

Report No: CCISE181205407

FCC REPORT

| Applicant: | Sun Cupid Technology (HK) Ltd. |
|-------------------------|--|
| Address of Applicant: | 16/F, CEO Tower, 77 Wing Hong Street, Cheung Sha Wan, Kowloon, Hong Kong. |
| Equipment Under Test (F | EUT) |
| Product Name: | LTE Smart phone |
| Model No.: | N6201L, G4 |
| Trade mark: | NUU |
| FCC ID: | 2ADINN6201L |
| Applicable standards: | FCC CFR Title 47 Part 15 Subpart C Section 15.225 |
| Date of sample receipt: | 14 Dec., 2018 |
| Date of Test: | 14 Dec., to 22 Dec., 2018 |
| Date of report issue: | 25 Dec., 2018 |
| 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 CCISproduct certification mark. The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report.

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Version 2

| Version No. | Date | Description |
|-------------|---------------|-------------|
| 00 | 25 Dec., 2018 | Original |
| | | |
| | | |
| | | |
| | | |

Tested by:

Cavey Chen Test Engineer

Date:

25 Dec., 2018

Reviewed by:

"Inan" Date:

25 Dec., 2018

Project Engineer



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4 Test Summary

| Test Item | Section in CFR 47 | Result |
|--|-------------------|--------|
| Antenna requirement | 15.203 | Pass |
| Field strength of the fundamental signal | 15.225 (a) | Pass |
| Spurious emissions | 15.225(d)& 15.209 | Pass |
| 20dB Bandwidth | 15.215(c) | Pass |
| Frequency tolerance | 15.225 (e) | Pass |
| Conducted Emission | 15.207 | Pass |

Remarks:

Pass: The EUT complies with the essential requirements in the standard.



5 General Information

5.1 Client Information

| Applicant: | Sun Cupid Technology (HK) Ltd. | | | |
|--------------|--|--|--|--|
| Address: | 16/F, CEO Tower, 77 Wing Hong Street, Cheung Sha Wan, Kowloon, Hong Kong. | | | |
| Manufacturer | Sun Cupid Technology (HK) Ltd. | | | |
| Address: | 16/F, CEO Tower, 77 Wing Hong Street, Cheung Sha Wan, Kowloon, Hong Kong. | | | |
| Factory: | SUNCUPID (ShenZhen) Electronic Ltd | | | |
| Address: | Baolong Industrial City, Longgang District, Shenzhen Hi-Tech Road, Building 1, A 7, China. | | | |

5.2 General Description of E.U.T.

| Product Name: | LTE Smart phone |
|------------------------|---|
| Model No.: | N6201L, G4 |
| Operation Frequency: | 13.56MHz |
| Channel numbers: | 1 |
| Modulation type: | ASK |
| Antenna Type: | Internal Antenna |
| Antenna gain: | 0dBi |
| Power supply: | Rechargeable Li-ion Battery DC 3.85V, 3750mAh |
| AC adapter: | Model: HJ-FC001K7-US Input: AC100-240V, 50/60Hz, 0.6A Output: DC 5.0V, 2000mA / DC 9.0V, 2000mA |
| Test Sample Condition: | The test samples were provided in good working order with no visible defects. |
| Remark: | N6201L, G4 were identical inside, the electrical circuit design, layout, components used and internal wiring, with only difference being model name and for different areas, They all have two memory configurations, 1:6G(RAM) + 64G(ROM); 2: 6G(RAM) + 128G(ROM). |



5.3 Test mode

| Transmitting mode: | Keep the EUT in transmitting mode with modulation | | | | | | |
|---|--|--|--|--|--|--|--|
| Pre-Test Mode: | | | | | | | |
| | CCIS has verified the construction and function in typical operation, The EUT was placed on three different polar directions; i.e. X axis, Y axis, Z axis. which was shown in this test report and defined as follows: | | | | | | |
| Axis | Axis X Y Z | | | | | | |
| Field Strength(dBuV/m) | Field Strength(dBuV/m) 57.60 55.21 53.12 | | | | | | |
| Final Test Mode: | | | | | | | |
| According to ANSI C63.4 standards, the test results are both the "worst case" and "worst setup": Y axis (see the test setup photo). | | | | | | | |

5.4 Description of Support Units

| N | /F |
|---|----|
| Ν | Iŀ |

5.5 Laboratory Facility

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

• FCC - Registration No.: 727551

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

IC - Registration No.: 10106A-1

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: <u>https://portal.a2la.org/scopepdf/4346-01.pdf</u>

