

Antenna measurement report for project Espresso2-R

Pegatron BU6

2025/09/05

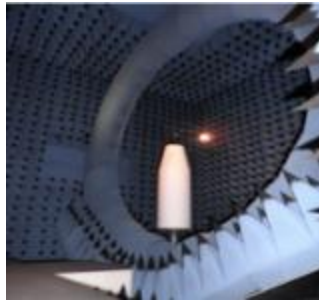
Introduction

- This report is based on Espresso2-R to verify antenna performance.

Antenna solution:

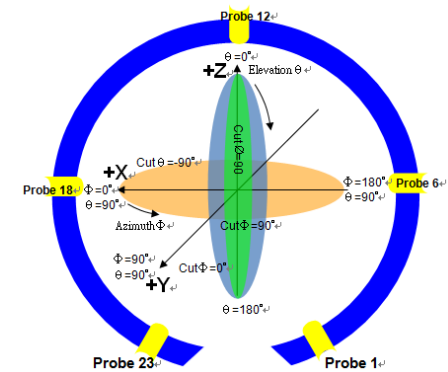
- 2G off board antenna * 2
- 5G off board antenna * 2
- 6G off board antenna * 2

- This report provides Passive Measurement results .(Gain, Radiation Pattern)
 - The radiation pattern, antenna gain and efficiency are measured by Pegatron's SATIMO SG24 chamber as below picture.
 - The equipment calibration data : 2025.03.24



