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 Measurment 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 Measurment....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 : _____ , **Date:** Mar. 11, 2016
Claire Kuan / Specialist

Approved by : _____ , **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	Expended 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	**5GHz (5.18 ~ 5.24GHz):** **1Tx** 802.11a: 93.541mW **2Tx** **SDM Mode:** 802.11ac (VHT20): 262.238mW 802.11ac (VHT40): 277.179mW 802.11ac (VHT80): 162.532mW **CDD Mode:** 802.11ac (VHT20): 203.085mW 802.11ac (VHT40): 277.179mW 802.11ac (VHT80): 129.105mW **STBC Mode:** 802.11ac (VHT20): 262.238mW 802.11ac (VHT40): 277.179mW 802.11ac (VHT80): 162.532mW **Beamforming Mode (NSS1):** 802.11ac (VHT20): 203.085mW 802.11ac (VHT40): 277.179mW 802.11ac (VHT80): 129.105mW **Beamforming Mode (NSS2):** 802.11ac (VHT20): 203.085mW 802.11ac (VHT40): 277.179mW 802.11ac (VHT80): 129.105mW **3Tx** **SDM Mode:** 802.11ac (VHT20): 364.961mW 802.11ac (VHT40): 371.094mW 802.11ac (VHT80): 232.678mW **CDD Mode:** 802.11ac (VHT20): 298.765mW 802.11ac (VHT40): 371.094mW 802.11ac (VHT80): 186.915mW **STBC Mode:** 802.11ac (VHT20): 364.961mW 802.11ac (VHT40): 371.094mW 802.11ac (VHT80): 232.678mW **Beamforming Mode (NSS1):** 802.11ac (VHT20): 298.765mW 802.11ac (VHT40): 371.094mW 802.11ac (VHT80): 186.915mW **Beamforming Mode (NSS2):** 802.11ac (VHT20): 298.765mW 802.11ac (VHT40): 371.094mW 802.11ac (VHT80): 186.915mW **Beamforming Mode (NSS3):** 802.11ac (VHT20): 298.765mW 802.11ac (VHT40): 371.094mW 802.11ac (VHT80): 186.915mW

Output Power	**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
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≥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≥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
						13
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)		38 to 46	38, 46	OFDM	BPSK	13.5
						27
						40.5
802.11ac (VHT80)		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)		151 to 159	151, 159	OFDM	BPSK	13.5
						27
						40.5
802.11ac (VHT80)		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

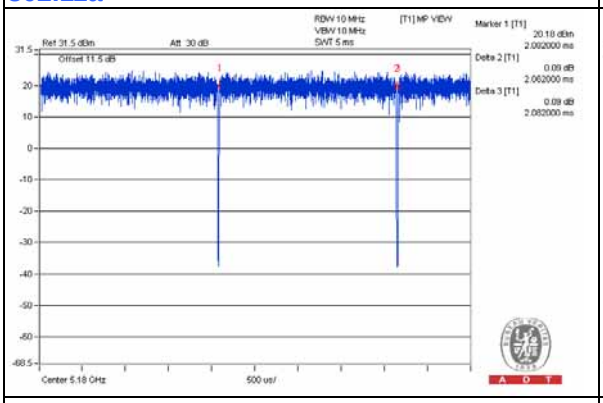
Test Condition:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
PLC	25deg. C, 65%RH	120Vac, 60Hz	Jason Huang
RE≥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

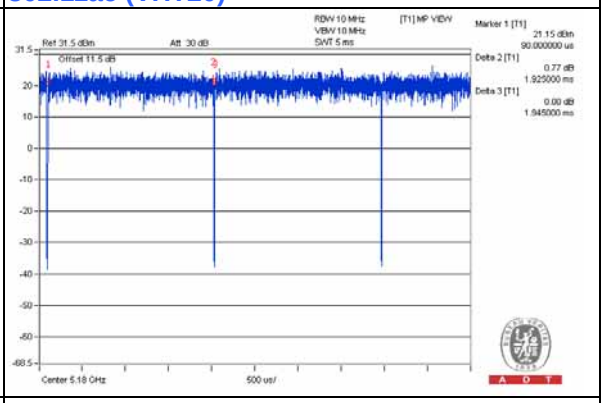
3.3 Duty Cycle of Test Signal

If duty cycle of test signal is ≥ 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 ms/2.082 ms = 0.99
802.11ac (VHT20): Duty cycle = 1.925 ms/1.945 ms = 0.99
802.11ac (VHT40): Duty cycle = 0.954 ms/0.971 ms = 0.982
802.11ac (VHT80): Duty cycle = 0.46 ms/0.479 ms = 0.96, Duty factor = 10 * log(1/0.96) = 0.18

