

HANWOOL TECHNOLOGY

5GHz 대역 내장형 Dipole Antenna
HWI-5500DP-IPEX

2009. 07. 21.

www.hanwooltech.com

- 목 차 -

1. SPECIFICATIONS
2. Radiation Pattern
3. 3D-Measurement
4. Input Impedance (VSWR, Smith Chart)
5. 도면

1. SPECIFICATIONS

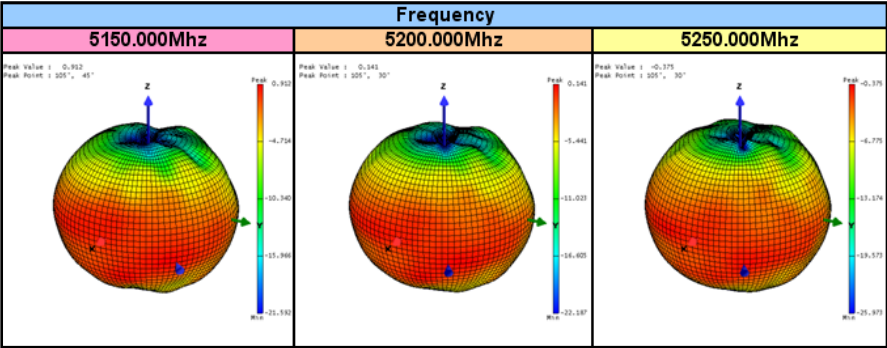
ELECTRICAL Char.	SPECIFICATIONS	REMARK
Model	HWI-5500DP-IPEX	
Frequency Range	5150~5250[MHz]	
V.S.W.R	1.5 :1	
Gain	0 ±1.0[dBi]	
Polarizations	Isotropic	
Input Impedance	50[Ω]	
Input Power	1[W]	
MECHANICAL Char.	SPECIFICATIONS	
Cable Type	1.13 ϕ	Grey Color
Connector	IPEX MHF-1	Gold Plating
Size [W x H x D]	48 x 7.5 x 0.8[mm]	



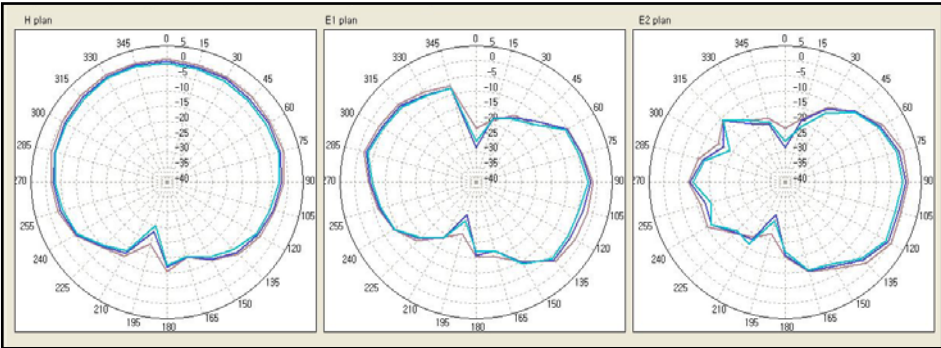
PCB Type

2. Radiation Pattern

3D Pattern



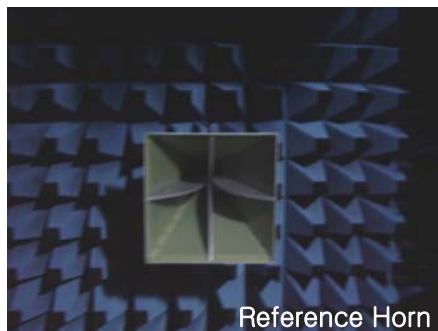
2D Pattern



H-Plan

Frequency	Peak Value			Minimum Value			Avg. Gain	Efficiency
[MHz]	Value[dBi]	Theta	Phi	Value[dBi]	Theta	Phi	[dBi]	[%]
5150	0.667	90	0	-18.949	90	195	-2.093	61.77%
5200	0.02	90	345	-23.157	90	195	-2.833	52.08%
5250	-0.546	90	330	-25.226	90	195	-3.563	44.02%

