



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.**



# CVC Testing Technology Co., Ltd.

Test Report No.: FCC2022-0016-EMF

Page 2 of 10

<b>Client</b>		Name : Botslab,Inc. Address : 919 North Market Street, Suite 950, Wilmington, New Castle, Delaware, USA	
<b>Manufacturer</b>		Name : Botslab,Inc. Address : 919 North Market Street, Suite 950, Wilmington, New Castle, Delaware, USA	
<b>Equipment Under Test</b>		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
<b>Test Specification</b>		<b>Test Result</b>	
FCC Part 2 (Section 2.1091) KDB 447498 D01 IC RSS-102 ISSUE 5		PASS	
<b>Evaluation of Test Result</b>	The equipment under test was found to comply with the requirements of the standards applied.  <b>Issue Date: 2022.04.15</b>		
Tested by:    Xu ZhenFei Name                      Signature	Reviewed by:    Liu YongHai Name                      Signature	Approved by:    Chen HuaWen Name                      Signature	
<b>Other Aspects: NONE.</b>			
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.			



## TABLE OF CONTENTS

RELEASE CONTROL RECORD .....	4
1. CERTIFICATION .....	5
2. RF EXPOSURE LIMIT .....	6
3. CLASSIFICATION .....	7
4. ANTENNA GAIN .....	8
5. CALCULATION RESULT OF MAXIMUM CONDUCTED AV POWER .....	8



**RELEASE CONTROL RECORD**

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



## 1. GERTIFICATION

<b>PRODUCT</b>	Robot Mop
<b>BRAND</b>	+360,Botslab
<b>MODEL</b>	M20
<b>ADDITIONAL MODEL</b>	M20-2, M20-3, M20-4
<b>FCC ID</b>	2A22Z-M20
<b>IC ID</b>	27673-M20
<b>STANDARDS</b>	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 <sup>2</sup> )	AVERAGE TIME (minutes)
<b>LIMITS FOR GENERAL POPULATION / UNCONTROLLED EXPOSURE</b>				
300-1500	...	...	F/1500	30
1500-100,000	...	...	1.0	30

F = Frequency in MHz

### MPE calculation Formula(FCC)

$$Pd = (Pout * G) / (4 * \pi * r^2)$$

where

Pd = power density in mW/cm<sup>2</sup>

Pout = output power to antenna in mW

G = gain of antenna in linear scale

Pi = 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 <sup>2</sup> )	AVERAGE TIME (minutes)
<b>LIMITS FOR GENERAL POPULATION / UNCONTROLLED EXPOSURE</b>				
48-300	22.06	0.05852	1.291	6
300-6000	$3.142 * F^{0.3417}$	$0.008335 * F^{0.3417}$	$0.02619 * F^{0.6834}$	6

F = Frequency in MHz

### MPE calculation Formula(IC)

$$Pd = (Pout * G) / (4 * pi * r^2)$$

where

Pd = power density in W/m<sup>2</sup>

Pout = output power to antenna in W

G = gain of antenna in linear scale

Pi = 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 <sup>2</sup> )	LIMIT (mW/cm <sup>2</sup> )
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 <sup>2</sup> )	LIMIT (W/m <sup>2</sup> )
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;

Address of the laboratory:

CVC Testing Technology Co., Ltd.

Address: No.3,TiantaiyiRoad,KaitaiAvenue,ScienceCity,Guangzhou,China

Post Code: 510663

Tel: 020-32293888

FAX: 020-32293889

E-mail: [office@cvc.org.cn](mailto:office@cvc.org.cn)