

ANTENNA INFORMATION

OEM	Lenovo
ODM	HQ
Platform model name	Yoga Pro 7 14AHP9
Intel platform (ex: Yes, No or NA)	NA
Platform type (ex: regular NB, convertible PC, AIO...etc)	Regular NB
SAR minimum separation (mm)	11.1

Antenna manufacturer	INPAQ Technology Co., Ltd.	
Address	No.5 Chunqiu Road, Panyang Industrial Park Huangdai Town, Xiangcheng Zone, Suzhou Jiangsu Province China	
Antenna Part number	Main: WA-P-LELE-04-050	Aux: WA-P-LELE-04-050
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)	2.96	3.17	3.27	2.87	3.03	2.90	3.51	2.63	3.18	2.98
	cable loss (dB)	0.56	0.75	0.75	0.75	0.75	0.75	1.0	1.1	1.1	1.1
Aux	Peak gain(dBi)	2.89	2.93	2.84	3.32	2.97	3.02	3.34	3.45	3.69	3.20
	cable loss (dB)	0.68	0.97	0.97	0.97	0.97	0.97	1.1	1.2	1.2	1.2

Cable Assembly Part Number and Information						
	Cable PN	Cable length(mm)	Cable diameter(mm)	Impedance(ohm)	Connector type Brand/ Part Number	Connector type
Main	WA-P-LELE-04-050	186	1.13	50	I-PEX: 20565-001R-13	MHF-4L
Aux	WA-P-LELE-04-050	240	1.13	50	I-PEX: 20565-001R-13	MHF-4L

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

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1. 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

This test report is prepared by testing in a dark room that is completely silenced and shielded from external signals .

3.3 Equipment list

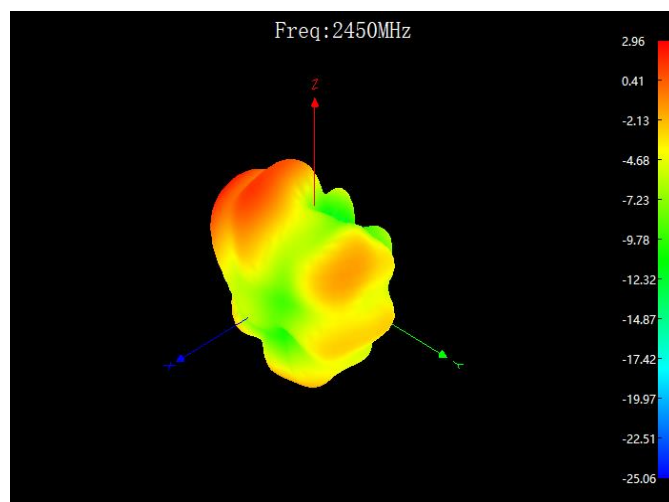
Number	Device	Type/Model	Serial#	Manufacturer	Cal. Date	Due Date
1	EMT24 Chamber	TEM433	1501812	TEM	2022/1/16	2024/4/15
2	Equipment Switching Unit	ESU-001	1501813	TEM	2022/8/16	2024/4/15
3	Power Amplifier Unit	PAU-001	1501814	TEM	2022/8/16	2024/4/15
4	Transmit Switching Unit	TSU-001	1501815	TEM	2022/8/16	2024/4/15
5	Power Control Unit	PCU-001	1501816	TEM	2022/8/16	2024/4/15
6	Test system host	Lenovo	1501827	TEM	2022/8/16	2024/8/15
7	Tx/rx RF power and its control unit	PCU-002	1501817	TEM	2022/8/16	2024/4/15
8	Network analyzer	E5071C	1501803	Agilent Technologies	2022/8/16	2024/8/15
9	RF line TX	Z112	1501818	TEM	2022/8/16	2024/4/15
10	RF line RX	Z112	1501819	TEM	2022/8/16	2024/4/15
11	UPS uninterruptible power supply	SANTAK-2700	1501820	TEM	N/A	N/A
12	24 Probe Antenna	TEM1355	1501821	TEM	2022/8/16	2024/4/15
13	General-purpose Tester	MT8000A	166435	Anritsu	2022/8/16	2024/8/15
14	General-purpose Tester	CMW500	15019153	ROHDE&SCHWARZ	2022/8/16	2024/8/15
15	General-purpose Tester	MT8821C	166429	Anritsu	2022/8/16	2024/8/15

