

TEST REPORT

Issued Date : May 27 2025

Report Number : KFEI_ModDev_25-026

Product Name : Monopole Antenna

Model Number : AW-002

Test Date : Dec. 28, 2023

1. General information

1.1. Test Facility

Name : KAGA FEI Co., Ltd.

Address : Shin-Yokohama Chuo Bldg., 2-100-45, Shin-Yokohama, Kohoku-Ku,
Yokohama, Kanagawa, 222-8508, Japan

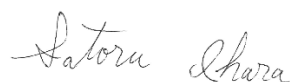
1.2. List of Test Equipment

Description	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
Multi-probe systems	Microwave Vision Group	StarLab 6GHz	1103347-0011	Dec. 27, 2024	Dec. 26, 2025

1.3. List of Test Software

Software Name	Manufacturer	Version
Wave Studio	Microwave Vision Group	23.2
MV-Sphere	Microwave Vision Group	1.0.11

Tested by :



Satoru Ihara

Senior Engineer

Product Development Dept. Module Product Div.

Date : May 27, 2025

Approved by :



Hideki Ochi

General Manager

Product Development Dept. Module Product Div.

Date : May 27, 2025

2. EUT information

2.1. Test setup photos

WKI611



Mounted on evaluation board

2.2. Antenna Appearance

size= 15.7mm × 7mm

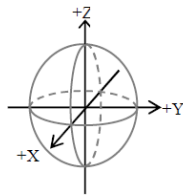
15.7mm

3. Measurement data

WKI611_Antenna document_2.4GHz band (Installed on evaluation board for WKI611)

Measured in MVG Star Lab system at KAGA FEI.

