

Data Sheet

CUSTOMER: ASUS

MODEL NAME: B6602

AWAN P/N: AYF6Y-100198



B2, No. 207, Sec.3, Beixin Rd., Xindian
Dist., New Taipei City 231, Taiwan, R.O.C
TEL : 886-2-8913-1939
FAX : 886-2-8913-2538
Http : //www.awan-ant.com

1. Description-----	1
1.1 Specifications-----	1
1.2 Antenna Picture-----	1
2. Electrical Specification-----	2
2.1 Test Equipment-----	2
2.2 Test Setup-----	2
2.2.1 Frequency Range-----	2
2.2.2 VSWR-----	2
2.2.3 Radiation Pattern & Gain-----	2
3. Performance Data-----	4
3.1 Return Loss-----	4
3.2 Radiation pattern & Gain (WLAN Main Antenna)-----	5
3.3 Gain -----	19
4. Mechanical Specification-----	20
4.1 Assembly Drawing(WLAN MAIN Antenna)-----	20

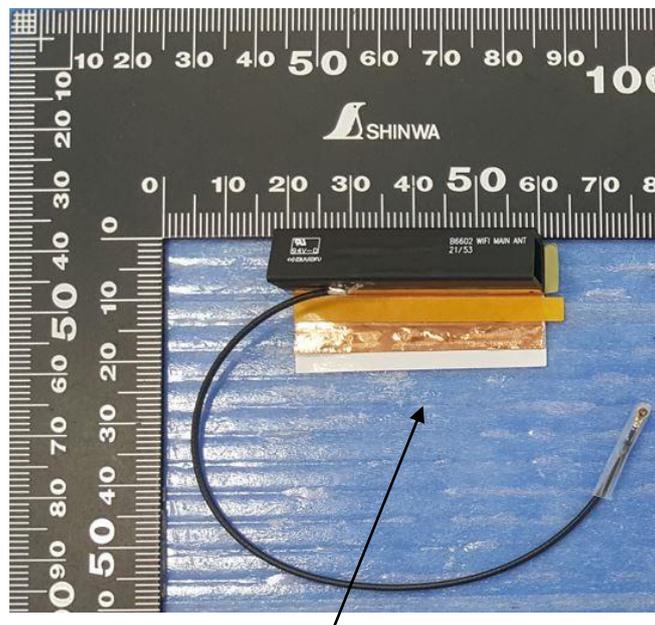
1. Description

1.1 Specifications

Antennas Type	PIFA Antenna for WLAN WIFI application	
Connector Type	IPEX NGFF Connector for 1.13 cable	
Cable Type	OD 1.13 RF Normal Cable	
Impedance	50Ω	
Polarization	Linear	
Radiation pattern	Omni-directional	
Frequency	2.40~2.50 GHz	
	5.15~5.85 GHz	
	5.925~7.125 GHz	
VSWR	2.40~2.50 GHz	5.0 Max
	5.15~5.85 GHz	
	5.925~7.125 GHz	
Cable Loss	2.40~2.50 GHz	0.38 dB
	5.15~5.85 GHz	0.64 dB
	5.925~7.125 GHz	0.72 dB
Cable length	WLAN Main : (AYF6Y-100198)	126 mm, Black

Peak gain w/ cable loss (dBi)*									
	2.4GHz 2400-2483.5 MHz	5.2GHz 5150-5250MHz	5.3GHz 5250-5350MHz	5.6GHz 5470-5725MHz	5.8GHz 5725-5850MHz	6.2GHz 5925-6425MHz	6.5GHz 6425-6525MHz	6.7GHz 6525-6875MHz	7.0 GHz 6875-7125MHz
Main	2.7	3.3	3.6	3.7	3.7	4.6	3.6	4.3	3.8

1.2 Antenna Picture



WLAN Main P/N : AYF6Y-100198

2. Electrical Specification

2.1 Test Equipment

- A. VSWR and input impedance: Agilent 8720/8753 Network Analyzer
- B. Antenna gain and efficiency: ETS three-dimensional anechoic chamber

2.2 Test Setup

2.2.1 Frequency Range

- A. 2.40~2.50 GHz
- B. 5.15~5.85 GHz
- C. 5.925~7.125 GHz

2.2.2 VSWR

- Step 1: The antenna is arranged on the customer provided test fixture(see figure. 1).
- Step 2: The VSWR of the antenna is measured via Agilent 8720/8753 Network Analyzer (see figure. 1).



Figure.1

2.2.3 Radiation pattern and Gain

- A. The 3D chamber provides less than -40dB reflectivity from 500MHz to 7.125GHz and a 40cm diameter spherical quiet zone. The measurement results are calibrated using both dipoles and standard gain horns (see figure. 2).
- B. The antenna under tested is arranged in the turned table and a decoupling sleeve is used to reduce feed line radiation (see figure. 3).
- C. The measured results of the radiation patterns and antenna gain are obtained from the control system and showed on the monitor (see figure. 4 and 5).

