

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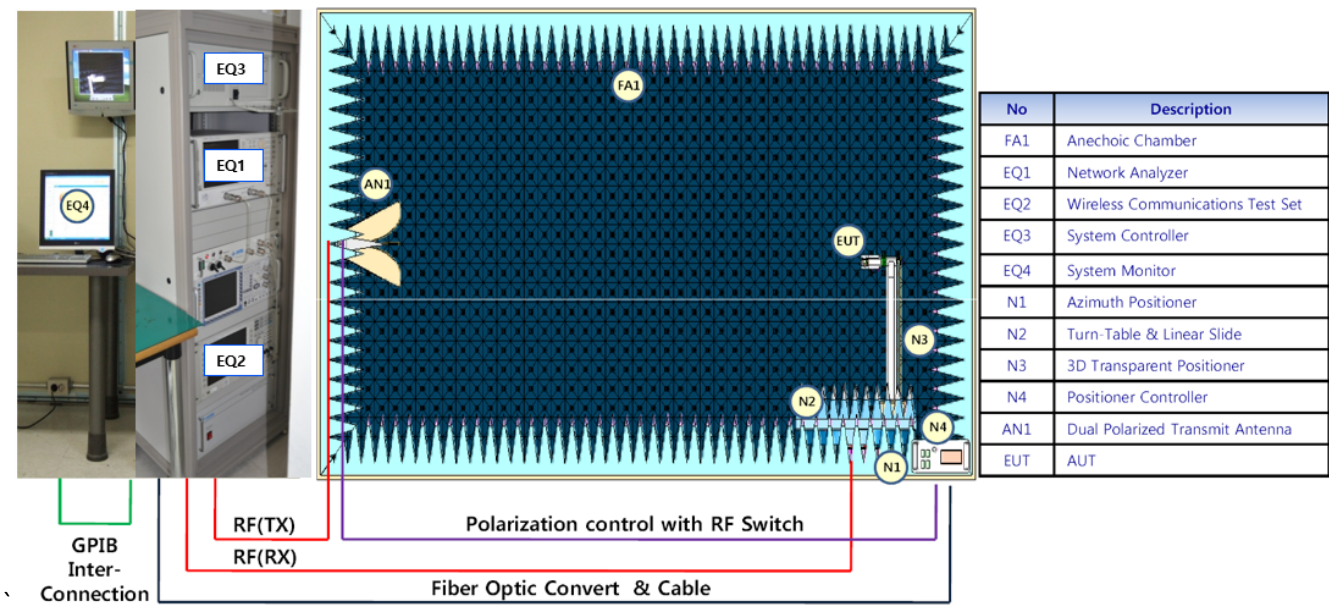
[Section 6. Diagram Example of Co-Location Antenna Separation](#)

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

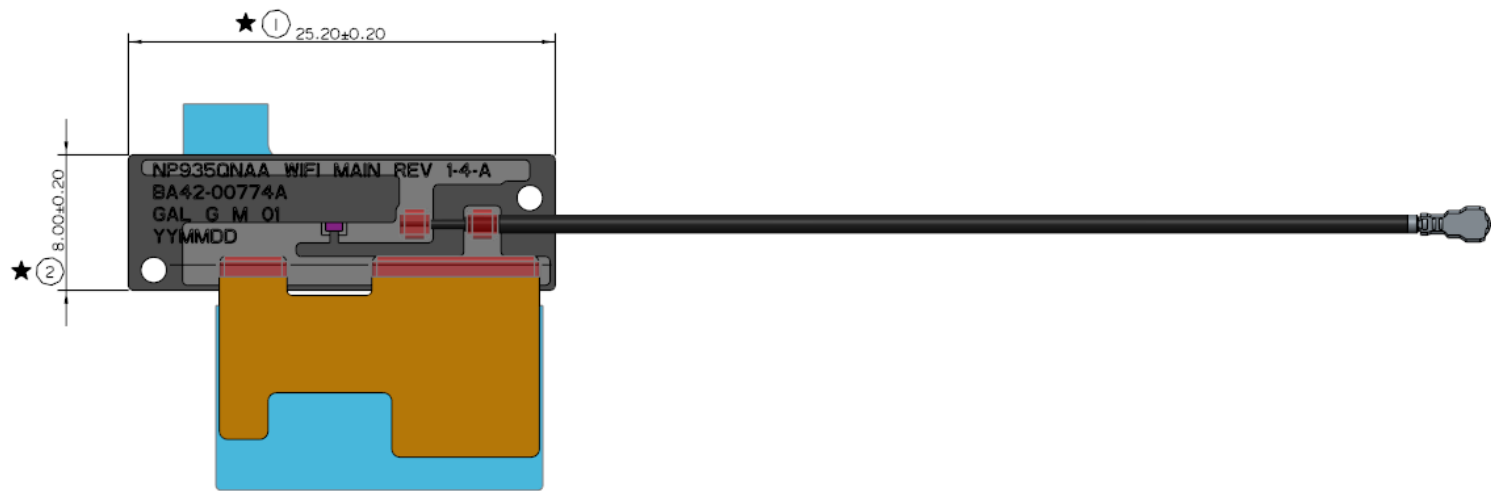
1A	1B	1C	1D		1E	1F	1G	1H
Antenna Part Number	Manufacturer	Antenna Type	Cable Assembly Part Number and Information	Freq Range MHz	* Peak Gain W/ Cable loss (dBi)	Peak Gain w/o Cable Loss (dBi)	Max VSWR	Cable Loss (dB)
(P/N: 02112651-07878) Main Antenna	Galtronics	PIFA	(P/N: U.FL-2LP-XXX) 50 ohm Coaxial length: 63.5mm diameter: ø1.13	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: ø1.13	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.

