

Regulatory WLAN Antenna Information

English Language Required for Intel Regulatory Review / Approval

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)	
Lenovo		LCFC		Lenovo Y980		Yes		Regular NB			
****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)			
AWAN		PIFA			DC330021K10 (AYF6Y-200006)			DC330021K10 (AYF6Y-200006)			
Peak gain w/ cable loss (dBi)*											
Mode1	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	2.88	3.05	3.05	1.80	1.50	1.50	3.73	1.71	2.51	1.95	
Aux	2.90	3.41	3.41	3.25	2.60	2.60	3.81	3.81	2.65	1.44	
Mode2	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	2.74	1.10	0.93	-0.03	2.42	2.42	2.96	2.24	2.81	1.60	
Aux	2.48	0.88	0.18	1.15	3.12	3.12	3.49	1.65	1.48	1.56	
Intel 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	5.6GHz 5470-5725MHz	5.8GHz 5725-5850MHz	5.9GHz 5850-5895MHz	6.2GHz 5925-6425MHz	6.5GHz 6425-6525MHz	6.7GHz 6525-6875MHz	7.0GHz 6875-7125MHz	Generic: refer to modular FCC SAR report
Design	3.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	Mid-power: ≥ 8 mm Low power: ≥ 5 mm
PIFA	3.24	3.64	3.73	4.77	4.97	4.72	4.83	4.30	5.37	5.59	
Dipole	2.89	2.92	3.19	4.41	4.22	4.22	4.83	4.30	4.49	5.34	
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. **Applicable test methods**

The gain measurement shall follow by following conditions:

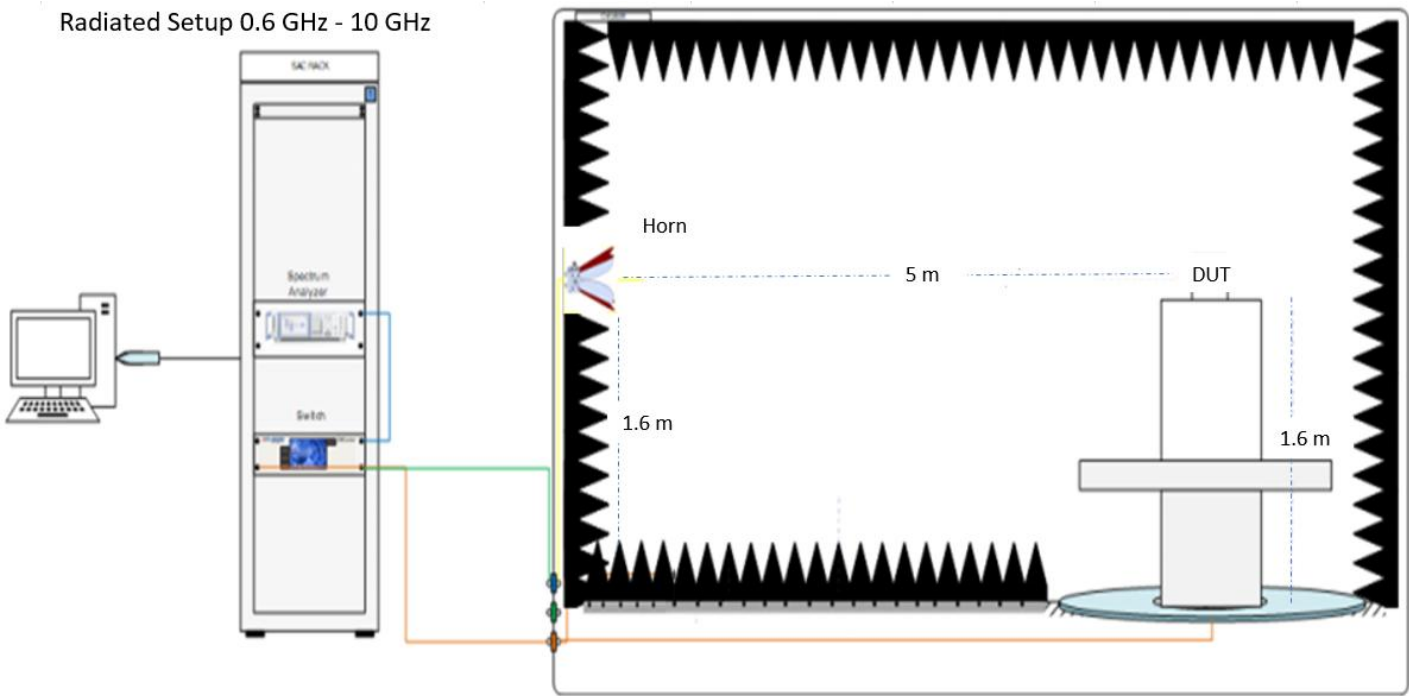
- It is required that all the antenna gain to be measured spherically and computed by spatial average be computed of the resultant gain.
- During gain measurement, all other antennas not under test should be terminated by 50 Ohm load in end of cable.
- Space points of 3D gain measurement are increase by specific steps from Theta 0~180 degrees, and Phi, 0~360 degrees, as figure below. The increments steps are different steps are different by antenna functions.

Theta Start	0 degree	Phi Start	0 degree
Theta Stop	180 degree	Phi Stop	360 degree
Theta Increment	30 degree	Phi Increment	30 degree

2. **Test & System Description**

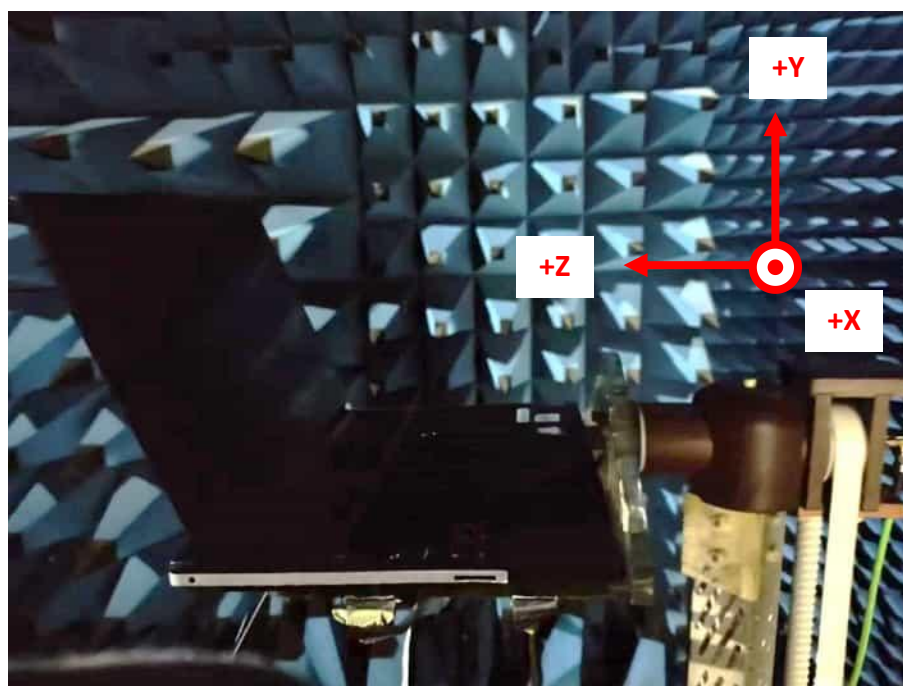
a. Test setup

The testing of antenna gain should be made at a ETS qualified lab with an RF anechoic chamber with at least 5-meter separation from the receive antenna to the antenna under test. The antenna gain report from unqualified lab can't be referenced a passing. Besides, all test equipment including horn antennas, adapters, cables, network analyzers, and receivers shall be calibrated per manufacturer's minimum calibration requirements.



b. Equipment list

Device	Type/Module	Serial#	Manufacturer	Cal. Date	Cal. Due Date
Anechoic Chamber	AMS-8500	1047	ETS-Lindgren	2022/1/21	2023/7/22
Turn Table	ETS	-	ETS-Lindgren	N/A	N/A
Rotate controller	2090	SN 00035073	ETS-Lindgren	N/A	N/A
Horn Antenna	HAD-0710	111025-02	Bwant	2021/5/16	2023/5/16
Vector Network Analyzer	E5071C	MY46733781	Keysight	2022/1/21	2025/1/21
Cable 40cm 18 GHz	201EH012010400	201EH012010400#1	Jmtt	2022/3/27	2023/3/27
Cable 6m 18 GHz	201EH012016000	201EH012016000#3	Jmtt	2022/3/27	2023/3/27
Cable 6m 18 GHz	201EH012016000	201EH012016000#5	Jmtt	2022/3/27	2023/3/27
Cable 3.5m 18 GHz	201EH012013500	201EH012013500#3	Jmtt	2022/3/27	2023/3/27
Cable 1.5m 18 GHz	201EH012011500	201EH012011500#2	Jmtt	2022/3/27	2023/3/27

3. Setup photo

Test Conditions
NB under test placed on a non-conductive structure at sufficient height to be in the 'quiet zone' of the chamber
The NB under test must be fully populated with a power, motherboard, hard drive, disk drives, etc... The purpose is to characterize the antennas on a fully populated customer deliverable unit.
NB's panel should be parallel with YZ-plane and face to -X-axle, see diagram below.

