

WIC213S Antenna Passive Review

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

[PIFA Type Antenna]

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Content Details

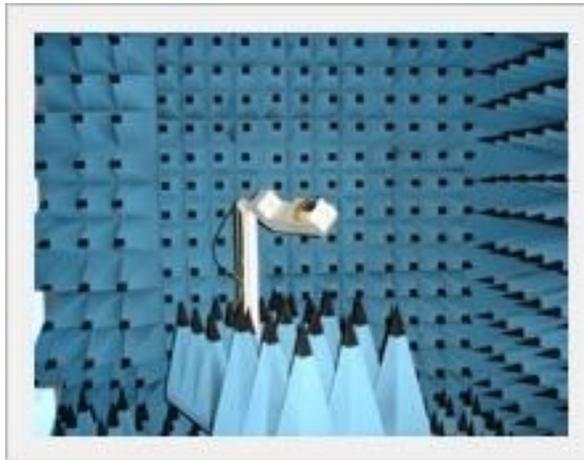
- TEST Equipment
- Measuring Process
- TEST condition
- VSWR & Smith Chart / 3D Gain data
- 2D Radiation Pattern & Gain
- 3D Radiation pattern

TEST EQUIPMENT

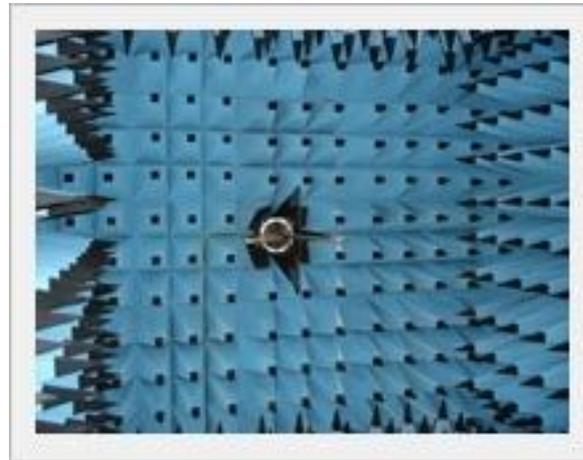
Chamber outside



Chamber inside 1



Chamber inside 2



Network Analyzer

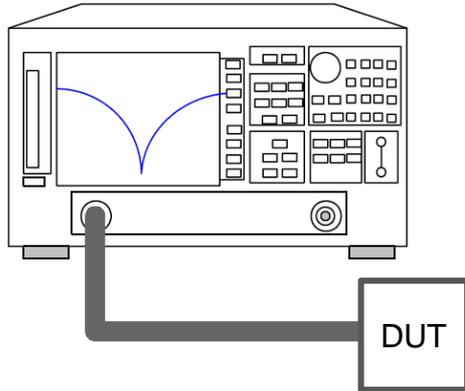


Network analyzer		Anechoic Chamber		
Maker	MODEL	Maker	SIZE	Testable Frequency
Agilent	5071B ENA	MTG	3m *3m * 6m	0.4GH ~ 6GHz
HP	HP8753E			