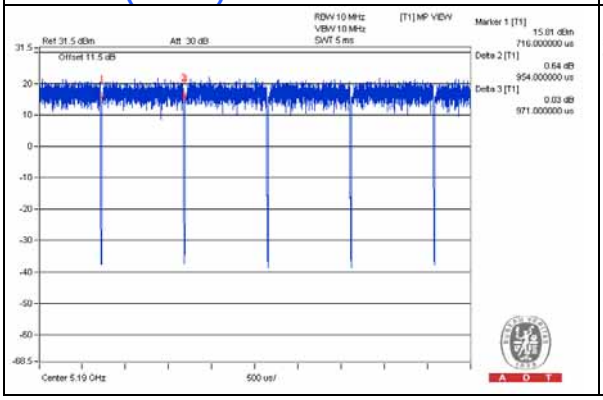
802.11a



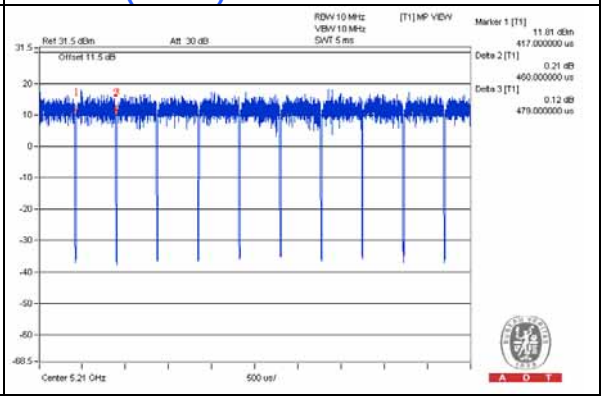
802.11ac (VHT20)



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.

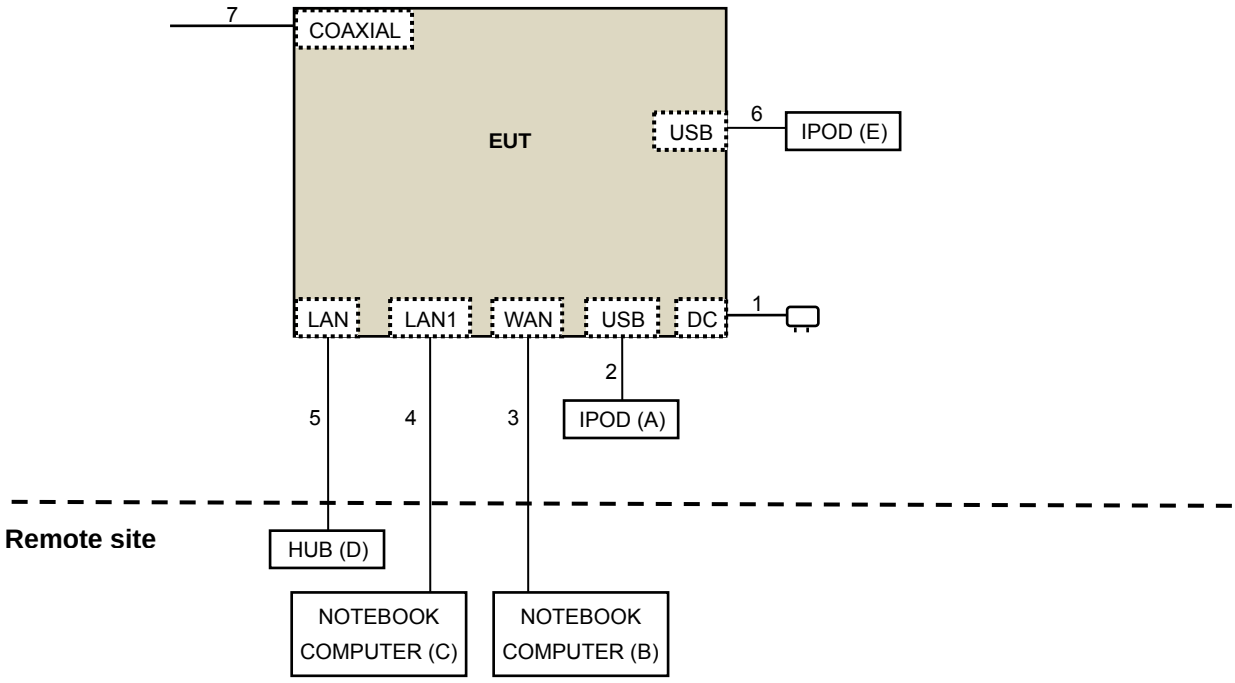
ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	IPOD	BUFFALO	HD-LBU3	55291820800967	NA	Provided by Lab
B.	NOTEBOOK COMPUTER	DELL	E5430	4YV4VY1	FCC DoC	Provided by Lab
C.	NOTEBOOK COMPUTER	DELL	E5430	HYV4VY1	FCC DoC	Provided by Lab
D.	HUB	ZyXEL	ES-116P	S060H02000215	FCC DoC	Provided by Lab
E.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

$$E = \frac{1000000\sqrt{30P}}{3}$$ μV/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-SP-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:

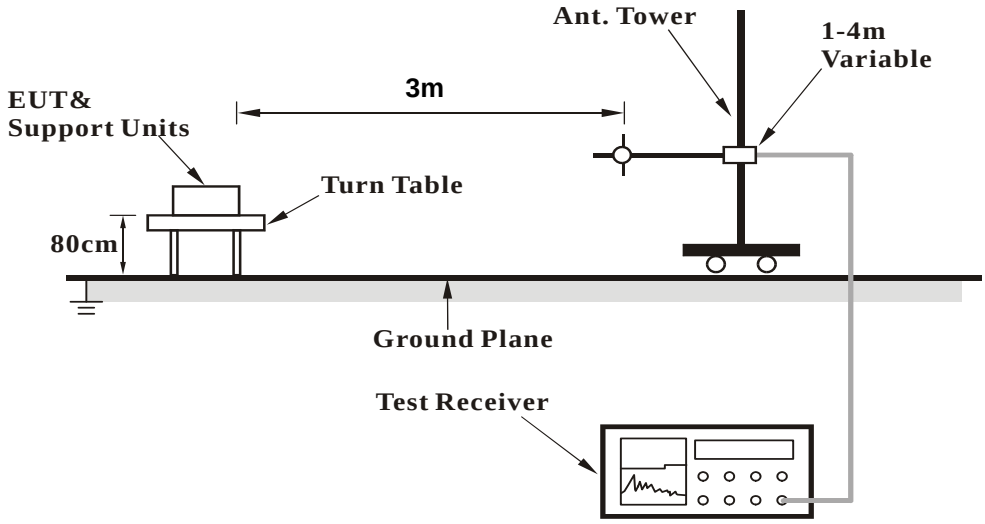
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
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/duty cycle)).
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 10Hz (Duty cycle ≥ 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

