# FCC RADIO TEST REPORT

| | | |
|---|---|---|
| FCC ID | : | 2AJN7-TP00110B |
| Equipment | : | Notebook Computer |
| Brand Name | : | Lenovo |
| Model Name | : | TP00110B |
| Marketing Name | : | ThinkPad X1 Yoga Gen 5 |
| Applicant | : | LC Future Center<br>7F., No.780, Bei'an Rd., Zhongshan Dist.,<br>Taipei City 104, Taiwan |
| Manufacturer | : | LC Future Center Limited Taiwan Branch<br>7F., No.780, Bei'an Rd., Zhongshan Dist.,<br>Taipei City 104, Taiwan |
| Standard | : | 47 CFR Part 2, 22(H), 24(E), 27(L) |

**Equipment: Fibocom L860-GL and Intel AX201D2W tested inside of Lenovo Notebook Computer.**

**The product was received on Oct. 11, 2019 and testing was started from Nov. 03, 2019 and completed on Nov. 19, 2019. We, SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, would like to declare that the tested sample has been evaluated in accordance with the test procedures given in ANSI / TIA-603-E and has been in compliance with the applicable technical standards.**

**The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any agency of government.**

**The test results in this variant report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory, the test report shall not be reproduced except in full.**

Louis Wu

**Approved by: Louis Wu**

***SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory***
*No. 52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan*

# Table of Contents

# History of this test report

| Report No. | Version | Description | Issued Date |
|---|---|---|---|
| FG9O1139-02A | 01 | Initial issue of report | Dec. 30, 2019 |
| FG9O1139-02A | 02 | Revise applicant information | Feb. 25, 2020 |
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# Summary of Test Result

| Report Clause | Ref Std. Clause | Test Items | Result (PASS/FAIL) | Remark |
|---|---|---|---|---|
| 3.2 | §2.1046 | Conducted Output Power | Pass | - |
| | §22.913 (a)(2) | Effective Radiated Power (WCDMA Band V) | | |
| | §24.232 (c) | Equivalent Isotropic Radiated Power (WCDMA Band II) | | |
| | §27.50 (d)(4) | Equivalent Isotropic Radiated Power (WCDMA Band IV) | | |
| - | §24.232 (d) | Peak-to-Average Ratio | Not Required | |
| - | §2.1049 §22.917 (b) §24.238 (b) §27.53 (g) | Occupied Bandwidth (WCDMA Band V) (WCDMA Band II) (WCDMA Band IV) | Not Required | - |
| - | §2.1051 §22.917 (a) §24.238 (a) §27.53 (g) | Band Edge Measurement (WCDMA Band V) (WCDMA Band II) (WCDMA Band IV) | Not Required | - |
| - | §2.1051 §22.917 (a) §24.238 (a) §27.53 (g) | Conducted Emission (WCDMA Band V) (WCDMA Band II) (WCDMA Band IV) | Not Required | - |
| - | §2.1055 §22.355 §24.235 §27.54 | Frequency Stability Temperature & Voltage | Not Required | - |
| 4.4 | §2.1053 §22.917 (a) §24.238 (a) §27.53 (h) | Field Strength of Spurious Radiation (WCDMA Band V) (WCDMA Band II) (WCDMA Band IV) | Pass | Under limit 34.57 dB at 7011.000 MHz |

**Remark:**
1. Not required means after assessing, test items are not necessary to carry out.
2. This is a variant report which can be referred Product Equality Declaration. All the test cases were performed on original report (FCC ID: 2AJN7-TP00110A). Based on the original report, the test cases were verified.

**Declaration of Conformity:**

The test results with all measurement uncertainty excluded are presented in accordance with the regulation limits or requirements declared by manufacturers.

**Comments and Explanations:**

The declared of product specification for EUT presented in the report are provided by the manufacturer, and the manufacturer takes all the responsibilities for the accuracy of product specification.

