



# TAOGLAS®



# Datasheet

## 868/915MHz ISM/LoRA Flexible PCB Antenna

**Part No:**  
FXP895.07.0200C

### Description

860-928MHz ISM/LoRA Compact Flexible PCB Antenna

### Features:

- Compact ISM/LoRA antenna
- Embedded FPC Antenna Supporting 860 to 928MHz
- Dimensions: 69mm \* 20mm \* 0.2mm
- Mini coaxial cable 200mm 1.37 IPEX MHFI U.FL Compatible connector
- Custom Cables and Connectors Available
- RoHS & Reach Compliant

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Ireland & USA  
ISO 9001:2015  
Certified



Taiwan  
ISO 9001:2015  
Certified



# 1. Introduction



The Taoglas FXP895 is an ISM/LoRA compact flexible PCB antenna designed to fit into small devices. This antenna has been expertly designed to cover frequencies used in different regions for ISM/LoRA applications, incorporating a wideband design is rare for ISM/LoRA products and with the FXP895 frequencies from 860-928MHz can be covered so one SKU can be used for global ISM/LoRA applications.

The FXP895 has been designed to be extremely compact compared to other ISM/LoRA Flexible PCB antennas meaning it can be placed in areas where other products cannot. It can be adhered via 3M tape on to a customer's device with care taken to ensure the antenna is placed as far away from metal components as possible.

Typical Applications Include:

- Remote Monitoring
- Mesh Networks
- Security

The FXP895's cables and connectors are fully customizable, please contact your regional Taoglas customer support team for further information.

## 2. Specification

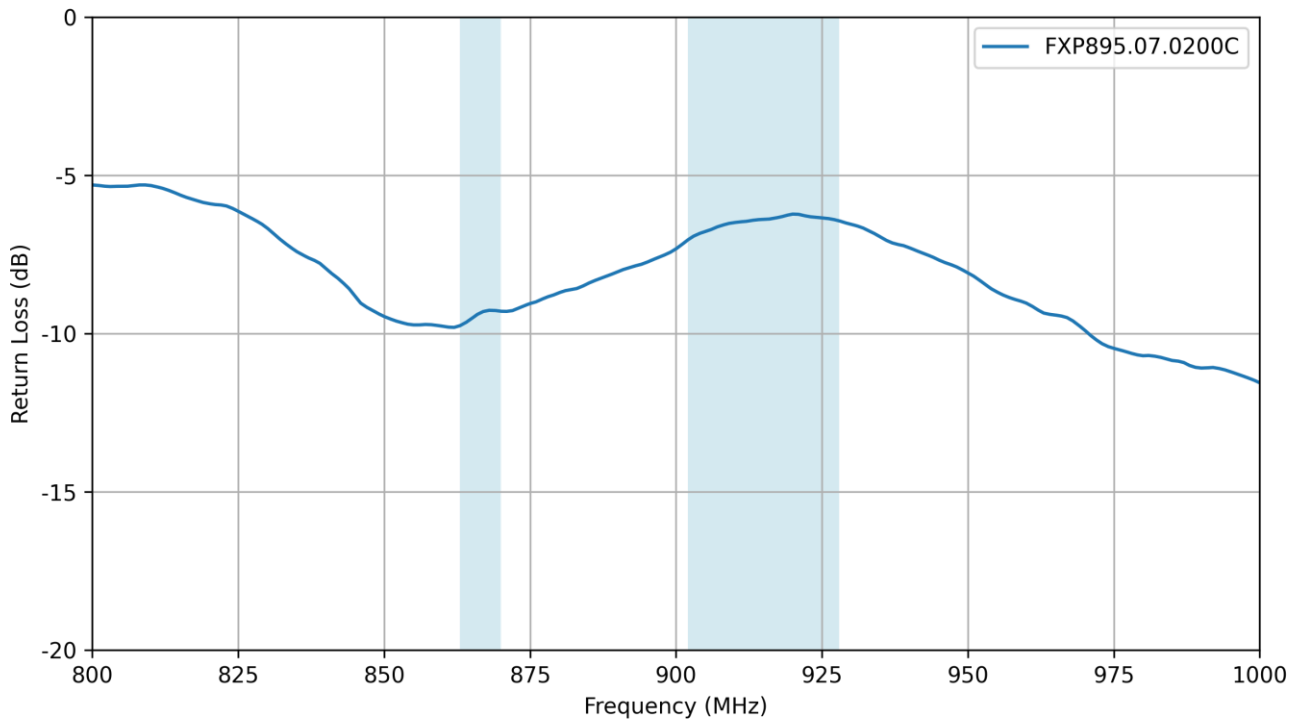
LTE Electrical								
Band	Frequency (MHz)	Efficiency (%)	Average Gain (dB)	Peak Gain (dBi)	Impedance	Polarization	Radiation Pattern	Max. input power
868MHz	863-870	51.6	-2.87	1.92	50 $\Omega$	Linear	Omni	2W
915MHz	902-928	58.3	-2.34	2.83				

