





RF TEST REPORT

Applicant Huawei Technologies Co., Ltd.

FCC ID QISPOT-LX3

Product Smart Phone

Model POT-LX3

Report No. R1810H0133-R1

Issue Date November 12, 2018

TA Technology (Shanghai) Co., Ltd. tested the above equipment in accordance with the requirements in FCC CFR47 Part 2 (2018)/ FCC CFR 47 Part 22H (2018). The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Performed by: Jiangpeng Lan

Jiang peng Lan

Approved by: Kai Xu

Kai Xu

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Summary of measurement results

| No. | Test Type | Clause in FCC rules | Verdict |
|-----|----------------------------|---------------------|---------|
| 1 | Radiates Spurious Emission | 2.1053 / 22.917 (a) | PASS |

Date of Testing: October 12, 2018 ~ October 21, 2018

Note: PASS: The EUT complies with the essential requirements in the standard.



1. Test Laboratory

1.1. Notes of the Test Report

This report shall not be reproduced in full or partial, without the written approval of **TA technology** (shanghai) co., Ltd. The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein .Measurement Uncertainties were not taken into account and are published for informational purposes only. This report is written to support

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regulatory compliance of the applicable standards stated above.

1.2. Test facility

CNAS (accreditation number: L2264)

TA Technology (Shanghai) Co., Ltd. has obtained the accreditation of China National Accreditation Service for Conformity Assessment (CNAS).

FCC (Designation number: CN1179, Test Firm Registration Number: 446626)

TA Technology (Shanghai) Co., Ltd. has been listed on the US Federal Communications Commission list of test facilities recognized to perform electromagnetic emissions measurements.

IC (recognition number is 8510A)

TA Technology (Shanghai) Co., Ltd. has been listed by industry Canada to perform electromagnetic emission measurement.

VCCI (recognition number is C-4595, T-2154, R-4113, G-10766)

TA Technology (Shanghai) Co., Ltd. has been listed by industry Japan to perform electromagnetic emission measurement.

A2LA (Certificate Number: 3857.01)

TA Technology (Shanghai) Co., Ltd. has been listed by American Association for Laboratory Accreditation to perform electromagnetic emission measurement.





1.3. Testing Location

Company: TA Technology (Shanghai) Co., Ltd.

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2. General Description of Equipment under Test

Client Information

| Applicant | Huawei Technologies Co., Ltd. |
|----------------------|--|
| Applicant address | Administration Building, Headquarters of Huawei Technologies Co., Ltd., Bantian, Longgang District, Shenzhen, 518129, P.R.China. |
| Manufacturer | Huawei Technologies Co., Ltd. |
| Manufacturer address | Administration Building, Headquarters of Huawei Technologies Co., Ltd., Bantian, Longgang District, Shenzhen, 518129, P.R.China. |

General Information

| EUT Description | | | | | | | | |
|------------------------------|---|----------------------|--------------|--|--|--|--|--|
| Model | POT-LX3 | | | | | | | |
| IMEI | IMEI1: 868219040015296 | | | | | | | |
| IIVIEI | IMEI2: 8682190400181 | 91 | | | | | | |
| Hardware Version | HL3POTM | | | | | | | |
| Software Version | 5.0.1.50M(SP3C900E61R1P9log) | | | | | | | |
| Power Supply | Battery/AC adapter | | | | | | | |
| Antenna Type | Internal Antenna | | | | | | | |
| Test Mode(s) | GSM 850; WCDMA Bar | nd V;LTE Band 5; | | | | | | |
| Test Modulation | (GSM)GMSK,8PSK; (W | CDMA)QPSK; (LTE |)QPSK 16QAM; | | | | | |
| GPRS Multislot Class | 12 | | | | | | | |
| EGPRS Multislot Class | 12 | | | | | | | |
| HSDPA UE Category | 10 | | | | | | | |
| HSUPA UE Category | 6 | | | | | | | |
| DC-HSDPA UE Category | 24 | | | | | | | |
| HSPA+ UE Category | 14 | | | | | | | |
| LTE Category | 4 | | | | | | | |
| Rated Power Supply Voltage | 3.82V | | | | | | | |
| Extreme Voltage | Minimum: 3.6V Maximum: 4.4V | | | | | | | |
| Extreme Temperature | Lowest: -10°C Highe | est: +55°C | | | | | | |
| | Band | Tx (MHz) | Rx (MHz) | | | | | |
| Operating Frequency Range(s) | GSM850 | 824 ~ 849 | 869 ~ 894 | | | | | |
| Operating Frequency Range(s) | WCDMA Band V | 824 ~ 849 | 869 ~ 894 | | | | | |
| | LTE Band 5 824 ~ 849 869 ~ 894 | | | | | | | |
| | EUT Accessory | | | | | | | |
| | Manufacturer: Huawei Technologies Co., Ltd. | | | | | | | |
| Adapter 1 | (SALCOMP(GUIGANG)CO., LTD. | | | | | | | |
| | Model: HW-050200U02 | | | | | | | |
| Adapter 2 | Manufacturer: Huawei T | echnologies Co., Ltd | d. | | | | | |

