

RF TEST REPORT



Report No.: FCC_RF_SL18120403-SLX-106_DTS Rev_1.0
Supersede Report No.: FCC_RF_SL18120403-SLX-106_DTS

Applicant	:	Silex Technology, Inc
Product Name	:	SX-PCEAC2
Model No.	:	SX-PCEAC2
Test Standard	:	47 CFR 15.247
Test Method	:	ANSI C63.10: 2013 558074 D01 DTS Meas Guidance v05r01
FCC ID	:	N6C-SXPCEAC2
Dates of test	:	03/18/2019 – 03/26/2019
Issue Date	:	04/19/2019
Test 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:

	
Deon Dai	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.



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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	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_RF_SL18120403-SLX-106_DTS	None	Original	03/28/2019
FCC_RF_SL18120403-SLX-106_DTS Rev_1.0	Rev_1.0	Updated per Review	04/19/2019

2 Executive Summary

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

Company:	Silex Technology, Inc
Product:	SX-PCEAC2
Model:	SX-PCEAC2

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.	540430
IC Test Site No.	4842D
VCCI Test Site No.	A0133

5 Modification

Index	Item	Description	Note
-	-	-	-

6 EUT Information

6.1 EUT Description

Product Name	SX-PCEAC2
Model No.	SX-PCEAC2
Trade Name	Silex
Serial No.	N/A
Host Model No.	N/A
Input Power	12V DC 5A
Power Adapter Manu/Model	MEAN WELL / GST60A12-ZD
Power Adapter SN	EB76A03889
Date of EUT received	03/14/2019
Equipment Class/ Category	DTS
Clock Frequencies	N/A
Port/Connectors	N/A

6.2 Radio Description

Radio Type	802.11b/g/n-20M	802.11n -40M
Operating Frequency	2412-2462MHz	2422-2452MHz
Modulation	DSSS (CCK, DQPSK, DBPSK)	OFDM (BPSK, QPSK, 16QAM, 64QAM)
Channel Spacing	5MHz	5MHz
Number of Channels	11	7
Antenna Type	Screw Mount Omni-Directional Antenna	
Antenna Gain (Peak)	MIMO1: 3.5dBi, MIMO2: 5.5dBi	
Antenna Connector Type	RP-SMA Male	
Note	-	

7 Supporting Equipment/Software and cabling Description

7.1 Supporting Equipment

Item	Supporting Equipment Description	Model	Serial Number	Manufacturer	Note
1	Laptop	ThinkPad T420s	N/A	Lenovo	-
2	Console Cable	USB to RJ45 Cable	-	Moyina	-
3	Control Board	170-29615 Rev B2	-	-	-

7.2 Cabling Description

Name	Connection Start		Connection Stop		Length / shielding Info		Note
	From	I/O Port	To	I/O Port	Length (m)	Shielding	
Console Cable	EUT	Micro-USB Port	Laptop	USB	1.8	Unshielded	-

7.3 Test Software Description

Test Item	Software	Description
RF Testing	Tera Term	Set the EUT to transmit continuously in different test modes

8 Test Summary

Test Item	Test standard		Test Method/Procedure		Pass / Fail
Antenna Requirement	FCC	15.203	FCC	-	☒ Pass ☐ N/A
Restricted Band of Operation	FCC	15.205	FCC	ANSI C63.10:2013 558074 D01 DTS Meas Guidance v05r01	☒ Pass* ☐ N/A
AC Conducted Emissions	FCC	15.207(a)	FCC	ANSI C63.10:2013	☒ Pass* ☐ N/A

DTS Band Requirement

Test Item	Test standard		Test Method/Procedure		Pass / Fail
99% Occupied Bandwidth	-	-	-	-	☒ Pass* ☐ N/A
6dB Bandwidth	FCC	15.247(a)(2)	FCC	558074 D01 DTS Meas Guidance v05r01	☒ Pass* ☐ N/A
Band Edge and Radiated Spurious Emissions	FCC	15.247(d)	FCC	ANSI C63.10:2013 558074 D01 DTS Meas Guidance v05r01	☒ Pass ☐ N/A
Output Power	FCC	15.247(b)	FCC	558074 D01 DTS Meas Guidance v05r01	☒ Pass* ☐ N/A
Antenna Gain > 6 dBi	FCC	15.247(e)	FCC	-	☒ Pass* ☐ N/A
Power Spectral Density	FCC	15.247(e)	FCC	558074 D01 DTS Meas Guidance v05r01	☒ Pass* ☐ N/A
RF Exposure requirement	FCC	15.247(i)	FCC	-	☒ Pass* ☐ 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. - Pass* : Please refer to FCC ID: PPD-QCNFA324 test report no. RF140808E04.				