**Reviewed by: Wii Chang**

**Report Producer: Lucy Wu**

# 1 General Description

## 1.1 Product Feature of Equipment Under Test

| Product Feature | |
|---|---|
| **Equipment** | Notebook Computer |
| **Brand Name** | Lenovo |
| **Model Name** | TP00110B |
| **Marketing Name** | ThinkPad X1 Yoga Gen 5 |
| **FCC ID** | 2AJN7-TP00110B |
| **Sample 1** | EUT with Amphenol Antenna |
| **Sample 2** | EUT with SPEEDWIRE Antenna |
| **EUT supports Radios application** | WCDMA/HSPA/LTE/GNSS |
| **EUT Stage** | Production Unit |

**Remark:**

1. The above EUT's information was declared by manufacturer.
2. Equipment: Fibocom L860-GL and Intel AX201D2W tested inside of Lenovo Notebook Computer.

| Antenna Information | | | | |
|---|---|---|---|---|
| **WWAN** | | | | **3G&LTE (dBi)** |
| **Antenna 1** | **Manufacturer** | Amphenol | **Peak gain** | 2.30 |
| | **Part number** | LX9865-16-000-C | **Type** | PIFA |
| **Antenna 2** | **Manufacturer** | SPEEDWIRE | **Peak gain** | 2.07 |
| | **Part number** | F.0G.ZV-0008-001-00 | **Type** | PIFA |

## 1.2 Product Specification subjective to this standard

| Standards-related Product Specification | |
|---|---|
| **Tx Frequency** | **WCDMA:**<br>Band V: 826.4 MHz ~ 846.6 MHz<br>Band II: 1852.4 MHz ~ 1907.6 MHz<br>Band IV: 1712.4 MHz ~ 1752.6 MHz |
| **Rx Frequency** | **WCDMA:**<br>Band V: 871.4 MHz ~ 891.6 MHz<br>Band II: 1932.4 MHz ~ 1987.6 MHz<br>Band IV: 2112.4 MHz ~ 2152.6 MHz |
| **Maximum Output Power to Antenna** | **WCDMA:**<br>Band V: 23.63 dBm<br>Band II: 23.34 dBm<br>Band IV: 23.46 dBm |
| **Type of Modulation** | WCDMA: BPSK (Uplink)<br>HSDPA: 64QAM (Downlink)<br>HSUPA: QPSK (Uplink) |

## 1.3 Modification of EUT

No modifications are made to the EUT during all test items.

## 1.4 Testing Location

| | |
|---|---|
| **Test Site** | SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory |
| **Test Site Location** | No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan |
| **Test Site No.** | **Sporton Site No.** |
| | TH05-HY |
| **Test Engineer** | Jacky Wang |
| **Temperature** | 23~25℃ |
| **Relative Humidity** | 52~55% |

**Note:** The test site complies with ANSI C63.4 2014 requirement.

| | |
|---|---|
| **Test Site** | SPORTON INTERNATIONAL INC. EMC & Wireless Communications Laboratory |
| **Test Site Location** | No.58, Huaya 1st Rd., Guishan Dist., Taoyuan City, Taiwan |
| **Test Site No.** | **Sporton Site No.** |
| | 03CH13HY |
| **Test Engineer** | JC Liang and Wilson Wu |
| **Temperature** | 21.5~23.5℃ |
| **Relative Humidity** | 46.9~49.5% |

**Note:** The test site complies with ANSI C63.4 2014 requirement.

FCC Designation No.: TW1190 and TW0007

## 1.5 Applicable Standards

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

- ANSI C63.26-2015
- ANSI / TIA-603-E
- 47 CFR Part 2, 22(H), 24(E), 27(L)
- FCC KDB 971168 D01 Power Meas. License Digital Systems v03r01
- FCC KDB 412172 D01 Determining ERP and EIRP v01r01

**Remark:** All test items were verified and recorded according to the standards and without any deviation during the test.

# 2 Test Configuration of Equipment Under Test

## 2.1 Test Mode

Antenna port conducted and radiated test items were performed according to KDB 971168 D01 Power Meas. License Digital Systems v03r01 with maximum output power.

For radiated measurement, pre-scanned in three orthogonal panels, X, Y, Z. The worst cases (Y Plane for AWS Band) were recorded in this report.

