



# RF Exposure Evaluation Declaration

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**FCC ID:** 2ATH6-AVG20WF5  
**Applicant:** AltumView Systems Inc.  
**Product:** AltumView Sentinare 2 Smart Activity Sensor  
**Model No.:** AVG2-0WF5  
**Brand Name:** AltumView  
**FCC Classification:** Digital Transmission System (DTS)  
Unlicensed National Information Infrastructure (NII)  
**Procedure(s):** KDB 447498 D01v06  
**Conclusion:** Complies

**Reviewed By:**

\_\_\_\_\_  
Sunny Sun

**Approved By:**

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Robin Wu



The test results relate only to the samples tested.

The test results shown in the test report are traceable to the national/international standards through the calibration of the equipment and evaluated measurement uncertainty herein.

The test report shall not be reproduced except in full without the written approval of MRT Technology (Suzhou) Co., Ltd.

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### Revision History

Report No.	Version	Description	Issue Date	Note
2202RSU032-U6	Rev. 01	Initial Report	05-07-2022	Valid

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## CONTENTS

Description	Page
<b>1. General Information .....</b>	<b>4</b>
1.1. Applicant.....	4
1.2. Manufacturer .....	4
1.3. Testing Facility.....	4
1.4. Product Information .....	5
1.5. Antenna Details.....	5
<b>2. RF Exposure Evaluation.....</b>	<b>6</b>
2.1. Test Limits .....	6
2.2. Test Result.....	7
<b>Appendix - EUT Photograph.....</b>	<b>8</b>



#### 1.4. Product Information

Product Name	Camera
Model No.	AVG2-0WF5
Brand Name	AltumView
Serial No.	20220217Sample#03
Wi-Fi Specification	802.11a/b/g/n
Antenna Information	Refer to section 1.5
Accessories	
Adapter 1#	Model No.: CZH024050200USWH Input Power: 100 - 240V ~ 50/60Hz, Max. 0.8A Output Power: 5VDC 2.0A
Remark: The information of EUT was provided by the manufacturer, and the accuracy of the information shall be the responsibility of the manufacturer.	

#### 1.5. Antenna Information

Technology	Antenna Type	Frequency Band (MHz)	T <sub>x</sub> Paths	Antenna Gain (dBi)
Bluetooth	PIFA Antenna	2402 ~ 2480	1	2.24
Wi-Fi	PIFA Antenna	2412 ~ 2462	1	2.24
		5180 ~ 5240	1	2.17
		5260 ~ 5320	1	2.27
		5500 ~ 5700	1	2.54
		5745 ~ 5825	1	2.28

## 2. RF Exposure Evaluation

### 2.1. Test Limits

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environment impact of human exposure to radio frequency (RF) radiation as specified in 1.1307(b)

#### 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)
(A) Limits for Occupational/ Control Exposures				
300-1500	--	--	f/300	6
1500-100,000	--	--	5	6
(B) Limits for General Population/ Uncontrolled Exposures				
300-1500	--	--	f/1500	6
1500-100,000	--	--	1	30

f= Frequency in MHz

Calculation Formula:  $P_d = (P_{out} * G) / (4 * \pi * r^2)$

Where

$P_d$  = power density in mW/cm<sup>2</sup>

$P_{out}$  = 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

$P_d$  is the limit of MPE, 1mW/cm<sup>2</sup>. If we know the maximum gain of the antenna and the total power input to the antenna, through the calculation, we will know the distance r where the MPE limit is reached.

### 2.2. Device Classification

According to the user manual, the antenna of this device is at least 20cm away from the body of the user, this device is classified as a **Fixed Device**. So, the RF exposure evaluation requirement of FCC 2.1091 for mobile device exposure conditions subject to MPE limits.

### 2.3. Test Result

Product	Camera
Test Item	RF Exposure Evaluation

Test Mode	Frequency Band (MHz)	Conducted Power (dBm)	Max. Antenna Gain (dBi)	Max. EIRP (dBm)	Compliance Distance (cm)	Power Density (mW/cm <sup>2</sup> )	Limit (mW/cm <sup>2</sup> )
Bluetooth	2402 ~ 2480	15.22	2.24	17.46	20	0.0111	1
802.11b/g/n	2412 ~ 2462	20.25	2.24	22.49	20	0.0353	1
802.11a/n	5180 ~ 5240	13.75	2.17	15.92	20	0.0025	1
802.11a/n	5260 ~ 5320	13.90	2.27	16.17	20	0.0027	1
802.11a/n	5500 ~ 5700	12.38	2.54	14.92	20	0.0020	1
802.11a/n	5745 ~ 5825	12.70	2.28	14.98	20	0.0020	1

## Appendix - EUT Photograph

Refer to "2202RSU032-UE" file.

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The End