ANTENNA INFORMATION

OEM		Speed
ODM		Compal Electronics Inc.
Platform model name		P201G
Intel platform (ex: Yes, No or NA)		Yes
Platform type (ex: regular NB, convertible PC, AIO…etc)		Regular NB
SAR minimum separation (mm)	FCC (1g)	1.7mm (w/bumper) 1.1 mm (w/o bumper)
	ISED (1g)	1.7 mm (w/bumper) 1.1mm (w/o bumper)
	ISED (10g)	1 mm

Antenna manufacturer	Company name	Speed Wireless Co., Ltd.
	Address	25F., No. 95, Xinpu 6th St., Taoyuan Dist., Taoyuan City 33044, Taiwan (R.O.C.)
Test location	Company name	Speed Wireless Co., Ltd.
	Address	25F., No. 95, Xinpu 6th St., Taoyuan Dist., Taoyuan City 33044, Taiwan (R.O.C.)
Test Personnel	Name(Full name)	Carina Wu
	E-mail	Carina_wu@speed-hz.com
	Tel/Mobile	03-3253360
Testing date		2025/01/15

Antenna Part number	Main	Compal P/N：DC33002YI0L Antenna P/N：F-0G-FH-6183-001-00
	Aux	Compal P/N：DC33002YI0L Antenna P/N：F-0G-FH-6183-001-00
Antenna type (ex: PIFA, Dipole…etc)		Monopole

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	2.48	1.03	0.85	0.55	2.28	2.28	2.85	3.48	3.48	2.30
Aux	1.54	2.87	1.66	1.73	0.97	0.97	2.65	2.65	2.51	3.07

Cable Assembly Part Number and Information					
	Cable PN	**Cable length**(mm)	**Cable diameter**(mm)	**Impedance**(ohm)	**Connector type**
Main	SY113L/50-143	162	1.13	50	I-PEX MHF-4L(20565-001)
Aux	SY113L/50-118	259	1.13	50	I-PEX MHF-4L(20565-001)

* 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	-0.36	-0.57	-0.58	-0.62	-0.63	-0.64	-0.68	-0.67	-0.70	-0.73
Aux	-0.55	-0.91	-0.93	-0.99	-1.02	-1.02	-1.09	-1.07	-1.12	-1.16

Table of Contents

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	

3. Test & System Description

3.1 Measurement Method and System

<insert test description here for test method>

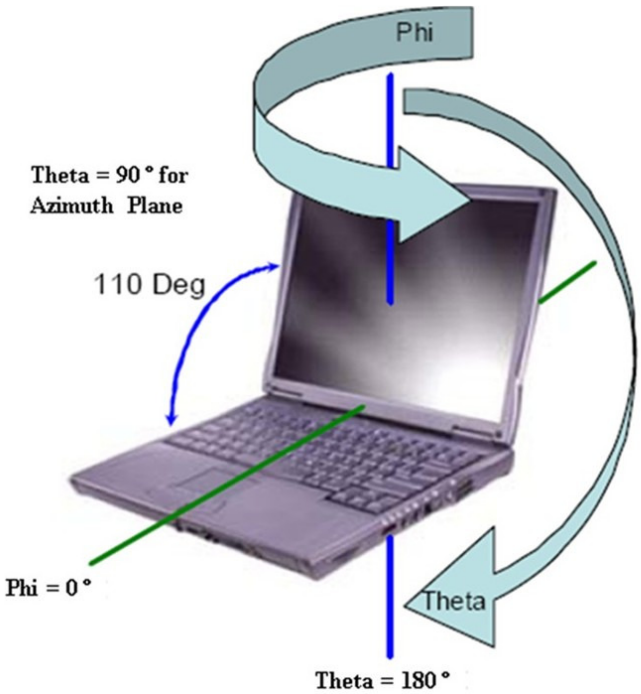
ETS-Lindgren AMS-8500 system is 3D fully anechoic chamber, it is applied to the "Conical Cut test method", the detail description is described as below.

The Conical Cut method requires the ability of the Measurement Antenna to be physically rotated in the theta plane (overhead) of the EUT for implementations using a single Measurement Antenna, Eleven conical cuts are required to capture data at every 15 degrees from the EUT, with the top (0 degrees) and bottom (180 degrees) cuts not being measured. Typically, the EUT will remain affixed to a turntable during the entire measurement process. The Measurement Antenna will be positioned at a starting theta angle. The EUT will then be rotated around the full 360 degrees of phi rotation. The Measurement Antenna will then be positioned at the next theta angle, and the process repeated.

		θ -Axis	Φ-Axis
Passive	Step size	15º~165º step: 15º	0º~345º step: 15º
	N / M (Points)	12	24

3.2 Test setup

<insert test diagram here for test site utilized>



3.3 Equipment list

<insert test diagram here for test site utilized>

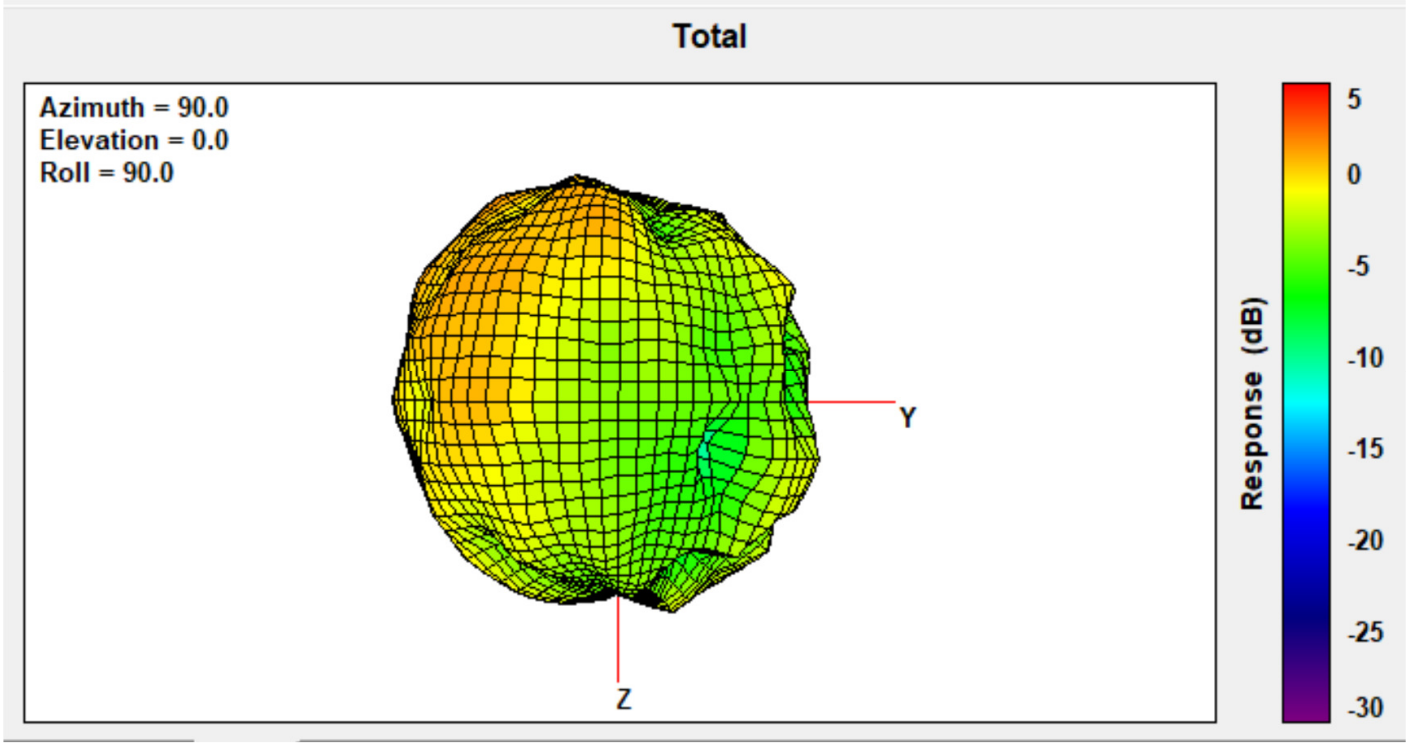
Device	Type/Model	Serial #	Manufacturer	Cal. Date	Cal. Due Date
Anechoic Chamber	AMS8500	-	ETS-Lindgren	22-Jun-22	10-Jul-25
Turn Table	2117-7200	SN00231447	ETS-Lindgren	22-Jun-22	10-Jul-25
Switch & Positioning systems	EMCenter	SN00242606	ETS-Lindgren	22-Jun-22	10-Jul-25
Measurement SW	EMQuest V1.15 build 27347	SN1802	ETS-Lindgren	22-Jun-22	10-Jul-25
Horn antenna	3164-10	SN00246202	ETS-Lindgren	22-Jun-22	10-Jul-25
Vector Network Analyzer	E5071C	PN5188-4462	Keysight	30-May-22	30-Nov-25
Cable 7.5m 400MHz to 18GHz(H-pol)	SS402	00100A1F5A1XXS	WOKEN	22-Jun-22	10-Nov-25
Cable 7.5m 400MHz to 18GHz(V-pol)	SS402	00100A1F5A1XXS	WOKEN	22-Jun-22	10-Nov-25
Cable 14m 400MHz to 18GHz	SS402	00100A1F5A1XXS	WOKEN	22-Jun-22	10-Nov-25
Temp & Humidity Logger	830	SN84972	PROVA	16-Jul-22	10-Jul-25

