

# FCC REPORT

**Applicant:** SWAGTEK

**Address of Applicant:** 10205 NW 19th Street, STE 101, Miami, FL33172, USA

**Equipment Under Test (EUT)**

Product Name: 5 inch LTE Phone

Model No.: LOGIC L5P, iSWAG Legacy, UNONU UL5001

Trade mark: LOGIC

**FCC ID:** O55501317

**Applicable standards:** FCC CFR Title 47 Part 15 Subpart B

**Date of sample receipt:** 11 Apr., 2017

**Date of Test:** 11 Apr., to 25 May, 2017

**Date of report issued:** 26 May, 2017

**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.

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## 2 Version

| Version No. | Date         | Description |
|-------------|--------------|-------------|
| 00          | 26 May, 2017 | Original    |
|             |              |             |
|             |              |             |
|             |              |             |
|             |              |             |

Tested by:

*Zora Lee*

Date:

26 May, 2017

Test Engineer

Reviewed by:

*YT Yang*

Date:

26 May, 2017

Project Engineer

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## 4 Test Summary

| Test Item          | Section in CFR 47 | Result |
|--------------------|-------------------|--------|
| Conducted Emission | Part 15.107       | Pass   |
| Radiated Emission  | Part 15.109       | Pass   |

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

## 5 General Information

### 5.1 Client Information

|                          |                                                    |
|--------------------------|----------------------------------------------------|
| Applicant:               | SWAGTEK                                            |
| Address of Applicant:    | 10205 NW 19th Street, STE 101, Miami, FL33172, USA |
| Manufacturer             | SWAGTEK                                            |
| Address of Manufacturer: | 10205 NW 19th Street, STE 101, Miami, FL33172, USA |

### 5.2 General Description of E.U.T.

|               |                                                                                                                                                                                          |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Name: | 5 inch LTE Phone                                                                                                                                                                         |
| Model No.:    | LOGIC L5P, iSWAG Legacy, UNONU UL5001                                                                                                                                                    |
| Power supply: | Rechargeable Li-ion Battery DC3.8V-1940mAh                                                                                                                                               |
| AC adapter :  | Model: N/A<br>Input: AC100-240V 50/60Hz 0.2A<br>Output: DC 5.0V, 1A                                                                                                                      |
| Remark:       | The No.: LOGIC L5P, iSWAG Legacy, UNONU UL5001 were identical inside, the electrical circuit design, layout, components used and internal wiring, with only difference being model name. |

### 5.3 Test Mode

| Operating mode                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Detail description                           |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|
| PC mode                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Keep the EUT in Downloading mode(Worst case) |
| Charging+Recording mode                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Keep the EUT in Charging+Recording mode      |
| Charging+Playing mode                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Keep the EUT in Charging+Playing mode        |
| FM mode                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Keep the EUT in FM receiver mode             |
| GPS mode                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Keep the EUT in GPS receiver mode            |
| The sample was placed 0.8m 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. |                                              |

### 5.4 Measurement Uncertainty

| Items                               | Expanded Uncertainty (Confidence of 95%) |
|-------------------------------------|------------------------------------------|
| Conducted Emission (9kHz ~ 30MHz)   | 2.14 dB (k=2)                            |
| Radiated Emission (9kHz ~ 30MHz)    | 4.24 dB (k=2)                            |
| Radiated Emission (30MHz ~ 1000MHz) | 4.35 dB (k=2)                            |
| Radiated Emission (1GHz ~ 18GHz)    | 4.44 dB (k=2)                            |
| Radiated Emission (18GHz ~ 26.5GHz) | 4.56 dB (k=2)                            |

## 5.5 Description of Support Units

| Manufacturer | Description        | Model       | Serial Number | FCC ID/DoC |
|--------------|--------------------|-------------|---------------|------------|
| DELL         | PC                 | OPTIPLEX745 | N/A           | DoC        |
| DELL         | MONITOR            | E178FPC     | N/A           | DoC        |
| DELL         | KEYBOARD           | SK-8115     | N/A           | DoC        |
| DELL         | MOUSE              | MOC5UO      | N/A           | DoC        |
| HP           | Printer            | CB495A      | 05257893      | DoC        |
| MERCURY      | Wireless router    | MW150R      | 12922104015   | FCC ID     |
| NAKAMICHI    | Bluetooth earphone | T8          | N/A           | FCC ID     |

## 5.6 Laboratory Facility

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

- **FCC - Registration No.: 817957**

Shenzhen Zhongjian Nanfang Testing Co., Ltd. EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration 817957, February 27, 2012.

- **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.

