

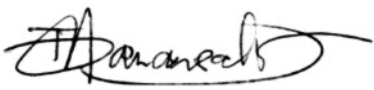
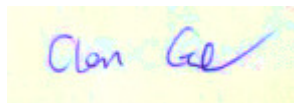
RF TEST REPORT



Report No.: FCC_RF_SL15070901-SLX-013_DTS_2.4G Rev. 1.0
Supersede Report No.: FCC_RF_SL15070901-SLX-013_DTS_2.4G

Applicant	:	Silex Technology, Inc.
Product Name	:	Wireless LAN SDIO module
Model No.	:	SX-SDMAN2
Host Model No.	:	cRIO-9037
Test Standard	:	47 CFR 15.247 RSS 247 Iss.1 : May 2015
Test Method	:	ANSI C63.10: 2013 RSS Gen Iss 4: Nov 2014
FCC ID	:	N6C- SDMAN2
IC ID	:	4908A- SDMAN2
Dates of test	:	01/15/2016-01/19/2016
Issue Date	:	02/26/2016
Test Result	:	☒ Pass ☐ Fail
Equipment complied with the specification ☒		
Equipment did not comply with the specification ☐		

This Test Report is Issued Under the Authority of:

	
Teody Manansala	Chen Ge
Test Engineer	Engineer Reviewer

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



775 Montague Expressway, Milpitas, CA 95035, USA • Phone: (+1) 408 526 1188 • Facsimile (+1) 408 526 1088

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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/RRA, 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

CONTENTS

1	REPORT REVISION HISTORY	4
2	EXECUTIVE SUMMARY	4
3	CUSTOMER INFORMATION	4
4	TEST SITE INFORMATION	4
5	MODIFICATION	4
6	EUT INFORMATION	5
6.1	EUT Description	5
6.2	Radio Description	5
6.3	Host Photos – External	6
6.4	Host Photos – Internal	8
6.5	EUT Test Setup Photos	10
7	SUPPORTING EQUIPMENT/SOFTWARE AND CABLING DESCRIPTION	11
7.1	Supporting Equipment	11
7.2	Cabling Description	11
7.3	Test Software Description	11
8	TEST SUMMARY	12
9	MEASUREMENT UNCERTAINTY	13
10	MEASUREMENTS, EXAMINATION AND DERIVED RESULTS	14
10.1	Band Edge	14
10.2	Radiated Spurious Emissions below 1GHz	16
10.3	Radiated Spurious Emissions between 1GHz – 25GHz	18
ANNEX A. TEST INSTRUMENT		22
ANNEX B. SIEMIC ACCREDITATION		23

1 Report Revision History

Report No.	Report Version	Description	Issue Date
FCC_IC_RF_SL15070901-SLX-013_DTS_2.4G	None	Original	02/19/2016
FCC_IC_RF_SL15070901-SLX-013_DTS_2.4G rev. 1.0	1.0	Add USB LED Board in the internal photo	02/26/2016
		Change Test Software name	

2 Executive Summary

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

Company: Silex Technology, Inc.
Product: Wireless LAN SDIO module
Model: SX-SDMAN2
Host Model: cRIO-9037

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	:	Silex Technology, Inc.
Applicant Address	:	2-3-1 Hikaridai, Seika-cho, Kyoto 619-0237, Japan
Manufacturer Name	:	Silex Technology, Inc.
Manufacturer Address	:	2-3-1 Hikaridai, Seika-cho, Kyoto 619-0237, Japan

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	:	Wireless LAN SDIO module
Model No.	:	SX-SDMAN2
Host Model No.	:	cRIO-9037
Trade Name	:	Silex
Serial No.	:	N/A
EUT Power AC/DC Adapter Input Power	:	100-240VAC
EUT Power AC/DC Adapter Output Power	:	24VDC
EUT Power AC/DC Adapter Manu/Model	:	Condor SA-245A01V-S/T-ROHS
Product Hardware version	:	A
Product Software version	:	athtestcmd v1.0
Radio Hardware version	:	PX20614XA
Radio Software version	:	3.5.99.18
Equipment Class / Category	:	DTS
Operating/Clock Frequencies	:	26 MHz
Port/Connectors	:	Proprietary, u.FL x 2, Ethernet, Serial, USB

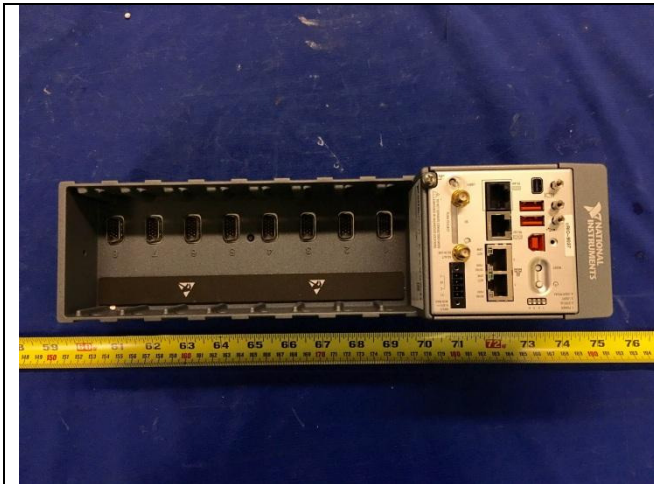
6.2 Radio Description

Radio Type	802.11b	802.11g	802.11n-20M
Operating Frequency	2412-2462MHz	2412-2462MHz	2412-2462MHz
Modulation	DSSS (CCK, DQPSK, DBPSK)	OFDM-CCK (BPSK, QPSK, 16QAM,64QAM)	OFDM (BPSK, QPSK, 16QAM, 64QAM)
Channel Spacing	5MHz	5MHz	5MHz(2.4GHz)
Number of Channels	11	11	11(2.4GH)
Antenna Type	Dual-band Dipole		
Antenna Gain (Peak)	2 dBi (2.4GHz)		
Antenna Connector Type	Reverse Polar SMA		

EUT Power level setting

Mode	Frequency (MHz)	Power setting
802.11-b	2412	12.5
802.11-b	2437	12.5
802.11-b	2462	12.5
802.11-g	2412	12.5
802.11-g	2437	12.5
802.11-g	2462	9
802.11-n-20	2412	5.5
802.11-n-20	2437	12.5
802.11-n-20	2462	6

