



Shure Axient Digital AD1

Measurements of Shure Axient Digital AD1 UHF Antennas For Regulatory Approval

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Shure Axient Digital AD1

Table of Contents

1. Shure AD1 – Body Pack Transmitter	1
1.1 Design Block Diagram and Reference Angles	1
1.2 Test Setup.....	2
2. Test Results	4
2.1 AD1 UHF Antenna (Dipole/Monopole Type)	4
2.1.1 AD1 – Whip Antenna 95D9043	4
2.1.2 AD1 – Whip Antenna 95G9043.....	5
2.1.3 AD1 – Whip Antenna 95E9043	6
2.1.4 AD1 – Whip Antenna 95F9043	7
2.1.5 AD1 – Whip Antenna 95H9043	8

1. Shure AD1 – Body Pack Transmitter

1.1 Design Block Diagram and Reference Angles

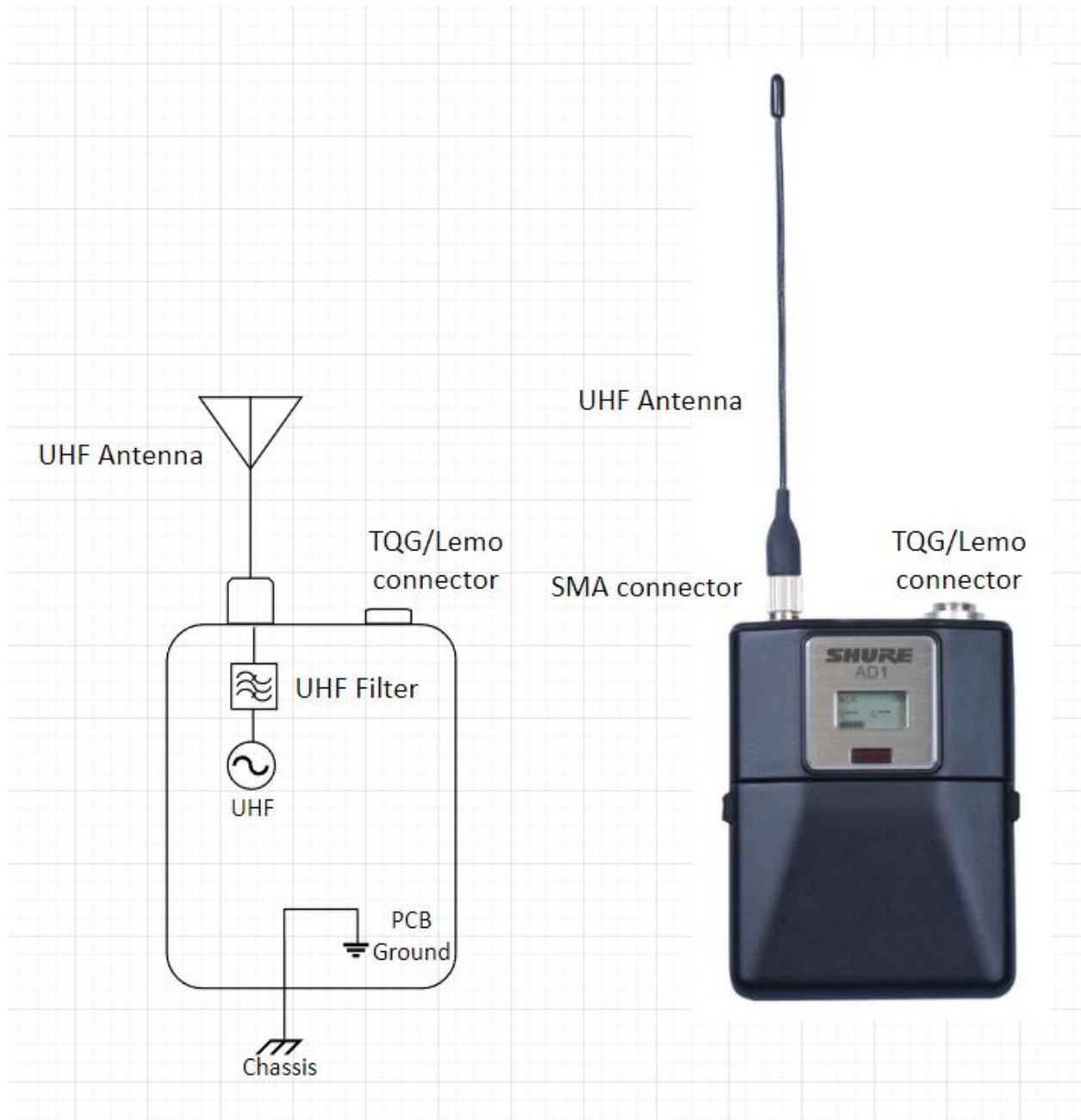


Figure 1 Shure AD1 UHF Antenna Block Diagram

1.2 Test Setup

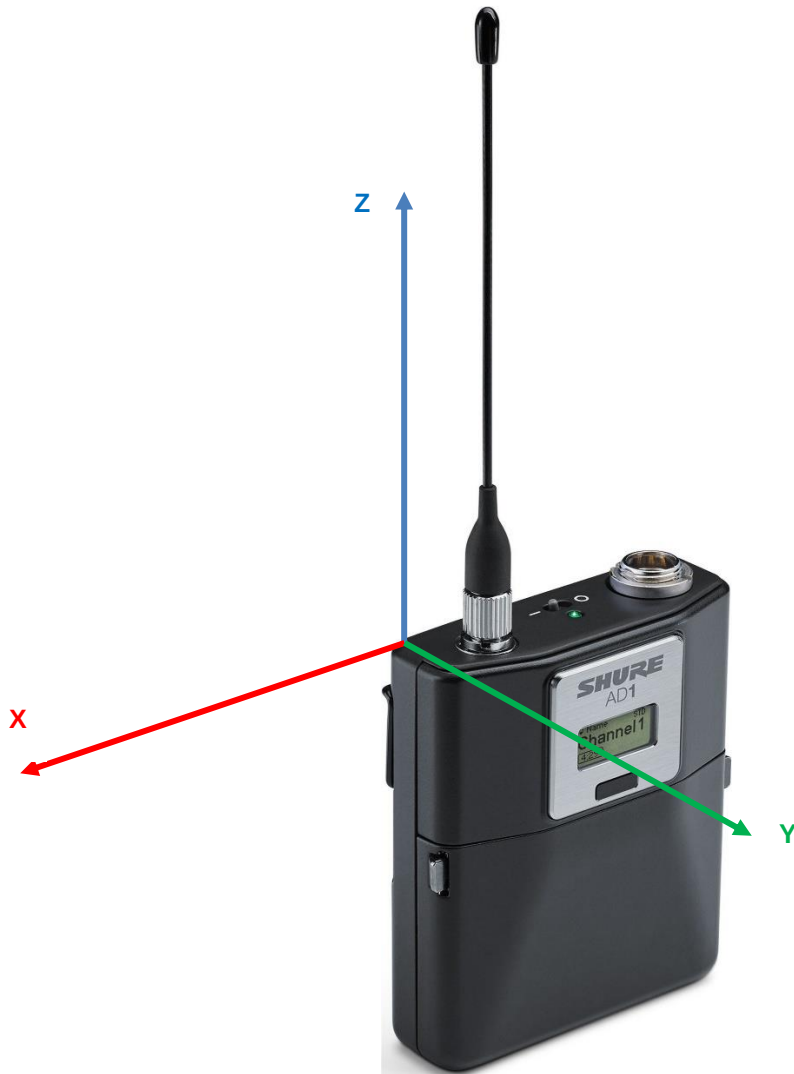


Figure 2 Shure AD1 Reference Angles

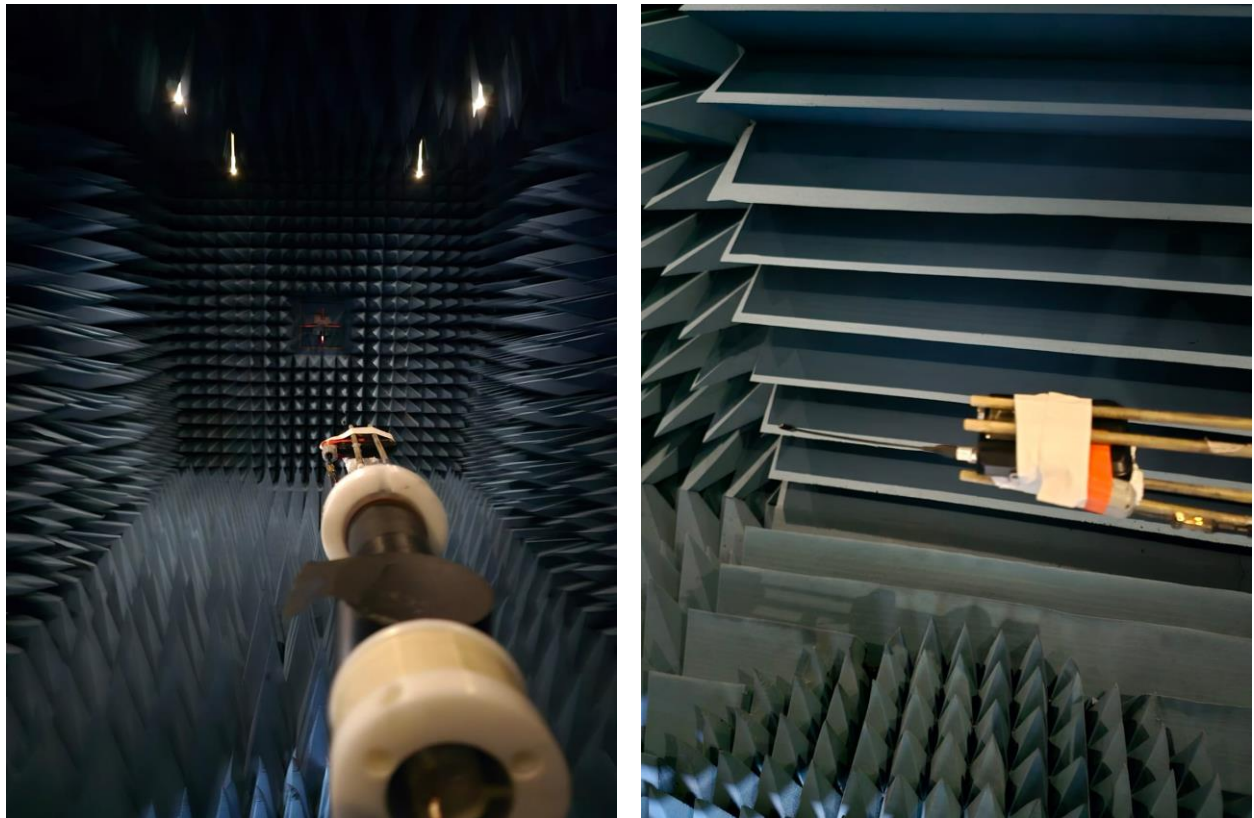


Figure 3 Photo of Shure AD1 in Antenna Chamber

Supporting Test Equipment List and Software:

- E5071C ENA series Vector Network Analyzer 100kHz-8.5GHz
- ETS Model 2090 Multi Device Controller
- ETS Lindgren Model 3164-10 3164-10 Open Boundary Quad-Ridged Horn 400MHz-10GHz
- ETS Lindgren Model 3126-2450 Precision Sleeve Dipole
- ETS Lindgren Model 3122D-DB4 Tuned Dipole Antenna
- EMQuest Data Acquisition and Analysis Software

2. Test Results

2.1 AD1 UHF Antenna (Dipole/Monopole Type)

2.1.1 AD1 – Whip Antenna 95D9043

Peak Gain				
Band	Band Range (MHz)	Peak Gain (dBi)	Antenna Type	Antenna Pattern
G56	470 – 636	0.4	Dipole	Omni
G57	470 – 616	0.4		