TA Technology (Shanghai) Co., Ltd. TA-MB-05-001R



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| FCC RF Test Report | Report No: R1810H0133-R1 |
|------------------------------------|---|
| | (HUIZHOU BYD ELECTRONIC CO., LTD.) |
| | Model: HW-050200U02 |
| | Manufacturer: Huawei Technologies Co., Ltd. |
| Adapter 3 | (SHENZHEN HUNTKEY ELECTRIC CO., LTD.) |
| | Model: HW-050200U02 |
| | Manufacturer: Huawei Technologies Co., Ltd. |
| Adapter 4 | (Dongguan Phitek Electronics Co., Ltd.) |
| | Model: HW-050200U02 |
| | Manufacturer: Huawei Technologies Co., Ltd. |
| Adapter 5 | (HUIZHOU BYD ELECTRONIC CO., LTD.) |
| | Model: HW-050200U01 |
| | Manufacturer: Huawei Technologies Co., Ltd. |
| Adapter 6 | (SHENZHEN HUNTKEY ELECTRIC CO., LTD.) |
| | Model: HW-050200U01 |
| | Manufacturer: Huawei Technologies Co., Ltd. |
| Adapter 7 | (Dongguan Phitek Electronics Co., Ltd.) |
| | Model: HW-050200U01 |
| | Manufacturer: Huawei Technologies Co., Ltd. |
| Battery 1 | (SCUD (FUJIAN) Electronics Co., Ltd.) |
| | Model: HB396286ECW |
| | Manufacturer: Huawei Technologies Co., Ltd. |
| Battery 2 | (Huizhou Desay Battery Co., Ltd.) |
| | Model: HB396286ECW |
| | Manufacturer: Huawei Technologies Co., Ltd. |
| Battery 3 | (Sunwoda Electronic Co., Ltd.) |
| | Model: HB396286ECW |
| | Manufacturer: Huawei Technologies Co., Ltd. |
| Battery 4 | (Dongguan NVT Technology Co., Ltd) |
| | Model: HB396286ECW |
| | Manufacturer:Jiangxi Lianchuang Hongsheng Electronic |
| Earphone 1 | Co. ,LTD |
| | Model: MEND1532B528A02 |
| Earphone 2 | Manufacturer: Boluo County Quancheng Electronic Co.,ltd |
| | Model: 1293-3283-3.5mm-322 |
| USB Cable 1 | Manufacturer: NingBo Broad Telecommunication Co., Ltd. |
| USB Cable 1 | Model: WA0001 |
| USB Cable 2 | Manufacturer: HONGLIN TECHNOLOGY CO., LTD. |
| USB Cable 2 | Model: 130-26669 |
| | Manufacturer: FOXCONN INTERCONNECT TECHNOLOGY |
| USB Cable 3 | LIMITED |
| | Model: CUBB01M-HC304-DH |
| LICE Coble 4 | Manufacturer: LuXshare |
| USB Cable 4 | Model: L99U2017-CS-H |
| Note: 1. The information of the El | JT is declared by the manufacturer. |
| | F |



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2. There is more than one Adapter, one Earphone, one USB cable and one Battery, each one should be applied throughout the compliance test respectively, and however, only the worst case (Adapter 3, Earphone2, USB cable 3, Battery 4) will be recorded in this report.

| Item | Configure 1 | Configure 2 | Configure 3 | Configure 4 |
|---------------|-------------|-------------|-------------|-------------|
| Software | The same | The same | The same | The same |
| Hardware | The same | The same | The same | The same |
| Memory | 32G | 32G | 64G | 64G |
| SIM card slot | 2* SIM card | 1* SIM card | 2* SIM card | 1* SIM card |
| Other | The same | The same | The same | The same |

Note: Customer declaration, four configures is the same, except for memory and SIM card slot. There are more than one Configure, each one should be applied throughout the compliance test respectively, however, only the worst case (Configure 1) will be recorded in this report.