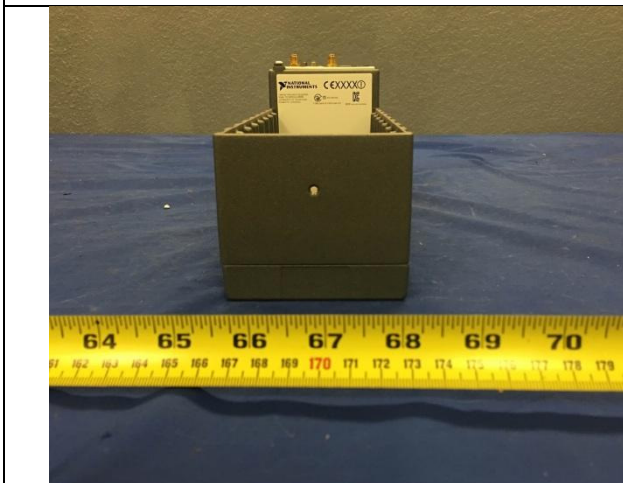
6.3 Host Photos – External



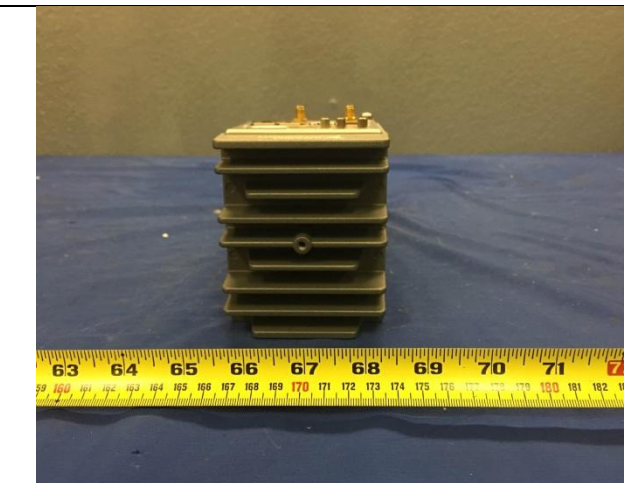
Host Top View



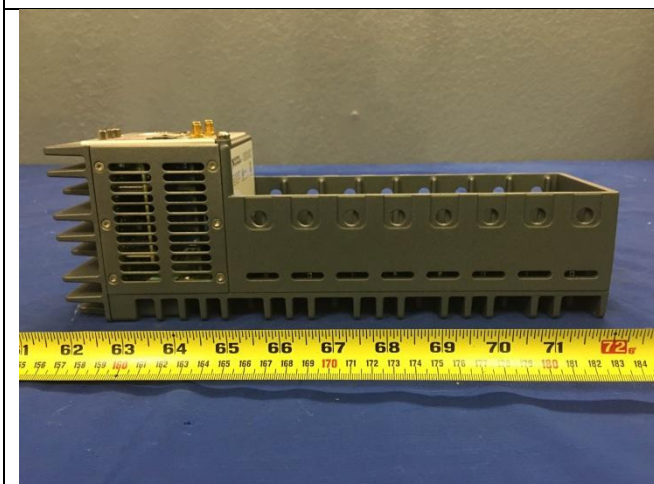
Host Bottom View



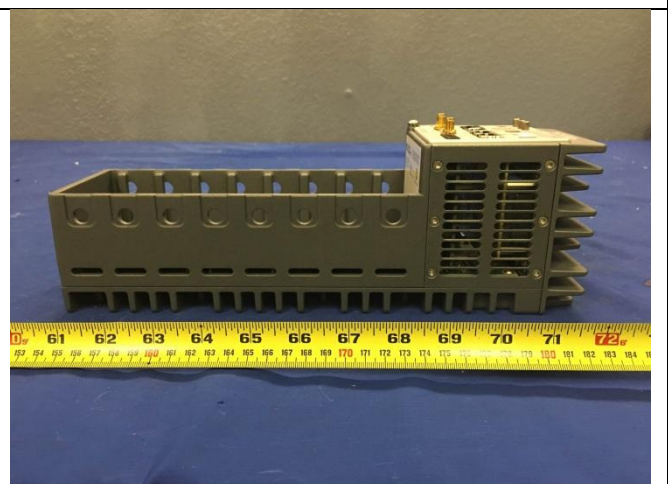
Host Front View



Host Rear View



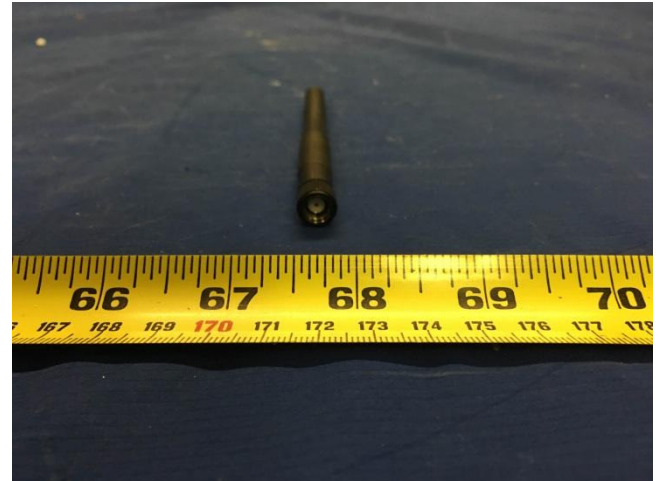
Host Left Side View



Host Right Side View



Omnidirectional Antenna



Omnidirectional Antenna

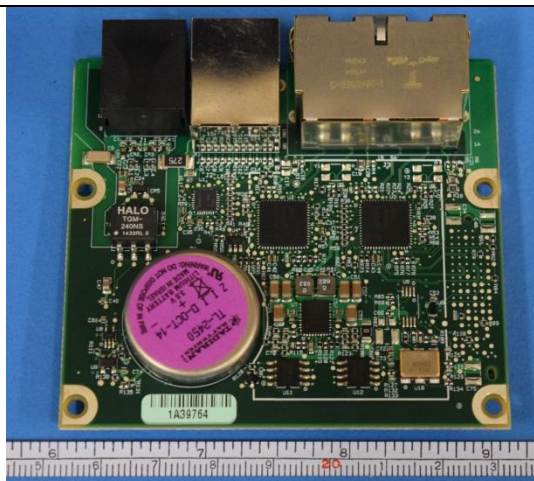


Support Equipment Power Supply Top View



Support Equipment Power Supply Bottom View

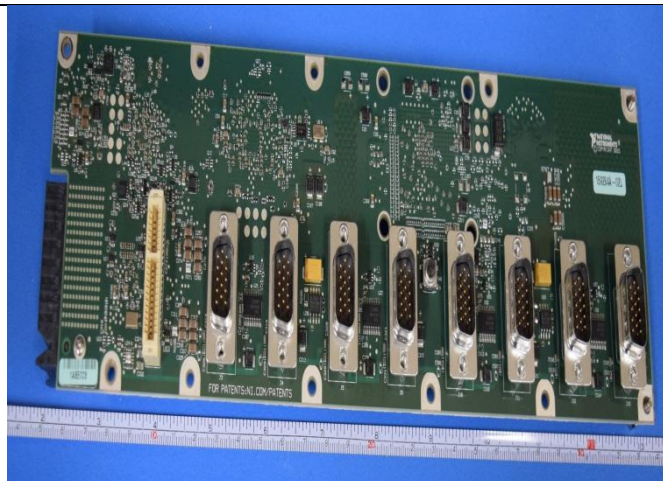
6.4 Host Photos – Internal



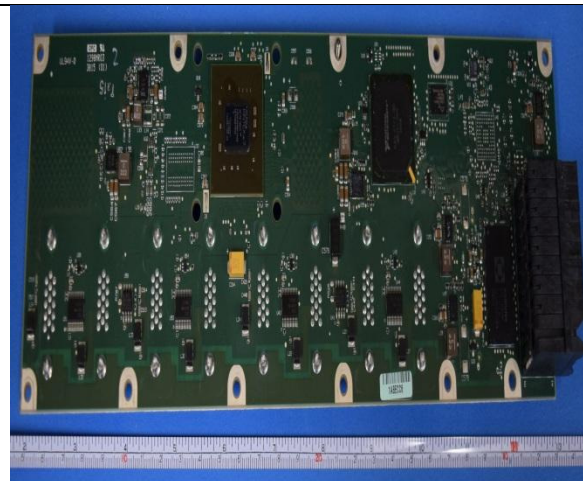
Ethernet Serial Board Top View



Ethernet Serial Board Bottom View



Slotted Backplan Board Top View



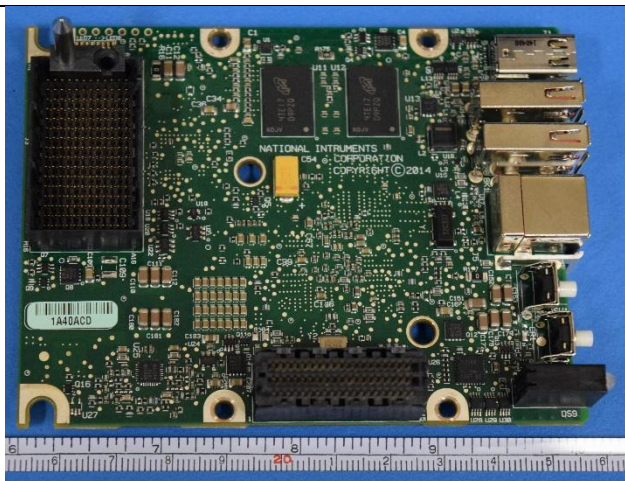
Radiated Emissions (>1GHz) – Rear View