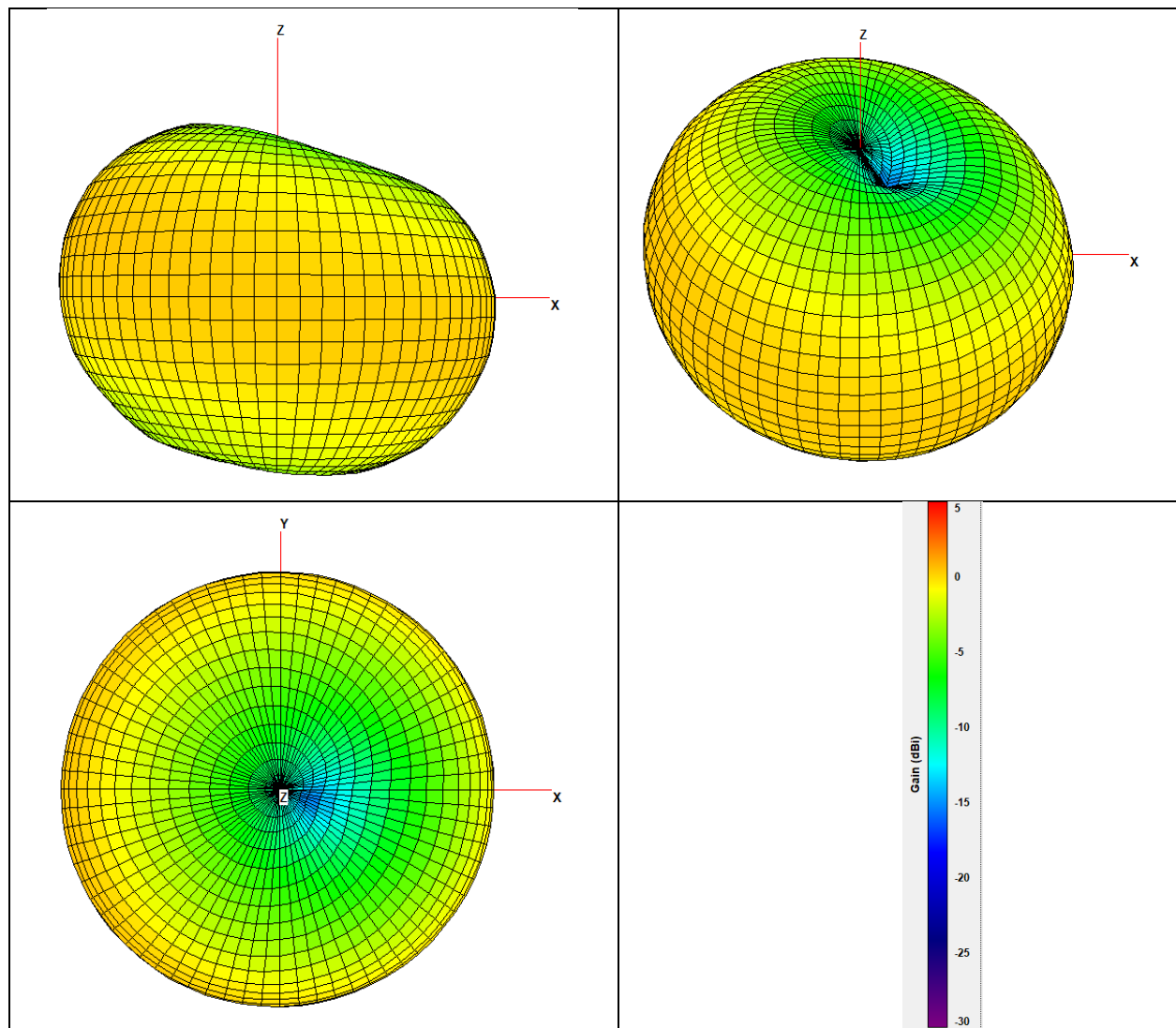


Figure 4 – AD1 (95D9043) 3D radiation patterns and scale at max peak gain

2.1.2 AD1 – Whip Antenna 95G9043

Peak Gain				
Band	Band Range (MHz)	Peak Gain (dBi)	Antenna Type	Antenna Pattern
G62	510 – 530	0.2	Dipole	Omni

