



# **MEASUREMENTS OF SHURE MXWAPXD2 ANTENNAS FOR REGULATORY APPROVAL**

**1.9GHZ ANTENNA A**

**1.9GHZ ANTENNA B**

**2.4GHZ BLUETOOTH ANTENNA**

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**Project:** Double Stuff

**Revision:** 1.0

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# 1. Overview and Reference Angles

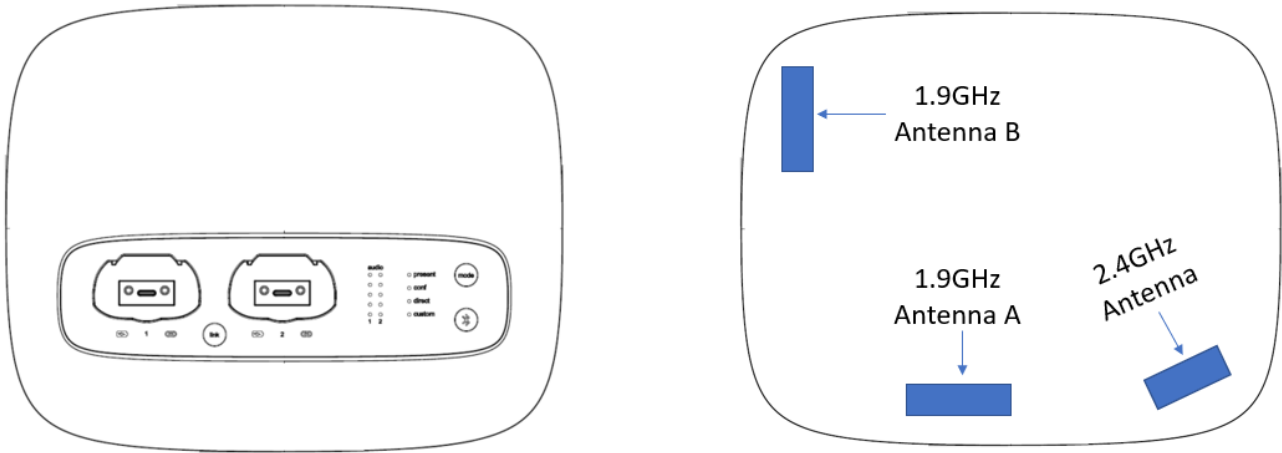


Figure 1-1. Shure APXD2 Internal Antennas Overview

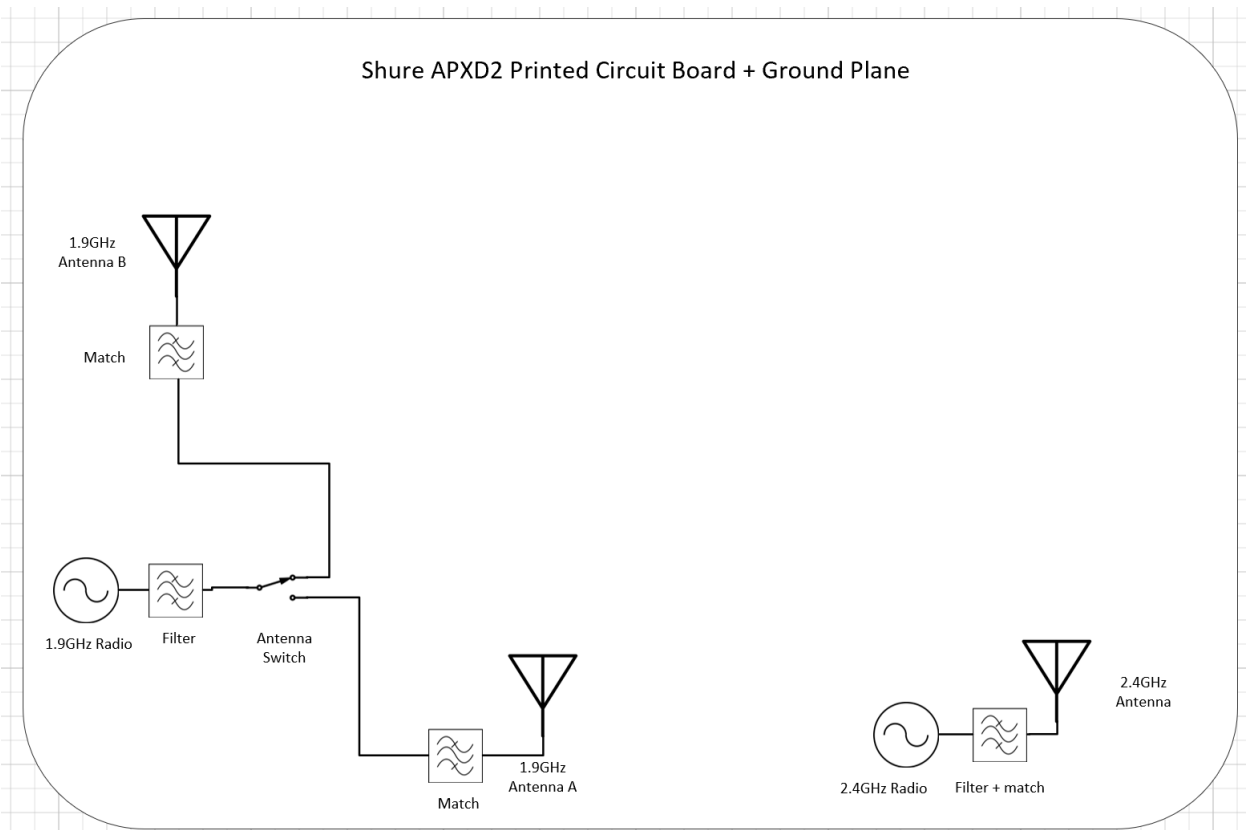


Figure 1-2. Shure APXD2 Antennas Block Diagram

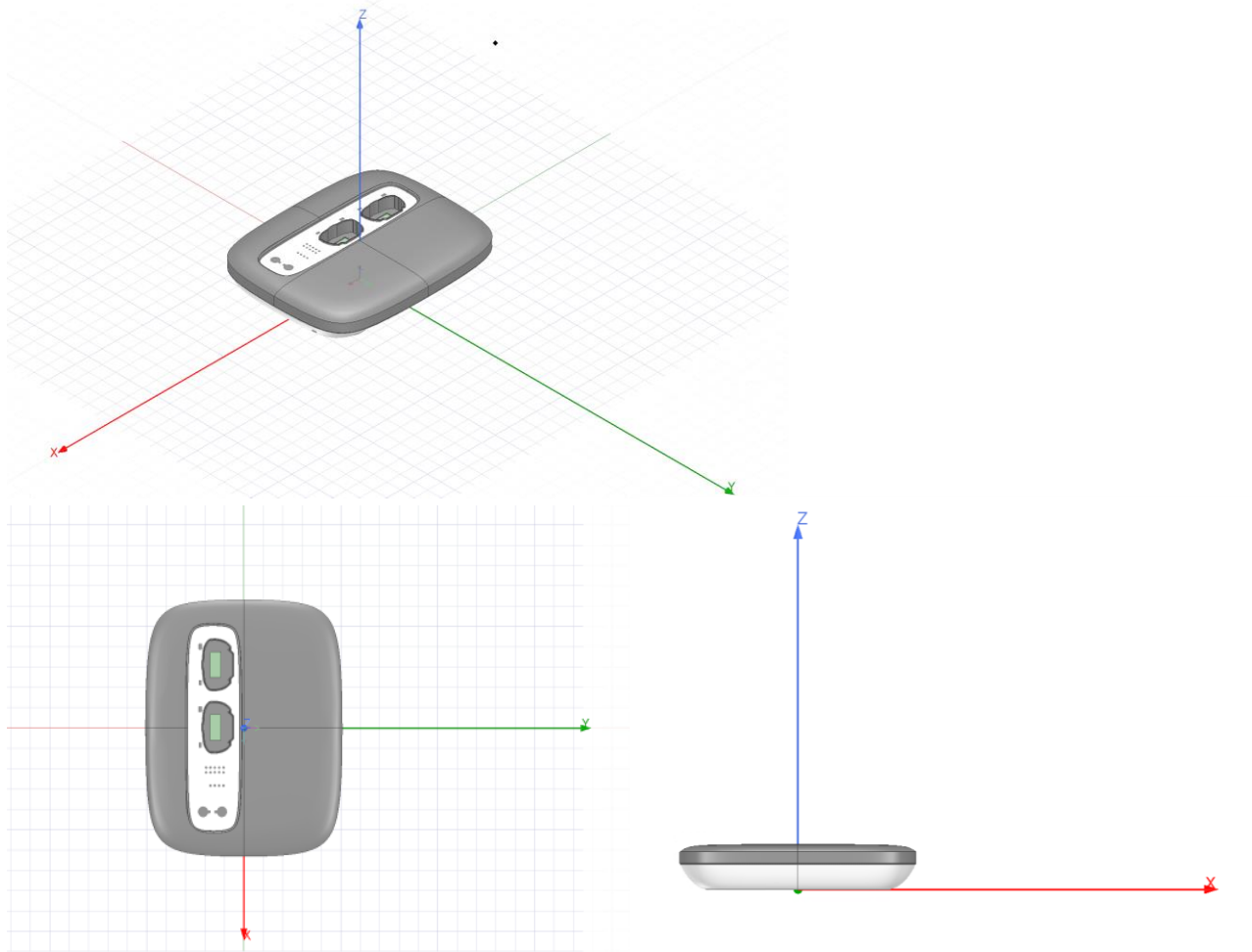


Figure 1-3. APXD2 Reference Angles



