

# Regulatory WLAN Antenna Information

Antenna information											
Vendor (Manufacturer)		Type		Antenna Part number (Main)			Antenna Part number (Aux)				
INPAQ		PIFA		HQ26003000230 (WA-F-LE-03-002)			HQ26003000240 (WA-F-LE-01-009)				
Address of Vendor (Manufacturer)		No. 11, Keyi St., Zhunan Township, Miaoli County 350402, Taiwan									
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	2.66	3.20	2.98	2.54	3.78	3.98	3.84	3.77	3.40	3.92	
Aux	1.41	1.46	1.72	1.91	1.77	1.98	2.24	2.30	1.97	2.59	
Intel Reference Gain/Type/ Separation distance											
Antenna Type	Antenna Peak gain (In dBi)*										Distance to the end user (mm)
	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	7.0GHz 6875-7125MHz	
Design	3.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	Generic: refer to modular FCC SAR report Mid-power: ≥ 8 mm Low power: ≥ 5 mm
PIFA	3.24	3.64	3.73	4.77	4.97	4.72	4.83	4.30	5.37	5.59	
Dipole	2.89	2.92	3.19	4.41	4.22	4.22	4.83	4.30	4.49	5.34	
Notes (marked with *)											
* SAR minimum separation (mm)											
- Regular NB: Minimum antenna-to-body (from antenna bottom to the bottom of the device)											
- Tablet / Convertible PC: Minimum antenna-to-edge (5 sides of the device)											
- Mini-tablet: Minimum antenna-to-edge (6 sides of the device)											
* 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.											

# Antenna Information

## Section 1. Antenna Assembly Specifications

1A Antenna Part Number	1B Manufacturer	1C Antenna Type	1D Cable Assembly Part Number and Information	Freq Range MHz	1E * Peak Gain W/ Cable loss (dBi)	1F Peak Gain w/o Cable Loss (dBi)	1G Max VSWR	1H Cable Loss (dB)
P/N: <b>HQ26003000230</b> (WA-F-LE-03-002) Tx1/ Rx1 Antenna Main Antenna	<b>INPAQ</b> Corporation	<b>PIFA</b>	<b>50 ohm Coaxial</b> <b>length: 300mm</b> <b>diameter: 1.13mm</b> <b>Connector Type:</b> <b>Caimei RF-4L13</b> <b>958-C413-W-B-Bu</b>	2400-2483.5	2.94	2.88	3.00 max	0.83
				5150-5250	3.20	4.44	3.00 max	1.24
				5250-5350	3.20	4.45	3.00 max	1.25
				5470-5725	3.98	5.26	3.00 max	1.28
				5725-5850	3.85	5.15	3.00 max	1.30
				5850-5895	3.64	4.95	3.00 max	1.31
				5925-6425	3.91	5.27	3.00 max	1.36
				6425-6525	3.72	4.19	3.00 max	1.39
				6525-6875	3.35	4.77	3.00 max	1.42
6875-7125	3.35	4.81	3.00 max	1.46				
P/N: <b>HQ26003000240</b> (WA-F-LE-01-009) Tx2/ Rx2 Antenna Aux Antenna	<b>INPAQ</b> Corporation	<b>PIFA</b>	<b>50 ohm Coaxial</b> <b>length: 300mm</b> <b>diameter: 1.13mm</b> <b>Connector Type:</b> <b>Caimei RF-4L13</b> <b>958-C413-W-B-Bu</b>	2400-2483.5	1.51	2.13	3.00 max	0.83
				5150-5250	2.60	3.84	3.00 max	1.24
				5250-5350	2.60	3.85	3.00 max	1.25
				5470-5725	2.23	3.51	3.00 max	1.28
				5725-5850	2.74	4.04	3.00 max	1.30
				5850-5895	2.74	4.05	3.00 max	1.31
				5925-6425	3.35	4.71	3.00 max	1.36
				6425-6525	2.40	3.79	3.00 max	1.39
				6525-6875	2.40	3.82	3.00 max	1.42
6875-7125	2.37	3.83	3.00 max	1.46				

