FCC MPE TEST REPORT

Project Number	**: EA2009C-016**
Test Report Number	**: TR-W2009-011**
Type of Equipment	**: DIGITAL DOOR LOCK**
Model Name	**: T102K-TW**
FCC ID	**: 2AXLI-T102K-TW**
Multiple Model Name	**: N/A**
Applicant	**: KT&C CO., LTD.**
Address	**: KT&C BLDG, 7, Yangcheon-ro 11-gil, Gangseo-gu, Seoul, Republic of Korea**
Manufacturer	**: KT&C CO., LTD.**
Address	**: KT&C BLDG, 7, Yangcheon-ro 11-gil, Gangseo-gu, Seoul, Republic of Korea**
Regulation	**: FCC Part 15 Subpart C Section 15.247**
Total page of Report	**: 5 Pages**
Date of Receipt	**: 2020-07-02**
Date of Issue	**: 2020-09-21**
Test Result	**: PASS**

This test report only contains the result of a single test of the sample supplied for the examination.
It is not a generally valid assessment of the features of the respective products of the mass-production.

Prepared by Song, In-young / Senior Engineer _____ (Signature) 2020-09-21 (Date)

Reviewed by Choi, Yeong-min / Technical Manager _____ (Signature) 2020-09-21 (Date)

ENG Co., Ltd. 135-60 Gyeongchung-daero, Gonjiam-eup, Gwangju-si, Gyeonggi-do, Korea 464-942 Report Form_01 (Rev.2)
TEL: +82-31-727-8300 FAX: +82-31-746-0800 http://www.the-eng.co.kr

CONTENTS

Page

Release Control Record

Issue Report No.	Issued Date	Revisions	Effect Section
TR-W2009-011	2020-09-21	Initial Release	All

ENG Co., Ltd. 135-60 Gyeongchung-daero, Gonjiam-eup, Gwangju-si, Gyeonggi-do, Korea 464-942 Report Form_01 (Rev.2)
TEL: +82-31-727-8300 FAX: +82-31-746-0800 http://www.the-eng.co.kr

1. EUT (Equipment Under Test) INFORMATION

1.1 General Description

The KT&C CO., LTD., Model T102K-TW (referred to as the EUT in this report) is a DIGITAL DOOR LOCK. The EUT is a device for transferring Bluetooth low energy signal to a Bluetooth low energy Device through wireless communication. The product specification described herein was obtained from product data sheet or user's manual.

Operating Frequency	2 402 MHz ~ 2 480 MHz
Kind of Class	DTS – Digital Transmission System
Generated or used Freq. in EUT	32.768 kHz, 16 MHz
Normal Test Voltage	DC 6 V
Electrical Rating	DC 6 V
Software Version	20200729-009
Hardware Version	PP-200701

1.2 Additional Model

None

2. TEST RESULT

2.1 Measured RF Output Level

Operating Mode	Conducted Output Power (dBm)	Antenna Gain (dBi)	EIRP	
			(dBm)	(mW)
GFSK	-8.22	-7.45	-15.67	0.03

Note: EIRP = Conducted Output Power + Antenna Gain

2.2 MPE Evaluation

The EUT will only be used with a separation of 0.5 centimeters (Worst Case) or greater between the antenna and the body of the user.

The MPE sample calculation for this exposure is shown below.

S = EIRP / (4 x R^2 x π)

= 0.03 / (4 x 0.5^2 x π)

= 0.009 549 mW/cm^2

Note: S= Power density (mW/cm^2)

EIRP= Equivalent Isotropic Radiated Power (mW)

R= Distance to the center of the radiation of the antenna

$\pi \approx 3.1416$

Limits for Maximum Permissible Exposure (MPE)

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 – 1 500			f / 1500	30
1 500 – 100 000			1.0	30