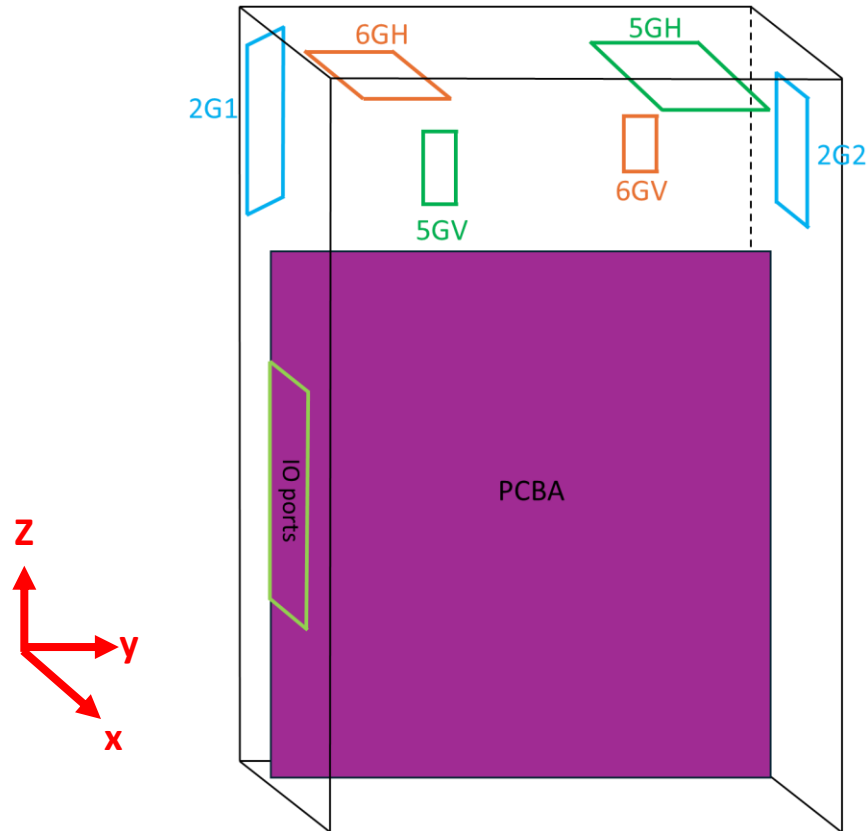
Pegatron's SATIMO SG24 chamber

- Test Item
 1. Antenna passive test 500MHz~7.5GHz



DUT Information

- Antenna Placement



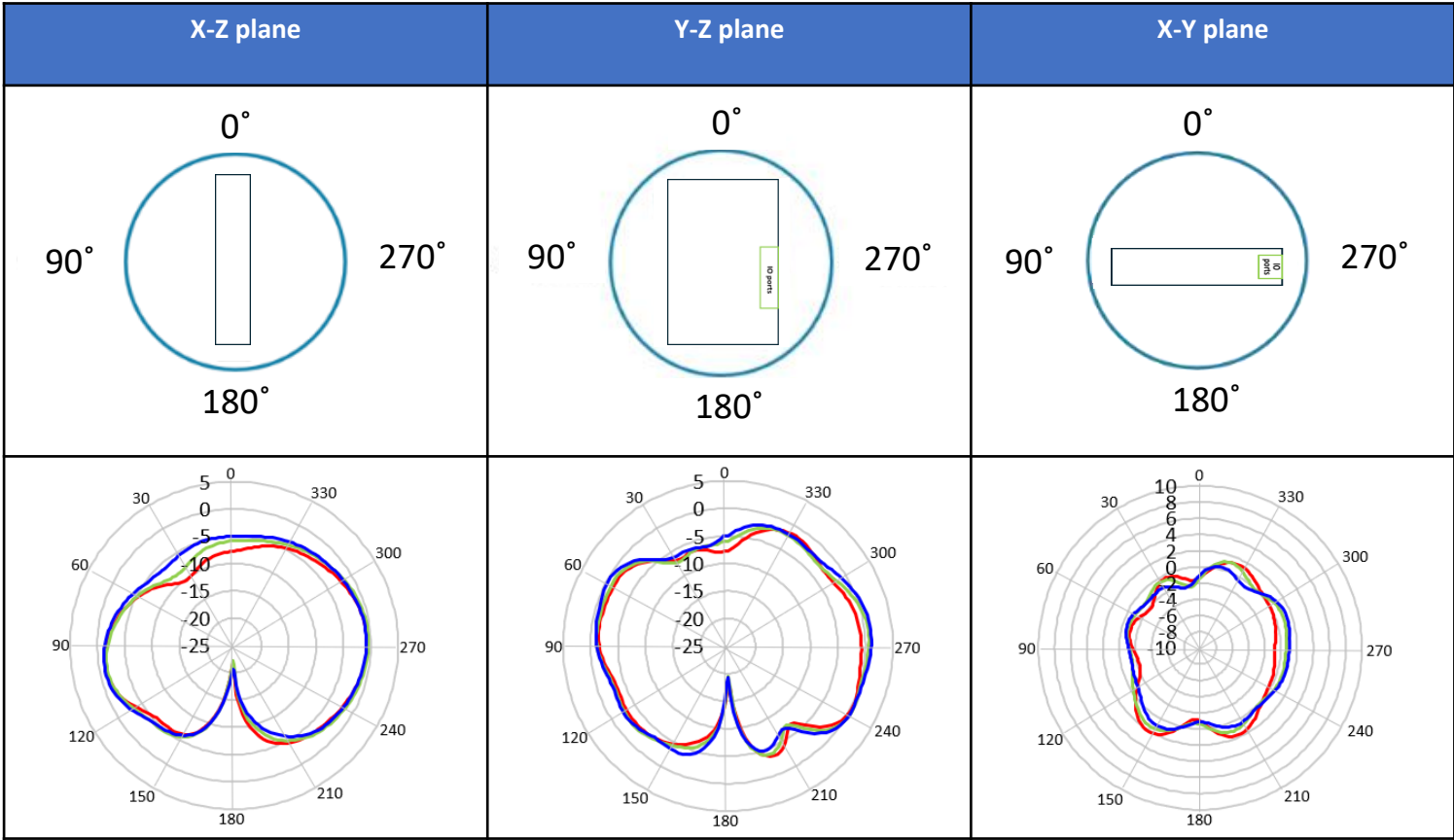
Antenna Information

Ant.	2.4G port	5G port	6G port	Brand Name	Model Name	Ant. Type	Connector	Support	Radio
1(2G1)	1	--	--	Pegatron	2G1	dipole	I-Pex	2.4G	Radio 1
2(2G2)	2	--	--	Pegatron	2G2	dipole	I-Pex	2.4G	Radio 1
3(5GH)	--	2	--	Pegatron	5GH	dipole	I-Pex	5G	Radio 2
4(5GV)	--	1	--	Pegatron	5GV	dipole	I-Pex	5G	Radio 2
5(6GH)	--	--	1	Pegatron	6GH	dipole	I-Pex	6G	Radio 3
6(6GV)	--	--	2	Pegatron	6GV	dipole	I-Pex	6G	Radio 3