Antenna Information

Section 1. Antenna Assembly Specifications

Mode 1

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)
Main Antenna (Customer P/N:DC330021K10) (AWAN P/N:AYF6Y-200006)	AWAN	PIFA	1)Cable P/N: GBE/Shen-Yu/YFC/KAIBO 2) 50 ohm LL OD 1.13 coaxial cable 3) Length: 260 mm 4) Connector P/N: I-pex NGFF: 20572-001R-08 KangShuo MHF-B13-N-01	2400-2483.5	2400-2483.5MHz 2.88 dBi(peak)	2400-2483.5MHz 3.85 dBi(peak)	2400-2483.5MHz 3.00 max	2400-2483.5MHz 0.97 dBi(peak)
				5150-5250	5150-5250MHz 3.05 dBi(peak)	5150-5250MHz 4.43 dBi(peak)	5150-5250MHz 3.00 max	5150-5250MHz 1.38 dBi(peak)
				5250-5350	5250-5350MHz 3.05 dBi(peak)	5250-5350MHz 4.43 dBi(peak)	5250-5350MHz 3.00 max	5250-5350MHz 1.38 dBi(peak)
				5470-5725	5470-5725MHz 1.80 dBi(peak)	5470-5725MHz 3.18 dBi(peak)	5470-5725MHz 3.00 max	5470-5725MHz 1.38 dBi(peak)
				5725-5850	5725-5850MHz 1.50 dBi(peak)	5725-5850MHz 2.89 dBi(peak)	5725-5850MHz 3.00 max	5725-5850MHz 1.39 dBi(peak)
				5850-5895	5850-5895MHz 1.50 dBi(peak)	5850-5895MHz 2.89 dBi(peak)	5850-5895MHz 3.00 max	5850-5895MHz 1.39 dBi(peak)
				5925-6425	5925-6425MHz 3.73 dBi(peak)	5925-6425MHz 5.22 dBi(peak)	5925-6425MHz 3.00 max	5925-6425MHz 1.49 dBi(peak)
				6425-6525	6425-6525MHz 1.71 dBi(peak)	6425-6525MHz 3.22 dBi(peak)	6425-6525MHz 3.00 max	6425-6525MHz 1.51 dBi(peak)
				6525-6875	6525-6875MHz 2.51 dBi(peak)	6525-6875MHz 4.08 dBi(peak)	6525-6975MHz 3.00 max	6525-6875MHz 1.57 dBi(peak)
				6875-7125	6875-7125MHz 1.95 dBi(peak)	6875-7125MHz 3.53 dBi(peak)	6875-7125MHz 3.00 max	6875-7125MHz 1.58 dBi(peak)
Aux Antenna (Customer P/N:DC330021K10) (AWAN P/N:AYF6Y-200006)	AWAN	PIFA	1)Cable P/N: GBE/Shen-Yu/YFC/KAIBO 2) 50 ohm LL OD 0.81 coaxial cable 3) Length: 365 mm 4) Connector P/N: I-pex NGFF: 20572-001R-08 KangShuo MHF-B13-N-01	2400-2483.5	2400-2483.5MHz 2.90 dBi(peak)	2400-2483.5MHz 4.27 dBi(peak)	2400-2483.5MHz 3.00 max	2400-2483.5MHz 1.37 dBi(peak)
				5150-5250	5150-5250MHz 3.41 dBi(peak)	5150-5250MHz 5.35 dBi(peak)	5150-5250MHz 3.00 max	5150-5250MHz 1.94 dBi(peak)
				5250-5350	5250-5350MHz 3.41 dBi(peak)	5250-5350MHz 5.35 dBi(peak)	5250-5350MHz 3.00 max	5250-5350MHz 1.94 dBi(peak)
				5470-5725	5470-5725MHz 3.25 dBi(peak)	5470-5725MHz 5.20 dBi(peak)	5470-5725MHz 3.00 max	5470-5725MHz 1.95 dBi(peak)
				5725-5850	5725-5850MHz 2.60 dBi(peak)	5725-5850MHz 4.55 dBi(peak)	5725-5850MHz 3.00 max	5725-5850MHz 1.95 dBi(peak)
				5850-5895	5850-5895MHz 2.60 dBi(peak)	5850-5895MHz 4.55 dBi(peak)	5850-5895MHz 3.00 max	5850-5895MHz 1.95 dBi(peak)
				5925-6425	5925-6425MHz 3.81 dBi(peak)	5925-6425MHz 5.90 dBi(peak)	5925-6425MHz 3.00 max	5925-6425MHz 2.09 dBi(peak)
				6425-6525	6425-6525MHz 3.81 dBi(peak)	6425-6525MHz 5.93 dBi(peak)	6425-6525MHz 3.00 max	6425-6525MHz 2.12 dBi(peak)
				6525-6875	6525-6875MHz 2.65 dBi(peak)	6525-6875MHz 4.85 dBi(peak)	6525-6975MHz 3.00 max	6525-6875MHz 2.20 dBi(peak)
				6875-7125	6875-7125MHz 1.44 dBi(peak)	6875-7125MHz 3.66 dBi(peak)	6875-7125MHz 3.00 max	6875-7125MHz 2.22 dBi(peak)

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

Mode 2

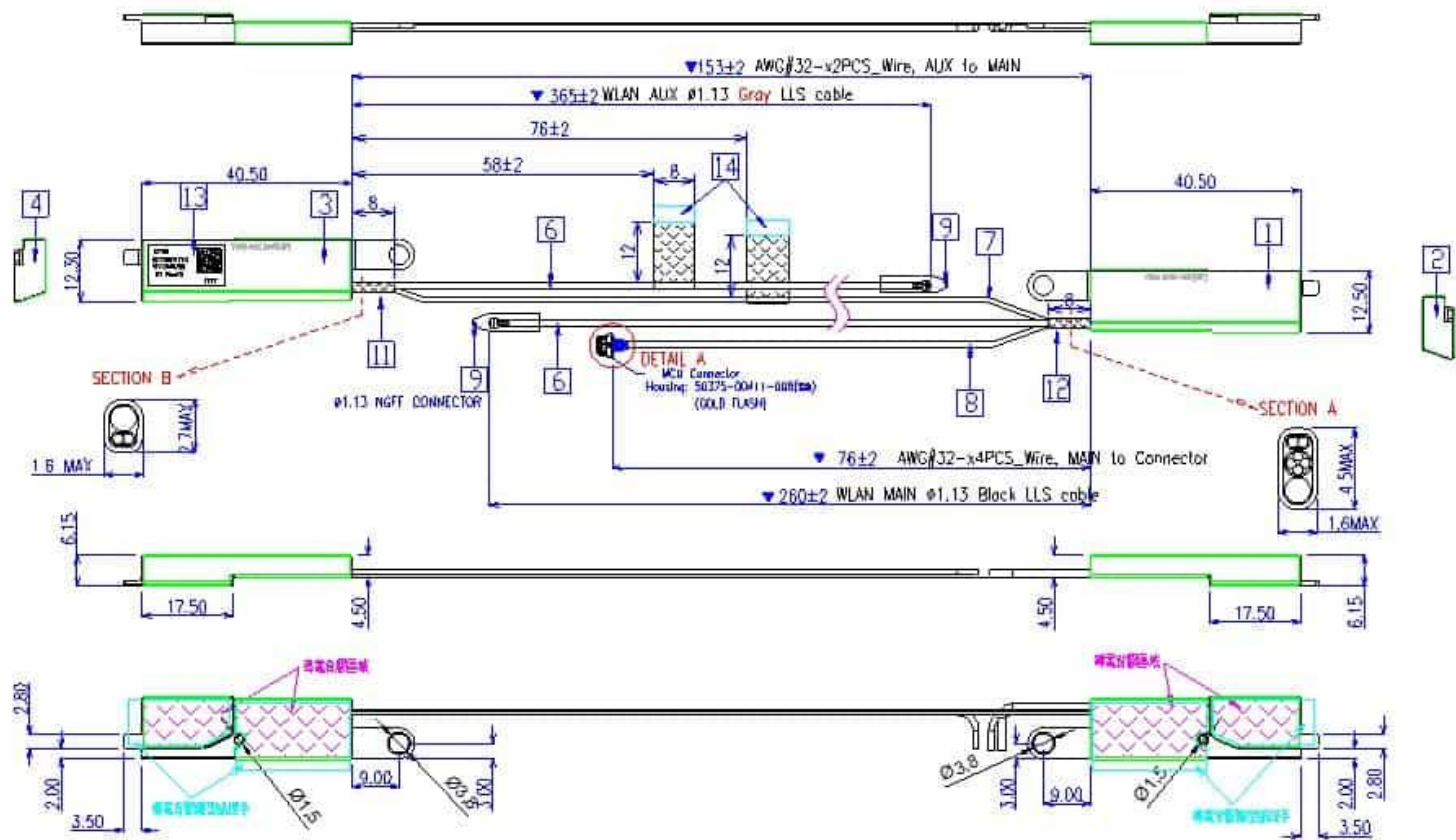
1A	1B	1C	1D		1E	1F	1G	1H
Antenna Part Number	Manufacturer	Antenna Type	Cable Assembly Part Number and Information	Freq Range MHz	* Peak Gain W/ Cable loss (dBi)	Peak Gain w/o Cable Loss (dBi)	Max VSWR	Cable Loss (dB)
Main Antenna (Customer P/N:DC330021K10) (AWAN P/N:AYF6Y-200006)	AWAN	PIFA	1)Cable P/N: GBE/Shen-Yu/YFC/KAIBO 2) 50 ohm LL OD 1.13 coaxial cable 3) Length: 260 mm 4) Connector P/N: I-pex NGFF: 20572-001R-08 KangShuo MHF-B13-N-01	2400-2483.5	2400-2483.5MHz 2.74 dBi(peak)	2400-2483.5MHz 3.71 dBi(peak)	2400-2483.5MHz 3.00 max	2400-2483.5MHz 0.97 dBi(peak)
				5150-5250	5150-5250MHz 1.10 dBi(peak)	5150-5250MHz 2.48 dBi(peak)	5150-5250MHz 3.00 max	5150-5250MHz 1.38 dBi(peak)
				5250-5350	5250-5350MHz 0.93 dBi(peak)	5250-5350MHz 2.31 dBi(peak)	5250-5350MHz 3.00 max	5250-5350MHz 1.38 dBi(peak)
				5470-5725	5470-5725MHz -0.03 dBi(peak)	5470-5725MHz 1.35 dBi(peak)	5470-5725MHz 3.00 max	5470-5725MHz 1.38 dBi(peak)
				5725-5850	5725-5850MHz 2.42 dBi(peak)	5725-5850MHz 3.81 dBi(peak)	5725-5850MHz 3.00 max	5725-5850MHz 1.39 dBi(peak)
				5850-5895	5850-5895MHz 2.42 dBi(peak)	5850-5895MHz 3.81 dBi(peak)	5850-5895MHz 3.00 max	5850-5895MHz 1.39 dBi(peak)
				5925-6425	5925-6425MHz 2.96 dBi(peak)	5925-6425MHz 4.45 dBi(peak)	5925-6425MHz 3.00 max	5925-6425MHz 1.49 dBi(peak)
				6425-6525	6425-6525MHz 2.24 dBi(peak)	6425-6525MHz 3.75 dBi(peak)	6425-6525MHz 3.00 max	6425-6525MHz 1.51 dBi(peak)
				6525-6875	6525-6875MHz 2.81 dBi(peak)	6525-6875MHz 4.38 dBi(peak)	6525-6975MHz 3.00 max	6525-6875MHz 1.57 dBi(peak)
				6875-7125	6875-7125MHz 1.60 dBi(peak)	6875-7125MHz 3.18 dBi(peak)	6875-7125MHz 3.00 max	6875-7125MHz 1.58 dBi(peak)
Aux Antenna (Customer P/N:DC330021K10) (AWAN P/N:AYF6Y-200006)	AWAN	PIFA	1)Cable P/N: GBE/Shen-Yu/YFC/KAIBO 2) 50 ohm LL OD 0.81 coaxial cable 3) Length: 365 mm 4) Connector P/N: I-pex NGFF: 20572-001R-08 KangShuo MHF-B13-N-01	2400-2483.5	2400-2483.5MHz 2.48 dBi(peak)	2400-2483.5MHz 3.85 dBi(peak)	2400-2483.5MHz 3.00 max	2400-2483.5MHz 1.37 dBi(peak)
				5150-5250	5150-5250MHz 0.88 dBi(peak)	5150-5250MHz 2.82 dBi(peak)	5150-5250MHz 3.00 max	5150-5250MHz 1.94 dBi(peak)
				5250-5350	5250-5350MHz 0.18 dBi(peak)	5250-5350MHz 2.12 dBi(peak)	5250-5350MHz 3.00 max	5250-5350MHz 1.94 dBi(peak)
				5470-5725	5470-5725MHz 1.15 dBi(peak)	5470-5725MHz 3.10 dBi(peak)	5470-5725MHz 3.00 max	5470-5725MHz 1.95 dBi(peak)
				5725-5850	5725-5850MHz 3.12 dBi(peak)	5725-5850MHz 5.07 dBi(peak)	5725-5850MHz 3.00 max	5725-5850MHz 1.95 dBi(peak)
				5850-5895	5850-5895MHz 3.12 dBi(peak)	5850-5895MHz 5.07 dBi(peak)	5850-5895MHz 3.00 max	5850-5895MHz 1.95 dBi(peak)
				5925-6425	5925-6425MHz 3.49 dBi(peak)	5925-6425MHz 5.58 dBi(peak)	5925-6425MHz 3.00 max	5925-6425MHz 2.09 dBi(peak)
				6425-6525	6425-6525MHz 1.65 dBi(peak)	6425-6525MHz 3.77 dBi(peak)	6425-6525MHz 3.00 max	6425-6525MHz 2.12 dBi(peak)
				6525-6875	6525-6875MHz 1.48 dBi(peak)	6525-6875MHz 3.68 dBi(peak)	6525-6975MHz 3.00 max	6525-6875MHz 2.20 dBi(peak)
				6875-7125	6875-7125MHz 1.56 dBi(peak)	6875-7125MHz 3.78 dBi(peak)	6875-7125MHz 3.00 max	6875-7125MHz 2.22 dBi(peak)

