

# ANTENNA INFORMATION

OEM	Acer	
ODM	Quanta	
Platform model name	Riven (ZDK)/(N25Q9)	
Intel platform (ex: Yes, No or NA)	YES	
Platform type (ex: regular NB, convertible PC, AIO...etc)	Convertible PC	
SAR minimum separation (mm)	FCC (1g)	NB: 119.2 (W/Rubber) / NB: 118.7 (W/O Rubber) / Tablet: 2.5
	ISED (1g)	NB: 119.2 (W/Rubber) / NB: 118.7 (W/O Rubber) / Tablet: 2.5
	ISED (10g)	

Antenna manufacturer	Company name	Galtronics Corporation
	Address	#B214, Innoplex Bldg.,306, Sinwon-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16675 Korea
Test location	Company name	Galtronics Corporation
	Address	#B214, Innoplex Bldg.,306, Sinwon-ro, Yeongtong-gu, Suwon-si, Gyeonggi-do, 16675 Korea
Test Personnel	Name(Full name)	Martin.Kim(BUMJIN-KIM)
	E-mail	martin.kim@galtronics.com
	Tel/Mobile	+82-01-4016-5392
Testing date	January 03 <sup>th</sup> , 2025	

Antenna Part number	Main	02036675-08191
	Aux	02036675-08192
Antenna type (ex: PIFA, Dipole...etc)	PIFA	

Antenna Peak gain w/ cable loss (dBi)* NB mode										
	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	2.84	2.45	2.96	2.55	2.47	2.23	2.22	2.33	2.69	2.57
Aux	2.59	2.39	2.79	1.94	2.33	2.55	2.43	2.49	2.88	2.78

Antenna Peak gain w/ cable loss (dBi)* Tablet Mode										
	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	2.50	1.13	2.34	2.92	2.09	1.77	2.73	1.23	1.96	1.36
Aux	1.18	-0.40	-0.13	1.98	2.51	2.48	2.97	2.90	2.88	2.13

Cable Assembly Part Number and Information					
	Cable PN	Cable length(mm)	Cable diameter(mm)	Impedance(ohm)	Connector type
Main	SY113/50-001	243	1.13	50	MHF-B13L-N-01
Aux	SY113L/50-004	405	1.13	50	MHF-B13L-N-01

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

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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

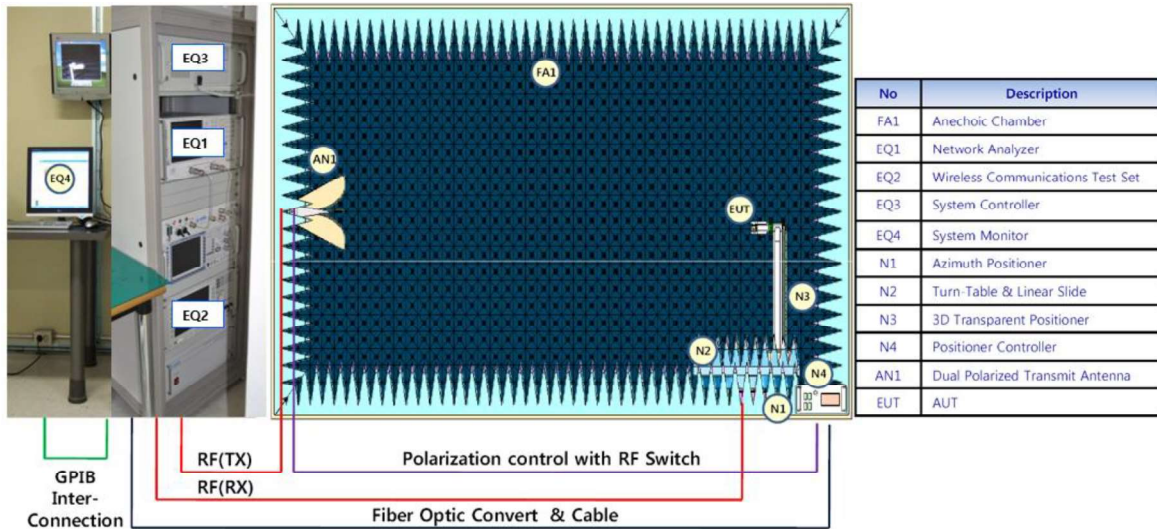
Revision #	Revision Details	Issued Date
Rev. 00	First Issue	2024.10.07

