



WANSHIH ELECTRONIC CO.,LTD

Antenna Measurement Report

Produced By : Jacky

Date:2021/03/29



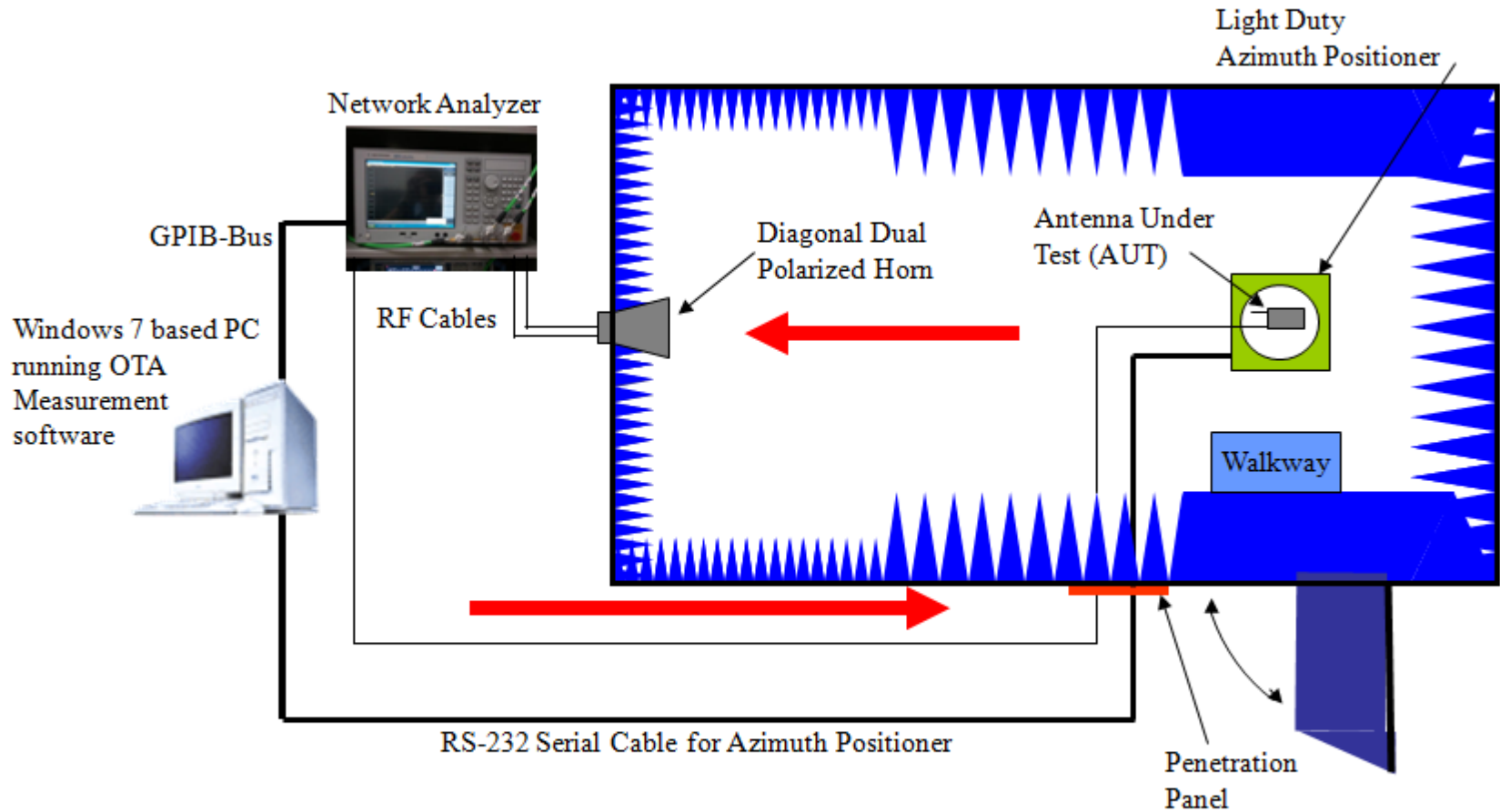
Outline

- Measurement Instrument & Anechoic chamber
- Equipment Under Test
- Antenna Placement
- Test Method
- Measurement Data
 - Return loss & Isolation
 - Efficiency & Gain Table
 - Radiation 2D & 3D Pattern



Measurement Instrument & Anechoic chamber

Passive mode



TEST INSTRUMENT :