4. Radiation characteristics of antenna loaded in Host Platform

Main Antenna

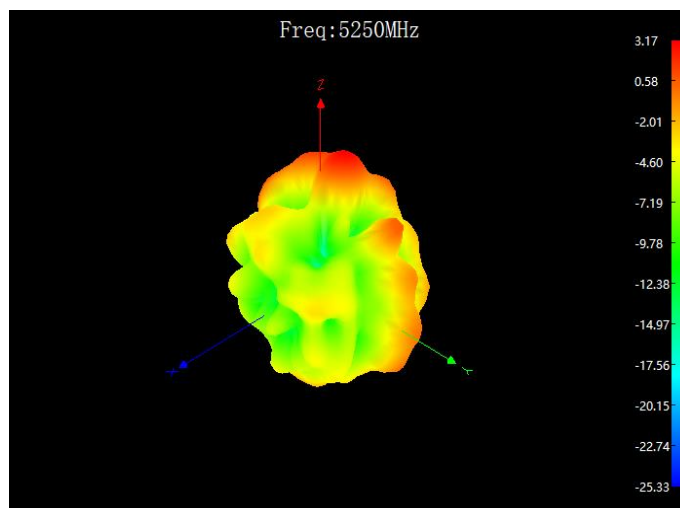
Max Antenna 3D Radiation Pattern 2400 – 2483.5 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
2400-2483.5	2.96



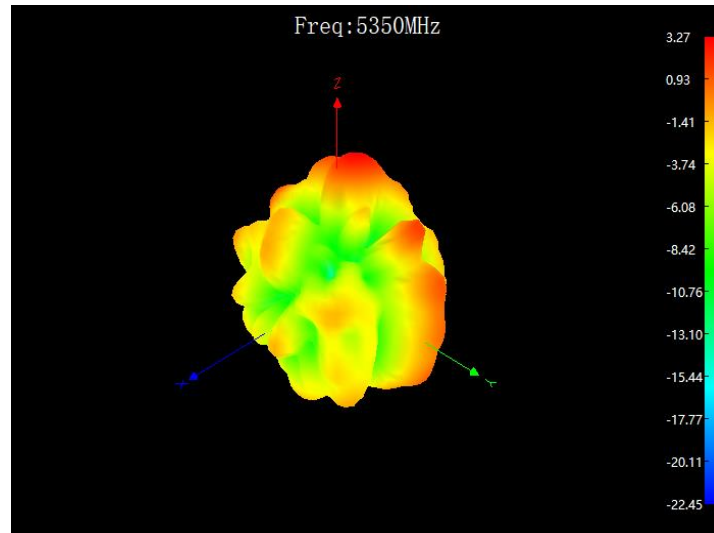
Max Antenna 3D Radiation Pattern 5150-5250 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5150-5250	3.17



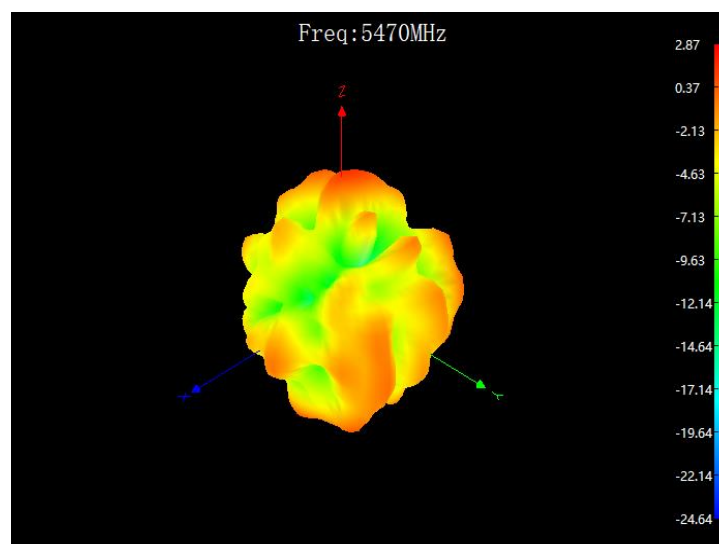
Max Antenna 3D Radiation Pattern 5250-5350 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5250-5350	3.27



