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MEASUREMENT REPORT FCC PART 15B

- FCC ID: 2ADRXSJ4000C
- APPLICANT: Eyesun Technology Co., Ltd
- Certification **Application Type: Product:** Action Camera Model No.: ECM-SJ4000C(WIFI) Serial Model: ECM-MM10, ECM-SP29, ECM-SJ4000W(WIFI), ECM-SP12A, ECM-SP19A, ECM-SP19B FCC Classification: FCC Class B Digital Device (JBP) FCC Rule Part(s): FCC Part 15 Subpart B **Test Procedure(s):** ANSI C63.4: 2009 Test Date: Dec. 06 ~ 14, 2014

Reviewed By

: Robin Wu (Robin Wu)

Approved By

Marlinchen :

(Marlin Chen)

The test results relate only to the samples tested.

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in ANSI C63.4-2009. Test results reported herein relate only to the item(s) tested.

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Revision History

Report No.	Version	Description	Issue Date
1412RSU00702	Rev. 01	Initial report	12-15-2014



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§2.1033 General Information

Applicant:	Eyesun Technology Co., Ltd	
Applicant Address:	Huayuan Industrial Park, Fenghuang First Industrial Zone, Fuyong	
	Town, Baoan district, Shenzhen City, China	
Manufacturer:	Eyesun Technology Co., Ltd	
Manufacturer Address:	Huayuan Industrial Park, Fenghuang First Industrial Zone, Fuyong	
	Town, Baoan district, Shenzhen City, China	
Test Site:	MRT Technology (Suzhou) Co., Ltd	
Test Site Address:	D8 Building, Youxin Industrial Park, No.2 Tian'edang Rd., Wuzhong	
	Economic Development Zone, Suzhou, China	
MRT FCC Registration No.:	809388	
Model No.:	ECM-SJ4000C(WIFI)	
FCC ID:	2ADRXSJ4000C	
Test Device Serial No.:	N/A Production Pre-Production Engineering	
FCC Classification:	FCC Class B Digital Device (JBP)	

Test Facility / Accreditations

Measurements were performed at MRT Laboratory located in Tian'edang Rd., Suzhou, China.

- MRT facility is a FCC registered (MRT Reg. No. 809388) test facility with the site description report on file and has met all the requirements specified in Section 2.948 of the FCC Rules.
- MRT facility is an IC registered (MRT Reg. No. 11384A-1) test laboratory with the site description on file at Industry Canada.
- MRT facility is a VCCI registered (R-4179, G-814, C-4664, T-2206) test laboratory with the site description on file at VCCI Council.
- MRT Lab is accredited to ISO 17025 by the American Association for Laboratory Accreditation (A2LA) under the American Association for Laboratory Accreditation Program (A2LA Cert. No. 3628.01) in EMC, Telecommunications and Radio testing for FCC, Industry Canada, EU and TELEC Rules.



1. INTRODUCTION

1.1. Scope

Measurement and determination of electromagnetic emissions (EMC) of radio frequency devices including intentional and/or unintentional radiators for compliance with the technical rules and regulations of the Federal Communications Commission and the Industry Canada Certification and Engineering Bureau.

1.2. MRT Test Location

The map below shows the location of the MRT LABORATORY, its proximity to the Taihu Lake. These measurement tests were conducted at the MRT Technology (Suzhou) Co., Ltd. Facility located at D8 Building, Youxin Industrial Park, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China. The detailed description of the measurement facility was found to be in compliance with the requirements of § 2.948 according to ANSI C63.4-2009 on September 30, 2013.





2. PRODUCT INFORMATION

2.1. Equipment Description

Product Name	Action Camera	
Model No.	CM-SJ4000C(WIFI)	
Serial Model:	ECM-MM10, ECM-SP29, ECM-SJ4000W(WIFI), ECM-SP12A,	
	ECM-SP19A, ECM-SP19B	

Note: The difference of models is for different marketing requirement.

