

Antenna measurement report for project Espresso2-B

Pegatron BU6

2026/03/16

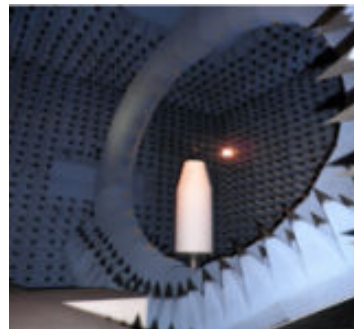
Introduction

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

Antenna solution:

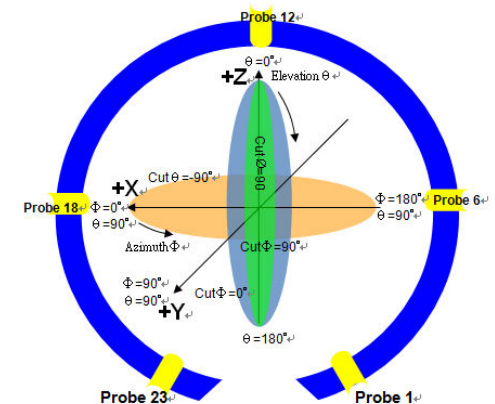
- 2G off board antenna * 2
- 5G off board antenna * 2
- 6G off board antenna * 2

