

Biscuit

EMW Antenna Test Report

28-January-2010

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- **Antenna Specification**

- **Antenna Structure**

- **Test Result**

 - 2.5G Wimax (VSWR, Isolation, Gain, 3D-Pattern)

 - WiFi (VSWR, Gain, 3D-Pattern)

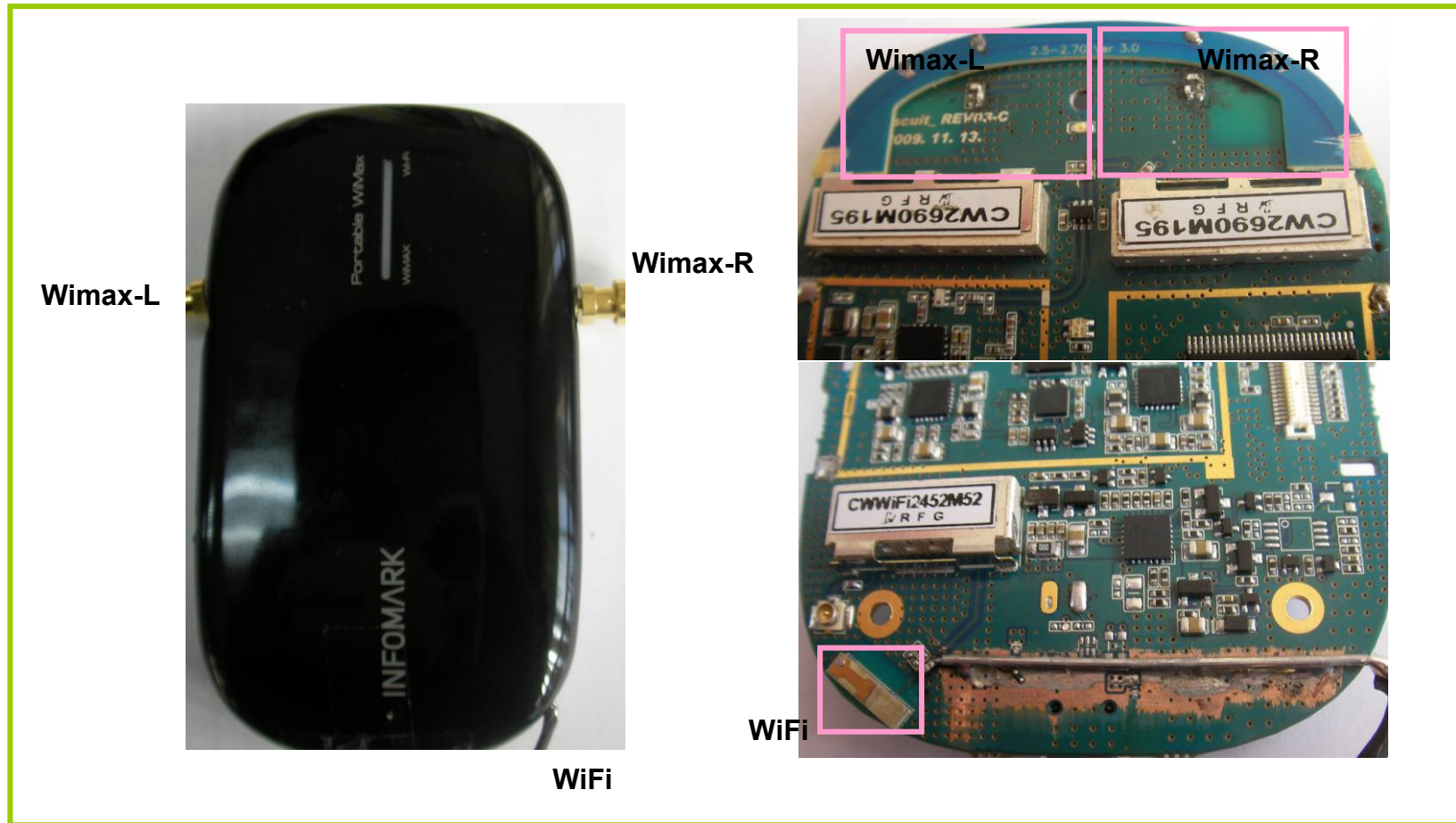
- **Total Conclusion**

[Antenna Specification]

- **Electrical Specification**

	Wimax- 2.5G	WiFi
Frequency Range [MHz]	2500~ 2700	2400~ 2480
Polarization	Vertical	Vertical
Nominal Impedance [Ω]	50 Ω	50 Ω
Peak Gain [dBi]	0 dBi (Min)	- 7 dBi (Min)
VSWR	2.5:1 [Max]	4.0:1 [Max]

[Antenna Structure]



[Antenna Matching]

- **Antenna Matching**

- **Wimax 2.5 G**

- Wimax-L : Series: 100pF Shunt : N.C.