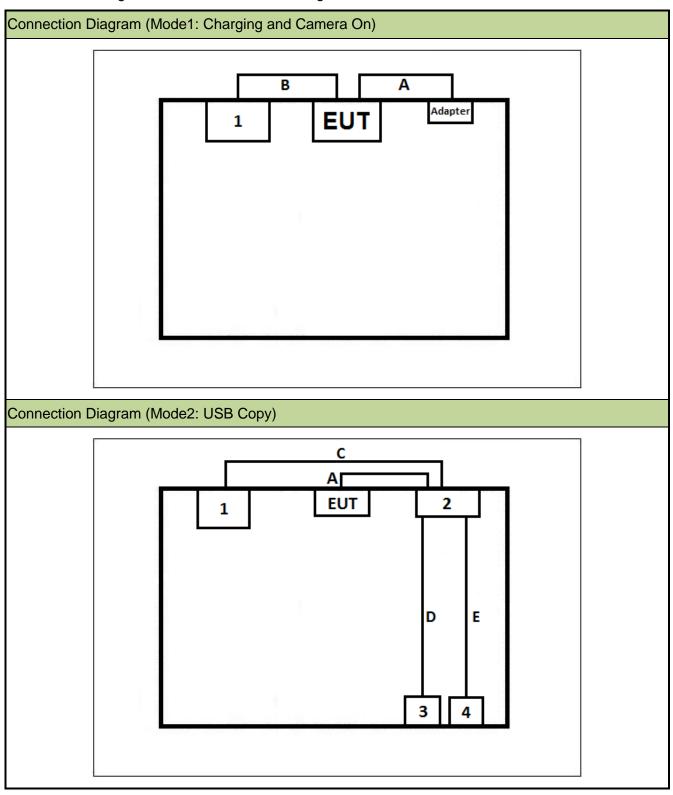
2.2. Device Capabilities

This device contains the following capabilities: 802.11b/g/n WLAN (DTS)



2.3. Test Configuration

The **Action Camera FCC ID: 2ADRXSJ4000C** was tested per the guidance FCC Part 15 Subpart B: 2014 and ANSI C63.4: 2009 was used to reference the appropriate EUT setup for radiated spurious emissions testing and AC line conducted testing.







Signal Cable Type		Signal Cable Description			
А	USB Cable		Shielding, 1.0m		
В	Mini HDMI Cable		Shielding, 2.0m		
С	HDMI Cable		Shielding, 1.5m		
D	USB Cable		Non-Shielding, 1.8m		
Е	USB Cable		Non-Shielding, 1.8m		
Pro	oduct	Manufacturer	Model No.	Power Cord	
1	LCD Monitor	DELL	U2713Hb	Non-Shielded, 1.8m	
2	Notebook	Lenovo	E430C	Non-Shielded, 1.8m	
3	USB Keyboard	DELL	KB212-B	N/A	
4	USB Mouse	DELL	MS111-7	N/A	

2.4. Test Software

Not applicable.

2.5. EMI Suppression Device(s)/Modifications

No EMI suppression device(s) were added and/or no modifications were made during testing.

2.6. Labeling Requirements

Per 2.1074 & 15.19; Docket 95-19

The label shall be permanently affixed at a conspicuous location on the device; instruction manual or pamphlet supplied to the user and be readily visible to the purchaser at the time of purchase. However, when the device is so small wherein placement of the label with specified statement is not practical, only the trade name and FCC ID must be displayed on the device per Section 15.19(a)(5). Please see attachment for FCC ID label and label location.



3. DESCRIPTION OF TEST

3.1. Evaluation Procedure

The measurement procedures described in the American National Standard for Methods of Measurement of Radio-Noise Emission from Low-Voltage Electrical Equipment in the Range of 9kHz to 40GHz (ANSI C63.4-2009) was used in the measurement of the **Action Camera FCC ID: 2ADRXSJ4000C.**

Deviation from measurement procedure.....None

3.2. AC Line Conducted Emissions

The line-conducted facility is located inside an 8'x4'x4' shielded enclosure. A 1m x 2m wooden table 80cm high is placed 40cm away from the vertical wall and 80cm away from the sidewall of the shielded room. Two 10kHz-30MHz, $50\Omega/50$ uH Line-Impedance Stabilization Networks (LISNs) are bonded to the shielded room floor. Power to the LISNs is filtered by external high-current high-insertion loss power line filters. These filters attenuate ambient signal noise from entering the measurement lines. These filters are also bonded to the shielded enclosure.

The EUT is powered from one LISN and the support equipment is powered from the second LISN. All interconnecting cables more than 1 meter were shortened to a 1 meter length by non-inductive bundling (serpentine fashion) and draped over the back edge of the test table. All cables were at least 40cm above the horizontal reference ground-plane. Power cables for support equipment were routed down to the second LISN while ensuring that that cables were not draped over the second LISN.

