

Shenzhen Zhongjian Nanfang Testing Co., Ltd.

Report No: CCISE191005205V01

FCC REPORT (BLE)

Applicant: Shenzhen Youmi Intelligent Technology Co., Ltd.

Address of Applicant: 406-407 Jinqi Zhigu Building, 4/F, 1 Tangling Road, Nanshan

District, Shenzhen City, China

Equipment Under Test (EUT)

Product Name: Smart phone

Model No.: F2, F2 GT, Power 3, Power GT, S5 Pro, UMIDIGI X Pro

Trade mark: UMIDIGI

FCC ID: 2ATZ4F2

Applicable standards: FCC CFR Title 47 Part 15 Subpart C Section 15.247

Date of sample receipt: 18 Oct., 2019

Date of Test: 18 Oct., to 27 Nov., 2019

Date of report issued: 27 Nov., 2019

Test Result: PASS *

* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:



Bruce Zhang Laboratory Manager

This report details the results of the testing carried out on one sample. The results contained in this test report do not relate to other samples of the same product and does not permit the use of the CCIS product certification mark. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

This report may only be reproduced and distributed in full. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards.

This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.



Version 2

| Version No. | Date | Description |
|-------------|---------------|-------------|
| 00 | 18 Nov., 2019 | Original |
| 01 | 27 Nov., 2019 | Retest 6dB |
| | | |
| | | |
| | | |

Test Engineer Tested by: 27 Nov., 2019

Reviewed by: 27 Nov., 2019 Date:

Project Engineer



3 Contents

| | | | Page |
|---|------|---|------|
| 1 | CO | VER PAGE | 1 |
| 2 | VEF | RSION | 2 |
| 3 | COI | NTENTS | 3 |
| 4 | | ST SUMMARY | _ |
| | | NERAL INFORMATION | |
| 5 | GE | | |
| | 5.1 | CLIENT INFORMATION | |
| | 5.2 | GENERAL DESCRIPTION OF E.U.T | |
| | 5.3 | TEST ENVIRONMENT AND TEST MODE | |
| | 5.4 | DESCRIPTION OF SUPPORT UNITS | |
| | 5.5 | MEASUREMENT UNCERTAINTY | |
| | 5.6 | ADDITIONS TO, DEVIATIONS, OR EXCLUSIONS FROM THE METHOD | |
| | 5.7 | LABORATORY FACILITY | |
| | 5.8 | LABORATORY LOCATION | |
| | 5.9 | TEST INSTRUMENTS LIST | 7 |
| 6 | TES | ST RESULTS AND MEASUREMENT DATA | 8 |
| | 6.1 | ANTENNA REQUIREMENT: | 8 |
| | 6.2 | CONDUCTED EMISSION | 9 |
| | 6.3 | CONDUCTED OUTPUT POWER | 12 |
| | 6.4 | OCCUPY BANDWIDTH | 14 |
| | 6.5 | POWER SPECTRAL DENSITY | 16 |
| | 6.6 | BAND EDGE | 18 |
| | 6.6. | 1 Conducted Emission Method | 18 |
| | 6.6. | 2 Radiated Emission Method | 20 |
| | 6.7 | Spurious Emission | 25 |
| | 6.7. | 1 Conducted Emission Method | 25 |
| | 6.7. | 2 Radiated Emission Method | 27 |
| 7 | TES | ST SETUP PHOTO | 32 |
| 0 | E117 | CONSTRUCTIONAL DETAILS | າາ |



4 Test Summary

| Test Items | Section in CFR 47 | Result |
|---|---------------------|--------|
| Antenna requirement | 15.203 & 15.247 (b) | Pass |
| AC Power Line Conducted Emission | 15.207 | Pass |
| Conducted Peak Output Power | 15.247 (b)(3) | Pass |
| 6dB Emission Bandwidth 99% Occupied Bandwidth | 15.247 (a)(2) | Pass |
| Power Spectral Density | 15.247 (e) | Pass |
| Band Edge | 15.247 (d) | Pass |
| Spurious Emission | 15.205 & 15.209 | Pass |

Remark:

- 1. Pass: The EUT complies with the essential requirements in the standard.
- 2. N/A: Not Applicable.
- 3. The cable insertion loss used by "RF Output Power" and other conduction measurement items is 0.5dB (provided by the customer).

ANSI C63.4-2014
ANSI C63.10-2013

KDB 558074 D01 15.247 Meas Guidance v05r02



5 General Information

5.1 Client Information

| Applicant: | Shenzhen Youmi Intelligent Technology Co., Ltd. |
|---------------|--|
| Address: | 406-407 Jinqi Zhigu Building, 4/F, 1 Tangling Road, Nanshan District, Shenzhen City, China |
| Manufacturer: | Shenzhen Youmi Electronic Digital Co., Ltd. |
| Address: | 406-407 Jinqi Zhigu Building, 4/F, 1 Tangling Road, Nanshan District, Shenzhen City, China |

5.2 General Description of E.U.T.

| - | |
|------------------------|--|
| Product Name: | Smart phone |
| Model No.: | F2, F2 GT, Power 3, Power GT, S5 Pro, UMIDIGI X Pro |
| Operation Frequency: | 2402-2480 MHz |
| Channel numbers: | 40 |
| Channel separation: | 2 MHz |
| Modulation technology: | GFSK |
| Data speed : | 1Mbps |
| Antenna Type: | Internal Antenna |
| Antenna gain: | 0.89 dBi |
| Power supply: | Rechargeable Li-polymer Battery DC3.85V-5150mAh |
| AC adapter: | Model: HJ-FC010K7-US |
| | Input: AC100-240V, 50/60Hz, 0.6A |
| | Output: DC 5.0V, 2A |
| | DC 9.0V, 2A |
| | DC 12.0V, 1.5A |
| Remark: | Model No.: F2, F2 GT, Power 3, Power GT, S5 Pro, UMIDIGI X Pro were |
| | identical inside, the electrical circuit design, layout, components used and |
| | internal wiring, with only difference being model name. |
| Test Sample Condition: | The test samples were provided in good working order with no visible |
| | defects. |

| Operation Frequency each of channel | | | | | | | |
|-------------------------------------|-----------|---------|-----------|---------|-----------|---------|-----------|
| Channel | Frequency | Channel | Frequency | Channel | Frequency | Channel | Frequency |
| 0 | 2402MHz | 10 | 2422MHz | 20 | 2442MHz | 30 | 2462MHz |
| 1 | 2404MHz | 11 | 2424MHz | 21 | 2444MHz | 31 | 2464MHz |
| 2 | 2406MHz | 12 | 2426MHz | 22 | 2446MHz | 32 | 2466MHz |
| 3 | 2408MHz | 13 | 2428MHz | 23 | 2448MHz | 33 | 2468MHz |
| 4 | 2410MHz | 14 | 2430MHz | 24 | 2450MHz | 34 | 2470MHz |
| 5 | 2412MHz | 15 | 2432MHz | 25 | 2452MHz | 35 | 2472MHz |
| 6 | 2414MHz | 16 | 2434MHz | 26 | 2454MHz | 36 | 2474MHz |
| 7 | 2416MHz | 17 | 2436MHz | 27 | 2456MHz | 37 | 2476MHz |
| 8 | 2418MHz | 18 | 2438MHz | 28 | 2458MHz | 38 | 2478MHz |
| 9 | 2420MHz | 19 | 2440MHz | 29 | 2460MHz | 39 | 2480MHz |
| | | | | | | | |

Note:

In section 15.31(m), regards to the operating frequency range over 10 MHz, the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test. Channel No. 0, 20 & 39 were selected as Lowest, Middle and Highest channel.

