

Test Report

Application Date	2024-06-12
Receipt Number	ANT_2024_0368
Company Name	DeviceDesign Co.,Ltd.
Facility Used	Mobile Phone Chamber
Usage Date	2024-06-20
Test Product	CATI_UFO-02
Product Purpose	Bluetooth Ant.
Quantity	1
Test Items	Gain / Radiation Pattern (2D/3D)
Frequency Band	2.40 ~ 2.48 GHz
Test Environment	Temperature (23±1)°C Relative Humidity (RH) (50±5)% R.H
Test Results	Attachments
Remarks	-

Korea Radio Promotion Association (RAPA)

Electromagnetic Technology Institute

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■ Test Results (Radiation Pattern / Antenna Gain)



Summary

Multiple Frequency

Reserved

Operator : Date : 2024-06-20

Customer : Time : 2024-03-03

Description :

Antenna Type

☒ Linear Polarization Type

☐ Circular Polarization Type

2D Result Summary : (ScanAxis = Theta at Phi=0 [deg])

No	Freq.[MHz]	Avg.[dB]	Peak.[dB]	Theta1	Null.[dB]	Theta2	Avg.[dB]	Peak.[dB]	Theta1	Null.[dB]	Theta2	Avg.[dB]	Peak.[dB]	Theta1	Null.[dB]	Theta2
1	2400.000	-3.10	0.36	95.00	-31.16	170.00	-13.21	-7.44	138.00	-32.37	-117.00	-2.70	0.66	-132.00	-12.17	171.00
2	2440.000	-3.11	0.61	93.00	-28.89	170.00	-13.07	-7.43	-172.00	-32.52	116.00	-2.69	0.86	93.00	-12.23	148.00
3	2480.000	-3.02	0.80	95.00	-27.30	170.00	-13.19	-8.01	139.00	-42.34	-87.00	-2.63	1.10	96.00	-13.05	149.00

2D_Horizontal

Summary

Multiple Frequency

Reserved

Operator : Date : 2024-06-20

Customer : Time : 2024-03-03

Description :

Antenna Type

☒ Linear Polarization Type

☐ Circular Polarization Type

2D Result Summary : (ScanAxis = Theta at Phi=0 [deg])

No	Freq.[MHz]	Avg.	Peak	Null	Diff.	BW	F/B R.	Phi-Pol	Avg.	Peak	Null	Diff.	BW	F/B R.	PerSum	Avg.	Peak	Null	Diff.	BW	F/B R.							
1	2400.000	-3.10	0.36	-95.00	-31.16	170.00	31.52	49.01	0.99	-171.00	-13.21	-7.44	138.00	-32.37	-117.00	24.93	13.47	0.36	-171.00	-2.70	0.66	-132.00	-12.17	171.00	12.83	34.64	0.53	-171.00
2	2440.000	-3.11	0.61	93.00	-28.89	170.00	29.50	44.77	1.22	-150.00	-13.07	-7.43	-172.00	-32.52	116.00	25.09	-158.47	0.00	-172.00	-2.69	0.86	93.00	-12.23	148.00	13.09	44.17	0.96	-171.00
3	2480.000	-3.02	0.80	95.00	-27.30	170.00	28.11	43.43	1.13	-150.00	-13.19	-8.01	139.00	-42.34	-87.00	34.33	11.86	0.36	-172.00	-2.63	1.10	96.00	-13.05	149.00	14.14	42.82	1.39	-150.00

Gain [dB]

Power-Sum, Cut #1(Phi=0)

Data Set

Polarization :

Cut : 0 [deg]

Freq. : [MHz] Param.