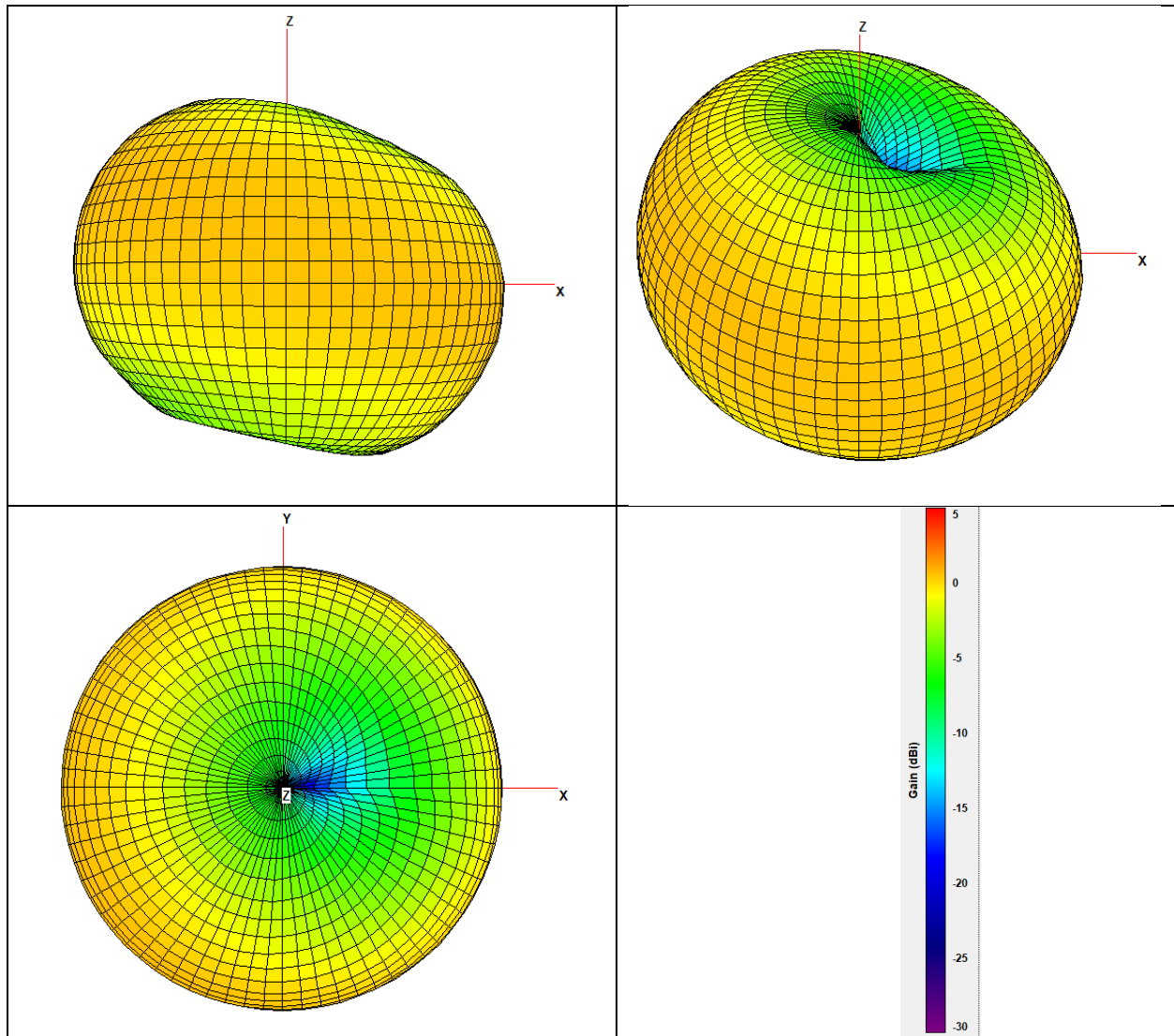


Figure 5 – AD1 (95G9043) 3D radiation patterns and scale at max peak gain

2.1.3 AD1 – Whip Antenna 95E9043

Peak Gain				
Band	Band Range (MHz)	Peak Gain (dBi)	Antenna Type	Antenna Pattern
K54	606 – 663	0.6	Dipole	Omni
K55	606 – 694	0.6		

