

# **RF Exposure Report**

Report No.: SA190802D01

FCC ID: RFHAFOBOT2

Test Model: AfoBot 2

Received Date: Aug. 2, 2019

**Test Date:** Sep. 3 to Oct. 17, 2019

**Issued Date:** Oct. 22, 2019

**Applicant:** IEI Integration Corp.

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Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch

Lin Kou Laboratories

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Test Location (1): No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan

Test Location (2): No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City

33383, Taiwan

FCC Registration /

**Designation Number:** 198487 / TW2021





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### **Release Control Record**

Issue No.	Description	Date Issued
SA190802D01	Original release.	Oct. 22, 2019



#### **Certificate of Conformity**

Approved by:

Product: Smart Video Device

Brand: iEi, QNAP

Test Model: AfoBot 2

Sample Status: Engineering sample

Applicant: IEI Integration Corp.

Test Date: Sep. 3 to Oct. 17, 2019

Standards: FCC Part 2 (Section 2.1091)

KDB 447498 D01 General RF Exposure Guidance v06

IEEE C95.3 -2002

The above equipment has been tested by Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's RF characteristics under the conditions specified in this report.

Prepared by :	Annie Chang	, Date:	Oct. 22, 2019	
	Annie Chang / Senior Specialist			
Approved by :	Rex. Jai	, Date:	Oct. 22, 2019	

Rex Lai / Associate Technical Manager



# 2 RF Exposure

### 2.1 Limits For Maximum Permissible Exposure (MPE)

2 Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm <sup>2</sup> )	Average Time (minutes)	
Limits For General Population / Uncontrolled Exposure					
0.3-1.34	614	1.63	(100)*	30	
1.34-30	824/f	2.19/f	(180/f <sup>2</sup> )*	30	
30-300	27.5	0.073	0.2	30	
300-1500			f/1500	30	
1500-100,000			1.0	30	

f = Frequency in MHz; \*Plane-wave equivalent power density

#### 2.1 MPE Calculation Formula

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

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

#### 2.2 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**.



#### 2.3 Calculation Result Of Maximum Conducted Power

Frequency Band (MHz)	Max Power (dBm)	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm²)	Limit (mW/cm²)
2412-2462 WLAN	23.60	6.01	20	0.1819	1
5180-5240 WLAN	15.01	6.01	20	0.0252	1
5260-5320 WLAN	15.05	6.01	20	0.0254	1
5500-5700 WLAN	15.06	6.01	20	0.0255	1
5745-5825 WLAN	15.10	6.01	20	0.0257	1
2402-2480 Bluetooth EDR	6.07	3	20	0.0016	1
2402-2480 Bluetooth LE	6.73	3	20	0.0019	1

### NOTE:

- 1. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.
- 2.4GHz Directional gain = 3dBi + 10log(2) = 6.01dBi
  5.0GHz Directional gain = 3dBi + 10log(2) = 6.01dBi
- 3. 2.4GHz & 5GHz technologies cannot transmit at same time. WLAN & BT technologies cannot transmit at same time.

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