

ANTENNA INFORMATION

OEM	Acer
ODM	Compal
Platform model name	N24C9 (Icefish_LNV)
Intel platform (ex: Yes, No or NA)	Yes
Platform type (ex: regular NB, convertible PC, AIO...etc)	Regular NB
SAR minimum separation (mm)	8.6 mm (w/bumper) 5.5 mm (w/o bumper)

Antenna manufacturer	Company name	Wistron Neweb Corporation
	Address	20 Park Ave.II , Hsinchu Science Park,Hsinchu 308,Taiwan
Test location	Company name	Wistron Neweb Corporation
	Address	20 Park Ave.II , Hsinchu Science Park,Hsinchu 308,Taiwan
Test Personnel	Name(Full name)	Esther Lin
	E-mail	Esther Lin@wnc.com.tw
	Tel/Mobile	03-6667799
Testing date		2024/06/14

Antenna Part number	Main	81EAB515.G39 (DC33002WX00)
	Aux	81EAB515.G40 (DC33002WX10)
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	-0.44	2.83	2.87	2.89	2.89	2.86	2.94	2.94	2.93	2.97
Aux	-1.00	2.88	2.89	2.89	2.89	2.80	2.97	2.95	2.97	2.94

Cable Assembly Part Number and Information					
	Cable PN	Cable length(mm)	Cable diameter(mm)	Impedance(ohm)	Connector type
Main	50.EKW01.311	223.5	1.13	50	I-pex MHF4L
Aux	50.EKW01.313	288	1.13	50	I-pex MHF4L

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

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	0.62	0.92	0.93	0.95	0.97	0.97	1.00	1.03	1.06	1.09
Aux	0.80	1.19	1.20	1.23	1.25	1.26	1.29	1.33	1.36	1.40

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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	2024/06/14

3. Test & System Description

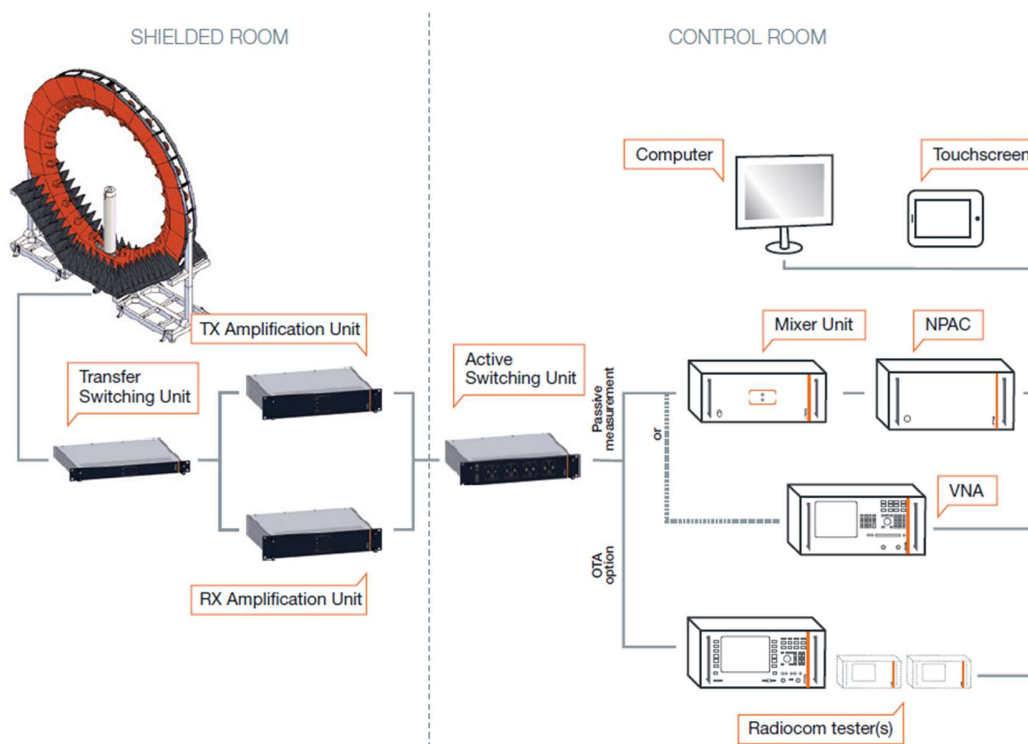
3.1 Measurement Method and System

<insert test description here for test method>

This test report is prepared for host antenna testing under a Full Anechoic Chamber (WNC's Satimo SG24L).