- 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



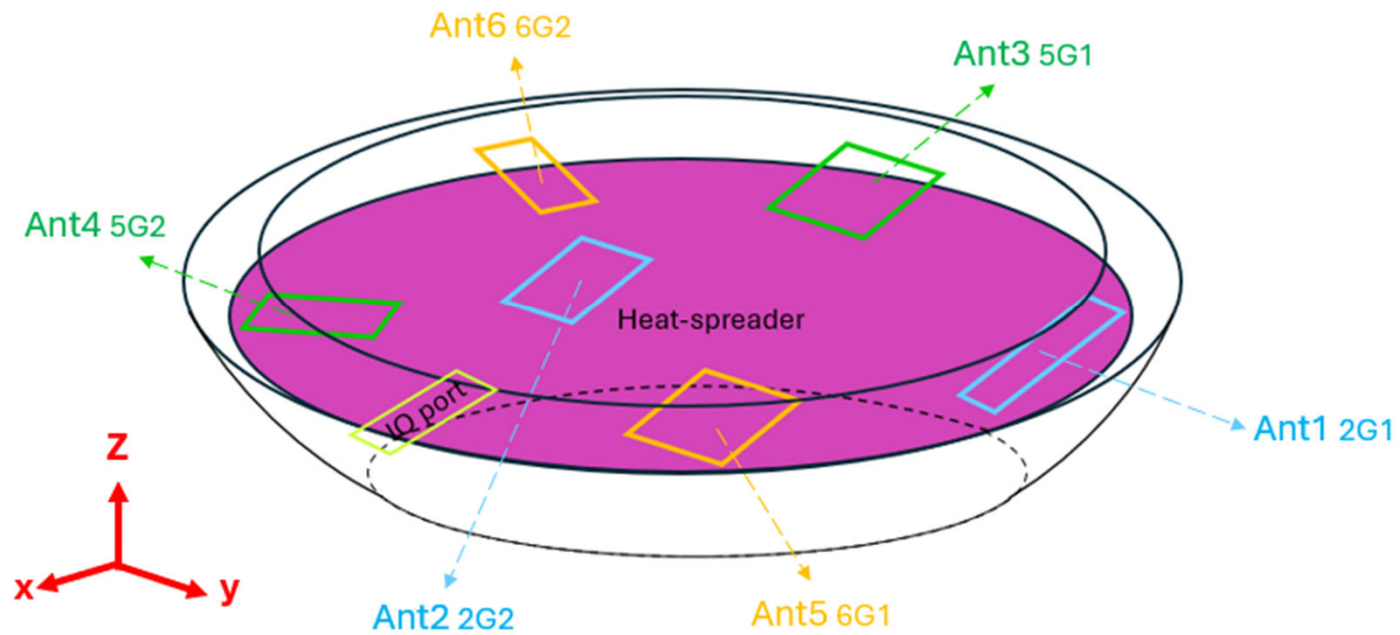
Pegatron's SATIMO SG24 chamber

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



DUT Information

- Antenna Placement



