

# Regulatory WLAN Antenna Information (Template)

Platform information										
Brand	ODM	****End product model name			Intel platform (ex: Yes, No or NA)	Platform type (ex: regular NB, convertible PC, AIO...etc)	*SAR minimum separation (mm)			
Samsung	Samsung	NP935QNA WiFi Main/Aux			Yes	NB	8.31			
****Please fill in exact product model name and make sure the model name is visible on product cover or any parts for end users recognize for authority inspection.										
Antenna information										
Vendor		Type			Antenna Part number (Main)			Antenna Part number (Aux)		
Galtronics		PIFA			BA42-00774A			BA42-00775A		
Peak gain w/ cable loss (dBi)*										
	2.4GHz 2400-2483.5 MHz	5.2GHz 5150-5250MHz	5.3GHz 5250-5350MHz	5.6GHz 5470-5725MHz	5.8GHz 5725-5850MHz	5.9GHz 5850-5895MHz	6.2GHz 5925-6425MHz	6.5GHz 6425-6525MHz	6.7GHz 6525-6875MHz	7.0 GHz 6875-7125MHz
Main	-1.05	3.63	3.67	4.22	4.22	3.00	-3.45	-5.54	-2.51	-2.64
Aux	1.07	3.21	3.84	3.59	2.19	2.19	-1.40	-3.34	-3.52	-4.25

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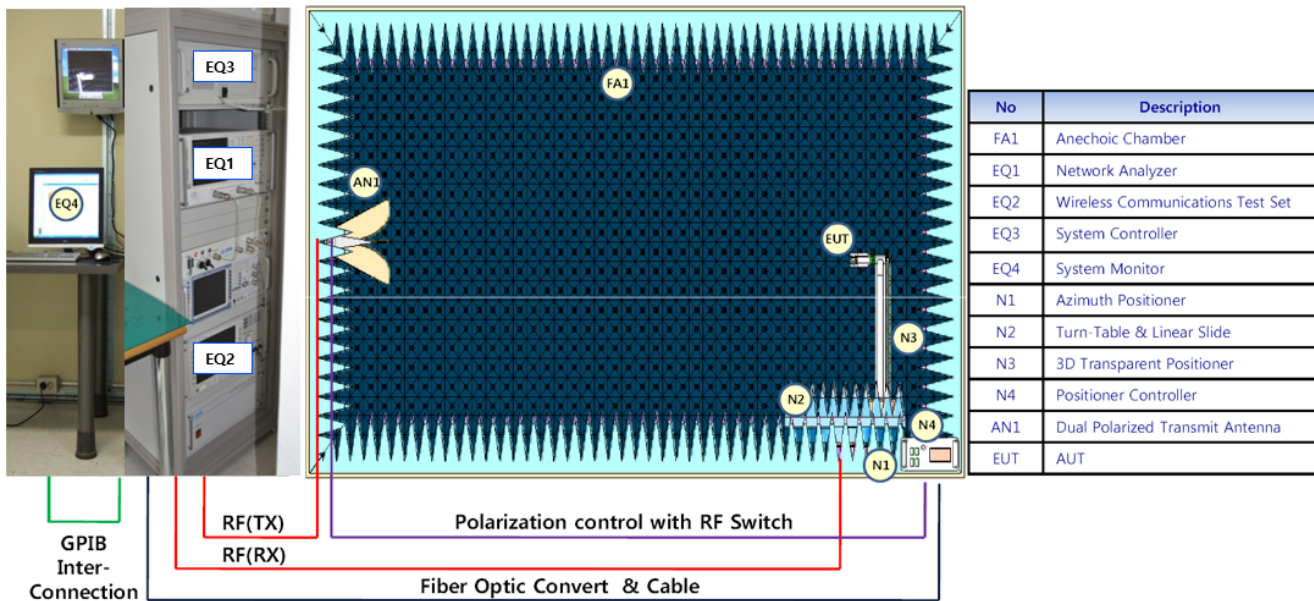
[Section 6. Diagram Example of Co-Location Antenna Separation](#)

1. **Applicable test methods**

This test report is prepared for host antenna testing under a Full Anechoic Chamber.

2. **Test & System Description**

a. Test setup



b. Equipment list

Device	Type	Manufacturer	SW	Calibration Data
Anechoic Chamber	SSR-M08	MTG	-	2023-02-11
Horn Antenna	HA-07M18G-NF	HA-07M18G-NF	-	2023-02-11
Network Analyzer	N230A	AGILENT	-	2022-02-11
Measurement SW	-	MTG	VWM 2.1	N/A
Positioner Controller	PC-510-4	MTG	-	N/A

Rev.	Measurement	Measurement Data	Tester	Sign
Template 10_4	Galtronics	2023-03-30	Justin.park	