3. 3D-Measurement



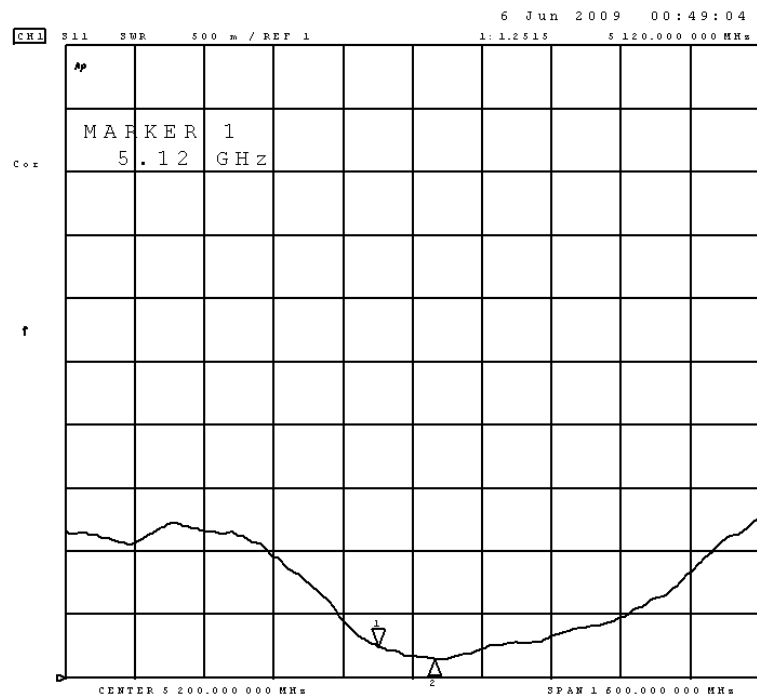
- Calibration 주파수 대역 : 5.0 ~ 6.0[GHz]
- 2D 복사패턴 Angle step : 03°
- 3D 복사패턴 Angle step : 15°

- 안테나의 이득과 복사 패턴을 정확히 측정하기 위해 챔버내에 설치된 혼안테나를 Calibration 하는 장면.

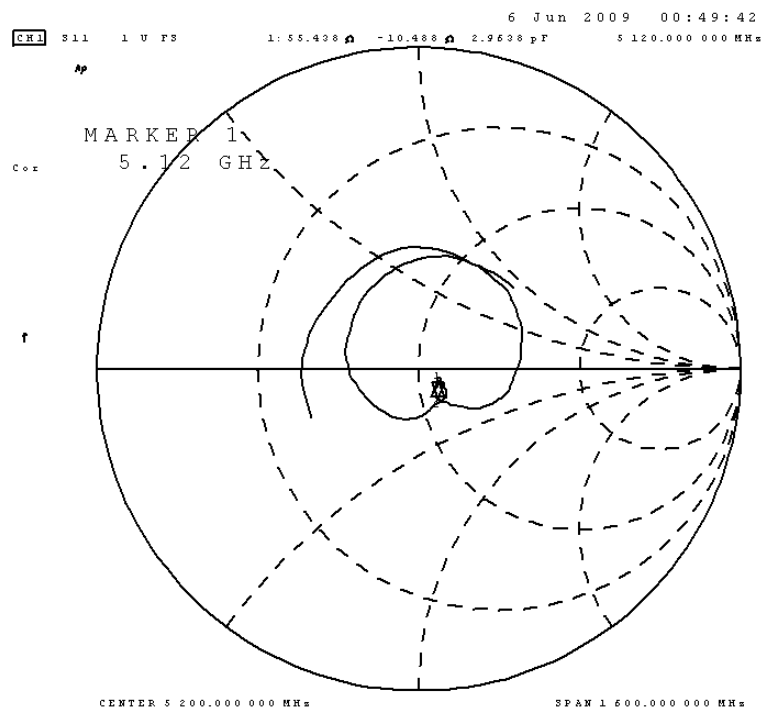


- 3D 복사패턴을 측정하기 위한 안테나의 설치.

4. Input Impedance (VSWR, Smith Chart)



V.S.W.R

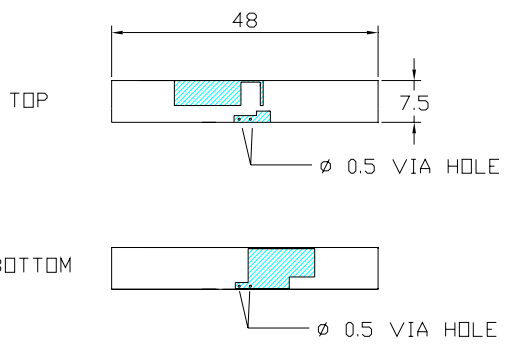


Smith Chart

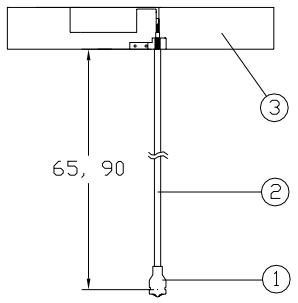
5. 도면

한울
Technology

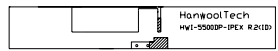
TOL Unless Noted	DIMENSION	mm	No	DATE	REVISION	CHECKER
X. = ±0.5	SCALE	1/1	①	20 . . .		
X.X = ±0.1	MATERIAL		②	20 . . .		
X.XX = ±0.05	FINISH					



- 케이블 조립체 장착



- BLACK SILK PRINTING



						3	PCB Antenna	FR-4, 0.8T	White Color
TITLE	FR-4, 0.8T PCB			MODEL	HWI-5500DP-IPEX R.2	2	IPEX Cable	1.13?	Grey Color
Drawn	Checked	Approval	Date	DWG No.	File Name	1	IPEX Connector	MHF-1	Gold Plating
M.Y,KANG	J.K,BAE	C.G,NAM	2009.06.29	090629-1	아이두잇	No.	PART NAME	MATERIAL	FINISH

한울테크놀로지