Sufficient time for the EUT, support equipment, and test equipment was allowed in order for them to warm up to their normal operating condition. The RF output of the LISN was connected to the receiver and exploratory measurements were made to determine the frequencies producing the maximum emission from the EUT. The receiver was scanned from 150kHz to 30MHz. The detector function was set to peak mode for exploratory measurements while the bandwidth of the analyzer was set to 9kHz. The EUT, support equipment, and interconnecting cables were arranged and manipulated to maximize each emission. Each emission was also maximized by varying: power lines, the mode of operation or data exchange speed, or support equipment whichever determined the worst-case emission. Once the worst case emissions have been identified, the one EUT cable configuration/arrangement and mode of operation that produced these emissions were used for final measurements on the same test site. The analyzer is set to CISPR quasi-peak and average detectors with a 9kHz resolution bandwidth for final measurements.

An extension cord was used to connect to a single LISN which powered by EUT. The extension cord was calibrated with LISN, the impedance and insertion loss are compliance with the requirements as stated in ANSI C63.10-2009 at Clause 4.3.

Line conducted emissions test results are shown in Section 6.2.



3.3. Radiated Emissions

The radiated test facilities consisted of an indoor 3 meter semi-anechoic chamber used for final measurements and exploratory measurements, when necessary. The measurement area is contained within the semi-anechoic chamber which is shielded from any ambient interference. For measurements above 1GH absorbers are arranged on the floor between the turn table and the antenna mast in such a way so as to maximize the reduction of reflections. For measurements below 1GHz, the absorbers are removed. An MF Model 210SS turntable is used for radiated measurement. It is a continuously rotatable, remote controlled, metallic turntable and 2 meters (6.56 ft.) in diameter. The turn table is flush with the raised floor of the chamber in order to maintain its function as a ground plane. An 80cm high PVC support structure is placed on top of the turntable. For all measurements, the spectrum was scanned through all EUT azimuths and from 1 to 4 meter receive antenna height using a broadband antenna from 30MHz up to the upper frequency shown in 15.33(b)(1) depending on the highest frequency generated or used in the device or on which the device operates or tunes. For frequencies above 1GHz, linearly polarized double ridge horn antennas were used. Sufficient time for the EUT, support equipment, and test equipment was allowed in order for them to warm up to their normal operating condition. The test set-up was placed on top of the 0.8 meter high, 1 x 1.5 meter table. The EUT, support equipment, and interconnecting cables were arranged and manipulated to maximize each emission. Appropriate precaution was taken to ensure that all emissions from the EUT were maximized and investigated. The system configuration, clock speed, mode of operation or video resolution, if applicable, turntable azimuth, and receive antenna height was noted for each frequency found.

Final measurements were made in the semi-anechoic chamber using calibrated, linearly polarized broadband and horn antennas. The test setup was configured to the setup that produced the worst case emissions. The spectrum analyzer was set to investigate all frequencies required for testing to compare the highest radiated disturbances with respect to the specified limits. The turntable containing the EUT was rotated through 360 degrees and the height of the receive antenna was varied 1 to 4 meters and stopped at the azimuth and height producing the maximum emission. Each emission was maximized by changing the orientation of the EUT through three orthogonal planes and changing the polarity of the receive antenna, whichever produced the worst-case emissions. According to 3dB Beamwidth of horn antenna, the horn antenna should be always directed to the EUT when rising height.



4. TEST EQUIPMENT CALIBRATION DATA

Conducted Emissions

Instrument	Manufacturer	Type No.	Serial No.	Cali. Interval	Cali. Due Date
EMI Test Receiver	R&S	ESR7	101209	1 year	2015/11/07
Two-Line V-Network	R&S	ENV216	101683	1 year	2015/11/07
Two-Line V-Network	R&S	ENV216	101684	1 year	2015/11/07
Temperature/ Meter Humidity	Anymetre	TH101B	SR2-01	1 year	2015/11/14

Radiated Emission

Instrument	Manufacturer	Type No.	Serial No.	Cali. Interval	Cali. Due Date
Spectrum Analyzer	Agilent	N9020A	MY52090106	1 year	2015/04/23
Preamplifier	MRT	AP01G18	1310002	1 year	2015/10/06
TRILOG Antenna	Schwarzbeck	VULB9162	9162-047	1 year	2015/11/08
Broad-Band Horn Antenna	Schwarzbeck	BBHA9120D	9120D-1167	1 year	2015/11/08
Temperature/Humidity Meter	Anymetre	TH101B	AC1-01	1 year	2015/11/14



