

Antenna Test Report

Company Panasonic Automotive Systems Co.,Ltd.
Signature Akito Sakamoto
Date 2022/11/29

1. Antenna Description

◆ Antenna Description

Item	Description
MODEL	AM2201
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: 2.0dBi 5GHz: 5.0dBi 2 nd Antenna 2.4GHz: 2.0dBi 5GHz: 5.0dBi
VSWR	< 3.0
Impedance	50Ω

◆ Antenna Photo

Please refer to Photo1 in 【Appendix for "AM2201_Antenna Test Report"】.

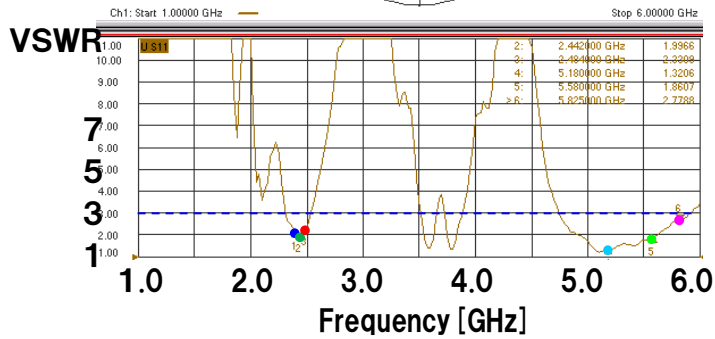
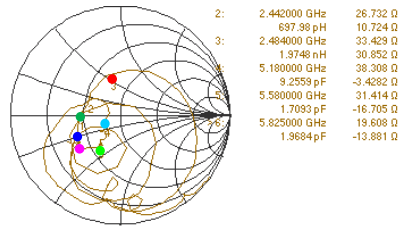
【remarks】

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

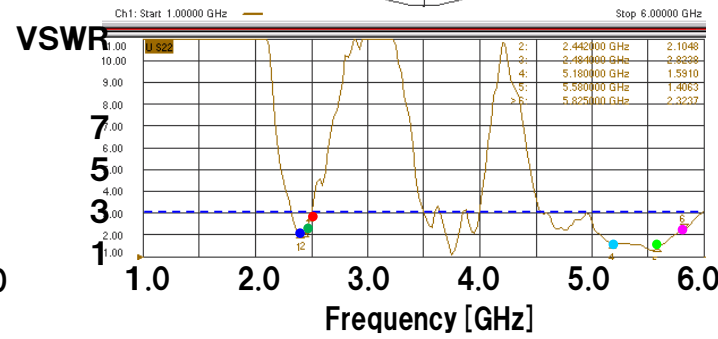
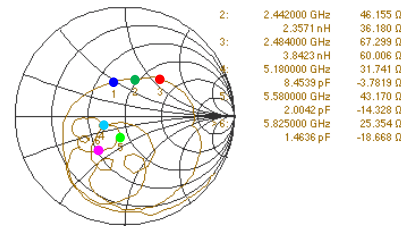
2.Measurement Result

