

ANTENNA INFORMATION

OEM	Lenovo
ODM	Huaqin
Platform model name	ThinkBook 16 G7 QOY
Intel platform (ex: Yes, No or NA)	NA
Platform type (ex: regular NB, convertible PC, AIO...etc)	Regular NB
SAR minimum separation (mm)	9.81

Antenna manufacturer	Company name	AWAN
	Address	No.925 Huayuan Road,Zhangpu Town,Kunshan City,Jiangsu Province
Test location	Company name	AWAN
	Address	No.925 Huayuan Road,Zhangpu Town,Kunshan City,Jiangsu Province
Test Personnel	Name(Full name)	Hao Jinyan
	E-mail	jinyan.hao@awan-ant.com
	Tel/Mobile	15062660021
Testing date		2024/6/22

Antenna Part number	Main	AYP6Y-200087
	Aux	AYP6Y-200087
Antenna type (ex: PIFA, Dipole...etc)		PIFA

Antenna Peak gain w/ cable loss*											
		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	Peak gain(dBi)	1.61	2.12	2.07	1.81	2.22	1.93	2.31	2.41	1.71	2.08
	cable loss (dB)	0.92	1.41	1.44	1.47	1.50	1.52	1.55	1.58	1.61	1.64
Aux	Peak gain(dBi)	1.92	2.07	2.21	2.08	1.55	2.37	1.84	2.18	1.74	1.96
	cable loss (dB)	1.14	1.74	1.78	1.83	1.87	1.89	1.93	1.97	2.00	2.04

Cable Assembly Part Number and Information						
	Cable PN	Cable length(mm)	Cable diameter(mm)	Impedance(ohm)	Connector type Brand/ Part Number	Connector type
Main	CY7006-0390500	377	1.13	50	Kangshuo: MHF-B13-N-01	MHF-4L
Aux	CY7006-0484003	471	1.13	50	Kangshuo: MHF-B13-N-01	MHF-4L

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

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1. Intel Reference Gain and Type

NA

2. Document Revision History

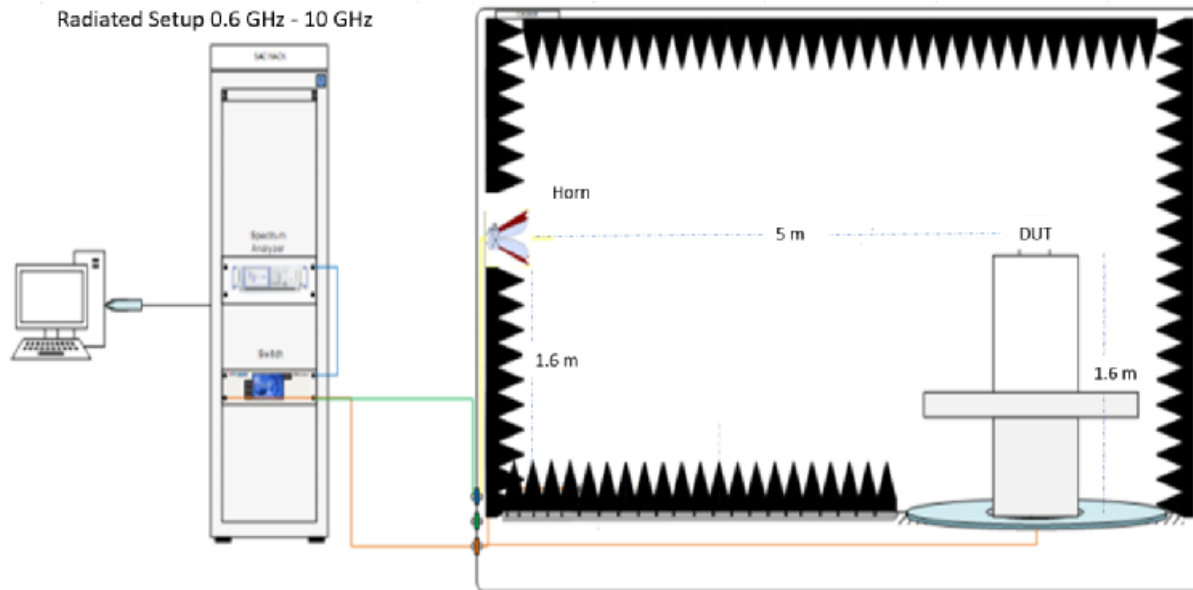
Revision #	Revision Details	Issued Date
Rev. 00	First Issue	2023.06.20

