

# Regulatory WWAN Antenna Information

(English Language Required for Intel Regulatory Review / Approval)

<b>Platform</b>	
Platform Owner	DELL
Brand Name	DELL
Model Name	P126F
ODM	COMPAL ELECTRONICS
Target Launch Date	
<b>Antenna</b>	
Manufacturer	WNC
Part Number	<ul style="list-style-type: none"> <li>■ Tx1/Rx1 Antenna WWAN Main: Antenna P/N: Main: 81ELBB15.G01 COMPAL P/N: DC33002V40L</li> </ul>
	<ul style="list-style-type: none"> <li>■ Rx2 Antenna WWAN Aux : Antenna P/N: Main: 81ELBB15.G01 COMPAL P/N: DC33002V40L</li> </ul>
	<ul style="list-style-type: none"> <li>■ Tx2/Rx3 Antenna WWAN Aux : Antenna P/N: Main: 81ELA715.GCV COMPAL P/N: DC33002V41L</li> </ul>
	<ul style="list-style-type: none"> <li>■ Rx4 Antenna WWAN Aux : Antenna P/N: Main: 81ELA715.GCV COMPAL P/N: DC33002V41L</li> </ul>
Manufacturer address	
<b>Module</b>	
With WWAN Module	SDX62, SDX12
(Check Box)	

## Antenna Sample / Antenna Data Requirements for worldwide regulatory approval

Section	Description of Required OEM / ODM Antenna Information	US / IC	EU	Japan	Taiwan	S.Korea
1A	Part Number for Antenna only	Required	Required	Required	Required	Required
1B	Antenna Manufacturer Name	Required	Required	Required	Required	Required
1C	Description of Antenna Type	Required	N/A	N/A	N/A	N/A
1D	Part number of Antenna Assembly / cable impedance, length & diameter.	Required	Desired	Desired	Desired	Desired
1E	Tx1, Tx2 & Tx3 antenna (Peak Gain W/ cable loss) *	Required	Required	Required	Required	Required
	1E OR 1F, 1G, 1H					
1F	Tx1, Tx2 & Tx3 antenna (Peak Gain only) *	Required	Required	Required	Required	Required
1G	VSWR of cable including connector	Required	Required	Required	Required	Required
1H	Tx1, Tx2 & Tx3 antenna (Cable loss W/ connector) *	Required	Required	Required	Required	Required
2	Dimensioned Photographs <u>and</u> Drawings of Tx1, Tx2, and Tx3 (or Rx3) antennas	Required	Required	Required	Required	Required
3	Radiation patterns of antennas loaded in the host platform.	Required	Desired	Required	N/A	Required
4	Platform model name / number - correlated to antenna manufacturer and antenna part number	Required	Required	Desired	Required	Desired
5	Photograph(s) or Drawings showing location of antennas in platform. <u>(S. Korea requires photographs of antennas for approval submission). Taiwan requires pictures of each antenna type shown in the system.</u>	Required	Required	Desired	<u>Required (Photos)</u>	<u>Required (Photos)</u>
6	Mech. drawings / photos with dimensions of antenna locations and distance from end-user (For evaluation of SAR testing requirement).	Required	N/A	N/A	N/A	N/A
7	Photograph(s) or Drawings showing the location of all antennas (WLAN, other) and distance between those transmitting antennas. Information will be used to evaluate whether co-location testing is required.	Required	N/A	N/A	N/A	N/A
8	Local representative contact information for LMA/ PARS process.	Required	N/A	N/A	N/A	N/A

# Antenna Information

## Section 1. Antenna Assembly Specifications

Communication System	Band	Frequency(MHz) from low to high spectrum		1A Part Number for Antenna Assembly	1B Antenna Manufacturer Name	1C Description of Antenna Type	1D *Peak Gain W/ Cable loss (dBi)
WCDMA/ LTE/5G NR FR1	1	1920	1980	Ant0 : 81ELBB15.G01	WNC	PIFA	-0.85
WCDMA/ LTE/5G NR FR1	2	1850	1910				0.28
LTE/5G NR FR1	3	1710	1785				1.33
WCDMA/ LTE	4	1710	1755				1.22
WCDMA/ LTE/5G NR FR1	5	824	849				-0.43
LTE/5G NR FR1	7	2500	2570				2.60
WCDMA/ LTE/5G NR FR1	8	880	915				-1.26
LTE/5G NR FR1	12	699	716				2.25
LTE/5G NR FR1	13	777	787				1.82
LTE/5G NR FR1	14	788	798				0.74
LTE	17	704	716				2.25
LTE/5G NR FR1	18	815	830				-0.24
LTE	19	830	845				-0.61
LTE/5G NR FR1	20	832	862				-0.66
LTE/5G NR FR1	25	1850	1915				0.28
LTE/5G NR FR1	26	814	849				-0.22
LTE/5G NR FR1	28	703	748				2.28
LTE/5G NR FR1	30	2305	2315				0.90
LTE	34	2010	2025				-0.23
LTE/5G NR FR1	38	2570	2620				0.33
LTE	39	1880	1920				0.28
LTE/5G NR FR1	40	2300	2400				2.22
LTE/5G NR FR1	41	2496	2690				2.64
LTE	42	3400	3600				0.24
LTE	43	3600	3800				-0.46
LTE/5G NR FR1	48	3550	3700				-0.59
LTE/5G NR FR1	66	1710	1780				1.31
LTE/5G NR FR1	71	663	698				0.24
5G NR FR1	77	3300	4200				1.85
5G NR FR1	78	3300	3800				1.85
5G NR FR1	79	4400	5000	1.74			
5G NR FR1	53	2483.5	2495	2.74			
5G NR FR1	70	1695	1710	1.47			

- Antenna Peak Gain required being test in system basis.
- 1E frame contend absolutely peak antenna gain include H/V

Communication System	Band	Frequency(MHz) from low to high spectrum		1A Part Number for Antenna Assembly	1B Antenna Manufacturer Name	1C Description of Antenna Type	Tx2
							*Peak Gain W/ Cable loss (dBi)
WCDMA/ LTE FDD	1	1920	1980	Antenna P/N: Main: 81ELA715.GCV COMPAL P/N: DC33002V41L	WNC	MIMO	1.04
WCDMA/ LTE FDD	2	1850	1910				1.48
LTE FDD	3	1710	1785				1.73
WCDMA/ LTE FDD	4	1710	1755				1.73
LTE FDD	7	2500	2570				2.24
LTE FDD	25	1850	1915				1.48
LTE FDD	30	2305	2315				0.45
LTE FDD	66	1710	1780				1.73
LTE TDD	38	2570	2620				1.5
LTE TDD	39	1880	1920				1.48
LTE TDD	40	2300	2400				1.31
LTE TDD	41	2496	2690				2.27
LTE TDD	42	3400	3600				0.78
LTE TDD	43	3600	3800				1.48
LTE TDD	48	3550	3700				0.78

- Antenna Peak Gain required being test in system basis.
- 1E frame contend absolutely peak antenna gain include H/V

## Antenna Peak Gain Table: Low and middle band

	Tx1 antenna
Frequency (MHz)	Peak Gain W/ Cable loss (dBi)
663	-1.32
680.5	-0.18
698	0.24
699	0.79
703	1.44
704	1.52
707.5	1.65
710	1.89
716	2.25
725.5	2.28
748	1.97
777	1.82
782	1.02
787	0.75
788	0.74
793	0.14
798	-0.30
814	-0.22
815	-0.24
822.5	-0.39
824	-0.43
830	-0.61
831.5	-0.67
832	-0.66
836.5	-0.70
837.5	-0.72
845	-0.81
847	-0.85
849	-0.89
862	-1.23
880	-1.97
897.5	-1.26
915	-1.65

**High band**

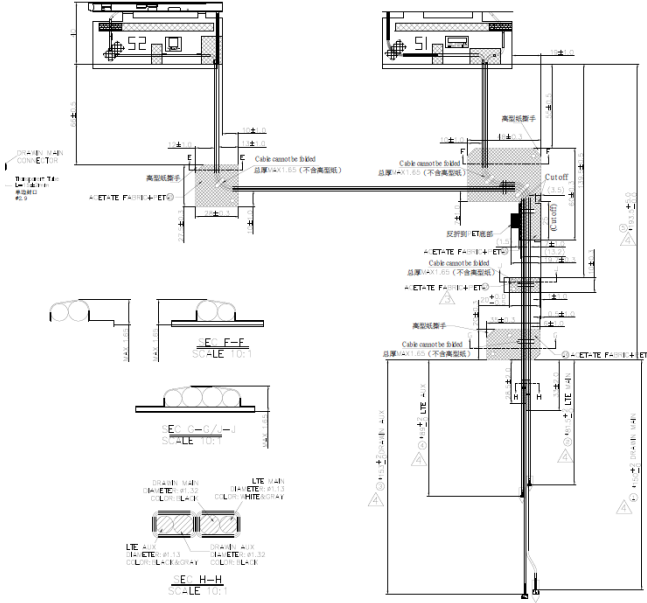
	<b>Tx1 antenna</b>	<b>Tx2 antenna</b>
<b>Frequency (MHz)</b>	<b>Peak Gain W/ Cable loss (dBi)</b>	<b>Peak Gain W/ Cable loss (dBi)</b>
1695	1.47	2.41
1702.5	1.33	2.05
1710	1.05	1.73
1732.5	0.75	0.62
1745	1.02	0.25
1747.5	1.09	0.12
1755	1.22	-0.33
1780	1.31	0.28
1785	1.33	0.41
1850	0.25	1.16
1880	0.27	1.07
1882.5	0.28	1.09
1900	-0.08	1.48
1910	-0.45	1.39
1915	-0.73	1.27
1920	-1.04	1.04
1950	-1.98	-0.52
1980	-0.85	-1.11
2010	-0.25	-0.46
2017.5	-0.23	-0.46
2025	-0.25	-0.60
2300	2.22	0.63
2305	0.16	0.45
2310	0.09	0.23
2315	0.90	-0.01
2350	1.42	0.69
2400	2.06	1.31
2483.5	2.74	1.84
2489.25	2.72	2.03
2495	2.64	2.25
2496	2.64	2.27
2500	2.60	2.24
2535	1.67	1.70
2570	0.33	0.97
2593	0.06	1.35
2595	0.07	1.40
2620	-0.36	1.50
2690	0.64	0.90

3300	1.85	0.91
3400	0.24	-0.92
3500	-1.02	0.24
3550	-1.46	0.51
3600	-1.02	0.78
3625	-0.59	0.57
3700	-0.88	-0.32
3750	-0.68	1.48
3800	-0.46	0.40
4200	-0.44	0.37
4400	0.06	0.09
4700	1.74	-0.49
5000	-0.70	0.46

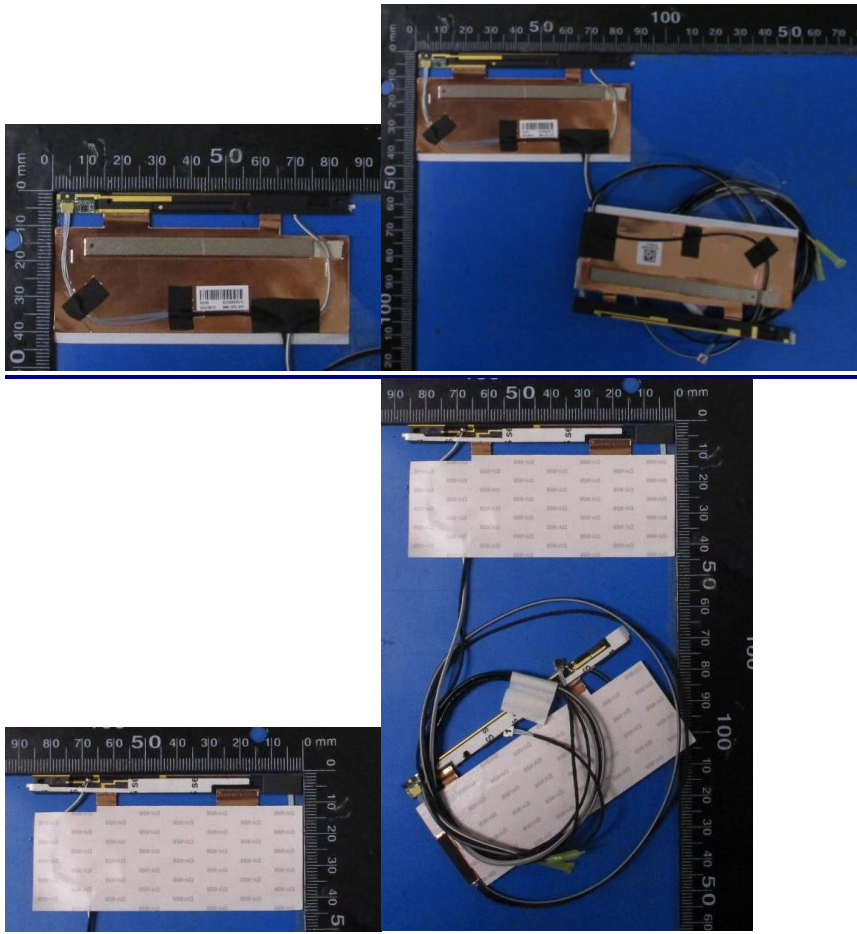
## Section 2. Dimensioned Photos or Drawings of Antennas

Include a dimensioned photo and dimensioned drawing of Main antenna here.

### TPx Antenna Dimensioned Drawing:

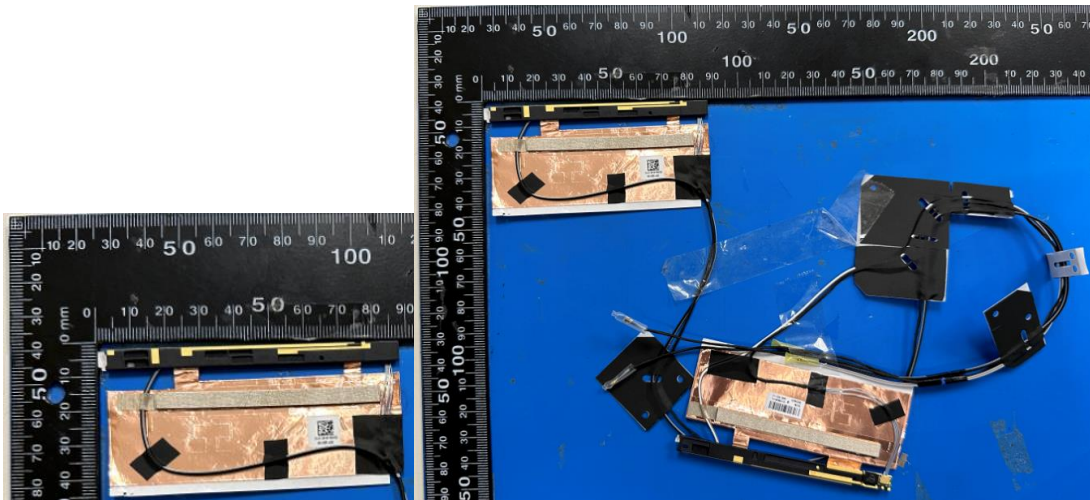
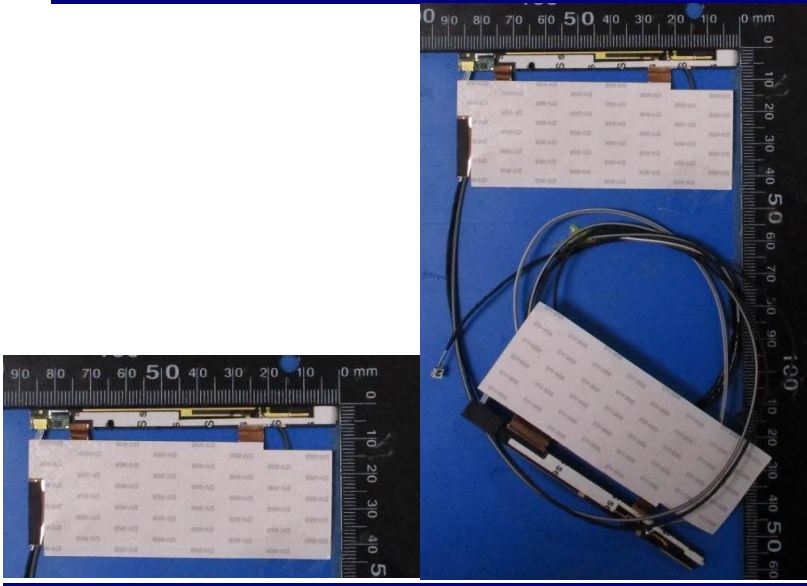


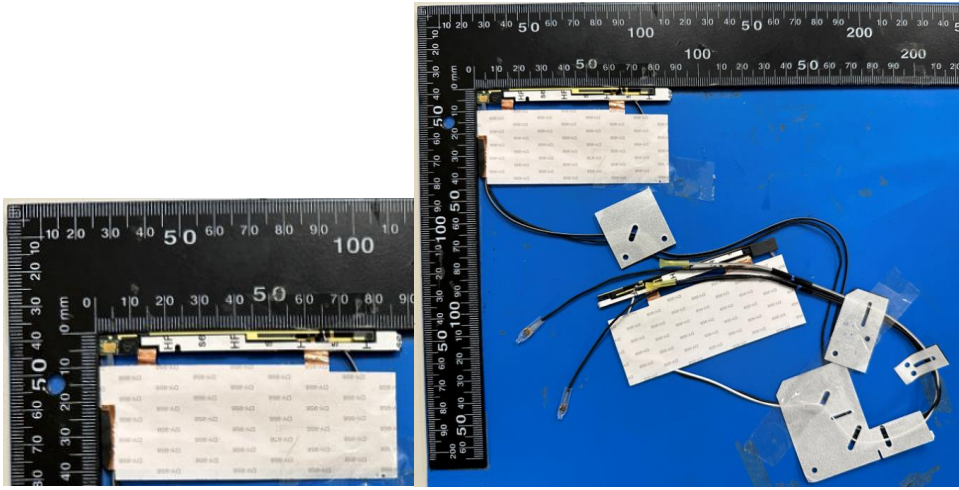
### TPx Antenna Photo:





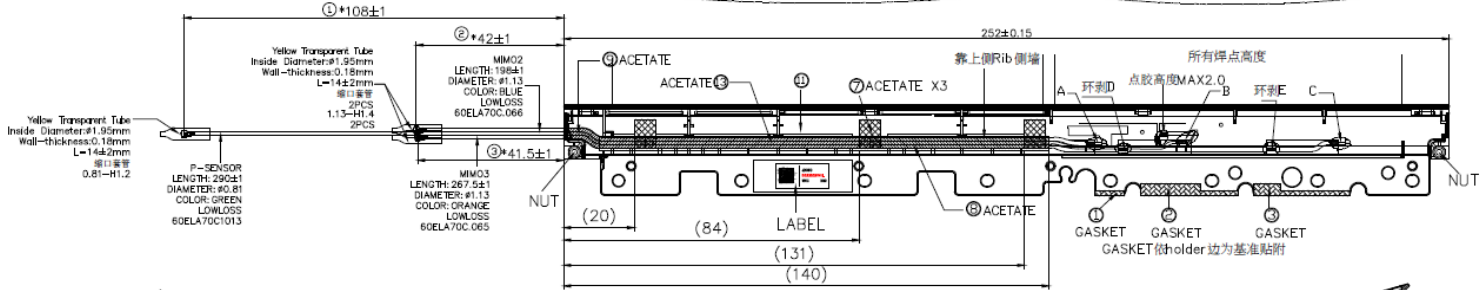




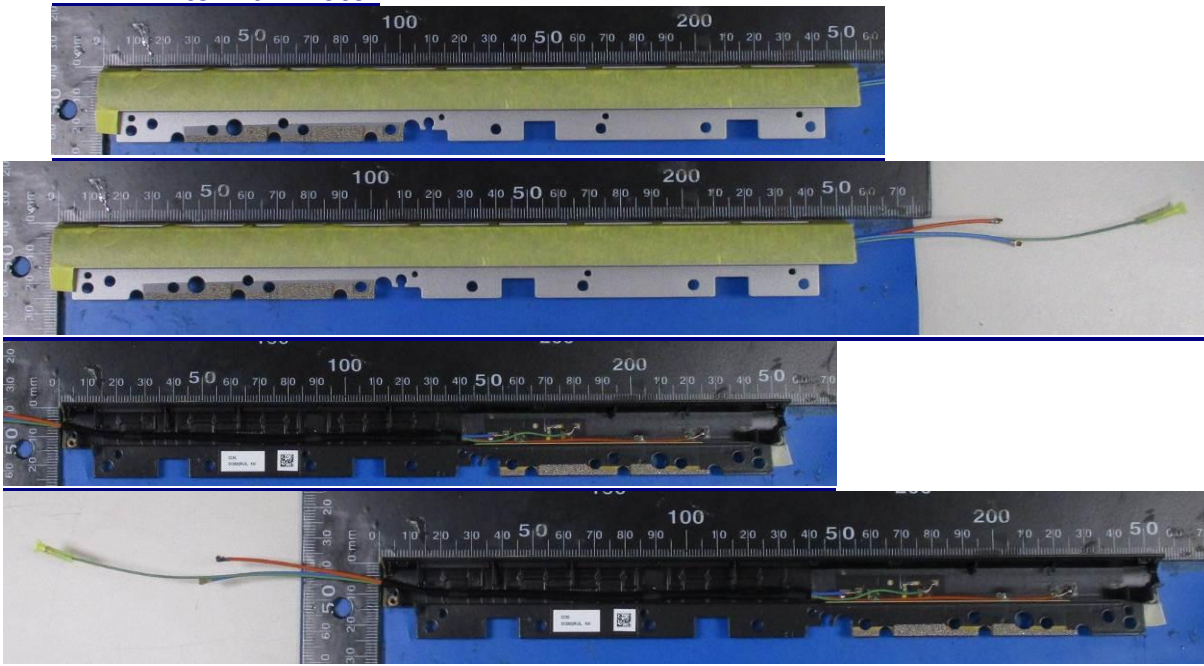


Include a dimensioned photo and dimensioned drawing of Aux antenna here.

**DRx2 Antenna Dimensioned Drawing:**



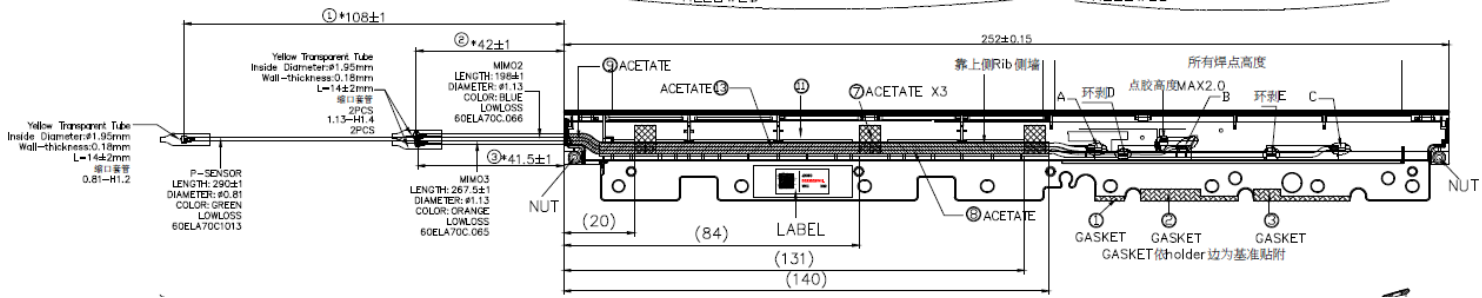
**DRx2 Antenna Photo:**



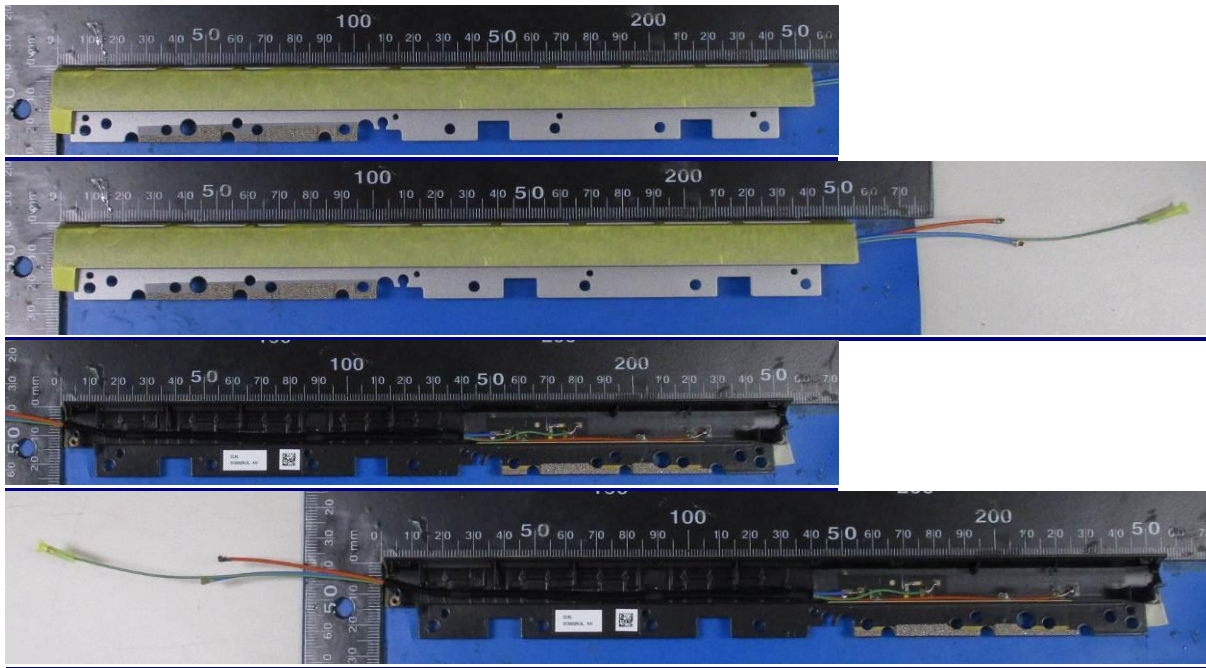


Include a dimensioned photo and dimensioned drawing of Aux antenna here.

**DRx1 Antenna Dimensioned Drawing:**



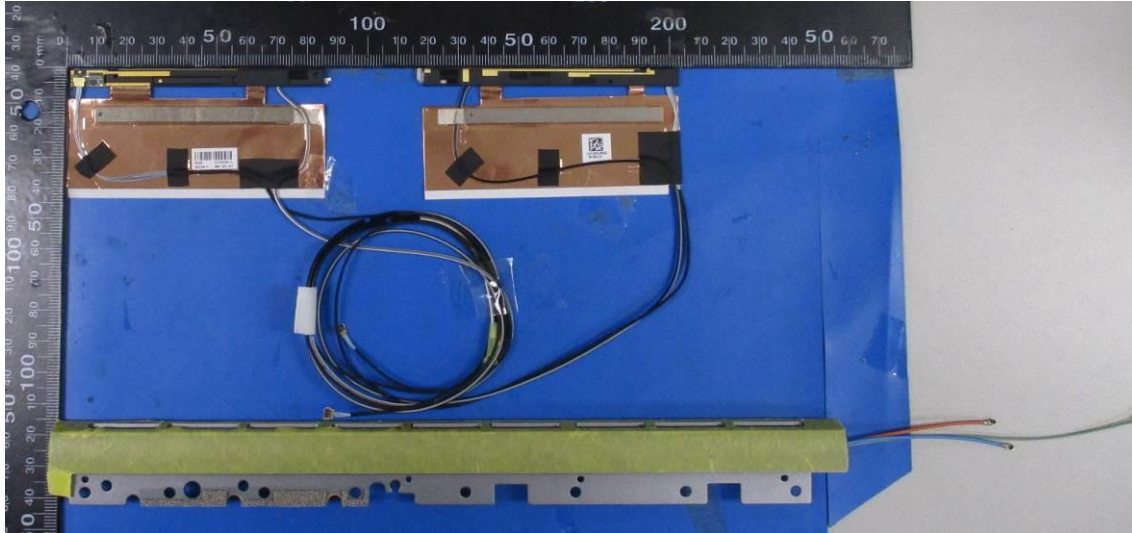
**DRx1 Antenna Photo:**



Include front view photo of all 2 antennas here.

Antenna Manufacturer: WNC

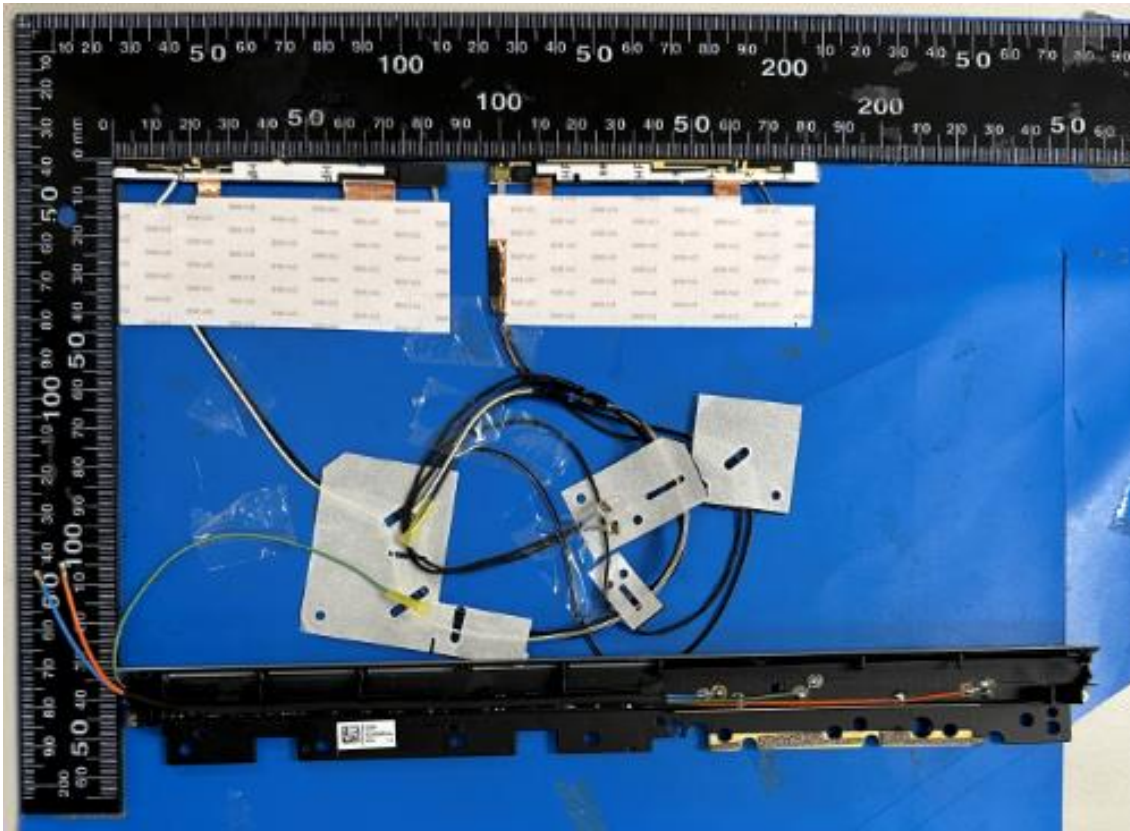
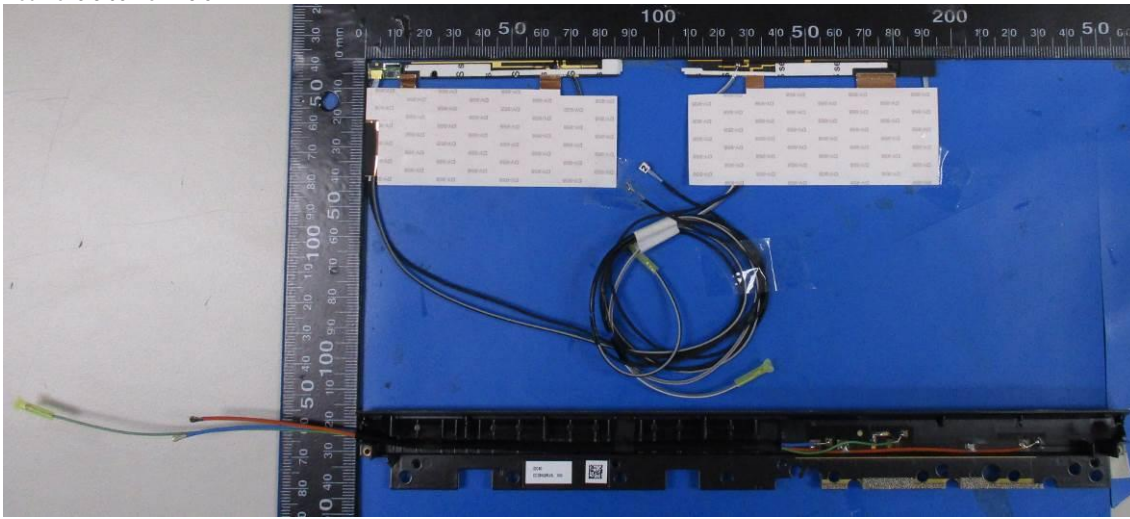
Antenna Part Number: DC33002V40L(81ELBB15.G01)/ DC33002V41L(81ELA715.GCV)



Include back view photo of all 2 antennas here.

Antenna Manufacturer: WNC

Antenna Part Number: DC33002V40L(81ELBB15.G01)/ DC33002V41L(81ELA715.GCV)



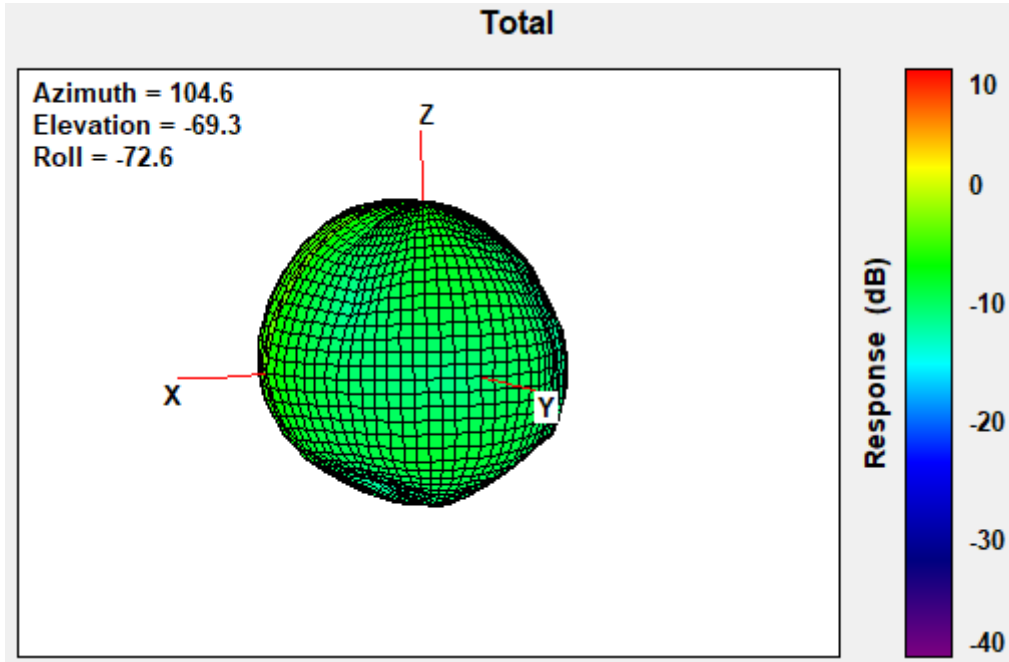
**Note: antenna photo should include L type ruler**



## Section 3. Radiation characteristics of antennae Loaded in Host Platform

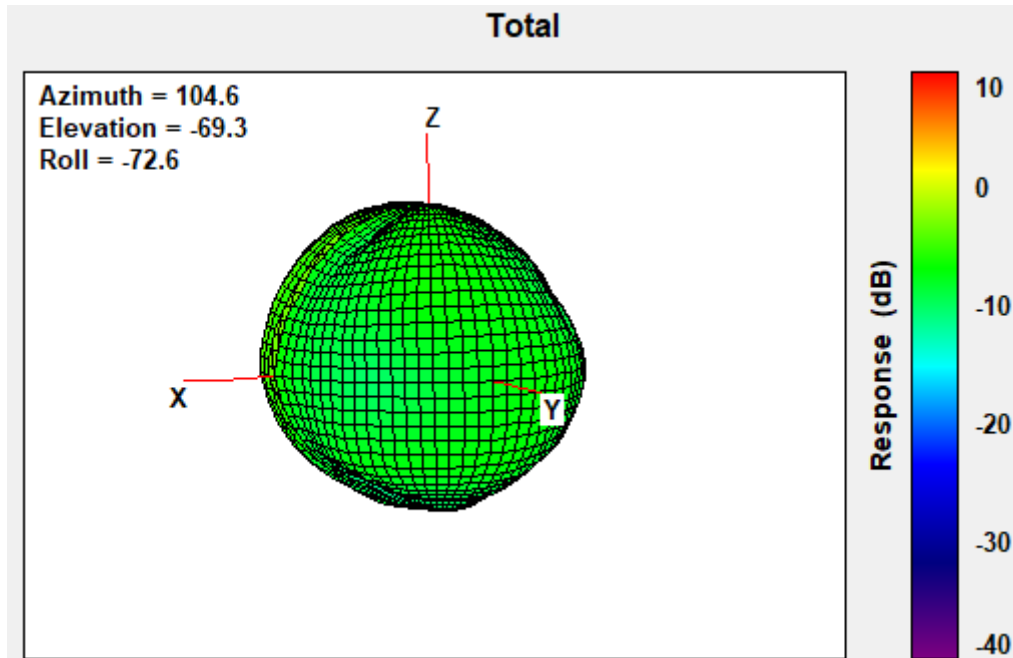
### WWAN Main Antenna (Tx1)

663 MHz



Center Frequency	663 MHz
Peak Gain W/ Cable loss (dBi)	-1.32

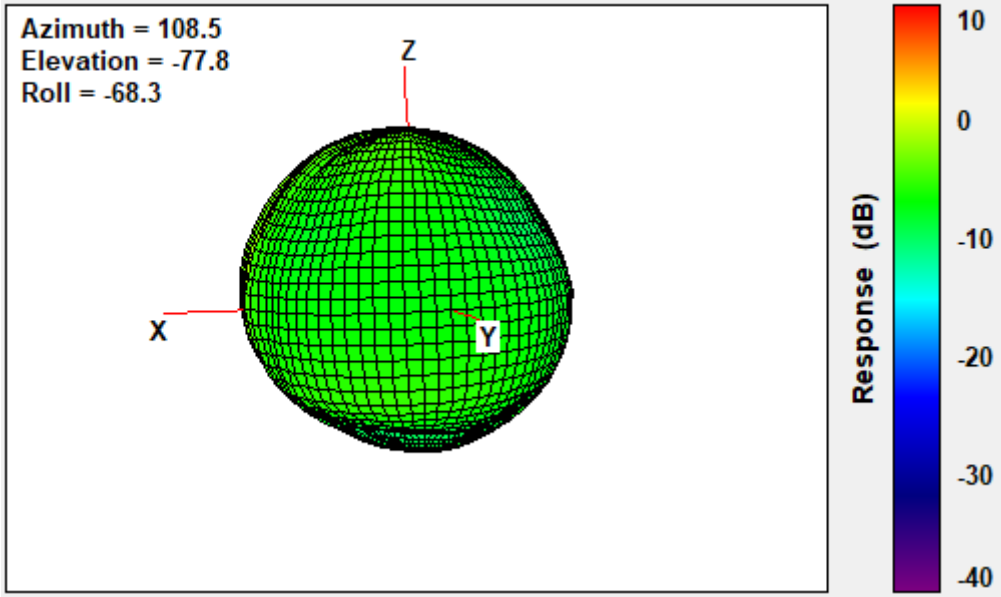
680.5 MHz



Center Frequency	680.5 MHz
Peak Gain W/ Cable loss (dBi)	-0.18

**698 MHz**

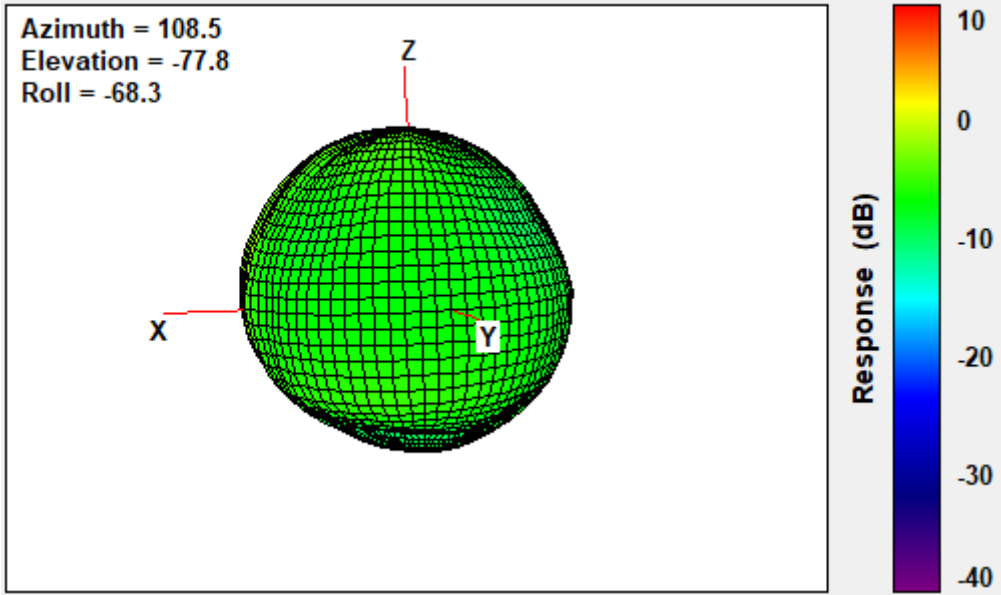
**Total**



Center Frequency	<b>698 MHz</b>
Peak Gain W/ Cable loss (dBi)	<b>0.24</b>

**699MHz**

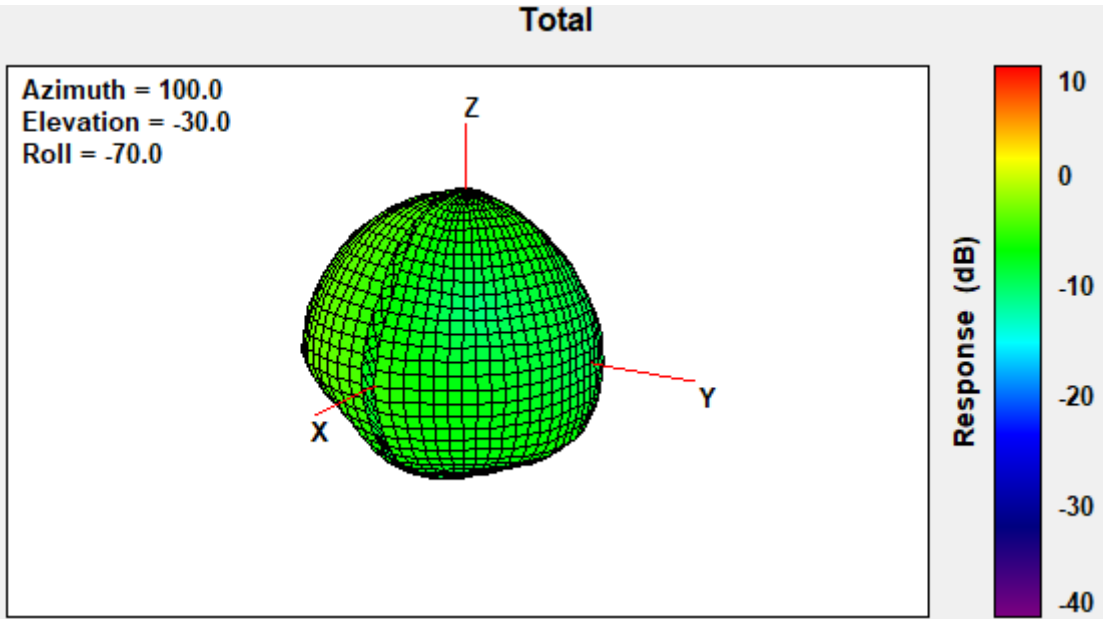
**Total**



Center Frequency	<b>699MHz</b>
Peak Gain W/ Cable loss (dBi)	<b>0.79</b>

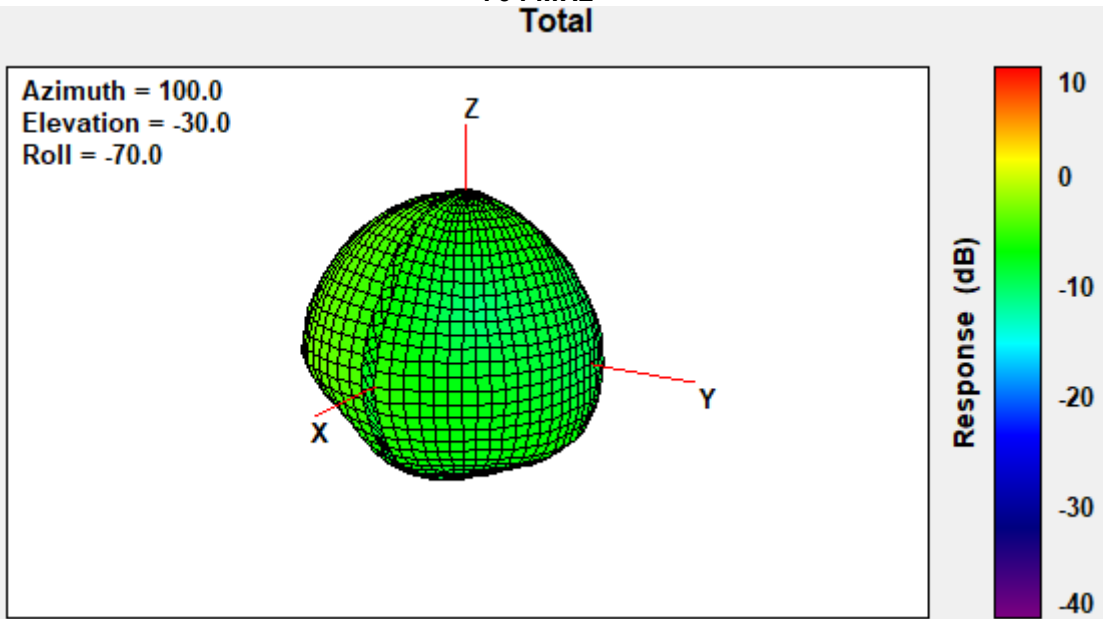


**703 MHz  
Total**



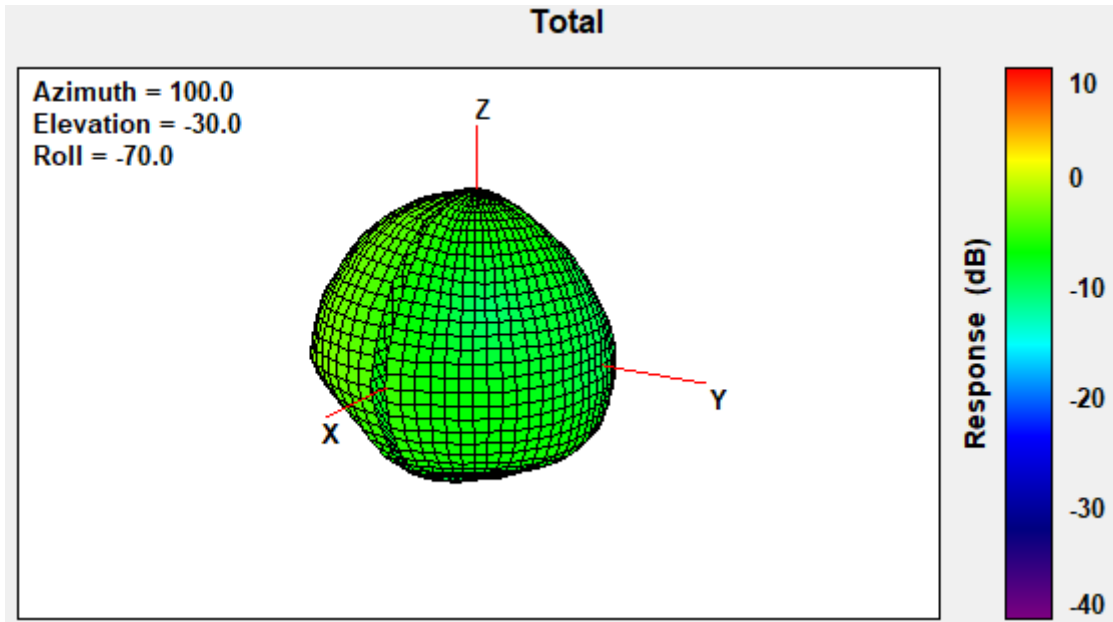
Center Frequency	<b>703MHz</b>
Peak Gain W/ Cable loss (dBi)	<b>1.44</b>