Radio Board Top View



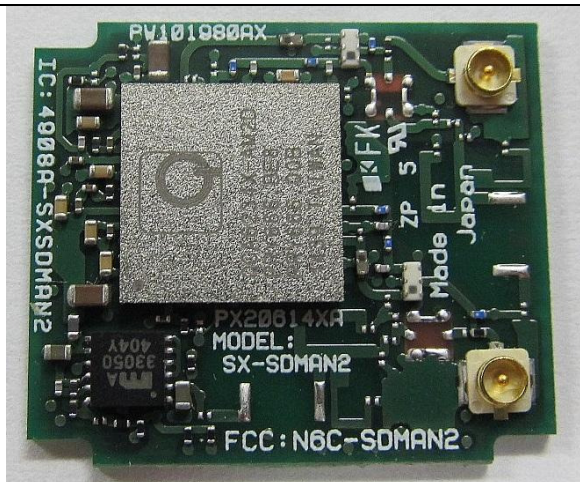
Radio Board Bottom View



USB_LED Board Top View



USB_LED Board Bottom View



EUT Radio - Top View



EUT Radio - Bottom View

6.5 EUT Test Setup Photos



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	Laptop	Latitude E6510	N/A	Dell	-

7.2 Cabling Description

Name	Connection Start		Connection Stop		Length / shielding Info		Note
	From	I/O Port	To	I/O Port	Length (m)	Shielding	
Communication	EUT	Serial	Laptop	USB	1	Unshielded	-

7.3 Test Software Description

Test Item	Software	Description
RF Testing	athtestcmd	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	☐ Pass
	IC	RSS Gen 8.10	IC	558074 D01 DTS Meas Guidance v03r04	☒ N/A
AC Conducted Emissions	FCC	15.207(a)	FCC	ANSI C63.10:2013	☐ Pass
	IC	RSS Gen 8.8	IC	RSS Gen Issue 4: 2014	☒ N/A

