

FCC Test Report

Report No.: RF171005C05

FCC ID: REP-8020-1

Test Model: HotPort 8020

Received Date: Oct. 05, 2017

Test Date: Oct. 23 ~ Dec. 22, 2017

Issued Date: Dec. 26, 2017

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

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FCC Registration / 788550 / TW0003

Designation Number:



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Release Control Record

Issue No.	Description	Date Issued
RF171005C05	Original release.	Dec. 26, 2017

1 Certificate of Conformity

Product: Firetide Wireless Mesh Node
Brand: Firetide
Test Model: HotPort 8020
Sample Status: Engineering sample
Applicant: Firetide Inc.
Test Date: Oct. 23 ~ Dec. 22, 2017
Standards: 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 : *Suntee Liu* , **Date:** Dec. 26, 2017
Suntee Liu / Specialist

Approved by : *Ken Liu* , **Date:** Dec. 26, 2017
Ken Liu / Senior 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 -3.49dB at 0.53318MHz.
15.407(b)(1/2/3/4(i/ii)/6)	Radiated Emissions & Band Edge Measurement	Pass	Meet the requirement of limit. Minimum passing margin is -1.0dB at 5150.00, 5650.00MHz.
15.407(a)(1/2/3)	Max Average Transmit Power	Pass	Meet the requirement of limit.
---	Occupied Bandwidth Measurement	-	Reference only.
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	Antenna connector is N Plug. (The device is professionally installed)

*For U-NII-3 band compliance with rule part 15.407(b)(4)(i), the OOB test plots were recorded in Annex A.

2.1 Measurement Uncertainty

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

Measurement	Frequency	Expanded Uncertainty (k=2) (\pm)
Conducted Emissions at mains ports	150kHz ~ 30MHz	2.94 dB
Radiated Emissions up to 1 GHz	30MHz ~ 200MHz	3.86 dB
	200MHz ~ 1000MHz	3.87 dB
Radiated Emissions above 1 GHz	1GHz ~ 18GHz	2.29 dB
	18GHz ~ 40GHz	2.29 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	Firetide Wireless Mesh Node
Brand	Firetide
Test Model	HotPort 8020
Sample Status	Engineering sample
Power Supply Rating	54Vdc (POE)
Modulation Type	256QAM, 64QAM, 16QAM, QPSK, BPSK
Modulation Technology	OFDM
Transfer Rate	802.11a: 54/48/36/24/18/12/9/6Mbps 802.11n: up to 600Mbps 802.11ac: up to 1734Mbps
Operating Frequency	5180~5240MHz, 5745~5825MHz
Number of Channel	5180~5240MHz: 802.11a, 802.11n (HT20), 802.11ac (VHT20): 4 802.11n (HT40), 802.11ac (VHT40): 2 802.11ac (VHT80): 1 5745~5825MHz: 802.11a, 802.11n (HT20), 802.11ac (VHT20): 5 802.11n (HT40), 802.11ac (VHT40): 2 802.11ac (VHT80): 1
Output Power	Refer to Note
Antenna Type	Refer to Note
Antenna Connector	Refer to Note
Accessory Device	NA
Cable Supplied	1.8m non-shielded ground cable without core

Note:

1. The EUT incorporates a MIMO function. Physically, the EUT provides 4 completed transmitters and 4 receivers.

Modulation Mode	TX Function	Beamforming
802.11a	4TX	Not Support
802.11n (HT20)	4TX	Support
802.11n (HT40)	4TX	Support
802.11ac (VHT20)	4TX	Support
802.11ac (VHT40)	4TX	Support
802.11ac (VHT80)	4TX	Support

* The modulation and bandwidth are similar for 802.11n mode for HT20/HT40 and 802.11ac mode for VHT20/VHT40, therefore investigated worst case to representative mode in test report. (Final test mode refer section 3.2.1)

* CDD mode is the worst case for final tests after pretesting CDD mode and beamforming mode except output power test.


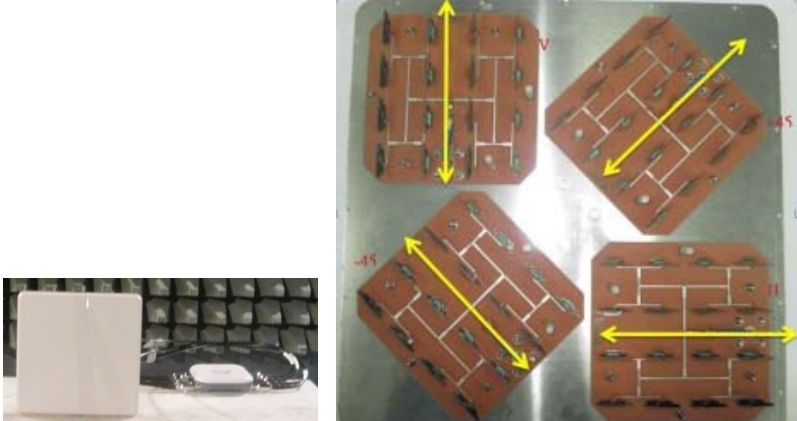
2. The EUT consumes power from following POE. (Support units only)

POE	
Brand	EnGenius
Model	EPA5006GAT
Input Power	100-240Vac, 0.8A, 50-60Hz
Output Power	54Vdc, 0.6A
Power Cable	0.5m non-shielded AC cable without core

3. The EUT uses following antennas.

No.	Function	Antenna Type	Connector	Gain (dBi)		Remark
				4.9G	5G	
1	WLAN	Dipole	N Plug	6.5	7	Radio 1 / Radio 2
2	WLAN	Panel	N Plug	17.5	18.5	Radio 1 / Radio 2

4. The EUT will install at outdoor area, the highest antenna gain from the horizon above 30 degrees is as below, for more detail information please refer to antenna specification and user manual.

Ant.	Antenna gain (dBi)	Antenna install degree	
1	7		The elevation gain should be 0-360 degree max. gain is 7dBi.
2	3.94		The elevation gain from the +45 Horizontal, +45 Vertical, -45 Horizontal, -45 Vertical, H Horizontal, H Vertical, V Horizontal, V Vertical, should be 30~150 degree and -30~-150 degree, the max. gain is 3.94dBi at H Horizontal.

* Antenna 2 was cross-polarized antenna, the antenna has +45 H -45 V four polarizations, only three will be co-polarized. so direction gain = $18.5 + 10\log(3) = 23.27\text{dBi}$.

5. Radio 1, 5GHz & Radio 2, 5GHz / Radio 1, 4.9GHz & Radio 2, 4.9GHz can transmit at same time but cannot transmit at same channel.

6. Spurious emission of the simultaneous operation (Radio 1, 5GHz & Radio 2, 5GHz / Radio 1, 4.9GHz & Radio 2, 4.9GHz) has been evaluated and no non-compliance was found.

7. Output Power is listed as below.

Radio 1, Antenna 1			
Frequency Band (MHz)	Mode	Output Power (mW)	Output Power (dBm)
5180~5240	CDD Mode	12.358	10.92
	Beamforming Mode	3.089	4.90
5745~5825	CDD Mode	396.198	25.98
	Beamforming Mode	99.050	19.96
Radio 1, Antenna 2			
Frequency Band (MHz)	Mode	Output Power (mW)	Output Power (dBm)
5180~5240	CDD Mode	24.836	13.95
	Beamforming Mode	6.209	7.93
5745~5825	CDD Mode	27.023	14.32
	Beamforming Mode	6.550	8.16
Radio 2, Antenna 1			
Frequency Band (MHz)	Mode	Output Power (mW)	Output Power (dBm)
5180~5240	CDD Mode	12.410	10.94
	Beamforming Mode	2.968	4.72
5745~5825	CDD Mode	402.936	26.05
	Beamforming Mode	100.734	20.03
Radio 2, Antenna 2			
Frequency Band (MHz)	Mode	Output Power (mW)	Output Power (dBm)
5180~5240	CDD Mode	23.870	13.78
	Beamforming Mode	5.968	7.76
5745~5825	CDD Mode	26.724	14.27
	Beamforming Mode	6.681	8.25

3.2 Description of Test Modes

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	5210MHz

5745~5825MHz:

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

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

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

Channel	Frequency	Channel	Frequency
151	5755MHz	159	5795MHz

1 channel is provided for 802.11ac (VHT80):

Channel	Frequency
155	5775MHz

3.2.1 Test Mode Applicability and Tested Channel Detail

EUT Configure Mode	Applicable to				Description
	RE \geq 1G	RE<1G	PLC	APCM	
A1	√	√	√	√	Radio 1, Antenna 1
A2	√	√	√	√	Radio 1, Antenna 2
B1	√	√	√	√	Radio 2, Antenna 1
B2	√	√	√	√	Radio 2, Antenna 2

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

Note:

1. The EUT had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on Y-plane for mode A1, B1 and X-plane for mode A2, B2.

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.

EUT Configure Mode	Mode	Frequency Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Data Rate (Mbps)	Remark
A1, A2, B1, B2	802.11a	5180-5240	36 to 48	36, 40, 48	OFDM	6.0	-
	802.11n (HT20)		36 to 48	36, 40, 48	OFDM	6.5 / MCS0	-
	802.11n (HT40)		38 to 46	38, 46	OFDM	13.5 / MCS0	-
	802.11ac (VHT80)		42	42	OFDM	29.3 / MCS0	-
	802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	6.0	-
	802.11n (HT20)		144 to 165	149, 157, 165	OFDM	6.5 / MCS0	-
	802.11n (HT40)		142 to 159	151, 159	OFDM	13.5 / MCS0	-
	802.11ac (VHT80)		138 to 155	155	OFDM	29.3 / MCS0	-

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.

