# RF TEST REPORT



Report No.: FCC\_IC\_RF\_SL18020902-SEN-002

Supersede Report No.: NONE

Applicant	• •	Sensormatic Electronics LLC		
Product Name	• •	Ultra 1.5m ABS Pedestal System		
Model No.		AMS-1146		
Regulatory Model	;	LFAMS1801		
Test Standard	;	FCC 15. Subpart C RSS-310 Issue 4: 2015		
Test Method	•	FCC 15.209 ANSI C63.10 2013 RSS Gen Issue 4 2014		
FCC ID	;	BVCAMSUSUPB		
IC ID		3506A-AMSUSUPB		
Dates of test		03/08/2018-03/15/2018		
Issue Date	• •	03/15/2018		
Test Result	Result : ⊠ Pass □ Fail			
	Equipment complied with the specification [X ] Equipment did not comply with the specification [ ]			

This Test Report is Issued Under the Authority of:			
Dlawoltany			
Vijay Chaudhary	Chen Ge		
RF Test Engineer	Engineer Reviewer		
This test report may be reproduced in full only			
Test result presented in this test report is applicable to the tested sample only			

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



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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.



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### **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/RRA, NIST	EMI, EMS, RF, Telecom, Safety
Japan	VCCI, JATE, TELEC, RFT	EMI, RF/Wireless, Telecom
Mexico	NOM, COFETEL, Caniety	EMC, RF/Wireless, Telecom, Safety
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 & RED Directive
Japan	MIC (RCB 208)	RF, Telecom
Hong Kong	OFTA (US002)	RF, Telecom

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# **Report Revision History**

Report No.	Report Version	Description	Issue Date
FCC_IC_RF_SL18020902-SEN-002	None	Original	03/15/2018





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### 2 **Executive Summary**

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

<u>Company:</u> Sensormatic Electronics, LLC <u>Product:</u> Ultra 1.5m ABS Pedestal System

Model: AMS-1146
Regulatory
Model LFAMS1801

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

### 3 Customer information

Applicant Name	:	Sensormatic Electronics, LLC
Applicant Address	• •	6600 Congress Ave, Boca Raton, FL-33487
Manufacturer Name	:	Sensormatic Electronics, LLC
Manufacturer Address		6600 Congress Ave, Boca Raton, FL-33487

### 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
-	-	-	-
-	-	-	-

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### 6 **EUT Information**

### 6.1 **EUT Description**

Product Name	:	Ultra 1.5m ABS Pedestal System
Model No.	:	AMS-1146
Regulatory Model	:	LFAMS1801
Trade Name	:	Sensormatic
Regulatory Model		LFAMS1801
Serial No.	:	002
Input Power	:	120VAC, 60HZ
Product Hardware version	:	HWProto1
Product Software version		SWProto1
Radio Hardware version		1712-3112-02-Proto1
Radio Software version		SWConfig1
Date of EUT received	:	03/08/2018
Working Frequencies	:	0.0578-0.0582MHz
Note	:	Verification for Class 2 permissive change

### 6.2 Radio Description

### **Specifications for Radio:**

Radio Type	RFID
Operating Frequency	0.0578-0.0582MHz
Modulation	None
Channel Spacing	None
Antenna Type	Loop Antenna
Antenna Gain(dB)	None
Antenna Connector Type	Screw Terminal

#### **Channel List:**

Type	Mode	Channel No.	Frequency (MHz)	Available (Y/N)
RFID	58KHz	1	0.058	Υ



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#### **EUT test modes/configuration Description** 6.3

Mode	Note
RF test	EUT is set to continuously transmit at 58kHz
Note: None	

Test Item	Operating mode	Tested antenna port	Test frequencies	
Antenna Requirement	N/A	-		
Conducted Emissions Voltage	Continuous Transmit	-		
Radiated Spurious Emission	Continuous Transmit	-	58kHz	
Frequency Stability	N/A	-		
Occupied Bandwidth	Continuous Transmit	-		
Nets Necs				

