RF TEST REPORT



Report No.: FCC_RF_SL15041501-CPC-004_UNII Rev 1.0 Supersede Report No.: FCC_RF_SL15041501-CPC-004_UNII

Applicant	:	ChargePoint, Inc		
Product Name	:	Network Communication		
Model No.	:	28010077		
Test Standard	:	47 CFR 15.407 RSS-247 Issue 1, May 2015		
Test Method	:	ANSI C63.10: 2013 RSS-Gen Issue 4, Nov 2014 789033 D02 General UNII Test Procedures New Rules v01		
FCC ID	:	W38-28010077		
IC ID	:	8854A-2801007		
Dates of test	:	08/31/2015 to 09/05/2015		
Issue Date	:	09/30/2015		
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:		
f eftel	Clan Ge	
Ronak Patel	Chen Ge	
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, 95035 CA





Test report No.	FCC _RF_SL15041501-CPC-004_UNII Rev 1.0
Page	2 of 24

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

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





Test report No.	FCC _RF_SL15041501-CPC-004_UNII Rev 1.0	
Page	3 of 24	

CONTENTS

1	RI	EPORT REVISION HISTORY	4
•		KECUTIVE SUMMARY	
2		USTOMER INFORMATION	
4		EST SITE INFORMATION	
•		ODIFICATIONODIFICATION	
ر		JT INFORMATION	
J	6.1	EUT Description	
	6.2	Radio Description	
	6.3	EUT Photos	
	6.4	EUT Photos – Internal	
	6.5	EUT Test Setup Photos	
7	Sl	JPPORTING EQUIPMENT/SOFTWARE AND CABLING DESCRIPTION	12
	7.1	Supporting Equipment	
	7.2	Cabling Description	
	7.3	Test Software Description	
3	TE	EST SUMMARY	13
9	MI	EASUREMENT UNCERTAINTY	14
1()	MEASUREMENTS, EXAMINATION AND DERIVED RESULTS	1
	10.1	Conducted Emissions	
	10.2	Radiated Emissions below 1GHz	10
	10.3	Radiated Spurious Emissions above 1GHz	18
4	NNEX	A. TEST INSTRUMENT	22
Δ	NNEY	R SIEMIC ACCREDITATION	2



Test report No.	FCC _RF_SL15041501-CPC-004_UNII Rev 1.0	
Page	4 of 24	

Report Revision History

Report No.	Report Version	Description	Issue Date
FCC _RF_SL15041501-CPC-004_UNII	None	Original	09/30/2015
FCC _RF_SL15041501-CPC-004_UNII Rev 1.0	Rev 1.0	Updated per reviewer	10/28/2015





Test report No.	FCC _RF_SL15041501-CPC-004_UNII Rev 1.0	
Page	5 of 24	

2 Executive Summary

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

<u>Company:</u> ChargePoint, Inc. <u>Product:</u> Network Comunication

Model: 28010077

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	:	ChargePoint, Inc.
Applicant Address		254 E. Hacienda Ave Campbell, CA 95148
Manufacturer Name	:	ChargePoint, Inc.
Manufacturer Address		254 E. Hacienda Ave Campbell, CA 95148

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
-	-	-	-

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



Test report No.	FCC _RF_SL15041501-CPC-004_UNII Rev 1.0
Page	6 of 24

6 **EUT Information**

6.1 EUT Description

U.I LUI DESCRIPTION		
Product Name	:	Network Comunication
Model No.	:	28010077
Trade Name	:	ChargePoint
Serial No.	:	N/A
Host Model No.	:	CPH25 & CPH12
Input Power	:	100-240VDC, 50/60Hz
Power Adapter Manu/Model	:	Condor/HK-CH13-A05
Power Adapter SN	:	N/A
Product Hardware version	:	27-010077
Product Software version	:	4.0.0.41
Radio Hardware version	:	27-010077
Radio Software version	:	4.0.0.41
Test Software version	:	4.0.0.41
Date of EUT received	:	May 01, 2015
Equipment Class/ Category	:	UNII
Clock Frequencies	:	N/A
Port/Connectors	:	USB