### 3. Test & System Description

#### 3.1 Measurement Method and System

This test report is prepared for Travel Mate Riven (ZDK) antenna testing under a Full Anechoic Chamber. (Galtronics MTG)

#### 3.2 Test setup



#### 3.3 Equipment list

Device	Type/Model	Manufacturer	SW	Cal. Date	Cal. Due Date
Anechoic Chamber	SSR-M08	MTG	-	2024-11-01	2025-11-01
Horn Antenna	HA-07M18G-NF	MTG	-	2024-02-11	2025-02-11
Network Analyzer	N5230A	AGILENT	-	2024-02-11	2025-02-11
Dual-Ridged Horn Antenna	DRH-020-180 2~18GHz	MTG	-	2024-02-11	2025-02-11
Horn Antenna	BBHA 9120 LF(A) 290 650MHz~6GHz	MTG	-	2024-02-11	2025-02-11
Measurement SW	-	MTG	VWM2.1	N/A	N/A
Positioner Controller	PC-510-4	MTG	-	N/A	N/A
Turn-table & Linear Slide	AP-6508-H40	MTG	-	N/A	N/A
3D Transparent EUT Positioner	AP-6917-H	MTG	-	2024-02-11	2025-02-11
Low Loss RF Cable	RCBL-M03 DC~18GHz	MTG	-	2024-11-01	2025-01-01

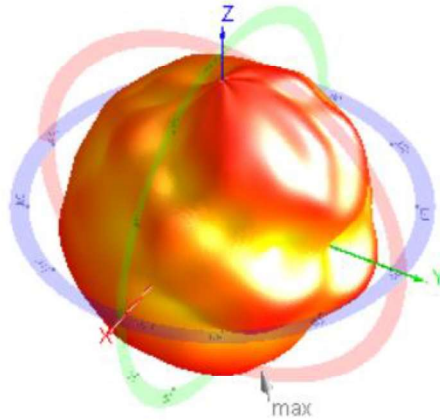
Rev.	Measurement	Measurement Data	Sign
3.8.05 Rev02	Galtronics	2024-10-07	

#### 4. Radiation characteristics of antenna loaded in Host Platform

##### Main Antenna(NB mode)

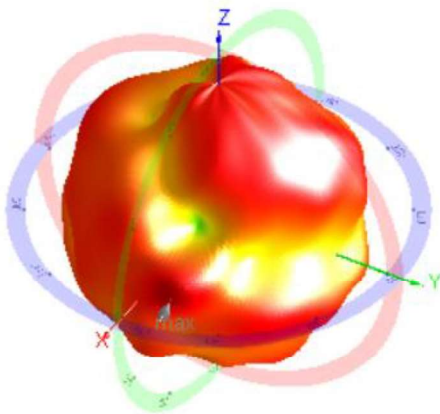
Max Antenna 3D Radiation Pattern 2400 – 2483.5 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
2400-2483.5	2.84



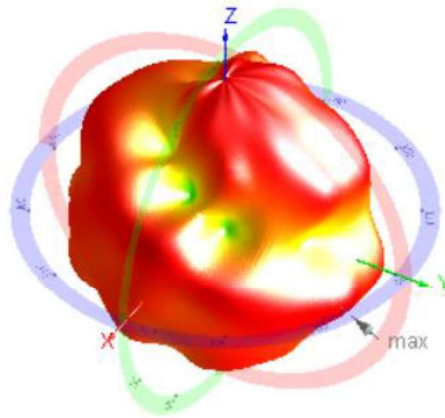
Max Antenna 3D Radiation Pattern 5150-5250 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5150-5250	2.45



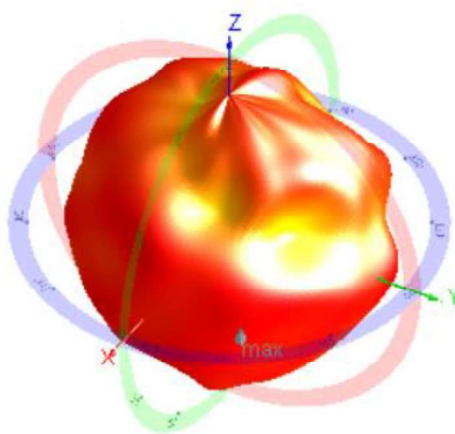
## Max Antenna 3D Radiation Pattern 5250-5350 MHz