Radiated emissions were investigated as following frequency range:

1. 30 MHz to 9000 MHz for WCDMA Band V
2. 30 MHz to 18000 MHz for WCDMA Band IV
3. 30 MHz to 19100 MHz for WCDMA Band II

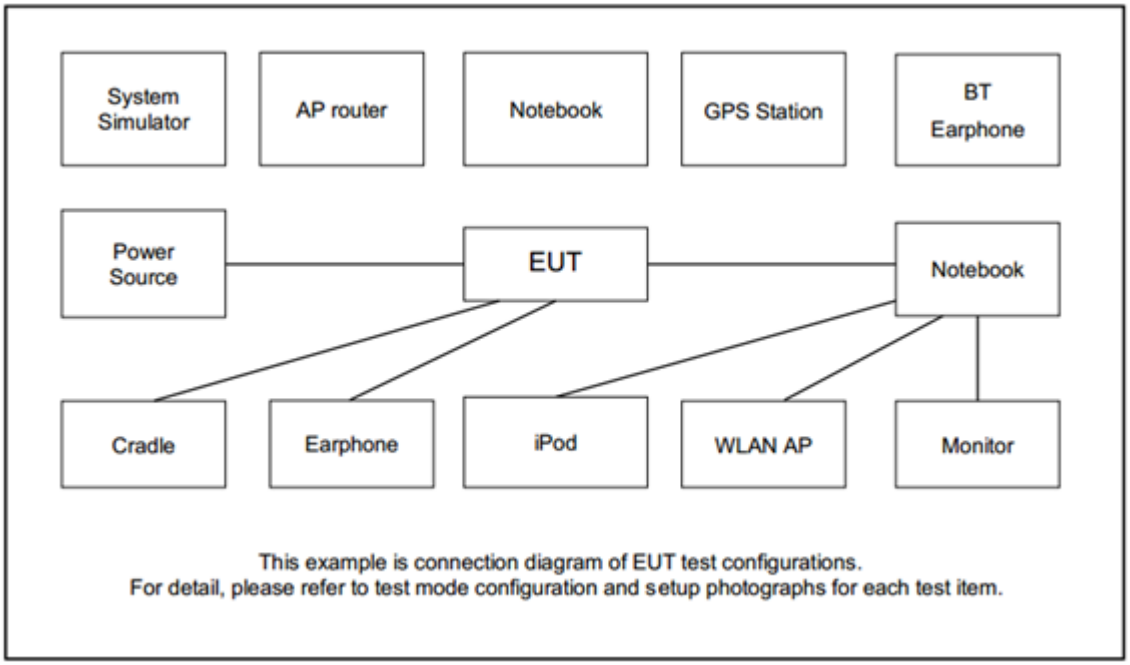
All modes and data rates and positions were investigated.

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

| Test Modes | |
|---|---|
| **Band** | **Radiated TCs** |
| **WCDMA Band IV** | ■ RMC 12.2Kbps Link |

**Remark:** All the radiated test cases were performed with Adapter 4 and Sample 1.

## 2.2 Connection Diagram of Test System



## 2.3 Support Unit used in test configuration

| Item | Equipment | Trade Name | Model No. | FCC ID | Data Cable | Power Cord |
|---|---|---|---|---|---|---|
| 1. | System Simulator | R&S | CMU 200 | N/A | N/A | Unshielded, 1.8 m |
| 2. | Earphone | zyia | NA | N/A | Unshielded, 1.2m | N/A |

## 2.4 Frequency List of Low/Middle/High Channels

| Frequency List | | | | |
|---|---|---|---|---|
| **Band** | **Channel/Frequency(MHz)** | **Lowest** | **Middle** | **Highest** |
| WCDMA Band V | Channel | 4132 | 4182 | 4233 |
| | Frequency | 826.4 | 836.4 | 846.6 |
| WCDMA Band II | Channel | 9262 | 9400 | 9538 |
| | Frequency | 1852.4 | 1880.0 | 1907.6 |
| WCDMA Band IV | Channel | 1312 | 1413 | 1513 |
| | Frequency | 1712.4 | 1732.6 | 1752.6 |

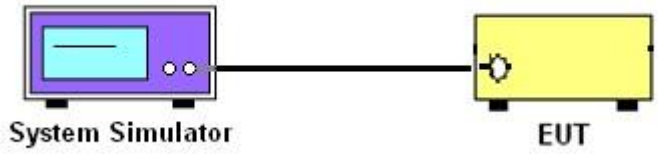
# 3 Conducted Test Result

## 3.1 Measuring Instruments

See list of measuring instruments of this test report.

