



# TAOGLAS®



# Datasheet

## FXP280 Flexible PCB 868MHz Antenna

**Part No:**

*FXP280.07.0100A*

**Description:**

868MHz LoRA, Sigfox, ISM Flexible PCB Antenna  
with 100mm of  $\varnothing$ 1.13 cable and IPEX MHFI Connector

**Features:**

- Operates between 863-870MHz
- Covers LoRA, Sigfox ISM band 868MHz
- Dimensions: 75\*45\*0.2mm
- Cable: 100mm of  $\varnothing$ 1.13
- Connector: IPEX MHFI (U.FL Compatible)
- RoHS & Reach Compliant

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# 1. Introduction



The Taoglas FXP280 is a rectangular Flexible PCB Antenna designed to be used at the 868MHz band on the LoRA/Sigfox Network and the ISM Network. This small antenna has been designed to be flexible and fit in many different enclosures and be mounted on many different surfaces. The FXP280 comes with 3M adhesive for ease of installation and is fed by a cable and connector.

Typical Applications Include:

- Medical Devices
- Smart Monitoring
- Smart Home

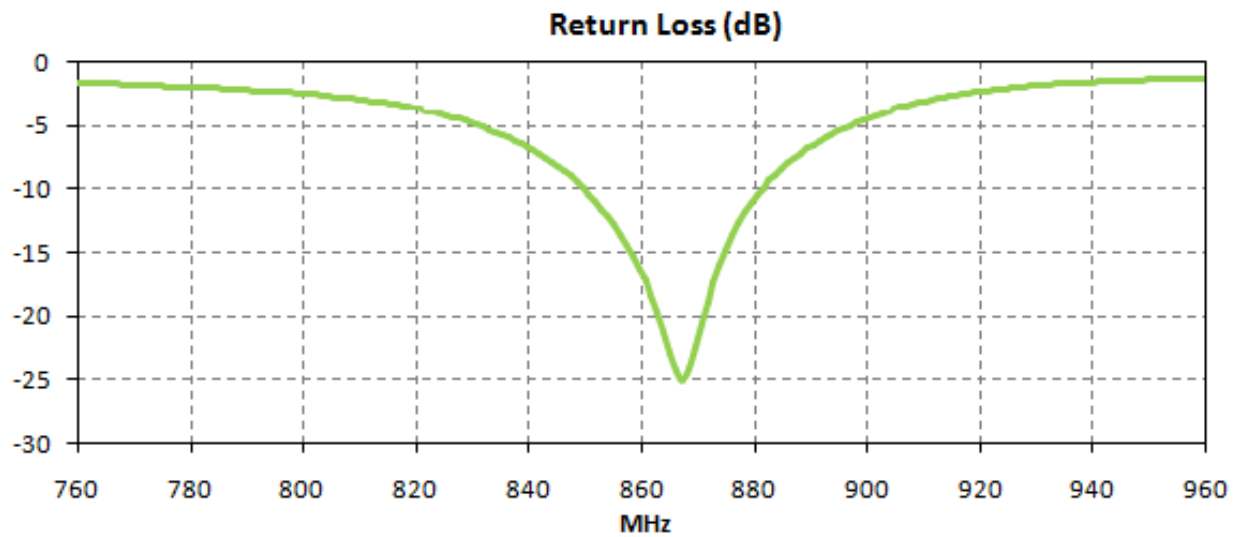
The FXP280 has been tested with 2mm thick ABS and these results are provided. The Cable and connector is fully customizable for further information please contact your regional Taoglas customer support team.