3. Test & System Description

3.1 Measurement Method and System

1. Use a low-loss coaxial cable to connect the notebook fixture
2. Fix the notebook fixture on the turntable
3. Connect the jig to the network analyzer port, and use the antenna of the test probe to collect data.

3.2 Test setup



3.3 Equipment list

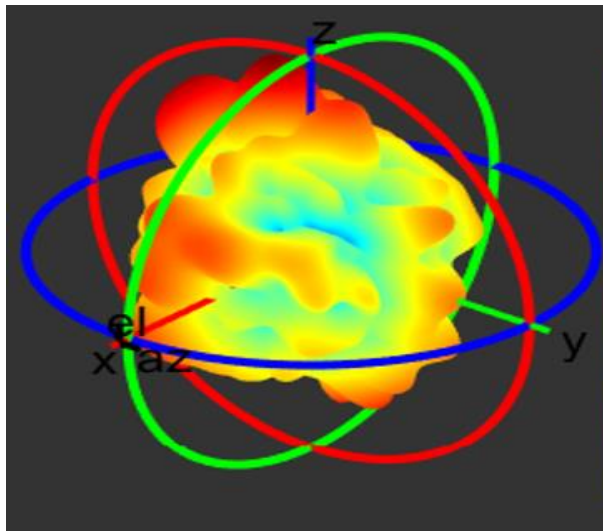
Number	Device	Manufacturer	Cal. Date	Cal. Due. ate
1	Chamber	ETS-Lindgren	2024/1/12	2025/1/11
2	Hron Antenna	Bwant	2024/1/12	2025/1/11
3	Network Analyzer	Keysight	2024/3/12	2025/3/11
4	Turn table Control Box	ETS-Lindgren	N/A	N/A
5	Turn table Control Computer	ETS-Lindgren	N/A	N/A
6	Test system host	EMT	N/A	N/A
7	RF Line TX	Jmtt	2024/2/4	2025/2/3
8	RF Line RX	Jmtt	2024/2/4	2025/2/3
9	Cable 2m 1KHz-8.5GHz	Jmtt	2024/2/4	2025/2/3
10	Optical Fiber line	Jmtt	N/A	N/A

4. Radiation characteristics of antenna loaded in Host Platform

Main Antenna

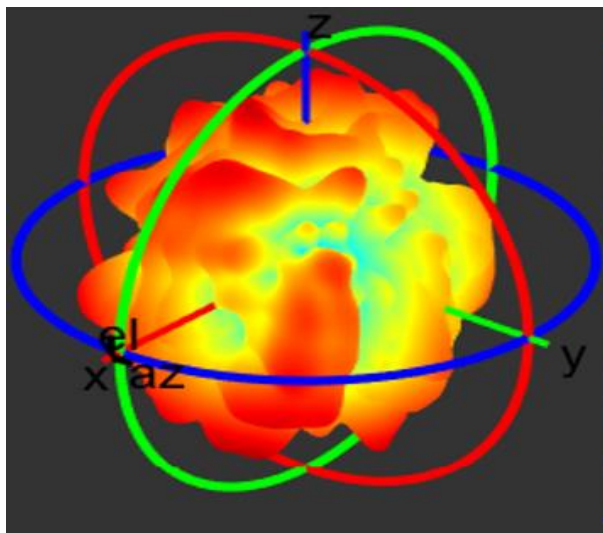
Max Antenna 3D Radiation Pattern 2400 – 2483.5 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
2400-2483.5	1.61