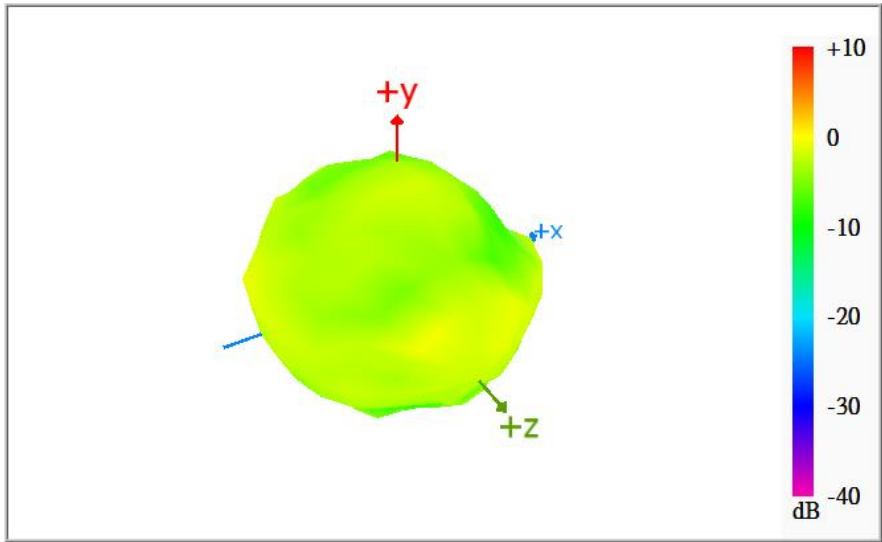
- 3D Antenna Peak Gain required being test in system basis.

## Section 2. Radiation characteristics of antenna loaded in Host Platform

### Main Antenna

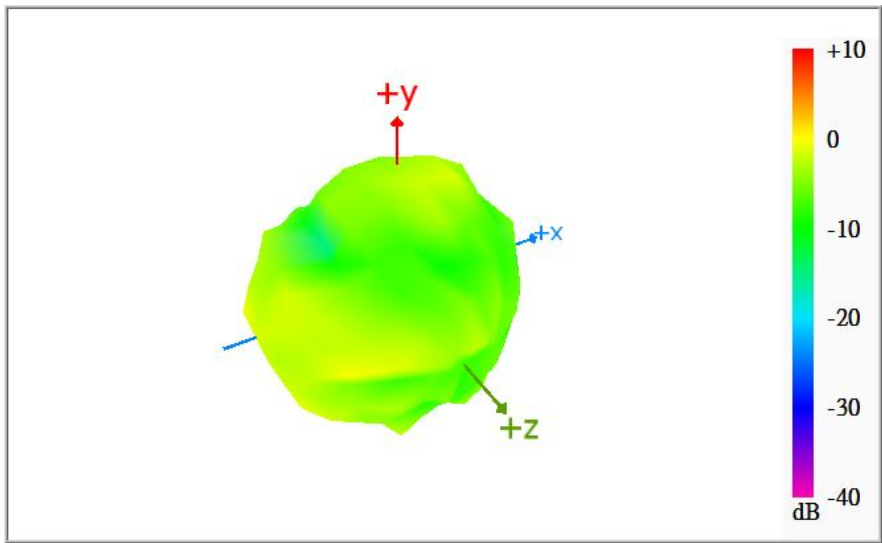
Max Antenna 3D Radiation Pattern 2400 – 2483.5 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
2400-2483.5	2.66



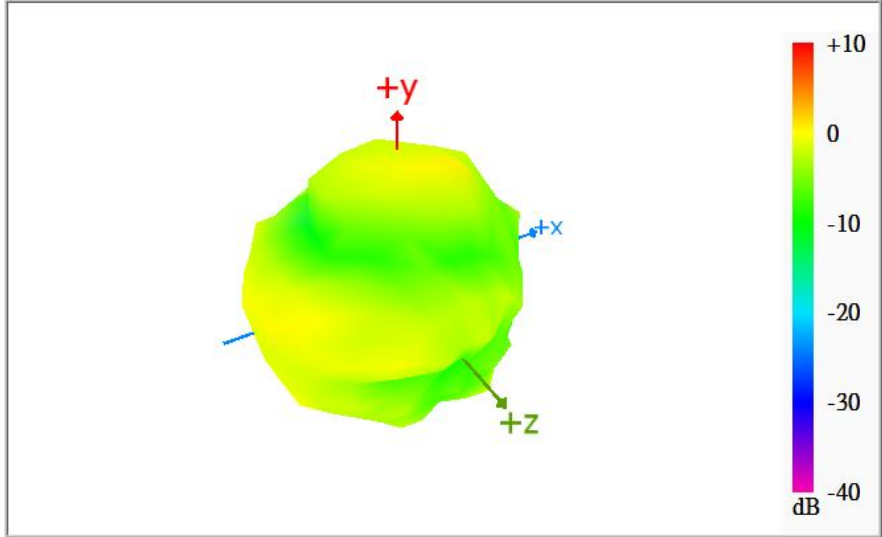
Max Antenna 3D Radiation Pattern 5150-5250 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5150-5250	3.20



