

Report No.: FR641512AN

# FCC Test Report

module

Brand Name : Korenix

Model No. : Industrial 2.4G 802.11n/ 5G 802.11ac Wave1 mPCle

module

FCC ID : SSA-JW1223

Standard : 47 CFR FCC Part 15.407

Frequency : 5150 MHz – 5250 MHz

5725 MHz - 5850 MHz

FCC Classification: UNII

Applicant : Korenix Technology Co., Ltd.

Manufacturer 14F., No.213, Sec. 3, Beixin Rd., Xindian Dist., New Taipei

City 23143, | Taiwan (R.O.C)

Function : ☐ Outdoor; ☐ Indoor; ☐ Fixed P2P

☐ Portable Client

Operate Mode : Client without radar detection; w/o TPC

The product sample received on Apr. 18, 2016 and completely tested on Jun. 16, 2016. We, SPORTON, would like to declare that the tested sample has been evaluated in accordance with the procedures given in ANSI C63.10-2013 and shown compliance with the applicable technical standards.

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

Kevin Liang / Assistant Manager

Testing Laboratory
1190

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**Appendix I. Test Result of AC Power-line Conducted Emissions** 

Appendix A. Test Result of Emission Bandwidth

**Appendix B. Test Result of Maximum Conducted Output Power** 

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**Appendix D. Transmitter Bandedge Emissions** 

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**Appendix F. Frequency Stability** 

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# **Summary of Test Result**

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| Conformance Test Specifications |                     |                                   |          |  |
|---------------------------------|---------------------|-----------------------------------|----------|--|
| Report<br>Clause                | Ref. Std.<br>Clause | Description                       | Result   |  |
| 1.1.2                           | 15.203              | Antenna Requirement               | Complied |  |
| 3.1                             | 15.207              | AC Power-line Conducted Emissions | Complied |  |
| 3.2                             | 15.407(a)           | Emission Bandwidth                | Complied |  |
| 3.3                             | 15.407(a)           | Maximum Conducted Output Power    | Complied |  |
| 3.4                             | 15.407(a)           | Peak Power Spectral Density       | Complied |  |
| 3.5                             | 15.407(b)           | Unwanted Emissions                | Complied |  |
| 3.7                             | 15.407(g)           | Frequency Stability               | Complied |  |

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# **Revision History**

Report No.: FR641512AN

| Report No. | Version | Description             | Issued Date   |
|------------|---------|-------------------------|---------------|
| FR641512AN | Rev. 02 | Initial issue of report | Aug. 31, 2016 |
|            |         |                         |               |
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# 1 General Description

### 1.1 Information

#### 1.1.1 RF General Information

| Band | Mode  | BWch (MHz) | Nss-Min    | Nant |
|------|-------|------------|------------|------|
| 5.2G | 11a   | 20         | 1          | 3    |
| 5.2G | HT20  | 20         | 1,(M16-23) | 3    |
| 5.2G | HT40  | 40         | 1,(M16-23) | 3    |
| 5.2G | VHT20 | 20         | 1,(M0-8)   | 3    |
| 5.2G | VHT40 | 40         | 1,(M0-9)   | 3    |
| 5.2G | VHT80 | 80         | 1,(M0-9)   | 3    |
| 5.8G | 11a   | 20         | 1          | 3    |
| 5.8G | HT20  | 20         | 1,(M16-23) | 3    |
| 5.8G | HT40  | 40         | 1,(M16-23) | 3    |
| 5.8G | VHT20 | 20         | 1,(M0-8)   | 3    |
| 5.8G | VHT40 | 40         | 1,(M0-9)   | 3    |
| 5.8G | VHT80 | 80         | 1,(M0-9)   | 3    |

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#### Note:

- 5.2G is the 5.2GHz Band (5.15-5.25GHz).
- 5.8G is the 5.8GHz Band (5.725-5.850GHz).
- 11a, HT20 and HT40 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM modulation.
- VHT20, VHT40 and VHT80 use a combination of OFDM-BPSK, QPSK, 16QAM, 64QAM, 256QAM modulation.
- BWch is the nominal channel bandwidth.
- Nss-Min is the minimum number of spatial streams.
- Nant is the number of outputs. e.g., 2(2,3) means have 2 outputs for port 2 and port 3. 2 means have 2 outputs for port 1 and port 2.

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### 1.1.2 Antenna Information

|             |             | Antenna Category   |  |  |  |  |  |
|-------------|-------------|--|--|--|--|--|--|
|             | Equ         | Equipment placed on the market without antennas  |  |  |  |  |  |
|             | Inte        | gral antenna (antenna permanently attached)  |  |  |  |  |  |
|             |             | Temporary RF connector provided  |  |  |  |  |  |
|             |             | No temporary RF connector provided Transmit chains bypass antenna and soldered temporary RF connector provided for connected measurement. In case of conducted measurements the transmitter shall be connected to the measuring equipment via a suitable attenuator and correct for all losses in the RF path. |  |  |  |  |  |
| $\boxtimes$ | Exte        | ernal antenna (dedicated antennas)   |  |  |  |  |  |
|             |             | Single power level with corresponding antenna(s).  |  |  |  |  |  |
|             | $\boxtimes$ | Multiple power level and corresponding antenna(s).   |  |  |  |  |  |
|             | $\boxtimes$ | RF connector provided  |  |  |  |  |  |
|             |             | ☐ Unique antenna connector. (e.g., MMCX, U.FL, IPX, and RP-SMA, RP-N type)   |  |  |  |  |  |
|             |             | Standard antenna connector. (e.g., SMA, N, BNC, and TNC type)  |  |  |  |  |  |

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|     | Antenna General Information        |        |   |  |  |  |
|-----|------------------------------------|--------|---|--|--|--|
| No. | No. Ant. Cat. Ant. Type Gain (dBi) |        |   |  |  |  |
| 1   | External                           | dipole | 3 |  |  |  |
| 2   | External                           | dipole | 3 |  |  |  |
| 3   | External                           | dipole | 3 |  |  |  |

# 1.1.3 Type of EUT

|             | Identify EUT  |             |  |  |  |
|-------------|---|-------------|--|--|--|
| EU          | Γ Serial Number   | N/A         |  |  |  |
| Pre         | sentation of Equipment  |             |  |  |  |
|             |   | Type of EUT |  |  |  |
| $\boxtimes$ | Stand-alone   |             |  |  |  |
|             | Combined (EUT where the radio part is fully integrated within another device) |             |  |  |  |
|             | Combined Equipment - Brand Name / Model No.:                                  |             |  |  |  |
|             | Plug-in radio (EUT intended for a variety of host systems)                    |             |  |  |  |
|             | Host System - Brand Name / Model No.:   |             |  |  |  |
|             | Other:  |             |  |  |  |

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# 1.1.4 Mode Test Duty Cycle

|             | Operated Mode for Worst Duty Cycle                                |      |  |  |  |  |
|-------------|---|------|--|--|--|--|
| $\boxtimes$ | Operated test mode for worst duty cycle                           |      |  |  |  |  |
|             | Test Signal Duty Cycle (x)  Power Duty Factor [dB] – (10 log 1/x) |      |  |  |  |  |
| $\boxtimes$ | 97.93% - IEEE 802.11a   | 0.09 |  |  |  |  |
| $\boxtimes$ | 97.78% - IEEE 802.11n (HT20)                                      | 0.10 |  |  |  |  |
| $\boxtimes$ | 97.10% - IEEE 802.11n (HT40)                                      | 0.13 |  |  |  |  |
|             | 98.53% - IEEE 802.11n (VHT20)                                     | 0.06 |  |  |  |  |
| $\boxtimes$ | 97.10% - IEEE 802.11n (VHT40)                                     | 0.13 |  |  |  |  |
| $\boxtimes$ | 94.59% - IEEE 802.11n (VHT80)                                     | 0.24 |  |  |  |  |

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## 1.1.5 EUT Operational Condition

| Supply Voltage    | ☐ AC mains          | □ DC          |                |
|-------------------|---------------------|---------------|----------------|
| Type of DC Source | External AC adapter |               | ☐ Battery      |
| Test Voltage      |                     |               |                |
| Test Climatic     | ⊠ Tnom (20°C)       | ☐ Tmax (70°C) | ☐ Tmin (-40°C) |

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### 1.2 Testing Applied Standards

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

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- 47 CFR FCC Part 15
- ANSI C63.10-2013
- FCC KDB 789033 D02 v01r02
- FCC-16-24-UNII
- FCC KDB 662911 D01 v02r01
- FCC KDB 644545 D03 v01

## 1.3 Testing Location Information

|                | Testing Location   |     |   |                |               |                  |            |
|----------------|--|-----|---|----------------|---------------|------------------|------------|
|                | HWA YA  ADD  No. 52, Hwa Ya 1st Rd., Hwa Ya Technology Park, Kwei-Shan District, Tao Yuan City, Taiwan, R.O.C. |     |   |                |               |                  |            |
|                |  | TEL | : | 886-3-327-3456 | FAX : 886     | -3-327-0973      |            |
| Test Condition |  | l   |   | Test Site No.  | Test Engineer | Test Environment | Test Date  |
| AC Conduction  |  |     |   | CO04-HY        | Ryan          | 24°C / 57%       | 2016/06/16 |
|                | RF Conducted   |     |   | TH01-HY        | Ryan          | 23.5°C / 66%     | 2016/06/14 |
| Radiated       |  |     |   | 03CH09-HY      | Thor          | 24°C / 56%       | 2016/06/14 |

Test site registered number [ 553509 ] with FCC.

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1.4 Measurement Uncertainty

ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report. The measurement uncertainties given below are based on a 95% confidence level (based on a coverage factor (k=2)

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| Measurement Uncertainty           |               |         |  |  |
|-----------------------------------|---------------|---------|--|--|
| Test Item                         | Uncertainty   |         |  |  |
| AC power-line conducted emissions |               | ±2.3 dB |  |  |
| Emission bandwidth, 6dB bandwidth |               | ±0.6 %  |  |  |
| RF output power, conducted        |               | ±0.1 dB |  |  |
| Power density, conducted          |               | ±0.6 dB |  |  |
| Unwanted emissions, conducted     | 9 – 150 kHz   | ±0.4 dB |  |  |
|                                   | 0.15 – 30 MHz | ±0.4 dB |  |  |
|                                   | 30 – 1000 MHz | ±0.6 dB |  |  |
|                                   | 1 – 18 GHz    | ±0.5 dB |  |  |
|                                   | 18 – 40 GHz   | ±0.5 dB |  |  |
|                                   | 40 – 200 GHz  | N/A     |  |  |
| All emissions, radiated           | 9 – 150 kHz   | ±2.5 dB |  |  |
|                                   | 0.15 – 30 MHz | ±2.3 dB |  |  |
|                                   | 30 – 1000 MHz | ±2.6 dB |  |  |
|                                   | 1 – 18 GHz    | ±3.6 dB |  |  |
|                                   | 18 – 40 GHz   | ±3.8 dB |  |  |
|                                   | 40 – 200 GHz  | N/A     |  |  |
| Temperature                       |               | ±0.8 °C |  |  |
| Humidity                          |               | ±5 %    |  |  |
| DC and low frequency voltages     |               | ±0.9%   |  |  |
| Time                              |               | ±1.4 %  |  |  |
| Duty Cycle                        |               | ±0.6 %  |  |  |

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2 Test Configuration of EUT

# 2.1 The Worst Case Modulation Configuration

| Worst Modulation Used for Conformance Testing |                                    |                 |                       |  |  |
|---|------------------------------------|-----------------|-----------------------|--|--|
| <b>Modulation Mode</b>                        | Transmit Chains (N <sub>TX</sub> ) | Data Rate / MCS | Worst Data Rate / MCS |  |  |
| 11a   | 3                                  | 6-54Mbps        | 6 Mbps                |  |  |
| HT20  | 3                                  | MCS 16-23       | MCS 16                |  |  |
| HT40  | 3                                  | MCS 16-23       | MCS 16                |  |  |
| VHT20   | 3                                  | MCS 0-8         | MCS 0                 |  |  |
| VHT40   | 3                                  | MCS 0-9         | MCS 0                 |  |  |
| VHT80   | 3                                  | MCS 0-9         | MCS 0                 |  |  |

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## 2.2 Test Channel Mode

| Test Software Version KorenixArt _V0.7 |
|--|
|--|

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| Band | Mode  | BWch<br>(MHz) | Nss-Min    | Nant | Ch.<br>(MHz) | Range | Power<br>Setting |
|------|-------|---------------|------------|------|--------------|-------|------------------|
| 5.2G | 11a   | 20            | 1          | 3    | 5180         | L     | 16               |
| 5.2G | 11a   | 20            | 1          | 3    | 5200         | М     | 15.5             |
| 5.2G | 11a   | 20            | 1          | 3    | 5240         | Н     | 15.5             |
| 5.2G | HT20  | 20            | 1,(M16-23) | 3    | 5180         | L     | 16               |
| 5.2G | HT20  | 20            | 1,(M16-23) | 3    | 5200         | М     | 16               |
| 5.2G | HT20  | 20            | 1,(M16-23) | 3    | 5240         | Н     | 16               |
| 5.2G | VHT20 | 20            | 1,(M0-8)   | 3    | 5180         | L     | 13.5             |
| 5.2G | VHT20 | 20            | 1,(M0-8)   | 3    | 5200         | М     | 18               |
| 5.2G | VHT20 | 20            | 1,(M0-8)   | 3    | 5240         | Н     | 16               |
| 5.2G | HT40  | 40            | 1,(M16-23) | 3    | 5190         | L     | 16               |
| 5.2G | HT40  | 40            | 1,(M16-23) | 3    | 5230         | Н     | 16               |
| 5.2G | VHT40 | 40            | 1,(M0-9)   | 3    | 5190         | L     | 14               |
| 5.2G | VHT40 | 40            | 1,(M0-9)   | 3    | 5230         | Н     | 18.5             |
| 5.2G | VHT80 | 80            | 1,(M0-9)   | 3    | 5210         | S     | 13.5             |

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| Band | Mode  | BWch<br>(MHz) | Nss-Min    | Nant | Ch.<br>(MHz) | Range | Power<br>Setting |
|------|-------|---------------|------------|------|--------------|-------|------------------|
| 5.8G | 11a   | 20            | 1          | 3    | 5745         | L     | 31.5             |
| 5.8G | 11a   | 20            | 1          | 3    | 5785         | М     | 31.5             |
| 5.8G | 11a   | 20            | 1          | 3    | 5825         | Н     | 31.5             |
| 5.8G | HT20  | 20            | 1,(M16-23) | 3    | 5745         | L     | 31.5             |
| 5.8G | HT20  | 20            | 1,(M16-23) | 3    | 5785         | М     | 31.5             |
| 5.8G | HT20  | 20            | 1,(M16-23) | 3    | 5825         | Н     | 31.5             |
| 5.8G | VHT20 | 20            | 1,(M0-8)   | 3    | 5745         | L     | 31.5             |
| 5.8G | VHT20 | 20            | 1,(M0-8)   | 3    | 5785         | М     | 31.5             |
| 5.8G | VHT20 | 20            | 1,(M0-8)   | 3    | 5825         | Н     | 31.5             |
| 5.8G | HT40  | 40            | 1,(M16-23) | 3    | 5755         | L     | 31.5             |
| 5.8G | HT40  | 40            | 1,(M16-23) | 3    | 5795         | Н     | 31.5             |
| 5.8G | VHT40 | 40            | 1,(M0-9)   | 3    | 5755         | L     | 31.5             |
| 5.8G | VHT40 | 40            | 1,(M0-9)   | 3    | 5795         | Н     | 31.5             |
| 5.8G | VHT80 | 80            | 1,(M0-9)   | 3    | 5775         | S     | 26               |

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**Abbreviation Explanation** 

| Band | Mode  | BWch<br>(MHz) | Nss-Min  | Nant | Ch.<br>(MHz) | Range | Test<br>Cond. | Abbreviation                          |
|------|-------|---------------|----------|------|--------------|-------|---------------|---------------------------------------|
| 5.2G | VHT40 | 40            | 1,(M0-9) | 2    | 5190         | L     | TN,VN         | 5.2G;VHT40;40;1,(M0-9);2;5190;L;TN,VN |
| 5.2G | VHT80 | 80            | 1,(M0-9) | 2    | 5210         | S     | TN,VN         | 5.2G;VHT80;80;1,(M0-9);2;5210;S;TN,VN |

### Note:

• Test range channel consist of L (Low Ch.), M (Middle Ch.), H (High Ch.), S (Single Ch. or Intra- band Ch.) and C (Inter-band Ch.).

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# 2.3 The Worst Case Measurement Configuration

| The Worst Case Mode for Following Conformance Tests |  |  |  |  |
|---|--|--|--|--|
| Tests Item  | AC power-line conducted emissions  |  |  |  |
| Condition   | AC power-line conducted measurement for line and neutral Test Voltage: 120Vac / 60Hz |  |  |  |
| Operating Mode                                      | Operating Mode Description   |  |  |  |
| 1   | Transmit Mode  |  |  |  |

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| Th             | e Worst Case Mode for Following Conformance Tests  |
|----------------|--|
| Tests Item     | Emission Bandwidth, Maximum Conducted Output Power, Peak Power Spectral Density, Frequency Stability |
| Test Condition | Conducted measurement at transmit chains   |

| Th                          | The Worst Case Mode for Following Conformance Tests  |   |                  |  |  |  |
|-----------------------------|--|---|------------------|--|--|--|
| Tests Item                  | Emissions in Restricted From   | Emissions in Restricted Frequency Bands                                 |                  |  |  |  |
| Test Condition              | Radiated measurement If EUT consist of multiple antenna assembly (multiple antenna are used in EUT regardless of spatial multiplexing MIMO configuration), the radiated test should be performed with highest antenna gain of each antenna type. |   |                  |  |  |  |
|                             | ⊠ EUT will be placed in  | ☑ EUT will be placed in fixed position.                                 |                  |  |  |  |
| User Position               | ☐ EUT will be placed in  | EUT will be placed in mobile position and operating multiple positions. |                  |  |  |  |
|                             | EUT will be a hand-held or body-worn battery-powered devices and operating multiple positions.   |   |                  |  |  |  |
| Operating Mode < 1GHz       |  |   |                  |  |  |  |
|                             | X Plane  | Y Plane   | Z Plane          |  |  |  |
| Orthogonal Planes of<br>EUT |  |   |                  |  |  |  |
| Worst Planes of EUT         | V  |   |                  |  |  |  |
| Worst Planes of Ant         |  |   | V                |  |  |  |
| Note 1: Based on 802.11ad   | EIRP power was the wors  | t case. Therefore only 802.   | 11ac was tested. |  |  |  |

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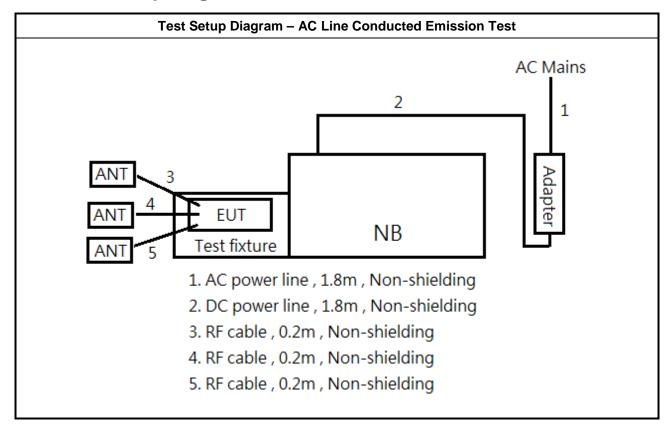
2.4 Support Equipment

|     | Support Equipment - AC Conduction |            |            |        |  |  |
|-----|-----------------------------------|------------|------------|--------|--|--|
| No. | Equipment                         | Brand Name | Model Name | FCC ID |  |  |
| 1   | Notebook                          | DELL       | E5530      | DoC    |  |  |
| 2   | Adapter for NB                    | DELL       | LA65NS2-0  | DoC    |  |  |
| 3   | Test fixture                      | -          | -          | -      |  |  |

