

TEST REPORT

FCC MPE Test for FX100

APPLICANT
PASSTECH CO., LTD

REPORT NO.
HCT-RF-2105-FC045

DATE OF ISSUE
May 26, 2021

Tested by
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TEST REPORT

FCC MPE Test for
FX100

REPORT NO.

HCT-RF-2105-FC045

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May 26, 2021

Additional model

FX100WR, FX200, FX200WR

Applicant

PASSTECH CO., LTD

B-402. 215 Galmachi-ro, Jungwon-gu, Seongnam-si, Gyeonggi-do, Rep. of Korea (Zip 13217)

**Eut Type
Model Name**

FURNITURE LOCK
FX100

FCC ID

W6YFX100

Date of Receipt

May 20, 2021

Frequency range

2405 MHz ~ 2480 MHz (Zigbee)

The result shown in this test report refer only to the sample(s) tested unless otherwise stated.

This test results were applied only to the test methods required by the standard.



REVISION HISTORY

The revision history for this test report is shown in table.

Revision No.	Date of Issue	Description
0	May 26, 2021	Initial Release

The measurements shown in this report were made in accordance with the procedures specified in § 2.947. I assume full responsibility for the accuracy and completeness of these measurements, and for the qualifications of all persons taking them.

HCT CO., LTD. Certifies that no party to this application has subject to a denial of Federal benefits that includes FCC benefits pursuant to section 5301 of the Anti-Drug Abuse Act of 1998, 21 U.S.C. 853(a)

RF Exposure Statement

1. Limit

According to § 1.1310, § 2.1091 RF exposure is calculated.

(B) Limits for General Population/Uncontrolled Exposures

Frequency range (MHz)	Electric field Strength (V/m)	Magnetic field Strength (A/m)	Power density (mW/cm ²)	Averaging time (minutes)
0.3 - 1.34.....	614	1.63	*(100)	30
1.34 - 30.....	824/f	2.19/f	*(180/ f ²)	30
30 - 300.....	27.5	0.073	0.2	30
300 - 1500.....			f/1500	30
1500 - 100.000.....			1.0	30

F = frequency in MHz

* = Plane-wave equivalent power density

2. Maximum Permissible Exposure Prediction

Prediction of MPE limit at a given distance

$$S = PG/4\pi R^2$$

S = Power density

P = Power input to antenna

G = Power gain to the antenna in the direction of interest relative to an isotropic radiator

R = Distance to the center of radiation of the antenna

3. RESULTS

3-1. Zigbee

Max Peak output Power at antenna input terminal	2.00	dBm
Max Peak output Power at antenna input terminal	1.58	mW
Prediction distance	20.00	cm
Prediction frequency	2405 – 2480	MHz
Antenna Gain(typical)	3.50	dBi
Antenna Gain(numeric)	2.239	-
Power density at prediction frequency(S)	0.0007	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm ²

2.1091

EIRP	5.50	(dBm)
ERP	3.35	(dBm)
ERP	0.002	(W)
ERP Limit	3.00	(W)
MARGIN	31.42	(dB)

3-1. BT LE

Max Peak output Power at antenna input terminal	-4.00	dBm
Max Peak output Power at antenna input terminal	0.40	mW
Prediction distance	20.00	cm
Prediction frequency	2402 – 2480	MHz
Antenna Gain(typical)	3.50	dBi
Antenna Gain(numeric)	2.239	-
Power density at prediction frequency(S)	0.0002	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	1.0000	mW/cm ²

2.1091

EIRP	-0.50	(dBm)
ERP	-2.65	(dBm)
ERP	0.001	(W)
ERP Limit	3.00	(W)
MARGIN	37.42	(dB)



3-1. NFC

NFC Fundamental Peak Power :	17.35	dBuV/m
EIRP	-77.88	dBm
EIRP	0.000000016293	mW
Prediction distance	20.00	cm
Power density at prediction frequency(S)	0.000000000003	mW/cm ²
MPE limit for uncontrolled exposure at prediction frequency	0.9789334	mW/cm ²