蓝牙天线规格书

BT Antenna Specification

Manufacturer:Shenzhen Lenodell Technology Co., Ltd.
Address:2F, 10th Block, Zhongyuntai Industtrial Park, Tangtou No.1 Road,Shiyan Street, Bao'an District,Shenzhen,China

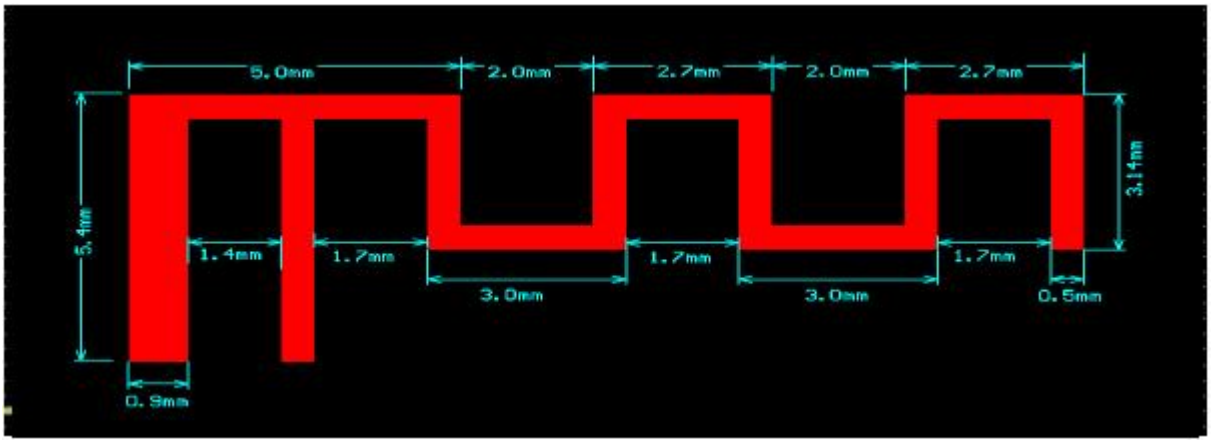
一、Antenna Introduction

The Bluetooth antenna is directly mounted on the PCB board, and the antenna is made of copper foil with tin spraying process.

二、Antenna Appearance

1、Physical Picture

2、Antenna Dimension:14.4mm * 5.4mm



三、Antenna Parameters

The working frequency of Bluetooth is between 2402-2480MHz, where resonance occurs.
The following table shows the main parameters of the antenna

Bluetooth Internal Antenna	
Frequency (MHz)	2402 ~ 2500 MHz
VSWR	≤ 1.92
Impedance	50 Ohm Nominal
Return Loss	-10 dB Max
Radiation	Omni-directional
Gain (Peak)	0.51 dBi
Polarization	Linear, Vertical
Admitted Power	2W
Connector	Tin

