

FCC Part 15 Antenna Gain Test Report

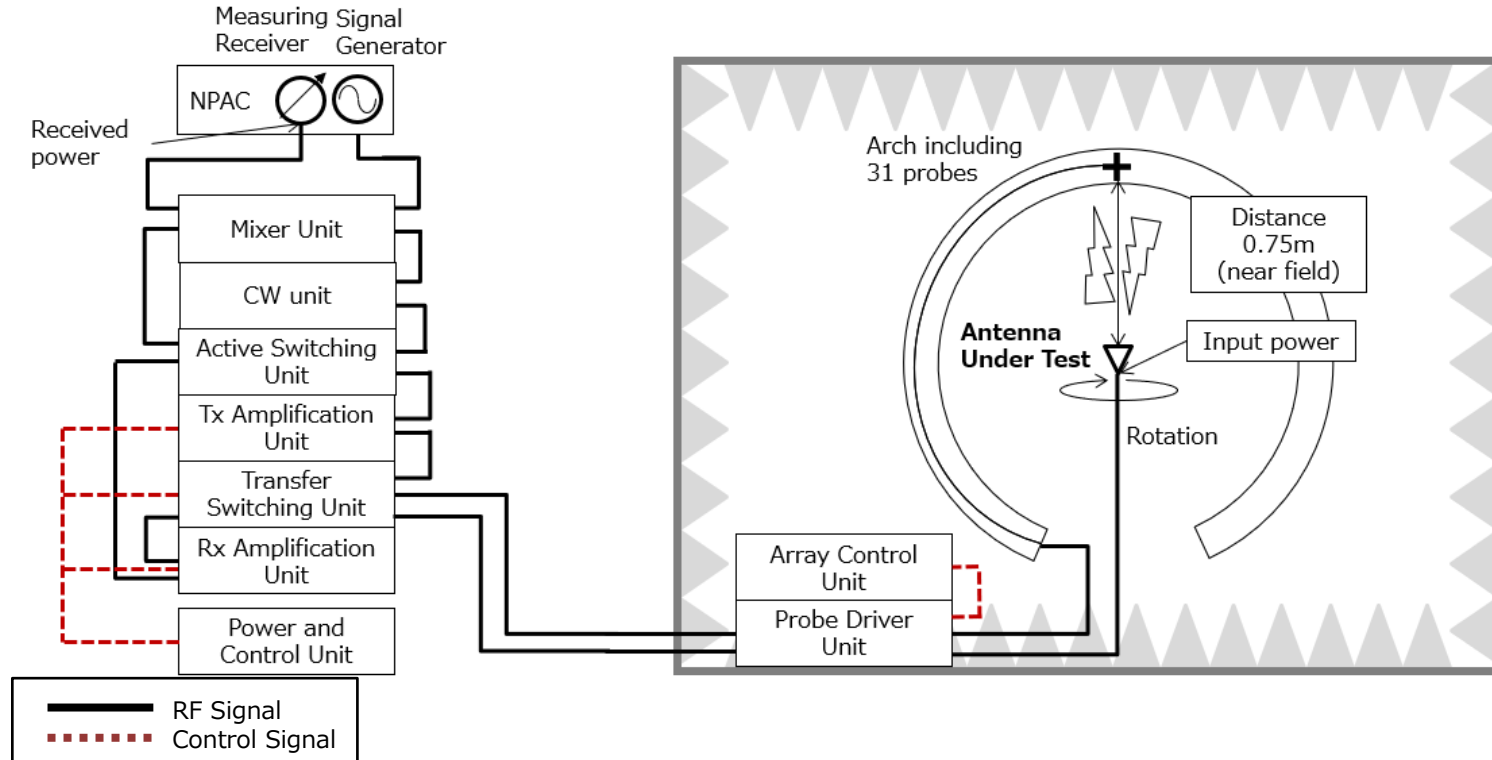
FCC ID:	VPYLB1VY
Client:	Murata Manufacturing Co., Ltd.
Type of Equipment:	Communication Module
Model No.:	Type1VY (* installed in Digital Camera 1VY012)
Date of Testing:	January 29, 2025
Date of Issue:	March 11, 2025