## 2. Specifications

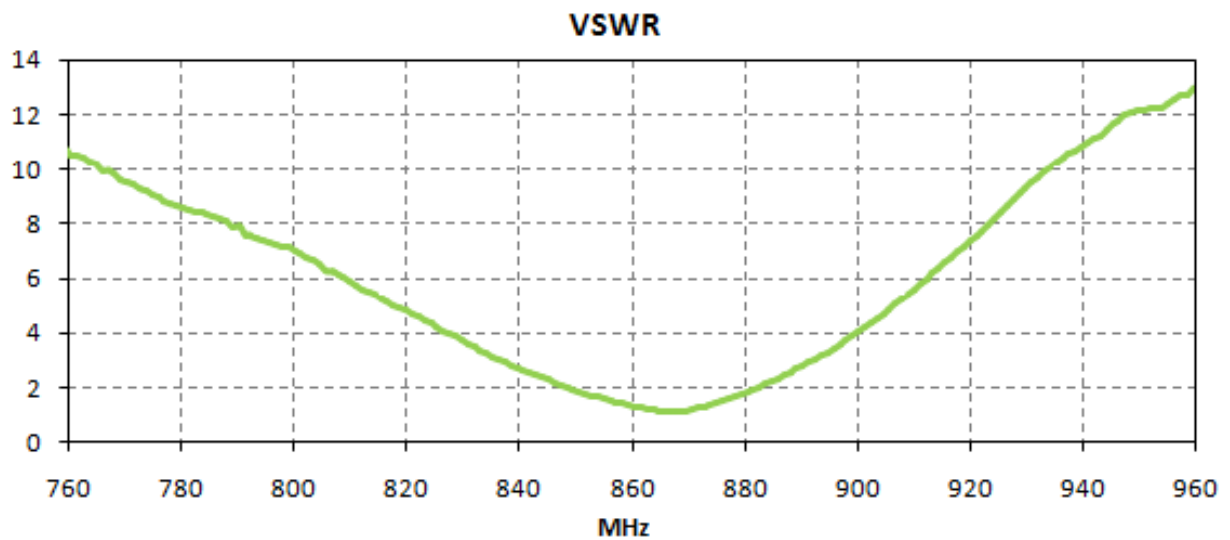
Electrical	
Frequency (MHz)	863~870
Return Loss (dB)	-20
Efficiency (%)	40
Gain (dBi)	1.5
Impedance	50 Ω
VSWR	≤2:1
Polarization	Linear
Max Power Input	5W
Mechanical	
Dimensions	75*45*0.1mm
Weight	1.5g
Connector	IPEX MHFI (U.FL Compatible)
Cable Standard	Mini-Coax 1.13 mm
Cable Length and color	100mm, Black
RoHS Compliant	Yes
REACH Compliant	Yes
Adhesive	3M 467
Environmental	
Operation Temperature	-40°C ~ +85°C
Storage Temperature	-40°C ~ +85°C

