

FCC/IC REPORT (WIFI)

Applicant: AceAge Inc.
Address of Applicant: 26 Ontario Street, Suite 109 Guelph, Ontario, Canada N1E7K1

Equipment Under Test (EUT)

Product Name: Karie Connectivity Module
Model No.: AceAge1A, AceAge1B, AceAge1C, AceAge1D, AceAge2A, AceAge2B, AceAge2C, AceAge2D
Trade mark: AceAge
FCC ID: 2AQKR-P001R1
Canada IC: 24087-P001R1
Applicable standards: FCC CFR Title 47 Part 15 Subpart C Section 15.247
RSS-Gen Issue 5 March 2019 Amendment 1
RSS-247 Issue 2, February 2017
Date of sample receipt: 12 Nov., 2019
Date of Test: 13 Nov., to 22 Nov., 2019
Date of report issued: 10 Dec., 2019
Test Result: PASS *

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

Authorized Signature:



Bruce Zhang
Laboratory Manager

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 and does not permit the use of the CCIS product certification mark. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

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2 Version

Version No.	Date	Description
00	10 Dec., 2019	Original

Remark: This report was amended on FCC ID: 2AQKR-P001R1 follow FCC Class II Permissive Change. The differences between them as below: Update DDR SDRAM and Flash Memory merchants, update Power connector and power cable, added model AceAge1B, AceAge1C, AceAge1D, AceAge2A, AceAge2B, AceAge2C, AceAge2D. So Radiated Emission Below 1GHz has been retested.

Tested by:

Mike.Ou

Date:

10 Dec., 2019

Test Engineer

Reviewed by:

Winner Zhang

Date:

10 Dec., 2019

Project Engineer

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4 Test Summary

Test Items	Section		Result
	FCC	IC	
Antenna Requirement	15.203/15.247 (c)	/	Pass*
AC Power Line Conducted Emission	15.207	RSS-GEN Section 8.8	N/A
Conducted Peak Output Power	15.247 (b)(3)	RSS-247 Section 5.4 (d)	Pass*
6dB Emission Bandwidth 99% Occupied Bandwidth	15.247 (a)(2)	RSS-247 Section 5.2 (a)	Pass*
Power Spectral Density	15.247 (e)	RSS-247 Section 5.2 (b)	Pass*
Band Edge	15.247(d)	RSS-GEN Section 8.10 RSS-247 Section 5.5	Pass*
Conducted and Radiated Spurious Emission	15.205/15.209	RSS-GEN Section 6.13 RSS-247 Section 5.5	Pass

Pass: The EUT complies with the essential requirements in the standard.

Pass: please refer to the FCC ID: 2AQKR-P001R1*

5 General Information

5.1 Client Information

Applicant:	AceAge Inc.
Address:	26 Ontario Street, Suite 109 Guelph, Ontario, Canada N1E7K1
Manufacturer:	AceAge Inc.
Address:	26 Ontario Street, Suite 109 Guelph, Ontario, Canada N1E7K1

5.2 General Description of E.U.T.

Product Name:	Karie Connectivity Module
Model No.:	AceAge1A, AceAge1B, AceAge1C, AceAge1D, AceAge2A, AceAge2B, AceAge2C, AceAge2D
Operation Frequency:	2412MHz~2462MHz (802.11b/802.11g/802.11n(H20)) 2422MHz~2452MHz (802.11n(H40))
Channel numbers:	11 for 802.11b/802.11g/802.11(H20) 7 for 802.11n(H40)
Channel separation:	5MHz
Modulation technology: (IEEE 802.11b)	Direct Sequence Spread Spectrum (DSSS)
Modulation technology: (IEEE 802.11g/802.11n)	Orthogonal Frequency Division Multiplexing(OFDM)
Data speed (IEEE 802.11b):	1Mbps, 2Mbps, 5.5Mbps, 11Mbps
Data speed (IEEE 802.11g):	6Mbps, 9Mbps, 12Mbps, 18Mbps, 24Mbps, 36Mbps, 48Mbps, 54Mbps
Data speed (IEEE 802.11n):	Up to 150Mbps
Antenna Type:	Internal Antenna
Antenna gain:	0.53dBi
Power supply:	DC 4.2V
Remark:	Model No.: AceAge1A, AceAge1B, AceAge1C, AceAge1D, AceAge2A, AceAge2B, AceAge2C, AceAge2D were identical inside, the electrical circuit design, layout, components used and internal wiring. They only differences is Model Name

Operation Frequency each of channel for 802.11b/g/n(H20)							
Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
1	2412MHz	4	2427MHz	7	2442MHz	10	2457MHz
2	2417MHz	5	2432MHz	8	2447MHz	11	2462MHz
3	2422MHz	6	2437MHz	9	2452MHz		

Note:

- For 802.11n-HT40 mode, the channel number is from 3 to 9;
- Channel 1, 6 & 11 selected for 802.11b/g/n-HT20 as Lowest, Middle and Highest channel, Channel; 3, 6 & 9 selected for 802.11n-HT40 as Lowest, Middle and Highest channel.

