CDAU210E Antenna Passive Review

P/N : PA2450MJ4G-351-ZP

Antenna type : Patch Antenna

INPAQ Technology Co., Ltd.

Last updated in 2022.9.7

PSA

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- Measuring Process

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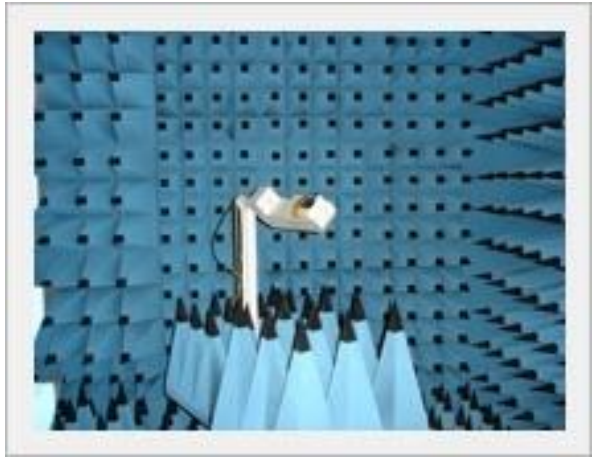
- 2D Radiation Pattern & Gain

- 3D Radiation pattern

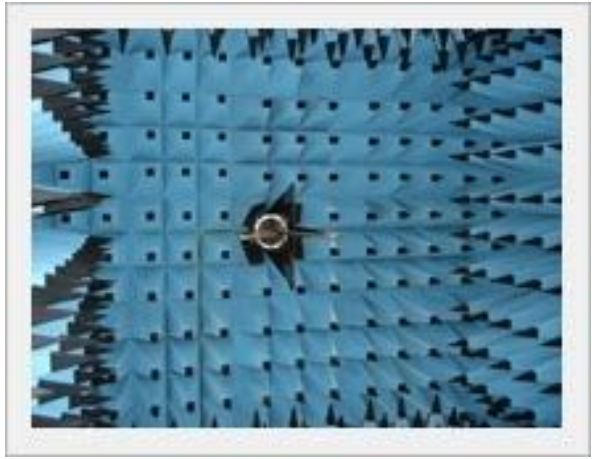
TEST EQUIPMENT

Chamber outside

Chamber inside 1



Chamber inside 2



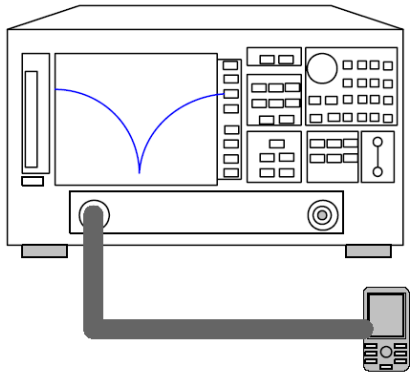
Network Analyzer

Network analyzer		Anechoic Chamber		
Maker	MODEL	Maker	SIZE	Testable Frequency
Agilent	5071B ENA	MTG	3m *3m * 6m	0.4GH ~ 6GHz
HP	HP8753E			