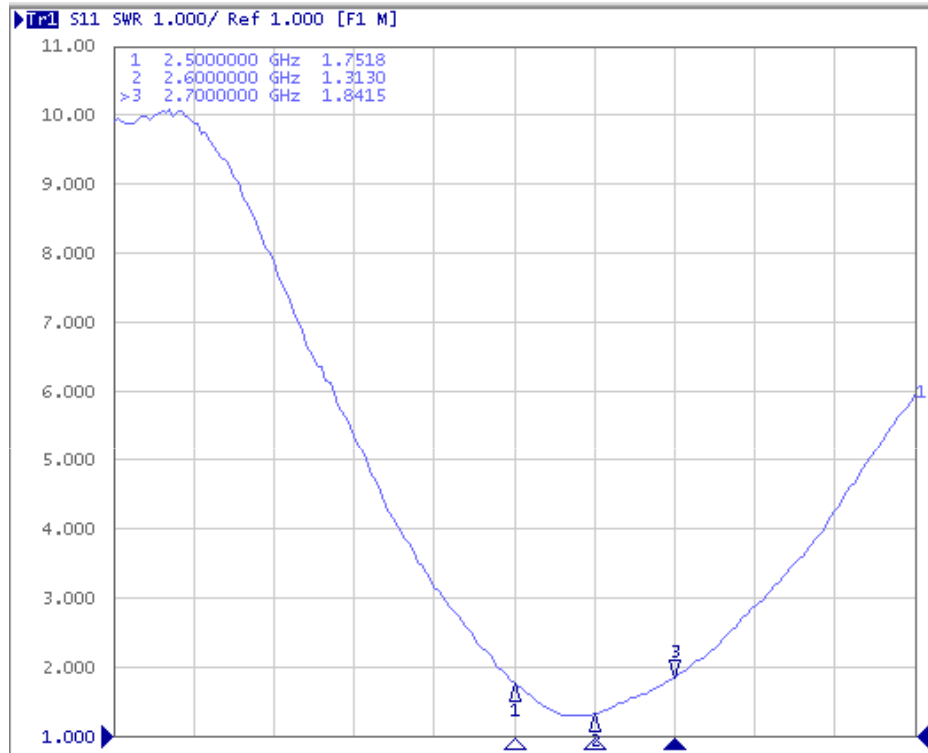
- Wimax-R : Series: 8.2pF Shunt : N.C.

- **WiFi**

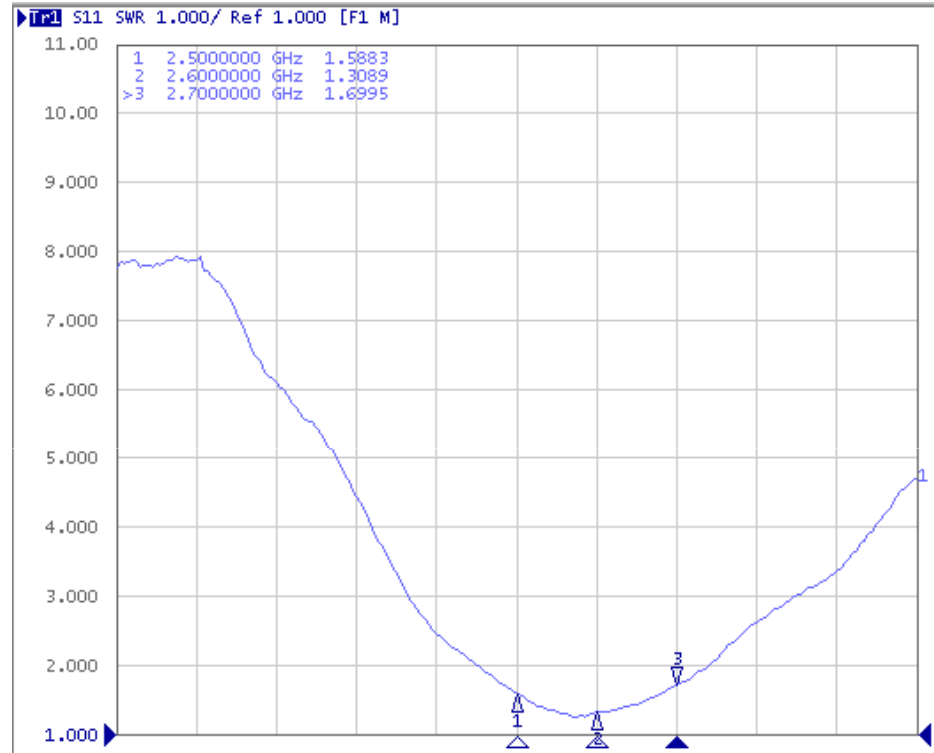
- WiFi : Series: 1.0nH Shunt : 0 Ohm

[Test Result]

