











FCC RF Test Report

Product Name: Smart Phone

Model Number: DRA-LX3

Report No.: SYBH(Z-RF)20180207022001-2004

FCC ID: QISDRA-LX3

Reliability Laboratory of Huawei Technologies Co., Ltd.

(Global Compliance and Testing Center of Huawei Technologies Co., Ltd)

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Notice

- The laboratory has passed the accreditation by China National Accreditation Service for Conformity Assessment (CNAS). The accreditation number is L0310.
- 2. The laboratory has passed the accreditation by The American Association for Laboratory Accreditation (A2LA). The accreditation number is 2174.01.
- 3. The laboratory has been recognized by the US Federal Communications Commission (FCC) to perform compliance testing subject to the Commission's Certification rules. The Designation Number is CN1173, and the Test Firm Registration Number is 294140.
- 4. The laboratory has been listed by Industry Canada to perform electromagnetic emission measurements. The recognition numbers of test site are 6369A-1.
- 5. The laboratory (Reliability Lab of Huawei Technologies Co., Ltd) is also named "Global Compliance and Testing Center of Huawei Technologies Co., Ltd", the both names have coexisted since 2009.
- 6. The test report is invalid if not marked with the signatures of the persons responsible for preparing and approving the test report.
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- 8. The test report is only valid for the test samples.
- 9. Content of the test report, in part or in full, cannot be used for publicity and/or promotional purposes without prior written approval from the laboratory.

Applicant: Huawei Technologies Co., Ltd.

Address: Administration Building, Headquarters of Huawei Technologies Co., Ltd.,

Bantian, Longgang District, Shenzhen, 518129, P.R.C

Date of Receipt Sample:2018-02-28Start Date of Test:2018-02-28End Date of Test:2018-04-04

Test Result: Pass

Approved by Senior 2018-04-04 Roger zhang

Engineer: Date Name Signature

Prepared by:

2018-04-04 Pan Man

Date Name Signature



CONTENT

| 1 | Gener | al Information | 5 | | | | |
|---|--|---|---|--|--|--|--|
| | 1.1 | Applied Standard | | | | | |
| | 1.2 | Test Location | | | | | |
| | 1.3 | Test Environment Condition | | | | | |
| 2 | Test S | ummary | | | | | |
| 3 | | ption of the Equipment under Test (EUT) | | | | | |
| • | 3.1 | General Description | | | | | |
| | 3.2 | EUT Identity | | | | | |
| | 3.3 | Technical Description | | | | | |
| 4 | General Test Conditions / Configurations | | | | | | |
| | 4.1 | Test Modes | | | | | |
| | 4.2 | EUT Configurations | | | | | |
| | 4.3 | Test Environments | | | | | |
| | 4.4 | Antenna requirements | | | | | |
| | 4.5 | Description of tests | | | | | |
| | 4.6 | Test Setups | | | | | |
| | 4.7 | Test Conditions | | | | | |
| 5 | Main 1 | n Test Instruments | | | | | |
| 6 | | Appendixes | | | | | |



1 General Information

1.1 Applied Standard

Applied Rules: 47 CFR FCC Part 2, Subpart J

47 CFR FCC Part 15, Subpart C

Test Method: FCC KDB 558074 D01 DTS Meas Guidance v04

ANSI C63.10-2013, American National Standard for Testing Unlicensed

Wireless Devices.

1.2 Test Location

Test Location 1: Reliability Laboratory of Huawei Technologies Co., Ltd.

