

Report No.: TW2311227E

Applicant: MG Accessories & Distribution Inc.

Product: Action Camera

Model No.: ARG-AC-9185, ARG-AC-9185BK, ARG-AC-9186,

ARG-AC-9186BK, ARG-AC-9187, ARG-AC-9187BK, ARG-AC-9188, ARG-AC-9188BK, ARG-AC-9189,

ARG-AC-9189BK

Trademark: ArgomTech

Test Standards: FCC Part 15.247

Test result:

It is herewith confirmed and found to comply with the

requirements set up by ANSI C63.10, FCC Part 15.247 for

the evaluation of electromagnetic compatibility

Approved By

Terry Tang

Manager

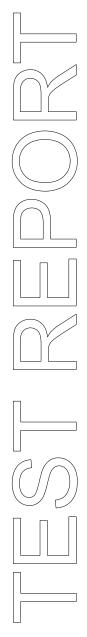
Dated: December 08, 2023

Results appearing herein relate only to the sample tested The technical reports is issued errors and omissions exempt and is subject to withdrawal at

SHENZHEN TIMEWAY TESTING LABORATORIES

Zone C, 1st Floor, Block B, Jun Xiang Da Building, Zhongshan Park Road West, Tong Le Village, Nanshan District, Shenzhen, China

Tel (755) 83448688, Fax (755) 83442996, E-Mail:info@timeway-lab.com



Report No.: TW2311227E Page 2 of 99

Date: 2023-12-08



Special Statement:

FCC-Registration No.: 744189

The EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications commission. The acceptance letter from the FCC is maintained in our files. Registration No.: 744189.

Industry Canada (IC) — Registration No.:5205A

The EMC Laboratory has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 5205A.

A2LA (Certification Number:5013.01)

The EMC Laboratory has been accredited by the American Association for Laboratory Accreditation (A2LA). Certification Number:5013.01

CAB identifier: CN0033

Page 3 of 99

Report No.: TW2311227E

Date: 2023-12-08



Test Report Conclusion

Content

1.0	General Details	4
1.1	Test Lab Details.	4
1.2	Applicant Details	4
1.3	Description of EUT	4
1.4	Submitted Sample	5
1.5	Test Duration.	5
1.6	Test Uncertainty.	5
1.7	Test By	5
2.0	List of Measurement Equipment.	6
3.0	Technical Details	8
3.1	Summary of Test Results	8
3.2	Test Standards.	8
4.0	EUT Modification	8
5.0	Power Line Conducted Emission Test	9
5.1	Schematics of the Test.	9
5.2	Test Method and Test Procedure.	9
5.3	Configuration of the EUT	9
5.4	EUT Operating Condition.	10
5.5	Conducted Emission Limit.	10
5.6	Test Result.	10
6.0	Radiated Emission test	13
6.1	Test Method and Test Procedure.	13
6.2	Configuration of the EUT	14
6.3	EUT Operation Condition.	14
5.4	Radiated Emission Limit	14
7.0	6dB Bandwidth Measurement	24
8.0	Maximum Output Power	44
9.0	Power Spectral Density Measurement	47
10.0	Out of Band Measurement.	65
11.0	Antenna Requirement	83
12.0	FCC ID Label	84
13.0	Photo of Test Setup and EUT View.	85

Report No.: TW2311227E Page 4 of 99

Date: 2023-12-08



1.0 General Details

1.1 Test Lab Details

Name: SHENZHEN TIMEWAY TESTING LABORATORIES.

Address: Zone C, 1st Floor, Block B, Jun Xiang Da Building, Zhongshan Park Road West, Tong Le

Village, Nanshan District, Shenzhen, China

Telephone: (755) 83448688 Fax: (755) 83442996

Site Listed with Federal Communications commission (FCC)

Registration Number: 744189 For 3m Anechoic Chamber

Site Listed with Industry Canada of Ottawa, Canada

Registration Number: IC: 5205A For 3m Anechoic Chamber

1.2 Applicant Details

Applicant: MG Accessories & Distribution Inc.

Address: 12650 NW 25th Street Suite 112, Miami, Florida, United States 33182

Telephone: +1(305)-793-8119

Fax: --

1.3 Description of EUT

Product: Action Camera

Manufacturer: MG Accessories & Distribution Inc.

Address: 12650 NW 25th Street Suite 112, Miami, Florida, United States 33182

Trademark: ArgomTech
Model Number: ARG-AC-9185

Additional Model Number: ARG-AC-9185BK, ARG-AC-9186, ARG-AC-9186BK, ARG-AC-9187,

ARG-AC-9187BK, ARG-AC-9188, ARG-AC-9188BK, ARG-AC-9189,

ARG-AC-9189BK

Hardware Version: X60S V1
Software Version: V3.3

Serial No.: SPAC9185BK2311

Rating: DC5V, 1A

Battery: DC3.7V, 1050mAh, 3.885Wh Li-ion battery
Type of Modulation IEEE 802.11b: DSSS (CCK, QPSK, DBPSK)

IEEE 802.11g/n (HT20, HT40): OFDM (64QAM, 16QAM, QPSK, BPSK)

Frequency range IEEE 802.11b/g/n (HT20): 2412-2462MHz;

IEEE 802.11n HT40: 2422-2452MHz

Channel Spacing 5MHz for IEEE 802.11b/g/n (HT20, HT40)

The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report. The SHENZHEN TIMEWAY TESTING LABORATORIES. reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.

Report No.: TW2311227E Page 5 of 99

Date: 2023-12-08



Air Data Rate IEEE 802.11b: 11, 5.5, 2, 1 Mbps

IEEE 802.11g: 54, 48,36, 24, 18, 12, 9, 6 Mbps

IEEE 802.11n HT20/HT40: mcs0-mcs7

Frequency Selection By software

Channel Number IEEE 802.11b/g/n (HT20): 11 Channels;

IEEE 802.11n (HT40): 7 Channels;

Antenna: PCB antenna with gain 2.16dBi Max (Get from the antenna specification)

1.4 Submitted Sample: 2 Samples

1.5 Test Duration

2023-11-20 to 2023-12-08

1.6 Test Uncertainty

Conducted Emissions Uncertainty = 3.6dB

Radiated Emissions below 1GHz Uncertainty =4.7dB

Radiated Emissions above 1GHz Uncertainty =6.0dB

Conducted Power Uncertainty = 6.0dB

Occupied Channel Bandwidth Uncertainty = 5%

Note: The measurement uncertainty is for coverage factor of k=2 and a level of confidence of 95%.

1.7 Test Engineer

The sample tested by

Print Name: Andy Xing

Page 6 of 99

Report No.: TW2311227E

Date: 2023-12-08



2.0 Test Equipment						
Instrument Type	Manufacturer	Model	Serial No.	Date of Cal.	Due Date	
ESPI Test Receiver	R&S	ESPI 3	100379	2023-07-14	2024-07-13	
LISN	R&S	EZH3-Z5	100294	2023-07-14	2024-07-13	
LISN	R&S	EZH3-Z5	100253	2023-07-14	2024-07-13	
Impuls-Begrenzer	R&S	ESH3-Z2	100281	2023-07-14	2024-07-13	
Loop Antenna	EMCO	6507	00078608	2022-07-18	2025-07-17	
Spectrum	R&S	FSIQ26	100292	2023-07-14	2024-07-13	
Horn Antenna	A-INFO	LB-180400-KF	J211060660	2022-07-18	2025-07-17	
Horn Antenna	R&S	BBHA 9120D	9120D-631	2022-07-18	2024-07-17	
Power meter	Anritsu	ML2487A	6K00003613	2023-07-14	2024-07-13	
Power sensor	Anritsu	MA2491A	32263	2023-07-14	2024-07-13	
Bilog Antenna	Schwarebeck	VULB9163	9163/340	2022-07-18	2025-07-17	
9*6*6 Anechoic			N/A	2022-07-26	2025-07-25	
EMI Test Receiver	RS	ESVB	826156/011	2023-07-14	2024-07-13	
EMI Test Receiver	RS	ESCS 30	834115/006	2023-07-14	2024-07-13	
Spectrum	HP/Agilent	E4407B	MY50441392	2023-07-14	2024-07-13	
Spectrum	RS	FSP	1164.4391.38	2023-07-14	2024-07-13	
RF Cable	7h an a di	ZT26-NJ-NJ-8		2023-07-14	2024-07-13	
Kr Cable	Zhengdi	M/FA	1			
RF Cable	Zhengdi	7m		2023-07-14	2024-07-13	
Pre-Amplifier	Schwarebeck	BBV9743	#218	2023-07-14	2024-07-13	
Pre-Amplifier	HP/Agilent	8449B	3008A00160	2023-07-14	2024-07-13	
LISN	SCHAFFNER	NNB42	00012	2023-07-14	2024-07-13	

2.2 Automation Test Software

For Conducted Emission Test

Name	Version
EZ-EMC	Ver.EMC-CON 3A1.1

For Radiated Emissions

Name	Version
EMI Test Software BL410-EV18.91	V18.905
EMI Test Software BL410-EV18.806 High Frequency	V18.06

Report No.: TW2311227E Page 7 of 99

Date: 2023-12-08



3. DESCRIPTION OF TEST MODES

IEEE 802.11b, 802.11g, 802.11n (HT20) mode

The EUT had been tested under operating condition. There are three channels have been tested as following:

Channel	Frequency (MHz)
Low	2412
Middle	2437
High	2462

IEEE 802.11b mode: 1Mbps data rate (worst case) was chosen for full testing. IEEE 802.11g mode: 6Mbps data rate (worst case) was chosen for full testing. IEEE 802.11n (HT20) mode: mcs0 (worst case) were chosen for full testing;

IEEE 802.11n (HT40) mode

The EUT had been tested under operating condition. There are three channels have been tested as following:

Channel	Frequency (MHz)
Low	2422
Middle	2437
High	2452

IEEE 802.11n (HT40) mode: mcs0 data rate (worst case) were chosen for full testing

Note: During the test, the duty cycle was set up to >98%

Page 8 of 99

Report No.: TW2311227E

Date: 2023-12-08



3.0 **Technical Details**

3.1 **Summary of test results**

Standard	Test Type	Result	Notes
FCC Part 15, Paragraph15.203	Antenna Requirement	Pass	Complies
FCC Part 15, Paragraph15.207	Conducted Emission Test	Pass	Complies
FCC Part 15 Subpart C Paragraph 15.247(a)(2) Limit	Spectrum bandwidth of a Orthogonal Frequency Division Multiplex System Limit: 6dB bandwidth>500kHz	Pass	Complies
FCC Part 15, Paragraph 15.247(b)	Maximum peak output power Limit: max. 30dBm	Pass	Complies
FCC Part 15, Paragraph 15.109,15.205 & 15.209	Transmitter Radiated Emission Limit: Table 15.209	Pass	Complies
FCC Part 15, Paragraph 15.247(e)	Power Spectral Density Limit: max. 8dBm/3kHz	Pass	Complies
FCC Part 15, Paragraph 15.247(d)	Out of Band Emission and Restricted Band Radiation Limit: 20dB less than peak value of fundamental frequency Restricted band limit: Table 15.209	Pass	Complies

3.2 **Test Standards**

FCC Part 15 Subpart & Subpart C, Paragraph 15.247

4.0 **EUT Modification**

No modification by SHENZHEN TIMEWAY TESTING LABORATORIES.

Page 9 of 99

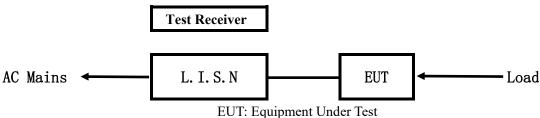
Report No.: TW2311227E

Date: 2023-12-08



5.0 Power Line Conducted Emission Test

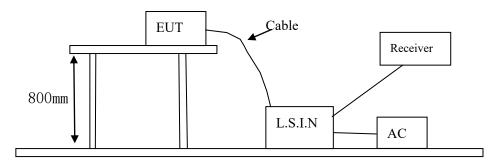
5.1 Schematics of the test



5.2 Test Method and test Procedure

The EUT was tested according to ANSI C63.10-2013. The Frequency spectrum From 0.15MHz to 30MHz was investigated. The LISN used was 50ohm/50uH as specified by section 5.1 of ANSI C63.10-2013.

Test Voltage: 120V~, 60Hz Block diagram of Test setup



5.3 Configuration of the EUT

The EUT was configured according to ANSI C63.10-2013. All interface ports were connected to the appropriate peripherals. All peripherals and cables are listed below.

A. EUT

Device	Manufacturer	Model	FCC ID			
		ARG-AC-9185,				
		ARG-AC-9185BK,				
		ARG-AC-9186,				
	AF	ARG-AC-9186BK,				
Action Camera		ARG-AC-9187,	2AUGWARG-AC-91			
Action Camera	MG Accessories & Distribution Inc.	ARG-AC-9187BK,	85BK			
		ARG-AC-9188,				
	ARG-				ARG-AC-9188BK,	
		ARG-AC-9189,				
		ARG-AC-9189BK				

The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report. The SHENZHEN TIMEWAY TESTING LABORATORIES. reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.

Report No.: TW2311227E Page 10 of 99

Date: 2023-12-08



B. Internal Device

Device	Manufacturer	Model	FCC ID/DOC
N/A			

C. Peripherals

Device	Manufacturer	Model	Rating
Power	KEYU	KA23-0502000DEU	Input: 100-240V~, 50/60Hz, 0.35A;
Supply			Output: DC5V, 2A

5.4 EUT Operating Condition

Operating condition is according to ANSI C63.10-2013.

- A Setup the EUT and simulators as shown on follow
- B Enable AF signal and confirm EUT active to normal condition

5.5 Power line conducted Emission Limit according to Paragraph 15.207

Frequency	Limits (c	lB μ V)
(MHz)	Quasi-peak Level	Average Level
$0.15 \sim 0.50$	66.0~56.0*	56.0~46.0*
$0.50 \sim 5.00$	56.0	46.0
5.00 ~ 30.00	60.0	50.0

Notes:

- 1. *Decreasing linearly with logarithm of frequency.
- 2. The tighter limit shall apply at the transition frequencies

5.6 Test Results

The frequency spectrum from 0.15MHz to 30MHz was investigated. All reading are quasi-peak values with a resolution bandwidth of 9kHz.

