

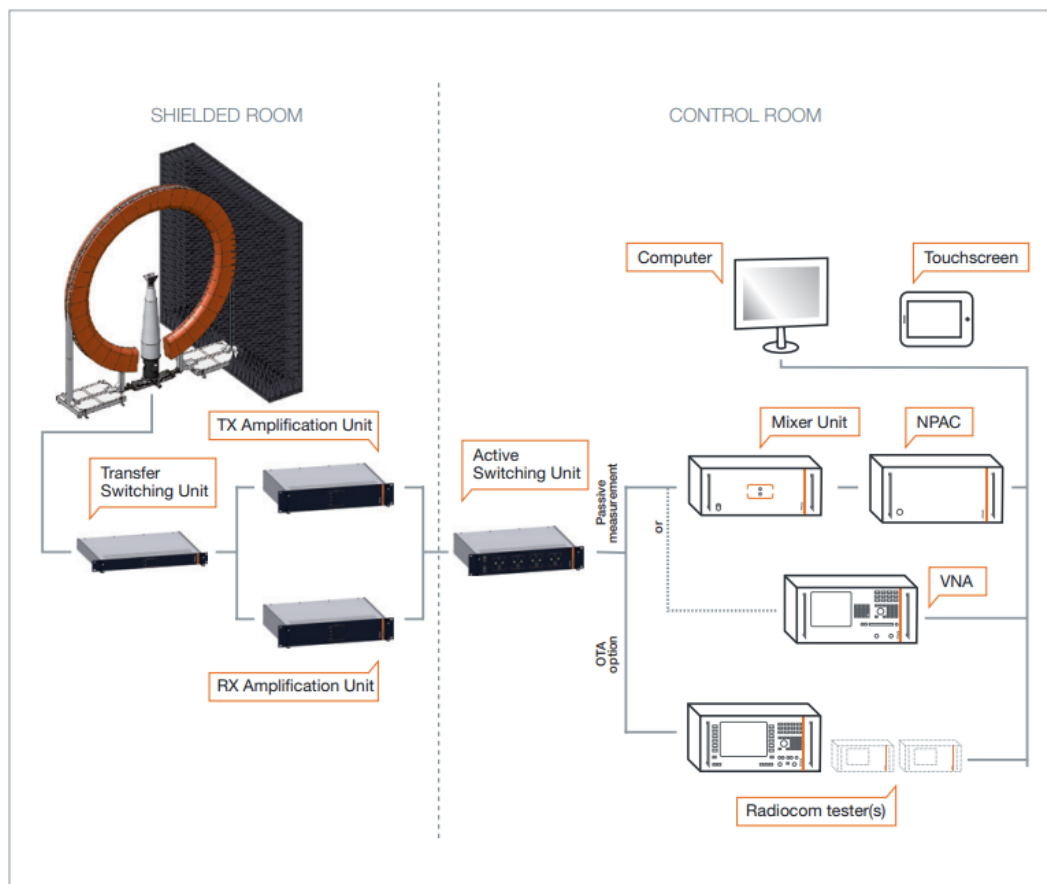
6G RN Antenna Test Report

Model: G1RN6AHB012

For Tarana Part Number: 31-0181-200

1. Antenna Test Lab Information

- Lab Name: MVG, Inc.
- Address: 450 Franklin Gateway, Suite 100, Marietta, GA, 30067.
- [Certification](#): MVG is ISO 9001 and 17025 certified, and A2LA accredited, and offers NIST traceable antenna measurements. MVG is also a CTIA Authorized Test Laboratory (CATL) for Over the Air (OTA) active measurements.
- Test system: SG 64-S spherical near-field measurement system
- Frequency measurement range: SG64 frequency range of operation is from 400MHz to 6.0 GHz. The frequency range from 6.0 to 18.0 GHz is covered via an indoor far-field chamber.
- EUT measurement method: Gain-transfer or Substitution Method.
- For more detailed information about the test system, please refer to this [link](#).
- Equipment List / System Overview:





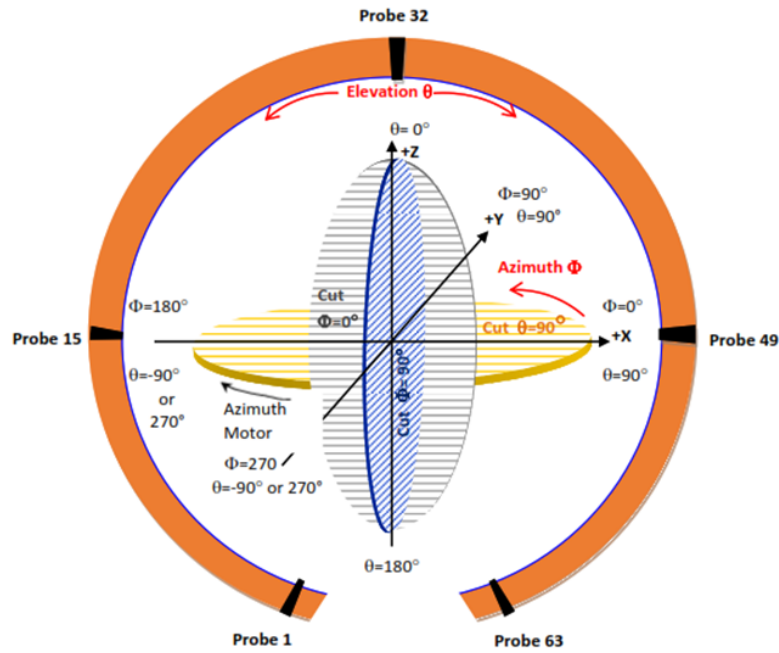
2. Equipment/System Calibration and Test Information

Equipment Name	Mode	Manufacturer	Calibration Date	Calibration Due Date
SG-64 Measurement System	Spherical Near-Field Measurement	MVG, Inc	September 2022	September 2023