**3. Setup photo**

**Please find setup photo in file named “NP935QNA\_Setup photo”**

# Antenna Information

## Section 1. Antenna Assembly Specifications

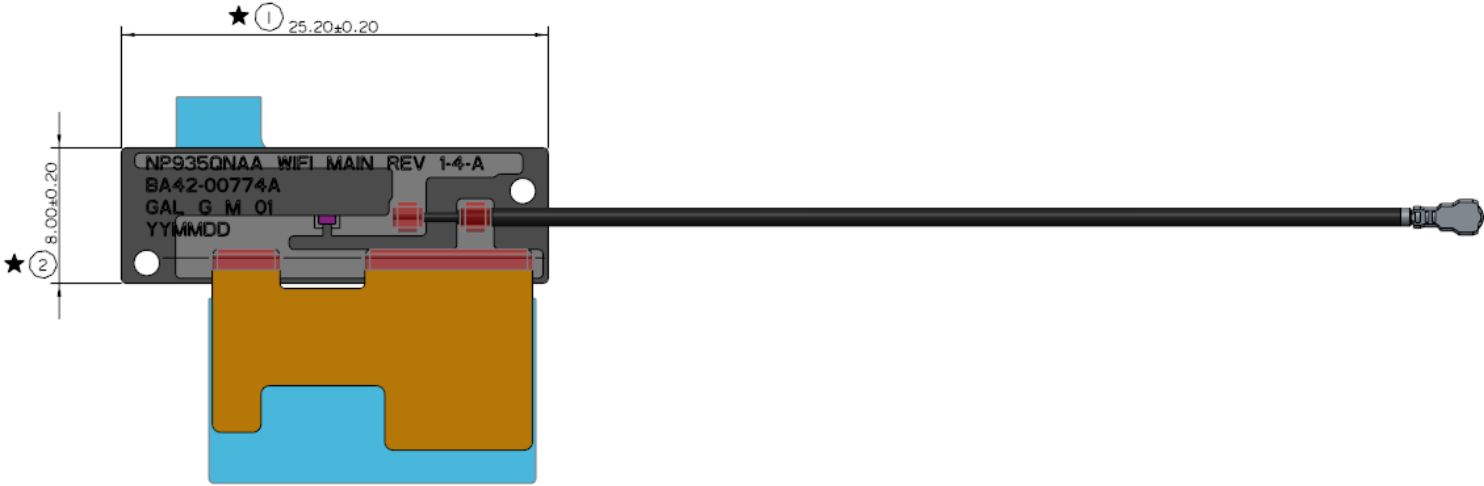
1A Antenna Part Number	1B Manufacturer	1C Antenna Type	1D Cable Assembly Part Number and Information	Freq Range MHz	1E * Peak Gain W/ Cable loss (dBi)	1F Peak Gain w/o Cable Loss (dBi)	1G Max VSWR	1H Cable Loss (dB)
(P/N: 02112651-07878) Main Antenna	Galtronics	PIFA	(P/N: U.FL-2LP-XXX) 50 ohm Coaxial length: 63.5mm diameter: $\varnothing$ 1.13	2400-2483.5	-1.05	-0.83	3.02	0.22
				5150-5250	3.63	3.95	2.08	0.32
				5250-5350	3.67	3.99	1.95	0.32
				5470-5725	4.22	4.56	2.72	0.34
				5725-5850	4.22	4.56	2.76	0.34
				5850-5895	3.00	3.34	2.47	0.34
				5925-6425	-3.45	-3.09	3.81	0.36
				6425-6525	-5.54	-5.17	4.53	0.37
				6525-6875	-2.51	-2.13	5.01	0.38
				6875-7125	-2.64	-2.25	3.97	0.39
(P/N: 02112651-07879) Aux Antenna	Galtronics	PIFA	(P/N: U.FL-2LP-XXX) 50 ohm Coaxial length: 32.0mm diameter: $\varnothing$ 1.13	2400-2483.5	1.07	1.18	2.17	0.11
				5150-5250	3.21	3.37	3.67	0.16
				5250-5350	3.84	4.00	3.35	0.16
				5470-5725	3.59	3.76	3.12	0.17
				5725-5850	2.19	2.36	2.65	0.17
				5850-5895	2.19	2.36	2.78	0.17
				5925-6425	-1.40	-1.22	3.65	0.18
				6425-6525	-3.34	-3.16	3.40	0.18
				6525-6875	-3.52	-3.33	3.59	0.19
				6875-7125	-4.25	-4.05	3.05	0.20

- 3D Antenna Peak Gain required being test in system basis.

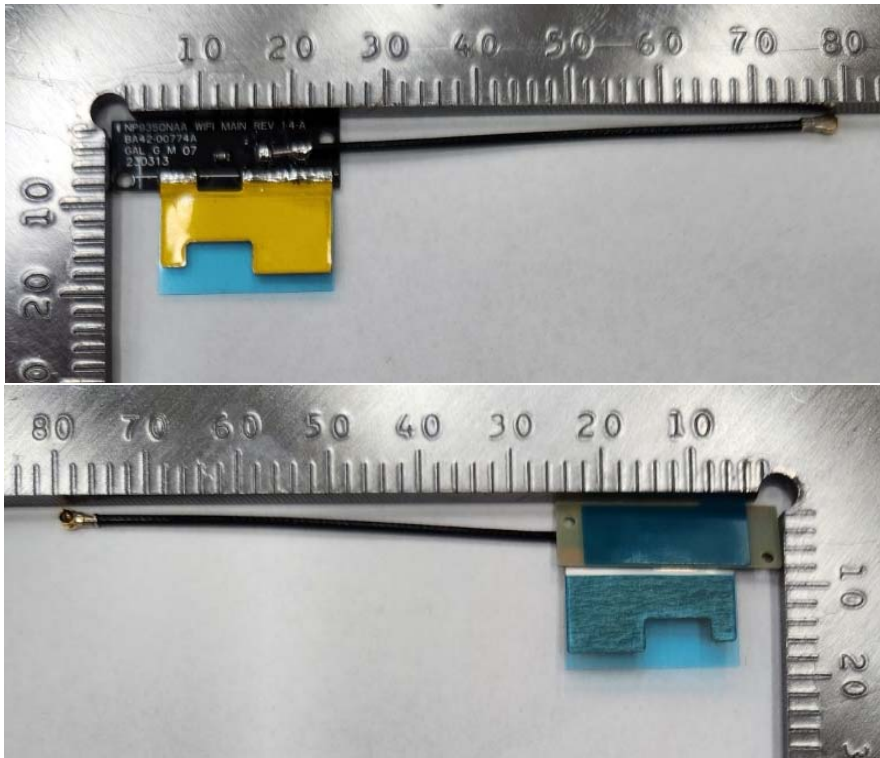
## Section 2. Dimensioned Photos and Drawings of Antennas

Include the dimensioned photo and drawing of Main antenna here.