Shenzhen Zhongjian Nanfang Testing Co., Ltd. No. B-C, 1/F., Building 2, Laodong No.2 Industrial Park, Xixiang Road, Bao'an District, Shenzhen, Guangdong, China

Telephone: +86 (0) 755 23118282 Fax: +86 (0) 755 23116366 Page 5 of 33

Report No: CCISE191005205V01

5.3 Test environment and test mode

| Operating Environment: | | | |
|------------------------|---|--|--|
| Temperature: | 24.0 °C | | |
| Humidity: | 54 % RH | | |
| Atmospheric Pressure: | 1010 mbar | | |
| Test mode: | | | |
| Transmitting mode | Keep the EUT in continuous transmitting with modulation | | |

The sample was placed 0.8m (below 1GHz)/1.5m (above 1GHz) above the ground plane of 3m chamber. Measurements in both horizontal and vertical polarities were performed. During the test, each emission was maximized by: having the EUT continuously working, investigated all operating modes, rotated about all 3 axis (X, Y & Z) and considered typical configuration to obtain worst position, manipulating interconnecting cables, rotating the turntable, varying antenna height from 1m to 4m in both horizontal and vertical polarizations. The emissions worst-case are shown in Test Results of the following pages. Duty cycle setting during the transmission is 100% with maximum power setting for all modulations.

5.4 Description of Support Units

The EUT has been tested as an independent unit.

5.5 Measurement Uncertainty

| Parameters | Expanded Uncertainty |
|-------------------------------------|----------------------|
| Conducted Emission (9kHz ~ 30MHz) | ±1.60 dB (k=2) |
| Radiated Emission (9kHz ~ 30MHz) | ±3.12 dB (k=2) |
| Radiated Emission (30MHz ~ 1000MHz) | ±4.32 dB (k=2) |
| Radiated Emission (1GHz ~ 18GHz) | ±5.38 dB (k=2) |
| Radiated Emission (18GHz ~ 40GHz) | ±3.36 dB (k=2) |

5.6 Additions to, deviations, or exclusions from the method

Νc

5.7 Laboratory Facility

The test facility is recognized, certified, or accredited by the following organizations:

• FCC - Designation No.: CN1211

Shenzhen Zhongjian Nanfang Testing Co., Ltd. has been accredited as a testing laboratory by FCC(Federal Communications Commission). The test firm Registration No. is 727551.

● ISED - CAB identifier.: CN0021

The 3m Semi-anechoic chamber of Shenzhen Zhongjian Nanfang Testing Co., Ltd. has been Registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 10106A-1.

• CNAS - Registration No.: CNAS L6048

Shenzhen Zhongjian Nanfang Testing Co., Ltd. is accredited to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration laboratories for the competence of testing. The Registration No. is CNAS L6048.

A2LA - Registration No.: 4346.01

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 General requirements for the competence of testing and calibration laboratories. The test scope can be found as below link: https://portal.a2la.org/scopepdf/4346-01.pdf

5.8 Laboratory Location

Shenzhen Zhongjian Nanfang Testing Co., Ltd.

Address: No. B-C, 1/F., Building 2, Laodong No.2 Industrial Park, Xixiang Road,

Bao'an District, Shenzhen, Guangdong, China

Tel: +86-755-23118282, Fax: +86-755-23116366

Email: info@ccis-cb.com, Website: http://www.ccis-cb.com

Shenzhen Zhongjian Nanfang Testing Co., Ltd.

No. B-C, 1/F., Building 2, Laodong No.2 Industrial Park, Xixiang Road,

Bao'an District, Shenzhen, Guangdong, China

Telephone: +86 (0) 755 23118282 Fax: +86 (0) 755 23116366



5.9 Test Instruments list

| Radiated Emission: | | | | | |
|--------------------|-----------------|---------------|--------------------|-------------------------|-----------------------------|
| Test Equipment | Manufacturer | Model No. | Serial No. | Cal. Date (mm-dd-yy) | Cal. Due date (mm-dd-yy) |
| 3m SAC | SAEMC | 9m*6m*6m | 966 | 07-22-2017 | 07-21-2020 |
| Loop Antenna | SCHWARZBECK | FMZB1519B | 00044 | 03-18-2019 | 03-17-2020 |
| BiConiLog Antenna | SCHWARZBECK | VULB9163 | 497 | 03-18-2019 | 03-17-2020 |
| Horn Antenna | SCHWARZBECK | BBHA9120D | 916 | 03-18-2019 | 03-17-2020 |
| Horn Antenna | SCHWARZBECK | BBHA9120D | 1805 | 06-22-2017 | 06-21-2020 |
| Horn Antenna | SCHWARZBECK | BBHA 9170 | BBHA9170582 | 11-21-2018 | 11-20-2019 |
| EMI Test Software | AUDIX | E3 | Version: 6.110919b | | b |
| Pre-amplifier | HP | 8447D | 2944A09358 | 03-18-2019 | 03-17-2020 |
| Pre-amplifier | CD | PAP-1G18 | 11804 | 03-18-2019 | 03-17-2020 |
| Spectrum analyzer | Rohde & Schwarz | FSP30 | 101454 | 03-18-2019 | 03-17-2020 |
| Spectrum analyzer | Rohde & Schwarz | FSP40 | 100363 | 11-21-2018 | 11-20-2019 |
| EMI Test Receiver | Rohde & Schwarz | ESRP7 | 101070 | 03-18-2019 | 03-17-2020 |
| Cable | ZDECL | Z108-NJ-NJ-81 | 1608458 | 03-18-2019 | 03-17-2020 |
| Cable | MICRO-COAX | MFR64639 | K10742-5 | 03-18-2019 | 03-17-2020 |
| Cable | SUHNER | SUCOFLEX100 | 58193/4PE | 03-18-2019 | 03-17-2020 |
| RF Switch Unit | MWRFTEST | MW200 | N/A | N/A | N/A |
| Test Software | MWRFTEST | MTS8200 | Version: 2.0.0.0 | | |

| Conducted Emission: | | | | | |
|---------------------|-----------------|------------|--------------------|-------------------------|-----------------------------|
| Test Equipment | Manufacturer | Model No. | Serial No. | Cal. Date (mm-dd-yy) | Cal. Due date (mm-dd-yy) |
| EMI Test Receiver | Rohde & Schwarz | ESCI | 101189 | 03-18-2019 | 03-17-2020 |
| Pulse Limiter | SCHWARZBECK | OSRAM 2306 | 9731 | 03-18-2019 | 03-17-2020 |
| LISN | CHASE | MN2050D | 1447 | 03-18-2019 | 03-17-2020 |
| LISN | Rohde & Schwarz | ESH3-Z5 | 8438621/010 | 07-21-2019 | 07-20-2020 |
| Cable | HP | 10503A | N/A | 03-18-2019 | 03-17-2020 |
| EMI Test Software | AUDIX | E3 | Version: 6.110919b | | |



6 Test results and Measurement Data

6.1 Antenna requirement:

Standard requirement: FCC Part 15 C Section 15.203 /247(b)

15.203 requirement:

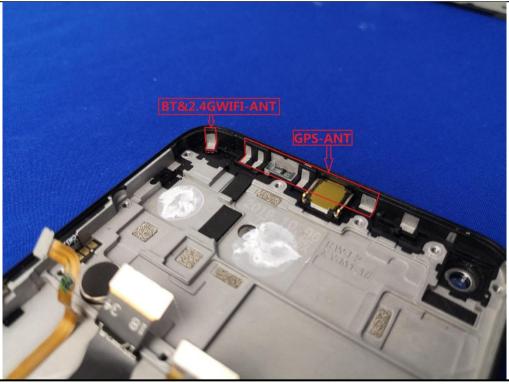
An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

15.247(b) (4) requirement:

(4) The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi. Except as shown in paragraph (c) of this section, if transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced below the stated values in paragraphs (b)(1), (b)(2), and (b)(3) of this section, as appropriate, by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

E.U.T Antenna:

The BLE antenna is an Internal antenna which cannot replace by end-user, the best-case gain of the antenna is 0.89 dBi.





