

ANTENNA INFORMATION

OEM	Dell Inc.
ODM	Wistron
Platform model name	P151F
AMD platform (ex: Yes, No or NA)	YES
Platform type (ex: regular NB, convertible PC, AIO...etc)	Regular NB
SAR minimum separation (mm)	FCC (1g) 4.12mm
	ISED (1g) 4.12mm
	ISED (10g) 4.12mm

Antenna manufacturer	Company name	Hong Bo Co., Ltd..
	Address	4F., No.143, Sinhu 1st Rd., Neihu Dist., Taipei City, 11494 Taiwan
Test location	Company name	Sporton International Inc.
	Address	No.52, Hwaya 1 st Rd., Hwaya Technology Park, Guishan Dist., Taoyuan City, Taiwan, R.O.C.
Test Personnel	Name(Full name)	Liu Che Ming
	E-mail	kurtliu@hong-bo.com.tw
	Tel/Mobile	02-27926009
Testing date		2026/02/24

Antenna Part number	Main	260-29234
	Aux	260-29235
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	2.89	1.15	0.99	1.08	0.76	0.55	1.80	2.09	2.14	1.15
Aux	2.03	1.70	1.45	2.78	2.80	2.48	3.48	3.50	3.80	3.44

Cable Assembly Part Number and Information					
	Cable PN	Cable length(mm)	Cable diameter(mm)	Impedance(ohm)	Connector type
Main	SY113L/50-143(White)	622	1.13 SLL	50	IPEX, 20565-001R-13
Aux	SY113L/50-118(Black)	306	1.13 SLL	50	IPEX, 20565-001R-13

Cable Loss Part Number and Information					
	model	Peak gain with cable loss	Cable Loss (dB)	Antenna Type	Connector type
Main	260-29234	2.89dBi @ 2.4GHz 1.15dBi @ 5GHz 1.80dBi @ 5.925~6.425GHz 2.09dBi @ 6.425~6.525GHz 2.14dBi @ 6.525~6.875GHz 1.15dBi @ 6.875~7.125GHz	1.36dB @2.4G 2.46dB @5G 2.64dBi @ 5.925~6.425GHz 2.68dBi @ 6.425~6.525GHz 2.80dBi @ 6.525~6.875GHz 2.82dBi @ 6.875~7.125GHz	PIFA	I-PEX(MHF-4L)
Aux	260-29235	2.03dBi @ 2.4GHz 2.80dBi @ 5GHz 3.48dBi @ 5.925~6.425GHz 3.50dBi @ 6.425~6.525GHz 3.80dBi @ 6.525~6.875GHz 3.44dBi @ 6.875~7.125GHz	0.67dB @2.4G 1.21dB @5G 1.30dBi @ 5.925~6.425GHz 1.32dBi @ 6.425~6.525GHz 1.38dBi @ 6.525~6.875GHz 1.39dBi @ 6.875~7.125GHz	PIFA	I-PEX(MHF-4L)

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1. AMD 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

