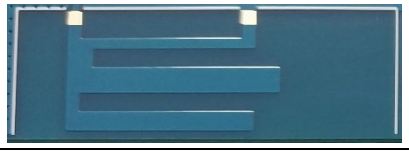
DOGSPLAY ANTENNA SPECIFICATION

1. ANTENNA SPECIFICATION

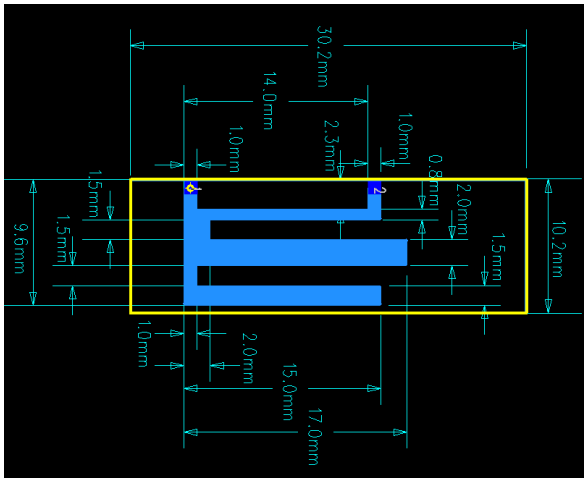
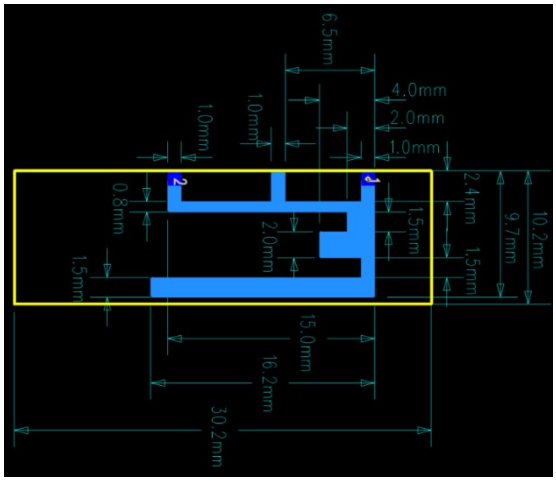
No	ITEM	SPECIFICATION	
		ANT1(WIFI)	ANT2(WIFI/BT)
1	ANTENNA TYPE	PCB Pattern Antenna	
3	ANTENNA FREQUENCY	2.4GHz / 5GHz Dual Band	
4	ANTENNA PATTERN	Omni-Direction	
5	DESIGN/MANUFACTURER	Sunny Wave Tech. / Sunny Wave Tech.	
6	TEST DATE	2023. 08. 22	

ITEM	NAME	DATE	SIGN
RF ENGINEER	J.S. Choi	23′ 08. 22	
ME ENGINEER	S.M. Cha	23′ 08. 22	

2. ANTENNA PATTERN & LAYOUT

	ANT 1	ANT 2
Antenna Photo		

3. Pattern Antenna Detail Dimension

ANT 1 Detail Dimension	ANT 2 Detail Dimension
	

4. Antenna Specification and Electrical Characteristic

1) Electrical Characteristic : VSWR (Voltage Standing Wave Ratio)

