



Shure UA8 Antennas for ADTD/Q

**Measurements of Shure UA8 Antennas for
ADTD/Q Transmitters
For Regulatory Approval**

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November 2024

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Shure UA8 Antennas for ADTD/Q

1. UA8 Antennas on Shure ADTD/Q Transmitter

1.1 Design Overview and Reference Angles



Figure 1 UA8 Antenna on Shure ADTD/Q – Overview

1.2 Test Setup

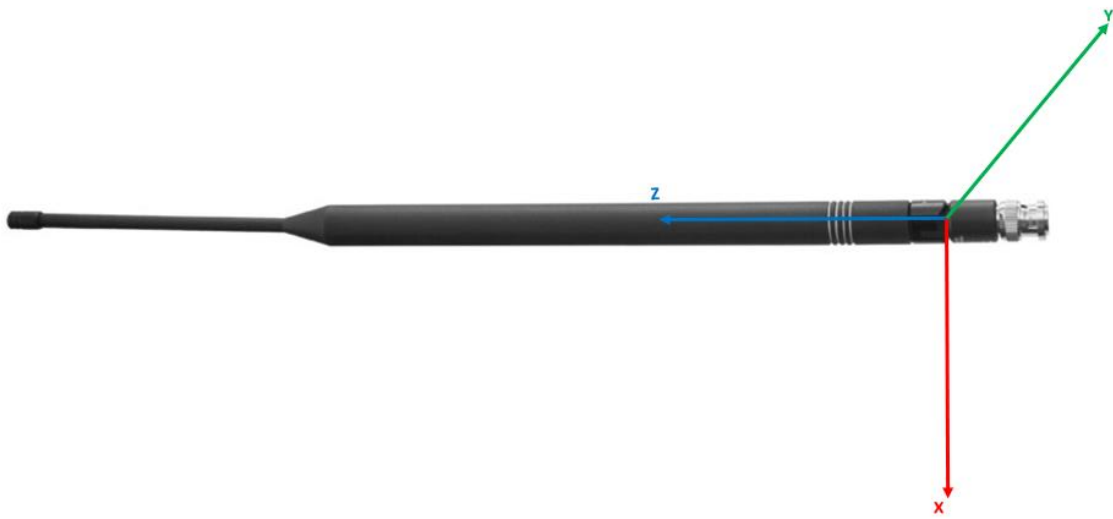


Figure 3 Shure UA8 Reference Angles



Figure 4 Photo of Shure UA8 in Antenna Chamber



Shure UA8 Antennas for ADTD/Q

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 UA8 Sleeve Dipole Antenna

2.1.1 UA8-470-636 (95BK21546 - operating range 470 – 636 MHz)

Peak Gain				
Band	Band Range (MHz)	Peak Gain (dBi)	Antenna Type	Antenna Pattern
G53	470 – 510	0.2	Sleeve Dipole	Omni
G54	479 – 565	1.0		
G55	470 – 636	1.1		
G56	470 – 636	1.1		
G57	470 – 608	1.1		
G62	510 – 530	1.0		
G63	487 – 636	1.1		
H54	520 – 636	1.1		