四、Antenna Gain

Spectrum Detector: PK　　Test Date : June 8, 2013

Test By: Andy　　Temperature : 28℃

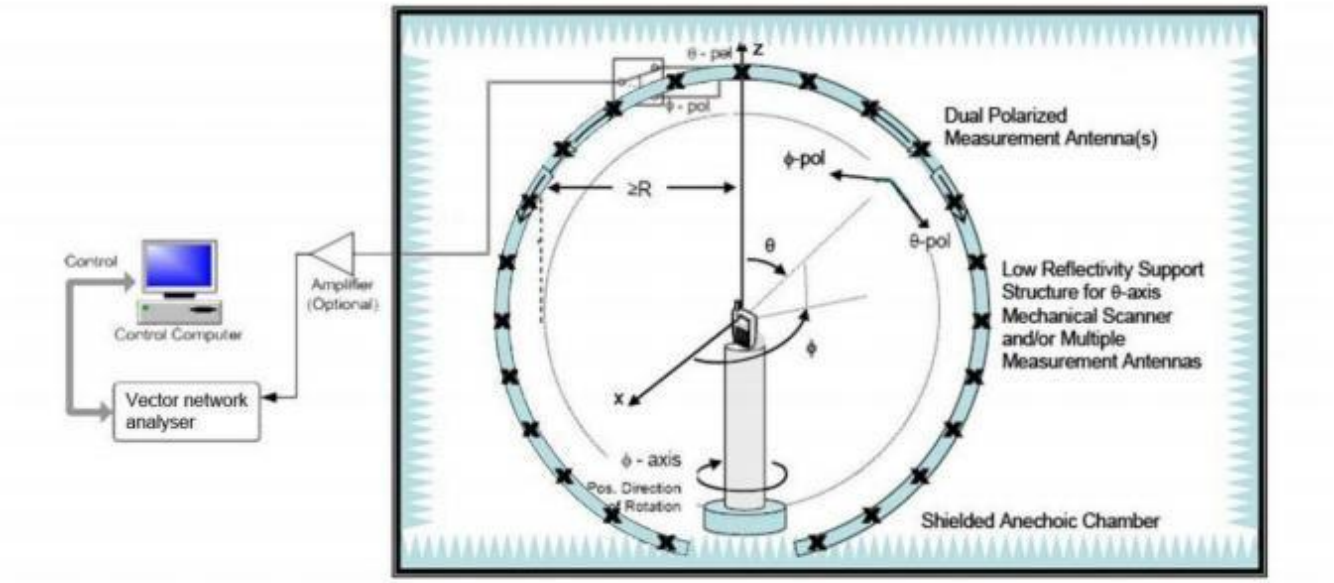
Test Result: PASS　　Humidity : 55 %

Modulation: GFSK

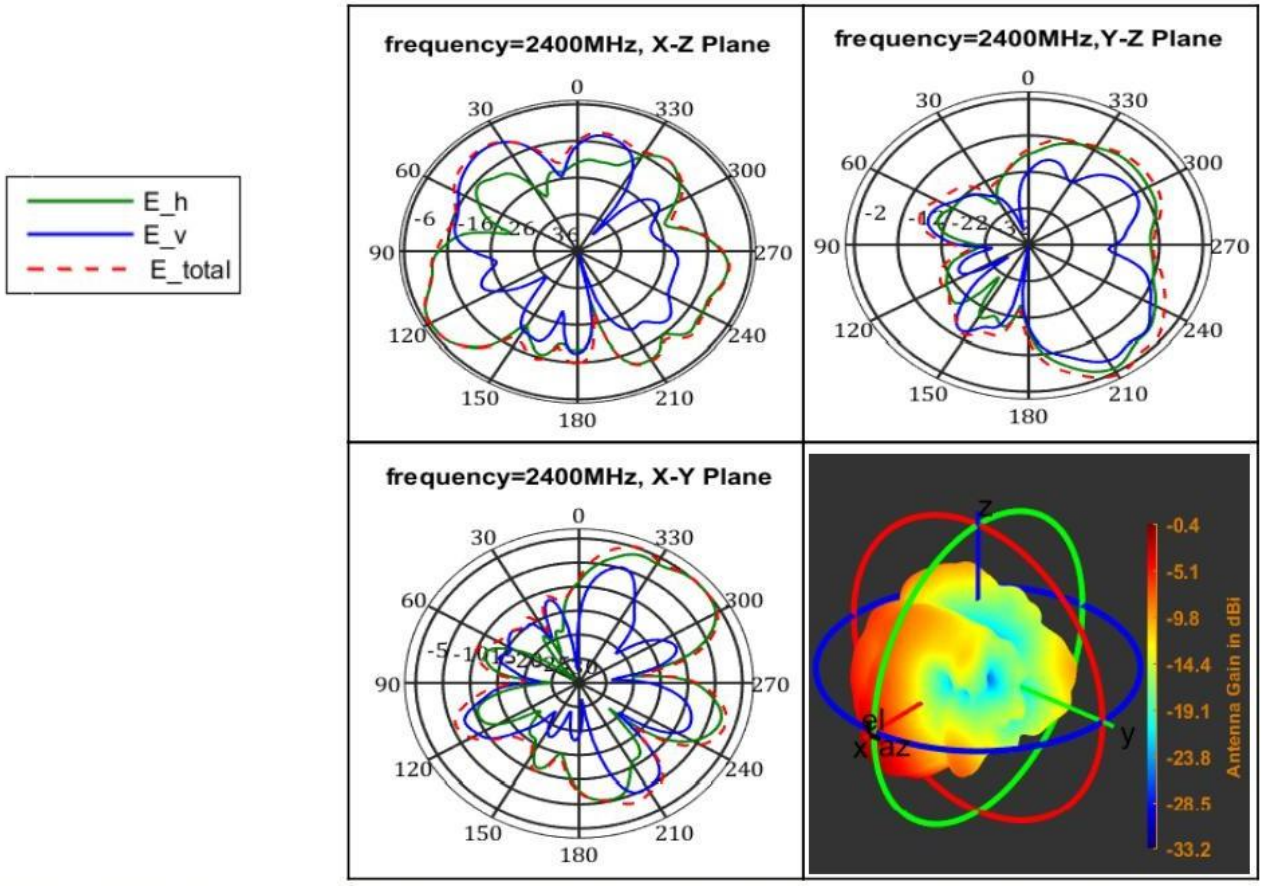
