

Regulatory WLAN Antenna Information (Template)

English Language Required for Qualcomm Regulatory Review / Approval

(OEM/ODM or antenna vendor is required to complete this document with platform antenna information.)

Platform information												
Brand		ODM		****End product model name		Qualcomm platform (ex: Yes, No or NA)		Platform type (ex: regular NB, convertible PC, AIO...etc)		*SAR minimum separation (mm)		
ASUS		Inventec		S5408QA/K5408QA/V5408QA S5408QA/S5408Q/K5408Q/V5408Q		Yes		Regular NB		FCC(1g) 4.16 ISED(1g) 4.16 ISED(10g) 5.12		
****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)			
WNC			PIFA			14008-06780400 81EACD15.G19			14008-06780500 81EACD15.G20			
Peak gain w/ cable loss (dBi)*												
	2.4GHz 2400-2483.5 MHz	5.2GHz 5150-5250MHz	5.3GHz 5250-5350MHz	5.5GHz 5470-5725MHz	5.8GHz 5725-5850MHz	5.9GHz 5850-5895MHz	6.2GHz 5925-6425MHz	6.5GHz 6425-6525MHz	6.7GHz 6525-6875MHz	6.9 GHz 6875-7125MHz		
Main	2.16	2.91	2.96	4.52	4.10	3.97	4.30	3.10	3.74	3.23		
Aux	0.30	3.00	2.94	4.19	3.86	3.78	4.01	2.99	3.90	3.69		
Qualcomm Reference Gain/Type/ Separation distance												
Antenna Type	Antenna Peak gain (In dBi)*										Distance to the end user (mm)	
	2.4GHz 2400-2483.5 MHz	5.2GHz 5150-5250MHz	5.3GHz 5250-5350MHz	5.5GHz 5470-5725MHz	5.8GHz 5725-5850MHz	5.9GHz 5850-5895MHz	6.2GHz 5925-6425MHz	6.5GHz 6425-6525MHz	6.7GHz 6525-6875MHz	6.9GHz 6875-7125MHz	Generic: refer to modular FCC SAR report	
	PIFA	3.53	3.06	3.07	4.81	4.2	5.09	5.14	5.09	5.16	5.12	Mid-power: ≥ 8 mm
	Dipole	3.22	3.35	3.42	4.77	4.72	4.71	4.75	4.29	4.81	4.74	Low power: ≥ 5 mm
Notes (marked with *)												
* SAR minimum separation (mm)												
- Regular NB: Minimum antenna-to-body (from antenna bottom to the bottom of the device)												
- Tablet / Convertible PC: Minimum antenna-to-edge (5 sides of the device)												
- Mini-tablet: Minimum antenna-to-edge (6 sides of the device)												
* 3D Peak Antenna gain should be equal or greater than -2 dBi												
- If a host integrator plans to use a lower gain antenna of the same type, additional CBP(FCC)/EDT(EU) testing need to be performed while the module is installed in the host.												

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1.3 Equipment list

<insert test diagram here for test site utilized>

Device	Type / Model	Serial #	Manufacture	Cal. Date	Cal. Du Date
Anechoic Chamber	555-FAC		ChamPro	2025-11-17	2026-11
Antenna Measurement System	SG24-L		MVG-SATIMO	2025-11-17	2026-11
Network Analyzer	VNA / E5080B	MY59203136	Keysight	2025-11-17	2026-11
Tx Amplifier Unit	SG24 Series Accessories		MVG-SATIMO	2025-11-17	2026-11
Rx Amplifier Unit	SG24 Series Accessories		MVG-SATIMO	2025-11-17	2026-11
Probe Select Unit	SG24 Series Accessories		MVG-SATIMO	2025-11-17	2026-11
Motion Control Unit	SG24 Series Accessories		MVG-SATIMO	2025-11-17	2026-11
Power and Control Unit	SG24 Series Accessories		MVG-SATIMO	2025-11-17	2026-11
Array Control Unit	SG24 Series Accessories		MVG-SATIMO	2025-11-17	2026-11
Turn Table	SG24 Series Accessories		MVG-SATIMO	2025-11-17	2026-11
Goniometer	SG24 Series Accessories		MVG-SATIMO	2025-11-17	2026-11
Control Software	WaveStudio		MVG-SATIMO	N/A	N/A
Uninterruptible Power Supply	FT-130H-U		FTUPS	N/A	N/A
Wide Band Dipole	WD6000		MVG-SATIMO	2025-11-17	2026-11

Antenna Information

Section 1. Antenna Assembly Specifications

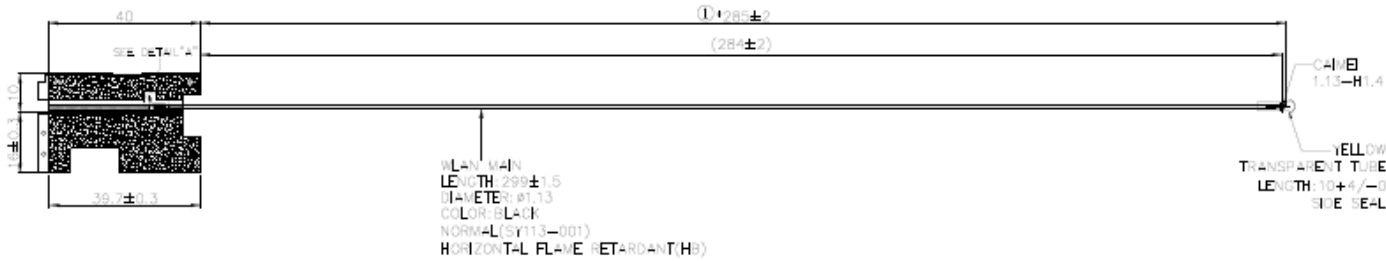
1A	1B	1C	1D		1E	1F	1G	1H
Antenna Part Number	Manufacturer	Antenna Type	Cable Assembly Part Number and Information	Freq Range MHz	* Peak Gain W/ Cable loss (dBi)	Peak Gain w/o Cable Loss (dBi)	Max VSWR	Cable Loss (dB)
14008-06780400 81EACD15.G19 Main Antenna	WNC	PIFA	50 ohm Coaxial Length: 285 mm Diameter : 1.13 mm Normal Connector: Caimei	2400-2483.5	2.16	3.13	3.00	0.97
				5150-5250	2.91	4.33	3.00	1.42
				5250-5350	2.96	4.40	3.00	1.44
				5470-5725	4.52	6.00	3.00	1.48
				5725-5850	4.10	5.61	3.00	1.51
				5850-5895	3.97	5.49	3.00	1.52
				5925-6425	4.30	5.87	3.00	1.57
				6425-6525	3.10	4.73	3.00	1.63
				6525-6875	3.74	5.42	3.00	1.68
14008-06780500 81EACD15.G20 Aux Antenna	WNC	PIFA	50 ohm Coaxial Length: 426mm Diameter : 1.13 mm Normal Connector: Caimei	6875-7125	3.23	4.97	3.00	1.74
				2400-2483.5	0.30	1.75	3.00	1.45
				5150-5250	3.00	5.13	3.00	2.13
				5250-5350	2.94	5.09	3.00	2.15
				5470-5725	4.19	6.40	3.00	2.21
				5725-5850	3.86	6.12	3.00	2.26
				5850-5895	3.78	6.05	3.00	2.27
				5925-6425	4.01	6.36	3.00	2.35
				6425-6525	2.99	5.43	3.00	2.44
				6525-6875	3.90	6.41	3.00	2.51
				6875-7125	3.69	6.29	3.00	2.60

