

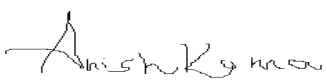
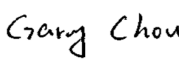
# RF TEST REPORT



**Report No.:** FCC\_IC\_SL17060101-SEV-037-Co-location  
**Supersede Report No.:**

FCC Applicant	:	Icom Incorporated
IC Applicant	:	Icom Canada Inc
Product Name	:	IP Advanced Radio System
Model No.	:	IP501H
Test Standard	:	47CFR§15.209 RSS Gen Iss 4: Nov 2014
Test Method	:	ANSI C63.10: 2013 RSS Gen Iss 4: Nov 2014
FCC ID	:	AFJ37400
IC ID	:	202D-374000
Dates of test	:	10/12/2017
Issue Date	:	10/17/2017
Test Result	:	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail
Equipment complied with the specification [X] Equipment did not comply with the specification [ ]		

This Test Report is Issued Under the Authority of:

	
<b>Anish Kumar</b>	<b>Gary Chou</b>
Test Engineer	Engineering Reviewer

**Issued By:**  
**SIEMIC Laboratories**  
**775 Montague Expressway, Milpitas, 95035 CA**



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## Laboratory Introduction

SIEMIC, headquartered in the heart of Silicon Valley, with superior facilities in US and Asia, is one of the leading independent testing and certification facilities providing customers with one-stop shop services for Compliance Testing and Global Certifications.



In addition to testing and certification, SIEMIC provides initial design reviews and compliance management throughout a project. Our extensive experience with China, Asia Pacific, North America, European, and International compliance requirements, assures the fastest, most cost effective way to attain regulatory compliance for the global markets.

### Accreditations for Conformity Assessment

Country/Region	Accreditation Body	Scope
USA	FCC, A2LA	EMC, RF/Wireless, Telecom
Canada	IC, A2LA, NIST	EMC, RF/Wireless, Telecom
Taiwan	BSMI, NCC, NIST	EMC, RF, Telecom, Safety
Hong Kong	OFTA, NIST	RF/Wireless, Telecom
Australia	NATA, NIST	EMC, RF, Telecom, Safety
Korea	KCC/RRR, NIST	EMI, EMS, RF, Telecom, Safety
Japan	VCCI, JATE, TELEC, RFT	EMI, RF/Wireless, Telecom
Mexico	NOM, COFETEL, Caniety	Safety, EMC, RF/Wireless, Telecom
Europe	A2LA, NIST	EMC, RF, Telecom, Safety
Israel	MOC, NIST	EMC, RF, Telecom, Safety

### Accreditations for Product Certifications

Country	Accreditation Body	Scope
USA	FCC TCB, NIST	EMC, RF, Telecom
Canada	IC FCB, NIST	EMC, RF, Telecom
Singapore	iDA, NIST	EMC, RF, Telecom
EU	NB	EMC & R&TTE Directive
Japan	MIC (RCB 208)	RF, Telecom
Hong Kong	OFTA (US002)	RF, Telecom

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## 1 Report Revision History

Report No.	Report Version	Description	Issue Date
FCC_IC_SL17060101-SEV-037-Co-location	None	Original	10/17/2017

## 2 Executive Summary

The purpose of this test program was to demonstrate compliance of following product

Company: Icom  
Product: IP Advanced Radio System  
Model: IP501H

against the current Stipulated Standards. The specified model product stated above has demonstrated compliance with the Stipulated Standard listed on 1<sup>st</sup> page.

## 3 Customer information

FCC

Applicant Name	:	Icom Incorporated
Applicant Address	:	1-1-32 Kamiminami Hirano-ku, Osaka Japan 547-0003 Japan
Manufacturer Name	:	Icom Incorporated
Manufacturer Address	:	1-1-32 Kamiminami Hirano-ku, Osaka Japan 547-0003 Japan

IC

Applicant Name	:	Icom Canada Inc
Applicant Address	:	Delta, BC, V4K5B8 150-6165 Hwy 17A
Manufacturer Name	:	Icom Canada Inc
Manufacturer Address	:	Delta, BC, V4K5B8 150-6165 Hwy 17A

## 4 Test site information

Lab performing tests	SIEMIC Laboratories
Lab Address	775 Montague Expressway, Milpitas, CA 95035
FCC Test Site No.	881796
IC Test Site No.	4842D-2
VCCI Test Site No.	A0133

## 5 Modification

Index	Item	Description	Note
-	-	-	-

## 6 EUT Information

### 6.1 EUT Description

Product Name	:	IP Advanced Radio System
Model No.	:	IP501H
Trade Name	:	Icom
Serial No.	:	0029
Input Power	:	3.7 VDC
Power Adapter Manu/Model	:	N/A
Power Adapter SN	:	N/A
Product Hardware version	:	N/A
Product Software version	:	170707A
Date of EUT received	:	10/02/2017
Equipment Class/ Category	:	DSS
Port/Connectors	:	SMA / IPEX

### 6.2 Radio Description

Spec for BT Radio:

Radio Type	Bluetooth (Ver4.0+EDR)
Operating Frequency	2402MHz-2480MHz
Modulation	FHSS (BDR, EDR)
Channel Spacing	1MHz (BDR, EDR)
Antenna Type	Multilayer Monopole Antenna
Antenna Gain	2.7 dBi
Antenna Connector Type	U.FL