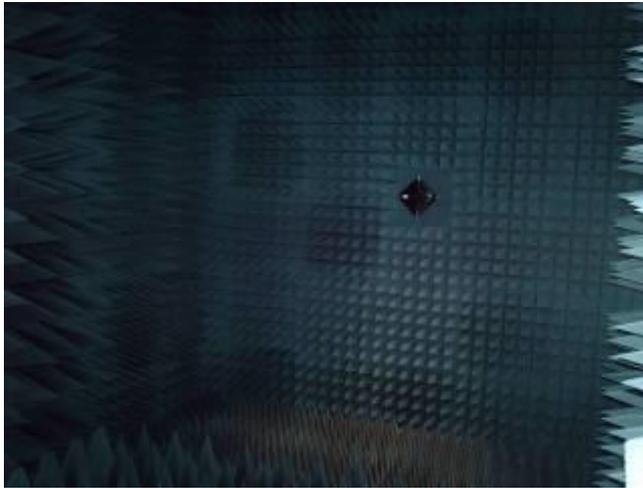


Figure. 2

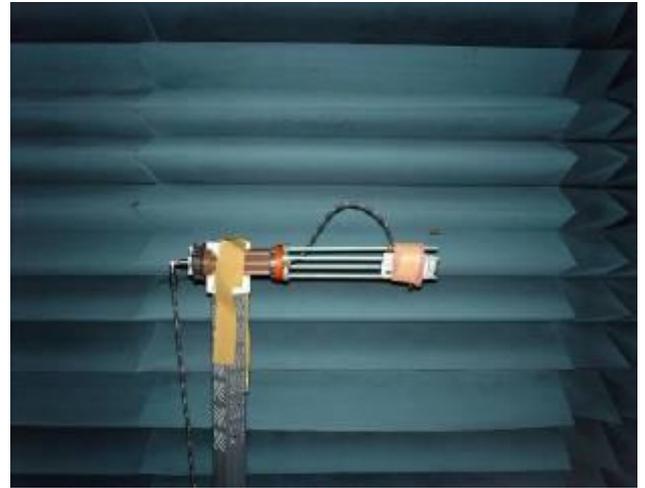


Figure. 3



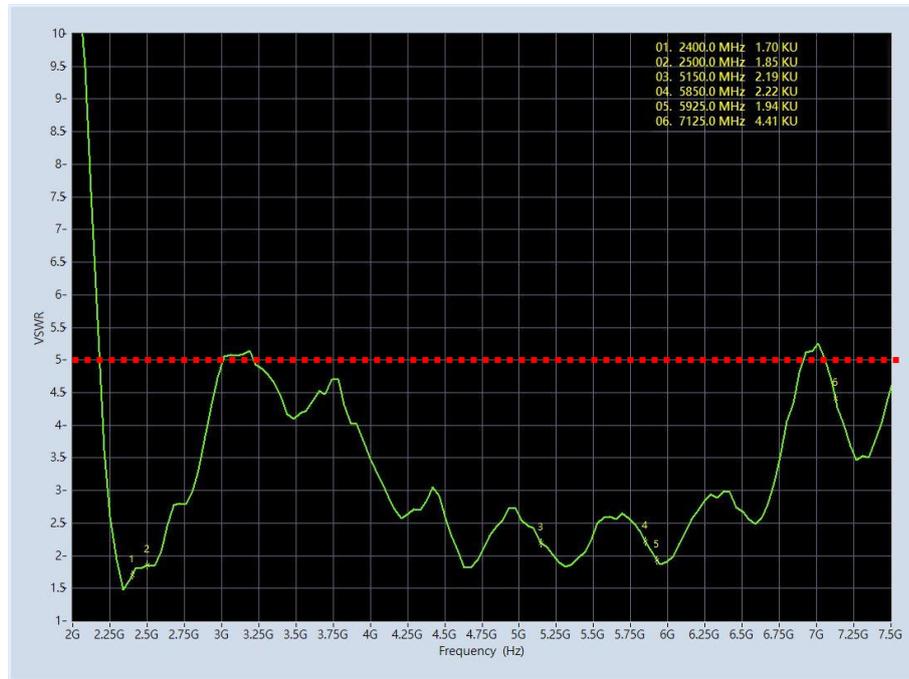
Figure. 4



Figure. 5

3. Performance Data

3.1 VSWR

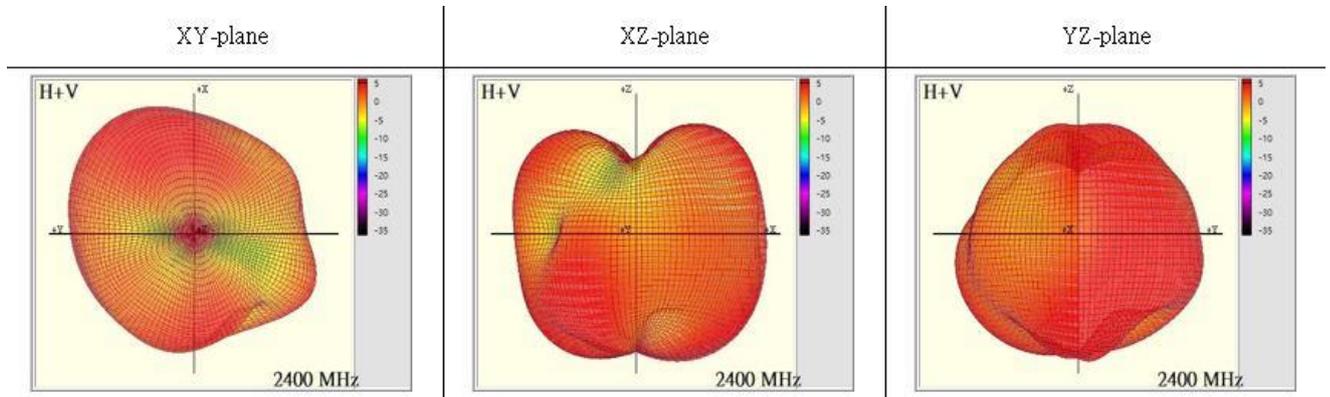


VSWR = 5

WLAN Main

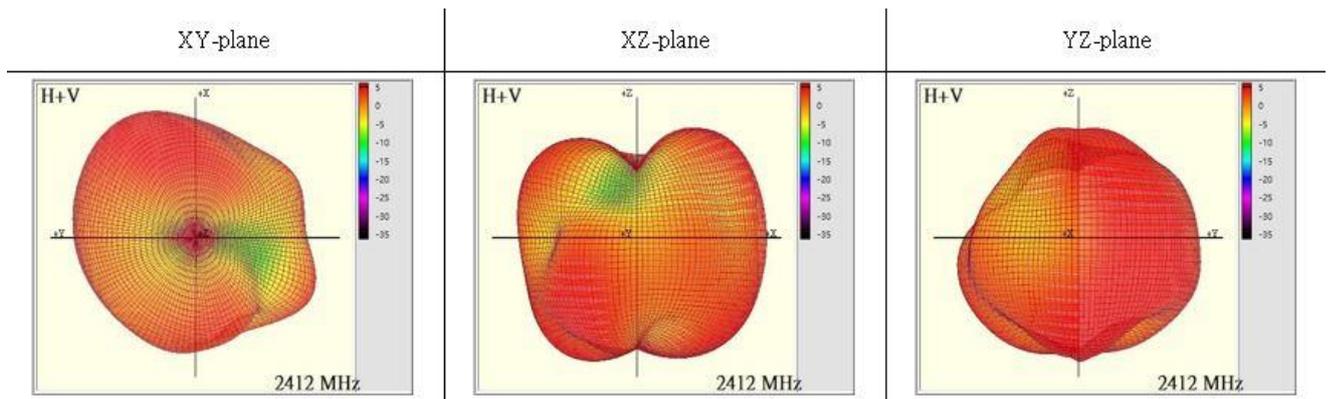
3.2 Radiation pattern & Gain(WLAN Main Antenna)

Main antenna: 2400 MHz



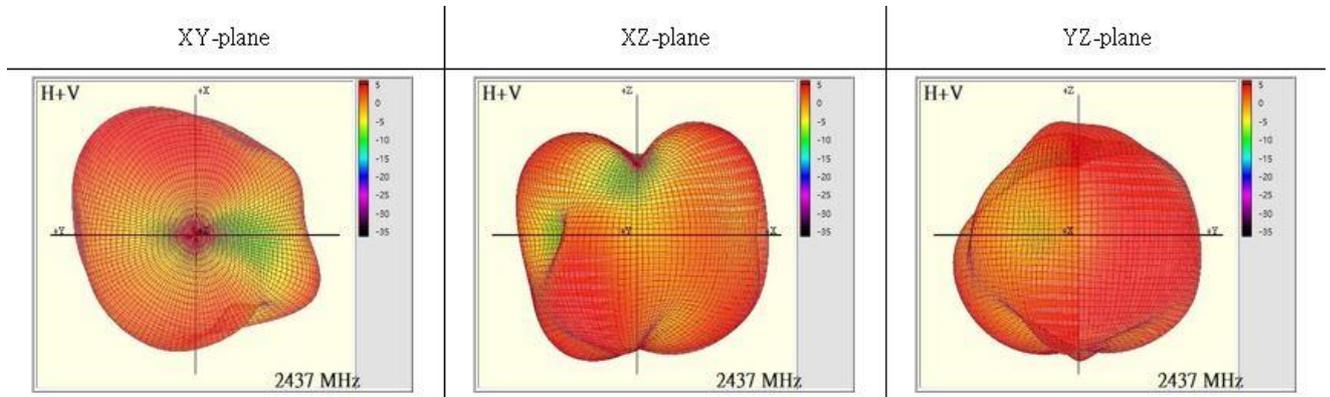
Center Frequency	2400 MHz
Three-dimensional (dBi) peak	2.5

Main antenna: 2412 MHz



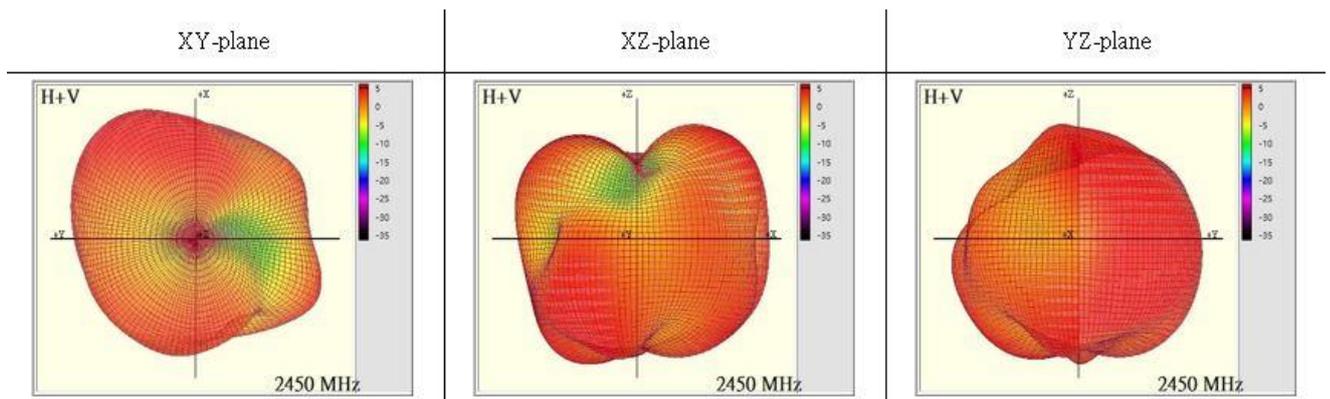
Center Frequency	2412 MHz
Three-dimensional (dBi) peak	2.6

