



Datasheet

FXP280 Flexible PCB 868MHz Antenna

Part No:
FXP280.07.0100A

Description:

868MHz LoRA, Sigfox, ISM Flexible PCB Antenna
with 100mm of Ø1.13 cable and IPEX MHFI Connector

Features:

Operates between 863-870MHz
Covers LoRA, Sigfox ISM band 868MHz
Dimensions: 75*45*0.2mm
Cable: 100mm of Ø1.13
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

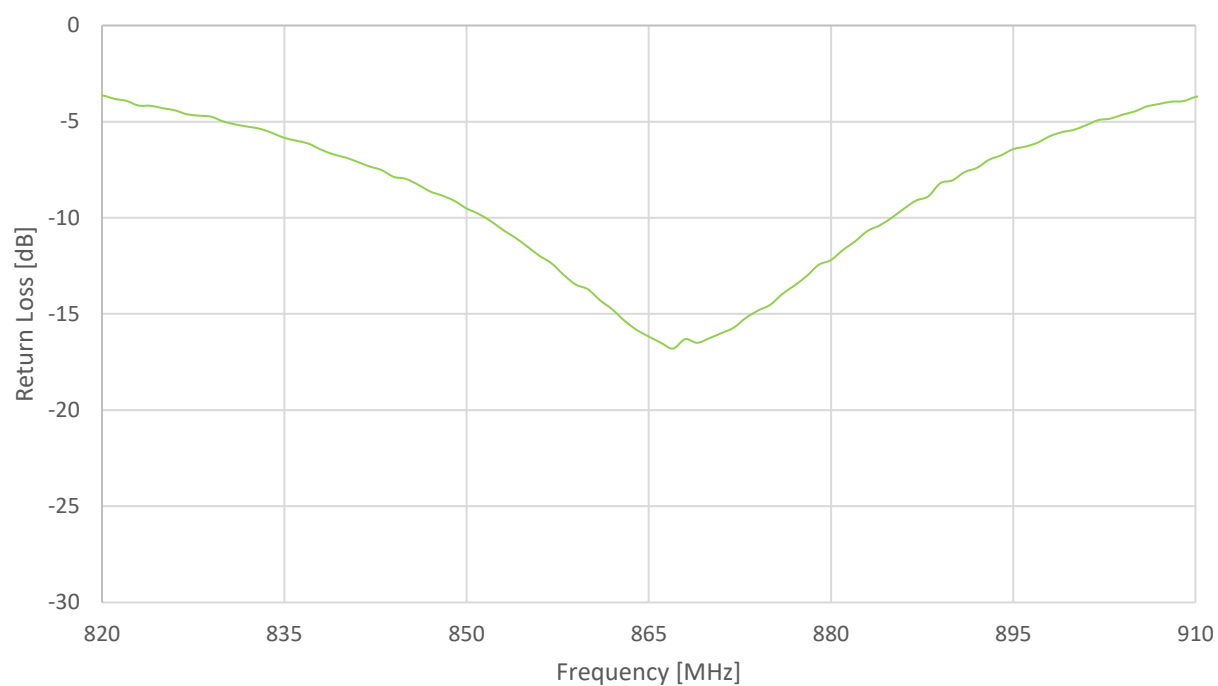
The FXP280 has been tested with 2mm thick ABS and these results are provided. The Cable and connector is fully customizable for further information please contact your regional Taoglas customer support team.