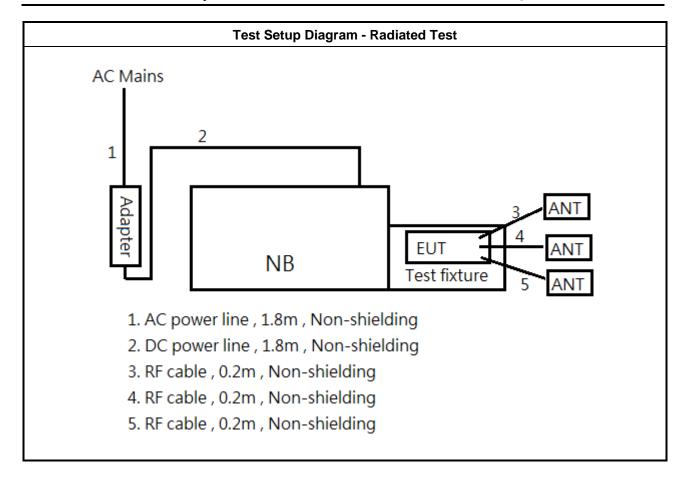
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|     | Support Equipment - Conducted and Radiated Emission |            |            |        |  |  |  |
|-----|---|------------|------------|--------|--|--|--|
| No. | Equipment   | Brand Name | Model Name | FCC ID |  |  |  |
| 1   | Notebook  | DELL       | E6400      | DoC    |  |  |  |
| 2   | Adapter for NB                                      | DELL       | HA65NM130  | DoC    |  |  |  |
| 3   | Test fixture  | -          | -          | -      |  |  |  |

### 2.5 Test Setup Diagram



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3 Transmitter Test Result

### 3.1 AC Power-line Conducted Emissions

### 3.1.1 AC Power-line Conducted Emissions Limit

| AC FOW                   | er-line Conducted Emissions L |           |
|--------------------------|-------------------------------|-----------|
| Frequency Emission (MHz) | Quasi-Peak                    | Average   |
| 0.15-0.5                 | 66 - 56 *                     | 56 - 46 * |
| 0.5-5                    | 56                            | 46        |
| 5-30                     | 60                            | 50        |

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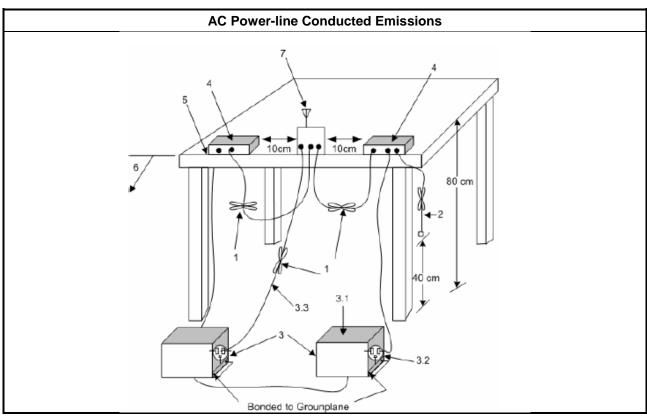
### 3.1.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

### 3.1.3 Test Procedures

|                                      | Test Method                              |
|--------------------------------------|--|
| Refer as ANSI C63.10-2013, clause 6. | 2 for AC power-line conducted emissions. |

### 3.1.4 Test Setup



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### 3.1.5 Test Result of AC Power-line Conducted Emissions

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Refer as Appendix I

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### 3.2 Emission Bandwidth

### 3.2.1 Emission Bandwidth Limit

|             | Emission Bandwidth Limit  |  |  |  |  |  |  |
|-------------|---|--|--|--|--|--|--|
| UN          | JNII Devices  |  |  |  |  |  |  |
| $\boxtimes$ | For the 5.15-5.25 GHz band, N/A   |  |  |  |  |  |  |
|             | For the 5.25-5.35 GHz band, the maximum conducted output power shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz.            |  |  |  |  |  |  |
|             | For the $5.47-5.725$ GHz band, the maximum conducted output power shall not exceed the lesser of $250$ mW or $11$ dBm + $10$ log B, where B is the $26$ dB emission bandwidth in MHz. |  |  |  |  |  |  |
| $\boxtimes$ | For the 5.725-5.85 GHz band, 6 dB emission bandwidth ≥ 500kHz.  |  |  |  |  |  |  |

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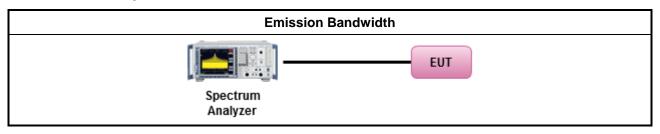
### 3.2.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

### 3.2.3 Test Procedures

|   | Test Method  |  |  |  |  |  |  |  |
|---|--|--|--|--|--|--|--|--|
| - | For the emission bandwidth shall be measured using one of the options below: |  |  |  |  |  |  |  |
|   | Refer as FCC KDB 789033, clause C for EBW and clause D for OBW measurement.  |  |  |  |  |  |  |  |
|   | Refer as ANSI C63.10, clause 6.9.1 for occupied bandwidth testing.           |  |  |  |  |  |  |  |

### 3.2.4 Test Setup



### 3.2.5 Test Result of Emission Bandwidth

Refer as Appendix A

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### 3.3 Maximum Conducted Output Power

### 3.3.1 Maximum Conducted Output Power Limit

#### **Maximum Conducted Output Power Limit**

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#### **UNII Devices**

- For the 5.15-5.25 GHz band:
  - Outdoor AP: the maximum conducted output power ( $P_{Out}$ ) shall not exceed the lesser of 1 W. If  $G_{TX} > 6$  dBi, then  $P_{Out} = 30 (G_{TX} 6)$ . e.i.r.p. at any elevation angle above 30 degrees  $\leq 125$ mW [21dBm]
  - Indoor AP: the maximum conducted output power ( $P_{Out}$ ) shall not exceed the lesser of 1 W. If  $G_{TX} > 6$  dBi, then  $P_{Out} = 30 (G_{TX} 6)$
  - Point-to-point AP: the maximum conducted output power ( $P_{Out}$ ) shall not exceed the lesser of 1 W If  $G_{TX} > 23$  dBi, then  $P_{Out} = 30 (G_{TX} 23)$ .
  - Mobile or Portable Client: the maximum conducted output power ( $P_{Out}$ ) shall not exceed the lesser of 250 mW. If  $G_{TX} > 6$  dBi, then  $P_{Out} = 24 (G_{TX} 6)$ .
- For the 5.25-5.35 GHz band, the maximum conducted output power ( $P_{Out}$ ) shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz. If  $G_{TX}$  > 6 dBi, then  $P_{Out}$  = 24 ( $G_{TX}$  6).
- For the 5.47-5.725 GHz band, the maximum conducted output power (P<sub>Out</sub>) shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in MHz. If G<sub>TX</sub> > 6 dBi, then P<sub>Out</sub> = 24 − (G<sub>TX</sub> − 6).
- For the 5.725-5.85 GHz band:
  - Point-to-multipoint systems (P2M): the maximum conducted output power ( $P_{Out}$ ) shall not exceed the lesser of 1 W. If  $G_{TX} > 6$  dBi, then  $P_{Out} = 30 (G_{TX} 6)$ .
  - Point-to-point systems (P2P): the maximum conducted output power (P<sub>Out</sub>) shall not exceed the lesser of 1 W.

Pout = maximum conducted output power in dBm,

G<sub>TX</sub> = the maximum transmitting antenna directional gain in dBi.

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### 3.3.2 Measuring Instruments

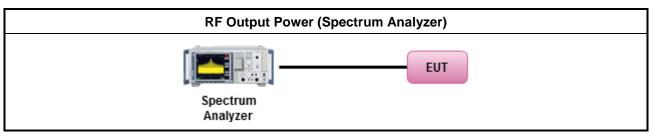
Refer a test equipment and calibration data table in this test report.

#### 3.3.3 Test Procedures

|   | Test Method  |
|---|--|
| • | Maximum Conducted Output Power   |
|   | [duty cycle ≥ 98% or external video / power trigger]   |
|   | Refer as FCC KDB 789033, clause E Method SA-1 (spectral trace averaging).  |
|   | Refer as FCC KDB 789033, clause E Method SA-1 Alt. (RMS detection with slow sweep speed)   |
|   | duty cycle < 98% and average over on/off periods with duty factor  |
|   | Refer as FCC KDB 789033, clause E Method SA-2 (spectral trace averaging).  |
|   | Refer as FCC KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)   |
|   | Wideband RF power meter and average over on/off periods with duty factor   |
|   | Refer as FCC KDB 789033, clause E Method PM (using an RF average power meter).   |
| • | For conducted measurement.   |
|   | ■ If the EUT supports multiple transmit chains using options given below: Refer as FCC KDB 662911, In-band power measurements. Using the measure-and-sum approach, measured all transmit ports individually. Sum the power (in linear power units e.g., mW) of all ports for each individual sample and save them. |
|   | If multiple transmit chains, EIRP calculation could be following as methods: P <sub>total</sub> = P <sub>1</sub> + P <sub>2</sub> + + P <sub>n</sub> (calculated in linear unit [mW] and transfer to log unit [dBm]) EIRP <sub>total</sub> = P <sub>total</sub> + DG   |

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### 3.3.4 Test Setup



### 3.3.5 Test Result of Maximum Conducted Output Power

Refer as Appendix B

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### 3.4 Peak Power Spectral Density

### 3.4.1 Peak Power Spectral Density Limit

#### **Peak Power Spectral Density Limit**

#### **UNII Devices**

- For the 5.15-5.25 GHz band:
  - Outdoor AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If  $G_{TX} > 6$  dBi, then  $P_{Out} = 17 (G_{TX} 6)$ .

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- Indoor AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If  $G_{TX} > 6$  dBi, then  $P_{Out} = 17 (G_{TX} 6)$ .
- Point-to-point AP: the peak power spectral density (PPSD) shall not exceed the lesser of 17dBm/MHz. If  $G_{TX} > 23$  dBi, then  $P_{Out} = 17 (G_{TX} 23)$ .
- Mobile or Portable Client: the peak power spectral density (PPSD)  $\leq$  11 dBm/MHz. If  $G_{TX} > 6$  dBi, then PPSD=  $11 (G_{TX} 6)$ ..
- For the 5.25-5.35 GHz band, the peak power spectral density (PPSD)  $\leq$  11 dBm/MHz. If  $G_{TX} > 6$  dBi, then PPSD= 11 ( $G_{TX} 6$ ).
- For the 5.47-5.725 GHz band, the peak power spectral density (PPSD)  $\leq$  11 dBm/MHz. If  $G_{TX} > 6$  dBi, then PPSD= 11 ( $G_{TX} 6$ ).
- For the 5.725-5.85 GHz band:
  - Point-to-multipoint systems (P2M): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz. If G<sub>TX</sub> > 6 dBi, then PPSD= 30 (G<sub>TX</sub> 6).
  - Point-to-point systems (P2P): the peak power spectral density (PPSD) ≤ 30 dBm/500kHz.

**PPSD** = peak power spectral density that he same method as used to determine the conducted output power shall be used to determine the power spectral density. And power spectral density in dBm/MHz  $G_{TX}$  = the maximum transmitting antenna directional gain in dBi.

#### 3.4.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

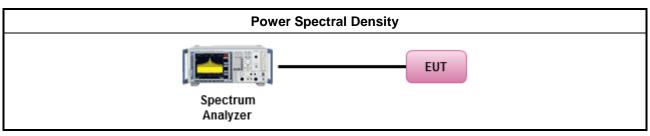
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### 3.4.3 Test Procedures

|   |   | Test Method  |  |  |  |  |  |  |  |
|---|---|--|--|--|--|--|--|--|--|
| • | Peak power spectral density procedures that the same method as used to determine the conducted output power shall be used to determine the peak power spectral density and use the peak search function on the spectrum analyzer to find the peak of the spectrum. For the peak power spectral density shall be measured using below options: |  |  |  |  |  |  |  |  |
|   | Refer as FCC KDB 789033, F)5) power spectral density can be measured using a bandwidths < 1 MHz provided that the results are integrated over 1 MHz bandwidth   |  |  |  |  |  |  |  |  |
|   | [duty   | y cycle ≥ 98% or external video / power trigger]   |  |  |  |  |  |  |  |
|   | $\boxtimes$   | Refer as FCC KDB 789033, clause E Method SA-1 (spectral trace averaging).  |  |  |  |  |  |  |  |
|   |   | Refer as FCC KDB 789033, clause E Method SA-1 Alt. (RMS detection with slow sweep speed)   |  |  |  |  |  |  |  |
|   | duty  | cycle < 98% and average over on/off periods with duty factor   |  |  |  |  |  |  |  |
|   | $\boxtimes$   | Refer as FCC KDB 789033, clause E Method SA-2 (spectral trace averaging).  |  |  |  |  |  |  |  |
|   |   | Refer as FCC KDB 789033, clause E Method SA-2 Alt. (RMS detection with slow sweep speed)   |  |  |  |  |  |  |  |
| • | For   | conducted measurement.   |  |  |  |  |  |  |  |
|   | •   | If the EUT supports multiple transmit chains using options given below:  |  |  |  |  |  |  |  |
|   |   | Option 1: Measure and sum the spectra across the outputs. Refer as FCC KDB 662911, In-band power spectral density (PSD). Sample all transmit ports simultaneously using a spectrum analyzer for each transmit port. Where the trace bin-by-bin of each transmit port summing can be performed. (i.e., in the first spectral bin of output 1 is summed with that in the first spectral bin of output 2 and that from the first spectral bin of output 3, and so on up to the N <sub>TX</sub> output to obtain the value for the first frequency bin of the summed spectrum.). Add up the amplitude (power) values for the different transmit chains and use this as the new data trace. |  |  |  |  |  |  |  |
|   |   | Option 2: Measure and sum spectral maxima across the outputs. With this technique, spectra are measured at each output of the device at the required resolution bandwidth. The maximum value (peak) of each spectrum is determined. These maximum values are then summed mathematically in linear power units across the outputs. These operations shall be performed separately over frequency spans that have different out-of-band or spurious emission limits,   |  |  |  |  |  |  |  |
|   |   | Option 3: Measure and add 10 log(N) dB, where N is the number of transmit chains. Refer as FCC KDB 662911, In-band power spectral density (PSD). Performed at each transmit chains and each transmit chains shall be compared with the limit have been reduced with 10 log(N). Or each transmit chains shall be add 10 log(N) to compared with the limit.  |  |  |  |  |  |  |  |
|   | •   | If multiple transmit chains, EIRP PPSD calculation could be following as methods: $ PPSD_{total} = PPSD_1 + PPSD_2 + + PPSD_n \\ (calculated in linear unit [mW] and transfer to log unit [dBm]) \\ EIRP_{total} = PPSD_{total} + DG $   |  |  |  |  |  |  |  |

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### 3.4.4 Test Setup



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### 3.4.5 Test Result of Peak Power Spectral Density

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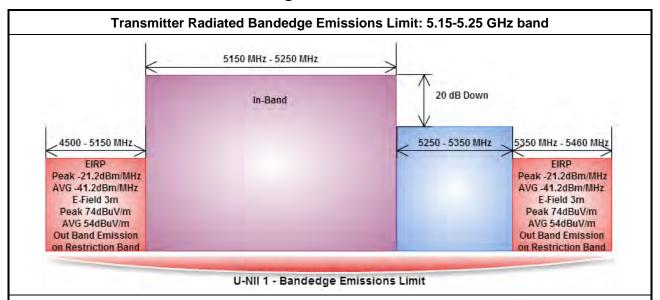
Refer as Appendix C

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3.5 Transmitter Bandedge Emissions

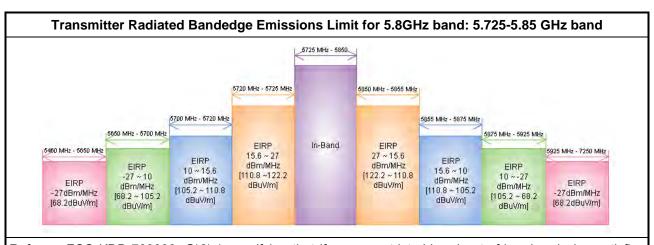
#### 3.5.1 Transmitter Radiated Bandedge Emissions Limit



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Refer as FCC KDB 789033, G)2)c) specifying that if a non-restricted-band out-of-band emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm or -17 dBm peak emission limit. Reason for change: to ensure that emission requirements in the non-restricted bands are not more stringent than those in the restricted bands.

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Refer as FCC KDB 789033, G)2)c) specifying that if a non-restricted-band out-of-band emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the FCC 16-24 peak emission limit. Reason for change: to ensure that emission requirements in the non-restricted bands are not more stringent than those in the restricted bands.

### 3.5.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

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### 3.5.3 Test Procedures

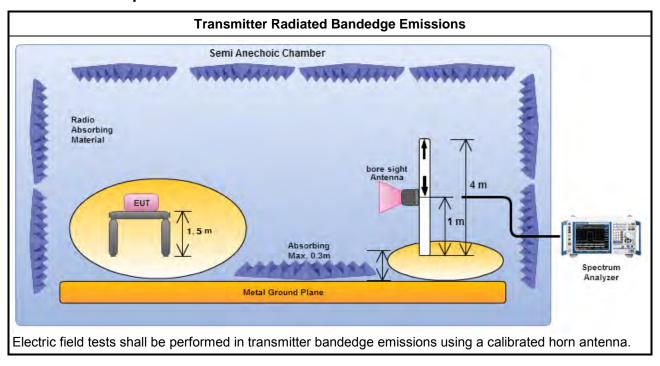
|             |                         | Test Method  |  |  |  |  |  |  |
|-------------|-------------------------|--|--|--|--|--|--|--|
| $\boxtimes$ | The                     | average emission levels shall be measured in [duty cycle ≥ 98 or duty factor].   |  |  |  |  |  |  |
| $\boxtimes$ |                         | er as ANSI C63.10, clause 6.10 bandedge testing shall be performed at the lowest frequency and highest frequency channel within the allowed operating band.  |  |  |  |  |  |  |
|             | char<br>will d<br>at lo | JT operate in adjacent contiguous bands, bandedge testing performed at the lowest frequency inel at lower-band and highest frequency channel at higher-band. Transmitter in-band emissions consist of adjacent contiguous bands (e.g., IEEE 802.11ac VHT160 The lowest frequency channel wer-band and highest frequency channel at higher-band in-band emissions will consist of two cent contiguous bands.) |  |  |  |  |  |  |
|             |                         | Operating in 5.15-5.25 GHz band (lower-band) and 5.25-5.35 GHz band (higher-band).   |  |  |  |  |  |  |
|             |                         | Operating in 5.47-5.725 GHz band (lower-band) and 5.725-5.85 GHz band (higher-band).   |  |  |  |  |  |  |
|             |                         | IT operate in individual non-contiguous bands, bandedge testing performed at the lowest frequency inel and highest frequency channel within lower-band and higher-band. (e.g., (e.g., IEEE 802.11ac 160)   |  |  |  |  |  |  |
|             |                         | Operating in 5.25-5.35 GHz band (lower-band) and 5.47-5.725 GHz band (higher-band).  |  |  |  |  |  |  |
|             |                         | Operating in 5.15-5.25 GHz band (lower-band) and 5.725-5.85 GHz band (higher-band).  |  |  |  |  |  |  |
| $\boxtimes$ | For t                   | he transmitter unwanted emissions shall be measured using following options below:   |  |  |  |  |  |  |
|             | $\boxtimes$             | Refer as FCC KDB 789033, clause G)2) for unwanted emissions into non-restricted bands.   |  |  |  |  |  |  |
|             |                         | Refer as FCC KDB 789033, clause G)1) for unwanted emissions into restricted bands.   |  |  |  |  |  |  |
|             |                         | Refer as FCC KDB 789033, G)6) Method AD (Trace Averaging).   |  |  |  |  |  |  |
|             |                         | Refer as FCC KDB 789033, G)6) Method VB (Reduced VBW).   |  |  |  |  |  |  |
|             |                         | Refer as ANSI C63.10, clause 4.1.4.2.3 (Reduced VBW). VBW ≥ 1/T, where T is pulse time.  |  |  |  |  |  |  |
|             |                         | Refer as ANSI C63.10, clause 4.1.4.2.4 average value of pulsed emissions.  |  |  |  |  |  |  |
|             |                         | Refer as FCC KDB 789033, clause G)5) measurement procedure peak limit.   |  |  |  |  |  |  |
|             |                         | Refer as ANSI C63.10, clause 4.1.4.2.2 measurement procedure peak limit.   |  |  |  |  |  |  |
| $\boxtimes$ | For t                   | he transmitter bandedge emissions shall be measured using following options below:   |  |  |  |  |  |  |
|             |                         | Refer as FCC KDB 789033, clause G)3)d) for narrower resolution bandwidth (100kHz) using the band power and summing the spectral levels (i.e., 1 MHz).  |  |  |  |  |  |  |
|             |                         | Refer as ANSI C63.10, clause 6.10 for band-edge testing.   |  |  |  |  |  |  |
|             |                         | Refer as ANSI C63.10, clause 6.10.6.2 for marker-delta method for band-edge measurements.  |  |  |  |  |  |  |
| $\boxtimes$ | For                     | adiated measurement, refer as ANSI C63.10, clause 6.6. Test distance is 3m.  |  |  |  |  |  |  |
|             |                         |  |  |  |  |  |  |  |

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3.5.4 Test Setup



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### 3.5.5 Transmitter Radiated Bandedge Emissions

Refer as Appendix D

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#### 3.6 Transmitter Unwanted Emissions

#### 3.6.1 Transmitter Radiated Unwanted Emissions Limit

| Unwanted emissions below 1 GHz and restricted band emissions above 1GHz limit |                       |                         |                      |  |  |  |  |  |
|---|-----------------------|-------------------------|----------------------|--|--|--|--|--|
| Frequency Range (MHz)   | Field Strength (uV/m) | Field Strength (dBuV/m) | Measure Distance (m) |  |  |  |  |  |
| 0.009~0.490   | 2400/F(kHz)           | 48.5 - 13.8             | 300                  |  |  |  |  |  |
| 0.490~1.705   | 24000/F(kHz)          | 33.8 - 23               | 30                   |  |  |  |  |  |
| 1.705~30.0  | 30                    | 29                      | 30                   |  |  |  |  |  |
| 30~88   | 100                   | 40                      | 3                    |  |  |  |  |  |
| 88~216  | 150                   | 43.5                    | 3                    |  |  |  |  |  |
| 216~960   | 200                   | 46                      | 3                    |  |  |  |  |  |
| Above 960   | 500                   | 54                      | 3                    |  |  |  |  |  |

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Note 1: Test distance for frequencies at or above 30 MHz, measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).

