

Antenna Test Report

Company Panasonic Automotive Systems Co.,Ltd.
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Date 2025/1/24

1.Antenna Description

◆Antenna Description

Item	Description
MODEL	AM2301
Manufacturer	Panasonic Automotive Systems Co.,Ltd.
Antenna Type	PCB Antenna
Wireless type	Bluetooth/WiFi
Frequency Range	2.4GHz:2400MHz - 2484MHz 5GHz:5180MHz - 5825MHz
Peak Gain	1 st Antenna 2.4GHz:4.0dBi 5GHz:6.0dBi 2 nd Antenna 2.4GHz:4.0dBi 5GHz:6.0dBi
VSWR	<4.0
Impedance	50Ω

◆Antenna Photo

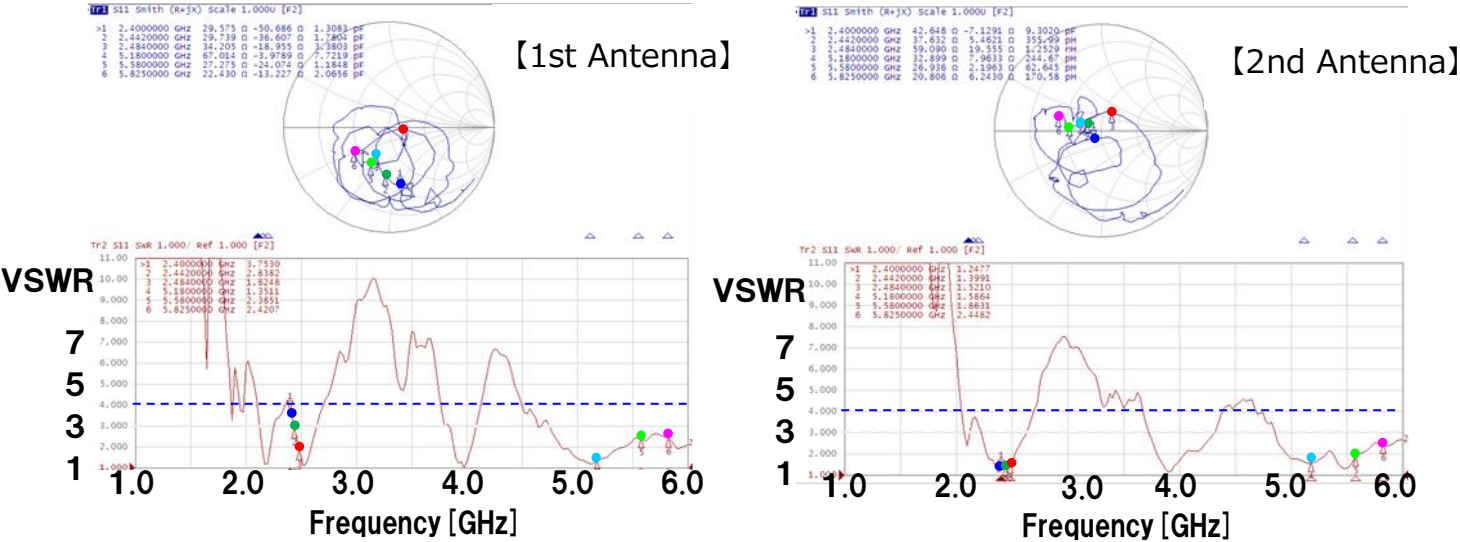
Please refer to Photo1 in 【Appendix for "AM2301_Antenna Test Report"】.

【remarks】

1st antenna is used for Bluetooth and WiFi 2.4GHz and 5GHz , 2nd antenna is used for WiFi 2.4GHz and WiFi 5GHz

