

N.K.C

Wireless Solution

(NKC-5)

Antenna 사양서

Rev.0.1

◆ Product Name : WIFI DUALBAND CHIP ANTENNA
◆ Model Name : (NKC-5)
◆ Document No : No. 2016-1216
◆ Approval No :

[변경 내역]

Version	배 포 일	변경사항	기타
Rev. 0.1	16.12.16	최초작성	

[목 차]

1. Electrical Specification.....	4
2. Mechanical Specification.....	5
3. Measurement Result.....	6
3.1 VSWR & Smith Chart.....	6
3.2 Gain.....	7
3.3 Radiation Pattern.....	8
3.3.1 2.44GHz Radiation Pattern.....	8
3.3.2 5.32GHz Radiation Pattern.....	10

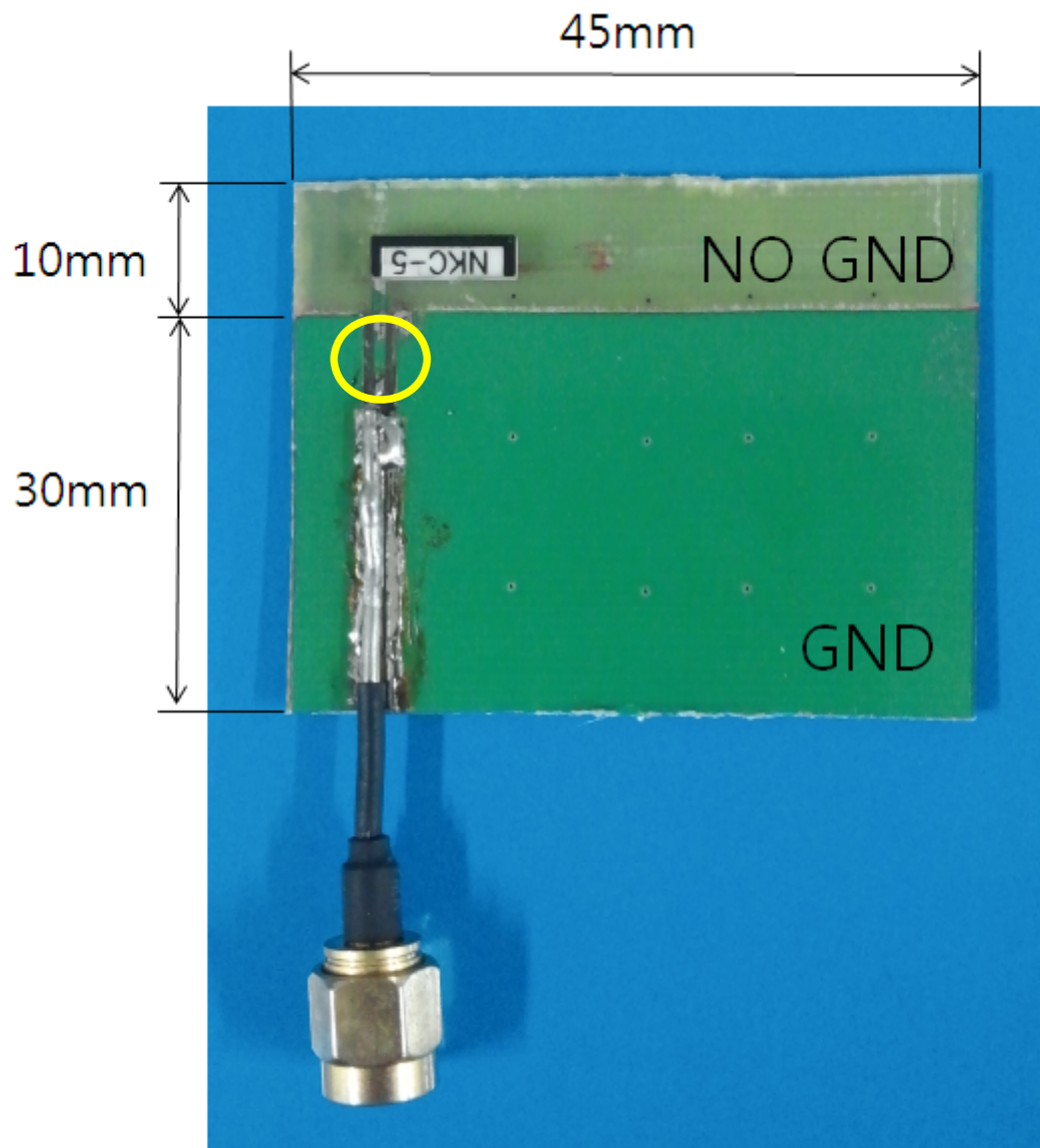
1. Electrical Specification

No	Item	Spec	Remark
1	Frequency[GHz]	2.4 ~ 2.48 / 5.0 ~ 5.8	