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

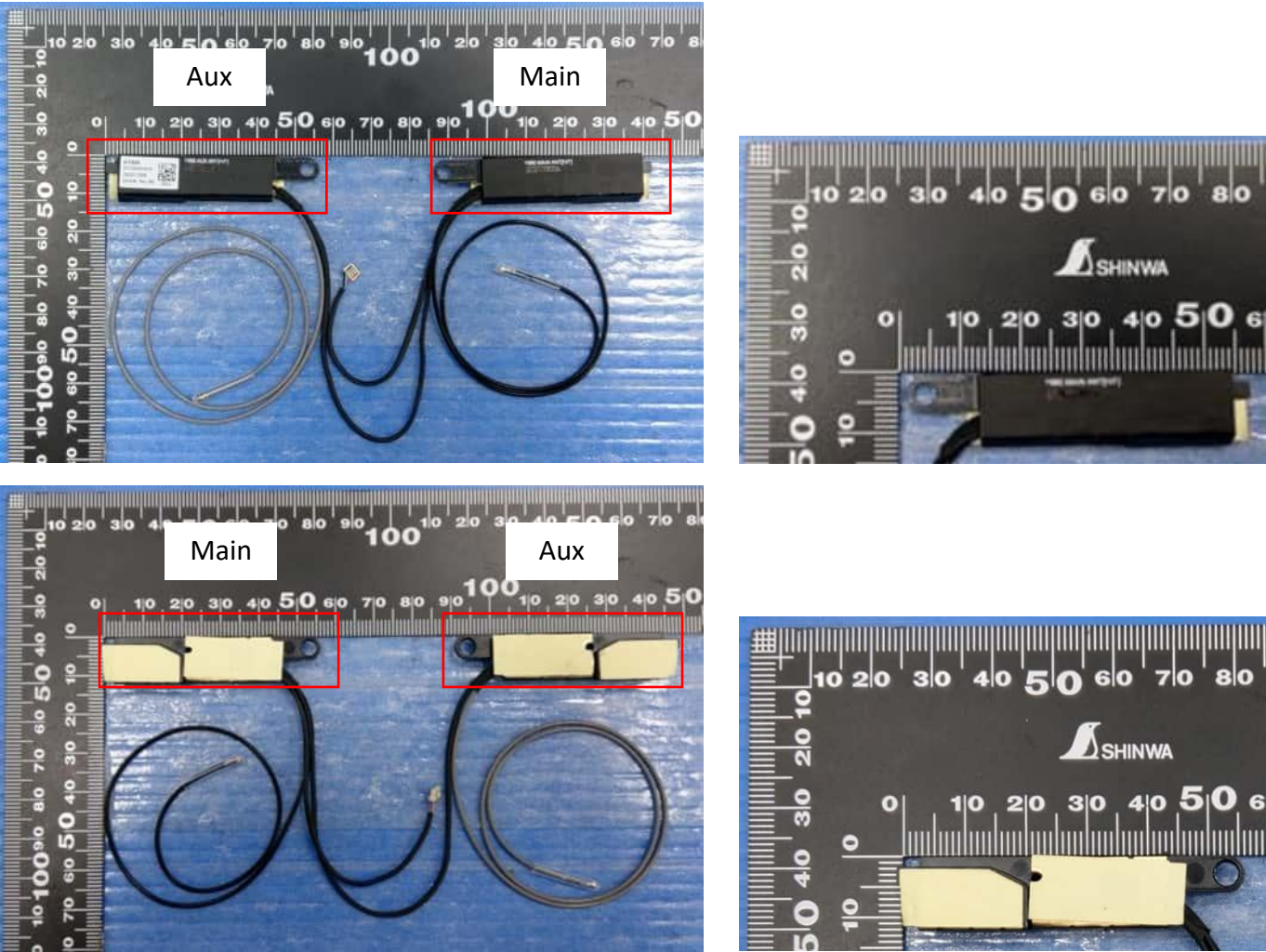
Section 2. Dimensioned Photos and Drawings of Antennas

Include the dimensioned photo and drawing of Main antenna here.

Main Antenna Drawing:

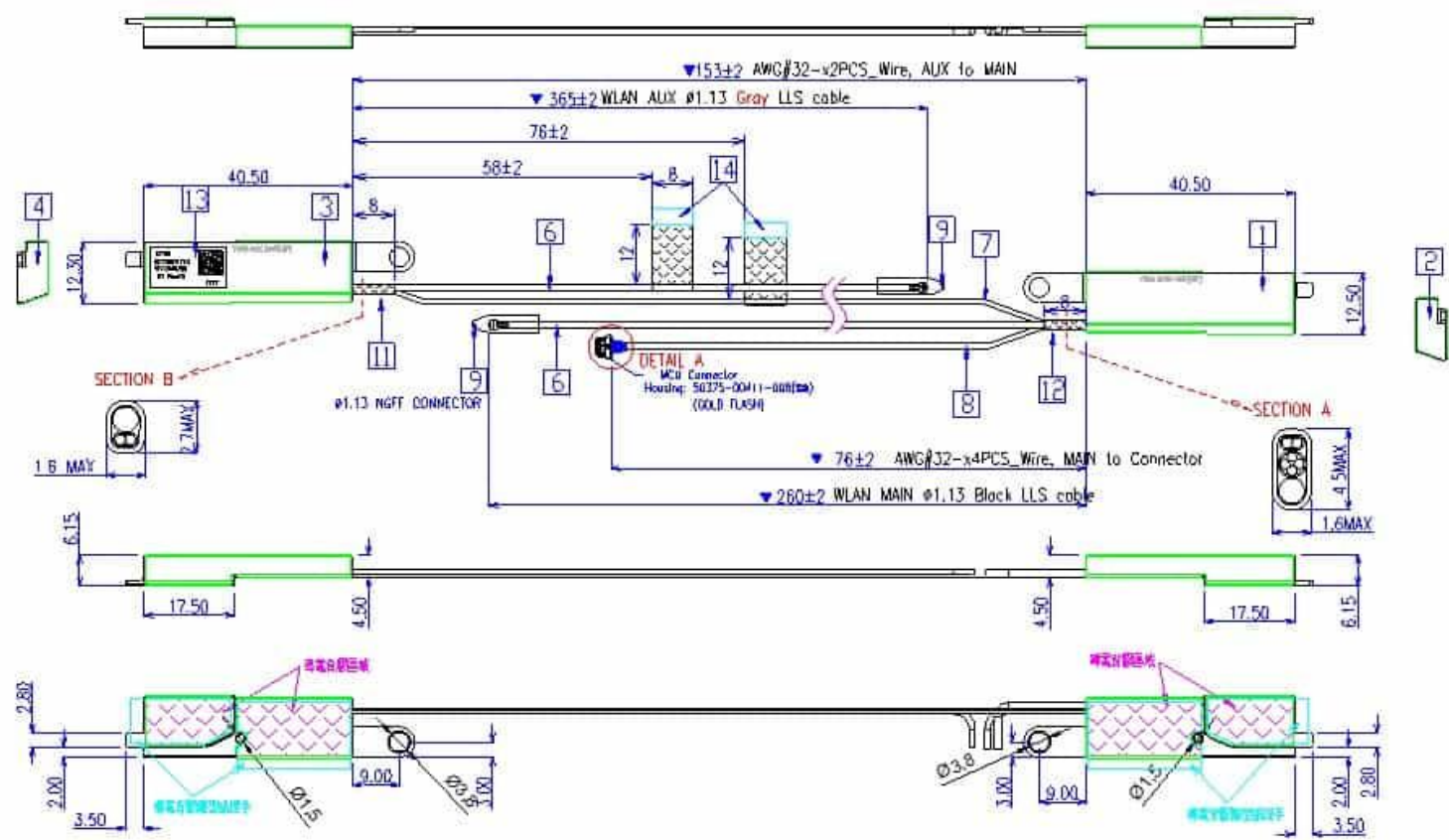


Main Antenna Photo (Front/Back):

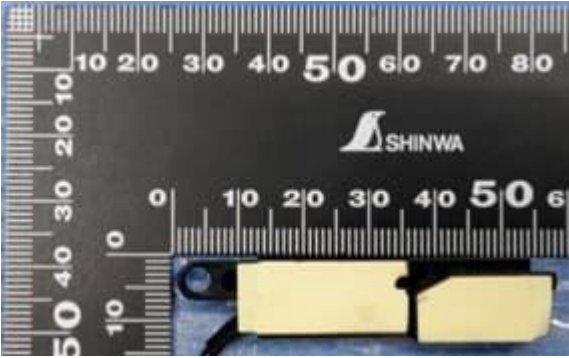
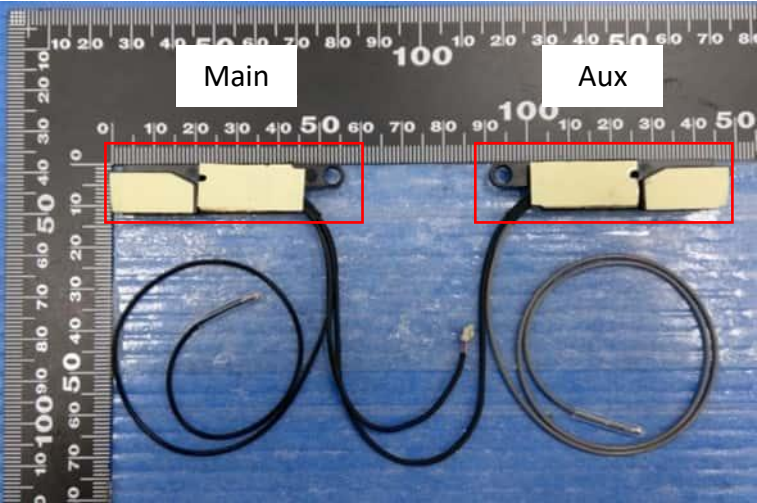
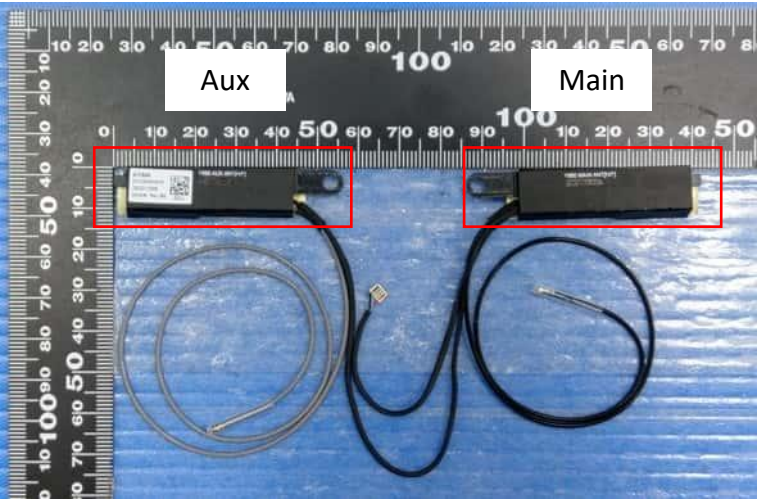


Include the dimensioned photo and drawing of Aux antenna here.

Aux Antenna Drawing:



Aux Antenna Photo (Front/Back):



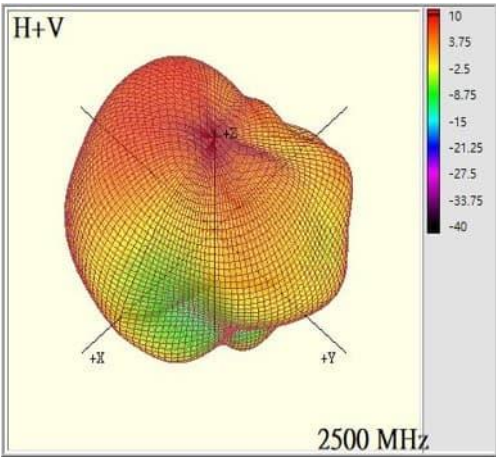
Section 3. Radiation characteristics of antenna loaded in Host Platform

Main Antenna

Mode 1

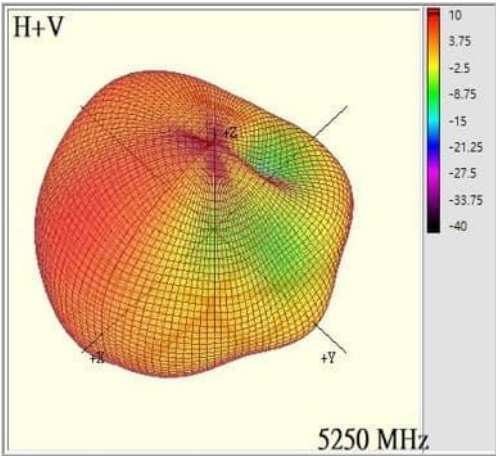
Max Antenna 3D Radiation Pattern 2400 – 2483.5 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
2400-2483.5	2.88



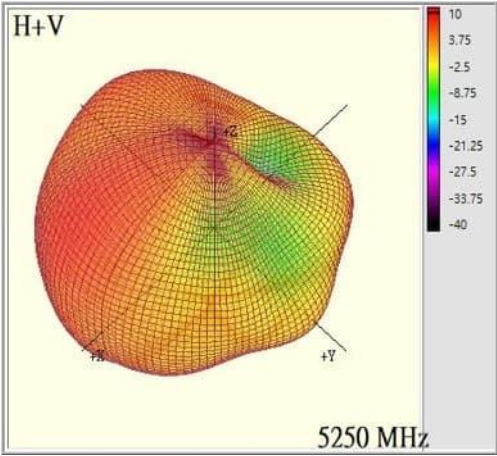
Max Antenna 3D Radiation Pattern 5150-5250 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5150-5250	3.05



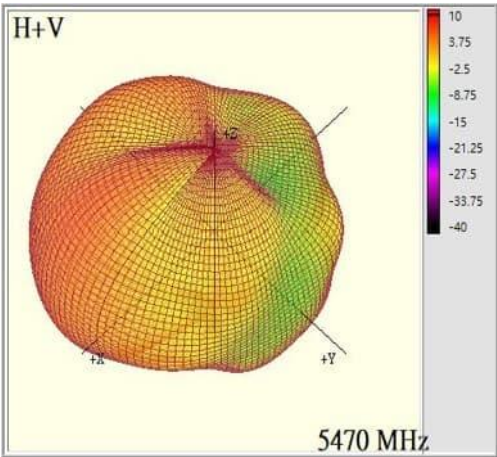
Max Antenna 3D Radiation Pattern 5250-5350 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5250-5350	3.05



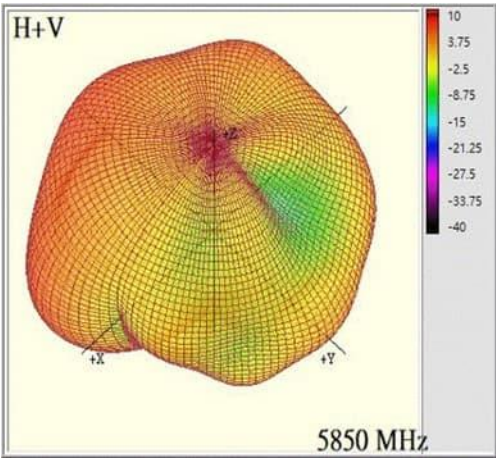
Max Antenna 3D Radiation Pattern 5470-5725 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5470-5725	1.80