5.6 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



5.7 Test Instrumentslist

| Radiated Emission: | | | | | | | |
|--------------------------|-----------------|-----------------------------|-------------------------------|------------------------|-----------------------------|--|--|
| Test Equipment | Manufacturer | cturer 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 | | |
| BiConiLog Antenna | SCHWARZBECK | VULB9163 | 497 | 03-16-2018 | 03-15-2019 | | |
| Biconical Antenna | SCHWARZBECK | VUBA9117 | 359 | 06-22-2017 | 06-21-2020 | | |
| Horn Antenna | SCHWARZBECK | BBHA9120D | 916 | 03-16-2018 | 03-15-2019 | | |
| Horn Antenna | SCHWARZBECK | BBHA9120D | 1805 | 06-22-2017 | 06-21-2020 | | |
| Horn Antenna | SCHWARZBECK | BBHA 9170 | BBHA9170582 | 11-21-2018 | 11-20-2019 | | |
| Loop Antenna | SCHWARZBECK | FMZB 1519 B | 00044 | 03-16-2018 | 03-15-2019 | | |
| EMI Test Software | AUDIX | E3 | V | ersion: 6.11091 | 9b | | |
| Pre-amplifier | HP | 8447D | 2944A09358 | 03-07-2018 | 03-06-2019 | | |
| Pre-amplifier | CD | PAP-1G18 | 11804 | 03-07-2018 | 03-06-2019 | | |
| Spectrum analyzer | Rohde & Schwarz | FSP30 | 101454 | 03-07-2018 | 03-06-2019 | | |
| Spectrum analyzer | Rohde & Schwarz | FSP40 | 100363 | 11-21-2018 | 11-20-2019 | | |
| EMI Test Receiver | Rohde & Schwarz | ESRP7 | 101070 | 03-07-2018 | 03-06-2019 | | |
| Signal Generator | Rohde & Schwarz | SMX | 835454/016 | 03-07-2018 | 03-06-2019 | | |
| Signal Generator | R&S | SMR20 | 1008100050 03-07-2018 03-06-2 | | 03-06-2019 | | |
| Cable | ZDECL | Z108-NJ-NJ-81 | 1608458 03-07-2018 03-06 | | 03-06-2019 | | |
| Cable | MICRO-COAX | MFR64639 | K10742-5 03-07-2018 03-06- | | 03-06-2019 | | |
| Cable | SUHNER | SUCOFLEX100 | 58193/4PE | 03-07-2018 | 03-06-2019 | | |

| Conducted Emission: | | | | | | |
|-----------------------------|--------------------|-----------------------|--------------------|---|------------|--|
| Test Equipment Manufacturer | | Model No. | Inventory No. | Cal.Date Cal.Due da (mm-dd-yy) (mm-dd-yy | | |
| Shielding Room | ZhongShuo Electron | 11.0(L)x4.0(W)x3.0(H) | CCIS0061 | 07-22-2017 | 07-21-2020 | |
| EMI Test Receiver | Rohde & Schwarz | ESCI | CCIS0002 | 03-07-2018 | 03-06-2019 | |
| LISN | CHASE | MN2050D | CCIS0074 | 03-19-2018 | 03-18-2019 | |
| LISN | Rohde & Schwarz | ESH3-Z5 | 8438621/010 | 07-21-2018 | 07-20-2019 | |
| Coaxial Cable | CCIS | N/A | CCIS0086 | 03-07-2018 | 03-06-2019 | |
| EMI Test Software | AUDIX | E3 | Version: 6.110919b | | | |



6 Test results and Measurement Data

6.1 Antenna requirement

| Standard requirement: | FCC Part15 C Section 15.203 |
|---|--|
| responsible party shall be us antenna that uses a unique | be designed to ensure that no antenna other than that furnished by the sed with the device. The use of a permanently attached antenna or of an coupling to the intentional radiator, the manufacturer may design the unit on be replaced by the user, but the use of a standard antenna jack or bited. |
| E.U.T Antenna: | |
| The EUT make use of an inte | egrated antenna, The typical gain of the antenna is 0dBi. |
| NFC&WPT- | AN 8 8 6 6 8 8 6 9 8 8 6 8 6 8 8 9 8 8 6 8 6 8 8 8 9 8 9 8 6 8 6 8 8 9 8 9 8 8 6 8 8 8 9 8 9 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 |