## 2. 1.9GHz Antenna A

Antenna Type – Internal Shure Custom PIFA

Peak Gain					
Parameter	Type	Pattern	1880 MHz	1905 MHz	1930 MHz
Antenna A	Internal Shure Custom	Hemisphere	2.11 dBi	2.73 dBi	2.54 dBi

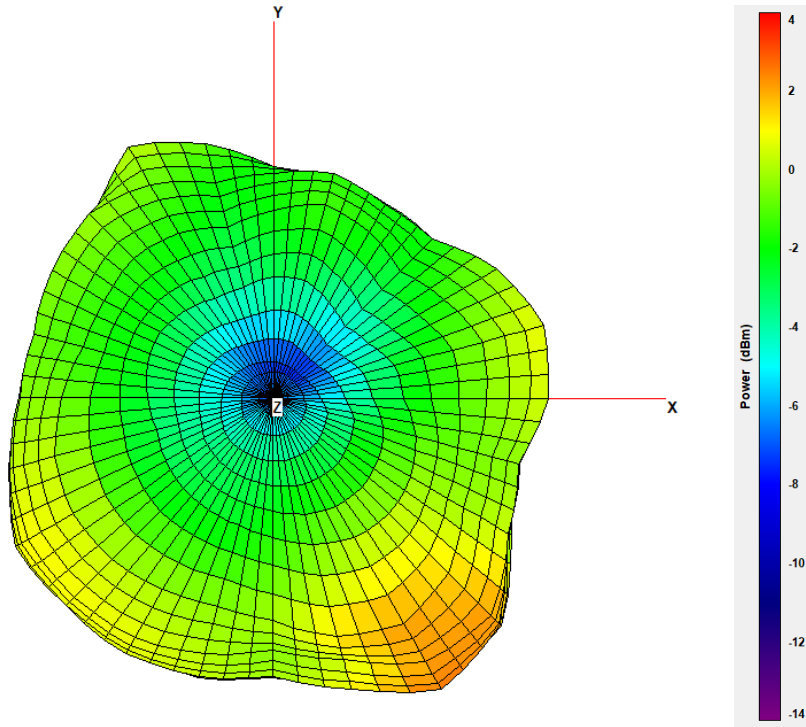


Figure 2-1. 1.9GHz Antenna A X-Z Plane.