Maximum Antenna Gain Values

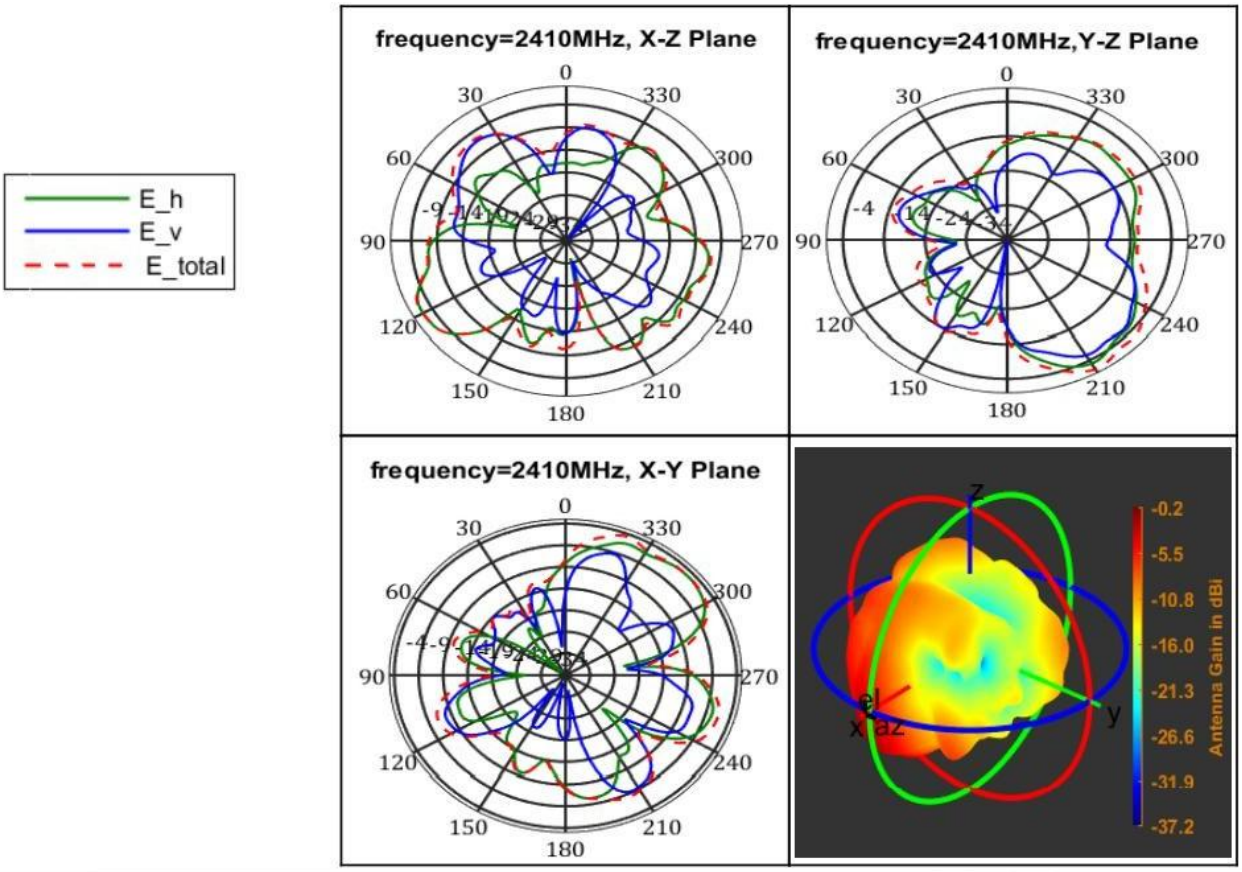
Frequency VNA ：(MHz)	E Total. dB(dB)
2400MHz	-0.41
2410MHz	-0.18
2420MHz	0.34
2430MHz	0.51
2440MHz	0.38
2450MHz	-0.01
2460MHz	-0.06
2470MHz	-0.42
2480MHz	-0.74
2490MHz	-0.85
2500MHz	-1.13