Spec for LTE/ WCDMA Radio:

Item	WCDMA	WCDMA
Operating Band /Radio Type	WCDMA Band II	WCDMA Band V
Bandwidth	3.84MHz	3.84MHz
Modulation	QPSK	QPSK
Tx Frequency Range (MHz)	1850MHz to 1910MHz	824MHz to 849MHz
Rx Frequency Range (MHz)	1930MHz to 1990MHz	869MHz to 894MHz
Antenna Type	Helical whip Antenna	Helical whip Antenna
Antenna Gain	2.95 dBi	1.03 dBi
Antenna Connector Type	SMA	SMA

Item	LTE	LTE
Operating Band /Radio Type	LTE Band II	LTE Band IV
Bandwidth	20 MHz	10 MHz
Modulation	OFDM/OFDMA	OFDM/OFDMA
Tx Frequency Range (MHz)	1850MHz to 1910MHz	1710 MHz to 1755 MHz
Rx Frequency Range (MHz)	1930MHz to 1990MHz	2110 MHz to 2155 MHz
Antenna Type	Helical whip Antenna	Helical whip Antenna
Antenna Gain	2.95 dBi	2.89 dBi
Antenna Connector Type	SMA	SMA

Item	LTE	LTE
Operating Band /Radio Type	LTE Band V	LTE Band L
Bandwidth	10 MHz	10 MHz
Modulation	OFDM/OFDMA	OFDM/OFDMA
Tx Frequency Range (MHz)	824MHz to 849MHz	704 MHz to 716 MHz
Rx Frequency Range (MHz)	869MHz to 894MHz	734 MHz to 746 MHz
Antenna Type	Helical whip Antenna	Helical whip Antenna
Antenna Gain	1.03 dBi	-2.07 dBi
Antenna Connector Type	SMA	SMA