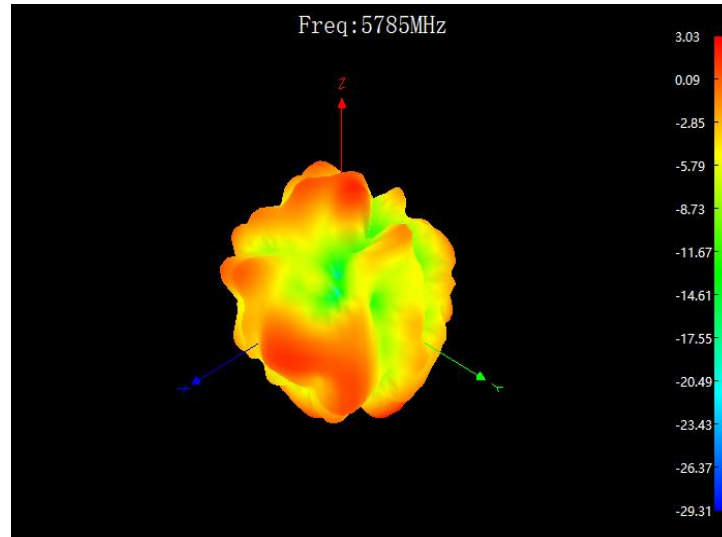
Max Antenna 3D Radiation Pattern 5470-5725 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5470-5725	2.87



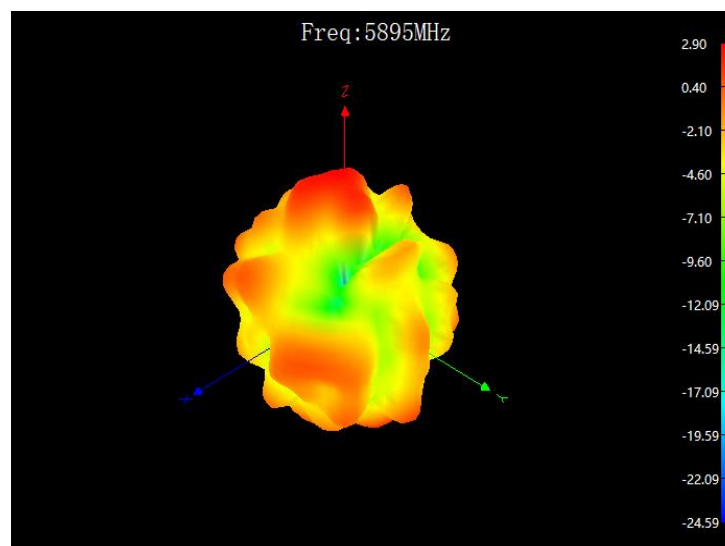
Max Antenna 3D Radiation Pattern 5725-5850 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5725-5850	3.03



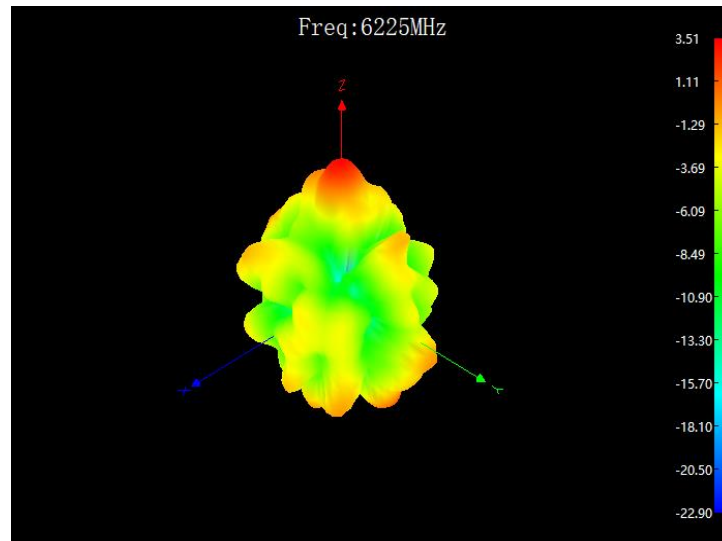
Max Antenna 3D Radiation Pattern 5850-5895 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5850-5895	2.90