1. AGILENT E5071C NETWORK ANALYZER
2. 3D OTA Chamber(Wanshih)

Anechoic Chamber External Dimensions

(L x W x H): 8m x 4m x 4m

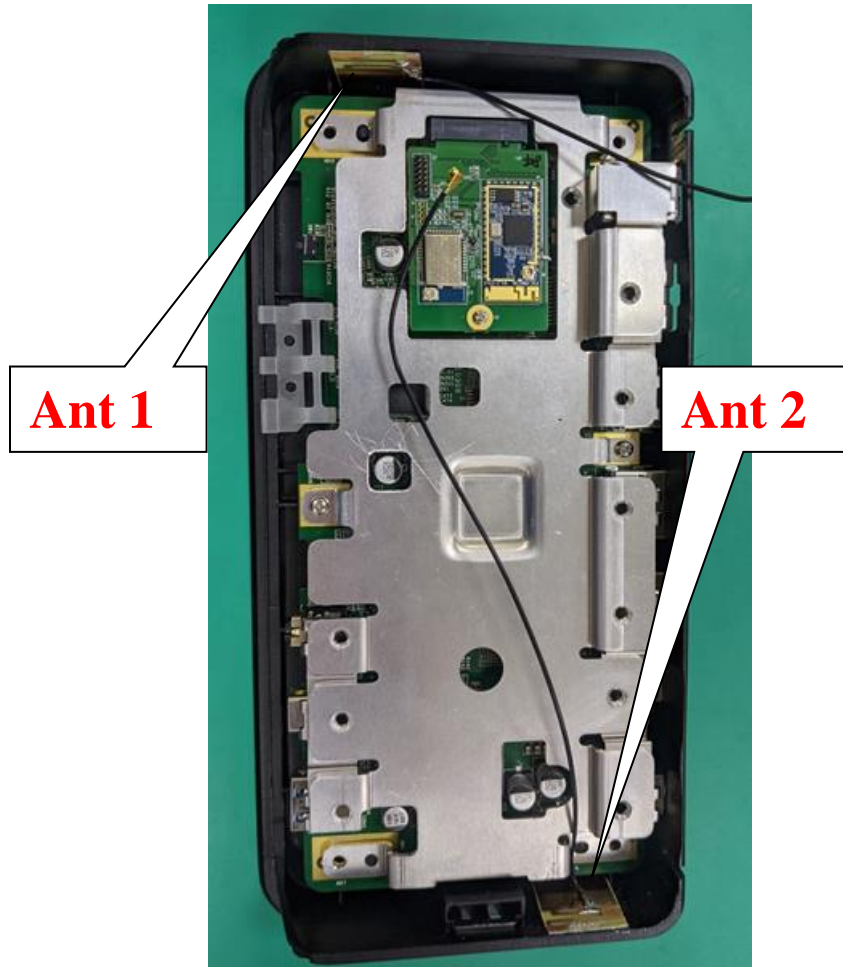


Equipment Under Test(EUT)





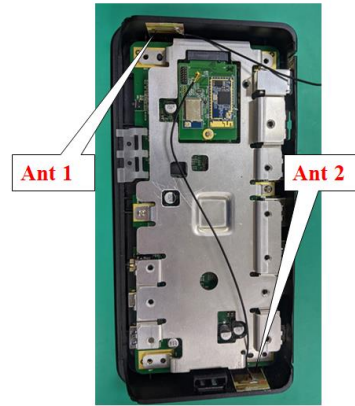
Antenna Placement





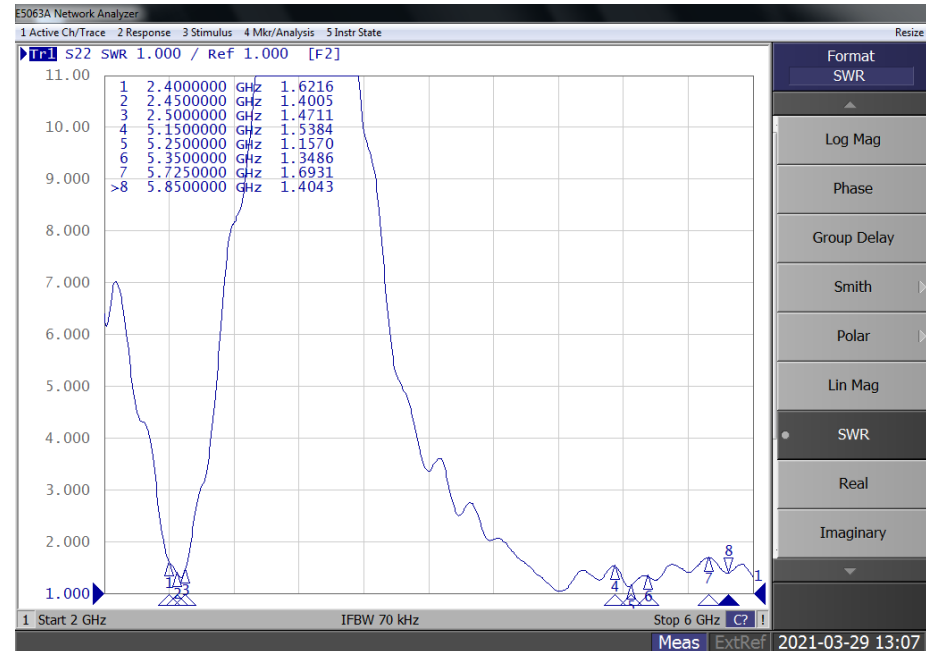
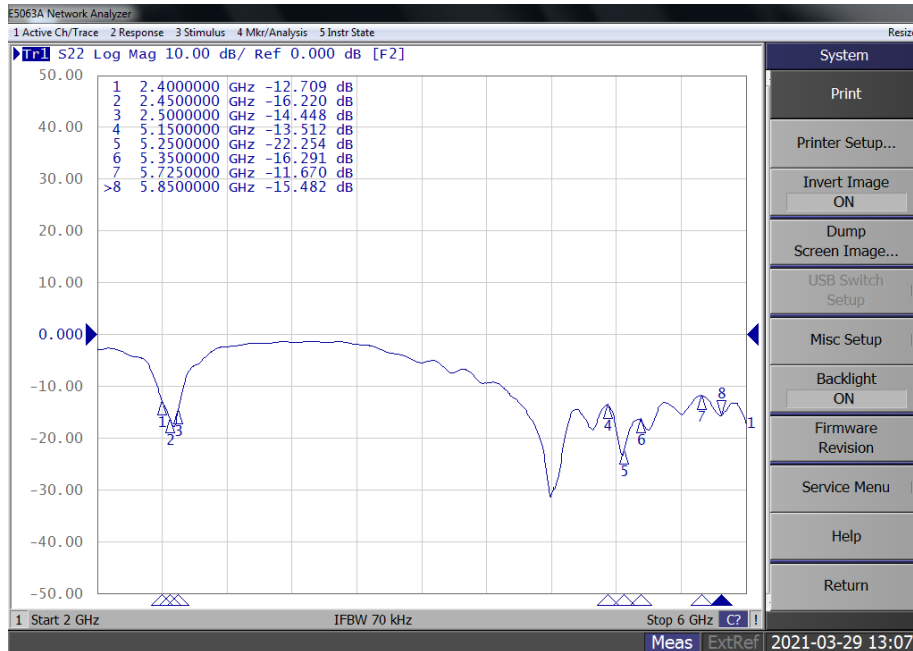
Return Loss & VSWR