9 Measurement Uncertainty

Emissions			
Test Item	Frequency Range	Description	Uncertainty
AC Conducted Emissions	150KHz – 30MHz	Confidence level of approximately 95% (in the case where distributions are normal), with a coverage factor of 2	±3.5dB
RF conducted measurement	150KHz – 40GHz	Confidence level of approximately 95% (in the case where distributions are normal), with a coverage factor of 2	±0.95dB
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)	±6dB
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)	±6dB

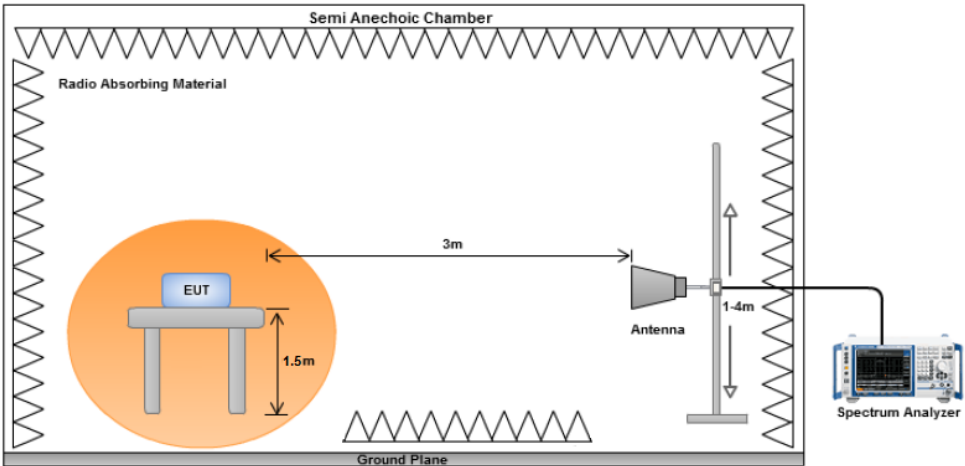
10 Measurements, Examination and Derived Results

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	The EUT uses a RP-SMA Male connector for antenna connection which meet the requirement.	
Result	☒ PASS ☐ FAIL	

10.2 Radiated Spurious Emissions in restricted band

Requirement(s):

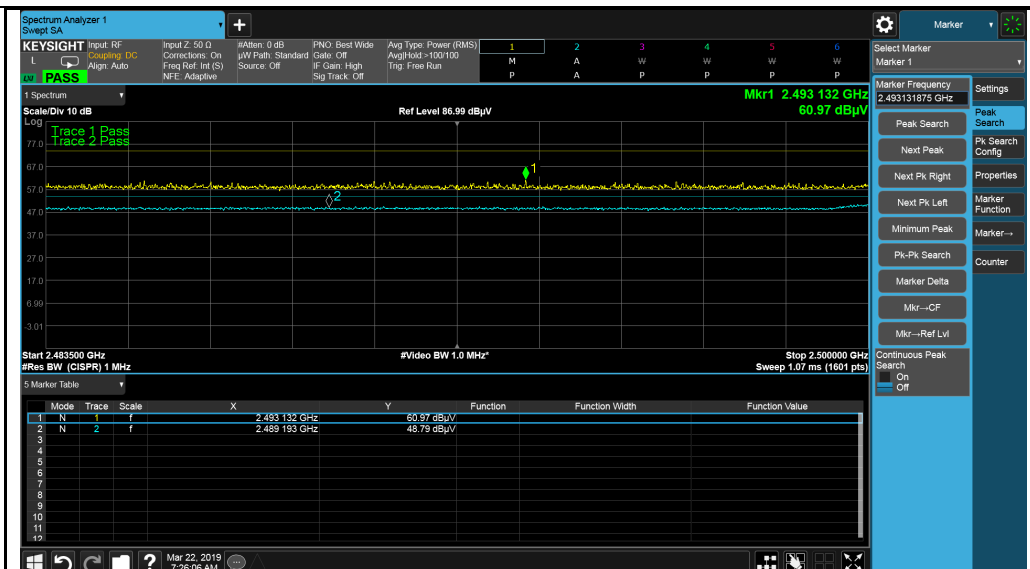
Spec	Item	Requirement	Applicable
47CFR§15.247(d)	a)	For non-restricted band, In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 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			
Result	☒ Pass ☐ Fail		

