

FCC Test Report (WLAN)

Report No.: RF130927E08M-1

FCC ID: 2ABTEG1100

Test Model: FIOS-G1100

Received Date: Jan. 22, 2016

Test Date: Jan. 28 to Feb. 02, 2016

Issued Date: Mar. 11, 2016

Applicant: Verizon Online LLC

Address: 1300 I Street NW, Room 400W, Washington, District of Columbia, 20005
United State

Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
Hsin Chu Laboratory

Lab Address: E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300,
Taiwan R.O.C.

Test Location (1): E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300,
Taiwan R.O.C.

Test Location (2): No. 49, Ln. 206, Wende Rd., Shangshan Tsuen, Chiung Lin Hsiang, Hsin
Chu Hsien 307, Taiwan R.O.C.



This report is for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence, provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents. Unless specific mention, the uncertainty of measurement has been explicitly taken into account to declare the compliance or non-compliance to the specification. The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any government agencies.

Table of Contents

| | |
|--|-----------|
| Release Control Record | 4 |
| 1 Certificate of Conformity | 5 |
| 2 Summary of Test Results | 6 |
| 2.1 Measurement Uncertainty | 6 |
| 2.2 Modification Record | 6 |
| 3 General Information | 7 |
| 3.1 General Description of EUT | 7 |
| 3.2 Description of Test Modes | 13 |
| 3.2.1 Test Mode Applicability and Tested Channel Detail | 14 |
| 3.3 Duty Cycle of Test Signal | 21 |
| 3.4 Description of Support Units | 22 |
| 3.4.1 Configuration of System under Test | 23 |
| 3.5 General Description of Applied Standard | 24 |
| 4 Test Types and Results | 25 |
| 4.1 Radiated Emission and Bandedge Measurement..... | 25 |
| 4.1.1 Limits of Radiated Emission and Bandedge Measurement | 25 |
| 4.1.2 Test Instruments | 26 |
| 4.1.3 Test Procedures..... | 28 |
| 4.1.4 Deviation from Test Standard | 28 |
| 4.1.5 Test Setup..... | 29 |
| 4.1.6 EUT Operating Conditions..... | 29 |
| 4.1.7 Test Results (Mode 1)..... | 30 |
| 4.1.8 Test Results (Mode 2)..... | 36 |
| 4.1.9 Test Results (Mode 3)..... | 60 |
| 4.2 Conducted Emission Measurement | 85 |
| 4.2.1 Limits of Conducted Emission Measurement | 85 |
| 4.2.2 Test Instruments | 85 |
| 4.2.3 Test Procedure | 86 |
| 4.2.4 Deviation from Test Standard | 86 |
| 4.2.5 Test Setup..... | 86 |
| 4.2.6 EUT Operating Condition | 86 |
| 4.2.7 Test Results (Mode 3)..... | 87 |
| 4.2.8 Test Results (Mode 4)..... | 89 |
| 4.3 Transmit Power Measurement | 91 |
| 4.3.1 Limits of Transmit Power Measurement | 91 |
| 4.3.2 Test Setup..... | 91 |
| 4.3.3 Test Instruments | 91 |
| 4.3.4 Test Procedures..... | 91 |
| 4.3.5 Deviation from Test Standard | 92 |
| 4.3.6 EUT Operating Conditions..... | 92 |
| 4.3.7 Test Results | 93 |
| 4.4 Peak Power Spectral Density Measurement..... | 105 |
| 4.4.1 Limits of Peak Power Spectral Density Measurement | 105 |
| 4.4.2 Test Setup..... | 105 |
| 4.4.3 Test Instruments | 105 |
| 4.4.4 Test Procedures..... | 105 |
| 4.4.5 Deviation from Test Standard | 106 |
| 4.4.6 EUT Operating Conditions..... | 106 |
| 4.4.7 Test Results (Mode 1)..... | 107 |
| 4.4.8 Test Results (Mode 2)..... | 109 |
| 4.4.9 Test Results (Mode 3)..... | 113 |
| 4.5 Frequency Stability Measurement..... | 117 |

| | | |
|----------|---|------------|
| 4.5.1 | Limits of Frequency Stability Measurement..... | 117 |
| 4.5.2 | Test Setup..... | 117 |
| 4.5.3 | Test Instruments | 117 |
| 4.5.4 | Test Procedures..... | 117 |
| 4.5.5 | Deviation from Test Standard | 117 |
| 4.5.6 | EUT Operating Conditions..... | 117 |
| 4.5.7 | Test Results | 118 |
| 4.6 | 6dB Bandwidth Measurement..... | 119 |
| 4.6.1 | Limits of 6dB Bandwidth Measurement..... | 119 |
| 4.6.2 | Test Setup..... | 119 |
| 4.6.3 | Test Instruments | 119 |
| 4.6.4 | Test Procedures..... | 119 |
| 4.6.5 | Deviation from Test Standard | 119 |
| 4.6.6 | EUT Operating Conditions..... | 119 |
| 4.6.7 | Test Results (Mode 1)..... | 120 |
| 4.6.8 | Test Results (Mode 2)..... | 121 |
| 4.6.9 | Test Results (Mode 3)..... | 123 |
| 5 | Pictures of Test Arrangements..... | 125 |
| | Appendix – Information on the Testing Laboratories | 126 |



Release Control Record

| Issue No. | Description | Date Issued |
|----------------|-------------------|---------------|
| RF130927E08M-1 | Original release. | Mar. 11, 2016 |



1 Certificate of Conformity

Product: FIOS Quantum Gateway
Brand: Verizon
Test Model: FIOS-G1100
Sample Status: ENGINEERING SAMPLE
Applicant: Verizon Online LLC
Test Date: Jan. 28 to Feb. 02, 2016
Standard: 47 CFR FCC Part 15, Subpart E (Section 15.407)
 ANSI C63.10: 2013

The above equipment has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch**, and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

Prepared by : C-L , **Date:** Mar. 11, 2016
 Claire Kuan / Specialist

Approved by : [Signature] , **Date:** Mar. 11, 2016
 May Chen / Manager

2 Summary of Test Results

| 47 CFR FCC Part 15, Subpart E (SECTION 15.407) | | | |
|--|--|--------|--|
| FCC Clause | Test Item | Result | Remarks |
| 15.407(b)(6) | AC Power Conducted Emissions | Pass | Meet the requirement of limit. Minimum passing margin is -1.92dB at 0.25547MHz. |
| 15.407(b) (1/2/3/4/6) | Radiated Emissions & Band Edge Measurement | Pass | Meet the requirement of limit. Minimum passing margin is -0.1dB at 5100.00MHz & 5121.00MHz & 5150.00MHz & 5397.00MHz & 5401.00MHz & 5671.00MHz & 5705.00MHz & 5715.00MHz & 5725.00MHz & 5850.00MHz & 5860.00MHz & 5100.00MHz & 5896.00MHz & 10480.00MHz |
| 15.407(a)(1/2 /3) | Max Average Transmit Power | Pass | Meet the requirement of limit. |
| 15.407(a)(1/2 /3) | Peak Power Spectral Density | Pass | Meet the requirement of limit. |
| 15.407(e) | 6dB bandwidth | Pass | Meet the requirement of limit. (U-NII-3 Band only) |
| 15.407(g) | Frequency Stability | Pass | Meet the requirement of limit. |
| 15.203 | Antenna Requirement | Pass | No antenna connector is used. |

NOTE: 1. This report is prepared for FCC Class II change. (Upgrade the standard to section 15.407 under new rule for U-NII-1, U-NII-3 band)

2.1 Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

| Measurement | Frequency | Expanded Uncertainty (k=2) (±) |
|------------------------------------|----------------|--------------------------------|
| Conducted Emissions at mains ports | 150kHz ~ 30MHz | 2.86 dB |
| Radiated Emissions up to 1 GHz | 30MHz ~ 1GHz | 5.31 dB |
| Radiated Emissions above 1 GHz | 1GHz ~ 6GHz | 3.40 dB |
| | 6GHz ~ 18GHz | 3.73 dB |
| | 18GHz ~ 40GHz | 4.11 dB |

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

| | |
|-----------------------|---|
| Product | FiOS Quantum Gateway |
| Brand | Verizon |
| Test Model | FiOS-G1100 |
| Status of EUT | ENGINEERING SAMPLE |
| Power Supply Rating | DC 12V from power adapter |
| Modulation Type | CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM 256QAM for OFDM in 11ac mode only |
| Modulation Technology | DSSS,OFDM |
| Transfer Rate | 802.11b: up to 11Mbps 802.11a / g: up to 54Mbps 802.11n: up to 450Mbps 802.11ac: up to 1300Mbps |
| Operating Frequency | 2.4GHz: 2.412GHz ~ 2.462GHz 5GHz: 5.18GHz ~ 5.24GHz, 5.745GHz ~ 5.825GHz |
| Number of Channel | 2.4GHz: 11 for 802.11b, 802.11g, 802.11n (HT20) 7 for 802.11n (HT40) 5GHz: 9 for 802.11a, 802.11n (HT20), 802.11ac (VHT20) 4 for 802.11n (HT40), 802.11ac (VHT40) 2 for 802.11ac (VHT80) |
| Output Power | 2.4GHz: 1Tx 802.11b: 76.033mW 802.11g: 287.078mW 802.11n(HT20): 490.908mW 802.11n(HT40): 84.723mW 2Tx CDD Mode: 802.11b: 120.238mW SDM Mode: 802.11n(HT20): 379.835mW 802.11n(HT40): 105.681mW 3Tx CDD Mode: 802.11b: 116.819mW 802.11n(HT20): 535.959mW 802.11n(HT40): 189.726mW STBC Mode: 802.11n(HT20): 919.616mW 802.11n(HT40): 196.924mW |

| | |
|--------------|---|
| Output Power | <p>5GHz (5.18 ~ 5.24GHz):</p> <p>1Tx 802.11a: 93.541mW</p> <p>2Tx</p> <p>SDM Mode: 802.11ac (VHT20): 262.238mW 802.11ac (VHT40): 277.179mW 802.11ac (VHT80): 162.532mW</p> <p>CDD Mode: 802.11ac (VHT20): 203.085mW 802.11ac (VHT40): 277.179mW 802.11ac (VHT80): 129.105mW</p> <p>STBC Mode: 802.11ac (VHT20): 262.238mW 802.11ac (VHT40): 277.179mW 802.11ac (VHT80): 162.532mW</p> <p>Beamforming Mode (NSS1): 802.11ac (VHT20): 203.085mW 802.11ac (VHT40): 277.179mW 802.11ac (VHT80): 129.105mW</p> <p>Beamforming Mode (NSS2): 802.11ac (VHT20): 203.085mW 802.11ac (VHT40): 277.179mW 802.11ac (VHT80): 129.105mW</p> <p>3Tx</p> <p>SDM Mode: 802.11ac (VHT20): 364.961mW 802.11ac (VHT40): 371.094mW 802.11ac (VHT80): 232.678mW</p> <p>CDD Mode: 802.11ac (VHT20): 298.765mW 802.11ac (VHT40): 371.094mW 802.11ac (VHT80): 186.915mW</p> <p>STBC Mode: 802.11ac (VHT20): 364.961mW 802.11ac (VHT40): 371.094mW 802.11ac (VHT80): 232.678mW</p> <p>Beamforming Mode (NSS1): 802.11ac (VHT20): 298.765mW 802.11ac (VHT40): 371.094mW 802.11ac (VHT80): 186.915mW</p> <p>Beamforming Mode (NSS2): 802.11ac (VHT20): 298.765mW 802.11ac (VHT40): 371.094mW 802.11ac (VHT80): 186.915mW</p> <p>Beamforming Mode (NSS3): 802.11ac (VHT20): 298.765mW 802.11ac (VHT40): 371.094mW 802.11ac (VHT80): 186.915mW</p> |
|--------------|---|

| | |
|---------------------|--|
| Output Power | <p>5GHz (5.745 ~ 5.825GHz): 1Tx 802.11a: 74.473mW 2Tx SDM Mode: 802.11ac (VHT20): 235.438mW 802.11ac (VHT40): 180.504mW 802.11ac (VHT80): 122.095mW CDD Mode: 802.11ac (VHT20): 178.293mW 802.11ac (VHT40): 115.215mW 802.11ac (VHT80): 88.569mW STBC Mode: 802.11ac (VHT20): 235.438mW 802.11ac (VHT40): 180.504mW 802.11ac (VHT80): 122.095mW Beamforming Mode (NSS1): 802.11ac (VHT20): 178.293mW 802.11ac (VHT40): 115.215mW 802.11ac (VHT80): 88.569mW Beamforming Mode (NSS2): 802.11ac (VHT20): 178.293mW 802.11ac (VHT40): 115.215mW 802.11ac (VHT80): 88.569mW 3Tx SDM Mode: 802.11ac (VHT20): 357.337mW 802.11ac (VHT40): 278.453mW 802.11ac (VHT80): 193.053mW CDD Mode: 802.11ac (VHT20): 262.626mW 802.11ac (VHT40): 183.764mW 802.11ac (VHT80): 141.414mW STBC Mode: 802.11ac (VHT20): 357.337mW 802.11ac (VHT40): 278.453mW 802.11ac (VHT80): 193.053mW Beamforming Mode (NSS1): 802.11ac (VHT20): 262.626mW 802.11ac (VHT40): 183.764mW 802.11ac (VHT80): 141.414mW Beamforming Mode (NSS2): 802.11ac (VHT20): 262.626mW 802.11ac (VHT40): 183.764mW 802.11ac (VHT80): 141.414mW Beamforming Mode (NSS3): 802.11ac (VHT20): 262.626mW 802.11ac (VHT40): 183.764mW 802.11ac (VHT80): 141.414mW</p> |
| Antenna Type | Refer to Note |
| Antenna Connector | Refer to Note |
| Accessory Device | Adapter x1 |
| Data Cable Supplied | NA |

Note:

1. This report is prepared for FCC Class II change. The difference compared with the Report No.: RF130927E08E-1 design is as the following:

- ◆ Upgrade the standard to section 15.407 under new rule for U-NII-1, U-NII-3 band.
- ◆ Added the two new adapters as following table:

| Newly | | | |
|-------|-------|-----------------|--|
| No. | Brand | Model No. | Spec. |
| 1 | Ktec | KSA20C1200300HU | AC Input : 100-240V, 1A, 50-60Hz DC Output : 12V, 3.0A DC output cable(unshielded ,1.5m) |
| 2 | LEI | MU36-D120300-A1 | AC Input : 100-240V, 1.5A, 50-60Hz DC Output : 12V, 3.0A DC output cable(unshielded ,1.5m) |

From the above newly adapters, the worst radiated emission were found in **Adapter 1**. Therefore only the test data of the modes were recorded in this report.

2. According to above conditions, all test items of U-NII-1, U-NII-3 band need to be performed. And all data was verified to meet the requirements.
3. There are Z-Wave technology and WLAN (2.4GHz & 5GHz) technology used for the EUT.
4. The emission of the simultaneous operation (Z-Wave & WLAN) has been evaluated and no non-compliance was found.

5. The antennas provided to the EUT, please refer to the following table:

| WLAN Antenna Spec. | | | | |
|---|------------------------------------|----------------|---------------------------------|---------------------------------|
| 2.4GHz | | | | |
| Transmitter Circuit | Gain (dBi) (Include cable loss) | Antenna Type | Connecter Type | Frequency range (GHz to GHz) |
| Chain (0) | 3.97 | Dipole(Metal) | NA | 2.4~2.4835 |
| Chain (1) | 4.1 | Dipole(Metal) | NA | 2.4~2.4835 |
| Chain (2) | 3.36 | PIFA(Metal) | NA | 2.4~2.4835 |
| 5GHz | | | | |
| Transmitter Circuit | Gain (dBi) (Include cable loss) | Antenna Type | Connecter Type | Frequency range (GHz to GHz) |
| Chain (0) | 3.56 | Dipole(Metal) | NA | 5.15~5.25 |
| | 4.05 | | | 5.725~5.85 |
| Chain (1) | 5.3 | Dipole(Metal) | NA | 5.15~5.25 |
| | 5.71 | | | 5.725~5.85 |
| Chain (2) | 4.6 | Dipole(Metal) | NA | 5.15~5.25 |
| | 4.21 | | | 5.725~5.85 |
| Z-Wave Antenna Spec. | | | | |
| Gain (dBi) (Include cable loss) | Antenna Type | Connecter Type | Frequency range (MHz to MHz) | |
| 1.73 | PIFA (Metal) | NA | 902~928 | |
| Note: 1. For 1Tx mode will fix transmission on Chain (0). 2. For 2Tx mode will fix transmission on Chain (0) and Chain (1) | | | | |

6. The specifications of EUT listed as below:

| MODULATION MODE | TX/RX FUNCTION |
|-------------------------|--|
| 802.11b | 1TX/3RX |
| | 2TX/3RX(CDD Mode) |
| | 3TX/3RX(CDD Mode) |
| 802.11g | 1TX/3RX |
| 802.11n (HT20) | 1TX/3RX |
| | 2TX/3RX (SDM Mode) |
| | 3TX/3RX (CDD Mode) |
| | 3TX/3RX (STBC Mode) |
| | 2TX/3RX (Beamforming Mode, only 5GHz band) |
| | 3TX/3RX (Beamforming Mode, only 5GHz band) |
| 802.11n (HT40) | 1TX/3RX |
| | 2TX/3RX (SDM Mode) |
| | 3TX/3RX (CDD Mode) |
| | 3TX/3RX (STBC Mode) |
| | 2TX/3RX (Beamforming Mode, only 5GHz band) |
| | 3TX/3RX (Beamforming Mode, only 5GHz band) |
| 802.11a | 1TX/3RX |
| 802.11ac (VHT20) | 2TX/3RX (SDM Mode) |
| | 2TX/3RX (CDD Mode) |
| | 2TX/3RX (STBC Mode) |
| | 2TX/3RX (Beamforming Mode) |
| | 3TX/3RX (SDM Mode) |
| | 3TX/3RX (CDD Mode) |
| | 3TX/3RX (STBC Mode) |
| | 3TX/3RX (Beamforming Mode) |
| 802.11ac (VHT40) | 2TX/3RX (SDM Mode) |
| | 2TX/3RX (CDD Mode) |
| | 2TX/3RX (STBC Mode) |
| | 2TX/3RX (Beamforming Mode) |
| | 3TX/3RX (SDM Mode) |
| | 3TX/3RX (CDD Mode) |
| | 3TX/3RX (STBC Mode) |
| | 3TX/3RX (Beamforming Mode) |
| 802.11ac (VHT80) | 2TX/3RX (SDM Mode) |
| | 2TX/3RX (CDD Mode) |
| | 2TX/3RX (STBC Mode) |
| | 2TX/3RX (Beamforming Mode) |
| | 3TX/3RX (SDM Mode) |
| | 3TX/3RX (CDD Mode) |
| | 3TX/3RX (STBC Mode) |
| | 3TX/3RX (Beamforming Mode) |

Note: The modulation and bandwidth are similar for 802.11n mode for 20MHz (40MHz) and 802.11ac mode for 20MHz (40MHz), therefore investigated worst case to representative mode in test report. (Final test mode refer section 3.2.1)

7. When the EUT operating in 802.11n, the software operation, which is defined by manufacturer, MCS (Modulation and Coding Schemes) from 0 to 23.
8. When the EUT operating in 802.11ac, the software operation, which is defined by manufacturer, MCS (Modulation and Coding Schemes) from 0 to 9.
9. The above EUT information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or user's manual.

3.2 Description of Test Modes

FOR 5180 ~ 5240MHz

4 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20):

| Channel | Frequency | Channel | Frequency |
|---------|-----------|---------|-----------|
| 36 | 5180 MHz | 44 | 5220 MHz |
| 40 | 5200 MHz | 48 | 5240 MHz |

2 channels are provided for 802.11n (HT40), 802.11ac (VHT40):

| Channel | Frequency | Channel | Frequency |
|---------|-----------|---------|-----------|
| 38 | 5190 MHz | 46 | 5230 MHz |

1 channel is provided for 802.11ac (VHT80):

| Channel | Frequency |
|---------|-----------|
| 42 | 5210 MHz |

FOR 5745 ~ 5825MHz:

5 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20):

| Channel | Frequency | Channel | Frequency |
|---------|-----------|---------|-----------|
| 149 | 5745MHz | 161 | 5805MHz |
| 153 | 5765MHz | 165 | 5825MHz |
| 157 | 5785MHz | | |

2 channels are provided for 802.11n (HT40), 802.11ac (VHT40):

| Channel | Frequency | Channel | Frequency |
|---------|-----------|---------|-----------|
| 151 | 5755MHz | 159 | 5795MHz |

1 channel is provided for 802.11ac (VHT80):

| Channel | Frequency |
|---------|-----------|
| 155 | 5775MHz |

3.2.1 Test Mode Applicability and Tested Channel Detail

| EUT CONFIGURE MODE | APPLICABLE TO | | | | DESCRIPTION |
|--------------------|---------------|-----------|-----|------|------------------------------------|
| | RE \geq 1G | RE $<$ 1G | PLC | APCM | |
| 1 | √ | - | - | √ | 1TX configuration (with Adapter 1) |
| 2 | √ | - | - | √ | 2TX configuration (with Adapter 1) |
| 3 | √ | √ | √ | √ | 3TX configuration (with Adapter 1) |
| 4 | - | - | √ | - | 3TX configuration (with Adapter 2) |

Where **RE \geq 1G**: Radiated Emission above 1GHz **RE $<$ 1G**: Radiated Emission below 1GHz
PLC: Power Line Conducted Emission **APCM**: Antenna Port Conducted Measurement

NOTE:

1. "-" means no effect.

Radiated Emission Test (Above 1GHz):

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

| 1TX CONFIGURATION | | | | | | |
|-------------------|------------------|-------------------|----------------|-----------------------|-----------------|------------------|
| MODE | FREQ. BAND (MHz) | AVAILABLE CHANNEL | TESTED CHANNEL | MODULATION TECHNOLOGY | MODULATION TYPE | DATA RATE (Mbps) |
| 802.11a | 5180-5240 | 36 to 48 | 36, 40, 48 | OFDM | BPSK | 6 |
| 802.11a | 5745-5825 | 149 to 165 | 149, 157, 165 | OFDM | BPSK | 6 |
| 2TX CONFIGURATION | | | | | | |
| CDD MODE | | | | | | |
| MODE | FREQ. BAND (MHz) | AVAILABLE CHANNEL | TESTED CHANNEL | MODULATION TECHNOLOGY | MODULATION TYPE | DATA RATE (Mbps) |
| 802.11ac (VHT20) | 5180-5240 | 36 to 48 | 36, 40, 48 | OFDM | BPSK | 6.5 |
| 802.11ac (VHT40) | | 38 to 46 | 38, 46 | OFDM | BPSK | 13.5 |
| 802.11ac (VHT80) | | 42 | 42 | OFDM | BPSK | 29.3 |
| 802.11ac (VHT20) | 5745-5825 | 149 to 165 | 149, 157, 165 | OFDM | BPSK | 6.5 |
| 802.11ac (VHT40) | | 151 to 159 | 151, 159 | OFDM | BPSK | 13.5 |
| 802.11ac (VHT80) | | 155 | 155 | OFDM | BPSK | 29.3 |
| STBC MODE | | | | | | |
| MODE | FREQ. BAND (MHz) | AVAILABLE CHANNEL | TESTED CHANNEL | MODULATION TECHNOLOGY | MODULATION TYPE | DATA RATE (Mbps) |
| 802.11ac (VHT20) | 5180-5240 | 36 to 48 | 36, 40, 48 | OFDM | BPSK | 6.5 |
| 802.11ac (VHT40) | | 38 to 46 | 38, 46 | OFDM | BPSK | 13.5 |
| 802.11ac (VHT80) | | 42 | 42 | OFDM | BPSK | 29.3 |
| 802.11ac (VHT20) | 5745-5825 | 149 to 165 | 149, 157, 165 | OFDM | BPSK | 6.5 |
| 802.11ac (VHT40) | | 151 to 159 | 151, 159 | OFDM | BPSK | 13.5 |
| 802.11ac (VHT80) | | 155 | 155 | OFDM | BPSK | 29.3 |

| 3TX CONFIGURATION | | | | | | |
|-------------------|------------------|-------------------|----------------|-----------------------|-----------------|------------------|
| CDD MODE | | | | | | |
| MODE | FREQ. BAND (MHz) | AVAILABLE CHANNEL | TESTED CHANNEL | MODULATION TECHNOLOGY | MODULATION TYPE | DATA RATE (Mbps) |
| 802.11ac (VHT20) | 5180-5240 | 36 to 48 | 36, 40, 48 | OFDM | BPSK | 6.5 |
| 802.11ac (VHT40) | | 38 to 46 | 38, 46 | OFDM | BPSK | 13.5 |
| 802.11ac (VHT80) | | 42 | 42 | OFDM | BPSK | 29.3 |
| 802.11ac (VHT20) | 5745-5825 | 149 to 165 | 149, 157, 165 | OFDM | BPSK | 6.5 |
| 802.11ac (VHT40) | | 151 to 159 | 151, 159 | OFDM | BPSK | 13.5 |
| 802.11ac (VHT80) | | 155 | 155 | OFDM | BPSK | 29.3 |
| STBC MODE | | | | | | |
| MODE | FREQ. BAND (MHz) | AVAILABLE CHANNEL | TESTED CHANNEL | MODULATION TECHNOLOGY | MODULATION TYPE | DATA RATE (Mbps) |
| 802.11ac (VHT20) | 5180-5240 | 36 to 48 | 36, 40, 48 | OFDM | BPSK | 6.5 |
| 802.11ac (VHT40) | | 38 to 46 | 38, 46 | OFDM | BPSK | 13.5 |
| 802.11ac (VHT80) | | 42 | 42 | OFDM | BPSK | 29.3 |
| 802.11ac (VHT20) | 5745-5825 | 149 to 165 | 149, 157, 165 | OFDM | BPSK | 6.5 |
| 802.11ac (VHT40) | | 151 to 159 | 151, 159 | OFDM | BPSK | 13.5 |
| 802.11ac (VHT80) | | 155 | 155 | OFDM | BPSK | 29.3 |

Radiated Emission Test (Below 1GHz):

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

| 3TX CONFIGURATION | | | | | | |
|-------------------|-------------------------|-------------------------|----------------|-----------------------|-----------------|------------------|
| STBC MODE | | | | | | |
| MODE | FREQ. BAND (MHz) | AVAILABLE CHANNEL | TESTED CHANNEL | MODULATION TECHNOLOGY | MODULATION TYPE | DATA RATE (Mbps) |
| 802.11ac (VHT40) | 5180-5240, 5745-5825 | 38 to 46, 151 to 159 | 46 | OFDM | BPSK | 13.5 |

Power Line Conducted Emission Test:

- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

| 3TX CONFIGURATION | | | | | | |
|-------------------|-------------------------|-------------------------|----------------|-----------------------|-----------------|------------------|
| STBC MODE | | | | | | |
| MODE | FREQ. BAND (MHz) | AVAILABLE CHANNEL | TESTED CHANNEL | MODULATION TECHNOLOGY | MODULATION TYPE | DATA RATE (Mbps) |
| 802.11ac (VHT40) | 5180-5240, 5745-5825 | 38 to 46, 151 to 159 | 46 | OFDM | BPSK | 13.5 |

Antenna Port Conducted Measurement:

- This item includes all test value of each mode, but only includes spectrum plot of worst value of each mode.
- Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).
- Following channel(s) was (were) selected for the final test as listed below.

| Max Average Transmit Power | | | | | | |
|-----------------------------------|------------------|-------------------|----------------|-----------------------|-----------------|------------------|
| 1TX CONFIGURATION | | | | | | |
| MODE | FREQ. BAND (MHz) | AVAILABLE CHANNEL | TESTED CHANNEL | MODULATION TECHNOLOGY | MODULATION TYPE | DATA RATE (Mbps) |
| 802.11a | 5180-5240 | 36 to 48 | 36, 40, 48 | OFDM | BPSK | 6 |
| 802.11a | 5745-5825 | 149 to 165 | 149, 157, 165 | OFDM | BPSK | 6 |
| 2TX CONFIGURATION | | | | | | |
| SDM MODE | | | | | | |
| MODE | FREQ. BAND (MHz) | AVAILABLE CHANNEL | TESTED CHANNEL | MODULATION TECHNOLOGY | MODULATION TYPE | DATA RATE (Mbps) |
| 802.11ac (VHT20) | 5180-5240 | 36 to 48 | 36, 40, 48 | OFDM | BPSK | 6.5 |
| 802.11ac (VHT40) | | 38 to 46 | 38, 46 | OFDM | BPSK | 13.5 |
| 802.11ac (VHT80) | | 42 | 42 | OFDM | BPSK | 29.3 |
| 802.11ac (VHT20) | 5745-5825 | 149 to 165 | 149, 157, 165 | OFDM | BPSK | 6.5 |
| 802.11ac (VHT40) | | 151 to 159 | 151, 159 | OFDM | BPSK | 13.5 |
| 802.11ac (VHT80) | | 155 | 155 | OFDM | BPSK | 29.3 |
| CDD MODE | | | | | | |
| MODE | FREQ. BAND (MHz) | AVAILABLE CHANNEL | TESTED CHANNEL | MODULATION TECHNOLOGY | MODULATION TYPE | DATA RATE (Mbps) |
| 802.11ac (VHT20) | 5180-5240 | 36 to 48 | 36, 40, 48 | OFDM | BPSK | 6.5 |
| 802.11ac (VHT40) | | 38 to 46 | 38, 46 | OFDM | BPSK | 13.5 |
| 802.11ac (VHT80) | | 42 | 42 | OFDM | BPSK | 29.3 |
| 802.11ac (VHT20) | 5745-5825 | 149 to 165 | 149, 157, 165 | OFDM | BPSK | 6.5 |
| 802.11ac (VHT40) | | 151 to 159 | 151, 159 | OFDM | BPSK | 13.5 |
| 802.11ac (VHT80) | | 155 | 155 | OFDM | BPSK | 29.3 |
| STBC MODE | | | | | | |
| MODE | FREQ. BAND (MHz) | AVAILABLE CHANNEL | TESTED CHANNEL | MODULATION TECHNOLOGY | MODULATION TYPE | DATA RATE (Mbps) |
| 802.11ac (VHT20) | 5180-5240 | 36 to 48 | 36, 40, 48 | OFDM | BPSK | 6.5 |
| 802.11ac (VHT40) | | 38 to 46 | 38, 46 | OFDM | BPSK | 13.5 |
| 802.11ac (VHT80) | | 42 | 42 | OFDM | BPSK | 29.3 |
| 802.11ac (VHT20) | 5745-5825 | 149 to 165 | 149, 157, 165 | OFDM | BPSK | 6.5 |
| 802.11ac (VHT40) | | 151 to 159 | 151, 159 | OFDM | BPSK | 13.5 |
| 802.11ac (VHT80) | | 155 | 155 | OFDM | BPSK | 29.3 |

Beamforming MODE

| MODE | FREQ. BAND (MHz) | AVAILABLE CHANNEL | TESTED CHANNEL | MODULATION TECHNOLOGY | MODULATION TYPE | DATA RATE (Mbps) |
|------------------|------------------|-------------------|----------------|-----------------------|-----------------|------------------|
| 802.11ac (VHT20) | 5180-5240 | 36 to 48 | 36, 40, 48 | OFDM | BPSK | 6.5 |
| | | | | | | 13 |
| 802.11ac (VHT40) | | 38 to 46 | 38, 46 | OFDM | BPSK | 13.5 |
| | | | | | | 27 |
| 802.11ac (VHT80) | | 42 | 42 | OFDM | BPSK | 29.3 |
| | | | | | | 58.5 |
| 802.11ac (VHT20) | 5745-5825 | 149 to 165 | 149, 157, 165 | OFDM | BPSK | 6.5 |
| | | | | | | |
| 802.11ac (VHT40) | | 151 to 159 | 151, 159 | OFDM | BPSK | 13.5 |
| | | | | | | 27 |
| 802.11ac (VHT80) | | 155 | 155 | OFDM | BPSK | 29.3 |
| | | | | | | 58.5 |

3TX CONFIGURATION

SDM MODE

| MODE | FREQ. BAND (MHz) | AVAILABLE CHANNEL | TESTED CHANNEL | MODULATION TECHNOLOGY | MODULATION TYPE | DATA RATE (Mbps) |
|------------------|------------------|-------------------|----------------|-----------------------|-----------------|------------------|
| 802.11ac (VHT20) | 5180-5240 | 36 to 48 | 36, 40, 48 | OFDM | BPSK | 6.5 |
| 802.11ac (VHT40) | | 38 to 46 | 38, 46 | OFDM | BPSK | 13.5 |
| 802.11ac (VHT80) | | 42 | 42 | OFDM | BPSK | 29.3 |
| 802.11ac (VHT20) | 5745-5825 | 149 to 165 | 149, 157, 165 | OFDM | BPSK | 6.5 |
| 802.11ac (VHT40) | | 151 to 159 | 151, 159 | OFDM | BPSK | 13.5 |
| 802.11ac (VHT80) | | 155 | 155 | OFDM | BPSK | 29.3 |

CDD MODE

| MODE | FREQ. BAND (MHz) | AVAILABLE CHANNEL | TESTED CHANNEL | MODULATION TECHNOLOGY | MODULATION TYPE | DATA RATE (Mbps) |
|------------------|------------------|-------------------|----------------|-----------------------|-----------------|------------------|
| 802.11ac (VHT20) | 5180-5240 | 36 to 48 | 36, 40, 48 | OFDM | BPSK | 6.5 |
| 802.11ac (VHT40) | | 38 to 46 | 38, 46 | OFDM | BPSK | 13.5 |
| 802.11ac (VHT80) | | 42 | 42 | OFDM | BPSK | 29.3 |
| 802.11ac (VHT20) | 5745-5825 | 149 to 165 | 149, 157, 165 | OFDM | BPSK | 6.5 |
| 802.11ac (VHT40) | | 151 to 159 | 151, 159 | OFDM | BPSK | 13.5 |
| 802.11ac (VHT80) | | 155 | 155 | OFDM | BPSK | 29.3 |

STBC MODE

| MODE | FREQ. BAND (MHz) | AVAILABLE CHANNEL | TESTED CHANNEL | MODULATION TECHNOLOGY | MODULATION TYPE | DATA RATE (Mbps) |
|------------------|------------------|-------------------|----------------|-----------------------|-----------------|------------------|
| 802.11ac (VHT20) | 5180-5240 | 36 to 48 | 36, 40, 48 | OFDM | BPSK | 6.5 |
| 802.11ac (VHT40) | | 38 to 46 | 38, 46 | OFDM | BPSK | 13.5 |
| 802.11ac (VHT80) | | 42 | 42 | OFDM | BPSK | 29.3 |
| 802.11ac (VHT20) | 5745-5825 | 149 to 165 | 149, 157, 165 | OFDM | BPSK | 6.5 |
| 802.11ac (VHT40) | | 151 to 159 | 151, 159 | OFDM | BPSK | 13.5 |
| 802.11ac (VHT80) | | 155 | 155 | OFDM | BPSK | 29.3 |

| Beamforming MODE | | | | | | | | |
|-------------------------|-------------------------|--------------------------|-----------------------|------------------------------|------------------------|-------------------------|------|------|
| MODE | FREQ. BAND (MHz) | AVAILABLE CHANNEL | TESTED CHANNEL | MODULATION TECHNOLOGY | MODULATION TYPE | DATA RATE (Mbps) | | |
| 802.11ac (VHT20) | 5180-5240 | 36 to 48 | 36, 40, 48 | OFDM | BPSK | 6.5 | | |
| | | | | | | 13 | | |
| | | | | | | 19.5 | | |
| 802.11ac (VHT40) | | 5180-5240 | 38 to 46 | 38, 46 | OFDM | BPSK | 13.5 | |
| | | | | | | | 27 | |
| | | | | | | | 40.5 | |
| 802.11ac (VHT80) | | | 5180-5240 | 42 | 42 | OFDM | BPSK | 29.3 |
| | | | | | | | | 58.5 |
| | | | | | | | | 87.8 |
| 802.11ac (VHT20) | 5745-5825 | | | 149 to 165 | 149, 157, 165 | OFDM | BPSK | 6.5 |
| | | | | | | | | 13 |
| | | | | | | | | 19.5 |
| 802.11ac (VHT40) | | 5745-5825 | | 151 to 159 | 151, 159 | OFDM | BPSK | 13.5 |
| | | | | | | | | 27 |
| | | | | | | | | 40.5 |
| 802.11ac (VHT80) | | | 5745-5825 | 155 | 155 | OFDM | BPSK | 29.3 |
| | | | | | | | | 58.5 |
| | | | | | | | | 87.8 |

Peak Power Spectral Density
1TX CONFIGURATION

| MODE | FREQ. BAND (MHz) | AVAILABLE CHANNEL | TESTED CHANNEL | MODULATION TECHNOLOGY | MODULATION TYPE | DATA RATE (Mbps) |
|---------|------------------|-------------------|----------------|-----------------------|-----------------|------------------|
| 802.11a | 5180-5240 | 36 to 48 | 36, 40, 48 | OFDM | BPSK | 6 |
| 802.11a | 5745-5825 | 149 to 165 | 149, 157, 165 | OFDM | BPSK | 6 |

2TX CONFIGURATION
STBC MODE

| MODE | FREQ. BAND (MHz) | AVAILABLE CHANNEL | TESTED CHANNEL | MODULATION TECHNOLOGY | MODULATION TYPE | DATA RATE (Mbps) |
|------------------|------------------|-------------------|----------------|-----------------------|-----------------|------------------|
| 802.11ac (VHT20) | 5180-5240 | 36 to 48 | 36, 40, 48 | OFDM | BPSK | 6.5 |
| 802.11ac (VHT40) | | 38 to 46 | 38, 46 | OFDM | BPSK | 13.5 |
| 802.11ac (VHT80) | | 42 | 42 | OFDM | BPSK | 29.3 |
| 802.11ac (VHT20) | 5745-5825 | 149 to 165 | 149, 157, 165 | OFDM | BPSK | 6.5 |
| 802.11ac (VHT40) | | 151 to 159 | 151, 159 | OFDM | BPSK | 13.5 |
| 802.11ac (VHT80) | | 155 | 155 | OFDM | BPSK | 29.3 |

3TX CONFIGURATION
STBC MODE

| MODE | FREQ. BAND (MHz) | AVAILABLE CHANNEL | TESTED CHANNEL | MODULATION TECHNOLOGY | MODULATION TYPE | DATA RATE (Mbps) |
|------------------|------------------|-------------------|----------------|-----------------------|-----------------|------------------|
| 802.11ac (VHT20) | 5180-5240 | 36 to 48 | 36, 40, 48 | OFDM | BPSK | 6.5 |
| 802.11ac (VHT40) | | 38 to 46 | 38, 46 | OFDM | BPSK | 13.5 |
| 802.11ac (VHT80) | | 42 | 42 | OFDM | BPSK | 29.3 |
| 802.11ac (VHT20) | 5745-5825 | 149 to 165 | 149, 157, 165 | OFDM | BPSK | 6.5 |
| 802.11ac (VHT40) | | 151 to 159 | 151, 159 | OFDM | BPSK | 13.5 |
| 802.11ac (VHT80) | | 155 | 155 | OFDM | BPSK | 29.3 |

6dB bandwidth
1TX CONFIGURATION

| MODE | FREQ. BAND (MHz) | AVAILABLE CHANNEL | TESTED CHANNEL | MODULATION TECHNOLOGY | MODULATION TYPE | DATA RATE (Mbps) |
|---------|------------------|-------------------|----------------|-----------------------|-----------------|------------------|
| 802.11a | 5745-5825 | 149 to 165 | 149, 157, 165 | OFDM | BPSK | 6 |

2TX CONFIGURATION
STBC MODE

| MODE | FREQ. BAND (MHz) | AVAILABLE CHANNEL | TESTED CHANNEL | MODULATION TECHNOLOGY | MODULATION TYPE | DATA RATE (Mbps) |
|------------------|------------------|-------------------|----------------|-----------------------|-----------------|------------------|
| 802.11ac (VHT20) | 5745-5825 | 149 to 165 | 149, 157, 165 | OFDM | BPSK | 6.5 |
| 802.11ac (VHT40) | | 151 to 159 | 151, 159 | OFDM | BPSK | 13.5 |
| 802.11ac (VHT80) | | 155 | 155 | OFDM | BPSK | 29.3 |

3TX CONFIGURATION
STBC MODE

| MODE | FREQ. BAND (MHz) | AVAILABLE CHANNEL | TESTED CHANNEL | MODULATION TECHNOLOGY | MODULATION TYPE | DATA RATE (Mbps) |
|------------------|------------------|-------------------|----------------|-----------------------|-----------------|------------------|
| 802.11ac (VHT20) | 5745-5825 | 149 to 165 | 149, 157, 165 | OFDM | BPSK | 6.5 |
| 802.11ac (VHT40) | | 151 to 159 | 151, 159 | OFDM | BPSK | 13.5 |
| 802.11ac (VHT80) | | 155 | 155 | OFDM | BPSK | 29.3 |

**Test Condition:**

| APPLICABLE TO | ENVIRONMENTAL CONDITIONS | INPUT POWER | TESTED BY |
|---------------|--------------------------|--------------|---------------|
| PLC | 25deg. C, 65%RH | 120Vac, 60Hz | Jason Huang |
| RE \geq 1G | 22deg. C, 62%RH | 120Vac, 60Hz | Jyunchun Lin |
| | 26deg. C, 69%RH | 120Vac, 60Hz | Jyunchun Lin |
| | 20deg. C, 66%RH | 120Vac, 60Hz | Jyunchun Lin |
| RE $<$ 1G | 22deg. C, 64%RH | 120Vac, 60Hz | Jyunchun Lin |
| APCM | 25deg. C, 60%RH | 120Vac, 60Hz | Anderson Chen |

3.3 Duty Cycle of Test Signal

If duty cycle of test signal is $\geq 98\%$, duty factor is not required.
 If duty cycle of test signal is $< 98\%$, duty factor shall be considered.

