

Data Sheet

CUSTOMER: Protech

MODEL NAME: MH-T01

AWAN P/N: ALP6Y-100024



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(R.O.C.)

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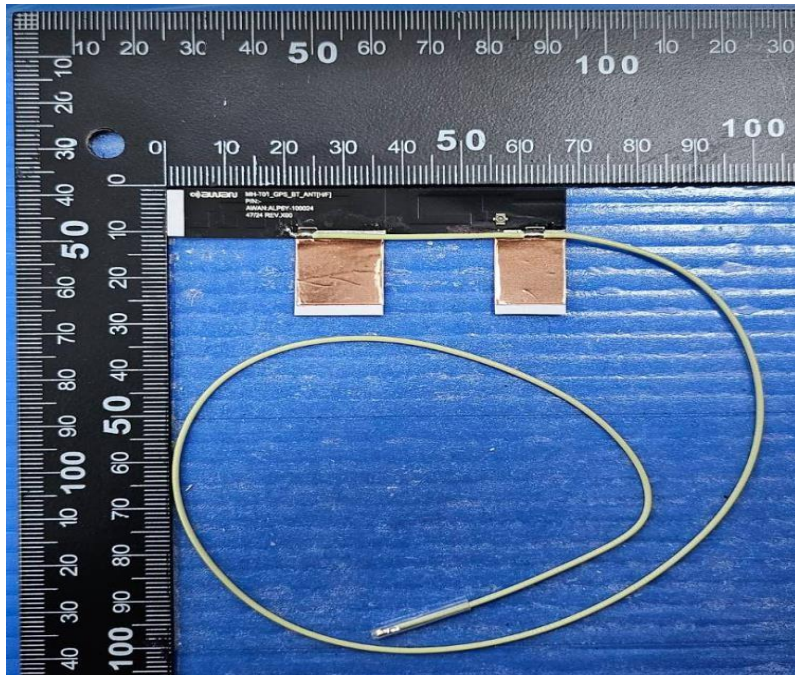
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1. Description

1.1 Specifications

Antennas Type	PIFA Antenna for LTE、 WiFi 6e application		
Connector Type	IPEX NGFF Connector for 1.13 cable		
Cable Type	OD 1.13 RF Low Loss Cable		
Impedance	50Ω		
Polarization	Linear		
Radiation pattern	Omni-directional		
Frequency	GPS L1	1575MHz	
	WIFI	2.40~2.50 GHz 5.15~5.85 GHz 5.925~7.125 GHz	
	BT	2.40~2.50 GHz	
VSWR	GPS L1	2.0 Max	
	WIFI	4.0 Max	
	BT	4.0 Max	
Peak gain(dBi)	GPS L1	1575 MHz	-3.51 dBi
	WIFI	2.40~2.50 GHz	-0.53 dBi
		5.15~5.85 GHz	1.81 dBi
		5.92~7.125 GHz	2.31 dBi
	BT	2.40~2.50 GHz	-0.53 dBi
Cable loss	GPS L1	1575 MHz	0.87 dBi
	WIFI	2.40~2.50 GHz	N/A
		5.15~5.85 GHz	
		5.92~7.125 GHz	
	BT	2.40~2.50 GHz	N/A
Cable length	GPS L1	1575 MHz	360mm
	WIFI	2.40~2.50 GHz	N/A
		5.15~5.85 GHz	
		5.92~7.125 GHz	
	BT	2.40~2.50 GHz	N/A