Test Personnel	Gunar Gray
Test Date	Feb 8, 2023

4. Measurement setting – MVG SG64 Coordinate System

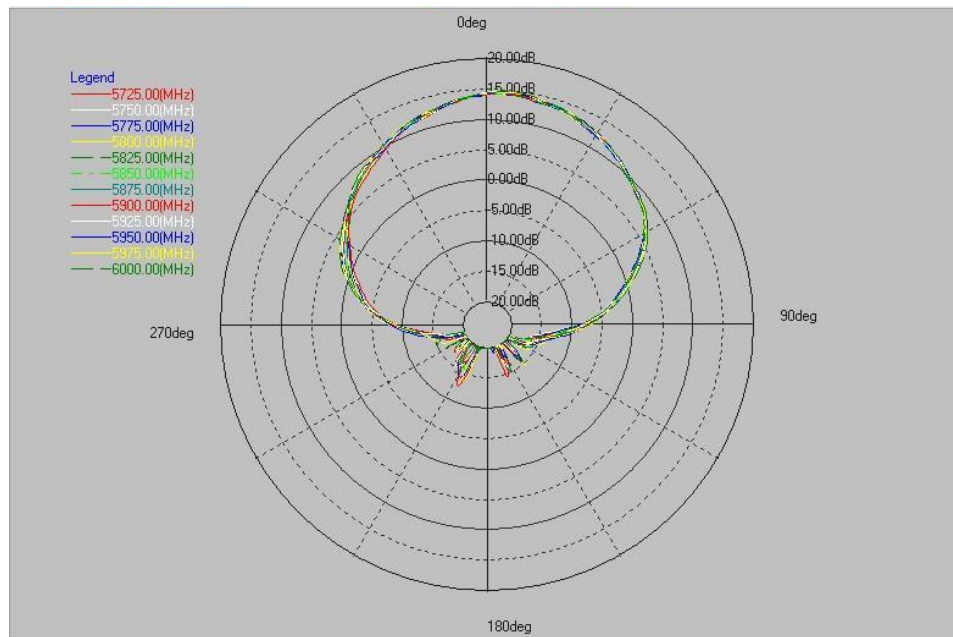
MVG SG64 Coordinate System



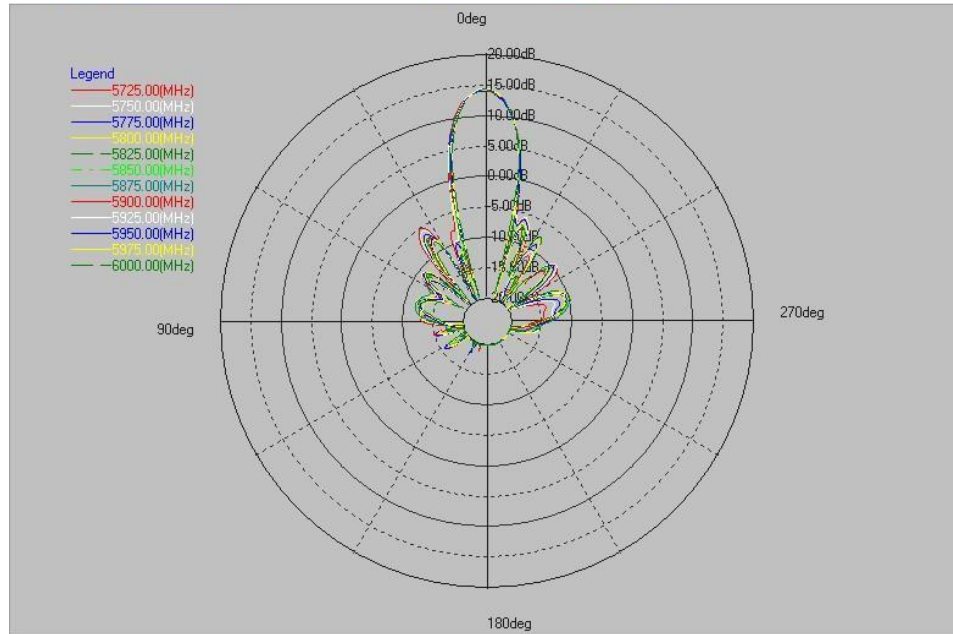
5. 2D Patterns

5.1. Antenna 0H Azimuth and Elevation Patterns, 5.725GHz to 6GHz

Azimuth Patterns

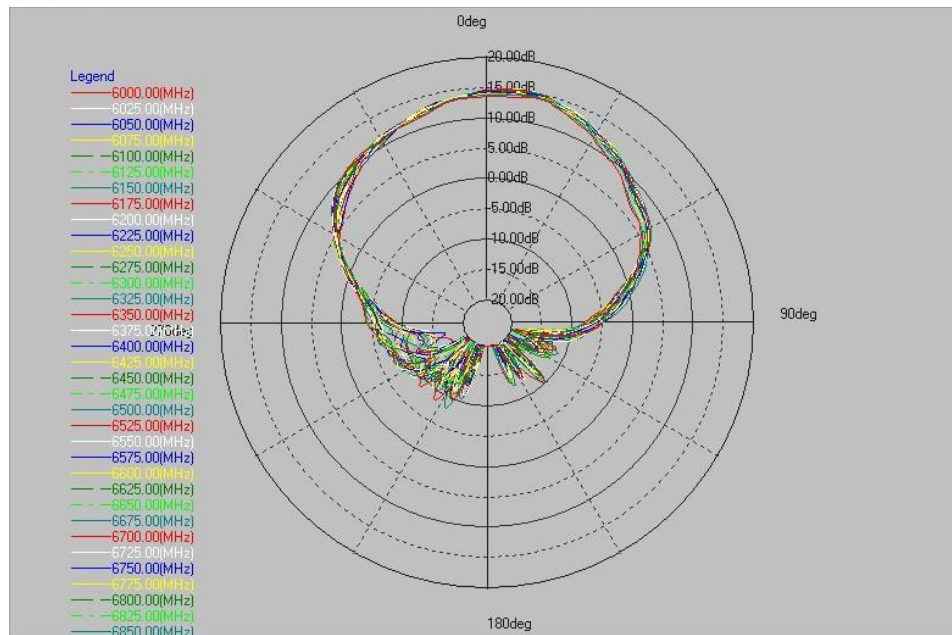


Elevation Patterns

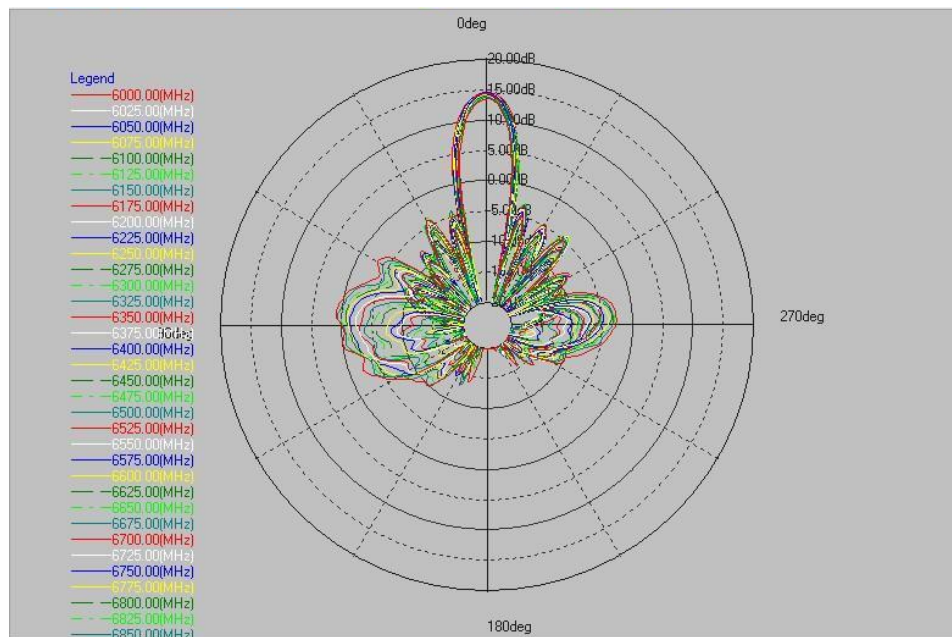


5.2. Antenna 0H Azimuth and Elevation Patterns, 6GHz to 6.85GHz

Azimuth Patterns

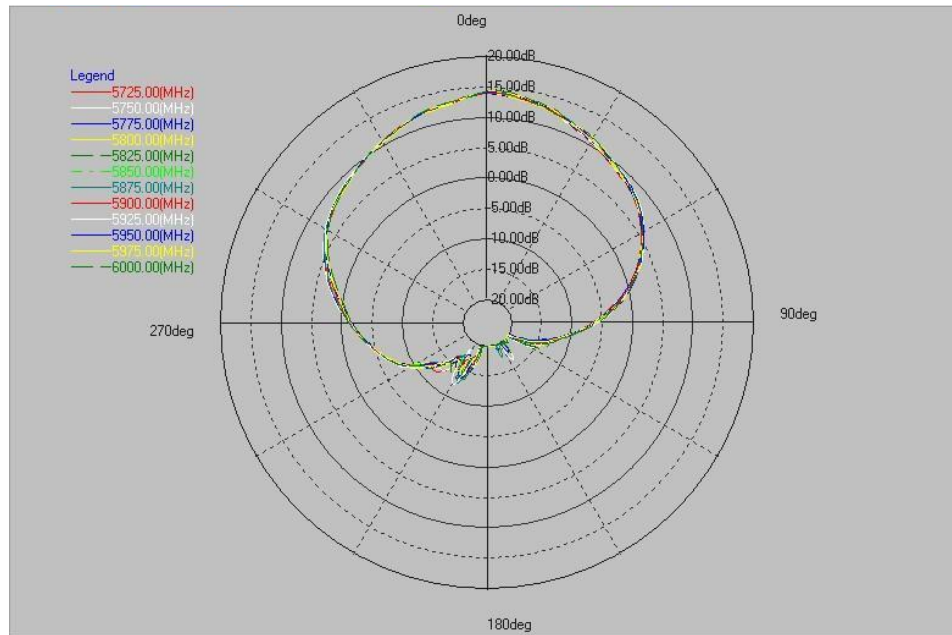


Elevation Patterns

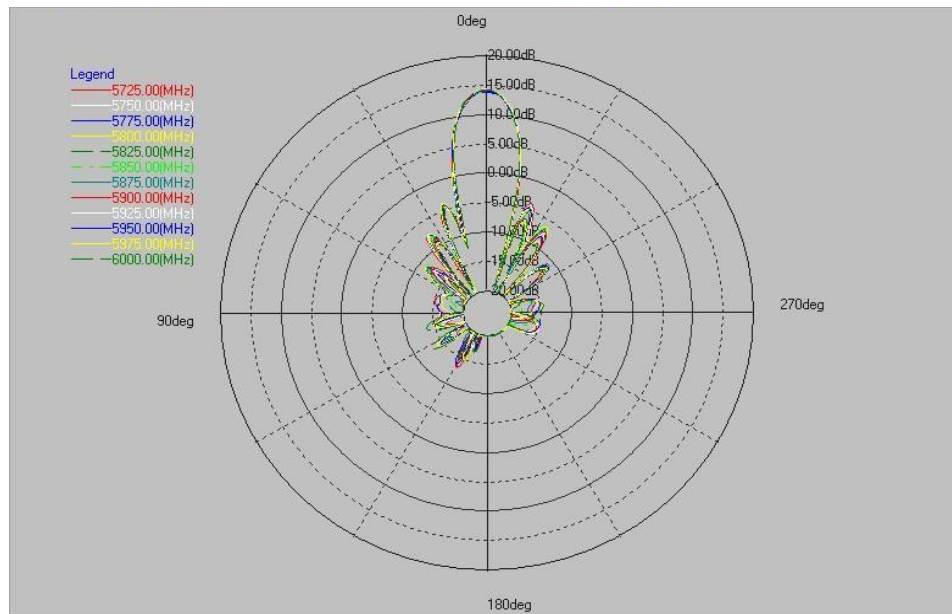


5.3. Antenna 1V Azimuth and Elevation Patterns, 5.725GHz to 6GHz

Azimuth Patterns