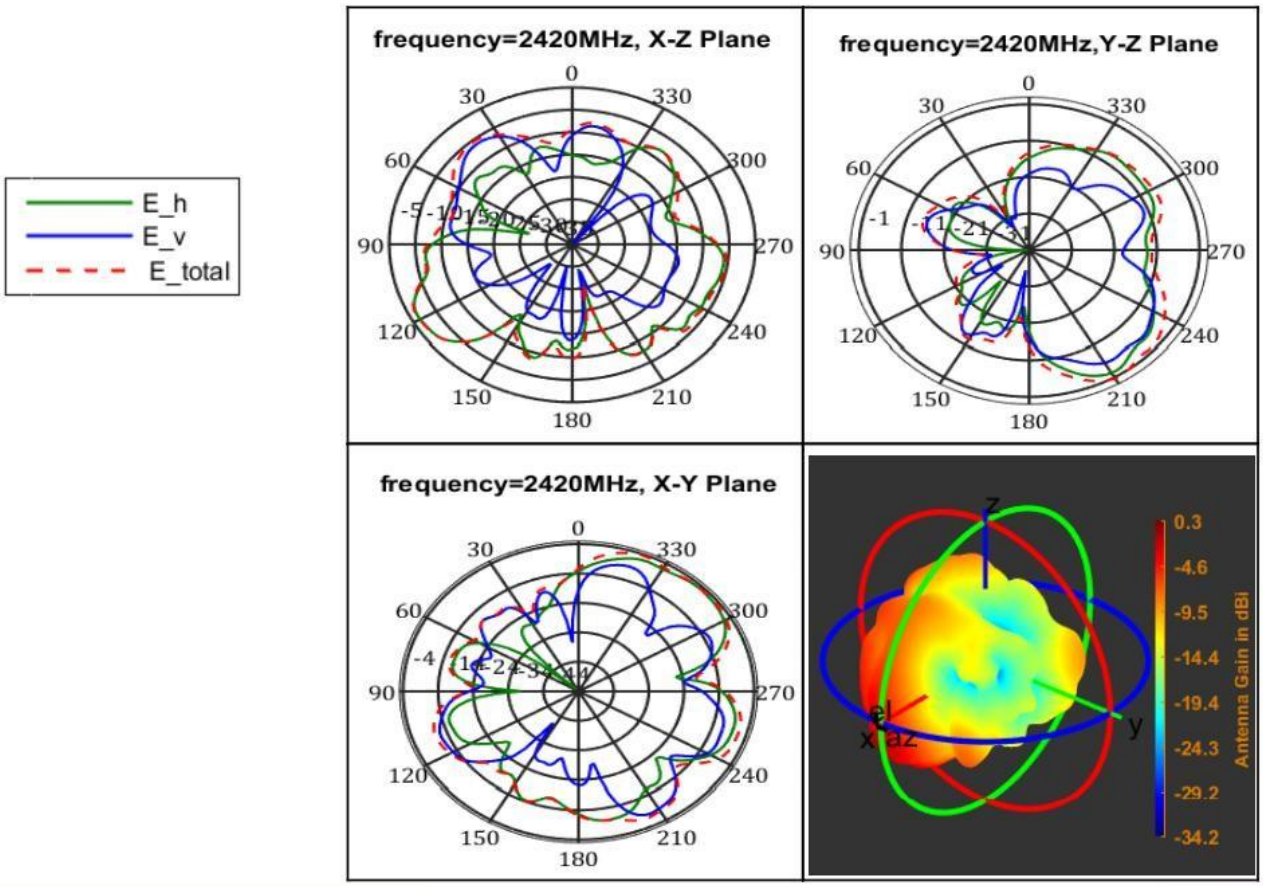
五、Test Setup：

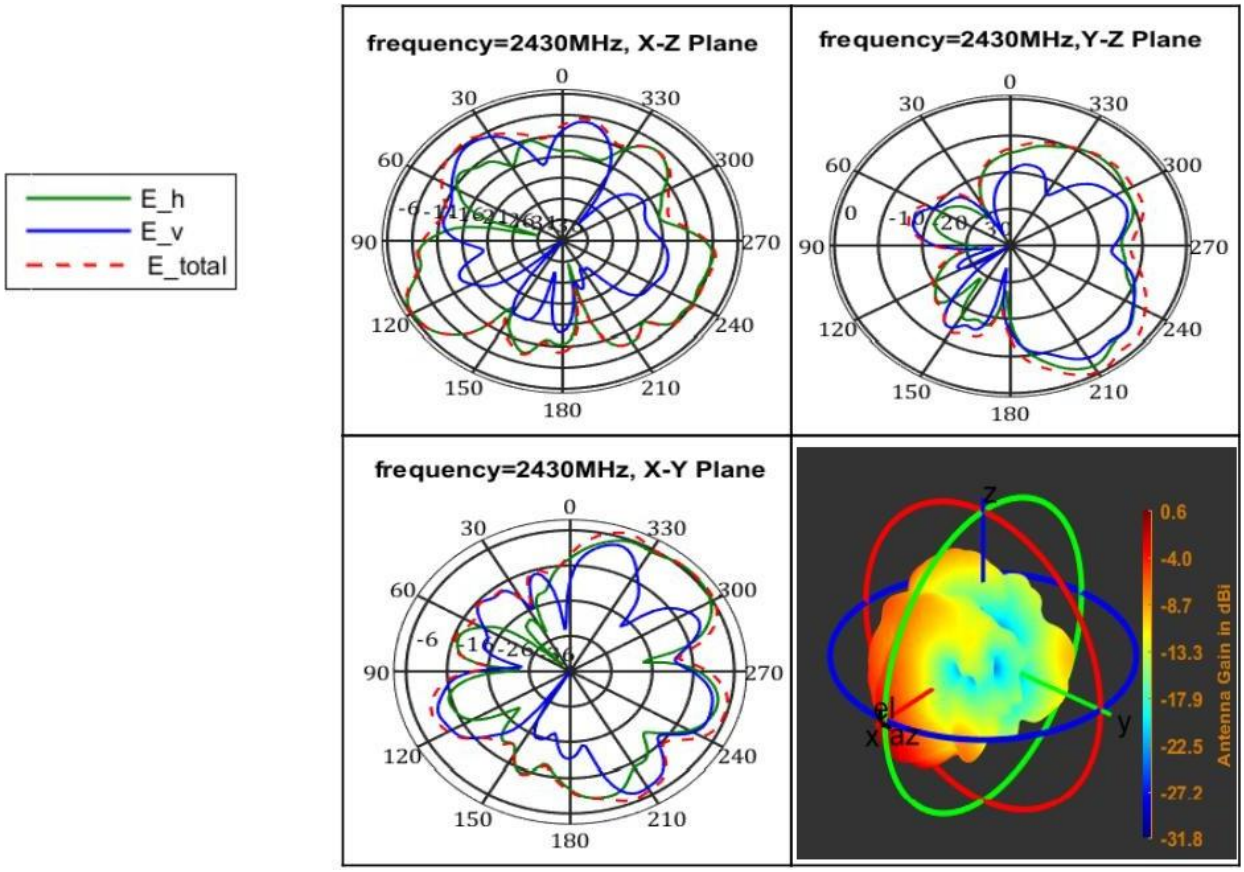


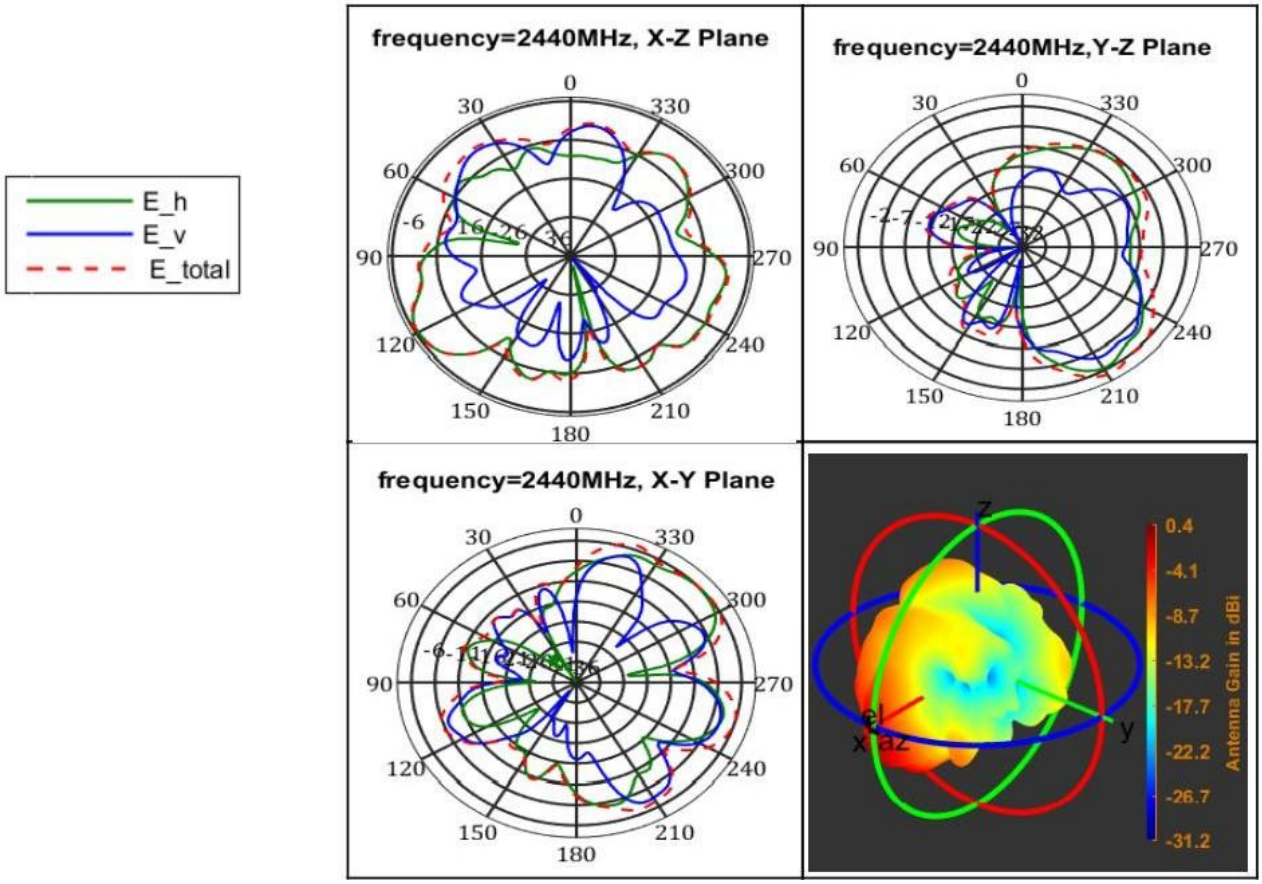
六、2D Radiation Pattern