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



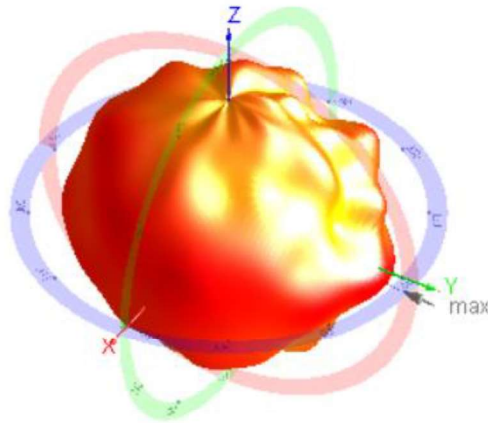
## Max Antenna 3D Radiation Pattern 5470-5725 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5470-5725	2.55



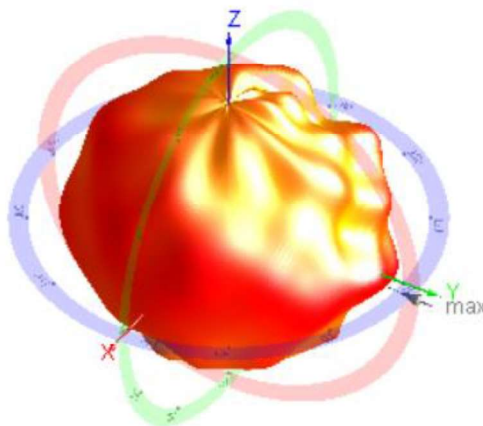
## Max Antenna 3D Radiation Pattern 5725-5850 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5725-5850	2.47



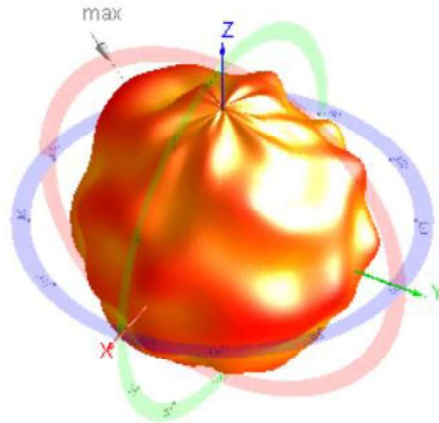
## Max Antenna 3D Radiation Pattern 5850-5895 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5850-5895	2.23



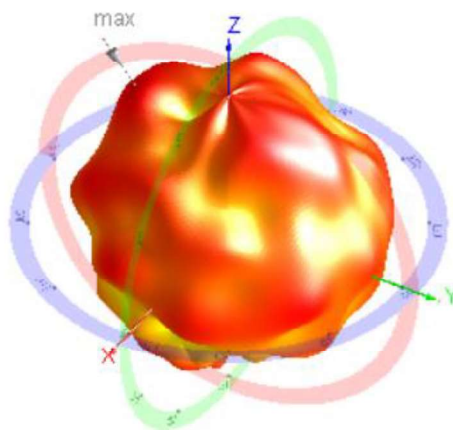
## Max Antenna 3D Radiation Pattern 5925-6425 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5925-6425	2.22



## Max Antenna 3D Radiation Pattern 6425-6525 MHz

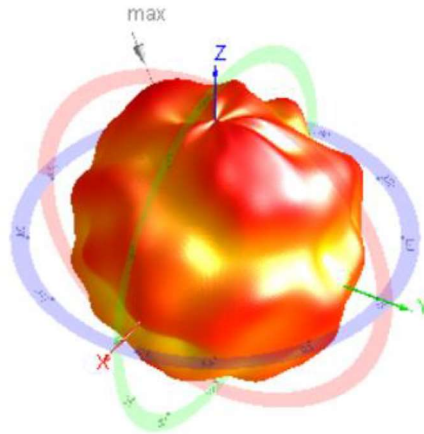
Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6425-6525	2.33





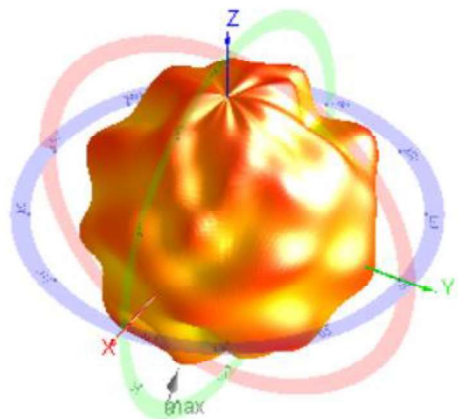
## Max Antenna 3D Radiation Pattern 6525-6875 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6525-6875	2.69



