



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

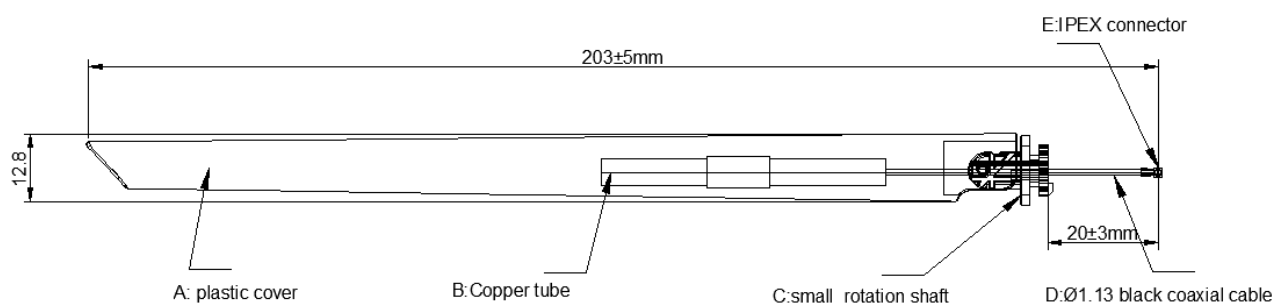
1.2 Applications

- 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	$\leq -8\text{dB}$
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.

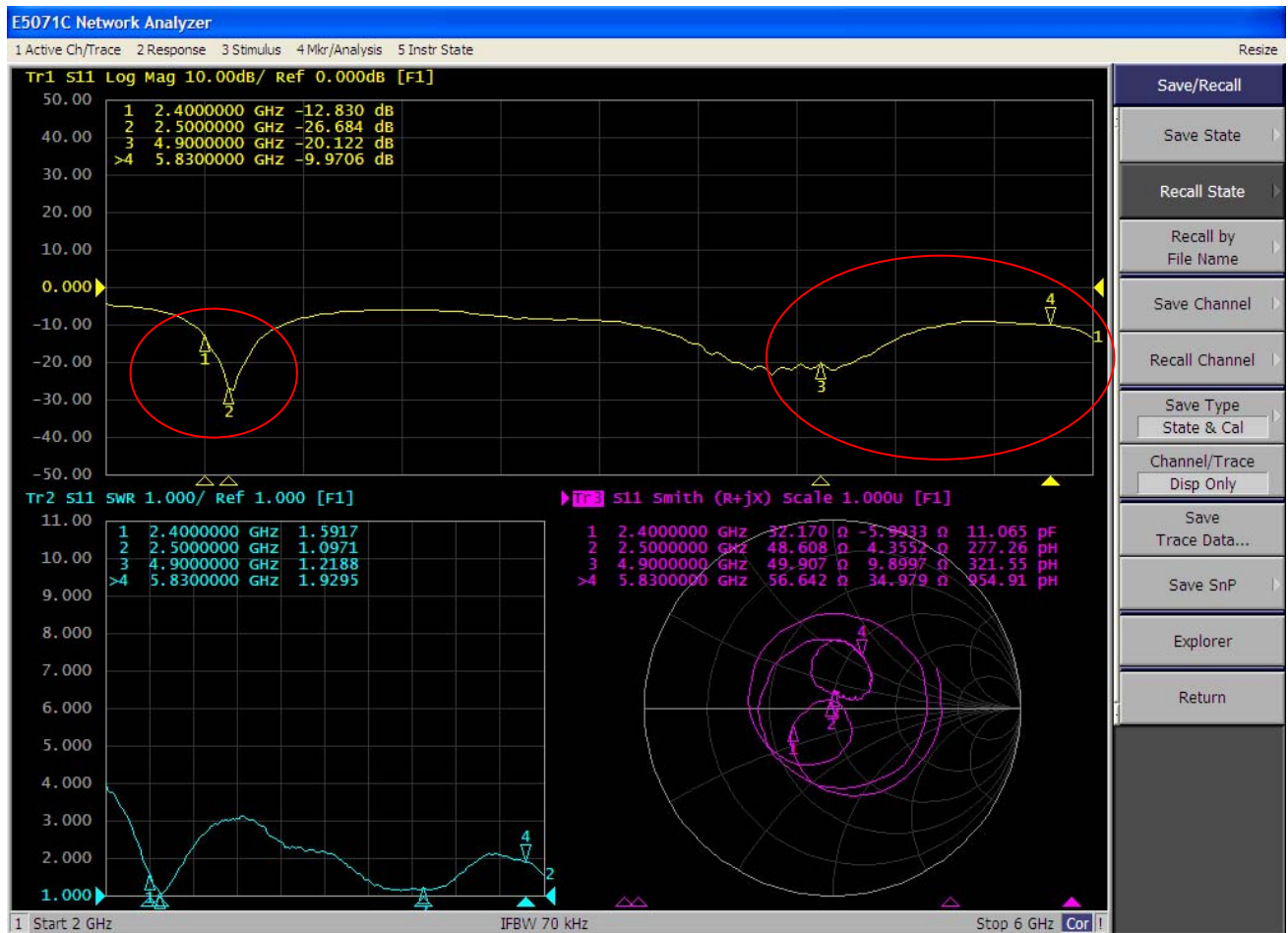
B: inner copper tube made by radiation copper tube and ground copper tube.

C: black plastic rotation shaft.

D: 1.13 RF black cable.

E: IPEX one generation connector.

