RF Exposure Report

Report No.: SA200710D07

FCC ID: 2AK5B-I1

Test Model: INT1LFCNA1

Received Date: Jul. 10, 2020

Test Date: Jul. 22 to Aug. 9, 2020

Issued Date: Aug. 19, 2020

Applicant: Latchable, Inc.

Address: 508 West 26th Street Suite 6G New York, NY 10001 United States

Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch Lin Kou Laboratories

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FCC Registration / Designation Number: 198487 / TW2021

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Release Control Record

Issue No.	Description	Date Issued
SA200710D07	Original release.	Aug. 19, 2020

1   Certificate of Conformity

Product:	Apartment entry intercom device
Brand:	Latch
Test Model:	INT1LFCNA1
Sample Status:	Engineering sample
Applicant:	Latchable, Inc.
Test Date:	Jul. 22 to Aug. 9, 2020
Standards:	FCC Part 2 (Section 2.1091)
	IEEE C95.3 -2002
References Test Guidance:	KDB 447498 D01 General RF Exposure Guidance v06

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's RF characteristics under the conditions specified in this report.

Prepared by : _Annie Chang_ , **Date:** Aug. 19, 2020

Annie Chang / Senior Specialist

Approved by : _Rex. Lai_ , **Date:** Aug. 19, 2020

Rex Lai / Associate Technical Manager

2 RF Exposure

2.1 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)
Limits For General Population / Uncontrolled Exposure				
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

2.2 MPE Calculation Formula

Pd = (Pout*G) / (4*pi*r^2)

where

Pd = power density in mW/cm^2

Pout = output power to antenna in mW

G = gain of antenna in linear scale

Pi = 3.1416

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

2.3 Classification

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user. So, this device is classified as **Mobile Device**.

2.4 Calculation Result Of Maximum Conducted Power

Frequency Band (MHz)	Max AV Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm^2)	Limit (mW/cm^2)
2402-2480 (BT LE)	-0.99	2.21	20	0.0003	1
2402-2480 (BT EDR)	6.37	2.21	20	0.0014	1
2412-2462	18.73	2.21	20	0.0247	1
5180-5240	11.54	2.25	20	0.0048	1
5260-5320	11.70	2.25	20	0.0049	1
5500-5700	9.28	2.32	20	0.0029	1
5745-5825	10.32	3.61	20	0.0049	1

Frequency Band (MHz)	EIRP (dBm)	Distance (cm)	Power Density (mW/cm^2)	Limit (mW/cm^2)
LTE Band 2: 1850.7MHz ~ 1909.3MHz	27.68	20	0.1166	1
LTE Band 4: 1710.7MHz ~ 1909.3MHz	26.91	20	0.0977	1

Frequency Band (MHz)	ERP (dBm)	EIRP (dBm)	Distance (cm)	Power Density (mW/cm^2)	Limit (mW/cm^2)
LTE Band 12: 699.7MHz ~ 715.3MHz	21.96	24.11	20	0.0513	0.47
Note: EIRP = ERP + 2.15					

Note:

1. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

2. The above Antenna information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications, the laboratory shall not be held responsible.

3. WLAN 2.4GHz & WLAN 5GHz technologies cannot transmit at same time.
   WLAN & BT technologies cannot transmit at same time.
   WLAN & WWAN technologies can transmit at same time.

Conclusion:

The formula of calculated the MPE is:

CPD1 / LPD1 + CPD2 / LPD2 + ……etc. < 1

CPD = Calculation power density

LPD = Limit of power density

WLAN (2.4GHz) + LTE (Band 2) =0.0247/1 + 0.1166/1 = 0.1413

Therefore the maximum calculations of above situations are less than the "1" limit.

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