- ANT 1

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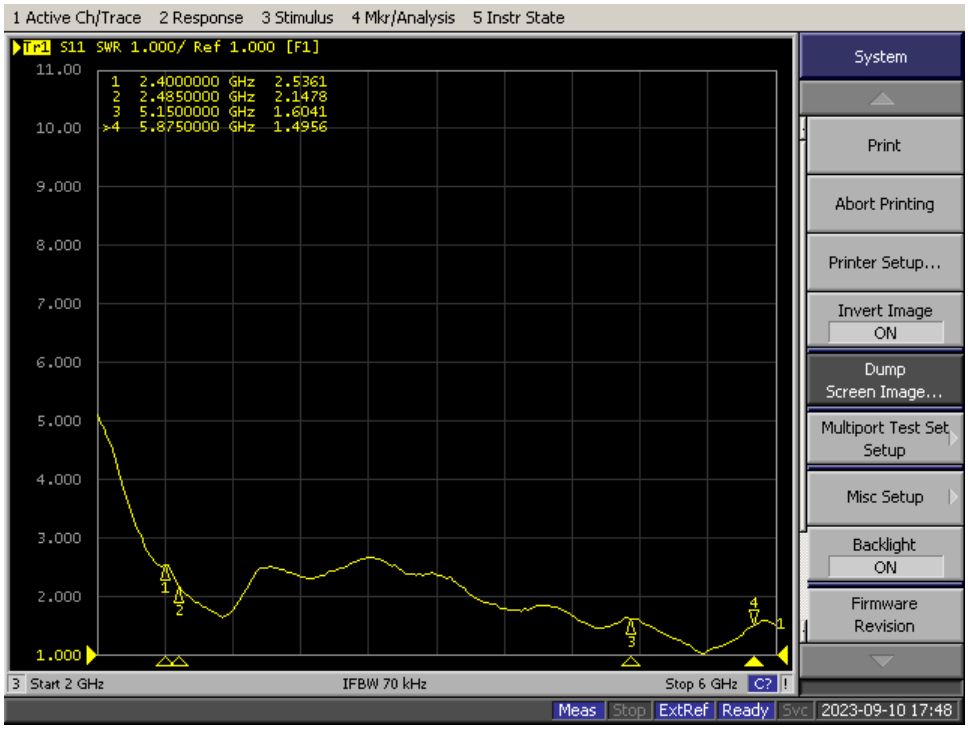
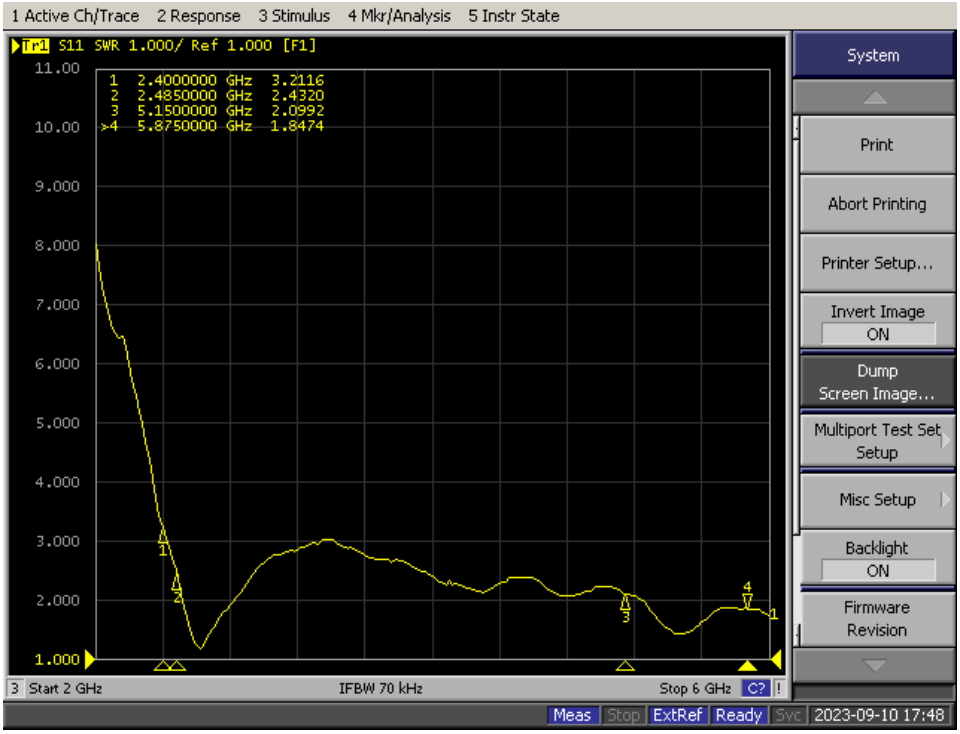


- ANT 2



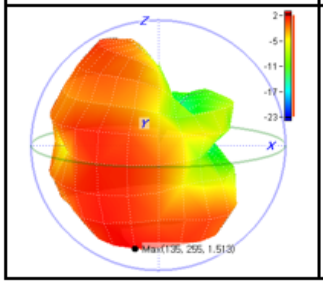
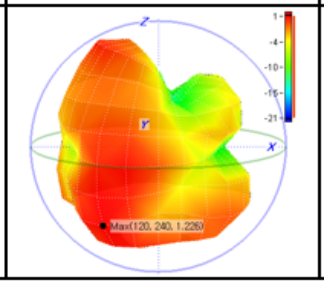
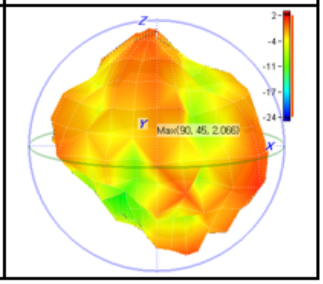
2) Antenna Gain & Radiation Pattern

- ANT 1

3D Radiation Pattern Measurement Results

1. Informations

Date	2023.08.22	**Test Engineer**	**JS.Choi**
Customer	Sunny Wave Tech	**Antenna Version**	**Rev1.0**
Model / Revision	Dogsplay Cherry Rev1.0		
Test Condition			