• 2.5G Wimax-L



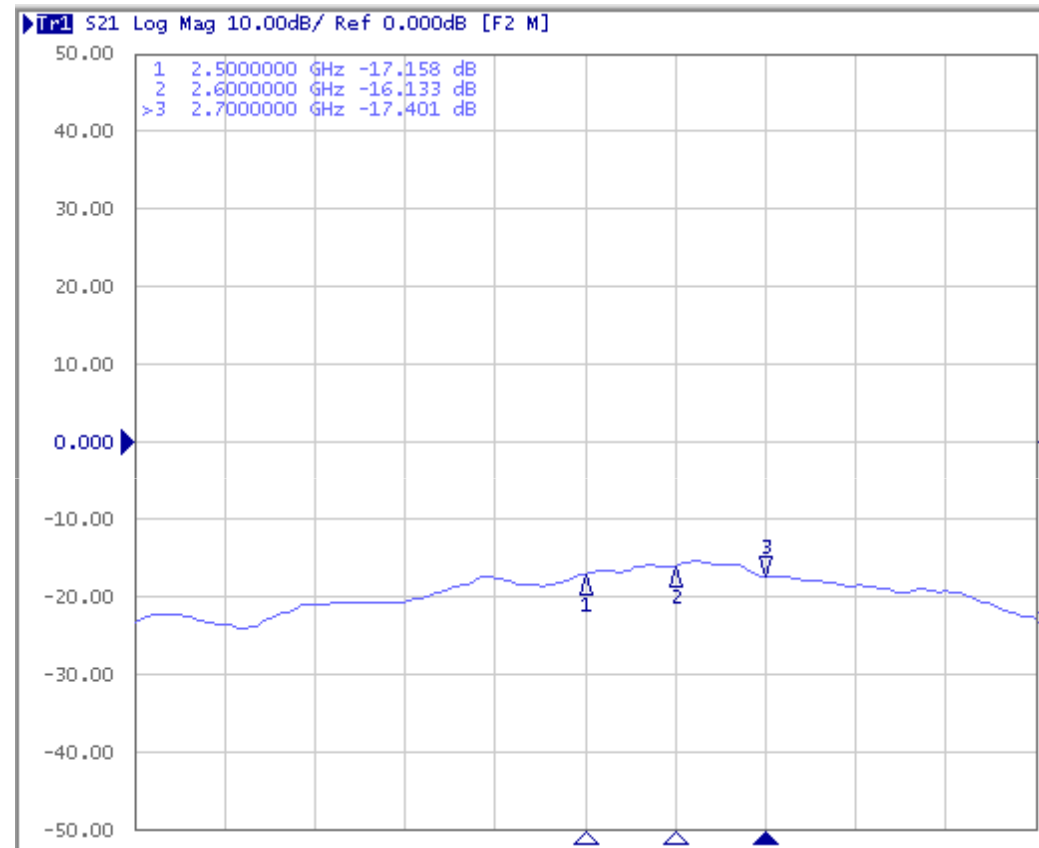
2.5G Wimax-R



VSWR

[Test Result]

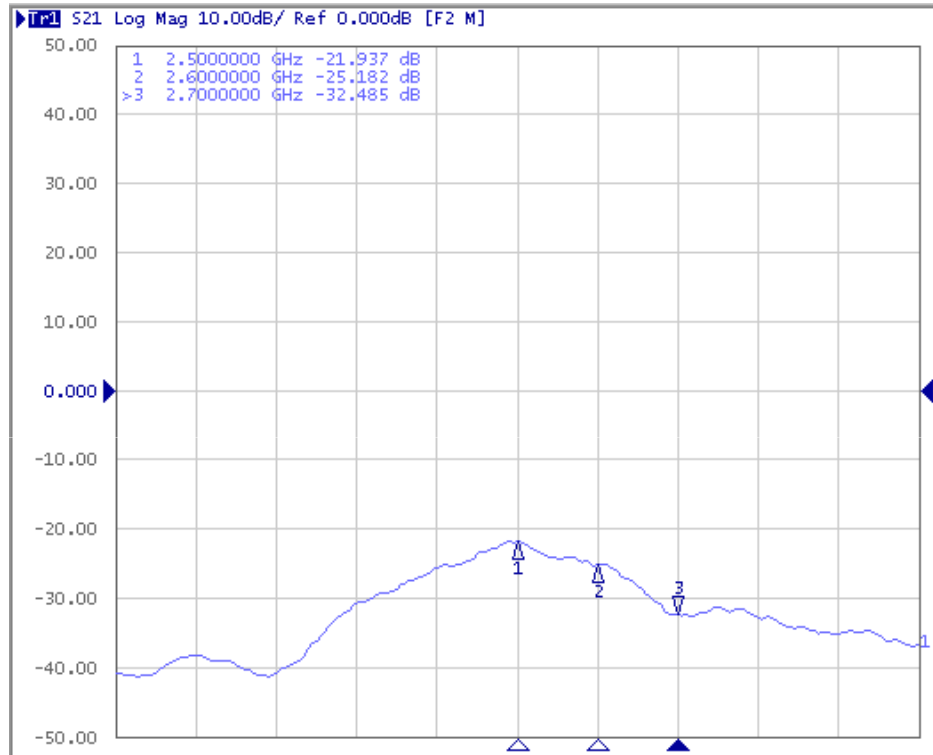
- 2.5G (Wimax-L / Wimax-R)