3. Applied Standards

According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

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FCC CFR47 Part 2 (2018)

FCC CFR 47 Part 22H (2018)

ANSI C63.26 (2015)

KDB 971168 D01 Power Meas License Digital Systems v03r01



4. Test Configuration

Radiated measurements are performed by rotating the EUT in three different orthogonal test planes. EUT stand-up position (Z axis), lie-down position (X, Y axis). Receiver antenna polarization

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(horizontal and vertical), the worst emission was found in position (X axis, horizontal polarization) and the worst case was recorded.

All mode and data rates and positions were investigated. Subsequently, only the worst case emissions are reported.

The following testing in GSM/WCDMA/LTE is set based on the maximum RF Output Power.

Test modes are chosen to be reported as the worst case configuration below:

| Test items | Modes/Modulation | | | |
|----------------------------|------------------|--------------|--|--|
| Test items | GSM 850 | WCDMA Band V | | |
| Radiates Spurious Emission | GSM | RMC | | |

Test modes are chosen as the worst case configuration below for LTE Band 5.

| Test items | Ва | ndwid | lth (M | Hz) | Modi | ulation | | | Test Channel L M H | | | |
|-------------------------------|---|-------|--------|-----|------|---------|---|-----|--------------------|---|---|---|
| | 1.4 | 3 | 5 | 10 | QPSK | 16QAM | 1 | 50% | 100% | L | М | Н |
| Radiates Spurious Emission | 0 | - | 0 | 0 | 0 | - | 0 | - | - | - | 0 | , |
| Note | The mark "O" means that this configuration is chosen for testing. The mark "-" means that this configuration is not testing. | | | | | | | | | | | |



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5. Test Case Results

5.1. Radiates Spurious Emission

Ambient condition

| Temperature | Relative humidity | Pressure |
|-------------|-------------------|----------|
| 23°C ~25°C | 45%~50% | 101.5kPa |

Method of Measurement

- 1. The testing follows FCC KDB 971168 v03r01 Section 5.8 and ANSI C63.26 (2015).
- 2. Above 30MHz: The EUT is placed on a turntable 0.8 meters above the ground in the chamber, 3 meter away from the antenna. The maximal emission value is acquired by adjusting the antenna height, polarisation and turntable azimuth. Normally, the height range of antenna is 1 m to 4 m, the azimuth range of turntable is 0° to 360°, and the receive antenna has two polarizations Vertical (V) and Horizontal (H). Above 1GHz: (Note: the FCC's permission to use 1.5m as an alternative per TCBC Conf call of Dec. 2, 2014.) The EUT is placed on a turntable 1.5 meters above the ground in the chamber, 3 meter away from the antenna. The maximal emission value is acquired by adjusting the antenna height, polarisation and turntable azimuth. Normally, the height range of antenna is 1 m to 4 m, the azimuth range of turntable is 0° to 360°, and the receive antenna has two polarizations Vertical (V) and Horizontal (H).
- 3. A log-periodic antenna or horn antenna shall be substituted in place of the EUT. The log-periodic antenna will be driven by a signal generator and the level will be adjusted till the same power value on the spectrum analyzer or receiver. The level of the spurious emissions can be calculated through the level of the signal generator, cable loss, the gain of the substitution antenna and the reading of the spectrum analyzer or receiver.
- 4. The EUT is then put into continuously transmitting mode at its maximum power level during the test.Set Test Receiver or Spectrum RBW=1MHz,VBW=3MHz for above 1GHz and RBW=100kHz,VBW=300kHz for 30MHz to 1GHz,, And the maximum value of the receiver should be recorded as (Pr).
- 5. The EUT shall be replaced by a substitution antenna. In the chamber, an substitution antenna for the frequency band of interest is placed at the reference point of the chamber. An RF Signal source for the frequency band of interest is connected to the substitution antenna with a cable that has been constructed to not interfere with the radiation pattern of the antenna. A power (PMea) is applied to the input of the substitution antenna, and adjust the level of the signal generator output until the value of the receiver reach the previously recorded (Pr). The power of signal source (PMea) is recorded. The test should be performed by rotating the test item and adjusting the receiving antenna polarization.
- 6. A amplifier should be connected to the Signal Source output port. And the cable should be connect between the Amplifier and the Substitution Antenna. The cable loss (PcI) ,the Substitution Antenna Gain (Ga) and the Amplifier Gain (PAg) should be recorded after test.
- 7. The measurement results are obtained as described below:

Power(EIRP)=PMea- PAg - Pcl + Ga

The measurement results are amend as described below:



Power(EIRP)=PMea- Pcl + Ga

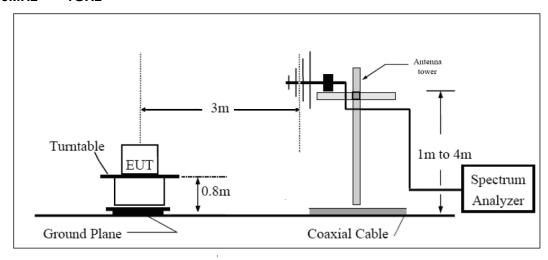
8. This value is EIRP since the measurement is calibrated using an antenna of known gain (2.15 dBi) and known input power. ERP can be calculated from EIRP by subtracting the gain of the dipole, ERP = EIRP-2.15dBi.

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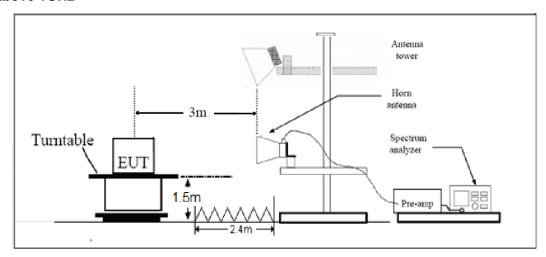
The modulation mode and RB allocation refer to section 5.1, using the maximum output power configuration.

Test setup

30MHz~~~ 1GHz



Above 1GHz



Note: Area side:2.4mX3.6m

Limits

Rule Part 22.917(a) specifies that "The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log (P) dB."



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Measurement Uncertainty

The assessed measurement uncertainty to ensure 95% confidence level for the normal distribution is with the coverage factor k = 1.96, U = 3.55 dB.



Test Result

Sweep the whole frequency band through the range from 9kHz to the 10th harmonic of the carrier, the emissions below the noise floor will not be recorded in the report.

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Configure 1

Antenna 1

GSM 850 CH-Middle

| Harmonic | Frequency (MHz) | SG (dBm) | Cable Loss (dB) | Gain (dBi) | Antenna Polarization | ERP Level (dBm) | Limit (dBm) | Margin (dB) | Azimuth (deg) |
|----------|--------------------|-------------|-----------------------|---------------|-------------------------|-----------------------|----------------|----------------|---------------|
| 2 | 1673.2 | -57.61 | 2.00 | 10.75 | Horizontal | -51.01 | -13.00 | 38.01 | 225 |
| 3 | 2509.8 | -47.64 | 2.51 | 11.05 | Horizontal | -41.25 | -13.00 | 28.25 | 315 |
| 4 | 3346.4 | -57.09 | 4.20 | 11.15 | Horizontal | -52.29 | -13.00 | 39.29 | 135 |
| 5 | 4183.0 | -60.23 | 5.20 | 11.15 | Horizontal | -56.43 | -13.00 | 43.43 | 45 |
| 6 | 5019.6 | -58.44 | 5.50 | 11.95 | Horizontal | -54.14 | -13.00 | 41.14 | 180 |
| 7 | 5856.2 | -59.17 | 5.70 | 13.55 | Horizontal | -53.47 | -13.00 | 40.47 | 225 |
| 8 | 6692.8 | -56.02 | 6.30 | 13.75 | Horizontal | -50.72 | -13.00 | 37.72 | 90 |
| 9 | 7529.4 | -55.14 | 6.80 | 13.85 | Horizontal | -50.24 | -13.00 | 37.24 | 135 |
| 10 | 8366.0 | -54.09 | 6.90 | 14.25 | Horizontal | -48.89 | -13.00 | 35.89 | 45 |

