



# TAOGLAS®



## Datasheet

### PC31 868/915 MHz FR4 Antenna

**Part No:**  
PC31.07.0050A

#### **Description:**

Dual-Band ISM 868/915MHz FR4 antenna with 50mm Ø1.13 IPEX MHFI (U.FL comp)

#### **Features:**

High Efficiency FR4 Antenna  
90mm\*55mm\*0.8mm  
ISM 868/915MHz  
RoHS & Reach Compliant

1. Introduction	3
2. Specifications	4
3. Antenna Characteristics	5
4. 2D Radiation Patterns	7
5. Mechanical Drawing	9
6. Packaging	10
<hr/>	
Changelog	11

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## 1. Introduction



The PC31 is a high gain, low profile, PCB antenna and mini coaxial cable 868MHz ~ 928MHz ISM dual-band Omni-directional antenna intended for use in across all 868MHz and 915MHz frequencies.

Typical applications include:

- Smart Metering
- Smart Lighting Remote Monitoring.

It is optimized for free space to be tested as a performance benchmark. The high efficiency dual-band characteristics allow the client device to be used in countries with different regulatory bands. Cable and optional double-sided adhesive foam mounting allows flexible placement. Further performance enhancement can be done through tuning upon receipt of client's housing and board.

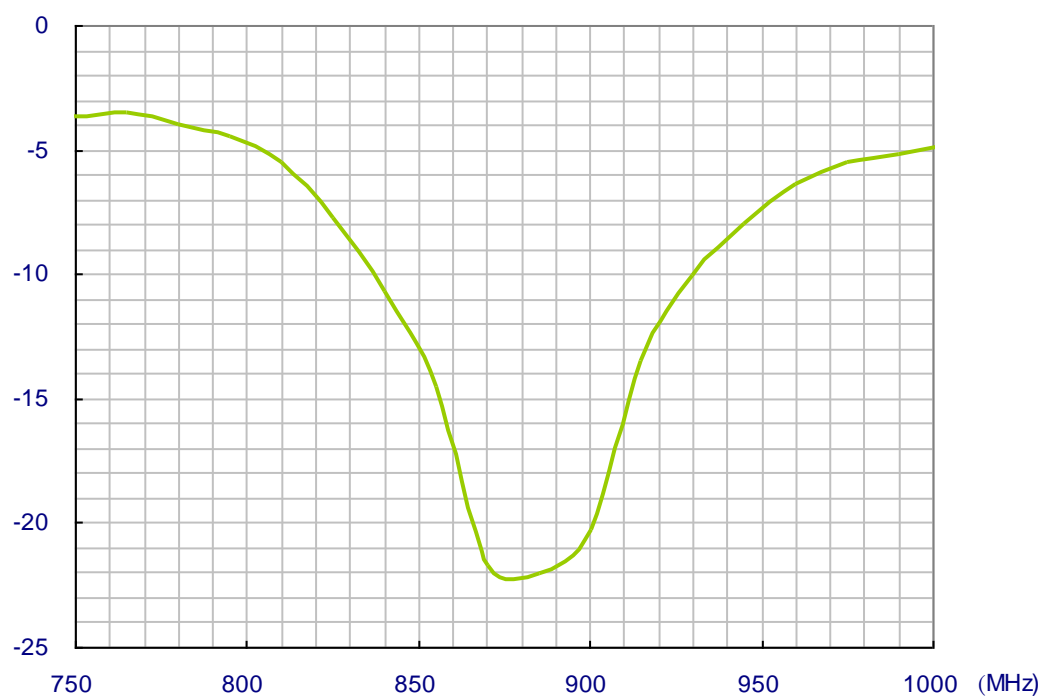
For more information about this product please contact your regional Taoglas Customer Support team.