2	VSWR	≤ 5.0	2.40GHz~ 2.48GHz
3	Peak Gain[dBi]	Typ. +0.0	
4	Avg Gain[dBi]	Typ. -3.5	
5	Efficiency[%]	Typ. 40.0%	
6	VSWR	≤ 3.0	5.0GHz~ 5.8GHz
7	Peak Gain[dBi]	Typ. +0.5	
8	Avg Gain[dBi]	Typ. -3.5	
9	Efficiency[%]	Typ. 45.0%	
10	Polarization	Linear	2.4G~5.8G
11	Impedance[Ω]	Nominal 50	

▶ The results are measured on the 45*40mm² evaluation board.

형태	Bulk Ceramic	
재질	유전체	Al ₂ O ₃ (Alumina)
	전극	은(Ag)
크기 (mm)	L = 9.8+/-0.1	
	W = 2.8+/-0.1	
	T = 1.8+/-0.1	
Weight	182 mg	

2. Mechanical Specification



PCB Specification : FR-4

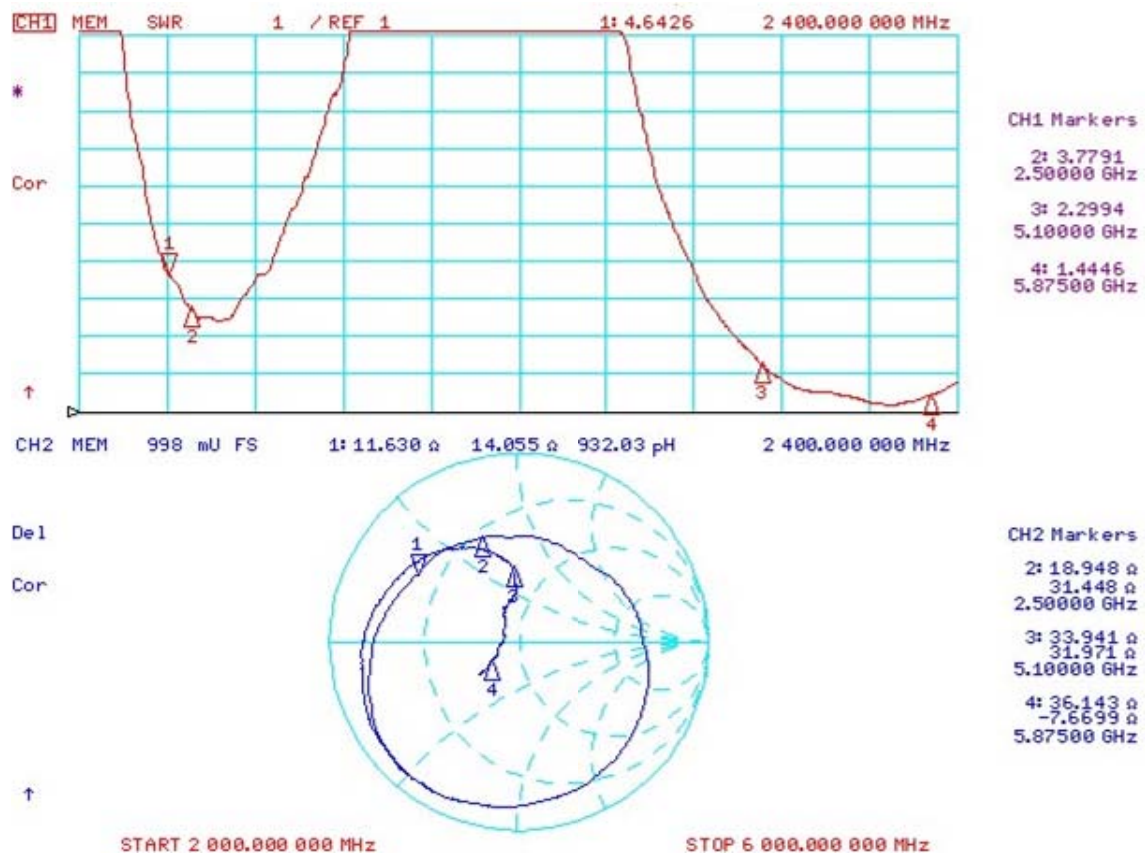
* Matching Circuit : Series 및 Shunt에 따른 주파수, BandWidth 등등