EUT Configure Mode	Mode	Frequency Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Data Rate (Mbps)	Remark
A1, A2, B1, B2	802.11a	5180-5240	36 to 48	36	OFDM	6.0	-
	802.11a	5745-5825	149 to 165		OFDM	6.0	-

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.

EUT Configure Mode	Mode	Frequency Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Data Rate (Mbps)	Remark
A1, A2, B1, B2	802.11a	5180-5240	36 to 48	36	OFDM	6.0	-
	802.11a	5745-5825	149 to 165		OFDM	6.0	-

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.

EUT Configure Mode	Mode	Frequency Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Data Rate (Mbps)	Remark
A1, A2, B1, B2	802.11a	5180-5240	36 to 48	36, 40, 48	OFDM	6.0	-
	802.11n (HT20)		36 to 48	36, 40, 48	OFDM	6.5 / MCS0	-
	802.11n (HT40)		38 to 46	38, 46	OFDM	13.5 / MCS0	-
	802.11ac (VHT80)		42	42	OFDM	29.3 / MCS0	-
	802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	6.0	-
	802.11n (HT20)		144 to 165	149, 157, 165	OFDM	6.5 / MCS0	-
	802.11n (HT40)		142 to 159	151, 159	OFDM	13.5 / MCS0	-
	802.11ac (VHT80)		138 to 155	155	OFDM	29.3 / MCS0	-

Test Condition:

Applicable to	Environmental Conditions	Input Power (system)	Tested by
RE \geq 1G	23 deg. C, 69% RH 24 deg. C, 66% RH	120Vac, 60Hz	Jones Chang Willy Cheng
RE<1G	23 deg. C, 69% RH 25 deg. C, 69% RH	120Vac, 60Hz	Jones Chang Adair Peng
PLC	25 deg. C, 75% RH	120Vac, 60Hz	Jones Chang
APCM	25 deg. C, 60% RH	120Vac, 60Hz	Han Wu Ted Chang

3.3 Duty Cycle of Test Signal

Duty cycle of test signal is $\geq 98\%$, duty factor is not required.

Duty cycle of test signal is $< 98\%$, duty factor is required.

802.11a: Duty cycle = $2.037/2.112 = 0.964$, Duty factor = $10 * \log(1/0.964) = 0.16$

802.11n (HT20): Duty cycle = $4.992/5.067 = 0.985$

802.11n (HT40): Duty cycle = $2.42/2.5 = 0.968$, Duty factor = $10 * \log(1/0.968) = 0.14$

802.11ac (VHT80): Duty cycle = $1.147/1.212 = 0.946$, Duty factor = $10 * \log(1/0.946) = 0.24$



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.

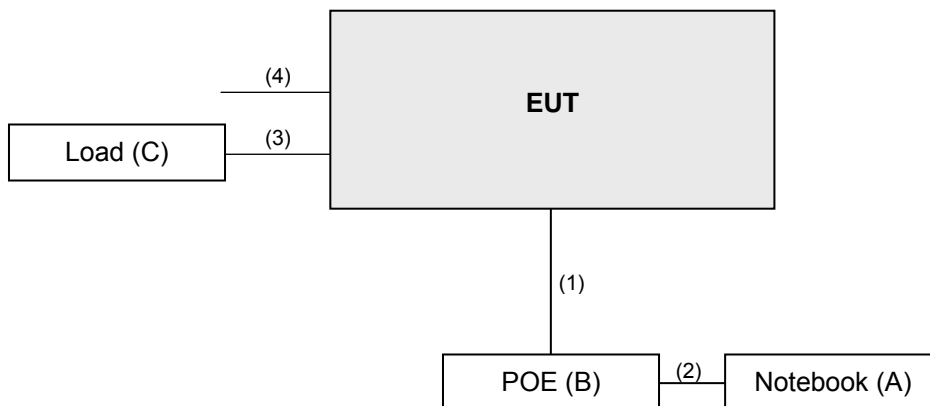
ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Notebook	DELL	E5410	1HC2XM1	FCC DoC Approved	-
B.	POE	EnGenius	EPA5006GAT	NA	NA	Supplied by the manufacturer
C.	Load	NA	NA	NA	NA	-

Note:

1. All power cords of the above support units are non-shielded (1.8m).
2. Item A acted as a communication partner to transfer data.

ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	RJ45, Cat5e	1	10	N	0	-
2.	RJ45, Cat5e	1	1.5	N	0	-
3.	RJ45, Cat5e	1	1.5	N	0	-
4.	RJ45, Cat5e	1	1.5	N	0	-

3.4.1 Configuration of System under Test



3.5 General Description of Applied Standards

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 v02r01

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.

FCC PART 15.209:

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 v02r01		Field Strength at 3m	
		PK: 74 (dBuV/m)	AV: 54 (dBuV/m)
Frequency Band	Applicable To	EIRP Limit	Equivalent Field Strength at 3m
5150~5250 MHz	15.407(b)(1)	PK: -27 (dBm/MHz)	PK: 68.2(dBuV/m)
5250~5350 MHz	15.407(b)(2)		
5470~5725 MHz	15.407(b)(3)		
5725~5850 MHz	<input checked="" type="checkbox"/> 15.407(b)(4)(i)	PK: -27 (dBm/MHz) ^{*1} PK: 10 (dBm/MHz) ^{*2} PK: 15.6 (dBm/MHz) ^{*3} PK: 27 (dBm/MHz) ^{*4}	PK: 68.2(dBuV/m) ^{*1} PK: 105.2 (dBuV/m) ^{*2} PK: 110.8(dBuV/m) ^{*3} PK: 122.2 (dBuV/m) ^{*4}
	<input type="checkbox"/> 15.407(b)(4)(ii)	Emission limits in section 15.247(d)	
^{*1} beyond 75 MHz or more above of the band edge.		^{*2} below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above.	
^{*3} below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above.		^{*4} from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.	

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

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

4.1.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Test Receiver ROHDE & SCHWARZ	ESIB7	100187	May 02, 2017	May 01, 2018
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100040	Aug. 18, 2017	Aug. 17, 2018
BILOG Antenna SCHWARZBECK	VULB9168	9168-171	Dec. 28, 2016	Dec. 27, 2017
HORN Antenna SCHWARZBECK	9120D	209	Dec. 27, 2016	Dec. 26, 2017
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170241	Dec. 14, 2016	Dec. 13, 2017
			Dec. 01, 2017	Nov. 30, 2018
Loop Antenna EMCI	EM-6879	269	Aug. 11, 2017	Aug. 10, 2018
Preamplifier Agilent (Below 1GHz)	8447D	2944A10738	Aug. 21, 2017	Aug. 20, 2018
Preamplifier Agilent (Above 1GHz)	8449B	3008A02465	Apr. 05, 2017	Apr. 04, 2018
RF signal cable HUBER+SUHNER	SUCOFLEX 104	Cable-CH3-03 (223653/4)	Aug. 21, 2017	Aug. 20, 2018
RF signal cable HUBER+SUHNER& EMCI	SUCOFLEX 104&EMC104-SM-SM-8 000	Cable-CH3-03 (309224+170907)	Sep.11, 2017	Sep. 10, 2018
Software BV ADT	ADT_Radiated_ V7.6.15.9.4	NA	NA	NA
Antenna Tower inn-co GmbH	MA 4000	013303	NA	NA
Antenna Tower Controller BV ADT	AT100	AT93021702	NA	NA
Turn Table BV ADT	TT100	TT93021702	NA	NA
Turn Table Controller BV ADT	SC100	SC93021702	NA	NA
26GHz ~ 40GHz Amplifier Agilent	8449B	3008A1960	Aug. 08, 2017	Aug. 07, 2018
High Speed Peak Power Meter	ML2495A	0824012	Aug. 18, 2017	Aug. 17, 2018
Power Sensor	MA2411B	0738171	Aug. 18, 2017	Aug. 17, 2018
WIT Standard Temperature And Humidity Chamber	TH-4S-C	W981030	Jun. 07, 2017	Jun. 06, 2018

- 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 HwaYa Chamber 3.
3. The horn antenna and preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
4. The FCC Designation Number is TW0003. The number will be varied with the Lab location and scope as attached.
5. The IC Site Registration No. is IC 7450F-3.

4.1.3 Test Procedures

For Radiated emission below 30MHz

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter chamber room. 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. Both X and Y axes of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case 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.

Note:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 9kHz at frequency below 30MHz.