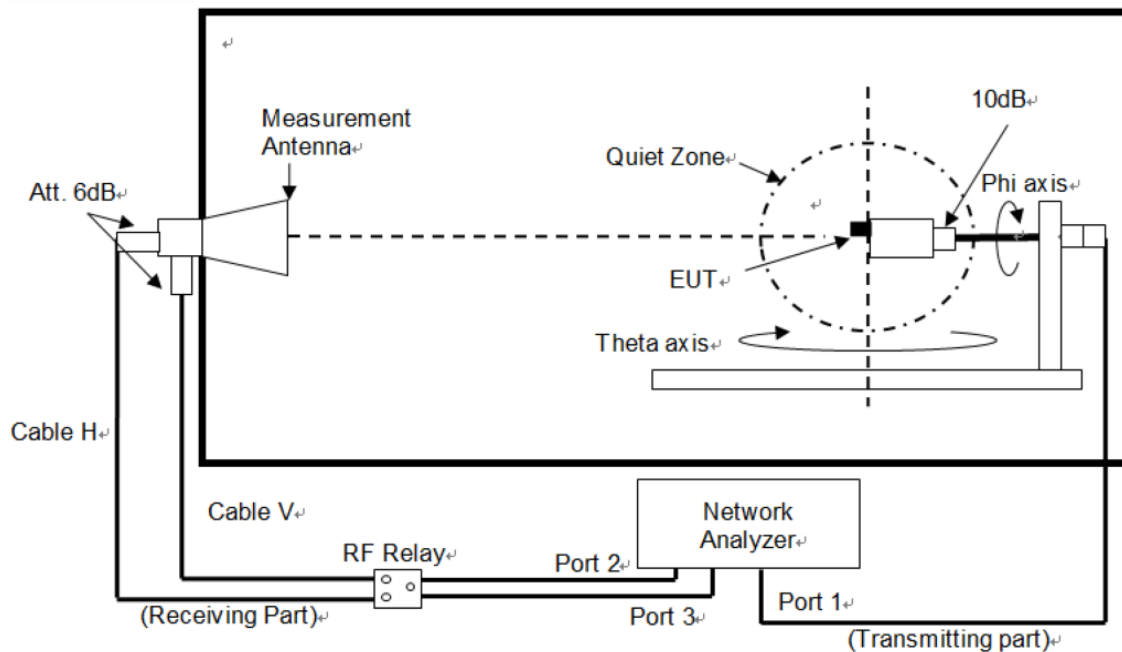
Revision #	Revision Details	Issued Date
Rev. 00	First Issue	2026.02.24

3. Test & System Description

3.1 Measurement Method and System

The testing of antenna gain should be made at a CTIA qualified lab with an RF anechoic chamber with at least 3-meter separation from the receive antenna to the antenna under test. The antenna gain report from unqualified lab can't be referenced a passing. Besides, all test equipment including horn antennas, adapters, cables, network analyzers, and receivers shall be calibrated per manufacturer's minimum calibration requirements.

3.2 Test setup



3.3 Equipment list

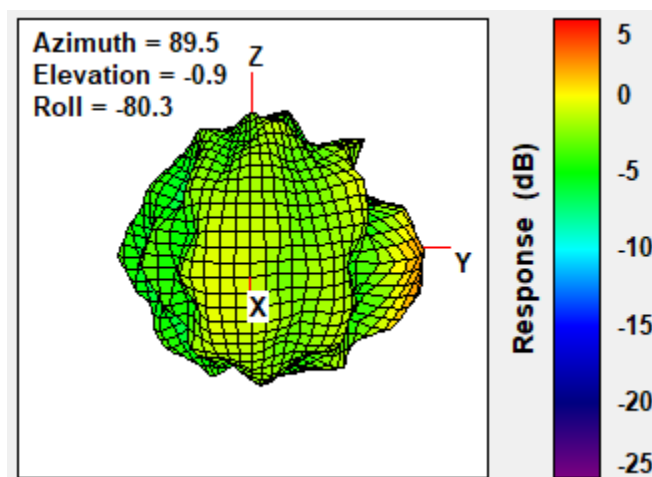
Device	Type/Model	Serial #	Manufacturer	Cal. Date	Cal. Due Date
ENA Series vector network analyzer	E5080B	MY59500745	Keysight	2025/05/20	2026/5/19
RF Switch	EMCENTER™	N/A	ETS	NCR	NCR
Multi-Axis Positioner Controller	2090	N/A	ETS-Lindgren	N/A	N/A
Medium-Duty Positioner	2015	N/A	ETS-Lindgren	N/A	N/A
Measurement Horn Antenna	3164-08	00086722	EMCO	NCR	NCR
Anechoic Chamber	AMS-8500	N/A	ETS-Lindgren	2025/10/22	2026/10/21

