

RF Exposure Report

Report No.: MFBCUG-WTW-P22010682B

FCC ID: B32UX7002

Model No.: UX700-WBU-2

Received Date: 2022/11/11

Test Date: 2022/11/17 ~ 2023/02/7

Issued Date: 2023/2/10

Applicant: Verifone, Inc.

Address: 1400 West Stanford Ranch Road Suite 150 Rocklin CA 95765 USA

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 / 788550 / TW0003
Designation Number:



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Release Control Record

Issue No.	Description	Date Issued
MFBCUG-WTW-P22010682B	Original release	2023/2/10

1 Certificate of Conformity

Product: Point of Sale Terminal

Brand: Verifone

Model No.: UX700-WBU-2

Sample Status: Engineering sample

Applicant: Verifone, Inc.

Test Date: 2022/11/17 ~ 2023/02/7

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 : Celine Chou , **Date:** 2023/2/10
Celine Chou / Senior Specialist

Approved by : Jeremy Lin , **Date:** 2023/2/10
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				
300-1500	...	...	F/1500	30
1500-100,000	...	...	1.0	30

F = Frequency in MHz

2.2 MPE Calculation Formula

$$P_d = (P_{out} \cdot G) / (4 \cdot \pi \cdot r^2)$$

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

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**.

3 Calculation Result of Maximum Conducted Power

Function	Frequency Band (MHz)	Max AV Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)
WLAN	2412-2462	16.65	2.60	20	0.017	1.000
	5180-5240	16.55	3.60	20	0.021	1.000
	5260-5320	16.51	3.60	20	0.020	1.000
	5500-5700	16.31	3.60	20	0.019	1.000
	5745-5825	14.85	3.60	20	0.014	1.000
Bluetooth LE	2402-2480	1.63	2.60	20	0.001	1.000
Bluetooth EDR	2402-2480	10.51	2.60	20	0.004	1.000

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.

Mode	Field Strength (dBuV/m) @30m	Field Strength (dBuV/m) @3m	Max. Power EIRP (dBm)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)
NFC	44.50	84.50	-10.73	20	0.000017	0.978

Note:

1. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.
2. Max Power (dBm) = Field Strength of Fundamental (dBuV/m@3m) – 95.23,
Max Power (mW) = $10^{(\text{Max power (dBm)}/10)}$
3. The measured field strength was extrapolated to distance 30 meters, using the formula that the limit of field strength varies as the inverse distance square (40dB per decade of distance)

Mode	Max. Power EIRP (dBm) @1m	Max. Power EIRP (dBm) @3m	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)
UWB	-12.58	-22.12	20	0.000001	1.000

Note:

1. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.
2. Test distance at 1m, 1m to 3m Test distance Fact(dB)= $20 \cdot \log(1/3) = -9.54\text{dB}$.

Conclusion:

The formula of calculated the MPE is:

$\text{CPD1} / \text{LPD1} + \text{CPD2} / \text{LPD2} + \dots \text{etc.} < 1$

CPD = Calculation power density

LPD = Limit of power density

$2.4\text{GHz} + \text{BT} = 0.017 / 1 + 0.004 / 1 = 0.021 < 1$

$5\text{GHz} + \text{BT} = 0.021 / 1 + 0.004 / 1 = 0.025 < 1$

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