For Radiated emission above 30MHz

- a. The EUT was placed on the top of a rotating table 0.8 meters (for 30MHz ~ 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:

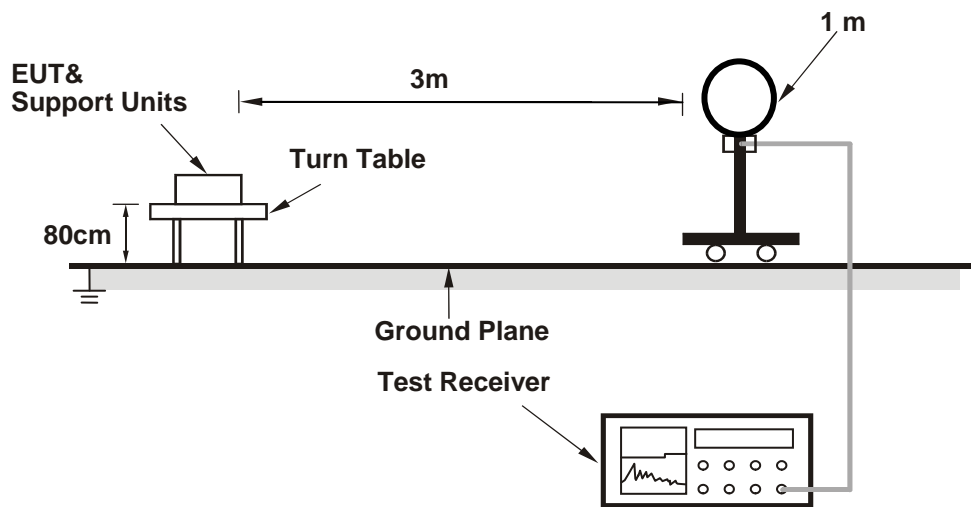
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is $\geq 1/T$ (Duty cycle < 98%) or 10Hz (Duty cycle $\geq 98\%$) for Average detection (AV) at frequency above 1GHz.
4. All modes of operation were investigated and the worst-case emissions are reported.

4.1.4 Deviation from Test Standard

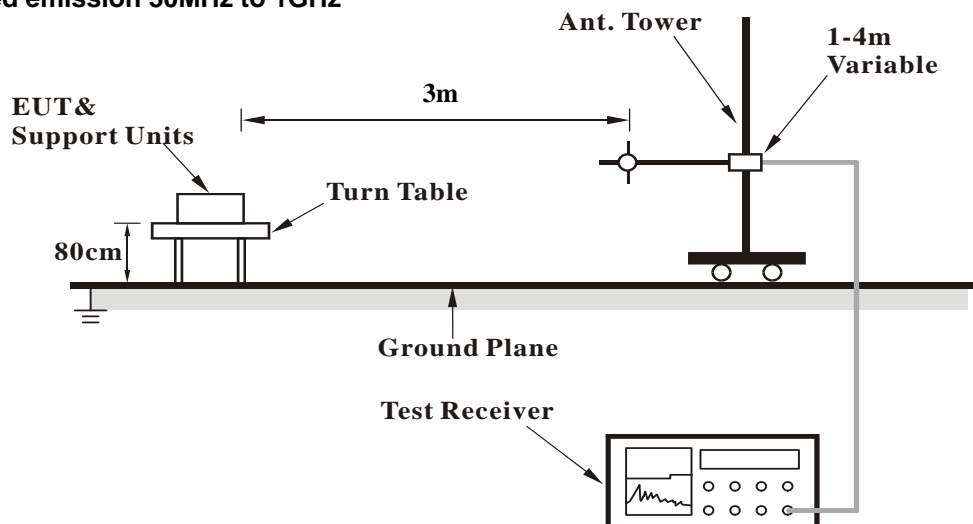
No deviation.

4.1.5 Test Setup

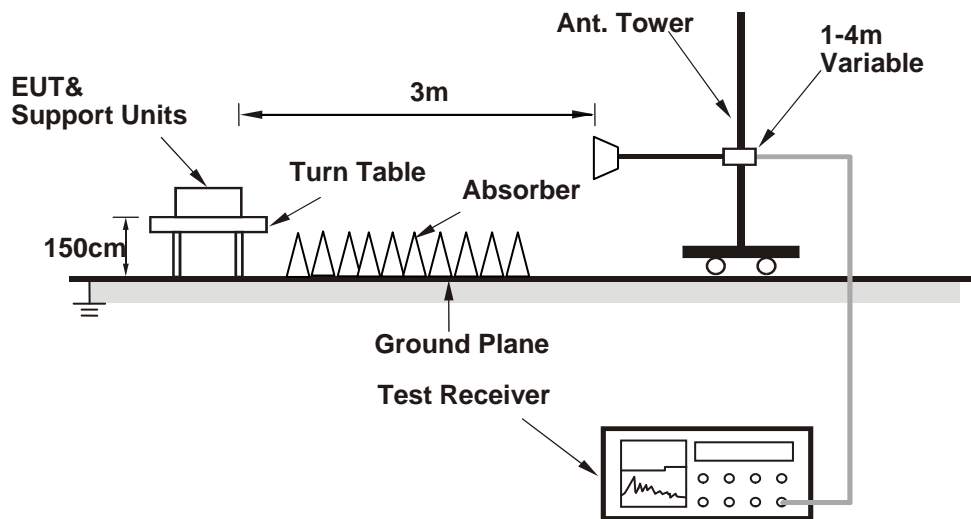
For Radiated emission below 30MHz



For Radiated emission 30MHz to 1GHz



For Radiated emission above 1GHz



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

4.1.6 EUT Operating Conditions

- Placed the EUT on the testing table.
- Prepared a notebook to act as a communication partner and placed it outside of testing area.
- The communication partner connected with EUT via a RJ45 cable and ran a test program (provided by manufacturer) to enable EUT under transmission condition continuously at specific channel frequency.
- The communication partner sent data to EUT by command "PING".

4.1.7 Test Results

Above 1GHz data:

Mode A1

802.11a

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	56.1 PK	74.0	-17.9	1.70 H	308	52.5	3.6
2	5150.00	45.1 AV	54.0	-8.9	1.70 H	308	41.5	3.6
3	*5180.00	111.4 PK			1.48 H	351	71.9	39.5
4	*5180.00	100.4 AV			1.48 H	351	60.9	39.5
5	#10360.00	58.6 PK	74.0	-15.4	1.95 H	20	42.9	15.7
6	#10360.00	45.6 AV	54.0	-8.4	1.95 H	20	29.9	15.7
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	55.4 PK	74.0	-18.6	1.52 V	166	51.8	3.6
2	5150.00	44.2 AV	54.0	-9.8	1.52 V	166	40.6	3.6
3	*5180.00	94.8 PK			1.52 V	165	55.3	39.5
4	*5180.00	84.5 AV			1.52 V	165	45.0	39.5
5	#10360.00	58.2 PK	74.0	-15.8	1.80 V	266	42.5	15.7
6	#10360.00	45.2 AV	54.0	-8.8	1.80 V	266	29.5	15.7

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	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz	FUNCTION	Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	111.2 PK			1.48 H	355	71.7	39.5
2	*5200.00	100.4 AV			1.48 H	355	60.9	39.5
3	#10400.00	58.4 PK	74.0	-15.6	1.90 H	22	42.8	15.6
4	#10400.00	45.4 AV	54.0	-8.6	1.90 H	22	29.8	15.6

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	*5200.00	94.4 PK			1.59 V	161	54.9	39.5
2	*5200.00	83.8 AV			1.59 V	161	44.3	39.5
3	#10400.00	57.8 PK	74.0	-16.2	1.23 V	255	42.2	15.6
4	#10400.00	44.8 AV	54.0	-9.2	1.23 V	255	29.2	15.6

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	111.9 PK			1.51 H	356	72.4	39.5
2	*5240.00	100.8 AV			1.51 H	356	61.3	39.5
3	5350.00	55.6 PK	74.0	-18.4	1.53 H	350	51.7	3.9
4	5350.00	44.5 AV	54.0	-9.5	1.53 H	350	40.6	3.9
5	#10480.00	59.9 PK	74.0	-14.1	1.96 H	25	43.1	16.8
6	#10480.00	46.8 AV	54.0	-7.2	1.96 H	25	30.0	16.8

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	91.9 PK			1.58 V	164	52.4	39.5
2	*5240.00	81.5 AV			1.58 V	164	42.0	39.5
3	5350.00	54.6 PK	74.0	-19.4	1.59 V	160	50.7	3.9
4	5350.00	43.8 AV	54.0	-10.2	1.59 V	160	39.9	3.9
5	#10480.00	59.7 PK	74.0	-14.3	1.74 V	265	42.9	16.8
6	#10480.00	46.5 AV	54.0	-7.5	1.74 V	265	29.7	16.8

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5623.20	56.0 PK	68.2	-12.2	1.61 H	352	51.7	4.3
2	#5650.00	66.6 PK	68.2	-1.6	1.44 H	354	62.3	4.3
3	*5745.00	129.5 PK			1.61 H	352	89.1	40.4
4	*5745.00	119.1 AV			1.61 H	352	78.7	40.4
5	#5996.00	57.5 PK	68.2	-10.7	1.61 H	352	52.3	5.2
6	11490.00	62.4 PK	74.0	-11.6	1.84 H	345	44.2	18.2
7	11490.00	49.7 AV	54.0	-4.3	1.84 H	345	31.5	18.2

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	#5642.40	56.1 PK	68.2	-12.1	2.01 V	163	51.8	4.3
2	#5650.00	56.9 PK	68.2	-11.3	1.90 V	169	52.6	4.3
3	*5745.00	111.0 PK			2.01 V	163	70.6	40.4
4	*5745.00	100.3 AV			2.01 V	163	59.9	40.4
5	#5948.80	57.7 PK	68.2	-10.5	2.01 V	163	52.6	5.1
6	11490.00	62.6 PK	74.0	-11.4	2.13 V	22	44.4	18.2
7	11490.00	49.6 AV	54.0	-4.4	2.13 V	22	31.4	18.2

