

RF TEST REPORT



Report No.: FCC_RF_SL14090901-CPC-006_Rev1.1
Supersede Report No.: FCC_RF_SL14090901-CPC-006

| | | |
|---|---|---|
| Applicant | : | ChargePoint, Inc. |
| Product Name | : | Communication Board with 802.11 WLAN module |
| Model No. | : | 241083G and PXS8 |
| Test Standard | : | 47 CRF 15.247 RSS-210 Issue 8: Dec 2010 |
| Test Method | : | ANSI C63.10: 2013 RSS-Gen Issue 4: Nov 2014 558074 D01 DTS Meas Guidance v03r02 |
| FCC ID | : | WLAN Module: W38-241083G WWAN Module: W38-PXS8 |
| IC ID | : | WLAN Module: 8854A-241083G WWAN Module: 8854A -PXS8 |
| Dates of test | : | Oct 2, 2014 to Oct 10, 2014 |
| Issue Date | : | 11/03/2014 |
| Test Result | : | <input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail |
| Equipment complied with the specification <input checked="" type="checkbox"/> | | |
| Equipment did not comply with the specification <input type="checkbox"/> | | |

| This Test Report is Issued Under the Authority of: | |
|--|--------------------|
| | |
| Teody Manansala | Nima Molaei |
| 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:
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Accreditations for Conformity Assessment

| Country/Region | Accreditation Body | Scope |
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| 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 |
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| Mexico | NOM, COFETEL, Caniety | EMC, RF/Wireless, Telecom, Safety |
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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_SL14090901-CPC-006 | None | Original | 10/15/2014 |
| FCC_RF_SL14090901-CPC-006_Rev1.0 | 1.0 | Change the product name | 11/3/2014 |
| FCC_RF_SL14090901-CPC-006_Rev 1.1 | 1.1 | Change test method | 03/26/2015 |
| | | Add product hardware and software version | |
| | | Add radio software and hardware version | |
| | | Change setup photo for Above 1GHz | |
| | | Add test software details | |
| | | Update test instrument | |
| | | Delete Annex B | |
| | | | |

2 Executive Summary

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

Company: ChargePoint, Inc.
Product: Communication Board with 802.11 WLAN module
Model: 241083G and PXS8

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 | : | 1692 Dell Ave. Campbell, CA 95008, USA |
| Manufacturer Name | : | ChargePoint, Inc. |
| Manufacturer Address | : | 1692 Dell Ave. Campbell, CA 95008, USA |

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 | Communication Board with 802.11 WLAN module |
| Model No. | 241083G and PXS8 |
| Trade Name | ChargePoint |
| Serial No. | N/A |
| Host Model No. | N/A |
| Input Power | 5VDC |
| Power Adapter Manu/Model | N/A |
| Power Adapter SN | N/A |
| Product Hardware version (241083G) | 27-010072 |
| Product Software version (241083G) | 4.2.0.55 |
| Product Hardware version (PXS8) | B2 |
| Product Software version (PXS8) | 03.001 |
| Radio Hardware version (241083G) | 27-010072 |
| Radio Software version (241083G) | 4.2.0.55 |
| Radio Hardware version (PXS8) | B2 |
| Radio Software version (PXS8) | 03.001 |
| Test Software version | N/A |
| Date of EUT received | 10/02/2014 |
| Equipment Class/ Category | DTS |
| Clock Frequencies | N/A |
| Port/Connectors | Ethernet, Console |

6.2 Radio Description

Spec for Radio -

| Radio Type | 802.11b | 802.11g | 802.11n-20 |
|------------------------|--------------------------------|--|------------------------------------|
| 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 |
| Number of Channels | 11 | 11 | 11 |
| Antenna Type | WLAN: Embedded; WWAN: Embedded | | |
| Antenna Gain | WLAN: 2.5 dBi; WWAN: 2.5 dBi | | |
| Antenna Connector Type | UFL | | |