**704 MHz  
Total**



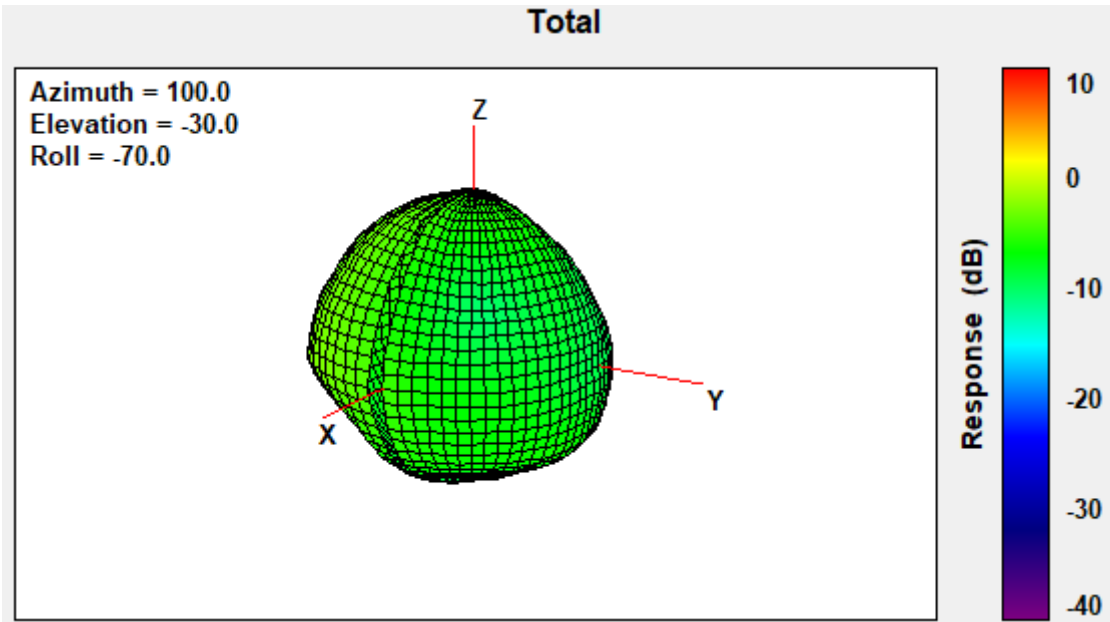
Center Frequency	<b>704 MHz</b>
Peak Gain W/ Cable loss (dBi)	<b>1.52</b>

707.5 MHz



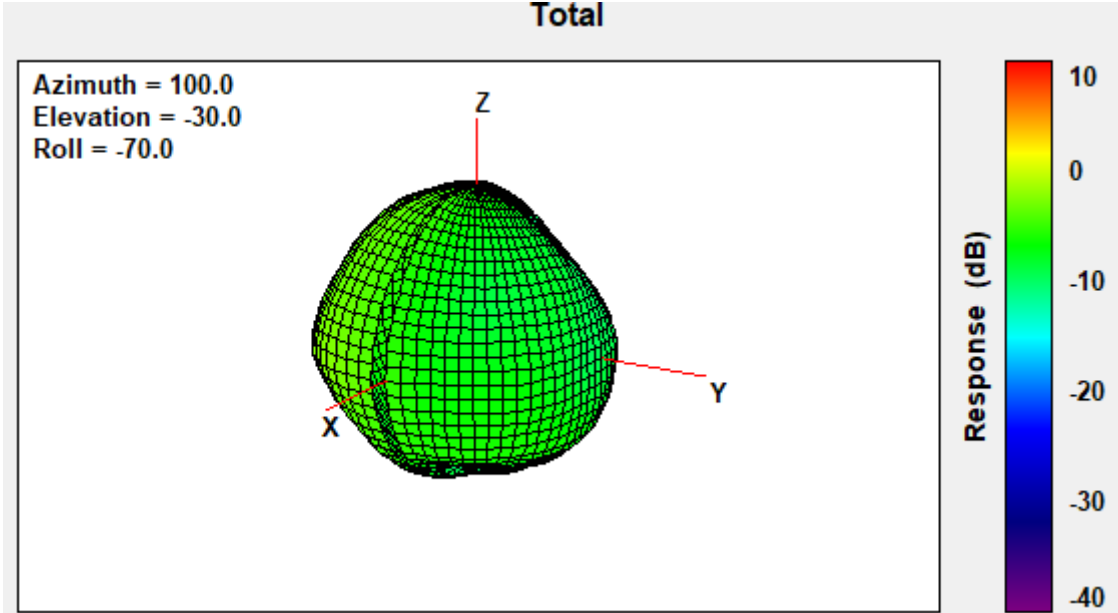
Center Frequency	<b>707.5 MHz</b>
Peak Gain W/ Cable loss (dBi)	<b>1.65</b>

710 MHz  
**Total**



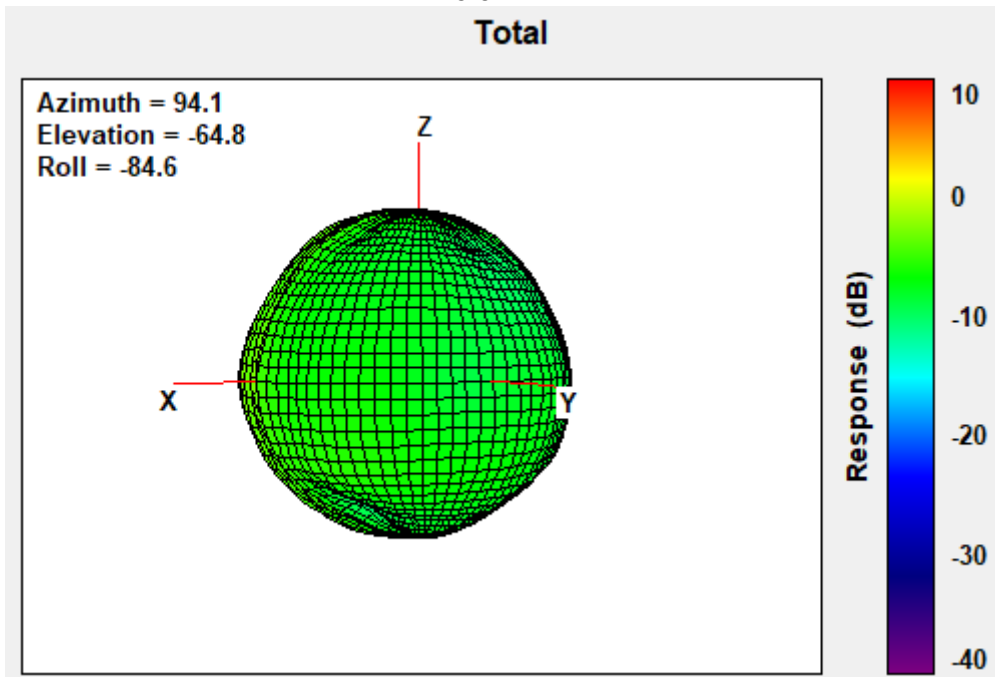
Center Frequency	<b>710 MHz</b>
Peak Gain W/ Cable loss (dBi)	<b>1.89</b>

**716 MHz  
Total**



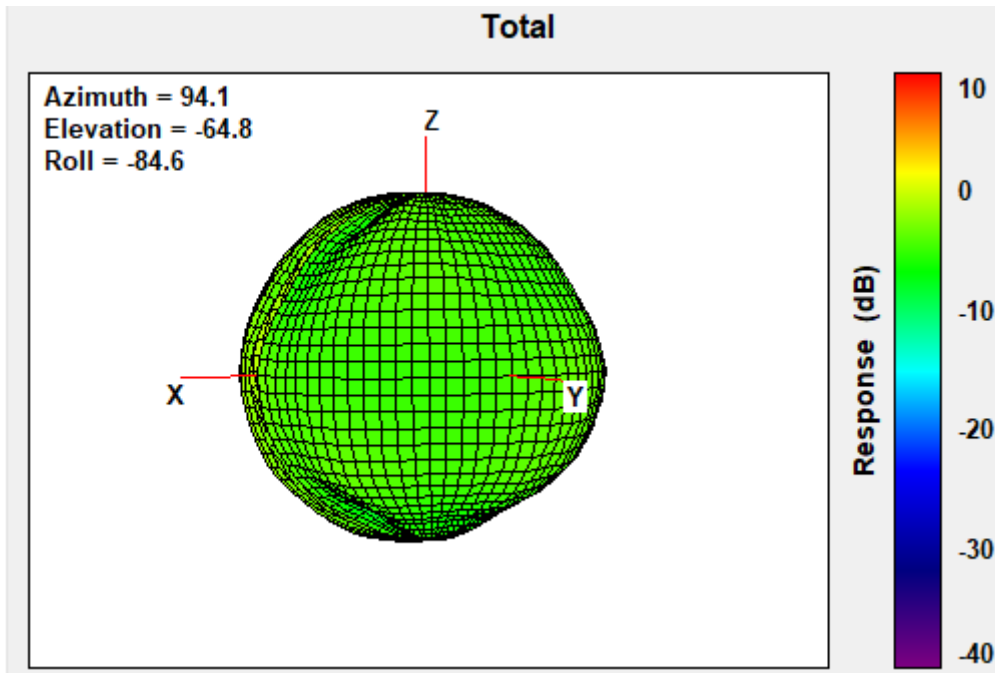
Center Frequency	<b>716 MHz</b>
Peak Gain W/ Cable loss (dBi)	<b>2.25</b>

**725.5 MHz  
Total**

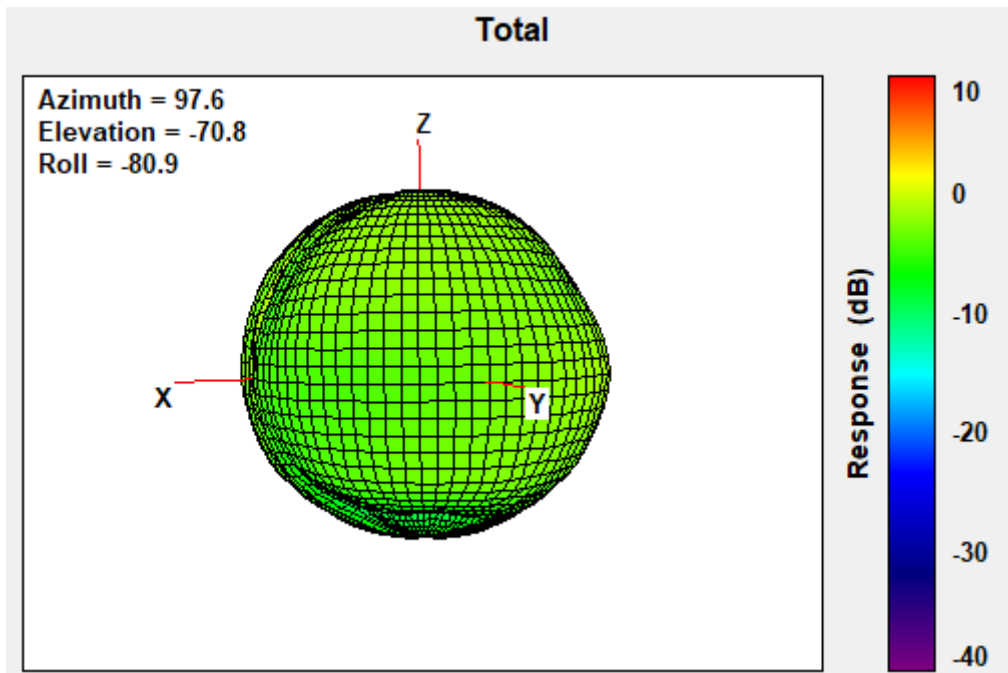


Center Frequency	<b>725.5MHz</b>
Peak Gain W/ Cable loss (dBi)	<b>2.28</b>

748 MHz

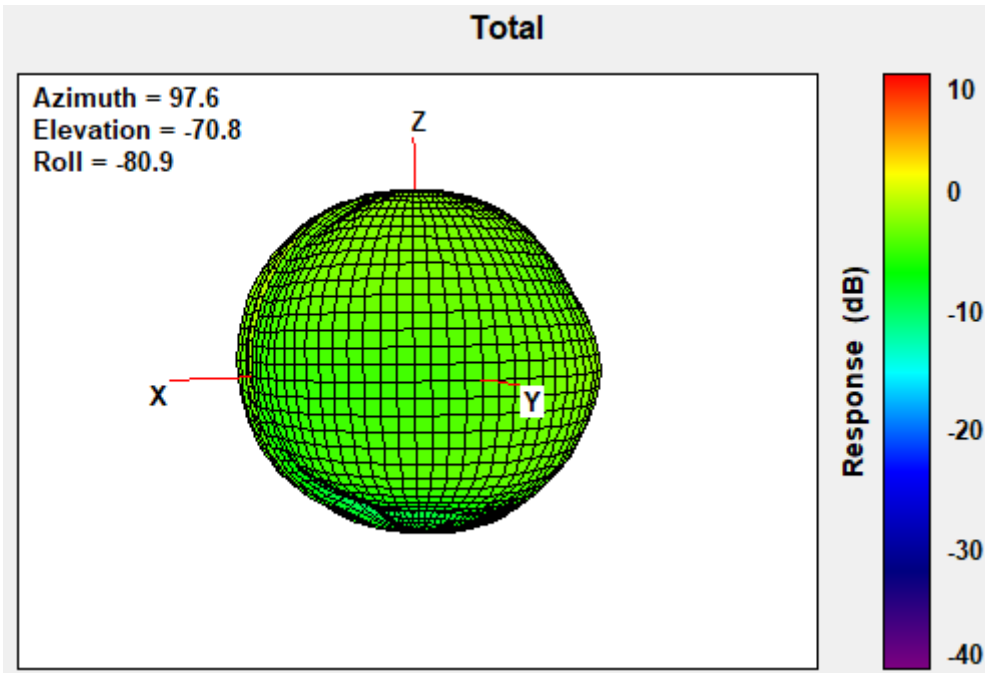


777 MHz



**782 MHz**

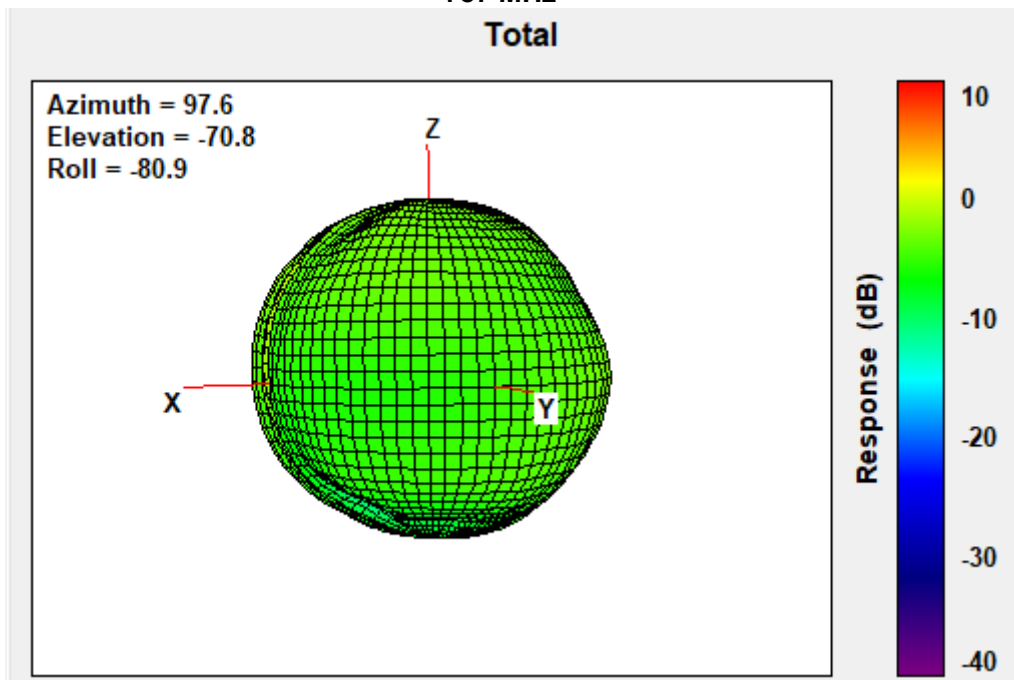
**Total**



Center Frequency	<b>782 MHz</b>
Peak Gain W/ Cable loss (dBi)	<b>1.02</b>

**787 MHz**

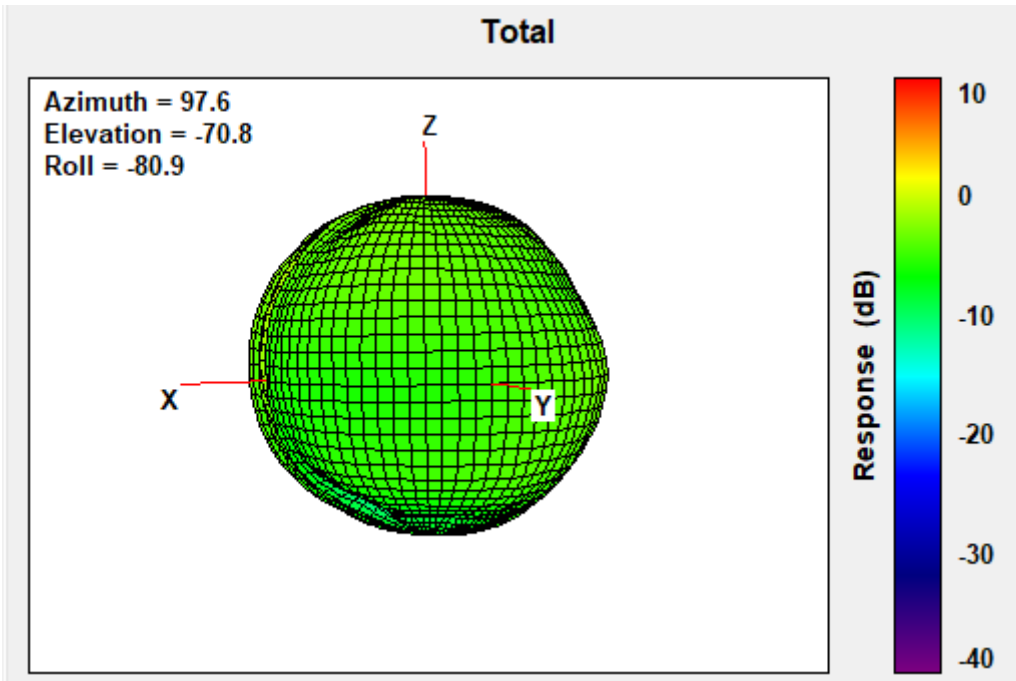
**Total**



Center Frequency	<b>787 MHz</b>
Peak Gain W/ Cable loss (dBi)	<b>0.75</b>

**788 MHz**

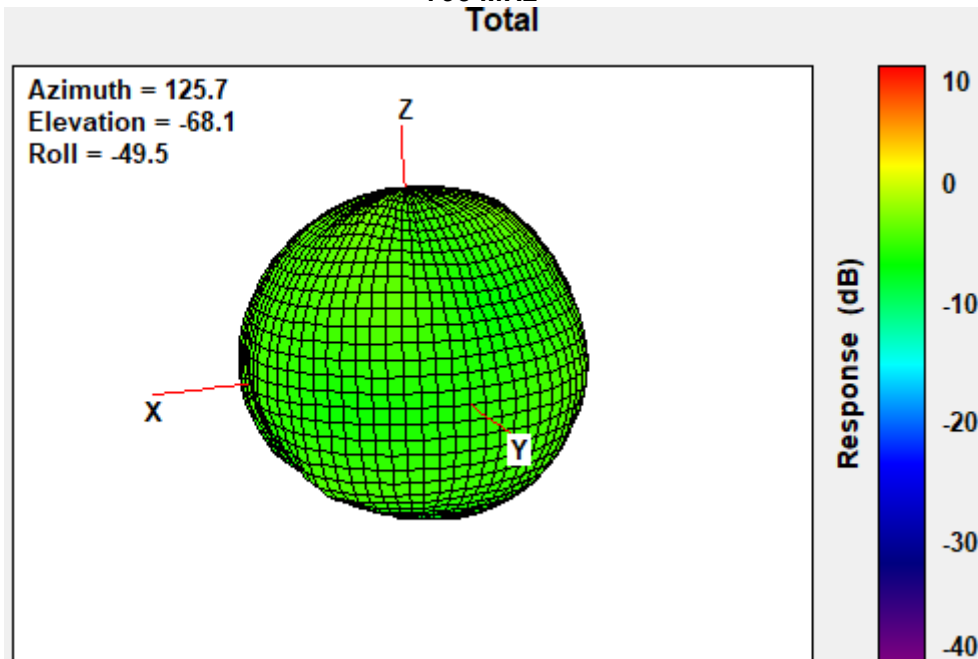
**Total**



Center Frequency	<b>788MHz</b>
Peak Gain W/ Cable loss (dBi)	<b>0.74</b>

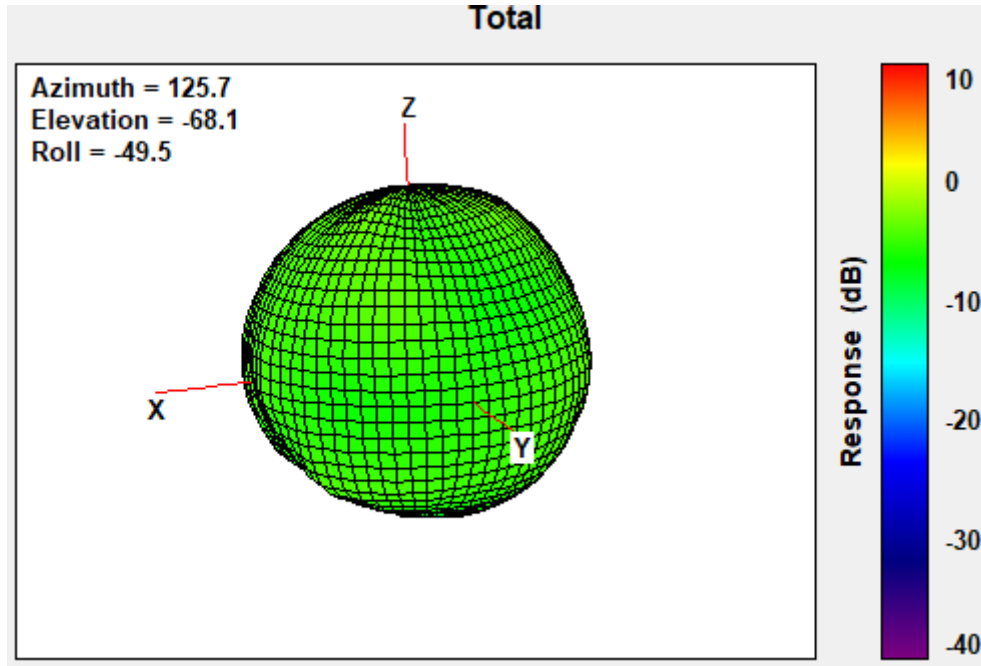
**793 MHz**

**Total**



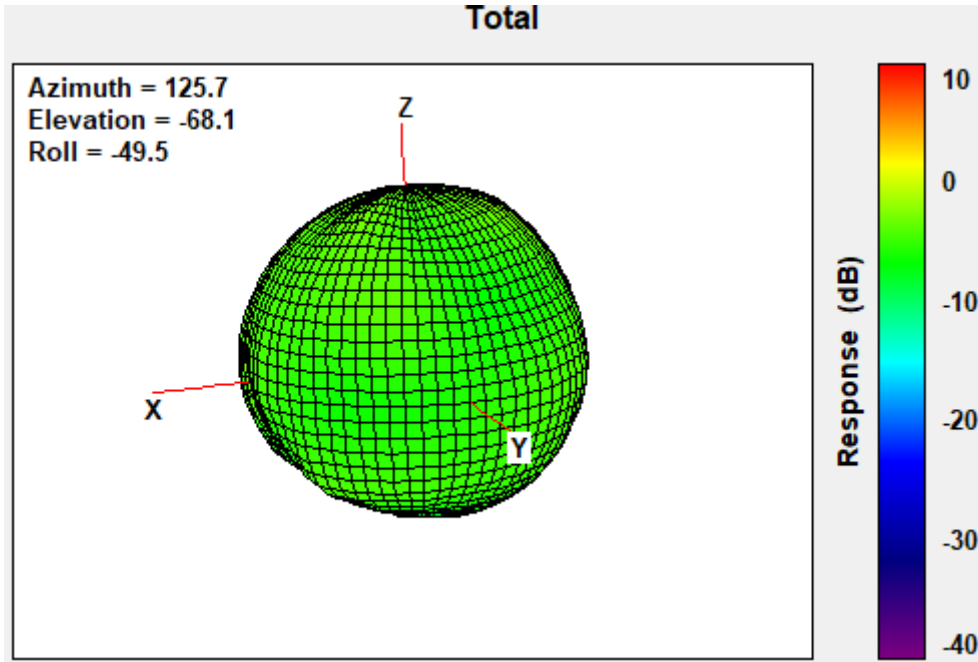
Center Frequency	<b>793 MHz</b>
Peak Gain W/ Cable loss (dBi)	<b>0.14</b>

**798 MHz**



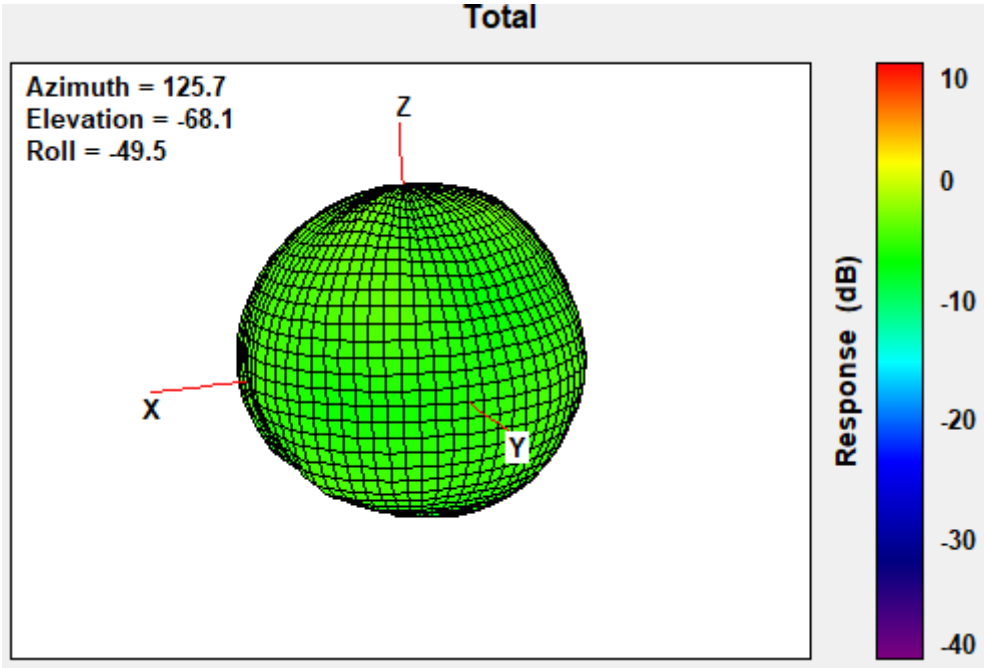
Center Frequency	<b>798 MHz</b>
Peak Gain W/ Cable loss (dBi)	<b>-0.30</b>

**814 MHz**



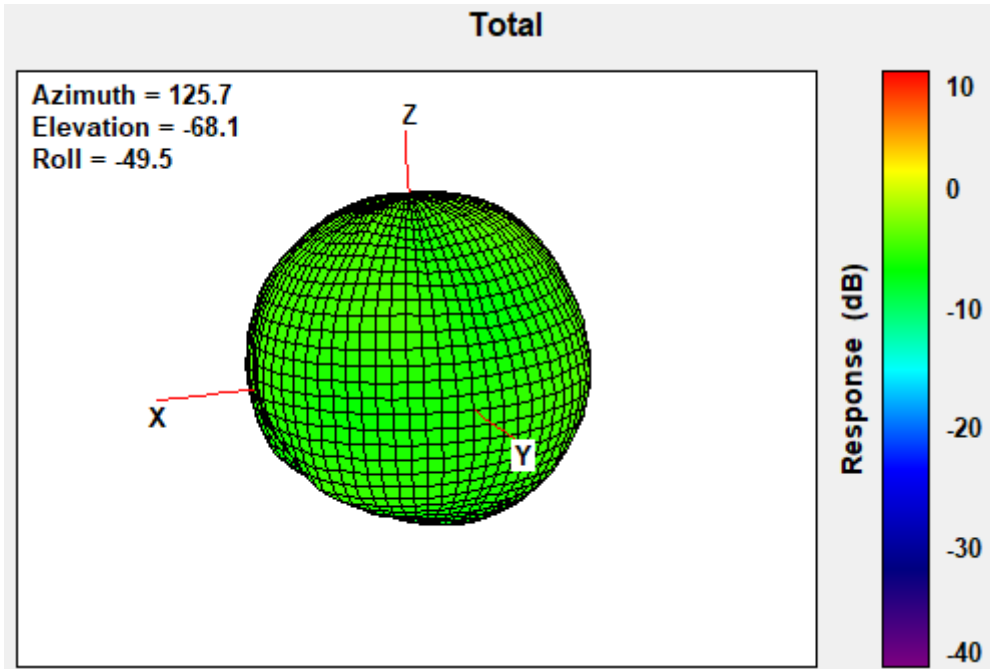
Center Frequency	<b>814 MHz</b>
Peak Gain W/ Cable loss (dBi)	<b>-0.22</b>

**815 MHz  
Total**



Center Frequency	<b>815 MHz</b>
Peak Gain W/ Cable loss (dBi)	<b>-0.24</b>

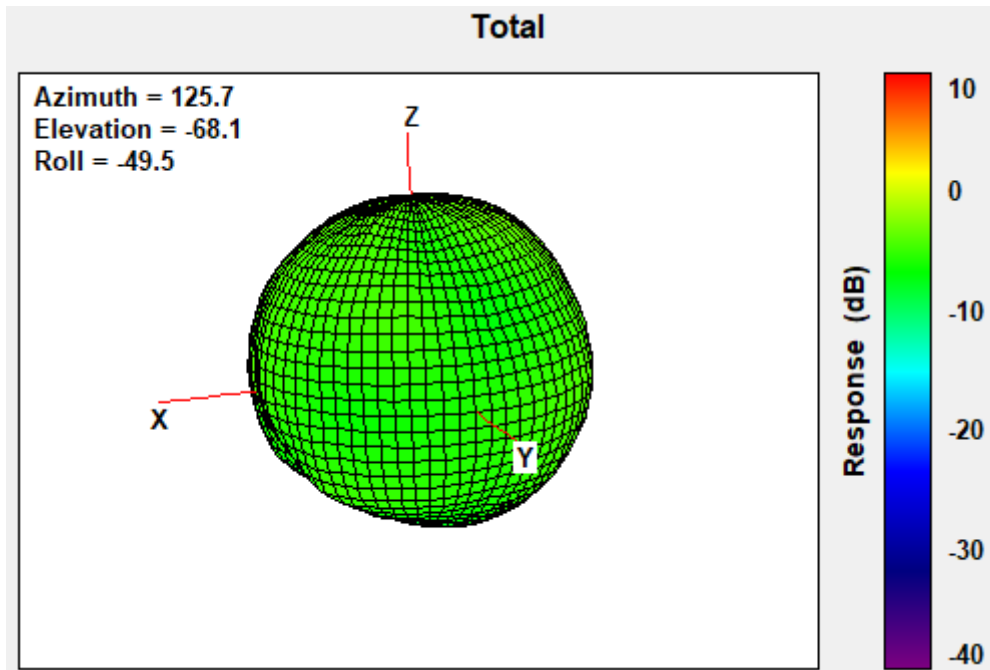
**822.5 MHz  
Total**



Center Frequency	<b>822.5 MHz</b>
Peak Gain W/ Cable loss (dBi)	<b>-0.39</b>

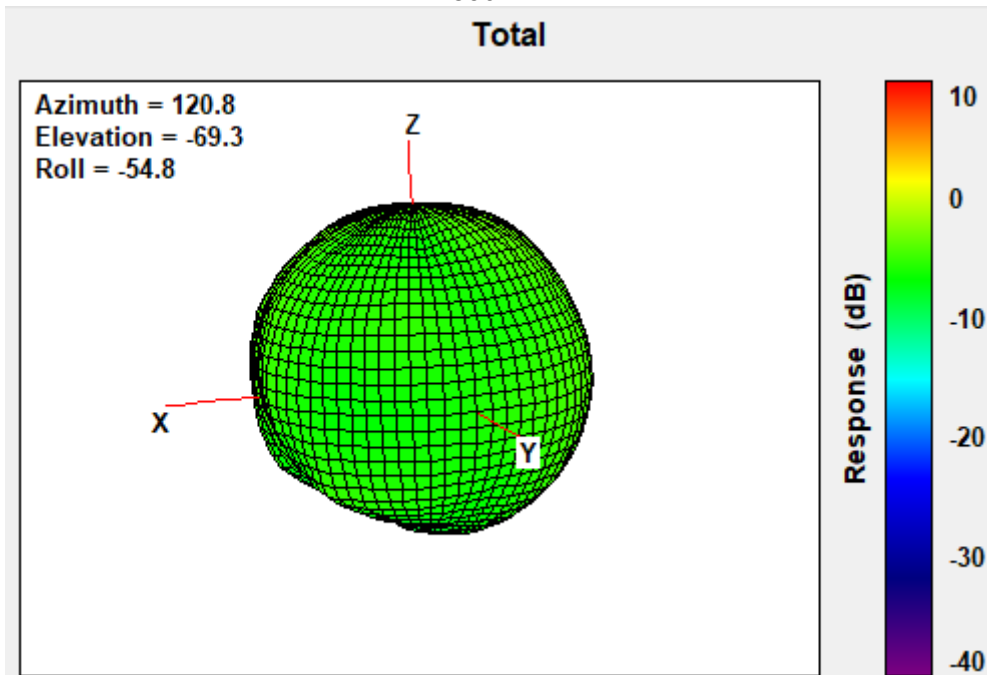


### 824 MHz



Center Frequency	<b>824 MHz</b>
Peak Gain W/ Cable loss (dBi)	<b>-0.43</b>

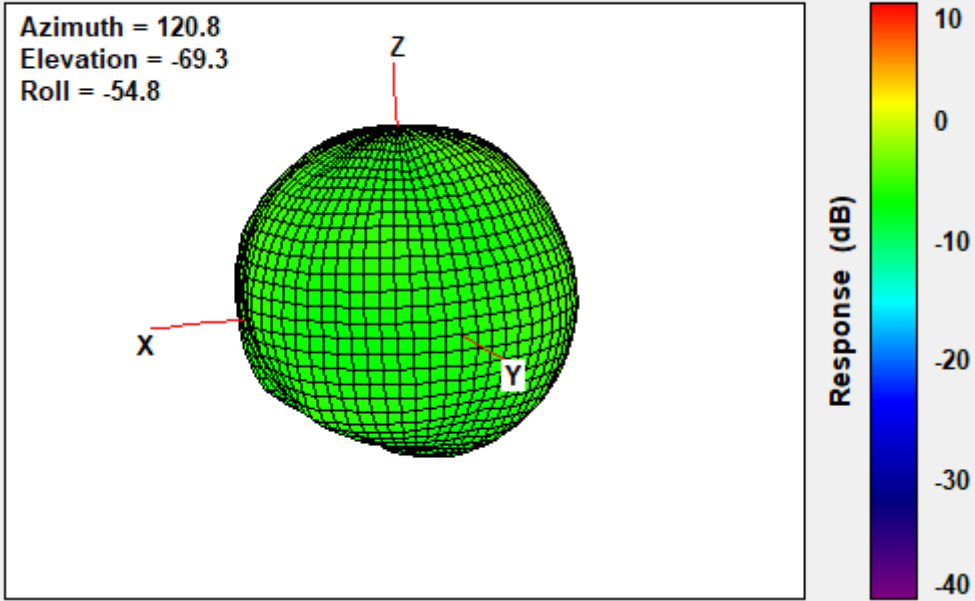
### 830 MHz



Center Frequency	<b>830 MHz</b>
Peak Gain W/ Cable loss (dBi)	<b>-0.61</b>

831.5 MHz

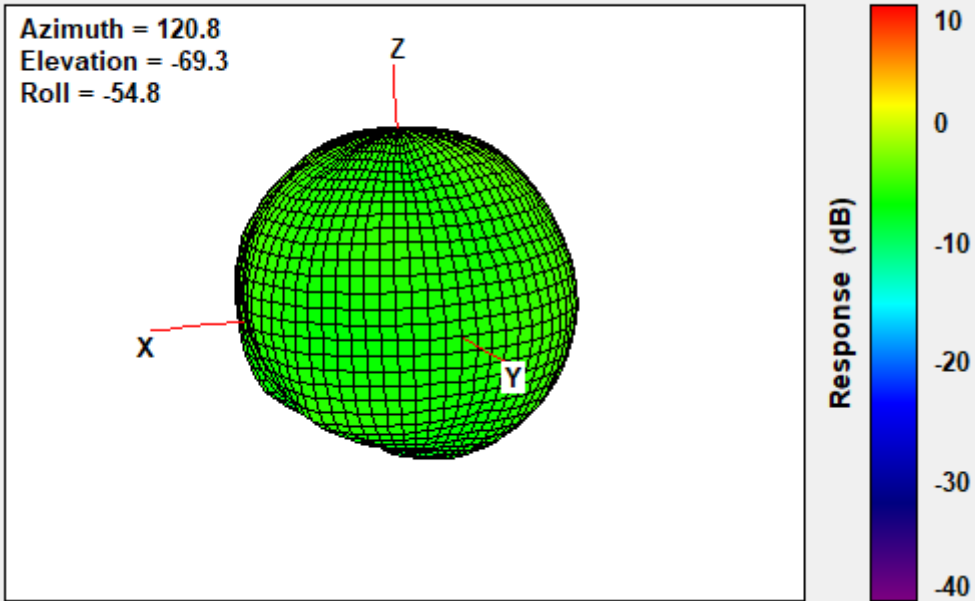
Total



Center Frequency	831.5 MHz
Peak Gain W/ Cable loss (dBi)	-0.67

832 MHz

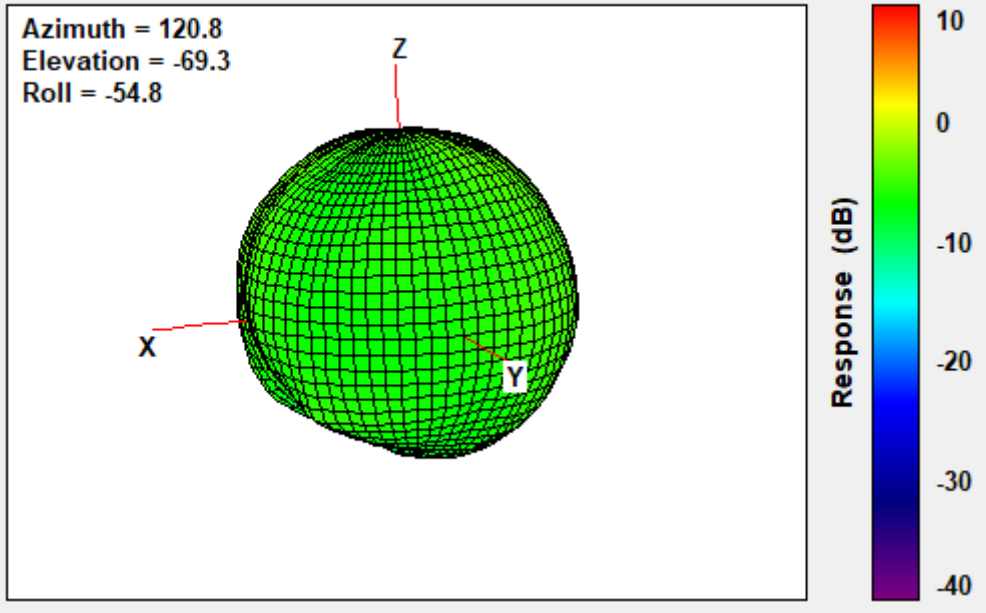
Total



Center Frequency	832 MHz
Peak Gain W/ Cable loss (dBi)	-0.66

**836.5 MHz**

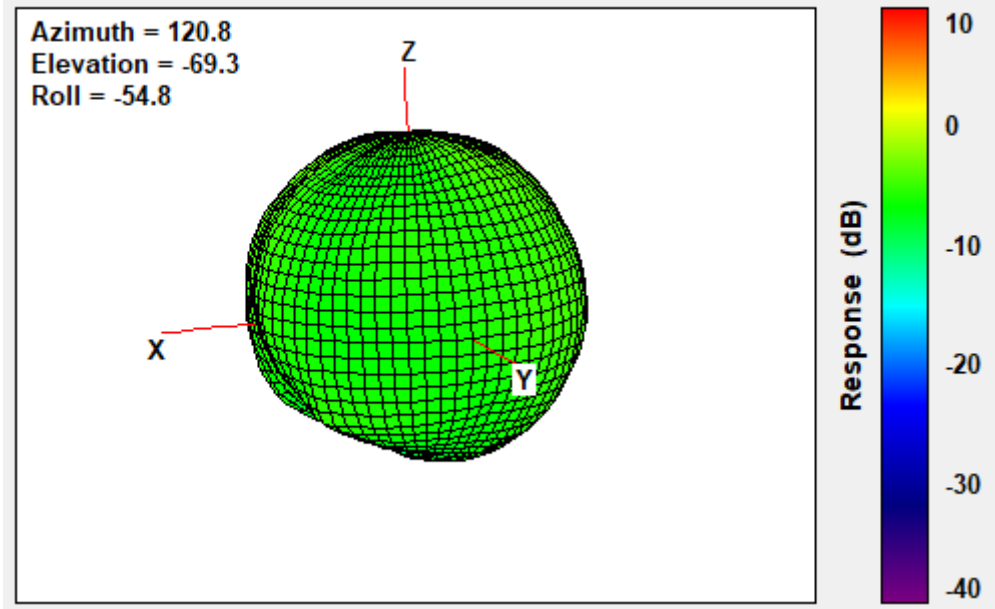
**Total**



Center Frequency	<b>836.5 MHz</b>
Peak Gain W/ Cable loss (dBi)	<b>-0.70</b>

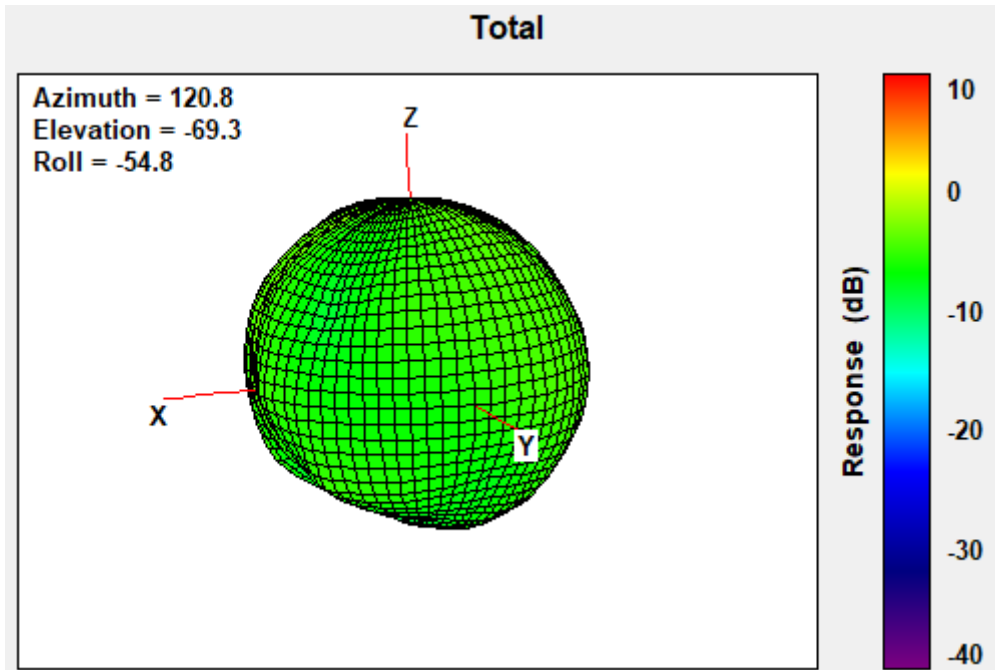
**837.5 MHz**

**Total**



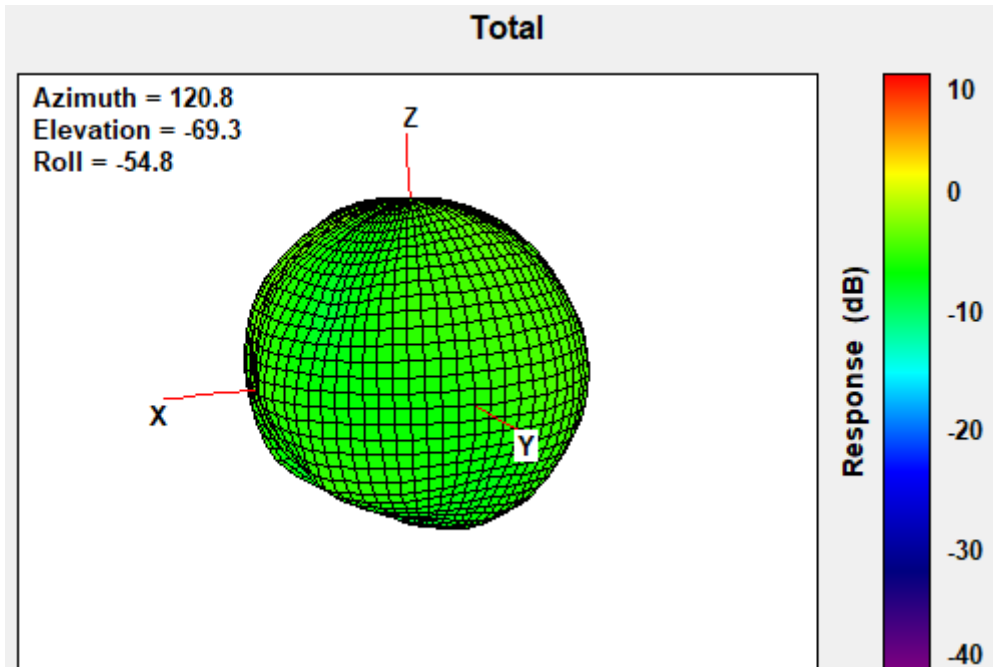
Center Frequency	<b>837.5 MHz</b>
Peak Gain W/ Cable loss (dBi)	<b>-0.72</b>