5. MEASUREMENT UNCERTAINTY

Where relevant, the following test uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Conducted Emissions Measurement	
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)):	
150kHz~30MHz: ± 3.46dB	
Radiated Emission Measurement	
Measuring Uncertainty for a Level of Confidence of 95% (U=2Uc(y)):	
30MHz ~ 1GHz: ± 4.18dB	
1GHz ~ 18GHz: ± 4.76dB	



6. TEST RESULT

6.1. Summary

Product Name:	Action Camera		
FCC ID:	2ADRXSJ4000C		
FCC Classification:	FCC Class B Digital Device (JBP)		

Normative References	Test Description	Test Result	
FCC Part 15 Subpart B: 2014 ANSI C63.4: 2009	Conducted Emission	Pass	
FCC Part 15 Subpart B: 2014 ANSI C63.4: 2009	Radiated Emission	Pass	



6.2. Conducted Emission Measurement

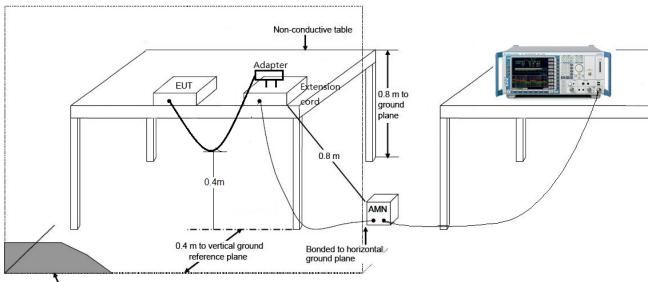
6.2.1. Test Limit

FCC Part 15.107 Limits				
Frequency (MHz)	QP (dBµV)	AV (dBµV)		
0.15 - 0.50	66 - 56	56 - 46		
0.50 - 5.0	56	46		
5.0 - 30	60	50		

Note 1: The lower limit shall apply at the transition frequencies.

Note 2: The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.5MHz.

6.2.2. Test Setup



Vertical ground reference plane

10

30



0

-10 -20 0.15

6.2.3. **Test Result of Conducted Emissions**

Site: SR2	Time: 2014/12/05 - 14:10
Limit: FCC_Part15.107_CE_AC Power_ClassB	Engineer: Knight Lu
Probe: ENV216_101683_Filter On	Polarity: Line
EUT: Action Camera	Power: AC 120V/60Hz
Note: Mode 1: Charging and Camera On	
80 70 60 50 40 40 40 50 40 40 40 50 40 40 40 50 40 40 40 40 40 40 40 40 40 40 40 40 40	

 Frequency(MHz)								
Reading	Over Limit	Li						
		(4						

1

No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV)	(dB)	
				(dBuV)	(dBuV)				
1		*	0.158	44.965	34.654	-20.603	65.568	10.311	QP
2			0.158	30.705	20.394	-24.863	55.568	10.311	AV
3			0.222	41.319	31.378	-21.425	62.744	9.941	QP
4			0.222	28.598	18.657	-24.146	52.744	9.941	AV
5			0.270	39.397	29.417	-21.721	61.118	9.980	QP
6			0.270	26.273	16.293	-24.845	51.118	9.980	AV
7			0.398	36.228	26.144	-21.667	57.895	10.084	QP
8			0.398	24.640	14.557	-23.255	47.895	10.084	AV
9			0.562	31.540	21.406	-24.460	56.000	10.135	QP
10			0.562	19.101	8.966	-26.899	46.000	10.135	AV
11			5.646	27.013	16.923	-32.987	60.000	10.090	QP
12			5.646	19.258	9.168	-30.742	50.000	10.090	AV

Note: Measure Level (dB μ V) = Reading Level (dB μ V) + Factor (dB)

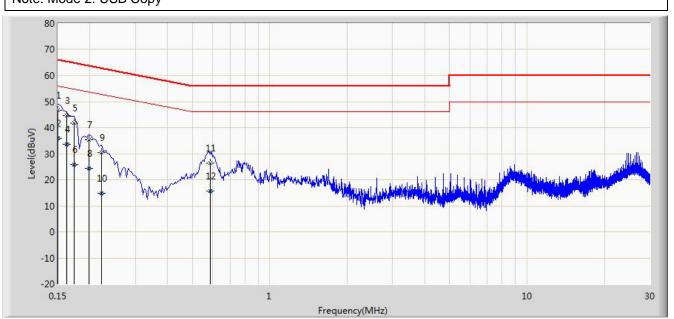


Site: SR2	Time: 2014/12/05 - 14:16				
Limit: FCC_Part15.107_CE_AC Power_ClassB	Engineer: Knight Lu				
Probe: ENV216_101683_Filter On	Polarity: Neutral				
EUT: Action Camera	Power: AC 120V/60Hz				
Note: Mode 1: Charging and Camera On					
80 70 60 50 40 30 20 10 0 0 10 0 0 10 0 0 10 0 0 15 1 Free	10 30 10 30 10 30				