EUT ART Power Level Settings

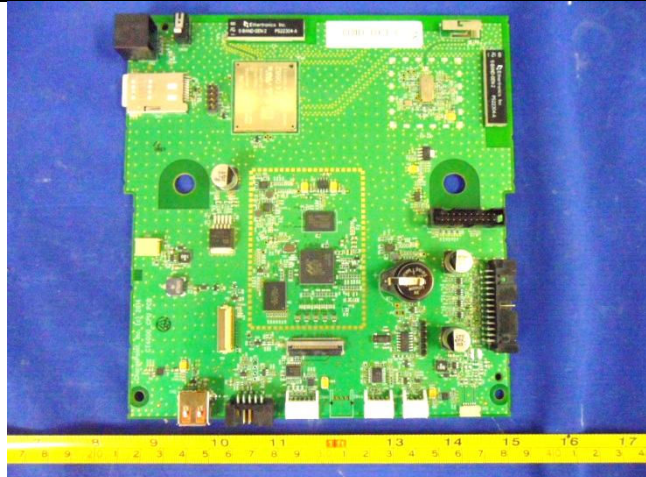
| Type | Channel No. | Frequency (MHz) | ART Power Setting |
|----------------|-------------|-----------------|-------------------|
| 802.11b/g/n-20 | 1 | 2412 | Normal Operation |
| | 2 | 2417 | Normal Operation |
| | 3 | 2422 | Normal Operation |
| | 4 | 2427 | Normal Operation |
| | 5 | 2432 | Normal Operation |
| | 6 | 2437 | Normal Operation |
| | 7 | 2442 | Normal Operation |
| | 8 | 2447 | Normal Operation |
| | 9 | 2452 | Normal Operation |
| | 10 | 2457 | Normal Operation |
| | 11 | 2462 | Normal Operation |

6.3 EUT test modes/configuration Description

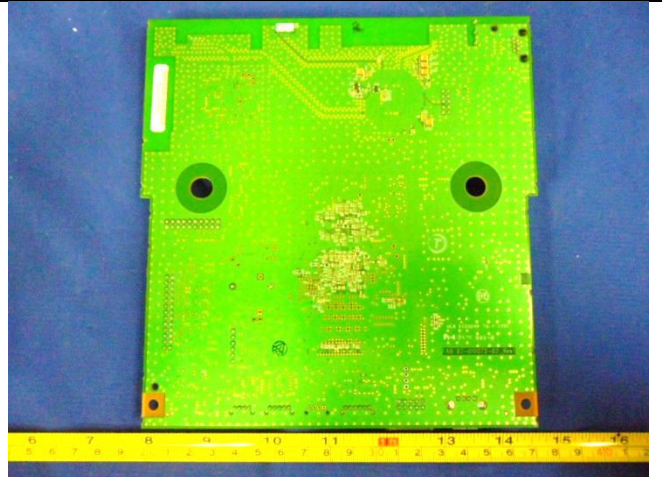
Test mode

| Final Test Mode | | Note |
|-------------------|---|--|
| Final_test_mode_1 | EUT set to continuous transmit (802.11n-20) and GPRS 850MHz simultaneously | Radiated spurious emissions below 1GHz |
| Final_test_mode_2 | EUT set to continuous transmit (802.11n-20) and GPRS 1900MHz simultaneously | Radiated spurious emissions above 1GHz |
| Remarks: | | |