### 3.1.1 Test Setup

### 3.1.2 Conducted Output Power




### 3.1.3 Test Result of Conducted Test

Please refer to Appendix A.

# 3.2 Conducted Output Power and ERP/EIRP

## 3.2.1 Description of the Conducted Output Power and ERP/EIRP

A system simulator was used to establish communication with the EUT. Its parameters were set to enforce EUT transmitting at the maximum power. The measured power in the radio frequency on the transmitter output terminals shall be reported.

The ERP of mobile transmitters must not exceed 7 Watts for WCDMA Band V

The EIRP of mobile transmitters must not exceed 2 Watts for WCDMA Band II

The EIRP of mobile transmitters must not exceed 1 Watts for WCDMA Band IV

According to KDB 412172 D01 Power Approach,

EIRP = $P_T + G_T – L_C$, ERP = EIRP -2.15, where

$P_T$ = transmitter output power in dBm

$G_T$ = gain of the transmitting antenna in dBi

$L_C$ = signal attenuation in the connecting cable between the transmitter and antenna in dB

## 3.2.2 Test Procedures

1. The transmitter output port was connected to the system simulator.
2. Set EUT at maximum power through system simulator.
3. Select lowest, middle, and highest channels for each band and different modulation.
4. Measure the maximum burst average power for GSM and maximum average power for other modulation signal.

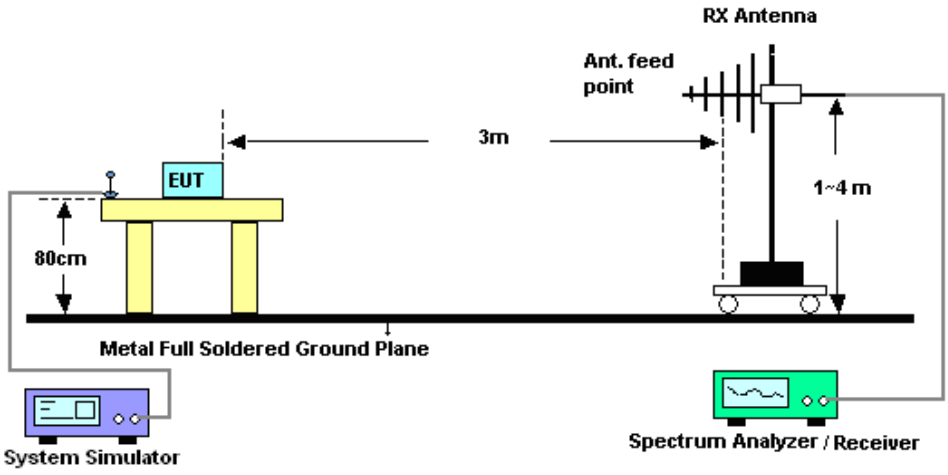
# 4 Radiated Test Items

## 4.1 Measuring Instruments

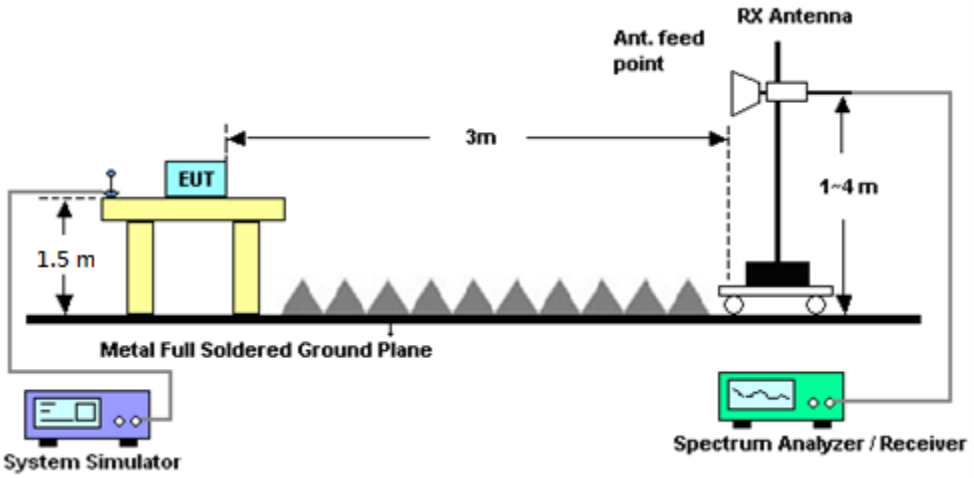
See list of measuring instruments of this test report.