Address: Administration Building, Headquarters of Huawei Technologies Co., Ltd.,

Bantian, Longgang District, Shenzhen, 518129, P.R.C

1.3 Test Environment Condition

Ambient Temperature: 19.5to 25 °C

Ambient Relative Humidity: 40 to 55 %

Atmospheric Pressure: Not applicable



2 Test Summary

| Test Item | FCC Part No. | Requirements | Test Result | Verdict |
|---|---------------------------------|--|-------------|---------|
| DTS (6 dB) Bandwidth | 15.247(a)(2) | ≥ 500 kHz. | Appendix A | Pass |
| Occupied Bandwidth | | No limit | Appendix B | Pass |
| Duty Cycle | KDB 558074 D01 (6.0) | No limit | Appendix C | Pass |
| Maximum Conducted Average Output Power | 15.247(b)(3) | For directional gain: < 30 dBm - (G[dBi] - 6 [dB]), Average; Otherwise: < 30 dBm, Average. | Appendix D | Pass |
| Maximum Power Spectral Density Level | 15.247(e) | For directional gain: < 8 dBm/3 kHz – (G[dBi] – 6 [dB]), Average. Otherwise: < 8 dBm/3 kHz, Average. | Appendix E | Pass |
| Band Edges Compliance | | < -30 dBr/100 kHz if total | Appendix F | Pass |
| Unwanted Emissions into Non-Restricted Frequency Bands | 15.247(d) | average power ≤ power limit. | Appendix G | Pass |
| Unwanted Emissions into Restricted Frequency Bands (Radiated) | 15.247(d) 15.209 (NOTE 1) | FCC Part 15.209 field strength limit; | Appendix H | Pass |
| AC Power Line Conducted Emissions | 15.207 | FCC Part 15.207 conducted limit; | Appendix I | Pass |

NOTE: According to KDB 558074 D01, antenna-port conducted measurements are acceptable as an alternative to radiated measurements for demonstrating compliance to the limits in the restricted frequency bands. If conducted measurements are performed, then proper impedance matching must be ensured and an additional radiated test for cabinet/case emissions will also be required.



3 <u>Description of the Equipment under Test (EUT)</u>

3.1 General Description

DRA-LX3 is subscriber equipment in the GSM/UMTS/LTE system, including single SIM and double SIM two different versions of card. The GSM frequency band includes GSM850 and GSM900 and DCS1800 and PCS1900. The UMTS frequency band is band 1/2/4/5/8. The LTE frequency band is band 2/4/5/7/8/28, The Mobile Phone implements such functions as RF signal receiving/transmitting, LTE/UMTS and GSM/GPRS/EDGE protocol processing, voice, video MMS service, GPS and WIFI etc. Externally it provides micro SD card interface, earphone port (to provide voice service). It also provides bluetooth module to synchronize data between a PC and the phone, or to use the built-in modem of the phone to access the Internet with a PC, or to exchange data with other bluetooth devices.

Note1: Only 2.4G WIFI test data included in this report.

3.2 EUT Identity

NOTE: Unless otherwise noted in the report, the functional boards installed in the units shall be selected from the below list, but not means all the functional boards listed below shall be installed in one unit.

3.2.1 **Board**

| Board | | |
|------------------------------|----------|------------------------|
| Description Hardware Version | | Software Version |
| Main Board | HL1DURAM | DRA-LX3 1.0.0.51(C900) |

3.2.2 Sub- Assembly

| Sub-Assembly | | | | | |
|--------------------|---|----------------------------------|--|--|--|
| Sub-Assembly Name | Model | Manufacturer | Description | | |
| Adapter | pter HW-050100U01 Huawei Technologies Co., Ltd. | | Input Voltage: 100-240V ~50/60Hz 0.2A Output Voltage: 5V === 1A | | |
| Li-Polymer Battery | HB405979ECW | Huawei Technologies Co., Ltd. | Rated capacity: 2920mAh Nominal Voltage:3.82 V Charging Voltage: +4.4V | | |