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5615.20	57.6 PK	68.2	-10.6	1.79 H	350	53.3	4.3
2	*5785.00	129.6 PK			1.79 H	350	89.1	40.5
3	*5785.00	119.1 AV			1.79 H	350	78.6	40.5
4	#5943.20	59.0 PK	68.2	-9.2	1.79 H	350	53.9	5.1
5	11570.00	63.1 PK	74.0	-10.9	1.90 H	340	44.8	18.3
6	11570.00	50.3 AV	54.0	-3.7	1.90 H	340	32.0	18.3
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	#5616.80	56.0 PK	68.2	-12.2	1.63 V	358	51.7	4.3
2	*5785.00	112.6 PK			1.67 V	358	72.1	40.5
3	*5785.00	102.4 AV			1.67 V	358	61.9	40.5
4	#5959.20	57.6 PK	68.2	-10.6	1.63 V	358	52.5	5.1
5	11570.00	62.6 PK	74.0	-11.4	1.44 V	154	44.3	18.3
6	11570.00	49.7 AV	54.0	-4.3	1.44 V	154	31.4	18.3

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5624.80	57.4 PK	68.2	-10.8	1.72 H	350	53.1	4.3
2	*5825.00	129.6 PK			1.72 H	350	89.0	40.6
3	*5825.00	118.8 AV			1.72 H	350	78.2	40.6
4	#5962.40	58.1 PK	68.2	-10.1	1.72 H	350	53.0	5.1
5	11650.00	63.2 PK	74.0	-10.8	1.63 H	287	45.1	18.1
6	11650.00	50.5 AV	54.0	-3.5	1.63 H	287	32.4	18.1

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	#5610.40	56.3 PK	68.2	-11.9	1.63 V	356	52.0	4.3
2	*5825.00	113.1 PK			1.63 V	352	72.5	40.6
3	*5825.00	102.3 AV			1.63 V	352	61.7	40.6
4	#5976.00	58.7 PK	68.2	-9.5	1.63 V	356	53.5	5.2
5	11650.00	62.9 PK	74.0	-11.1	1.53 V	177	44.8	18.1
6	11650.00	49.7 AV	54.0	-4.3	1.53 V	177	31.6	18.1

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.

802.11n (HT20)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	55.3 PK	74.0	-18.7	1.50 H	350	51.7	3.6
2	5150.00	44.3 AV	54.0	-9.7	1.50 H	350	40.7	3.6
3	*5180.00	111.7 PK			1.44 H	352	72.2	39.5
4	*5180.00	100.4 AV			1.44 H	352	60.9	39.5
5	#10360.00	58.2 PK	74.0	-15.8	1.98 H	29	42.5	15.7
6	#10360.00	45.3 AV	54.0	-8.7	1.98 H	29	29.6	15.7

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	54.9 PK	74.0	-19.1	1.47 V	169	51.3	3.6
2	5150.00	43.8 AV	54.0	-10.2	1.47 V	169	40.2	3.6
3	*5180.00	94.8 PK			1.46 V	160	55.3	39.5
4	*5180.00	84.5 AV			1.46 V	160	45.0	39.5
5	#10360.00	57.9 PK	74.0	-16.1	1.70 V	289	42.2	15.7
6	#10360.00	44.9 AV	54.0	-9.1	1.70 V	289	29.2	15.7

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	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz	FUNCTION	Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	112.1 PK			1.46 H	351	72.6	39.5
2	*5200.00	101.2 AV			1.46 H	351	61.7	39.5
3	#10400.00	58.7 PK	74.0	-15.3	1.92 H	30	43.1	15.6
4	#10400.00	45.7 AV	54.0	-8.3	1.92 H	30	30.1	15.6

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	*5200.00	94.6 PK			1.50 V	164	55.1	39.5
2	*5200.00	84.3 AV			1.50 V	164	44.8	39.5
3	#10400.00	58.1 PK	74.0	-15.9	1.66 V	290	42.5	15.6
4	#10400.00	45.2 AV	54.0	-8.8	1.66 V	290	29.6	15.6

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	112.1 PK			1.55 H	353	72.6	39.5
2	*5240.00	101.1 AV			1.55 H	353	61.6	39.5
3	5350.00	55.3 PK	74.0	-18.7	1.55 H	355	51.4	3.9
4	5350.00	44.3 AV	54.0	-9.7	1.55 H	355	40.4	3.9
5	#10480.00	60.1 PK	74.0	-13.9	2.01 H	35	43.3	16.8
6	#10480.00	47.1 AV	54.0	-6.9	2.01 H	35	30.3	16.8

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	93.4 PK			1.51 V	165	53.9	39.5
2	*5240.00	82.4 AV			1.51 V	165	42.9	39.5
3	5350.00	54.1 PK	74.0	-19.9	1.50 V	164	50.2	3.9
4	5350.00	43.7 AV	54.0	-10.3	1.50 V	164	39.8	3.9
5	#10480.00	59.4 PK	74.0	-14.6	1.79 V	265	42.6	16.8
6	#10480.00	46.5 AV	54.0	-7.5	1.79 V	265	29.7	16.8

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5649.60	61.5 PK	68.2	-6.7	1.65 H	351	57.2	4.3
2	#5650.00	65.6 PK	68.2	-2.6	1.71 H	353	61.3	4.3
3	*5745.00	129.7 PK			1.65 H	350	89.3	40.4
4	*5745.00	118.8 AV			1.65 H	350	78.4	40.4
5	#5988.00	58.3 PK	68.2	-9.9	1.65 H	351	53.1	5.2
6	11490.00	63.0 PK	74.0	-11.0	2.19 H	30	44.8	18.2
7	11490.00	49.8 AV	54.0	-4.2	2.19 H	30	31.6	18.2

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	#5649.60	56.6 PK	68.2	-11.6	1.65 V	352	52.3	4.3
2	#5650.00	59.1 PK	68.2	-9.1	1.70 V	355	54.8	4.3
3	*5745.00	113.8 PK			1.65 V	352	73.4	40.4
4	*5745.00	102.6 AV			1.65 V	352	62.2	40.4
5	#5931.20	57.5 PK	68.2	-10.7	1.65 V	352	52.5	5.0
6	11490.00	61.0 PK	74.0	-13.0	1.55 V	170	42.8	18.2
7	11490.00	47.8 AV	54.0	-6.2	1.55 V	170	29.6	18.2

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5635.20	56.8 PK	68.2	-11.4	1.68 H	349	52.5	4.3
2	*5785.00	129.8 PK			1.66 H	349	89.3	40.5
3	*5785.00	119.1 AV			1.66 H	349	78.6	40.5
4	#5995.20	57.9 PK	68.2	-10.3	1.68 H	349	52.7	5.2
5	11570.00	62.5 PK	74.0	-11.5	2.26 H	30	44.2	18.3
6	11570.00	49.6 AV	54.0	-4.4	2.26 H	30	31.3	18.3

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	#5609.60	56.9 PK	68.2	-11.3	1.68 V	347	52.6	4.3
2	*5785.00	112.6 PK			1.68 V	347	72.1	40.5
3	*5785.00	101.9 AV			1.68 V	347	61.4	40.5
4	#5942.40	57.5 PK	68.2	-10.7	1.68 V	347	52.5	5.0
5	11570.00	61.8 PK	74.0	-12.2	1.58 V	152	43.5	18.3
6	11570.00	48.5 AV	54.0	-5.5	1.58 V	152	30.2	18.3

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5628.00	58.1 PK	68.2	-10.1	1.72 H	349	53.8	4.3
2	*5825.00	129.7 PK			1.72 H	349	89.1	40.6
3	*5825.00	119.0 AV			1.72 H	349	78.4	40.6
4	#5942.40	58.7 PK	68.2	-9.5	1.72 H	349	53.7	5.0
5	11650.00	63.0 PK	74.0	-11.0	2.24 H	34	44.9	18.1
6	11650.00	49.9 AV	54.0	-4.1	2.24 H	34	31.8	18.1
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	#5607.20	55.9 PK	68.2	-12.3	1.65 V	354	51.6	4.3
2	*5825.00	112.7 PK			1.65 V	354	72.1	40.6
3	*5825.00	102.1 AV			1.65 V	354	61.5	40.6
4	#5936.00	57.5 PK	68.2	-10.7	1.65 V	354	52.5	5.0
5	11650.00	61.9 PK	74.0	-12.1	1.49 V	175	43.8	18.1
6	11650.00	48.6 AV	54.0	-5.4	1.49 V	175	30.5	18.1

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.