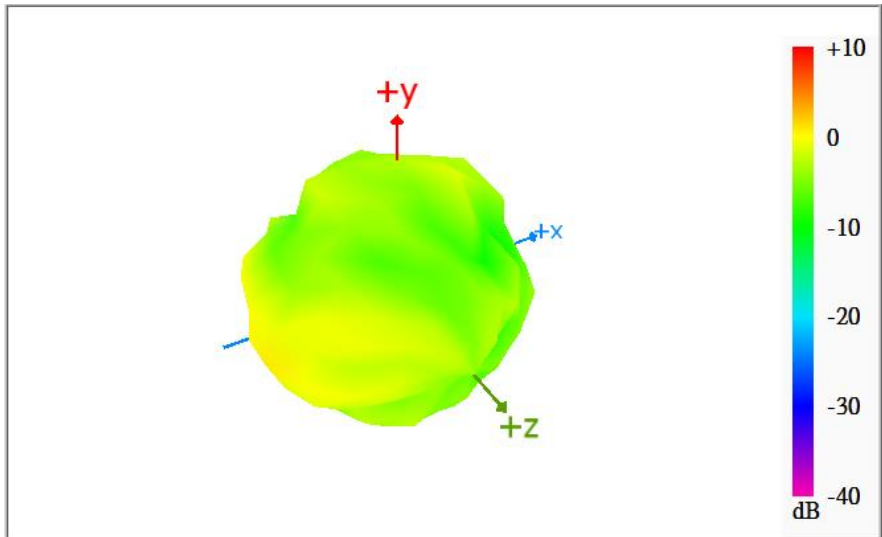
### Max Antenna 3D Radiation Pattern 5250-5350 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5250-5350	2.98



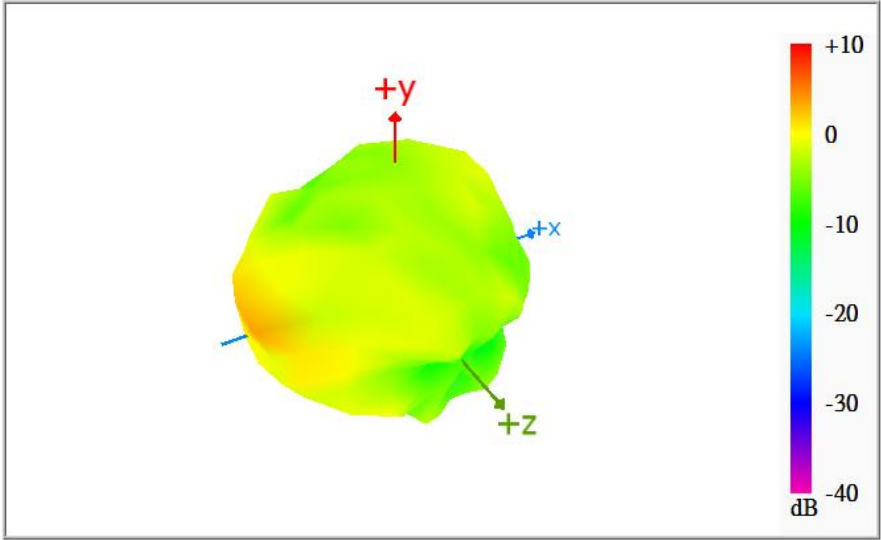
### Max Antenna 3D Radiation Pattern 5470-5725 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5470-5725	2.54



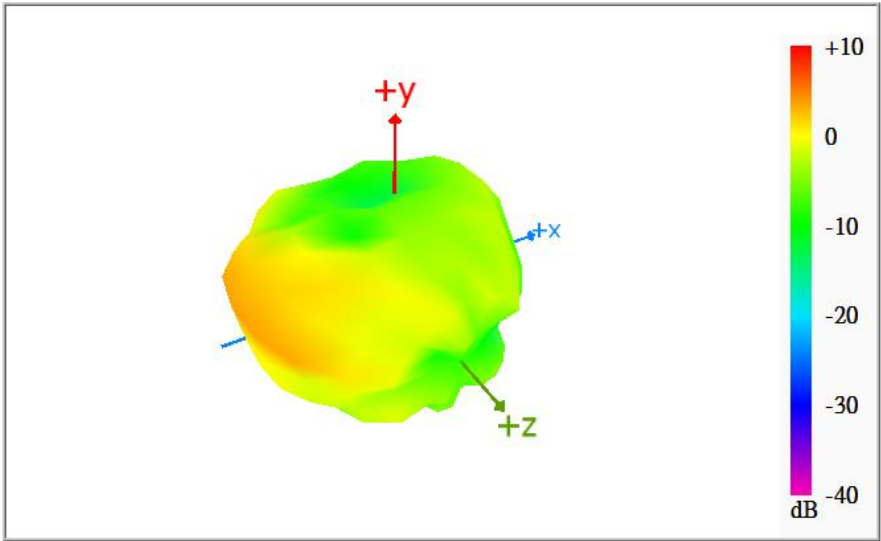
### Max Antenna 3D Radiation Pattern 5725-5850 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5725-5850	3.78