### 3. Antenna Characteristics

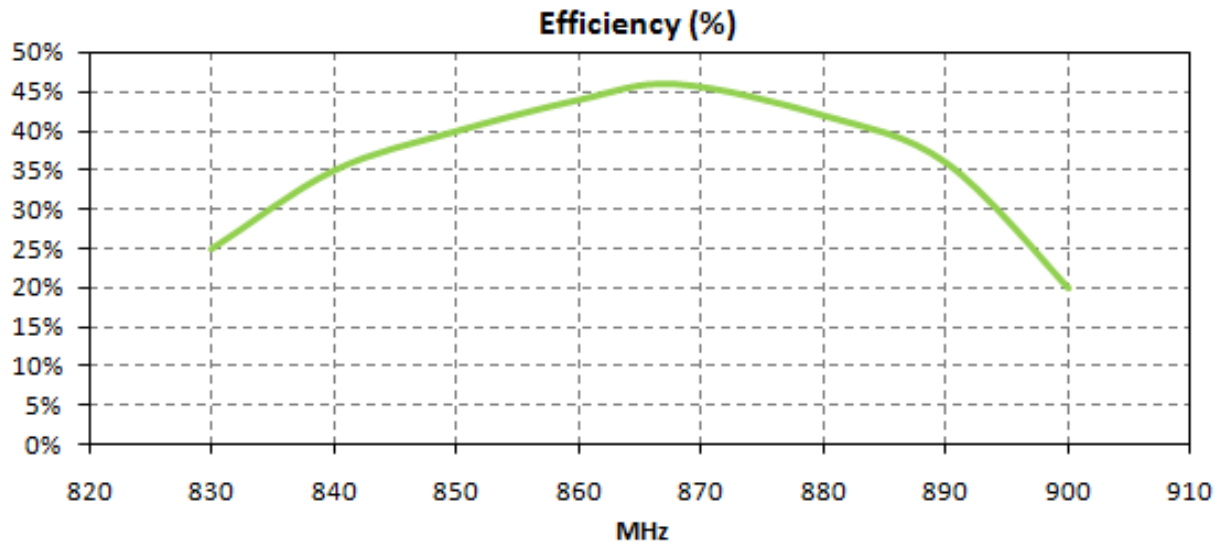
#### 3.1 Return Loss



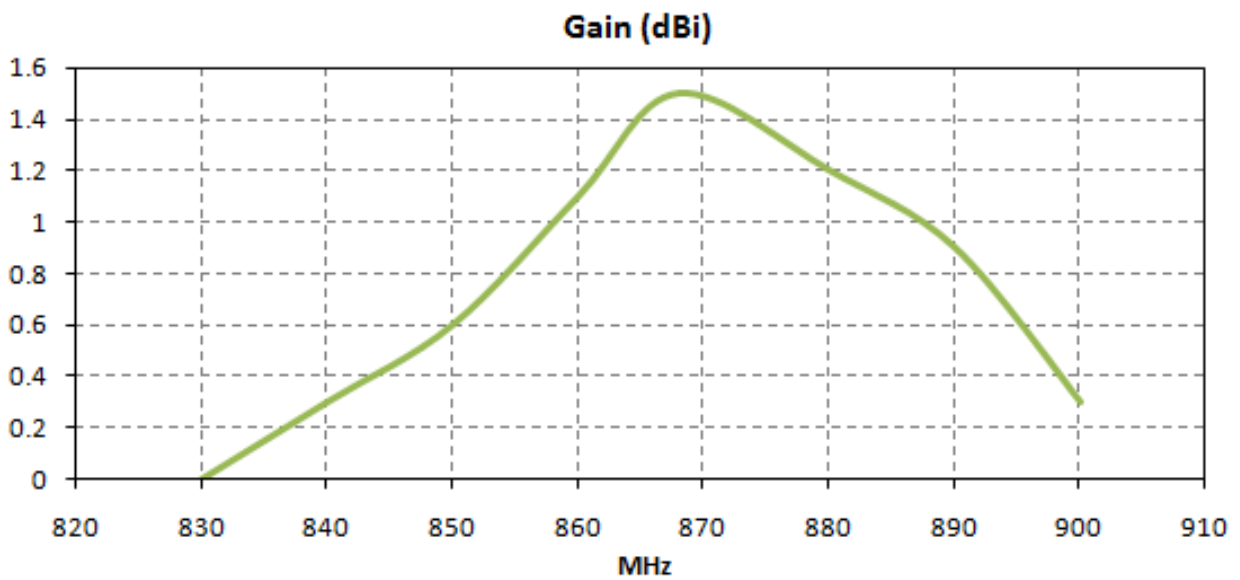
#### 3.2 VSWR



### 3.3 Efficiency

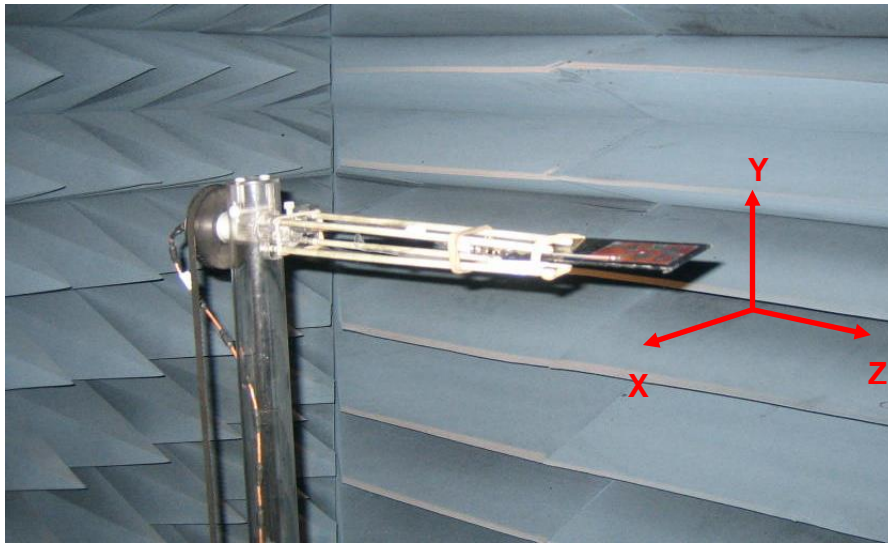


### 3.4 Peak Gain

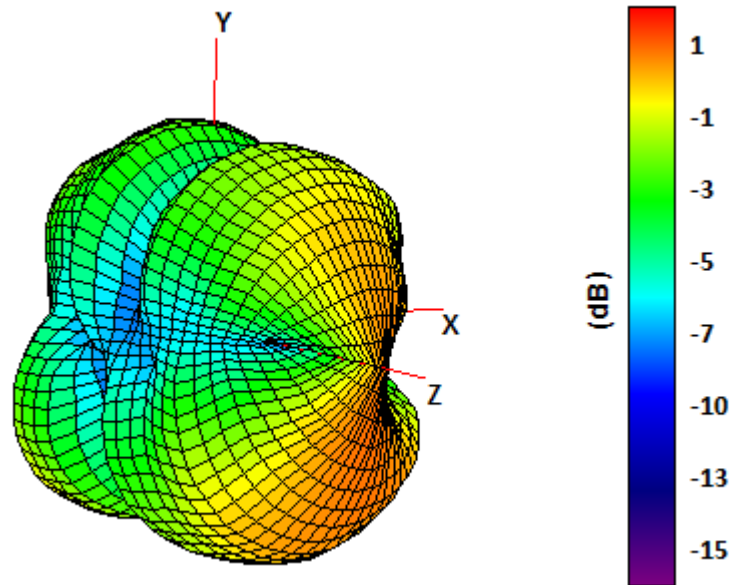