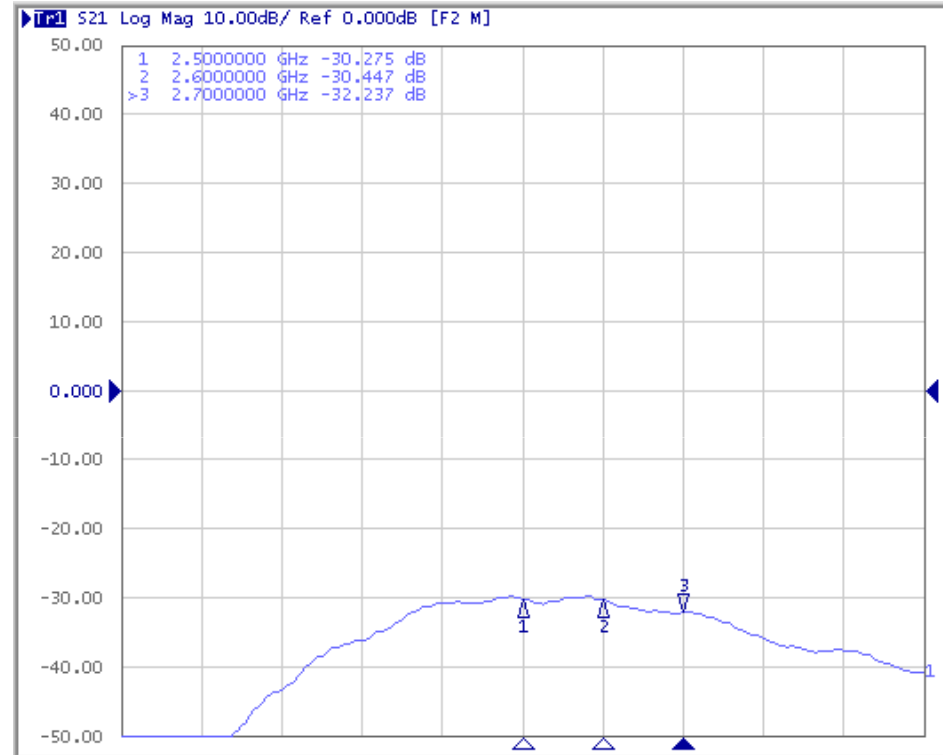
Isolation

[Test Result]

• 2.5G (Wimax-L / WiFi)



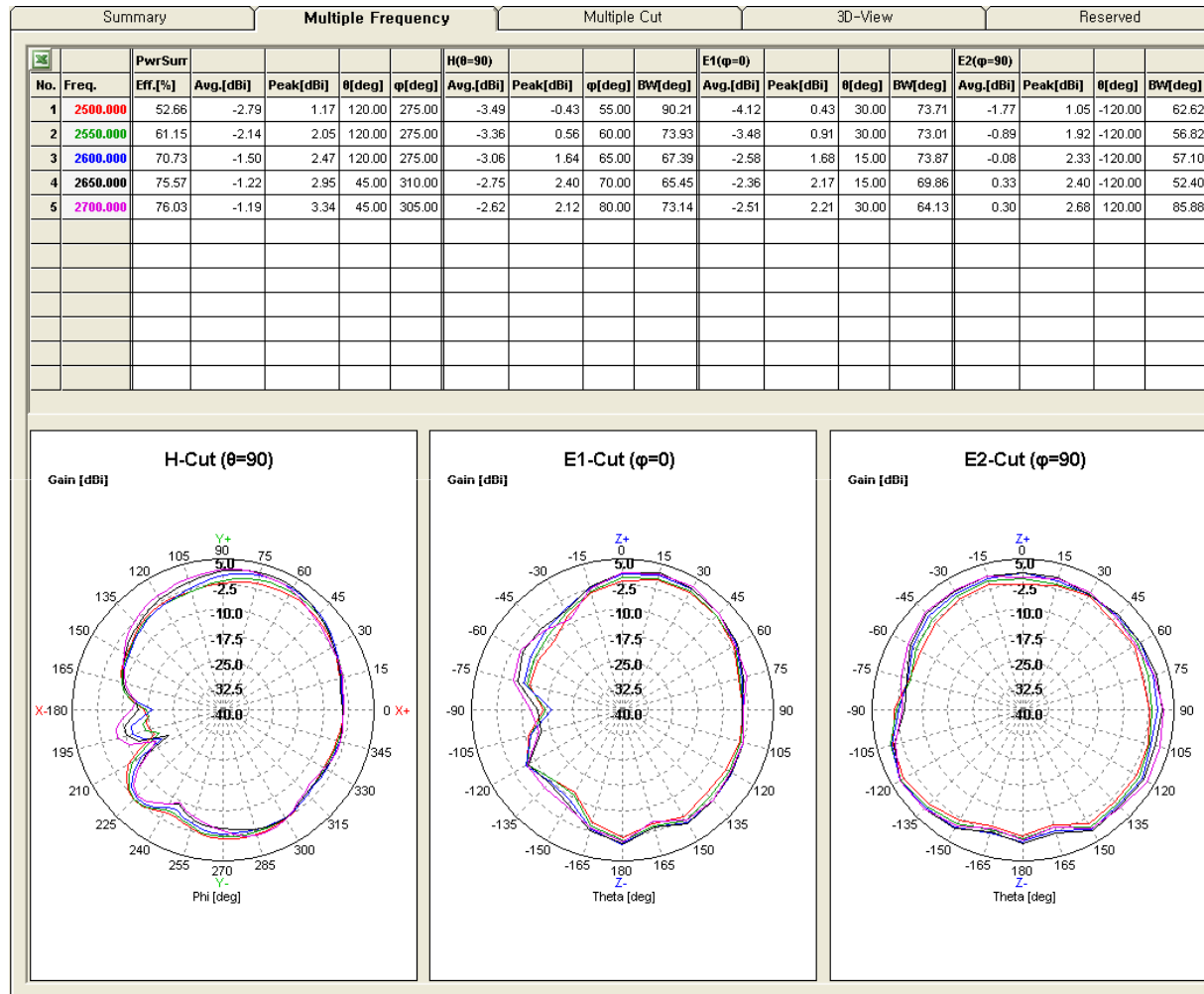
2.5G (Wimax-R / WiFi)