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

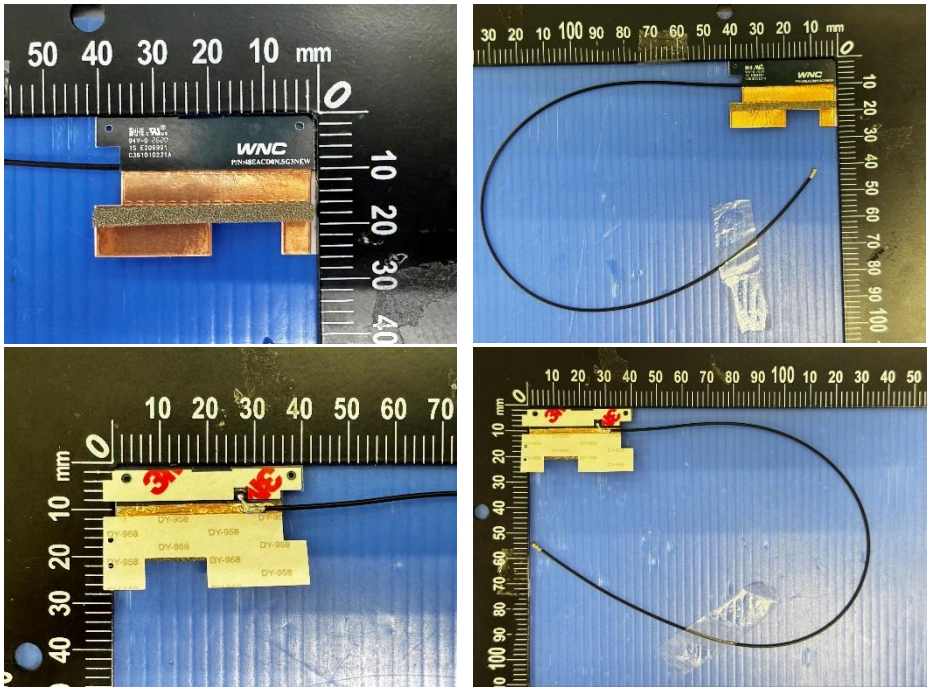
Section 2. Dimensioned Photos and Drawings of Antennas

Include the dimensioned photo and drawing of Main antenna here.

Main Antenna Drawing:



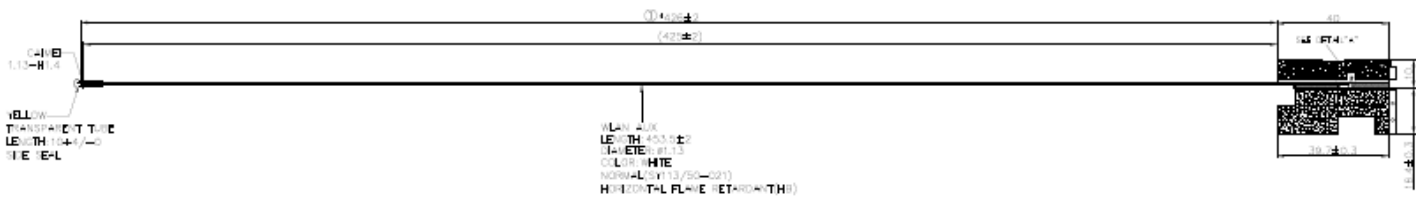
Main Antenna Photo (Front/Back):



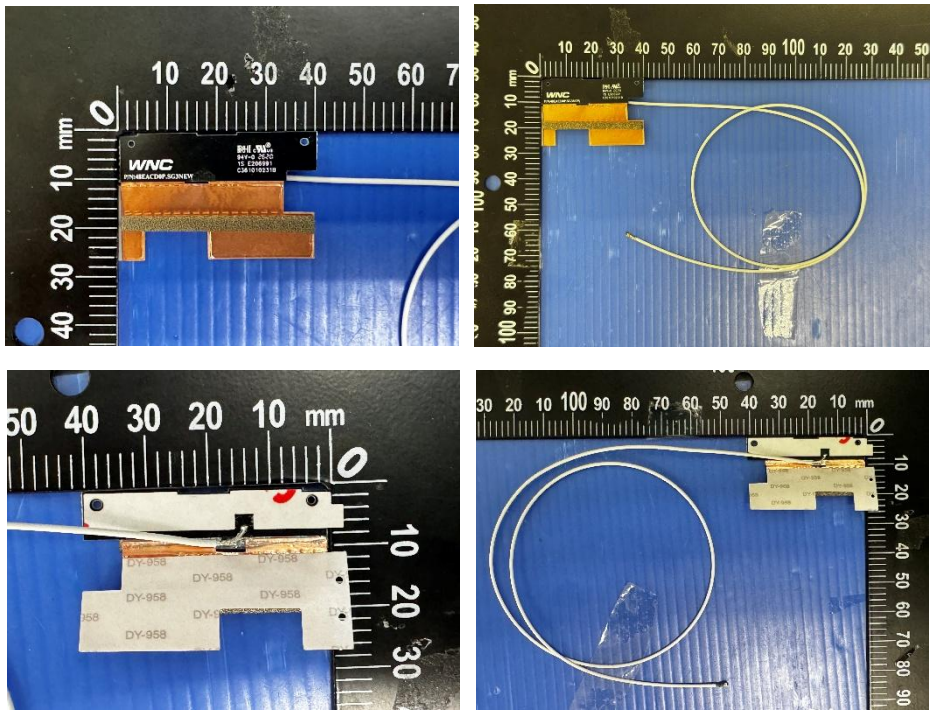
Note: antenna photo should include L type ruler

Include the dimensioned photo and drawing of Aux antenna here.

Aux Antenna Drawing:



Aux Antenna Photo (Front/Back):



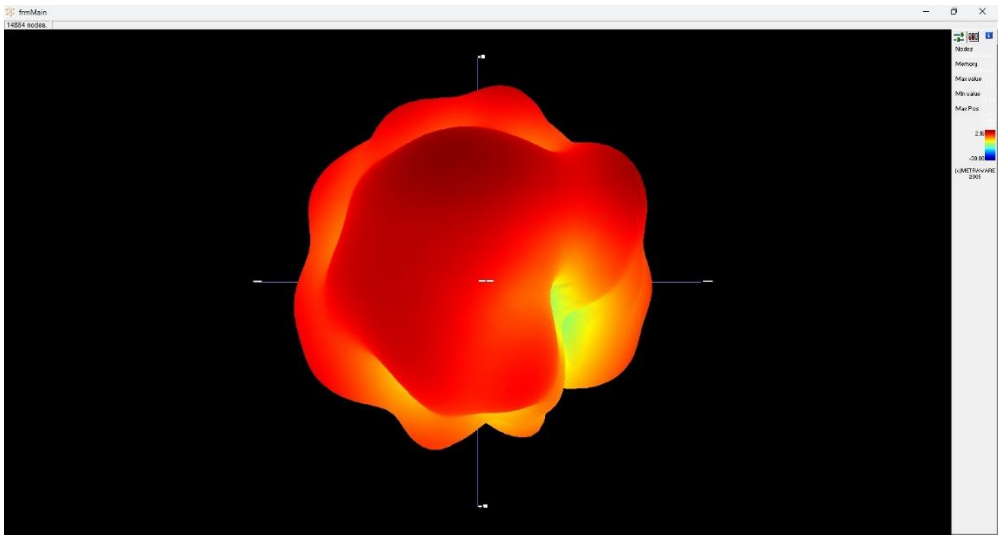
Note: antenna photo should include L type ruler