## Max Antenna 3D Radiation Pattern 6875-7125 MHz

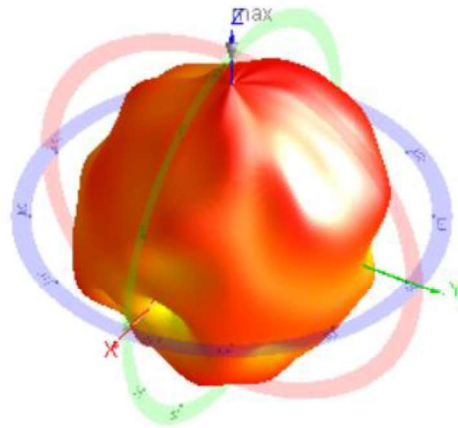
Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6875-7125	2.57



**Auxiliary Antenna(NB mode)**

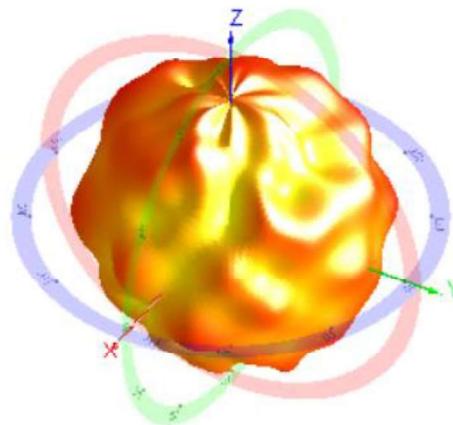
Max Antenna 3D Radiation Pattern 2400 – 2483.5 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
2400-2483.5	2.59



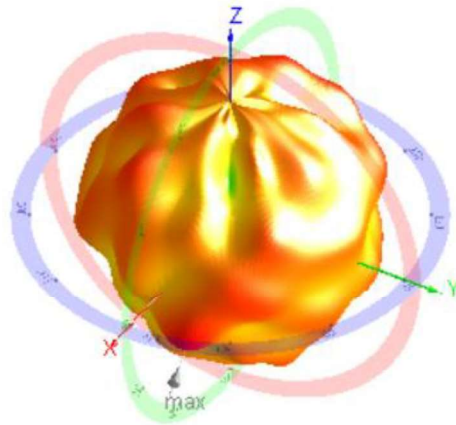
Max Antenna 3D Radiation Pattern 5150-5250 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5150-5250	2.39



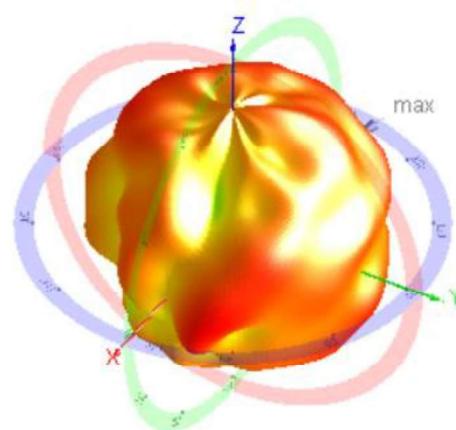
## Max Antenna 3D Radiation Pattern 5250-5350 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5250-5350	2.79



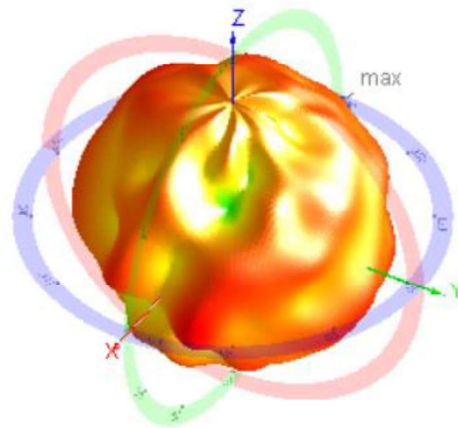
## Max Antenna 3D Radiation Pattern 5470-5725 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5470-5725	1.94



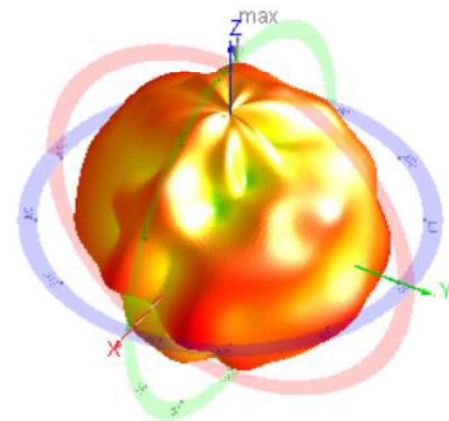
## Max Antenna 3D Radiation Pattern 5725-5850 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5725-5850	2.33