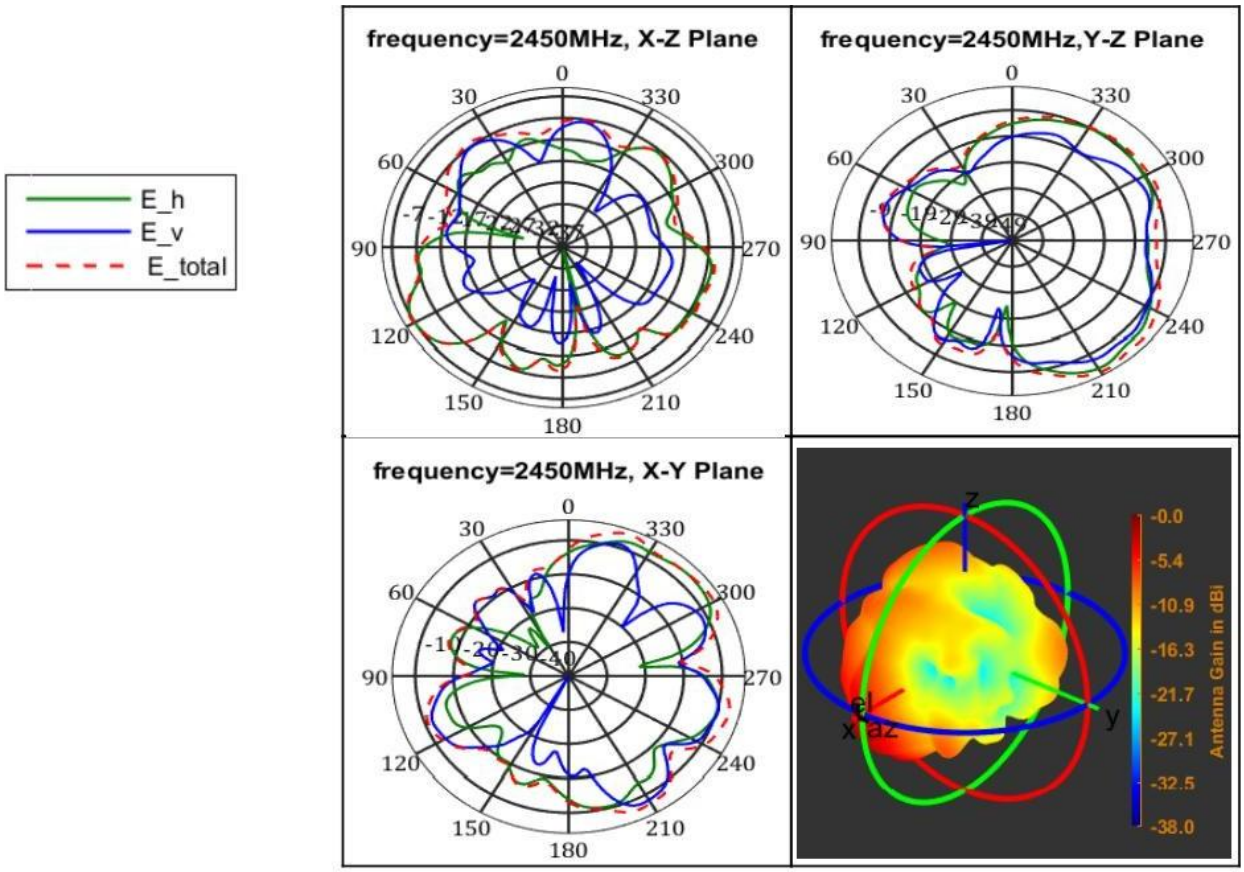


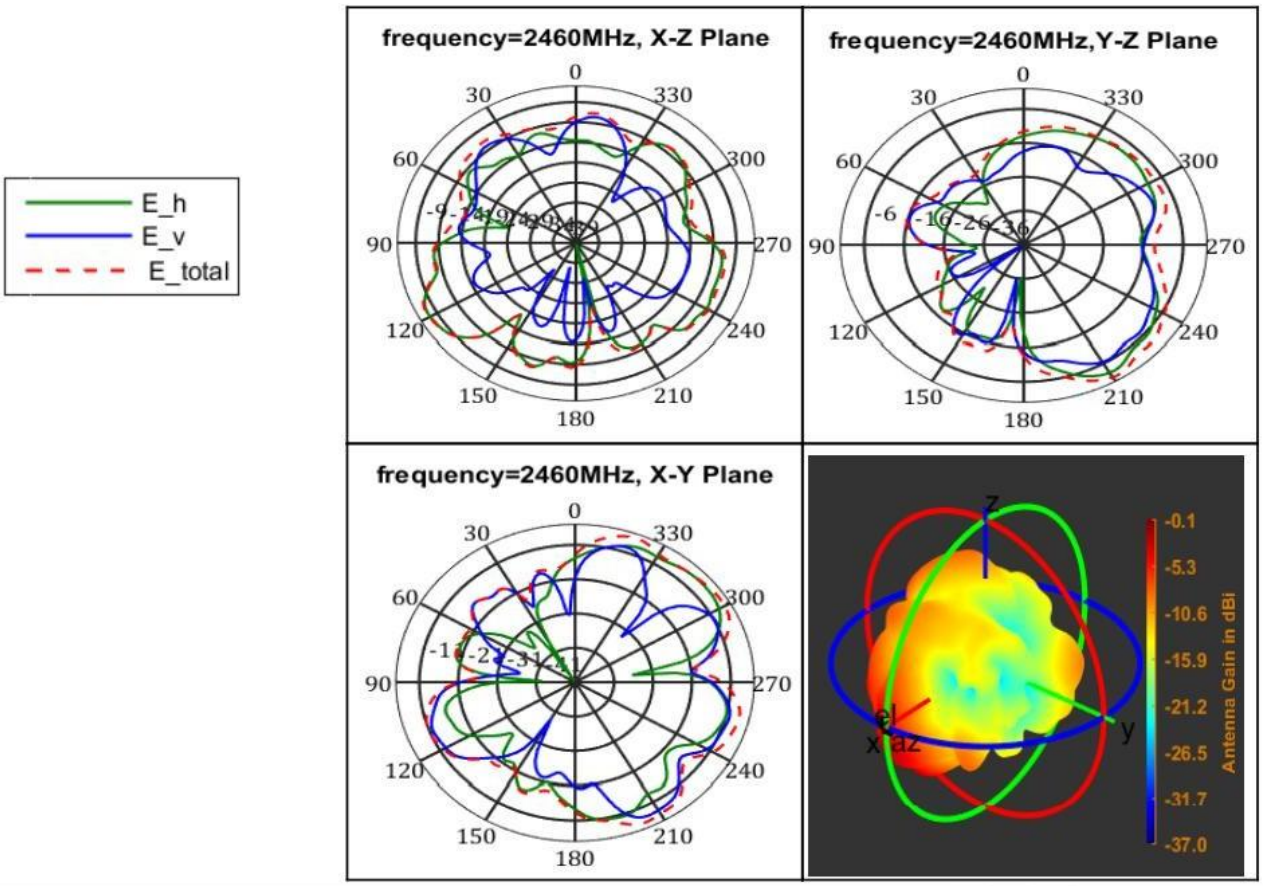


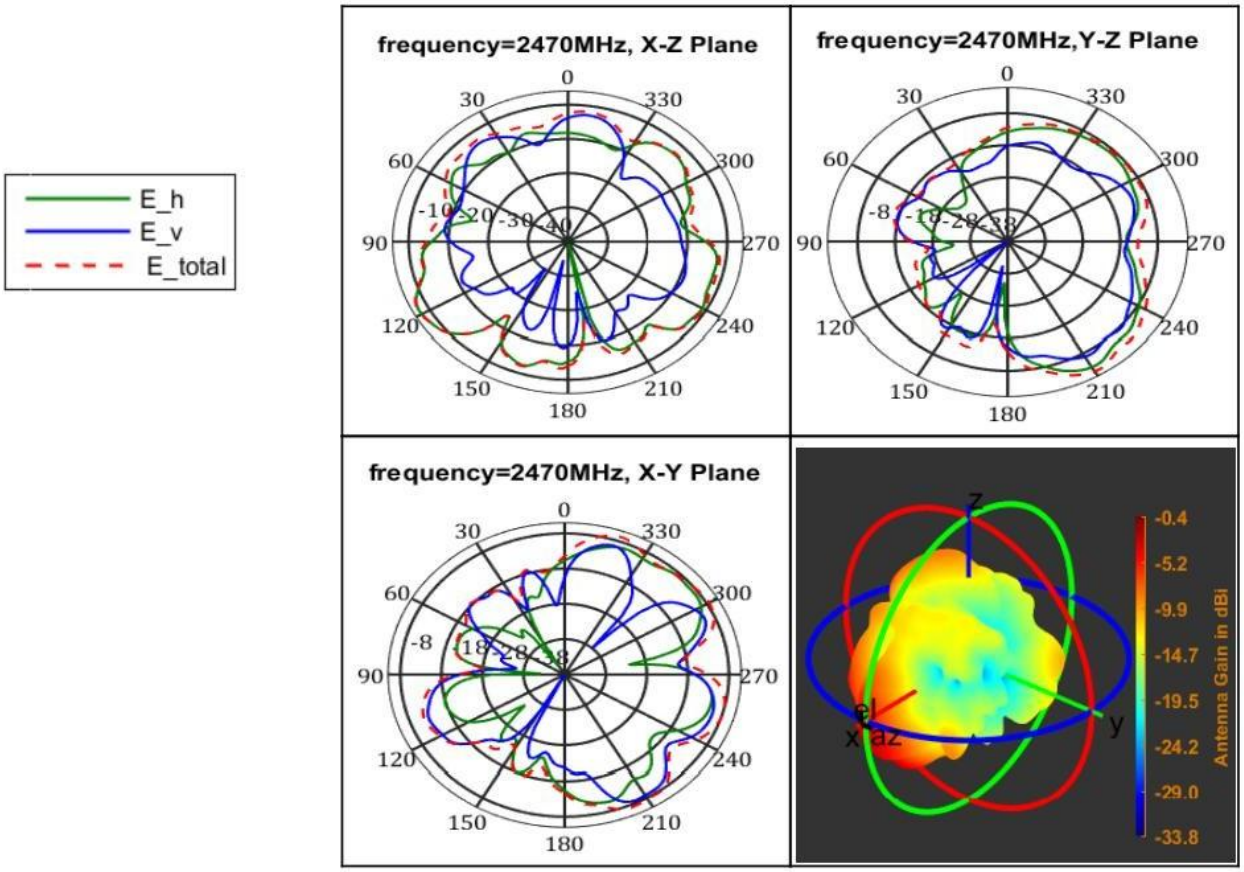

E_h
E_v
E_total
frequency=2420MHz, X-Z Plane
frequency=2420MHz,Y-Z Plane
frequency=2420MHz, X-Y Plane
0
30
60
90
120
150
180
210
240
270
300
330
z
y
x
el
az
0.3
-4.6
-9.5
-14.4
-19.4
-24.3
-29.2
-34.2
Antenna Gain in dBi

