

## 2JF0415P

868/915 MHz ISM Adhesive Mount  
Flexible Polymer Embedded Antenna

### Key Features

#### Cable 1: 868/915 MHz ISM

- 863-870 MHz

- 902-928 MHz

Self-Adhesive

Flexible Material

High Performance

Embedded Antenna

Ground Plane Independent

Customizable Cable and Connector

Dimensions: 25 x 70 x 0.2 mm



## 1. Antenna Description

### 2JF0415P

#### A very compact high-efficiency flexible Dual Band ISM PCB antenna

At only 0.2mm thick, the 2JF0415P is an ultra-thin, high efficiency, flexible PCB antenna that has been designed for NB-IoT applications where device available space is at a premium. Integrating an omnidirectional design, this antenna provides a 360° coverage for all implementations where a dedicated frequency is needed.

Utilizing 868MHz ISM for European standards and 915MHz ISM frequencies for the US market, this flexible embedded antenna is ideal for applications such as M2M, smart metering devices, precision agriculture management, remote keyless systems, optical connectivity solutions, underwater sensors, smart healthcare, and fitness monitoring devices, etc.

#### Application Parameters

The 868MHz and 915MHz ISM bands (industrial, scientific, and medical) are bands that can be used freely (free of charge and without authorization) for industrial, scientific and medical applications. The unlicensed ISM bands below 1GHz are widely used for various consumer and industrial applications where long range, system cost, and long battery life concerns are critical.

#### Typical applications

- IoT applications
- Remote Monitoring
- Smart Metering
- Home Automation
- Medical Devices
- M2M automation
- And others

#### Compatibility Standards

- 868 MHz / 915 MHz ISM Cables**
- Sigfox, LoRa, ZigBee, ISM

#### Key Features

- Worldwide ISM coverage - 868 + 915 MHz
- Flexible ultra-thin PCB for convenient integration
- Self-Adhesive back side aiding Easy Installation
- Eco-friendly in Size
- High Efficiency
- Ground Plane Independent
- Customizable Cable and Connector

#### Installation

The 2JF0415P compact design antenna comes with a self-adhesive peel-and-stick backside, making installations simplistic in even very space-challenged designs.

## 2. Antenna and electrical specifications

Cable 1

Parameters	868/915 MHz ISM Antenna	
<b>Standards</b>	ZigBee, ISM, SigFox, LoRa	
<b>Band (MHz)</b>	868 MHz	915 MHz
<b>Frequency (MHz)</b>	863-870	902-928
<b>Return Loss (dB)</b>	~-8.0	~-21
<b>VSWR</b>	~2.3:1	~1.2:1
<b>Efficiency (%)</b>	~58	~77
<b>Peak Gain (dBi)</b>	~-2.7	~-3.6
<b>Average Gain (dB)</b>	~-2.3	~-1.1
<b>Impedance (Ohm)</b>	50	
<b>Polarisation</b>	Linear	
<b>Radiation Pattern</b>	Omni-Directional	
<b>Max. Input Power (W)</b>	25	
<b>Connector Type</b>	U.FL Standard (Other Connectors Available)	
<b>Cable Length</b>	100mm Standard (Any Cable Length Available)	
<b>Cable Type</b>	1.37mm Micro-Coax Standard (Other Cables Available)	