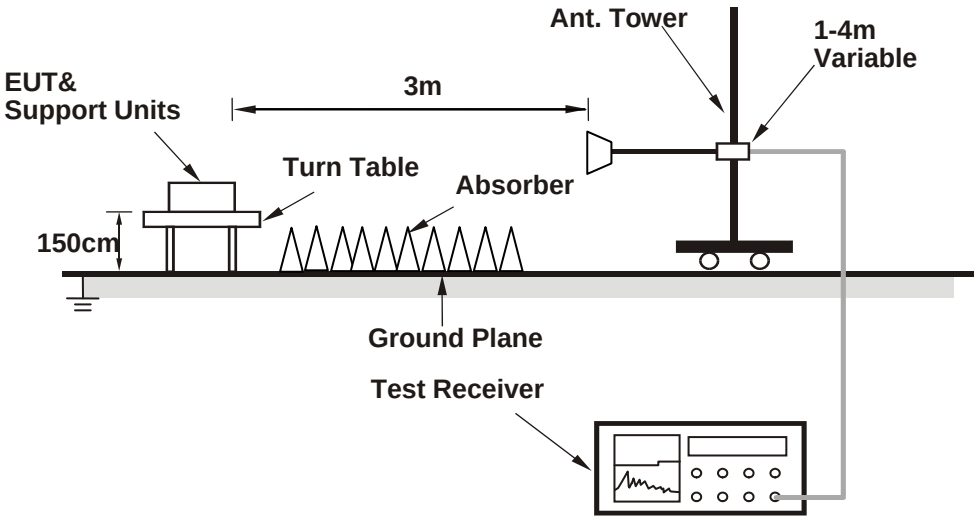
No deviation.

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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:

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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:

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

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.

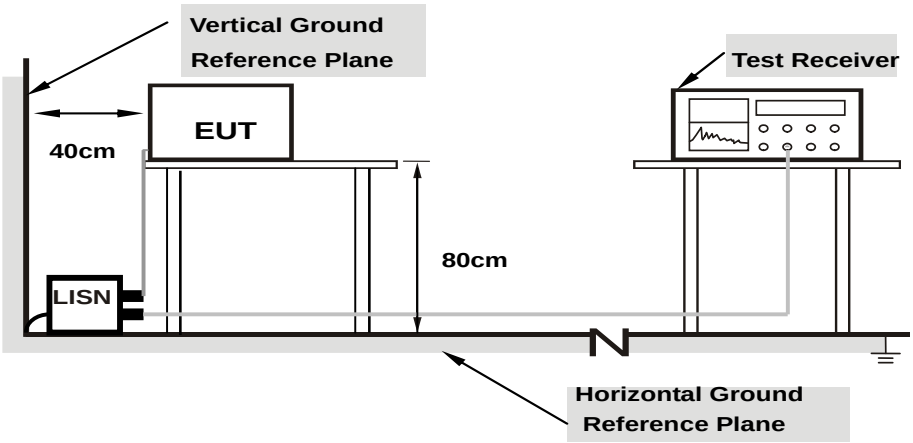
c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

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.

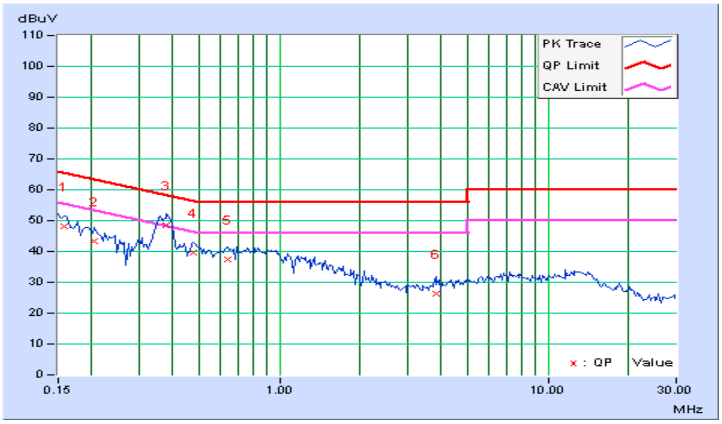
4.2.7 Test Results (Mode 3)