2. Specifications

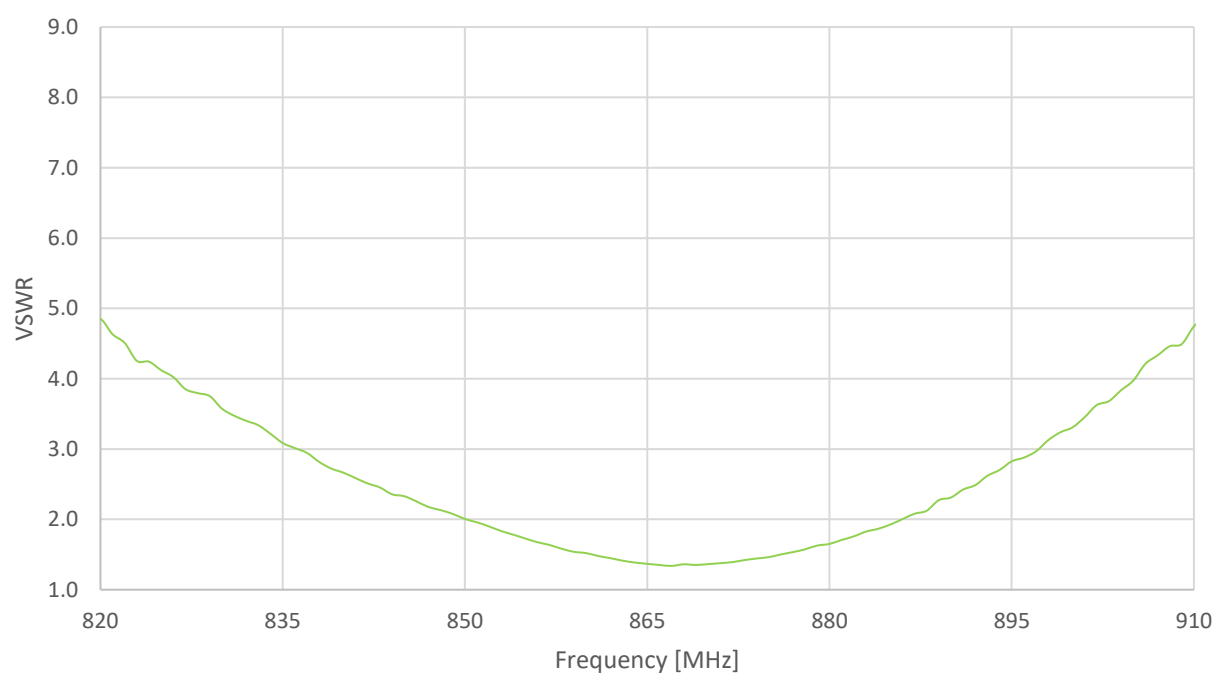
Electrical	
Frequency (MHz)	863~870
Return Loss (dB)	-16
Efficiency (%)	52
Gain (dBi)	1.8
Impedance	50 Ω
VSWR	$\leq 2:1$
Polarization	Linear
Max Power Input	5W
Mechanical	
Dimensions	75*45*0.1mm
Weight	1.5g
Connector	IPEX MHFI (U.FL Compatible)
Cable Standard	Mini-Coax 1.13 mm
Cable Length and color	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