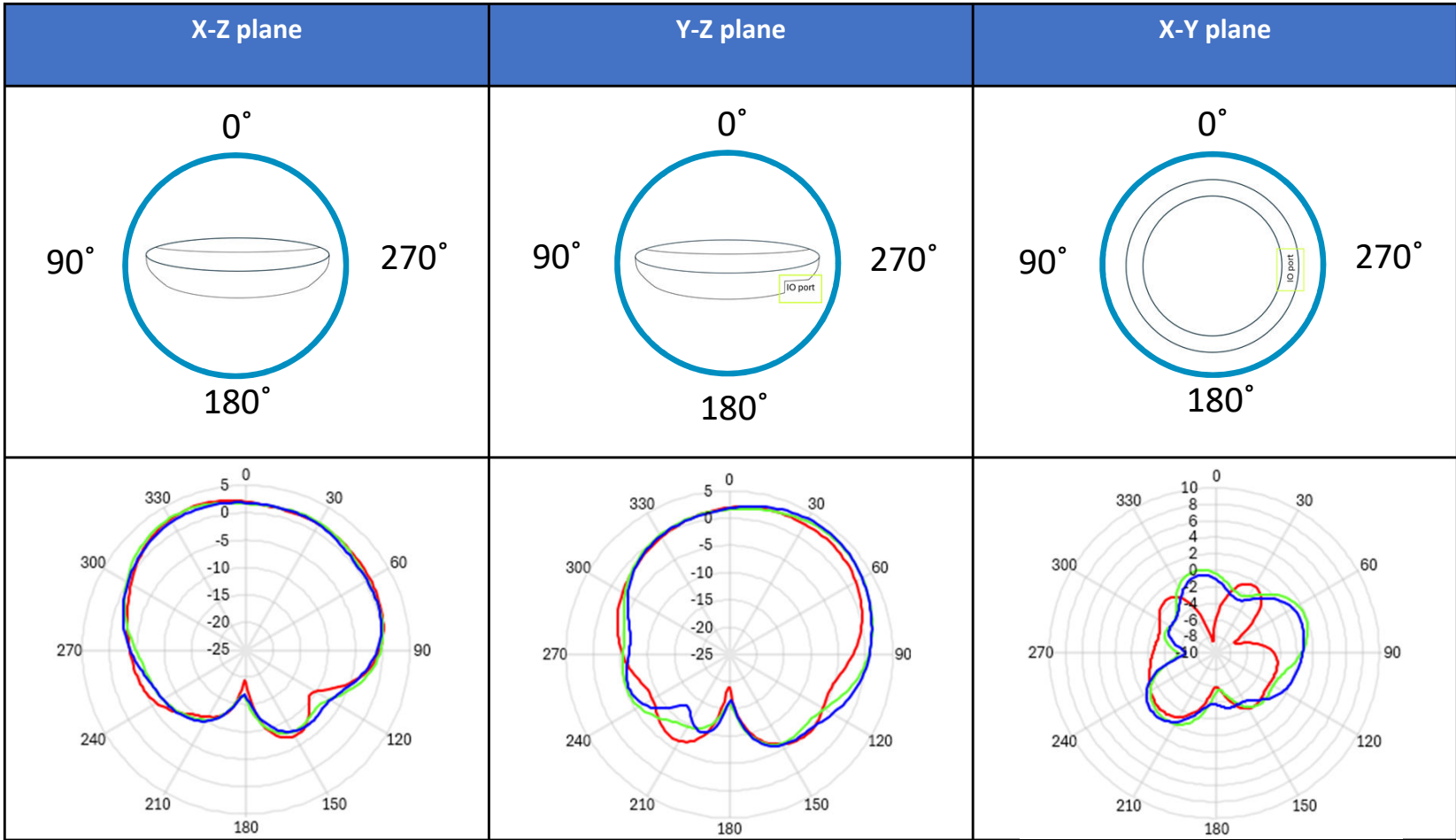
Antenna Information

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

Test Result 2D Radiation Pattern and 3D Raw Data

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