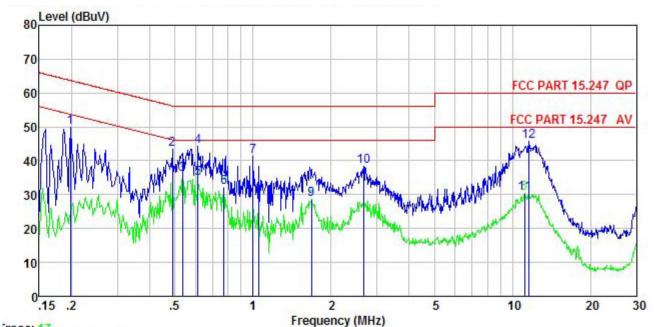
6.2 Conducted Emission

| Test Requirement: | FCC Part 15 C Section 15.207 | | | | |
|-----------------------|--|--------------|-----------|--|--|
| Test Frequency Range: | 150 kHz to 30 MHz | | | | |
| Class / Severity: | Class B | | | | |
| Receiver setup: | RBW=9kHz, VBW=30kHz | | | | |
| Limit: | | Limit (dBuV) | | | |
| Limit. | Frequency range (MHz) Quasi-peak Average | | | | |
| | 0.15-0.5 | 66 to 56* | 56 to 46* | | |
| | 0.5-5 | 0.5-5 56 46 | | | |
| | 5-30 | 60 | 50 | | |
| | * Decreases with the logar | | | | |
| Test procedure | The E.U.T and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.), which provides a 50ohm/50uH coupling impedance for the measuring equipment. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refer to the block diagram of the test setup and photographs). Both sides of A.C. line are checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10-2013 on conducted measurement. | | | | |
| Test setup: | Reference Plane LISN 40cm 80cm Filter AC power Equipment Test table/Insulation plane Remark E.U.T: Equipment Under Test LISN: Line Impedence Stabilization Network Test table height=0.8m | | | | |
| Test Instruments: | Refer to section 5.9 for de | tails | | | |
| Test mode: | Refer to section 5.3 for details | | | | |
| Test results: | Passed | Passed | | | |



Measurement Data:

| Product name: | Smart phone | Product model: | F2 |
|-----------------|------------------|----------------|-----------------------|
| Test by: | Carey | Test mode: | BLE Tx mode |
| Test frequency: | 150 kHz ~ 30 MHz | Phase: | Line |
| Test voltage: | AC 120 V/60 Hz | Environment: | Temp: 22.5℃ Huni: 55% |



| - | _ |
|--------|---|
| race: | - |
| Talle. | - |
| | |

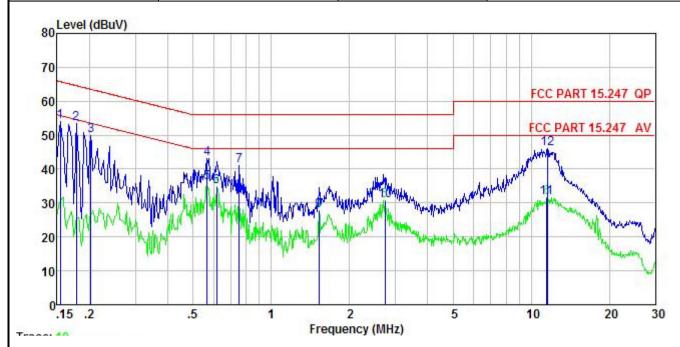
| | Freq | Read Level | LISN Factor | Cable Loss | Level | Limit Line | Over Limit | Remark |
|---|--------|---------------|----------------|---------------|-------|---------------|---------------|---------|
| - | MHz | dBu∇ | <u>ab</u> | <u>ab</u> | dBu∇ | dBu⊽ | <u>ab</u> | |
| 1 | 0.198 | 39.67 | -0.41 | 10.76 | 50.02 | 63.71 | -13.69 | QP |
| 2 | 0.489 | 32.97 | -0.39 | 10.76 | 43.34 | 56.19 | -12.85 | QP |
| 3 | 0.535 | 25.65 | -0.39 | 10.76 | 36.02 | 46.00 | -9.98 | Average |
| 1 2 3 4 5 6 7 8 9 | 0.614 | 33.95 | -0.38 | 10.77 | 44.34 | 56.00 | -11.66 | |
| 5 | 0.614 | 24.35 | -0.38 | 10.77 | 34.74 | 46.00 | -11.26 | Average |
| 6 | 0.771 | 21.73 | -0.38 | 10.80 | 32.15 | | | Average |
| 7 | 1.000 | 30.84 | -0.38 | 10.87 | 41.33 | 56.00 | -14.67 | QP |
| 8 | 1.049 | 19.08 | -0.38 | 10.88 | 29.58 | 46.00 | -16.42 | Average |
| 9 | 1.680 | 18.09 | -0.40 | 10.94 | 28.63 | 46.00 | -17.37 | Average |
| 10 | 2.664 | 27.88 | -0.43 | 10.93 | 38.38 | | -17.62 | |
| 11 | 11.139 | 20.05 | -0.63 | 10.93 | 30.35 | 50.00 | -19.65 | Average |
| 12 | 11.559 | 35.58 | -0.64 | 10.93 | 45.87 | | -14.13 | |

Notes:

- 1. An initial pre-scan was performed on the line and neutral lines with peak detector.
- 2. Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.
- 3. Final Level =Receiver Read level + LISN Factor + Cable Loss.



| Product name: | Smart phone | Product model: | F2 |
|-----------------|------------------|----------------|-----------------------|
| Test by: | Carey | Test mode: | BLE Tx mode |
| Test frequency: | 150 kHz ~ 30 MHz | Phase: | Neutral |
| Test voltage: | AC 120 V/60 Hz | Environment: | Temp: 22.5℃ Huni: 55% |



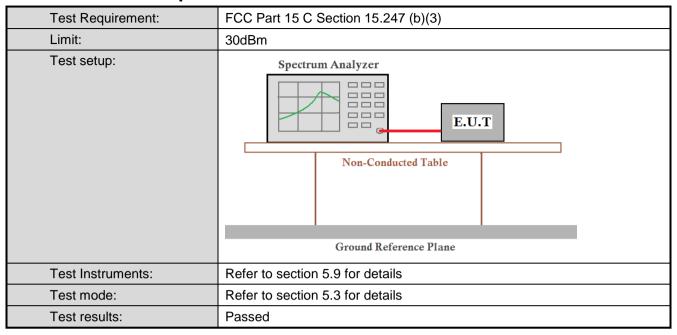
| | Freq | Read Level | LISN Factor | Cable Loss | | Limit Line | Over Limit | Remark |
|---|---|--|--|---|--|--|--|--------------------------------------|
| | MHz | dBu∇ | <u>dB</u> | <u>ab</u> | dBu₹ | dBu∜ | <u>ab</u> | |
| 1 2 3 4 5 6 7 8 9 10 11 | 0.154 0.178 0.202 0.567 0.567 0.617 0.751 1.527 2.736 11.498 | 25.82 24.57 30.83 22.27 17.43 20.57 | -0.65 -0.65 -0.64 -0.64 -0.65 -0.65 | 10.76 10.76 10.77 10.79 10.79 10.93 10.93 | 54. 11 53. 54 49. 78 43. 24 35. 93 34. 70 40. 98 32. 42 27. 71 30. 83 31. 53 | 64.59 63.54 56.00 46.00 56.00 46.00 46.00 46.00 | -11.30 -15.02 -13.58 -18.29 -15.17 | QP QP QP Average Average |
| 12 | 11.559 | 36.02 | -0.80 | 10.93 | 46.15 | | -13.85 | |

Notes

- 1. An initial pre-scan was performed on the line and neutral lines with peak detector.
- 2. Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission.
- 3. Final Level =Receiver Read level + LISN Factor + Cable Loss.