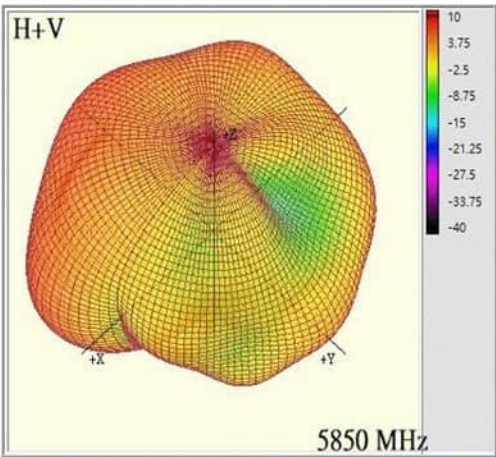
Max Antenna 3D Radiation Pattern 5725-5850 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5725-5850	1.50



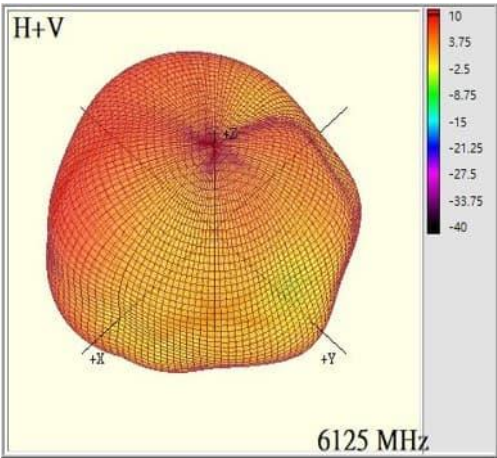
Max Antenna 3D Radiation Pattern 5850-5895 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5850-5895	1.50



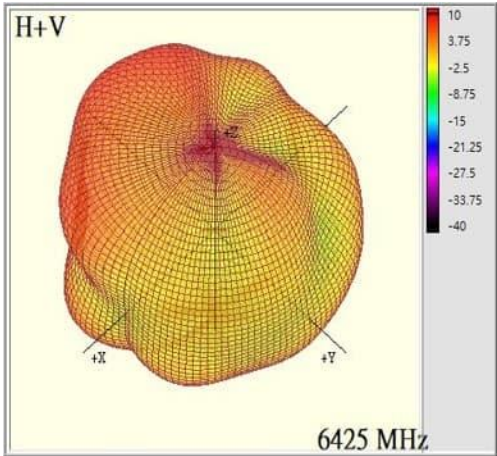
Max Antenna 3D Radiation Pattern 5925-6425 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5925-6425	3.73



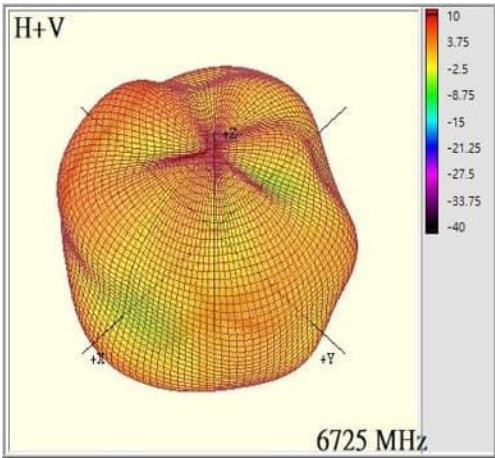
Max Antenna 3D Radiation Pattern 6425-6525 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6425-6525	1.71



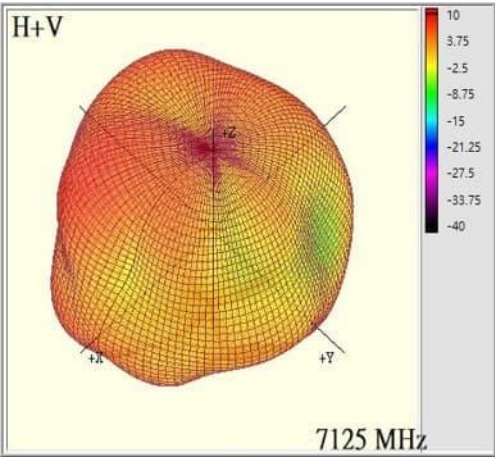
Max Antenna 3D Radiation Pattern 6525-6875 MHz

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



Max Antenna 3D Radiation Pattern 6875-7125 MHz

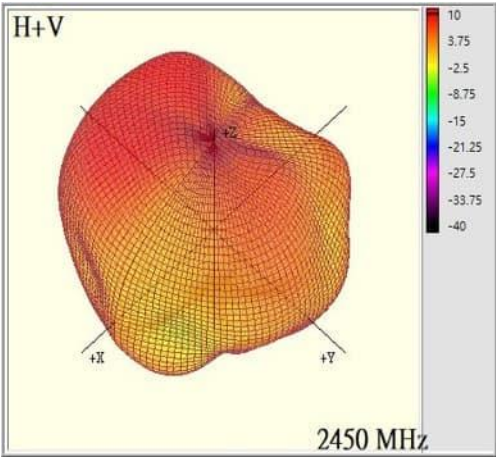
Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6875-7125	1.95



Mode 2

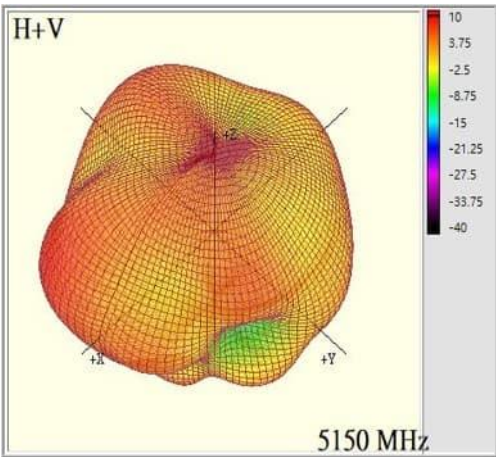
Max Antenna 3D Radiation Pattern 2400 – 2483.5 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
2400-2483.5	2.74



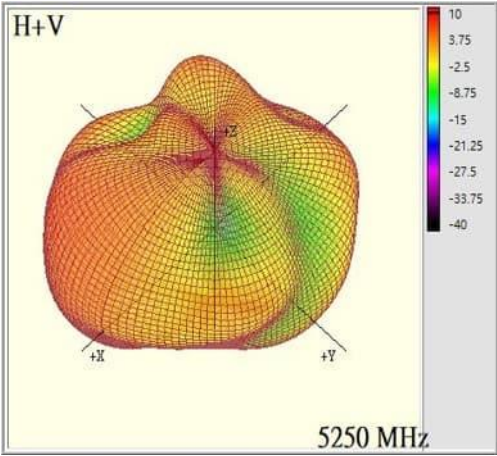
Max Antenna 3D Radiation Pattern 5150-5250 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5150-5250	1.10



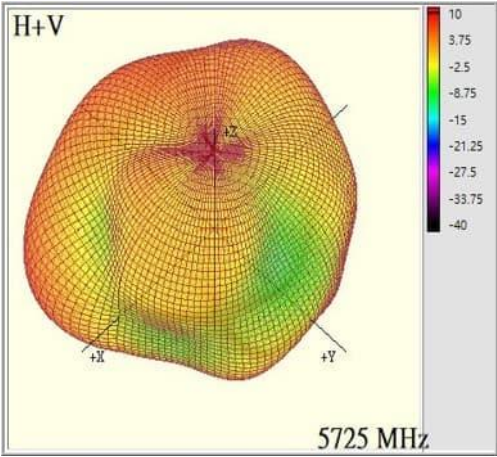
Max Antenna 3D Radiation Pattern 5250-5350 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5250-5350	0.93



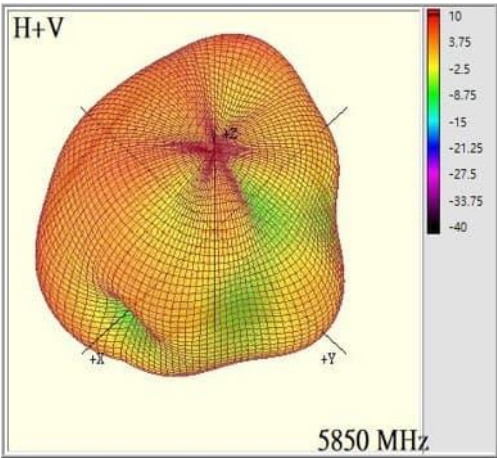
Max Antenna 3D Radiation Pattern 5470-5725 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5470-5725	-0.03



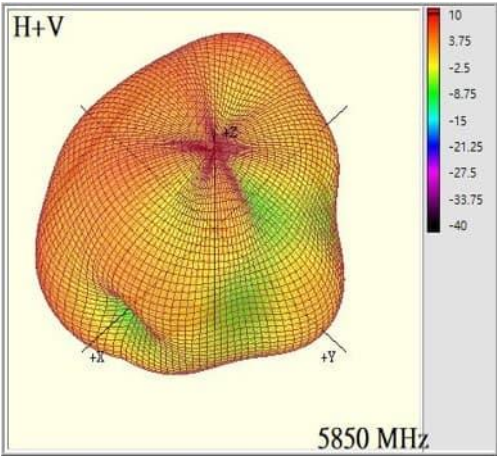
Max Antenna 3D Radiation Pattern 5725-5850 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5725-5850	2.42



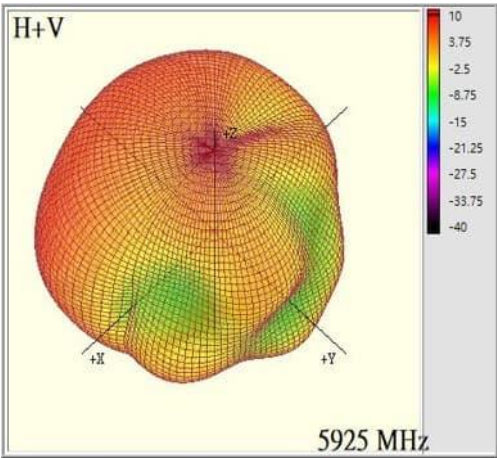
Max Antenna 3D Radiation Pattern 5850-5895 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5850-5895	2.42