## 2. Specifications

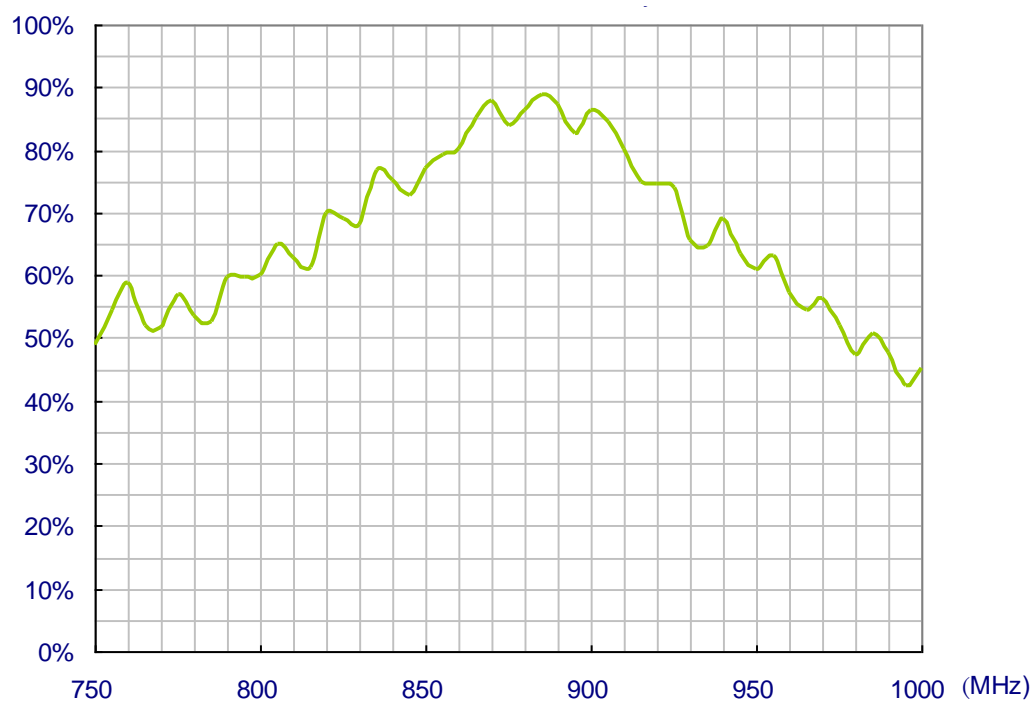
Electrical		
Band Name	ISM 868  868 ~ 870	ISM 915
Frequency (MHz)		902 ~ 928
Average efficiency	87%	77%
Average gain	2.3dBi	1.6dBi
Impedance	50 Ohm	
Polarization	Linear	
Mechanical		
Antenna Length	90*55*0.8 mm	
Material	FR4	
Connector	IPEX MHFI	
Environmental		
Operation Temperature	-40°C to 85°C	
Storage Temperature	-40°C to 85°C	

