

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.

Address: 7F, No.12, Innovation 1st Rd., Hsinchu Science Park, Hsin-Chu, Taiwan, R.O.C.

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

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

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

This report is for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence, provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents. Unless specific mention, the uncertainty of measurement has been explicitly taken into account to declare the compliance or non-compliance to the specification. The report must not be used by the client to claim product certification, approval, or endorsement by any government agencies.

Table of Contents

Release Control Record	3
1 Certificate of Conformity	4
2 Evaluation Result	5
3 SAR Test Exclusion Thresholds	6
4 Conclusion	6

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: Avisonic Technology Corp.

Test Date: Apr. 10, 2018

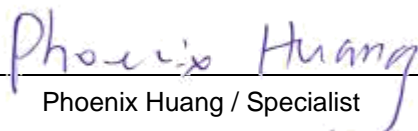
Standards: FCC Part 2 (Section 2.1093)

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.

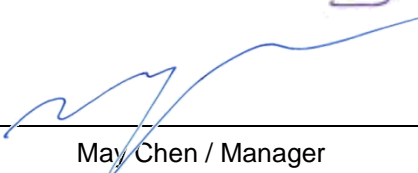
Prepared by :


Phoenix Huang / Specialist

Date:

Apr. 24, 2018

Approved by :


May Chen / Manager

Date:

Apr. 24, 2018

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 ≤ 50 mm are determined by:
$$\left[\frac{\text{max. power of channel, including tune-up tolerance, mW}}{\text{min. test separation distance, mm}} \right] \cdot [\sqrt{f(\text{GHz})}]$$
$$\leq 3.0 \text{ for 1-g SAR and } \leq 7.5 \text{ for 10-g extremity SAR, where}$$
 - $f(\text{GHz})$ 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 ≤ 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) [Threshold at 50 mm in step 1) + (test separation distance - 50mm) · ($f(\text{MHz})/150$)] mW, at 100MHz to 1500 MHz
 - b) [Threshold at 50 mm in step 1) + (test separation distance - 50 mm) · 10] mW at > 1500 MHz and ≤ 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 ≤ 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 ^(NOTE 2)	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.

--- END ---