6.3 Conducted Output Power

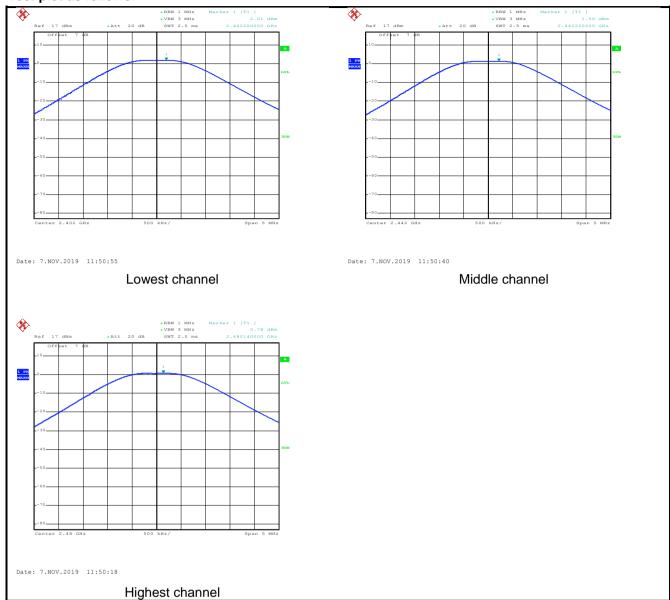


Measurement Data:

| Test CH | Maximum Conducted Output Power (dBm) | Limit(dBm) | Result |
|---------|--------------------------------------|------------|--------|
| Lowest | 2.01 | | |
| Middle | 1.50 | 30.00 | Pass |
| Highest | 0.78 | | |

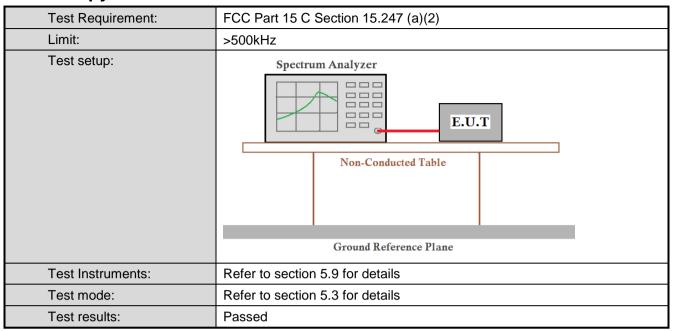


Test plot as follows:





6.4 Occupy Bandwidth

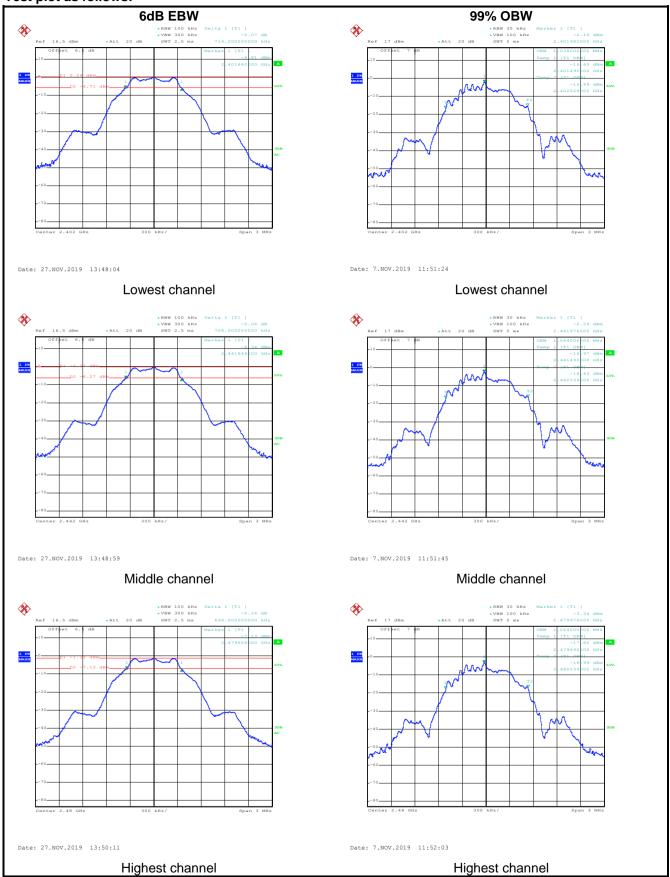


Measurement Data:

| Test CH | 6dB Emission Bandwidth (MHz) | Limit(kHz) | Result |
|---------|------------------------------|------------|--------|
| Lowest | 0.714 | | |
| Middle | 0.708 | >500 | Pass |
| Highest | 0.696 | | |
| Test CH | 99% Occupy Bandwidth (MHz) | Limit(kHz) | Result |
| Lowest | 1.038 | | |
| Middle | 1.044 | N/A | N/A |
| Highest | 1.044 | | |

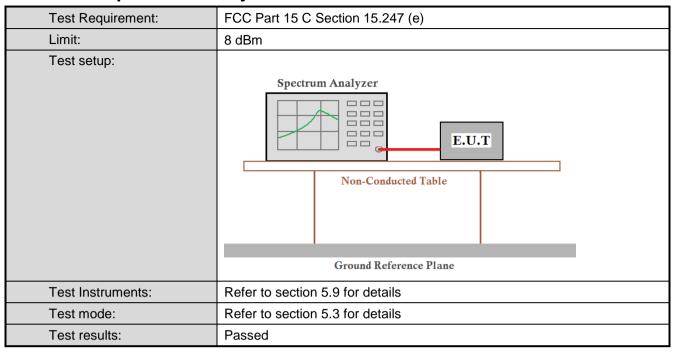


Test plot as follows:





6.5 Power Spectral Density

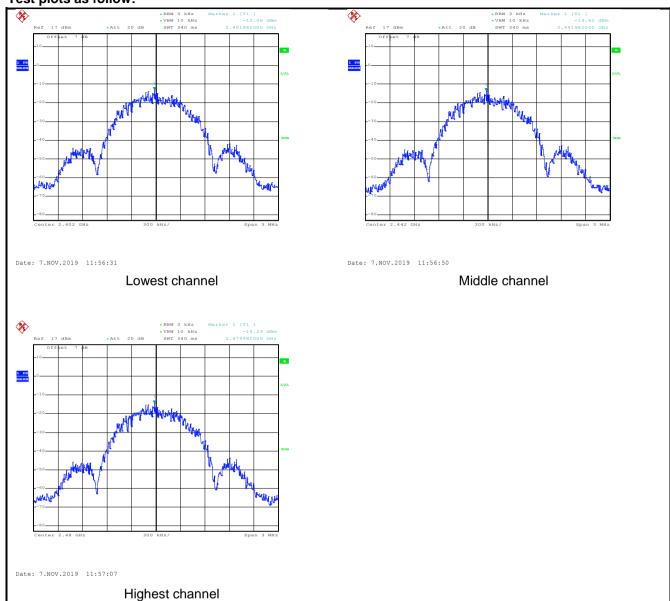


Measurement Data:

| modean on to the Data | | | |
|-----------------------|------------------------------|------------|--------|
| Test CH | Power Spectral Density (dBm) | Limit(dBm) | Result |
| Lowest | -13.06 | | |
| Middle | -13.62 | 8.00 | Pass |
| Highest | -14.29 | | |