3.3 Technical Description

| Characteristics | Description | | | |
|------------------------------|---|---------------------------------|--------------------------|-------------------|
| IEEE 802.11 WLAN | ⊠ 802.11b (20 MHz channel bandwidth), ⊠ 802.11g (20 MHz channel bandwidth) | | | |
| Mode Supported | ⊠ 802.11n (20 MHz channel bandwidth), ⊠ 802.11n (40 MHz channel bandwidth) | | | |
| TX/RX Operating | 2412-2462 fc = 2407 MHz + N * 5 MHz, where: | | | |
| Range | MHz band | - fc = "Operating Frequer | ncy" in MHz, | |
| | | - N = "Channel Number" | with the range from 1 to | 11 for the 20 MHz |
| | | channel bandwidth, or 3 | 3 to 9 for the 40 MHz ch | annel bandwidth. |
| Data Rate | 802.11b | 1 Mbps, 2 Mbps, 5.5 Mbps, 11 | Mbps | |
| | 802.11g | 6 Mbps, 9 Mbps, 12 Mbps, 18 | Mbps, 24 Mbps, 36 Mb | ps, 48 Mbps, 54 |
| | | Mbps | | |
| | 802.11n (SISO) | MCS 0 to MCS 7 | | |
| Modulation Type | Modulation Type DBPSK/DQPSK/CCK (DSSS), BPSK/QPSK/16QAM/64QAM (OFDM). | | | |
| Emission Designator | 9M60G7D (for 802.11b mode), 16M4G7D (for 802.11g mod), 17M5G7D (for 802.11n20 mode) | | | |
| 36M0G7D (for 802.11n40 mode) | | | | |
| TX Power Control | ☐ Supported, ⊠ | Not Supported | | |
| Standby Mode | ☐ Supported, ⊠ | Not Supported | | |
| Equipment Type | ☐ Stand-alone e | quipment, 🗌 Plug-in radio devi | ce, 🛛 Combined equi | pment |
| Antenna | Description | Isotropic Antenna | | |
| | Туре | ☐ External, ☐ Integrated | | |
| | Ports | | } | |
| | Smart System | SISO (for 802.11b/g/n), | | |
| | | ☐ MIMO (for 802.11n): 2 Tx | & 2 Rx, | |
| | | ☐ Diversity (for 802.11b/g) : | Tx & Rx | |
| | Gain | -1 dBi (per antenna port, max.) | | |
| | Remark | When the EUT is put into servi | ice, the practical maxim | um antenna gain |
| | | should NOT exceed the value | as described above. | |
| Power Supply | Туре | □ Battery | ☐ PoE: | Other: |



4 General Test Conditions / Configurations

4.1 Test Modes

NOTE: Worst cases for each IEEE 802.11 mode are selected to perform tests.

| Test Mode | Test Modes Description |
|-----------|--|
| 11B | IEEE 802.11b with data rate of 1 Mbps using SISO mode. |
| 11G | IEEE 802.11g with data rate of 6 Mbps using SISO mode. |
| 11N20 | IEEE 802.11n with data date of MCS0 and bandwidth of 20 MHz using SISO mode. |
| 11N40 | IEEE 802.11n with data date of MCS0 and bandwidth of 40 MHz using SISO mode. |

4.2 EUT Configurations

4.2.1 General Configurations

| Configuration | Description |
|---------------------|---|
| Test Antenna Ports | Until otherwise specified, |
| | - All TX tests are performed at all TX antenna ports of the EUT, and |
| | - All RX tests are performed at all RX antenna ports of the EUT. |
| Multiple RF Sources | Other than the tested RF source of the EUT, other RF source(s) are disabled or shutdown |
| | during measurements. |