Test Data ☐ Yes (See below) ☒ N/A

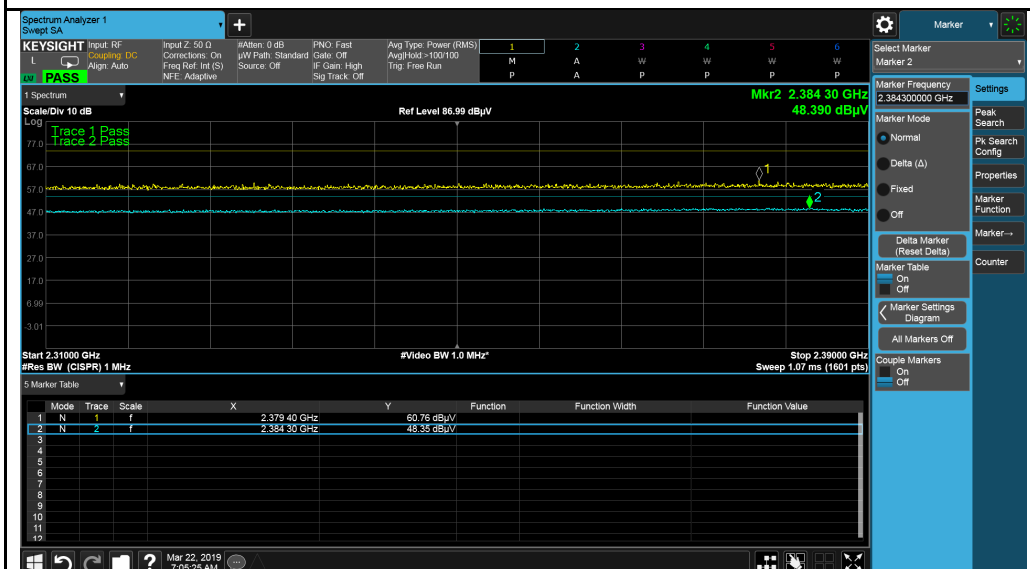
Test Plot ☒ Yes (See below) ☐ N/A

Test was done by Deon Dai at 10m chamber.

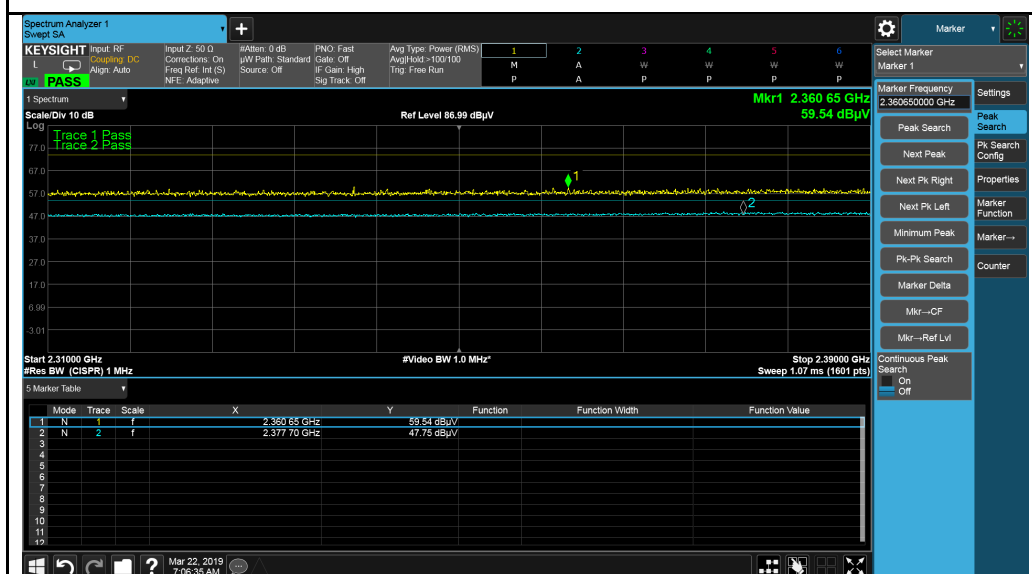
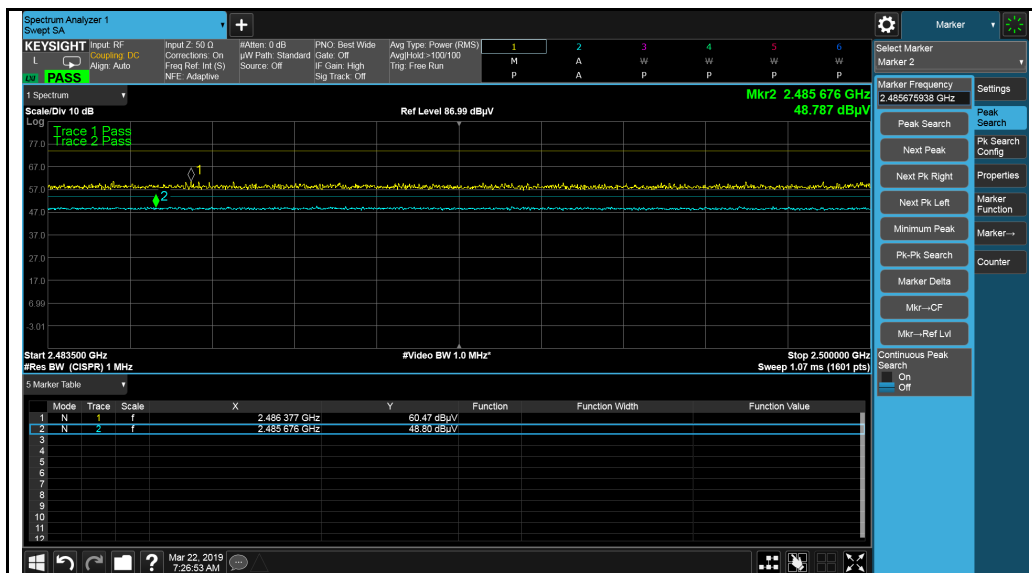
Restricted Band Measurement Plots:

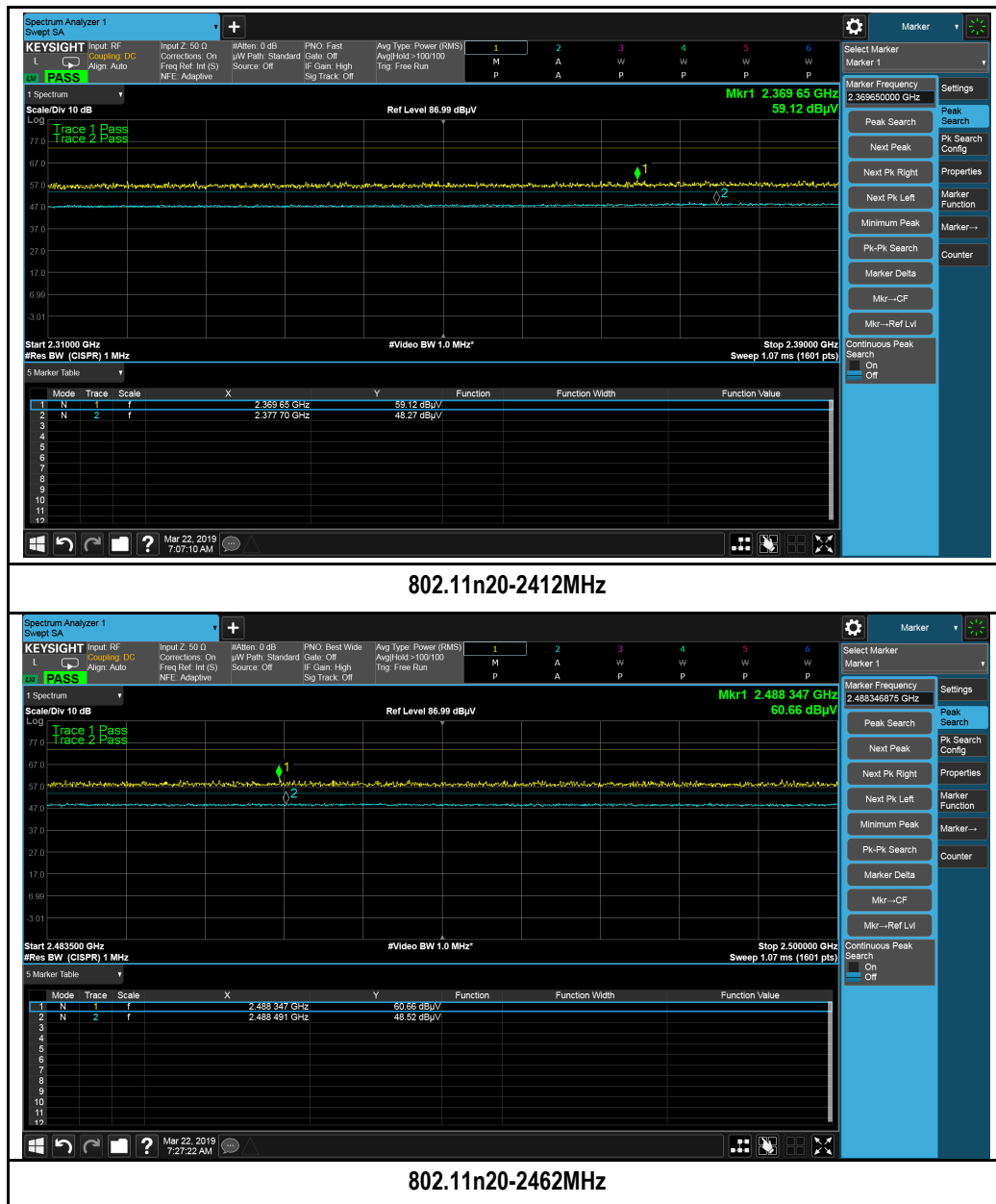


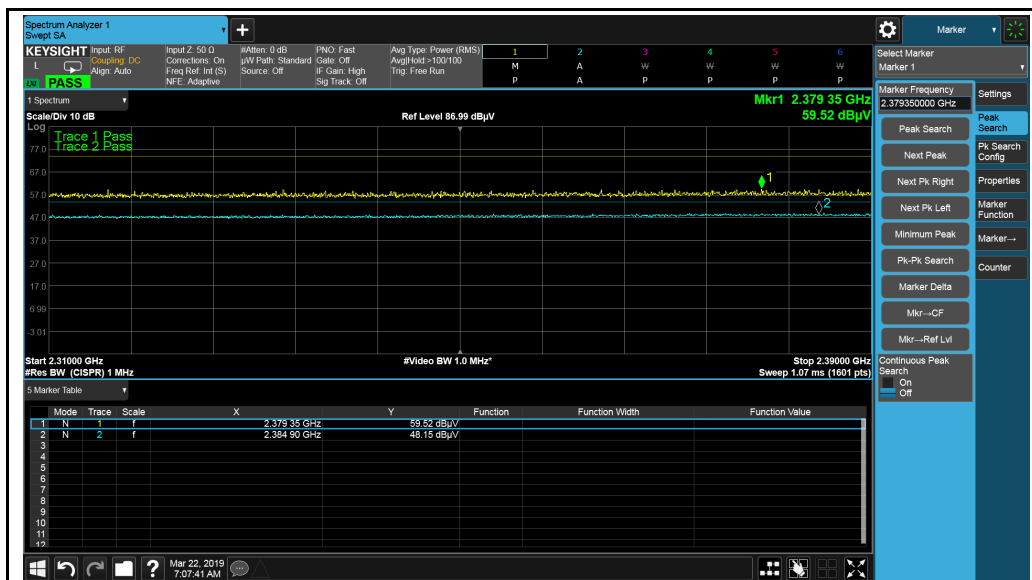
802.11b-2412MHz



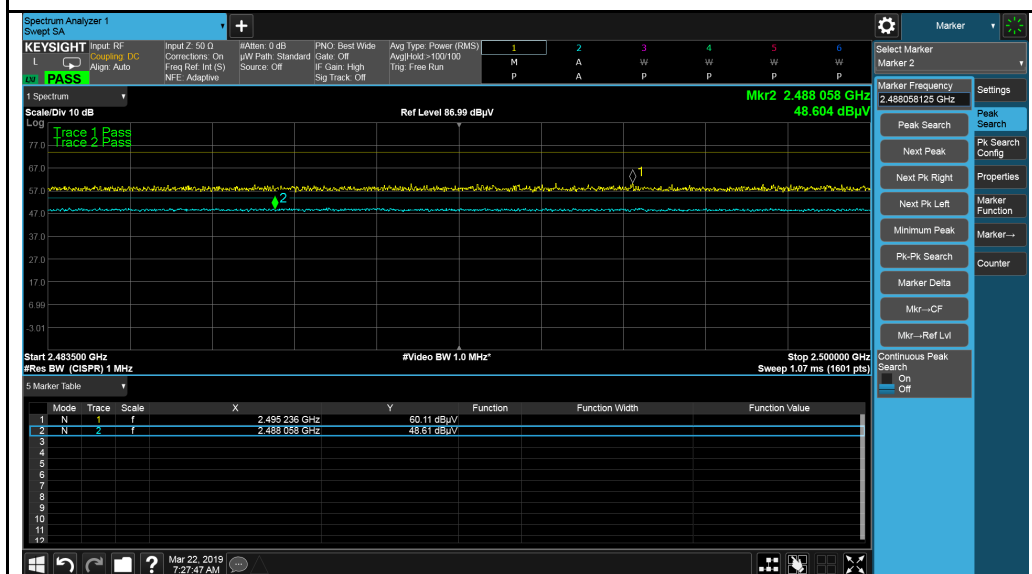
802.11b-2462MHz







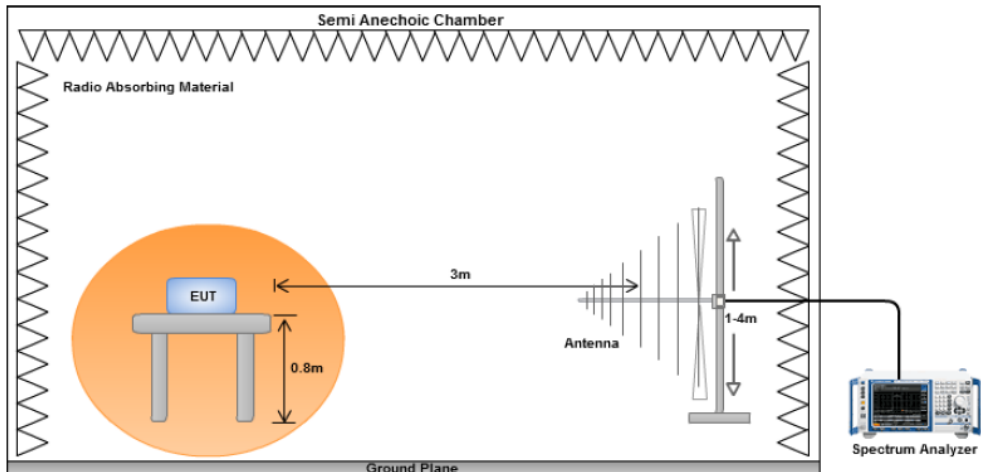
802.11n40-2422MHz



802.11n40-2452MHz

10.3 Radiated Spurious Emissions below 1GHz

Requirement(s):

Spec	Item	Requirement	Applicable							
47CFR§15.247(d)	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
Frequency range (MHz)	Field Strength (uV/m)									
30 – 88	100									
88 – 216	150									
216 960	200									
Above 960	500									
Test Setup										
Procedure	1. 2. 3. 4. 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: a. b. c. 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. 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 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									