Mechanical	
Dimensions	69.3 x 20 x 0.2mm
Weight	2g
Material	Polymer
Connector	IPEX MHFI U.FL compatible
Cable	1.37mm Coaxial

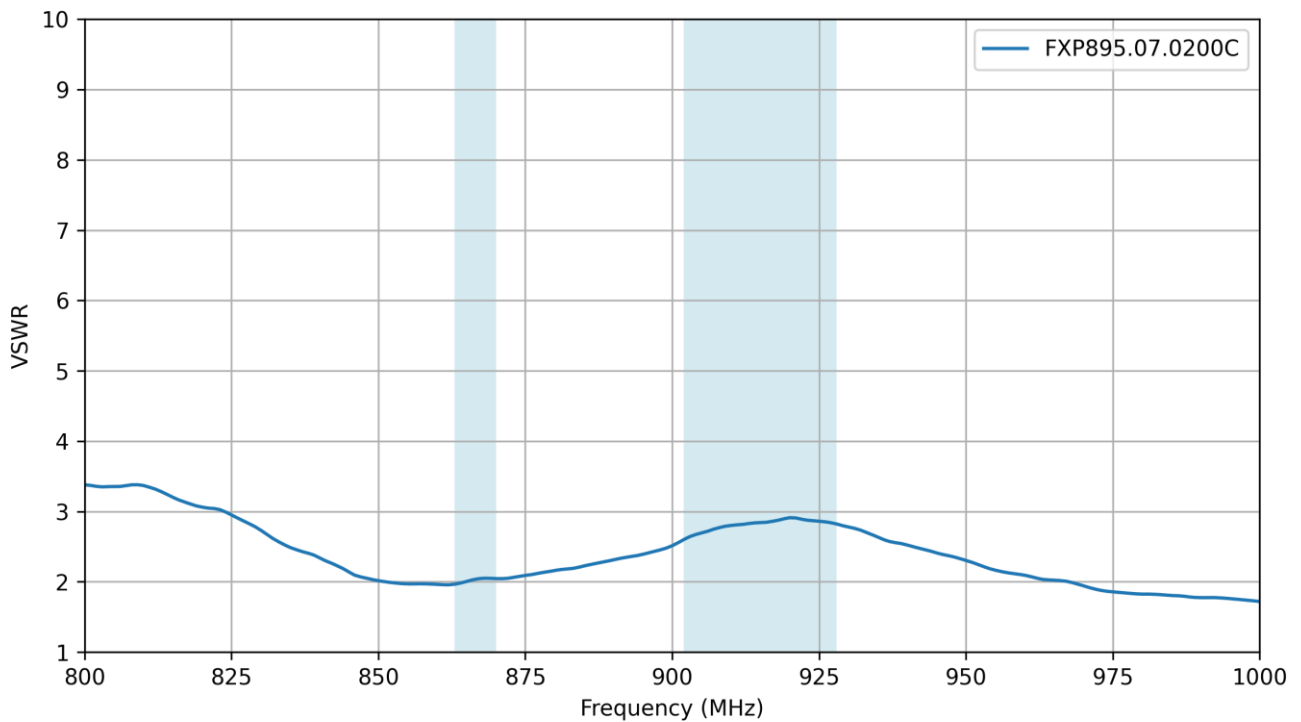
Environmental	
Operation Temperature	-40°C to 85°C
Storage Temperature	-40°C to 85°C
Relative Humidity	40% to 95%
RoHs & REACH Compliant	Yes