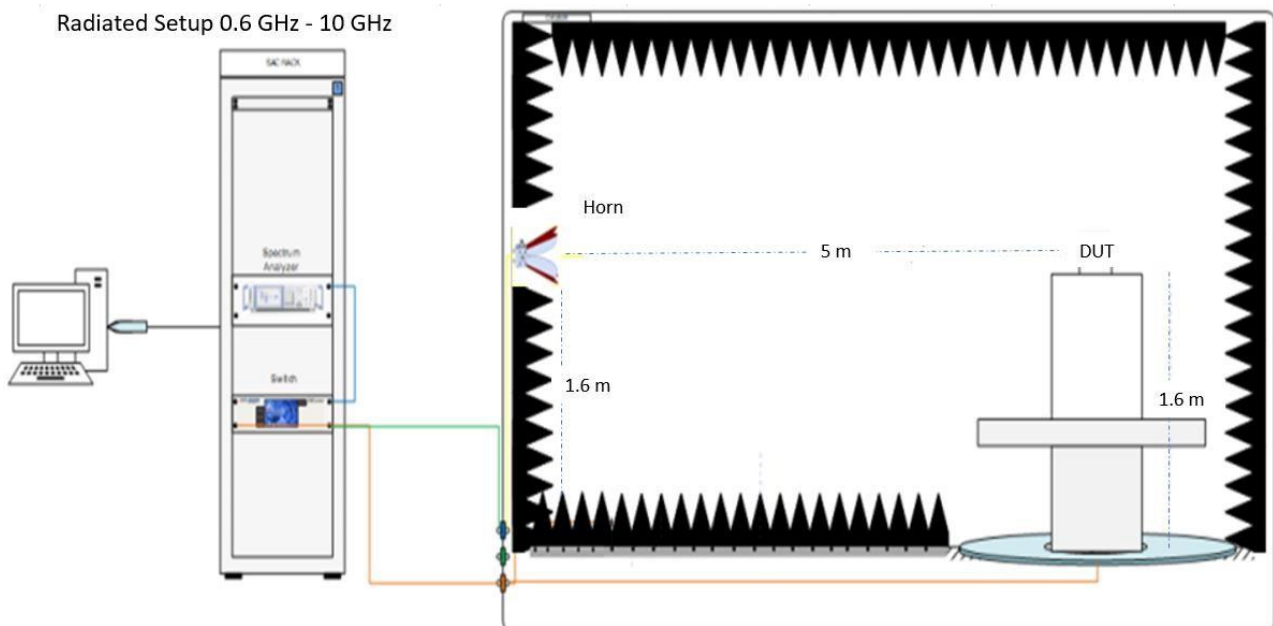
1.2 Antenna Picture



2. Electrical Specification

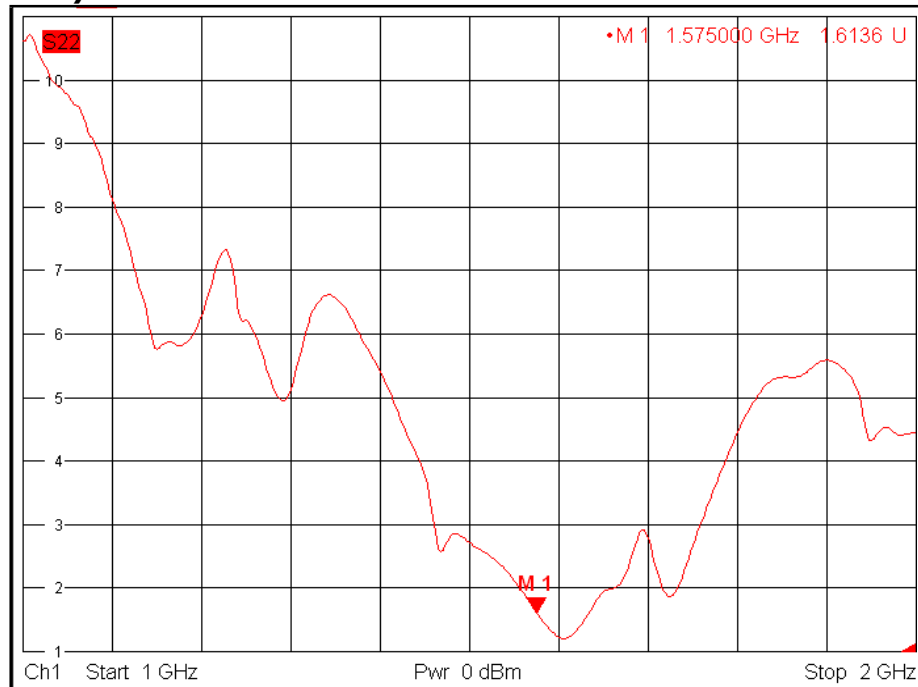
2.1 Test Equipment

- A. VSWR and input impedance: Rohde&Schwarz ZVB8 VNA 300kHz~8GHz
- B. Antenna gain and efficiency: ETS three-dimensional anechoic chamber



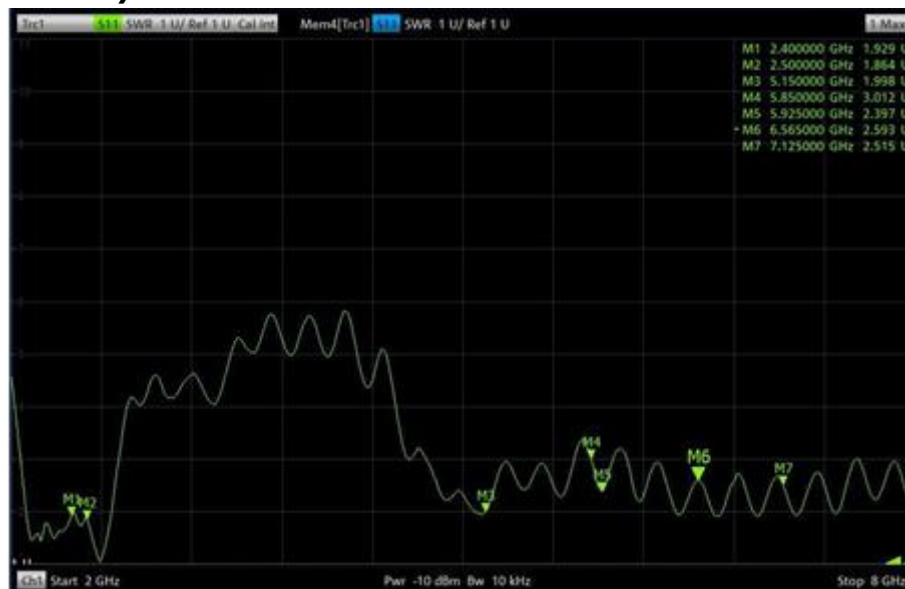
3. Performance Data

3.1 VSWR(GPS)



Frequency(MHz)	1575
VSWR	1.61

3.2 VSWR(WIFI&BT)



WIFI VSWR

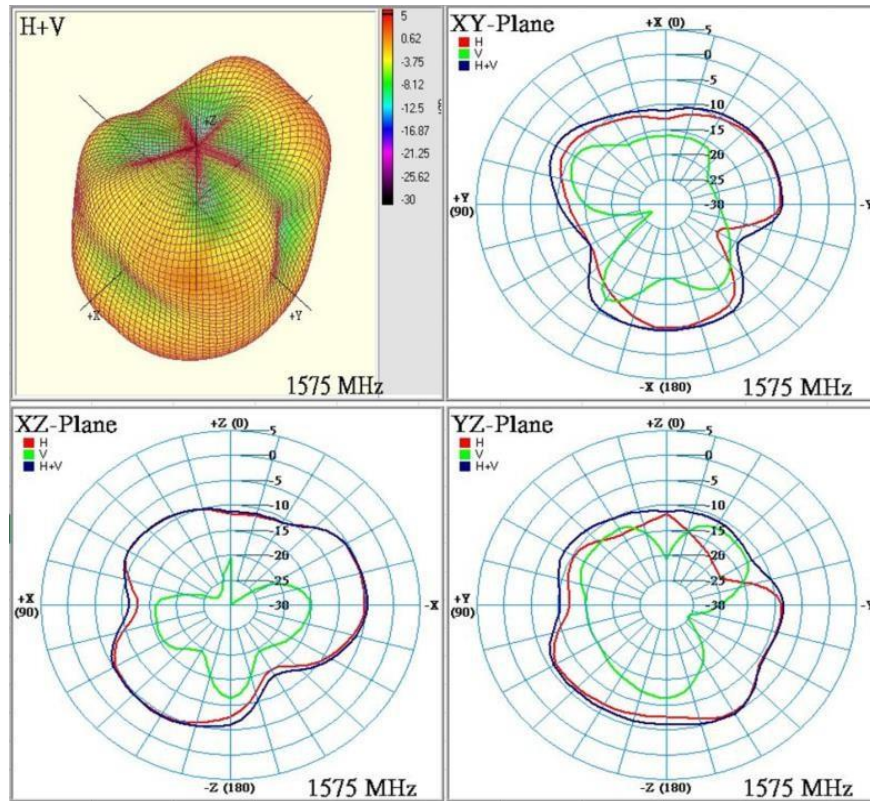
Frequency(MHz)	2400	2450	2500	5150	5550	5850	5925	6550	7125
VSWR	1.93	1.65	1.86	2.00	2.95	3.01	2.40	2.46	2.52

