

MPE RADIO TEST REPORT

Product name	SwitchBot Hub Mini
Applicant	臥安科技（深圳）有限公司 Woan Technology (Shenzhen) Co., Ltd.
Manufacture	臥安科技（深圳）有限公司 Woan Technology (Shenzhen) Co., Ltd.
Rating(s)	DC5V from adapter
Trademark	SwitchBot
Model and/or type reference	W0202200
Standard	LP0002:2018
Test Result	Pass

Date of receipt : 03-30-2020

Date of Issue : 04-03-2020

Signature :



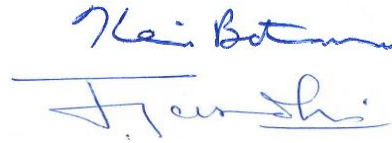
NCC RADIO TEST REPORT

Report Reference No...... M200330N3-02

Compiled by (+ signature) Kevin Bothmann

Approved by (+ signature) Jay Gandhi

Date of issue..... 2020-04-03



Applicant's name 臥安科技（深圳）有限公司
 Woan Technology (Shenzhen) Co., Ltd.
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 Room 708-715, Building A, HuafengBao' anZhigu Technology Innovation Park, Yintian Road, Xixiang Street, Bao' an District, Shenzhen, Guangdong, P.R.China, 518102
Manufacture's Name 臥安科技（深圳）有限公司
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Test specification:

Standard LP0002: 2018

Test procedure EIA 603、ANSI、FCC/47 CFR/2.1046、2.1047、2.1049、2.1051、2.1053 and 2.1055

Non-standard test method..... N/A

Test item description

Product name : SwitchBot Hub Mini

Brand name : SwitchBot

Model and/or type reference : W0202200

Rating(s) : DC5V from adapter

Testing Laboratory information

Testing Laboratory Name : Electro Magnetic Test, Inc.

Address : 1547 Plymouth Street, Mountain View, CA 94043

CAB Identifier Number : US0036

Tel : (650) 965-4000

Fax : (650) 965-3000

E-mail : jgandhi@emtlabs.com

Testing

Date of receipt of test item..... Mar. 30, 2020

Date (s) of performance of tests..... Mar. 30~ Apr. 02, 2020

Date of Issue Apr. 03, 2020

Test Result **Pass**

RF Exposure Compliance Requirement

1. Standard requirement

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 level in excess limit for maximum permissible exposure.

(a) Limits for Occupational / Controlled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S)(mW/cm ²)	Averaging Times E ² , H ² or S (minutes)
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	6
300-1500			F/300	6
1500-100000			5	6

(b) 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 Times 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/f)*	30
30-300	27.5	0.073	0.2	30
300-1500			F/500	30
1500-100000			1	30

Note: f=frequency in MHz; *Plane-wave equivalent power density

2. MPE Calculation Method

$$E \text{ (V/m)} = (30 \cdot P \cdot G)^{0.5} / d \quad \text{Power Density: } Pd \text{ (W/m}^2\text{)} = E^2 / 377$$

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 $Pd = (30 \cdot P \cdot G) / (377 \cdot d^2)$

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.

3. Calculated Result and Limit

For 2.4 G WIFI

Antenna Gain (dBi)	AVG Output Power (dBm)	AVG Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
3.66	18.44	69.823	0.03226	1	Complies

For 2.4 G BT

Antenna Gain (dBi)	AVG Output Power (dBm)	AVG Output Power (mW)	Power Density (S) (mW/cm ²)	Limit of Power Density (S) (mW/cm ²)	Test Result
3.66	-8.14	0.153	0.00007	1	Complies

** End of Report **