

RF EXPOSURE REPORT

For

SMART VACUUM CLEANER

MODEL NUMBER: VS12200AUS

ADDITIONAL MODEL NUMBER: VS12220AUS, VS12230AUS

PROJECT NUMBER: 4789392957

REPORT NUMBER: 4789392957-2

FCC ID: 2ASWB-S12V

IC: 24918-S12V

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Prepared for

Ecovacs Robotics Co Ltd

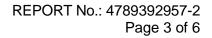
Prepared by

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1. ATTESTATION OF TEST RESULTS

Applicant Information

Company Name: Address:	Ecovacs Robotics Co Ltd No. 108 Shihu Road West, Wuzhong Zone,Suzhou, 215128 P.R.China			
Manufacturer Information				
Company Name:	Ecovacs Robotics Co Ltd			
Address:	No. 108 Shihu Road West, Wuzhong Zone,Suzhou, 215128 P.R.China			
Factory Information				
Company Name:	Ecovacs Robotics Co Ltd			
Address:	No. 108 Shihu Road West, Wuzhong Zone,Suzhou, 215128 P.R.China			
EUT Description				
Product Name	SMART VACUUM CLEANER			
Model Name	VS12200AUS			
Additional No.	VS12220AUS, VS12230AUS			
Sample Number	2913906			
Data of Receipt Sample	Feb. 28, 2020			
Date Tested	Mar. 02, 2020~ Mar.26, 2020			
APPLICABLE STANDARDS				

STANDARD

TEST RESULTS

FCC Guidelines for Human Exposure IEEE C95.1

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Reviewed By:

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Senior Project Engineer

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Authorized By:

Scholl Zhang

Scholl Zhang Laboratory Leader Complies



2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with KDB 447498 D01 General RF Exposure Guidance v06 and FCC Guidelines for Human Exposure IEEE C95.1.

3. FACILITIES AND ACCREDITATION

Accreditation Certificate	A2LA (Certificate No.: 4829.01) UL-CCIC COMPANY LIMITED has been assessed and proved to be in compliance with A2LA. FCC (FCC Designation No.: CN1247) UL-CCIC COMPANY LIMITED has been recognized to perform compliance testing on equipment subject to the Commission's Declaration of Conformity (DoC) and Certification rules. IC (IC Designation No.: 25056) UL-CCIC COMPANY LIMITED has been recognized to perform compliance testing on equipment subject to the Commission's Declaration of Conformity (DoC) and Certification rules.
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Note 1: All tests measurement facilities use to collect the measurement data are located at No. 2, Chengwan Road, Suzhou Industrial Park, Suzhou 215122, People's Republic of China

Note 2: For below 30MHz, lab had performed measurements at test anechoic chamber and comparing to measurements obtained on an open field site. These measurements below 30MHz had been correlated to measurements performed on an OFS.

Note 3: The test anechoic chamber in UL-CCIC COMPANY LIMITED had been calibrated and compared to the open field sites and the test anechoic chamber is shown to be equivalent to or worst case from the open field site.

4. REQUIREMENT

LIMIT

Limits for General Population/Uncontrolled Exposure

	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/f2)*	30				
30-300	27.5	0.073	0.2	30				
300-1500			f/150	30				
1500-100,000			1.0	30				
Note 1: f = frequency in MHz, * means Plane-wave equivalent power density								

Note 2: General population/uncontrolled exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure.

Note 3: The limit value 1.0mW/cm² is available for this EUT.

MPE CALCULATION METHOD

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

where: S = power density (in appropriate units, e.g. mW/ cm2)

P = power input to the antenna (in appropriate units, e.g., mW) (the measured power value refer to the tune-up document)

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 (appropriate units, e.g., cm)



CALCULATED RESULTS

Radio Frequency Radiation Exposure Evaluation

WIFI (Worst case)								
Mode	Tune-up Power(P)		Antenna Gain		Power Density	Limit	Test Result	
11N HT20	(dBm)	(mW)	(dBi)	(Numeric)	(mW/cm2)	(mW/cm2)		
	16.5	44.67	2.3	1.70	0.027	1	Complies	

Note:

1) The calculated distance is 15cm.

2) Photo about the distance from RF antenna to holding position.



END OF REPORT