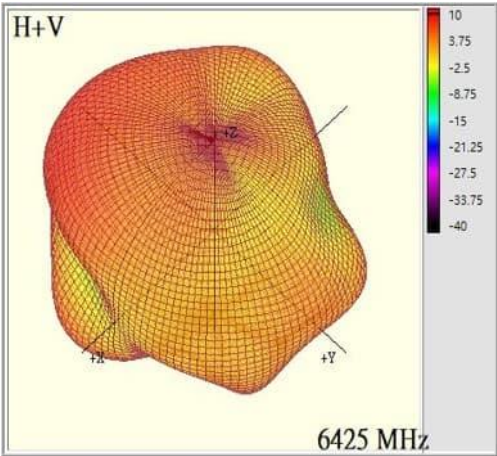
Max Antenna 3D Radiation Pattern 5925-6425 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5925-6425	2.96



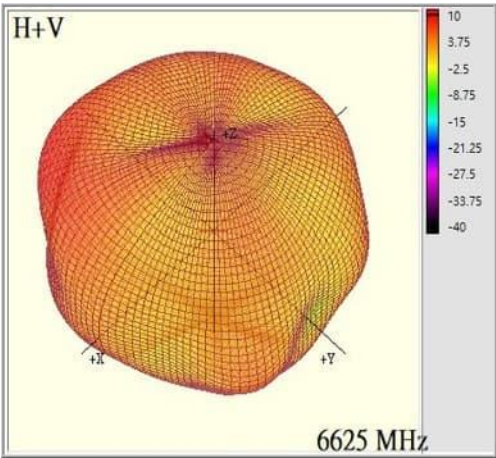
Max Antenna 3D Radiation Pattern 6425-6525 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6425-6525	2.24



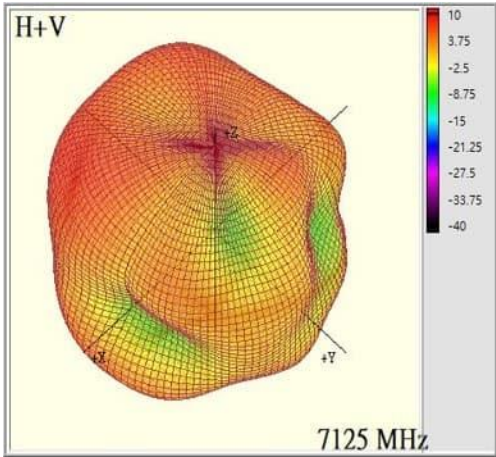
Max Antenna 3D Radiation Pattern 6525-6875 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6525-6875	2.81



Max Antenna 3D Radiation Pattern 6875-7125 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6875-7125	1.60

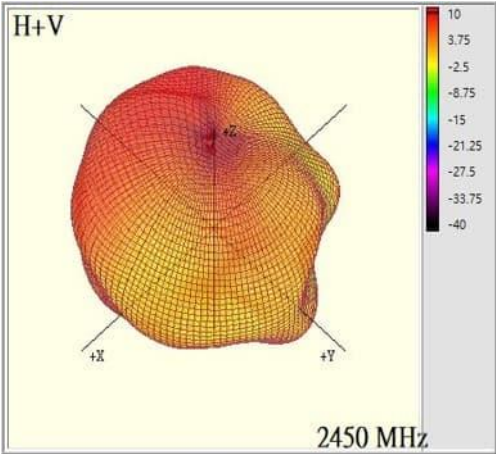


Auxiliary Antenna

Mode1

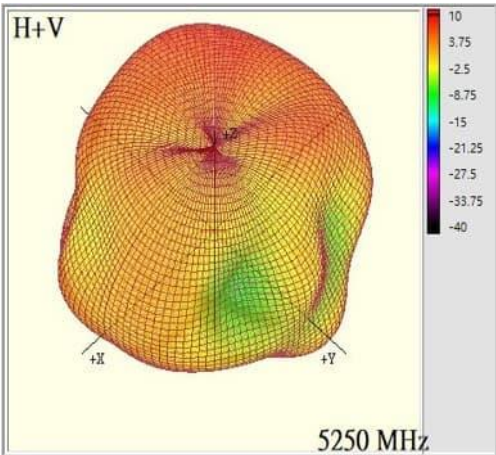
Max Antenna 3D Radiation Pattern 2400 – 2483.5 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
2400-2483.5	2.90



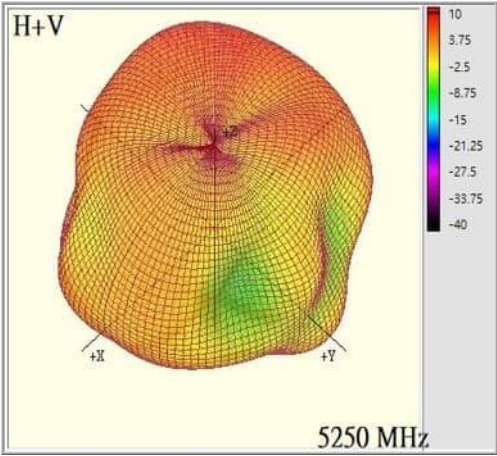
Max Antenna 3D Radiation Pattern 5150-5250 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5150-5250	3.41



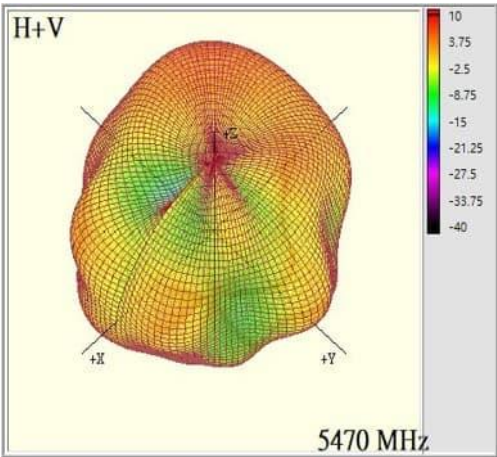
Max Antenna 3D Radiation Pattern 5250-5350 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5250-5350	3.41



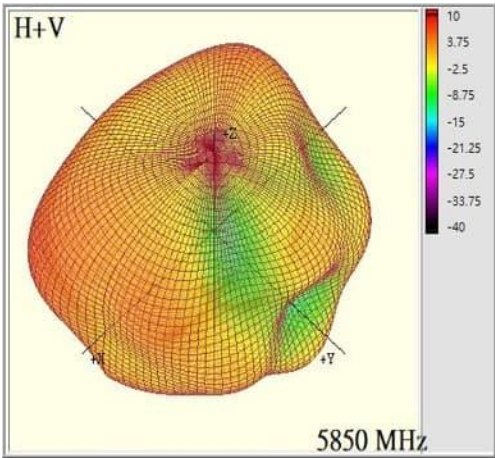
Max Antenna 3D Radiation Pattern 5470-5725 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5470-5725	3.25



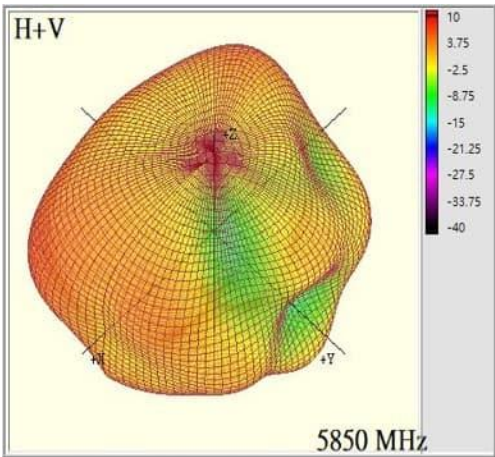
Max Antenna 3D Radiation Pattern 5725-5850 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5725-5850	2.60



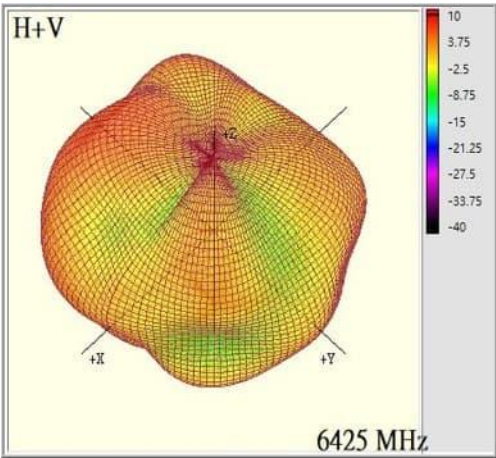
Max Antenna 3D Radiation Pattern 5850-5895 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5850-5895	2.60



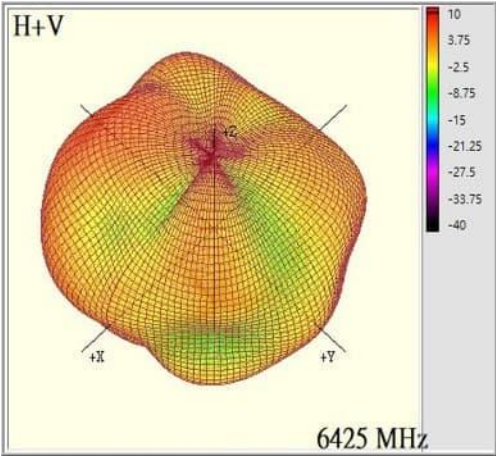
Max Antenna 3D Radiation Pattern 5925-6425 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5925-6425	3.81