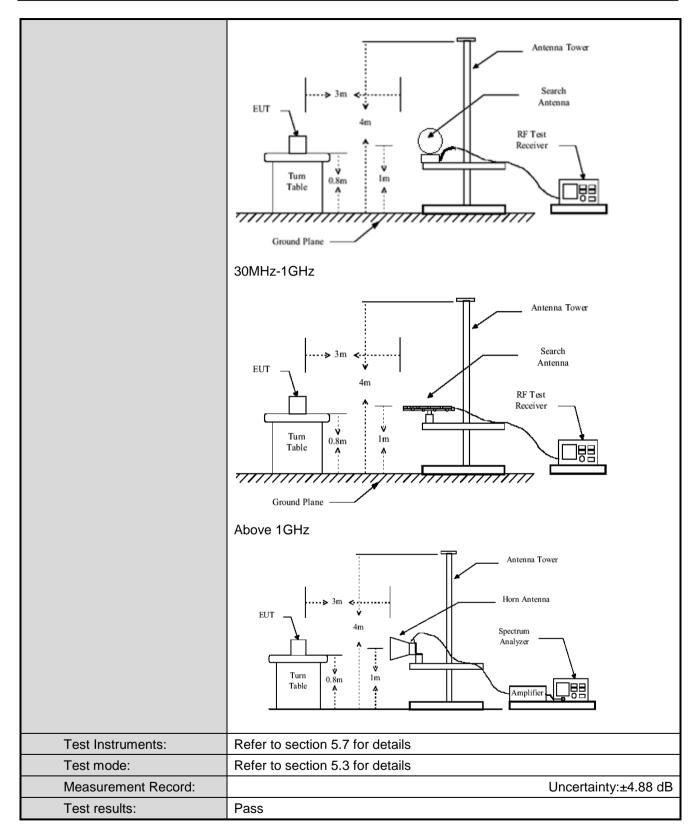




6.2 Radiated Emission

| Toot Poquiromont: | ECC Dort1E C S | ation 15 225/ | (a) and 15 20 | 0 | | | | |
|------------------------|--|--|--|---------------------------------------|---------------------------|---|--|--|
| Test Requirement: | FCC Part15 C Section 15.225(a) and 15.209 | | | | | | | |
| Test Method: | ANSI C63.10: 2013 | | | | | | | |
| TestFrequencyRange: | 9 kHz to 1000MHz | | | | | | | |
| Test site: | Measurement Distance: 3m(Semi-Anechoic Chamber) | | | | | | | |
| Receiver setup: | Frequency Detector RBW VBW Remark | | | | | | | |
| | 9kHz-150kHz | Quasi-peak | 200Hz | 600Hz | <u>,</u> | Quasi-peak Value | | |
| | 150kHz-30MHz | Quasi-peak | 9kHz | 30kHz | | Quasi-peak Value | | |
| | 30MHz-1GHz | Quasi-peak | 120kHz | 300KH | | Quasi-peak Value | | |
| | Above 1GHz | Peak | 1MHz | 3MHz | | Peak Value | | |
| Limit: | Frequen | | Limit (uV/m 🤇 | @30m) | Lim | it (dBuV/m @3m) | | |
| (Field strength of the | 13.553MHz-13 | .567MHz | 15848 | | | 124.0 | | |
| fundamental signal) | 13.410MHz-13.5 13.567MHz-13 | | 334 | | | 90.5 | | |
| | 13.110MHz-13.4 13.710MHz-14 | .010MHz | 106 | | | 80.5 | | |
| | | ified, the results making measure mine the prope | s shallbe extra ementsat a mi rextrapolation | apolated to inimum of factor or | o the s two c by us | at a closer specified distances on atleast ing thesquare of an | | |
| Limit: | Frequency (| | Limit (uV/n | | | Distance (m) | | |
| (Spurious Emissions) | 0.009-0.4 | | 2400/F(| | | 300 | | |
| (0) | 0.490-1.7 | 05 | 24000/F | | | 30 | | |
| | 1.705-3 | 0 | 30 | ` | | 30 | | |
| | 30-88 | | 100 |) | | 3 | | |
| | 88-216 | 88-216 150 | | | | 3 | | |
| | 216-960 200 | | | | 3 | | | |
| | Above 1G | | 500 | | | 3 | | |
| Test Procedure: | a. The EUT was placed on the top of a rotating table 0.8 meters above the groundat a 3 meter semi-anechoic camber. The table was rotated 360 degrees todetermine the position of the highest radiation. b. The EUT was set 3 meters away from the interference-receiving antenna, whichwas mounted on the top of a variable-height antenna tower. c. 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. d. For each suspected emission, the EUT was arranged to its worst case and thenthe antenna was tuned to heights from 1 meter to 4 meters and the rotatabletable was turned from 0 degrees to 360 degrees to find the maximum reading. e. The test-receiver system was set to Peak Detect Function and SpecifiedBandwidth with Maximum Hold Mode. f. If the emission level of the EUT in peak mode was 10dB lower than the limitspecified, then testing could be stopped and the peak values of the EUT wouldbe reported. Otherwise the emissions that did not have 10dB margin would bere-tested one by one using peak, quasipeak or average method as specified andthen reported in a data | | | | | | | |
| Test setup: | sheet. 9kHz-30MHz | | | | | | | |
| | | | | | | | | |