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

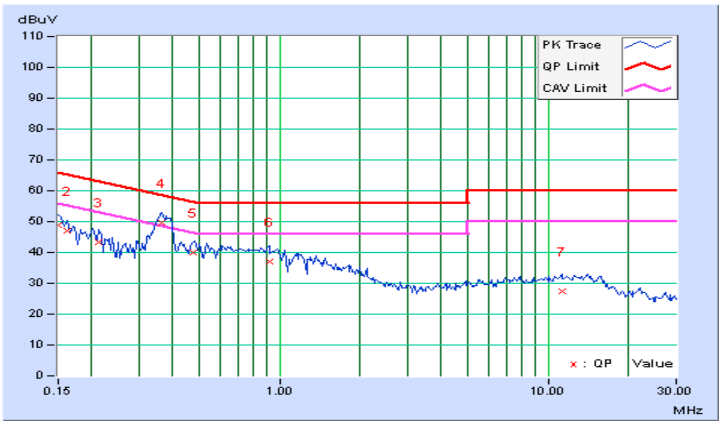


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)

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



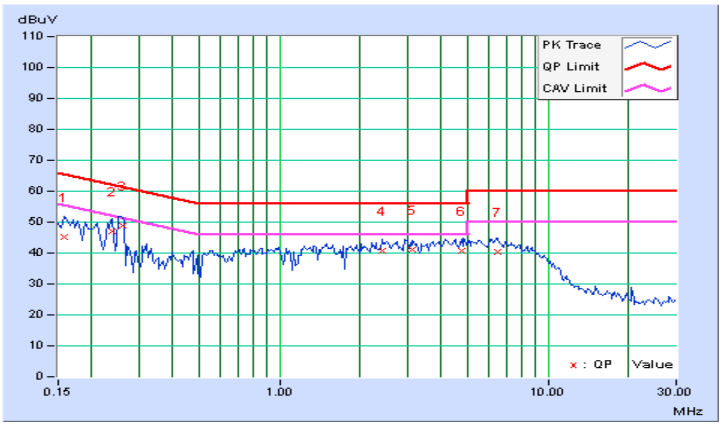
4.2.8 Test Results (Mode 4)

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

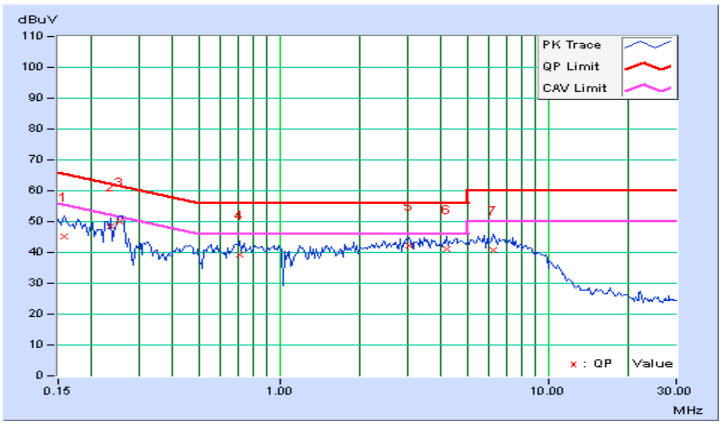


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)

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 Measurment

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

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

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

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

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

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

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

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

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

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

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

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

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)

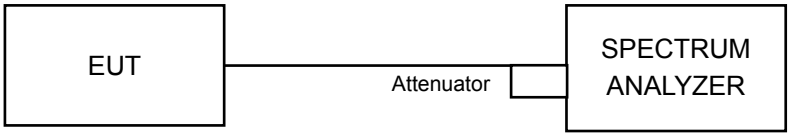
Chan.	Chan. Freq. (MHz)	Average Power (dBm)			Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2				
42	5210	17.52	18.61	17.62	186.915	22.72	30	Pass
155	5775	15.33	17.36	17.23	141.414	21.50	30	Pass

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 = 10log(500 kHz/300kHz)
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 ≥ 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/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 ≥ 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 = 10log(500 kHz/300kHz)
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/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:

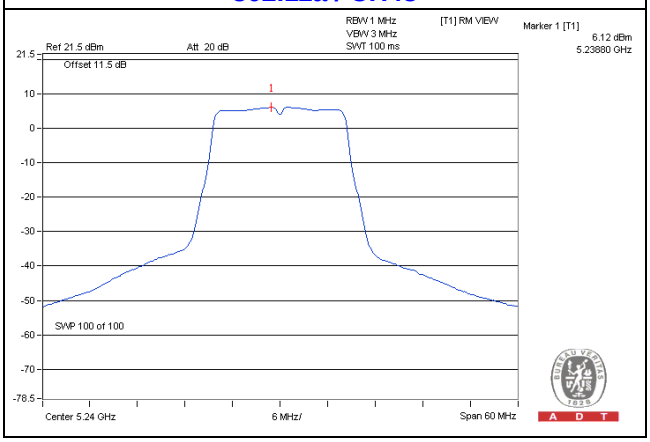
1TX

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

Spectrum Plot of Worst Value

802.11a / CH48



For U-NII-3:

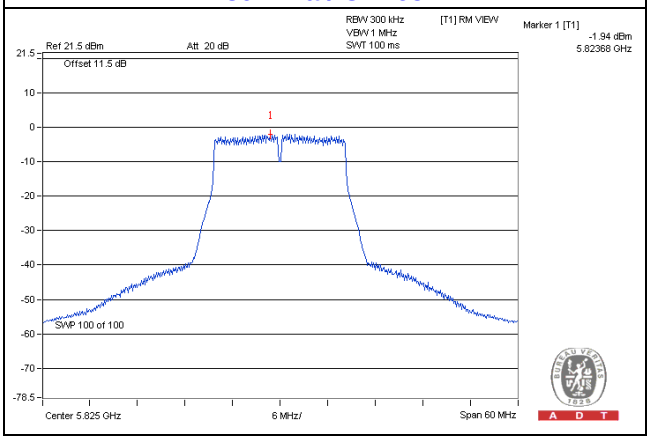
1TX

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

Spectrum Plot of Worst Value

802.11a / CH165



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

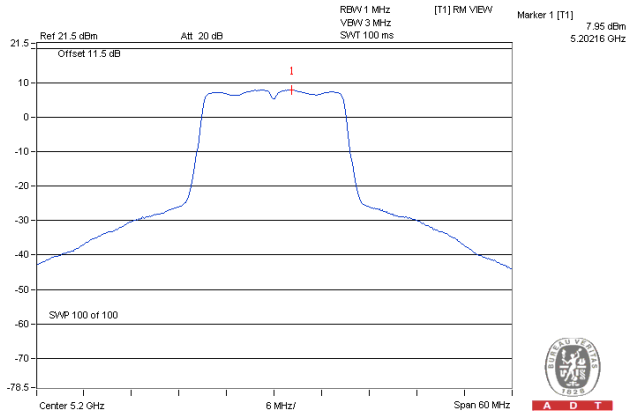
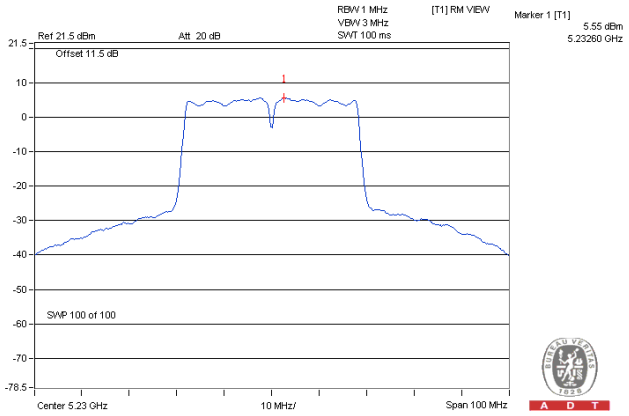
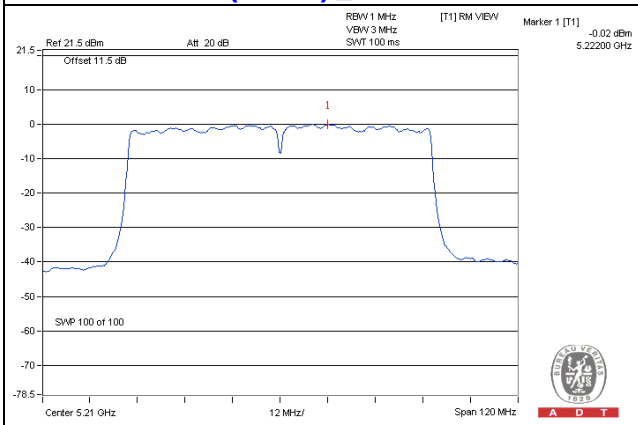
Note: 1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.

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

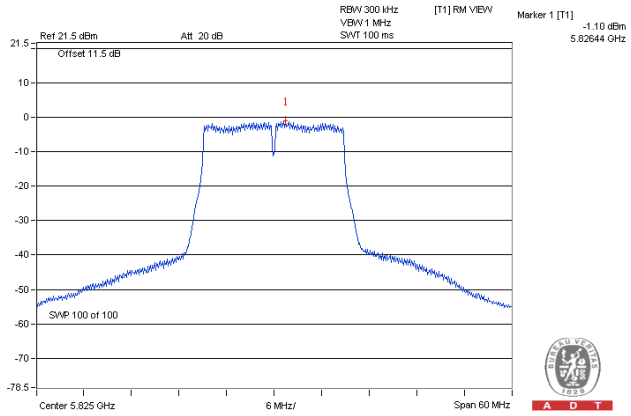
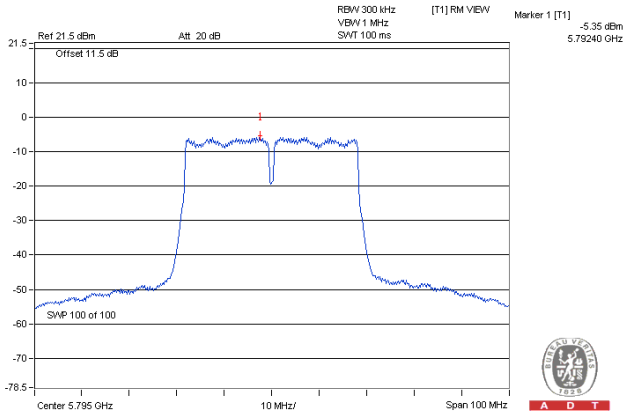
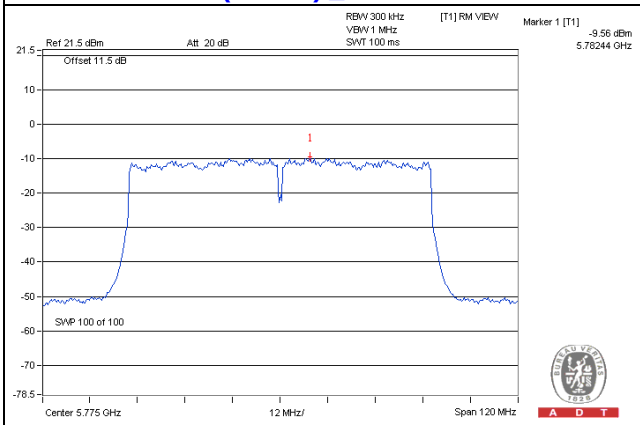
802.11ac (VHT40)