## 4.2 Test Setup

**For radiated test from 30MHz to 1GHz**




**For radiated test above 1GHz**




## 4.3 Test Result of Radiated Test

Please refer to Appendix B.

# 4.4 Field Strength of Spurious Radiation Measurement

## 4.4.1 Description of Field Strength of Spurious Radiated Measurement

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least 43 + 10 log (P) dB. The spectrum is scanned from 30 MHz up to a frequency including its 10th harmonic.

## 4.4.2 Test Procedures

The testing follows FCC KDB 971168 D01 v03r01 Section 7 and ANSI / TIA-603-E Section 2.2.12.

1. The EUT was placed on a rotatable wooden table 0.8 meters for frequency below 1GHz and 1.5 meter for frequency above 1GHz above the ground.
2. The EUT was set 3 meters from the receiving antenna, which was mounted on the antenna tower.
3. The table was rotated 360 degrees to determine the position of the highest spurious emission.
4. The height of the receiving antenna is varied between one meter and four meters to search for the maximum spurious emission for both horizontal and vertical polarizations.
5. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking record of maximum spurious emission.
6. A horn antenna was substituted in place of the EUT and was driven by a signal generator.
7. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
8. Taking the record of output power at antenna port.
9. Repeat step 7 to step 8 for another polarization.
10. EIRP (dBm) = S.G. Power – Tx Cable Loss + Tx Antenna Gain
11. ERP (dBm) = EIRP - 2.15
12. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
13. The limit line is derived from 43 + 10log(P) dB below the transmitter power P(Watts)