Isolation

[Test Result]

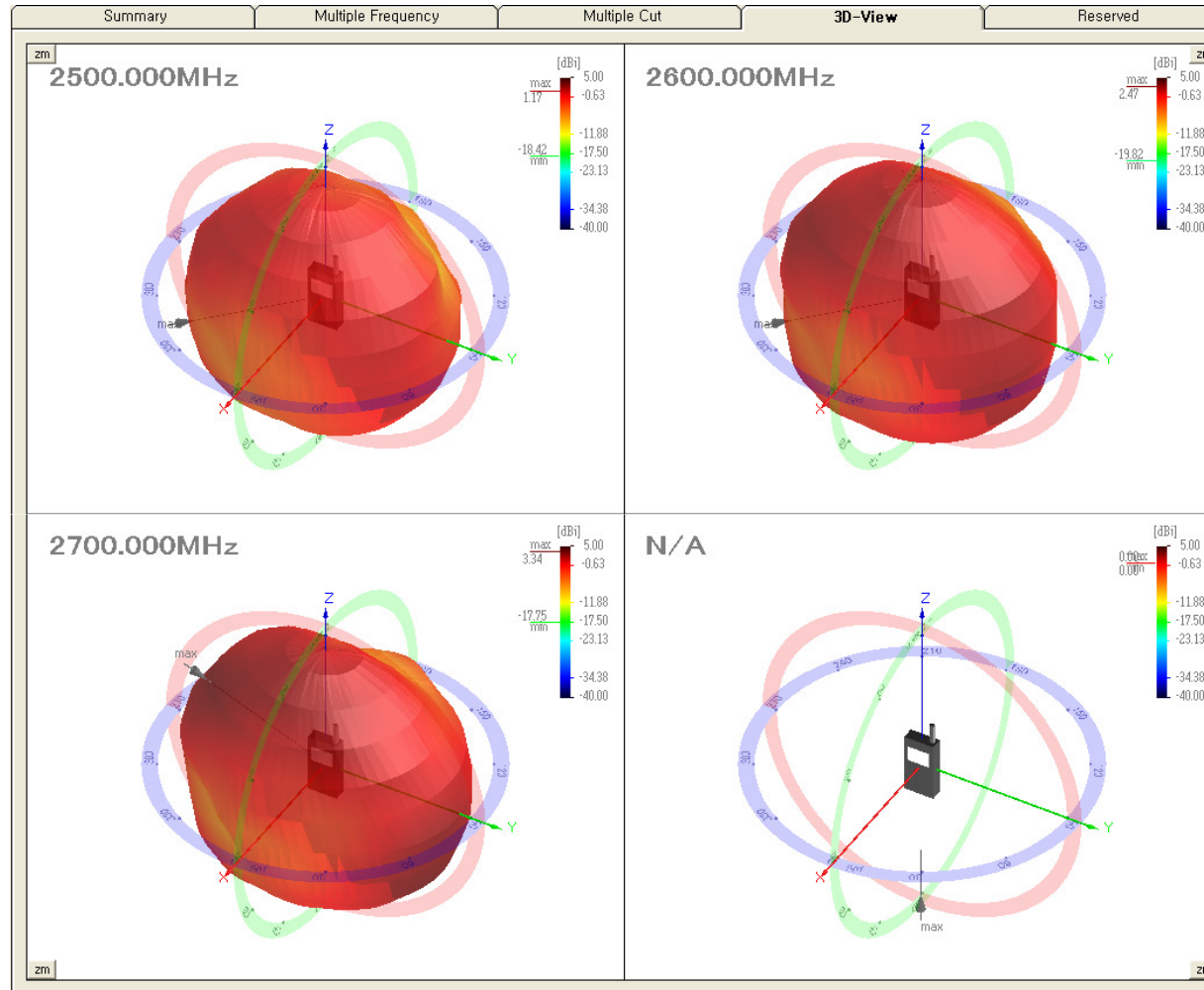
• 2.5G Wimax-L



Freq. [MHz]	Peak Gain [dBi]	Avg. Gain [dBi]	Eff. [%]
	3D	3D	
2500	1.17	-2.79	52.66
2550	2.05	-2.14	61.15
2600	2.47	-1.50	70.73
2650	2.95	-1.22	75.57
2700	3.34	-1.19	76.03