6.2 Radio Description

0.2 Radio Description	
Radio Type	802.11a
Operating Frequency	5180-5240MHz 5745-5825MHz
Modulation	OFDM (BPSK, QPSK, 16QAM, 64QAM)
Channel Spacing	20MHz
Number of Channels	9
Antenna Type	Prestta WLAN Embedded Antenna
Antenna Gain (Peak)	3.5dBi (for 5GHz)
Antenna Connector Type	On Board
Note	•



Test report No.	FCC _RF_SL15041501-CPC-004_UNII Rev 1.0
Page	7 of 24

EUT Power Settings

Band	Mode	Frequency	Power setting	
5150-5250MHz		5180	20	
	802.11a	5200	20	
		5240	20	
5725-5850MHz		5745	20	
	802.11a	5785 20	20	
		5825	20	

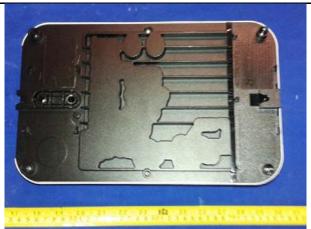




Test report No.	FCC _RF_SL15041501-CPC-004_UNII Rev 1.0
Page	8 of 24

6.3 EUT Photos





Front View

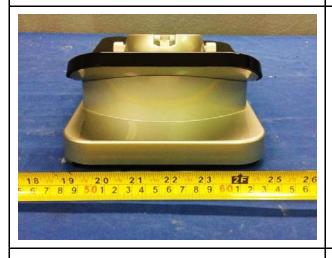
Rear View





Right Side View

Left Side View





Top View

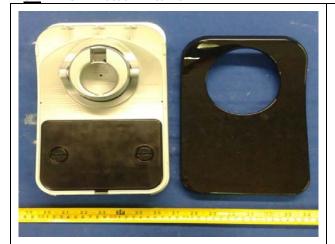
Bottom View



 Test report No.
 FCC _RF_SL15041501-CPC-004_UNII Rev 1.0

 Page
 9 of 24

6.4 EUT Photos - Internal

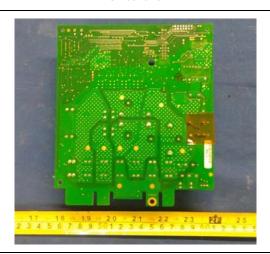




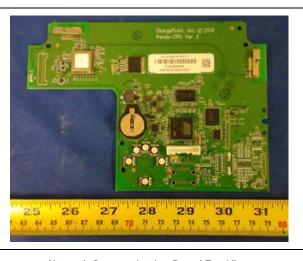
EUT with housing



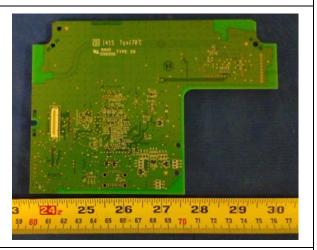
EUT cover off



Main Board Top View



Main Board Bottom View

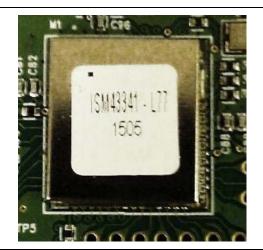


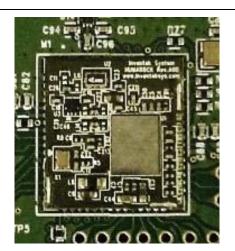
Network Communication Board Top View

Network Communication Board Top View



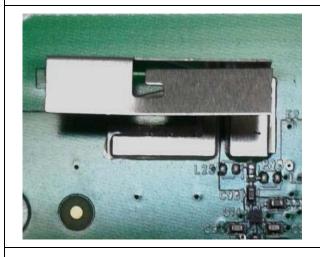
Test report No.	FCC _RF_SL15041501-CPC-004_UNII Rev 1.0
Page	10 of 24