Note: None

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# 7 Supporting Equipment/Software and cabling Description

### 7.1 Supporting Equipment

Index	Supporting Equipment Description	Model	Serial No	Manu	Note
-	-	-	-	-	-

### 7.2 Cabling Description

	Nome	Connec	tion Start	Connection Stop		Length / shielding Info		Note
Name	From	I/O Port	То	I/O Port	Length (m)	Shielding	Note	
		-	-	-	-	-	-	-

### 7.3 Test Software Description

Test Item	Software	Description
RF Testing	Tera Term	Set the EUT to transmit continuously in 58KHz test mode
-	-	-

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### **Test Summary**

Test Item	Test standard		Test Method/Procedure	Pass / Fail
Antenna Requirement	FCC	15.203	ANSI C63.10 – 2013	□ Pass
Anterina requirement	IC	-	558074 D01 DTS Meas. Guidance v03r02	□ N/A
AC Conducted Emissions Voltage	FCC	15.207(a)	ANSI C63.10 2013	⊠ Pass
AC Conducted Emissions Voltage	IC	RSS Gen (7.2.2)	RSS Gen. 8.8	□ N/A
Remark None				

Test Item	Test standard		Test Method/Procedure		Pass / Fail
Dadiated Oncoines Facines	FCC	15.209	FCC	ANSI C63.10 2013	□ Pass
Radiated Spurious Emission	IC	RSS	IC	RSS Gen 7.1	□ N/A
Frequency Stability	FCC	15.225(e)	FCC	-	☐ Pass
Frequency Stability	IC	RSS210(B.6)	IC	RSS Gen 6.11	⊠ N/A
Occupied Pandwidth	FCC	-	FCC	-	□ Pass
Occupied Bandwidth	IC	RSS Gen (6.6)	IC	RSS Gen 6.6	□ N/A
Remark	<ol> <li>All measurement uncertainties are not taken into consideration for all presented test result.</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>				





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# **Measurement Uncertainty**

Test Item	Description	Uncertainty	
AC Conducted Emissions Voltage	Confidence level of approximately 95% (in the case where distributions are normal), with a coverage factor of 2	±3.5dB	
Radiated Spurious Emissions	Confidence level of approximately 95% (in the case where distributions are normal), with a coverage factor of 2 (for EUTs < 0.5m X 0.5m X 0.5m)	+5.6dB/-4.5dB	



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# 10 Measurements, examination and derived results

### 10.1 Antenna Requirement

Spec	Requirement	Applicable
§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.  Antenna requirement must meet at least one of the following:  a) Antenna must be permanently attached to the device. b) The antenna must use a unique type of connector to attach to the device. c) Device must be professionally installed. The installer shall be responsible for ensuring that the correct antenna is employed by the device.	
Remark	Device use loop antenna (Inductive loop coil transmitter)	1
Result	⊠ PASS ☐ FAIL	





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#### 10.2 Conducted Emissions

#### **Conducted Emission Limit**

Frequency ranges	Limit (dBuV)		
(MHz)	QP	Average	
0.15 ~ 0.5	66 – 56	56 – 46	
0.5 ~ 5	56	46	
5 ~ 30	60	50	

Spec	Item	Requirement	Applicable			
47CFR§15.207	a)	For Low-power radio-frequency devices that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50 µH/50 ohms line impedance stabilization network (LISN). The lower limit applies at the boundary between the frequency ranges.				
Test Setup		Vertical Ground Reference Plane  Horizontal Ground Reference Plane  Note: 1. Support units were connected to second LISN.  2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm from other units and other metal planes				
Procedure	- - -	The EUT and supporting equipment were set up in accordance with the requirements of top of a 1.5m x 1m x 0.8m high, non-metallic table, as shown in Annex B. The power supply for the EUT was fed through a $50\Omega/50\mu H$ EUT LISN, connected to fill The RF OUT of the EUT LISN was connected to the EMI test receiver via a low-loss coal All other supporting equipment was powered separately from another main supply.	tered mains.			
Remark	EUT te	sted with AC 120V 60Hz				
Result	⊠ Pas	s 🗆 Fail				

