

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.

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Release Control Record

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

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.

$$S = \text{EIRP} / (4 \times R^2 \times \pi)$$

Note: S= Power density (mW/cm²)

$$= 0.03 / (4 \times 0.5^2 \times \pi)$$

EIRP= Equivalent Isotropic Radiated Power (mW)

$$= 0.009\,549 \text{ mW/cm}^2$$

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