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

WCDMA Band V CH-Middle

| Harmonic | Frequency (MHz) | SG (dBm) | Cable Loss (dB) | Gain (dBi) | Antenna Polarization | ERP Level (dBm) | Limit (dBm) | Margin (dB) | Azimuth (deg) |
|----------|--------------------|-------------|-----------------------|---------------|-------------------------|-----------------------|----------------|----------------|---------------|
| 2 | 1673.2 | -67.12 | 2.00 | 10.75 | Horizontal | -60.52 | -13.00 | 47.52 | 180 |
| 3 | 2509.8 | -62.58 | 2.51 | 11.05 | Horizontal | -56.19 | -13.00 | 43.19 | 225 |
| 4 | 3346.4 | -64.60 | 4.20 | 11.15 | Horizontal | -59.80 | -13.00 | 46.80 | 135 |
| 5 | 4183.0 | -60.10 | 5.20 | 11.15 | Horizontal | -56.30 | -13.00 | 43.30 | 135 |
| 6 | 5019.6 | -57.70 | 5.50 | 11.95 | Horizontal | -53.40 | -13.00 | 40.40 | 45 |
| 7 | 5856.2 | -59.30 | 5.70 | 13.55 | Horizontal | -53.60 | -13.00 | 40.60 | 180 |
| 8 | 6692.8 | -57.00 | 6.30 | 13.75 | Horizontal | -51.70 | -13.00 | 38.70 | 225 |
| 9 | 7529.4 | -55.60 | 6.80 | 13.85 | Horizontal | -50.70 | -13.00 | 37.70 | 90 |
| 10 | 8366.0 | -53.90 | 6.90 | 14.25 | Horizontal | -48.70 | -13.00 | 35.70 | 135 |

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is Horizontal position.

^{2.} The worst emission was found in the antenna is Horizontal position.



LTE Band 5 1.4MHz CH-Middle

| Harmonic | Frequency (MHz) | SG (dBm) | Cable Loss (dB) | Gain (dBi) | Antenna Polarization | ERP Level (dBm) | Limit (dBm) | Margin (dB) | Azimuth (deg) |
|----------|--------------------|-------------|-----------------------|---------------|-------------------------|-----------------------|----------------|----------------|---------------|
| 2 | 1671.0 | -66.07 | 2.00 | 10.75 | Horizontal | -59.47 | -13.00 | 46.47 | 90 |
| 3 | 2509.5 | -62.64 | 2.51 | 11.05 | Horizontal | -56.25 | -13.00 | 43.25 | 45 |
| 4 | 3346.0 | -64.11 | 4.20 | 11.15 | Horizontal | -59.31 | -13.00 | 46.31 | 45 |
| 5 | 4182.5 | -59.84 | 5.20 | 11.15 | Horizontal | -56.04 | -13.00 | 43.04 | 135 |
| 6 | 5019.0 | -58.58 | 5.50 | 11.95 | Horizontal | -54.28 | -13.00 | 41.28 | 315 |
| 7 | 5855.5 | -58.99 | 5.70 | 13.55 | Horizontal | -53.29 | -13.00 | 40.29 | 45 |
| 8 | 6692.0 | -56.23 | 6.30 | 13.75 | Horizontal | -50.93 | -13.00 | 37.93 | 225 |
| 9 | 7528.5 | -55.07 | 6.80 | 13.85 | Horizontal | -50.17 | -13.00 | 37.17 | 90 |
| 10 | 8365.0 | -53.65 | 6.90 | 14.25 | Horizontal | -48.45 | -13.00 | 35.45 | 225 |

Note: 1. The other Spurious RF Radiated emissions level is no more than noise floor.

LTE Band 5 5MHz CH-Middle

| Harmonic | Frequency (MHz) | SG (dBm) | Cable Loss (dB) | Gain (dBi) | Antenna Polarization | ERP Level (dBm) | Limit (dBm) | Margin (dB) | Azimuth (deg) |
|----------|--------------------|-------------|-----------------------|---------------|-------------------------|-----------------------|----------------|----------------|---------------|
| 2 | 1673.0 | -66.23 | 2.00 | 10.75 | Horizontal | -59.63 | -13.00 | 46.63 | 135 |
| 3 | 2509.5 | -60.98 | 2.51 | 11.05 | Horizontal | -54.59 | -13.00 | 41.59 | 90 |
| 4 | 3466.2 | -62.67 | 4.20 | 11.15 | Horizontal | -57.87 | -13.00 | 44.87 | 45 |
| 5 | 4215.9 | -59.70 | 5.20 | 11.15 | Horizontal | -55.90 | -13.00 | 42.90 | 225 |
| 6 | 5165.6 | -57.87 | 5.50 | 11.95 | Horizontal | -53.57 | -13.00 | 40.57 | 225 |
| 7 | 5815.3 | -59.30 | 5.70 | 13.55 | Horizontal | -53.60 | -13.00 | 40.60 | 315 |
| 8 | 6765.0 | -55.48 | 6.30 | 13.75 | Horizontal | -50.18 | -13.00 | 37.18 | 45 |
| 9 | 7614.7 | -53.82 | 6.80 | 13.85 | Horizontal | -48.92 | -13.00 | 35.92 | 135 |
| 10 | 8464.4 | -54.97 | 6.90 | 14.25 | Horizontal | -49.77 | -13.00 | 36.77 | 225 |

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

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^{2.} The worst emission was found in the antenna is Horizontal position.