## 5.7 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  
 Website: <http://www.ccis-cb.com>  
 Tel: +86-755-23118282  
 Fax: +86-755-23116366  
 Email: [info@ccis-cb.com](mailto:info@ccis-cb.com)

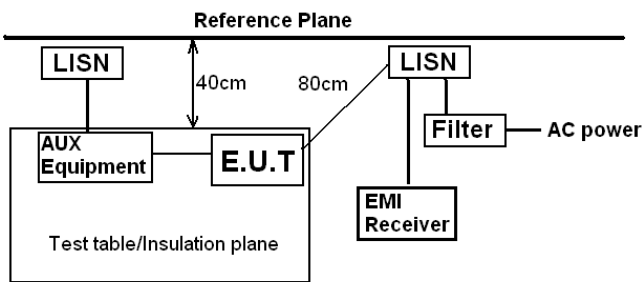
## 5.8 Test Instruments list

| Radiated Emission: |                              |                                   |                 |               |                      |                          |
|--------------------|------------------------------|-----------------------------------|-----------------|---------------|----------------------|--------------------------|
| Item               | Test Equipment               | Manufacturer                      | Model No.       | Inventory No. | Cal. Date (mm-dd-yy) | Cal. Due date (mm-dd-yy) |
| 1                  | 3m SAC                       | SAEMC                             | 9(L)*6(W)* 6(H) | CCIS0001      | 08-23-2014           | 08-22-2017               |
| 2                  | BiConiLog Antenna            | SCHWARZBECK                       | VULB9163        | CCIS0005      | 02-25-2017           | 02-24-2018               |
| 3                  | Horn Antenna                 | SCHWARZBECK                       | BBHA9120D       | CCIS0006      | 02-25-2017           | 02-24-2018               |
| 4                  | Pre-amplifier (10kHz-1.3GHz) | HP                                | 8447D           | CCIS0003      | 02-25-2017           | 02-24-2018               |
| 5                  | Pre-amplifier (1GHz-18GHz)   | Compliance Direction Systems Inc. | PAP-1G18        | CCIS0011      | 02-25-2017           | 02-24-2018               |
| 6                  | Spectrum analyzer 9k-30GHz   | Rohde & Schwarz                   | FSP30           | CCIS0023      | 02-25-2017           | 02-24-2018               |
| 7                  | EMI Test Receiver            | Rohde & Schwarz                   | ESRP7           | CCIS0167      | 02-25-2017           | 02-24-2018               |
| 8                  | EMI Test Software            | AUDIX                             | E3              | N/A           | N/A                  | N/A                      |
| 9                  | Coaxial Cable                | N/A                               | N/A             | CCIS0018      | 02-25-2017           | 02-24-2018               |
| 10                 | Coaxial Cable                | N/A                               | N/A             | CCIS0020      | 02-25-2017           | 02-24-2018               |

| Conducted Emission: |                   |                    |                       |               |                     |                         |
|---------------------|-------------------|--------------------|-----------------------|---------------|---------------------|-------------------------|
| Item                | Test Equipment    | Manufacturer       | Model No.             | Inventory No. | Cal.Date (mm-dd-yy) | Cal.Due date (mm-dd-yy) |
| 1                   | Shielding Room    | ZhongShuo Electron | 11.0(L)x4.0(W)x3.0(H) | CCIS0061      | 08-23-2014          | 08-22-2017              |
| 2                   | EMI Test Receiver | Rohde & Schwarz    | ESCI                  | CCIS0002      | 02-25-2017          | 02-24-2018              |
| 3                   | LISN              | CHASE              | MN2050D               | CCIS0074      | 02-25-2017          | 02-24-2018              |
| 4                   | Coaxial Cable     | CCIS               | N/A                   | CCIS0086      | 02-25-2017          | 02-24-2018              |
| 5                   | EMI Test Software | AUDIX              | E3                    | N/A           | N/A                 | N/A                     |