Section 3. Radiation characteristics of antenna loaded in Host Platform

Main Antenna

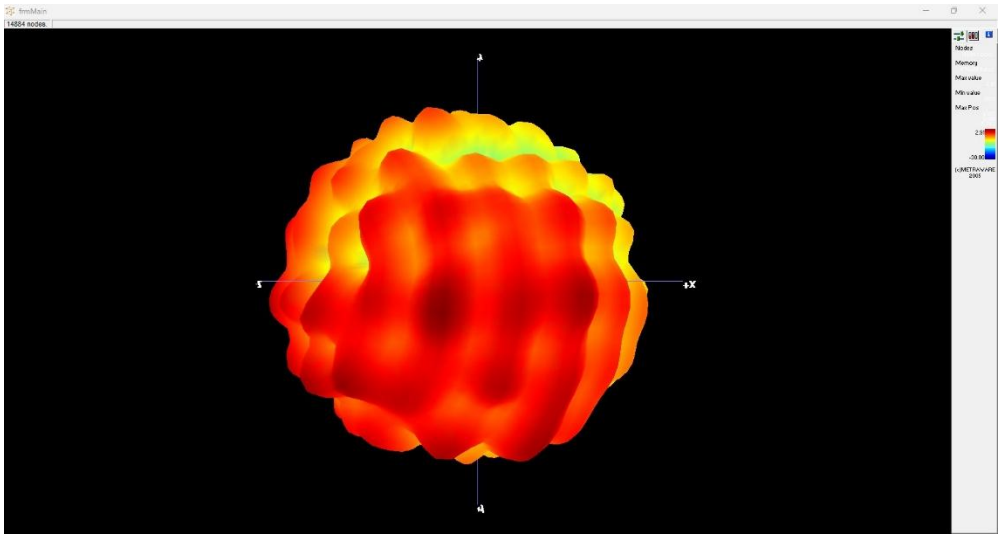
Max Antenna 3D Radiation Pattern 2400 – 2483.5 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
2400-2483.5	2.16



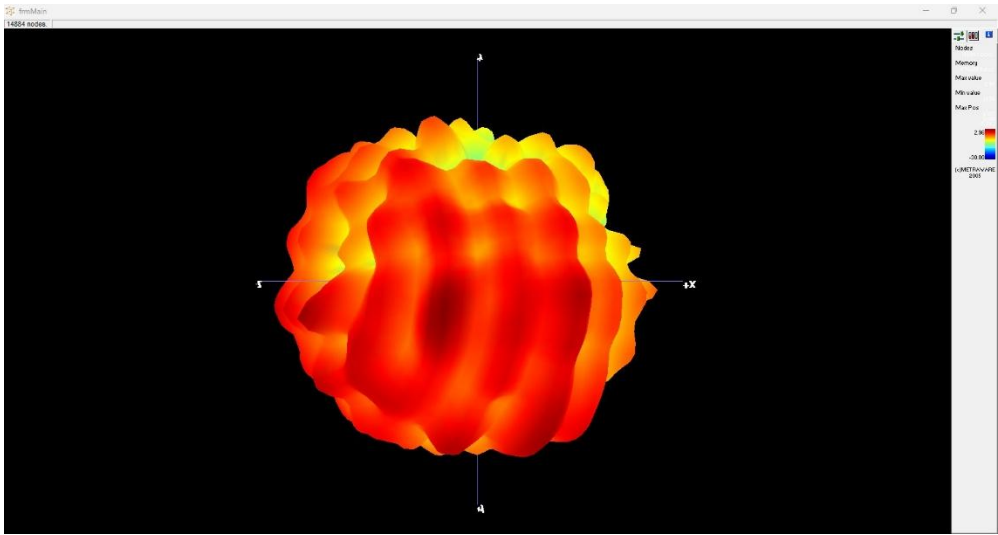
Max Antenna 3D Radiation Pattern 5150-5250 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5150-5250	2.91



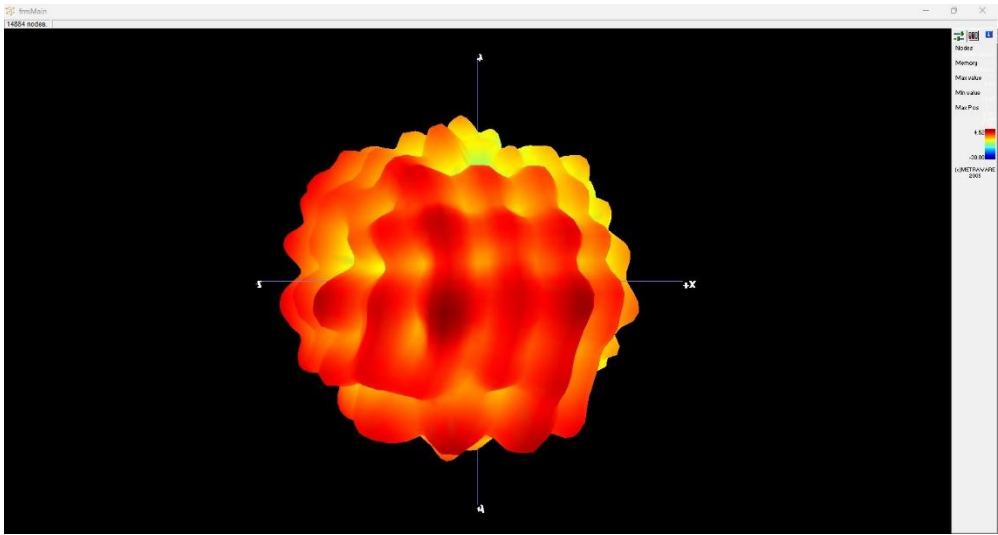
Max Antenna 3D Radiation Pattern 5250-5350 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5250-5350	2.96



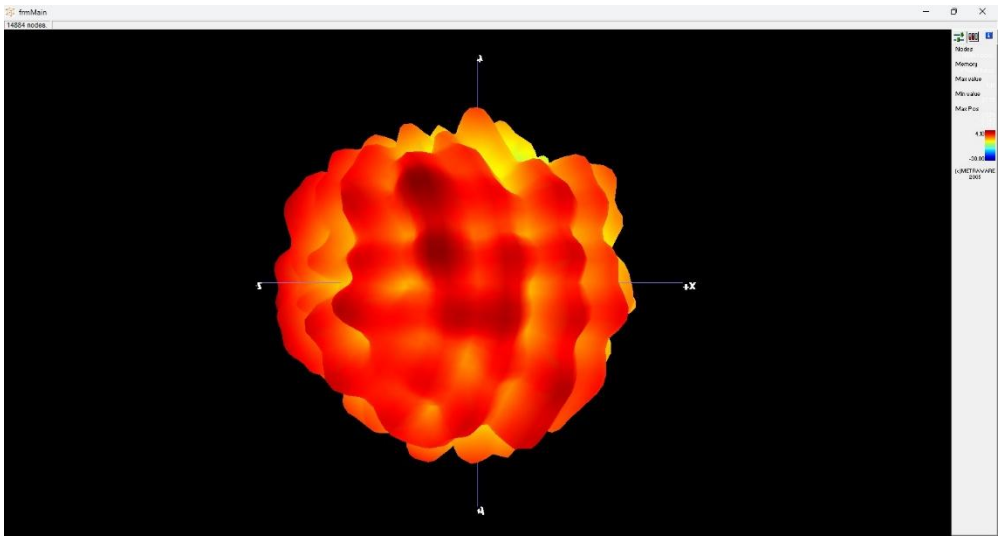
Max Antenna 3D Radiation Pattern 5470-5725 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5470-5725	4.52



