

SPECIFICATION FOR APPROAL

MODEL NAME: WiFi6E Dipole Antenna 195mm

E&C P/N: MAW-1Q5-0008

Customer P/N: W555BN206

Date: 2022/10/09

上海玛金电子科技有限公司

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1. Description

1.1 Specifications

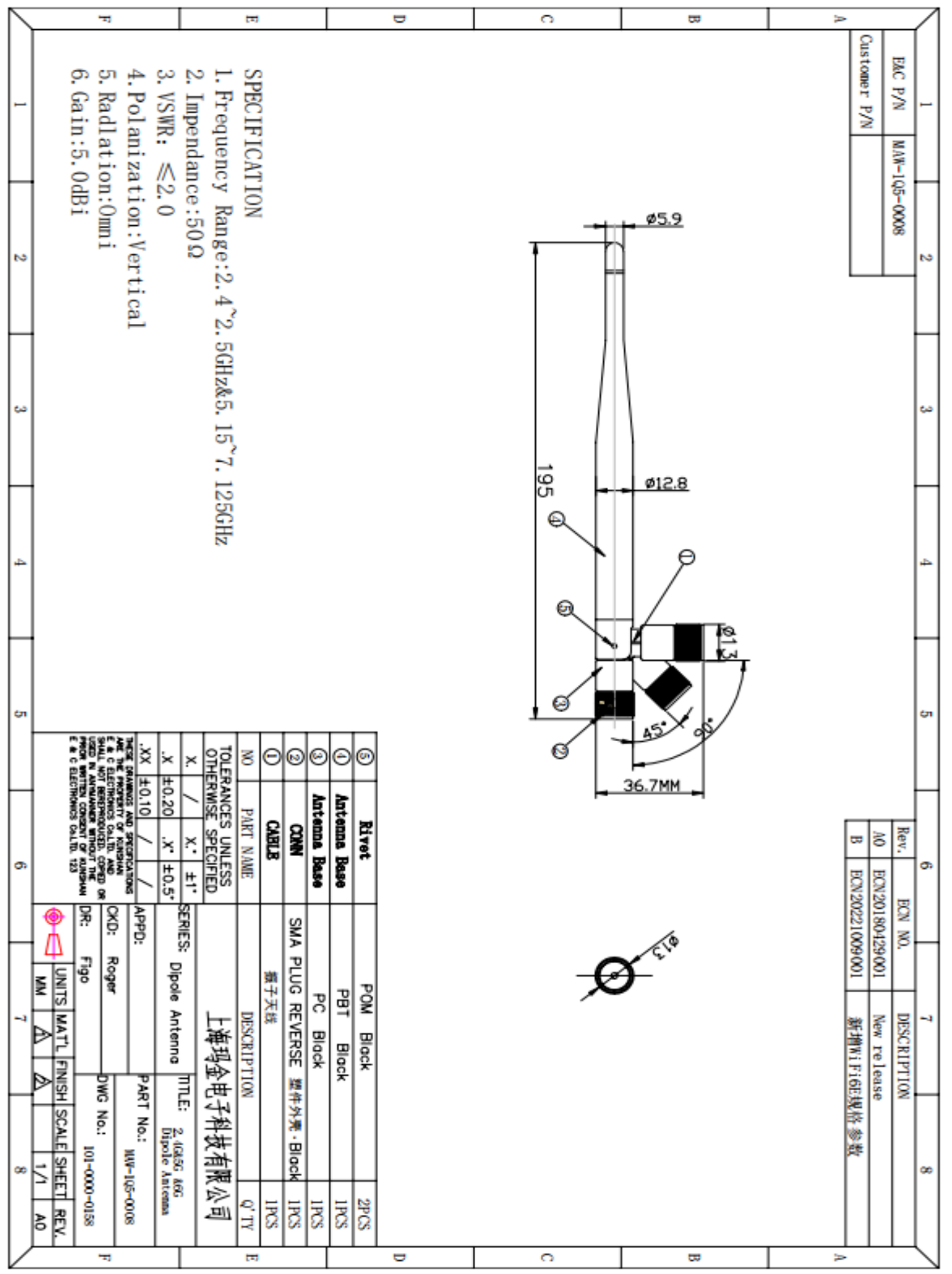
Antennas Type	Dipole Antenna for WiFi6E application	
Connector Type	SMA 公头母针	
Cable Type	RG178	
Impedance	50Ω	
Polarization	Linear	
Radiation pattern	Omni-directional	
Frequency	WiFi6E	2.4~2.5GHz&5.15~7.125GHz
VSWR	WiFi6E	2.0 Max

1.2 Antenna Pictures



1.3 Antenna Drawing

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2. Electrical Specification

2.1 Test Equipment

- A. VSWR and input impedance: Agilent 8720/5071 Network Analyzer
- B. Antenna gain and efficiency: ETS three-dimensional anechoic chamber

2.2 Test Setup

2.2.1 Frequency Range

- A. WiFi6E: 2.40~2.5GHz&5.15~7.125GHz

2.2.2 VSWR

Step 1: The antenna is on free space to test

Step 2: The VSWR of the antenna is measured via Agilent 8753/5071 Network Analyzer (see figure. 1).



Figure.1

2.2.3 Radiation pattern and Gain

- A. The 3D chamber provides less than -40dB reflectivity from 600MHz to 8.5GHz 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).