Test Result 2D Radiation Pattern and 3D Raw Data

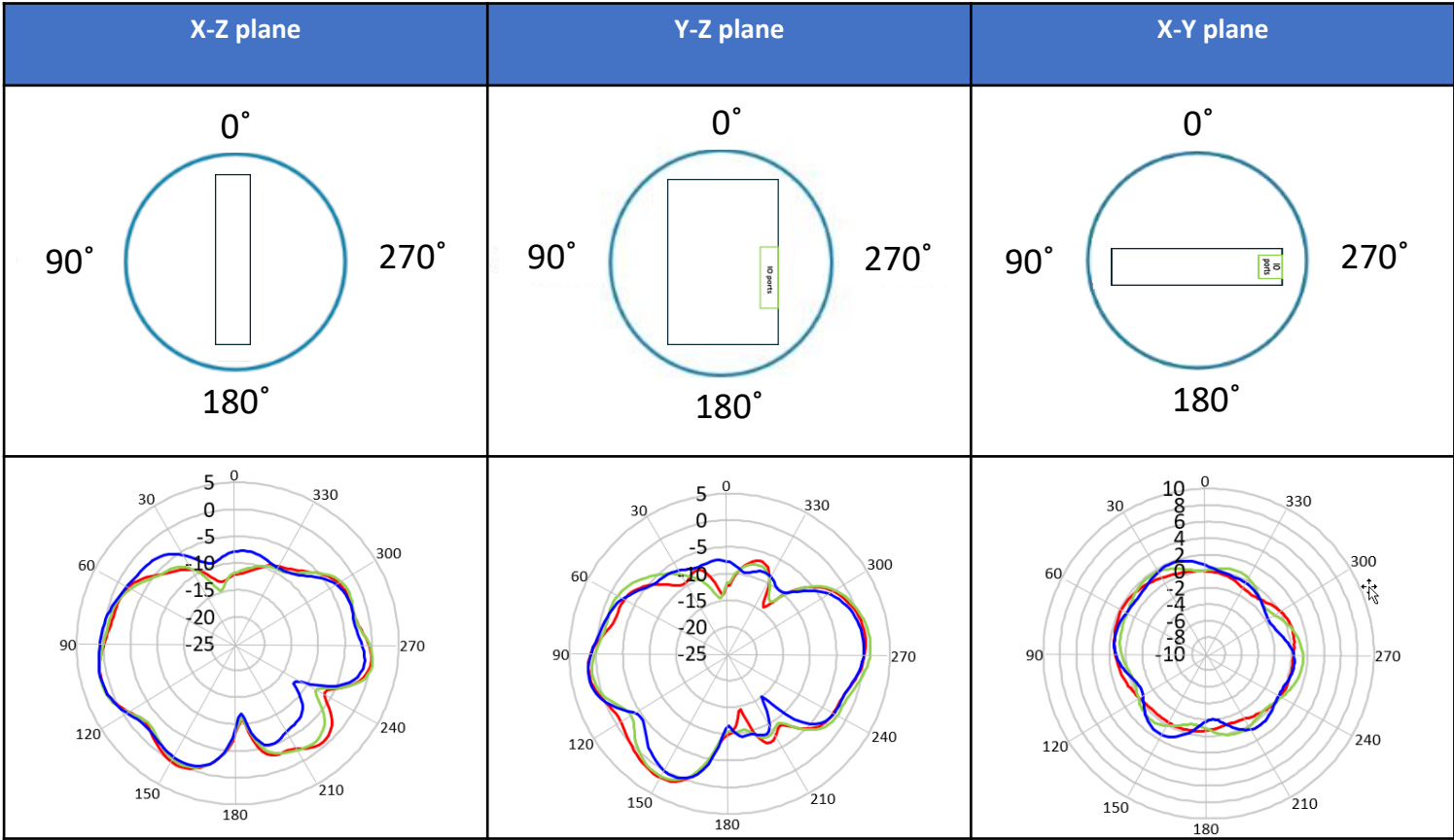
- Ant No.: Ant1
- Model No.: 2G1

— 2400 MHz
— 2450 MHz
— 2500 MHz



