

ANTENNA INFORMATION

OEM	Lenovo		
ODM	Compal Electronics Inc.		
Platform model name	IdeaCentre AIO 24IWC11 ThinkCentre neo 50a 24 Gen 7 IdeaCentre AIO 27IWC11 ThinkCentre neo 50a 27 Gen 7		
Intel platform (ex: Yes, No or NA)	Yes		
Platform type (ex: regular NB, convertible PC, AIO...etc)	AIO		
SAR minimum separation (mm)	FCC (1g)	over 200 mm (w/bumper)	
	ISED (1g)	over 200 mm (w/o bumper)	
	ISED (10g)	over 200 mm (w/bumper) over 200 mm (w/o bumper) over 200 mm	

Antenna manufacturer	Company name	Pulse
	Address	99 Huo Ju Road, Suzhou New District SND Hi-Tech industrial Park Suzhou 215009, Jiangsu Province, P.R.China
Test location	Company name	Pulse
	Address	4F., No. 233-1, Baoqiao Rd., Xindian Dist., New Taipei City 231028, Taiwan
Test Personnel	Name(Full name)	Shanyuan.shi
	E-mail	Shanyuan.shi @yageo.com
	Tel/Mobile	6629 9999#7688
Testing date	2026/04/21	

Antenna Part number	Main	TZ3466D (DC330036V00)
	Aux	TZ3466E (DC330036V10)
Antenna type (ex: PIFA, Dipole...etc)	PIFA	

Antenna 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	2.82	2.99	2.99	2.95	2.95	2.99	3.99	3.87	3.97	3.97
Aux	2.93	2.79	2.88	2.98	2.99	2.96	3.99	3.98	3.99	3.99

Cable Assembly Part Number and Information					
	Cable PN	Cable length(mm)	Cable diameter(mm)	Impedance(ohm)	Connector type
Main	J18-TZ3466D1	230	Ø1.13	50±2 Ω	康碩端子 (MHF-B13L-N-01)
Aux	J18-TZ3466E1	280	Ø1.13	50±2 Ω	康碩端子 (MHF-B13L-N-01)

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

Cable loss (dB)										
	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	0.64	0.95	0.96	0.99	1.00	1.00	1.06	1.07	1.10	1.13
Aux	0.78	1.16	1.17	1.21	1.22	1.22	1.29	1.30	1.34	1.38

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1. Intel Reference Gain and Type

Antenna Peak gain w/ cable loss (dBi)											
Band/Frequency		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
Design	EU/UK	3.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
PIFA	For WiFi 6E and earlier	3.24	3.64	3.73	4.77	4.97	4.72	4.83	4.30	5.37	5.59
	From WiFi 7	2.95	5.11	4.55	5.15	5.13	4.45	5.02	5.02	4.96	4.96
Dipole	For WiFi 6E and earlier	2.89	2.92	3.19	4.41	4.22	4.22	4.83	4.30	4.49	5.34
	From WiFi 7	2.95	4.03	4.11	5.15	5.13	4.45	5.02	4.71	4.49	4.96
Monopole	From WiFi 7	2.83	4.57	4.44	4.95	4.95	4.43	4.87	4.91	4.91	4.79

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.

2. Document Revision History

Revision #	Revision Details	Issued Date
Rev. 00	First Issue	

3. Test & System Description

3.1 Measurement Method and System

<insert test description here for test method>

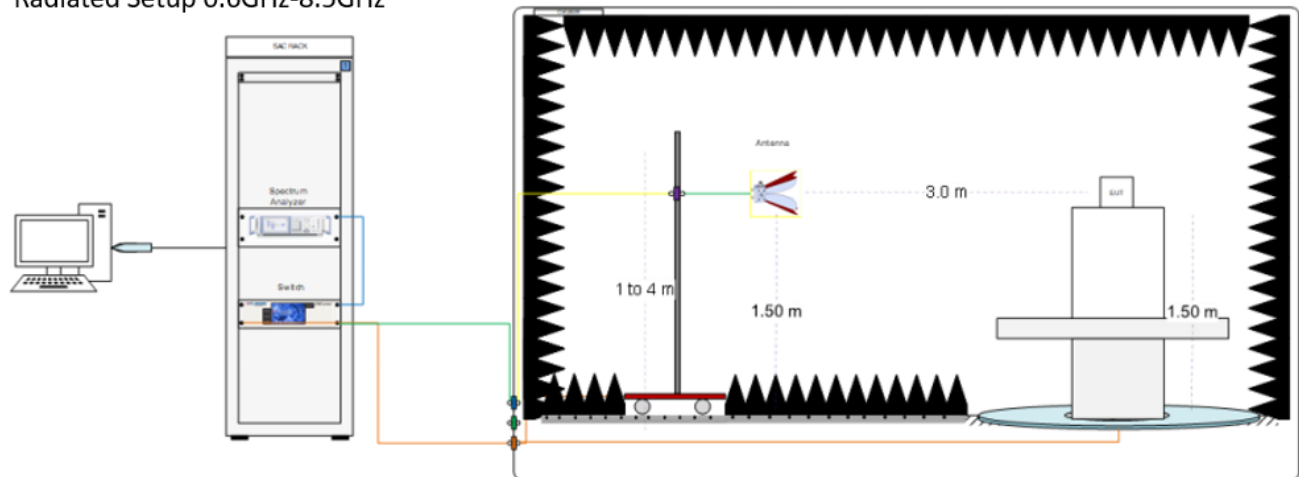
The test method is setting on an anechoic chamber of TRC and show maximum limits.