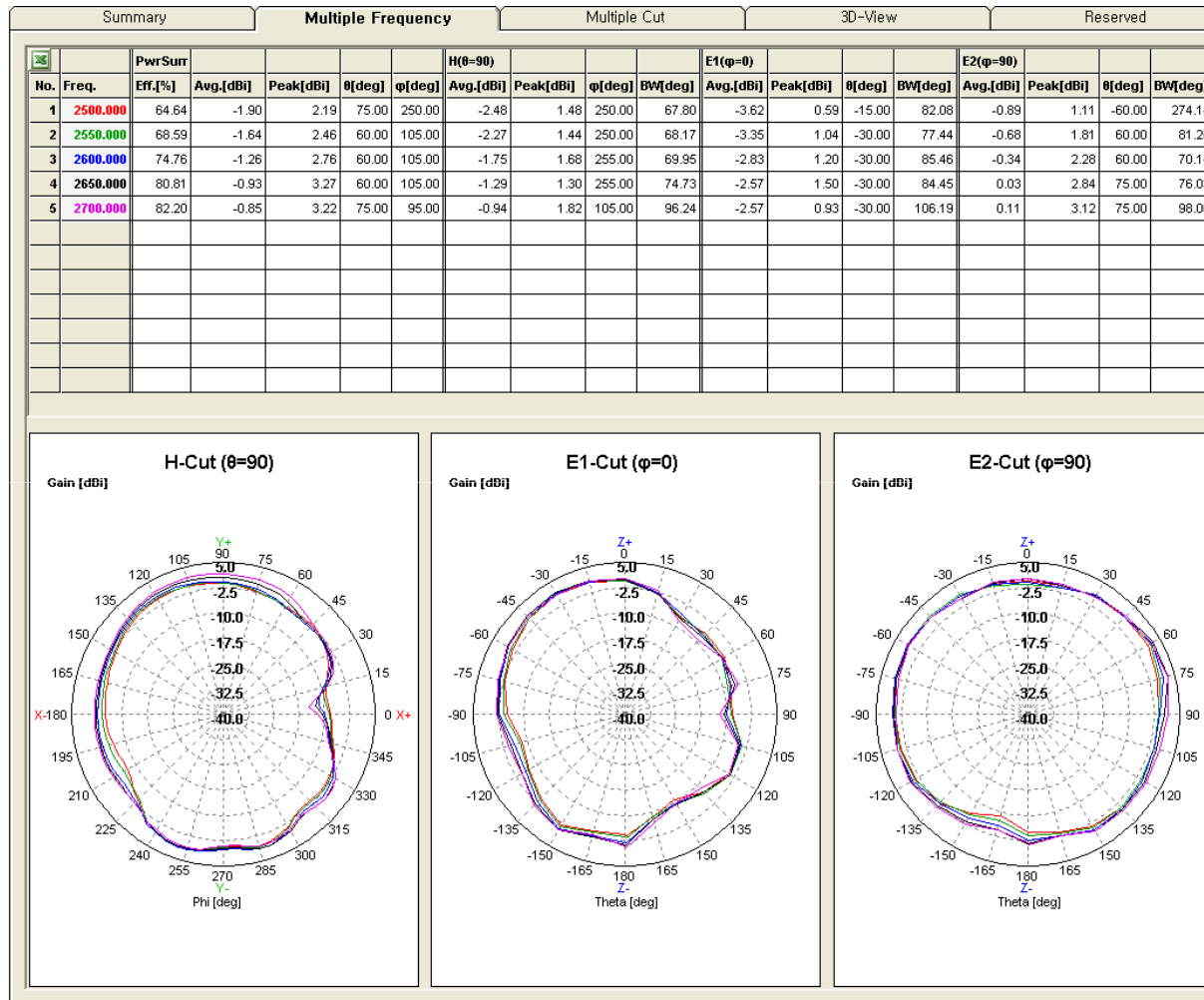
[Test Result]

- 2.5G Wimax-L



[Test Result]