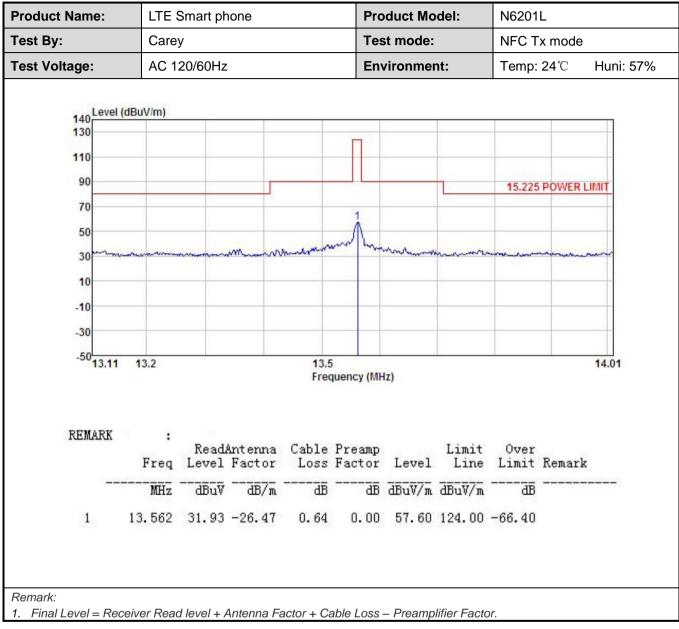
Report No: CCISE181205407



CCIS



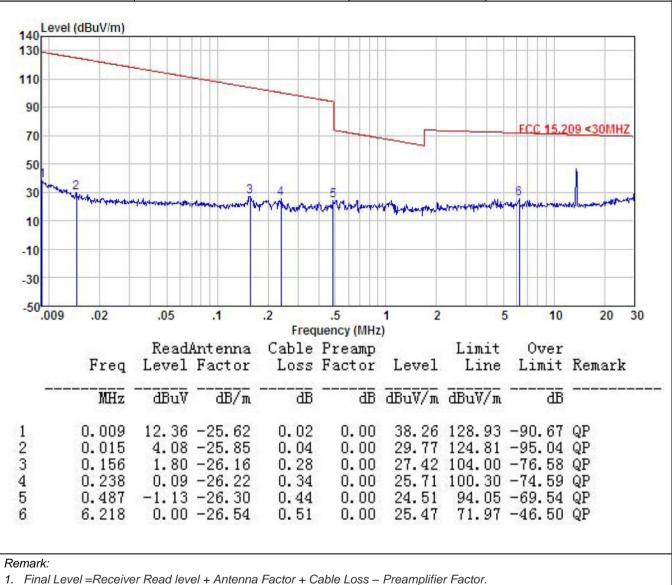
Measurement Data: Field Strength of fundamental signal:





Spurious Emissions: Test frequency range: 9 kHz- 30 MHz

| Product Name: | LTE Smart phone | Product Model: | N6201L | | | | |
|-----------------|-----------------|----------------|---------------------|--|--|--|--|
| Test By: | Carey | Test mode: | NFC Tx mode | | | | |
| Test Frequency: | 9 kHz ~ 30 MHz | Polarization: | Vertical | | | | |
| Test Voltage: | AC 120/60Hz | Environment: | Temp: 24℃ Huni: 57% | | | | |
| | | | | | | | |

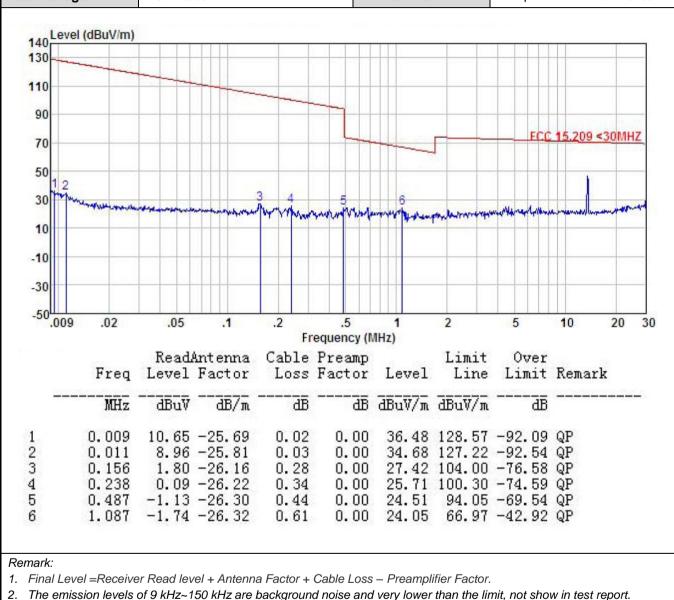


2. The emission levels of 9 kHz~150 kHz are background noise and very lower than the limit, not show in test report.





| Product Name: | LTE Smart phone | Product Model: | N6201L |
|-----------------|-----------------|----------------|----------------------|
| Test By: | Carey | Test mode: | NFC Tx mode |
| Test Frequency: | 9 kHz ~ 30 MHz | Polarization: | Horizontal |
| Test Voltage: | AC 120/60Hz | Environment: | Temp: 24°C Huni: 57% |





