

TEST REPORT

Report No.:	E20190815286701-2	Application No.:	E20190815286701
Applicant:	Eggplant Technologies Limited		
Address:	Flat/Rm 1903 19/F, Lee Garden One, 33 Hysan Avenue, Causeway Bay		
Sample Description:	Move It Speed		
Model:	MVPB0010		
Adding Model:	MVPB0001、MVPB0002、MVPB0003、MVPB0004、MVPB0005、MVPB0006、MVPB0007、MVPB0008、MVPB0009、MVPB0011、MVPB0012、MVPB0013、MVPB0014、MVPB0015、MVPB0016、MVPB0017、MVPB0018、MVPB0019、MVPB0111、MVPB0112、MVPB0113、MVPB0114、MVPB0115、MVPB0116、MVPB0117、MVPB0118、MVPB0119、MVPB0211、MVPB0212、MVPB0213、MVPB0214、MVPB0215、MVPB0216、MVPB0217、MVPB0218、MVPB0219、MVSS1000		
FCC ID:	2AKDVMVPBXX0010		
Test Specification:	KDB 447498 D01 General RF Exposure Guidance v06 FCC Part 2 §2.1091		
Test Date:	2019-08-23 to 2019-09-17		
Issue Date:	2019-10-15		
Test Result:	PASS		
Prepared By:	Reviewed By:	Approved By:	
Darry Wu / Test Engineer	Jimmy Xie / Technical Manager	Ryan Zhu / Manager	
			
Date: 2019-10-15	Date: 2019-10-15	Date: 2019-10-15	
Other Aspects:			
/			
Abbreviations: ok / P = passed; fail / F = failed; n.a. / N = not applicable			
The test result in this test report refers exclusively to the presented test sample. This report shall not be reproduced except in full, without the written approval of GRGT.			

DIRECTIONS OF TEST

1. This company carries out test task according to the national regulation of verifications which can be traced to National Primary Standards and BIPM.
2. The test report merely corresponds to the test sample. It is not permitted to copy extracts of these test result without the written permission of the test laboratory.
3. If there is any objection concerning the test, the client should inform the laboratory within 15 days from the date of receiving the test report.

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1. GENERAL DESCRIPTION OF EUT

1.1. APPLICANT

Name: Eggplant Technologies Limited
Address: Flat/Rm 1903 19/F, Lee Garden One, 33 Hysan Avenue, Causeway Bay

1.2. MANUFACTURER

Name: Guangzhou Eggplant Software Technologies Co., Ltd.
Address: A1 Room 509~513, Yi He Mansion, No.411 Shou Gou Ling Road, Tian He District, Guangzhou, China

1.3. FACTORY

Factory 1

Name : Guangzhou Eggplant Software Technologies Co., Ltd.
Address : A1 Room 509~513, Yi He Mansion, No.411 Shou Gou Ling Road, Tian He District, Guangzhou, China

1.4. BASIC DESCRIPTION OF EQUIPMENT UNDER TEST

Equipment: Move It Speed
Model No.: MVPB0010
Adding Model: MVPB0001 、 MVPB0002 、 MVPB0003 、 MVPB0004 、 MVPB0005 、 MVPB0006 、 MVPB0007 、 MVPB0008 、 MVPB0009 、 MVPB0011 、 MVPB0012 、 MVPB0013 、 MVPB0014 、 MVPB0015 、 MVPB0016 、 MVPB0017 、 MVPB0018 、 MVPB0019 、 MVPB0111 、 MVPB0112 、 MVPB0113 、 MVPB0114 、 MVPB0115 、 MVPB0116 、 MVPB0117 、 MVPB0118 、 MVPB0119 、 MVPB0211 、 MVPB0212 、 MVPB0213 、 MVPB0214 、 MVPB0215 、 MVPB0216 、 MVPB0217 、 MVPB0218 、 MVPB0219 、 MVSS1000
Model MV = Move It (Brand)
Discrepancy: PB = Punch Bag (Product Category)
0 = Product Number (from 0-9)
0 = Version of hardware revision/refinement (from 0-9)
1 = Designation for features (from 0-9)
0 = Designation for product bundles (from 0-9)
SS for smart sensor

MV = Move It (Brand)

PB = Punch Bag (Product Category)
 0 = Product Number (from 0-9)
 0 = Version of hardware revision/refinement (from 0-9)
 1 = Designation for features (from 0-9)
 0 = Designation for product bundles (from 0-9)
 SS for smart sensor

All model number listed in Appendix C uses the same smart sensor module (designated as MVSS1000) as MVPB0010. With minor differences in exterior design and included accessories. The first four letters and the first number digit of the 8 digit model number (MVPB0 __ __ __) will always remain the same, where the ending 3 digits of the product series will increase in value depending on its revision, cosmetic or feature version, and the type of accessory bundle.