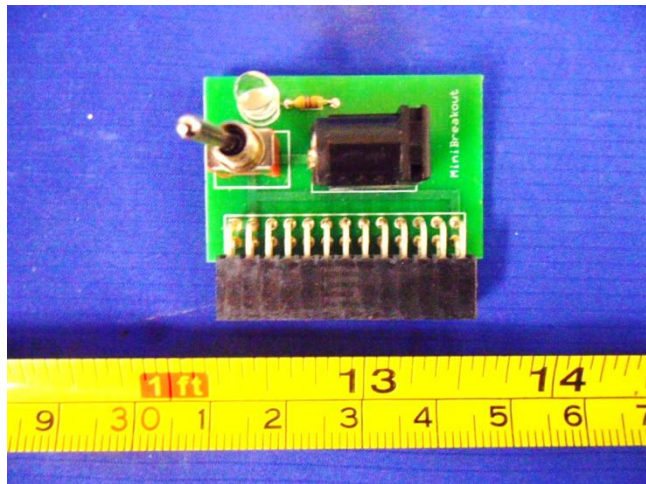
6.4 EUT Photos



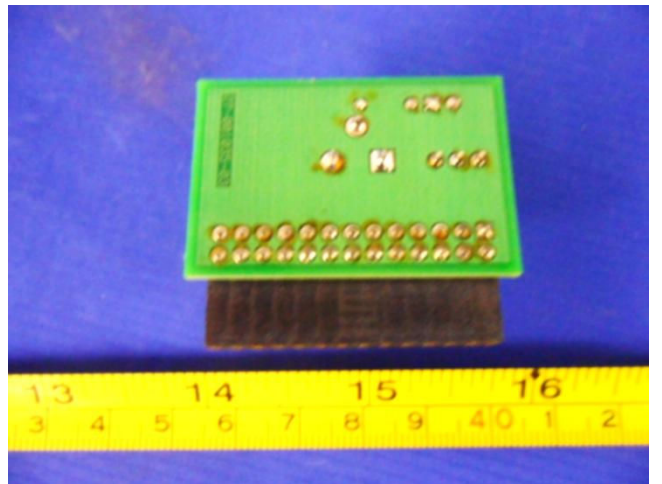
EUT – PCBA 1 Component Side



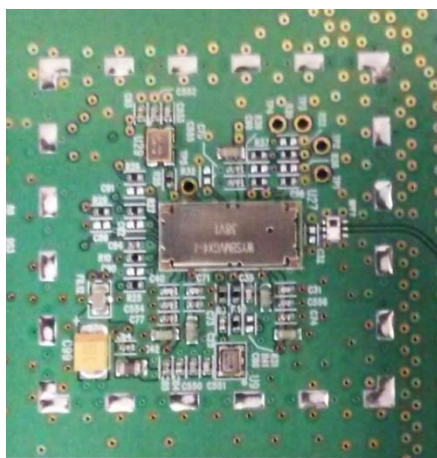
EUT – PCBA 1 Solder Side



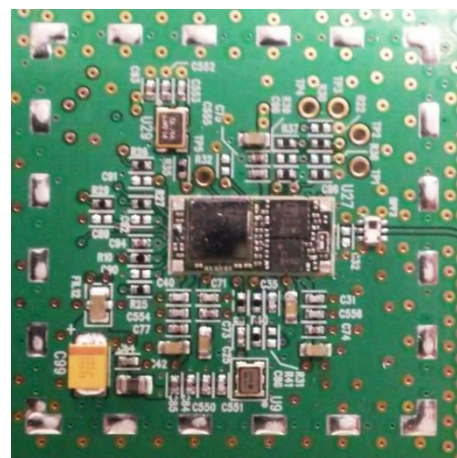
EUT – PCBA1 Component Side



EUT – PCBA1 Solder Side



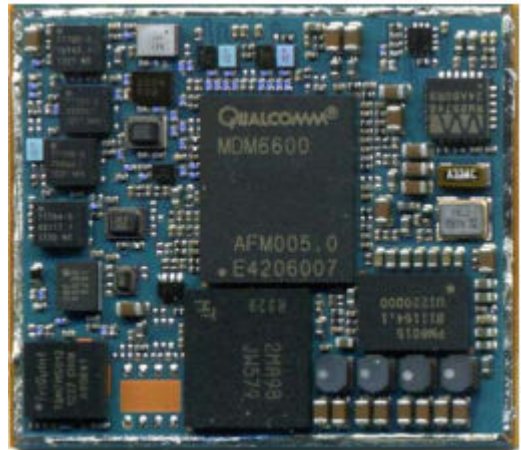
EUT – WLAN Radio with Shielding



EUT – WLAN Radio without Shielding

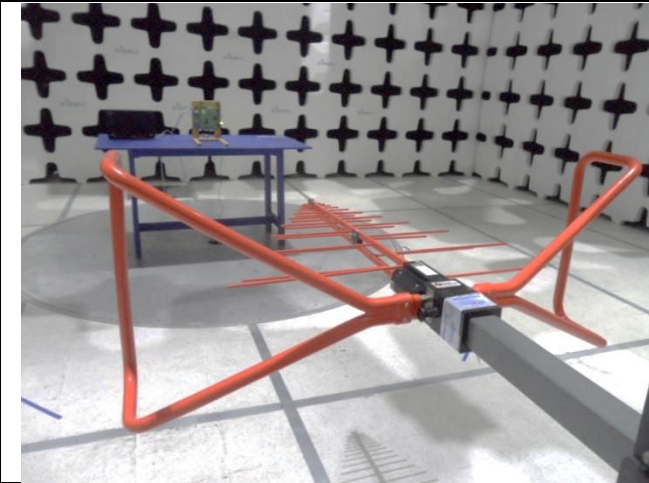


EUT – WWAN Radio with Shielding

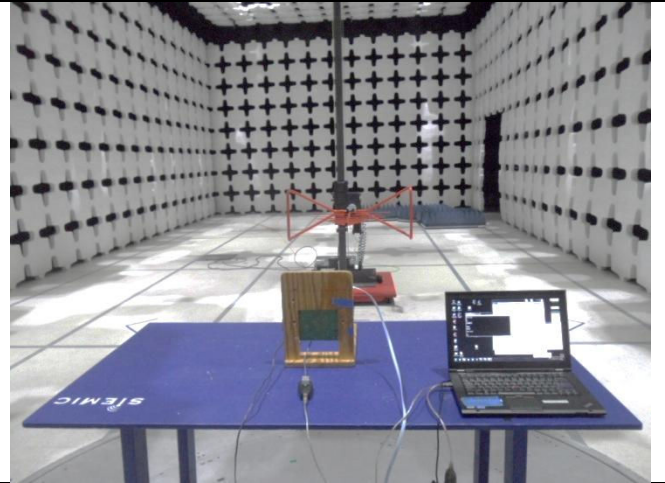


EUT – WWAN Radio without Shielding

6.5 EUT Test Setup Photos



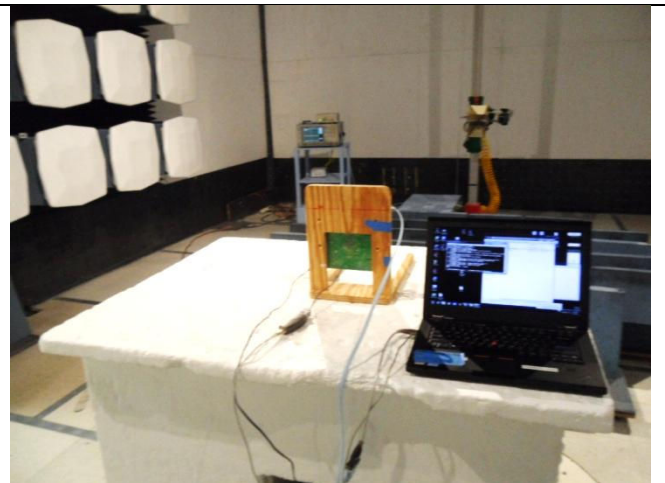
Radiated Emissions (<1GHz) – Front View



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 | ThinkPad | R90152737 | Lenovo | - |
| 2 | AC/DC Power Supply | EPSA050250U | - | V-Infinity | - |
| | | | | | |

7.2 Cabling Description

| Name | Connection Start | | Connection Stop | | Length / shielding Info | | Note |
|------|------------------|----------|-----------------|----------|-------------------------|-----------|------|
| | From | I/O Port | To | I/O Port | Length (m) | Shielding | |
| - | EUT | Ethernet | Laptop | USB | 0.5M | No | - |
| - | EUT | I/O | Laptop | USB | 0.5M | No | |