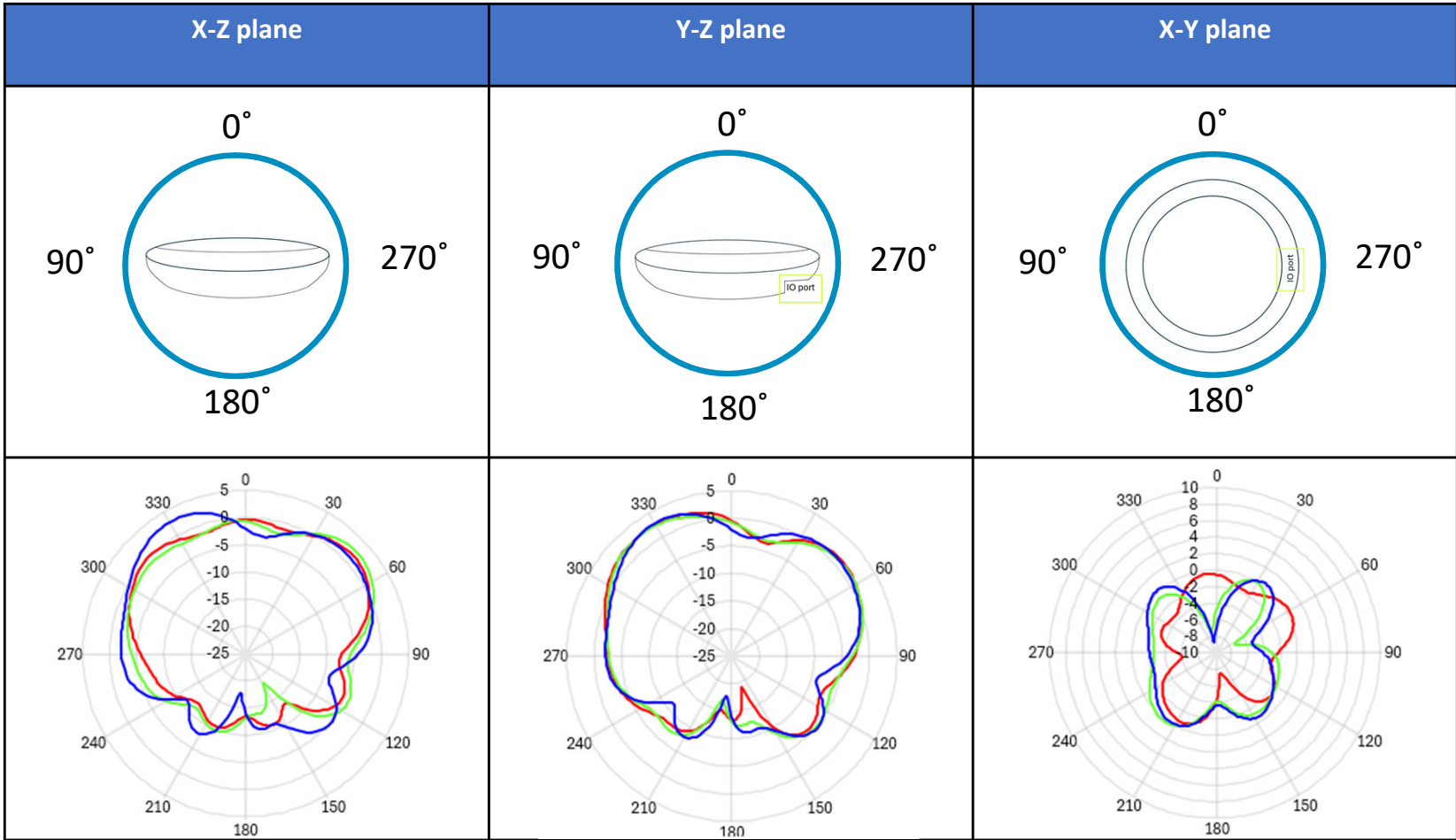
— 2400 MHz
— 2450 MHz
— 2500 MHz



Test Result 2D Radiation Pattern and 3D Raw Data

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

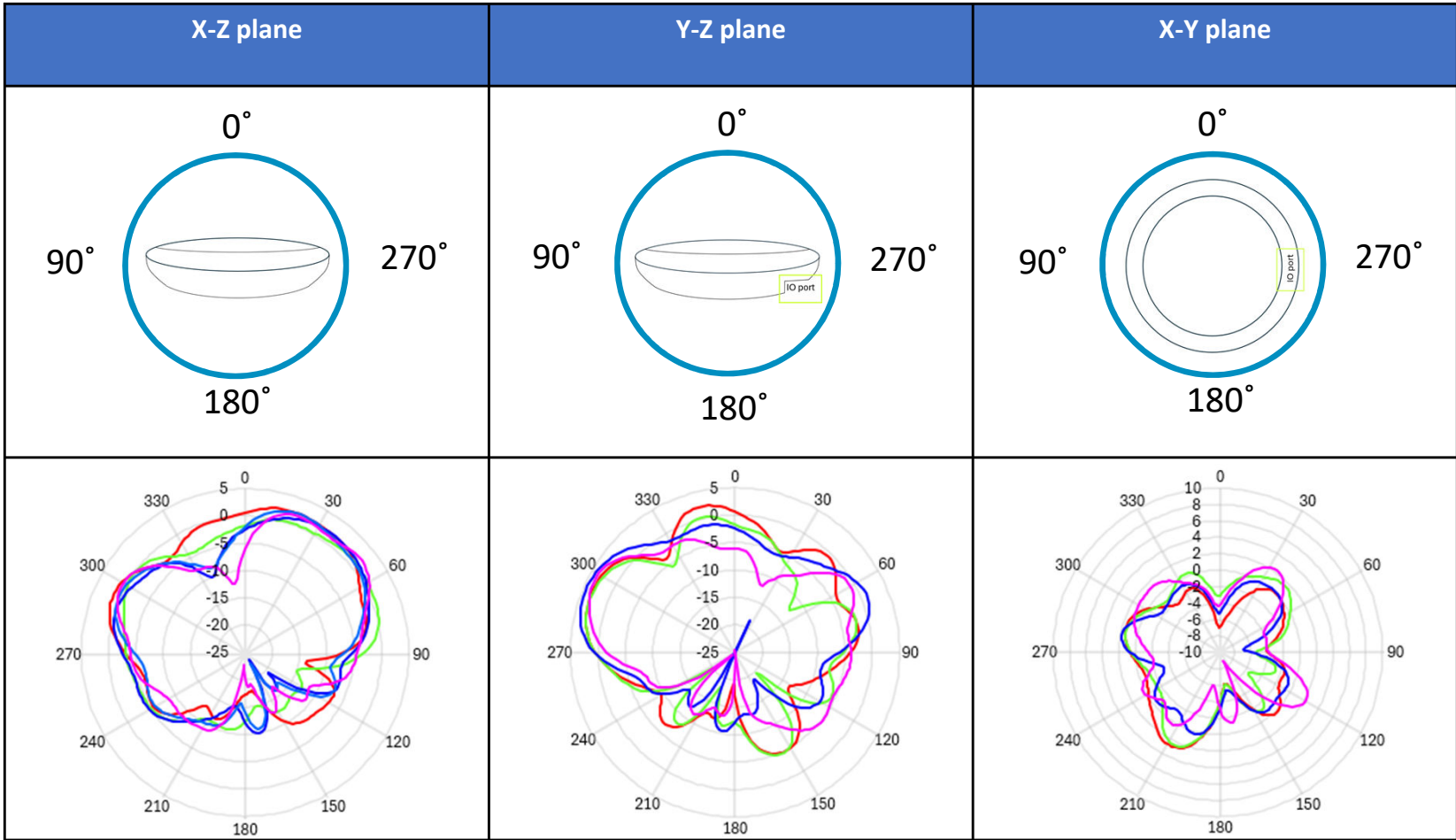