Date: 2023-12-08



Conducted Emission on Live Terminal (150kHz to 30MHz) A:

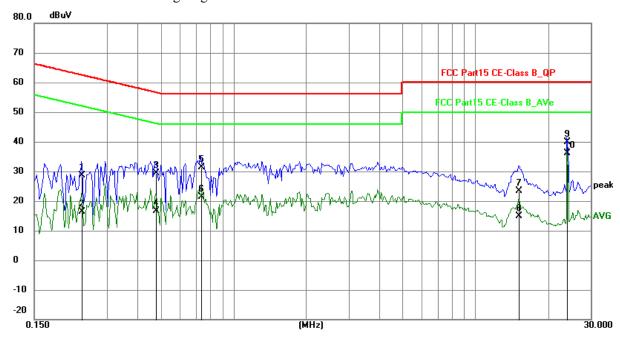
EUT Operating Environment

Temperature: 26℃ Humidity: 65%RH Atmospheric Pressure: 101 kPa

EUT set Condition: Keep WIFI Transmitting

Results: Pass

Please refer to following diagram for individual



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.2358	18.89	9.75	28.64	62.24	-33.60	QP	Р
2	0.2358	6.55	9.75	16.30	52.24	-35.94	AVG	Р
3	0.4776	19.73	9.77	29.50	56.38	-26.88	QP	Р
4	0.4776	6.94	9.77	16.71	46.38	-29.67	AVG	Р
5	0.7350	21.64	9.78	31.42	56.00	-24.58	QP	Р
6	0.7350	11.67	9.78	21.45	46.00	-24.55	AVG	Р
7	15.1251	12.94	10.39	23.33	60.00	-36.67	QP	Р
8	15.1251	4.48	10.39	14.87	50.00	-35.13	AVG	Р
9	23.9976	28.95	10.93	39.88	60.00	-20.12	QP	Р
10	23.9976	25.19	10.93	36.12	50.00	-13.88	AVG	Р

The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report. The SHENZHEN TIMEWAY TESTING LABORATORIES, reserves the rights to withdraw it and to

adopt any other remedies which may be appropriate.

Date: 2023-12-08



B: Conducted Emission on Neutral Terminal (150kHz to 30MHz)

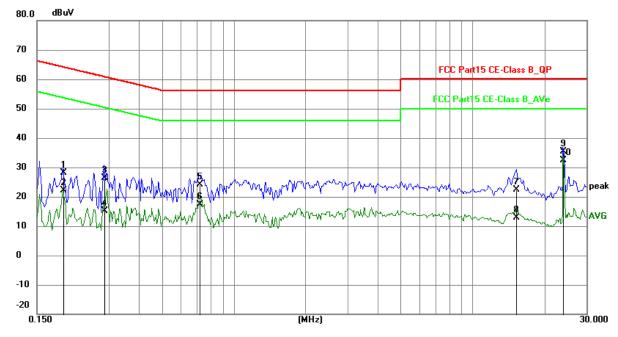
EUT Operating Environment

Temperature: 26℃ Humidity: 65%RH Atmospheric Pressure: 101 kPa

EUT set Condition: Keep WIFI Transmitting

Results: Pass

Please refer to following diagram for individual



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F
1	0.1929	18.38	9.75	28.13	63.91	-35.78	QP	Р
2	0.1929	12.29	9.75	22.04	53.91	-31.87	AVG	Р
3	0.2865	16.50	9.76	26.26	60.63	-34.37	QP	Р
4	0.2865	5.48	9.76	15.24	50.63	-35.39	AVG	Р
5	0.7233	14.37	9.78	24.15	56.00	-31.85	QP	Р
6	0.7233	7.57	9.78	17.35	46.00	-28.65	AVG	Р
7	15.2889	12.10	10.40	22.50	60.00	-37.50	QP	Р
8	15.2889	2.36	10.40	12.76	50.00	-37.24	AVG	Р
9	23.9976	24.46	10.93	35.39	60.00	-24.61	QP	Р
10	23.9976	21.39	10.93	32.32	50.00	-17.68	AVG	Р

The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report. The SHENZHEN TIMEWAY TESTING LABORATORIES, reserves the rights to withdraw it and to

adopt any other remedies which may be appropriate.

Report No.: TW2311227E Page 13 of 99

Date: 2023-12-08

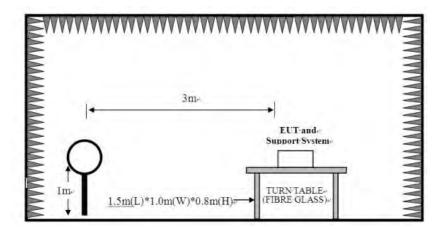


6 Radiated Emission Test

- 6.1 Test Method and test Procedure:
- (1) The EUT was tested according to ANSI C63.10-2013. The radiated test was performed at Timeway EMC Laboratory. This site is on file with the FCC laboratory division, Registration No. 744189
- (2) The EUT, peripherals were put on the turntable which table size is 1m x 1.5 m, table high 0.8 m. All set up is according to ANSI C63.10-2013.
- (3) The frequency spectrum from 9kHz to 25 GHz was investigated. All readings from 30 MHz to 1 GHz are Quasi-peak values with a resolution bandwidth of 120 kHz. For measurement above 1GHz, peak values with RBW=1MHz VBW=3MHz and PK detector. AV value with RBW=1MHz, VBW=3MHz and RMS detector. Measurements were made at 3 meters.
- (4) The antenna high is varied from 1 m to 4 m high to find the maximum emission for each frequency.
- (5) Maximizing procedure was performed on the six (6) highest emissions to ensure EUT compliance is with all installation combinations. All data was recorded in the peak detection mode. Quasi-peak readings was performed only when an emission was found to be marginal (within -4 dB of specification limit), and are distinguished with a "QP" in the data table.
- (6) The antenna polarization: Vertical polarization and Horizontal polarization.

Block diagram of Test setup

For radiated emissions from 9kHz to 30MHz



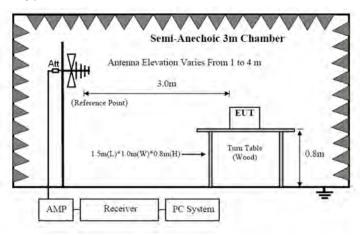
Page 14 of 99

Report No.: TW2311227E

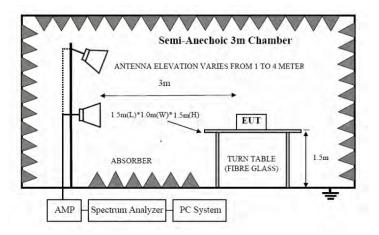
Date: 2023-12-08



For radiated emissions from 30MHz to1GHz



For radiated emissions above 1GHz



- 6.2 Configuration of The EUT

 Same as section 5.3 of this report
- 6.3 EUT Operating Condition
 Same as section 5.4 of this report.
- 6.4 Radiated Emission Limit

All emission from a digital device, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strength specified below:

Report No.: TW2311227E Page 15 of 99

Date: 2023-12-08



Frequencies in restricted band are complied to limit on Paragraph 15.209

Frequency Range (MHz)	Distance (m)	Field strength (dB μ V/m)
0.009-0.049	3	20log(2400/F(kHz)) +40log (300/3)
0.490-1.705	3	20log(24000/F(kHz)) +40log (30/3)
1.705-30	3	69.5
30-88	3	40.0
88-216	3	43.5
216-960	3	46.0
Above 960	3	54.0

Note:

- 1. RF Voltage (dBuV) = 20 log RF Voltage (uV)
- 2. In the Above Table, the tighter limit applies at the band edges.
- 3. Distance refers to the distance in meters between the measuring instrument antenna and the EUT
- 4. All scanning using PK detector. And the final emission level was get using QP detector for frequency range from 30-1000MHz.As to 1G-25G, the final emission level got using PK. For fundamental measurement, PK detector used.
- 5. For radiated emissions from 9kHz to 30MHz, the emission level is much less than the limit for more than 20dB. No necessary to take down the record.
- 6. Worse case were recorded in the test report. 802.11g was the worst case.
- 7. Battery fully charged was used during the test
- 8. This is a handhold device. The radiated emissions should be tested under 3-axes position (Lying, Side, and Stand), After pre-test. It was found that the worse radiated emission was get at the lying position.

Page 16 of 99

Date: 2023-12-08



Test result

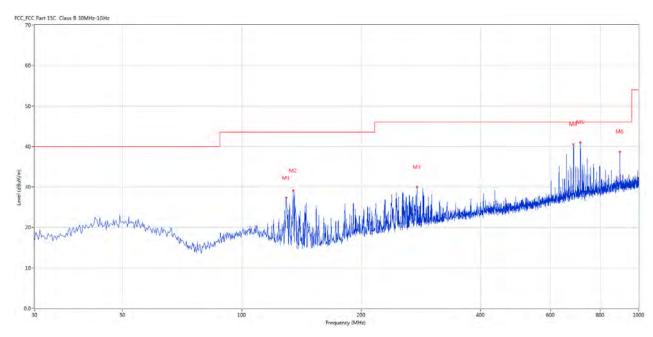
Report No.: TW2311227E

General Radiated Emission Data and Harmonics Radiated Emission Data

Radiated Emission In Horizontal (30MHz----1000MHz)

Keep Transmitting EUT set Condition:

Results: Pass



No.	Frequency	Results	Factor	Limit	Margin	Detector	Table	Height	Antenna	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(Degree)	(cm)		
1	129.400	27.27	-16.81	43.5	16.23	Peak	280.00	100	Horizontal	Pass
2	134.734	29.08	-17.12	43.5	14.42	Peak	73.00	100	Horizontal	Pass
3	276.561	30.00	-11.59	46.0	16.00	Peak	269.00	100	Horizontal	Pass
4	685.799	40.47	-4.33	46.0	5.53	Peak	38.00	100	Horizontal	Pass
5	713.922	40.99	-3.90	46.0	5.01	Peak	49.00	100	Horizontal	Pass
6	897.691	38.71	-1.76	46.0	7.29	Peak	207.00	100	Horizontal	Pass

Report No.: TW2311227E Page 17 of 99

Date: 2023-12-08



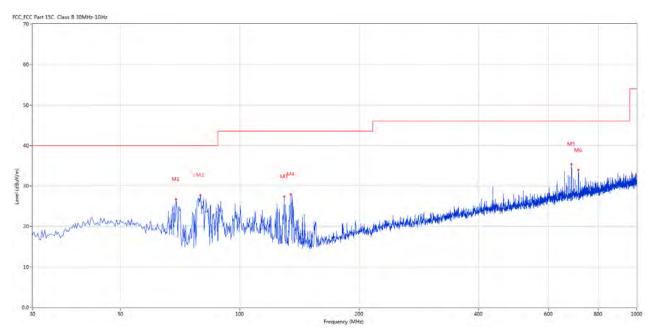
Test result

General Radiated Emission Data and Harmonics Radiated Emission Data

Radiated Emission In Vertical (30MHz----1000MHz)

EUT set Condition: **Keep Transmitting**

Results: Pass



No.	Frequency	Results	Factor	Limit	Margin	Detector	Table	Height	Antenna	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(Degree)	(cm)		
1	69.033	26.74	-15.24	40.0	13.26	Peak	29.00	100	Vertical	Pass
2	79.458	27.73	-17.46	40.0	12.27	Peak	326.00	100	Vertical	Pass
3	129.400	27.37	-16.81	43.5	16.13	Peak	223.00	100	Vertical	Pass
4	134.249	27.94	-17.05	43.5	15.56	Peak	49.00	100	Vertical	Pass
5	685.799	35.31	-4.33	46.0	10.69	Peak	351.00	100	Vertical	Pass
6	713.679	33.96	-3.89	46.0	12.04	Peak	230.00	100	Vertical	Pass

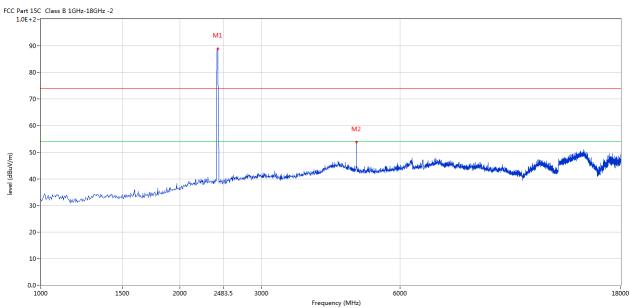
Report No.: TW2311227E Page 18 of 99

Date: 2023-12-08



Please refer to the following test plots for details:

CH01 for 11g at 6Mbps: Horizontal



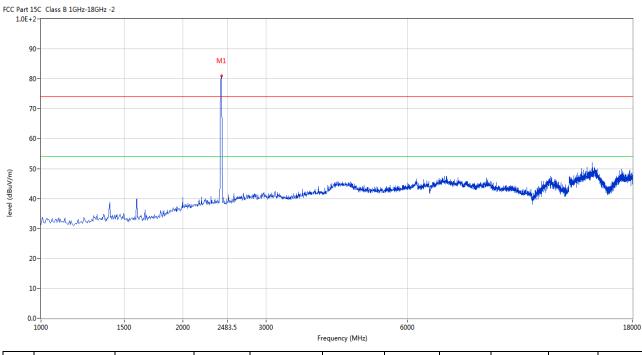
No.	Frequency	Results	Factor	Limit	Over	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	Limit (dB)		(o)	(cm)		
1	2414.896	88.91	-3.57	74.0	14.91	Peak	275.00	100	Horizontal	N/A
2	4824.044	53.80	3.14	74.0	-20.20	Peak	78.00	100	Horizontal	Pass

Page 19 of 99 Report No.: TW2311227E

Date: 2023-12-08



CH01 for 11g at 6Mbps: Vertical



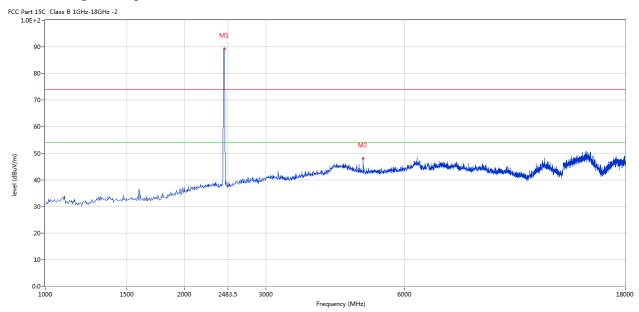
No.	Frequency	Results	Factor	Limit	Over	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	Limit (dB)		(o)	(cm)		
1	2414.896	80.98	-3.57	74.0	6.98	Peak	147.00	100	Vertical	N/A