Measuring Process

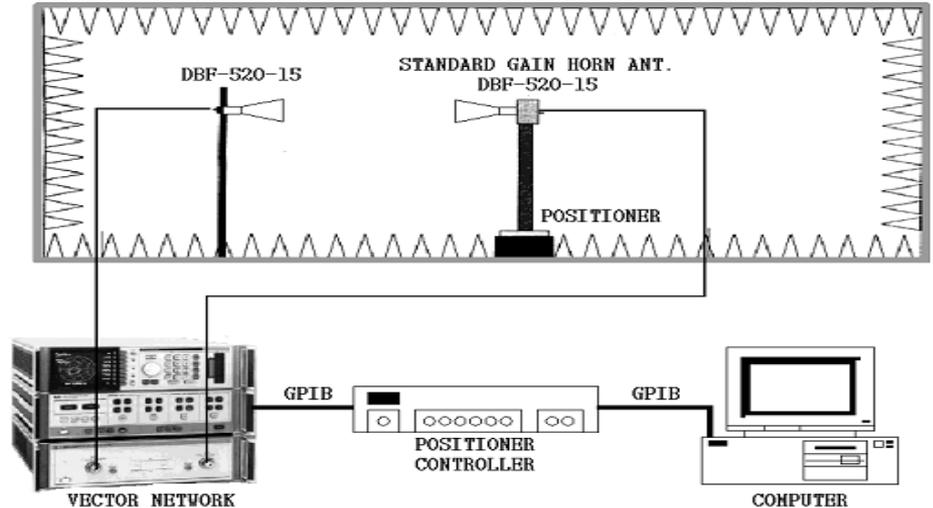
DUT 테스트 방법

1. 안테나를 DUT에 장착을 한 후 coaxial cable을 DUT 보드에 연결한다.
2. Network analyzer를 Calibration 한 후 DUT에 연결된 coaxial cable을 Port에 연결한다.
(측정 시 DUT는 비전도성 테이블 위에서 테스트되어야 함.)
3. Network Analyzer의 Port에 DUT에 연결된 coaxial cable을 연결한다.
4. Point Marker를 해당 주파수 대역으로 설정한다.
5. 테스트: Smith Chart & VSWR



챔버 테스트 방법

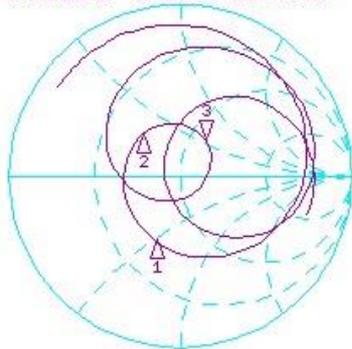
1. 안테나는 단말기에 장착된 상태에서 테스트된다.
2. 안테나는 무반사실 챔버 안에서 테스트된다.
3. 챔버 시스템 안에 다이폴 안테나 또는 혼 안테나를 서로 정면을 마주보게 하여 챔버
4. 소프트웨어를 실행시켜 Calibration을 한다.
5. Positioner쪽의 다이폴 안테나 또는 혼 안테나를 제거하고 거기에 측정하고자 하는 단말기를 고정한다.
6. 챔버 소프트웨어를 실행시킨다.
7. 측정 후 데이터를 확인한다.



VSWR & Smith Chart / 3D Gain data

[Smith Chart & VSWR]

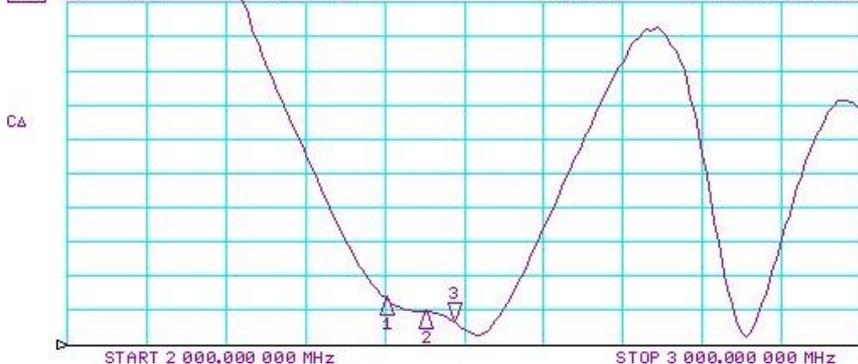
CH1 S11 1 U FS 3: 59.924 Ω 27.234 Ω 1.7443 nH 2 485.000 000 MHz



