

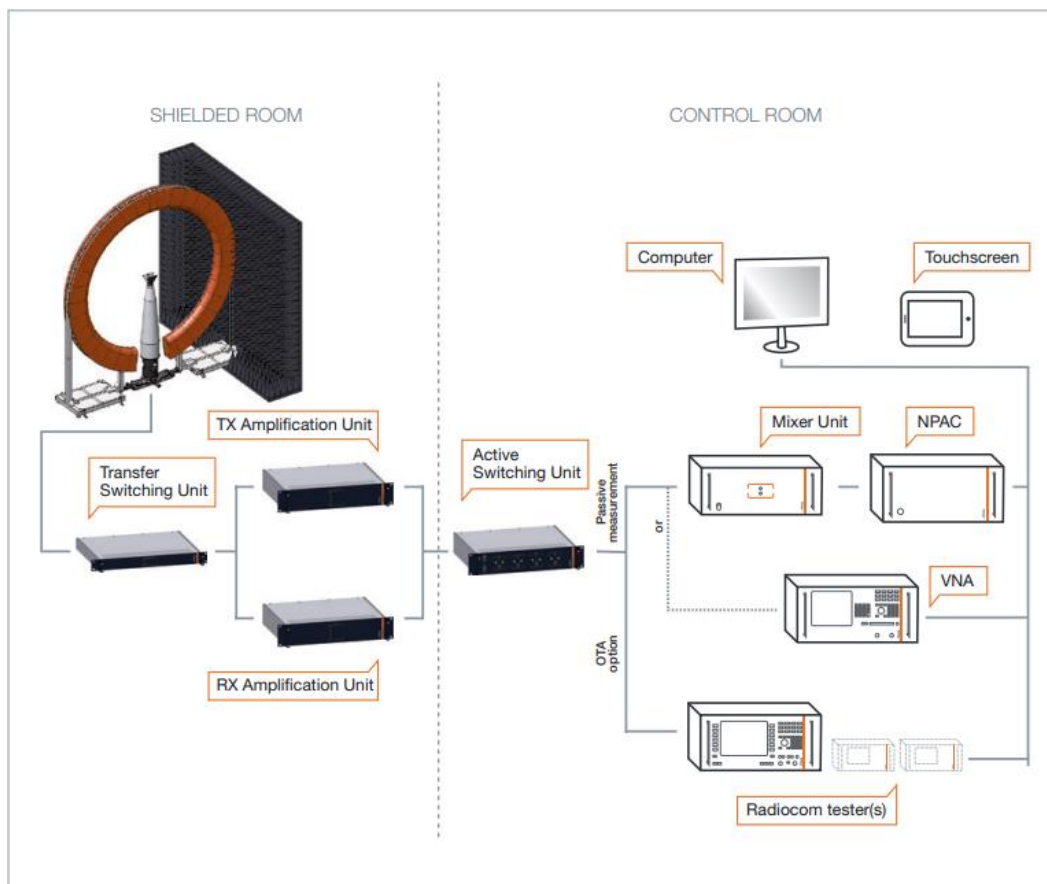
G1RN3AHB012

Antenna Test Report

For Tarana Part Number: 31-0162-200 rev 2

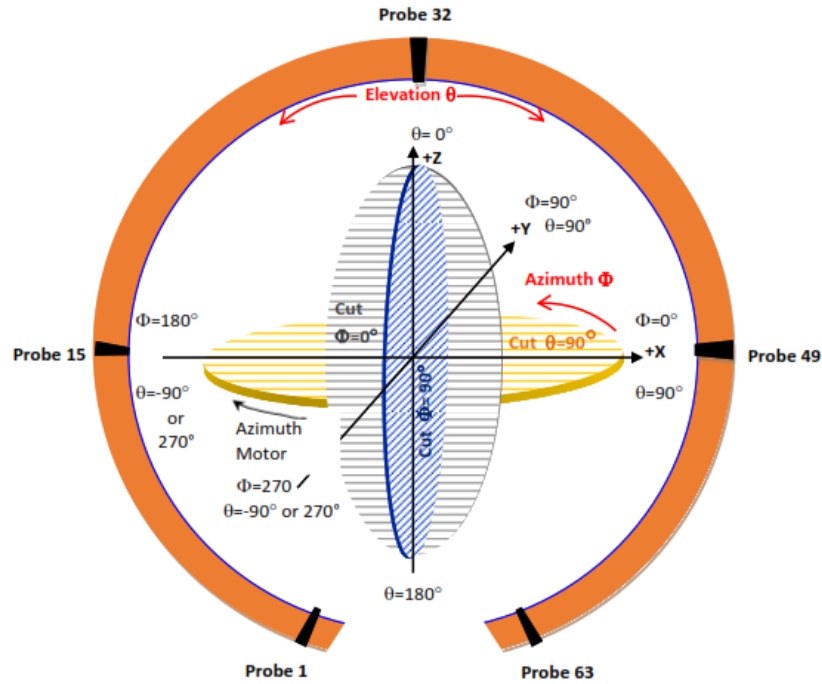
1. Antenna Test Lab Information

- 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:



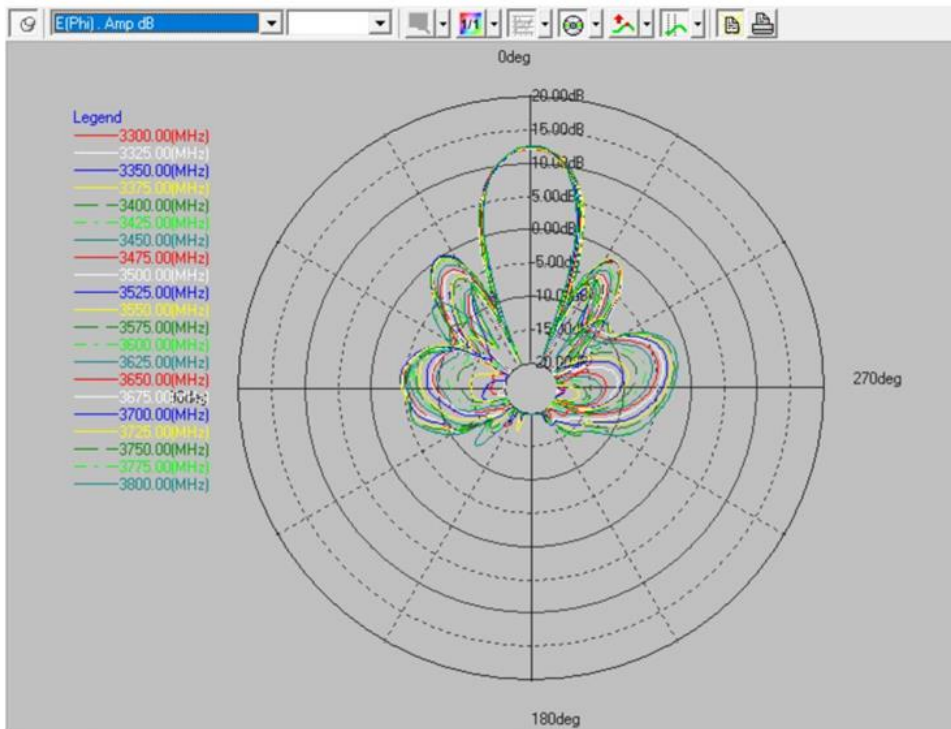
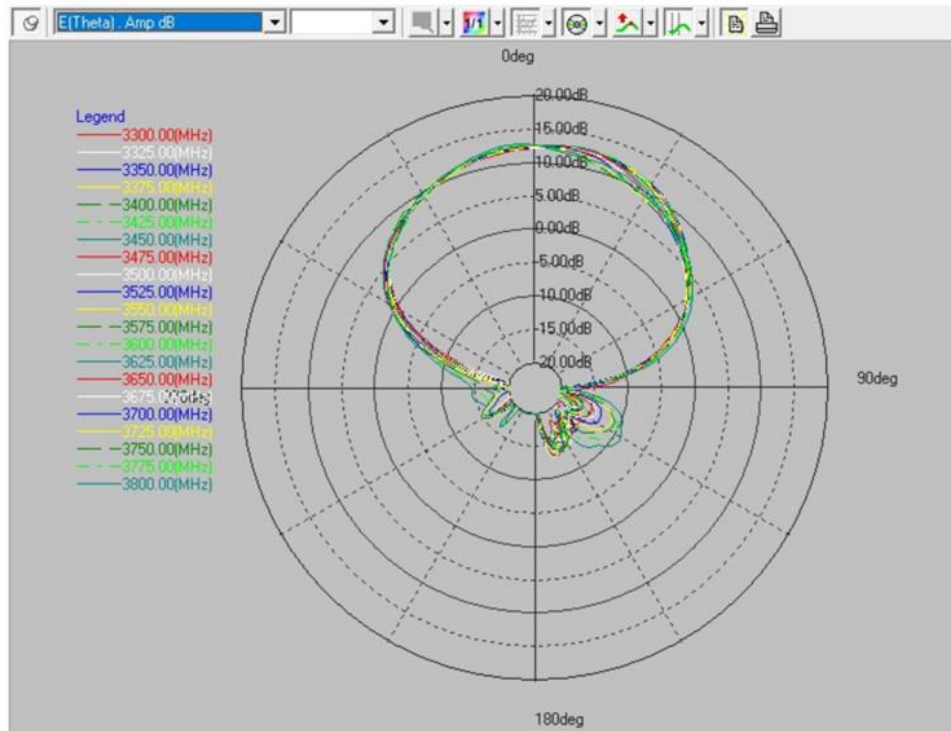
3. Measurement setting – MVG SG64 Coordinate System