Items	Description
Test angle	Standard:15 deg [Depends on user to measure 2 to 360 degree]
Frequency	Maximum value: 600 MHz to 8500MHz
DUT table range	30cmx30cm +/- 0.5dB
Isolation	100dB @ 600 MHz to 8500MHz

3.2 Test setup

<insert test diagram here for test site utilized>

Radiated Setup 0.6GHz-8.5GHz



3.3 Equipment list

<insert test diagram here for test site utilized>

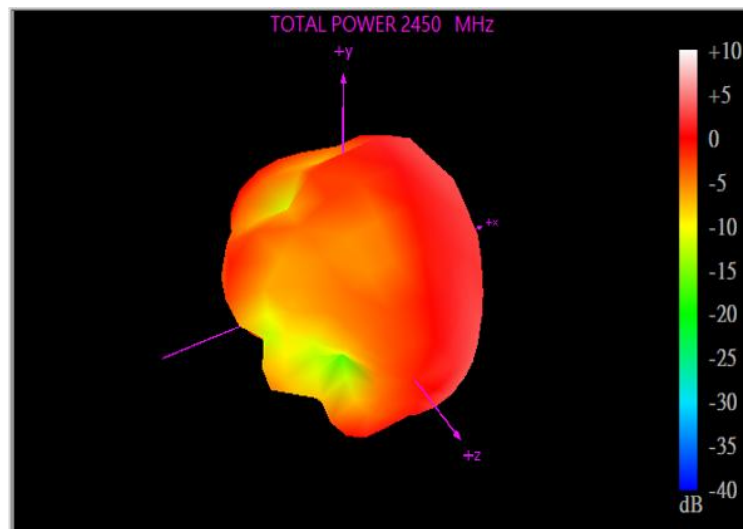
Equipment	Manufacture	Identification no.	Current calibration date	Next calibration date
Chamber	TRC	744	2024/03/04	2025/03/03
Software	TRC	WDA	2024/03/04	2025/03/03
Horn antenna	TRC	HA-0707	2024/03/04	2025/03/03
Network analyzer	R&S	ZNB8	2024/03/04	2025/03/03
Switch	WiSPEC	1101	2024/03/04	2025/03/03
Industrial computer	ADVANTECH	510	2024/03/04	2025/03/03
Cable 2m 10G	Channel	10390	2024/03/04	2025/03/03

4. Radiation characteristics of antenna loaded in Host Platform

Main Antenna

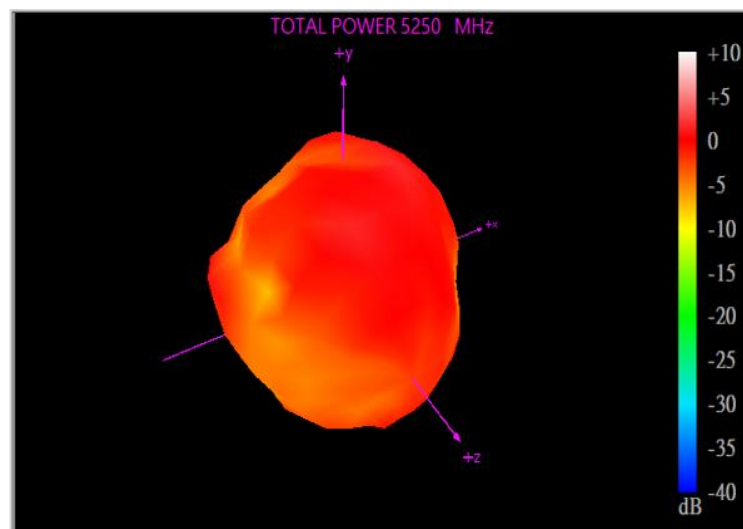
Max Antenna 3D Radiation Pattern 2400 – 2483.5 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
2400-2483.5	2.82



