

Shenzhen Toby Technology Co., Ltd.

Report No.: TB-FCC144279

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FCC Radio Test Report FCC ID: 2AEUS-A04C

Original Grant

Report No. TB-FCC144279

Shenzhen Sunshine Technology Development Co.,Ltd **Applicant**

Equipment Under Test (EUT)

EUT Name Action camera

Model No. A04C

A04A, A04B Serial No.

2015-05-19 **Receipt Date**

Test Date 2015-05-20 to 2015-05-22

2015-05-23 **Issue Date**

FCC Part 15, Subpart C (15.247:2014) **Standards**

ANSI C63 10: 2013 **Test Method**

Conclusions **PASS**

In the configuration tested, the EUT complied with the standards specified above,

The EUT technically complies with the FCC and IC requirements

Test/Witness Engineer

Approved&

Authorized

This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in the report.

TB-RF-074-1.0

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1. General Information about EUT

1.1 Client Information

Applicant : Shenzhen Sunshine Technology Development Co.,Ltd

Address : 4/F, block 4, HongHuaLing Industrial Park(zone 2),

Taoyuan street, Xili, Nanshan District, Shenzhen, China

Manufacturer : Shenzhen Sunshine Technology Development Co.,Ltd

Address : 4/F, block 4, HongHuaLing Industrial Park(zone 2),

Taoyuan street, Xili, Nanshan District, Shenzhen, China

1.2 General Description of EUT (Equipment Under Test)

EUT Name	1	Action camera		
Models No.	7	A04C, A04A, A04B		
Model Difference			cal in the same PCB layout, interior structure and only difference is model name for commercial	
	N.	Operation Frequency: 802.11b/g/n(HT20): 2412MHz~2462MHz 802.11n(HT40): 2422MHz~2452MHz		
	1	Number of Channel:		
Product		RF Output Power:	802.11b: 9.18 dBm 802.11g: 9.11 dBm 802.11n (HT20): 9.06dBm 802.11n (HT40): 9.07dBm	
Description		Antenna Gain:	2 dBi (Integral Antenna)	
		Modulation Type:	802.11b: DSSS (CCK, DQPSK, DBPSK) 802.11g: OFDM 802.11n: OFDM	
	1 T	Bit Rate of Transmitter:	802.11b:11/5.5/2/1 Mbps 802.11g:54/48/36/24/18/12/9/6 Mbps 802.11n:up to 150Mbps	
Power Supply	:	DC power supplied body DC power by Li-ion B		
Power Rating		Input: AC 120V~240V 50/60Hz 0.5A. Output: 5V, 1000mA. DC 3.7V 900mAh Li-ion Battery.		
Connecting I/O Port(S)	:	Please refer to the Us	ser's Manual	



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Note:

(1) This Test Report is FCC Part 15.247 for 802.11b/g/n, the test procedure follows the FCC KDB 558074 D01 DTS Meas Guidance v03r02.

(2) For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual.

(3) Channel List:

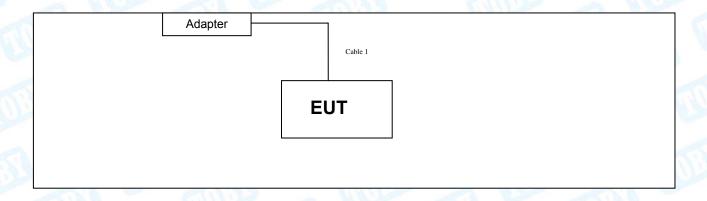
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
01	2412	05	2432	09	2452
02	2417	06	2437	10	2457
03	2422	07	2442	11	2462
04	2427	08	2447		

Note:CH 01~CH 11 for 802.11b/g/n(HT20)

CH 03~CH 09 for 802.11n(HT40)

- (4) The Antenna information about the equipment is provided by the applicant.
- 1.3 Block Diagram Showing the Configuration of System Tested

TX Mode





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1.4 Description of Support Units

	Eq	uipment Informatio	n	
Name	Model	S/N	Manufacturer	Used "√"
UP. 70	OMD:	3 000	33	11:33
		Cable Information		
Number	Shielded Type	Ferrite Core	Length	Note
Cable 1	YES	YES	0.8M	

1.5 Description of Test Mode

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned follow was evaluated respectively.

For	Conducted Test
Final Test Mode	Description
Mode 1	AC Charging with TX B Mode

	For Radiated Test		
Final Test Mode	Description		
Mode 3	TX Mode B Mode Channel 01/06/11		
Mode 4	TX Mode G Mode Channel 01/06/11		
Mode 5	TX Mode N(HT20) Mode Channel 01/06/11		
Mode 6	TX Mode N(HT40) Mode Channel 03/06/09		

Note:

(1) For all test, we have verified the construction and function in typical operation. And all the test modes were carried out with the EUT in transmitting operation in maximum power with all kinds of data rate.

According to ANSI C63.10 standards, the measurements are performed at the highest, middle, lowest available channels, and the worst case data rate as follows:

802.11b Mode: CCK (1 Mbps) 802.11g Mode: OFDM (6 Mbps)

802.11n (HT20) Mode: MCS 0 (6.5 Mbps) 802.11n (HT40) Mode: MCS 0 (13 Mbps)

- (2) During the testing procedure, the continuously transmitting with the maximum power mode was programmed by the customer.
- (3) The EUT is considered a mobile unit; in normal use it was positioned on X-plane. The



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worst case was found positioned on X-plane. Therefore only the test data of this X-plane was used for radiated emission measurement test.

1.6 Description of Test Software Setting

During testing channel& Power controlling software provided by the customer was used to control the operating channel as well as the output power level. The RF output power selection is for the setting of RF output power expected by the customer and is going to be fixed on the firmware of the final end product power parameters of WLAN.

Test Software Version		AccessPort	
Channel	CH 01	CH 06	CH 11
IEEE 802.11b DSSS	28	26	24
IEEE 802.11g OFDM	34	33	32
IEEE 802.11n (HT20)	33	33	32
	CH 03	CH 06	CH 09
IEEE 802.11n (HT40)	35	35	33

1.7 Measurement Uncertainty

The reported uncertainty of measurement $y \pm U$, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95 %.

Test Item	Parameters	Expanded Uncertainty (U _{Lab})
THE THE PARTY OF T	Level Accuracy:	
Conducted Emission	9kHz~150kHz	±3.42 dB
W. 1979	150kHz to 30MHz	±3.42 dB
Dedicted Emission	Level Accuracy:	14 CO 4D
Radiated Emission	9kHz to 30 MHz	±4.60 dB
Dedicted Emission	Level Accuracy:	14 40 dB
Radiated Emission	30MHz to 1000 MHz	±4.40 dB
Dedicted Emission	Level Accuracy:	14 20 dB
Radiated Emission	Above 1000MHz	±4.20 dB



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1.7 Test Facility

The testing report were performed by the Shenzhen Toby Technology Co., Ltd., in their facilities located at 1A/F., Bldg.6, Yusheng Industrial Zone, The National Road No.107 Xixiang Section 467, Xixiang, Bao'an, Shenzhen, Guangdong, China. At the time of testing, the following bodies accredited the Laboratory:

CNAS (L5813)

The Laboratory has been accredited by CNAS to ISO/IEC 17025: 2005 General Requirements for the Competence of Testing and Calibration Laboratories for the competence in the field of testing. And the Registration No.: CNAS L5813.

FCC List No.: (811562)

The Laboratory is listed in the United States of American Federal Communications Commission (FCC), and the registration number is 811562.

IC Registration No.: (11950A-1)

The Laboratory has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing. The site registration: Site# 11950A-1.

May 22, 2014 certificated by TUV Rheinland(China) Co., Ltd. with TUV certificate No.: UA 50282953 0001 and report No.: 17026822 002. The certificate is valid until the next scheduled audit or up to 18 months, at the discretion of TUV Rhineland.



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2. Test Summary

	FCC Pa	rt 15 Subpart C(15.247)/RSS-21	0: 2010	
Standa	rd Section	Test Item	ludament	Remark
FCC	IC	rest item	Judgment	Remark
15.203	1	Antenna Requirement	PASS	N/A
15.207	RSS-GEN 7.2.4	Conducted Emission	PASS	N/A
15.205	RSS-GEN 7.2.2	Restricted Bands	PASS	N/A
15.247(a)(2)	RSS-210 A.8.2(a)	6dB Bandwidth	PASS	N/A
15.247(b)	RSS-210 A.8.4(4)	Peak Output Power	PASS	N/A
15.247(e)	RSS-210 A.8.2(b)	Power Spectral Density	PASS	N/A
15.247(d)	RSS-210 Annex 8 (A8.5)	Transmitter Radiated Spurious Emission	PASS	N/A
15.247(d)	RSS-210 Annex 8 (A8.5)	Antenna Conducted Spurious Emission	PASS	N/A

N/A is an abbreviation for Not Applicable.



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3. Test Equipment

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Due Date
EMI Test Receiver	ROHDE& SCHWARZ	ESCI	100321	Aug. 08, 2014	Aug.07, 2015
50ΩCoaxial Switch	Anritsu	MP59B	X10321	Aug. 08, 2014	Aug.07, 2015
L.I.S.N	Rohde & Schwarz	ENV216	101131	Aug. 08, 2014	Aug.07, 2015
L.I.S.N	SCHWARZBECK	NNBL 8226-2	8226-2/164	Aug. 08, 2014	Aug.07, 2015
Spectrum Analyzer	Agilent	E4407B	MY45106456	Aug. 08, 2014	Aug.07, 2015
Spectrum Analyzer	Rohde & Schwarz	FSP30	DE25181	Aug. 08, 2014	Aug.07, 2015
EMI Test Receiver	Rohde & Schwarz	ESCI	101165	Aug. 08, 2014	Aug.07, 2015
Bilog Antenna	ETS-LINDGREN	3142E	00117537	Mar. 06, 2015	Mar.05, 2016
Horn Antenna	ETS-LINDGREN	3117	00143207	Mar. 06, 2015	Mar.05, 2016
Pre-amplifier	HP	11909A	185903	Mar. 06, 2015	Mar.05, 2016
Pre-amplifier	HP	8447B	3008A00849	Mar. 06, 2015	Mar.05, 2016
Cable	HUBER+SUHNE R	100	SUCOFLEX	Mar. 06, 2015	Mar.05, 2016
Signal Generator	Rohde & Schwarz	SML03	IKW682-054	Feb. 10, 2015	Feb.09, 2016
Positioning Controller	ETS-LINDGREN	2090	N/A	N/A	N/A



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4. Conducted Emission Test

4.1 Test Standard and Limit

4.1.1Test Standard FCC Part 15.207

4.1.2 Test Limit

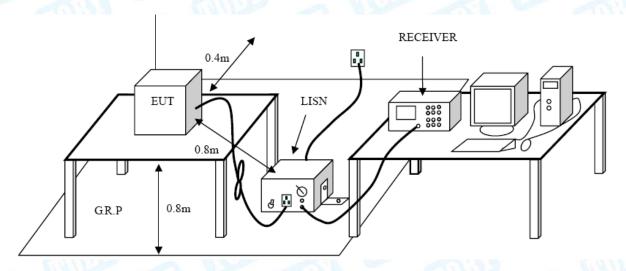
Conducted Emission Test Limit

Tues and the second	Maximum RF Lin	e Voltage (dBμV)
Frequency	Quasi-peak Level	Average Level
150kHz~500kHz	66 ~ 56 *	56 ~ 46 *
500kHz~5MHz	56	46
5MHz~30MHz	60	50

Notes:

- (1) *Decreasing linearly with logarithm of the frequency.
- (2) The lower limit shall apply at the transition frequencies.
- (3) The limit decrease in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

4.2 Test Setup



4.3 Test Procedure

The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/50uH of coupling impedance for the measuring instrument.

Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.



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I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.

LISN at least 80 cm from nearest part of EUT chassis.

The bandwidth of EMI test receiver is set at 9kHz, and the test frequency band is from 0.15MHz to 30MHz.

4.4 EUT Operating Mode

Please refer to the description of test mode.

4.5 Test Data

Please see the next page.