◆ VSWR & Smith Chart

【1st Antenna】



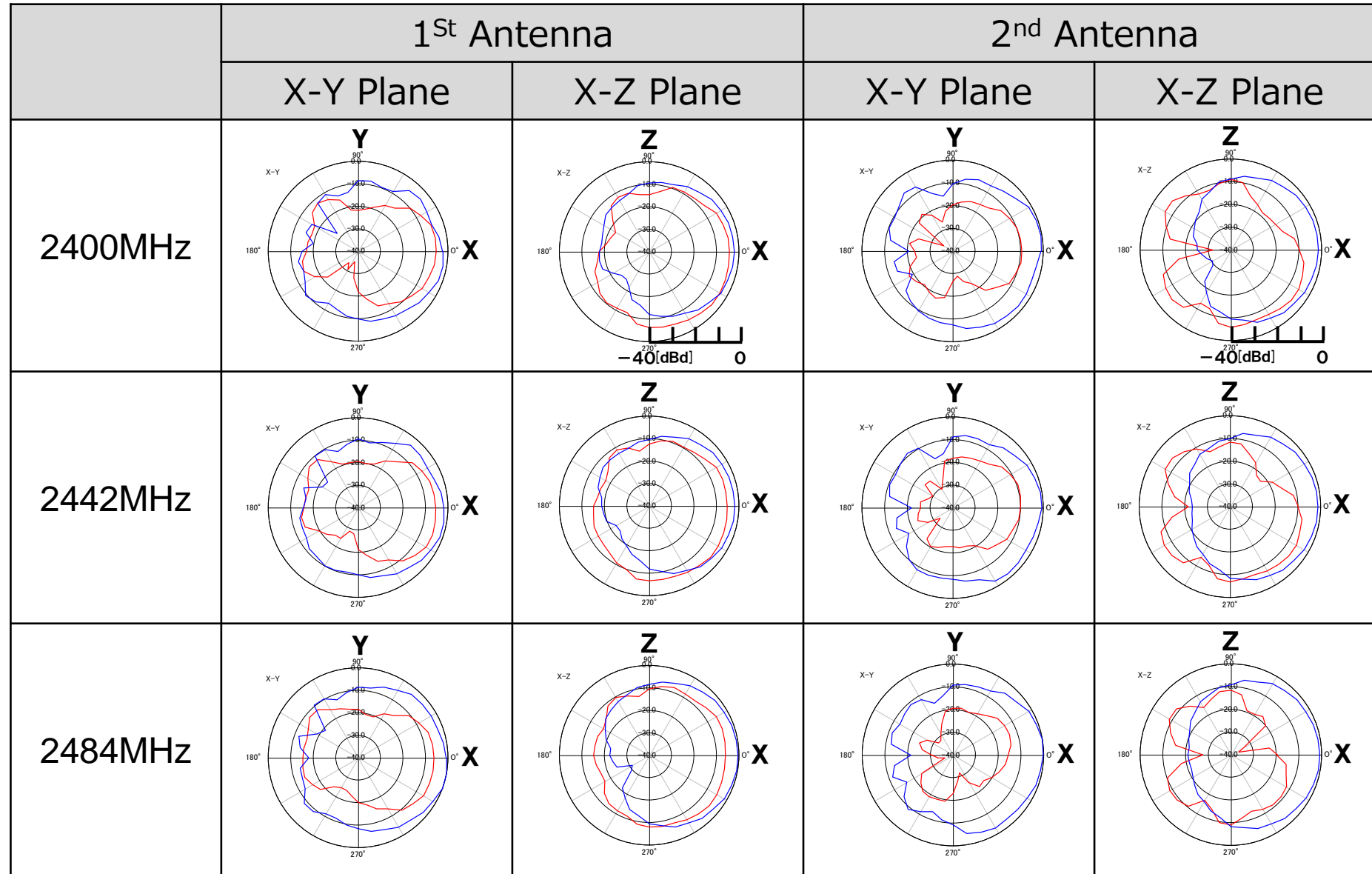
【2nd Antenna】



◆ Antenna Peak Gain

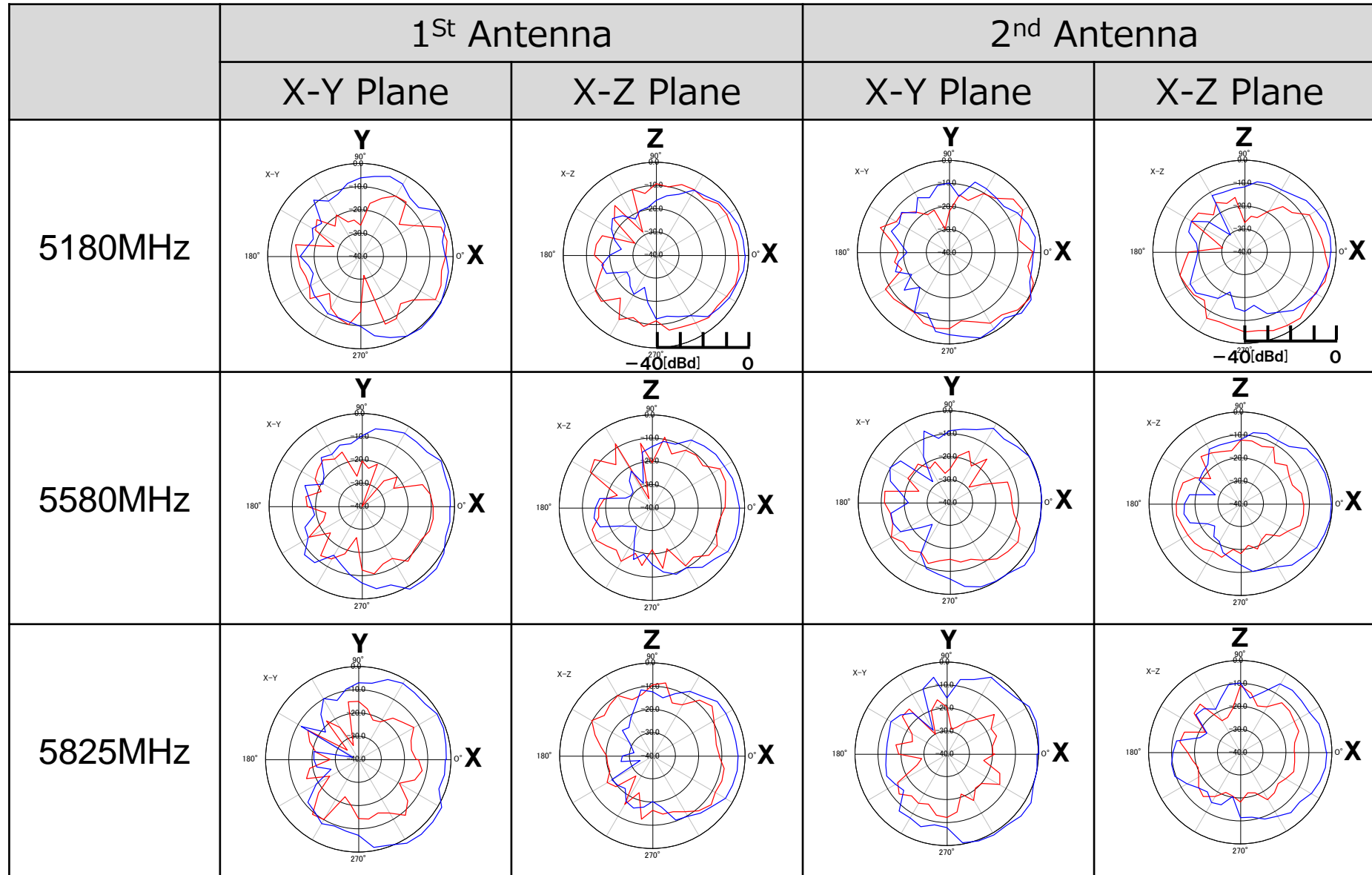
Antenna	Band	Frequency[MHz]	Peak Gain[dBi]
1st Antenna	2.4GHz	2400	0.2
		2442	0.6
		2484	1.9
	5GHz	5180	2.6
		5580	3.8
2nd Antenna	2.4GHz	2400	1.4
		2442	1.3
		2484	1.8
	5GHz	5180	3.2
		5580	4.5
		5825	4.3