### 3. Antenna Characteristics

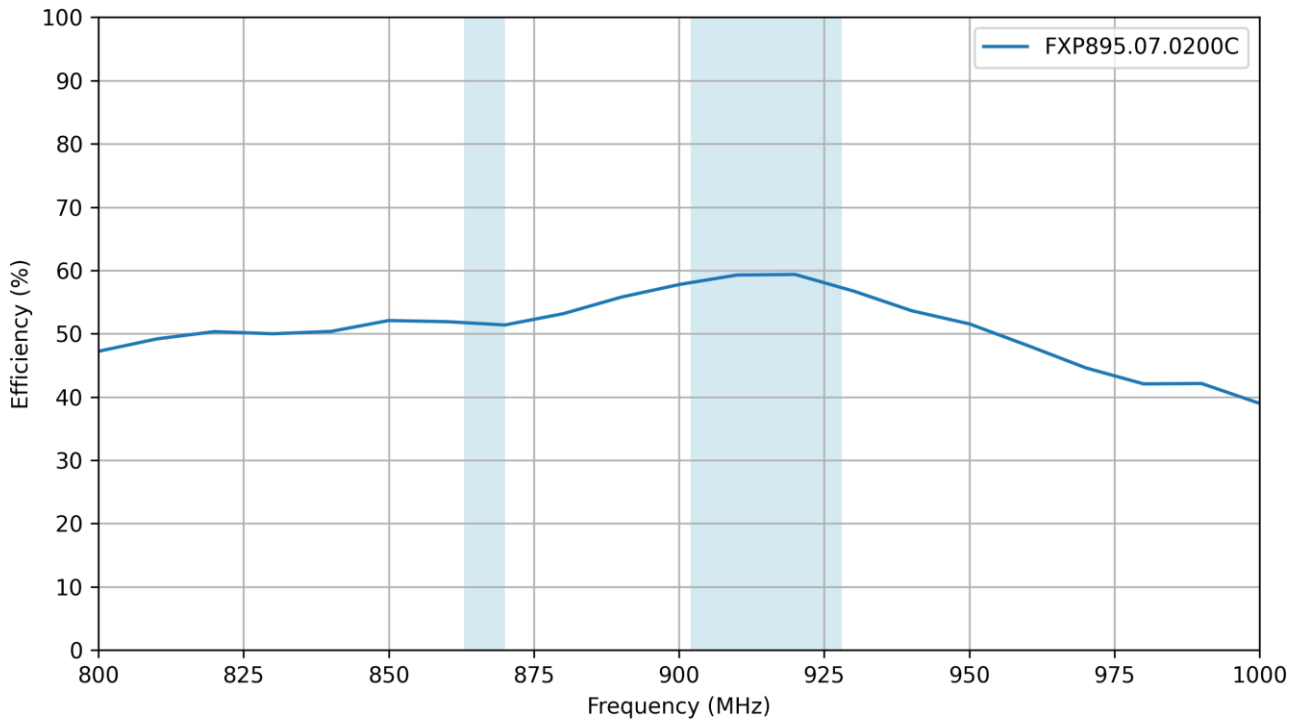
#### 3.1 Return Loss



