



FCC TEST REPORT

FCC ID: 2BACT-M10

Product	:	Self-Cleaning Robot Vacuum and Mop
Model Name	:	M10, M10 Pro, M10 Ultra, M10 SE, M20 Pro, M20 Ultra, M30 Pro, M30 Ultra, VL10, VL10 Pro, VL20, VL20 Pro, VL30, VL30 Pro, VL50, VL60, VL70, VL80, VL90, VL50 Pro, VL60 Pro, VL70 Pro, VL80 Pro, VL90 Pro, VL50 Pro Ultra, VL60 Pro Ultra, VL70 Pro Ultra, VL80 Pro Ultra, VL90 Pro Ultra, M10 Pro Max, M20 Pro Max
Brand	:	N/A
Report No.	:	PTC23022008002E-FC02
Prepared for		
Xiamen Lynkbey Robot Ltd Company		
No.8, Unit 301, No. 67 Chengyi North Street,Phase III, Xiamen Software Park		
Prepared by		
Precise Testing & Certification Co., Ltd.		
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TEST RESULT CERTIFICATION

Applicant's name : Xiamen Lynkbey Robot Ltd Company

Address : No.8, Unit 301, No. 67 Chengyi North Street,Phase III, Xiamen Software Park

Manufacture's name : Xiamen Lynkbey Robot Ltd Company

Address : No.8, Unit 301, No. 67 Chengyi North Street,Phase III, Xiamen Software Park

Product name : Self-Cleaning Robot Vacuum and Mop

Model name : M10, M10 Pro, M10 Ultra, M10 SE, M20 Pro, M20 Ultra, M30 Pro, M30 Ultra, VL10, VL10 Pro, VL20, VL20 Pro, VL30, VL30 Pro, VL50, VL60, VL70, VL80, VL90, VL50 Pro, VL60 Pro, VL70 Pro, VL80 Pro, VL90 Pro, VL50 Pro Ultra, VL60 Pro Ultra, VL70 Pro Ultra, VL80 Pro Ultra, VL90 Pro Ultra, M10 Pro Max, M20 Pro Max

Test procedure : FCC CFR47 Part 1.1307(b)(1)

Test Date : Mar. 23, 2023 to Apr. 04, 2023

Date of Issue : Apr. 20, 2023

Test Result : PASS

This device described above has been tested by PTC, and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.

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Test Engineer:

Simon Pu / Engineer

Technical Manager:

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Report No.: PTC23022008002E-FC02

2 Test Summary

Test Items	Test Requirement	Result
Maximum Permissible Exposure (Exposure of Humans to RF Fields)	15.247 (i)	PASS
Remark:		
N/A: Not Applicable		



3 General Information

3.1 General Description of E.U.T.

Product Name	:	Self-Cleaning Robot Vacuum and Mop
Model Name	:	M10, M10 Pro, M10 Ultra, M10 SE, M20 Pro, M20 Ultra, M30 Pro, M30 Ultra, VL10, VL10 Pro, VL20, VL20 Pro, VL30, VL30 Pro, VL50, VL60, VL70, VL80, VL90, VL50 Pro, VL60 Pro, VL70 Pro, VL80 Pro, VL90 Pro, VL50 Pro Ultra, VL60 Pro Ultra, VL70 Pro Ultra, VL80 Pro Ultra, VL90 Pro Ultra, M10 Pro Max, M20 Pro Max
Specification	:	802.11b/g/n HT20/HT40
Operation Frequency	:	2412-2462MHz for 802.11b/g/ n(HT20/HT40)
Number of Channel	:	11 channels for 802.11b/g/ n(HT20/HT40)
Type of Modulation	:	DSSS with DBPSK/DQPSK/CCK for 802.11b; OFDM with BPSK/QPSK/16QAM/64QAM for 802.11g/n;
Antenna installation	:	FPCB Antennaa
Antenna Gain	:	2.44 dBi
Power supply	:	Li-ion Battery : PH230220-4S2P Rated Voltage: 14.4V Rated Capacity: 4800mAh
Hardware Version	:	LB_A1_MB_V0.1_20221116
Software Version	:	0.3.4

Model difference:

M10, M10 Pro, M10 Ultra, M10 SE, M20 Pro, M20 Ultra, M30 Pro, M30 Ultra, VL10, VL10 Pro, VL20, VL20 Pro, VL30, VL30 Pro, VL50, VL60, VL70, VL80, VL90, VL50 Pro, VL60 Pro, VL70 Pro, VL80 Pro, VL90 Pro, VL50 Pro Ultra, VL60 Pro Ultra, VL70 Pro Ultra, VL80 Pro Ultra, VL90 Pro Ultra, M10 Pro Max, M20 Pro Max are different model names.

The test model is M10.



4 RF Exposure

Test Requirement : 15.247 (i)

Evaluation Method : FCC Part 2.1091

4.1 Requirements

Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy levels in excess limit for maximum permissible exposure. In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as a mobile device whereby a distance of 0.2 m normally can be maintained between the user and the device.

4.2 The procedures / limit

(A) Limits for Occupational / Controlled Exposure

Frequency Range	Electric Field	Magnetic Field	Power Density (S)	Averaging Time
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842 / f	4.89 / f	(900 / f)*	6
30-300	61.4	0.163	1.0	6
300-1500			F/300	6
1500-100,000			5	6

(B) Limits for General Population / Uncontrolled Exposure

Frequency Range	Electric Field	Magnetic Field	Power Density (S)	Averaging Time
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



4.3 MPE Calculation Method

$$E \text{ (V/m)} = \frac{\sqrt{30 \times P \times G}}{d} \quad \text{Power Density: } P_d \text{ (W/m}^2\text{)} = \frac{E^2}{377}$$

E = Electric field (V/m)

P = Peak RF output power (W)

G = EUT Antenna numeric gain (numeric)

d = Separation distance between radiator and human body (m)

The formula can be changed to

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

From the peak EUT RF output power, the minimum mobile separation distance, d=0.2m, as well as the gain of the used antenna, the RF power density can be obtained

4.4 Test Result

Item	Antenna Gain (numeric)	Max. Peak Output Power (dBm)	Tune up tolerance (dBm)	Max Tune Up Power (mW)	Power Density (mW/cm ²)	Limit of Power Density (mW/cm ²)	Result
2412	1.75	22.61	22.61 ± 1	229.614865	0.080118	1	Pass

*****THE END REPORT*****