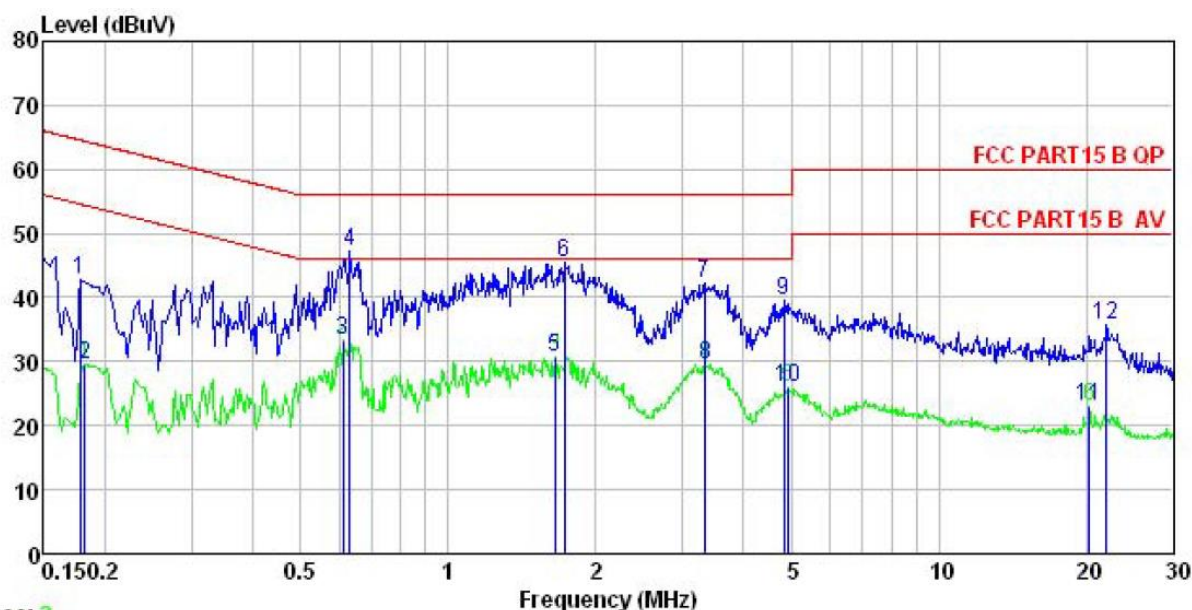
## 6 Test results and Measurement Data

### 6.1 Conducted Emission

|                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |              |         |           |         |        |
|--------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|---------|-----------|---------|--------|
| Test Requirement:                                | FCC Part 15 B Section 15.107                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |              |         |           |         |        |
| Test Method:                                     | ANSI C63.4:2014                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |              |         |           |         |        |
| Test Frequency Range:                            | 150kHz to 30MHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |              |         |           |         |        |
| Class / Severity:                                | Class B                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |              |         |           |         |        |
| Receiver setup:                                  | RBW=9kHz, VBW=30kHz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |              |         |           |         |        |
| Limit:                                           | Frequency range (MHz)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Limit (dBμV) |         |           |         |        |
|                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Quasi-peak   |         | Average   |         |        |
|                                                  | 0.15-0.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 66 to 56*    |         | 56 to 46* |         |        |
|                                                  | 0.5-5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 56           |         | 46        |         |        |
|                                                  | 0.5-30                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 60           |         | 50        |         |        |
| * Decreases with the logarithm of the frequency. |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |              |         |           |         |        |
| Test setup:                                      | <div><p style="text-align: center;"><b>Reference Plane</b></p><p><i>Remark</i><br/>E.U.T: Equipment Under Test<br/>LISN: Line Impedance Stabilization Network<br/>Test table height=0.8m</p></div>                                                                                                                                                                                                                                                                                                                                                                                                                                     |              |         |           |         |        |
| Test procedure                                   | <div>1. The E.U.T and simulators are connected to the main power through a line impedance stabilization network(L.I.S.N.). The provide a 50ohm/50uH coupling impedance for the measuring equipment.</div> <div>2. The peripheral devices are also connected to the main power through a LISN that provides a 50ohm/50uH coupling impedance with 50ohm termination. (Please refers to the block diagram of the test setup and photographs).</div> <div>3. 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: 2014 on conducted measurement.</div> |              |         |           |         |        |
| Test environment:                                | Temp.:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | 23 °C        | Humid.: | 56%       | Press.: | 101kPa |
| Test Instruments:                                | Refer to section 5.7 for details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |              |         |           |         |        |
| Test mode:                                       | Refer to section 5.3 for details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |              |         |           |         |        |
| Test results:                                    | Pass                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |              |         |           |         |        |

## Measurement data:

Line:



### Trace: 3

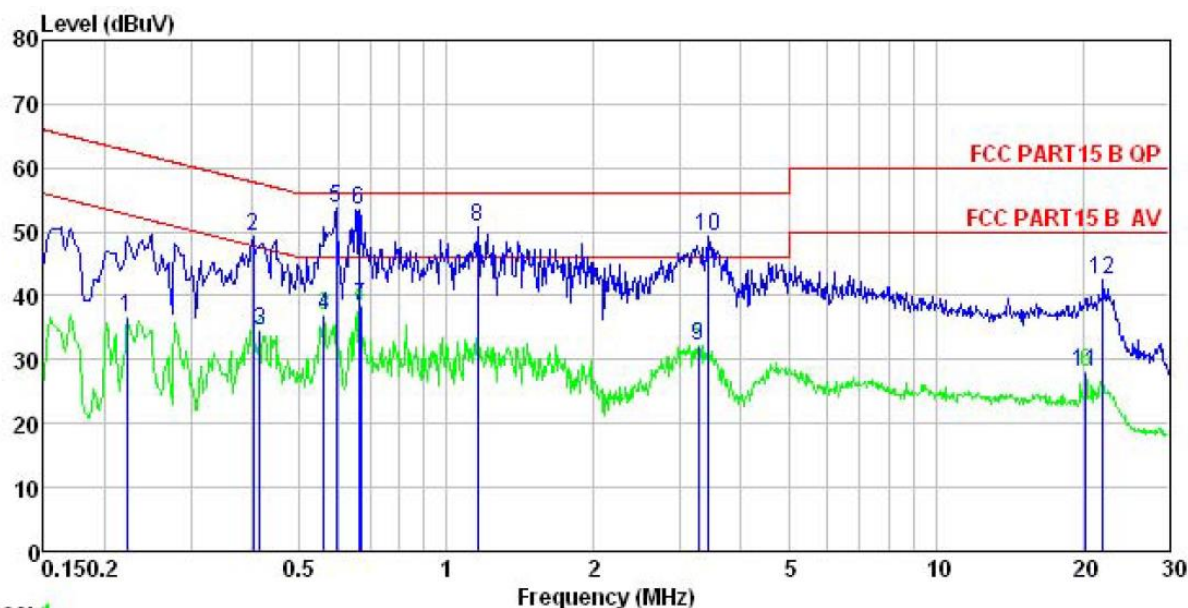
Site : CCIS Shielding Room  
 Condition : FCC PART15 B QP LISN LINE  
 EUT : 5 inch LTE Phone  
 Model : Logic L5P  
 Test Mode : PC mode  
 Power Rating : AC 120/60Hz  
 Environment : Temp: 23 °C Humi:56% Atmos:101KPa  
 Test Engineer: Zora  
 Remark :