BT VSWR

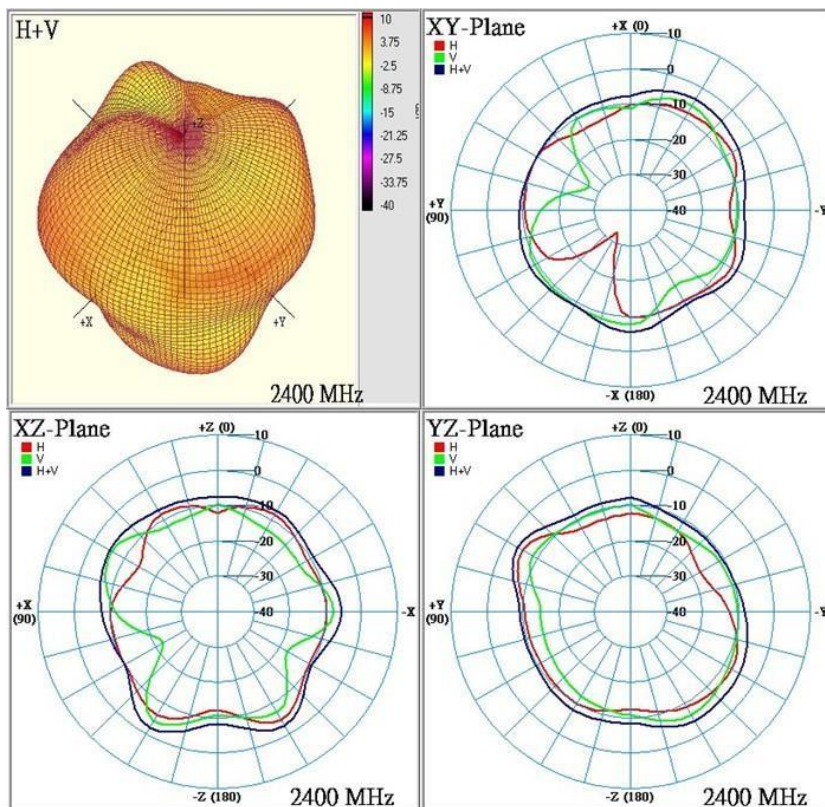
Frequency(MHz)	2400	2450	2500
VSWR	1.93	1.65	1.86