Note 2: Test distance for frequencies at below 30 MHz, measurements may be performed at a distance closer than the EUT limit distance; however, an attempt should be made to avoid making measurements in the near field. When performing measurements below 30 MHz at a closer distance than the limit distance, the results shall be extrapolated to the specified distance by either making measurements at a minimum of two or more distances on at least one radial to determine the proper extrapolation factor or by using the square of an inverse linear distance extrapolation factor (40 dB/decade). The test report shall specify the extrapolation method used to determine compliance of the EUT.

|  | Un-restricted band emissions above 1GHz Limit   |  |  |  |  |  |  |  |
|--|---|--|--|--|--|--|--|--|
| Operating Band                                 | Limit   |  |  |  |  |  |  |  |
| 5.15 - 5.25 GHz e.i.r.p27 dBm [68.2 dBuV/m@3m] |   |  |  |  |  |  |  |  |
| 5.25 - 5.35 GHz e.i.r.p27 dBm [68.2 dBuV/m@3m] |   |  |  |  |  |  |  |  |
| 5.47 - 5.725 GHz                               | e.i.r.p27 dBm [68.2 dBuV/m@3m]  |  |  |  |  |  |  |  |
| 5.725 - 5.85 GHz                               | 5.650-5700 GHz: e.i.r.p27 ~ 10 dBm [68.2 ~ 105.2 dBuV/m@3m] 5.700-5720 GHz: e.i.r.p. 10 ~ 15.6 dBm [105.2 ~ 110.8 dBuV/m@3m] 5.720-5725 GHz: e.i.r.p. 15.6 ~ 27 dBm [110.8 ~ 122.2 dBuV/m@3m] 5.850-5.855 GHz: e.i.r.p. 27 ~ 15.6 dBm [122.2 ~ 110.8 dBuV/m@3m] 5.855-5.875 GHz: e.i.r.p. 15.6 ~ 10 dBm [110.8 ~ 105.2 dBuV/m@3m] 5.875-5.925 GHz: e.i.r.p. 10 ~ -27 dBm [105.2 ~ 68.2dBuV/m@3m] Other un-restricted band: e.i.r.p27 dBm [68.2 dBuV/m@3m] |  |  |  |  |  |  |  |

Note 1: Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements).

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### 3.6.2 Measuring Instruments

Refer a test equipment and calibration data table in this test report.

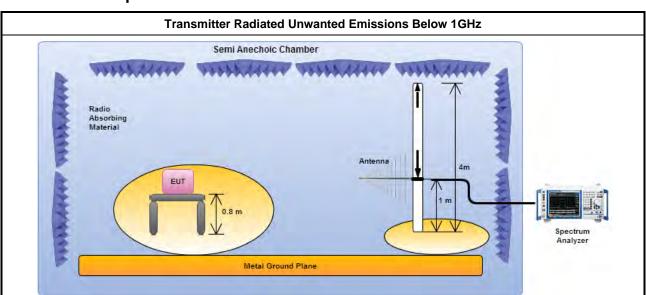
### 3.6.3 Test Procedures

|             |   | Test Method  |  |  |  |  |  |  |  |  |  |
|-------------|---|--|--|--|--|--|--|--|--|--|--|
|             | perfe<br>equi<br>abov<br>are<br>shal<br>linea | Measurements may be performed at a distance other than the limit distance provided they are not performed in the near field and the emissions to be measured can be detected by the measurement equipment. Measurements shall not be performed at a distance greater than 30 m for frequencies above 30 MHz, unless it can be further demonstrated that measurements at a distance of 30 m or less are impractical. When performing measurements at a distance other than that specified, the results shall be extrapolated to the specified distance using an extrapolation factor of 20 dB/decade (inverse of linear distance for field-strength measurements, inverse of linear distance-squared for power-density measurements). |  |  |  |  |  |  |  |  |  |
| $\boxtimes$ | The   | average emission levels shall be measured in [duty cycle ≥ 98 or duty factor].   |  |  |  |  |  |  |  |  |  |
| $\boxtimes$ | For   | the transmitter unwanted emissions shall be measured using following options below:  |  |  |  |  |  |  |  |  |  |
|             | $\boxtimes$                                   | Refer as FCC KDB 789033, clause G)2) for unwanted emissions into non-restricted bands.   |  |  |  |  |  |  |  |  |  |
|             | $\boxtimes$                                   | Refer as FCC KDB 789033, clause G)1) for unwanted emissions into restricted bands.   |  |  |  |  |  |  |  |  |  |
|             |   | Refer as FCC KDB 789033, G)6) Method AD (Trace Averaging).   |  |  |  |  |  |  |  |  |  |
|             |   | Refer as FCC KDB 789033, G)6) Method VB (Reduced VBW).   |  |  |  |  |  |  |  |  |  |
|             |   | Refer as ANSI C63.10, clause 4.1.4.2.3 (Reduced VBW). VBW ≥ 1/T, where T is pulse time.  |  |  |  |  |  |  |  |  |  |
|             |   | Refer as ANSI C63.10, clause 4.1.4.2.4 average value of pulsed emissions.  |  |  |  |  |  |  |  |  |  |
|             |   | Refer as FCC KDB 789033, clause G)5) measurement procedure peak limit.   |  |  |  |  |  |  |  |  |  |
|             |   | Refer as ANSI C63.10, clause 4.1.4.2.2 measurement procedure peak limit.   |  |  |  |  |  |  |  |  |  |
| $\boxtimes$ | For   | radiated measurement.  |  |  |  |  |  |  |  |  |  |
|             | $\boxtimes$                                   | Refer as ANSI C63.10, clause 6.4 for radiated emissions below 30 MHz and test distance is 3m.  |  |  |  |  |  |  |  |  |  |
|             | $\boxtimes$                                   | Refer as ANSI C63.10, clause 6.5 for radiated emissions 30 MHz to 1 GHz and test distance is 3m.   |  |  |  |  |  |  |  |  |  |
|             |   | Refer as ANSI C63.10, clause 6.6 for radiated emissions above 1GHz. For 1 GHz to 5 GHz, test distance is 3m; For 5 GHz to 40 GHz, test distance is 3m.   |  |  |  |  |  |  |  |  |  |
| $\boxtimes$ | The   | any unwanted emissions level shall not exceed the fundamental emission level.  |  |  |  |  |  |  |  |  |  |
| $\boxtimes$ |   | implitude of spurious emissions that are attenuated by more than 20 dB below the permissible value no need to be reported.   |  |  |  |  |  |  |  |  |  |

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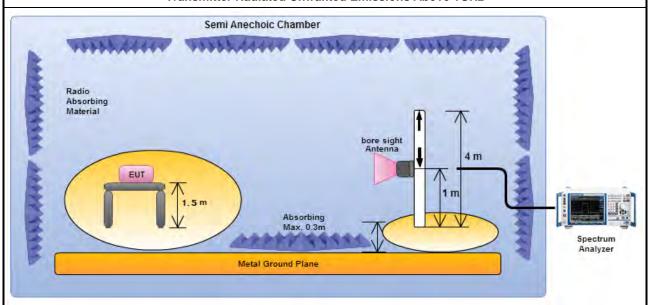
#### 3.6.4 Test Setup



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Magnetic field tests shall be performed in the frequency range of 9 kHz to 30 MHz using a calibrated loop antenna. Electric field tests shall be performed in the frequency range of 30 MHz to 1000 MHz using a calibrated bi-log antenna.

#### **Transmitter Radiated Unwanted Emissions Above 1GHz**



Electric field tests shall be performed in the frequency range of 1 GHz to 10th harmonic of highest fundamental frequency or 40 GHz using a calibrated horn antenna.

#### 3.6.5 Transmitter Radiated Unwanted Emissions-with Antenna (Below 30MHz)

All amplitude of spurious emissions that are attenuated by more than 20 dB below the permissible value has no need to be reported.

### 3.6.6 Test Result of Transmitter Radiated Unwanted Emissions

Refer as Appendix E

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### 3.7 Frequency Stability

#### 3.7.1 Frequency Stability Limit

#### **Frequency Stability Limit**

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#### **UNII Devices**

• In-band emission is maintained within the band of operation under all conditions of normal operation as specified in the user's manual.

#### IEEE Std. 802.11

■ The transmitter center frequency tolerance shall be ± 20 ppm maximum for the 5 GHz.

### 3.7.2 Measuring Instruments

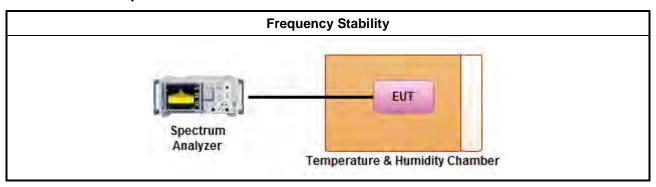
Refer a test equipment and calibration data table in this test report.

#### 3.7.3 Test Procedures

#### **Test Method**

- Refer as ANSI C63.10, clause 6.8 for frequency stability tests
  - Frequency stability with respect to ambient temperature
  - Frequency stability when varying supply voltage

### 3.7.4 Test Setup



### 3.7.5 Test Result of Frequency Stability

Refer as Appendix F

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# 4 Test Equipment and Calibration Data

| Instrument   | Manufacturer                   | Model No. | Serial No. Characteristics |               | Calibration<br>Last Cal. | Calibration<br>Due Date |
|--------------|--------------------------------|-----------|----------------------------|---------------|--------------------------|-------------------------|
| EMC Receiver | KETSIGHT                       | N9038A    | MY54130031                 | 20Hz ~ 8.4GHz | Apr. 14, 2016            | Apr. 13, 2017           |
| LISN         | SCHWARZBECK<br>MESS-ELEKTRONIK | NSLK 8127 | 8127-477                   | 9kHz ~ 30MHz  | Jan. 26, 2016            | Jan. 25, 2017           |
| RF Cable-CON | HUBER+SUHNER                   | RG213/U   | 07611832020001             | 9kHz ~ 30MHz  | Oct. 30, 2015            | Oct. 29, 2016           |
| EMI Filter   | LINDGREN                       | LRE-2030  | 2651                       | < 450 Hz      | NCR                      | NCR                     |

Report No.: FR641512AN

#### **Instrument for Conducted Test**

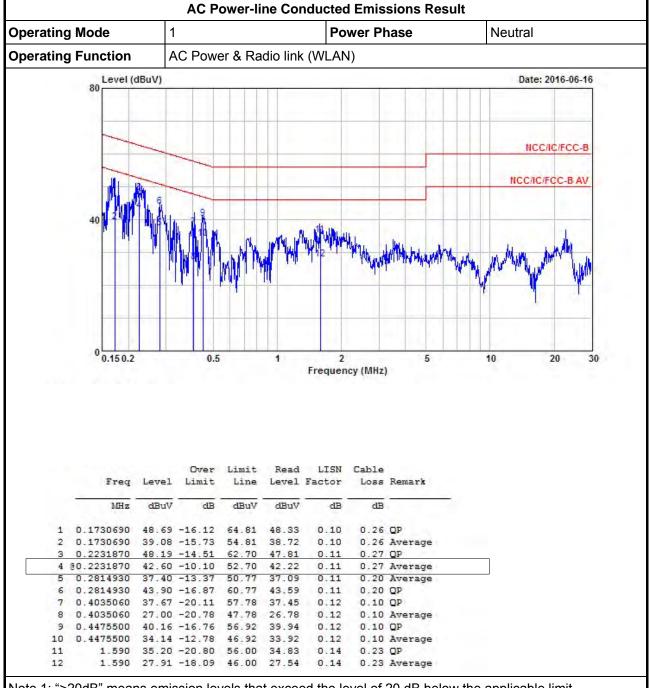
| Instrument                       | nt Manufacturer Model No. Serial No. Characteristics |                  | Characteristics | Calibration<br>Last Cal. | Calibration<br>Due Date |               |
|----------------------------------|--|------------------|-----------------|--------------------------|-------------------------|---------------|
| Spectrum<br>Analyzer             | R&S  | FSV 40           | 101013          | 9KHz~40GHz               | Feb 16, 2016            | Feb 15, 2017  |
| Signal Generator                 | R&S  | SMR40            | 100116          | 10MHz ~ 40GHz            | Jul. 28, 2015           | Jul. 27, 2016 |
| Power Sensor                     | Anritsu  | MA2411B          | 0917017         | 300MHz ~ 40GHz           | Feb. 04 ,2016           | Feb. 03 ,2017 |
| Power Meter                      | Anritsu  | ML2495A          | 0949003         | 300MHz ~ 40GHz           | Feb. 04, 2016           | Feb. 03, 2017 |
| Temp. and<br>Humidity<br>Chamber | Giant Force  | GTH-225-20-SP-SD | MAA1112-00<br>7 | -20 ~ 100℃               | Apr. 25, 2016           | Apr. 24, 2017 |
| DC Power Source                  | G.W.   | GPC-6030D        | C671845         | DC 1V ~ 60V              | Jul. 22, 2015           | Jul. 21, 2016 |

### **Instrument for Radiated Test**

| Instrument                     | Manufacturer  | Model No.               | Serial No.         | Characteristics    | Calibration<br>Last Cal. | Calibration<br>Due Date |
|--------------------------------|---------------|-------------------------|--------------------|--------------------|--------------------------|-------------------------|
| 3m Semi<br>Anechoic<br>Chamber | TDK           | SAC-3M                  | 03CH09-HY          | 30MHz ~ 1GHz<br>3m | Apr. 25, 2016            | Apr. 24, 2017           |
| 3m Semi<br>Anechoic<br>Chamber | TDK           | SAC-3M                  | 03CH09-HY          | 1GHz ~ 18GHz<br>3m | Jul. 01, 2015            | Jun. 30, 2016           |
| Amplifier                      | EMC           | EMC9135                 | 980232             | 9kHz ~ 1.0GHz      | Jan. 29, 2016            | Jan. 28, 2017           |
| Amplifier                      | Agilent       | 8449B                   | 3008A02096         | 1GHz ~ 26.5GHz     | Apr.11.2016              | Apr.10.2017             |
| Spectrum                       | KEYSIGHT      | N9010A                  | MY54200885         | 10Hz ~ 44GHz       | Jul. 15, 2015            | Jul. 14, 2016           |
| Bilog Antenna & 5dB Attenator  | TESEQ & MTJ   | CBL 6111D &<br>MTJ6102  | 35418              | 30MHz ~ 1GHz       | Mar. 31, 2016            | Mar. 30, 2017           |
| Horn Antenna                   | SCHWARZBECK   | BBHA 9120D              | BBHA 9120D<br>1534 | 1GHz ~ 18GHz       | Apr. 22, 2016            | Apr. 21, 2017           |
| Horn Antenna                   | SCHWARZBECK   | BBHA9170                | BBHA9170614        | 18GHz ~ 40GHz      | Jan. 04, 2016            | Jan. 03, 2017           |
| Amplifier                      | MITEQ         | JS44-18004000-33-<br>8P | 1840917            | 18GHz ~ 40GHz      | Jun. 02.2015             | Jun. 01.2017            |
| Loop Antenna                   | ROHDE&SCHWARZ | HFH2-Z2                 | 100330             | 9 kHz~30 MHz       | Nov. 10, 2014            | Nov. 09, 2016           |

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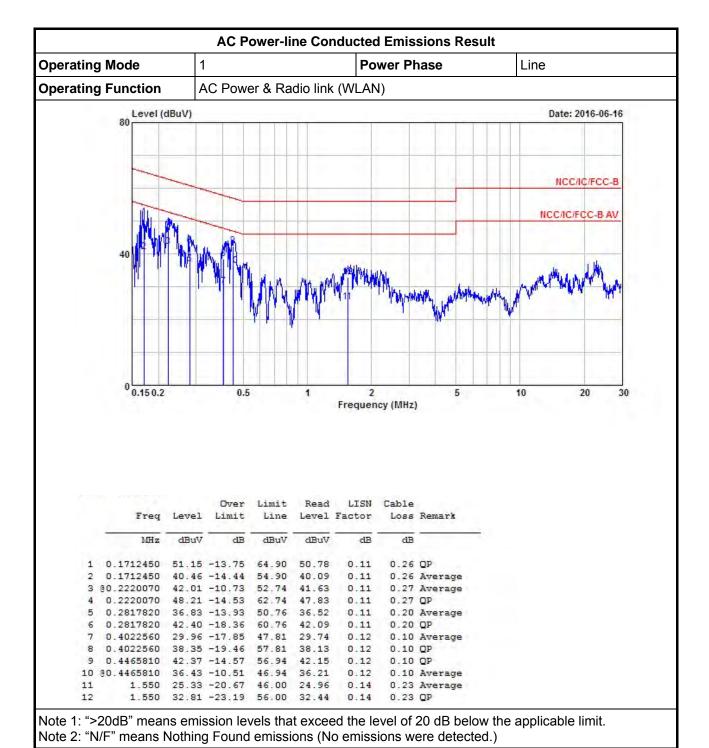


Note 1: ">20dB" means emission levels that exceed the level of 20 dB below the applicable limit. Note 2: "N/F" means Nothing Found emissions (No emissions were detected.)