Emission Level= Read Level+ Correct Factor

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EUT:	Actio	n camera	N	lodel Name	:	A04C	an'
Temperature:	25 ℃		R	elative Hum	nidity:	55%	Aller
Test Voltage:	AC 1	20V/60Hz		20 -	6		
Terminal:	Line	_ د	MAG		1 1	-	
Test Mode:	AC C	Charging with	h TX B Mod	de M		-a \	18 December
Remark:	Only	worse case	is reported	d		(35)	
90.0 dBuV							
						QP: AVG:	
* *							
	×	× **.	difficulture .				
40 1/1/14	ATATA	Namalallihi a	d da da	Milli Makaira			
					Hyperchite. Landon Nov	mpan	
1 / 11 / 1 / 1	A LICTUR	TI TERMININ PROBLE	MUTAY. MILIOTOLINI DILINI DULKAYI			1. mg	
	11 11 11		r. Pypungr			"Hurry	
					dagilik oʻlgayidha bayilana	Mary Mary Mary	handar Marina day
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					daliphi da	Mally fally and provide specific	pe
					dalik karaba basa sa	Malphalage and a	pe
0.150	0.5		(MHz)	5	gapparahan berana	A halpplanter of a grant of a	30.000
0.150	0.5	Reading			daliple the same of the same o	And population of the second	AV
0.150	0.5 Freq.	Reading Level	(MHz) Correct Factor	5 Measure- ment	Limit	Over	AV
0.150 No. Mk.		_	Correct	Measure-	Limit dBuV	A. Markey of the second second	AV
0.150 No. Mk.	Freq.	Level	Correct Factor	Measure- ment	Limit	Over	30.000
0.150 No. Mk.	Freq.	Level dBuV	Correct Factor	Measure- ment	Limit dBuV	Over	30.000 Detector
0.150 No. Mk. 1 0. 2 0.	Freq. MHz 1833	dBuV 47.91	Correct Factor dB 10.12	Measure- ment dBuV 58.03	dBuV 64.33	Over dB -6.30 -7.35	30.000 Detector QP
0.150 No. Mk. 1 0. 2 0. 3 * 0.	Freq. MHz 1833	dBuV 47.91 36.86	Correct Factor dB 10.12	Measure- ment dBuV 58.03 46.98	dBuV 64.33 54.33	Over dB -6.30 -7.35 -3.69	30.000 Detector QP AVG
0.150 No. Mk. 1 0. 2 0. 3 * 0. 4 0.	Freq. MHz 1833 1833 2460	dBuV 47.91 36.86 48.10	Correct Factor dB 10.12 10.12 10.10	Measure- ment dBuV 58.03 46.98 58.20	dBuV 64.33 54.33 61.89	Over dB -6.30 -7.35 -3.69 -4.36	30.000 Detector QP AVG QP
0.150 No. Mk. 1 0. 2 0. 3 * 0. 4 0. 5 0.	Freq. MHz 1833 1833 2460	dBuV 47.91 36.86 48.10 37.43	Correct Factor dB 10.12 10.12 10.10 10.10	Measure- ment dBuV 58.03 46.98 58.20 47.53	Limit dBuV 64.33 54.33 61.89 51.89	Over dB -6.30 -7.35 -3.69 -4.36 -6.09	30.000 Detector QP AVG QP AVG
0.150 No. Mk. 1 0. 2 0. 3 * 0. 4 0. 5 0. 6 0.	Freq. MHz 1833 1833 2460 2460 4900	dBuV 47.91 36.86 48.10 37.43 40.06	Correct Factor dB 10.12 10.12 10.10 10.10 10.02	Measure- ment dBuV 58.03 46.98 58.20 47.53 50.08	Limit dBuV 64.33 54.33 61.89 51.89 56.17	Over dB -6.30 -7.35 -3.69 -4.36 -6.09 -6.67	30.000 Detector QP AVG QP AVG QP
0.150 No. Mk. 1 0. 2 0. 3 * 0. 4 0. 5 0. 6 0. 7 0.	Freq. MHz 1833 1833 2460 2460 4900 4900	dBuV 47.91 36.86 48.10 37.43 40.06 29.48	Correct Factor dB 10.12 10.12 10.10 10.10 10.02	Measure- ment dBuV 58.03 46.98 58.20 47.53 50.08 39.50	Limit dBuV 64.33 54.33 61.89 51.89 56.17 46.17	Over dB -6.30 -7.35 -3.69 -4.36 -6.09 -6.67 -7.14	30.000 Detector QP AVG QP AVG QP AVG
0.150 No. Mk. 1	Freq. MHz 1833 1833 2460 2460 4900 4900 6107	dBuV 47.91 36.86 48.10 37.43 40.06 29.48 38.84	Correct Factor dB 10.12 10.12 10.10 10.10 10.02 10.02	Measure- ment dBuV 58.03 46.98 58.20 47.53 50.08 39.50 48.86	Limit dBuV 64.33 54.33 61.89 51.89 56.17 46.17 56.00	Over dB -6.30 -7.35 -3.69 -4.36 -6.09 -6.67 -7.14 -8.62	Detector QP AVG QP AVG QP AVG QP AVG
0.150 No. Mk. 1	Freq. MHz 1833 1833 2460 2460 4900 4900 6107	dBuV 47.91 36.86 48.10 37.43 40.06 29.48 38.84 27.36	Correct Factor dB 10.12 10.12 10.10 10.02 10.02 10.02 10.02	Measure- ment dBuV 58.03 46.98 58.20 47.53 50.08 39.50 48.86 37.38	Limit dBuV 64.33 54.33 61.89 51.89 56.17 46.17 56.00 46.00	Over dB -6.30 -7.35 -3.69 -4.36 -6.09 -6.67 -7.14 -8.62 -5.50	30.000 Detector QP AVG QP AVG QP AVG QP AVG
0.150 No. Mk. 1	Freq. MHz 1833 1833 2460 2460 4900 4900 6107 6107 0380	dBuV 47.91 36.86 48.10 37.43 40.06 29.48 38.84 27.36 40.34	Correct Factor dB 10.12 10.12 10.10 10.02 10.02 10.02 10.02 10.16	Measure- ment dBuV 58.03 46.98 58.20 47.53 50.08 39.50 48.86 37.38 50.50	Limit dBuV 64.33 54.33 61.89 51.89 56.17 46.17 56.00 46.00 46.00	Over dB -6.30 -7.35 -3.69 -4.36 -6.09 -6.67 -7.14 -8.62 -5.50	Detector QP AVG QP AVG QP AVG QP AVG QP AVG



Emission Level= Read Level+ Correct Factor

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EUT:	Actio	n camera	М	odel Name	:	A04C	1000
Temperature:	25 °C	C	R	elative Hum	idity:	55%	MAG
Test Voltage:	AC 1	20V/60Hz	-	10	65	MIN S	
Terminal:	Neut	ral	UND		1 6		
Test Mode:	AC C	Charging with	n TX B Mod	le (3	Miller
Remark:	Only	worse case	is reported	1	-10	133	10
90.0 dBuV	0.5		(MHz)	5	Mary Mary Mary 1949	QP: AVG:	peak AVG
No. Mk. F	req.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
	MHz	dBuV	dB	dBuV	dBuV	dB	Detector
1 0.	1833	47.41	10.12	57.53	64.33	-6.80	QP
2 0.	1833	36.36	10.12	46.48	54.33	-7.85	AVG
3 0.2	2460	47.10	10.10	57.20	61.89	-4.69	QP
4 0.2	2460	36.43	10.10	46.53	51.89	-5.36	AVG
5 0.4	1900	40.56	10.02	50.58	56.17	-5.59	QP
6 0.4	1900	29.98	10.02	40.00	46.17	-6.17	AVG
7 0.9	9860	39.81	10.15	49.96	56.00	-6.04	QP
8.0	9860	25.60	10.15	35.75	46.00	-10.25	AVG
9 * 1.4	1740	41.22	10.11	51.33	56.00	-4.67	QP
10 1.4	1740	21.34	10.11	31.45	46.00	-14.55	AVG
11 1.8	3420	38.53	10.08	48.61	56.00	-7.39	QP
12 1.8	3420	25.61	10.08	35.69	46.00	-10.31	AVG
*:Maximum data x:O	ver limit	!:over margin					



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5. Radiated Emission Test

5.1 Test Standard and Limit

5.1.1 Test Standard FCC Part 15.209

5.1.2 Test Limit

Radiated Emission Limits (9kHz~1000MHz)

Frequency (MHz	Field Strength (microvolt/meter)	Measurement Distance (meters)
0.009~0.490	2400/F(KHz)	300
0.490~1.705	24000/F(KHz)	30
1.705~30.0	30	30
30~88	100	3
88~216	150	3
216~960	200	3
Above 960	500	3

Radiated Emission Limit (Above 1000MHz)

Frequency	Class A (dBuV	//m)(at 3 M)	Class B (dBuV	B (dBuV/m)(at 3 M)		
(MHz)	Peak	Average	Peak	Average		
Above 1000	80	60	74	54		

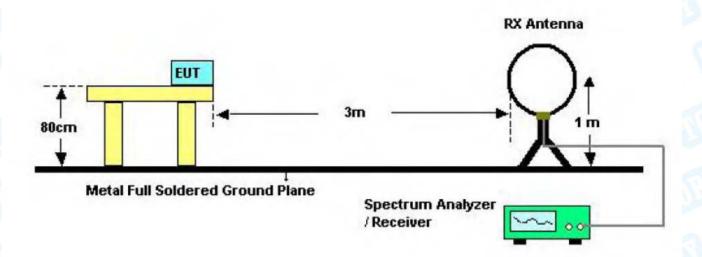
Note:

- (1) The tighter limit applies at the band edges.
- (2) Emission Level(dBuV/m)=20log Emission Level(uV/m)

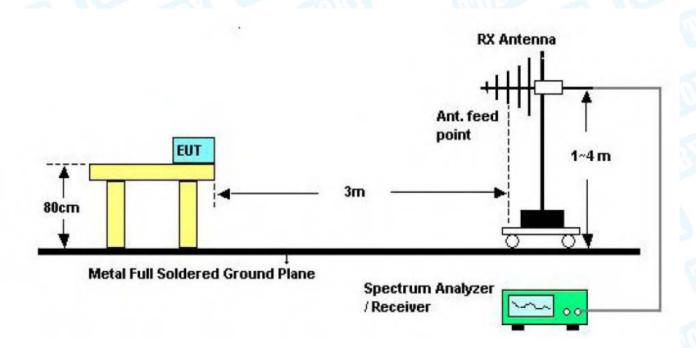


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5.2 Test Setup



Below 30MHz Test Setup

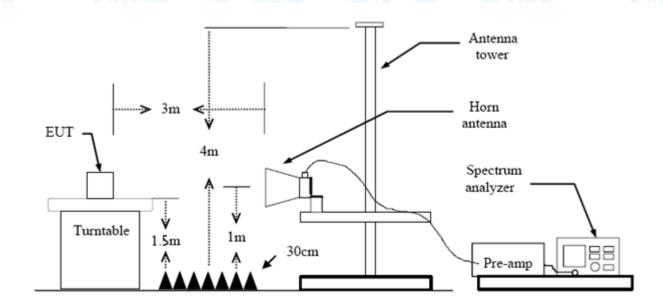


Below 1000MHz Test Setup

TOBY

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Above 1GHz Test Setup

5.3 Test Procedure

- (1) The measuring distance of 3m shall be used for measurements at frequency up to 1GHz and above 1 GHz. The EUT was placed on a rotating 0.8m high above ground, the table was rotated 360 degrees to determine the position of the highest radiation.
- (2) Measurements at frequency above 1GHz. The EUT was placed on a rotating 1.5m high above the ground. RF absorbers covered the ground plane with a minimum area of 3.0m by 3.0m between the EUT and measurement receiver antenna. The RF absorber shall not exceed 30cm in high above the conducting floor. The table was rotated 360 degrees to determine the position of the highest radiation.
- (3) The Test antenna shall vary between 1m and 4m, Both Horizontal and Vertical antenna are set to make measurement.
- (4) The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- (5) If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit Bellow 1 GHz, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed. But the Peak Value and average value both need to comply with applicable limit above 1 GHz.
- (6) Testing frequency range below 1GHz the measuring instrument use VBW=120 kHz with Quasi-peak detection.
- (7) Testing frequency range above 1GHz the measuring instrument use RBW=1 MHz and VBW=3 MHz with Peak Detector for Peak Values, and use RBW=1 MHz and VBW=10 Hz with Peak Detector for Average Values.
- (8) For the actual test configuration, please see the test setup photo.



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5.4 EUT Operating Condition

The Equipment Under Test was set to Continual Transmitting in maximum power.

5.5 Test Data

Remark: During testing above 1GHz the measuring instrument use RBW=1 MHz and VBW=3 MHz with Peak Detector for Peak Values, and use RBW=1 MHz and VBW=10 Hz with Peak Detector for Average Values.

Test data please refer the following pages.



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	:			, 101		cai					odel:				A04C					
Гет	pera	ture	:	25	$^{\circ}\!\mathbb{C}$		1		13	R	elativ	e Hu	ımic	lity:	5	55%	À	Ì		
Test	t Volt	tage		AC	12	0V/	60H	Hz		1				16						
Ant.	. Pol.	•		Ho	rizo	nta	I		1	IN					6			A		
Test	t Mod	de:		TX	ВΝ	/loc	de 2	2412	MHz							A			A les	
Rem	nark:	1		On	ly w	ors	se c	case	is rep	orted	1					A)				
80.0	dBu∀	//m																		_
30								×			Ž X	اللالا	×	(RF)FCC	15C 3I		liation gin -6		
-20 30.	000	40		60	70 :	burkund	^{AM}			MHz)		3	300	400	D 5	[ANIIA]	600	700	100	00.00
	000	40	50	60			adiı	na			Mea			400)	500	600	700	100	00.00
30.			50 Fre			Rea	adii	_	Cor	MHz)	Mea me			400 Lim			600 Ove		100	00.00
30.				eq.		Rea Le		el _	Cor	rect	me	sure	e-		nit	(100	
30.		Лk.	Fre	eq.	ı	Rea Le	eve	el	Cor Fa	rect ctor	me dBu	sure ent	e-	Lim	nit	C	Ove	er	Dete	
30.		Лk. 1	Fre	eq. Iz 876	i	Rea Le	eve BuV	el	Cor Fa	rect ctor /m .86	dBu	sure ent	e-	Lim dBu	nit V/m	-	Dve dB	er 86	Dete	ecto
30. N		Лk. 1	Fre M⊦ 07.8	eq. Iz 876 874	ſ	Rea Le dl 54	eve Bu∨ 4.50	0	Cor Fa dB	rect ctor /m .86	те dВt 32 34	sure ent uV/m	e-	Lim dBu 43.	nit V/m .50	-	Ove	er 86	Dete pe	ecto eak
N 1 2	lo. N	/lk.	Fre MH 107.8 239.9	eq. ^{1z} 876 874 351	ı	Sea Le di 54	eve Bu∨ 4.50 3.49	0 9 3	Cor Fa dB -21	rect ctor .86 .59	32 34 41	sure ent uV/m	e-	Lim 43. 46.	it V/m .50		Dve dB 10.8	er 86 10	Dete	ecto eak
N 1 2 3	lo. N	/lk.	Fre MH 07.8 239.9	eq. 876 874 351 458	F	Sea Lea Lea Lea Lea Lea Lea Lea Lea Lea L	BuV 4.50 3.49 7.40	el / / 0 9 3 0	Cor Fa dB -21 -18	rect ctor .86 .59 .46	32 34 41 39	sure ent /m 64 90	2-	Lim 43. 46. 46.	v/m .50 .00	-	Dve dB 10.8	86 10 3	peter pe	eak eak eak