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

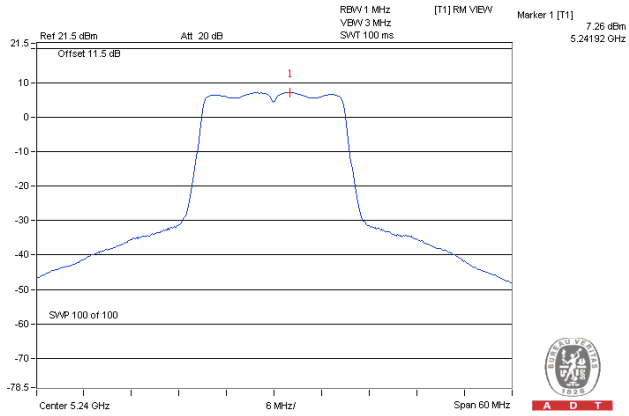
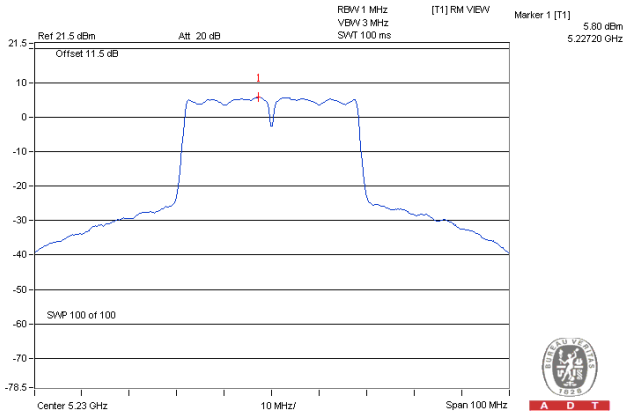
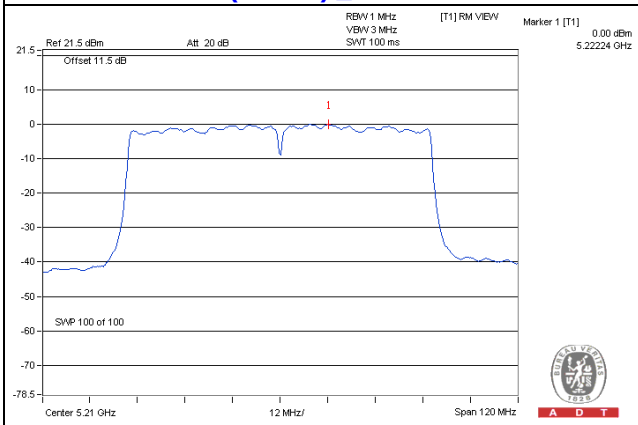
Note: 1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.

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

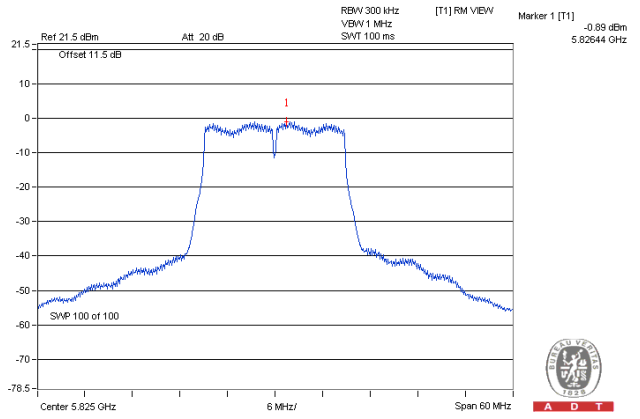
802.11ac (VHT80)

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

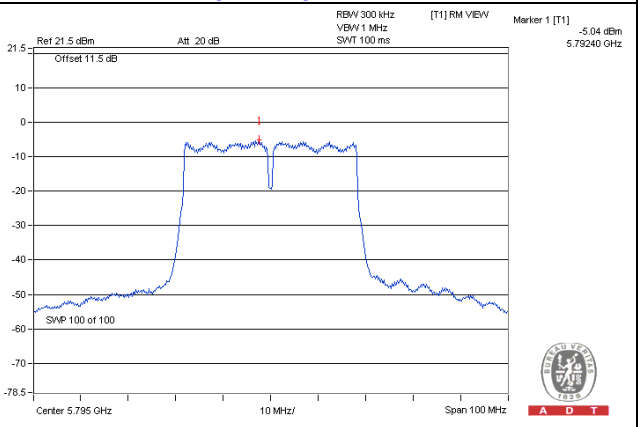
Note: 1. Refer to section 3.3 for duty cycle spectrum plot.