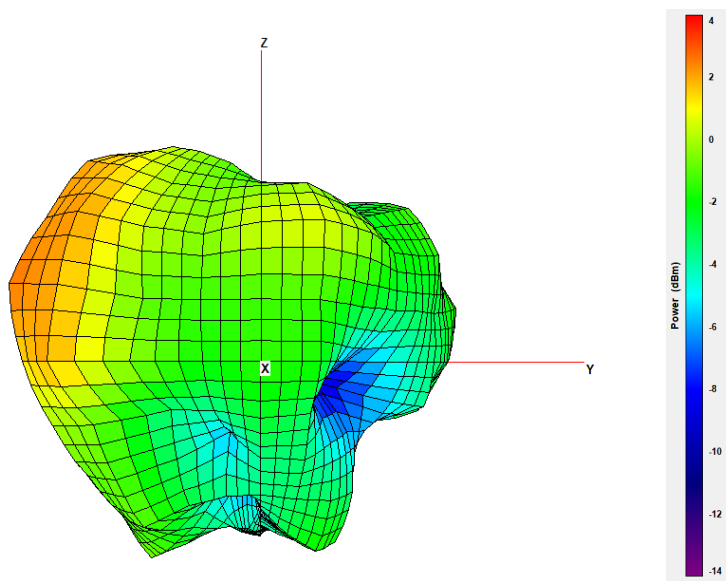


Figure 2-2. 1.9GHz Antenna A Y-Z Plane

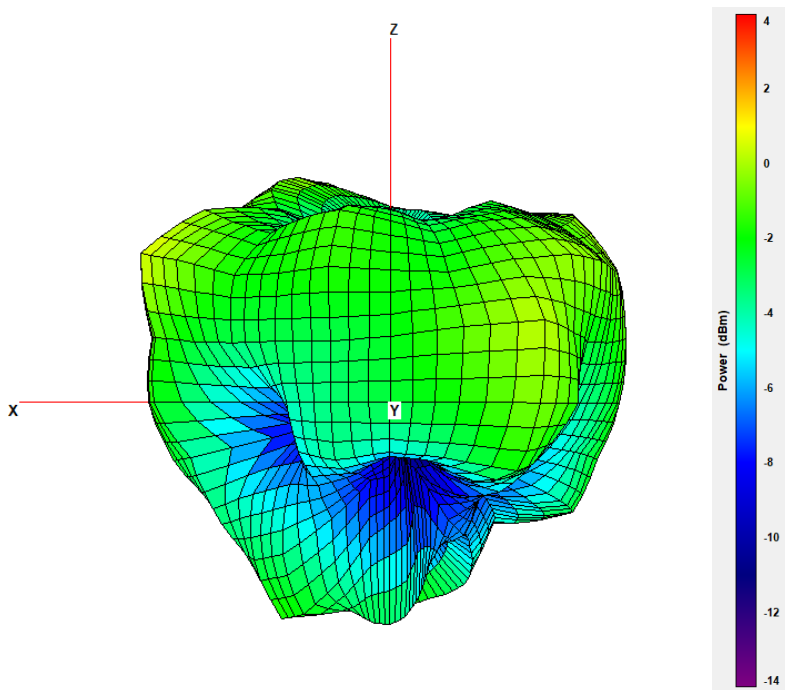


Figure 2-3. 1.9GHz Antenna A X-Z plane



### Shure MXWAPXD2 Antenna Measurements

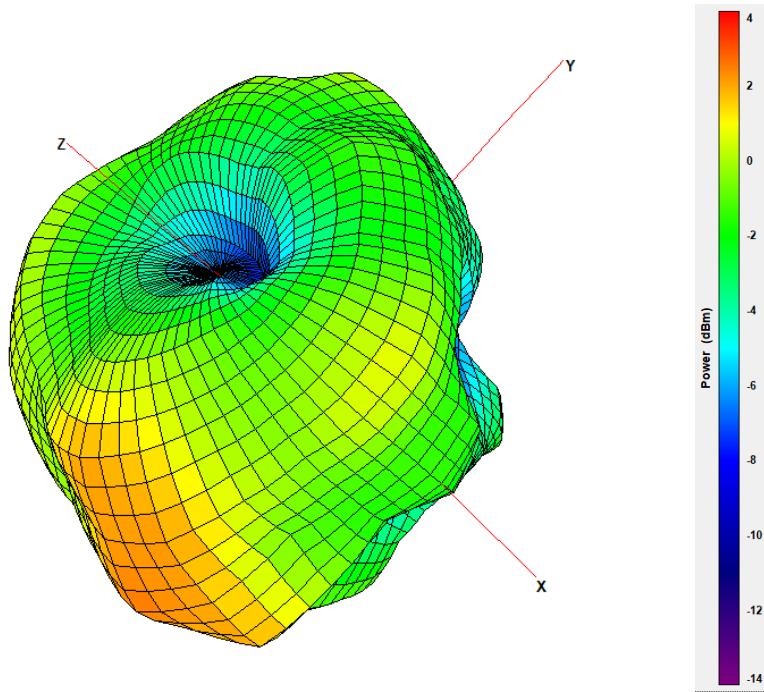


Figure 2-4. 1.9GHz Antenna A 3D



### 3. 1.9GHz Antenna B

Antenna Type – Internal Shure Custom PIFA