845 MHz



Center Frequency	<b>845 MHz</b>
Peak Gain W/ Cable loss (dBi)	<b>-0.81</b>

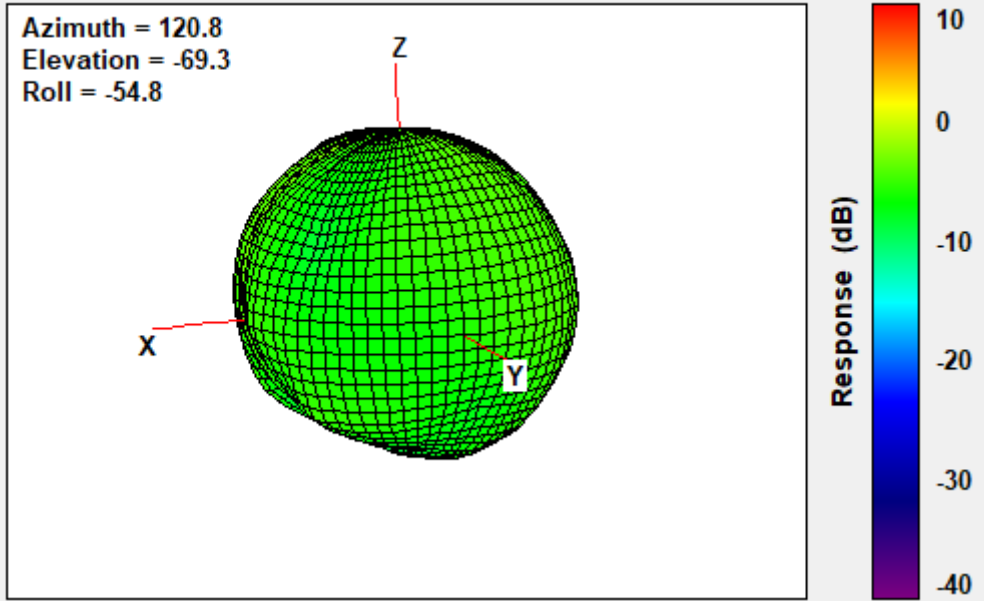
847 MHz



Center Frequency	<b>847 MHz</b>
Peak Gain W/ Cable loss (dBi)	<b>-0.85</b>

**849 MHz**

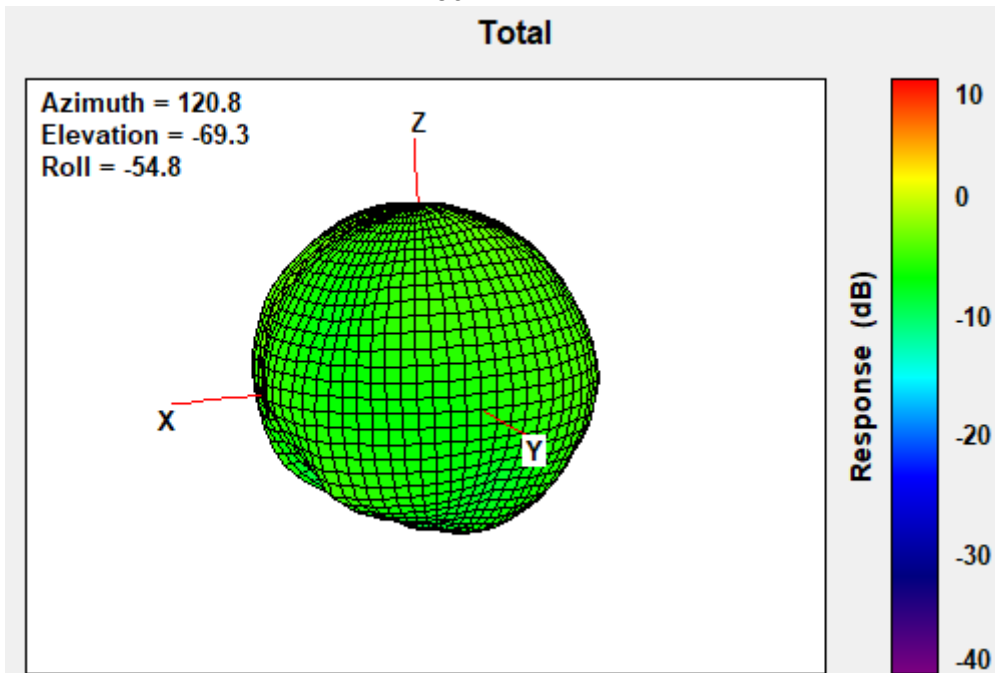
**Total**



Center Frequency	<b>849 MHz</b>
Peak Gain W/ Cable loss (dBi)	<b>-0.89</b>

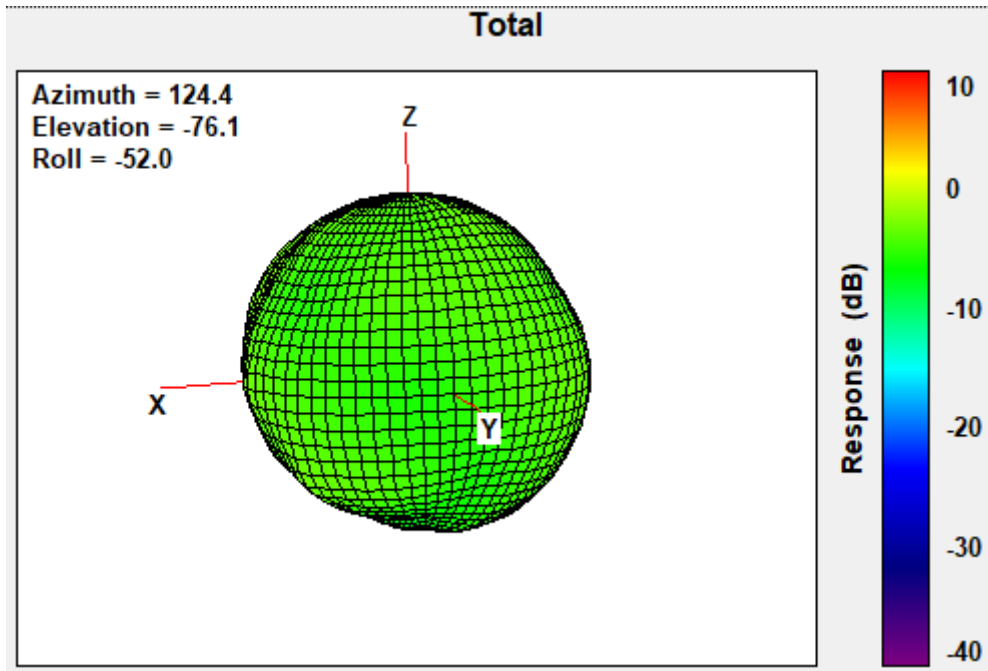
**862 MHz**

**Total**

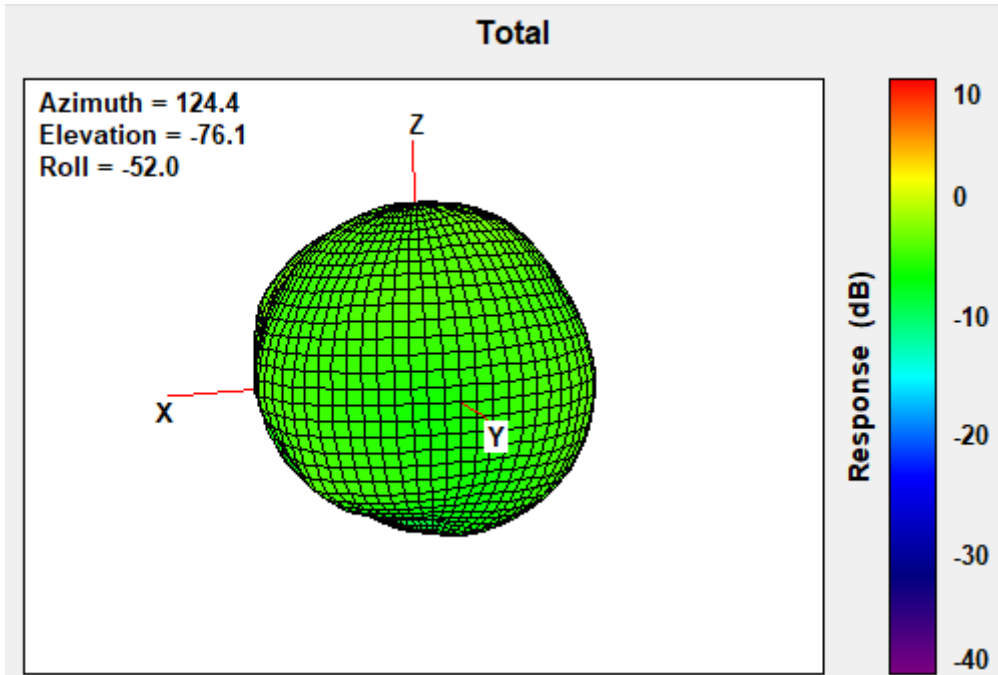


Center Frequency	<b>862 MHz</b>
Peak Gain W/ Cable loss (dBi)	<b>-1.23</b>

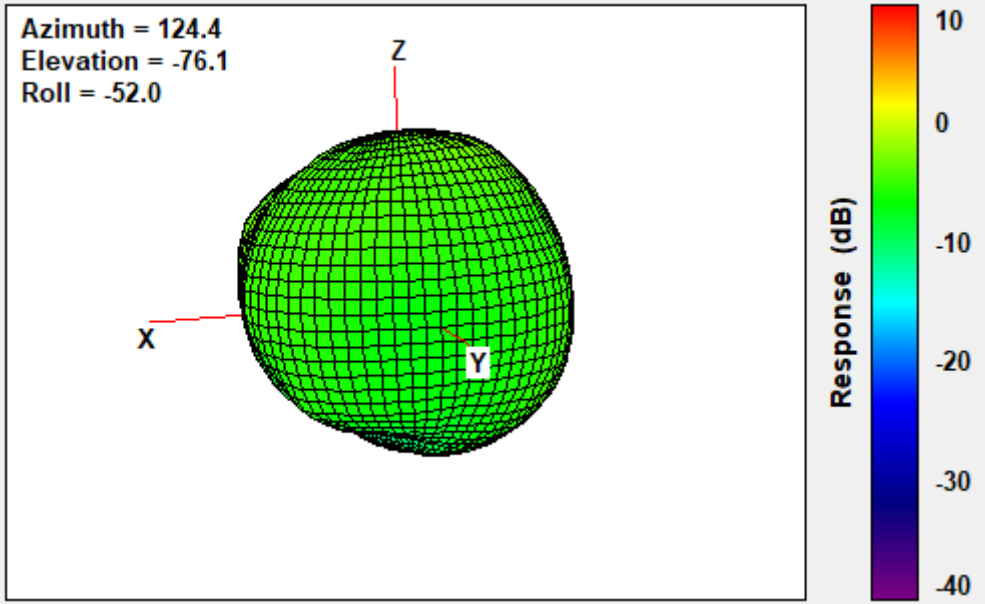
**880 MHz**



**897.5 MHz**

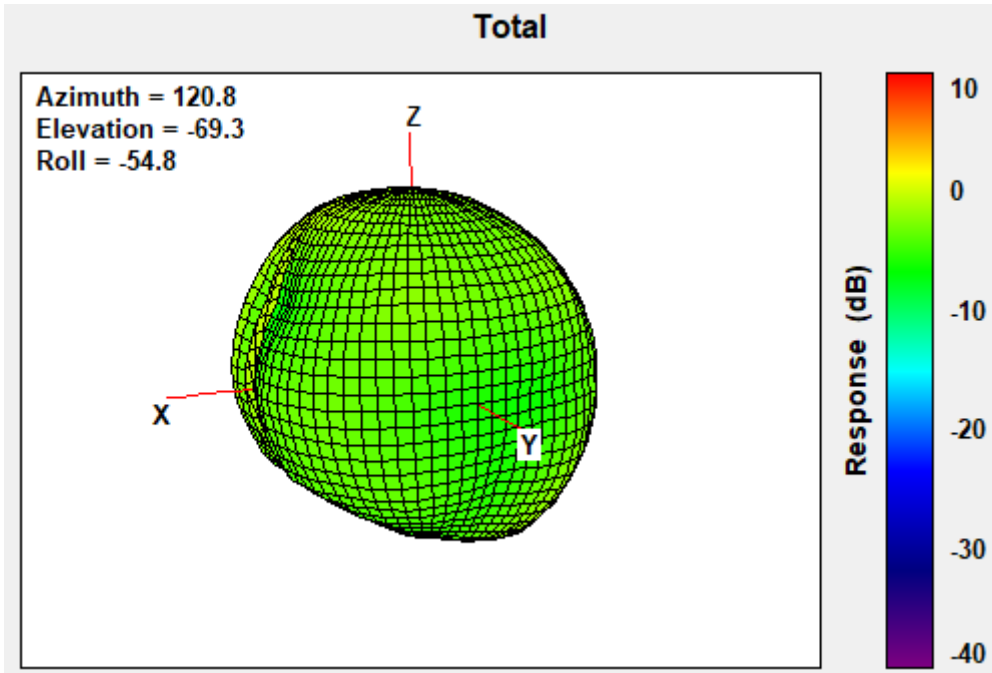


**915 MHz  
Total**



Center Frequency	<b>915 MHz</b>
Peak Gain W/ Cable loss (dBi)	<b>-1.65</b>

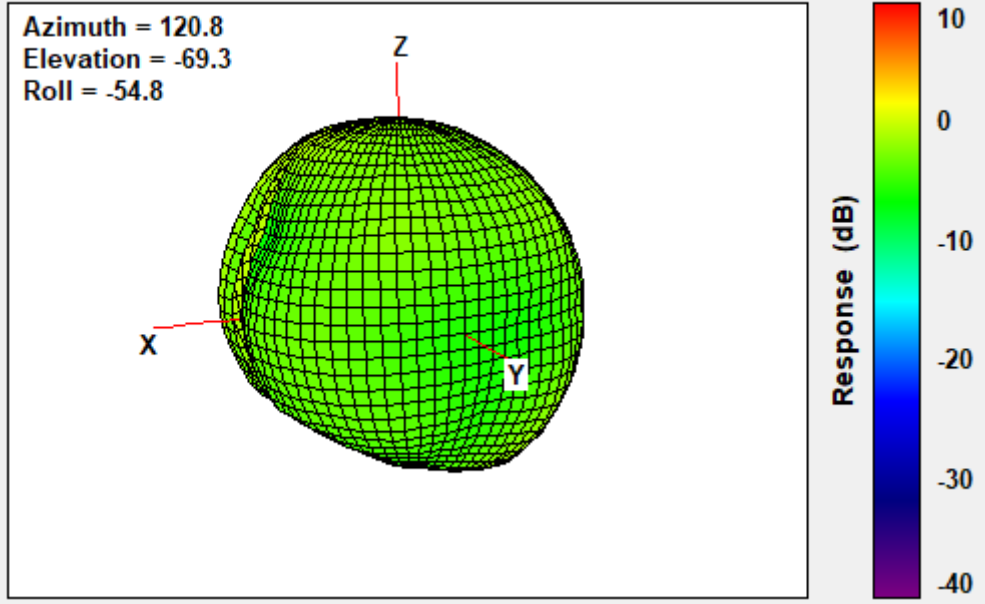
**1695 MHz  
Total**



Center Frequency	<b>1695 MHz</b>
Peak Gain W/ Cable loss (dBi)	<b>1.47</b>

1702.5 MHz

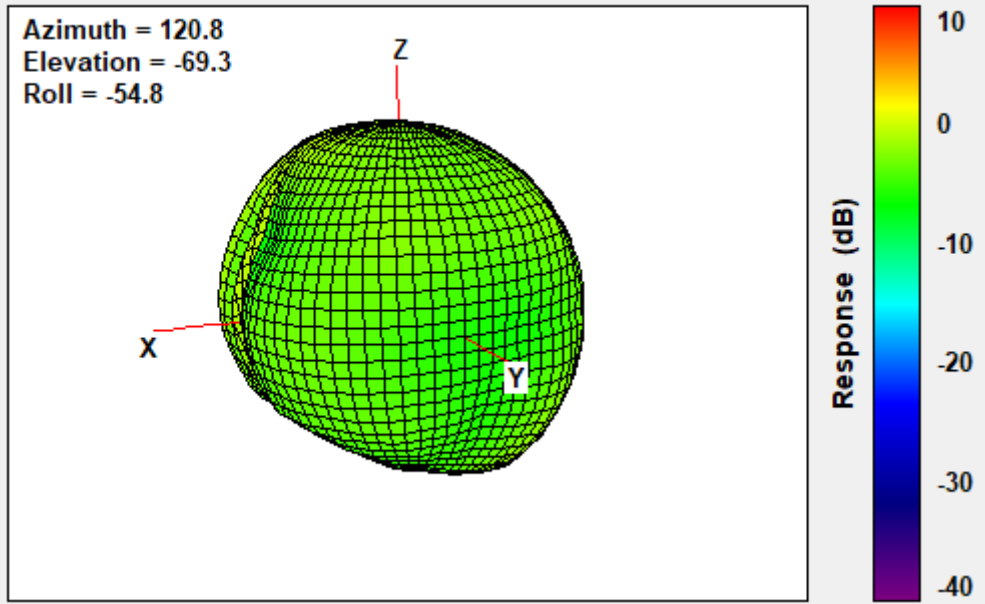
Total



Center Frequency	1702.5 MHz
Peak Gain W/ Cable loss (dBi)	1.33

1710 MHz

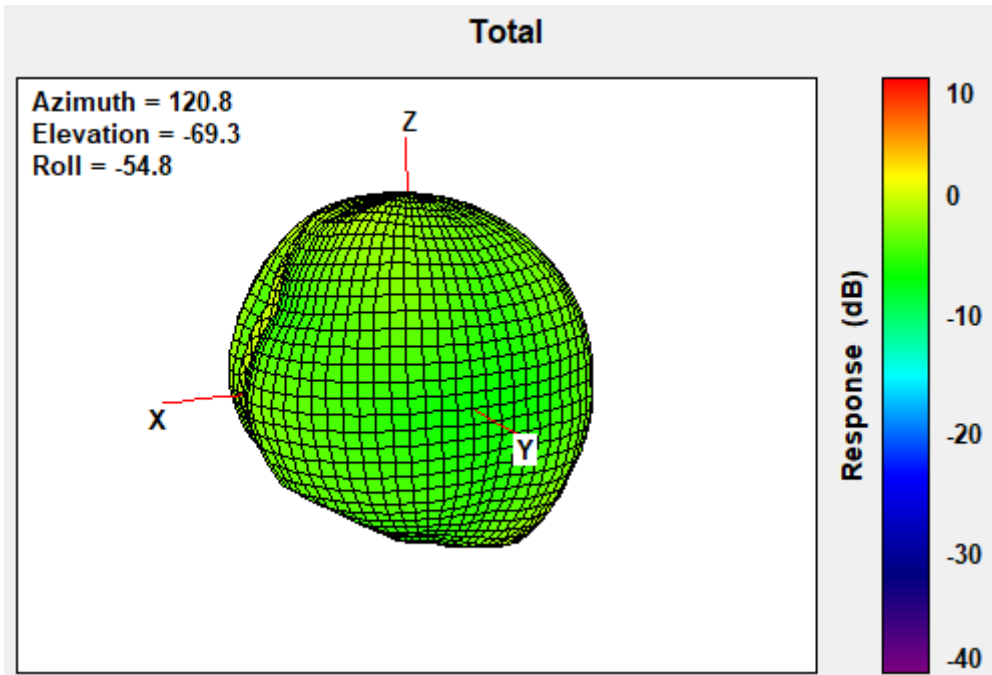
Total



Center Frequency	1710 MHz
Peak Gain W/ Cable loss (dBi)	1.05

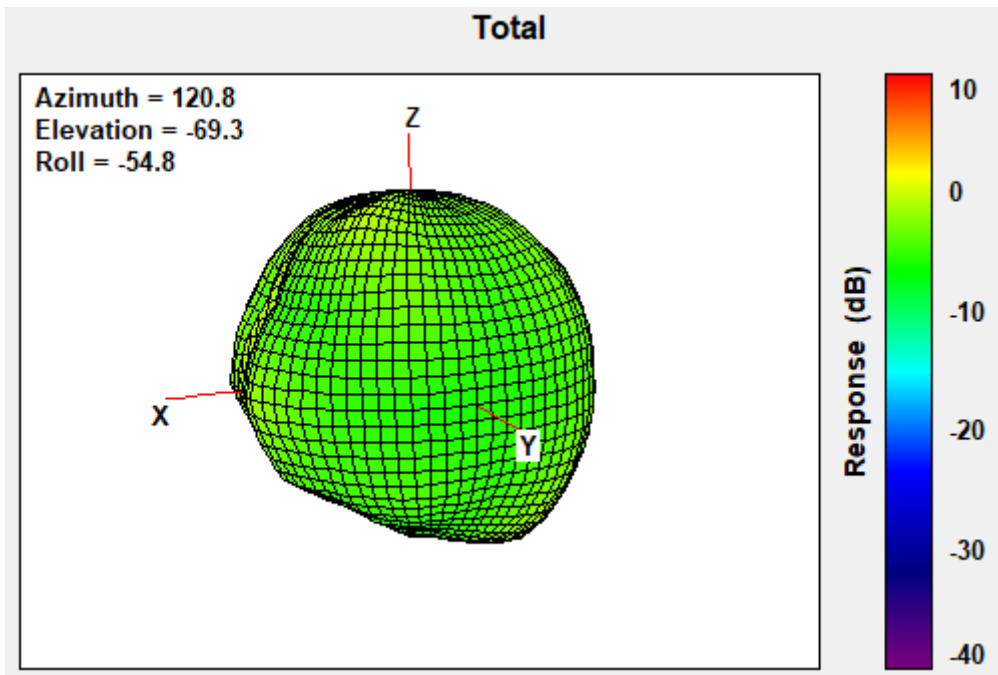


1732.5 MHz



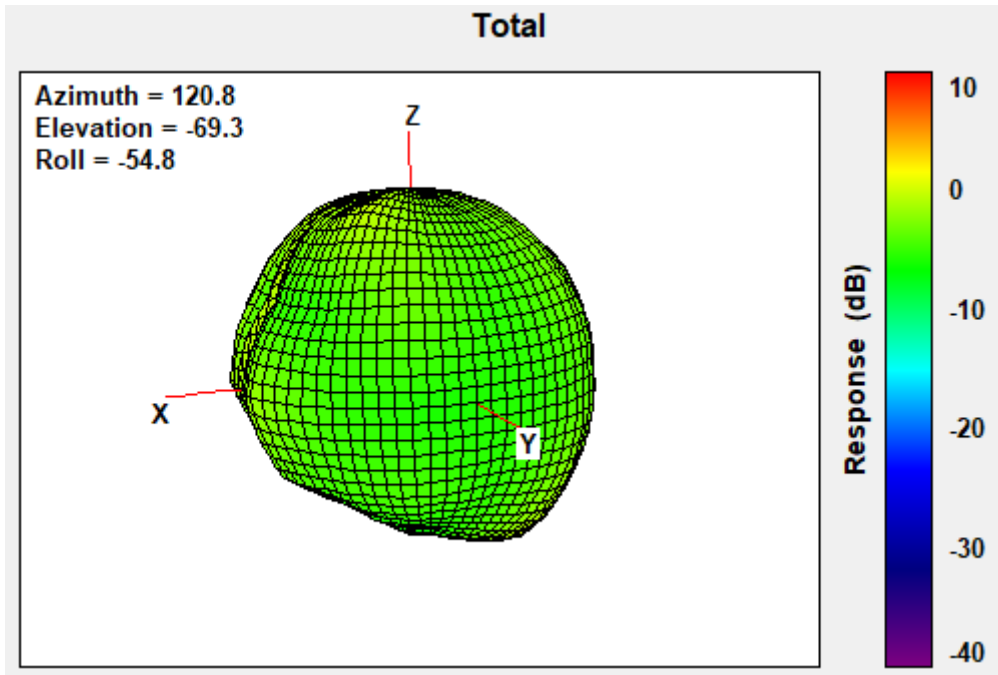
Center Frequency	1732.5 MHz
Peak Gain W/ Cable loss (dBi)	0.75