^{2.} The worst emission was found in the antenna is Horizontal position.



LTE Band 5 10MHz CH-Middle

| Harmonic | Frequency (MHz) | SG (dBm) | Cable Loss (dB) | Gain (dBi) | Antenna Polarization | ERP Level (dBm) | Limit (dBm) | Margin (dB) | Azimuth (deg) |
|----------|--------------------|-------------|-----------------------|---------------|-------------------------|-----------------------|----------------|----------------|---------------|
| 2 | 1673.0 | -66.31 | 2.00 | 10.75 | Horizontal | -59.71 | -13.00 | 46.71 | 45 |
| 3 | 2509.5 | -62.61 | 2.51 | 11.05 | Horizontal | -56.22 | -13.00 | 43.22 | 90 |
| 4 | 3346.0 | -63.81 | 4.20 | 11.15 | Horizontal | -59.01 | -13.00 | 46.01 | 225 |
| 5 | 4182.5 | -60.56 | 5.20 | 11.15 | Horizontal | -56.76 | -13.00 | 43.76 | 0 |
| 6 | 5019.0 | -56.56 | 5.50 | 11.95 | Horizontal | -52.26 | -13.00 | 39.26 | 315 |
| 7 | 5855.5 | -59.12 | 5.70 | 13.55 | Horizontal | -53.42 | -13.00 | 40.42 | 45 |
| 8 | 6692.0 | -56.37 | 6.30 | 13.75 | Horizontal | -51.07 | -13.00 | 38.07 | 45 |
| 9 | 7528.5 | -54.21 | 6.80 | 13.85 | Horizontal | -49.31 | -13.00 | 36.31 | 225 |
| 10 | 8365.0 | -54.32 | 6.90 | 14.25 | Horizontal | -49.12 | -13.00 | 36.12 | 90 |

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Note: 1. The other Spurious RF Radiated emissions level is no more than noise floor.

Antenna 2

GSM 850 CH-Middle

| Harmonic | Frequency (MHz) | SG (dBm) | Cable Loss (dB) | Gain (dBi) | Antenna Polarization | ERP Level (dBm) | Limit (dBm) | Margin (dB) | Azimuth (deg) |
|----------|--------------------|-------------|-----------------------|---------------|-------------------------|-----------------------|----------------|----------------|---------------|
| 2 | 1673.2 | -62.83 | 2.00 | 10.75 | Horizontal | -56.23 | -13.00 | 43.23 | 225 |
| 3 | 2509.8 | -41.12 | 2.51 | 11.05 | Horizontal | -34.73 | -13.00 | 21.73 | 315 |
| 4 | 3346.4 | -60.56 | 4.20 | 11.15 | Horizontal | -55.76 | -13.00 | 42.76 | 135 |
| 5 | 4183.0 | -59.59 | 5.20 | 11.15 | Horizontal | -55.79 | -13.00 | 42.79 | 45 |
| 6 | 5019.6 | -58.85 | 5.50 | 11.95 | Horizontal | -54.55 | -13.00 | 41.55 | 180 |
| 7 | 5856.2 | -56.16 | 5.70 | 13.55 | Horizontal | -50.46 | -13.00 | 37.46 | 225 |
| 8 | 6692.8 | -57.00 | 6.30 | 13.75 | Horizontal | -51.70 | -13.00 | 38.70 | 90 |
| 9 | 7529.4 | -55.47 | 6.80 | 13.85 | Horizontal | -50.57 | -13.00 | 37.57 | 135 |
| 10 | 8366.0 | -53.80 | 6.90 | 14.25 | Horizontal | -48.60 | -13.00 | 35.60 | 45 |

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is Horizontal position.

^{2.} The worst emission was found in the antenna is Horizontal position.