3.2 Radiation pattern

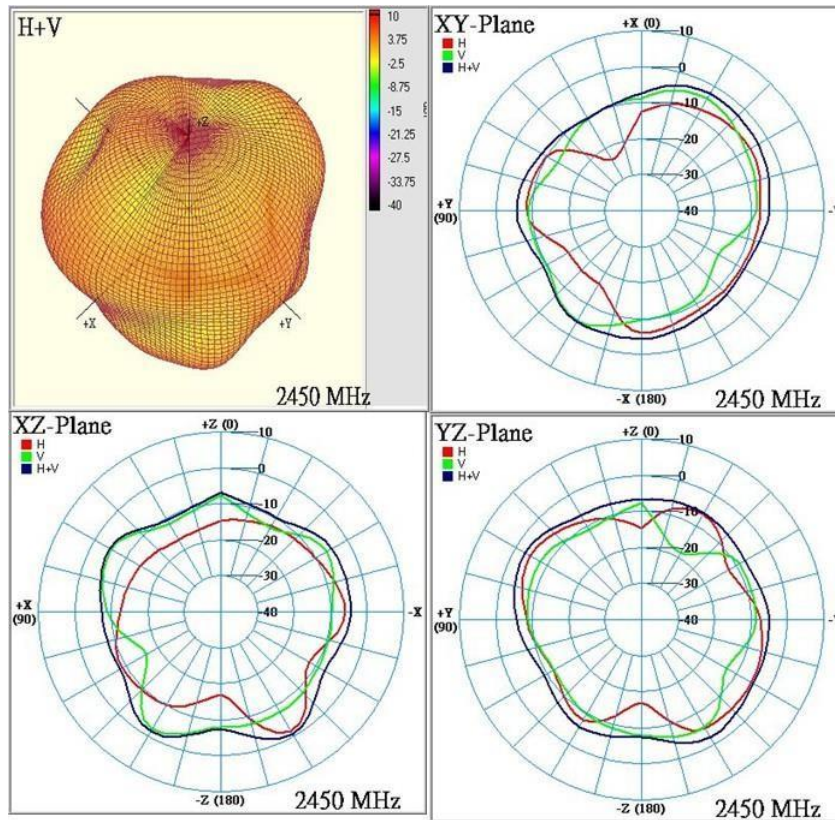
GPS antenna: 1575 MHz



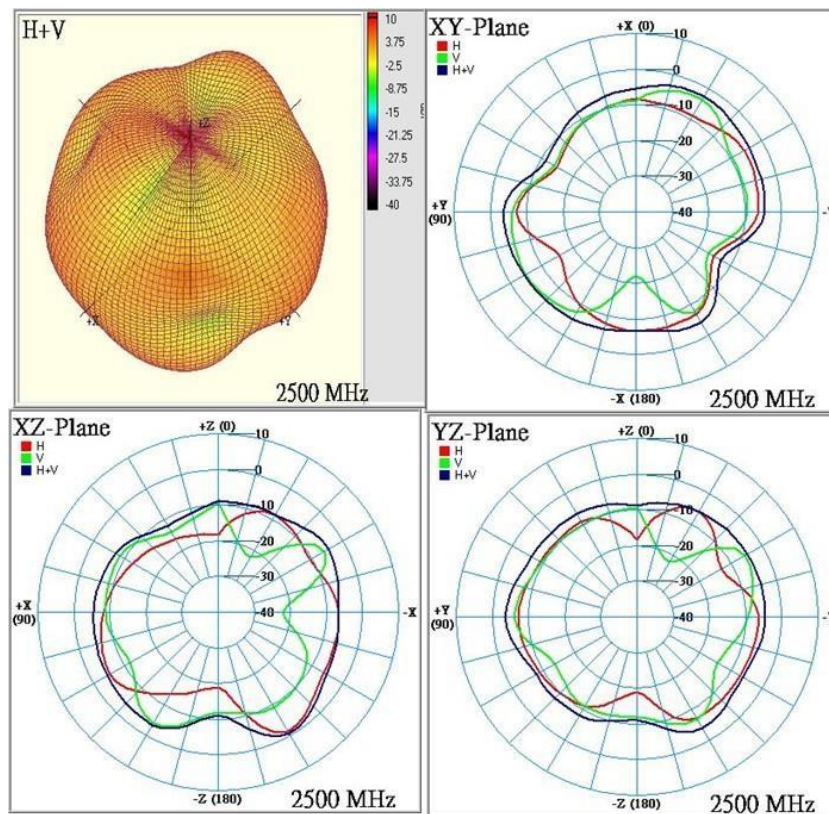
WIFI antenna: 2400 MHz



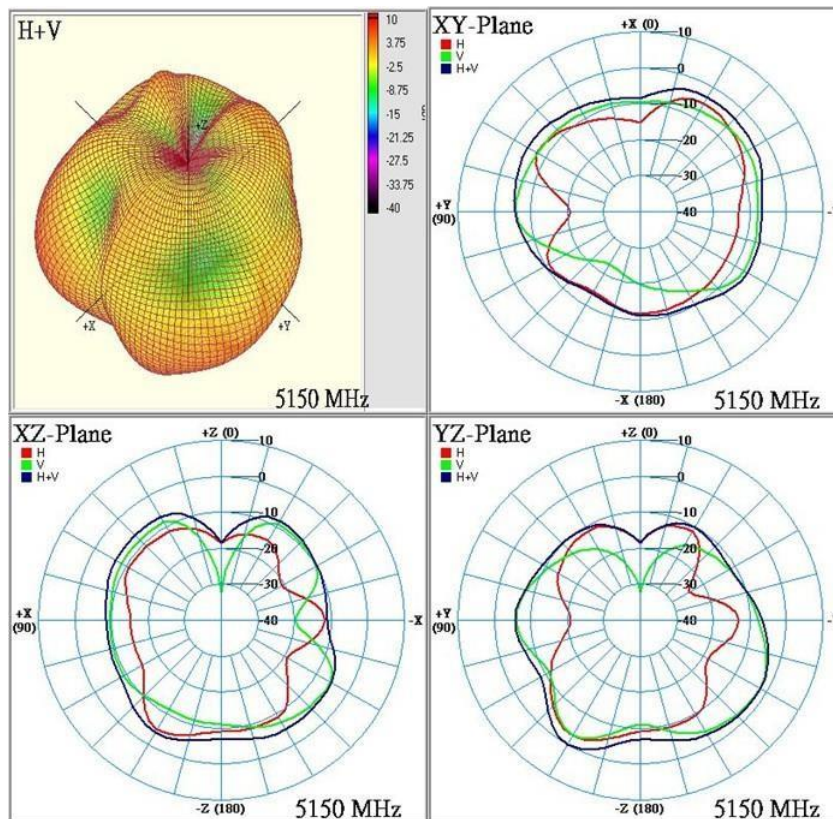
WIFI antenna: 2450 MHz



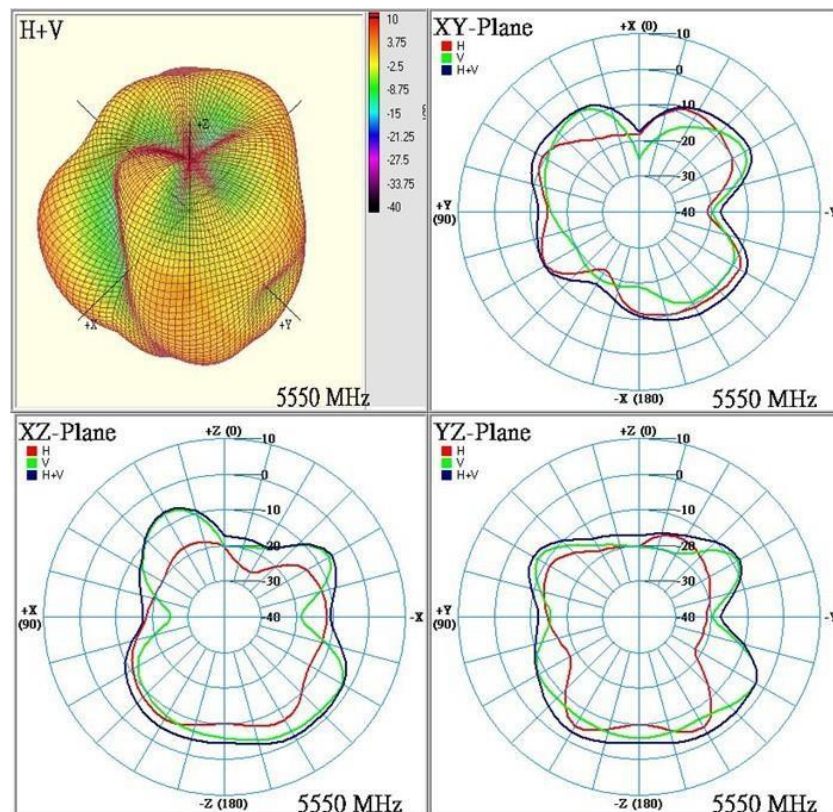