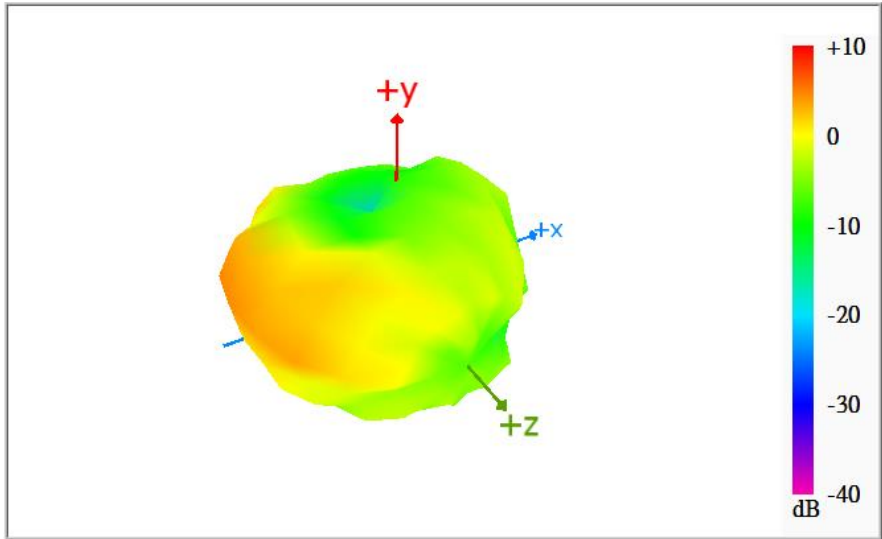
### Max Antenna 3D Radiation Pattern 5850-5895 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5850-5895	3.98



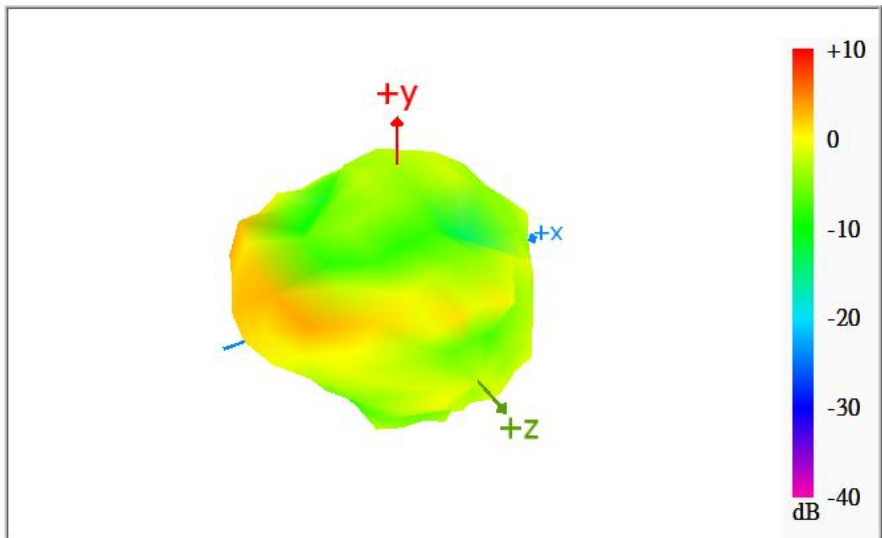
### Max Antenna 3D Radiation Pattern 5925-6425 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5925-6425	3.84