Main Antenna Drawing:



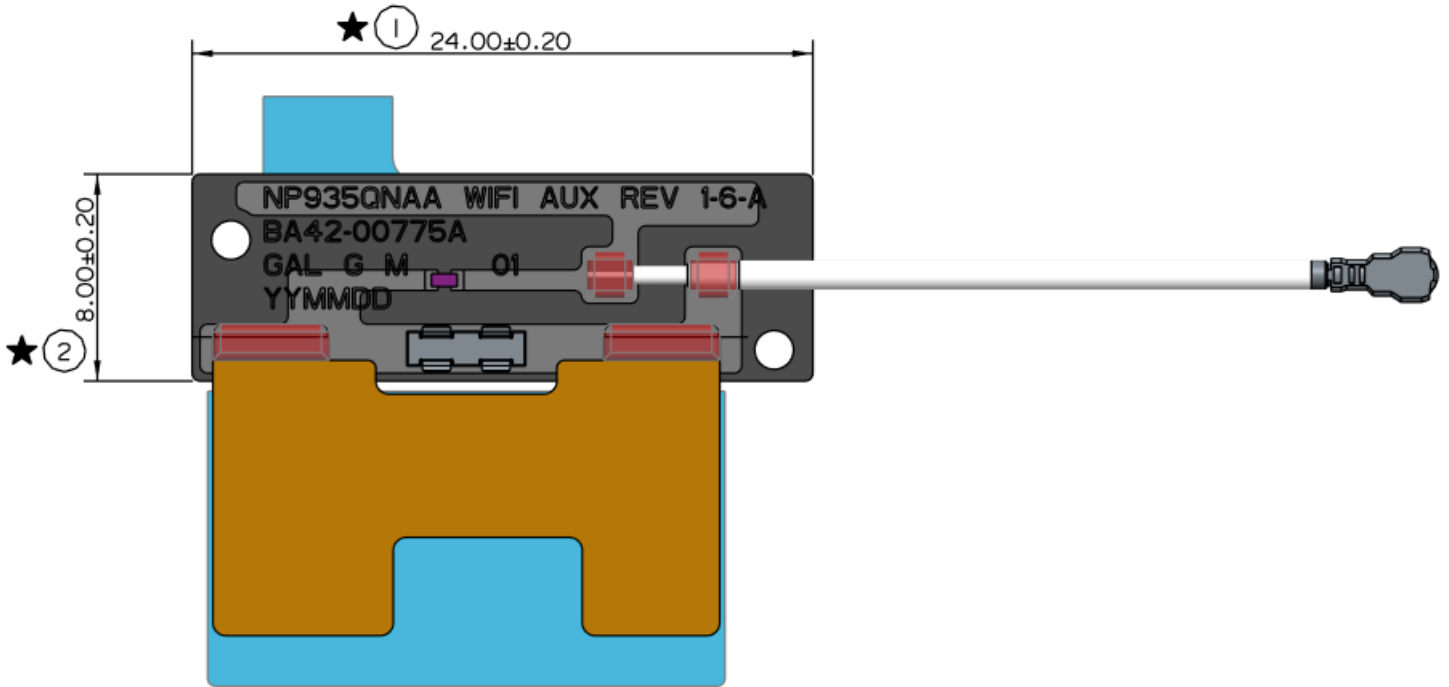
Main Antenna Photo (Front/Back):



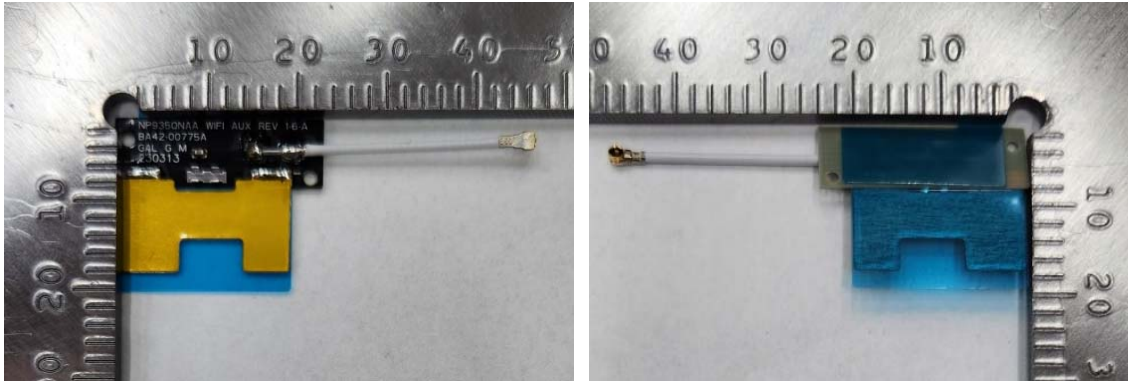
**Note:** antenna photo should include L type ruler

Include the dimensioned photo and drawing of Aux antenna here.