Sony Corporation

5-1-1 Minatomirai Nishi-ku Yokohama-shi Kanagawa, 220-8750, Japan

1. Measurement Procedure

- The antenna gain is measured in a fully anechoic chamber



2. Test Equipment and Measurement Software

Used	Equipment Description	Model No.	Serial No.	Manufacturer	Cal. Interval	Last Cal.	Remark
Y	Absorber Chamber	B83117-A1421-T161	21061	Albatross Projects	N/A	N/A	
Y	Multi-Probe Measurement System	SG32	1102611-0001	MVG	12 months	2024.08.05	
Y	Active Switching Unit	ASU	1101217-2569	MVG	12 month	2024.08.05	
N	Dual-Ridge Horn Antenna (0.6-6.0 GHz)	SH600	30	MVG	N/A	N/A	Reference Antenna
N	Sleeve-Dipole Antenna (0.69-0.8 GHz)	SD740	32	MVG	N/A	N/A	Reference Antenna
N	Sleeve-Dipole Antenna (0.865-0.93 GHz)	SD900	153	MVG	N/A	N/A	Reference Antenna
N	Radio Communication Tester	MT8821A	6261711661	ANRITSU	12 months	2022.06.20	For OTA
• The calibration is valid until the end of the expiration month.							

Measurement Software

Used	Software Description	Model No.	Version	Manufacturer	Remark
Y	Automated Antenna and OTA Measurement Software Suite	MVG WaveStudio	24.2.6	MVG	
Y	Near-Field to Far-Field Transformation Software	MV-Sphere	3.4.4	MVG	

3. Antenna Under Test

Antenna 1

Antenna Model Name: FPC-2035
Antenna Type: Monopole
Input Impedance: 50 ohm

Antenna 2

Antenna Model Name: WF-1008
Antenna Type: Monopole
Input Impedance: 50 ohm

4. Antenna Gains

Antenna 1

Date of Testing: January 29, 2025

Tested Personnel: Hirotaka Sato

[illegible]