Measuring Process

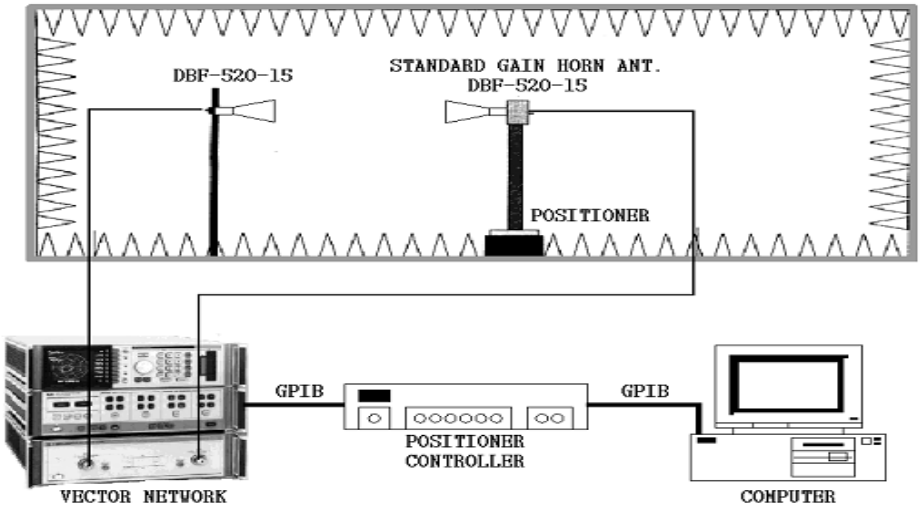
DUT Testing Method

1. After attaching the antenna to the DUT, connect the coaxial cable to the DUT board.
2. After calibrating the network analyzer, connect the coaxial cable connected to the DUT to the port.
   (DUT must be tested on a non-conductive table for measurement.)
3. Connect the coaxial cable connected to the DUT to the Network Analyzer port.
4. Set the Point Marker to the corresponding frequency band.
5. Test: Smith Chart & VSWR



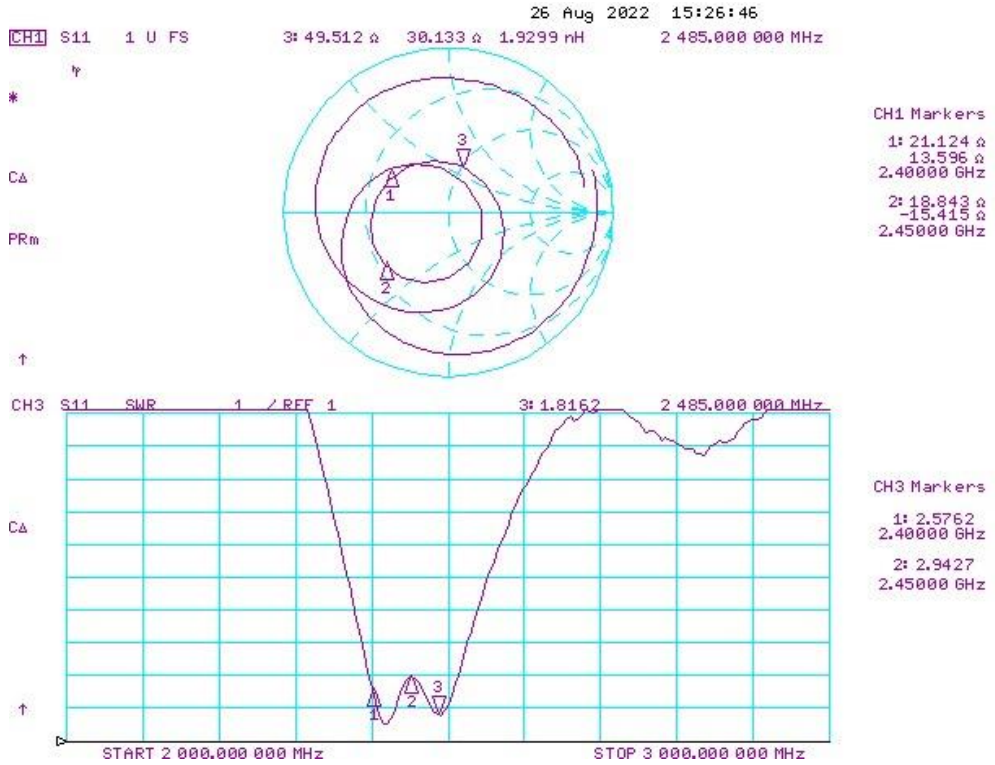
Chamber testing Method

1. The antenna is tested while mounted on the terminal.
2. The antenna is tested in an anechoic chamber.
3. Place the dipole antenna or horn antenna face-to-face in the chamber system to
4. Execute the software and perform calibration.
5. Remove the dipole antenna or horn antenna on the positioner side and fix the terminal to be measured there.
6. Run the chamber software.
7. Check the data after measurement



VSWR & Smith Chart / 3D Gain data

[Smith Chart & VSWR]