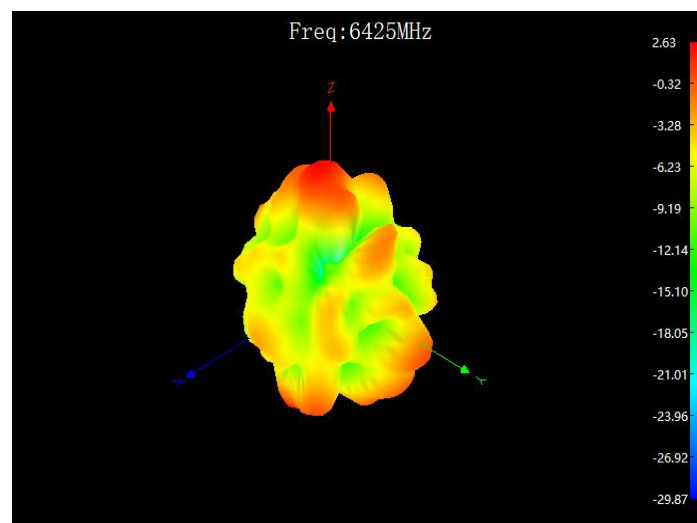
Max Antenna 3D Radiation Pattern 5925-6425 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5925-6425	3.51



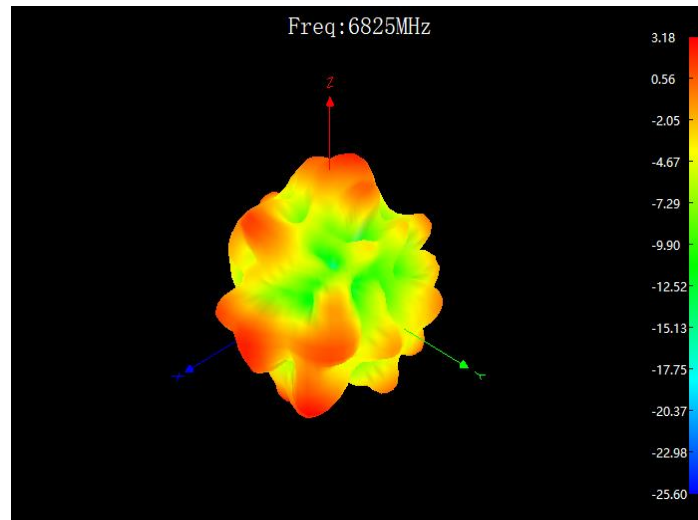
Max Antenna 3D Radiation Pattern 6425-6525 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6425-6525	2.63



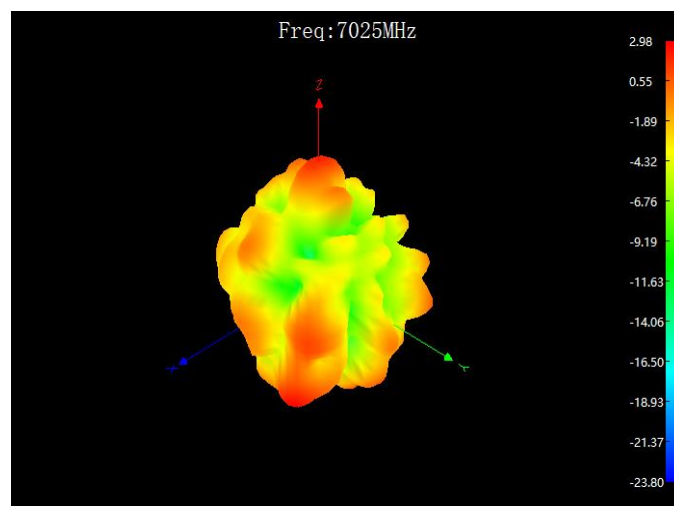
Max Antenna 3D Radiation Pattern 6525-6875 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6525-6875	3.18