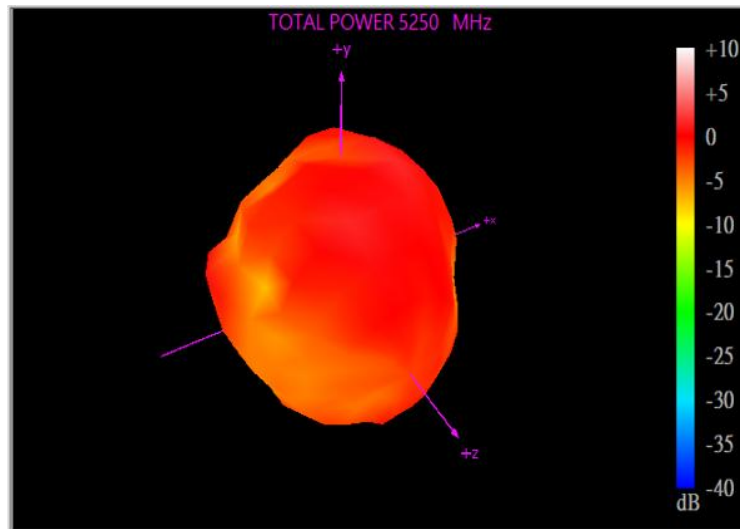
Max Antenna 3D Radiation Pattern 5150-5250 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5150-5250	2.99



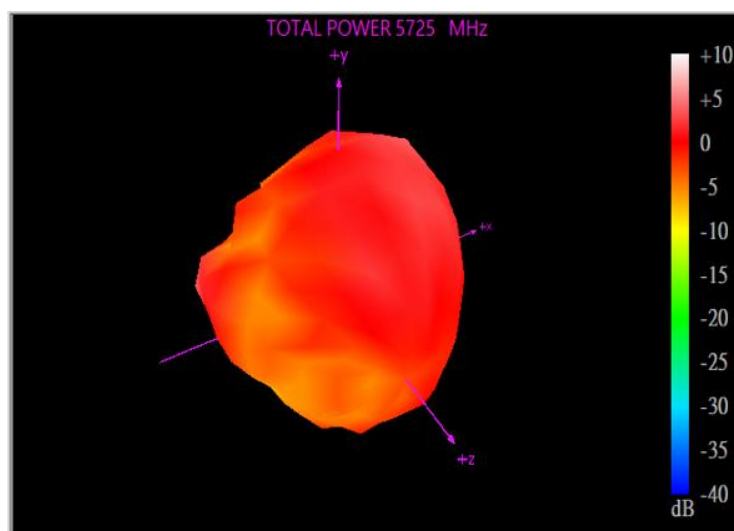
Max Antenna 3D Radiation Pattern 5250-5350 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5250-5350	2.99



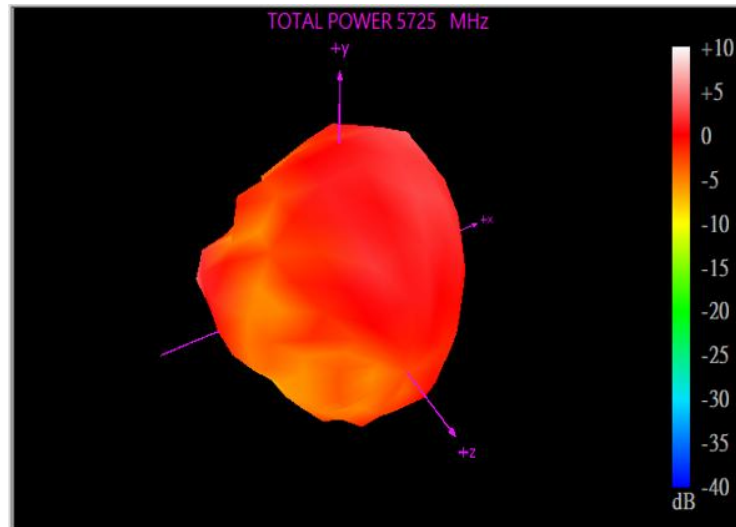
Max Antenna 3D Radiation Pattern 5470-5725 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5470-5725	2.95