Aux Antenna Drawing:



Aux Antenna Photo (Front/Back):



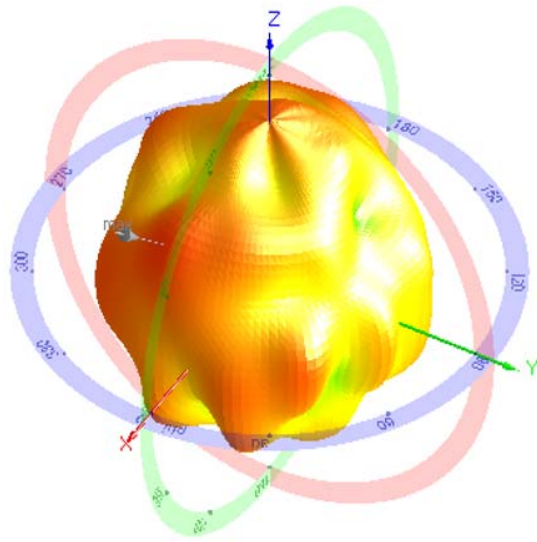
Note: antenna photo should include L type ruler

## Section 3. Radiation characteristics of antenna loaded in Host Platform

### Main Antenna

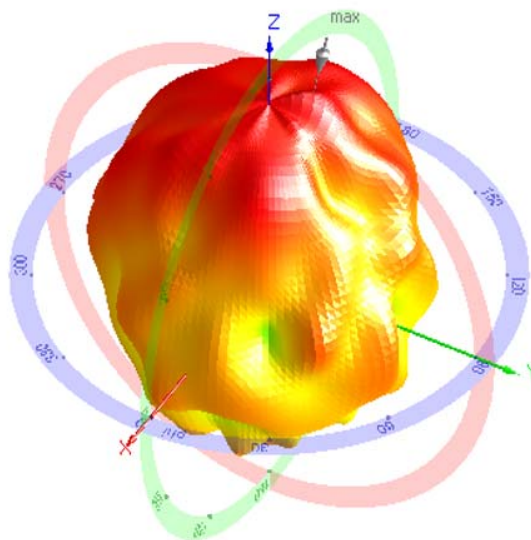
#### Max Antenna 3D Radiation Pattern 2400 – 2483.5 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
2400-2483.5	-1.05



#### Max Antenna 3D Radiation Pattern 5150-5250 MHz

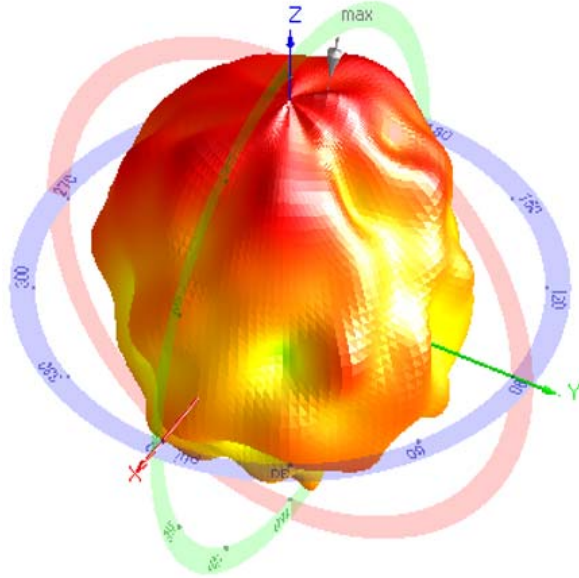
Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5150-5250	3.63





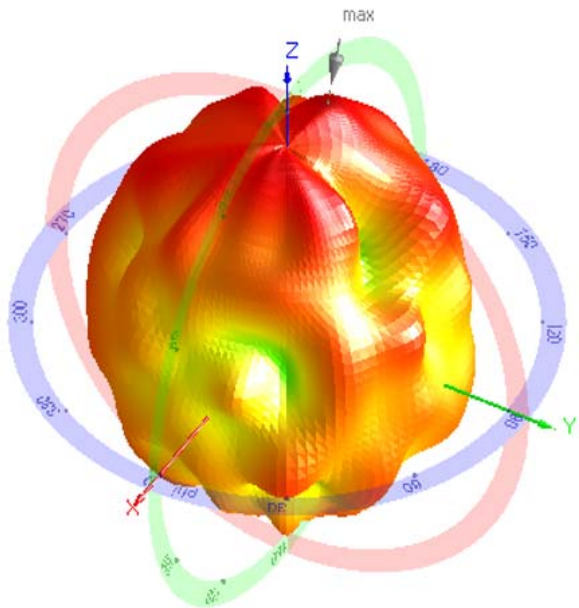
### Max Antenna 3D Radiation Pattern 5250-5350 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5250-5350	3.67



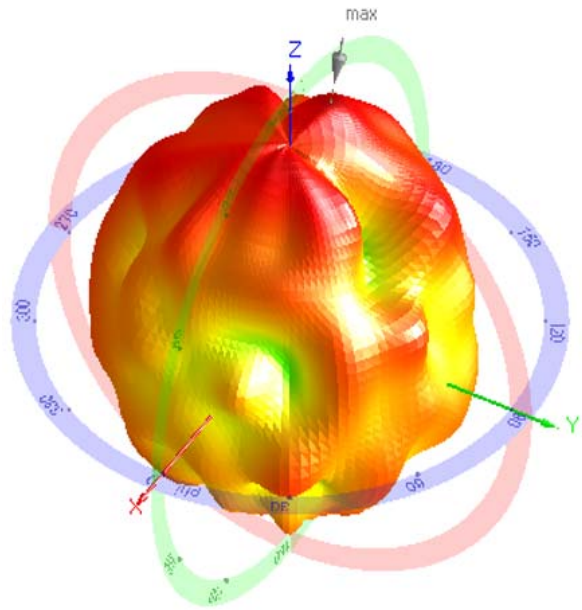
### Max Antenna 3D Radiation Pattern 5470-5725 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5470-5725	4.22



