



# 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

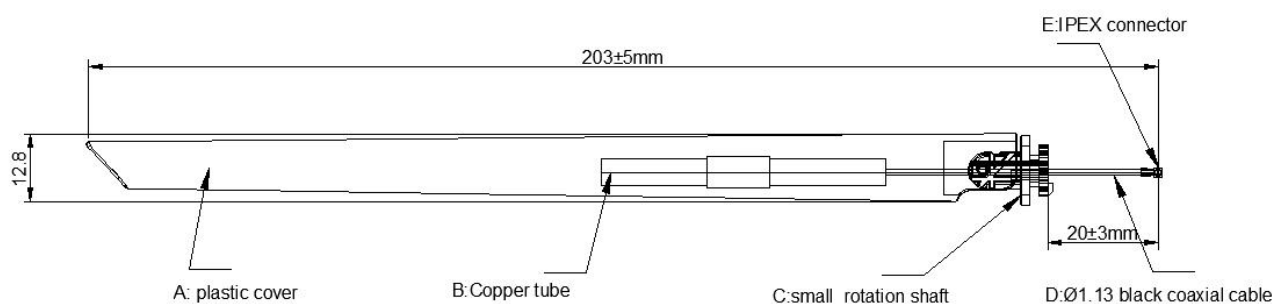
### 1.2 Applications

- 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)	3.5dBi
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.

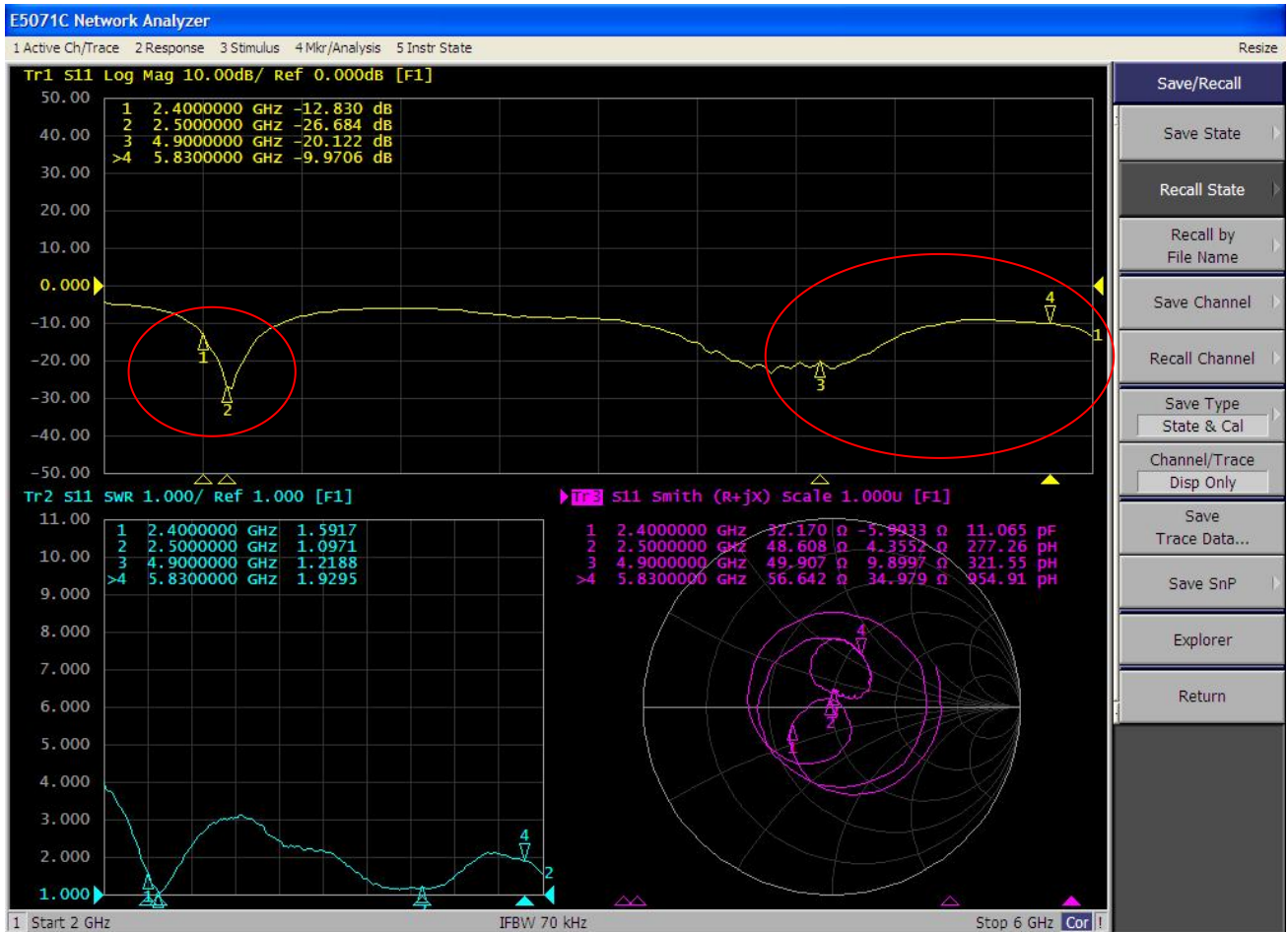
B: inner copper tube made by radiation copper tube and ground copper tube.

C: black plastic rotation shaft.

D: 1.13 RF black cable.

E: IPEX one generation connector.