Main antenna: 2437 MHz



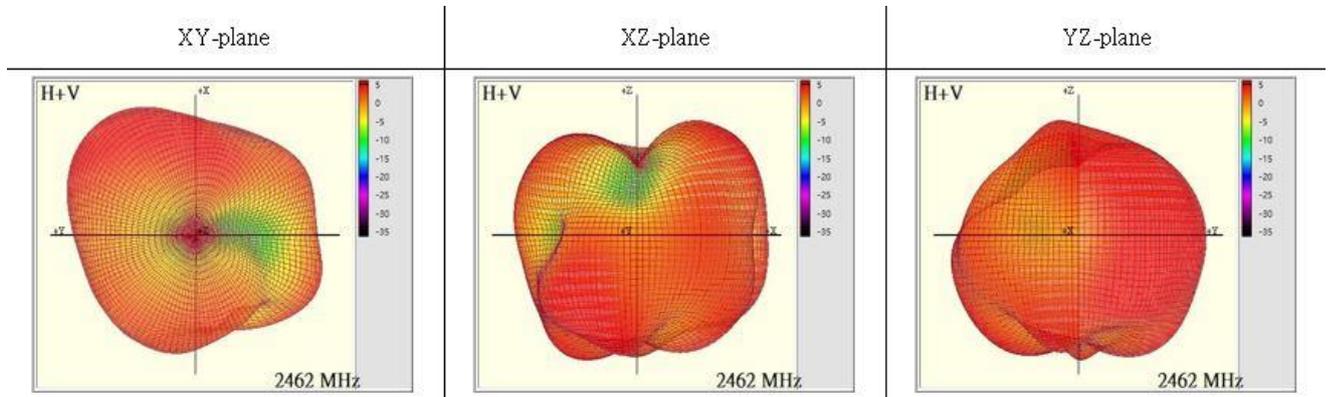
Center Frequency	2437 MHz
Three-dimensional (dBi) peak	2.4

Main antenna: 2450 MHz



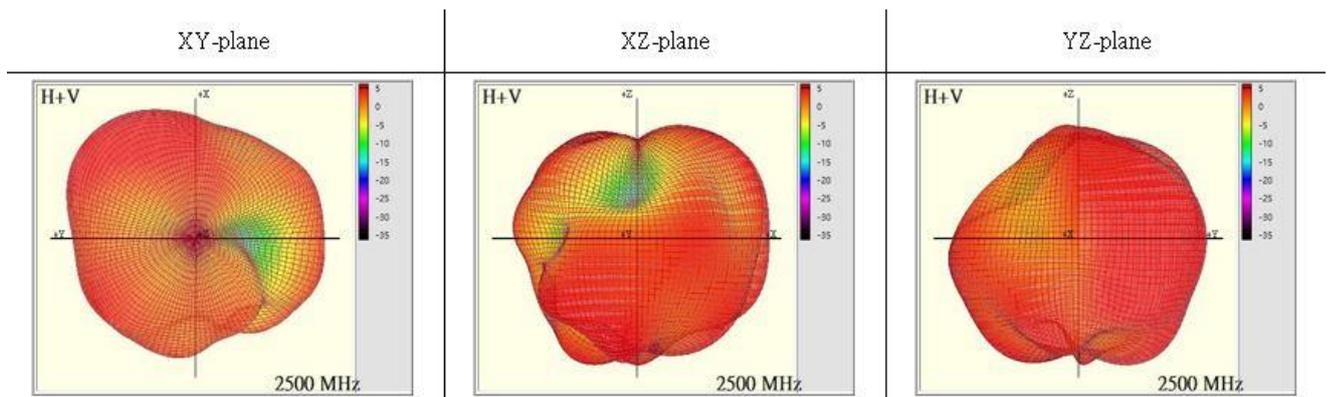
Center Frequency	2450 MHz
Three-dimensional (dBi) peak	2.5

Main antenna: 2462 MHz



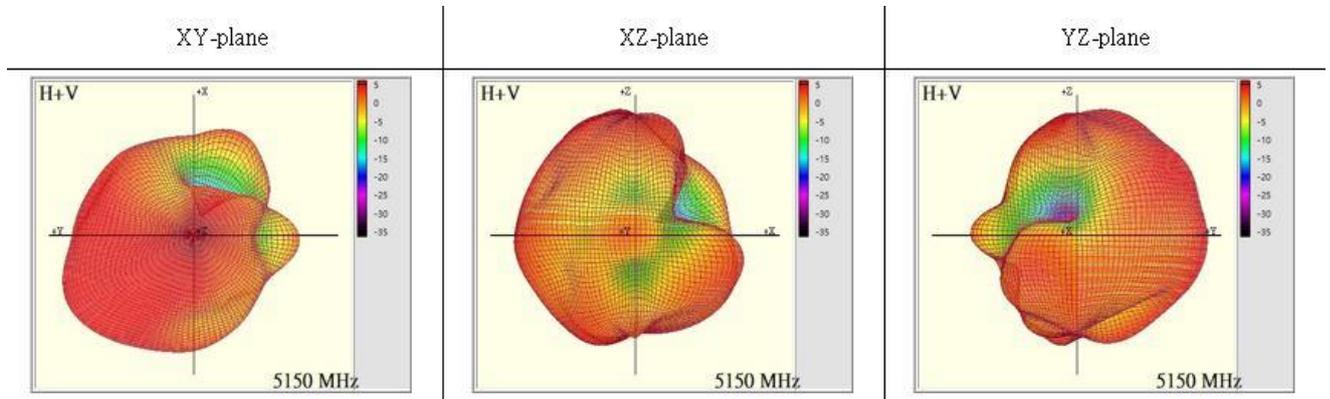
Center Frequency	2462 MHz
Three-dimensional (dBi) peak	2.5

Main antenna: 2500 MHz



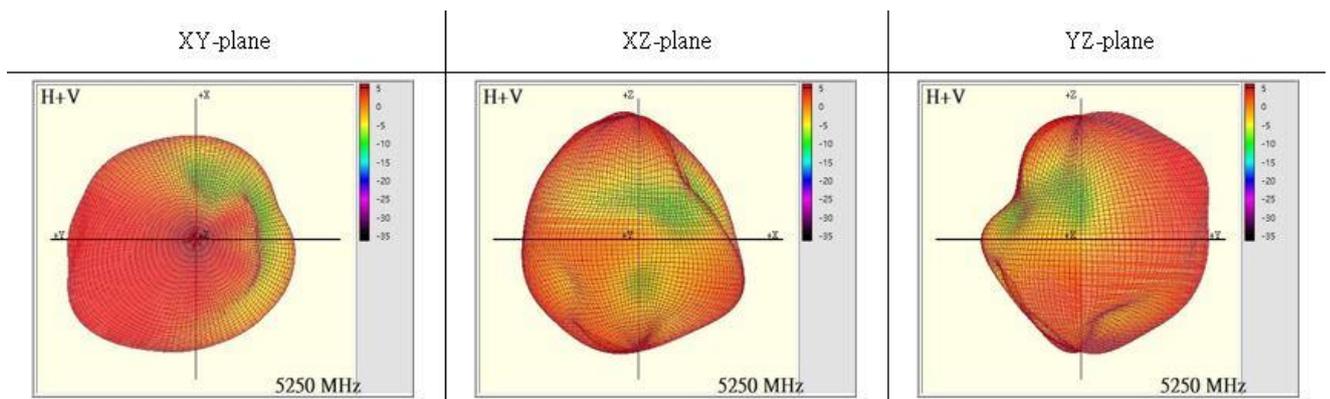
Center Frequency	2500 MHz
Three-dimensional (dBi) peak	2.7