Test plots as follow:





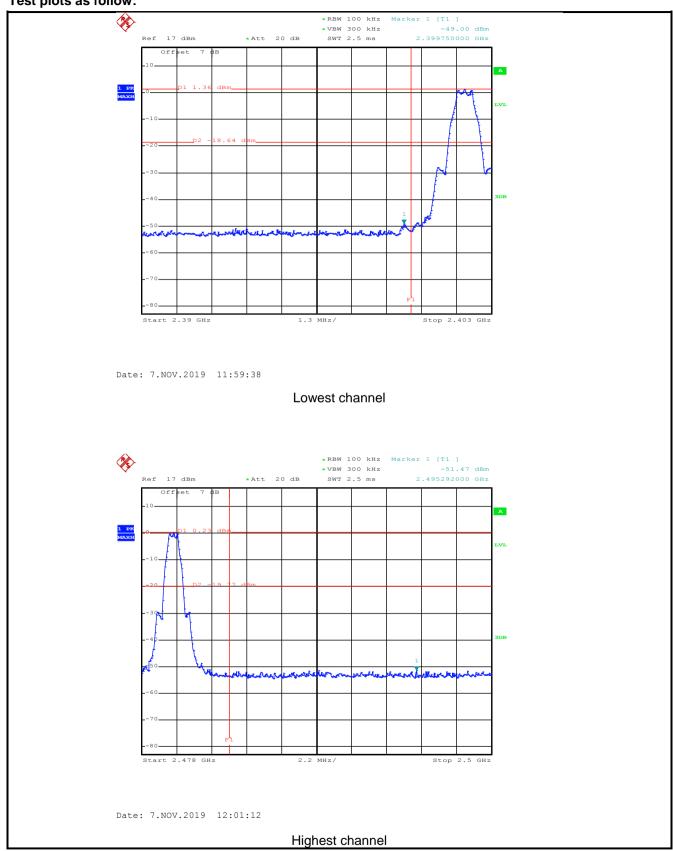
6.6 Band Edge

6.6.1 Conducted Emission Method

| Test Requirement: | FCC Part 15 C Section 15.247 (d) | | | | | | |
|-------------------|---|--|--|--|--|--|--|
| Limit: | In any 100 kHz bandwidth outside the frequency band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement. | | | | | | |
| Test setup: | Spectrum Analyzer E.U.T Non-Conducted Table Ground Reference Plane | | | | | | |
| Test Instruments: | Refer to section 5.9 for details | | | | | | |
| Test mode: | Refer to section 5.3 for details | | | | | | |
| Test results: | Passed | | | | | | |



Test plots as follow:





6.6.2 Radiated Emission Method

| Above 1GHz Peak 1MHz 3MHz Peak Varage Value | 6.6.2 Radiated Emission I | vietnoa | | | | | | | | |
|--|---------------------------|--|-----------------|------------------------|--|---------------|--|--|--|--|
| Test Distance: Receiver setup: Frequency Detector RBW VBW Rema | Test Requirement: | FCC Part 15 C Section 15.205 and 15.209 | | | | | | | | |
| Receiver setup: Frequency Detector RBW VBW Remark Above 1GHz RMS 1MHz 3MHz Average Value Above 1GHz Frequency Limit (dBuV/m @3m) Remark Above 1GHz T4.00 Average Value Test Procedure: 1. The EUT was placed on the top of a rotating table 1.5 meters at the ground at a 3 meter camber. The table was rotated 360 degret to determine the position of the highest radiation. 2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height ant tower. 3. The antenna height is varied from one meter to four meters about the ground to determine the maximum value of the field strength Both horizontal and vertical polarizations of the antenna are set make the measurement. 4. For each suspected emission, the EUT was arranged to its wors case and then the antenna was tuned to heights from 1 meter to meters and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading. 5. The test-receiver system was set to Peak Detect Function and | Test Frequency Range: | 2.3GHz to 2.5GHz | | | | | | | | |
| Above 1GHz Peak 1MHz 3MHz Peak Varage Value | Test Distance: | 3m | 1 | | | | | | | |
| Limit: Frequency Limit (dBuV/m @3m) Remark Above 1GHz 54.00 Average Value Test Procedure: 1. The EUT was placed on the top of a rotating table 1.5 meters at the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation. 2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height ant tower. 3. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength Both horizontal and vertical polarizations of the antenna are set make the measurement. 4. For each suspected emission, the EUT was arranged to its worse case and then the antenna was tuned to heights from 1 meter to meters and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading. 5. The test-receiver system was set to Peak Detect Function and Peak Detect Function Peak Detect Function and Peak Detect Function and Peak Detect Function and Peak Detect Function Peak Detect Function and Peak Detect Function Peak Dete | Receiver setup: | Frequency | | | | Remark | | | | |
| Limit: Frequency Limit (dBuV/m @3m) Remark | | Above 1GHz | | | | Peak Value | | | | |
| Above 1GHz 54.00 Average Value Test Procedure: 1. The EUT was placed on the top of a rotating table 1.5 meters at the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation. 2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height ant tower. 3. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength Both horizontal and vertical polarizations of the antenna are set make the measurement. 4. For each suspected emission, the EUT was arranged to its wors case and then the antenna was tuned to heights from 1 meter to meters and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading. 5. The test-receiver system was set to Peak Detect Function and | | | | | | Average Value | | | | |
| Test Procedure: 1. The EUT was placed on the top of a rotating table 1.5 meters at the ground at a 3 meter camber. The table was rotated 360 degret to determine the position of the highest radiation. 2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height ant tower. 3. The antenna height is varied from one meter to four meters about the ground to determine the maximum value of the field strength Both horizontal and vertical polarizations of the antenna are set make the measurement. 4. For each suspected emission, the EUT was arranged to its wors case and then the antenna was tuned to heights from 1 meter to meters and the rota table was turned from 0 degrees to 360 degree to find the maximum reading. 5. The test-receiver system was set to Peak Detect Function and | Limit: | Frequer | icy L | , | | | | | | |
| Test Procedure: 1. The EUT was placed on the top of a rotating table 1.5 meters at the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation. 2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antended tower. 3. The antenna height is varied from one meter to four meters about the ground to determine the maximum value of the field strength Both horizontal and vertical polarizations of the antenna are set make the measurement. 4. For each suspected emission, the EUT was arranged to its wors case and then the antenna was tuned to heights from 1 meter to meters and the rota table was turned from 0 degrees to 360 degree to find the maximum reading. 5. The test-receiver system was set to Peak Detect Function and | | Above 10 | GHz — | | | | | | | |
| 6. If the emission level of the EUT in peak mode was 10 dB lower the limit specified, then testing could be stopped and the peak voof the EUT would be reported. Otherwise the emissions that did have 10 dB margin would be re-tested one by one using peak, or peak or average method as specified and then reported in a data sheet. | | The EUT was placed on the top of a rotating table 1.5 meters above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rota table was turned from 0 degrees to 360 degrees to find the maximum reading. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. If the emission level of the EUT in peak mode was 10 dB lower than the limit specified, then testing could be stopped and the peak value of the EUT would be reported. Otherwise the emissions that did not have 10 dB margin would be re-tested one by one using peak, quasipeak or average method as specified and then reported in a data | | | | | | | | |
| Test setup: Horn Antenna Tower Ground Reference Plane Test Receiver Test Receiver Test Receiver | Test setup: | 150cm | furntable) Grou | 3m and Reference Plane | | | | | | |
| Test Instruments: Refer to section 5.9 for details | Test Instruments: | Refer to section | on 5.9 for deta | ails | | | | | | |
| Test mode: Refer to section 5.3 for details | | | | | | | | | | |
| Test results: Passed | Test results: | Passed | | | | | | | | |