## 4. Radiation Patterns

### 4.1 Test Setup on 2mm Thick ABS



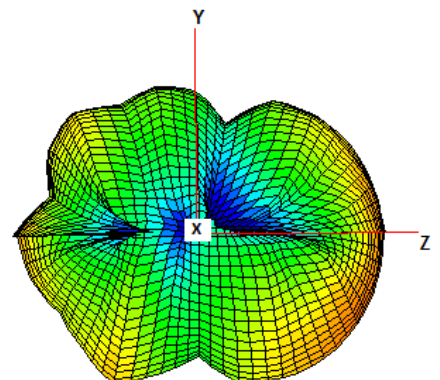
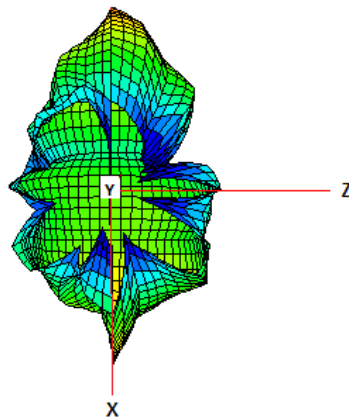
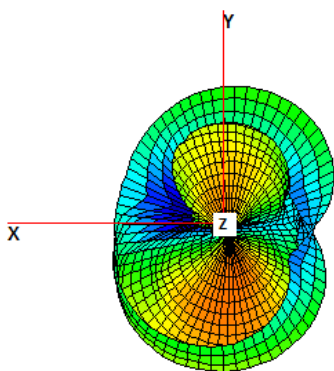
4.2 868MHz 3D and 2D Radiation Patterns