### 6.3 EUT Photos – External

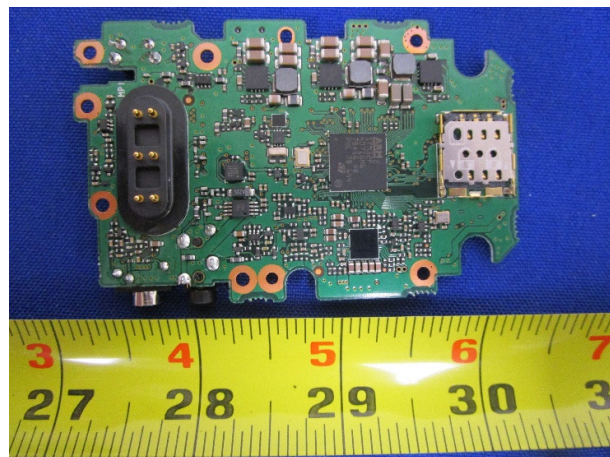




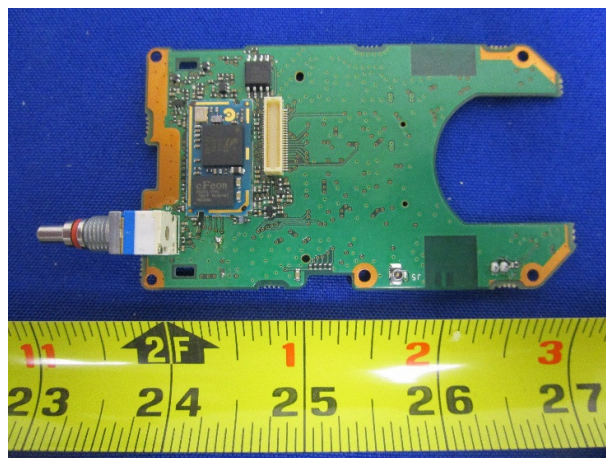
#### 6.4 EUT Photos – Internal



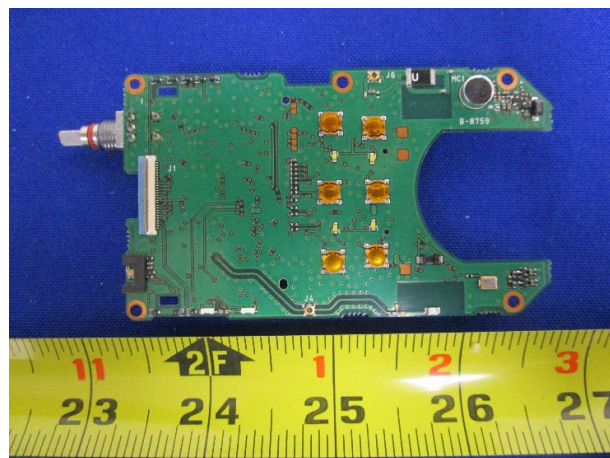
LTE / WCDMA – MODULE Board Top View



LTE / WCDMA – MODULE Board Bottom View

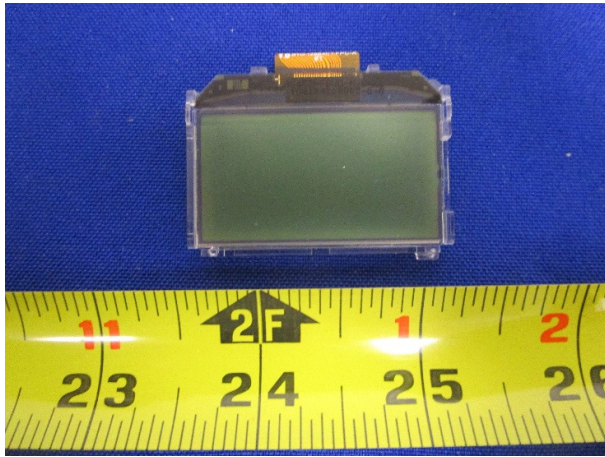


Bluetooth Module Board – Top View

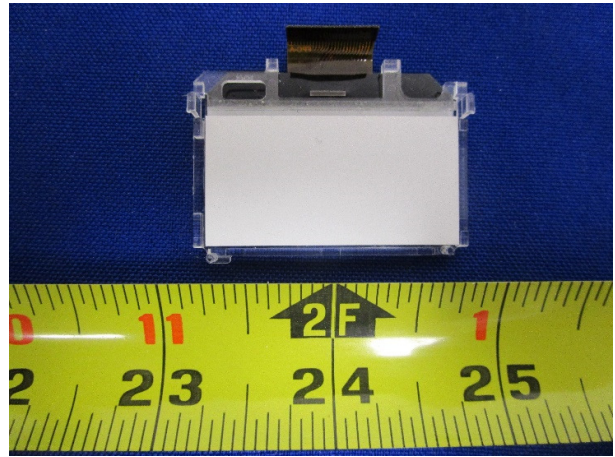


Bluetooth Module Board – Bottom View





**LCD Module Top View**



**LCD Module Bottom View**



**EUT Without Battery View**



**Battery View 1**

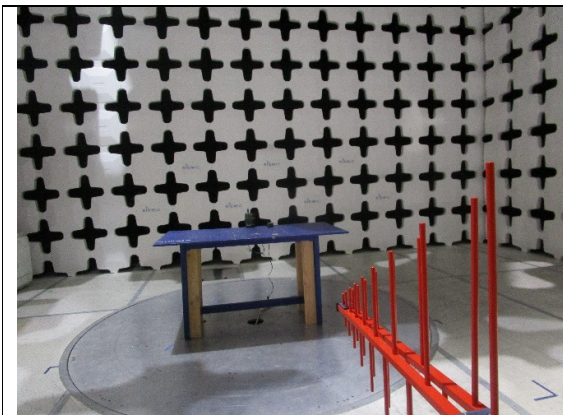


**Battery View 2**

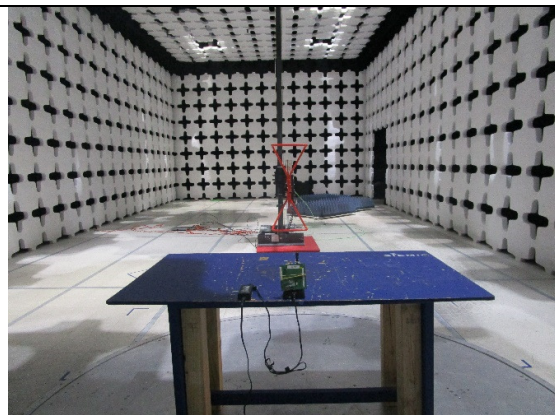


## 6.5 EUT Test Setup Photos

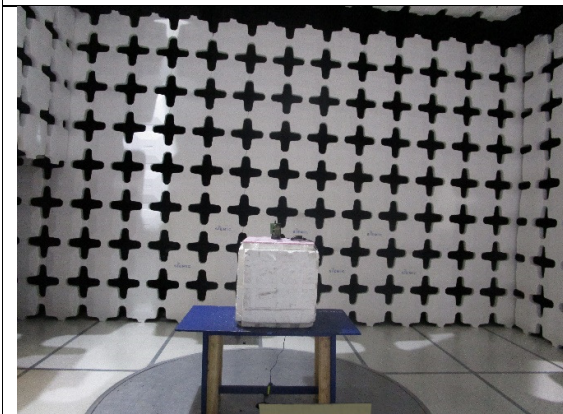
### Bluetooth and LTE/ WCDMA:



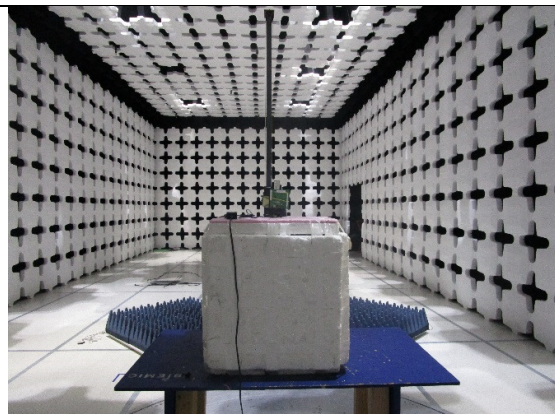
Radiated Emissions (<1GHz) – Front View



Radiated Emissions (<1GHz) – Rear View



Radiated Emissions (>1GHz) – Front View



Radiated Emissions (>1GHz) – Rear View

## 7 Supporting Equipment/Software and cabling Description

### 7.1 Supporting Equipment

Item	Supporting Equipment Description	Model	Serial Number	Manufacturer	Note
1	-	-	-	-	-

### 7.2 Cabling Description

Name	Connection Start		Connection Stop		Length / shielding Info		Note
	From	I/O Port	To	I/O Port	Length (m)	Shielding	
-	-	-	-	-	-	-	-