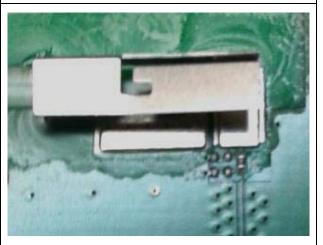




Radio Board with shielding

Radio Board without shielding





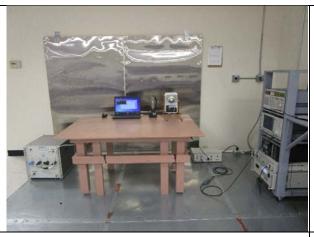
Antenna 1

Antenna 2



Test report No.	FCC _RF_SL15041501-CPC-004_UNII Rev 1.0
Page	11 of 24

6.5 EUT Test Setup Photos





AC Line Conducted Emission - Front View

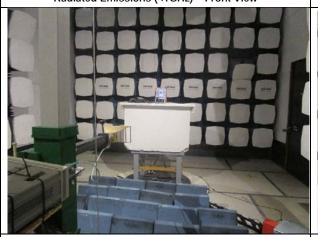
AC Line Conducted Emission - Rear View





Radiated Emissions (<1GHz) - Front View

Radiated Emissions (<1GHz) - Rear View





Radiated Emissions (>1GHz) - Front View

Radiated Emissions (>1GHz) - Rear View



Test report No.	FCC _RF_SL15041501-CPC-004_UNII Rev 1.0
Page	12 of 24

7 Supporting Equipment/Software and cabling Description

7.1 Supporting Equipment

Item	Supporting Equipment Description	Model	Serial Number	Manufacturer	Note
1	Laptop P05F Latitude E5510		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	Note
USB	EUT	I/O Port	Laptop	USB	2	Unshielded	

7.3 Test Software Description

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

e. (+1) 408 326 1188 • Facsimile (+1) 408 326 1088



Test report No.	FCC _RF_SL15041501-CPC-004_UNII Rev 1.0
Page	13 of 24

8 **Test Summary**

Test Item Test stand		est standard	Test Method/Procedure	Pass / Fail
Restricted Band of Operation	FCC	15.205	ANSI C63.10:2013 789033 D02 General UNII Test Procedures New Rules v01	⊠ Pass □ N/A
AC Conducted Emissions Voltage	FCC	15.207(a)	ANSI C63.10:2013	⊠ Pass □ N/A

Test Item		Test standard		Test Method/Procedure	
26 & 6 dB Emission Bandwidth		FCC	15.407 (a) (2)	789033 D02 General UNII Test Procedures New Rules v01	☐ Pass ☒ N/A
Maximum cond Pow		FCC	15.407 (a) (2)	789033 D02 General UNII Test Procedures New Rules v01	☐ Pass ☒ N/A
Power red (Antenna Ga		FCC	15.407 (a) (2)	-	□ Pass 図 N/A
Band Edge ar Spurious E		FCC	15.407(b)(2), 15.407(b)(6)	ANSI C63.10:2013 789033 D02 General UNII Test Procedures New Rules v01	⊠ Pass □ N/A
Power Spectral Density		FCC	15.407 (a) (2)	789033 D02 General UNII Test Procedures New Rules v01	☐ Pass 図 N/A
Frequency Stability		FCC	15.407 (g)	-	☐ Pass 図 N/A
Transmit Power Control (TPC)		FCC	15.407 (h)(1)	-	☐ Pass 図 N/A
User Manual		FCC	-	-	⊠ Pass □ N/A
2. The Remark ope 3. N/A		e applicar eration ur	nt shall ensure frequ der all normal oper refer to Original rac	are not taken into consideration for all presented test result. Jency stability by showing that an emission is maintained within the ating conditions as specified in the user's manual. Jio report FCC _RF_SL15060501-CPC-006_UNII with FCC ID W3 10077	