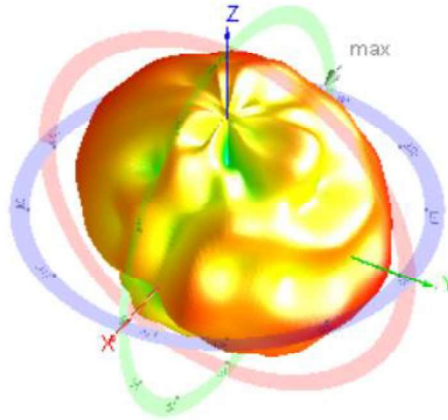
## Max Antenna 3D Radiation Pattern 5850-5895 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5850-5895	2.55



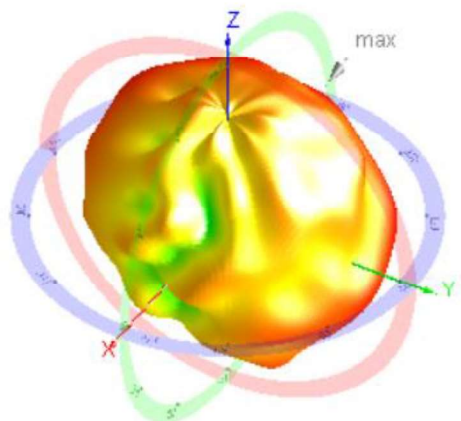
## Max Antenna 3D Radiation Pattern 5925-6425 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5925-6425	2.43



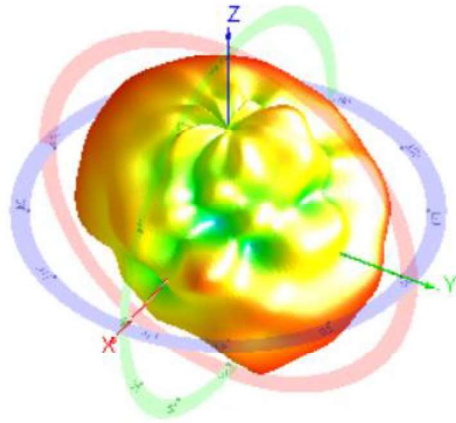
## Max Antenna 3D Radiation Pattern 6425-6525 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6425-6525	2.49



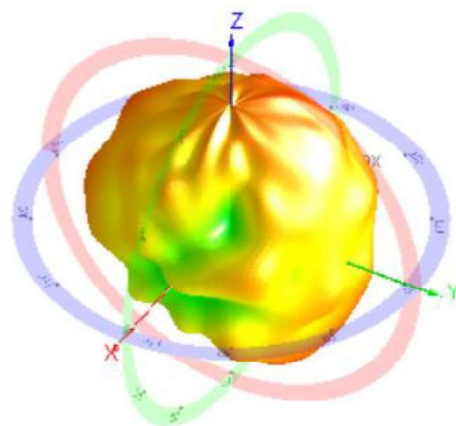
## Max Antenna 3D Radiation Pattern 6525-6875 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6525-6875	2.88



## Max Antenna 3D Radiation Pattern 6875-7125 MHz

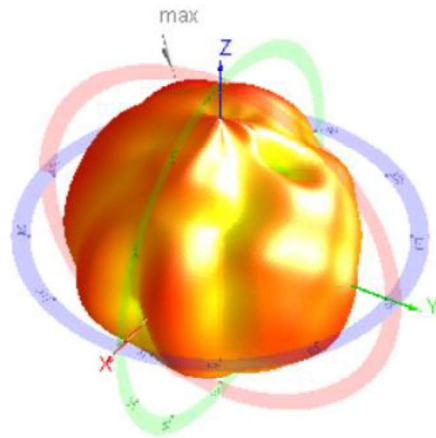
Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6875-7125	2.78