4.2.2 Customized Configurations

| Test Mode | RF | TV Frog [MUz] | RX Freq. | Ch. BW | Power Conf., | Duty cycle [%] |
|-----------|-----|----------------------|----------|--------|--------------|----------------|
| rest Mode | Ch. | TX Freq. [MHz] | [MHz] | [MHz] | per Port | |
| | L | Ch No. 1 / 2412 MHz | | 20 | 19.5 | 99.5 |
| 11B | М | Ch No. 6 / 2437 MHz | | 20 | 19.5 | 99.5 |
| | Н | Ch No. 11 / 2462 MHz | | 20 | 19.5 | 99.5 |
| | L | Ch No. 1 / 2412 MHz | | 20 | 16.5 | 97.5 |
| 110 | L | Ch No. 2 / 2417 MHz | | 20 | 18 | 97.5 |
| 11G | М | Ch No. 6 / 2437 MHz | | 20 | 18 | 97.5 |
| | Н | Ch No. 10 / 2457 MHz | | 20 | 18 | 97.5 |
| | 11 | Ch No. 11 / 2462 MHz | | 20 | 16.5 | 97.5 |
| | L | Ch No. 1 / 2412 MHz | | 20 | 16.5 | 96.6 |
| 111120 | | Ch No. 2 / 2417 MHz | | 20 | 18 | 96.6 |
| 11N20 | М | Ch No. 6 / 2437 MHz | | 20 | 18 | 96.6 |
| | | Ch No. 10 / 2457 MHz | | 20 | 18 | 96.6 |
| | Н | Ch No. 11 / 2462 MHz | | 20 | 16.5 | 96.6 |
| 111140 | | Ch No. 3 / 2422 MHz | | 40 | 14.5 | 95 |
| 11N40 | L | Ch No. 4 / 2427 MHz | | 40 | 16.5 | 95 |



| Test Mode | RF Ch. | TX Freq. [MHz] | RX Freq. [MHz] | Ch. BW [MHz] | Power Conf., per Port | Duty cycle [%] |
|-----------|-----------|---------------------|-------------------|-----------------|--------------------------|----------------|
| | М | Ch No. 6 / 2437 MHz | | 40 | 16.5 | 95 |
| | ш | Ch No. 8 / 2447 MHz | | 40 | 16.5 | 95 |
| | H | Ch No. 9 / 2452 MHz | | 40 | 14.5 | 95 |



4.3 Test Environments

NOTE: The values used in the test report may be stringent than the declared.

| Environment Parameter | Selected Values During Tests | | | |
|-----------------------|------------------------------|----------|-------------------|--|
| | Temperature | Voltage | Relative Humidity | |
| NTNV | Ambient | 3.82V DC | Ambient | |

4.4 Antenna requirements

Excerpt from §15.203 of the FCC Rules/Regulations:

"An intentional radiator antenna shall be designed to ensure that no antenna other than that furnished by the responsible party can be used with the device. The use of a permanently attached antenna or of an antenna that uses a unique coupling to the intentional radiator shall be considered sufficient to comply with the provisions of this section."

The antennas of the DRA-LX3 anently attached.

There are no provisions for connection to an external antenna.

Conclusion:

The EUT FCC ID: QISDRA-LX3 unit complies with the requirement of §15.203.

Ch. Frequency (MHz)

| Ch. | Frequency (MHz) |
|-----|-----------------|
| 01 | 2412 |
| | |
| | |
| • | • |
| | |
| 06 | 2437 |
| | |
| | • |
| 11 | 2462 |
| | |

Frequency/ Channel Operations



4.5 Description of tests

4.5.1 Bandwidth measurement

- (a) Connect EUT test port to spectrum analyzer.
- (b) Set the EUT to transmit maximum output power at 2.4GHz, then set the measured frequency number and test the bandwidth with spectrum analyzer.

4.5.2 Average output power

- (a) Connect EUT test port to spectrum analyzer.
- (b) Set the EUT to transmit maximum output power at 2.4GHz.
- (c) Then set the EUT to transmit at high, middle and low frequency and measure the conducted output power separately.

4.5.3 Band edge spurious emission

- (a) Connect EUT test port to spectrum analyzer
- (b) Set the EUT to transmit maximum output power at 2.4GHz.
- (c) Then set the EUT to transmit at high, low frequency and measure the conducted band edge spurious separately.

4.5.4 Conducted RF spurious

- (a) Connect EUT test port to spectrum analyzer
- (b) Set the EUT to transmit maximum output power at 2.4GHz.
- (c) Then set the EUT to transmit at high, middle and low frequency and measure the conducted spurious separately.