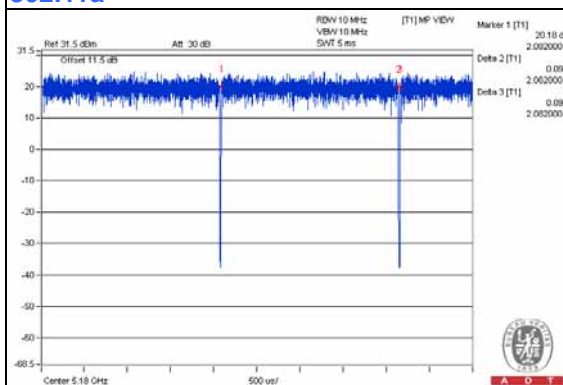
802.11a: Duty cycle = $2.062 \text{ ms} / 2.082 \text{ ms} = 0.99$

802.11ac (VHT20): Duty cycle = $1.925 \text{ ms} / 1.945 \text{ ms} = 0.99$

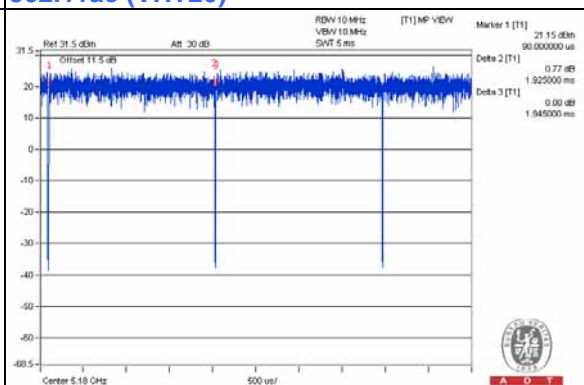
802.11ac (VHT40): Duty cycle = $0.954 \text{ ms} / 0.971 \text{ ms} = 0.982$

802.11ac (VHT80): Duty cycle = $0.46 \text{ ms} / 0.479 \text{ ms} = 0.96$, Duty factor = $10 * \log(1/0.96) = 0.18$

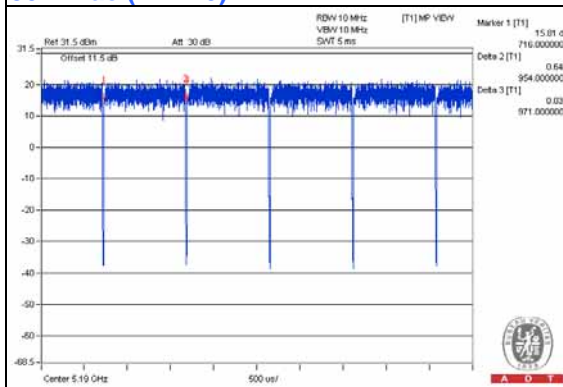
802.11a



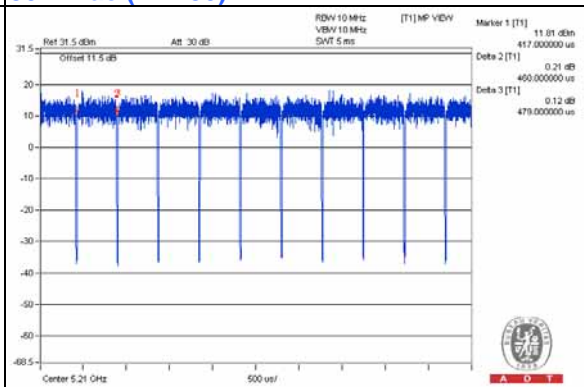
802.11ac (VHT20)



802.11ac (VHT40)



802.11ac (VHT80)



3.4 Description of Support Units

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

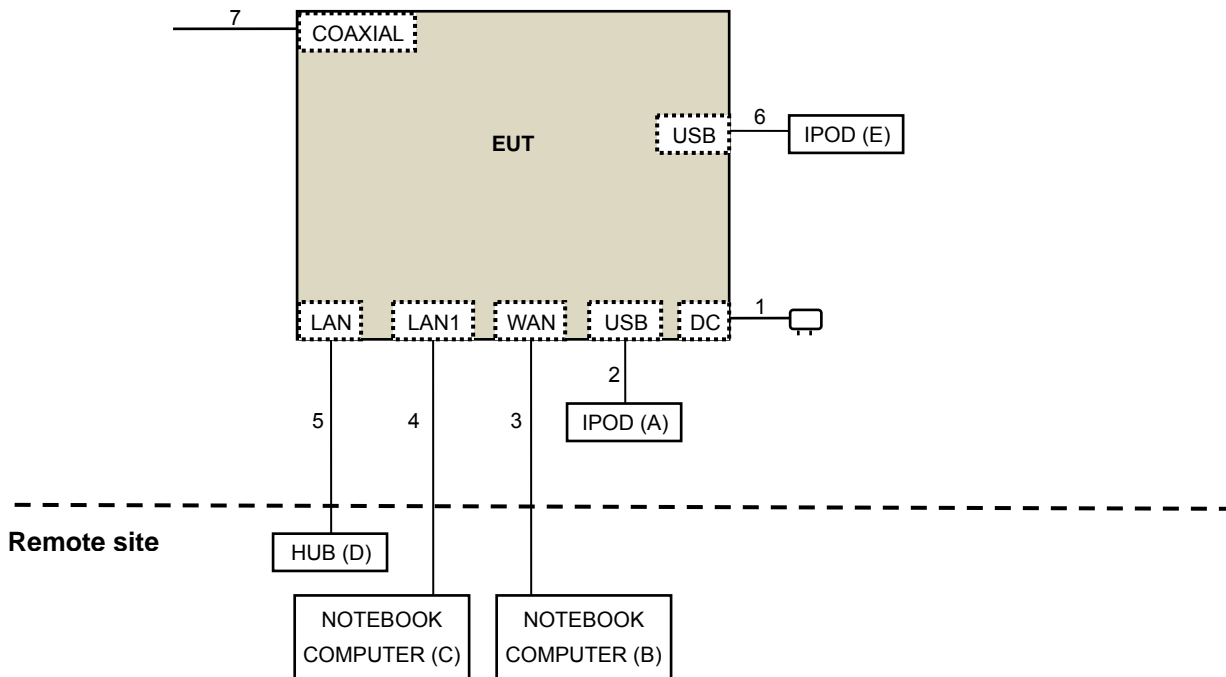
| ID | Product | Brand | Model No. | Serial No. | FCC ID | Remarks |
|----|-------------------|---------|-----------|----------------|---------|-----------------|
| A. | IPOD | BUFFALO | HD-LBU3 | 55291820800967 | NA | Provided by Lab |
| B. | NOTEBOOK COMPUTER | DELL | E5430 | 4YV4VY1 | FCC DoC | Provided by Lab |
| C. | NOTEBOOK COMPUTER | DELL | E5430 | HYV4VY1 | FCC DoC | Provided by Lab |
| D. | HUB | ZyXEL | ES-116P | S060H02000215 | FCC DoC | Provided by Lab |
| E. | IPOD | Apple | MD778TA/A | CC4JG680F4T1 | NA | Provided by Lab |

Note:

1. All power cords of the above support units are non-shielded (1.8m).

| ID | Descriptions | Qty. | Length (m) | Shielding (Yes/No) | Cores (Qty.) | Remarks |
|----|--------------|------|------------|--------------------|--------------|--------------------|
| 1. | DC | 1 | 1.5 | No | 0 | Supplied by Client |
| 2. | USB | 1 | 0.1 | Yes | 0 | Provided by Lab |
| 3. | RJ-45 | 1 | 10 | No | 0 | Provided by Lab |
| 4. | RJ-45 | 1 | 10 | No | 0 | Provided by Lab |
| 5. | RJ-45 | 3 | 10 | No | 0 | Provided by Lab |
| 6. | USB | 1 | 0.1 | Yes | 0 | Provided by Lab |
| 7. | Coaxial | 1 | 1.2 | Yes | 0 | Provided by Lab |

3.4.1 Configuration of System under Test



3.5 General Description of Applied Standard

The EUT is a RF Product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

FCC Part 15, Subpart E (15.407)

KDB 789033 D02 General UNII Test Procedure New Rules v01r01

KDB 662911 D01 Multiple Transmitter Output v02r01

ANSI C63.10-2013

All test items have been performed and recorded as per the above standards.

NOTE: The EUT has been verified to comply with the requirements of FCC Part 15, Subpart B, Class B (DoC). The test report has been issued separately.

4 Test Types and Results

4.1 Radiated Emission and Bandedge Measurement

4.1.1 Limits of Radiated Emission and Bandedge Measurement

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table.

| Frequencies (MHz) | Field Strength (microvolts/meter) | Measurement Distance (meters) |
|-------------------|-----------------------------------|-------------------------------|
| 0.009 ~ 0.490 | 2400/F(kHz) | 300 |
| 0.490 ~ 1.705 | 24000/F(kHz) | 30 |
| 1.705 ~ 30.0 | 30 | 30 |
| 30 ~ 88 | 100 | 3 |
| 88 ~ 216 | 150 | 3 |
| 216 ~ 960 | 200 | 3 |
| Above 960 | 500 | 3 |

NOTE:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).
3. For frequencies above 1000MHz, the field strength limits are based on average detector, however, the peak field strength of any emission shall not exceed the maximum permitted average limits, specified above by more than 20dB under any condition of modulation.

LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS

| APPLICABLE TO | LIMIT | |
|---|--|--|
| 789033 D02 General UNII Test Procedure New Rules v01r01 | FIELD STRENGTH AT 3m | |
| | PK:74 (dBµV/m) | AV:54 (dBµV/m) |
| APPLICABLE TO | EIRP LIMIT | EQUIVALENT FIELD STRENGTH AT 3m |
| 15.407(b)(1) | PK:-27 (dBm/MHz) | PK:68.2(dBµV/m) |
| 15.407(b)(2) | | |
| 15.407(b)(3) | | |
| 15.407(b)(4) | PK:-27 (dBm/MHz) ^{*1} PK:-17 (dBm/MHz) ^{*2} | PK:68.2 (dBµV/m) ^{*1} PK:78.2 (dBµV/m) ^{*2} |

NOTE: ^{*1} beyond 10MHz of the band edge ^{*2} within 10 MHz of band edge

The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:

$$E = \frac{1000000\sqrt{30P}}{3} \mu\text{V/m, where P is the eirp (Watts).}$$

4.1.2 Test Instruments

For below 1GHz:

| DESCRIPTION & MANUFACTURER | MODEL NO. | SERIAL NO. | CALIBRATED DATE | CALIBRATED UNTIL |
|--|--------------------------|-------------------------------|-----------------|------------------|
| Test Receiver Agilent | N9038A | MY50010156 | Aug. 12, 2015 | Aug. 11, 2016 |
| Pre-Amplifier ^(*) EMCI | EMC001340 | 980142 | Jan. 20, 2016 | Jan. 19, 2018 |
| Loop Antenna ^(*) Electro-Metrics | EM-6879 | 264 | Dec. 16, 2014 | Dec. 15, 2016 |
| RF Cable | NA | LOOPCAB-001 LOOPCAB-002 | Jan. 18, 2016 | Jan. 17, 2017 |
| Pre-Amplifier Mini-Circuits | ZFL-1000VH2 B | AMP-ZFL-07 | May 08, 2015 | May 07, 2016 |
| Trilog Broadband Antenna SCHWARZBECK | VULB 9168 | 138 | Jan. 18, 2016 | Jan. 17, 2017 |
| RF Cable | 8D | 966-3-1 966-3-2 966-3-3 | Apr. 03, 2015 | Apr. 02, 2016 |
| Software | ADT_Radiated _V8.7.07 | NA | NA | NA |
| Antenna Tower & Turn Table CT | NA | NA | NA | NA |

Note:

1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in 966 Chamber No. 3.
3. The FCC Site Registration No. is 147459
4. The CANADA Site Registration No. is 20331-1
5. Tested Date: Jan. 28, 2016

For Above 1GHz:

| DESCRIPTION & MANUFACTURER | MODEL NO. | SERIAL NO. | CALIBRATED DATE | CALIBRATED UNTIL |
|---|---|----------------------------|-----------------|------------------|
| Test Receiver Agilent | N9038A | MY50010156 | Aug. 12, 2015 | Aug. 11, 2016 |
| Horn_Antenna SCHWARZBECK | BBHA9120-D | 9120D-406 | Jan. 20, 2016 | Jan. 19, 2017 |
| Pre-Amplifier Agilent | 8449B | 3008A02465 | Apr. 06, 2015 | Apr. 05, 2016 |
| RF Cable | EMC104-SM-SM-2000 EMC104-SM-SM-5000 EMC104-SM-SM-5000 | 150317 150321 150322 | Mar. 31, 2015 | Mar. 30, 2016 |
| Spectrum Analyzer Keysight | N9030A | MY54490520 | July 26, 2015 | July 25, 2016 |
| Pre-Amplifier EMCI | EMC184045 | 980143 | Jan. 15, 2016 | Jan. 14, 2017 |
| Horn_Antenna SCHWARZBECK | BBHA 9170 | BBHA9170608 | Jan. 08, 2016 | Jan. 07, 2017 |
| RF Cable | SUCOFLEX 102 | 36432/2 36441/2 | Jan. 16, 2016 | Jan. 15, 2017 |
| Software | ADT_Radiated _V8.7.07 | NA | NA | NA |
| Antenna Tower & Turn Table CT | NA | NA | NA | NA |
| Power Meter Anritsu | ML2495A | 1014008 | Apr. 28, 2015 | Apr. 27, 2016 |
| Power Sensor Anritsu | MA2411B | 0917122 | Apr. 28, 2015 | Apr. 27, 2016 |
| Spectrum Analyzer R&S | FSP40 | 100060 | May 08, 2015 | May 07, 2016 |
| Temperature & Humidity Chamber GIANTFORCE | GTH-150-40-S P-AR | MAA0812-008 | Jan. 15, 2016 | Jan. 14, 2017 |

Note:

1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in 966 Chamber No. 3.
3. The FCC Site Registration No. is 147459
4. The CANADA Site Registration No. is 20331-1
5. Tested Date: Jan. 28 to Feb. 02, 2016

4.1.3 Test Procedures

- a. The EUT was placed on the top of a rotating table 0.8 meters (for below 1GHz) / 1.5 meters (for above 1GHz) above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.
- f. The test-receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

Note:

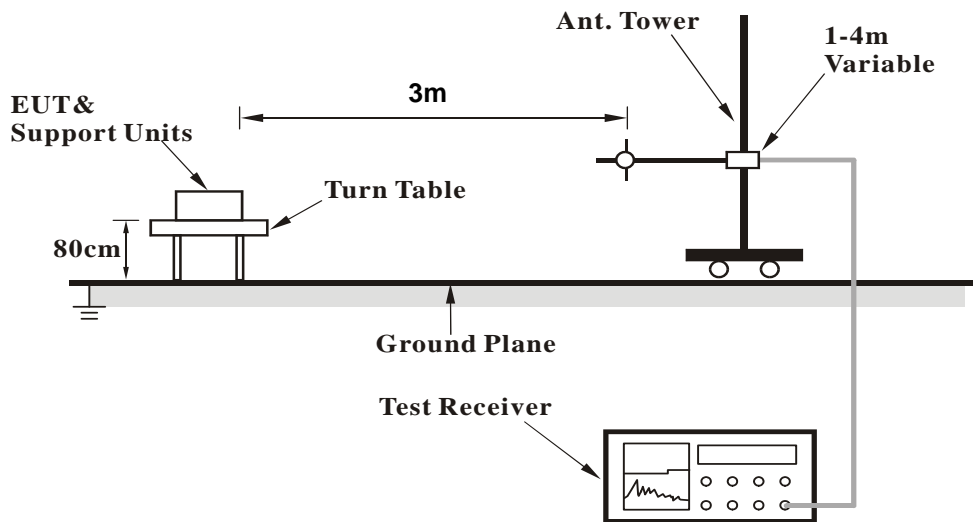
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 3MHz for RMS Average (Duty cycle < 98%) for Average detection (AV) at frequency above 1GHz, then the measurement results was added to a correction factor ($10 \log(1/\text{duty cycle})$).
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 10Hz (Duty cycle $\geq 98\%$) for Average detection (AV) at frequency above 1GHz.
5. All modes of operation were investigated and the worst-case emissions are reported.

4.1.4 Deviation from Test Standard

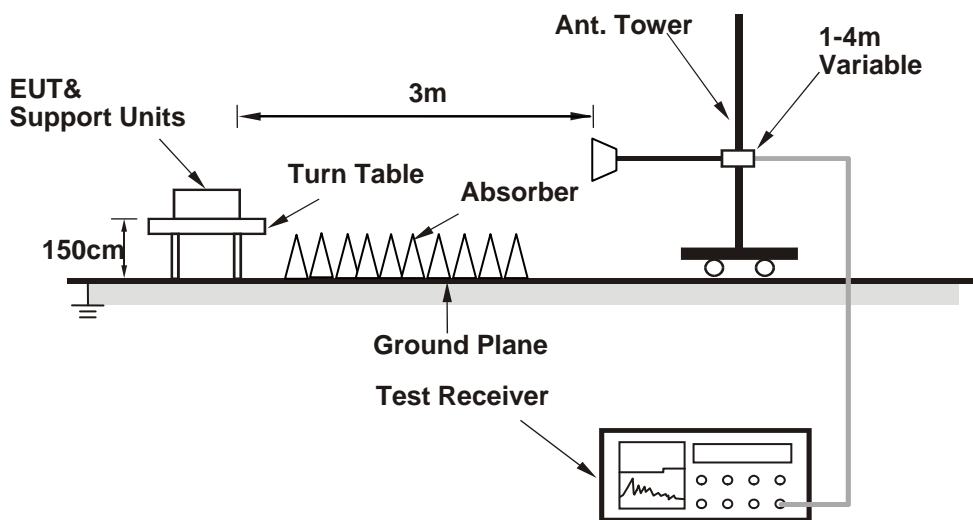
No deviation.

4.1.5 Test Setup

<Frequency Range below 1GHz>



<Frequency Range above 1GHz>



For the actual test configuration, please refer to the attached file (Test Setup Photo).

4.1.6 EUT Operating Conditions

1. Placed the EUT on testing table.
2. Connect the EUT with the support unit B (Notebook Computer) which is placed in a remote area.
3. The communication partner run test program "BCMTool_BHR4.exe [v1.05]" to enable EUT under transmission/receiving condition continuously at specific channel frequency.

4.1.7 Test Results (Mode 1)
Above 1GHz Data
1TX
802.11a

| | | | |
|------------------------|---------------|------------------------------|--------------|
| CHANNEL | TX Channel 36 | DETECTOR FUNCTION | Peak (PK) |
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | 5100.00 | 53.7 PK | 74.0 | -20.3 | 3.76 H | 256 | 45.59 | 8.11 |
| 2 | 5100.00 | 41.4 AV | 54.0 | -12.6 | 3.76 H | 256 | 33.29 | 8.11 |
| 3 | *5180.00 | 101.1 PK | | | 3.76 H | 256 | 92.63 | 8.47 |
| 4 | *5180.00 | 90.8 AV | | | 3.76 H | 256 | 82.33 | 8.47 |
| 5 | #10360.00 | 63.9 PK | 74.0 | -10.1 | 1.50 H | 111 | 49.40 | 14.50 |
| 6 | #10360.00 | 50.1 AV | 54.0 | -3.9 | 1.50 H | 111 | 35.60 | 14.50 |
| 7 | 15540.00 | 59.7 PK | 74.0 | -14.3 | 1.54 H | 143 | 41.02 | 18.68 |
| 8 | 15540.00 | 44.6 AV | 54.0 | -9.4 | 1.54 H | 143 | 25.92 | 18.68 |

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | 5100.00 | 65.6 PK | 74.0 | -8.4 | 1.00 V | 191 | 57.49 | 8.11 |
| 2 | 5100.00 | 53.9 AV | 54.0 | -0.1 | 1.00 V | 191 | 45.79 | 8.11 |
| 3 | *5180.00 | 112.4 PK | | | 1.00 V | 191 | 103.93 | 8.47 |
| 4 | *5180.00 | 102.0 AV | | | 1.00 V | 191 | 93.53 | 8.47 |
| 5 | #10360.00 | 65.9 PK | 74.0 | -8.1 | 3.83 V | 82 | 51.40 | 14.50 |
| 6 | #10360.00 | 51.8 AV | 54.0 | -2.2 | 3.83 V | 82 | 37.30 | 14.50 |
| 7 | 15540.00 | 62.4 PK | 74.0 | -11.6 | 3.84 V | 107 | 43.72 | 18.68 |
| 8 | 15540.00 | 46.6 AV | 54.0 | -7.4 | 3.84 V | 107 | 27.92 | 18.68 |

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| | | | |
|------------------------|---------------|--------------------------|--------------|
| CHANNEL | TX Channel 40 | DETECTOR FUNCTION | Peak (PK) |
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|-------------|-------------------------|----------------|-------------|--------------------|----------------------|------------------|--------------------------|
| 1 | 5121.00 | 52.2 PK | 74.0 | -21.8 | 3.73 H | 243 | 44.00 | 8.20 |
| 2 | 5121.00 | 41.1 AV | 54.0 | -12.9 | 3.73 H | 243 | 32.90 | 8.20 |
| 3 | *5200.00 | 105.3 PK | | | 3.73 H | 243 | 96.76 | 8.54 |
| 4 | *5200.00 | 94.8 AV | | | 3.73 H | 243 | 86.26 | 8.54 |
| 5 | 5361.00 | 51.8 PK | 74.0 | -22.2 | 3.73 H | 243 | 42.97 | 8.83 |
| 6 | 5361.00 | 40.6 AV | 54.0 | -13.4 | 3.73 H | 243 | 31.77 | 8.83 |
| 7 | #10400.00 | 64.1 PK | 74.0 | -9.9 | 1.48 H | 110 | 49.50 | 14.60 |
| 8 | #10400.00 | 50.0 AV | 54.0 | -4.0 | 1.48 H | 110 | 35.40 | 14.60 |
| 9 | 15600.00 | 60.2 PK | 74.0 | -13.8 | 1.56 H | 141 | 41.30 | 18.90 |
| 10 | 15600.00 | 44.9 AV | 54.0 | -9.1 | 1.56 H | 141 | 26.00 | 18.90 |

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|-------------|-------------------------|----------------|-------------|--------------------|----------------------|------------------|--------------------------|
| 1 | 5121.00 | 63.6 PK | 74.0 | -10.4 | 1.00 V | 175 | 55.40 | 8.20 |
| 2 | 5121.00 | 53.5 AV | 54.0 | -0.5 | 1.00 V | 175 | 45.30 | 8.20 |
| 3 | *5200.00 | 116.6 PK | | | 1.00 V | 175 | 108.06 | 8.54 |
| 4 | *5200.00 | 106.0 AV | | | 1.00 V | 175 | 97.46 | 8.54 |
| 5 | 5361.00 | 63.2 PK | 74.0 | -10.8 | 1.00 V | 175 | 54.37 | 8.83 |
| 6 | 5361.00 | 53.0 AV | 54.0 | -1.0 | 1.00 V | 175 | 44.17 | 8.83 |
| 7 | #10400.00 | 65.8 PK | 74.0 | -8.2 | 3.86 V | 98 | 51.20 | 14.60 |
| 8 | #10400.00 | 51.8 AV | 54.0 | -2.2 | 3.86 V | 98 | 37.20 | 14.60 |
| 9 | 15600.00 | 62.7 PK | 74.0 | -11.3 | 3.77 V | 107 | 43.80 | 18.90 |
| 10 | 15600.00 | 46.8 AV | 54.0 | -7.2 | 3.77 V | 107 | 27.90 | 18.90 |

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| | | | |
|------------------------|---------------|------------------------------|--------------|
| CHANNEL | TX Channel 48 | DETECTOR FUNCTION | Peak (PK) |
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | *5240.00 | 103.2 PK | | | 3.73 H | 258 | 94.60 | 8.60 |
| 2 | *5240.00 | 92.7 AV | | | 3.73 H | 258 | 84.10 | 8.60 |
| 3 | 5401.00 | 52.8 PK | 74.0 | -21.2 | 3.73 H | 258 | 43.87 | 8.93 |
| 4 | 5401.00 | 41.5 AV | 54.0 | -12.5 | 3.73 H | 258 | 32.57 | 8.93 |
| 5 | #10480.00 | 64.5 PK | 74.0 | -9.5 | 1.50 H | 102 | 50.03 | 14.47 |
| 6 | #10480.00 | 50.5 AV | 54.0 | -3.5 | 1.50 H | 102 | 36.03 | 14.47 |
| 7 | 15720.00 | 60.2 PK | 74.0 | -13.8 | 1.52 H | 133 | 41.16 | 19.04 |
| 8 | 15720.00 | 45.1 AV | 54.0 | -8.9 | 1.52 H | 133 | 26.06 | 19.04 |

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | *5240.00 | 114.5 PK | | | 1.00 V | 164 | 105.90 | 8.60 |
| 2 | *5240.00 | 103.9 AV | | | 1.00 V | 164 | 95.30 | 8.60 |
| 3 | 5401.00 | 64.1 PK | 74.0 | -9.9 | 1.00 V | 164 | 55.17 | 8.93 |
| 4 | 5401.00 | 53.5 AV | 54.0 | -0.5 | 1.00 V | 164 | 44.57 | 8.93 |
| 5 | #10480.00 | 66.2 PK | 74.0 | -7.8 | 3.85 V | 89 | 51.73 | 14.47 |
| 6 | #10480.00 | 52.0 AV | 54.0 | -2.0 | 3.85 V | 89 | 37.53 | 14.47 |
| 7 | 15720.00 | 62.7 PK | 74.0 | -11.3 | 3.80 V | 96 | 43.66 | 19.04 |
| 8 | 15720.00 | 46.9 AV | 54.0 | -7.1 | 3.80 V | 96 | 27.86 | 19.04 |

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| | | | |
|------------------------|----------------|------------------------------|--------------|
| CHANNEL | TX Channel 149 | DETECTOR FUNCTION | Peak (PK) |
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | #5715.00 | 58.0 PK | 74.0 | -16.0 | 3.79 H | 268 | 48.32 | 9.68 |
| 2 | #5715.00 | 42.1 AV | 54.0 | -11.9 | 3.79 H | 268 | 32.42 | 9.68 |
| 3 | #5725.00 | 68.3 PK | 78.2 | -9.9 | 3.79 H | 268 | 58.60 | 9.70 |
| 4 | *5745.00 | 99.1 PK | | | 3.79 H | 268 | 89.34 | 9.76 |
| 5 | *5745.00 | 88.9 AV | | | 3.79 H | 268 | 79.14 | 9.76 |
| 6 | 11490.00 | 64.5 PK | 74.0 | -9.5 | 1.52 H | 90 | 49.64 | 14.86 |
| 7 | 11490.00 | 50.8 AV | 54.0 | -3.2 | 1.52 H | 90 | 35.94 | 14.86 |
| 8 | #17235.00 | 59.8 PK | 74.0 | -14.2 | 1.50 H | 133 | 36.57 | 23.23 |
| 9 | #17235.00 | 44.9 AV | 54.0 | -9.1 | 1.50 H | 133 | 21.67 | 23.23 |

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | #5715.00 | 68.1 PK | 74.0 | -5.9 | 1.70 V | 177 | 58.42 | 9.68 |
| 2 | #5715.00 | 47.5 AV | 54.0 | -6.5 | 1.70 V | 177 | 37.82 | 9.68 |
| 3 | #5725.00 | 78.1 PK | 78.2 | -0.1 | 1.70 V | 177 | 68.40 | 9.70 |
| 4 | *5745.00 | 110.3 PK | | | 1.70 V | 177 | 100.54 | 9.76 |
| 5 | *5745.00 | 100.0 AV | | | 1.70 V | 177 | 90.24 | 9.76 |
| 6 | 11490.00 | 66.0 PK | 74.0 | -8.0 | 3.86 V | 95 | 51.14 | 14.86 |
| 7 | 11490.00 | 51.8 AV | 54.0 | -2.2 | 3.86 V | 95 | 36.94 | 14.86 |
| 8 | #17235.00 | 62.6 PK | 74.0 | -11.4 | 3.78 V | 104 | 39.37 | 23.23 |
| 9 | #17235.00 | 47.0 AV | 54.0 | -7.0 | 3.78 V | 104 | 23.77 | 23.23 |

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| | | | |
|------------------------|----------------|------------------------------|--------------|
| CHANNEL | TX Channel 157 | DETECTOR FUNCTION | Peak (PK) |
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | #5703.00 | 58.1 PK | 68.2 | -10.1 | 3.82 H | 255 | 48.46 | 9.64 |
| 2 | *5785.00 | 99.6 PK | | | 3.82 H | 255 | 89.75 | 9.85 |
| 3 | *5785.00 | 90.1 AV | | | 3.82 H | 255 | 80.25 | 9.85 |
| 4 | #5863.00 | 56.0 PK | 68.2 | -12.2 | 3.82 H | 255 | 46.07 | 9.93 |
| 5 | 11570.00 | 63.7 PK | 74.0 | -10.3 | 1.44 H | 108 | 48.50 | 15.20 |
| 6 | 11570.00 | 50.0 AV | 54.0 | -4.0 | 1.44 H | 108 | 34.80 | 15.20 |
| 7 | #17355.00 | 59.9 PK | 68.2 | -8.3 | 1.56 H | 145 | 36.34 | 23.56 |

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | #5703.00 | 67.8 PK | 68.2 | -0.4 | 1.64 V | 139 | 58.16 | 9.64 |
| 2 | *5785.00 | 111.8 PK | | | 1.64 V | 139 | 101.95 | 9.85 |
| 3 | *5785.00 | 101.2 AV | | | 1.64 V | 139 | 91.35 | 9.85 |
| 4 | #5863.00 | 66.0 PK | 68.2 | -2.2 | 1.64 V | 139 | 56.07 | 9.93 |
| 5 | 11570.00 | 65.5 PK | 74.0 | -8.5 | 3.84 V | 92 | 50.30 | 15.20 |
| 6 | 11570.00 | 51.5 AV | 54.0 | -2.5 | 3.84 V | 92 | 36.30 | 15.20 |
| 7 | #17355.00 | 63.0 PK | 68.2 | -5.2 | 3.84 V | 80 | 39.44 | 23.56 |

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| | | | |
|------------------------|----------------|------------------------------|--------------|
| CHANNEL | TX Channel 165 | DETECTOR FUNCTION | Peak (PK) |
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | *5825.00 | 98.8 PK | | | 3.71 H | 244 | 88.89 | 9.91 |
| 2 | *5825.00 | 89.4 AV | | | 3.71 H | 244 | 79.49 | 9.91 |
| 3 | #5850.00 | 60.9 PK | 78.2 | -17.3 | 3.71 H | 244 | 50.98 | 9.92 |
| 4 | #5860.00 | 55.0 PK | 68.2 | -13.2 | 3.71 H | 244 | 45.07 | 9.93 |
| 5 | #5904.00 | 57.3 PK | 68.2 | -10.9 | 3.71 H | 244 | 47.32 | 9.98 |
| 6 | 11650.00 | 64.2 PK | 74.0 | -9.8 | 1.56 H | 101 | 48.80 | 15.40 |
| 7 | 11650.00 | 50.0 AV | 54.0 | -4.0 | 1.56 H | 101 | 34.60 | 15.40 |
| 8 | #17475.00 | 60.3 PK | 68.2 | -7.9 | 1.55 H | 137 | 36.21 | 24.09 |

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | *5825.00 | 111.0 PK | | | 1.50 V | 140 | 101.09 | 9.91 |
| 2 | *5825.00 | 100.5 AV | | | 1.50 V | 140 | 90.59 | 9.91 |
| 3 | #5850.00 | 71.2 PK | 78.2 | -7.0 | 1.50 V | 140 | 61.28 | 9.92 |
| 4 | #5860.00 | 65.2 PK | 68.2 | -3.0 | 1.50 V | 140 | 55.27 | 9.93 |
| 5 | #5904.00 | 67.7 PK | 68.2 | -0.5 | 1.50 V | 140 | 57.72 | 9.98 |
| 6 | 11650.00 | 65.9 PK | 74.0 | -8.1 | 3.83 V | 100 | 50.50 | 15.40 |
| 7 | 11650.00 | 51.6 AV | 54.0 | -2.4 | 3.83 V | 100 | 36.20 | 15.40 |
| 8 | #17475.00 | 62.8 PK | 68.2 | -5.4 | 3.76 V | 91 | 38.71 | 24.09 |

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

4.1.8 Test Results (Mode 2)

2TX

CDD_MODE

802.11ac (VHT20)

| | | | |
|------------------------|---------------|------------------------------|--------------|
| CHANNEL | TX Channel 36 | DETECTOR FUNCTION | Peak (PK) |
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | 5100.00 | 64.3 PK | 74.0 | -9.7 | 3.42 H | 144 | 56.19 | 8.11 |
| 2 | 5100.00 | 52.4 AV | 54.0 | -1.6 | 3.42 H | 144 | 44.29 | 8.11 |
| 3 | *5180.00 | 113.2 PK | | | 3.42 H | 144 | 104.73 | 8.47 |
| 4 | *5180.00 | 102.6 AV | | | 3.42 H | 144 | 94.13 | 8.47 |
| 5 | #10360.00 | 66.4 PK | 74.0 | -7.6 | 1.58 H | 73 | 51.90 | 14.50 |
| 6 | #10360.00 | 52.0 AV | 54.0 | -2.0 | 1.58 H | 73 | 37.50 | 14.50 |
| 7 | 15540.00 | 59.1 PK | 74.0 | -14.9 | 2.33 H | 120 | 40.42 | 18.68 |
| 8 | 15540.00 | 45.6 AV | 54.0 | -8.4 | 2.33 H | 120 | 26.92 | 18.68 |