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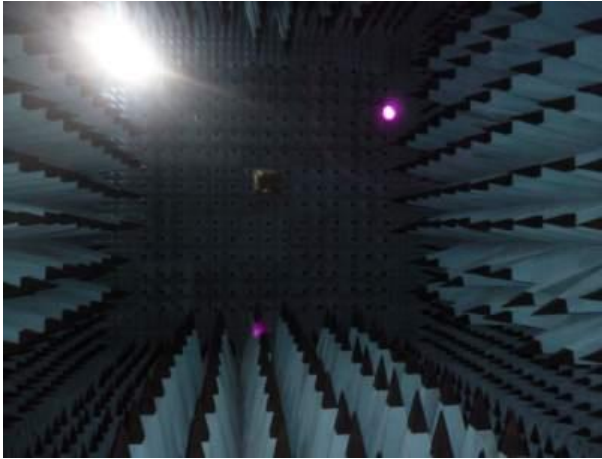


Figure. 2

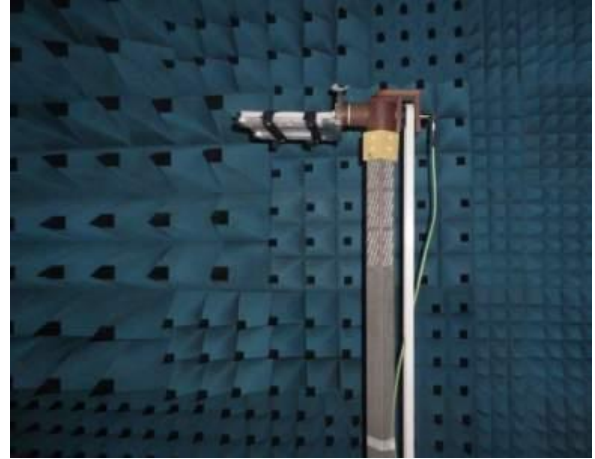


Figure. 3



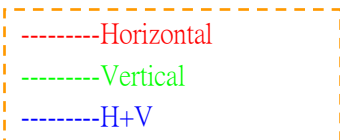
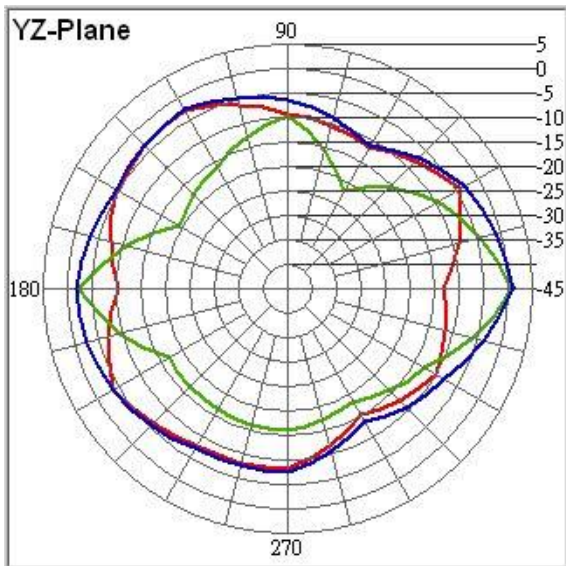
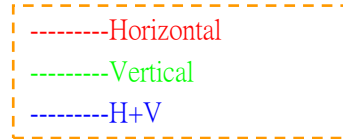
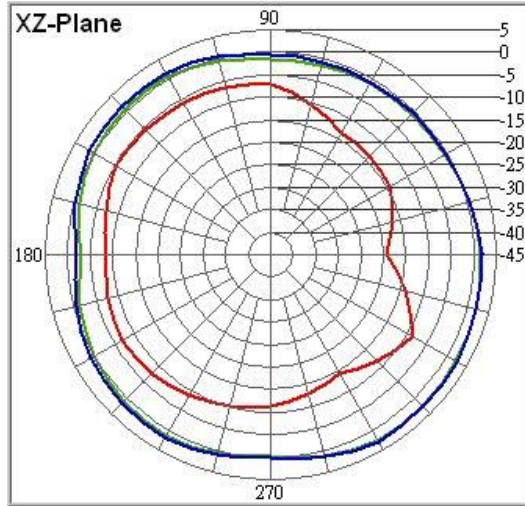
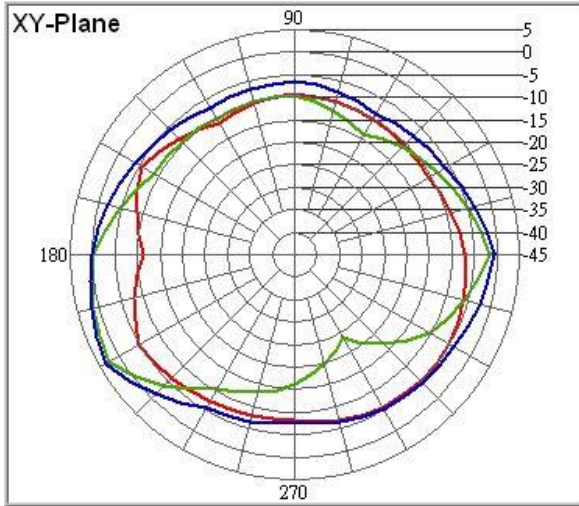
Figure.4