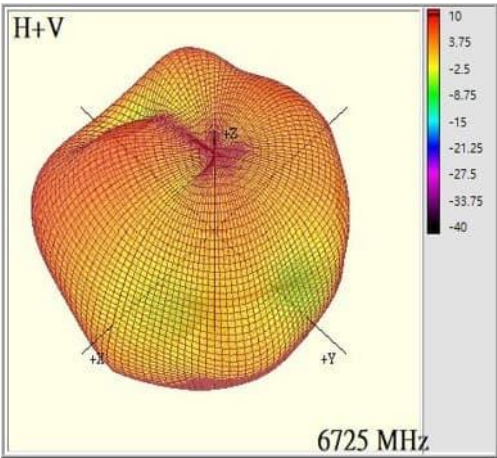
Max Antenna 3D Radiation Pattern 6425-6525 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6425-6525	3.81



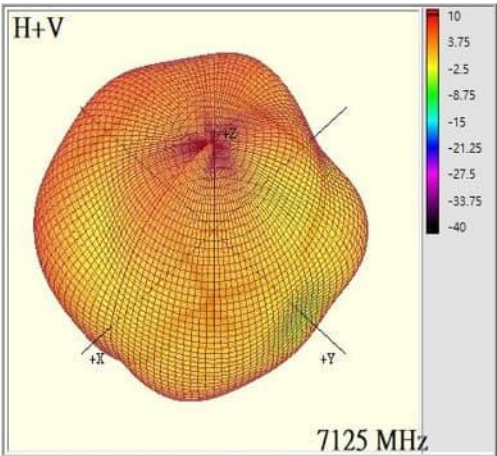
Max Antenna 3D Radiation Pattern 6525-6875 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6525-6875	2.65



Max Antenna 3D Radiation Pattern 6875-7125 MHz

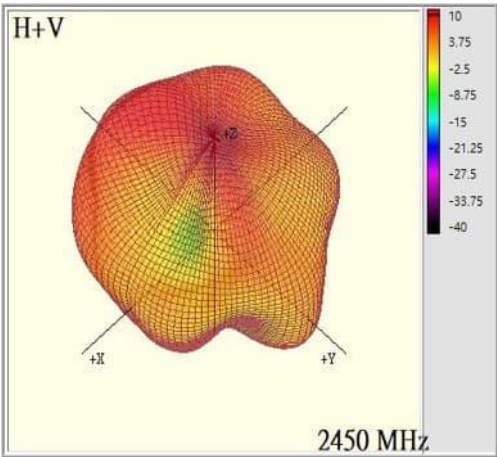
Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6875-7125	1.44



Mode2

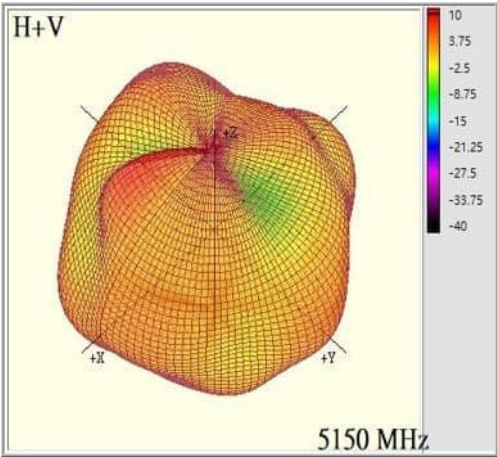
Max Antenna 3D Radiation Pattern 2400 – 2483.5 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
2400-2483.5	2.48



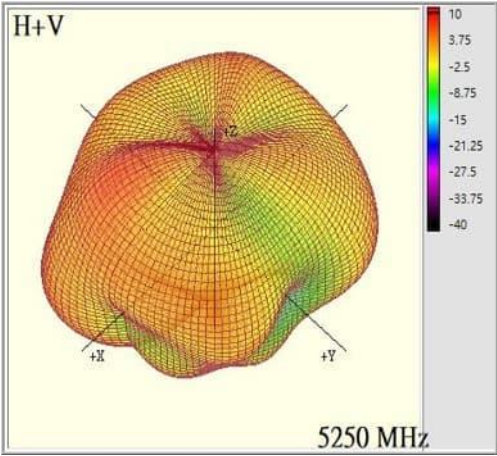
Max Antenna 3D Radiation Pattern 5150-5250 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5150-5250	0.88



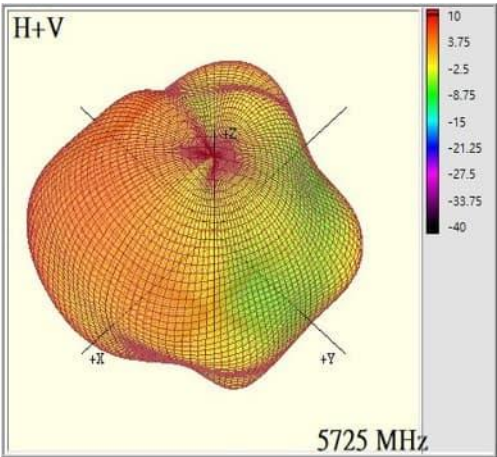
Max Antenna 3D Radiation Pattern 5250-5350 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5250-5350	0.18



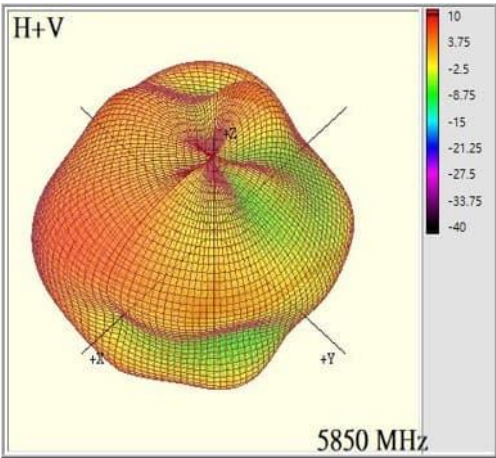
Max Antenna 3D Radiation Pattern 5470-5725 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5470-5725	1.15



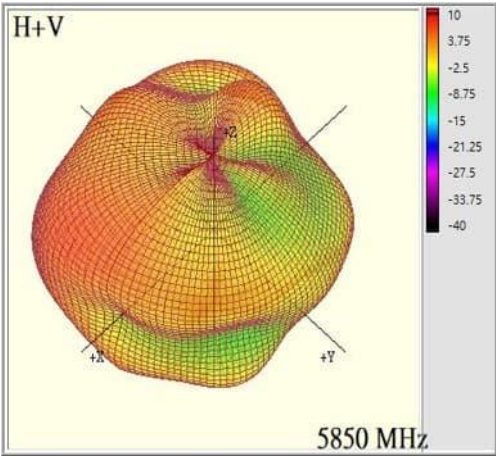
Max Antenna 3D Radiation Pattern 5725-5850 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5725-5850	3.12



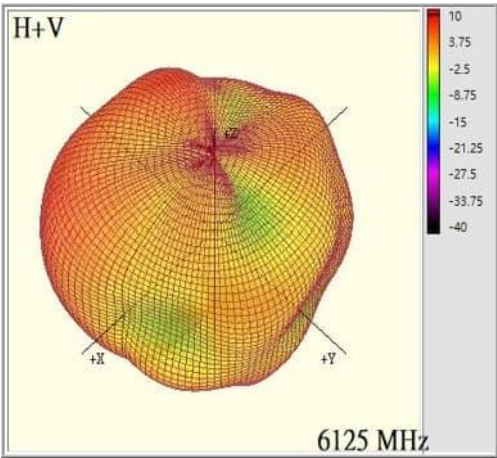
Max Antenna 3D Radiation Pattern 5850-5895 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5850-5895	3.12



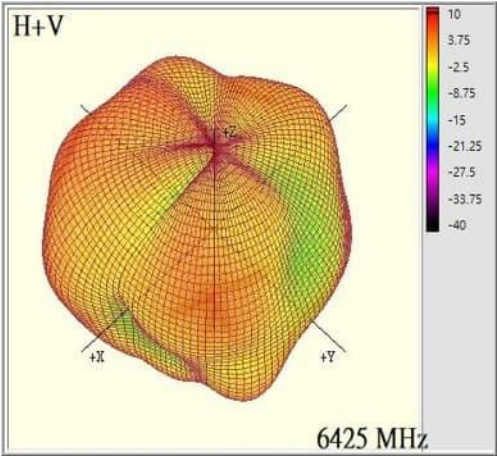
Max Antenna 3D Radiation Pattern 5925-6425 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5925-6425	3.49



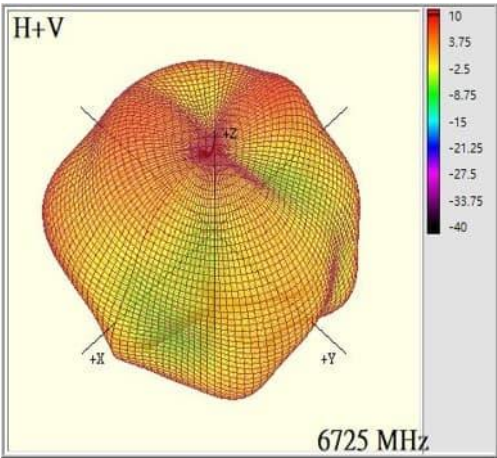
Max Antenna 3D Radiation Pattern 6425-6525 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6425-6525	1.65



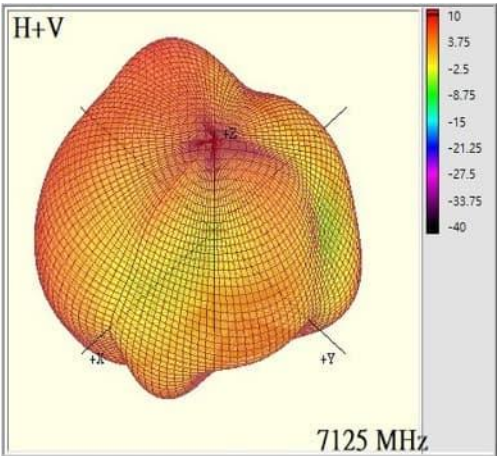
Max Antenna 3D Radiation Pattern 6525-6875 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6525-6875	1.48



