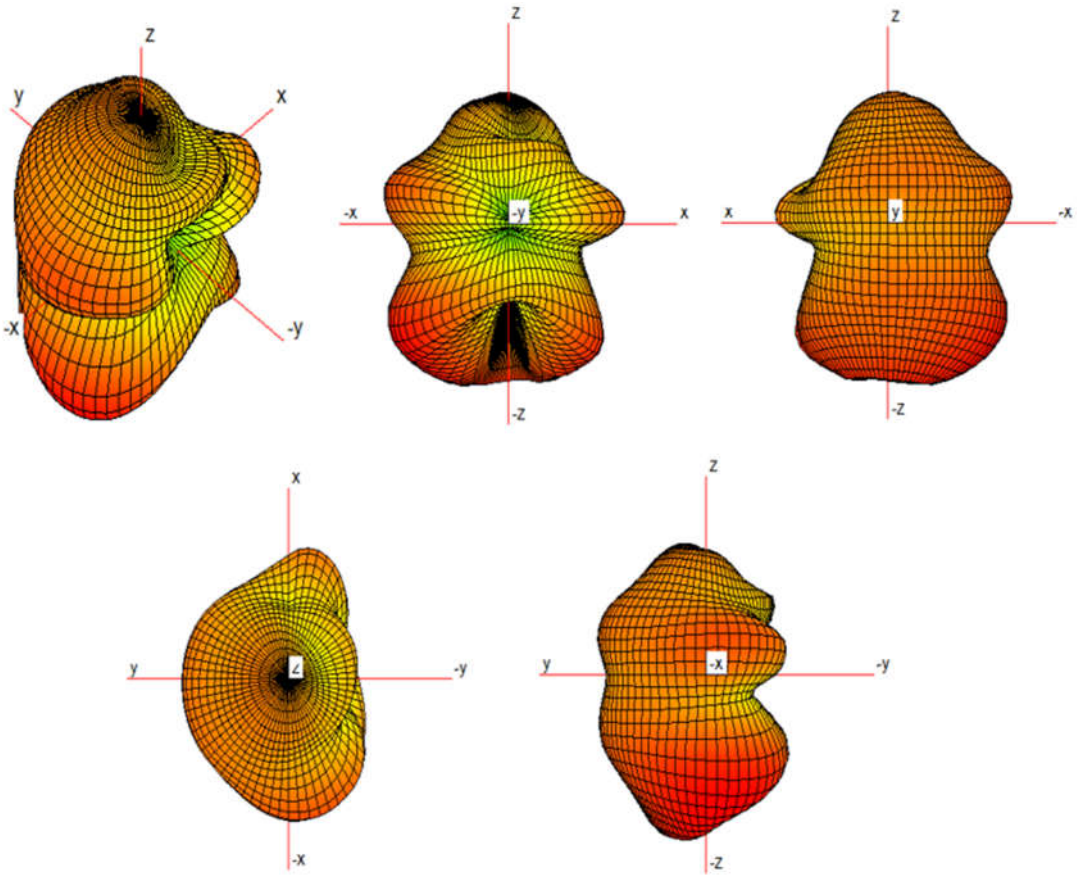


ANT6- WiFI 2.4G CH1

2420MHz

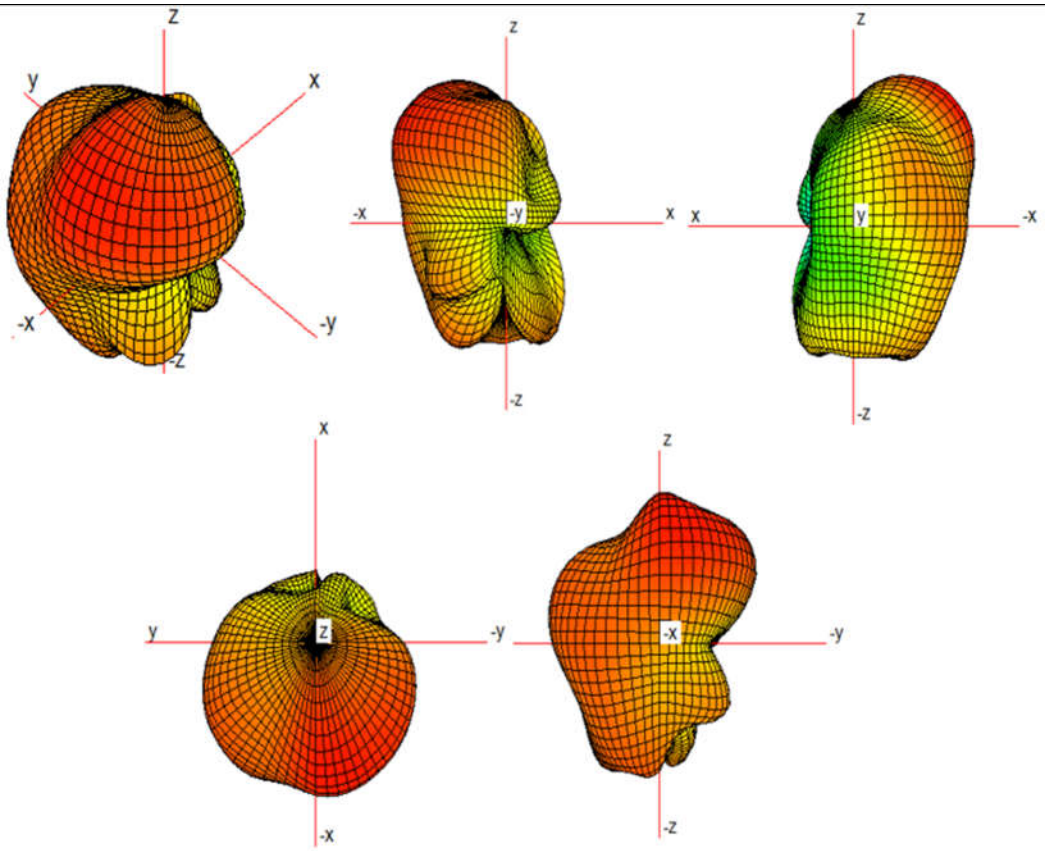


2450MHz

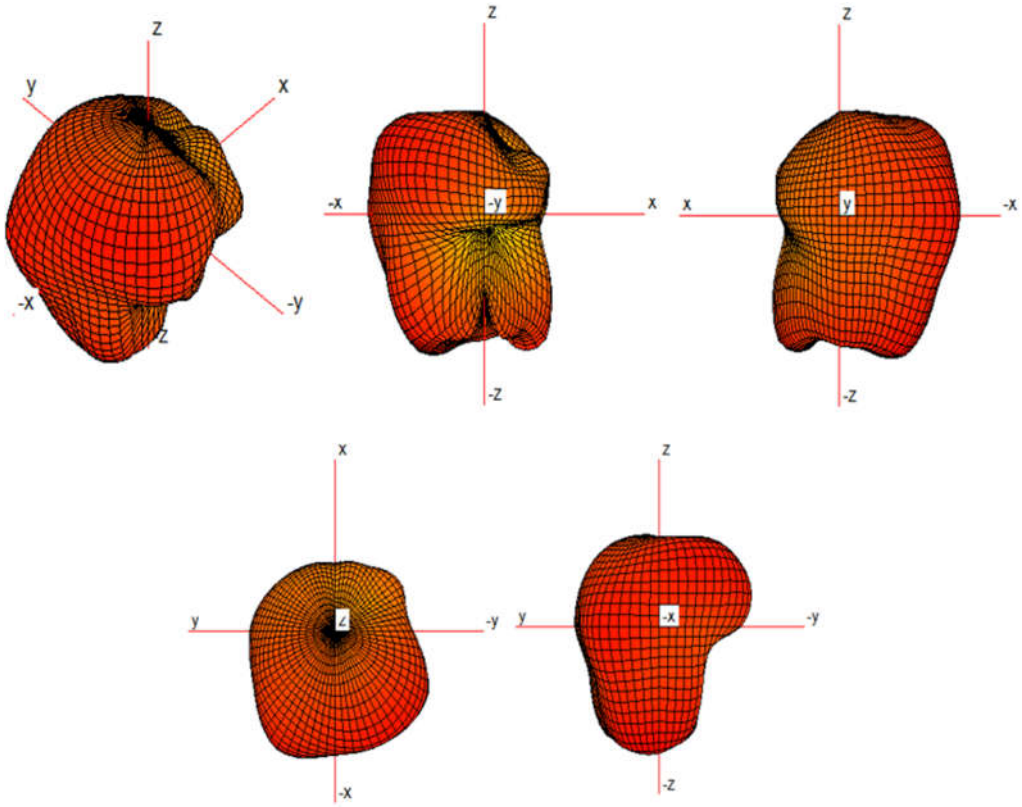


ANT7- WiFI 5G CH0