**Main Antenna (Tablet mode)**

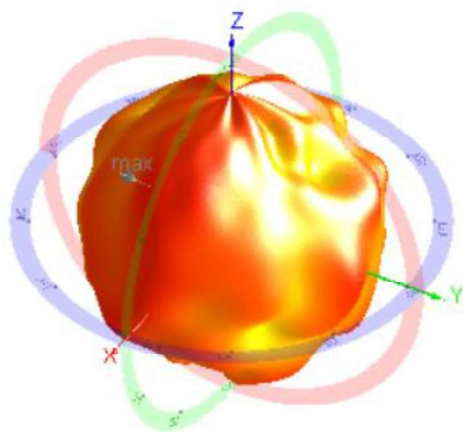
## Max Antenna 3D Radiation Pattern 2400 – 2483.5 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
2400-2483.5	2.50



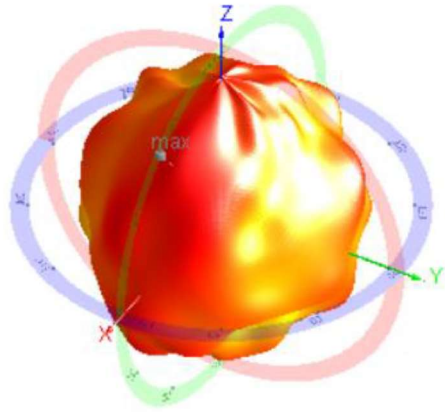
## Max Antenna 3D Radiation Pattern 5150-5250 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5150-5250	1.13



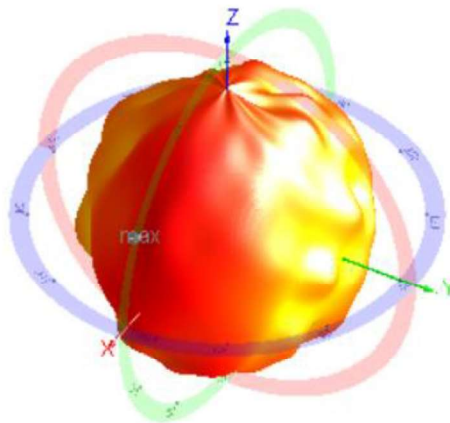
## Max Antenna 3D Radiation Pattern 5250-5350 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5250-5350	2.34



## Max Antenna 3D Radiation Pattern 5470-5725 MHz

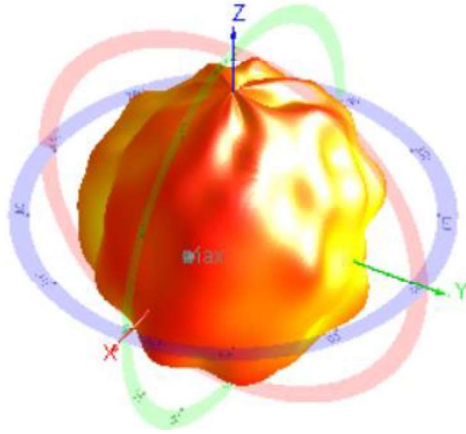
Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5470-5725	2.92





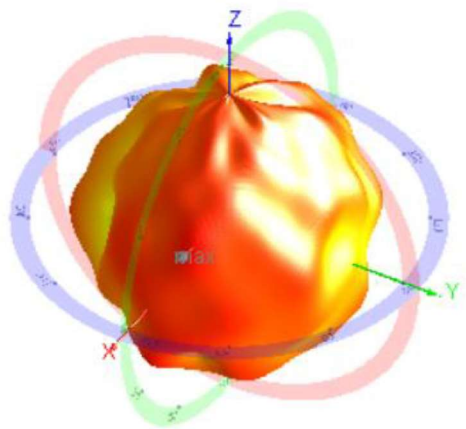
## Max Antenna 3D Radiation Pattern 5725-5850 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5725-5850	2.09



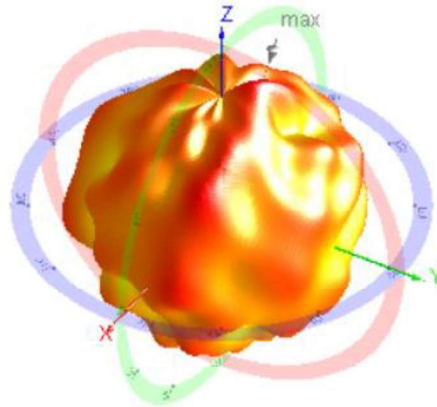
## Max Antenna 3D Radiation Pattern 5850-5895 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5850-5895	1.77