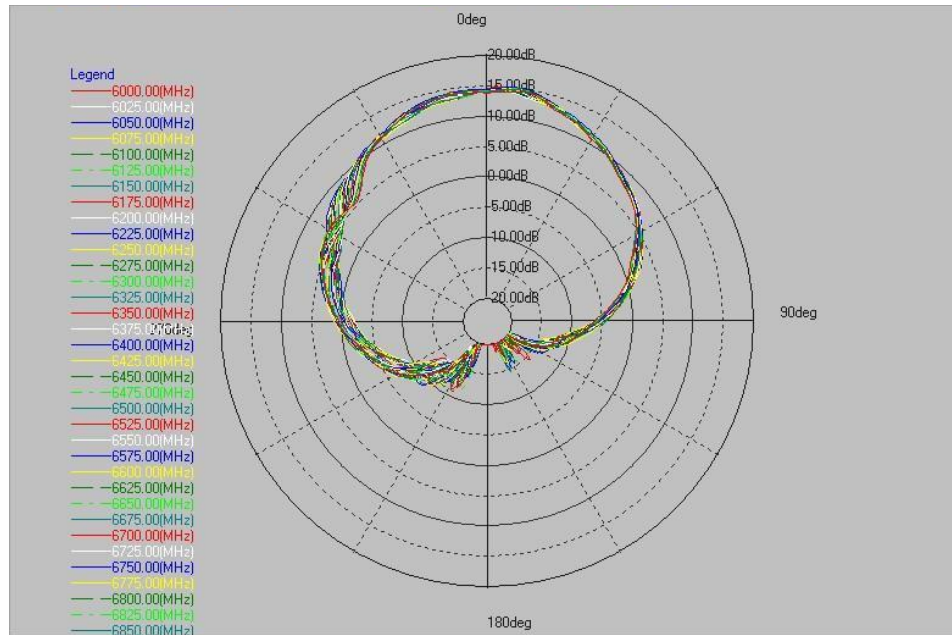


Elevation Patterns

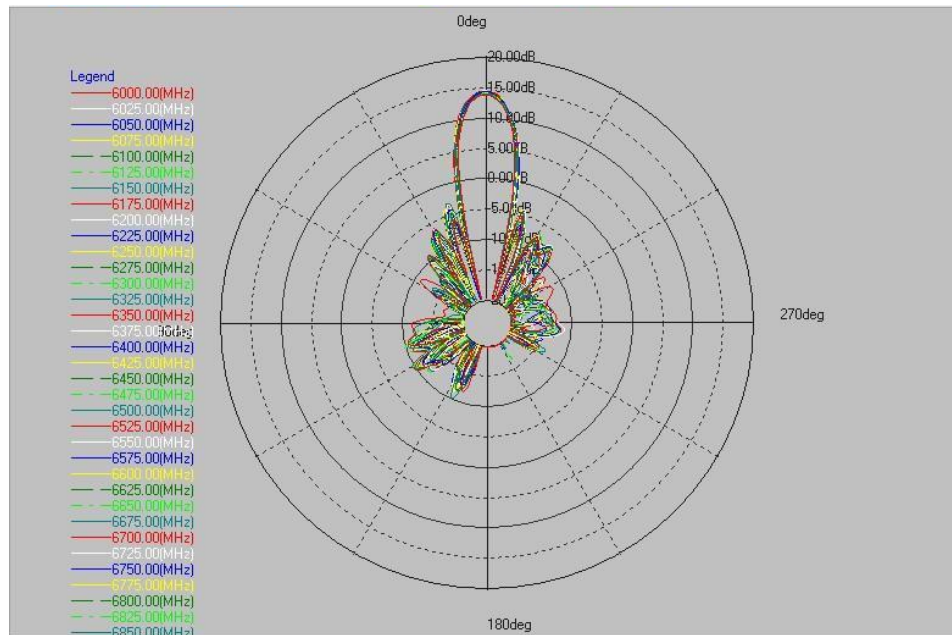


5.4. Antenna 1V Azimuth and Elevation Patterns, 6GHz to 6.85GHz

Azimuth Patterns

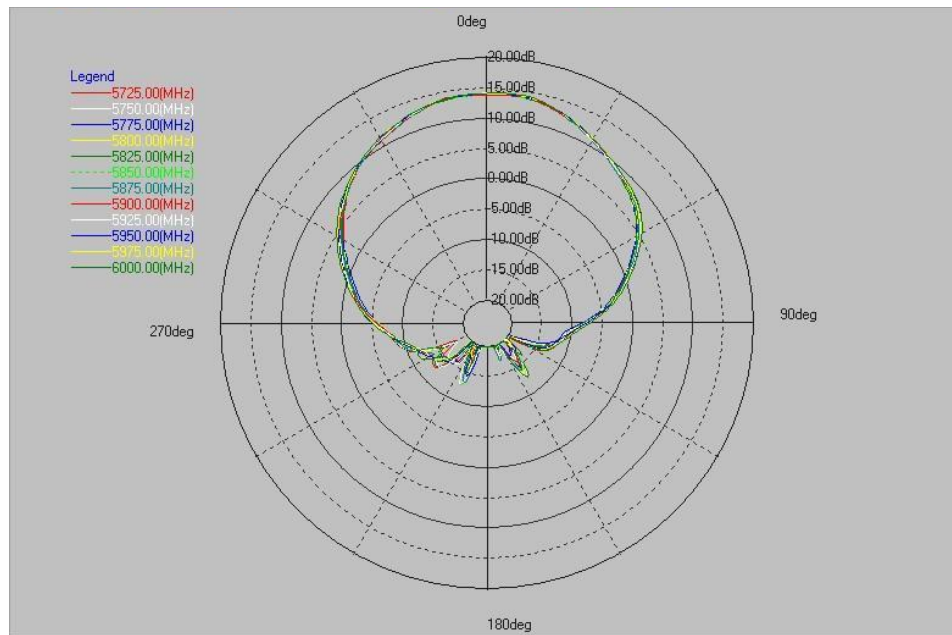


Elevation Patterns

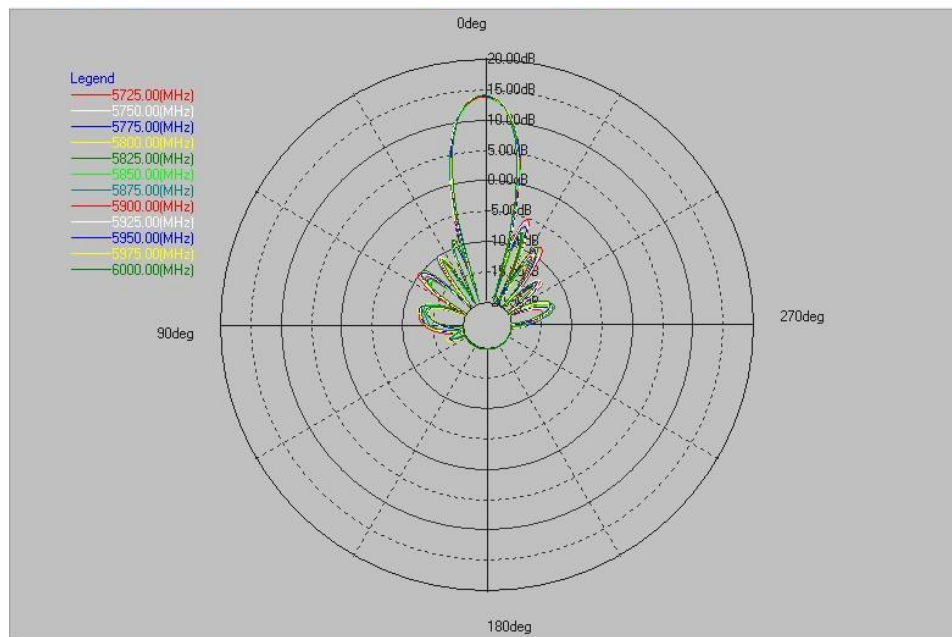


5.5. Antenna 2H Azimuth and Elevation Patterns, 5.725GHz to 6GHz

Azimuth Patterns

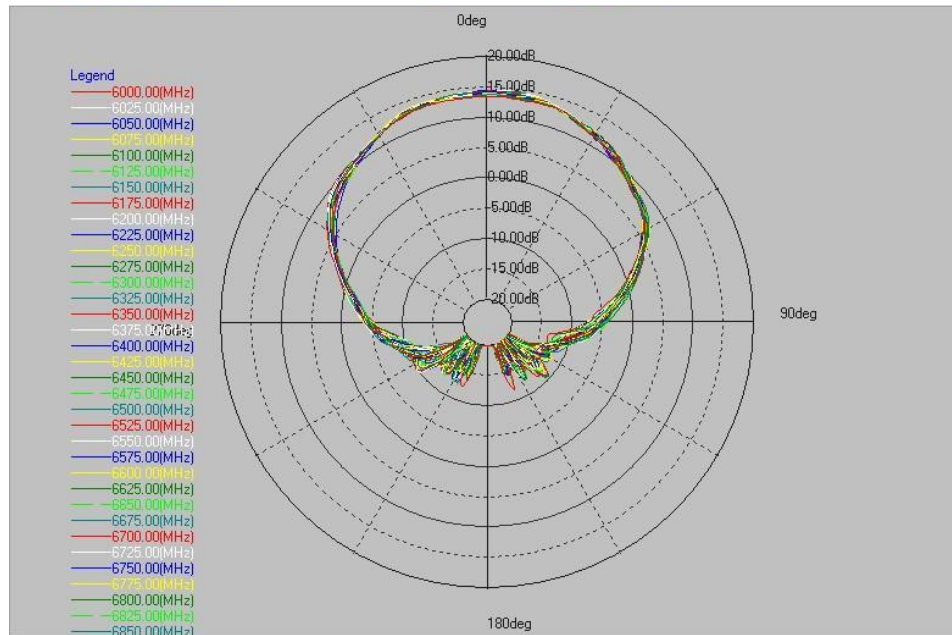


Elevation Patterns

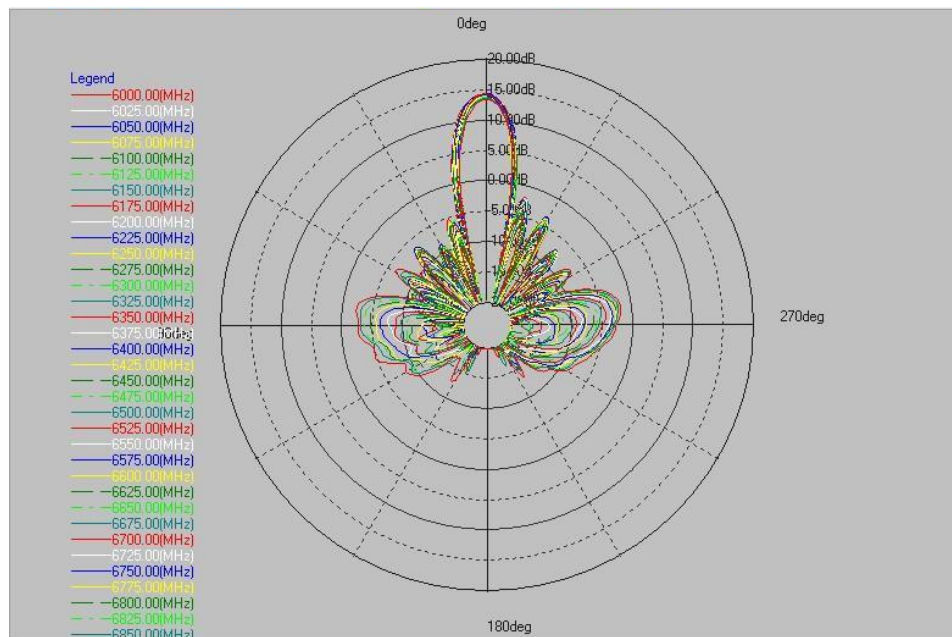


5.6. Antenna 2H Azimuth and Elevation Patterns, 6GHz to 6.85GHz

Azimuth Patterns

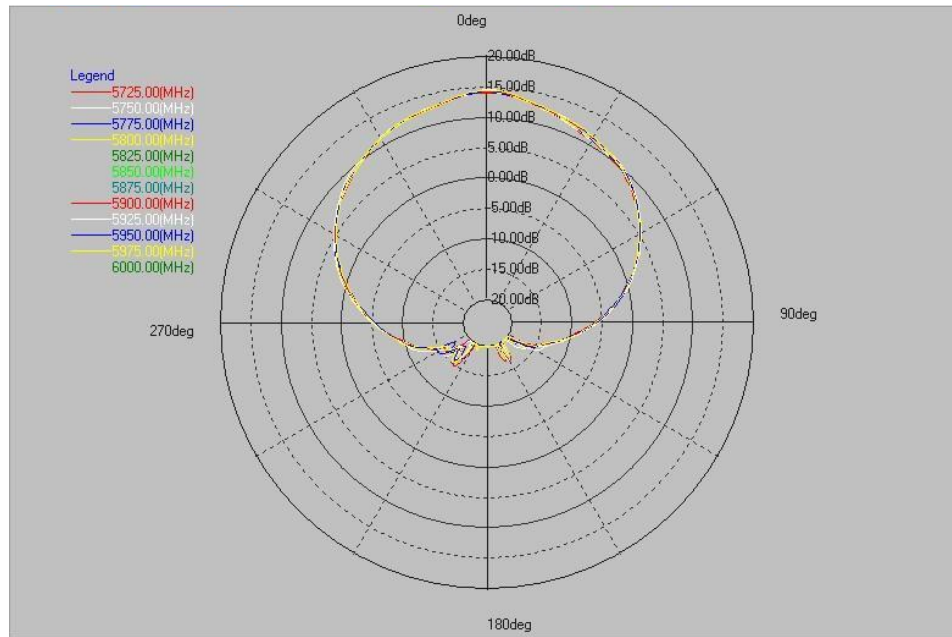


Elevation Patterns

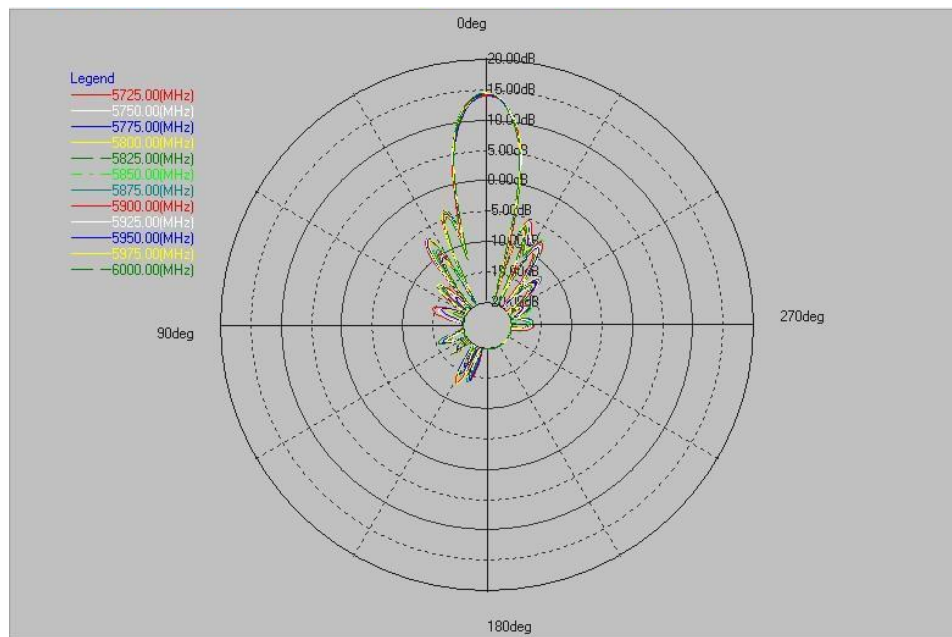


5.7. Antenna 3V Azimuth and Elevation Patterns, 5.725GHz to 6GHz