5.3 Test environment and test mode

Operating Environment:	
Temperature:	24.0 °C
Humidity:	54 % RH
Atmospheric Pressure:	1010 mbar
Test mode:	
Transmitting mode	Keep the EUT in continuous transmitting with modulation
<p>The sample was placed 0.8m (below 1GHz)/1.5m (above 1GHz) above the ground plane of 3m chamber. Measurements in both horizontal and vertical polarities were performed. During the test, each emission was maximized by: having the EUT continuously working, investigated all operating modes, rotated about all 3 axis (X, Y & Z) and considered typical configuration to obtain worst position, manipulating interconnecting cables, rotating the turntable, varying antenna height from 1m to 4m in both horizontal and vertical polarizations. The emissions worst-case are shown in Test Results of the following pages.</p> <p>We have verified the construction and function in typical operation. All the test modes were carried out with the EUT in transmitting operation, which was shown in this test report and defined as follows:</p>	
Per-scan all kind of data rate, the follow list were the worst case.	
Mode	Data rate
802.11b	1Mbps
802.11g	6Mbps
802.11n(H20)	6.5Mbps
802.11n(H40)	13.5Mbps

5.4 Description of Support Units

The EUT has been tested as an independent unit.

5.5 Measurement Uncertainty

Parameters	Expanded Uncertainty
Conducted Emission (9kHz ~ 30MHz)	±2.22 dB (k=2)
Radiated Emission (9kHz ~ 30MHz)	±2.76 dB (k=2)
Radiated Emission (30MHz ~ 1000MHz)	±4.32 dB (k=2)
Radiated Emission (1GHz ~ 18GHz)	±5.72 dB (k=2)
Radiated Emission (18GHz ~ 40GHz)	±2.88 dB (k=2)

5.6 Laboratory Facility

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

- **FCC - Registration No.: CN1211**

Shenzhen Zhongjian Nanfang Testing Co., Ltd. has been accredited as a testing laboratory by FCC (Federal Communications Commission). The Registration No. is 727551.

- **IC - Registration No.: CN0021**

The 3m Semi-anechoic chamber of Shenzhen Zhongjian Nanfang Testing Co., Ltd. has been Registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 10106A-1.

- **CNAS - Registration No.: CNAS L6048**

Shenzhen Zhongjian Nanfang Testing Co., Ltd. is accredited to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration laboratories for the competence of testing. The Registration No. is CNAS L6048.

- **A2LA - Registration No.: 4346.01**

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 General requirements for the competence of testing and calibration laboratories. The test scope can be found as below link: <https://portal.a2la.org/scopepdf/4346-01.pdf>

5.7 Laboratory Location

Shenzhen Zhongjian Nanfang Testing Co., Ltd.

Address: No. B-C, 1/F., Building 2, Laodong No.2 Industrial Park, Xixiang Road,

Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755-23118282, Fax: +86-755-23116366

Email: info@ccis-cb.com, Website: <http://www.ccis-cb.com>


5.8 Test Instruments list

Radiated Emission:					
Test Equipment	Manufacturer	Model No.	Serial No.	Cal. Date (mm-dd-yy)	Cal. Due date (mm-dd-yy)
3m SAC	SAEMC	9m*6m*6m	966	07-22-2017	07-21-2020
Loop Antenna	SCHWARZBECK	FMZB1519B	00044	03-18-2019	03-17-2020
BiConiLog Antenna	SCHWARZBECK	VULB9163	497	03-18-2019	03-17-2020
Horn Antenna	SCHWARZBECK	BBHA9120D	916	03-18-2019	03-17-2020
Horn Antenna	SCHWARZBECK	BBHA9120D	1805	06-22-2017	06-21-2020
Horn Antenna	SCHWARZBECK	BBHA 9170	BBHA9170582	11-21-2018	11-20-2019
EMI Test Software	AUDIX	E3	Version: 6.110919b		
Pre-amplifier	HP	8447D	2944A09358	03-18-2019	03-17-2020
Pre-amplifier	CD	PAP-1G18	11804	03-18-2019	03-17-2020
Spectrum analyzer	Rohde & Schwarz	FSP30	101454	03-18-2019	03-17-2020
Spectrum analyzer	Rohde & Schwarz	FSP40	100363	11-21-2018	11-20-2019
EMI Test Receiver	Rohde & Schwarz	ESRP7	101070	03-18-2019	03-17-2020
Cable	ZDECL	Z108-NJ-NJ-81	1608458	03-18-2019	03-17-2020
Cable	MICRO-COAX	MFR64639	K10742-5	03-18-2019	03-17-2020
Cable	SUHNER	SUCOFLEX100	58193/4PE	03-18-2019	03-17-2020
RF Switch Unit	MWRFTTEST	MW200	N/A	N/A	N/A
Test Software	MWRFTTEST	MTS8200	Version: 2.0.0.0		

