Antenna Test Report

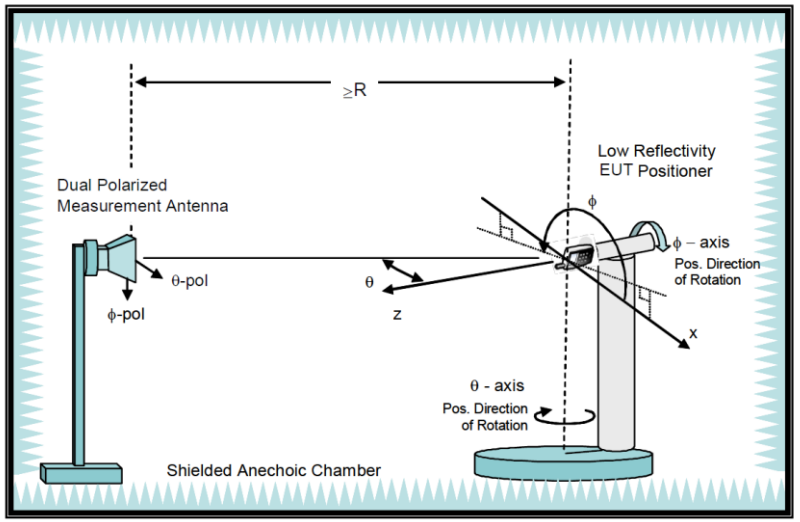
Introduction

This report provides antenna passive measurement results which include:

- General Information
- Antenna Measurement System Information
- DUT Information
- Test Result (Antenna Peak Gain)
- Test Result 2D/3D Radiation Pattern and Raw Data

General Information

- Antenna Manufacture: Pegatron Corp.
- Test Date: 20231116
- Test Engineer: Beven Hsieh
- Measurement System: ETS-Lindgren AMS-8500



Test Procedure

1. Place the device to be tested on the fixture and align it with the center of the chamber.
2. Connect the antenna cable to the RF connector of the chamber.
3. Use the SW to configure parameters (antenna name, frequency points, measurement angles, antenna dimension), and then run the test SW (wave studio).
4. By phi from 0°to 360° and theta from 0° to 180° with a step Size of 15 degrees, get the 3D data, including efficiency, peak gain, 2D and 3D radiation patterns.
5. This is far field test for antenna verification. Gain is derived directly through spatial averaging of VNA S21 measurements
6. This is passive measurement, which means the device is off and not in any operating mode.

DUT Information

- Antenna System information

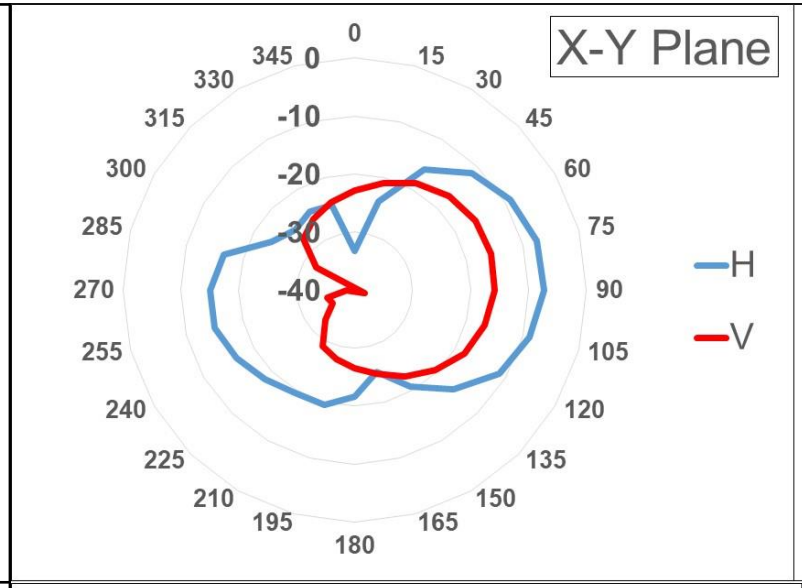
Antenna NO.	Support Function	Antenna Type	Connector Type
Bezel ANT	LTE, GPS, WLAN, Bluetooth	PIFA Type	Spring

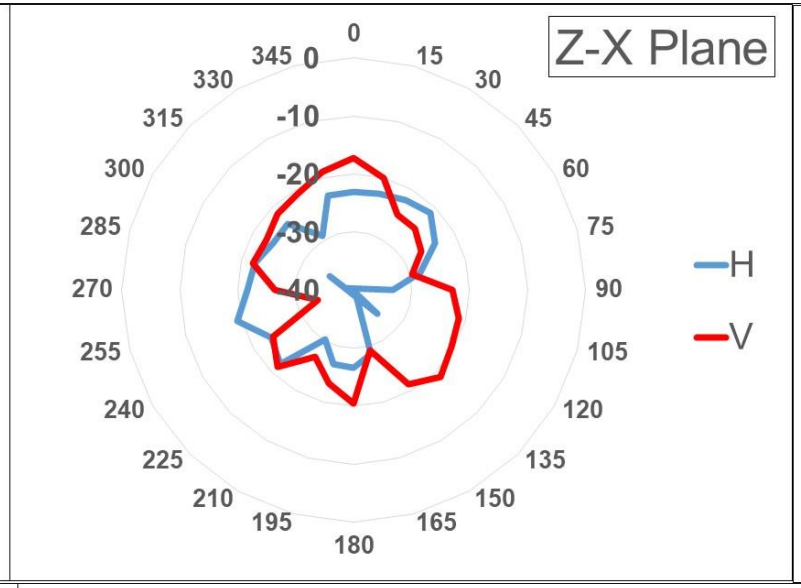
Test Result (Antenna Peak Gain)