### Antenna Measurement Conditions:

Mounted on 30 x 30 x 0.25 cm ABS Plate

100 mm of 1.37 mm Micro-Coax Cable

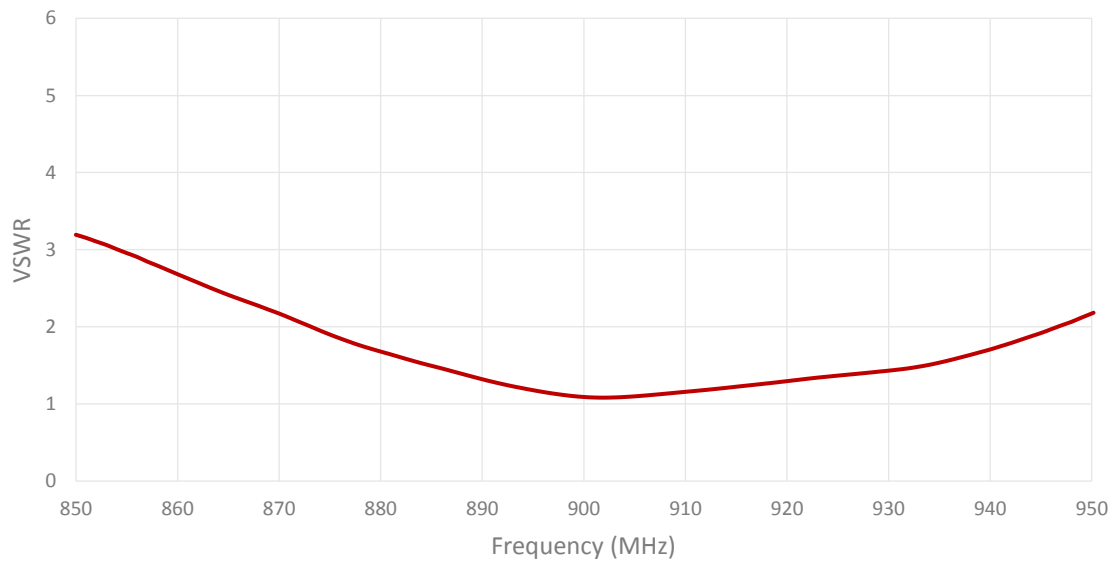
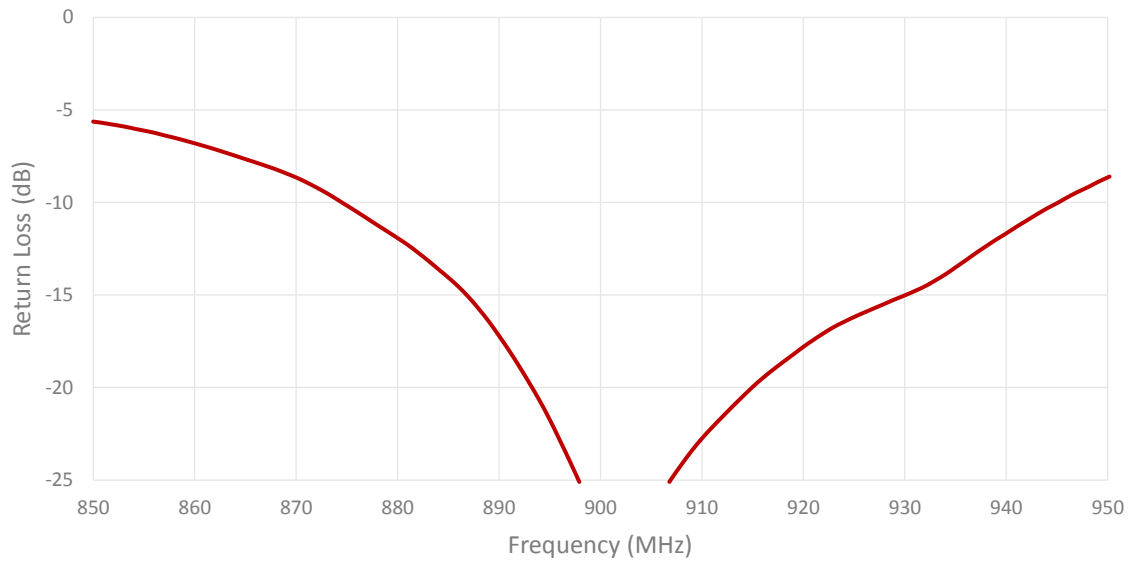
Measured in Certified CTIA 3D Anechoic Chamber

