



TAOGLAS®



Datasheet

FXP838.07.0052C

Description:

FXP838 Dual Band Wi-Fi Flexible PCB Antenna with foam for mounting

Features:

- Low profile Flexible PCB with foam for mounting
- 2.4/5.8GHz Dual-band Wi-Fi
- Cable: 52mm 1.37
- Connector: IPEX MHFI
- Dimensions: 35*7*5.74mm
- RoHS & Reach Compliant

1. Introduction	3
2. Specifications	4
3. Antenna Characteristics	5
4. Radiation Patterns	7
5. Mechanical Drawing	10
6. Installation Procedure	11
7. Packaging	12
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Changelog	13

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1. Introduction



The FXP838.07.0052C is a high efficiency, small, dual-band antenna for 2.4/4.9-6GHz band including DSRC, V2V, Wi-Fi, Bluetooth, Zigbee and other applications in these bands. The FXP838 has been designed to be used for the dual band Wi-Fi frequency bands. More specifically for 2.4 GHz and 5 GHz capabilities on the Qosys IQ Panel 3. The FXP291 is connected via an IPEX MHFI connector & 52mm of 1.37mm coaxial cable. The FXP838 has a small form factor of just 35*7*5.74mm making it ideal for in-device applications where space is at a premium. The FXP838 is supplied with foam & adhesive for ease of mounting.

This datasheet shows the passive performance of the antenna integrated into the device along with the installation procedure needed for manufacturing. For more information please contact your regional Taoglas customer support team.

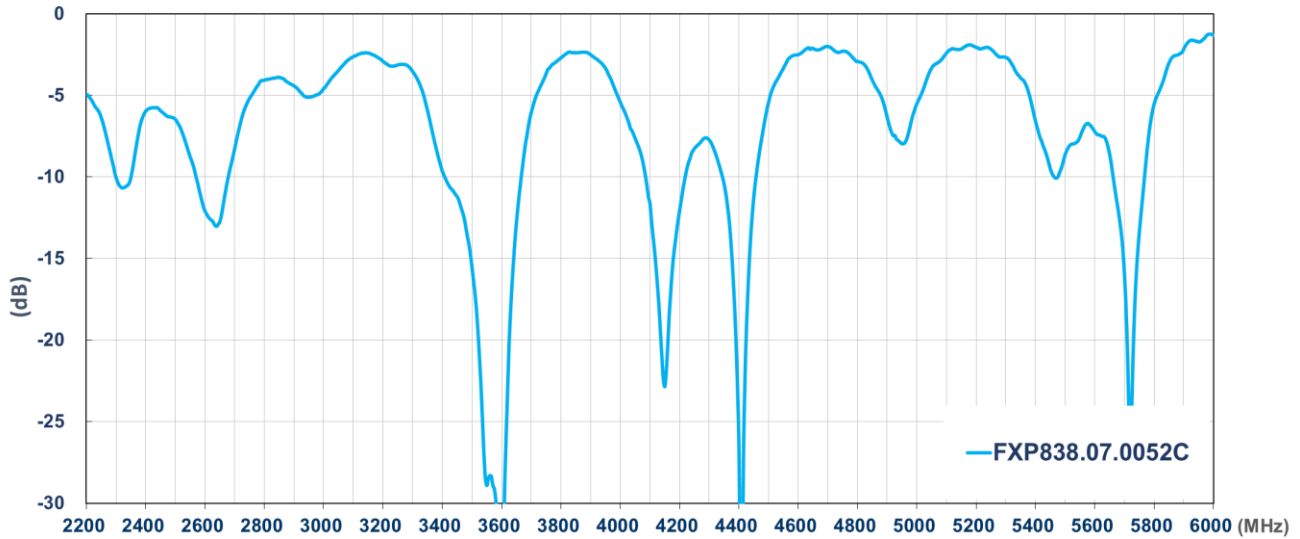
2. Specifications

Wi-Fi Electrical		
Frequency (MHz)	2410	5825
Efficiency (%)	48.3	29.0
Peak Gain (dBi)	2.67	1.02
Polarization	Linear	
Impedance	50 Ohm	

