

WIC211S Antenna Passive Review

P/N : WA-M-LA-02-081

Antenna type : PIFA CABLE ANTENNA

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TEST EQUIPMENT

Chamber outside



Chamber inside 1



Chamber inside 2



Network Analyzer

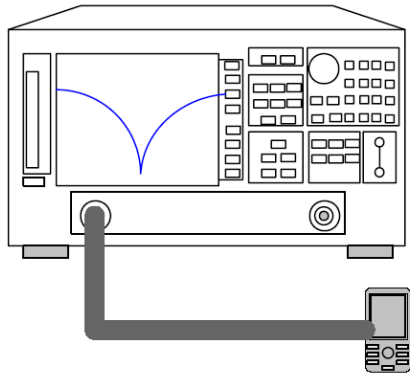


Network analyzer		Anechoic Chamber		
Maker	MODEL	Maker	SIZE	Testable Frequency
Agilent	5071B ENA	MTG	3m *3m * 6m	0.4GH ~ 6GHz
HP	HP8753E			

Measuring Process

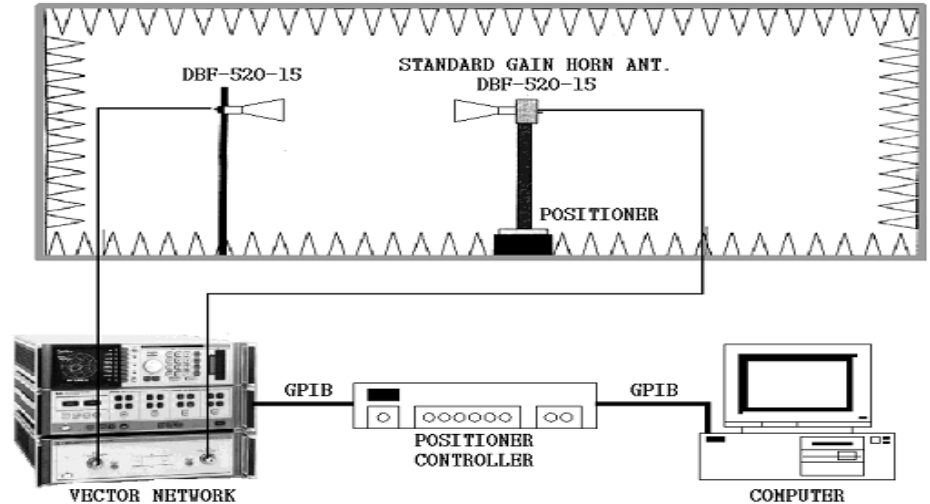
DUT Test method

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 test method

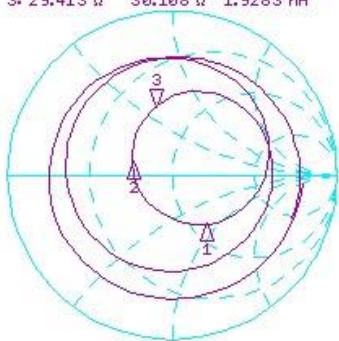
1. The antenna is tested while mounted on the terminal.
2. The antenna is tested in an anechoic chamber.
3. Place the dipole antenna or horn antenna face-to-face in the chamber system to
4. Execute the software and perform calibration.
5. Remove the dipole antenna or horn antenna on the positioner side 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]

14 Sep 2022 13:56:51
 CH1 S11 1 U FS 3: 29.413 Ω 30.108 Ω 1.9283 nH 2 485.000 000 MHz



CH1 Markers
 1: 60.184 Ω
 -41.248 Ω
 2.40000 GHz
 2: 30.104 Ω
 4.7686 Ω
 2.45000 GHz