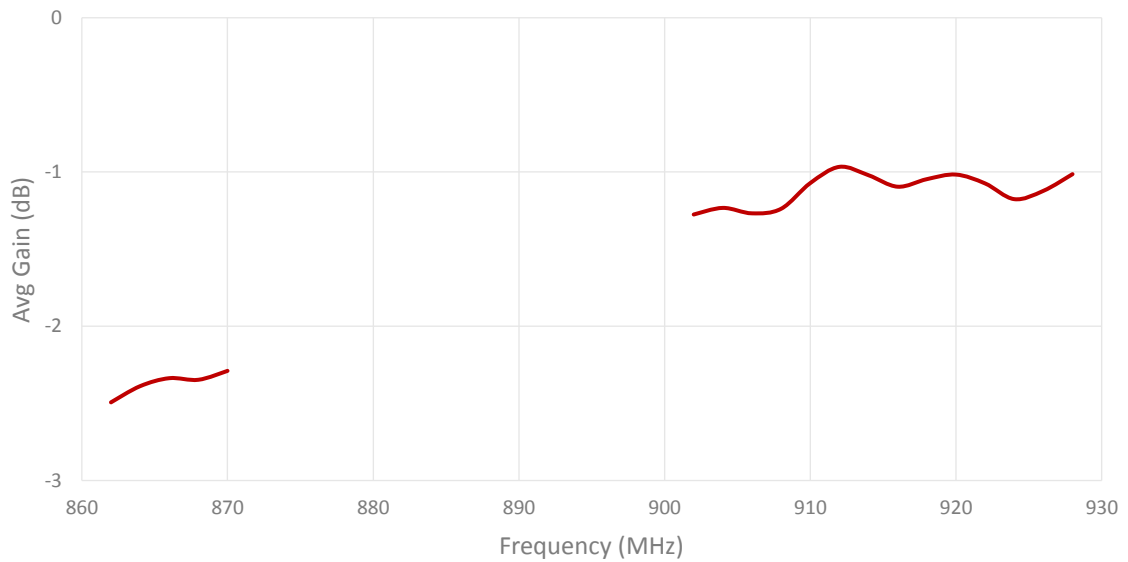
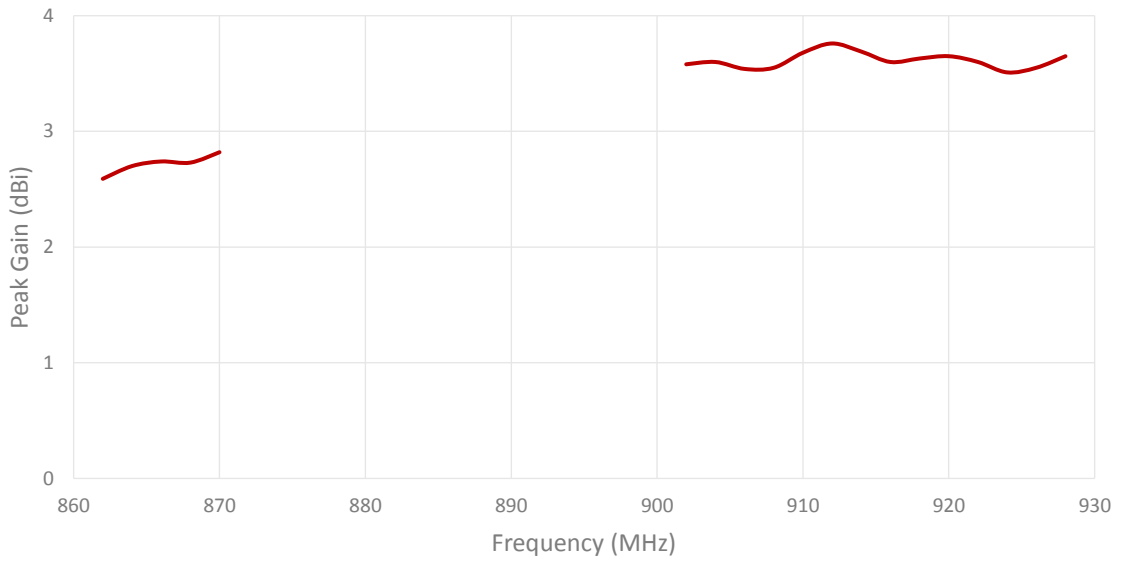
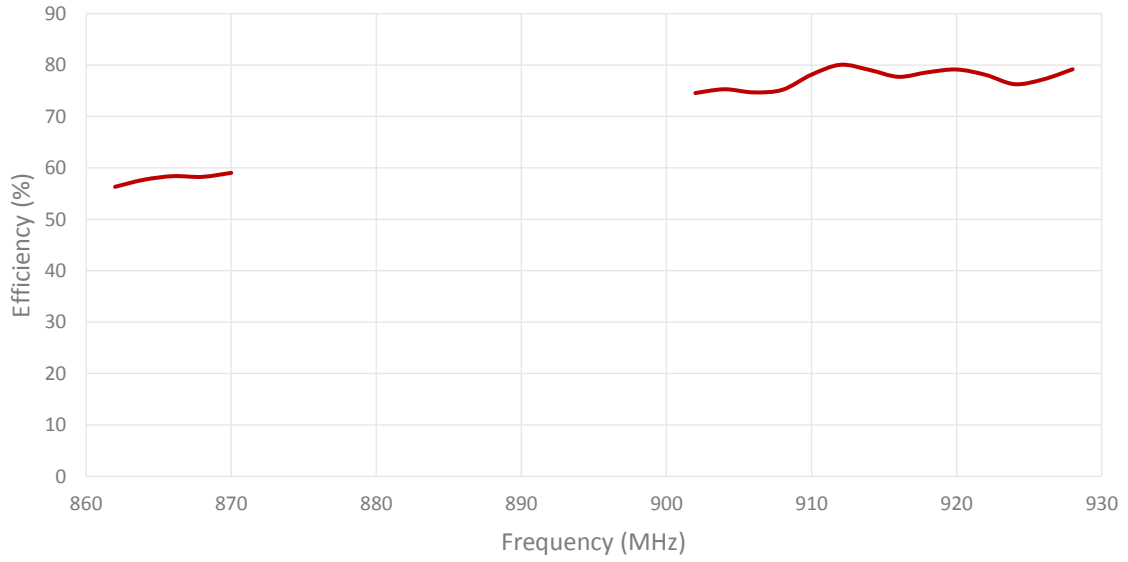
## 3. Mechanical and environmental specifications