# 5 List of Measuring Equipment

| Instrument | Manufacturer | Model No. | Serial No. | Characteristics | Calibration Date | Test Date | Due Date | Remark |
|---|---|---|---|---|---|---|---|---|
| LTE Base Station | Anritsu | MT8820C | 6201107509 | - | Jul. 03, 2019 | Nov. 04, 2019 | Jul. 02, 2020 | Conducted (TH05-HY) |
| Bilog Antenna | TESEQ | CBL 6111D & 00800N1D01N-06 | 40103 & 07 | 30MHz~1GHz | Apr. 30, 2019 | Nov. 03, 2019~ Nov. 19, 2019 | Apr. 29, 2020 | Radiation (03CH13-HY) |
| Bilog Antenna | TESEQ | CBL 6111D&00802N1D01N-06 | 54682 & AT-N0603 | 30MHz~1GHz | Sep. 26, 2019 | Nov. 03, 2019~ Nov. 19, 2019 | Sep. 25, 2020 | Radiation (03CH13-HY) |
| Horn Antenna | SCHWARZBECK | BBHA 9120 D | 9120D-1241 | 1GHz~18GHz | Jul. 02, 2019 | Nov. 03, 2019~ Nov. 19, 2019 | Jul. 01, 2020 | Radiation (03CH13-HY) |
| Horn Antenna | SCHWARZBECK | BBHA 9120 D | 9120D-1212 | 1GHz~18GHz | May 14, 2019 | Nov. 03, 2019~ Nov. 19, 2019 | May 13, 2020 | Radiation (03CH13-HY) |
| SHF-EHF Horn Antenna | SCHWARZBECK | BBHA 9170 | BBHA9170576 | 18GHz~40GHz | May 14, 2019 | Nov. 03, 2019~ Nov. 19, 2019 | May 13, 2020 | Radiation (03CH13-HY) |
| SHF-EHF Horn Antenna | SCHWARZBECK | BBHA 9170 | BBHA9170584 | 18GHz~40GHz | Dec. 05, 2018 | Nov. 03, 2019~ Nov. 19, 2019 | Dec. 04, 2019 | Radiation (03CH13-HY) |
| Amplifier | SONOMA | 310N | 187282 | 9kHz~1GHz | Dec. 18, 2018 | Nov. 03, 2019~ Nov. 19, 2019 | Dec. 17, 2019 | Radiation (03CH13-HY) |
| Preamplifier | MITEQ | AMF-7D-00101800-30-10P | 1590074 | 1GHz~18GHz | May 20, 2019 | Nov. 03, 2019~ Nov. 19, 2019 | May 19, 2020 | Radiation (03CH13-HY) |
| Preamplifier | EMEC | EM18G40G | 060715 | 18GHz~40GHz | Dec. 06, 2018 | Nov. 03, 2019~ Nov. 19, 2019 | Dec. 05, 2019 | Radiation (03CH13-HY) |
| Preamplifier | Agilent | 8449B | 3008A02375 | 1GHz~26.5GHz | May 27, 2019 | Nov. 03, 2019~ Nov. 19, 2019 | May 26, 2020 | Radiation (03CH13-HY) |
| Spectrum Analyzer | Keysight | N9010A | MY55370526 | 10Hz~44GHz | Mar. 19, 2019 | Nov. 03, 2019~ Nov. 19, 2019 | Mar. 18, 2020 | Radiation (03CH13-HY) |
| Controller | EMEC | EM1000 | N/A | Control Turn table & Ant Mast | N/A | Nov. 03, 2019~ Nov. 19, 2019 | N/A | Radiation (03CH13-HY) |
| Antenna Mast | EMEC | AM-BS-4500-B | N/A | 1m~4m | N/A | Nov. 03, 2019~ Nov. 19, 2019 | N/A | Radiation (03CH13-HY) |
| Turn Table | EMEC | TT2000 | N/A | 0~360 Degree | N/A | Nov. 03, 2019~ Nov. 19, 2019 | N/A | Radiation (03CH13-HY) |
| Software | Audix | E3 6.2009-8-24 | RK-000992 | N/A | N/A | Nov. 03, 2019~ Nov. 19, 2019 | N/A | Radiation (03CH13-HY) |
| Hygrometer | TECPEL | DTM-303B | TP157151 | N/A | Jun. 17, 2019 | Nov. 03, 2019~ Nov. 19, 2019 | Jun. 16, 2020 | Radiation (03CH13-HY) |
| Signal Generator | Rohde & Schwarz | SMF100A | 101107 | 100kHz~40GHz | Aug. 27, 2019 | Nov. 03, 2019~ Nov. 19, 2019 | Aug. 26, 2020 | Radiation (03CH13-HY) |
| RF Cable | HUBER + SUHNER | SF102/2*11SK252 | MY4278/2 | 9kHz~40GHz | May 16, 2019 | Nov. 03, 2019~ Nov. 19, 2019 | May 15, 2020 | Radiation (03CH13-HY) |
| RF Cable | HUBER + SUHNER | SUCOFLEX 104 | MY24961/4 | 30M-18G | Feb. 13, 2019 | Nov. 03, 2019~ Nov. 19, 2019 | Feb. 12, 2020 | Radiation (03CH13-HY) |
| RF Cable | HUBER + SUHNER | SUCOFLEX 102 | MY2859/2 | 30M~40GHz | Mar. 13, 2019 | Nov. 03, 2019~ Nov. 19, 2019 | Mar. 12, 2020 | Radiation (03CH13-HY) |
| Filter | Wainwright | WHKX12-2700-3000-18000-60SS | SN2 | 3GHz High Pass Filter | Jul. 14, 2019 | Nov. 03, 2019~ Nov. 19, 2019 | Jul. 13, 2020 | Radiation (03CH13-HY) |
| Filter | Wainwright | WHKX12-1080-1200-15000-60SS | SN3 | 1.2GHz High Pass Filter | Jul. 03, 2019 | Nov. 03, 2019~ Nov. 19, 2019 | Jul. 02, 2020 | Radiation (03CH13-HY) |

# 6 Uncertainty of Evaluation

**Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)**

| | |
|---|---|
| **Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))** | **3.21** |