Azimuth Patterns

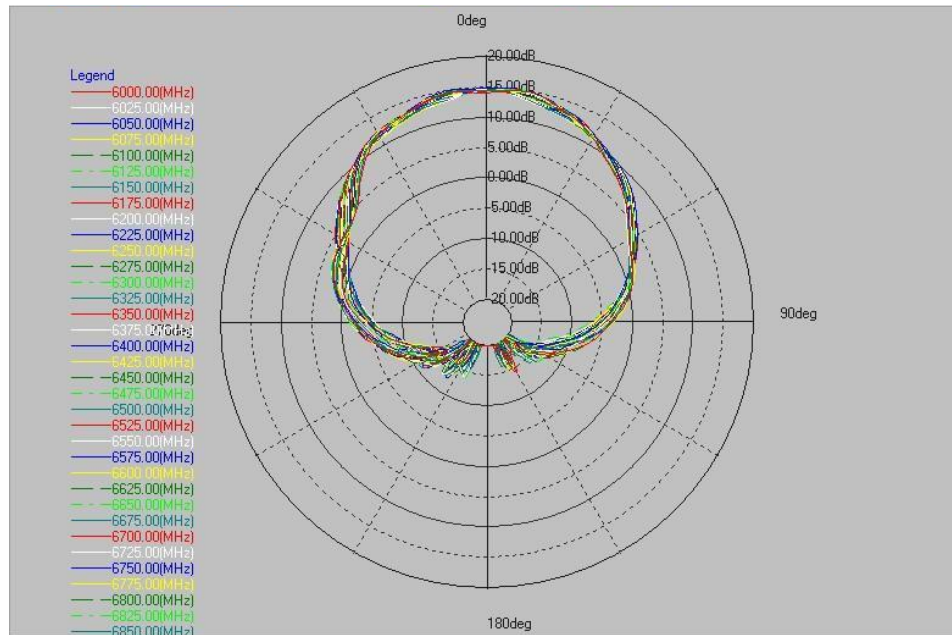


Elevation Patterns

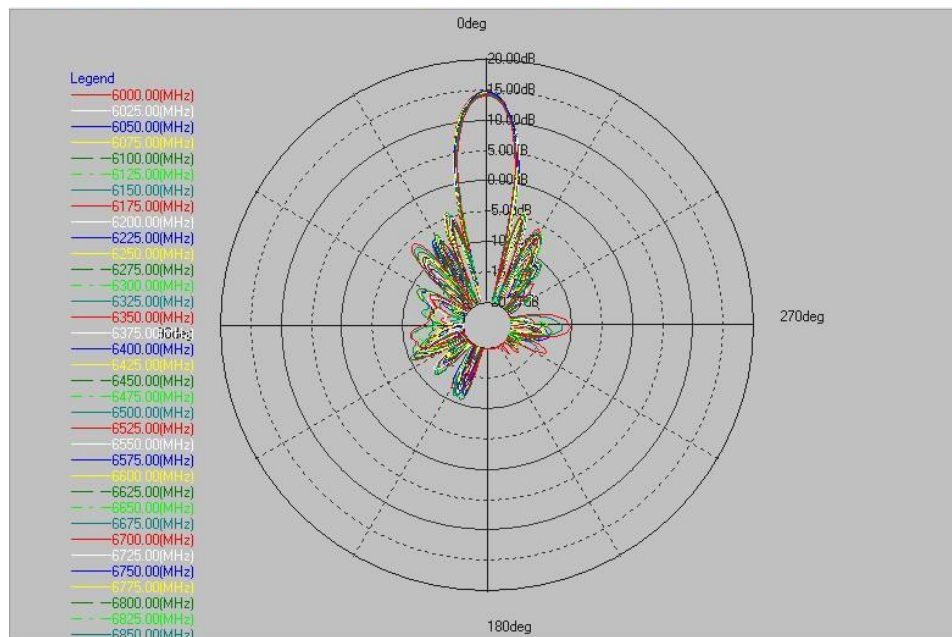


5.8. Antenna 3V Azimuth and Elevation Patterns, 6GHz to 6.85GHz

Azimuth Patterns

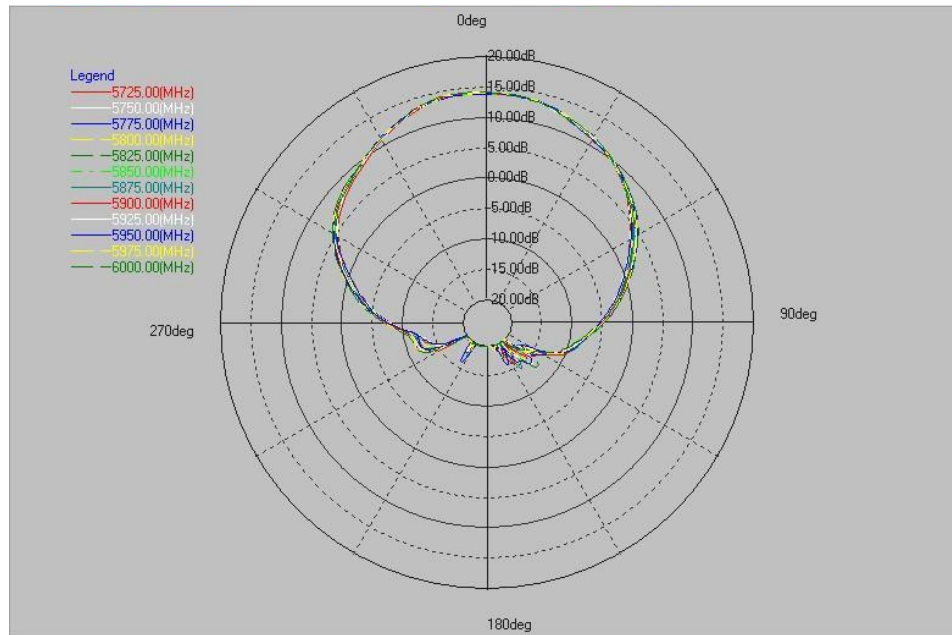


Elevation Patterns

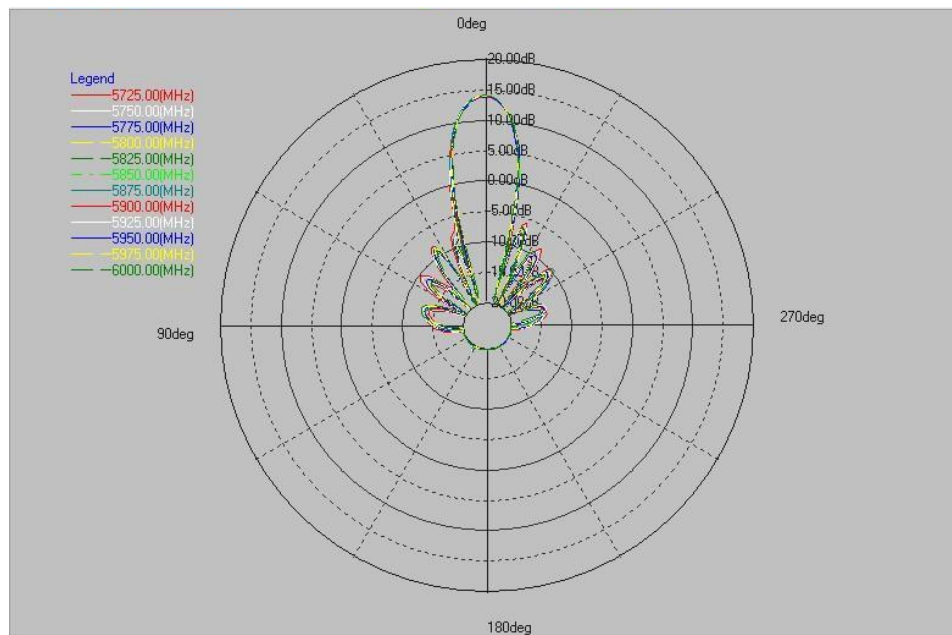


5.9. Antenna 4H Azimuth and Elevation Patterns, 5.725GHz to 6GHz

Azimuth Patterns

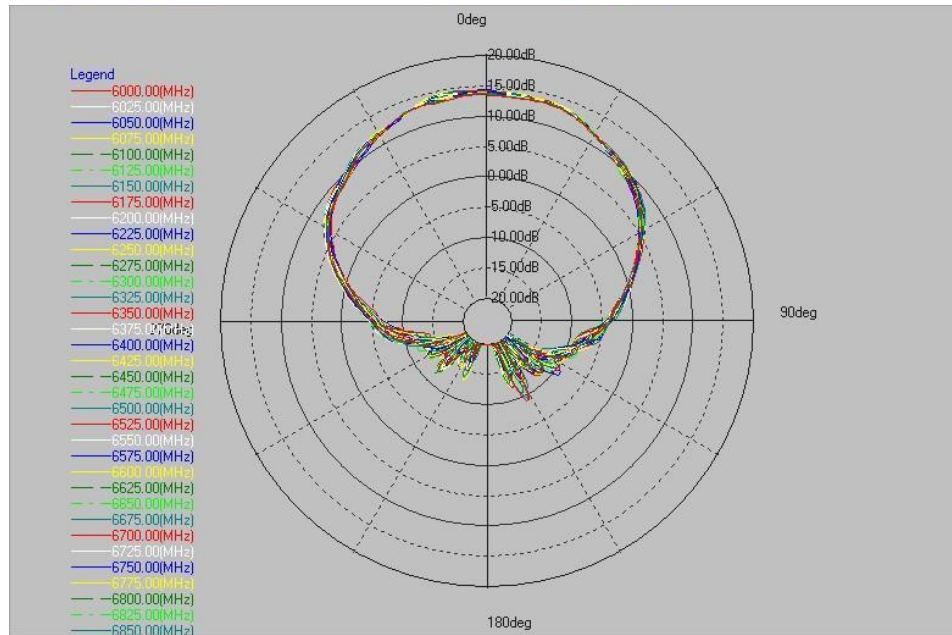


Elevation Patterns

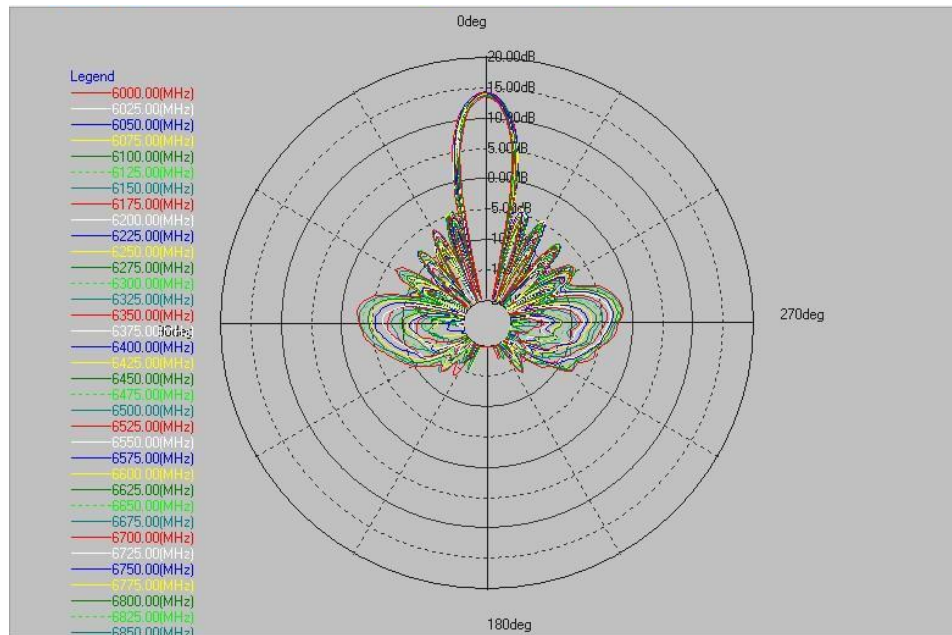


5.10. Antenna 4H Azimuth and Elevation Patterns, 6GHz to 6.85GHz

Azimuth Patterns

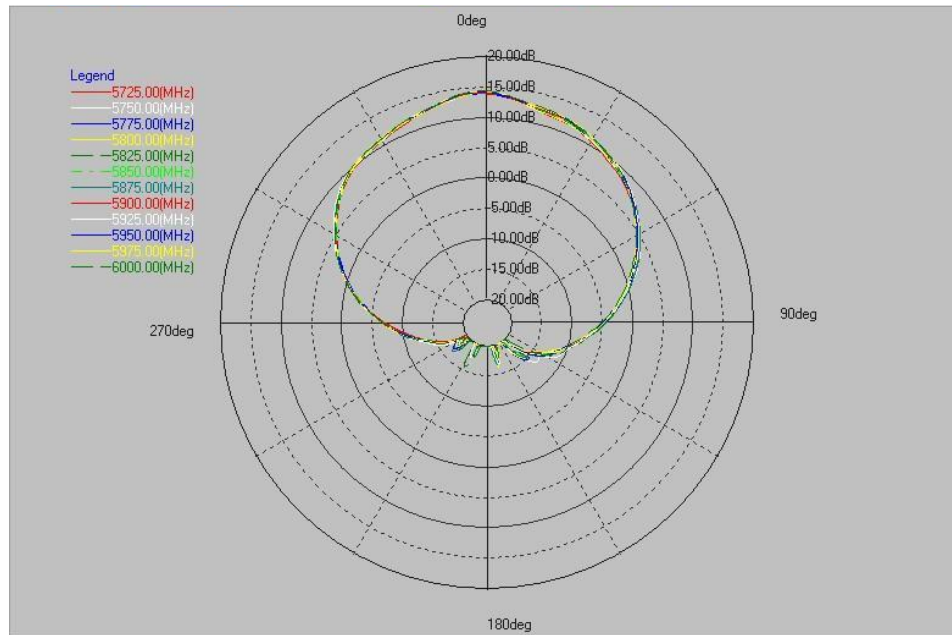


Elevation Patterns

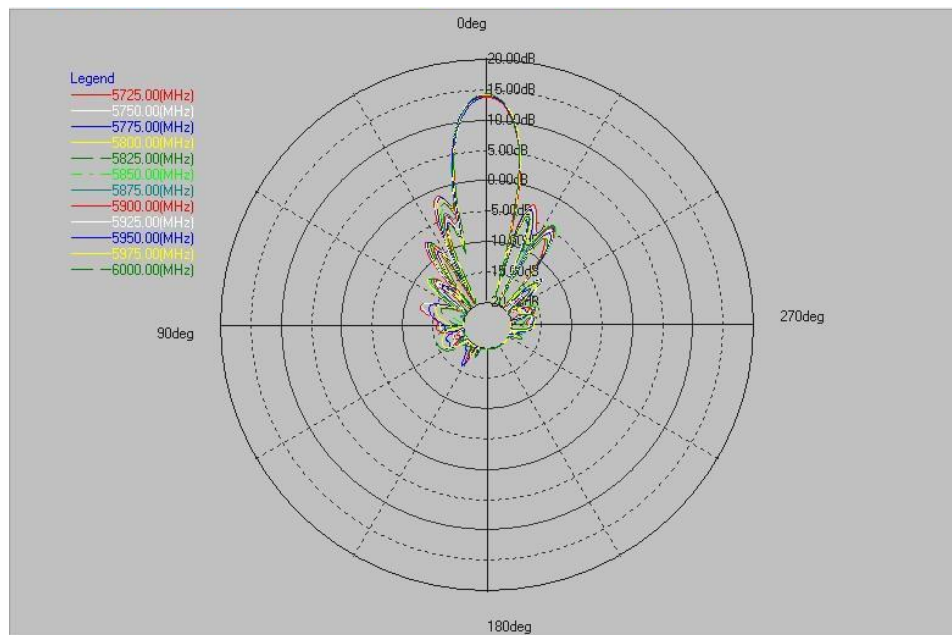