Peak Gain					
Parameter	Type	Pattern	1880 MHz	1905 MHz	1930 MHz
Antenna B	Internal Shure Custom	Hemisphere	2.84 dBi	3.56 dBi	3.96 dBi

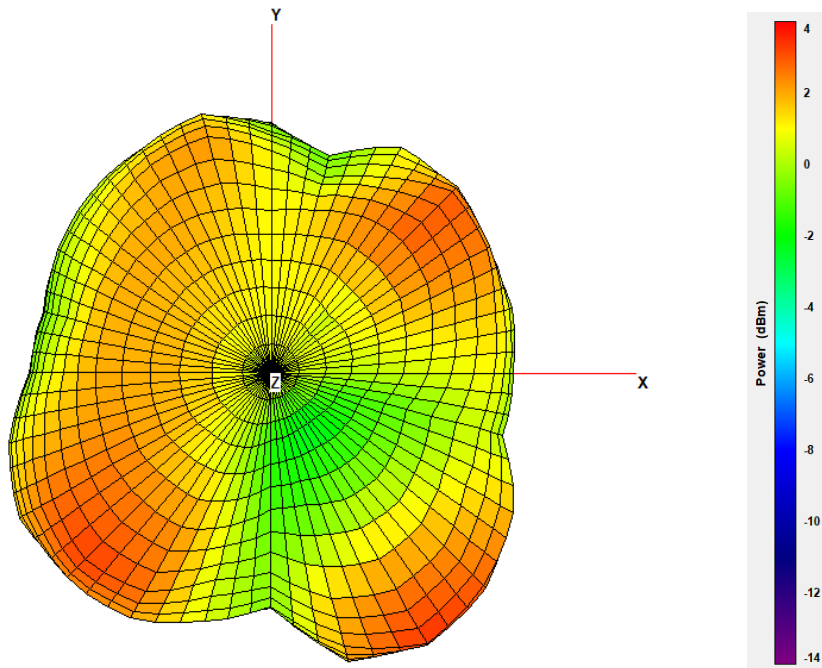


Figure 3-1. 1.9GHz Antenna B X-Y Plane.





Shure MXWAPXD2 Antenna Measurements

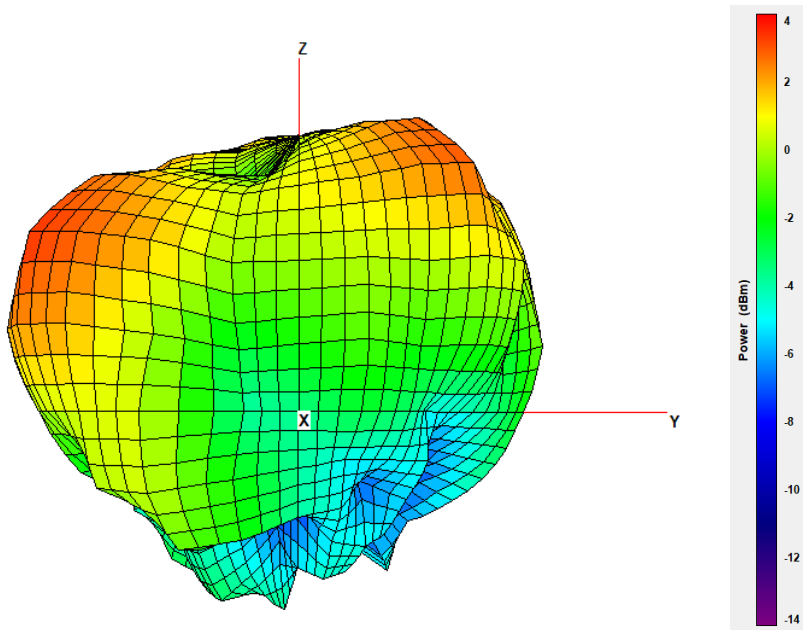


Figure 3-2. 1.9GHz Antenna B Y-Z Plane.