## 3. Antenna Characteristics

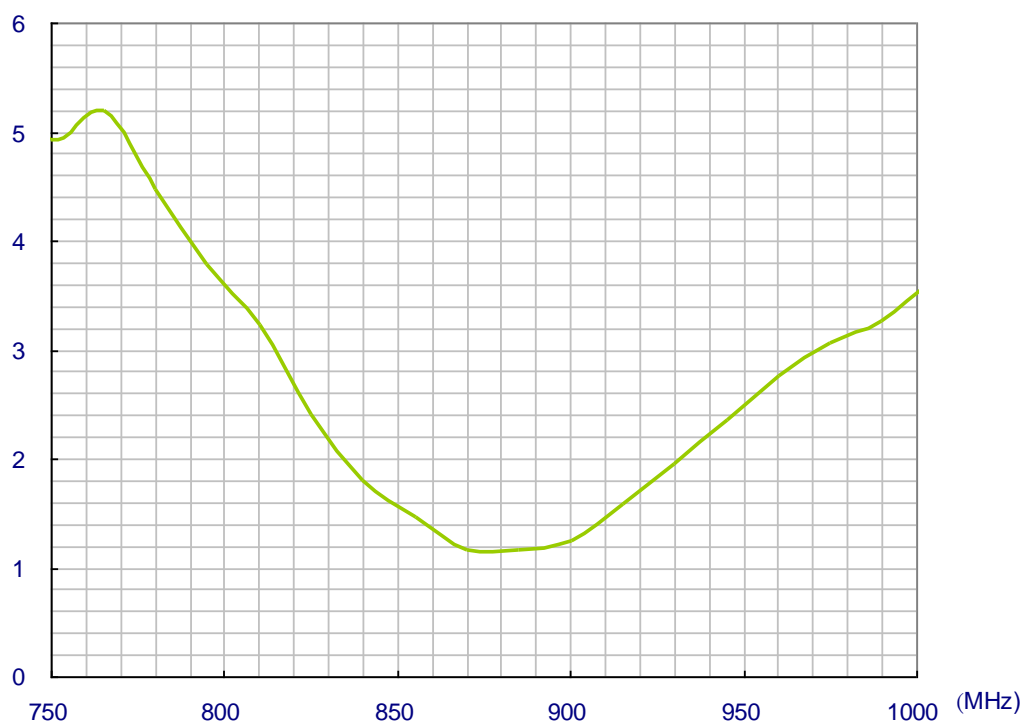
### 3.1 Return Loss



### 3.2 Efficiency

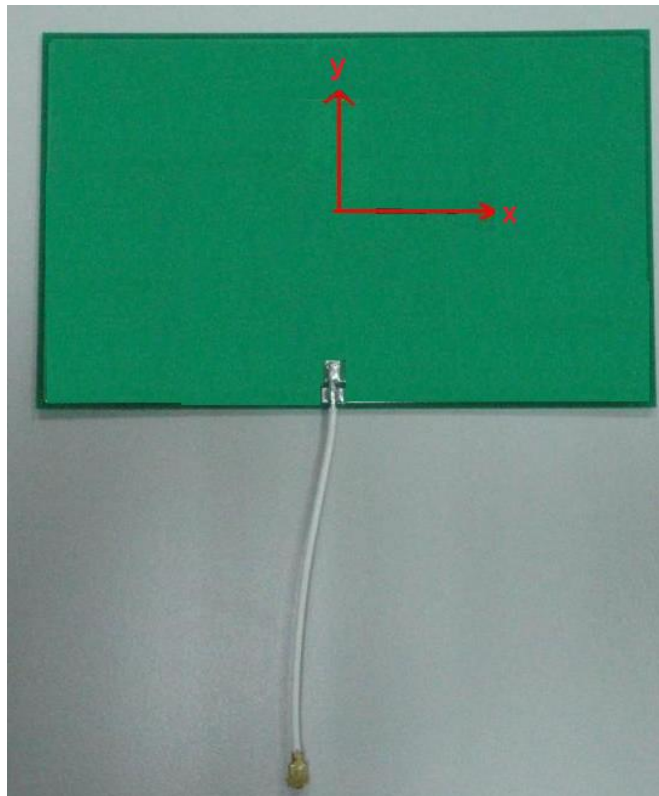


### 3.3 VSWR



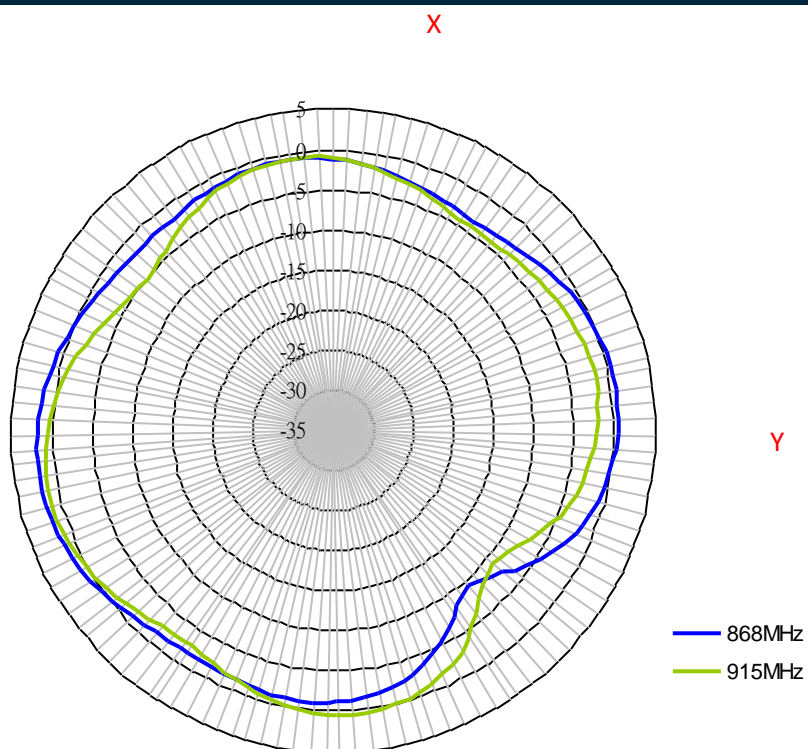
## 4. 2D Radiation Patterns

### 4.1 Test Setup

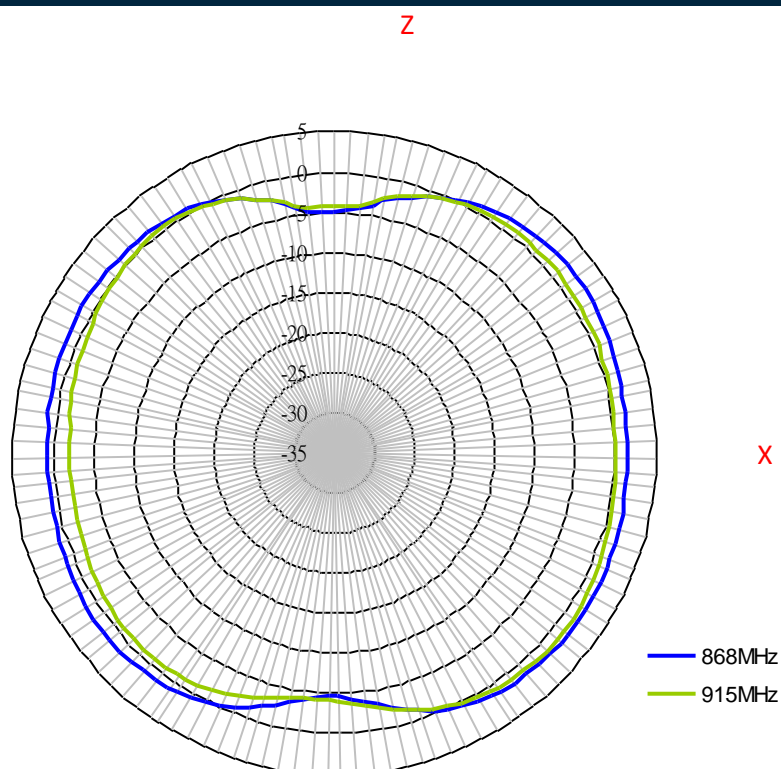


Free space

## XY Plane

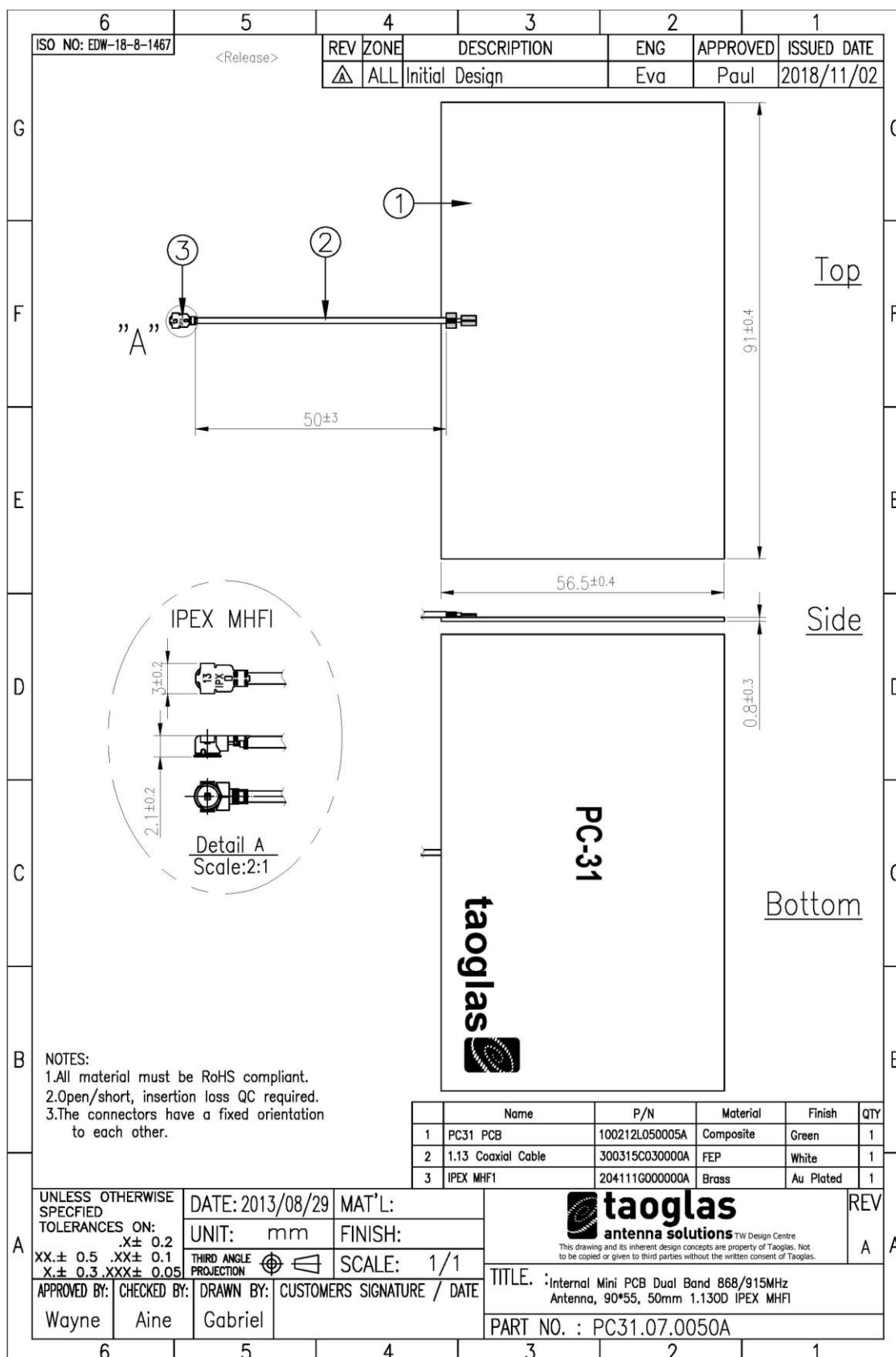


## XZ Plane



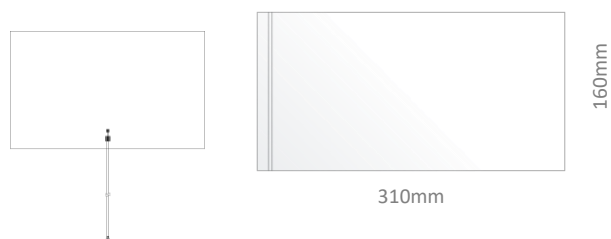