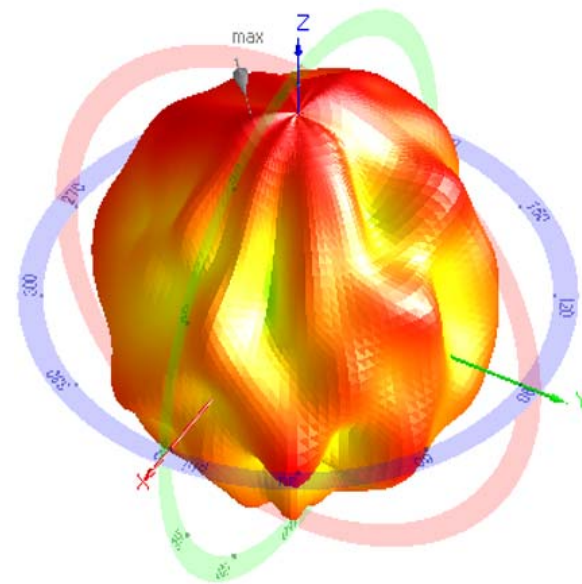
### Max Antenna 3D Radiation Pattern 5725-5850 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5725-5850	4.22



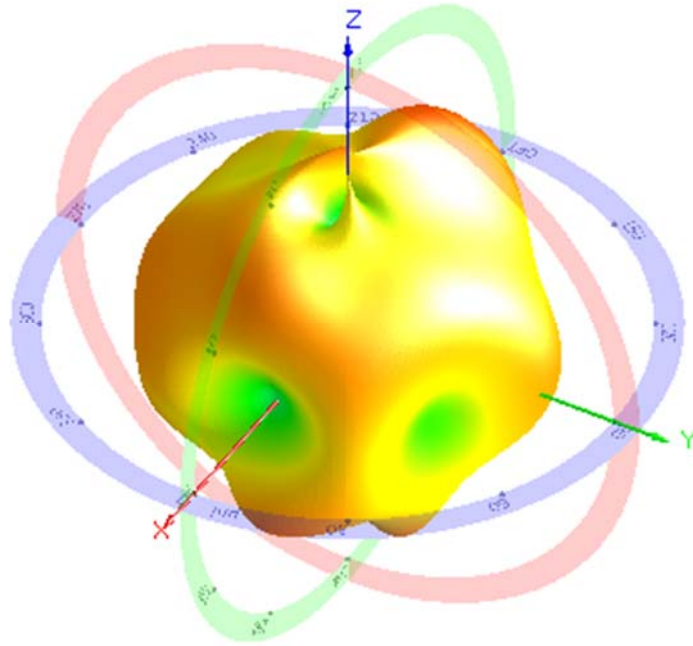
### Max Antenna 3D Radiation Pattern 5850-5895 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5850-5895	3.00



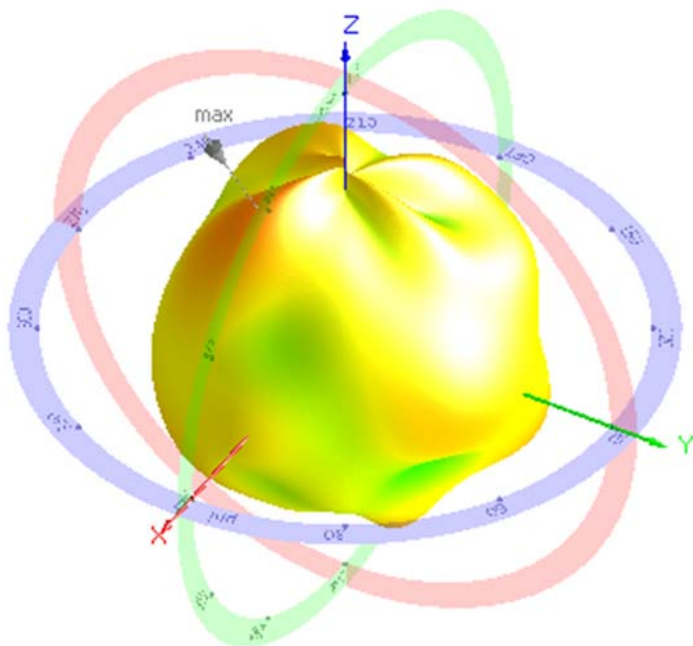
### Max Antenna 3D Radiation Pattern 5925-6425 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5925-6425	-3.45