Ant 1



Return Loss

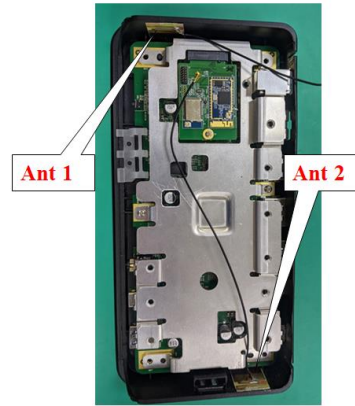
VSWR





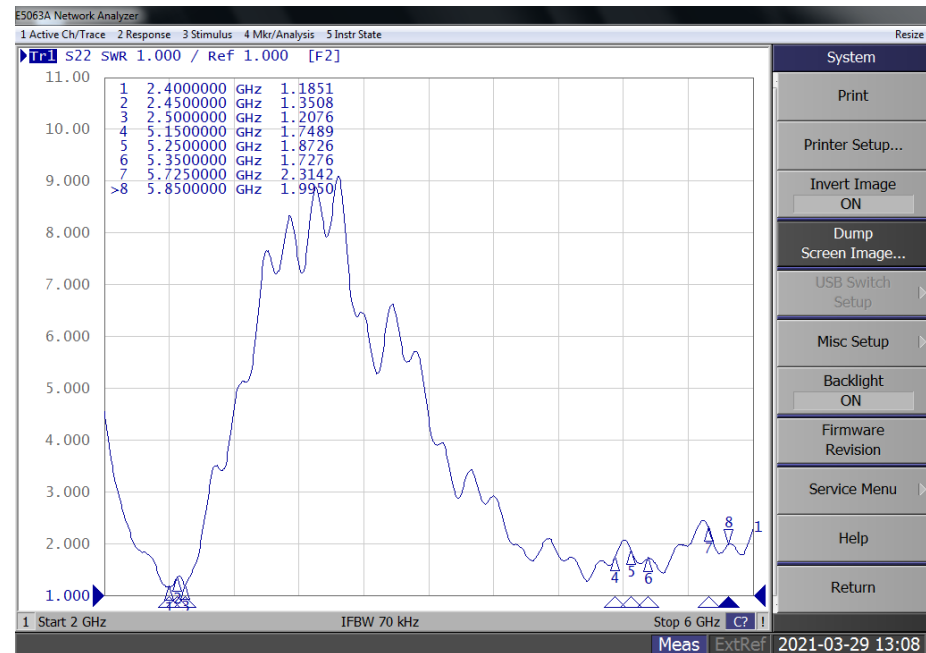
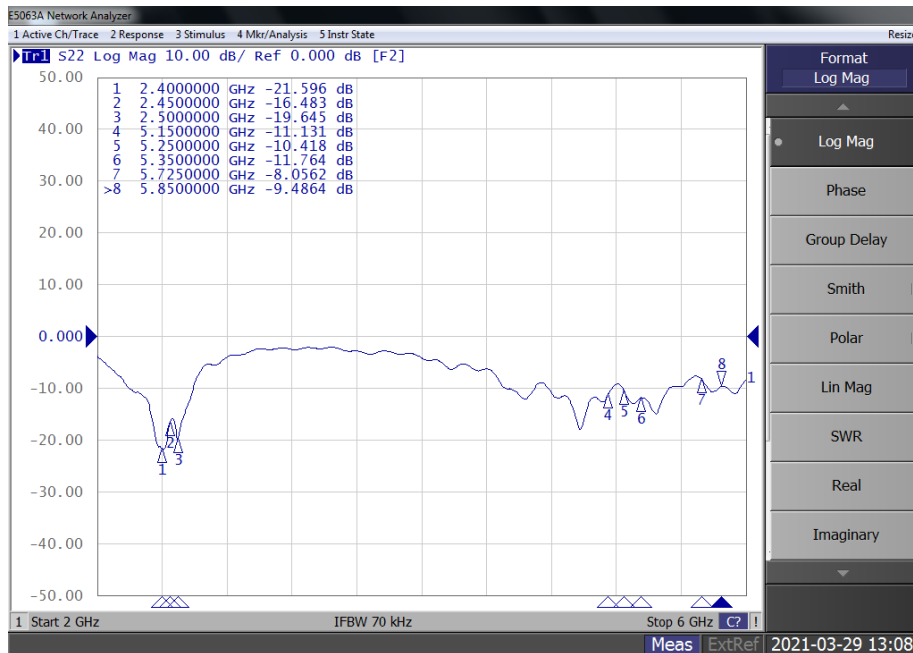
Return Loss & VSWR