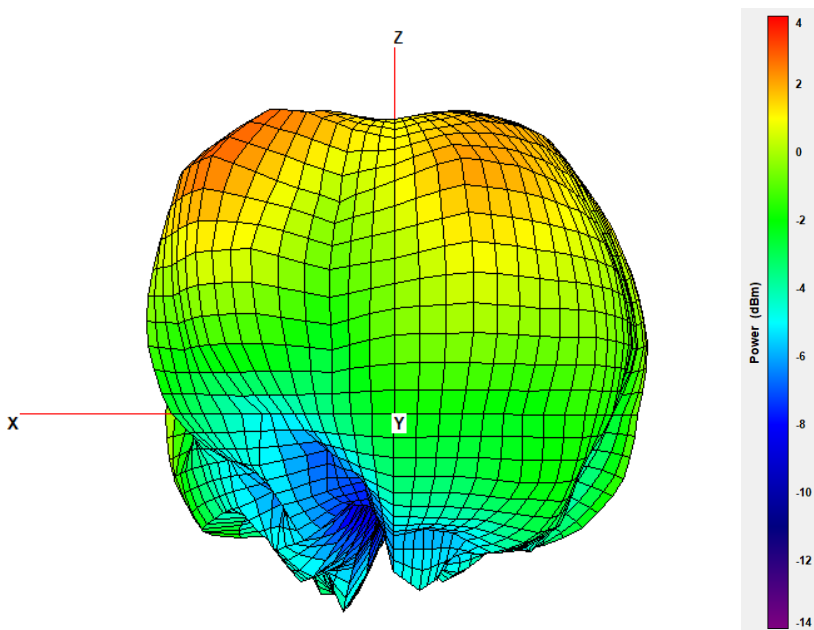


Figure 3-3. 1.9GHz Antenna B X-Z Plane.



Shure MXWAPXD2 Antenna Measurements

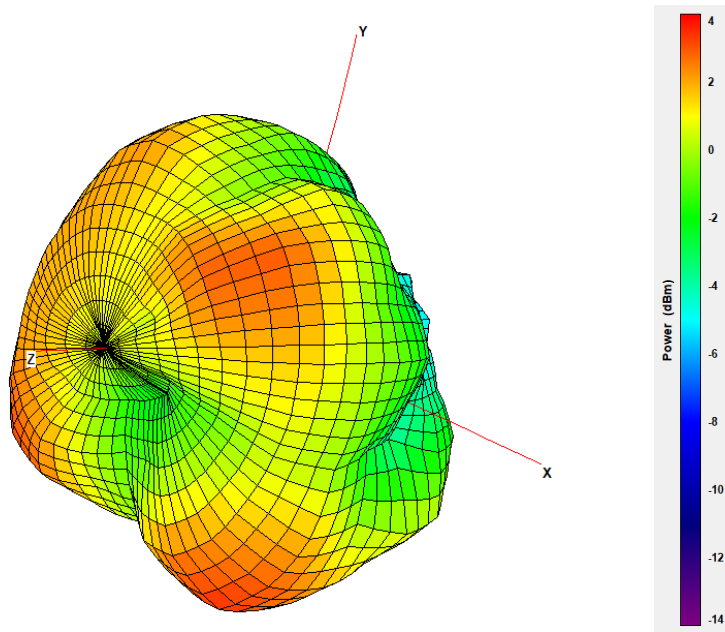


Figure 3-4. 1.9GHz Antenna B 3D



## 4. 2.4GHz Bluetooth Antenna

Antenna Type – Internal Shure Custom PIFA

Peak Gain					
Parameter	Type	Pattern	2412 MHz	2450 MHz	2472 MHz
2.4GHz Antenna	Internal Shure Custom	Hemisphere	2.51 dBi	3.02 dBi	3.41 dBi