4.5.5 Power spectral density

- (a) Connect EUT test port to spectrum analyzer
- (b) Set the EUT to transmit maximum output power at 2.4GHz.
- (c) Then set the EUT to transmit at high, middle and low frequency and measure the conducted power spectral density.

4.5.6 Radiated spurious emission & spurious in restricted band

The test site semi-anechoic chamber has met the requirement of NSA tolerance 4dB according to the standards: ANSI C63.10 (2013). The EUT was set-up on insulator 80cm above the Ground Plane. The set-up and test methods were according to ANSI C63.10:2013. The Radiated Disturbance measurements were made using a Rohde and Schwarz Test Receiver and control software.

A preliminary scan and a final scan of the emissions were made by using test script of software; the emissions were measured using a Quasi-Peak Detector below 1GHz, Peak Detector and AV Detector above 1GHz. The maximal emission value was acquired by adjusting the antenna height, polarisation and turntable azimuth in accordance with the software setup. Normally, the height range of antenna was 1m to 4m,and the azimuth range of turntable was 0°to 360°. The receive antenna has two polarizations V and H.



A portable or small unlicensed wireless device shall be placed on a non-metallic test fixture or other nonmetallic support during testing. The supporting fixture shall permit orientation of the EUT in each of three orthogonal (x, y, z) axis positions such that emissions from the EUT are maximized.

The EUT communicates with the BTS simulator through Air interface. The EUT operated on the typical channel.

Measurement bandwidth: 30 MHz - 1000 MHz: 120 kHz

Measurement bandwidth: 1000 MHz – 10th Carrier Frequency: 1 MHz

4.5.7 Conducted Emission at Power Port

The Table-top EUT was placed upon a non-metallic table 0.8 m above the horizontal metal reference ground plane. EUT was connected to LISN and LISN was connected to reference Ground Plane. EUT was 80cm from LISN. The set-up and test methods were according to ANSI C63.10: 2013.

Conducted Disturbance at AC Port measurements were undertaken on the L and N Lines. The emissions were measured using a Quasi-Peak Detector and Average Detector.

The EUT communicates with the BTS simulator through Air interface, the BTS simulator controls the Wireless Modem to transmitter the maximum power which defined in specification of product. The Wireless Modem operated on the typical channel.

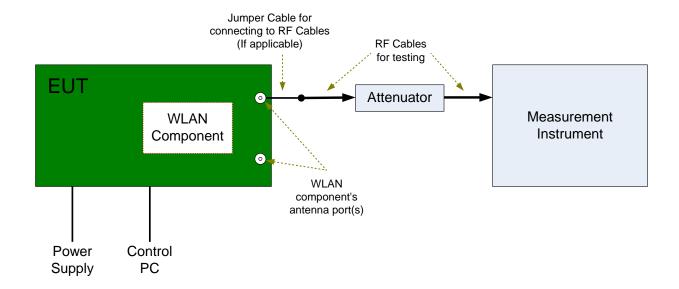
Measurement bandwidth (RBW) for 150kHz to 30 MHz: 9 kHz;



4.6 Test Setups

4.6.1 Test Setup 1

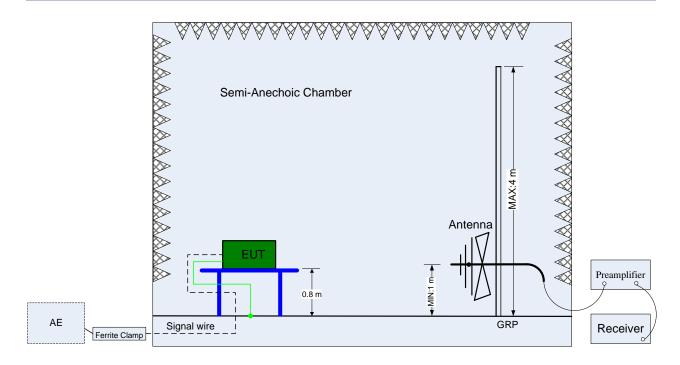
The WLAN component's antenna ports(s) of the EUT are connected to the measurement instrument per an appropriate attenuator. The EUT is controlled by PC/software to emit the specified signals for the purpose of measurements.