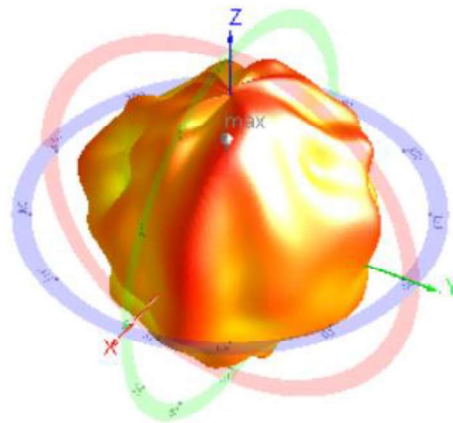
## Max Antenna 3D Radiation Pattern 5925-6425 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5925-6425	2.73



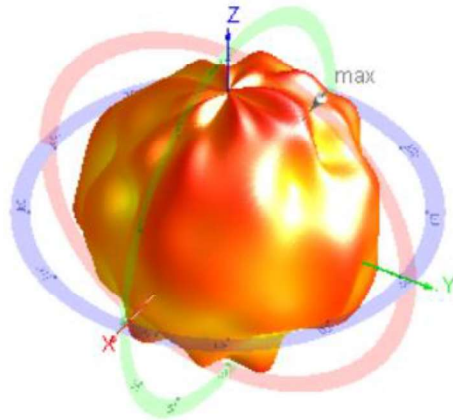
## Max Antenna 3D Radiation Pattern 6425-6525 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6425-6525	1.23



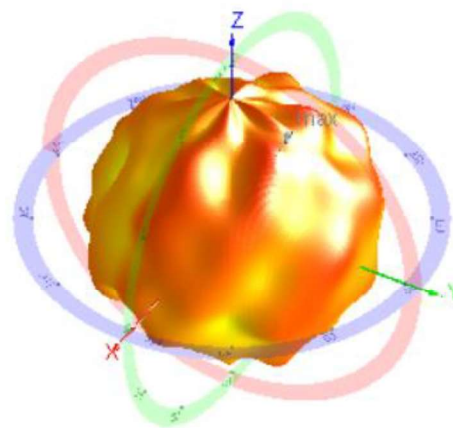
## Max Antenna 3D Radiation Pattern 6525-6875 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6525-6875	1.96



## Max Antenna 3D Radiation Pattern 6875-7125 MHz

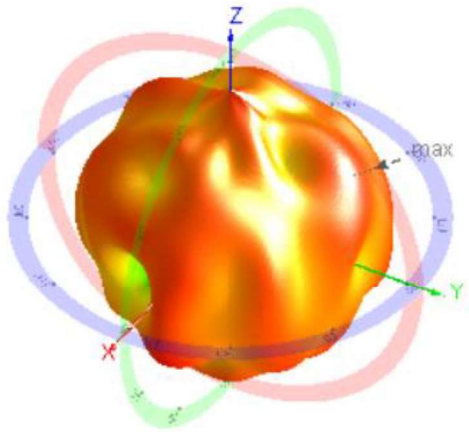
Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6875-7125	1.36



**Auxiliary Antenna(Tablet mode)**

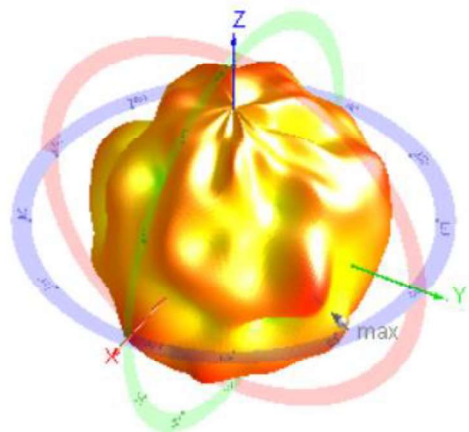
Max Antenna 3D Radiation Pattern 2400 – 2483.5 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
2400-2483.5	1.18



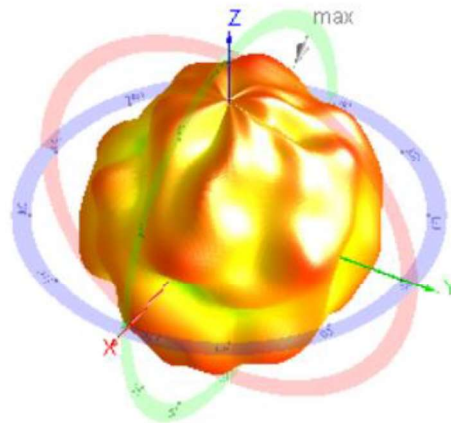
Max Antenna 3D Radiation Pattern 5150-5250 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5150-5250	-0.40