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### **Emission Bandwidth**

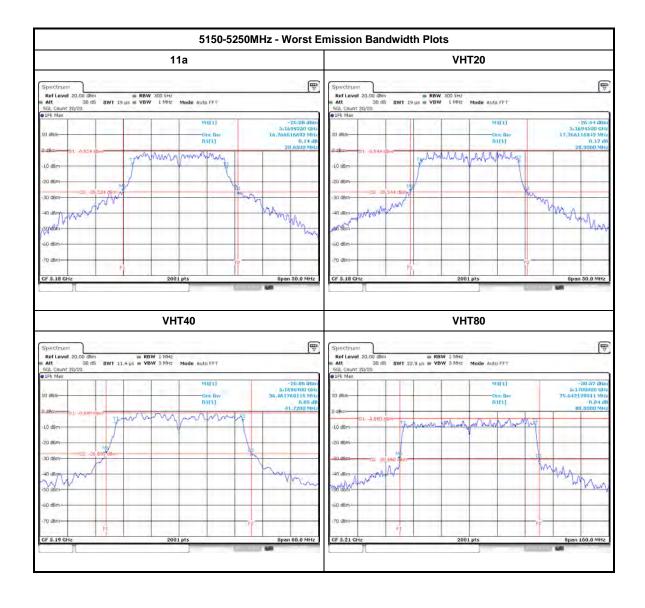
Appendix A

| UNII Emission Bandwidth Result (5150-5250MHz band) |                 |       |               |                          |               |               |               |               |  |  |
|--|-----------------|-------|---------------|--------------------------|---------------|---------------|---------------|---------------|--|--|
| Condit   | ion             |       |               | Emission Bandwidth (MHz) |               |               |               |               |  |  |
| Modulation Mode                                    |                 | Freq. |               | 99% Bandwidtl            | n             | 2             | 26dB Bandwidt | h             |  |  |
| wodulation wode                                    | N <sub>TX</sub> | (MHz) | Chain- Port 1 | Chain- Port 2            | Chain- Port 3 | Chain- Port 1 | Chain- Port 2 | Chain- Port 3 |  |  |
| 11a  | 3               | 5180  | 16.44         | 16.56                    | 16.76         | 23.20         | 23.72         | 20.65         |  |  |
| 11a  | 3               | 5200  | 16.61         | 16.61                    | 16.69         | 20.80         | 22.22         | 21.42         |  |  |
| 11a  | 3               | 5240  | 16.61         | 16.56                    | 16.51         | 20.72         | 22.40         | 21.55         |  |  |
| VHT20  | 3               | 5180  | 17.74         | 17.76                    | 17.76         | 23.42         | 22.25         | 20.90         |  |  |
| VHT20  | 3               | 5200  | 17.76         | 17.86                    | 17.86         | 21.87         | 22.82         | 22.55         |  |  |
| VHT20  | 3               | 5240  | 17.94         | 17.91                    | 17.89         | 22.70         | 24.70         | 22.60         |  |  |
| VHT40  | 3               | 5190  | 36.46         | 36.50                    | 37.02         | 41.72         | 43.28         | 44.16         |  |  |
| VHT40  | 3               | 5230  | 36.66         | 36.42                    | 36.46         | 50.56         | 43.28         | 42.24         |  |  |
| VHT80  | 3               | 5210  | 76.04         | 75.80                    | 75.64         | 80.48         | 82.00         | 80.00         |  |  |
| Resu   | lt              |       |               | •                        | Com           | plied         | •             | •             |  |  |

| UNII Emission Bandwidth Result (5725-5825MHz band) |                 |                |                          |               |               |               |               |               |
|--|-----------------|----------------|--------------------------|---------------|---------------|---------------|---------------|---------------|
| Condition  |                 |                | Emission Bandwidth (MHz) |               |               |               |               |               |
| Modulation Mode                                    | N <sub>TX</sub> | Freq.<br>(MHz) | 99% Bandwidth            |               |               | 6dB Bandwidth |               |               |
|  |                 |                | Chain- Port 1            | Chain- Port 2 | Chain- Port 3 | Chain- Port 1 | Chain- Port 2 | Chain- Port 3 |
| 11a  | 3               | 5745           | 23.53                    | 23.31         | 22.59         | 16.54         | 16.42         | 16.50         |
| 11a  | 3               | 5785           | 23.25                    | 22.74         | 21.48         | 16.45         | 15.67         | 16.42         |
| 11a  | 3               | 5825           | 23.34                    | 21.99         | 21.12         | 16.08         | 16.45         | 16.45         |
| VHT20  | 3               | 5745           | 23.47                    | 22.66         | 22.48         | 15.96         | 15.93         | 17.61         |
| VHT20  | 3               | 5785           | 23.13                    | 23.59         | 21.36         | 17.17         | 17.73         | 15.70         |
| VHT20  | 3               | 5825           | 23.25                    | 22.48         | 21.84         | 17.65         | 17.68         | 17.58         |
| VHT40  | 3               | 5755           | 63.96                    | 59.25         | 55.69         | 36.32         | 35.72         | 34.80         |
| VHT40  | 3               | 5795           | 55.21                    | 54.81         | 47.13         | 34.04         | 35.68         | 35.08         |
| VHT80  | 3               | 5775           | 76.84                    | 76.04         | 76.28         | 72.48         | 72.48         | 71.92         |
| Limit  |                 |                | -                        |               |               | ≥500kHz       |               |               |
| Result   |                 |                | Complied                 |               |               |               |               |               |

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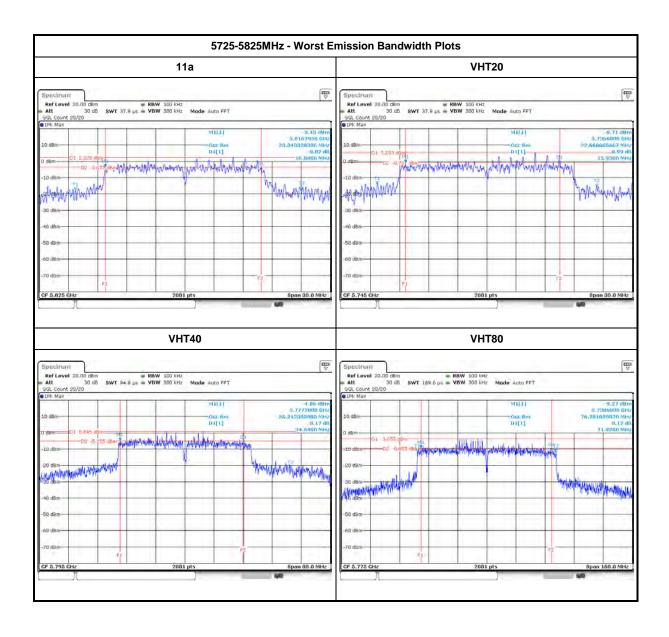


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## **Maximum Conducted Output Power**

Appendix B

|                 | Maximum Average Conducted Output Power (5150-5250MHz band) |                |              |                       |              |           |             |  |  |  |  |  |
|-----------------|--|----------------|--------------|-----------------------|--------------|-----------|-------------|--|--|--|--|--|
| Condit          | tion   |                |              | RF Output Power (dBm) |              |           |             |  |  |  |  |  |
| Modulation Mode | N <sub>TX</sub>  | Freq.<br>(MHz) | Chain Port 1 | Chain Port 2          | Chain Port 3 | Sum Chain | Power Limit |  |  |  |  |  |
| 11a             | 3  | 5180           | 14.84        | 16.32                 | 15.23        | 20.28     | 22.23       |  |  |  |  |  |
| 11a             | 3  | 5200           | 14.92        | 16.19                 | 15.42        | 20.31     | 22.23       |  |  |  |  |  |
| 11a             | 3  | 5240           | 14.56        | 16.18                 | 15.94        | 20.39     | 22.23       |  |  |  |  |  |
| HT20,M16-23     | 3  | 5180           | 14.64        | 16.18                 | 15.06        | 20.11     | 22.23       |  |  |  |  |  |
| HT20,M16-23     | 3  | 5200           | 15.14        | 16.41                 | 15.67        | 20.54     | 22.23       |  |  |  |  |  |
| HT20,M16-23     | 3  | 5240           | 14.88        | 16.45                 | 16.22        | 20.67     | 22.23       |  |  |  |  |  |
| HT40,M16-23     | 3  | 5190           | 12.31        | 12.08                 | 11.80        | 16.84     | 22.23       |  |  |  |  |  |
| HT40,M16-23     | 3  | 5230           | 17.01        | 16.90                 | 16.77        | 21.66     | 22.23       |  |  |  |  |  |
| VHT20,M0-8      | 3  | 5180           | 14.73        | 16.14                 | 15.09        | 20.14     | 22.23       |  |  |  |  |  |
| VHT20,M0-8      | 3  | 5200           | 15.24        | 16.47                 | 15.70        | 20.61     | 22.23       |  |  |  |  |  |
| VHT20,M0-8      | 3  | 5240           | 14.90        | 16.50                 | 16.19        | 20.69     | 22.23       |  |  |  |  |  |
| VHT40,M0-9      | 3  | 5190           | 12.44        | 12.23                 | 11.90        | 16.96     | 22.23       |  |  |  |  |  |
| VHT40,M0-9      | 3  | 5230           | 17.03        | 16.91                 | 16.78        | 21.68     | 22.23       |  |  |  |  |  |
| VHT80,M0-9      | 3  | 5210           | 11.71        | 11.58                 | 11.45        | 16.35     | 22.23       |  |  |  |  |  |
| Resu            | ılt  |                |              |                       | Complied     |           |             |  |  |  |  |  |

|                 | Maximum Average Conducted Output Power (5725-5850MHz band) |                |              |              |                  |           |             |  |  |  |  |
|-----------------|--|----------------|--------------|--------------|------------------|-----------|-------------|--|--|--|--|
| Condit          | ion  |                |              | RF           | Output Power (de | Bm)       |             |  |  |  |  |
| Modulation Mode | N <sub>TX</sub>  | Freq.<br>(MHz) | Chain Port 1 | Chain Port 2 | Chain Port 3     | Sum Chain | Power Limit |  |  |  |  |
| 11a             | 3  | 5745           | 20.00        | 19.90        | 19.62            | 24.61     | 28.23       |  |  |  |  |
| 11a             | 3  | 5785           | 20.37        | 20.05        | 19.95            | 24.90     | 28.23       |  |  |  |  |
| 11a             | 3  | 5825           | 19.67        | 19.93        | 19.71            | 24.54     | 28.23       |  |  |  |  |
| HT20,M16-23     | 3  | 5745           | 19.97        | 19.84        | 19.64            | 24.59     | 28.23       |  |  |  |  |
| HT20,M16-23     | 3  | 5785           | 20.20        | 19.95        | 19.91            | 24.79     | 28.23       |  |  |  |  |
| HT20,M16-23     | 3  | 5825           | 19.36        | 19.66        | 19.43            | 24.25     | 28.23       |  |  |  |  |
| HT40,M16-23     | 3  | 5755           | 19.85        | 19.51        | 19.40            | 24.36     | 28.23       |  |  |  |  |
| HT40,M16-23     | 3  | 5795           | 19.60        | 19.61        | 19.53            | 24.35     | 28.23       |  |  |  |  |
| VHT20,M0-8      | 3  | 5745           | 20.11        | 19.91        | 19.71            | 24.69     | 28.23       |  |  |  |  |
| VHT20,M0-8      | 3  | 5785           | 20.59        | 20.04        | 20.11            | 25.03     | 28.23       |  |  |  |  |
| VHT20,M0-8      | 3  | 5825           | 19.59        | 19.85        | 19.74            | 24.50     | 28.23       |  |  |  |  |
| VHT40,M0-9      | 3  | 5755           | 20.34        | 19.81        | 19.66            | 24.72     | 28.23       |  |  |  |  |
| VHT40,M0-9      | 3  | 5795           | 19.94        | 19.81        | 19.86            | 24.64     | 28.23       |  |  |  |  |
| VHT80,M0-9      | 3  | 5775           | 17.92        | 16.94        | 17.48            | 22.24     | 28.23       |  |  |  |  |
| Resu            | ılt  |                |              |              | Complied         |           |             |  |  |  |  |

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### **Power Spectral Density**

Appendix C

|                 | Power Spectral Density Result               |                |                              |                  |           |             |  |  |  |  |  |
|-----------------|---|----------------|------------------------------|------------------|-----------|-------------|--|--|--|--|--|
| Condi           | Condition Power Spectral Density (dBm/3kHz) |                |                              |                  |           |             |  |  |  |  |  |
| Modulation Mode | N <sub>TX</sub>                             | Freq.<br>(MHz) | Sum Chain w/o<br>Duty Factor | Duty Factor (dB) | Sum Chain | Power Limit |  |  |  |  |  |
| 11a             | 3   | 5180           | 9.02                         | 0.09             | 9.11      | 9.23        |  |  |  |  |  |
| 11a             | 3   | 5200           | 9.05                         | 0.09             | 9.14      | 9.23        |  |  |  |  |  |
| 11a             | 3   | 5240           | 8.97                         | 0.09             | 9.06      | 9.23        |  |  |  |  |  |
| VHT20           | 3   | 5180           | 8.58                         | 0.06             | 8.64      | 9.23        |  |  |  |  |  |
| VHT20           | 3   | 5200           | 8.93                         | 0.06             | 8.99      | 9.23        |  |  |  |  |  |
| VHT20           | 3   | 5240           | 9.10                         | 0.06             | 9.16      | 9.23        |  |  |  |  |  |
| VHT40           | 3   | 5190           | 2.38                         | 0.13             | 2.51      | 9.23        |  |  |  |  |  |
| VHT40           | 3   | 5230           | 7.05                         | 0.13             | 7.18      | 9.23        |  |  |  |  |  |
| VHT80           | 3   | 5210           | -1.41                        | 0.24             | -1.17     | 9.23        |  |  |  |  |  |
| Resu            | ılt   |                |                              | Comp             | lied      |             |  |  |  |  |  |

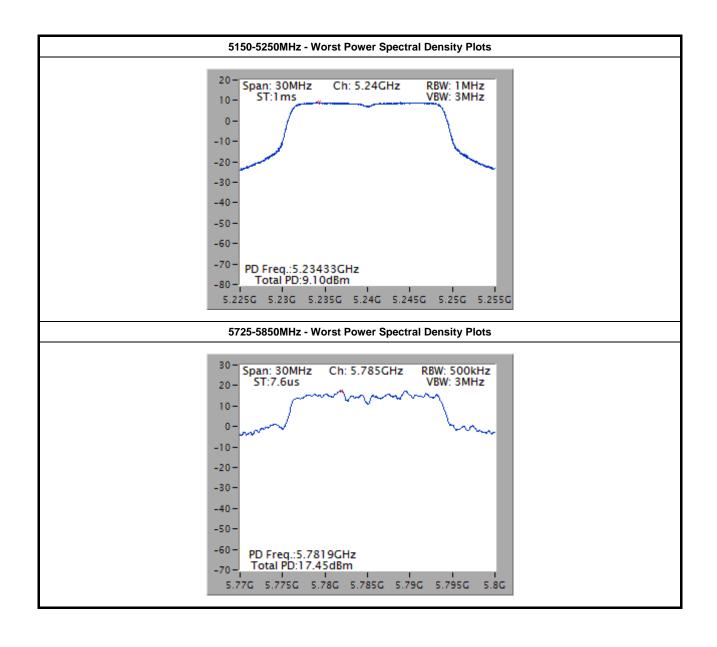
Note 1: PSD = sum each transmit chains by bin-to-bin PSD Note 1: PSD = each transmit chains PSD + 10logN<sub>TX</sub>

|                 | Power Spectral Density Result               |                |                              |                  |           |             |  |  |  |  |  |
|-----------------|---|----------------|------------------------------|------------------|-----------|-------------|--|--|--|--|--|
| Condi           | Condition Power Spectral Density (dBm/3kHz) |                |                              |                  |           |             |  |  |  |  |  |
| Modulation Mode | N <sub>TX</sub>                             | Freq.<br>(MHz) | Sum Chain w/o<br>Duty Factor | Duty Factor (dB) | Sum Chain | Power Limit |  |  |  |  |  |
| 11a             | 3   | 5745           | 15.64                        | 0.09             | 15.73     | 28.23       |  |  |  |  |  |
| 11a             | 3   | 5785           | 15.91                        | 0.09             | 16.00     | 28.23       |  |  |  |  |  |
| 11a             | 3   | 5825           | 15.92                        | 0.09             | 16.01     | 28.23       |  |  |  |  |  |
| VHT20           | 3   | 5745           | 16.39                        | 0.06             | 16.45     | 28.23       |  |  |  |  |  |
| VHT20           | 3   | 5785           | 17.45                        | 0.06             | 17.51     | 28.23       |  |  |  |  |  |
| VHT20           | 3   | 5825           | 16.18                        | 0.06             | 16.24     | 28.23       |  |  |  |  |  |
| VHT40           | 3   | 5755           | 13.30                        | 0.13             | 13.43     | 28.23       |  |  |  |  |  |
| VHT40           | 3   | 5795           | 13.74                        | 0.13             | 13.87     | 28.23       |  |  |  |  |  |
| VHT80           | 3   | 5775           | 9.41                         | 0.24             | 9.65      | 28.23       |  |  |  |  |  |
| Resu            | ılt   |                | Complied                     |                  |           |             |  |  |  |  |  |

Note 1: PSD = sum each transmit chains by bin-to-bin PSD Note 1: PSD = each transmit chains PSD +  $10\log N_{TX}$ 

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## **Transmitter Radiated Bandedge Emissions (with Antenna)**

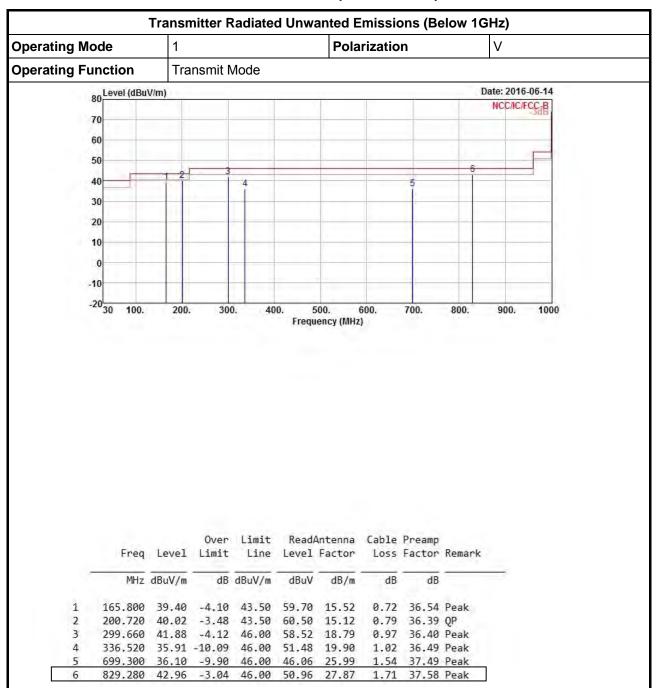
| Modulation<br>Mode | N <sub>TX</sub> | Freq.<br>(MHz) | Measure<br>Distance<br>(m) | Freq.<br>(MHz)<br>PK | Level<br>(dBuV/m)<br>PK | Limit<br>(dBuV/m)<br>PK | Freq.<br>(MHz)<br>AV | Level<br>(dBuV/m)<br>AV | Limit<br>(dBuV/m)<br>AV | Pol. |
|--------------------|-----------------|----------------|----------------------------|----------------------|-------------------------|-------------------------|----------------------|-------------------------|-------------------------|------|
| 11a                | 3               | 5180           | 3                          | 5149.900             | 64.27                   | 74                      | 5149.600             | 52.44                   | 54                      | V    |
| 11a                | 3               | 5240           | 3                          | 5354.400             | 61.36                   | 74                      | 5119.800             | 49.94                   | 54                      | V    |
| VHT20              | 3               | 5180           | 3                          | 5145.400             | 62.74                   | 74                      | 5149.800             | 52.33                   | 54                      | V    |
| VHT20              | 3               | 5240           | 3                          | 5144.400             | 63.28                   | 74                      | 5149.800             | 50.55                   | 54                      | V    |
| VHT40              | 3               | 5190           | 3                          | 5148.620             | 64.76                   | 74                      | 5149.940             | 52.09                   | 54                      | V    |
| VHT40              | 3               | 5230           | 3                          | 5146.800             | 64.46                   | 74                      | 5149.800             | 52.68                   | 54                      | V    |
| VHT80              | 3               | 5210           | 3                          | 5135.400             | 64.84                   | 74                      | 5149.800             | 52.06                   | 54                      | V    |

| Modulation<br>Mode | N <sub>TX</sub> | Freq.<br>(MHz) | Measure<br>Distance<br>(m) | Freq.<br>(MHz)<br>PK | Level<br>(dBuV/m)<br>PK | Limit<br>(dBuV/m)<br>PK | Freq.<br>(MHz)<br>PK | Level<br>(dBuV/m)<br>PK | Limit<br>(dBuV/m)<br>PK | Pol |
|--------------------|-----------------|----------------|----------------------------|----------------------|-------------------------|-------------------------|----------------------|-------------------------|-------------------------|-----|
| 11a                | 3               | 5745           | 3                          | 5629.680             | 58.60                   | 68.2                    | 5626.560             | 47.76                   | 68.2                    | V   |
| 11a                | 3               | 5825           | 3                          | 5932.180             | 58.65                   | 68.2                    | 5927.590             | 47.56                   | 68.2                    | V   |
| VHT20              | 3               | 5745           | 3                          | 5647.620             | 60.21                   | 68.2                    | 5642.420             | 48.37                   | 68.2                    | V   |
| VHT20              | 3               | 5825           | 3                          | 5940.280             | 58.66                   | 68.2                    | 5943.250             | 47.78                   | 68.2                    | V   |
| VHT40              | 3               | 5755           | 3                          | 5644.220             | 66.17                   | 68.2                    | 5646.080             | 52.02                   | 68.2                    | V   |
| VHT40              | 3               | 5795           | 3                          | 5925.100             | 60.91                   | 68.2                    | 5932.720             | 49.46                   | 68.2                    | V   |
| VHT80              | 3               | 5775           | 3                          | 5647.750             | 66.31                   | 68.2                    | 5649.700             | 53.58                   | 68.2                    | V   |

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#### **Transmitter Radiated Unwanted Emissions (Below 1GHz)**



Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

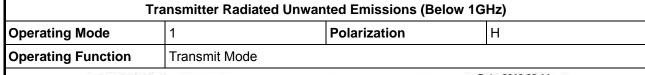
Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

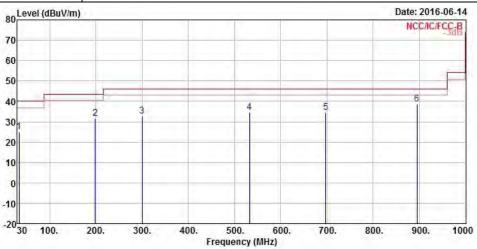
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical).