4. Radiation characteristics of antenna loaded in Host Platform

Main Antenna

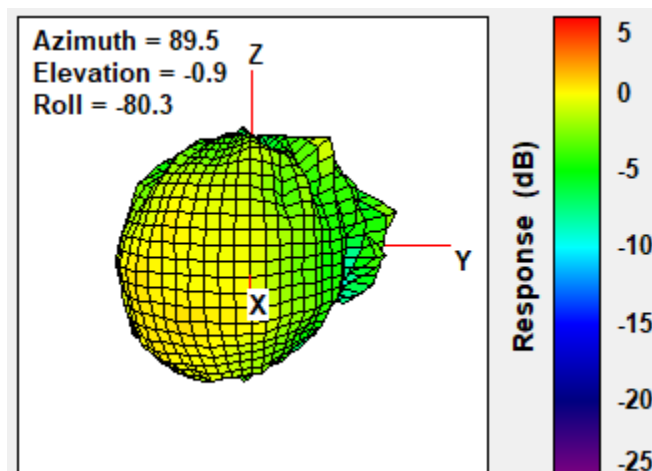
Max Antenna 3D Radiation Pattern 2400 – 2483.5 MHz

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



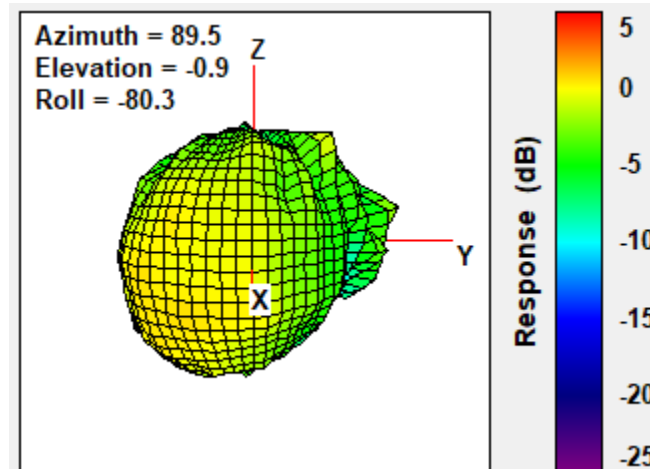
Max Antenna 3D Radiation Pattern 5150-5250 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5150-5250	1.15



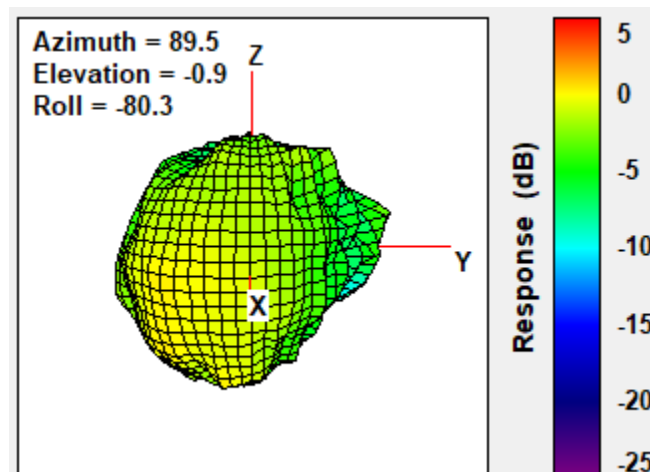
Max Antenna 3D Radiation Pattern 5250-5350 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5250-5350	0.99



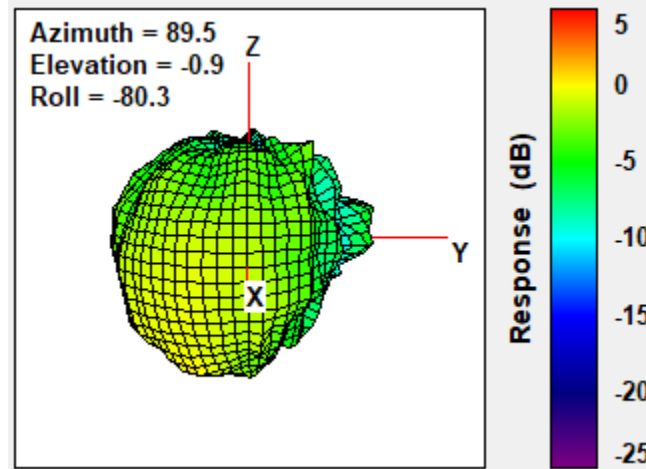
Max Antenna 3D Radiation Pattern 5470-5725 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5470-5725	1.08