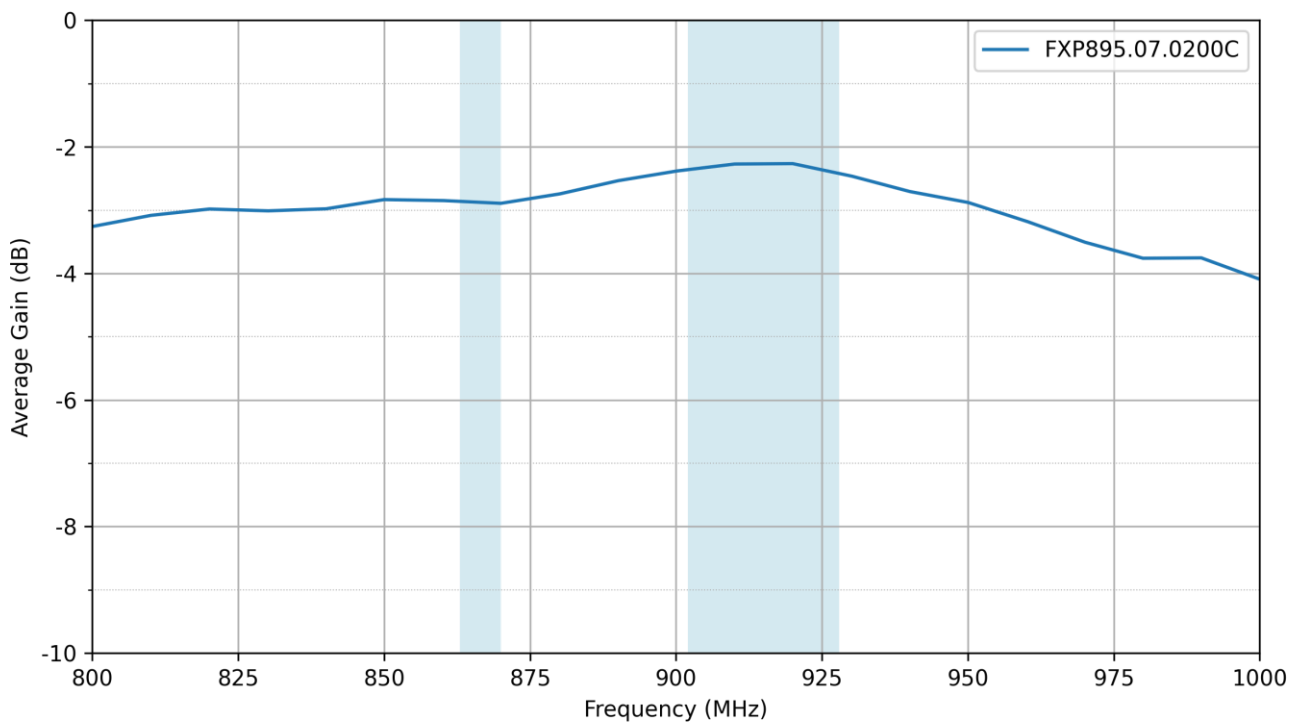
#### 3.2 VSWR



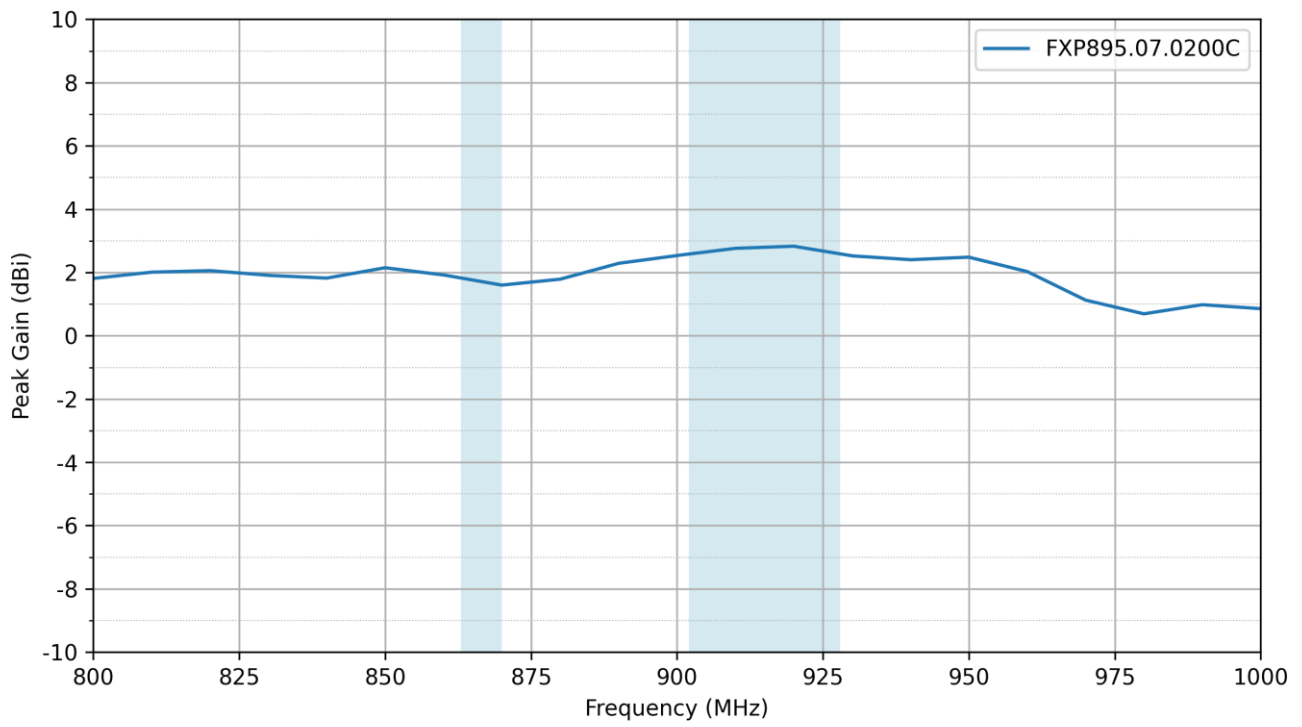
### 3.3 Efficiency