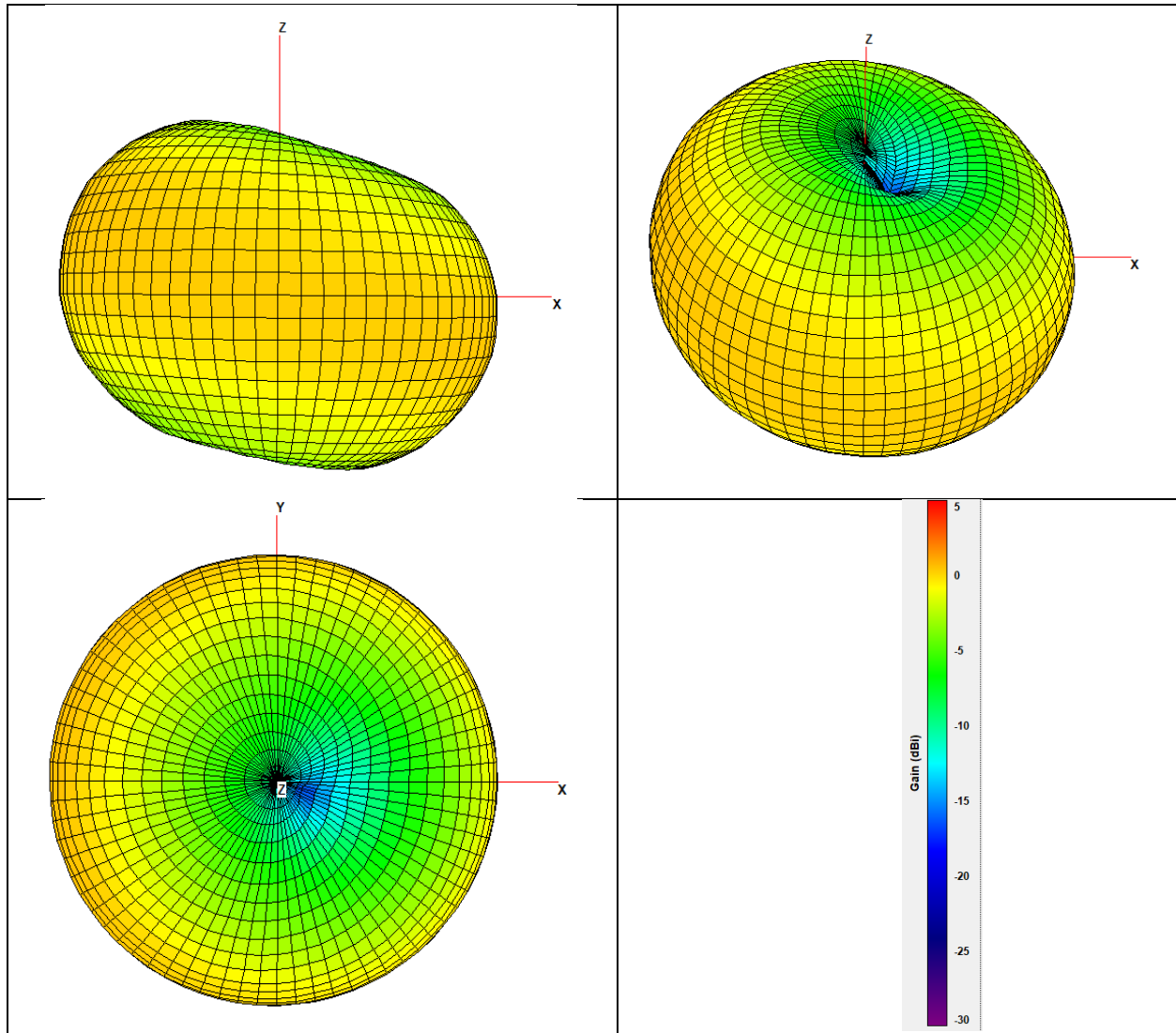


Figure 6 – AD1 (95E9043) 3D radiation patterns and scale at max peak gain

2.1.4 AD1 – Whip Antenna 95F9043

Peak Gain				
Band	Band Range (MHz)	Peak Gain (dBi)	Antenna Type	Antenna Pattern
K57	606 – 790	0.6	Dipole	Omni
JB	806 – 810	0.8		