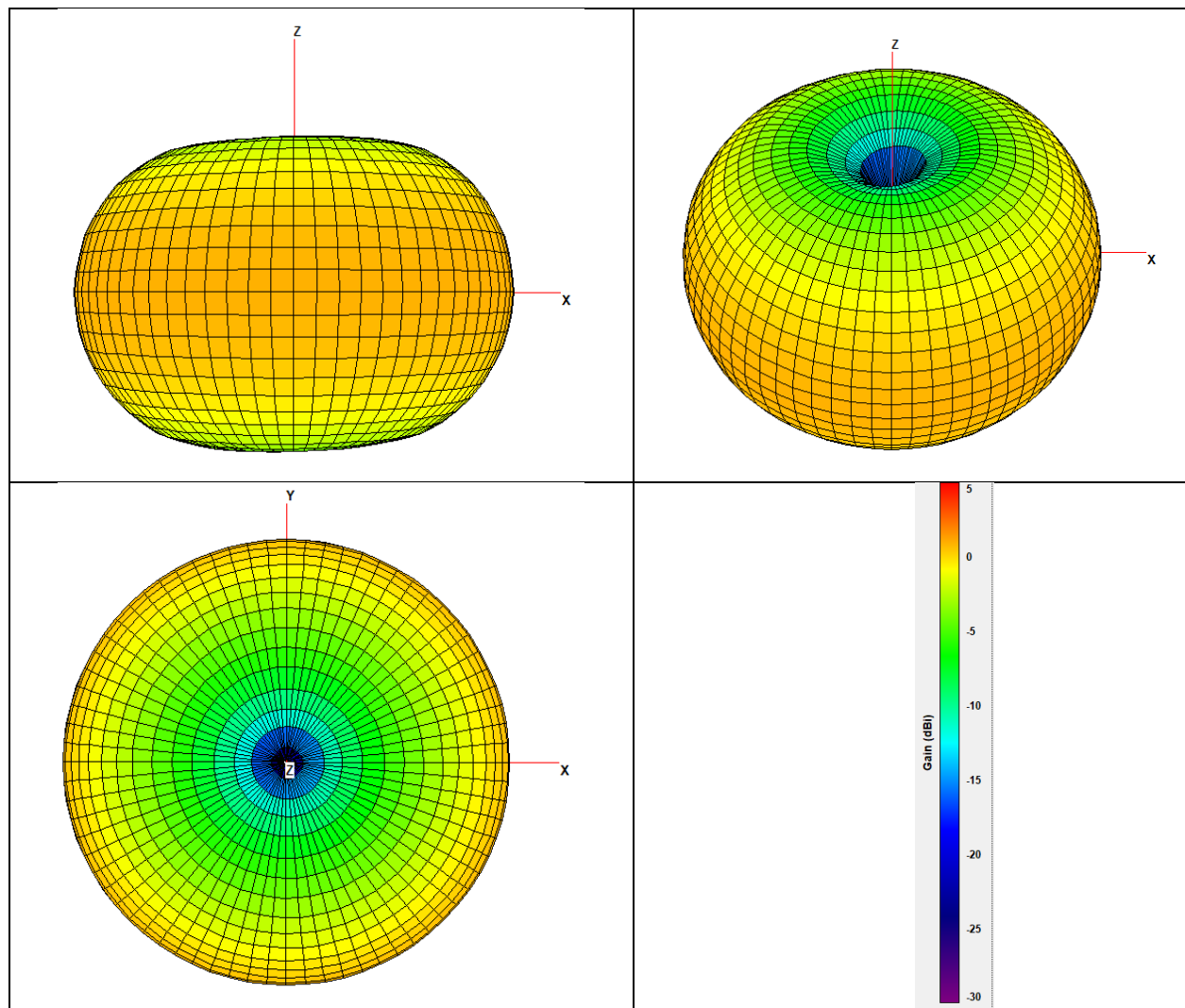


Figure 5 – UA8-470-636 3D radiation patterns and scale at max peak gain

2.1.2 UA8-606-810 (95BL21546 - operating range 606 – 810 MHz)

Peak Gain				
Band	Band Range (MHz)	Peak Gain (dBi)	Antenna Type	Antenna Pattern
K54	606 – 663	0.3	Sleeve Dipole	Omni
K55	606 – 694	0.5		
K56	606 – 714	1.1		
K58	622 – 698	1.0		
L60	630 – 698	1.0		
P55	694 – 806	1.9		