2400.000 BW[dB] : -3

2440.000 F/B[deg] : +/-30

2480.000 Lobe Filter [dB] : 1

Apply

Graph Option

☒ Polar ☐ Beam Peak

☒ Rect ☐ Beam Width

☐ angular ☐ Side Lobes

UnZoom

Cut #1 Cut #2 Cut #3

Scale

Max : 10

Min : -40

Apply

Report Form

2D_Horizontal

■ Test Results (Radiation Pattern / Antenna Gain)



Summary

Multiple Frequency

Reserved

Operator : Date :

Customer : Time :

Description :

Antenna Type

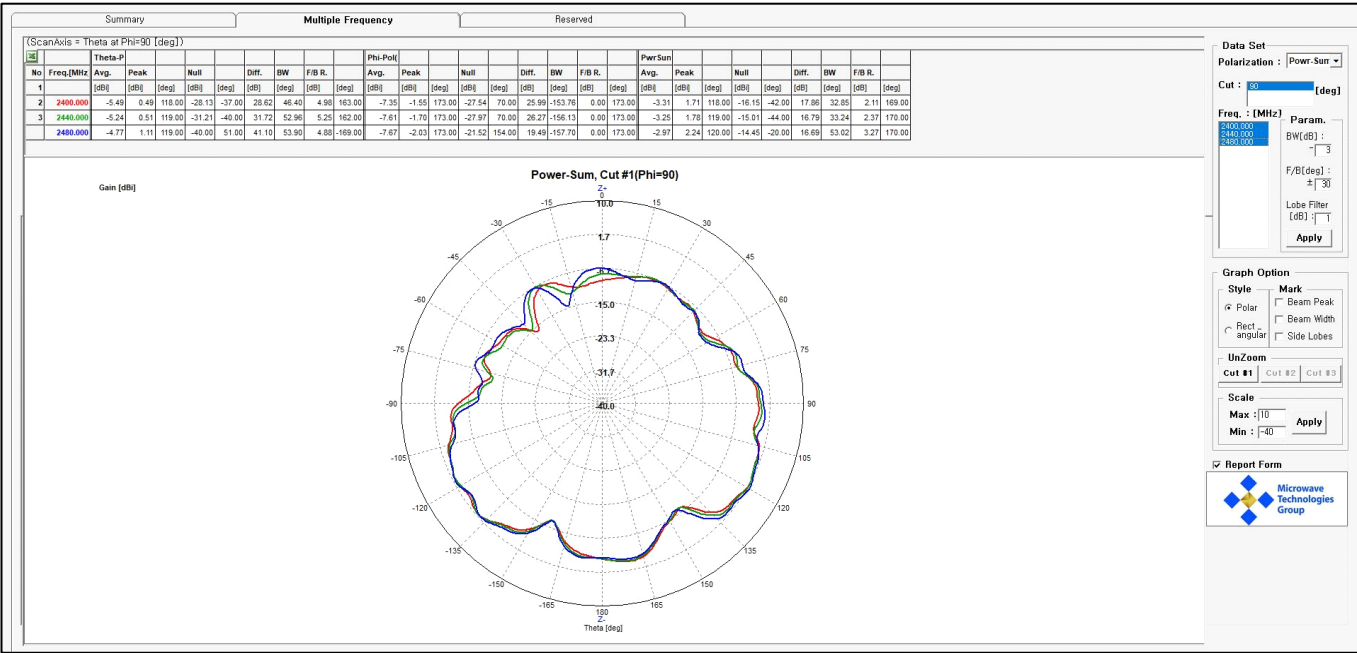
☒ Linear Polarization Type

☐ Circular Polarization Type

2D Result Summary : (ScanAxis = Theta at Phi=90 [deg])

No	Freq.[MHz]	Avg.[dB]	Peak.[dB]	Theta	Null.[dB]	Phi-Pol[°]	Avg.[dB]	Peak.[dB]	Theta	Null.[dB]	Pwr Sum	Avg.[dB]	Peak.[dB]	Theta	Null.[dB]	
1	2400.000	-5.49	0.49	118.00	-28.13	-37.00	-7.35	-1.55	173.00	-27.54	70.00	-3.31	1.71	118.00	-16.15	-42.00
2	2440.000	-5.24	0.51	119.00	-31.21	-40.00	-7.61	-1.70	173.00	-27.97	70.00	-3.25	1.78	119.00	-15.01	-44.00
3	2480.000	-4.77	1.11	119.00	-40.00	51.00	-7.67	-2.03	173.00	-21.52	154.00	-2.97	2.24	120.00	-14.45	-20.00

2D_Vertical



2D_Vertical

■ Test Results (Radiation Pattern / Antenna Gain)