### 7.3 Test Software Description

Test Item	Software	Description
RF Testing	Putty	Set the EUT to transmit continuously in diferent test mode

## 8 Test Summary

Test Item	Test standard		Test Method/Procedure		Pass / Fail
Restricted Band of Operation	FCC	15.205	FCC	ANSI C63.10:2013	<input type="checkbox"/> Pass
	IC	RSS Gen 8.10	IC	558074 D01 DTS Meas Guidance v04	<input checked="" type="checkbox"/> N/A
AC Conducted Emissions	FCC	15.207(a)	FCC	ANSI C63.10:2013	<input type="checkbox"/> Pass
	IC	RSS Gen 8.8	IC	RSS Gen Issue 4: 2014	<input checked="" type="checkbox"/> N/A

### DTS Band Requirement

Test Item	Test standard		Test Method/Procedure		Pass / Fail
99% Occupied Bandwidth	-	-	-	-	<input type="checkbox"/> Pass
	IC	RSS Gen 6.6	IC	RSS Gen Issue 4: 2014 -	<input checked="" type="checkbox"/> N/A
6dB Bandwidth	FCC	15.247(a)(2)	FCC	558074 D01 DTS Meas Guidance v04	<input type="checkbox"/> Pass
	IC	RSS247 (5.2.1)	IC		<input checked="" type="checkbox"/> N/A
Radiated Spurious Emissions	FCC	15.209	FCC	ANSI C63.10: 2013	<input checked="" type="checkbox"/> Pass
	IC	RSS Gen Iss 4	IC	RSS Gen Iss 4: Nov 2014	<input type="checkbox"/> N/A
Output Power	FCC	15.247(b)	FCC	558074 D01 DTS Meas Guidance v04	<input type="checkbox"/> Pass
	IC	RSS247 (5.4.4)	IC		<input checked="" type="checkbox"/> N/A
Receiver Spurious Emissions	IC	RSS Gen (4.8)	IC	RSS Gen Issue 4: 2014	<input type="checkbox"/> Pass <input checked="" type="checkbox"/> N/A
Antenna Gain > 6 dBi	FCC	15.247(e)	FCC	-	<input type="checkbox"/> Pass
	IC	-	IC	-	<input checked="" type="checkbox"/> N/A
Power Spectral Density	FCC	15.247(e)	FCC	558074 D01 DTS Meas Guidance v04	<input type="checkbox"/> Pass
	IC	RSS247 (5.2.2)	IC		<input checked="" type="checkbox"/> N/A
RF Exposure requirement	FCC	15.247(i)	FCC	-	<input type="checkbox"/> Pass
	IC	RSS Gen(5.5)	IC	RSS Gen Issue 4: 2014	<input checked="" type="checkbox"/> N/A
Remark	<ol style="list-style-type: none"> <li>All measurement uncertainties do not take into consideration for all presented test results.</li> <li>The applicant shall ensure frequency stability by showing that an emission is maintained within the band of operation under all normal operating conditions as specified in the user's manual.</li> </ol>				

## 9 Measurement Uncertainty

### 9.1 Conducted Emissions

The test is to measure the conducted emissions to the mains port of the EUT.

Some error sources that can contribute to the total uncertainty:

- Uncertainty of the receiver
- Uncertainty of the LISN
- Uncertainty of cables
- Uncertainty due to the mismatches
- Etc, see the below table for details

Source of Uncertainty	Value (dB)	Probability Distribution	Division	Sensitivity Coefficient	Expanded Uncertainty
Receiver Reading	0.12	Rectangular	1.732	1	0.069284
Cable Insertion Loss	0.21	Normal	2	1	0.105
Filter Insertion Loss	0.25	Normal	2	1	0.125
LISN Insertion Loss	0.40	Normal	2	1	0.20
Receiver CW accuracy	0.5	Rectangular	1.732	1	0.2886836
Pulse Amplitude Response	1.5	Rectangular	1.732	1	0.86605081
PRF Response	1.5	Rectangular	1.732	1	0.86605081
Mismatch LISN - Receiver	0.25	U-Shape	1.414	1	0.1768033
LISN Impedance	2.5	Triangular	2.449	1	1.0208248
Combined Standard Uncertainty					1.928133
<b>Expanded Uncertainty (K=2)</b>					<b>3.856266</b>

The total derived measurement uncertainty is +/- 3.86 dB.

## 9.2 Radiated Emissions (30MHz to 1GHz)

The test is to measure the radiated emissions of the EUT.

Some error sources that can contribute to the total uncertainty:

- Uncertainty of the receiver
- Uncertainty of the antenna
- Uncertainty of cables
- Uncertainty due to the mismatches
- NSA Calibration
- Etc., details see the below table

Source of Uncertainty	Value (dB)	Probability Distribution	Division	Sensitivity Coefficient	Expanded Uncertainty
Receiver Reading	0.12	Rectangular	1.732	1	0.069284
Cable Insertion Loss	0.21	Normal	2	1	0.105
Filter Insertion Loss	0.25	Normal	2	1	0.125
Antenna Factor	0.65	Normal	2	1	0.325
Receiver CW accuracy	0.5	Rectangular	1.732	1	0.2886836
Pulse Amplitude Response	1.5	Rectangular	1.732	1	0.86605081
PRF Response	1.5	Rectangular	1.732	1	0.86605081
Mismatch Filter - Receiver	0.25	U-Shape	1.414	1	0.1768033
NSA Calibration	4.0	U-Shape	1.414	1	2.8288543
Combined Standard Uncertainty					3.0059131
<b>Expanded Uncertainty (K=2)</b>					<b>6.0118262</b>

The total derived measurement uncertainty is +/- 6.00 dB.