WCDMA Band V CH-Middle

| Harmonic | Frequency (MHz) | SG (dBm) | Cable Loss (dB) | Gain (dBi) | Antenna Polarization | ERP Level (dBm) | Limit (dBm) | Margin (dB) | Azimuth (deg) |
|----------|--------------------|-------------|-----------------------|---------------|-------------------------|-----------------------|----------------|----------------|---------------|
| 2 | 1673.2 | -66.33 | 2.00 | 10.75 | Horizontal | -59.73 | -13.00 | 46.73 | 180 |
| 3 | 2509.8 | -62.83 | 2.51 | 11.05 | Horizontal | -56.44 | -13.00 | 43.44 | 225 |
| 4 | 3346.4 | -60.62 | 4.20 | 11.15 | Horizontal | -55.82 | -13.00 | 42.82 | 45 |
| 5 | 4183.0 | -60.02 | 5.20 | 11.15 | Horizontal | -56.22 | -13.00 | 43.22 | 135 |
| 6 | 5019.6 | -58.79 | 5.50 | 11.95 | Horizontal | -54.49 | -13.00 | 41.49 | 45 |
| 7 | 5856.2 | -60.02 | 5.70 | 13.55 | Horizontal | -54.32 | -13.00 | 41.32 | 180 |
| 8 | 6692.8 | -56.48 | 6.30 | 13.75 | Horizontal | -51.18 | -13.00 | 38.18 | 225 |
| 9 | 7529.4 | -55.10 | 6.80 | 13.85 | Horizontal | -50.20 | -13.00 | 37.20 | 90 |
| 10 | 8366.0 | -54.26 | 6.90 | 14.25 | Horizontal | -49.06 | -13.00 | 36.06 | 135 |

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Note: 1. The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is Horizontal position.

LTE Band 5 1.4MHz CH-Middle

| Harmonic | Frequency (MHz) | SG (dBm) | Cable Loss (dB) | Gain (dBi) | Antenna Polarization | ERP Level (dBm) | Limit (dBm) | Margin (dB) | Azimuth (deg) |
|----------|--------------------|-------------|-----------------------|---------------|-------------------------|-----------------------|----------------|----------------|---------------|
| 2 | 1671.0 | -65.96 | 2.00 | 10.75 | Horizontal | -59.36 | -13.00 | 46.36 | 90 |
| 3 | 2509.5 | -61.36 | 2.51 | 11.05 | Horizontal | -54.97 | -13.00 | 41.97 | 45 |
| 4 | 3346.0 | -57.45 | 4.20 | 11.15 | Horizontal | -52.65 | -13.00 | 39.65 | 45 |
| 5 | 4182.5 | -60.38 | 5.20 | 11.15 | Horizontal | -56.58 | -13.00 | 43.58 | 135 |
| 6 | 5019.0 | -58.74 | 5.50 | 11.95 | Horizontal | -54.44 | -13.00 | 41.44 | 315 |
| 7 | 5855.5 | -59.09 | 5.70 | 13.55 | Horizontal | -53.39 | -13.00 | 40.39 | 45 |
| 8 | 6692.0 | -56.66 | 6.30 | 13.75 | Horizontal | -51.36 | -13.00 | 38.36 | 225 |
| 9 | 7528.5 | -55.13 | 6.80 | 13.85 | Horizontal | -50.23 | -13.00 | 37.23 | 90 |
| 10 | 8365.0 | -54.46 | 6.90 | 14.25 | Horizontal | -49.26 | -13.00 | 36.26 | 225 |

Note: 1. The other Spurious RF Radiated emissions level is no more than noise floor.

2. The worst emission was found in the antenna is Horizontal position.



LTE Band 5 5MHz CH-Middle

| Harmonic | Frequency (MHz) | SG (dBm) | Cable Loss (dB) | Gain (dBi) | Antenna Polarization | ERP Level (dBm) | Limit (dBm) | Margin (dB) | Azimuth (deg) |
|----------|--------------------|-------------|-----------------------|---------------|-------------------------|-----------------------|----------------|----------------|---------------|
| 2 | 1673.0 | -65.46 | 2.00 | 10.75 | Horizontal | -58.86 | -13.00 | 45.86 | 135 |
| 3 | 2509.5 | -59.26 | 2.51 | 11.05 | Horizontal | -52.87 | -13.00 | 39.87 | 90 |
| 4 | 3466.2 | -62.76 | 4.20 | 11.15 | Horizontal | -57.96 | -13.00 | 44.96 | 45 |
| 5 | 4215.9 | -60.52 | 5.20 | 11.15 | Horizontal | -56.72 | -13.00 | 43.72 | 225 |
| 6 | 5165.6 | -58.09 | 5.50 | 11.95 | Horizontal | -53.79 | -13.00 | 40.79 | 225 |
| 7 | 5815.3 | -58.58 | 5.70 | 13.55 | Horizontal | -52.88 | -13.00 | 39.88 | 315 |
| 8 | 6765.0 | -56.16 | 6.30 | 13.75 | Horizontal | -50.86 | -13.00 | 37.86 | 45 |
| 9 | 7614.7 | -54.61 | 6.80 | 13.85 | Horizontal | -49.71 | -13.00 | 36.71 | 135 |
| 10 | 8464.4 | -54.50 | 6.90 | 14.25 | Horizontal | -49.30 | -13.00 | 36.30 | 225 |

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Note: 1. The other Spurious RF Radiated emissions level is no more than noise floor.