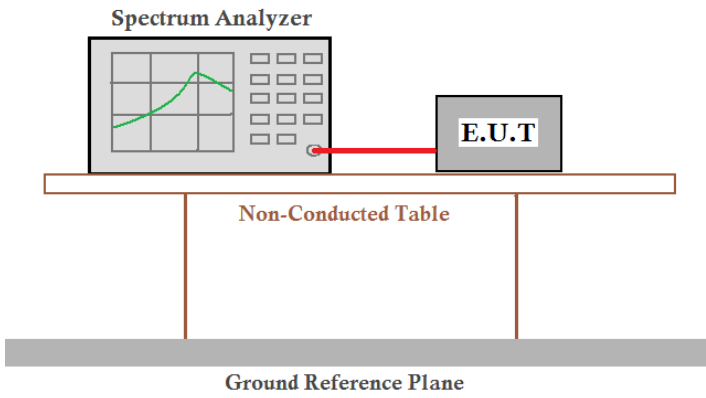
Conducted Emission:					
Test Equipment	Manufacturer	Model No.	Serial No.	Cal. Date (mm-dd-yy)	Cal. Due date (mm-dd-yy)
EMI Test Receiver	Rohde & Schwarz	ESCI	101189	03-07-2018	03-06-2019
Pulse Limiter	SCHWARZBECK	OSRAM 2306	9731	03-07-2018	03-06-2019
LISN	CHASE	MN2050D	1447	03-19-2018	03-18-2019
LISN	Rohde & Schwarz	ESH3-Z5	8438621/010	07-21-2017	07-20-2018
Cable	HP	10503A	N/A	03-07-2018	03-06-2019
EMI Test Software	AUDIX	E3	6.110919b	N/A	N/A

6 Test results and Measurement Data

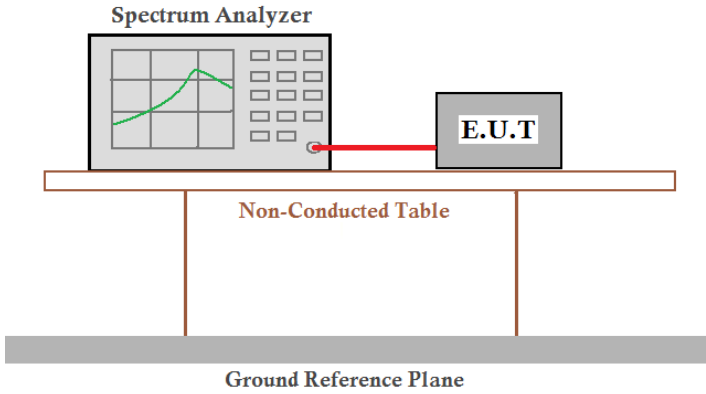
6.1 Antenna requirement

Standard requirement:	FCC Part 15 C Section 15.203 /247(c)
<p>15.203 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, 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.</p> <p>15.247(c) (1)(i) requirement: (i) Systems operating in the 2400-2483.5 MHz band that is used exclusively for fixed. Point-to-point operations may employ transmitting antennas with directional gain greater than 6dBi provided the maximum conducted output power of the intentional radiator is reduced by 1 dB for every 3 dB that the directional gain of the antenna exceeds 6dBi.</p>	
E.U.T Antenna:	
<p>The WiFi antenna is an internal antenna which cannot replace by end-user, the best case gain of the antenna is 0.53 dBi.</p>	
	

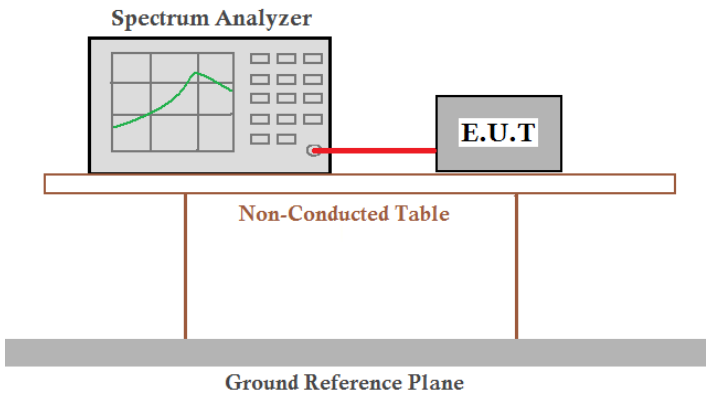
6.2 Conducted Output Power

Test Requirement:	FCC Part 15 C Section 15.247 (b)(3) RSS-247 section 5.4(d)
Test Method:	ANSI C63.10:2013 and KDB558074
Limit:	30dBm
Test setup:	 <p>The diagram illustrates the test setup. A Spectrum Analyzer is connected to an E.U.T. (Equipment Under Test) via a red cable. Both are placed on a Non-Conducted Table, which is supported by a Ground Reference Plane.</p>
Test Instruments:	Refer to section 5.8 for details
Test mode:	Refer to section 5.3 for details
Test results:	Pass*, Refer to the FCC ID: 2AQKR-P001R1