1745 MHz



Center Frequency	1745 MHz
Peak Gain W/ Cable loss (dBi)	1.02

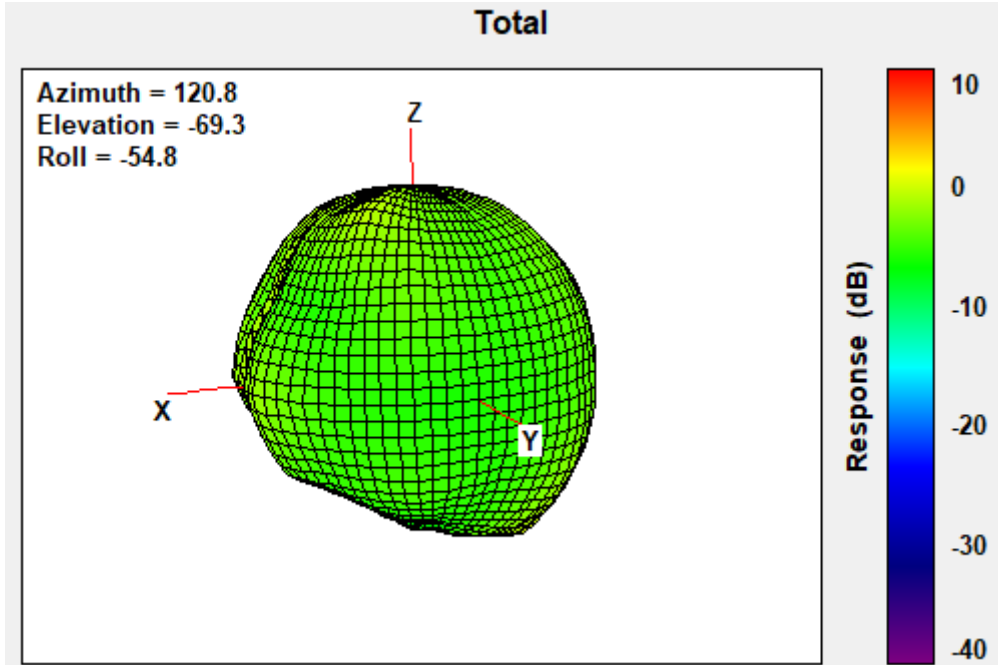
**1747.5 MHz  
Total**



Center Frequency	<b>1747.5 MHz</b>
Peak Gain W/ Cable loss (dBi)	<b>1.09</b>

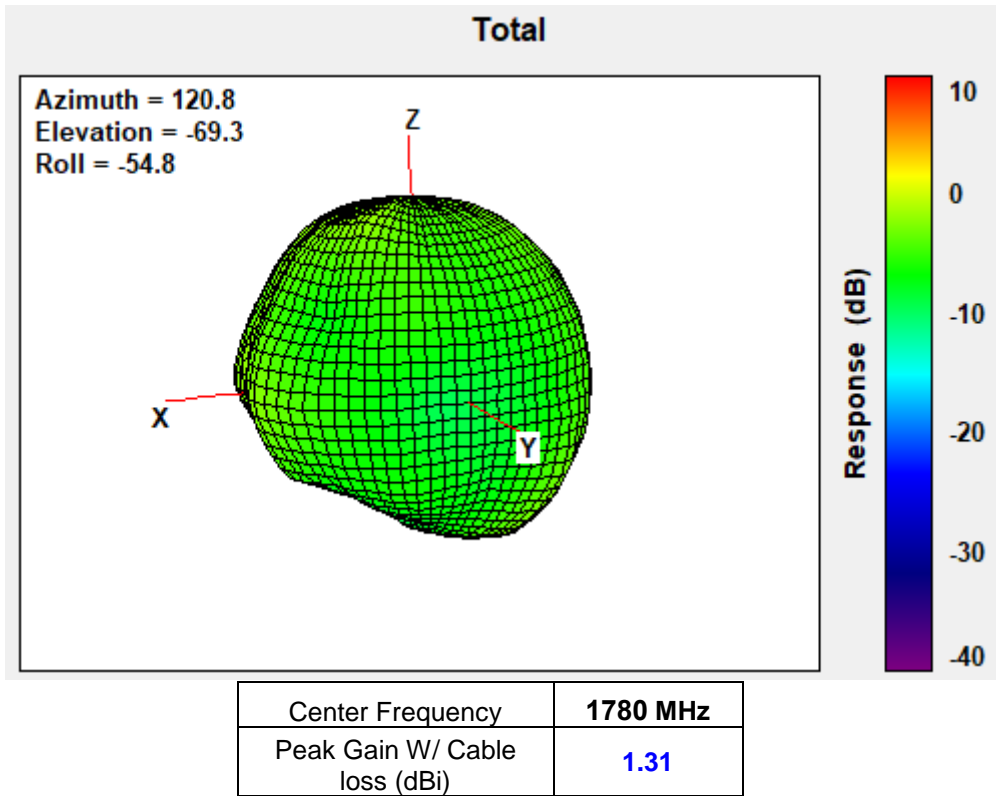
**1755 MHz**

**Total**

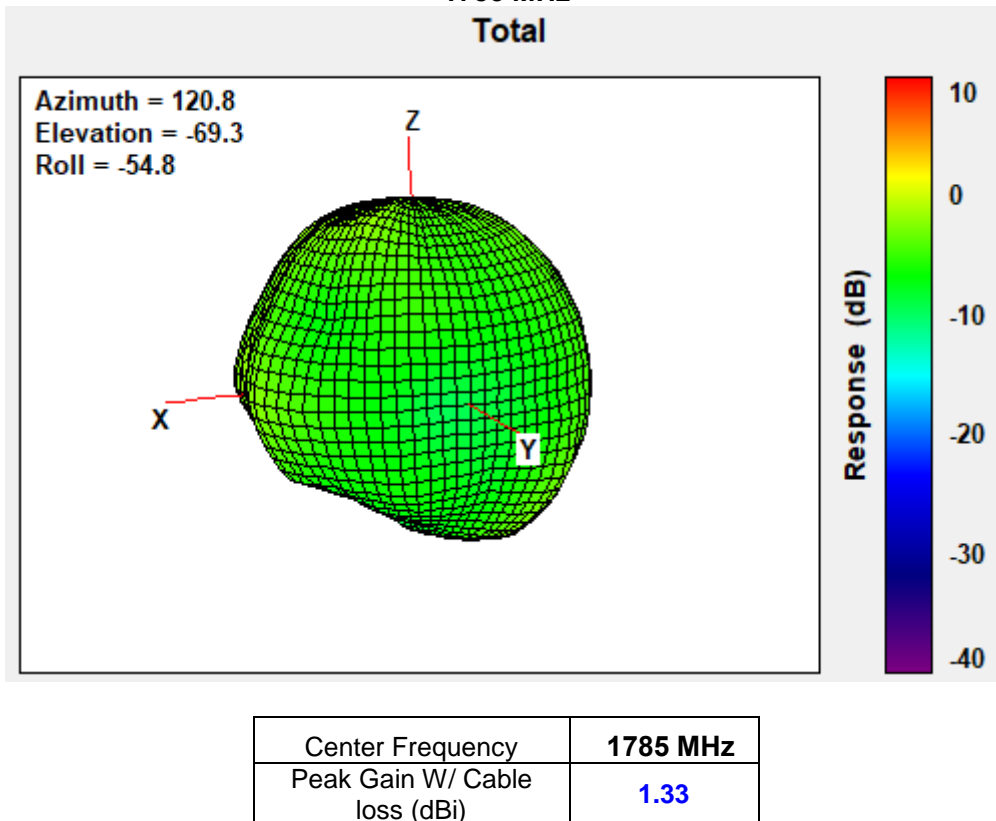


Center Frequency	<b>1755 MHz</b>
Peak Gain W/ Cable loss (dBi)	<b>1.22</b>

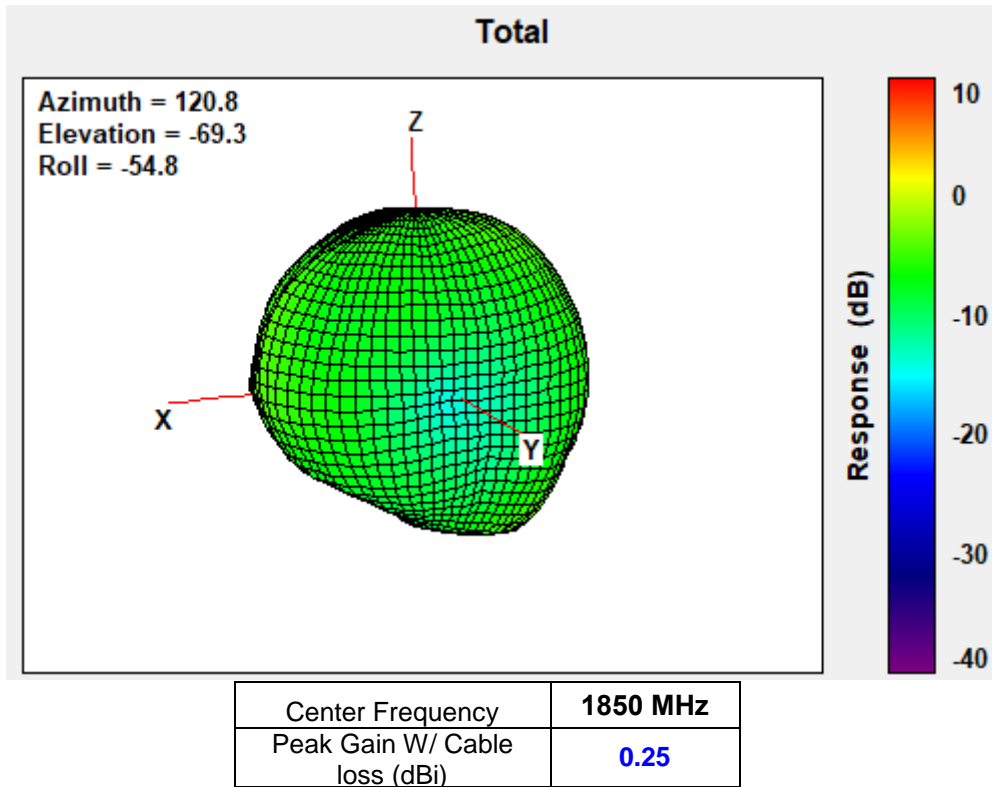
1780 MHz



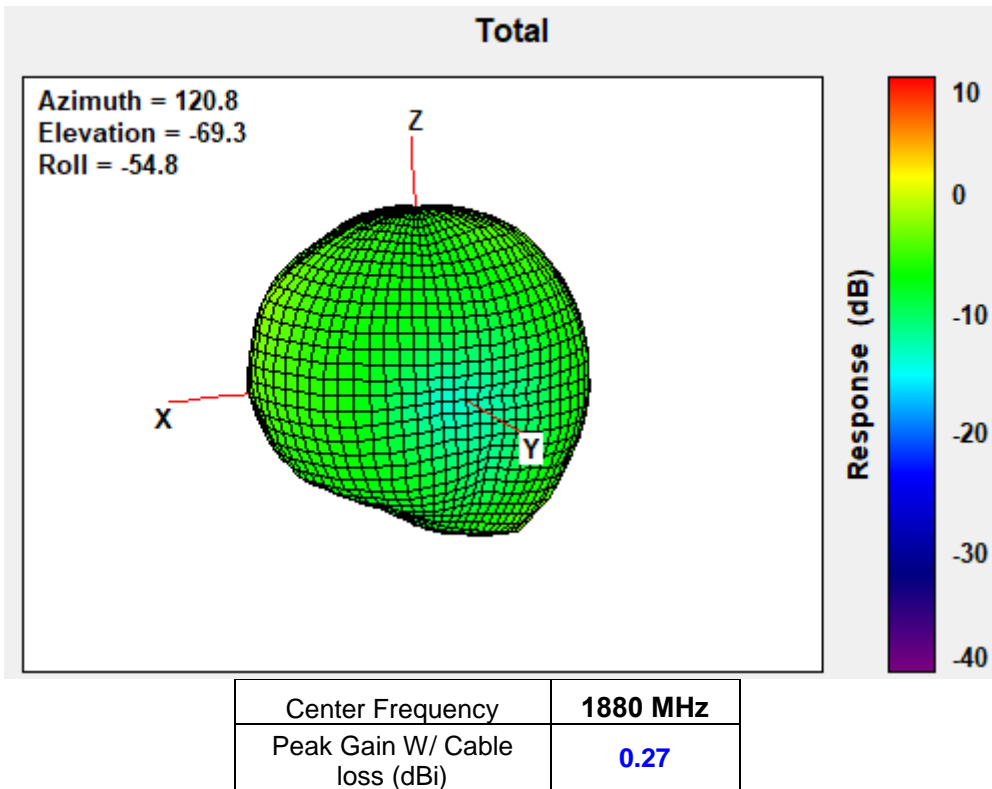
1785 MHz



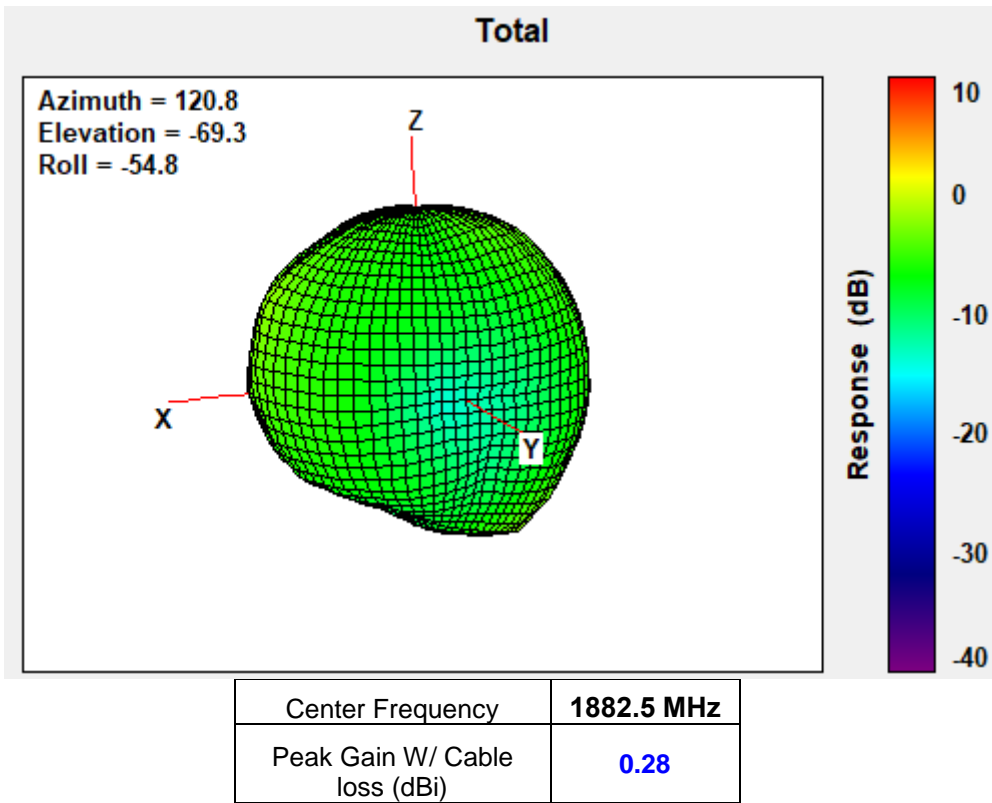
1850 MHz



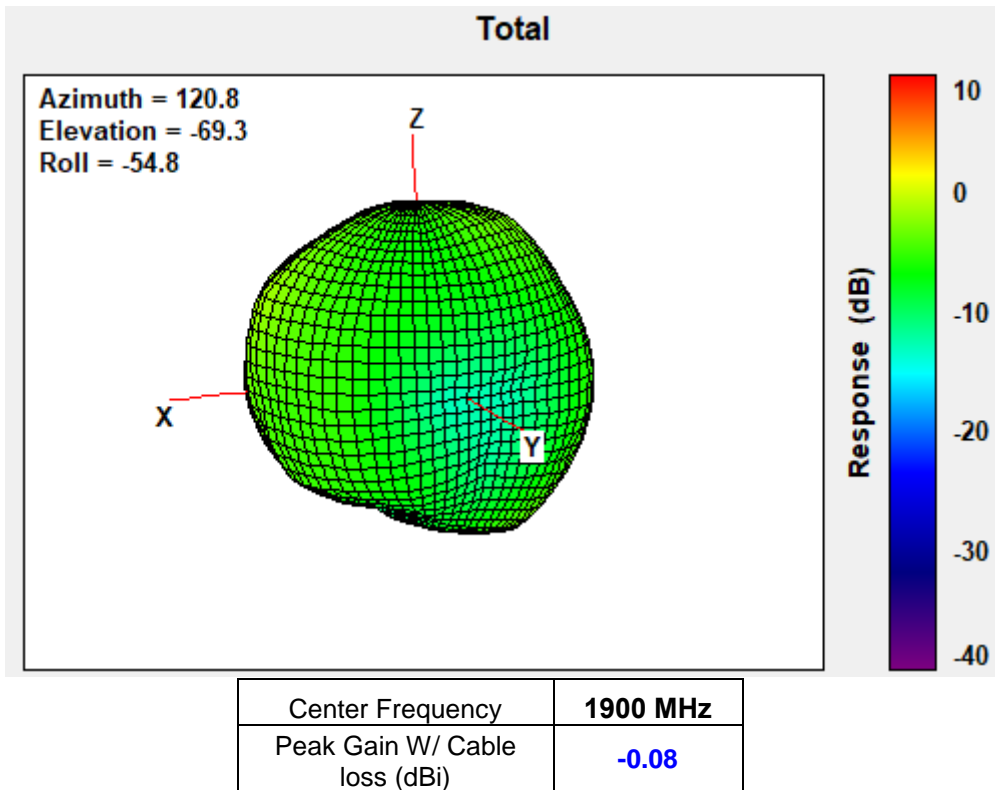
1880 MHz



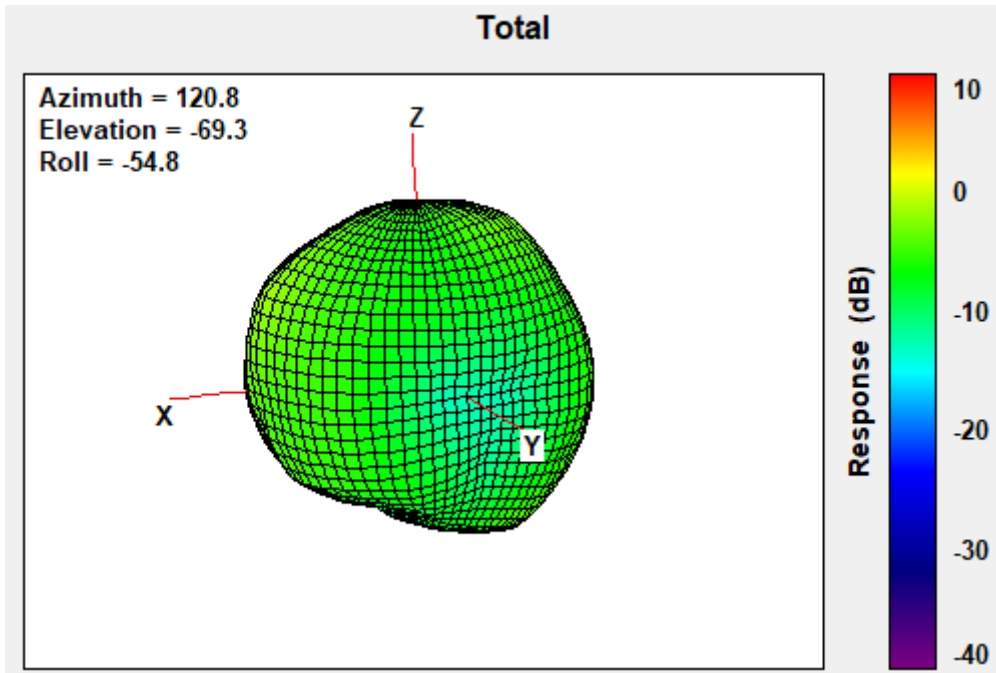
1882.5 MHz



1900 MHz

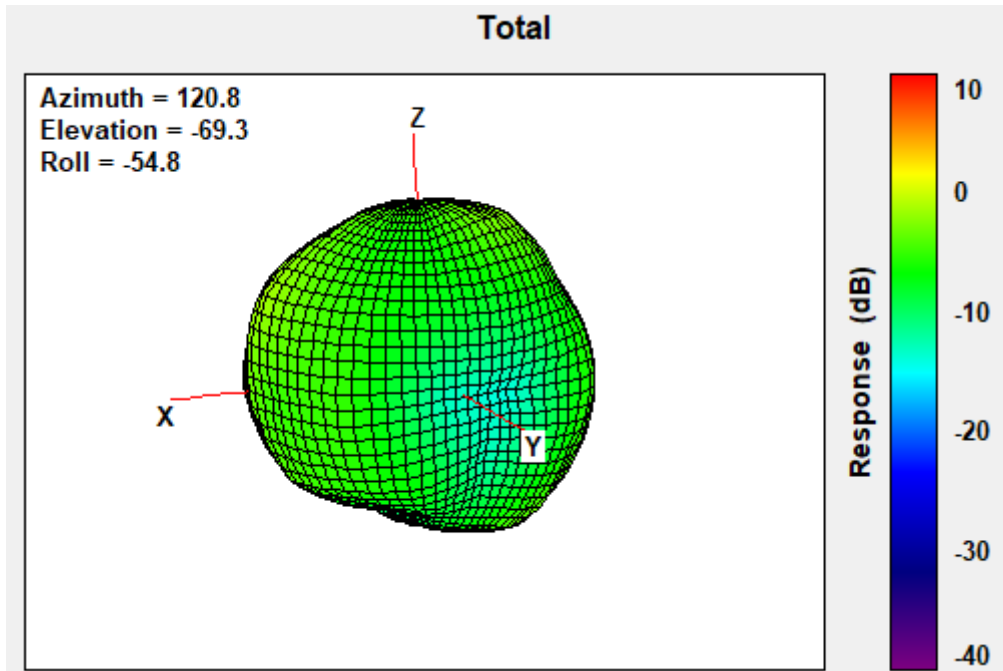


1910 MHz



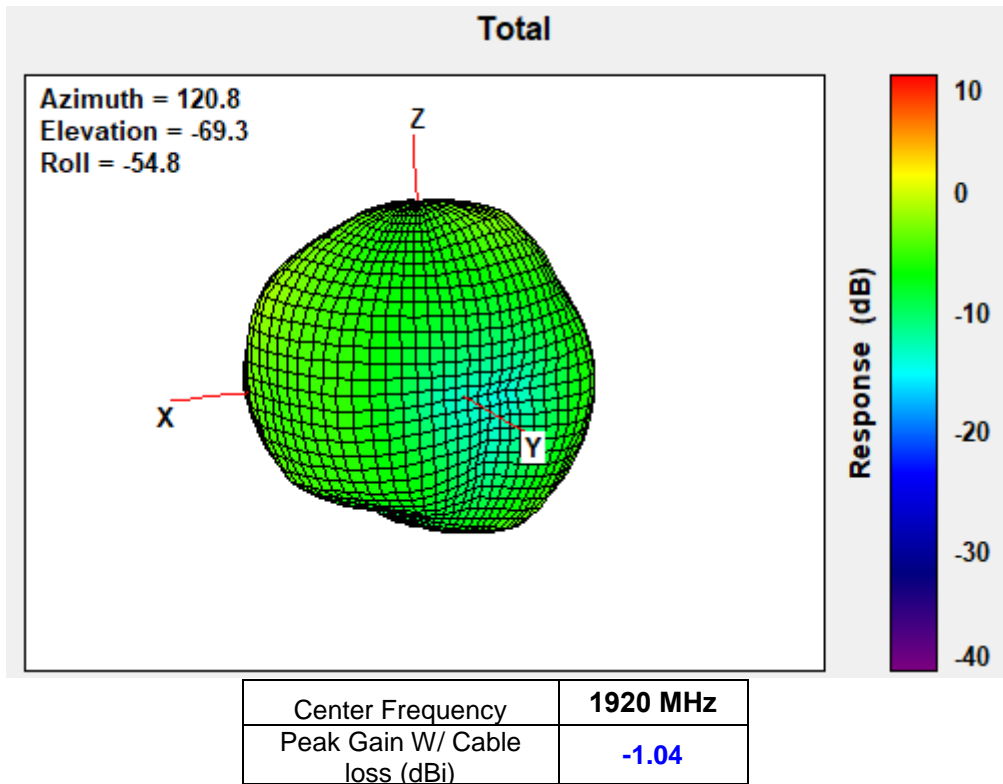
Center Frequency	1910 MHz
Peak Gain W/ Cable loss (dBi)	-0.45

1915 MHz

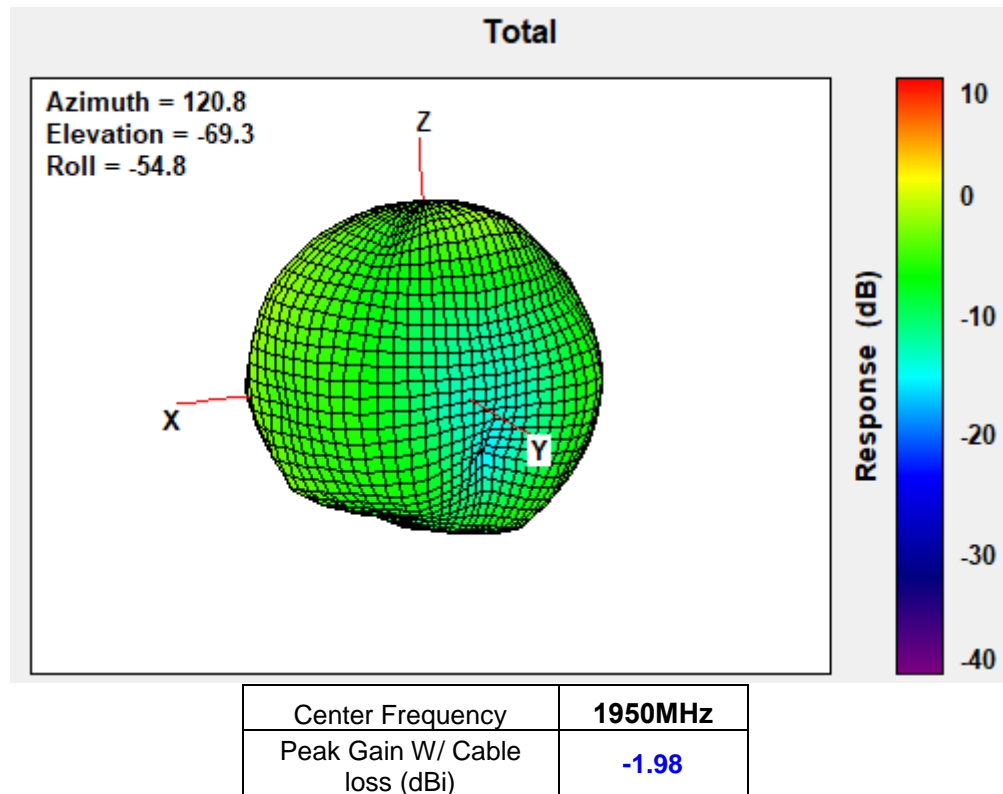


Center Frequency	1915 MHz
Peak Gain W/ Cable loss (dBi)	-0.73

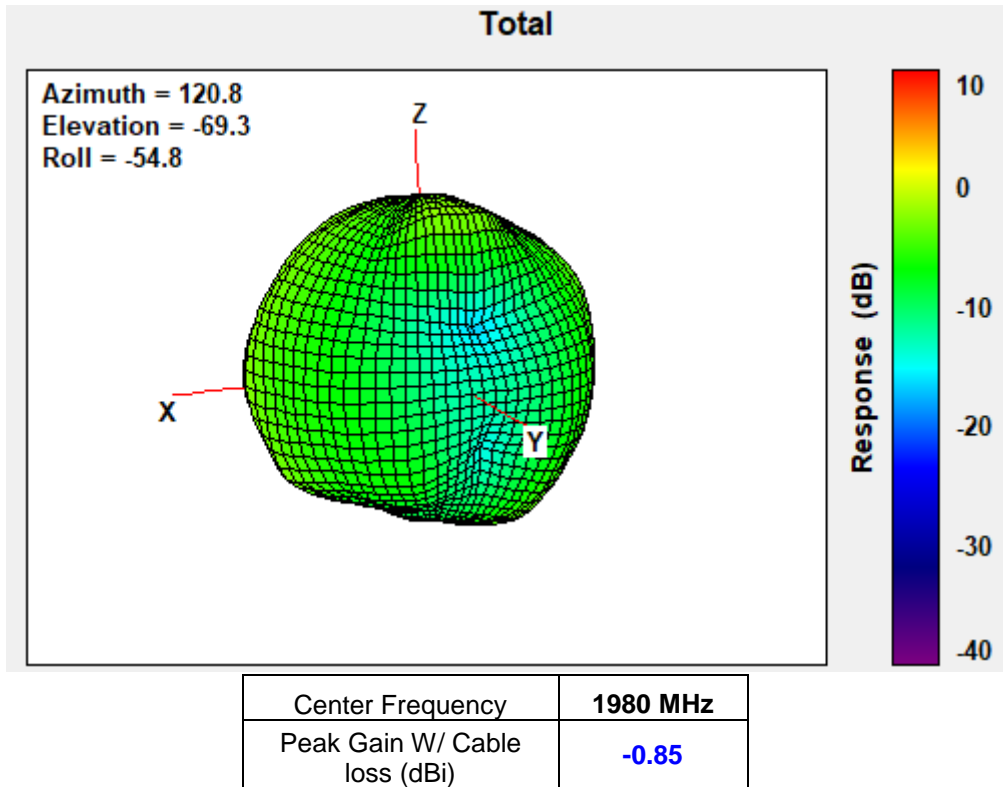
1920 MHz



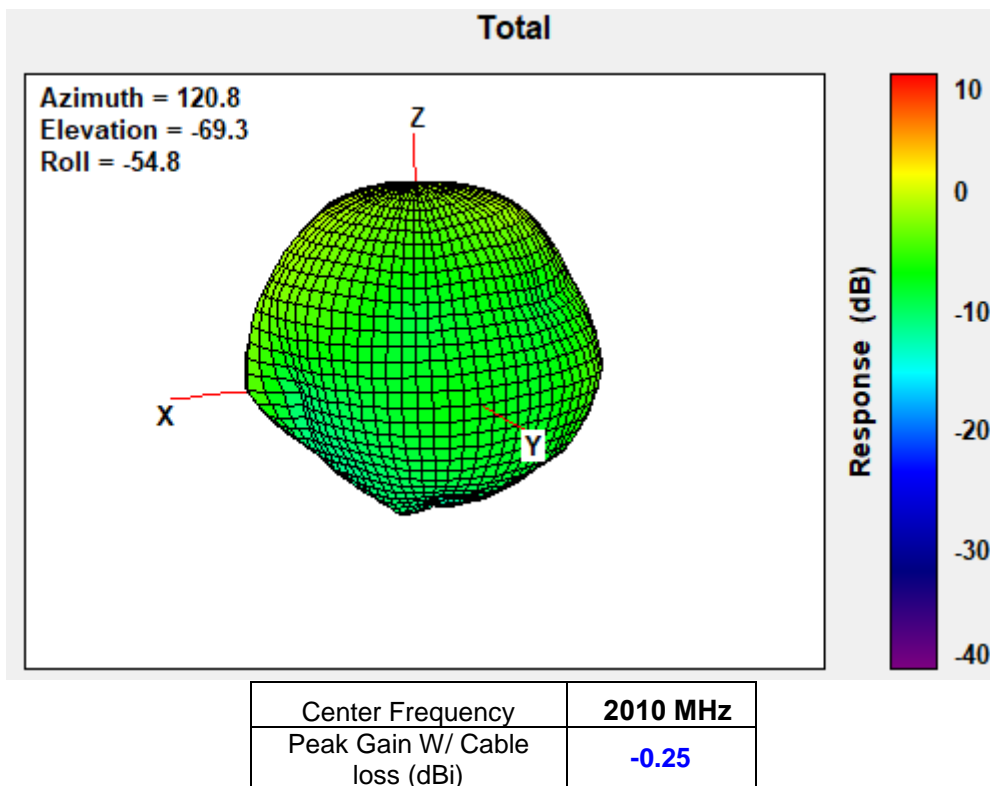
1950 MHz



**1980 MHz**

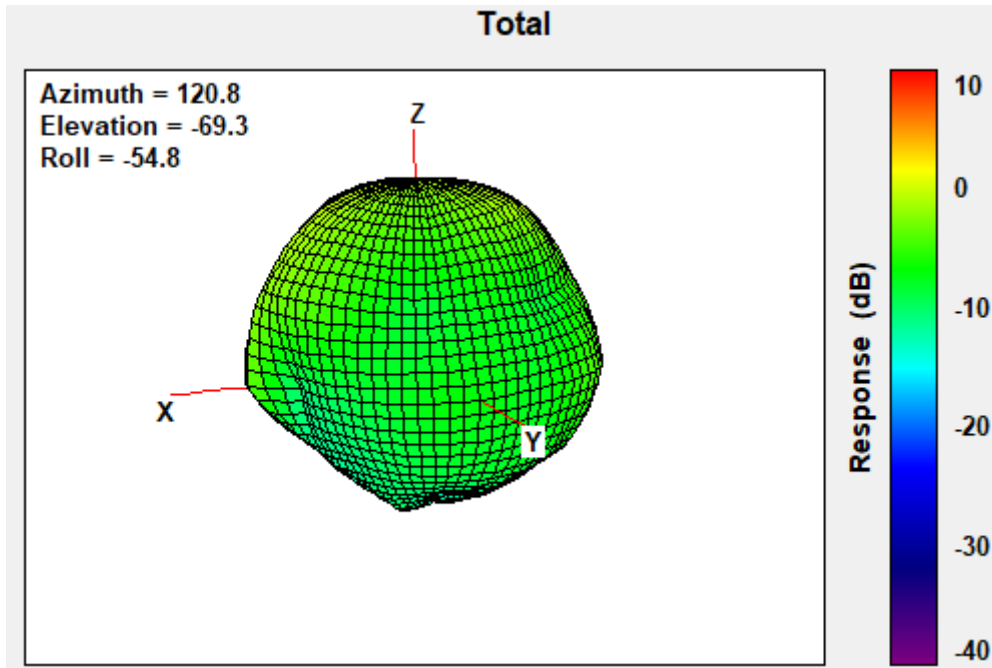


**2010 MHz**



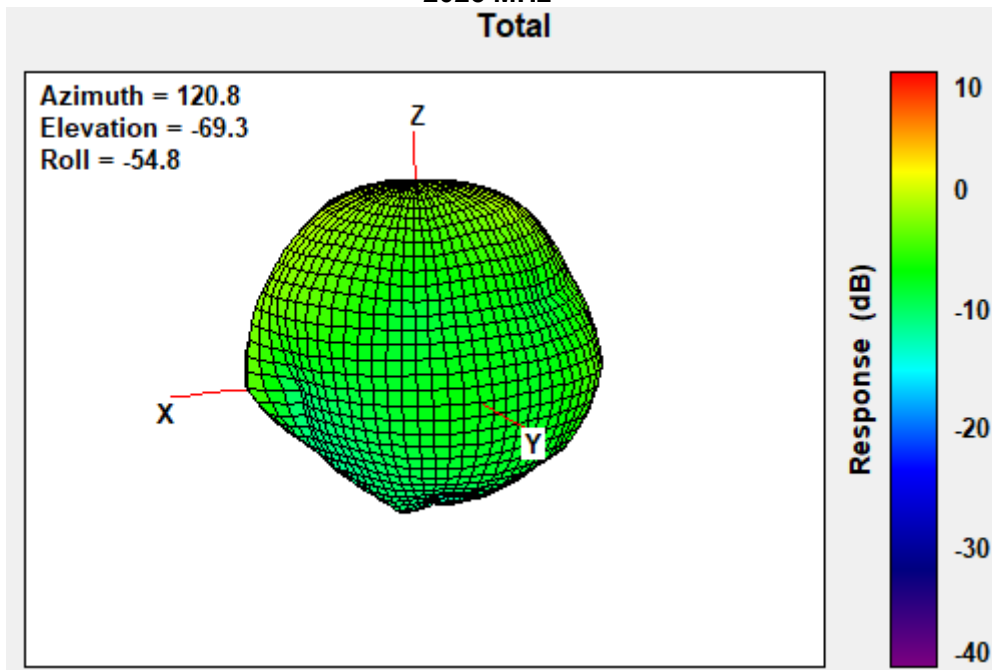


2017.5 MHz



Center Frequency	<b>2017.5 MHz</b>
Peak Gain W/ Cable loss (dBi)	<b>-0.23</b>

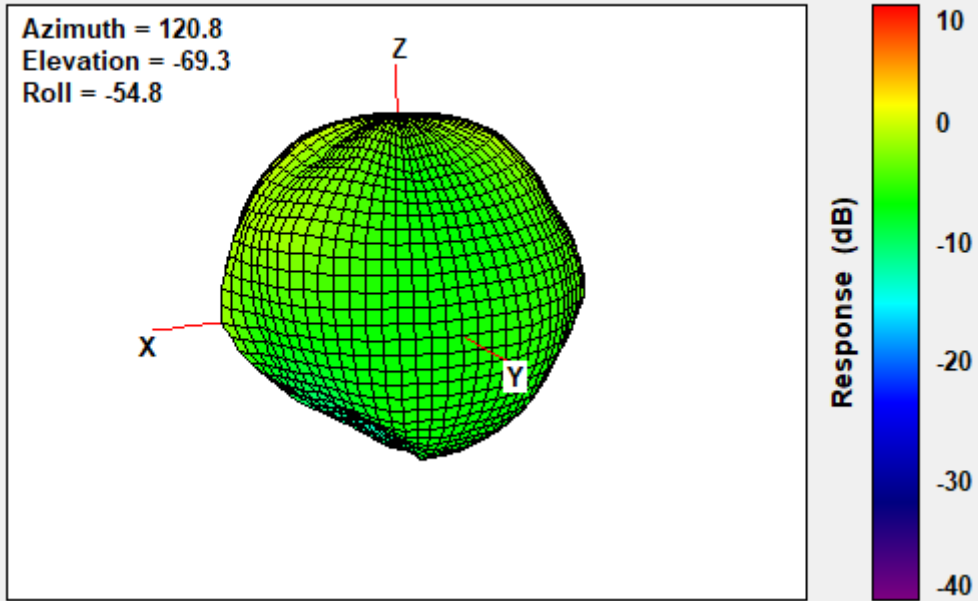
**2025 MHz  
Total**



Center Frequency	<b>2025 MHz</b>
Peak Gain W/ Cable loss (dBi)	<b>-0.25</b>

**2300 MHz**

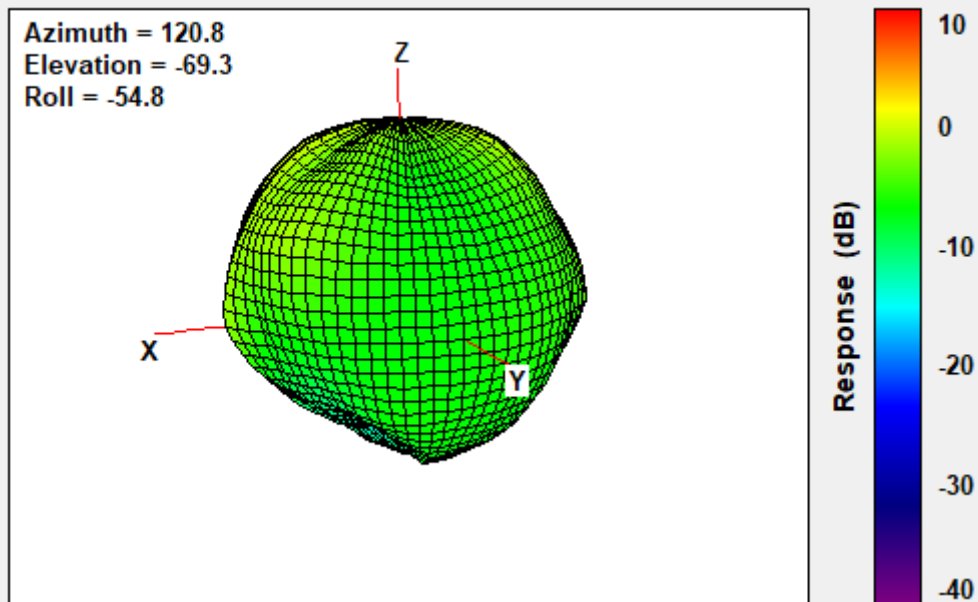
**Total**



Center Frequency	<b>2300 MHz</b>
Peak Gain W/ Cable loss (dBi)	<b>2.22</b>

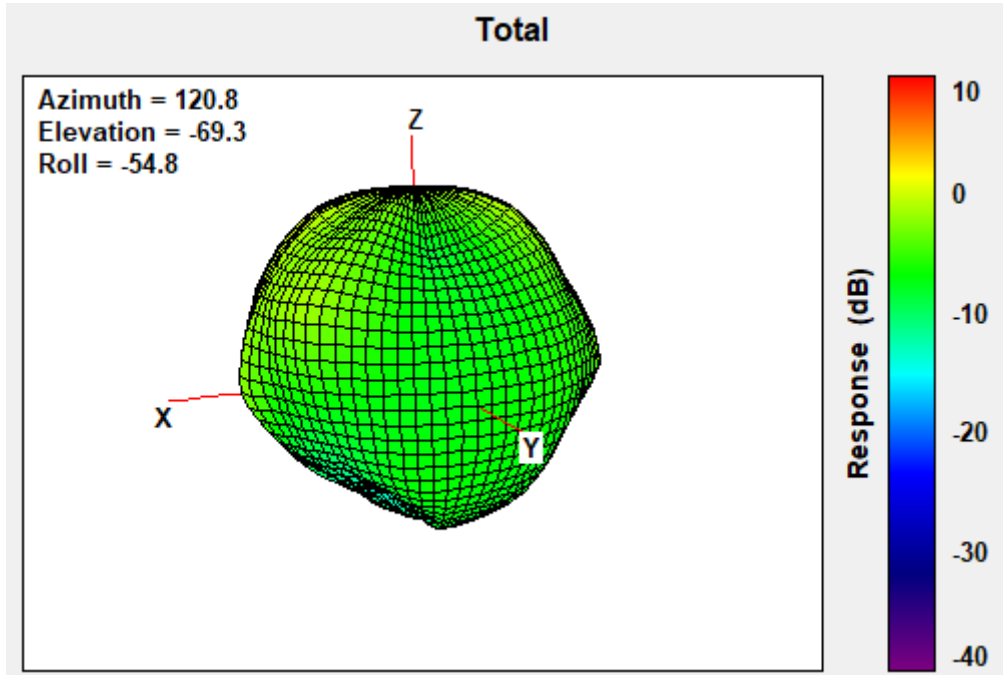
**2305 MHz**

**Total**



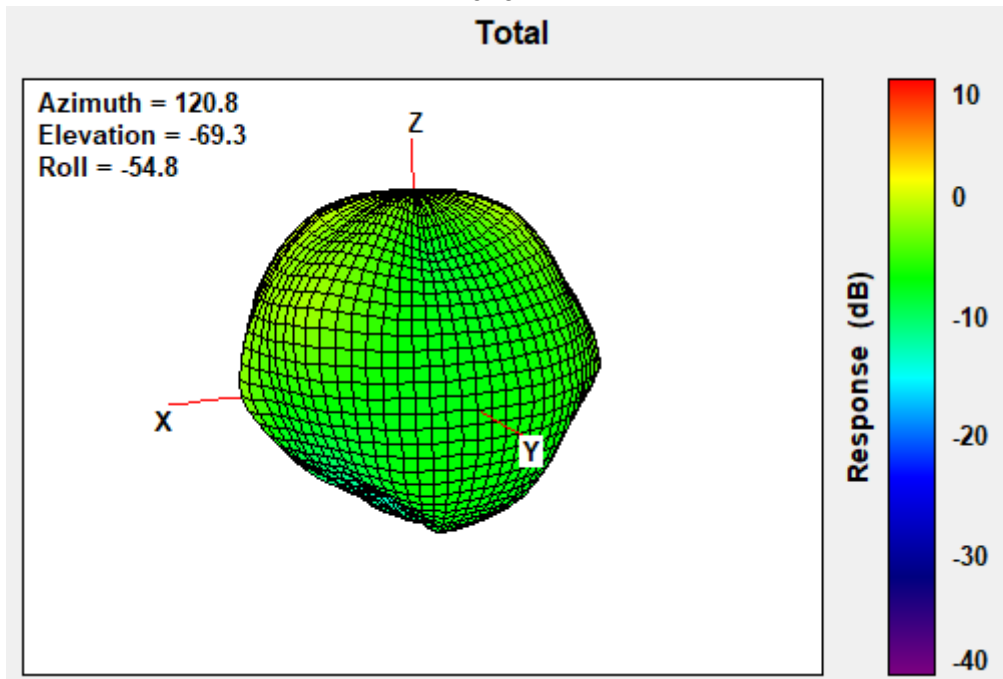
Center Frequency	<b>2305 MHz</b>
Peak Gain W/ Cable loss (dBi)	<b>0.16</b>

2310 MHz



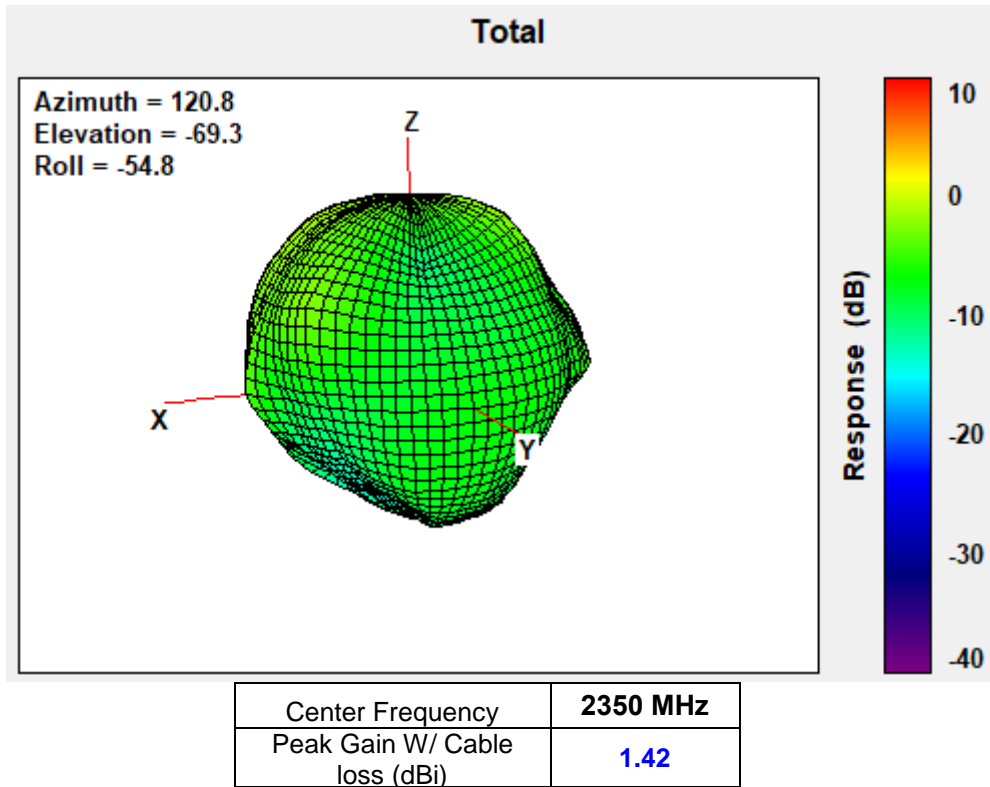
Center Frequency	<b>2310 MHz</b>
Peak Gain W/ Cable loss (dBi)	<b>0.09</b>