Antenna 2

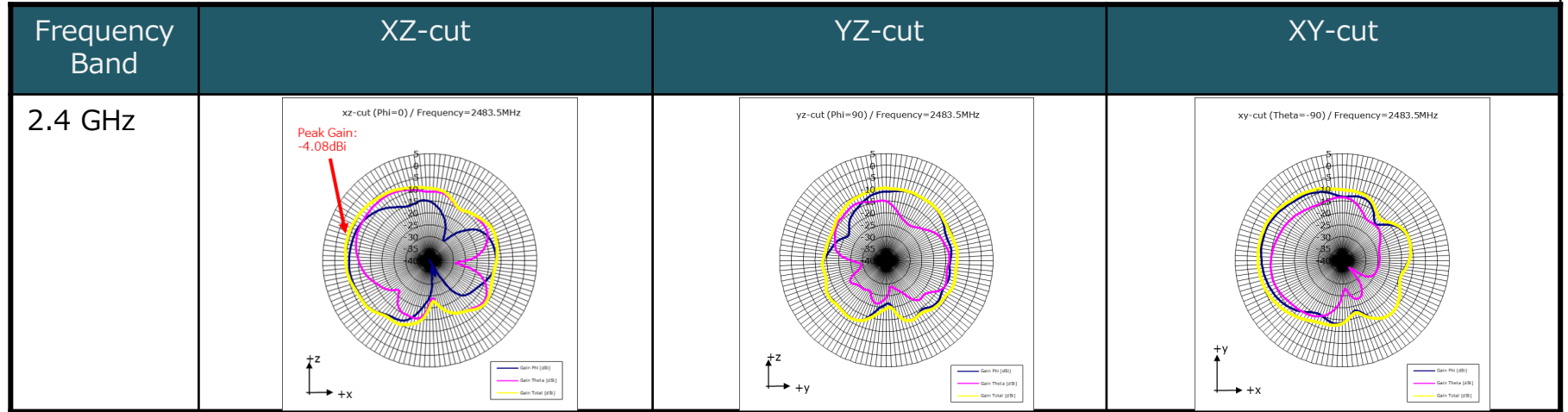
Date of Testing: January 29, 2025

Tested Personnel: Hirotaka Sato

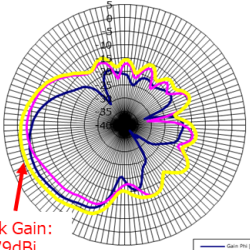
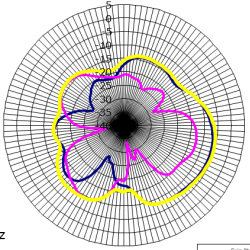
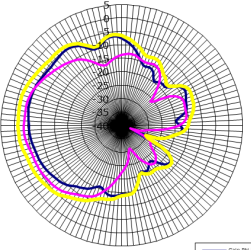
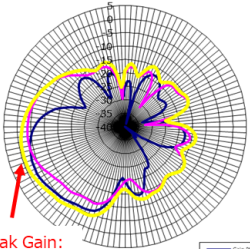
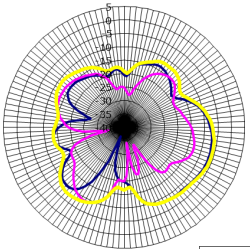
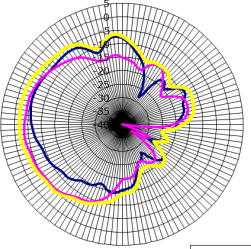
[illegible]

5. Antenna Directivity Plots

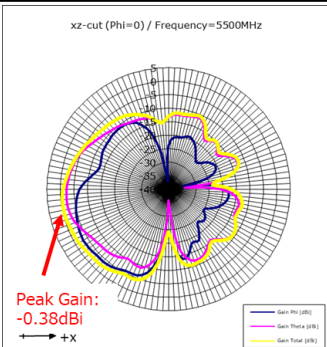
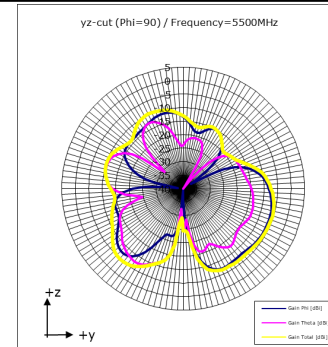
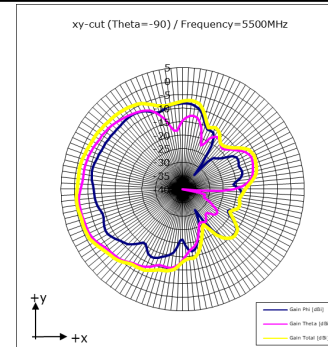
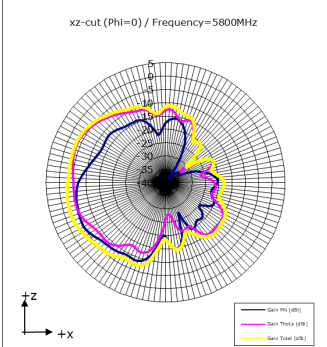
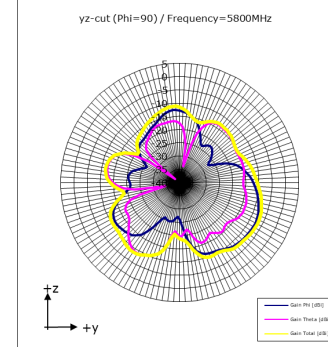
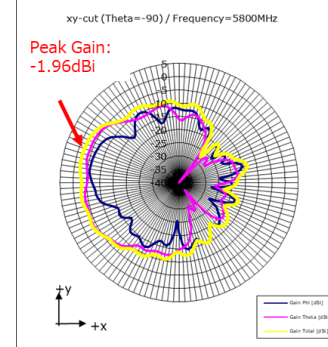
Antenna 1 (1/3)