### 3.4 Average Gain

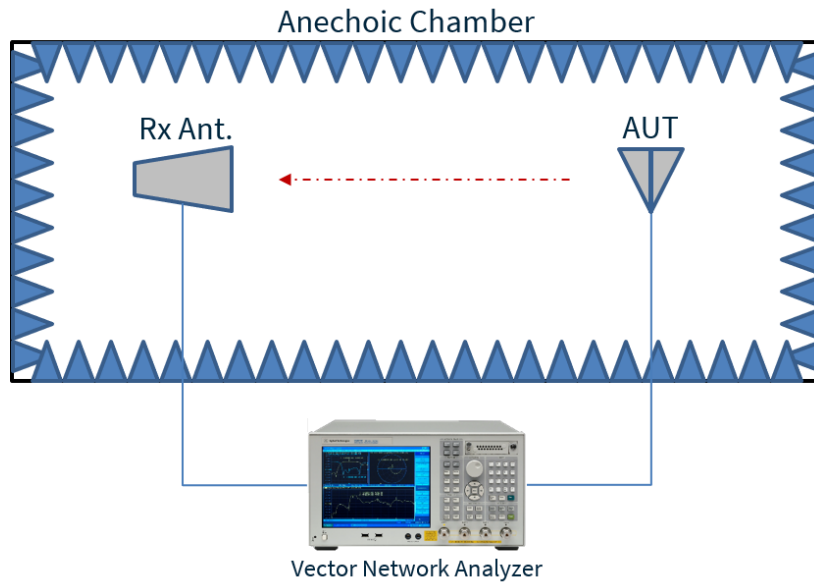


3.5 Peak Gain



## 4. Radiation Patterns