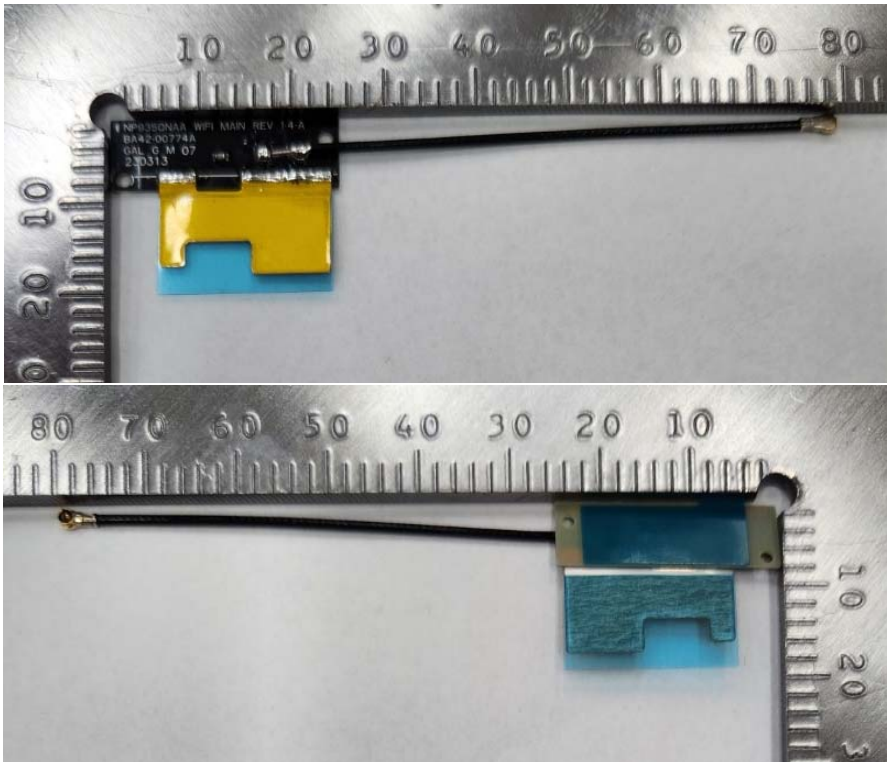
Section 2. Dimensioned Photos and Drawings of Antennas

Include the dimensioned photo and drawing of Main antenna here.

Main Antenna Drawing:



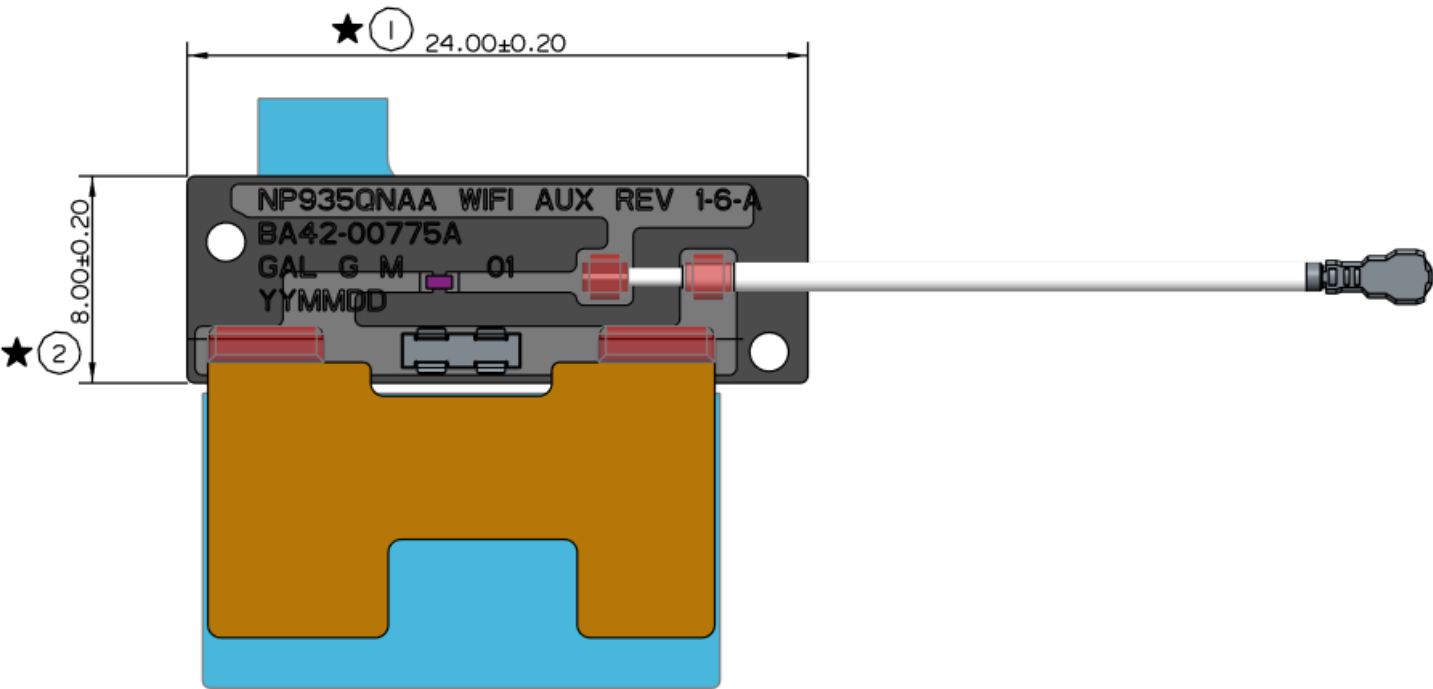
Main Antenna Photo (Front/Back):