Spectrum Plot of Worst Value

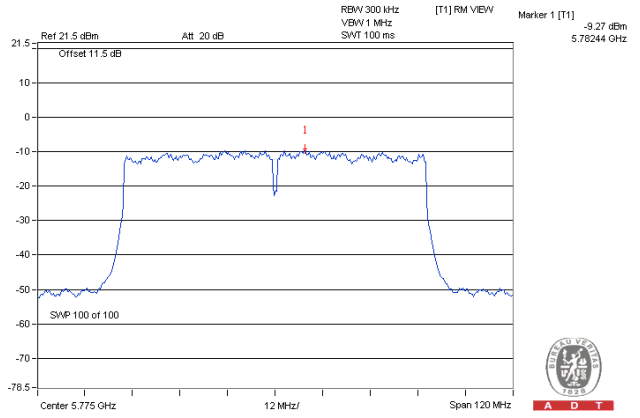
802.11ac (VHT20)_Chain 1 / CH165



802.11ac (VHT40) _Chain 1 / CH159



802.11ac (VHT80) _Chain 1 / CH155

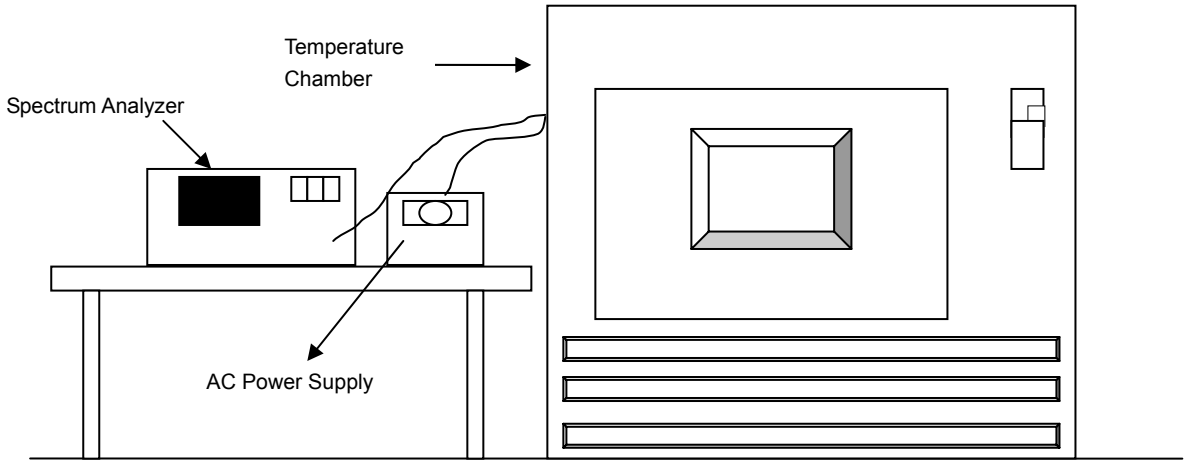


4.5 Frequency Stability Measurement

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

a. The EUT was placed inside the environmental test chamber and powered by nominal AC voltage.

b. Turn the EUT on and couple its output to a spectrum analyzer.

c. Turn the EUT off and set the chamber to the highest temperature specified.

d. 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.

e. Repeat step 2 and 3 with the temperature chamber set to the lowest temperature.

f. 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

Frequemcy Stability Versus Temp.									
Operating Frequency: 5180MHz									
Temp. (℃)	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

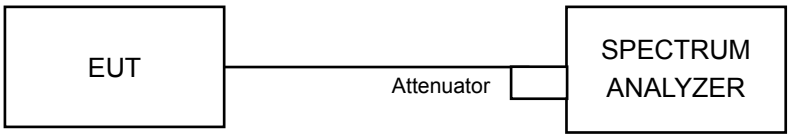
Frequemcy Stability Versus Temp.									
Operating Frequency: 5180MHz									
Temp. (℃)	Power Supply (Vac)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (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 Measurment

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) ≥ 3 x 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)

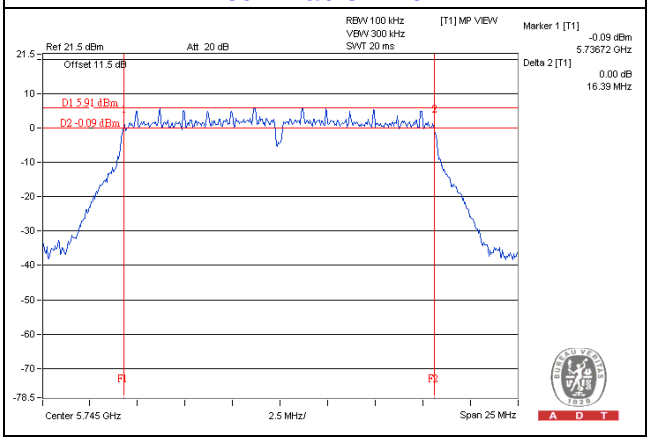
STBC Mode:

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

Spectrum Plot of Worst Value

802.11a / CH149



4.6.8 Test Results (Mode 2)

STBC Mode:

2TX
802.11ac (VHT20)

