

## RF Exposure Report

**Report No.:** SA171114D24

**FCC ID:** RFHAFOBOT

**Test Model:** AfoBot

**Received Date:** Nov. 16, 2017

**Test Date:** Dec. 4 ~ 19, 2017

**Issued Date:** Jan. 10, 2018

**Applicant:** IEI Integration Corp.

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

**Lab Address:** No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan (R.O.C.)



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### Release Control Record

| Issue No.   | Description       | Date Issued   |
|-------------|-------------------|---------------|
| SA171114D24 | Original release. | Jan. 10, 2018 |

## 1 Certificate of Conformity

**Product:** Smart Video Device

**Brand:** iEi,QNAP

**Test Model:** AfoBot

**Sample Status:** Engineering sample

**Applicant:** IEI Integration Corp.

**Test Date:** Dec. 4 ~ 19, 2017

**Standards:** FCC Part 2 (Section 2.1091)

KDB 447498 D01 General RF Exposure Guidance v06

IEEE C95.1-1992

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 EMC characteristics under the conditions specified in this report.

**Prepared by :** Annie Chang, **Date:** Jan. 10, 2018  
Annie Chang / Senior Specialist

**Approved by :** Rex Lai, **Date:** Jan. 10, 2018  
Rex Lai / Associate Technical Manager

## 2 RF Exposure

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

| 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 |                               |                               |                                     |                        |
| 300-1500                                              | ...                           | ...                           | F/1500                              | 30                     |
| 1500-100,000                                          | ...                           | ...                           | 1.0                                 | 30                     |

F = Frequency in MHz

### 2.2 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

### 2.3 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**.

## 2.4 Calculation Result Of Maximum Conducted Power

| Frequency Band (MHz)    | Max Power (dBm) | Antenna Gain (dBi) | Distance (cm) | Power Density (mW/cm <sup>2</sup> ) | Limit (mW/cm <sup>2</sup> ) |
|-------------------------|-----------------|--------------------|---------------|-------------------------------------|-----------------------------|
| 2412-2462 WLAN          | 24.38           | 5.01               | 20            | 0.1729                              | 1                           |
| 5180-5240 WLAN          | 14.95           | 5.01               | 20            | 0.0197                              | 1                           |
| 5260-5320 WLAN          | 14.82           | 5.01               | 20            | 0.0191                              | 1                           |
| 5500-5700 WLAN          | 14.90           | 5.01               | 20            | 0.0195                              | 1                           |
| 5745-5825 WLAN          | 15.80           | 5.01               | 20            | 0.0240                              | 1                           |
| 2402-2480 Bluetooth EDR | -3.79           | 2                  | 20            | 0.0001                              | 1                           |
| 2402-2480 Bluetooth LE  | 6.92            | 2                  | 20            | 0.0016                              | 1                           |

NOTE:

2.4GHz Directional gain =  $2\text{dBi} + 10\log(2) = 5.01\text{dBi}$

5.0GHz Directional gain =  $2\text{dBi} + 10\log(2) = 5.01\text{dBi}$

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