As an example, MVPB0010 is the first model designated for the overseas international market, and MVPB0001 is another model designated for the China market. Comparing model MVPB0010 with MVPB0001, the difference in MVPB0010, is in the color of the exterior design (using gold & black instead of red & black), the addition of a rebound speed adjustment cap located at the spring, and a more padded version for the glove accessory.

Essentially, minor variations between model numbers are created to better cater for the different regional demands.

Trade Name:	move it
Power supply:	AC120V/60Hz
Frequency	2402 ~ 2480 MHz
Range:	
Transmit Power:	1.52dBm
Type of Modulation:	GFSK for 1Mbps
Antenna Specification:	PCB Antenna with 0dBi gain(Max)
Temperature Range:	-10°C ~ +60°C
Hardware Version:	Version: V2.0
Software Version:	Version: V2.0.1

2. LABORATORY AND ACCREDITATIONS

The tests and measurements refer to this report were performed by EMC Laboratory of
GRG METROLOGY & TEST (SHENZHEN) CO., LTD

Add.: No.1301 Guanguang Road Xinlan Community, Guanlan Street, Longhua
District Shenzhen, 518110, People's Republic of China

Telephone: +86-755-61180008

Fax: /

3. ACCREDITATIONS

Our laboratories are accredited and approved by the following approval agencies.

A2LA	Certificate Number 2861.01
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4. Evaluation method

Exposure category: General population/uncontrolled environment

EUT Type: Production Unit

Device Type: Mobile Device

Systems operating under the provisions of FCC 47 CFR section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as mobile device whereby a distance of 0.2m normally can be maintained between the user and the device, and below RF Permissible Exposure limit shall comply with.

In accordance with KDB447498D01 for Simultaneous transmission MPE test exclusion applies when the sum of the MPE ratios for all simultaneous transmitting antennas incorporated in a host device, based on the calculated/estimated, numerically modeled or measured field strengths or power density, is ≤ 1.0 . The MPE ratio of each antenna is determined at the minimum test separation distance required by the operating configurations and exposure conditions of the host device, according to the ratio of field strengths or power density to MPE limit, at the test frequency. Either the maximum peak or spatially averaged results from measurements or numerical simulations may be used to determine the MPE ratios. Spatial averaging does not apply when MPE is estimated using simple calculations based on far-field plane-wave equivalent conditions. The antenna installation and operating requirements for the host device must meet the minimum test separation distances required by all antennas, in both standalone and simultaneous transmission operations, to satisfy compliance.

5. Limits for General Population/Uncontrolled Exposure

(B) Limits for General Population / Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f)*	30
30-300	27.5	0.073	0.2	30
300-1500			F/1500	30
1500-100,000			1.0	30

Note: f = frequency in MHz ; *Plane-wave equivalent power density

6. Calculation Method

Predication of MPE limit at a given distance

Equation from page 18 of OET Bulletin 65, Edition 97-01

$$S = PG / 4\pi R^2$$

Where: S=power density

P=power input to antenna

G=power gain of the antenna in the direction of interest relative to an isotropic radiator

R=distance to the center of radiation of the antenna

From the EUT RF output power, the minimum mobile separation distance, d=0.2m, as well as the maximum gain of the used 0dBi for BT, the RF power density can be obtained.