7.3 Test Software Description

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

8 Test Summary

| Test Item | Test standard | | Test Method/Procedure | | Pass / Fail |
|--------------------------------|---------------|------------------------------|-----------------------|--|--|
| Restricted Band of Operation | FCC/IC | 15.205 RSS 210 (2.2) | FCC/IC | ANSI C63.10: 2013 558074 D01 DTS Meas Guidance v03r02 | <input type="checkbox"/> Pass <input checked="" type="checkbox"/> N/A |
| AC Conducted Emissions Voltage | FCC/IC | 15.207(a) RSS Gen (7.2.4) | FCC/IC | ANSI C63.10: 2013 RSS Gen (7.2.4) | <input type="checkbox"/> Pass <input checked="" type="checkbox"/> N/A |

| Test Item | Test standard | | Test Method/Procedure | | Pass / Fail |
|---|--|--------------------------------|-----------------------|--|--|
| Channel Separation | FCC/IC | 15.247 (a)(1) RSS210 (A8.1) | FCC/IC | - | <input type="checkbox"/> Pass <input checked="" type="checkbox"/> N/A |
| Occupied Bandwidth | FCC/IC | 15.247 (a)(1) RSS210 (A8.1) | FCC/IC | RSS Gen (4.6.1) | <input type="checkbox"/> Pass <input checked="" type="checkbox"/> N/A |
| 6 dB Bandwidth | FCC/IC | 15.247(a)(2) RSS210 (A8.2) | FCC/IC | 558074 D01 DTS Meas Guidance v03r02 | <input type="checkbox"/> Pass <input checked="" type="checkbox"/> N/A |
| Number of Hopping Channels | FCC/IC | 15.247(a)(1) RSS210(A8.1) | FCC/IC | - | <input type="checkbox"/> Pass <input checked="" type="checkbox"/> N/A |
| Band Edge and Radiated Spurious Emissions | FCC/IC | 15.247(d) RSS210(A8.5) | FCC/IC | ANSI C63.10: 2013 558074 D01 DTS Meas Guidance v03r02 | <input checked="" type="checkbox"/> Pass <input type="checkbox"/> N/A |
| Time of Occupancy | FCC/IC | 15.247(a)(1) RSS210(A8.1) | FCC/IC | - | <input type="checkbox"/> Pass <input checked="" type="checkbox"/> N/A |
| Output Power | FCC/IC | 15.247(b) RSS210 (A8.4) | FCC/IC | 558074 D01 DTS Meas Guidance v03r02 | <input type="checkbox"/> Pass <input checked="" type="checkbox"/> N/A |
| Receiver Spurious Emissions | FCC/IC | 15.247(d) RSS Gen (4.8) | FCC/IC | RSS Gen (4.6.1) | <input type="checkbox"/> Pass <input checked="" type="checkbox"/> N/A |
| Antenna Gain > 6 dBi | FCC/IC | 15.247(e) RSS210(A8.4) | FCC/IC | - | <input type="checkbox"/> Pass <input checked="" type="checkbox"/> N/A |
| Power Spectral Density | FCC/IC | 15.247(e) RSS210(A8.3) | FCC/IC | 558074 D01 DTS Meas Guidance v03r02 | <input type="checkbox"/> Pass <input checked="" type="checkbox"/> N/A |
| Hybrid System Requirement | FCC/IC | 15.247(f) RSS210(A8.3) | FCC/IC | - | <input type="checkbox"/> Pass <input checked="" type="checkbox"/> N/A |
| Hopping Capability | FCC/IC | 15.247(g) RSS210(A8.1) | FCC/IC | - | <input type="checkbox"/> Pass <input checked="" type="checkbox"/> N/A |
| Hopping Coordination Requirement | FCC/IC | 15.247(h) RSS210(A8.1) | FCC/IC | - | <input type="checkbox"/> Pass <input checked="" type="checkbox"/> N/A |
| RF Exposure requirement | FCC/IC | 15.247(i) RSS Gen (5.5) | FCC/IC | - | <input type="checkbox"/> Pass <input checked="" type="checkbox"/> N/A |
| Remark | <ol style="list-style-type: none"> 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. | | | | |

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 Radiated Emissions below 1GHz

Requirement(s):