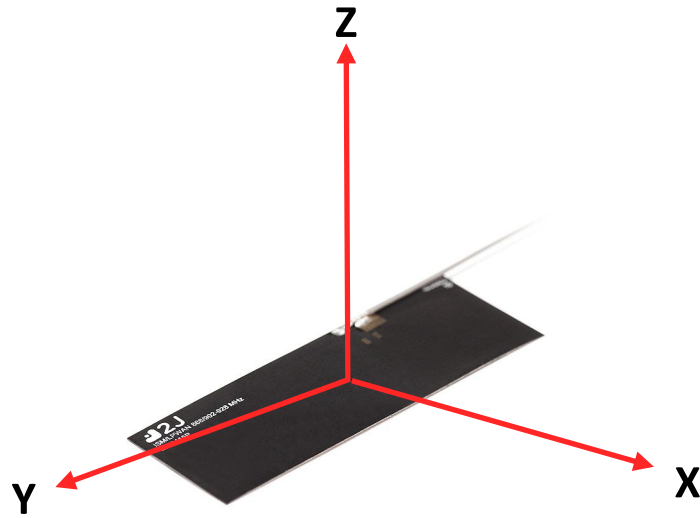
Specifications	2JF0415P
<b>Mounting Type</b>	Self-Adhesive
<b>Dimensions (mm)</b>	25 x 70 x 0.2
<b>Adhesive Type</b>	3M 467
<b>Material</b>	Flexible Polymer
<b>Operating Temperature (C)</b>	-40 to +85
<b>Storage Temperature (C)</b>	-40 to +85
<b>Substance Compliance</b>	RoHS