Ant 2



Return Loss

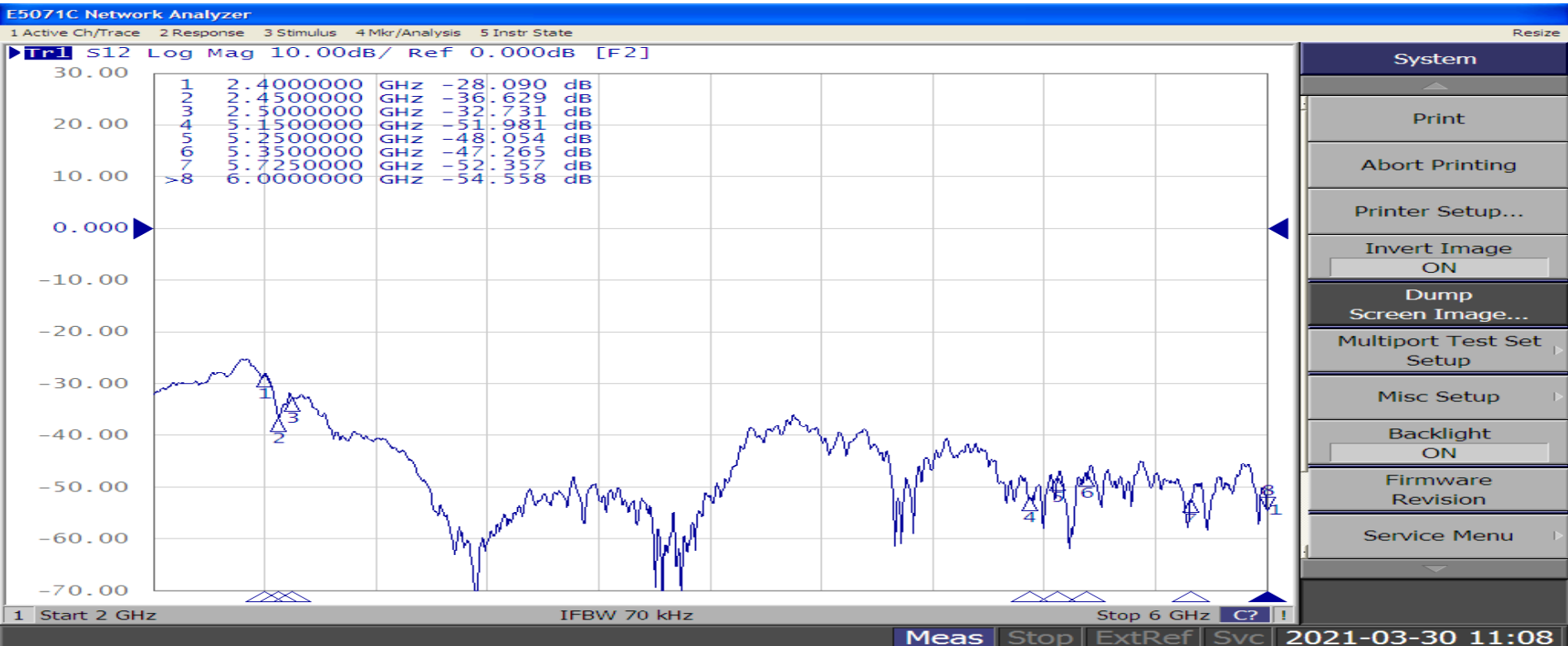
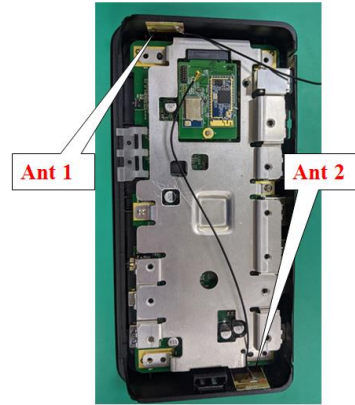
VSWR