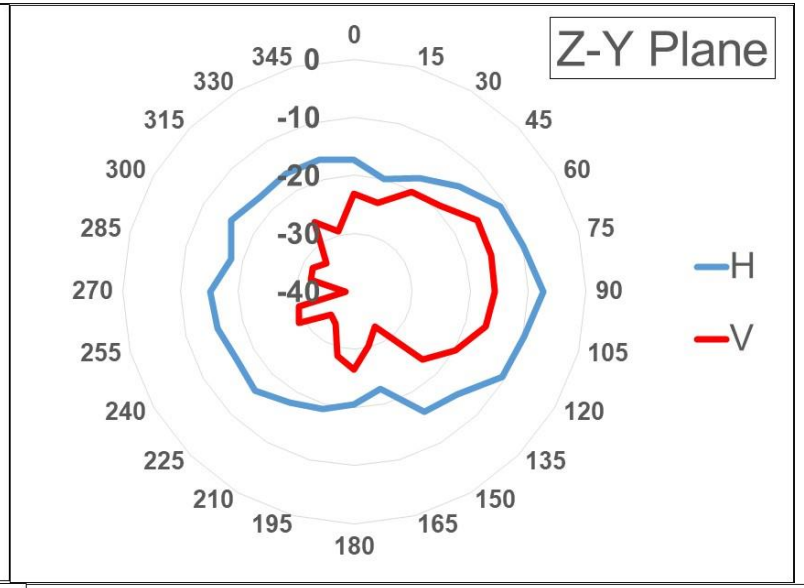
Operating Mode	Channel	Frequency(MHz)	Peak Gain
LTE Band 2	L	1850	-6.3
	M	1880	-6.7
	H	1910	-7.2
LTE Band 4	L	1710	-6.7
	M	1732	-5.7
	H	1755	-5.6
LTE Band 12	L	699	-12.7
	M	707	-12.3
	H	716	-11.8
LTE Band 13	L	777	-12.1
	M	782	-12.2
	H	787	-12.6
LTE Band 17	L	704	-12.3
	M	710	-12.0
	H	716	-11.8
LTE Band 66	L	1710	-6.7
	M	1745	-5.6
	H	1780	-6.4
WLAN	2.4G	2450	-5.7
	UNII-1	5200	-6.0
	UNII-2a	5300	-6.3
	UNII-2c	5600	-6.5
	UNII-3	5785	-7.2