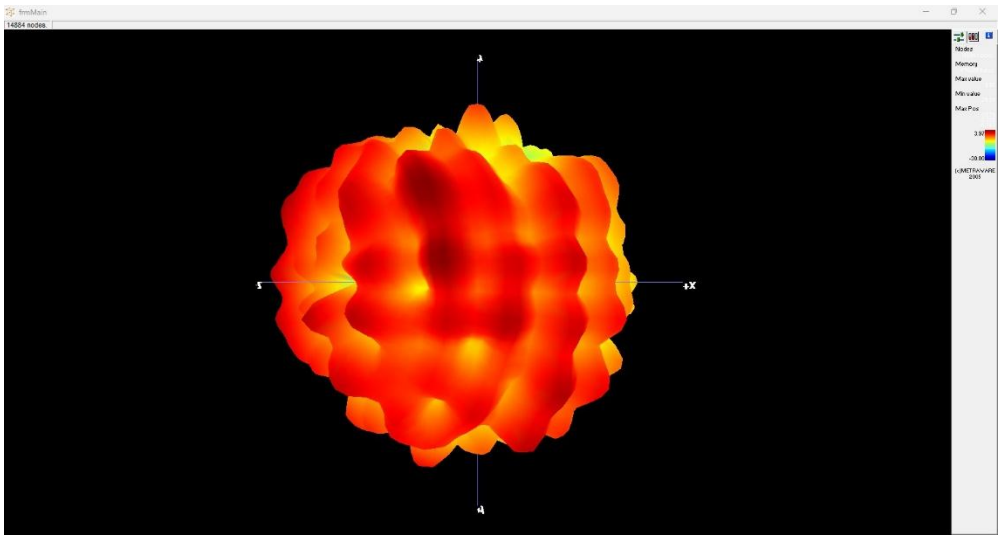
Max Antenna 3D Radiation Pattern 5725-5850 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5725-5850	4.10



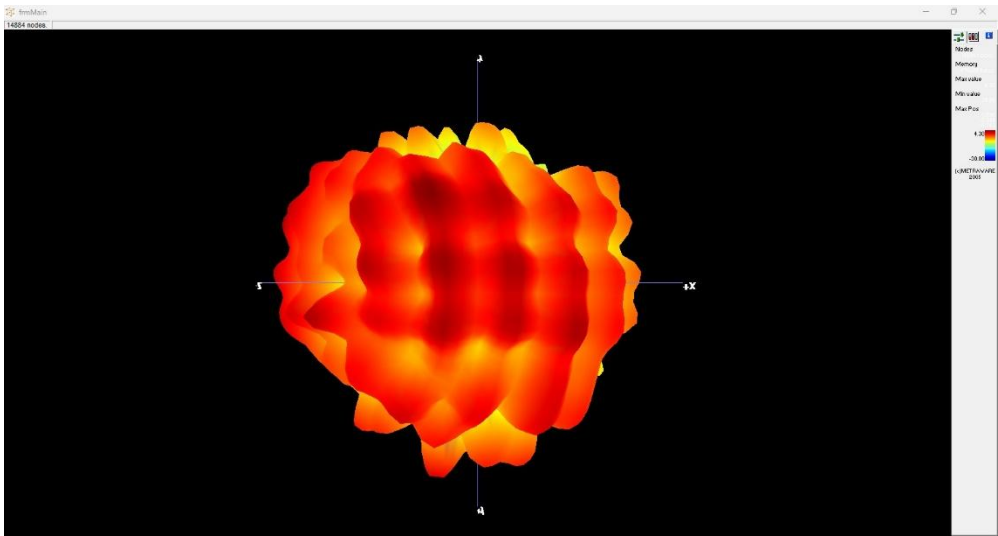
Max Antenna 3D Radiation Pattern 5850-5895 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5850-5895	3.97



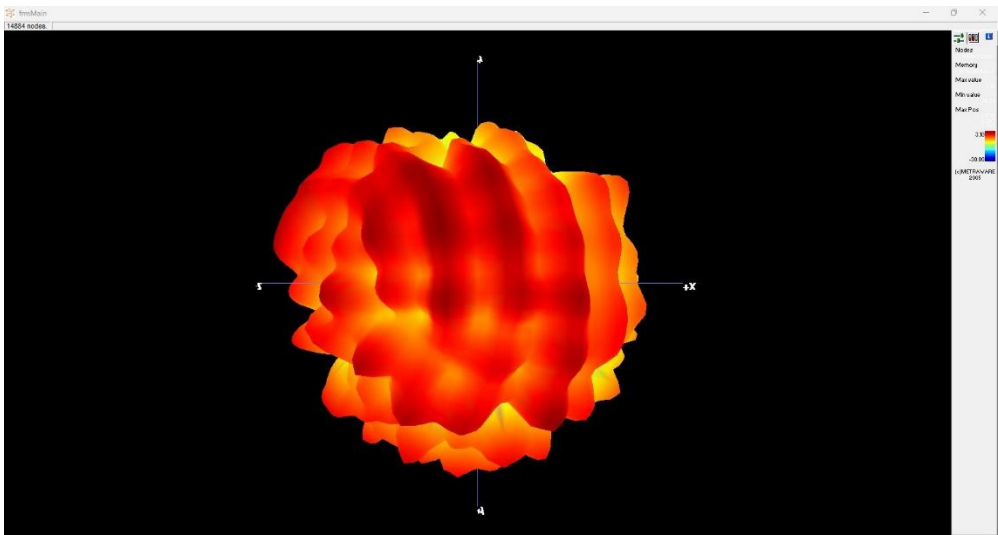
Max Antenna 3D Radiation Pattern 5925-6425 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5925-6425	4.30



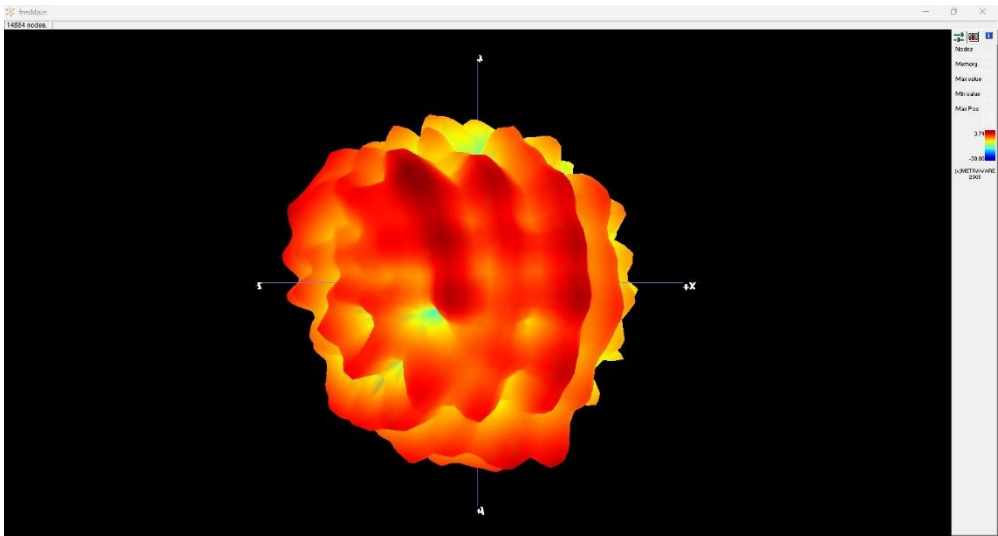
Max Antenna 3D Radiation Pattern 6425-6525 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6425-6525	3.10