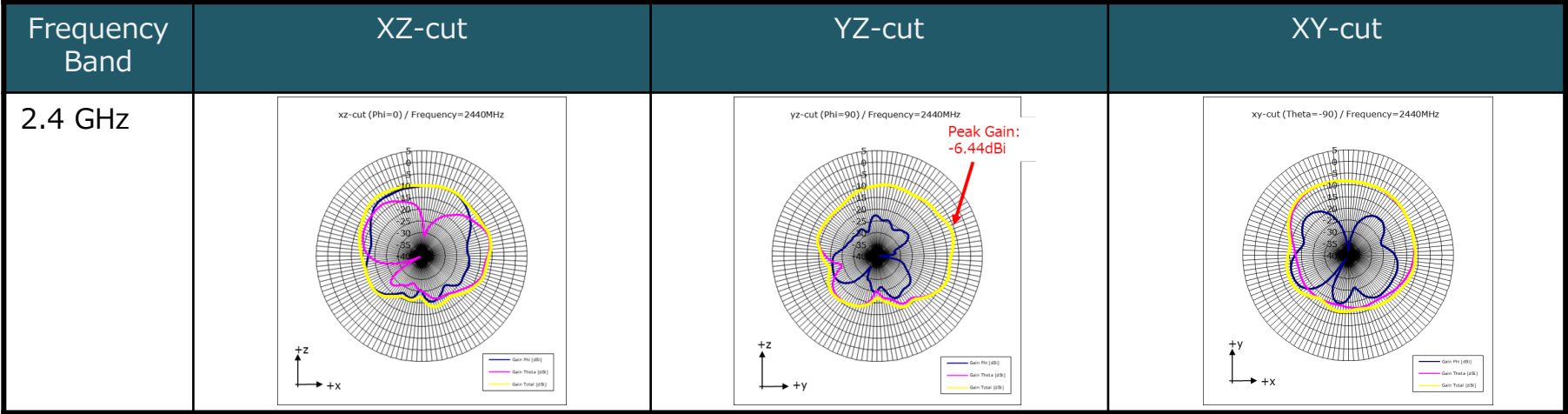
Antenna 1 (2/3)

Frequency Band	XZ-cut	YZ-cut	XY-cut
W52 (5.2 GHz)	xz-cut (Phi=0) / Frequency=5200MHz  Peak Gain: -0.79dBi → +x	yz-cut (Phi=90) / Frequency=5200MHz  → +y	xy-cut (Theta=-90) / Frequency=5200MHz  → +x
W53 (5.3 GHz)	xz-cut (Phi=0) / Frequency=5300MHz  Peak Gain: -0.79dBi → +x	yz-cut (Phi=90) / Frequency=5300MHz  → +y	xy-cut (Theta=-90) / Frequency=5300MHz  → +x

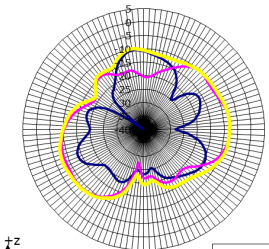
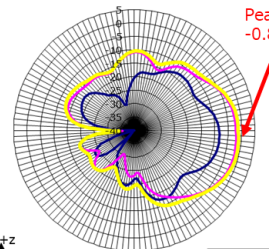
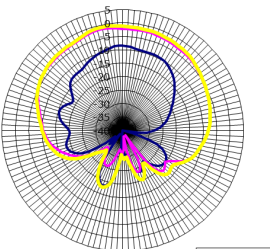
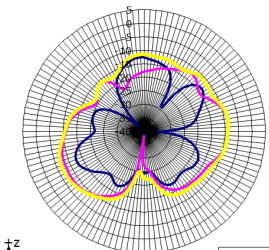
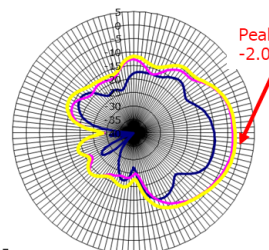
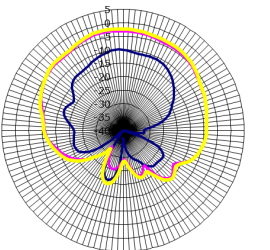
Antenna 1 (3/3)