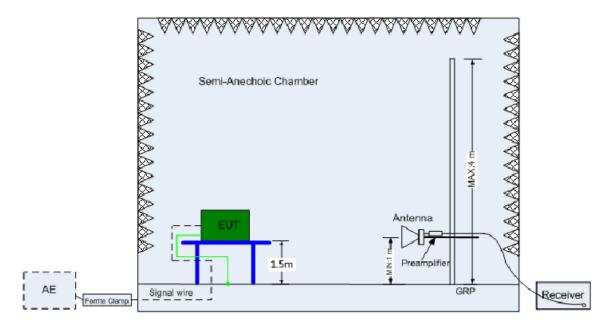
4.6.2 Test Setup 2

The test site semi-anechoic chamber has met the requirement of NSA tolerance 4 dB according to the standards: ANSI C63.4. The test distance is 3m.The setup is according to ANSI C63.4 and CAN/CSA-CEI/IEC CISPR 22.

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).



(Below 1 GHz)



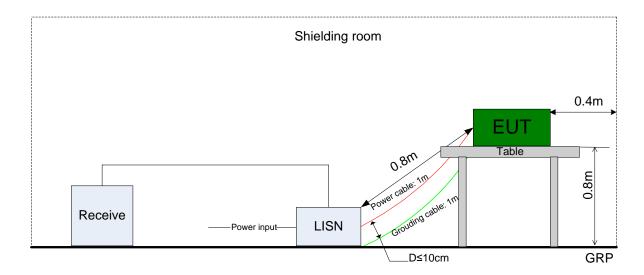
(Above 1 GHz)



4.6.3 Test Setup 3

The mains cable of the EUT (maybe per AC/DC Adapter) must be connected to LISN. The LISN shall be placed 0.8 m from the boundary of EUT and bonded to a ground reference plane for LISN mounted on top of the ground reference plane. This distance is between the closest points of the LISN and the EUT. All other units of the EUT and associated equipment shall be at least 0.8m from the LISN.

Ground connections, where required for safety purposes, shall be connected to the reference ground point of the LISN and, where not otherwise provided or specified by the manufacturer, shall be of same length as the mains cable and run parallel to the mains connection at a separation distance of not more than 0.1 m.