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3. Performance Data

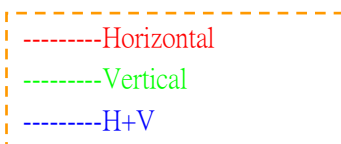
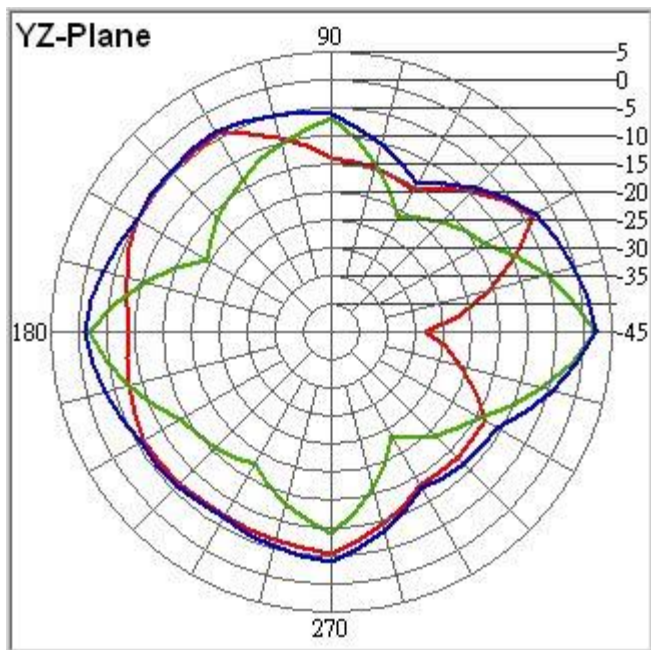
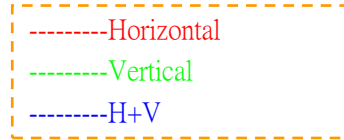
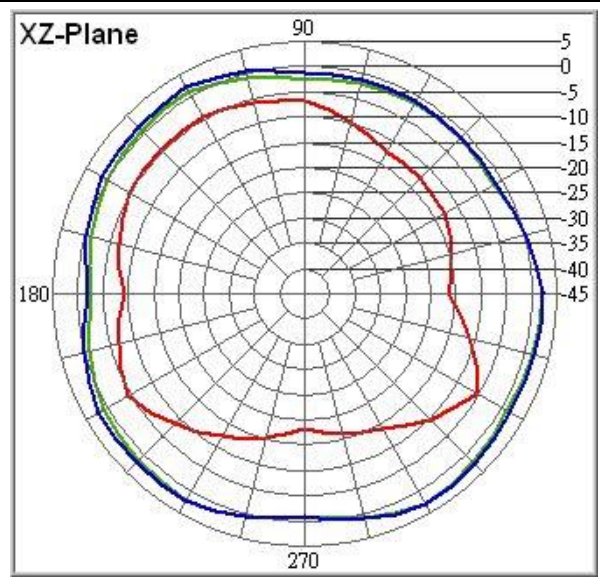
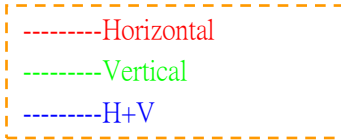
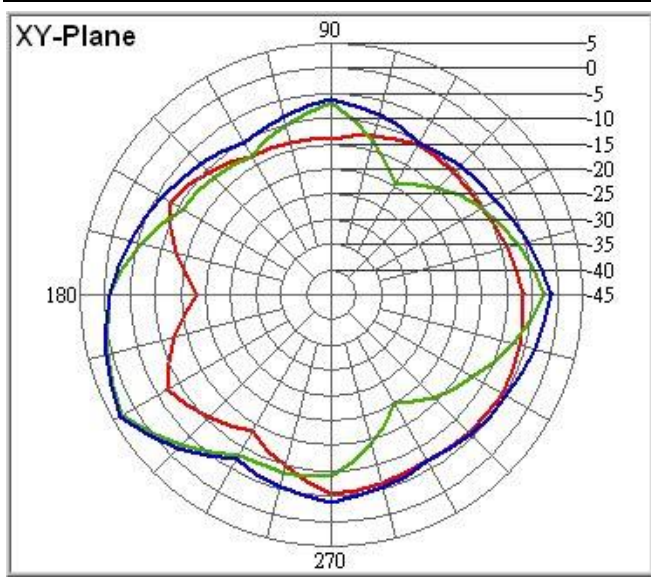
3.1 Radiation pattern & Gain