Max Antenna 3D Radiation Pattern 6875-7125 MHz

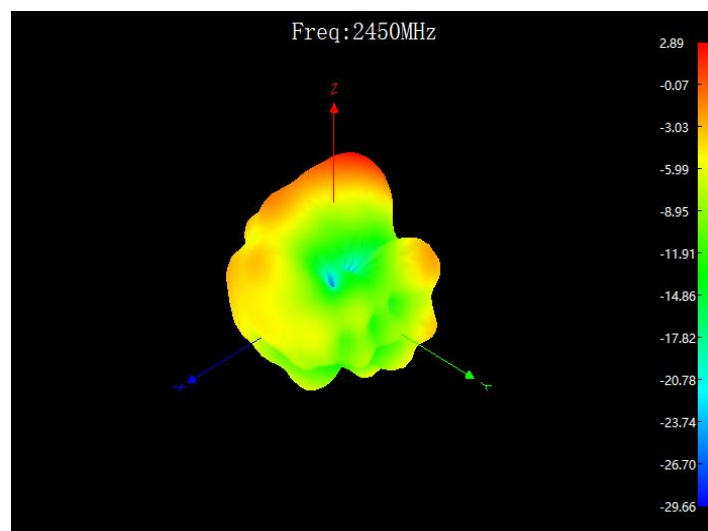
Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6875-7125	2.98



Auxiliary Antenna

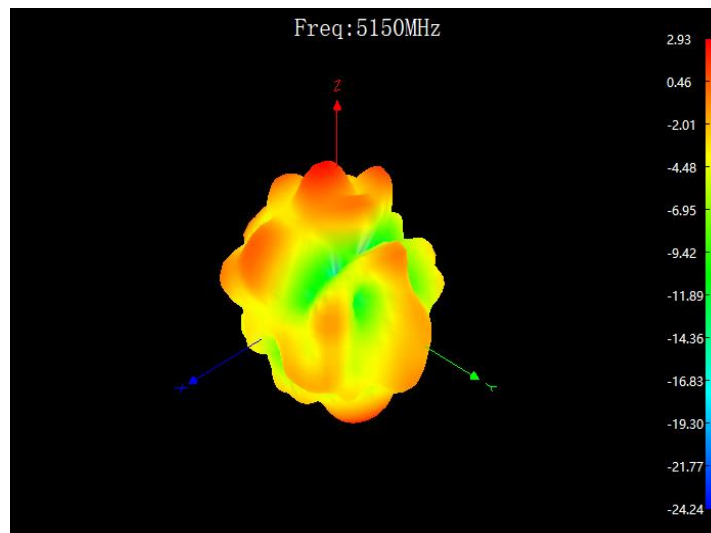
Max Antenna 3D Radiation Pattern 2400 – 2483.5 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
2400-2483.5	2.89



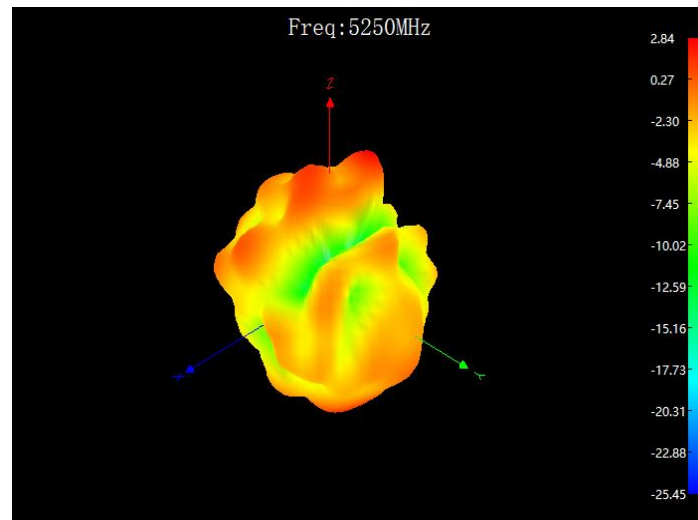
Max Antenna 3D Radiation Pattern 5150-5250 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5150-5250	2.93