4.7 Test Conditions

| Test Case | Test Conditions | |
|------------------|--------------------|--|
| | Configuration | Description |
| DTS (6 dB) | Measurement Method | FCC KDB 558074 D01 §8.1 Option 2. |
| Bandwidth | Test Environment | NTNV |
| | Test Setup | Test Setup 1 |
| | EUT Configuration | 11B_L@Ant1, 11B_M@Ant1, 11B_H@Ant1 |
| | | 11G_L@Ant1, 11G_M@Ant1, 11G_H@Ant1 |
| | | 11N20_L@Ant1,11N20_M@Ant1,11N20_H@Ant1 |
| | | 11N40_L@Ant1,11N40_M@Ant1,11N40_H@Ant1 |
| Occupied | Measurement Method | FCC KDB 558074 D01 §8.2 Option 2. |
| Bandwidth | Test Environment | NTNV |
| | Test Setup | Test Setup 1 |
| | EUT Configuration | 11B_L@Ant1, 11B_M@Ant1, 11B_H@Ant1 |
| | | 11G_L@Ant1, 11G_M@Ant1, 11G_H@Ant1 |
| | | 11N20_L@Ant1,11N20_M@Ant1,11N20_H@Ant1 |
| | | 11N40_L@Ant1,11N40_M@Ant1,11N40_H@Ant1 |
| Maximum | Measurement Method | FCC KDB 558074 D01 §9.2 .2. 4 |
| Conducted | Test Environment | NTNV |
| Average Output | Test Setup | Test Setup 1 |
| Power | EUT Configuration | 11B_L@Ant1, 11B_M@Ant1, 11B_H@Ant1 |
| | | 11G_L@Ant1, 11G_M@Ant1, 11G_H@Ant1 |
| | | 11N20_L@Ant1,11N20_M@Ant1,11N20_H@Ant1 |
| | | 11N40_L@Ant1,11N40_M@Ant1,11N40_H@Ant1 |
| Maximum Power | Measurement Method | FCC KDB 558074 D01 §10.1 (peak PSD). |
| Spectral Density | Test Environment | NTNV |
| Level | Test Setup | Test Setup 1 |
| | EUT Configuration | 11B_L@Ant1, 11B_M@Ant1, 11B_H@Ant1 |
| | | 11G_L@Ant1, 11G_M@Ant1, 11G_H@Ant1 |
| | | 11N20_L@Ant1,11N20_M@Ant1,11N20_H@Ant1 |
| | | 11N40_L@Ant1,11N40_M@Ant1,11N40_H@Ant1 |
| Band Edges | Measurement Method | FCC KDB 558074 D01 §13.0. |
| Compliance | Test Environment | NTNV |
| | Test Setup | Test Setup 1 |
| | EUT Configuration | 11B_L@Ant1, 11B_M@Ant1, 11B_H@Ant1 |
| | | 11G_L@Ant1, 11G_M@Ant1, 11G_H@Ant1 |
| | | 11N20_L@Ant1,11N20_M@Ant1,11N20_H@Ant1 |
| | | 11N40_L@Ant1,11N40_M@Ant1,11N40_H@Ant1 |
| Unwanted | Measurement Method | FCC KDB 558074 D01 §11.0 |
| Emissions into | Test Environment | NTNV |
| Non-Restricted | Test Setup | Test Setup 1 |



| Test Case | Test Conditions | | | |
|-----------------|--------------------|---|--|--|
| | Configuration | Description | | |
| Frequency Bands | EUT Configuration | 11B_L@Ant1, 11B_M@Ant1, 11B_H@Ant1 | | |
| | | 11G_L@Ant1, 11G_M@Ant1, 11G_H@Ant1 | | |
| | | 11N20_L@Ant1,11N20_M@Ant1,11N20_H@Ant1 | | |
| | | 11N40_L@Ant1,11N40_M@Ant1,11N40_H@Ant1 | | |
| Unwanted | Measurement Method | ANSI C63.10; FCC KDB 558074 D01 §12.1, Radiated | | |
| Emissions into | Test Environment | NTNV | | |
| Restricted | Test Setup | Test Setup 2 | | |
| Frequency Bands | EUT Placement | ☐ Flatwise, ☐ Upright, ☐ Hung | | |
| (Radiated) | EUT Configuration | (1) 30 MHz to 1 GHz: | | |
| | | 11B_L@Ant1 (Worst Conf.). | | |
| | | (2) 1 GHz to 3 GHz: | | |
| | | 11B_L@Ant1, 11B_M@Ant1, 11B_H@Ant1 | | |
| | | 11G_L@Ant1, 11G_M@Ant1, 11G_H@Ant1 | | |
| | | 11N20_L@Ant1,11N20_M@Ant1,11N20_H@Ant1 | | |
| | | 11N40_L@Ant1,11N40_M@Ant1,11N40_H@Ant1 | | |
| | | (3) 3 GHz to 18 GHz: | | |
| | | 11B_L@Ant1 (Worse Conf.), 11B_H@Ant1 (Worse Conf.). | | |
| | | (4) 18 GHz to 26.5 GHz: | | |
| | | 11B_L@Ant1 (Worse Conf.), 11B_H@Ant1 (Worse Conf.). | | |
| AC Power Line | Measurement Method | AC mains conducted. | | |
| Conducted | Test Environment | NTNV | | |
| Emissions | Test Setup | Test Setup 3 | | |
| | EUT Configuration | 11B_L@Ant1 (Worst Conf.). | | |