Test Result 2D Radiation Pattern and 3D Raw Data

- Ant No.: Ant2
- Model No.: 2G2

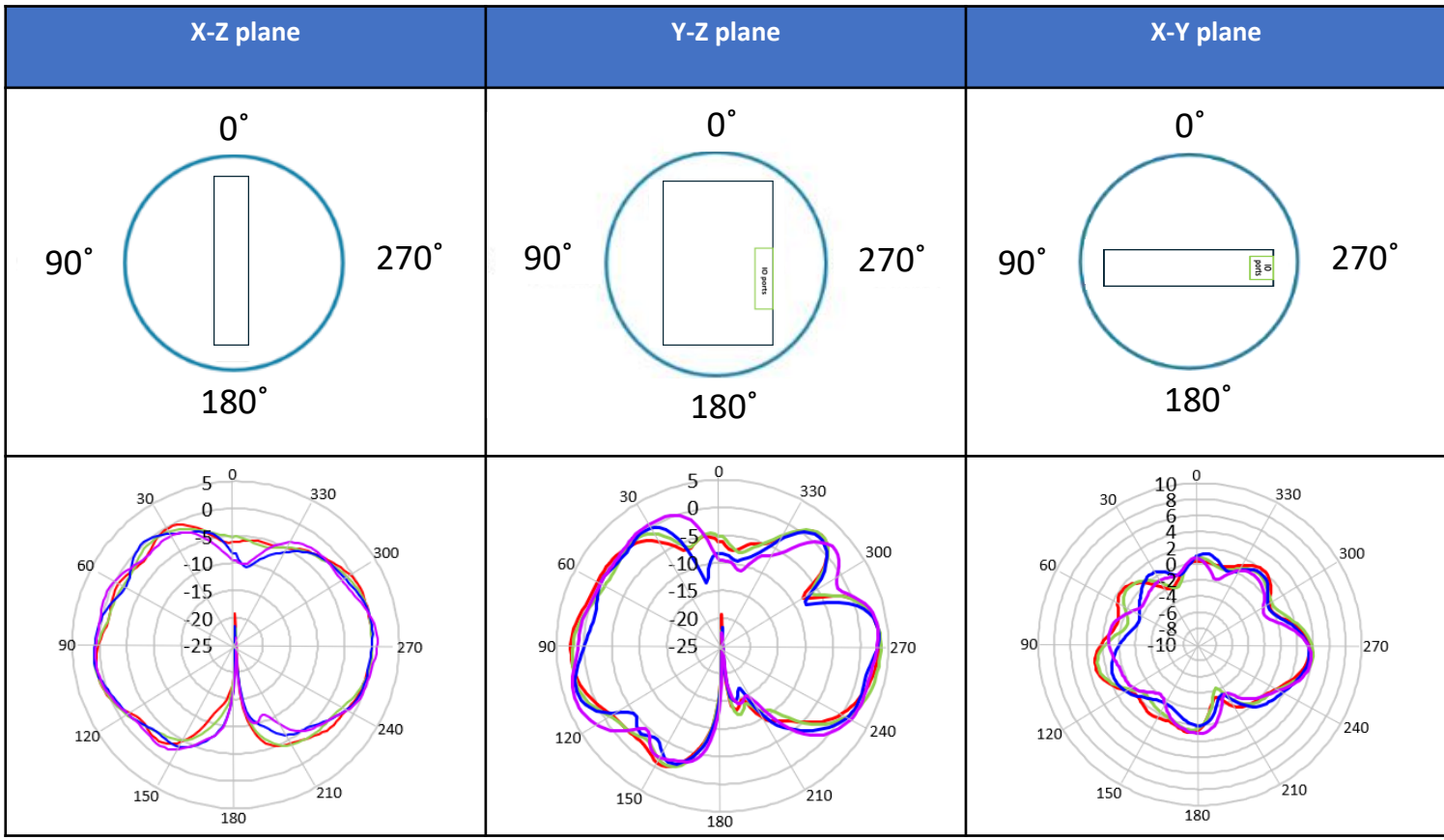


— 2400 MHz
— 2450 MHz
— 2500 MHz