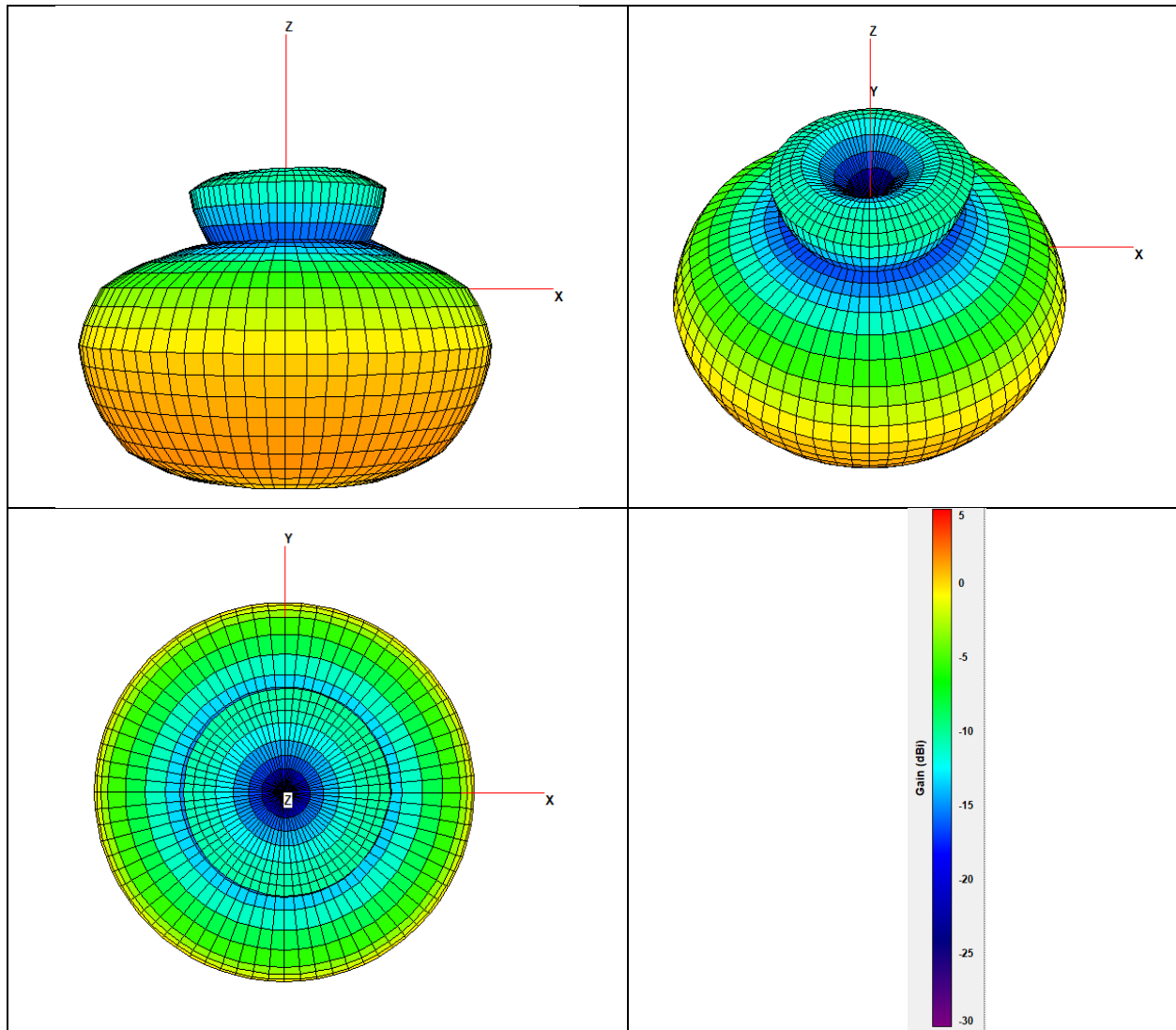


Figure 6 – UA8-606-810 3D radiation patterns and scale at max peak gain

2.1.3 UA8-750-960 (95BM21546 - operating range 750 – 1154 MHz)

Peak Gain				
Band	Band Range (MHz)	Peak Gain (dBi)	Antenna Type	Antenna Pattern
X51	925 – 937.5	2.1	Sleeve Dipole	Omni
X55	941 – 960	2.2		
X57	960 – 1154	3.1		