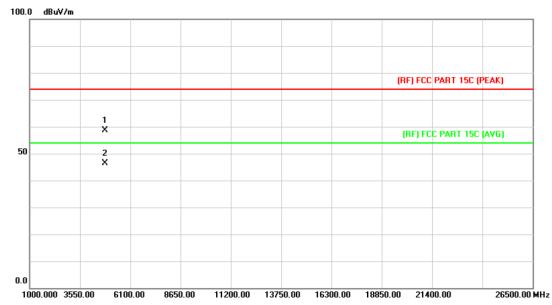
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EUT:			Act	ion	car	mera	а	a		Мс	del:					A04	·C		A	1776
Temp	erature:		25	$^{\circ}\!\mathbb{C}$		1				Re	lativ	е Н	umic	lity		55%	ó			
Test \	Voltage:		AC	120)/VC	60H	lz		1						6)		
Ant. F	ol.		Ver	tica	I			N							6				1	
Test I	Mode:		TX	ΒN	/lod	e 24	412	MHz	Z		-					A				
Rema	ırk:		Onl	ly w	ors	e ca	ase	is re	eporte	ed				6						
80.0	dBuV/m					_														
30	Nove of the second	l de la companya de l	, lin		l _k w th	apholin ¹ ,	d distribution of the second	<u> </u>	, Alakarian in the same and the	######################################	1 *		2 ×	(F	3 X	4 ×		adiatio		
30.000	0 40	50	60 7	70 8	30				(MHz)				300	4	00	500	600	700	1	000.00
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		MH	łz		dl	Bu∀		d	lB/m		dΒ	uV/n	1	dΒ	uV/r	n	dE	3	De	tecto
1	2	25.3	079		52	2.88	3	-1	9.30		3	3.58	3	46	3.00)	-12	.42	ŗ	eak
2	! 3	36.0	351		58	3.85	5	-1	5.46		4:	3.39)	46	3.00)	-2.	61	p	eak
3	! 4	32.5	457	'	54	1.82	2	-1	2.78		42	2.04		46	3.00)	-3.	96	p	eak
4	* 5	28.2	458		53	3.63	3	-1	0.14		4:	3.49)	46	3.00)	-2.	51	ŗ	eak
5		25.0				0.04			3.51			1.53			3.00		-4.			eak
6		21.7				0.28			7.10			3.18			3.00		-2.	82		eak
	imum data sion Lev		er lim			er ma		ect	Fact	or										



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EUT:	Action camera	Model:	A04C
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	AC 120V/60Hz	01 - 6	THE STATE OF
Ant. Pol.	Horizontal		
Test Mode:	TX B Mode 2412MHz		THE PARTY OF THE P
Remark:	No report for the emission	n which more than 10	dB below the
	prescribed limit.	2 m 13	

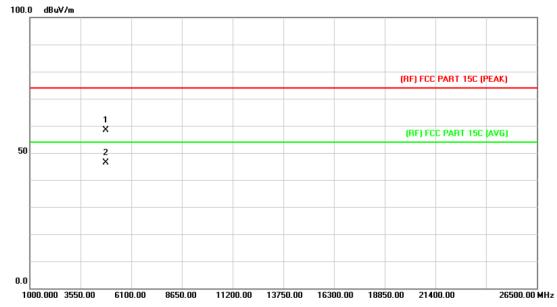


No	o. Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4823.844	44.99	13.56	58.55	74.00	-15.45	peak
2	*	4823.922	32.86	13.56	46.42	54.00	-7.58	AVG



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EUT:	Action camera	Model:	A04C					
Temperature:	25 ℃	Relative Humidity:	55%					
Test Voltage:	AC 120V/60Hz	131	THE STATE OF					
Ant. Pol.	Vertical							
Test Mode:	TX B Mode 2412MHz		THE PARTY OF THE P					
Remark:	No report for the emission prescribed limit.	No report for the emission which more than 10 dB below the						

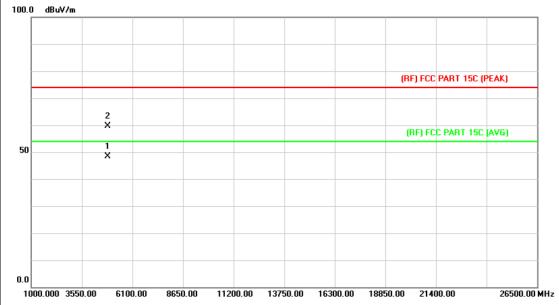


No	. Mk	. Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4823.997	44.78	13.56	58.34	74.00	-15.66	peak
2	*	4824.048	32.79	13.56	46.35	54.00	-7.65	AVG



Page: 23 of 87

EUT:	Action camera	Model:	A04C				
Temperature:	25 ℃	Relative Humidity:	55%				
Test Voltage:	AC 120V/60Hz	(1) I (1)	THE STATE OF				
Ant. Pol.	Horizontal						
Test Mode:	TX B Mode 2437MHz		A THURSDAY				
Remark:	No report for the emission	n which more than 10	dB below the				
	prescribed limit.						

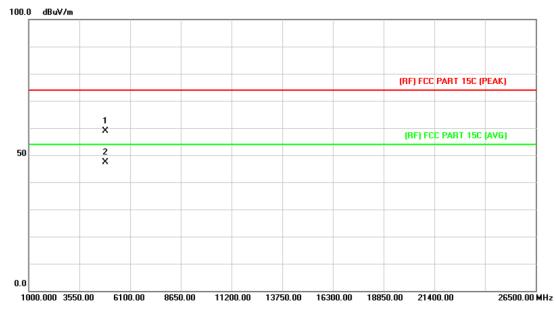


N	10.	Mk.	Freq.	Reading Level		Measure- ment	Limit	Over	
			MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		*	4873.931	34.60	13.86	48.46	54.00	-5.54	AVG
2			4874.384	45.84	13.86	59.70	74.00	-14.30	peak



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EUT:	Action camera	Model:	A04C				
Temperature:	25 ℃	Relative Humidity:	55%				
Test Voltage:	AC 120V/60Hz	AC 120V/60Hz					
Ant. Pol.	Vertical	Vertical					
Test Mode:	TX B Mode 2437MHz						
Remark:	No report for the emissio prescribed limit.	n which more than 10 o	dB below the				
100 0 10 111							

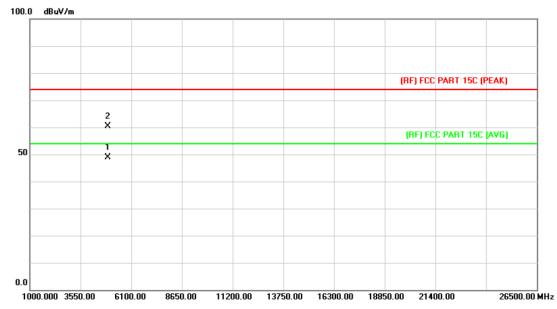


No	o. Mk	. Freq.	_	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4873.700	44.95	13.86	58.81	74.00	-15.19	peak
2	*	4873.949	33.56	13.86	47.42	54.00	-6.58	AVG



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EUT:	Action camera	Model:	A04C			
Temperature:	25 ℃	Relative Humidity:	55%			
Test Voltage:	AC 120V/60Hz	AC 120V/60Hz				
Ant. Pol.	Horizontal	Horizontal				
Test Mode:	TX B Mode 2462MHz					
Remark:	No report for the emission prescribed limit.	n which more than 10 o	dB below the			
	<u> </u>					

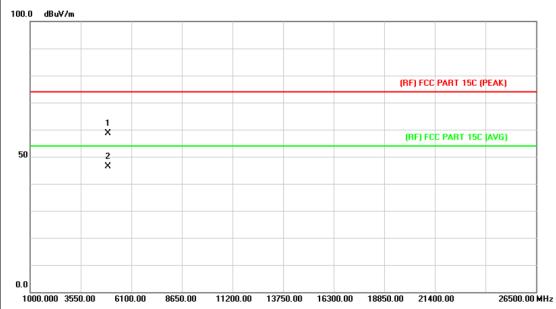


No	o. M	k. Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4923.970	34.67	14.15	48.82	54.00	-5.18	AVG
2		4924.057	46.12	14.15	60.27	74.00	-13.73	peak



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Action camera 25 °C AC 120V/60Hz	Model: Relative Humidity:	A04C 55%			
	Relative Humidity:	55%			
AC 120V/60Hz		0.01.00			
Vertical	Vertical				
TX B Mode 2462MHz		THE REAL PROPERTY OF THE PARTY			
	n which more than 10 o	dB below the			
	CALLY LES	No report for the emission which more than 10 of			

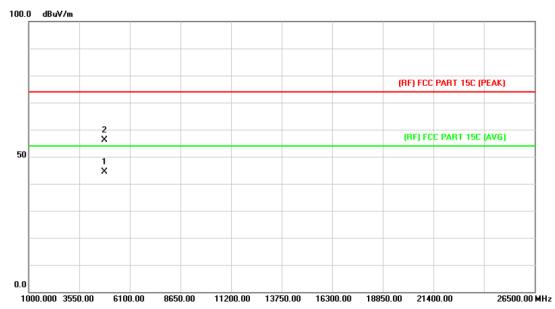


No	. Mk	Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4923.877	44.36	14.15	58.51	74.00	-15.49	peak
2	*	4923.970	32.21	14.15	46.36	54.00	-7.64	AVG



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EUT:	Action camera	Model:	A04C			
Temperature:	25 ℃	Relative Humidity:	55%			
Test Voltage:	AC 120V/60Hz	000	THE			
Ant. Pol.	Horizontal	Horizontal				
Test Mode:	TX G Mode 2412MHz	The second				
Remark:	No report for the emission which more than 10 dB below the					
	prescribed limit.					

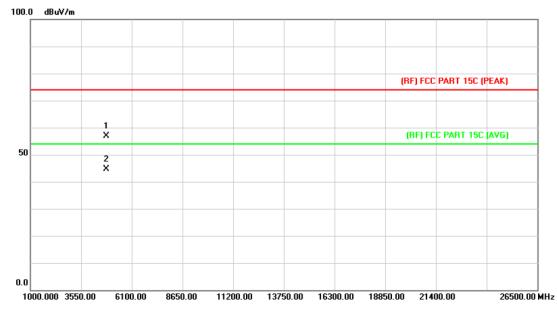


No	o. Mk	. Freq.	_	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4823.287	30.78	13.56	44.34	54.00	-9.66	AVG
2		4823.735	42.64	13.56	56.20	74.00	-17.80	peak



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EUT:	Action camera	Model:	A04C				
Temperature:	25 ℃	Relative Humidity:	55%				
Test Voltage:	AC 120V/60Hz	AC 120V/60Hz					
Ant. Pol.	Vertical	Vertical					
Test Mode:	TX G Mode 2412MHz						
Remark:							

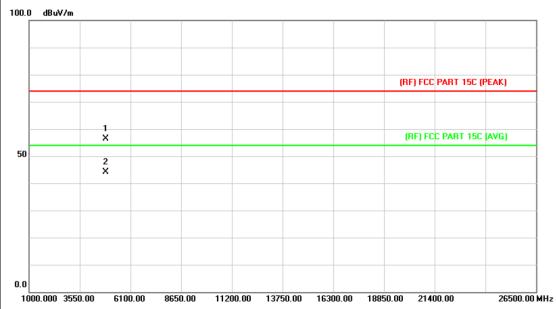


١	No.	Mk.	Freq.	_	Correct Factor	Measure- ment	Limit	Over	
			MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1			4823.657	43.33	13.56	56.89	74.00	-17.11	peak
2		*	4823.657	31.09	13.56	44.65	54.00	-9.35	AVG



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EUT:	Action camera	Model:	A04C				
Temperature:	25 ℃	Relative Humidity:	55%				
Test Voltage:	AC 120V/60Hz	AC 120V/60Hz					
Ant. Pol.	Horizontal	Horizontal					
Test Mode:	TX G Mode 2437MHz		THE PARTY OF THE P				
Remark:	No report for the emissio prescribed limit.	n which more than 10 o	dB below the				

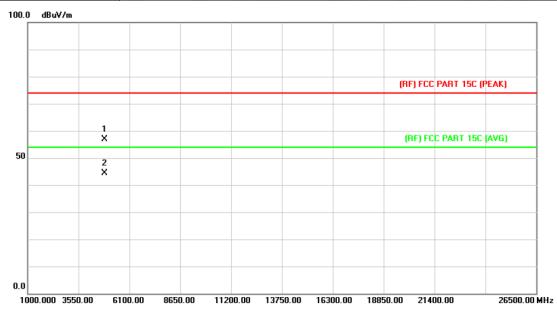


No	. Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBu∨	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4873.257	42.45	13.86	56.31	74.00	-17.69	peak
2	*	4873.951	30.29	13.86	44.15	54.00	-9.85	AVG



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EUT:	Action camera	Model:	A04C		
Temperature:	25 ℃	Relative Humidity:	55%		
Test Voltage:	AC 120V/60Hz				
Ant. Pol.	Vertical				
Test Mode:	TX G Mode 2437MHz				
Remark:	No report for the emission which more than 10 dB below the prescribed limit.				

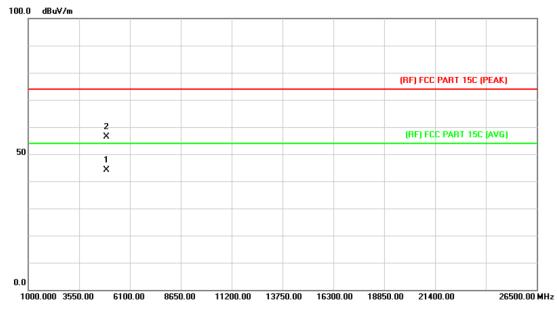


	No.	Mk.	Freq.	Reading Level		Measure- ment	Limit	Over	
			MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1			4873.542	42.91	13.86	56.77	74.00	-17.23	peak
2		*	4873.921	30.43	13.86	44.29	54.00	-9.71	AVG



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EUT:	Action camera	Model:	A04C			
Temperature:	25 ℃	Relative Humidity:	55%			
Test Voltage:	AC 120V/60Hz	AC 120V/60Hz				
Ant. Pol.	Horizontal	Horizontal				
Test Mode:	TX G Mode 2462MHz					
Remark:	No report for the emission prescribed limit.	No report for the emission which more than 10 dB below the prescribed limit.				
	<u> </u>					

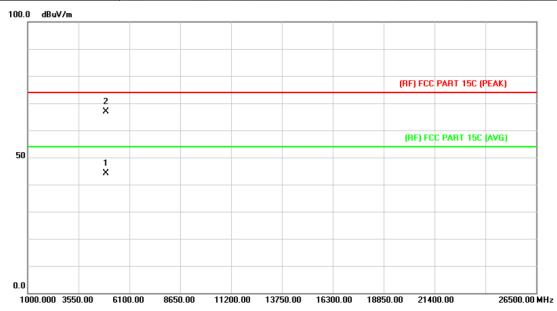


N	lo. N	Иk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
			MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*		4923.540	30.09	14.15	44.24	54.00	-9.76	AVG
2			4923.870	42.22	14.15	56.37	74.00	-17.63	peak



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EUT:	Action camera	Model:	A04C			
Temperature:	25 ℃	Relative Humidity:	55%			
Test Voltage:	AC 120V/60Hz	AC 120V/60Hz				
Ant. Pol.	Vertical	Vertical				
Test Mode:	TX G Mode 2462MHz					
Remark:	No report for the emissio prescribed limit.	No report for the emission which more than 10 dB below the prescribed limit.				