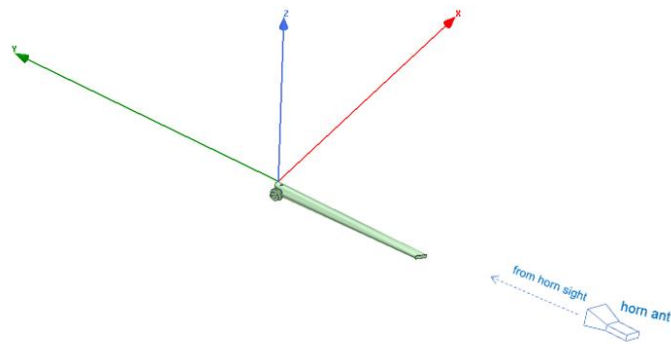
### 3. S-parameter



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

VSWR:  $\leq 2$

## 4. Radiation parameter

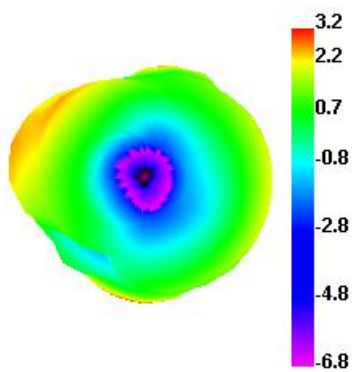


### 4.1 Gain and efficiency

Frequency	Gain	efficiency
2400~2500MHz	3.5dBi	45%~80%
5100~5800MHz	3.5dBi	45%~80%

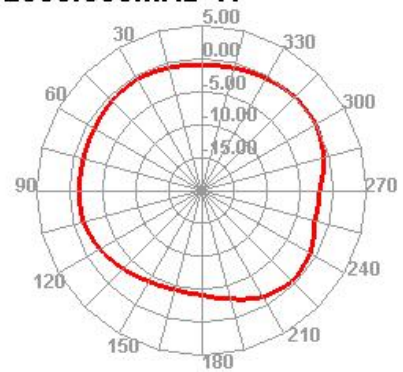
### 4.2 Radiation Pattern

**2500.000MHz**



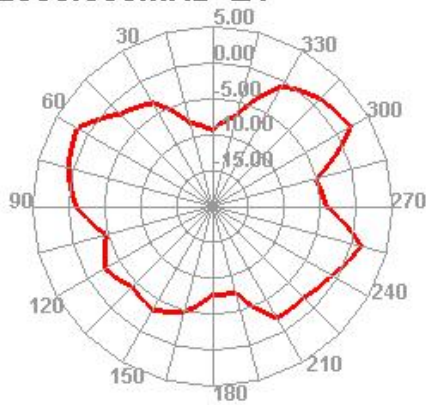
3D radiation

**2500.000MHz H**



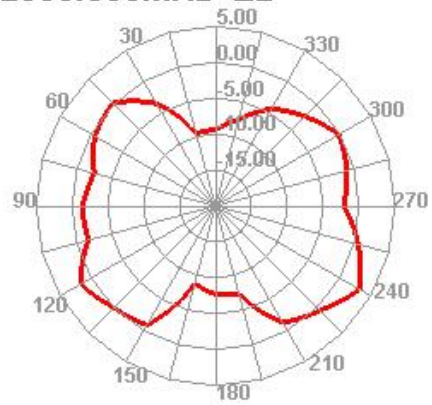
XY plane

**2500.000MHz E1**



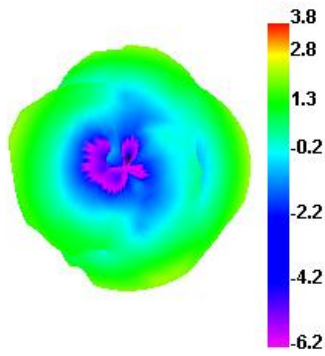
XZ plane

**2500.000MHz E2**



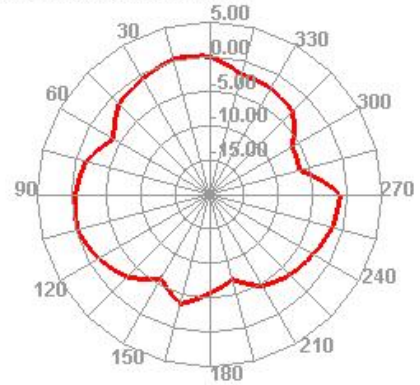
YZ plane

**5830.000MHz**



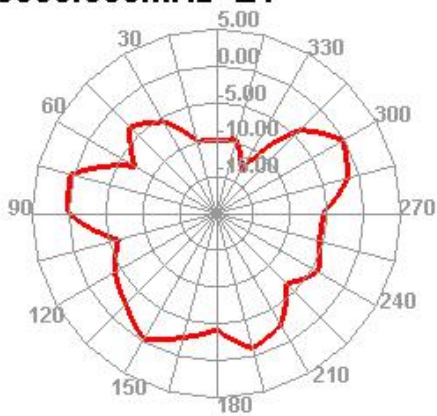
3D radiation

**5830.000MHz H**



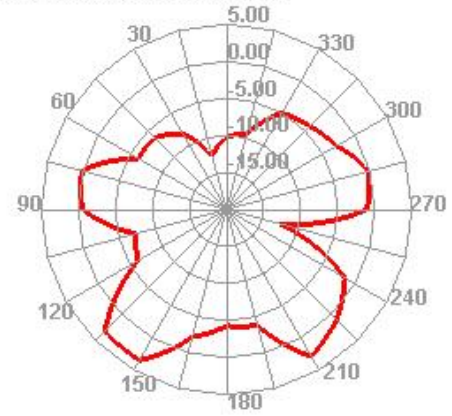
XY plane

**5830.000MHz E1**



XZ plane

**5830.000MHz E2**



YZ plane