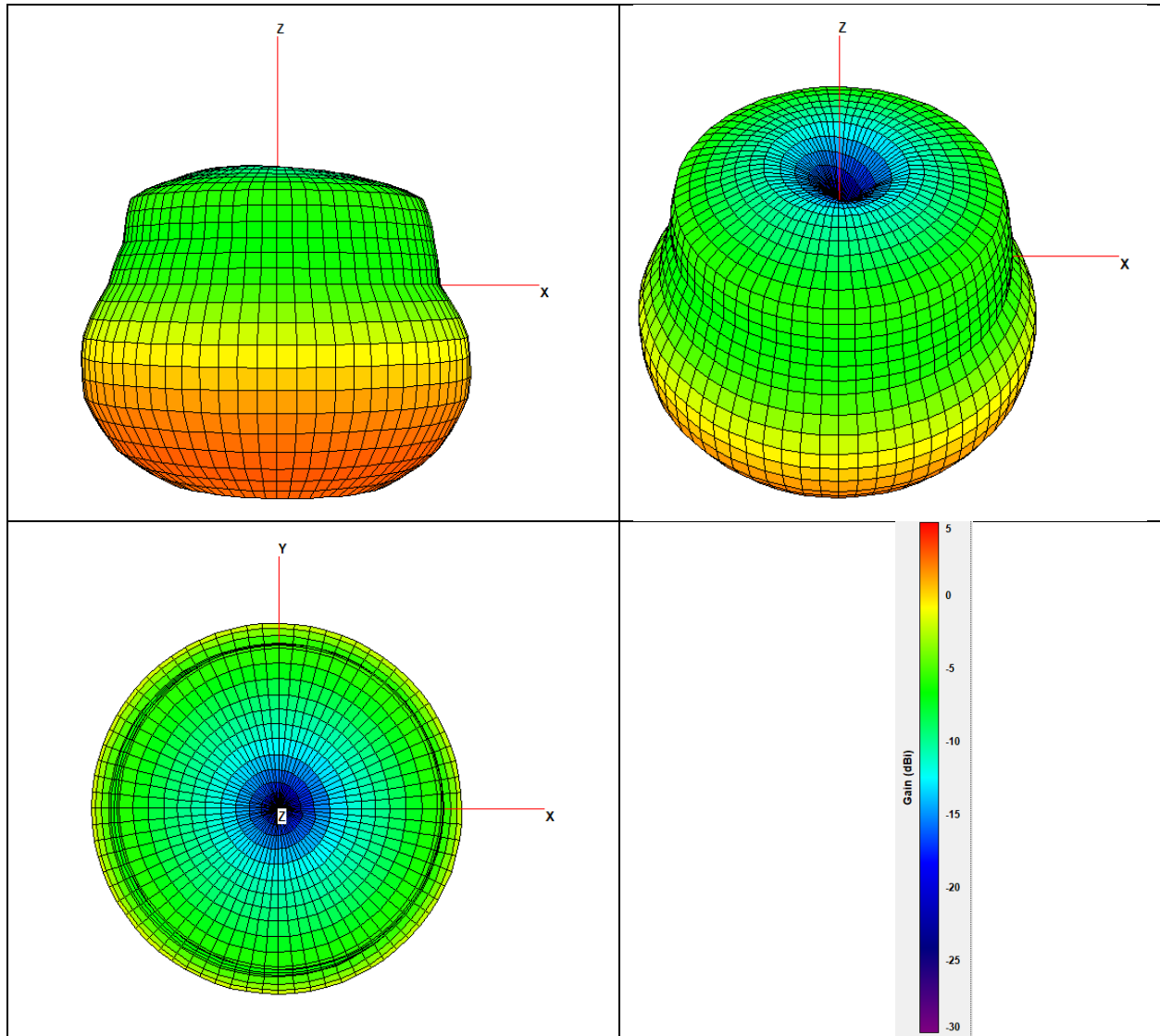


Figure 7 – UA8-750-960 3D radiation patterns and scale at max peak gain

2.1.1.4 UA8-1240-1260 (95BE21546 - operating range 1240 – 1260 MHz)

Peak Gain				
Band	Band Range (MHz)	Peak Gain (dBi)	Antenna Type	Antenna Pattern
Z16	1240 – 1260	1.3	Sleeve Dipole	Omni