Note 4: No level of unwanted emissions exceeds the level of the fundamental emission.

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|   |         |        | 0ver   | Limit  | Read  | Antenna | Cable | Preamp |        |
|---|---------|--------|--------|--------|-------|---------|-------|--------|--------|
|   | Freq    | Level  | Limit  | Line   | Level | Factor  | Loss  | Factor | Remark |
|   | MHz     | dBuV/m | dB     | dBuV/m | dBuV  | dB/m    | dB    | dB     |        |
| 1 | 33.880  | 25.18  | -14.82 | 40.00  | 39.41 | 22.80   | 0.34  | 37.37  | Peak   |
| 2 | 198.780 | 31.81  | -11.69 | 43.50  | 52.37 | 15.04   | 0.79  | 36.39  | Peak   |
| 3 | 299.660 | 32.85  | -13.15 | 46.00  | 49.49 | 18.79   | 0.97  | 36.40  | Peak   |
| 4 | 532.460 | 34.68  | -11.32 | 46.00  | 46.73 | 23.69   | 1.33  | 37.07  | Peak   |
| 5 | 697.360 | 34.50  | -11.50 | 46.00  | 44.47 | 25.97   | 1.54  | 37.48  | Peak   |
| 6 | 895.240 | 38.76  | -7.24  | 46.00  | 46.28 | 28.38   | 1.78  | 37.68  | Peak   |

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

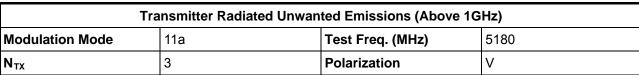
Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical).

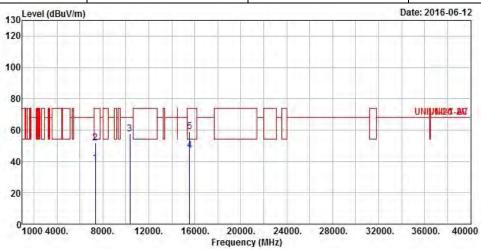
Note 4: No level of unwanted emissions exceeds the level of the fundamental emission.

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#### Transmitter Radiated Unwanted Emissions (Above 1GHz) for 5150-5250MHz





|   | Freq      | Level  |        | Limit<br>Line |       |       |       |       | Remark  |
|---|-----------|--------|--------|---------------|-------|-------|-------|-------|---------|
|   | MHz       | dBuV/m | dB     | dBuV/m        | dBuV  | dB/m  | dB    | dB    |         |
| 1 | 7352.000  | 38.91  | -15.09 | 54.00         | 30.51 | 36.22 | 7.61  | 35.43 | Average |
| 2 | 7352.000  | 51.65  | -22.35 | 74.00         | 43.25 | 36.22 | 7.61  | 35.43 | Peak    |
| 3 | 10360.000 | 57.53  | -10.67 | 68.20         | 44.25 | 39.48 | 9.41  | 35.61 | Peak    |
| 4 | 15540.000 | 47.22  | -6.78  | 54.00         | 32.90 | 38.41 | 11.54 | 35.63 | Average |
| 5 | 15540.000 | 59.14  | -14.86 | 74.00         | 44.82 | 38.41 | 11.54 | 35.63 | Peak    |
|   |           |        |        |               |       |       |       |       |         |

- Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
- Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
- Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
- Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
- Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
- Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

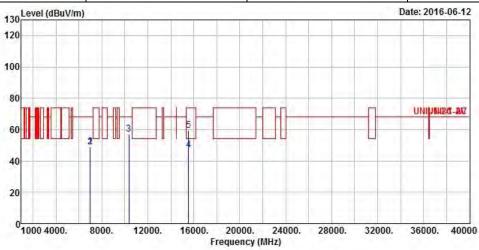
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| Tra                              | nsmitter Radiated Unwan | ted Emissions (Above 1G | Hz)  |  |  |  |  |  |
|----------------------------------|-------------------------|-------------------------|------|--|--|--|--|--|
| Modulation Mode                  | 11a                     | Test Freq. (MHz)        | 5180 |  |  |  |  |  |
| N <sub>TX</sub> 3 Polarization H |                         |                         |      |  |  |  |  |  |



|   | Freq      | Level  | Over<br>Limit | Limit<br>Line |       | Antenna<br>Factor |       |       | Remark  |
|---|-----------|--------|---------------|---------------|-------|-------------------|-------|-------|---------|
|   | MHz       | dBuV/m | dB            | dBuV/m        | dBuV  | dB/m              | dB    | dB    |         |
| 1 | 7001.000  | 49.09  | -19.11        | 68.20         | 41.69 | 35.30             | 7.49  | 35.39 | Peak    |
| 2 | 7001.000  | 49.09  | -19.11        | 68.20         | 41.69 | 35.30             | 7.49  | 35.39 | Peak    |
| 3 | 10360.000 | 57.18  | -11.02        | 68.20         | 43.90 | 39.48             | 9.41  | 35.61 | Peak    |
| 4 | 15540.000 | 47.11  | -6.89         | 54.00         | 32.79 | 38.41             | 11.54 | 35.63 | Average |
| 5 | 15540.000 | 59.52  | -14.48        | 74.00         | 45.20 | 38.41             | 11.54 | 35.63 | Peak    |
| - |           |        |               |               |       |                   |       |       |         |

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

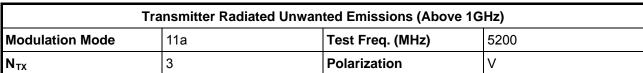
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

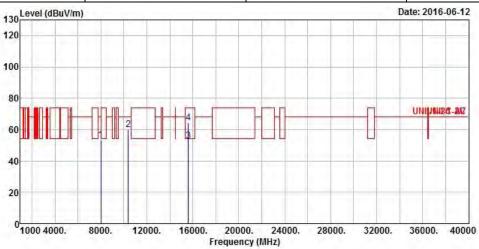
Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

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|   | Freq      | Level  |        |        |       | Antenna<br>Factor |       |       | Remark  |
|---|-----------|--------|--------|--------|-------|-------------------|-------|-------|---------|
|   | MHz       | dBuV/m | dB     | dBuV/m | dBuV  | dB/m              | dB    | dB    |         |
| 1 | 8002.000  | 53.04  | -15.16 | 68.20  | 43.47 | 37.20             | 8.00  | 35.63 | Peak    |
| 2 | 10400.000 | 59.90  | -8.30  | 68.20  | 46.50 | 39.54             | 9.44  | 35.58 | Peak    |
| 3 | 15600.000 | 52.92  | -1.08  | 54.00  | 38.81 | 38.28             | 11.50 | 35.67 | Average |
| Δ | 15600 000 | 64 25  | -9 75  | 74 00  | 50 14 | 38 28             | 11 50 | 35 67 | Peak    |

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

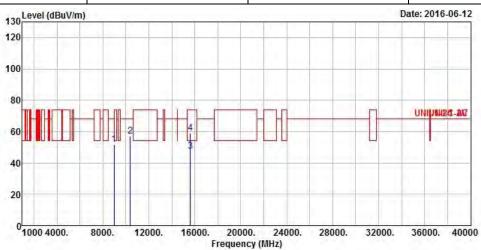
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| Tra                              | Transmitter Radiated Unwanted Emissions (Above 1GHz) |                  |      |  |  |  |  |  |  |
|----------------------------------|--|------------------|------|--|--|--|--|--|--|
| Modulation Mode                  | 11a  | Test Freq. (MHz) | 5200 |  |  |  |  |  |  |
| N <sub>TX</sub> 3 Polarization H |  |                  |      |  |  |  |  |  |  |



|   | Freq      | Level  |        |        |       | Antenna<br>Factor |       |       | Remark  |
|---|-----------|--------|--------|--------|-------|-------------------|-------|-------|---------|
|   | MHz       | dBuV/m | dB     | dBuV/m | dBuV  | dB/m              | dB    | dB    |         |
| 1 | 8997.000  | 51.95  | -16.25 | 68.20  | 41.99 | 37.40             | 8.31  | 35.75 | Peak    |
| 2 | 10400.000 | 57.09  | -11.11 | 68.20  | 43.69 | 39.54             | 9.44  | 35.58 | Peak    |
| 3 | 15600.000 | 47.32  | -6.68  | 54.00  | 33.21 | 38.28             | 11.50 | 35.67 | Average |
| 4 | 15600.000 | 58.99  | -15.01 | 74.00  | 44.88 | 38.28             | 11.50 | 35.67 | Peak    |

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

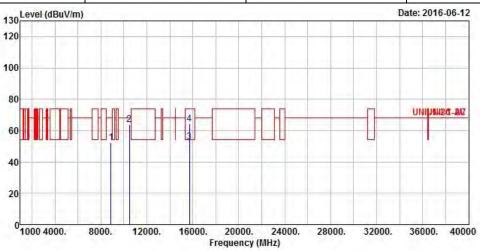
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| Tra             | nsmitter Radiated Unwan | ted Emissions (Above 1G | Hz)  |
|-----------------|-------------------------|-------------------------|------|
| Modulation Mode | 11a                     | Test Freq. (MHz)        | 5240 |
| $N_{TX}$        | 3                       | Polarization            | V    |



|   | Freq      | Level  |        | Limit<br>Line |       |       |       |       | Remark  |
|---|-----------|--------|--------|---------------|-------|-------|-------|-------|---------|
|   | MHz       | dBuV/m | dB     | dBuV/m        | dBuV  | dB/m  | dB    | dB    |         |
| 1 | 8896.000  | 52.52  | -15.68 | 68.20         | 42.68 | 37.28 | 8.30  | 35.74 | Peak    |
| 2 | 10480.000 | 63.77  | -4.43  | 68.20         | 50.12 | 39.67 | 9.48  | 35.50 | Peak    |
| 3 | 15720.000 | 52.88  | -1.12  | 54.00         | 39.19 | 38.02 | 11.40 | 35.73 | Average |
| 4 | 15720.000 | 64.23  | -9.77  | 74.00         | 50.54 | 38.02 | 11.40 | 35.73 | Peak    |

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

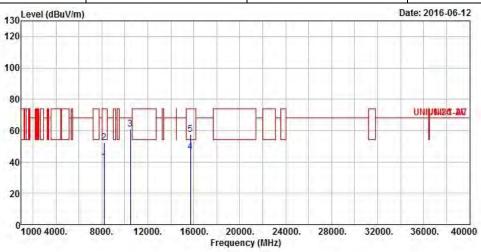
Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

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| Tra             | nsmitter Radiated Unwan | d Unwanted Emissions (Above 1GHz) |      |  |  |  |  |  |
|-----------------|-------------------------|-----------------------------------|------|--|--|--|--|--|
| Modulation Mode | 11a                     | Test Freq. (MHz)                  | 5240 |  |  |  |  |  |
| $N_{TX}$        | 3                       | Polarization                      | Н    |  |  |  |  |  |



| Remark  |                                  |                               | Antenna<br>Factor                |                                  | Limit<br>Line                    | Over<br>Limit                      | Level                            | Freq   |   |
|---------|----------------------------------|-------------------------------|----------------------------------|----------------------------------|----------------------------------|------------------------------------|----------------------------------|--|---|
|         | dB                               | dB                            | dB/m                             | dBuV                             | dBuV/m                           | dB                                 | dBuV/m                           | MHz  |   |
| Average | 35.65                            | 8.11                          | 37.04                            | 30.15                            | 54.00                            | -14.35                             | 39.65                            | 8196.000                                       | 1 |
| Peak    | 35.65                            | 8.11                          | 37.04                            | 42.70                            | 74.00                            | -21.80                             | 52.20                            | 8196.000                                       | 2 |
| Peak    | 35.50                            | 9.48                          | 39.67                            | 47.25                            | 68.20                            | -7.30                              | 60.90                            | 10480.000                                      | 3 |
| Average | 35.73                            | 11.40                         | 38.02                            | 32.97                            | 54.00                            | -7.34                              | 46.66                            | 15720.000                                      | 4 |
| Peak    | 35.73                            | 11.40                         | 38.02                            | 44.00                            | 74.00                            | -16.31                             | 57.69                            | 15720.000                                      | 5 |
| PPA     | 35.65<br>35.65<br>35.50<br>35.73 | 8.11<br>8.11<br>9.48<br>11.40 | 37.04<br>37.04<br>39.67<br>38.02 | 30.15<br>42.70<br>47.25<br>32.97 | 54.00<br>74.00<br>68.20<br>54.00 | -14.35<br>-21.80<br>-7.30<br>-7.34 | 39.65<br>52.20<br>60.90<br>46.66 | 8196.000<br>8196.000<br>10480.000<br>15720.000 | 3 |

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

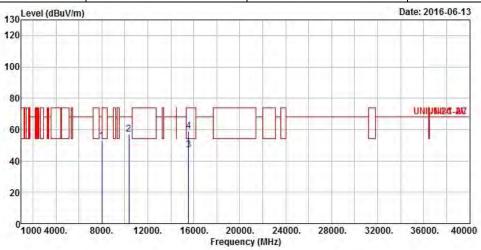
Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

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| Tra             | nsmitter Radiated Unwan | ted Emissions (Above 1G | Hz)  |
|-----------------|-------------------------|-------------------------|------|
| Modulation Mode | VHT20                   | Test Freq. (MHz)        | 5180 |
| $N_{TX}$        | 3                       | Polarization            | V    |



|   | Freq      | Level  |        |        |       | Antenna<br>Factor |       |       | Remark  |
|---|-----------|--------|--------|--------|-------|-------------------|-------|-------|---------|
|   | MHz       | dBuV/m | dB     | dBuV/m | dBuV  | dB/m              | dB    | dB    |         |
| 1 | 8001.000  | 52.53  | -15.67 | 68.20  | 42.96 | 37.20             | 8.00  | 35.63 | Peak    |
| 2 | 10360.000 | 57.26  | -10.94 | 68.20  | 43.98 | 39.48             | 9.41  | 35.61 | Peak    |
| 3 | 15540.000 | 47.22  | -6.78  | 54.00  | 32.90 | 38.41             | 11.54 | 35.63 | Average |
| 4 | 15540.000 | 59.02  | -14.98 | 74.00  | 44.70 | 38.41             | 11.54 | 35.63 | Peak    |

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

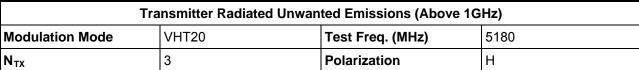
Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

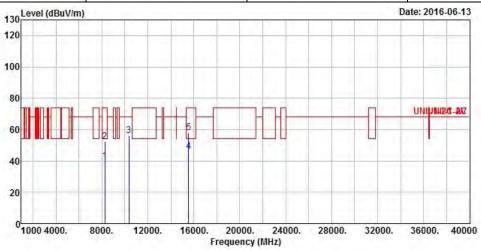
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|   | Freq      | Level  |        | Limit<br>Line |       | Antenna<br>Factor |       |       | Remark  |
|---|-----------|--------|--------|---------------|-------|-------------------|-------|-------|---------|
|   | MHz       | dBuV/m | dB     | dBuV/m        | dBuV  | dB/m              | dB    | dB    |         |
| 1 | 8274.000  | 39.62  | -14.38 | 54.00         | 30.14 | 36.98             | 8.16  | 35.66 | Average |
| 2 | 8274.000  | 52.44  | -21.56 | 74.00         | 42.96 | 36.98             | 8.16  | 35.66 | Peak    |
| 3 | 10360.000 | 56.13  | -12.07 | 68.20         | 42.85 | 39.48             | 9.41  | 35.61 | Peak    |
| 4 | 15540.000 | 46.06  | -7.94  | 54.00         | 31.74 | 38.41             | 11.54 | 35.63 | Average |
| 5 | 15540.000 | 58.01  | -15.99 | 74.00         | 43.69 | 38.41             | 11.54 | 35.63 | Peak    |

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

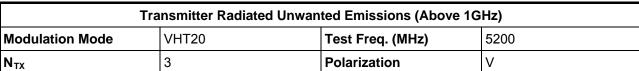
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

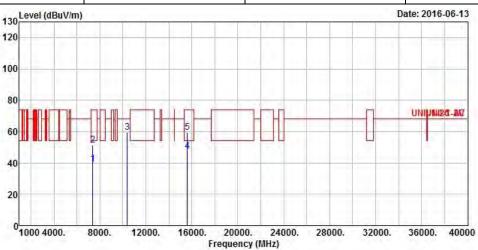
Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

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| Freq      | Level  |  |  |  |   |   |   | Remark  |
|-----------|--|--|--|--|---|---|---|---|
| MHz       | dBuV/m   | dB   | dBuV/m   | dBuV   | dB/m  | dB  | dB  |   |
| 7396.000  | 39.27  | -14.73   | 54.00  | 30.74  | 36.33   | 7.63  | 35.43   | Average   |
| 7396.000  | 51.51  | -22.49   | 74.00  | 42.98  | 36.33   | 7.63  | 35.43   | Peak  |
| 10400.000 | 59.52  | -8.68  | 68.20  | 46.12  | 39.54   | 9.44  | 35.58   | Peak  |
| 15600.000 | 47.72  | -6.28  | 54.00  | 33.61  | 38.28   | 11.50   | 35.67   | Average   |
| 15600.000 | 59.50  | -14.50   | 74.00  | 45.39  | 38.28   | 11.50   | 35.67   | Peak  |
|           | 7396.000<br>7396.000<br>10400.000<br>15600.000 | MHz dBuV/m 7396.000 39.27 7396.000 51.51 10400.000 59.52 15600.000 47.72 | Freq Level Limit  MHz dBuV/m dB  7396.000 39.27 -14.73 7396.000 51.51 -22.49 10400.000 59.52 -8.68 15600.000 47.72 -6.28 | Freq Level Limit Line  MHz dBuV/m dB dBuV/m  7396.000 39.27 -14.73 54.00 7396.000 51.51 -22.49 74.00 10400.000 59.52 -8.68 68.20 15600.000 47.72 -6.28 54.00 | Freq Level Limit Line Level  MHz dBuV/m dB dBuV/m dBuV  7396.000 39.27 -14.73 54.00 30.74 7396.000 51.51 -22.49 74.00 42.98 10400.000 59.52 -8.68 68.20 46.12 15600.000 47.72 -6.28 54.00 33.61 | Freq         Level         Limit         Line         Level         Factor           MHz         dBuV/m         dB dBuV/m         dBuV         dB/m           7396.000         39.27         -14.73         54.00         30.74         36.33           7396.000         51.51         -22.49         74.00         42.98         36.33           10400.000         59.52         -8.68         68.20         46.12         39.54           15600.000         47.72         -6.28         54.00         33.61         38.28 | Freq         Level         Limit         Line         Level         Factor         Loss           MHz         dBuV/m         dB dBuV/m         dBuV         dB/m         dB/m         dB           7396.000         39.27 -14.73         54.00         30.74         36.33         7.63           7396.000         51.51 -22.49         74.00         42.98         36.33         7.63           10400.000         59.52         -8.68         68.20         46.12         39.54         9.44           15600.000         47.72         -6.28         54.00         33.61         38.28         11.50 | Freq         Level         Limit         Line         Level         Factor         Loss         Factor           MHz         dBuV/m         dB         dBuV/m         dBuV         dB/m         dB         dB           7396.000         39.27         -14.73         54.00         30.74         36.33         7.63         35.43           7396.000         51.51         -22.49         74.00         42.98         36.33         7.63         35.43 |

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

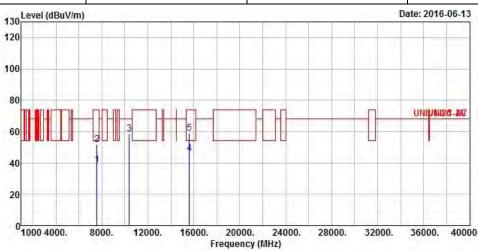
Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