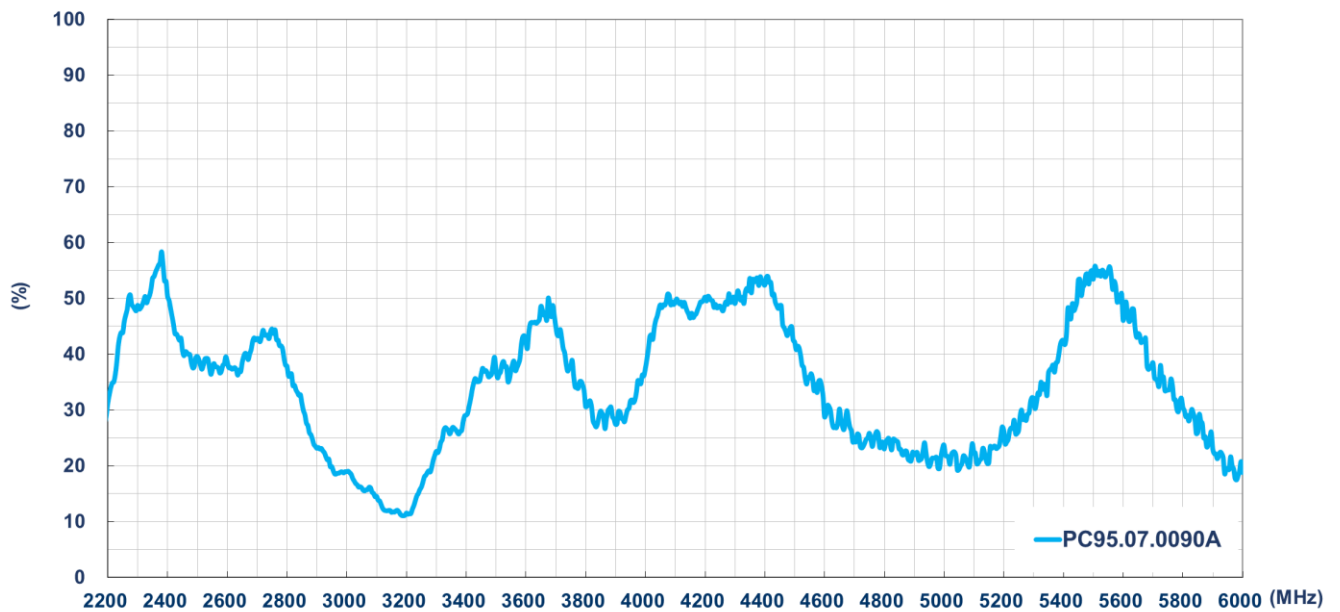
Mechanical	
Height (with foam)	5.74 mm
Planner Dimension	35 x 7 mm
Casing	Polyimide
Cable	1.13 Micro Coaxial, 52 mm
Connector	IPEX MHFI
Environmental	
Temperature Range	-40°C to 85°C
Humidity	Non-condensing 65°C 95% RH