Return Loss

Ant 1 & Ant 2 Isolation





Efficiency & Gain

Antenna-1

Frequency (GHz)	2.4G	2.45G	2.5G	5.15G	5.25G	5.35G	5.725G	5.85G
Peak EIRP (dBi)	3.08	3.02	2.68	2.75	2.98	3.05	4.38	4.1
Tot.Rad.(dBi)	-2.63	-2.6	-2.89	-2.2	-2.47	-2.1	-2.4	-2.33
Efficiency(%)	54.58	54.95	51.4	60.26	56.62	61.66	57.54	58.48

Antenna-2

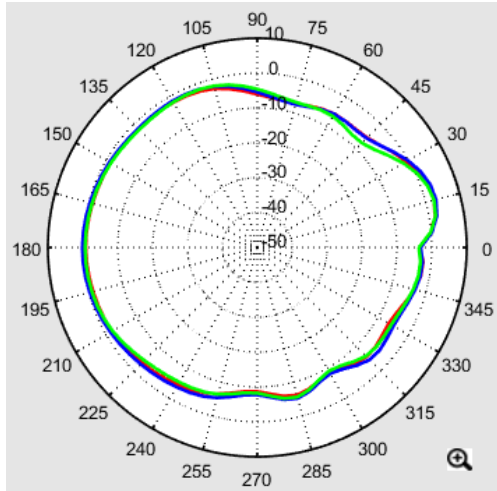
Frequency (GHz)	2.4G	2.45G	2.5G
Peak EIRP (dBi)	1.26	1.35	1.52
Tot.Rad.(dBi)	-2.89	-2.67	-2.6
Efficiency(%)	51.4	54.08	54.95