4. Radiation characteristics of antenna loaded in Host Platform

Main Antenna

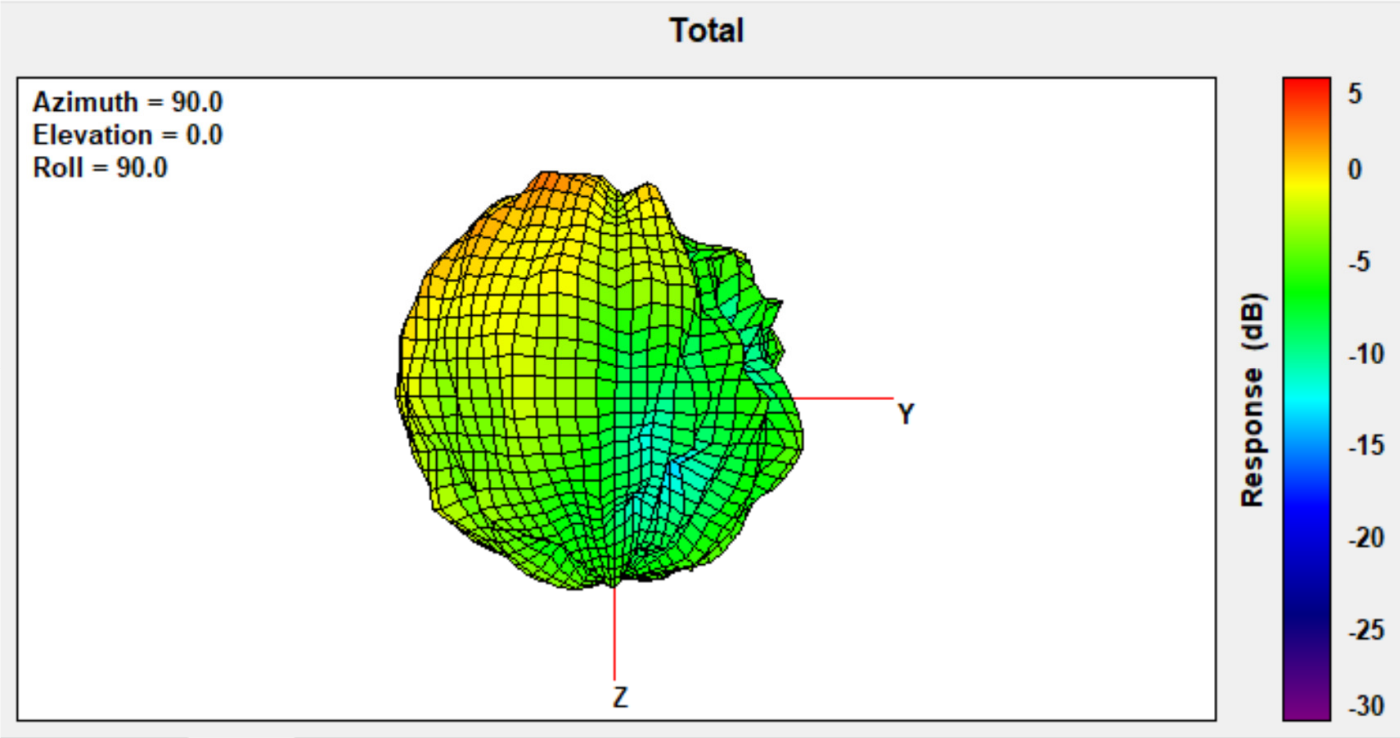
Max Antenna 3D Radiation Pattern 2400 – 2483.5 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
2400-2483.5	2.48



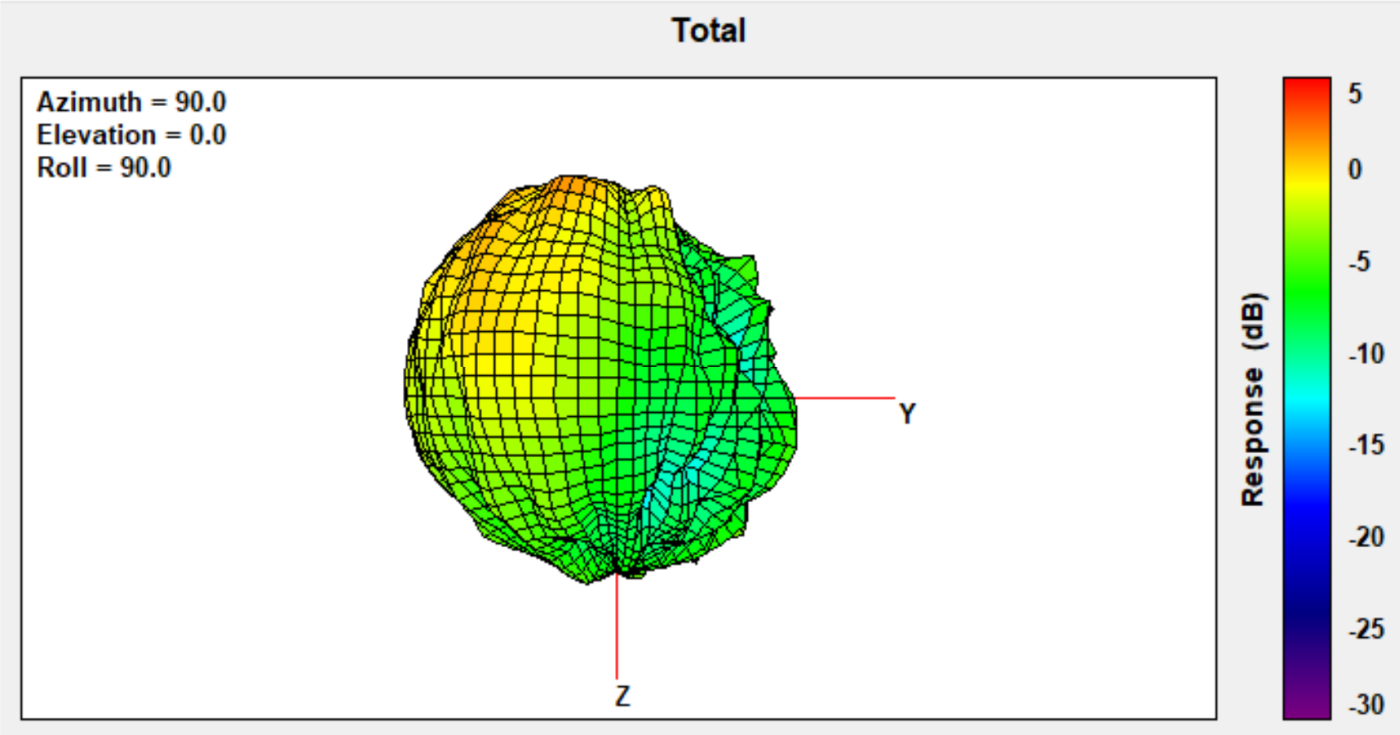
Max Antenna 3D Radiation Pattern 5150-5250 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5150-5250	1.03