2315 MHz

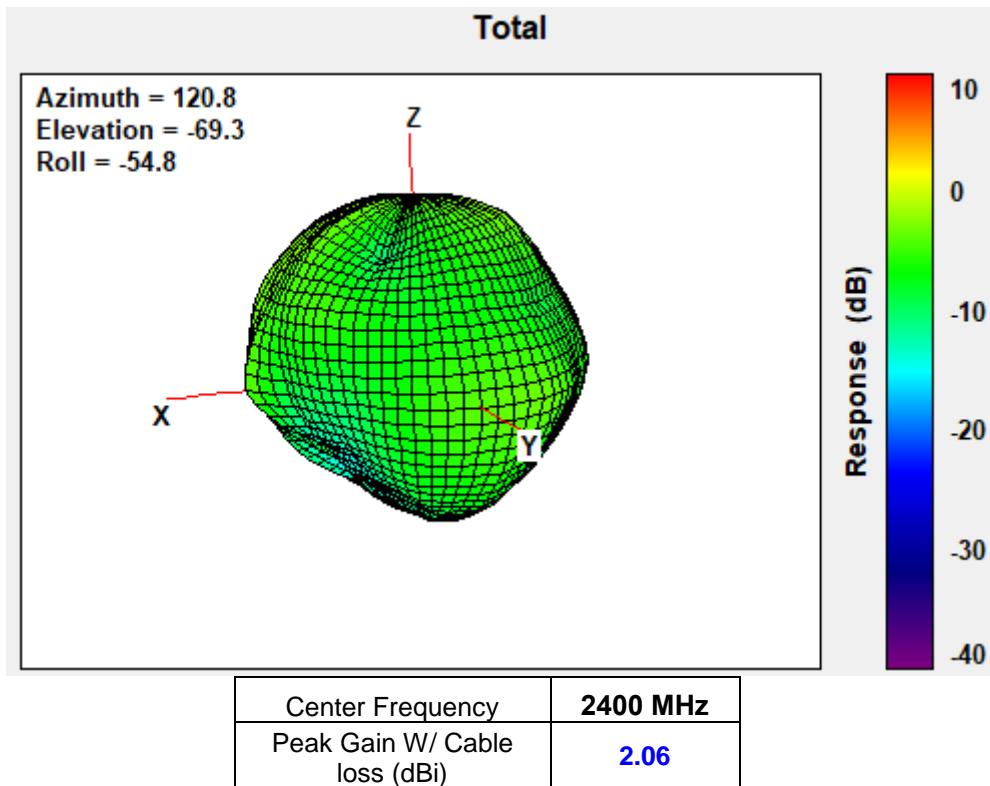


Center Frequency	<b>2315 MHz</b>
Peak Gain W/ Cable loss (dBi)	<b>0.90</b>

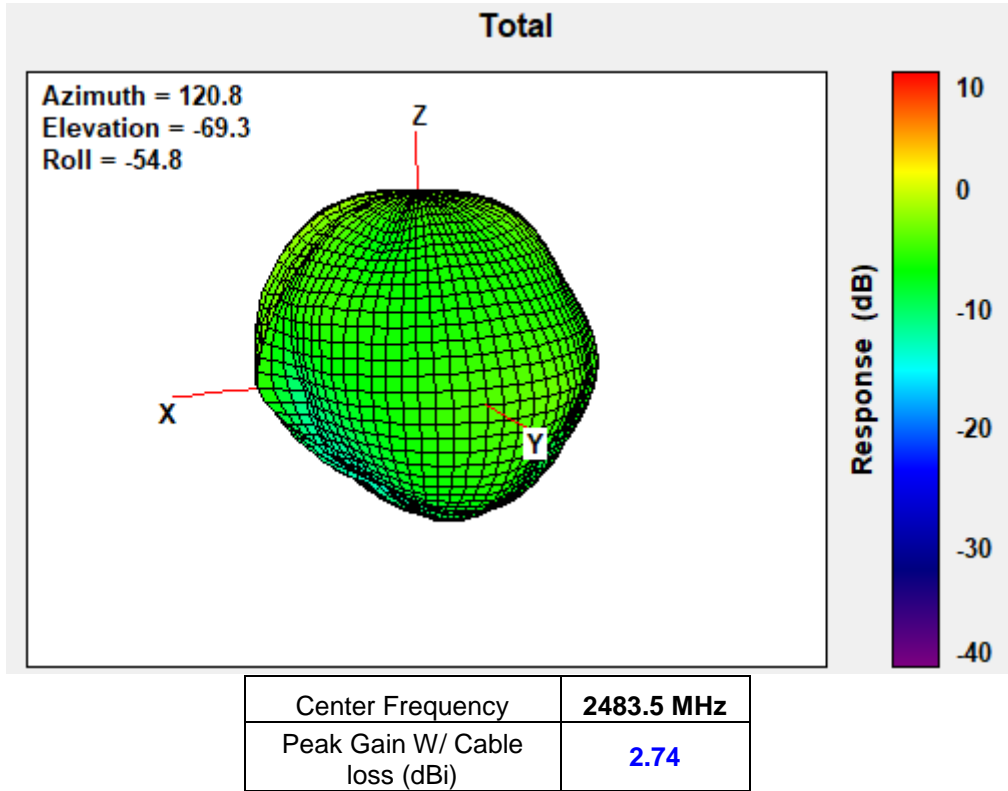
**2350 MHz**



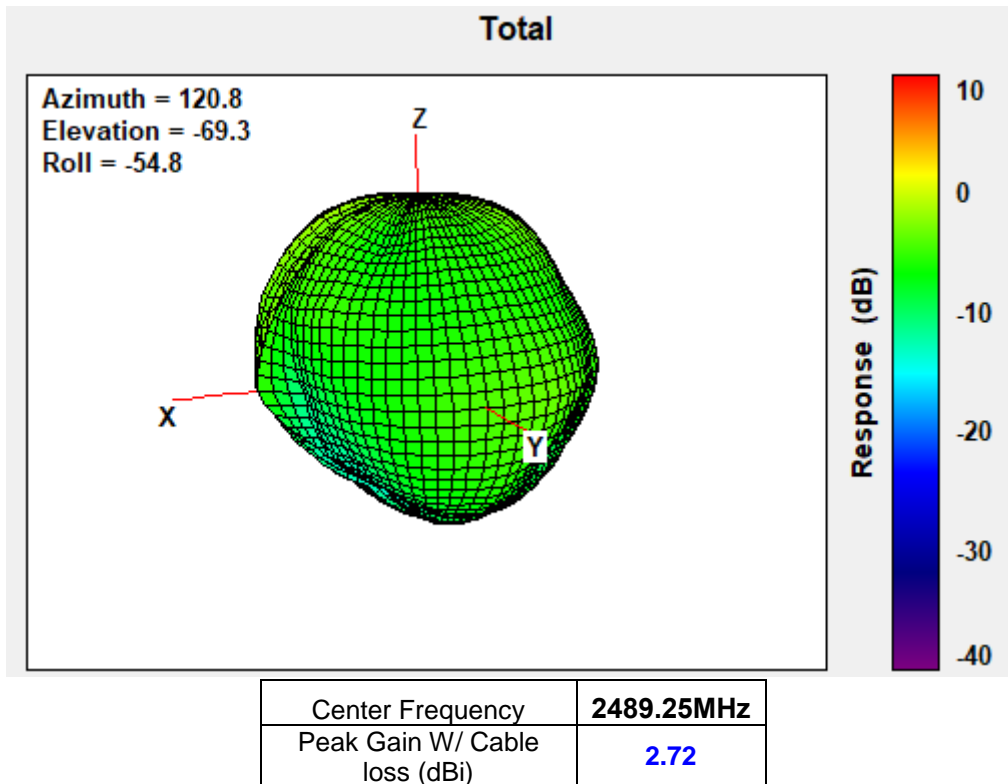
**2400 MHz**



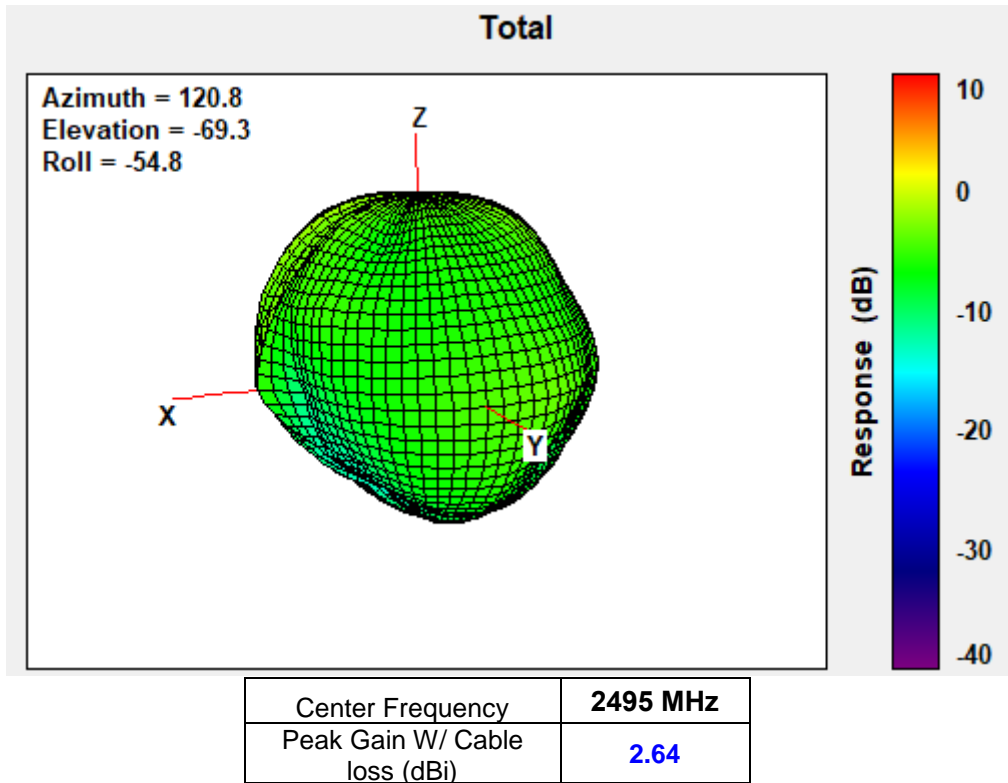
2483.5 MHz



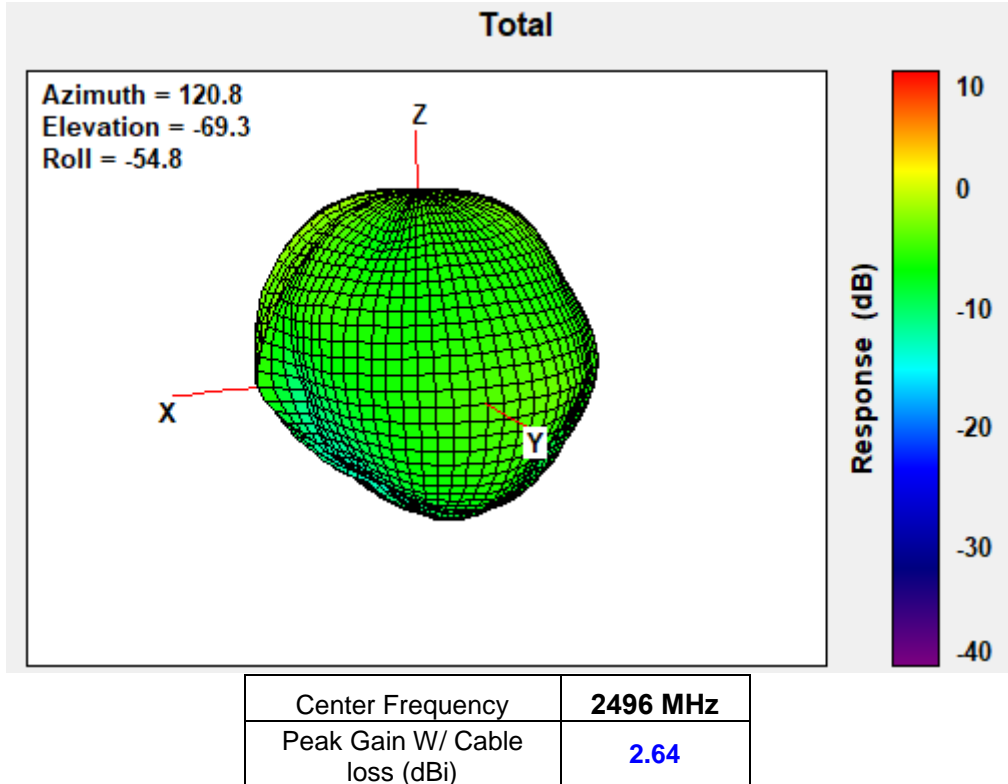
2489.25 MHz



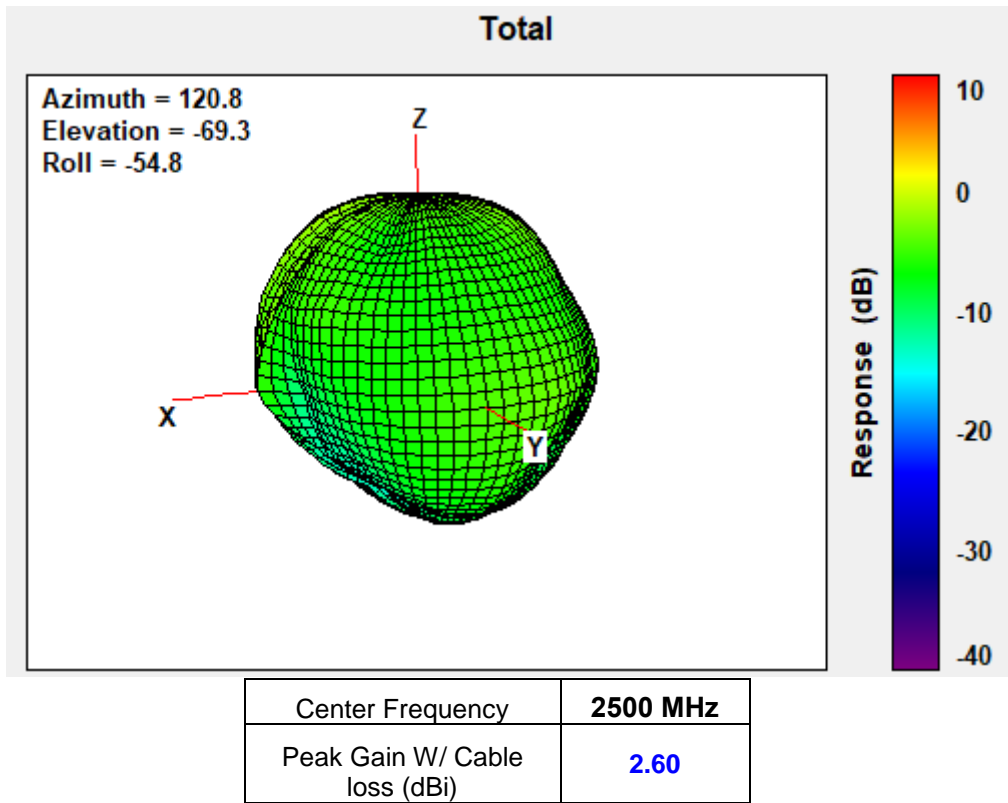
2495 MHz



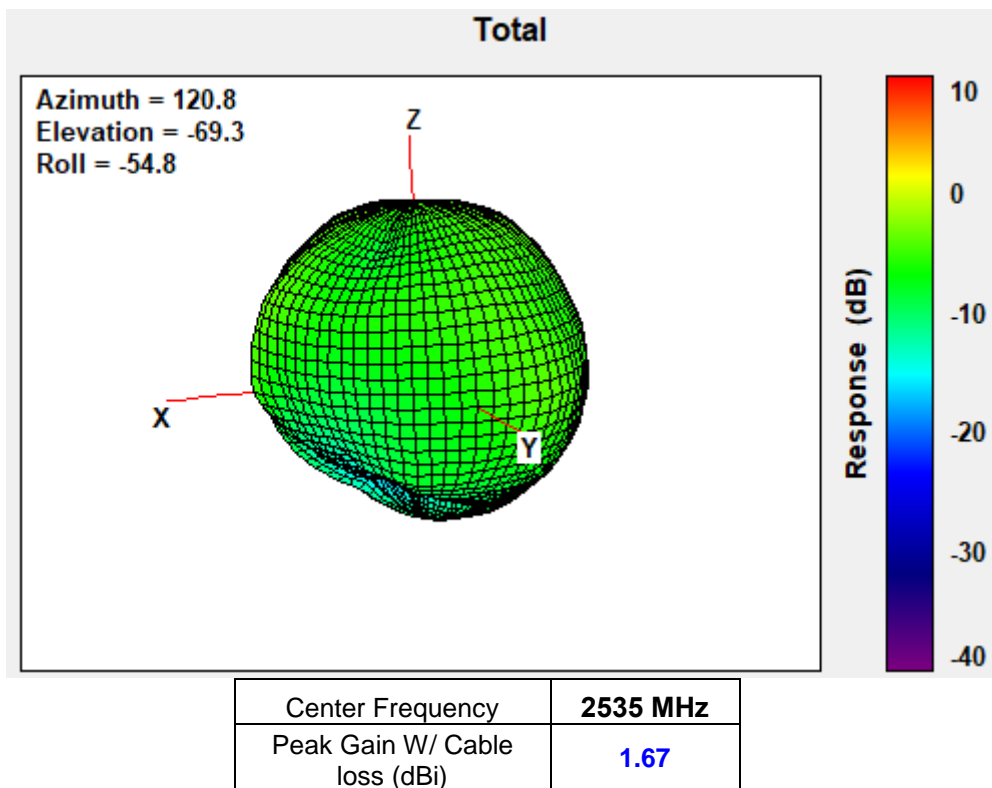
2496 MHz



**2500 MHz**

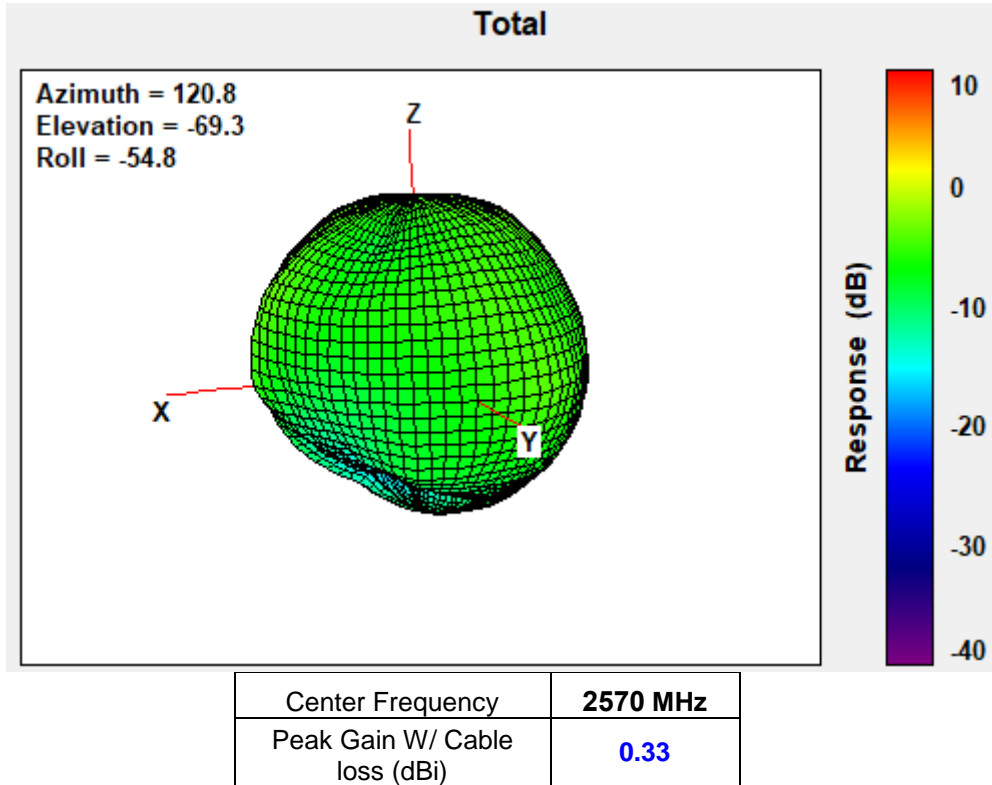


**2535 MHz**

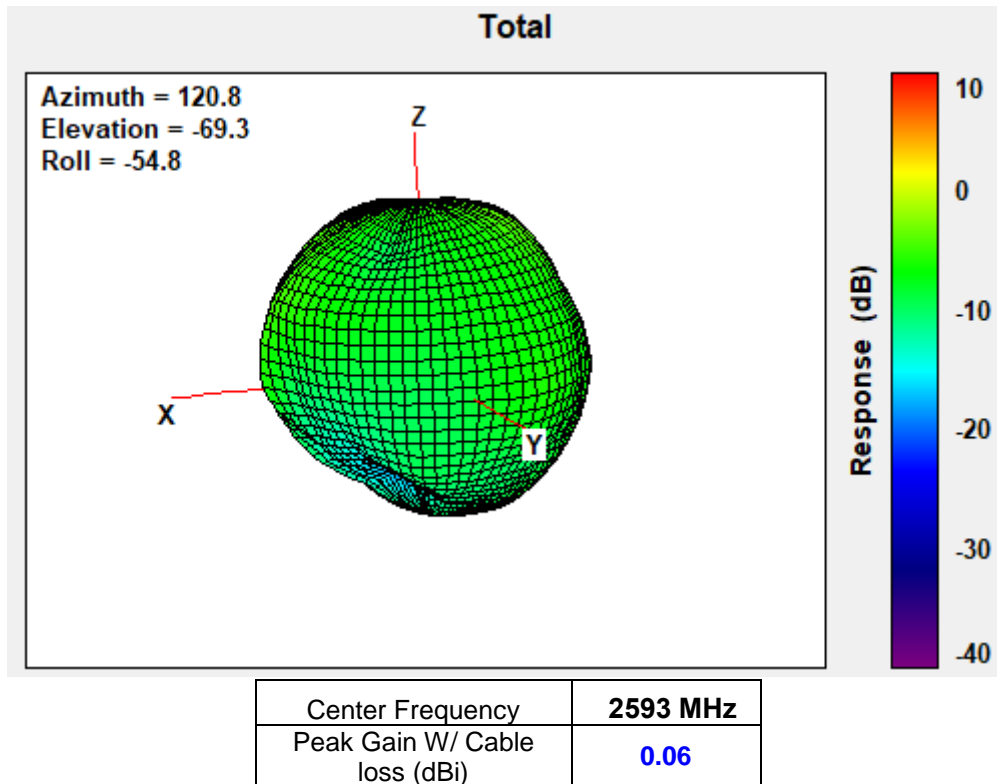




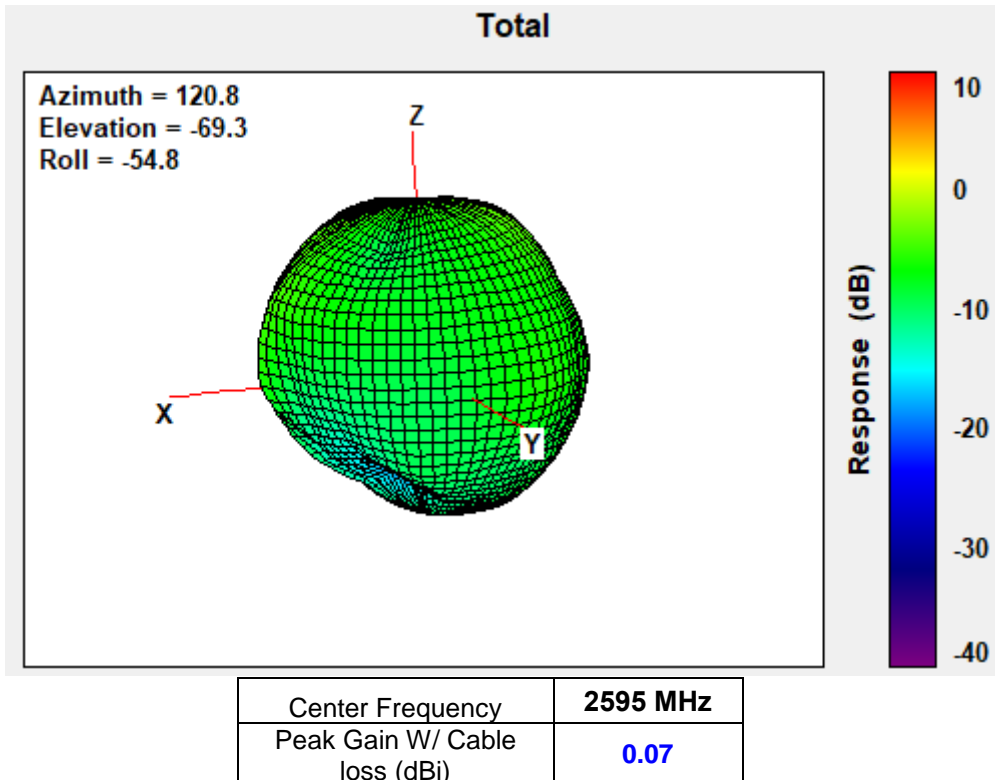
2570 MHz



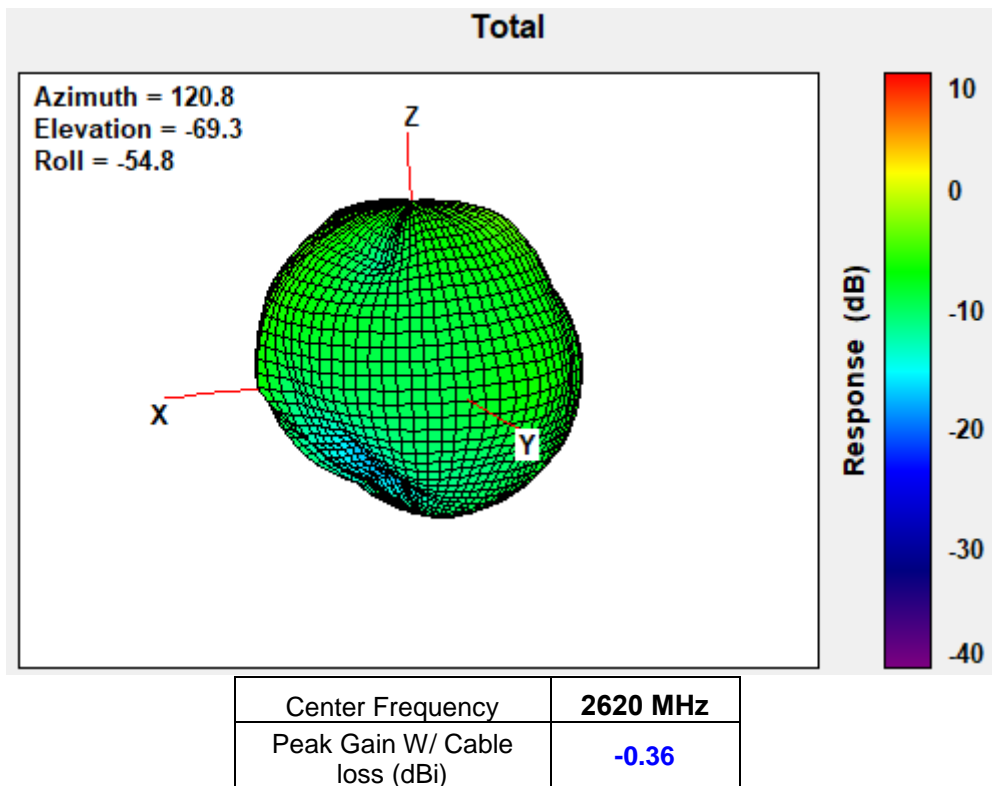
2593 MHz



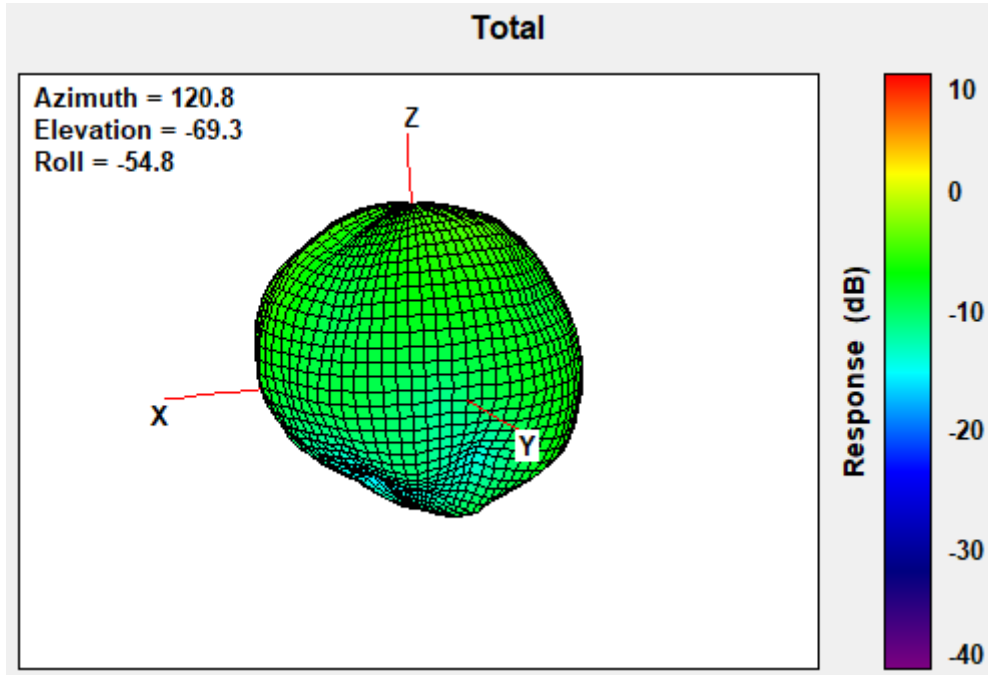
**2595 MHz**



**2620 MHz**

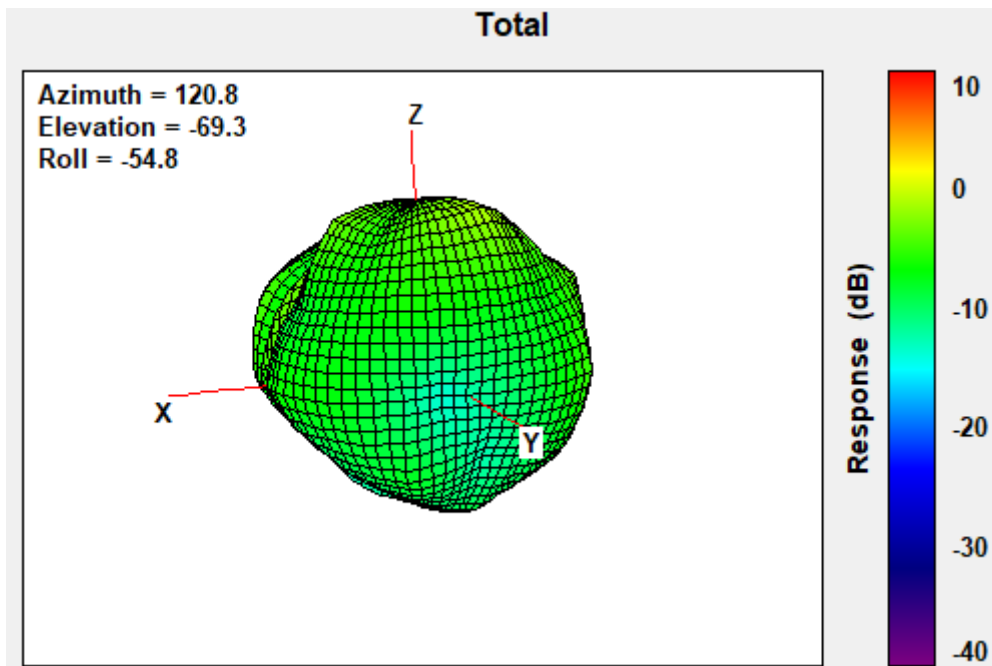


**2690 MHz**



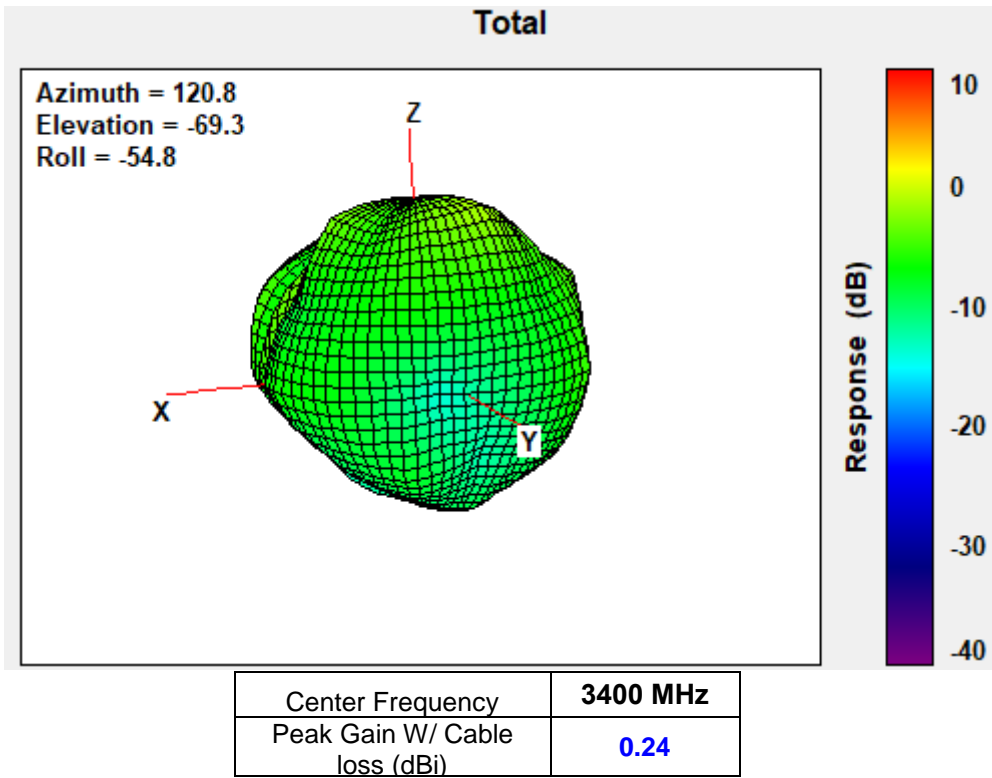
Center Frequency	<b>2690 MHz</b>
Peak Gain W/ Cable loss (dBi)	<b>0.64</b>