6.3 Occupy Bandwidth

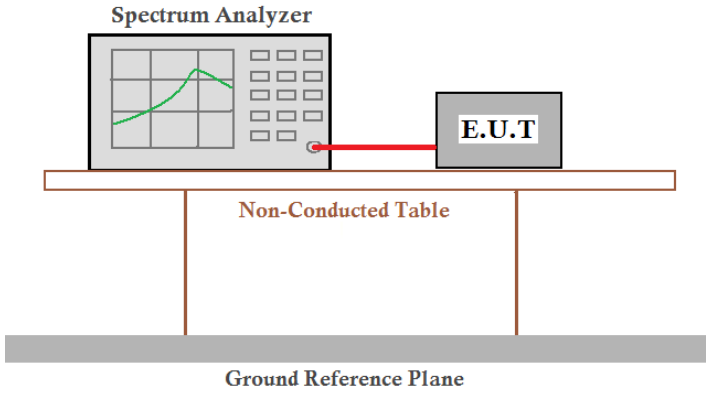
Test Requirement:	FCC Part 15 C Section 15.247 (a)(2) RSS-247 section 5.2(a)
Test Method:	ANSI C63.10:2013 and KDB558074
Limit:	>500kHz
Test setup:	 <p>The diagram illustrates the test setup. A Spectrum Analyzer is connected to an E.U.T. (Equipment Under Test) via a red cable. Both the Spectrum Analyzer and the E.U.T. are placed on a Non-Conducted Table. The table is supported by two vertical legs and sits on a Ground Reference Plane.</p>
Test Instruments:	Refer to section 5.8 for details
Test mode:	Refer to section 5.3 for details
Test results:	Pass*, Refer to the FCC ID: 2AQKR-P001R1

6.4 Power Spectral Density

Test Requirement:	FCC Part 15 C Section 15.247 (e) RSS-247 section 5.2(b)
Test Method:	ANSI C63.10:2013 and KDB558074
Limit:	8dBm
Test setup:	 <p>The diagram illustrates the test setup. A Spectrum Analyzer is connected to an E.U.T. (Equipment Under Test) via a red cable. Both the Spectrum Analyzer and the E.U.T. are placed on a Non-Conducted Table. The table is supported by a Ground Reference Plane.</p>
Test Instruments:	Refer to section 5.8 for details
Test mode:	Refer to section 5.3 for details
Test results:	Pass*, Refer to the FCC ID: 2AQKR-P001R1

6.5 Band Edge

6.5.1 Conducted Emission Method

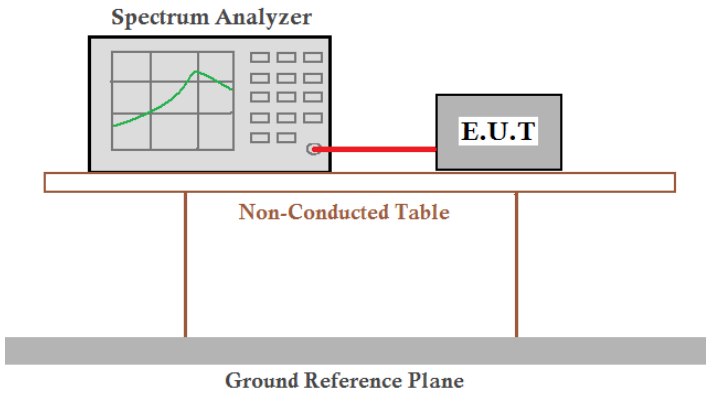
Test Requirement:	FCC Part 15 C Section 15.247 (d) RSS-247 section 5.5
Test Method:	ANSI C63.10:2013 and KDB558074
Limit:	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 30 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement.
Test setup:	 <p>The diagram illustrates the test setup. A Spectrum Analyzer is connected to an E.U.T. (Equipment Under Test) via a red cable. Both are placed on a Non-Conducted Table, which is supported by a Ground Reference Plane.</p>
Test Instruments:	Refer to section 5.8 for details
Test mode:	Refer to section 5.3 for details
Test results:	Pass*, Refer to the FCC ID: 2AQKR-P001R1