MVG SG64 Coordinate System

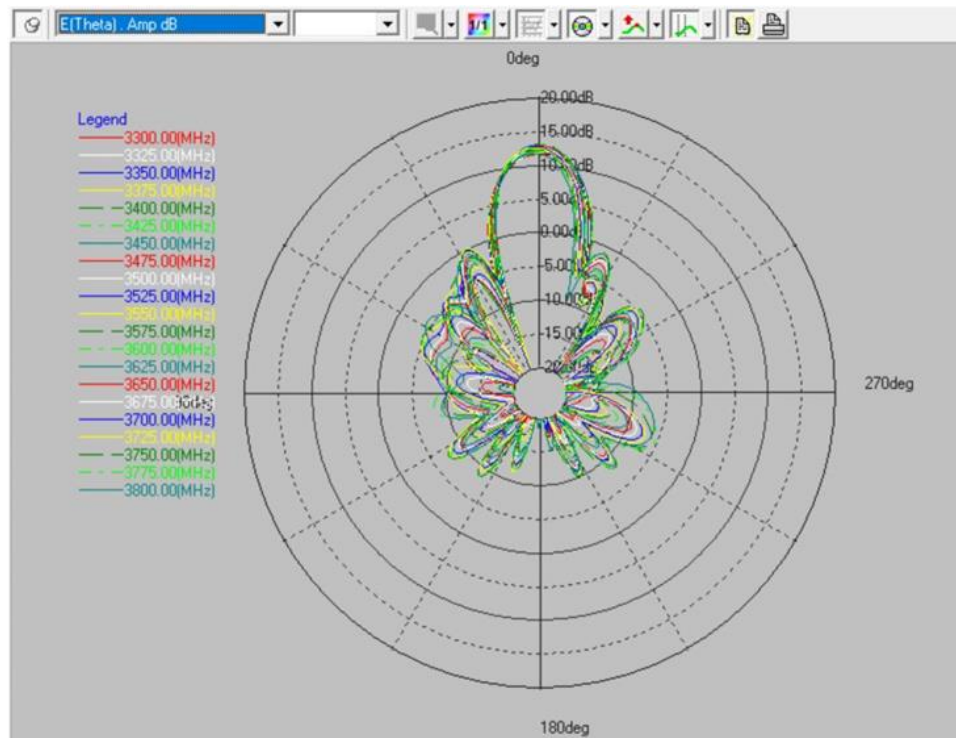
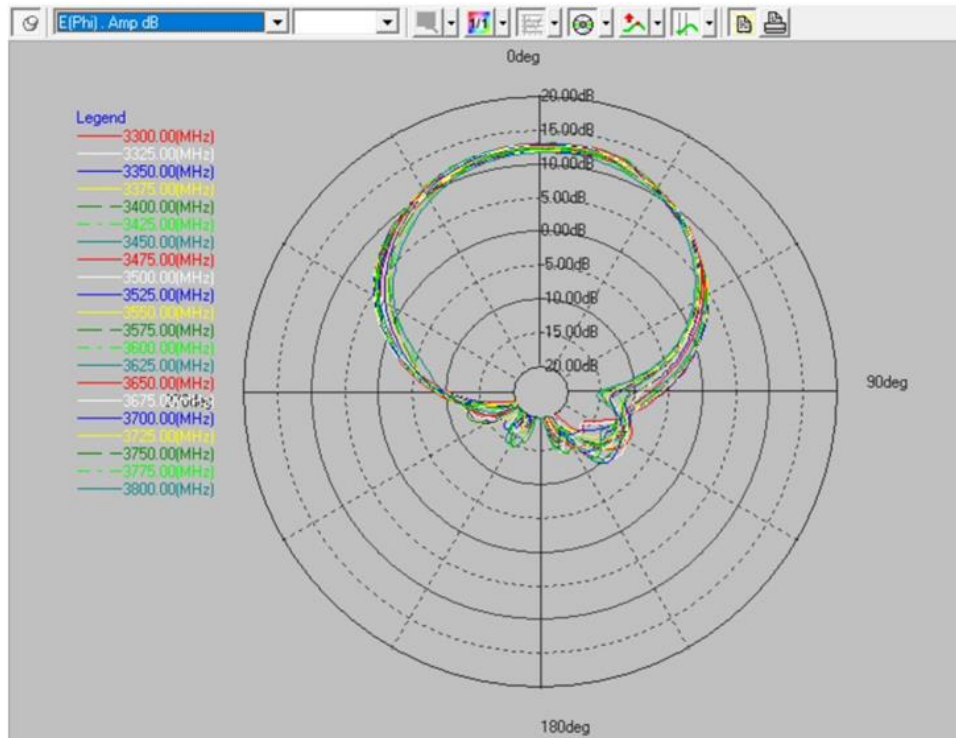


4. 2D Patterns

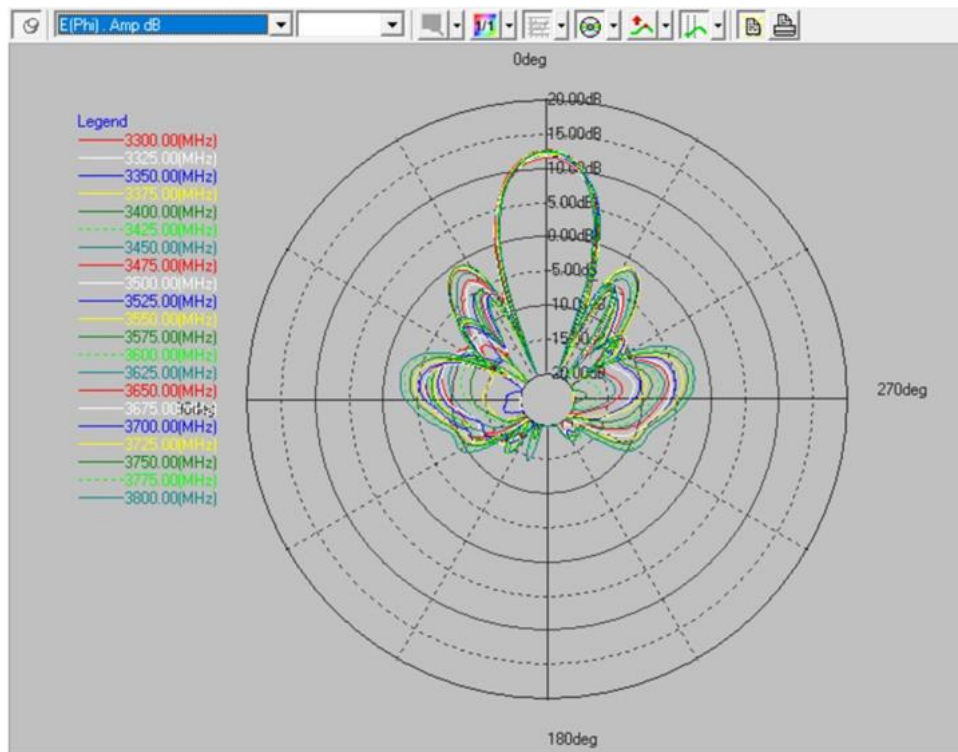
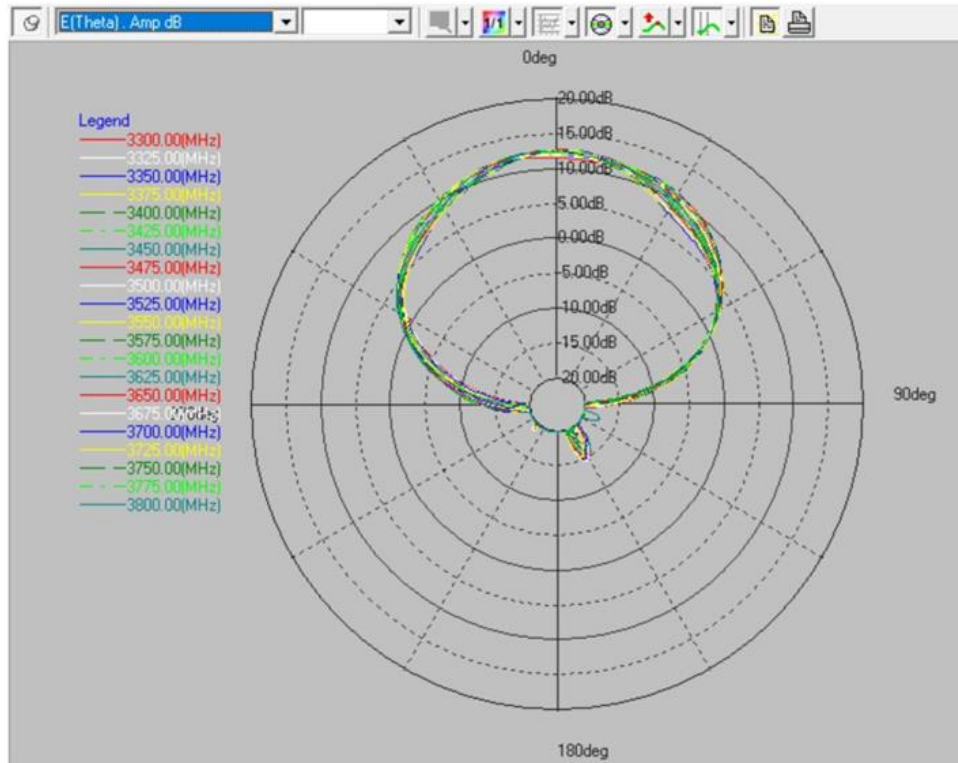
4.1. Antenna 0H Azimuth and Elevation Patterns, 3.3 to 3.8GHz