## 9.3 Radiated Emissions (1GHz to 40GHz)

The test is to measure the radiated emissions of the EUT.

Some error sources that can contribute to the total uncertainty:

- Uncertainty of the receiver
- Uncertainty of the antenna
- Uncertainty of cables
- Uncertainty due to the mismatches
- VSWR Calibration
- Etc., details see the below table

Source of Uncertainty	Value (dB)	Probability Distribution	Division	Sensitivity Coefficient	Expanded Uncertainty
Receiver Reading	0.12	Rectangular	1.732	1	0.0692840
Cable Insertion Loss	0.21	Normal	2	1	0.1050000
Filter Insertion Loss	0.25	Normal	2	1	0.1250000
Antenna Factor	0.65	Normal	2	1	0.3250000
Receiver CW accuracy	0.5	Rectangular	1.732	1	0.2886836
Pulse Amplitude Response	1.5	Rectangular	1.732	1	0.8660508
PRF Response	1.5	Rectangular	1.732	1	0.8660508
Mismatch Filter - Receiver	0.25	U-Shape	1.414	1	0.1768033
VSWR Calibration	2.0	U-Shape	1.414	1	1.4144272
Combined Standard Uncertainty					4.2363
<b>Expanded Uncertainty (K=2)</b>					<b>8.4726</b>

The total derived measurement uncertainty is +/- 8.47 dB.

## 9.4 RF conducted measurement

The test is to measure the RF output power from the EUT.

Some error sources that can contribute to the total uncertainty:

- Uncertainty of the Reference Level Uncertainty
- Uncertainty of variable attenuators
- Uncertainty of cables
- Uncertainty due to the mismatches

Source of Uncertainty	Value (dB)	Probability Distribution	Division	Sensitivity Coefficient	Expanded Uncertainty
Reference Level	0.12	Rectangular	1.732	1	0.069284
Cable Insertion Loss	0.21	Normal	2	1	0.105
Attenuator	0.25	Normal	2	1	0.125
Mismatch	0.25	U-Shape	1.414	1	0.1768033
Combined Standard Uncertainty					0.476087
<b>Expanded Uncertainty (K=2)</b>					<b>0.952174</b>

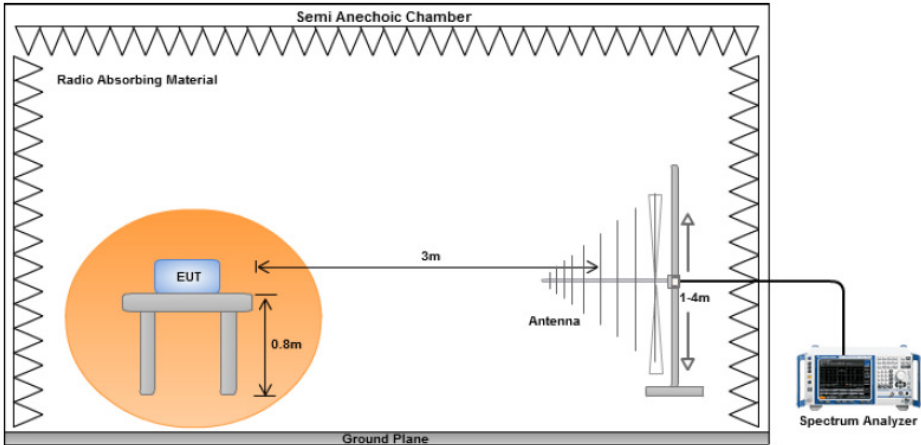
The total derived measurement uncertainty is +/- 0.95 dB.



## 10 Measurements, Examination and Derived Results

### 10.1 Radiated Spurious Emissions below 1GHz

Requirement(s):