6.5.2 Radiated Emission Method

Test Requirement:	FCC Part 15 C Section 15.209 and 15.205 RSS-GEN section 8.10				
Test Method:	ANSI C63.10: 2013 and KDB558074				
Test Frequency Range:	2.3GHz to 2.5GHz				
Test Distance:	3m				
Receiver setup:	Frequency	Detector	RBW	VBW	Remark
	Above 1GHz	Peak	1MHz	3MHz	Peak Value
		RMS	1MHz	3MHz	Average Value
Limit:	Frequency	Limit (dBuV/m @3m)		Remark	
	Above 1GHz	54.00		Average Value	
		74.00		Peak Value	
Test Procedure:	<ol style="list-style-type: none"> 1. The EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation. 2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. 3. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. 4. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading. 5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. 6. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet. 				
Test setup:					
Test Instruments:	Refer to section 5.8 for details				
Test mode:	Refer to section 5.3 for details				
Test results:	Pass*, Refer to the FCC ID: 2AQKR-P001R1				

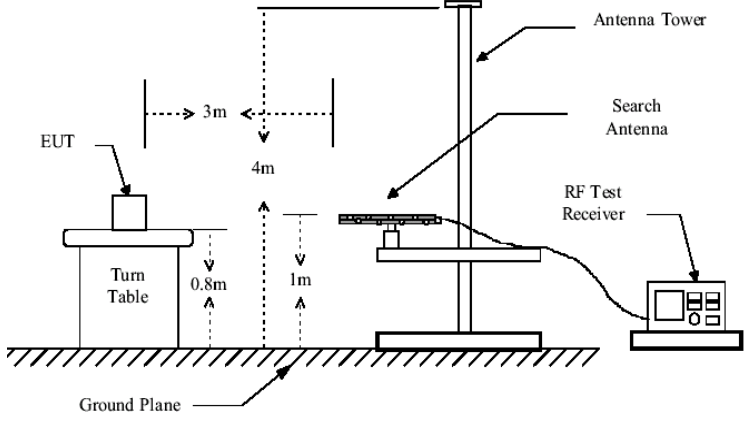
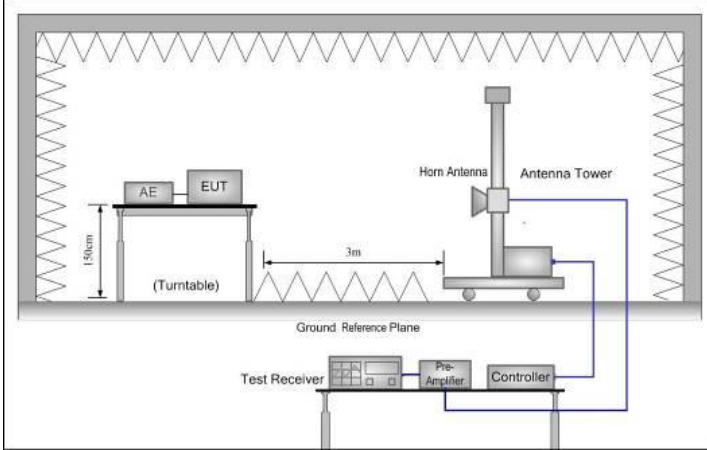
6.6 Spurious Emission

6.6.1 Conducted Emission Method

Test Requirement:	FCC Part 15 C Section 15.247 (d) RSS-247 section 5.5
Test Method:	ANSI C63.10:2013 and KDB558074
Limit:	In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph(b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB.
Test setup:	 <p>The diagram illustrates the test setup. A Spectrum Analyzer is connected to an E.U.T. (Equipment Under Test) via a red cable. Both the Spectrum Analyzer and the E.U.T. are placed on a Non-Conducted Table. The table is supported by a Ground Reference Plane.</p>
Test Instruments:	Refer to section 5.8 for details
Test mode:	Refer to section 5.3 for details
Test results:	Pass*, Refer to the FCC ID: 2AQKR-P001R1