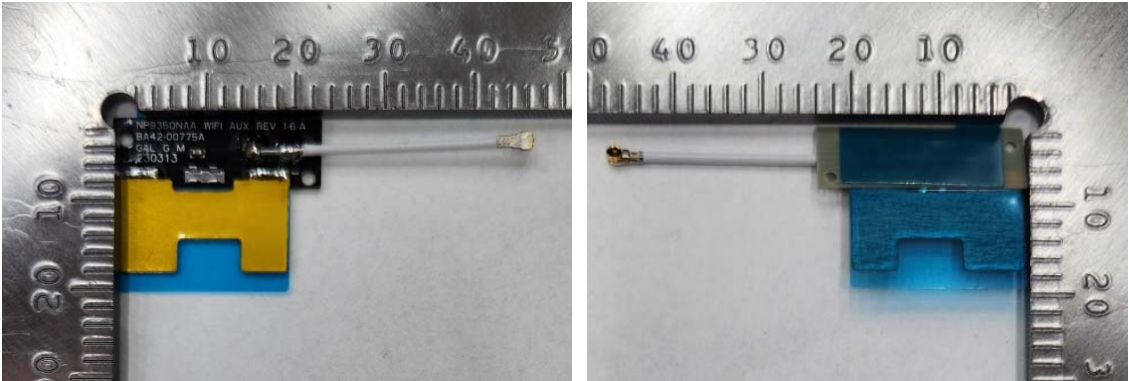
Note: antenna photo should include L type ruler

Include the dimensioned photo and drawing of Aux antenna here.

Aux Antenna Drawing:



Aux Antenna Photo (Front/Back):



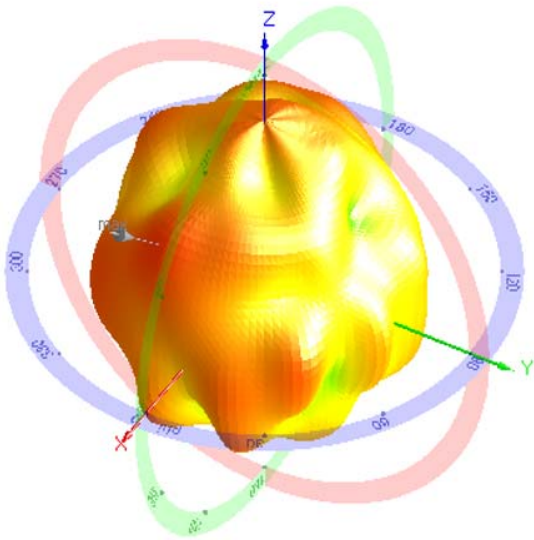
Note: antenna photo should include L type ruler

Section 3. Radiation characteristics of antenna loaded in Host Platform

Main Antenna

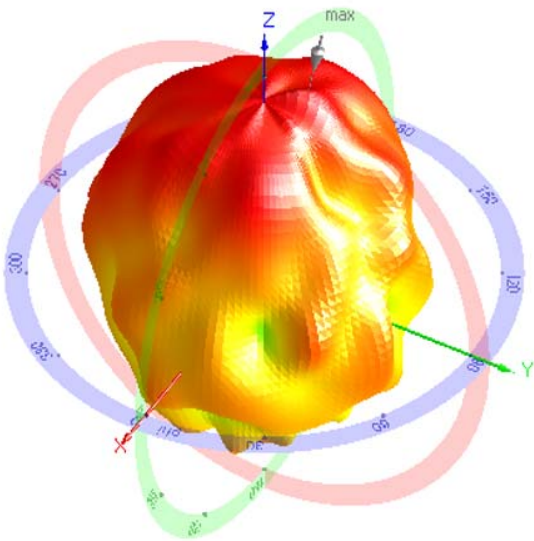
Max Antenna 3D Radiation Pattern 2400 – 2483.5 MHz