Test Result 2D/3D Radiation Pattern

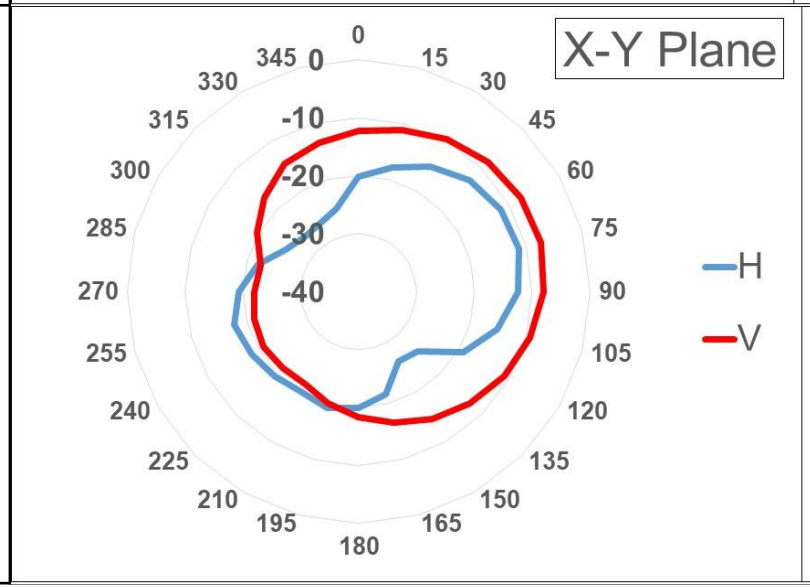
LTE band 2-1880MHz

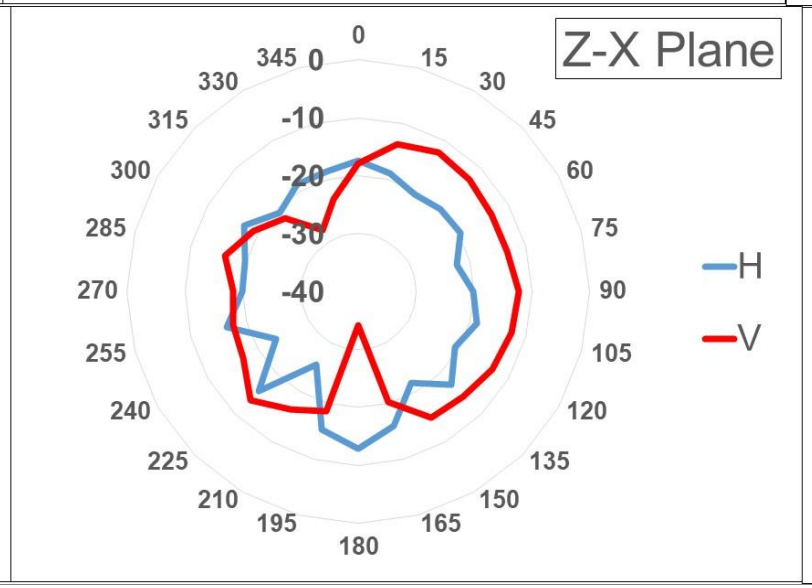


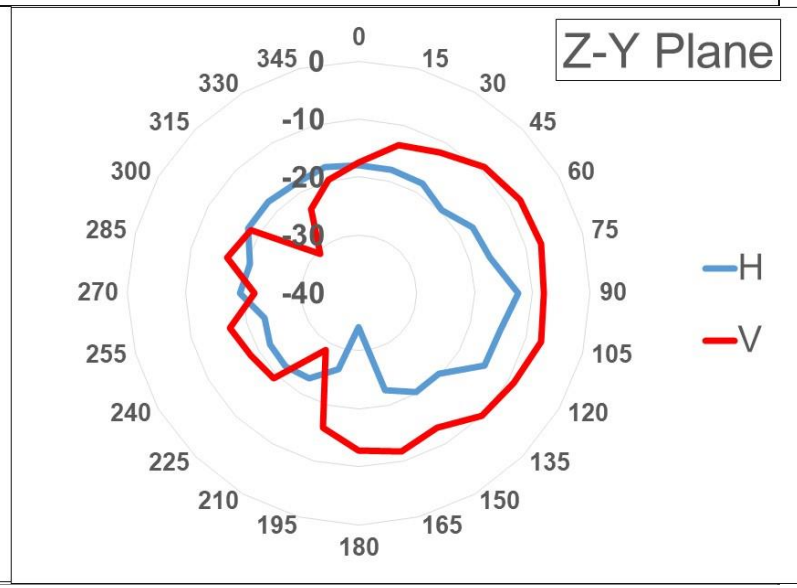




LTE band 4-1732MHz

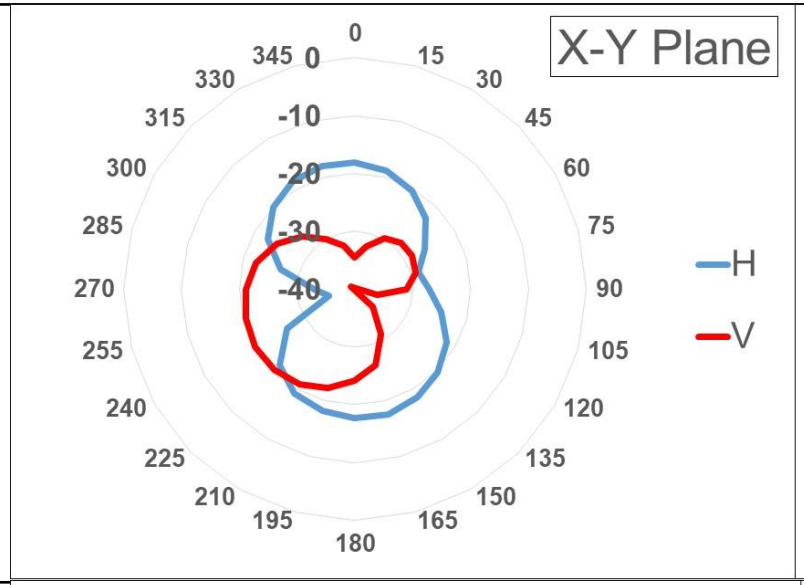


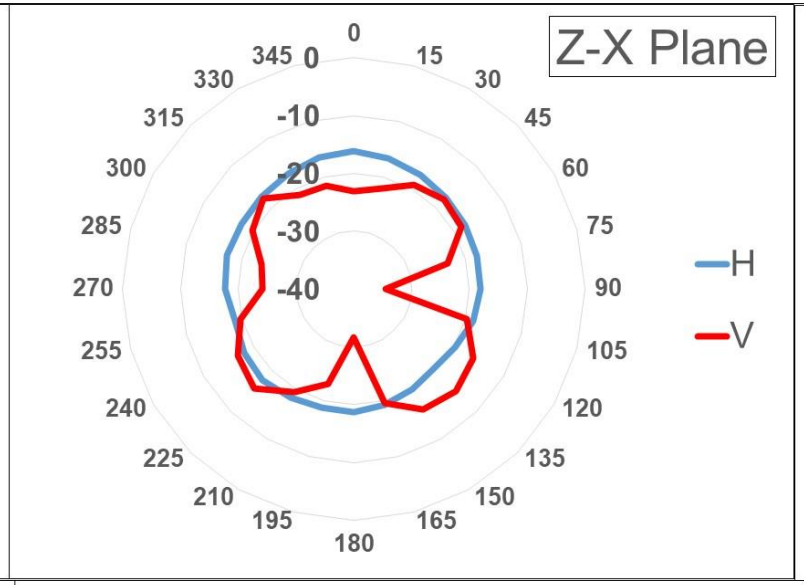