 Test Data
  $\boxtimes$  Yes
  $\square$  N/A

 Test Plot
  $\boxtimes$  Yes (See below)
  $\square$  N/A

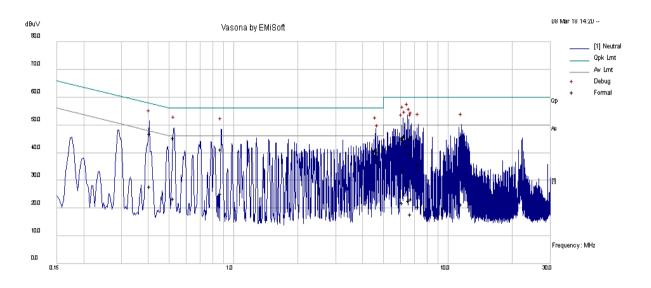
Test was done by Vijay Chaudhary at Conducted Emission Test Site.



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### **Conducted Emission Test Results**

Test specification:	Conducted Emissions			
Environmental Conditions:	Temp(°C):	21		
	Humidity (%):	45		⊠ Pass
	Atmospheric(mbar):	1021	Doculto	△ Pass
Mains Power:	120VAC, 60Hz		Result:	□ Fail
Tested by:	Vijay Chaudhary			☐ Fail
Test Date:	03/08/2018			
Remarks	Conducted @ Neutral			



#### Neutral Plot at 120Vac, 60Hz

Frequency (MHz)	Raw (dBuV)	Cable Loss (dB)	Factors (dB)	Level (dBuV)	Measurement Type	Line / Neutral	Limit (dBuV)	Margin (dB)	Pass /Fail
0.40	37.6	9.33	0.04	46.97	Quasi Peak	Neutral	57.71	-10.75	Pass
0.52	35.99	9.33	0.05	45.37	Quasi Peak	Neutral	56	-10.63	Pass
0.87	31.77	9.33	0.04	41.14	Quasi Peak	Neutral	56	-14.86	Pass
4.60	31.57	9.35	0.08	40.99	Quasi Peak	Neutral	56	-15.01	Pass
4.70	30.75	9.35	0.08	40.17	Quasi Peak	Neutral	56	-15.83	Pass
6.12	35.85	9.35	0.1	45.3	Quasi Peak	Neutral	60	-14.7	Pass
0.40	18.39	9.33	0.04	27.75	Average	Neutral	47.71	-19.96	Pass
0.52	14.11	9.33	0.05	23.48	Average	Neutral	46	-22.52	Pass
0.87	15.98	9.33	0.04	25.35	Average	Neutral	46	-20.65	Pass
4.60	29.42	9.35	0.08	38.84	Average	Neutral	46	-7.16	Pass
4.70	26.82	9.35	0.08	36.25	Average	Neutral	46	-9.75	Pass
6.12	12.52	9.35	0.1	21.97	Average	Neutral	50	-28.03	Pass

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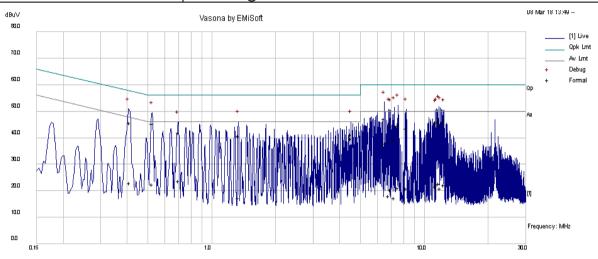




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#### **Conducted Emission Test Results**

Test specification:	Conducted Emissions						
Environmental Conditions:	Temp(°C):	Temp(°C): 22					
	Humidity (%):	45		⊠ Pass			
	Atmospheric(mbar):	1021	Result:	△ Fass			
Mains Power:	120Vac, 60Hz		Result.	☐ Fail			
Tested by:	Vijay Chaudhary			□ Fall			
Test Date:	03/08/2018	03/08/2018					
Remarks	Conducted @ Live						