3.2 Test setup

<insert test diagram here for test site utilized>



3.3 Equipment list

<insert test diagram here for test site utilized>

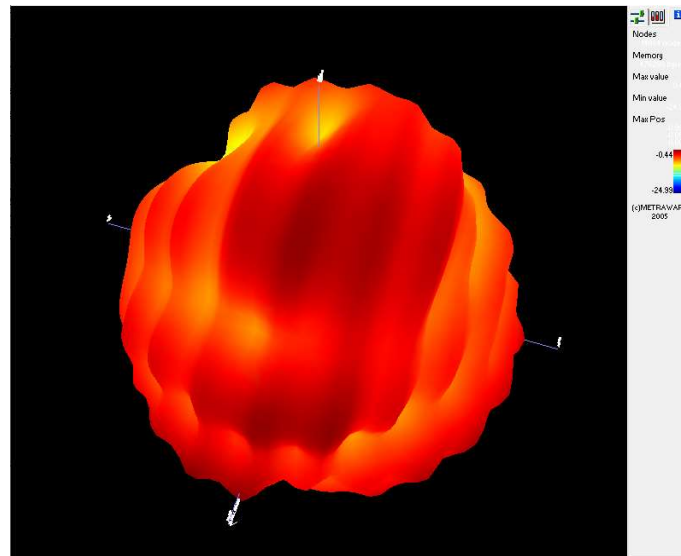
Device	Type / Model	Serial #	Manufacture	Cal. Date	Cal. Du Date
Anechoic Chamber	555-FAC		ChamPro	2023-07-10	2024-07
Antenna Measurement System	SG24-L		MVG-SATIMO	2023-07-10	2024-07
Network Analyzer	VNA / E5080B	MY59203136	Keysight	2023-01-08	2024-07
Tx Amplifier Unit	SG24 Series Accessories		MVG-SATIMO	2023-07-10	2024-07
Rx Amplifier Unit	SG24 Series Accessories		MVG-SATIMO	2023-07-10	2024-07
Probe Select Unit	SG24 Series Accessories		MVG-SATIMO	2023-07-10	2024-07
Motion Control Unit	SG24 Series Accessories		MVG-SATIMO	2023-07-10	2024-07
Power and Control Unit	SG24 Series Accessories		MVG-SATIMO	2023-07-10	2024-07
Array Control Unit	SG24 Series Accessories		MVG-SATIMO	2023-07-10	2024-07
Turn Table	SG24 Series Accessories		MVG-SATIMO	2023-07-10	2024-07
Goniometer	SG24 Series Accessories		MVG-SATIMO	2023-07-10	2024-07
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	2023-07-10	2024-07

4. Radiation characteristics of antenna loaded in Host Platform

Main Antenna

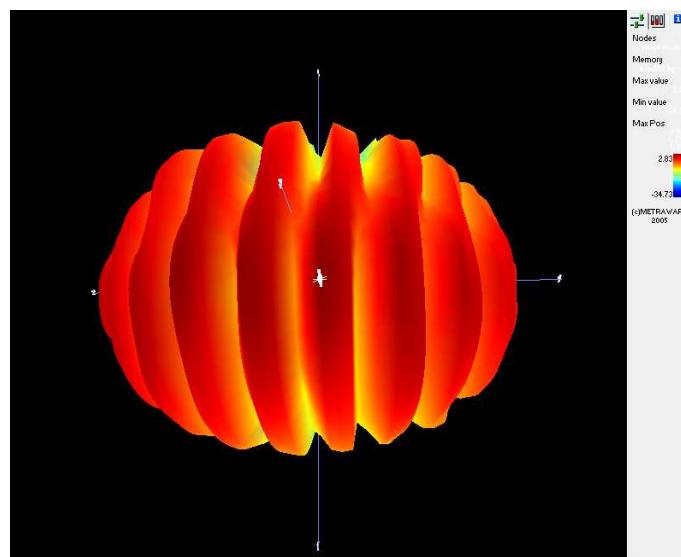
Max Antenna 3D Radiation Pattern 2400 – 2483.5 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
2400-2483.5	-0.44