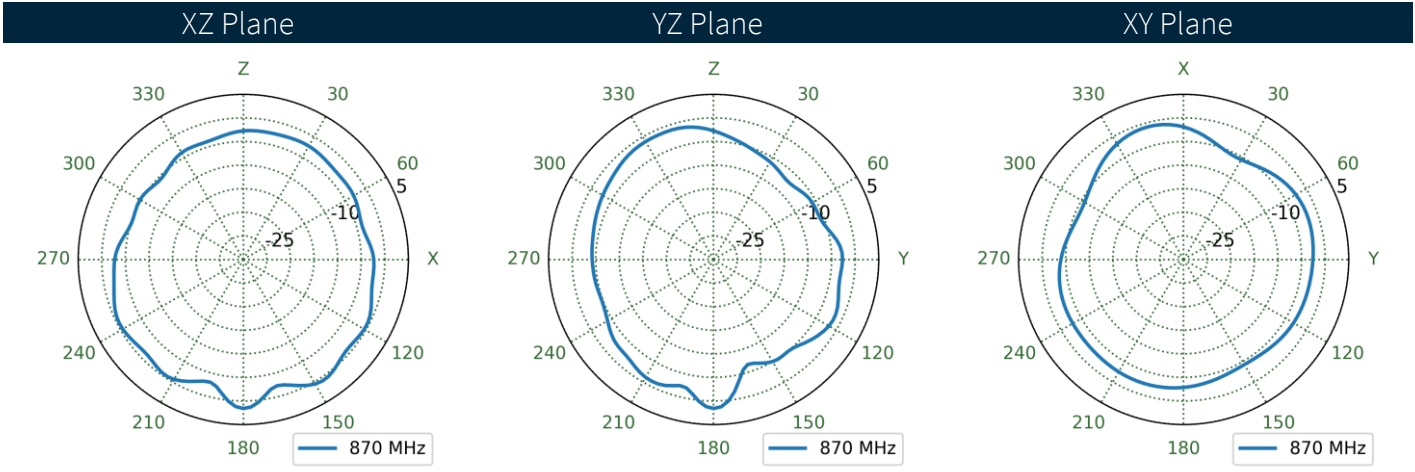
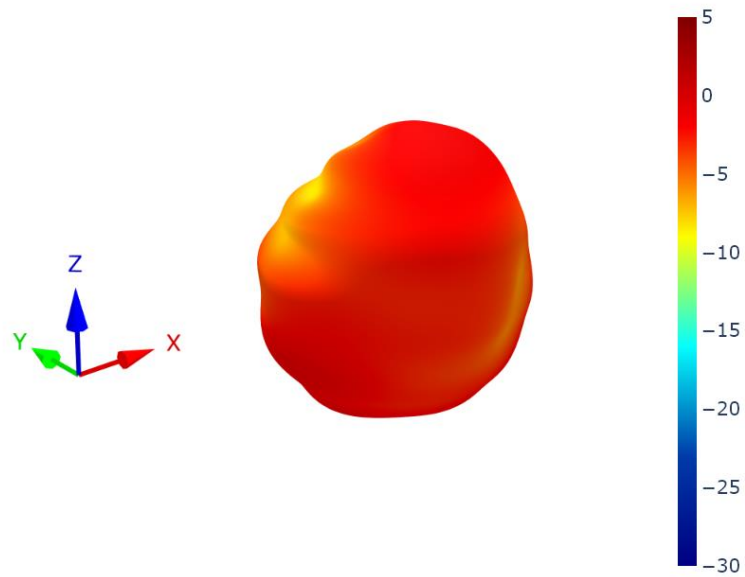
### 4.1 Test Setup