2400MHz	2485MHz	5875MHz
		

2. Test Results

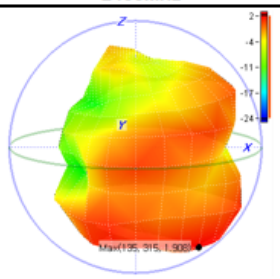
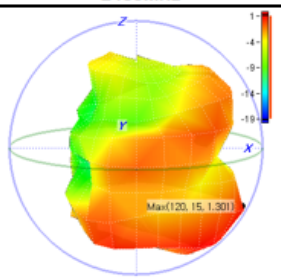
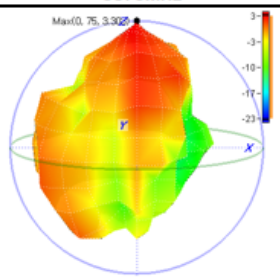
No	Frequency	Peak Value		Minimum Value		Avg. Gain	Efficiency
	[MHz]	Value[dBi]	Degree	Value[dBi]	Degree	[dBi]	[%]
1	2400	2.032	135 / 255	-23.235	15 / 15	-2.697	53.74
2	2450	1.910	105 / 240	-20.553	180 / 135	-2.967	50.51
3	2485	1.726	120 / 240	-20.808	180 / 150	-2.692	53.80
4	5150	2.878	75 / 135	-21.874	165 / 180	-1.567	69.70
5	5500	3.013	105 / 45	-18.894	165 / 195	-1.057	78.39
6	5875	2.066	90 / 45	-24.015	180 / 90	-2.996	50.17
7							
8							

- ANT 2

3D Radiation Pattern Measurement Results

1. Informations

Date	2023.08.22	**Test Engineer**	**JS.Choi**
Customer	Sunny Wave Tech	**Antenna Version**	**Rev1.0**
Model / Revision	Dogsplay Cherry Rev1.0		
Test Condition			

2400MHz	2485MHz	5875MHz
		

2. Test Results

No	Frequency	Peak Value		Minimum Value		Avg. Gain	Efficiency
	[MHz]	Value[dBi]	Degree	Value[dBi]	Degree	[dBi]	[%]
1	2400	2.080	135 / 315	-23.622	165 / 195	-2.650	54.32
2	2450	1.828	135 / 330	-20.373	165 / 195	-2.917	51.08
3	2485	1.501	120 / 15	-19.007	165 / 195	-2.940	50.82
4	5150	2.840	135 / 225	-22.024	180 / 180	-2.006	63.01
5	5500	3.073	30 / 315	-23.246	105 / 0	-3.228	47.56
6	5875	2.903	0 / 75	-23.194	180 / 330	-3.233	47.50
7							
8							

5. Electrical Test Environment

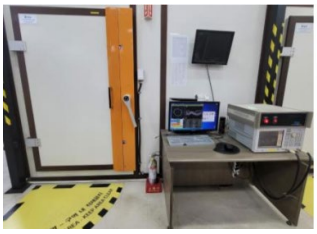
1) Measurement information

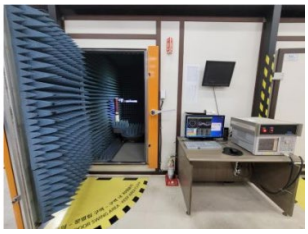
- Measurement : KDT Ant Lab.
- Equipment : Aplustech 3D Chamber, Keysight Vector Network Analyzer

2) Test Equipment List

Description	Manufacturer	Model	Cal. Due
Network Analyzer	Keysight	8753D	2024. 10. 20

3) Test Environment



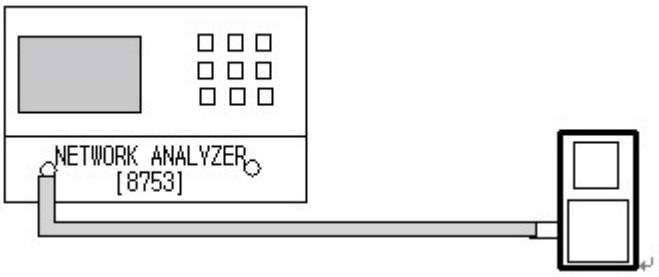


<3D Chamber>

<Network Analyzer>

4) VSWR Measurement

- Step 1. Connect the measurement cable to the network analyzer.
- Step 2. Set up and calibrate the network analyzer to match the frequency to be measured.
- Step 3. Install the DUT and measure VSWR.



5) Antenna Gain & Radiation pattern

- Step 1. Calibrate the Chamber system using a reference antenna and set it as a frequency band to measure software for controlling the Chamber system.
- Step 2. Refit the antenna to be measured.
- Step 3. Measure Gain and Efficiency and Radiation Pattern.