Main antenna: 5150 MHz



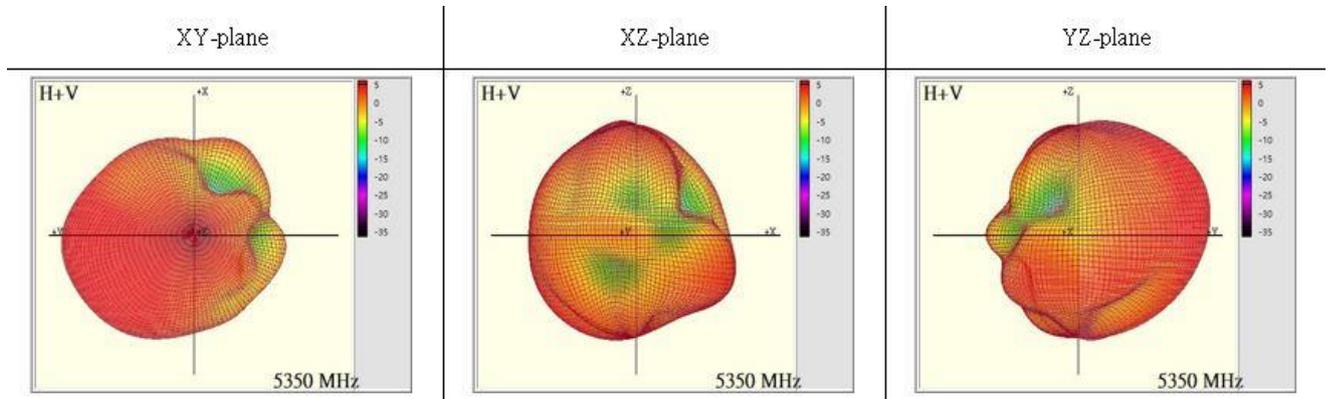
Center Frequency	5150 MHz
Three-dimensional (dBi) peak	3.3

Main antenna: 5250 MHz



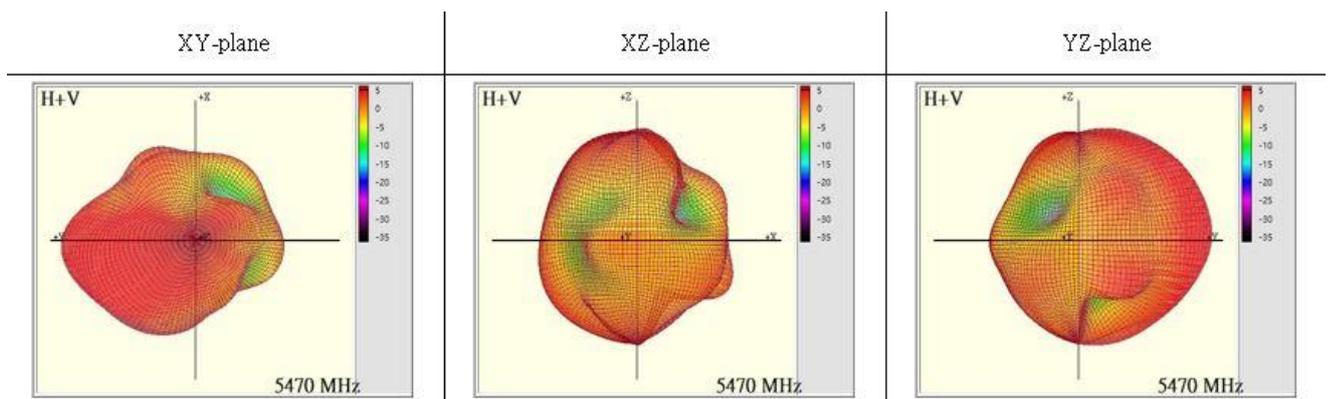
Center Frequency	5250 MHz
Three-dimensional (dBi) peak	3.3

Main antenna: 5350 MHz



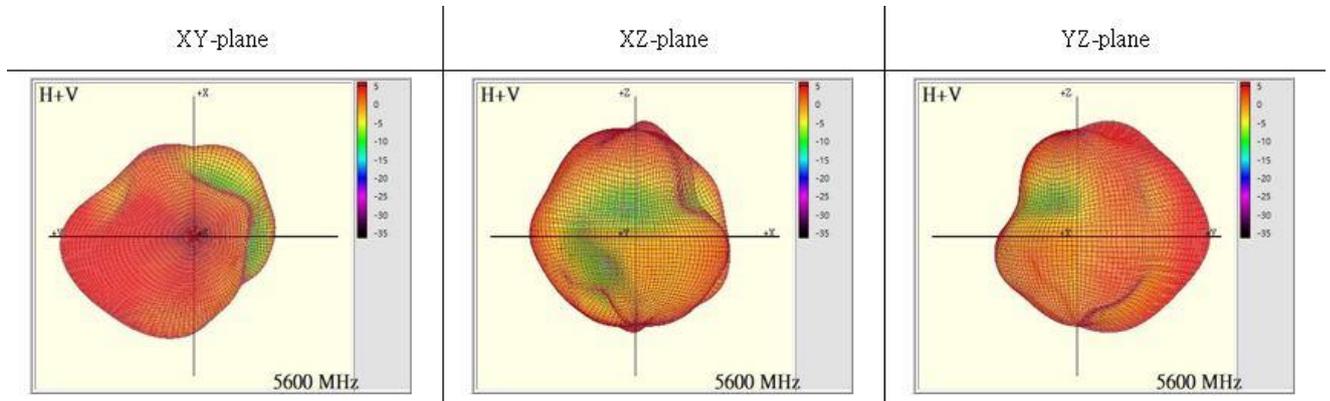
Center Frequency	5350 MHz
Three-dimensional (dBi) peak	3.6

Main antenna: 5470 MHz



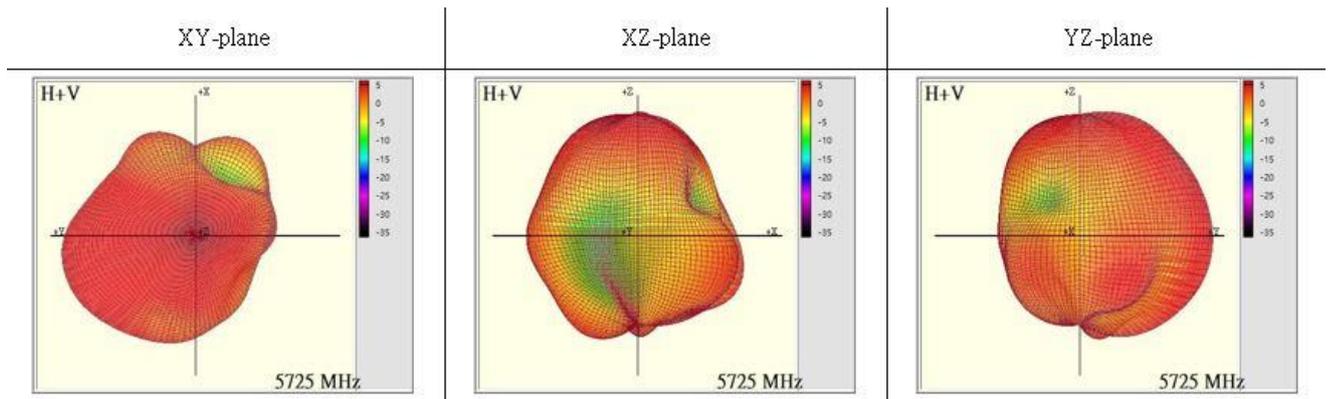
Center Frequency	5470 MHz
Three-dimensional (dBi) peak	2.6

Main antenna: 5600 MHz



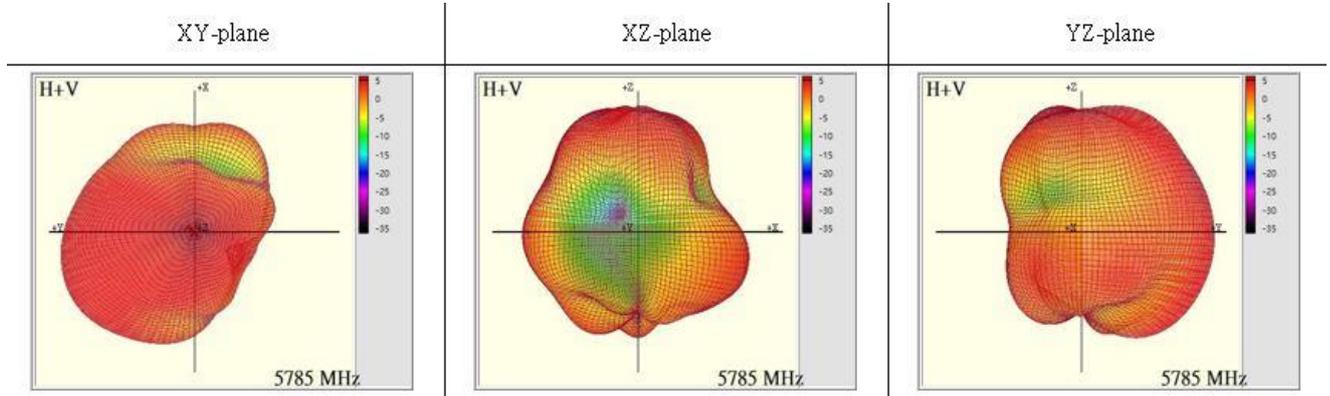
Center Frequency	5600 MHz
Three-dimensional (dBi) peak	3.7