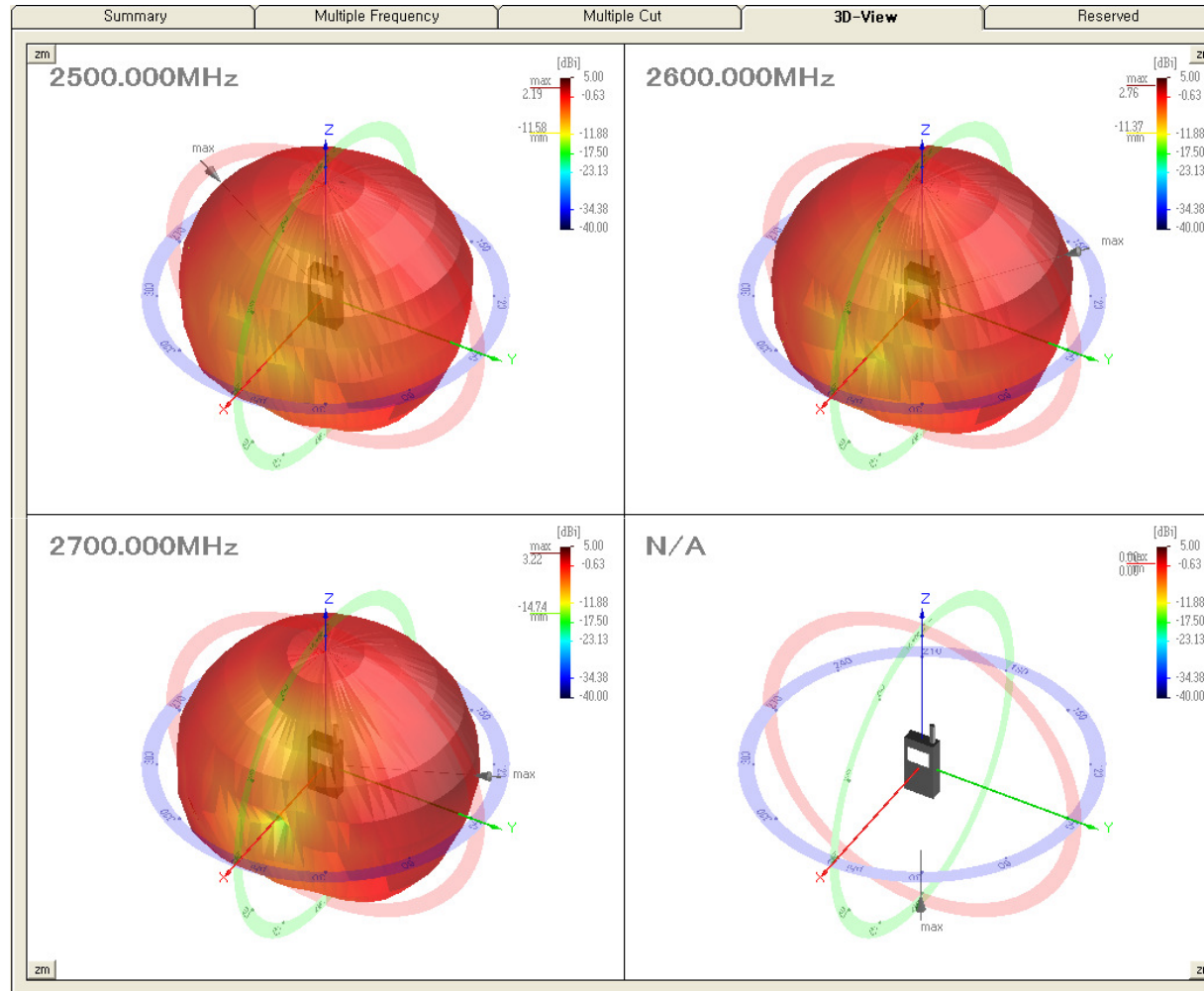
• 2.5G Wimax-R



Freq. [MHz]	Peak Gain [dBi]	Avg. Gain [dBi]	Eff. [%]
	3D	3D	
2500	2.19	-1.90	64.64
2550	2.46	-1.64	68.59
2600	2.76	-1.26	74.76
2650	3.27	-0.93	80.81
2700	3.22	-0.85	82.20