2.Measurement Result

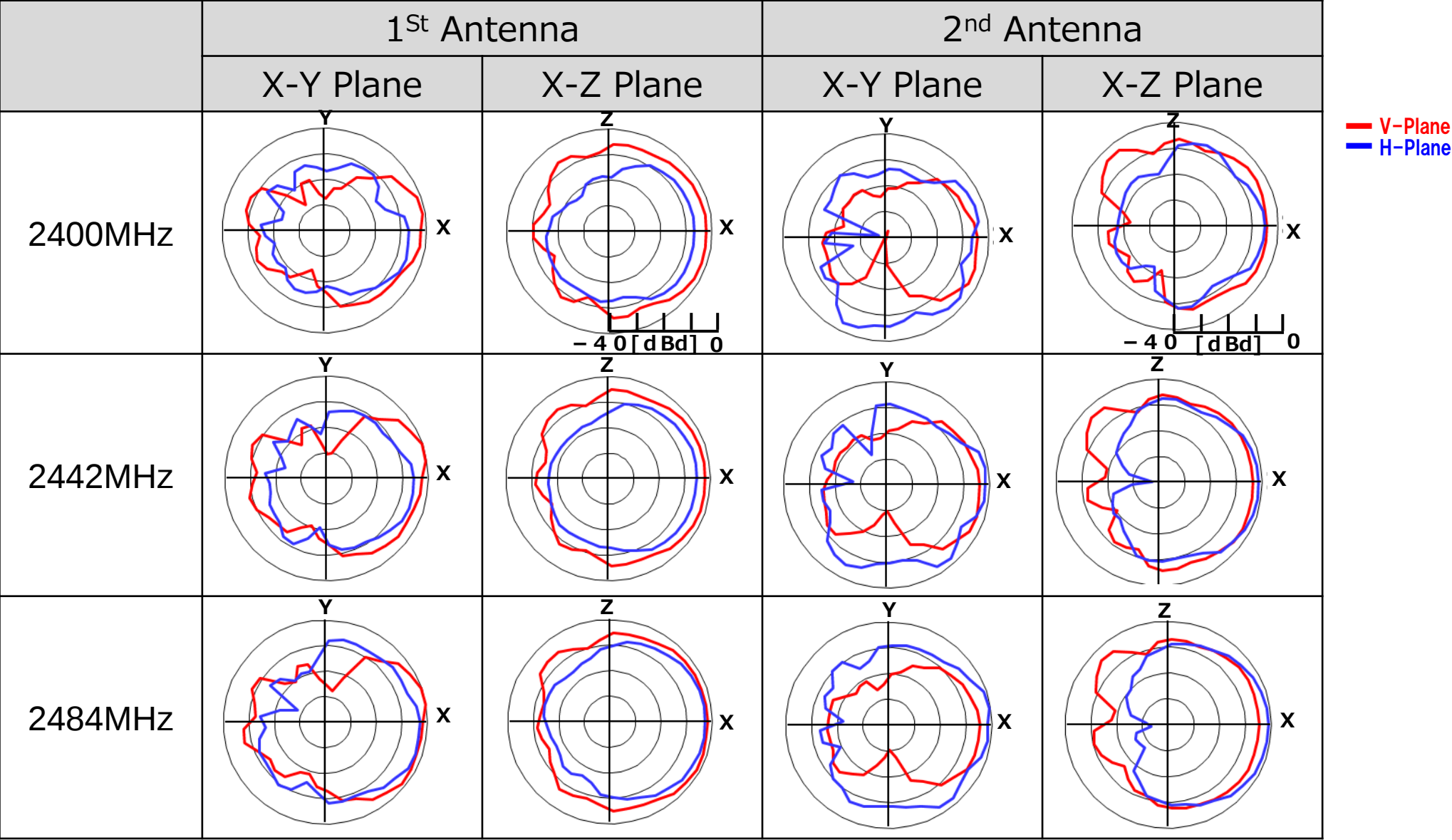
◆ VSWR & Smith Chart



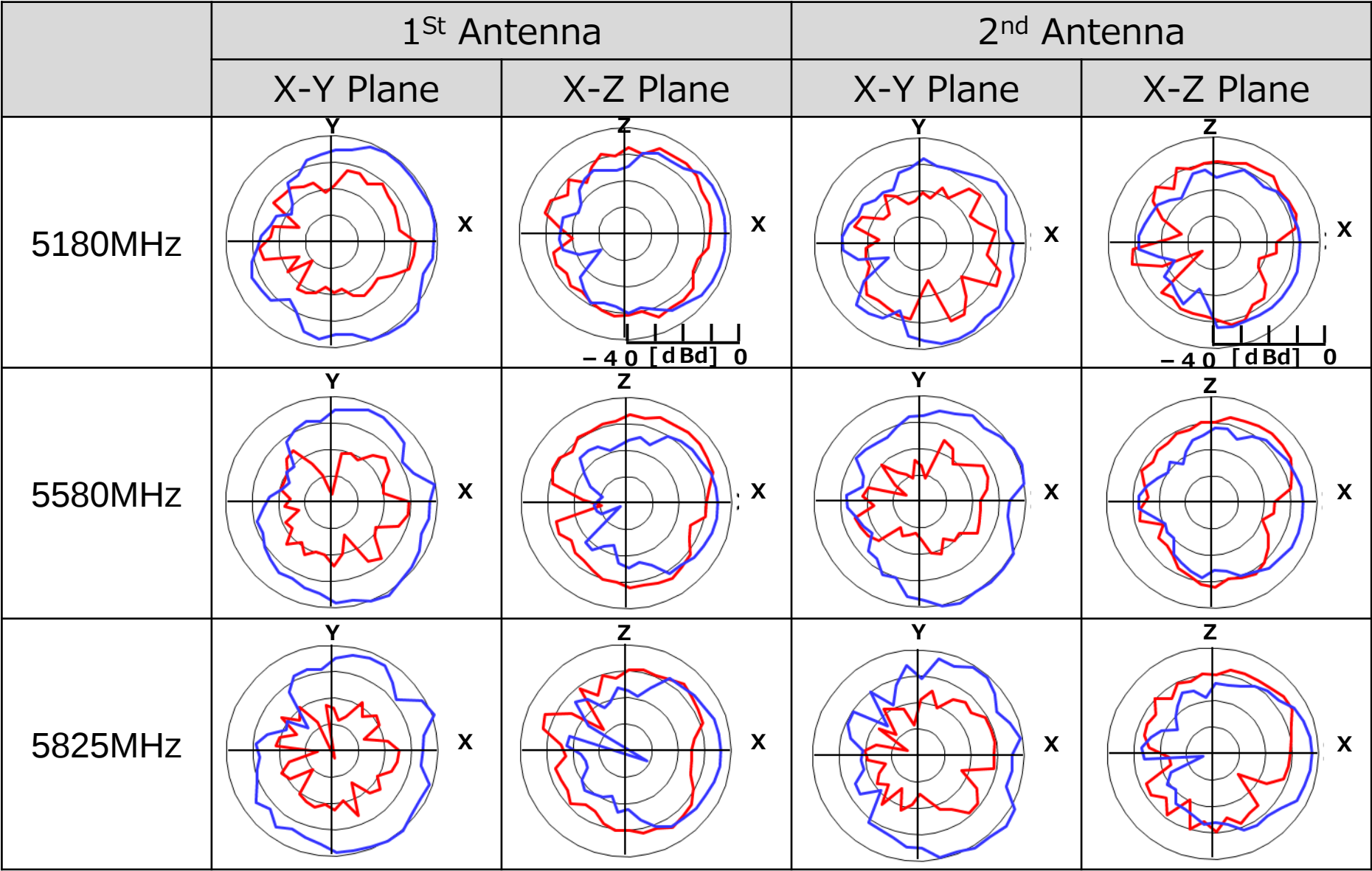
◆ Antenna Peak Gain

Antenna	Band	Frequency[MHz]	Peak Gain[dBi]
1st Antenna	2.4GHz	2400	1.1
		2442	2.0
		2484	2.0
	5GHz	5180	3.7
		5580	3.5
2nd Antenna	2.4GHz	5825	3.2
		2400	-0.7
		2442	1.1
	5GHz	2484	1.7
		5180	1.1
		5580	3.6
		5825	4.9