No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV)	(dB)	
				(dBuV)	(dBuV)				
1			0.174	31.727	21.671	-33.040	64.767	10.057	QP
2			0.174	16.336	6.279	-38.431	54.767	10.057	AV
3		*	0.190	50.768	40.740	-13.269	64.037	10.028	QP
4			0.190	39.920	29.892	-14.117	54.037	10.028	AV
5			0.238	45.395	35.403	-16.771	62.166	9.992	QP
6			0.238	35.774	25.782	-16.392	52.166	9.992	AV
7			0.282	43.489	33.464	-17.268	60.757	10.025	QP
8			0.282	35.352	25.327	-15.405	50.757	10.025	AV
9			0.530	30.188	20.018	-25.812	56.000	10.169	QP
10			0.530	16.468	6.298	-29.532	46.000	10.169	AV
11			5.454	35.188	25.105	-24.812	60.000	10.083	QP
12			5.454	25.181	15.098	-24.819	50.000	10.083	AV



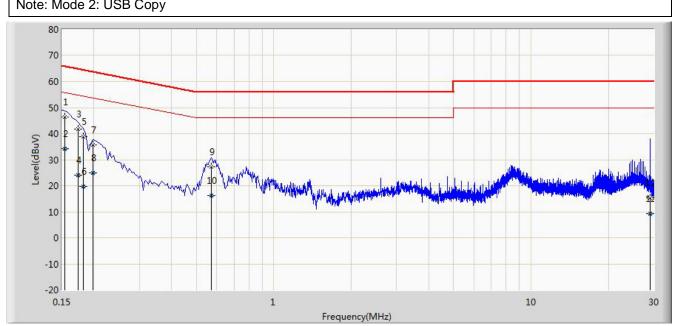
Site: SR2	Time: 2014/12/05 - 17:36
Limit: FCC_Part15.107_CE_AC Power_ClassB	Engineer: Knight Lu
Probe: ENV216_101683_Filter On	Polarity: Line
EUT: Action Camera	Power: AC 120V/60Hz
Note: Mode 2: USB Copy	



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV)	(dB)	
				(dBuV)	(dBuV)				
1		*	0.150	46.804	35.636	-19.196	66.000	11.168	QP
2			0.150	35.879	24.711	-20.121	56.000	11.168	AV
3			0.162	44.656	34.559	-20.704	65.361	10.097	QP
4			0.162	33.659	23.562	-21.702	55.361	10.097	AV
5			0.174	41.755	31.687	-23.012	64.767	10.068	QP
6			0.174	25.727	15.659	-29.041	54.767	10.068	AV
7			0.198	35.417	25.412	-28.277	63.694	10.005	QP
8			0.198	24.289	14.284	-29.405	53.694	10.005	AV
9			0.222	30.318	20.377	-32.426	62.744	9.941	QP
10			0.222	14.840	4.899	-37.904	52.744	9.941	AV
11			0.586	26.441	16.319	-29.559	56.000	10.122	QP
12			0.586	15.540	5.418	-30.460	46.000	10.122	AV



Site: SR2	Time: 2014/12/05 - 17:42
Limit: FCC_Part15.107_CE_AC Power_ClassB	Engineer: Knight Lu
Probe: ENV216_101683_Filter On	Polarity: Neutral
EUT: Action Camera	Power: AC 120V/60Hz
Noto: Modo 2: LISB Conv	



No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре
			(MHz)	Level	Level	(dB)	(dBuV)	(dB)	
				(dBuV)	(dBuV)				
1		*	0.154	46.326	35.610	-19.455	65.781	10.716	QP
2			0.154	34.187	23.471	-21.594	55.781	10.716	AV
3			0.174	41.748	31.691	-23.019	64.767	10.057	QP
4			0.174	24.195	14.139	-30.572	54.767	10.057	AV
5			0.182	38.790	28.748	-25.604	64.394	10.042	QP
6			0.182	19.614	9.572	-34.780	54.394	10.042	AV
7			0.198	35.745	25.731	-27.949	63.694	10.015	QP
8			0.198	24.970	14.956	-28.724	53.694	10.015	AV
9			0.570	27.324	17.177	-28.676	56.000	10.148	QP
10			0.570	16.137	5.990	-29.863	46.000	10.148	AV
11			29.106	15.412	5.008	-44.588	60.000	10.404	QP
12			29.106	9.346	-1.058	-40.654	50.000	10.404	AV