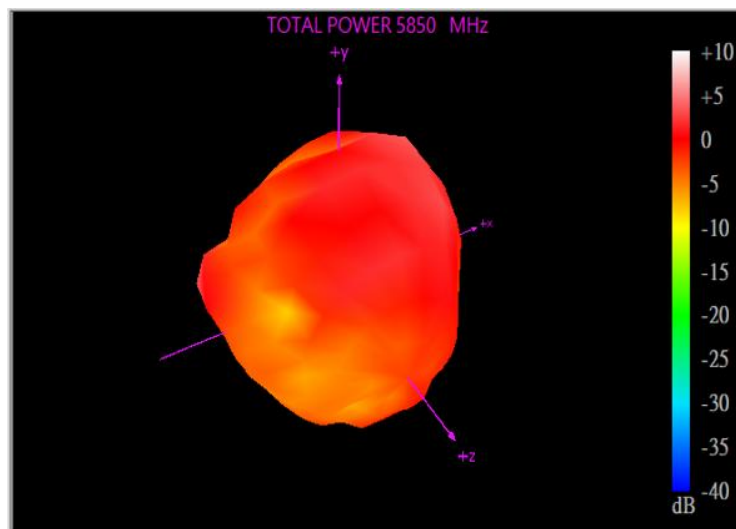
Max Antenna 3D Radiation Pattern 5725-5850 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5725-5850	2.95



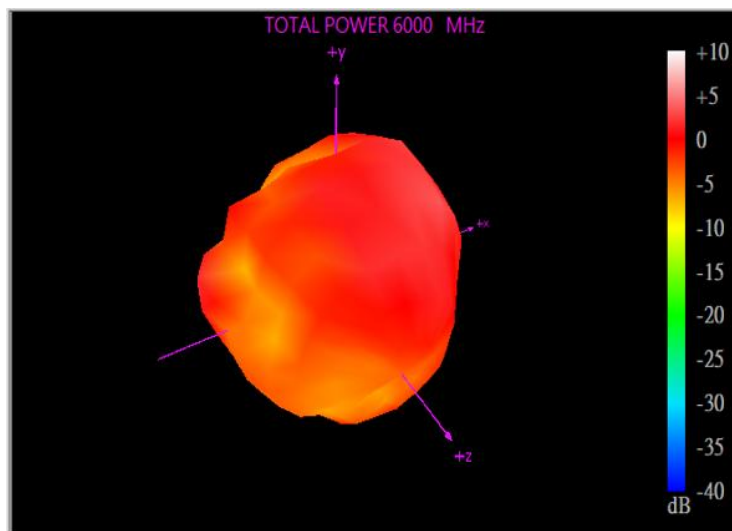
Max Antenna 3D Radiation Pattern 5850-5895 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5850-5895	2.99



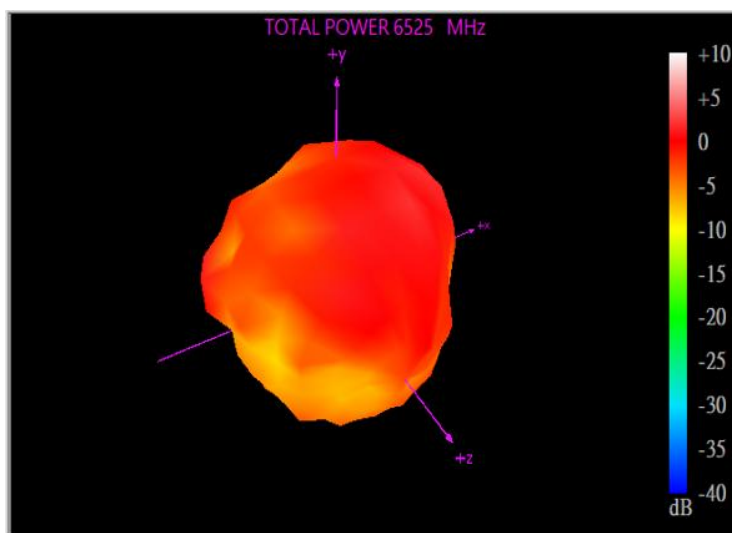
Max Antenna 3D Radiation Pattern 5925-6425 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5925-6425	3.99