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



— V-Plane
— H-Plane

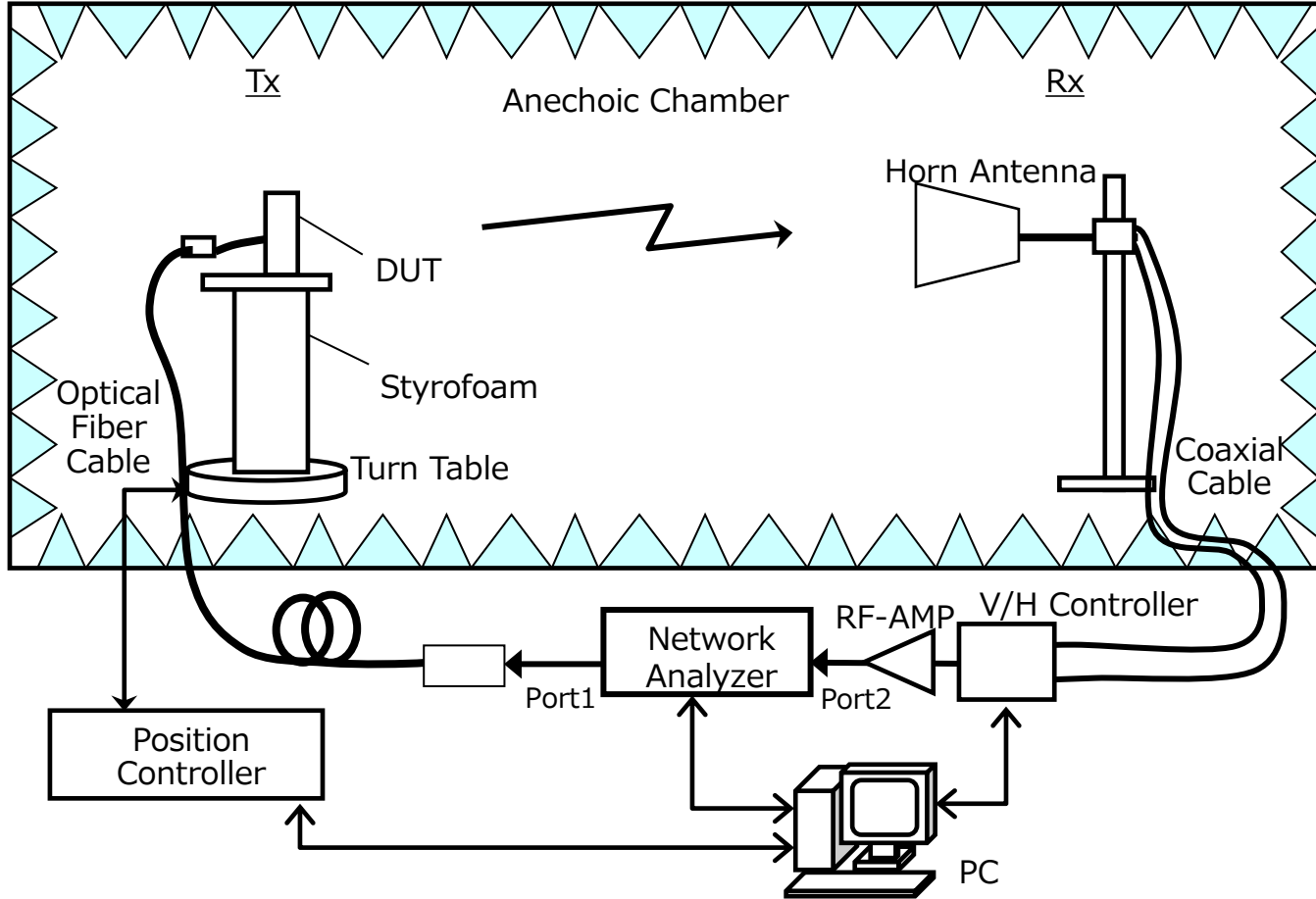
4. Antenna Radiation Pattern(2D) ~5GHz~



— V-Plane
— H-Plane

5. Test Equipment & Conditions

◆ Test method for antenna gain measurement



Location of measurement(company name)	Panasonic Automotive Systems Co.,Ltd.
Test Dates	April,2022

◆ Test Setup photo

Please refer to Photo2 in [Appendix for "AM2201_Antenna Test Report"].

◆ List of equipment

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