Test report No.	FCC _RF_SL15041501-CPC-004_UNII Rev 1.0
Page	14 of 24

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





Test report No.	FCC _RF_SL15041501-CPC-004_UNII Rev 1.0		
Page	15 of 24		

10 Measurements, Examination and Derived Results

10.1 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
§ 15.205 RSS Gen Issue 4: 2014 (8.8)	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 $\mu\text{H}/50$ ohms line impedance stabilization network (LISN). The lower limit applies at the boundary between the frequency ranges.	×
Test Setup		Vertical Ground Reference Plane ### Vertical Ground Reference Plane ### Receiver ### Receiver ### Receiver ### Receiver ### Note: 1. Support units were connected to second LISN. 2. Both of LISNs (AMM) 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 tested with AC 120V 60Hz		
Result	⊠ Pas	s 🗆 Fail	

Conducted Emission Test Results

Test specification:	Conducted Emissions			
	Taman/00\.	04		
	τοπρί ο).	L I		
Environmental Conditions:	Humidity (%):	42		☐ Pass
	A1 1 ' / 1 \	1001	i	□ Fass



Test report No.	FCC _RF_SL15041501-CPC-004_UNII Rev 1.0
Page	16 of 24

10.2 Radiated Emissions below 1GHz

Requirement(s):

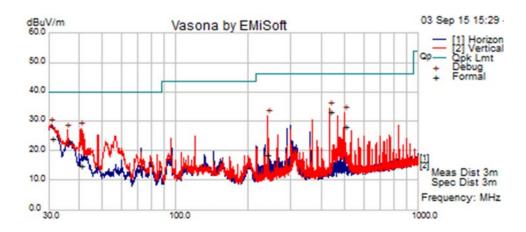
Spec	Requirement	Applicable
47CFR§ 15.407(b) 15.209 (a RSS Gen Iss 4 : 2014 (6.13)	Except higher limit as specified elsewhere in other section, the emissions from the low-power radio-frequency devices shall not exceed the field strength levels specified in the following table and the level of any unwanted emissions shall not exceed the level of the fundamental emission. The tighter limit applies at the band edges Frequency range (MHz) Field Strength (uV/m) 30 – 88 100 88 – 216 150	\boxtimes
	216 960 200	
	Above 960 500	
Test Setup	Radio Absorbing Material Radio Absorbing Material Ground Plane	Spectrum Analyzer
Procedure	 The EUT was switched on and allowed to warm up to its normal operating conditions. The test was carried out at the selected frequency points obtained from the EUT of Maximization of the emissions, was carried out by rotating the EUT, changing the polarization, and adjusting the antenna height in the following manner: Vertical or horizontal polarisation (whichever gave the higher emission lear to rotation of the EUT) was chosen. The EUT was then rotated to the direction that gave the maximum emistic. Finally, the antenna height was adjusted to the height that gave the maximum emistic. 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 frequences. 	characterisation. antenna level over a full ssion. ximum emission.
Remark	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 (S	See below) □ N/A	



Test report No.	FCC _RF_SL15041501-CPC-004_UNII Rev 1.0
Page	17 of 24

Radiated Emission Test Results (Below 1GHz)

Test specification	below 1GHz				
	Temp (°C):	Temp (°C): 26.1			
Environmental Conditions:	Humidity (%)	Humidity (%) 47.5			
	Atmospheric (mbar):				
Mains Power:	120VAC, 60Hz	120VAC, 60Hz			
Tested by:	Ronak Patel				
Test Date:	09/03/2015				
Remarks:	802.11a-5785MHz				