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| Tra             | nsmitter Radiated Unwan | ted Emissions (Above 1G | Hz)  |
|-----------------|-------------------------|-------------------------|------|
| Modulation Mode | VHT20                   | Test Freq. (MHz)        | 5200 |
| N <sub>TX</sub> | 3                       | Polarization            | Н    |



|   | Freq      | Level  | Over<br>Limit | Limit<br>Line |       | Antenna<br>Factor |       |       | Remark  |
|---|-----------|--------|---------------|---------------|-------|-------------------|-------|-------|---------|
|   | MHz       | dBuV/m | dB            | dBuV/m        | dBuV  | dB/m              | dB    | dB    |         |
| 1 | 7585.000  | 39.09  | -14.91        | 54.00         | 30.14 | 36.70             | 7.72  | 35.47 | Average |
| 2 | 7585.000  | 51.90  | -22.10        | 74.00         | 42.95 | 36.70             | 7.72  | 35.47 | Peak    |
| 3 | 10400.000 | 58.38  | -9.82         | 68.20         | 44.98 | 39.54             | 9.44  | 35.58 | Peak    |
| 4 | 15600.000 | 46.26  | -7.74         | 54.00         | 32.15 | 38.28             | 11.50 | 35.67 | Average |
| 5 | 15600.000 | 58.99  | -15.01        | 74.00         | 44.88 | 38.28             | 11.50 | 35.67 | Peak    |

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

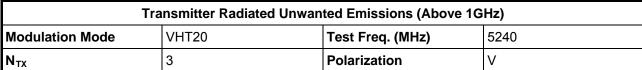
Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

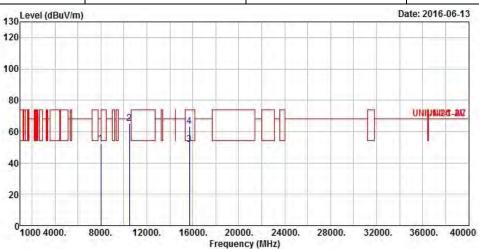
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|   | Freq      | Level  |        | Limit<br>Line |       |       |       |       | Remark  |
|---|-----------|--------|--------|---------------|-------|-------|-------|-------|---------|
|   | MHz       | dBuV/m | dB     | dBuV/m        | dBuV  | dB/m  | dB    | dB    |         |
| 1 | 8010.000  | 52.52  | -15.68 | 68.20         | 42.96 | 37.19 | 8.00  | 35.63 | Peak    |
| 2 | 10480.000 | 65.07  | -3.13  | 68.20         | 51.42 | 39.67 | 9.48  | 35.50 | Peak    |
| 3 | 15720.000 | 51.58  | -2.42  | 54.00         | 37.89 | 38.02 | 11.40 | 35.73 | Average |
| 4 | 15720.000 | 63.18  | -10.82 | 74.00         | 49.49 | 38.02 | 11.40 | 35.73 | Peak    |

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

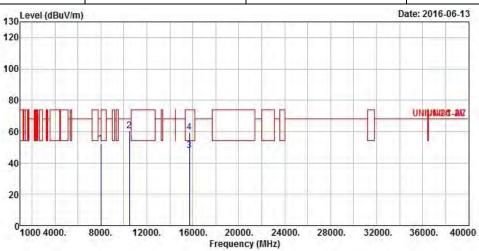
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| Transmitter Radiated Unwanted Emissions (Above 1GHz) |   |  |  |  |  |  |  |  |  |
|--|---|--|--|--|--|--|--|--|--|
| Modulation Mode                                      | Modulation Mode VHT20 Test Freq. (MHz) 5240 |  |  |  |  |  |  |  |  |
| N <sub>TX</sub>                                      | N <sub>TX</sub> 3 Polarization H            |  |  |  |  |  |  |  |  |



|   |           |        | Over   | Limit  | ReadA | Antenna | Cable | Preamp |         |
|---|-----------|--------|--------|--------|-------|---------|-------|--------|---------|
|   | Freq      | Level  | Limit  | Line   | Level | Factor  | Loss  | Factor | Remark  |
|   | MHz       | dBuV/m | dB     | dBuV/m | dBuV  | dB/m    | dB    | dB     |         |
| 1 | 7999.000  | 52.24  | -15.96 | 68.20  | 42.69 | 37.20   | 7.98  | 35.63  | Peak    |
| 2 | 10480.000 | 60.63  | -7.57  | 68.20  | 46.98 | 39.67   | 9.48  | 35.50  | Peak    |
| 3 | 15720.000 | 47.93  | -6.07  | 54.00  | 34.24 | 38.02   | 11.40 | 35.73  | Average |
| 4 | 15720.000 | 59.66  | -14.34 | 74.00  | 45.97 | 38.02   | 11.40 | 35.73  | Peak    |

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

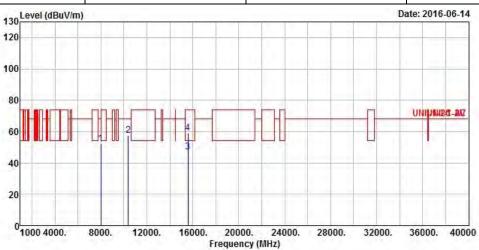
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| Transmitter Radiated Unwanted Emissions (Above 1GHz) |   |  |  |  |  |  |  |  |  |
|--|---|--|--|--|--|--|--|--|--|
| Modulation Mode                                      | Modulation Mode VHT40 Test Freq. (MHz) 5190 |  |  |  |  |  |  |  |  |
| N <sub>TX</sub>                                      | N <sub>TX</sub> 3 Polarization V            |  |  |  |  |  |  |  |  |



|   | Freq      | Level  |        | Limit<br>Line |       |       |       |       | Remark  |
|---|-----------|--------|--------|---------------|-------|-------|-------|-------|---------|
|   | MHz       | dBuV/m | dB     | dBuV/m        | dBuV  | dB/m  | dB    | dB    |         |
| 1 | 7999.000  | 52.23  | -15.97 | 68.20         | 42.68 | 37.20 | 7.98  | 35.63 | Peak    |
| 2 | 10380.000 | 57.80  | -10.40 | 68.20         | 44.45 | 39.51 | 9.44  | 35.60 | Peak    |
| 3 | 15570.000 | 47.00  | -7.00  | 54.00         | 32.80 | 38.35 | 11.50 | 35.65 | Average |
| 4 | 15570.000 | 58.98  | -15.02 | 74.00         | 44.78 | 38.35 | 11.50 | 35.65 | Peak    |

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

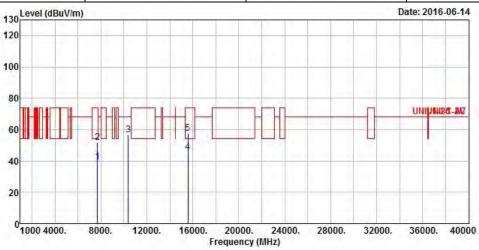
Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

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| Transmitter Radiated Unwanted Emissions (Above 1GHz) |   |              |   |  |  |  |  |
|--|---|--------------|---|--|--|--|--|
| Modulation ModeVHT40Test Freq. (MHz)5190             |   |              |   |  |  |  |  |
| $N_{TX}$   | 3 | Polarization | Н |  |  |  |  |



| Freq      | Level  |  |   |   |  |  |  | Remark  |
|-----------|--|--|---|---|--|--|--|---|
| MHz       | dBuV/m   | dB   | dBuV/m  | dBuV  | dB/m   | dB   | dB   |   |
| 7696.000  | 39.37  | -14.63   | 54.00   | 30.24   | 36.84  | 7.80   | 35.51  | Average   |
| 7696.000  | 51.70  | -22.30   | 74.00   | 42.57   | 36.84  | 7.80   | 35.51  | Peak  |
| 10380.000 | 56.49  | -11.71   | 68.20   | 43.14   | 39.51  | 9.44   | 35.60  | Peak  |
| 15570.000 | 45.67  | -8.33  | 54.00   | 31.47   | 38.35  | 11.50  | 35.65  | Average   |
| 15570.000 | 57.46  | -16.54   | 74.00   | 43.26   | 38.35  | 11.50  | 35.65  | Peak  |
|           | 7696.000<br>7696.000<br>10380.000<br>15570.000 | MHz dBuV/m 7696.000 39.37 7696.000 51.70 10380.000 56.49 15570.000 45.67 | Freq Level Limit  MHz dBuV/m dB  7696.000 39.37 -14.63 7696.000 51.70 -22.30 10380.000 56.49 -11.71 15570.000 45.67 -8.33 | Freq Level Limit Line  MHz dBuV/m dB dBuV/m  7696.000 39.37 -14.63 54.00 7696.000 51.70 -22.30 74.00 10380.000 56.49 -11.71 68.20 15570.000 45.67 -8.33 54.00 | Freq Level Limit Line Level  MHz dBuV/m dB dBuV/m dBuV  7696.000 39.37 -14.63 54.00 30.24 7696.000 51.70 -22.30 74.00 42.57 10380.000 56.49 -11.71 68.20 43.14 15570.000 45.67 -8.33 54.00 31.47 | Freq         Level         Limit         Line         Level         Factor           MHz         dBuV/m         dB dBuV/m         dBuV         dB/m           7696.000         39.37 -14.63         54.00         30.24         36.84           7696.000         51.70 -22.30         74.00         42.57         36.84           10380.000         56.49 -11.71         68.20         43.14         39.51           15570.000         45.67         -8.33         54.00         31.47         38.35 | Freq         Level         Limit         Line         Level         Factor         Loss           MHz         dBuV/m         dB dBuV/m         dBuV         dB/m         dB/m         dB           7696.000         39.37 -14.63         54.00         30.24         36.84         7.80           7696.000         51.70 -22.30         74.00         42.57         36.84         7.80           10380.000         56.49 -11.71         68.20         43.14         39.51         9.44           15570.000         45.67         -8.33         54.00         31.47         38.35         11.50 | Freq         Level         Limit         Line         Level         Factor         Loss Factor           MHz         dBuV/m         dB dBuV/m         dBuV         dB/m         dB         dB           7696.000         39.37 -14.63         54.00         30.24         36.84         7.80         35.51           7696.000         51.70 -22.30         74.00         42.57         36.84         7.80         35.51           10380.000         56.49 -11.71         68.20         43.14         39.51         9.44         35.60 |

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

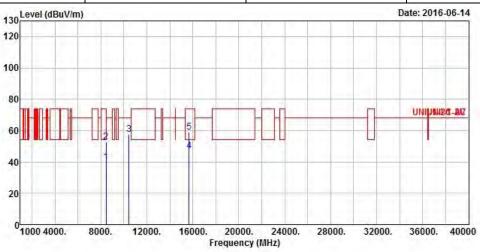
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| Transmitter Radiated Unwanted Emissions (Above 1GHz) |                                  |  |  |  |  |  |  |  |  |
|--|----------------------------------|--|--|--|--|--|--|--|--|
| Modulation Mode VHT40 Test Freq. (MHz) 5230          |                                  |  |  |  |  |  |  |  |  |
| N <sub>TX</sub>                                      | N <sub>TX</sub> 3 Polarization V |  |  |  |  |  |  |  |  |



|   | Freq      | Level  | Over<br>Limit |        |       | Antenna<br>Factor |       |       | Remark  |
|---|-----------|--------|---------------|--------|-------|-------------------|-------|-------|---------|
|   | MHz       | dBuV/m | dB            | dBuV/m | dBuV  | dB/m              | dB    | dB    |         |
| 1 | 8474.000  | 39.93  | -14.07        | 54.00  | 30.52 | 36.82             | 8.27  | 35.68 | Average |
| 2 | 8474.000  | 52.88  | -21.12        | 74.00  | 43.47 | 36.82             | 8.27  | 35.68 | Peak    |
| 3 | 10460.000 | 57.70  | -10.50        | 68.20  | 44.10 | 39.64             | 9.48  | 35.52 | Peak    |
| 4 | 15690.000 | 47.17  | -6.83         | 54.00  | 33.41 | 38.08             | 11.40 | 35.72 | Average |
| 5 | 15690.000 | 59.07  | -14.93        | 74.00  | 45.31 | 38.08             | 11.40 | 35.72 | Peak    |
|   |           |        |               |        |       |                   |       |       |         |

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

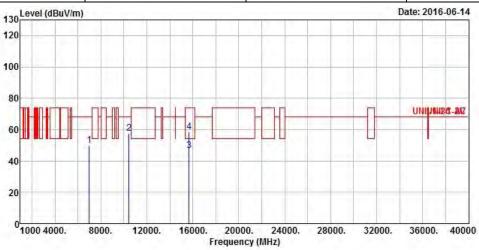
Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

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| Transmitter Radiated Unwanted Emissions (Above 1GHz) |  |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|--|
| Modulation Mode VHT40 Test Freq. (MHz) 5230          |  |  |  |  |  |  |  |  |
| N <sub>TX</sub> 3 Polarization H                     |  |  |  |  |  |  |  |  |



|   | Freq      | Level  |        | Limit<br>Line |       |       |       |       | Remark  |
|---|-----------|--------|--------|---------------|-------|-------|-------|-------|---------|
|   | MHz       | dBuV/m | dB     | dBuV/m        | dBuV  | dB/m  | dB    | dB    |         |
| 1 | 7002.000  | 49.99  | -18.21 | 68.20         | 42.58 | 35.31 | 7.49  | 35.39 | Peak    |
| 2 | 10460.000 | 57.38  | -10.82 | 68.20         | 43.78 | 39.64 | 9.48  | 35.52 | Peak    |
| 3 | 15690.000 | 46.73  | -7.27  | 54.00         | 32.97 | 38.08 | 11.40 | 35.72 | Average |
| 4 | 15690.000 | 58.55  | -15.45 | 74.00         | 44.79 | 38.08 | 11.40 | 35.72 | Peak    |

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

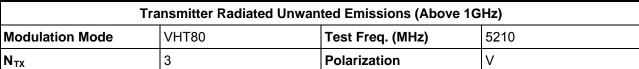
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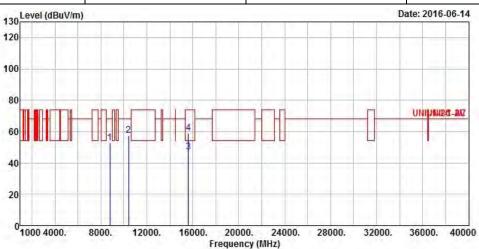
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|   | Freq      | Level  |        | Limit<br>Line |       |       |       |       | Remark  |
|---|-----------|--------|--------|---------------|-------|-------|-------|-------|---------|
|   | MHz       | dBuV/m | dB     | dBuV/m        | dBuV  | dB/m  | dB    | dB    |         |
| 1 | 8796.000  | 52.74  | -15.46 | 68.20         | 43.01 | 37.16 | 8.29  | 35.72 | Peak    |
| 2 | 10420.000 | 57.55  | -10.65 | 68.20         | 44.08 | 39.57 | 9.46  | 35.56 | Peak    |
| 3 | 15630.000 | 47.20  | -6.80  | 54.00         | 33.20 | 38.21 | 11.47 | 35.68 | Average |
| 4 | 15630.000 | 58.93  | -15.07 | 74.00         | 44.93 | 38.21 | 11.47 | 35.68 | Peak    |

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

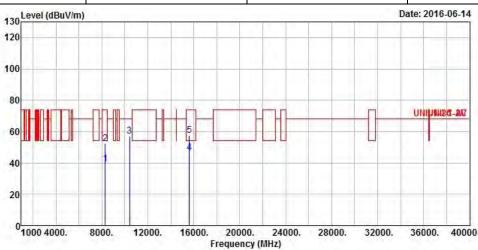
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| Transmitter Radiated Unwanted Emissions (Above 1GHz) |  |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|--|
| Modulation ModeVHT80Test Freq. (MHz)5210             |  |  |  |  |  |  |  |  |
| N <sub>TX</sub> 3 Polarization H                     |  |  |  |  |  |  |  |  |



| Freq      | Level   |  |   |   |  |  |   | Remark  |
|-----------|---|--|---|---|--|--|---|---|
| MHz       | dBuV/m  | dB   | dBuV/m  | dBuV  | dB/m   | dB   | dB  |   |
| 8296.000  | 39.33   | -14.67   | 54.00   | 29.87   | 36.96  | 8.16   | 35.66   | Average   |
| 8296.000  | 52.15   | -21.85   | 74.00   | 42.69   | 36.96  | 8.16   | 35.66   | Peak  |
| 10420.000 | 57.04   | -11.16   | 68.20   | 43.57   | 39.57  | 9.46   | 35.56   | Peak  |
| 15630.000 | 46.69   | -7.31  | 54.00   | 32.69   | 38.21  | 11.47  | 35.68   | Average   |
| 15630.000 | 57.74   | -16.26   | 74.00   | 43.74   | 38.21  | 11.47  | 35.68   | Peak  |
|           | MHz<br>8296.000<br>8296.000<br>10420.000<br>15630.000 | MHz dBuV/m<br>8296.000 39.33<br>8296.000 52.15<br>10420.000 57.04<br>15630.000 46.69 | Freq Level Limit  MHz dBuV/m dB  8296.000 39.33 -14.67 8296.000 52.15 -21.85 10420.000 57.04 -11.16 15630.000 46.69 -7.31 | Freq Level Limit Line  MHz dBuV/m dB dBuV/m  8296.000 39.33 -14.67 54.00 8296.000 52.15 -21.85 74.00 10420.000 57.04 -11.16 68.20 15630.000 46.69 -7.31 54.00 | Freq Level Limit Line Level  MHz dBuV/m dB dBuV/m dBuV  8296.000 39.33 -14.67 54.00 29.87 8296.000 52.15 -21.85 74.00 42.69 10420.000 57.04 -11.16 68.20 43.57 15630.000 46.69 -7.31 54.00 32.69 | Freq Level Limit Line Level Factor  MHz dBuV/m dB dBuV/m dBuV dB/m  8296.000 39.33 -14.67 54.00 29.87 36.96 8296.000 52.15 -21.85 74.00 42.69 36.96 10420.000 57.04 -11.16 68.20 43.57 39.57 15630.000 46.69 -7.31 54.00 32.69 38.21 | Freq         Level         Limit         Line         Level         Factor         Loss           MHz         dBuV/m         dB         dBuV/m         dBuV         dB/m         dB           8296.000         39.33         -14.67         54.00         29.87         36.96         8.16           8296.000         52.15         -21.85         74.00         42.69         36.96         8.16           10420.000         57.04         -11.16         68.20         43.57         39.57         9.46           15630.000         46.69         -7.31         54.00         32.69         38.21         11.47 | Freq         Level         Limit         Line         Level         Factor         Loss Factor           MHz         dBuV/m         dB dBuV/m         dBuV         dB/m         dB         dB           8296.000         39.33 -14.67         54.00         29.87         36.96         8.16         35.66           8296.000         52.15 -21.85         74.00         42.69         36.96         8.16         35.66           10420.000         57.04 -11.16         68.20         43.57         39.57         9.46         35.56 |

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

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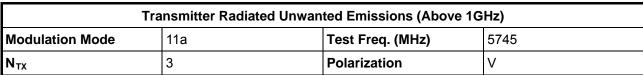
FAX: 886-3-327-0973

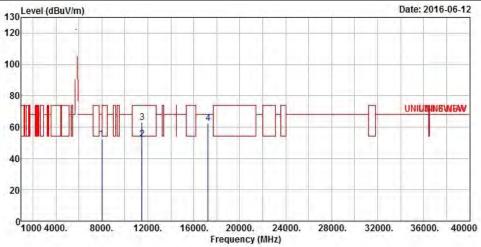
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#### Transmitter Radiated Unwanted Emissions (Above 1GHz) for 5725-5850MHz



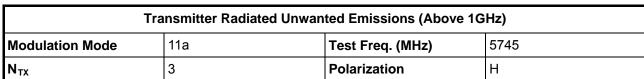


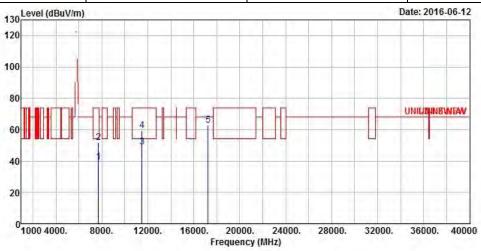
|   | Freq      | Level  |        | Limit<br>Line |       |       |       |       | Remark  |
|---|-----------|--------|--------|---------------|-------|-------|-------|-------|---------|
|   | MHz       | dBuV/m | dB     | dBuV/m        | dBuV  | dB/m  | dB    | dB    |         |
| 1 | 8003.000  | 52.25  | -15.95 | 68.20         | 42.68 | 37.20 | 8.00  | 35.63 | Peak    |
| 2 | 11490.000 | 52.19  | -1.81  | 54.00         | 37.63 | 40.10 | 9.74  | 35.28 | Average |
| 3 | 11490.000 | 62.90  | -11.10 | 74.00         | 48.34 | 40.10 | 9.74  | 35.28 | Peak    |
| 4 | 17235.000 | 62.47  | -5.73  | 68.20         | 44.58 | 41.05 | 11.93 | 35.09 | Peak    |

- Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.
- Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)
- Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)
- Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.
- Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.
- Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

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|   | Freq      | Level  | Over<br>Limit | Limit<br>Line |       | Antenna<br>Factor |       |       | Remark  |
|---|-----------|--------|---------------|---------------|-------|-------------------|-------|-------|---------|
|   | MHz       | dBuV/m | dB            | dBuV/m        | dBuV  | dB/m              | dB    | dB    |         |
| 1 | 7695.000  | 39.17  | -14.83        | 54.00         | 30.05 | 36.83             | 7.80  | 35.51 | Average |
| 2 | 7695.000  | 51.90  | -22.10        | 74.00         | 42.78 | 36.83             | 7.80  | 35.51 | Peak    |
| 3 | 11490.000 | 48.70  | -5.30         | 54.00         | 34.14 | 40.10             | 9.74  | 35.28 | Average |
| 4 | 11490.000 | 59.59  | -14.41        | 74.00         | 45.03 | 40.10             | 9.74  | 35.28 | Peak    |
| 5 | 17235.000 | 62.65  | -5.55         | 68.20         | 44.76 | 41.05             | 11.93 | 35.09 | Peak    |

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

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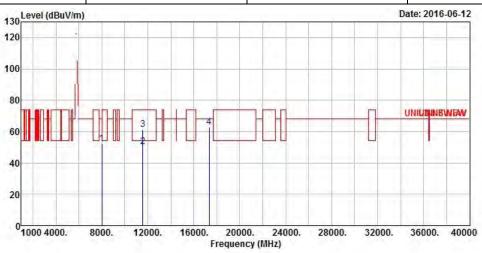
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| Tra             | Transmitter Radiated Unwanted Emissions (Above 1GHz) |                  |      |  |  |  |  |  |  |
|-----------------|--|------------------|------|--|--|--|--|--|--|
| Modulation Mode | 11a  | Test Freq. (MHz) | 5785 |  |  |  |  |  |  |
| N <sub>TX</sub> | N <sub>TX</sub> 3 Polarization V                     |                  |      |  |  |  |  |  |  |



|   |           |        | Over   | Limit  | Read  | Antenna | Cable | Preamp |         |
|---|-----------|--------|--------|--------|-------|---------|-------|--------|---------|
|   | Freq      | Level  | Limit  | Line   | Level | Factor  | Loss  | Factor | Remark  |
|   | MHz       | dBuV/m | dB     | dBuV/m | dBuV  | dB/m    | dB    | dB     |         |
| 1 | 8006.000  | 52.26  | -15.94 | 68.20  | 42.69 | 37.20   | 8.00  | 35.63  | Peak    |
| 2 | 11570.000 | 50.21  | -3.79  | 54.00  | 35.80 | 39.93   | 9.79  | 35.31  | Average |
| 3 | 11570.000 | 61.28  | -12.72 | 74.00  | 46.87 | 39.93   | 9.79  | 35.31  | Peak    |
| 4 | 17355.000 | 62.60  | -5.60  | 68.20  | 44.38 | 41.44   | 11.92 | 35.14  | Peak    |
|   |           |        |        |        |       |         |       |        |         |

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

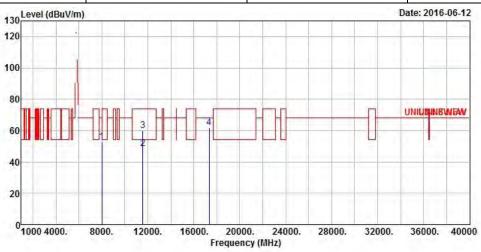
Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

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| Transmitter Radiated Unwanted Emissions (Above 1GHz) |     |                  |      |  |  |  |  |  |
|--|-----|------------------|------|--|--|--|--|--|
| Modulation Mode                                      | 11a | Test Freq. (MHz) | 5785 |  |  |  |  |  |
| $N_{TX}$   | 3   | Polarization     | Н    |  |  |  |  |  |



|   |           |        | Over   | Limit  | Read  | Antenna | Cable | Preamp |         |
|---|-----------|--------|--------|--------|-------|---------|-------|--------|---------|
|   | Freq      | Level  | Limit  | Line   | Level | Factor  | Loss  | Factor | Remark  |
|   | MHz       | dBuV/m | dB     | dBuV/m | dBuV  | dB/m    | dB    | dB     |         |
| 1 | 7999.000  | 52.80  | -15.40 | 68.20  | 43.25 | 37.20   | 7.98  | 35.63  | Peak    |
| 2 | 11570.000 | 48.66  | -5.34  | 54.00  | 34.25 | 39.93   | 9.79  | 35.31  | Average |
| 3 | 11570.000 | 59.77  | -14.23 | 74.00  | 45.36 | 39.93   | 9.79  | 35.31  | Peak    |
| 4 | 17355.000 | 61.95  | -6.25  | 68.20  | 43.73 | 41.44   | 11.92 | 35.14  | Peak    |
|   |           |        |        |        |       |         |       |        |         |

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

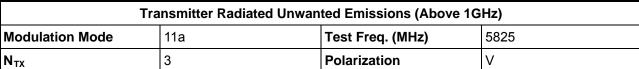
Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

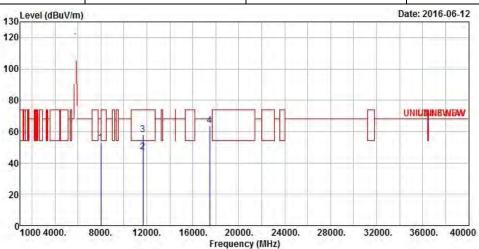
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|   |           |        | Over   | Limit  | ReadA | Antenna | Cable | Preamp |         |
|---|-----------|--------|--------|--------|-------|---------|-------|--------|---------|
|   | Freq      | Level  | Limit  | Line   | Level | Factor  | Loss  | Factor | Remark  |
|   | MHz       | dBuV/m | dB     | dBuV/m | dBuV  | dB/m    | dB    | dB     |         |
| 1 | 8003.000  | 52.55  | -15.65 | 68.20  | 42.98 | 37.20   | 8.00  | 35.63  | Peak    |
| 2 | 11650.000 | 47.10  | -6.90  | 54.00  | 32.86 | 39.74   | 9.84  | 35.34  | Average |
| 3 | 11650.000 | 58.27  | -15.73 | 74.00  | 44.03 | 39.74   | 9.84  | 35.34  | Peak    |
| 4 | 17475.000 | 63.86  | -4.34  | 68.20  | 45.32 | 41.82   | 11.90 | 35.18  | Peak    |
|   |           |        |        |        |       |         |       |        |         |

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

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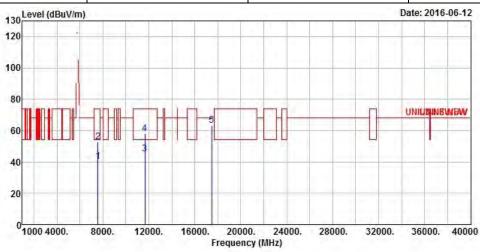
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| Transmitter Radiated Unwanted Emissions (Above 1GHz) |     |                  |      |  |  |  |  |  |
|--|-----|------------------|------|--|--|--|--|--|
| Modulation Mode                                      | 11a | Test Freq. (MHz) | 5825 |  |  |  |  |  |
| $N_{TX}$   | 3   | Polarization     | Н    |  |  |  |  |  |



| Freq      | Leve1  |  |   |   |  |  |  | Remark   |
|-----------|--|--|---|---|--|--|--|--|
| MHz       | dBuV/m   | dB   | dBuV/m  | dBuV  | dB/m   | dB   | dB   |  |
| 7587.000  | 40.47  | -13.53   | 54.00   | 31.52   | 36.70  | 7.72   | 35.47  | Average  |
| 7587.000  | 52.93  | -21.07   | 74.00   | 43.98   | 36.70  | 7.72   | 35.47  | Peak   |
| 11650.000 | 44.98  | -9.02  | 54.00   | 30.74   | 39.74  | 9.84   | 35.34  | Average  |
| 11650.000 | 57.92  | -16.08   | 74.00   | 43.68   | 39.74  | 9.84   | 35.34  | Peak   |
| 17475.000 | 63.28  | -4.92  | 68.20   | 44.74   | 41.82  | 11.90  | 35.18  | Peak   |
|           | 7587.000<br>7587.000<br>11650.000<br>11650.000 | MHz dBuV/m<br>7587.000 40.47<br>7587.000 52.93<br>11650.000 44.98<br>11650.000 57.92 | Freq Level Limit  MHz dBuV/m dB  7587.000 40.47 -13.53 7587.000 52.93 -21.07 11650.000 44.98 -9.02 11650.000 57.92 -16.08 | Freq Level Limit Line  MHz dBuV/m dB dBuV/m  7587.000 40.47 -13.53 54.00 7587.000 52.93 -21.07 74.00 11650.000 44.98 -9.02 54.00 11650.000 57.92 -16.08 74.00 | Freq Level Limit Line Level  MHz dBuV/m dB dBuV/m dBuV  7587.000 40.47 -13.53 54.00 31.52 7587.000 52.93 -21.07 74.00 43.98 11650.000 44.98 -9.02 54.00 30.74 11650.000 57.92 -16.08 74.00 43.68 | Freq Level Limit Line Level Factor  MHz dBuV/m dB dBuV/m dBuV dB/m  7587.000 40.47 -13.53 54.00 31.52 36.70 7587.000 52.93 -21.07 74.00 43.98 36.70 11650.000 44.98 -9.02 54.00 30.74 39.74 11650.000 57.92 -16.08 74.00 43.68 39.74 | Freq Level Limit Line Level Factor Loss  MHz dBuV/m dB dBuV/m dBuV dB/m dB  7587.000 40.47 -13.53 54.00 31.52 36.70 7.72 7587.000 52.93 -21.07 74.00 43.98 36.70 7.72 11650.000 44.98 -9.02 54.00 30.74 39.74 9.84 11650.000 57.92 -16.08 74.00 43.68 39.74 9.84 | Freq Level Limit Line Level Factor Loss Factor  MHz dBuV/m dB dBuV/m dBuV dB/m dB dB  7587.000 40.47 -13.53 54.00 31.52 36.70 7.72 35.47 7587.000 52.93 -21.07 74.00 43.98 36.70 7.72 35.47 11650.000 44.98 -9.02 54.00 30.74 39.74 9.84 35.34 11650.000 57.92 -16.08 74.00 43.68 39.74 9.84 35.34 |

Note 1: ">20dB" means spurious emission levels that exceed the level of 20 dB below the applicable limit.

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

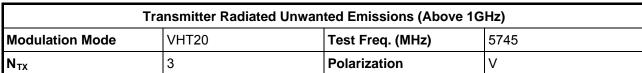
Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

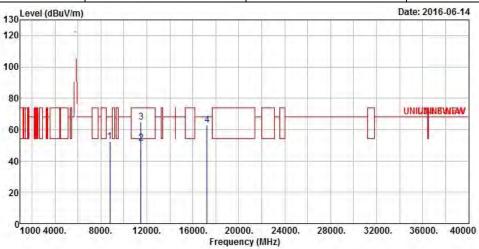
Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

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|   |           |        | Over   | Limit  | Read  | Antenna | Cable | Preamp |         |
|---|-----------|--------|--------|--------|-------|---------|-------|--------|---------|
|   | Freq      | Level  | Limit  | Line   | Level | Factor  | Loss  | Factor | Remark  |
|   | MHz       | dBuV/m | dB     | dBuV/m | dBuV  | dB/m    | dB    | dB     |         |
| 1 | 8796.000  | 52.31  | -15.89 | 68.20  | 42.58 | 37.16   | 8.29  | 35.72  | Peak    |
| 2 | 11490.000 | 51.16  | -2.84  | 54.00  | 36.60 | 40.10   | 9.74  | 35.28  | Average |
| 3 | 11490.000 | 64.83  | -9.17  | 74.00  | 50.27 | 40.10   | 9.74  | 35.28  | Peak    |
| 4 | 17235.000 | 62.92  | -5.28  | 68.20  | 45.03 | 41.05   | 11.93 | 35.09  | Peak    |
|   |           |        |        |        |       |         |       |        |         |

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

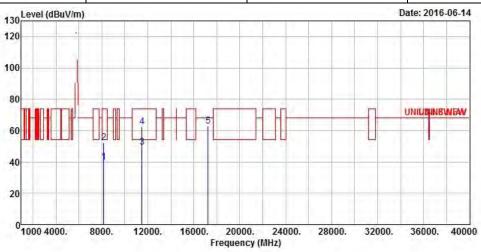
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| Tra             | Transmitter Radiated Unwanted Emissions (Above 1GHz) |                  |      |  |  |  |  |  |  |
|-----------------|--|------------------|------|--|--|--|--|--|--|
| Modulation Mode | VHT20  | Test Freq. (MHz) | 5745 |  |  |  |  |  |  |
| N <sub>TX</sub> | 3  | Polarization     | Н    |  |  |  |  |  |  |



|   | Freq      | Level  | Over<br>Limit | Limit<br>Line |       | Antenna<br>Factor |       |       | Remark  |
|---|-----------|--------|---------------|---------------|-------|-------------------|-------|-------|---------|
|   | MHz       | dBuV/m | dB            | dBuV/m        | dBuV  | dB/m              | dB    | dB    |         |
| 1 | 8154.000  | 39.64  | -14.36        | 54.00         | 30.14 | 37.08             | 8.07  | 35.65 | Average |
| 2 | 8154.000  | 52.46  | -21.54        | 74.00         | 42.96 | 37.08             | 8.07  | 35.65 | Peak    |
| 3 | 11490.000 | 49.19  | -4.81         | 54.00         | 34.63 | 40.10             | 9.74  | 35.28 | Average |
| 4 | 11490.000 | 62.57  | -11.43        | 74.00         | 48.01 | 40.10             | 9.74  | 35.28 | Peak    |
| 5 | 17235.000 | 62.73  | -5.47         | 68.20         | 44.84 | 41.05             | 11.93 | 35.09 | Peak    |

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

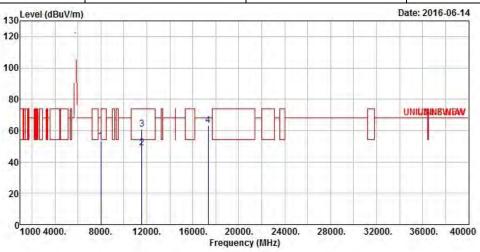
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| Transmitter Radiated Unwanted Emissions (Above 1GHz) |       |                  |      |  |  |  |  |  |
|--|-------|------------------|------|--|--|--|--|--|
| Modulation Mode                                      | VHT20 | Test Freq. (MHz) | 5785 |  |  |  |  |  |
| N <sub>TX</sub>                                      | 3     | Polarization     | V    |  |  |  |  |  |



|   | Freq      | Level  |        | Limit<br>Line |       |       |       |       | Remark  |
|---|-----------|--------|--------|---------------|-------|-------|-------|-------|---------|
|   | MHz       | dBuV/m | dB     | dBuV/m        | dBuV  | dB/m  | dB    | dB    |         |
| 1 | 8002.000  | 53.25  | -14.95 | 68.20         | 43.68 | 37.20 | 8.00  | 35.63 | Peak    |
| 2 | 11570.000 | 48.71  | -5.29  | 54.00         | 34.30 | 39.93 | 9.79  | 35.31 | Average |
| 3 | 11570.000 | 60.99  | -13.01 | 74.00         | 46.58 | 39.93 | 9.79  | 35.31 | Peak    |
| 4 | 17355.000 | 63.25  | -4.95  | 68.20         | 45.03 | 41.44 | 11.92 | 35.14 | Peak    |

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

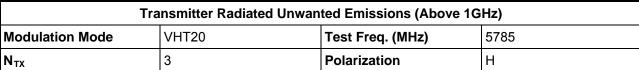
Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

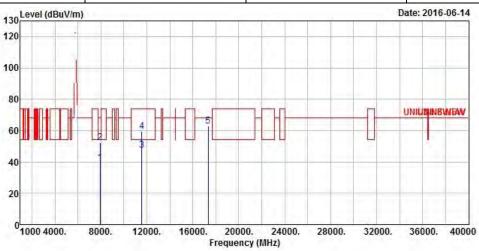
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| Freq      | Level  |  |   |   |  |   |  | Remark   |
|-----------|--|--|---|---|--|---|--|--|
| MHz       | dBuV/m   | dB   | dBuV/m  | dBuV  | dB/m   | dB  | dB   |  |
| 7947.000  | 39.50  | -28.70   | 68.20   | 30.02   | 37.14  | 7.95  | 35.61  | Average  |
| 7947.000  | 52.46  | -15.74   | 68.20   | 42.98   | 37.14  | 7.95  | 35.61  | Peak   |
| 11570.000 | 47.37  | -6.63  | 54.00   | 32.96   | 39.93  | 9.79  | 35.31  | Average  |
| 11570.000 | 59.37  | -14.63   | 74.00   | 44.96   | 39.93  | 9.79  | 35.31  | Peak   |
| 17355.000 | 62.95  | -5.25  | 68.20   | 44.73   | 41.44  | 11.92   | 35.14  | Peak   |
|           | 7947.000<br>7947.000<br>11570.000<br>11570.000 | MHz dBuV/m 7947.000 39.50 7947.000 52.46 11570.000 47.37 11570.000 59.37 | Freq Level Limit  MHz dBuV/m dB  7947.000 39.50 -28.70 7947.000 52.46 -15.74 11570.000 47.37 -6.63 11570.000 59.37 -14.63 | Freq Level Limit Line  MHz dBuV/m dB dBuV/m  7947.000 39.50 -28.70 68.20 7947.000 52.46 -15.74 68.20 11570.000 47.37 -6.63 54.00 11570.000 59.37 -14.63 74.00 | Freq Level Limit Line Level  MHz dBuV/m dB dBuV/m dBuV  7947.000 39.50 -28.70 68.20 30.02 7947.000 52.46 -15.74 68.20 42.98 11570.000 47.37 -6.63 54.00 32.96 11570.000 59.37 -14.63 74.00 44.96 | Freq Level Limit Line Level Factor  MHz dBuV/m dB dBuV/m dBuV dB/m  7947.000 39.50 -28.70 68.20 30.02 37.14 7947.000 52.46 -15.74 68.20 42.98 37.14 11570.000 47.37 -6.63 54.00 32.96 39.93 | Freq Level Limit Line Level Factor Loss  MHz dBuV/m dB dBuV/m dBuV dB/m dB  7947.000 39.50 -28.70 68.20 30.02 37.14 7.95 7947.000 52.46 -15.74 68.20 42.98 37.14 7.95 11570.000 47.37 -6.63 54.00 32.96 39.93 9.79 11570.000 59.37 -14.63 74.00 44.96 39.93 9.79 | Freq Level Limit Line Level Factor Loss Factor  MHz dBuV/m dB dBuV/m dBuV dB/m dB dB  7947.000 39.50 -28.70 68.20 30.02 37.14 7.95 35.61 7947.000 52.46 -15.74 68.20 42.98 37.14 7.95 35.61 11570.000 47.37 -6.63 54.00 32.96 39.93 9.79 35.31 11570.000 59.37 -14.63 74.00 44.96 39.93 9.79 35.31 |

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

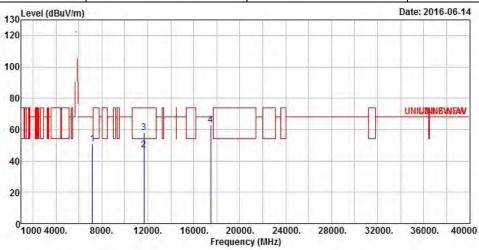
Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

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| Transmitter Radiated Unwanted Emissions (Above 1GHz) |       |                  |      |  |  |  |  |  |
|--|-------|------------------|------|--|--|--|--|--|
| Modulation Mode                                      | VHT20 | Test Freq. (MHz) | 5825 |  |  |  |  |  |
| N <sub>TX</sub>                                      | 3     | Polarization     | V    |  |  |  |  |  |



|   |           |        |        | Limit  |       |        |       |        |         |
|---|-----------|--------|--------|--------|-------|--------|-------|--------|---------|
|   | Freq      | Level  | Limit  | Line   | Level | Factor | Loss  | Factor | Remark  |
|   | MHz       | dBuV/m | dB     | dBuV/m | dBuV  | dB/m   | dB    | dB     |         |
| 1 | 7185.000  | 50.89  | -17.31 | 68.20  | 42.96 | 35.78  | 7.56  | 35.41  | Peak    |
| 2 | 11650.000 | 46.94  | -7.06  | 54.00  | 32.70 | 39.74  | 9.84  | 35.34  | Average |
| 3 | 11650.000 | 58.00  | -16.00 | 74.00  | 43.76 | 39.74  | 9.84  | 35.34  | Peak    |
| 4 | 17475.000 | 62.64  | -5.56  | 68.20  | 44.10 | 41.82  | 11.90 | 35.18  | Peak    |
|   |           |        |        |        |       |        |       |        |         |