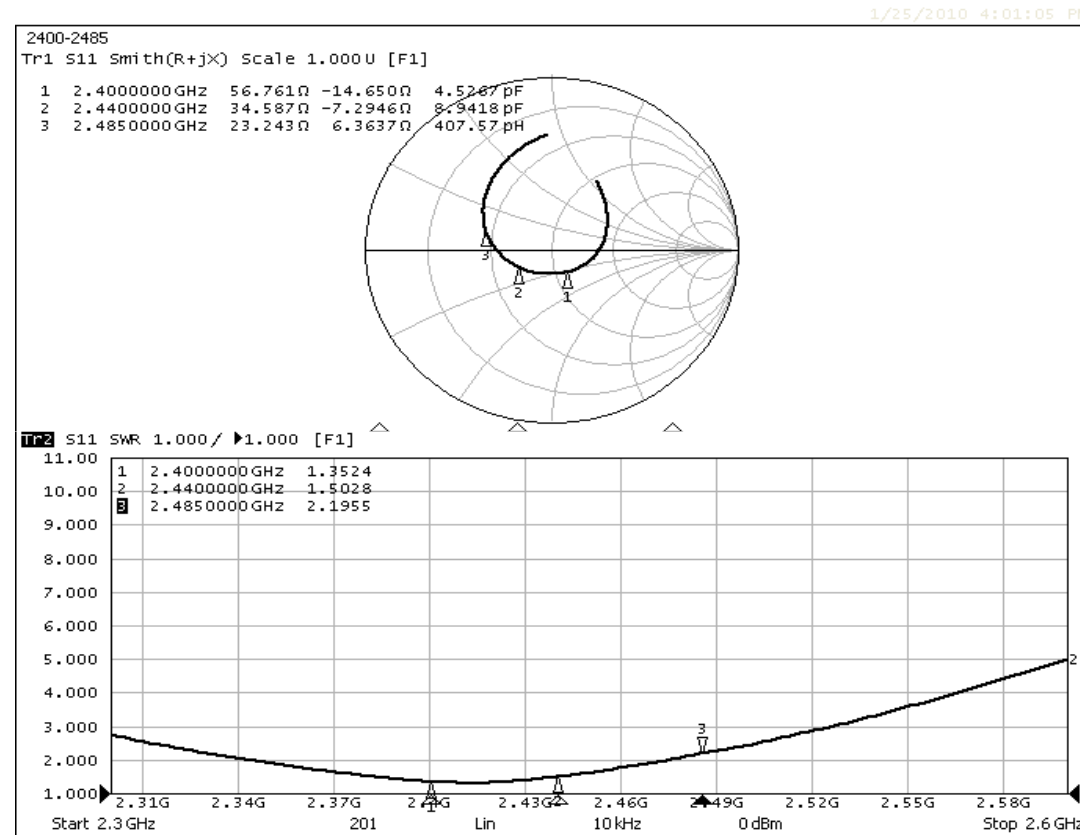
[Test Result]

- 2.5G Wimax-R



[Test Result]

- WiFi



VSWR

[Test Result]

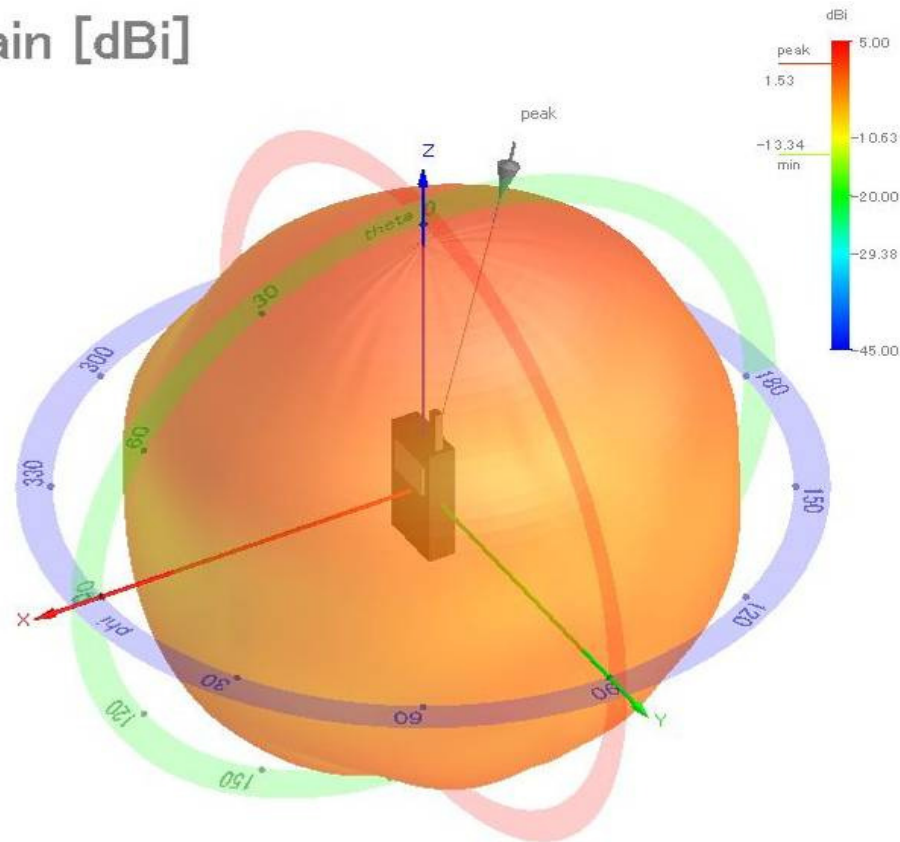
- WiFi

Freq.	Peak Gain [dBi]	Avg. Gain [dBi]	Eff.
	3D	3D	
2400	0.80	-2.78	51.64
2425	2.06	-1.86	63.78
2445	2.40	-1.78	64.90
2465	2.61	-1.75	66.31
2485	1.96	-2.20	59.20

[Test Result]

- WiFi

Gain [dBi]



Thank you !!

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