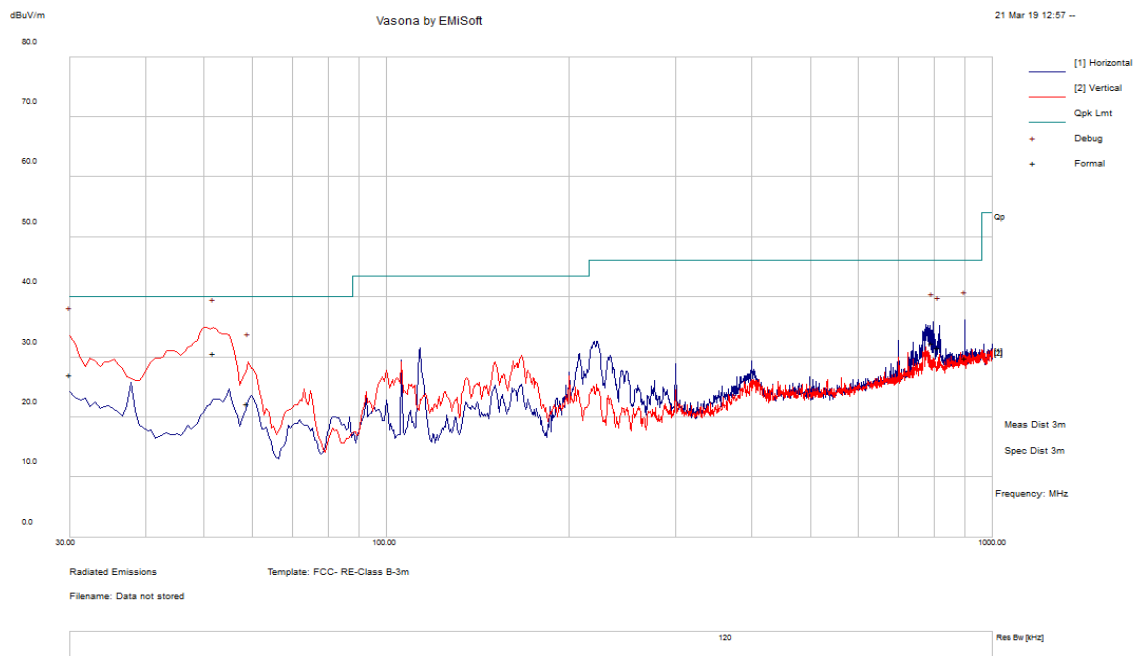
Test Data ☒ Yes (See below) ☐ N/A

Test Plot ☒ Yes (See below) ☐ N/A

Test was done by Deon Dai at 10m chamber.

Radiated Emission Test Results (Below 1GHz)

Test specification	below 1GHz				
Environmental Conditions:	Temp (°C):	26	Result	Pass	
	Humidity (%)	47			
	Atmospheric (mbar):	1020			
Mains Power:	120VAC, 60Hz				
Tested by:	Deon Dai				
Test Date:	03/21/2019				
Remarks:	802.11n20, 2437MHz				

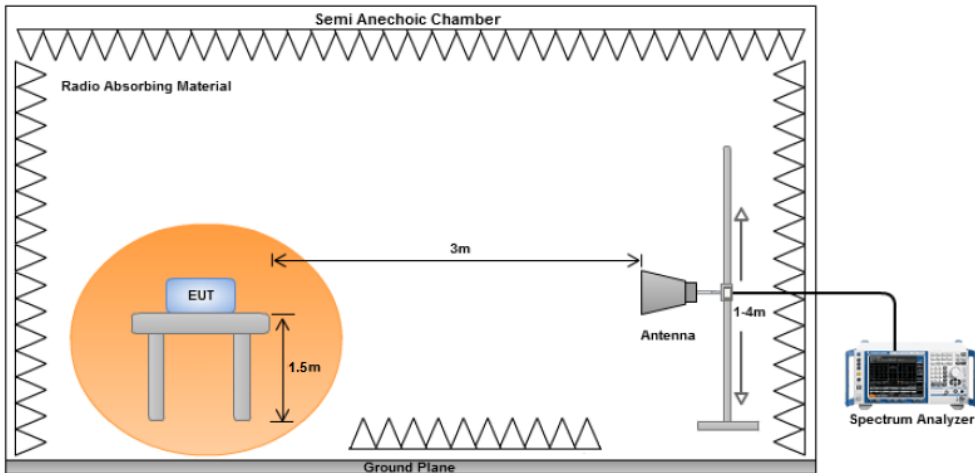


Frequency MHz	Raw dBuV/m	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
51.88	45.99	11.46	-26.7	30.75	Quasi Max	V	111	189	40	-9.25	Pass
30.01	28.17	11.12	-12.1	27.19	Quasi Max	V	127	206	40	-12.81	Pass
899.99	27.3	15.95	-13.29	29.97	Quasi Max	H	0	43	46	-16.03	Pass
796.74	31.24	15.47	-14.28	32.44	Quasi Max	H	165	107	46	-13.57	Pass
815.90	30.4	15.51	-14.26	31.65	Quasi Max	H	101	31	46	-14.35	Pass
58.92	38.04	11.5	-27.26	22.28	Quasi Max	V	123	132	40	-17.72	Pass

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

10.4 Radiated Spurious Emissions between 1GHz – 25GHz

Requirement(s):

Spec	Item	Requirement	Applicable
47CFR§15.247(d)	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			
Result	☒ Pass ☐ Fail		

Test Data ☒ Yes (See below) ☐ N/A

Test Plot ☐ Yes (See below) ☒ N/A

Test was done by Deon Dai at 3m chamber.