Live Plot at 120Vac, 60Hz

Frequency (MHz)	Raw (dBuV)	Cable Loss (dB)	Factors (dB)	Level (dBuV)	Measurement Type	Line / Neutral	Limit (dBuV)	Margin (dB)	Pass /Fail
0.40	36.21	9.33	0.04	45.58	Quasi Peak	Live	57.68	-12.1	Pass
0.52	35.97	9.33	0.05	45.35	Quasi Peak	Live	56	-10.65	Pass
0.69	32.57	9.33	0.04	41.94	Quasi Peak	Live	56	-14.06	Pass
1.32	31.26	9.34	0.05	40.65	Quasi Peak	Live	56	-15.35	Pass
4.51	31.79	9.35	0.08	41.22	Quasi Peak	Live	56	-14.78	Pass
6.47	37.54	9.37	0.1	47.01	Quasi Peak	Live	60	-12.99	Pass
0.40	13.46	9.33	0.04	22.82	Average	Live	47.68	-24.86	Pass
0.52	13.15	9.33	0.05	22.52	Average	Live	46	-23.48	Pass
0.69	14.29	9.33	0.04	23.66	Average	Live	46	-22.34	Pass
1.32	7.89	9.34	0.05	17.28	Average	Live	46	-28.72	Pass
4.51	30.34	9.35	0.08	39.76	Average	Live	46	-6.24	Pass
6.47	28.47	9.37	0.1	37.94	Average	Live	50	-12.06	Pass

Note: The results above show only the worst case.



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### 10.3 Radiated Measurements

#### 10.3.1 Radiated Measurements below 30MHz

#### Requirement(s):

Spec	Requirement			Applicable			
47 CFR §15.209 RSS Gen (6.6)	Operation within the band below 30 M (a) The field strength of any emission 2400/F(KHz) microvolts/meter at 300 (b) Within the bands 0.490- 1.705 MH 24000/F(KHz) microvolts/meter at 30 (c) Within the bands 1.705- 30.0 MHz microvolts/meter at 30 meters.	ns within the band 0.009-0.490 Moneters.  Hz, the field strength of any emisoneters.	ssions shall not exceed	$\boxtimes$			
Test Setup	Support Units  Turn T	3 m	antenna n height				
Procedure	For < 30MHz, Radiated emissions were measured according to ANSI C63.10. The EUT was set to transmit at the highest output power.  The EUT was set 3 meter away from the measuring antenna. The loop antenna was positioned 1 meter above the ground from the center of the loop. The measuring bandwidth was set to 10 kHz.  The limit is converted from microvolt/meter to decibel microvolt/meter.						
Test Date	03/09/2018-03/15/2018	Environmental conditions	Temperature Relative Humidity Atmospheric Pressure	22°C 40% 1026mbar			
Remark	-						
Result	⊠ Pass □ Fail						

Test Data ⊠ Yes (See below) □ N/A

Test Plot ⊠ Yes (See below) □ N/A

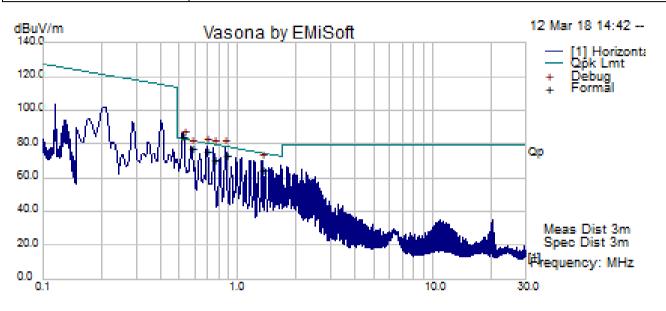
Test was done by Vijay Chaudhary at 10-meter chamber.