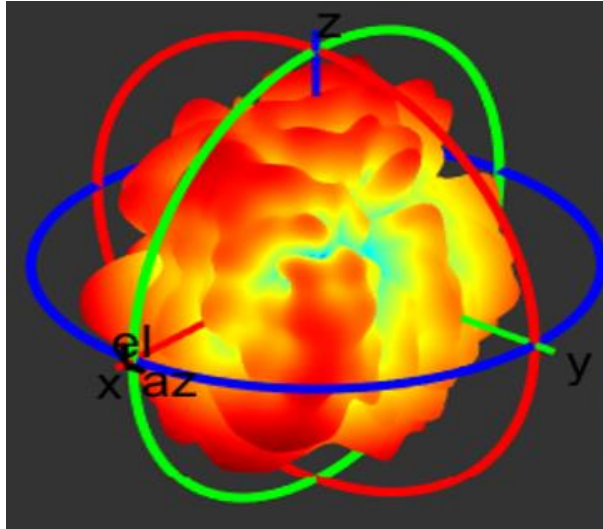
Max Antenna 3D Radiation Pattern 5150-5250 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5150-5250	2.12



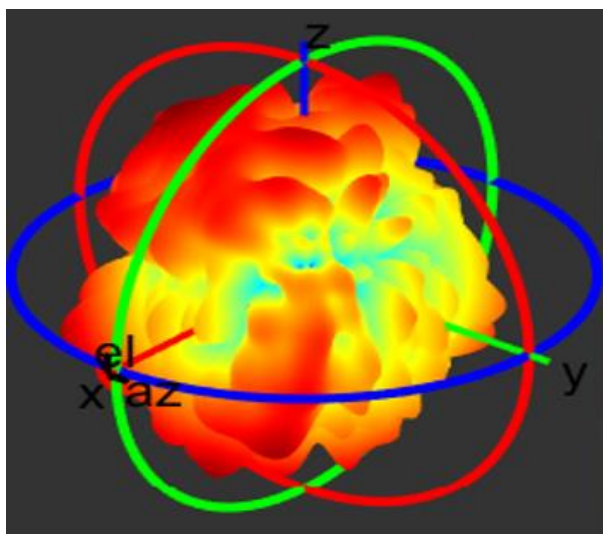
Max Antenna 3D Radiation Pattern 5250-5350 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5250-5350	2.07



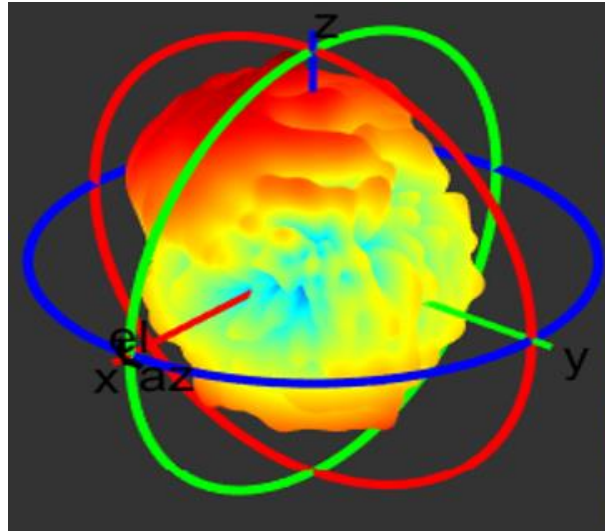
Max Antenna 3D Radiation Pattern 5470-5725 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5470-5725	1.81