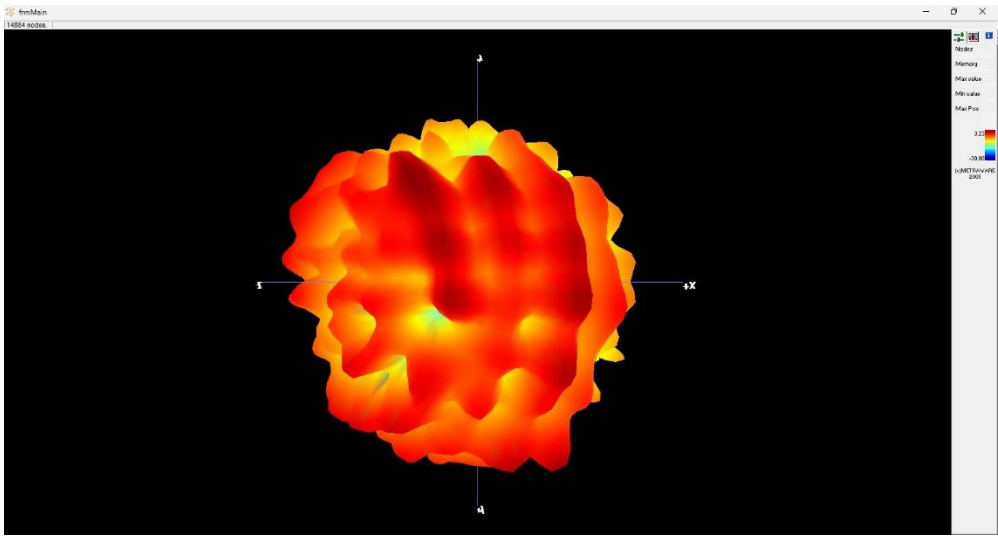
Max Antenna 3D Radiation Pattern 6525-6875 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6525-6875	3.74



Max Antenna 3D Radiation Pattern 6875-7125 MHz

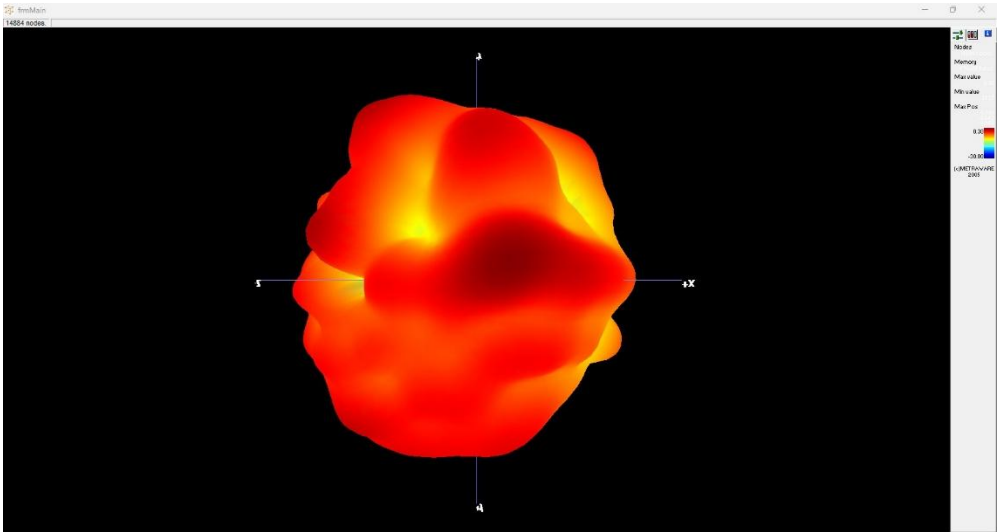
Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6875-7125	3.23



Auxiliary Antenna

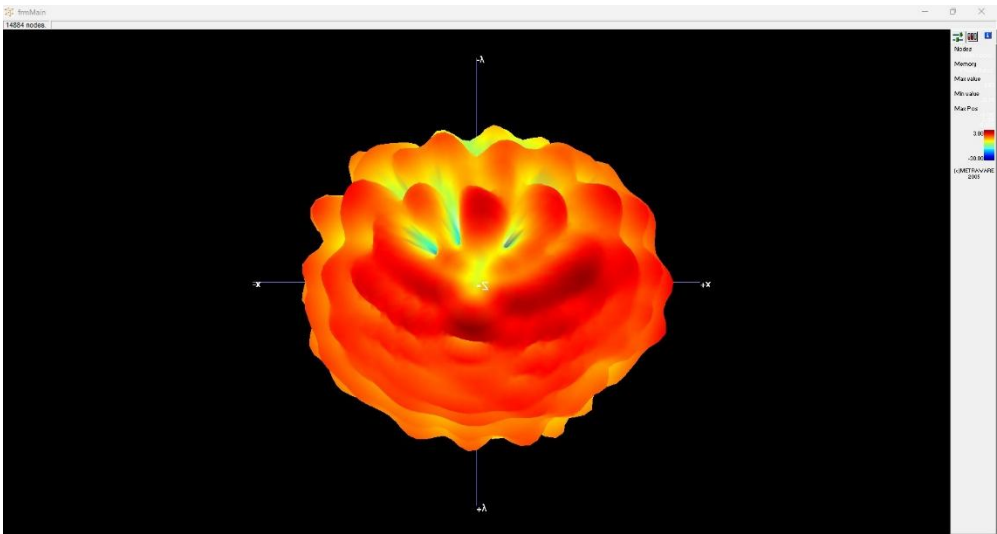
Max Antenna 3D Radiation Pattern 2400 – 2483.5 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
2400-2483.5	0.3



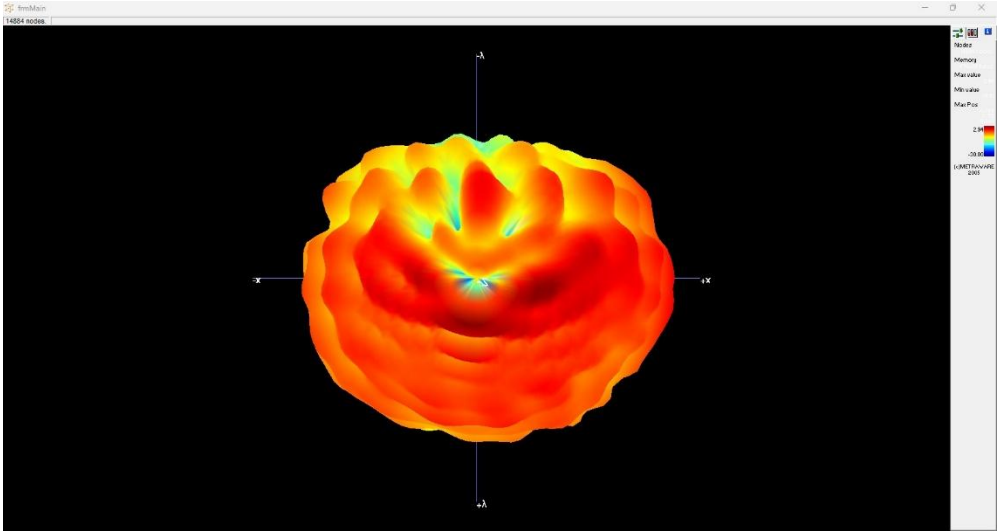
Max Antenna 3D Radiation Pattern 5150-5250 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5150-5250	3.00