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Test specification:	Radiated Spurious Emissions	Radiated Spurious Emissions					
Mains Power:	120 VDC,60 Hz						
Tested by:	Vijay Chaudhary	Resu	ılt: ⊠ Pass □ Fail				
Test Date:	03/12/2018		□ Fall				
Remarks:	58KHz <i>f</i> = 100kHz – 30MHz plot, and	58KHz f= 100kHz – 30MHz plot, and loop antenna at 0 degree					



#### **Quasi Max Measurement**

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol (0/90)	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
0.52	56.99	10	18.08	84.97	Quasi Max	0	100	275	83.28	-1.79	Pass
0.86	48.99	10	13.88	72.88	Quasi Max	0	100	278	78.85	-5.97	Pass
0.75	45.08	10	15.09	70.17	Quasi Max	0	100	296	80.09	-9.92	Pass
0.69	49.45	10	15.76	75.22	Quasi Max	0	100	251	80.78	-5.56	Pass
0.58	50.32	10	17.19	77.51	Quasi Max	0	100	268	82.37	-4.85	Pass
1.32	44.17	10	10.61	64.77	Quasi Max	0	100	281	75.13	-10.36	Pass

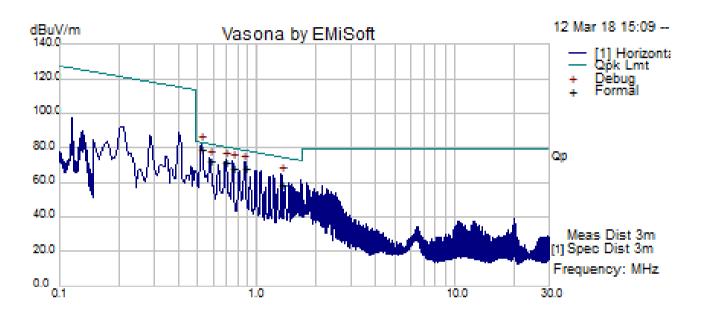
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Test specification:	Radiated Spurious Emissions	Radiated Spurious Emissions						
Mains Power:	120VDC, 60Hz							
Tested by:	Vijay Chaudhary		Result:	☐ Pass☐ Fail☐ Pail☐ Pai				
Test Date:	03/12/2018							
Remarks:	58KHz $f$ = $100$ kHz $ 30$ MHz plot, and	58KHz f= 100kHz – 30MHz plot, and loop antenna at 90 degrees						



#### **Quasi Max Measurement**

Frequency MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol (0/90)	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
0.52	50.62	10	18.08	78.7	Quasi Max	90	100	306	83.28	-4.58	Pass
0.86	43.52	10	13.88	67.41	Quasi Max	90	100	219	78.84	-11.44	Pass
0.69	45.33	10	15.77	71.09	Quasi Max	90	100	232	80.78	-9.69	Pass
0.75	42.81	10	15.09	67.9	Quasi Max	90	100	223	80.09	-12.19	Pass
0.57	44.97	10	17.19	72.16	Quasi Max	90	100	223	82.37	-10.21	Pass
1.32	38.09	10	10.6	58.7	Quasi Max	90	100	327	75.13	-16.44	Pass

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### 10.3.2 Radiated Measurements 30MHz to 1GHz