3. Antenna Characteristics

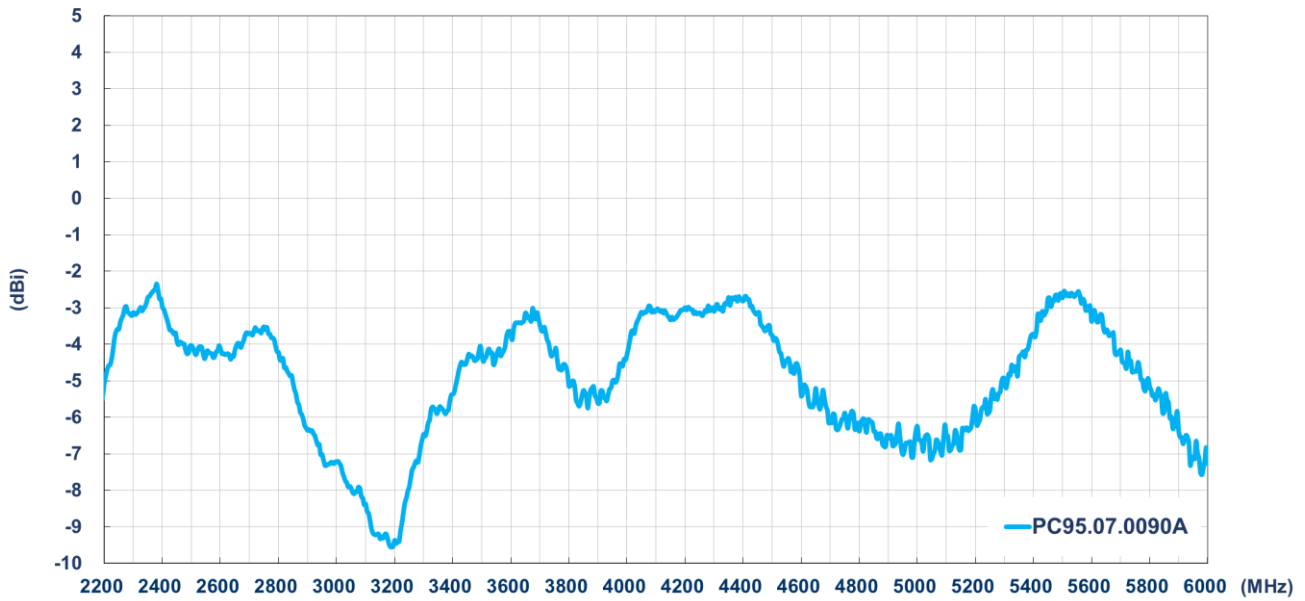
3.1 Return Loss



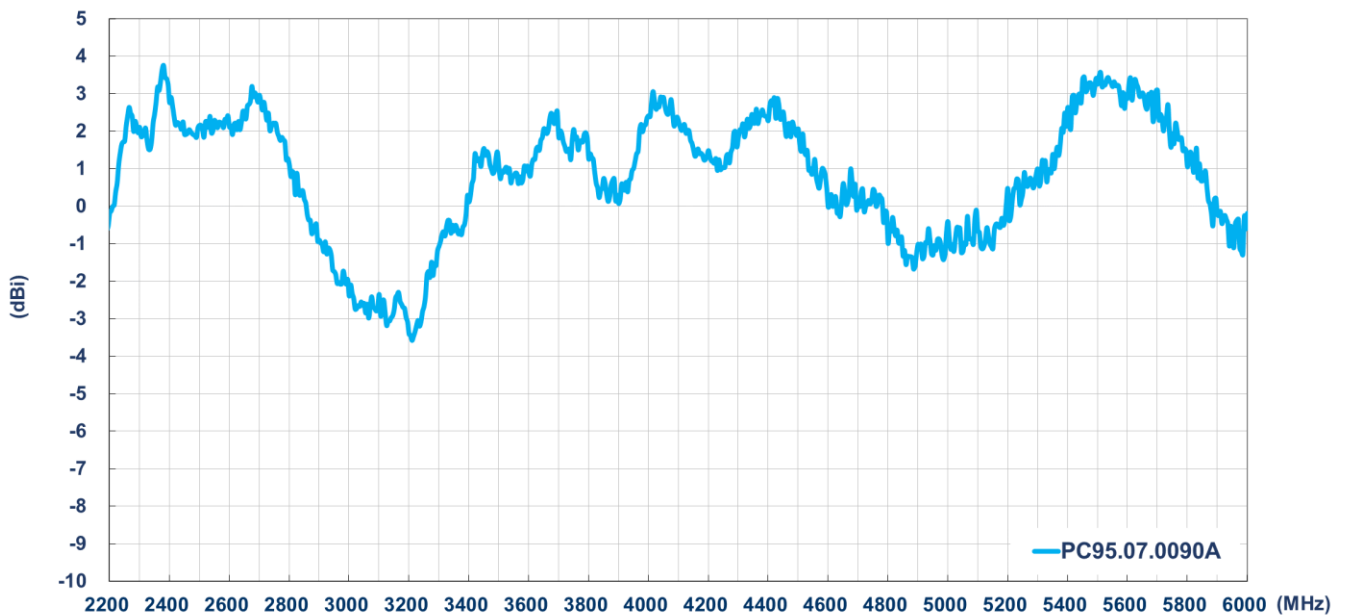
3.2 Efficiency



3.3 Average Gain