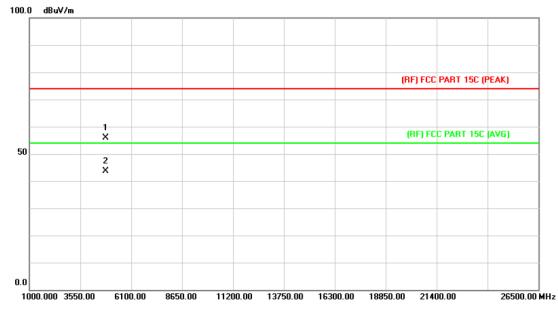


N	No.	Mk.	Freq.	Reading Level		Measure- ment	Limit	Over	
			MHz	dBu∀	dB/m	dBuV/m	dBuV/m	dB	Detector
1			4923.120	30.09	14.15	44.24	54.00	-9.76	AVG
2		*	4923.630	52.82	14.15	66.97	74.00	-7.03	peak



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EUT:	Action camera	Model:	A04C			
Temperature:	25 ℃	Relative Humidity:	55%			
Test Voltage:	AC 120V/60Hz	AC 120V/60Hz				
Ant. Pol.	Horizontal	Horizontal				
Test Mode:	TX N(HT20) Mode 2412	MHz	The same			
Remark:	No report for the emission which more than 10 dB below the prescribed limit.					
100.0 dP.3//	•					



No	. Mk	. Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4823.180	42.26	13.56	55.82	74.00	-18.18	peak
2	*	4823.270	30.08	13.56	43.64	54.00	-10.36	AVG



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EUT:	Action camera	Model:	A04C			
Temperature:	25 ℃	Relative Humidity:	55%			
Test Voltage:	AC 120V/60Hz	AC 120V/60Hz				
Ant. Pol.	Vertical	Vertical				
Test Mode:	TX N(HT20) Mode 2412	MHz				
Remark:	No report for the emission	No report for the emission which more than 10 dB below the				
	prescribed limit.					
			·			

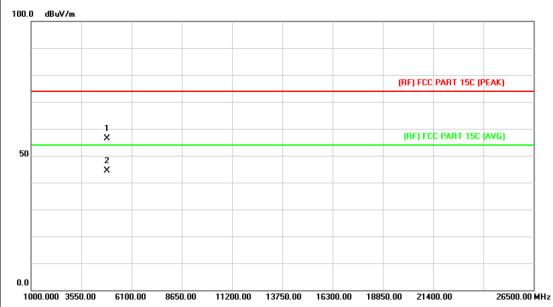


No	. Mk	. Freq.	_	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4823.390	42.16	13.56	55.72	74.00	-18.28	peak
2	*	4823.480	29.96	13.56	43.52	54.00	-10.48	AVG



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EUT:	Action camera	Model:	A04C				
Temperature:	25 ℃	Relative Humidity:	55%				
Test Voltage:	AC 120V/60Hz	AC 120V/60Hz					
Ant. Pol.	Horizontal	Horizontal					
Test Mode:	TX N(HT20) Mode 2437	MHz					
Remark:	No report for the emission	n which more than 10	dB below the				
	prescribed limit.	2 m 13					

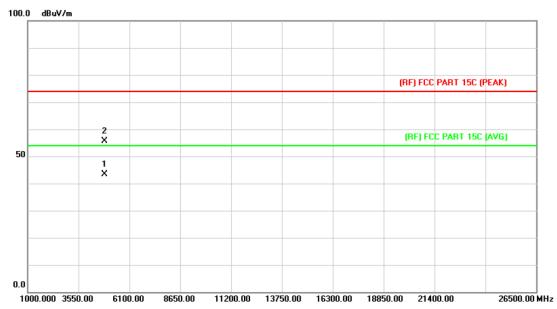


١	Ю.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
			MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1			4874.346	42.52	13.86	56.38	74.00	-17.62	peak
2		*	4874.807	30.61	13.86	44.47	54.00	-9.53	AVG



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EUT:	Action camera	Model:	A04C				
Temperature:	25 ℃	Relative Humidity:	55%				
Test Voltage:	AC 120V/60Hz						
Ant. Pol.	Vertical						
Test Mode:	TX N(HT20) Mode 2437MHz						
Remark:	No report for the emission which more than 10 dB below the						
	prescribed limit.						

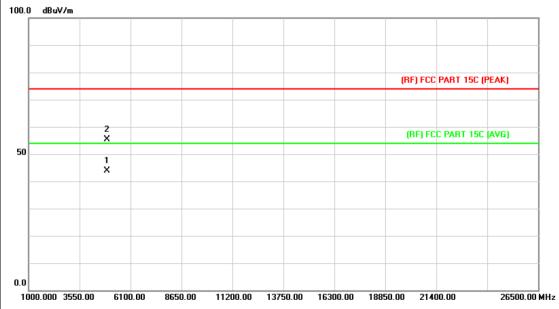


N	No.	Mk.	Freq.	Reading Level		Measure- ment	Limit	Over	
			MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		*	4874.259	29.45	13.86	43.31	54.00	-10.69	AVG
2			4874.697	41.88	13.86	55.74	74.00	-18.26	peak



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EUT:	Action camera	Model:	A04C				
Temperature:	25 ℃	Relative Humidity:	55%				
Test Voltage:	AC 120V/60Hz	AC 120V/60Hz					
Ant. Pol.	Horizontal	Horizontal					
Test Mode:	TX N(HT20) Mode 2462	MHz					
Remark:	No report for the emission	No report for the emission which more than 10 dB below the					
	prescribed limit.						

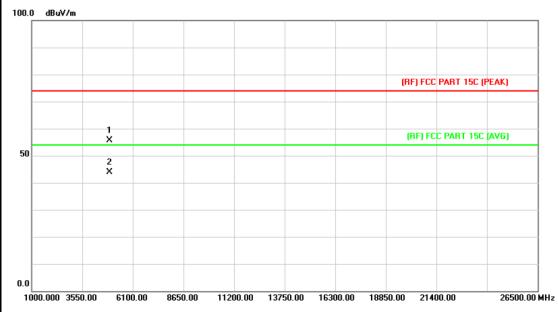


N	lo. I	Mk.	Freq.	Reading Level		Measure- ment	Limit	Over	
			MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	k	4923.412	29.63	14.15	43.78	54.00	-10.22	AVG
2			4923.663	41.20	14.15	55.35	74.00	-18.65	peak



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EUT:	Action camera	Model:	A04C			
Temperature:	25 ℃	Relative Humidity:	55%			
Test Voltage:	AC 120V/60Hz	AC 120V/60Hz				
Ant. Pol.	Vertical	Vertical				
Test Mode:	TX N(HT20) Mode 2462	MHz				
Remark: No report for the emission which more than 10 dB below the prescribed limit.						

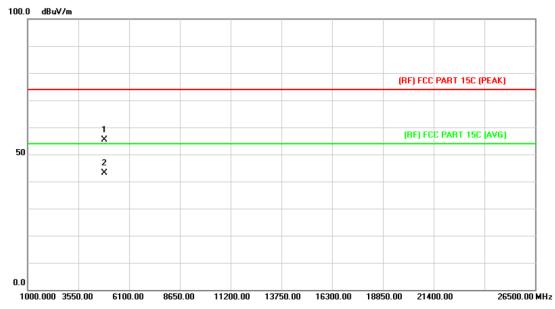


No	o. Mk	c. Freq.	_	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4923.660	41.57	14.15	55.72	74.00	-18.28	peak
2	*	4923.750	29.66	14.15	43.81	54.00	-10.19	AVG



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EUT:	Action camera	Model:	A04C				
Temperature:	25 ℃	Relative Humidity:	55%				
Test Voltage:	AC 120V/60Hz	AC 120V/60Hz					
Ant. Pol.	Horizontal	Horizontal					
Test Mode:	TX N(HT40) Mode 2422	MHz					
Remark:	No report for the emission which more than 10 dB below the						
prescribed limit.							
l							

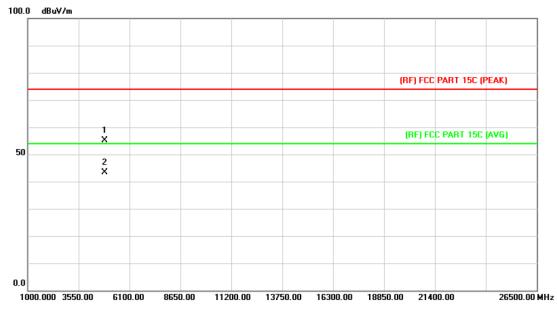


No	o. Mk	. Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4843.790	41.77	13.68	55.45	74.00	-18.55	peak
2	*	4843.960	29.54	13.68	43.22	54.00	-10.78	AVG



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EUT:	Action camera	Model:	A04C				
Temperature:	25 ℃	Relative Humidity:	55%				
Test Voltage:	AC 120V/60Hz	AC 120V/60Hz					
Ant. Pol.	Vertical	Vertical					
Test Mode:	TX N(HT40) Mode 2422	MHz					
Remark:	No report for the emission	No report for the emission which more than 10 dB below the					
	prescribed limit.						
		·	·				

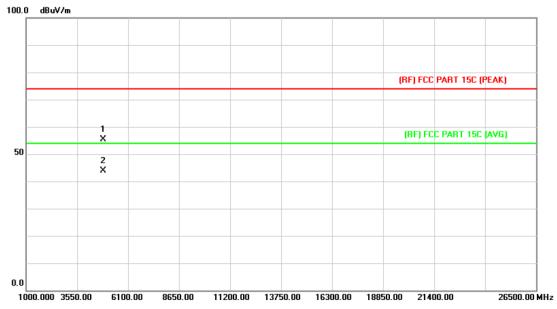


No	. Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4843.130	41.46	13.68	55.14	74.00	-18.86	peak
2	*	4843.530	29.59	13.68	43.27	54.00	-10.73	AVG



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EUT:	Action camera	Model:	A04C			
Temperature:	25 ℃	Relative Humidity:	55%			
Test Voltage:	AC 120V/60Hz	AC 120V/60Hz				
Ant. Pol.	Horizontal	Horizontal				
Test Mode:	TX N(HT40) Mode 2437	MHz	The same			
Remark:	No report for the emission which more than 10 dB below the					
	prescribed limit.					
400 A IN 111						



No.	Mk.	Freq.	_	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		4874.540	41.43	13.86	55.29	74.00	-18.71	peak
2	*	4874.630	29.98	13.86	43.84	54.00	-10.16	AVG



Page: 42 of 87

EUT:	Action camera	Model:	A04C				
Temperature:	25 ℃	Relative Humidity:	55%				
Test Voltage:	AC 120V/60Hz	AC 120V/60Hz					
Ant. Pol.	Vertical	Vertical					
Test Mode:	TX N(HT40) Mode 2437I	MHz	THE PARTY OF THE P				
Remark:	No report for the emission	No report for the emission which more than 10 dB below the					
prescribed limit.							



No	. Mk	. Freq.	Reading Level		Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4874.160	29.68	13.86	43.54	54.00	-10.46	AVG
2		4874.940	41.73	13.86	55.59	74.00	-18.41	peak



Page: 43 of 87

EUT:	Action camera	Model:	A04C				
Temperature:	25 ℃	Relative Humidity:	55%				
Test Voltage:	AC 120V/60Hz		THE STATE OF				
Ant. Pol.	Horizontal						
Test Mode:	TX N(HT40) Mode 2452	MHz					
Remark:	No report for the emission	No report for the emission which more than 10 dB below the					
	prescribed limit.						
		·	·				

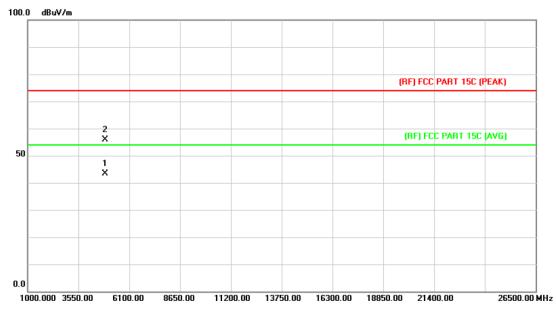


N	o. M	lk.	Freq.	Reading Level		Measure- ment	Limit	Over	
			MHz	dBu∀	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	4	1903.830	29.08	14.03	43.11	54.00	-10.89	AVG
2		4	1903.970	41.60	14.03	55.63	74.00	-18.37	peak



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EUT:	Action camera	Model:	A04C			
Temperature:	25 ℃	Relative Humidity:	55%			
Test Voltage:	AC 120V/60Hz	(T)				
Ant. Pol.	Vertical	U.				
Test Mode:	TX N(HT40) Mode 2452	MHz				
Remark:	No report for the emission	No report for the emission which more than 10 dB below the				
	prescribed limit.					
i			<u>'</u>			



1	No.	Mk.	Freq.	_	Correct Factor	Measure- ment	Limit	Over	
			MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1			4903.310	29.31	14.03	43.34	74.00	-30.66	peak
2		*	4903.420	41.75	14.03	55.78	74.00	-18.22	peak



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6. Restricted Bands Requirement

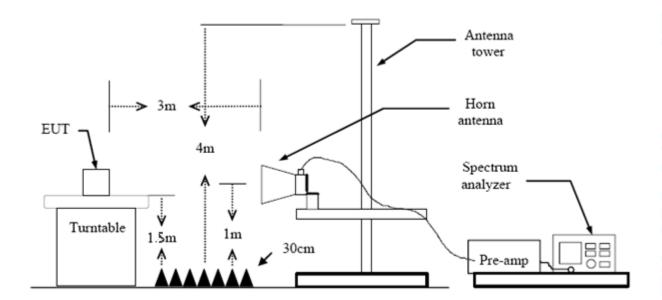
6.1 Test Standard and Limit

6.1.1 Test Standard FCC Part 15.209 FCC Part 15.205

6.1.2 Test Limit

Restricted Frequency	Class B (dB	BuV/m)(at 3 M)
Band (MHz)	Peak	Average
2310 ~2390	74	54
2483.5 ~2500	74	54

6.2 Test Setup



6.3 Test Procedure

- (1) The measuring distance of 3m shall be used for measurements at frequency up to 1GHz and above 1 GHz. The EUT was placed on a rotating 0.8m high above ground, the table was rotated 360 degrees to determine the position of the highest radiation.
- (2) Measurements at frequency above 1GHz. The EUT was placed on a rotating 1.5m high above the ground. RF absorbers covered the ground plane with a minimum area of 3.0m by 3.0m between the EUT and measurement receiver antenna. The RF absorber shall not exceed 30cm in high above the conducting floor. The table was rotated 360 degrees to determine the position of the highest radiation.
- (3) The Test antenna shall vary between 1m and 4m, Both Horizontal and Vertical antenna are set to make measurement.