CH1 Markers

1: 28.811 Ω
 -26.175 Ω
 2.40000 GHz
 2: 28.766 Ω
 14.960 Ω
 2.45000 GHz

CH3 S11 SWR 1 / REF 1 3: 1.6882 2 485.000 000 MHz



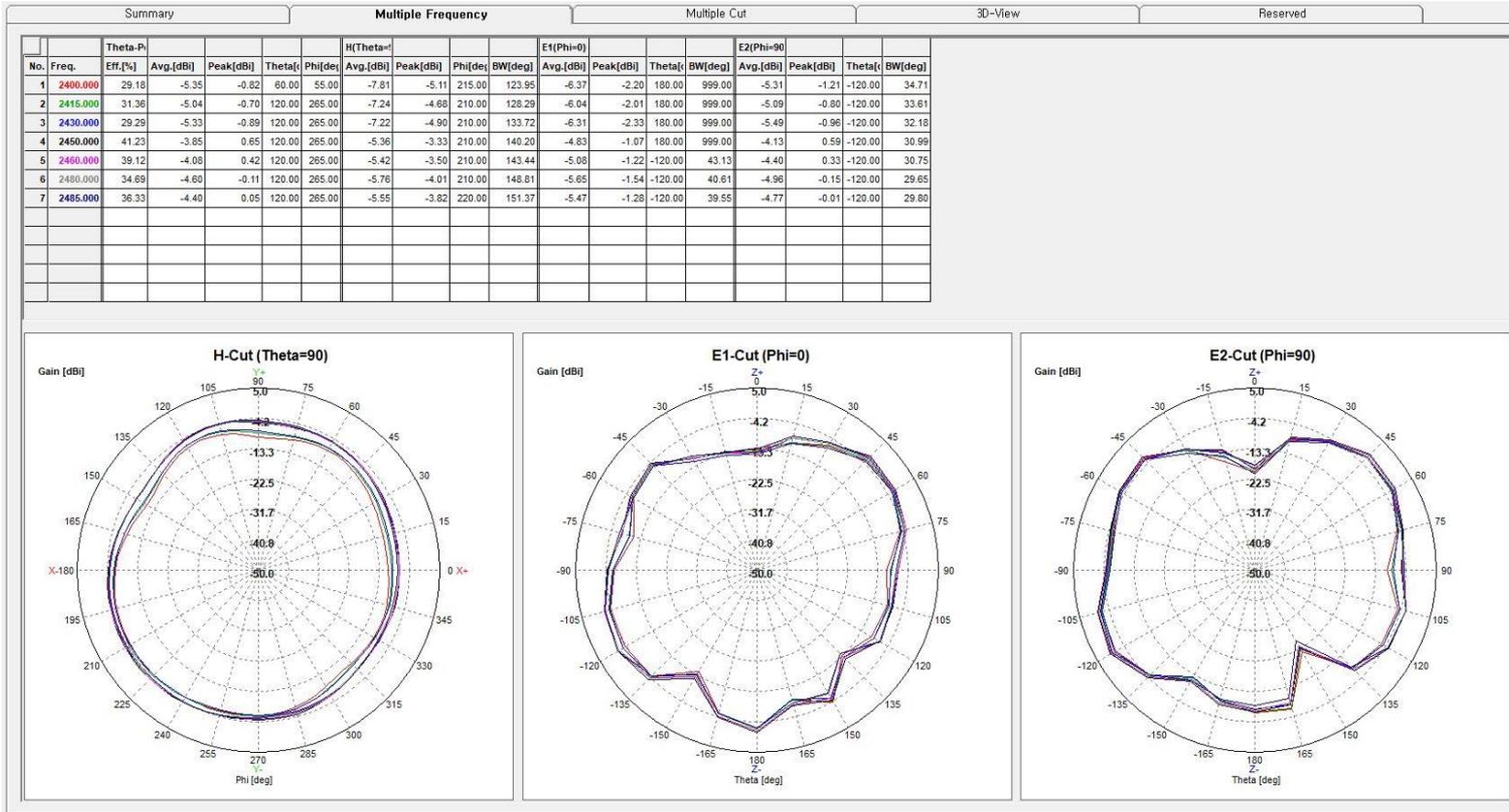
CH3 Markers

1: 2.3641
 2.40000 GHz
 2: 1.9584
 2.45000 GHz

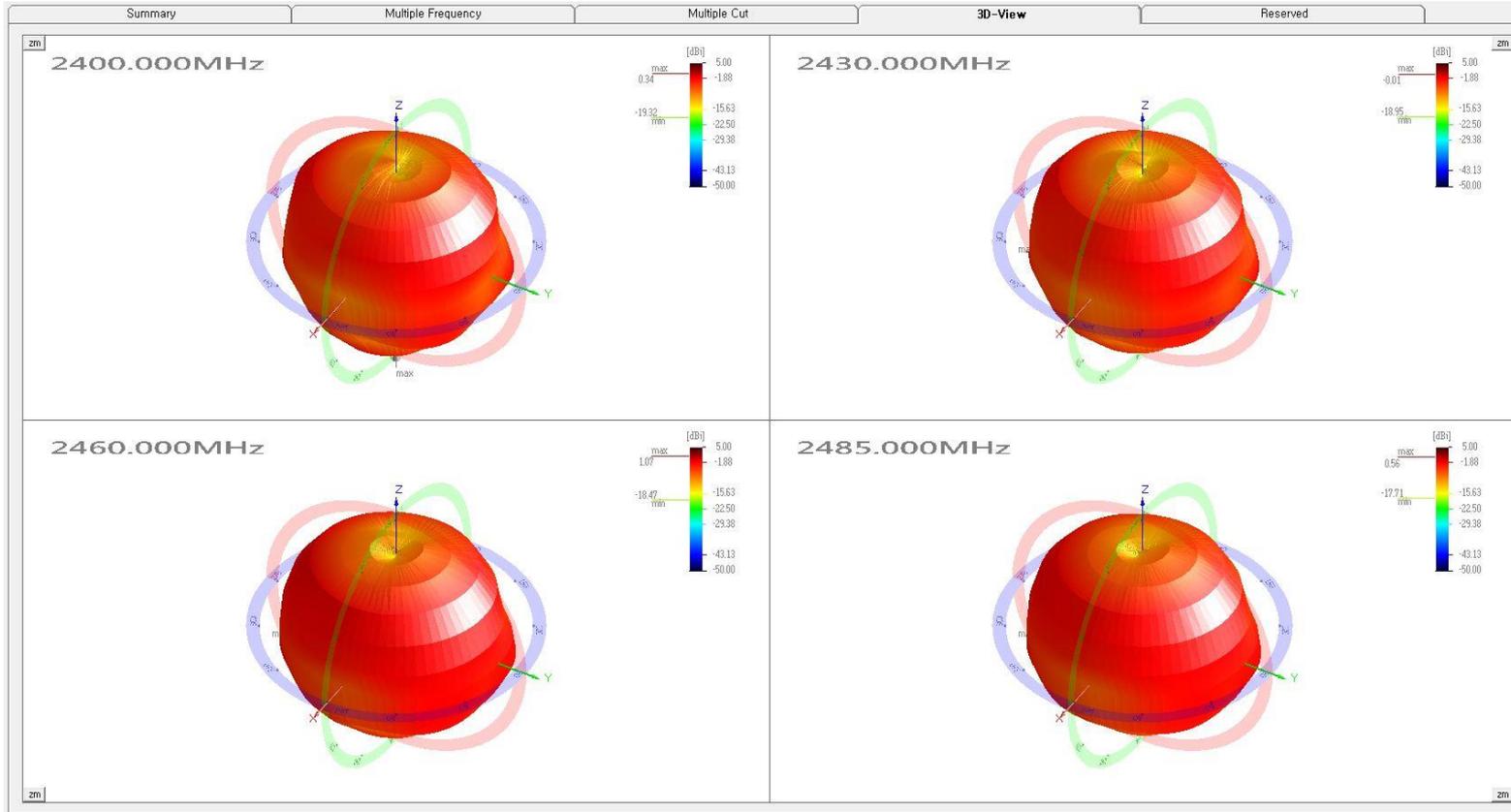
[3D Gain data]

Freq.[MHz]	Eff.[%]	Avg.[dBi]	Peak[dBi]
2400	39.39	-4.05	0.34
2415	41.63	-3.81	0.46
2430	38.44	-4.15	-0.01
2450	53.33	-2.73	1.36
2460	50.28	-2.99	1.07
2480	43.84	-3.58	0.42
2485	45.73	-3.4	0.56

2D Radiation Pattern & Gain



3D Radiation Pattern



Thank you

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