| roduc | t Name: | Sma | rt phone | | | P | roduct m | odel: | F2 | | | |
|--------|---------------|-------|-------------------|------|------|-----------------|------------|---------------|-----------------|-------------|----------|--|
| est By | y: | Care | ÷y | _ | | T | Test mode: | | BLE Tx m | BLE Tx mode | | |
| est Ch | nannel: | Lowe | est channe | əl | | Р | olarizatio | n: | Vertical | | | |
| est Vo | oltage: | AC 1 | 20/60Hz | | | E | nvironme | ent: | Temp: 24 | °C Hı | uni: 57% | |
| 1.0 | avel (dRuV/m) | | | | | • | | | | | | |
| 110 | evel (dBuV/m) | | | | | | | | | | | |
| 100 | | | | | | | | | | | - | |
| | | | | | | | | | | | \wedge | |
| 80 | | | | | | | | | FC | PART | 15 (PK) | |
| | | | | | | | | | | | | |
| 60 | | | ^ | | | _ | | | FC | PART | 15 (AV) | |
| ~ | | | Amy ma | | | - | سكمم | | - Andrews | - | - | |
| 40 | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| 20 | | | | | | | | | | | - | |
| | | | | | | | | | | | | |
| 023 | 310 2320 | | | | 2350 | | | | | | 2404 | |
| | | | | | | iency (MH | łz) | | | | | |
| | Freq | | intenna Factor | | | | | Over Limit | Remark | | | |
| | MHz | | | | | | dBu√/m | | | | | |
| 1 | 2390.000 | | | | | | 74.00 | | Do ale | | | |
| 1 2 | 2390.000 | 12.83 | 27.07 | 4.69 | 0.00 | 0J. (8 46 97 | F4.00 | 7 72 | reak Average | | | |

Remark:

- 1. Final Level = Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor.
- 2. The emission levels of other frequencies are very lower than the limit and not show in test report.



| oduct I | Name: | Smart | phone | | I | Product m | nodel: | F2 | 2 | | |
|-----------|---------------|-------|--------------|------------|-----------------|---------------------|---------------------|-----------|-----------|-------------|------|
| st By: | Carey | | 1 | Test mode: | | | BLE Tx mode | | | | |
| st Cha | nnel: | Lowes | t channel | | ı | Polarizatio | on: | Но | orizontal | | |
| st Volt | age: | AC 12 | 0/60Hz | | i | Environm | ent: | Те | emp: 24℃ | Huni: 57 | % |
| | evel (dBuV/n | n) | | | | | | | | | |
| SET 100 C | CTCI (GDGV/II | , | | | | | | 7 | | | |
| 100 | | | | | | | | | - | 1403 | - 63 |
| | | | | | | | | | | | |
| 80 | | | | | | | | | FCC | PART 15 (PI | C) |
| | | | | | | | | | | | 1 |
| 60 | | 1000 | | | | | Antique la | | FC(| PART 15 (A) | /) |
| | | | ~~~ | ~~~ | Carrie Contract | 2000 | ~~~ | JA - U V | ma | ~~~ | |
| 40 | | | | | - 4 | | | | | | -0 |
| | | | | | | | | | | | |
| 20 | | | | | | | | | | | |
| | | | | | | | | | | | |
| 02 | 310 2320 |) | | | 2350 | | н | | | 2 | 404 |
| | | | | | | ency (MHz | 2) | | | | |
| | | ReadA | int enna | Cable | Preamp | | Limit | Over | | | |
| | Freq | Level | Factor | Loss | Factor | Level | Line | Limit | Remark | | |
| | MHz | dBu₹ | <u>dB</u> /m | ₫B | <u>ab</u> | $\overline{dBuV/m}$ | $\overline{dBuV/m}$ | <u>dB</u> | | | |
| | 2390.000 | 20.30 | | 4.69 | | | | -20.25 | | | |
| 2 : | 2390.000 | 12.39 | 27.08 | 4.69 | 0.00 | 45.84 | 54.00 | -8.16 | Average | | |

Remark:

- 1. Final Level = Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor.
- 2. The emission levels of other frequencies are very lower than the limit and not show in test report.



| Product Name: | Smart phone | Product model: | F2 | | |
|-------------------|------------------------------|-----------------|---------------------|--|--|
| Test By: | Carey Test mode: BLE Tx mode | | | | |
| Test Channel: | Highest channel | Polarization: | Vertical | | |
| Test Voltage: | AC 120/60Hz | Environment: | Temp: 24℃ Huni: 57% | | |
| 1 | | | | | |
| 110 Level (dBuV/m |); 56 | | | | |
| 100 | | | | | |
| | | | | | |
| 80 | \ | | FCC PART 15 (PK) | | |
| / | | | PCC PART 15 (PR) | | |
| 60 | | 2000000 | 500 BART 45 (NB | | |
| | | | ECC PART 15 (AV) | | |
| 40 | | | | | |
| 40 | | | | | |
| 20 | | | | | |
| 20 | | | | | |
| | | | | | |
| ⁰ 2478 | 112722 | A second second | 2500 | | |
| | Frequer | ncy (MHz) | | | |

dB dBuV/m dBuV/m

0.00 55.01 74.00 -18.99 Peak 0.00 46.31 54.00 -7.69 Average

Remark:

MHz

2483.500

2483.500 21.14

12.44

1. Final Level = Receiver Read level + Antenna Factor + Cable Loss - Preamplifier Factor.

4.81

4.81

dB/m

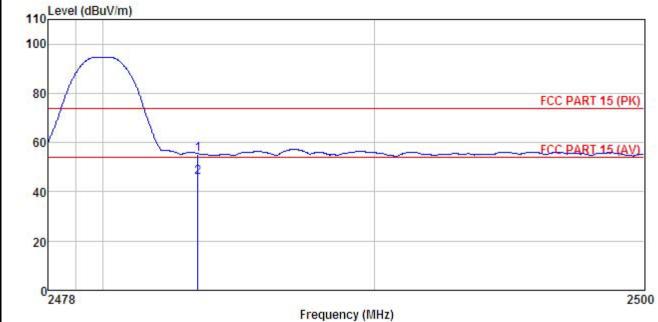
27.36

27.36

2. The emission levels of other frequencies are very lower than the limit and not show in test report.



| Product Name: | Smart phone | Product model: | F2 |
|--------------------|-----------------|----------------|---------------------|
| Test By: | Carey | Test mode: | BLE Tx mode |
| Test Channel: | Highest channel | Polarization: | Horizontal |
| Test Voltage: | AC 120/60Hz | Environment: | Temp: 24℃ Huni: 57% |
| 110 Level (dBuV/m) | | | |



| | Freq | | Antenna Factor | | | | | |
|---|----------------------|------|-------------------|---------------|--------|----------------|-----------|--|
| 2 | MHz | dBu∜ | <u>dB</u> /m | <u>ab</u> | dBuV/m | dBuV/m | <u>dB</u> | |
| | 2483.500 2483.500 | | | | | 74.00 54.00 | | |

Remark

- 1. Final Level = Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor.
- 2. The emission levels of other frequencies are very lower than the limit and not show in test report.