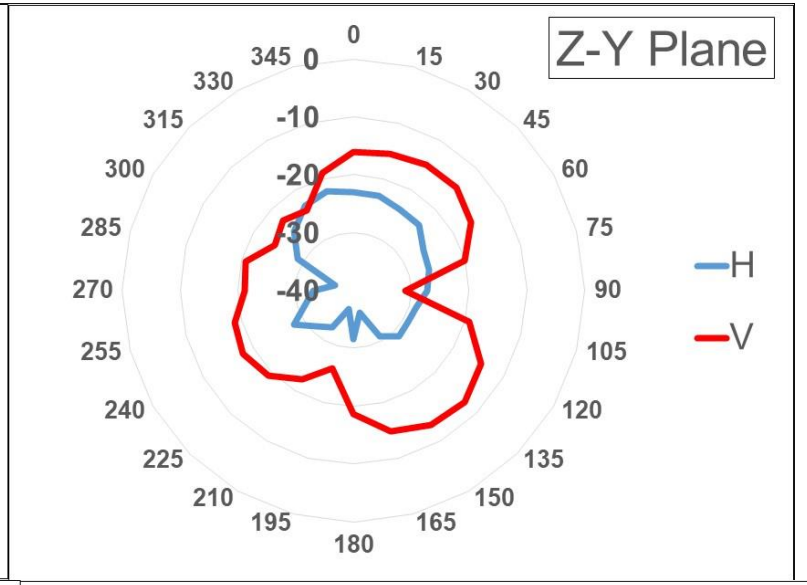


Test Result 2D/3D Radiation Pattern

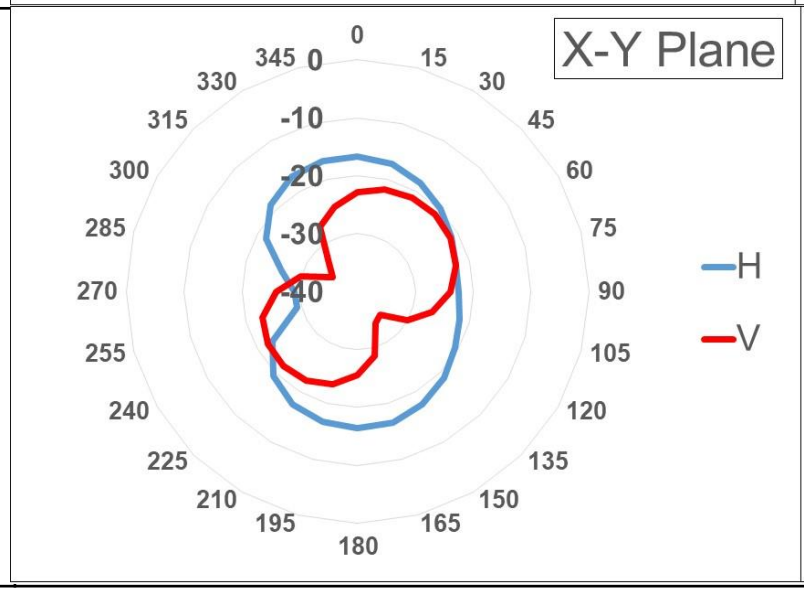
LTE band 12-707MHz

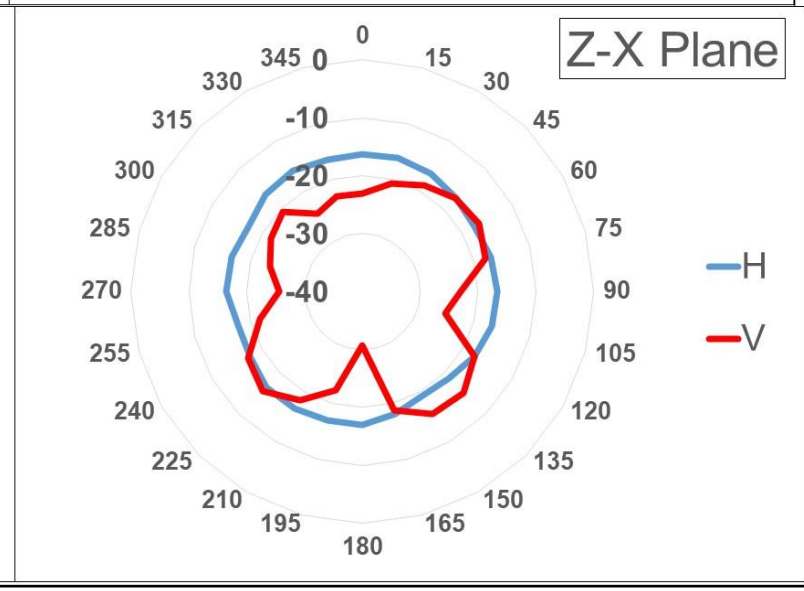


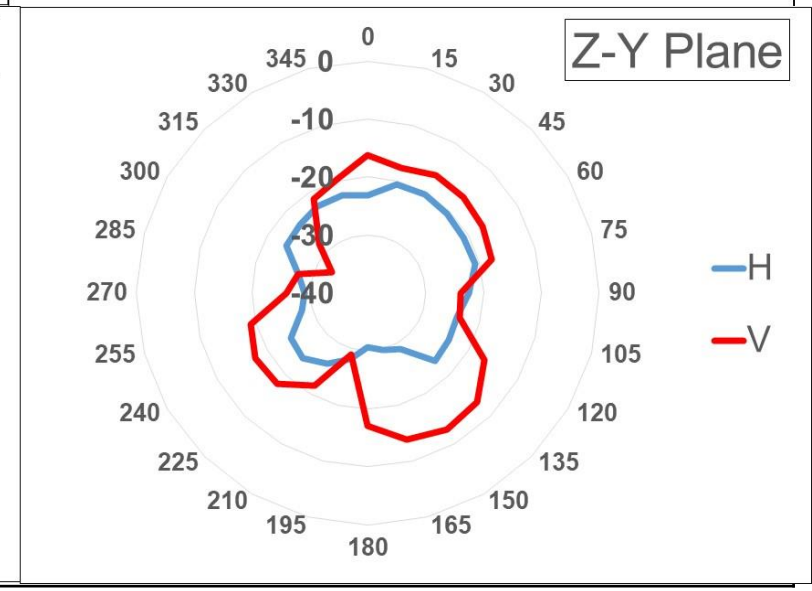




LTE band 13-782MHz

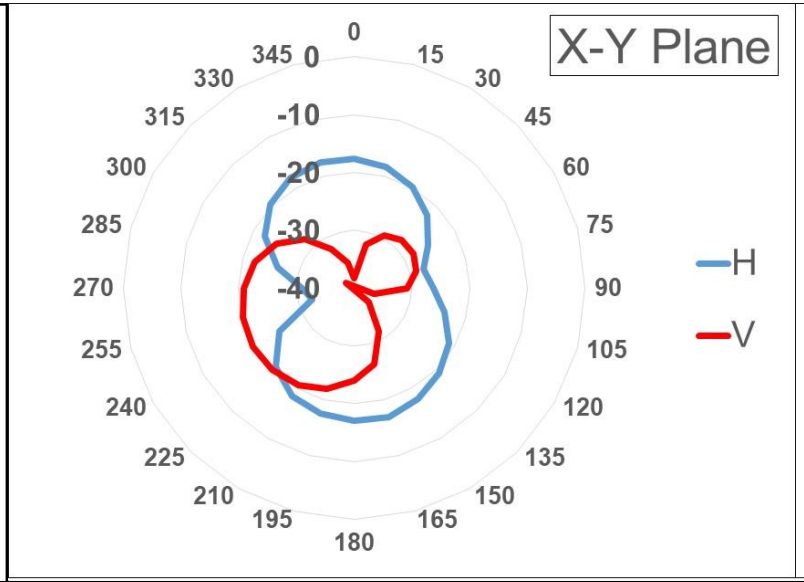