802.11n (HT40)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	54.2 PK	74.0	-19.8	1.50 H	324	50.6	3.6
2	5150.00	43.1 AV	54.0	-10.9	1.50 H	324	39.5	3.6
3	*5190.00	110.1 PK			1.55 H	352	70.6	39.5
4	*5190.00	99.9 AV			1.55 H	352	60.4	39.5
5	#10380.00	57.9 PK	74.0	-16.1	2.03 H	32	42.2	15.7
6	#10380.00	44.9 AV	54.0	-9.1	2.03 H	32	29.2	15.7

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	53.8 PK	74.0	-20.2	1.50 V	166	50.2	3.6
2	5150.00	42.7 AV	54.0	-11.3	1.50 V	166	39.1	3.6
3	*5190.00	93.2 PK			1.46 V	163	53.7	39.5
4	*5190.00	83.6 AV			1.46 V	163	44.1	39.5
5	#10380.00	57.5 PK	74.0	-16.5	1.77 V	280	41.8	15.7
6	#10380.00	44.5 AV	54.0	-9.5	1.77 V	280	28.8	15.7

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5230.00	110.4 PK			1.51 H	354	70.9	39.5
2	*5230.00	100.3 AV			1.51 H	354	60.8	39.5
3	5350.00	55.9 PK	74.0	-18.1	1.60 H	333	52.0	3.9
4	5350.00	44.8 AV	54.0	-9.2	1.60 H	333	40.9	3.9
5	#10460.00	58.5 PK	74.0	-15.5	1.93 H	36	42.1	16.4
6	#10460.00	45.5 AV	54.0	-8.5	1.93 H	36	29.1	16.4

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	*5230.00	91.8 PK			1.47 V	163	52.3	39.5
2	*5230.00	81.8 AV			1.47 V	163	42.3	39.5
3	5350.00	54.7 PK	74.0	-19.3	1.44 V	164	50.8	3.9
4	5350.00	43.5 AV	54.0	-10.5	1.44 V	164	39.6	3.9
5	#10460.00	58.3 PK	74.0	-15.7	1.80 V	286	41.9	16.4
6	#10460.00	45.2 AV	54.0	-8.8	1.80 V	286	28.8	16.4

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5643.20	65.0 PK	68.2	-3.2	1.74 H	350	60.7	4.3
2	#5650.00	66.5 PK	68.2	-1.7	1.64 H	352	62.2	4.3
3	*5755.00	124.7 PK			1.74 H	351	84.3	40.4
4	*5755.00	114.8 AV			1.74 H	351	74.4	40.4
5	#5938.40	57.9 PK	68.2	-10.3	1.74 H	350	52.9	5.0
6	11510.00	61.7 PK	74.0	-12.3	1.96 H	40	43.5	18.2
7	11510.00	48.8 AV	54.0	-5.2	1.96 H	40	30.6	18.2

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	#5608.80	56.3 PK	68.2	-11.9	1.73 V	354	52.0	4.3
2	#5650.00	60.8 PK	68.2	-7.4	1.77 V	350	56.5	4.3
3	*5755.00	109.1 PK			1.73 V	354	68.7	40.4
4	*5755.00	99.0 AV			1.73 V	354	58.6	40.4
5	#5962.40	57.6 PK	68.2	-10.6	1.73 V	354	52.5	5.1
6	11510.00	60.7 PK	74.0	-13.3	1.51 V	163	42.5	18.2
7	11510.00	47.6 AV	54.0	-6.4	1.51 V	163	29.4	18.2

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5642.40	65.4 PK	68.2	-2.8	1.72 H	351	61.1	4.3
2	#5650.00	66.3 PK	68.2	-1.9	1.80 H	350	62.0	4.3
3	*5795.00	126.2 PK			1.72 H	351	85.7	40.5
4	*5795.00	115.8 AV			1.72 H	351	75.3	40.5
5	#5924.80	63.5 PK	68.3	-4.8	1.72 H	351	58.6	4.9
6	#5925.00	66.5 PK	68.2	-1.7	1.74 H	350	61.6	4.9
7	11590.00	62.7 PK	74.0	-11.3	2.33 H	39	44.5	18.2
8	11590.00	50.1 AV	54.0	-3.9	2.33 H	39	31.9	18.2

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	#5641.60	56.7 PK	68.2	-11.5	1.75 V	352	52.4	4.3
2	#5650.00	57.4 PK	68.2	-10.8	1.80 V	322	53.1	4.3
3	*5795.00	110.6 PK			1.72 V	352	70.1	40.5
4	*5795.00	100.6 AV			1.72 V	352	60.1	40.5
5	#5925.00	58.1 PK	68.2	-10.1	1.70 V	346	53.2	4.9
6	#5926.40	57.9 PK	68.2	-10.3	1.75 V	352	53.0	4.9
7	11590.00	62.0 PK	74.0	-12.0	1.90 V	177	43.8	18.2
8	11590.00	48.8 AV	54.0	-5.2	1.90 V	177	30.6	18.2

Remarks:

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

802.11ac (VHT80)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	66.3 PK	74.0	-7.7	1.45 H	351	62.7	3.6
2	5150.00	48.0 AV	54.0	-6.0	1.45 H	351	44.4	3.6
3	*5210.00	106.0 PK			1.52 H	351	66.5	39.5
4	*5210.00	96.1 AV			1.52 H	351	56.6	39.5
5	5350.00	56.8 PK	74.0	-17.2	1.49 H	353	52.9	3.9
6	5350.00	44.8 AV	54.0	-9.2	1.49 H	353	40.9	3.9
7	#10420.00	57.7 PK	74.0	-16.3	1.86 H	29	41.8	15.9
8	#10420.00	44.8 AV	54.0	-9.2	1.86 H	29	28.9	15.9
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	56.3 PK	74.0	-17.7	1.30 V	160	52.7	3.6
2	5150.00	46.0 AV	54.0	-8.0	1.30 V	160	42.4	3.6
3	*5210.00	89.0 PK			1.31 V	165	49.5	39.5
4	*5210.00	79.1 AV			1.31 V	165	39.6	39.5
5	5350.00	55.6 PK	74.0	-18.4	1.40 V	170	51.7	3.9
6	5350.00	45.3 AV	54.0	-8.7	1.40 V	170	41.4	3.9
7	#10420.00	57.4 PK	74.0	-16.6	1.55 V	277	41.5	15.9
8	#10420.00	44.4 AV	54.0	-9.6	1.55 V	277	28.5	15.9

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5649.60	64.2 PK	68.2	-4.0	1.55 H	350	59.9	4.3
2	#5650.00	66.5 PK	68.2	-1.7	1.72 H	351	62.2	4.3
3	*5775.00	116.2 PK			1.55 H	350	75.7	40.5
4	*5775.00	105.9 AV			1.55 H	350	65.4	40.5
5	#5925.00	63.4 PK	68.2	-4.8	1.57 H	350	58.5	4.9
6	#5925.60	58.6 PK	68.2	-9.6	1.55 H	350	53.7	4.9
7	11550.00	60.5 PK	74.0	-13.5	2.40 H	50	42.2	18.3
8	11550.00	47.6 AV	54.0	-6.4	2.40 H	50	29.3	18.3
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	#5632.80	57.3 PK	68.2	-10.9	1.64 V	354	53.0	4.3
2	#5650.00	60.3 PK	68.2	-7.9	1.70 V	350	56.0	4.3
3	*5775.00	99.6 PK			1.64 V	354	59.1	40.5
4	*5775.00	89.8 AV			1.64 V	354	49.3	40.5
5	#5925.00	59.1 PK	68.2	-9.1	1.66 V	0	54.2	4.9
6	#5938.40	57.8 PK	68.2	-10.4	1.64 V	354	52.8	5.0
7	11550.00	60.0 PK	74.0	-14.0	1.66 V	170	41.7	18.3
8	11550.00	47.1 AV	54.0	-6.9	1.66 V	170	28.8	18.3

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.

Mode A2

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	5150.00	61.0 PK	74.0	-13.0	1.57 H	356	57.4	3.6
2	5150.00	47.5 AV	54.0	-6.5	1.57 H	356	43.9	3.6
3	*5180.00	122.7 PK			1.80 H	350	83.2	39.5
4	*5180.00	112.1 AV			1.80 H	350	72.6	39.5
5	#10360.00	57.8 PK	74.0	-16.2	1.75 H	305	42.1	15.7
6	#10360.00	44.5 AV	54.0	-9.5	1.75 H	305	28.8	15.7

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	61.2 PK	74.0	-12.8	1.64 V	346	57.6	3.6
2	5150.00	49.8 AV	54.0	-4.2	1.64 V	346	46.2	3.6
3	*5180.00	123.0 PK			1.93 V	349	83.5	39.5
4	*5180.00	112.4 AV			1.93 V	349	72.9	39.5
5	#10360.00	58.0 PK	74.0	-16.0	1.88 V	333	42.3	15.7
6	#10360.00	44.5 AV	54.0	-9.5	1.88 V	333	28.8	15.7

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	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz	FUNCTION	Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	123.4 PK			1.75 H	349	83.9	39.5
2	*5200.00	112.8 AV			1.75 H	349	73.3	39.5
3	#10400.00	57.7 PK	74.0	-16.3	3.10 H	153	42.1	15.6
4	#10400.00	44.3 AV	54.0	-9.7	3.10 H	153	28.7	15.6

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	*5200.00	123.2 PK			1.96 V	350	83.7	39.5
2	*5200.00	112.7 AV			1.96 V	350	73.2	39.5
3	#10400.00	57.9 PK	74.0	-16.1	1.59 V	330	42.3	15.6
4	#10400.00	44.5 AV	54.0	-9.5	1.59 V	330	28.9	15.6

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	124.3 PK			1.76 H	349	84.8	39.5
2	*5240.00	113.0 AV			1.76 H	349	73.5	39.5
3	5350.00	58.5 PK	74.0	-15.5	1.66 H	354	54.6	3.9
4	5350.00	45.5 AV	54.0	-8.5	1.66 H	354	41.6	3.9
5	#10480.00	59.0 PK	74.0	-15.0	1.70 H	322	42.2	16.8
6	#10480.00	45.2 AV	54.0	-8.8	1.70 H	322	28.4	16.8