2.4G



2.45G

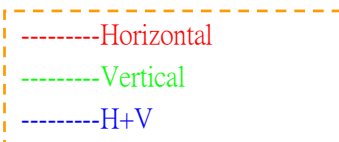
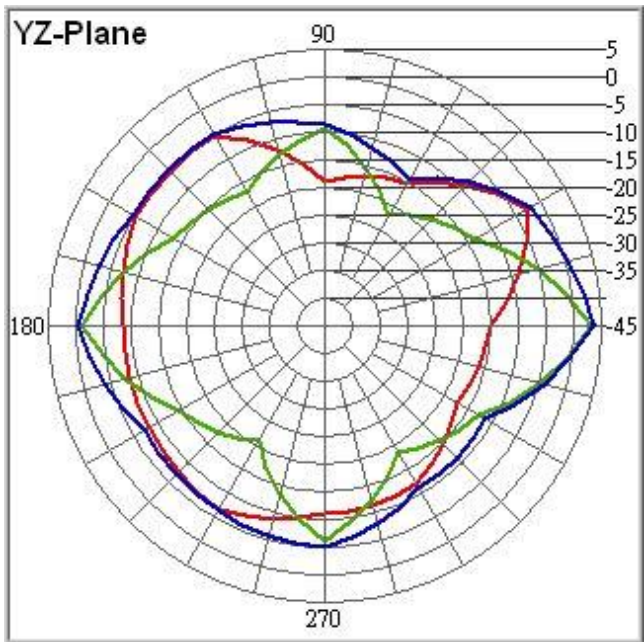
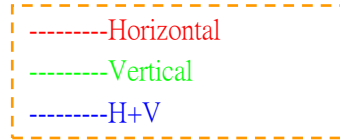
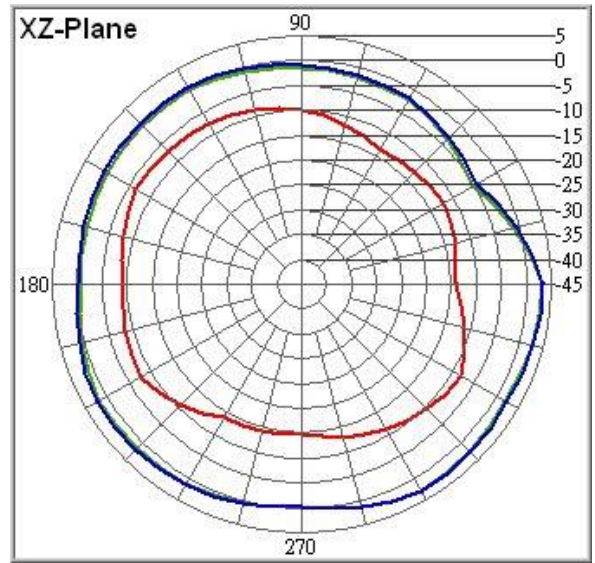
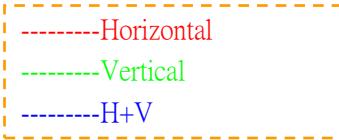
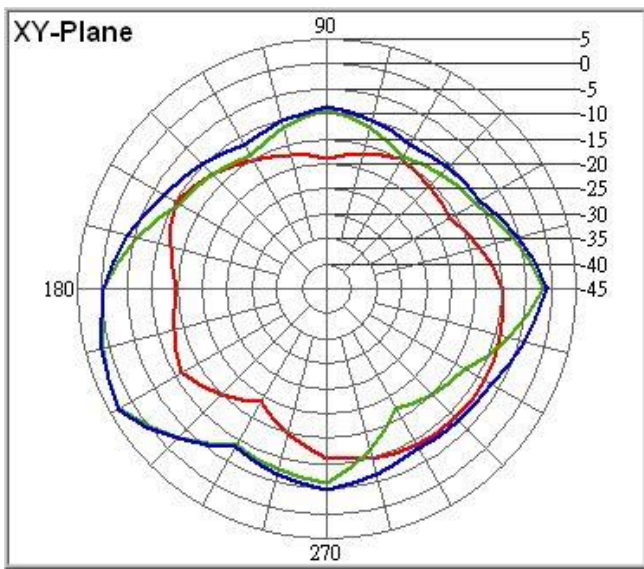
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2.5G