WIFI antenna: 2500 MHz



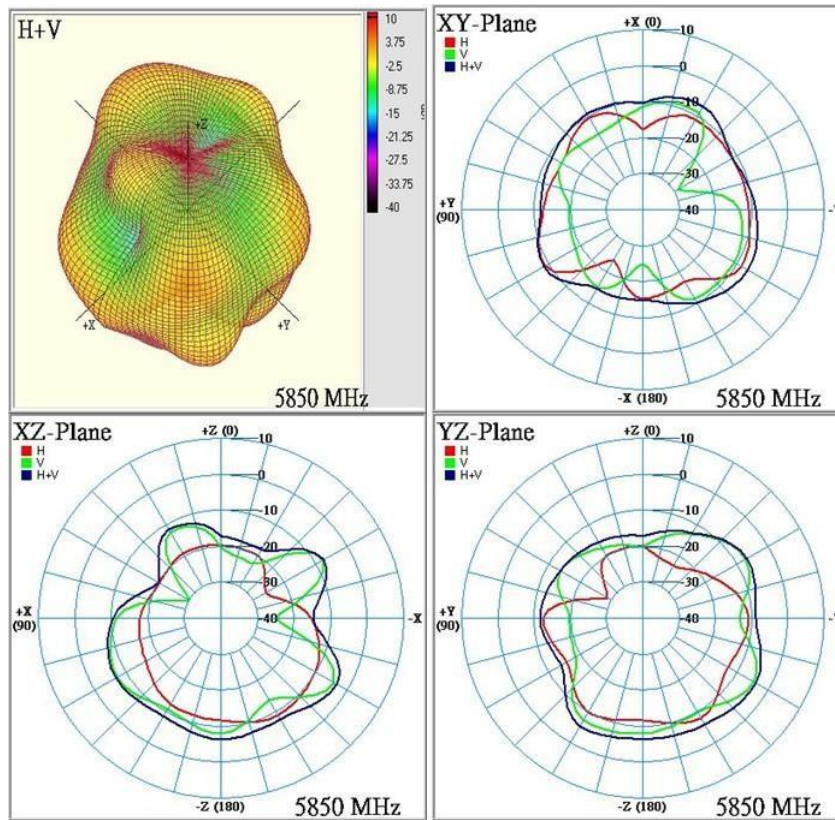
WIFI antenna: 5150 MHz



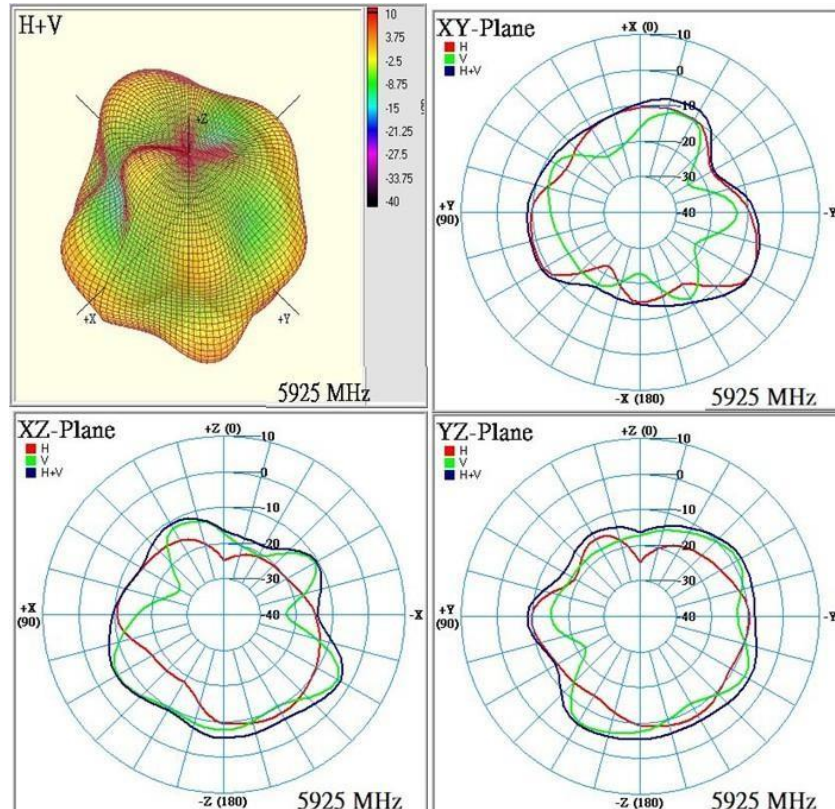
WIFI antenna: 5550 MHz



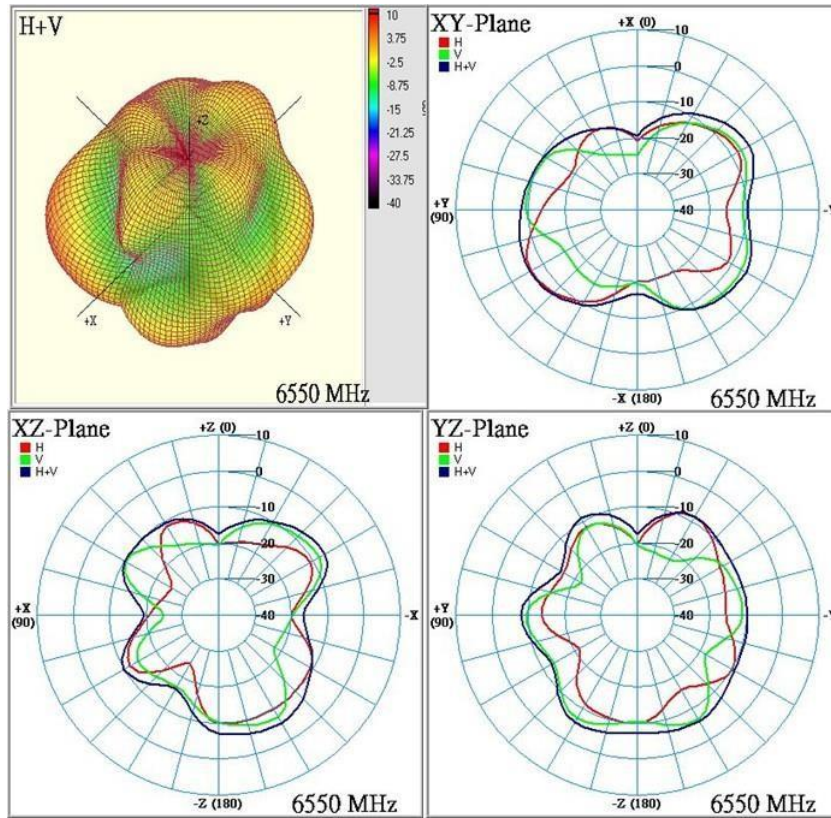
WIFI antenna: 5850 MHz



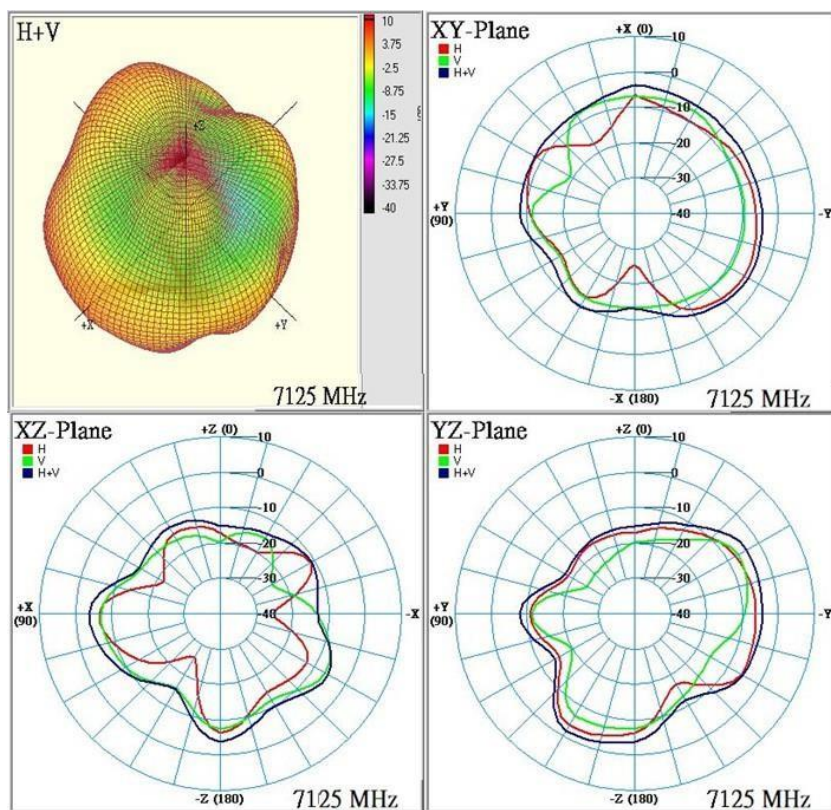