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	123.9 PK			1.88 V	352	84.4	39.5
2	*5240.00	113.1 AV			1.88 V	352	73.6	39.5
3	5350.00	57.3 PK	74.0	-16.7	1.53 V	346	53.4	3.9
4	5350.00	46.8 AV	54.0	-7.2	1.53 V	346	42.9	3.9
5	#10480.00	59.0 PK	74.0	-15.0	1.77 V	311	42.2	16.8
6	#10480.00	45.1 AV	54.0	-8.9	1.77 V	311	28.3	16.8

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5644.80	58.3 PK	68.2	-9.9	1.87 H	352	54.0	4.3
2	*5745.00	126.9 PK			1.87 H	352	86.5	40.4
3	*5745.00	115.6 AV			1.87 H	352	75.2	40.4
4	#5936.00	59.2 PK	68.2	-9.0	1.87 H	352	54.2	5.0
5	11490.00	60.6 PK	74.0	-13.4	1.99 H	229	42.4	18.2
6	11490.00	47.5 AV	54.0	-6.5	1.99 H	229	29.3	18.2

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	#5648.00	58.0 PK	68.2	-10.2	1.80 V	346	53.7	4.3
2	*5745.00	123.3 PK			1.84 V	345	82.9	40.4
3	*5745.00	112.9 AV			1.84 V	345	72.5	40.4
4	#5929.60	58.0 PK	68.2	-10.2	1.80 V	346	53.0	5.0
5	11490.00	60.0 PK	74.0	-14.0	1.68 V	310	41.8	18.2
6	11490.00	47.2 AV	54.0	-6.8	1.68 V	310	29.0	18.2

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5626.40	57.2 PK	68.2	-11.0	1.87 H	353	52.9	4.3
2	*5785.00	125.6 PK			1.87 H	353	85.1	40.5
3	*5785.00	114.5 AV			1.87 H	353	74.0	40.5
4	#5939.20	57.6 PK	68.2	-10.6	1.87 H	353	52.6	5.0
5	11570.00	60.0 PK	74.0	-14.0	1.77 H	322	41.7	18.3
6	11570.00	47.0 AV	54.0	-7.0	1.77 H	322	28.7	18.3

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	#5603.20	57.1 PK	68.2	-11.1	1.78 V	348	52.8	4.3
2	*5785.00	124.3 PK			1.78 V	348	83.8	40.5
3	*5785.00	114.0 AV			1.78 V	348	73.5	40.5
4	#5934.40	57.9 PK	68.2	-10.3	1.78 V	348	52.9	5.0
5	11570.00	60.5 PK	74.0	-13.5	1.88 V	333	42.2	18.3
6	11570.00	47.0 AV	54.0	-7.0	1.88 V	333	28.7	18.3

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5612.00	57.5 PK	68.2	-10.7	1.88 H	353	53.2	4.3
2	*5825.00	125.7 PK			1.88 H	353	85.1	40.6
3	*5825.00	114.8 AV			1.88 H	353	74.2	40.6
4	#5948.80	59.2 PK	68.2	-9.0	1.88 H	353	54.1	5.1
5	11650.00	59.8 PK	74.0	-14.2	1.90 H	333	41.7	18.1
6	11650.00	46.3 AV	54.0	-7.7	1.90 H	333	28.2	18.1

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	#5635.20	57.0 PK	68.2	-11.2	1.79 V	349	52.7	4.3
2	*5825.00	125.0 PK			1.79 V	349	84.4	40.6
3	*5825.00	114.4 AV			1.79 V	349	73.8	40.6
4	#5926.40	59.6 PK	68.2	-8.6	1.79 V	349	54.7	4.9
5	11650.00	60.3 PK	74.0	-13.7	1.80 V	343	42.2	18.1
6	11650.00	46.7 AV	54.0	-7.3	1.80 V	343	28.6	18.1

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.

802.11n (HT20)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	60.4 PK	74.0	-13.6	1.81 H	356	56.8	3.6
2	5150.00	47.6 AV	54.0	-6.4	1.81 H	356	44.0	3.6
3	*5180.00	123.1 PK			1.75 H	348	83.6	39.5
4	*5180.00	112.3 AV			1.75 H	348	72.8	39.5
5	#10360.00	58.2 PK	74.0	-15.8	1.69 H	329	42.5	15.7
6	#10360.00	44.7 AV	54.0	-9.3	1.69 H	329	29.0	15.7
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	62.0 PK	74.0	-12.0	1.80 V	349	58.4	3.6
2	5150.00	49.3 AV	54.0	-4.7	1.80 V	349	45.7	3.6
3	*5180.00	123.2 PK			1.92 V	350	83.7	39.5
4	*5180.00	112.4 AV			1.92 V	350	72.9	39.5
5	#10360.00	57.9 PK	74.0	-16.1	1.77 V	324	42.2	15.7
6	#10360.00	44.5 AV	54.0	-9.5	1.77 V	324	28.8	15.7

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	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz	FUNCTION	Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	123.8 PK			1.73 H	349	84.3	39.5
2	*5200.00	112.8 AV			1.73 H	349	73.3	39.5
3	#10400.00	57.9 PK	74.0	-16.1	1.55 H	319	42.3	15.6
4	#10400.00	44.6 AV	54.0	-9.4	1.55 H	319	29.0	15.6

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	*5200.00	123.7 PK			1.87 V	351	84.2	39.5
2	*5200.00	112.9 AV			1.87 V	351	73.4	39.5
3	#10400.00	57.7 PK	74.0	-16.3	1.68 V	340	42.1	15.6
4	#10400.00	44.3 AV	54.0	-9.7	1.68 V	340	28.7	15.6

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	124.7 PK			1.72 H	349	85.2	39.5
2	*5240.00	113.4 AV			1.72 H	349	73.9	39.5
3	5350.00	58.7 PK	74.0	-15.3	1.80 H	357	54.8	3.9
4	5350.00	45.2 AV	54.0	-8.8	1.80 H	357	41.3	3.9
5	#10480.00	58.3 PK	74.0	-15.7	1.66 H	321	41.5	16.8
6	#10480.00	45.2 AV	54.0	-8.8	1.66 H	321	28.4	16.8

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	124.2 PK			1.94 V	350	84.7	39.5
2	*5240.00	113.4 AV			1.94 V	350	73.9	39.5
3	5350.00	57.7 PK	74.0	-16.3	1.56 V	346	53.8	3.9
4	5350.00	46.3 AV	54.0	-7.7	1.56 V	346	42.4	3.9
5	#10480.00	59.0 PK	74.0	-15.0	1.56 V	340	42.2	16.8
6	#10480.00	45.4 AV	54.0	-8.6	1.56 V	340	28.6	16.8

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5634.40	59.5 PK	68.2	-8.7	1.84 H	352	55.2	4.3
2	*5745.00	125.6 PK			1.84 H	353	85.2	40.4
3	*5745.00	114.6 AV			1.84 H	353	74.2	40.4
4	#5994.40	58.3 PK	68.2	-9.9	1.84 H	352	53.1	5.2
5	11490.00	60.4 PK	74.0	-13.6	2.20 H	17	42.2	18.2
6	11490.00	47.4 AV	54.0	-6.6	2.20 H	17	29.2	18.2

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	#5636.80	57.7 PK	68.2	-10.5	1.84 V	345	53.4	4.3
2	*5745.00	123.3 PK			1.84 V	345	82.9	40.4
3	*5745.00	112.9 AV			1.84 V	345	72.5	40.4
4	#5953.60	57.9 PK	68.2	-10.3	1.84 V	345	52.8	5.1
5	11490.00	60.0 PK	74.0	-14.0	1.68 V	310	41.8	18.2
6	11490.00	47.2 AV	54.0	-6.8	1.68 V	310	29.0	18.2

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5640.80	59.0 PK	68.2	-9.2	1.82 H	351	54.7	4.3
2	*5785.00	124.9 PK			1.82 H	351	84.4	40.5
3	*5785.00	114.3 AV			1.82 H	351	73.8	40.5
4	#5948.00	58.7 PK	68.2	-9.5	1.82 H	351	53.6	5.1
5	11570.00	60.7 PK	74.0	-13.3	2.02 H	25	42.4	18.3
6	11570.00	47.8 AV	54.0	-6.2	2.02 H	25	29.5	18.3

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	#5620.80	56.8 PK	68.2	-11.4	1.85 V	346	52.5	4.3
2	*5785.00	123.0 PK			1.86 V	347	82.5	40.5
3	*5785.00	112.4 AV			1.86 V	347	71.9	40.5
4	#5948.80	58.3 PK	68.2	-9.9	1.85 V	346	53.2	5.1
5	11570.00	60.3 PK	74.0	-13.7	1.62 V	314	42.0	18.3
6	11570.00	47.5 AV	54.0	-6.5	1.62 V	314	29.2	18.3

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5644.80	58.6 PK	68.2	-9.6	1.88 H	353	54.3	4.3
2	*5825.00	125.0 PK			1.88 H	353	84.4	40.6
3	*5825.00	114.2 AV			1.88 H	353	73.6	40.6
4	#5967.20	58.0 PK	68.2	-10.2	1.88 H	353	52.8	5.2
5	11650.00	60.6 PK	74.0	-13.4	2.08 H	35	42.5	18.1
6	11650.00	47.7 AV	54.0	-6.3	2.08 H	35	29.6	18.1

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	#5634.40	56.6 PK	68.2	-11.6	1.78 V	348	52.3	4.3
2	*5825.00	124.3 PK			1.78 V	348	83.7	40.6
3	*5825.00	113.5 AV			1.78 V	348	72.9	40.6
4	#5962.40	58.2 PK	68.2	-10.0	1.78 V	348	53.1	5.1
5	11650.00	60.3 PK	74.0	-13.7	1.59 V	313	42.2	18.1
6	11650.00	47.4 AV	54.0	-6.6	1.59 V	313	29.3	18.1

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.