Page 20 of 99 Report No.: TW2311227E

Date: 2023-12-08



CH06 for 11g at 6Mbps: Horizontal



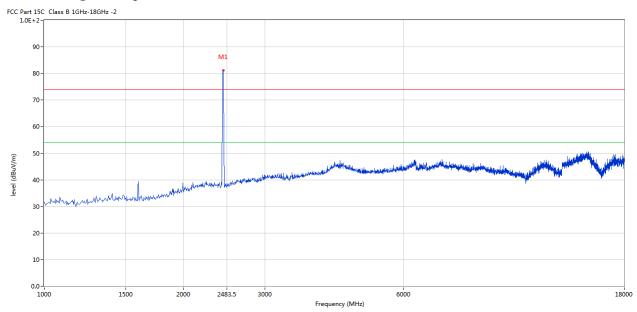
No.	Frequency	Results	Factor	Limit	Over	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	Limit (dB)		(o)	(cm)		
1	2440.390	89.27	-3.57	74.0	15.27	Peak	89.00	100	Horizontal	N/A
2	4875.031	48.05	3.19	74.0	-25.95	Peak	124.00	100	Horizontal	Pass

Page 21 of 99 Report No.: TW2311227E

Date: 2023-12-08



CH06 for 11g at 6Mbps: Vertical



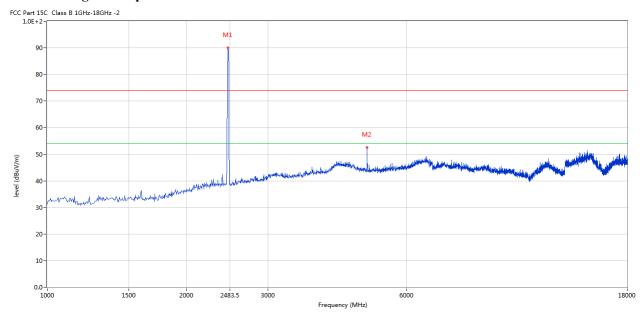
No.	Frequency	Results	Factor	Limit	Over	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	Limit (dB)		(o)	(cm)		
1	2440.390	81.19	-3.57	74.0	7.19	Peak	358.00	100	Vertical	N/A

Page 22 of 99 Report No.: TW2311227E

Date: 2023-12-08



CH11 for 11g at 6Mbps: Horizontal



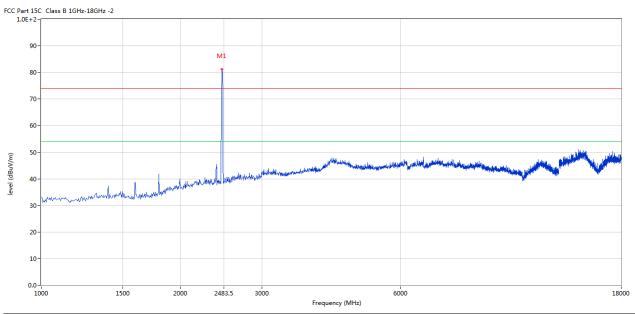
No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2461.635	89.95	-3.57	74.0	15.95	Peak	85.00	100	Horizontal	N/A
2	4921.770	53.12	3.27	74.0	-20.88	Peak	85.00	100	Horizontal	Pass

Report No.: TW2311227E Page 23 of 99

Date: 2023-12-08



CH11 for 11g at 6Mbps: Vertical



No.	Frequency	Results	Factor	Limit	Over	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	Limit (dB)		(o)	(cm)		
1	2461.635	81.11	-3.57	74.0	7.11	Peak	351.00	100	Vertical	N/A

Note: 1. Result Level = Reading + Factor

- 2. Factor= AF + Cable Loss- Preamp
- 3. Margin = Result– Limit
- 4. For radiated Emissions from 18-25GHz and below 30MHz, it is only the floor noise and less than the limit for more than 20dB. No necessary to take down.
- 5. Note: the final peak measurement results less than the AV limit. No necessary to take down the final AV measurement result

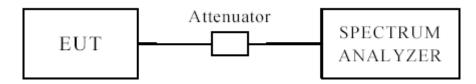
Report No.: TW2311227E Page 24 of 99

Date: 2023-12-08



7.0 6dB Bandwidth Measurement

7.1 Test Setup



7.2 Limits of 6dB Bandwidth Measurement

The minimum of 6dB Bandwidth Measurement is >500 kHz

7.3 Test Procedure

- 1. Set resolution bandwidth (RBW) = 100 kHz
- 2. Set the video bandwidth $(VBW) \ge 3 \times RBW$.
- 3. Detector = Peak.
- 4. Trace mode = max hold.
- 5. Sweep = auto couple.
- 6. Allow the trace to stabilize.
- 7. Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

7.4 Test Result

Report No.: TW2311227E Page 25 of 99

Date: 2023-12-08



6dB Occupied Bandwidth

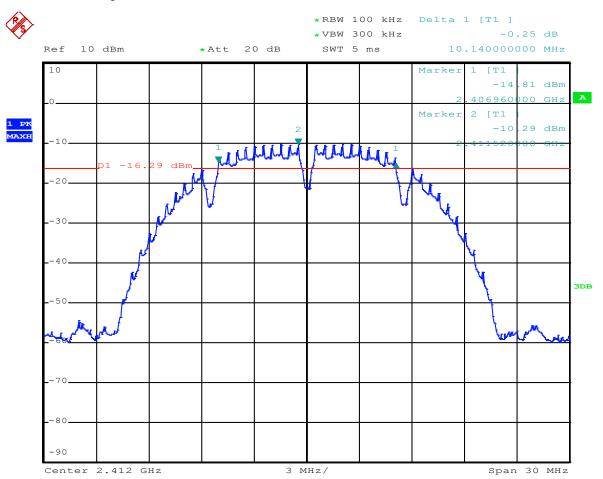
EUT			Action Car	nera	Model	ARC	G-AC-9185
Mode			802.111)	Test Voltage	Ι	DC3.7V
Temperati	ure		24 deg. (C,	Humidity	5	6% RH
Channel		el Frequency (MHz)	Data Transfer Rate (Mbps)	6 dB Bandwidth (MHz)	Minimum (MHz		Pass/ Fail
1		2412	1	10.14	0.5		Pass
6		2437	1	10.14	0.5		Pass
11		2462	1	10.14	0.5		Pass
1		2412	11	11.46	0.5		Pass
6		2437	11	11.46	0.5		Pass
11		2462		11.16	0.5		Pass

Page 26 of 99 Report No.: TW2311227E

Date: 2023-12-08



1. 802.11b at 1Mbps of CH01



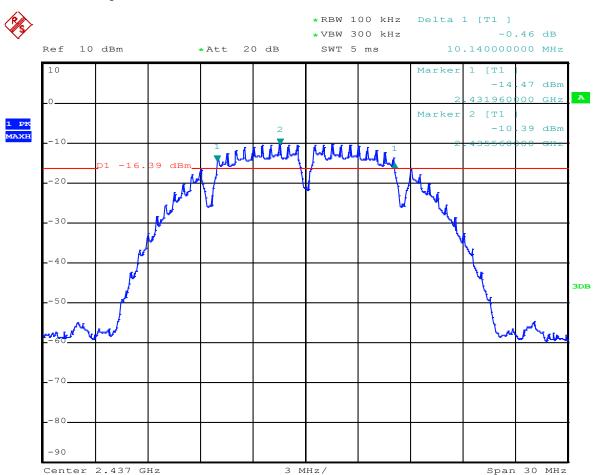
Date: 5.DEC.2023 10:16:49

Page 27 of 99 Report No.: TW2311227E

Date: 2023-12-08



2. 802.11b at 1Mbps of CH06



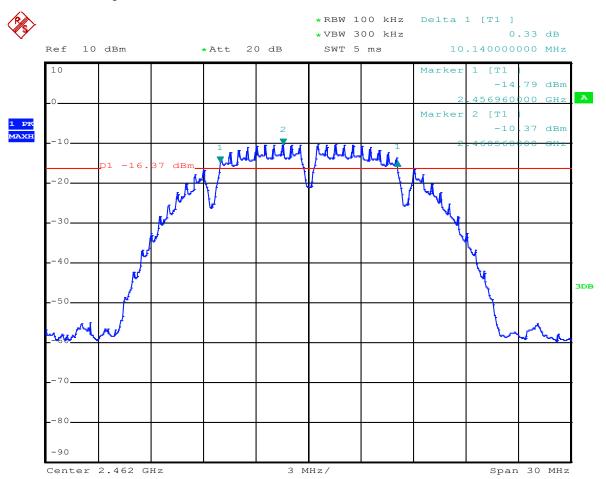
Date: 5.DEC.2023 10:21:45

Page 28 of 99 Report No.: TW2311227E

Date: 2023-12-08



3. 802.11b at 1Mbps of CH11



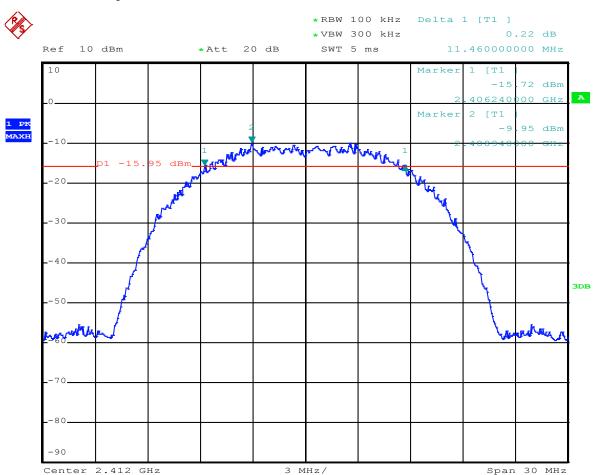
Date: 5.DEC.2023 10:25:03

Page 29 of 99 Report No.: TW2311227E

Date: 2023-12-08



4. 802.11b at 11Mbps of CH01



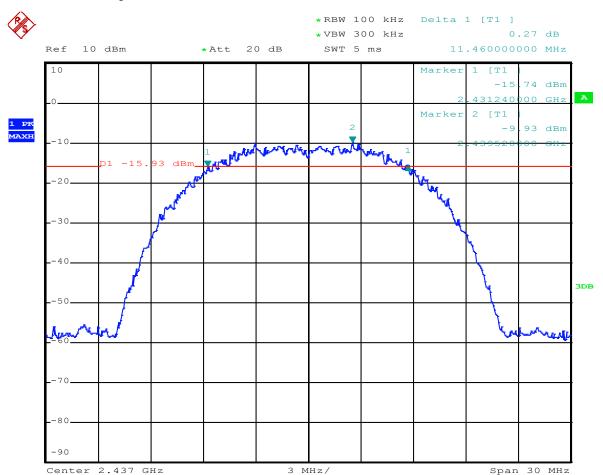
Date: 5.DEC.2023 10:35:52

Page 30 of 99 Report No.: TW2311227E

Date: 2023-12-08



5. 802.11b at 11Mbps of CH06



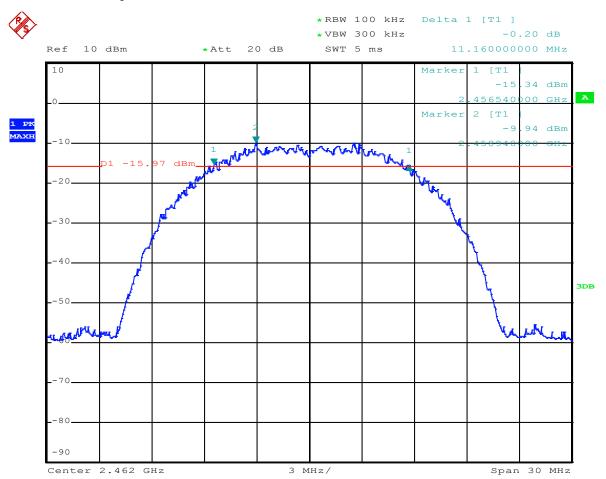
Date: 5.DEC.2023 10:32:55

Page 31 of 99 Report No.: TW2311227E

Date: 2023-12-08



6. 802.11b at 11Mbps of CH11



Date: 5.DEC.2023 10:27:57

Report No.: TW2311227E Page 32 of 99

Date: 2023-12-08



6dB Occupied Bandwidth

EUT			Action Car	mera	Model	ARG-AC-9185
Mode			802.11	g	Test Voltage	DC3.7V
Temperat	ure		24 deg.	C,	Humidity	56% RH
Channel		el Frequency (MHz)	Data Transfer Rate (Mbps)	6 dB Bandwidth (MHz)	Minimum Lim (MHz)	it Pass/ Fail
1		2412	6	16.38	0.5	Pass
6		2437	6	16.38	0.5	Pass
11		2462	6	16.38	0.5	Pass

Page 33 of 99

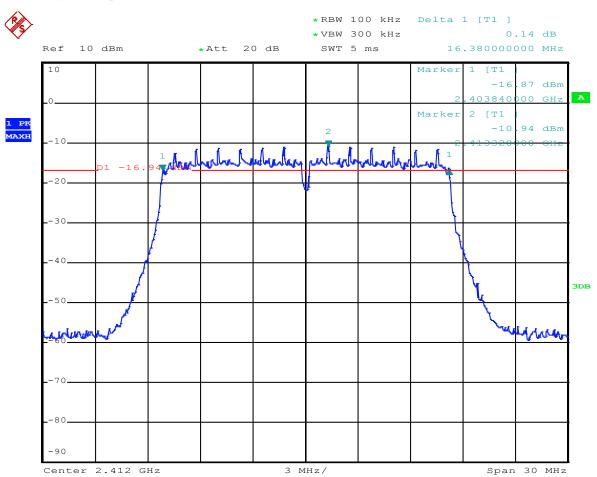
Report No.: TW2311227E

Date: 2023-12-08



Test Plots:

1. 802.11g at 6Mbps of CH01



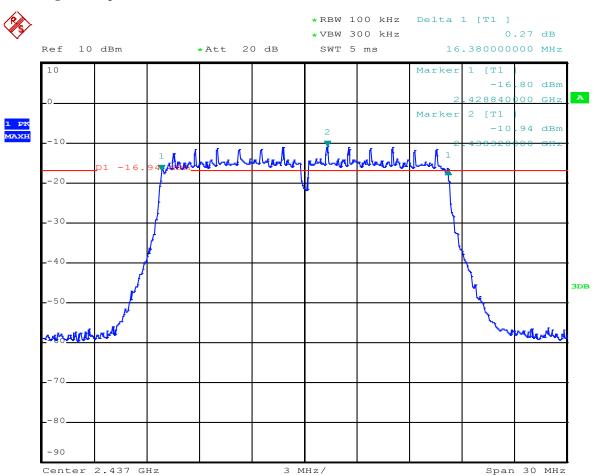
Date: 5.DEC.2023 10:13:48

Page 34 of 99 Report No.: TW2311227E

Date: 2023-12-08



2. 802.11g at 6Mbps of CH06



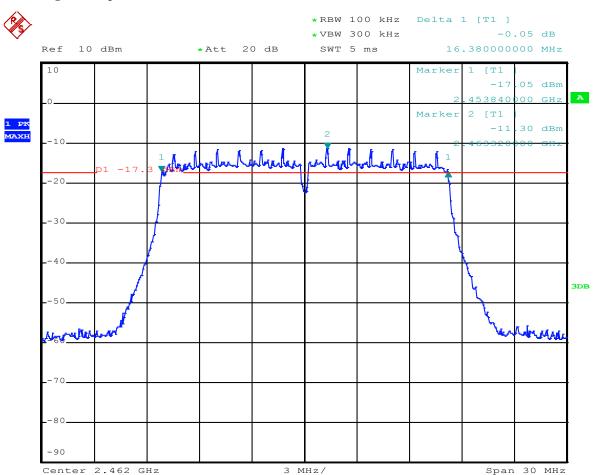
Date: 5.DEC.2023 10:10:40

Page 35 of 99 Report No.: TW2311227E

Date: 2023-12-08



3. 802.11g at 6Mbps of CH11



Date: 5.DEC.2023 10:08:31

Report No.: TW2311227E Page 36 of 99

Date: 2023-12-08



6dB Occupied Bandwidth

EUT		Action Camera			Model	ARG-AC-9185		
Mode		802.11n HT20			Test Voltage	DC3.7V		
Temperature		24 deg. C,			Humidity	4	56% RH	
Channel	Channel Frequency (MHz)		Data Transfer Rate (Mbps)	6 dB Bandwidth (MHz)		Minimum Limit (MHz)		
1		2412	mcs0	17.58	0.5	0.5		
6		2437	mcs0	17.58	0.5		Pass	
11		2462	mcs0	17.58	0.5		Pass	

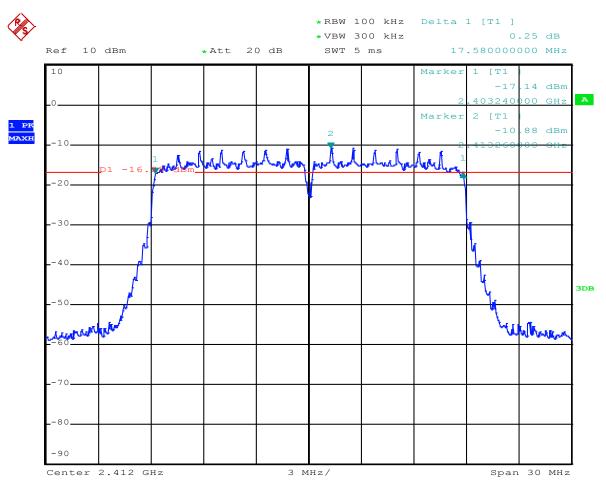
Page 37 of 99 Report No.: TW2311227E

Date: 2023-12-08



Test Plots:

1. 802.11n at HT20 of CH01



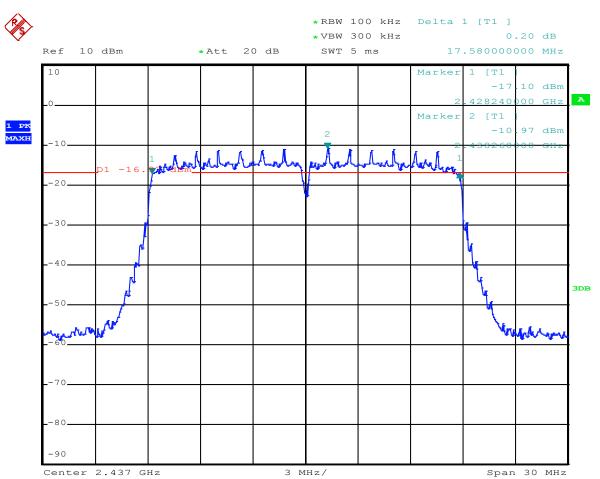
Date: 5.DEC.2023 10:01:26

Page 38 of 99 Report No.: TW2311227E

Date: 2023-12-08



2. 802.11n at HT20 of CH06



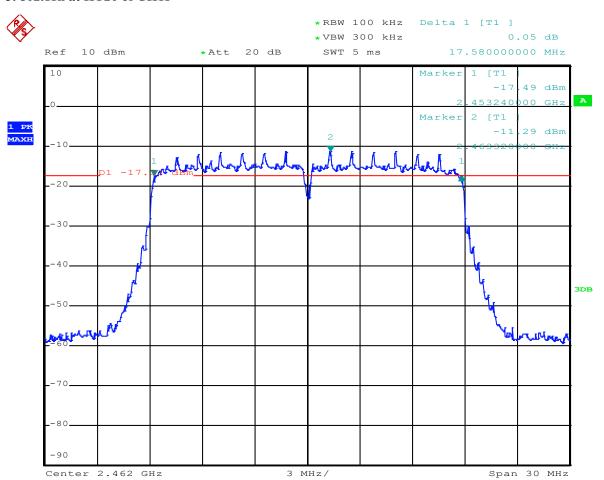
Date: 5.DEC.2023 10:04:34

Page 39 of 99 Report No.: TW2311227E

Date: 2023-12-08



3. 802.11n at HT20 of CH11



Date: 5.DEC.2023 10:06:31

Report No.: TW2311227E Page 40 of 99

Date: 2023-12-08



6dB Occupied Bandwidth

EUT		Action Camera			Model		G-AC-9185			
Mode		802	2.11n HT40)	Test Vol	tage	Ι	OC3.7V		
Temperat	ure	24 deg. C,			Humidi	ty	5	56% RH		
Channel		Channel Frequency Tra (MHz) R		6 dB Ban (MH				Pass/ Fail		
3		2422		36.2	0	0.5		Pass		
6	2437		mcs0	36.2	0 0.5			Pass		
9	2452		mcs0	36.2	.0	0.5		Pass		

Page 41 of 99

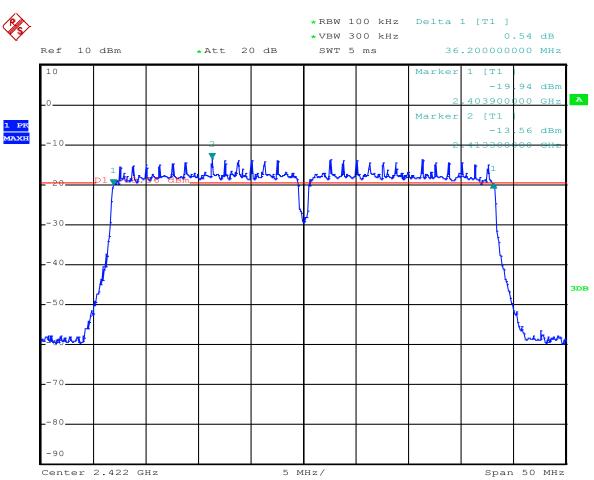
Date: 2023-12-08



Test Plots:

1. 802.11n at HT40 of CH03

Report No.: TW2311227E



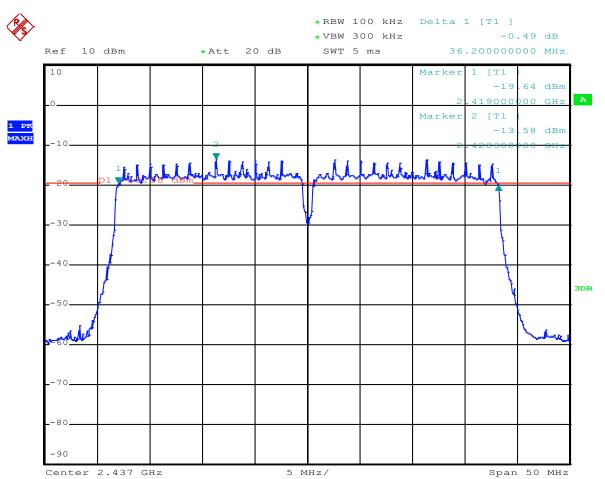
Date: 5.DEC.2023 09:58:14

Report No.: TW2311227E Page 42 of 99

Date: 2023-12-08



2. 802.11n at HT40 of CH06



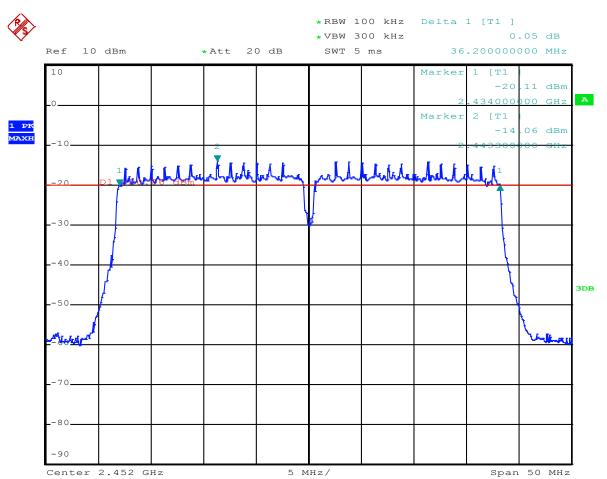
Date: 5.DEC.2023 09:55:07

Report No.: TW2311227E Page 43 of 99

Date: 2023-12-08



3. 802.11n at HT40 of CH09



Date: 5.DEC.2023 09:51:41

Report No.: TW2311227E

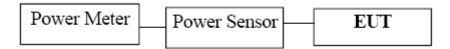
Date: 2023-12-08



Page 44 of 99

8. Maximum Output Power

8.1 Test Setup



8.2 Limits of Maximum Output Power

The Maximum Output Power Measurement is 30dBm.

8.3 Test Procedure

The RF power output was measured with a Power meter connected to the RF Antenna connector (conducted measurement) while EUT was operating in transmit mode at the appropriate centre frequency.

Note: The AV power was measured

Page 45 of 99

Report No.: TW2311227E

Date: 2023-12-08



8.4Test Results

EUT			Action Camera	Model	Model AR		
Mode	Mode		802.11b	Test Voltage		DC3.7V	
Temperat	ure		24 deg. C,	Humidity		56% RH	
Channel	Freque	uency z)	AV Power (dBm)	Power Lin (dBm)	nit	Pass/ Fail	
1	2412		2.51	30	30		
6	2437		2.59	30		Pass	
11	2462		2.69	30	30		

Note: 1. At finial test to get the worst-case emission at 1Mbps for CH01, CH06 and CH11

2. The result basic equation calculation as follow: Power Output = Power Reading + Cable loss + Attenuator

3. The worse case was recorded

EUT			Action Camera	Model	Al	RG-AC-9185
Mode	Mode		802.11g	Test Voltage		DC3.7V
Temperat	ure		24 deg. C,	Humidity 56%		56% RH
Channel	Freque	uency z)	AV Power (dBm)	Power Limit (dBm)		Pass/ Fail
1	2412		2.70	30		Pass
6	2437		2.73	30		Pass
11	11 2462		2.33	30		Pass

Note: 1. At finial test to get the worst-case emission at 6Mbps for CH01, CH06 and CH11

- 2. The result basic equation calculation as follow: Power Output = Power Reading + Cable loss + Attenuator
- 3. The worse case was recorded

Report No.: TW2311227E Page 46 of 99

Date: 2023-12-08



EUT		Action Camera		M	Model A		RG-AC-9185	
Mode			802.11n (HT20)	Test Voltage			DC3.7V	
Temperat	ure		24 deg. C,	Hur	Humidity		56% RH	
Channel	Frequence (MH	uency z)	AV Power (dBm)		Power Lim (dBm)		Pass/ Fail	
1	1 2412		2.87		30		Pass	
6	6 2437 2.83		30			Pass		
11	11 2462		2.47	2.47		30		

Note: 1. At finial test to get the worst-case emission at mcs0 of 11n HT20 for CH01, CH06 and CH11

2. The result basic equation calculation as follow:

Power Output = Power Reading + Cable loss + Attenuator

3. The worse case was recorded

EUT			Action Camera		del AR		G-AC-9185	
Mode			802.11n (HT40)		Voltage		DC3.7V	
Temperat	ure		24 deg. C,	Hum	idity		56% RH	
Channel	Frequ (MH	uency z)	AV Power (dBm)		Power L (dBn		Pass/ Fail	
3	3 2422		2.01	2.01			Pass	
6	2437 2.04		30		Pass			
9	2452		1.69	·	30		Pass	

Note: 1. At finial test to get the worst-case emission at msc0 of 11n HT40 for CH03, CH06 and CH09

2. The result basic equation calculation as follow:

Power Output = Power Reading + Cable loss + Attenuator

3. The worse case was recorded

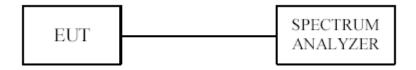
Report No.: TW2311227E Page 47 of 99

Date: 2023-12-08



9. Power Spectral Density Measurement

9.1 Test Setup



9.2 Limits of Power Spectral Density Measurement

The Maximum Power Spectral Density Measurement is 8dBm/3kHz.

9.3 Test Procedure

- 1. Use this procedure when the maximum peak conducted output power in the fundamental emission is used to demonstrate compliance.
- 2. Set the RBW = 10 kHz.
- 3. Set the VBW \geq 30 kHz.
- 4. Set the span to 1.5 times the DTS channel bandwidth.
- 5. Detector = peak.
- 6. Sweep time = auto couple.
- 7. Trace mode = max hold.
- 8. Allow trace to fully stabilize.
- 9. Use the peak marker function to determine the maximum amplitude level.
- 10. If measured value exceeds limit, reduce RBW (no less than 3 kHz) and repeat.
- 11. The resulting peak PSD level must be $\leq 8 \text{ dBm/3kHz}$.