**3300 MHz**

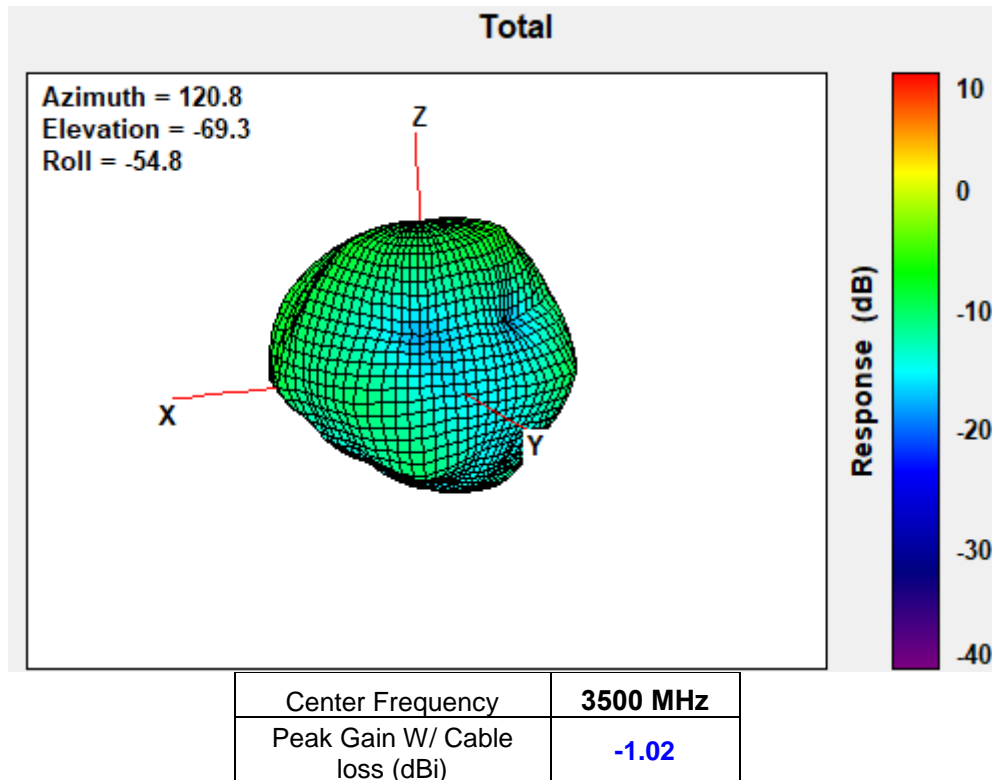


Center Frequency	<b>3300 MHz</b>
Peak Gain W/ Cable loss (dBi)	<b>1.85</b>

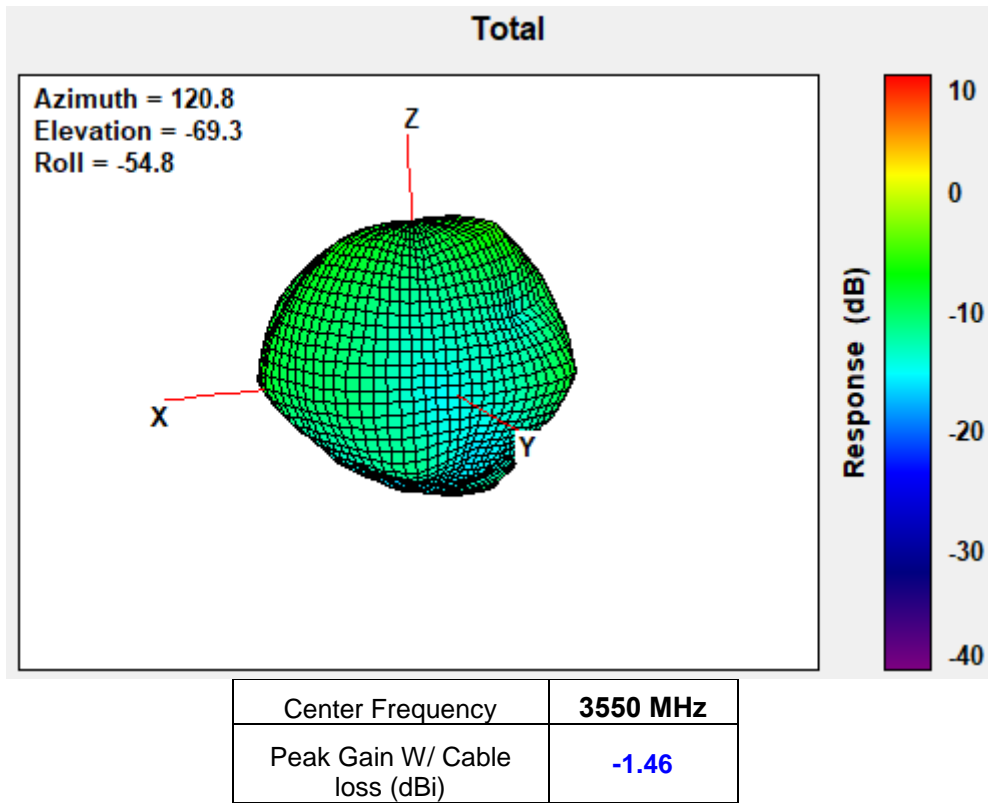
**3400 MHz**



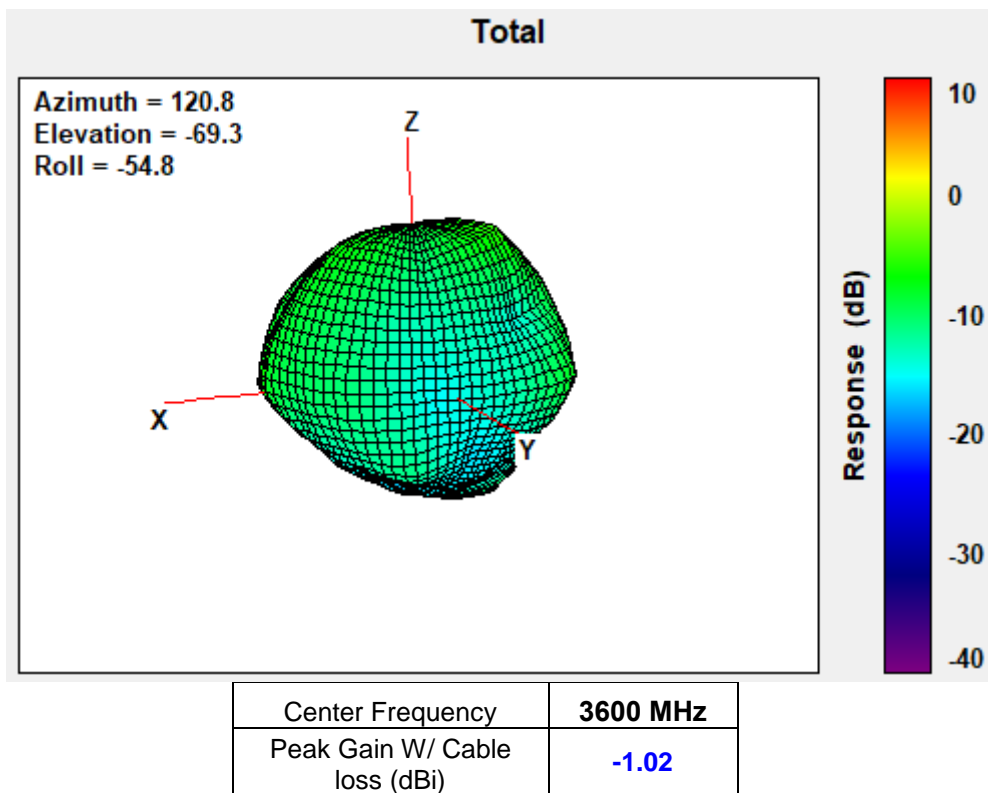
**3500 MHz**



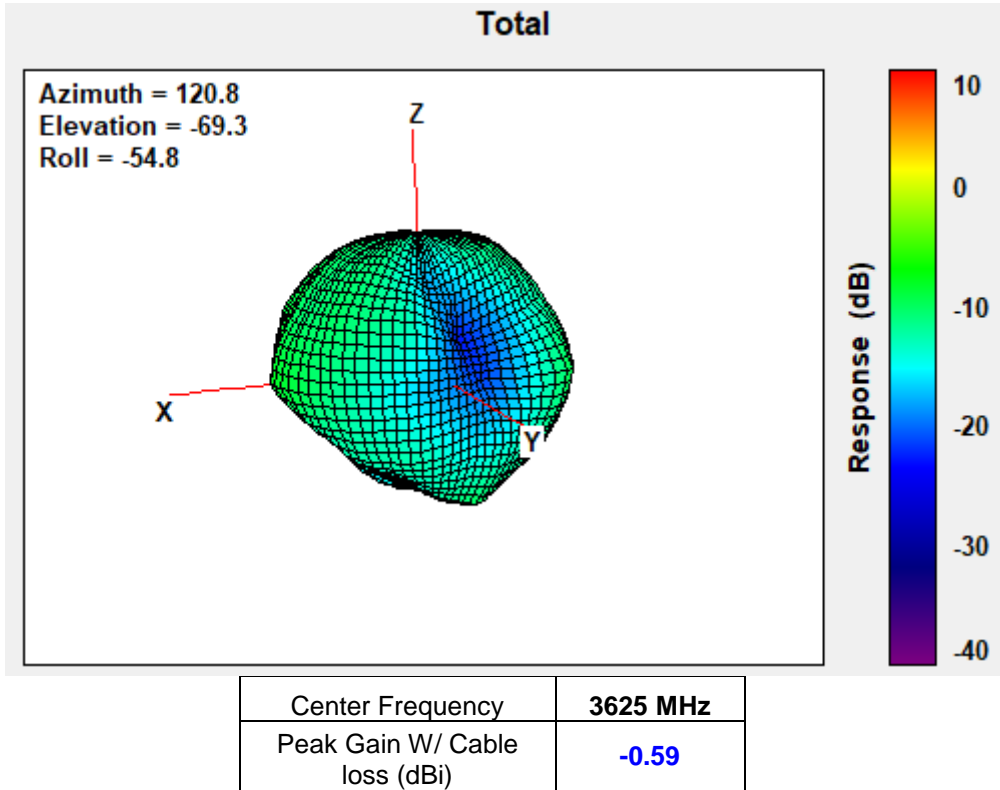
**3550 MHz**



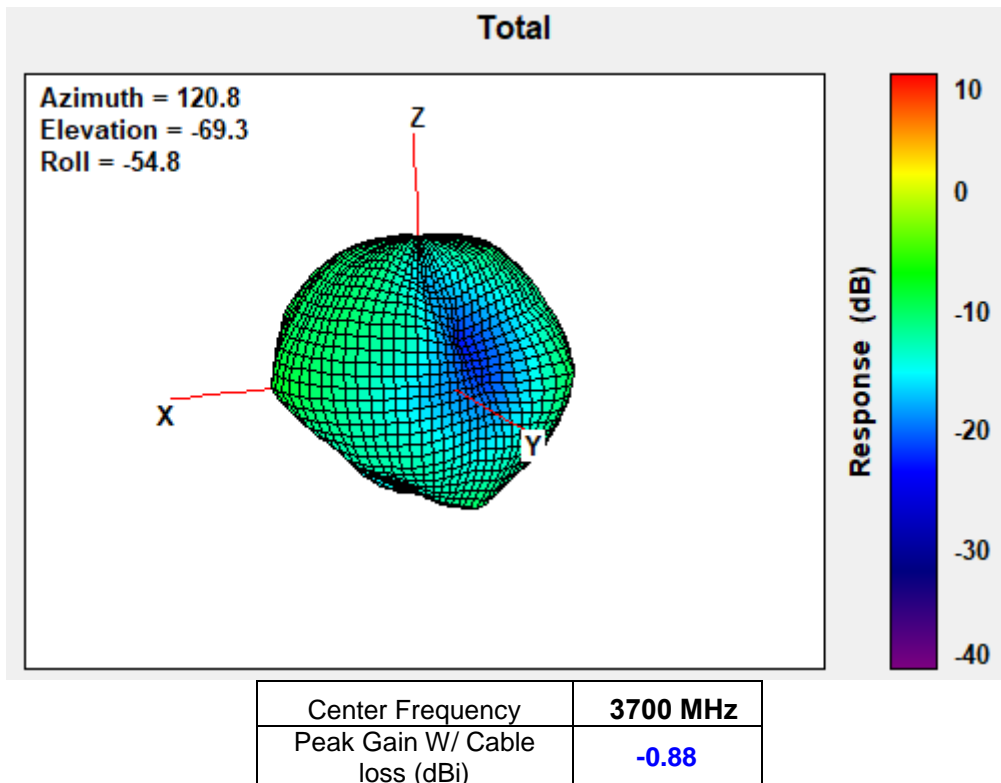
**3600 MHz**



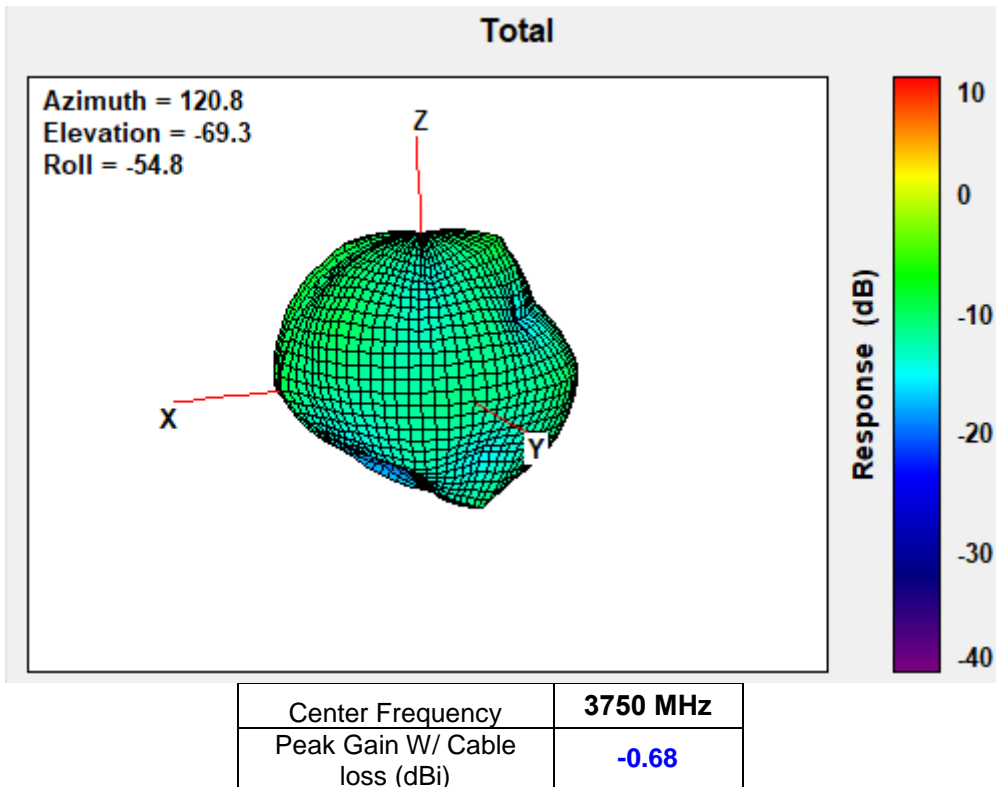
**3625 MHz**



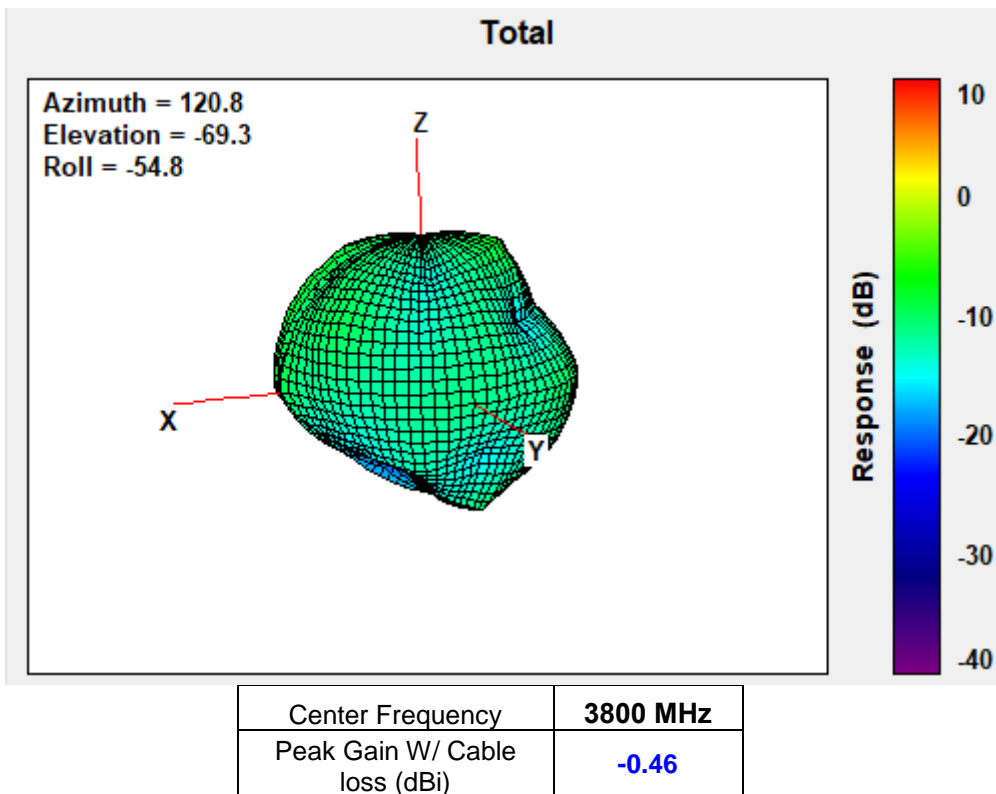
**3700 MHz**



**3750 MHz**

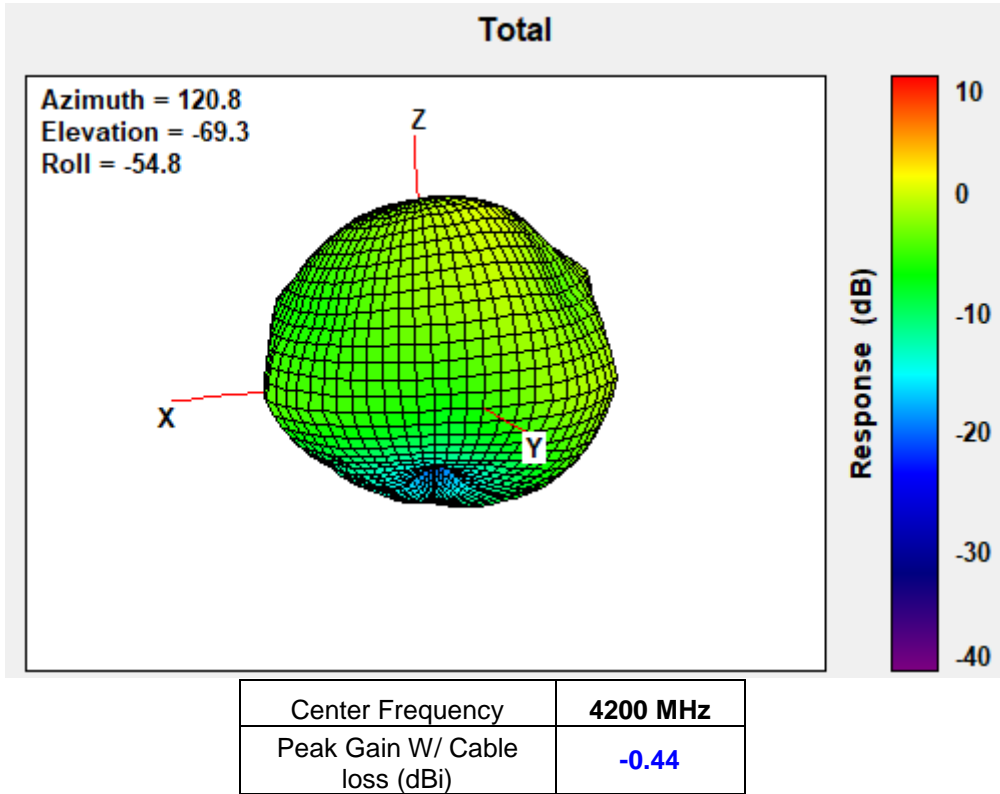


**3800 MHz**

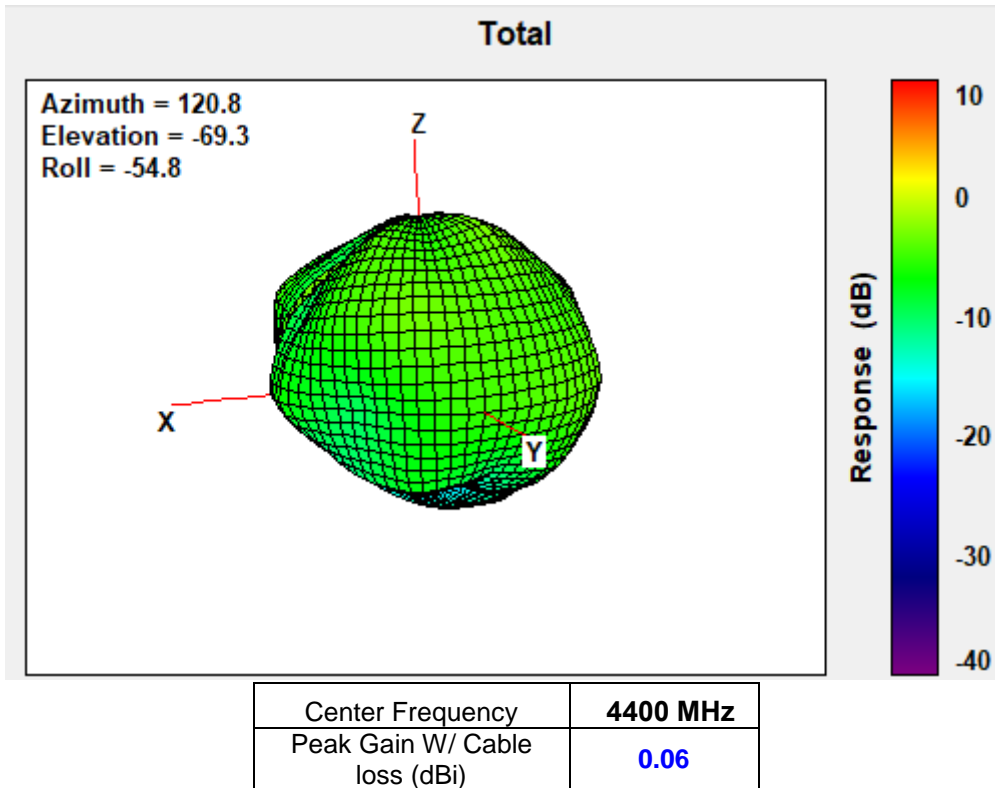




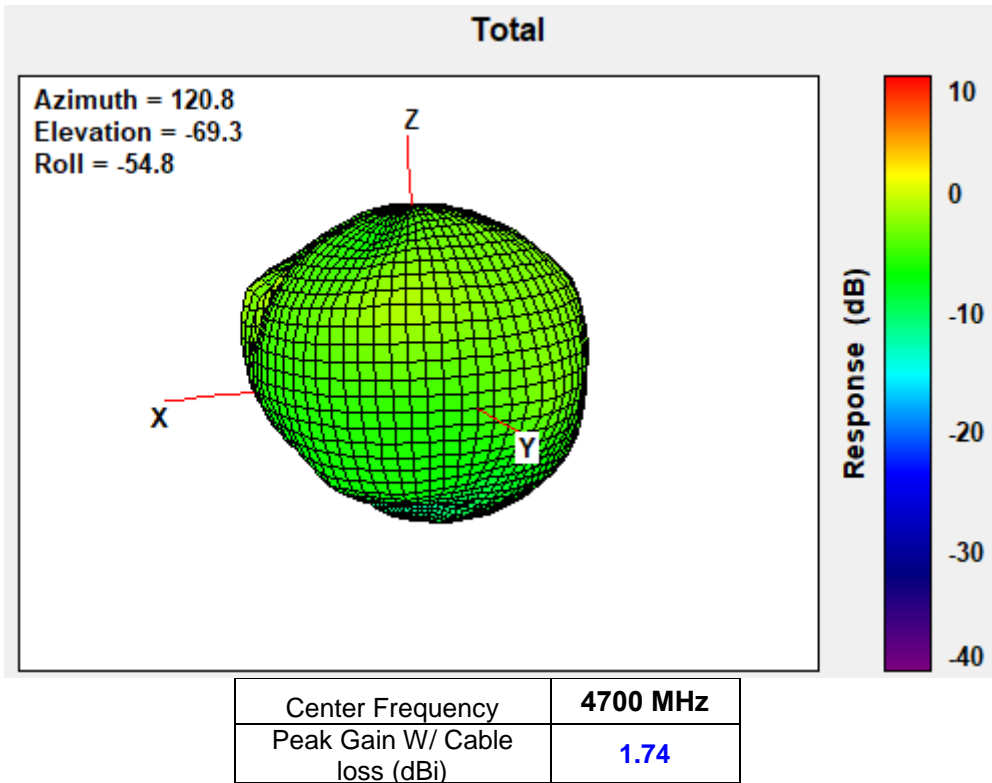
**4200 MHz**



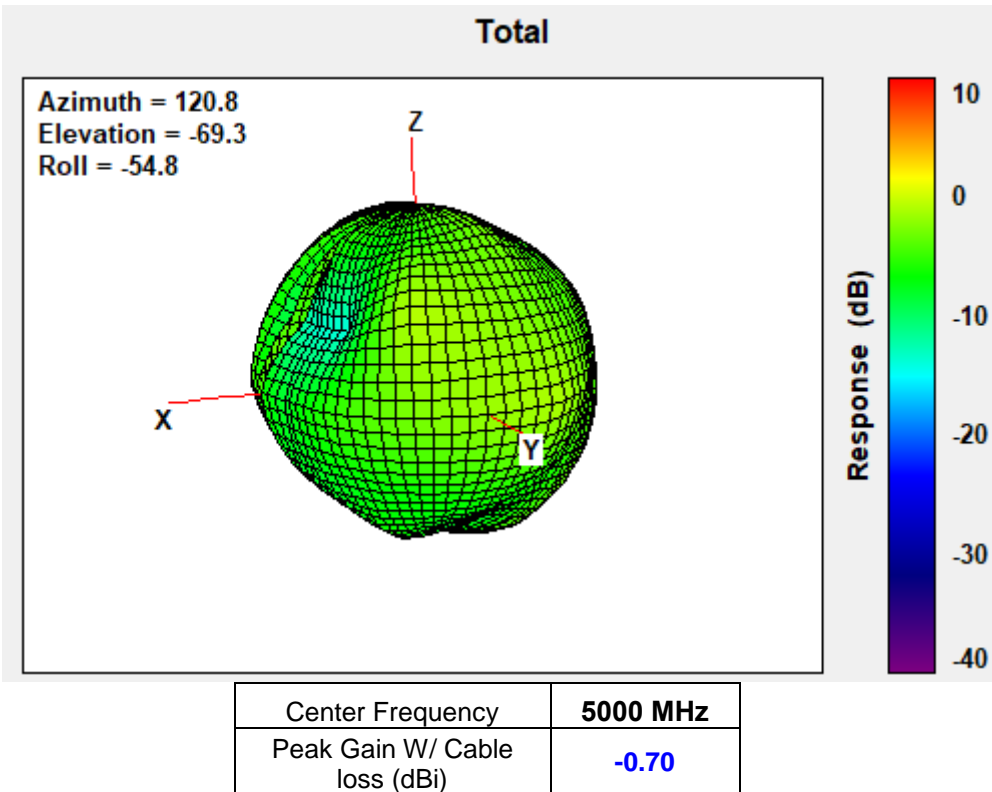
**4400 MHz**



4700 MHz

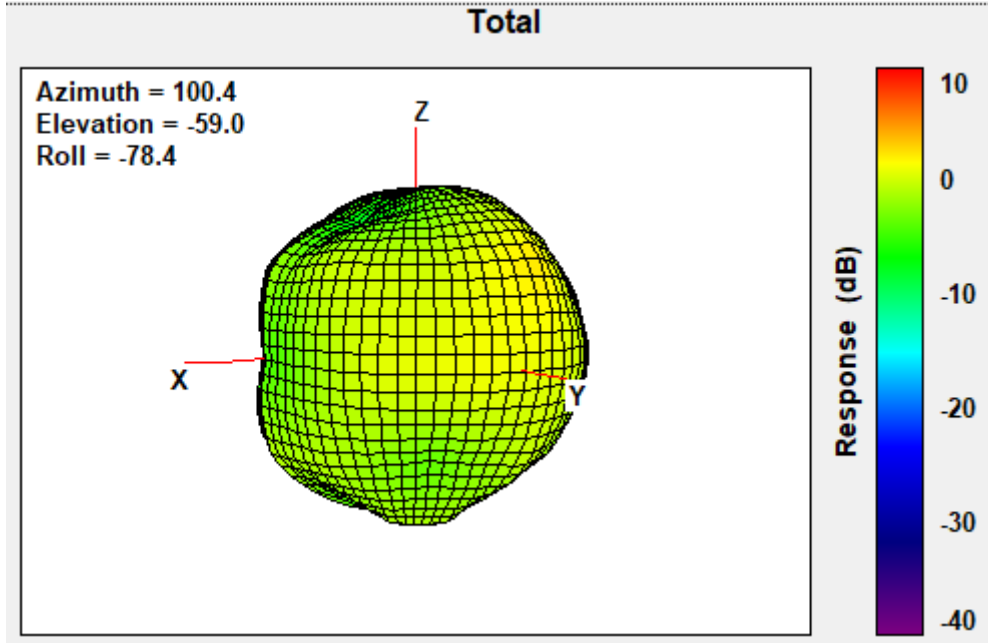


5000 MHz



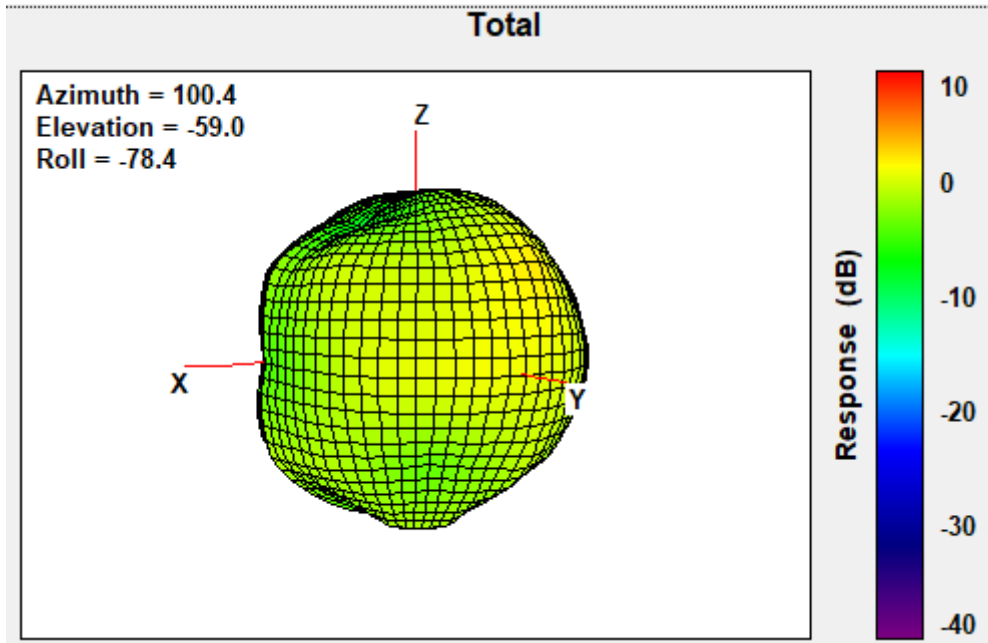
# WWAN MIMO2 Antenna (Tx2)

1695 MHz



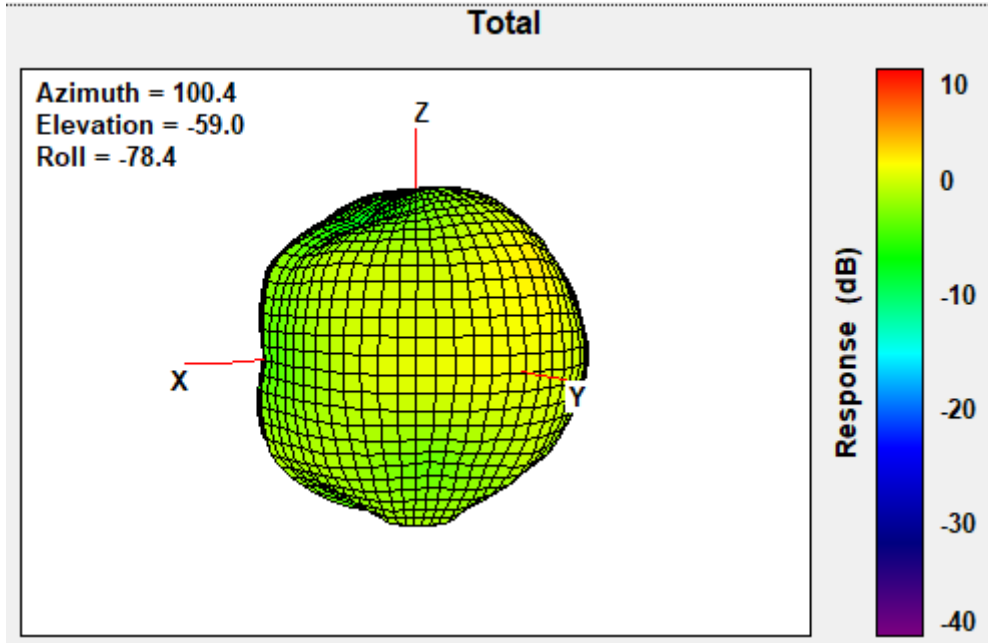
Center Frequency	<b>1695 MHz</b>
Peak Gain W/ Cable loss (dBi)	<b>2.41</b>

1702.5 MHz

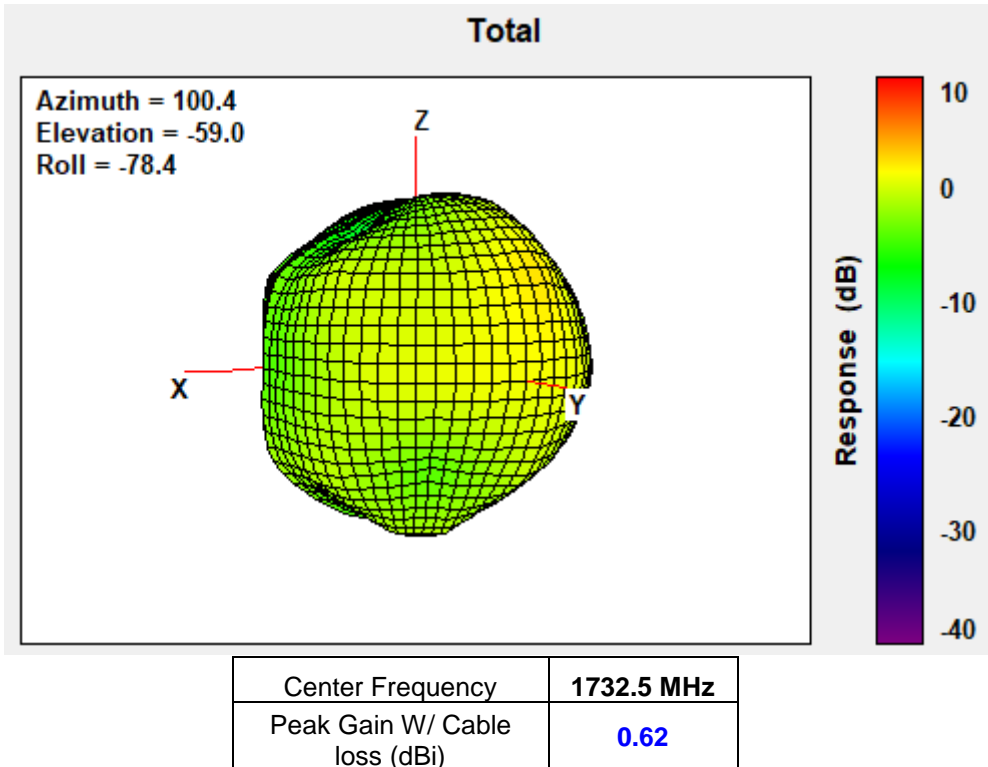


Center Frequency	<b>1702.5 MHz</b>
Peak Gain W/ Cable loss (dBi)	<b>2.05</b>

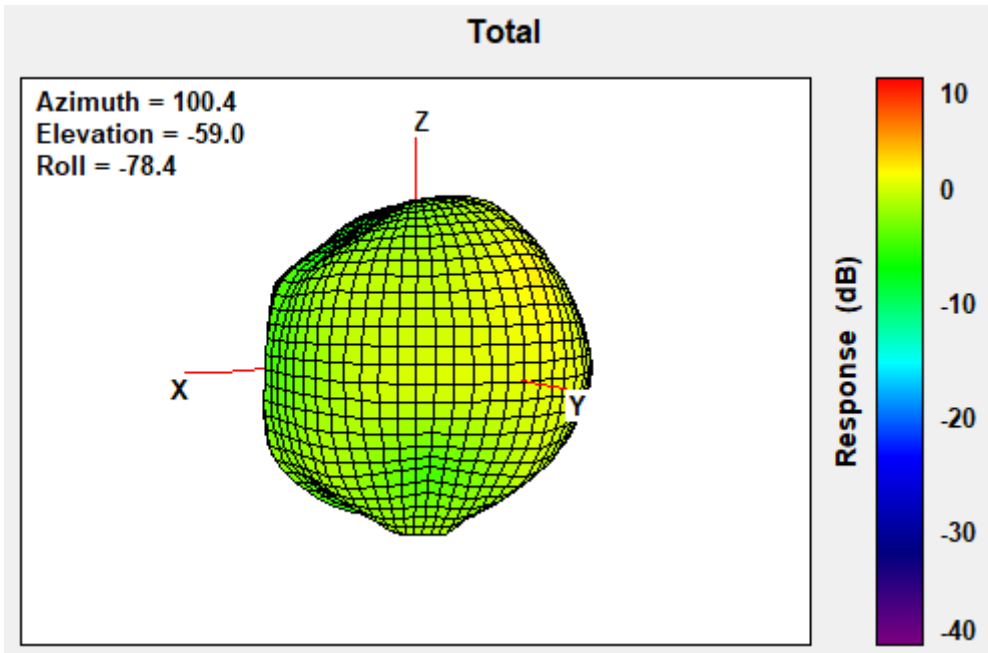
1710 MHz



1732.5 MHz

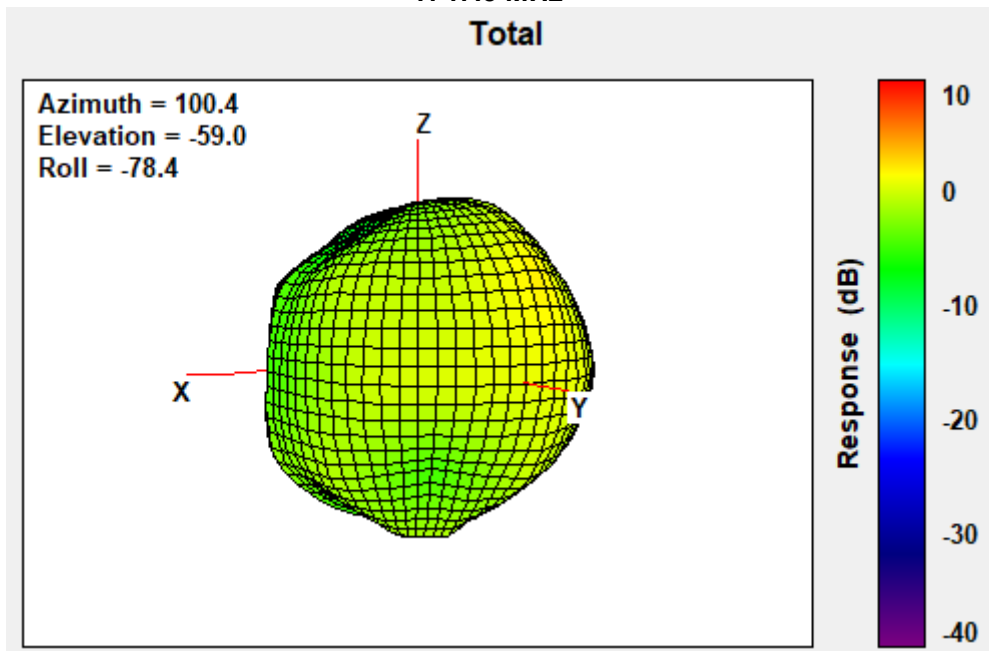


1745 MHz



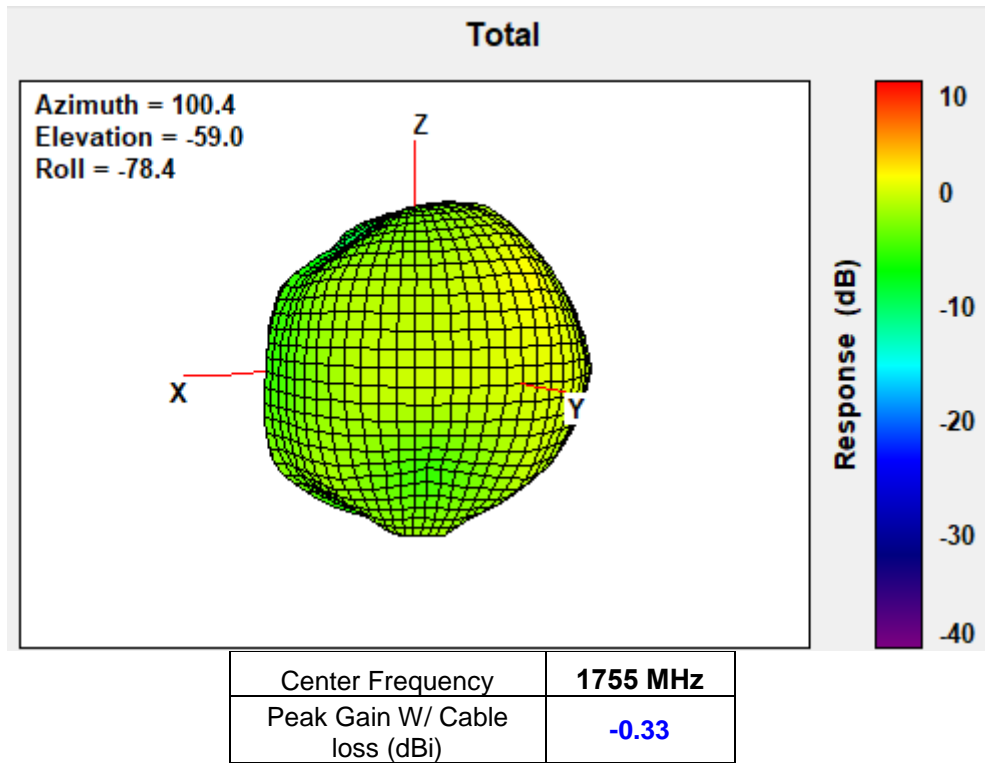
Center Frequency	<b>1745 MHz</b>
Peak Gain W/ Cable loss (dBi)	<b>0.25</b>