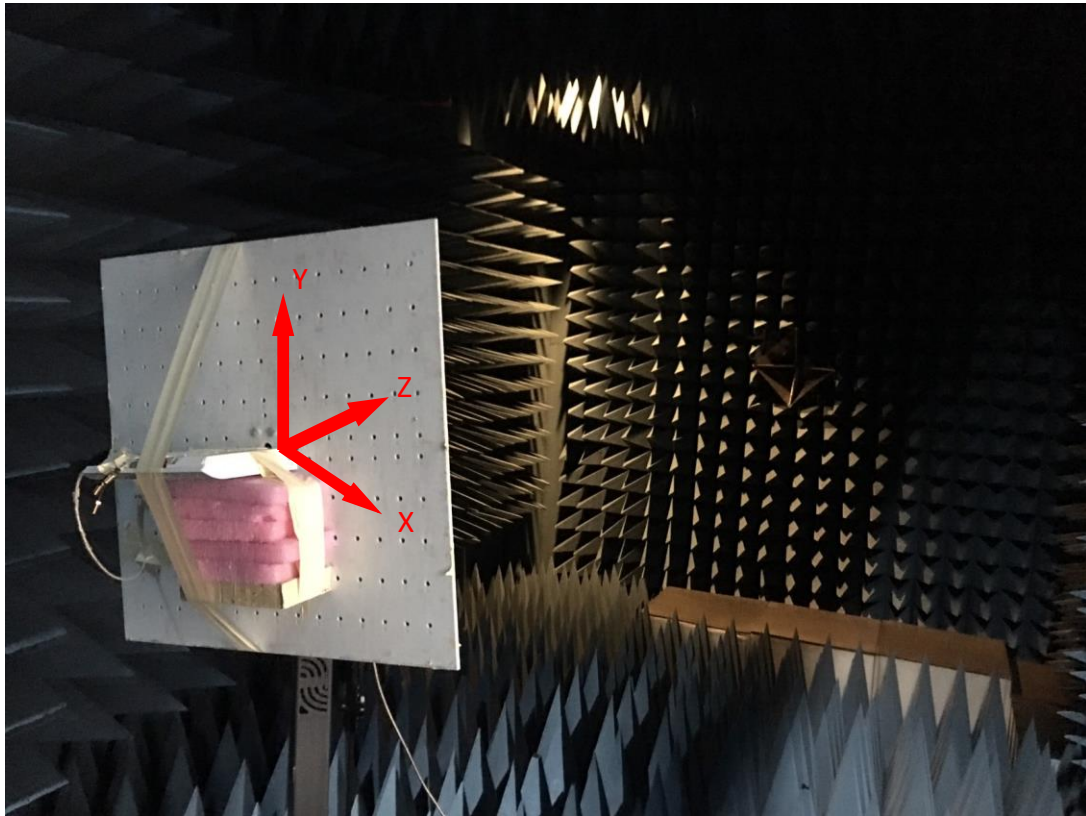


3.4 Peak Gain



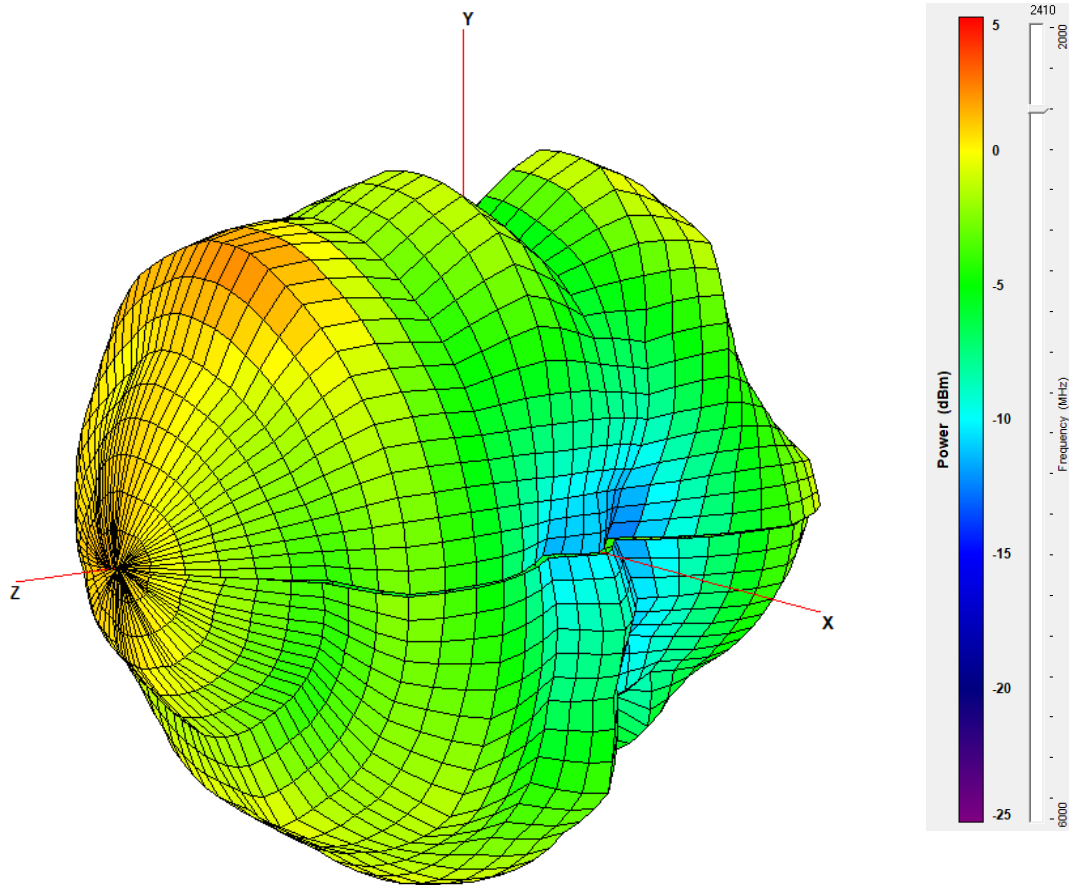
4. Radiation Patterns

4.1 Test Setup



Test setup in the ETS anechoic chamber