Spec	Item	Requirement	Applicable																								
47CFR§15.209 RSS Gen Iss 4: Nov 2014	a)	<div>Except as provided elsewhere in this subpart, the emissions from an intentional radiator shall not exceed the field strength levels specified in the following table:</div> <table><thead><tr><th>Frequency range (MHz)</th><th>Field Strength (uV/m)</th><th>Measurement distance (meters)</th></tr></thead><tbody><tr><td>0.009-0.490</td><td>2400/F(kHz)</td><td>300</td></tr><tr><td>0.490-1.705</td><td>24000/F(kHz)</td><td>30</td></tr><tr><td>1.705-30.0</td><td>30</td><td>30</td></tr><tr><td>30-88</td><td>100**</td><td>3</td></tr><tr><td>88-216</td><td>150**</td><td>3</td></tr><tr><td>216-960</td><td>200**</td><td>3</td></tr><tr><td>Above 960</td><td>500**</td><td>3</td></tr></tbody></table>	Frequency range (MHz)	Field Strength (uV/m)	Measurement distance (meters)	0.009-0.490	2400/F(kHz)	300	0.490-1.705	24000/F(kHz)	30	1.705-30.0	30	30	30-88	100**	3	88-216	150**	3	216-960	200**	3	Above 960	500**	3	<input checked="" type="checkbox"/>
Frequency range (MHz)	Field Strength (uV/m)	Measurement distance (meters)																									
0.009-0.490	2400/F(kHz)	300																									
0.490-1.705	24000/F(kHz)	30																									
1.705-30.0	30	30																									
30-88	100**	3																									
88-216	150**	3																									
216-960	200**	3																									
Above 960	500**	3																									
Test Setup																											
Procedure	<div>1. The EUT and supporting equipment were set up in accordance with the requirements of the standard on top of a 1.5m X 1.0m X 0.8m high, non-metallic table</div> <div>2. The EUT was switched on and allowed to warm up to its normal operating condition.</div> <div>3. The test was carried out at the selected frequency points obtained from the EUT characterisation. Maximization of the emissions, was carried out by rotating the EUT, changing the antenna polarisation, and adjusting the antenna height in the following manner:<div>a. Vertical or horizontal polarisation (whichever gave the higher emission level over a full rotation of the EUT) was chosen.</div><div>b. The EUT was then rotated to the direction that gave the maximum emission.</div><div>c. Finally, the antenna height was adjusted to the height that gave the maximum emission.</div></div> <div>4. A Quasi-peak measurement was then made for that frequency point.</div> <div>5. Steps 3 and 4 were repeated for the next frequency point, until all selected frequency points were measured.</div> <div>6. The frequency range covered was from 30MHz to 1GHz using the broadband antenna.</div>																										
Remark	The EUT was scanned up to 1GHz. Both horizontal and vertical polarities were investigated. The results show only the worst case.																										
Result	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail																										

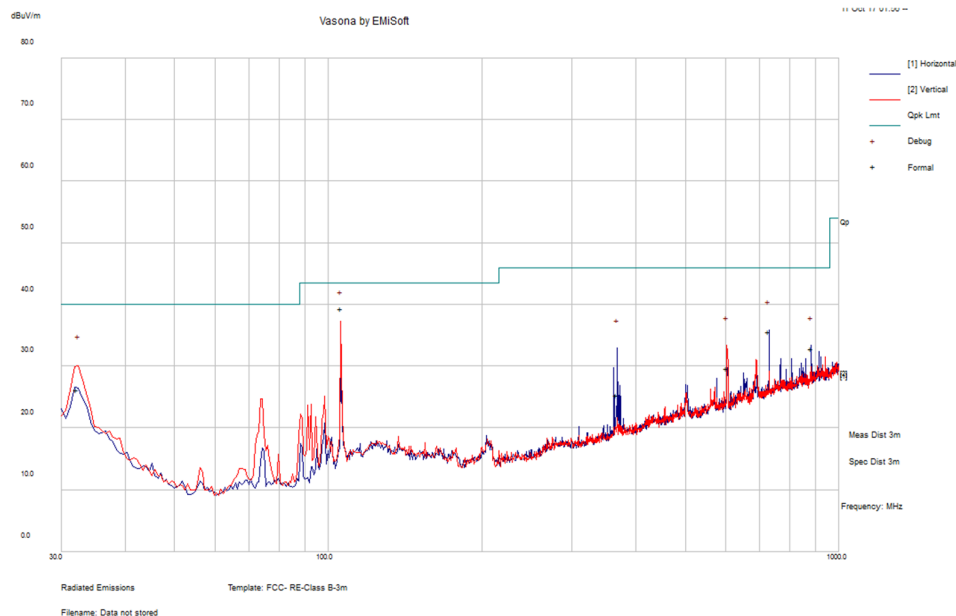
**Test Data**    ☒ Yes (See below)    ☐ N/A

**Test Plot**    ☒ Yes (See below)    ☐ N/A

**Test was done by Anish Kumar at 10m chamber.**

### Radiated Emission Test Results (Below 1GHz)

Test specification	Below 1GHz			
Environmental Conditions:	Temp (°C):	26.1	Result	Pass
	Humidity (%)	47.5		
	Atmospheric (mbar):	1020		
Mains Power:	3.7 Vdc			
Tested by:	Anish Kumar			
Test Date:	10/11/2017			
Remarks:	Bluetooth and LTE/ WCDMA transmitting simultaneously			