WIFI antenna: 5925 MHz



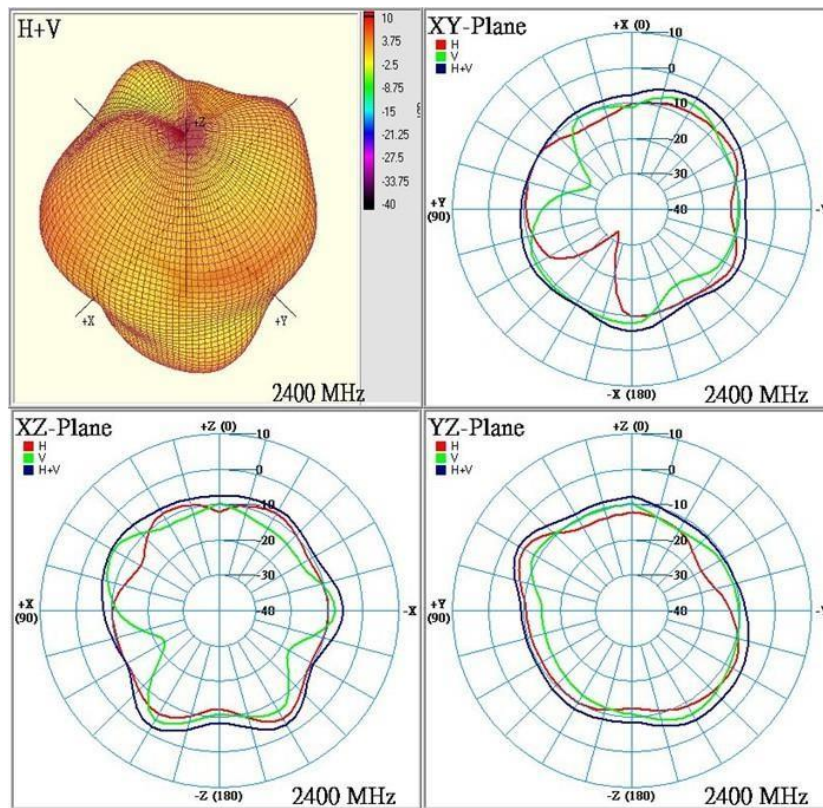
WIFI antenna: 6550 MHz



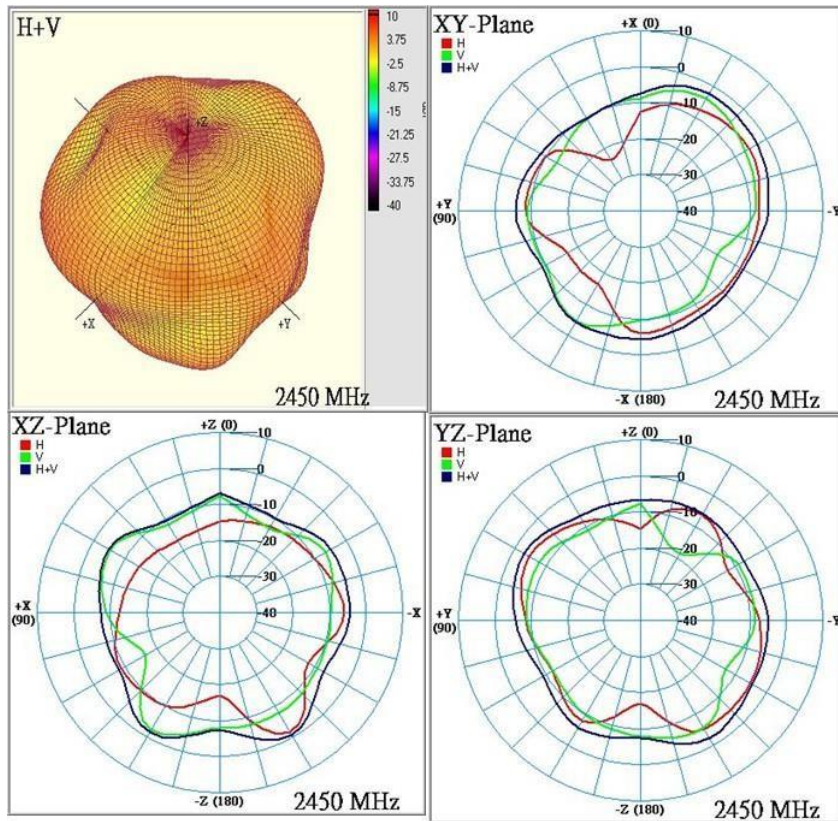
WIFI antenna: 7125 MHz



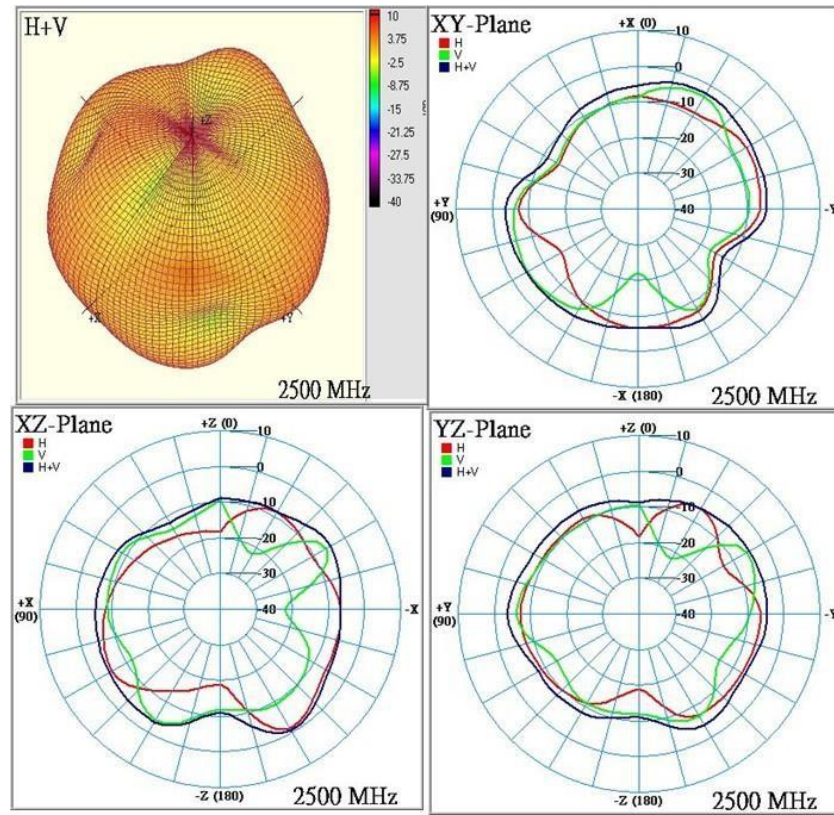
BT antenna: 2400 MHz



BT antenna: 2450 MHz