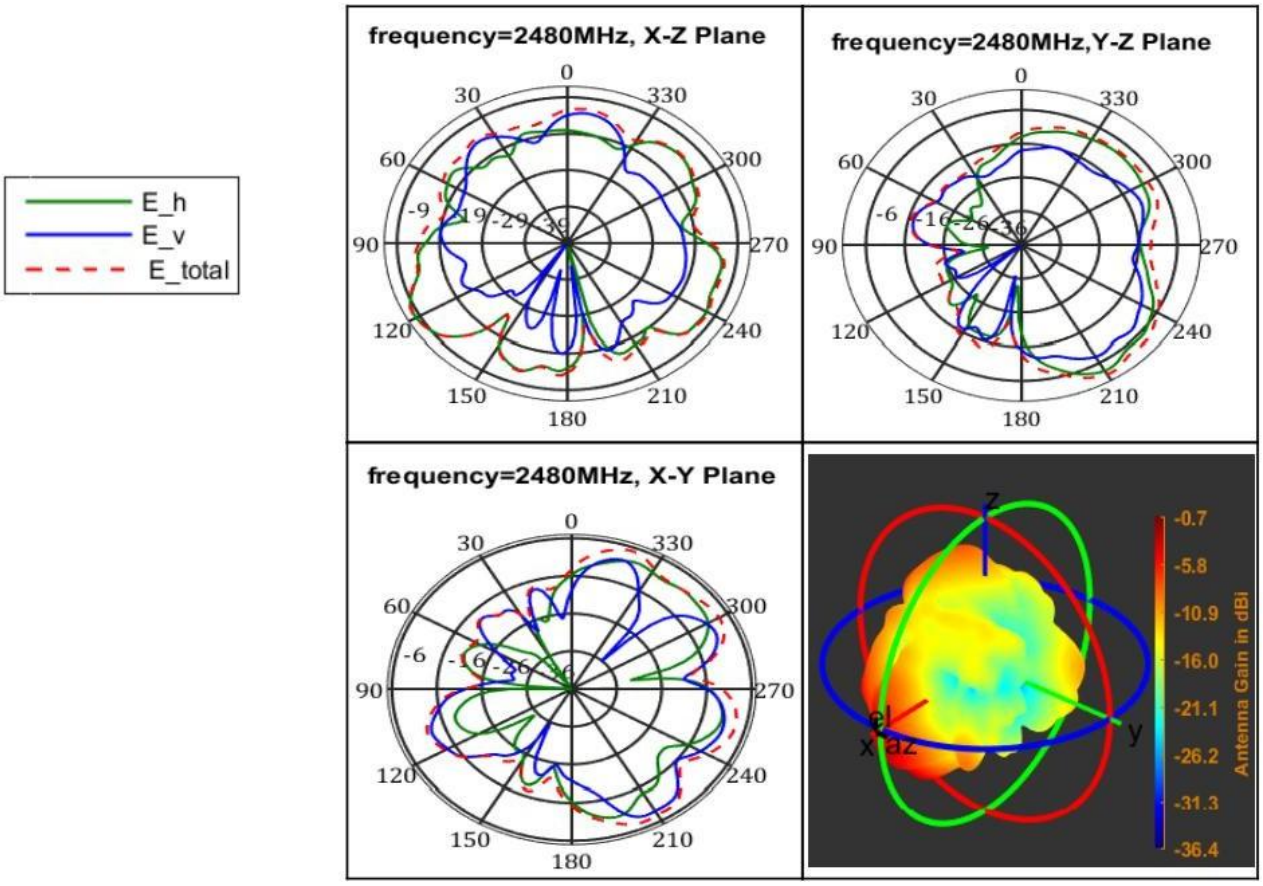

E_h
E_v
E_total
frequency=2430MHz, X-Z Plane
frequency=2430MHz,Y-Z Plane
frequency=2430MHz, X-Y Plane
0
30
60
90
120
150
180
210
240
270
300
330
z
y
x
el
az
0.6
-4.0
-8.7
-13.3
-17.9
-22.5
-27.2
-31.8
Antenna Gain in dBi

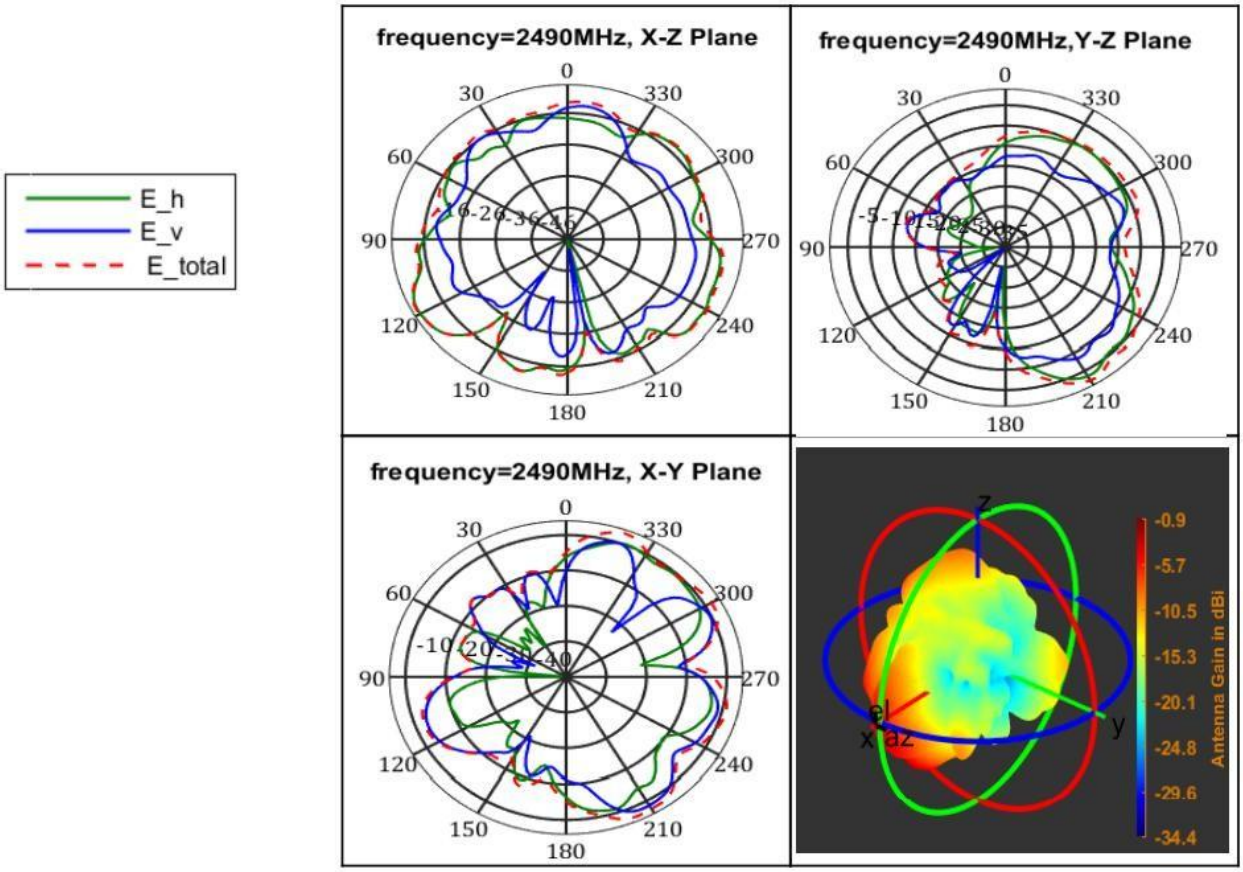

E_h
E_v
E_total
frequency=2440MHz, X-Z Plane
frequency=2440MHz,Y-Z Plane
frequency=2440MHz, X-Y Plane
0
30
60
90
120
150
180
210
240
270
300
330
Antenna Gain in dBi
0.4
-4.1
-8.7
-13.2
-17.7
-22.2
-26.7
-31.2