Frequency Band	XZ-cut	YZ-cut	XY-cut
W56 (5.5 GHz)	xz-cut (Phi=0) / Frequency=5500MHz  Peak Gain: -0.38dBi → +X	yz-cut (Phi=90) / Frequency=5500MHz  +z → +y	xy-cut (Theta=-90) / Frequency=5500MHz  +y → +x
W58 (5.8 GHz)	xz-cut (Phi=0) / Frequency=5800MHz  +z → +x	yz-cut (Phi=90) / Frequency=5800MHz  +z → +y	xy-cut (Theta=-90) / Frequency=5800MHz Peak Gain: -1.96dBi  +y → +x

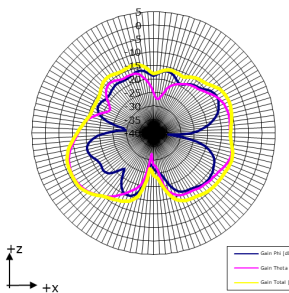
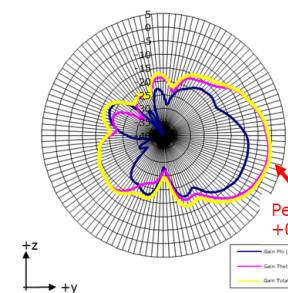
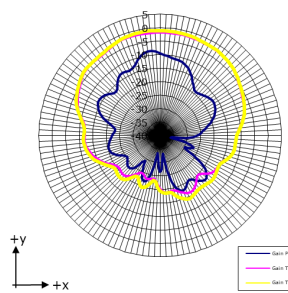
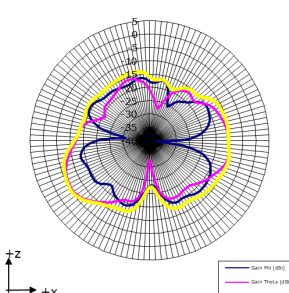
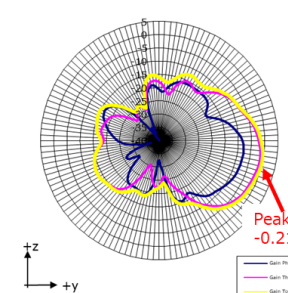
Antenna 2 (1/3)



Antenna 2 (2/3)

Frequency Band	XZ-cut	YZ-cut	XY-cut
W52 (5.2 GHz)	xz-cut (Phi=0) / Frequency=5200MHz 	yz-cut (Phi=90) / Frequency=5200MHz 	xy-cut (Theta=-90) / Frequency=5200MHz 
W53 (5.3 GHz)	xz-cut (Phi=0) / Frequency=5300MHz 	yz-cut (Phi=90) / Frequency=5300MHz 	xy-cut (Theta=-90) / Frequency=5300MHz 

Antenna 2 (3/3)

Frequency Band	XZ-cut	YZ-cut	XY-cut
W56 (5.7 GHz)	xz-cut (Phi=0) / Frequency=5700MHz 	yz-cut (Phi=90) / Frequency=5700MHz 	xy-cut (Theta=-90) / Frequency=5700MHz 
W58 (5.8 GHz)	xz-cut (Phi=0) / Frequency=5800MHz 	yz-cut (Phi=90) / Frequency=5800MHz 	xy-cut (Theta=-90) / Frequency=5800MHz 