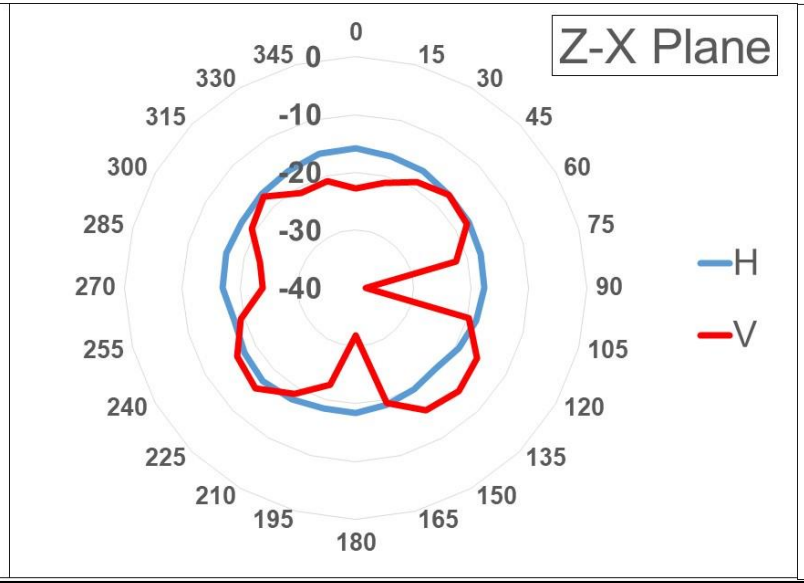


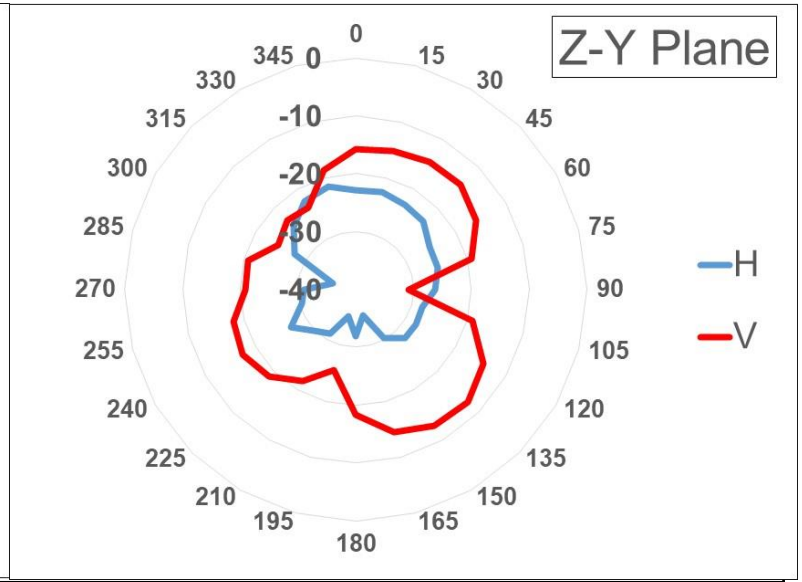


Test Result 2D/3D Radiation Pattern

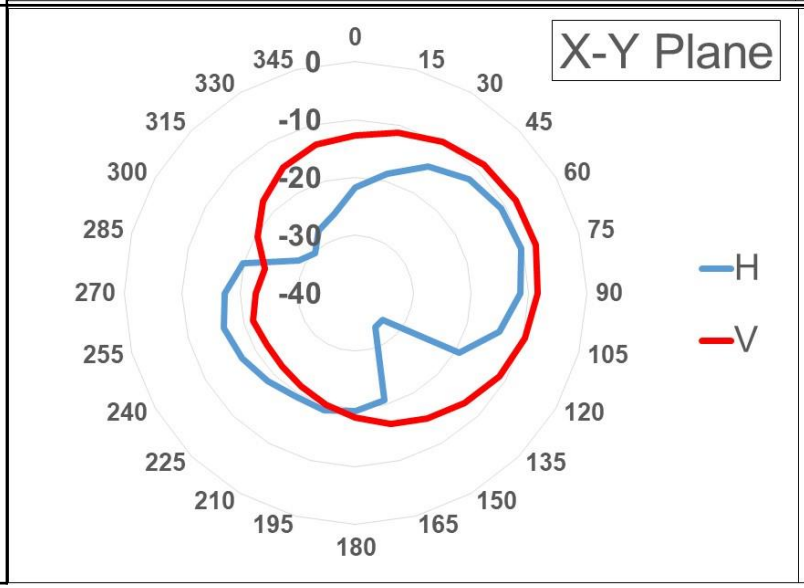
LTE band 17-710MHz

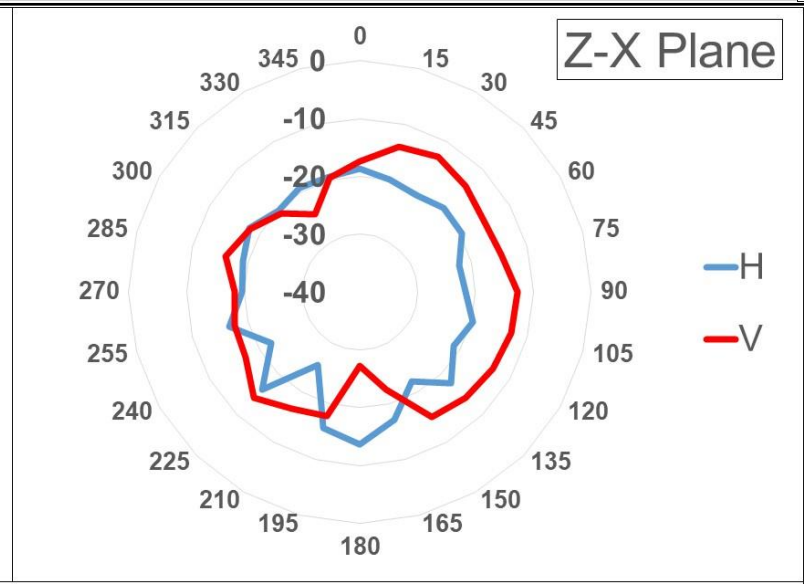


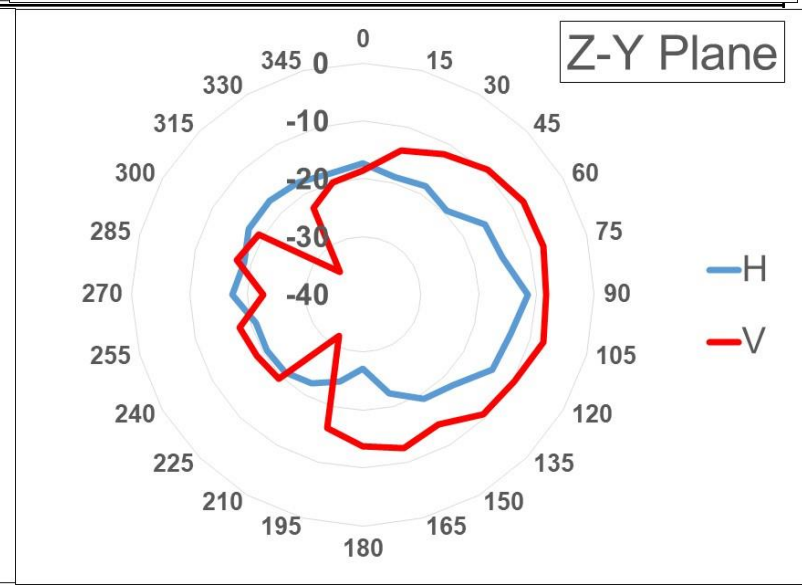




LTE band 66-1745MHz