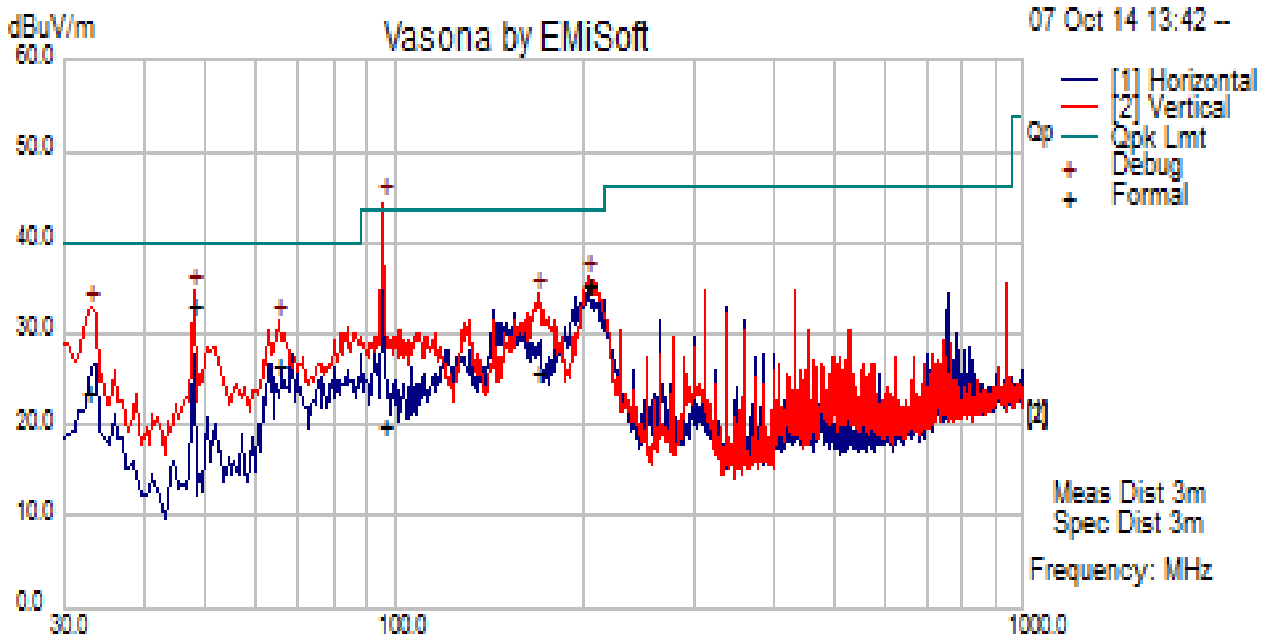
| Spec | Item | Requirement | Applicable | | | | | | | | | | |
|----------------------------------|--|--|-----------------------|-----------------------|---------|-----|----------|-----|---------|-----|-----------|-----|---|
| 47CFR§15.247(d), RSS210(A8.5) | a) | <p>Except higher limit as specified elsewhere 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</p> <table border="1"> <thead> <tr> <th>Frequency range (MHz)</th> <th>Field Strength (uV/m)</th> </tr> </thead> <tbody> <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> </tbody> </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 | <ol style="list-style-type: none"> 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: <ol style="list-style-type: none"> 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

Radiated Emission Test Results (Below 1GHz)

| | | | | | |
|---------------------------|--|------|--|--------|------|
| Test specification | below 1GHz | | | Result | Pass |
| Environmental Conditions: | Temp (°C): | 26.1 | | | |
| | Humidity (%) | 47.5 | | | |
| | Atmospheric (mbar): | 1020 | | | |
| Mains Power: | 120VAC, 60Hz | | | | |
| Tested by: | Teody Manansala | | | | |
| Test Date: | 10/07/2014 | | | | |
| Remarks: | WLAN (802.11g 2437MHz) and WWAN (GPRS 1900MHz) transmitting simultaneously | | | | |