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



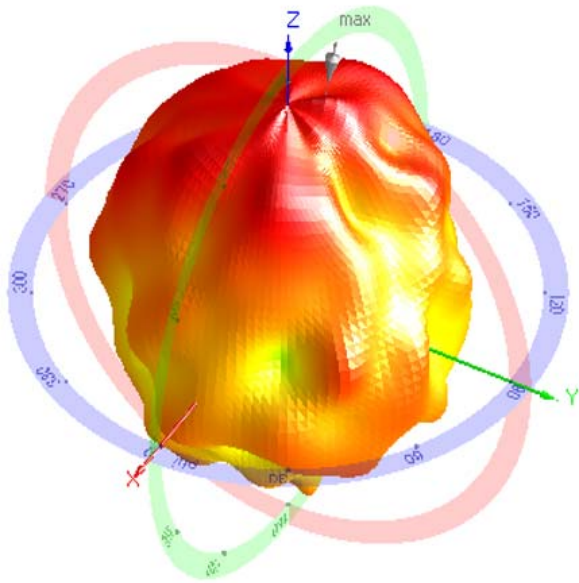
Max Antenna 3D Radiation Pattern 5150-5250 MHz

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



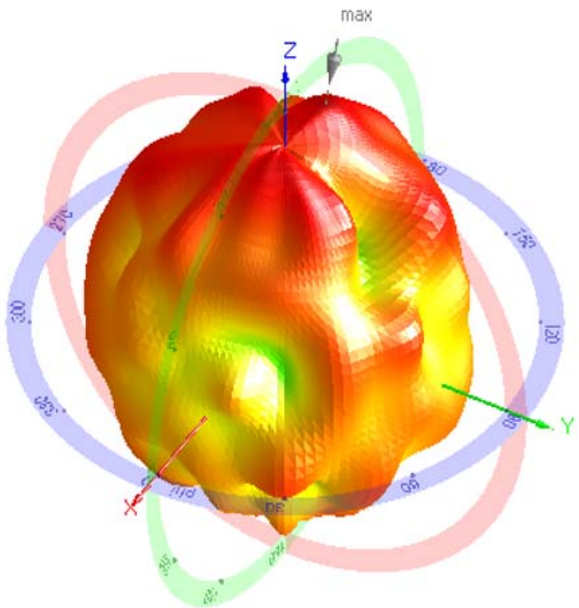
Max Antenna 3D Radiation Pattern 5250-5350 MHz

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



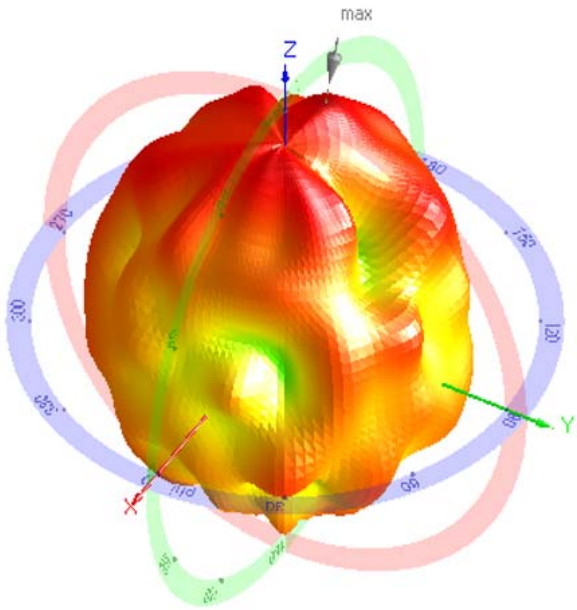
Max Antenna 3D Radiation Pattern 5470-5725 MHz

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



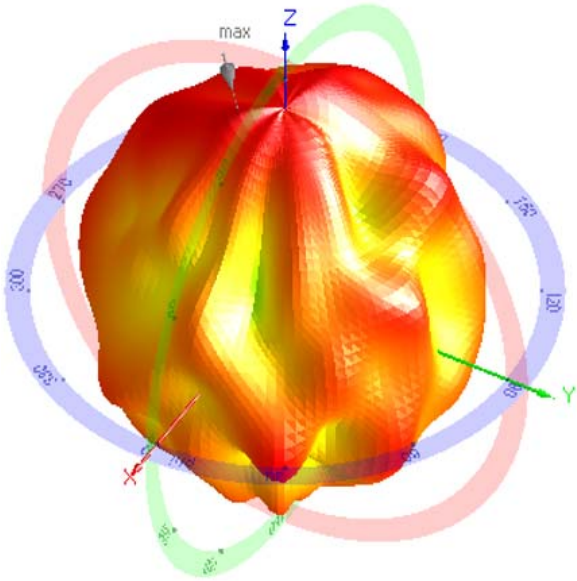
Max Antenna 3D Radiation Pattern 5725-5850 MHz