Report No.: TW2311227E Page 48 of 99

Date: 2023-12-08



9.4Test Result

EUT			Action Camera	Model	ARG-A	AC-9185	
Mode		802.11b 11Mbps		Test Voltage	DC:	3.7V	
Temperat	Temperature		24 deg. C,	Humidity 56%		% RH	
Channel	Freq	uency Power Spectral Density (dBm/10kHz)		m/10kHz)	Limit	Pass/ Fail	
	(M	(Hz)			(dBm/3kHz)		
1	24	412	-19.72		8	Pass	
6	24	137	-19.35		8	Pass	
11	24	162	-18.99		8	Pass	

EUT			Action Camera	Model	ARG-A	C-9185	
Mode			802.11b 1Mbps	Test Voltage	DC3	.7V	
Temperat	nperature		24 deg. C,	Humidity	56%	56% RH	
Channel	Freq	uency	Power Spectral Density (dB	Power Spectral Density (dBm/10kHz)		Pass/ Fail	
	(M	Hz)			(dBm/3kHz)		
1	24	412	-19.26		8	Pass	
6	24	37 -19.75			8	Pass	
11	24	162	-19.67		8	Pass	

EUT			Action Camera	Model	ARG-A	C-9185	
Mode	;		802.11g 6Mbps	Test Voltage	DC3	.7V	
Temperat	Temperature		24 deg. C,	Humidity	56%	56% RH	
Channel	Freq	uency	Power Spectral Density (dBm	n/10kHz)	Limit	Pass/ Fail	
	(M	(Hz)			(dBm/3kHz)		
1	24	412	-20.39		8	Pass	
6	24	137	-20.52		8	Pass	
11	24	162	-20.61		8	Pass	

Report No.: TW2311227E Page 49 of 99

Date: 2023-12-08



EUT			Action Camera	Model	ARG-A	C-9185
Mode		802.11n HT20 mcs0		Test Voltage	DC3	.7V
Temperat	Геmperature		24 deg. C,	Humidity	56%	RH
Channel	Freq	uency	Power Spectral Density (dBm/10kHz)		Limit	Pass/ Fail
	(M	Hz)			(dBm/3kHz)	
1	24	112	-20.90		8	Pass
6	24	137	-20.37		8	Pass
11	24	162	-21.85		8	Pass

EUT			Action Camera	Model	ARG-A	C-9185	
Mode	;	802.11n HT40 mcs0		Test Voltage	DC3	.7V	
Temperat	ature 24		24 deg. C,	Humidity	56%	RH	
Channel	Freq	uency	Power Spectral Density (dBm	/10kHz)	Limit	Pass/ Fail	
	(M	(Hz)			(dBm/3kHz)		
3	24	122	-23.42		8	Pass	
6	24	137	7 -23.21		8	Pass	
9	24	152	-23.60		8	Pass	