Test Result 2D Radiation Pattern and 3D Raw Data

- Ant No.: Ant3
- Model No.: 5GH

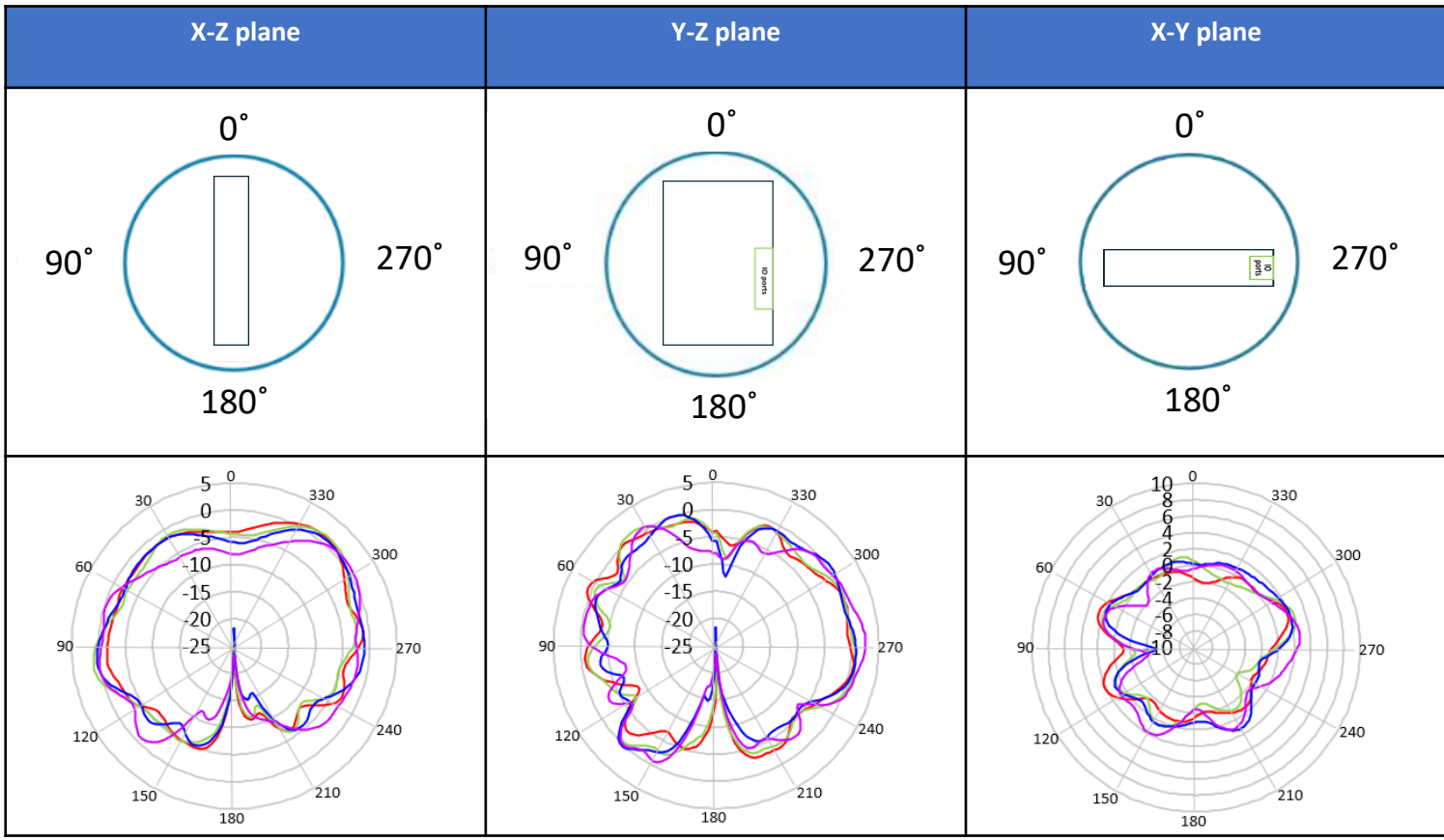
- 5180 MHz
- 5300 MHz
- 5500 MHz
- 5800 MHz