Frequeny MHz	Raw dBuV	Cable Loss	AF dB	Level dBuV/m	Measureme nt Type	P ol	Hgt cm	Azt Deg	Limit dBuV/m	Margin dB	Pass /Fail
30.84	39.99	-0.84	-15.17	23.98	Quasi Max	٧	178	258	40.00	-16.02	Pass
433.33	58.29	-3.23	-22.09	32.96	Quasi Max	٧	101	237	46.02	-13.06	Pass
40.68	38.64	-0.94	-23.1	14.60	Quasi Max	٧	148	279	40.00	-25.40	Pass
499.96	52.66	-3.52	-21.08	28.06	Quasi Max	٧	113	231	46.02	-17.96	Pass
36.01	43.43	-0.87	-19.6	22.96	Quasi Max	٧	140	23	40.00	-17.04	Pass
240.02	47.40	-2.33	-26.84	18.23	Quasi Max	٧	171	45	46.02	-27.79	Pass

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

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



Test report No.	FCC _RF_SL15041501-CPC-004_UNII Rev 1.0
Page	18 of 24

10.3 Radiated Spurious Emissions above 1GHz

Requirement(s):

Spec	Item	Requirement	Applicable						
	(1)	For transmitters operating in the 5.15-5.25 GHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27 dBm/MHz.	\boxtimes						
47CFR§ 15.407(b)(2),	(2)	For transmitters operating in the 5.25-5.35 GHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27 dBm/MHz. Devices operating in the 5.25-5.35 GHz band that generate emissions in the 5.15-5.25 GHz band must meet all applicable technical requirements for operation in the 5.15-5.25 GHz band (including indoor use) or alternatively meet an out-of-band emission EIRP limit of -27 dBm/MHz in the 5.15-5.25 GHz band.							
15.407(b)(6) RSS Gen Iss 4 : 2014 (6.13)	(3)	For transmitters operating in the 5.47-5.725 GHz band: all emissions outside of the 5.47-5.725 GHz band shall not exceed an EIRP of -27 dBm/MHz.							
	(4)	For transmitters operating in the 5.725-5.825 GHz band: all emissions within the frequency range from the band edge to 10 MHz above or below the band edge shall not exceed an EIRP of -17 dBm/MHz; for frequencies 10 MHz or greater above or below the band edge, emissions shall not exceed an EIRP of -27 dBm/MHz.	×						
	(5)	(5) Restricted band, emission must also comply with the radiated emission limits specified in 15.209							
Test Setup		Radio Absorbing Material FLUT On Arderena Occord Place Opening Place Opening Material Arderena Arderena Application Analyzer							
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 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. An average 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		was scanned up to 40GHz. Both horizontal and vertical polarities were investigated. The worst case.	e results show						
		☐ Fail							

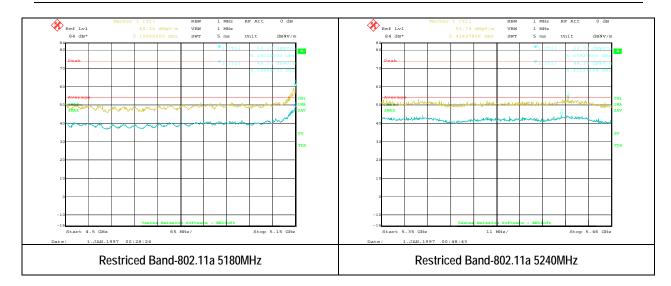
Restricted Band Measurement Plots:

Test Plot ⊠ Yes (See below)