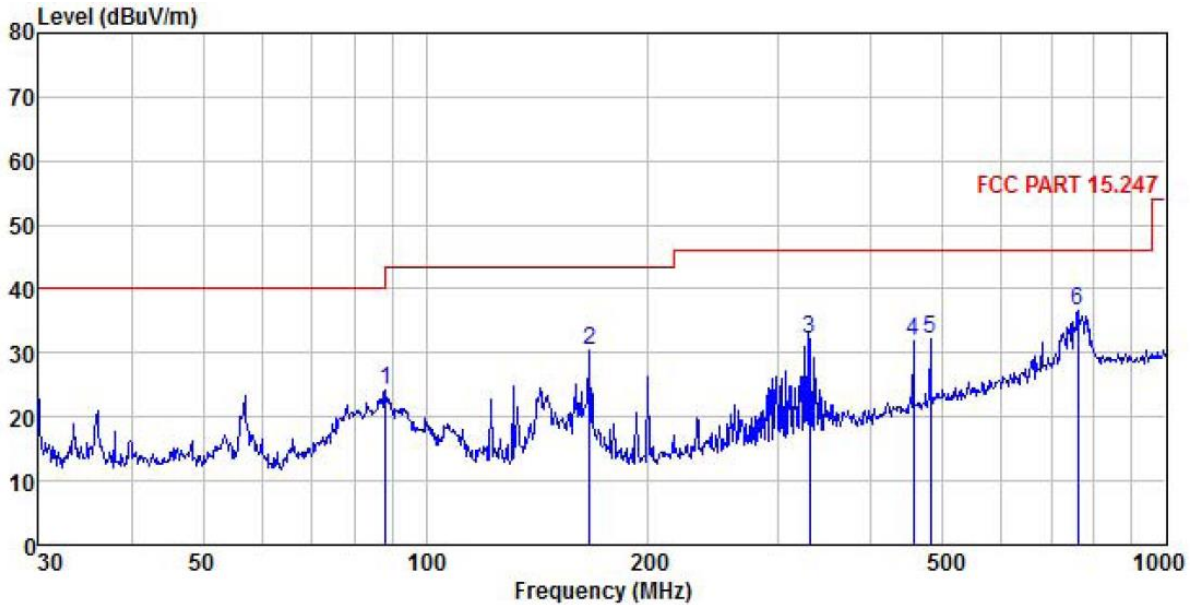
6.6.2 Radiated Emission Method

Test Requirement:	FCC Part 15 C Section 15.209 and 15.205 RSS-Gen section 6.13				
Test Method:	ANSI C63.10:2013				
Test Frequency Range:	9kHz to 25GHz				
Test Distance:	3m				
Receiver setup:	Frequency	Detector	RBW	VBW	Remark
	30MHz-1GHz	Quasi-peak	120KHz	300KHz	Quasi-peak Value
	Above 1GHz	Peak	1MHz	3MHz	Peak Value
RMS		1MHz	3MHz	Average Value	
Limit:	Frequency	Limit (dBuV/m @3m)		Remark	
	30MHz-88MHz	40.0		Quasi-peak Value	
	88MHz-216MHz	43.5		Quasi-peak Value	
	216MHz-960MHz	46.0		Quasi-peak Value	
	960MHz-1GHz	54.0		Quasi-peak Value	
Above 1GHz	54.0		Average Value		
	74.0		Peak Value		
Test Procedure:	<ol style="list-style-type: none"> The EUT was placed on the top of a rotating table 0.8m(below 1GHz)/1.5m(above 1GHz) above the ground at a 3 meter chamber. The table was rotated 360 degrees to determine the position of the highest radiation. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet. 				
Test setup:	Below 1GHz				

	 <p>Above 1GHz</p> 
<p>Test Instruments:</p>	<p>Refer to section 5.8 for details</p>
<p>Test mode:</p>	<p>Refer to section 5.3 for details</p>
<p>Test results:</p>	<p>Passed</p>
<p>Remark:</p>	<ol style="list-style-type: none"> 1. Pre-scan all kind of the place mode (X-axis, Y-axis, Z-axis), and found the Y-axis is the worst case. 2. 9 kHz to 30MHz is too low, so only shows the data of above 30MHz in this report.

Below 1GHz:

Product Name:	Karie Connectivity Module	Product Model:	ACEAGE1A
Test By:	Mike	Test mode:	Wi-Fi Tx mode
Test Frequency:	30 MHz ~ 1 GHz	Polarization:	Vertical
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24°C Humi: 57%

