RF Exposure Report

Report No.:	MFBHTZ-WTW-P22090089
FCC ID:	PPQLILYW131
Test Model:	W1-UC168-0MK1ER
Series Model:	W1-UC168-0MF1FR, W1-UC168-0MF1F0
Received Date:	Sep. 16, 2022
Date of Evaluation:	Feb. 20, 2023
Issued Date:	Mar. 02, 2023
Applicant:	LITE-ON Technology Corp.
Address:	Bldg. C, 90, Chien 1 Rd., Chung-Ho, New Taipei City 23585, Taiwan (R.O.C.)
Issued By:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch Lin Kou Laboratories
Lab Address:	No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan
Test Location:	No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City 33383, TAIWAN
FCC Registration / Designation Number:	788550 / TW0003

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Release Control Record

Issue No.	Description	Date Issued
MFBHTZ-WTW-P22090089	Original Release	Mar. 02, 2023

1 Certificate of Conformity

Product:	AC charging station
Brand:	LITEON
Test Model:	W1-UC168-0MK1ER
Series Model:	W1-UC168-0MF1FR, W1-UC168-0MF1F0
Sample Status:	Engineering Sample
Applicant:	LITE-ON Technology Corp.
Date of Evaluation:	Feb. 20, 2023
FCC Rule Part:	FCC Part 2 (Section 2.1091)
Standards:	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 : Gina Liu , **Date:** Mar. 02, 2023

Gina Liu / Specialist

Approved by : Jeremy Lin , **Date:** Mar. 02, 2023

Jeremy Lin / Project Engineer

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 ANTENNA DESCRIPTION OF EUT

The antenna information is listed as below.

Brand	Antenna Type	Connector	Antenna Gain (dBi)		
			2400	2450	2500
Auden	Dipole	I-PEX	2.2	2.6	3.0

* Detail antenna specification please refer to antenna datasheet and/or antenna measurement report.

2.5 Calculation Result of Maximum Conducted Power

Band	Frequency Band (MHz)	Max PK. Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm^2)	Limit (mW/cm^2)
WLAN	2412-2462	21.50	3.0	20	0.056	1.00

Band	Frequency Band (MHz)	Max Power (dBm)	Antenna Gain (dBi)	EIRP (dBm)	Distance (cm)	Power Density (mW/cm^2)	Limit (mW/cm^2)
WCDMA II	1850-1910	24.00	2.7	26.70	20	0.093	1.00
WCDMA IV	1710-1755	24.00	2	26.00	20	0.079	1.00
WCDMA V	824-849	24.00	1.9	25.90	20	0.077	0.55
LTE 2	1850-1910	24.50	2.7	27.20	20	0.104	1.00
LTE 4	1710-1755	24.50	2	26.50	20	0.089	1.00
LTE 5	824-849	24.50	1.9	26.40	20	0.087	0.55
LTE 12	699-716	24.50	1.9	26.40	20	0.087	0.47
LTE 13	777-787	24.50	1.7	26.20	20	0.083	0.52
LTE 25	1850-1915	25.00	2.7	27.70	20	0.117	1.00
LTE Band 26 (Part 22)	824.7-848.3	25.00	1.9	26.90	20	0.097	0.54
LTE Band 26 (Part 90)	814.7-823.3	25.00	1.9	26.90	20	0.097	0.54

Note:

1. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.
2. Detail antenna specification please refer to antenna datasheet and/or antenna measurement report.
3. The max. power is Tune-up Power.
4. WLAN 2.4G & WWAN & NFC technology can transmit at same time.
5. The EUT contains certified WWAN module with FCC ID: PPQ202008EG91NAXD and NFC module with FCC ID: PPQRYORR2L.

Frequency (MHz)	Field Strength (dBuV/m@3m)	Max. Power (mW)	Min. test separation distance (mm)	SAR test exclusion calculation value(NOTE)	1-g extremity SAR test exclusion thresholds	Result
13.56	66.2	0.00125	5	0.00125	1107.433774	Pass

Note:

1. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.
2. Calculate SAR test exclusion thresholds from condition “3” formulas.
3. Field Strength (dBuV/m@3m) = Field Strength (dBuV/m@30m) + 40*log(30/3).
4. Max Power (dBm) = Field Strength of Fundamental (dBuV/m@3m) – 95.23,
   Max Power (mW) = 10^(Max power (dBm)/10)

Conclusion:

Both of the WLAN 2.4GHz and WWAN can transmit simultaneously, 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 + WWAN + NFC = 0.056/1 + 0.087/0.47 + 0.00125/ 1107.433774 = 0.241

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

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