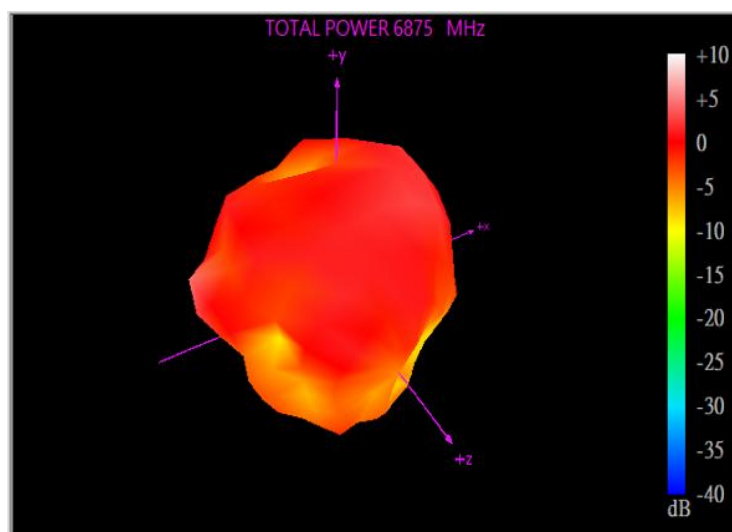
Max Antenna 3D Radiation Pattern 6425-6525 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6425-6525	3.87



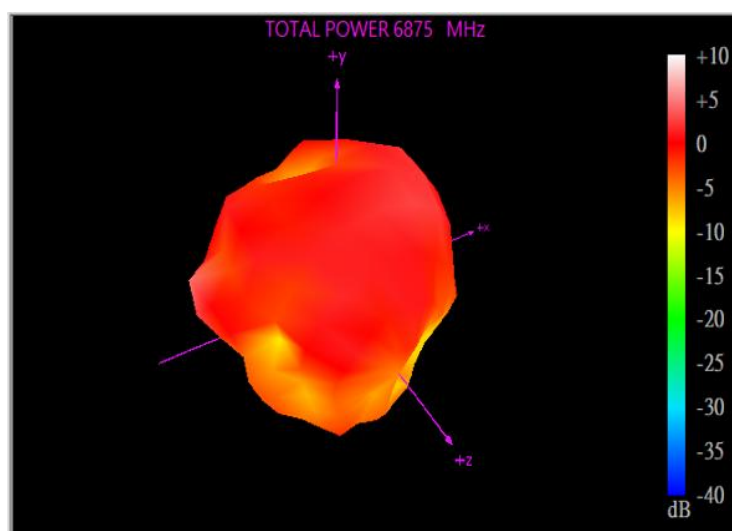
Max Antenna 3D Radiation Pattern 6525-6875 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6525-6875	3.97



Max Antenna 3D Radiation Pattern 6875-7125 MHz

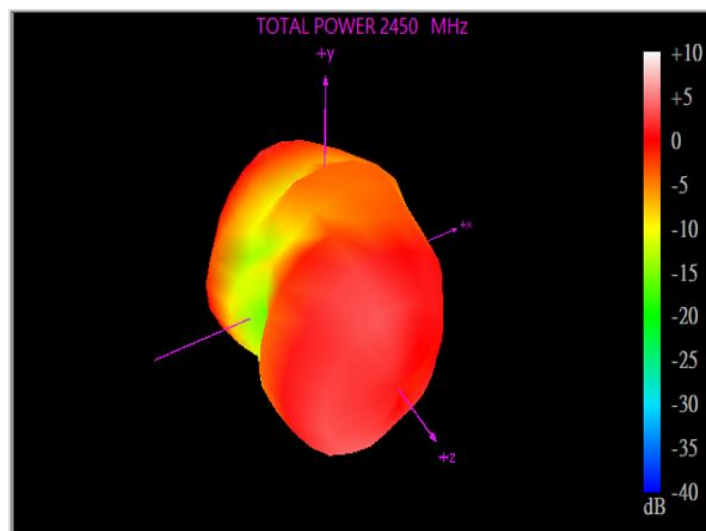
Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6875-7125	3.97



Auxiliary Antenna

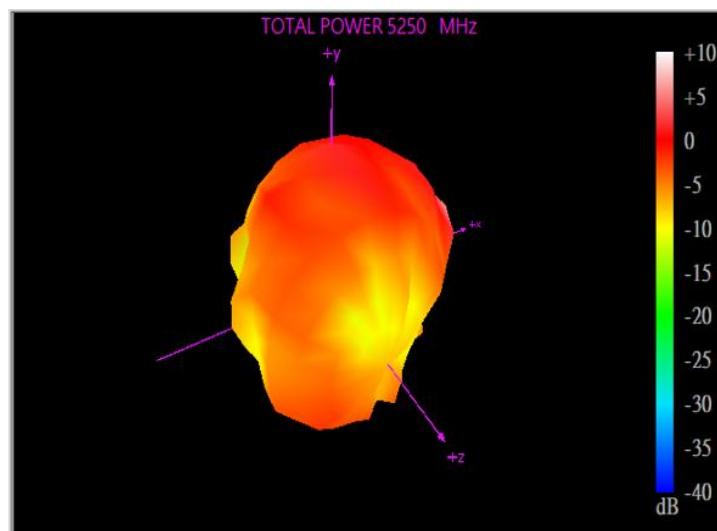
Max Antenna 3D Radiation Pattern 2400 – 2483.5 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
2400-2483.5	2.93