Radiated Emission Test Results (Above 1GHz)

Above 1GHz-25GHz – 802.11b – 2412MHz

Frequency MHz	Raw dBuV/m	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
3151.84	47.69	3.39	-13.81	37.27	Peak Max	V	213	297	74	-36.73	Pass
4824.28	48.67	4.12	-10.92	41.87	Peak Max	H	218	28	74	-32.13	Pass
8737.16	49.47	5.62	-6.5	48.59	Peak Max	H	164	154	74	-25.41	Pass
3151.84	33.67	3.39	-13.81	23.25	Average Max	V	213	297	54	-30.75	Pass
4824.28	34.59	4.12	-10.92	27.79	Average Max	H	218	28	54	-26.21	Pass
8737.16	35.27	5.62	-6.5	34.39	Average Max	H	164	154	54	-19.61	Pass

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

Frequency MHz	Raw dBuV/m	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
3814.07	48.19	3.64	-12.94	38.89	Peak Max	V	207	292	74	-35.11	Pass
4873.81	48.35	4.17	-11.01	41.51	Peak Max	V	224	30	74	-32.49	Pass
8160.90	50.42	5.38	-7.09	48.71	Peak Max	H	164	151	74	-25.29	Pass
3814.07	34.15	3.64	-12.94	24.85	Average Max	V	207	292	54	-29.15	Pass
4873.81	34	4.17	-11.01	27.16	Average Max	V	224	30	54	-26.84	Pass
8160.90	36.32	5.38	-7.09	34.61	Average Max	H	164	151	54	-19.39	Pass

Above 1GHz-25GHz – 802.11b – 2462MHz

Frequency MHz	Raw dBuV/m	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
3571.19	47.14	3.58	-13.61	37.11	Peak Max	V	206	297	74	-36.89	Pass
4924.05	48.27	4.22	-11.11	41.38	Peak Max	H	216	27	74	-32.62	Pass
8648.39	49.6	5.59	-6.66	48.53	Peak Max	V	161	147	74	-25.47	Pass
3571.19	32.53	3.58	-13.61	22.5	Average Max	V	206	297	54	-31.5	Pass
4924.05	33.82	4.22	-11.11	26.93	Average Max	H	216	27	54	-27.07	Pass
8648.39	34.79	5.59	-6.66	33.72	Average Max	V	161	147	54	-20.28	Pass

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

Frequency MHz	Raw dBuV/m	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
3589.50	46.99	3.58	-13.56	37.01	Peak Max	H	210	296	74	-36.99	Pass
4824.59	48.64	4.12	-10.92	41.84	Peak Max	V	223	27	74	-32.16	Pass
8760.51	49.48	5.63	-6.45	48.66	Peak Max	H	163	154	74	-25.34	Pass
3589.50	32.62	3.58	-13.56	22.64	Average Max	H	210	296	54	-31.36	Pass
4824.59	33.85	4.12	-10.92	27.05	Average Max	V	223	27	54	-26.95	Pass
8760.51	35.28	5.63	-6.45	34.46	Average Max	H	163	154	54	-19.54	Pass

Above 1GHz-25GHz – 802.11g – 2437MHz

Frequency MHz	Raw dBuV/m	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
3962.96	47.69	3.81	-12.7	38.8	Peak Max	H	212	295	74	-35.2	Pass
4873.96	48.34	4.17	-11.01	41.5	Peak Max	V	215	27	74	-32.5	Pass
8048.11	50.13	5.41	-7.05	48.49	Peak Max	V	161	146	74	-25.51	Pass
3962.96	33.64	3.81	-12.7	24.75	Average Max	H	212	295	54	-29.25	Pass
4873.96	33.77	4.17	-11.01	26.93	Average Max	V	215	27	54	-27.07	Pass
8048.11	36.02	5.41	-7.05	34.38	Average Max	V	161	146	54	-19.62	Pass

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

Frequency MHz	Raw dBuV/m	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
3268.37	47.91	3.48	-13.75	37.64	Peak Max	H	205	296	74	-36.36	Pass
4924.31	48.25	4.22	-11.11	41.36	Peak Max	V	223	34	74	-32.64	Pass
8866.53	49.79	5.63	-6.19	49.23	Peak Max	V	168	147	74	-24.77	Pass
3268.37	33.3	3.48	-13.75	23.03	Average Max	H	205	296	54	-30.97	Pass
4924.31	34.11	4.22	-11.11	27.22	Average Max	V	223	34	54	-26.78	Pass
8866.53	35.34	5.63	-6.19	34.78	Average Max	V	168	147	54	-19.22	Pass

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

Frequency MHz	Raw dBuV/m	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
3958.63	48.1	3.8	-12.71	39.19	Peak Max	V	212	296	74	-34.81	Pass
4824.77	48.62	4.12	-10.92	41.82	Peak Max	H	216	34	74	-32.18	Pass
8010.08	50.29	5.43	-7.03	48.69	Peak Max	V	167	148	74	-25.31	Pass
3958.63	33.79	3.8	-12.71	24.88	Average Max	V	212	296	54	-29.12	Pass
4824.77	34.51	4.12	-10.92	27.71	Average Max	H	216	34	54	-26.29	Pass
8010.08	35.63	5.43	-7.03	34.03	Average Max	V	167	148	54	-19.97	Pass