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



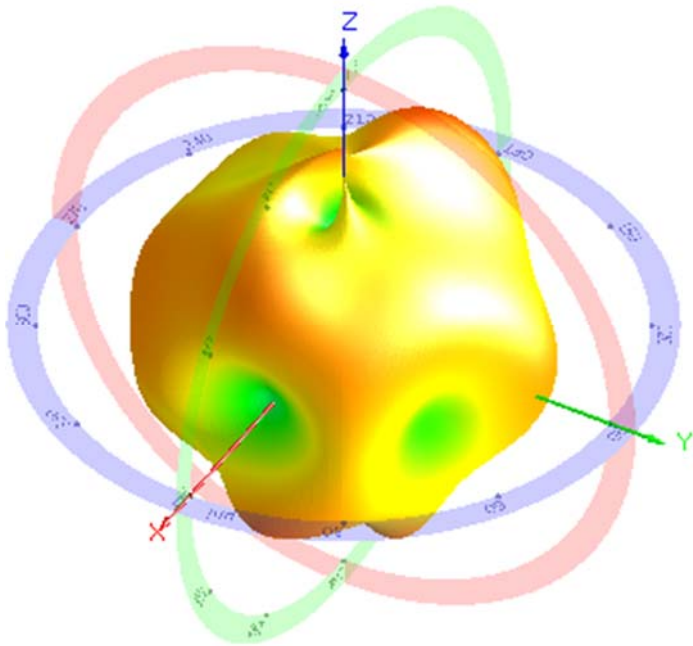
Max Antenna 3D Radiation Pattern 5850-5895 MHz

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



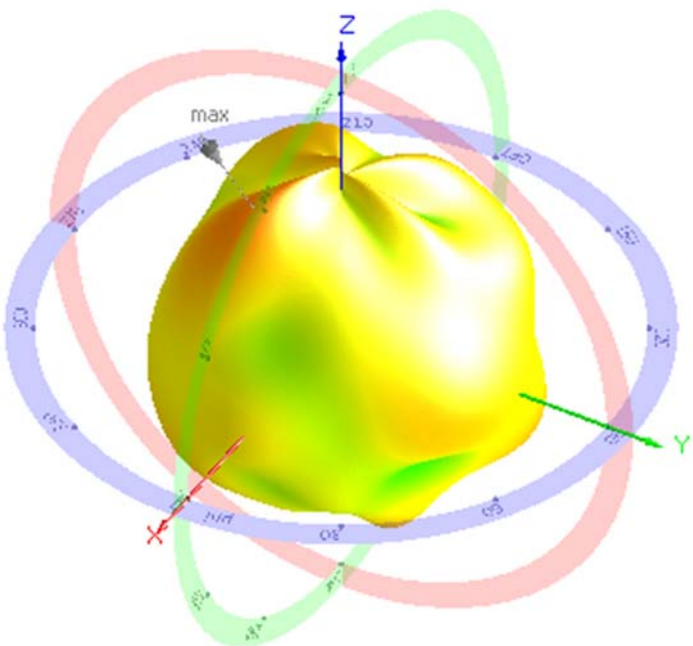
Max Antenna 3D Radiation Pattern 5925-6425 MHz

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



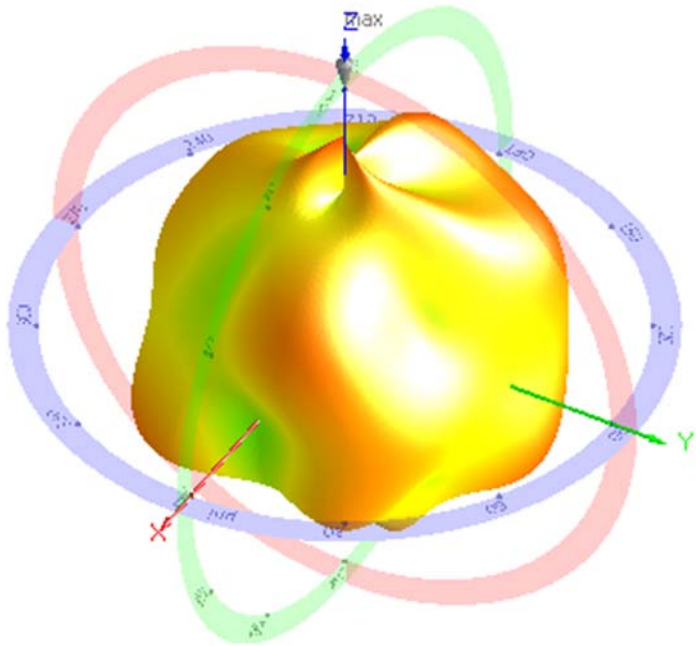
Max Antenna 3D Radiation Pattern 6425-6525 MHz