DTS Band Requirement

Test Item	Test standard		Test Method/Procedure		Pass / Fail
99% Occupied Bandwidth	-	-	-	-	☐ Pass
	IC	RSS Gen 6.6	IC	RSS Gen Issue 4: 2014 -	☒ N/A
6dB Bandwidth	FCC	15.247(a)(2)	FCC	558074 D01 DTS Meas Guidance v03r04	☐ Pass
	IC	RSS247 (5.2.1)	IC		☒ N/A
Band Edge and Radiated Spurious Emissions	FCC	15.247(d)	FCC	ANSI C63.10:2013	☒ Pass
	IC	RSS247 (5.5)	IC	558074 D01 DTS Meas Guidance v03r04	☐ N/A
Output Power	FCC	15.247(b)	FCC	558074 D01 DTS Meas Guidance v03r04	☐ Pass
	IC	RSS247 (5.4.4)	IC		☒ N/A
Receiver Spurious Emissions	IC	RSS Gen (4.8)	IC	RSS Gen Issue 4: 2014	☐ Pass ☒ N/A
Antenna Gain > 6 dBi	FCC	15.247(e)	FCC	-	☐ Pass
	IC	-	IC	-	☒ N/A
Power Spectral Density	FCC	15.247(e)	FCC	558074 D01 DTS Meas Guidance v03r04	☐ Pass
	IC	RSS247 (5.2.2)	IC		☒ N/A
RF Exposure requirement	FCC	15.247(i)	FCC	-	☐ Pass
	IC	RSS Gen(5.5)	IC	RSS Gen Issue 4: 2014	☒ N/A
Remark	- All measurement uncertainties do not take into consideration for all presented test results. - 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. - For all other test items (N/A) refer to Original Test Report No: 10748020H-B-R2 with FCC ID: N6C-SDMAN2 and 10748020H-F-R2 with IC ID: 4908A-SDMAN2				

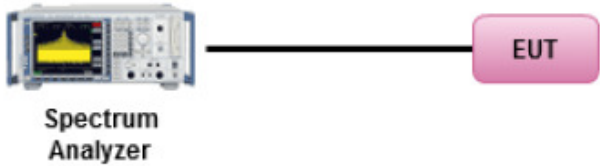
9 Measurement Uncertainty

Emissions			
Test Item	Frequency Range	Description	Uncertainty
Band Edge and Radiated Spurious Emissions	30MHz – 1GHz	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
Band Edge and Radiated Spurious Emissions	1GHz – 40GHz	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)	+4.3dB/-4.1dB

10 Measurements, Examination and Derived Results

10.1 Band Edge

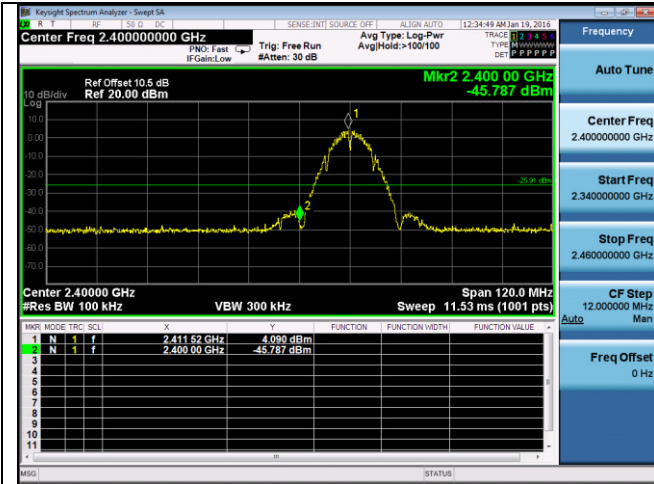
Requirement(s):

Spec	Item	Requirement	Applicable
§ 15.247 RSS247(5.5)	d)	For non-restricted band, In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB or 30dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, determined by the measurement method on output power to be used. Attenuation below the general limits specified in § 15.209 (a) is not required ☐ 20 dB down ☒ 30 dB down	☒
Test Setup			
Test Procedure	558074 D01 DTS Meas Guidance v03r04 <u>Band Edge measurement procedure</u> 1. Set the EUT to maximum power setting and enable the EUT transmit continuously. 2. Band edge emissions must be at least 30 dB down from the highest emission level within the authorized band as a measured. The attenuation shall be 30 dB instead of 20 dB when Peak conducted output power procedure is used. 3. Change modulation and channel bandwidth then repeat step 1 to 2. 4. Measured and record the results in the test report.		
Test Date	01/19/2016	Environmental condition	Temperature 22°C Relative Humidity 46% Atmospheric Pressure 1020mbar
Remark	-		
Result	☒ Pass ☐ Fail		

