

## RF Exposure Report

**Report No.:** SA180323E06A

**FCC ID:** 2AK6Q-M17-Z012

**Test Model:** M17-Z012

**Received Date:** Apr. 10, 2018

**Test Date:** Apr. 10, 2018

**Issued Date:** Apr. 24, 2018

**Applicant:** Avisonic Technology Corp.

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

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**Test Location:** E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan R.O.C.

**FCC Registration / Designation Number:** 723255 / TW2022

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### Release Control Record

Issue No.	Description	Date Issued
SA180323E06A	Original release.	Apr. 24, 2018

## 1 Certificate of Conformity

**Product:** UVC to DVR With WIFI

**Brand:** UVCDVR

**Test Model:** M17-Z012

**Sample Status:** ENGINEERING SAMPLE

**Applicant:** Avionic Technology Corp.

**Test Date:** Apr. 10, 2018

**Standards:** FCC Part 2 (Section 2.1093)

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 :** Phoenix Huang, **Date:** Apr. 24, 2018  
Phoenix Huang / Specialist

**Approved by :** May Chen, **Date:** Apr. 24, 2018  
May Chen / Manager

## 2 Evaluation Result

Following FCC KDB 447498 D01 "General SAR test exclusion guidance"

The corresponding SAR Exclusion Threshold condition, listed below:

- 1) The 1-g and 10-g SAR test exclusion thresholds for 100 MHz to 6 GHz at test separation distances  $\leq 50$  mm are determined by:  
$$[(\text{max. power of channel, including tune-up tolerance, mW}) / (\text{min. test separation distance, mm})] \cdot [\sqrt{f(\text{GHz})}] \leq 3.0 \text{ for 1-g SAR and } \leq 7.5 \text{ for 10-g extremity SAR, where}$$
  - $f(\text{GHz})$  is the RF channel transmit frequency in GHz.
  - Power and distance are rounded to the nearest mW and mm before calculation.
  - The result is rounded to one decimal place for comparison. The test exclusions are applicable only when the minimum test separation distance is  $\leq 50$  mm and for transmission frequencies between 100 MHz and 6 GHz. When the minimum test separation distance is  $< 5$  mm, a distance of 5 mm is applied to determine SAR test exclusion.
- 2) At 100 MHz to 6 GHz and for test separation distances  $> 50$  mm, the SAR test exclusion threshold is determined according to the following:
  - a)  $[\text{Threshold at } 50 \text{ mm in step 1}) + (\text{test separation distance} - 50\text{mm}) \cdot (f(\text{MHz})/150)] \text{ mW}$ , at 100MHz to 1500 MHz
  - b)  $[\text{Threshold at } 50 \text{ mm in step 1}) + (\text{test separation distance} - 50 \text{ mm}) \cdot 10] \text{ mW}$  at  $> 1500$  MHz and  $\leq 6$  GHz
- 3) At frequencies below 100 MHz, the following may be considered for SAR test exclusion.
  - a) The threshold at the corresponding test separation distance at 100 MHz in step 2) is multiplied by  $[1 + \log(100/f(\text{MHz}))]$  for test separation distances  $> 50$  mm and  $< 200$  mm.
  - b) The threshold determined by the equation in a) for 50 mm and 100 MHz is multiplied by  $\frac{1}{2}$  for test separation distances  $\leq 50$  mm.
  - c) SAR measurement procedures are not established below 100 MHz. When SAR test exclusion cannot be applied, a KDB inquiry is required to determine SAR evaluation requirements for any test results to be acceptable.

### 3 SAR Test Exclusion Thresholds

The Maximum power was refer to the FCC test report (Report No.: RF180323E06)

#### WiFi Avg. Power Table

##### 802.11b

Channel	Frequency (MHz)	Avg. Power	
		(mW)	(dBm)
1	2412	9.506	9.78
6	2437	9.506	9.78
11	2462	9.484	9.77

##### 802.11g

Channel	Frequency (MHz)	Avg. Power	
		(mW)	(dBm)
1	2412	8.974	9.53
6	2437	9.204	9.64
11	2462	9.462	9.76

##### 802.11n (HT20)

Channel	Frequency (MHz)	Avg. Power	
		(mW)	(dBm)
1	2412	9.441	9.75
6	2437	8.913	9.50
11	2462	9.247	9.66

##### 802.11n (HT40)

Channel	Frequency (MHz)	Avg. Power	
		(mW)	(dBm)
3	2422	9.441	9.75
6	2437	9.55	9.80
9	2452	9.506	9.78

#### For WiFi SAR Test Exclusion Thresholds

Frequency (MHz)	Max Avg. Power (dBm)	Max Avg. Power (mW)	SAR test exclusion calculation value <sup>(NOTE 2)</sup>	1-g SAR test exclusion thresholds	Result
2412 ~ 2462	9.8	9.55	2.982	3	Pass

**Note:** 1. The antenna type is Printed antenna with 1.9dBi gain.  
 2. Calculate SAR test exclusion thresholds from condition “1” formulas.

### 4 Conclusion

Since average power is below SAR test exclusion power thresholds, the SAR evaluation is not required.

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