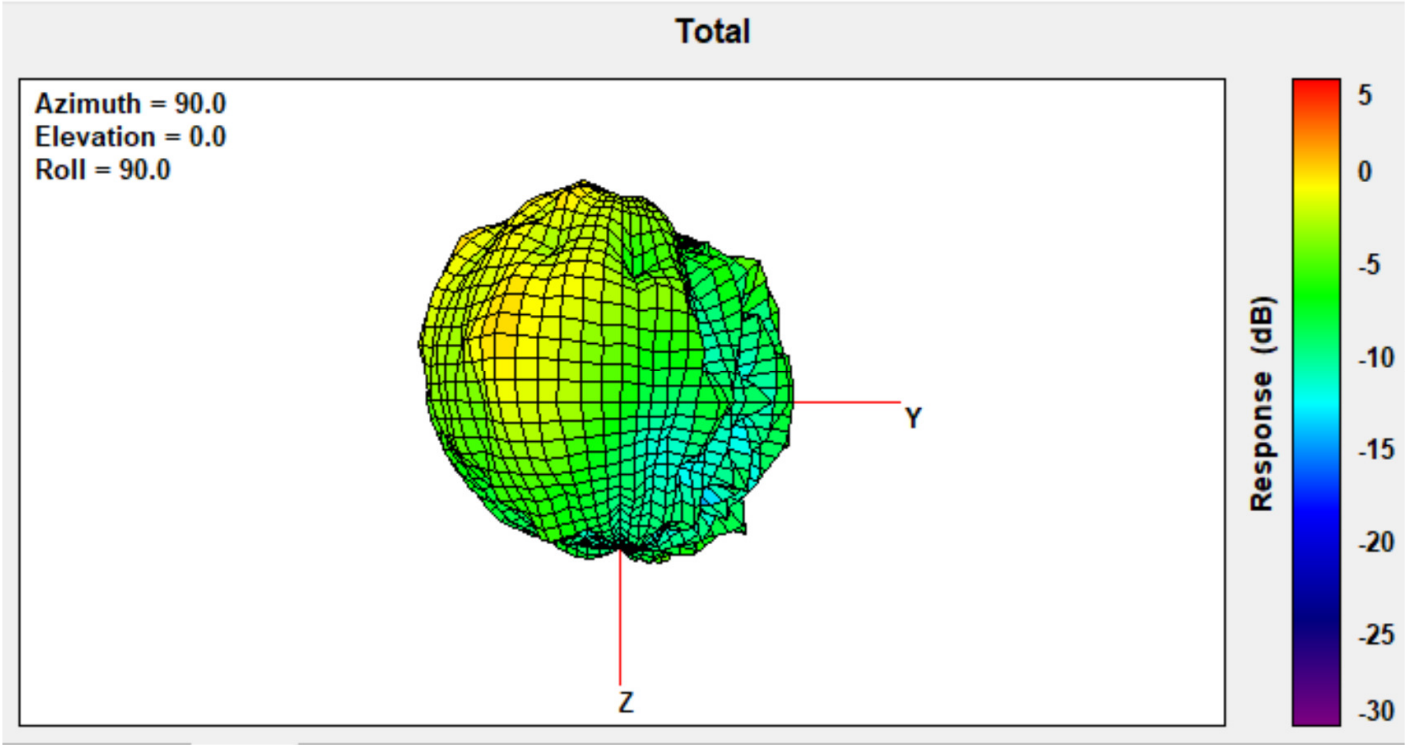
Max Antenna 3D Radiation Pattern 5250-5350 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5250-5350	0.85



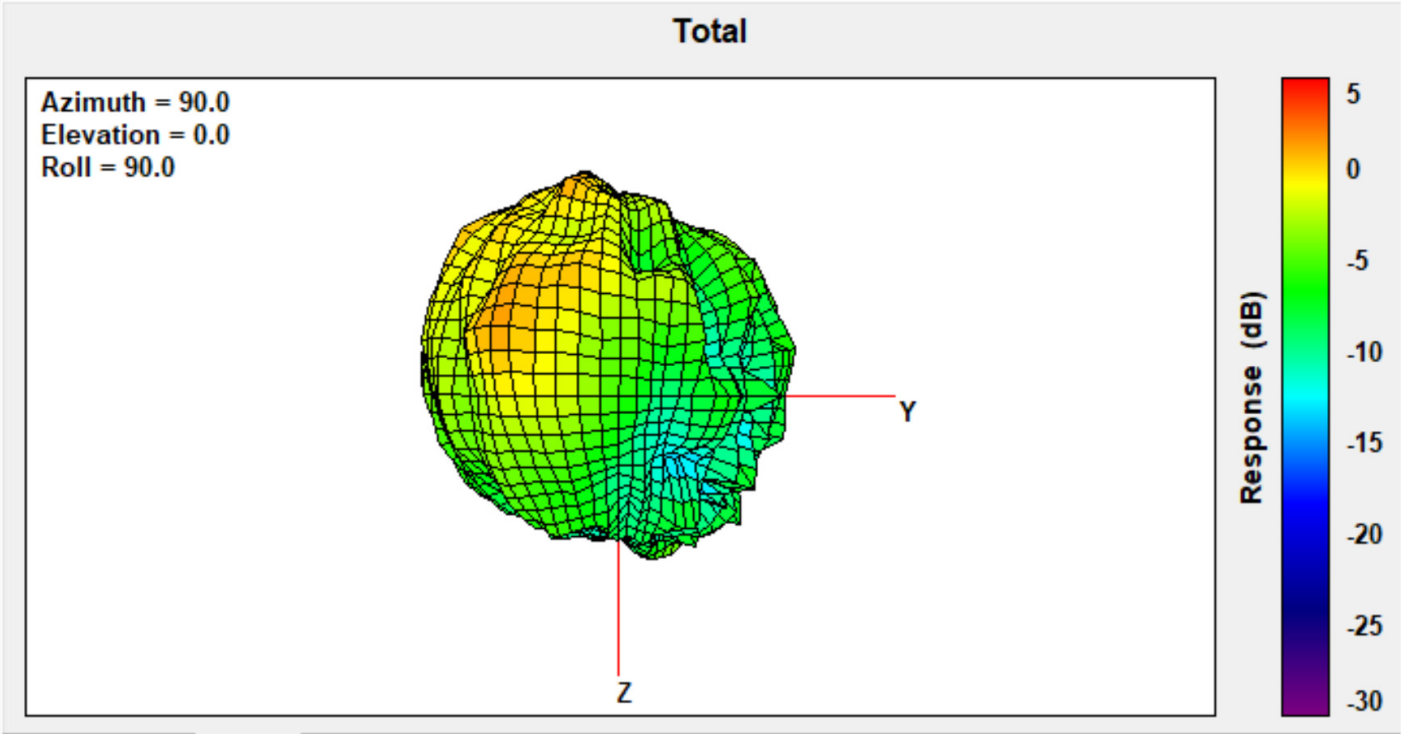
Max Antenna 3D Radiation Pattern 5470-5725 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5470-5725	0.55


Total
Azimuth = 90.0
Elevation = 0.0
Roll = 90.0
Y
Z
Response (dB)
5
0
-5
-10
-15
-20
-25
-30

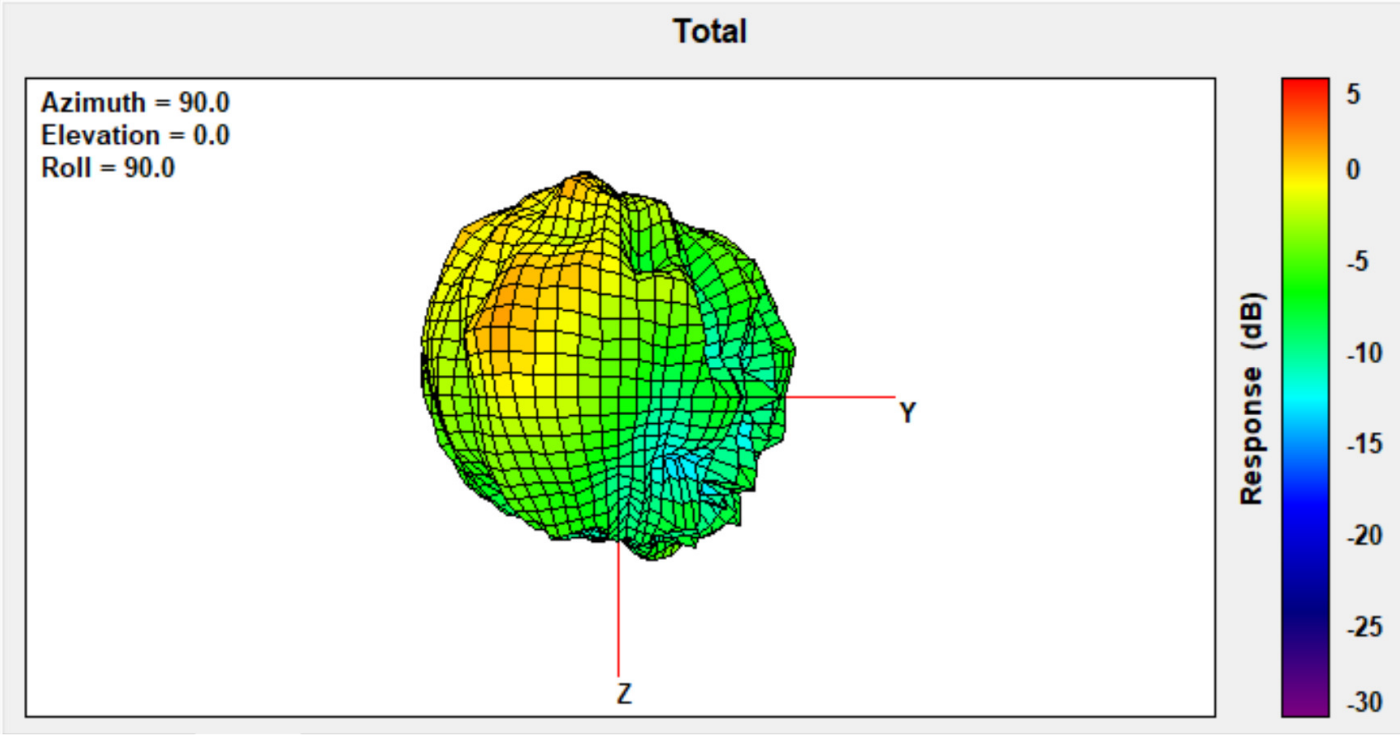
Max Antenna 3D Radiation Pattern 5725-5850 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5725-5850	2.28