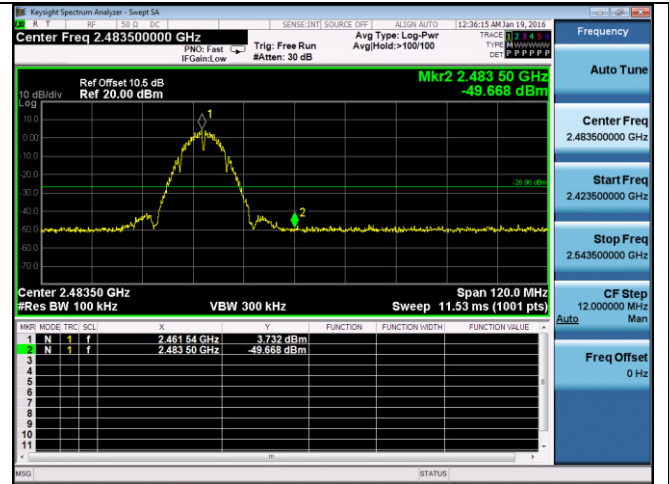
Test Data ☐ Yes ☒ N/A

Test Plot ☒ Yes (See below) ☐ N/A

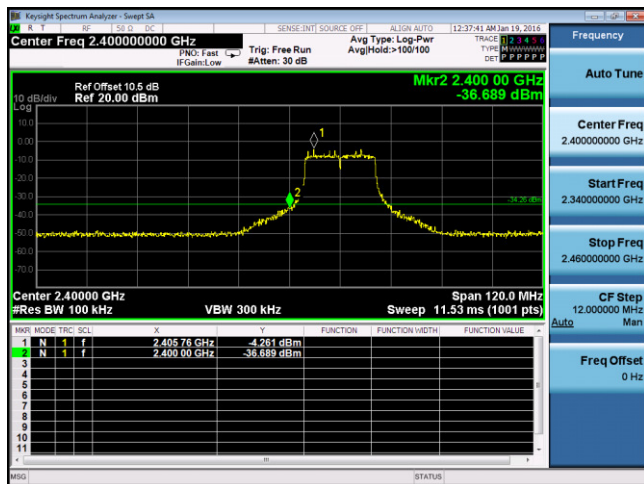
Test Plots



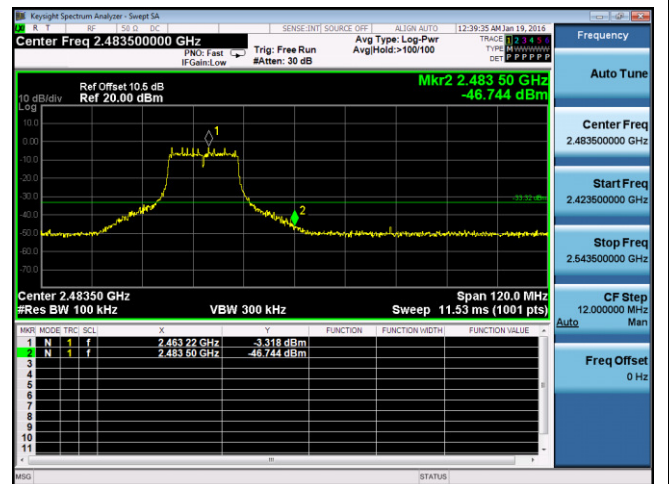
Lower Band Edge-2.4G-802.11b 2412MHz



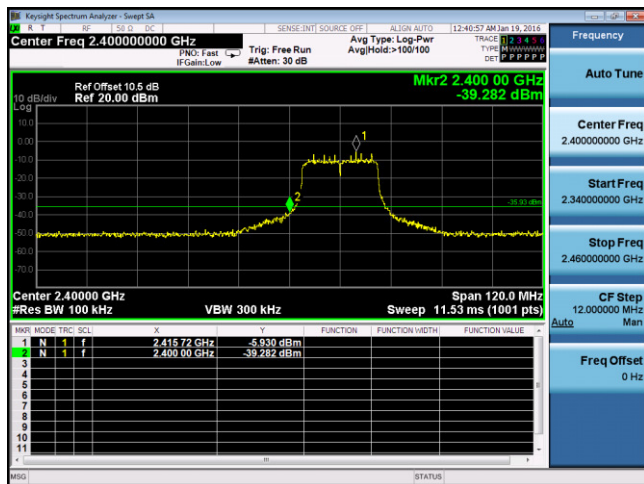
Higher Band Edge-2.4G-802.11b 2462MHz



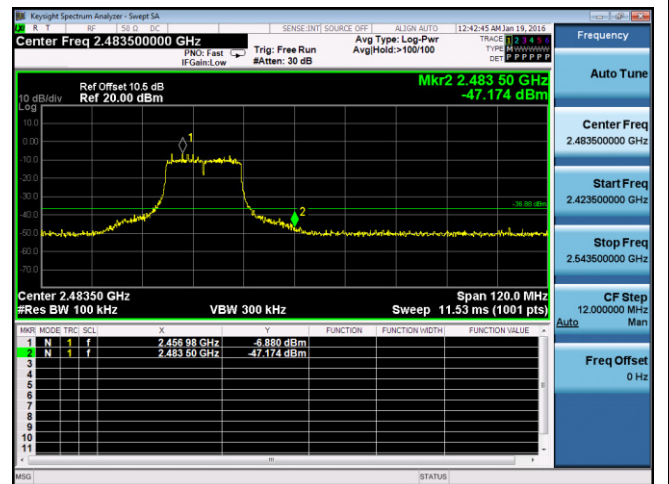
Lower Band Edge-2.4G-802.11g 2412MHz



Higher Band Edge-2.4G-802.11g 2462MHz



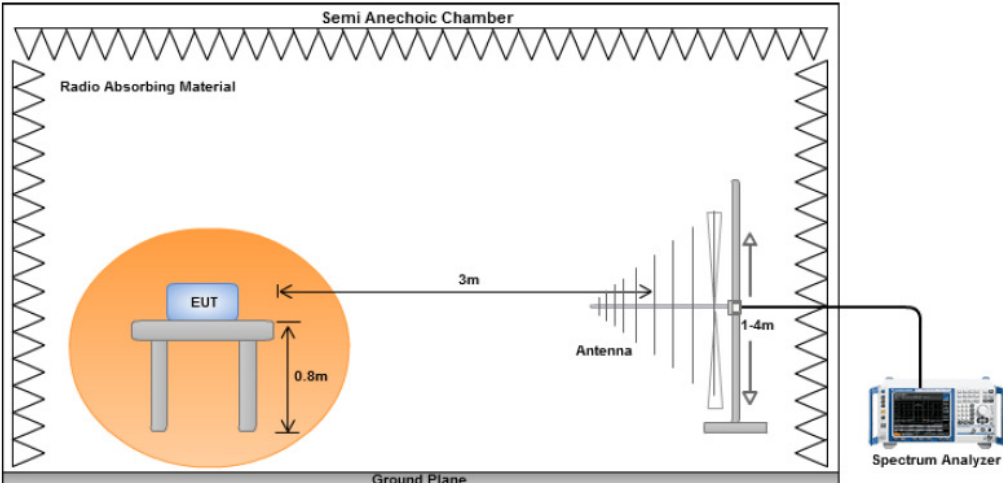
Lower Band Edge-2.4G-802.11n-20M 2412MHz



Higher Band Edge-2.4G-802.11n-20M 2462MHz

10.2 Radiated Spurious Emissions below 1GHz

Requirement(s):