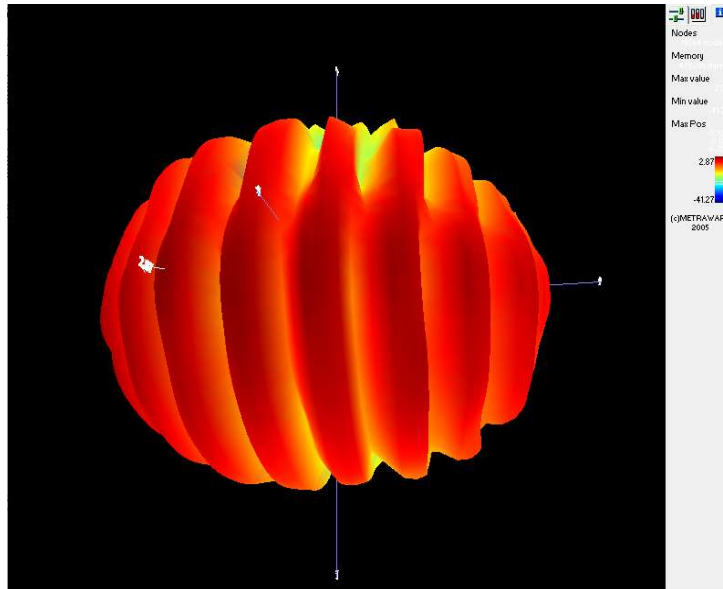
Max Antenna 3D Radiation Pattern 5150-5250 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5150-5250	2.83



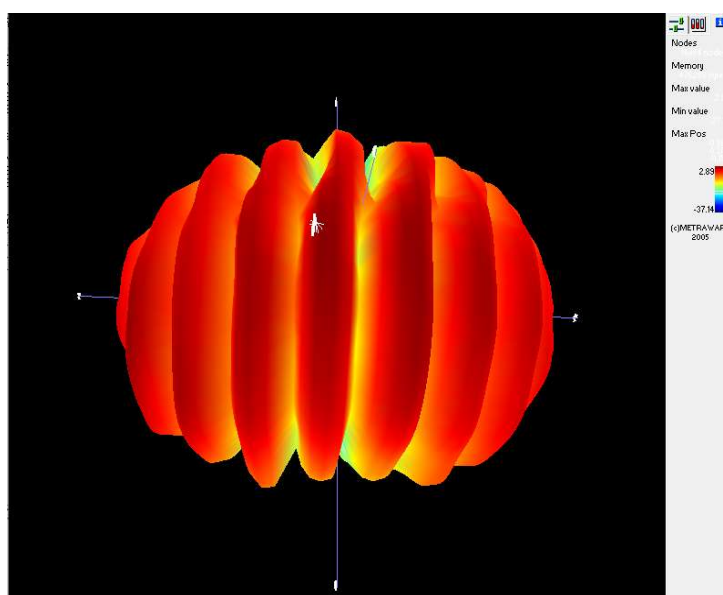
Max Antenna 3D Radiation Pattern 5250-5350 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5250-5350	2.87



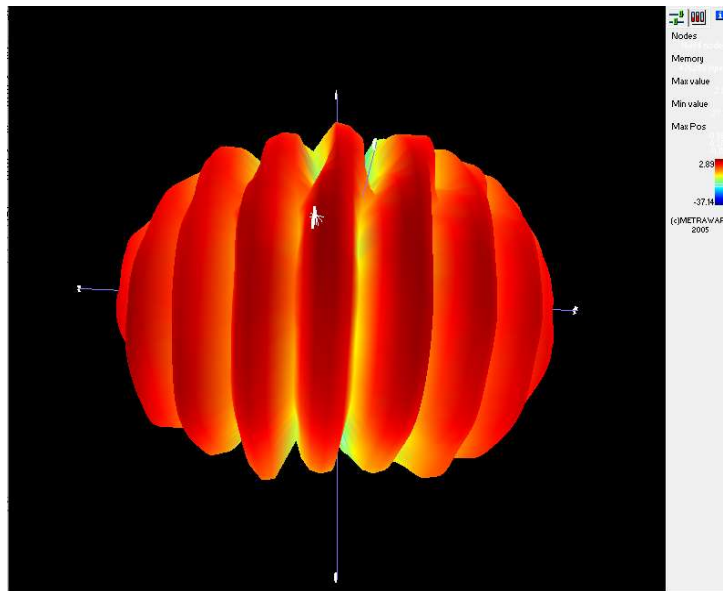
Max Antenna 3D Radiation Pattern 5470-5725 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5470-5725	2.89