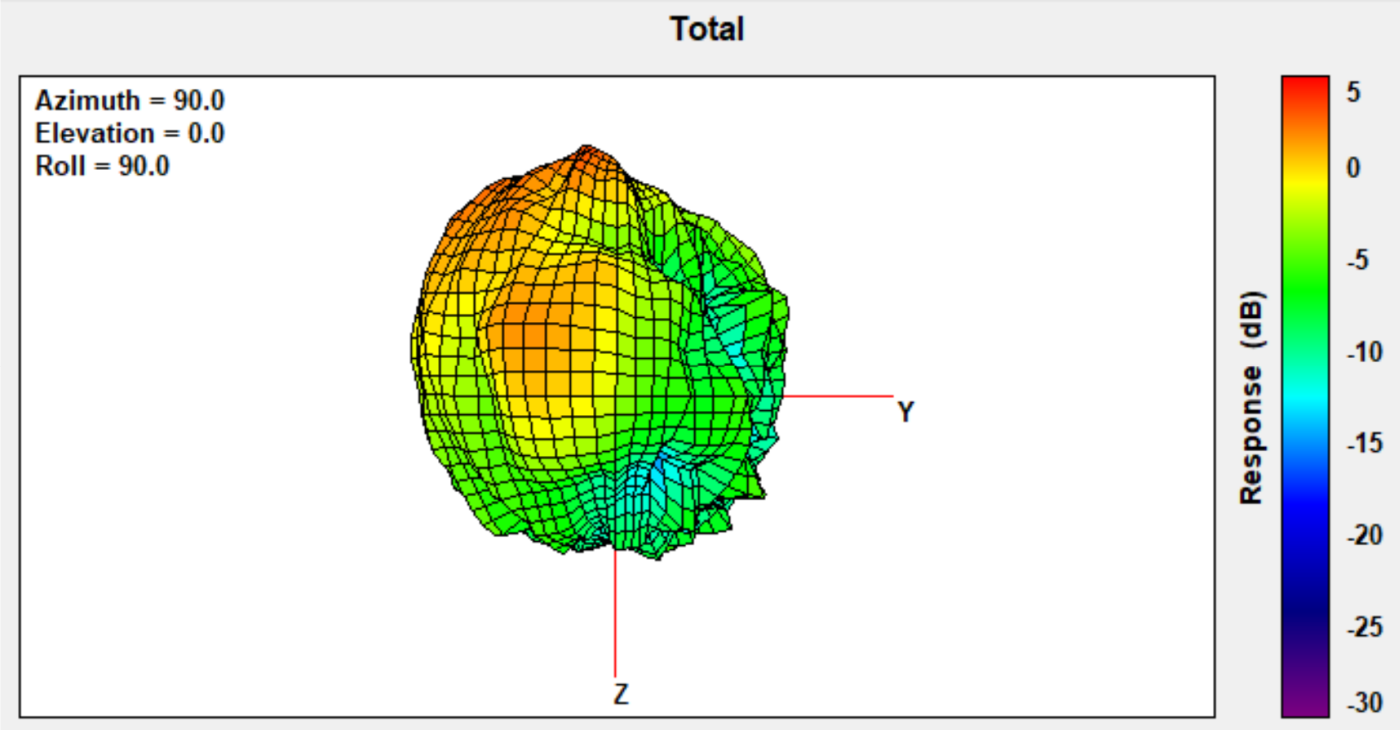
Max Antenna 3D Radiation Pattern 5850-5895 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5850-5895	2.28



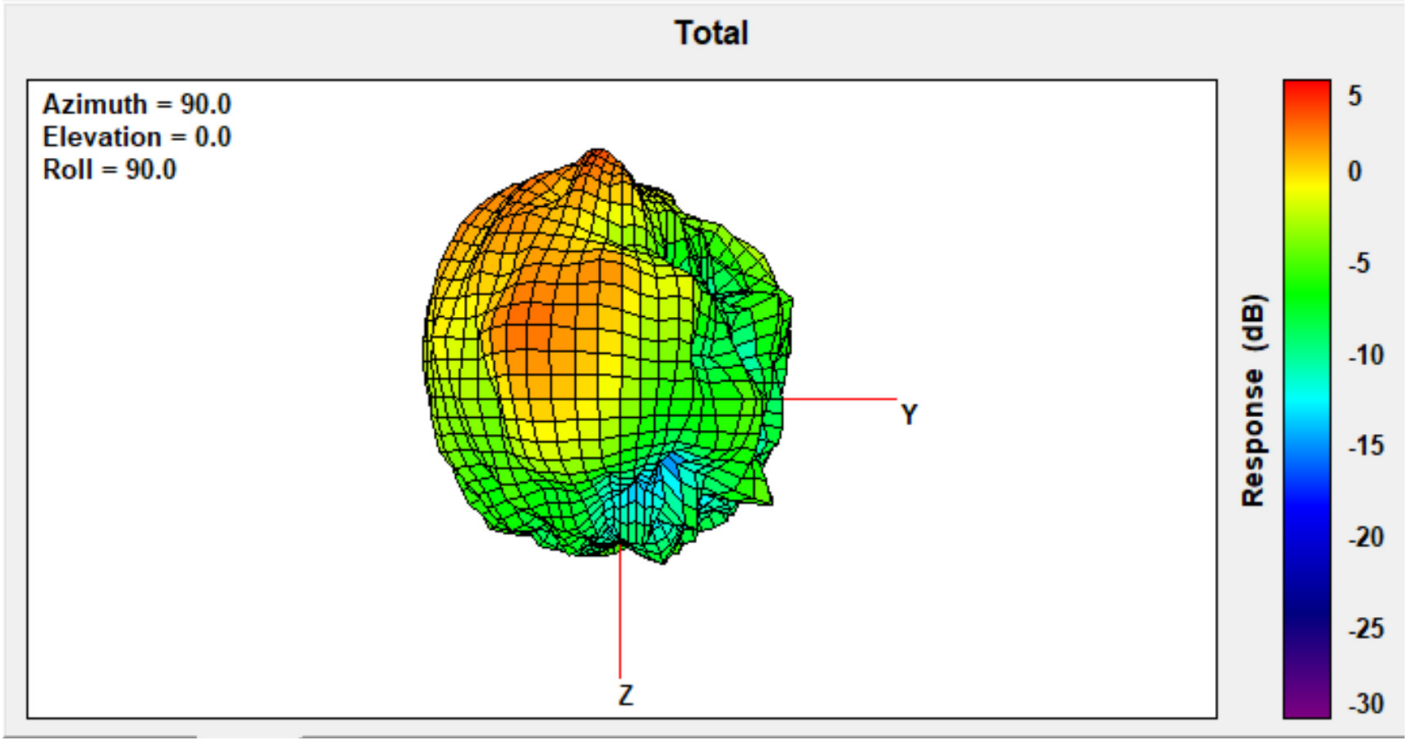
Max Antenna 3D Radiation Pattern 5925-6425 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5925-6425	2.85