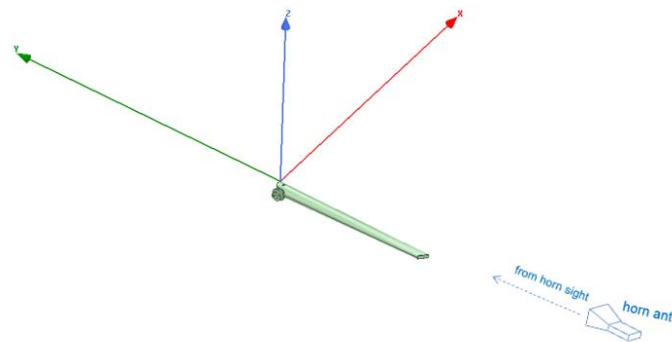
3. S-parameter



Return loss: $\leq -8\text{dB}$

VSWR: ≤ 2

4. Radiation parameter

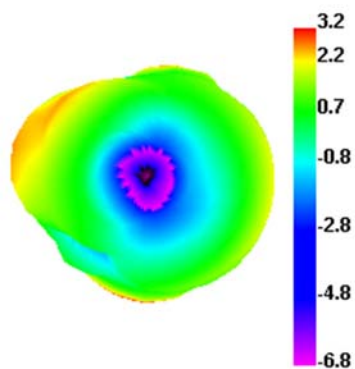


4.1 Gain and efficiency

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%

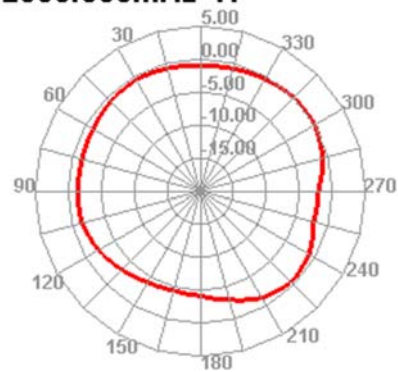
4.2 Radiation Pattern

2500.000MHz



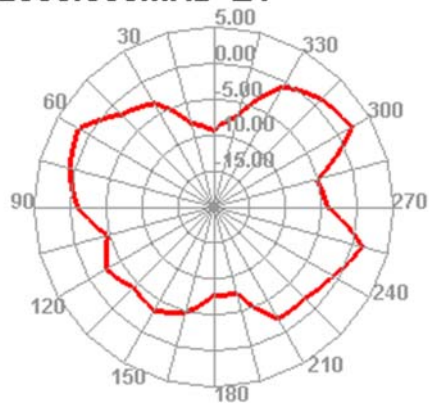
3D radiation

2500.000MHz H



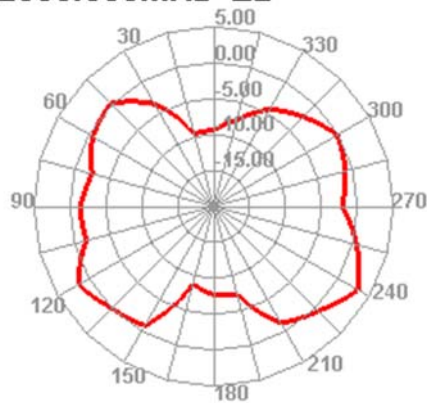
XY plane

2500.000MHz E1



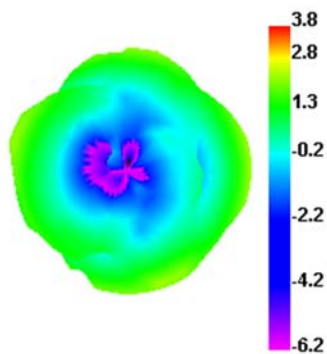
XZ plane

2500.000MHz E2



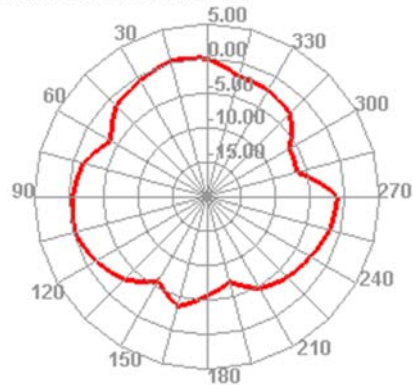
YZ plane

5830.000MHz

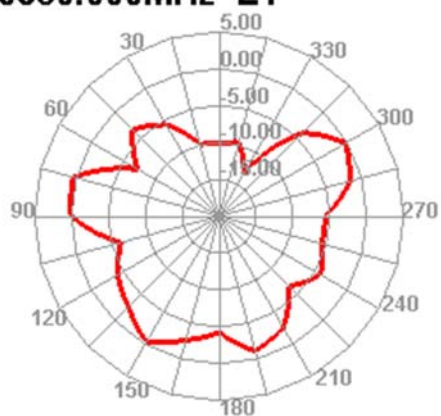


3D radiation

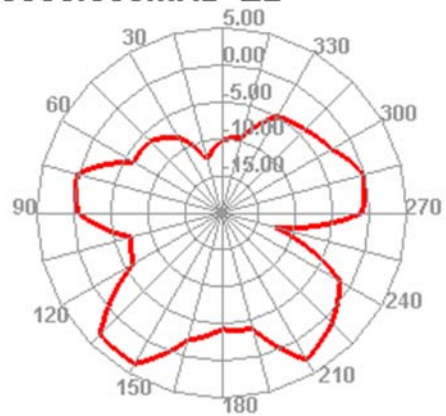
5830.000MHz H



XY plane

5830.000MHz E1

XZ plane

5830.000MHz E2

YZ plane