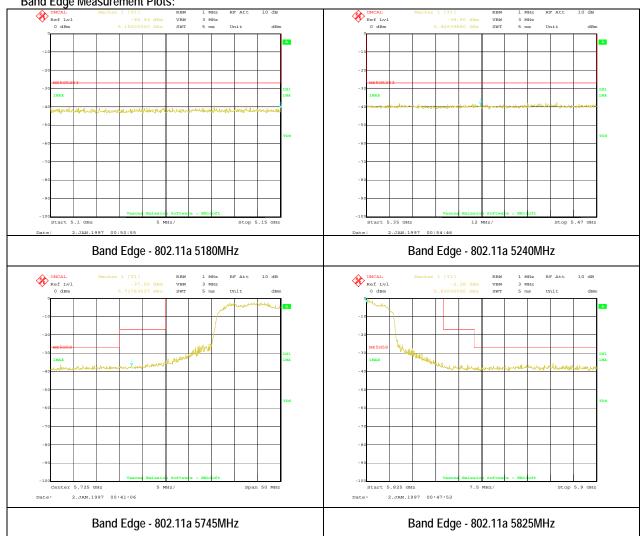
 \square N/A



FCC _RF_SL15041501-CPC-004_UNII Rev 1.0 Test report No. Page 19 of 24



Band Edge Measurement Plots:





Test report No.	FCC _RF_SL15041501-CPC-004_UNII Rev 1.0
Page	20 of 24

Radiated Emission Test Results (Above 1GHz)

802.11a – 5180MHz

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
1989.25	42.64	3.32	11.39	57.35	Peak Max	Ξ	102.00	100.00	74.00	-16.65	Pass
6315.45	44.95	7.83	10.31	63.10	Peak Max	Н	166.00	59.00	74.00	-10.9	Pass
4217.56	40.03	6.01	11.28	57.33	Peak Max	Н	221.00	102.00	74.00	-16.67	Pass
1989.25	29.58	3.32	11.39	44.29	Average Max	Н	102.00	100.00	54.00	-9.71	Pass
6315.45	31.40	7.83	10.31	49.55	Average Max	Н	166.00	59.00	54.00	-4.45	Pass
4217.56	26.43	6.01	11.28	43.73	Average Max	Н	221.00	102.00	54.00	-10.27	Pass

802.11a - 5200MHz

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
4048.77	39.73	5.87	12.01	57.62	Peak Max	٧	156.00	278.00	74.00	-16.38	Pass
2193.58	42.61	4.06	10.88	57.55	Peak Max	٧	232.00	240.00	74.00	-16.45	Pass
17710.44	40.69	13.00	10.61	64.31	Peak Max	٧	133.00	360.00	74.00	-9.69	Pass
4048.77	26.56	5.87	12.01	44.44	Average Max	٧	156.00	278.00	54.00	-9.56	Pass
2193.58	29.38	4.06	10.88	44.32	Average Max	٧	232.00	240.00	54.00	-9.68	Pass
17710.44	27.14	13.00	10.61	50.76	Average Max	٧	133.00	360.00	54.00	-3.24	Pass

802.11a - 5240MHz

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
1017.58	44.75	2.45	9.65	56.85	Peak Max	Н	185.00	121.00	74.00	-17.15	Pass
2106.77	43.41	3.74	11.14	58.30	Peak Max	Н	249.00	188.00	74.00	-15.70	Pass
4117.70	39.73	5.93	11.71	57.37	Peak Max	٧	217.00	46.00	74.00	-16.63	Pass
17643.43	40.42	13.00	10.55	63.97	Peak Max	Η	265.00	275.00	74.00	-10.03	Pass
1017.58	31.74	2.45	9.65	43.84	Average Max	Н	185.00	121.00	54.00	-10.16	Pass
2106.77	30.02	3.74	11.14	44.90	Average Max	Τ	249.00	188.00	54.00	-9.10	Pass
4117.70	26.50	5.93	11.71	44.15	Average Max	٧	217.00	46.00	54.00	-9.85	Pass
17643.43	26.96	13.00	10.55	50.51	Average Max	Н	265.00	275.00	54.00	-3.49	Pass