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(4) The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.

- (5) If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit Bellow 1 GHz, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed. But the Peak Value and average value both need to comply with applicable limit above 1 GHz.
- (6) Testing frequency range below 1GHz the measuring instrument use VBW=120 kHz with Quasi-peak detection.
- (7) Testing frequency range above 1GHz the measuring instrument use RBW=1 MHz and VBW=3 MHz with Peak Detector for Peak Values, and use RBW=1 MHz and VBW=10 Hz with Peak Detector for Average Values.
- (8) For the actual test configuration, please see the test setup photo.

6.4 EUT Operating Condition

The Equipment Under Test was set to Continual Transmitting in maximum power.

6.5 Test Data

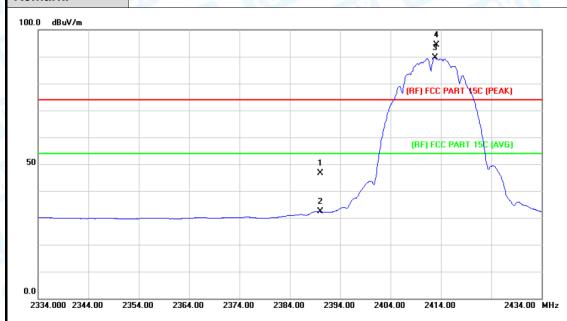
Please see the next page.



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(1) Radiation Test

EUT:	Action camera	Model:	A04C
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	AC 120V/60Hz		
Ant. Pol.	Horizontal	WILL DO	A MARIE
Test Mode:	TX B Mode 2412MHz		1:33
Remark:	N/A	J 13	

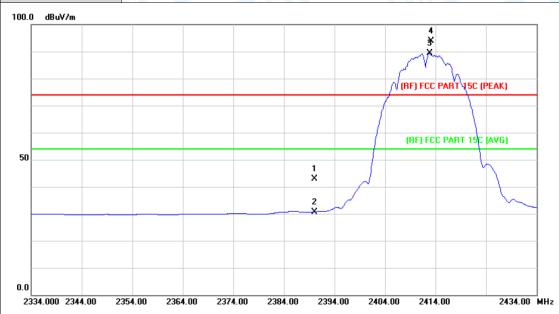


No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBu∀	dB/m	dBuV/m	dBuV/m	dB	Detector
1		2390.000	45.76	0.77	46.53	Fundament	al Frequency	peak
2		2390.000	31.50	0.77	32.27	Fundament	al Frequency	AVG
3	*	2412.800	88.85	0.86	89.71	54.00	35.71	AVG
4	Χ	2413.100	93.45	0.86	94.31	74.00	20.31	peak



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EUT:	Action camera	Model:	A04C
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	AC 120V/60Hz		
Ant. Pol.	Vertical	U.	
Test Mode:	TX B Mode 2412MHz		
Remark:	N/A		1:33
	·		

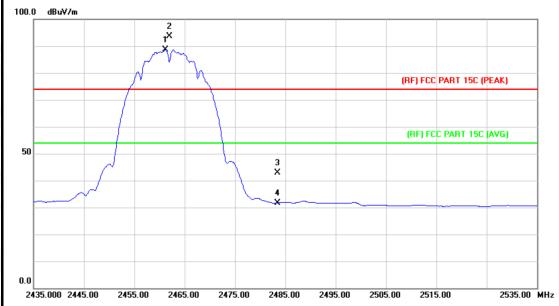


1	No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
			MHz	dBu∨	dB/m	dBuV/m	dBuV/m	dB	Detector
1			2390.000	41.99	0.77	42.76	74.00	-31.24	peak
2			2390.000	29.96	0.77	30.73	54.00	-23.27	AVG
3		*	2412.800	88.42	0.86	89.28	Fundamenta	al Frequency	AVG
4		X	2413.100	93.13	0.86	93.99	Fundamenta	al Frequency	peak



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EUT:	Action camera	Model:	A04C
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	AC 120V/60Hz	131 - 6	THE STATE OF THE S
Ant. Pol.	Horizontal		
Test Mode:	TX B Mode 2462MHz		
Remark:	N/A		1:33

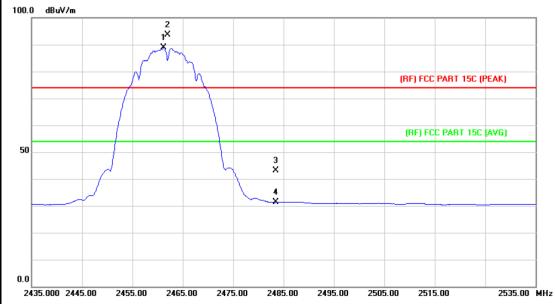


No	. Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	2461.200	87.61	1.07	88.68	Fundamenta	l Frequency	AVG
2	Χ	2462.000	92.44	1.08	93.52	Fundamenta	l Frequency	peak
3		2483.500	41.72	1.17	42.89	74.00	-31.11	peak
4		2483.500	30.55	1.17	31.72	54.00	-22.28	AVG



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EUT:	Action camera	Model:	A04C
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	AC 120V/60Hz		THE STATE OF
Ant. Pol.	Vertical	U	
Test Mode:	TX B Mode 2462MHz		
Remark:	N/A		1:13



No.	. Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	2461.200	87.77	1.07	88.84	Fundamenta	I Frequency	AVG
2	Χ	2462.000	92.53	1.08	93.61	Fundamenta	l Frequency	peak
3		2483.500	41.99	1.17	43.16	74.00	-30.84	peak
4		2483.500	30.11	1.17	31.28	54.00	-22.72	AVG



0.0

2335.000 2345.00

2355.00

2365.00

2375.00

Report No.: TB-FCC144279

2435.00 MHz

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EUT	:	Action	camera	Mode	l :	A04C		
Гет	perature:	25 ℃	COLUMN TO SERVICE	Relati	ve Humidity:	55%	55%	
Гest	Voltage:	AC 12	0V/60Hz	D'ELTER				
۹nt.	Pol.	Horizo	ontal	HU		Contract of the second		
Гest	: Mode:	TX G	Mode 2412MHz	- (W. D. C.	THE RESERVE		
Rem	nark:	N/A	A British			7:35		
100.0 dBuV/m								
						4 ×		
						3 X		
					(R	F) FCC PART (5C (PEAK)		
					(1	RF) FCC PART 15C (AVG)		
50				1 ×				
				2			4	

No.	Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		2390.000	45.87	0.77	46.64	74.00	-27.36	peak
2		2390.000	32.61	0.77	33.38	54.00	-20.62	AVG
3	*	2412.100	82.86	0.86	83.72	Fundamental	Frequency	AVG
4	Χ	2418.600	93.49	0.89	94.38	Fundamental	Frequency	peak

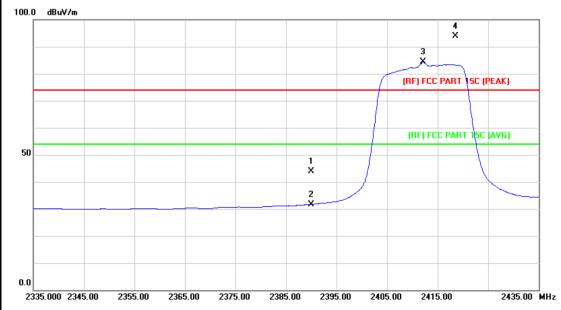
2385.00

2405.00



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EUT:	Action camera	Model:	A04C
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	AC 120V/60Hz	531	
Ant. Pol.	Vertical		
Test Mode:	TX G Mode 2412MHz		
Remark:	N/A		1:33
100.0 dBuV/m			
			4 X



1	No.	Mk.	Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
			MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1			2390.000	43.21	0.77	43.98	74.00	-30.02	peak
2			2390.000	30.98	0.77	31.75	54.00	-22.25	AVG
3		*	2412.100	83.44	0.86	84.30	Fundamenta	l Frequency	AVG
4		Χ	2418.600	92.98	0.89	93.87	Fundamenta	I Frequency	peak



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EUT:		Action	n camera	N	lodel:		A04C	
Temperat	ure:	25 ℃		R	Relative Humi	idity:	55%	BAP
Test Volta	ge:	AC 13	20V/60Hz		8.8	(G)	MIN.	
Ant. Pol.		Horiz	ontal	- AMO		y r		
Test Mode) :	TX G	Mode 246	2MHz	MIND		S W	Mester
Remark:		N/A	Millian				33	
100.0 dBuV/r	n							
			1 X					
			2 X					
			~			(RF) FC	C PART 15C (PEAK)
F0				3		(RF) FO	CC PART 15C (AVG	1
50				×				
				4				
				*				
0.0								
2435.000 24	445.00 2	455.00	2465.00 247	75.00 2485.00	2495.00 250	05.00 251	15.00 25	535.00 MH
			Reading	Correct	Measure-			
No. M	k. Fr	eq.	Level	Factor	ment	Limit	Over	
	M	Нz	dBu∀	dB/m	dBuV/m	dBuV/r	m dB	Detecto
1 X	2468	.600	92.63	1.11	93.74	Fundame	ntal Frequency	peak
2 *	2469	.100	83.64	1.11	84.75	Fundame	ntal Frequency	AVG
3	2483	500	47.83	1.17	49.00	74.00	-25.00	peak
			32.84	1.17	34.01	54.00	-19.99	AVG



0.0

2435.000 2445.00

2455.00

2465.00

2475.00

Report No.: TB-FCC144279

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EUT:	Action camera	Model:	A04C		
Temperature:	25 ℃	Relative Humidity:	55%		
Test Voltage:	AC 120V/60Hz				
Ant. Pol.	Vertical				
Test Mode: TX G Mode 2462MHz		A WWW			
Remark:	N/A		1:30		
100.0 dBuV/m					
	1 X				
	2 X				
		(RF)	FCC PART 15C (PEAK)		
		(RI	F) FCC PART 15C (AVG)		

No.	. Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBu∀	dB/m	dBuV/m	dBuV/m	dB	Detector
1	Χ	2455.800	91.73	1.05	92.78	Fundamental	Frequency	peak
2	*	2469.100	81.74	1.11	82.85	Fundamental	Frequency	AVG
3		2483.500	45.84	1.17	47.01	74.00	-26.99	peak
4		2483.500	31.62	1.17	32.79	54.00	-21.21	AVG

2485.00

2495.00

2505.00

2515.00

2535.00 MHz



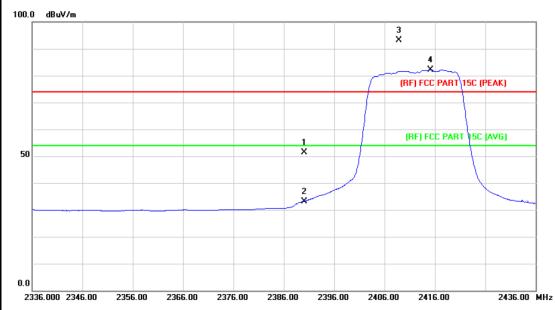
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EUT			Actic	n cam	era	a 1	Мо	del:			A04	IC		
Гет	peratu	re:	25 °C	C	m	33	Re	lativ	e Hum	idity:	55%	6	1	þ
Test	t Voltag	je:	AC 1	20V/60)Hz		50			6	M	33		M.
۹nt.	Pol.		Horiz	zontal		10				N V		682	60	
Test	Mode		TXN	I(HT20) Mod	le 2412	MHz	6	1110			1	ATTE	
Ren	nark:		N/A	RR	a second			1			117	3		Ţ
100.0	dBuV/m													_
											4 ×			
											3			
										(RF) F		15C (PE	AK)	
			-											}
-										(0.0)	ECC DA	RT 15C (A	ve)	-
50							1 X			(,,,	16612	J. J. J. J.	, u,	-
							2							
t														
-														-
			_											-
0.0														
233	36.000 234	6.UU Z	356.00	2366.00	2376	.00 238	86.00	2396	.00 240	06.00 2	2416.00		2436.00	MHZ
	lo. Mk	Fre	eq.	Read Lev	_	Corre Fact			sure- ent	Limit	t	Over		
N	O. 111111								-I IL					-4
N		M								dBu\/	/m	dB	Doto	
		MH	- Hz	dBu	IV	dB/m	l	dBı	uV/m	dBuV		dB	Dete	
1		2390.	Hz .000	dBu 48.9	i∨ 92	dB/m	,	dBı	uV/m 0.69	74.0	00	-24.31	ре	ak
			Hz .000	dBu	i∨ 92	dB/m	,	dBı	uV/m		00		ре	ak
1	*	2390.	.000 .000	dBu 48.9)V 92 28	dB/m	,	dBi 49 32	uV/m 0.69	74.0 54.0	00	-24.31	pe 5 A\	ak /G