5 <u>Main Test Instruments</u>

| Main Test Equipments | | | | | | | |
|--|------------------|-----------|----------------|------------|------------|--|--|
| Manufactur Manufactur | | | | | | | |
| Equipment Name | er | Model | Serial Number | Cal Date | Cal- Due | | |
| Power supply | KEITHLEY | 2303 | 000500E | 2017/5/31 | 2018/5/30 | | |
| Wireless Communication Test set | Agilent | N4010A | MY49081592 | 2017/7/31 | 2018/7/30 | | |
| Universal Radio Communication Tester | R&S | CMU200 | 110932 | 2017/5/2 | 2018/5/1 | | |
| Spectrum Analyzer | Agilent | N9020A | MY52090652 | 2017/7/10 | 2018/7/9 | | |
| Universal Radio Communication Tester | R&S | CMW500 | 126854 | 2017/10/19 | 2018/10/18 | | |
| Signal Analyzer | R&S | FSQ31 | 200021 | 2017/7/31 | 2018/7/30 | | |
| Spectrum Analyzer | Agilent | N9030A | MY49431698 | 2017/7/31 | 2018/7/30 | | |
| Temperature Chamber | WEISS | WKL64 | 56246002940010 | 2017/12/13 | 2018/12/12 | | |
| Signal generator | Agilent | E8257D | MY49281095 | 2017/7/31 | 2018/7/30 | | |
| Vector Signal Generator | R&S | SMU200A | 104162 | 2017/7/31 | 2018/7/30 | | |
| Test receiver | R&S | ESU26 | 100387 | 2018/1/20 | 2019/1/19 | | |
| Test receiver | R&S | ESCI | 101163 | 2018/1/20 | 2019/1/19 | | |
| Spectrum analyzer | R&S | FSU3 | 200474 | 2018/1/20 | 2019/1/19 | | |
| Spectrum analyzer | R&S | FSU43 | 100144 | 2018/1/20 | 2019/1/19 | | |
| LOOP Antennas(9kHz-30MHz) | R&S | HFH2-Z2 | 100262 | 2017/4/25 | 2019/4/25 | | |
| LOOP Antennas(9kHz-30MHz) | R&S | HFH2-Z2 | 100263 | 2017/4/25 | 2019/4/25 | | |
| Trilog Broadband Antenna (30M~3GHz) | SCHWARZ BECK | VULB 9163 | 9163-490 | 2017/3/29 | 2019/3/29 | | |
| Trilog Broadband Antenna (30M~3GHz) | SCHWARZ BECK | VULB 9163 | 9163-521 | 2017/4/9 | 2019/4/9 | | |
| Double-Ridged Waveguide Horn Antenna (1G~18GHz) | R&S | HF907 | 100304 | 2017/5/27 | 2019/5/27 | | |
| Pyramidal Horn Antenna(18GHz-26.5GHz) | ETS-Lindgr en | 3160-09 | 5140299 | 2017/7/20 | 2019/7/19 | | |
| Artificial Main Network | R&S | ENV4200 | 100134 | 2017/5/15 | 2018/5/14 | | |
| Line Impedance Stabilization Network | R&S | ENV216 | 100382 | 2017/5/15 | 2018/5/14 | | |
| Power Detecting & Sampling Unit | R&S | OSP-B157 | 100914 | 2017/7/31 | 2018/7/30 | | |
| Power supply | KEITHLEY | 2303 | 000500E | 2017/5/31 | 2018/5/30 | | |
| Wireless Communication Test set | Agilent | N4010A | MY49081592 | 2017/7/31 | 2018/7/30 | | |



| Software Information | | | | | |
|----------------------|---------------|--------------|---------|--|--|
| Test Item | Software Name | Manufacturer | Version | | |
| RE | EMC32 | R&S | V9.25.0 | | |
| CE | EMC32 | R&S | V9.25.0 | | |

6 Appendixes

| Appendix No. | Description |
|---------------------------------|------------------------|
| SYBH(Z-RF)20180207022001-2004-A | Appendix for 2.4G WLAN |

END