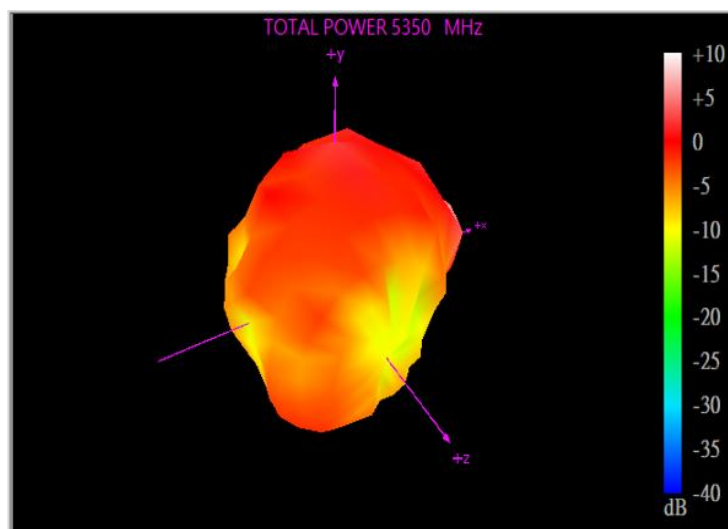
Max Antenna 3D Radiation Pattern 5150-5250 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5150-5250	2.79



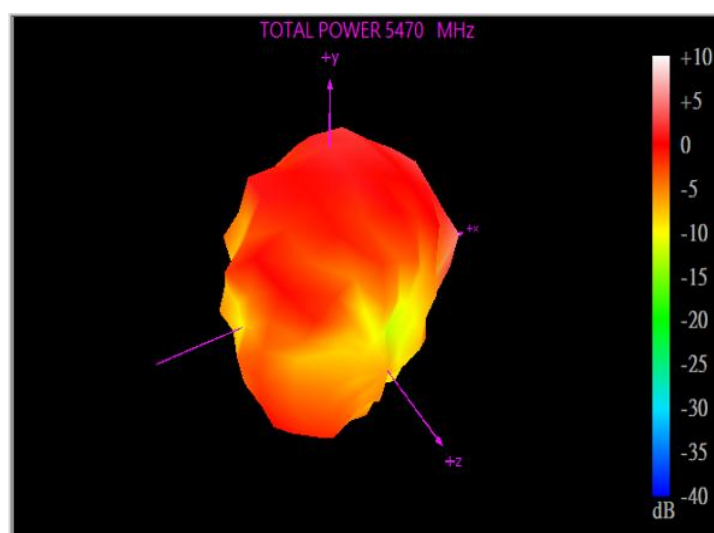
Max Antenna 3D Radiation Pattern 5250-5350 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5250-5350	2.88

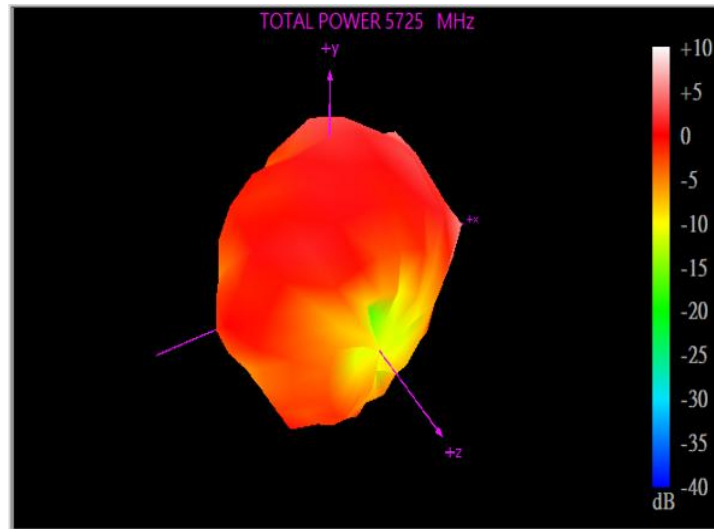


Max Antenna 3D Radiation Pattern 5470-5725 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5470-5725	2.98