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | 5100.00 | 65.1 PK | 74.0 | -8.9 | 2.39 V | 264 | 56.99 | 8.11 |
| 2 | 5100.00 | 53.9 AV | 54.0 | -0.1 | 2.39 V | 264 | 45.79 | 8.11 |
| 3 | *5180.00 | 115.2 PK | | | 2.39 V | 264 | 106.73 | 8.47 |
| 4 | *5180.00 | 104.9 AV | | | 2.39 V | 264 | 96.43 | 8.47 |
| 5 | #10360.00 | 64.0 PK | 74.0 | -10.0 | 1.64 V | 199 | 49.50 | 14.50 |
| 6 | #10360.00 | 50.0 AV | 54.0 | -4.0 | 1.64 V | 199 | 35.50 | 14.50 |
| 7 | 15540.00 | 56.6 PK | 74.0 | -17.4 | 1.99 V | 198 | 37.92 | 18.68 |
| 8 | 15540.00 | 42.8 AV | 54.0 | -11.2 | 1.99 V | 198 | 24.12 | 18.68 |

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| | | | |
|------------------------|---------------|------------------------------|--------------|
| CHANNEL | TX Channel 40 | DETECTOR FUNCTION | Peak (PK) |
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | 5121.00 | 63.1 PK | 74.0 | -10.9 | 3.46 H | 160 | 54.90 | 8.20 |
| 2 | 5121.00 | 52.6 AV | 54.0 | -1.4 | 3.46 H | 160 | 44.40 | 8.20 |
| 3 | *5200.00 | 113.1 PK | | | 3.46 H | 160 | 104.56 | 8.54 |
| 4 | *5200.00 | 103.2 AV | | | 3.46 H | 160 | 94.66 | 8.54 |
| 5 | 5361.00 | 63.4 PK | 74.0 | -10.6 | 3.46 H | 160 | 54.57 | 8.83 |
| 6 | 5361.00 | 52.4 AV | 54.0 | -1.6 | 3.46 H | 160 | 43.57 | 8.83 |
| 7 | #10400.00 | 66.2 PK | 74.0 | -7.8 | 1.61 H | 65 | 51.60 | 14.60 |
| 8 | #10400.00 | 52.0 AV | 54.0 | -2.0 | 1.61 H | 65 | 37.40 | 14.60 |
| 9 | 15600.00 | 59.0 PK | 74.0 | -15.0 | 2.29 H | 118 | 40.10 | 18.90 |
| 10 | 15600.00 | 45.8 AV | 54.0 | -8.2 | 2.29 H | 118 | 26.90 | 18.90 |

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | 5121.00 | 64.4 PK | 74.0 | -9.6 | 2.38 V | 265 | 56.20 | 8.20 |
| 2 | 5121.00 | 53.9 AV | 54.0 | -0.1 | 2.38 V | 265 | 45.70 | 8.20 |
| 3 | *5200.00 | 115.9 PK | | | 2.38 V | 265 | 107.36 | 8.54 |
| 4 | *5200.00 | 105.4 AV | | | 2.38 V | 265 | 96.86 | 8.54 |
| 5 | 5361.00 | 64.5 PK | 74.0 | -9.5 | 2.38 V | 265 | 55.67 | 8.83 |
| 6 | 5361.00 | 53.3 AV | 54.0 | -0.7 | 2.38 V | 265 | 44.47 | 8.83 |
| 7 | #10400.00 | 63.6 PK | 74.0 | -10.4 | 1.60 V | 198 | 49.00 | 14.60 |
| 8 | #10400.00 | 49.8 AV | 54.0 | -4.2 | 1.60 V | 198 | 35.20 | 14.60 |
| 9 | 15600.00 | 57.0 PK | 74.0 | -17.0 | 1.98 V | 201 | 38.10 | 18.90 |
| 10 | 15600.00 | 43.3 AV | 54.0 | -10.7 | 1.98 V | 201 | 24.40 | 18.90 |

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| | | | |
|------------------------|---------------|--------------------------|--------------|
| CHANNEL | TX Channel 48 | DETECTOR FUNCTION | Peak (PK) |
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|-------------|-------------------------|----------------|-------------|--------------------|----------------------|------------------|--------------------------|
| 1 | *5240.00 | 113.2 PK | | | 3.43 H | 132 | 104.60 | 8.60 |
| 2 | *5240.00 | 101.9 AV | | | 3.43 H | 132 | 93.30 | 8.60 |
| 3 | 5397.00 | 62.4 PK | 74.0 | -11.6 | 3.43 H | 132 | 53.48 | 8.92 |
| 4 | 5397.00 | 52.1 AV | 54.0 | -1.9 | 3.43 H | 132 | 43.18 | 8.92 |
| 5 | #10480.00 | 66.4 PK | 74.0 | -7.6 | 1.61 H | 82 | 51.93 | 14.47 |
| 6 | #10480.00 | 51.7 AV | 54.0 | -2.3 | 1.61 H | 82 | 37.23 | 14.47 |
| 7 | 15720.00 | 58.7 PK | 74.0 | -15.3 | 2.30 H | 127 | 39.66 | 19.04 |
| 8 | 15720.00 | 45.2 AV | 54.0 | -8.8 | 2.30 H | 127 | 26.16 | 19.04 |

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|----------|----------------|-------------------------|----------------|-------------|--------------------|----------------------|------------------|--------------------------|
| 1 | *5240.00 | 115.8 PK | | | 2.15 V | 267 | 107.20 | 8.60 |
| 2 | *5240.00 | 105.2 AV | | | 2.15 V | 267 | 96.60 | 8.60 |
| 3 | 5397.00 | 64.6 PK | 74.0 | -9.4 | 2.15 V | 267 | 55.68 | 8.92 |
| 4 | 5397.00 | 53.9 AV | 54.0 | -0.1 | 2.15 V | 267 | 44.98 | 8.92 |
| 5 | #10480.00 | 64.1 PK | 74.0 | -9.9 | 1.66 V | 189 | 49.63 | 14.47 |
| 6 | #10480.00 | 50.0 AV | 54.0 | -4.0 | 1.66 V | 189 | 35.53 | 14.47 |
| 7 | 15720.00 | 56.5 PK | 74.0 | -17.5 | 1.94 V | 198 | 37.46 | 19.04 |
| 8 | 15720.00 | 42.8 AV | 54.0 | -11.2 | 1.94 V | 198 | 23.76 | 19.04 |

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| | | | |
|------------------------|----------------|------------------------------|--------------|
| CHANNEL | TX Channel 149 | DETECTOR FUNCTION | Peak (PK) |
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | #5666.00 | 66.4 PK | 68.2 | -1.8 | 3.44 H | 130 | 56.85 | 9.55 |
| 2 | #5715.00 | 55.4 PK | 74.0 | -18.6 | 3.44 H | 130 | 45.72 | 9.68 |
| 3 | #5715.00 | 47.0 AV | 54.0 | -7.0 | 3.44 H | 130 | 37.32 | 9.68 |
| 4 | #5725.00 | 76.6 PK | 78.2 | -1.6 | 3.44 H | 130 | 66.90 | 9.70 |
| 5 | *5745.00 | 112.2 PK | | | 3.44 H | 130 | 102.44 | 9.76 |
| 6 | *5745.00 | 101.4 AV | | | 3.44 H | 130 | 91.64 | 9.76 |
| 7 | 11490.00 | 66.4 PK | 74.0 | -7.6 | 1.66 H | 81 | 51.54 | 14.86 |
| 8 | 11490.00 | 51.2 AV | 54.0 | -2.8 | 1.66 H | 81 | 36.34 | 14.86 |
| 9 | #17235.00 | 58.4 PK | 74.0 | -15.6 | 2.24 H | 123 | 35.17 | 23.23 |
| 10 | #17235.00 | 44.4 AV | 54.0 | -9.6 | 2.24 H | 123 | 21.17 | 23.23 |

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | #5666.00 | 67.6 PK | 68.2 | -0.6 | 2.27 V | 257 | 58.05 | 9.55 |
| 2 | #5715.00 | 67.2 PK | 74.0 | -6.8 | 2.27 V | 257 | 57.52 | 9.68 |
| 3 | #5715.00 | 48.0 AV | 54.0 | -6.0 | 2.27 V | 257 | 38.32 | 9.68 |
| 4 | #5725.00 | 78.1 PK | 78.2 | -0.1 | 2.27 V | 257 | 68.40 | 9.70 |
| 5 | *5745.00 | 114.5 PK | | | 2.27 V | 257 | 104.74 | 9.76 |
| 6 | *5745.00 | 103.9 AV | | | 2.27 V | 257 | 94.14 | 9.76 |
| 7 | 11490.00 | 63.2 PK | 74.0 | -10.8 | 1.62 V | 185 | 48.34 | 14.86 |
| 8 | 11490.00 | 49.4 AV | 54.0 | -4.6 | 1.62 V | 185 | 34.54 | 14.86 |
| 9 | #17235.00 | 55.4 PK | 74.0 | -18.6 | 1.95 V | 182 | 32.17 | 23.23 |
| 10 | #17235.00 | 42.0 AV | 54.0 | -12.0 | 1.95 V | 182 | 18.77 | 23.23 |

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| | | | |
|------------------------|----------------|------------------------------|--------------|
| CHANNEL | TX Channel 157 | DETECTOR FUNCTION | Peak (PK) |
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | #5705.00 | 67.1 PK | 68.2 | -1.1 | 3.50 H | 136 | 57.45 | 9.65 |
| 2 | *5785.00 | 112.4 PK | | | 3.50 H | 136 | 102.55 | 9.85 |
| 3 | *5785.00 | 102.2 AV | | | 3.50 H | 136 | 92.35 | 9.85 |
| 4 | #5866.00 | 65.4 PK | 68.2 | -2.8 | 3.50 H | 136 | 55.47 | 9.93 |
| 5 | 11570.00 | 65.9 PK | 74.0 | -8.1 | 1.66 H | 83 | 50.70 | 15.20 |
| 6 | 11570.00 | 50.9 AV | 54.0 | -3.1 | 1.66 H | 83 | 35.70 | 15.20 |
| 7 | #17355.00 | 58.5 PK | 74.0 | -15.5 | 2.25 H | 118 | 34.94 | 23.56 |
| 8 | #17355.00 | 44.4 AV | 54.0 | -9.6 | 2.25 H | 118 | 20.84 | 23.56 |

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | #5705.00 | 68.1 PK | 68.2 | -0.1 | 2.30 V | 251 | 58.45 | 9.65 |
| 2 | *5785.00 | 114.2 PK | | | 2.30 V | 251 | 104.35 | 9.85 |
| 3 | *5785.00 | 104.3 AV | | | 2.30 V | 251 | 94.45 | 9.85 |
| 4 | #5866.00 | 66.8 PK | 68.2 | -1.4 | 2.30 V | 251 | 56.87 | 9.93 |
| 5 | 11570.00 | 63.3 PK | 74.0 | -10.7 | 1.60 V | 190 | 48.10 | 15.20 |
| 6 | 11570.00 | 49.4 AV | 54.0 | -4.6 | 1.60 V | 190 | 34.20 | 15.20 |
| 7 | #17355.00 | 55.3 PK | 74.0 | -18.7 | 1.99 V | 176 | 31.74 | 23.56 |
| 8 | #17355.00 | 42.0 AV | 54.0 | -12.0 | 1.99 V | 176 | 18.44 | 23.56 |

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| | | | |
|------------------------|----------------|--------------------------|--------------|
| CHANNEL | TX Channel 165 | DETECTOR FUNCTION | Peak (PK) |
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|-------------|-------------------------|----------------|-------------|--------------------|----------------------|------------------|--------------------------|
| 1 | *5825.00 | 113.4 PK | | | 3.39 H | 140 | 103.49 | 9.91 |
| 2 | *5825.00 | 102.5 AV | | | 3.39 H | 140 | 92.59 | 9.91 |
| 3 | #5850.00 | 70.1 PK | 78.2 | -8.1 | 3.39 H | 140 | 60.18 | 9.92 |
| 4 | #5860.00 | 63.2 PK | 74.0 | -10.8 | 3.39 H | 140 | 53.27 | 9.93 |
| 5 | #5860.00 | 46.8 AV | 54.0 | -7.2 | 3.39 H | 140 | 36.87 | 9.93 |
| 6 | #5896.00 | 67.4 PK | 68.2 | -0.8 | 3.39 H | 140 | 57.45 | 9.95 |
| 7 | 11650.00 | 66.3 PK | 74.0 | -7.7 | 1.63 H | 73 | 50.90 | 15.40 |
| 8 | 11650.00 | 51.0 AV | 54.0 | -3.0 | 1.63 H | 73 | 35.60 | 15.40 |
| 9 | #17475.00 | 57.8 PK | 74.0 | -16.2 | 2.24 H | 109 | 33.71 | 24.09 |
| 10 | #17475.00 | 44.0 AV | 54.0 | -10.0 | 2.24 H | 109 | 19.91 | 24.09 |

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|----------|-----------------|-------------------------|----------------|-------------|--------------------|----------------------|------------------|--------------------------|
| 1 | *5825.00 | 115.7 PK | | | 1.82 V | 257 | 105.79 | 9.91 |
| 2 | *5825.00 | 104.6 AV | | | 1.82 V | 257 | 94.69 | 9.91 |
| 3 | #5850.00 | 71.4 PK | 78.2 | -6.8 | 1.82 V | 257 | 61.48 | 9.92 |
| 4 | #5860.00 | 64.4 PK | 74.0 | -9.6 | 1.82 V | 257 | 54.47 | 9.93 |
| 5 | #5860.00 | 48.1 AV | 54.0 | -5.9 | 1.82 V | 257 | 38.17 | 9.93 |
| 6 | #5896.00 | 68.1 PK | 68.2 | -0.1 | 1.82 V | 257 | 58.15 | 9.95 |
| 7 | 11650.00 | 63.2 PK | 74.0 | -10.8 | 1.68 V | 179 | 47.80 | 15.40 |
| 8 | 11650.00 | 49.5 AV | 54.0 | -4.5 | 1.68 V | 179 | 34.10 | 15.40 |
| 9 | #17475.00 | 55.1 PK | 74.0 | -18.9 | 1.91 V | 178 | 31.01 | 24.09 |
| 10 | #17475.00 | 41.9 AV | 54.0 | -12.1 | 1.91 V | 178 | 17.81 | 24.09 |

REMARKS:

- Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
- Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
- The other emission levels were very low against the limit.
- Margin value = Emission Level – Limit value
- " * ": Fundamental frequency.
- " # ": The radiated frequency is out of the restricted band.

802.11ac (VHT40)

| | | | |
|------------------------|---------------|------------------------------|--------------|
| CHANNEL | TX Channel 38 | DETECTOR FUNCTION | Peak (PK) |
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | 5146.00 | 71.3 PK | 74.0 | -2.7 | 3.34 H | 127 | 62.99 | 8.31 |
| 2 | 5146.00 | 52.4 AV | 54.0 | -1.6 | 3.34 H | 127 | 44.09 | 8.31 |
| 3 | *5190.00 | 113.5 PK | | | 3.34 H | 127 | 105.00 | 8.50 |
| 4 | *5190.00 | 102.4 AV | | | 3.34 H | 127 | 93.90 | 8.50 |
| 5 | 5356.00 | 61.4 PK | 74.0 | -12.6 | 3.34 H | 127 | 52.58 | 8.82 |
| 6 | 5356.00 | 51.5 AV | 54.0 | -2.5 | 3.34 H | 127 | 42.68 | 8.82 |
| 7 | #10380.00 | 61.3 PK | 74.0 | -12.7 | 1.83 H | 222 | 46.75 | 14.55 |
| 8 | #10380.00 | 48.3 AV | 54.0 | -5.7 | 1.83 H | 222 | 33.75 | 14.55 |
| 9 | 15570.00 | 53.5 PK | 74.0 | -20.5 | 1.72 H | 127 | 34.71 | 18.79 |
| 10 | 15570.00 | 41.3 AV | 54.0 | -12.7 | 1.72 H | 127 | 22.51 | 18.79 |

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | 5146.00 | 72.8 PK | 74.0 | -1.2 | 1.80 V | 86 | 64.49 | 8.31 |
| 2 | 5146.00 | 53.8 AV | 54.0 | -0.2 | 1.80 V | 86 | 45.49 | 8.31 |
| 3 | *5190.00 | 112.5 PK | | | 1.80 V | 86 | 104.00 | 8.50 |
| 4 | *5190.00 | 101.5 AV | | | 1.80 V | 86 | 93.00 | 8.50 |
| 5 | 5356.00 | 62.7 PK | 74.0 | -11.3 | 1.80 V | 86 | 53.88 | 8.82 |
| 6 | 5356.00 | 52.4 AV | 54.0 | -1.6 | 1.80 V | 86 | 43.58 | 8.82 |
| 7 | #10380.00 | 62.6 PK | 74.0 | -11.4 | 1.92 V | 98 | 48.05 | 14.55 |
| 8 | #10380.00 | 50.4 AV | 54.0 | -3.6 | 1.92 V | 98 | 35.85 | 14.55 |
| 9 | 15570.00 | 59.3 PK | 74.0 | -14.7 | 2.02 V | 113 | 40.51 | 18.79 |
| 10 | 15570.00 | 45.4 AV | 54.0 | -8.6 | 2.02 V | 113 | 26.61 | 18.79 |

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| | | | |
|------------------------|---------------|--------------------------|--------------|
| CHANNEL | TX Channel 46 | DETECTOR FUNCTION | Peak (PK) |
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|-------------|-------------------------|----------------|-------------|--------------------|----------------------|------------------|--------------------------|
| 1 | 5150.00 | 64.3 PK | 74.0 | -9.7 | 3.30 H | 142 | 55.97 | 8.33 |
| 2 | 5150.00 | 52.2 AV | 54.0 | -1.8 | 3.30 H | 142 | 43.87 | 8.33 |
| 3 | *5230.00 | 112.4 PK | | | 3.30 H | 142 | 103.81 | 8.59 |
| 4 | *5230.00 | 102.2 AV | | | 3.30 H | 142 | 93.61 | 8.59 |
| 5 | 5376.00 | 63.4 PK | 74.0 | -10.6 | 3.30 H | 142 | 54.54 | 8.86 |
| 6 | 5376.00 | 51.6 AV | 54.0 | -2.4 | 3.30 H | 142 | 42.74 | 8.86 |
| 7 | #10460.00 | 61.3 PK | 74.0 | -12.7 | 1.77 H | 211 | 46.79 | 14.51 |
| 8 | #10460.00 | 48.5 AV | 54.0 | -5.5 | 1.77 H | 211 | 33.99 | 14.51 |
| 9 | 15690.00 | 54.3 PK | 74.0 | -19.7 | 1.68 H | 115 | 35.33 | 18.97 |
| 10 | 15690.00 | 41.8 AV | 54.0 | -12.2 | 1.68 H | 115 | 22.83 | 18.97 |

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|-------------|-------------------------|----------------|-------------|--------------------|----------------------|------------------|--------------------------|
| 1 | 5150.00 | 65.3 PK | 74.0 | -8.7 | 1.78 V | 84 | 56.97 | 8.33 |
| 2 | 5150.00 | 53.8 AV | 54.0 | -0.2 | 1.78 V | 84 | 45.47 | 8.33 |
| 3 | *5230.00 | 114.8 PK | | | 1.78 V | 84 | 106.21 | 8.59 |
| 4 | *5230.00 | 104.4 AV | | | 1.78 V | 84 | 95.81 | 8.59 |
| 5 | 5376.00 | 64.1 PK | 74.0 | -9.9 | 1.78 V | 84 | 55.24 | 8.86 |
| 6 | 5376.00 | 53.0 AV | 54.0 | -1.0 | 1.78 V | 84 | 44.14 | 8.86 |
| 7 | #10460.00 | 63.9 PK | 74.0 | -10.1 | 1.93 V | 109 | 49.39 | 14.51 |
| 8 | #10460.00 | 51.6 AV | 54.0 | -2.4 | 1.93 V | 109 | 37.09 | 14.51 |
| 9 | 15690.00 | 60.2 PK | 74.0 | -13.8 | 1.96 V | 119 | 41.23 | 18.97 |
| 10 | 15690.00 | 46.3 AV | 54.0 | -7.7 | 1.96 V | 119 | 27.33 | 18.97 |

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| | | | |
|------------------------|----------------|------------------------------|--------------|
| CHANNEL | TX Channel 151 | DETECTOR FUNCTION | Peak (PK) |
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | #5680.00 | 63.6 PK | 74.0 | -10.4 | 3.01 H | 146 | 54.02 | 9.58 |
| 2 | #5680.00 | 52.2 AV | 54.0 | -1.8 | 3.01 H | 146 | 42.62 | 9.58 |
| 3 | #5715.00 | 71.4 PK | 74.0 | -2.6 | 3.01 H | 146 | 61.72 | 9.68 |
| 4 | #5715.00 | 49.6 AV | 54.0 | -4.4 | 3.01 H | 146 | 39.92 | 9.68 |
| 5 | #5725.00 | 77.4 PK | 78.2 | -0.8 | 3.01 H | 146 | 67.70 | 9.70 |
| 6 | *5755.00 | 110.6 PK | | | 3.01 H | 146 | 100.83 | 9.77 |
| 7 | *5755.00 | 98.4 AV | | | 3.01 H | 146 | 88.63 | 9.77 |
| 8 | 11510.00 | 60.8 PK | 74.0 | -13.2 | 1.75 H | 223 | 45.95 | 14.85 |
| 9 | 11510.00 | 48.2 AV | 54.0 | -5.8 | 1.75 H | 223 | 33.35 | 14.85 |
| 10 | #17265.00 | 53.6 PK | 74.0 | -20.4 | 1.71 H | 126 | 30.37 | 23.23 |
| 11 | #17265.00 | 41.3 AV | 54.0 | -12.7 | 1.71 H | 126 | 18.07 | 23.23 |

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | #5680.00 | 64.7 PK | 74.0 | -9.3 | 1.75 V | 276 | 55.12 | 9.58 |
| 2 | #5680.00 | 53.7 AV | 54.0 | -0.3 | 1.75 V | 276 | 44.12 | 9.58 |
| 3 | #5715.00 | 72.6 PK | 74.0 | -1.4 | 1.75 V | 276 | 62.92 | 9.68 |
| 4 | #5715.00 | 51.0 AV | 54.0 | -3.0 | 1.75 V | 276 | 41.32 | 9.68 |
| 5 | #5725.00 | 78.1 PK | 78.2 | -0.1 | 1.75 V | 276 | 68.40 | 9.70 |
| 6 | *5755.00 | 111.8 PK | | | 1.75 V | 276 | 102.03 | 9.77 |
| 7 | *5755.00 | 100.6 AV | | | 1.75 V | 276 | 90.83 | 9.77 |
| 8 | 11510.00 | 62.8 PK | 74.0 | -11.2 | 1.94 V | 105 | 47.95 | 14.85 |
| 9 | 11510.00 | 50.7 AV | 54.0 | -3.3 | 1.94 V | 105 | 35.85 | 14.85 |
| 10 | #17265.00 | 58.8 PK | 74.0 | -15.2 | 1.99 V | 118 | 35.57 | 23.23 |
| 11 | #17265.00 | 45.0 AV | 54.0 | -9.0 | 1.99 V | 118 | 21.77 | 23.23 |

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| | | | |
|------------------------|----------------|------------------------------|--------------|
| CHANNEL | TX Channel 159 | DETECTOR FUNCTION | Peak (PK) |
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | #5715.00 | 67.6 PK | 74.0 | -6.4 | 3.15 H | 154 | 57.92 | 9.68 |
| 2 | #5715.00 | 52.6 AV | 54.0 | -1.4 | 3.15 H | 154 | 42.92 | 9.68 |
| 3 | *5795.00 | 109.4 PK | | | 3.15 H | 154 | 99.52 | 9.88 |
| 4 | *5795.00 | 98.2 AV | | | 3.15 H | 154 | 88.32 | 9.88 |
| 5 | #5850.00 | 69.5 PK | 78.2 | -8.7 | 3.15 H | 154 | 59.58 | 9.92 |
| 6 | #5860.00 | 67.4 PK | 74.0 | -6.6 | 3.15 H | 154 | 57.47 | 9.93 |
| 7 | #5860.00 | 52.2 AV | 54.0 | -1.8 | 3.15 H | 154 | 42.27 | 9.93 |
| 8 | 11590.00 | 60.8 PK | 74.0 | -13.2 | 1.79 H | 215 | 45.49 | 15.31 |
| 9 | 11590.00 | 48.1 AV | 54.0 | -5.9 | 1.79 H | 215 | 32.79 | 15.31 |
| 10 | #17385.00 | 54.3 PK | 74.0 | -19.7 | 1.67 H | 112 | 30.54 | 23.76 |
| 11 | #17385.00 | 41.6 AV | 54.0 | -12.4 | 1.67 H | 112 | 17.84 | 23.76 |

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | #5715.00 | 64.3 PK | 74.0 | -9.7 | 1.76 V | 262 | 54.62 | 9.68 |
| 2 | #5715.00 | 53.8 AV | 54.0 | -0.2 | 1.76 V | 262 | 44.12 | 9.68 |
| 3 | *5795.00 | 110.6 PK | | | 1.76 V | 262 | 100.72 | 9.88 |
| 4 | *5795.00 | 99.6 AV | | | 1.76 V | 262 | 89.72 | 9.88 |
| 5 | #5850.00 | 70.1 PK | 78.2 | -8.1 | 1.76 V | 262 | 60.18 | 9.92 |
| 6 | #5860.00 | 68.1 PK | 74.0 | -5.9 | 1.76 V | 262 | 58.17 | 9.93 |
| 7 | #5860.00 | 53.5 AV | 54.0 | -0.5 | 1.76 V | 262 | 43.57 | 9.93 |
| 8 | 11590.00 | 62.3 PK | 74.0 | -11.7 | 1.89 V | 87 | 46.99 | 15.31 |
| 9 | 11590.00 | 50.1 AV | 54.0 | -3.9 | 1.89 V | 87 | 34.79 | 15.31 |
| 10 | #17385.00 | 59.9 PK | 74.0 | -14.1 | 1.97 V | 121 | 36.14 | 23.76 |
| 11 | #17385.00 | 45.8 AV | 54.0 | -8.2 | 1.97 V | 121 | 22.04 | 23.76 |

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

802.11ac (VHT80)

| | | | |
|------------------------|---------------|--------------------------|--------------|
| CHANNEL | TX Channel 42 | DETECTOR FUNCTION | Peak (PK) |
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|-------------|-------------------------|----------------|-------------|--------------------|----------------------|------------------|--------------------------|
| 1 | 5150.00 | 66.5 PK | 74.0 | -7.5 | 3.20 H | 155 | 58.17 | 8.33 |
| 2 | 5150.00 | 51.6 AV | 54.0 | -2.4 | 3.20 H | 155 | 43.27 | 8.33 |
| 3 | *5210.00 | 106.5 PK | | | 3.20 H | 155 | 97.95 | 8.55 |
| 4 | *5210.00 | 94.4 AV | | | 3.20 H | 155 | 85.85 | 8.55 |
| 5 | 5350.00 | 59.4 PK | 74.0 | -14.6 | 3.20 H | 155 | 50.60 | 8.80 |
| 6 | 5350.00 | 47.6 AV | 54.0 | -6.4 | 3.20 H | 155 | 38.80 | 8.80 |
| 7 | #10420.00 | 60.4 PK | 74.0 | -13.6 | 1.79 H | 209 | 45.83 | 14.57 |
| 8 | #10420.00 | 47.8 AV | 54.0 | -6.2 | 1.79 H | 209 | 33.23 | 14.57 |
| 9 | 15630.00 | 54.3 PK | 74.0 | -19.7 | 1.70 H | 120 | 35.37 | 18.93 |
| 10 | 15630.00 | 41.3 AV | 54.0 | -12.7 | 1.70 H | 120 | 22.37 | 18.93 |

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|-------------|-------------------------|----------------|-------------|--------------------|----------------------|------------------|--------------------------|
| 1 | 5150.00 | 68.9 PK | 74.0 | -5.1 | 1.77 V | 85 | 60.57 | 8.33 |
| 2 | 5150.00 | 53.1 AV | 54.0 | -0.9 | 1.77 V | 85 | 44.77 | 8.33 |
| 3 | *5210.00 | 108.0 PK | | | 1.77 V | 85 | 99.45 | 8.55 |
| 4 | *5210.00 | 96.3 AV | | | 1.77 V | 85 | 87.75 | 8.55 |
| 5 | 5350.00 | 60.7 PK | 74.0 | -13.3 | 1.77 V | 85 | 51.90 | 8.80 |
| 6 | 5350.00 | 48.8 AV | 54.0 | -5.2 | 1.77 V | 85 | 40.00 | 8.80 |
| 7 | #10420.00 | 61.5 PK | 74.0 | -12.5 | 1.85 V | 101 | 46.93 | 14.57 |
| 8 | #10420.00 | 49.4 AV | 54.0 | -4.6 | 1.85 V | 101 | 34.83 | 14.57 |
| 9 | 15630.00 | 59.6 PK | 74.0 | -14.4 | 1.91 V | 106 | 40.67 | 18.93 |
| 10 | 15630.00 | 45.4 AV | 54.0 | -8.6 | 1.91 V | 106 | 26.47 | 18.93 |

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| | | | |
|------------------------|----------------|------------------------------|--------------|
| CHANNEL | TX Channel 155 | DETECTOR FUNCTION | Peak (PK) |
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | #5715.00 | 67.8 PK | 74.0 | -6.2 | 3.14 H | 156 | 58.12 | 9.68 |
| 2 | #5715.00 | 51.6 AV | 54.0 | -2.4 | 3.14 H | 156 | 41.92 | 9.68 |
| 3 | #5725.00 | 69.0 PK | 78.2 | -9.2 | 3.14 H | 156 | 59.30 | 9.70 |
| 4 | *5775.00 | 104.4 PK | | | 3.14 H | 156 | 94.57 | 9.83 |
| 5 | *5775.00 | 92.4 AV | | | 3.14 H | 156 | 82.57 | 9.83 |
| 6 | #5850.00 | 67.6 PK | 78.2 | -10.6 | 3.14 H | 156 | 57.68 | 9.92 |
| 7 | #5860.00 | 67.4 PK | 74.0 | -6.6 | 3.14 H | 156 | 57.47 | 9.93 |
| 8 | #5860.00 | 51.3 AV | 54.0 | -2.7 | 3.14 H | 156 | 41.37 | 9.93 |
| 9 | 11550.00 | 59.4 PK | 74.0 | -14.6 | 1.85 H | 205 | 44.31 | 15.09 |
| 10 | 11550.00 | 46.2 AV | 54.0 | -7.8 | 1.85 H | 205 | 31.11 | 15.09 |
| 11 | #17325.00 | 54.6 PK | 74.0 | -19.4 | 1.66 H | 128 | 31.22 | 23.38 |
| 12 | #17325.00 | 42.0 AV | 54.0 | -12.0 | 1.66 H | 128 | 18.62 | 23.38 |

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | #5715.00 | 69.2 PK | 74.0 | -4.8 | 1.79 V | 264 | 59.52 | 9.68 |
| 2 | #5715.00 | 53.1 AV | 54.0 | -0.9 | 1.79 V | 264 | 43.42 | 9.68 |
| 3 | #5725.00 | 70.1 PK | 78.2 | -8.1 | 1.79 V | 264 | 60.40 | 9.70 |
| 4 | *5775.00 | 106.5 PK | | | 1.79 V | 264 | 96.67 | 9.83 |
| 5 | *5775.00 | 94.7 AV | | | 1.79 V | 264 | 84.87 | 9.83 |
| 6 | #5850.00 | 69.1 PK | 78.2 | -9.1 | 1.79 V | 264 | 59.18 | 9.92 |
| 7 | #5860.00 | 68.3 PK | 74.0 | -5.7 | 1.79 V | 264 | 58.37 | 9.93 |
| 8 | #5860.00 | 52.2 AV | 54.0 | -1.8 | 1.79 V | 264 | 42.27 | 9.93 |
| 9 | 11550.00 | 60.5 PK | 74.0 | -13.5 | 1.88 V | 73 | 45.41 | 15.09 |
| 10 | 11550.00 | 47.5 AV | 54.0 | -6.5 | 1.88 V | 73 | 32.41 | 15.09 |
| 11 | #17325.00 | 58.3 PK | 74.0 | -15.7 | 1.91 V | 132 | 34.92 | 23.38 |
| 12 | #17325.00 | 44.6 AV | 54.0 | -9.4 | 1.91 V | 132 | 21.22 | 23.38 |

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

STBC_MODE
802.11ac (VHT20)

| | | | |
|------------------------|---------------|------------------------------|--------------|
| CHANNEL | TX Channel 36 | DETECTOR FUNCTION | Peak (PK) |
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | 5100.00 | 61.9 PK | 74.0 | -12.1 | 3.45 H | 150 | 53.79 | 8.11 |
| 2 | 5100.00 | 52.3 AV | 54.0 | -1.7 | 3.45 H | 150 | 44.19 | 8.11 |
| 3 | *5180.00 | 112.2 PK | | | 3.45 H | 150 | 103.73 | 8.47 |
| 4 | *5180.00 | 101.3 AV | | | 3.45 H | 150 | 92.83 | 8.47 |
| 5 | #10360.00 | 66.4 PK | 74.0 | -7.6 | 1.63 H | 78 | 51.90 | 14.50 |
| 6 | #10360.00 | 52.2 AV | 54.0 | -1.8 | 1.63 H | 78 | 37.70 | 14.50 |
| 7 | 15540.00 | 59.0 PK | 74.0 | -15.0 | 2.29 H | 128 | 40.32 | 18.68 |
| 8 | 15540.00 | 45.4 AV | 54.0 | -8.6 | 2.29 H | 128 | 26.72 | 18.68 |

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | 5100.00 | 68.7 PK | 74.0 | -5.3 | 1.80 V | 0 | 60.59 | 8.11 |
| 2 | 5100.00 | 53.9 AV | 54.0 | -0.1 | 1.80 V | 0 | 45.79 | 8.11 |
| 3 | *5180.00 | 115.2 PK | | | 1.80 V | 0 | 106.73 | 8.47 |
| 4 | *5180.00 | 103.0 AV | | | 1.80 V | 0 | 94.53 | 8.47 |
| 5 | #10360.00 | 64.2 PK | 74.0 | -9.8 | 1.68 V | 214 | 49.70 | 14.50 |
| 6 | #10360.00 | 50.2 AV | 54.0 | -3.8 | 1.68 V | 214 | 35.70 | 14.50 |
| 7 | 15540.00 | 56.8 PK | 74.0 | -17.2 | 2.00 V | 189 | 38.12 | 18.68 |
| 8 | 15540.00 | 43.0 AV | 54.0 | -11.0 | 2.00 V | 189 | 24.32 | 18.68 |

REMARKS:

- Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
- Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
- The other emission levels were very low against the limit.
- Margin value = Emission Level – Limit value
- " * ": Fundamental frequency.
- " # ": The radiated frequency is out of the restricted band.

| | | | |
|------------------------|---------------|--------------------------|--------------|
| CHANNEL | TX Channel 40 | DETECTOR FUNCTION | Peak (PK) |
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|-------------|-------------------------|----------------|-------------|--------------------|----------------------|------------------|--------------------------|
| 1 | 5124.00 | 61.4 PK | 74.0 | -12.6 | 3.41 H | 161 | 53.19 | 8.21 |
| 2 | 5124.00 | 49.6 AV | 54.0 | -4.4 | 3.41 H | 161 | 41.39 | 8.21 |
| 3 | *5200.00 | 110.3 PK | | | 3.41 H | 161 | 101.76 | 8.54 |
| 4 | *5200.00 | 99.4 AV | | | 3.41 H | 161 | 90.86 | 8.54 |
| 5 | 5357.00 | 62.4 PK | 74.0 | -11.6 | 3.41 H | 161 | 53.57 | 8.83 |
| 6 | 5357.00 | 51.5 AV | 54.0 | -2.5 | 3.41 H | 161 | 42.67 | 8.83 |
| 7 | #10400.00 | 66.0 PK | 74.0 | -8.0 | 1.69 H | 66 | 51.40 | 14.60 |
| 8 | #10400.00 | 51.8 AV | 54.0 | -2.2 | 1.69 H | 66 | 37.20 | 14.60 |
| 9 | 15600.00 | 59.5 PK | 74.0 | -14.5 | 2.33 H | 118 | 40.60 | 18.90 |
| 10 | 15600.00 | 45.8 AV | 54.0 | -8.2 | 2.33 H | 118 | 26.90 | 18.90 |

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|-------------|-------------------------|----------------|-------------|--------------------|----------------------|------------------|--------------------------|
| 1 | 5124.00 | 63.1 PK | 74.0 | -10.9 | 1.82 V | 15 | 54.89 | 8.21 |
| 2 | 5124.00 | 51.4 AV | 54.0 | -2.6 | 1.82 V | 15 | 43.19 | 8.21 |
| 3 | *5200.00 | 112.5 PK | | | 1.82 V | 15 | 103.96 | 8.54 |
| 4 | *5200.00 | 101.9 AV | | | 1.82 V | 15 | 93.36 | 8.54 |
| 5 | 5357.00 | 64.2 PK | 74.0 | -9.8 | 1.82 V | 15 | 55.37 | 8.83 |
| 6 | 5357.00 | 53.5 AV | 54.0 | -0.5 | 1.82 V | 15 | 44.67 | 8.83 |
| 7 | #10400.00 | 64.9 PK | 74.0 | -9.1 | 1.66 V | 213 | 50.30 | 14.60 |
| 8 | #10400.00 | 50.7 AV | 54.0 | -3.3 | 1.66 V | 213 | 36.10 | 14.60 |
| 9 | 15600.00 | 56.5 PK | 74.0 | -17.5 | 2.05 V | 203 | 37.60 | 18.90 |
| 10 | 15600.00 | 42.8 AV | 54.0 | -11.2 | 2.05 V | 203 | 23.90 | 18.90 |