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	EUT:	Action camera	Model:	A04C
	Temperature:	25 ℃	Relative Humidity:	55%
	Test Voltage:	AC 120V/60Hz	01 - 6	THE STATE OF
	Ant. Pol.	Vertical		
d	Test Mode:	TX N(HT20) Mode 2412N	ИHz	THE REAL PROPERTY.
	Remark:	N/A		(1) T



No.	Mk.	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1		2390.000	50.67	0.77	51.44	74.00	-22.56	peak
2		2390.000	32.47	0.77	33.24	54.00	-20.76	AVG
3	Χ	2408.800	92.21	0.85	93.06	Fundamental	Frequency	peak
4	*	2415.200	81.32	0.88	82.20	Fundamental	Frequency	AVG



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UT:			Actio	on car	nera		Mo	del:		Α	04C		
emp	eratu	re:	25 °	С	TATE	33	Re	lative Hu	midity	': 5	5%	AR	
est '	Voltag	je:	AC 1	120V/	60Hz		50	10 6		Call	1130		
nt.	Pol.		Horiz	zonta		(1)			(1)	62		MO.	
est	Mode:		TXN	V(HT2	20) Mod	de 2462	2MHz	0111	17:00		2 /		
Rema	ark:		N/A		S. Salar		50	6		m	131		1
100.0	dBuV/m												
				X									
				2 X									
									(RF) FCC I	PART 15C (PE	AK)	1
			1										
			1			\				(DE) FOR	PART 15C (A	WC)	
50							3			an j FCC	TAITI TOUR	TU)	-
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ſ	4												
													1
							_						-
0.0													
243	3.000 24	43.00 2	2453.00	2463.	00 247	73.00 2	483.00	2493.00	2503.00	2513.	00	2533.00	МН
								N 4	-				
No	. Mk	Fre	-u		ading	Corre		Measure		mit	Over		
No	o. Mk.			Le	vel	Fac	tor	ment	Liı	mit	Over	Doto	ctor
		MH	- Hz	Le dE	evel BuV	Fact	tor n	ment dBuV/m	Liı	mit suV/m	Over	Dete	
1	Х	MH 2458.	Hz .600	de 93	evel BuV B.91	dB/n	tor n	ment dBuV/m 94.97	Liı dB	uV/m		, pe	ak
		MH	Hz .600	de 93	evel BuV	Fact	tor n	ment dBuV/m	Lii dB Fund	uV/m damenta	dB	, pe	ak
1	Х	MH 2458.	.600 .700	93 82	evel BuV B.91	dB/n	tor n 6	ment dBuV/m 94.97	Lii dB Fun-	uV/m damenta	dB	, pe	ak ′G



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UT:			Actic	n came	era	3	Mode	el:		l l	404C			
Гетр	eratu	re:	25 °C	C	(T)		Relat	ive H	umidit	y: 5	55%			
Test V	/oltag	e:	AC 1	20V/60	Hz		TO STATE			(61)	4:3	9		h
Ant. F	ol.		Verti	cal		17.7	J.			6				۱۱
Test N	/lode:		TXN	(HT20)	Mode	e 2462N	ИHz	MA			-	11/1		
Rema	rk:		N/A	A.B.	later .		316	Car.	6	THE STATE	AD.			
100.0	dBuV/m													_
				2 X										
				1 X										
										(RF) FCC	PART 150	(PEAK)	
					-									-
			1		-					(RF) FC	C PART 15	C (AVG)	-
50							3 ×							
							4 ×							
														1
0.0 2433.	000 244	3.00 2	1 53.00	2463.00	2473.	00 2483	3.00 24	193.00	2503.00	2513	3.00	2!	533.00	_ МН
				Read	lina	Corre	ct M	easui	re-					
No	. Mk	. Fre	eq.	Lev	-	Facto		ment		.imit	Ov	er		
		M	Ηz	dBu	V	dB/m	(dBuV/r	n d	lBuV/m	n d	В	Dete	ecto
1	*	2465.	100	81.2	27	1.09		82.36) Fu	ndamen	ital Freque	ency	A۱	۷G
2	Χ	2465.	200	91.6	37	1.09		92.76	3 Fu	ndamen	tal Freque	ency	pe	al
3		2483.	500	46.7	71	1.17		47.88		74.00		3.12	pe	
		2483.	500	32.0)7	1.17		33.24	1 !	54.00	-20).76	A۱	
4				٧٠		/		JU	. ,	- 1.00			, ,	



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EU1	Γ:		Ac	tion c	amera	a 1	Мо	del:		A040)	
Tem	nperatu	re:	25	$^{\circ}\!\mathbb{C}$	CALL!	30	Re	ative H	umidity:	55%	2	The same
Tes	t Voltaç	je:	AC	120\	//60Hz			1	- 6		19	
Ant	. Pol.		Но	lorizontal				TO !				
Tes	t Mode	:	TX	N(HT	40) Mo	de 2422ľ	ИНz	611	n e	-0	HI	No.
Ren	nark:		N/	A					- 10			
100.0) dBuV/m											
									4			
									3 X			
									(RF)	FCC PART	15C (PEAR	g
						1						
									(0.5	Y ECC DAD	TAFE	
50					1				(HF) FCC PAR	T 15C (AVI	2)
					×	$ \wedge $					M	
					2 X							\sim
0.0			0075 00					2445.00	0.105.00			
23	355.000 230	55.00	2375.00	J 238	5.00 239	95.00 240	5.00	2415.00	2425.00	2435.00	2	2455.00 MHz
N	No. Mk		req.		eading Level	Corre Facto		Measur ment	e- Limi	it C	Over	
	NO. IVIN		MHz		dBuV			dBuV/m			dB	Detector
_						dB/m						
1		239	90.00		15.44	0.77		46.21			27.79	peak
				_		^ 77		22 24	54.0	nn -	20.66	AVG
2		239	0.000) 3	32.57	0.77		33.34	54.0	00	20.00	AVG
2	*		22.000		32.57 30.99	0.77		81.89			requency	A) (O



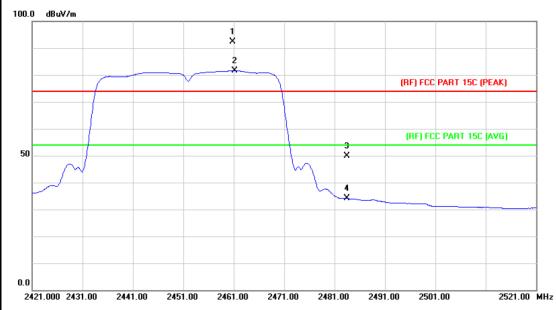
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UT:			Actio	n came	ra	M	lodel:			A04	C		
emp	eratu	re:	25 °C		SEM	R	elative	Humi	idity:	55%	ó		
est '	Voltag	e:	AC 1	20V/60H	Hz		DB		E		30		A
nt. l	Pol.		Vertic	cal	A 1	MA			N Y				
est	Mode:		TX N	(HT40)	Mode 24	122MH	z 🦷	No	29		M		
Rema	ark:		N/A	MA			1 6		60		9		
00.0	dBuV/m												
									4 ×]
								3 3					
								^_	(RF) F	CC PAR	T\15C (PEAK	g	1
						\neg							
						\perp							
50									(RF)	FCC PAI	RT 15C (AVC	i)	
				1 ×							M		
				2		4						~	
-				×									1
\perp													-
0.0													
2355	.000 2365	5.00 2	375.00	2385.00	2395.00	2405.00	2415.0	0 242	25.00 2	435.00	2	2455.00	MH
				Readi	ng Co	orrect	Meas	ure-			_		
No	o. Mk.	. Fr	eq.	Leve	il F	actor	me	nt	Limit	Ĭ.	Over		
		M	Ηz	dBu√	d d	lB/m	dBu	V/m	dBuV	/m	dB	Dete	cto
1		2390	.000	42.2	8 0	.77	43.	05	74.0	0	-30.95	ре	ak
2		2390	.000	31.0	8 0).77	31.	85	54.0	00	-22.15	A۱	/G
	*	2422	.000	82.1		.90	83.				Frequency	A۱	/G
3												pe	ام
3	Х	2430	900	90.6	8 N	.95	91.	63	Funder	nental l	Frequency	De-	'nг



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EUT:	Action camera	Model:	A04C				
Temperature:	25 ℃	Relative Humidity:	55%				
Test Voltage:	AC 120V/60Hz						
Ant. Pol.	Horizontal	Horizontal					
Test Mode:	TX N(HT40) Mode 2452MHz						
Remark:	N/A		1:33				

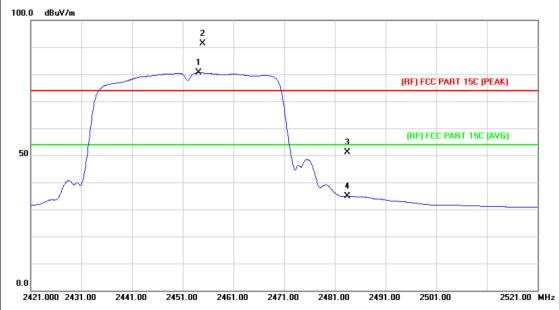


No	. Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	Χ	2460.800	91.42	1.06	92.48	Fundamental	Frequency	peak
2	*	2461.200	80.61	1.07	81.68	Fundamental	Frequency	AVG
3		2483.500	48.83	1.17	50.00	74.00	-24.00	peak
4		2483.500	32.87	1.17	34.04	54.00	-19.96	AVG



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EUT:	Action camera	Model:	A04C				
Temperature:	25 ℃	Relative Humidity:	55%				
Test Voltage:	AC 120V/60Hz						
Ant. Pol.	Vertical						
Test Mode:	TX N(HT40) Mode 2452	TX N(HT40) Mode 2452MHz					
Remark:	N/A		1:33				
100.0 dBuV/m							



No.	. Mk	. Freq.	Reading Level	Correct Factor	Measure- ment	Limit	Over	
		MHz	dBuV	dB/m	dBuV/m	dBuV/m	dB	Detector
1	*	2454.200	79.51	1.04	80.55	Fundamenta	l Frequency	AVG
2	Χ	2454.900	90.33	1.05	91.38	Fundamenta	I Frequency	peak
3		2483.500	50.04	1.17	51.21	74.00	-22.79	peak
4		2483.500	33.60	1.17	34.77	54.00	-19.23	AVG

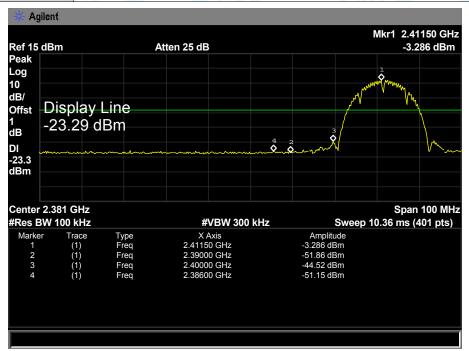


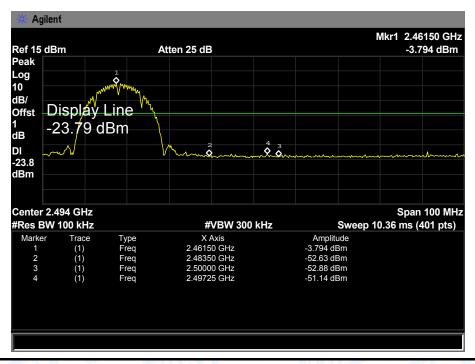
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TOBY

EUT:	Action camera	Model:	A04C			
Temperature:	25 ℃	Relative Humidity:	55%			
Test Voltage:	AC 120V/60Hz					
Test Mode:	TX B Mode 2412MHz / TX B Mode 2462MHz					
Remark:	The EUT is programed in continuously transmitting mode					



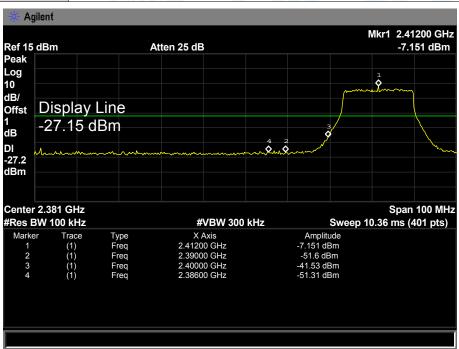


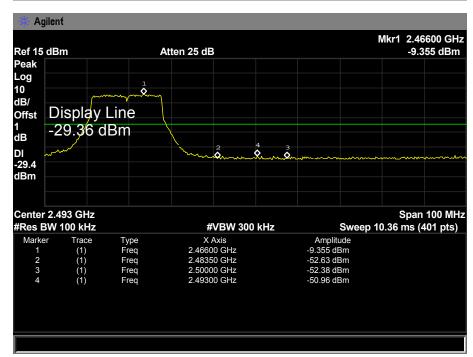




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EUT:	Action camera	Model:	A04C				
Temperature:	25 ℃ Relative Humidity: 55%						
Test Voltage:	AC 120V/60Hz						
Test Mode:	TX G Mode 2412MHz / TX G Mode 2462MHz						
Remark:	The EUT is programed in	The EUT is programed in continuously transmitting mode					



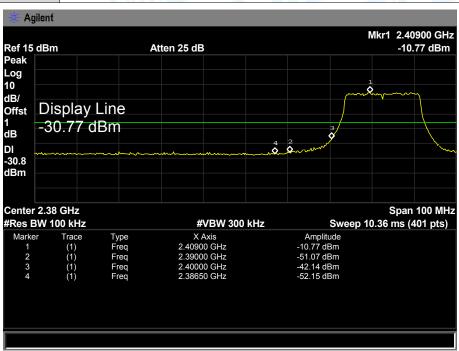


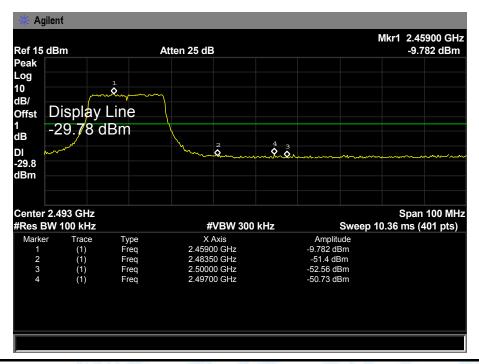




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EUT:	Action camera	Model:	A04C				
Temperature:	25 °C Relative Humidity: 55%						
Test Voltage:	AC 120V/60Hz						
Test Mode:	TX N(HT20) Mode 2412MHz / TX N(HT20) Mode 2462MHz						
Remark:	The EUT is programed in continuously transmitting mode						