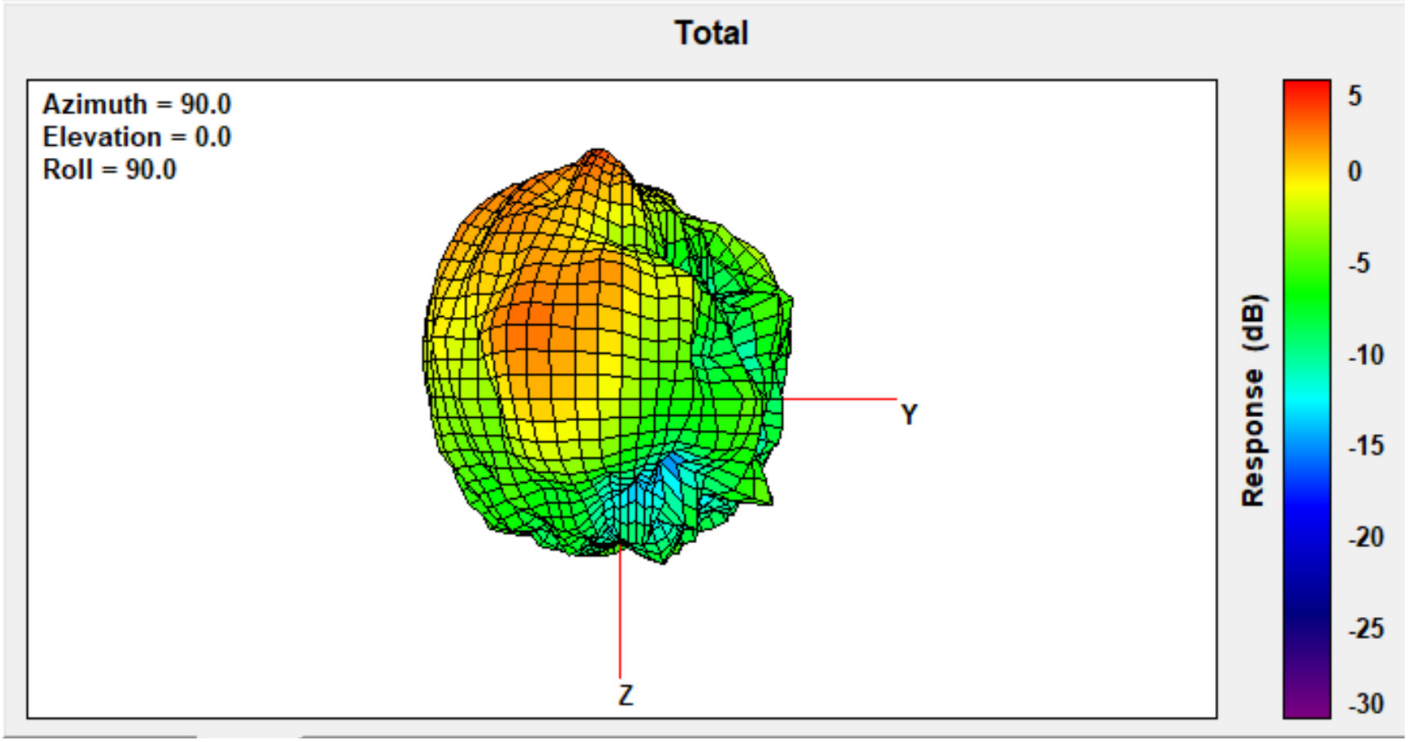
Max Antenna 3D Radiation Pattern 6425-6525 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6425-6525	3.48



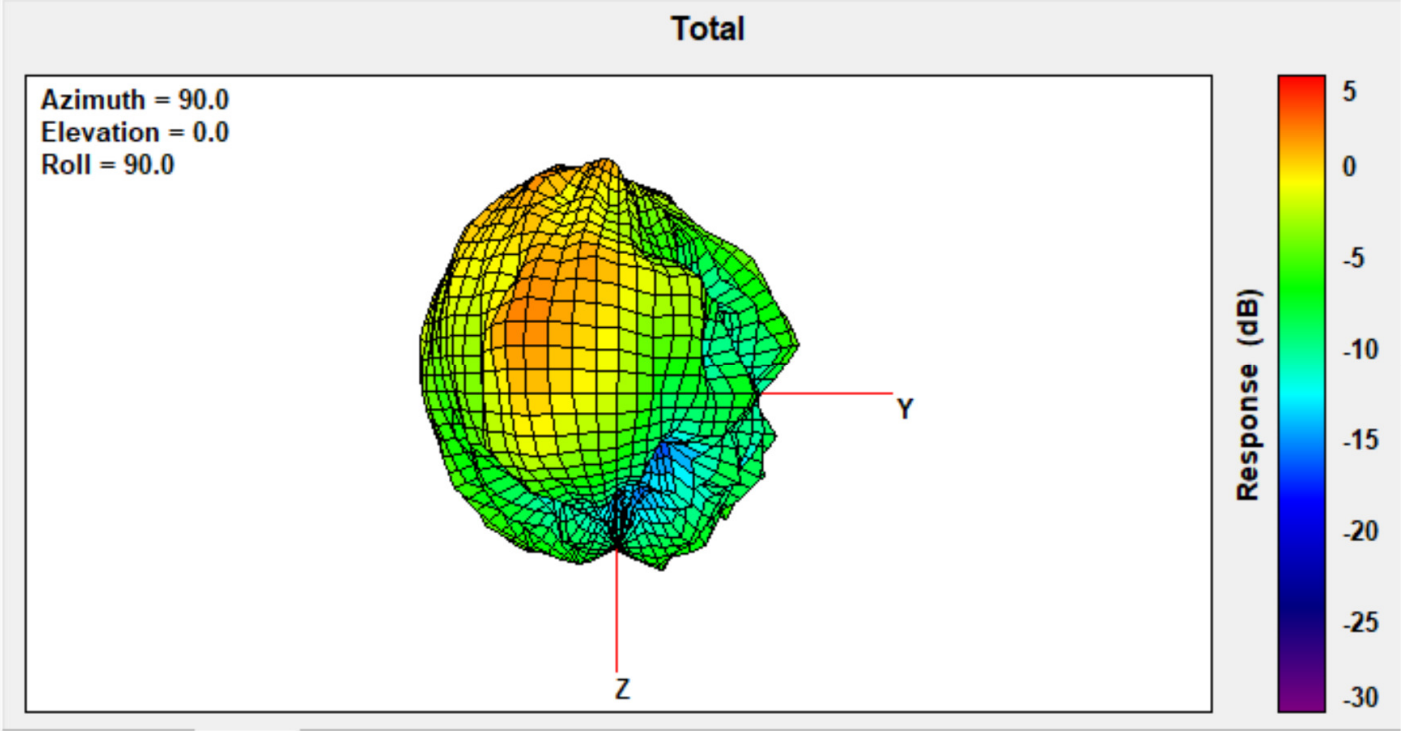
Max Antenna 3D Radiation Pattern 6525-6875 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6525-6875	3.48



Max Antenna 3D Radiation Pattern 6875-7125 MHz

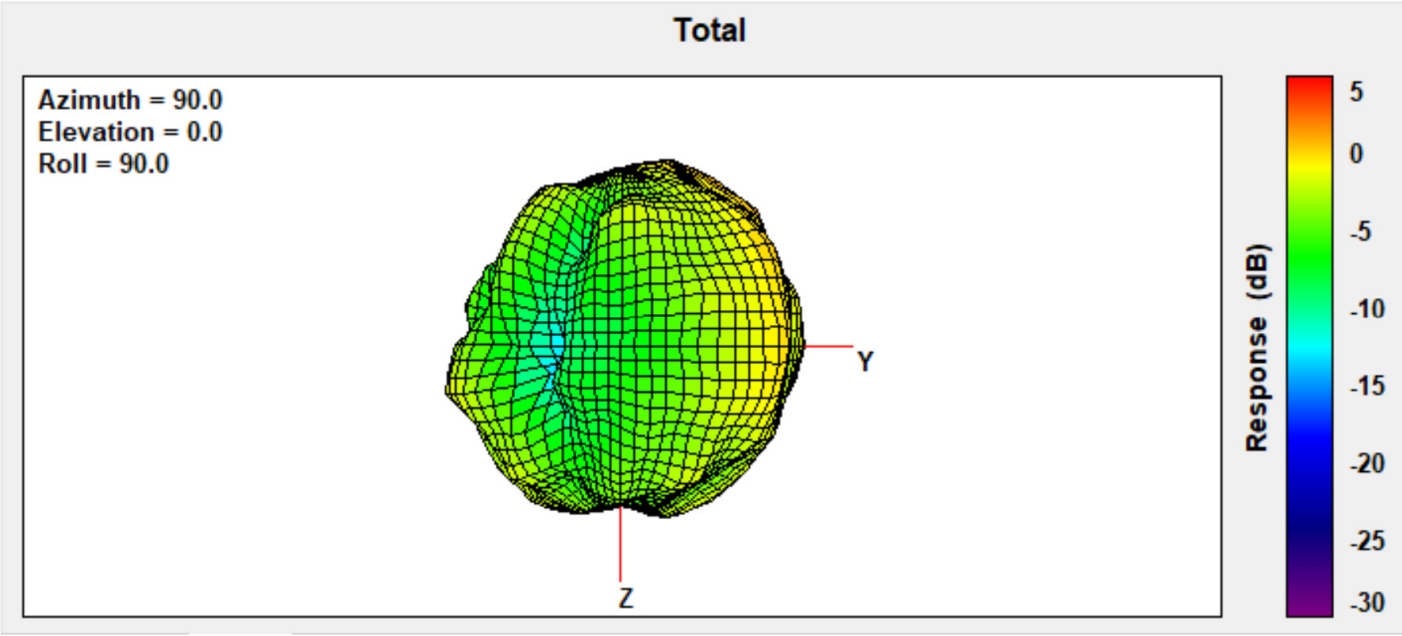
Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6875-7125	2.30