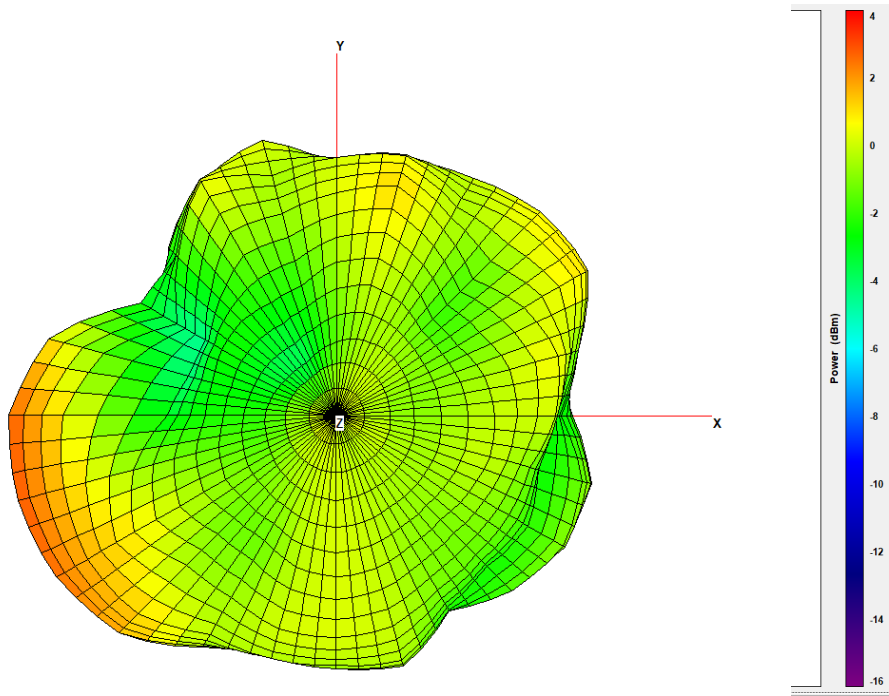


Figure 4-1. 2.4GHz Antenna X-Y plane

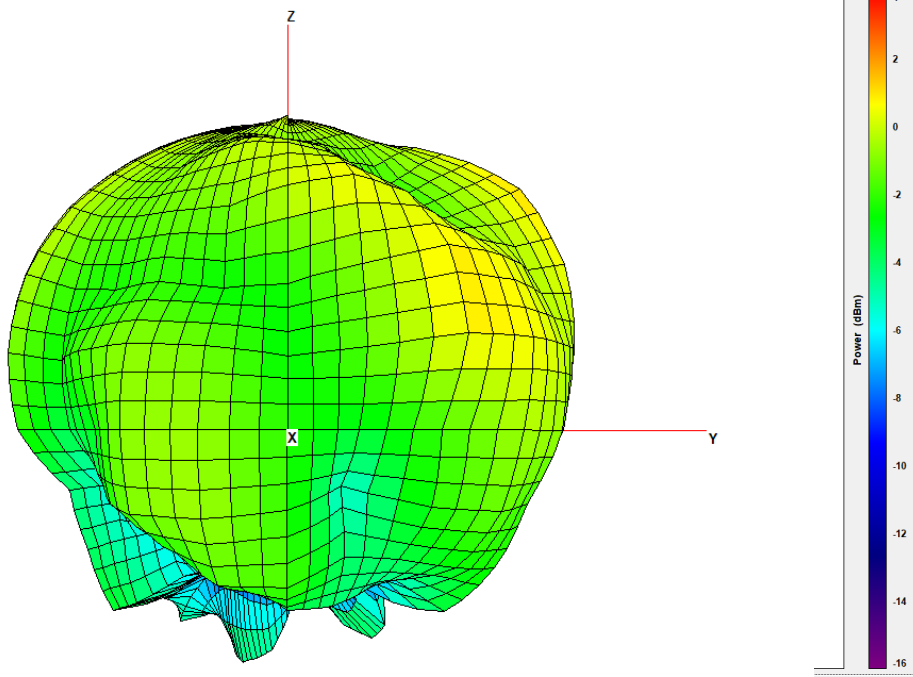


Figure 4-2. 2.4GHz Antenna Y-Z plane