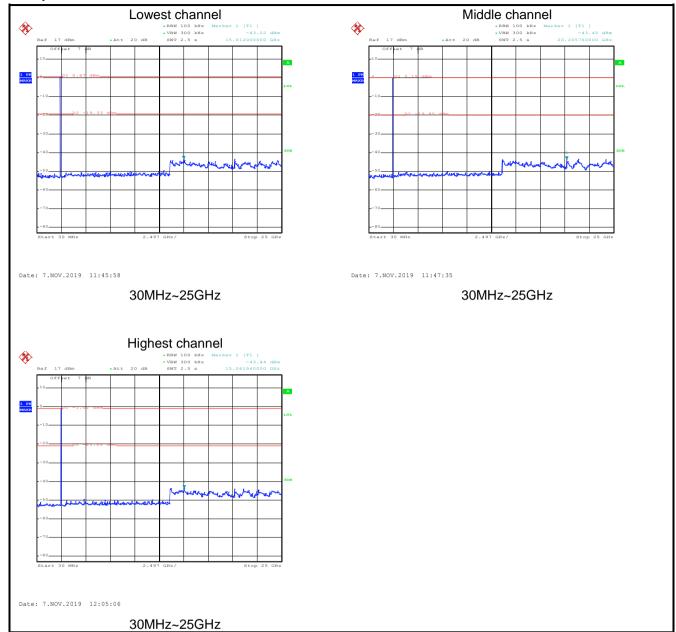
6.7 Spurious Emission

6.7.1 Conducted Emission Method

| Test Requirement: | FCC Part 15 C Section 15.247 (d) | | | | | | |
|-------------------|--|--|--|--|--|--|--|
| Limit: | In any 100 kHz bandwidth outside the frequency band in which the spre spectrum intentional radiator is operating, the radio frequency power the is produced by the intentional radiator shall be at least 20 dB below that the 100 kHz bandwidth within the band that contains the highest level the desired power, based on either an RF conducted or a radiate measurement. | | | | | | |
| Test setup: | Spectrum Analyzer E.U.T Non-Conducted Table Ground Reference Plane | | | | | | |
| Test Instruments: | Refer to section 5.9 for details | | | | | | |
| Test mode: | Refer to section 5.3 for details | | | | | | |
| Test results: | Passed | | | | | | |



Test plot as follows:

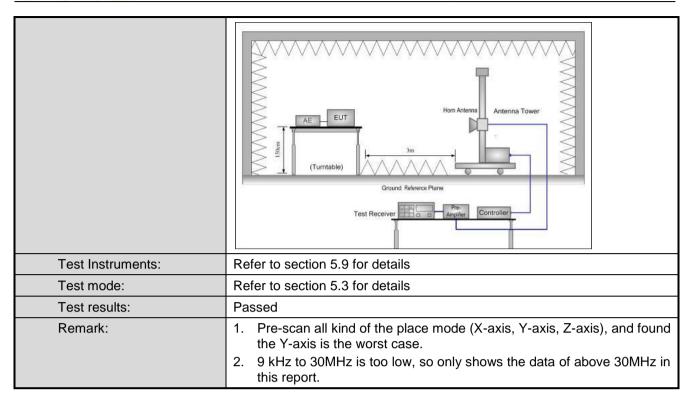




6.7.2 Radiated Emission Method

| Test Requirement: | FCC Part 15 C | Section 15.20 | 5 and 15.2 <mark>09</mark> | 1 | | | | | |
|-----------------------|---|---|---|---|---|--|--|--|--|
| Test Frequency Range: | 9kHz to 25GHz | | | | | | | | |
| Test Distance: | 3m | 3m | | | | | | | |
| Receiver setup: | Frequency | Detector | RBW | VB | 3W | Remark | | | |
| | 30MHz-1GHz | Quasi-peak | 120KHz | 3001 | KHz | Quasi-peak Value | | | |
| | Above 1GHz | Peak | 1MHz | 3M | | Peak Value | | | |
| | Above 10112 | RMS | 1MHz | 3M | Hz | Average Value | | | |
| Limit: | Frequency | / Li | mit (dBuV/m @ | 3m) | | Remark | | | |
| | 30MHz-88M | | 40.0 | | | Quasi-peak Value | | | |
| | 88MHz-216N | | 43.5 | | | Quasi-peak Value | | | |
| | 216MHz-960I | | 46.0 | | | Quasi-peak Value | | | |
| | 960MHz-1G | Hz | 54.0 | | (, | Quasi-peak Value | | | |
| | Above 1GF | łz — | 54.0 74.0 | | | Average Value Peak Value | | | |
| Test Procedure: | 1GHz)/1.5r The table of highest rad 2. The EUT antenna, we tower. 3. The antenna Both horizon make the normake the normake the normake the interest and to find the interest and the interest and the interest and | m(above 1GHwas rotated 3 iation. was set 3 minimum reasurement. Suspected en the ante deceiver system and width with sion level of the could be reasurement. It would be reasurement and well the rotatable maximum reasurement and with the rotatable and width with sion level of the could be reasurement. | dz) above the 360 degrees to seters away unted on the standard from one the maximutical polarization was tuned ding. In Maximum Hore EUT in percesting could be ported. Other discould be re-tested. | e groun to deter from the top of a ne met um val tions of EUT wa ed to he from 0 to Pea lold Mo ak mod oe stop wise the d one b | and at a rmine a varianter to fixed the a control of the | table 0.8m(below a 3 meter camber. the position of the erference-receiving ble-height antenna four meters above the field strength. antenna are set to anged to its worst from 1 meter to 4 ees to 360 degrees tect Function and a 10 dB lower than and the peak values ssions that did not using peak, quasi-reported in a data | | | |
| Test setup: | Below 1GHz Turn Table Ground Plane Above 1GHz | 3m 4m 4m 0.8m 1m | | | Antenna Search Antenn Test ceiver | 1 | | | |



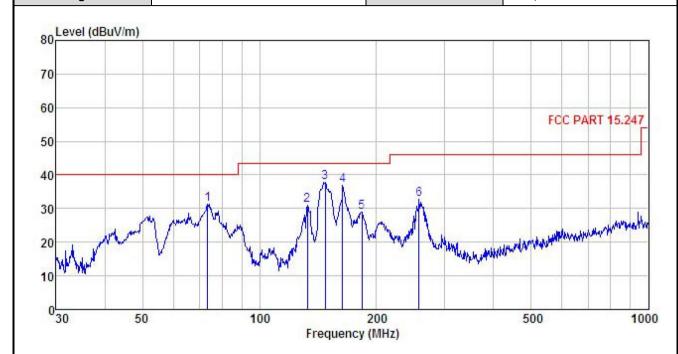




Measurement Data (worst case):

Below 1GHz:

| Product Name: | Smart phone | Product model: | F2 |
|-----------------|----------------|----------------|---------------------|
| Test By: | Carey | Test mode: | BLE Tx mode |
| Test Frequency: | 30 MHz ~ 1 GHz | Polarization: | Vertical |
| Test Voltage: | AC 120/60Hz | Environment: | Temp: 24℃ Huni: 57% |



| | Freq | | Antenna Factor | | | | Limit | | Remark |
|---|---------|-------|-------------------|------|-----------|---------------------------------|---------------------|-----------|--------|
| | MHz | dBu∜ | <u>dB</u> /π | | <u>ab</u> | $\overline{dB} \overline{uV/m}$ | $\overline{dBuV/m}$ | <u>dB</u> | |
| 1 | 73.617 | 51.52 | 7.98 | 1.61 | 29.69 | 31.42 | 40.00 | -8.58 | QP |
| 2 | 132.685 | 48.06 | 9.99 | 2.32 | 29.31 | 31.06 | 43.50 | -12.44 | QP |
| 3 | 147.404 | 55.49 | 9.05 | 2.49 | 29.23 | 37.80 | 43.50 | -5.70 | QP |
| 4 | 163.755 | 53.97 | 9.42 | 2.62 | 29.10 | 36.91 | 43.50 | -6.59 | QP |
| 5 | 183.201 | 45.06 | 10.08 | 2.75 | 28.95 | 28.94 | 43.50 | -14.56 | QP |
| 6 | 257.422 | 45.69 | 12.85 | 2.83 | 28.53 | 32.84 | 46.00 | -13.16 | QP |