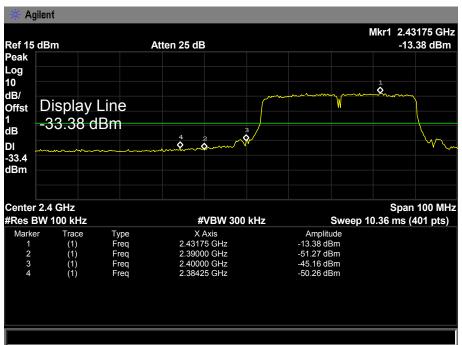


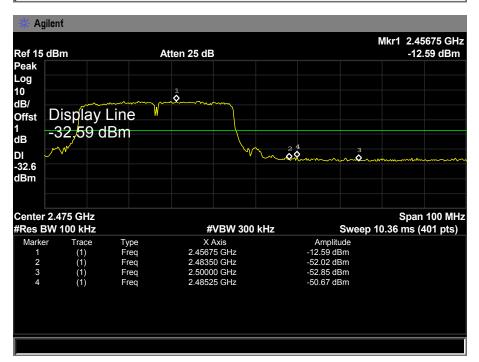




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EUT:	Action camera	Model:	A04C				
Temperature:	25 °C Relative Humidity: 55%						
Test Voltage:	AC 120V/60Hz						
Test Mode:	TX N(HT40) Mode 2422MHz / TX N(HT40) Mode 2452MHz						
Remark:	The EUT is programed in continuously transmitting mode						







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7. Bandwidth Test

7.1 Test Standard and Limit

7.1.1 Test Standard FCC Part 15.247 (a)(2)

7.1.2 Test Limit

FCC	FCC Part 15 Subpart C(15.247)/RSS-210							
Test Item	Limit	Frequency Range(MHz)						
Bandwidth	>=500 KHz (6dB bandwidth)	2400~2483.5						

7.2 Test Setup



7.3 Test Procedure

- (1) The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram above.
- (2) The bandwidth is measured at an amplitude level reduced 6dB from the reference level. The reference level is the level of the highest amplitude signal observed from the transmitter at the fundamental frequency. Once the reference level is established, the equipment is conditioned with typical modulating signal to produce the worst –case (i.e the widest) bandwidth.
- (3)Measure the channel separation the spectrum analyzer was set to Resolution Bandwidth:100 kHz, and Video Bandwidth:300 kHz, Detector: Peak, Sweep Time set auto.

7.4 EUT Operating Condition

The EUT was set to continuously transmitting in each mode and low, middle and high channel for the test.



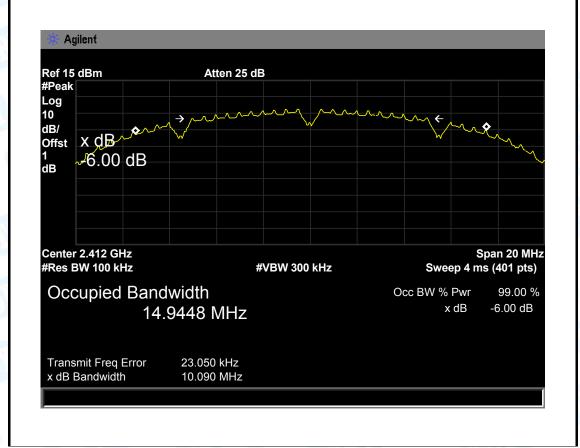
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7.5 Test Data

EUT:	Action camera	Model:	A04C
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	AC 120V/60Hz		
Test Mode:	TX 802.11B Mode		
Channel frequence	cy 6dB Bandwidth	99% Bandwidth	Limit
(MHz)	(MHz)	(MHz)	(MHz)
2412	10.090	14.9448	
2437	10.065	14.7093	>=0.5
2462	10.076	14.9025	
	1	U	1

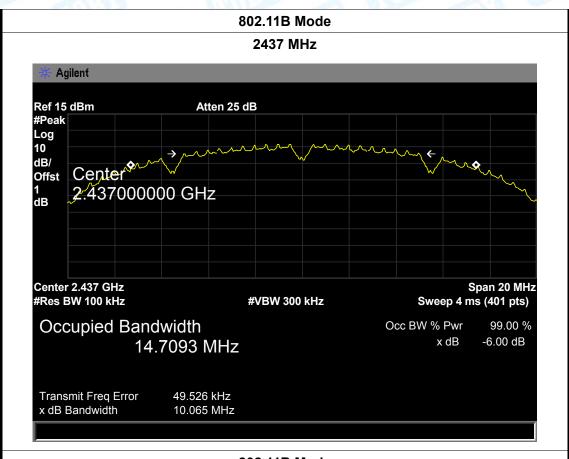
802.11B Mode

2412 MHz





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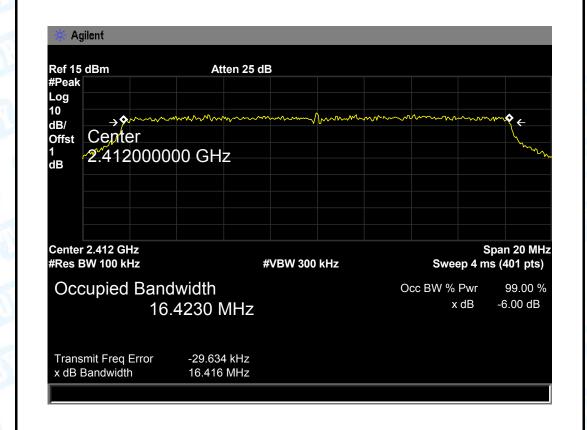
802.11B Mode 2462 MHz Agilent Ref 15 dBm Atten 25 dB #Peak Log 10 dB/ Center Offst 1 dB 2.462000000 GHz Center 2.462 GHz Span 20 MHz #Res BW 100 kHz **#VBW 300 kHz** Sweep 4 ms (401 pts) Occupied Bandwidth Occ BW % Pwr 99.00 % -6.00 dB x dB 14.9025 MHz Transmit Freq Error 16.629 kHz x dB Bandwidth 10.076 MHz



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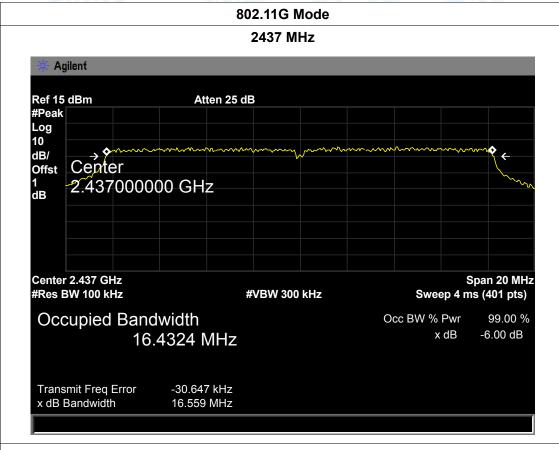
EUT:	Action camera	Model:	A04C		
Temperature:	25 ℃	Relative Humidity:	55%		
Test Voltage:	AC 120V/60Hz	U. A.			
Test Mode:	TX 802.11G Mode	WILL DO	A HILL		
Channel frequence	cy 6dB Bandwidth	99% Bandwidth	Limit		
(MHz)	(MHz)	(MHz)	(MHz)		
2412	16.416	16.4230			
2437	16.559	16.4324	>=0.5		
2462	16.568	16.4408			
802.11G Mode					

2412 MHz





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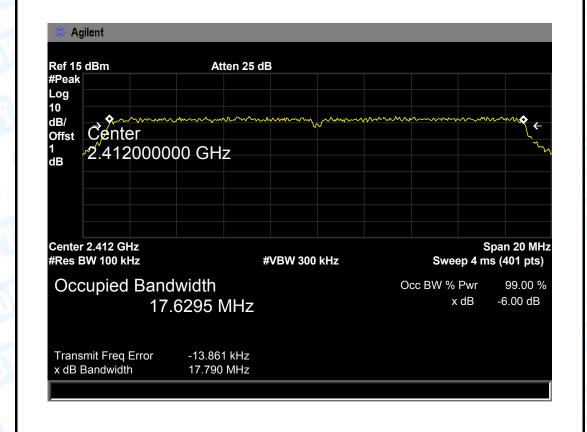
802.11G Mode 2462 MHz Agilent Ref 15 dBm Atten 25 dB #Peak Log 10 dB/ Center Offst 1 dB 2.462000000 GHz Center 2.462 GHz Span 20 MHz #Res BW 100 kHz **#VBW 300 kHz** Sweep 4 ms (401 pts) Occupied Bandwidth Occ BW % Pwr 99.00 % -6.00 dB x dB 16.4408 MHz Transmit Freq Error -37.331 kHz x dB Bandwidth 16.568 MHz



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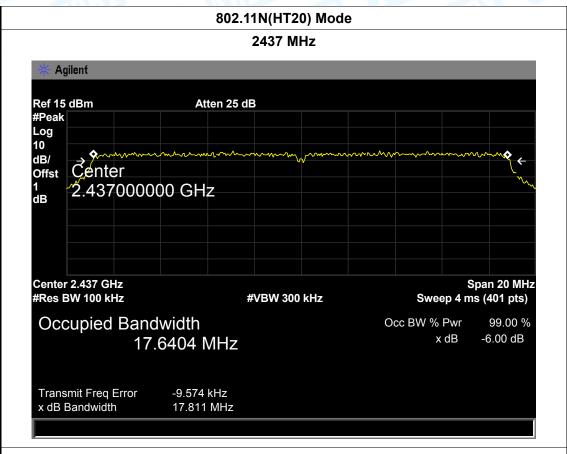
EUT:	Action camera	Model:	A04C		
Temperature:	25 ℃	Relative Humidity:	55%		
Test Voltage:	AC 120V/60Hz				
Test Mode:	TX 802.11N(HT20) Mode				
Channel frequence	cy 6dB Bandwidth	99% Bandwidth	Limit		
(MHz)	(MHz)	(MHz)	(MHz)		
2412	17.790	17.6295			
2437	17.811	17.6404	>=0.5		
2462	17.812	17.6313			
802.11N(HT20) Mode					

2412 MHz





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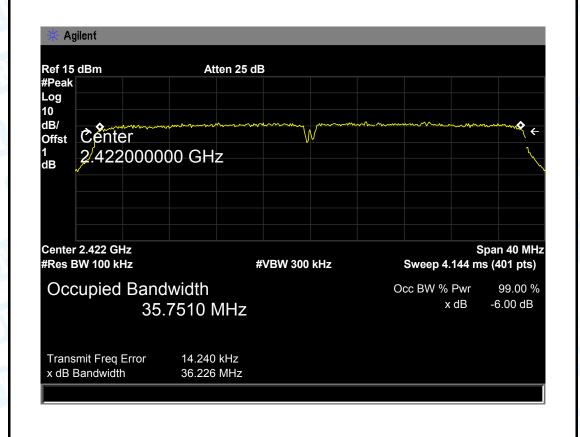
802.11N(HT20) Mode 2462 MHz Agilent Ref 15 dBm Atten 25 dB #Peak Log 10 dB/ Çenter Offst 1 dB 2.462000000 GHz Center 2.462 GHz Span 20 MHz #Res BW 100 kHz **#VBW 300 kHz** Sweep 4 ms (401 pts) Occupied Bandwidth Occ BW % Pwr 99.00 % -6.00 dB x dB 17.6313 MHz Transmit Freq Error -15.959 kHz x dB Bandwidth 17.812 MHz



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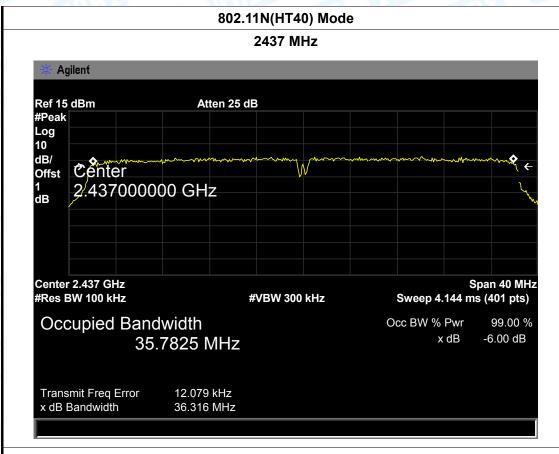
EUT:	Action camera	Model:	A04C		
Temperature:	25 ℃	Relative Humidity:	55%		
Test Voltage:	AC 120V/60Hz	(1) T			
Test Mode:	TX 802.11N(HT40) Mode	TX 802.11N(HT40) Mode			
Channel frequency 6dB Bandwidth 99% Bandwidth			Limit		
(MHz)	(MHz)	(MHz)	(MHz)		
2412	36.226	35.7510			
2437	2437 36.316		>=0.5		
2462	36.228	35.7555			
802.11N(HT40) Mode					

2422 MHz





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802.11N(HT40) Mode 2452 MHz Agilent Ref 15 dBm Atten 25 dB #Peak Log 10 dB/ Center Offst 1 dB 2.452000000 GHz Center 2.452 GHz Span 40 MHz #Res BW 100 kHz Sweep 4.144 ms (401 pts) **#VBW 300 kHz** Occupied Bandwidth Occ BW % Pwr 99.00 % -6.00 dB x dB 35.7555 MHz Transmit Freq Error -5.986 kHz x dB Bandwidth 36.228 MHz



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8. Peak Output Power Test

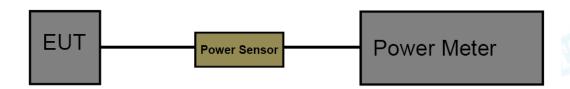
8.1 Test Standard and Limit

8.1.1 Test Standard FCC Part 15.247 (b)

8.1.2 Test Limit

FCC Part 15 Subpart C(15.247)/RSS-210				
Test Item	Limit	Frequency Range(MHz)		
Peak Output Power	1 Watt or 30 dBm	2400~2483.5		

8.2 Test Setup



8.3 Test Procedure

The measurement is according to section 9.1.2 of KDB 558074 D01 DTS Meas Guidance v03r02.