Auxiliary Antenna

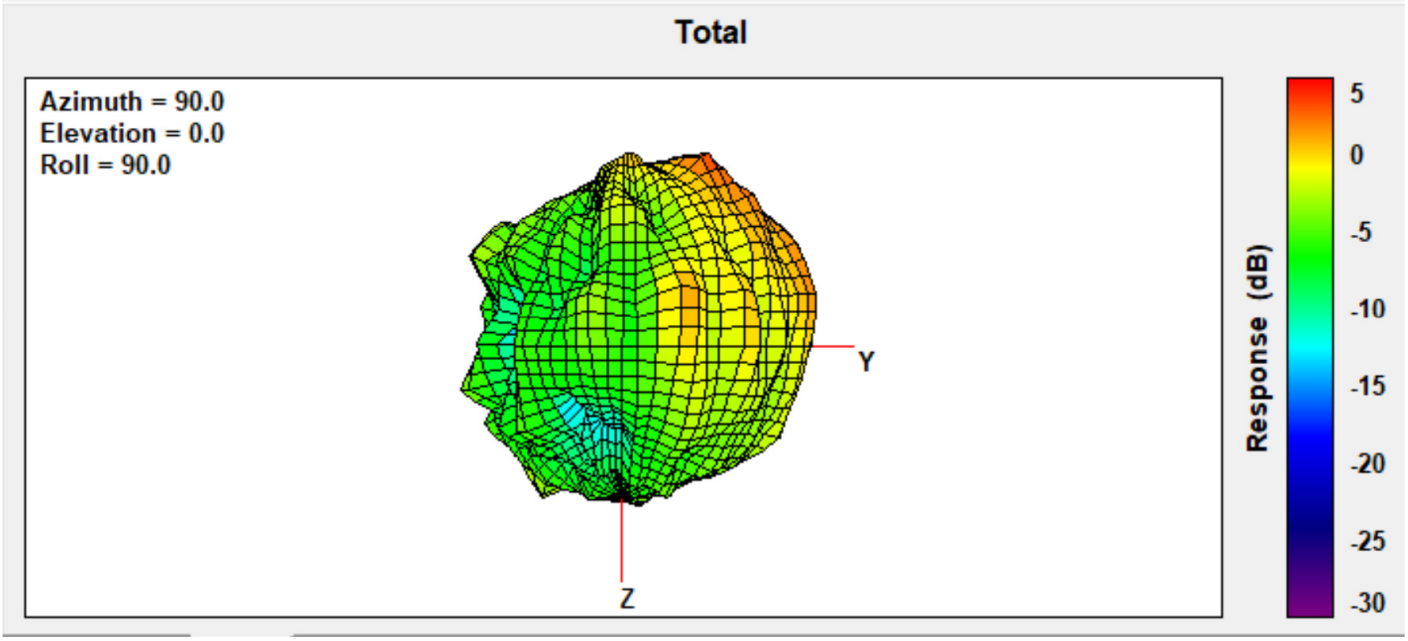
Max Antenna 3D Radiation Pattern 2400 – 2483.5 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
2400-2483.5	1.54



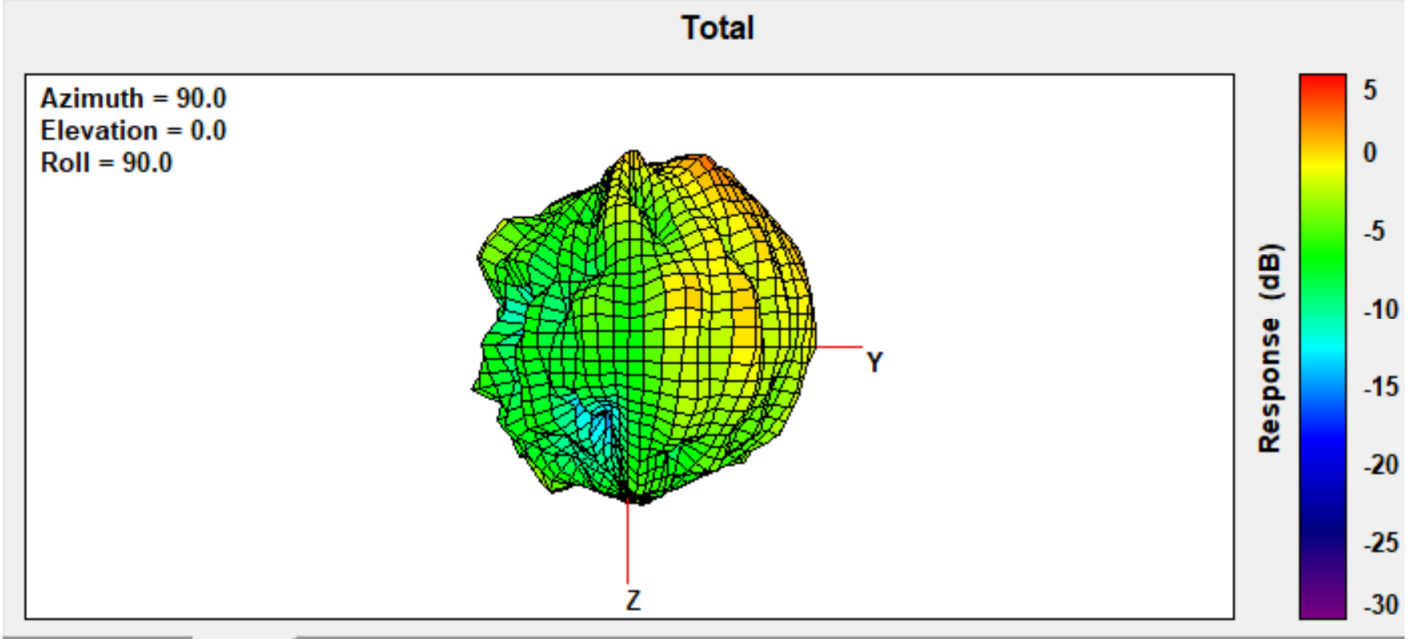
Max Antenna 3D Radiation Pattern 5150-5250 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5150-5250	2.87