Main antenna: 5725 MHz



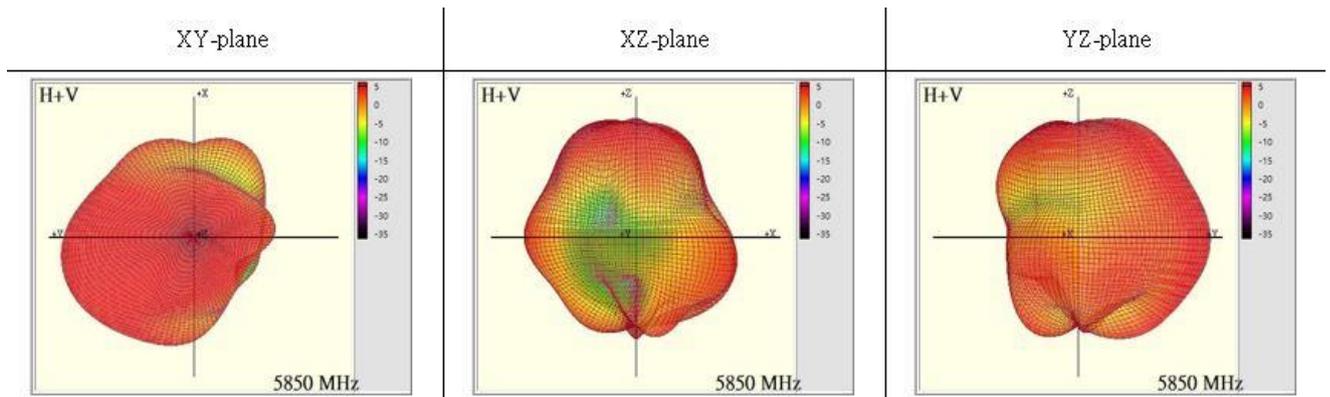
Center Frequency	5725 MHz
Three-dimensional (dBi) peak	3.7

Main antenna: 5785 MHz



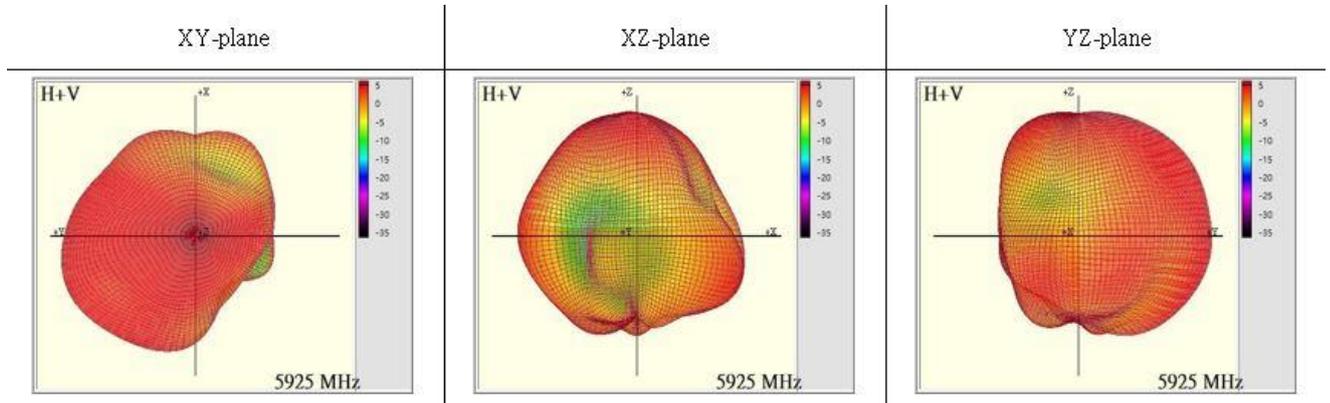
Center Frequency	5785 MHz
Three-dimensional (dBi) peak	3.2

Main antenna: 5850 MHz



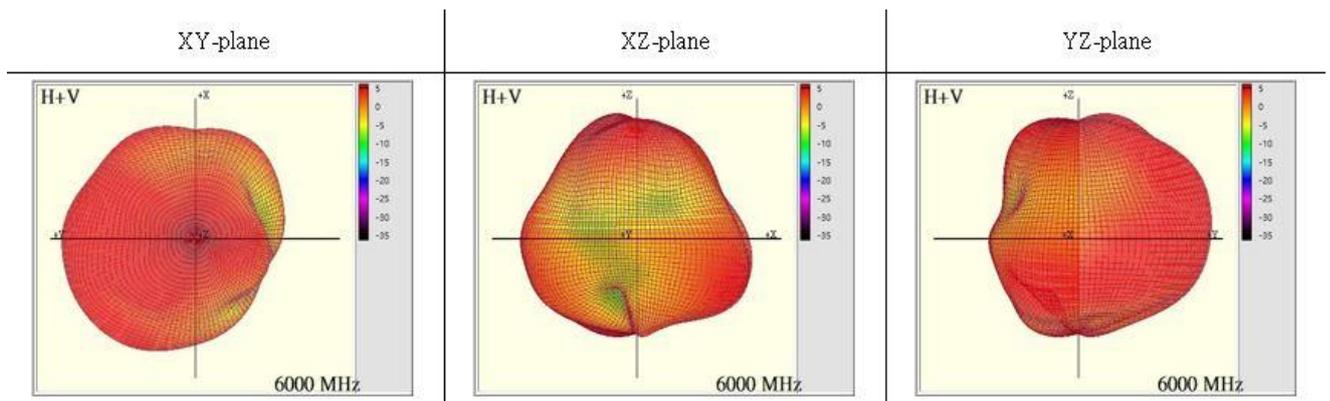
Center Frequency	5850 MHz
Three-dimensional (dBi) peak	3.1

Main antenna: 5925 MHz



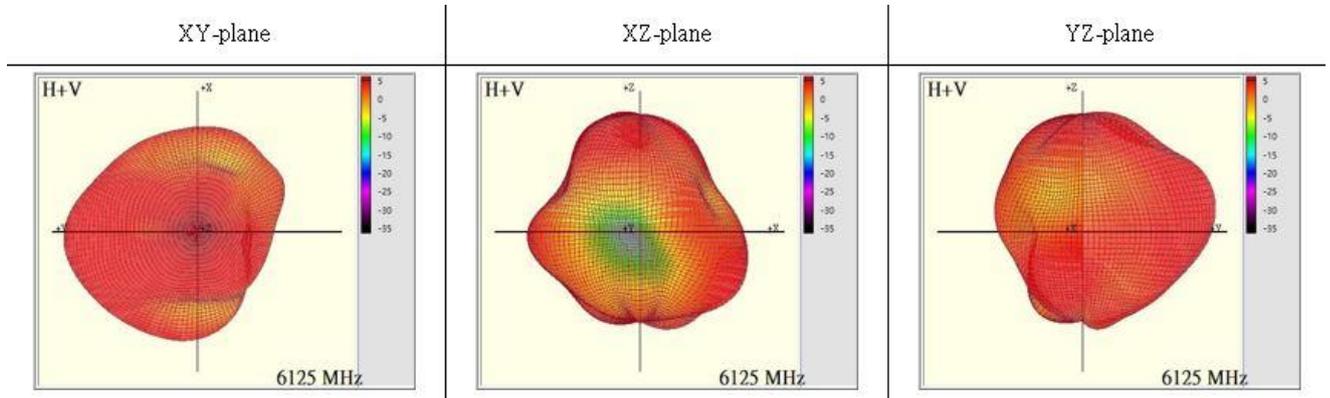
Center Frequency	5925 MHz
Three-dimensional (dBi) peak	3.5