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| | | | |
|------------------------|---------------|------------------------------|--------------|
| CHANNEL | TX Channel 48 | DETECTOR FUNCTION | Peak (PK) |
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | *5240.00 | 113.6 PK | | | 3.46 H | 162 | 105.00 | 8.60 |
| 2 | *5240.00 | 102.2 AV | | | 3.46 H | 162 | 93.60 | 8.60 |
| 3 | 5402.00 | 62.3 PK | 74.0 | -11.7 | 3.46 H | 162 | 53.37 | 8.93 |
| 4 | 5402.00 | 51.6 AV | 54.0 | -2.4 | 3.46 H | 162 | 42.67 | 8.93 |
| 5 | #10480.00 | 66.8 PK | 74.0 | -7.2 | 1.63 H | 87 | 52.33 | 14.47 |
| 6 | #10480.00 | 52.6 AV | 54.0 | -1.4 | 1.63 H | 87 | 38.13 | 14.47 |
| 7 | 15720.00 | 58.8 PK | 74.0 | -15.2 | 2.23 H | 124 | 39.76 | 19.04 |
| 8 | 15720.00 | 45.4 AV | 54.0 | -8.6 | 2.23 H | 124 | 26.36 | 19.04 |

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | *5240.00 | 115.6 PK | | | 1.79 V | 10 | 107.00 | 8.60 |
| 2 | *5240.00 | 104.4 AV | | | 1.79 V | 10 | 95.80 | 8.60 |
| 3 | 5402.00 | 64.6 PK | 74.0 | -9.4 | 1.79 V | 10 | 55.67 | 8.93 |
| 4 | 5402.00 | 53.6 AV | 54.0 | -0.4 | 1.79 V | 10 | 44.67 | 8.93 |
| 5 | #10480.00 | 64.8 PK | 74.0 | -9.2 | 1.69 V | 200 | 50.33 | 14.47 |
| 6 | #10480.00 | 50.7 AV | 54.0 | -3.3 | 1.69 V | 200 | 36.23 | 14.47 |
| 7 | 15720.00 | 56.6 PK | 74.0 | -17.4 | 1.97 V | 174 | 37.56 | 19.04 |
| 8 | 15720.00 | 42.8 AV | 54.0 | -11.2 | 1.97 V | 174 | 23.76 | 19.04 |

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| | | | |
|------------------------|----------------|------------------------------|--------------|
| CHANNEL | TX Channel 149 | DETECTOR FUNCTION | Peak (PK) |
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | #5671.00 | 63.2 PK | 74.0 | -10.8 | 3.44 H | 178 | 53.64 | 9.56 |
| 2 | #5671.00 | 51.4 AV | 54.0 | -2.6 | 3.44 H | 178 | 41.84 | 9.56 |
| 3 | #5715.00 | 68.4 PK | 74.0 | -5.6 | 3.44 H | 178 | 58.72 | 9.68 |
| 4 | #5715.00 | 45.3 AV | 54.0 | -8.7 | 3.44 H | 178 | 35.62 | 9.68 |
| 5 | #5725.00 | 76.5 PK | 78.2 | -1.7 | 3.44 H | 178 | 66.80 | 9.70 |
| 6 | *5745.00 | 108.6 PK | | | 3.44 H | 178 | 98.84 | 9.76 |
| 7 | *5745.00 | 98.4 AV | | | 3.44 H | 178 | 88.64 | 9.76 |
| 8 | 11490.00 | 66.4 PK | 74.0 | -7.6 | 1.59 H | 83 | 51.54 | 14.86 |
| 9 | 11490.00 | 52.1 AV | 54.0 | -1.9 | 1.59 H | 83 | 37.24 | 14.86 |
| 10 | #17235.00 | 59.3 PK | 74.0 | -14.7 | 2.25 H | 129 | 36.07 | 23.23 |
| 11 | #17235.00 | 45.7 AV | 54.0 | -8.3 | 2.25 H | 129 | 22.47 | 23.23 |

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | #5671.00 | 65.6 PK | 74.0 | -8.4 | 1.88 V | 38 | 56.04 | 9.56 |
| 2 | #5671.00 | 53.9 AV | 54.0 | -0.1 | 1.88 V | 38 | 44.34 | 9.56 |
| 3 | #5715.00 | 69.2 PK | 74.0 | -4.8 | 1.88 V | 38 | 59.52 | 9.68 |
| 4 | #5715.00 | 46.0 AV | 54.0 | -8.0 | 1.88 V | 38 | 36.32 | 9.68 |
| 5 | #5725.00 | 78.1 PK | 78.2 | -0.1 | 1.88 V | 38 | 68.40 | 9.70 |
| 6 | *5745.00 | 110.9 PK | | | 1.88 V | 38 | 101.14 | 9.76 |
| 7 | *5745.00 | 100.3 AV | | | 1.88 V | 38 | 90.54 | 9.76 |
| 8 | 11490.00 | 63.9 PK | 74.0 | -10.1 | 1.64 V | 230 | 49.04 | 14.86 |
| 9 | 11490.00 | 50.1 AV | 54.0 | -3.9 | 1.64 V | 230 | 35.24 | 14.86 |
| 10 | #17235.00 | 56.5 PK | 74.0 | -17.5 | 2.00 V | 190 | 33.27 | 23.23 |
| 11 | #17235.00 | 42.7 AV | 54.0 | -11.3 | 2.00 V | 190 | 19.47 | 23.23 |

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| | | | |
|------------------------|----------------|--------------------------|--------------|
| CHANNEL | TX Channel 157 | DETECTOR FUNCTION | Peak (PK) |
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|-------------|-------------------------|----------------|-------------|--------------------|----------------------|------------------|--------------------------|
| 1 | #5711.00 | 65.4 PK | 68.2 | -2.8 | 3.45 H | 158 | 55.74 | 9.66 |
| 2 | *5785.00 | 111.4 PK | | | 3.45 H | 158 | 101.55 | 9.85 |
| 3 | *5785.00 | 100.2 AV | | | 3.45 H | 158 | 90.35 | 9.85 |
| 4 | #5871.00 | 65.7 PK | 68.2 | -2.5 | 3.45 H | 158 | 55.77 | 9.93 |
| 5 | 11570.00 | 66.4 PK | 74.0 | -7.6 | 1.67 H | 74 | 51.20 | 15.20 |
| 6 | 11570.00 | 51.9 AV | 54.0 | -2.1 | 1.67 H | 74 | 36.70 | 15.20 |
| 7 | #17355.00 | 58.4 PK | 74.0 | -15.6 | 2.28 H | 116 | 34.84 | 23.56 |
| 8 | #17355.00 | 45.0 AV | 54.0 | -9.0 | 2.28 H | 116 | 21.44 | 23.56 |

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|-------------|-------------------------|----------------|-------------|--------------------|----------------------|------------------|--------------------------|
| 1 | #5711.00 | 67.2 PK | 68.2 | -1.0 | 1.89 V | 50 | 57.54 | 9.66 |
| 2 | *5785.00 | 113.0 PK | | | 1.89 V | 50 | 103.15 | 9.85 |
| 3 | *5785.00 | 102.0 AV | | | 1.89 V | 50 | 92.15 | 9.85 |
| 4 | #5871.00 | 67.7 PK | 68.2 | -0.5 | 1.89 V | 50 | 57.77 | 9.93 |
| 5 | 11570.00 | 64.6 PK | 74.0 | -9.4 | 1.70 V | 200 | 49.40 | 15.20 |
| 6 | 11570.00 | 50.7 AV | 54.0 | -3.3 | 1.70 V | 200 | 35.50 | 15.20 |
| 7 | #17355.00 | 56.4 PK | 74.0 | -17.6 | 1.96 V | 193 | 32.84 | 23.56 |
| 8 | #17355.00 | 42.7 AV | 54.0 | -11.3 | 1.96 V | 193 | 19.14 | 23.56 |

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| | | | |
|------------------------|----------------|--------------------------|--------------|
| CHANNEL | TX Channel 165 | DETECTOR FUNCTION | Peak (PK) |
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|-------------|-------------------------|----------------|-------------|--------------------|----------------------|------------------|--------------------------|
| 1 | *5825.00 | 111.4 PK | | | 3.49 H | 152 | 101.49 | 9.91 |
| 2 | *5825.00 | 99.7 AV | | | 3.49 H | 152 | 89.79 | 9.91 |
| 3 | #5850.00 | 70.4 PK | 78.2 | -7.8 | 3.49 H | 152 | 60.48 | 9.92 |
| 4 | #5860.00 | 63.2 PK | 74.0 | -10.8 | 3.49 H | 152 | 53.27 | 9.93 |
| 5 | #5860.00 | 45.4 AV | 54.0 | -8.6 | 3.49 H | 152 | 35.47 | 9.93 |
| 6 | #5908.00 | 66.5 PK | 68.2 | -1.7 | 3.49 H | 152 | 56.52 | 9.98 |
| 7 | 11650.00 | 66.4 PK | 74.0 | -7.6 | 1.62 H | 84 | 51.00 | 15.40 |
| 8 | 11650.00 | 52.0 AV | 54.0 | -2.0 | 1.62 H | 84 | 36.60 | 15.40 |
| 9 | #17475.00 | 59.3 PK | 74.0 | -14.7 | 2.28 H | 137 | 35.21 | 24.09 |
| 10 | #17475.00 | 45.5 AV | 54.0 | -8.5 | 2.28 H | 137 | 21.41 | 24.09 |

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|-------------|-------------------------|----------------|-------------|--------------------|----------------------|------------------|--------------------------|
| 1 | *5825.00 | 113.5 PK | | | 1.92 V | 42 | 103.59 | 9.91 |
| 2 | *5825.00 | 101.7 AV | | | 1.92 V | 42 | 91.79 | 9.91 |
| 3 | #5850.00 | 72.9 PK | 78.2 | -5.3 | 1.92 V | 42 | 62.98 | 9.92 |
| 4 | #5860.00 | 64.1 PK | 74.0 | -9.9 | 1.92 V | 42 | 54.17 | 9.93 |
| 5 | #5860.00 | 46.5 AV | 54.0 | -7.5 | 1.92 V | 42 | 36.57 | 9.93 |
| 6 | #5908.00 | 68.0 PK | 68.2 | -0.2 | 1.92 V | 42 | 58.02 | 9.98 |
| 7 | 11650.00 | 64.3 PK | 74.0 | -9.7 | 1.64 V | 209 | 48.90 | 15.40 |
| 8 | 11650.00 | 50.1 AV | 54.0 | -3.9 | 1.64 V | 209 | 34.70 | 15.40 |
| 9 | #17475.00 | 56.2 PK | 74.0 | -17.8 | 2.01 V | 199 | 32.11 | 24.09 |
| 10 | #17475.00 | 42.7 AV | 54.0 | -11.3 | 2.01 V | 199 | 18.61 | 24.09 |

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

802.11ac (VHT40)

| | | | |
|------------------------|---------------|--------------------------|--------------|
| CHANNEL | TX Channel 38 | DETECTOR FUNCTION | Peak (PK) |
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|-------------|-------------------------|----------------|-------------|--------------------|----------------------|------------------|--------------------------|
| 1 | 5150.00 | 69.4 PK | 74.0 | -4.6 | 3.49 H | 144 | 61.07 | 8.33 |
| 2 | 5150.00 | 51.5 AV | 54.0 | -2.5 | 3.49 H | 144 | 43.17 | 8.33 |
| 3 | *5190.00 | 107.4 PK | | | 3.49 H | 144 | 98.90 | 8.50 |
| 4 | *5190.00 | 97.4 AV | | | 3.49 H | 144 | 88.90 | 8.50 |
| 5 | 5356.00 | 59.4 PK | 74.0 | -14.6 | 3.49 H | 144 | 50.58 | 8.82 |
| 6 | 5356.00 | 48.8 AV | 54.0 | -5.2 | 3.49 H | 144 | 39.98 | 8.82 |
| 7 | #10380.00 | 64.3 PK | 74.0 | -9.7 | 1.64 H | 87 | 49.75 | 14.55 |
| 8 | #10380.00 | 50.4 AV | 54.0 | -3.6 | 1.64 H | 87 | 35.85 | 14.55 |
| 9 | 15570.00 | 58.2 PK | 74.0 | -15.8 | 2.29 H | 135 | 39.41 | 18.79 |
| 10 | 15570.00 | 44.3 AV | 54.0 | -9.7 | 2.29 H | 135 | 25.51 | 18.79 |

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|-------------|-------------------------|----------------|-------------|--------------------|----------------------|------------------|--------------------------|
| 1 | 5150.00 | 71.9 PK | 74.0 | -2.1 | 1.93 V | 39 | 63.57 | 8.33 |
| 2 | 5150.00 | 53.3 AV | 54.0 | -0.7 | 1.93 V | 39 | 44.97 | 8.33 |
| 3 | *5190.00 | 109.9 PK | | | 1.93 V | 39 | 101.40 | 8.50 |
| 4 | *5190.00 | 99.0 AV | | | 1.93 V | 39 | 90.50 | 8.50 |
| 5 | 5356.00 | 61.3 PK | 74.0 | -12.7 | 1.93 V | 39 | 52.48 | 8.82 |
| 6 | 5356.00 | 50.5 AV | 54.0 | -3.5 | 1.93 V | 39 | 41.68 | 8.82 |
| 7 | #10380.00 | 64.0 PK | 74.0 | -10.0 | 1.69 V | 228 | 49.45 | 14.55 |
| 8 | #10380.00 | 49.9 AV | 54.0 | -4.1 | 1.69 V | 228 | 35.35 | 14.55 |
| 9 | 15570.00 | 56.4 PK | 74.0 | -17.6 | 1.96 V | 182 | 37.61 | 18.79 |
| 10 | 15570.00 | 42.6 AV | 54.0 | -11.4 | 1.96 V | 182 | 23.81 | 18.79 |

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| | | | |
|------------------------|---------------|--------------------------|--------------|
| CHANNEL | TX Channel 46 | DETECTOR FUNCTION | Peak (PK) |
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|-------------|-------------------------|----------------|-------------|--------------------|----------------------|------------------|--------------------------|
| 1 | 5150.00 | 65.3 PK | 74.0 | -8.7 | 3.51 H | 157 | 56.97 | 8.33 |
| 2 | 5150.00 | 50.3 AV | 54.0 | -3.7 | 3.51 H | 157 | 41.97 | 8.33 |
| 3 | *5230.00 | 111.5 PK | | | 3.51 H | 157 | 102.91 | 8.59 |
| 4 | *5230.00 | 99.4 AV | | | 3.51 H | 157 | 90.81 | 8.59 |
| 5 | 5376.00 | 60.5 PK | 74.0 | -13.5 | 3.51 H | 157 | 51.64 | 8.86 |
| 6 | 5376.00 | 48.4 AV | 54.0 | -5.6 | 3.51 H | 157 | 39.54 | 8.86 |
| 7 | #10460.00 | 64.3 PK | 74.0 | -9.7 | 1.67 H | 100 | 49.79 | 14.51 |
| 8 | #10460.00 | 50.1 AV | 54.0 | -3.9 | 1.67 H | 100 | 35.59 | 14.51 |
| 9 | 15690.00 | 58.3 PK | 74.0 | -15.7 | 2.29 H | 135 | 39.33 | 18.97 |
| 10 | 15690.00 | 44.4 AV | 54.0 | -9.6 | 2.29 H | 135 | 25.43 | 18.97 |

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|-------------|-------------------------|----------------|-------------|--------------------|----------------------|------------------|--------------------------|
| 1 | 5150.00 | 67.8 PK | 74.0 | -6.2 | 1.88 V | 36 | 59.47 | 8.33 |
| 2 | 5150.00 | 52.4 AV | 54.0 | -1.6 | 1.88 V | 36 | 44.07 | 8.33 |
| 3 | *5230.00 | 113.3 PK | | | 1.88 V | 36 | 104.71 | 8.59 |
| 4 | *5230.00 | 101.8 AV | | | 1.88 V | 36 | 93.21 | 8.59 |
| 5 | 5376.00 | 62.1 PK | 74.0 | -11.9 | 1.88 V | 36 | 53.24 | 8.86 |
| 6 | 5376.00 | 50.8 AV | 54.0 | -3.2 | 1.88 V | 36 | 41.94 | 8.86 |
| 7 | #10460.00 | 63.6 PK | 74.0 | -10.4 | 1.70 V | 220 | 49.09 | 14.51 |
| 8 | #10460.00 | 49.8 AV | 54.0 | -4.2 | 1.70 V | 220 | 35.29 | 14.51 |
| 9 | 15690.00 | 57.4 PK | 74.0 | -16.6 | 2.03 V | 184 | 38.43 | 18.97 |
| 10 | 15690.00 | 43.4 AV | 54.0 | -10.6 | 2.03 V | 184 | 24.43 | 18.97 |

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| | | | |
|------------------------|----------------|------------------------------|--------------|
| CHANNEL | TX Channel 151 | DETECTOR FUNCTION | Peak (PK) |
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | #5671.00 | 65.4 PK | 74.0 | -8.6 | 3.49 H | 143 | 55.84 | 9.56 |
| 2 | #5671.00 | 48.3 AV | 54.0 | -5.7 | 3.49 H | 143 | 38.74 | 9.56 |
| 3 | #5715.00 | 70.3 PK | 74.0 | -3.7 | 3.49 H | 143 | 60.62 | 9.68 |
| 4 | #5715.00 | 47.5 AV | 54.0 | -6.5 | 3.49 H | 143 | 37.82 | 9.68 |
| 5 | #5725.00 | 75.2 PK | 78.2 | -3.0 | 3.49 H | 143 | 65.50 | 9.70 |
| 6 | *5755.00 | 106.5 PK | | | 3.49 H | 143 | 96.73 | 9.77 |
| 7 | *5755.00 | 95.4 AV | | | 3.49 H | 143 | 85.63 | 9.77 |
| 8 | 11510.00 | 64.7 PK | 74.0 | -9.3 | 1.62 H | 103 | 49.85 | 14.85 |
| 9 | 11510.00 | 50.6 AV | 54.0 | -3.4 | 1.62 H | 103 | 35.75 | 14.85 |
| 10 | #17265.00 | 58.4 PK | 74.0 | -15.6 | 2.35 H | 138 | 35.17 | 23.23 |
| 11 | #17265.00 | 44.3 AV | 54.0 | -9.7 | 2.35 H | 138 | 21.07 | 23.23 |

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | #5671.00 | 66.8 PK | 74.0 | -7.2 | 1.91 V | 35 | 57.24 | 9.56 |
| 2 | #5671.00 | 49.7 AV | 54.0 | -4.3 | 1.91 V | 35 | 40.14 | 9.56 |
| 3 | #5715.00 | 71.7 PK | 74.0 | -2.3 | 1.91 V | 35 | 62.02 | 9.68 |
| 4 | #5715.00 | 48.1 AV | 54.0 | -5.9 | 1.91 V | 35 | 38.42 | 9.68 |
| 5 | #5725.00 | 77.8 PK | 78.2 | -0.4 | 1.91 V | 35 | 68.10 | 9.70 |
| 6 | *5755.00 | 108.2 PK | | | 1.91 V | 35 | 98.43 | 9.77 |
| 7 | *5755.00 | 97.1 AV | | | 1.91 V | 35 | 87.33 | 9.77 |
| 8 | 11510.00 | 64.4 PK | 74.0 | -9.6 | 1.65 V | 226 | 49.55 | 14.85 |
| 9 | 11510.00 | 50.6 AV | 54.0 | -3.4 | 1.65 V | 226 | 35.75 | 14.85 |
| 10 | #17265.00 | 57.2 PK | 74.0 | -16.8 | 1.97 V | 175 | 33.97 | 23.23 |
| 11 | #17265.00 | 43.4 AV | 54.0 | -10.6 | 1.97 V | 175 | 20.17 | 23.23 |

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| | | | |
|------------------------|----------------|------------------------------|--------------|
| CHANNEL | TX Channel 159 | DETECTOR FUNCTION | Peak (PK) |
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | #5711.00 | 65.4 PK | 74.0 | -8.6 | 3.55 H | 143 | 55.74 | 9.66 |
| 2 | #5711.00 | 50.4 AV | 54.0 | -3.6 | 3.55 H | 143 | 40.74 | 9.66 |
| 3 | *5795.00 | 107.4 PK | | | 3.55 H | 143 | 97.52 | 9.88 |
| 4 | *5795.00 | 96.5 AV | | | 3.55 H | 143 | 86.62 | 9.88 |
| 5 | #5850.00 | 68.4 PK | 78.2 | -9.8 | 3.55 H | 143 | 58.48 | 9.92 |
| 6 | #5860.00 | 66.5 PK | 74.0 | -7.5 | 3.55 H | 143 | 56.57 | 9.93 |
| 7 | #5860.00 | 51.6 AV | 54.0 | -2.4 | 3.55 H | 143 | 41.67 | 9.93 |
| 8 | 11590.00 | 63.9 PK | 74.0 | -10.1 | 1.68 H | 85 | 48.59 | 15.31 |
| 9 | 11590.00 | 49.8 AV | 54.0 | -4.2 | 1.68 H | 85 | 34.49 | 15.31 |
| 10 | #17385.00 | 58.7 PK | 74.0 | -15.3 | 2.29 H | 123 | 34.94 | 23.76 |
| 11 | #17385.00 | 44.8 AV | 54.0 | -9.2 | 2.29 H | 123 | 21.04 | 23.76 |

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | #5711.00 | 67.4 PK | 74.0 | -6.6 | 1.92 V | 28 | 57.74 | 9.66 |
| 2 | #5711.00 | 52.1 AV | 54.0 | -1.9 | 1.92 V | 28 | 42.44 | 9.66 |
| 3 | *5795.00 | 109.6 PK | | | 1.92 V | 28 | 99.72 | 9.88 |
| 4 | *5795.00 | 98.3 AV | | | 1.92 V | 28 | 88.42 | 9.88 |
| 5 | #5850.00 | 69.1 PK | 78.2 | -9.1 | 1.92 V | 28 | 59.18 | 9.92 |
| 6 | #5860.00 | 68.6 PK | 74.0 | -5.4 | 1.92 V | 28 | 58.67 | 9.93 |
| 7 | #5860.00 | 53.9 AV | 54.0 | -0.1 | 1.92 V | 28 | 43.97 | 9.93 |
| 8 | 11590.00 | 64.7 PK | 74.0 | -9.3 | 1.72 V | 216 | 49.39 | 15.31 |
| 9 | 11590.00 | 50.6 AV | 54.0 | -3.4 | 1.72 V | 216 | 35.29 | 15.31 |
| 10 | #17385.00 | 56.7 PK | 74.0 | -17.3 | 1.94 V | 204 | 32.94 | 23.76 |
| 11 | #17385.00 | 42.7 AV | 54.0 | -11.3 | 1.94 V | 204 | 18.94 | 23.76 |

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

802.11ac (VHT80)

| | | | |
|------------------------|---------------|------------------------------|--------------|
| CHANNEL | TX Channel 42 | DETECTOR FUNCTION | Peak (PK) |
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | 5150.00 | 71.5 PK | 74.0 | -2.5 | 3.58 H | 147 | 63.17 | 8.33 |
| 2 | 5150.00 | 51.4 AV | 54.0 | -2.6 | 3.58 H | 147 | 43.07 | 8.33 |
| 3 | *5210.00 | 104.4 PK | | | 3.58 H | 147 | 95.85 | 8.55 |
| 4 | *5210.00 | 92.2 AV | | | 3.58 H | 147 | 83.65 | 8.55 |
| 5 | 5350.00 | 58.3 PK | 74.0 | -15.7 | 3.58 H | 147 | 49.50 | 8.80 |
| 6 | 5350.00 | 46.4 AV | 54.0 | -7.6 | 3.58 H | 147 | 37.60 | 8.80 |
| 7 | #10420.00 | 61.4 PK | 74.0 | -12.6 | 1.69 H | 72 | 46.83 | 14.57 |
| 8 | #10420.00 | 48.3 AV | 54.0 | -5.7 | 1.69 H | 72 | 33.73 | 14.57 |
| 9 | 15630.00 | 58.6 PK | 74.0 | -15.4 | 2.30 H | 108 | 39.67 | 18.93 |
| 10 | 15630.00 | 44.3 AV | 54.0 | -9.7 | 2.30 H | 108 | 25.37 | 18.93 |

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | 5150.00 | 73.0 PK | 74.0 | -1.0 | 1.89 V | 15 | 64.67 | 8.33 |
| 2 | 5150.00 | 53.7 AV | 54.0 | -0.3 | 1.89 V | 15 | 45.37 | 8.33 |
| 3 | *5210.00 | 106.3 PK | | | 1.89 V | 15 | 97.75 | 8.55 |
| 4 | *5210.00 | 94.4 AV | | | 1.89 V | 15 | 85.85 | 8.55 |
| 5 | 5350.00 | 59.9 PK | 74.0 | -14.1 | 1.89 V | 15 | 51.10 | 8.80 |
| 6 | 5350.00 | 47.9 AV | 54.0 | -6.1 | 1.89 V | 15 | 39.10 | 8.80 |
| 7 | #10420.00 | 61.5 PK | 74.0 | -12.5 | 1.72 V | 202 | 46.93 | 14.57 |
| 8 | #10420.00 | 47.6 AV | 54.0 | -6.4 | 1.72 V | 202 | 33.03 | 14.57 |
| 9 | 15630.00 | 57.0 PK | 74.0 | -17.0 | 1.94 V | 173 | 38.07 | 18.93 |
| 10 | 15630.00 | 43.0 AV | 54.0 | -11.0 | 1.94 V | 173 | 24.07 | 18.93 |

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| | | | |
|------------------------|----------------|------------------------------|--------------|
| CHANNEL | TX Channel 155 | DETECTOR FUNCTION | Peak (PK) |
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | #5715.00 | 71.6 PK | 74.0 | -2.4 | 3.58 H | 143 | 61.92 | 9.68 |
| 2 | #5715.00 | 50.4 AV | 54.0 | -3.6 | 3.58 H | 143 | 40.72 | 9.68 |
| 3 | #5725.00 | 73.2 PK | 78.2 | -5.0 | 3.58 H | 143 | 63.50 | 9.70 |
| 4 | *5775.00 | 102.4 PK | | | 3.58 H | 143 | 92.57 | 9.83 |
| 5 | *5775.00 | 89.6 AV | | | 3.58 H | 143 | 79.77 | 9.83 |
| 6 | #5850.00 | 68.6 PK | 78.2 | -9.6 | 3.58 H | 143 | 58.68 | 9.92 |
| 7 | #5860.00 | 68.3 PK | 74.0 | -5.7 | 3.58 H | 143 | 58.37 | 9.93 |
| 8 | #5860.00 | 49.2 AV | 54.0 | -4.8 | 3.58 H | 143 | 39.27 | 9.93 |
| 9 | 11550.00 | 61.1 PK | 74.0 | -12.9 | 1.69 H | 64 | 46.01 | 15.09 |
| 10 | 11550.00 | 47.9 AV | 54.0 | -6.1 | 1.69 H | 64 | 32.81 | 15.09 |
| 11 | #17325.00 | 59.2 PK | 74.0 | -14.8 | 2.34 H | 121 | 35.82 | 23.38 |
| 12 | #17325.00 | 44.7 AV | 54.0 | -9.3 | 2.34 H | 121 | 21.32 | 23.38 |

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | #5715.00 | 73.7 PK | 74.0 | -0.3 | 1.83 V | 30 | 64.02 | 9.68 |
| 2 | #5715.00 | 52.2 AV | 54.0 | -1.8 | 1.83 V | 30 | 42.52 | 9.68 |
| 3 | #5725.00 | 75.8 PK | 78.2 | -2.4 | 1.83 V | 30 | 66.10 | 9.70 |
| 4 | *5775.00 | 104.0 PK | | | 1.83 V | 30 | 94.17 | 9.83 |
| 5 | *5775.00 | 91.6 AV | | | 1.83 V | 30 | 81.77 | 9.83 |
| 6 | #5850.00 | 70.6 PK | 78.2 | -7.6 | 1.83 V | 30 | 60.68 | 9.92 |
| 7 | #5860.00 | 69.1 PK | 74.0 | -4.9 | 1.83 V | 30 | 59.17 | 9.93 |
| 8 | #5860.00 | 50.5 AV | 54.0 | -3.5 | 1.83 V | 30 | 40.57 | 9.93 |
| 9 | 11550.00 | 61.0 PK | 74.0 | -13.0 | 1.77 V | 201 | 45.91 | 15.09 |
| 10 | 11550.00 | 47.3 AV | 54.0 | -6.7 | 1.77 V | 201 | 32.21 | 15.09 |
| 11 | #17325.00 | 57.3 PK | 74.0 | -16.7 | 1.99 V | 176 | 33.92 | 23.38 |
| 12 | #17325.00 | 43.5 AV | 54.0 | -10.5 | 1.99 V | 176 | 20.12 | 23.38 |

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

4.1.9 Test Results (Mode 3)

3TX

CDD_MODE

802.11ac (VHT20)

| | | | |
|------------------------|---------------|------------------------------|--------------|
| CHANNEL | TX Channel 36 | DETECTOR FUNCTION | Peak (PK) |
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | 5100.00 | 65.3 PK | 74.0 | -8.7 | 1.78 H | 353 | 57.19 | 8.11 |
| 2 | 5100.00 | 53.5 AV | 54.0 | -0.5 | 1.78 H | 353 | 45.39 | 8.11 |
| 3 | *5180.00 | 114.2 PK | | | 1.78 H | 353 | 105.73 | 8.47 |
| 4 | *5180.00 | 102.2 AV | | | 1.78 H | 353 | 93.73 | 8.47 |
| 5 | #10360.00 | 65.6 PK | 74.0 | -8.4 | 1.00 H | 245 | 51.10 | 14.50 |
| 6 | #10360.00 | 50.5 AV | 54.0 | -3.5 | 1.00 H | 245 | 36.00 | 14.50 |
| 7 | 15540.00 | 54.7 PK | 74.0 | -19.3 | 1.00 H | 246 | 36.02 | 18.68 |
| 8 | 15540.00 | 41.5 AV | 54.0 | -12.5 | 1.00 H | 246 | 22.82 | 18.68 |

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | 5100.00 | 66.0 PK | 74.0 | -8.0 | 1.70 V | 86 | 57.89 | 8.11 |
| 2 | 5100.00 | 53.9 AV | 54.0 | -0.1 | 1.70 V | 86 | 45.79 | 8.11 |
| 3 | *5180.00 | 115.0 PK | | | 1.70 V | 86 | 106.53 | 8.47 |
| 4 | *5180.00 | 102.8 AV | | | 1.70 V | 86 | 94.33 | 8.47 |
| 5 | #10360.00 | 67.1 PK | 74.0 | -6.9 | 1.59 V | 89 | 52.60 | 14.50 |
| 6 | #10360.00 | 53.0 AV | 54.0 | -1.0 | 1.59 V | 89 | 38.50 | 14.50 |
| 7 | 15540.00 | 59.8 PK | 74.0 | -14.2 | 2.18 V | 70 | 41.12 | 18.68 |
| 8 | 15540.00 | 44.6 AV | 54.0 | -9.4 | 2.18 V | 70 | 25.92 | 18.68 |

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| | | | |
|------------------------|---------------|--------------------------|--------------|
| CHANNEL | TX Channel 40 | DETECTOR FUNCTION | Peak (PK) |
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|-------------|-------------------------|----------------|-------------|--------------------|----------------------|------------------|--------------------------|
| 1 | 5121.00 | 60.9 PK | 74.0 | -13.1 | 1.80 H | 338 | 52.70 | 8.20 |
| 2 | 5121.00 | 51.0 AV | 54.0 | -3.0 | 1.80 H | 338 | 42.80 | 8.20 |
| 3 | *5200.00 | 112.1 PK | | | 1.80 H | 338 | 103.56 | 8.54 |
| 4 | *5200.00 | 101.2 AV | | | 1.80 H | 338 | 92.66 | 8.54 |
| 5 | 5361.00 | 62.4 PK | 74.0 | -11.6 | 1.80 H | 338 | 53.57 | 8.83 |
| 6 | 5361.00 | 52.3 AV | 54.0 | -1.7 | 1.80 H | 338 | 43.47 | 8.83 |
| 7 | #10400.00 | 63.8 PK | 74.0 | -10.2 | 2.48 H | 212 | 49.20 | 14.60 |
| 8 | #10400.00 | 48.6 AV | 54.0 | -5.4 | 2.48 H | 212 | 34.00 | 14.60 |
| 9 | 15600.00 | 51.8 PK | 74.0 | -22.2 | 2.42 H | 55 | 32.90 | 18.90 |
| 10 | 15600.00 | 39.0 AV | 54.0 | -15.0 | 2.42 H | 55 | 20.10 | 18.90 |

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|-------------|-------------------------|----------------|-------------|--------------------|----------------------|------------------|--------------------------|
| 1 | 5121.00 | 61.8 PK | 74.0 | -12.2 | 1.79 V | 81 | 53.60 | 8.20 |
| 2 | 5121.00 | 51.6 AV | 54.0 | -2.4 | 1.79 V | 81 | 43.40 | 8.20 |
| 3 | *5200.00 | 112.9 PK | | | 1.79 V | 81 | 104.36 | 8.54 |
| 4 | *5200.00 | 101.8 AV | | | 1.79 V | 81 | 93.26 | 8.54 |
| 5 | 5361.00 | 63.2 PK | 74.0 | -10.8 | 1.79 V | 81 | 54.37 | 8.83 |
| 6 | 5361.00 | 53.2 AV | 54.0 | -0.8 | 1.79 V | 81 | 44.37 | 8.83 |
| 7 | #10400.00 | 65.2 PK | 74.0 | -8.8 | 1.53 V | 77 | 50.60 | 14.60 |
| 8 | #10400.00 | 51.0 AV | 54.0 | -3.0 | 1.53 V | 77 | 36.40 | 14.60 |
| 9 | 15600.00 | 57.6 PK | 74.0 | -16.4 | 2.06 V | 61 | 38.70 | 18.90 |
| 10 | 15600.00 | 42.6 AV | 54.0 | -11.4 | 2.06 V | 61 | 23.70 | 18.90 |

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| | | | |
|------------------------|---------------|------------------------------|--------------|
| CHANNEL | TX Channel 48 | DETECTOR FUNCTION | Peak (PK) |
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | *5240.00 | 115.2 PK | | | 1.75 H | 360 | 106.60 | 8.60 |
| 2 | *5240.00 | 104.9 AV | | | 1.75 H | 360 | 96.30 | 8.60 |
| 3 | 5401.00 | 62.4 PK | 74.0 | -11.6 | 1.75 H | 360 | 53.47 | 8.93 |
| 4 | 5401.00 | 53.0 AV | 54.0 | -1.0 | 1.75 H | 360 | 44.07 | 8.93 |
| 5 | #10480.00 | 66.2 PK | 74.0 | -7.8 | 2.47 H | 215 | 51.73 | 14.47 |
| 6 | #10480.00 | 51.4 AV | 54.0 | -2.6 | 2.47 H | 215 | 36.93 | 14.47 |
| 7 | 15720.00 | 54.6 PK | 74.0 | -19.4 | 2.41 H | 70 | 35.56 | 19.04 |
| 8 | 15720.00 | 41.7 AV | 54.0 | -12.3 | 2.41 H | 70 | 22.66 | 19.04 |

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|------------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | *5240.00 | 116.0 PK | | | 1.89 V | 77 | 107.40 | 8.60 |
| 2 | *5240.00 | 105.5 AV | | | 1.89 V | 77 | 96.90 | 8.60 |
| 3 | 5401.00 | 63.2 PK | 74.0 | -10.8 | 1.89 V | 77 | 54.27 | 8.93 |
| 4 | 5401.00 | 53.9 AV | 54.0 | -0.1 | 1.89 V | 77 | 44.97 | 8.93 |
| 5 | #10480.00 | 67.9 PK | 74.0 | -6.1 | 1.55 V | 82 | 53.43 | 14.47 |
| 6 | #10480.00 | 53.9 AV | 54.0 | -0.1 | 1.55 V | 82 | 39.43 | 14.47 |
| 7 | 15720.00 | 60.6 PK | 74.0 | -13.4 | 2.12 V | 67 | 41.56 | 19.04 |
| 8 | 15720.00 | 45.3 AV | 54.0 | -8.7 | 2.12 V | 67 | 26.26 | 19.04 |

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| | | | |
|------------------------|----------------|------------------------------|--------------|
| CHANNEL | TX Channel 149 | DETECTOR FUNCTION | Peak (PK) |
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | #5715.00 | 68.2 PK | 74.0 | -5.8 | 1.79 H | 344 | 58.52 | 9.68 |
| 2 | #5715.00 | 44.2 AV | 54.0 | -9.8 | 1.79 H | 344 | 34.52 | 9.68 |
| 3 | #5725.00 | 77.3 PK | 78.2 | -0.9 | 1.79 H | 344 | 67.60 | 9.70 |
| 4 | *5745.00 | 110.8 PK | | | 1.79 H | 344 | 101.04 | 9.76 |
| 5 | *5745.00 | 100.8 AV | | | 1.79 H | 344 | 91.04 | 9.76 |
| 6 | 11490.00 | 62.3 PK | 74.0 | -11.7 | 2.45 H | 226 | 47.44 | 14.86 |
| 7 | 11490.00 | 48.2 AV | 54.0 | -5.8 | 2.45 H | 226 | 33.34 | 14.86 |
| 8 | #17235.00 | 56.1 PK | 74.0 | -17.9 | 2.39 H | 73 | 32.87 | 23.23 |
| 9 | #17235.00 | 43.1 AV | 54.0 | -10.9 | 2.39 H | 73 | 19.87 | 23.23 |