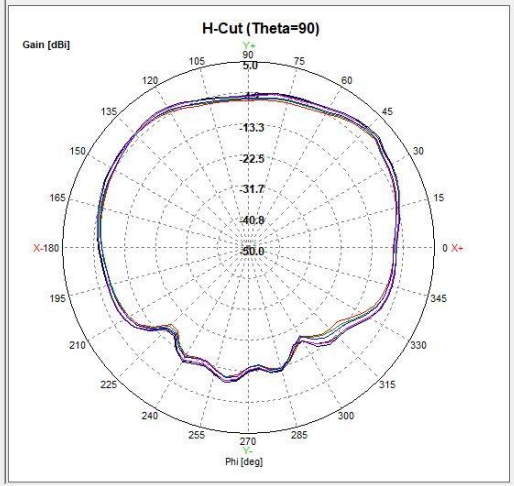
[3D Gain data]

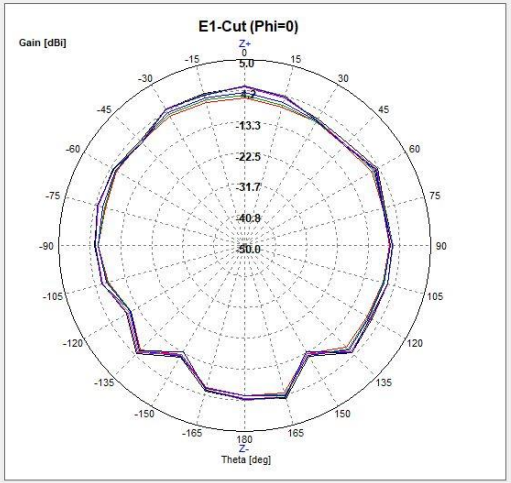
Freq.[MHz]	Eff.[%]	Avg.[dBi]	Peak[dBi]
2400	24.1	**-6.18**	-0.16
2415	26.1	**-5.83**	0.25
2430	27.52	**-5.6**	0.53
2450	35.37	**-4.51**	1.6
2460	33.62	**-4.73**	1.38
2480	34.81	**-4.58**	1.51
2485	34.1	**-4.67**	1.43