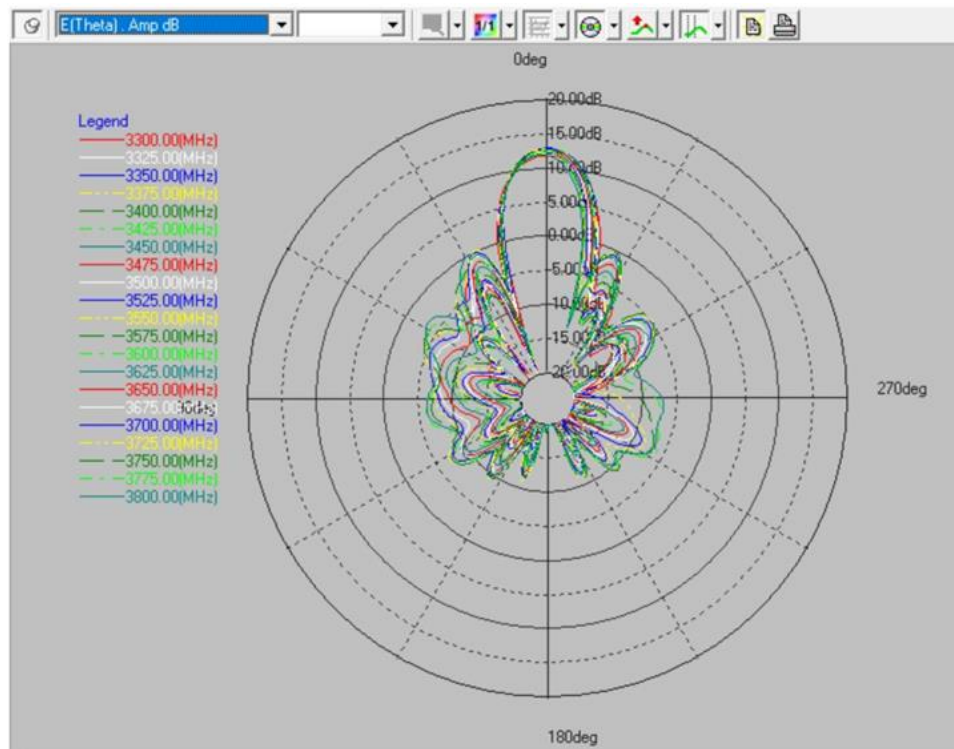
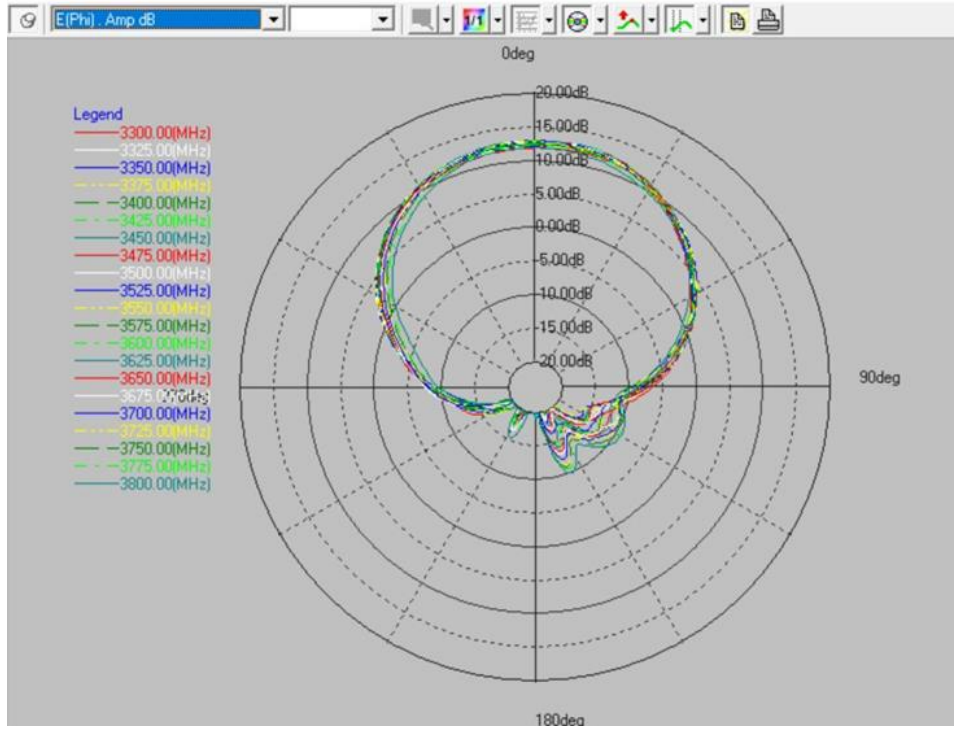
4.2. Antenna 1V Azimuth and Elevation Patterns, 3.3 to 3.8GHz