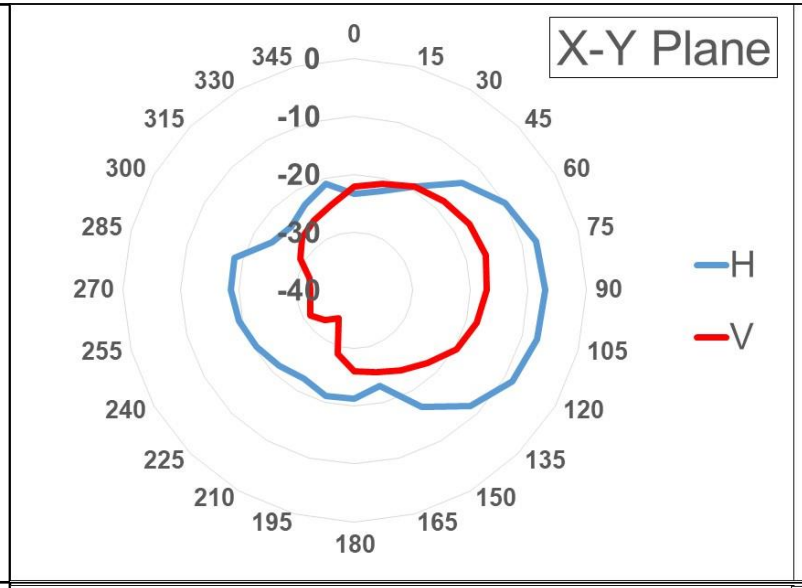


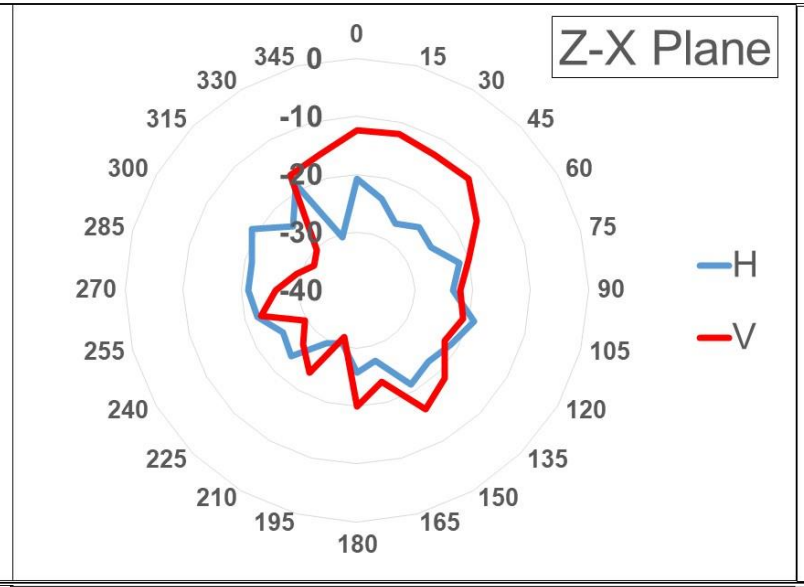


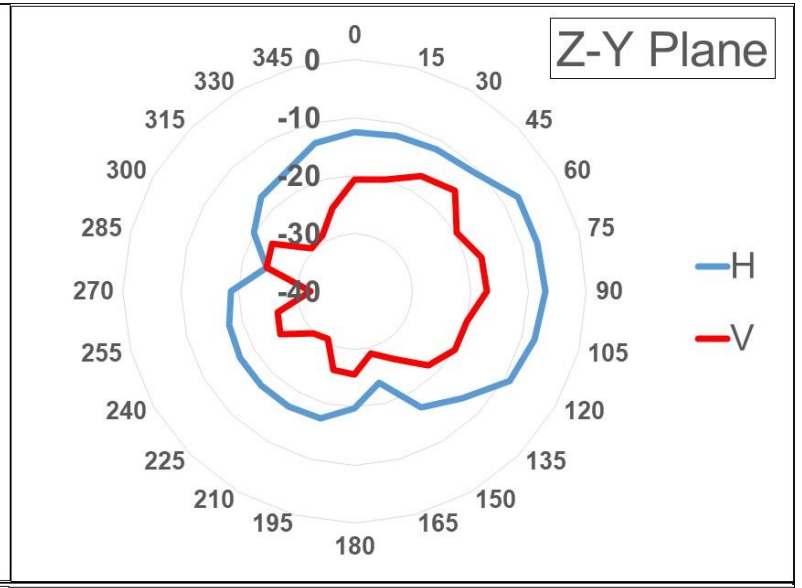


Test Result 2D/3D Radiation Pattern

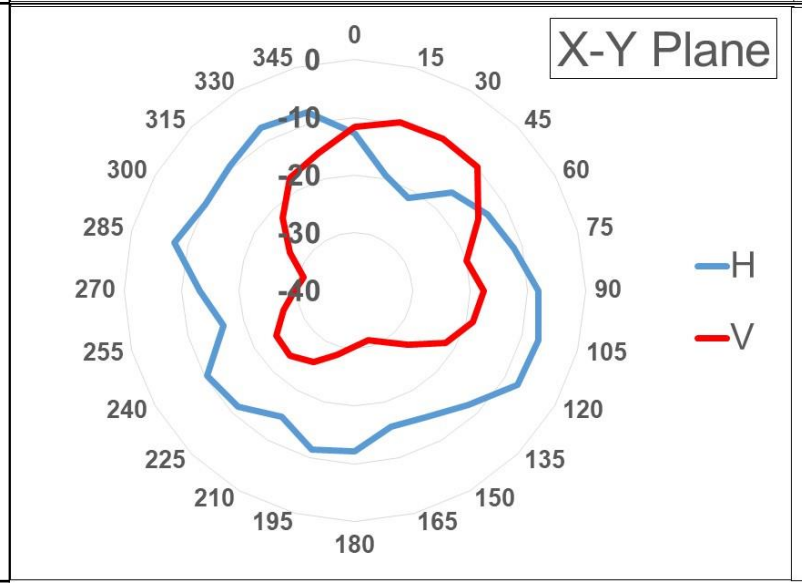
Wi-Fi 2G 2450MHz

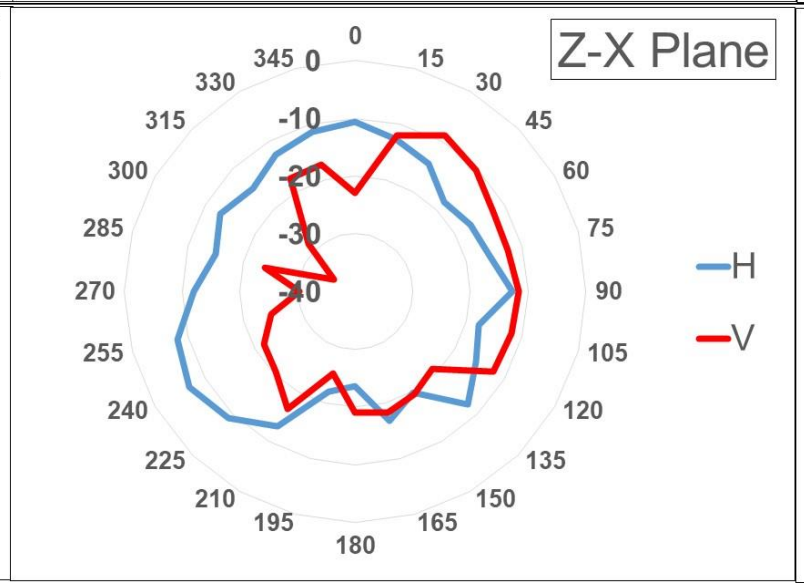