|       | Read   | LISN   | Cable |       | Limit | Over  |                |
|-------|--------|--------|-------|-------|-------|-------|----------------|
| Freq  | Level  | Factor | Loss  | Level | Line  | Limit | Remark         |
| ----- | -----  | -----  | ----- | ----- | ----- | ----- | -----          |
| MHz   | dBuV   | dB     | dB    | dBuV  | dBuV  | dB    |                |
| 1     | 0.178  | 32.01  | 0.15  | 10.77 | 42.93 | 64.59 | -21.66 QP      |
| 2     | 0.182  | 18.64  | 0.15  | 10.77 | 29.56 | 54.42 | -24.86 Average |
| 3     | 0.611  | 22.37  | 0.29  | 10.77 | 33.43 | 46.00 | -12.57 Average |
| 4     | 0.630  | 36.28  | 0.30  | 10.77 | 47.35 | 56.00 | -8.65 QP       |
| 5     | 1.654  | 19.44  | 0.30  | 10.94 | 30.68 | 46.00 | -15.32 Average |
| 6     | 1.725  | 34.22  | 0.31  | 10.94 | 45.47 | 56.00 | -10.53 QP      |
| 7     | 3.328  | 31.12  | 0.33  | 10.91 | 42.36 | 56.00 | -13.64 QP      |
| 8     | 3.346  | 18.42  | 0.33  | 10.91 | 29.66 | 46.00 | -16.34 Average |
| 9     | 4.822  | 28.41  | 0.35  | 10.86 | 39.62 | 56.00 | -16.38 QP      |
| 10    | 4.926  | 14.83  | 0.35  | 10.85 | 26.03 | 46.00 | -19.97 Average |
| 11    | 20.270 | 11.74  | 0.34  | 10.93 | 23.01 | 50.00 | -26.99 Average |
| 12    | 21.946 | 24.44  | 0.35  | 10.90 | 35.69 | 60.00 | -24.31 QP      |

### 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.

Neutral:



Trace: 1

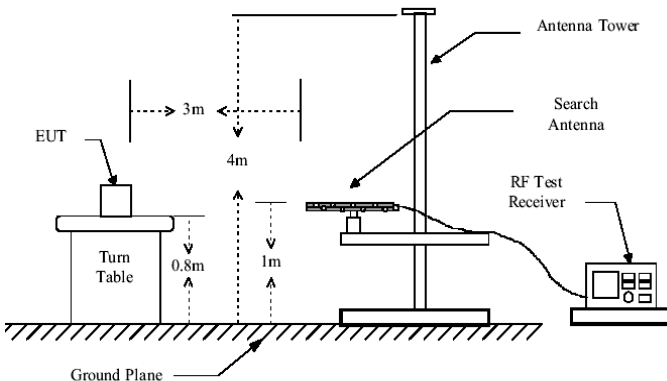
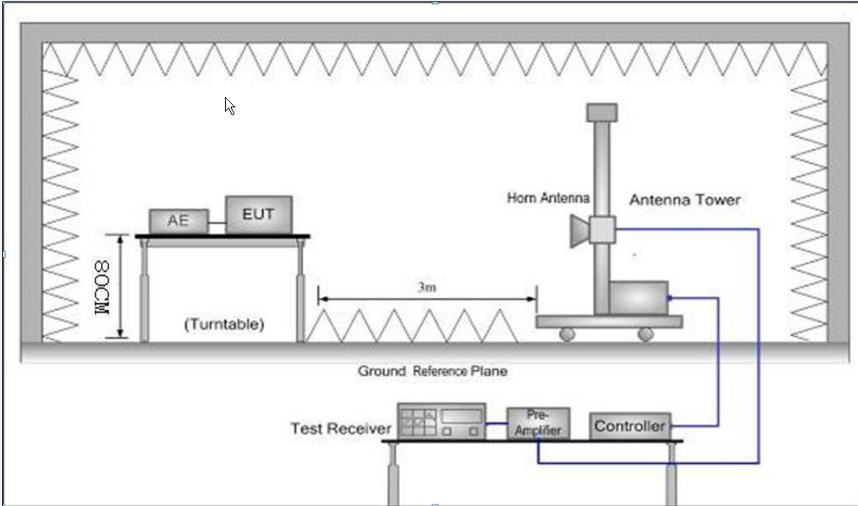
Site : CCIS Shielding Room  
 Condition : FCC PART15 B QP LISN NEUTRAL  
 EUT : 5 inch LTE Phone  
 Model : Logic L5P  
 Test Mode : PC mode  
 Power Rating : AC 120/60Hz  
 Environment : Temp: 23 °C Humi:56% Atmos:101KPa  
 Test Engineer: Zora  
 Remark :