The EUT was connected to RF power meter via a broadband power sensor as show the block above. The power sensor video bandwidth is greater than or equal to the DTS bandwidth of the equipment.

8.4 EUT Operating Condition

The EUT was set to continuously transmitting in the max power during the test.



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8.5 Test Data

EUT:	Action camera	Model Name :	A04C
	- A. W. W. M. M. M. W.	10 10 160°	
Temperature:	25 ℃	Relative Humidity:	55%
Test Voltage:	AC 120V/60Hz		
Mode	Channel frequency (MHz)	Test Result (dBm)	Limit (dBm)
	2412	9.13	
802.11b	2437	9.18	
	2462	9.15	
802.11g	2412	9.08	30
	2437	9.06	
	2462	9.11	
802.11n (HT20)	2412	9.06	
	2437	9.02	
	2462	9.03	
802.11n (HT40)	2422	9.01	
	2437	9.07	
(11140)	2452	9.05	
	Resi	ult: PASS	



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9. Power Spectral Density Test

9.1 Test Standard and Limit

9.1.1 Test Standard FCC Part 15.247 (e)

9.1.2 Test Limit

FCC Part 15 Subpart C(15.247)				
Test Item Limit Frequency Range(MI				
Power Spectral Density	8dBm(in any 3 kHz)	2400~2483.5		

9.2 Test Setup



9.3 Test Procedure

The EUT was directly connected to the Spectrum Analyzer and antenna output port as show in the block diagram above. The measurement according to section 10.2 of KDB 558074 D01 DTS Meas Guidance v03r02.

- (1) The EUT was directly connected to the spectrum analyzer and antenna output port as show in the block diagram above.
- (2) Set analyser center frequency to DTS channel center frequency.
- (3) Set the span to 1.5 times the DTS bandwidth.
- (4) Set the RBW to: 3 kHz(5) Set the VBW to: 10 kHz
- (6) Detector: peak(7) Sweep time: auto
- (8) Allow trace to fully stabilize. Then use the peak marker function to determine the maximum amplitude level.

9.4 EUT Operating Condition

The EUT was set to continuously transmitting in each mode and low, middle and high channel for the test.

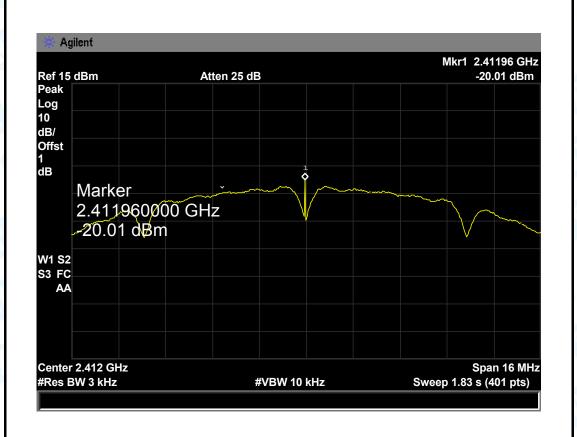


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9.5 Test Data

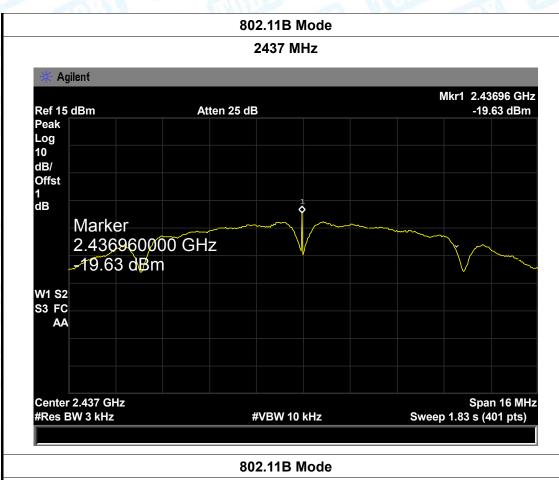
EUT:	Action camera		Model:	A04C	
Temperature:	25 °C		Relative Humidity	y : 55%	
Test Voltage:	AC 120V/60Hz				
Test Mode:	TX 802.1	TX 802.11B Mode			
Channel Frequency		Power Density		Limit (dBm)	
(MHz)	(3 kHz/dBm)		z/dBm)		
2412		-20.01			
2437		-19.63		8	
2462		-18.71			
		802.111	B Mode		

2412 MHz





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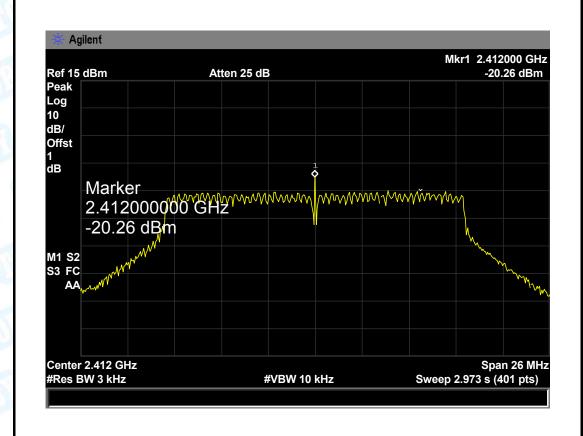




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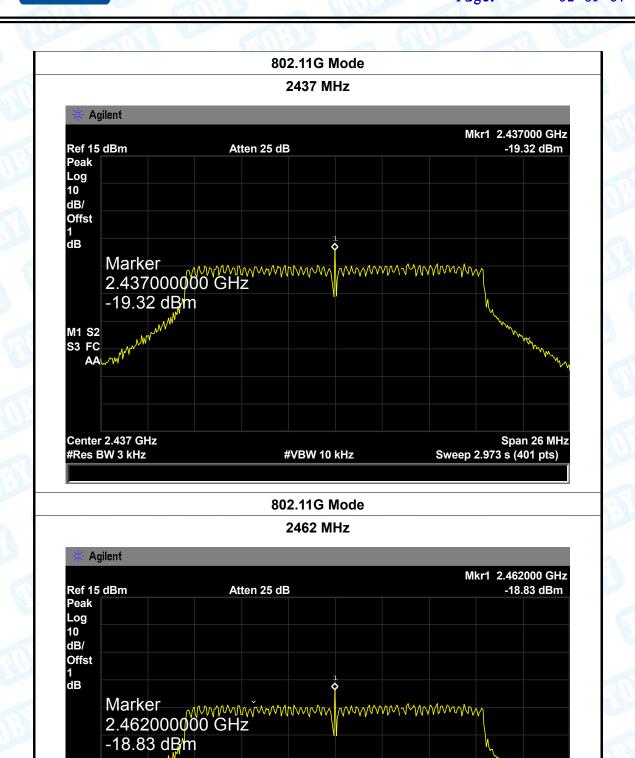
EUT:	Action camera		Model:	A04C
Temperature:	25 ℃		Temperature:	25 ℃
Test Voltage:	AC 120V/60Hz		13.1	
Test Mode:	TX 802.1	1G Mode		
Channel Frequency		Power Density		Limit (dBm)
(MHz) (3 kH		(3 kHz	z/dBm)	
2412	2412 -2		0.26	
2437	2437 -19		9.32	8
2462	-18		3.83	
802.11G Mode				

2412 MHz





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#VBW 10 kHz

M1 S2 S3 FC

Center 2.462 GHz

#Res BW 3 kHz

Span 26 MHz

Sweep 2.973 s (401 pts)



Marker

W1 S2 S3 FC AA

Center 2.412 GHz #Res BW 3 kHz

-19.95 dBm

2.412000000 GHz

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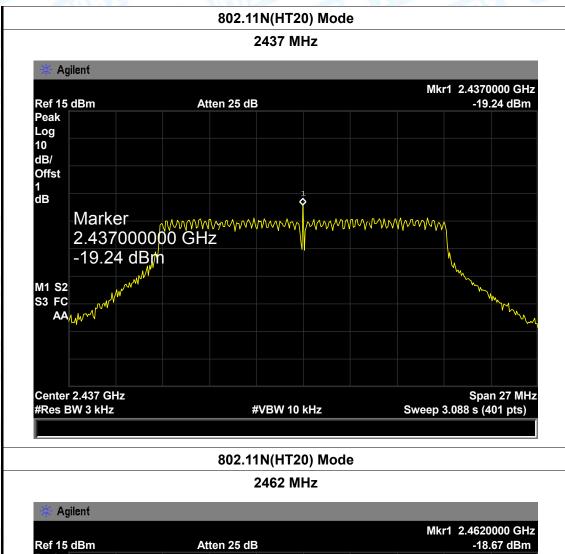
EUT:	Action ca	mera	Model:	A04C 25 ℃	
Temperature:	25 ℃		Temperature:		
Test Voltage:	AC 120V	/60Hz			
Test Mode:	TX 802.1	1N(HT20) Mod	de		
Channel Fr (MH	•		r Density Iz/dBm)	Limit (dBm)	
241	2	-1	19.95		
243	37	-1	19.24	8	
246	2462		18.67		
		802.11N(HT20) Mode		
		241	2 MHz		
Agilent Ref 15 dBm	-	Atten 25 dB		Mkr1 2.4120000 GHz -19.95 dBm	
Peak					
Log 10					
dB/					
Offst 1					
dB			•		

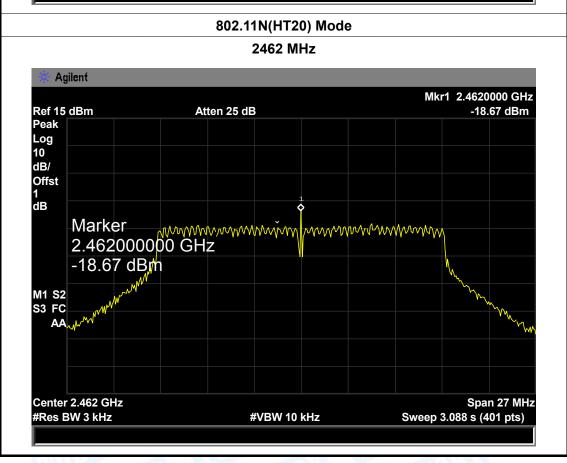
#VBW 10 kHz

Span 27 MHz Sweep 3.088 s (401 pts)



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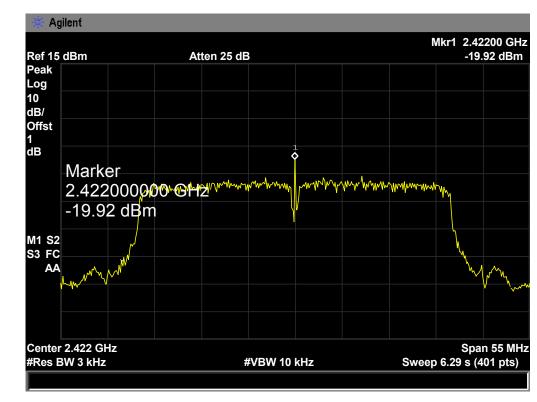






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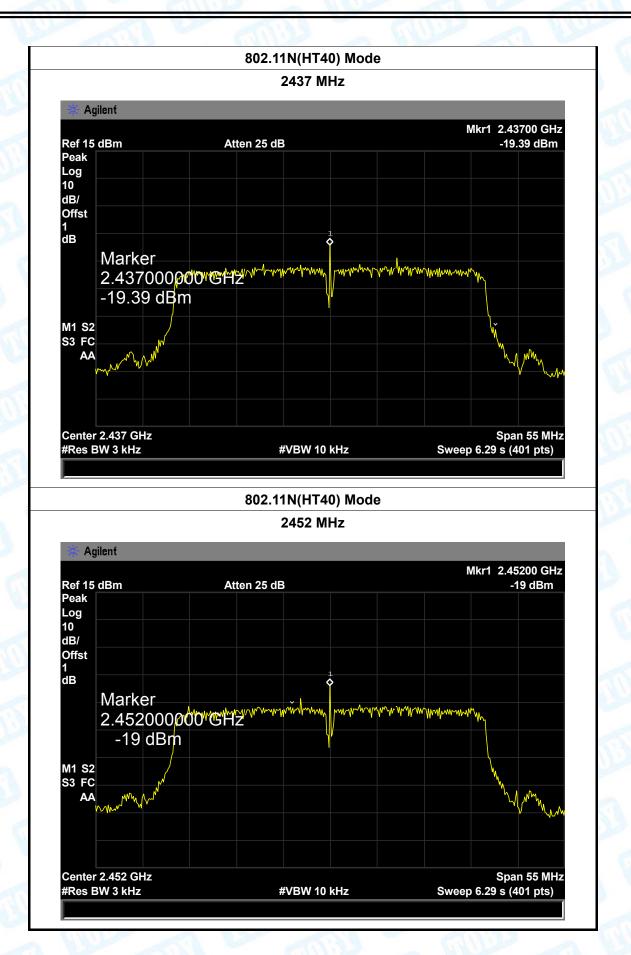
EUT:	Action ca	mera	Model:	A04C	
Temperature:	25 ℃	THE WAR	Temperature:	25 ℃	
Test Voltage:	AC 120V	60Hz			
Test Mode:	TX 802.1	TX 802.11N(HT40) Mode			
Channel Fred	Channel Frequency Power		r Density	Limit (dBm)	
(MHz)		(3 kHz/dBm)			
2412	2412		19.92		
2437		-19.39		8	
2462		-19.00			
		802.11N	HT40) Mode		
		242	22 MHz		
★ Agilent					





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10. Antenna Requirement

10.1 Standard Requirement

10.1.1 Standard FCC Part 15.203

10.1.2 Requirement

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this Section. The manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

10.2 Antenna Connected Construction

The directional gains of the antenna used for transmitting is 2 dBi, and the antenna de-signed with permanent attachment and no consideration of replacement. Please see the EUT photo for details.

10.3 Result

The EUT antenna is a Integral Antenna. It complies with the standard requirement.

	Antenna Type
	▼ Permanent attached antenna
Min	□ Unique connector antenna
CHIEF !	□ Professional installation antenna