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



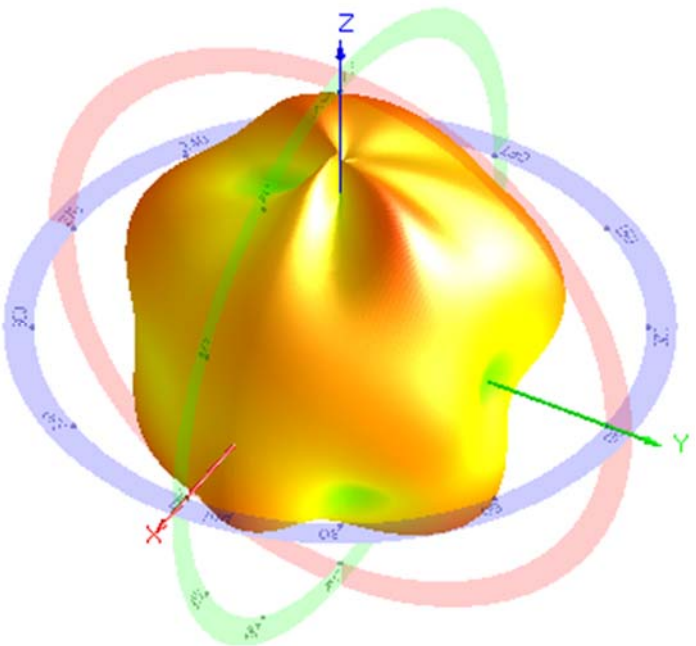
Max Antenna 3D Radiation Pattern 6525-6875 MHz

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



Max Antenna 3D Radiation Pattern 6875-7125 MHz

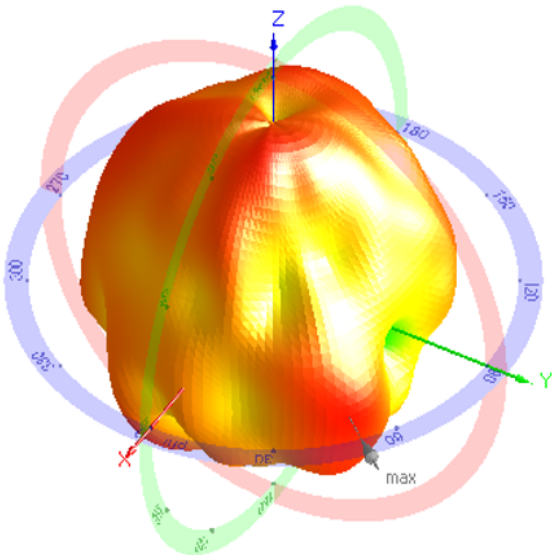
Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6875-7125	-2.64



Auxiliary Antenna

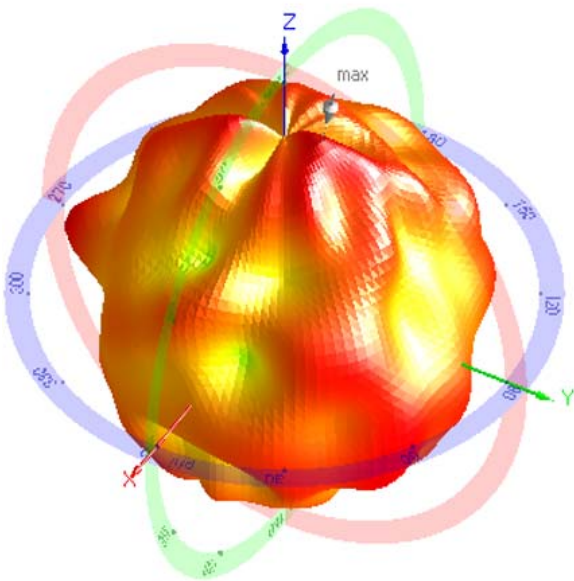
Max Antenna 3D Radiation Pattern 2400 – 2483.5 MHz

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



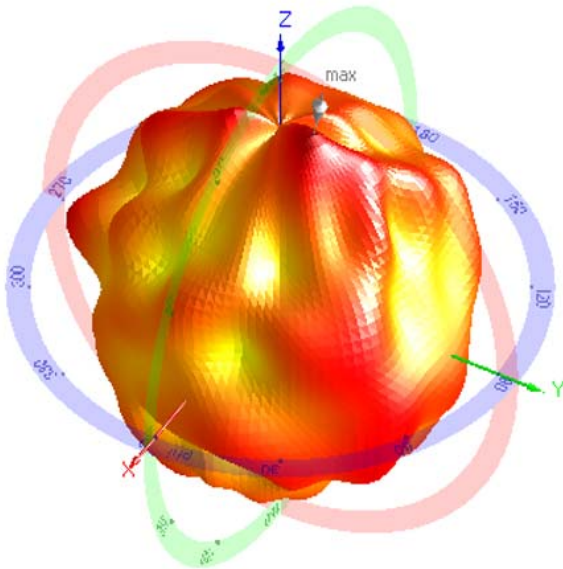
Max Antenna 3D Radiation Pattern 5150-5250 MHz