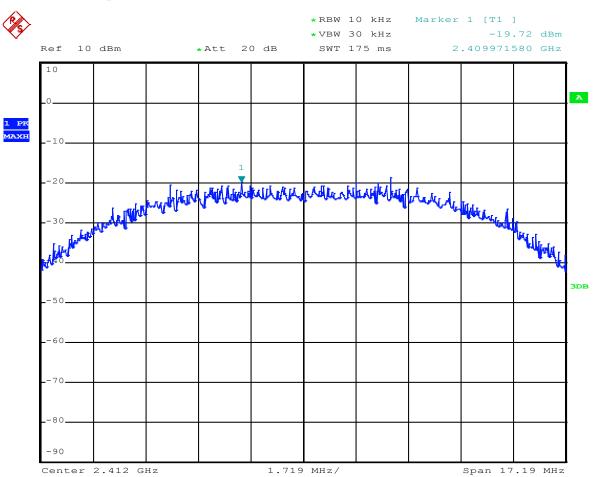
Page 50 of 99 Report No.: TW2311227E

Date: 2023-12-08



9.5 Photo of Power Spectral Density Measurement

1.802.11b at 11Mbps of CH01



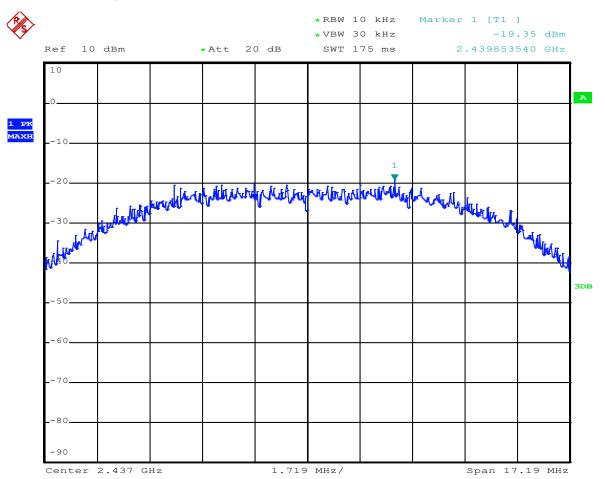
Date: 5.DEC.2023 11:44:35

Page 51 of 99 Report No.: TW2311227E

Date: 2023-12-08



2. 802.11b at 11Mbps at CH06



Date: 5.DEC.2023 11:44:01

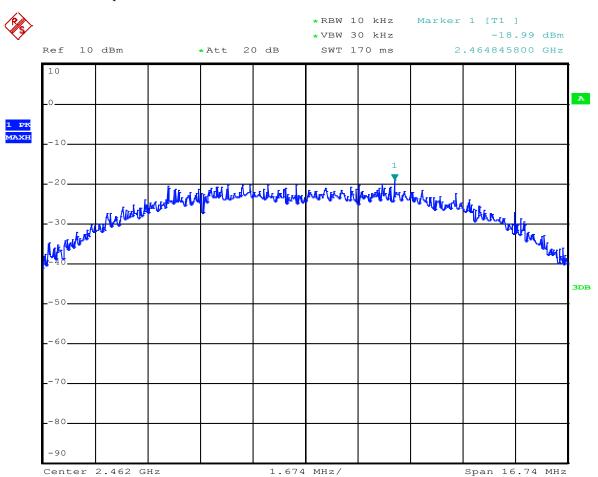
Page 52 of 99

Date: 2023-12-08



3. 802.11b at 11Mbps of CH11

Report No.: TW2311227E



Date: 5.DEC.2023 11:43:16

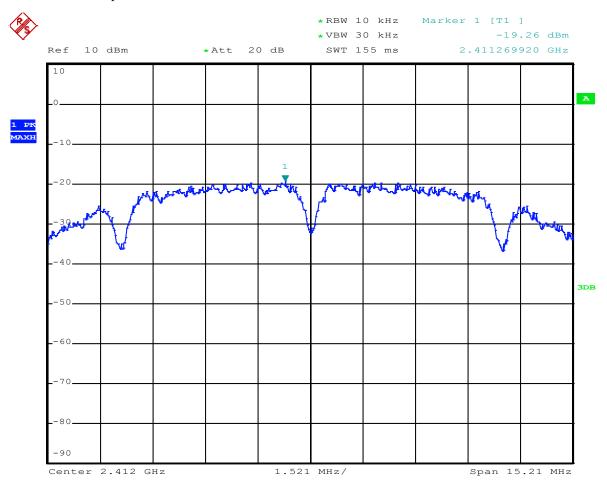
Page 53 of 99

Report No.: TW2311227E

Date: 2023-12-08



4. 802.11b at 1Mbps of CH1



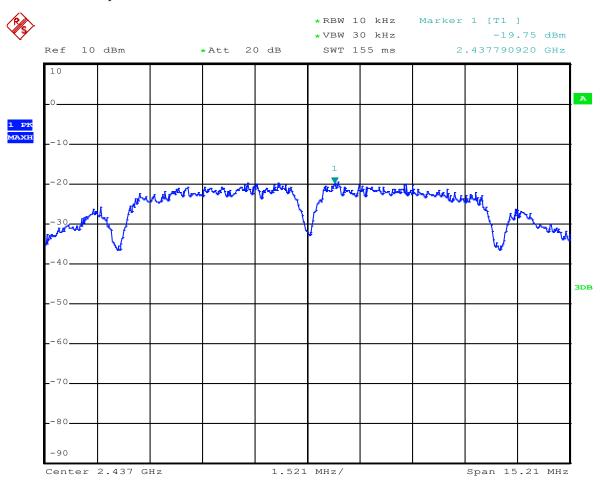
Date: 5.DEC.2023 11:40:35

Report No.: TW2311227E Page 54 of 99

Date: 2023-12-08



5.802.11b at 1Mbps of CH6



Date: 5.DEC.2023 11:41:26

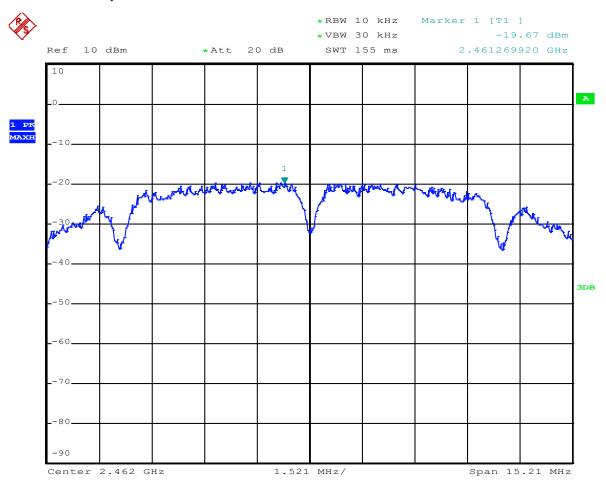
Page 55 of 99

Report No.: TW2311227E

Date: 2023-12-08



6. 802.11b at 1Mbps of CH11



Date: 5.DEC.2023 11:42:30

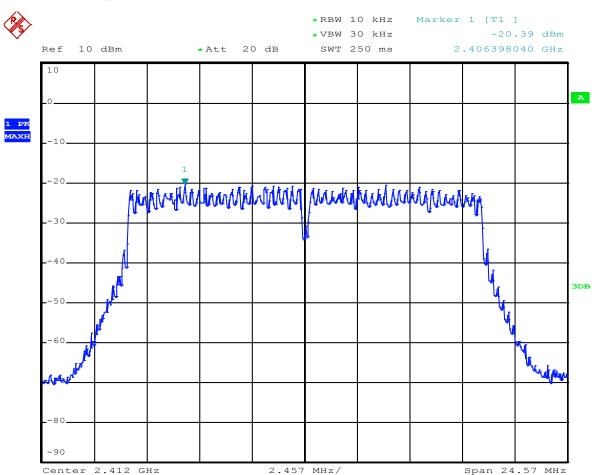
Page 56 of 99

Report No.: TW2311227E

Date: 2023-12-08



7. 802.11g at 6Mbps of CH1



Date: 5.DEC.2023 11:45:52

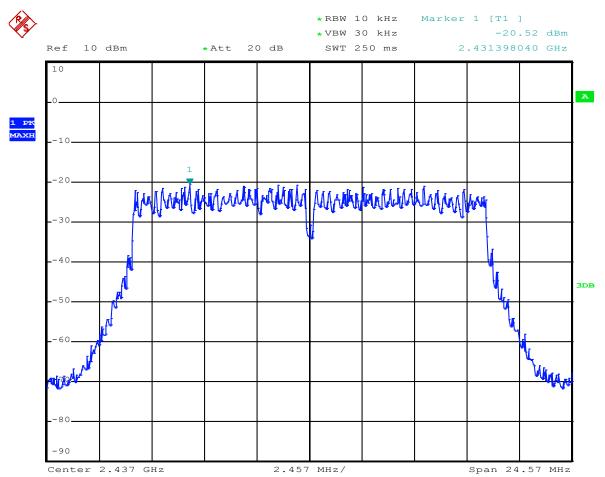
Page 57 of 99

Report No.: TW2311227E

Date: 2023-12-08



8. 802.11g at 6Mbps of CH6



Date: 5.DEC.2023 11:47:23

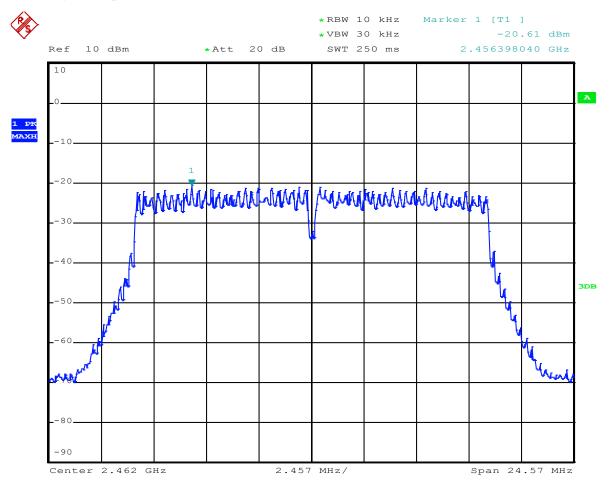
Page 58 of 99

Report No.: TW2311227E

Date: 2023-12-08



9. 802.11g at 6Mbps of CH11



Date: 5.DEC.2023 11:48:28

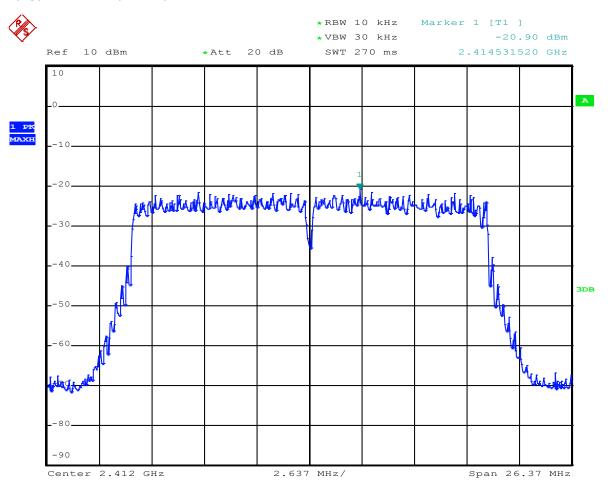
Page 59 of 99

Report No.: TW2311227E

Date: 2023-12-08



10. 802.11n at HT20 of CH01



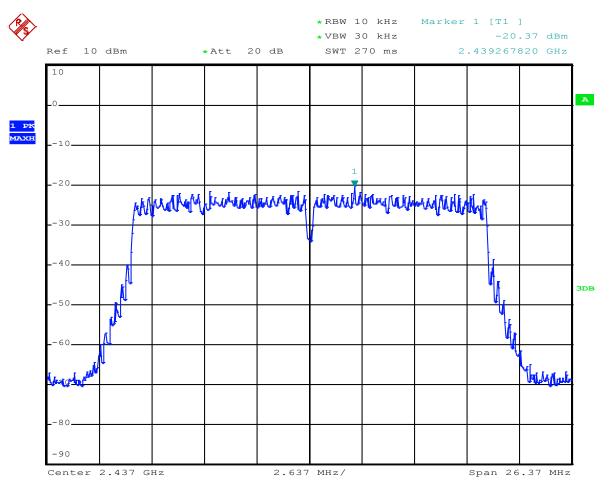
Date: 5.DEC.2023 11:50:21

Page 60 of 99 Report No.: TW2311227E

Date: 2023-12-08



11. 802.11n at HT20 of CH06



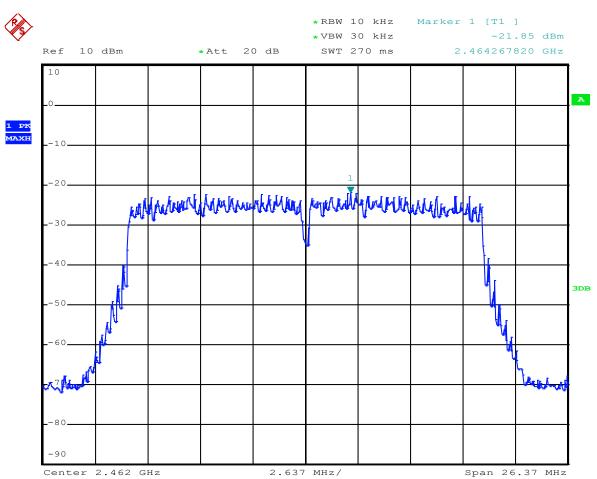
Date: 5.DEC.2023 11:49:43

Report No.: TW2311227E Page 61 of 99

Date: 2023-12-08



12. 802.11n at HT20 of CH11



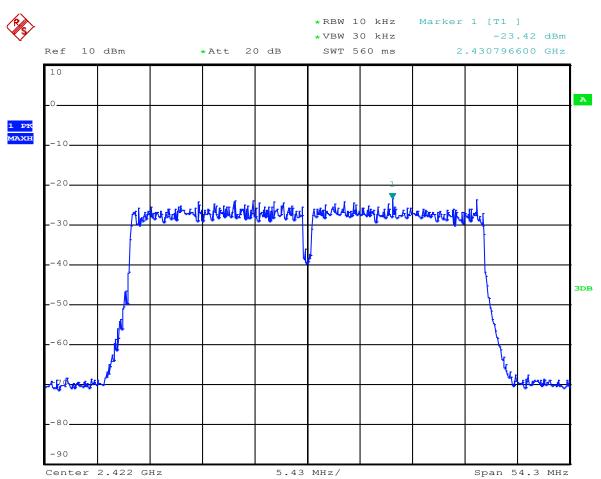
Date: 5.DEC.2023 11:49:04

Report No.: TW2311227E Page 62 of 99

Date: 2023-12-08



13. 802.11n at HT40 of CH03



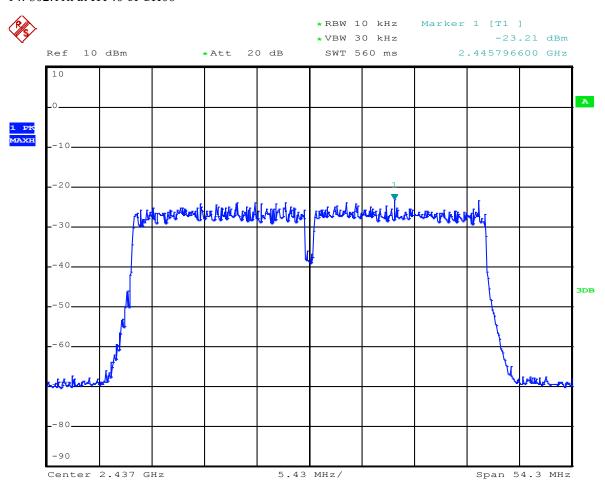
Date: 5.DEC.2023 11:38:49

Report No.: TW2311227E Page 63 of 99

Date: 2023-12-08



14. 802.11n at HT40 of CH06



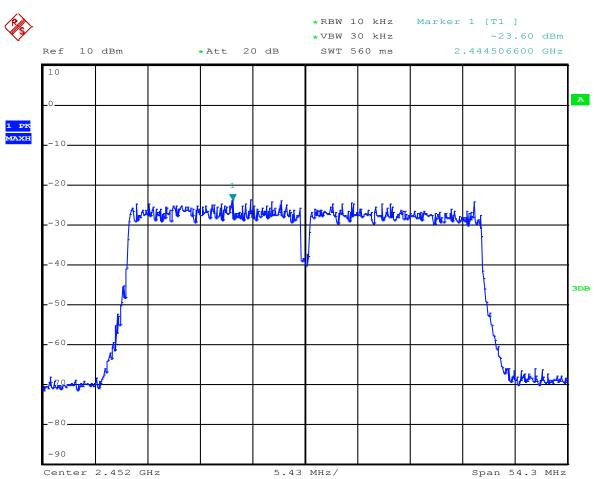
Date: 5.DEC.2023 11:36:09

Report No.: TW2311227E Page 64 of 99

Date: 2023-12-08



15. 802.11n at HT40 of CH09



Date: 8.DEC.2023 10:40:26

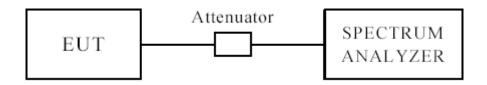
Report No.: TW2311227E Page 65 of 99

Date: 2023-12-08



10 Out of Band Measurement

10.1 Test Setup for band edge



The restricted band requirement based on radiated emission test; please see the clause 6 for the test setup

10.2 Limits of Out of Band Emissions Measurement

- 1. Below –30dB of the highest emission level of operating band (in 100kHz Resolution Bandwidth).
- 2. Fall in the restricted bands listed in section 15.205. The maximum permitted average field strength is listed in section 15.209.

10.3 Test Procedure

For signals in the restricted bands above and below the 2.4-2.483GHz allocated band a measurement was made of radiated emission test. (Peak values with RBW=VBW=1MHz and PK detector. AV value with RBW=1MHz, VBW=10Hz and PK detector)

For bandage test, the spectrum set as follows: RBW=100, VBW=300 kHz. A conducted measurement used

10.4 Test Result

Please see next pages

Note: 1. For band-edge measurement, the frequency from 30MHz-25GHz was tested. And It met the FCC rule.

Page 66 of 99 Report No.: TW2311227E

Date: 2023-12-08



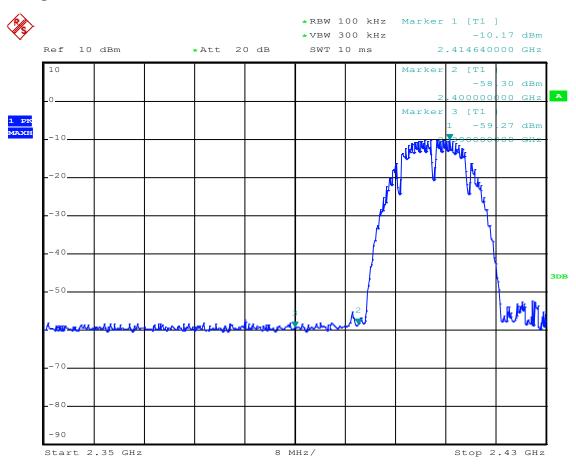
For 802.11b mode

CH01 at 1Mbps

10.4 Band-edge Measurement

EUT	Action Camera	Model	ARG-AC-9185
Mode	Keeping Transmitting	Test Voltage	DC3.7V
Temperature	24 deg. C,	Humidity	56% RH
Test Result:	Pass	Detector	PK

Test Figure:



Date: 5.DEC.2023 09:43:28

Page 67 of 99 Report No.: TW2311227E

Date: 2023-12-08

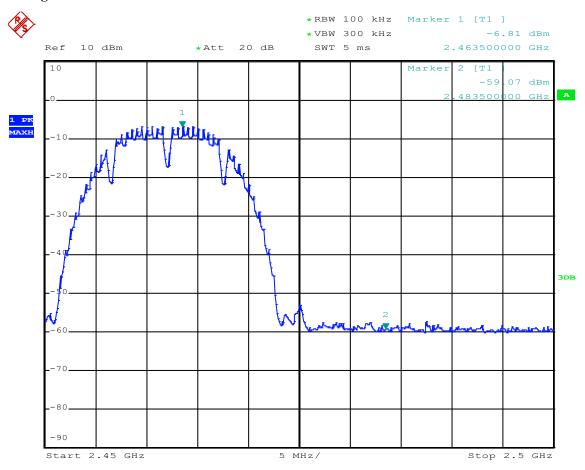


CH11 at 1Mbps

10.4 Band-edge Measurement

EUT	Action Camera	Model	ARG-AC-9185
Mode	Keeping Transmitting	Test Voltage	DC3.7V
Temperature	24 deg. C,	Humidity	56% RH
Test Result:	Pass	Detector	PK

Test Figure:



Date: 5.DEC.2023 09:29:23

Page 68 of 99 Report No.: TW2311227E

Date: 2023-12-08



For 802.11b mode

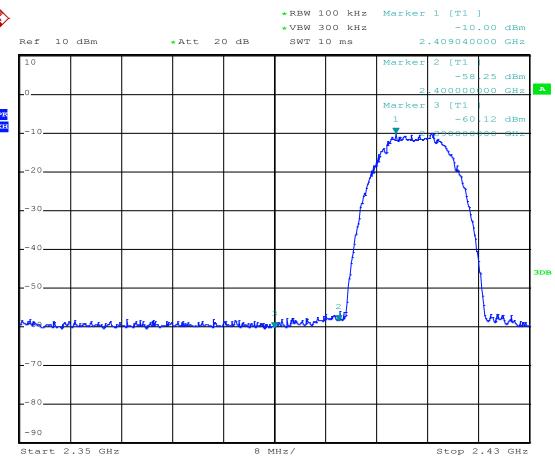
CH01 at 11Mbps

Band-edge Measurement 10.4

EUT	Action Camera	Model	ARG-AC-9185
Mode	Keeping Transmitting	Test Voltage	DC3.7V
Temperature	24 deg. C,	Humidity	56% RH
Test Result:	Pass	Detector	PK

Test Figure:





Date: 5.DEC.2023 09:46:02

Page 69 of 99

Report No.: TW2311227E

Date: 2023-12-08

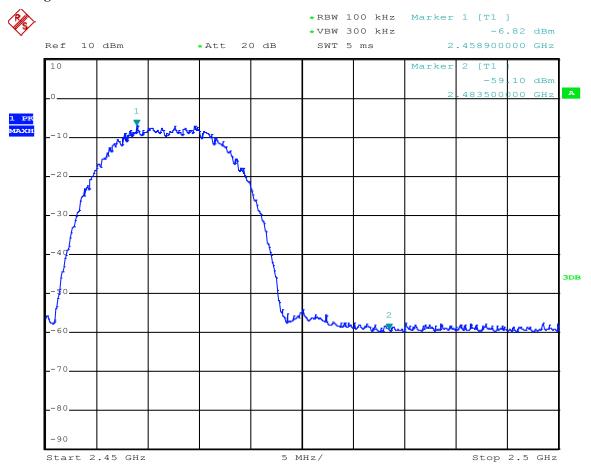


CH11 at 11Mbps

10.4 Band-edge Measurement

EUT	Action Camera	Model	ARG-AC-9185
Mode	Keeping Transmitting	Test Voltage	DC3.7V
Temperature	24 deg. C,	Humidity	56% RH
Test Result:	Pass	Detector	PK

Test Figure:



Date: 5.DEC.2023 09:27:42

Page 70 of 99 Report No.: TW2311227E

Date: 2023-12-08



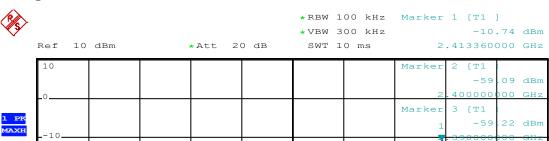
For 802.11g mode

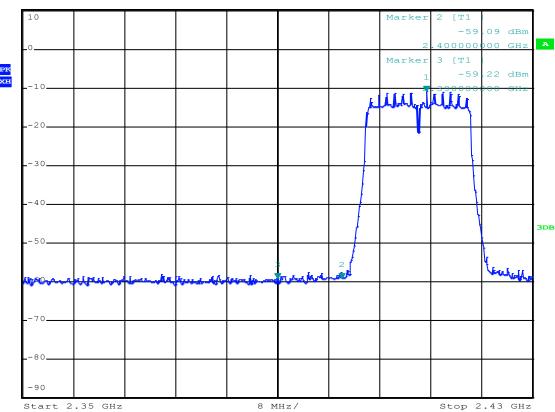
CH01 at 6Mbps

10.4 Band-edge Measurement

EUT	Action Camera	Model	ARG-AC-9185
Mode	Keeping Transmitting	Test Voltage	DC3.7V
Temperature	24 deg. C,	Humidity	56% RH
Test Result:	Pass	Detector	PK

Test Figure:





Date: 5.DEC.2023 09:41:16

Page 71 of 99 Report No.: TW2311227E

Date: 2023-12-08

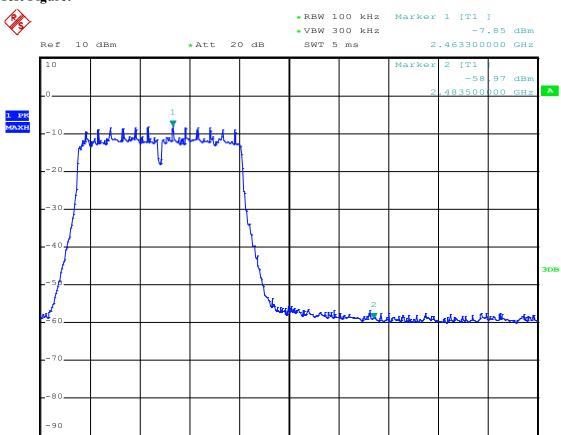


CH11 at 6Mbps

10.4 Band-edge Measurement

EUT	Action Camera	Model	ARG-AC-9185
Mode	Keeping Transmitting	Test Voltage	DC3.7V
Temperature	24 deg. C,	Humidity	56% RH
Test Result:	Pass	Detector	PK