6.3. Radiated Emission Measurement

6.3.1. Test Limit

FCC Part 15.109 Limits							
Frequency (MHz)	Distance (m)	Level (dBµV/m)					
30 - 88	3	40					
88 - 216	3	43.5					
216 - 960	3	46					
Above 960	3	54					

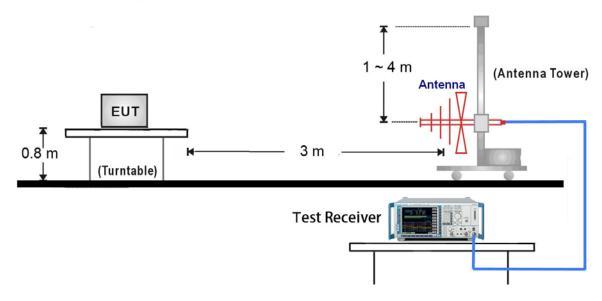
Note 1: The lower limit shall apply at the transition frequency.

Note 2: Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.

Note 3: E field strength $(dB\mu V/m) = 20 \log E$ field strength (uV/m)

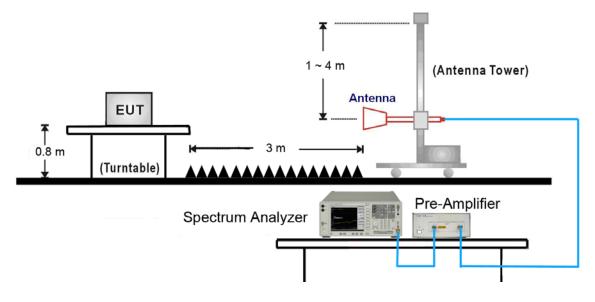
6.3.2. Test Setup

<u>30MHz ~ 1GHz Test Setup:</u>





1GHz ~18GHz Test Setup:





6.3.3. Test Result of Radiated Emissions

Site	AC1				1	Time: 2014/12	/10 - 19:10			
		Part15	.109_RE(3m) ClassB		Engineer: Knight Lu				
			_0.03-8GHz			Polarity: Horizontal				
		n Came				Power: AC 12				
			arging and Ca	amera On						
	80						8			
	70									
	60									
	50								4	
e	40					1 ₀ 3	4 5	6		
m//n							*			
Level(dBuV/m)	30									
٦	20									
	10									
	0									
	-10									
	-20 30			100					1000	
2		Γ			Freque	ncy(MHz)	1	1	-	
No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре	
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)		
				(dBuV/m)	(dBuV)					
1		*	207.698	40.846	28.810	-2.654	43.500	12.036	QP	
2			215.304	39.004	26.840	-4.496	43.500	12.164	QP	
3			222.684	40.099	27.718	-5.901	46.000	12.381	QP	
4			326.781	38.463	23.640	-7.537	46.000	14.823	QP	
5			373.048	40.462	24.760	-5.538	46.000	15.701	QP	
6			440.104	39.879	23.140	-6.121	46.000	16.739	QP	

Note: Measure Level ($dB\mu V/m$) = Reading Level ($dB\mu V$) + Factor (dB)



Site	AC1				٦	Time: 2014/12/10 - 19:13				
Limi	t: FCC	_Part15	.109_RE(3m)_ClassB	E	Engineer: Knight Lu				
Prob	e: VUI	_B9162	_0.03-8GHz		F	Polarity: Vertic	al			
EUT	: Actio	n Came	ra		F	Power: AC 120	0V/60Hz			
Note	e: Mode	e 1: Cha	arging and Ca	amera On						
	80									
	70									
	60									
	50						-	6	f	
(E	40				1	345 2***		*		
Level(dBuV/m)	30				*	*				
Level(20									
	10									
	0									
	-10									
	-20									
	30			100	Freedo	ncy(MHz)			1000	
No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре	
NU	Tiag	Wark	(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	туре	
			(1011 12)	(dBuV/m)	(dBuV)					
1			148.502	35.293	26.136	-8.207	43.500	9.157	QP	
2			195.871	34.764	22.980	-8.736	43.500	11.784	QP	
3			207.881	38.871	26.832	-4.629	43.500	12.039	QP	
4			215.308	37.576	25.412	-5.924	43.500	12.164	QP	
5			222.674	39.291	26.910	-6.709	46.000	12.380	QP	
		1								