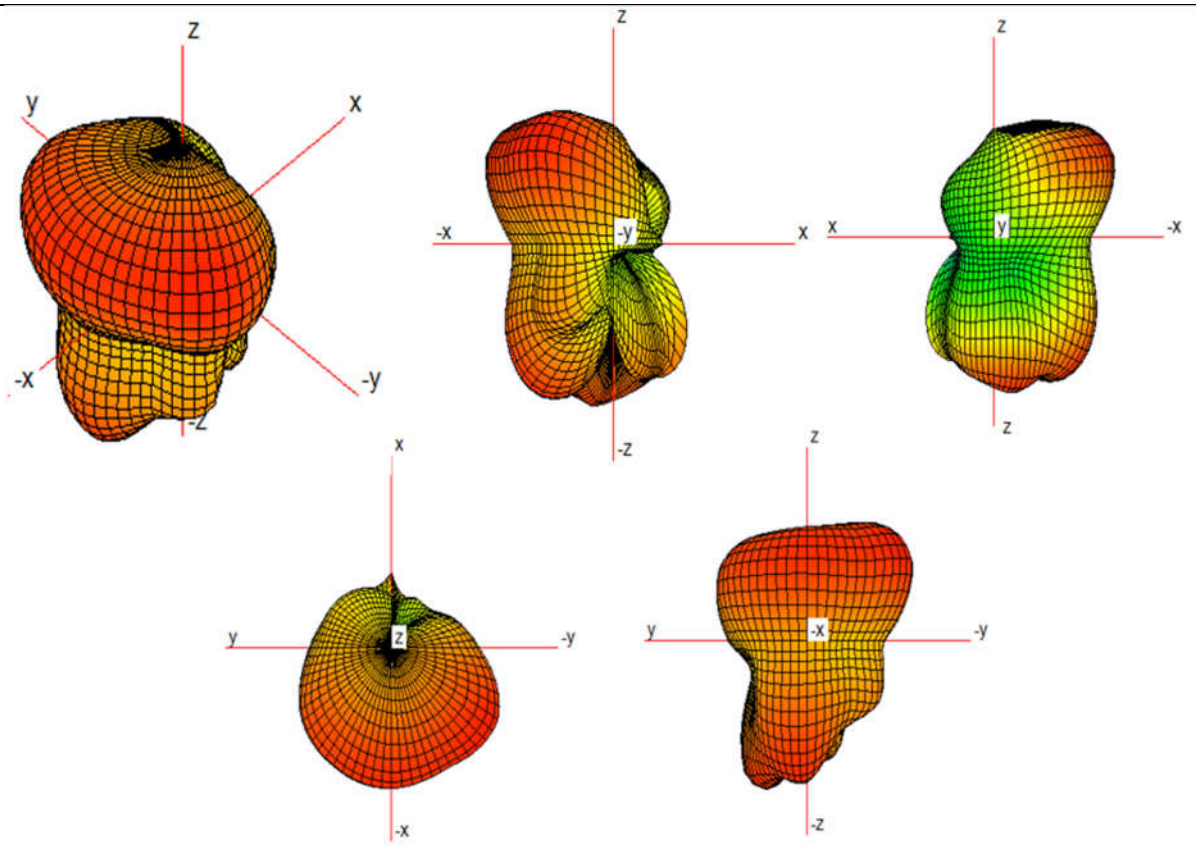
5280MHz



5500MHz

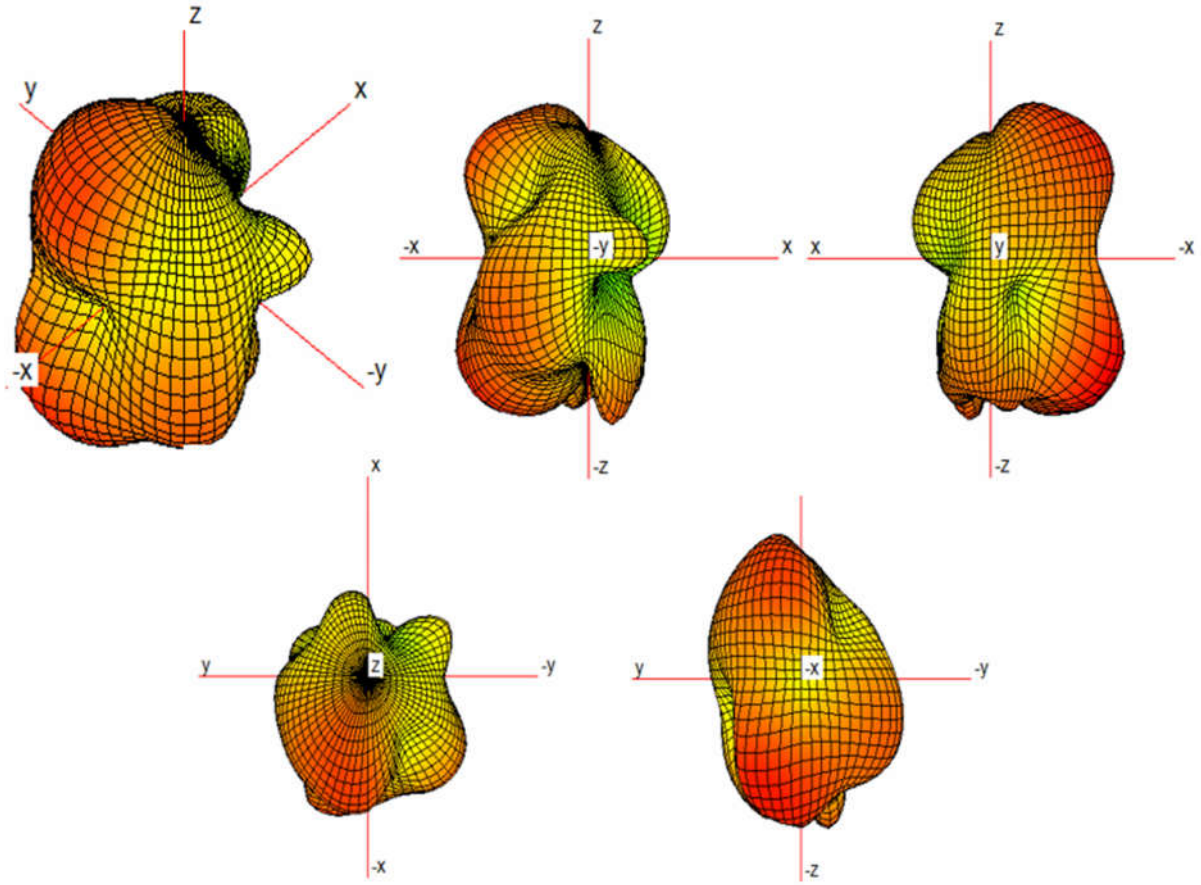


5780MHz

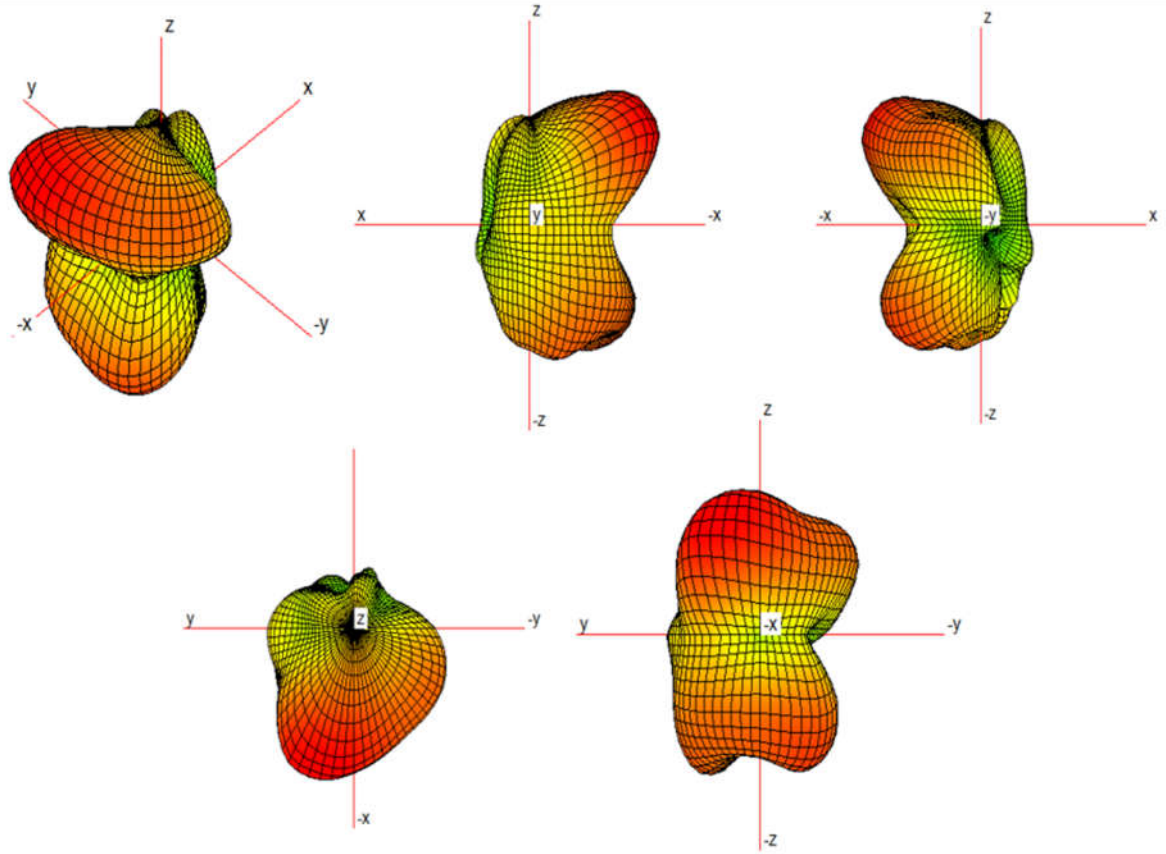


ANT7- WiFI 6E CH0

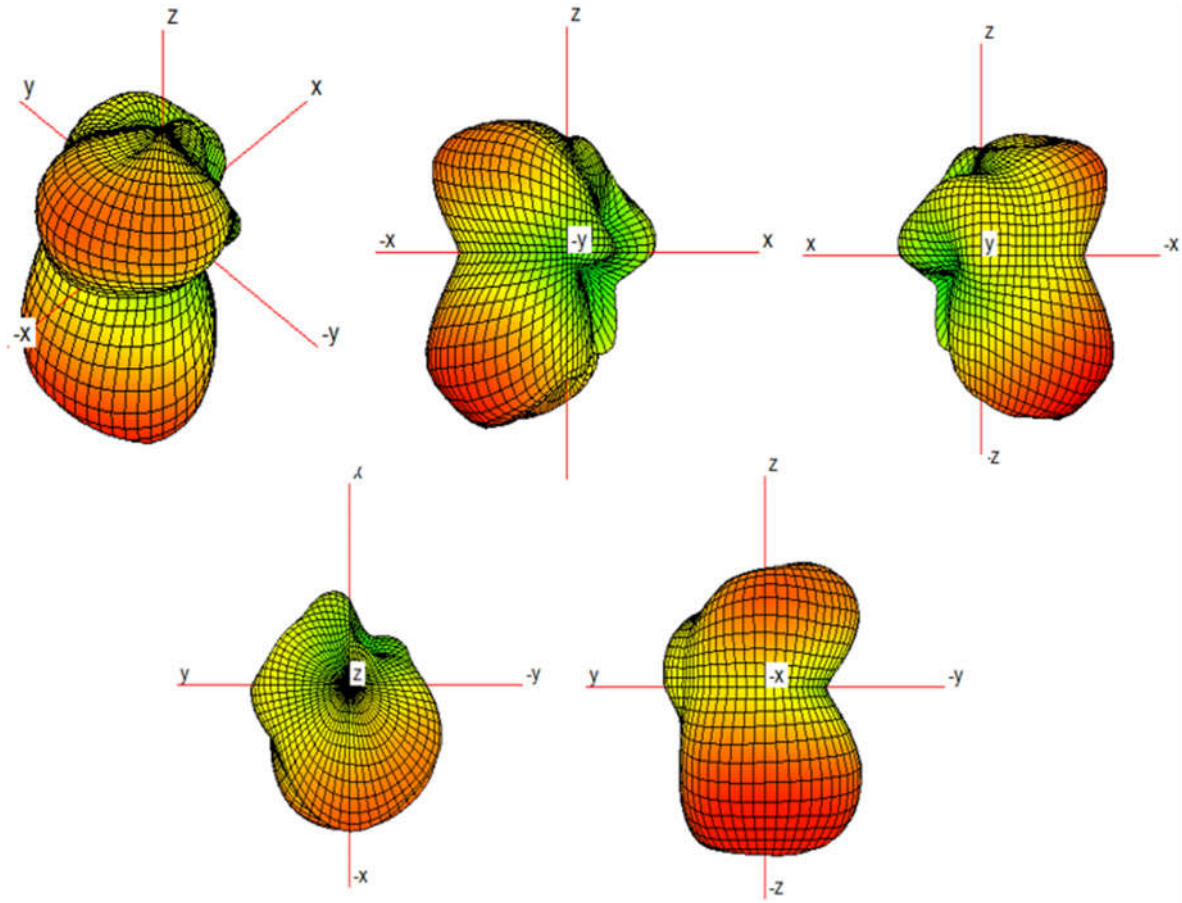