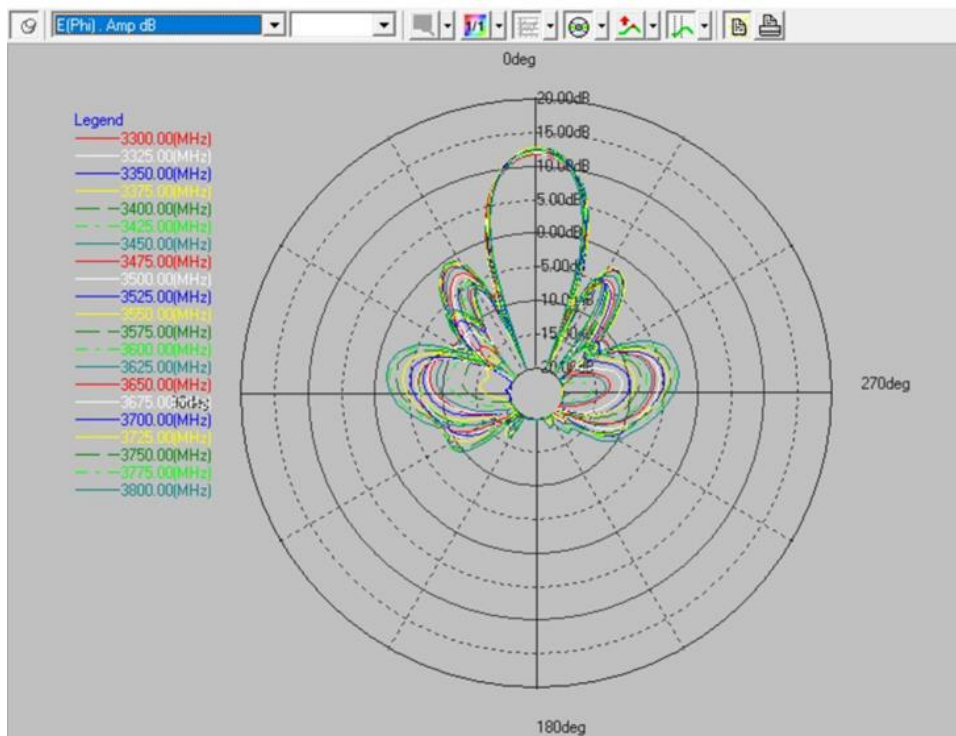
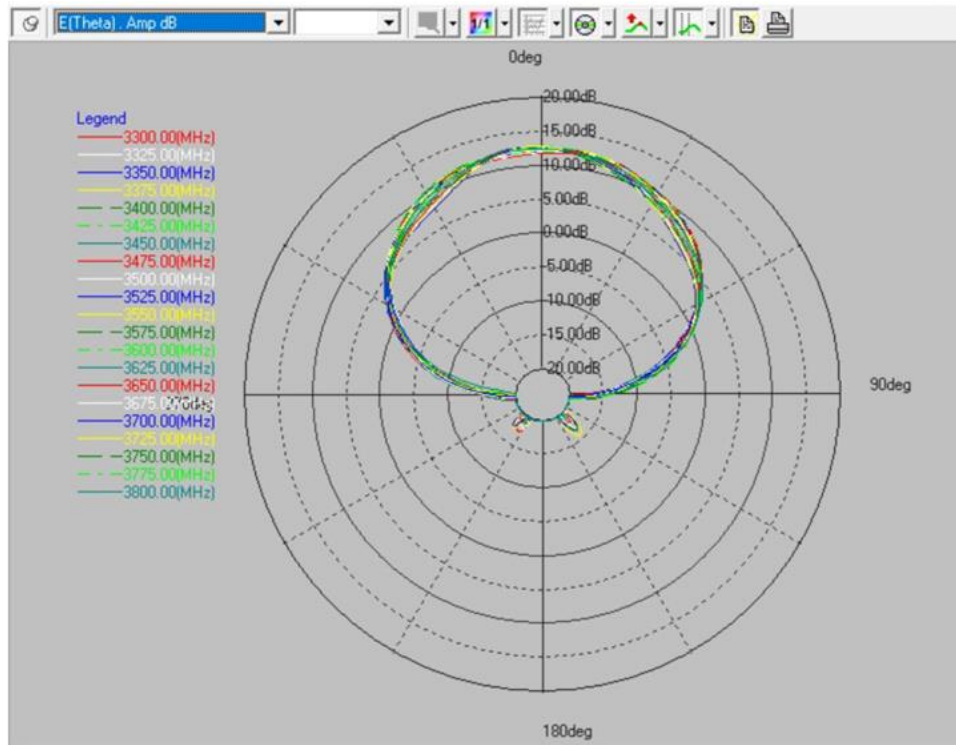
4.3. Antenna 2H Azimuth and Elevation Patterns, 3.3 to 3.8GHz