Test Result 2D Radiation Pattern and 3D Raw Data

- Ant No.: Ant4
- Model No.: 5GV

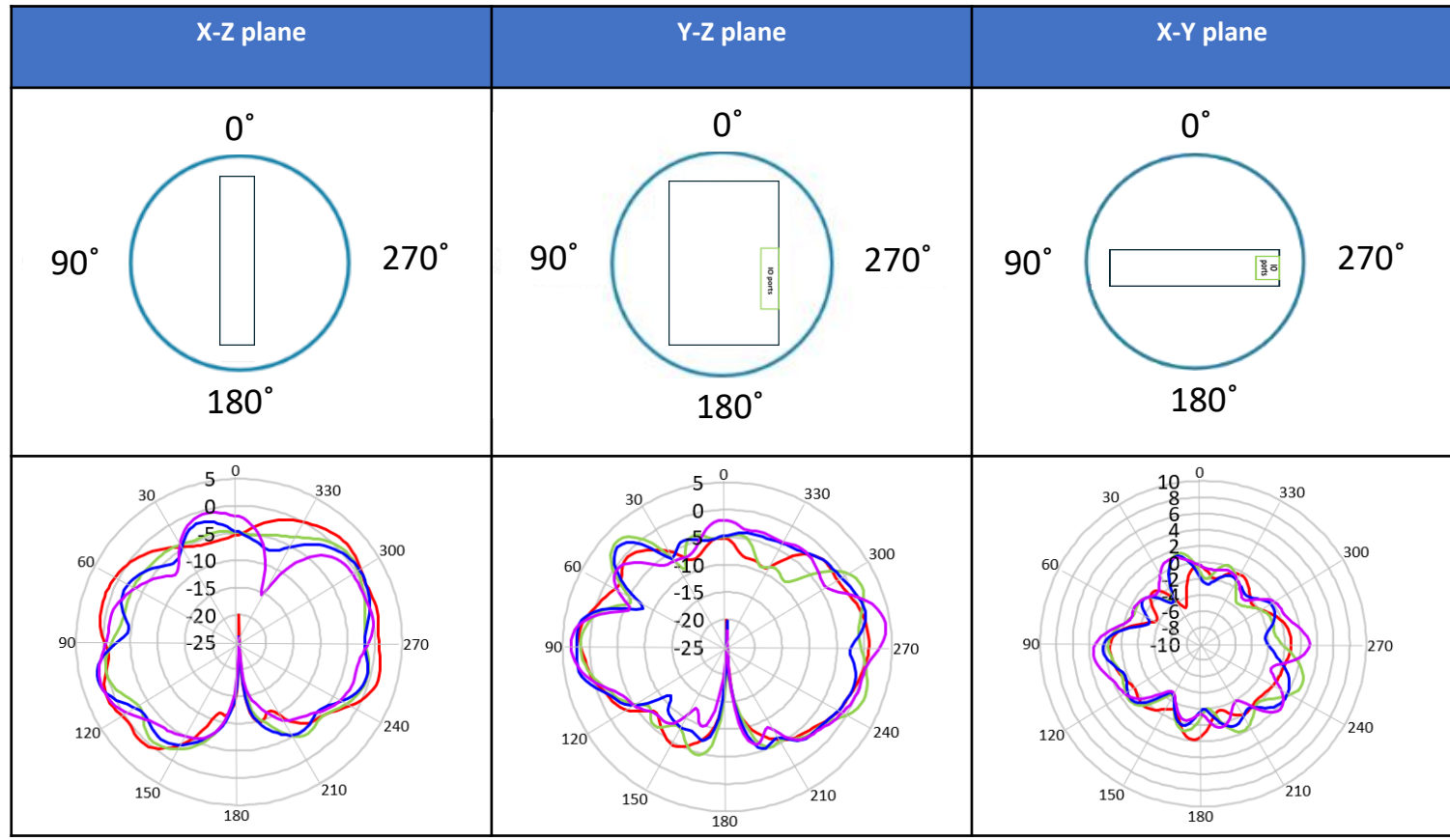
- 5180 MHz
- 5300 MHz
- 5500 MHz
- 5800 MHz