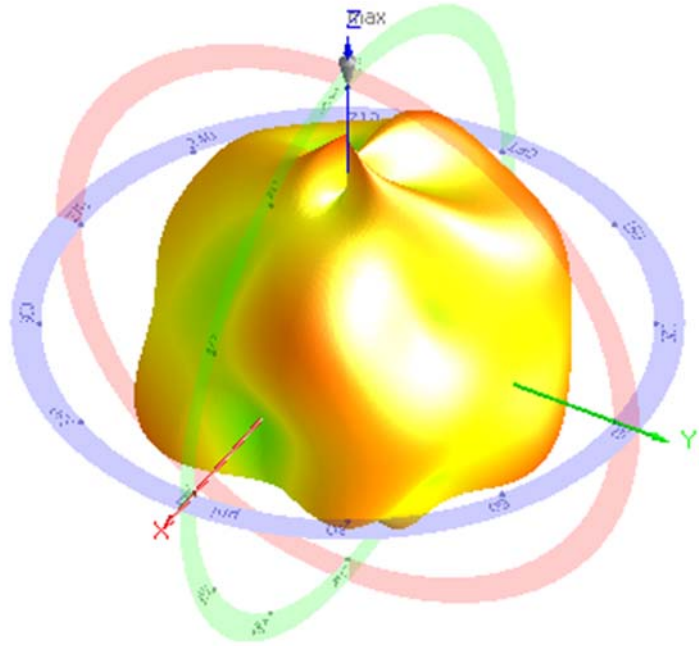
### Max Antenna 3D Radiation Pattern 6425-6525 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6425-6525	-5.54



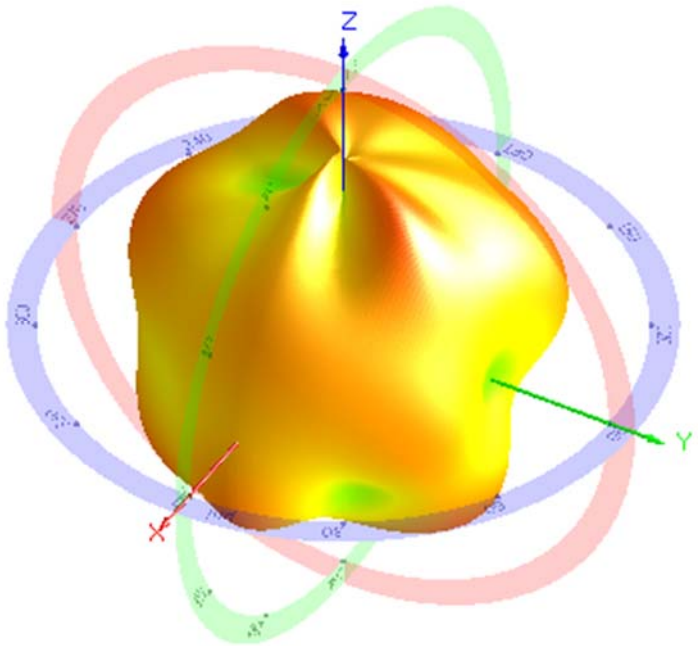
### Max Antenna 3D Radiation Pattern 6525-6875 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6525-6875	-2.51



### Max Antenna 3D Radiation Pattern 6875-7125 MHz

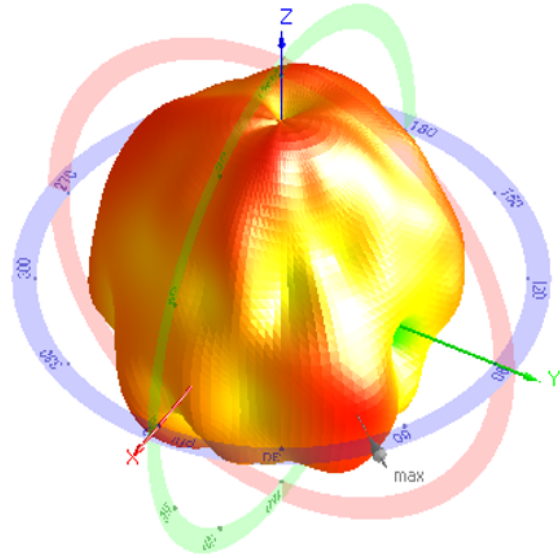
Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6875-7125	-2.64



## Auxiliary Antenna

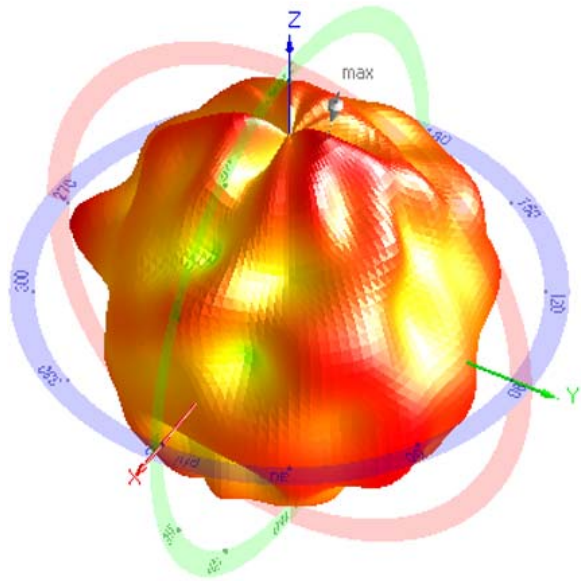
### Max Antenna 3D Radiation Pattern 2400 – 2483.5 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
2400-2483.5	1.07



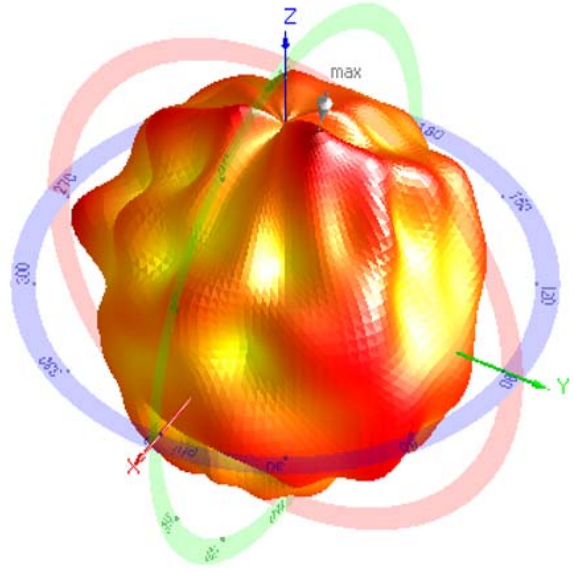
### Max Antenna 3D Radiation Pattern 5150-5250 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5150-5250	3.21