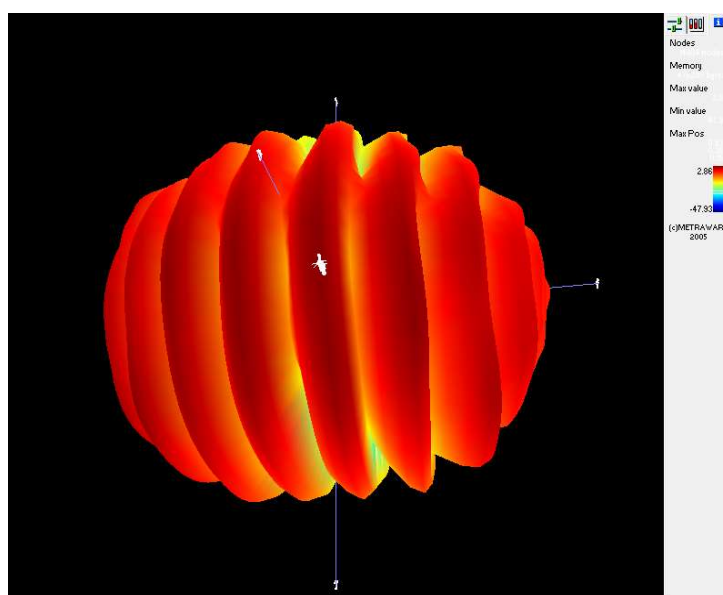
Max Antenna 3D Radiation Pattern 5725-5850 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5725-5850	2.89



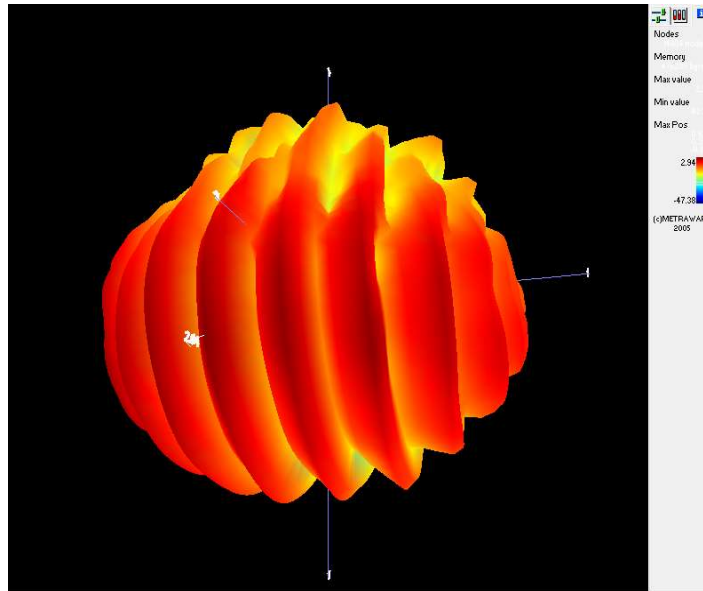
Max Antenna 3D Radiation Pattern 5850-5895 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5850-5895	2.86



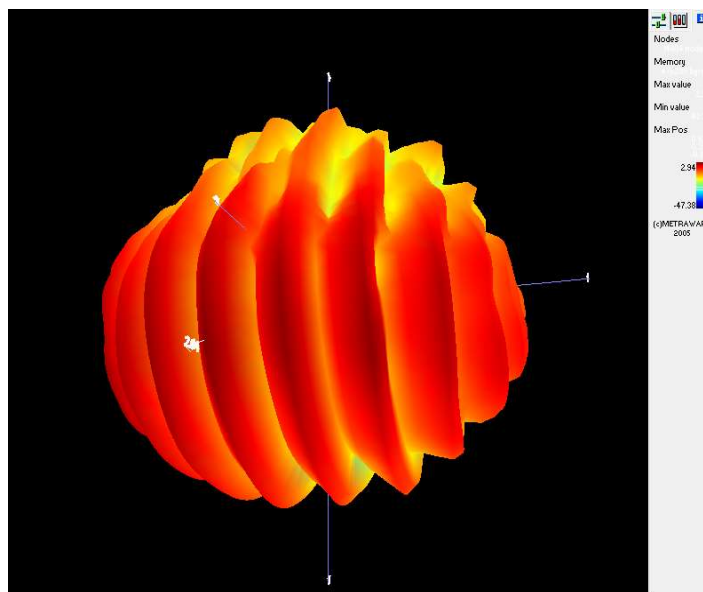
Max Antenna 3D Radiation Pattern 5925-6425 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5925-6425	2.94