— 2400 MHz
— 2450 MHz
— 2500 MHz



Test Result 2D Radiation Pattern and 3D Raw Data

- Ant No.: Ant3
- Model No.: 5G1

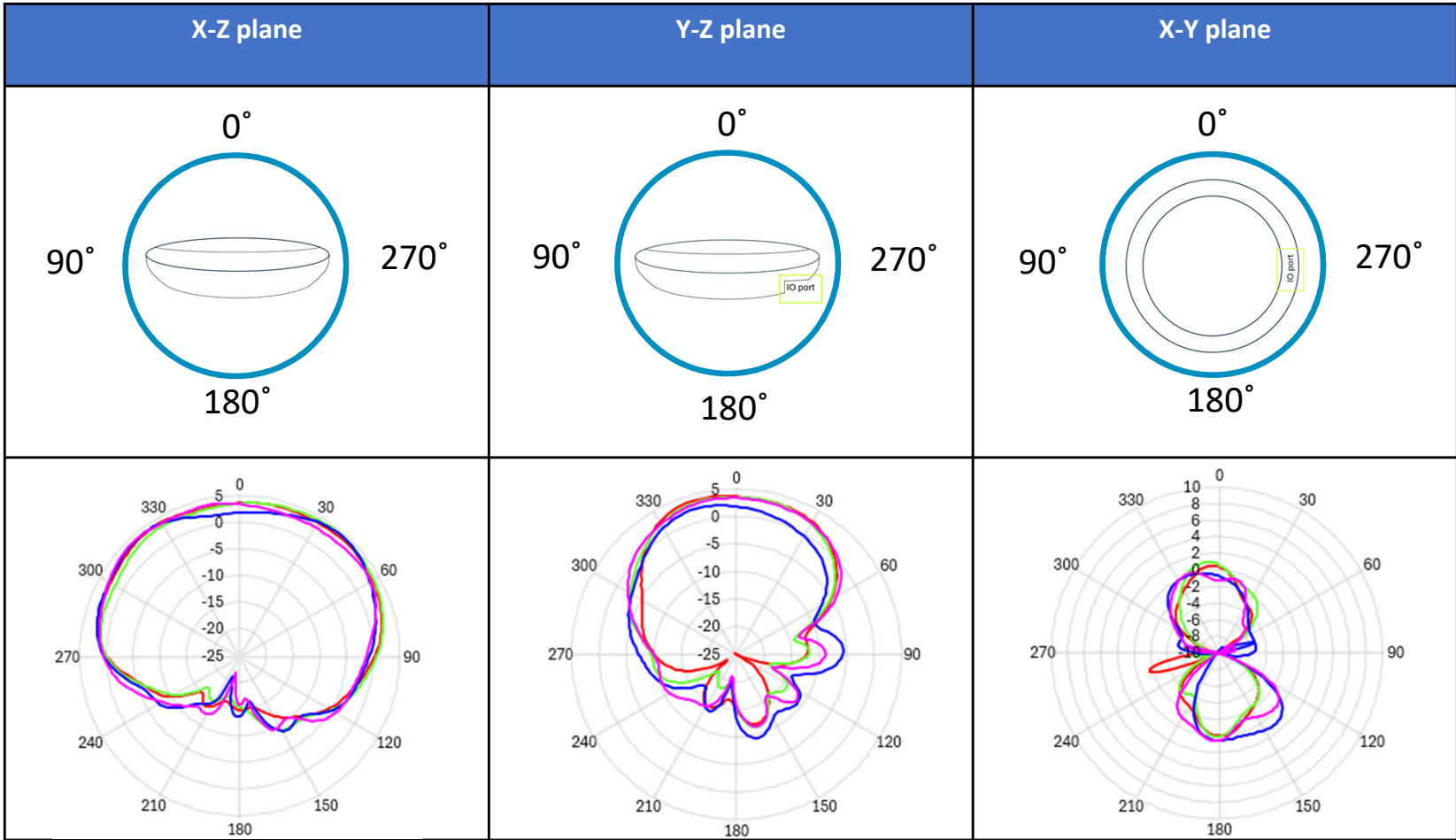
- 5180 MHz
- 5300 MHz
- 5500 MHz
- 5800 MHz