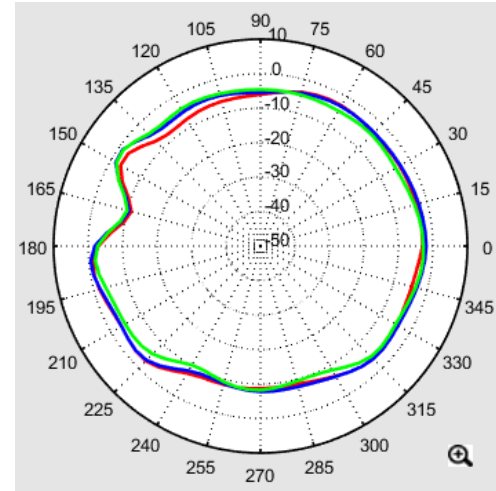
Radiation 2D Pattern

Ant 1 2.4~2.5GHz

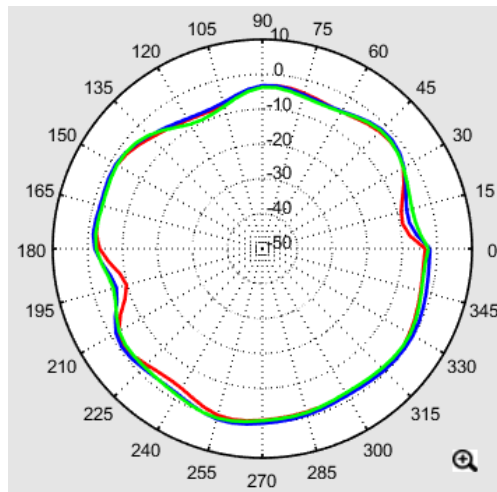
XY Cut



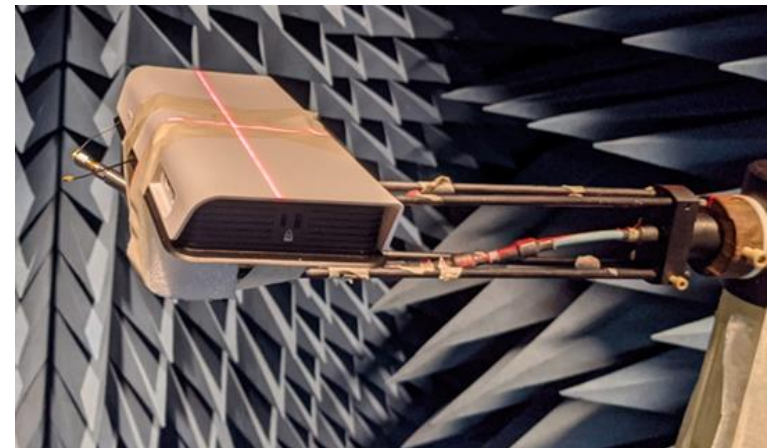
YZ Cut



XZ Cut



Position



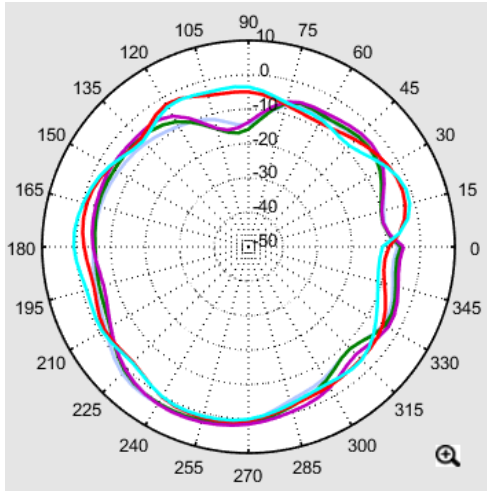
Z(Horn) ← X



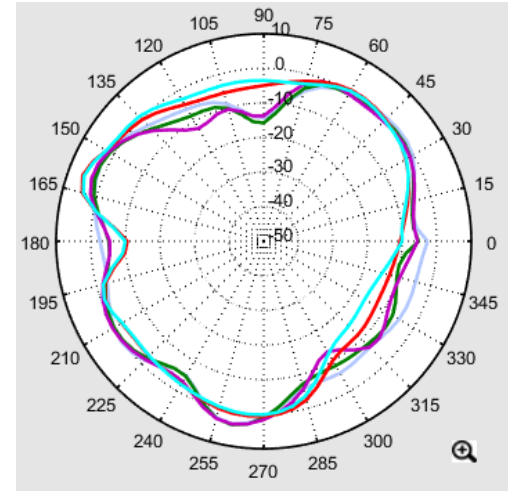
Radiation 2D Pattern

Ant 1 5.15~5.85GHz