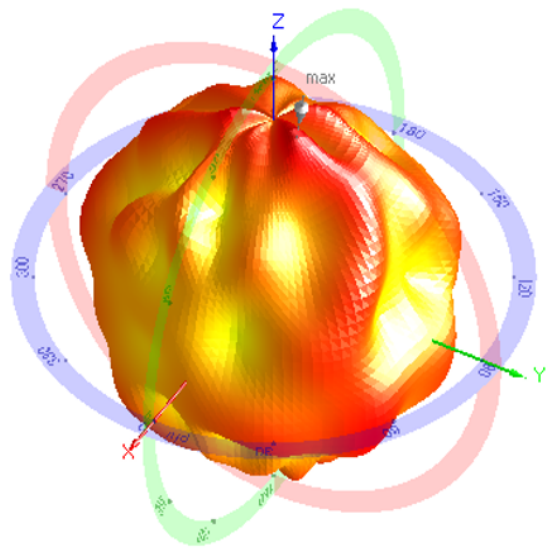
### Max Antenna 3D Radiation Pattern 5250-5350 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5250-5350	3.84



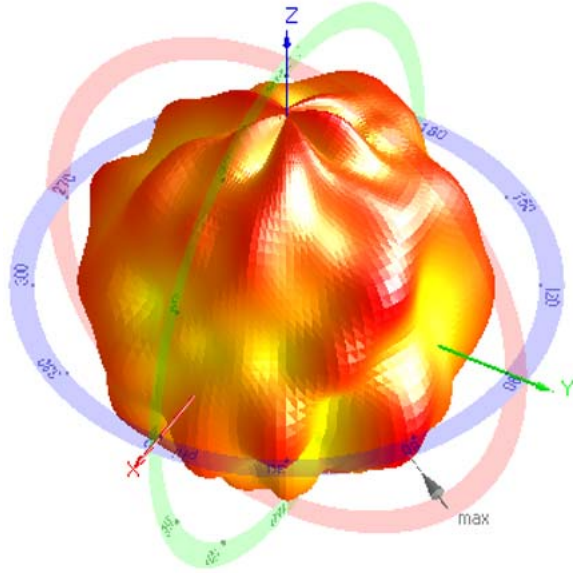
### Max Antenna 3D Radiation Pattern 5470-5725 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5470-5725	3.59



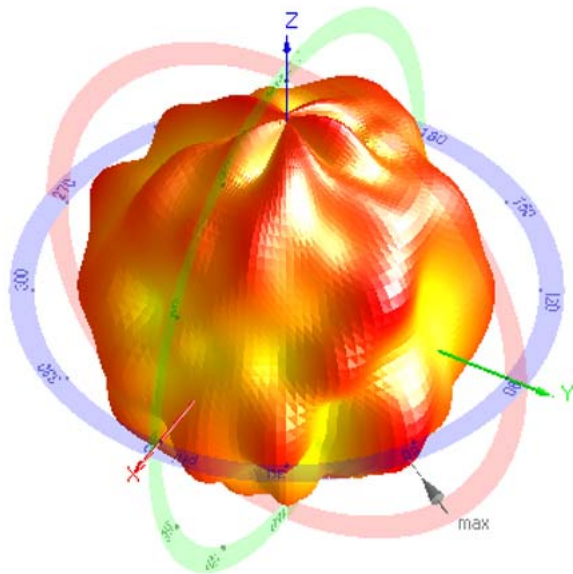
### Max Antenna 3D Radiation Pattern 5725-5850 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5725-5850	2.19



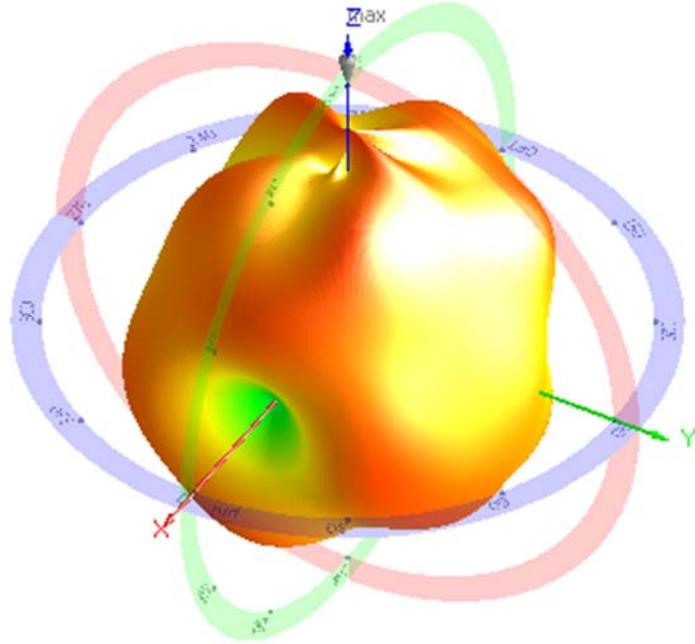
### Max Antenna 3D Radiation Pattern 5850-5895 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5850-5895	2.19