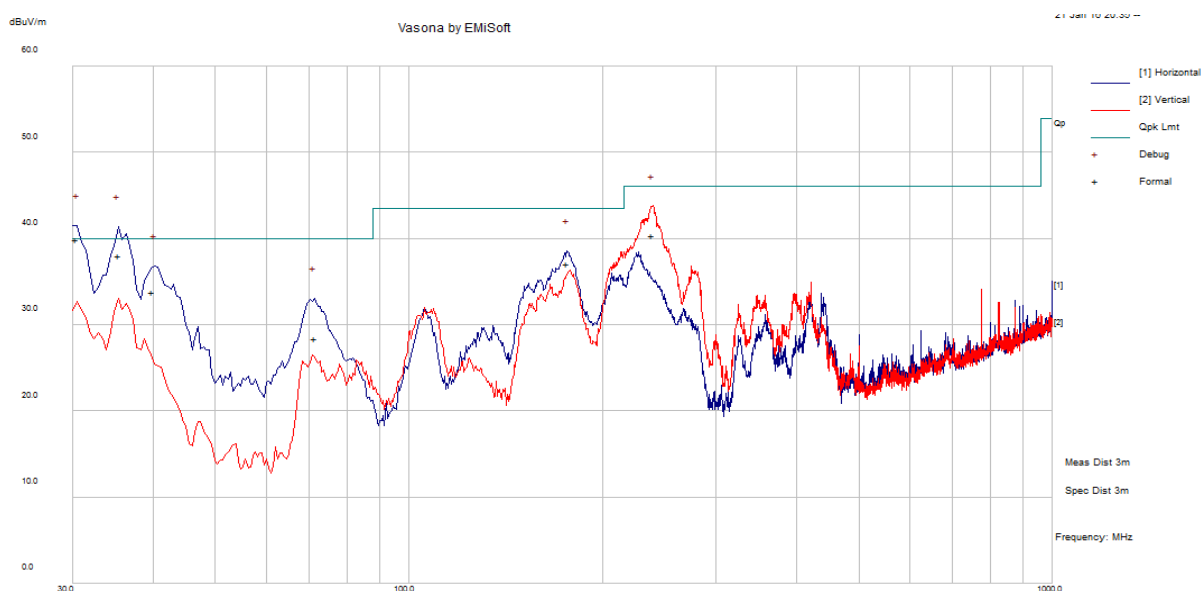
Spec	Item	Requirement	Applicable										
47CFR§15.247(d) RSS247 (5.5)	a)	Except higher limit as specified elsewhere in other section, the emissions from the low-power radio-frequency devices shall not exceed the field strength levels specified in the following table and the level of any unwanted emissions shall not exceed the level of the fundamental emission. The tighter limit applies at the band edges <table><tr><th>Frequency range (MHz)</th><th>Field Strength (uV/m)</th></tr><tr><td>30 – 88</td><td>100</td></tr><tr><td>88 – 216</td><td>150</td></tr><tr><td>216 960</td><td>200</td></tr><tr><td>Above 960</td><td>500</td></tr></table>	Frequency range (MHz)	Field Strength (uV/m)	30 – 88	100	88 – 216	150	216 960	200	Above 960	500	☒
Frequency range (MHz)	Field Strength (uV/m)												
30 – 88	100												
88 – 216	150												
216 960	200												
Above 960	500												
Test Setup													
Procedure	1. The EUT was switched on and allowed to warm up to its normal operating condition. 2. 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: a. Vertical or horizontal polarisation (whichever gave the higher emission level over a full rotation of the EUT) was chosen. b. The EUT was then rotated to the direction that gave the maximum emission. c. Finally, the antenna height was adjusted to the height that gave the maximum emission. 3. A Quasi-peak measurement was then made for that frequency point. 4. Steps 2 and 3 were repeated for the next frequency point, until all selected frequency points were measured.												
Remark	The EUT was scanned up to 1GHz. Both horizontal and vertical polarities were investigated. The results show only the worst case.												
Result	☒ Pass ☐ Fail												

Test Data ☒ Yes (See below) ☐ N/A

Test Plot ☒ Yes (See below) ☐ N/A

Radiated Emission Test Results (Below 1GHz)

Test specification	Below 1GHz			
Environmental Conditions:	Temp (°C):	25.7	Result	Passed
	Humidity (%)	29		
	Atmospheric (mPa):	1021		
Mains Power:	110VAC, 60Hz			
Tested by:	Teody Manasala			
Test Date:	21-Jan-16			
Remarks:	2.4GHz 11b 2437MHz			



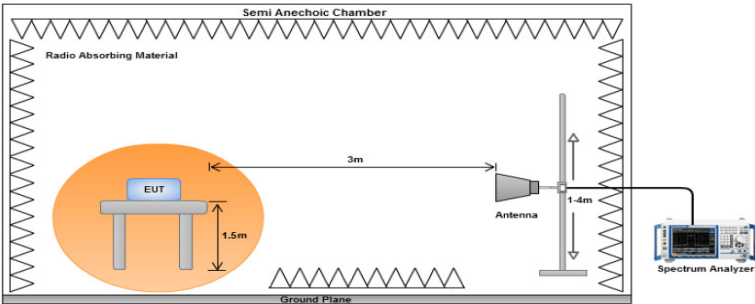
Quasi Max Measurement

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
460.08	43.57	3.70	-21.98	25.29	Quasi Max	V	125.00	348.00	46.02	-20.73	Pass
452.93	43.84	3.67	-22.10	25.41	Quasi Max	V	109.00	318.00	46.02	-20.61	Pass
452.18	35.63	3.67	-22.11	17.18	Quasi Max	V	168.00	24.00	46.02	-28.84	Pass
746.24	34.80	4.86	-18.06	21.60	Quasi Max	H	186.00	318.00	46.02	-24.42	Pass

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

10.3 Radiated Spurious Emissions between 1GHz – 25GHz

Requirement(s):

Spec	Item	Requirement	Applicable
47CFR§15.247(d), RSS247 (5.5)	a)	For non-restricted band, In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB or 30dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, determined by the measurement method on output power to be used. Attenuation below the general limits specified in § 15.209(a) is not required ☐ 20 dB down ☒ 30 dB down	☒
	b)	or restricted band, emission must also comply with the radiated emission limits specified in 15.209	☒
Test Setup			
Procedure	- The EUT was switched on and allowed to warm up to its normal operating condition. - 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: - Vertical or horizontal polarisation (whichever gave the higher emission level over a full rotation of the EUT) was chosen. - The EUT was then rotated to the direction that gave the maximum emission. - Finally, the antenna height was adjusted to the height that gave the maximum emission. - An average measurement was then made for that frequency point. - Steps 2 and 3 were repeated for the next frequency point, until all selected frequency points were measured.		
Remark	The EUT was scanned up to 25GHz. Both horizontal and vertical polarities were investigated. The results show only the worst case. There isn't outstanding emission found at the edge of restricted frequency.		
Result	☒ Pass ☐ Fail		