3. Antenna Radiation Pattern(2D) ~2.4GHz~



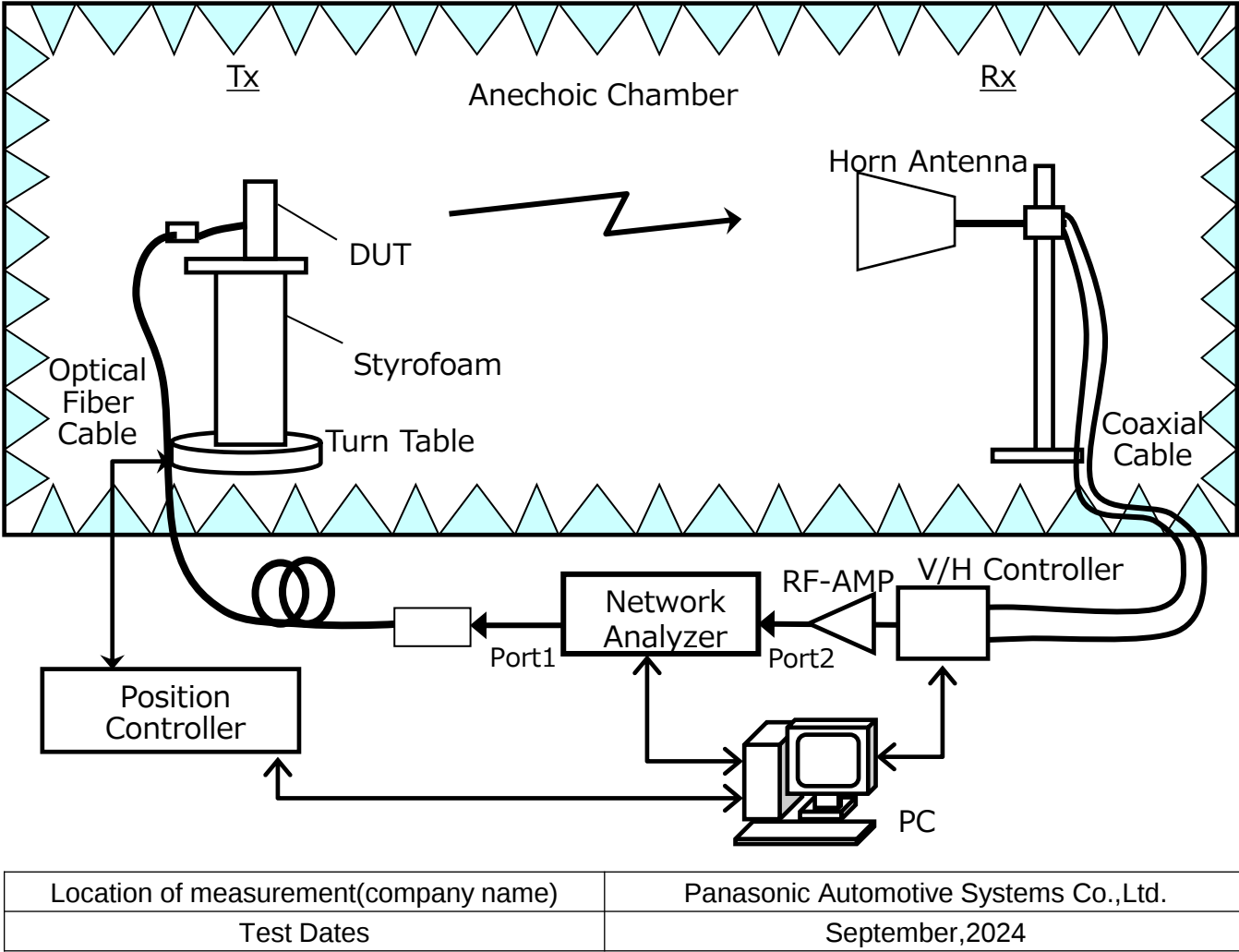
4.Antenna Radiation Pattern(2D) ~5GHz~



— V-Plane
— H-Plane

5.Test Equipment & Conditions

◆Test method for antenna gain measurement



◆Test Setup photo

Please refer to Photo2 in 【Appendix for "AM2301_Antenna Test Report"】.

◆List of equipment

No	Instrument	Manufacturer	Serial No	Last Calibration Date	Cal Int
1	Anechoic Chamber	TDK	-	-	-
2	Horn Antenna	SCHWARZBECK	BBHA 9120 E	-	-
3	Network Analyzer	Agilent Technologies	E5071C	2024/2	12
4	Position Controller	Device	DCAN23004/DM	-	-
5	RF-AMP	R&K	LA151-RS	-	-