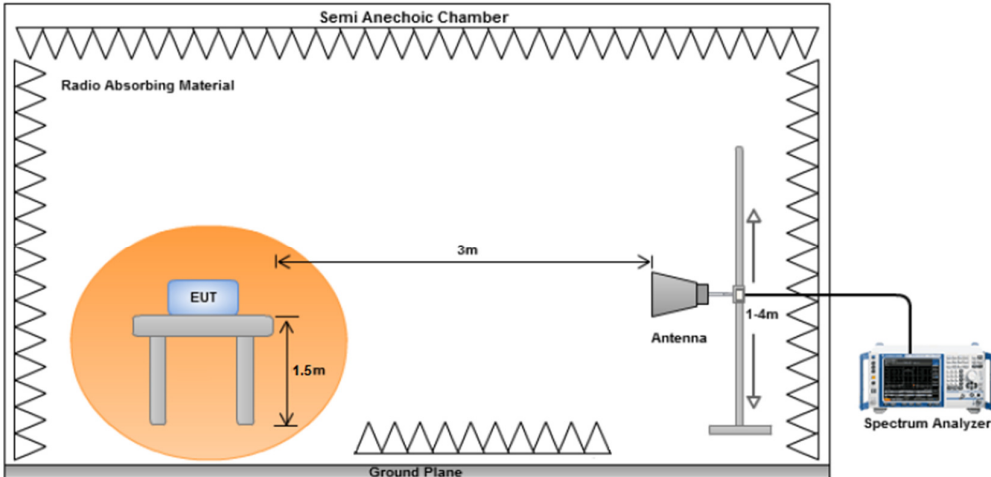


Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
105.73	52.24	12.07	-24.96	39.36	Quasi Max	V	342	30	43.5	-4.14	Pass
32.18	30.62	11.32	-15.88	26.07	Quasi Max	V	109	160	40	-13.93	Pass
729.59	35.5	15.85	-15.85	35.51	Quasi Max	H	102	191	46	-10.49	Pass
602.29	32.33	15.13	-17.91	29.54	Quasi Max	V	108	203	46	-16.46	Pass
883.22	30.33	16.54	-14.15	32.72	Quasi Max	H	164	108	46	-13.28	Pass
367.51	32.9	13.92	-21.55	25.27	Quasi Max	H	367	127	46	-20.73	Pass

Note: Both horizontal and vertical polarities were investigated. The results above show only the worst case.

## 10.2 Radiated Spurious Emissions Above 1GHz

### Requirement(s):

Spec	Item	Requirement	Applicable						
47CFR§15.209 RSS Gen Iss 4: Nov 2014	a)	<div>Except for Class A digital devices, the field strength of radiated emissions from unintentional radiators at a distance of 3 meters shall not exceed the following values:</div> <table><tr><th>Frequency range (GHz)</th><th>Average limit dB(μV/m)</th><th>Peak limit dB(μV/m)</th></tr><tr><td>Above 1</td><td>54</td><td>74</td></tr></table>	Frequency range (GHz)	Average limit dB(μV/m)	Peak limit dB(μV/m)	Above 1	54	74	<input checked="" type="checkbox"/>
Frequency range (GHz)	Average limit dB(μV/m)	Peak limit dB(μV/m)							
Above 1	54	74							
Test Setup	<div></div>								
Procedure	<div><div>1. The EUT and supporting equipment were set up in accordance with the requirements of the standard on top of a 1.5m X 1.0m X 0.8m high, non-metallic table</div><div>2. The EUT was switched on and allowed to warm up to its normal operating condition.</div><div>3. The test was carried out at the selected frequency points obtained from the EUT characterisation. Maximization of the emissions, was carried out by rotating the EUT, changing the antenna polarization, and adjusting the antenna height in the following manner:<div><div>a. Vertical or horizontal polarisation (whichever gave the higher emission level over a full rotation of the EUT) was chosen.</div><div>b. The EUT was then rotated to the direction that gave the maximum emission.</div><div>c. Finally, the antenna height was adjusted to the height that gave the maximum emission.</div></div></div><div>4. A Peak and Average measurement was then made for that frequency point.</div><div>5. Steps 3 and 4 were repeated for the next frequency point, until all selected frequency points were measured.</div><div>6. The frequency range covered was from 1GHz to 6GHz (for FCC tests, until the 5<sup>th</sup> harmonic for operating frequencies ≥ 1000MHz) using a horn antenna.</div></div>								
Remark	N/A								
Result	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail								

**Test Data**    ☒ Yes (See below)      ☐ N/A

**Test Plot**    ☒ Yes (See below)      ☐ N/A

**Test was done by Anish Kumar at 10m chamber.**

### Radiated Emission Test Results (Above 1GHz)

Test specification:	Radiated Emissions (Above 1GHz) – 1GHz to 13GHz			
Environmental Conditions:	Temp(°C):	22.4	Result:	
	Humidity (%):	44.8		X Pass
	Atmospheric(mbar):	1014.3		
Input Power:	3.7Vdc			
Tested by:	Anish Kumar			Fail
Test Date:	10/12/2017			
Remarks:	Bluetooth and LTE/ WCDMA transmitting simultaneously			
















Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
2689.94	40.47	3.22	-4.83	38.86	Peak Max	V	399	325	74	-35.14	Pass
1922.58	40.42	2.71	-6.39	36.74	Peak Max	V	277	191	74	-37.26	Pass
1383.59	42.37	2.41	-8.83	35.95	Peak Max	V	149	229	74	-38.05	Pass
2689.94	26.67	3.22	-4.83	25.06	Average Max	V	399	325	54	-38.95	Pass
1922.58	27.86	2.71	-6.39	24.18	Average Max	V	277	191	54	-39.49	Pass
1383.59	28.94	2.41	-8.83	22.52	Average Max	V	149	229	54	-39.78	Pass








Note: Both horizontal and vertical polarities were investigated. The results above show only the worst case.

