2.4&5.8GHz Dipole ANT

Specification

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Revision History

Revision	Summary	Release Date
0.1	First edition release	2022-07-6

Product Name: 2.4&5.8GHz Dipole Ant	
Frequency: 2.4~2.5&5.1~5.8GHz	
Revision: V0.1	
Customer Approval:	
Company:	
Title:	
Signature:	Date:
BL-link Approval:	
Title:	
Signature:	Date:

1. Introduction

This antenna support 2.4&5.8GHz dual band frequency. Designed by dipole antenna theory Almost Omni-directional radiation for far field.

Good port matching ,low return loss ,high efficiency can make communication more easily.

1.1 Features

- Operating Frequencies: 2400~2500MHz/5100~5800MHz
- Radiation: Omni-directional radiation
- Modulation support: WLAN/BT/ZIGBEE
- Connect to host through IPEX connectors

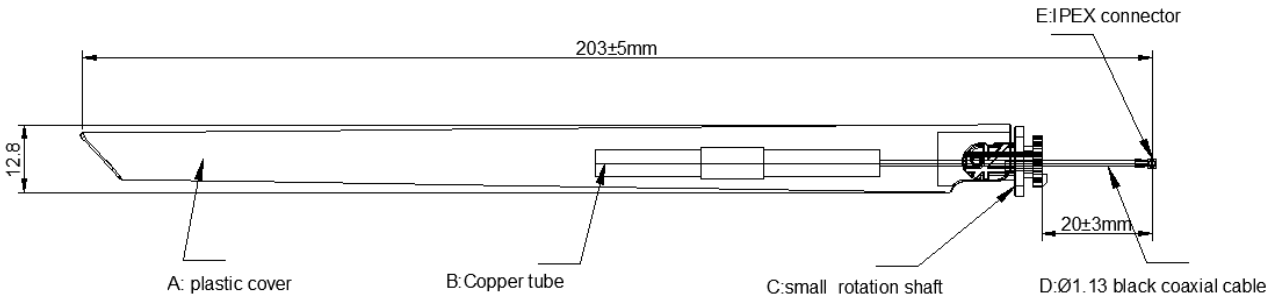
1.2 Applications

- IP Camera
- STB
- Smart TV
- Screen thrower
- Intelligent home furnishing
- Other devices which need to be supported by wireless network

1.3 General Specifications

Product Name	2.4&5.8GHz Dipole antenna
Frequency	2400~2500MHz/5100~5800MHz
Modulation support	WLAN/BT/ZIGBEE
VSWR	<=2
Return loss	<=-8dB
Radiation	Omni-directional
Gain（peak）	3dBi
Polarization	Linear
Admitted Power	2W
Connector	IPEX1
Efficiency	40%~80%
Cable	RF1.13 black cable and length is 20 mm

2. Mechanical Specifications



Antenna outer covered by a black blade shape plastic,and rotation shaft fixed on customer’ s product shell, Then through IPEX connector connect main board RF signal port.

A: black plastic cover.