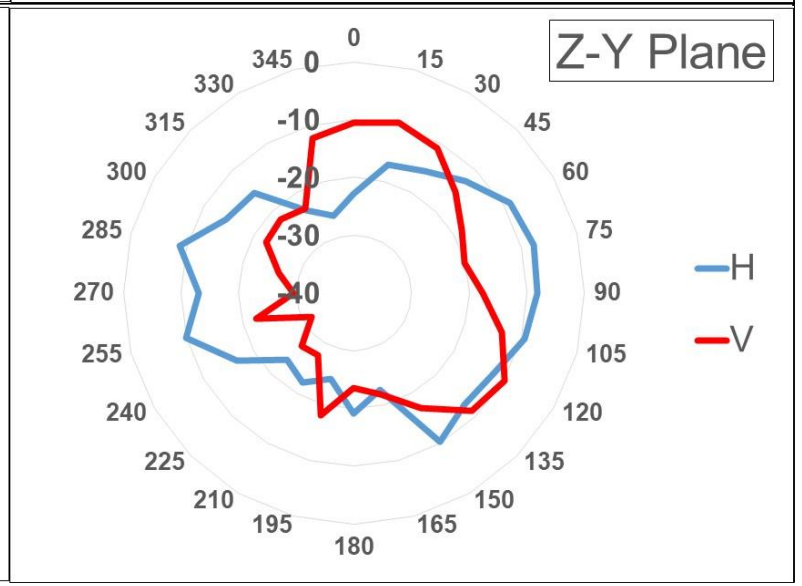




Wi-Fi UNII-1 5200MHz

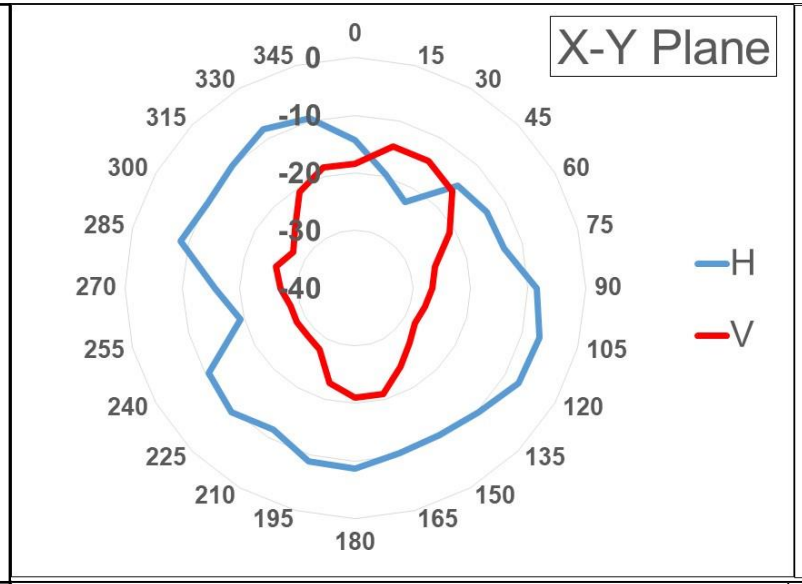


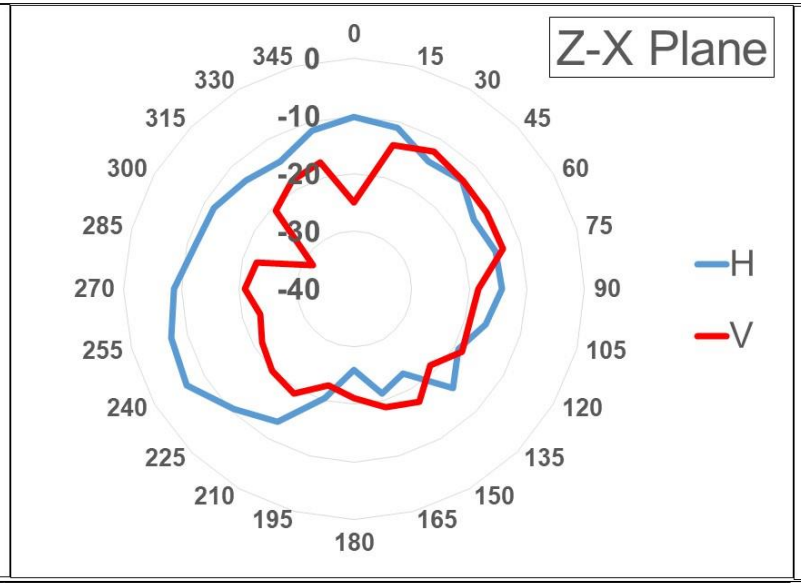


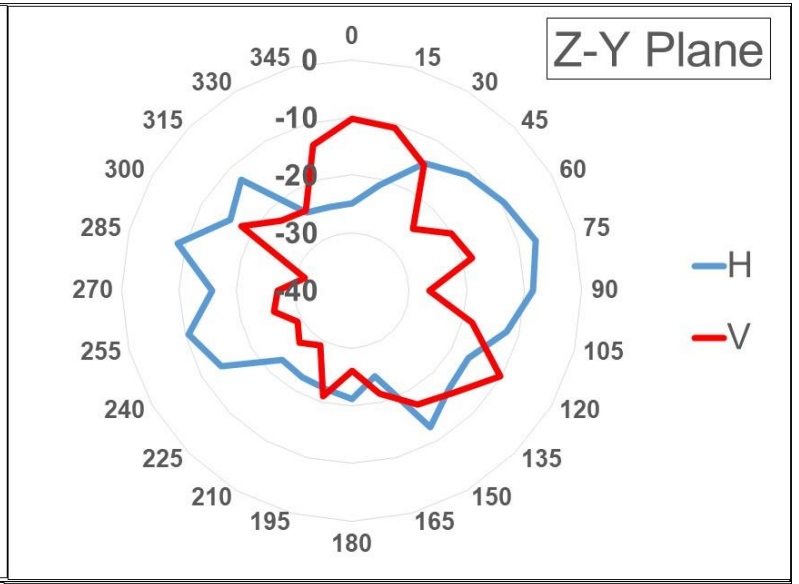


Test Result 2D/3D Radiation Pattern

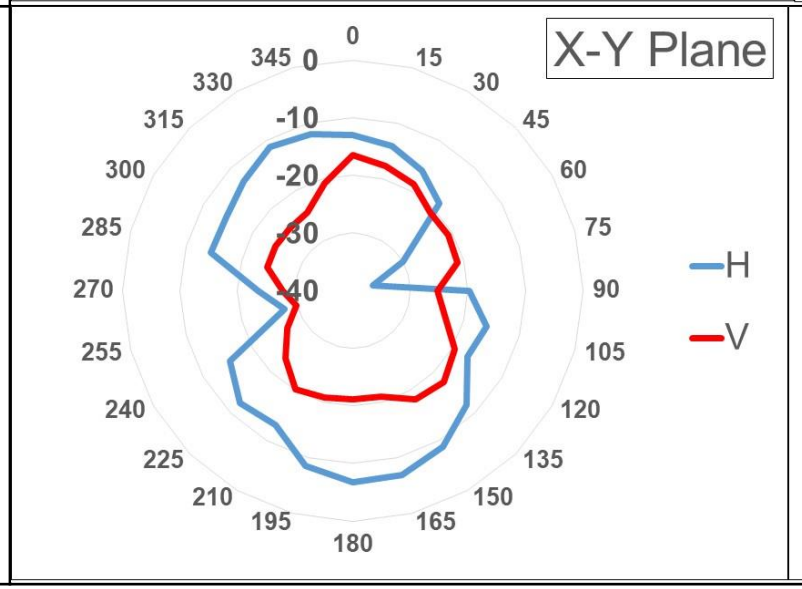
Wi-Fi UNII-2a 5300MHz