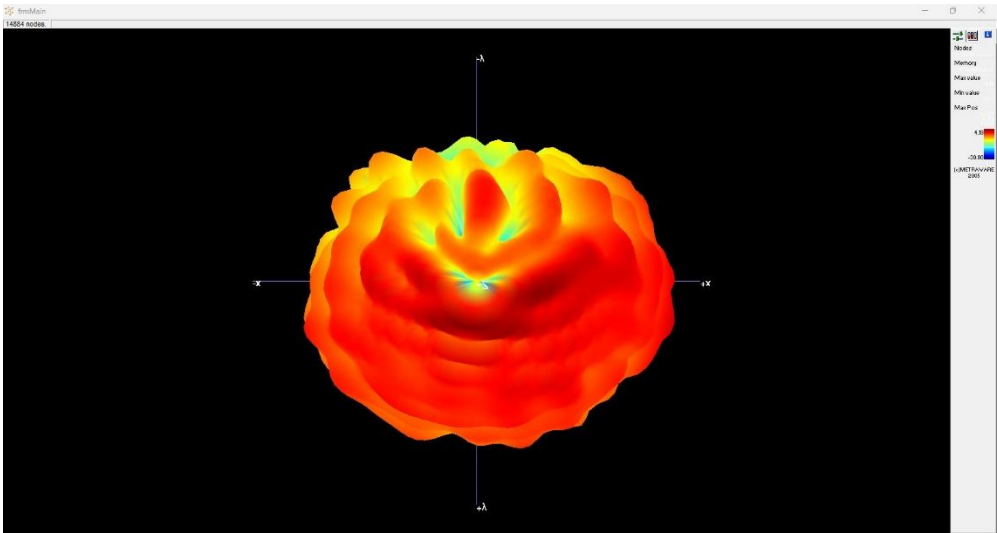
Max Antenna 3D Radiation Pattern 5250-5350 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5250-5350	2.94



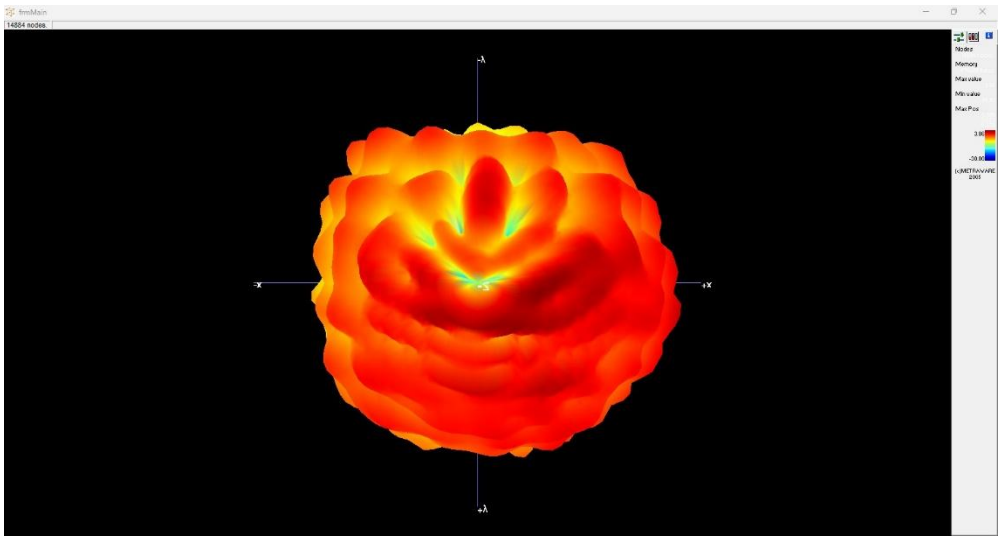
Max Antenna 3D Radiation Pattern 5470-5725 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5470-5725	4.19



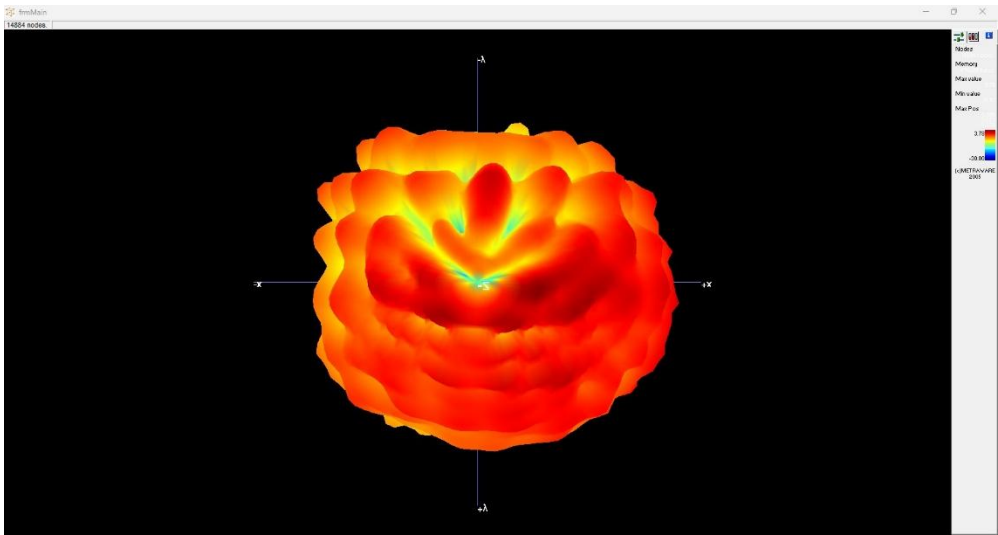
Max Antenna 3D Radiation Pattern 5725-5850 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5725-5850	3.86



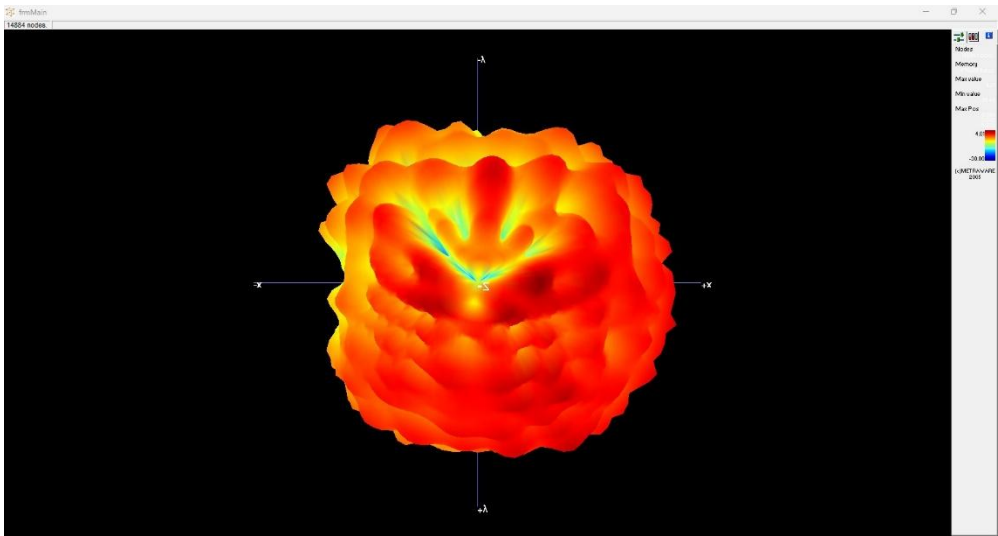
Max Antenna 3D Radiation Pattern 5850-5895 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5850-5895	3.78