| Product Name: | LTE | LTE Smart phone | | | Pro | Product Model: | | N6201L | | |
|-------------------------------|--|---|---|---|--|---|---|---|---|--------------|
| est By: | Care | у | | | Tes | Test mode: | | NFC Tx mode | | |
| Fest Frequency: | 30 M | 30 MHz ~ 1 GHz AC 120/60Hz | | | Pola | arization | : | Vertica | l | |
| Fest Voltage: | AC 1 | | | | Env | vironmer | nt: | Temp: | 24 ℃ | Huni: 57% |
| | · | | | | · | | | | | |
| 80 Leve | l (dBuV/m) | | | | | | | | | |
| 70 | | | | | | | | | | |
| 70 | | | | | | | | | | |
| 60 | | | | | | | | FCC PA | RT15 CL | ASSB |
| 50 | | | | | | | | | | F |
| 10 | | | | | | 1 | | | | 1 |
| 40 | 1 | | 2 | | 3 5 | | | | | |
| | 4 | | JT LA | | | | | | | |
| 30 | Mun | ma T | Mr. | aut | 1 M | | | 9 | | L. Josephere |
| 20 | Mu | val | My My | mark | KM | hoursel | aller Abel a shake | Mander Head | mound | whender |
| 20 | and the | v | My | manual | WM | howald | whenthe | And maker land | Laurensvield | ive-deates |
| 20 | awa hu | v | No Ma | man | 4M | hormally | when the state of | And when the sh | Laurenarial | warder |
| 20 10 | 50 | v | 100 | manual | 200 | horady | uter out a star | 6 1-1 | month | 1000 |
| 20 | | v | | | 200 puency (MH | | aberta and | | hannahalph | |
| 20 10 | 50 | V | 100 | Freq | uency (MH | | ulter the star | 500 | manual | |
| 20 Minut 10 0 30 | 50 | | 100 ntenna | Freq | uency (MH Preamp | (z) | Limit | 500 Over | | 1000 |
| 20 Minut 10 0 30 | 50 : Freq | Level H | 100 ntenna Factor | Freq Cable Loss | uency (MH Preamp Factor | z) Level | Line | 500 Over Limit | Remar | 1000 |
| 20 Minut 10 0 30 | 50 | | 100 ntenna | Freq | uency (MH Preamp Factor | z) Level | Limit Line dBuV/m | 500 Over | Remar | 1000 |
| 20 10 0 30 REMARK | 50 : Freq MHz 46.178 | Level H | 100 ntenna Factor dB/m 13.80 | Freq Cable Loss dB 1.28 | Preamp Factor dB 29.85 | z) Level dBuV/m 33.05 | Line <u>dBuV/m</u> 40.00 | 500 Over Limit -6.95 | Reman | 1000 |
| 20 10 0 30 REMARK | 50 : Freq MHz 46.178 82.648 | Level H | 100 ntenna Factor dB/m 13.80 8.63 | Freq Cable Loss dB 1.28 1.76 | Preamp Factor dB 29.85 29.62 | Level dBuV/m 33.05 33.15 | Line <u>dBuV/m</u> 40.00 40.00 | 500 Over Limit -6.95 -6.85 | Reman | 1000 |
| 20 10 0 30 REMARK | 50 : Freq MHz 46.178 82.648 154.821 194.453 | Level H dBuV 47.82 52.38 52.87 44.04 | 100 ntenna Factor dB/m 13.80 8.63 8.85 11.34 | Freq Cable Loss dB 1.28 1.76 2.55 2.83 | Preamp Factor | Level dBuV/m 33.05 33.15 35.09 29.34 | Line dBuV/m 40.00 40.00 43.50 43.50 | 500 Over Limit -6.95 -6.85 -8.41 -14.16 | Reman QP QP QP QP QP | 1000 |
| 20 10 0 30 REMARK | 50 : Freq MHz 46.178 82.648 154.821 | Level H dBuV 47.82 52.38 52.87 44.04 | 100 ntenna Factor dB/m 13.80 8.63 8.85 | Freq Cable Loss dB 1.28 1.76 2.55 | Preamp Factor | Level dBuV/m 33.05 33.15 35.09 29.34 | Line dBuV/m 40.00 40.00 43.50 43.50 43.50 | 500 Over Limit -6.95 -6.85 -8.41 -14.16 | Reman QP QP QP QP QP QP QP | 1000 |

Test frequency range: 30MHz-1000MHz

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





| Product Name: | LTE Smart phone | Product Model: | N6201L | |
|--|-----------------|-------------------|----------------------|--|
| Test By: | Carey | Test mode: | NFC Tx mode | |
| Test Frequency: | 30 MHz ~ 1 GHz | Polarization: | Horizontal | |
| Test Voltage: | AC 120/60Hz | Environment: | Temp: 24°C Huni: 57% | |
| 80 Level (dBu 70 60 50 40 30 20 10 0 30 | 50 100 | 200 ency (MHz) | FCC PART15 CLASS B | |