튜닝이 가능함.

3. Measurement Result

3.1 VSWR & Smith Chart

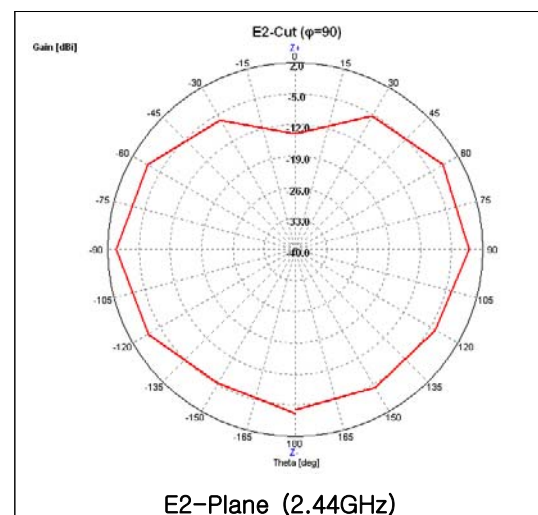
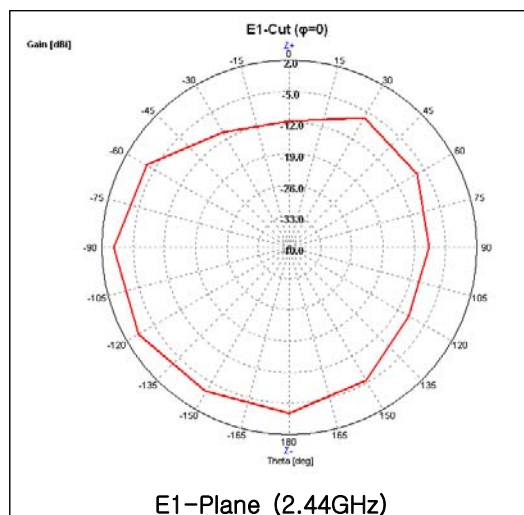
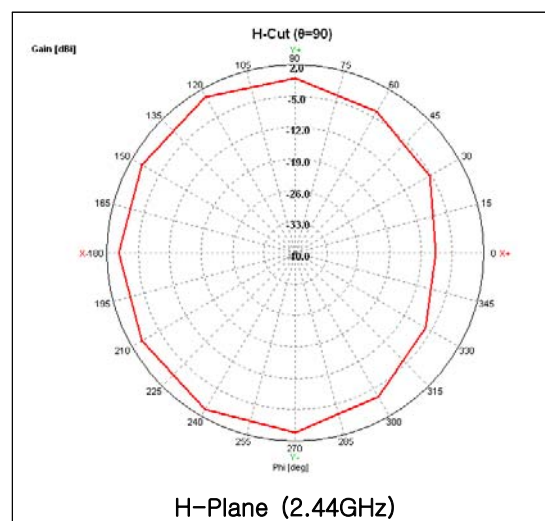