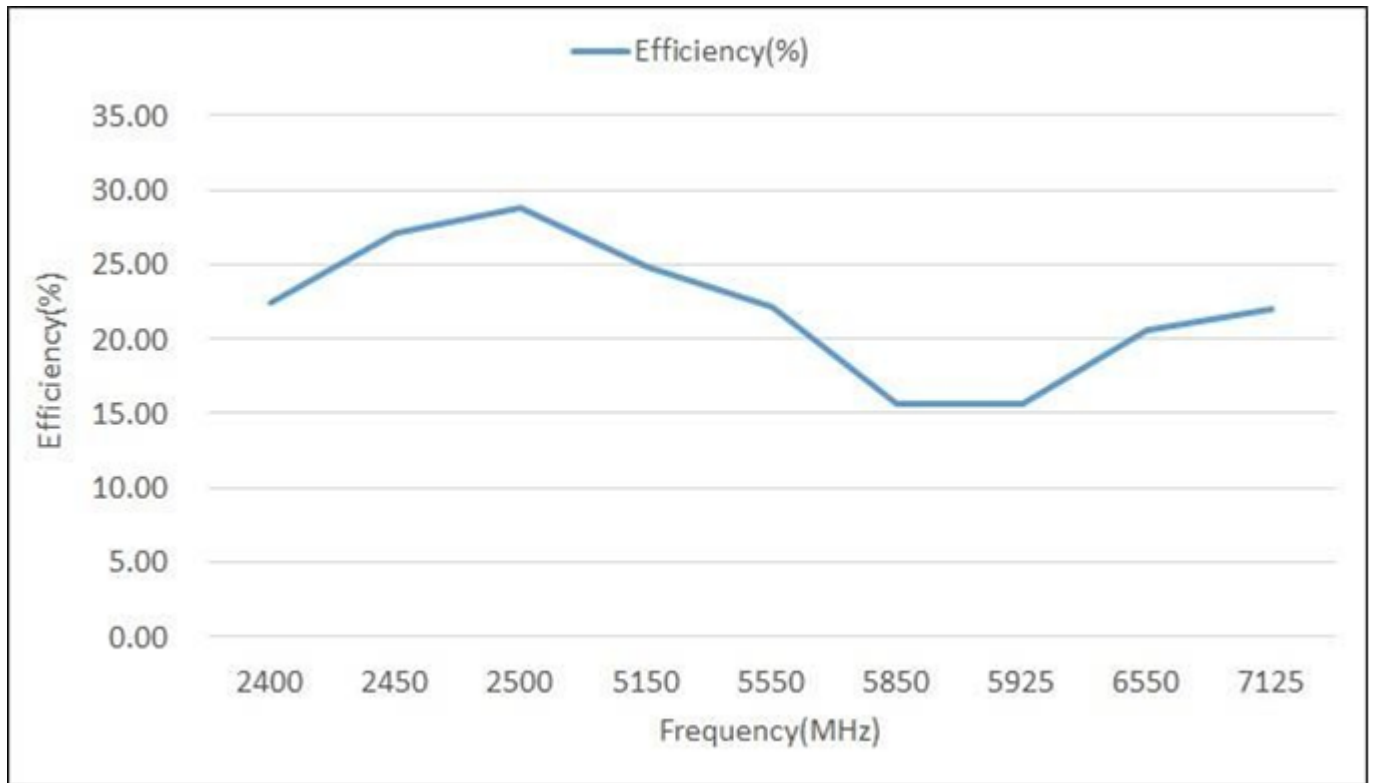
BT antenna: 2500 MHz



3.3 Efficiency

Frequency(MHz)	GPS
	Efficiency (%)
1575	20.88

WIFI&BT



WIFI

Frequency(MHz)	2400	2450	2500	5150	5550	5850	5925	6550	7125
Efficiency(%)	22.44	27.12	28.80	24.79	22.10	15.65	15.69	20.58	21.98