Site	: AC1				Т	Time: 2014/12/10 - 19:18				
Limi	t: FCC	_Part15	.109_RE(3m)_ClassB	E	Engineer: Knight Lu				
Prot	be: VUI	_B9162	_0.03-8GHz		F	olarity: Horiz	ontal			
EUT	: Action	n Came	ra		F	ower: AC 120)V/60Hz			
Note	e: Mode	e 2: USI	В Сору							
	80								1	-11
	70			·						-
	60									
	50					and the set	456			ſ
Ê	40				1	2 3	***			-
HBuV/	30									
Level(dBuV/m)	20									
_	10									
	0									
	-10									
	-20 30			100	1					1000
						ncy(MHz)				
No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре	
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)		
				(dBuV/m)	(dBuV)					
1			156.207	40.066	61.840	-3.434	43.500	-21.774	QP	
2			185.625	40.066	60.112	-3.434	43.500	-20.047	QP	
3			207.984	39.365	58.470	-4.135	43.500	-19.105	QP	
4			274.962	41.315	58.762	-4.685	46.000	-17.447	QP	
5			289.507	42.006	59.240	-3.994	46.000	-17.234	QP	
6		*	304.562	43.387	60.240	-2.613	46.000	-16.853	QP	



Site	AC1				т	Time: 2014/12/10 - 19:20							
Limi	t: FCC	_Part15	.109_RE(3m)_ClassB	E	Engineer: Knight Lu							
Prob	e: VUI	_B9162	_0.03-8GHz		P	Polarity: Vertical							
EUT	: Actior	n Came	ra		P	ower: AC 120	0V/60Hz						
Note	e: Mode	e 2: USI	В Сору										
	80												
	70												
	60												
	50									_ f			
Ē	40				2		3 ₄		56	_			
Level(dBuV/m)	30		*		*		*		T T	_			
Level(20									_			
	10												
	0												
	-10												
	-20												
	30			100	Frequer	ncy(MHz)				1000			
No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре				
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)	51 -				
				(dBuV/m)	(dBuV)								
1		*	65.561	34.316	53.284	-5.684	40.000	-18.968	QP				
2			156.204	35.098	56.872	-8.402	43.500	-21.774	QP				
3			304.581	37.728 54.580		-8.272	46.000	-16.852 QP					
4			314.334	35.821	52.410	-10.179	46.000	-16.588	QP				
5			695.841	36.683	46.870	-9.317	46.000	-10.188	QP				
6			792.041	37.231	46.140	-8.769	46.000	-8.909	QP				



Site: AC1							Time: 2014/12/10 - 19:21												
Limi	Limit: FCC_Part15.109_RE(3m)_ClassB Probe: BBHA9120D_1-18GHz							Engineer: Knight Lu Polarity: Horizontal											
Prot																			
EUT	: Actio		Power: AC 120V/60Hz																
Note	e: Mode	e 1: Cha	arging and Ca	amera On															
	90			_															
	80																		
	70					-	2						_						
	60	2																	
Ē	50	*	3	5						-									
HBuV/	40		4										- 1						
Level(dBuV/m)	30	1	*	*									- 1						
	20																		
	10												- 1						
													. 1						
	0																		
	-10 1000	180	1,2	.). E.	-	(5.41)				100	00		18000						
No		Mark	Fraguanay	Measure		ency(MHz	Limit	Limi				Turne							
INO	Flag	Wark	Frequency (MHz)	Level	Reading Level		LIIIII					Туре							
				(dBuV/m)	(dBuV)	(dB)		(UDI	(dBuV/m)		?)								
1			1263.480	(dBu V/III) 29.965	(ubuv) 31.770	-24.0	125	54 (00	-1.805		AV							
2			1263.480	29.905 51.379	53.183				54.000 74.000					PK					
2			1263.500	50.670	50.135		-22.621 -23.330					PK							
3		*	1884.240	34.510	33.974	-23.3			74.000				35 36	AV					
4 5			2734.000	48.158	44.884	-19.2			54.000								74	PK	
6			2734.000	32.244	28.970	-25.0			74.000 54.000			AV							
0			2134.140	32.244	20.970	-21.7	50	54.0	000	3.2	15	AV							