802.11n (HT40)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	62.1 PK	74.0	-11.9	1.73 H	355	58.5	3.6
2	5150.00	50.2 AV	54.0	-3.8	1.73 H	355	46.6	3.6
3	*5190.00	121.4 PK			1.73 H	352	81.9	39.5
4	*5190.00	110.7 AV			1.73 H	352	71.2	39.5
5	#10380.00	58.0 PK	74.0	-16.0	1.69 H	317	42.3	15.7
6	#10380.00	44.6 AV	54.0	-9.4	1.69 H	317	28.9	15.7

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	62.0 PK	74.0	-12.0	1.46 V	353	58.4	3.6
2	5150.00	51.8 AV	54.0	-2.2	1.46 V	353	48.2	3.6
3	*5190.00	119.6 PK			1.88 V	351	80.1	39.5
4	*5190.00	110.0 AV			1.88 V	351	70.5	39.5
5	#10380.00	58.1 PK	74.0	-15.9	1.85 V	321	42.4	15.7
6	#10380.00	44.5 AV	54.0	-9.5	1.85 V	321	28.8	15.7

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5230.00	121.2 PK			1.72 H	349	81.7	39.5
2	*5230.00	110.7 AV			1.72 H	349	71.2	39.5
3	5350.00	57.9 PK	74.0	-16.1	1.86 H	347	54.0	3.9
4	5350.00	46.3 AV	54.0	-7.7	1.86 H	347	42.4	3.9
5	#10460.00	58.2 PK	74.0	-15.8	1.90 H	301	41.8	16.4
6	#10460.00	44.5 AV	54.0	-9.5	1.90 H	301	28.1	16.4
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	*5230.00	119.8 PK			1.94 V	349	80.3	39.5
2	*5230.00	110.2 AV			1.94 V	349	70.7	39.5
3	5350.00	57.5 PK	74.0	-16.5	1.46 V	346	53.6	3.9
4	5350.00	46.3 AV	54.0	-7.7	1.46 V	346	42.4	3.9
5	#10460.00	58.1 PK	74.0	-15.9	1.69 V	333	41.7	16.4
6	#10460.00	44.9 AV	54.0	-9.1	1.69 V	333	28.5	16.4

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5634.40	60.8 PK	68.2	-7.4	1.85 H	351	56.5	4.3
2	*5755.00	123.0 PK			1.85 H	353	82.6	40.4
3	*5755.00	112.9 AV			1.85 H	353	72.5	40.4
4	#5945.60	59.2 PK	68.2	-9.0	1.85 H	351	54.1	5.1
5	11510.00	60.2 PK	74.0	-13.8	2.08 H	30	42.0	18.2
6	11510.00	47.3 AV	54.0	-6.7	2.08 H	30	29.1	18.2

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	#5602.40	62.5 PK	68.2	-5.7	1.87 V	346	58.3	4.2
2	*5755.00	121.1 PK			1.87 V	346	80.7	40.4
3	*5755.00	111.8 AV			1.87 V	346	71.4	40.4
4	#5934.40	58.5 PK	68.2	-9.7	1.87 V	346	53.5	5.0
5	11510.00	60.1 PK	74.0	-13.9	1.67 V	283	41.9	18.2
6	11510.00	47.0 AV	54.0	-7.0	1.67 V	283	28.8	18.2

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5644.00	59.3 PK	68.2	-8.9	1.82 H	351	55.0	4.3
2	*5795.00	122.8 PK			1.82 H	351	82.3	40.5
3	*5795.00	112.0 AV			1.82 H	351	71.5	40.5
4	#5933.60	59.4 PK	68.2	-8.8	1.82 H	351	54.4	5.0
5	11590.00	59.9 PK	74.0	-14.1	2.05 H	24	41.7	18.2
6	11590.00	47.0 AV	54.0	-7.0	2.05 H	24	28.8	18.2

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	#5608.80	58.1 PK	68.2	-10.1	1.88 V	345	53.8	4.3
2	*5795.00	120.6 PK			1.87 V	346	80.1	40.5
3	*5795.00	111.1 AV			1.87 V	346	70.6	40.5
4	#5927.20	61.0 PK	68.2	-7.2	1.88 V	345	56.1	4.9
5	11590.00	59.7 PK	74.0	-14.3	1.56 V	299	41.5	18.2
6	11590.00	46.5 AV	54.0	-7.5	1.56 V	299	28.3	18.2

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	70.9 PK	74.0	-3.1	1.68 H	355	67.3	3.6
2	5150.00	52.2 AV	54.0	-1.8	1.68 H	355	48.6	3.6
3	*5210.00	113.7 PK			1.70 H	349	74.2	39.5
4	*5210.00	103.3 AV			1.70 H	349	63.8	39.5
5	5350.00	57.2 PK	74.0	-16.8	1.71 H	349	53.3	3.9
6	5350.00	44.7 AV	54.0	-9.3	1.71 H	349	40.8	3.9
7	#10420.00	58.3 PK	74.0	-15.7	1.94 H	327	42.4	15.9
8	#10420.00	44.9 AV	54.0	-9.1	1.94 H	327	29.0	15.9
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	70.1 PK	74.0	-3.9	1.86 V	350	66.5	3.6
2	5150.00	52.5 AV	54.0	-1.5	1.86 V	350	48.9	3.6
3	*5210.00	112.7 PK			1.95 V	348	73.2	39.5
4	*5210.00	102.9 AV			1.95 V	348	63.4	39.5
5	5350.00	57.4 PK	74.0	-16.6	1.94 V	357	53.5	3.9
6	5350.00	44.2 AV	54.0	-9.8	1.94 V	357	40.3	3.9
7	#10420.00	57.9 PK	74.0	-16.1	1.87 V	341	42.0	15.9
8	#10420.00	44.8 AV	54.0	-9.2	1.87 V	341	28.9	15.9

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5648.80	61.8 PK	68.2	-6.4	1.76 H	352	57.5	4.3
2	#5650.00	65.8 PK	68.2	-2.4	1.76 H	352	61.5	4.3
3	*5775.00	119.1 PK			1.76 H	352	78.6	40.5
4	*5775.00	108.5 AV			1.76 H	352	68.0	40.5
5	#5925.00	61.5 PK	68.2	-6.7	1.77 H	0	56.6	4.9
6	#5944.00	59.6 PK	68.2	-8.6	1.76 H	352	54.5	5.1
7	11550.00	59.4 PK	74.0	-14.6	2.11 H	5	41.1	18.3
8	11550.00	46.7 AV	54.0	-7.3	2.11 H	5	28.4	18.3

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	#5644.80	60.6 PK	68.2	-7.6	1.71 V	349	56.3	4.3
2	#5650.00	65.6 PK	68.2	-2.6	1.84 V	347	61.3	4.3
3	*5775.00	117.6 PK			1.71 V	349	77.1	40.5
4	*5775.00	107.3 AV			1.71 V	349	66.8	40.5
5	#5925.00	63.5 PK	68.2	-4.7	1.97 V	349	58.6	4.9
6	#5940.00	58.3 PK	68.2	-9.9	1.71 V	349	53.3	5.0
7	11550.00	59.6 PK	74.0	-14.4	1.66 V	288	41.3	18.3
8	11550.00	46.3 AV	54.0	-7.7	1.66 V	288	28.0	18.3

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.

Mode B1

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	5150.00	57.1 PK	74.0	-16.9	2.27 H	350	53.5	3.6
2	5150.00	46.1 AV	54.0	-7.9	2.27 H	350	42.5	3.6
3	*5180.00	116.8 PK			2.40 H	345	77.3	39.5
4	*5180.00	106.4 AV			2.40 H	345	66.9	39.5
5	#10360.00	58.0 PK	74.0	-16.0	2.11 H	22	42.3	15.7
6	#10360.00	44.8 AV	54.0	-9.2	2.11 H	22	29.1	15.7

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	55.8 PK	74.0	-18.2	3.02 V	238	52.2	3.6
2	5150.00	44.7 AV	54.0	-9.3	3.02 V	238	41.1	3.6
3	*5180.00	100.4 PK			3.29 V	241	60.9	39.5
4	*5180.00	90.6 AV			3.29 V	241	51.1	39.5
5	#10360.00	57.3 PK	74.0	-16.7	1.85 V	296	41.6	15.7
6	#10360.00	44.4 AV	54.0	-9.6	1.85 V	296	28.7	15.7

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	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz	FUNCTION	Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	116.0 PK			2.41 H	341	76.5	39.5
2	*5200.00	105.2 AV			2.41 H	341	65.7	39.5
3	#10400.00	58.1 PK	74.0	-15.9	2.20 H	34	42.5	15.6
4	#10400.00	44.8 AV	54.0	-9.2	2.20 H	34	29.2	15.6

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	*5200.00	101.5 PK			3.27 V	240	62.0	39.5
2	*5200.00	91.4 AV			3.27 V	240	51.9	39.5
3	#10400.00	57.1 PK	74.0	-16.9	1.75 V	295	41.5	15.6
4	#10400.00	44.2 AV	54.0	-9.8	1.75 V	295	28.6	15.6