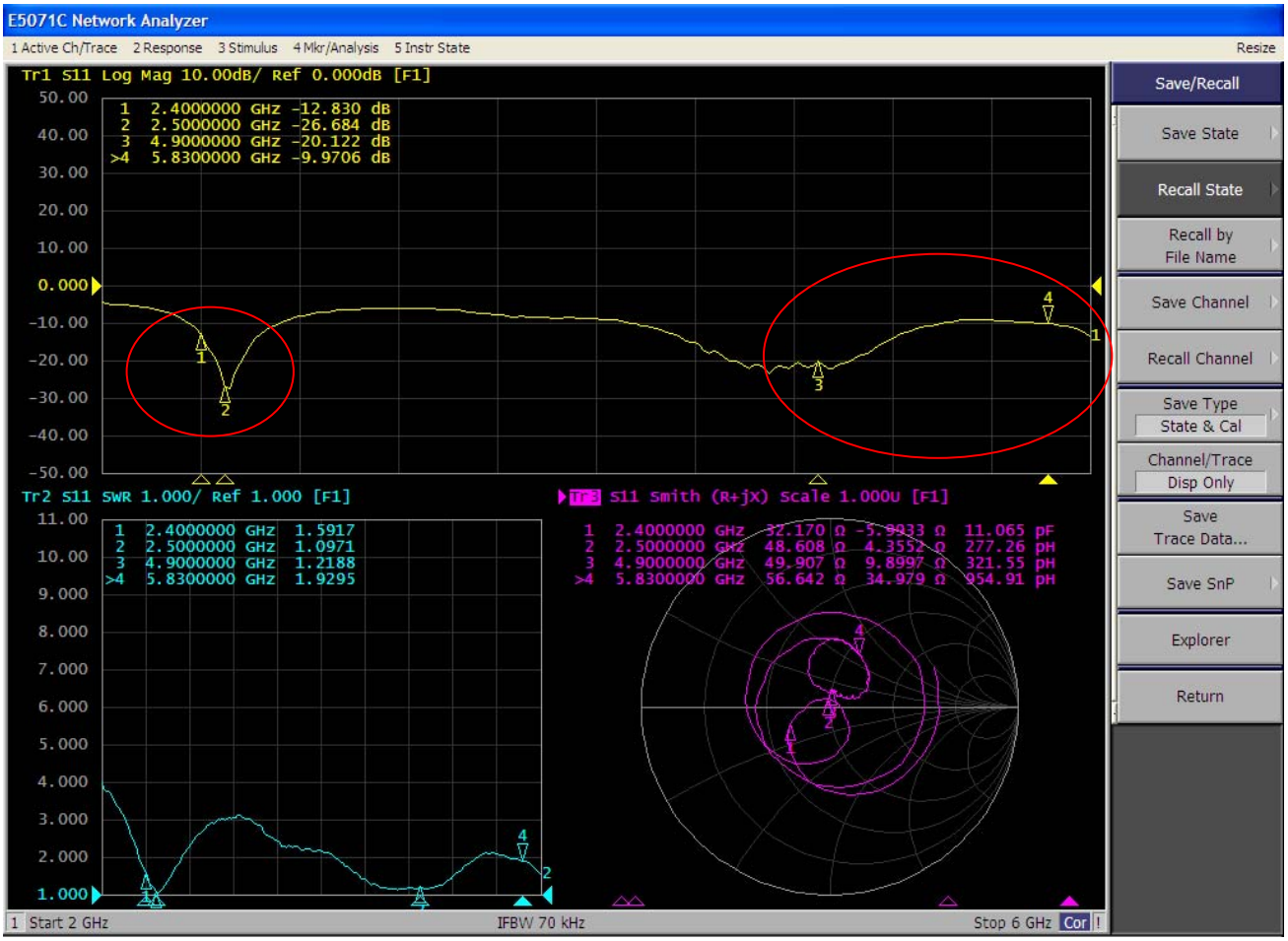
B:inner copper tube made by radiation copper tube and ground copper tube.

C: black plastic rotation shaft.

D:1.13 RF black cable.

E:IPEX one generation connector.

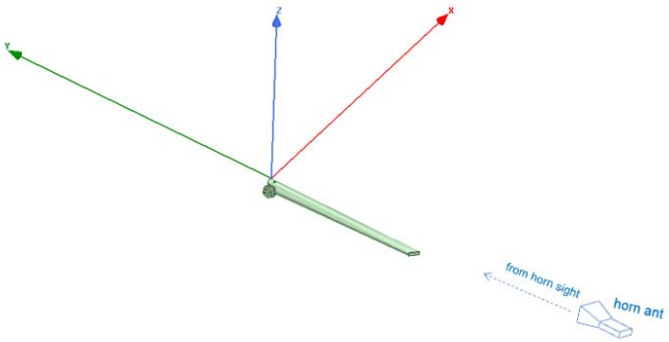
3. S-parameter



Return loss: <=-8dB

VSWR: <=2

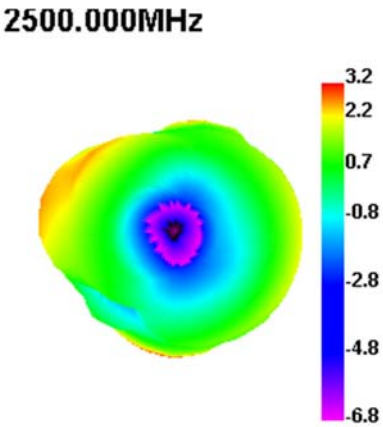
4. Radiation parameter



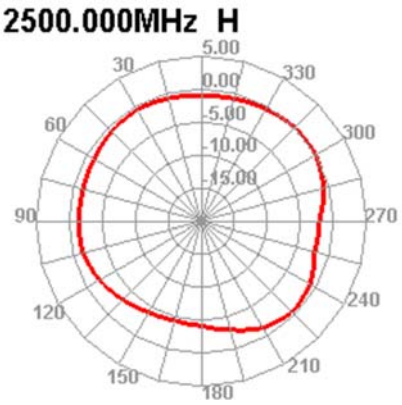
4.1 Gain and efficiency

Frequency	Gain（dBi)	efficiency
2412MHz	0.68	37%
2442MHz	1.37	47%
2472MHz	2.51	69%
5180MHz	1.41	51%
5220MHz	1.26	51%
5240MHz	1.94	65%
5750MHz	2.56	77%
5830MHz	3	80%