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | #5715.00 | 69.0 PK | 74.0 | -5.0 | 1.70 V | 133 | 59.32 | 9.68 |
| 2 | #5715.00 | 44.9 AV | 54.0 | -9.1 | 1.70 V | 133 | 35.22 | 9.68 |
| 3 | #5725.00 | 78.1 PK | 78.2 | -0.1 | 1.70 V | 133 | 68.40 | 9.70 |
| 4 | *5745.00 | 111.6 PK | | | 1.70 V | 133 | 101.84 | 9.76 |
| 5 | *5745.00 | 101.4 AV | | | 1.70 V | 133 | 91.64 | 9.76 |
| 6 | 11490.00 | 64.4 PK | 74.0 | -9.6 | 1.53 V | 74 | 49.54 | 14.86 |
| 7 | 11490.00 | 50.5 AV | 54.0 | -3.5 | 1.53 V | 74 | 35.64 | 14.86 |
| 8 | #17235.00 | 57.4 PK | 74.0 | -16.6 | 2.01 V | 50 | 34.17 | 23.23 |
| 9 | #17235.00 | 44.7 AV | 54.0 | -9.3 | 2.01 V | 50 | 21.47 | 23.23 |

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| | | | |
|------------------------|----------------|------------------------------|--------------|
| CHANNEL | TX Channel 157 | DETECTOR FUNCTION | Peak (PK) |
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | #5705.00 | 66.6 PK | 68.2 | -1.6 | 1.74 H | 354 | 56.95 | 9.65 |
| 2 | *5785.00 | 113.7 PK | | | 1.74 H | 354 | 103.85 | 9.85 |
| 3 | *5785.00 | 103.3 AV | | | 1.74 H | 354 | 93.45 | 9.85 |
| 4 | #5866.00 | 67.2 PK | 68.2 | -1.0 | 1.74 H | 354 | 57.27 | 9.93 |
| 5 | 11570.00 | 64.2 PK | 74.0 | -9.8 | 2.49 H | 205 | 49.00 | 15.20 |
| 6 | 11570.00 | 49.8 AV | 54.0 | -4.2 | 2.49 H | 205 | 34.60 | 15.20 |
| 7 | #17355.00 | 56.3 PK | 68.2 | -11.9 | 2.45 H | 63 | 32.74 | 23.56 |

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | #5705.00 | 67.4 PK | 68.2 | -0.8 | 1.56 V | 93 | 57.75 | 9.65 |
| 2 | *5785.00 | 114.5 PK | | | 1.56 V | 93 | 104.65 | 9.85 |
| 3 | *5785.00 | 103.9 AV | | | 1.56 V | 93 | 94.05 | 9.85 |
| 4 | #5866.00 | 68.0 PK | 68.2 | -0.2 | 1.56 V | 93 | 58.07 | 9.93 |
| 5 | 11570.00 | 64.3 PK | 74.0 | -9.7 | 1.57 V | 69 | 49.10 | 15.20 |
| 6 | 11570.00 | 49.7 AV | 54.0 | -4.3 | 1.57 V | 69 | 34.50 | 15.20 |
| 7 | #17355.00 | 57.6 PK | 68.2 | -10.6 | 2.07 V | 50 | 34.04 | 23.56 |

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| | | | |
|------------------------|----------------|------------------------------|--------------|
| CHANNEL | TX Channel 165 | DETECTOR FUNCTION | Peak (PK) |
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | *5825.00 | 115.5 PK | | | 1.77 H | 350 | 105.59 | 9.91 |
| 2 | *5825.00 | 104.4 AV | | | 1.77 H | 350 | 94.49 | 9.91 |
| 3 | #5850.00 | 77.2 PK | 78.2 | -1.0 | 1.77 H | 350 | 67.28 | 9.92 |
| 4 | #5860.00 | 67.3 PK | 68.2 | -0.9 | 1.77 H | 350 | 57.37 | 9.93 |
| 5 | #5901.00 | 67.0 PK | 68.2 | -1.2 | 1.77 H | 350 | 57.05 | 9.95 |
| 6 | 11650.00 | 65.9 PK | 74.0 | -8.1 | 1.83 H | 146 | 50.50 | 15.40 |
| 7 | 11650.00 | 51.5 AV | 54.0 | -2.5 | 1.83 H | 146 | 36.10 | 15.40 |
| 8 | #17475.00 | 55.9 PK | 68.2 | -12.3 | 2.44 H | 64 | 31.81 | 24.09 |

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | *5825.00 | 116.2 PK | | | 1.57 V | 145 | 106.29 | 9.91 |
| 2 | *5825.00 | 105.0 AV | | | 1.57 V | 145 | 95.09 | 9.91 |
| 3 | #5850.00 | 78.1 PK | 78.2 | -0.1 | 1.57 V | 145 | 68.18 | 9.92 |
| 4 | #5860.00 | 68.1 PK | 68.2 | -0.1 | 1.57 V | 145 | 58.17 | 9.93 |
| 5 | #5901.00 | 67.9 PK | 68.2 | -0.3 | 1.57 V | 145 | 57.95 | 9.95 |
| 6 | 11650.00 | 65.5 PK | 74.0 | -8.5 | 1.74 V | 224 | 50.10 | 15.40 |
| 7 | 11650.00 | 50.6 AV | 54.0 | -3.4 | 1.74 V | 224 | 35.20 | 15.40 |
| 8 | #17475.00 | 58.4 PK | 68.2 | -9.8 | 1.65 V | 116 | 34.31 | 24.09 |

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

802.11ac (VHT40)

| | | | |
|------------------------|---------------|------------------------------|--------------|
| CHANNEL | TX Channel 38 | DETECTOR FUNCTION | Peak (PK) |
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | 5150.00 | 70.4 PK | 74.0 | -3.6 | 1.84 H | 338 | 62.07 | 8.33 |
| 2 | 5150.00 | 52.0 AV | 54.0 | -2.0 | 1.84 H | 338 | 43.67 | 8.33 |
| 3 | *5190.00 | 110.9 PK | | | 1.84 H | 338 | 102.40 | 8.50 |
| 4 | *5190.00 | 100.5 AV | | | 1.84 H | 338 | 92.00 | 8.50 |
| 5 | 5356.00 | 61.6 PK | 74.0 | -12.4 | 1.84 H | 338 | 52.78 | 8.82 |
| 6 | 5356.00 | 50.6 AV | 54.0 | -3.4 | 1.84 H | 338 | 41.78 | 8.82 |
| 7 | #10380.00 | 59.2 PK | 74.0 | -14.8 | 1.82 H | 132 | 44.65 | 14.55 |
| 8 | #10380.00 | 46.3 AV | 54.0 | -7.7 | 1.82 H | 132 | 31.75 | 14.55 |
| 9 | 15570.00 | 52.2 PK | 74.0 | -21.8 | 2.47 H | 78 | 33.41 | 18.79 |
| 10 | 15570.00 | 39.8 AV | 54.0 | -14.2 | 2.47 H | 78 | 21.01 | 18.79 |

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | 5150.00 | 71.3 PK | 74.0 | -2.7 | 1.80 V | 80 | 62.97 | 8.33 |
| 2 | 5150.00 | 53.0 AV | 54.0 | -1.0 | 1.80 V | 80 | 44.67 | 8.33 |
| 3 | *5190.00 | 111.6 PK | | | 1.80 V | 80 | 103.10 | 8.50 |
| 4 | *5190.00 | 101.1 AV | | | 1.80 V | 80 | 92.60 | 8.50 |
| 5 | 5356.00 | 62.5 PK | 74.0 | -11.5 | 1.80 V | 80 | 53.68 | 8.82 |
| 6 | 5356.00 | 51.4 AV | 54.0 | -2.6 | 1.80 V | 80 | 42.58 | 8.82 |
| 7 | #10380.00 | 63.4 PK | 74.0 | -10.6 | 1.76 V | 237 | 48.85 | 14.55 |
| 8 | #10380.00 | 49.3 AV | 54.0 | -4.7 | 1.76 V | 237 | 34.75 | 14.55 |
| 9 | 15570.00 | 57.4 PK | 74.0 | -16.6 | 1.62 V | 131 | 38.61 | 18.79 |
| 10 | 15570.00 | 44.6 AV | 54.0 | -9.4 | 1.62 V | 131 | 25.81 | 18.79 |

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| | | | |
|------------------------|---------------|--------------------------|--------------|
| CHANNEL | TX Channel 46 | DETECTOR FUNCTION | Peak (PK) |
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|-------------|-------------------------|----------------|-------------|--------------------|----------------------|------------------|--------------------------|
| 1 | 5150.00 | 64.7 PK | 74.0 | -9.3 | 1.74 H | 360 | 56.37 | 8.33 |
| 2 | 5150.00 | 53.1 AV | 54.0 | -0.9 | 1.74 H | 360 | 44.77 | 8.33 |
| 3 | *5230.00 | 113.4 PK | | | 1.74 H | 360 | 104.81 | 8.59 |
| 4 | *5230.00 | 102.9 AV | | | 1.74 H | 360 | 94.31 | 8.59 |
| 5 | 5376.00 | 62.8 PK | 74.0 | -11.2 | 1.74 H | 360 | 53.94 | 8.86 |
| 6 | 5376.00 | 51.7 AV | 54.0 | -2.3 | 1.74 H | 360 | 42.84 | 8.86 |
| 7 | #10460.00 | 62.0 PK | 74.0 | -12.0 | 1.73 H | 211 | 47.49 | 14.51 |
| 8 | #10460.00 | 49.0 AV | 54.0 | -5.0 | 1.73 H | 211 | 34.49 | 14.51 |
| 9 | 15690.00 | 54.9 PK | 74.0 | -19.1 | 1.67 H | 123 | 35.93 | 18.97 |
| 10 | 15690.00 | 42.2 AV | 54.0 | -11.8 | 1.67 H | 123 | 23.23 | 18.97 |

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|-------------|-------------------------|----------------|-------------|--------------------|----------------------|------------------|--------------------------|
| 1 | 5150.00 | 65.5 PK | 74.0 | -8.5 | 1.80 V | 77 | 57.17 | 8.33 |
| 2 | 5150.00 | 53.9 AV | 54.0 | -0.1 | 1.80 V | 77 | 45.57 | 8.33 |
| 3 | *5230.00 | 114.1 PK | | | 1.80 V | 77 | 105.51 | 8.59 |
| 4 | *5230.00 | 103.5 AV | | | 1.80 V | 77 | 94.91 | 8.59 |
| 5 | 5376.00 | 63.6 PK | 74.0 | -10.4 | 1.80 V | 77 | 54.74 | 8.86 |
| 6 | 5376.00 | 52.5 AV | 54.0 | -1.5 | 1.80 V | 77 | 43.64 | 8.86 |
| 7 | #10460.00 | 65.5 PK | 74.0 | -8.5 | 1.85 V | 85 | 50.99 | 14.51 |
| 8 | #10460.00 | 51.6 AV | 54.0 | -2.4 | 1.85 V | 85 | 37.09 | 14.51 |
| 9 | 15690.00 | 59.2 PK | 74.0 | -14.8 | 2.25 V | 126 | 40.23 | 18.97 |
| 10 | 15690.00 | 46.4 AV | 54.0 | -7.6 | 2.25 V | 126 | 27.43 | 18.97 |

REMARKS:

- Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
- Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
- The other emission levels were very low against the limit.
- Margin value = Emission Level – Limit value
- " * ": Fundamental frequency.
- " # ": The radiated frequency is out of the restricted band.

| | | | |
|------------------------|----------------|------------------------------|--------------|
| CHANNEL | TX Channel 151 | DETECTOR FUNCTION | Peak (PK) |
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | #5680.00 | 65.9 PK | 74.0 | -8.1 | 1.80 H | 342 | 56.32 | 9.58 |
| 2 | #5680.00 | 52.0 AV | 54.0 | -2.0 | 1.80 H | 342 | 42.42 | 9.58 |
| 3 | #5715.00 | 73.1 PK | 74.0 | -0.9 | 1.80 H | 342 | 63.42 | 9.68 |
| 4 | #5715.00 | 48.8 AV | 54.0 | -5.2 | 1.80 H | 342 | 39.12 | 9.68 |
| 5 | #5725.00 | 76.2 PK | 78.2 | -2.0 | 1.80 H | 342 | 66.50 | 9.70 |
| 6 | *5755.00 | 108.3 PK | | | 1.80 H | 342 | 98.53 | 9.77 |
| 7 | *5755.00 | 97.8 AV | | | 1.80 H | 342 | 88.03 | 9.77 |
| 8 | 11510.00 | 58.2 PK | 74.0 | -15.8 | 2.43 H | 214 | 43.35 | 14.85 |
| 9 | 11510.00 | 45.2 AV | 54.0 | -8.8 | 2.43 H | 214 | 30.35 | 14.85 |
| 10 | #17265.00 | 55.2 PK | 74.0 | -18.8 | 2.45 H | 67 | 31.97 | 23.23 |
| 11 | #17265.00 | 43.0 AV | 54.0 | -11.0 | 2.45 H | 67 | 19.77 | 23.23 |

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|----------|-----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | #5680.00 | 66.6 PK | 74.0 | -7.4 | 1.66 V | 138 | 57.02 | 9.58 |
| 2 | #5680.00 | 52.8 AV | 54.0 | -1.2 | 1.66 V | 138 | 43.22 | 9.58 |
| 3 | #5715.00 | 73.9 PK | 74.0 | -0.1 | 1.66 V | 138 | 64.22 | 9.68 |
| 4 | #5715.00 | 49.6 AV | 54.0 | -4.4 | 1.66 V | 138 | 39.92 | 9.68 |
| 5 | #5725.00 | 77.0 PK | 78.2 | -1.2 | 1.66 V | 138 | 67.30 | 9.70 |
| 6 | *5755.00 | 109.0 PK | | | 1.66 V | 138 | 99.23 | 9.77 |
| 7 | *5755.00 | 98.4 AV | | | 1.66 V | 138 | 88.63 | 9.77 |
| 8 | 11510.00 | 61.7 PK | 74.0 | -12.3 | 1.52 V | 69 | 46.85 | 14.85 |
| 9 | 11510.00 | 47.8 AV | 54.0 | -6.2 | 1.52 V | 69 | 32.95 | 14.85 |
| 10 | #17265.00 | 56.1 PK | 74.0 | -17.9 | 2.06 V | 61 | 32.87 | 23.23 |
| 11 | #17265.00 | 44.1 AV | 54.0 | -9.9 | 2.06 V | 61 | 20.87 | 23.23 |

REMARKS:

- Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
- Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
- The other emission levels were very low against the limit.
- Margin value = Emission Level – Limit value
- " * ": Fundamental frequency.
- " # ": The radiated frequency is out of the restricted band.

| | | | |
|------------------------|----------------|------------------------------|--------------|
| CHANNEL | TX Channel 159 | DETECTOR FUNCTION | Peak (PK) |
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | #5715.00 | 65.9 PK | 74.0 | -8.1 | 1.74 H | 340 | 56.22 | 9.68 |
| 2 | #5715.00 | 52.6 AV | 54.0 | -1.4 | 1.74 H | 340 | 42.92 | 9.68 |
| 3 | *5795.00 | 110.1 PK | | | 1.74 H | 340 | 100.22 | 9.88 |
| 4 | *5795.00 | 98.8 AV | | | 1.74 H | 340 | 88.92 | 9.88 |
| 5 | #5850.00 | 68.4 PK | 78.2 | -9.8 | 1.74 H | 340 | 58.48 | 9.92 |
| 6 | #5860.00 | 66.8 PK | 74.0 | -7.2 | 1.74 H | 340 | 56.87 | 9.93 |
| 7 | #5860.00 | 52.9 AV | 54.0 | -1.1 | 1.74 H | 340 | 42.97 | 9.93 |
| 8 | 11590.00 | 64.1 PK | 74.0 | -9.9 | 2.52 H | 220 | 48.79 | 15.31 |
| 9 | 11590.00 | 48.7 AV | 54.0 | -5.3 | 2.52 H | 220 | 33.39 | 15.31 |
| 10 | #17385.00 | 54.9 PK | 74.0 | -19.1 | 2.39 H | 70 | 31.14 | 23.76 |
| 11 | #17385.00 | 43.1 AV | 54.0 | -10.9 | 2.39 H | 70 | 19.34 | 23.76 |

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | #5715.00 | 66.5 PK | 74.0 | -7.5 | 1.65 V | 251 | 56.82 | 9.68 |
| 2 | #5715.00 | 53.3 AV | 54.0 | -0.7 | 1.65 V | 251 | 43.62 | 9.68 |
| 3 | *5795.00 | 110.8 PK | | | 1.65 V | 251 | 100.92 | 9.88 |
| 4 | *5795.00 | 99.4 AV | | | 1.65 V | 251 | 89.52 | 9.88 |
| 5 | #5850.00 | 69.1 PK | 78.2 | -9.1 | 1.65 V | 251 | 59.18 | 9.92 |
| 6 | #5860.00 | 67.6 PK | 74.0 | -6.4 | 1.65 V | 251 | 57.67 | 9.93 |
| 7 | #5860.00 | 53.8 AV | 54.0 | -0.2 | 1.65 V | 251 | 43.87 | 9.93 |
| 8 | 11590.00 | 61.5 PK | 74.0 | -12.5 | 1.51 V | 71 | 46.19 | 15.31 |
| 9 | 11590.00 | 47.9 AV | 54.0 | -6.1 | 1.51 V | 71 | 32.59 | 15.31 |
| 10 | #17385.00 | 56.9 PK | 74.0 | -17.1 | 2.01 V | 36 | 33.14 | 23.76 |
| 11 | #17385.00 | 44.3 AV | 54.0 | -9.7 | 2.01 V | 36 | 20.54 | 23.76 |

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

802.11ac (VHT80)

| | | | |
|------------------------|---------------|------------------------------|--------------|
| CHANNEL | TX Channel 42 | DETECTOR FUNCTION | Peak (PK) |
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | 5150.00 | 69.3 PK | 74.0 | -4.7 | 1.82 H | 360 | 60.97 | 8.33 |
| 2 | 5150.00 | 52.8 AV | 54.0 | -1.2 | 1.82 H | 360 | 44.47 | 8.33 |
| 3 | *5210.00 | 106.9 PK | | | 1.82 H | 360 | 98.35 | 8.55 |
| 4 | *5210.00 | 95.2 AV | | | 1.82 H | 360 | 86.65 | 8.55 |
| 5 | 5350.00 | 61.2 PK | 74.0 | -12.8 | 1.82 H | 360 | 52.40 | 8.80 |
| 6 | 5350.00 | 48.6 AV | 54.0 | -5.4 | 1.82 H | 360 | 39.80 | 8.80 |
| 7 | #10420.00 | 65.2 PK | 74.0 | -8.8 | 2.49 H | 192 | 50.63 | 14.57 |
| 8 | #10420.00 | 49.8 AV | 54.0 | -4.2 | 2.49 H | 192 | 35.23 | 14.57 |
| 9 | 15630.00 | 53.5 PK | 74.0 | -20.5 | 2.45 H | 65 | 34.57 | 18.93 |
| 10 | 15630.00 | 40.9 AV | 54.0 | -13.1 | 2.45 H | 65 | 21.97 | 18.93 |

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | 5150.00 | 70.2 PK | 74.0 | -3.8 | 1.78 V | 81 | 61.87 | 8.33 |
| 2 | 5150.00 | 53.6 AV | 54.0 | -0.4 | 1.78 V | 81 | 45.27 | 8.33 |
| 3 | *5210.00 | 107.6 PK | | | 1.78 V | 81 | 99.05 | 8.55 |
| 4 | *5210.00 | 95.8 AV | | | 1.78 V | 81 | 87.25 | 8.55 |
| 5 | 5350.00 | 61.9 PK | 74.0 | -12.1 | 1.78 V | 81 | 53.10 | 8.80 |
| 6 | 5350.00 | 49.3 AV | 54.0 | -4.7 | 1.78 V | 81 | 40.50 | 8.80 |
| 7 | #10420.00 | 62.6 PK | 74.0 | -11.4 | 1.60 V | 56 | 48.03 | 14.57 |
| 8 | #10420.00 | 49.0 AV | 54.0 | -5.0 | 1.60 V | 56 | 34.43 | 14.57 |
| 9 | 15630.00 | 56.7 PK | 74.0 | -17.3 | 2.10 V | 59 | 37.77 | 18.93 |
| 10 | 15630.00 | 43.5 AV | 54.0 | -10.5 | 2.10 V | 59 | 24.57 | 18.93 |

REMARKS:

- Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
- Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
- The other emission levels were very low against the limit.
- Margin value = Emission Level – Limit value
- " * ": Fundamental frequency.
- " # ": The radiated frequency is out of the restricted band.

| | | | |
|------------------------|----------------|------------------------------|--------------|
| CHANNEL | TX Channel 155 | DETECTOR FUNCTION | Peak (PK) |
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | #5715.00 | 67.8 PK | 74.0 | -6.2 | 1.72 H | 360 | 58.12 | 9.68 |
| 2 | #5715.00 | 52.6 AV | 54.0 | -1.4 | 1.72 H | 360 | 42.92 | 9.68 |
| 3 | #5725.00 | 70.1 PK | 78.2 | -8.1 | 1.72 H | 360 | 60.40 | 9.70 |
| 4 | *5775.00 | 105.8 PK | | | 1.72 H | 360 | 95.97 | 9.83 |
| 5 | *5775.00 | 93.8 AV | | | 1.72 H | 360 | 83.97 | 9.83 |
| 6 | #5850.00 | 69.0 PK | 78.2 | -9.2 | 1.72 H | 360 | 59.08 | 9.92 |
| 7 | #5860.00 | 67.1 PK | 74.0 | -6.9 | 1.72 H | 360 | 57.17 | 9.93 |
| 8 | #5860.00 | 50.0 AV | 54.0 | -4.0 | 1.72 H | 360 | 40.07 | 9.93 |
| 9 | 11550.00 | 63.4 PK | 74.0 | -10.6 | 2.47 H | 229 | 48.31 | 15.09 |
| 10 | 11550.00 | 47.9 AV | 54.0 | -6.1 | 2.47 H | 229 | 32.81 | 15.09 |
| 11 | #17325.00 | 54.6 PK | 74.0 | -19.4 | 2.39 H | 82 | 31.22 | 23.38 |
| 12 | #17325.00 | 42.9 AV | 54.0 | -11.1 | 2.39 H | 82 | 19.52 | 23.38 |

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | #5715.00 | 68.5 PK | 74.0 | -5.5 | 1.76 V | 252 | 58.82 | 9.68 |
| 2 | #5715.00 | 53.2 AV | 54.0 | -0.8 | 1.76 V | 252 | 43.52 | 9.68 |
| 3 | #5725.00 | 70.9 PK | 78.2 | -7.3 | 1.76 V | 252 | 61.20 | 9.70 |
| 4 | *5775.00 | 106.5 PK | | | 1.76 V | 252 | 96.67 | 9.83 |
| 5 | *5775.00 | 94.4 AV | | | 1.76 V | 252 | 84.57 | 9.83 |
| 6 | #5850.00 | 69.8 PK | 78.2 | -8.4 | 1.76 V | 252 | 59.88 | 9.92 |
| 7 | #5860.00 | 67.9 PK | 74.0 | -6.1 | 1.76 V | 252 | 57.97 | 9.93 |
| 8 | #5860.00 | 50.8 AV | 54.0 | -3.2 | 1.76 V | 252 | 40.87 | 9.93 |
| 9 | 11550.00 | 60.8 PK | 74.0 | -13.2 | 1.48 V | 87 | 45.71 | 15.09 |
| 10 | 11550.00 | 47.9 AV | 54.0 | -6.1 | 1.48 V | 87 | 32.81 | 15.09 |
| 11 | #17325.00 | 56.7 PK | 74.0 | -17.3 | 2.07 V | 55 | 33.32 | 23.38 |
| 12 | #17325.00 | 44.1 AV | 54.0 | -9.9 | 2.07 V | 55 | 20.72 | 23.38 |

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

STBC_MODE

802.11ac (VHT20)

| | | | |
|------------------------|---------------|------------------------------|--------------|
| CHANNEL | TX Channel 36 | DETECTOR FUNCTION | Peak (PK) |
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|-------------|-------------------------|----------------|-------------|--------------------|----------------------|------------------|--------------------------|
| 1 | 5100.00 | 65.3 PK | 74.0 | -8.7 | 1.78 H | 353 | 57.19 | 8.11 |
| 2 | 5100.00 | 53.5 AV | 54.0 | -0.5 | 1.78 H | 353 | 45.39 | 8.11 |
| 3 | *5180.00 | 114.2 PK | | | 1.78 H | 353 | 105.73 | 8.47 |
| 4 | *5180.00 | 102.2 AV | | | 1.78 H | 353 | 93.73 | 8.47 |
| 5 | #10360.00 | 65.6 PK | 74.0 | -8.4 | 1.00 H | 245 | 51.10 | 14.50 |
| 6 | #10360.00 | 50.5 AV | 54.0 | -3.5 | 1.00 H | 245 | 36.00 | 14.50 |
| 7 | 15540.00 | 54.7 PK | 74.0 | -19.3 | 1.00 H | 246 | 36.02 | 18.68 |
| 8 | 15540.00 | 41.5 AV | 54.0 | -12.5 | 1.00 H | 246 | 22.82 | 18.68 |

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------|----------------|-------------|--------------------|----------------------|------------------|--------------------------|
| 1 | 5100.00 | 66.0 PK | 74.0 | -8.0 | 1.70 V | 86 | 57.89 | 8.11 |
| 2 | 5100.00 | 53.9 AV | 54.0 | -0.1 | 1.70 V | 86 | 45.79 | 8.11 |
| 3 | *5180.00 | 115.0 PK | | | 1.70 V | 86 | 106.53 | 8.47 |
| 4 | *5180.00 | 102.8 AV | | | 1.70 V | 86 | 94.33 | 8.47 |
| 5 | #10360.00 | 67.1 PK | 74.0 | -6.9 | 1.59 V | 89 | 52.60 | 14.50 |
| 6 | #10360.00 | 53.0 AV | 54.0 | -1.0 | 1.59 V | 89 | 38.50 | 14.50 |
| 7 | 15540.00 | 59.8 PK | 74.0 | -14.2 | 2.18 V | 70 | 41.12 | 18.68 |
| 8 | 15540.00 | 44.6 AV | 54.0 | -9.4 | 2.18 V | 70 | 25.92 | 18.68 |

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| | | | |
|------------------------|---------------|--------------------------|--------------|
| CHANNEL | TX Channel 40 | DETECTOR FUNCTION | Peak (PK) |
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|-------------|-------------------------|----------------|-------------|--------------------|----------------------|------------------|--------------------------|
| 1 | 5121.00 | 60.9 PK | 74.0 | -13.1 | 1.80 H | 338 | 52.70 | 8.20 |
| 2 | 5121.00 | 51.0 AV | 54.0 | -3.0 | 1.80 H | 338 | 42.80 | 8.20 |
| 3 | *5200.00 | 112.1 PK | | | 1.80 H | 338 | 103.56 | 8.54 |
| 4 | *5200.00 | 101.2 AV | | | 1.80 H | 338 | 92.66 | 8.54 |
| 5 | 5361.00 | 62.4 PK | 74.0 | -11.6 | 1.80 H | 338 | 53.57 | 8.83 |
| 6 | 5361.00 | 52.3 AV | 54.0 | -1.7 | 1.80 H | 338 | 43.47 | 8.83 |
| 7 | #10400.00 | 63.8 PK | 74.0 | -10.2 | 2.48 H | 212 | 49.20 | 14.60 |
| 8 | #10400.00 | 48.6 AV | 54.0 | -5.4 | 2.48 H | 212 | 34.00 | 14.60 |
| 9 | 15600.00 | 51.8 PK | 74.0 | -22.2 | 2.42 H | 55 | 32.90 | 18.90 |
| 10 | 15600.00 | 39.0 AV | 54.0 | -15.0 | 2.42 H | 55 | 20.10 | 18.90 |

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|-------------|-------------------------|----------------|-------------|--------------------|----------------------|------------------|--------------------------|
| 1 | 5121.00 | 61.8 PK | 74.0 | -12.2 | 1.79 V | 81 | 53.60 | 8.20 |
| 2 | 5121.00 | 51.6 AV | 54.0 | -2.4 | 1.79 V | 81 | 43.40 | 8.20 |
| 3 | *5200.00 | 112.9 PK | | | 1.79 V | 81 | 104.36 | 8.54 |
| 4 | *5200.00 | 101.8 AV | | | 1.79 V | 81 | 93.26 | 8.54 |
| 5 | 5361.00 | 63.2 PK | 74.0 | -10.8 | 1.79 V | 81 | 54.37 | 8.83 |
| 6 | 5361.00 | 53.2 AV | 54.0 | -0.8 | 1.79 V | 81 | 44.37 | 8.83 |
| 7 | #10400.00 | 65.2 PK | 74.0 | -8.8 | 1.53 V | 77 | 50.60 | 14.60 |
| 8 | #10400.00 | 51.0 AV | 54.0 | -3.0 | 1.53 V | 77 | 36.40 | 14.60 |
| 9 | 15600.00 | 57.6 PK | 74.0 | -16.4 | 2.06 V | 61 | 38.70 | 18.90 |
| 10 | 15600.00 | 42.6 AV | 54.0 | -11.4 | 2.06 V | 61 | 23.70 | 18.90 |

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| | | | |
|------------------------|---------------|--------------------------|--------------|
| CHANNEL | TX Channel 48 | DETECTOR FUNCTION | Peak (PK) |
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|-------------|-------------------------|----------------|-------------|--------------------|----------------------|------------------|--------------------------|
| 1 | *5240.00 | 115.2 PK | | | 1.75 H | 360 | 106.60 | 8.60 |
| 2 | *5240.00 | 104.9 AV | | | 1.75 H | 360 | 96.30 | 8.60 |
| 3 | 5401.00 | 62.4 PK | 74.0 | -11.6 | 1.75 H | 360 | 53.47 | 8.93 |
| 4 | 5401.00 | 53.0 AV | 54.0 | -1.0 | 1.75 H | 360 | 44.07 | 8.93 |
| 5 | #10480.00 | 66.2 PK | 74.0 | -7.8 | 2.47 H | 215 | 51.73 | 14.47 |
| 6 | #10480.00 | 51.4 AV | 54.0 | -2.6 | 2.47 H | 215 | 36.93 | 14.47 |
| 7 | 15720.00 | 54.6 PK | 74.0 | -19.4 | 2.41 H | 70 | 35.56 | 19.04 |
| 8 | 15720.00 | 41.7 AV | 54.0 | -12.3 | 2.41 H | 70 | 22.66 | 19.04 |

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|------------------|-------------------------|----------------|-------------|--------------------|----------------------|------------------|--------------------------|
| 1 | *5240.00 | 116.0 PK | | | 1.89 V | 77 | 107.40 | 8.60 |
| 2 | *5240.00 | 105.5 AV | | | 1.89 V | 77 | 96.90 | 8.60 |
| 3 | 5401.00 | 63.2 PK | 74.0 | -10.8 | 1.89 V | 77 | 54.27 | 8.93 |
| 4 | 5401.00 | 53.9 AV | 54.0 | -0.1 | 1.89 V | 77 | 44.97 | 8.93 |
| 5 | #10480.00 | 67.9 PK | 74.0 | -6.1 | 1.55 V | 82 | 53.43 | 14.47 |
| 6 | #10480.00 | 53.9 AV | 54.0 | -0.1 | 1.55 V | 82 | 39.43 | 14.47 |
| 7 | 15720.00 | 60.6 PK | 74.0 | -13.4 | 2.12 V | 67 | 41.56 | 19.04 |
| 8 | 15720.00 | 45.3 AV | 54.0 | -8.7 | 2.12 V | 67 | 26.26 | 19.04 |

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| | | | |
|------------------------|----------------|------------------------------|--------------|
| CHANNEL | TX Channel 149 | DETECTOR FUNCTION | Peak (PK) |
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | #5715.00 | 68.2 PK | 74.0 | -5.8 | 1.79 H | 344 | 58.52 | 9.68 |
| 2 | #5715.00 | 44.2 AV | 54.0 | -9.8 | 1.79 H | 344 | 34.52 | 9.68 |
| 3 | #5725.00 | 77.3 PK | 78.2 | -0.9 | 1.79 H | 344 | 67.60 | 9.70 |
| 4 | *5745.00 | 110.8 PK | | | 1.79 H | 344 | 101.04 | 9.76 |
| 5 | *5745.00 | 100.8 AV | | | 1.79 H | 344 | 91.04 | 9.76 |
| 6 | 11490.00 | 62.3 PK | 74.0 | -11.7 | 2.45 H | 226 | 47.44 | 14.86 |
| 7 | 11490.00 | 48.2 AV | 54.0 | -5.8 | 2.45 H | 226 | 33.34 | 14.86 |
| 8 | #17235.00 | 56.1 PK | 74.0 | -17.9 | 2.39 H | 73 | 32.87 | 23.23 |
| 9 | #17235.00 | 43.1 AV | 54.0 | -10.9 | 2.39 H | 73 | 19.87 | 23.23 |

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | #5715.00 | 69.0 PK | 74.0 | -5.0 | 1.70 V | 133 | 59.32 | 9.68 |
| 2 | #5715.00 | 44.9 AV | 54.0 | -9.1 | 1.70 V | 133 | 35.22 | 9.68 |
| 3 | #5725.00 | 78.1 PK | 78.2 | -0.1 | 1.70 V | 133 | 68.40 | 9.70 |
| 4 | *5745.00 | 111.6 PK | | | 1.70 V | 133 | 101.84 | 9.76 |
| 5 | *5745.00 | 101.4 AV | | | 1.70 V | 133 | 91.64 | 9.76 |
| 6 | 11490.00 | 64.4 PK | 74.0 | -9.6 | 1.53 V | 74 | 49.54 | 14.86 |
| 7 | 11490.00 | 50.5 AV | 54.0 | -3.5 | 1.53 V | 74 | 35.64 | 14.86 |
| 8 | #17235.00 | 57.4 PK | 74.0 | -16.6 | 2.01 V | 50 | 34.17 | 23.23 |
| 9 | #17235.00 | 44.7 AV | 54.0 | -9.3 | 2.01 V | 50 | 21.47 | 23.23 |

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| | | | |
|------------------------|----------------|--------------------------|--------------|
| CHANNEL | TX Channel 157 | DETECTOR FUNCTION | Peak (PK) |
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|-------------|-------------------------|----------------|-------------|--------------------|----------------------|------------------|--------------------------|
| 1 | #5705.00 | 66.6 PK | 68.2 | -1.6 | 1.74 H | 354 | 56.95 | 9.65 |
| 2 | *5785.00 | 113.7 PK | | | 1.74 H | 354 | 103.85 | 9.85 |
| 3 | *5785.00 | 103.3 AV | | | 1.74 H | 354 | 93.45 | 9.85 |
| 4 | #5866.00 | 67.2 PK | 68.2 | -1.0 | 1.74 H | 354 | 57.27 | 9.93 |
| 5 | 11570.00 | 64.2 PK | 74.0 | -9.8 | 2.49 H | 205 | 49.00 | 15.20 |
| 6 | 11570.00 | 49.8 AV | 54.0 | -4.2 | 2.49 H | 205 | 34.60 | 15.20 |
| 7 | #17355.00 | 56.3 PK | 68.2 | -11.9 | 2.45 H | 63 | 32.74 | 23.56 |

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|-------------|-------------------------|----------------|-------------|--------------------|----------------------|------------------|--------------------------|
| 1 | #5705.00 | 67.4 PK | 68.2 | -0.8 | 1.56 V | 93 | 57.75 | 9.65 |
| 2 | *5785.00 | 114.5 PK | | | 1.56 V | 93 | 104.65 | 9.85 |
| 3 | *5785.00 | 103.9 AV | | | 1.56 V | 93 | 94.05 | 9.85 |
| 4 | #5866.00 | 68.0 PK | 68.2 | -0.2 | 1.56 V | 93 | 58.07 | 9.93 |
| 5 | 11570.00 | 64.3 PK | 74.0 | -9.7 | 1.57 V | 69 | 49.10 | 15.20 |
| 6 | 11570.00 | 49.7 AV | 54.0 | -4.3 | 1.57 V | 69 | 34.50 | 15.20 |
| 7 | #17355.00 | 57.6 PK | 68.2 | -10.6 | 2.07 V | 50 | 34.04 | 23.56 |

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| | | | |
|------------------------|----------------|--------------------------|--------------|
| CHANNEL | TX Channel 165 | DETECTOR FUNCTION | Peak (PK) |
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|-------------|-------------------------|----------------|-------------|--------------------|----------------------|------------------|--------------------------|
| 1 | *5825.00 | 115.5 PK | | | 1.77 H | 350 | 105.59 | 9.91 |
| 2 | *5825.00 | 104.4 AV | | | 1.77 H | 350 | 94.49 | 9.91 |
| 3 | #5850.00 | 77.2 PK | 78.2 | -1.0 | 1.77 H | 350 | 67.28 | 9.92 |
| 4 | #5860.00 | 67.3 PK | 68.2 | -0.9 | 1.77 H | 350 | 57.37 | 9.93 |
| 5 | #5901.00 | 67.0 PK | 68.2 | -1.2 | 1.77 H | 350 | 57.05 | 9.95 |
| 6 | 11650.00 | 65.9 PK | 74.0 | -8.1 | 1.83 H | 146 | 50.50 | 15.40 |
| 7 | 11650.00 | 51.5 AV | 54.0 | -2.5 | 1.83 H | 146 | 36.10 | 15.40 |
| 8 | #17475.00 | 55.9 PK | 68.2 | -12.3 | 2.44 H | 64 | 31.81 | 24.09 |