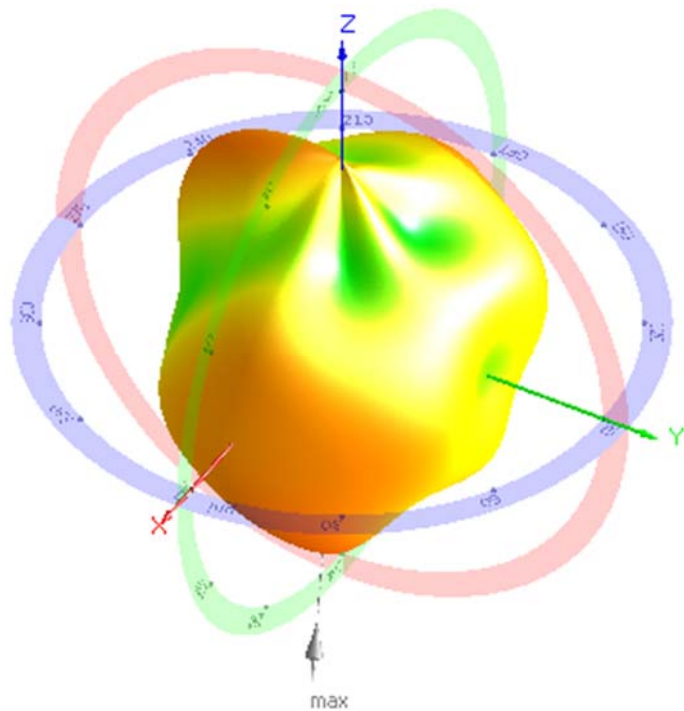
### Max Antenna 3D Radiation Pattern 5925-6425 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5925-6425	-1.40



### Max Antenna 3D Radiation Pattern 6425-6525 MHz

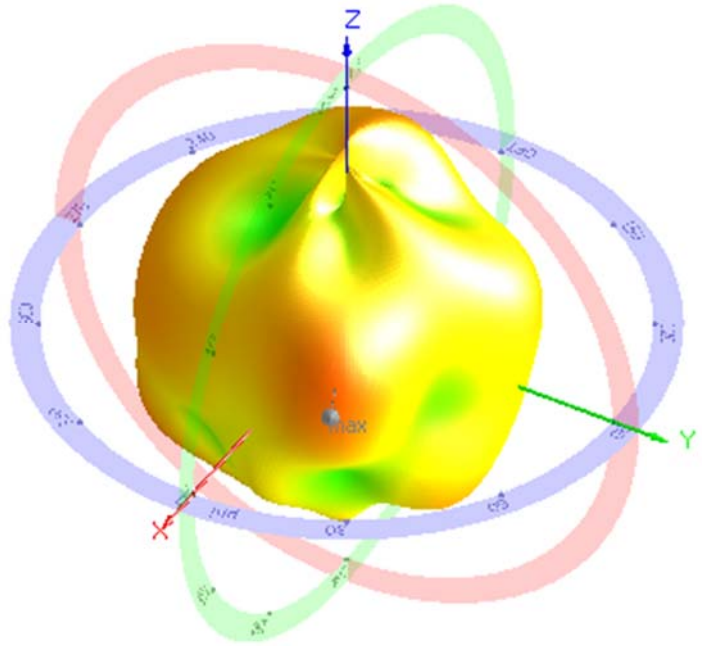
Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6425-6525	-3.34





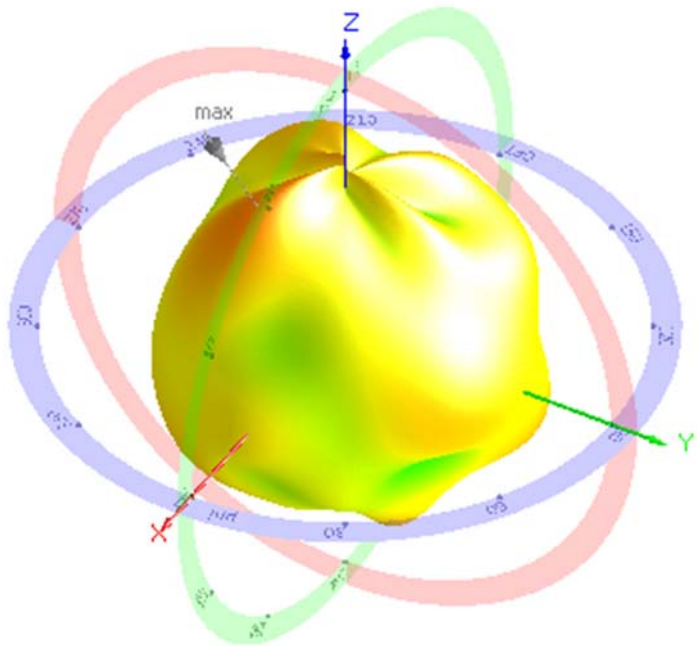
### Max Antenna 3D Radiation Pattern 6525-6875 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6525-6875	-3.52



### Max Antenna 3D Radiation Pattern 6875-7125 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6875-7125	-4.25



## Revision History

<b>Revision</b>	<b>Description</b>	<b>Date</b>
10.3	<u>Page2-5</u> Add Applicable test method, Test & System Description and Setup photo	July 24, 2022
10.4	<u>Cover page</u> Add Intel 5.9GHz reference antenna gain <u>Cover page/Section1/Section3</u> Add 5.9GHz antenna gain information	September 15, 2022