| Frequency MHz | Raw dBuV | Cable Loss | AF dB | Level dBuV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBuV/m | Margin dB | Pass /Fail |
|---------------|----------|------------|--------|--------------|------------------|-----|--------|---------|--------------|-----------|------------|
| 95.95 | 49.09 | 1.77 | -30.93 | 19.93 | Quasi Max | V | 136.00 | 100.00 | 43.50 | -23.57 | Pass |
| 47.99 | 61.40 | 1.16 | -29.44 | 33.12 | Quasi Max | V | 105.00 | 135.00 | 40.00 | -6.88 | Pass |
| 32.69 | 43.20 | 1.16 | -20.67 | 23.69 | Quasi Max | V | 131.00 | 314.00 | 40.00 | -16.31 | Pass |
| 202.96 | 60.77 | 2.52 | -27.89 | 35.40 | Quasi Max | V | 101.00 | 133.00 | 43.50 | -8.10 | Pass |
| 65.53 | 56.11 | 1.36 | -31.05 | 26.42 | Quasi Max | V | 109.00 | 356.00 | 40.00 | -13.58 | Pass |
| 168.84 | 51.48 | 2.34 | -28.18 | 25.64 | Quasi Max | V | 160.00 | 255.00 | 43.50 | -17.86 | Pass |

Note: Both horizontal and vertical polarities were investigated. The results above show only the worst case. Collocation test was performed for WLAN and WWAN transmitting simultaneously.

10.2 Radiated Spurious Emissions above 1GHz

Requirement(s):

| Spec | Item | Requirement | Applicable |
|----------------------------------|--|---|-------------------------------------|
| 47CFR§15.247(d), RSS210(A8.5) | 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 <input checked="" type="checkbox"/> 20 dB down <input type="checkbox"/> 30 dB down | <input checked="" type="checkbox"/> |
| | b) | or restricted band, emission must also comply with the radiated emission limits specified in 15.209 | <input checked="" type="checkbox"/> |
| Test Setup | | | |
| Procedure | <ol style="list-style-type: none"> 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: <ol style="list-style-type: none"> 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. | | |
| Result | <input checked="" type="checkbox"/> Pass <input type="checkbox"/> Fail | | |

Equipment Setting

| Test | RBW | VBW | Span | Detector | Sweep | Trace | Notes |
|----------------------------|------|------|---------------|----------|-------|----------|-----------------|
| Radiated Spurious Emission | 1MHz | 3MHz | 1GHz - 25 GHz | Peak | Auto | Max hold | PK Measurement |
| Radiated Spurious Emission | 1MHz | 10Hz | 1GHz - 25 GHz | Peak | Auto | Max hold | Ave Measurement |

Test Data Yes (See below) N/A

Test Plot Yes (See below) N/A

Radiated Emission Test Results (Above 1GHz)

1GHz WLAN (802.11g – 2437MHz) and WWAN (GPRS 1900MHz) transmitting simultaneously

| Frequency MHz | Raw dBuV | Cable Loss | AF dB | Level dBuV/m | Measurement Type | Pol | Hgt cm | Azt Deg | Limit dBuV/m | Margin dB | Pass /Fail |
|---------------|----------|------------|-------|--------------|------------------|-----|--------|---------|--------------|-----------|------------|
| 17931.78 | 39.97 | 6.61 | 14.24 | 60.81 | Peak Max | V | 302.00 | 354.00 | 74.00 | -13.19 | Pass |
| 4161.00 | 40.75 | 3.36 | -0.22 | 43.89 | Peak Max | H | 134.00 | 348.00 | 74.00 | -30.11 | Pass |
| 1007.44 | 46.98 | 1.75 | -7.17 | 41.55 | Peak Max | V | 123.00 | 182.00 | 74.00 | -32.45 | Pass |
| 17931.78 | 26.72 | 6.61 | 14.24 | 47.56 | Average Max | V | 302.00 | 354.00 | 54.00 | -6.44 | Pass |
| 4161.00 | 27.65 | 3.36 | -0.22 | 30.79 | Average Max | H | 134.00 | 348.00 | 54.00 | -23.21 | Pass |
| 1007.44 | 34.02 | 1.75 | -7.17 | 28.60 | Average Max | V | 123.00 | 182.00 | 54.00 | -25.40 | Pass |

Note: Collocation test was performed for WLAN and WWAN transmitting simultaneously.

