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

Frequency MHz	Raw dBuV/m	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
3510.38	47.25	3.58	-13.71	37.12	Peak Max	H	209	297	74	-36.88	Pass
4873.35	48.36	4.17	-11.01	41.52	Peak Max	V	219	28	74	-32.48	Pass
8009.84	50.29	5.43	-7.03	48.69	Peak Max	V	169	145	74	-25.31	Pass
3510.38	32.38	3.58	-13.71	22.25	Average Max	H	209	297	54	-31.75	Pass
4873.35	34.25	4.17	-11.01	27.41	Average Max	V	219	28	54	-26.59	Pass
8009.84	35.57	5.43	-7.03	33.97	Average Max	V	169	145	54	-20.03	Pass

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

Frequency MHz	Raw dBuV/m	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
3293.35	47.41	3.49	-13.74	37.16	Peak Max	V	207	296	74	-36.84	Pass
4924.26	48.25	4.22	-11.11	41.36	Peak Max	V	224	34	74	-32.64	Pass
8521.71	49.52	5.54	-6.84	48.22	Peak Max	H	165	154	74	-25.78	Pass
3293.35	33.33	3.49	-13.74	23.08	Average Max	V	207	296	54	-30.92	Pass
4924.26	33.82	4.22	-11.11	26.93	Average Max	V	224	34	54	-27.07	Pass
8521.71	35.28	5.54	-6.84	33.98	Average Max	H	165	154	54	-20.02	Pass

Above 1GHz-25GHz- 802.11n20 - 2422MHz

Frequency MHz	Raw dBuV/m	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
3032.54	46.65	3.3	-14.05	35.9	Peak Max	V	204	300	74	-38.1	Pass
4843.36	49.36	4.14	-10.94	42.56	Peak Max	H	221	33	74	-31.44	Pass
8510.25	50.23	5.53	-6.84	48.92	Peak Max	V	169	146	74	-25.08	Pass
3032.54	31.9	3.3	-14.05	21.15	Average Max	V	204	300	54	-32.85	Pass
4843.36	34.84	4.14	-10.94	28.04	Average Max	H	221	33	54	-25.96	Pass
8510.25	36.08	5.53	-6.84	34.77	Average Max	V	169	146	54	-19.23	Pass

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

Frequency MHz	Raw dBuV/m	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
3550.46	47.16	3.58	-13.67	37.07	Peak Max	V	208	298	74	-36.93	Pass
4873.11	48.37	4.17	-11.01	41.53	Peak Max	V	223	32	74	-32.47	Pass
8004.54	50.25	5.43	-7.03	48.65	Peak Max	H	163	153	74	-25.35	Pass
3550.46	33.08	3.58	-13.67	22.99	Average Max	V	208	298	54	-31.01	Pass
4873.11	33.99	4.17	-11.01	27.15	Average Max	V	223	32	54	-26.85	Pass
8004.54	35.58	5.43	-7.03	33.98	Average Max	H	163	153	54	-20.02	Pass

Above 1GHz-25GHz- 802.11n20 - 2452MHz

Frequency MHz	Raw dBuV/m	Cable Loss	AF dB	Level dBuV/m	Measurement Type	Pol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
3884.02	47.75	3.72	-12.78	38.69	Peak Max	V	213	298	74	-35.31	Pass
4904.48	48.63	4.2	-11.09	41.74	Peak Max	H	218	31	74	-32.26	Pass
8298.06	50.94	5.38	-7.08	49.24	Peak Max	V	168	149	74	-24.76	Pass
3884.02	33.14	3.72	-12.78	24.08	Average Max	V	213	298	54	-29.92	Pass
4904.48	33.79	4.2	-11.09	26.9	Average Max	H	218	31	54	-27.1	Pass
8298.06	36.72	5.38	-7.08	35.02	Average Max	V	168	149	54	-18.98	Pass

Annex A. TEST INSTRUMENT

Instrument	Model	Serial #	Cal Date	Cal Cycle	Cal Due	In use
Radiated Emissions						
Keysight EXA 44GHz Spectrum Analyzer	N9030B(PXA)	MY57140374	08/20/2018	1 Year	08/20/2019	☒
Bi-Log antenna (30MHz~6GHz)	JB6	A111717	08/12/2018	1 Year	08/12/2019	☒
Horn Antenna (1GHz~26GHz)	3115	100059	01/26/2019	1 Year	01/26/2020	☒
Horn Antenna (26GHz~40GHz)	AH-840	101013	08/28/2018	1 Year	08/28/2019	☒
Pre-Amplifier(0.3MHz-6.5GHz)	LPA-6-30	11170602	02/06/2019	1 Year	02/06/2020	☒
Pre-Amplifier (1-26.5GHz)	8449B	3008A00715	08/16/2018	1 Year	08/16/2019	☒
Pre-Amp (10MHz~50GHz)	RAMP00M50GA	17032300047	02/10/2019	1 Year	02/10/2020	☒

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