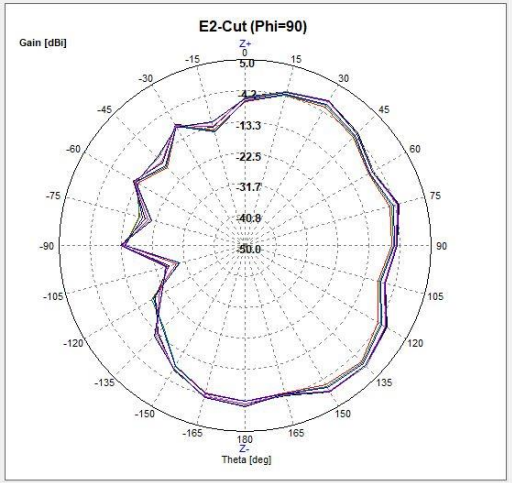
2D Radiation Pattern & Gain

Summary | **Multiple Frequency** | Multiple Cut | 3D-View | Reserved

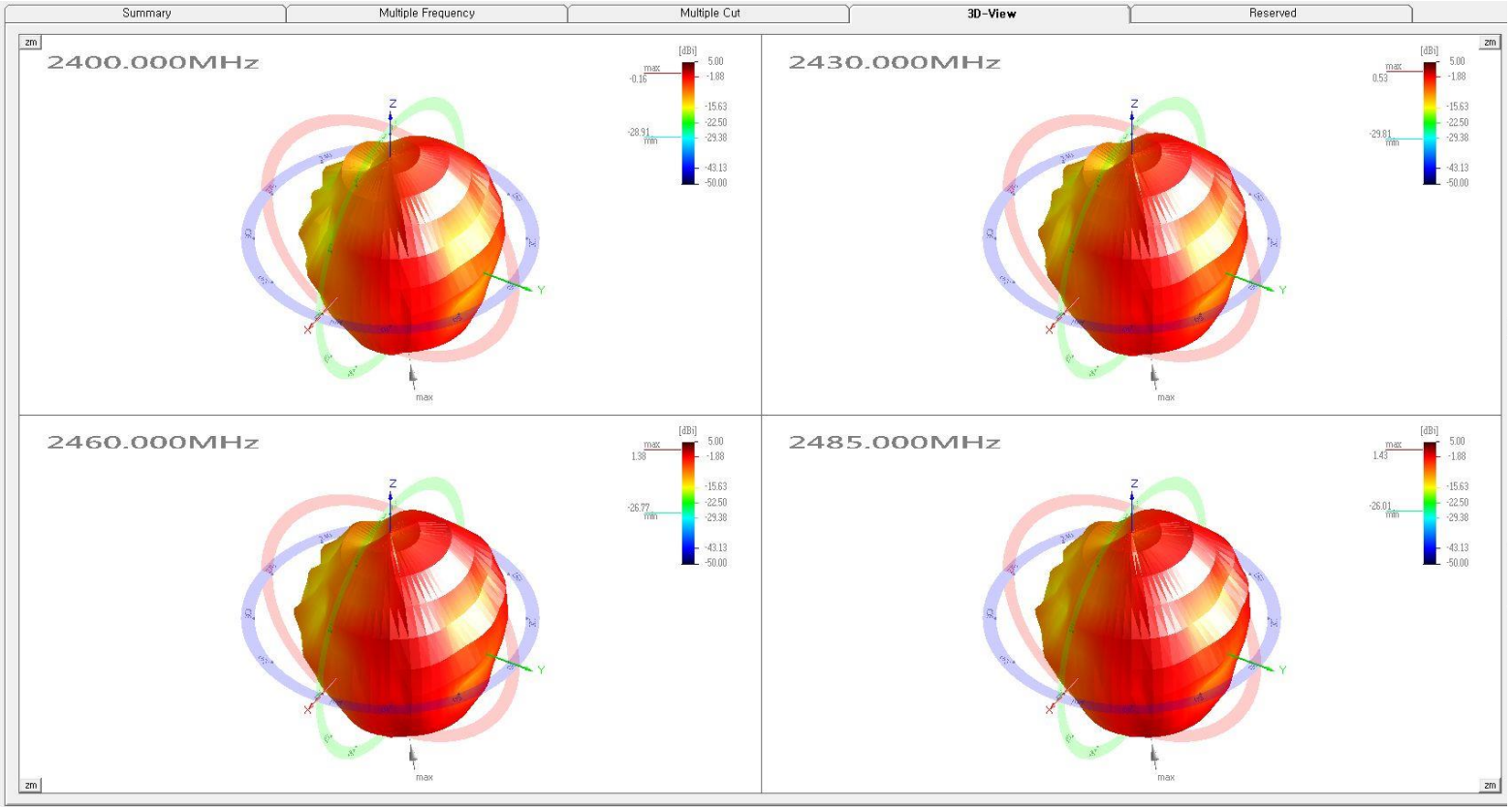
No.	Freq.	PwrSum Eff.[%]	H(Theta=90) Avg.[dBi]	Peak[dBi]	Theta[	Phi[de	H(Theta=90) Avg.[dBi]	Peak[dBi]	Phi[de	BW[deg]	E1(Phi=0) Avg.[dBi]	Peak[dBi]	Theta[	BW[deg]	E2(Phi=90 Avg.[dBi]	Peak[dBi]	Theta[	BW[deg]
1	2400.000	24.10	-6.18	-0.16	120.00	40.00	-6.33	-0.89	40.00	38.75	-7.21	-4.73	165.00	999.00	-6.49	-1.32	135.00	40.35
2	2415.000	26.10	-5.83	0.25	120.00	40.00	-6.06	-0.53	40.00	37.64	-6.83	-4.36	165.00	999.00	-6.14	-0.97	135.00	41.71
3	2430.000	27.52	-5.60	0.53	120.00	40.00	-5.93	-0.43	40.00	38.01	-6.58	-4.13	165.00	999.00	-5.91	-0.72	135.00	41.79
4	2450.000	35.37	-4.51	1.60	120.00	40.00	-4.95	0.43	40.00	40.27	-5.52	-3.15	0.00	70.68	-4.77	0.39	135.00	42.00
5	2460.000	33.62	-4.73	1.38	120.00	40.00	-5.18	0.12	40.00	41.67	-5.76	-3.09	0.00	66.30	-4.96	0.19	135.00	41.70
6	2480.000	34.81	-4.58	1.51	120.00	40.00	-4.97	0.18	40.00	44.05	-5.69	-2.77	0.00	63.03	-4.71	0.39	135.00	41.69
7	2485.000	34.10	-4.67	1.43	120.00	40.00	-5.04	0.07	40.00	44.49	-5.80	-2.88	0.00	62.54	-4.78	0.29	135.00	42.01







3D Radiation Pattern



Thank you