|    | Freq   | Read  | LISN   | Cable | Level | Limit | Over   |         |
|----|--------|-------|--------|-------|-------|-------|--------|---------|
|    | MHz    | Level | Factor | Loss  | dBuV  | Line  | Limit  | Remark  |
|    |        | dBuV  | dB     | dB    | dBuV  | dBuV  | dB     |         |
| 1  | 0.222  | 25.77 | 0.16   | 10.75 | 36.68 | 52.74 | -16.06 | Average |
| 2  | 0.402  | 38.30 | 0.23   | 10.72 | 49.25 | 57.81 | -8.56  | QP      |
| 3  | 0.415  | 23.65 | 0.23   | 10.73 | 34.61 | 47.55 | -12.94 | Average |
| 4  | 0.561  | 25.95 | 0.27   | 10.77 | 36.99 | 46.00 | -9.01  | Average |
| 5  | 0.595  | 42.64 | 0.29   | 10.77 | 53.70 | 56.00 | -2.30  | QP      |
| 6  | 0.661  | 42.44 | 0.31   | 10.77 | 53.52 | 56.00 | -2.48  | QP      |
| 7  | 0.668  | 27.19 | 0.32   | 10.77 | 38.28 | 46.00 | -7.72  | Average |
| 8  | 1.160  | 39.61 | 0.26   | 10.89 | 50.76 | 56.00 | -5.24  | QP      |
| 9  | 3.276  | 21.08 | 0.32   | 10.91 | 32.31 | 46.00 | -13.69 | Average |
| 10 | 3.417  | 38.14 | 0.32   | 10.91 | 49.37 | 56.00 | -6.63  | QP      |
| 11 | 20.270 | 16.93 | 0.28   | 10.93 | 28.14 | 50.00 | -21.86 | Average |
| 12 | 21.946 | 31.30 | 0.26   | 10.90 | 42.46 | 60.00 | -17.54 | QP      |

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.

## 6.2 Radiated Emission

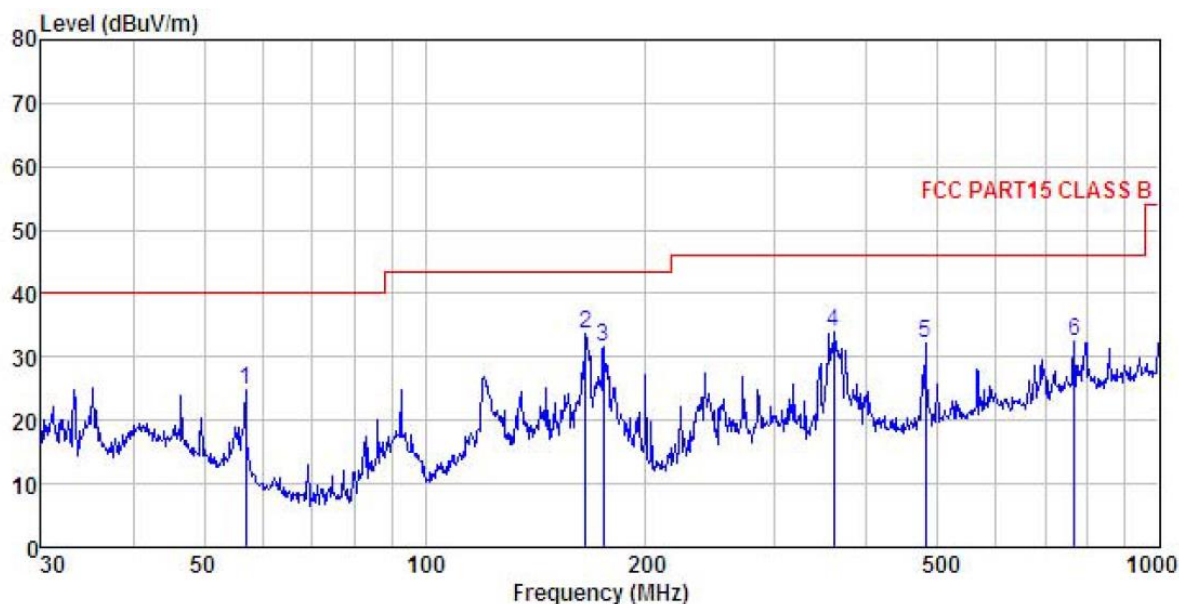
|                       |                                                                                      |            |        |        |                    |
|-----------------------|--------------------------------------------------------------------------------------|------------|--------|--------|--------------------|
| Test Requirement:     | FCC Part 15 B Section 15.109                                                         |            |        |        |                    |
| Test Method:          | ANSI C63.4:2014                                                                      |            |        |        |                    |
| Test Frequency Range: | 30MHz to 26000MHz                                                                    |            |        |        |                    |
| Test site:            | Measurement Distance: 3m (Semi-Anechoic Chamber)                                     |            |        |        |                    |
| Receiver setup:       | Frequency                                                                            | Detector   | RBW    | VBW    | Remark             |
|                       | 30MHz-1GHz                                                                           | Quasi-peak | 120kHz | 300kHz | Quasi-peak Value   |
|                       | Above 1GHz                                                                           | Peak       | 1MHz   | 3MHz   | Peak Value         |
| Limit:                |                                                                                      |            |        |        | Remark             |
|                       | Frequency                                                                            |            |        |        | Limit (dBuV/m @3m) |
|                       | 30MHz-88MHz                                                                          |            |        |        | 40.0               |
|                       | 88MHz-216MHz                                                                         |            |        |        | 43.5               |
|                       | 216MHz-960MHz                                                                        |            |        |        | 46.0               |
|                       | 960MHz-1GHz                                                                          |            |        |        | 54.0               |
| Test setup:           | Below 1GHz                                                                           |            |        |        |                    |
|                       |   |            |        |        |                    |
|                       | Above 1GHz                                                                           |            |        |        |                    |
|                       |  |            |        |        |                    |