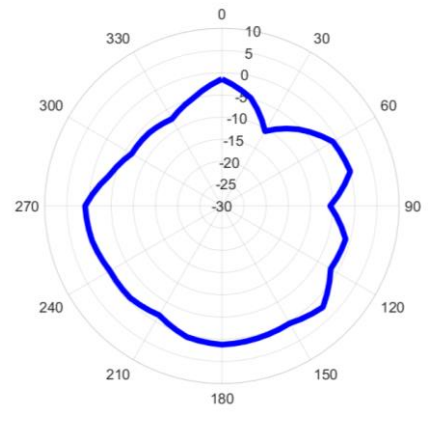
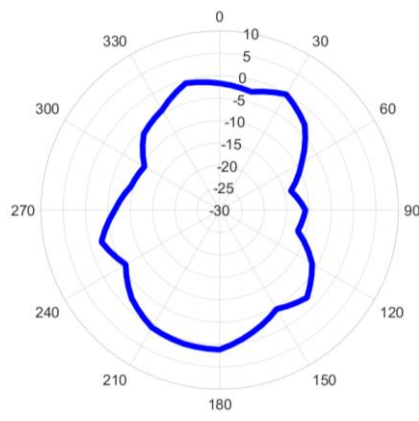
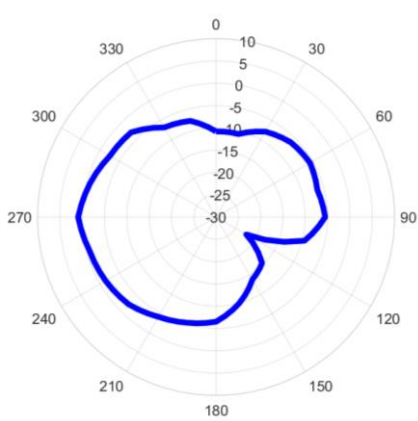
4.2 2410MHz 3D and 2D Radiation Patterns