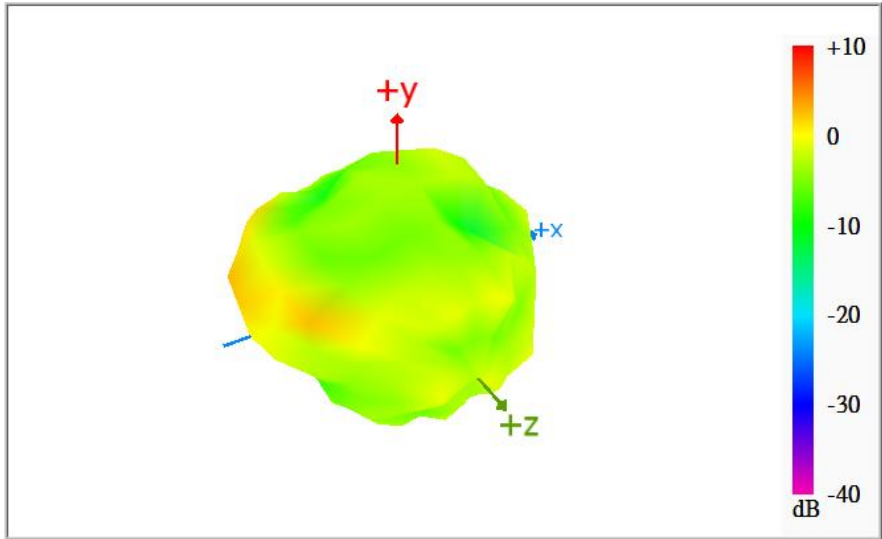
### Max Antenna 3D Radiation Pattern 6425-6525 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6425-6525	3.77



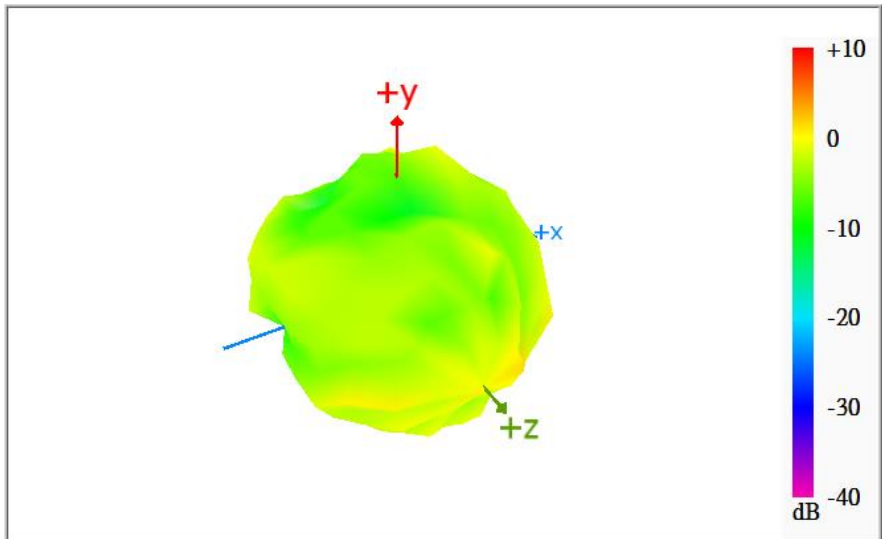
### Max Antenna 3D Radiation Pattern 6525-6875 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6525-6875	3.40



### Max Antenna 3D Radiation Pattern 6875-7125 MHz

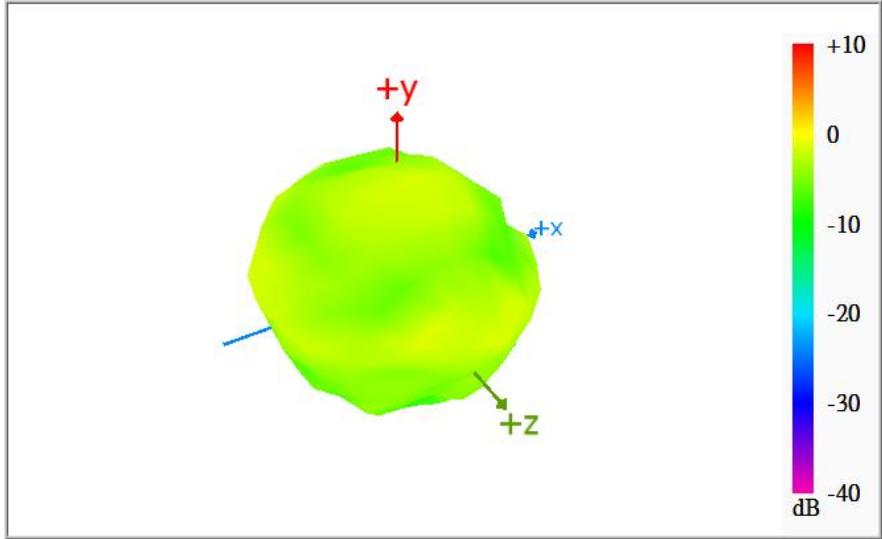
Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6875-7125	3.92