5.11. Antenna 5V Azimuth and Elevation Patterns, 5.725GHz to 6GHz

Azimuth Patterns

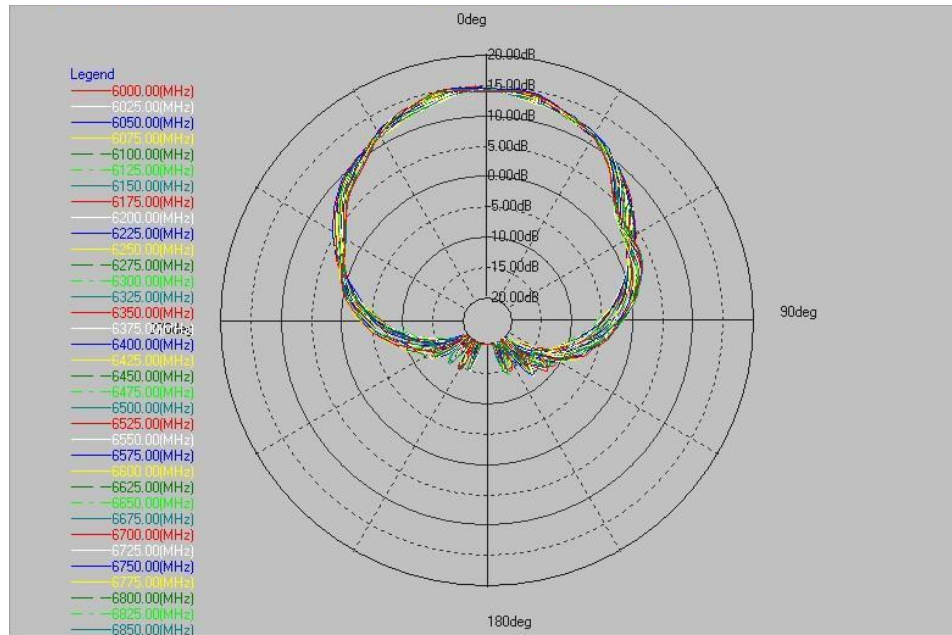


Elevation Patterns

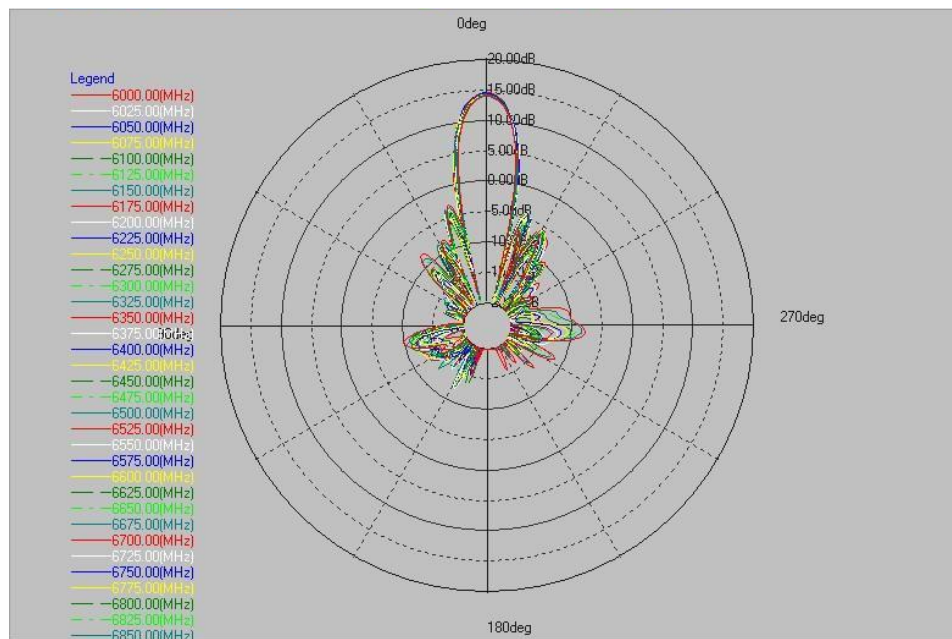


5.12. Antenna 5V Azimuth and Elevation Patterns, 6GHz to 6.85GHz

Azimuth Patterns

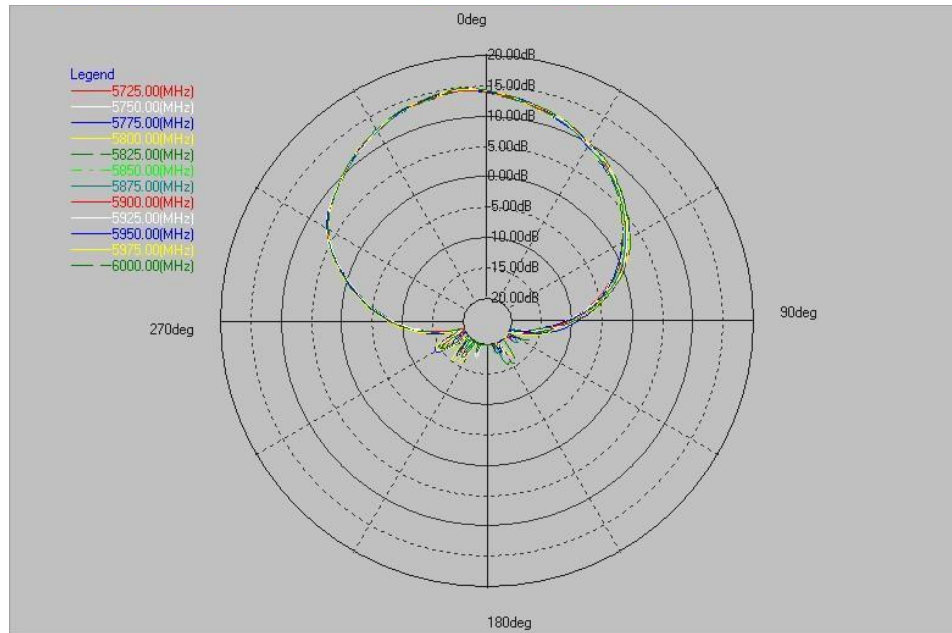


Elevation Patterns

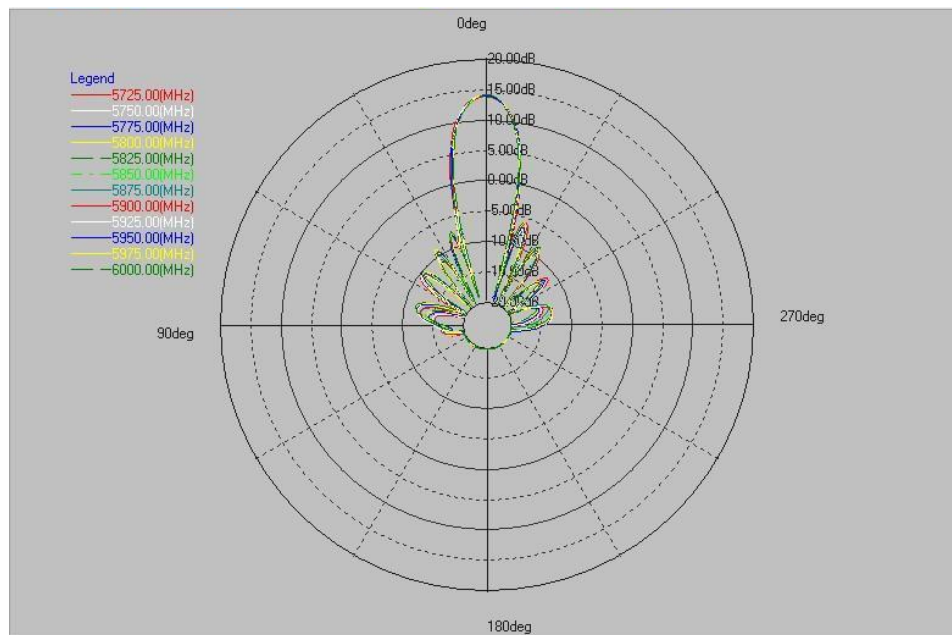


5.13. Antenna 6H Azimuth and Elevation Patterns, 5.725GHz to 6GHz

Azimuth Patterns

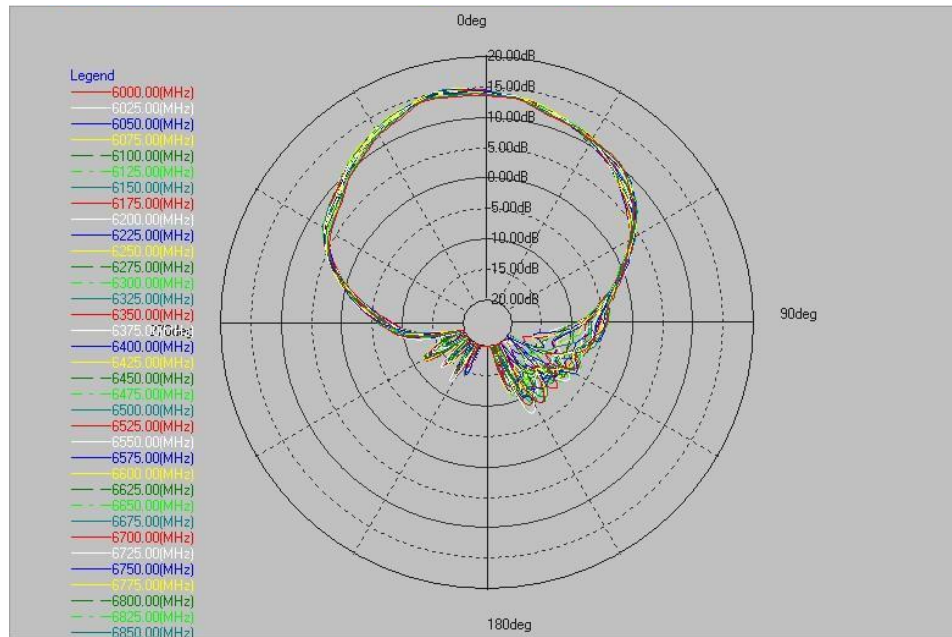


Elevation Patterns

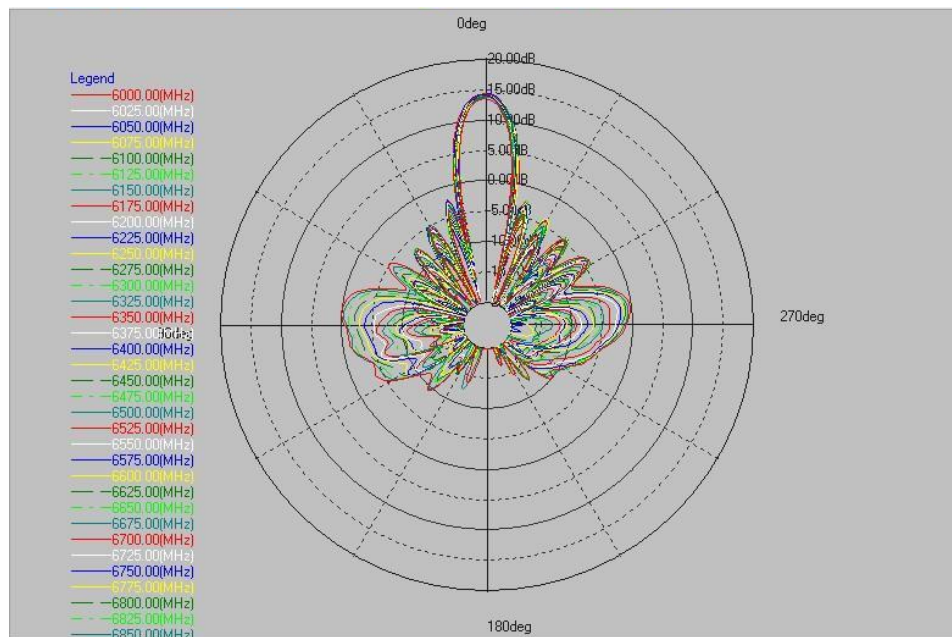


5.14. Antenna 6H Azimuth and Elevation Patterns, 6GHz to 6.85GHz

Azimuth Patterns

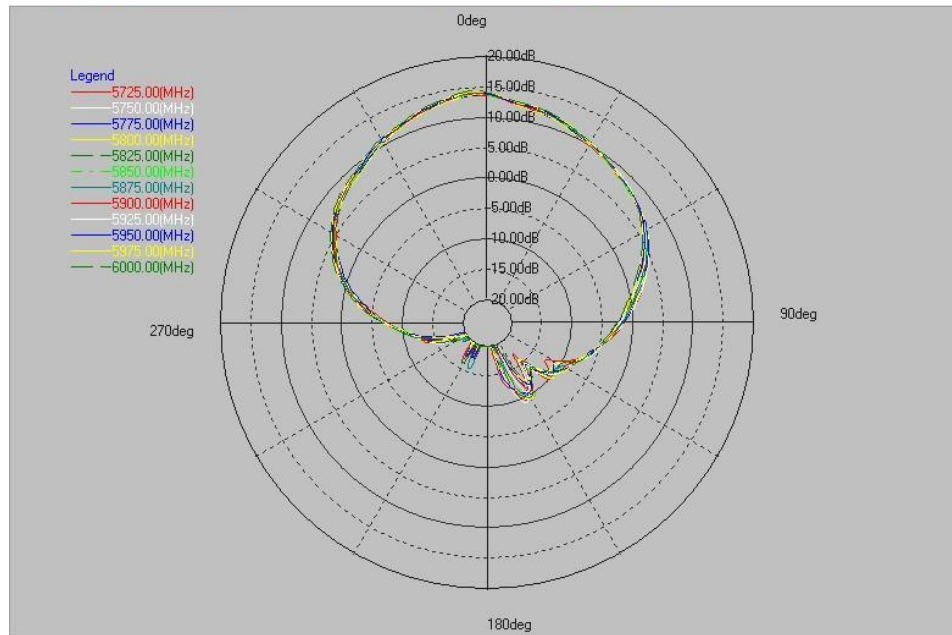


Elevation Patterns