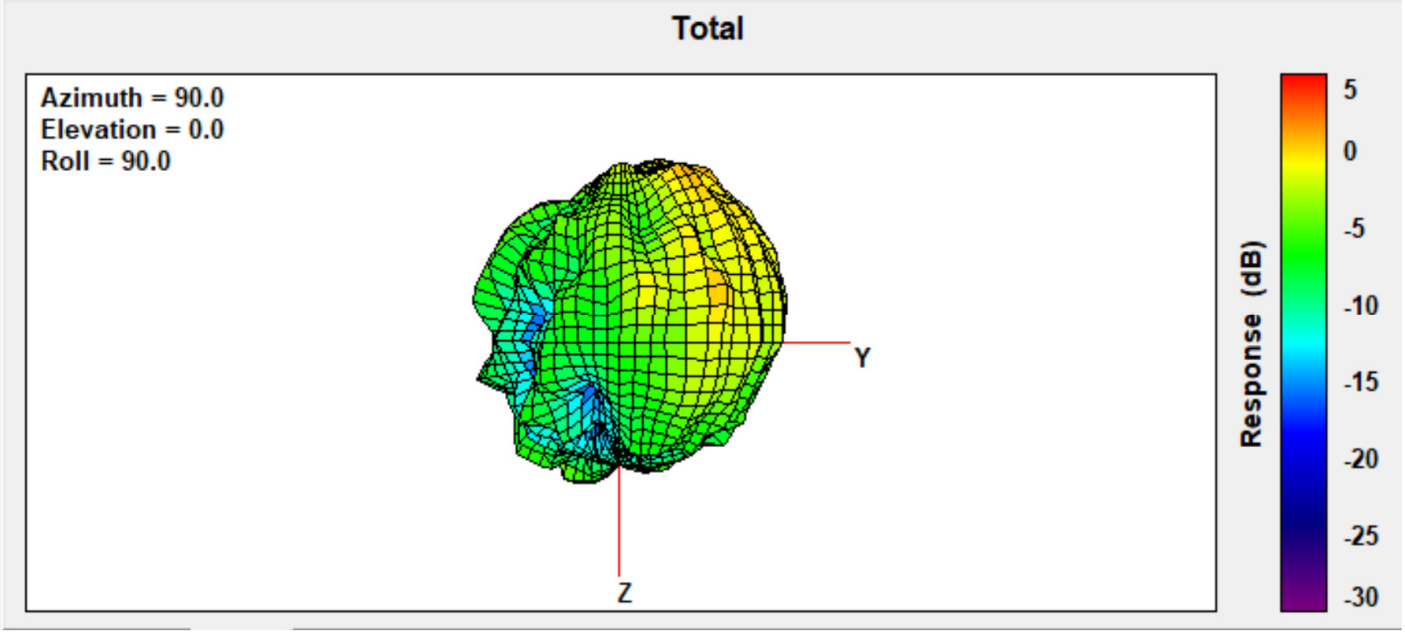
Max Antenna 3D Radiation Pattern 5250-5350 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5250-5350	1.66



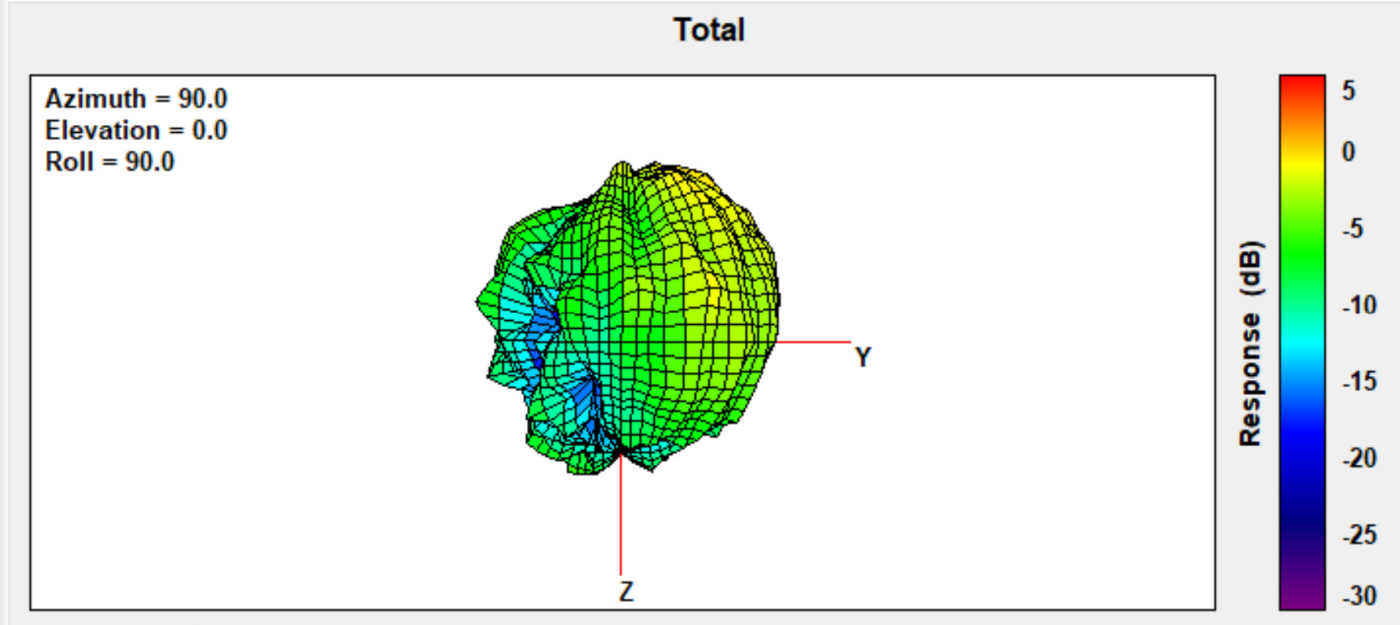
Max Antenna 3D Radiation Pattern 5470-5725 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5470-5725	1.73


Total
Azimuth = 90.0
Elevation = 0.0
Roll = 90.0
Y
Z
Response (dB)
5
0
-5
-10
-15
-20
-25
-30

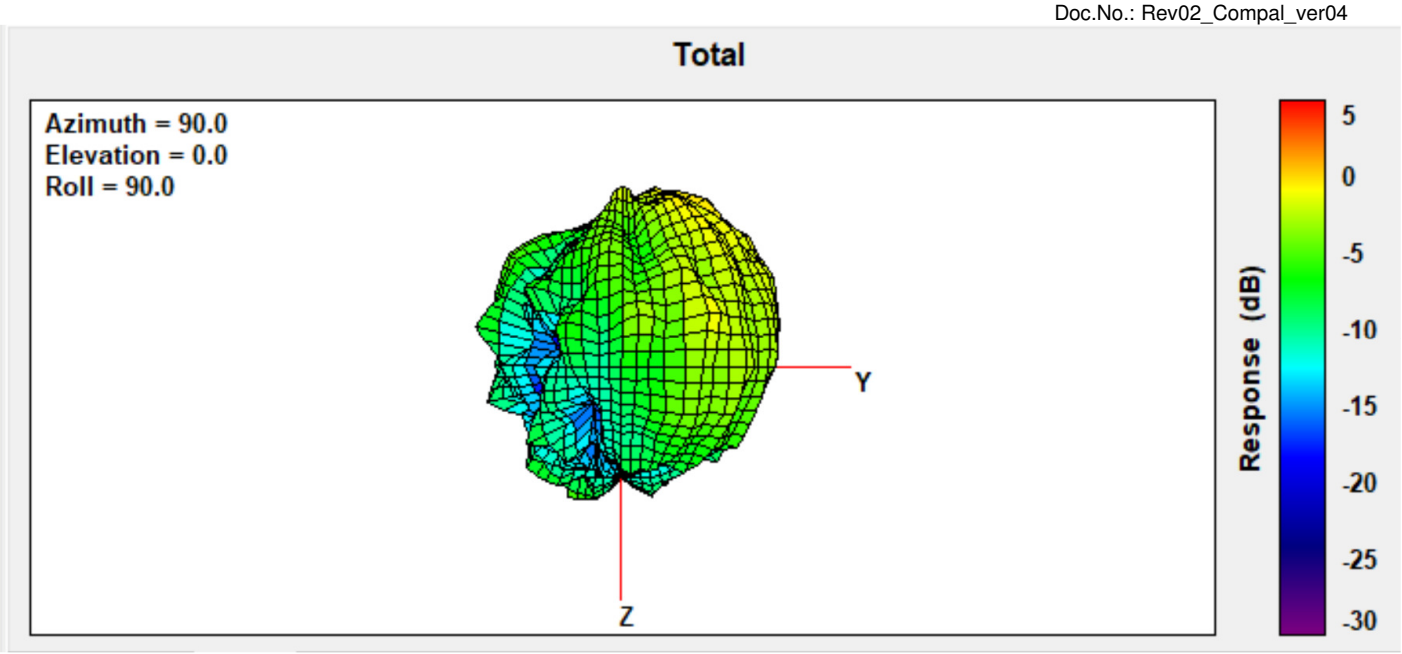
Max Antenna 3D Radiation Pattern 5725-5850 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5725-5850	0.97



