OTA Antenna Performance Data Summary

DATA NO.	:	**OQ510904**
APPLICANT	:	**GigaDevice**
MODEL NAME	:	**GD32VW553-MINI-Ixxx**
EQUIPMENT NAME	:	**GD32VW553-MINI-Ixxx_PCB_Antenna**
ANTENNA TYPE	:	**PCB Antenna**
DEVICE RECEIVING DATE	:	**Jan. 22, 2025**
TEST DATE	:	**Jan. 22, 2025**

Reviewed by:

Feynman Liu

Feynman Liu / Vice Manager

Approved by:

kevin chu

Kevin Chu / Manager

Sporton International Inc. (Kunshan)

No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300

People's Republic of China

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Revision History

DATA NO.	VERSION	DESCRIPTION	ISSUED DATE
OQ510904	1.0	Initial issue of data summary	Feb. 11, 2025
OQ510904	2.0	Add Antenna Type. This report is an update version, replacing the report issued on Feb. 11, 2025.	Apr. 01, 2025

1. Administration Data

1.1 Testing Laboratory

Test Site	Sporton International Inc. (Kunshan)
Test Site Location	No. 1098, Pengxi North Road, Kunshan Economic Development Zone Jiangsu Province 215300 People's Republic of China TEL: +86-0512-5790-0158 FAX: +86-0512-5790-0958
Chamber	□ OTA01-KS □ OTA02-KS □ OTA03-KS ■ OTA04-KS □ OTA05-KS

■: Indicates the chamber(s) used in this data summary

1.2 Applicant

Company Name	GigaDevice
Address	Building No. 8, IC Park, No. 9 Fenghao East Road, Haidian District, Beijing 100094, China

1.3 Test Equipment List

Name	Manufacturer	Type/Model	Serial Number	Calibration	
				Last Cal.	Last Cal.
Network Analyzer	Agilent	E5071C	MY46317418	2025/01/03	2026/01/02
Switch Control	ETS-Lindgren	EMCenter	00160100	NCR	NCR
Diagonal Dual Polarized Horn	ETS-Lindgren	3164-08	00099205	NCR	NCR
Multi-Devices Controller	ETS-Lindgren	2090-OPT1	00066604	NCR	NCR
Medium Duty Holder	ETS-Lindgren	2015	N/A	NCR	NCR

2. Summary of Test Result of Antenna Gain

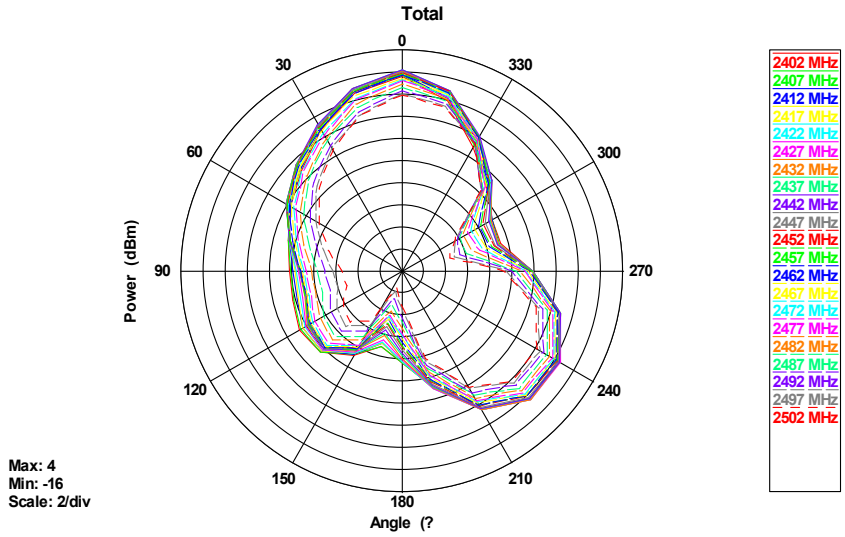
Test	Position	Frequency (MHz)	Peak Gain (dBi)	Directivity (dBi)	Efficiency (dBi)	Efficiency (%)	Note
Antenna Gain	Free Space	2402	3.6	5.2	-1.6	68.7	15°
		2407	3.6	5.2	-1.6	68.9	
		2412	3.6	5.2	-1.6	68.6	
		2417	3.6	5.2	-1.6	69.1	
		2422	3.5	5.1	-1.6	69.7	
		2427	3.4	5.0	-1.6	69.6	
		2432	3.2	4.9	-1.6	68.6	
		2437	3.1	4.8	-1.7	67.8	
		2442	2.9	4.6	-1.8	66.8	
		2447	2.5	4.4	-1.9	64.7	
		2452	2.4	4.5	-2.0	62.7	
		2457	2.4	4.5	-2.1	62.2	
		2462	2.4	4.5	-2.2	60.5	
		2467	2.2	4.6	-2.4	57.6	
		2472	2.1	4.6	-2.5	55.7	
		2477	1.9	4.6	-2.7	53.8	
		2482	1.7	4.7	-3.0	50.7	
		2487	1.5	4.7	-3.2	47.7	
		2492	1.1	4.7	-3.5	44.2	
		2497	0.8	4.7	-3.9	41.2	
		2502	0.6	4.7	-4.0	39.5	