Test Figure:



5 MHz/

Stop 2.5 GHz

Date: 5.DEC.2023 09:32:21

Start 2.45 GHz

Page 72 of 99 Report No.: TW2311227E

Date: 2023-12-08



For 802.11n (HT20) mode

CH01 at mcs0

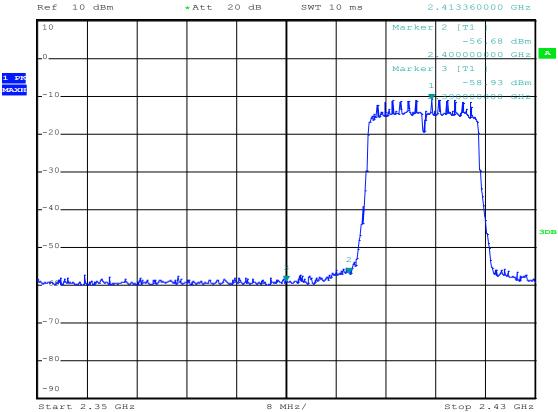
Band-edge Measurement 10.4

EUT	Action Camera	Model	ARG-AC-9185
Mode	Keeping Transmitting	Test Voltage	DC3.7V
Temperature	24 deg. C,	Humidity	56% RH
Test Result:	Pass	Detector	PK

Test Figure:



*RBW 100 kHz Marker 1 [T1] *VBW 300 kHz -10.78 dBm



Date: 5.DEC.2023 09:39:56

Page 73 of 99 Report No.: TW2311227E

Date: 2023-12-08

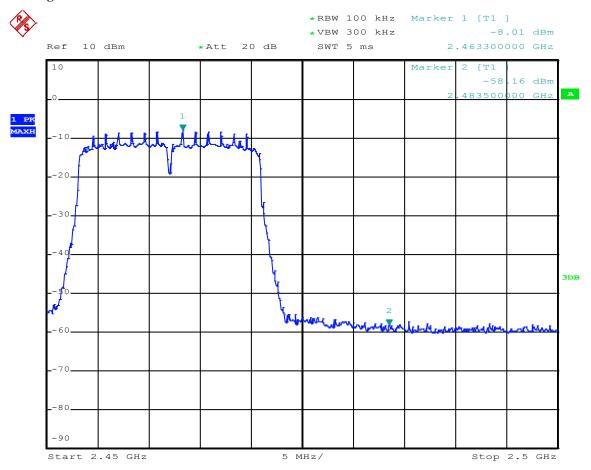


CH11 at mcs0

10.4 Band-edge Measurement

EUT	Action Camera	Model	ARG-AC-9185
Mode	Keeping Transmitting	Test Voltage	DC3.7V
Temperature	24 deg. C,	Humidity	56% RH
Test Result:	Pass	Detector	PK

Test Figure:



Date: 5.DEC.2023 09:35:16

Page 74 of 99 Report No.: TW2311227E

Date: 2023-12-08



For 802.11n (HT40) mode

CH03 at msc0

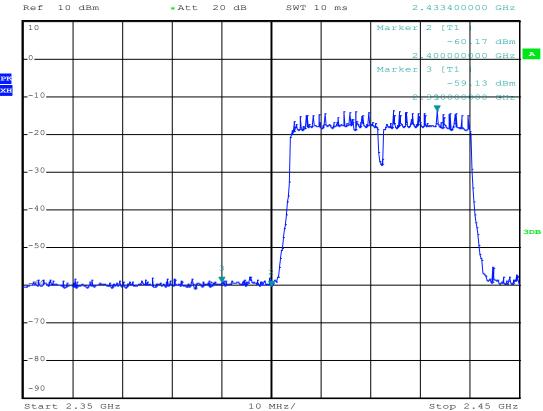
10.4 Band-edge and Restricted band Measurement

EUT	Action Camera	Model	ARG-AC-9185
Mode	Keeping Transmitting	Test Voltage	DC3.7V
Temperature	24 deg. C,	Humidity	56% RH
Test Result:	Pass	Detector	PK

Test Figure:







Date: 5.DEC.2023 09:47:34

Report No.: TW2311227E Page 75 of 99

Date: 2023-12-08



CH09 at msc0

10.4 Band-edge and Restricted band Measurement

EUT	Action Camera	Model	ARG-AC-9185
Mode	Keeping Transmitting	Test Voltage	DC3.7V
Temperature	24 deg. C,	Humidity	56% RH
Test Result:	Pass	Detector	PK

Test Figure:

Ref

10 dBm



*RBW 100 kHz *VBW 300 kHz -14.19 dBm SWT 10 ms 2.443300000 GHz

Stop 2.5 GHz

13 dBm 1 PK 3DB

7 MHz/

20 dB

*Att

Date: 5.DEC.2023 09:49:28

Start 2.43 GHz

Report No.: TW2311227E Page 76 of 99

Date: 2023-12-08



10.5 Restricted band Measurement

EUT		Action Camera				ARG-AC-9185			
Mode	Kee	Keeping Transmitting				DC3.7V			
Temperature		24 deg. C,				56% RH			
Test Result:		Pass				PK			
802.11b mode, Low Channel, Horizontal									
2390 MHz	PK (dBμV/m)	37.08	т:			$74(dB\mu V/m)$			
	AV (dBμV/m)		Lli	nit	54(dBμV/m)				
	802.11b mode, Low Channel, Vertical								
2390 MHz	PK (dBμV/m)	37.93	1.5	Limit		74(dBµV/m)			
	AV (dBμV/m)		Lli			54(dBµV/m)			

EUT		Action Camera		M	odel	ARG-AC-9185			
Mode	Ke	eeping Transmitting	Test	Voltage	DC3.7V				
Temperature		24 deg. C,			nidity	56% RH			
Test Result:		Pass				PK			
802.11b mode, High Channel, Horizontal									
2483.5 MHz	PK (dBµV/m)	37.12	т:	:4	74(dBμV/m)				
	AV (dBμV/m)		Lim	Ιτ	54(dBμV/m)				
	802.11b mode, High Channel, Vertical								
2483.5 MHz	PK (dBμV/m)	38.06	Lim	:+	74(dBµV/m)				
	AV (dBμV/m)		Lim	II		$54(dB\mu V/m)$			

Report No.: TW2311227E Page 77 of 99

Date: 2023-12-08



10.5 Restricted band Measurement

EUT		Action Camera		Mo	odel	ARG-AC-9185			
Mode	Kee	Keeping Transmitting				DC3.7V			
Temperature		24 deg. C,				56% RH			
Test Result:		Pass		Dete	ector	PK			
802.11g mode, Low Channel, Horizontal									
2390 MHz	PK (dBµV/m)	37.18	т:.			$74(dB\mu V/m)$			
	AV (dBμV/m)		Lli	mit		54(dBµV/m)			
	802.11g mode, Low Channel, Vertical								
2390 MHz	PK (dBµV/m)	39.22	1.5			74(dBµV/m)			
	AV (dBμV/m)		Lli	Limit		54(dBµV/m)			

EUT		Action Camera		M	odel	ARG-AC-9185		
Mode	Ke	eping Transmitting	Test Voltage		DC3.7V			
Temperature		24 deg. C,			nidity	56% RH		
Test Result:		Pass				PK		
802.11g mode, High Channel, Horizontal								
2483.5 MHz	PK (dBµV/m)	37.61	т:	:4	74(dBμV/m)			
	AV ($dB\mu V/m$)		Lim	It	54(dBμV/m)			
		802.11g mode, High	Channel, V	/ertical				
2483.5 MHz	PK (dBμV/m)	37.43	Lim	. 74(dBµV/m)		74(dBμV/m)		
	AV ($dB\mu V/m$)		Lim	IL		$54(dB\mu V/m)$		

Report No.: TW2311227E Page 78 of 99

Date: 2023-12-08



10.5 Restricted band Measurement

EUT		Action Camera				ARG-AC-9185		
Mode	Kee		Test V	oltage/	DC3.7V			
Temperature		24 deg. C,			nidity	56% RH		
Test Result:			Dete	ector	PK			
802.11n HT20 mode, Low Channel, Horizontal								
2390 MHz	PK (dBμV/m)	38.23	т:			$74(dB\mu V/m)$		
	AV (dBμV/m)		Lli	mit	54(dBμV/m)			
	8	302.11n HT20 mode, Lo	ow Chani	nel, Vertic	al			
2390 MHz	PK (dBμV/m)	38.05	1.5	Limit		74(dBµV/m)		
	AV (dBμV/m)		Lli			54(dBµV/m)		

EUT		Action Camera		Model		ARG-AC-9185		
Mode	Ke	Keeping Transmitting				DC3.7V		
Temperature	24 deg. C,			Hur	nidity	56% RH		
Test Result:			Det	ector	PK			
802.11n HT20 mode, High Channel, Horizontal								
2483.5 MHz	PK (dBµV/m)	37.15	т::		$74(dB\mu V/m)$			
	AV (dBμV/m)		Limi	It	54(dBμV/m)			
	8	302.11n HT20 mode, H	igh Channe	l, Verti	al			
2483.5 MHz	PK (dBµV/m)	37.53	Lim	74(dBµV/m)		74(dBµV/m)		
	$AV (dB\mu V/m)$		LIIII	Il		$54(dB\mu V/m)$		

Report No.: TW2311227E Page 79 of 99

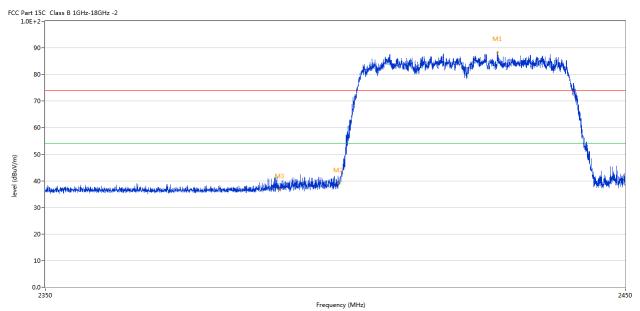
Date: 2023-12-08



10.5 Restricted band Measurement

EUT		Action Camera				ARG-AC-9185		
Mode	Kee	Keeping Transmitting				DC3.7V		
Temperature		24 deg. C,			nidity	56% RH		
Test Result:		Pass		De	tector	PK		
802.11n HT40 mode, Low Channel, Horizontal								
2390 MHz	PK (dBμV/m)	36.76	т:			$74(dB\mu V/m)$		
	AV (dBμV/m)		Lli	mit	54(dBμV/m)			
		802.11n HT40 mode, L	ow Chan	nel Vertic	al			
2390 MHz	PK (dBμV/m)	40.60	т.:.	•,		$74(dB\mu V/m)$		
	AV (dBμV/m)		Limit			$54(dB\mu V/m)$		

Test Plots



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2427.606	88.33	-3.57	74.0	14.33	Peak	82.00	100	Horizontal	N/A
2	2400.000	39.11	-3.57	74.0	-34.89	Peak	257.00	100	Horizontal	Pass
3	2390.000	36.76	-3.53	74.0	-37.24	Peak	98.60	100	Horizontal	Pass

The report refers only to the sample tested and does not apply to the bulk.

This report refers only to the sample tested and does not apply to the bulk.

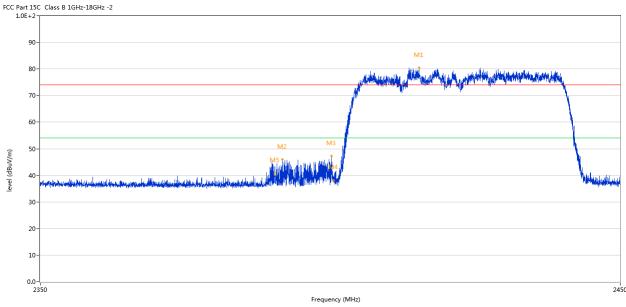
This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it. or a certified copy there of prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report. The SHENZHEN TIMEWAY TESTING LABORATORIES. reserves the rights to withdraw it and to

Report No.: TW2311227E Page 80 of 99

Date: 2023-12-08





No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2414.859	80.35	-3.57	74.0	6.35	Peak	149.00	100	Vertical	N/A
2	2391.240	45.86	-3.53	74.0	-28.14	Peak	106.00	100	Vertical	Pass
3	2399.663	47.19	-3.57	74.0	-26.81	Peak	116.00	100	Vertical	Pass
4	2400.000	38.12	-3.57	74.0	-35.88	Peak	105.00	100	Vertical	Pass
5	2390.000	40.69	-3.53	74.0	-33.31	Peak	69.60	100	Vertical	Pass

Report No.: TW2311227E Page 81 of 99

Date: 2023-12-08



EUT		Action Camera	Model		ARG-AC-9185					
Mode	Keeping Transmitting				Voltage	DC3.7V				
Temperature	24 deg. C,				midity	56% RH				
Test Result:		Pass	De	etector	PK					
802.11n HT40 mode, High Channel, Horizontal										
2483.5 MHz	PK (dBµV/m)	37.39	т.	٠,	$74(dB\mu V/m)$					
	AV (dBμV/m)		Lim	IŢ	54(dBμV/m)					
802.11n HT40 mode, High Channel, Vertical										
2483.5 MHz	PK (dBμV/m)	37.92	т:	:4		74(dBμV/m)				
	AV (dBμV/m)		Limit			$54(dB\mu V/m)$				



No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2443.244	88.63	-3.57	74.0	14.63	Peak	271.00	100	Horizontal	N/A
2	2483.500	37.39	-3.57	74.0	-36.61	Peak	214.67	100	Horizontal	Pass

Report No.: TW2311227E Page 82 of 99

Date: 2023-12-08





No.	Frequency	Results	Factor	Limit	Over Limit	Detector	Table	Height	ANT	Verdict
	(MHz)	(dBuV/m)	(dB)	(dBuV/m)	(dB)		(o)	(cm)		
1	2449.193	80.84	-3.57	74.0	6.84	Peak	174.00	100	Vertical	N/A
2	2483.500	37.92	-3.57	74.0	-36.08	Peak	92.89	100	Vertical	Pass

Report No.: TW2311227E

Date: 2023-12-08



Page 83 of 99

11.0 Antenna Requirement

11.1 Standard Applicable

For intentional device, according to FCC 47 CFR Section 15.203, 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.