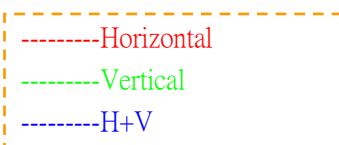
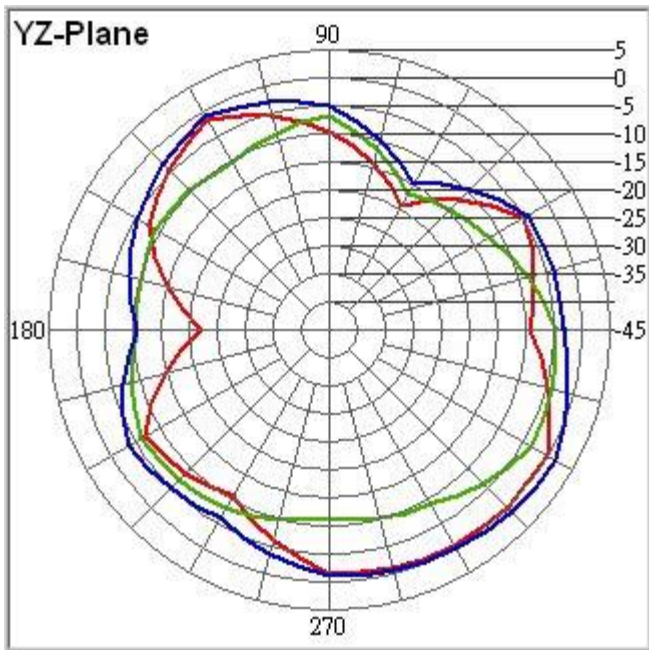
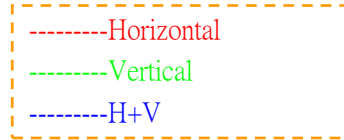
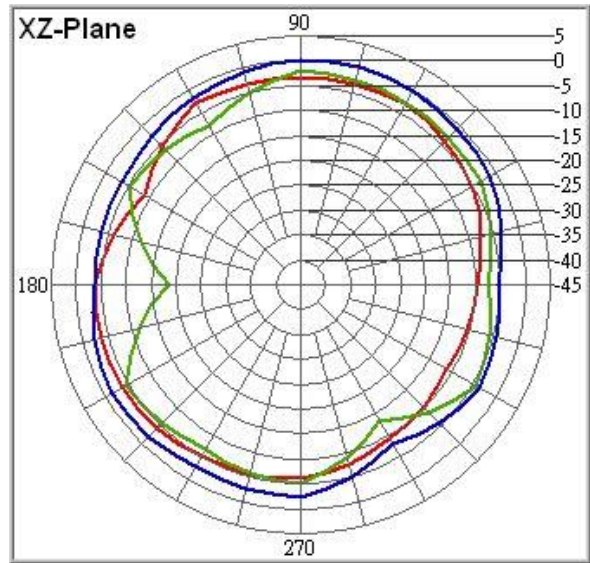
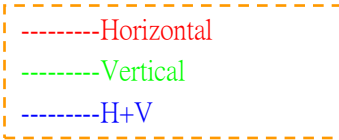
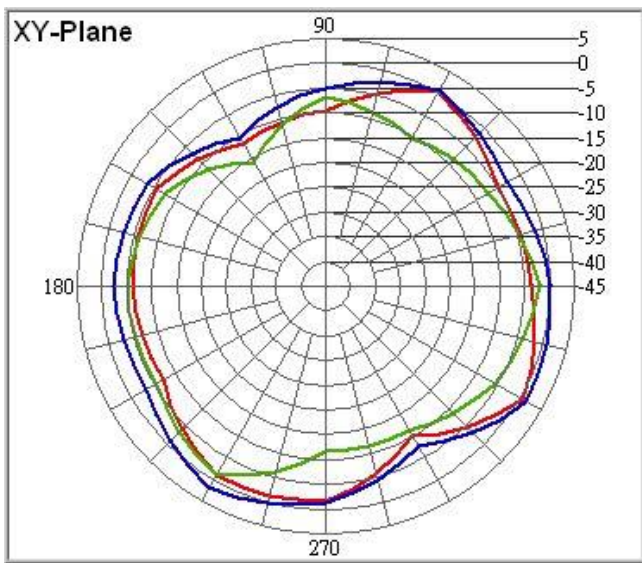
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5.15G