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|-------------|-------------------------|----------------|-------------|--------------------|----------------------|------------------|--------------------------|
| 1 | *5825.00 | 116.2 PK | | | 1.57 V | 145 | 106.29 | 9.91 |
| 2 | *5825.00 | 105.0 AV | | | 1.57 V | 145 | 95.09 | 9.91 |
| 3 | #5850.00 | 78.1 PK | 78.2 | -0.1 | 1.57 V | 145 | 68.18 | 9.92 |
| 4 | #5860.00 | 68.1 PK | 68.2 | -0.1 | 1.57 V | 145 | 58.17 | 9.93 |
| 5 | #5901.00 | 67.9 PK | 68.2 | -0.3 | 1.57 V | 145 | 57.95 | 9.95 |
| 6 | 11650.00 | 65.5 PK | 74.0 | -8.5 | 1.74 V | 224 | 50.10 | 15.40 |
| 7 | 11650.00 | 50.6 AV | 54.0 | -3.4 | 1.74 V | 224 | 35.20 | 15.40 |
| 8 | #17475.00 | 58.4 PK | 68.2 | -9.8 | 1.65 V | 116 | 34.31 | 24.09 |

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

802.11ac (VHT40)

| | | | |
|------------------------|---------------|--------------------------|--------------|
| CHANNEL | TX Channel 38 | DETECTOR FUNCTION | Peak (PK) |
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|-------------|-------------------------|----------------|-------------|--------------------|----------------------|------------------|--------------------------|
| 1 | 5150.00 | 70.4 PK | 74.0 | -3.6 | 1.84 H | 338 | 62.07 | 8.33 |
| 2 | 5150.00 | 52.0 AV | 54.0 | -2.0 | 1.84 H | 338 | 43.67 | 8.33 |
| 3 | *5190.00 | 110.9 PK | | | 1.84 H | 338 | 102.40 | 8.50 |
| 4 | *5190.00 | 100.5 AV | | | 1.84 H | 338 | 92.00 | 8.50 |
| 5 | 5356.00 | 61.6 PK | 74.0 | -12.4 | 1.84 H | 338 | 52.78 | 8.82 |
| 6 | 5356.00 | 50.6 AV | 54.0 | -3.4 | 1.84 H | 338 | 41.78 | 8.82 |
| 7 | #10380.00 | 59.2 PK | 74.0 | -14.8 | 1.82 H | 132 | 44.65 | 14.55 |
| 8 | #10380.00 | 46.3 AV | 54.0 | -7.7 | 1.82 H | 132 | 31.75 | 14.55 |
| 9 | 15570.00 | 52.2 PK | 74.0 | -21.8 | 2.47 H | 78 | 33.41 | 18.79 |
| 10 | 15570.00 | 39.8 AV | 54.0 | -14.2 | 2.47 H | 78 | 21.01 | 18.79 |

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|-------------|-------------------------|----------------|-------------|--------------------|----------------------|------------------|--------------------------|
| 1 | 5150.00 | 71.3 PK | 74.0 | -2.7 | 1.80 V | 80 | 62.97 | 8.33 |
| 2 | 5150.00 | 53.0 AV | 54.0 | -1.0 | 1.80 V | 80 | 44.67 | 8.33 |
| 3 | *5190.00 | 111.6 PK | | | 1.80 V | 80 | 103.10 | 8.50 |
| 4 | *5190.00 | 101.1 AV | | | 1.80 V | 80 | 92.60 | 8.50 |
| 5 | 5356.00 | 62.5 PK | 74.0 | -11.5 | 1.80 V | 80 | 53.68 | 8.82 |
| 6 | 5356.00 | 51.4 AV | 54.0 | -2.6 | 1.80 V | 80 | 42.58 | 8.82 |
| 7 | #10380.00 | 63.4 PK | 74.0 | -10.6 | 1.76 V | 237 | 48.85 | 14.55 |
| 8 | #10380.00 | 49.3 AV | 54.0 | -4.7 | 1.76 V | 237 | 34.75 | 14.55 |
| 9 | 15570.00 | 57.4 PK | 74.0 | -16.6 | 1.62 V | 131 | 38.61 | 18.79 |
| 10 | 15570.00 | 44.6 AV | 54.0 | -9.4 | 1.62 V | 131 | 25.81 | 18.79 |

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| | | | |
|------------------------|---------------|--------------------------|--------------|
| CHANNEL | TX Channel 46 | DETECTOR FUNCTION | Peak (PK) |
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|-------------|-------------------------|----------------|-------------|--------------------|----------------------|------------------|--------------------------|
| 1 | 5150.00 | 64.7 PK | 74.0 | -9.3 | 1.74 H | 360 | 56.37 | 8.33 |
| 2 | 5150.00 | 53.1 AV | 54.0 | -0.9 | 1.74 H | 360 | 44.77 | 8.33 |
| 3 | *5230.00 | 113.4 PK | | | 1.74 H | 360 | 104.81 | 8.59 |
| 4 | *5230.00 | 102.9 AV | | | 1.74 H | 360 | 94.31 | 8.59 |
| 5 | 5376.00 | 62.8 PK | 74.0 | -11.2 | 1.74 H | 360 | 53.94 | 8.86 |
| 6 | 5376.00 | 51.7 AV | 54.0 | -2.3 | 1.74 H | 360 | 42.84 | 8.86 |
| 7 | #10460.00 | 62.0 PK | 74.0 | -12.0 | 1.73 H | 211 | 47.49 | 14.51 |
| 8 | #10460.00 | 49.0 AV | 54.0 | -5.0 | 1.73 H | 211 | 34.49 | 14.51 |
| 9 | 15690.00 | 54.9 PK | 74.0 | -19.1 | 1.67 H | 123 | 35.93 | 18.97 |
| 10 | 15690.00 | 42.2 AV | 54.0 | -11.8 | 1.67 H | 123 | 23.23 | 18.97 |

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|-------------|-------------------------|----------------|-------------|--------------------|----------------------|------------------|--------------------------|
| 1 | 5150.00 | 65.5 PK | 74.0 | -8.5 | 1.80 V | 77 | 57.17 | 8.33 |
| 2 | 5150.00 | 53.9 AV | 54.0 | -0.1 | 1.80 V | 77 | 45.57 | 8.33 |
| 3 | *5230.00 | 114.1 PK | | | 1.80 V | 77 | 105.51 | 8.59 |
| 4 | *5230.00 | 103.5 AV | | | 1.80 V | 77 | 94.91 | 8.59 |
| 5 | 5376.00 | 63.6 PK | 74.0 | -10.4 | 1.80 V | 77 | 54.74 | 8.86 |
| 6 | 5376.00 | 52.5 AV | 54.0 | -1.5 | 1.80 V | 77 | 43.64 | 8.86 |
| 7 | #10460.00 | 65.5 PK | 74.0 | -8.5 | 1.85 V | 85 | 50.99 | 14.51 |
| 8 | #10460.00 | 51.6 AV | 54.0 | -2.4 | 1.85 V | 85 | 37.09 | 14.51 |
| 9 | 15690.00 | 59.2 PK | 74.0 | -14.8 | 2.25 V | 126 | 40.23 | 18.97 |
| 10 | 15690.00 | 46.4 AV | 54.0 | -7.6 | 2.25 V | 126 | 27.43 | 18.97 |

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| | | | |
|------------------------|----------------|------------------------------|--------------|
| CHANNEL | TX Channel 151 | DETECTOR FUNCTION | Peak (PK) |
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | #5680.00 | 65.9 PK | 74.0 | -8.1 | 1.80 H | 342 | 56.32 | 9.58 |
| 2 | #5680.00 | 52.0 AV | 54.0 | -2.0 | 1.80 H | 342 | 42.42 | 9.58 |
| 3 | #5715.00 | 73.1 PK | 74.0 | -0.9 | 1.80 H | 342 | 63.42 | 9.68 |
| 4 | #5715.00 | 48.8 AV | 54.0 | -5.2 | 1.80 H | 342 | 39.12 | 9.68 |
| 5 | #5725.00 | 76.2 PK | 78.2 | -2.0 | 1.80 H | 342 | 66.50 | 9.70 |
| 6 | *5755.00 | 108.3 PK | | | 1.80 H | 342 | 98.53 | 9.77 |
| 7 | *5755.00 | 97.8 AV | | | 1.80 H | 342 | 88.03 | 9.77 |
| 8 | 11510.00 | 58.2 PK | 74.0 | -15.8 | 2.43 H | 214 | 43.35 | 14.85 |
| 9 | 11510.00 | 45.2 AV | 54.0 | -8.8 | 2.43 H | 214 | 30.35 | 14.85 |
| 10 | #17265.00 | 55.2 PK | 74.0 | -18.8 | 2.45 H | 67 | 31.97 | 23.23 |
| 11 | #17265.00 | 43.0 AV | 54.0 | -11.0 | 2.45 H | 67 | 19.77 | 23.23 |

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | #5680.00 | 66.6 PK | 74.0 | -7.4 | 1.66 V | 138 | 57.02 | 9.58 |
| 2 | #5680.00 | 52.8 AV | 54.0 | -1.2 | 1.66 V | 138 | 43.22 | 9.58 |
| 3 | #5715.00 | 73.9 PK | 74.0 | -0.1 | 1.66 V | 138 | 64.22 | 9.68 |
| 4 | #5715.00 | 49.6 AV | 54.0 | -4.4 | 1.66 V | 138 | 39.92 | 9.68 |
| 5 | #5725.00 | 77.0 PK | 78.2 | -1.2 | 1.66 V | 138 | 67.30 | 9.70 |
| 6 | *5755.00 | 109.0 PK | | | 1.66 V | 138 | 99.23 | 9.77 |
| 7 | *5755.00 | 98.4 AV | | | 1.66 V | 138 | 88.63 | 9.77 |
| 8 | 11510.00 | 61.7 PK | 74.0 | -12.3 | 1.52 V | 69 | 46.85 | 14.85 |
| 9 | 11510.00 | 47.8 AV | 54.0 | -6.2 | 1.52 V | 69 | 32.95 | 14.85 |
| 10 | #17265.00 | 56.1 PK | 74.0 | -17.9 | 2.06 V | 61 | 32.87 | 23.23 |
| 11 | #17265.00 | 44.1 AV | 54.0 | -9.9 | 2.06 V | 61 | 20.87 | 23.23 |

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| | | | |
|------------------------|----------------|------------------------------|--------------|
| CHANNEL | TX Channel 159 | DETECTOR FUNCTION | Peak (PK) |
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | #5715.00 | 65.9 PK | 74.0 | -8.1 | 1.74 H | 340 | 56.22 | 9.68 |
| 2 | #5715.00 | 52.6 AV | 54.0 | -1.4 | 1.74 H | 340 | 42.92 | 9.68 |
| 3 | *5795.00 | 110.1 PK | | | 1.74 H | 340 | 100.22 | 9.88 |
| 4 | *5795.00 | 98.8 AV | | | 1.74 H | 340 | 88.92 | 9.88 |
| 5 | #5850.00 | 68.4 PK | 78.2 | -9.8 | 1.74 H | 340 | 58.48 | 9.92 |
| 6 | #5860.00 | 66.8 PK | 74.0 | -7.2 | 1.74 H | 340 | 56.87 | 9.93 |
| 7 | #5860.00 | 52.9 AV | 54.0 | -1.1 | 1.74 H | 340 | 42.97 | 9.93 |
| 8 | 11590.00 | 64.1 PK | 74.0 | -9.9 | 2.52 H | 220 | 48.79 | 15.31 |
| 9 | 11590.00 | 48.7 AV | 54.0 | -5.3 | 2.52 H | 220 | 33.39 | 15.31 |
| 10 | #17385.00 | 54.9 PK | 74.0 | -19.1 | 2.39 H | 70 | 31.14 | 23.76 |
| 11 | #17385.00 | 43.1 AV | 54.0 | -10.9 | 2.39 H | 70 | 19.34 | 23.76 |

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | #5715.00 | 66.5 PK | 74.0 | -7.5 | 1.65 V | 251 | 56.82 | 9.68 |
| 2 | #5715.00 | 53.3 AV | 54.0 | -0.7 | 1.65 V | 251 | 43.62 | 9.68 |
| 3 | *5795.00 | 110.8 PK | | | 1.65 V | 251 | 100.92 | 9.88 |
| 4 | *5795.00 | 99.4 AV | | | 1.65 V | 251 | 89.52 | 9.88 |
| 5 | #5850.00 | 69.1 PK | 78.2 | -9.1 | 1.65 V | 251 | 59.18 | 9.92 |
| 6 | #5860.00 | 67.6 PK | 74.0 | -6.4 | 1.65 V | 251 | 57.67 | 9.93 |
| 7 | #5860.00 | 53.8 AV | 54.0 | -0.2 | 1.65 V | 251 | 43.87 | 9.93 |
| 8 | 11590.00 | 61.5 PK | 74.0 | -12.5 | 1.51 V | 71 | 46.19 | 15.31 |
| 9 | 11590.00 | 47.9 AV | 54.0 | -6.1 | 1.51 V | 71 | 32.59 | 15.31 |
| 10 | #17385.00 | 56.9 PK | 74.0 | -17.1 | 2.01 V | 36 | 33.14 | 23.76 |
| 11 | #17385.00 | 44.3 AV | 54.0 | -9.7 | 2.01 V | 36 | 20.54 | 23.76 |

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

802.11ac (VHT80)

| | | | |
|------------------------|---------------|--------------------------|--------------|
| CHANNEL | TX Channel 42 | DETECTOR FUNCTION | Peak (PK) |
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|-------------|-------------------------|----------------|-------------|--------------------|----------------------|------------------|--------------------------|
| 1 | 5150.00 | 69.3 PK | 74.0 | -4.7 | 1.82 H | 360 | 60.97 | 8.33 |
| 2 | 5150.00 | 52.8 AV | 54.0 | -1.2 | 1.82 H | 360 | 44.47 | 8.33 |
| 3 | *5210.00 | 106.9 PK | | | 1.82 H | 360 | 98.35 | 8.55 |
| 4 | *5210.00 | 95.2 AV | | | 1.82 H | 360 | 86.65 | 8.55 |
| 5 | 5350.00 | 61.2 PK | 74.0 | -12.8 | 1.82 H | 360 | 52.40 | 8.80 |
| 6 | 5350.00 | 48.6 AV | 54.0 | -5.4 | 1.82 H | 360 | 39.80 | 8.80 |
| 7 | #10420.00 | 65.2 PK | 74.0 | -8.8 | 2.49 H | 192 | 50.63 | 14.57 |
| 8 | #10420.00 | 49.8 AV | 54.0 | -4.2 | 2.49 H | 192 | 35.23 | 14.57 |
| 9 | 15630.00 | 53.5 PK | 74.0 | -20.5 | 2.45 H | 65 | 34.57 | 18.93 |
| 10 | 15630.00 | 40.9 AV | 54.0 | -13.1 | 2.45 H | 65 | 21.97 | 18.93 |

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|-------------|-------------------------|----------------|-------------|--------------------|----------------------|------------------|--------------------------|
| 1 | 5150.00 | 70.2 PK | 74.0 | -3.8 | 1.78 V | 81 | 61.87 | 8.33 |
| 2 | 5150.00 | 53.6 AV | 54.0 | -0.4 | 1.78 V | 81 | 45.27 | 8.33 |
| 3 | *5210.00 | 107.6 PK | | | 1.78 V | 81 | 99.05 | 8.55 |
| 4 | *5210.00 | 95.8 AV | | | 1.78 V | 81 | 87.25 | 8.55 |
| 5 | 5350.00 | 61.9 PK | 74.0 | -12.1 | 1.78 V | 81 | 53.10 | 8.80 |
| 6 | 5350.00 | 49.3 AV | 54.0 | -4.7 | 1.78 V | 81 | 40.50 | 8.80 |
| 7 | #10420.00 | 62.6 PK | 74.0 | -11.4 | 1.60 V | 56 | 48.03 | 14.57 |
| 8 | #10420.00 | 49.0 AV | 54.0 | -5.0 | 1.60 V | 56 | 34.43 | 14.57 |
| 9 | 15630.00 | 56.7 PK | 74.0 | -17.3 | 2.10 V | 59 | 37.77 | 18.93 |
| 10 | 15630.00 | 43.5 AV | 54.0 | -10.5 | 2.10 V | 59 | 24.57 | 18.93 |

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

| | | | |
|------------------------|----------------|------------------------------|--------------|
| CHANNEL | TX Channel 155 | DETECTOR FUNCTION | Peak (PK) |
| FREQUENCY RANGE | 1GHz ~ 40GHz | | Average (AV) |

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | #5715.00 | 67.8 PK | 74.0 | -6.2 | 1.72 H | 360 | 58.12 | 9.68 |
| 2 | #5715.00 | 52.6 AV | 54.0 | -1.4 | 1.72 H | 360 | 42.92 | 9.68 |
| 3 | #5725.00 | 70.1 PK | 78.2 | -8.1 | 1.72 H | 360 | 60.40 | 9.70 |
| 4 | *5775.00 | 105.8 PK | | | 1.72 H | 360 | 95.97 | 9.83 |
| 5 | *5775.00 | 93.8 AV | | | 1.72 H | 360 | 83.97 | 9.83 |
| 6 | #5850.00 | 69.0 PK | 78.2 | -9.2 | 1.72 H | 360 | 59.08 | 9.92 |
| 7 | #5860.00 | 67.1 PK | 74.0 | -6.9 | 1.72 H | 360 | 57.17 | 9.93 |
| 8 | #5860.00 | 50.0 AV | 54.0 | -4.0 | 1.72 H | 360 | 40.07 | 9.93 |
| 9 | 11550.00 | 63.4 PK | 74.0 | -10.6 | 2.47 H | 229 | 48.31 | 15.09 |
| 10 | 11550.00 | 47.9 AV | 54.0 | -6.1 | 2.47 H | 229 | 32.81 | 15.09 |
| 11 | #17325.00 | 54.6 PK | 74.0 | -19.4 | 2.39 H | 82 | 31.22 | 23.38 |
| 12 | #17325.00 | 42.9 AV | 54.0 | -11.1 | 2.39 H | 82 | 19.52 | 23.38 |

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | #5715.00 | 68.5 PK | 74.0 | -5.5 | 1.76 V | 252 | 58.82 | 9.68 |
| 2 | #5715.00 | 53.2 AV | 54.0 | -0.8 | 1.76 V | 252 | 43.52 | 9.68 |
| 3 | #5725.00 | 70.9 PK | 78.2 | -7.3 | 1.76 V | 252 | 61.20 | 9.70 |
| 4 | *5775.00 | 106.5 PK | | | 1.76 V | 252 | 96.67 | 9.83 |
| 5 | *5775.00 | 94.4 AV | | | 1.76 V | 252 | 84.57 | 9.83 |
| 6 | #5850.00 | 69.8 PK | 78.2 | -8.4 | 1.76 V | 252 | 59.88 | 9.92 |
| 7 | #5860.00 | 67.9 PK | 74.0 | -6.1 | 1.76 V | 252 | 57.97 | 9.93 |
| 8 | #5860.00 | 50.8 AV | 54.0 | -3.2 | 1.76 V | 252 | 40.87 | 9.93 |
| 9 | 11550.00 | 60.8 PK | 74.0 | -13.2 | 1.48 V | 87 | 45.71 | 15.09 |
| 10 | 11550.00 | 47.9 AV | 54.0 | -6.1 | 1.48 V | 87 | 32.81 | 15.09 |
| 11 | #17325.00 | 56.7 PK | 74.0 | -17.3 | 2.07 V | 55 | 33.32 | 23.38 |
| 12 | #17325.00 | 44.1 AV | 54.0 | -9.9 | 2.07 V | 55 | 20.72 | 23.38 |

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

Below 1GHz Data
STBC_MODE
802.11ac (VHT40)

| | | | |
|------------------------|---------------|------------------------------|-----------------|
| CHANNEL | TX Channel 46 | DETECTOR FUNCTION | Quasi-Peak (QP) |
| FREQUENCY RANGE | 30MHz ~ 1GHz | | |

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | 69.89 | 35.9 QP | 40.0 | -4.1 | 1.50 H | 175 | 45.63 | -9.76 |
| 2 | 90.29 | 37.7 QP | 43.5 | -5.8 | 2.00 H | 85 | 51.57 | -13.90 |
| 3 | 160.63 | 38.5 QP | 43.5 | -5.0 | 2.00 H | 286 | 46.20 | -7.67 |
| 4 | 437.50 | 41.2 QP | 46.0 | -4.8 | 1.50 H | 319 | 44.84 | -3.64 |
| 5 | 562.51 | 40.8 QP | 46.0 | -5.2 | 1.50 H | 262 | 42.09 | -1.28 |
| 6 | 875.02 | 40.6 QP | 46.0 | -5.4 | 1.50 H | 103 | 36.47 | 4.14 |

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

| NO. | FREQ. (MHz) | EMISSION LEVEL (dBuV/m) | LIMIT (dBuV/m) | MARGIN (dB) | ANTENNA HEIGHT (m) | TABLE ANGLE (Degree) | RAW VALUE (dBuV) | CORRECTION FACTOR (dB/m) |
|-----|----------------|-------------------------------|-------------------|----------------|--------------------------|----------------------------|------------------------|--------------------------------|
| 1 | 375.00 | 40.7 QP | 46.0 | -5.3 | 1.50 V | 108 | 46.17 | -5.45 |
| 2 | 437.50 | 42.5 QP | 46.0 | -3.5 | 1.00 V | 26 | 46.14 | -3.64 |
| 3 | 562.51 | 40.4 QP | 46.0 | -5.6 | 1.00 V | 299 | 41.66 | -1.28 |
| 4 | 600.00 | 40.6 QP | 46.0 | -5.4 | 1.00 V | 90 | 40.66 | -0.03 |
| 5 | 625.02 | 41.7 QP | 46.0 | -4.3 | 1.00 V | 63 | 41.49 | 0.25 |
| 6 | 875.02 | 41.4 QP | 46.0 | -4.6 | 1.00 V | 95 | 37.29 | 4.14 |

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value

4.2 Conducted Emission Measurement

4.2.1 Limits of Conducted Emission Measurement

| Frequency (MHz) | Conducted Limit (dBuV) | |
|-----------------|------------------------|---------|
| | Quasi-peak | Average |
| 0.15 - 0.5 | 66 - 56 | 56 - 46 |
| 0.50 - 5.0 | 56 | 46 |
| 5.0 - 30.0 | 60 | 50 |

Note: 1. The lower limit shall apply at the transition frequencies.

2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

4.2.2 Test Instruments

| DESCRIPTION & MANUFACTURER | MODEL NO. | SERIAL NO. | CALIBRATED DATE | CALIBRATED UNTIL |
|---|-------------------------|------------|-----------------|------------------|
| Test Receiver R&S | ESCS 30 | 100375 | May 06, 2015 | May 05, 2016 |
| Line-Impedance Stabilization Network (for EUT) SCHWARZBECK | NSLK-8127 | 8127-522 | Sep. 01, 2015 | Aug. 31, 2016 |
| Line-Impedance Stabilization Network (for Peripheral) R&S | ENV216 | 100072 | June 11, 2015 | June 10, 2016 |
| RF Cable | 5D-FB | COCCAB-001 | Mar. 09, 2015 | Mar. 08, 2016 |
| 50 ohms Terminator | N/A | EMC-03 | Sep. 23, 2015 | Sep. 22, 2016 |
| 50 ohms Terminator | N/A | EMC-02 | Oct. 01, 2015 | Sep. 30, 2016 |
| Software BVADT | BVADT_Cond_ V7.3.7.3 | NA | NA | NA |

Note:

1. The calibration interval of the above test instruments are 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in Shielded Room No. C.
3. The VCCI Con C Registration No. is C-3611.
4. Tested Date: Jan. 30, 2016

4.2.3 Test Procedure

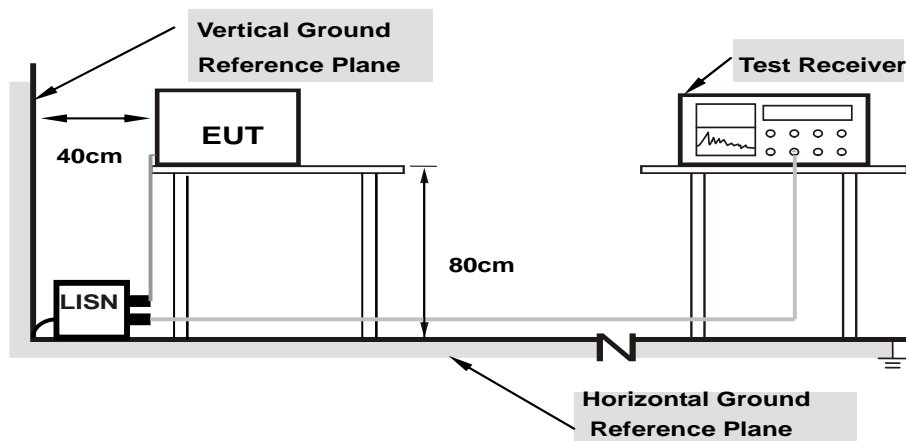
- a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

NOTE: All modes of operation were investigated and the worst-case emissions are reported.

4.2.4 Deviation from Test Standard

No deviation.

4.2.5 Test Setup



Note: 1.Support units were connected to second LISN.

For the actual test configuration, please refer to the attached file (Test Setup Photo).

4.2.6 EUT Operating Condition

Same as 4.1.6.

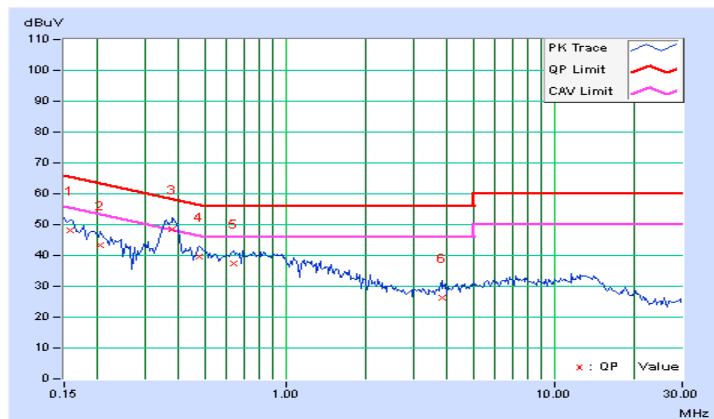
4.2.7 Test Results (Mode 3)

| Phase | Line (L) | Detector Function | Quasi-Peak (QP) / Average (AV) |
|-------|----------|-------------------|--------------------------------|
|-------|----------|-------------------|--------------------------------|

| No | Frequency (MHz) | Correction Factor (dB) | Reading Value (dBuV) | | Emission Level (dBuV) | | Limit (dBuV) | | Margin (dB) | |
|----|-----------------|------------------------|----------------------|-------|-----------------------|-------|--------------|-------|-------------|--------|
| | | | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. |
| 1 | 0.15781 | 10.37 | 37.67 | 25.10 | 48.04 | 35.47 | 65.58 | 55.58 | -17.53 | -20.10 |
| 2 | 0.20469 | 10.34 | 32.87 | 23.76 | 43.21 | 34.10 | 63.42 | 53.42 | -20.21 | -19.32 |
| 3 | 0.38047 | 10.37 | 38.29 | 33.71 | 48.66 | 44.08 | 58.27 | 48.27 | -9.61 | -4.19 |
| 4 | 0.47813 | 10.36 | 29.33 | 23.14 | 39.69 | 33.50 | 56.37 | 46.37 | -16.68 | -12.87 |
| 5 | 0.64219 | 10.35 | 27.09 | 21.53 | 37.44 | 31.88 | 56.00 | 46.00 | -18.56 | -14.12 |
| 6 | 3.83203 | 10.56 | 15.86 | 9.72 | 26.42 | 20.28 | 56.00 | 46.00 | -29.58 | -25.72 |

Remarks:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value

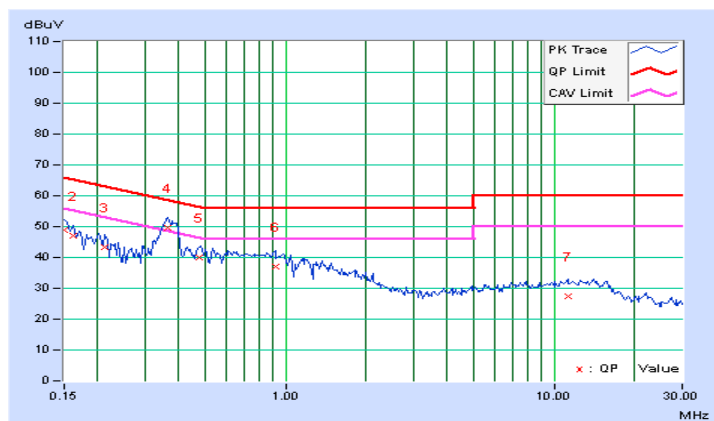


| | | | |
|-------|-------------|-------------------|--------------------------------|
| Phase | Neutral (N) | Detector Function | Quasi-Peak (QP) / Average (AV) |
|-------|-------------|-------------------|--------------------------------|

| No | Frequency (MHz) | Correction Factor (dB) | Reading Value (dBuV) | | Emission Level (dBuV) | | Limit (dBuV) | | Margin (dB) | |
|----|-----------------|------------------------|----------------------|-------|-----------------------|-------|--------------|-------|-------------|--------|
| | | | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. |
| 1 | 0.15000 | 10.38 | 38.54 | 25.39 | 48.92 | 35.77 | 66.00 | 56.00 | -17.08 | -20.23 |
| 2 | 0.16172 | 10.38 | 36.77 | 23.66 | 47.15 | 34.04 | 65.38 | 55.38 | -18.22 | -21.33 |
| 3 | 0.21250 | 10.39 | 32.97 | 25.35 | 43.36 | 35.74 | 63.11 | 53.11 | -19.75 | -17.37 |
| 4 | 0.36484 | 10.41 | 39.19 | 33.44 | 49.60 | 43.85 | 58.62 | 48.62 | -9.01 | -4.76 |
| 5 | 0.47422 | 10.41 | 29.61 | 23.56 | 40.02 | 33.97 | 56.44 | 46.44 | -16.42 | -12.47 |
| 6 | 0.91953 | 10.38 | 26.77 | 21.65 | 37.15 | 32.03 | 56.00 | 46.00 | -18.85 | -13.97 |
| 7 | 11.24609 | 11.00 | 16.30 | 12.07 | 27.30 | 23.07 | 60.00 | 50.00 | -32.70 | -26.93 |

Remarks:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value



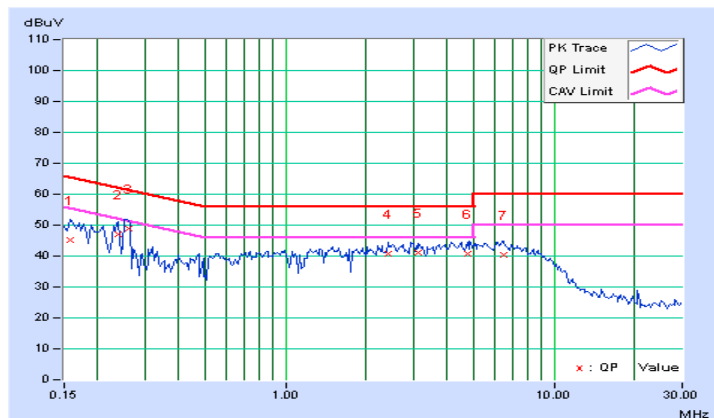
4.2.8 Test Results (Mode 4)

| Phase | Line (L) | Detector Function | Quasi-Peak (QP) / Average (AV) |
|-------|----------|-------------------|--------------------------------|
|-------|----------|-------------------|--------------------------------|

| No | Frequency (MHz) | Correction Factor (dB) | Reading Value (dBuV) | | Emission Level (dBuV) | | Limit (dBuV) | | Margin (dB) | |
|----|-----------------|------------------------|----------------------|-------|-----------------------|-------|--------------|-------|-------------|--------|
| | | | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. |
| 1 | 0.15781 | 10.37 | 34.83 | 27.80 | 45.20 | 38.17 | 65.58 | 55.58 | -20.37 | -17.40 |
| 2 | 0.23984 | 10.35 | 36.55 | 30.13 | 46.90 | 40.48 | 62.10 | 52.10 | -15.21 | -11.63 |
| 3 | 0.25938 | 10.35 | 38.64 | 36.23 | 48.99 | 46.58 | 61.45 | 51.45 | -12.46 | -4.87 |
| 4 | 2.39844 | 10.43 | 30.16 | 24.70 | 40.59 | 35.13 | 56.00 | 46.00 | -15.41 | -10.87 |
| 5 | 3.10938 | 10.50 | 30.63 | 24.58 | 41.13 | 35.08 | 56.00 | 46.00 | -14.87 | -10.92 |
| 6 | 4.74219 | 10.62 | 30.18 | 24.68 | 40.80 | 35.30 | 56.00 | 46.00 | -15.20 | -10.70 |
| 7 | 6.46484 | 10.71 | 29.58 | 24.85 | 40.29 | 35.56 | 60.00 | 50.00 | -19.71 | -14.44 |

Remarks:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value

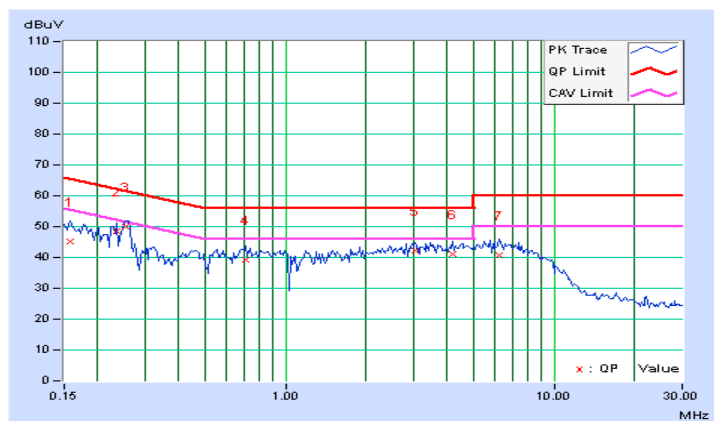


| | | | |
|-------|-------------|-------------------|--------------------------------|
| Phase | Neutral (N) | Detector Function | Quasi-Peak (QP) / Average (AV) |
|-------|-------------|-------------------|--------------------------------|

| No | Frequency (MHz) | Correction Factor (dB) | Reading Value (dBuV) | | Emission Level (dBuV) | | Limit (dBuV) | | Margin (dB) | |
|----------|-----------------|------------------------|----------------------|--------------|-----------------------|--------------|--------------|--------------|---------------|--------------|
| | | | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. | Q.P. | AV. |
| 1 | 0.15781 | 10.38 | 34.73 | 24.98 | 45.11 | 35.36 | 65.58 | 55.58 | -20.47 | -20.22 |
| 2 | 0.23594 | 10.40 | 38.15 | 35.26 | 48.55 | 45.66 | 62.24 | 52.24 | -13.69 | -6.58 |
| 3 | 0.25547 | 10.40 | 39.63 | 39.26 | 50.03 | 49.66 | 61.58 | 51.58 | -11.55 | -1.92 |
| 4 | 0.70859 | 10.39 | 28.77 | 24.36 | 39.16 | 34.75 | 56.00 | 46.00 | -16.84 | -11.25 |
| 5 | 3.04297 | 10.57 | 31.47 | 24.88 | 42.04 | 35.45 | 56.00 | 46.00 | -13.96 | -10.55 |
| 6 | 4.21094 | 10.69 | 30.39 | 24.59 | 41.08 | 35.28 | 56.00 | 46.00 | -14.92 | -10.72 |
| 7 | 6.24609 | 10.77 | 30.07 | 24.89 | 40.84 | 35.66 | 60.00 | 50.00 | -19.16 | -14.34 |

Remarks:

1. Q.P. and AV. are abbreviations of quasi-peak and average individually.
2. The emission levels of other frequencies were very low against the limit.
3. Margin value = Emission level – Limit value
4. Correction factor = Insertion loss + Cable loss
5. Emission Level = Correction Factor + Reading Value



4.3 Transmit Power Measurement

4.3.1 Limits of Transmit Power Measurement

| Operation Band | EUT Category | | LIMIT |
|----------------|--------------|-----------------------------------|---|
| U-NII-1 | | Outdoor Access Point | 1 Watt (30 dBm) (Max. e.i.r.p \leq 125mW(21 dBm) at any elevation angle above 30 degrees as measured from the horizon) |
| | | Fixed point-to-point Access Point | 1 Watt (30 dBm) |
| | √ | Indoor Access Point | 1 Watt (30 dBm) |
| | | Mobile and Portable client device | 250mW (24 dBm) |
| U-NII-2A | | | 250mW (24 dBm) or 11 dBm+10 log B* |
| U-NII-2C | | | 250mW (24 dBm) or 11 dBm+10 log B* |
| U-NII-3 | √ | | 1 Watt (30 dBm) |

*B is the 26 dB emission bandwidth in megahertz

Per KDB 662911 D01 Multiple Transmitter Output v02r01 Method of conducted output power measurement on IEEE 802.11 devices,

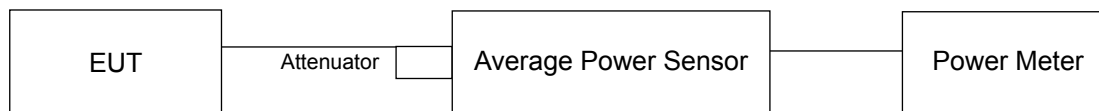
Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;

Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT} ;

Array Gain = $5 \log(N_{ANT}/N_{SS})$ dB or 3 dB, whichever is less for 20-MHz channel widths with $N_{ANT} \geq 5$.

For power measurements on all other devices: Array Gain = $10 \log(N_{ANT}/N_{SS})$ dB.

4.3.2 Test Setup



4.3.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.3.4 Test Procedures

Method PM is used to perform output power measurement, trigger and gating function of wide band power meter is enabled to measure max output power of TX on burst. Duty factor is not added to measured value.

4.3.5 Deviation from Test Standard

No deviation.