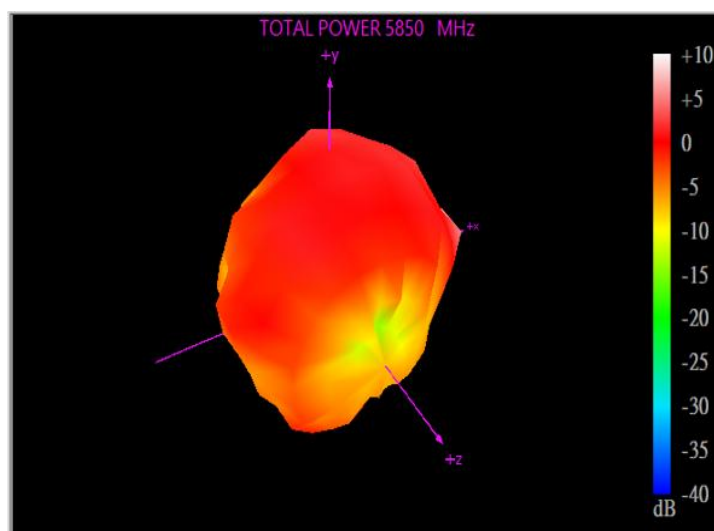


Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5725-5850	2.99



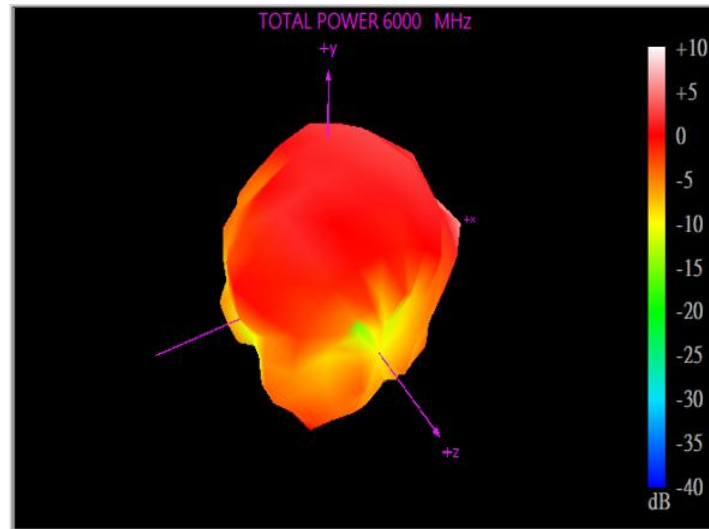
Max Antenna 3D Radiation Pattern 5850-5895 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5850-5895	2.96



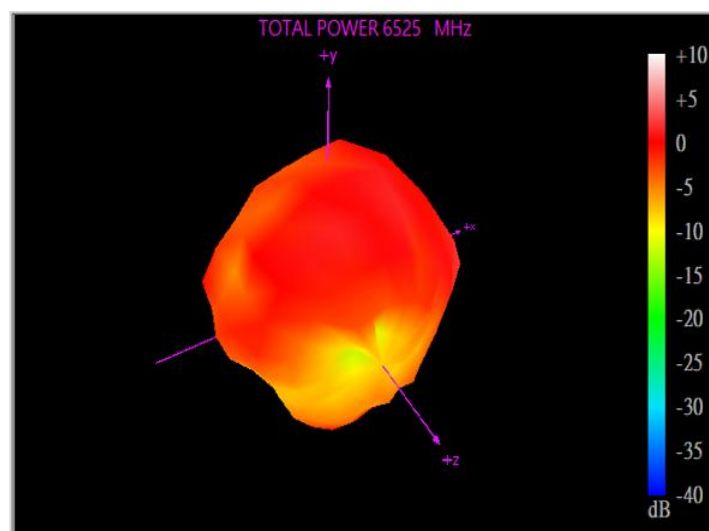
Max Antenna 3D Radiation Pattern 5925-6425 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5925-6425	3.99



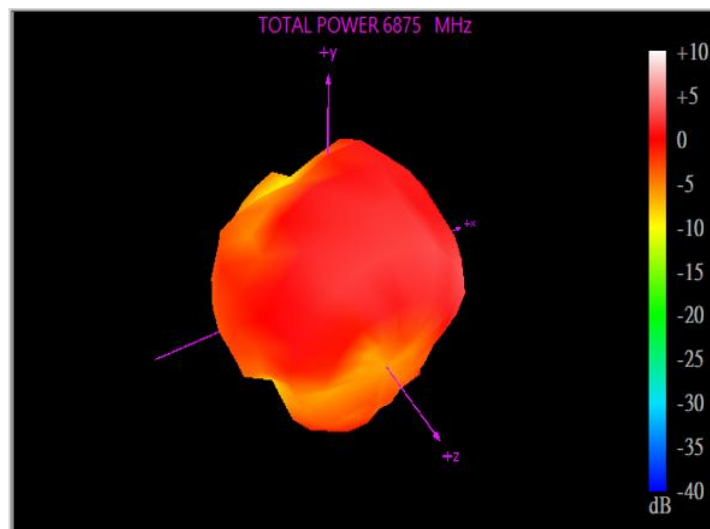
Max Antenna 3D Radiation Pattern 6425-6525 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6425-6525	3.98