Annex A. TEST INSTRUMENT








| Instrument | Model | Serial # | Cal Date | Cal Cycle | Cal Due | In use |
|---------------------------------|-----------|-------------|------------|-----------|------------|-------------------------------------|
| Conducted Emissions | | | | | | |
| R & S Receiver | ESHS10 | 830223/0009 | 04/08/2014 | 1 Year | 04/08/2015 | <input type="checkbox"/> |
| Spectrum Analyzer | FSIQ7 | 825555/013 | 05/31/2014 | 1 Year | 04/08/2015 | <input type="checkbox"/> |
| Schwarzbeck LISN | NNLK 8129 | 8129-190 | 08/11/2014 | 1 Year | 08/11/2015 | <input type="checkbox"/> |
| CHASE LISN | MN2050B | 1018 | 07/31/2014 | 1 Year | 07/31/2015 | <input type="checkbox"/> |
| Sekonic Hygro Hermograph | ST-50 | HE01-000092 | 05/25/2014 | 1 Year | 05/25/2015 | |
| Radiated Emissions | | | | | | |
| R & S Receiver | ESIB 40 | 100179 | 05/24/2014 | 1 Year | 05/24/2015 | <input checked="" type="checkbox"/> |
| Bi-Log antenna (30MHz~2GHz) | JB1 | A030702 | 08/12/2014 | 1 Year | 08/12/2015 | <input checked="" type="checkbox"/> |
| Horn Antenna (1-26.5GHz) | 3115 | 10SL0059 | 08/11/2014 | 1 Year | 08/11/2015 | <input checked="" type="checkbox"/> |
| Horn Antenna (18-40 GHz) | AH-840 | 101013 | 08/11/2014 | 1 Year | 08/11/2015 | <input checked="" type="checkbox"/> |
| Pre-Amplifier (100KHz-7GHz) | LPA-6-30 | 11140711 | 02/19/2015 | 1 Year | 02/19/2016 | <input checked="" type="checkbox"/> |
| Microwave Preamp (18-40 GHz) | PA-840 | 181251 | 02/19/2015 | 1 Year | 02/19/2016 | <input checked="" type="checkbox"/> |
| 3 Meters SAC | 3M | N/A | 08/29/2014 | 1 Year | 08/29/2015 | <input checked="" type="checkbox"/> |
| 10 Meters SAC | 10M | N/A | 09/05/2014 | 1 Year | 09/05/2015 | <input checked="" type="checkbox"/> |
| Sekonic Hygro Hermograph | ST-50 | HE01-000092 | 05/25/2014 | 1 Year | 05/25/2015 | <input checked="" type="checkbox"/> |
| RF Conducted Measurement | | | | | | |
| Spectrum Analyzer | N9010A | MY50210206 | 05/30/2014 | 1 Year | 05/30/2015 | <input type="checkbox"/> |
| Spectrum Analyzer | E4407B | US88441016 | 05/31/2014 | 1 Year | 05/31/2015 | <input type="checkbox"/> |
| R & S Receiver | ESIB 40 | 100179 | 04/20/2014 | 1 Year | 04/20/2015 | <input type="checkbox"/> |

Test Software Version

| Test Item | Vendor | Software | Version |
|-------------------|---------|----------------|---------|
| Radiated Emission | EMISoft | EMISoft Vasona | V5.0 |

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 |  | <p>Radio: A1. Terminal equipment for purpose of calling</p> <p>Telecom: B1. Specified radio equipment specified in Article 38-2, Paragraph 1, Item 1 of the Radio Law</p> |
| Korea CAB Accreditation |  | <p>EMI: KCC Notice 2008-39, RRL Notice 2008-3: CA Procedures for EMI KN22: Test Method for EMI</p> <p>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</p> |
| | | <p>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</p> |
| | | <p>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</p> |
| 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 |  | <p>EMC: AS/NZS CISPR 11, AS/NZS CISPR 14.1, AS/NZS CISPR22, AS/NZS 61000.6.3, AS/NZS 61000.6.4</p> |
| | | <p>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</p> |
| | | <p>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</p> |
| Australia NATA Recognition |  | AS/ACIF S002, AS/ACIF S003, AS/ACIF S004, AS/ACIF S006, AS/ACIF S016, AS/ACIF S031, AS/ACIF S038, AS/ACIF S040, AS/ACIF S041, AS/ACIF S043.2 |