

FCC SAR Exclusion Report

Report No. : SABHLU-WTW-P22010749

Applicant : ID TECH

Address : 10721 Walker St. Cypress, CA 90630

Product : ViVOpay VP3300BT

Brand : ID TECH

FCC ID : WQJ-VP3300BT

Model No. : IDMR-BT93133PV2D

Series Model No. : IDMR-BT93133XXXXXX

Standards : FCC 47 CFR Part 2 (2.1093), IEEE C95.1:1992, IEEE Std 1528:2013
KDB 865664 D01 v01r04, KDB 865664 D02 v01r02, KDB 447498 D01 v06

Sample Received Date : Jan. 21, 2022

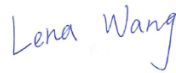
Date of Evaluation : Mar. 23, 2022

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, Taiwan

CERTIFICATION: The above equipment have been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch – Lin Kou Laboratories**, 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 SAR characteristics under the conditions specified in this report. It should not be reproduced except in full, without the written approval of our laboratory. The client should not use it to claim product certification, approval, or endorsement by TAF or any government agencies.

Prepared By :


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Approved By :


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Release Control Record

Issue No.	Reason for Change	Date Issued
SABHLU-WTW-P22010749	Initial release	Mar. 25, 2022

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1. Summary of Maximum SAR Value

Equipment Class	Mode	Highest Reported SAR _{1g} (W/kg)
DSS	Bluetooth	Not Required
DXX	NFC	Not Required

Note:

1. The SAR limit (**Head & Body: SAR_{1g} 1.6 W/kg**) for general population / uncontrolled exposure is specified in FCC 47 CFR part 2 (2.1093) and ANSI/IEEE C95.1-1992.

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2. Description of Equipment Under Test

EUT Type	ViVOpay VP3300BT
Brand Name	ID TECH
FCC ID	WQJ-VP3300BT
Model Name	IDMR-BT93133PV2D
Series Model Name	IDMR-BT93133XXXXXXX
Tx Frequency Bands (Unit: MHz)	Bluetooth : 2402 ~ 2480 NFC : 13.56
Uplink Modulations	Bluetooth : GFSK, $\pi/4$ -DQPSK, 8-DPSK NFC : ASK
Maximum Tune-up Conducted Power (Unit: dBm)	Please refer to Annex A
Antenna Type	PCB Antenna
EUT Stage	Engineering Sample

Note:

- The above EUT information is declared by manufacturer and for more detailed features description please refers to the manufacturer's specifications or User's Manual.

List of Accessory:

Battery	Brand Name	YOREX INTERNATIONAL CO., LIMITED
	Model Name	701235
	Power Rating	3.7Vdc, 240mAh , 0.888Wh
	Type	Li-ion

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3. SAR Measurement Evaluation

3.1 Maximum Output Power

Refer to Annex A

3.2 SAR Testing Exclusions

According to KDB 447498 D01, the SAR test exclusion condition is based on source-based time-averaged maximum conducted output power, adjusted for tune-up tolerance, and the minimum test separation distance required for the exposure conditions. The SAR exclusion threshold is determined by the following formula.

- For the test separation distance ≤ 50 mm

$$\frac{\text{Max. Tune up Power}_{(\text{mW})}}{\text{Min. Test Separation Distance}_{(\text{mm})}} \times \sqrt{f_{(\text{GHz})}} \leq 3.0$$

When the minimum test separation distance is < 5 mm, a distance of 5 mm is applied to determine SAR test exclusion.

- For the test separation distance > 50 mm, and the frequency at 100 MHz to 1500 MHz

$$\left[(\text{Threshold at 50 mm in Step 1}) + (\text{Test Separation Distance} - 50 \text{ mm}) \times \left(\frac{f_{(\text{MHz})}}{150} \right) \right]_{(\text{mW})}$$

- For the test separation distance > 50 mm, and the frequency at > 1500 MHz to 6 GHz

$$[(\text{Threshold at 50 mm in Step 1}) + (\text{Test Separation Distance} - 50 \text{ mm}) \times 10]_{(\text{mW})}$$

- For frequencies below 100 MHz,

a) For test separation distances > 50 mm and < 200 mm, the power threshold at the corresponding test separation distance at 100 MHz in step 2) is multiplied by $[1 + \log(100/f(\text{MHz}))]$

b) For test separation distances ≤ 50 mm, the power threshold determined by the equation in 4) a) for 50 mm and 100 MHz is multiplied by $\frac{1}{2}$

Mode	Max. Tune-up Power (dBm)	Max. Tune-up Power (mW)	Separation Distance (mm)	Calculated Result	Require SAR Testing?
LE	0	1	< 5	0.31	No

Mode	Max. Tune-up Power (dBm)	Max. Tune-up Power (mW)	Separation Distance (mm)	Power Threshold	Require SAR Testing?
NFC	-19	0.0126	< 5	23.75 (dBm)	No

Note:

- The configuration of LE applied with (1 above, the calculated result shown in above table is ≤ 3.0 , the SAR testing exclusion is applied.
- The configuration of NFC applied with (4 above, the device output power is less than the calculated result (power threshold, mW) shown in above table, the SAR testing exclusion is applied.

Summary:

Since the SAR testing for all device orientations apply SAR test exclusion per KDB 447498, SAR testing for this device is not required.

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4. Information on the Testing Laboratories

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

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The road map of all our labs can be found in our web site also.

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