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



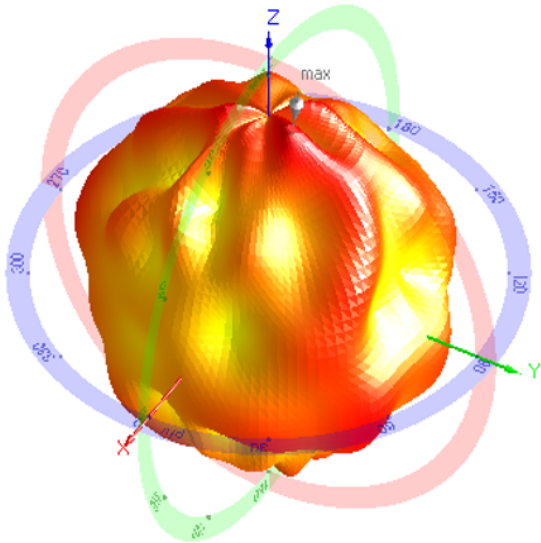
Max Antenna 3D Radiation Pattern 5250-5350 MHz

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



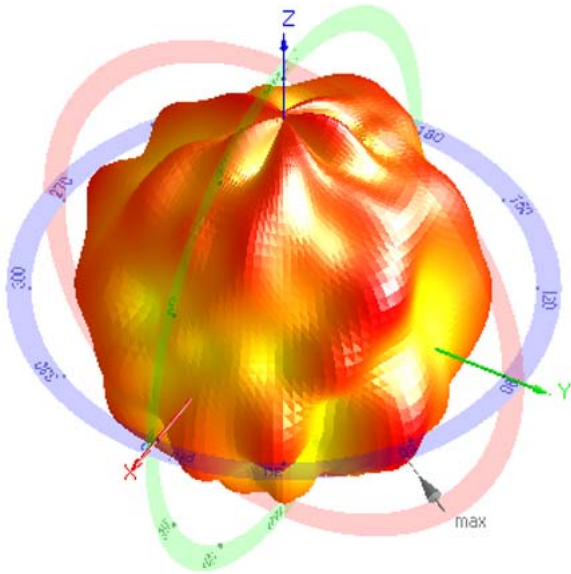
Max Antenna 3D Radiation Pattern 5470-5725 MHz

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



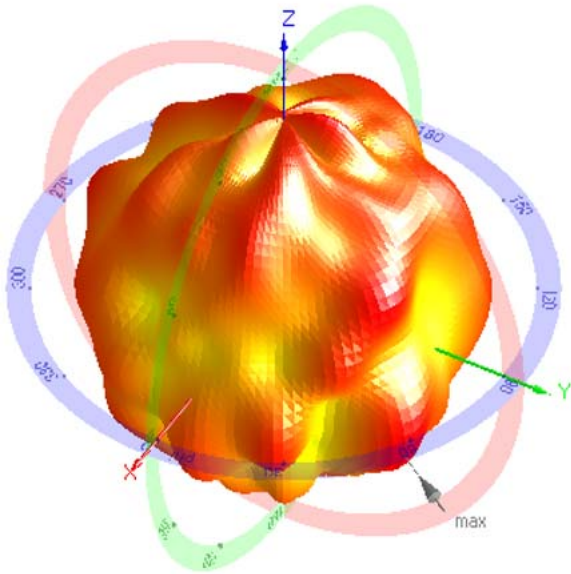
Max Antenna 3D Radiation Pattern 5725-5850 MHz

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



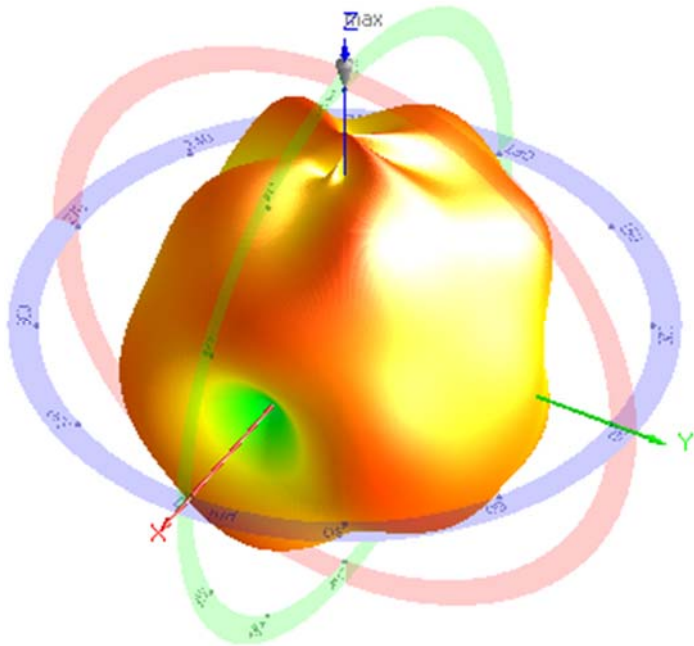
Max Antenna 3D Radiation Pattern 5850-5895 MHz