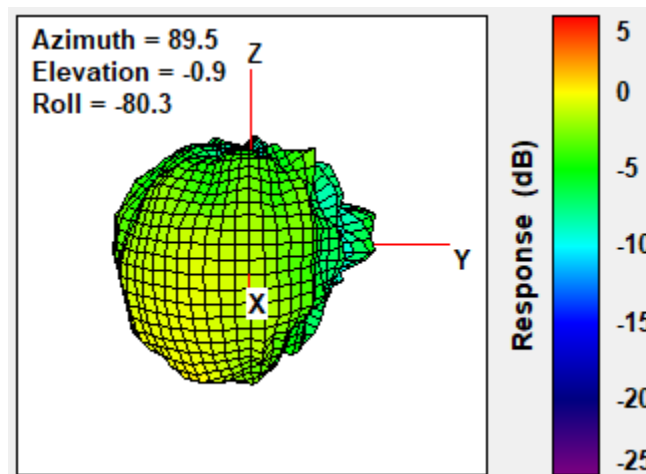
Max Antenna 3D Radiation Pattern 5725-5850 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5725-5850	0.76



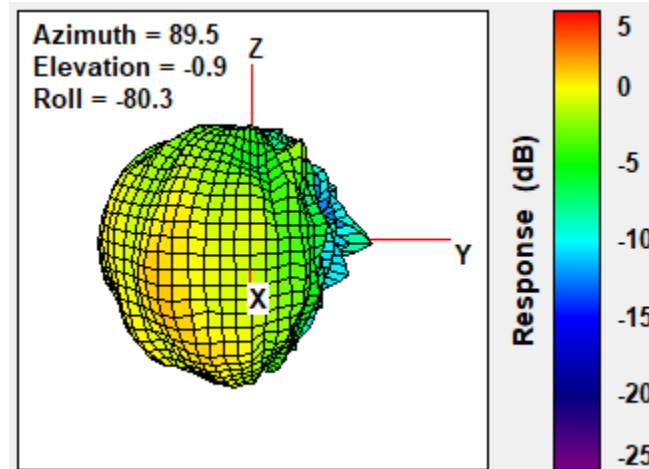
Max Antenna 3D Radiation Pattern 5850-5895 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5850-5895	0.55



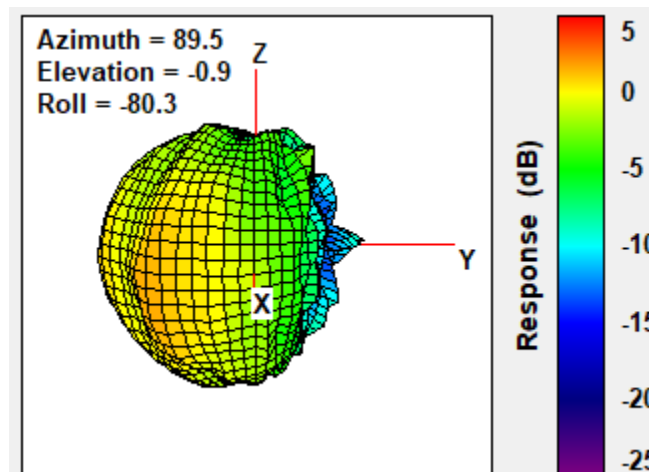
Max Antenna 3D Radiation Pattern 5925-6425 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5925-6425	1.80



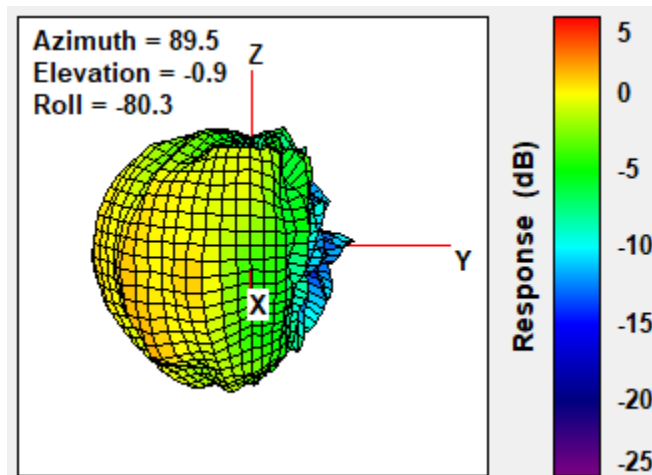
Max Antenna 3D Radiation Pattern 6425-6525 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6425-6525	2.09