Frequency Band	Antenna type and antenna number	Maximum antenna gain
2.4GHz	BT Antenna	0dBi

7. Estimation Result

7.1. Conducted Power Results

Bluetooth

Mode	Channel	Frequency(MHz)	Peak Conducted Output Power (dBm)
GFSK-BLE	00	2402	-0.72
	19	2440	-0.96
	39	2480	-1.11

7.2. Manufacturing tolerance

GFSK			
Frequency (MHz)	2402	2440	2480
Target (dBm)	0	0	-1
Tolerance \pm (dB)	1.0	1.0	1.0

7.3. Measurement Results

7.3.1. Standalone MPE

Mode	Output power		Antenna Gain (dBi)	Antenna Gain (linear)	Duty Cycle	MPE (mW/cm ²)	MPE Limits (mW/cm ²)
	(dBm)	(mW)					
GFSK-BLE	1	1.2589	0	1	100%	0.00032	1.0000

Remark:

1. Maximum power including tune-up tolerance;
2. MPE use distance is 20cm from manufacturer declaration of user manual.

8. Conclusion

The measurement results comply with the FCC Limit per 47 CFR 2.1091 for the uncontrolled RF Exposure of mobile device.

APPENDIX E: THE CUSTOMER STATEMENT**Product Model Designation**

Appendix	Category	Description																																													
A.	Brand	Move It																																													
B.	Product	Move It Speed																																													
C.	Model Number	MVPB0010																																													
D.	Model Number Series Abbreviation Definition and Range of Use	MV = Move It (Brand) PB = Punch Bag (Product Category*) 0 = Product Production Number (from 0-9) 0 = Version of hardware revision/refinement (from 1-9) 1 = Hardware features differentiation (from 0-9) 0 = Designation for accessory bundles (from 0-9) ----- *Product Category Abbreviations ----- SS for smart sensor PB for punch bag																																													
E.	Sample List of Associated Model Numbers	<table><tr><td>MVSS1000</td><td>MVPB0001</td><td>MVPB0011</td><td>MVPB0111</td><td>MVPB0211</td></tr><tr><td></td><td>MVPB0002</td><td>MVPB0012</td><td>MVPB0112</td><td>MVPB0212</td></tr><tr><td></td><td>MVPB0003</td><td>MVPB0013</td><td>MVPB0113</td><td>MVPB0213</td></tr><tr><td></td><td>MVPB0004</td><td>MVPB0014</td><td>MVPB0114</td><td>MVPB0214</td></tr><tr><td></td><td>MVPB0005</td><td>MVPB0015</td><td>MVPB0115</td><td>MVPB0215</td></tr><tr><td></td><td>MVPB0006</td><td>MVPB0016</td><td>MVPB0116</td><td>MVPB0216</td></tr><tr><td></td><td>MVPB0007</td><td>MVPB0017</td><td>MVPB0117</td><td>MVPB0217</td></tr><tr><td></td><td>MVPB0008</td><td>MVPB0018</td><td>MVPB0118</td><td>MVPB0218</td></tr><tr><td></td><td>MVPB0009</td><td>MVPB0019</td><td>MVPB0119</td><td>MVPB0219</td></tr></table>	MVSS1000	MVPB0001	MVPB0011	MVPB0111	MVPB0211		MVPB0002	MVPB0012	MVPB0112	MVPB0212		MVPB0003	MVPB0013	MVPB0113	MVPB0213		MVPB0004	MVPB0014	MVPB0114	MVPB0214		MVPB0005	MVPB0015	MVPB0115	MVPB0215		MVPB0006	MVPB0016	MVPB0116	MVPB0216		MVPB0007	MVPB0017	MVPB0117	MVPB0217		MVPB0008	MVPB0018	MVPB0118	MVPB0218		MVPB0009	MVPB0019	MVPB0119	MVPB0219
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F.	Model Number Variations In Detail
	<p>All the model numbers listed in Appendix E share the same smart sensor module (designated as MVSS1000) as MVPB0010, with minor differences in exterior design and included accessories. The first four letters and the first number digit of the 8 digit model number (MVPB0___) will always remain the same, where the ending 3 digits of the product series will increase in value depending on its revision version, cosmetic or feature version, and the type of accessory bundle.</p> <p>As an example, MVPB0010 is the first model designated for the overseas international market, and MVPB0001 is another model designated for the China market. Comparing model MVPB0010 with MVPB0001, the difference from MVPB0010, is in the color and material of the exterior design (using gold & black instead of red & black), the addition of a rebound speed adjustment cap located at the spring, and the inclusion of a more padded version for the glove accessory.</p> <p>Essentially, minor variations between model numbers are created to better cater for the different regional demands.</p>
	<p>Eggplant Technologies Ltd. Correspondent: Oscar Wong September 9, 2019</p>

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