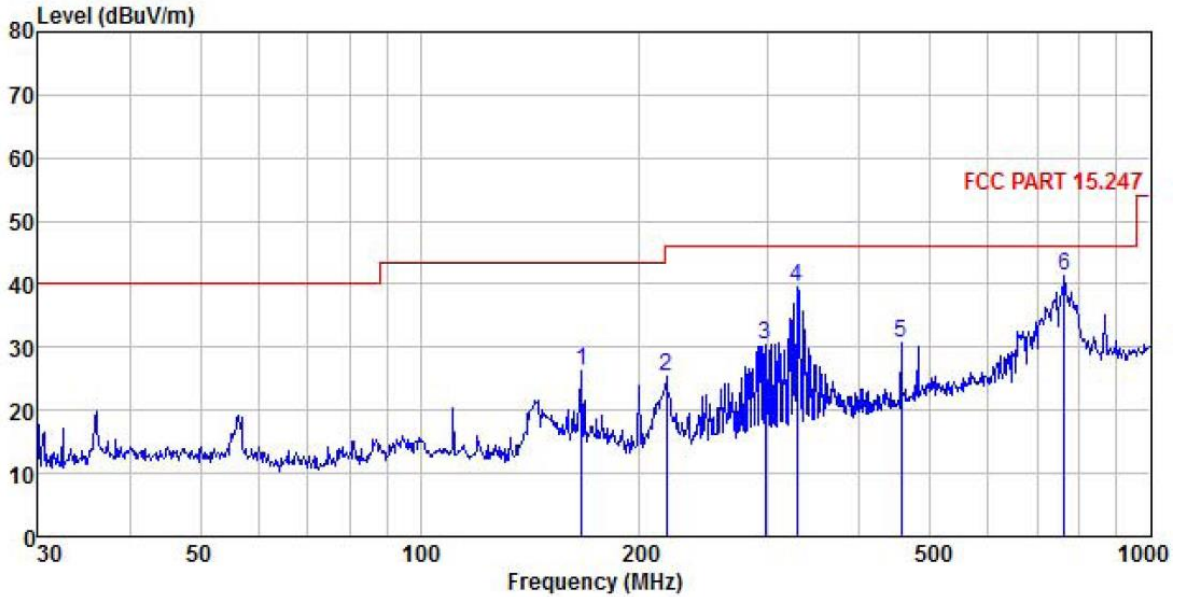


	ReadAntenna	Cable Preamp	Limit	Over					
Freq	Level	Loss	Line	Limit	Remark				
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	88.342	42.14	9.54	2.00	29.58	24.10	43.50	-19.40	QP
2	166.651	47.46	9.52	2.64	29.08	30.54	43.50	-12.96	QP
3	330.195	43.52	14.22	3.04	28.52	32.26	46.00	-13.74	QP
4	455.906	40.87	16.70	3.25	28.88	31.94	46.00	-14.06	QP
5	480.528	40.06	17.52	3.46	28.92	32.12	46.00	-13.88	QP
6	760.704	39.69	20.83	4.36	28.42	36.46	46.00	-9.54	QP

Remark:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Pre-amplifier Factor.
2. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product Name:	Karie Connectivity Module	Product Model:	ACEAGE1A
Test By:	Mike	Test mode:	Wi-Fi Tx mode
Test Frequency:	30 MHz ~ 1 GHz	Polarization:	Horizontal
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24°C Humi: 57%

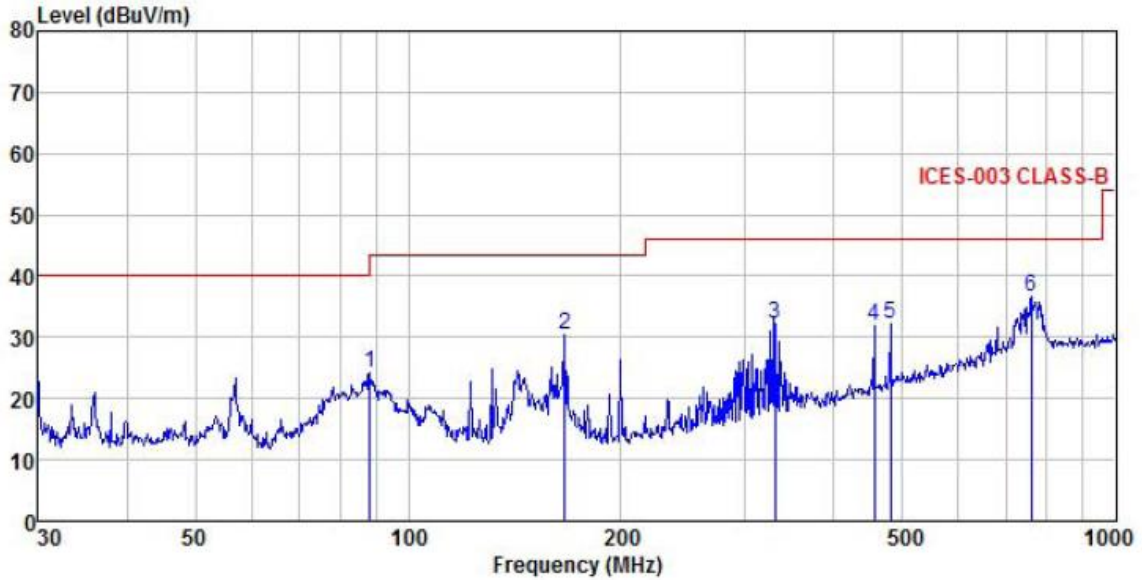


	ReadAntenna	Cable	Preamp	Limit	Over			
Freq	Level	Factor	Loss	Factor	Level	Line	Limit	Remark
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB	
1	166.651	43.33	9.52	2.64	29.08	26.41	43.50	-17.09 QP
2	217.544	39.80	11.39	2.85	28.72	25.32	46.00	-20.68 QP
3	297.224	42.28	13.56	2.93	28.46	30.31	46.00	-15.69 QP
4	327.887	50.84	14.17	3.03	28.51	39.53	46.00	-6.47 QP
5	455.906	39.50	16.70	3.25	28.88	30.57	46.00	-15.43 QP
6	763.376	44.45	20.88	4.36	28.40	41.29	46.00	-4.71 QP