LTE Band 5 10MHz CH-Middle

| Harmonic | Frequency (MHz) | SG (dBm) | Cable Loss (dB) | Gain (dBi) | Antenna Polarization | ERP Level (dBm) | Limit (dBm) | Margin (dB) | Azimuth (deg) |
|----------|--------------------|-------------|-----------------------|---------------|-------------------------|-----------------------|----------------|----------------|---------------|
| 2 | 1673.0 | -65.99 | 2.00 | 10.75 | Horizontal | -59.39 | -13.00 | 46.39 | 45 |
| 3 | 2509.5 | -57.61 | 2.51 | 11.05 | Horizontal | -51.22 | -13.00 | 38.22 | 90 |
| 4 | 3328.0 | -60.62 | 4.20 | 11.15 | Horizontal | -55.82 | -13.00 | 42.82 | 225 |
| 5 | 4182.5 | -60.11 | 5.20 | 11.15 | Horizontal | -56.31 | -13.00 | 43.31 | 0 |
| 6 | 5019.0 | -58.33 | 5.50 | 11.95 | Horizontal | -54.03 | -13.00 | 41.03 | 315 |
| 7 | 5855.5 | -59.24 | 5.70 | 13.55 | Horizontal | -53.54 | -13.00 | 40.54 | 45 |
| 8 | 6692.0 | -55.16 | 6.30 | 13.75 | Horizontal | -49.86 | -13.00 | 36.86 | 45 |
| 9 | 7528.5 | -54.80 | 6.80 | 13.85 | Horizontal | -49.90 | -13.00 | 36.90 | 225 |
| 10 | 8365.0 | -55.24 | 6.90 | 14.25 | Horizontal | -50.04 | -13.00 | 37.04 | 90 |

Note: 1.The other Spurious RF Radiated emissions level is no more than noise floor.

^{2.} The worst emission was found in the antenna is Horizontal position.

^{2.} The worst emission was found in the antenna is Horizontal position.



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6. Main Test Instruments

| Name | Manufacturer | Туре | Serial Number | Calibration Date | Expiration Date |
|--|--------------|--------------|------------------|---------------------|-----------------|
| Base Station Simulator | R&S | CMW500 | 113824 | 2018-05-20 | 2019-05-19 |
| Power Splitter | Hua Xiang | SHX-GF2-2-13 | 10120101 | / | / |
| Spectrum Analyzer | Agilent | N9010A | MY50210259 | 2018-05-20 | 2019-05-19 |
| Universal Radio Communication Tester | Agilent | E5515C | MY48367192 | 2018-05-20 | 2019-05-19 |
| Signal Analyzer | R&S | FSV40 | 15195-01-00 | 2018-05-20 | 2019-05-19 |
| EMI Test Receiver | R&S | ESCI | 100948 | 2018-05-20 | 2019-05-19 |
| Loop Antenna | SCHWARZBECK | FMZB1519 | 1519-047 | 2017-09-26 | 2019-09-25 |
| Trilog Antenna | SCHWARZBECK | VUBL 9163 | 9163-201 | 2017-11-18 | 2019-11-17 |
| Horn Antenna | R&S | HF907 | 100126 | 2018-07-07 | 2020-07-06 |
| Horn Antenna | ETS-Lindgren | 3160-09 | 00102643 | 2018-06-20 | 2020-06-19 |
| Signal generator | R&S | SMB 100A | 102594 | 2018-05-20 | 2019-05-19 |
| Climatic Chamber | ESPEC | SU-242 | 93000506 | 2017-12-17 | 2020-12-16 |
| Preampflier | R&S | SCU18 | 102327 | 2018-05-20 | 2019-05-19 |
| MOB COMMS DC SUPPLY | Keysight | 66319D | MY43004105 | 2018-05-21 | 2019-05-20 |
| RF Cable | Agilent | SMA 15cm | 0001 | / | / |
| Software | R&S | EMC32 | 9.26.0 | / | / |

*****END OF REPORT *****