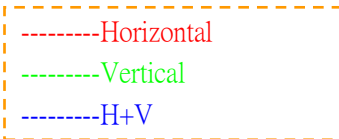
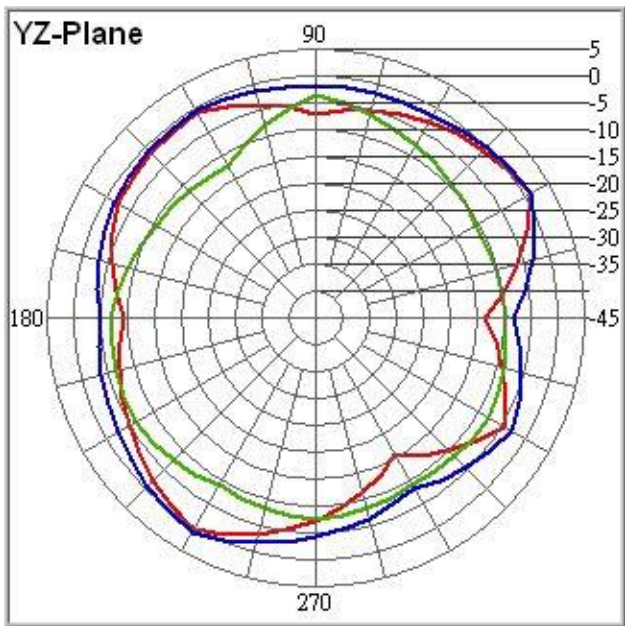
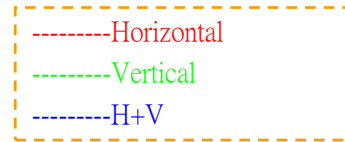
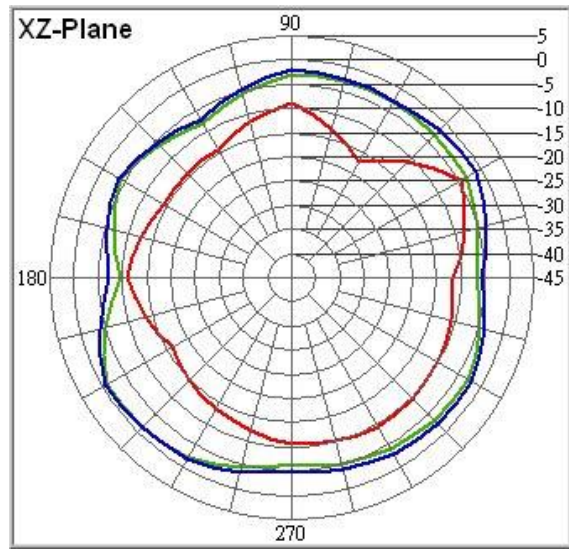
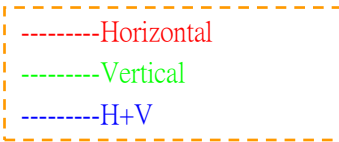
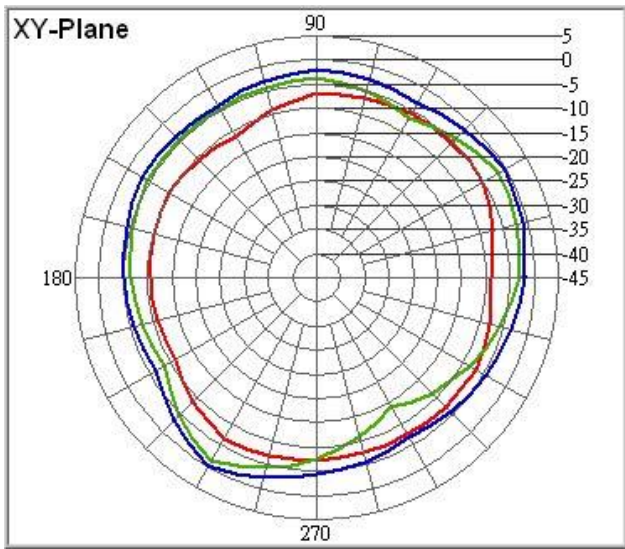
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5.745G