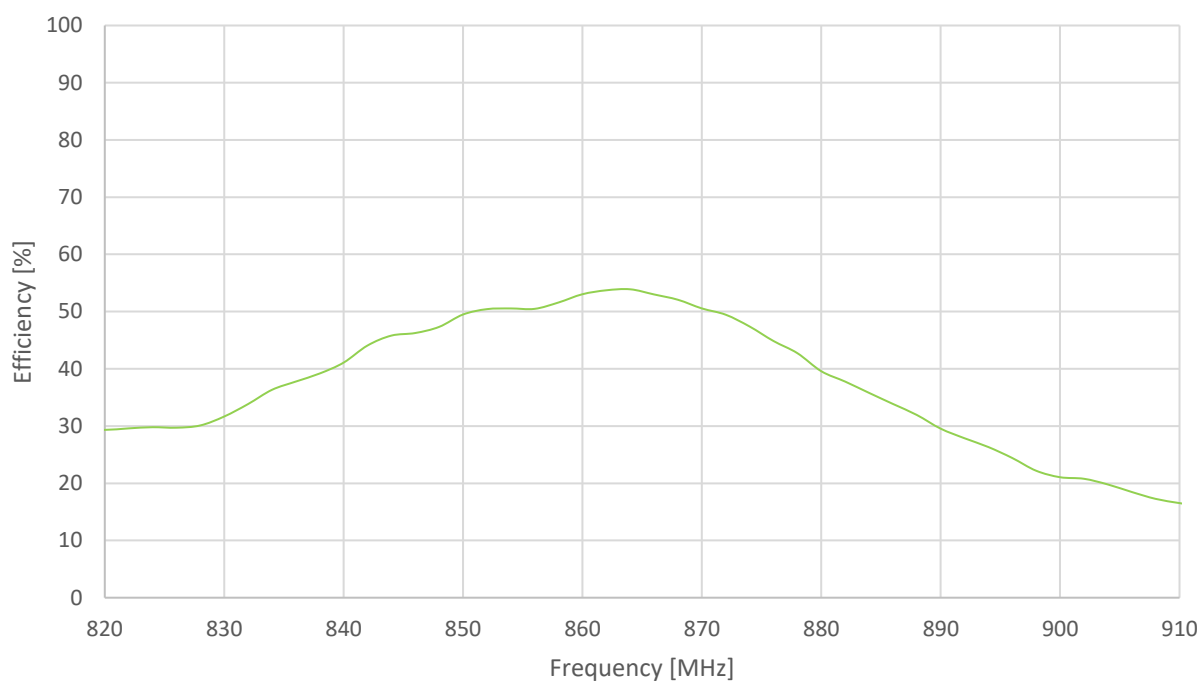
3.1 Return Loss



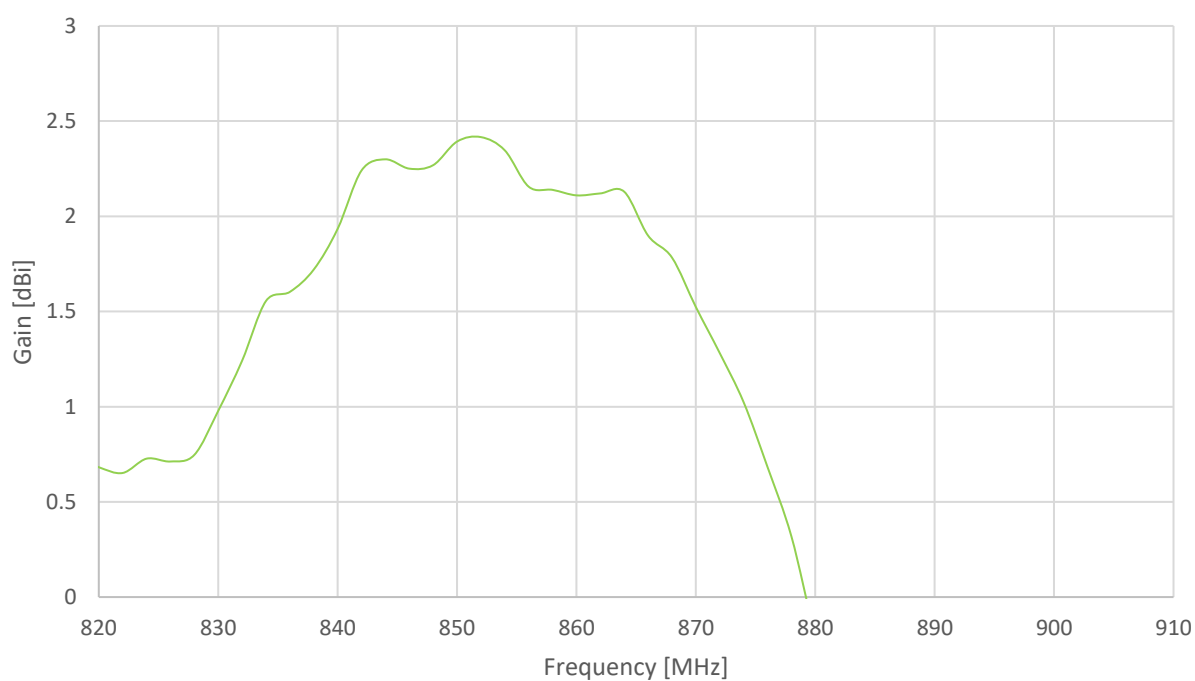
3.2 VSWR



3.3 Efficiency

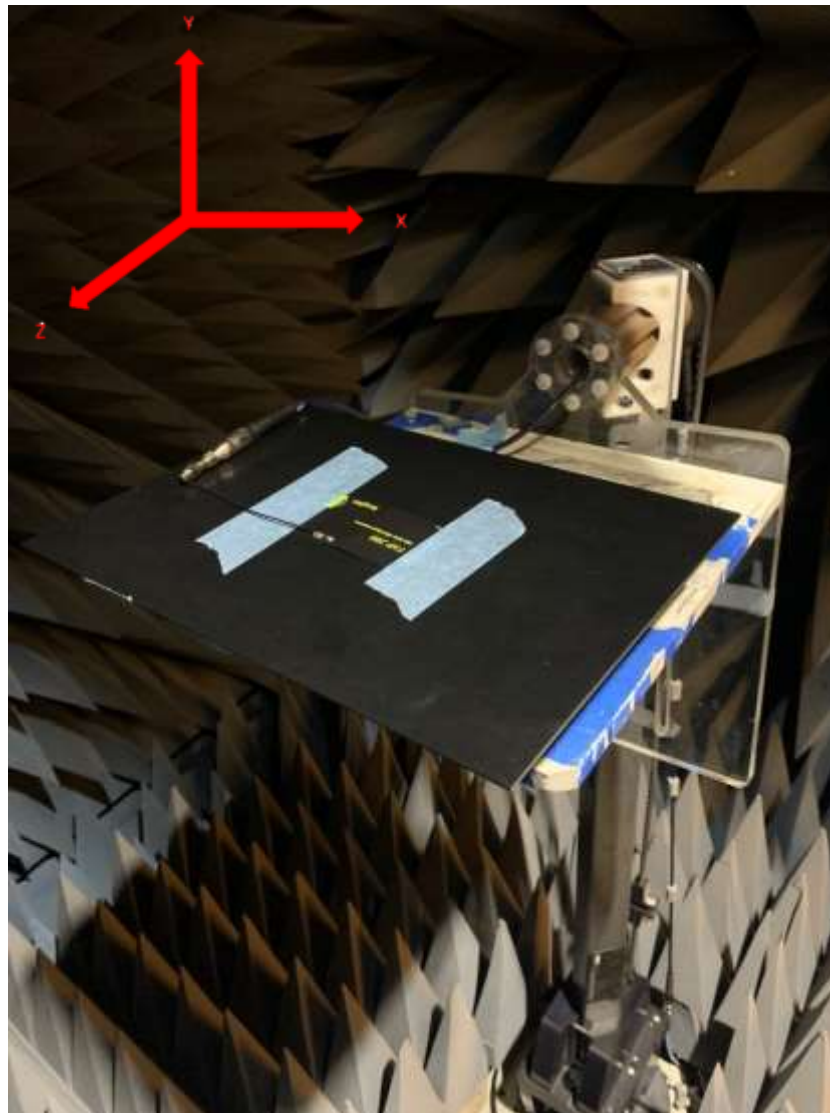