Remark:

- 1. Final Level = Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor.
- 2. The emission levels of other frequencies are very lower than the limit and not show in test report.



| oauct | Smart phone | | | | Pro | oduct mo | del: | F2 | F2 | | | |
|---------|--|--|---|---|--|--|---|--|--|--|------------------------|-----|
| st By: | t By: Carey | | | | | Test mode: | | | | BLE Tx mode Horizontal | | |
| st Fred | st Frequency: 30 MH | | | ~ 1 GHz | | | Polarization: | | | | | |
| st Volt | : Voltage: AC 120/60Hz | | | | - | En | vironmen | t: | Temp: | 24℃ | Huni: | 57% |
| Lo | evel (dBuV/m | 1 | | | | | | | | | | |
| 80 | ever (dbdv/iii | " | | | | | | | | | | 1 |
| 70 | | | | | | | | | | | | |
| 0.00 | | | | | | | | | | | | |
| 60 | | | | | | | | | F | C PAF | RT 15.247 | |
| 50 | | | | | | | | | | | T | |
| | | | | | | | | | | 1 | | |
| 40 | | + | | | | | | | | | | Ī |
| 30 | | | | | | | | | | | 6. | |
| | | | | | | | | | | | | |
| 0.3488 | | | 1 2 | | | | 4 | 5 | | السلادين | No report the | |
| 20 | 1 | Marilla | 12 | l ku | . 1 | 3 Nwa 1 | | 5 Mr. was A | AND | NAME OF THE PARTY | a second separate line | |
| 20 | Maderial State of the | March Congress | 12 | hall which | Mun | 3 Whydan | water the same | 5 Maryanya M | Aphi the later to | and the state of t | aser specifiche | |
| 20 | aphrodis . | work of the same | 12 | hamar han | Mundy | 3 Notyphysia | www. | 5 Maryana | Not the Marie of the State of t | AND | was specified | |
| 20 | aphrodis . | 50 | 12 | 100 | Municipal | 3 W\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | water the same | 5 Maryanya | 300 | AND | 100 | |
| 20 | aphrodis . | Hira | 1.2 m | 100 | Freque | 200 ncy (MHz | | 5 Wymyn | | and the state of | | |
| 20 | aphrodis . | 50 | | | 20 | 700 | | 5 Nymyn Over | | and the second | | |
| 20 | h/wd/ | 50 Read/ | Interna Factor | Cable | 20 | ncy (MHz |) Limit | Over | | and the second | | |
| 20 | h/wd/ | 50 Read/ | Antenna | Cable | Preamp Factor | ncy (MHz Level |) Limit | Over | 500 | A CONTRACTOR OF THE CONTRACTOR | | |
| 10 0 30 | Freq | Read/ Level dBuV 43.61 | Antenna Factor ——dB/m 7.89 | Cable Loss —————————————————————————————————— | Preamp Factor dB | Level dBuV/m 23.45 | Limit Line dBuV/m | Over Limit | 500 Remark | A STATE OF THE STA | | |
| 10 0 30 | Freq MHz 74.396 80.644 | 50 Read/ Level dBuV 43.61 43.51 | Antenna Factor dB/m 7.89 7.68 | Cable Loss dB 1.63 1.69 | Preamp Factor ———————————————————————————————————— | Level dBuV/m 23.45 23.24 | Limit Line dBuV/m 40.00 | Over Limit ——————————————————————————————————— | 500 Remark | AND THE PARTY OF T | | |
| 10 0 30 | Freq MHz 74.396 80.644 167.237 | 50 Read/ Level dBuV 43.61 43.51 36.67 | Antenna Factor ———————————————————————————————————— | Cable Loss dB 1.63 1.69 2.64 | Preamp Factor ———————————————————————————————————— | Level dBuV/m 23.45 23.24 19.78 | Limit Line dBuV/m 40.00 40.00 43.50 | Over Limit ——————————————————————————————————— | 500 Remark | | | |
| 20 | Freq MHz 74.396 80.644 | 50 Read/ Level dBuV 43.61 43.51 | Antenna Factor dB/m 7.89 7.68 | Cable Loss dB 1.63 1.69 | Preamp Factor ———————————————————————————————————— | Level dBuV/m 23.45 23.24 | Limit Line dBuV/m 40.00 40.00 43.50 46.00 | Over Limit ——————————————————————————————————— | 500 Remark QP QP QP QP QP | | | |

Remark:

- 1. Final Level = Receiver Read level + Antenna Factor + Cable Loss Preamplifier Factor.
- 2. The emission levels of other frequencies are very lower than the limit and not show in test report.



Above 1GHz

| Test channel: Lowest channel | | | | | | | | | | |
|------------------------------|-------------------------|-----------------------------|-----------------------|--------------------------|-------------------|------------------------|-----------------------|--------------|--|--|
| | | | De | tector: Peak | Value | | | | | |
| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | Polarization | | |
| 4804.00 | 60.26 | 30.85 | 6.80 | 41.81 | 56.10 | 74.00 | -17.90 | Vertical | | |
| 4804.00 | 67.26 | 30.85 | 6.80 | 41.81 | 63.10 | 74.00 | -10.90 | Horizontal | | |
| | | | Dete | ctor: Avera | ge Value | | | | | |
| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | Polarization | | |
| 4804.00 | 41.60 | 30.85 | 6.80 | 41.81 | 37.44 | 54.00 | -16.56 | Vertical | | |
| 4804.00 | 43.47 | 30.85 | 6.80 | 41.81 | 39.31 | 54.00 | -14.69 | Horizontal | | |
| | | | | | | | | | | |
| | | | Test ch | nannel: Midd | lle channel | | | | | |
| | | | De | tector: Peak | Value | | | | | |
| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | Polarization | | |
| 4884.00 | 59.48 | 31.20 | 6.86 | 41.84 | 55.70 | 74.00 | -18.30 | Vertical | | |
| 4884.00 | 66.41 | 31.20 | 6.86 | 41.84 | 62.63 | 74.00 | -11.37 | Horizontal | | |
| | | | Dete | ctor: Avera | ge Value | | | | | |
| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | Polarization | | |

| Test channel: Highest channel | | | | | | | | | | | |
|-------------------------------|-------------------------|-----------------------------|-----------------------|--------------------------|-------------------|------------------------|-----------------------|--------------|--|--|--|
| | Detector: Peak Value | | | | | | | | | | |
| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | Polarization | | | |
| 4960.00 | 60.48 | 31.63 | 6.91 | 41.87 | 57.15 | 74.00 | -16.85 | Vertical | | | |
| 4960.00 | 67.32 | 31.63 | 6.91 | 41.87 | 63.99 | 74.00 | -10.01 | Horizontal | | | |
| | | | Dete | ctor: Averaç | ge Value | | | | | | |
| Frequency (MHz) | Read Level (dBuV) | Antenna Factor (dB/m) | Cable Loss (dB) | Preamp Factor (dB) | Level (dBuV/m) | Limit Line (dBuV/m) | Over Limit (dB) | Polarization | | | |
| 4960.00 | 41.58 | 31.63 | 6.91 | 41.87 | 38.25 | 54.00 | -15.75 | Vertical | | | |
| 4960.00 | 43.02 | 31.63 | 6.91 | 41.87 | 39.69 | 54.00 | -14.31 | Horizontal | | | |

41.84

41.84

37.47

39.30

54.00

54.00

-16.53

-14.70

Remark.

4884.00

4884.00

41.25

43.08

31.20

31.20

6.86

6.86

Project No.: CCISE1910052

Vertical

Horizontal

^{1.} Final Level = Receiver Read level + Antenna Factor + Cable Loss - Preamplifier Factor.

^{2.} The emission levels of other frequencies are very lower than the limit and not show in test report.