**Uncertainty of Radiated Emission Measurement (1 GHz ~ 18 GHz)**

| | |
|---|---|
| **Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))** | **3.24** |

**Uncertainty of Radiated Emission Measurement (18 GHz ~ 40 GHz)**

| | |
|---|---|
| **Measuring Uncertainty for a Level of Confidence of 95% (U = 2Uc(y))** | **3.99** |

# Appendix A. Test Results of Conducted Test

## Conducted Output Power(Average power)

| Conducted Power (*Unit: dBm) | | | | | | |
|---|---|---|---|---|---|---|
| Band | WCDMA Band V | | | WCDMA Band II | | |
| Channel | 4132 | 4182 | 4233 | 9262 | 9400 | 9538 |
| Frequency | 826.4 | 836.4 | 846.6 | 1852.4 | 1880 | 1907.6 |
| RMC 12.2K | 23.28 | **23.63** | 23.02 | 23.20 | **23.34** | 22.99 |
| HSDPA Subtest-1 | 22.46 | 22.71 | 21.96 | 23.17 | 23.33 | 22.95 |
| HSDPA Subtest-2 | 22.41 | 22.72 | 21.97 | 22.21 | 22.31 | 21.94 |
| HSDPA Subtest-3 | 21.94 | 22.44 | 21.42 | 21.73 | 21.82 | 21.39 |
| HSDPA Subtest-4 | 21.70 | 22.49 | 21.15 | 21.51 | 21.49 | 21.16 |
| HSUPA Subtest-1 | 21.85 | 22.14 | 21.49 | 21.69 | 21.87 | 21.47 |
| HSUPA Subtest-2 | 20.17 | 20.94 | 19.67 | 19.95 | 20.11 | 19.63 |
| HSUPA Subtest-3 | 20.91 | 21.69 | 20.45 | 20.66 | 20.82 | 20.35 |
| HSUPA Subtest-4 | 20.42 | 20.95 | 19.95 | 20.13 | 20.29 | 19.85 |
| HSUPA Subtest-5 | 22.40 | 22.10 | 21.50 | 22.20 | 22.30 | 21.90 |

| Conducted Power (*Unit: dBm) | | | |
|---|---|---|---|
| Band | WCDMA Band IV | | |
| Channel | 1312 | 1413 | 1513 |
| Frequency | 1712.4 | 1732.6 | 1752.6 |
| RMC 12.2K | 23.21 | **23.46** | 23.45 |
| HSDPA Subtest-1 | 22.25 | 22.46 | 22.41 |
| HSDPA Subtest-2 | 22.30 | 22.49 | 22.42 |
| HSDPA Subtest-3 | 21.81 | 21.91 | 21.16 |
| HSDPA Subtest-4 | 21.57 | 21.71 | 21.65 |
| HSUPA Subtest-1 | 21.66 | 21.90 | 21.99 |
| HSUPA Subtest-2 | 19.96 | 20.23 | 20.26 |
| HSUPA Subtest-3 | 20.66 | 20.92 | 20.95 |
| HSUPA Subtest-4 | 20.19 | 20.41 | 20.33 |
| HSUPA Subtest-5 | 22.30 | 22.50 | 22.31 |

# Appendix B. Test Results of ERP/EIRP and Radiated Test

## ERP/EIRP

| Channel | Mode | Conducted | | ERP | |
|---|---|---|---|---|---|
| | | Power (dBm) | Power (Watts) | ERP(dBm) | ERP(W) |
| Lowest | WCDMA Band V | 23.28 | 0.2128 | 22.30 | 0.1698 |
| Middle | RMC 12.2Kbps | 23.63 | 0.2307 | 22.65 | 0.1841 |
| Highest | (GT - LC = 1.17 dB) | 23.02 | 0.2004 | 22.04 | 0.1600 |
| Limit | ERP < 7W | Result | | PASS | |

| Channel | Mode | Conducted | | EIRP | |
|---|---|---|---|---|---|
| | | Power (dBm) | Power (Watts) | EIRP(dBm) | EIRP(W) |
| Lowest | WCDMA Band II | 23.20 | 0.2089 | 24.64 | 0.2911 |
| Middle | RMC 12.2Kbps | 23.34 | 0.2158 | 24.78 | 0.3006 |
| Highest | (GT - LC = 1.44 dB) | 22.99 | 0.1991 | 24.43 | 0.2773 |
| Limit | EIRP < 2W | Result | | PASS | |