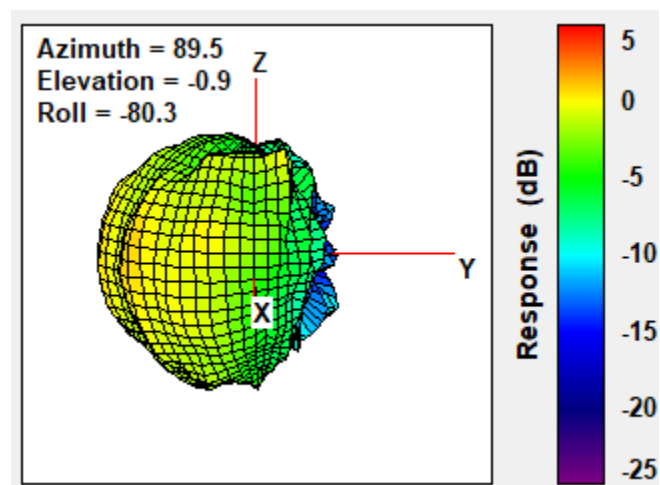
Max Antenna 3D Radiation Pattern 6525-6875 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6525-6875	2.14



Max Antenna 3D Radiation Pattern 6875-7125 MHz

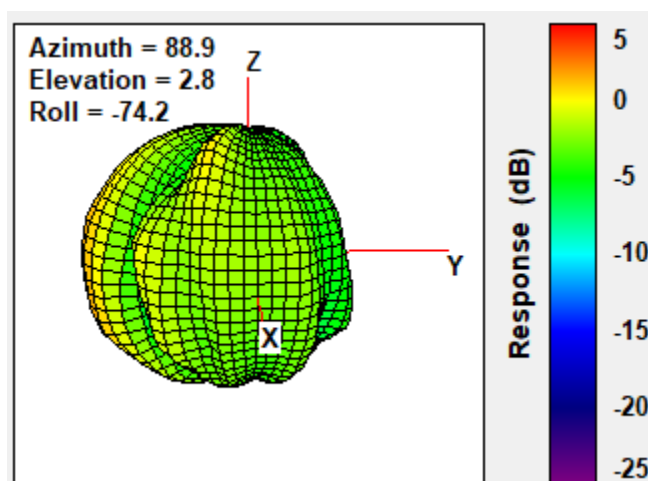
Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6875-7125	1.15



Auxiliary Antenna

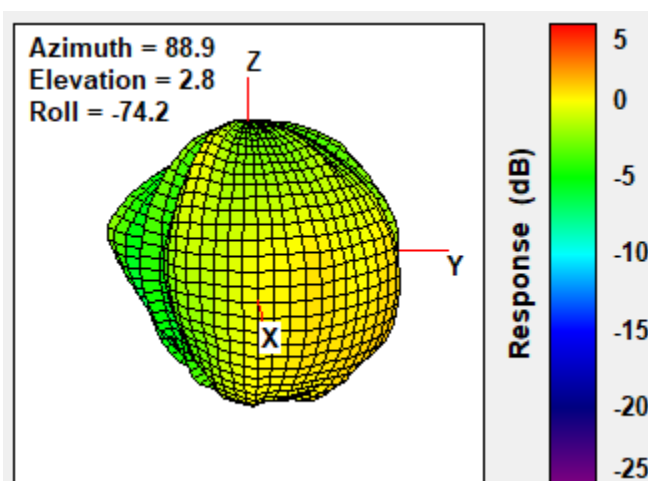
Max Antenna 3D Radiation Pattern 2400 – 2483.5 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
2400-2483.5	2.03