Test Result 2D Radiation Pattern and 3D Raw Data

- Ant No.: Ant4
- Model No.: 5G2

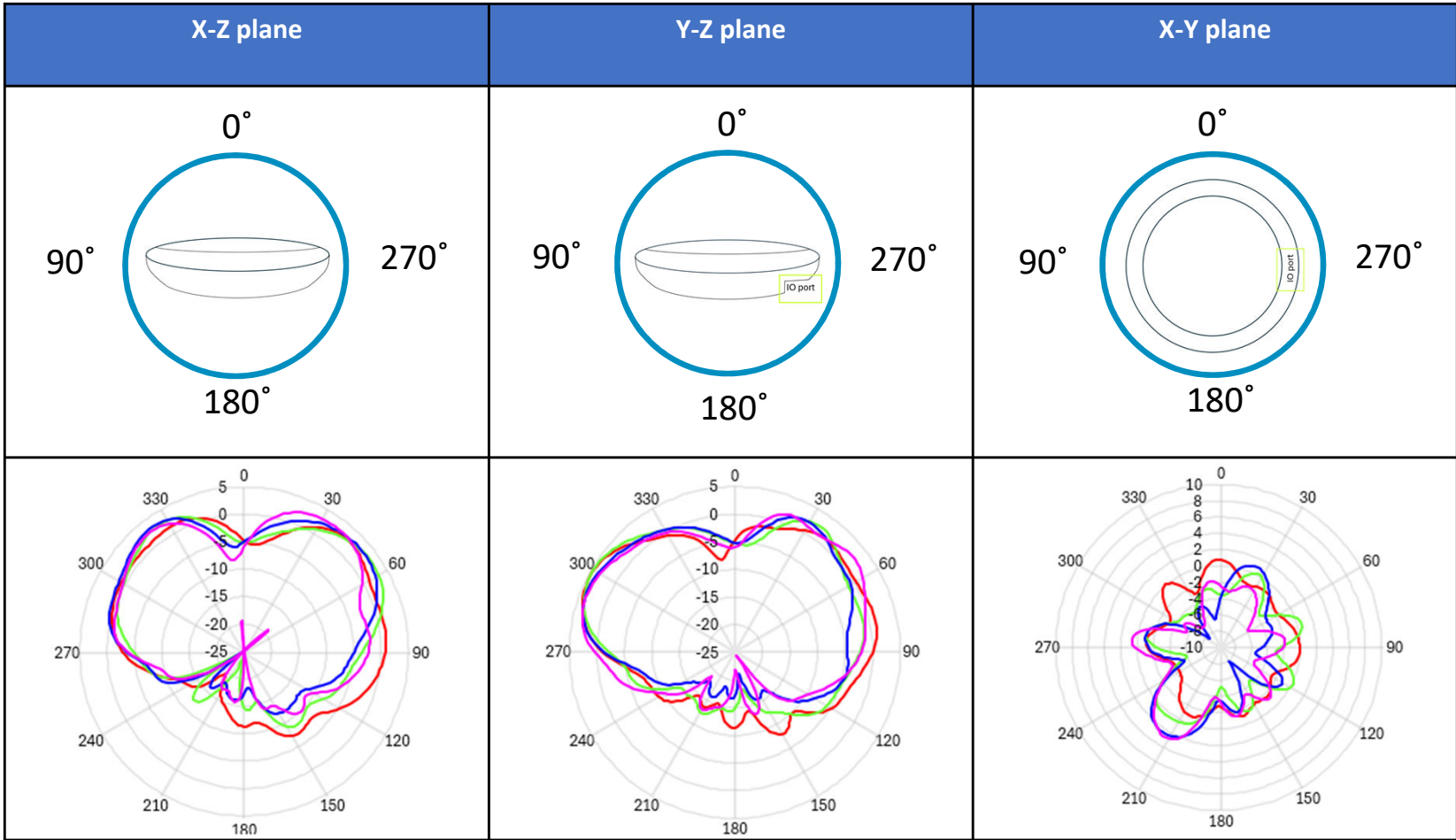
- 5180 MHz
- 5300 MHz
- 5500 MHz
- 5800 MHz