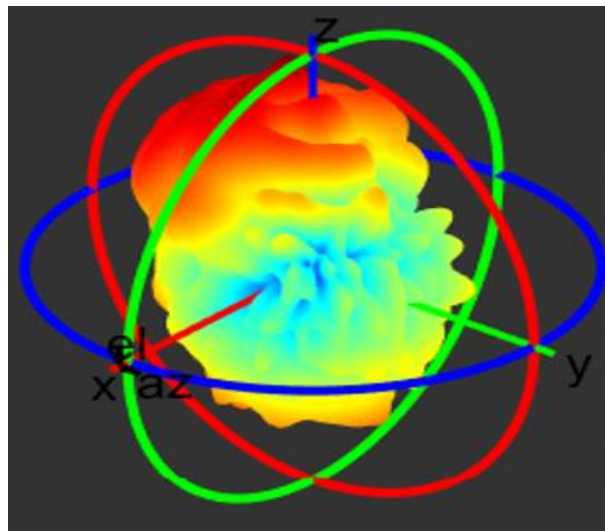
Max Antenna 3D Radiation Pattern 5725-5850 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5725-5850	2.22



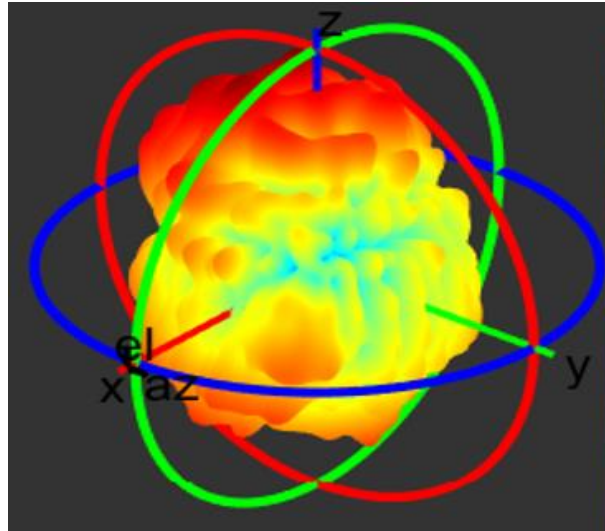
Max Antenna 3D Radiation Pattern 5850-5895 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5850-5895	1.93



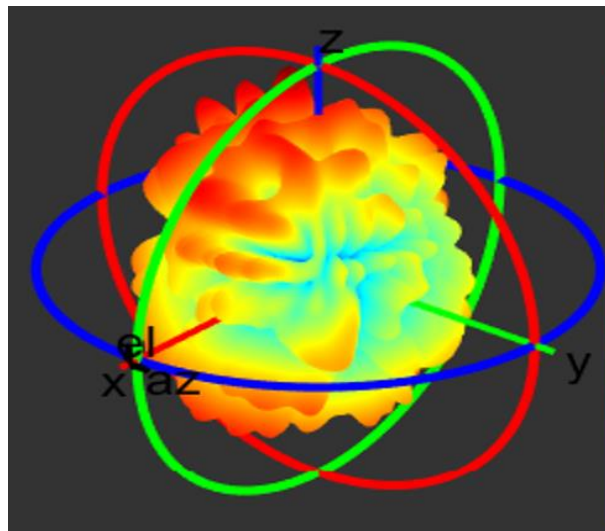
Max Antenna 3D Radiation Pattern 5925-6425 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5925-6425	2.31



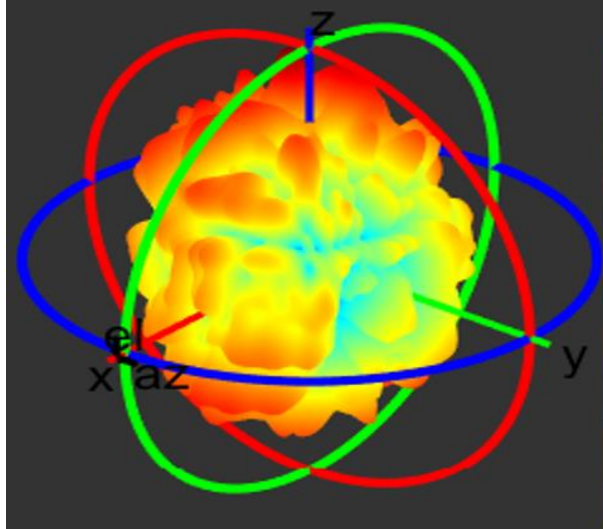
Max Antenna 3D Radiation Pattern 6425-6525 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6425-6525	2.41