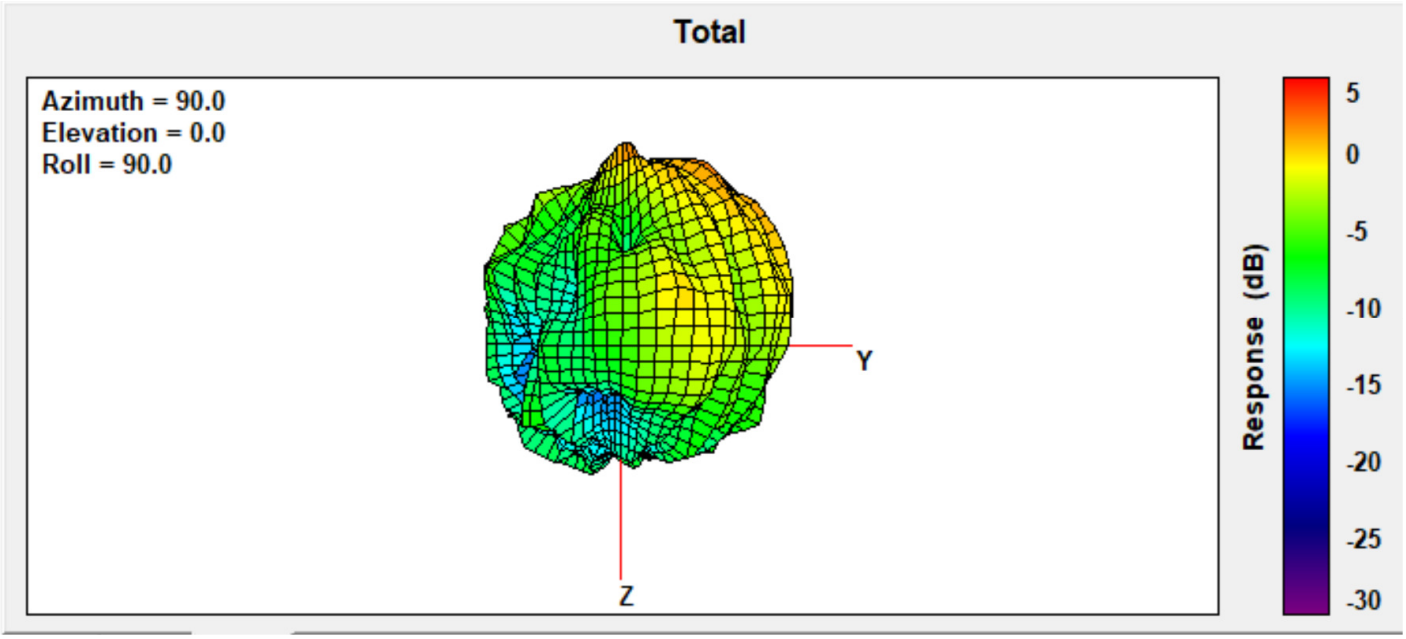
Max Antenna 3D Radiation Pattern 5850-5895 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5850-5895	0.97



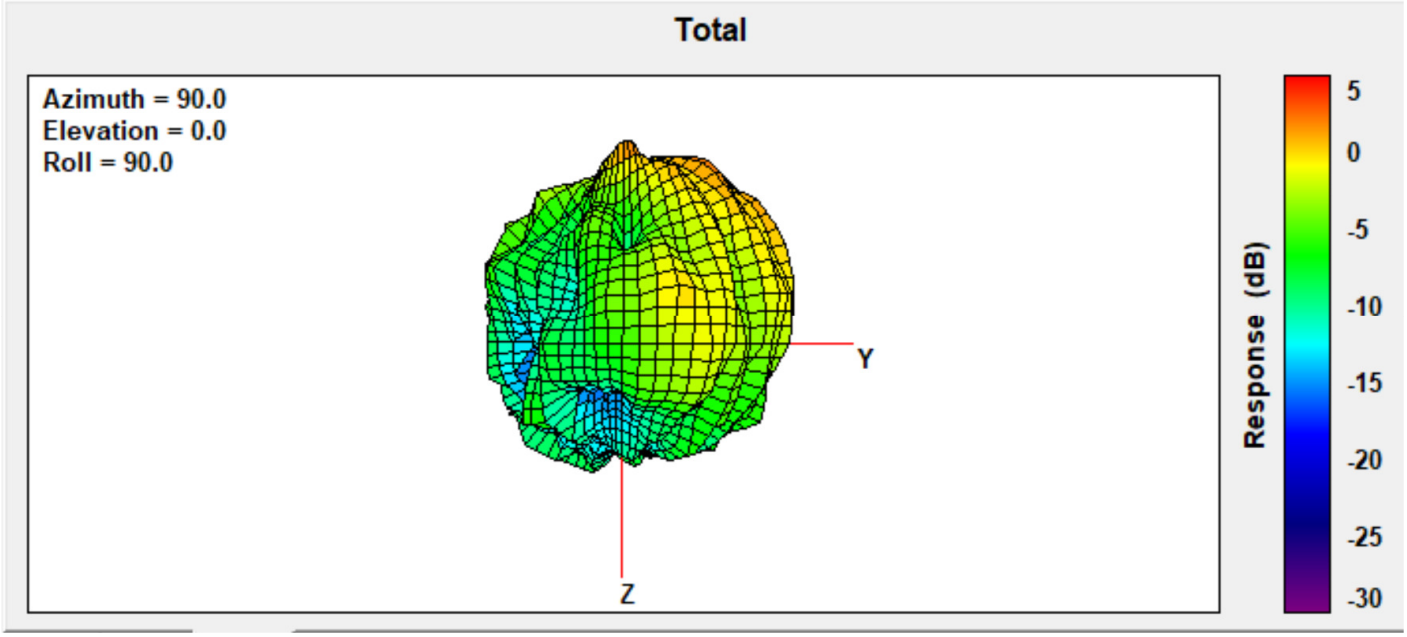
Max Antenna 3D Radiation Pattern 5925-6425 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5925-6425	2.65



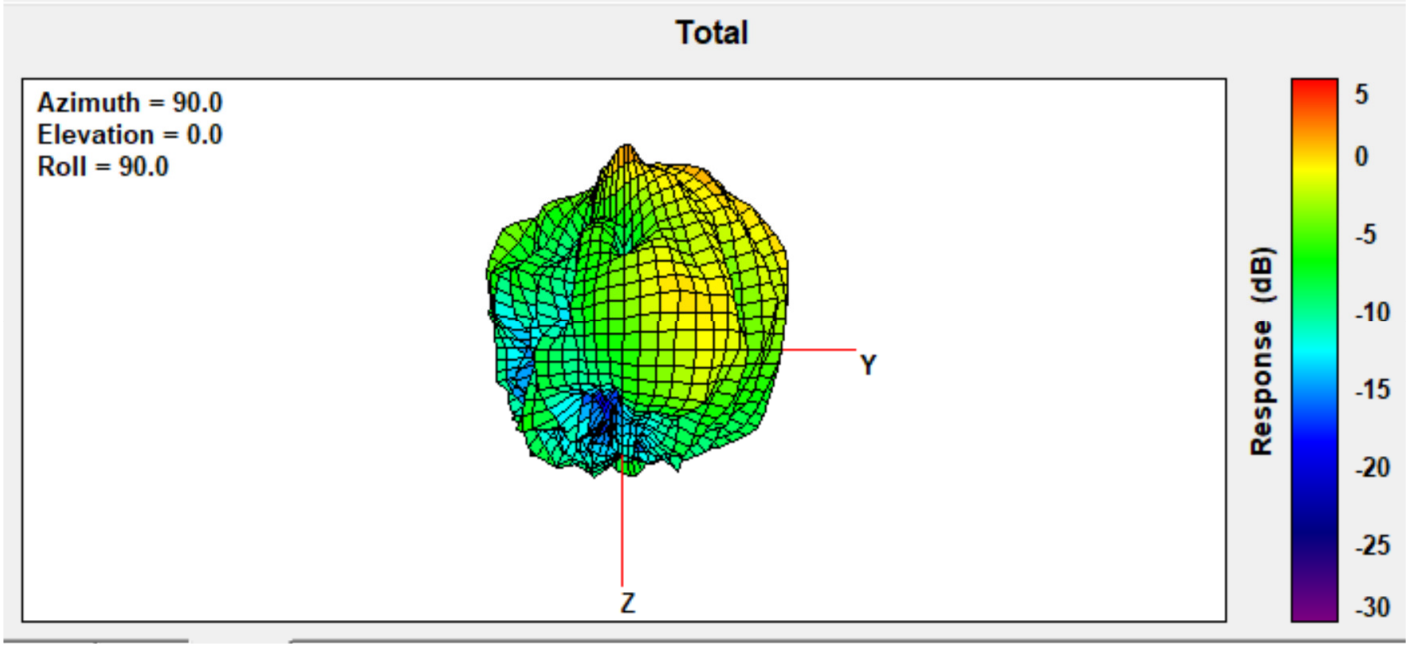
Max Antenna 3D Radiation Pattern 6425-6525 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6425-6525	2.65



Max Antenna 3D Radiation Pattern 6525-6875 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6525-6875	2.51



Max Antenna 3D Radiation Pattern 6875-7125 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6875-7125	3.07