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



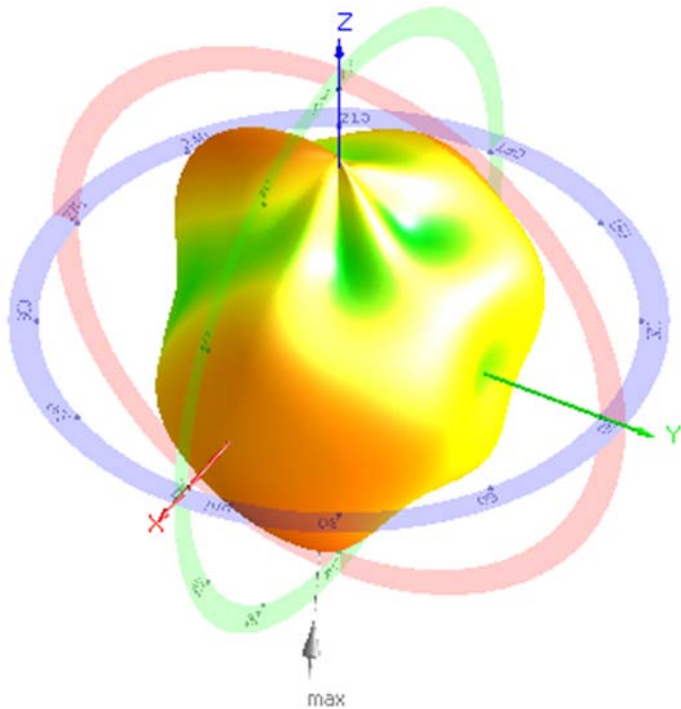
Max Antenna 3D Radiation Pattern 5925-6425 MHz

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



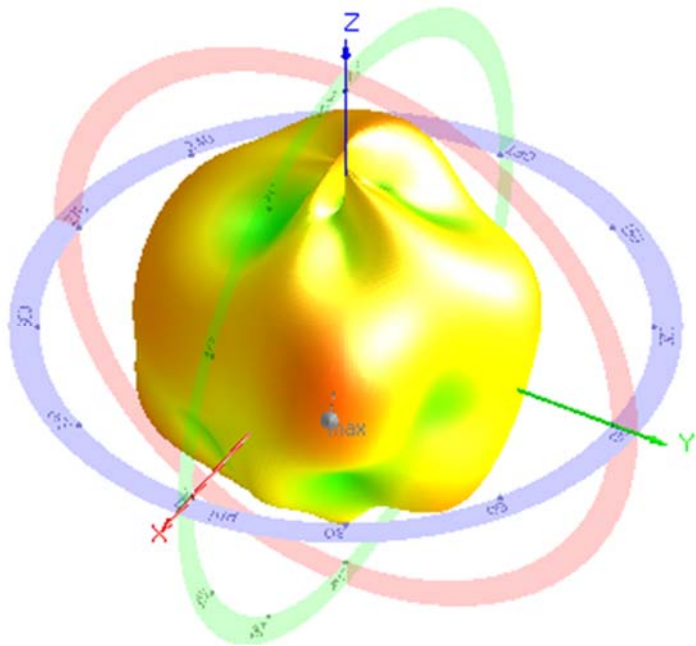
Max Antenna 3D Radiation Pattern 6425-6525 MHz

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



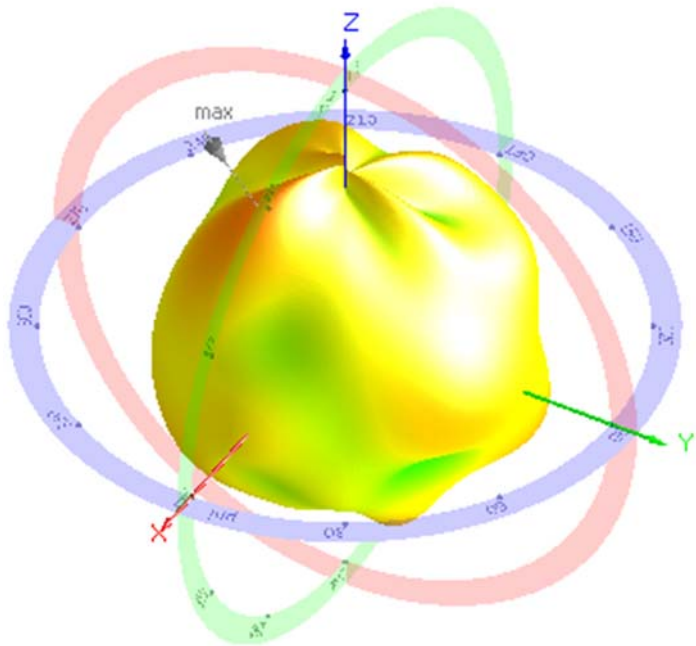
Max Antenna 3D Radiation Pattern 6525-6875 MHz

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

Revision	Description	Date
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