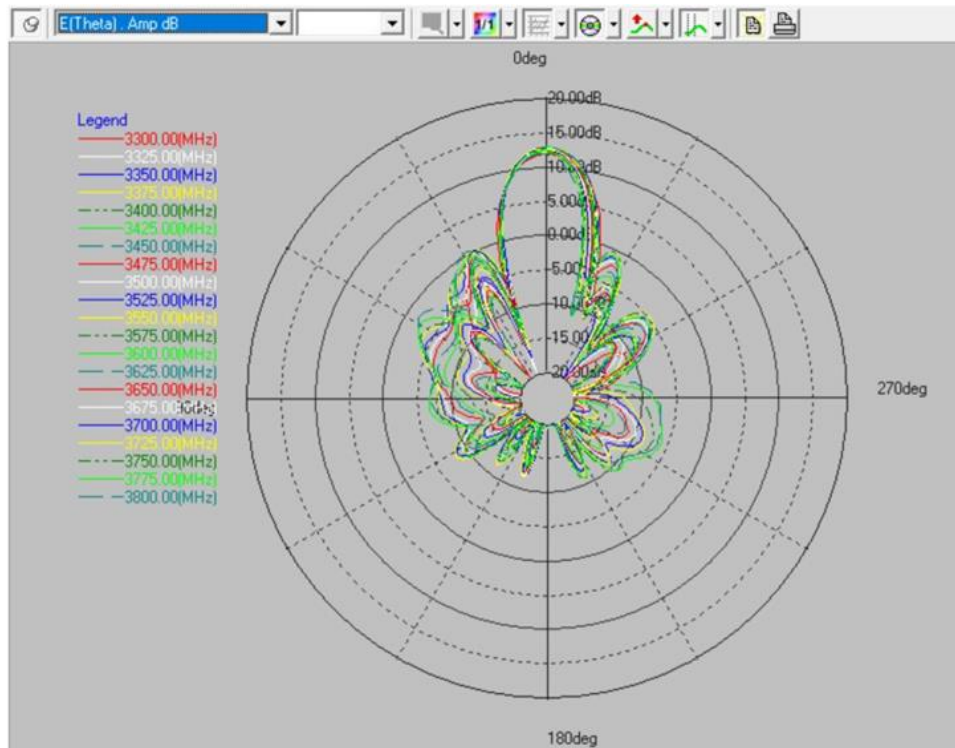
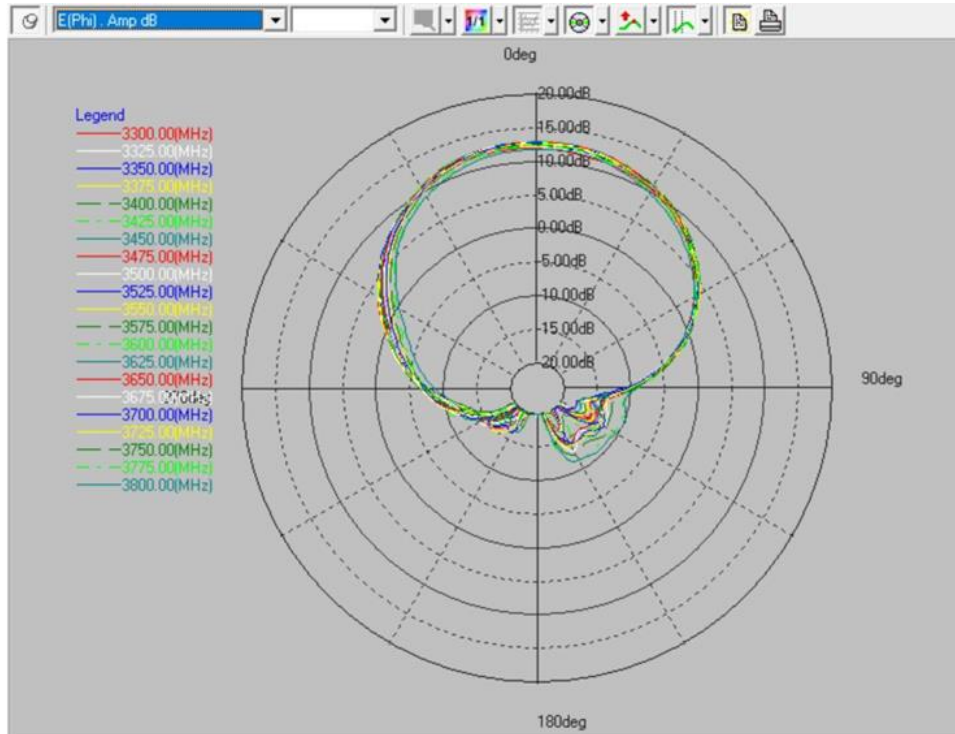
4.4. Antenna 3V Azimuth and Elevation Patterns, 3.3 to 3.8GHz