Test Data ☒ Yes (See below) ☐ N/A

Test Plot ☐ Yes (See below) ☒ N/A

Radiated Emission Test Results (Above 1GHz)

Above 1GHz-25GHz – 802.11b – 2412MHz

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
17680.45	34.30	16.48	10.58	61.36	Peak Max	V	143.00	300.00	74.00	-12.64	Pass
4210.05	36.82	9.03	11.31	57.16	Peak Max	H	205.00	233.00	74.00	-16.84	Pass
1021.77	43.32	3.38	9.64	56.35	Peak Max	H	171.00	164.00	74.00	-17.65	Pass
6133.86	37.46	10.65	10.74	58.85	Peak Max	V	150.00	93.00	74.00	-15.15	Pass
17680.45	22.98	16.48	10.58	50.04	Average Max	V	143.00	300.00	54.00	-3.96	Pass
4210.05	25.52	9.03	11.31	45.86	Average Max	H	205.00	233.00	54.00	-8.14	Pass
1021.77	31.19	3.38	9.64	44.22	Average Max	H	171.00	164.00	54.00	-9.79	Pass
6133.86	24.66	10.65	10.74	46.05	Average Max	V	150.00	93.00	54.00	-7.95	Pass

Above 1GHz-25GHz- 802.11b - 2437MHz

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
3996.11	37.10	8.48	12.21	57.79	Peak Max	H	125.00	170.00	74.00	-16.21	Pass
17797.79	34.67	16.27	10.70	61.65	Peak Max	V	231.00	98.00	74.00	-12.36	Pass
6164.27	36.46	10.69	10.67	57.82	Peak Max	H	201.00	163.00	74.00	-16.18	Pass
2071.48	40.47	4.34	11.25	56.06	Peak Max	V	113.00	312.00	74.00	-17.94	Pass
3996.11	25.11	8.48	12.21	45.81	Average Max	H	125.00	170.00	54.00	-8.19	Pass
17797.79	23.00	16.27	10.70	49.98	Average Max	V	231.00	98.00	54.00	-4.02	Pass
6164.27	24.53	10.69	10.67	45.89	Average Max	H	201.00	163.00	54.00	-8.11	Pass
2071.48	28.29	4.34	11.25	43.89	Average Max	V	113.00	312.00	54.00	-10.11	Pass

Above 1GHz-25GHz – 802.11b – 2462MHz

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
17704.48	35.00	16.44	10.61	62.04	Peak Max	V	227.00	313.00	74.00	-11.96	Pass
4313.32	37.15	9.27	10.88	57.31	Peak Max	H	205.00	213.00	74.00	-16.69	Pass
2020.28	39.82	4.30	11.41	55.53	Peak Max	V	153.00	178.00	74.00	-18.47	Pass
10776.74	35.52	12.26	8.37	56.15	Peak Max	V	205.00	168.00	74.00	-17.85	Pass
17704.48	23.04	16.44	10.61	50.09	Average Max	V	227.00	313.00	54.00	-3.91	Pass
4313.32	24.97	9.27	10.88	45.12	Average Max	H	205.00	213.00	54.00	-8.88	Pass
2020.28	28.55	4.30	11.41	44.26	Average Max	V	153.00	178.00	54.00	-9.74	Pass
10776.74	23.91	12.26	8.37	44.54	Average Max	V	205.00	168.00	54.00	-9.46	Pass

Above 1GHz-25GHz- 802.11g - 2412MHz

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
4093.59	36.95	8.74	11.82	57.51	Peak Max	H	216.00	233.00	74.00	-16.49	Pass
6132.73	36.51	10.65	10.75	57.90	Peak Max	H	247.00	45.00	74.00	-16.10	Pass
1085.14	41.90	3.48	9.54	54.92	Peak Max	V	110.00	141.00	74.00	-19.08	Pass
2021.34	39.74	4.30	11.41	55.44	Peak Max	H	207.00	262.00	74.00	-18.56	Pass
4093.59	25.54	8.74	11.82	46.09	Average Max	H	216.00	233.00	54.00	-7.91	Pass
6132.73	24.80	10.65	10.75	46.20	Average Max	H	247.00	45.00	54.00	-7.81	Pass
1085.14	30.56	3.48	9.54	43.59	Average Max	V	110.00	141.00	54.00	-10.41	Pass
2021.34	28.20	4.30	11.41	43.91	Average Max	H	207.00	262.00	54.00	-10.09	Pass

Above 1GHz-25GHz – 802.11g – 2437MHz

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
4189.30	37.88	8.98	11.40	58.26	Peak Max	H	117.00	312.00	74.00	-15.75	Pass
17532.56	34.85	16.73	10.43	62.02	Peak Max	H	209.00	182.00	74.00	-11.99	Pass
6165.13	36.76	10.69	10.67	58.11	Peak Max	H	205.00	267.00	74.00	-15.89	Pass
12804.04	34.56	12.90	8.43	55.90	Peak Max	H	162.00	213.00	74.00	-18.10	Pass
4189.30	25.71	8.98	11.40	46.09	Average Max	H	117.00	312.00	54.00	-7.91	Pass
17532.56	23.05	16.73	10.43	50.22	Average Max	H	209.00	182.00	54.00	-3.78	Pass
6165.13	24.60	10.69	10.67	45.95	Average Max	H	205.00	267.00	54.00	-8.05	Pass
12804.04	22.55	12.90	8.43	43.88	Average Max	H	162.00	213.00	54.00	-10.12	Pass

Above 1GHz-25GHz- 802.11g - 2462MHz

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
4189.40	36.77	8.98	11.40	57.15	Peak Max	V	157.00	216.00	74.00	-16.85	Pass
6129.91	37.22	10.64	10.75	58.62	Peak Max	V	191.00	48.00	74.00	-15.38	Pass
1010.71	43.72	3.37	9.66	56.74	Peak Max	H	208.00	285.00	74.00	-17.26	Pass
2074.54	40.71	4.35	11.24	56.30	Peak Max	V	241.00	89.00	74.00	-17.70	Pass
4189.40	25.67	8.98	11.40	46.05	Average Max	V	157.00	216.00	54.00	-7.95	Pass
6129.91	24.71	10.64	10.75	46.11	Average Max	V	191.00	48.00	54.00	-7.89	Pass
1010.71	31.75	3.37	9.66	44.78	Average Max	H	208.00	285.00	54.00	-9.22	Pass
2074.54	28.30	4.35	11.24	43.89	Average Max	V	241.00	89.00	54.00	-10.11	Pass