Main antenna: 6000 MHz



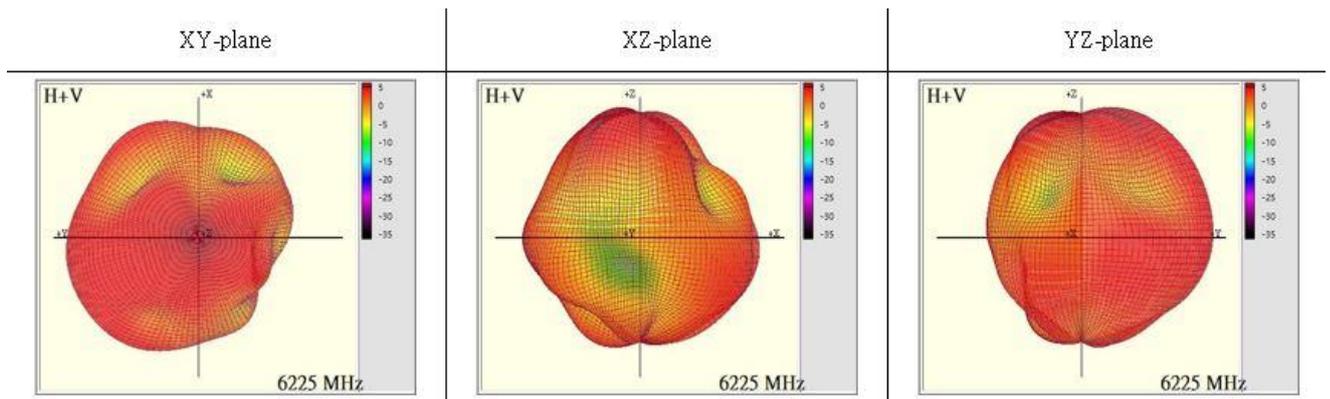
Center Frequency	6000 MHz
Three-dimensional (dBi) peak	4.2

Main antenna: 6125 MHz



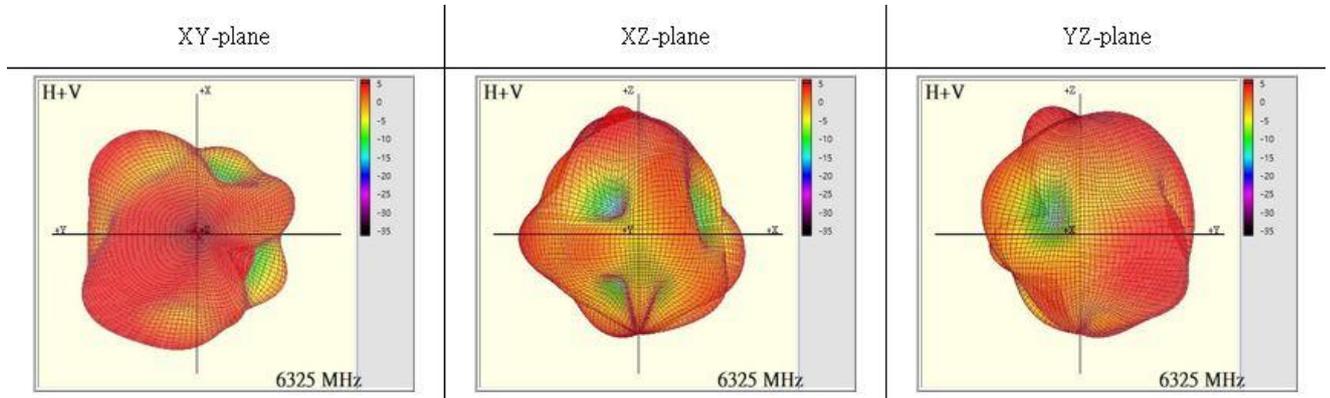
Center Frequency	6125 MHz
Three-dimensional (dBi) peak	4.3

Main antenna: 6225 MHz



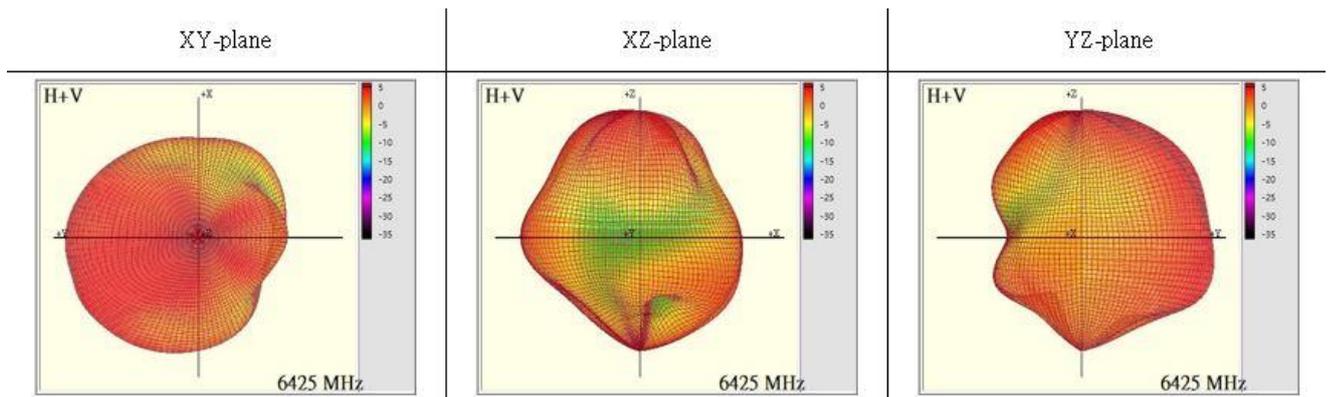
Center Frequency	6225 MHz
Three-dimensional (dBi) peak	4.6

Main antenna: 6325 MHz



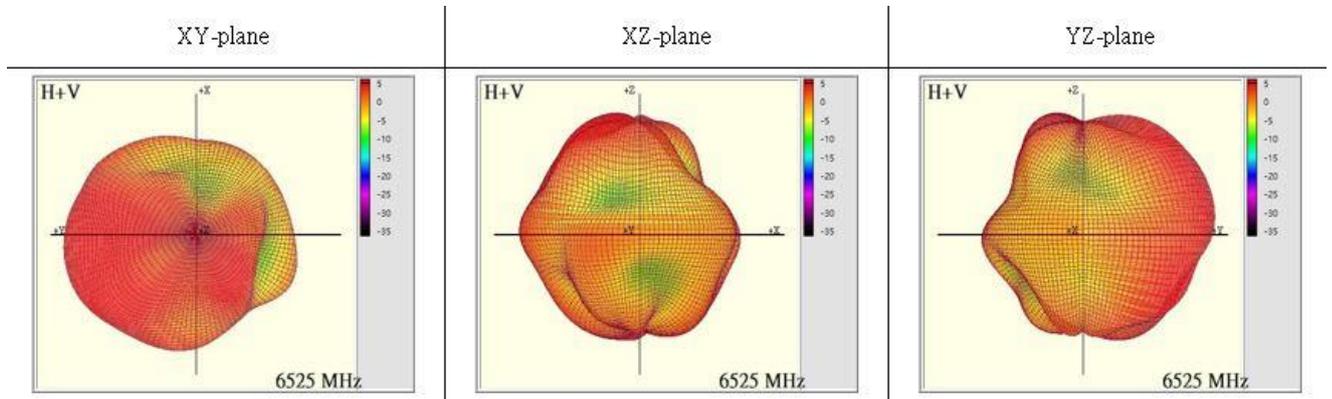
Center Frequency	6325 MHz
Three-dimensional (dBi) peak	4.5