Test Result 2D Radiation Pattern and 3D Raw Data

- Ant No.: Ant5
- Model No.: 6GH

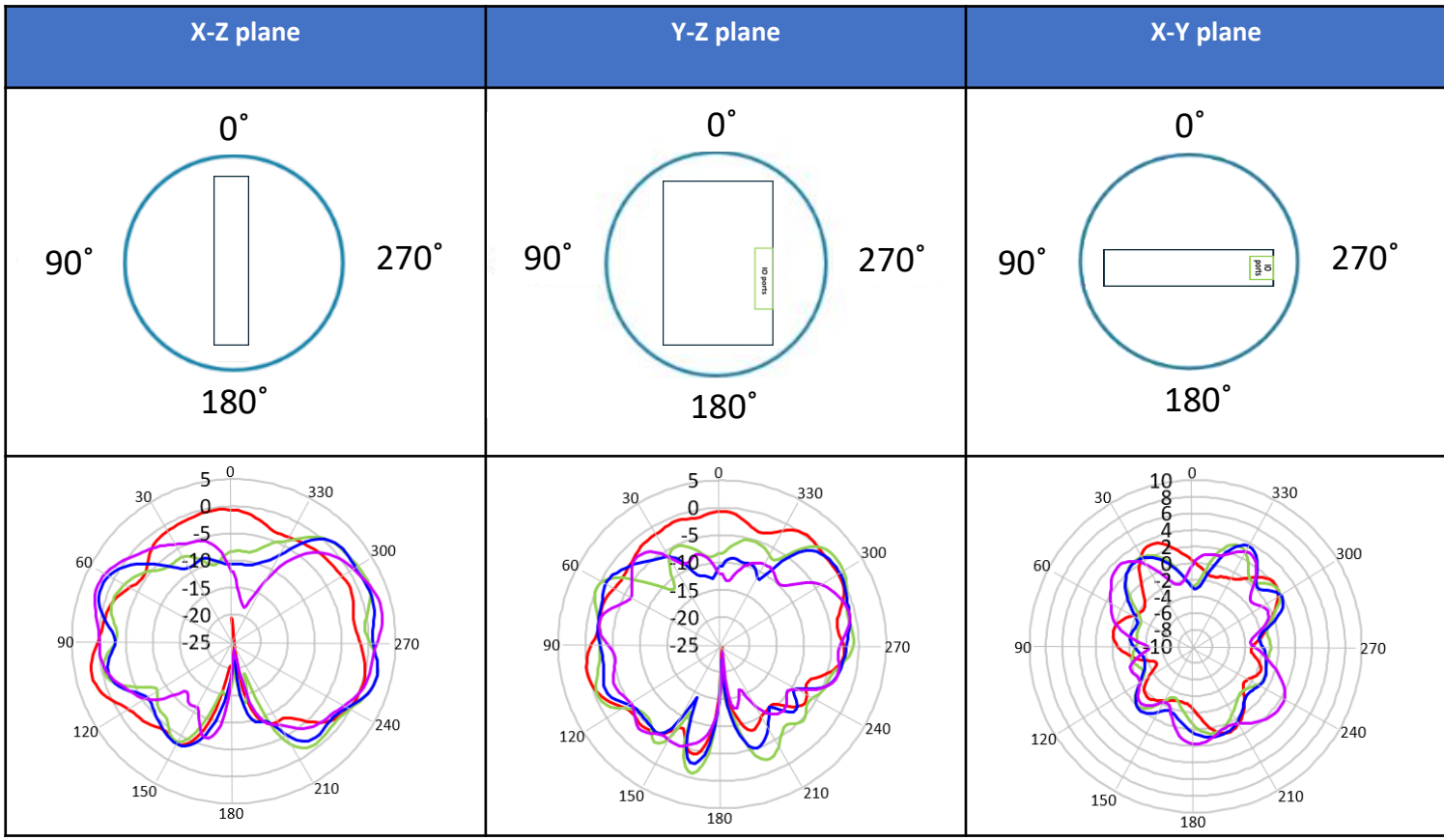
- 5180 MHz
- 5300 MHz
- 5500 MHz
- 5800 MHz