## Auxiliary Antenna

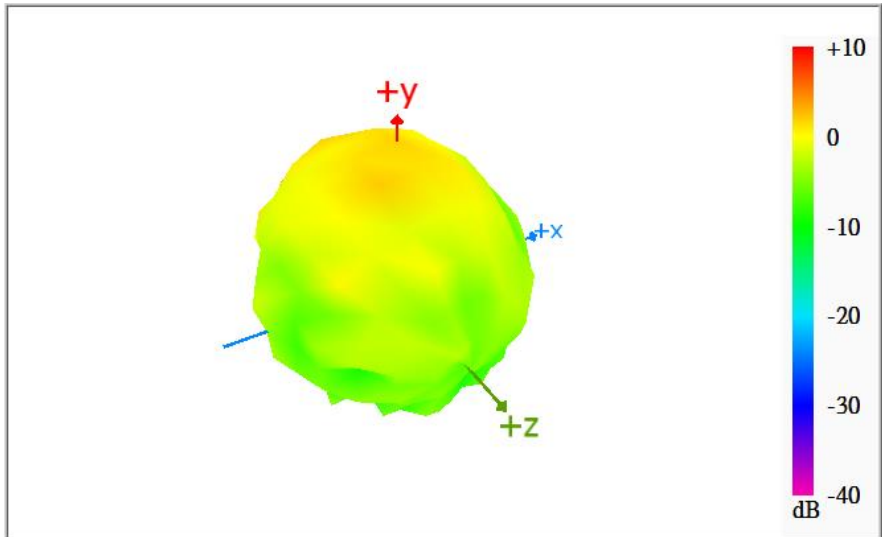
### Max Antenna 3D Radiation Pattern 2400 – 2483.5 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
2400-2483.5	1.41



### Max Antenna 3D Radiation Pattern 5150-5250 MHz

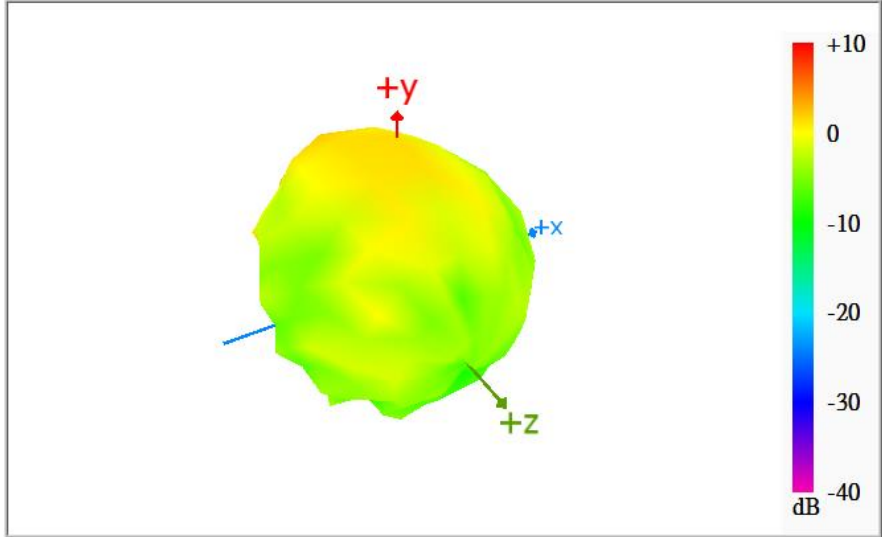
Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5150-5250	1.46





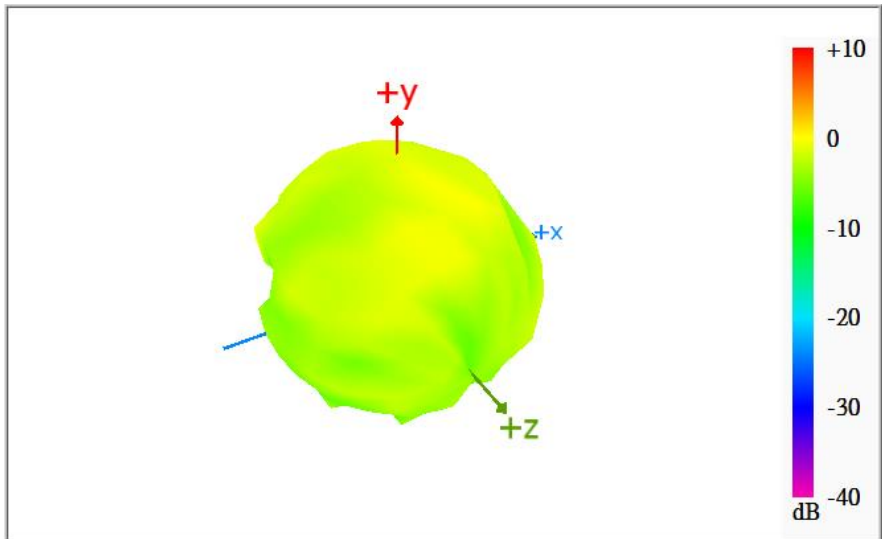
### Max Antenna 3D Radiation Pattern 5250-5350 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5250-5350	1.72



