



FCC TEST REPORT

FCC ID: 2AWN3RBVFFJ

Product	:	Robotic Vacuum Cleaner
Model Name	:	BDXRbv660
Additional model	:	N/A
Brand	:	N/A
Report No.	:	PTC20050804102E-FC02
Prepared for		
CT Nova Limited		
6/F, Building 20E, Phase 3, Hong Kong Science Park, 20 Science Park East Avenue, Shatin, New Territories, Hong Kong		
Prepared by		
Precise Testing & Certification Co., Ltd		
Building 1, No. 6, Tongxin Road, Dongcheng Street, Dongguan, Guangdong, China		



Report No.: PTC20050804102E-FC02

TEST RESULT CERTIFICATION

Applicant's name : CT Nova Limited

Address : 6/F, Building 20E, Phase 3, Hong Kong Science Park, 20 Science Park East Avenue, Shatin, New Territories, Hong Kong

Manufacture's name : Matsutek Enterprises Co., Ltd.

Address : 2F, No. 2, Lane 15, Ziqiang St., Tu Cheng Dist., New Taipei City, Taiwan 23678

Product name : Robotic Vacuum Cleaner

Model name : BDXRBV660

Test procedure : KDB 447498 D01 General RF Exposure Guidance v05

Test Date : Jun 09, 2020 to Jun 20, 2020

Date of Issue : Jun 20, 2020

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:

A handwritten signature in black ink that reads "Leo Yang" with a stylized flourish at the end.

Leo Yang / Engineer

Technical Manager:

A handwritten signature in black ink that appears to read "Chris Du" with a stylized flourish.

Chris Du / Manager



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2 Test Summary

Test Items	Test Requirement	Result
Maximum Permissible Exposure (Exposure of Humans to RF Fields)	1.1307(b)(1)	PASS
Remark:		
N/A: Not Applicable		



3 General Information

3.1 General Description of E.U.T.

Product Name	:	Robotic Vacuum Cleaner
Model Name	:	BDXRBV660
Additional model	:	N/A
Model Description	:	N/A
Bluetooth Version	:	N/A
Operating frequency	:	802.11b/g/n HT20: 2412-2462MHz
Max. RF output power	:	WiFi: 18.67dBm
Type of Modulation	:	DSSS with DBPSK/DQPSK/CCK for 802.11b; OFDM with BPSK/QPSK/16QAM/64QAM for 802.11g/n;
Antenna installation:	:	Pcb antenna
Antenna Gain:	:	0 dbi
Power supply	:	AC100-120V 50/60HZ (battery 14.6v 2500mAh)
Adapter	:	Input:AC100-120V 50/60HZ(battery 14.6v 2500mAh)



4 RF Exposure

Test Requirement : FCC Part 1.1307(b)(1)

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)	Peak Output Power (mW)	Power Density (mW/cm ²)	Limit of Power Density (mW/cm ²)	Result
WIFI	1	18.67	73.62	0.0146	1	Pass

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