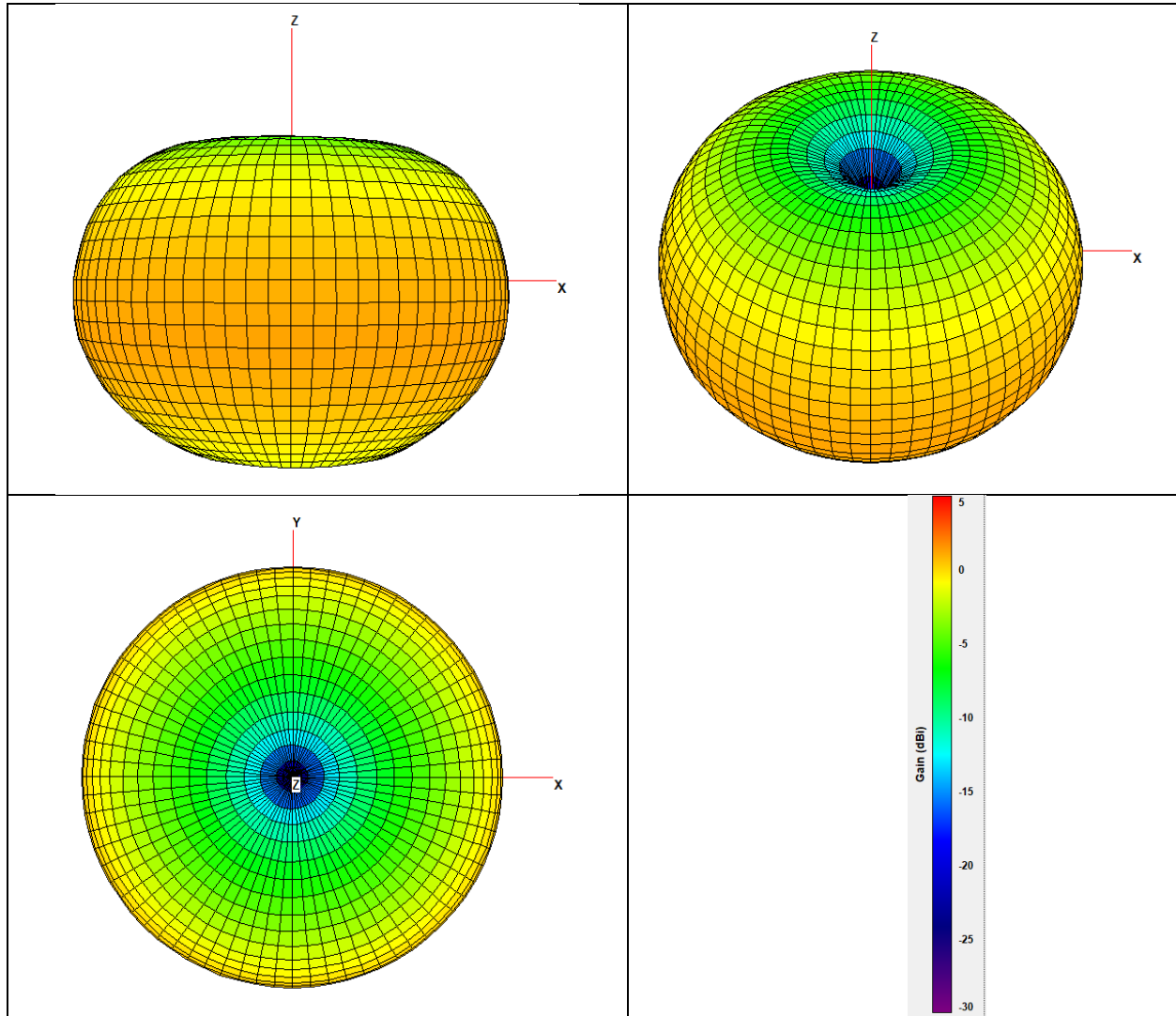


Figure 8 – UA8-1240-1260 3D radiation patterns and scale at max peak gain