#### Requirement(s):

Spec	Requirement	Applicable
47 CFR §15.225 RSS-210 (B.6)		
Test Setup	Semi Anechoic Chamber  Radio Absorbing Material  O Sm  Antenna  Ground Plane  Spectrum Analyzer	
	<ol> <li>The EUT was switched on and allowed to warm up to its normal operating condition</li> <li>The test was carried out at the selected frequency points obtained from the EUT chamber Maximization of the emissions, was carried out by rotating the EUT, changing the ar</li> </ol>	aracterisation.
Procedure	polarization, and adjusting the antenna height in the following manner:  a. Vertical or horizontal polarisation (whichever gave the higher emission lev rotation of the EUT) was chosen.  b. The EUT was then rotated to the direction that gave the maximum emissi c. Finally, the antenna height was adjusted to the height that gave the maximum and the first polarization of the maximum emissi c.  A Quasi-peak measurement was then made for that frequency point.  Steps 2 and 3 were repeated for the next frequency point, until all selected frequency measured.	vel over a full ion. mum emission.
Procedure  Test Date	<ul> <li>a. Vertical or horizontal polarisation (whichever gave the higher emission lev rotation of the EUT) was chosen.</li> <li>b. The EUT was then rotated to the direction that gave the maximum emissi c. Finally, the antenna height was adjusted to the height that gave the maximum as A Quasi-peak measurement was then made for that frequency point.</li> <li>4. Steps 2 and 3 were repeated for the next frequency point, until all selected frequency</li> </ul>	vel over a full ion. mum emission.
	a. Vertical or horizontal polarisation (whichever gave the higher emission lever rotation of the EUT) was chosen.  b. The EUT was then rotated to the direction that gave the maximum emissic c. Finally, the antenna height was adjusted to the height that gave the maximal for that frequency point.  A Quasi-peak measurement was then made for that frequency point.  Steps 2 and 3 were repeated for the next frequency point, until all selected frequency measured.  Temperature  03/09/2018-03/15/2018  Environmental conditions  Relative Humidity	vel over a full ion. mum emission. cy points were  20.1°C 36%

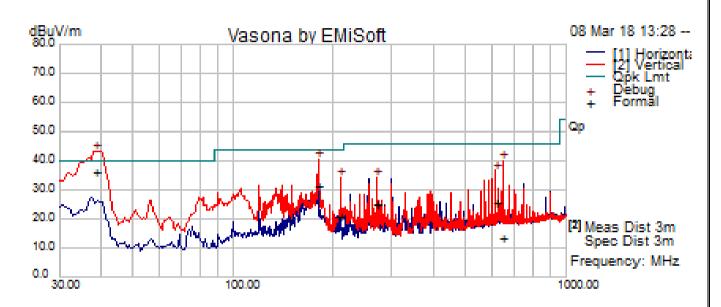
Test was done by Vijay Chaudhary at 10-meter chamber.



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Test specification:	Radiated Emissions			
Mains Power:	120VDC 60Hz			
Tested by:	Vijay Chaudhary		Result:	⊠ Pass  ☐ Fail
Test Date:	03/08/2018			
Remarks:	N/A	•	•	

f=30MHz - 1000MHz plot and 3-meter distance



#### f=30MHz - 1000MHz Measurements

Frequency MHz	Raw dBµV/m	Cable Loss	AF dB	Level dBµV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBµV/m	Margin dB	Pass /Fail
38.61	46.61	10	-20.20	36.41	Quasi Max	V	131	340	40	-3.59	Pass
179.96	46.43	10	-25.18	31.24	Quasi Max	V	196	292	43.5	-12.26	Pass
644.81	19.78	10	-16.27	13.52	Quasi Max	V	233	303	46	-32.48	Pass
210.10	36.65	10	-25.97	20.68	Quasi Max	V	137	47	43.5	-22.82	Pass
614.93	32.92	10	-17.14	25.77	Quasi Max	V	132	242	46	-20.23	Pass
269.91	38.39	10	-23.23	25.16	Quasi Max	V	205	305	46	-20.84	Pass

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#### 10.3.3 Occupied bandwidth