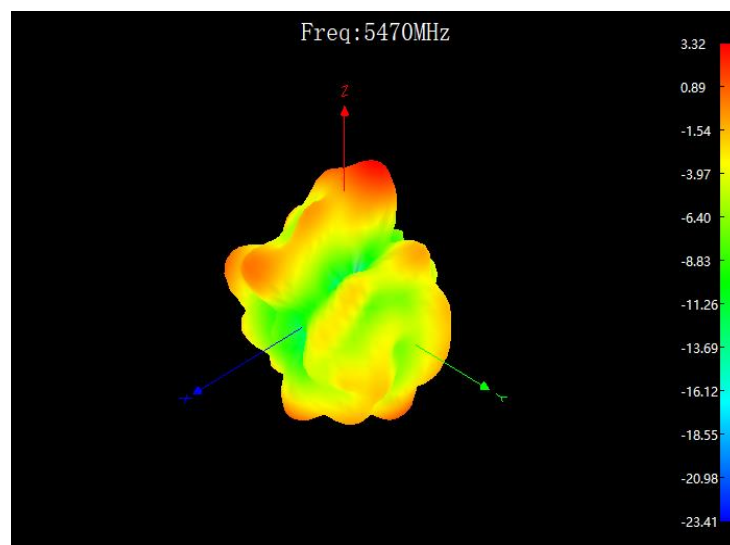
Max Antenna 3D Radiation Pattern 5250-5350 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5250-5350	2.84



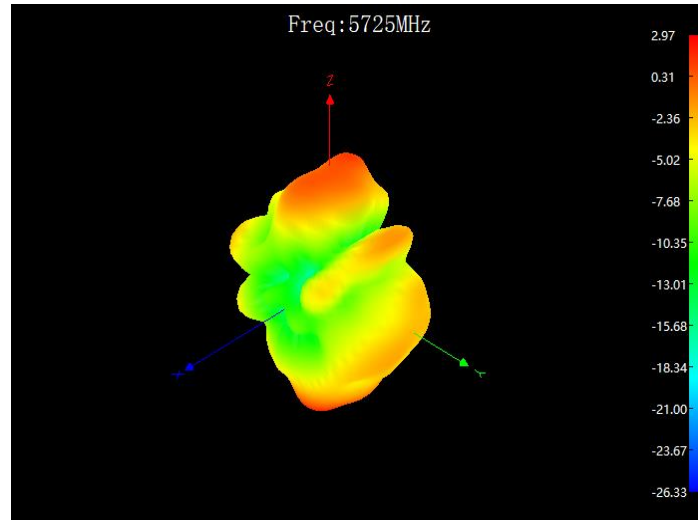
Max Antenna 3D Radiation Pattern 5470-5725 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5470-5725	3.32



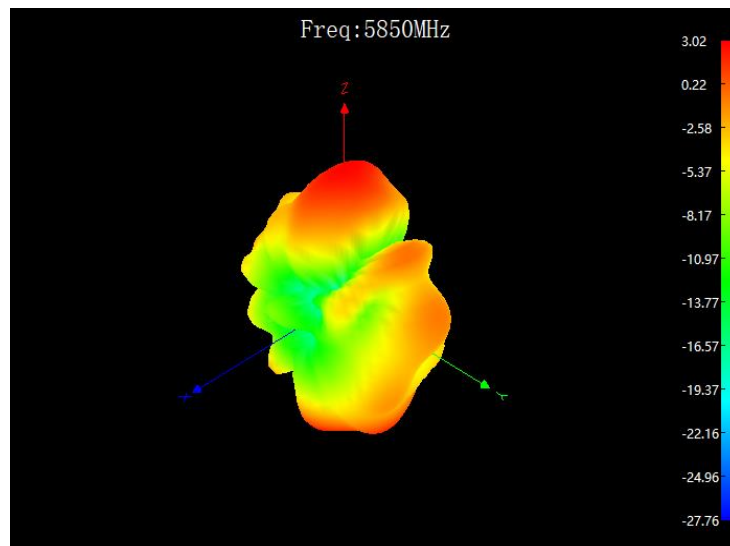
Max Antenna 3D Radiation Pattern 5725-5850 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5725-5850	2.97