Main antenna: 6425 MHz



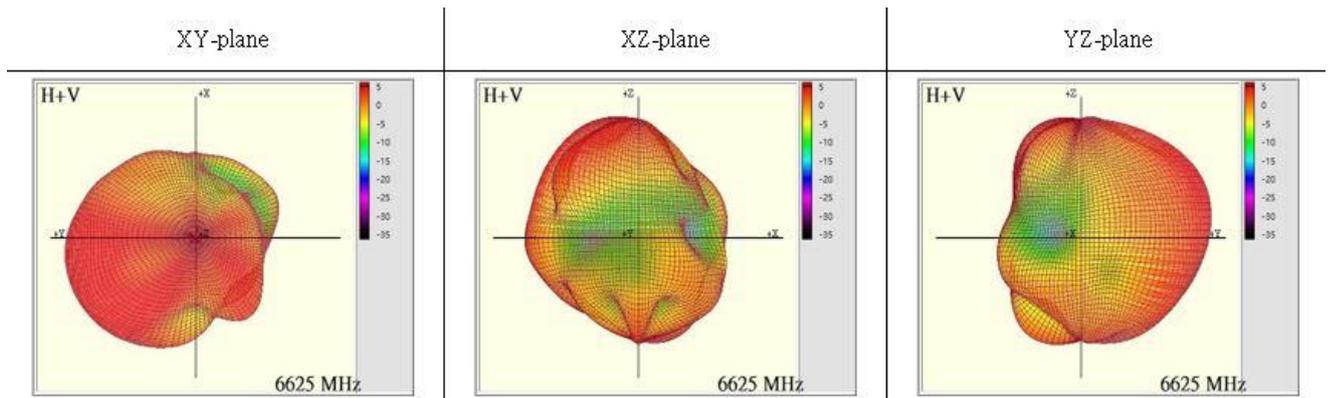
Center Frequency	6425 MHz
Three-dimensional (dBi) peak	3.4

Main antenna: 6525 MHz



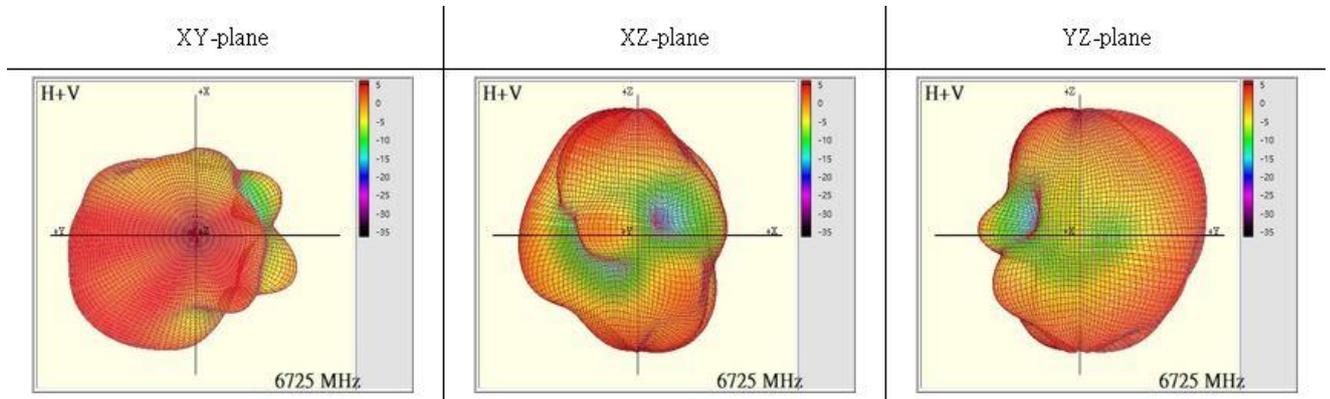
Center Frequency	6525 MHz
Three-dimensional (dBi) peak	3.6

Main antenna: 6625 MHz



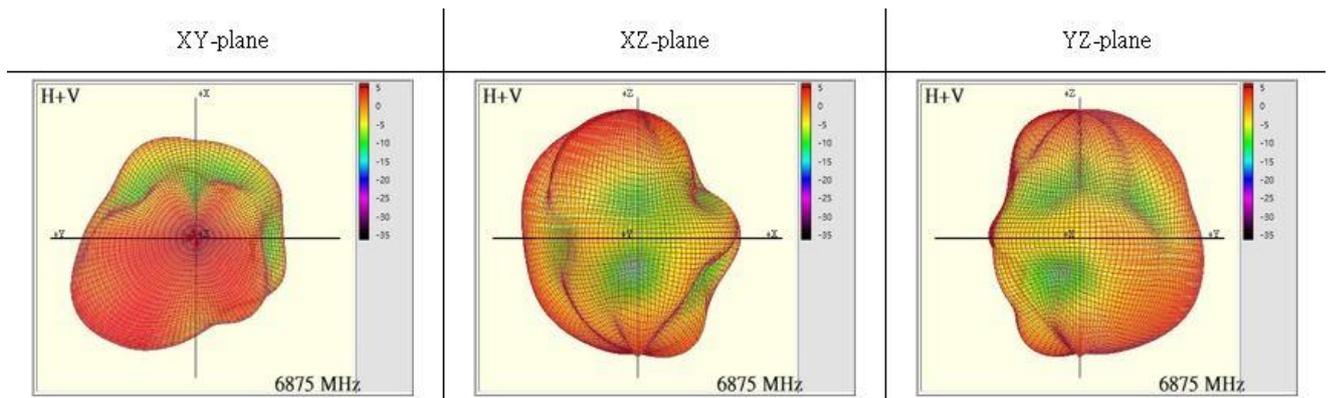
Center Frequency	6625 MHz
Three-dimensional (dBi) peak	4.3

Main antenna: 6725 MHz



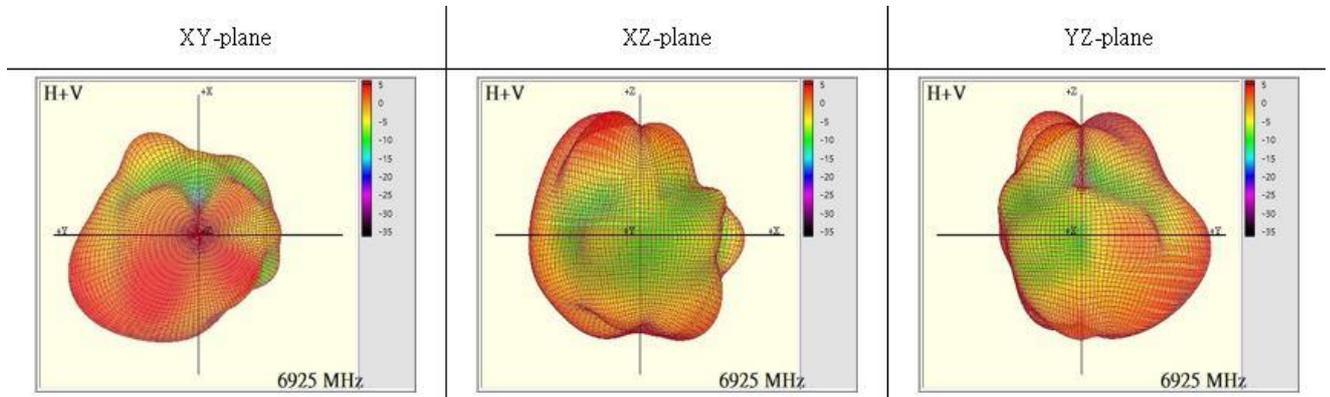
Center Frequency	6725 MHz
Three-dimensional (dBi) peak	3.5

Main antenna: 6875 MHz



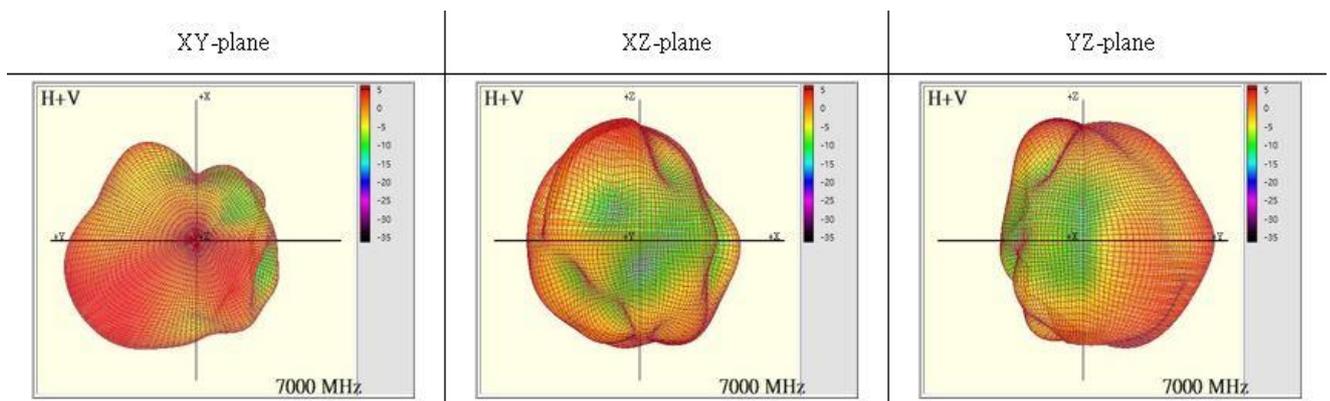
Center Frequency	6875 MHz
Three-dimensional (dBi) peak	3.4