4.3.6 EUT Operating Conditions

The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

4.3.7 Test Results (Mode 1)

1Tx

802.11a

| Chan. | Chan. Freq. (MHz) | Average Power (mW) | Average Power (dBm) | Limit (dBm) | Pass / Fail |
|-------|----------------------|--------------------------|---------------------------|-------------|-------------|
| 36 | 5180 | 68.707 | 18.37 | 30 | Pass |
| 40 | 5200 | 44.259 | 16.46 | 30 | Pass |
| 48 | 5240 | 93.541 | 19.71 | 30 | Pass |
| 149 | 5745 | 50.234 | 17.01 | 30 | Pass |
| 157 | 5785 | 59.566 | 17.75 | 30 | Pass |
| 165 | 5825 | 74.473 | 18.72 | 30 | Pass |

4.3.8 Test Results (Mode 2)

2Tx

SDM Mode:

802.11ac (VHT20)

| Chan. | Chan. Freq. (MHz) | Average Power (dBm) | | Total Power (mW) | Total Power (dBm) | Limit (dBm) | Pass / Fail |
|-------|-------------------|---------------------|---------|------------------|-------------------|-------------|-------------|
| | | Chain 0 | Chain 1 | | | | |
| 36 | 5180 | 19.17 | 20.51 | 195.064 | 22.90 | 30 | Pass |
| 40 | 5200 | 18.82 | 19.92 | 174.383 | 22.42 | 30 | Pass |
| 48 | 5240 | 20.62 | 21.67 | 262.238 | 24.19 | 30 | Pass |
| 149 | 5745 | 17.96 | 19.22 | 146.077 | 21.65 | 30 | Pass |
| 157 | 5785 | 20.01 | 21.31 | 235.438 | 23.72 | 30 | Pass |
| 165 | 5825 | 20.02 | 21.30 | 235.358 | 23.72 | 30 | Pass |

802.11ac (VHT40)

| Chan. | Chan. Freq. (MHz) | Average Power (dBm) | | Total Power (mW) | Total Power (dBm) | Limit (dBm) | Pass / Fail |
|-------|-------------------|---------------------|---------|------------------|-------------------|-------------|-------------|
| | | Chain 0 | Chain 1 | | | | |
| 38 | 5190 | 18.72 | 19.83 | 170.634 | 22.32 | 30 | Pass |
| 46 | 5230 | 20.81 | 21.95 | 277.179 | 24.43 | 30 | Pass |
| 151 | 5755 | 16.69 | 18.36 | 115.215 | 20.62 | 30 | Pass |
| 159 | 5795 | 18.58 | 20.35 | 180.504 | 22.56 | 30 | Pass |

802.11ac (VHT80)

| Chan. | Chan. Freq. (MHz) | Average Power (dBm) | | Total Power (mW) | Total Power (dBm) | Limit (dBm) | Pass / Fail |
|-------|-------------------|---------------------|---------|------------------|-------------------|-------------|-------------|
| | | Chain 0 | Chain 1 | | | | |
| 42 | 5210 | 18.52 | 19.61 | 162.532 | 22.11 | 30 | Pass |
| 155 | 5775 | 16.93 | 18.62 | 122.095 | 20.87 | 30 | Pass |

CDD Mode:
802.11ac (VHT20)

| Chan. | Chan. Freq. (MHz) | Average Power (dBm) | | Total Power (mW) | Total Power (dBm) | Limit (dBm) | Pass / Fail |
|-------|-------------------|---------------------|---------|------------------|-------------------|-------------|-------------|
| | | Chain 0 | Chain 1 | | | | |
| 36 | 5180 | 19.17 | 20.51 | 195.064 | 22.90 | 30 | Pass |
| 40 | 5200 | 19.33 | 20.48 | 197.39 | 22.95 | 30 | Pass |
| 48 | 5240 | 19.56 | 20.52 | 203.085 | 23.08 | 30 | Pass |
| 149 | 5745 | 17.96 | 19.22 | 146.077 | 21.65 | 30 | Pass |
| 157 | 5785 | 17.72 | 19.26 | 143.489 | 21.57 | 30 | Pass |
| 165 | 5825 | 18.61 | 20.24 | 178.293 | 22.51 | 30 | Pass |

802.11ac (VHT40)

| Chan. | Chan. Freq. (MHz) | Average Power (dBm) | | Total Power (mW) | Total Power (dBm) | Limit (dBm) | Pass / Fail |
|-------|-------------------|---------------------|---------|------------------|-------------------|-------------|-------------|
| | | Chain 0 | Chain 1 | | | | |
| 38 | 5190 | 18.72 | 19.83 | 170.634 | 22.32 | 30 | Pass |
| 46 | 5230 | 20.81 | 21.95 | 277.179 | 24.43 | 30 | Pass |
| 151 | 5755 | 16.69 | 18.36 | 115.215 | 20.62 | 30 | Pass |
| 159 | 5795 | 16.48 | 18.41 | 113.806 | 20.56 | 30 | Pass |

802.11ac (VHT80)

| Chan. | Chan. Freq. (MHz) | Average Power (dBm) | | Total Power (mW) | Total Power (dBm) | Limit (dBm) | Pass / Fail |
|-------|-------------------|---------------------|---------|------------------|-------------------|-------------|-------------|
| | | Chain 0 | Chain 1 | | | | |
| 42 | 5210 | 17.52 | 18.61 | 129.105 | 21.11 | 30 | Pass |
| 155 | 5775 | 15.33 | 17.36 | 88.569 | 19.47 | 30 | Pass |

STBC Mode:
802.11ac (VHT20)

| Chan. | Chan. Freq. (MHz) | Average Power (dBm) | | Total Power (mW) | Total Power (dBm) | Limit (dBm) | Pass / Fail |
|-------|-------------------|---------------------|---------|------------------|-------------------|-------------|-------------|
| | | Chain 0 | Chain 1 | | | | |
| 36 | 5180 | 19.17 | 20.51 | 195.064 | 22.90 | 30 | Pass |
| 40 | 5200 | 18.82 | 19.92 | 174.383 | 22.42 | 30 | Pass |
| 48 | 5240 | 20.62 | 21.67 | 262.238 | 24.19 | 30 | Pass |
| 149 | 5745 | 17.96 | 19.22 | 146.077 | 21.65 | 30 | Pass |
| 157 | 5785 | 20.01 | 21.31 | 235.438 | 23.72 | 30 | Pass |
| 165 | 5825 | 20.02 | 21.30 | 235.358 | 23.72 | 30 | Pass |

802.11ac (VHT40)

| Chan. | Chan. Freq. (MHz) | Average Power (dBm) | | Total Power (mW) | Total Power (dBm) | Limit (dBm) | Pass / Fail |
|-------|-------------------|---------------------|---------|------------------|-------------------|-------------|-------------|
| | | Chain 0 | Chain 1 | | | | |
| 38 | 5190 | 18.72 | 19.83 | 170.634 | 22.32 | 30 | Pass |
| 46 | 5230 | 20.81 | 21.95 | 277.179 | 24.43 | 30 | Pass |
| 151 | 5755 | 16.69 | 18.36 | 115.215 | 20.62 | 30 | Pass |
| 159 | 5795 | 18.58 | 20.35 | 180.504 | 22.56 | 30 | Pass |

802.11ac (VHT80)

| Chan. | Chan. Freq. (MHz) | Average Power (dBm) | | Total Power (mW) | Total Power (dBm) | Limit (dBm) | Pass / Fail |
|-------|-------------------|---------------------|---------|------------------|-------------------|-------------|-------------|
| | | Chain 0 | Chain 1 | | | | |
| 42 | 5210 | 18.52 | 19.61 | 162.532 | 22.11 | 30 | Pass |
| 155 | 5775 | 16.93 | 18.62 | 122.095 | 20.87 | 30 | Pass |

Beamforming Mode (NSS1):

802.11ac (VHT20)

| Chan. | Chan. Freq. (MHz) | Average Power (dBm) | | Total Power (mW) | Total Power (dBm) | Limit (dBm) | Pass / Fail |
|-------|-------------------|---------------------|---------|------------------|-------------------|-------------|-------------|
| | | Chain 0 | Chain 1 | | | | |
| 36 | 5180 | 19.17 | 20.51 | 195.064 | 22.90 | 28.52 | Pass |
| 40 | 5200 | 19.33 | 20.48 | 197.39 | 22.95 | 28.52 | Pass |
| 48 | 5240 | 19.56 | 20.52 | 203.085 | 23.08 | 28.52 | Pass |
| 149 | 5745 | 17.96 | 19.22 | 146.077 | 21.65 | 28.07 | Pass |
| 157 | 5785 | 17.72 | 19.26 | 143.489 | 21.57 | 28.07 | Pass |
| 165 | 5825 | 18.61 | 20.24 | 178.293 | 22.51 | 28.07 | Pass |

- Note:**
1. For 5180~5240MHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2] = 7.48\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $30-(7.48-6) = 28.52\text{dBm}$.
 2. For 5745~5825MHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2] = 7.93\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $30-(7.93-6) = 28.07\text{dBm}$.

802.11ac (VHT40)

| Chan. | Chan. Freq. (MHz) | Average Power (dBm) | | Total Power (mW) | Total Power (dBm) | Limit (dBm) | Pass / Fail |
|-------|-------------------|---------------------|---------|------------------|-------------------|-------------|-------------|
| | | Chain 0 | Chain 1 | | | | |
| 38 | 5190 | 18.72 | 19.83 | 170.634 | 22.32 | 28.52 | Pass |
| 46 | 5230 | 20.81 | 21.95 | 277.179 | 24.43 | 28.52 | Pass |
| 151 | 5755 | 16.69 | 18.36 | 115.215 | 20.62 | 28.07 | Pass |
| 159 | 5795 | 16.48 | 18.41 | 113.806 | 20.56 | 28.07 | Pass |

- Note:**
1. For 5190~5230MHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2] = 7.48\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $30-(7.48-6) = 28.52\text{dBm}$.
 2. For 5755~5795MHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2] = 7.93\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $30-(7.93-6) = 28.07\text{dBm}$.

802.11ac (VHT80)

| Chan. | Chan. Freq. (MHz) | Average Power (dBm) | | Total Power (mW) | Total Power (dBm) | Limit (dBm) | Pass / Fail |
|-------|-------------------|---------------------|---------|------------------|-------------------|-------------|-------------|
| | | Chain 0 | Chain 1 | | | | |
| 42 | 5210 | 17.52 | 18.61 | 129.105 | 21.11 | 28.52 | Pass |
| 155 | 5775 | 15.33 | 17.36 | 88.569 | 19.47 | 28.07 | Pass |

- Note:**
1. For 5210MHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2] = 7.48\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $30-(7.48-6) = 28.52\text{dBm}$.
 2. For 5775MHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2] = 7.93\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $30-(7.93-6) = 28.07\text{dBm}$.

Beamforming Mode (NSS2):
802.11ac (VHT20)

| Chan. | Chan. Freq. (MHz) | Average Power (dBm) | | Total Power (mW) | Total Power (dBm) | Limit (dBm) | Pass / Fail |
|-------|-------------------|---------------------|---------|------------------|-------------------|-------------|-------------|
| | | Chain 0 | Chain 1 | | | | |
| 36 | 5180 | 19.17 | 20.51 | 195.064 | 22.90 | 28.52 | Pass |
| 40 | 5200 | 19.33 | 20.48 | 197.39 | 22.95 | 28.52 | Pass |
| 48 | 5240 | 19.56 | 20.52 | 203.085 | 23.08 | 28.52 | Pass |
| 149 | 5745 | 17.96 | 19.22 | 146.077 | 21.65 | 28.07 | Pass |
| 157 | 5785 | 17.72 | 19.26 | 143.489 | 21.57 | 28.07 | Pass |
| 165 | 5825 | 18.61 | 20.24 | 178.293 | 22.51 | 28.07 | Pass |

- Note:**
1. For 5180~5240MHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2] = 7.48\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $30-(7.48-6) = 28.52\text{dBm}$.
 2. For 5745~5825MHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2] = 7.93\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $30-(7.93-6) = 28.07\text{dBm}$.

802.11ac (VHT40)

| Chan. | Chan. Freq. (MHz) | Average Power (dBm) | | Total Power (mW) | Total Power (dBm) | Limit (dBm) | Pass / Fail |
|-------|-------------------|---------------------|---------|------------------|-------------------|-------------|-------------|
| | | Chain 0 | Chain 1 | | | | |
| 38 | 5190 | 18.72 | 19.83 | 170.634 | 22.32 | 28.52 | Pass |
| 46 | 5230 | 20.81 | 21.95 | 277.179 | 24.43 | 28.52 | Pass |
| 151 | 5755 | 16.69 | 18.36 | 115.215 | 20.62 | 28.07 | Pass |
| 159 | 5795 | 16.48 | 18.41 | 113.806 | 20.56 | 28.07 | Pass |

- Note:**
1. For 5190~5230MHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2] = 7.48\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $30-(7.48-6) = 28.52\text{dBm}$.
 2. For 5755~5795MHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2] = 7.93\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $30-(7.93-6) = 28.07\text{dBm}$.

802.11ac (VHT80)

| Chan. | Chan. Freq. (MHz) | Average Power (dBm) | | Total Power (mW) | Total Power (dBm) | Limit (dBm) | Pass / Fail |
|-------|-------------------|---------------------|---------|------------------|-------------------|-------------|-------------|
| | | Chain 0 | Chain 1 | | | | |
| 42 | 5210 | 17.52 | 18.61 | 129.105 | 21.11 | 28.52 | Pass |
| 155 | 5775 | 15.33 | 17.36 | 88.569 | 19.47 | 28.07 | Pass |

- Note:**
1. For 5210MHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2] = 7.48\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $30-(7.48-6) = 28.52\text{dBm}$.
 2. For 5775MHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20})^2 / 2] = 7.93\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $30-(7.93-6) = 28.07\text{dBm}$.

4.3.9 Test Results (Mode 3)

3Tx

SDM Mode:

802.11ac (VHT20)

| Chan. | Chan. Freq. (MHz) | Average Power (dBm) | | | Total Power (mW) | Total Power (dBm) | Limit (dBm) | Pass / Fail |
|-------|-------------------|---------------------|---------|---------|------------------|-------------------|-------------|-------------|
| | | Chain 0 | Chain 1 | Chain 2 | | | | |
| 36 | 5180 | 19.17 | 20.51 | 19.17 | 277.668 | 24.44 | 30 | Pass |
| 40 | 5200 | 18.82 | 19.92 | 18.79 | 250.066 | 23.98 | 30 | Pass |
| 48 | 5240 | 20.32 | 21.37 | 20.80 | 364.961 | 25.62 | 30 | Pass |
| 149 | 5745 | 17.96 | 19.22 | 19.46 | 234.385 | 23.70 | 30 | Pass |
| 157 | 5785 | 20.01 | 21.31 | 20.86 | 357.337 | 25.53 | 30 | Pass |
| 165 | 5825 | 20.02 | 21.30 | 20.21 | 340.312 | 25.32 | 30 | Pass |

802.11ac (VHT40)

| Chan. | Chan. Freq. (MHz) | Average Power (dBm) | | | Total Power (mW) | Total Power (dBm) | Limit (dBm) | Pass / Fail |
|-------|-------------------|---------------------|---------|---------|------------------|-------------------|-------------|-------------|
| | | Chain 0 | Chain 1 | Chain 2 | | | | |
| 38 | 5190 | 18.72 | 19.83 | 18.41 | 239.977 | 23.80 | 30 | Pass |
| 46 | 5230 | 20.41 | 21.55 | 20.73 | 371.094 | 25.69 | 30 | Pass |
| 151 | 5755 | 16.69 | 18.36 | 18.36 | 183.764 | 22.64 | 30 | Pass |
| 159 | 5795 | 18.58 | 20.35 | 19.91 | 278.453 | 24.45 | 30 | Pass |

802.11ac (VHT80)

| Chan. | Chan. Freq. (MHz) | Average Power (dBm) | | | Total Power (mW) | Total Power (dBm) | Limit (dBm) | Pass / Fail |
|-------|-------------------|---------------------|---------|---------|------------------|-------------------|-------------|-------------|
| | | Chain 0 | Chain 1 | Chain 2 | | | | |
| 42 | 5210 | 18.52 | 19.61 | 18.46 | 232.678 | 23.67 | 30 | Pass |
| 155 | 5775 | 16.93 | 18.62 | 18.51 | 193.053 | 22.86 | 30 | Pass |

CDD Mode:
802.11ac (VHT20)

| Chan. | Chan. Freq. (MHz) | Average Power (dBm) | | | Total Power (mW) | Total Power (dBm) | Limit (dBm) | Pass / Fail |
|-------|-------------------|---------------------|---------|---------|------------------|-------------------|-------------|-------------|
| | | Chain 0 | Chain 1 | Chain 2 | | | | |
| 36 | 5180 | 18.21 | 19.59 | 18.12 | 222.076 | 23.47 | 30 | Pass |
| 40 | 5200 | 16.22 | 17.77 | 16.23 | 143.696 | 21.57 | 30 | Pass |
| 48 | 5240 | 19.56 | 20.51 | 19.82 | 298.765 | 24.75 | 30 | Pass |
| 149 | 5745 | 16.81 | 18.21 | 18.57 | 186.14 | 22.70 | 30 | Pass |
| 157 | 5785 | 17.72 | 19.26 | 19.01 | 223.105 | 23.49 | 30 | Pass |
| 165 | 5825 | 18.61 | 20.24 | 19.26 | 262.626 | 24.19 | 30 | Pass |

802.11ac (VHT40)

| Chan. | Chan. Freq. (MHz) | Average Power (dBm) | | | Total Power (mW) | Total Power (dBm) | Limit (dBm) | Pass / Fail |
|-------|-------------------|---------------------|---------|---------|------------------|-------------------|-------------|-------------|
| | | Chain 0 | Chain 1 | Chain 2 | | | | |
| 38 | 5190 | 18.72 | 19.83 | 18.41 | 239.977 | 23.80 | 30 | Pass |
| 46 | 5230 | 20.41 | 21.55 | 20.73 | 371.094 | 25.69 | 30 | Pass |
| 151 | 5755 | 16.69 | 18.36 | 18.36 | 183.764 | 22.64 | 30 | Pass |
| 159 | 5795 | 16.48 | 18.41 | 18.01 | 177.047 | 22.48 | 30 | Pass |

802.11ac (VHT80)

| Chan. | Chan. Freq. (MHz) | Average Power (dBm) | | | Total Power (mW) | Total Power (dBm) | Limit (dBm) | Pass / Fail |
|-------|-------------------|---------------------|---------|---------|------------------|-------------------|-------------|-------------|
| | | Chain 0 | Chain 1 | Chain 2 | | | | |
| 42 | 5210 | 17.52 | 18.61 | 17.62 | 186.915 | 22.72 | 30 | Pass |
| 155 | 5775 | 15.33 | 17.36 | 17.23 | 141.414 | 21.50 | 30 | Pass |

STBC Mode:
802.11ac (VHT20)

| Chan. | Chan. Freq. (MHz) | Average Power (dBm) | | | Total Power (mW) | Total Power (dBm) | Limit (dBm) | Pass / Fail |
|-------|-------------------|---------------------|---------|---------|------------------|-------------------|-------------|-------------|
| | | Chain 0 | Chain 1 | Chain 2 | | | | |
| 36 | 5180 | 19.17 | 20.51 | 19.17 | 277.668 | 24.44 | 30 | Pass |
| 40 | 5200 | 18.82 | 19.92 | 18.79 | 250.066 | 23.98 | 30 | Pass |
| 48 | 5240 | 20.32 | 21.37 | 20.80 | 364.961 | 25.62 | 30 | Pass |
| 149 | 5745 | 17.96 | 19.22 | 19.46 | 234.385 | 23.70 | 30 | Pass |
| 157 | 5785 | 20.01 | 21.31 | 20.86 | 357.337 | 25.53 | 30 | Pass |
| 165 | 5825 | 20.02 | 21.30 | 20.21 | 340.312 | 25.32 | 30 | Pass |

802.11ac (VHT40)

| Chan. | Chan. Freq. (MHz) | Average Power (dBm) | | | Total Power (mW) | Total Power (dBm) | Limit (dBm) | Pass / Fail |
|-------|-------------------|---------------------|---------|---------|------------------|-------------------|-------------|-------------|
| | | Chain 0 | Chain 1 | Chain 2 | | | | |
| 38 | 5190 | 18.72 | 19.83 | 18.41 | 239.977 | 23.80 | 30 | Pass |
| 46 | 5230 | 20.41 | 21.55 | 20.73 | 371.094 | 25.69 | 30 | Pass |
| 151 | 5755 | 16.69 | 18.36 | 18.36 | 183.764 | 22.64 | 30 | Pass |
| 159 | 5795 | 18.58 | 20.35 | 19.91 | 278.453 | 24.45 | 30 | Pass |

802.11ac (VHT80)

| Chan. | Chan. Freq. (MHz) | Average Power (dBm) | | | Total Power (mW) | Total Power (dBm) | Limit (dBm) | Pass / Fail |
|-------|-------------------|---------------------|---------|---------|------------------|-------------------|-------------|-------------|
| | | Chain 0 | Chain 1 | Chain 2 | | | | |
| 42 | 5210 | 18.52 | 19.61 | 18.46 | 232.678 | 23.67 | 30 | Pass |
| 155 | 5775 | 16.93 | 18.62 | 18.51 | 193.053 | 22.86 | 30 | Pass |

Beamforming Mode (NSS1):
802.11ac (VHT20)

| Chan. | Chan. Freq. (MHz) | Average Power (dBm) | | | Total Power (mW) | Total Power (dBm) | Limit (dBm) | Pass / Fail |
|-------|-------------------|---------------------|---------|---------|------------------|-------------------|-------------|-------------|
| | | Chain 0 | Chain 1 | Chain 2 | | | | |
| 36 | 5180 | 18.21 | 19.59 | 18.12 | 222.076 | 23.47 | 26.71 | Pass |
| 40 | 5200 | 16.22 | 17.77 | 16.23 | 143.696 | 21.57 | 26.71 | Pass |
| 48 | 5240 | 19.56 | 20.51 | 19.82 | 298.765 | 24.75 | 26.71 | Pass |
| 149 | 5745 | 16.81 | 18.21 | 18.57 | 186.14 | 22.70 | 26.54 | Pass |
| 157 | 5785 | 17.72 | 19.26 | 19.01 | 223.105 | 23.49 | 26.54 | Pass |
| 165 | 5825 | 18.61 | 20.24 | 19.26 | 262.626 | 24.19 | 26.54 | Pass |

- Note:**
1. For 5180~5240MHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + 10^{G3/20})^2 / 3] = 9.29\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $30-(9.29-6) = 26.71\text{dBm}$.
 2. For 5745~5825MHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + 10^{G3/20})^2 / 3] = 9.46\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $30-(9.46-6) = 26.54\text{dBm}$.

802.11ac (VHT40)

| Chan. | Chan. Freq. (MHz) | Average Power (dBm) | | | Total Power (mW) | Total Power (dBm) | Limit (dBm) | Pass / Fail |
|-------|-------------------|---------------------|---------|---------|------------------|-------------------|-------------|-------------|
| | | Chain 0 | Chain 1 | Chain 2 | | | | |
| 38 | 5190 | 18.72 | 19.83 | 18.41 | 239.977 | 23.80 | 26.71 | Pass |
| 46 | 5230 | 20.41 | 21.55 | 20.73 | 371.094 | 25.69 | 26.71 | Pass |
| 151 | 5755 | 16.69 | 18.36 | 18.36 | 183.764 | 22.64 | 26.54 | Pass |
| 159 | 5795 | 16.48 | 18.41 | 18.01 | 177.047 | 22.48 | 26.54 | Pass |

- Note:**
1. For 5190~5230MHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + 10^{G3/20})^2 / 3] = 9.29\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $30-(9.29-6) = 26.71\text{dBm}$.
 2. For 5755~5795MHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + 10^{G3/20})^2 / 3] = 9.46\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $30-(9.46-6) = 26.54\text{dBm}$.

802.11ac (VHT80)

| Chan. | Chan. Freq. (MHz) | Average Power (dBm) | | | Total Power (mW) | Total Power (dBm) | Limit (dBm) | Pass / Fail |
|-------|-------------------|---------------------|---------|---------|------------------|-------------------|-------------|-------------|
| | | Chain 0 | Chain 1 | Chain 2 | | | | |
| 42 | 5210 | 17.52 | 18.61 | 17.62 | 186.915 | 22.72 | 26.71 | Pass |
| 155 | 5775 | 15.33 | 17.36 | 17.23 | 141.414 | 21.50 | 26.54 | Pass |

- Note:**
1. For 5210MHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + 10^{G3/20})^2 / 3] = 9.29\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $30-(9.29-6) = 26.71\text{dBm}$.
 2. For 5775MHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + 10^{G3/20})^2 / 3] = 9.46\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $30-(9.46-6) = 26.54\text{dBm}$.

Beamforming Mode (NSS2):
802.11ac (VHT20)

| Chan. | Chan. Freq. (MHz) | Average Power (dBm) | | | Total Power (mW) | Total Power (dBm) | Limit (dBm) | Pass / Fail |
|-------|-------------------|---------------------|---------|---------|------------------|-------------------|-------------|-------------|
| | | Chain 0 | Chain 1 | Chain 2 | | | | |
| 36 | 5180 | 18.21 | 19.59 | 18.12 | 222.076 | 23.47 | 28.94 | Pass |
| 40 | 5200 | 16.22 | 17.77 | 16.23 | 143.696 | 21.57 | 28.94 | Pass |
| 48 | 5240 | 19.56 | 20.51 | 19.82 | 298.765 | 24.75 | 28.94 | Pass |
| 149 | 5745 | 16.81 | 18.21 | 18.57 | 186.14 | 22.70 | 28.53 | Pass |
| 157 | 5785 | 17.72 | 19.26 | 19.01 | 223.105 | 23.49 | 28.53 | Pass |
| 165 | 5825 | 18.61 | 20.24 | 19.26 | 262.626 | 24.19 | 28.53 | Pass |

- Note:**
1. For 5180~5240MHz: Directional gain = maximum gain of antennas + $10 \log(3/2) = 7.06\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $30-(7.06-6) = 28.94\text{dBm}$.
 2. For 5745~5825MHz: Directional gain = maximum gain of antennas + $10 \log(3/2) = 7.47\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $30-(7.47-6) = 28.53\text{dBm}$.

802.11ac (VHT40)

| Chan. | Chan. Freq. (MHz) | Average Power (dBm) | | | Total Power (mW) | Total Power (dBm) | Limit (dBm) | Pass / Fail |
|-------|-------------------|---------------------|---------|---------|------------------|-------------------|-------------|-------------|
| | | Chain 0 | Chain 1 | Chain 2 | | | | |
| 38 | 5190 | 18.72 | 19.83 | 18.41 | 239.977 | 23.80 | 28.94 | Pass |
| 46 | 5230 | 20.41 | 21.55 | 20.73 | 371.094 | 25.69 | 28.94 | Pass |
| 151 | 5755 | 16.69 | 18.36 | 18.36 | 183.764 | 22.64 | 28.53 | Pass |
| 159 | 5795 | 16.48 | 18.41 | 18.01 | 177.047 | 22.48 | 28.53 | Pass |

- Note:**
1. For 5190~5230MHz: Directional gain = maximum gain of antennas + $10 \log(3/2) = 7.06\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $30-(7.06-6) = 28.94\text{dBm}$.
 2. For 5755~5795MHz: Directional gain = maximum gain of antennas + $10 \log(3/2) = 7.47\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $30-(7.47-6) = 28.53\text{dBm}$.

802.11ac (VHT80)

| Chan. | Chan. Freq. (MHz) | Average Power (dBm) | | | Total Power (mW) | Total Power (dBm) | Limit (dBm) | Pass / Fail |
|-------|-------------------|---------------------|---------|---------|------------------|-------------------|-------------|-------------|
| | | Chain 0 | Chain 1 | Chain 2 | | | | |
| 42 | 5210 | 17.52 | 18.61 | 17.62 | 186.915 | 22.72 | 28.94 | Pass |
| 155 | 5775 | 15.33 | 17.36 | 17.23 | 141.414 | 21.50 | 28.53 | Pass |

- Note:**
1. For 5210MHz: Directional gain = maximum gain of antennas + $10 \log(3/2) = 7.06\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $30-(7.06-6) = 28.94\text{dBm}$.
 2. For 5775MHz: Directional gain = maximum gain of antennas + $10 \log(3/2) = 7.47\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $30-(7.47-6) = 28.53\text{dBm}$.

Beamforming Mode (NSS3):
802.11ac (VHT20)

| Chan. | Chan. Freq. (MHz) | Average Power (dBm) | | | Total Power (mW) | Total Power (dBm) | Limit (dBm) | Pass / Fail |
|-------|-------------------|---------------------|---------|---------|------------------|-------------------|-------------|-------------|
| | | Chain 0 | Chain 1 | Chain 2 | | | | |
| 36 | 5180 | 18.21 | 19.59 | 18.12 | 222.076 | 23.47 | 30 | Pass |
| 40 | 5200 | 16.22 | 17.77 | 16.23 | 143.696 | 21.57 | 30 | Pass |
| 48 | 5240 | 19.56 | 20.51 | 19.82 | 298.765 | 24.75 | 30 | Pass |
| 149 | 5745 | 16.81 | 18.21 | 18.57 | 186.14 | 22.70 | 30 | Pass |
| 157 | 5785 | 17.72 | 19.26 | 19.01 | 223.105 | 23.49 | 30 | Pass |
| 165 | 5825 | 18.61 | 20.24 | 19.26 | 262.626 | 24.19 | 30 | Pass |

802.11ac (VHT40)

| Chan. | Chan. Freq. (MHz) | Average Power (dBm) | | | Total Power (mW) | Total Power (dBm) | Limit (dBm) | Pass / Fail |
|-------|-------------------|---------------------|---------|---------|------------------|-------------------|-------------|-------------|
| | | Chain 0 | Chain 1 | Chain 2 | | | | |
| 38 | 5190 | 18.72 | 19.83 | 18.41 | 239.977 | 23.80 | 30 | Pass |
| 46 | 5230 | 20.41 | 21.55 | 20.73 | 371.094 | 25.69 | 30 | Pass |
| 151 | 5755 | 16.69 | 18.36 | 18.36 | 183.764 | 22.64 | 30 | Pass |
| 159 | 5795 | 16.48 | 18.41 | 18.01 | 177.047 | 22.48 | 30 | Pass |

802.11ac (VHT80)

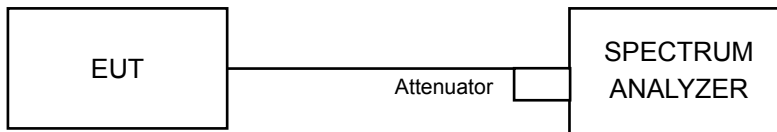
| Chan. | Chan. Freq. (MHz) | Average Power (dBm) | | | Total Power (mW) | Total Power (dBm) | Limit (dBm) | Pass / Fail |
|-------|-------------------|---------------------|---------|---------|------------------|-------------------|-------------|-------------|
| | | Chain 0 | Chain 1 | Chain 2 | | | | |
| 42 | 5210 | 17.52 | 18.61 | 17.62 | 186.915 | 22.72 | 30 | Pass |
| 155 | 5775 | 15.33 | 17.36 | 17.23 | 141.414 | 21.50 | 30 | Pass |

4.4 Peak Power Spectral Density Measurement

4.4.1 Limits of Peak Power Spectral Density Measurement

| Operation Band | EUT Category | | LIMIT |
|----------------|--------------|-----------------------------------|---------------|
| U-NII-1 | | Outdoor Access Point | 17dBm/ MHz |
| | | Fixed point-to-point Access Point | |
| | √ | Indoor Access Point | |
| | | Mobile and Portable client device | 11dBm/ MHz |
| U-NII-2A | | | 11dBm/ MHz |
| U-NII-2C | | | 11dBm/ MHz |
| U-NII-3 | | √ | 30dBm/ 500kHz |

4.4.2 Test Setup



4.4.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.4.4 Test Procedures

For 802.11a, 802.11ac (VHT20) & 802.11ac (VHT40):

For U-NII-1:

Using method SA-1

1. Set span to encompass the entire emission bandwidth (EBW) of the signal.
2. Set RBW = 1 MHz, Set VBW ≥ 3 MHz, Detector = RMS
3. Sweep time = auto, trigger set to “free run”.
4. Trace average at least 100 traces in power averaging mode.
5. Record the max value

For U-NII-3:

1. Set span to encompass the entire emission bandwidth (EBW) of the signal.
2. Set RBW = 300 kHz, Set VBW ≥ 1 MHz, Detector = RMS
3. Use the peak marker function to determine the maximum power level in any 300 kHz band segment within the fundamental EBW.
4. Scale the observed power level to an equivalent value in 500 kHz by adjusting (reducing) the measured power by a bandwidth correction factor (BWCF) where $BWCF = 10\log(500\text{ kHz}/300\text{kHz})$
5. Sweep time = auto, trigger set to “free run”.
6. Trace average at least 100 traces in power averaging mode.
7. Record the max value

For 802.11ac (VHT80):**For U-NII-1:**

Using method SA-2

1. Set span to encompass the entire emission bandwidth (EBW) of the signal.
2. Set RBW = 1 MHz, Set VBW \geq 3 MHz, Detector = RMS
3. Sweep time = auto, trigger set to "free run".
4. Trace average at least 100 traces in power averaging mode.
5. Record the max value and add $10 \log (1/\text{duty cycle})$

For U-NII-3:

1. Set span to encompass the entire emission bandwidth (EBW) of the signal.
2. Set RBW = 300 kHz, Set VBW \geq 1 MHz, Detector = RMS
3. Use the peak marker function to determine the maximum power level in any 300 kHz band segment within the fundamental EBW.
4. Scale the observed power level to an equivalent value in 500 kHz by adjusting (reducing) the measured power by a bandwidth correction factor (BWCF) where $\text{BWCF} = 10 \log(500 \text{ kHz}/300 \text{ kHz})$
5. Sweep time = auto, trigger set to "free run".
6. Trace average at least 100 traces in power averaging mode.
7. Record the max value and add $10 \log (1/\text{duty cycle})$

4.4.5 Deviation from Test Standard

No deviation.

4.4.6 EUT Operating Conditions

Same as Item 4.2.6.

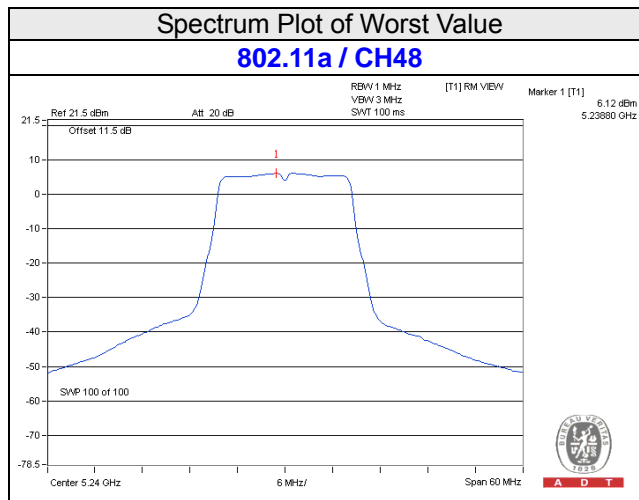
4.4.7 Test Results (Mode 1)

For U-NII-1:

1TX

802.11a

| Channel | Frequency (MHz) | Power Density (dBm/MHz) | MAX. Limit (dBm/MHz) | Pass / Fail |
|---------|-----------------|-------------------------|----------------------|-------------|
| 36 | 5180 | 5.06 | 17 | Pass |
| 40 | 5200 | 3.30 | 17 | Pass |
| 48 | 5240 | 6.12 | 17 | Pass |

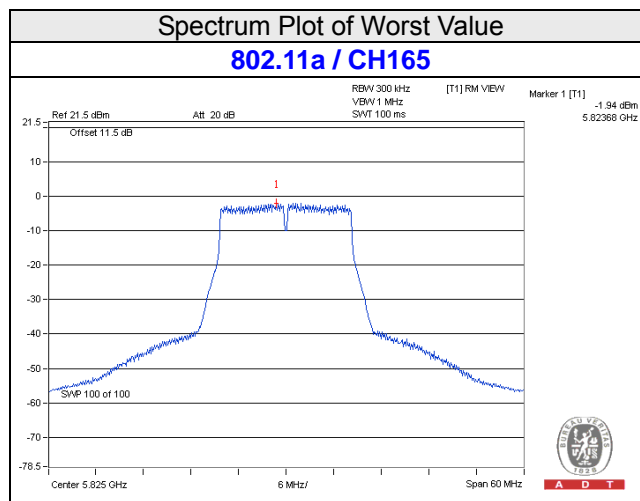


For U-NII-3:

1TX

802.11a

| Chan. | Chan. Freq. (MHz) | PSD (dBm/300kHz) | PSD (dBm/500kHz) | Limit (dBm/500kHz) | Pass /Fail |
|-------|-------------------|------------------|------------------|--------------------|------------|
| 149 | 5745 | -3.93 | -1.71 | 30 | Pass |
| 157 | 5785 | -3.09 | -0.87 | 30 | Pass |
| 165 | 5825 | -1.94 | 0.28 | 30 | Pass |



4.4.8 Test Results (Mode 2)
STBC Mode:
For U-NII-1:
2TX
802.11ac (VHT20)

| Chan. | Chan. Freq. (MHz) | PSD (dBm/MHz) | | Total Power Density (dBm/MHz) | MAX. Limit (dBm/MHz) | Pass / Fail |
|-------|-------------------|---------------|---------|-------------------------------|----------------------|-------------|
| | | Chain 0 | Chain 1 | | | |
| 36 | 5180 | 5.85 | 7.75 | 9.91 | 17 | Pass |
| 40 | 5200 | 6.18 | 7.95 | 10.16 | 17 | Pass |
| 48 | 5240 | 6.00 | 7.09 | 9.59 | 17 | Pass |

Note: 1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.