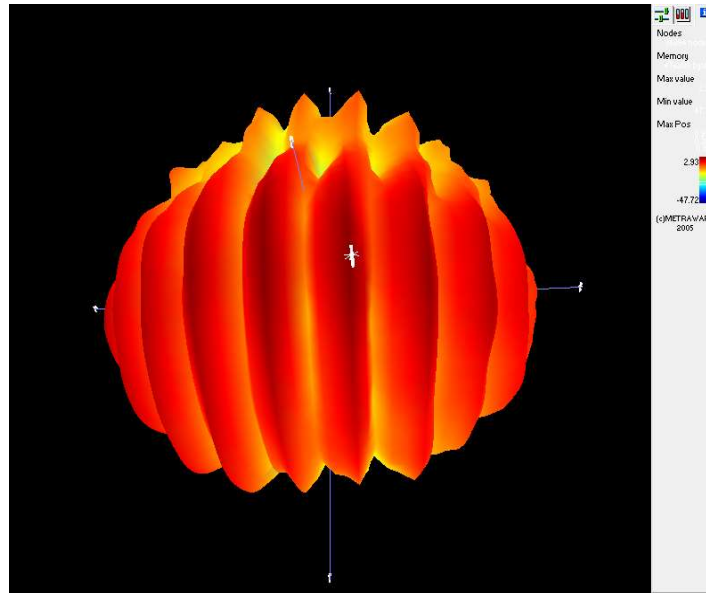
Max Antenna 3D Radiation Pattern 6425-6525 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6425-6525	2.94



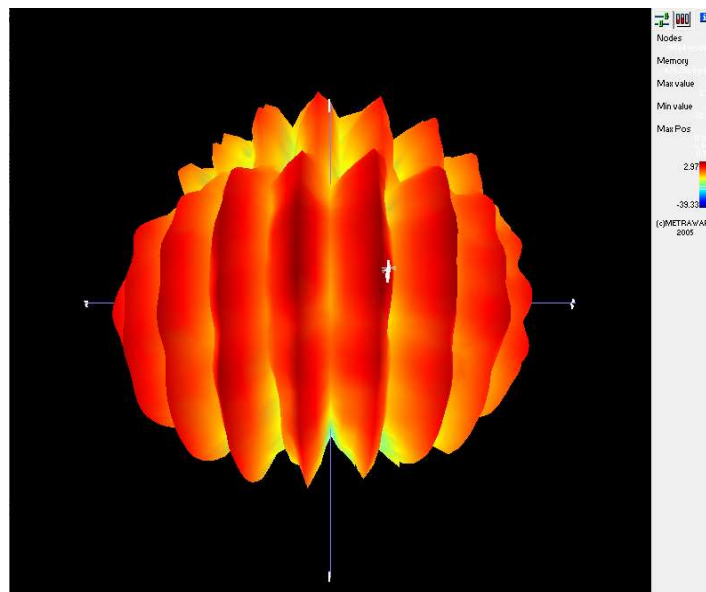
Max Antenna 3D Radiation Pattern 6525-6875 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6525-6875	2.93



Max Antenna 3D Radiation Pattern 6875-7125 MHz

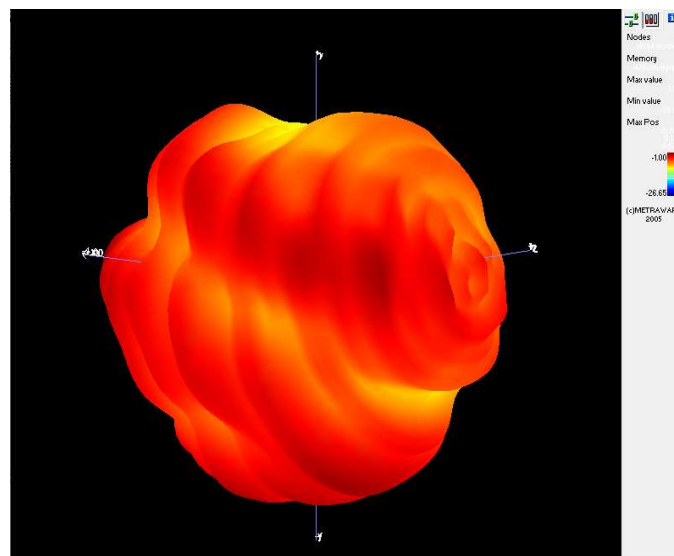
Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6875-7125	2.97