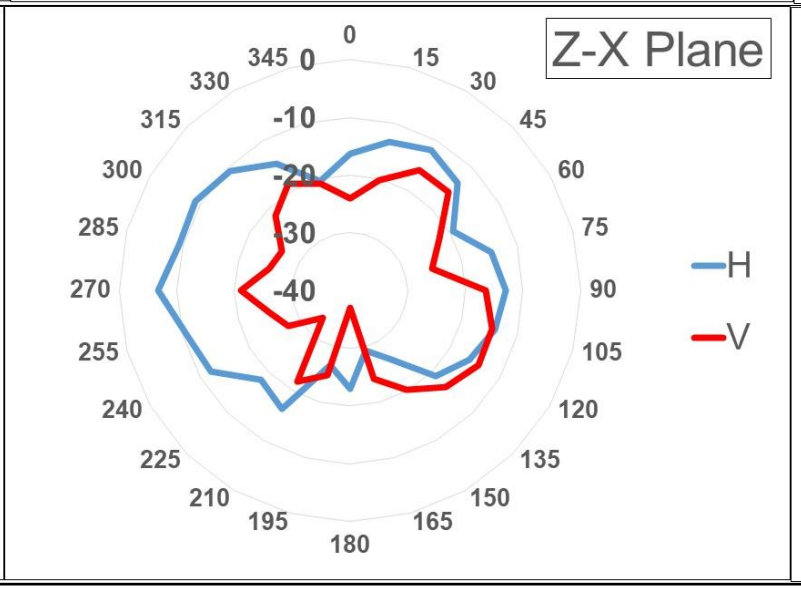


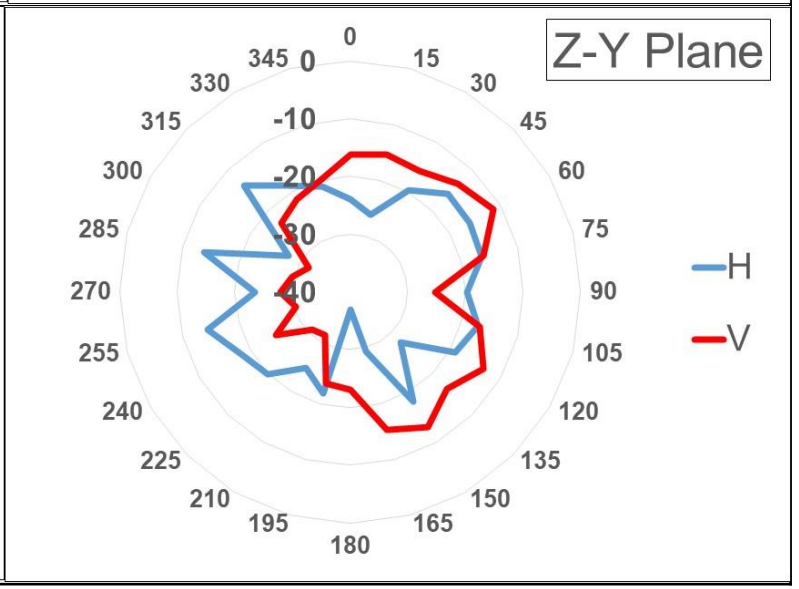


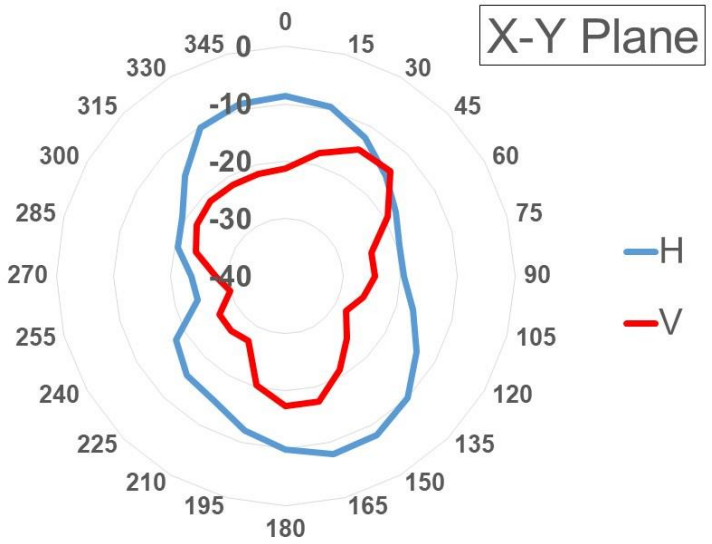
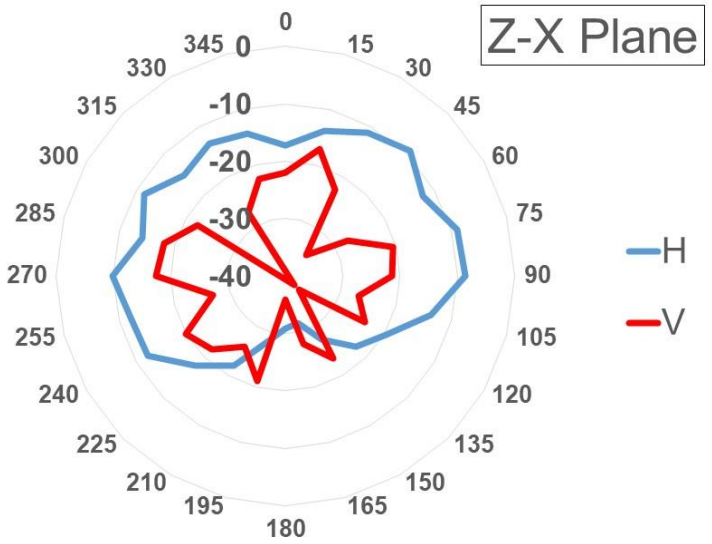
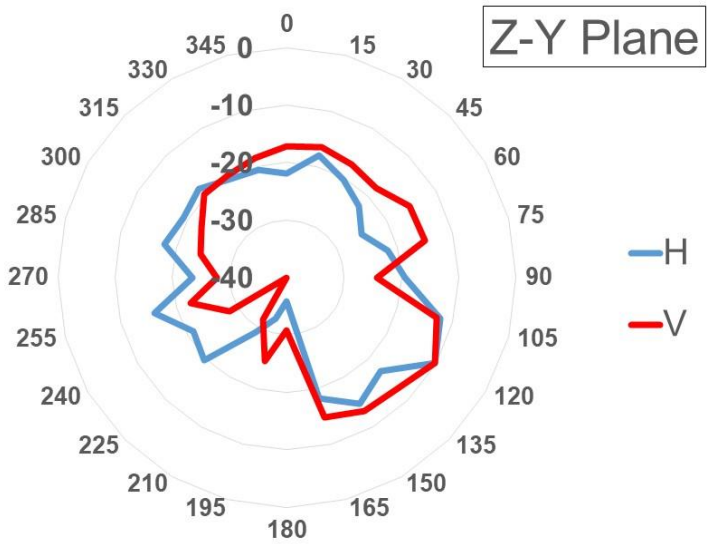


Wi-Fi UNII-2c 5600MHz







Test Result 2D/3D Radiation Pattern

Wi-Fi UNII-3 5785MHz