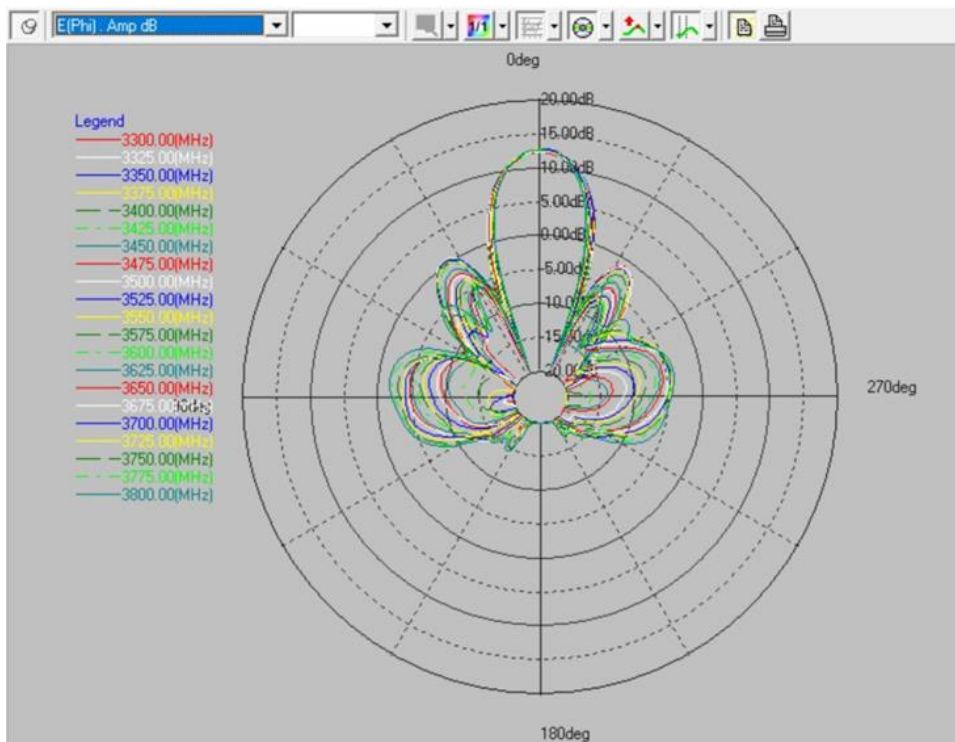
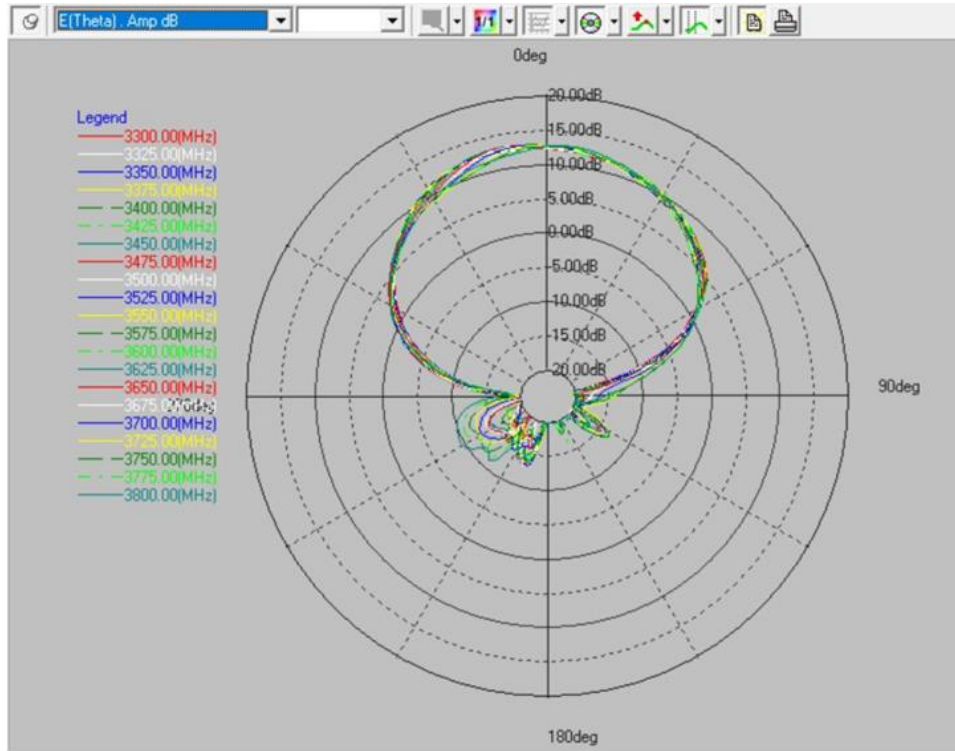
4.5. Antenna 4H Azimuth and Elevation Patterns, 3.3 to 3.8GHz



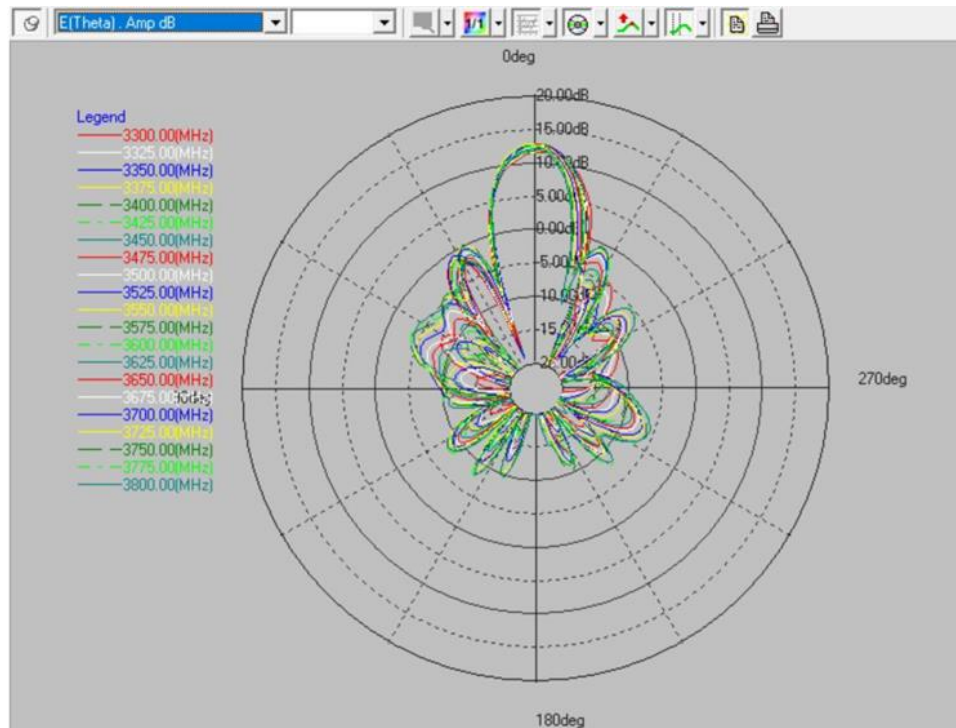
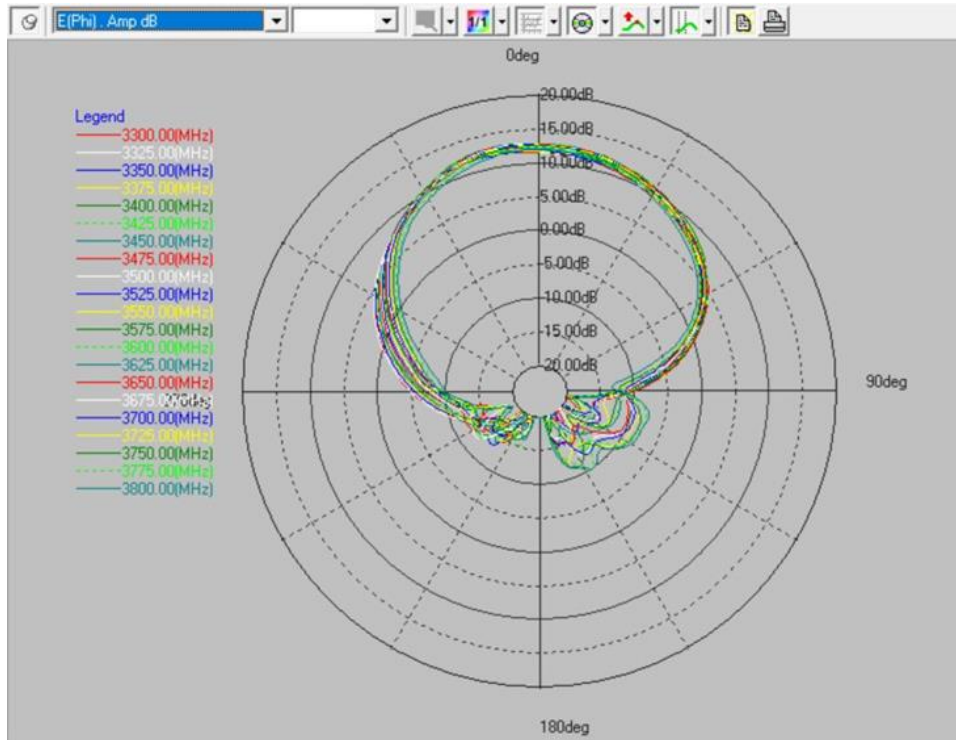
4.6. Antenna 5V Azimuth and Elevation Patterns at, 3.3 to 3.8GHz