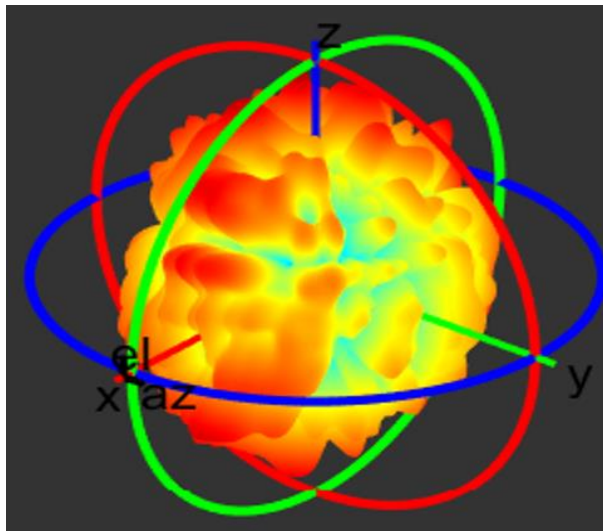
Max Antenna 3D Radiation Pattern 6525-6875 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6525-6875	1.71



Max Antenna 3D Radiation Pattern 6875-7125 MHz

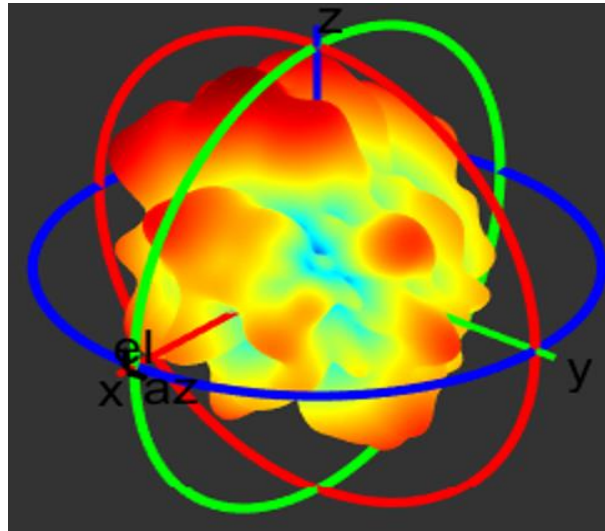
Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6875-7125	2.08



Auxiliary Antenna

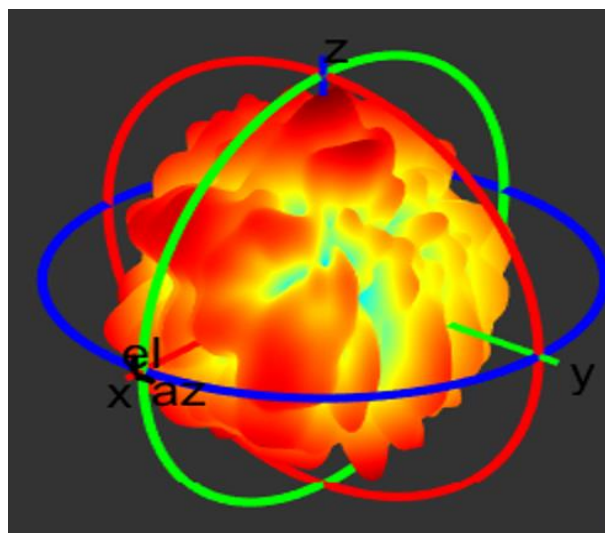
Max Antenna 3D Radiation Pattern 2400 – 2483.5 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
2400-2483.5	1.92