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





Test report No.	FCC _RF_SL15041501-CPC-004_UNII Rev 1.0
Page	21 of 24

802.11a – 5745MHz

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
1015.75	45.56	2.45	9.65	57.66	Peak Max	٧	223.00	50.00	74.00	-16.34	Pass
1986.95	43.28	3.32	11.38	57.97	Peak Max	Ξ	238.00	67.00	74.00	-16.03	Pass
4050.94	39.61	5.87	12.00	57.48	Peak Max	٧	203.00	235.00	74.00	-16.52	Pass
17385.66	40.13	12.77	10.05	62.96	Peak Max	٧	256.00	89.00	74.00	-11.04	Pass
1015.75	31.85	2.45	9.65	43.95	Average Max	٧	223.00	50.00	54.00	-10.05	Pass
1986.95	29.56	3.32	11.38	44.25	Average Max	Н	238.00	67.00	54.00	-9.75	Pass
4050.94	26.46	5.87	12.00	44.34	Average Max	٧	203.00	235.00	54.00	-9.66	Pass
17385.66	26.85	12.77	10.05	49.67	Average Max	٧	256.00	89.00	54.00	-4.33	Pass

802.11a - 5785MHz

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
1019.03	39.83	2.45	9.65	51.93	Peak Max	Η	105.00	22.00	74.00	-22.07	Pass
2072.61	42.28	3.61	11.25	57.14	Peak Max	٧	208.00	43.00	74.00	-16.86	Pass
6279.32	44.09	7.73	10.40	62.22	Peak Max	Н	164.00	191.00	74.00	-11.78	Pass
4167.78	39.06	5.97	11.50	56.52	Peak Max	Н	117.00	189.00	74.00	-17.48	Pass
3216.01	40.22	5.50	10.16	55.88	Peak Max	Н	124.00	220.00	74.00	-18.12	Pass
1019.03	25.79	2.45	9.65	37.89	Average Max	Н	105.00	22.00	54.00	-16.11	Pass
2072.61	28.97	3.61	11.25	43.83	Average Max	V	208.00	43.00	54.00	-10.17	Pass
6279.32	31.04	7.73	10.40	49.17	Average Max	Н	164.00	191.00	54.00	-4.83	Pass
4167.78	25.40	5.97	11.50	42.87	Average Max	Н	117.00	189.00	54.00	-11.13	Pass
3216.01	26.23	5.50	10.16	41.89	Average Max	Н	124.00	220.00	54.00	-12.11	Pass

802.11a - 5825MHz

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
3946.99	39.02	5.80	12.04	56.85	Peak Max	Н	202.00	259.00	74.00	-17.15	Pass
14796.35	42.77	13.63	7.63	64.03	Peak Max	Н	259.00	233.00	74.00	-9.97	Pass
17865.43	40.26	13.00	10.77	64.04	Peak Max	Н	124.00	23.00	74.00	-9.96	Pass
3946.99	25.28	5.80	12.04	43.11	Average Max	Н	202.00	259.00	54.00	-10.89	Pass
14796.35	29.34	13.63	7.63	50.6	Average Max	Н	259.00	233.00	54.00	-3.4	Pass
17865.43	26.76	13.00	10.77	50.53	Average Max	Н	124.00	23.00	54.00	-3.47	Pass

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





Test report No.	FCC _RF_SL15041501-CPC-004_UNII Rev 1.0
Page	22 of 24

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	~





Test report No.	FCC _RF_SL15041501-CPC-004_UNII Rev 1.0
Page	23 of 24

Annex B. SIEMIC Accreditation

Accreditations	Document	Scope / Remark
SO 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	7	FCC Declaration of Conformity Accreditation
FCC Site Registration	7	3 meter site
FCC Site Registration	7	10 meter site
IC Site Registration	7	3 meter site
IC Site Registration	7	10 meter site
	₽	Radio & Telecommunications Terminal Equipment: EN45001 – EN ISO/IEC 17025
EU NB	₺	Electromagnetic Compatibility: EN45001 – EN ISO/IEC 17025
Singapore iDA CB(Certification Body)	包包	Phase I, Phase II
Vietnam MIC CAB Accreditation	7	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



Test report No. FCC _RF_SL15041501-CPC-004_UNII Rev 1.0 Page 24 of 24

Japan Recognized Certification Body Designation	DD.	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	1	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	7	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
		EMC: 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		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	Ē	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