#### Requirement(s):

Spec	Requirement			Applicable			
RSS-Gen 4.6.1	The transmitter shall be operated at its maximum carrier power measured under normal test conditions. The span of the analyser shall be set to capture all products of the modulation process, including the emission skirts. The resolution bandwidth shall be set to as close to 1% of the selected span as is possible without being below 1%. The video bandwidth shall be set to 3 times the resolution bandwidth. Video averaging is not permitted. Where practical, a sampling detector shall be used given that a peak or peak hold may produce a wider bandwidth than actual. The trace data points are recovered and directly summed in linear terms. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5% of the total is reached and that frequency recorded. The process is repeated for the highest frequency data points. This frequency is recorded. The span between the two recorded frequencies is the occupied bandwidth.						
Test Setup	EUT& Support Units  Turn Table  Ground Plane  Test Receiver						
Procedure	<ol> <li>The EUT was switched on and allowed to warm up to its normal operating condition.</li> <li>To measure conducted, a SMA cable was used to replace the EUT antenna. To measure radiated, an external antenna was used to detect EUT transmission signal.</li> <li>Measurement of the 99% Occupied Bandwidth of EUT transmission signal and make record.</li> </ol>						
Test Date	03/08/2018-03/15/2018	Environmental conditions  Temperature Relative Humidity Atmospheric Pressure		22°C 39% 1025mbar			
Remark	-						
Result	⊠ Pass □ Fail						

Test Data	☐ Yes (See below)	⊠ N/A
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Test Plot ⊠ Yes (See below) □ N/A

Test was done by Vijay Chaudhary at 10-meter chamber.



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#### Test results:





Frequency (kHz)	Occupied Bandwidth (KHz)		
58	25.17		





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# Annex A. TEST INSTRUMENT

Instrument	Model	Serial #	Cal Date	Cal Cycle	Cal Due	In use
Radiated Emissions						
Spectrum Analyzer	N9030B	10SL0289	09/06/2017	1 Year	09/06/2018	~
ETS-Lingren Loop Antenna	6512	00049120	07/14/2016	1 Year	07/14/2019	>
Bi-Log antenna (30MHz~2GHz)	JB6	A111717	12/05/2017	1 Year	12/05/2018	>
Horn Antenna (1-26.5GHz)	3115	10SL0059	11/09/017	1 Year	11/09/2018	>
RF Conducted Measurement						
Spectrum Analyzer	N9030B	10SL0289	09/06/2017	1 Year	09/06/2018	>





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# **Annex A. SIEMIC Accreditation**

Accreditations	Document	Scope / Remark
ISO 17025 (A2LA)	7	Please see the documents for the detailed scope
ISO Guide 65 (A2LA)	7	Please see the documents for the detailed scope
TCB Designation		A1, A2, A3, A4, B1, B2, B3, B4, C
FCC DoC Accreditation	Z	FCC Declaration of Conformity Accreditation
FCC Site Registration	Z	3 meter site
FCC Site Registration	Z	10 meter site
IC Site Registration	72	3 meter site
IC Site Registration	Z	10 meter site
	1	Radio Equipment: EN45011: EN ISO/IEC 17065
EU NB	Ī.	Electromagnetic Compatibility: EN45011 – EN ISO/IEC 17065
Singapore iDA CB(Certification Body)	22	Phase I, Phase II
Vietnam MIC CAB Accreditation	₺	Please see the document for the detailed scope
	7	(Phase II) OFCA Foreign Certification Body for Radio and Telecom
Hong Kong OFCA	7	(Phase I) Conformity Assessment Body for Radio and Telecom
	7	Radio: Scope A – All Radio Standard Specification in Category I
Industry Canada CAB	7	Telecom: CS-03 Part I, II, V, VI, VII, VIII



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Japan Recognized Certification Body Designation	因因	Radio: A1. Terminal equipment for purpose of calling  Telecom: B1. Specified radio equipment specified in Article 38-2, Paragraph 1, Item  1 of the Radio Law
		EMI: KCC Notice 2008-39, RRL Notice 2008-3: CA Procedures for EMI KN22: Test Method for EMI EMS: 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
Korea CAB Accreditation		Radio: 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
		<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
Taiwan NCC CAB Recognition		LP0002, PSTN01, ADSL01, ID0002, IS6100, CNS14336, PLMN07, PLMN01, PLMN08
Taiwan BSMI CAB Recognition		CNS 13438
Japan VCCI	B	R-3083: Radiation 3 meter site C-3421: Main Ports Conducted Interference Measurement T-1597: Telecommunication Ports Conducted Interference Measurement
	ħ	<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
Australia CAB Recognition		Radiocommunications: 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
		<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
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