3.2 Gain

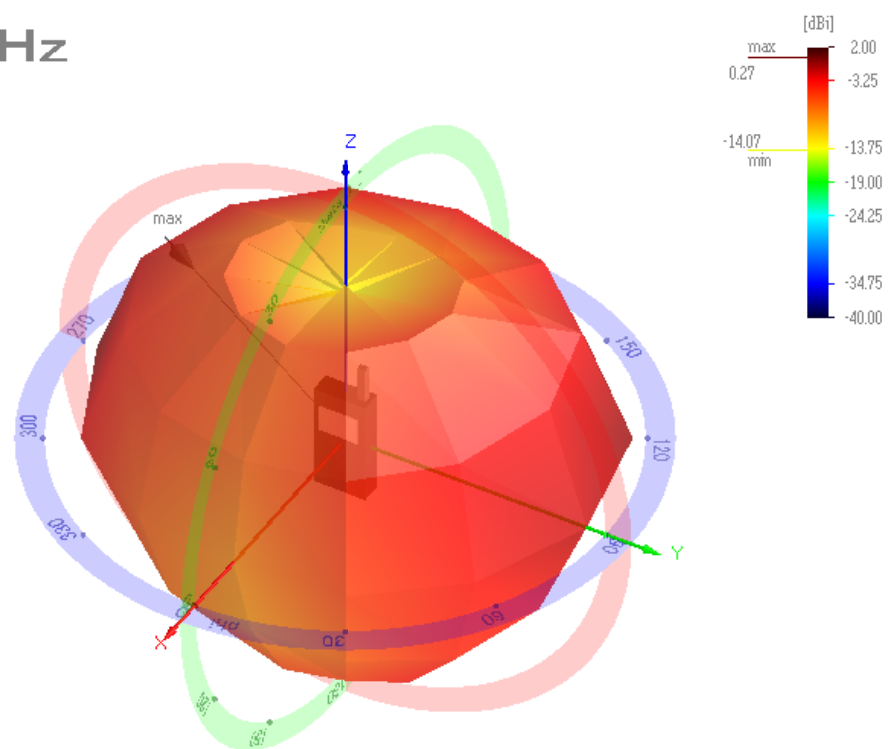
Freq.[GHz]	Eff.[%]	Avg.[dBi]	Peak[dBi]
2.410	36.55	-4.37	-0.83
2.440	47.74	-3.21	0.27
2.480	39.98	-3.98	-0.38
5.150	36.11	-4.42	0.21
5.200	36.36	-4.39	0.38
5.250	38.15	-4.19	0.27
5.260	37.64	-4.24	0.20
5.290	35.67	-4.48	-0.01
5.320	34.73	-4.59	-0.15
5.500	37.54	-4.25	-0.16
5.600	37.88	-4.22	0.00
5.700	46.07	-3.37	0.82
5.745	52.99	-2.76	1.34
5.790	45.60	-3.41	0.43
5.825	49.21	-3.08	0.62
5.875	54.27	-2.65	1.03