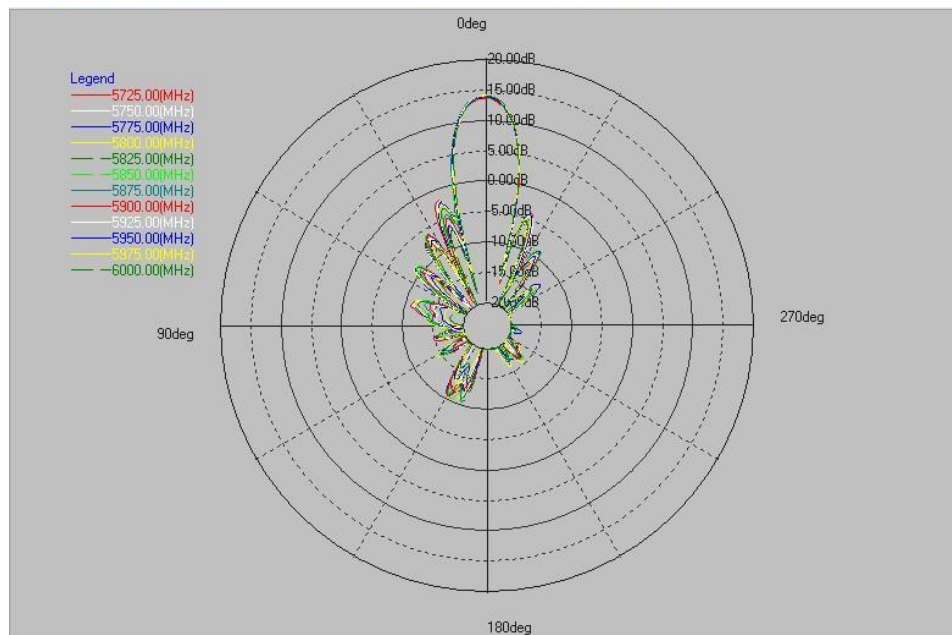


5.15. Antenna 7V Azimuth and Elevation Patterns, 5.725GHz to 6GHz

Azimuth Patterns

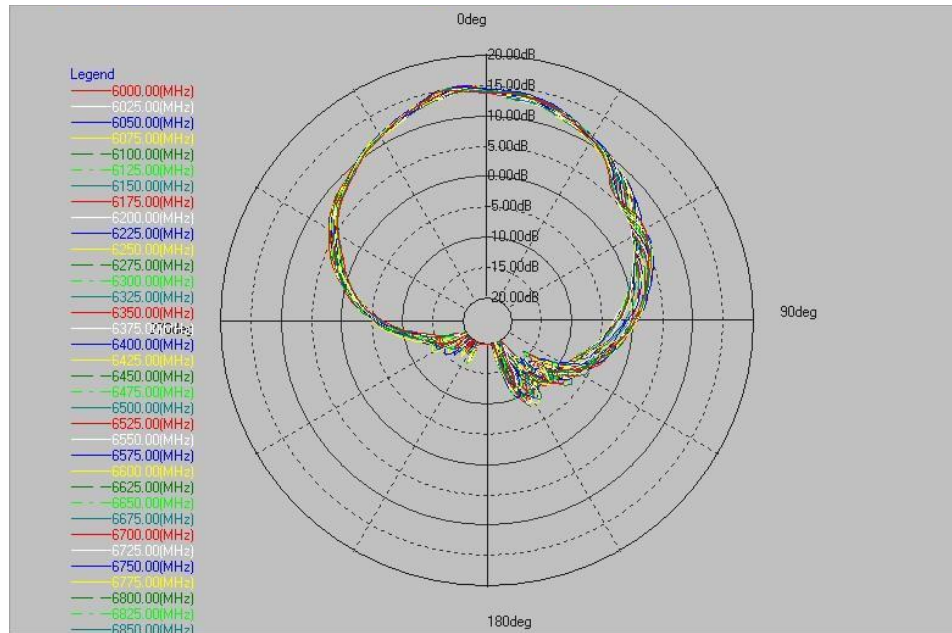


Elevation Patterns

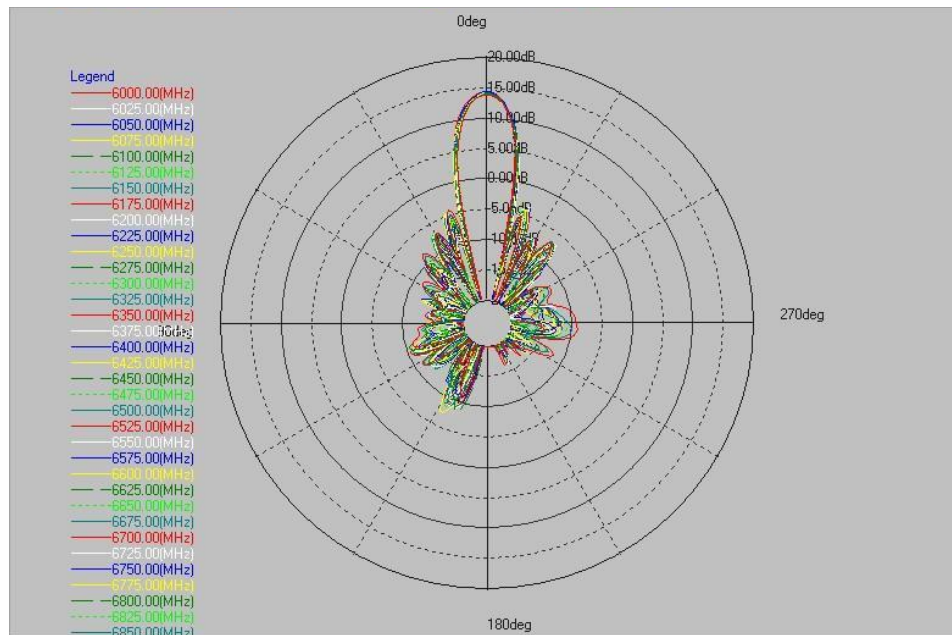


5.16. Antenna 7V Azimuth and Elevation Patterns, 6GHz to 6.85GHz

Azimuth Patterns

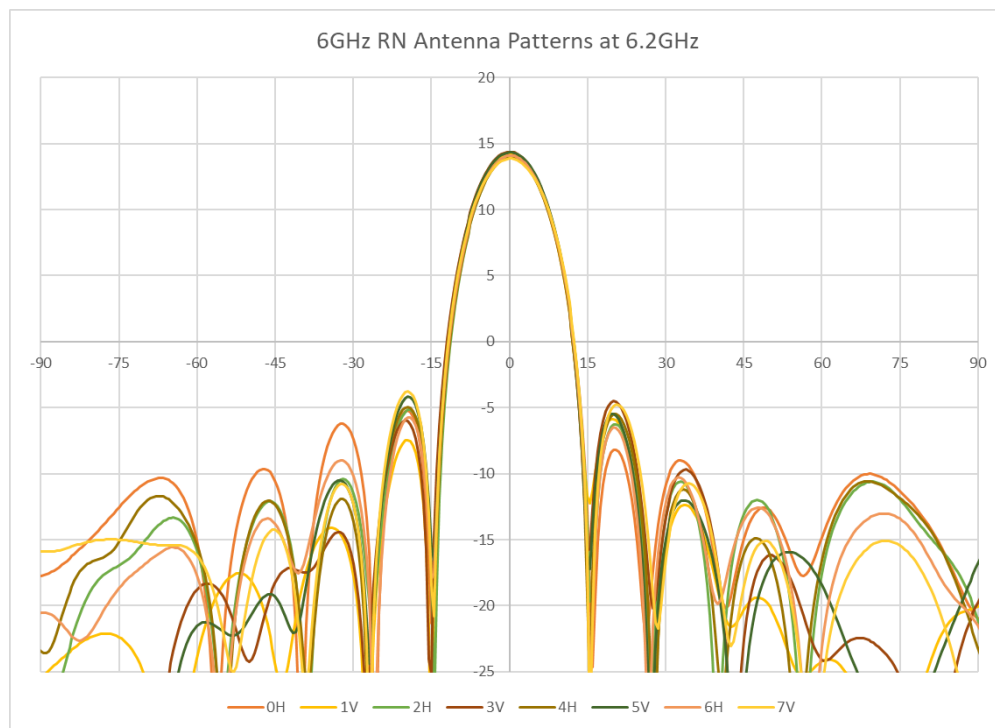


Elevation Patterns

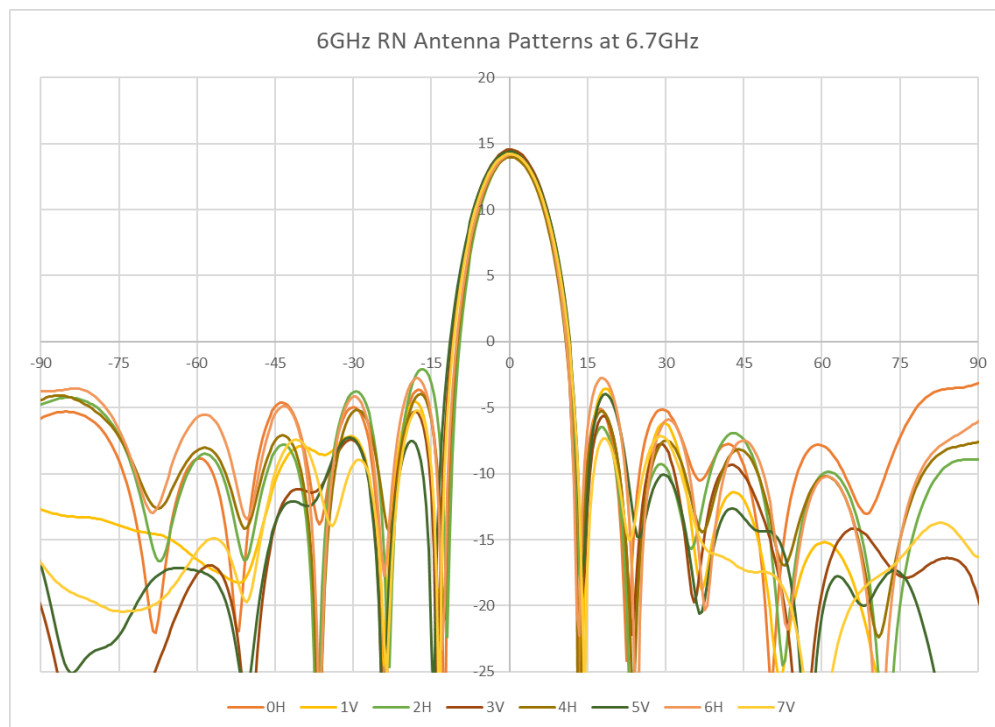


6. Elevation Patterns from -90° to $+90^\circ$

6.1. Antenna Elevation Patterns, 6.2GHz



6.2. Antenna Elevation Patterns, 6.7GHz



7. Summary

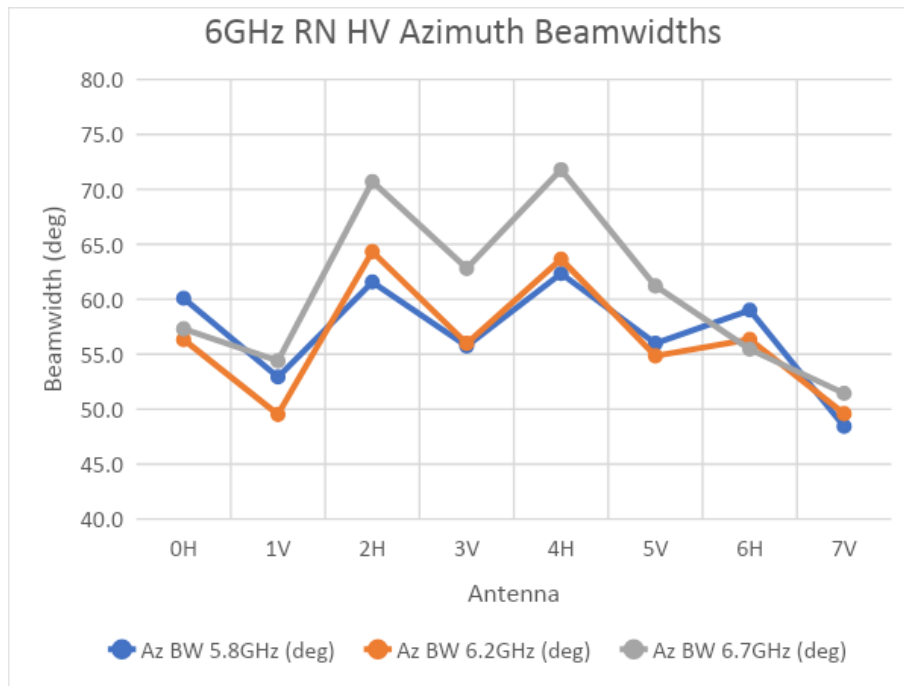
7.1. Antenna Gain Summary