|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |       |         |     |         |         |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---------|-----|---------|---------|
| Test Procedure:   | <ol style="list-style-type: none"> <li>1. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic chamber. The table was rotated 360 degrees to determine the position of the highest radiation.</li> <li>2. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.</li> <li>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 to make the measurement.</li> <li>4. 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 rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.</li> <li>5. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.</li> <li>6. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.</li> </ol> |       |         |     |         |         |
| Test environment: | Temp.:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 25 °C | Humid.: | 55% | Press.: | 1 01kPa |
| Test Instruments: | Refer to section 5.7 for details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |       |         |     |         |         |
| Test mode:        | Refer to section 5.3 for details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |       |         |     |         |         |
| Test results:     | Passed                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |       |         |     |         |         |
| Remark:           | All of the observed value above 6GHz were the noise floor , which were no recorded                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |       |         |     |         |         |

## Measurement Data:

## Below 1GHz

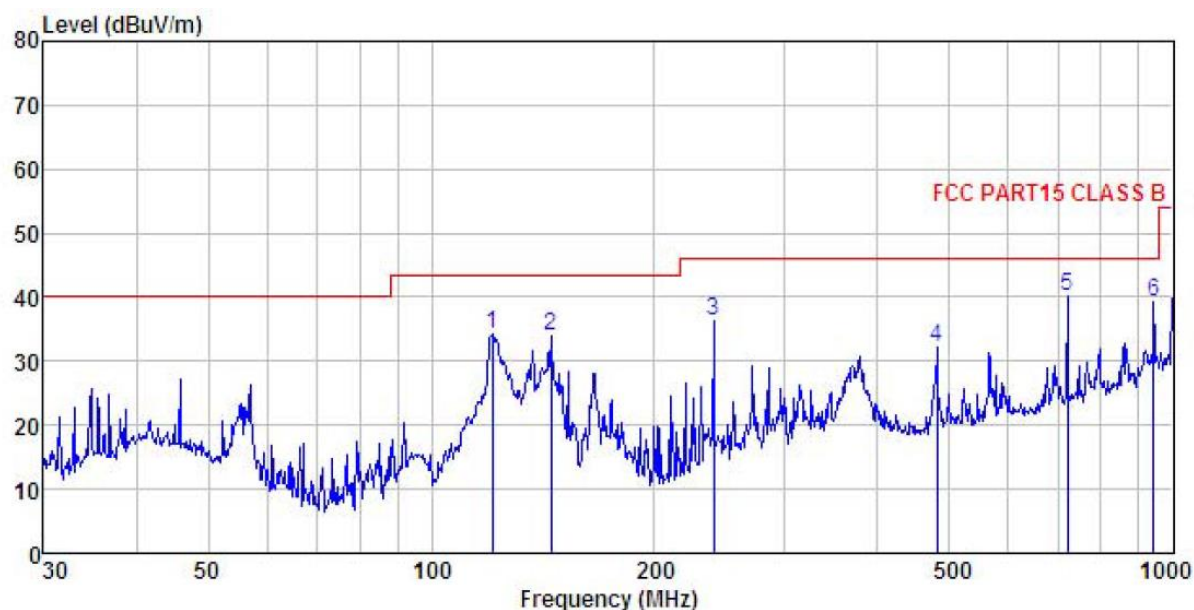
Horizontal:



Site : 3m chamber  
 Condition : FCC PART15 CLASS B 3m VULB9163(30M3G) HORIZONTAL  
 EUT : 5 inch LTE Phone  
 Model : Logic L5P  
 Test mode : PC Mode  
 Power Rating : AC 120V/60Hz  
 Environment : Temp:25.5°C Humi:55%  
 Test Engineer: Zora  
 REMARK :

|   | Freq    | ReadAntenna  | Cable Preamp |       | Limit  | Over   |                 |
|---|---------|--------------|--------------|-------|--------|--------|-----------------|
|   |         | Level Factor | Loss Factor  | Level | Line   | Limit  | Remark          |
|   | MHz     | dBuV         | dB/m         | dB    | dBuV/m | dBuV/m | dB              |
| 1 | 56.991  | 41.42        | 11.71        | 1.37  | 29.79  | 24.71  | 40.00 -15.29 QP |
| 2 | 165.487 | 50.20        | 9.84         | 2.62  | 29.09  | 33.57  | 43.50 -9.93 QP  |
| 3 | 175.037 | 48.32        | 9.50         | 2.69  | 29.01  | 31.50  | 43.50 -12.00 QP |
| 4 | 360.448 | 44.82        | 14.53        | 3.10  | 28.61  | 33.84  | 46.00 -12.16 QP |
| 5 | 480.528 | 41.16        | 16.57        | 3.46  | 28.92  | 32.27  | 46.00 -13.73 QP |
| 6 | 766.057 | 36.16        | 20.47        | 4.36  | 28.39  | 32.60  | 46.00 -13.40 QP |