Site: AC1							Time: 2014/12/10 - 19:21								
Limi	Limit: FCC_Part15.109_RE(3m)_ClassB							Engineer: Knight Lu							
Prot	Probe: BBHA9120D_1-18GHz EUT: Action Camera						Polarity: Vertical								
EUT							AC 12	0V/60	Hz						
Note	e: Mode	e 1: Cha	arging and Ca	amera On											
	90			ľ	1				ľ				_ 1		
	80									-					
	70			0	-		8						=		
	60			52.5				-		-			_		
(E	50 <u>+</u>			3 → *									_		
Level(dBuV/m)	40			4									_		
Level(30 *			*					_				- 1		
	20												_		
	10														
	0														
	-10														
	1000				Frequ	iency(MHz	3			1000	00		18000		
No	Flag	Mark	Frequency	Measure	Reading		r Limit	Limi	t	Fac	tor	Туре			
	5		(MHz)	Level	Level	(dB)		(dBu	ıV/m)	(dB)	51			
				(dBuV/m)	(dBuV)										
1			1042.470	31.505	34.840	-22.4	-22.495		54.000 ·		36	AV			
2			1042.500	48.991	52.326	-25.0	-25.009		00	-3.3	35	PK			
3			2241.000	47.242	44.161	-26.7	-26.758		00	3.08	31	PK			
4		*	2241.850	37.232	34.150	-16.768		54.0	54.000		54.000 3.0		32	AV	
5			2785.000	49.164	45.918	-24.8	336	74.0	74.000		46	PK			
6			2785.140	32.177	28.930	-21.8	323	54.0	00	3.24	47	AV			



Site	AC1				-	Time: 2014/12/10 - 19:21							
Limi	t: FCC	_Part15	.109_RE(3m))_ClassB	1	Engineer: Knight Lu							
Prot	be: BBI	HA9120	D_1-18GHz			Polarity: Horizontal							
EUT	: Actio	n Came	ra			Power: AC 120	0V/60Hz						
Note	e: Mode	e 2: USI	В Сору		<u>.</u>								
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Level(dBuV/m)	30		2	4		*							
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	10												
	0												
	-10 1000		L	di da		Letin di		10000	18000				
						ency(MHz)		1					
No	Flag	Mark	Frequency	Measure	Reading	Over Limit	Limit	Factor	Туре				
			(MHz)	Level	Level	(dB)	(dBuV/m)	(dB)					
				(dBuV/m)	(dBuV)								
1			1493.000	40.584	41.897	-33.416	74.000	-1.313	PK				
2			1493.240	25.561	26.874	-28.439	54.000	-1.313	AV				
3			2606.500	43.579	40.653	-30.421	74.000	2.926	PK				
4			2606.540	29.736	26.810	-24.264	54.000	2.926	AV				
5		*	4850.414	35.329	28.840	-18.671	54.000	6.489	AV				
6			4850.500	46.601	40.111	-27.399	74.000	6.490	PK				



Site	AC1					Time: 2014/12/10 - 19:21							
Limit: FCC_Part15.109_RE(3m)_ClassB							Engineer: Knight Lu						
Prob	Probe: BBHA9120D_1-18GHz						Polarity: Vertical						
EUT	: Actio	n Came	ra			Power: AC 120V/60Hz							
Note	e: Mode	e 2: USI	В Сору										
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Level(dBuV/m)	40						6						
	30						*						
_	20												
	10												
	0												
	-10 1000				From	ency(MHz)			10000	180	00		
No	Flag	Mark	Frequency	Measure Readi			Limit	Limit	Factor	Туре	_		
110	riag	Mark	(MHz)	Level	Level	(dB)	Linne	(dBuV/m)	(dB)	Type			
			(11112)	(dBuV/m)	(dBuV)	(02)			(42)				
1			2257.950	30.892	27.800	-23.1	08	54.000	3.092	AV			
2			2258.000	48.465	45.373	-25.535		74.000	3.092	PK			
3			2394.000	50.291	47.578	-23.709		74.000	2.713	PK			
4			2394.640	32.828	30.116	-21.1	72	54.000	2.712	AV			
5			5573.000	46.224	39.054	-27.7	76	74.000	7.170	PK			
6		*	5573.114	34.981	27.810	-19.0)19	54.000	7.170	AV			



7. CONCLUSION

The data collected relate only the item(s) tested and show that the Action Camera FCC ID:

2ADRXSJ4000C has been tested to comply with the requirements specified in §15.107 and §15.109

of the FCC Rules.

The End