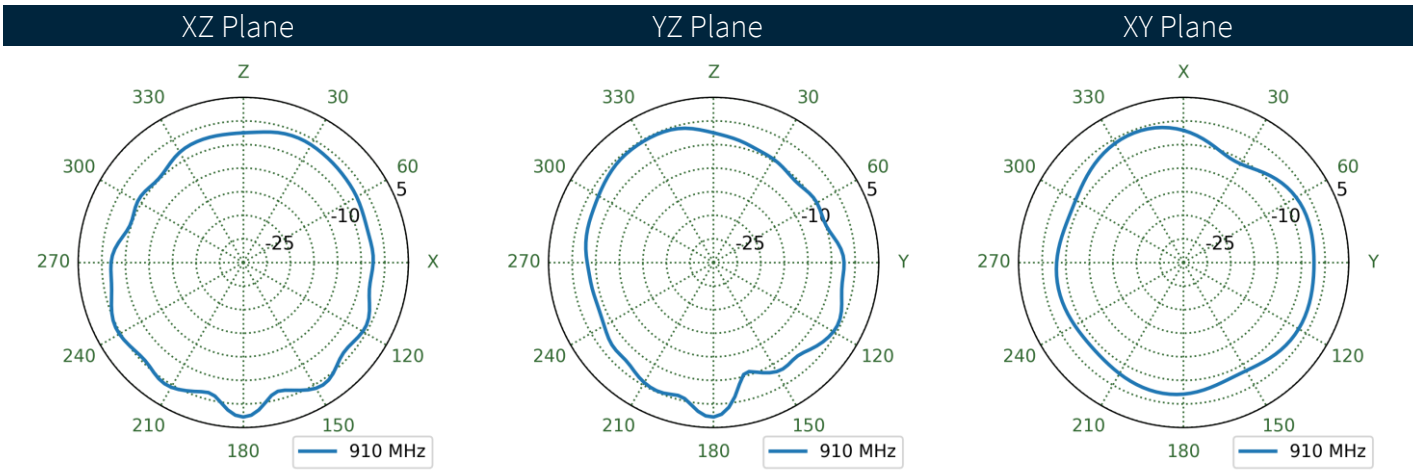
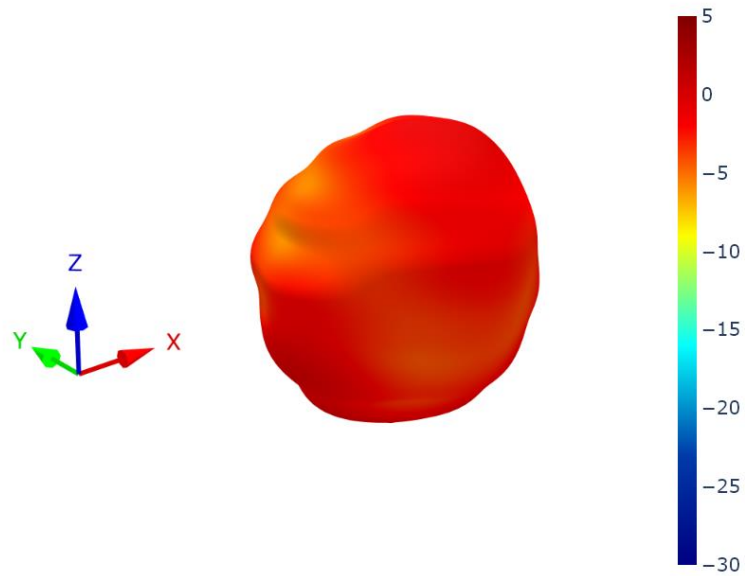
Chamber Test Setup on plastic



4.2 FXP895.07.0200C Patterns at 868 MHz



4.3 FXP895.07.0200C Patterns at 915 MHz



# 5. Mechanical Drawing

REV	ZONE	DESCRIPTION	ENG	APPROVED	DATE
D01	All	Initial design	Z. Walji	P. Frank	08/03/2023

ISO NO.: EDW.000034  
 STATE: Release  
 NOTES:  
 1. All material must be RoHS compliant.  
 2. The connector orientation has a fixed position to the antenna as per drawing.  
 3. Critical dimensions are marked with an inspection symbol  $\square$ .

