



RF Exposure Evaluation Declaration

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:



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.

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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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1. General Information

1.1. Applicant

AltumView Systems Inc.

Professor, Simon Fraser University, Canada

1.2. Manufacturer

AltumView Systems Inc.

Professor, Simon Fraser University, Canada

1.3. Testing Facility

☒	Test Site – MRT Suzhou Laboratory Laboratory Location (Suzhou - Wuzhong) D8 Building, No.2 Tian’edang Rd., Wuzhong Economic Development Zone, Suzhou, China Laboratory Location (Suzhou - SIP) 4b Building, Liando U Valley, No.200 Xingpu Rd., Shengpu Town, Suzhou Industrial Park, China Laboratory Accreditations A2LA: 3628.01 CNAS: L10551 FCC: CN1166 ISED: CN0001 VCCI: ☐ R-20025 ☐ G-20034 ☐ C-20020 ☐ T-20020 ☐ R-20141 ☐ G-20134 ☐ C-20103 ☐ T-20104
☐	Test Site – MRT Shenzhen Laboratory Laboratory Location (Shenzhen) 1G, Building A, Junxiangda Building, Zhongshanyuan Road West, Nanshan District, Shenzhen, China Laboratory Accreditations A2LA: 3628.02 CNAS: L10551 FCC: CN1284 ISED: CN0105
☐	Test Site – MRT Taiwan Laboratory Laboratory Location (Taiwan) No. 38, Fuxing 2nd Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C.) Laboratory Accreditations TAF: L3261-190725 FCC: 291082, TW3261 ISED: TW3261

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 _x 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 ²)	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/cm²

P_{out} = output power to antenna in mW

G = gain of antenna in linear scale

π = 3.1416

r = distance between observation point and center of the radiator in cm

P_d is the limit of MPE, 1mW/cm². 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 ²)	Limit (mW/cm ²)
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.