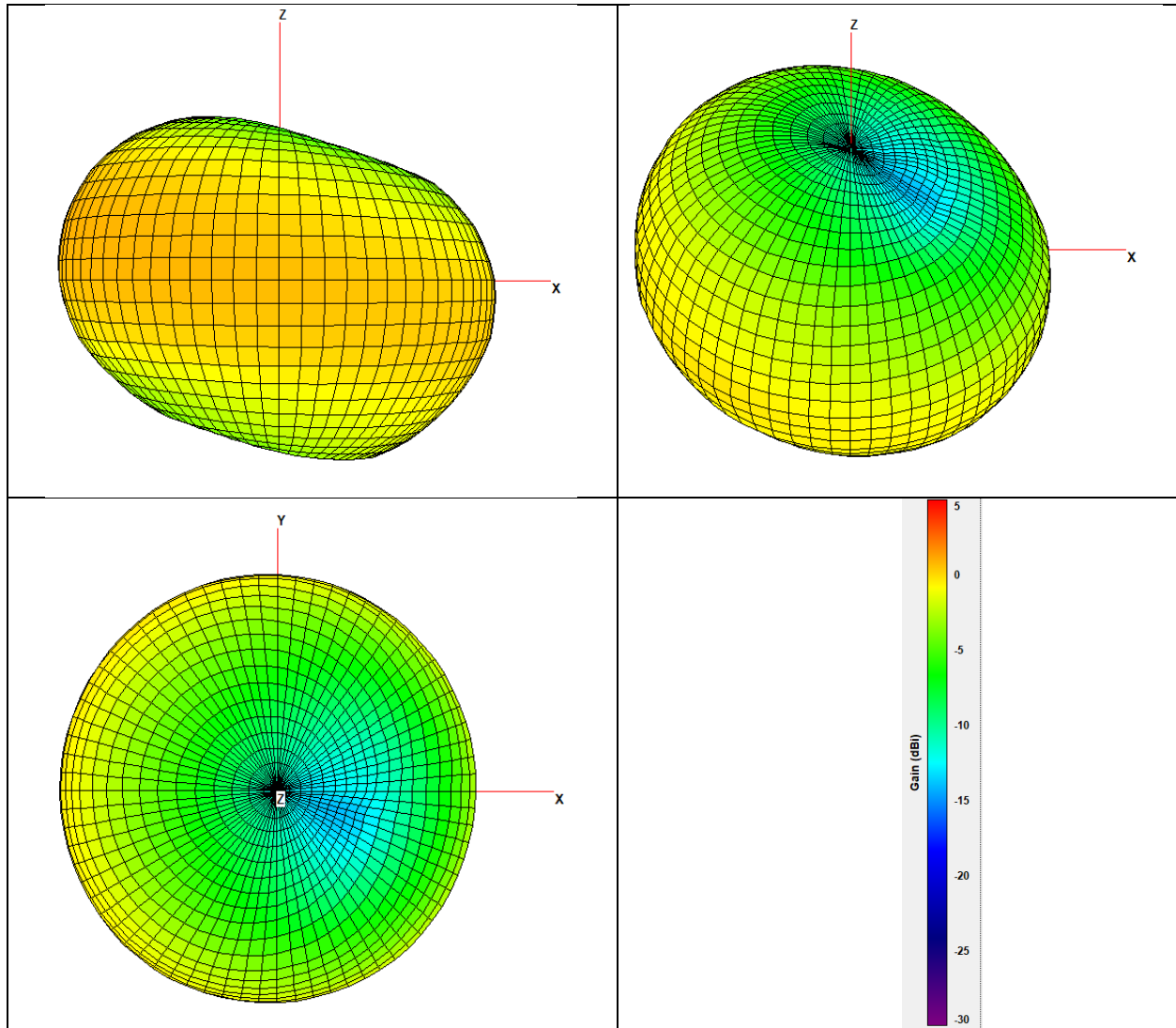


Figure 7 – AD1 (95F9043) 3D radiation patterns and scale at max peak gain

2.1.5 AD1 – Whip Antenna 95H9043

Peak Gain				
Band	Band Range (MHz)	Peak Gain (dBi)	Antenna Type	Antenna Pattern
X55	941 – 960	0.1	Dipole	Omni
X56	960 – 1000	0.1		