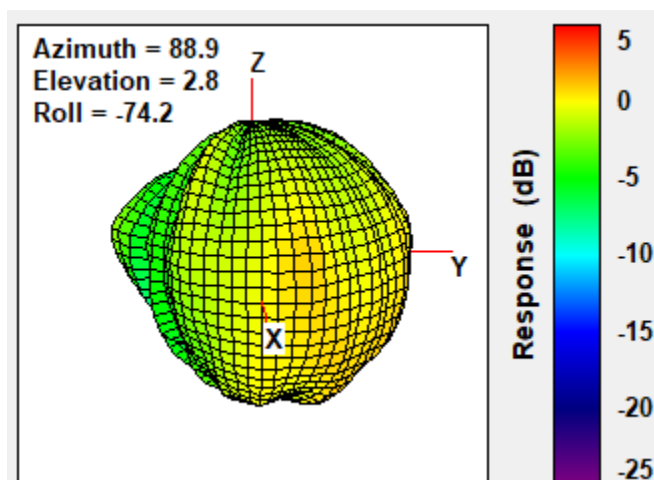
Max Antenna 3D Radiation Pattern 5150-5250 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5150-5250	1.70



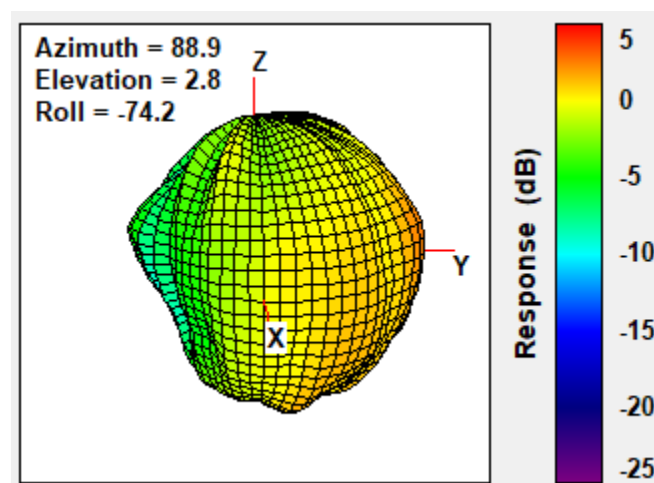
Max Antenna 3D Radiation Pattern 5250-5350 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5250-5350	1.45



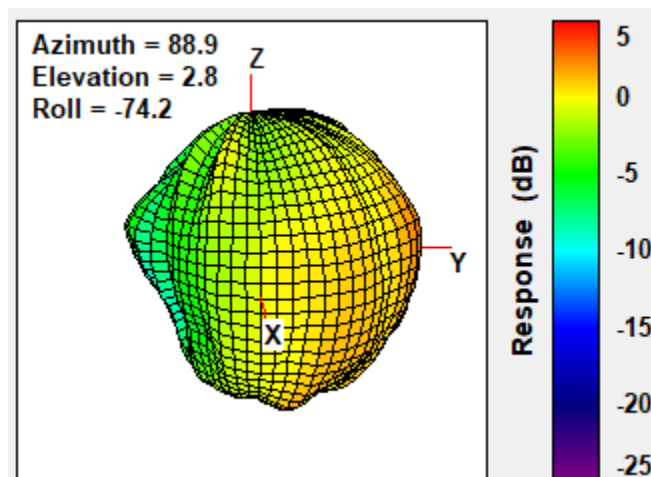
Max Antenna 3D Radiation Pattern 5470-5725 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5470-5725	2.78



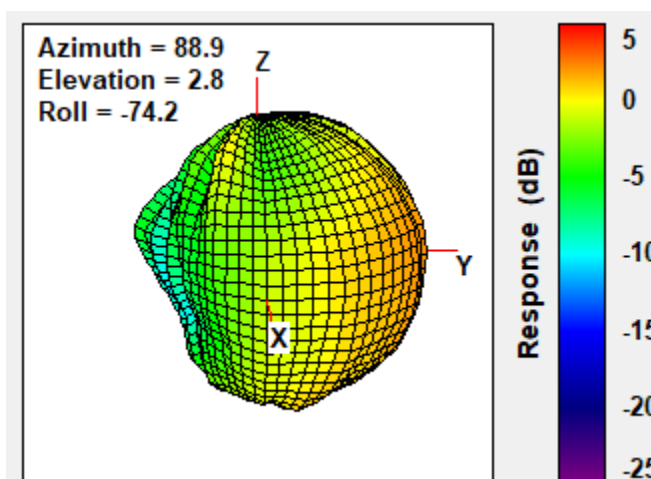
Max Antenna 3D Radiation Pattern 5725-5850 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5725-5850	2.80