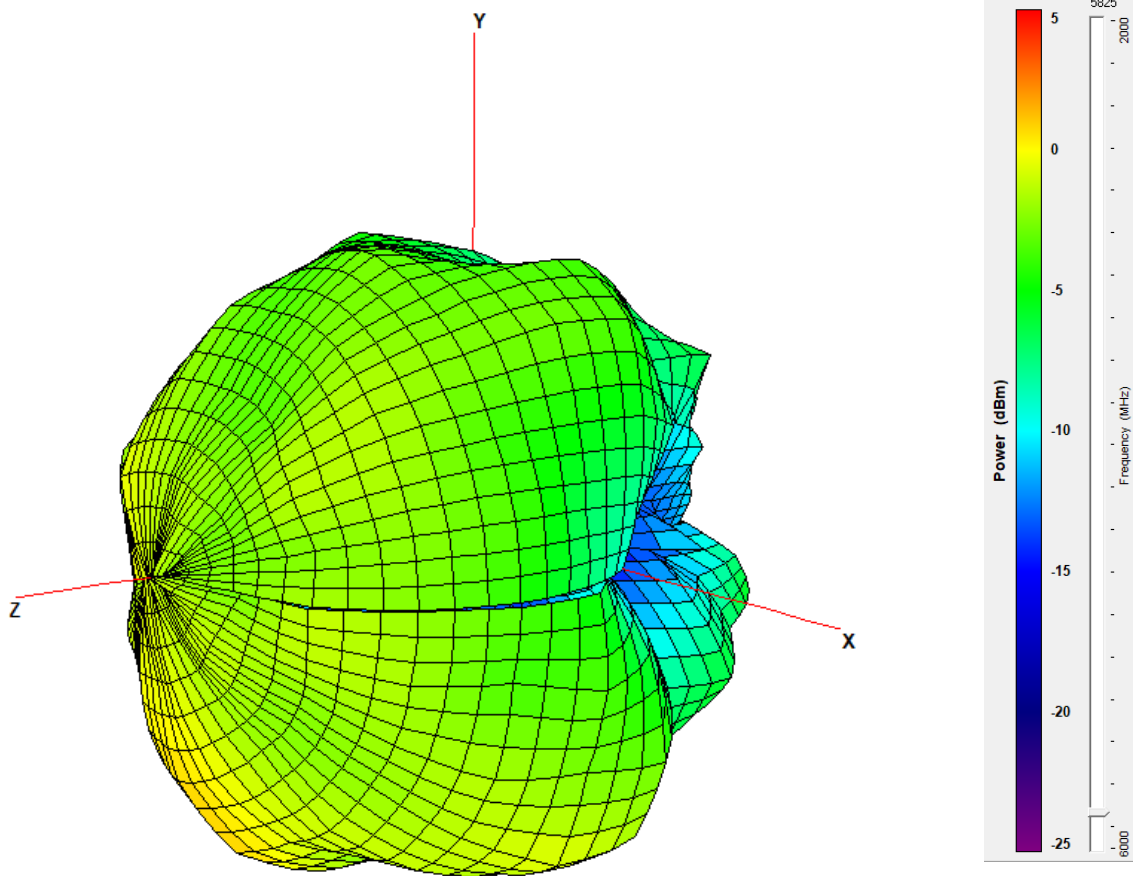
XY Plane

XZ Plane

YZ Plane



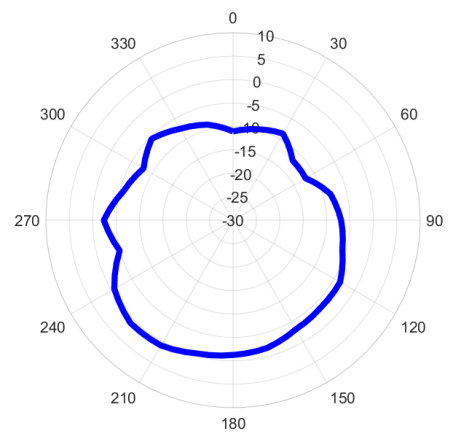
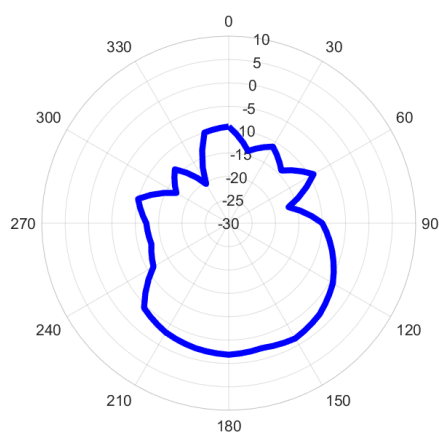
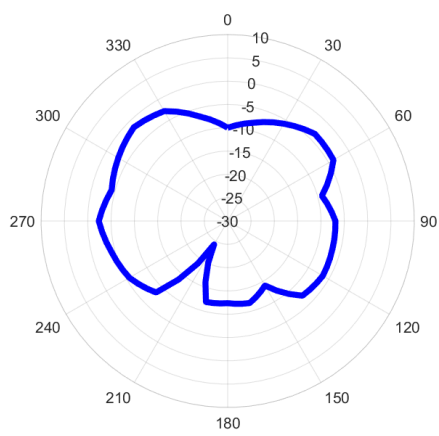
4.3 5825MHz 3D and 2D Radiation Patterns