3.4 Peak Gain



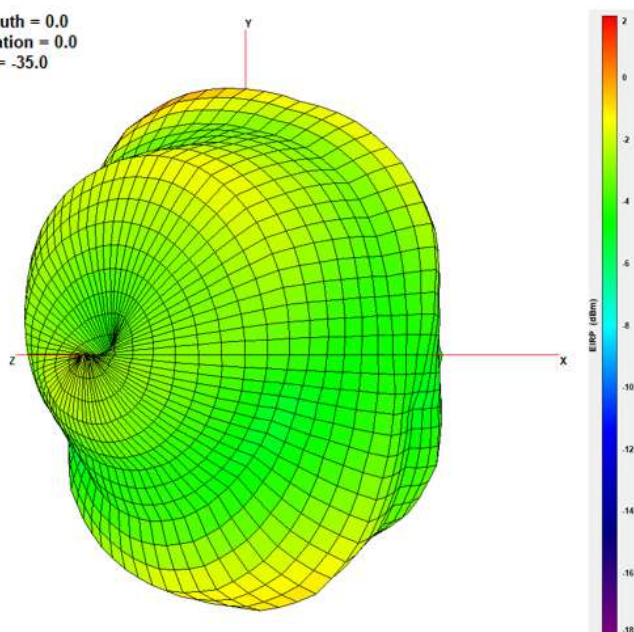
4. Radiation Patterns

4.1 Test Setup on 2mm Thick ABS



4.2 868MHz 3D and 2D Radiation Patterns