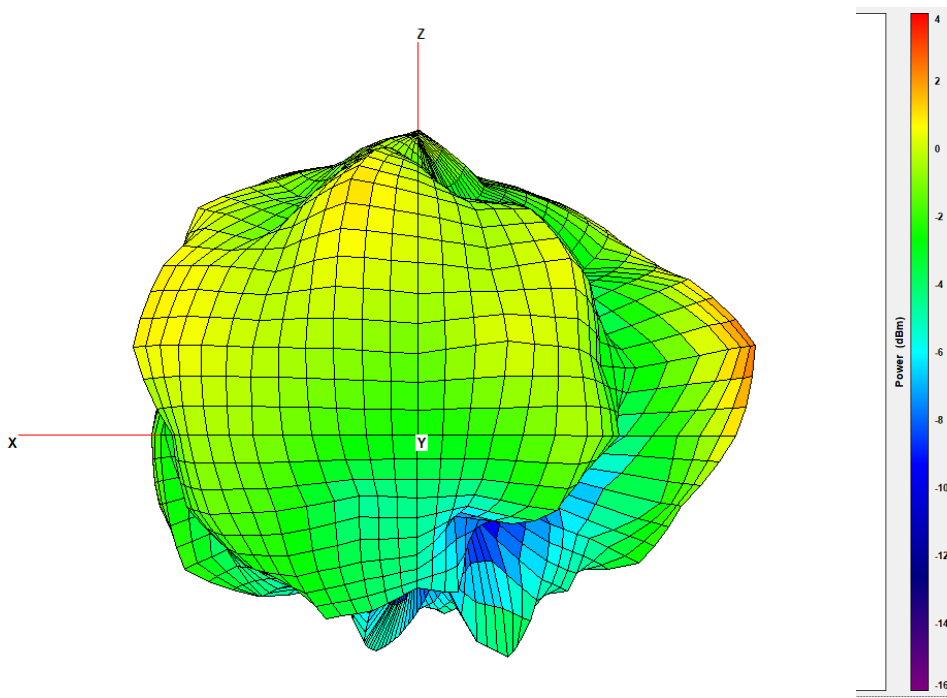


Figure 4-3. 2.4GHz Antenna X-Z plane



Shure MXWAPXD2 Antenna Measurements

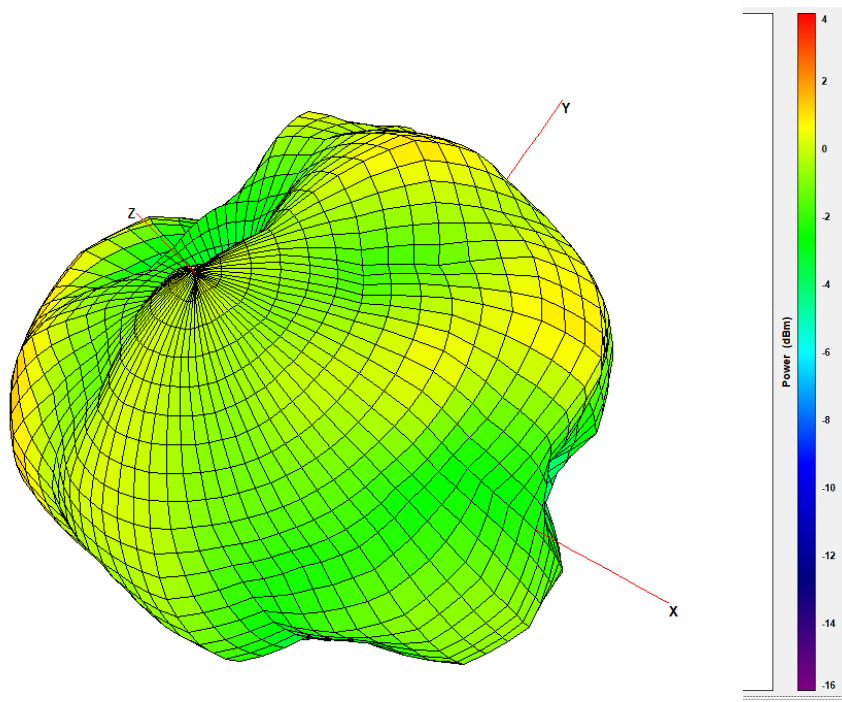


Figure 4-4. 2.4GHz Antenna 3D