XY Plane

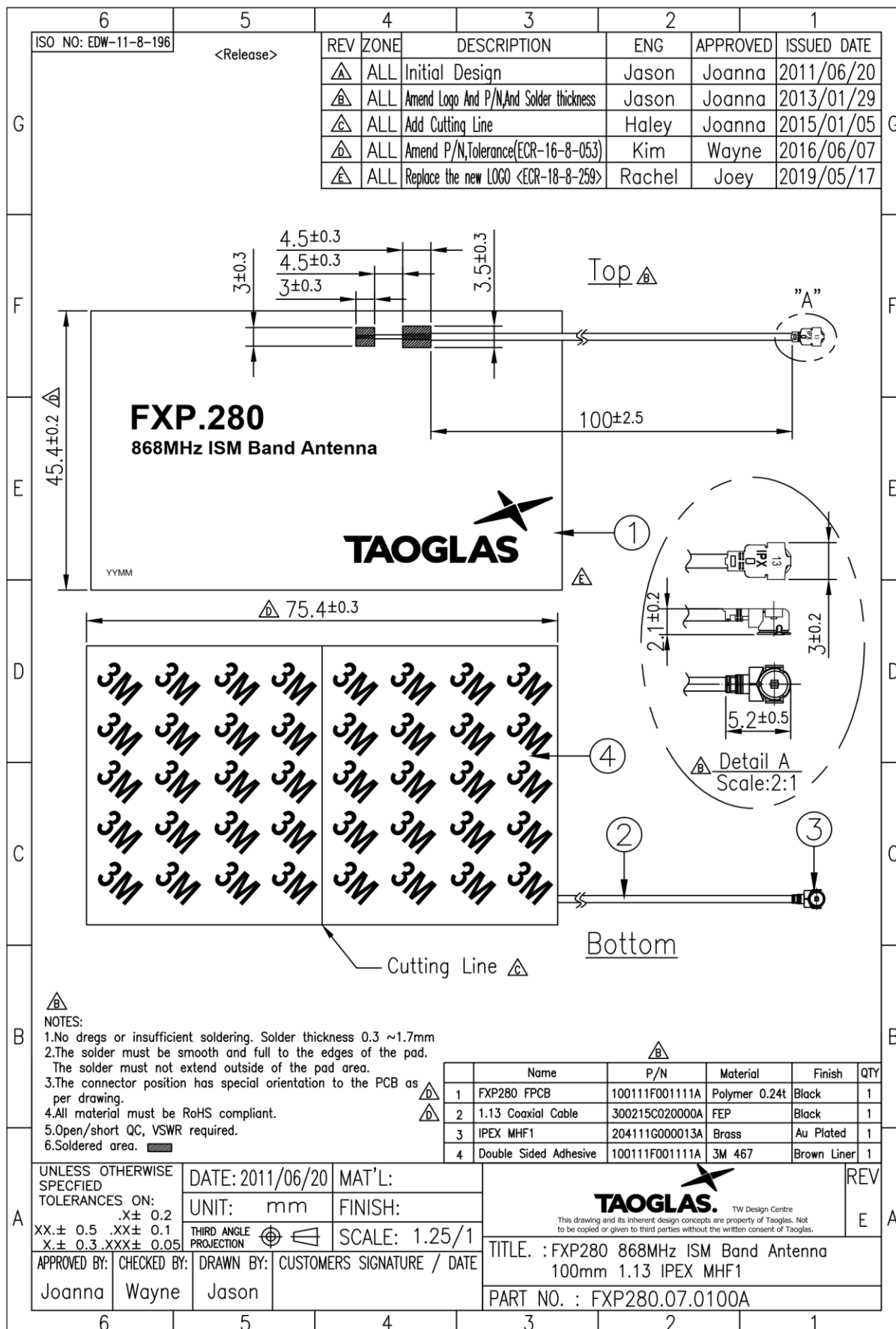
XZ Plane

YZ Plane



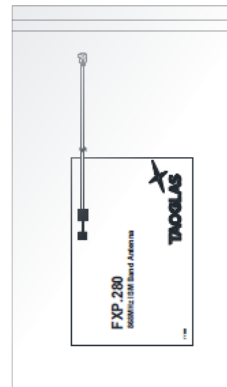


# 5. Mechanical Drawing (Units: mm)

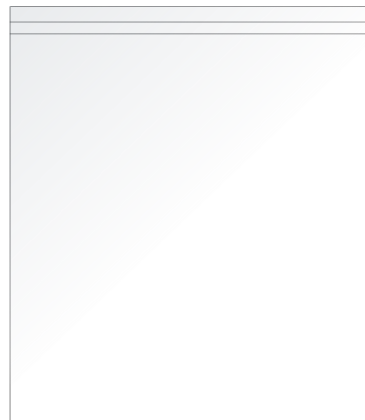


## 6. Packaging

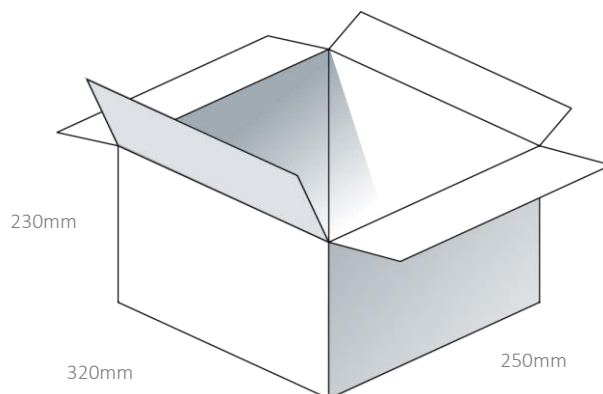
100pcs FXP280.07.0100A per PE Bag  
 Dimensions - 300\*160mm  
 Weight - 110g



1000pcs FXP280.07.0100A per Large PE Bag  
 Dimensions - 450\*250mm  
 Weight - 1.2Kg



5000pcs FXP280.07.0100A per carton  
 Dimensions - 320\*250\*230mm  
 Weight - 6.1Kg



Changelog for the datasheet

**SPE-13-8-060 – FXP280.07.0100A**

**Revision: B (Current Version)**

Date:	2020-03-31
Changes:	Packaging Details, Drawing & Photo Updated
Changes Made by:	Jack Conroy

**Previous Revisions**

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

Date:	2013-09-03
Notes:	
Author:	Technical Writer



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