Test Result 2D Radiation Pattern and 3D Raw Data

- Ant No.: Ant6
- Model No.: 6GV

- 5180 MHz
- 5300 MHz
- 5500 MHz
- 5800 MHz



Peak Gain and Directional Gain Results

- Gain table

Frequency (MHz)	Ant1_2G1		Ant2_2G2		Ant3_5GH		Ant4_5GV		Ant5_6GH		Ant6_6GV	
	Phi	Theta	Phi	Theta	Phi	Theta	Phi	Theta	Phi	Theta	Phi	Theta
2400	-2.47	2.08	-0.76	1.65	--	--	--	--	--	--	--	--
2450	-1.91	1.35	-0.73	2.01	--	--	--	--	--	--	--	--
2500	-1.30	1.38	-0.56	2.27	--	--	--	--	--	--	--	--
5180	--	--	--	--	3.44	-4.09	0.54	3.33	--	--	--	--
5300	--	--	--	--	3.84	-5.16	-0.91	3.07	--	--	--	--
5500	--	--	--	--	3.79	-3.77	-0.95	3.23	--	--	--	--
5800	--	--	--	--	4.11	-3.95	-0.05	3.54	--	--	--	--
5925	--	--	--	--	--	--	--	--	2.75	-3.50	-0.70	3.36
6500	--	--	--	--	--	--	--	--	3.22	-3.52	-1.84	2.74
6755	--	--	--	--	--	--	--	--	2.81	-2.37	-2.35	3.35
7125	--	--	--	--	--	--	--	--	4.06	-2.00	-2.13	3.93

Peak Gain and Directional Gain Results

- Directional gain table _ **Correlated**

Frequency (MHz)	Peak Gain of 3D Directional pattern					
	2G		5G		6G	
	Phi	Theta	Phi	Theta	Phi	Theta
2400	-0.7	4.2	-	-	-	-
2450	-0.2	4.1	-	-	-	-
2500	0.4	4.2	-	-	-	-
5180	-	-	3.1	2.2	-	-
5300	-	-	2.4	1.9	-	-
5500	-	-	1.8	2.7	-	-
5800	-	-	2.7	2.2	-	-
5925	-	-	-	-	2.5	1.8
6500	-	-	-	-	2.8	2.1
6755	-	-	-	-	2.5	2.4
7125	-	-	-	-	4.0	3.0