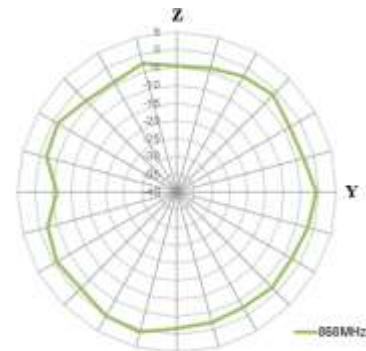
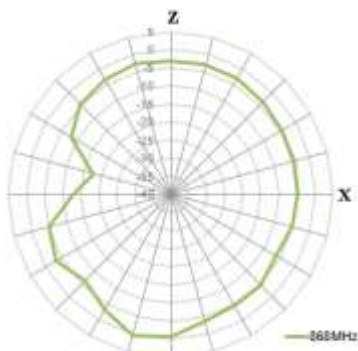
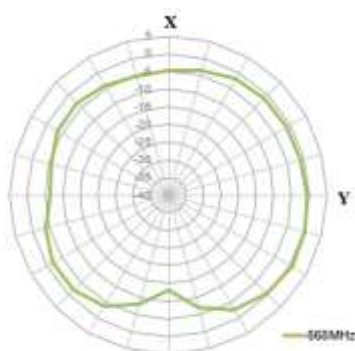
Azimuth = 0.0
Elevation = 0.0
Roll = -35.0