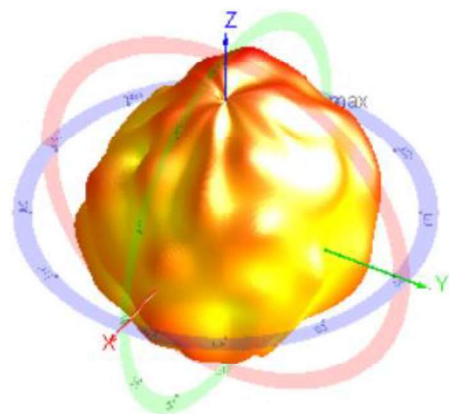
## Max Antenna 3D Radiation Pattern 5250-5350 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5250-5350	-0.13



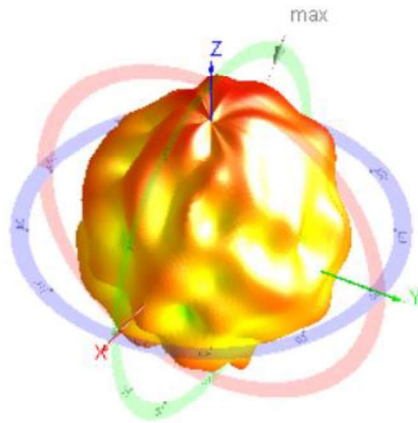
## Max Antenna 3D Radiation Pattern 5470-5725 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5470-5725	1.98



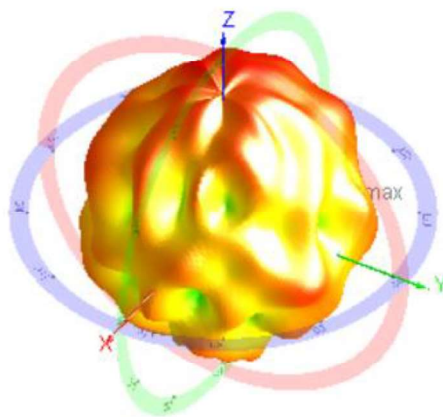
## Max Antenna 3D Radiation Pattern 5725-5850 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5725-5850	2.51



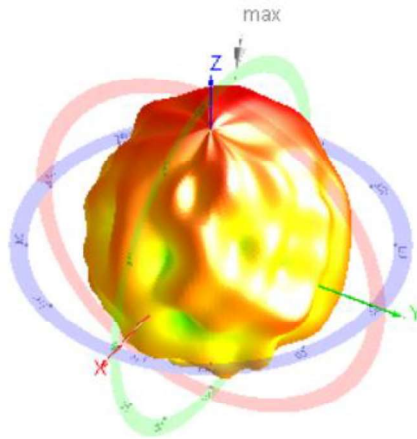
## Max Antenna 3D Radiation Pattern 5850-5895 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5850-5895	2.48



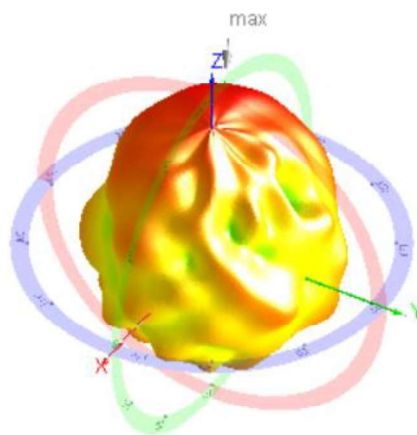
## Max Antenna 3D Radiation Pattern 5925-6425 MHz

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



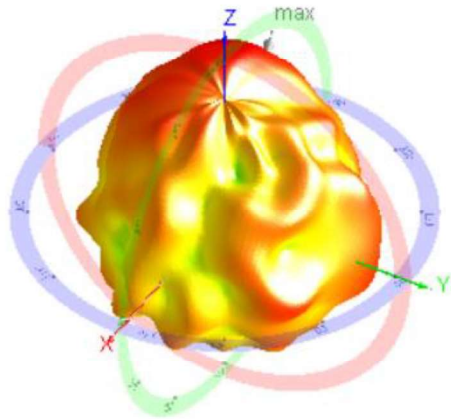
## Max Antenna 3D Radiation Pattern 6425-6525 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6425-6525	2.90



## Max Antenna 3D Radiation Pattern 6525-6875 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6525-6875	2.88



## Max Antenna 3D Radiation Pattern 6875-7125 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6875-7125	2.13