## 4. Antenna parameters

**Cable 1: 868/915 MHz ISM**

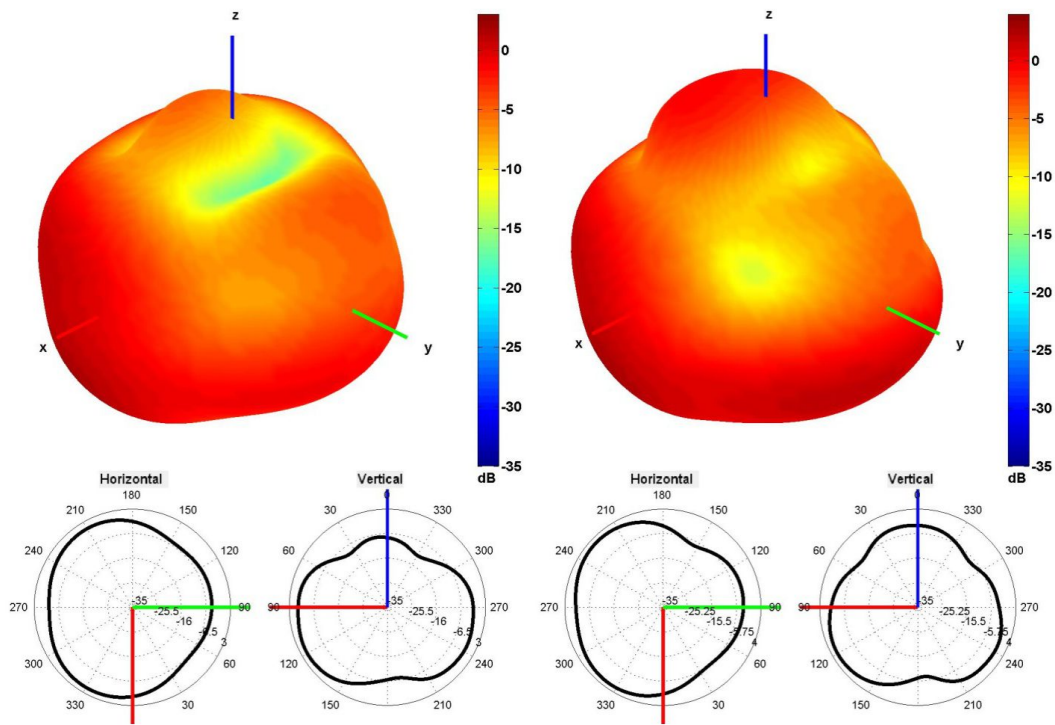






Radiation pattern reference

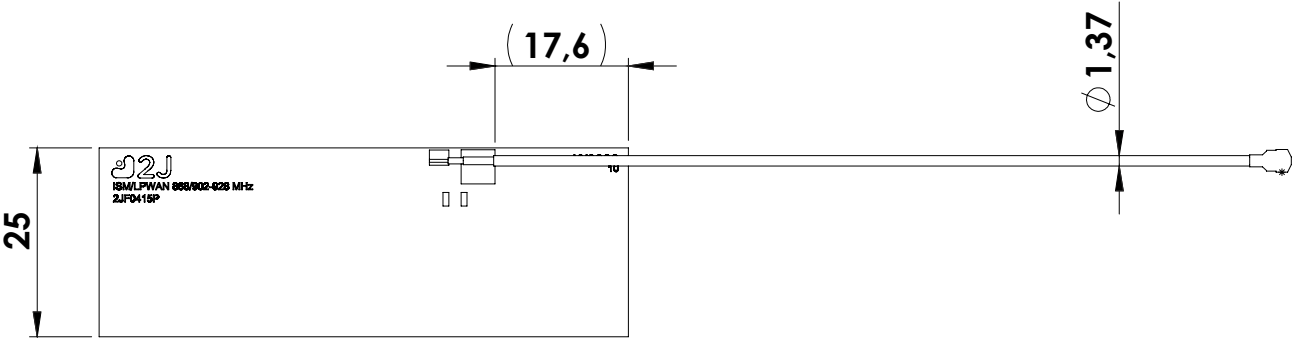
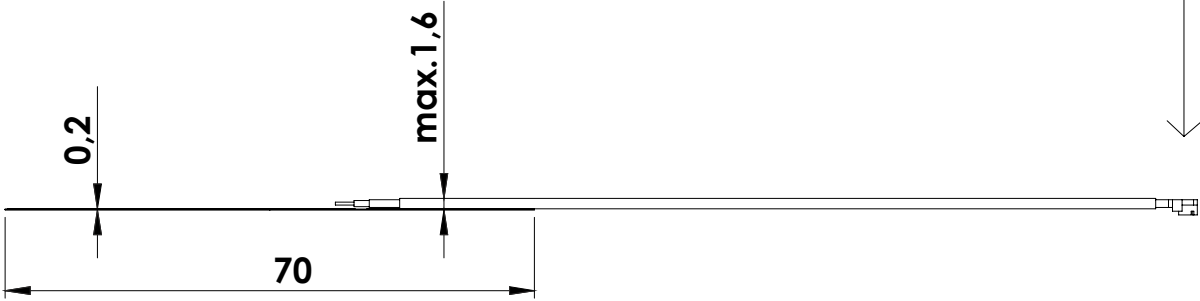
Cable 1: 868/915 MHz ISM



868 and 915 MHz Radiation pattern

5. Antenna drawings

Connector orientation



## 6. Antenna Images