Max Antenna 3D Radiation Pattern 6875-7125 MHz

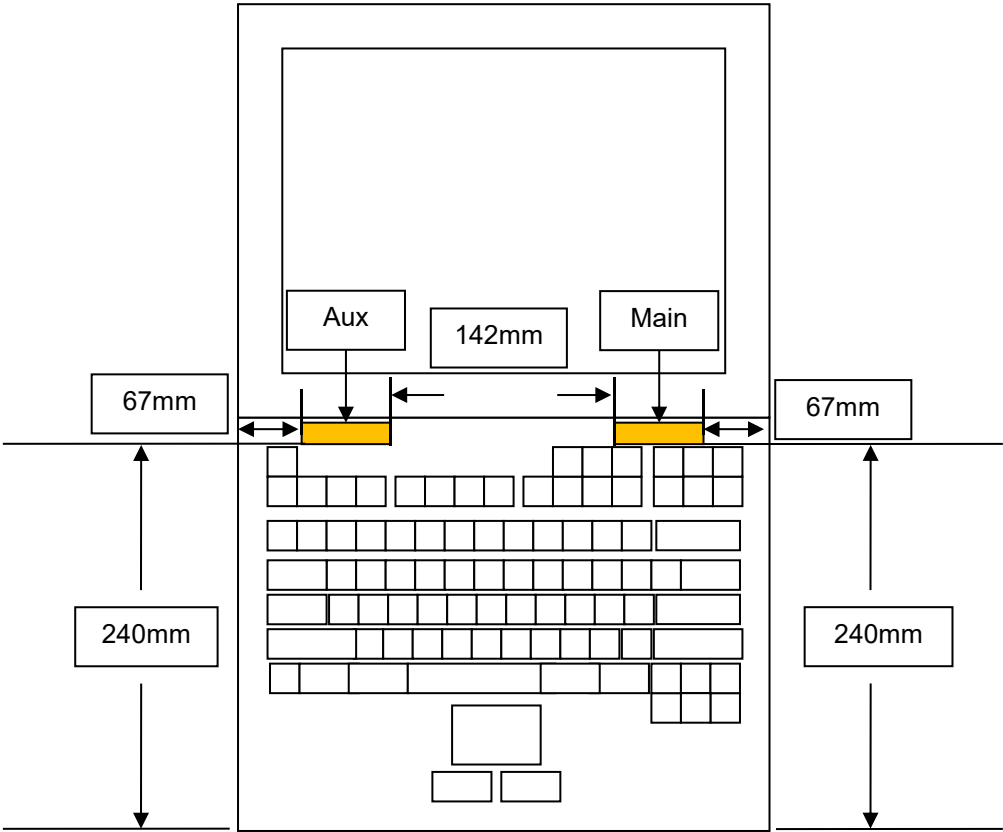
Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6875-7125	1.56



Section 4. Antenna Host Platform Location Information

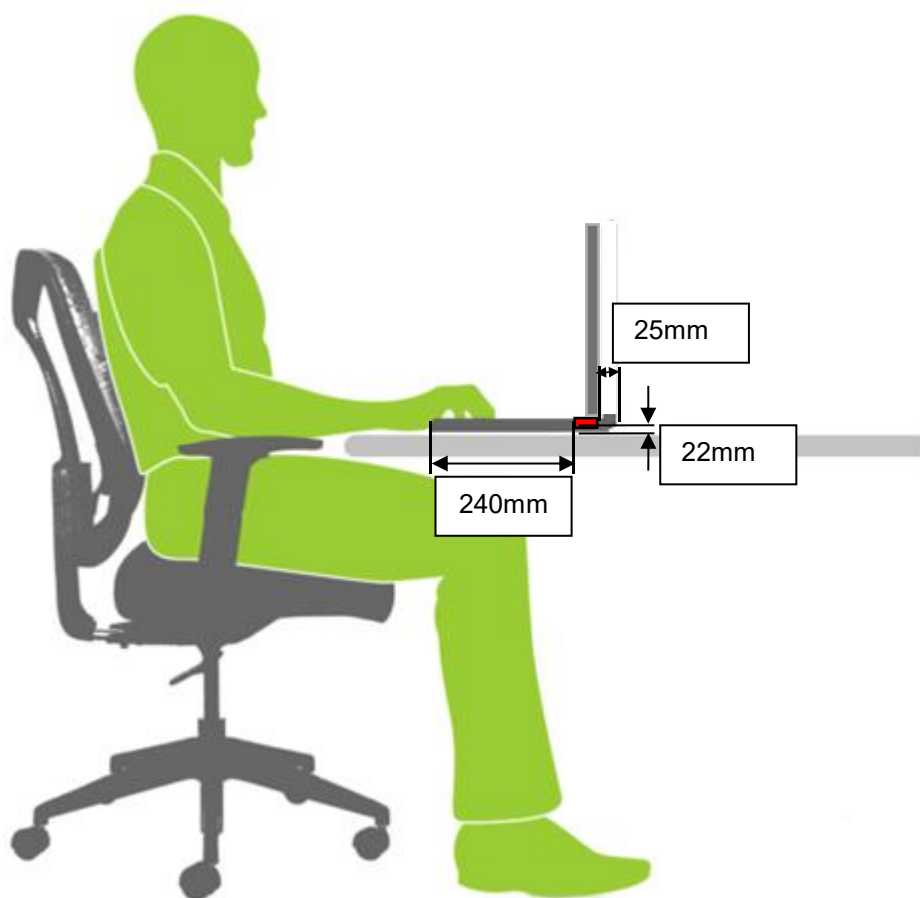
Include a **dimensioned photo(s) or dimensioned drawing(s)** of Main and Aux antenna placements (measurements are not required for receive-only antenna).

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

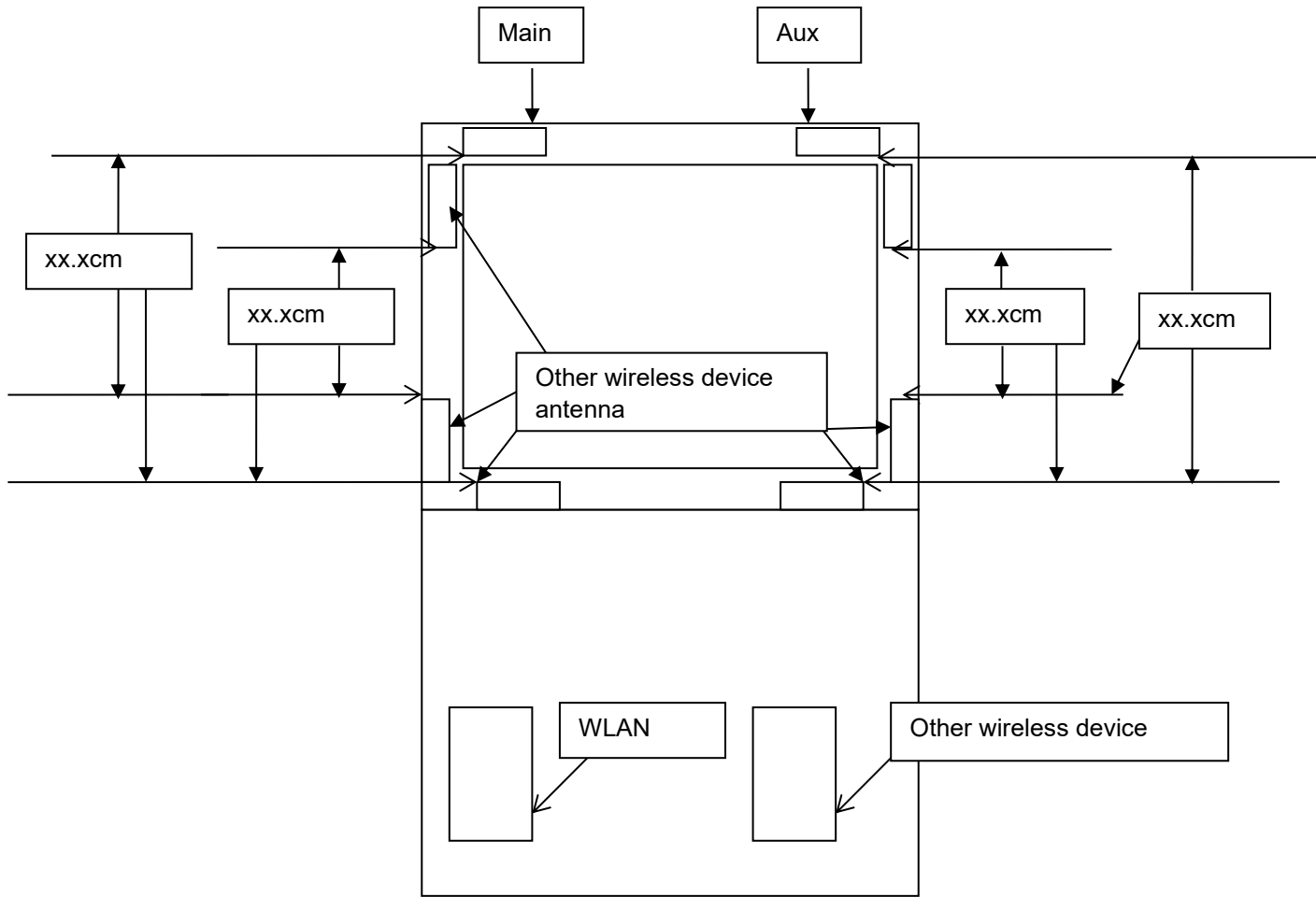
Include a **dimensioned photo(s) or dimensioned drawing(s)** showing the distance (mm) between the transmit antennas and the user. For notebook/laptop hosts show lapheld position (example below). For tablet hosts show all orientations including lapheld, primary & secondary portrait, primary & secondary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



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)



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