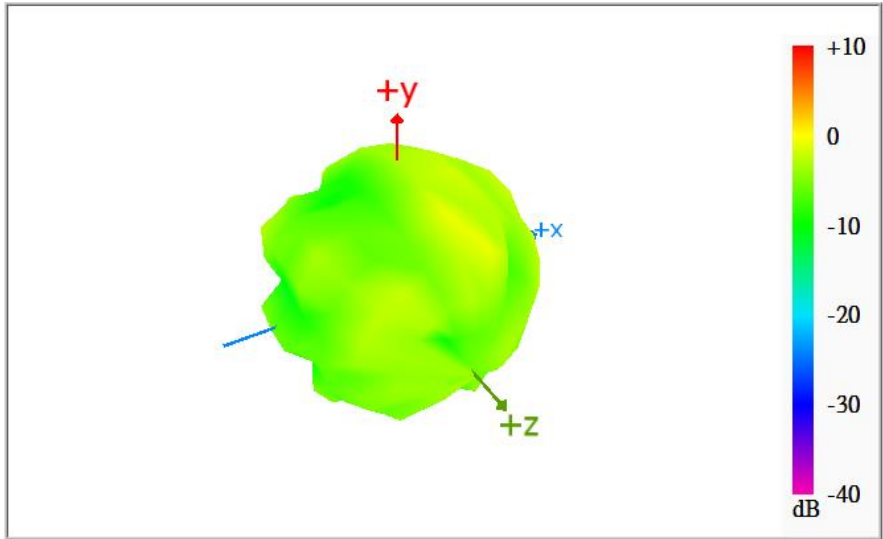
### Max Antenna 3D Radiation Pattern 5470-5725 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5470-5725	1.91



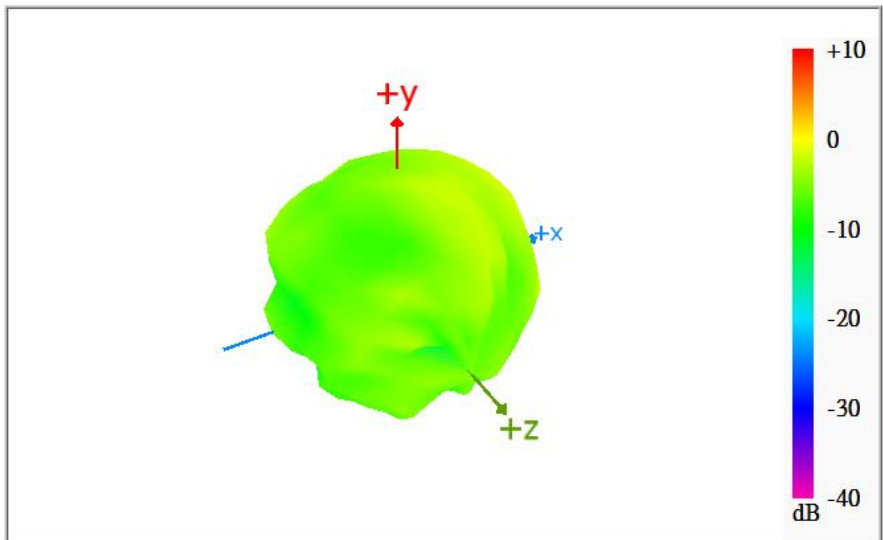
### Max Antenna 3D Radiation Pattern 5725-5850 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5725-5850	1.77



