RF Exposure Evaluation Report

Product	:	Intelligent Fitness Mirror
Trade mark	:	vimbod
Model/Type reference	:	vimbod hub1, vimbod hub2, vimbod hub3
Serial Number	:	N/A
Report Number	:	EED32N80955403
FCC ID	:	2A3II-VIM2011
Date of Issue	:	Nov. 10, 2021
Test Standards	:	47 CFR Part 1.1307 47 CFR Part 2.1093 KDB447498D01 General RF Exposure Guidance v06
Test result	:	PASS

Prepared for:

Visbody Intelligent Technology Co.,Ltd.
201 Room,R2-B Building, Virtualu niversity park,
Nanshan District, Shenzhen, Guangdong, China

Prepared by:

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Date: Nov. 10, 2021

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2 Version

Version No.	Date	Description
00	Nov. 10, 2021	Original

3 Contents

4 General Information

4.1 Client Information

Applicant:	Visbody Intelligent Technology Co.,Ltd.
Address of Applicant:	201 Room, R2-B Building, Virtual university park, Nanshan District, Shenzhen, Guangdong, China
Manufacturer:	Visbody Intelligent Technology Co.,Ltd.
Address of Manufacturer:	No.99, 10th Fengcheng Road, Weiyang District, Xi'an, Shaanxi
Factory:	Huizhou KTC TECHNOLOGY CO., LTD.
Address of Factory:	NO.38 Guangtai Road, Huinan HI-TECH Industrial Park, Huizhou, China.

4.2 General Description of EUT

Product Name:	Intelligent Fitness Mirror
Model No.:	vimbod hub1, vimbod hub2, vimbod hub3
Test Model No.:	vimbod hub1
Trade Mark:	vimbod
EUT Supports Radios application:	Bluetooth 5.0: 2402-2480MHz 2.4GHz Wi-Fi: IEEE 802.11b/g/n(HT20): 2412MHz to 2462MHz

4.3 Product Specification subjective to this standard

Frequency Range:	Bluetooth : 2402-2480MHz 2.4GHz Wi-Fi: IEEE 802.11b/g/n(HT20): 2412MHz to 2462MHz	
Modulation Type:	IEEE for 802.11b: DSSS(CCK,DQPSK,DBPSK) IEEE for 802.11g :OFDM(64QAM, 16QAM, QPSK, BPSK) IEEE for 802.11n(HT20): OFDM (BPSK, QPSK, 16QAM, 64QAM) Bluetooth:GFSK, π/4DQPSK, 8DPSK	
Test Power Grade:	Default	
Test Software of EUT:	Ampak RFTestTool	
Antenna Type:	FPC Antenna	
Antenna Gain:	5.63 dBi	
Power Supply:	SWITCHING ADAPTOR	Model: FJ-SW202724005000 Input: 100-240V~2A 50/60Hz, 3.0A Max Output:24.0V⎓5.0A,120.0W
Max Conducted Peak Output Power:	BT:9.91dBm, 2.4G WIFI:14.90dBm;	
	The Max Conducted Peak Output Power data refer to the report EED32N80955401, EED32N80955402	
Sample Received Date:	Oct. 09, 2021	
Sample tested Date:	Oct. 09, 2021 to Oct. 28, 2021	

Company Name and Address shown on Report, the sample(s) and sample Information was/ were provided by the applicant who should be responsible for the authenticity which CTI hasn't verified.

wiring were identical for the above models, with difference being model and color of appearance.

Model No.: vimbod hub1, vimbod hub2, vimbod hub3

Only the model vimbod hub1 was tested, vimbod hub2 and vimbod hub3 compared with vimbod hub1, all RF parts of the product, Their electrical circuit design, layout, components used and internal wiring are identical, with difference being model, camera module and color of appearance.

4.4 Test Location

All tests were performed at:

Centre Testing International Group Co., Ltd

Building C, Hongwei Industrial Park Block 70, Bao'an District, Shenzhen, China

Telephone: +86 (0) 755 33683668 Fax:+86 (0) 755 33683385

No tests were sub-contracted.

FCC Designation No.: CN1164

4.5 Deviation from Standards

None.

4.6 Abnormalities from Standard Conditions

None.

4.7 Other Information Requested by the Customer

None.

5 RF Exposure Evaluation

5.1 RF Exposure Compliance Requirement

Given $E = \frac{\sqrt{30 \times P \times G}}{d}$ & $S = \frac{E^2}{377}$

Where E = Field strength in Volts / meter

P = Power in Watts

G = Numeric antenna gain

d = Distance in meters

S = Power density in milliwatts / square centimeter

Combining equations and re-arranging the terms to express the distance as a function of the remaining variables yields:

$$S = \frac{30 \times P \times G}{377 d^2}$$

Changing to units of mW and cm, using:

P (mW) = P (W) / 1000 and

d (cm) = d(m) / 100

Yields

$$S = \frac{30 \times (P/1000) \times G}{377 \times (d/100)^2} = 0.0796 \times \frac{P \times G}{d^2}$$ **Equation 1**

Where d = Distance in cm

P = Power in mW

G = Numeric antenna gain

S = Power density in mW / cm^2

5.2 Maximum Permissible Exposure

Substituting the MPE safe distance using d = 20 cm into Equation 1:

$$S = 0.000199 \times P \times G$$

Where P = Power in mW

G = Numeric antenna gain

S = Power density in mW / cm^2

BT Classic:

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm^2	Limit (mW/cm^2)
78	2480	9.79	3.66	20	0.0071	1

2.4G WIFI:

Ch.	Frq.(MHz)	P (mW)	Gain (num.)	D (cm)	Power density in mW / cm^2	Limit (mW/cm^2)
6	2437	30.90	3.66	20	0.0225	1

PHOTOGRAPHS OF EUT Constructional Details

Refer to Report No. EED32N80955401 for EUT external and internal photos.

*** End of Report ***