3.3 Radiation Pattern

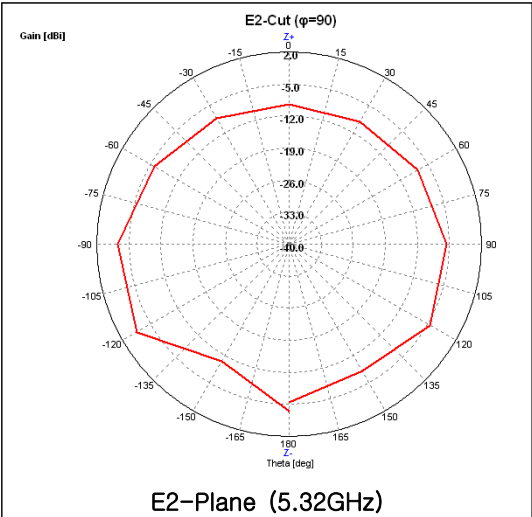
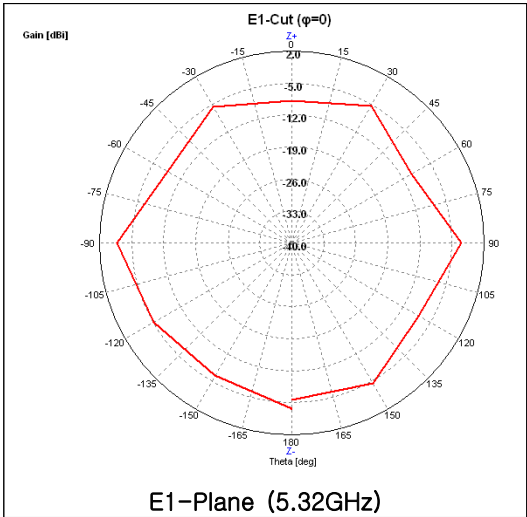
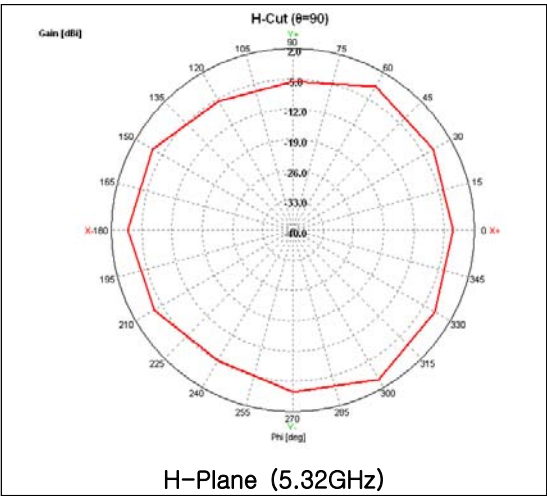
3.3.1 2.44GHz Radiation Pattern



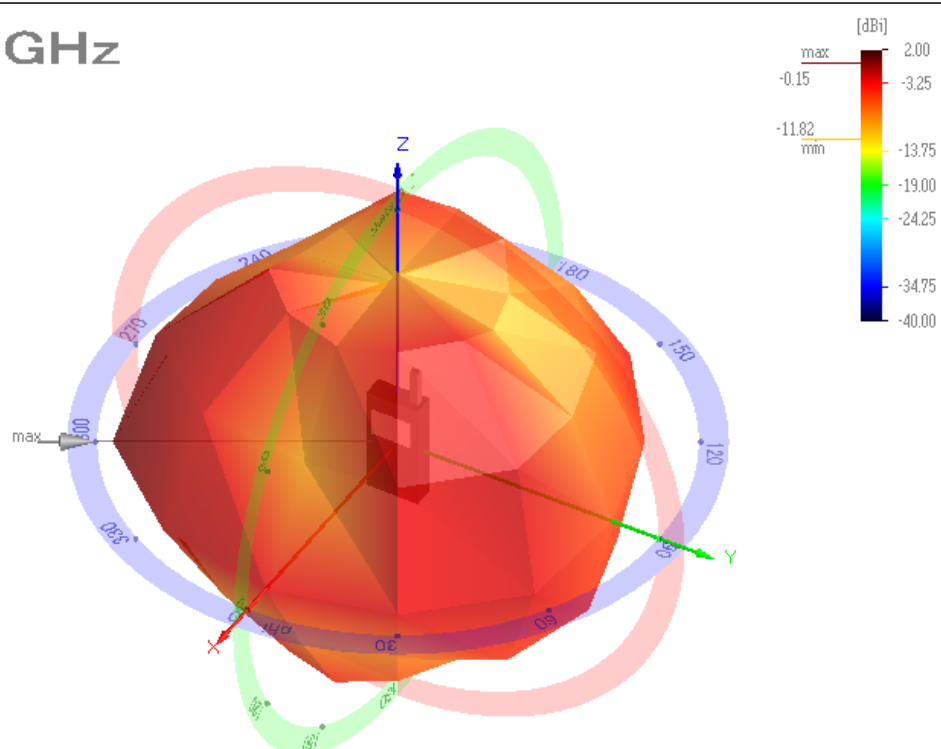
2.440GHz



3.3.2 5.32GHz Radiation Pattern



5.320GHz



3D view (5.32GHz)