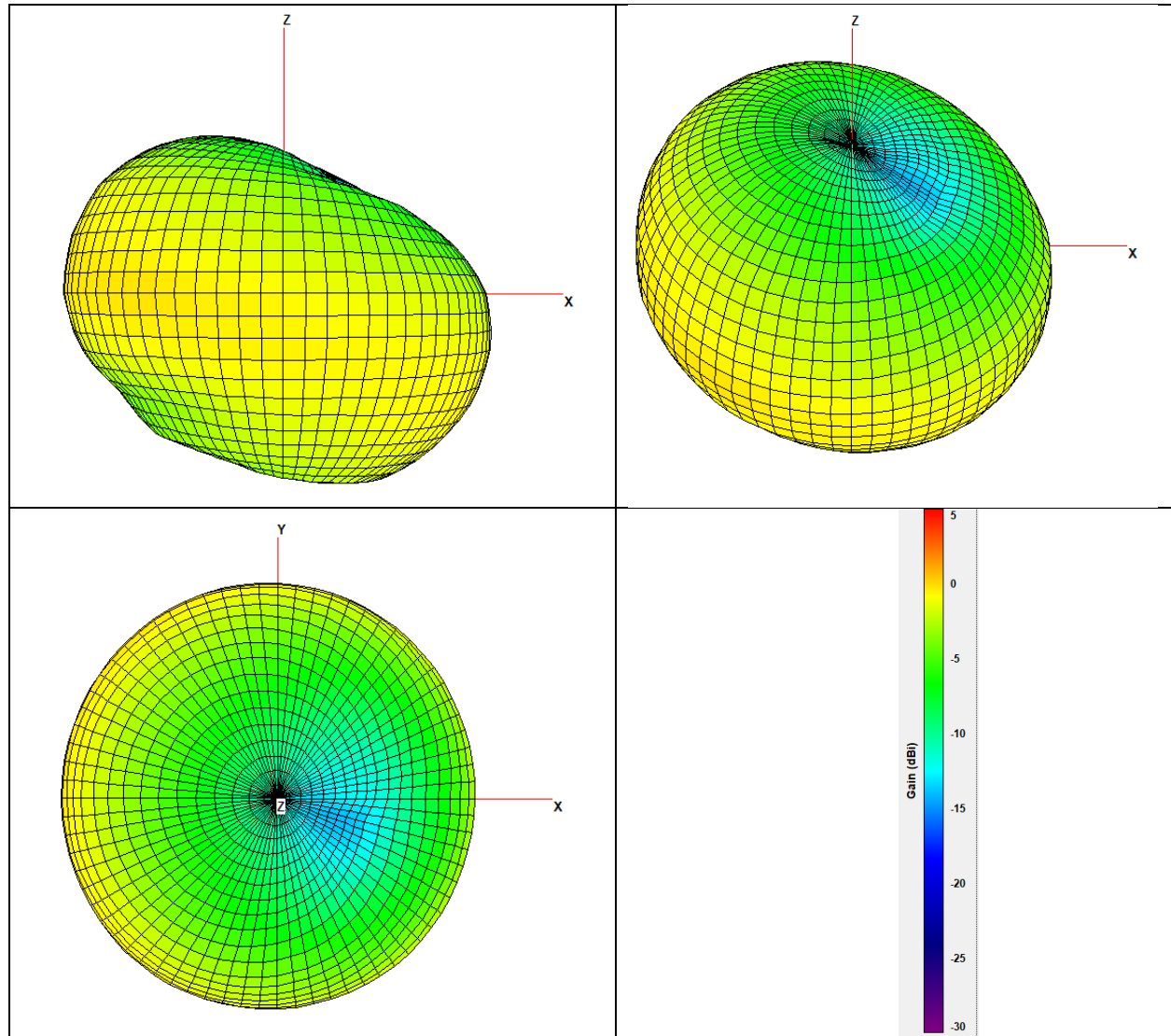


Figure 8 – AD1 (95F9043) 3D radiation patterns and scale at max peak gain