CH3 S11 SWR 1 / REF 1 3: 2.5054 2 485.000 000 MHz



CH3 Markers
 1: 2.1304
 2.40000 GHz
 2: 1.6842
 2.45000 GHz

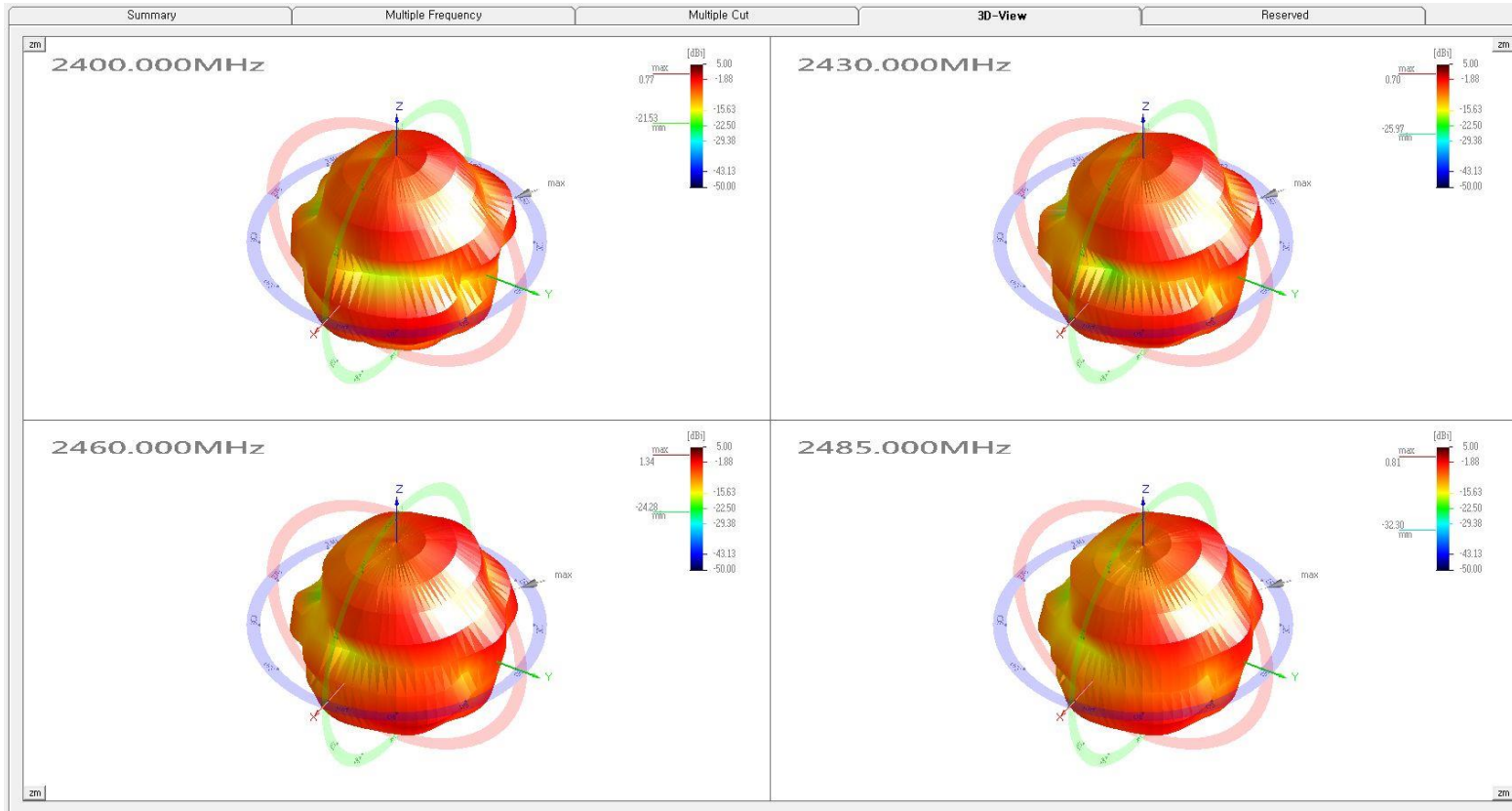
[3D Gain data]

Freq.[MHz]	Eff.[%]	Avg.[dBi]	Peak[dBi]
2400	25.06	-6.01	0.77
2415	26.35	-5.79	1.04
2430	24.36	-6.13	0.7
2450	25.95	-5.86	1.03
2460	27.32	-5.64	1.34
2480	21.66	-6.64	0.55
2485	22.87	-6.41	0.81

2D Radiation Pattern & Gain



3D Radiation pattern



Thank you

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