Vertical:

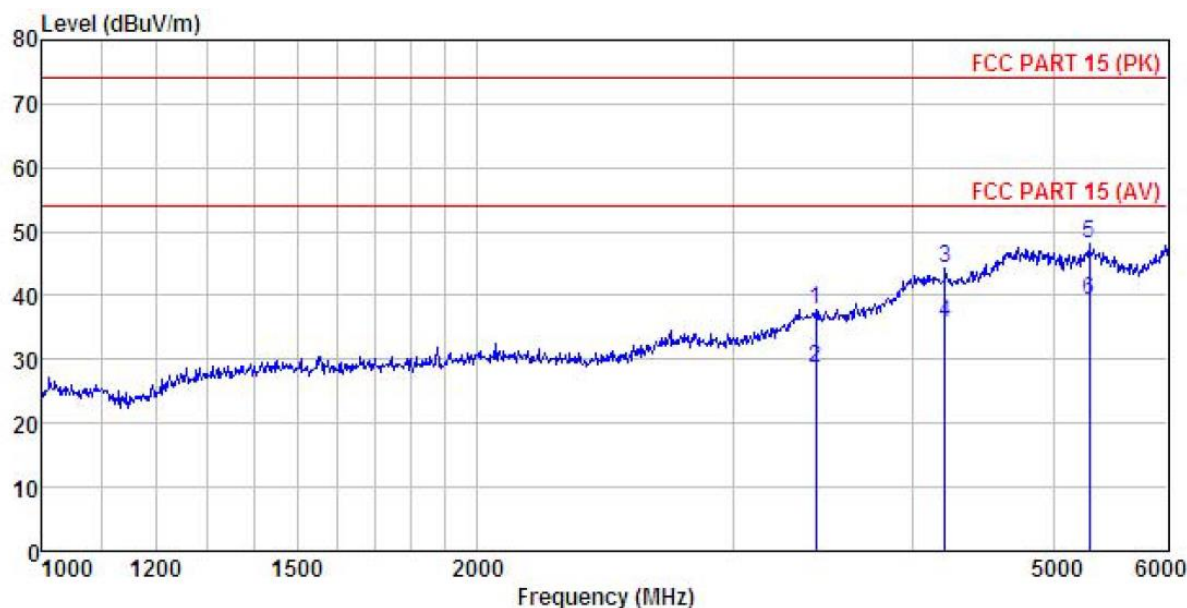


Site : 3m chamber  
 Condition : FCC PART15 CLASS B 3m VULB9163(30M3G) VERTICAL  
 EUT : 5 inch LTE Phone  
 Model : Logic L5P  
 Test mode : PC Mode  
 Power Rating : AC 120V/60Hz  
 Environment : Temp:25.5°C Humi:55%  
 Test Engineer: Zora  
 REMARK :

|   | Freq    | ReadAntenna | Cable | Preamp | Limit | Over   |                 |
|---|---------|-------------|-------|--------|-------|--------|-----------------|
|   | Level   | Factor      | Loss  | Factor | Line  | Limit  | Remark          |
|   | MHz     | dBuV        | dB/m  | dB     | dB    | dBuV/m | dB              |
| 1 | 120.699 | 49.57       | 11.83 | 2.18   | 29.39 | 34.19  | 43.50 -9.31 QP  |
| 2 | 144.842 | 49.58       | 11.20 | 2.45   | 29.25 | 33.98  | 43.50 -9.52 QP  |
| 3 | 239.987 | 50.18       | 11.80 | 2.82   | 28.59 | 36.21  | 46.00 -9.79 QP  |
| 4 | 480.528 | 41.19       | 16.57 | 3.46   | 28.92 | 32.30  | 46.00 -13.70 QP |
| 5 | 721.726 | 44.72       | 19.76 | 4.26   | 28.58 | 40.16  | 46.00 -5.84 QP  |
| 6 | 942.131 | 40.90       | 21.93 | 4.13   | 27.75 | 39.21  | 46.00 -6.79 QP  |