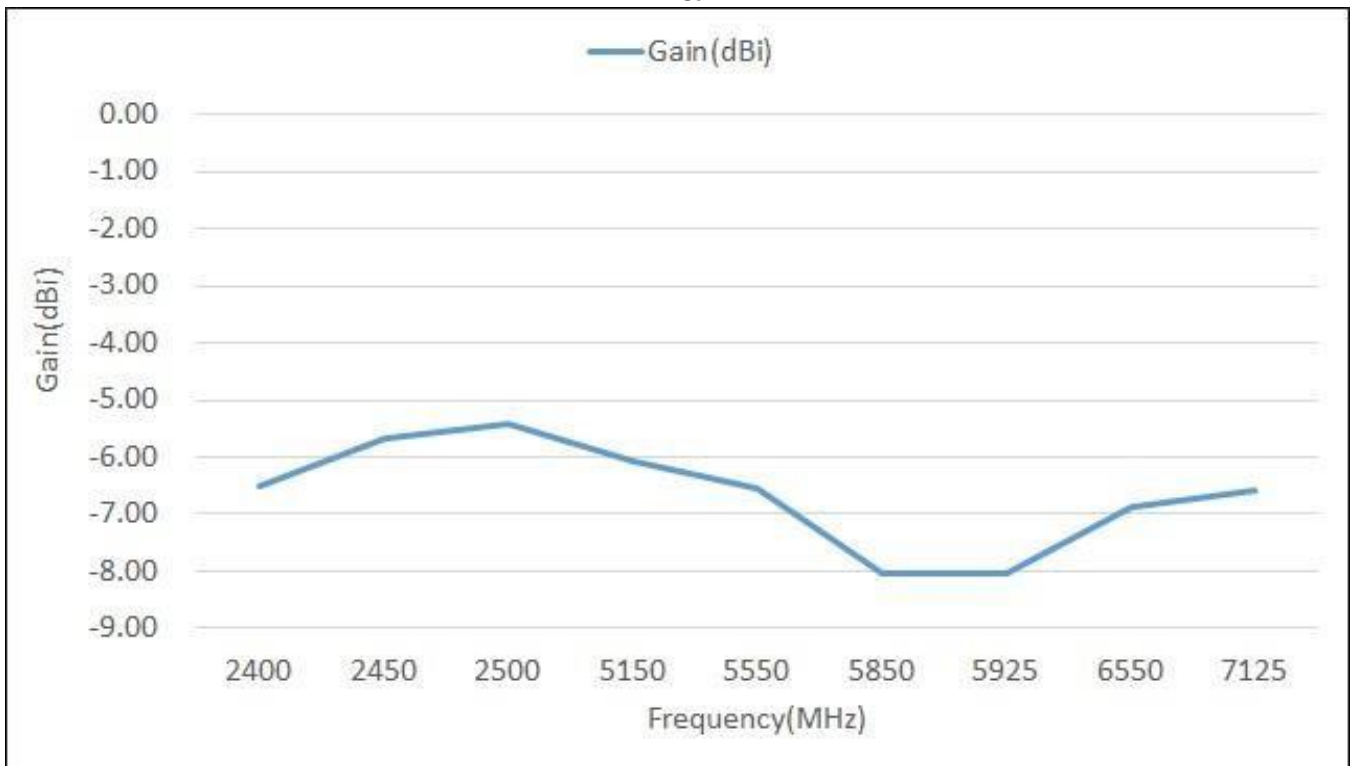
BT

Frequency(MHz)	2400	2450	2500
Efficiency(%)	22.44	27.12	28.80

3.4 Gain

Frequency(MHz)	GPS
	Gain (dBi)
1575	-6.80

WIFI&BT



WIFI

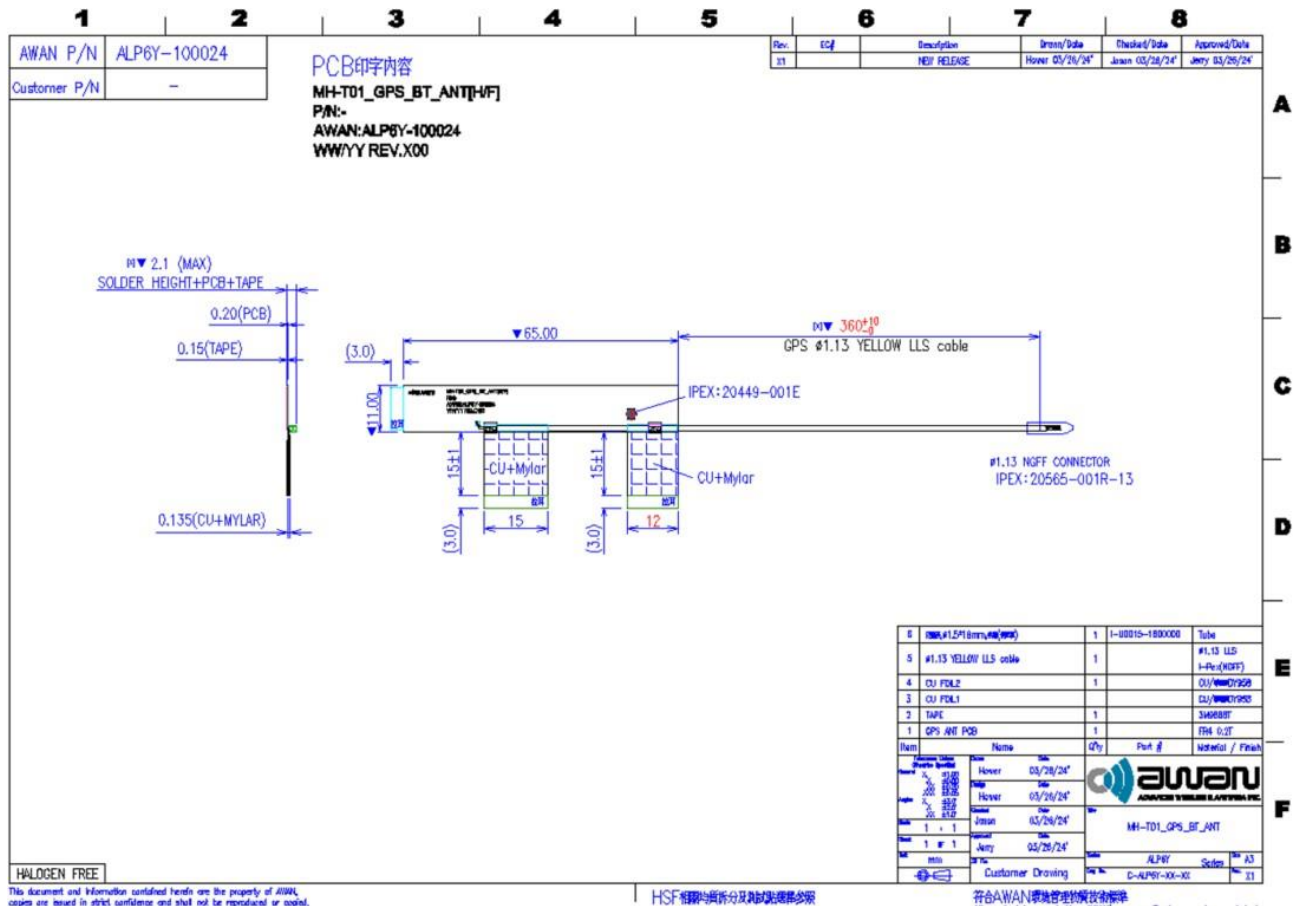
Frequency(MHz)	2400	2450	2500	5150	5550	5850	5925	6550	7125
Gain(dBi)	-6.49	-5.67	-5.41	-6.06	-6.56	-8.05	-8.04	-6.87	-6.58

BT

Frequency(MHz)	2400	2450	2500
Gain(dBi)	-6.49	-5.67	-5.41

4. Mechanical Specification

4.1 Dimension Drawing



Revision

Revision	Date	Change Notification	Notes
Rev.0	2025-3-14	---	WSFA190004-KS