	Az Gain, 5.8GHz (dBi)	Az Gain, 6.2GHz (dBi)	Az Gain, 6.7GHz (dBi)	Az BW 5.8GHz (deg)	Az BW 6.2GHz (deg)	Az BW 6.7GHz (deg)	EI BW 5.8GHz (deg)	EI BW 6.2GHz (deg)	EI BW 6.7GHz (deg)	Backlobe (dBi)	Upper sidelobe (dBi)	+/-90deg lobe (dBi)	Xpol (dBi)	Backlobe (dBc)	+/-90deg lobe (dBc)	Xpol (dBc)
0H	14.1	14.9	14.6	60.1	56.3	57.3	13.7	12.3	10.5	-10.0	0.0	0.0	-9.0	-24.1	-14.1	-23.1
1V	13.8	14.7	14.9	52.9	49.5	54.4	13.9	12.1	11.6	-7.0	-7.0	-12.0	-9.0	-20.8	-25.8	-22.8
2H	13.7	14.3	14.1	61.6	64.3	70.7	13.7	12.2	10.5	-10.0	-3.0	-3.0	-9.0	-23.7	-16.7	-22.7
3V	14.1	14.4	14.7	55.8	56.0	62.8	13.6	12.4	11.5	-12.0	-6.0	-10.0	-12.0	-26.1	-24.1	-26.1
4H	13.8	14.3	14.0	62.3	63.7	71.8	13.6	12.1	10.7	-10.0	-3.0	-2.0	-10.0	-23.8	-15.8	-23.8
5V	13.9	14.4	14.7	56.0	54.9	61.2	13.6	12.4	11.7	-10.0	-8.0	-8.0	-11.0	-23.9	-21.9	-24.9