OVERALL THICKNESS WITH ADHESIVE LINER 1.6

SEE NOTE 2

IPEX U.F1 CONNECTOR  
 1.37 COAX CABLE  
 3M467 PSA  
 ADHESIVE LINER SPLIT LINE  
 26.0

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	PCB.000006	FXP895 FPCB 69.3x20mm	1
2	ASY.000019	Ipex.MHF1(U.FL) to Stripped 3.9/4.3/3.2 200mmlg 1.37 Cable Assembly	1

APPROVED BY: P. Frank	 <small>TW Design Centre</small> This drawing and its inherent design concepts are property of Taoglas. Not to be copied or given to third parties without the written consent of Taoglas.					
CHECK BY: G. Samson						
DRAWN BY: Z. Walji						
DATE: 8/3/2023						
UNLESS OTHERWISE SPECIFIED TOLERANCES ON: <table style="font-size: small; margin-left: 20px;"> <tr><td>XX ± 0.5</td></tr> <tr><td>X ± 0.3</td></tr> <tr><td>X ± 0.2</td></tr> <tr><td>XX ± 0.1</td></tr> <tr><td>XXX ± 0.05</td></tr> </table>	XX ± 0.5	X ± 0.3	X ± 0.2	XX ± 0.1	XXX ± 0.05	TITLE: 860-928 MHz Flex PCB Antenna with 200mm 1.37 I-PEX MHF1(U.FL)
XX ± 0.5						
X ± 0.3						
X ± 0.2						
XX ± 0.1						
XXX ± 0.05						
THIRD ANGLE PROJECTION	UNIT: mm	SCALE: 1:1	PAGES: 1/1	REV: D01		

## 6. Packaging

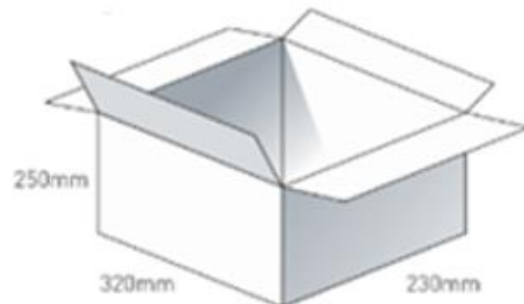
100pcs FXP895.07.0200C per PE Bag  
 Dimensions 300\*100mm  
 Weight – 150g



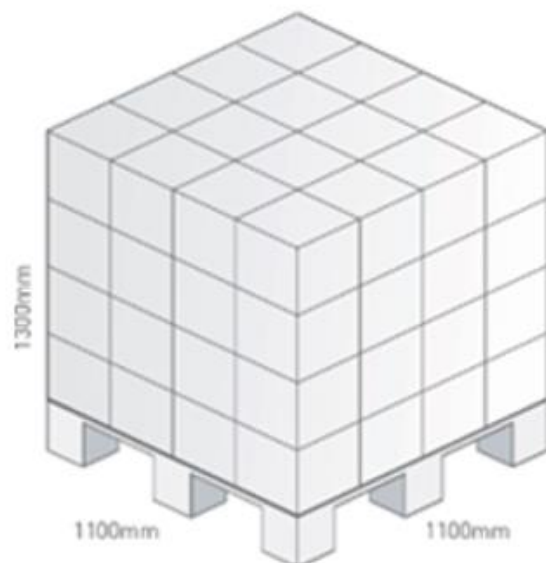
1000pcs FXP895.07.0200C per Large PE Bag  
 Dimensions 450\*280mm  
 Weight – 1.5Kg



5000pcs FXP895.07.0200C per carton  
 Dimensions 320\*250\*230mm  
 Weight – 6Kg



Pallet Dimensions 1100\*1100\*1300mm  
 65 Cartons per pallet  
 13 Cartons per layer  
 5 Layers



Changelog for the datasheet

**SPE-24-8-015 – FXP895.07.0200C**

<b>Revision: A (Original First Release)</b>	
Date:	2024-08-26
Notes:	Updated specifications
Author:	Cesar Sousa

Previous Revisions

<b>Revision: A (Original First Release)</b>	
Date:	2024-01-19
Notes:	First Release
Author:	Gary West




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