SummaryMultiple FrequencyMultiple Cut3D-ViewReserved

Operator : Operator NameDate : 2024-06-20

Customer : Customer NameTime : 5월 3:44:30

Description : Test Descriptions

Antenna Type

☒ Linear Polarization TypeMIMO Analysis

☐ Circular Polarization Type

Sphere Type

☒ Sphere

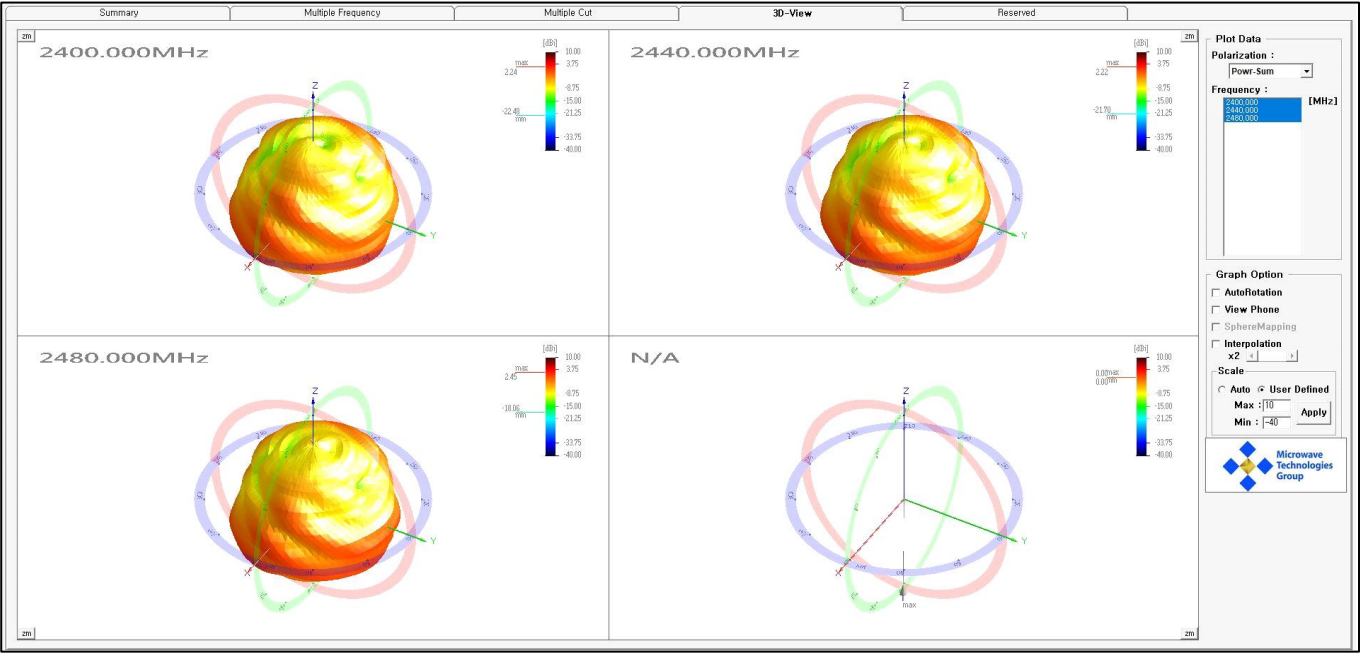
☐ Upper Hemi-Sphere

3D Result Summary :

No	Freq[MHz]	Eff.[%]	Avg[dB]	Peak[dB]	Theta	Phi[dB]	Eff.[%]	Avg[dB]	Peak[dB]	Theta	Phi[dB]	PwrSum	Eff.[%]	Avg[dB]	Peak[dB]	Theta	Phi[dB]
1	2400.000	43.60	-3.61	1.16	130.00	195.00	14.73	-8.32	0.01	100.00	245.00	58.32	-2.34	2.24	130.00	250.00	
2	2440.000	44.32	-3.53	1.15	130.00	195.00	14.82	-8.29	-0.45	115.00	245.00	59.14	-2.28	2.22	130.00	205.00	
3	2480.000	46.33	-3.34	1.46	115.00	340.00	14.85	-8.28	-0.29	115.00	245.00	61.18	-2.13	2.45	130.00	250.00	

Microwave Technologies Group

3D



3D