Auxiliary Antenna

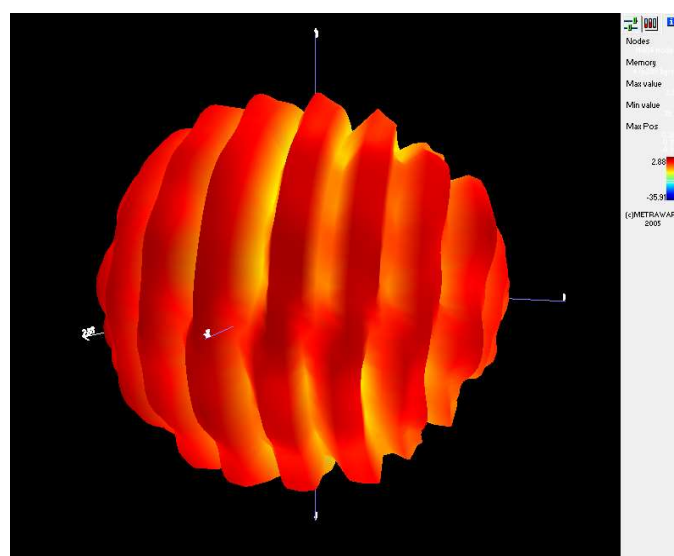
Max Antenna 3D Radiation Pattern 2400 – 2483.5 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
2400-2483.5	-1.00



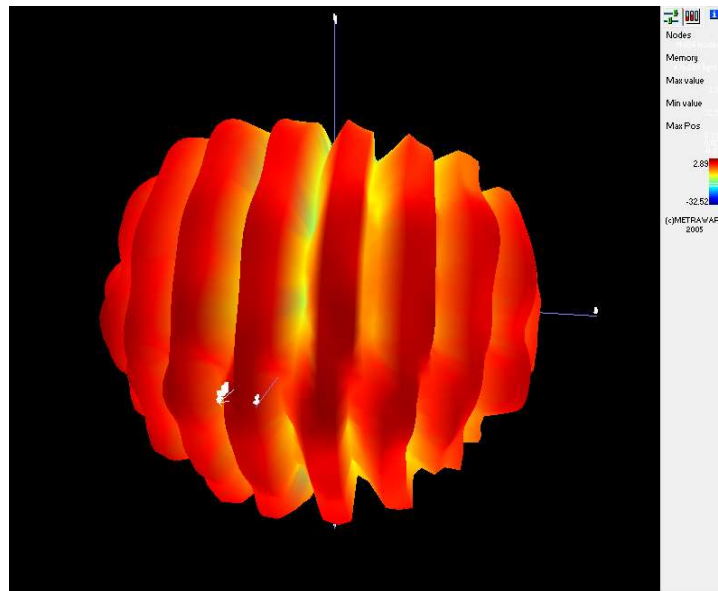
Max Antenna 3D Radiation Pattern 5150-5250 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5150-5250	2.88