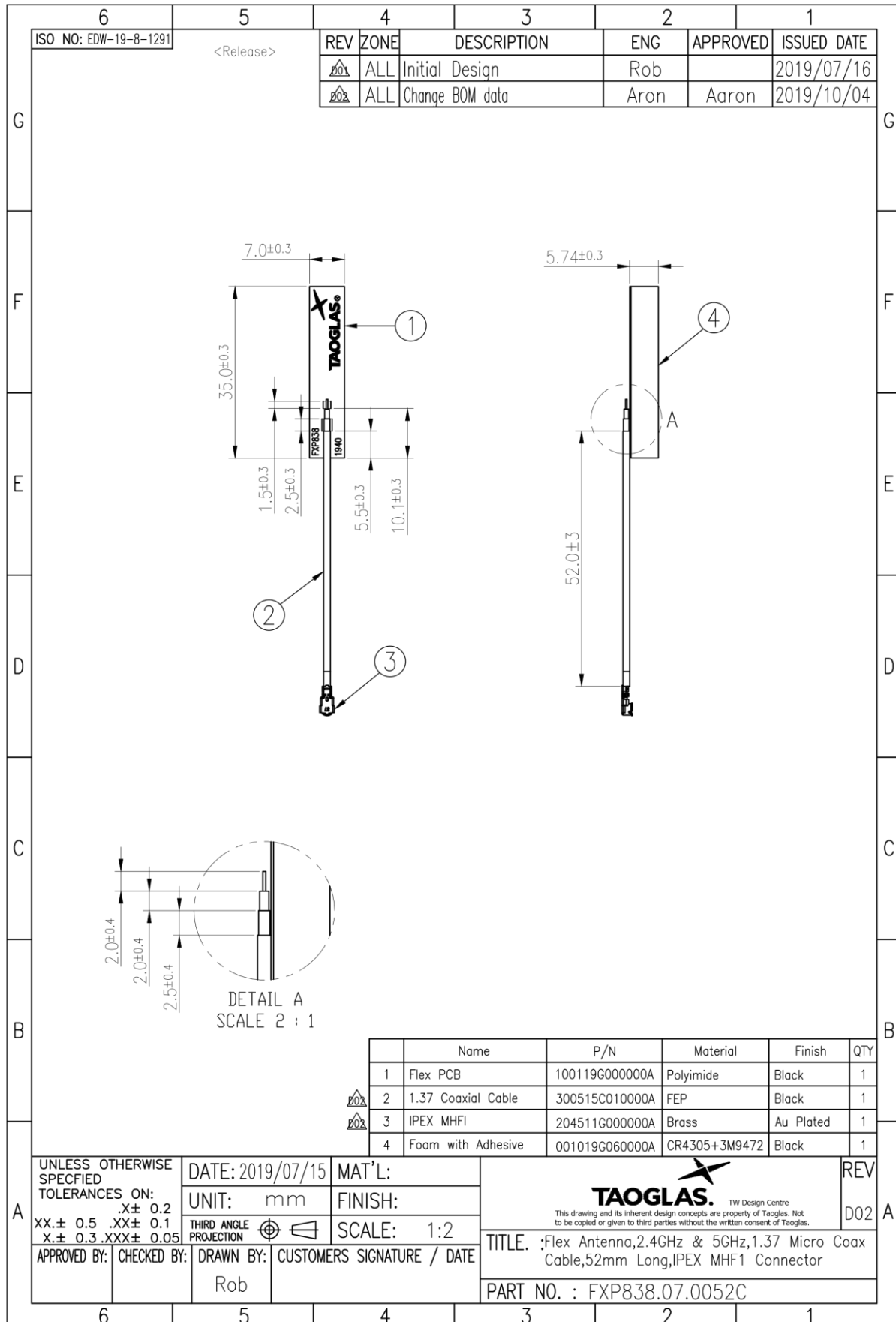
XY Plane

XZ Plane

YZ Plane

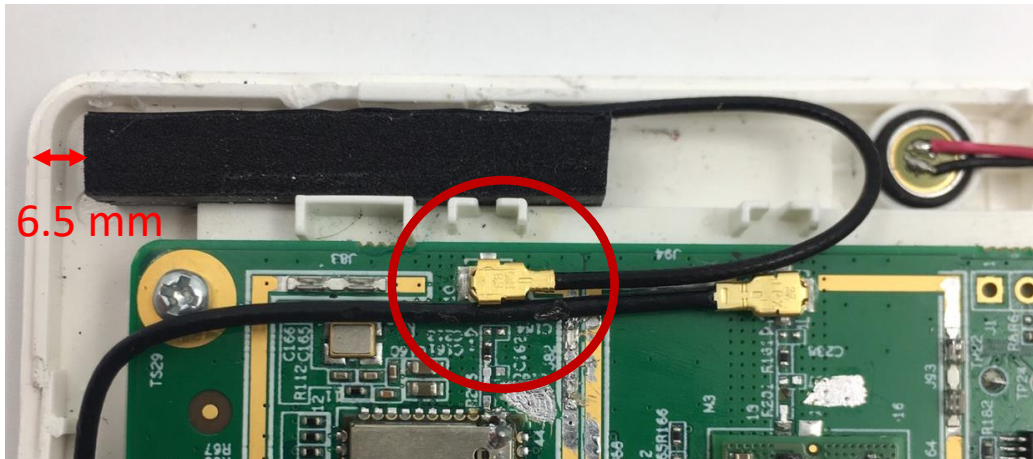


5. Mechanical Drawing (Units: mm)



6. Installation Procedure

Step 1: Place the IPEX connector to the appropriate connector location shown in the picture below.

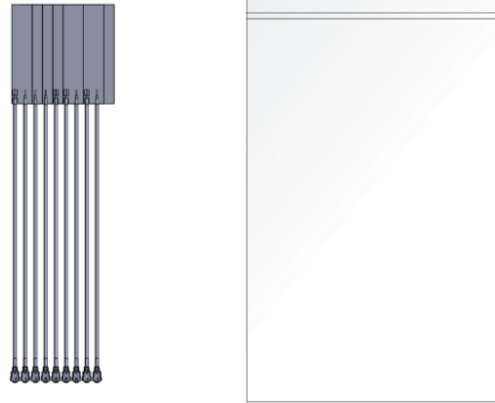


Step 2: Place the adhesive side of the antenna on the walls of the housing and have the top side of the antenna facing the edge of the device (see figure below). Make sure that the left side of the antenna is positioned approximately 6.5 mm from the edge of the housing (see figure above).

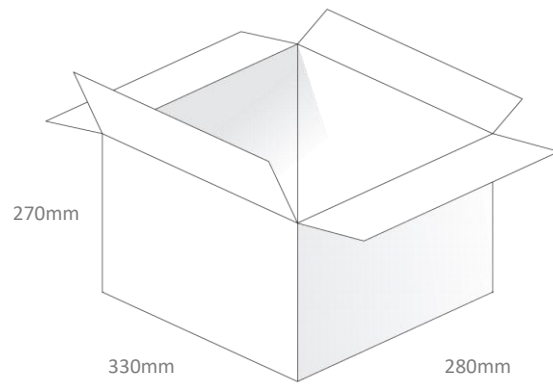


7. Packaging

100pcs FXP838.07.0052C per PE Bag
 Weight: 100g



5000pcs FXP838.07.0052C per carton
 Dimensions: 330*280*270mm
 Weight: 5.2 Kg



Changelog for the datasheet

SPE-19-8-147 – FXP838.07.0052C

Revision: A (Initial Release)

Date:	2019-11-21
Notes:	Initial Release
Author:	Jack Conroy

Previous Revisions



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