1747.5 MHz

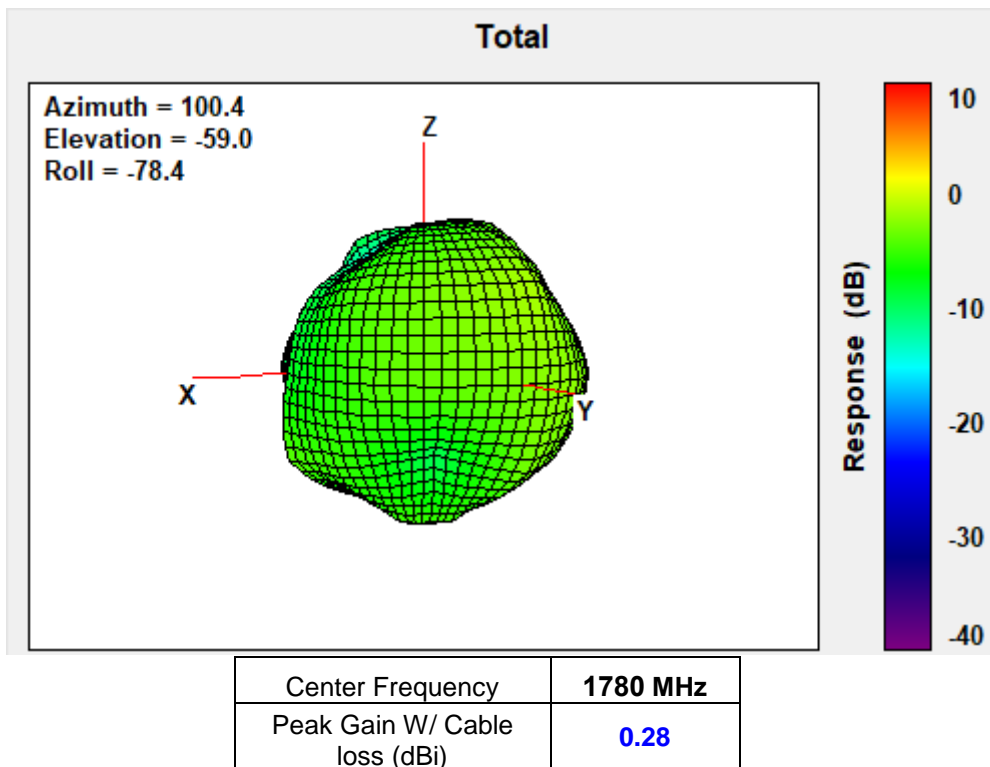


Center Frequency	<b>1747.5 MHz</b>
Peak Gain W/ Cable loss (dBi)	<b>0.12</b>

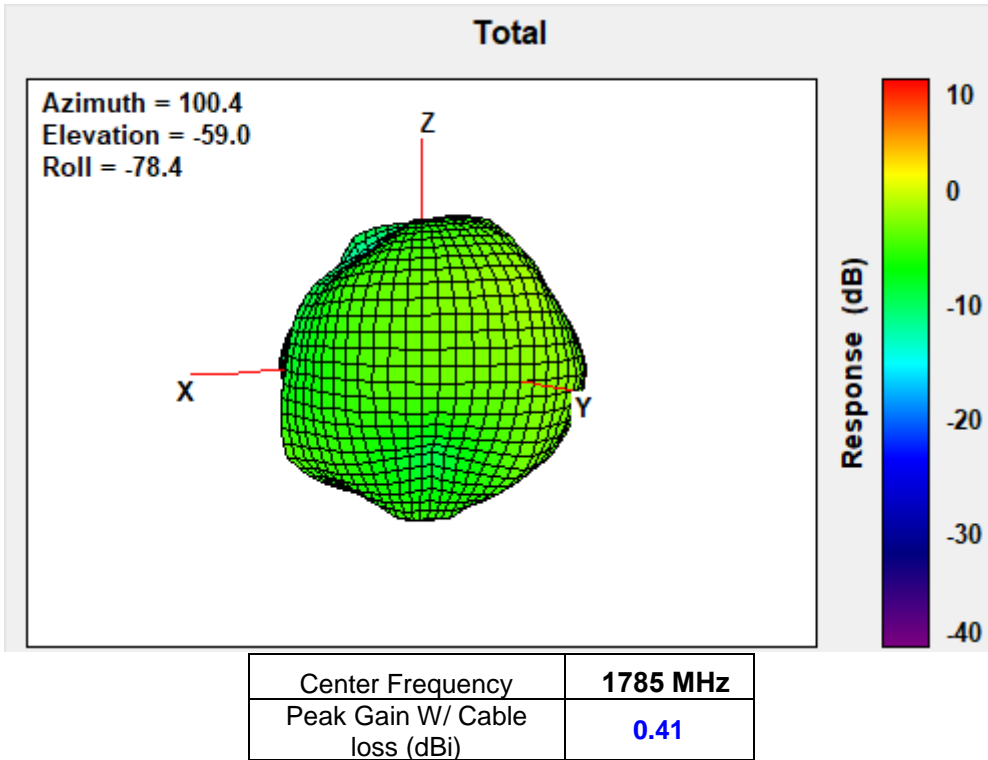
1755 MHz



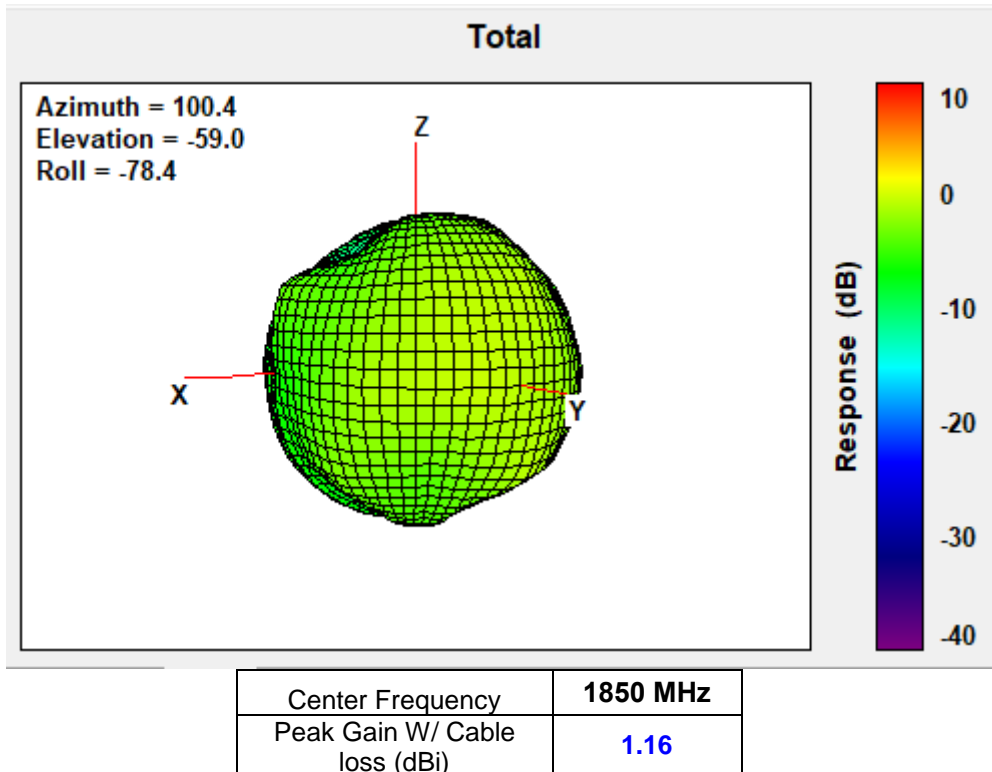
1780 MHz



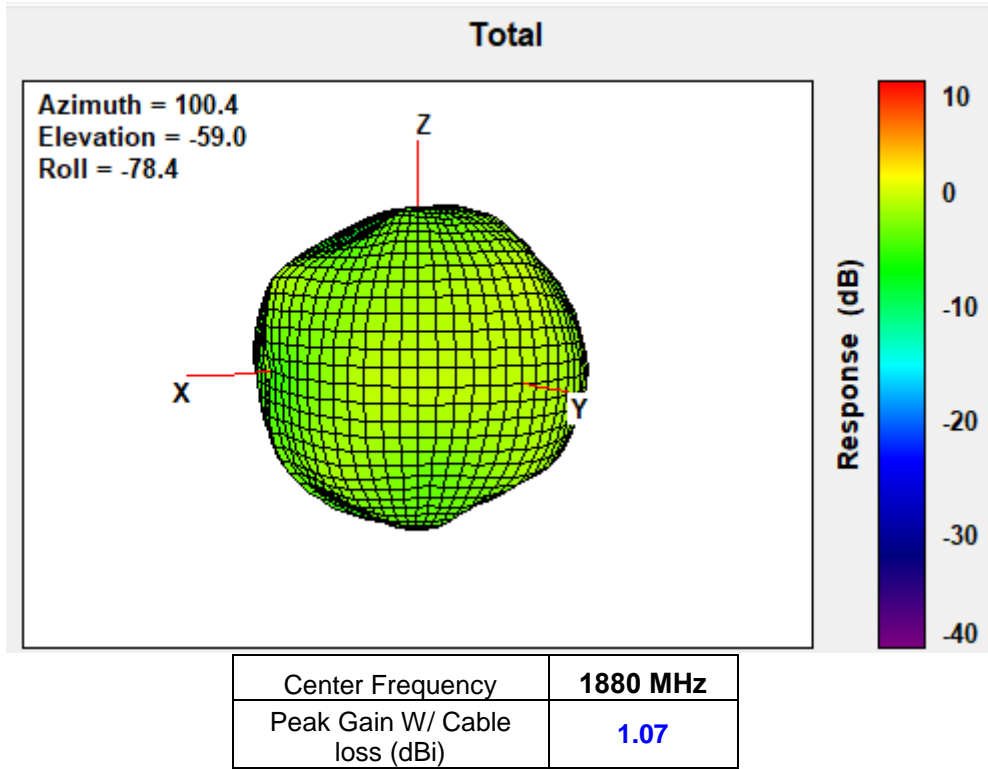
1785 MHz



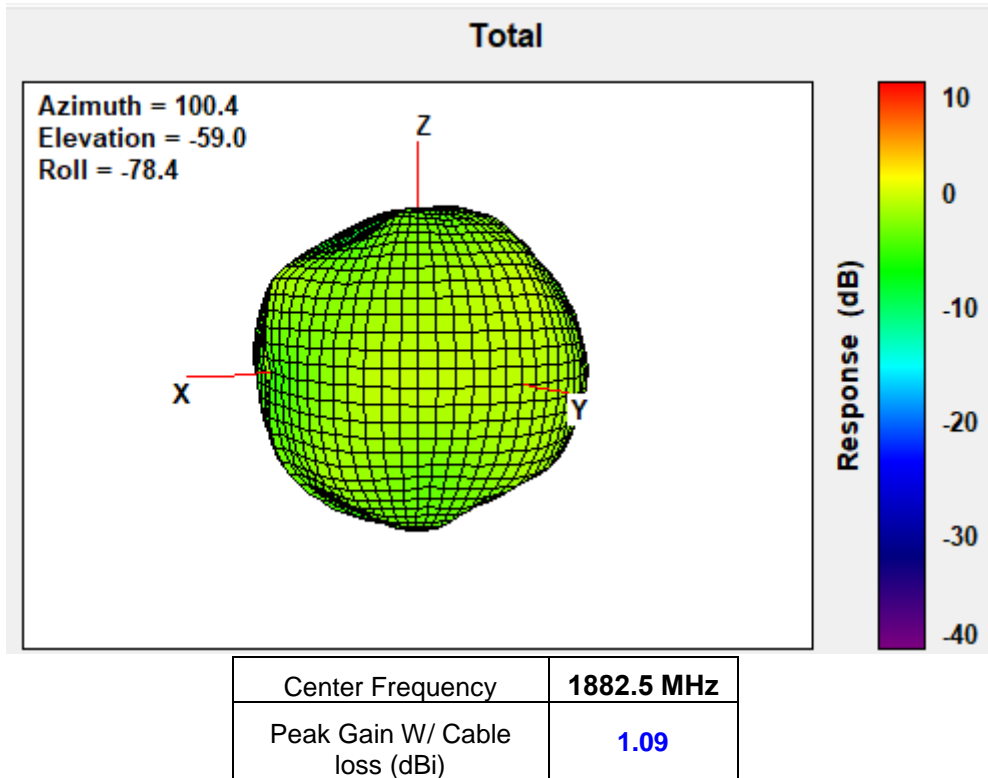
1850 MHz



1880 MHz

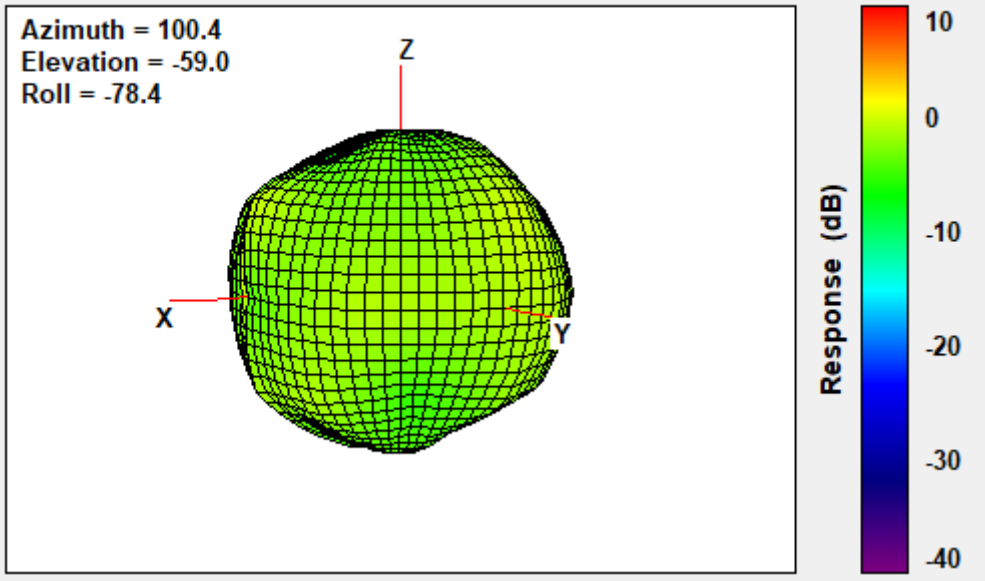


1882.5 MHz





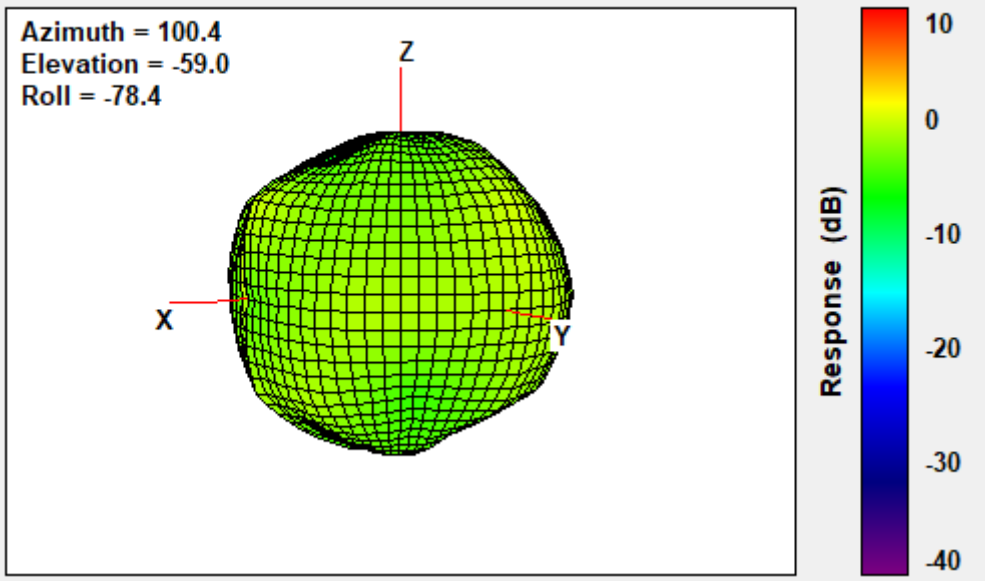
**1900 MHz  
Total**



Center Frequency	<b>1900 MHz</b>
Peak Gain W/ Cable loss (dBi)	<b>1.48</b>

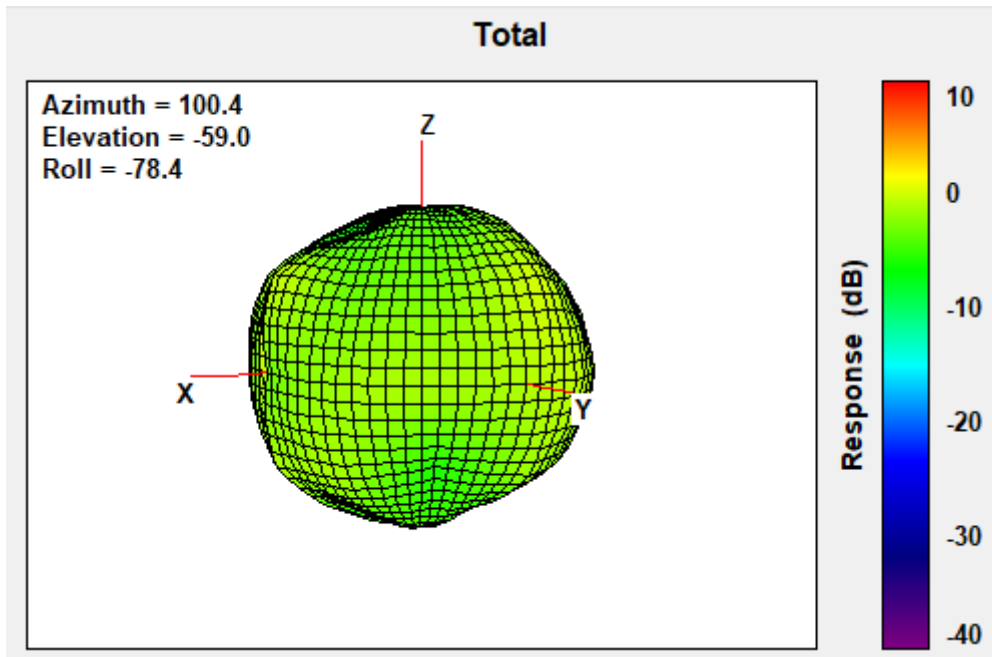
**1910 MHz**

**Total**

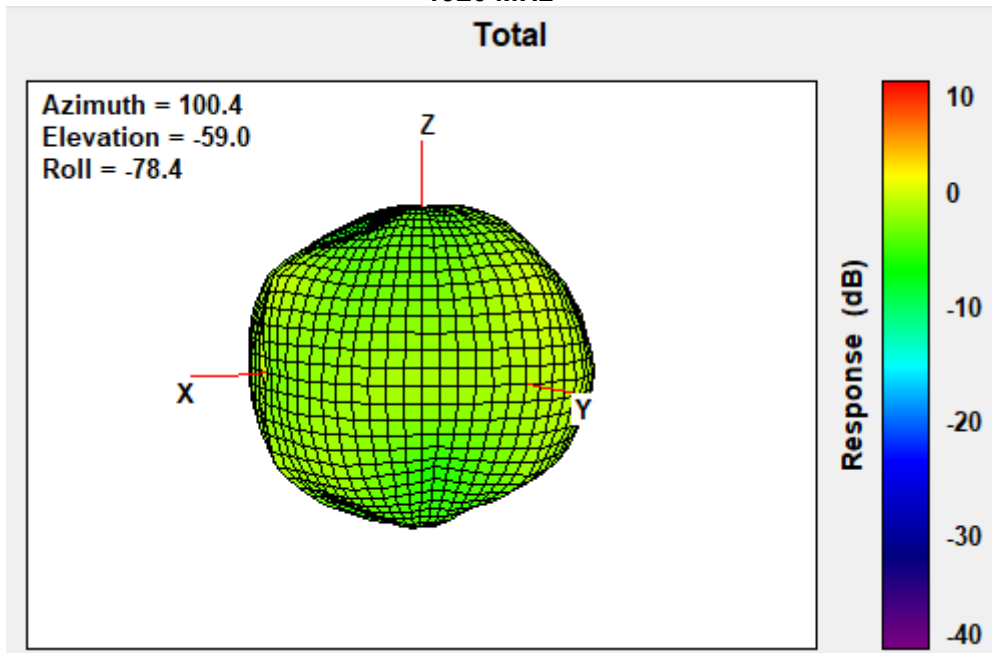


Center Frequency	<b>1910 MHz</b>
Peak Gain W/ Cable loss (dBi)	<b>1.39</b>

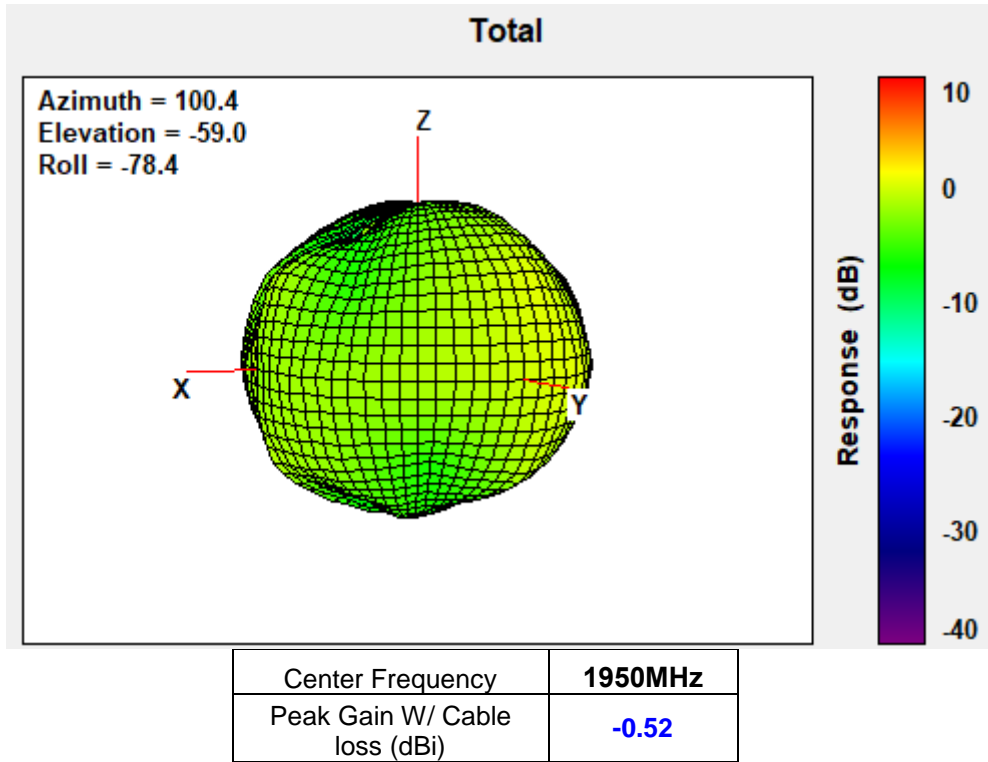
1915 MHz



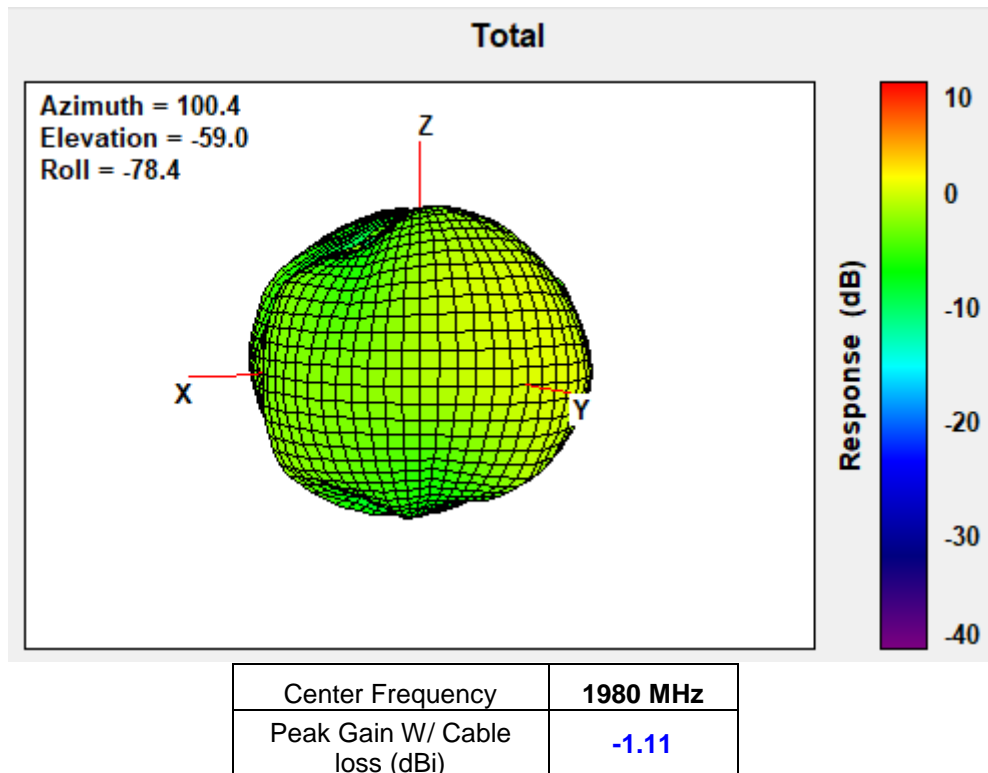
1920 MHz



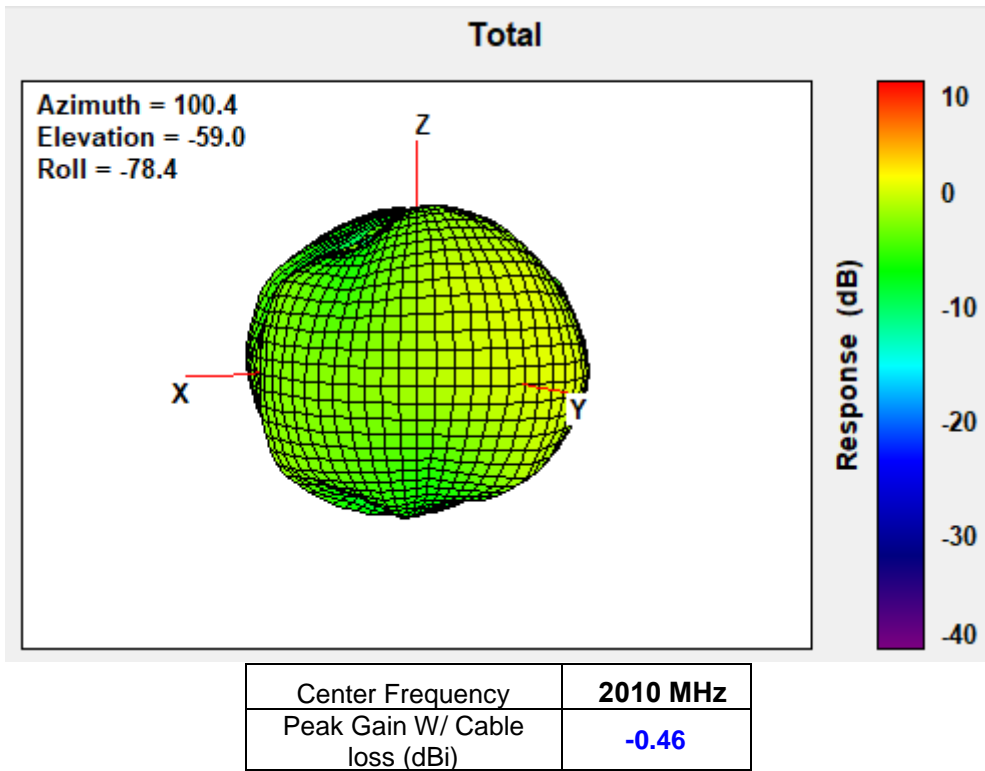
1950 MHz



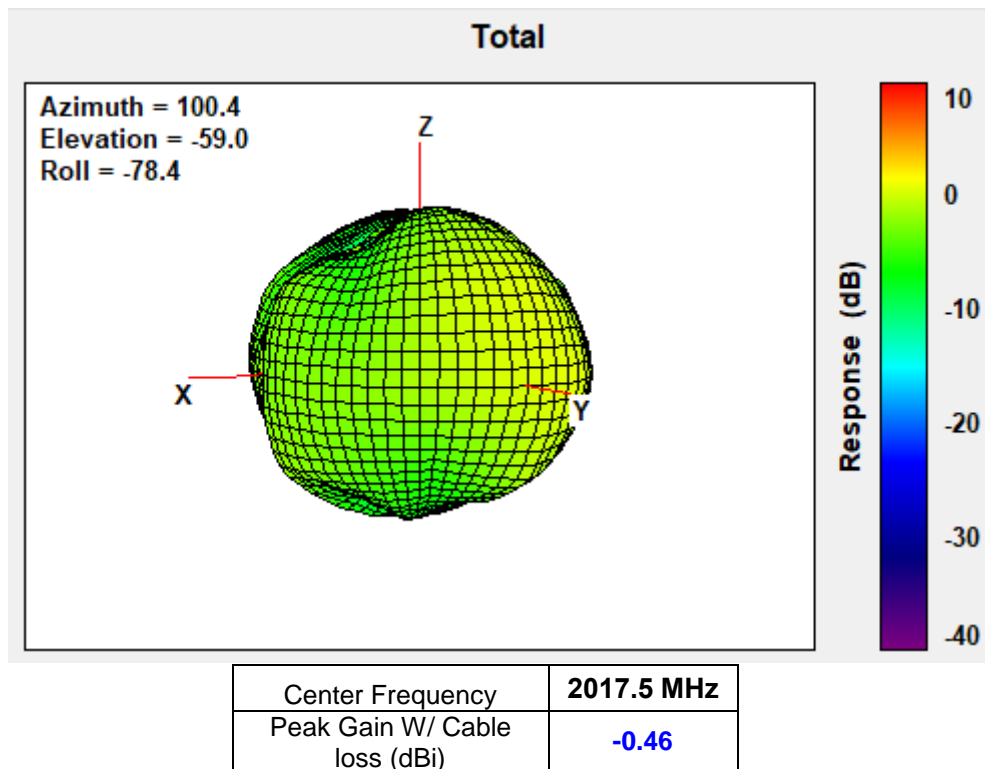
1980 MHz



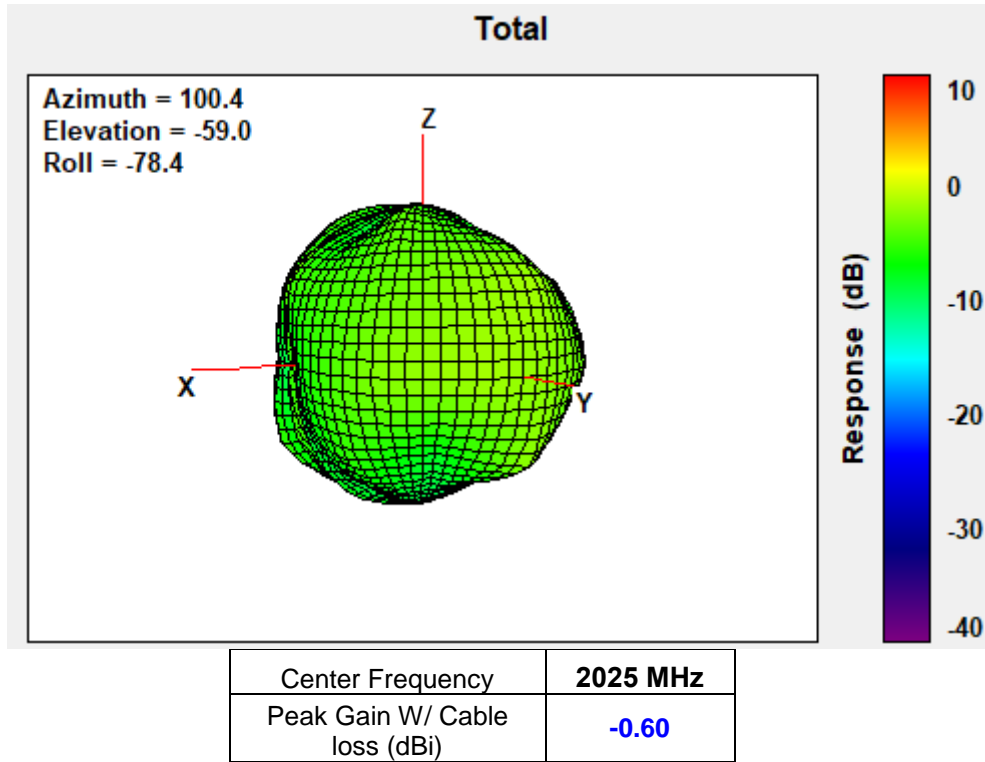
2010 MHz



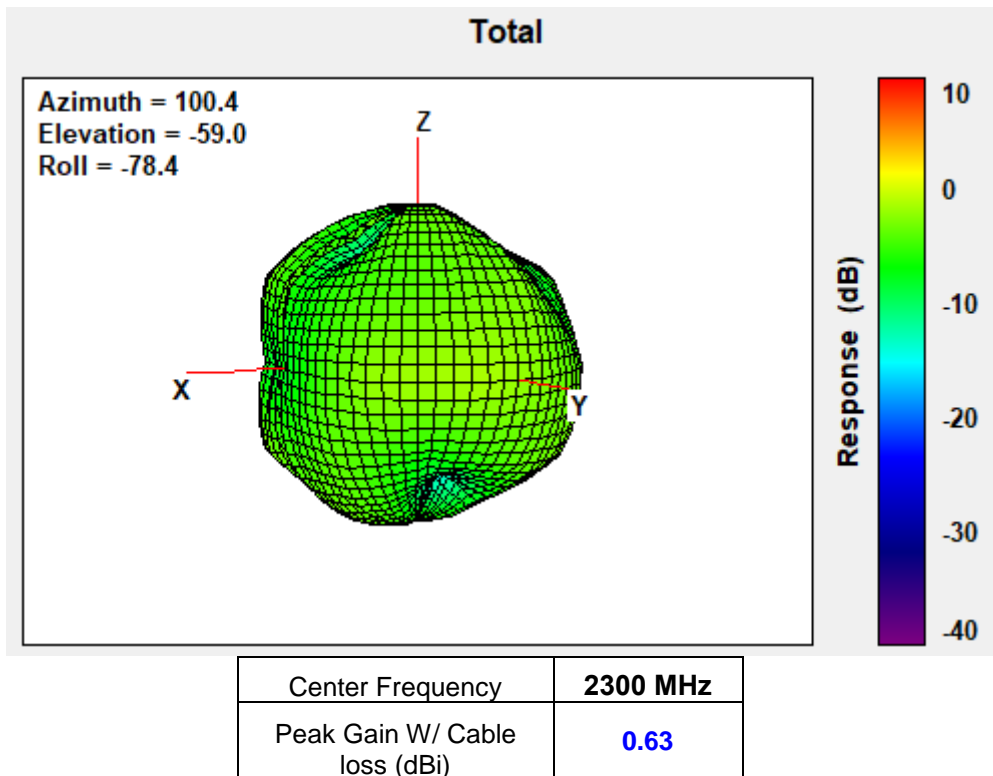
2017.5 MHz



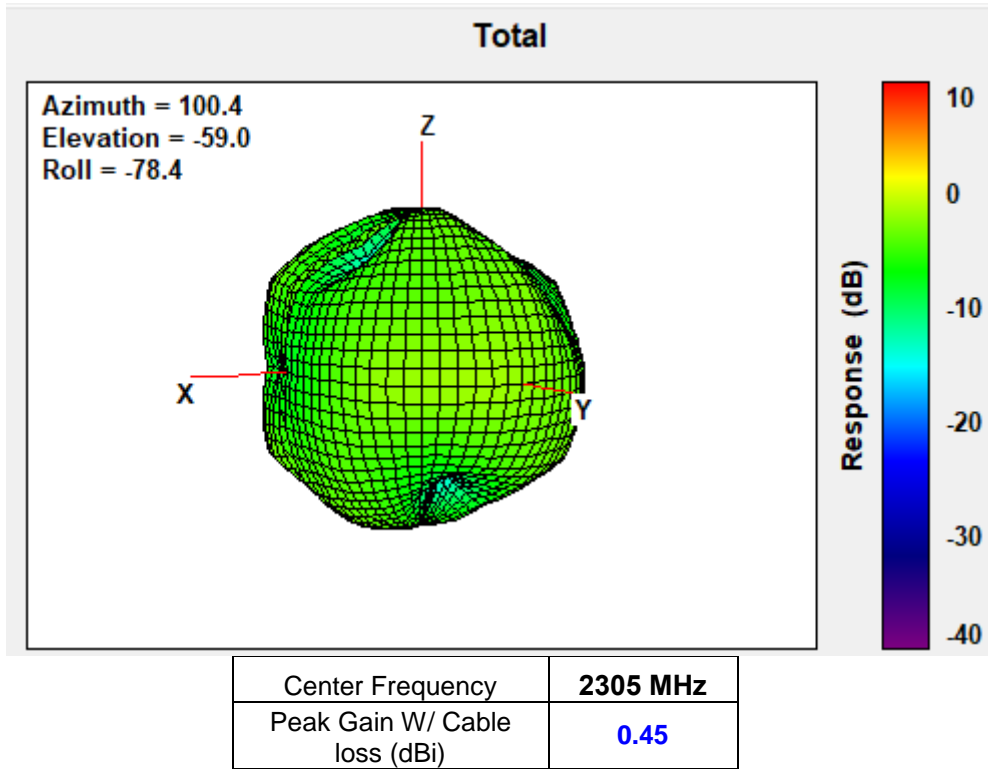
**2025 MHz**



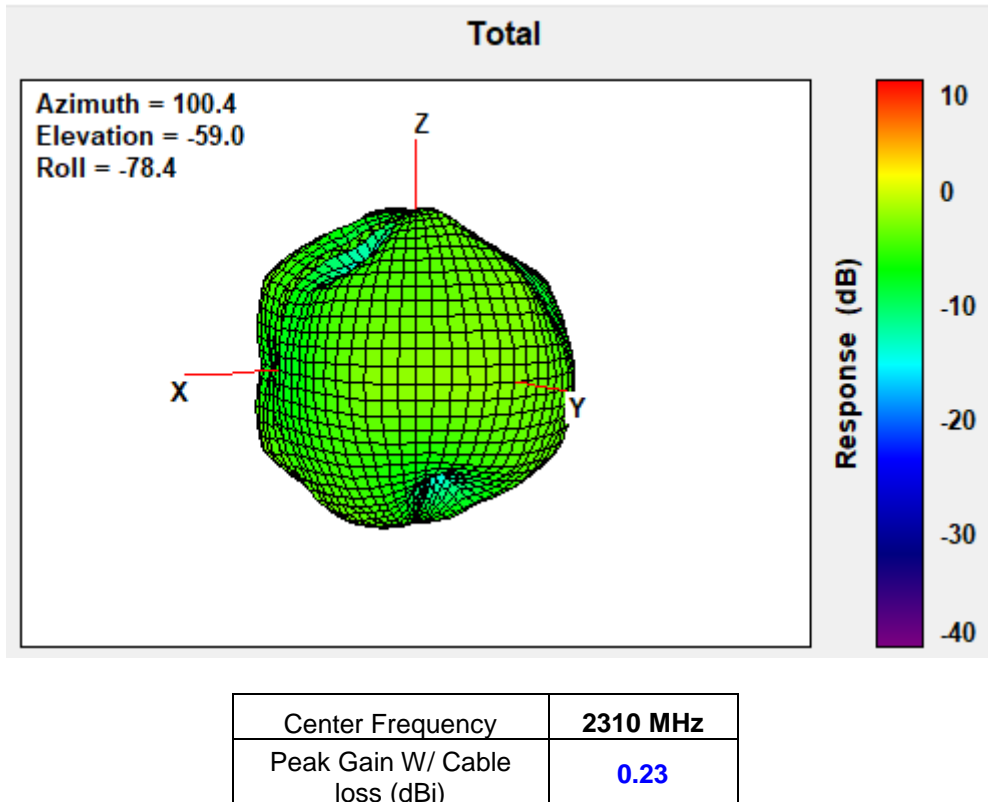
**2300 MHz**



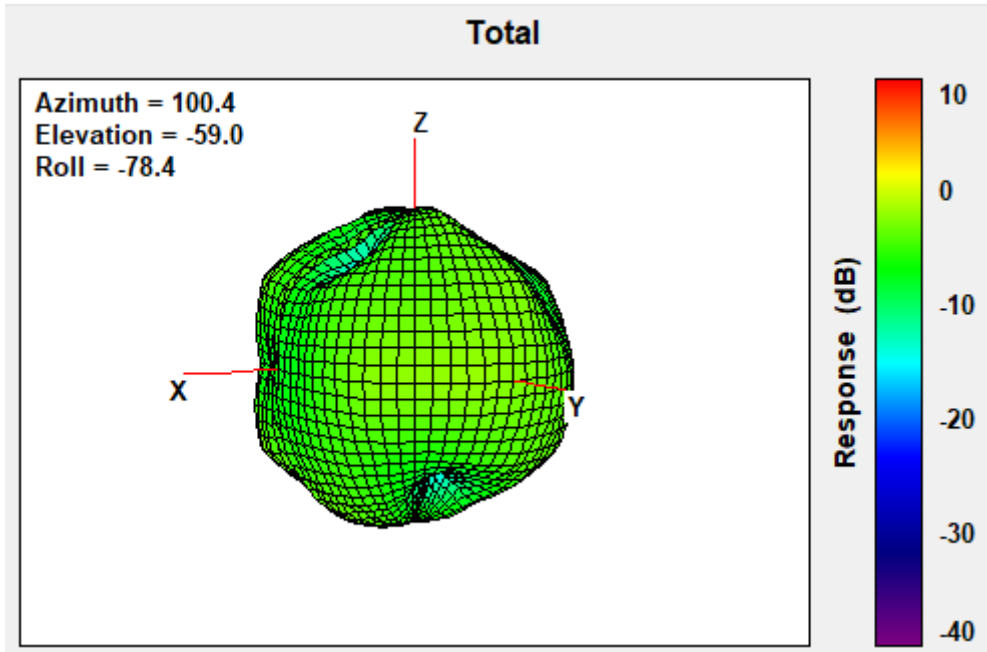
2305 MHz



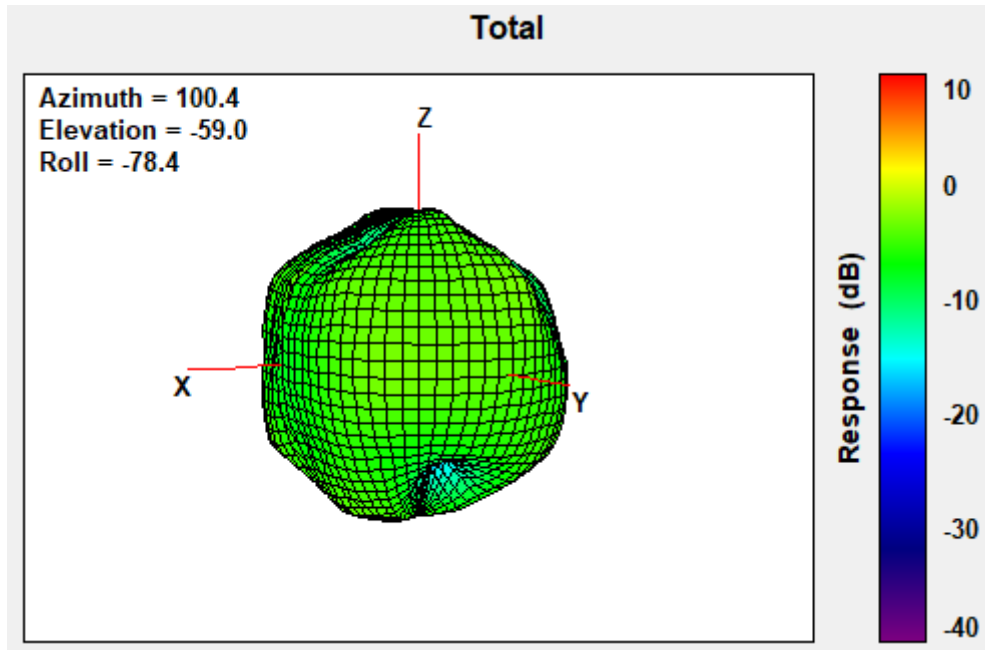
2310 MHz



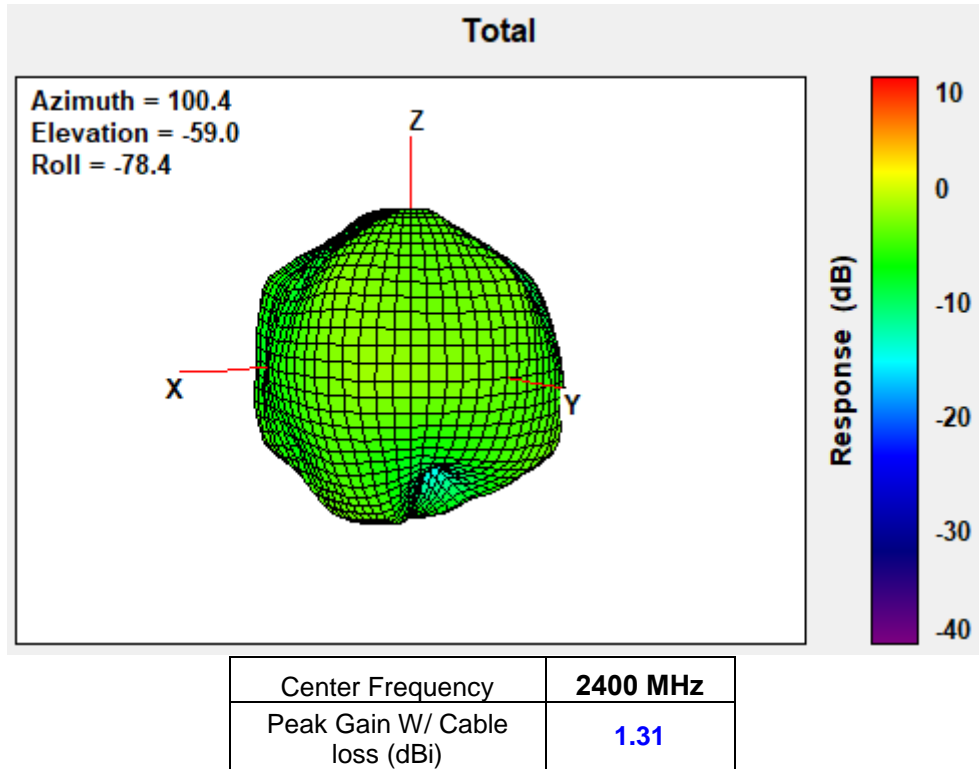
2315 MHz



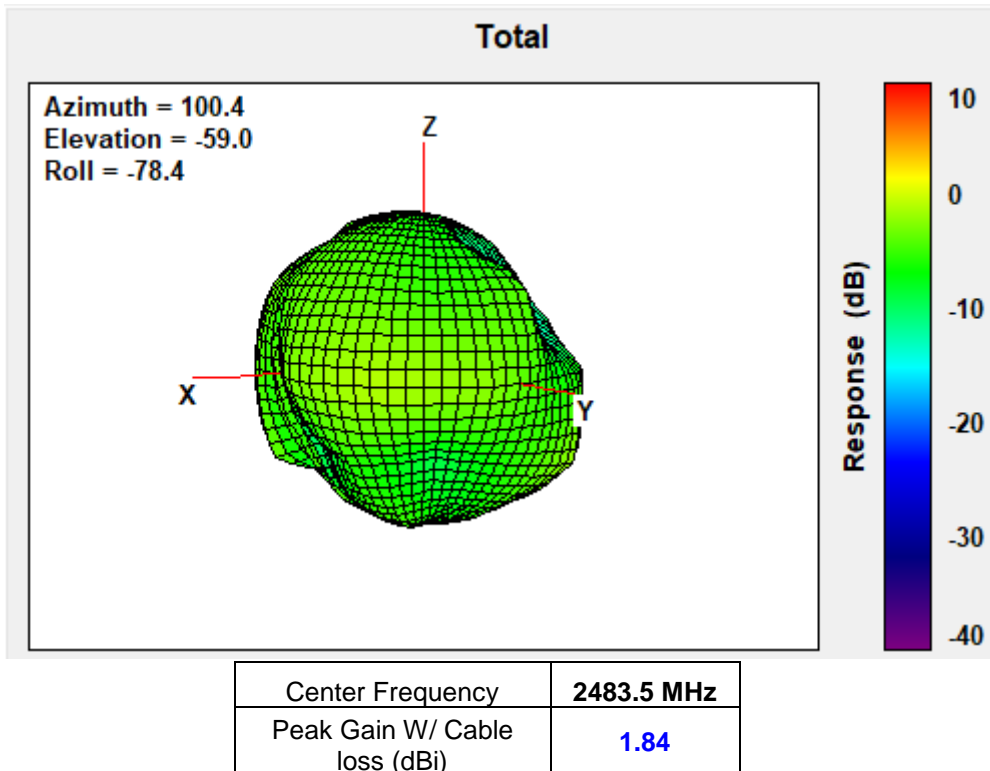
2350 MHz



2400 MHz

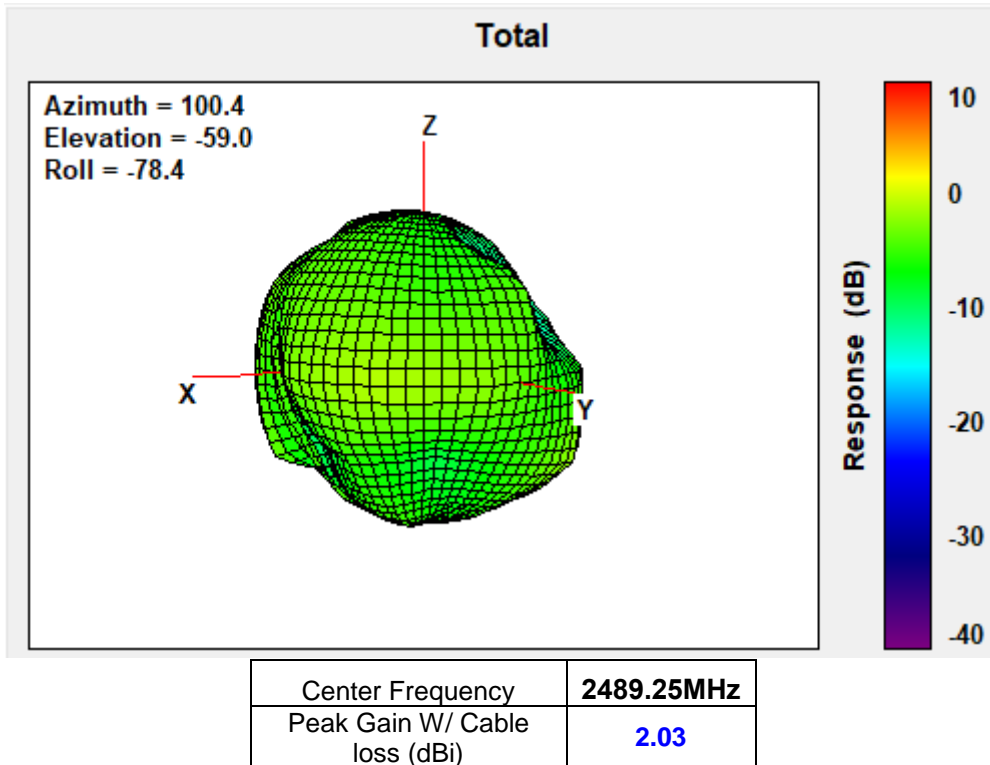


2483.5 MHz

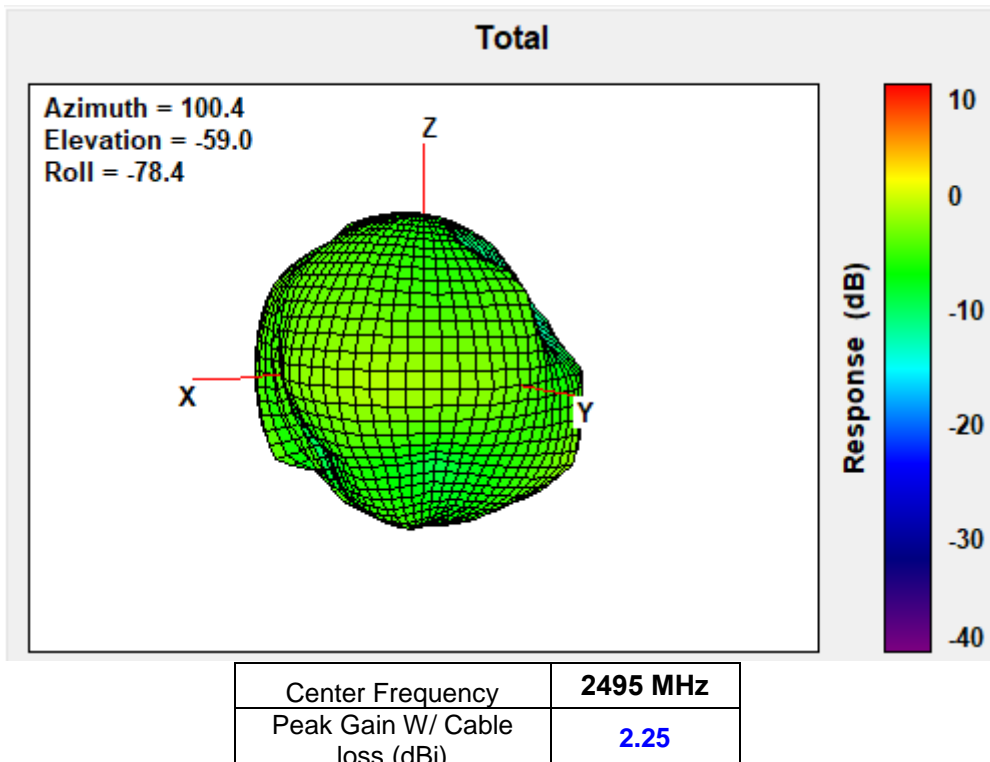




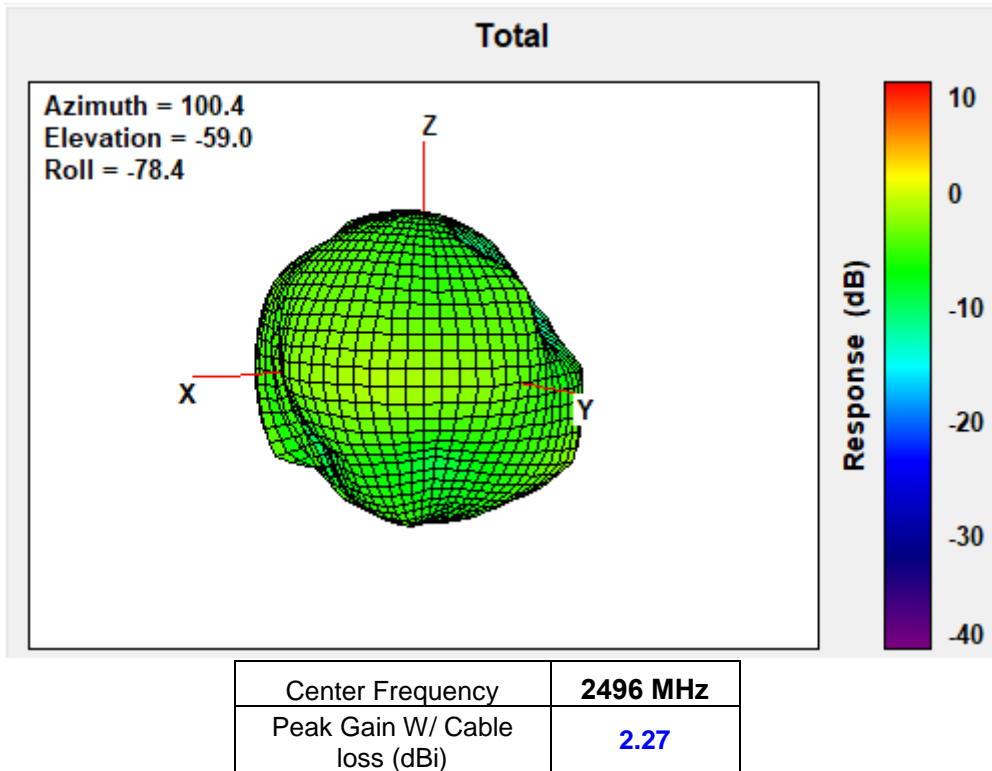
2489.25 MHz



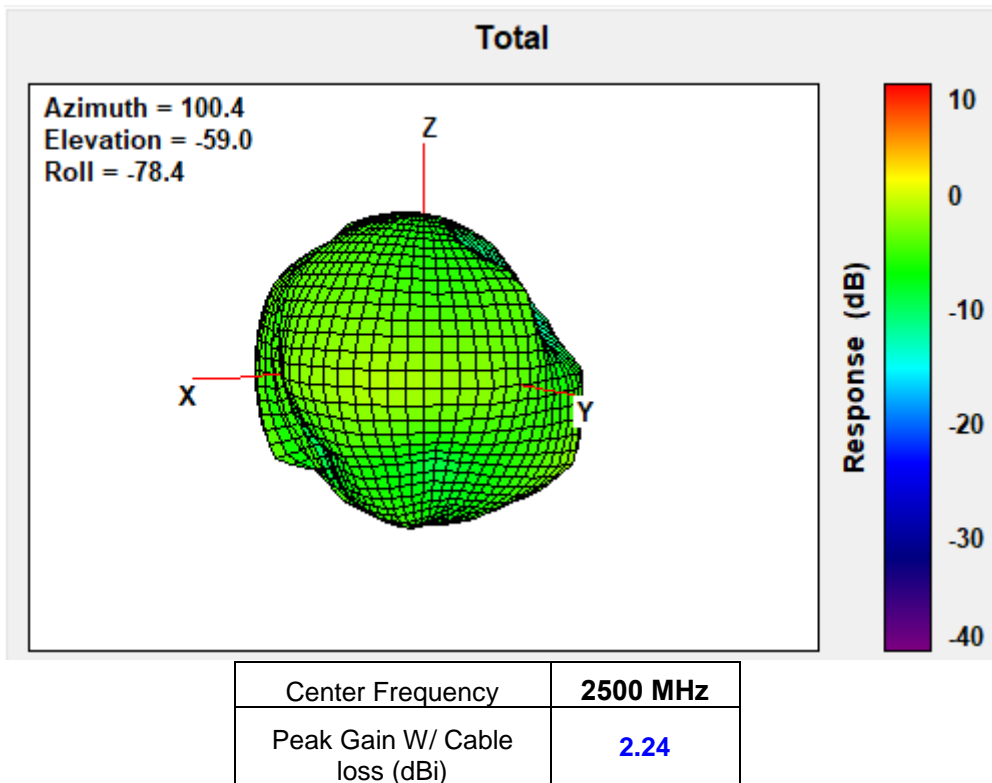
2495 MHz



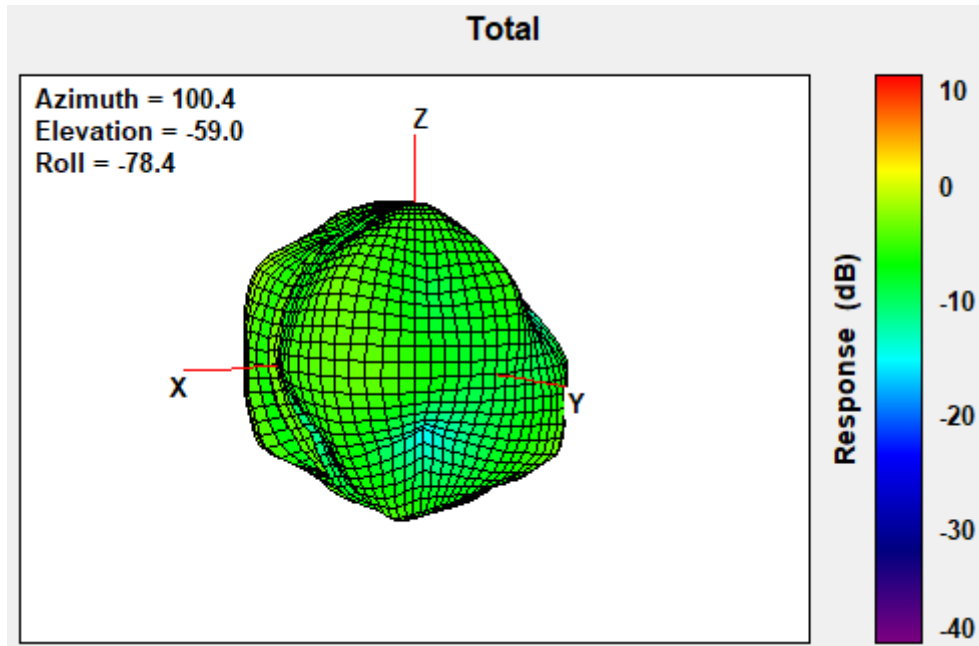
2496 MHz



2500 MHz

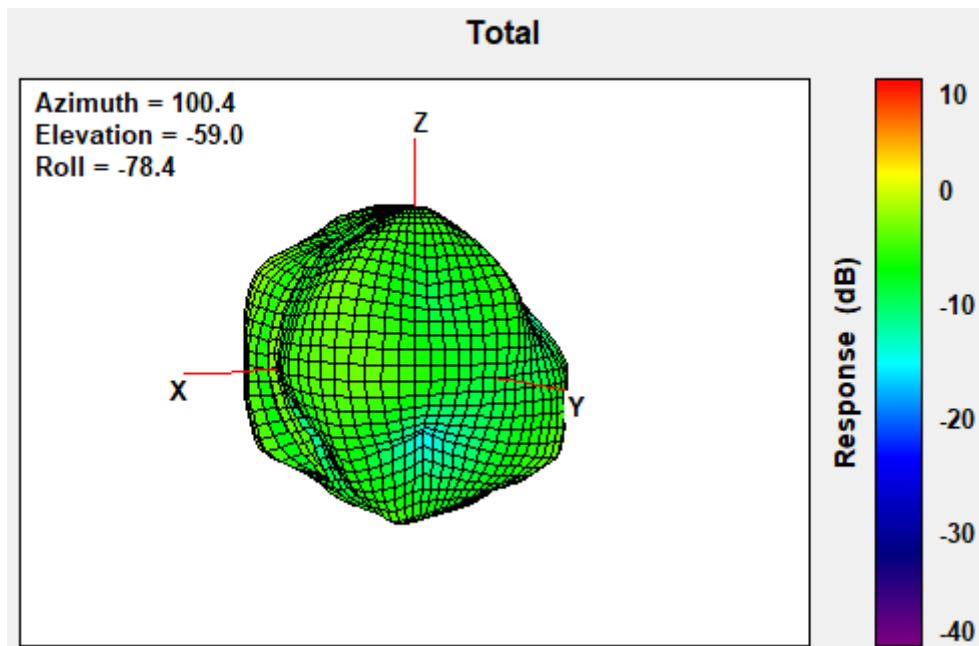


2535 MHz



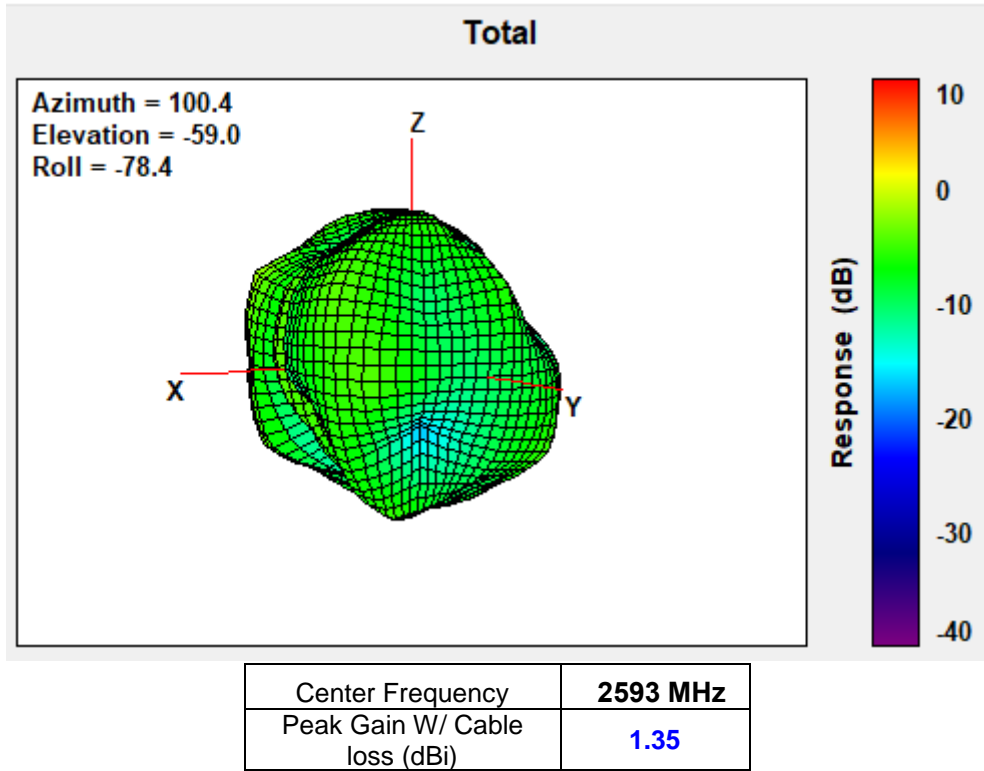
Center Frequency	<b>2535 MHz</b>
Peak Gain W/ Cable loss (dBi)	<b>1.70</b>