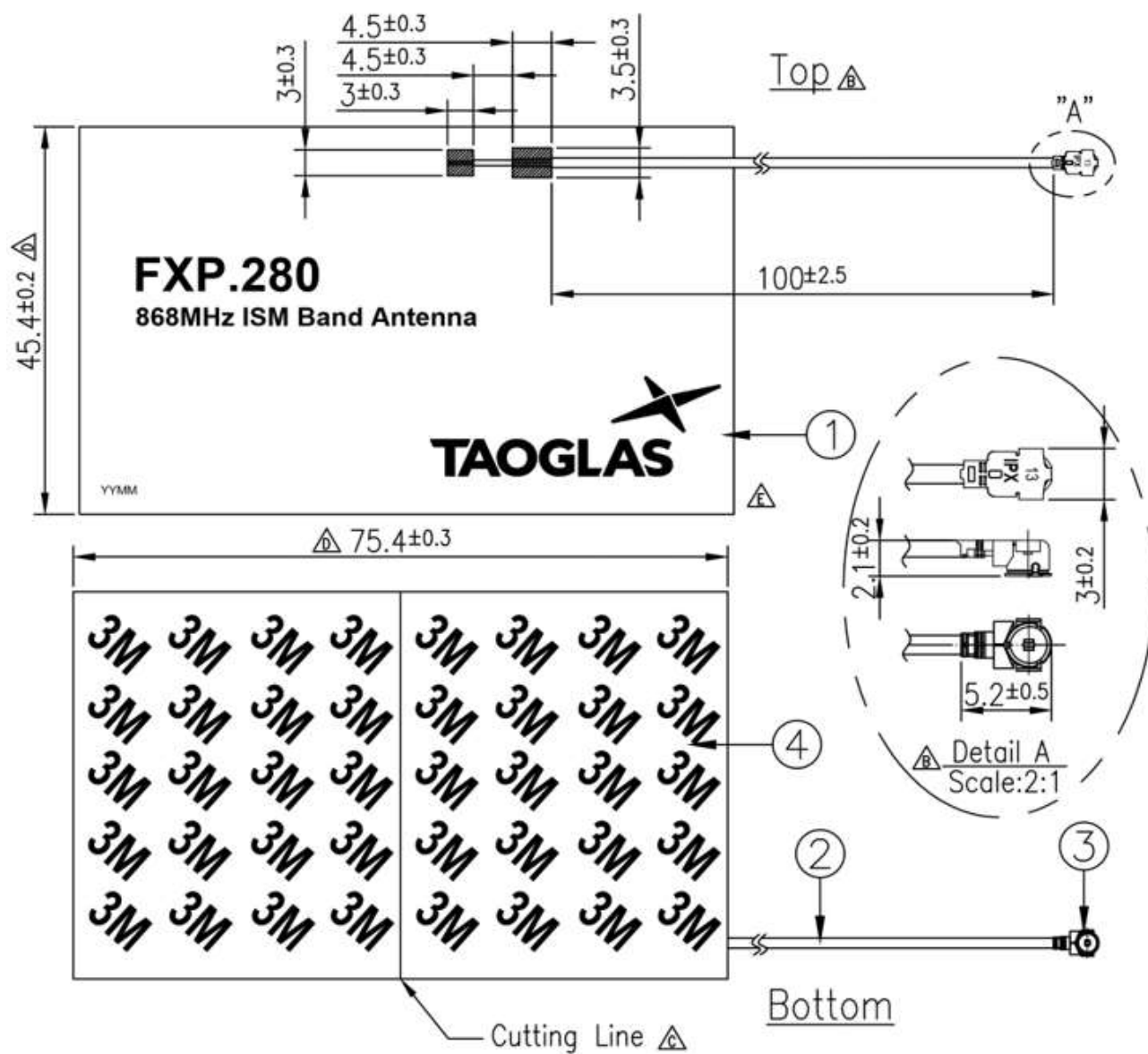
XY Plane

XZ Plane

YZ Plane

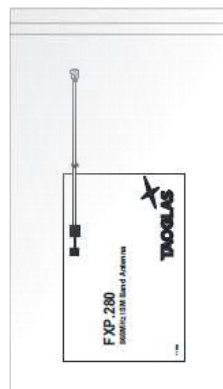


5. Mechanical Drawing (Units: mm)

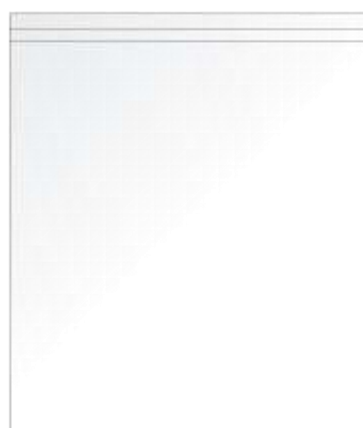


6. Packaging

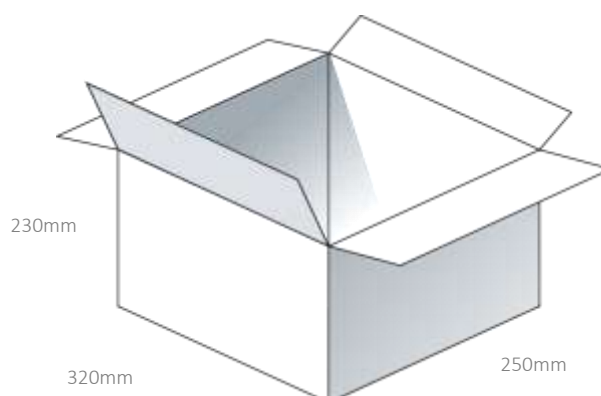
100pcs FXP280.07.0100A per PE Bag
Dimensions - 300*160mm
Weight - 110g



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: C (Current Version)

Date:	2022-02-04
Changes:	Updated data
Changes Made by:	Gary West

Previous Revisions

Revision: B

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

Revision: A (Original First Release)

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



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