| | Freq | Level | Factor | Loss | Factor | Level | Line | Limit | Remark |
|--------|---------|-------|--------|------|--------|--------|--------|--------|--------|
| | MHz | dBuV | | dB | āB | dBuV/m | dBuV/m | āB | |
| 1 | 30.000 | 43.76 | 10.60 | 0.72 | 29.98 | 25.10 | 40.00 | -14.90 | QP |
| 2 | 81.497 | 44.53 | 8.40 | 1.72 | 29.63 | 25.02 | 40.00 | -14.98 | QP |
| 2 | 186.441 | 47.93 | 10.71 | 2.77 | 28.93 | 32.48 | 43.50 | -11.02 | QP |
| 4 | 207.123 | 46.31 | 11.78 | 2.86 | 28.78 | 32.17 | 43.50 | -11.33 | QP |
| 4 5 | 400.432 | 42.37 | 15.51 | 3.08 | 28.78 | 32.18 | 46.00 | -13.82 | QP |
| 6 | 480.528 | 43.49 | 16.97 | 3.46 | 28.92 | 35.00 | 46.00 | -11.00 | 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.



6.3 20dB Bandwidth

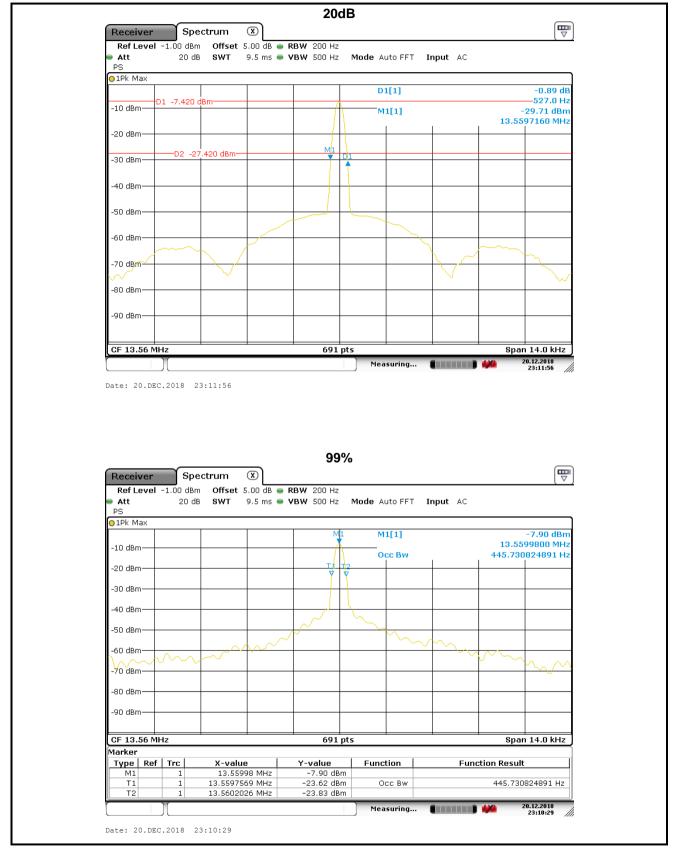
| Test Requirement: | FCC Part15 C Section 15.215 (c) |
|-------------------|---|
| Test Method: | ANSI C63.4:2014 |
| Receiver setup: | RBW=200Hz, VBW=300Hz, detector: Peak |
| Limit: | The fundamental emission be kept within atleast the central 80% of the permitted band |
| Test Procedure: | According to the follow Test-setup, keep the relative position between the artificial antenna and the EUT. Set the EUT to proper test channel. Max hold the radiated emissions, mark the peak power frequency point and the -20dB upper and lower frequency points. Read 20dB bandwidth. |
| Test setup: | Spectrum Analyzer E.U.T Non-Conducted Table Ground Reference Plane |
| Test Instruments: | Refer to section 5.7 for details |
| Test mode: | Refer to section 5.3 for details |
| Test results: | Passed |

Measurement Data

| 20dB bandwidth (kHz) | Limit (kHz) | Results | | | | |
|---|-------------|---------|--|--|--|--|
| 0.527 | 11.2 | Passed | | | | |
| 99% bandwidth (kHz) | Limit (kHz) | Results | | | | |
| 0.446 N/A Passed | | | | | | |
| Note: For 13.56MHz, permitted Band is 14 kHz, so the Limit is 11.2 kHz. | | | | | | |



Test plot as follows:





6.4 Frequency Tolerance

| Test Requirement: | FCC Part15 C Section 15.225 (e) |
|-------------------|--|
| | ANSI C63.10: 2013 |
| Test Method: | |
| Receiver setup: | RBW=200Hz, VBW=300Hz, span=14kHz, detector: Peak |
| Limit: | ±0.01% of the operating frequency |
| Test mode: | Transmitting mode |
| Test Procedure: | Frequency stability V.S. Temperature measurement |
| | 1. The equipment under test was powered by a fresh battery. |
| | RF output was connected to spectrum analyzer via feed through attenuators. |
| | 3. The EUT was placed inside the temperature chamber. |
| | Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 20°C operating frequency as reference frequency. |
| | 5. Turn EUT off and set the chamber temperature to −20°C. After the temperature stabilized for approximately 30 minutes recorded the frequency. |
| | Repeat step measure with 10[°]C increased per stage until the highest temperature of +50[°]C reached |
| | Frequency stability V.S. Voltage measurement |
| | Set chamber temperature to 25°C. Use a variable DC power source to power the EUT and set the voltage to rated voltage. |
| | 2. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency. |
| | Reduce the input voltage to specify extreme voltage variation (+/-15%) and endpoint, record the maximum frequency change. |
| Test setup: | Spectrum Analyzer E.U.T Non-Conducted Table |
| | Ground Reference Plane |
| Test Instruments: | Refer to section 5.7 for details |
| Test mode: | Refer to section 5.3 for details |
| Test results: | Passed |

Measurement Data:

a) Frequency stability V.S. Temperature measurement

| Voltage (Vdc) | Temperature (℃) | Frequency Tolerance (MHz) | Frequency Error (%) | Limit (%) | Results |
|------------------|--------------------|------------------------------|------------------------|--------------|---------|
| | -20 | 13.561068 | 0.008 | 0.01 | Pass |
| | -10 | 13.561067 | 0.008 | 0.01 | Pass |
| | 0 | 13.561067 | 0.008 | 0.01 | Pass |
| 2.05 | +10 | 13.561065 | 0.008 | 0.01 | Pass |
| 3.85 | +20 | 13.561066 | 0.008 | 0.01 | Pass |
| | +30 | 13.561067 | 0.008 | 0.01 | Pass |
| | +40 | 13.561065 | 0.008 | 0.01 | Pass |
| | +50 | 13.561064 | 0.008 | 0.01 | Pass |

b) Frequency stability V.S. Voltage measurement

| Temperature (℃) | Voltage (Vdc) | Frequency Tolerance (MHz) | Frequency Error (%) | Limit (%) | Results |
|--------------------|------------------|------------------------------|------------------------|--------------|---------|
| | 3.50 | 13.561065 | 0.008 | 0.01 | Pass |
| 25 | 3.85 | 13.561067 | 0.008 | 0.01 | Pass |
| | 4.40 | 13.561068 | 0.008 | 0.01 | Pass |



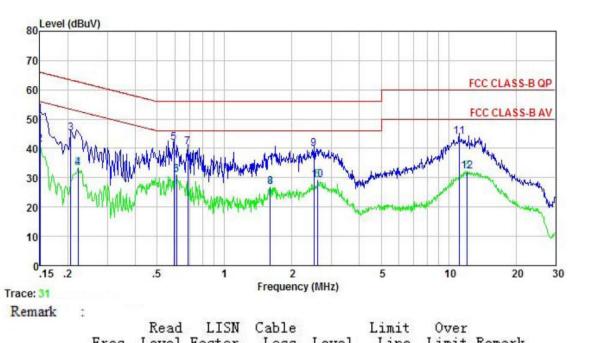
6.5 Conducted Emission

| Test Requirement: | FCC Part15 B Section 15.207 | | | | | |
|---------------------|---|-----------------------------------|---------|----------|---------|---------------|
| Test Method: | ANSI C63.4:2014 | | | | | |
| TestFrequencyRange: | 150kHz to 30MHz | | | | | |
| Class / Severity: | Class B | | | | | |
| Receiver setup: | RBW=9kHz | , VBW=30kHz | | | | |
| Limit: | | | | Limit | (dBµV) | |
| | Frequency | / range (MHz) | Qu | asi-peak | | Average |
| | | 15-0.5 | 66 | 6 to 56* | 5 | 56 to 46* |
| | |).5-5 | | 56 | | 46 |
| | | .5-30 | | 60 | | 50 |
| Test setup: | * Decreases | <u>s with the loga</u> Referen | | equency. | | |
| Test procedure | LISN 40cm 80cm Filter AC power Full Equipment E.U.T EMI Receiver Test table/Insulation plane EMI Receiver Remark: E.U.T. Equipment Under Test LISN: Line Impedence Stabilization Network Test table height=0.8m Stabilization Network | | | | | |
| | The E.U.T and simulators are connected to the main power through a line impedance stabilization network (L.I.S.N.).It provide 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 C63.4: 2003 on conducted measurement. | | | | | |
| Test environment: | Temp.: | 23°C | Humid.: | 56% | Press.: | 101kPa |
| Measurement Record: | | I | | | Uncert | ainty: 3.28dB |
| Test Instruments: | Refer to sec | ction 5.7 for de | tails | | | |
| Test mode: | Refer to sec | ction 5.3 for de | tails | | | |
| Test results: | Pass | | | | | |