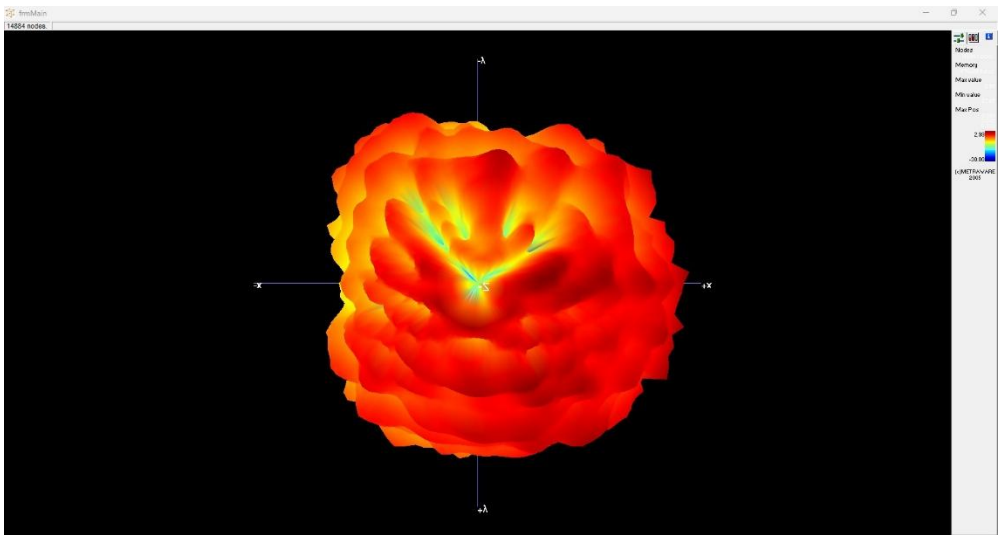
Max Antenna 3D Radiation Pattern 5925-6425 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5925-6425	4.01



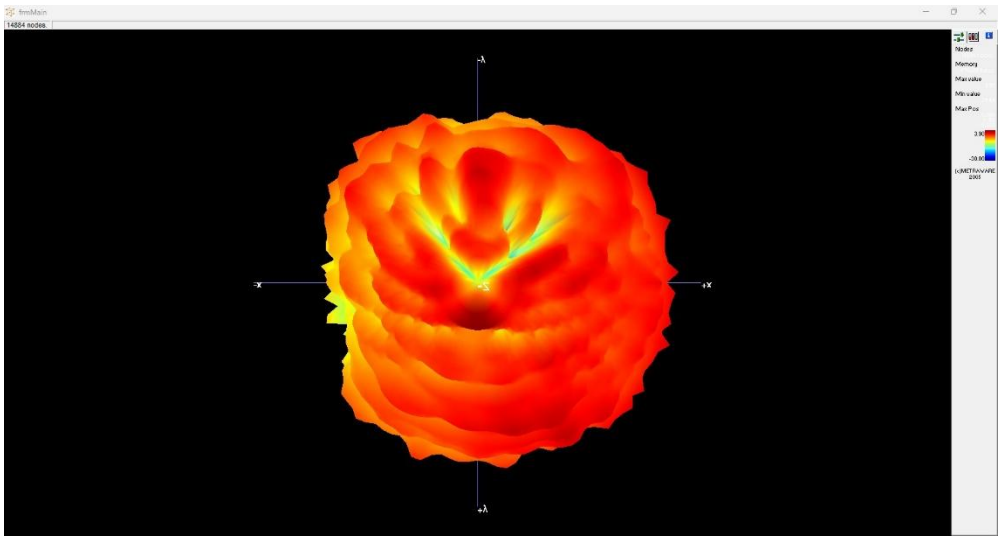
Max Antenna 3D Radiation Pattern 6425-6525 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6425-6525	2.99



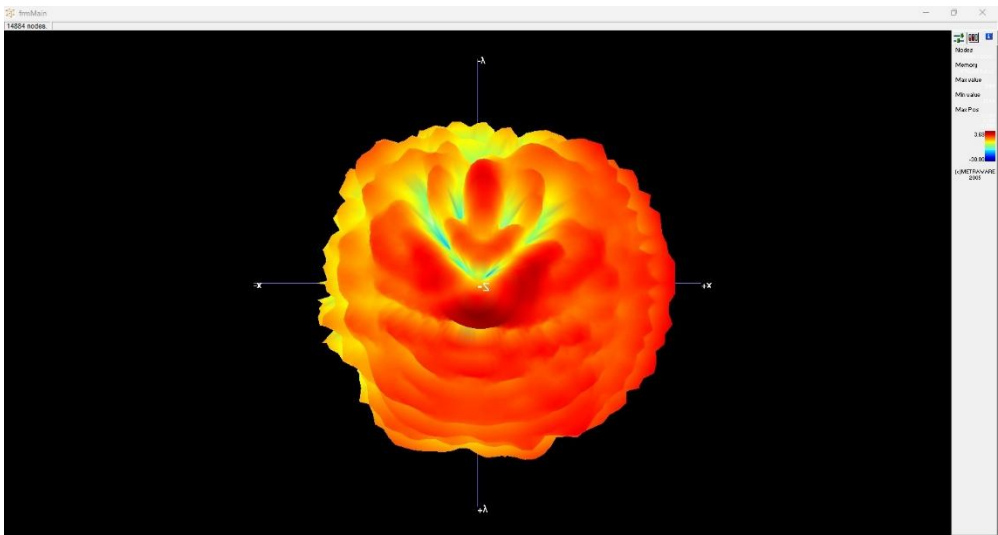
Max Antenna 3D Radiation Pattern 6525-6875 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6525-6875	3.90