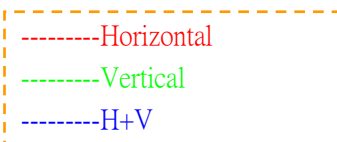
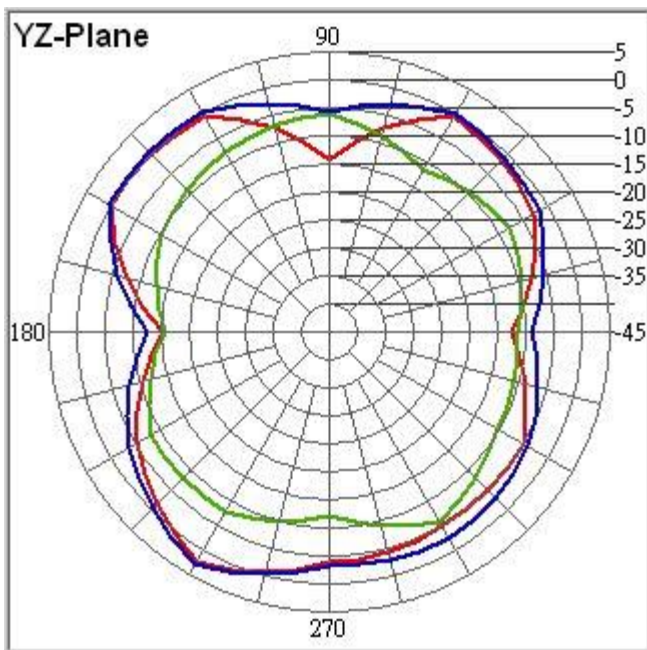
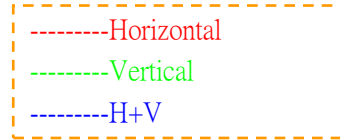
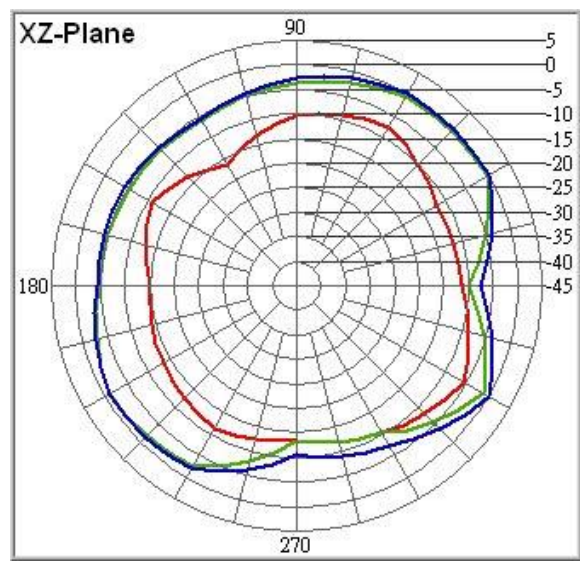
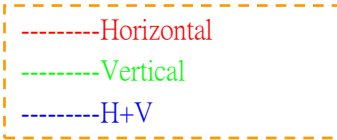
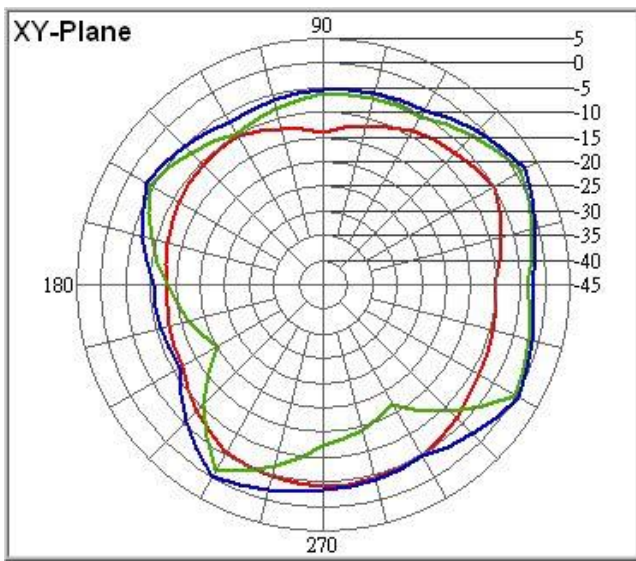
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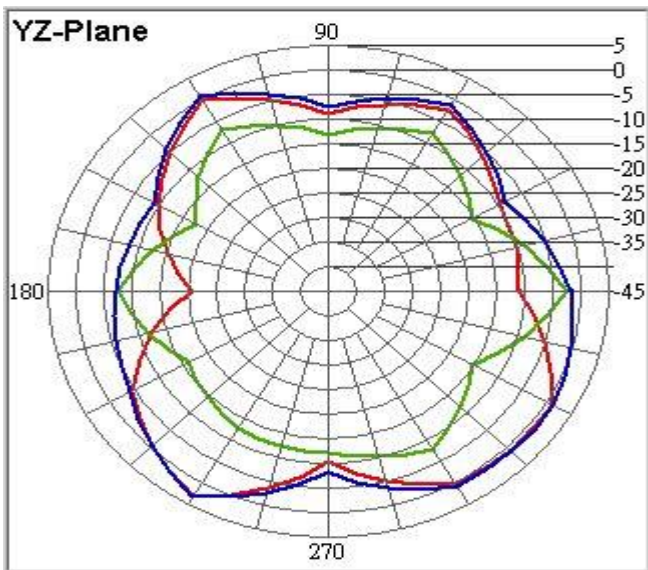
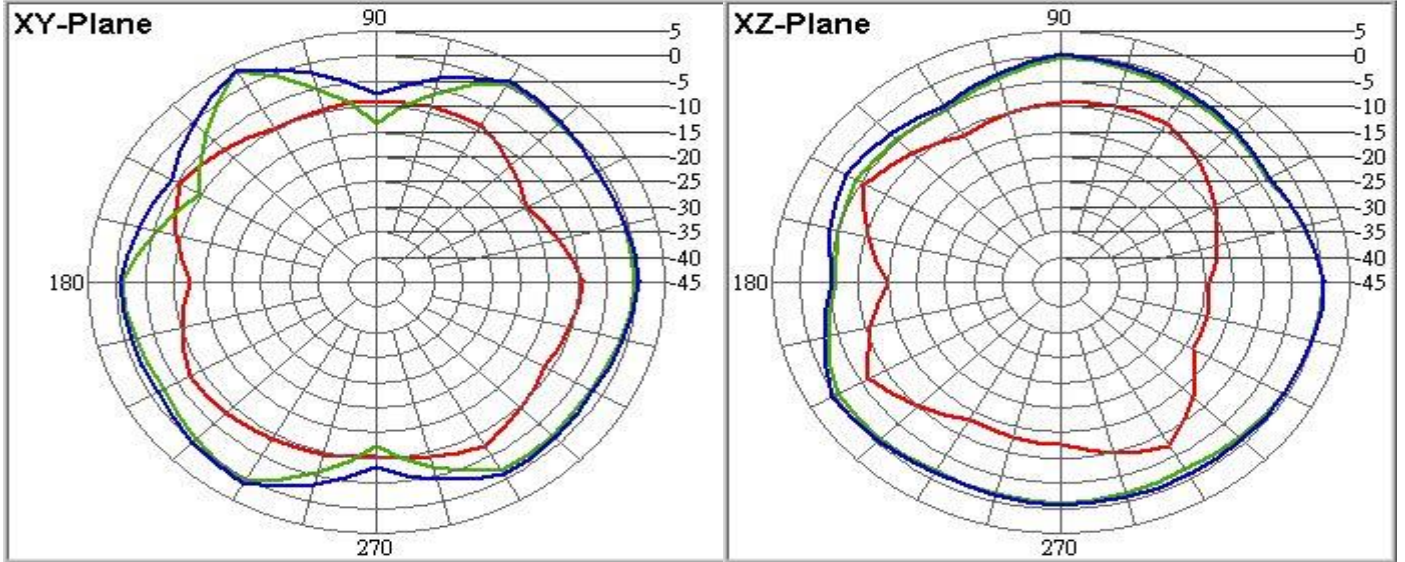