## Annex A. TEST INSTRUMENT

Instrument	Model	Serial #	Cal Date	Cal Cycle	Cal Due	In use
<b>Radiated Emissions</b>						
Keysight EXA 44GHz Spectrum Analyzer	N9010A	MY51440112	08/02/2016	1 Year	08/02/2018	<input checked="" type="checkbox"/>
R & S Wideband Communication Tester	CMW500	108852	07/28/2016	1 Year	07/28/2018	<input checked="" type="checkbox"/>
R & S Universal Radio Communication Tester	CMU200	111078	N/A	N/A	N/A	<input type="checkbox"/>
Bi-Log antenna (30MHz~2GHz)	JB1	A030702	01/13/2017	1 Year	01/13/2018	<input checked="" type="checkbox"/>
Horn Antenna (1GHz~26GHz)	3115	100059	08/11/2016	1 Year	08/11/2018	<input checked="" type="checkbox"/>
Pre-Amplifier (1-40GHz)	SAS-474	579	04/04/2017	1 Year	05/04/2018	<input type="checkbox"/>
Preamplifier (100KHz-7GHz)	LPA-6-30	11140711	02/09/2017	1 Year	02/09/2018	<input checked="" type="checkbox"/>
3 Meters SAC	3M	N/A	06/09/2016	1 Year	09/09/2017	<input type="checkbox"/>
10 Meters SAC	10M	N/A	07/06/2016	1 Year	07/06/2018	<input checked="" type="checkbox"/>

## Annex B. SIEMIC Accreditation

Accreditations	Document	Scope / Remark
ISO 17025 (A2LA)		Please see the documents for the detailed scope
ISO Guide 65 (A2LA)		Please see the documents for the detailed scope
TCB Designation		<a href="#">A1</a> , <a href="#">A2</a> , <a href="#">A3</a> , <a href="#">A4</a> , <a href="#">B1</a> , <a href="#">B2</a> , <a href="#">B3</a> , <a href="#">B4</a> , C
FCC DoC Accreditation		FCC Declaration of Conformity Accreditation
FCC Site Registration		3 meter site
FCC Site Registration		10 meter site
IC Site Registration		3 meter site
IC Site Registration		10 meter site
EU NB		<b>Radio &amp; Telecommunications Terminal Equipment:</b> EN45001 – EN ISO/IEC 17025
		<b>Electromagnetic Compatibility:</b> EN45001 – EN ISO/IEC 17025
Singapore iDA CB(Certification Body)		<a href="#">Phase I</a> , <a href="#">Phase II</a>
Vietnam MIC CAB Accreditation		Please see the document for the detailed scope
Hong Kong OFCA		<b>(Phase II)</b> OFCA Foreign Certification Body for Radio and Telecom
		<b>(Phase I)</b> Conformity Assessment Body for Radio and Telecom
Industry Canada CAB		<b>Radio:</b> Scope A – All Radio Standard Specification in Category I
		<b>Telecom:</b> CS-03 Part I, II, V, VI, VII, VIII

Japan Recognized Certification Body Designation		<p><b>Radio:</b> A1. Terminal equipment for purpose of calling</p> <p><b>Telecom:</b> B1. Specified radio equipment specified in Article 38-2, Paragraph 1, Item 1 of the Radio Law</p>
Korea CAB Accreditation		<p><b>EMI:</b> KCC Notice 2008-39, RRL Notice 2008-3: CA Procedures for EMI KN22: Test Method for EMI</p> <p><b>EMS:</b> KCC Notice 2008-38, RRL Notice 2008-4: CA Procedures for EMS KN24, KN61000-4-2, -4-3, -4-4, -4-5, -4-6, -4-8, -4-11: Test Method for EMS</p> <p><b>Radio:</b> RRL Notice 2008-26, RRL Notice 2008-2, RRL Notice 2008-10, RRL Notice 2007-49, RRL Notice 2007-20, RRL Notice 2007-21, RRL Notice 2007-80, RRL Notice 2004-68</p> <p><b>Telecom:</b> President Notice 20664, RRL Notice 2007-30, RRL Notice 2008-7 with attachments 1, 3, 5, 6; President Notice 20664, RRL Notice 2008-7 with attachment 4</p>
Taiwan NCC CAB Recognition		LP0002, PSTN01, ADSL01, ID0002, IS6100, CNS14336, PLMN07, PLMN01, PLMN08
Taiwan BSMI CAB Recognition		CNS 13438
Japan VCCI		<p>R-3083: Radiation 3 meter site</p> <p>C-3421: Main Ports Conducted Interference Measurement</p> <p>T-1597: Telecommunication Ports Conducted Interference Measurement</p>
Australia CAB Recognition		<p><b>EMC:</b> AS/NZS CISPR 11, AS/NZS CISPR 14.1, AS/NZS CISPR22, AS/NZS 61000.6.3, AS/NZS 61000.6.4</p> <p><b>Radio communications:</b> AS/NZS 4281, AS/NZS 4268, AS/NZS 4280.1, AS/NZS 4280.2, AS/NZS 4295, AS/NZS 4582, AS/NZS 4583, AS/NZS 4769.1, AS/NZS 4769.2, AS/NZS 4770, AS/NZS 4771</p> <p><b>Telecommunications:</b> AS/ACIF S002:05, AS/ACIF S003:06, AS/ACIF S004:06, AS/ACIF S006:01, AS/ACIF S016:01, AS/ACIF S031:01, AS/ACIF S038:01, AS/ACIF S040:01, AS/ACIF S041:05, AS/ACIF S043.2:06, AS/ACIF S60950.1</p>
Australia NATA Recognition		AS/ACIF S002, AS/ACIF S003, AS/ACIF S004, AS/ACIF S006, AS/ACIF S016, AS/ACIF S031, AS/ACIF S038, AS/ACIF S040, AS/ACIF S041, AS/ACIF S043.2