## 5. Mechanical Drawing (Units: mm)



## 6. Packaging

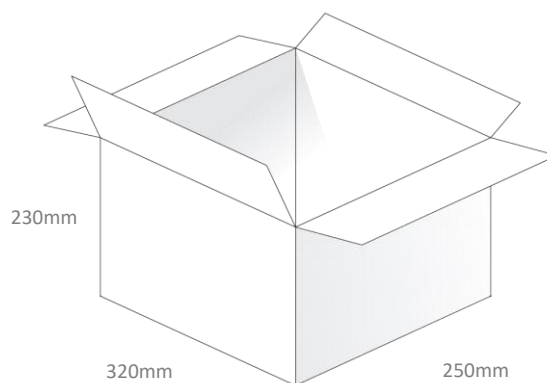
10pcs PC31.07.0050A per PE Bag  
Dimensions: 310\*160\*5mm  
Weight: 0.095Kg



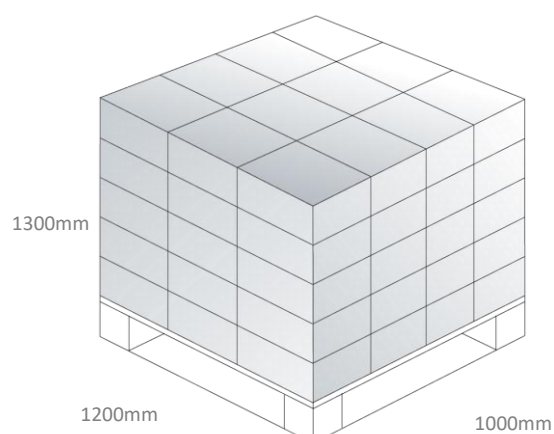
500pcs PC31.07.0050A per Large PE Bag  
Dimensions: 450\*280mm  
Weight: 2Kg



3000pcs PC31.07.0050A per carton  
Dimensions: 320\*250\*230mm  
Weight: 10.7 Kg



Pallet Dimensions:  
1200\*1000\*1300mm  
60 Cartons Per Pallet  
12 Cartons Per Layer, 5 Layers



## Changelog for the datasheet

### SPE-11-8-151 – PC31.07.0050A

#### Revision: B (Current Version)

Date:	2019-06-04
Changes:	Packaging and Template updated
Changes Made by:	Jack Conroy

#### Previous Revisions

#### Revision: A (Original First Release)

Date:	2017-04-19
Notes:	
Author:	Jack Conroy



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