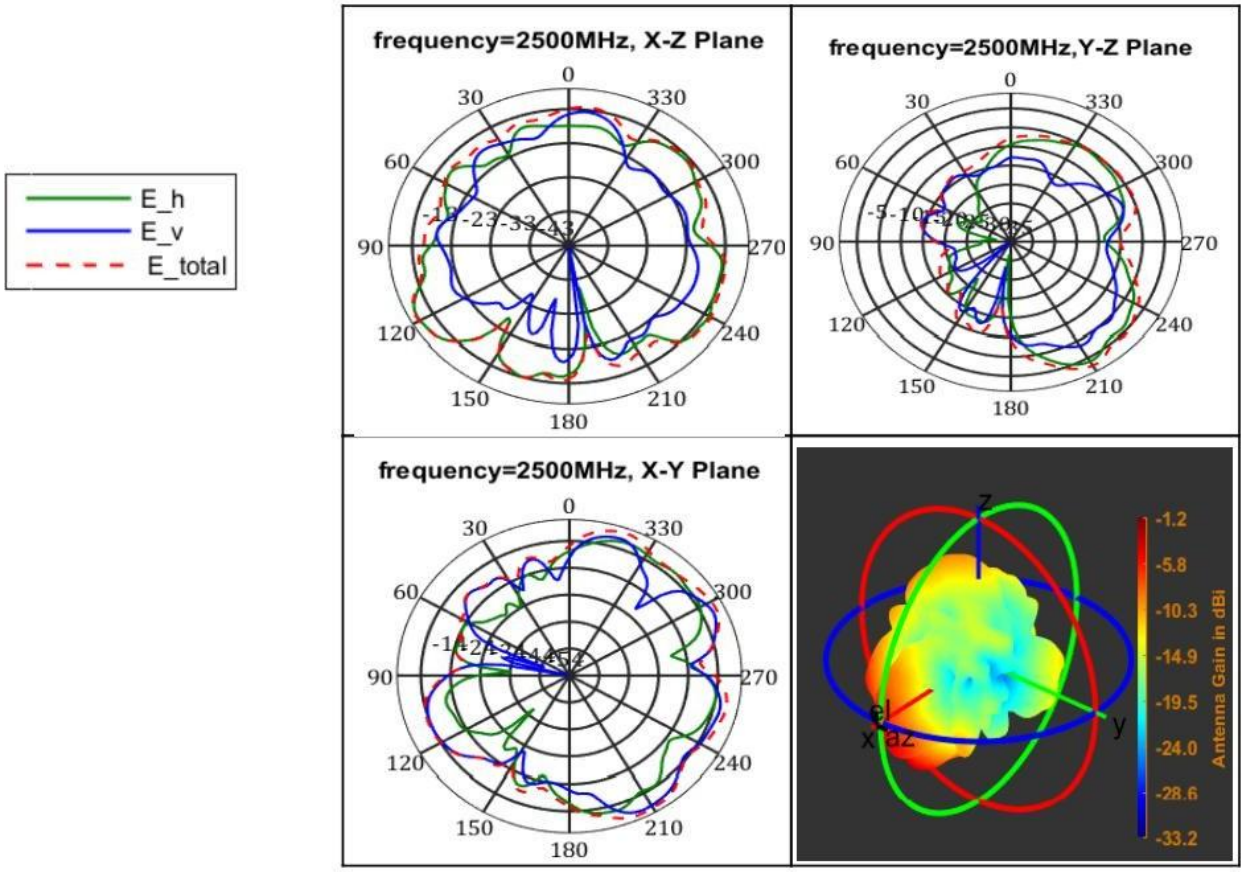

E_h
E_v
E_total
frequency=2450MHz, X-Z Plane
frequency=2450MHz,Y-Z Plane
frequency=2450MHz, X-Y Plane
0
30
60
90
120
150
180
210
240
270
300
330
Antenna Gain in dBi
-0.0
-5.4
-10.9
-16.3
-21.7
-27.1
-32.5
-38.0


E_h
E_v
E_total
frequency=2460MHz, X-Z Plane
frequency=2460MHz,Y-Z Plane
frequency=2460MHz, X-Y Plane
Antenna Gain in dBi
-0.1
-5.3
-10.6
-15.9
-21.2
-26.5
-31.7
-37.0


E_h
E_v
E_total
frequency=2470MHz, X-Z Plane
frequency=2470MHz,Y-Z Plane
frequency=2470MHz, X-Y Plane
Antenna Gain in dBi
-0.4
-5.2
-9.9
-14.7
-19.5
-24.2
-29.0
-33.8


E_h
E_v
E_total
frequency=2480MHz, X-Z Plane
frequency=2480MHz,Y-Z Plane
frequency=2480MHz, X-Y Plane
Antenna Gain in dBi
-0.7
-5.8
-10.9
-16.0
-21.1
-26.2
-31.3
-36.4


E_h
E_v
E_total
frequency=2490MHz, X-Z Plane
frequency=2490MHz,Y-Z Plane
frequency=2490MHz, X-Y Plane
Antenna Gain in dBi
-0.9
-5.7
-10.5
-15.3
-20.1
-24.8
-29.6
-34.4


E_h
E_v
E_total
frequency=2500MHz, X-Z Plane
frequency=2500MHz,Y-Z Plane
frequency=2500MHz, X-Y Plane
0
30
60
90
120
150
180
210
240
270
300
330
z
y
x
el
az
-1.2
-5.8
-10.3
-14.9
-19.5
-24.0
-28.6
-33.2
Antenna Gain in dBi