Test Result 2D Radiation Pattern and 3D Raw Data

- Ant No.: Ant5
- Model No.: 6G1

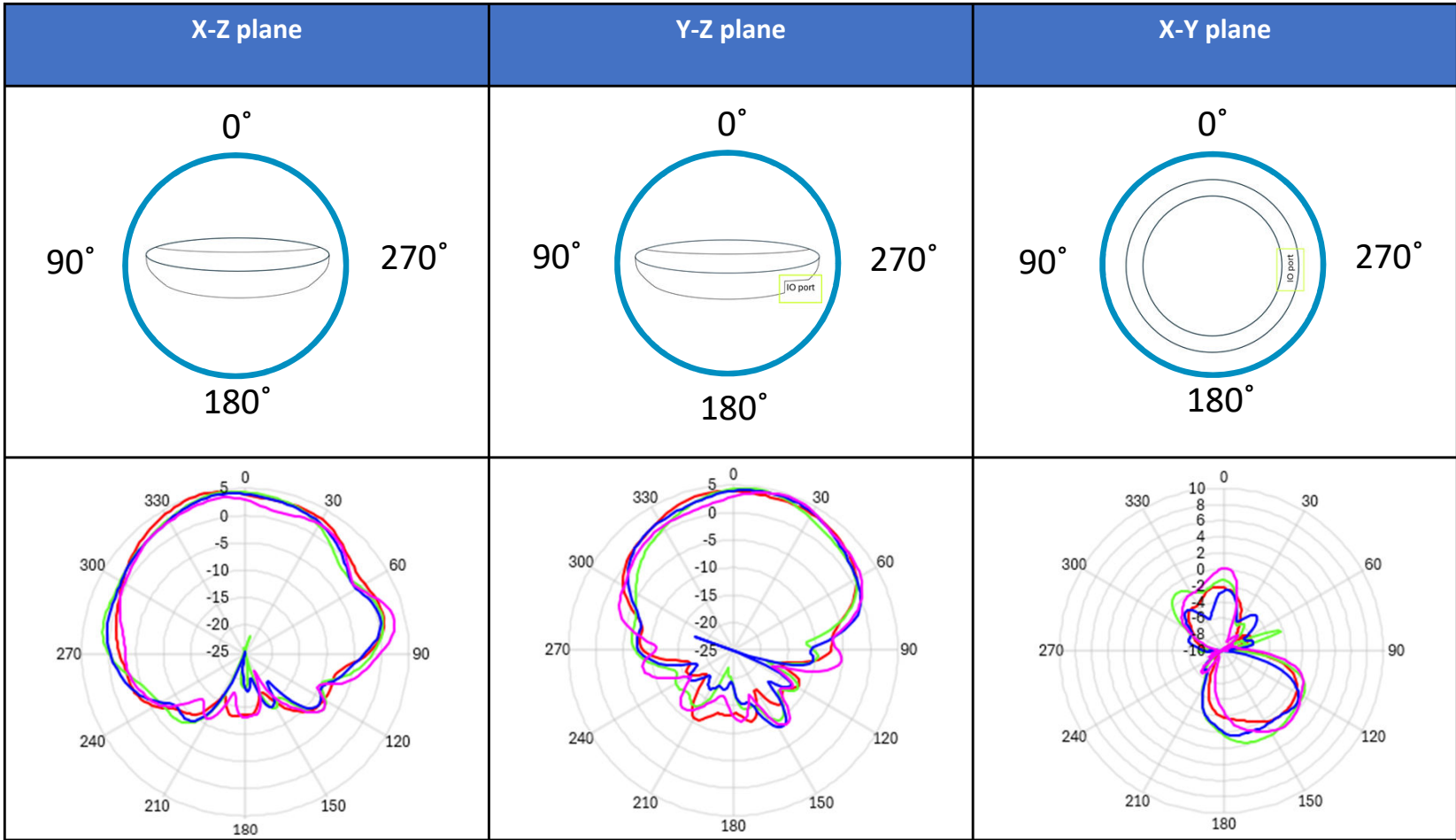
- 5925 MHz
- 6500 MHz
- 6755 MHz
- 7125 MHz



Test Result 2D Radiation Pattern and 3D Raw Data

- Ant No.: Ant6
- Model No.: 6G2

- 5925 MHz
- 6500 MHz
- 6755 MHz
- 7125 MHz



Peak Gain and Directional Gain Results

- Gain table

Frequency (MHz)	Ant1_2G1		Ant2_2G2		Ant3_5G1		Ant4_5G2		Ant5_6G1		Ant6_6G2	
	Phi	Theta	Phi	Theta	Phi	Theta	Phi	Theta	Phi	Theta	Phi	Theta
2400	1.98	3.14	-0.72	4.11	--	--	--	--	--	--	--	--
2450	2.25	2.75	-0.96	3.84	--	--	--	--	--	--	--	--
2500	2.23	3.18	-2.89	4.04	--	--	--	--	--	--	--	--
5180	--	--	--	--	2.48	4.26	4.18	3.96	--	--	--	--
5300	--	--	--	--	0.93	4.37	4.56	3.55	--	--	--	--
5500	--	--	--	--	-0.58	5.21	4.39	2.39	--	--	--	--
5800	--	--	--	--	0.01	3.81	4.13	3.41	--	--	--	--
5925	--	--	--	--	--	--	--	--	-0.06	3.95	4.97	4.00
6500	--	--	--	--	--	--	--	--	1.57	3.62	4.72	4.36
6755	--	--	--	--	--	--	--	--	2.01	3.68	4.64	3.96
7125	--	--	--	--	--	--	--	--	1.42	3.57	3.96	4.06

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	3.6	6.3	-	-	-	-
2450	3.4	5.5	-	-	-	-
2500	2.6	4.9	-	-	-	-
5180	-	-	4.4	4.5	-	-
5300	-	-	3.7	4.3	-	-
5500	-	-	4.2	3.2	-	-
5800	-	-	3.6	3.9	-	-
5925	-	-	-	-	5.5	4.4
6500	-	-	-	-	5.4	4.9
6755	-	-	-	-	5.5	5.3
7125	-	-	-	-	4.6	5.9