| Channel | Mode | Conducted | | EIRP | |
|---|---|---|---|---|---|
| | | Power (dBm) | Power (Watts) | EIRP(dBm) | EIRP(W) |
| Lowest | WCDMA Band IV | 23.21 | 0.2094 | 24.31 | 0.2698 |
| Middle | RMC 12.2Kbps | 23.46 | 0.2218 | 24.56 | 0.2858 |
| Highest | (GT - LC = 1.1 dB) | 23.45 | 0.2213 | 24.55 | 0.2851 |
| Limit | EIRP < 1W | Result | | PASS | |

# Radiated Spurious Emission

## WCDMA 1700

| WCDMA 1700 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Channel | Frequency ( MHz ) | EIRP ( dBm ) | Limit ( dBm ) | Over Limit ( dB ) | SPA Reading (dBm) | S.G. Power ( dBm ) | TX Cable loss ( dB ) | TX Antenna Gain (dBi) | Polarization (H/V) |
| Lowest | 3427 | -55.79 | -13 | -42.79 | -74.89 | -66.16 | 1.81 | 12.18 | H |
| | 5135 | -51.63 | -13 | -38.63 | -75.04 | -61.45 | 2.30 | 12.13 | H |
| | 6850 | -49.17 | -13 | -36.17 | -75.37 | -57.85 | 2.37 | 11.05 | H |
| | | | | | | | | | H |
| | | | | | | | | | H |
| | | | | | | | | | H |
| | 3427 | -53.33 | -13 | -40.33 | -73.05 | -63.70 | 1.81 | 12.18 | V |
| | 5135 | -51.03 | -13 | -38.03 | -75.01 | -60.85 | 2.30 | 12.13 | V |
| | 6850 | -49.10 | -13 | -36.10 | -75.86 | -57.78 | 2.37 | 11.05 | V |
| | | | | | | | | | V |
| | | | | | | | | | V |
| | | | | | | | | | V |
| Middle | 3462 | -56.45 | -13 | -43.45 | -75.88 | -66.90 | 1.84 | 12.29 | H |
| | 5193 | -53.33 | -13 | -40.33 | -76.78 | -63.19 | 2.28 | 12.14 | H |
| | 6927 | -50.27 | -13 | -37.27 | -76.71 | -58.85 | 2.40 | 10.97 | H |
| | | | | | | | | | H |
| | | | | | | | | | H |
| | | | | | | | | | H |
| | 3462 | -55.24 | -13 | -42.24 | -75.2 | -65.69 | 1.84 | 12.29 | V |
| | 5193 | -52.92 | -13 | -39.92 | -76.93 | -62.78 | 2.28 | 12.14 | V |
| | 6927 | -49.77 | -13 | -36.77 | -76.81 | -58.35 | 2.40 | 10.97 | V |
| | | | | | | | | | V |
| | | | | | | | | | V |
| | | | | | | | | | V |
| Highest | 3504 | -55.08 | -13 | -42.08 | -74.88 | -65.61 | 1.87 | 12.40 | H |
| | 5256 | -52.34 | -13 | -39.34 | -75.85 | -62.24 | 2.26 | 12.15 | H |
| | 7011 | -48.74 | -13 | -35.74 | -75.47 | -57.21 | 2.41 | 10.88 | H |
| | | | | | | | | | H |
| | | | | | | | | | H |
| | | | | | | | | | H |
| | 3504 | -54.91 | -13 | -41.91 | -75.16 | -65.44 | 1.87 | 12.40 | V |
| | 5256 | -52.75 | -13 | -39.75 | -76.79 | -62.65 | 2.26 | 12.15 | V |
| | 7011 | -47.57 | -13 | -34.57 | -74.95 | -56.04 | 2.41 | 10.88 | V |
| | | | | | | | | | V |
| | | | | | | | | | V |
| | | | | | | | | | V |

**Remark:** Spurious emissions within 30-1000MHz were found more than 20dB below limit line.