3. Free Space Position Antenna Gain Patterns

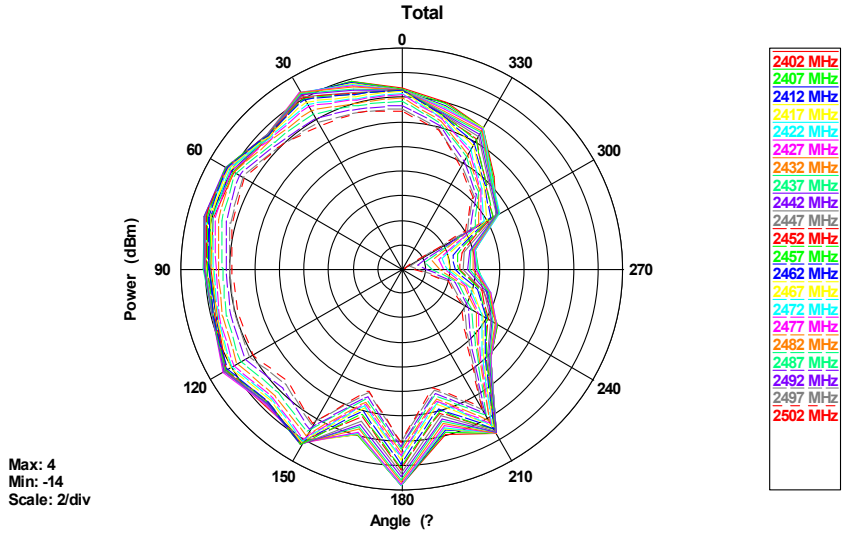
Please refer to as below.

2D Patterns

H



E1



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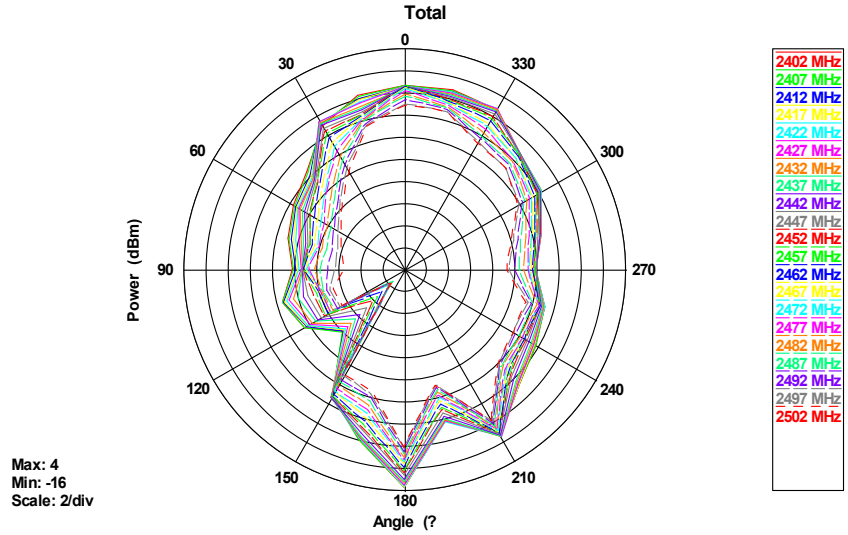
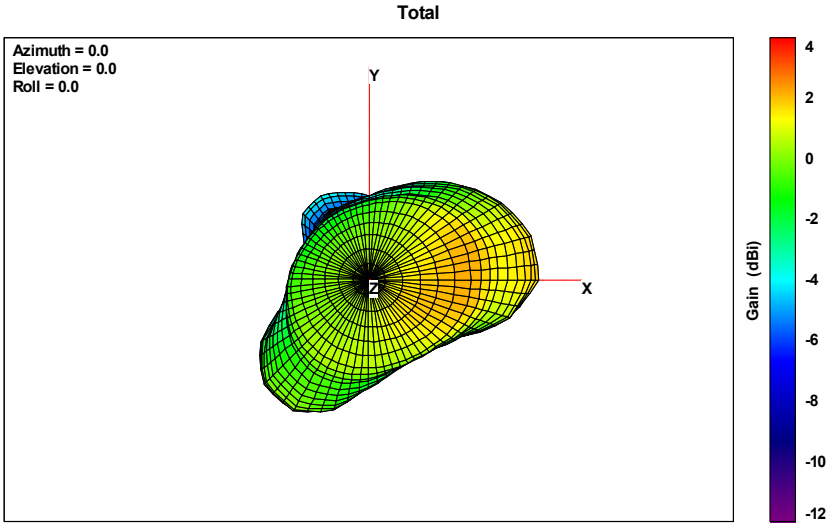
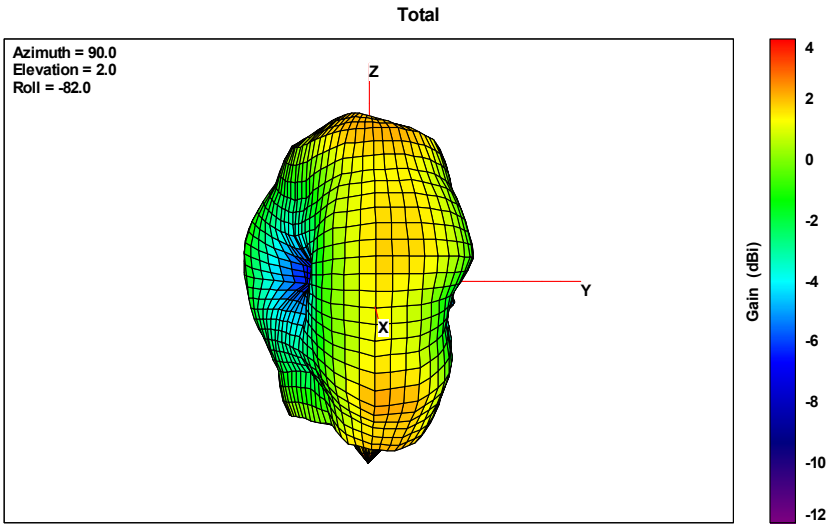