Max Antenna 3D Radiation Pattern 6875-7125 MHz

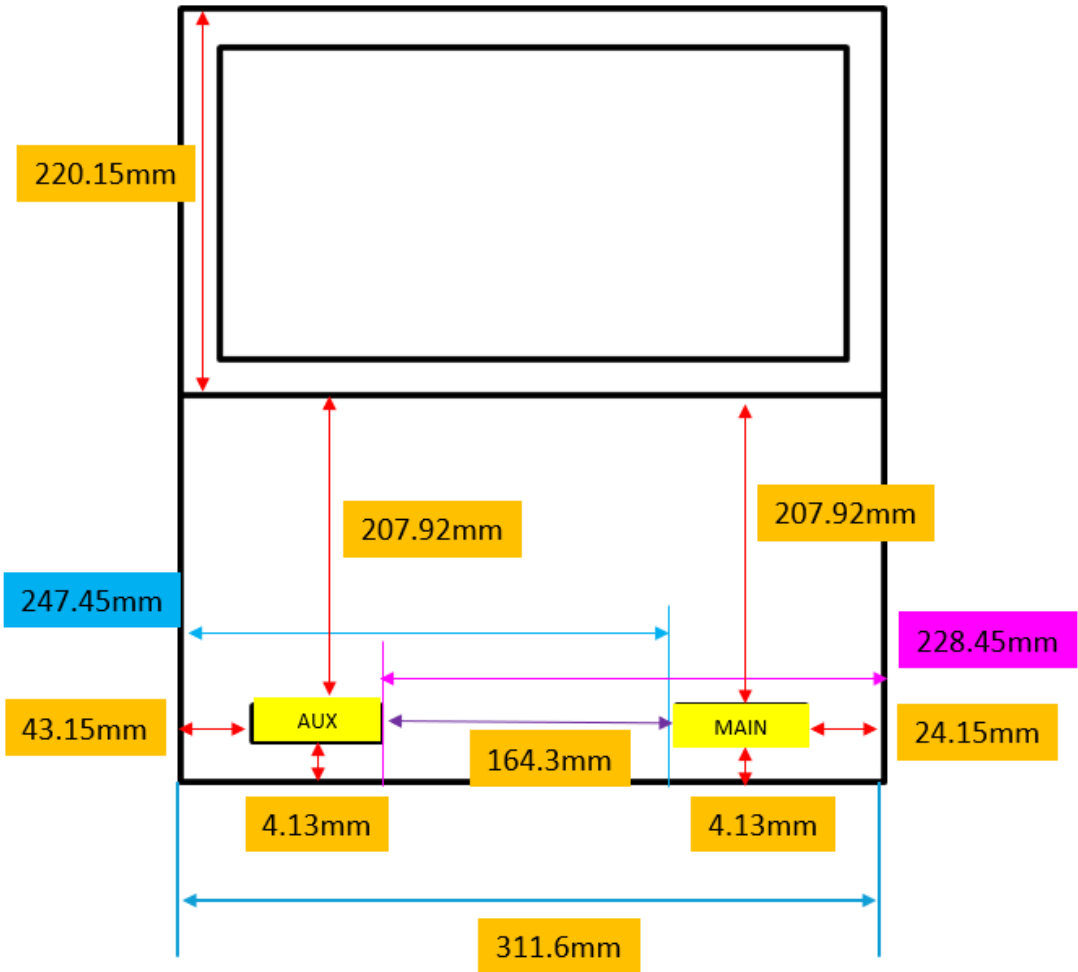
Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6875-7125	3.69



Section 4. Antenna Host Platform Location Information

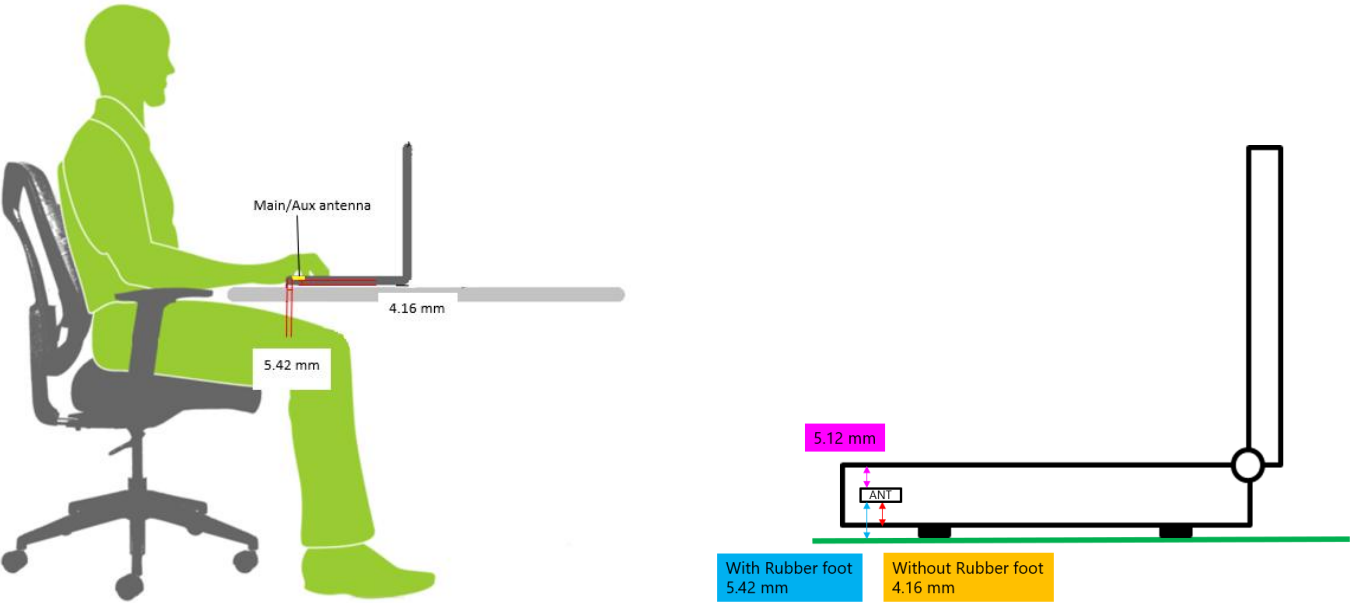
Include a **dimensioned photo(s) or dimensioned drawing(s)** of Main and Aux antenna placements (measurements are not required for receive-only antenna).

Any antenna that transmits must show dimensions to bottom of laptop. Provide a description of the materials that are used for supporting or surrounding transmit antennas; for example, non-conductive plastics vs. conductive coated plastic or metallic materials.



Section 5. Antenna dimensional information for SAR evaluation

Include a **dimensioned photo(s) or dimensioned drawing(s)** showing the distance (mm) between the transmit antennas and the user. For notebook/laptop hosts show lapheld position (example below). For tablet hosts show all orientations including lapheld, primary & secondary portrait, primary & secondary landscape positions. Include a description of any proximity sensors or power throttling implementations that limit or exclude use of any host orientation.

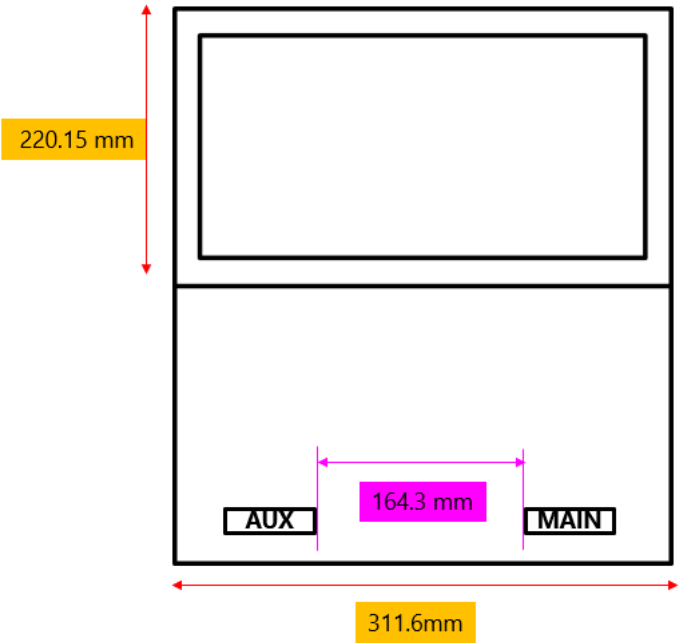


Measuring Surface	Antenna	Separation Distance(antenna-to- Surface)(mm)	1g SAR
Bottom Side	Main	4.16	FCC/ISED
	Aux	4.16	FCC/ISED

Section 6. Diagram Example of Co-Location Antenna Separation

Include a **dimensioned photo or dimensioned drawing** showing the distance (mm) between all WLAN transmit antennas and other co-located radiator transmit antenna such as Bluetooth, WWAN,..

(Note: Due to the evolving rules regarding co-location, each platform will need to be reviewed on a case by case basis)



Antenna	WLAN Main (Tx1)	WLAN Aux (Tx2)
WLAN Main (Tx1)	NA	164.3 mm
WLAN Aux (Tx2)	164.3 mm	NA