

1 Cover Page

RF Exposure Evaluation Report

Application No.: KSCR2208001526AT
FCC ID: 2AXNA-VTB
Applicant: AGM Global Vision LLC
Address of Applicant: 173 West Main Street, #962, Springerville, AZ 85938 USA
Manufacturer: AGM Global Vision LLC
Address of Manufacturer: 173 West Main Street, #962, Springerville, AZ 85938 USA
Factory: Hangzhou Microimage Intelligent Technology Co., Ltd.
Address of Factory: Floor 2, Building A1, 299 Qiushi Road, Tonglu Economic Development Zone, Tonglu County, Hangzhou City, Zhejiang Province

Equipment Under Test (EUT):

EUT Name: Bi-Spectrum Fusion Binocular
Model No.: AGM Voyage TB50-384;
Add Model No.: AGM Voyage TB50-640;AGM Voyage TB75-640;AGM Voyage LRF DS-4K;AGM Voyage TB50-384 G2;AGM Voyage TB50-640 G2;AGM Voyage TB75-640 G2;AGM Voyage LRF DS-4K G2

Trade mark:



Standard(s) : FCC Rules 47 CFR §2.1093
KDB447498 D01 General RF Exposure Guidance v06
Date of Receipt: 2022-08-25
Date of Test: 2022-08-30 to 2022-09-01
Date of Issue: 2022-09-08

Test Result:	Pass*
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* In the configuration tested, the EUT complied with the standards specified above.

Eric Lin
Laboratory Manager



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Compliance Certification Services (Kunshan) Inc.
EMC Laboratory

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Revision Record			
Version	Description	Date	Remark
00	Original	2022-09-08	/

Authorized for issue by:			
		<i>Eric Liu</i>	
		<hr/> Eric_Liu/Project Engineer	
		<i>Eric Lin</i>	
		<hr/> Eric Lin /Reviewer	



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3 General Information

3.1 General Description of E.U.T.

Power supply:	DC 5V by USB or DC 3.6V by battery
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3.2 General Description of E.U.T.

Operation Frequency:	802.11b/g/n(HT20): 2412MHz to 2462MHz;802.11n(HT40): 2422MHz to 2452MHz
Modulation Type:	802.11b: DSSS (CCK, DQPSK, DBPSK);802.11g/n: OFDM (64QAM, 16QAM, QPSK, BPSK)
Number of Channels:	802.11b/g/n(HT20):11;802.11n(HT40):7
Channel Spacing:	5MHz
Antenna Type:	PCB Antenna
Antenna Gain:	0.75dBi (Provided by the manufacturer)



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3.3 Test Location

All tests were performed at:

Compliance Certification Services (Kunshan) Inc.

No.10 Weiye Rd, Innovation park, Eco&Tec, Development Zone, Kunshan City, Jiangsu, China.

Tel: +86 512 5735 5888 Fax: +86 512 5737 0818

No tests were sub-contracted.

Note:

1. SGS is not responsible for wrong test results due to incorrect information (e.g., max. internal working frequency, antenna gain, cable loss, etc) is provided by the applicant. (If applicable).
2. SGS is not responsible for the authenticity, integrity and the validity of the conclusion based on results of the data provided by applicant. (If applicable).

3.4 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

• CNAS

Compliance Certification Services (Kunshan) Inc. is accredited by the China National Accreditation Service for Conformity Assessment (CNAS). Registration No. CNAS L4354

• A2LA

Compliance Certification Services (Kunshan) Inc. is accredited by the American Association for Laboratory Accreditation (A2LA). Certificate No. 2541.01.

• FCC

Compliance Certification Services (Kunshan) Inc. has been recognized as an accredited testing laboratory. Designation Number: CN1172.

• ISED

Compliance Certification Services (Kunshan) Inc. has been recognized by Innovation, Science and Economic Development Canada (ISED) as an accredited testing laboratory. Company Number: 2324E

• VCCI

The 3m and 10m Semi-anechoic chamber and Shielded Room of Compliance Certification Services (Kunshan) Inc. has been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-20134, R-11600, C-11707, T-11499, G-10216 respectively.



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4 Test Standards and Limits

4.1 FCC Radiofrequency radiation exposure limits:

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:

$[(\text{max power of channel})/(\text{min test separation distance})] \cdot \sqrt{f(\text{GHz})} \leq 3.0$ for 1-g SAR and ≤ 7.5 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
- The result is rounded to one decimal place for comparison
- 3.0 and 7.5 are referred to as the numeric thresholds

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 according to 4.1 f) is applied to determine SAR test exclusion.

The practical use condition for this device is as a limb-worn accessories. So the applicable limit is 10-g extremity SAR

For 2.4G band, the device is handheld device, so the limit of worse case is

$$\text{Extremity: } P_{\max} \leq 7.5 \cdot D_{\min} / \sqrt{f} = 7.5 \cdot 5 / \sqrt{2.462} = 23.9 \text{mW}$$

$$\text{Head: } P_{\max} \leq 3 \cdot D_{\min} / \sqrt{f} = 3 \cdot 5 / \sqrt{2.462} = 9.6 \text{mW}$$



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5 Measurement and Calculation

5.1 Maximum transmit power

The Power Data is based on the RF Test Report KSCR220800152601

Test Mode	Test Channel	Ant	Power [dBm]	Power [mW]
11B	2412	Ant1	8.76	7.52
11B	2437	Ant1	8.74	7.48
11B	2462	Ant1	8.99	7.93
11G	2412	Ant1	8.57	7.19
11G	2437	Ant1	8.66	7.35
11G	2462	Ant1	8.90	7.76
11N20SISO	2412	Ant1	8.47	7.03
11N20SISO	2437	Ant1	8.55	7.16
11N20SISO	2462	Ant1	8.79	7.57
11N40SISO	2422	Ant1	8.28	6.73
11N40SISO	2437	Ant1	8.11	6.47
11N40SISO	2452	Ant1	8.28	6.73

5.2 MPE Calculation

The Max Conducted Peak Output Power is 7.93mW. The best case gain of the antenna is 0.75dBi logarithmic terms convert to numeric result is nearly 1.19

Extremity: $P = 7.93 * 1.19 = 9.44\text{mW} < 23.9\text{mW}$,

Head: $P = 7.93 * 1.19 = 9.44\text{mW} < 9.6\text{mW}$

So the device is exclusion from SAR test.

--End of the Report--



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