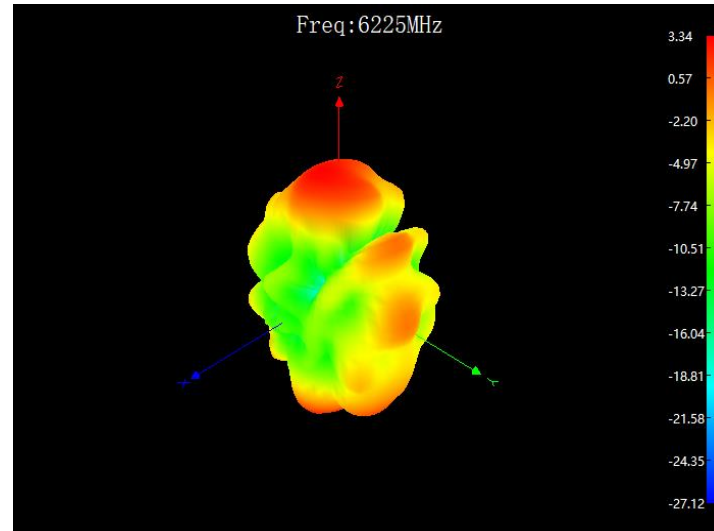
Max Antenna 3D Radiation Pattern 5850-5895 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5850-5895	3.02



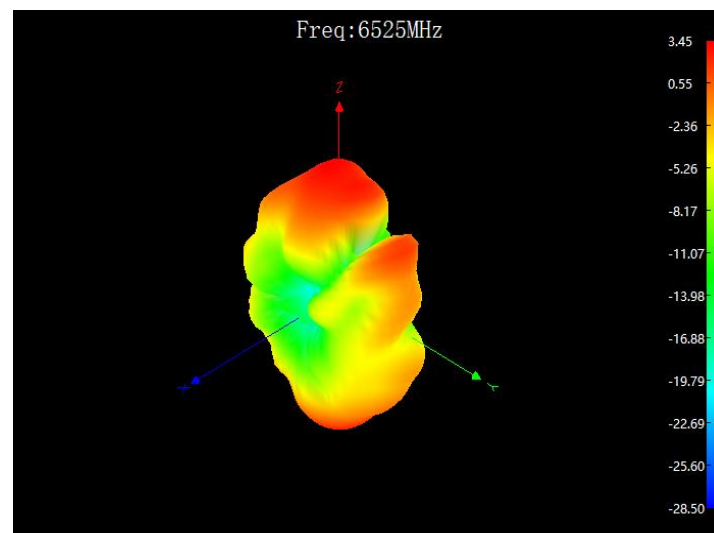
Max Antenna 3D Radiation Pattern 5925-6425 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5925-6425	3.34



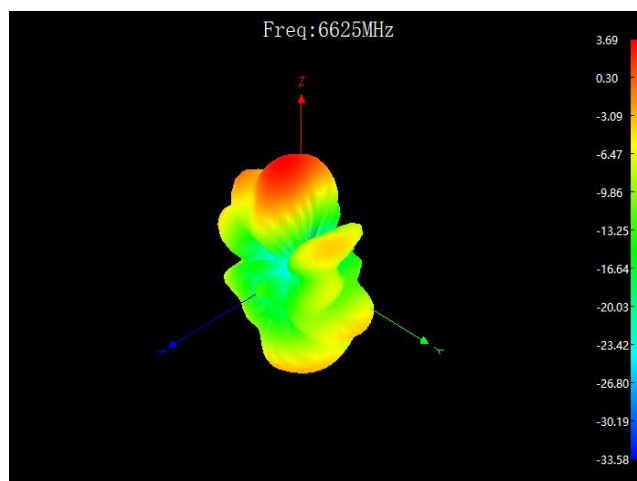
Max Antenna 3D Radiation Pattern 6425-6525 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6425-6525	3.45



Max Antenna 3D Radiation Pattern 6525-6875 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6525-6875	3.69



Max Antenna 3D Radiation Pattern 6875-7125 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6875-7125	3.20

