

RF Exposure Evaluation declaration

Product Name : Wi-Fi Chime

Model No. : C-1030 / GC-DBC-C2 / LA227WH / CDBCH01

FCC ID : D6XC1030

Applicant : Tecom Co.,Ltd.

Address : No.23 R&D Road 2, Science-Based Industrial Park, Hsin-Chu Taiwan

Date of Receipt : Mar. 09, 2017

Date of Declaration : Mar. 22, 2017

Report No. : 1730149R-RFUSP02V00

Report Version : V1.0

The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standard through the calibration of the equipment and evaluated measurement uncertainty herein.

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Issued Date: Mar. 22, 2017

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Product Name	Wi-Fi Chime
Applicant	Tecom Co.,Ltd.
Address	No.23 R&D Road 2, Science-Based Industrial Park, Hsin-Chu Taiwan
Manufacturer	1. Global Brands Manufacture (DongGuan) Ltd. 2. Smarthome Products (Shenzhen) Co.,Ltd.
Model No.	C-1030 / GC-DBC-C2 / LA227WH / CDBCH01
FCC ID.	D6XC1030
EUT Rated Voltage	AC 120V/60Hz
EUT Test Voltage	AC 120V/60Hz
Trade Name	TECOM / Nortek / NuTone / Xblue
Applicable Standard	FCC 47 CFR 1.1310
Test Result	Complied

Documented By :



(Senior Adm. Specialist / Joanne Lin)

Tested By :



(Engineer / Sam Hsu)

Approved By :



(Director / Vincent Lin)

1. RF Exposure Evaluation

1.1. Limits

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)

LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)	Average Time (Minutes)
(A) Limits for Occupational/ Control Exposures				
300-1500	--	--	F/300	6
1500-100,000	--	--	5	6
(B) Limits for General Population/ Uncontrolled Exposures				
300-1500	--	--	F/1500	6
1500-100,000	--	--	1	30

F= Frequency in MHz

Friis Formula

Friis transmission formula: $P_d = (P_{out} * G) / (4 * \pi * r^2)$

Where

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 3.1416

R = distance between observation point and center of the radiator in cm

P_d is the limit of MPE, 1 mW/cm². If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.

1.2. Test Procedure

Software provided by client enabled the EUT to transmit and receive data at lowest, middle and highest channel individually.

The temperature and related humidity: 18°C and 78% RH.

1.3. Test Result of RF Exposure Evaluation

Product : Wi-Fi Chime
Test Item : RF Exposure Evaluation
Test Site : No.3 OATS

Operation Frequency	2412-2462MHz
Maximum Conducted output power	24.54dBm
Antenna gain	4.17dBi

Output Power Into Antenna & RF Exposure Evaluation Distance:

Output Power to Antenna (mW)	Power Density at R = 20 cm (mW/cm ²)
284.4461107	0.1478

Power density is lower than the limit (1 mW/cm²).