Total
0
30
330
60
300
90
270
120
240
150
210
180
Power (dBm)
Angle (?
2402 MHz
2407 MHz
2412 MHz
2417 MHz
2422 MHz
2427 MHz
2432 MHz
2437 MHz
2442 MHz
2447 MHz
2452 MHz
2457 MHz
2462 MHz
2467 MHz
2472 MHz
2477 MHz
2482 MHz
2487 MHz
2492 MHz
2497 MHz
2502 MHz
Max: 4
Min: -16
Scale: 2/div

3D Patterns


Total
Azimuth = 0.0
Elevation = 0.0
Roll = 0.0
Y
Z
X
Gain (dBi)
4
2
0
-2
-4
-6
-8
-10
-12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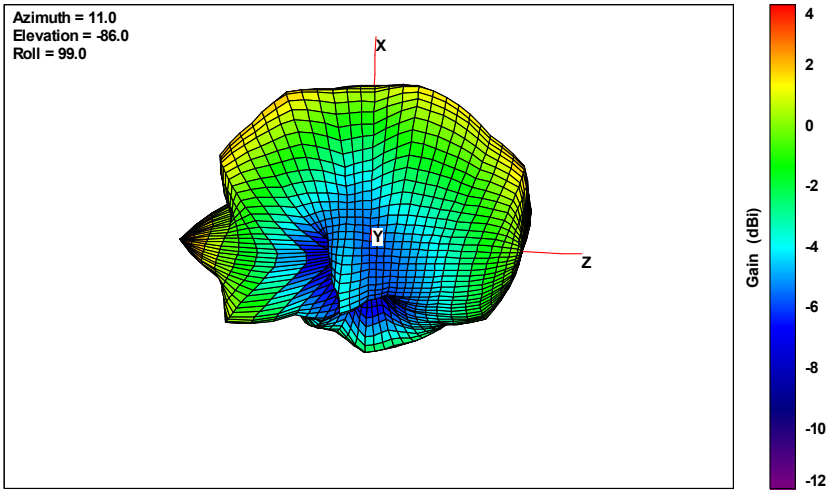
Azimuth = 90.0
Elevation = 2.0
Roll = -82.0
Z
Y
X
Gain (dBi)
4
2
0
-2
-4
-6
-8
-10
-12

Total



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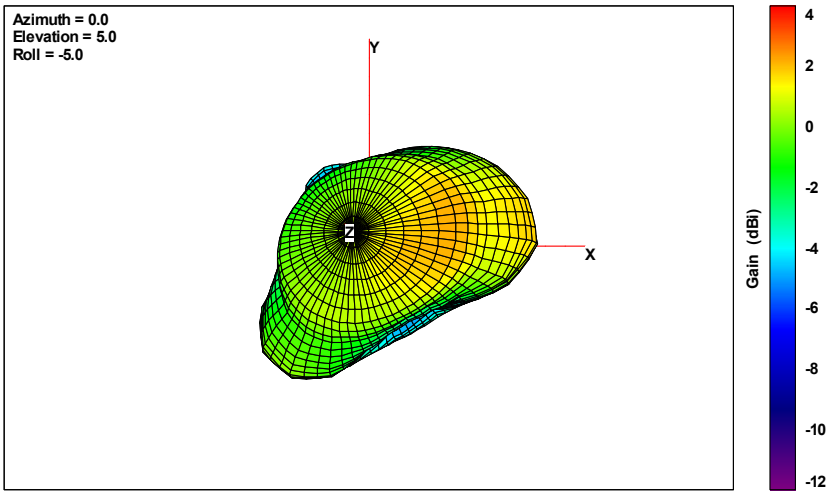

Test Position Free Space

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