And according to FCC 47 CFR Section 15.247 (b), if transmitter antennas of directional gain greater than 6 dBi are used, the power shall be reduced by the mount in dB that the directional gain of the antenna exceeds 6 dBi.

11.2 Antenna Connected construction

PCB antenna with gain 2.16dBi Max (Get from the antenna specification)

Page 84 of 99 Report No.: TW2311227E

Date: 2023-12-08



12.0 FCC ID Label

FCC ID: 2AUGWARG-AC-9185BK

The label must not be a stick-on paper label. The label on these products must be permanently affixed to the product and readily visible at the time of purchase and must last the expected lifetime of the equipment not be readily detachable.

Mark Location:



Report No.: TW2311227E Page 85 of 99

Date: 2023-12-08



13.0 **Photo of testing**

Conducted Emission Test Setup:



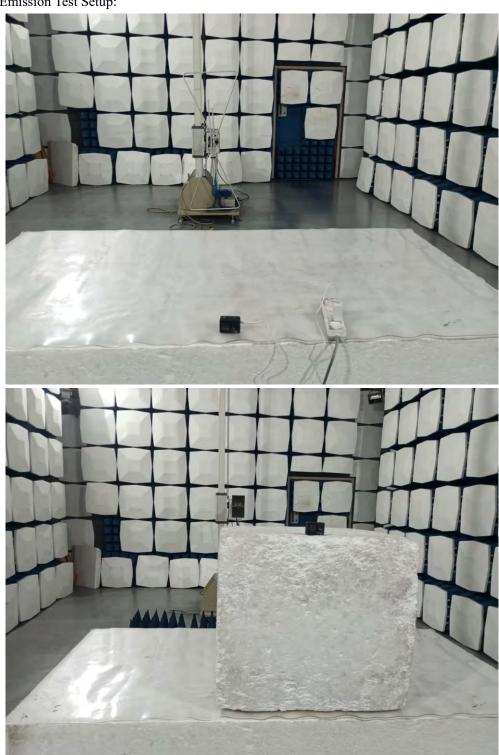
Page 86 of 99

Report No.: TW2311227E

Date: 2023-12-08



Radiated Emission Test Setup:



The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report. The SHENZHEN TIMEWAY TESTING LABORATORIES. reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.

Report No.: TW2311227E Page 87 of 99

Date: 2023-12-08





The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report. The SHENZHEN TIMEWAY TESTING LABORATORIES. reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.

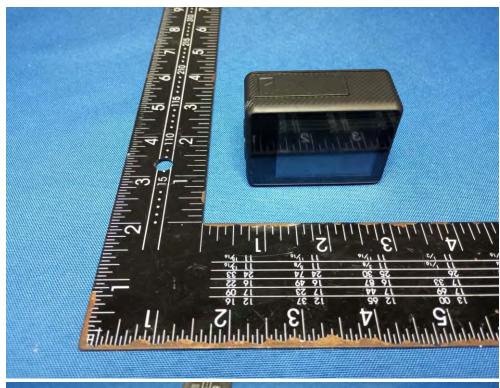
Page 88 of 99

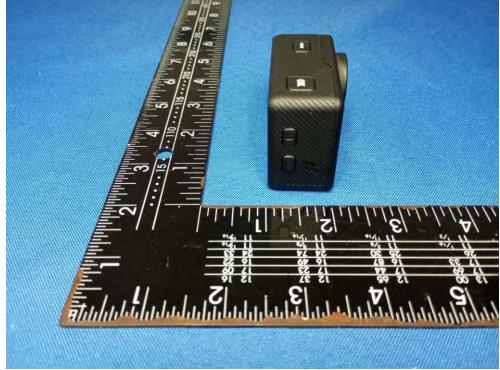
Report No.: TW2311227E

Date: 2023-12-08



Outside View





The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report. The SHENZHEN TIMEWAY TESTING LABORATORIES. reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.

Page 89 of 99

Report No.: TW2311227E

Date: 2023-12-08



Outside View



Inside View



The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report. The SHENZHEN TIMEWAY TESTING LABORATORIES. reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.

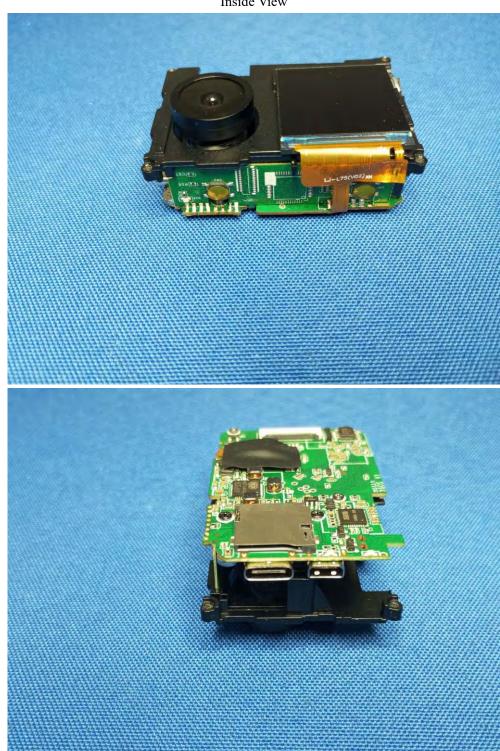
Page 90 of 99

Report No.: TW2311227E

Date: 2023-12-08



Inside View



The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report. The SHENZHEN TIMEWAY TESTING LABORATORIES. reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.

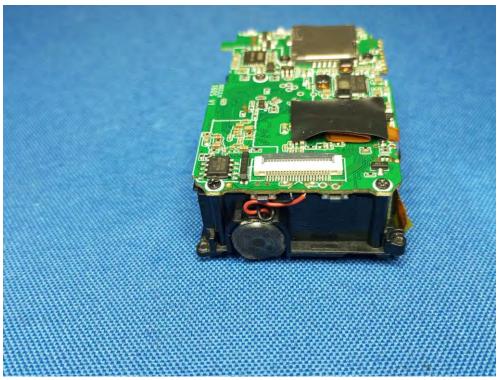
Page 91 of 99

Report No.: TW2311227E

Date: 2023-12-08



Inside View





The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report. The SHENZHEN TIMEWAY TESTING LABORATORIES. reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.

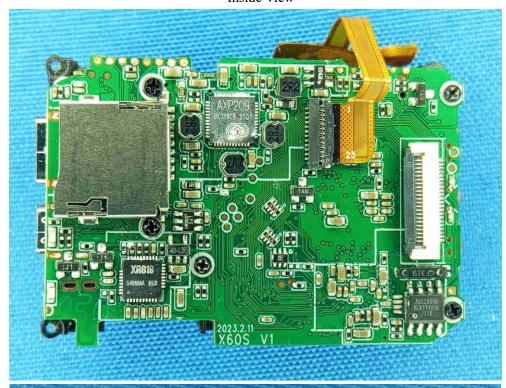
Page 92 of 99

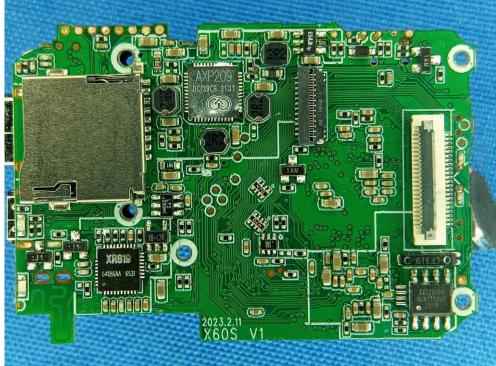
Report No.: TW2311227E

Date: 2023-12-08



Inside View





The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

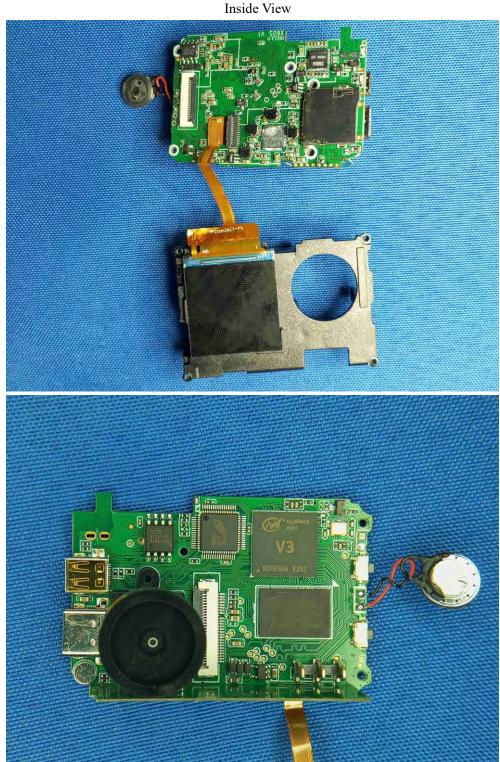
In the event of the improper use of the report. The SHENZHEN TIMEWAY TESTING LABORATORIES. reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.

Page 93 of 99

Report No.: TW2311227E

Date: 2023-12-08





The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report. The SHENZHEN TIMEWAY TESTING LABORATORIES. reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.

Page 94 of 99

Report No.: TW2311227E

Date: 2023-12-08



Inside View



The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report. The SHENZHEN TIMEWAY TESTING LABORATORIES. reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.

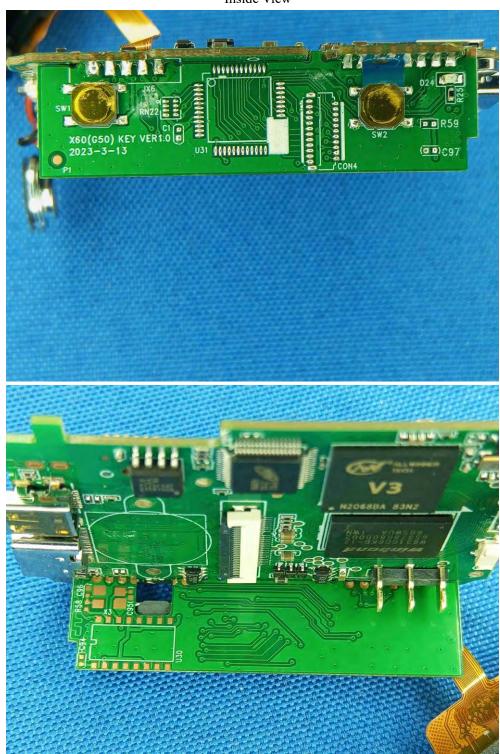
Page 95 of 99

Report No.: TW2311227E

Date: 2023-12-08



Inside View



The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report. The SHENZHEN TIMEWAY TESTING LABORATORIES. reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.

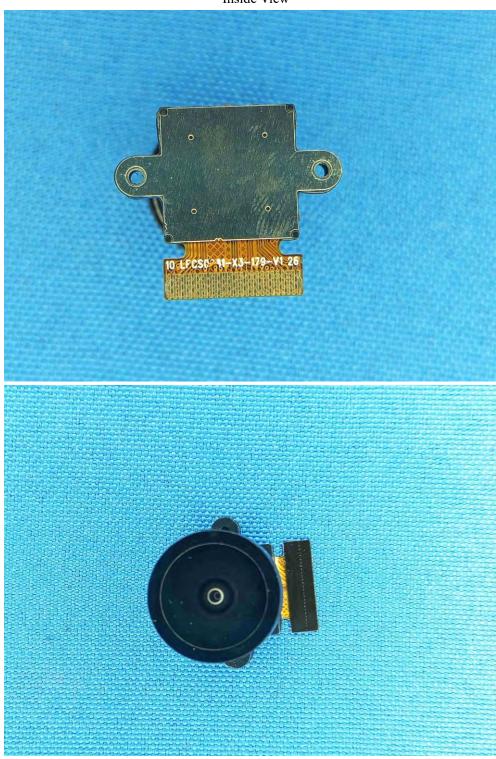
Page 96 of 99

Report No.: TW2311227E

Date: 2023-12-08



Inside View



The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

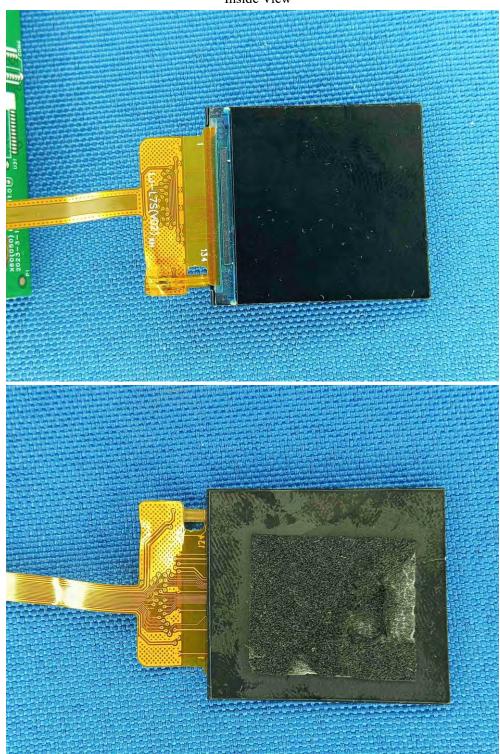
In the event of the improper use of the report. The SHENZHEN TIMEWAY TESTING LABORATORIES. reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.

Report No.: TW2311227E Page 97 of 99

Date: 2023-12-08



Inside View



The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report. The SHENZHEN TIMEWAY TESTING LABORATORIES. reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.

Page 98 of 99

Report No.: TW2311227E

Date: 2023-12-08



Inside View





The report refers only to the sample tested and does not apply to the bulk.

This report is issued in confidence to the client and it will be strictly treated as such by the SHENZHEN TIMEWAY TESTING LABORATORIES. It may not be reproduced rather in its entirety or in part and it may not be used for adverting. The client to whom the report is issued may, however, show or send it . or a certified copy there of prepared by the SHENZHEN TIMEWAY TESTING LABORATORIES. to his customer. Supplier or others persons directly concerned. SHENZHEN TIMEWAY TESTING LABORATORIES. will not, without the consent of the client enter into any discussion of correspondence with any third party concerning the contents of the report.

In the event of the improper use of the report. The SHENZHEN TIMEWAY TESTING LABORATORIES. reserves the rights to withdraw it and to adopt any other remedies which may be appropriate.

Page 99 of 99 Report No.: TW2311227E

Date: 2023-12-08



Inside View



-End of the report-