## Above 1GHz

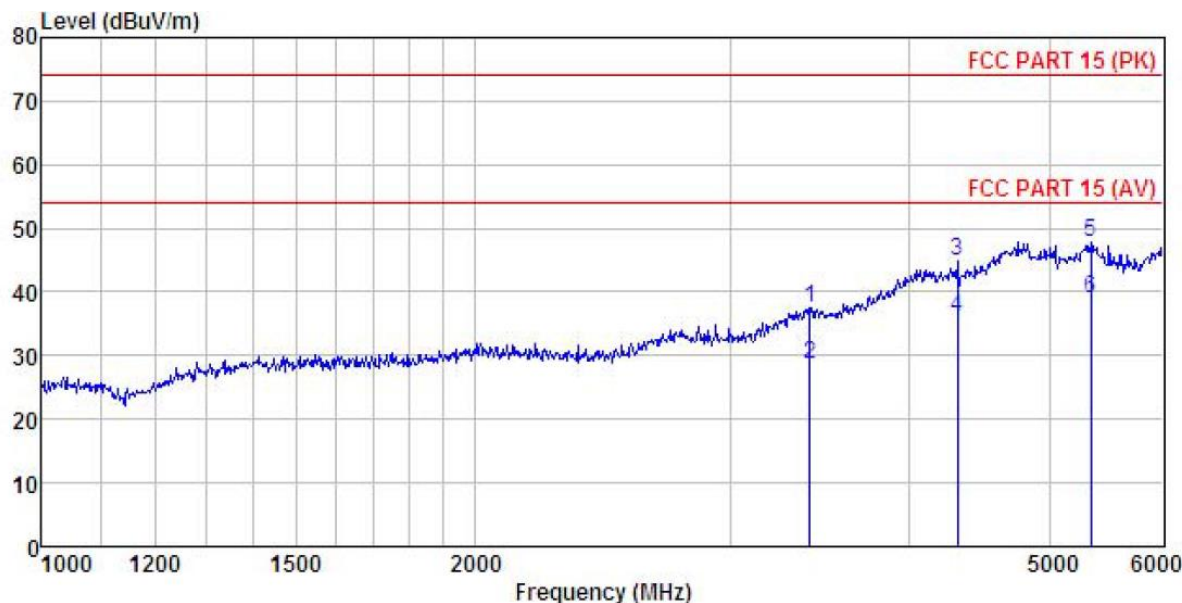
Horizontal:



Site : 3m chamber  
 Condition : FCC PART 15 (PK) 3m BBHA9120(1G18) HORIZONTAL  
 EUT : 5 inch LTE Phone  
 Model : Logic L5P  
 Test mode : PC Mode  
 Power Rating : AC 120V/60Hz  
 Environment : Temp:25.5°C Humi:55%  
 Test Engineer: Zora  
 REMARK :

|   | Freq     | Read<br>Level | Antenna<br>Factor | Cable<br>Loss | Preamplifier<br>Factor | Level  | Limit<br>Line | Over<br>Limit | Remark  |
|---|----------|---------------|-------------------|---------------|------------------------|--------|---------------|---------------|---------|
|   | MHz      | dBuV          | dB/m              | dB            | dB                     | dBuV/m | dBuV/m        | dB            |         |
| 1 | 3424.443 | 45.92         | 27.51             | 5.66          | 41.38                  | 37.71  | 74.00         | -36.29        | Peak    |
| 2 | 3424.443 | 36.87         | 27.51             | 5.66          | 41.38                  | 28.66  | 54.00         | -25.34        | Average |
| 3 | 4208.015 | 46.50         | 33.24             | 6.41          | 41.81                  | 44.34  | 74.00         | -29.66        | Peak    |
| 4 | 4208.015 | 37.81         | 33.24             | 6.41          | 41.81                  | 35.65  | 54.00         | -18.35        | Average |
| 5 | 5292.741 | 47.29         | 35.57             | 7.10          | 41.91                  | 48.05  | 74.00         | -25.95        | Peak    |
| 6 | 5292.741 | 38.59         | 35.57             | 7.10          | 41.91                  | 39.35  | 54.00         | -14.65        | Average |

Vertical:



Site : 3m chamber  
 Condition : FCC PART 15 (PK) 3m BBHA9120(1G18) VERTICAL  
 EUT : 5 inch LTE Phone  
 Model : Logic L5P  
 Test mode : PC Mode  
 Power Rating : AC 120V/60Hz  
 Environment : Temp:25.5°C Humi:55%  
 Test Engineer: Zora  
 REMARK :

|   | Freq     | ReadAntenna | Cable Preamp | Limit  | Over  |        |        |        |         |
|---|----------|-------------|--------------|--------|-------|--------|--------|--------|---------|
|   | Level    | Factor      | Loss         | Factor | Level | Line   | Limit  | Remark |         |
|   | MHz      | dBuV        | dB/m         | dB     | dB    | dBuV/m | dBuV/m | dB     |         |
| 1 | 3412.193 | 45.80       | 27.47        | 5.65   | 41.37 | 37.55  | 74.00  | -36.45 | Peak    |
| 2 | 3412.193 | 36.98       | 27.47        | 5.65   | 41.37 | 28.73  | 54.00  | -25.27 | Average |
| 3 | 4314.907 | 46.32       | 33.73        | 6.58   | 41.90 | 44.73  | 74.00  | -29.27 | Peak    |
| 4 | 4314.907 | 37.72       | 33.73        | 6.58   | 41.90 | 36.13  | 54.00  | -17.87 | Average |
| 5 | 5340.371 | 47.29       | 35.37        | 7.11   | 41.89 | 47.88  | 74.00  | -26.12 | Peak    |
| 6 | 5340.371 | 38.52       | 35.37        | 7.11   | 41.89 | 39.11  | 54.00  | -14.89 | Average |