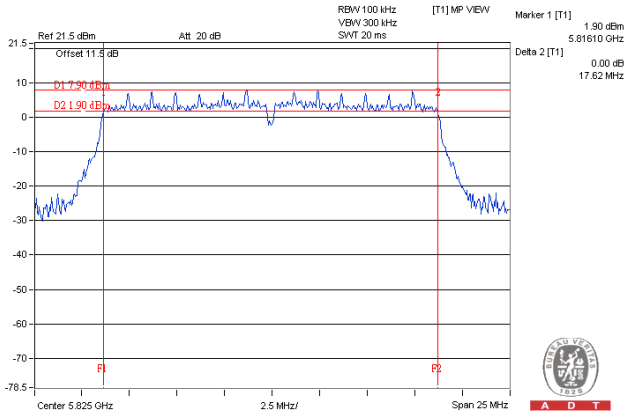
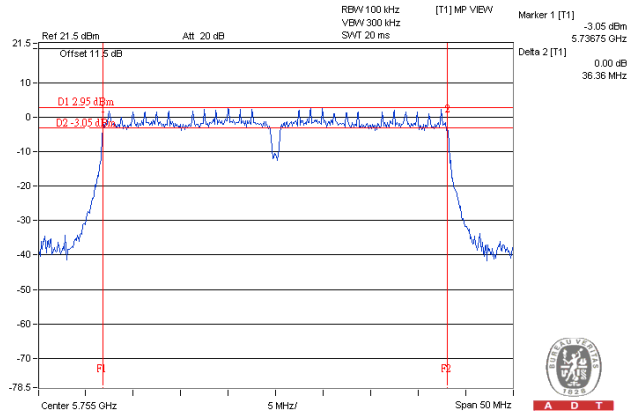
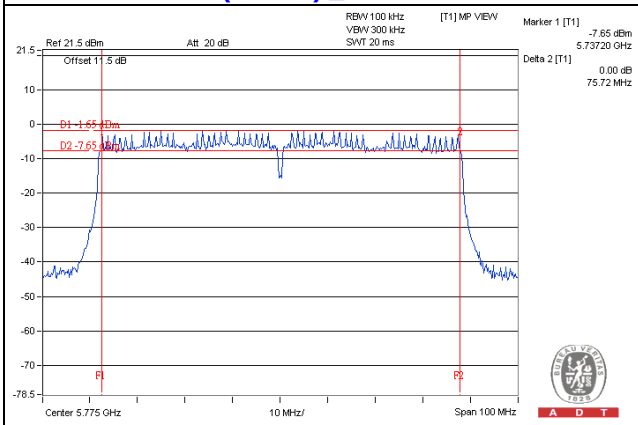
Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
149	5745	17.63	17.66	0.5	Pass
157	5785	17.62	17.66	0.5	Pass
165	5825	17.62	17.64	0.5	Pass

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)

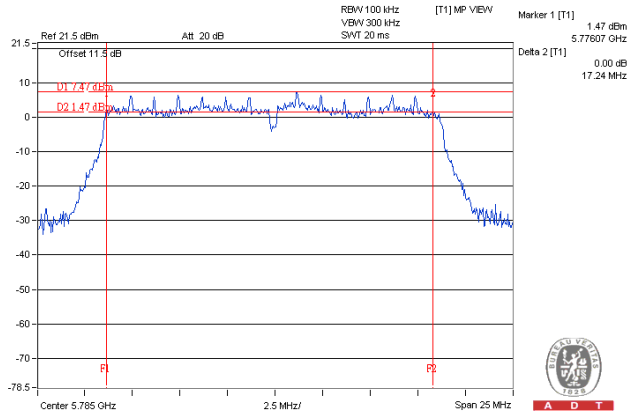
Channel	Frequency (MHz)	6dB Bandwidth (MHz)			Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2		
151	5755	36.20	36.41	36.42	0.5	Pass
159	5795	36.20	36.42	35.90	0.5	Pass

802.11ac (VHT80)

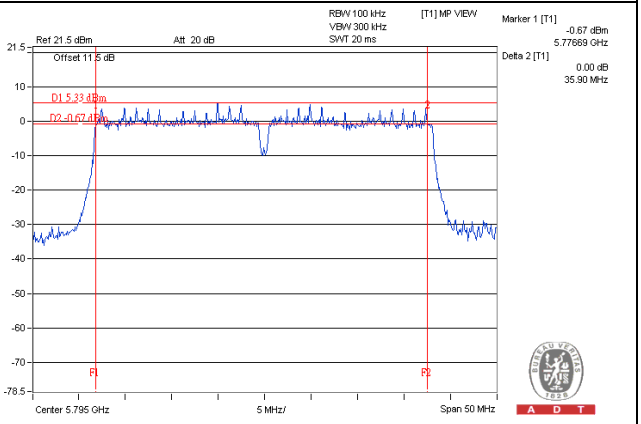
Channel	Frequency (MHz)	6dB Bandwidth (MHz)			Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2		
155	5775	75.69	75.75	75.75	0.5	Pass

Spectrum Plot of Worst Value

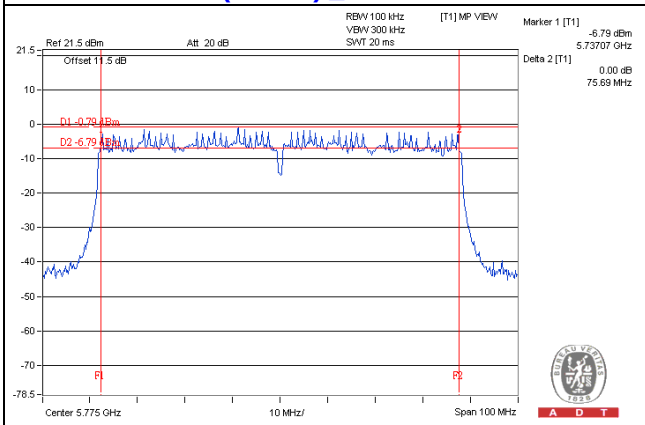
802.11ac (VHT20)_Chain 0 / CH157



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 ---