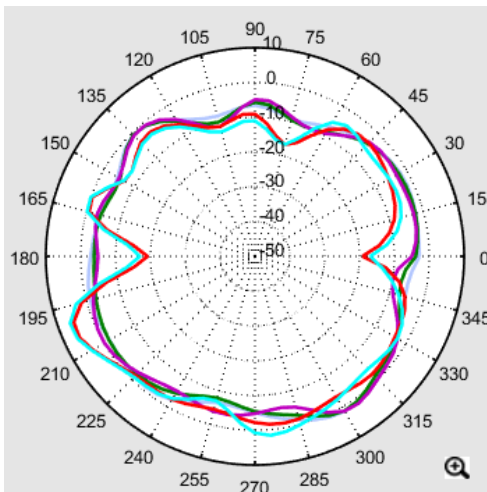
XY Cut



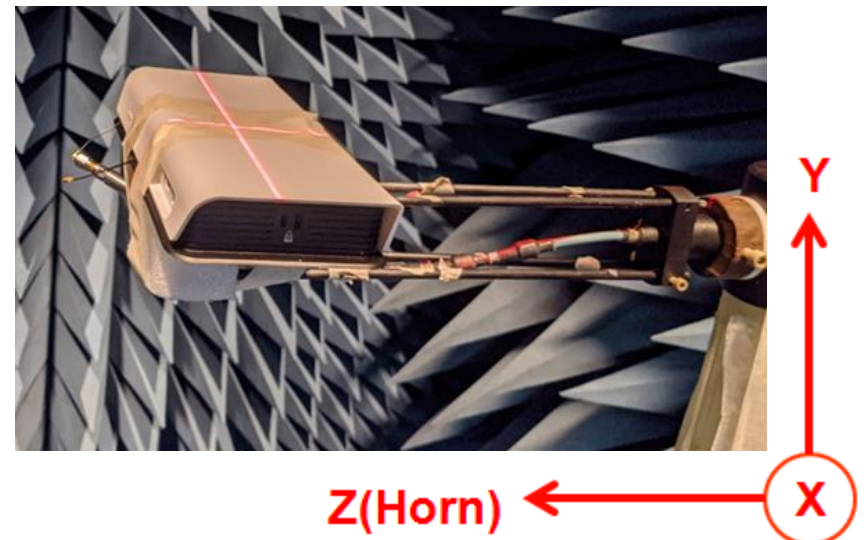
YZ Cut



XZ Cut



Position

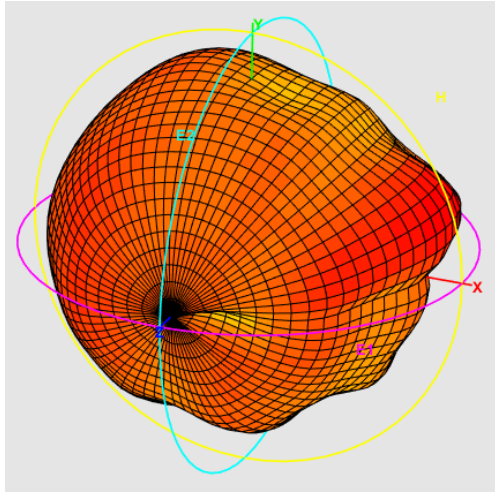




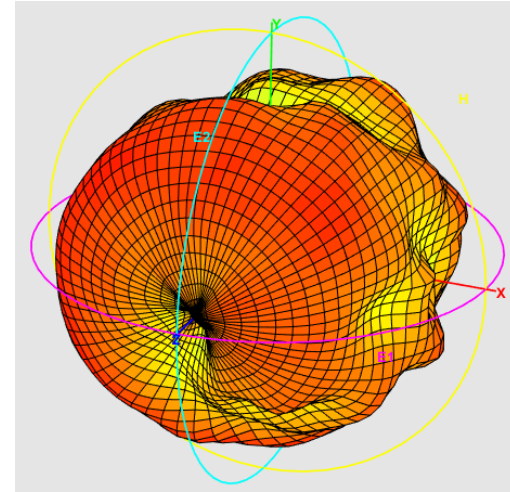
Radiation 3D Pattern

Ant 1

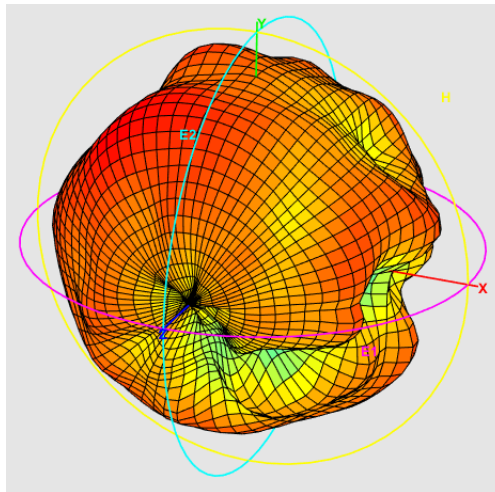
2.45 GHz



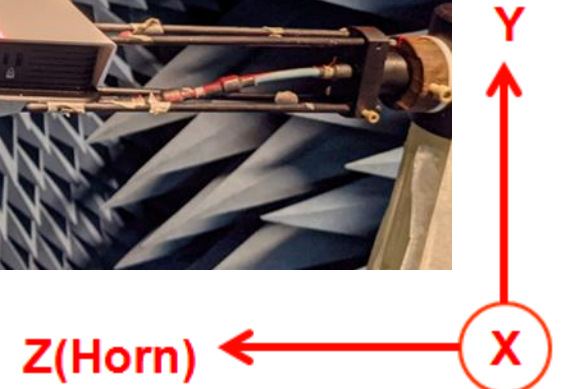
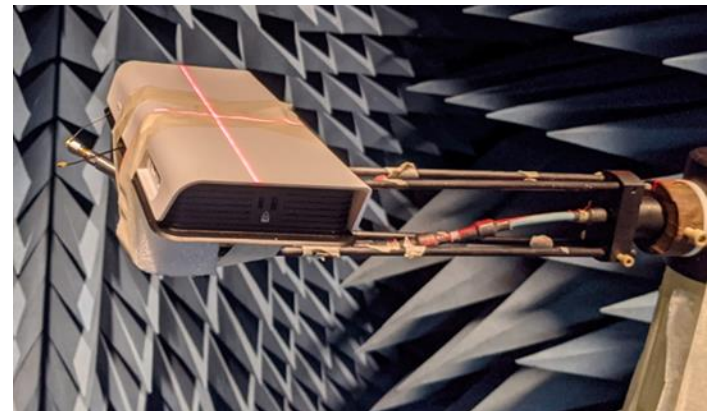
5.25 GHz