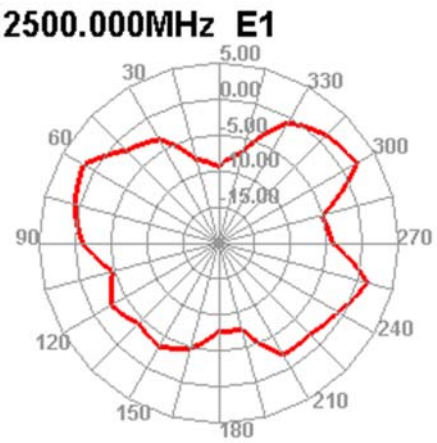
4.2 Radiation Pattern



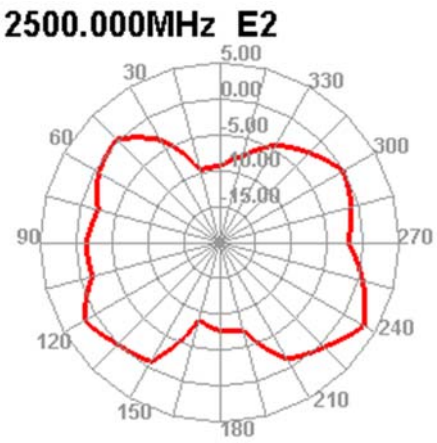
3D radiation



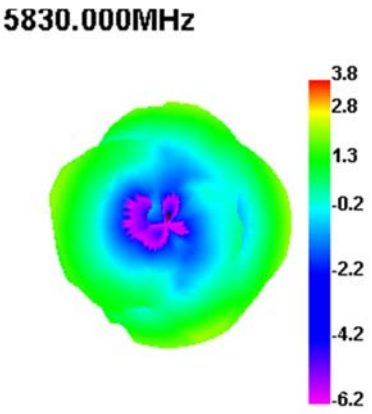
XY plane



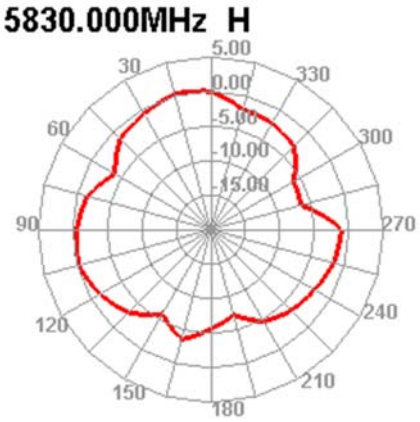
XZ plane



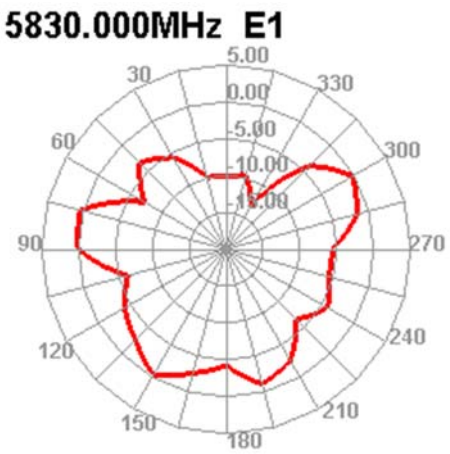
YZ plane



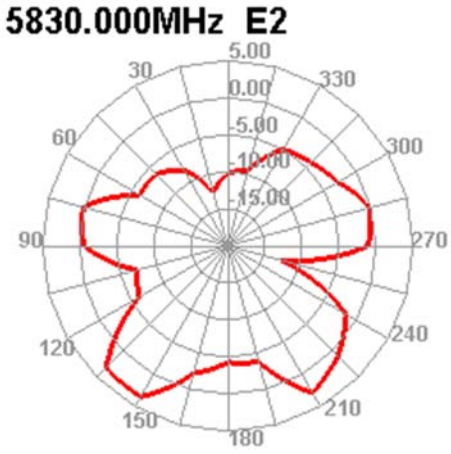
3D radiation



XY plane



XZ plane



YZ plane