Above 1GHz-25GHz- 802.11n20 - 2412MHz

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
17480.53	35.38	16.79	10.34	62.50	Peak Max	H	241.00	267.00	74.00	-11.50	Pass
4249.90	37.41	9.12	11.15	57.68	Peak Max	H	169.00	305.00	74.00	-16.32	Pass
6046.41	36.53	10.54	10.95	58.03	Peak Max	V	173.00	355.00	74.00	-15.97	Pass
1987.76	40.48	4.27	11.38	56.13	Peak Max	H	197.00	84.00	74.00	-17.87	Pass
17480.53	23.18	16.79	10.34	50.30	Average Max	H	241.00	267.00	54.00	-3.70	Pass
4249.90	25.69	9.12	11.15	45.96	Average Max	H	169.00	305.00	54.00	-8.05	Pass
6046.41	24.63	10.54	10.95	46.13	Average Max	V	173.00	355.00	54.00	-7.88	Pass
1987.76	28.48	4.27	11.38	44.14	Average Max	H	197.00	84.00	54.00	-9.86	Pass

Above 1GHz-25GHz – 802.11n20 – 2437MHz

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
4218.89	37.28	9.05	11.28	57.60	Peak Max	H	112.00	3.00	74.00	-16.40	Pass
1000.00	33.90	3.35	9.68	46.93	Peak Max	V	156.00	274.00	74.00	-27.07	Pass
2042.73	40.69	4.32	11.34	56.35	Peak Max	V	199.00	212.00	74.00	-17.65	Pass
10742.56	36.06	12.15	8.39	56.60	Peak Max	H	108.00	47.00	74.00	-17.40	Pass
4218.89	25.68	9.05	11.28	46.01	Average Max	H	112.00	3.00	54.00	-7.99	Pass
1000.00	31.97	3.35	9.68	45.00	Average Max	V	156.00	274.00	54.00	-9.00	Pass
2042.73	28.53	4.32	11.34	44.19	Average Max	V	199.00	212.00	54.00	-9.81	Pass
10742.56	24.15	12.15	8.39	44.69	Average Max	H	108.00	47.00	54.00	-9.31	Pass

Above 1GHz-25GHz- 802.11n20 - 2462MHz

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
4218.32	37.22	9.05	11.28	57.54	Peak Max	H	207.00	79.00	74.00	-16.46	Pass
17606.69	34.68	16.60	10.51	61.79	Peak Max	H	171.00	112.00	74.00	-12.21	Pass
6163.15	36.29	10.68	10.67	57.65	Peak Max	V	231.00	236.00	74.00	-16.36	Pass
1021.87	43.21	3.38	9.64	56.23	Peak Max	V	149.00	253.00	74.00	-17.77	Pass
4218.32	25.68	9.05	11.28	46.01	Average Max	H	207.00	79.00	54.00	-7.99	Pass
17606.69	23.08	16.60	10.51	50.19	Average Max	H	171.00	112.00	54.00	-3.81	Pass
6163.15	24.65	10.68	10.67	46.01	Average Max	V	231.00	236.00	54.00	-7.99	Pass
1021.87	31.66	3.38	9.64	44.69	Average Max	V	149.00	253.00	54.00	-9.31	Pass

Annex A. TEST INSTRUMENT

Instrument	Model	Serial #	Cal Date	Cal Cycle	Cal Due	In use
Conducted Emissions						
R & S Receiver	ESIB 40	100179	05/23/2015	1 Year	05/23/2016	☒
CHASE LISN	MN2050B	1018	08/07/2015	1 Year	08/07/2016	☒
Radiated Emissions						
R & S Receiver	ESL6	100178	05/27/2015	1 Year	05/27/2016	☒
R & S Receiver	ESIB 40	100179	05/23/2015	1 Year	05/23/2016	☒
ETS-Lingren Loop Antenna	6512	00049120	05/12/2015	1 Year	05/12/2016	☒
Bi-Log antenna (30MHz~2GHz)	JB1	A030702	08/12/2015	1 Year	08/12/2016	☒
3 Meters SAC	3M	N/A	08/08/2015	1 Year	08/08/2016	☒
10 Meters SAC	10M	N/A	09/05/2015	1 Year	09/05/2016	☒
RF Conducted Measurement						
Spectrum Analyzer	N9010A	10SL0219	08/20/2015	1 Year	08/20/2016	☒
R & S Receiver	ESIB 40	100179	05/23/2015	1 Year	05/23/2016	☐
Test Equity Environment Chamber	1007H	61201	07/31/2015	1 Year	07/31/2016	☐
USB RF Power Sensor	7002-006	10SL0190	09/03/2015	1 Year	09/03/2016	☐

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		A1 , A2 , A3 , A4 , B1 , B2 , B3 , B4 , 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		Radio & Telecommunications Terminal Equipment: EN45001 – EN ISO/IEC 17025
		Electromagnetic Compatibility: EN45001 – EN ISO/IEC 17025
Singapore iDA CB(Certification Body)		Phase I , Phase II
Vietnam MIC CAB Accreditation		Please see the document for the detailed scope
Hong Kong OFCA		(Phase II) OFCA Foreign Certification Body for Radio and Telecom
		(Phase I) Conformity Assessment Body for Radio and Telecom
Industry Canada CAB		Radio: Scope A – All Radio Standard Specification in Category I
		Telecom: CS-03 Part I, II, V, VI, VII, VIII

Japan Recognized Certification Body Designation		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
Korea CAB Accreditation		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 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 Telecom: 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		R-3083: Radiation 3 meter site C-3421: Main Ports Conducted Interference Measurement T-1597: Telecommunication Ports Conducted Interference Measurement
Australia CAB Recognition		EMC: AS/NZS CISPR 11, AS/NZS CISPR 14.1, AS/NZS CISPR22, AS/NZS 61000.6.3, AS/NZS 61000.6.4 Radio communications: 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 Telecommunications: 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