6000MHz



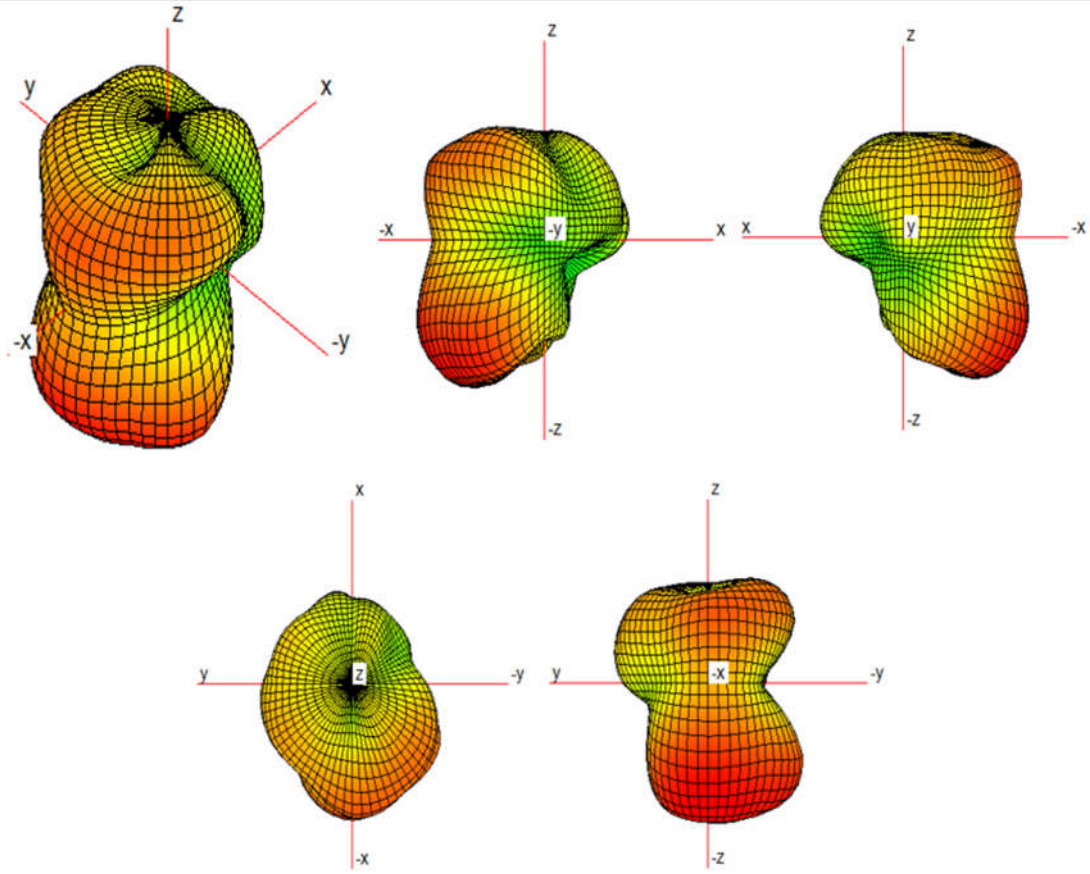
6500MHz



6800MHz



7000MHz


z
y
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-y
z
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-y
x
-z
z
x
y
-x
-z
x
y
z
-y
-x
z
y
-x
-y
-z

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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Coil Module Material : FPC Type

Module	Module PN	Material	Material PN	Vendor
WPC	FAACL011M101A0	FPC	F20CL011001A0	Anyuanda
		Nanocrystalline	FAACL0110192A0MQ	Sunway
		Graphite	F2QCL011101A0	FRD
		Mylar	F2QCL011201A0	Huabida
		Foam	F2QCL011301A0	Huabida

Material List

Specification

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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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