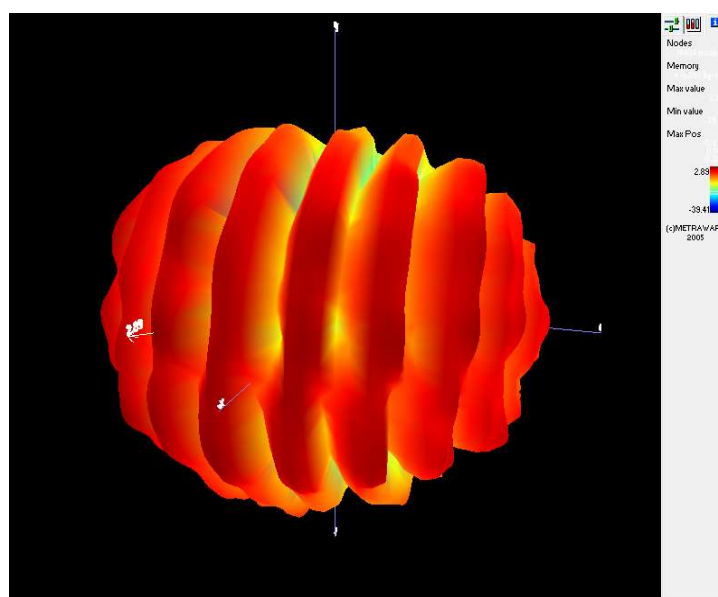
Max Antenna 3D Radiation Pattern 5250-5350 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5250-5350	2.89



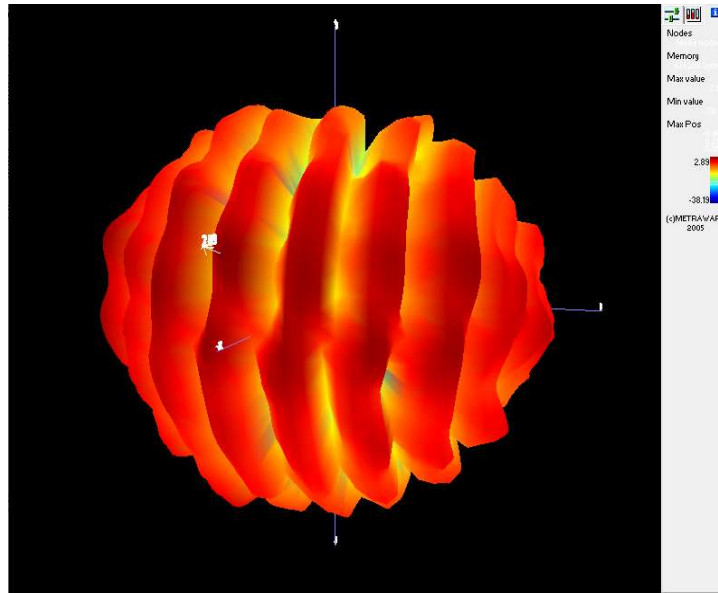
Max Antenna 3D Radiation Pattern 5470-5725 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5470-5725	2.89



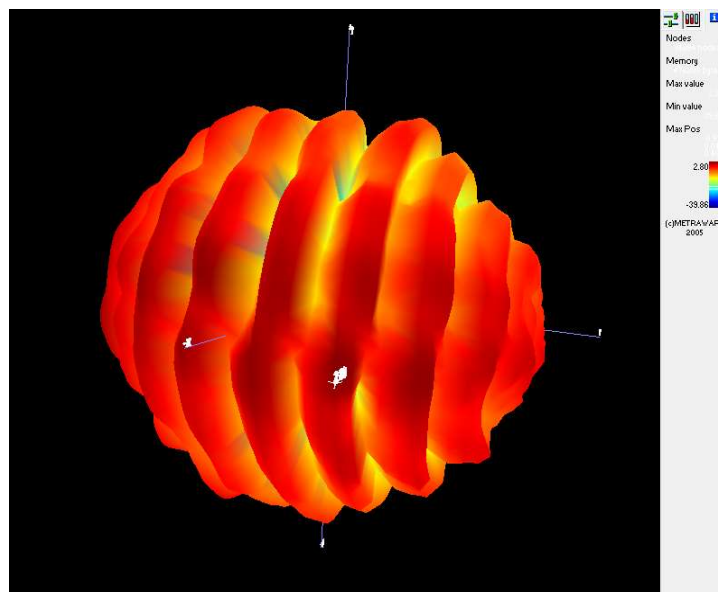
Max Antenna 3D Radiation Pattern 5725-5850 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5725-5850	2.89