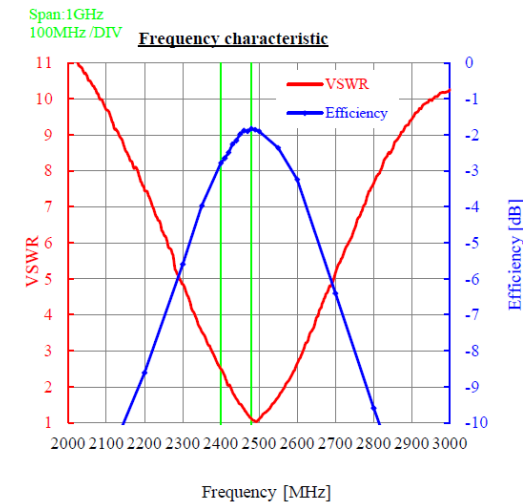
Appearance and coordinates definition



Measurement data of antenna

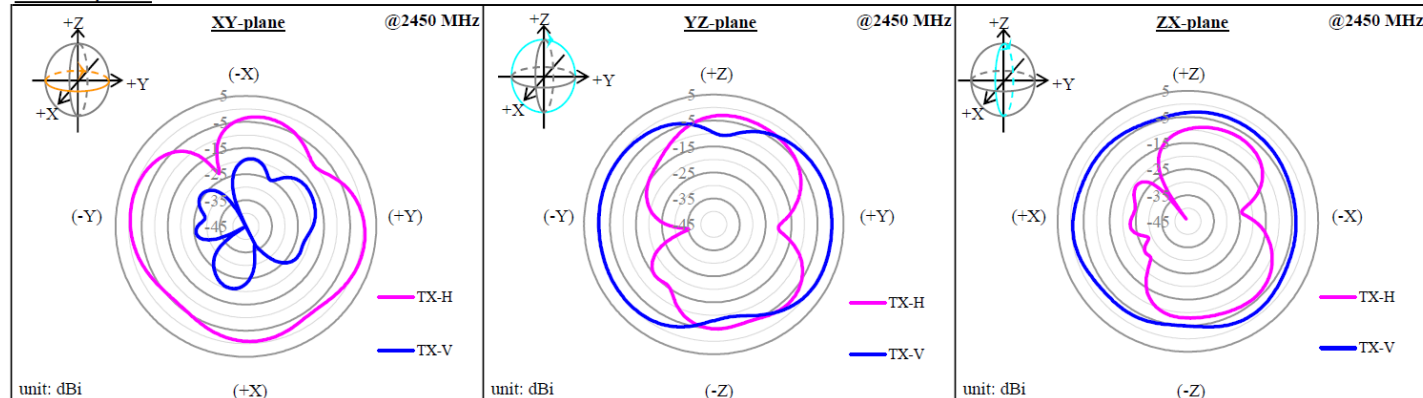
Frequency [MHz]	@2400	@2450	@2500
Peak gain [dBi]			
3-plane TX-H	0.2	0.9	1.0
TX-V	-0.2	0.7	0.9
	0.2	0.9	1.0
Average gain [dBi]			
XY-plane TX-H	-3.6	-2.6	-2.5
TX-V	-23.2	-22.4	-21.8
Plus(H,V)	-3.5	-2.5	-2.5
YZ-plane TX-H	-7.7	-7.0	-6.8
TX-V	-2.4	-1.7	-1.7
Plus(H,V)	-1.3	-0.6	-0.6
XZ-plane TX-H	-11.1	-10.9	-11.2
TX-V	-3.9	-2.7	-2.4
Plus(H,V)	-3.1	-2.1	-1.8
3plane TX-H	-6.4	-5.6	-5.5
TX-V	-4.8	-3.9	-3.8
	-2.5	-1.7	-1.6
Efficiency [dB]	-2.8	-2.0	-1.9
VSWR [1]	2.5	1.7	1.1

28.Dec.2023



*Note: The value is average value in 1 round of each inclination direction angle.

Radiation pattern



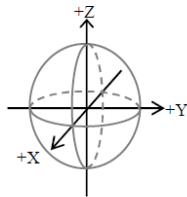
WKI611_Antenna document_5GHz band (Installed on evaluation board for WKI611)

Measurement data of antenna

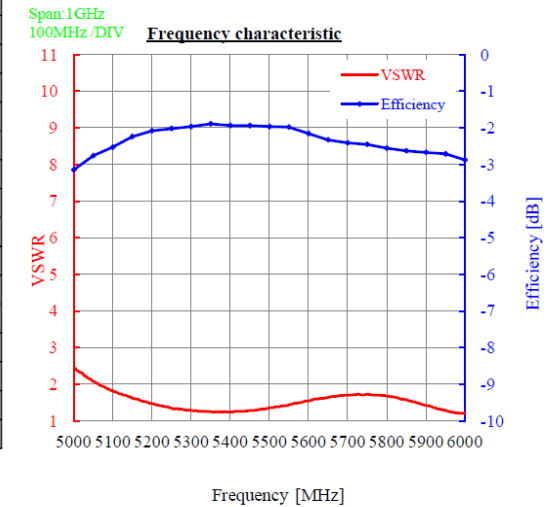
Measured in MVG Star Lab system at KAGA FEI.

28.Dec.2023

Appearance and coordinates definition



Frequency [MHz]	@5150	@5400	@5850
Peak gain [dBi]			
3-plane TX-H	1.4	0.7	0.1
TX-V	-1.1	-0.1	0.0
	1.4	0.7	0.1
Average gain [dBi]			
XY-plane TX-H	-3.5	-3.2	-4.2
TX-V	-12.4	-12.9	-11.9
Plus(H,V)	-3.0	-2.7	-3.5
YZ-plane TX-H	-5.5	-5.1	-4.3
TX-V	-5.1	-4.3	-4.2
Plus(H,V)	-2.3	-1.6	-1.3
XZ-plane TX-H	-7.8	-7.0	-6.2
TX-V	-4.6	-4.4	-5.5
Plus(H,V)	-2.9	-2.5	-2.8
3plane TX-H	-5.3	-4.8	-4.8
TX-V	-6.2	-5.8	-6.2
	-2.7	-2.3	-2.4
Efficiency [dB]	-2.2	-1.9	-2.6
VSWR [1]	1.6	1.2	1.6



*Note: The value is average value in 1 round of each inclination direction angle.

Radiation pattern