Remark:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Pre-amplifier Factor.
2. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product Name:	Karie Connectivity Module	Product Model:	ACEAGE1A
Test By:	Mike	Test mode:	Wi-Fi Tx mode
Test Frequency:	30 MHz ~ 1 GHz	Polarization:	Vertical
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24°C Humi: 57%

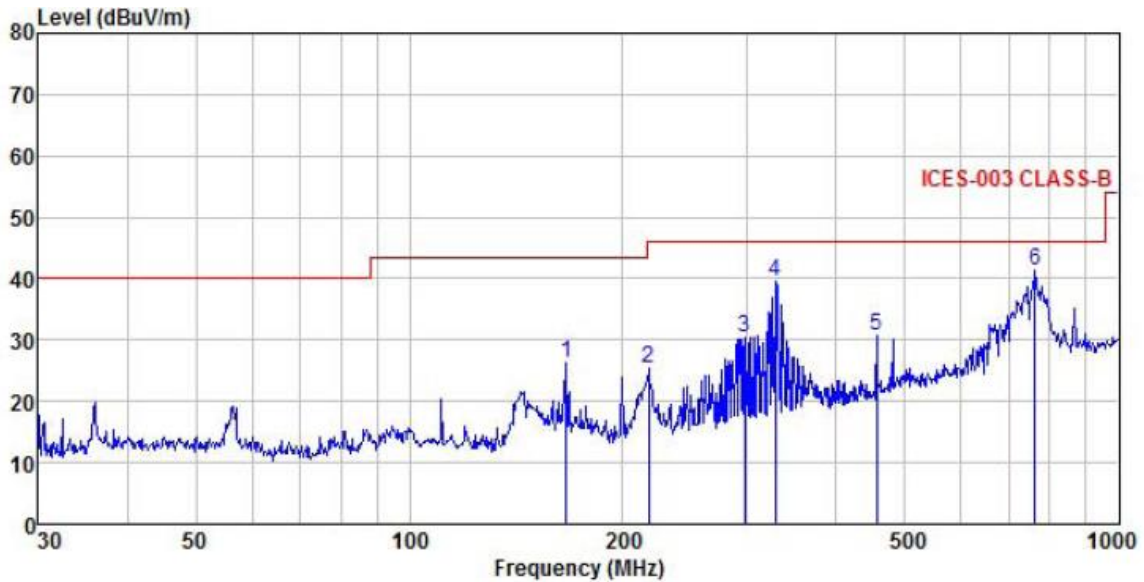


	ReadAntenna	Cable Preamp	Limit	Over					
Freq	Level	Loss	Line	Limit	Remark				
MHz	dBuV	dB/m	dB	dB	dBuV/m	dBuV/m	dB		
1	88.342	42.14	9.54	2.00	29.58	24.10	43.50	-19.40	QP
2	166.651	47.46	9.52	2.64	29.08	30.54	43.50	-12.96	QP
3	330.195	43.52	14.22	3.04	28.52	32.26	46.00	-13.74	QP
4	455.906	40.87	16.70	3.25	28.88	31.94	46.00	-14.06	QP
5	480.528	40.06	17.52	3.46	28.92	32.12	46.00	-13.88	QP
6	760.704	39.69	20.83	4.36	28.42	36.46	46.00	-9.54	QP

Remark:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Pre-amplifier Factor.
2. The emission levels of other frequencies are very lower than the limit and not show in test report.

Product Name:	Karie Connectivity Module	Product Model:	ACEAGE1A
Test By:	Mike	Test mode:	Wi-Fi Tx mode
Test Frequency:	30 MHz ~ 1 GHz	Polarization:	Horizontal
Test Voltage:	AC 120/60Hz	Environment:	Temp: 24°C Humi: 57%



	ReadAntenna	Cable Preamp	Limit	Over					
Freq	Level Factor	Loss Factor	Line	Limit	Remark				
MHz	dBuV	dB/m	dB	dB	dBuV/m				
1	166.651	43.33	9.52	2.64	29.08	26.41	43.50	-17.09	QP
2	217.544	39.80	11.39	2.85	28.72	25.32	46.00	-20.68	QP
3	297.224	42.28	13.56	2.93	28.46	30.31	46.00	-15.69	QP
4	327.887	50.84	14.17	3.03	28.51	39.53	46.00	-6.47	QP
5	455.906	39.50	16.70	3.25	28.88	30.57	46.00	-15.43	QP
6	763.376	44.45	20.88	4.36	28.40	41.29	46.00	-4.71	QP

Remark:

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss – Pre-amplifier Factor.
2. The emission levels of other frequencies are very lower than the limit and show in test report.

Above 1GHz

Pass*, Refer to the FCC ID: 2AQKR-P001R1

8 EUT Constructional Details

Reference to the test report No.CCISE191108001

-----End of report-----