6H	14.1	14.9	14.6	59.0	56.4	55.5	13.9	12.3	10.9	-8.0	0.0	0.0	-8.0	-22.1	-14.1	-22.1
7V	13.7	14.5	15.0	48.4	49.6	51.4	13.7	12.8	11.4	-7.0	-7.0	-9.0	-10.0	-20.7	-22.7	-23.7
H ave values	13.9	14.6	14.3	60.8	60.2	63.8	13.7	12.2	10.7	-9.5	-1.5	-1.3	-9.0	-23.4	-15.2	-22.9
V ave values	13.9	14.5	14.8	53.3	52.5	57.5	13.7	12.4	11.6	-9.0	-7.0	-9.8	-10.5	-22.9	-23.6	-24.4
max values	14.1	14.9	15.0	62.3	64.3	71.8	13.9	12.8	11.7							

7.2. Antenna Gain 18°-90°

RN	6.2GHz	6.7GHz
Peak antenna Gain(dBi)	14.9	15
18-90° Peak antenna Gain(dBi)	-4.5	-2.72
Deviation	-19.4dBc	-17.72dBc
Max EIRP(dBm)	36	36
18-90° Max EIRP(dBm)	16.6	18.28

7.3. Antenna Azimuth Beamwidths



7.4. Antenna Elevation Beamwidths