2570 MHz

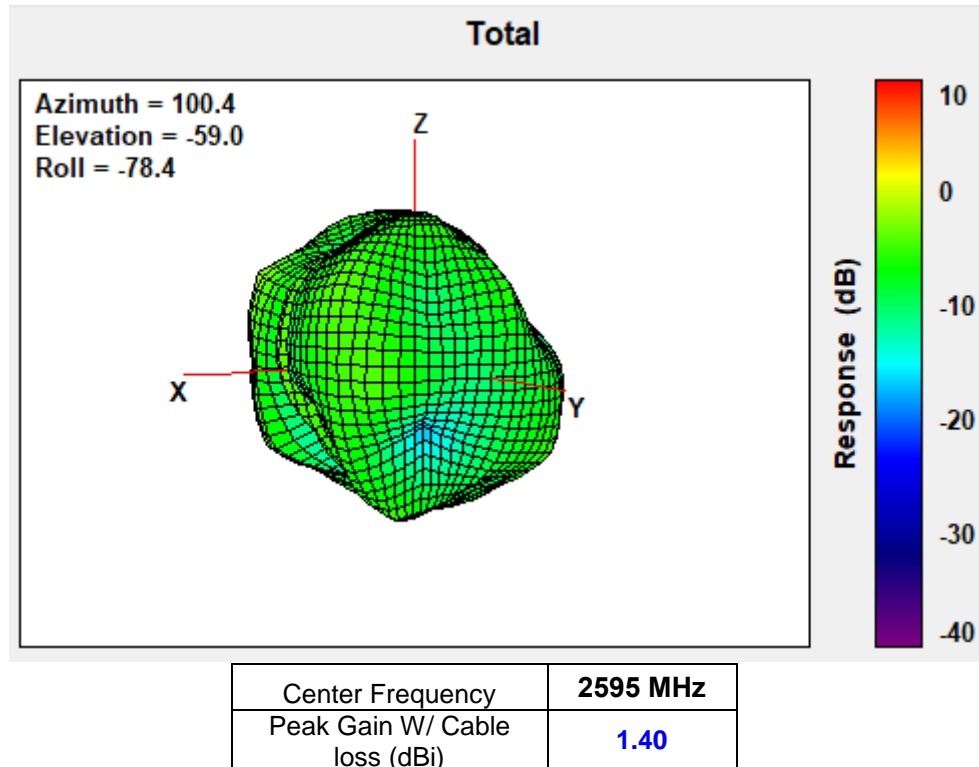


Center Frequency	<b>2570 MHz</b>
Peak Gain W/ Cable loss (dBi)	<b>0.97</b>

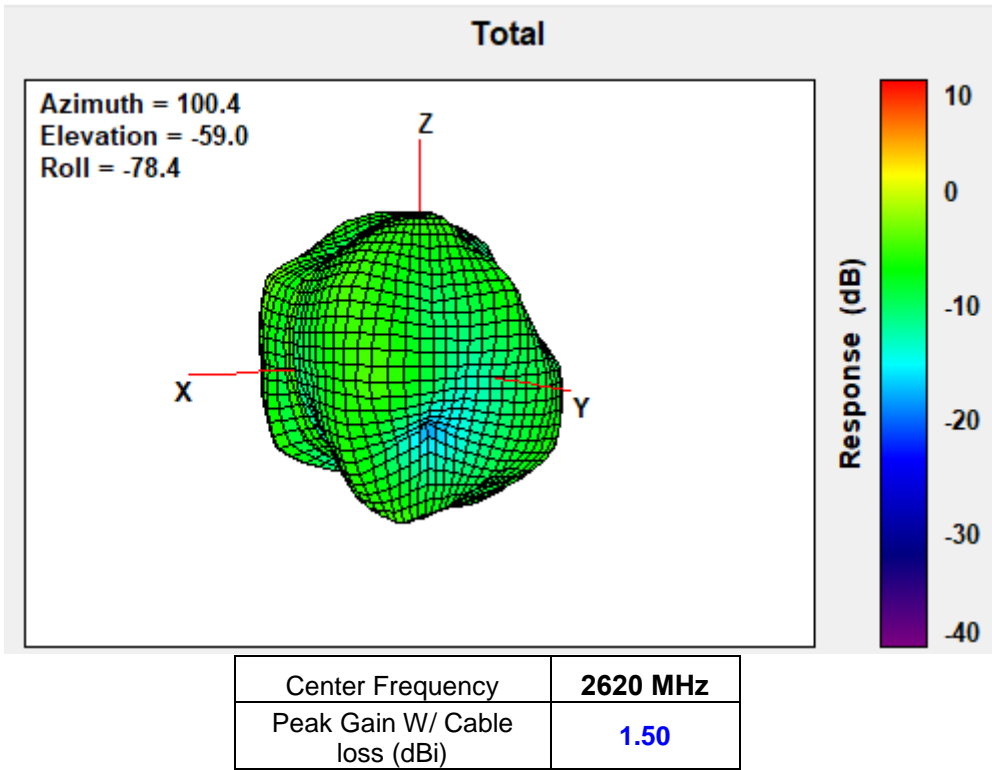
2593 MHz



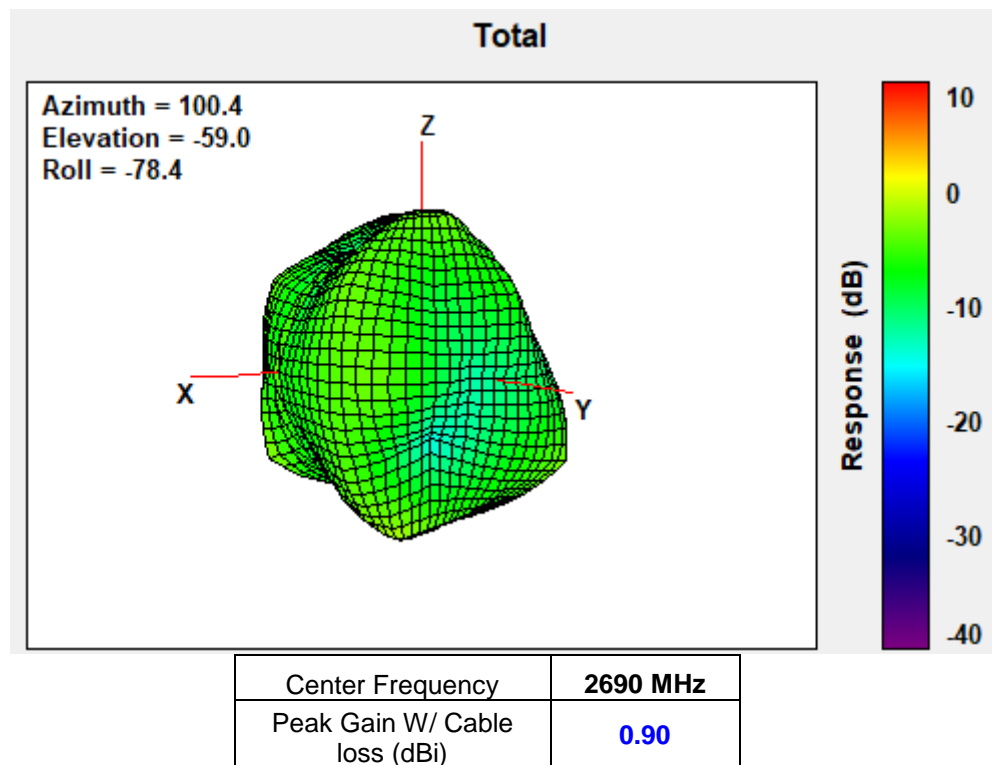
2595 MHz



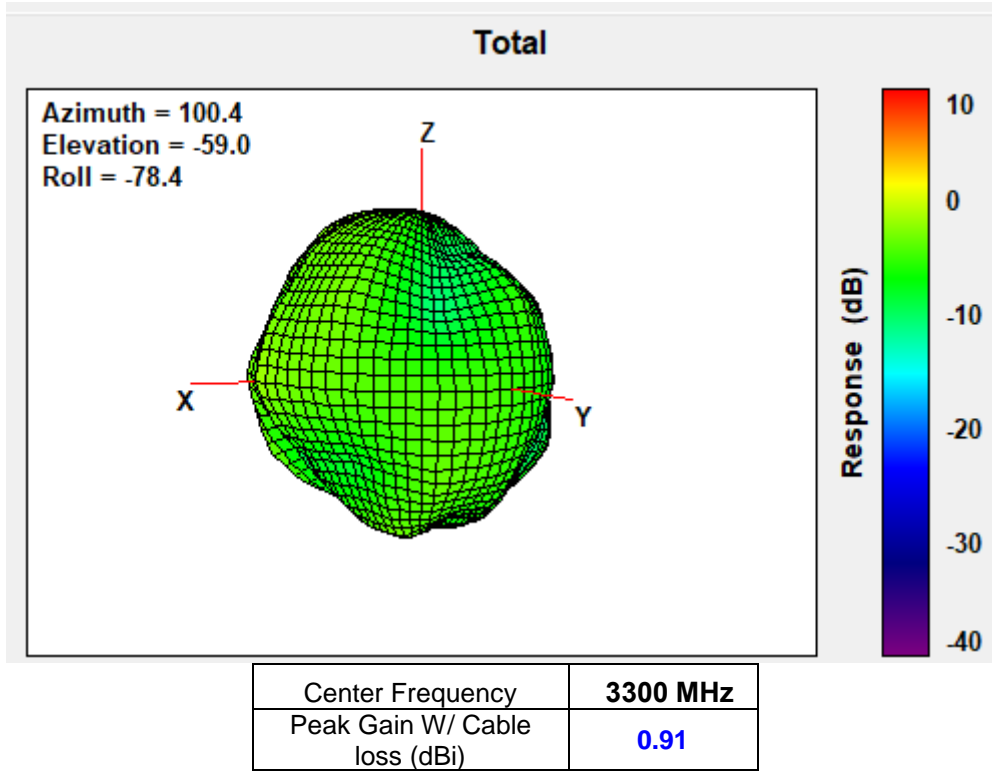
2620 MHz



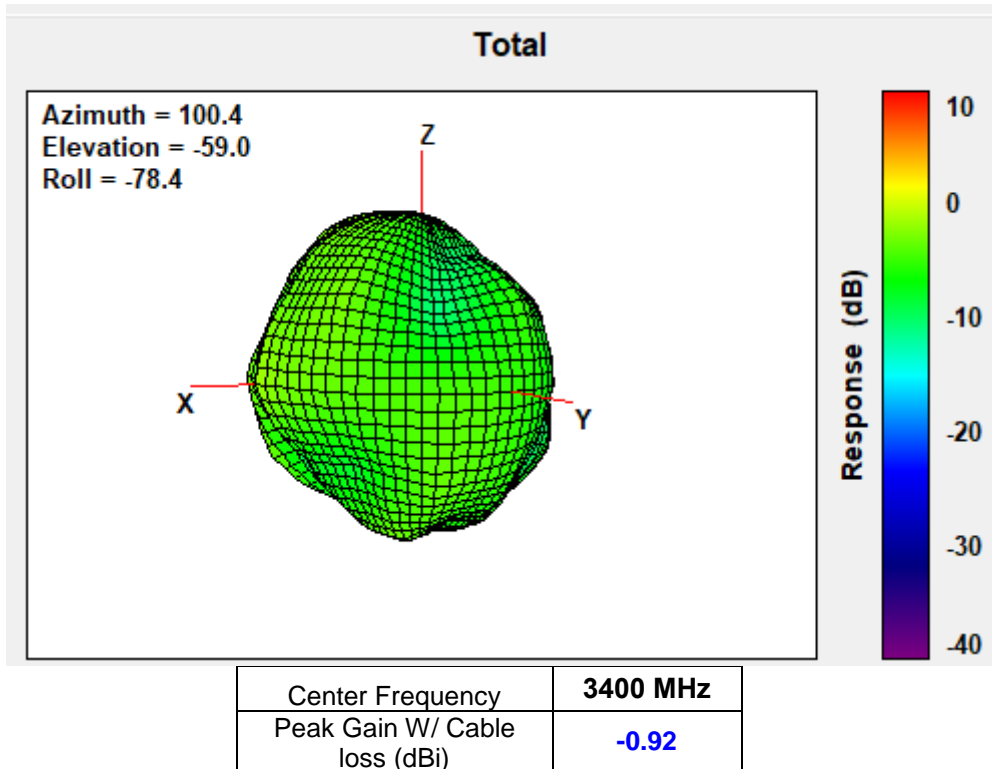
2690 MHz



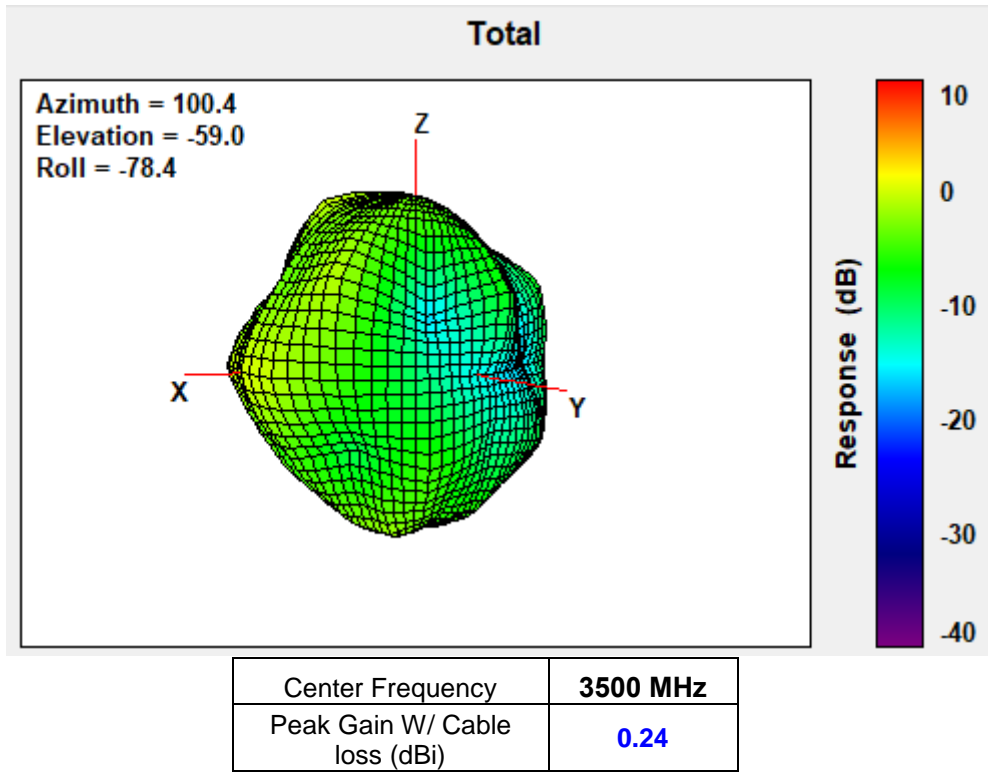
3300 MHz



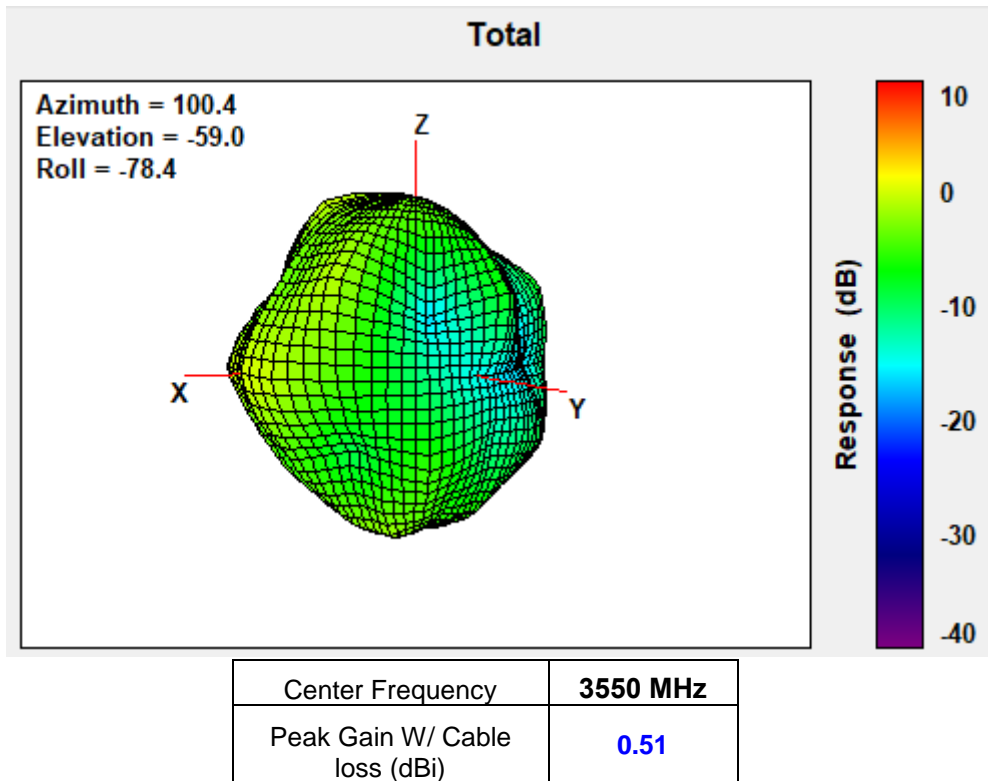
3400 MHz



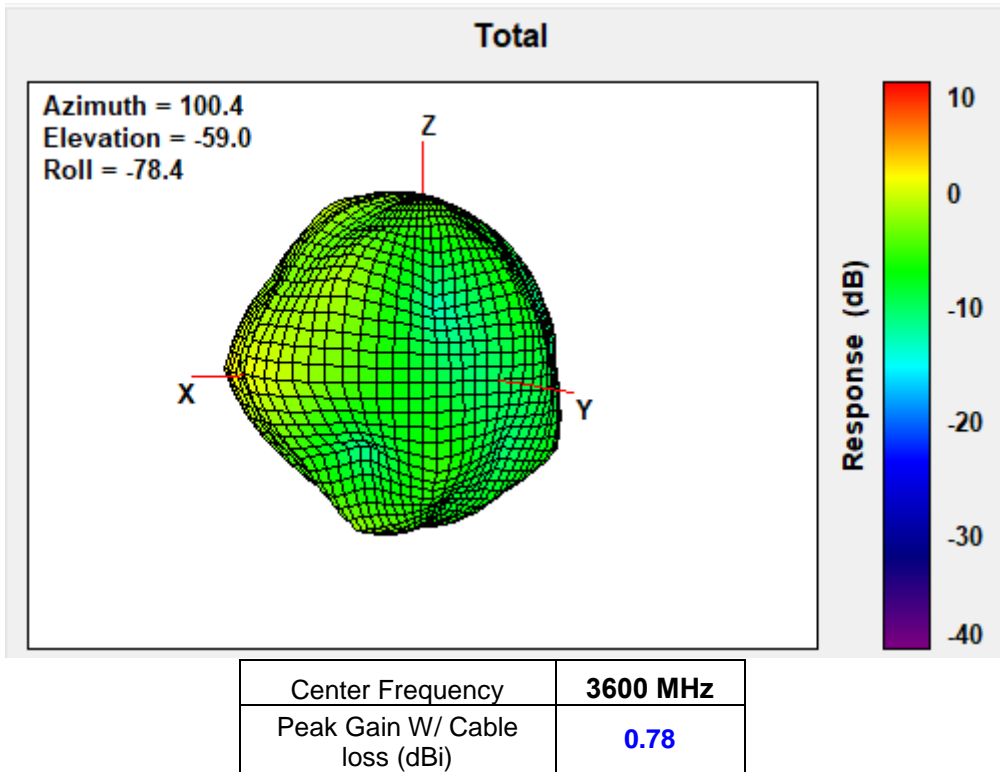
**3500 MHz**



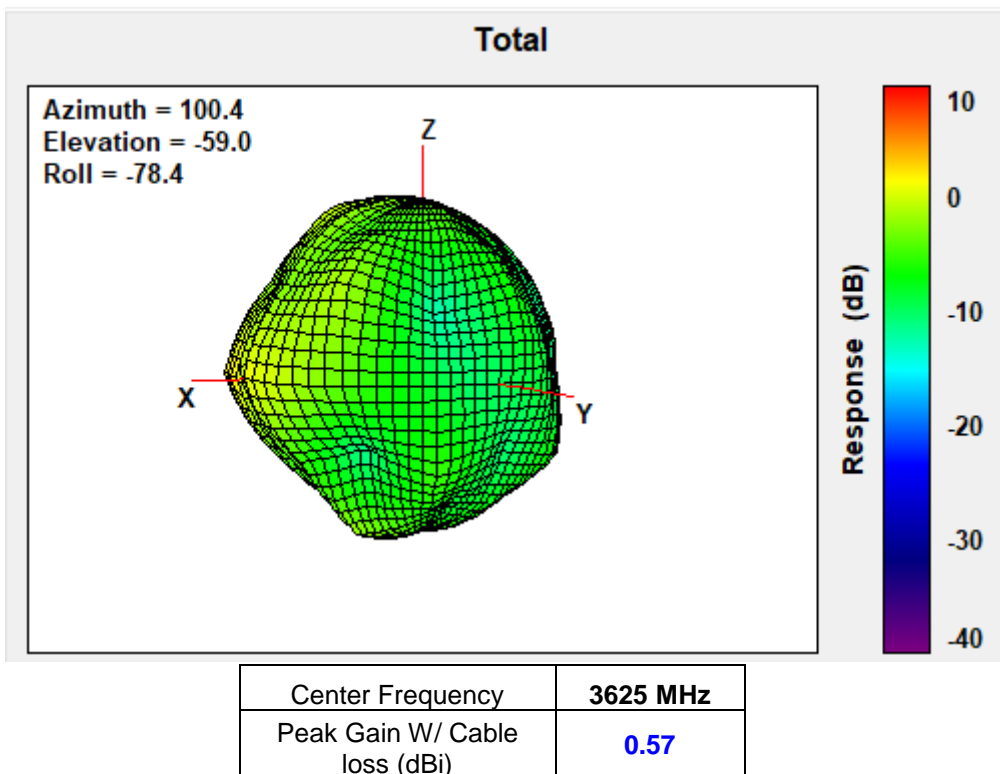
**3550 MHz**



**3600 MHz**

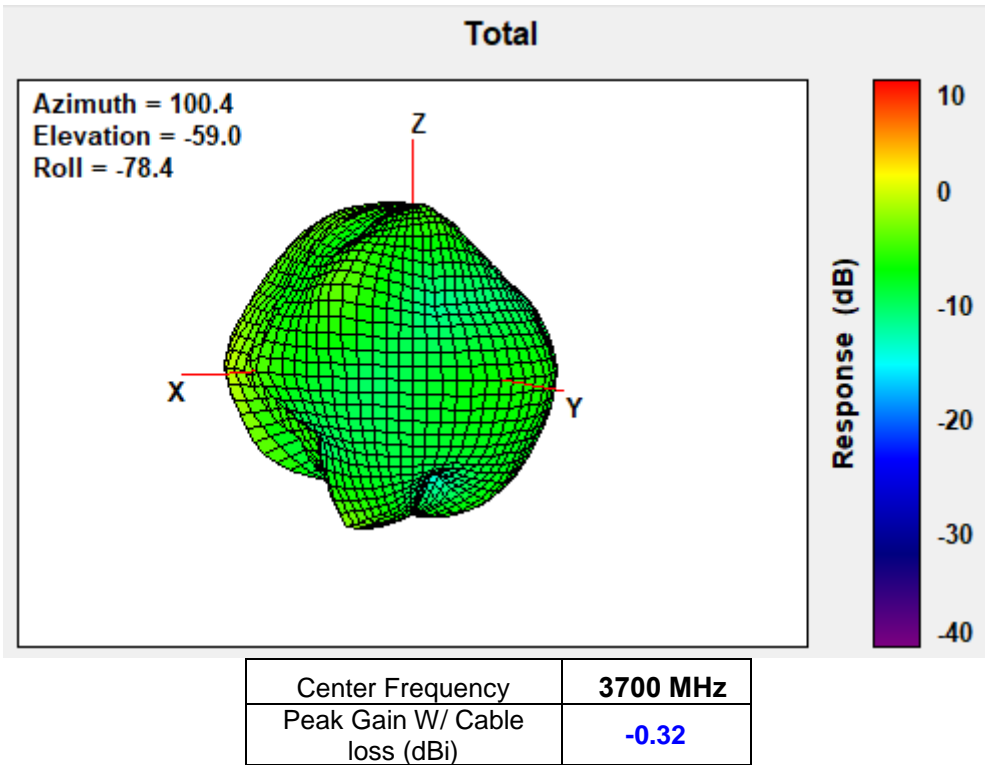


**3625 MHz**

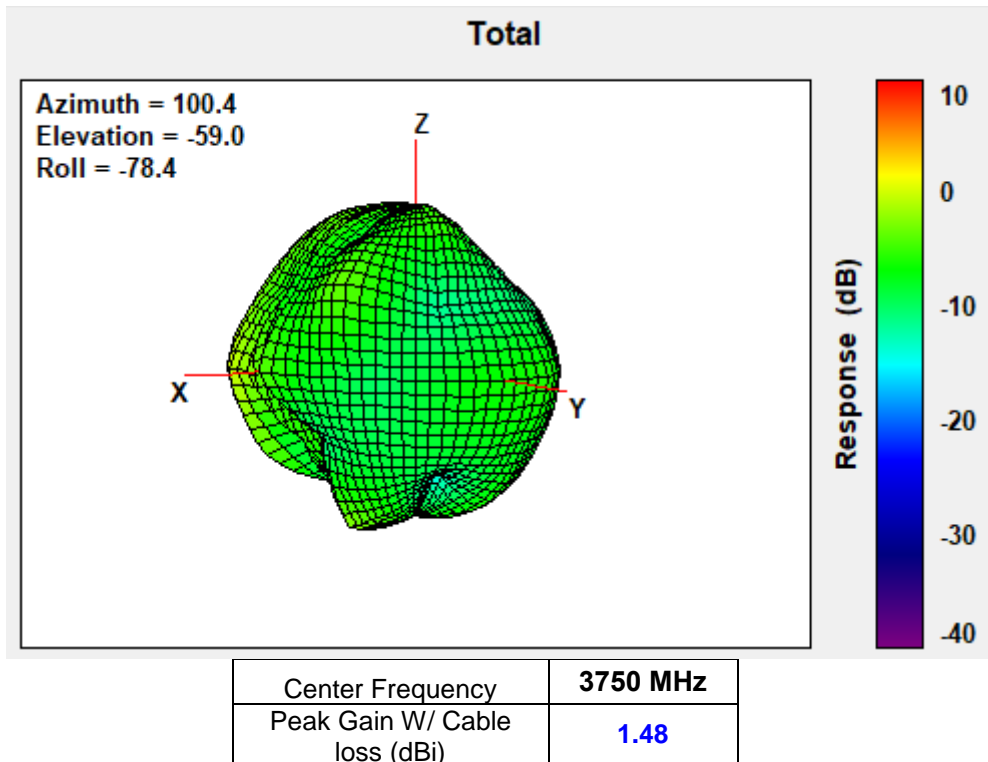




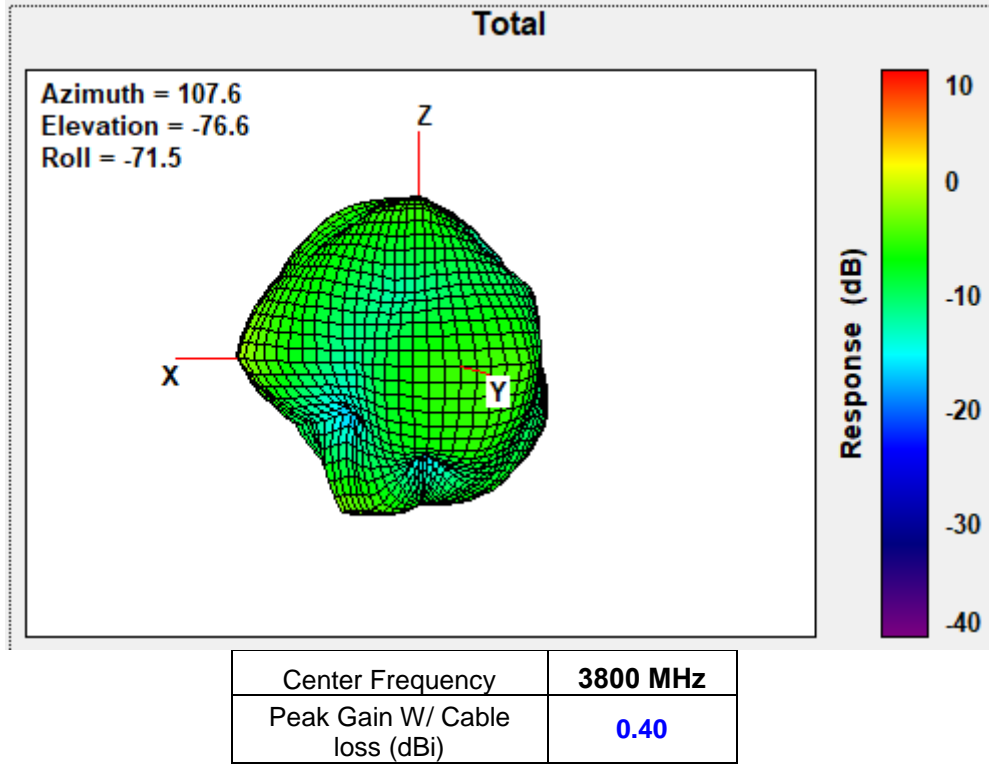
**3700 MHz**



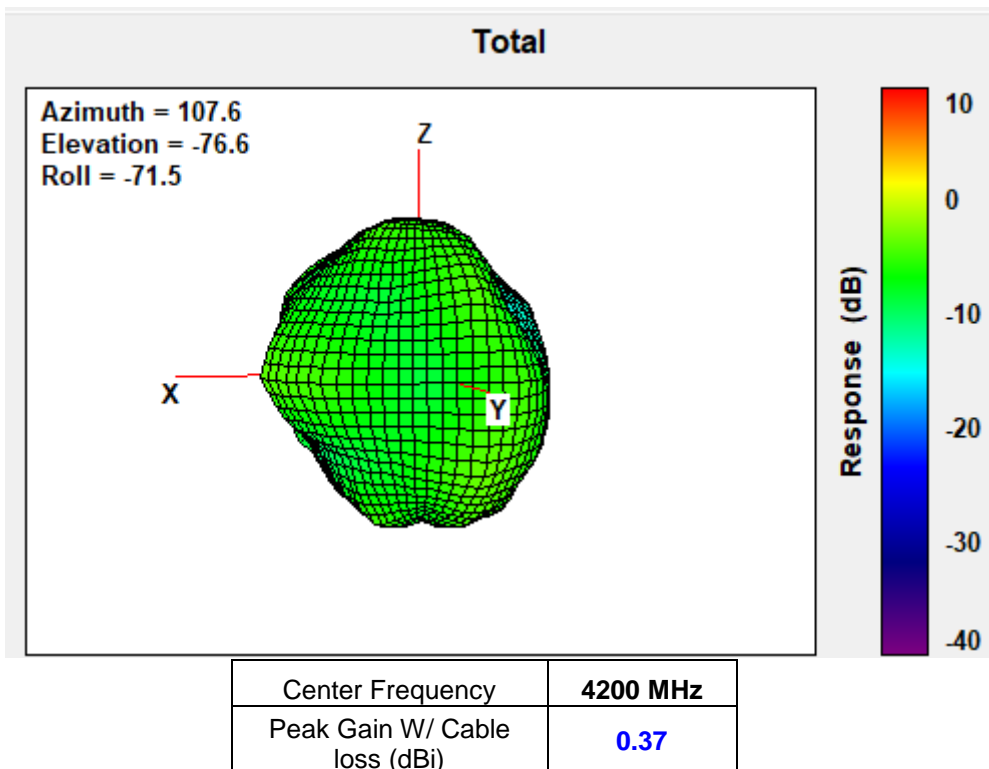
**3750 MHz**



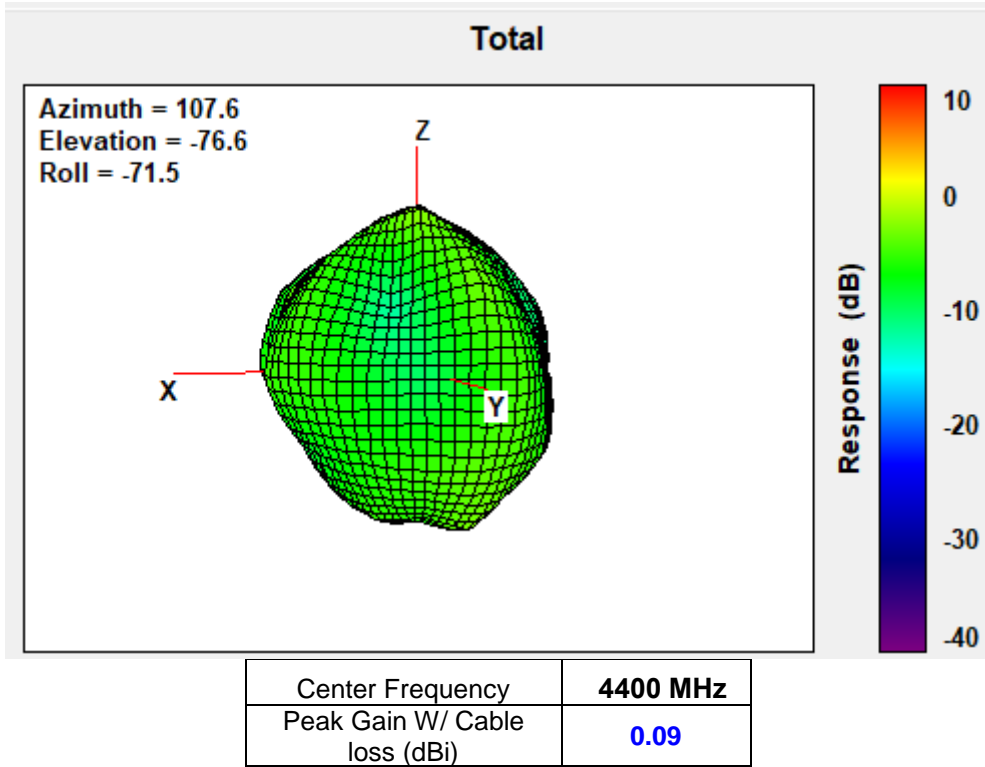
3800 MHz



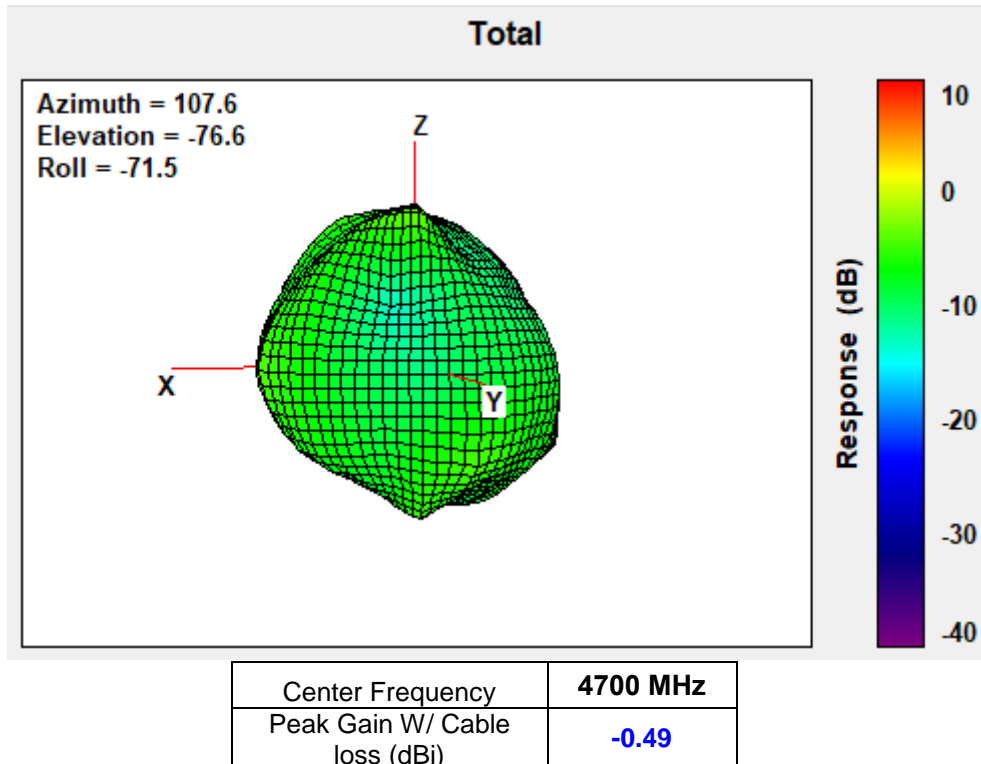
4200 MHz



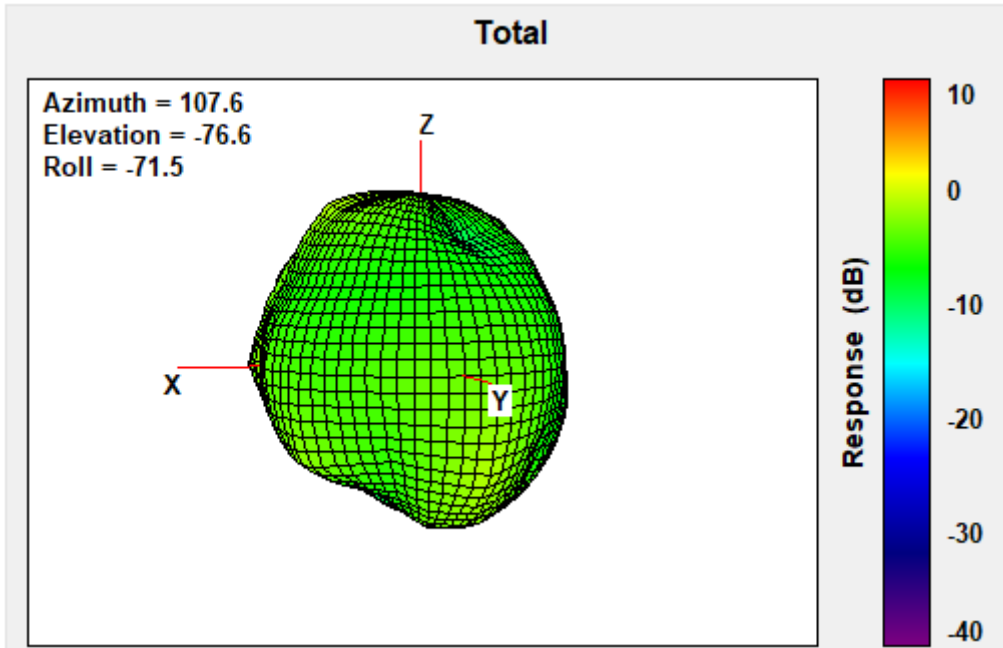
4400 MHz



4700 MHz



5000 MHz

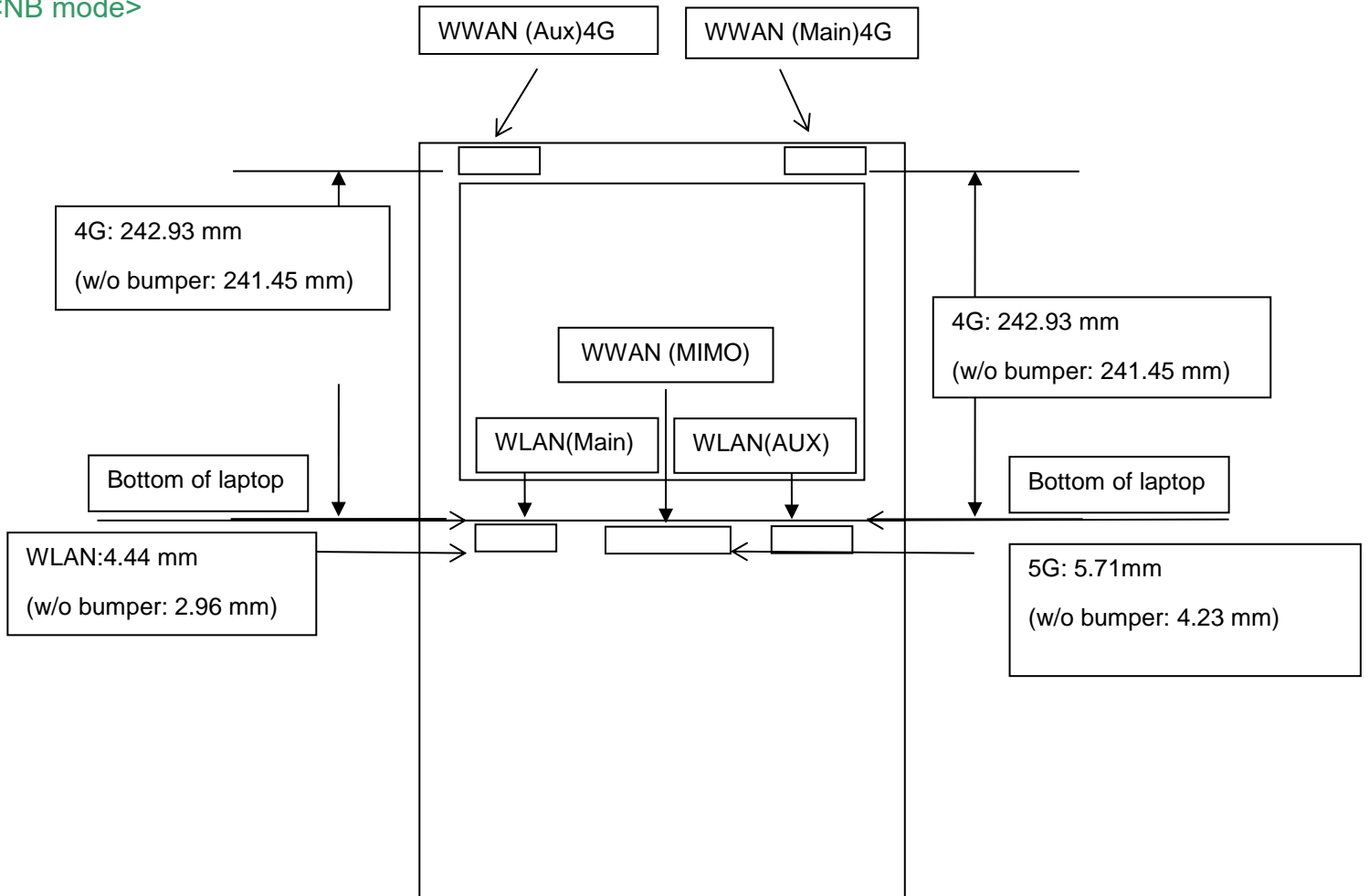


## Section 4. Antenna Host Platform Location Information

Include a **dimensioned photo(s) or dimensioned drawing(s)** of Main and Aux antenna placements (measurements are not required for receive-only antenna).

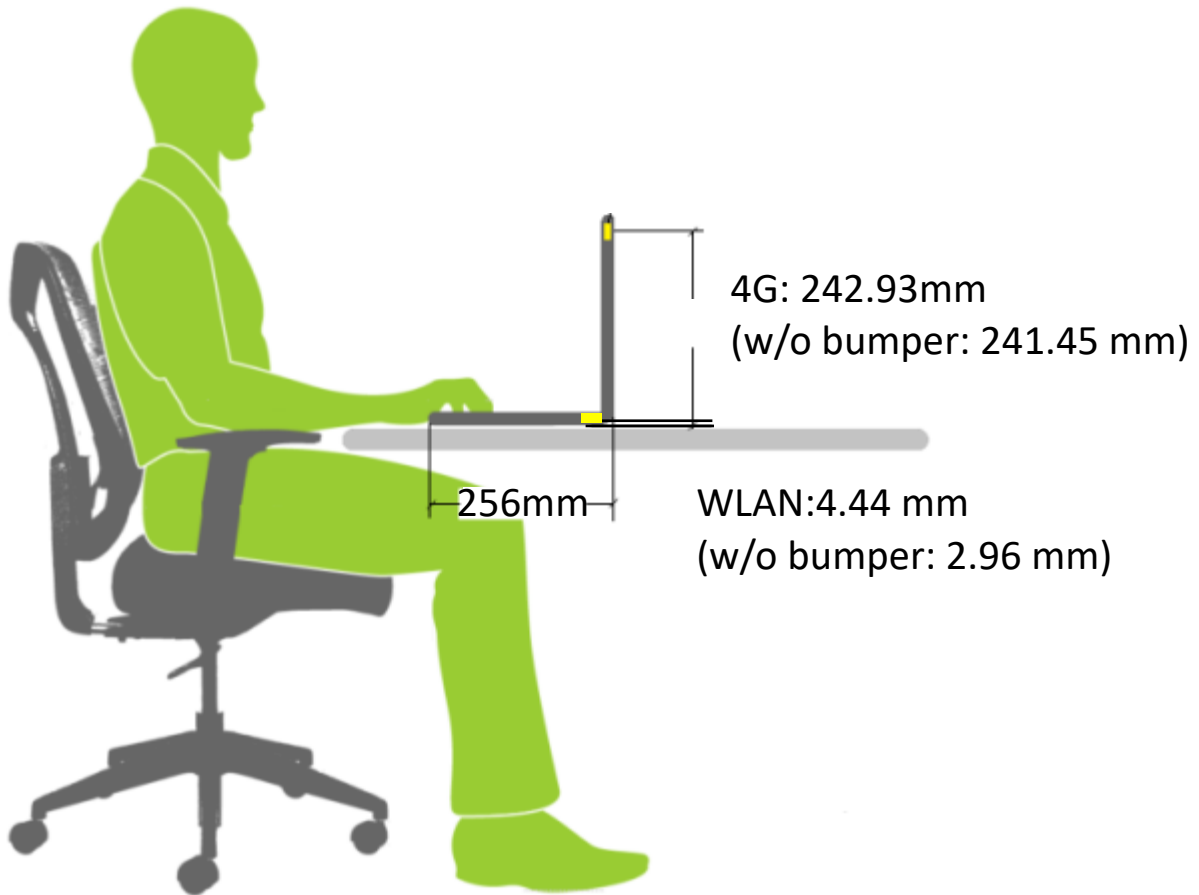
Any antenna that transmits must show dimensions to bottom of laptop. Provide a description of the materials that are used for supporting or surrounding transmit antennas; for example, non-conductive plastics vs. conductive coated plastic or metallic materials.

<NB mode>



## Section 5. Antenna dimensional information for SAR evaluation

Include a **dimensioned photo(s) or dimensioned drawing(s)** showing the distance (mm) between the transmit antennas and the user. For notebook/laptop hosts show lapheld position (example below). For tablet hosts show all orientations including lapheld, primary & secondary portrait, primary & secondary landscape positions. Include a description of any proximity sensors or power throttling implementations that limit or exclude use of any host orientation.



## Section 6. Diagram Example of Co-Location Antenna Separation

Include a **dimensioned photo or dimensioned drawing** showing the distance (mm) between **all WLAN transmit antennas** and other co-located radiator transmit antenna such as Bluetooth, WWAN,..

(Note: Due to the evolving rules regarding co-location, each platform will need to be reviewed on a case by case basis)