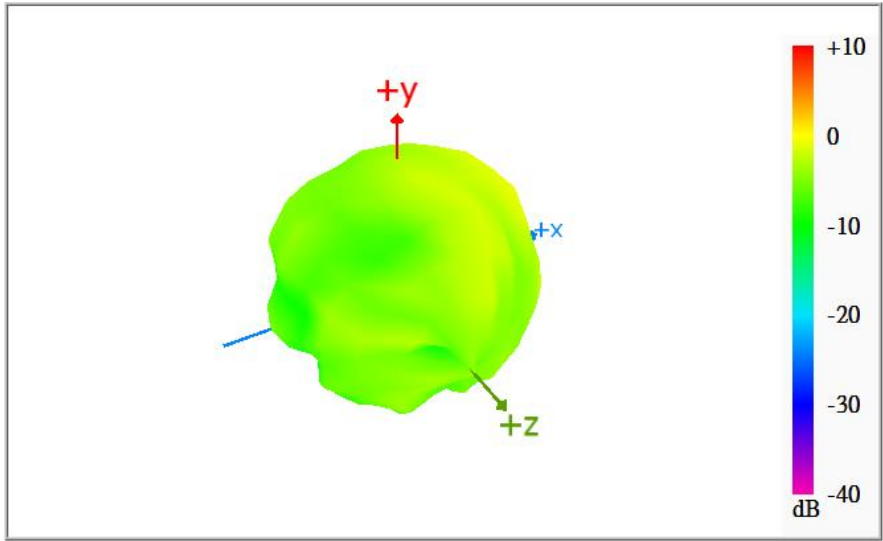
### Max Antenna 3D Radiation Pattern 5850-5895 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5850-5895	1.98



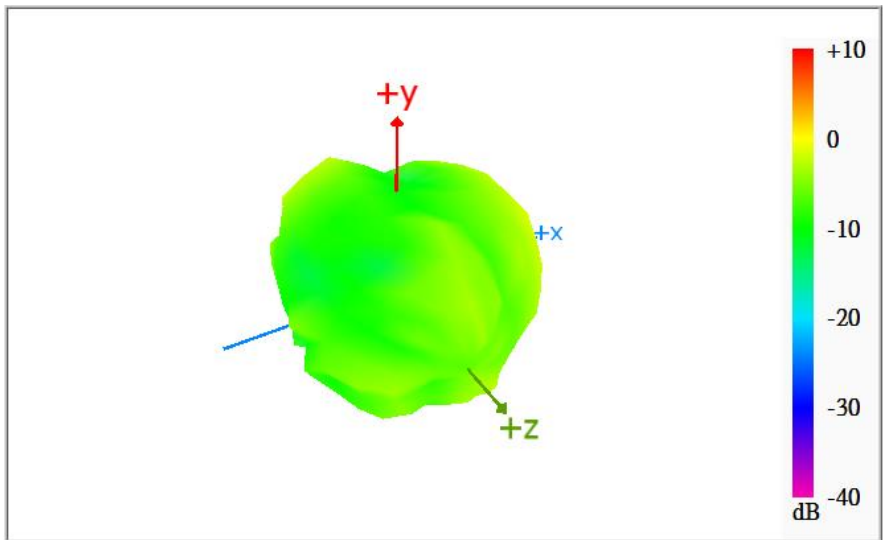
### Max Antenna 3D Radiation Pattern 5925-6425 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
5925-6425	2.24



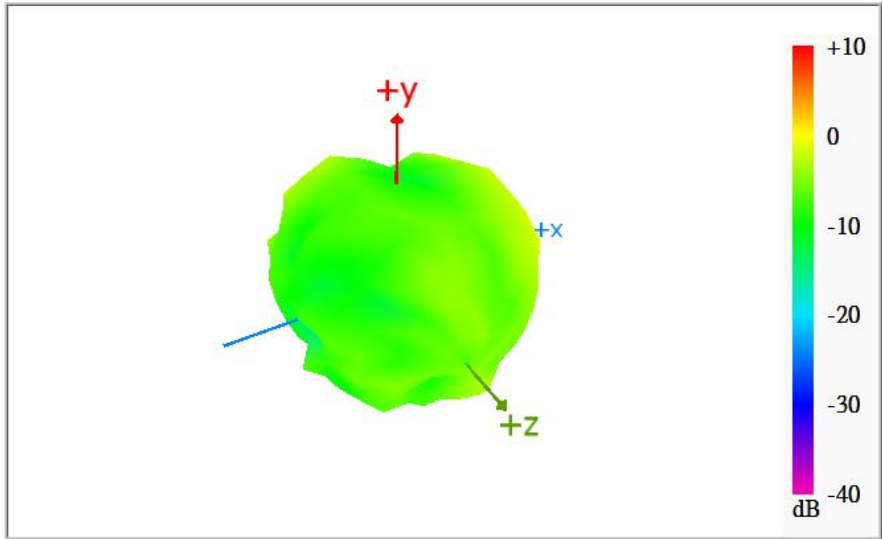
### Max Antenna 3D Radiation Pattern 6425-6525 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6425-6525	2.30



### Max Antenna 3D Radiation Pattern 6525-6875 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6525-6875	1.97



### Max Antenna 3D Radiation Pattern 6875-7125 MHz

Frequency (MHz)	Peak Gain w/ Cable Loss (dBi)
6875-7125	2.59