Measurement Data:

| Product name: | LTE Smart phone | Product model: | N6201L |
|-----------------|------------------|----------------|-----------------------|
| Test by: | Carey | Test mode: | NFC Tx mode |
| Test frequency: | 150 kHz ~ 30 MHz | Phase: | Line |
| Test voltage: | AC 120 V/60 Hz | Environment: | Temp: 22.5℃ Huni: 55% |



| | Freq | Level | Factor | Loss | Level | Line | Limit | Remark |
|---|--------|-------|--------|-------|----------|-------|--------|---------|
| | MHz | dBuV | dB | dB | dBu∛ | dBu∛ | āB | |
| 1 | 0.150 | 40.58 | 0.18 | 10.78 | 51.54 | 66.00 | -14.46 | QP |
| 2 | 0.150 | 30.51 | 0.18 | 10.78 | 41.47 | 56.00 | -14.53 | Average |
| 1 2 3 4 5 6 7 8 9 10 | 0.206 | 34.39 | 0.15 | 10.76 | 45.30 | 63.36 | -18.06 | QP |
| 4 | 0.222 | 22.54 | 0.14 | 10.76 | 33.44 | 52.74 | -19.30 | Average |
| 5 | 0.595 | 31.02 | 0.13 | 10.77 | 41.92 | 56.00 | -14.08 | QP |
| 6 | 0.611 | 20.20 | 0.13 | 10.77 | 31.10 | 46.00 | -14.90 | Average |
| 7 | 0.686 | 29.43 | 0.13 | 10.77 | 40.33 | 56.00 | -15.67 | QP |
| 8 | 1.602 | 15.78 | 0.14 | 10.93 | 26.85 | 46.00 | -19.15 | Average |
| 9 | 2.500 | 28.84 | 0.15 | 10.94 | 39.93 | 56.00 | -16.07 | QP |
| 10 | 2.608 | 18.02 | 0.16 | 10.93 | 29.11 | 46.00 | -16.89 | Average |
| 11 | 11.139 | 32.79 | 0.32 | 10.93 | 44.04 | 60.00 | -15.96 | QP |
| 12 | 12.124 | 20.95 | 0.32 | 10.92 | 32.19 | 50.00 | -17.81 | Average |

Notes:

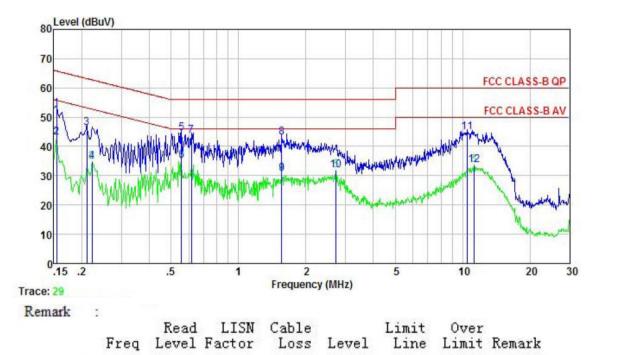
1. An initial pre-scan was performed on the line and neutral lines with peak detector.

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: | LTE Smart phone | Product model: | N6201L | | | |
|-----------------|------------------|----------------|-----------------------|--|--|--|
| Test by: | Carey | Test mode: | NFC Tx mode | | | |
| Test frequency: | 150 kHz ~ 30 MHz | Phase: | Neutral | | | |
| Test voltage: | AC 120 V/60 Hz | Environment: | Temp: 22.5℃ Huni: 55% | | | |



| | MHz | dBuV | dB | dB | dBuV | dBu∛ | dB | |
|----------|--------|-------|------|-------|-------|-------|--------|---------|
| 1 | 0.154 | 41.12 | 0.98 | 10.78 | 52.88 | 65.78 | -12.90 | QP |
| 2 | 0.154 | 31.39 | 0.98 | 10.78 | 43.15 | 55.78 | -12.63 | Average |
| 3 | 0.211 | 34.74 | 0.93 | 10.76 | 46.43 | 63.18 | -16.75 | QP |
| 4 | 0.222 | 23.27 | 0.93 | 10.76 | 34.96 | 52.74 | -17.78 | Average |
| 5 | 0.555 | 32.95 | 0.97 | 10.76 | 44.68 | 56.00 | -11.32 | QP |
| 23456789 | 0.555 | 23.28 | 0.97 | 10.76 | 35.01 | 46.00 | -10.99 | Average |
| 7 | 0.617 | 31.95 | 0.97 | 10.77 | 43.69 | 56.00 | -12.31 | QP |
| 8 | 1.560 | 31.34 | 0.98 | 10.93 | 43.25 | 56.00 | -12.75 | QP |
| | 1.560 | 18.92 | 0.98 | 10.93 | 30.83 | 46.00 | -15.17 | Average |
| 10 | 2.721 | 19.91 | 0.99 | 10.93 | 31.83 | 46.00 | -14.17 | Average |
| 11 | 10.508 | 32.81 | 1.01 | 10.94 | 44.76 | 60.00 | -15.24 | QP |
| 12 | 11.257 | 21.69 | 0.99 | 10.93 | 33.61 | 50.00 | -16.39 | Average |

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.