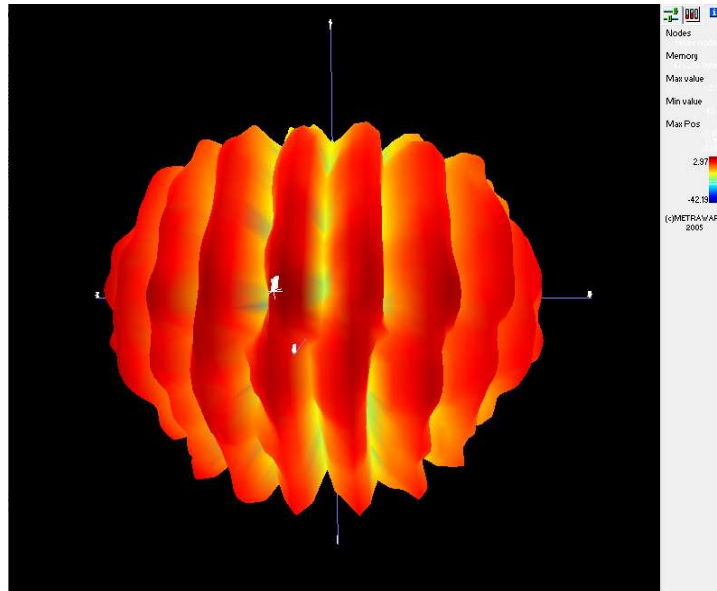
Max Antenna 3D Radiation Pattern 5850-5895 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5850-5895	2.80



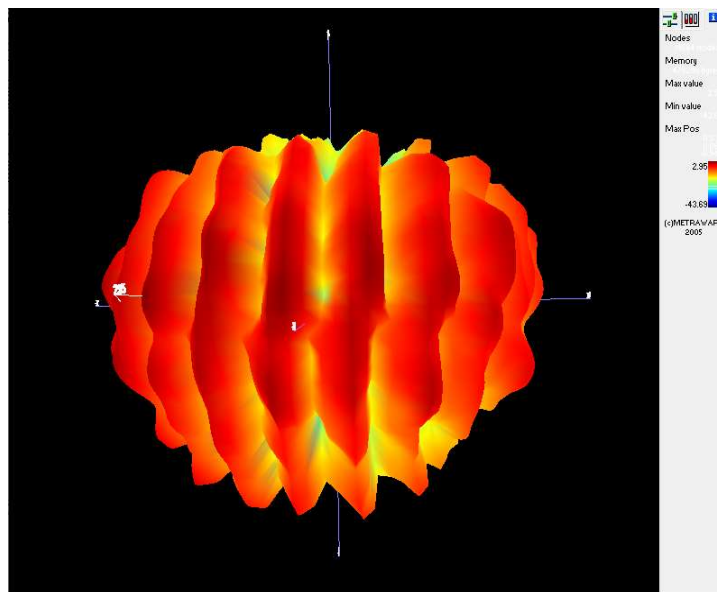
Max Antenna 3D Radiation Pattern 5925-6425 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5925-6425	2.97



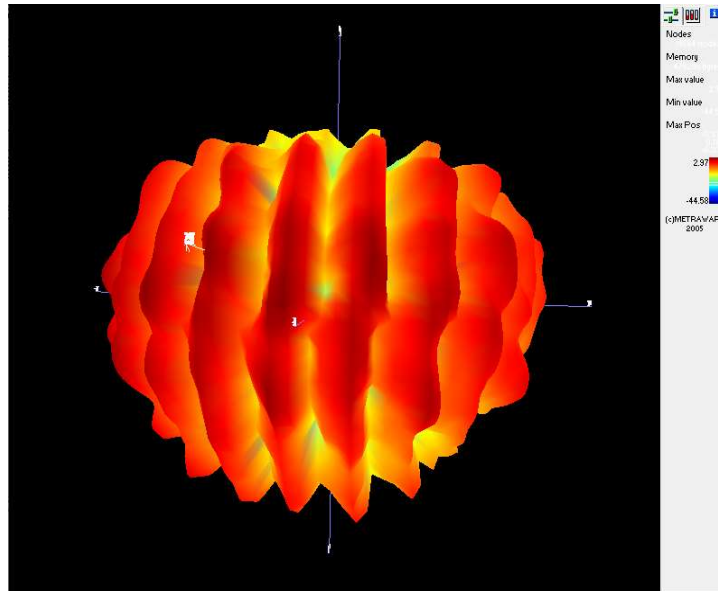
Max Antenna 3D Radiation Pattern 6425-6525 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6425-6525	2.95



Max Antenna 3D Radiation Pattern 6525-6875 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6525-6875	2.97



Max Antenna 3D Radiation Pattern 6875-7125 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6875-7125	2.94