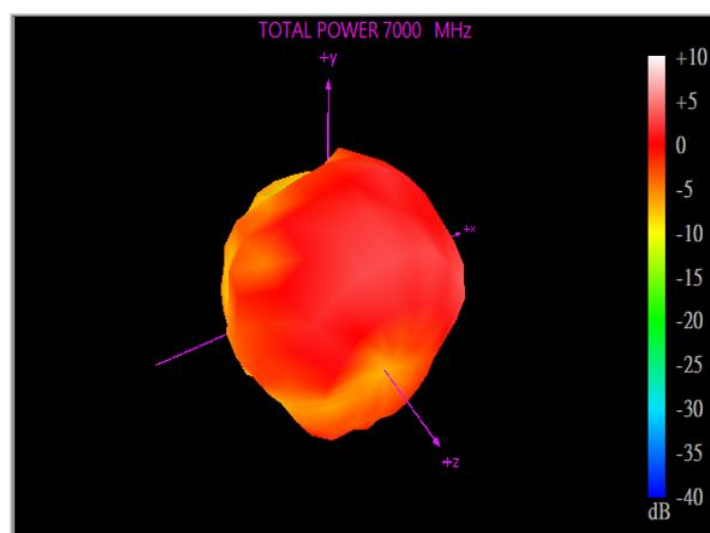
Max Antenna 3D Radiation Pattern 6525-6875 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6525-6875	3.99



Max Antenna 3D Radiation Pattern 6875-7125 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6875-7125	3.99

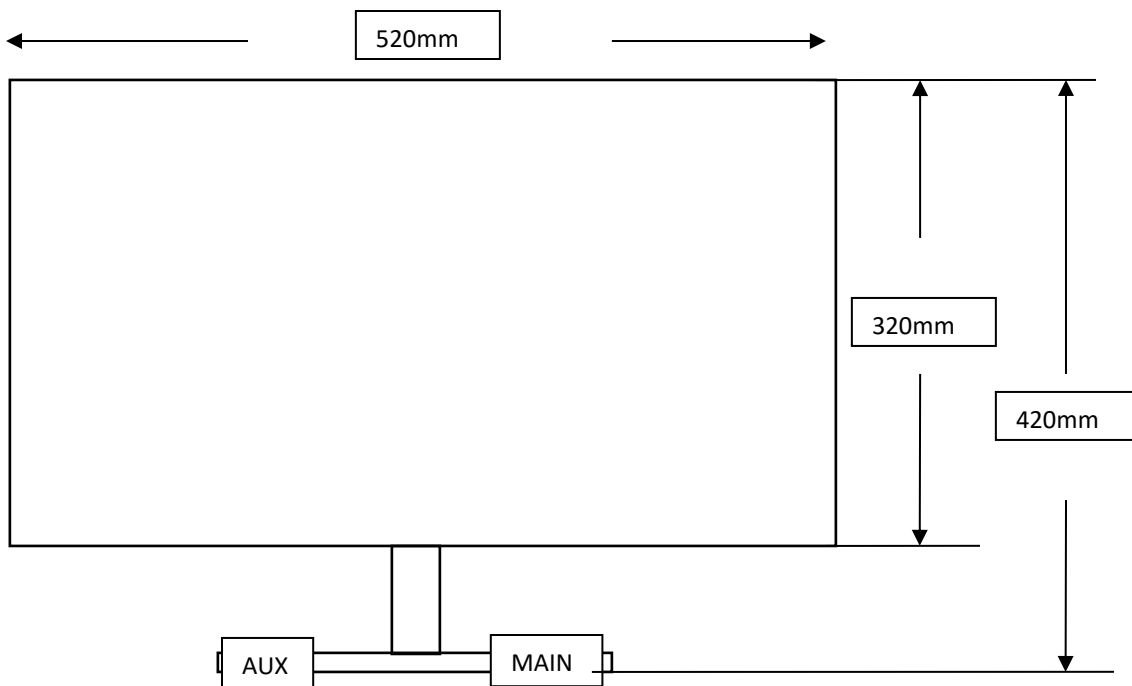


Annex B. Antenna Location

B.1 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.



B.2 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.

Antennas on the panel section