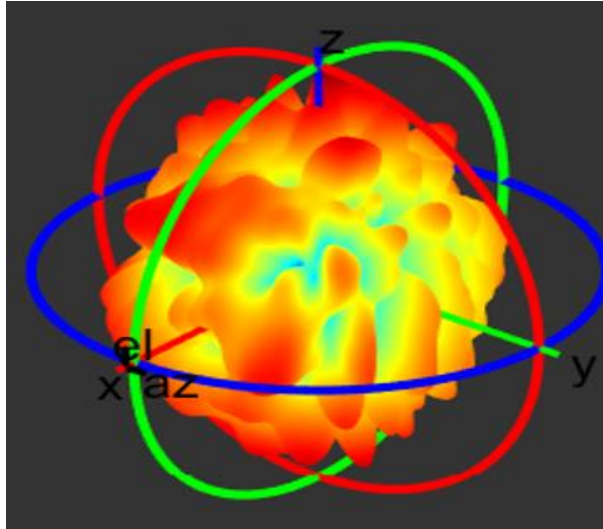
Max Antenna 3D Radiation Pattern 5150-5250 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5150-5250	2.07



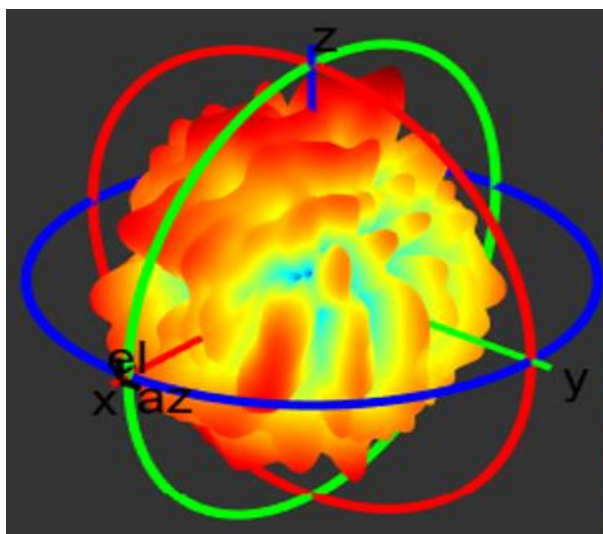
Max Antenna 3D Radiation Pattern 5250-5350 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5250-5350	2.21



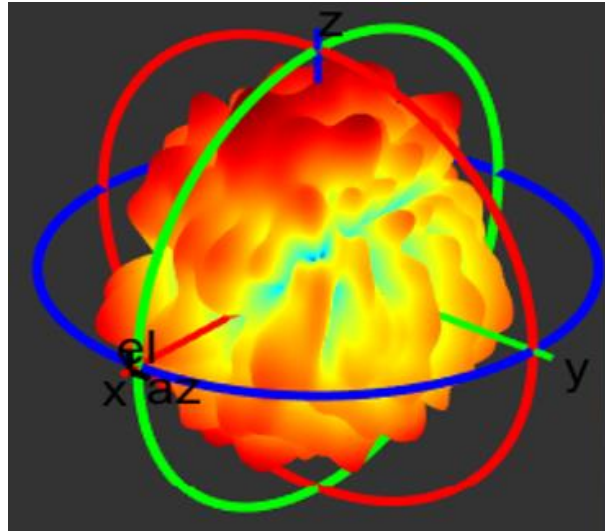
Max Antenna 3D Radiation Pattern 5470-5725 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5470-5725	2.08



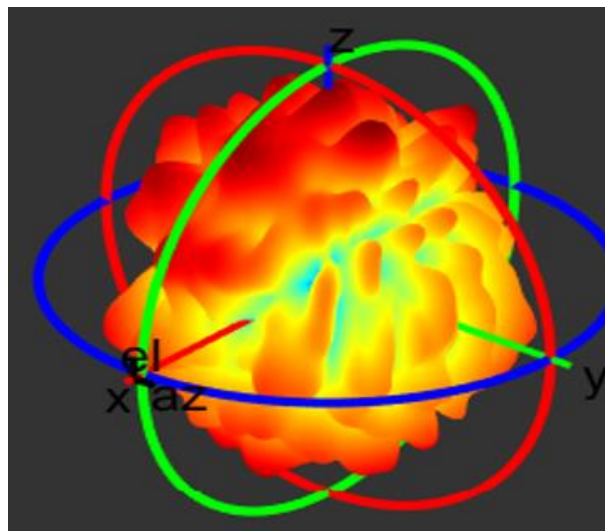
Max Antenna 3D Radiation Pattern 5725-5850 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5725-5850	1.55