5.85 GHz



Position

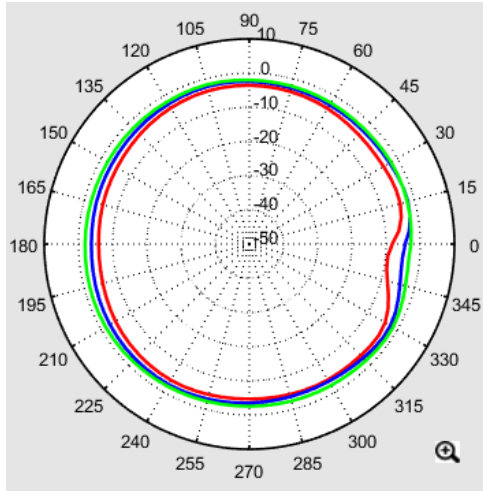




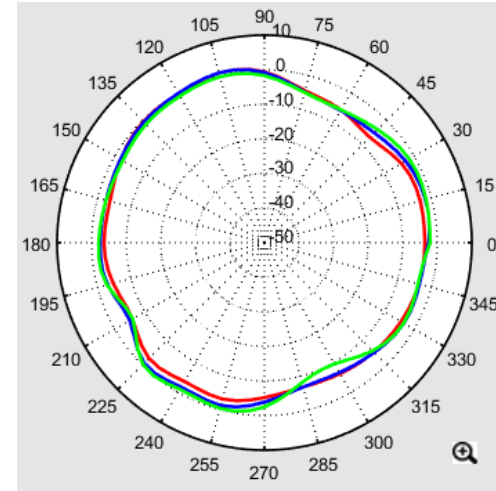
Radiation 2D Pattern

Ant 2

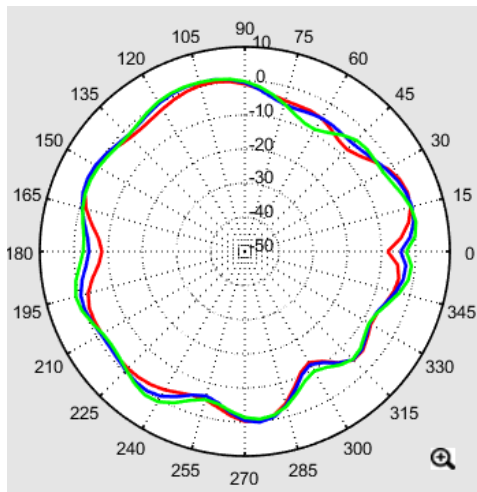
XY Cut



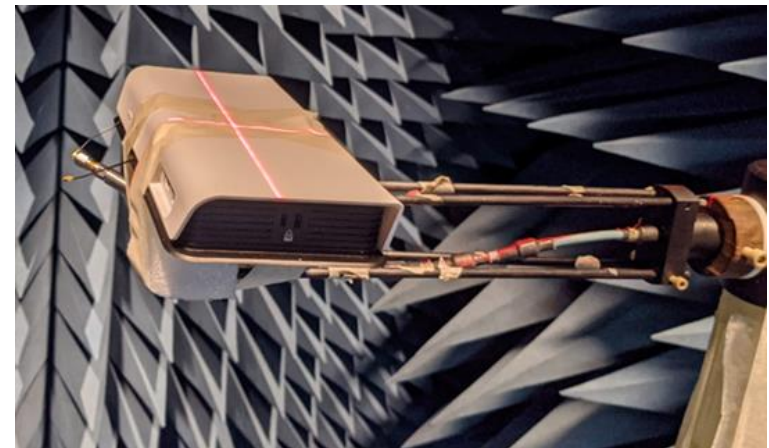
YZ Cut



XZ Cut



Position



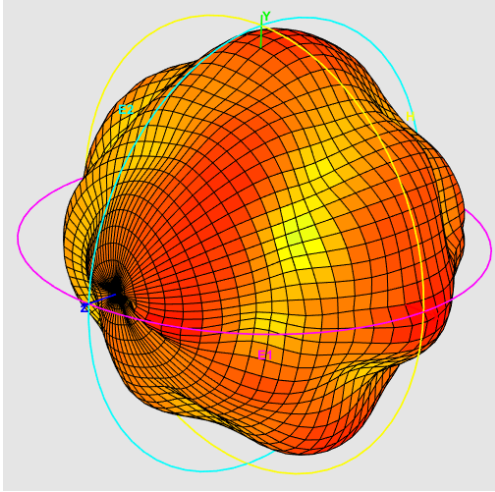
Z(Horn) ← X



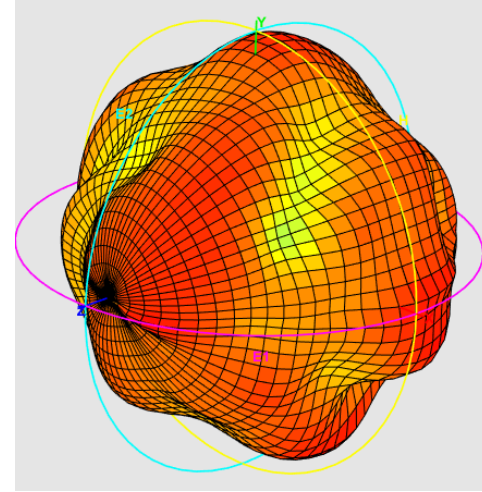
Radiation 3D Pattern

Ant 2

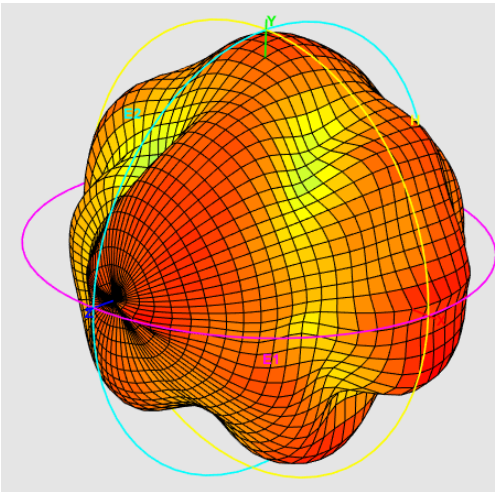
2.4 GHz



2.45 GHz



2.5 GHz



Position