4.7. Antenna 6H Azimuth and Elevation Patterns at, 3.3 to 3.8GHz



4.8. Antenna 7V Azimuth and Elevation Patterns at, 3.3 to 3.8GHz



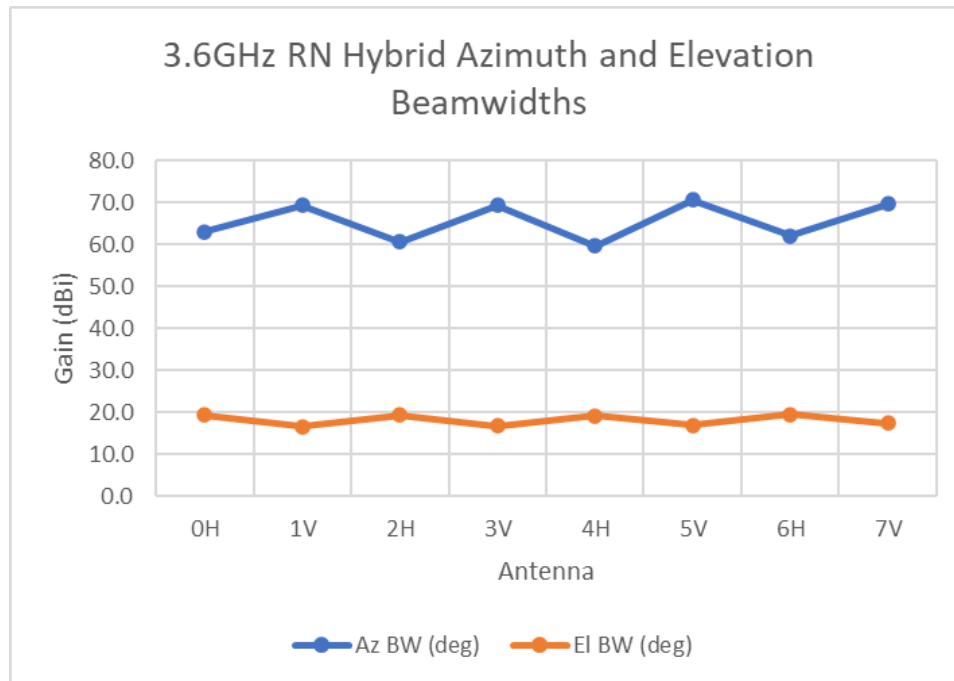
5. Summary

5.1. Antenna Gain Summary

3.6GHz Hybrid RN Antenna Pattern Measurements Results at 3.6GHz Summary:								
The antenna boards are 31-0162-200 rev 2								
This data was measured in the chassis with EMI shield, Radome, and RF adapter board								
	Az Gain (dBi)	Az BW (deg)	El Gain (dBi)	El BW (deg)	Backlobe (dBi)	Xpol (dBi)	Backlobe (dBc)	Xpol (dBc)
0H	12.7	63.0	12.3	19.4	-10	-5.0	-22.7	-17.7
1V	13.0	69.3	12.9	16.7	-10	-5.0	-23.01	-18.0
2H	12.4	60.7	12.4	19.4	-15	-5.0	-27.4	-17.4
3V	12.7	69.4	12.7	16.9	-10	-6.0	-22.71	-18.7
4H	12.5	59.6	12.5	19.3	-16	-5.0	-28.54	-17.5
5V	12.7	70.6	12.7	17.0	-10	-6.0	-22.74	-18.7
6H	12.9	62.0	12.6	19.5	-10	-4.0	-22.88	-16.9
7V	12.7	69.7	12.6	17.5	-8	-4.0	-20.73	-16.7
H ave values	12.6	61.3	12.5	19.4	-12.8	-4.8	-25.4	-17.4
V ave values	12.8	69.7	12.7	17.0	-9.5	-5.3	-22.3	-18.0

Maximum Antenna Gain: 13dBi

5.2. Antenna Azimuth and Elevation Beamwidths



5.3. Antenna Backlobe