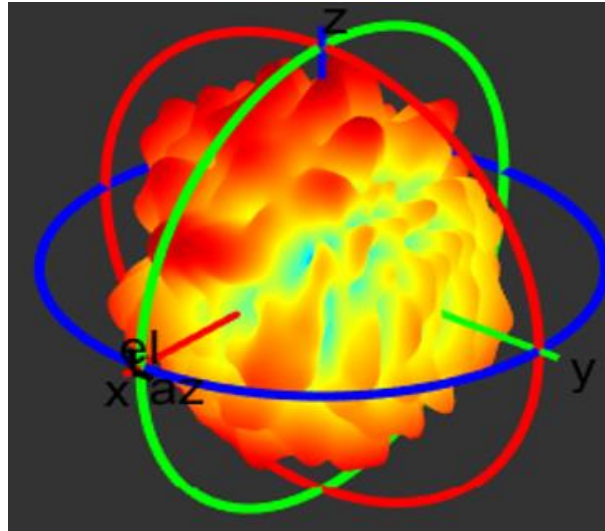
Max Antenna 3D Radiation Pattern 5850-5895 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5850-5895	2.37



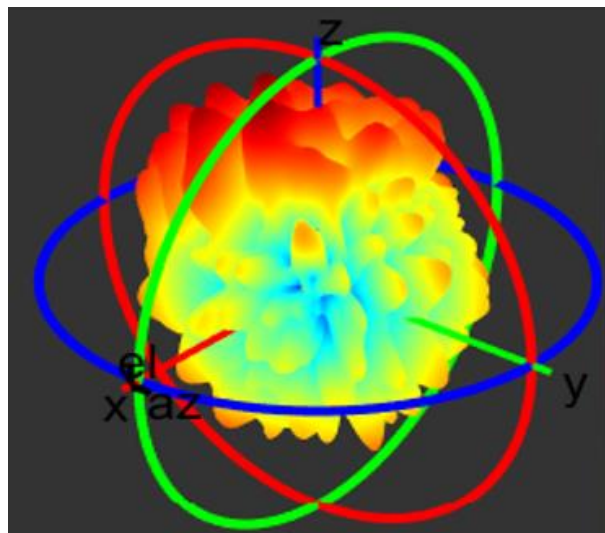
Max Antenna 3D Radiation Pattern 5925-6425 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5925-6425	1.84



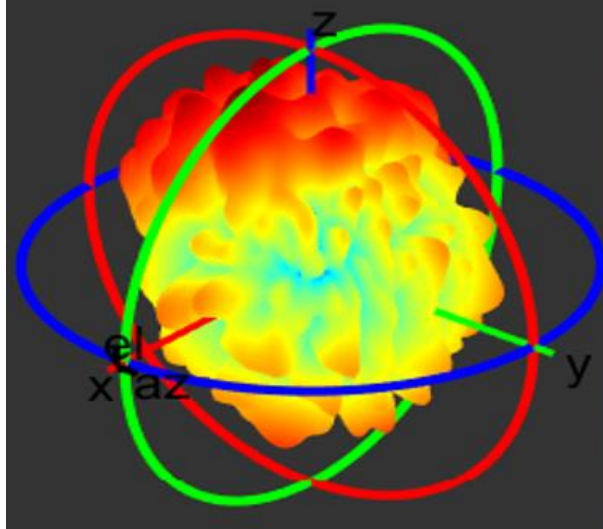
Max Antenna 3D Radiation Pattern 6425-6525 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6425-6525	2.18



Max Antenna 3D Radiation Pattern 6525-6875 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6525-6875	1.74



Max Antenna 3D Radiation Pattern 6875-7125 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6875-7125	1.96

