

Test Report No.:
FCC2022-0016-EMF

Test Report

EUT : Robot Mop
MODEL : M20, M20-2, M20-3, M20-4
BRAND NAME : +360,Botslab
APPLICANT : Botslab,Inc.
Classification of Test : N/A

CVC Testing Technology Co., Ltd.



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Client		Name : Botslab,Inc. Address : 919 North Market Street, Suite 950, Wilmington, New Castle, Delaware, USA			
Manufacturer		Name : Botslab,Inc. Address : 919 North Market Street, Suite 950, Wilmington, New Castle, Delaware, USA			
Equipment Under Test		Name : Robot Mop Model/Type: M20, M20-2, M20-3, M20-4 Trade mark : +360,Botslab Serial NO.:N/A Sampe NO.:3-1			
Date of Receipt.	2022.3.15	Date of Testing	2022.03.15~2022.04.15		
Test Specification			Test Result		
FCC Part 2 (Section 2.1091) KDB 447498 D01 IC RSS-102 ISSUE 5			PASS		
Evaluation of Test Result		The equipment under test was found to comply with the requirements of the standards applied. Issue Date: 2022.04.15			
Tested by:  Xu ZhenFei Name Signature		Reviewed by:  Liu YongHai Name Signature		Approved by:  Chen HuaWen Name Signature	
Other Aspects: NONE.					
Abbreviations:OK, Pass= passed Fail = failed N/A= not applicable EUT= equipment, sample(s) under tested					
This test report relates only to the EUT, and shall not be reproduced except in full, without written approval of CVC.					



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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
FCC2022-0016-EMF	Original release	2022.04.15



1. GERTIFICATION

PRODUCT	Robot Mop
BRAND	+360,Botslab
MODEL	M20
ADDITIONAL MODEL	M20-2, M20-3, M20-4
FCC ID	2A22Z-M20
IC ID	27673-M20
STANDARDS	FCC Part 2 (Section 2.1091)
	KDB 447498 D01
	IC RSS-102 ISSUE 5

Additional model M20-2, M20-3, M20-4 is identical with the test model M20 except the color of the appearance and model name for trading purpose



2. RF EXPOSURE LIMIT

LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (FCC)

FREQUENCY RANGE (MHz)	ELECTRIC FIELD STRENGTH (V/m)	MAGNETIC FIELD STRENGTH (A/m)	POWER DENSITY (mW/cm ²)	AVERAGE TIME (minutes)
LIMITS FOR GENERAL POPULATION / UNCONTROLLED EXPOSURE				
300-1500	...	...	F/1500	30
1500-100,000	...	...	1.0	30

F = Frequency in MHz

MPE calculation Formula(FCC)

$$P_d = (P_{out} \cdot G) / (4 \cdot \pi \cdot r^2)$$

where

P_d = power density in mW/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 3.1416

R = distance between observation point and center of the radiator in cm



LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (IC)

FREQUENCY RANGE (MHz)	ELECTRIC FIELD STRENGTH (V/m)	MAGNETIC FIELD STRENGTH (A/m)	POWER DENSITY (W/m ²)	AVERAGE TIME (minutes)
LIMITS FOR GENERAL POPULATION / UNCONTROLLED EXPOSURE				
48-300	22.06	0.05852	1.291	6
300-6000	$3.142 \cdot F^{0.3417}$	$0.008335 \cdot F^{0.3417}$	$0.02619 \cdot F^{0.6834}$	6

F = Frequency in MHz

MPE calculation Formula(IC)

$$P_d = (P_{out} \cdot G) / (4 \cdot \pi \cdot r^2)$$

where

P_d = power density in W/m²

P_{out} = output power to antenna in W

G = gain of antenna in linear scale

π = 3.1416

R = distance between observation point and center of the radiator in m

3. CLASSIFICATION

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user. So, this device is classified as **Mobile Device**.



4. ANTENNA GAIN

The antennas provided to the EUT, please refer to the following table:

Transmitter Circuit	Peak Gain (dBi)	Antenna Type
Chain 0	2.0	PCB Antenna

5. CALCULATION RESULT OF MAXIMUM CONDUCTED AV POWER

The measured conducted Average Power

MODE	AVERAGED POWER (DBM)
802.11b	9.27
802.11g	14.33
802.11n(HT20)	14.07
802.11n(HT40)	13.55

The tuned conducted Average Power (declared by client)

MODE	FREQUENCY (MHZ)	TARGET POWER (DBM)	TOLERANCE (DBM)	LOWER TOLERANCE (DBM)	UPPER TOLERANCE (DBM)
802.11b	2412-2462	9	± 1	8	10
802.11g	2412-2462	14	± 1	13	15
802.11n(HT20)	2412-2462	14	± 1	13	15
802.11n(HT40)	2422-2452	13	± 1	12	14



MAXIMUM PERMISSIBLE EXPOSURE (FCC)

FREQUENCY BAND (MHz)	Max power (dBm)	Antenna gain (dBi)	DISTANCE (cm)	POWER DENSITY (mW/cm ²)	LIMIT (mW/cm ²)
802.11b	10	2	20	0.0040	1
802.11g	15	2	20	0.0100	1
802.11n(HT20)	15	2	20	0.0100	1
802.11n(HT40)	14	2	20	0.0080	1

MAXIMUM PERMISSIBLE EXPOSURE (IC)

FREQUENCY BAND (MHz)	Max power (dBm)	Antenna gain (dBi)	DISTANCE (m)	POWER DENSITY (W/m ²)	LIMIT (W/m ²)
802.11b	10	2	0.2	0.0397	5.37
802.11g	15	2	0.2	0.0997	5.37
802.11n(HT20)	15	2	0.2	0.0997	5.37
802.11n(HT40)	14	2	0.2	0.0792	5.38



Important

- (1) The test report is valid with the official seal of the laboratory and the signatures of Test engineer, Author and Reviewer simultaneously.
- (2) The test report is invalid if altered.
- (3) Any photocopies or part photocopies in the test report are forbidden without the written permission from the laboratory.
- (4) Objections to the test report must be submitted to the laboratory within 15 days.
- (5) Generally, commission test is responsible for the tested samples only.
- (6) Any photocopies or part photocopies of the test report are forbidden without the written permission from CVC;

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