5.85G

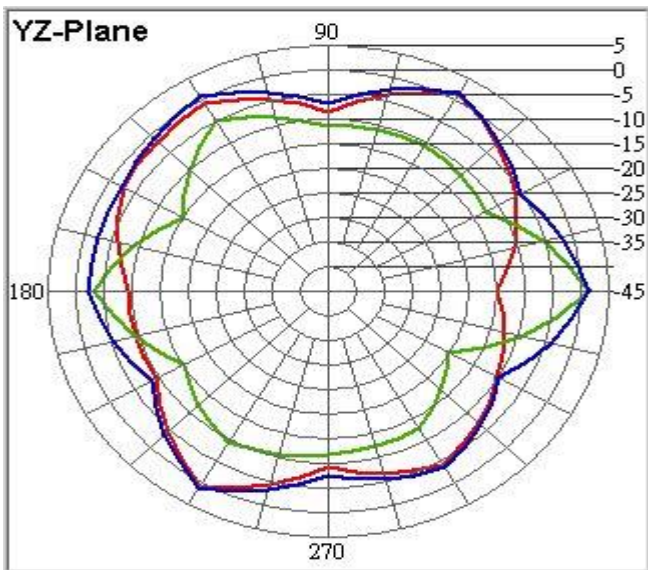
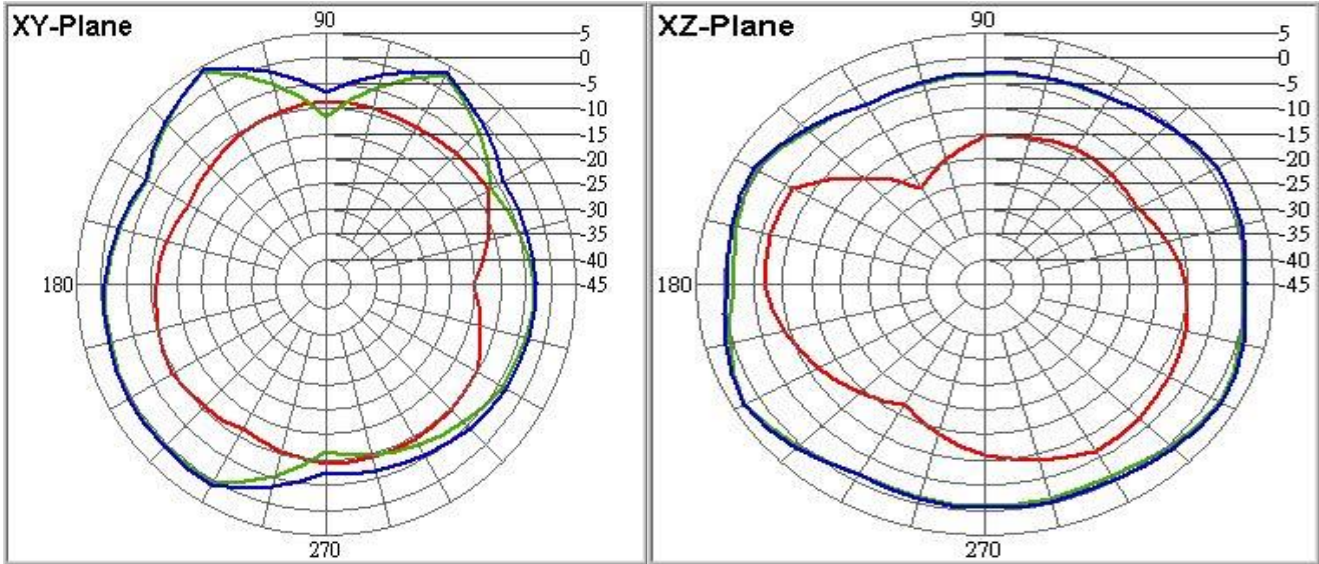
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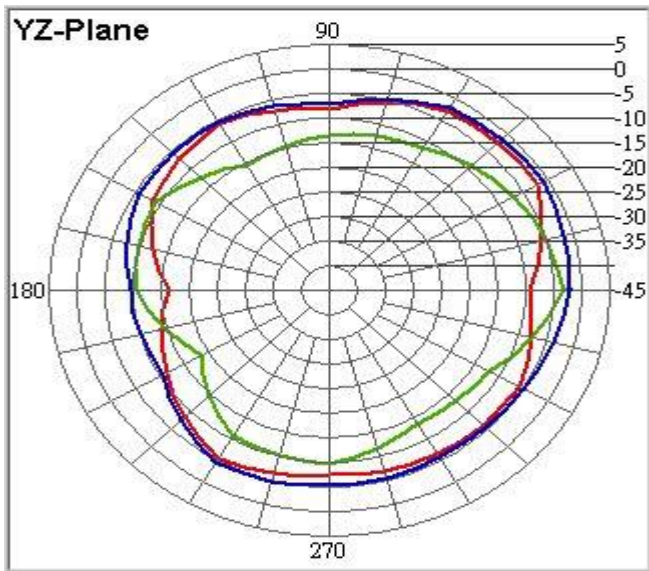
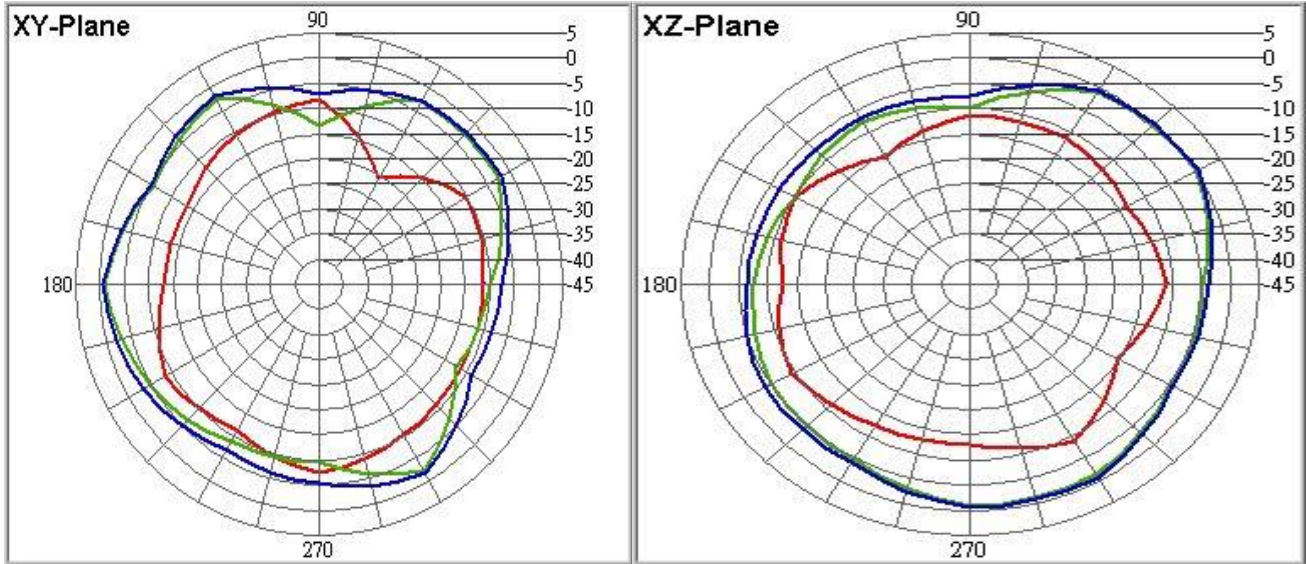
5.925G



6.2G



7.2G



3.2 Gain

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Antenna Gain Table:

Total/Frequency	Efficiency (%)	Peak Gain (dBi)
2400	63.87	3.99
2450	72.67	4.54
2500	67.15	4.62
5150	60.08	2.07
5745	76.42	3.27
5850	72.30	3.96
5925	82.91	3.55
6200	77.68	4.18
7200	47.18	1.18



3.3 Parameter

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