Main antenna: 6925 MHz



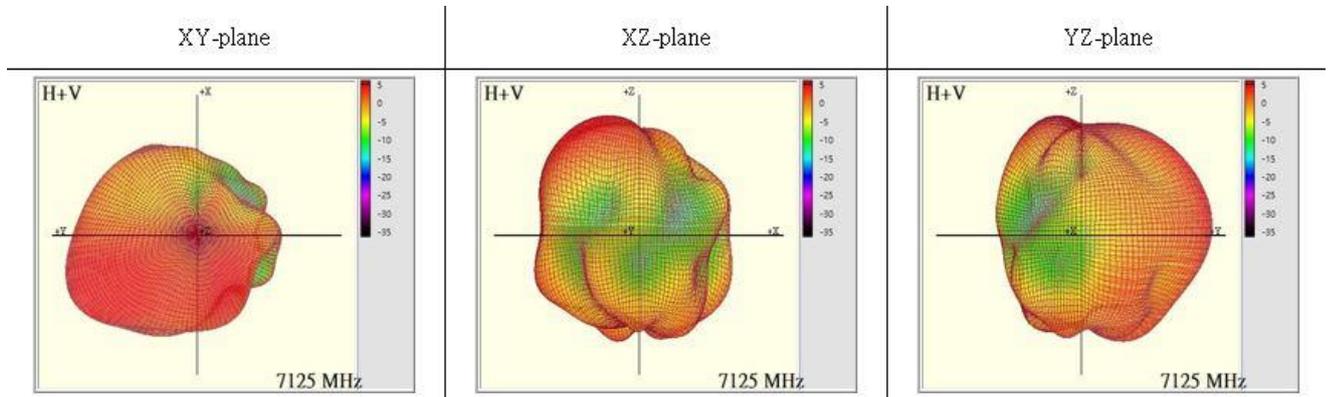
Center Frequency	6925 MHz
Three-dimensional (dBi) peak	3.6

Main antenna: 7000 MHz



Center Frequency	7000 MHz
Three-dimensional (dBi) peak	3.7

Main antenna: 7125 MHz



Center Frequency	7125 MHz
Three-dimensional (dBi) peak	3.8

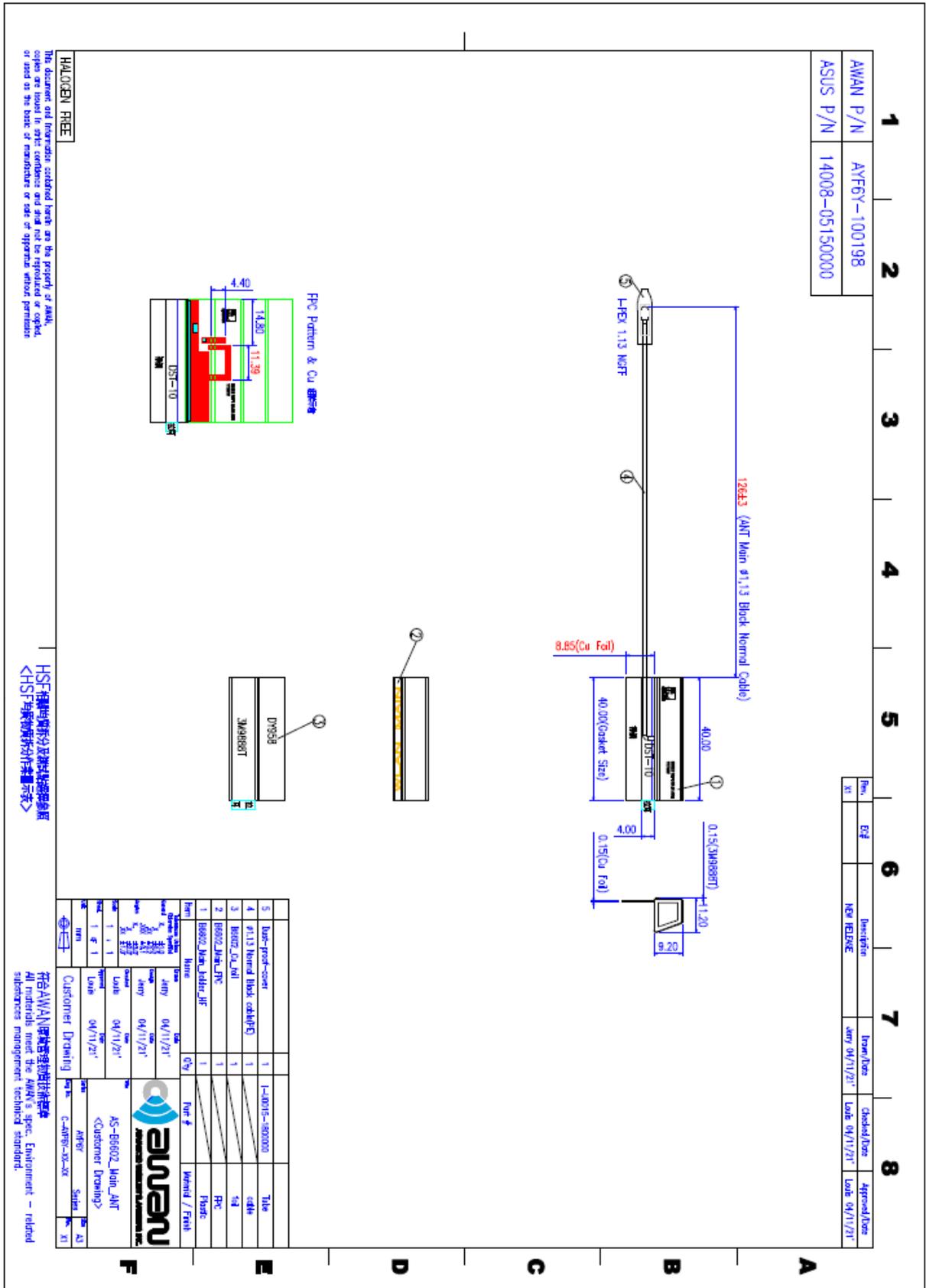
3.3 Gain

Antenna Gain Table:

WLAN MAIN Antenna Gain		
Frequency	3D Peak Gain	3D Gain
	Total(dBi)	Efficiency %
2400(MHz)	2.5	49
2412(MHz)	2.6	51
2437(MHz)	2.4	51
2450(MHz)	2.5	52
2462(MHz)	2.5	51
2500(MHz)	2.7	54
5150(MHz)	3.3	56
5250(MHz)	3.3	55
5350(MHz)	3.6	56
5470(MHz)	2.6	47
5600(MHz)	3.7	47
5725(MHz)	3.7	47
5785(MHz)	3.2	45
5850(MHz)	3.1	47
5925(MHz)	3.5	44
6000(MHz)	4.2	42
6125(MHz)	4.3	47
6225(MHz)	4.6	42
6325(MHz)	4.5	42
6425(MHz)	3.4	37
6525(MHz)	3.6	34
6625(MHz)	4.3	30
6725(MHz)	3.5	25
6875(MHz)	3.4	26
6925(MHz)	3.6	21
7000(MHz)	3.7	23
7125(MHz)	3.8	24

4. Mechanical Specification

4.1 Dimension Drawing (WLAN Main Antenna)



Revision

Revision	Date	Change Notification	Notes
Rev.0	2022-04-19	---	