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

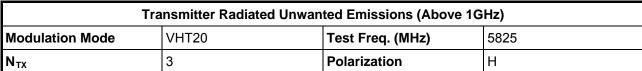
Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

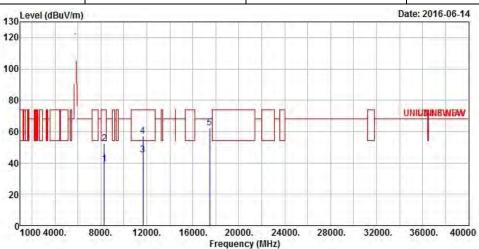
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|   | Freq      | Level  | Over<br>Limit | Limit<br>Line |       | Antenna<br>Factor |       |       | Remark  |
|---|-----------|--------|---------------|---------------|-------|-------------------|-------|-------|---------|
|   | MHz       | dBuV/m | dB            | dBuV/m        | dBuV  | dB/m              | dB    | dB    |         |
| 1 | 8296.000  | 39.42  | -14.58        | 54.00         | 29.96 | 36.96             | 8.16  | 35.66 | Average |
| 2 | 8296.000  | 52.31  | -21.69        | 74.00         | 42.85 | 36.96             | 8.16  | 35.66 | Peak    |
| 3 | 11650.000 | 45.22  | -8.78         | 54.00         | 30.98 | 39.74             | 9.84  | 35.34 | Average |
| 4 | 11650.000 | 57.11  | -16.89        | 74.00         | 42.87 | 39.74             | 9.84  | 35.34 | Peak    |
| 5 | 17475.000 | 62.32  | -5.88         | 68.20         | 43.78 | 41.82             | 11.90 | 35.18 | Peak    |

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

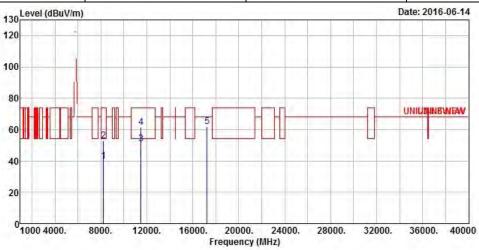
Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

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| Transmitter Radiated Unwanted Emissions (Above 1GHz) |       |                  |      |  |  |  |  |  |
|--|-------|------------------|------|--|--|--|--|--|
| Modulation Mode                                      | VHT40 | Test Freq. (MHz) | 5755 |  |  |  |  |  |
| $N_{TX}$   | 3     | Polarization     | V    |  |  |  |  |  |



|   | Freq      | Level  | Over<br>Limit | Limit<br>Line |       | Antenna<br>Factor |       |       | Remark  |
|---|-----------|--------|---------------|---------------|-------|-------------------|-------|-------|---------|
|   | MHz       | dBuV/m | dB            | dBuV/m        | dBuV  | dB/m              | dB    | dB    |         |
| 1 | 8233.000  | 39.61  | -14.39        | 54.00         | 30.14 | 37.01             | 8.11  | 35.65 | Average |
| 2 | 8233.000  | 52.94  | -21.06        | 74.00         | 43.47 | 37.01             | 8.11  | 35.65 | Peak    |
| 3 | 11510.000 | 50.67  | -3.33         | 54.00         | 36.13 | 40.08             | 9.74  | 35.28 | Average |
| 4 | 11510.000 | 61.52  | -12.48        | 74.00         | 46.98 | 40.08             | 9.74  | 35.28 | Peak    |
| 5 | 17265.000 | 62.07  | -6.13         | 68.20         | 44.11 | 41.15             | 11.92 | 35.11 | Peak    |

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

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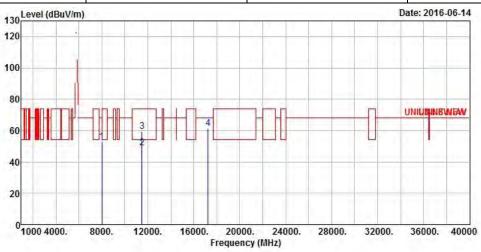
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| Transmitter Radiated Unwanted Emissions (Above 1GHz) |       |                  |      |  |  |  |  |  |
|--|-------|------------------|------|--|--|--|--|--|
| Modulation Mode                                      | VHT40 | Test Freq. (MHz) | 5755 |  |  |  |  |  |
| $N_{TX}$   | 3     | Polarization     | Н    |  |  |  |  |  |



|   | Freq      | Level  |        | Limit<br>Line |       |       |       |       | Remark  |
|---|-----------|--------|--------|---------------|-------|-------|-------|-------|---------|
|   | MHz       | dBuV/m | dB     | dBuV/m        | dBuV  | dB/m  | dB    | dB    |         |
| 1 | 7995.000  | 52.56  | -15.64 | 68.20         | 43.02 | 37.19 | 7.98  | 35.63 | Peak    |
| 2 | 11510.000 | 48.78  | -5.22  | 54.00         | 34.24 | 40.08 | 9.74  | 35.28 | Average |
| 3 | 11510.000 | 59.55  | -14.45 | 74.00         | 45.01 | 40.08 | 9.74  | 35.28 | Peak    |
| 4 | 17265.000 | 61.44  | -6.76  | 68.20         | 43.48 | 41.15 | 11.92 | 35.11 | Peak    |

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

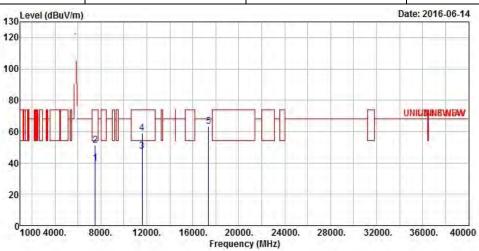
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| Transmitter Radiated Unwanted Emissions (Above 1GHz) |       |                  |      |  |  |  |  |  |
|--|-------|------------------|------|--|--|--|--|--|
| Modulation Mode                                      | VHT40 | Test Freq. (MHz) | 5795 |  |  |  |  |  |
| $N_{TX}$   | 3     | Polarization     | V    |  |  |  |  |  |



|   | Freq      | Level  | Over<br>Limit |        |       | Antenna<br>Factor |       |       | Remark  |
|---|-----------|--------|---------------|--------|-------|-------------------|-------|-------|---------|
|   | MHz       | dBuV/m | dB            | dBuV/m | dBuV  | dB/m              | dB    | dB    |         |
| 1 | 7496.000  | 39.67  | -14.33        | 54.00  | 30.85 | 36.59             | 7.67  | 35.44 | Average |
| 2 | 7496.000  | 51.50  | -22.50        | 74.00  | 42.68 | 36.59             | 7.67  | 35.44 | Peak    |
| 3 | 11590.000 | 47.48  | -6.52         | 54.00  | 33.10 | 39.88             | 9.82  | 35.32 | Average |
| 4 | 11590.000 | 59.14  | -14.86        | 74.00  | 44.76 | 39.88             | 9.82  | 35.32 | Peak    |
| 5 | 17385.000 | 63.51  | -4.69         | 68.20  | 45.22 | 41.53             | 11.91 | 35.15 | Peak    |
|   |           |        |               |        |       |                   |       |       |         |

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

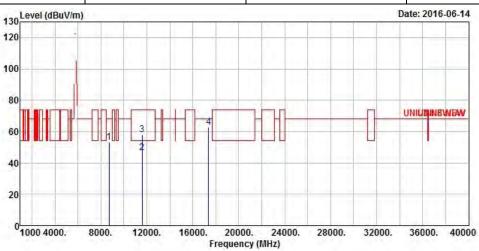
Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

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| Transmitter Radiated Unwanted Emissions (Above 1GHz) |       |                  |      |  |  |  |  |  |
|--|-------|------------------|------|--|--|--|--|--|
| Modulation Mode                                      | VHT40 | Test Freq. (MHz) | 5795 |  |  |  |  |  |
| N <sub>TX</sub>                                      | 3     | Polarization     | Н    |  |  |  |  |  |



|   | Freq      | Level  |        | Limit<br>Line |       |       |       |       | Remark  |
|---|-----------|--------|--------|---------------|-------|-------|-------|-------|---------|
|   | MHz       | dBuV/m | dB     | dBuV/m        | dBuV  | dB/m  | dB    | dB    |         |
| 1 | 8736.000  | 53.37  | -14.83 | 68.20         | 43.71 | 37.08 | 8.29  | 35.71 | Peak    |
| 2 | 11590.000 | 46.74  | -7.26  | 54.00         | 32.36 | 39.88 | 9.82  | 35.32 | Average |
| 3 | 11590.000 | 58.09  | -15.91 | 74.00         | 43.71 | 39.88 | 9.82  | 35.32 | Peak    |
| 4 | 17385.000 | 62.98  | -5.22  | 68.20         | 44.69 | 41.53 | 11.91 | 35.15 | Peak    |

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

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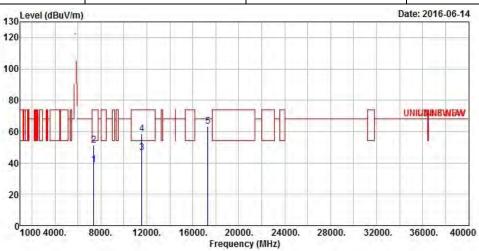
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| Transmitter Radiated Unwanted Emissions (Above 1GHz) |       |                  |   |  |  |  |  |  |
|--|-------|------------------|---|--|--|--|--|--|
| Modulation Mode                                      | VHT80 | Test Freq. (MHz) |   |  |  |  |  |  |
| N <sub>TX</sub>                                      | 3     | Polarization     | V |  |  |  |  |  |



| Freq      | Level  |  |  |   |   |  |  | Remark   |
|-----------|--|--|--|---|---|--|--|--|
| MHz       | dBuV/m   | dB   | dBuV/m   | dBuV  | dB/m  | dB   | dB   |  |
| 7396.000  | 38.67  | -15.33   | 54.00  | 30.14   | 36.33   | 7.63   | 35.43  | Average  |
| 7396.000  | 51.55  | -22.45   | 74.00  | 43.02   | 36.33   | 7.63   | 35.43  | Peak   |
| 11550.000 | 46.57  | -7.43  | 54.00  | 32.10   | 39.98   | 9.79   | 35.30  | Average  |
| 11550.000 | 58.64  | -15.36   | 74.00  | 44.17   | 39.98   | 9.79   | 35.30  | Peak   |
| 17325.000 | 63.48  | -4.72  | 68.20  | 45.35   | 41.34   | 11.92  | 35.13  | Peak   |
|           | 7396.000<br>7396.000<br>11550.000<br>11550.000 | MHz dBuV/m 7396.000 38.67 7396.000 51.55 11550.000 46.57 11550.000 58.64 | Freq Level Limit  MHz dBuV/m dB  7396.000 38.67 -15.33  7396.000 51.55 -22.45 11550.000 46.57 -7.43 11550.000 58.64 -15.36 | Freq Level Limit Line  MHz dBuV/m dB dBuV/m  7396.000 38.67 -15.33 54.00 7396.000 51.55 -22.45 74.00 11550.000 46.57 -7.43 54.00 11550.000 58.64 -15.36 74.00 | Freq Level Limit Line Level  MHz dBuV/m dB dBuV/m dBuV  7396.000 38.67 -15.33 54.00 30.14  7396.000 51.55 -22.45 74.00 43.02  11550.000 46.57 -7.43 54.00 32.10  11550.000 58.64 -15.36 74.00 44.17 | Freq         Level         Limit         Line         Level         Factor           MHz         dBuV/m         dB dBuV/m         dBuV         dB/m           7396.000         38.67 -15.33         54.00         30.14         36.33           7396.000         51.55 -22.45         74.00         43.02         36.33           11550.000         46.57 -7.43         54.00         32.10         39.98           11550.000         58.64 -15.36         74.00         44.17         39.98 | Freq         Level         Limit         Line         Level         Factor         Loss           MHz         dBuV/m         dB         dBuV/m         dBuV         dB/m         dB           7396.000         38.67         -15.33         54.00         30.14         36.33         7.63           7396.000         51.55         -22.45         74.00         43.02         36.33         7.63           11550.000         46.57         -7.43         54.00         32.10         39.98         9.79           11550.000         58.64         -15.36         74.00         44.17         39.98         9.79 | 7396.000 38.67 -15.33 54.00 30.14 36.33 7.63 35.43 7396.000 51.55 -22.45 74.00 43.02 36.33 7.63 35.43 11550.000 46.57 -7.43 54.00 32.10 39.98 9.79 35.30 11550.000 58.64 -15.36 74.00 44.17 39.98 9.79 35.30 |

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

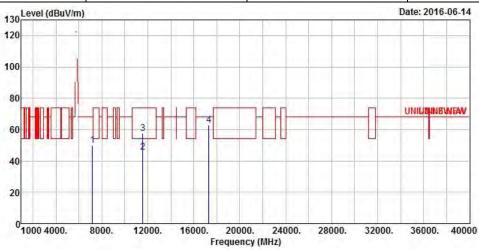
Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

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| Transmitter Radiated Unwanted Emissions (Above 1GHz) |       |                  |      |  |  |  |  |  |
|--|-------|------------------|------|--|--|--|--|--|
| Modulation Mode                                      | VHT80 | Test Freq. (MHz) | 5775 |  |  |  |  |  |
| N <sub>TX</sub>                                      | 3     | Polarization     | Н    |  |  |  |  |  |



|   |           |        | Over   | Limit  | ReadA | Antenna | Cable | Preamp |         |
|---|-----------|--------|--------|--------|-------|---------|-------|--------|---------|
|   | Freq      | Level  | Limit  | Line   | Level | Factor  | Loss  | Factor | Remark  |
|   | MHz       | dBuV/m | dB     | dBuV/m | dBuV  | dB/m    | dB    | dB     |         |
| 1 | 7185.000  | 49.89  | -18.31 | 68.20  | 41.96 | 35.78   | 7.56  | 35.41  | Peak    |
| 2 | 11550.000 | 45.45  | -8.55  | 54.00  | 30.98 | 39.98   | 9.79  | 35.30  | Average |
| 3 | 11550.000 | 57.34  | -16.66 | 74.00  | 42.87 | 39.98   | 9.79  | 35.30  | Peak    |
| 4 | 17325.000 | 62.98  | -5.22  | 68.20  | 44.85 | 41.34   | 11.92 | 35.13  | Peak    |

Note 2: "N/F" means Nothing Found spurious emissions (No spurious emissions were detected.)

Note 3: Measurement receive antenna polarization: H (Horizontal), V (Vertical)

Note 4: For restricted bands, the peak measurement is fully sufficient, as the max field strength as measured with the Peak-Detector meets the AV-Limit so that the AV level does not need to be reported in addition.

Note 5: For un-restricted bands emission satisfies both the average and peak limits of 15.209, it is not required to satisfy the -27 dBm peak emission limit of 15.407.

Note 6: No level of unwanted emissions exceeds the level of the fundamental emission.

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# Frequency Stability

|                         | Condition       |           | Frequency (MHz) |            |            |            |  |
|-------------------------|-----------------|-----------|-----------------|------------|------------|------------|--|
| Extreme                 | Modulation Mode | Test Freq | 0 min           | 2 min      | 5 min      | 10 min     |  |
| $T_{20^{\circ}C}Vmax$   | CW              | 5200      | 5199.97525      | 5199.97569 | 5199.97482 | 5199.97525 |  |
| T <sub>20°C</sub> Vmin  | CW              | 5200      | 5199.97569      | 5199.97525 | 5199.97482 | 5199.97438 |  |
| T <sub>70°C</sub> Vnom  | CW              | 5200      | 5200.07294      | 5200.07337 | 5200.07381 | 5200.07424 |  |
| T <sub>60°C</sub> Vnom  | CW              | 5200      | 5200.02475      | 5200.02518 | 5200.02518 | 5200.02562 |  |
| $T_{50^{\circ}C}Vnom$   | CW              | 5200      | 5199.99045      | 5199.99088 | 5199.99132 | 5199.99175 |  |
| T <sub>40°C</sub> Vnom  | CW              | 5200      | 5199.97395      | 5199.97438 | 5199.97438 | 5199.97482 |  |
| T <sub>30°C</sub> Vnom  | CW              | 5200      | 5199.96961      | 5199.97004 | 5199.97004 | 5199.96961 |  |
| T <sub>20°C</sub> Vnom  | CW              | 5200      | 5199.97569      | 5199.97525 | 5199.97525 | 5199.97482 |  |
| T <sub>10°C</sub> Vnom  | CW              | 5200      | 5199.98654      | 5199.98611 | 5199.98611 | 5199.98567 |  |
| T <sub>0°C</sub> Vnom   | CW              | 5200      | 5200.00130      | 5200.00174 | 5200.00130 | 5200.00174 |  |
| T <sub>-10°C</sub> Vnom | CW              | 5200      | 5200.01129      | 5200.01172 | 5200.01216 | 5200.01259 |  |
| T <sub>-20°C</sub> Vnom | CW              | 5200      | 5200.02866      | 5200.02866 | 5200.02813 | 5200.02813 |  |
| T <sub>-30°C</sub> Vnom | CW              | 5200      | 5200.03213      | 5200.03213 | 5200.03169 | 5200.03126 |  |
| T <sub>-40°C</sub> Vnom | CW              | 5200      | 5200.03734      | 5200.03777 | 5200.03777 | 5200.03734 |  |
|                         | Limit (ppm)     |           | <u> </u>        |            |            |            |  |
|                         | Result          |           | Pass            |            |            |            |  |

|                         | Condition       |           | Frequency (MHz) |         |         |         |  |  |
|-------------------------|-----------------|-----------|-----------------|---------|---------|---------|--|--|
| Extreme                 | Modulation Mode | Test Freq | 0 min           | 2 min   | 5 min   | 10 min  |  |  |
| T <sub>20°C</sub> Vmax  | CW              | 5200      | -4.7596         | -4.6750 | -4.8423 | -4.7596 |  |  |
| T <sub>20°C</sub> Vmin  | CW              | 5200      | -4.6750         | -4.7596 | -4.8423 | -4.9269 |  |  |
| T <sub>70°C</sub> Vnom  | CW              | 5200      | 14.0269         | 14.1096 | 14.1942 | 14.2769 |  |  |
| T <sub>60°C</sub> Vnom  | CW              | 5200      | 4.7596          | 4.8423  | 4.8423  | 4.9269  |  |  |
| T <sub>50°C</sub> Vnom  | CW              | 5200      | -1.8365         | -1.7538 | -1.6692 | -1.5865 |  |  |
| T <sub>40°C</sub> Vnom  | CW              | 5200      | -5.0096         | -4.9269 | -4.9269 | -4.8423 |  |  |
| T <sub>30°C</sub> Vnom  | CW              | 5200      | -5.8442         | -5.7615 | -5.7615 | -5.8442 |  |  |
| T <sub>20°C</sub> Vnom  | CW              | 5200      | -4.6750         | -4.7596 | -4.7596 | -4.8423 |  |  |
| T <sub>10°C</sub> Vnom  | CW              | 5200      | -2.5885         | -2.6712 | -2.6712 | -2.7558 |  |  |
| $T_{0^{\circ}C}Vnom$    | CW              | 5200      | 0.2500          | 0.3346  | 0.2500  | 0.3346  |  |  |
| T <sub>-10°C</sub> Vnom | CW              | 5200      | 2.1712          | 2.2538  | 2.3385  | 2.4212  |  |  |
| T <sub>-20°C</sub> Vnom | CW              | 5200      | 5.5115          | 5.5115  | 5.4096  | 5.4096  |  |  |
| T <sub>-30°C</sub> Vnom | CW              | 5200      | 6.1788          | 6.1788  | 6.0942  | 6.0115  |  |  |
| T <sub>-40°C</sub> Vnom | CW              | 5200      | 7.1808          | 7.2635  | 7.2635  | 7.1808  |  |  |
|                         | Limit (ppm)     |           | 20              |         |         |         |  |  |
|                         | Result          |           | Pass            |         |         |         |  |  |

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