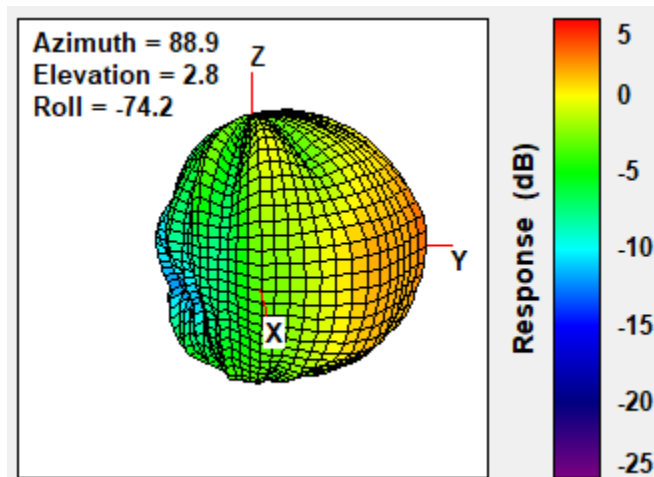
Max Antenna 3D Radiation Pattern 5850-5895 MHz

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



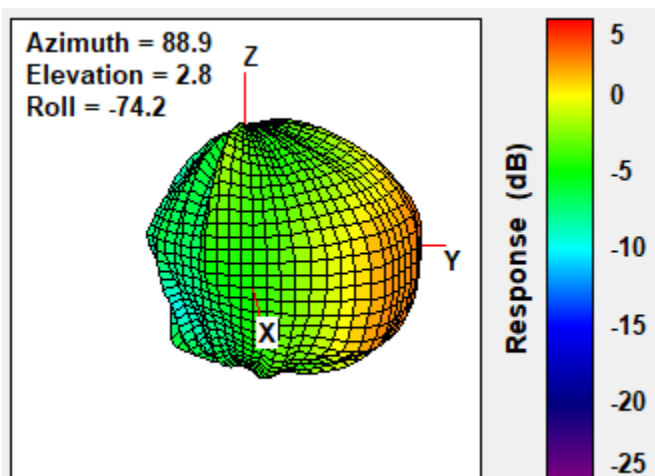
Max Antenna 3D Radiation Pattern 5925-6425 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5925-6425	3.48



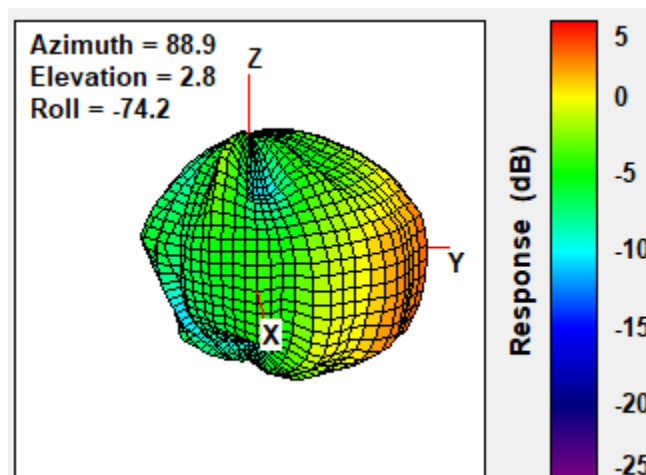
Max Antenna 3D Radiation Pattern 6425-6525 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6425-6525	3.50



Max Antenna 3D Radiation Pattern 6525-6875 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6525-6875	3.80



Max Antenna 3D Radiation Pattern 6875-7125 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6875-7125	3.44