802.11ac (VHT40)

| Chan. | Chan. Freq. (MHz) | PSD (dBm/MHz) | | Total Power Density (dBm/MHz) | MAX. Limit (dBm/MHz) | Pass / Fail |
|-------|-------------------|---------------|---------|-------------------------------|----------------------|-------------|
| | | Chain 0 | Chain 1 | | | |
| 38 | 5190 | 2.46 | 4.26 | 6.46 | 17 | Pass |
| 46 | 5230 | 4.02 | 5.47 | 7.82 | 17 | Pass |

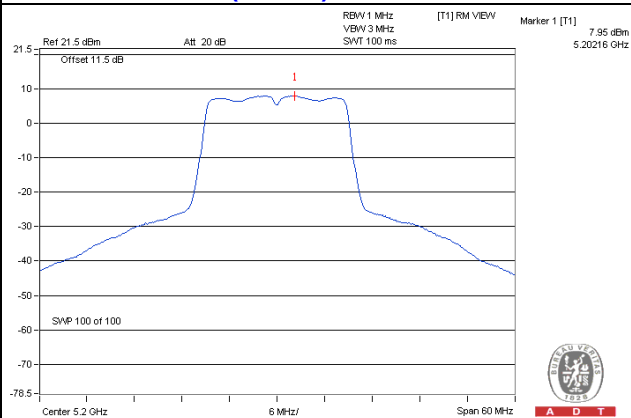
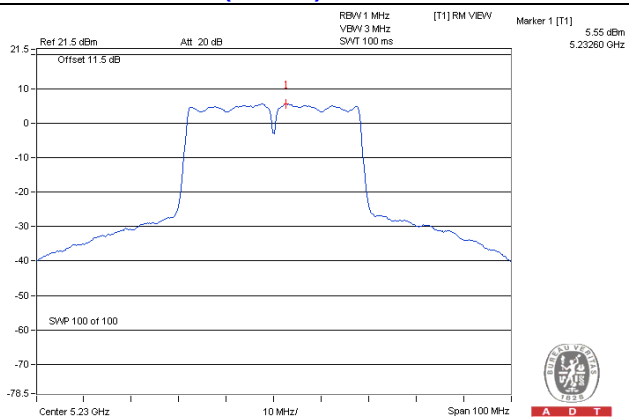
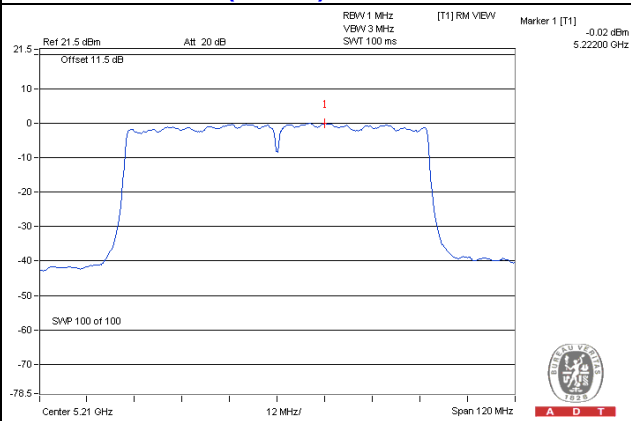
Note: 1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.

802.11ac (VHT80)

| Chan. | Chan. Freq. (MHz) | PSD W/O Duty Factor (dBm/MHz) | | Duty Factor (dB) | Total PSD With Duty Factor (dBm/MHz) | MAX. EIRP Limit (dBm/MHz) | Pass / Fail |
|-------|-------------------|-------------------------------|---------|------------------|--------------------------------------|---------------------------|-------------|
| | | Chain 0 | Chain 1 | | | | |
| 42 | 5210 | -1.80 | -0.02 | 0.18 | 2.37 | 17 | Pass |

Note: 1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.

2. Refer to section 3.3 for duty cycle spectrum plot.

Spectrum Plot of Worst Value
802.11ac (VHT20)_Chain 1 / CH40

802.11ac (VHT40)_Chain 1 / CH46

802.11ac (VHT80)_Chain 1 / CH42


For U-NII-3:

2TX

802.11ac (VHT20)

| TX chain | Chan. | Chan. Freq. (MHz) | PSD | | 10 log (N=2) dB | Total PSD (dBm/500kHz) | Limit (dBm/500kHz) | Pass /Fail |
|----------|-------|-------------------|--------------|--------------|-----------------|------------------------|--------------------|------------|
| | | | (dBm/300kHz) | (dBm/500kHz) | | | | |
| 0 | 149 | 5745 | -3.07 | -0.85 | 3.01 | 2.16 | 30 | Pass |
| | 157 | 5785 | -3.44 | -1.22 | 3.01 | 1.79 | 30 | Pass |
| | 165 | 5825 | -2.44 | -0.22 | 3.01 | 2.79 | 30 | Pass |
| 1 | 149 | 5745 | -1.45 | 0.77 | 3.01 | 3.78 | 30 | Pass |
| | 157 | 5785 | -1.23 | 0.99 | 3.01 | 4.00 | 30 | Pass |
| | 165 | 5825 | -1.10 | 1.12 | 3.01 | 4.13 | 30 | Pass |

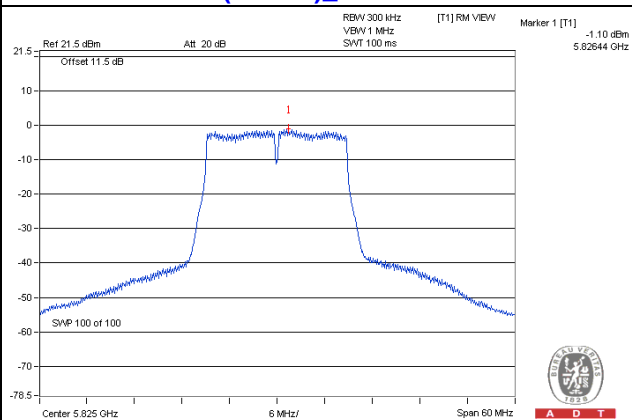
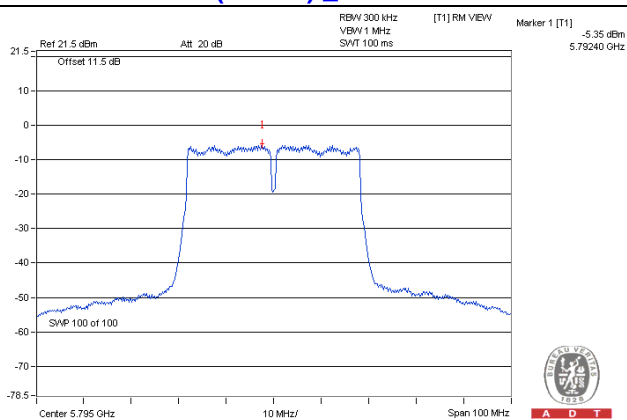
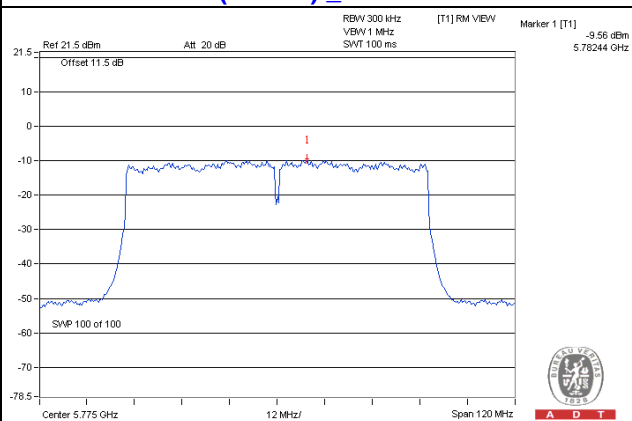
802.11ac (VHT40)

| TX chain | Chan. | Chan. Freq. (MHz) | PSD | | 10 log (N=2) dB | Total PSD (dBm/500kHz) | Limit (dBm/500kHz) | Pass /Fail |
|----------|-------|-------------------|--------------|--------------|-----------------|------------------------|--------------------|------------|
| | | | (dBm/300kHz) | (dBm/500kHz) | | | | |
| 0 | 151 | 5755 | -8.14 | -5.92 | 3.01 | -2.91 | 30 | Pass |
| | 159 | 5795 | -8.41 | -6.19 | 3.01 | -3.18 | 30 | Pass |
| 1 | 151 | 5755 | -5.65 | -3.43 | 3.01 | -0.42 | 30 | Pass |
| | 159 | 5795 | -5.35 | -3.13 | 3.01 | -0.12 | 30 | Pass |

802.11ac (VHT80)

| TX chain | Chan. | Chan. Freq. (MHz) | PSD W/O Duty Factor | | 10 log (N=2) dB | Duty Factor (dB) | Total PSD With Duty Factor (dBm/500kHz) | Limit (dBm/500kHz) | Pass /Fail |
|----------|-------|-------------------|---------------------|--------------|-----------------|------------------|---|--------------------|------------|
| | | | (dBm/300kHz) | (dBm/500kHz) | | | | | |
| 0 | 155 | 5745 | -12.64 | -10.42 | 3.01 | 0.18 | -7.23 | 30 | Pass |
| 1 | 155 | 5745 | -9.56 | -7.34 | 3.01 | 0.18 | -4.15 | 30 | Pass |

2. Refer to section 3.3 for duty cycle spectrum plot.

Spectrum Plot of Worst Value
802.11ac (VHT20) _Chain 1 / CH165

802.11ac (VHT40) _Chain 1 / CH159

802.11ac (VHT40) _Chain 1 / CH155


4.4.9 Test Results (Mode 3)
STBC Mode:
For U-NII-1:
3TX
802.11ac (VHT20)

| Chan. | Chan. Freq. (MHz) | PSD (dBm/MHz) | | | Total Power Density (dBm/MHz) | MAX. Limit (dBm/MHz) | Pass / Fail |
|-------|-------------------|---------------|---------|---------|-------------------------------|----------------------|-------------|
| | | Chain 0 | Chain 1 | Chain 2 | | | |
| 36 | 5180 | 5.66 | 6.07 | 5.14 | 10.41 | 17 | Pass |
| 40 | 5200 | 3.66 | 4.20 | 3.32 | 8.51 | 17 | Pass |
| 48 | 5240 | 6.32 | 7.08 | 6.37 | 11.38 | 17 | Pass |

Note: 1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.

802.11ac (VHT40)

| Chan. | Chan. Freq. (MHz) | PSD (dBm/MHz) | | | Total Power Density (dBm/MHz) | MAX. Limit (dBm/MHz) | Pass / Fail |
|-------|-------------------|---------------|---------|---------|-------------------------------|----------------------|-------------|
| | | Chain 0 | Chain 1 | Chain 2 | | | |
| 38 | 5190 | 3.32 | 3.56 | 2.83 | 8.02 | 17 | Pass |
| 46 | 5230 | 4.79 | 5.40 | 4.83 | 9.79 | 17 | Pass |

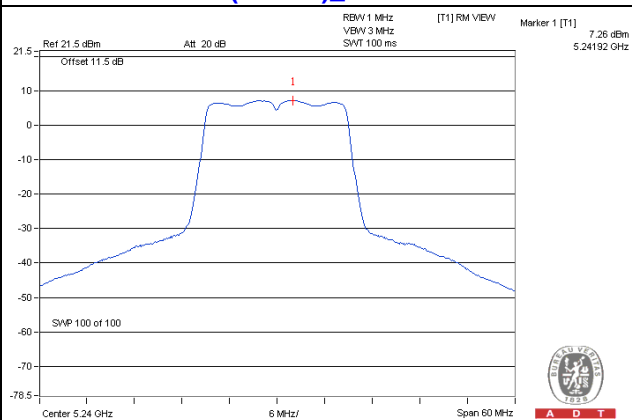
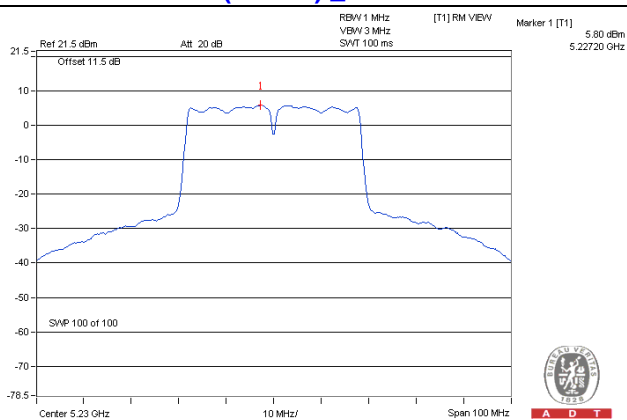
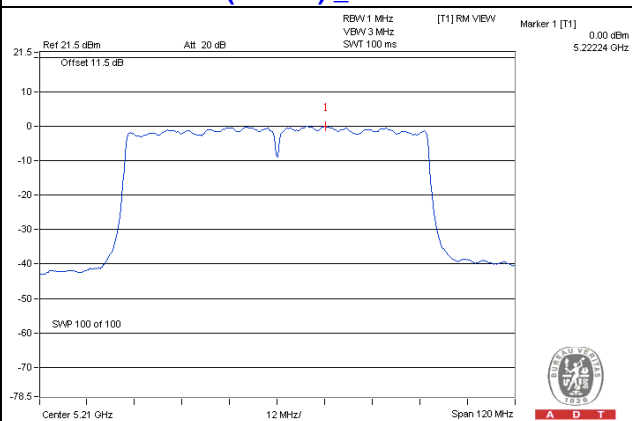
Note: 1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.

802.11ac (VHT80)

| Chan. | Chan. Freq. (MHz) | PSD W/O Duty Factor (dBm/MHz) | | | Duty Factor (dB) | Total PSD With Duty Factor (dBm/MHz) | MAX. Limit (dBm/MHz) | Pass / Fail |
|-------|-------------------|-------------------------------|---------|---------|------------------|--------------------------------------|----------------------|-------------|
| | | Chain 0 | Chain 1 | Chain 2 | | | | |
| 42 | 5210 | -0.71 | -0.30 | -0.87 | 0.18 | 4.33 | 17 | Pass |

Note: 1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.

2. Refer to section 3.3 for duty cycle spectrum plot.

Spectrum Plot of Worst Value**802.11ac (VHT20)_Chain 1 / CH48****802.11ac (VHT40)_Chain 1 / CH46****802.11ac (VHT80)_Chain 1 / CH42**

For U-NII-3:

3TX

802.11ac (VHT20)

| TX chain | Chan. | Chan. Freq. (MHz) | PSD | | 10 log (N=3) dB | Total PSD (dBm/500kHz) | Limit (dBm/500kHz) | Pass /Fail |
|----------|-------|-------------------|--------------|--------------|-----------------|------------------------|--------------------|------------|
| | | | (dBm/300kHz) | (dBm/500kHz) | | | | |
| 0 | 149 | 5745 | -3.72 | -1.50 | 4.77 | 3.27 | 30 | Pass |
| | 157 | 5785 | -2.82 | -0.60 | 4.77 | 4.17 | 30 | Pass |
| | 165 | 5825 | -2.95 | -0.73 | 4.77 | 4.04 | 30 | Pass |
| 1 | 149 | 5745 | -2.33 | -0.11 | 4.77 | 4.66 | 30 | Pass |
| | 157 | 5785 | -1.04 | 1.18 | 4.77 | 5.95 | 30 | Pass |
| | 165 | 5825 | -0.89 | 1.33 | 4.77 | 6.10 | 30 | Pass |
| 2 | 149 | 5745 | -2.35 | -0.13 | 4.77 | 4.64 | 30 | Pass |
| | 157 | 5785 | -1.92 | 0.30 | 4.77 | 5.07 | 30 | Pass |
| | 165 | 5825 | -2.79 | -0.57 | 4.77 | 4.20 | 30 | Pass |

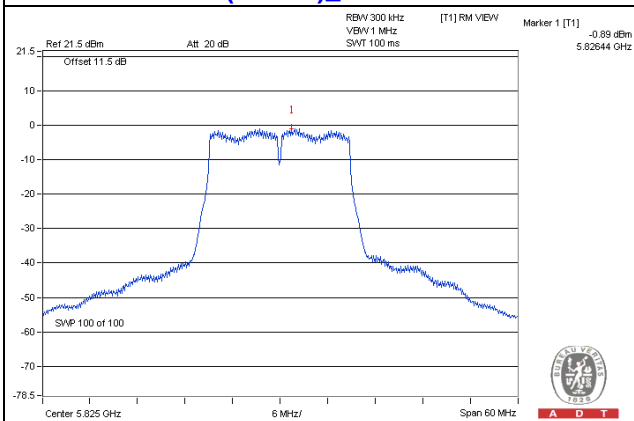
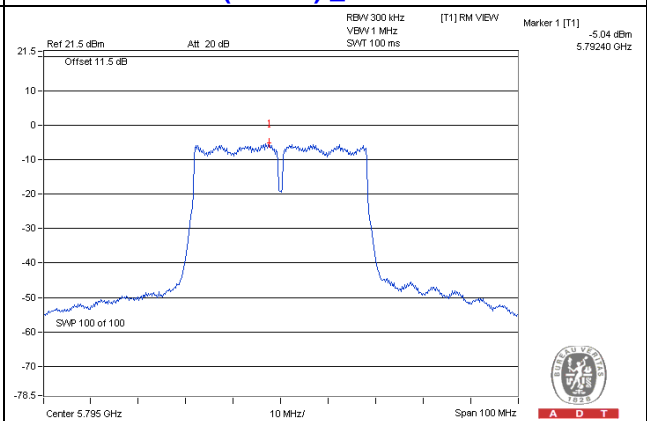
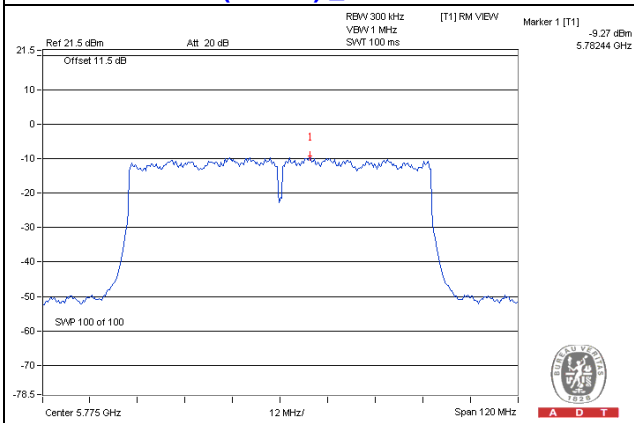
802.11ac (VHT40)

| TX chain | Chan. | Chan. Freq. (MHz) | PSD | | 10 log (N=3) dB | Total PSD (dBm/500kHz) | Limit (dBm/500kHz) | Pass /Fail |
|----------|-------|-------------------|--------------|--------------|-----------------|------------------------|--------------------|------------|
| | | | (dBm/300kHz) | (dBm/500kHz) | | | | |
| 0 | 151 | 5755 | -7.12 | -4.90 | 4.77 | -0.13 | 30 | Pass |
| | 159 | 5795 | -7.33 | -5.11 | 4.77 | -0.34 | 30 | Pass |
| 1 | 151 | 5755 | -5.08 | -2.86 | 4.77 | 1.91 | 30 | Pass |
| | 159 | 5795 | -5.04 | -2.82 | 4.77 | 1.95 | 30 | Pass |
| 2 | 151 | 5755 | -5.57 | -3.35 | 4.77 | 1.42 | 30 | Pass |
| | 159 | 5795 | -6.18 | -3.96 | 4.77 | 0.81 | 30 | Pass |

802.11ac (VHT80)

| TX chain | Chan. | Chan. Freq. (MHz) | PSD | | 10 log (N=3) dB | Total PSD (dBm/500kHz) | Limit (dBm/500kHz) | Pass /Fail |
|----------|-------|-------------------|--------------|--------------|-----------------|------------------------|--------------------|------------|
| | | | (dBm/300kHz) | (dBm/500kHz) | | | | |
| 0 | 155 | 5775 | -11.93 | -9.71 | 4.77 | -4.76 | 30 | Pass |
| 1 | 155 | 5775 | -9.27 | -7.05 | 4.77 | -2.10 | 30 | Pass |
| 2 | 155 | 5775 | -10.49 | -8.27 | 4.77 | -3.32 | 30 | Pass |

Note: 1. Refer to section 3.3 for duty cycle spectrum plot.

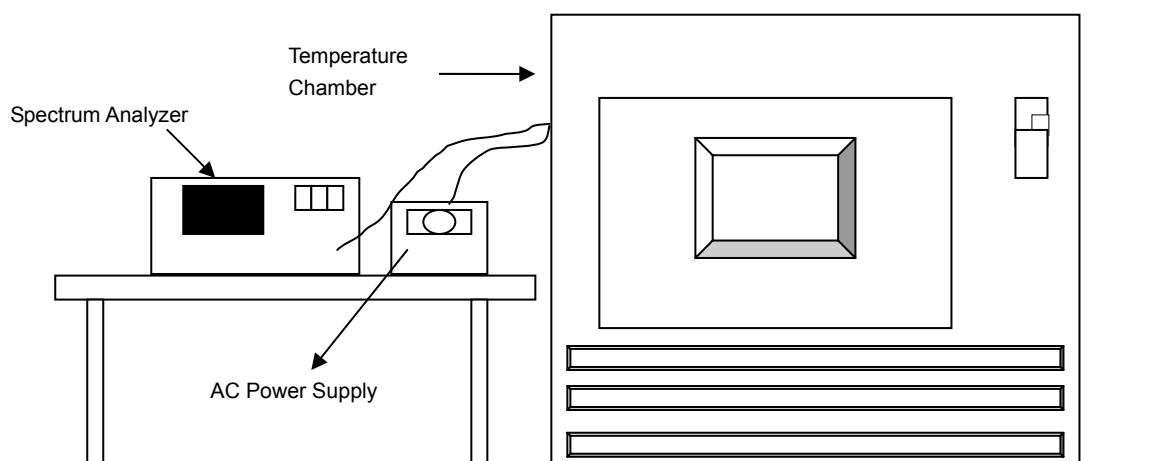
Spectrum Plot of Worst Value
802.11ac (VHT20)_Chain 1 / CH165

802.11ac (VHT40)_Chain 1 / CH159

802.11ac (VHT80)_Chain 1 / CH155


4.5 Frequency Stability Measurement

4.5.1 Limits of Frequency Stability Measurement

The frequency of the carrier signal shall be maintained within band of operation

4.5.2 Test Setup



4.5.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.5.4 Test Procedures

- The EUT was placed inside the environmental test chamber and powered by nominal AC voltage.
- Turn the EUT on and couple its output to a spectrum analyzer.
- Turn the EUT off and set the chamber to the highest temperature specified.
- Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT on and measure the operating frequency after 2, 5, and 10 minutes.
- Repeat step 2 and 3 with the temperature chamber set to the lowest temperature.
- The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.

4.5.5 Deviation from Test Standard

No deviation.

4.5.6 EUT Operating Conditions

Set the EUT transmit at un-modulation mode to test frequency stability.

4.5.7 Test Results

| Frequency Stability Versus Temp. | | | | | | | | | |
|----------------------------------|--------------------|--------------------------|---------------------|--------------------------|---------------------|--------------------------|---------------------|--------------------------|---------------------|
| Operating Frequency: 5180MHz | | | | | | | | | |
| Temp. (°C) | Power Supply (Vac) | 0 Minute | | 2 Minute | | 5 Minute | | 10 Minute | |
| | | Measured Frequency (MHz) | Frequency Drift (%) | Measured Frequency (MHz) | Frequency Drift (%) | Measured Frequency (MHz) | Frequency Drift (%) | Measured Frequency (MHz) | Frequency Drift (%) |
| 50 | 120 | 5179.9938 | -0.00012 | 5179.9945 | -0.00011 | 5179.9963 | -0.00007 | 5179.9988 | -0.00002 |
| 40 | 120 | 5180.0195 | 0.00038 | 5180.0231 | 0.00045 | 5180.021 | 0.00041 | 5180.0218 | 0.00042 |
| 30 | 120 | 5180.0022 | 0.00004 | 5179.9997 | -0.00001 | 5179.9976 | -0.00005 | 5179.9976 | -0.00005 |
| 20 | 120 | 5179.989 | -0.00021 | 5179.9855 | -0.00028 | 5179.99 | -0.00019 | 5179.9866 | -0.00026 |
| 10 | 120 | 5179.9745 | -0.00049 | 5179.9747 | -0.00049 | 5179.9755 | -0.00047 | 5179.9723 | -0.00053 |
| 0 | 120 | 5179.9884 | -0.00022 | 5179.9893 | -0.00021 | 5179.9869 | -0.00025 | 5179.9877 | -0.00024 |
| -10 | 120 | 5179.9815 | -0.00036 | 5179.9818 | -0.00035 | 5179.9839 | -0.00031 | 5179.9854 | -0.00028 |
| -20 | 120 | 5179.9753 | -0.00048 | 5179.974 | -0.00050 | 5179.9754 | -0.00047 | 5179.9759 | -0.00047 |
| -30 | 120 | 5179.9864 | -0.00026 | 5179.9868 | -0.00025 | 5179.987 | -0.00025 | 5179.986 | -0.00027 |

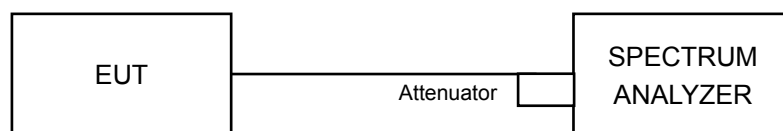
| Frequency Stability Versus Temp. | | | | | | | | | |
|----------------------------------|--------------------|--------------------------|---------------------|--------------------------|---------------------|--------------------------|---------------------|--------------------------|---------------------|
| Operating Frequency: 5180MHz | | | | | | | | | |
| Temp. (°C) | Power Supply (Vac) | 0 Minute | | 2 Minute | | 5 Minute | | 10 Minute | |
| | | Measured Frequency (MHz) | Frequency Drift (%) | Measured Frequency (MHz) | Frequency Drift (%) | Measured Frequency (MHz) | Frequency Drift (%) | Measured Frequency (MHz) | Frequency Drift (%) |
| 20 | 138 | 5179.9895 | -0.00020 | 5179.9852 | -0.00029 | 5179.99 | -0.00019 | 5179.9859 | -0.00027 |
| | 120 | 5179.989 | -0.00021 | 5179.9855 | -0.00028 | 5179.99 | -0.00019 | 5179.9866 | -0.00026 |
| | 102 | 5179.9894 | -0.00020 | 5179.9852 | -0.00029 | 5179.989 | -0.00021 | 5179.9862 | -0.00027 |

4.6 6dB Bandwidth Measurement

4.6.1 Limits of 6dB Bandwidth Measurement

The minimum of 6dB Bandwidth Measurement is 0.5MHz.

4.6.2 Test Setup



4.6.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.6.4 Test Procedures

MEASUREMENT PROCEDURE REF

- a. Set resolution bandwidth (RBW) = 100kHz
- b. Set the video bandwidth (VBW) $\geq 3 \times$ RBW, Detector = Peak.
- c. Trace mode = max hold.
- d. Sweep = auto couple.
- e. Measure the maximum width of the emission that is constrained by the frequencies associated with the two amplitude points (upper and lower) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission

4.6.5 Deviation from Test Standard

No deviation.

4.6.6 EUT Operating Conditions

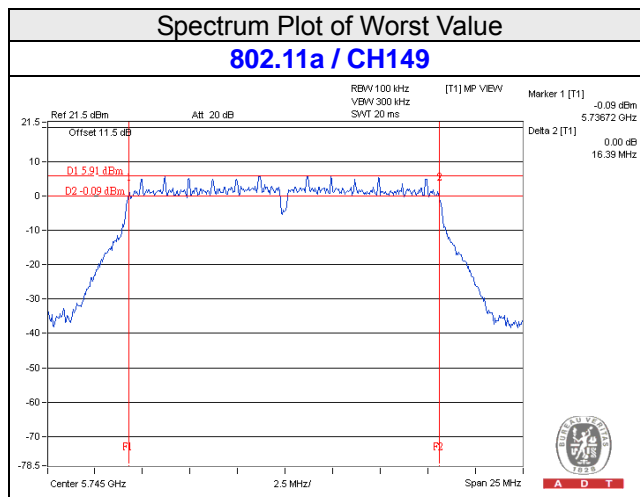
The software provided by client to enable the EUT under transmission condition continuously at lowest, middle and highest channel frequencies individually.

4.6.7 Test Results (Mode 1)

STBC Mode:

1TX
802.11a

| Channel | Frequency (MHz) | 6dB Bandwidth (MHz) | Minimum Limit (MHz) | Pass / Fail |
|---------|-----------------|---------------------|---------------------|-------------|
| 149 | 5745 | 16.39 | 0.5 | Pass |
| 157 | 5785 | 16.41 | 0.5 | Pass |
| 165 | 5825 | 16.41 | 0.5 | Pass |



4.6.8 Test Results (Mode 2)

STBC Mode:

2TX

802.11ac (VHT20)

| Channel | Frequency (MHz) | 6dB Bandwidth (MHz) | | Minimum Limit (MHz) | Pass / Fail |
|---------|-----------------|---------------------|---------|---------------------|-------------|
| | | Chain 0 | Chain 1 | | |
| 149 | 5745 | 17.63 | 17.66 | 0.5 | Pass |
| 157 | 5785 | 17.62 | 17.66 | 0.5 | Pass |
| 165 | 5825 | 17.62 | 17.64 | 0.5 | Pass |

802.11ac (VHT40)

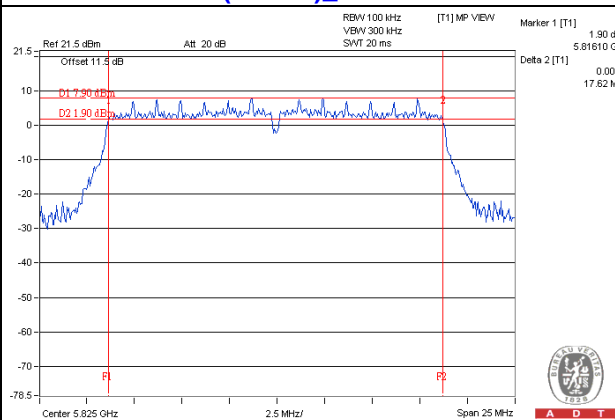
| Channel | Frequency (MHz) | 6dB Bandwidth (MHz) | | Minimum Limit (MHz) | Pass / Fail |
|---------|-----------------|---------------------|---------|---------------------|-------------|
| | | Chain 0 | Chain 1 | | |
| 151 | 5755 | 36.36 | 36.43 | 0.5 | Pass |
| 159 | 5795 | 36.40 | 36.43 | 0.5 | Pass |

802.11ac (VHT80)

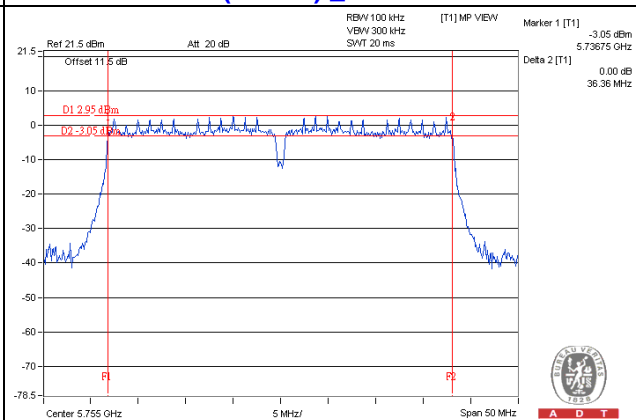
| Channel | Frequency (MHz) | 6dB Bandwidth (MHz) | | Minimum Limit (MHz) | Pass / Fail |
|---------|-----------------|---------------------|---------|---------------------|-------------|
| | | Chain 0 | Chain 1 | | |
| 155 | 5775 | 75.72 | 76.04 | 0.5 | Pass |

Spectrum Plot of Worst Value

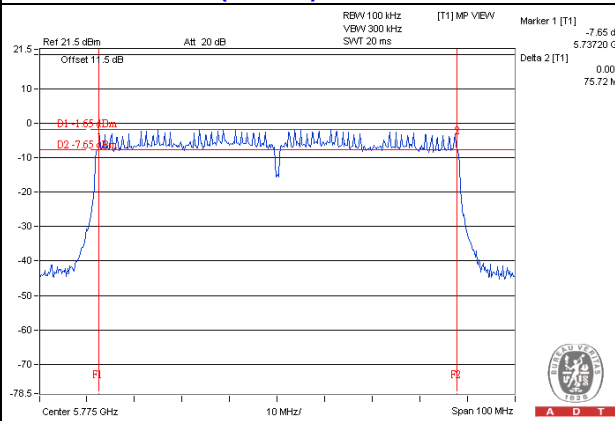
802.11ac (VHT20) _Chain 0 / CH165



802.11ac (VHT40) _Chain 0 / CH151



802.11ac (VHT80) _Chain 0 / CH155



4.6.9 Test Results (Mode 3)

STBC Mode:

3TX

802.11ac (VHT20)

| Channel | Frequency (MHz) | 6dB Bandwidth (MHz) | | | Minimum Limit (MHz) | Pass / Fail |
|---------|-----------------|---------------------|---------|---------|---------------------|-------------|
| | | Chain 0 | Chain 1 | Chain 2 | | |
| 149 | 5745 | 17.33 | 17.66 | 17.65 | 0.5 | Pass |
| 157 | 5785 | 17.24 | 17.65 | 17.65 | 0.5 | Pass |
| 165 | 5825 | 17.35 | 17.64 | 17.65 | 0.5 | Pass |

802.11ac (VHT40)

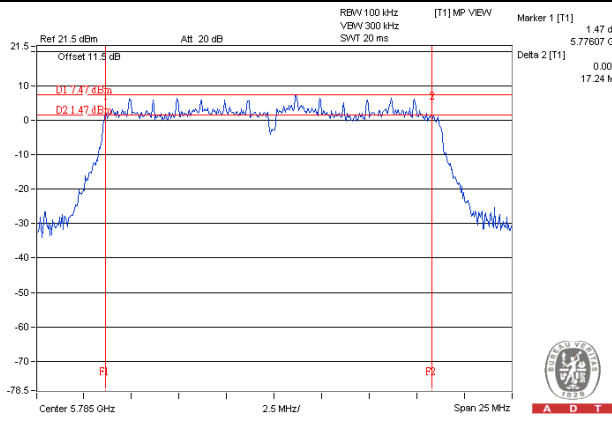
| Channel | Frequency (MHz) | 6dB Bandwidth (MHz) | | | Minimum Limit (MHz) | Pass / Fail |
|---------|-----------------|---------------------|---------|---------|---------------------|-------------|
| | | Chain 0 | Chain 1 | Chain 2 | | |
| 151 | 5755 | 36.20 | 36.41 | 36.42 | 0.5 | Pass |
| 159 | 5795 | 36.20 | 36.42 | 35.90 | 0.5 | Pass |

802.11ac (VHT80)

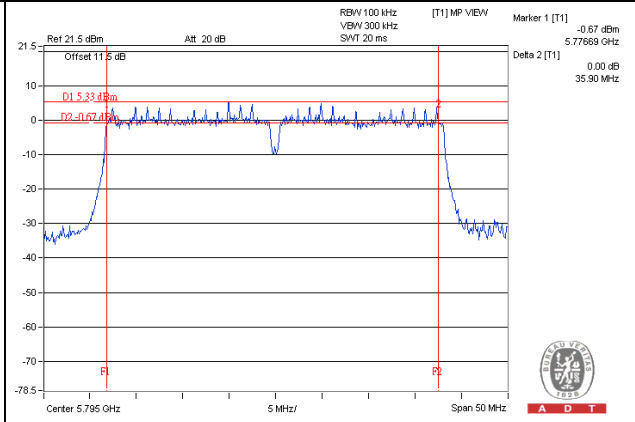
| Channel | Frequency (MHz) | 6dB Bandwidth (MHz) | | | Minimum Limit (MHz) | Pass / Fail |
|---------|-----------------|---------------------|---------|---------|---------------------|-------------|
| | | Chain 0 | Chain 1 | Chain 2 | | |
| 155 | 5775 | 75.69 | 75.75 | 75.75 | 0.5 | Pass |

Spectrum Plot of Worst Value

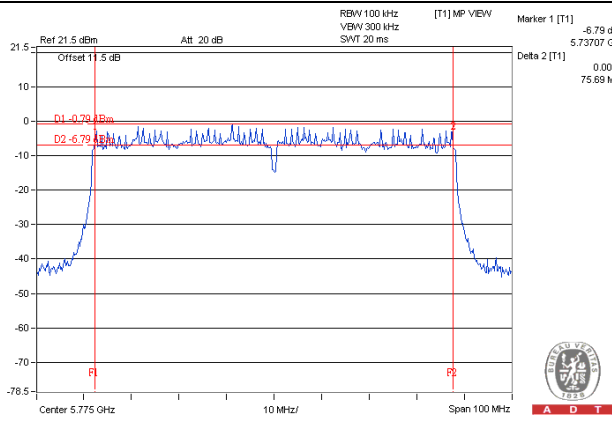
802.11ac (VHT20)_Chain 0 / CH157



802.11ac (VHT40)_Chain 2 / CH159



802.11ac (VHT80)_Chain 1 / CH155



5 Pictures of Test Arrangements

Please refer to the attached file (Test Setup Photo).

Appendix – Information on the Testing Laboratories

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are accredited and approved according to ISO/IEC 17025.

If you have any comments, please feel free to contact us at the following:

Linko EMC/RF Lab

Tel: 886-2-26052180

Fax: 886-2-26051924

Hsin Chu EMC/RF Lab/Telecom Lab

Tel: 886-3-6668565

Fax: 886-3-6668323

Hwa Ya EMC/RF/Safety

Tel: 886-3-3183232

Fax: 886-3-3270892

Email: service.adt@tw.bureauveritas.com

Web Site: www.bureauveritas-adt.com

The address and road map of all our labs can be found in our web site also.

--- END ---