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	115.3 PK			2.42 H	343	75.8	39.5
2	*5240.00	105.0 AV			2.42 H	343	65.5	39.5
3	5350.00	56.4 PK	74.0	-17.6	2.33 H	340	52.5	3.9
4	5350.00	45.3 AV	54.0	-8.7	2.33 H	340	41.4	3.9
5	#10480.00	59.5 PK	74.0	-14.5	2.16 H	41	42.7	16.8
6	#10480.00	46.3 AV	54.0	-7.7	2.16 H	41	29.5	16.8

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	101.2 PK			3.22 V	341	61.7	39.5
2	*5240.00	90.6 AV			3.22 V	341	51.1	39.5
3	5350.00	55.9 PK	74.0	-18.1	3.02 V	237	52.0	3.9
4	5350.00	44.8 AV	54.0	-9.2	3.02 V	237	40.9	3.9
5	#10480.00	58.9 PK	74.0	-15.1	1.78 V	299	42.1	16.8
6	#10480.00	45.7 AV	54.0	-8.3	1.78 V	299	28.9	16.8

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5644.00	57.1 PK	68.2	-11.1	1.70 H	341	52.8	4.3
2	#5650.00	66.4 PK	68.2	-1.8	1.61 H	339	62.1	4.3
3	*5745.00	131.0 PK			1.70 H	339	90.6	40.4
4	*5745.00	120.6 AV			1.70 H	339	80.2	40.4
5	#5925.60	57.3 PK	68.2	-10.9	1.70 H	341	52.4	4.9
6	11490.00	65.3 PK	74.0	-8.7	1.70 H	341	47.1	18.2
7	11490.00	52.7 AV	54.0	-1.3	1.70 H	341	34.5	18.2

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	#5644.80	51.9 PK	68.2	-16.3	2.75 V	255	47.6	4.3
2	#5650.00	57.4 PK	68.2	-10.8	2.60 V	260	53.1	4.3
3	*5745.00	115.2 PK			2.75 V	255	74.8	40.4
4	*5745.00	105.4 AV			2.75 V	255	65.0	40.4
5	#5957.60	52.2 PK	68.2	-16.0	2.75 V	255	47.1	5.1
6	11490.00	62.0 PK	74.0	-12.0	2.40 V	290	43.8	18.2
7	11490.00	49.2 AV	54.0	-4.8	2.40 V	290	31.0	18.2

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5648.80	57.6 PK	68.2	-10.6	1.71 H	338	53.3	4.3
2	*5785.00	129.4 PK			1.71 H	338	88.9	40.5
3	*5785.00	119.2 AV			1.71 H	338	78.7	40.5
4	#5960.00	57.8 PK	68.2	-10.4	1.71 H	338	52.7	5.1
5	11570.00	65.8 PK	74.0	-8.2	1.70 H	339	47.5	18.3
6	11570.00	52.3 AV	54.0	-1.7	1.70 H	339	34.0	18.3

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	#5643.20	52.4 PK	68.2	-15.8	2.80 V	261	48.1	4.3
2	*5785.00	115.7 PK			2.83 V	255	75.2	40.5
3	*5785.00	105.7 AV			2.83 V	255	65.2	40.5
4	#5994.40	52.6 PK	68.2	-15.6	2.80 V	261	47.4	5.2
5	11570.00	62.4 PK	74.0	-11.6	2.30 V	298	44.1	18.3
6	11570.00	49.6 AV	54.0	-4.4	2.30 V	298	31.3	18.3

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5636.80	56.2 PK	68.2	-12.0	1.88 H	342	51.9	4.3
2	*5825.00	129.4 PK			1.88 H	342	88.8	40.6
3	*5825.00	119.1 AV			1.88 H	342	78.5	40.6
4	#5927.20	59.0 PK	68.2	-9.2	1.88 H	342	54.1	4.9
5	11650.00	62.6 PK	74.0	-11.4	2.18 H	338	44.5	18.1
6	11650.00	51.6 AV	54.0	-2.4	2.18 H	338	33.5	18.1

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	#5643.20	52.0 PK	68.2	-16.2	2.91 V	252	47.7	4.3
2	*5825.00	116.3 PK			2.91 V	252	75.7	40.6
3	*5825.00	106.2 AV			2.91 V	252	65.6	40.6
4	#5976.80	52.4 PK	68.2	-15.8	2.91 V	252	47.2	5.2
5	11650.00	62.1 PK	74.0	-11.9	2.44 V	296	44.0	18.1
6	11650.00	49.9 AV	54.0	-4.1	2.44 V	296	31.8	18.1

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.

802.11n (HT20)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	58.1 PK	74.0	-15.9	1.60 H	349	54.5	3.6
2	5150.00	46.8 AV	54.0	-7.2	1.60 H	349	43.2	3.6
3	*5180.00	112.6 PK			1.50 H	353	73.1	39.5
4	*5180.00	101.3 AV			1.50 H	353	61.8	39.5
5	#10360.00	58.5 PK	74.0	-15.5	2.10 H	23	42.8	15.7
6	#10360.00	45.5 AV	54.0	-8.5	2.10 H	23	29.8	15.7

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	57.5 PK	74.0	-16.5	3.21 V	242	53.9	3.6
2	5150.00	46.1 AV	54.0	-7.9	3.21 V	242	42.5	3.6
3	*5180.00	100.1 PK			3.43 V	238	60.6	39.5
4	*5180.00	89.9 AV			3.43 V	238	50.4	39.5
5	#10360.00	57.7 PK	74.0	-16.3	1.72 V	286	42.0	15.7
6	#10360.00	45.0 AV	54.0	-9.0	1.72 V	286	29.3	15.7

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	112.3 PK			1.80 H	352	72.8	39.5
2	*5200.00	101.2 AV			1.80 H	352	61.7	39.5
3	#10400.00	59.5 PK	74.0	-14.5	2.15 H	36	43.9	15.6
4	#10400.00	45.7 AV	54.0	-8.3	2.15 H	36	30.1	15.6

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	*5200.00	101.1 PK			3.27 V	240	61.6	39.5
2	*5200.00	90.6 AV			3.27 V	240	51.1	39.5
3	#10400.00	58.5 PK	74.0	-15.5	1.74 V	321	42.9	15.6
4	#10400.00	45.1 AV	54.0	-8.9	1.74 V	321	29.5	15.6

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	112.8 PK			1.74 H	350	73.3	39.5
2	*5240.00	101.4 AV			1.74 H	350	61.9	39.5
3	5350.00	58.0 PK	74.0	-16.0	2.17 H	352	54.1	3.9
4	5350.00	46.3 AV	54.0	-7.7	2.17 H	352	42.4	3.9
5	#10480.00	59.8 PK	74.0	-14.2	2.21 H	50	43.0	16.8
6	#10480.00	46.7 AV	54.0	-7.3	2.21 H	50	29.9	16.8

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	100.8 PK			3.42 V	240	61.3	39.5
2	*5240.00	90.1 AV			3.42 V	240	50.6	39.5
3	5350.00	56.4 PK	74.0	-17.6	3.22 V	251	52.5	3.9
4	5350.00	45.3 AV	54.0	-8.7	3.22 V	251	41.4	3.9
5	#10480.00	59.4 PK	74.0	-14.6	1.66 V	301	42.6	16.8
6	#10480.00	46.1 AV	54.0	-7.9	1.66 V	301	29.3	16.8

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5648.00	54.4 PK	68.2	-13.8	1.76 H	344	50.1	4.3
2	*5745.00	130.9 PK			1.74 H	340	90.5	40.4
3	*5745.00	120.0 AV			1.74 H	340	79.6	40.4
4	#5937.60	52.6 PK	68.2	-15.6	1.76 H	344	47.6	5.0
5	11490.00	65.5 PK	74.0	-8.5	1.77 H	342	47.3	18.2
6	11490.00	52.4 AV	54.0	-1.6	1.77 H	342	34.2	18.2

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	#5645.60	52.5 PK	68.2	-15.7	2.98 V	250	48.2	4.3
2	*5745.00	115.4 PK			1.98 V	250	75.0	40.4
3	*5745.00	104.8 AV			1.98 V	250	64.4	40.4
4	#5956.80	53.1 PK	68.2	-15.1	2.98 V	250	48.0	5.1
5	11490.00	62.0 PK	74.0	-12.0	2.17 V	291	43.8	18.2
6	11490.00	48.8 AV	54.0	-5.2	2.17 V	291	30.6	18.2

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5601.60	52.8 PK	68.2	-15.4	1.74 H	337	48.6	4.2
2	*5785.00	129.7 PK			1.74 H	337	89.2	40.5
3	*5785.00	119.2 AV			1.74 H	337	78.7	40.5
4	#5967.20	52.5 PK	68.2	-15.7	1.74 H	337	47.3	5.2
5	11570.00	65.6 PK	74.0	-8.4	1.70 H	341	47.3	18.3
6	11570.00	52.3 AV	54.0	-1.7	1.70 H	341	34.0	18.3

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	#5638.40	52.0 PK	68.2	-16.2	2.93 V	255	47.7	4.3
2	*5785.00	115.0 PK			2.93 V	255	74.5	40.5
3	*5785.00	104.7 AV			2.93 V	255	64.2	40.5
4	#5957.60	52.9 PK	68.2	-15.3	2.93 V	255	47.8	5.1
5	11570.00	62.2 PK	74.0	-11.8	2.32 V	280	43.9	18.3
6	11570.00	49.0 AV	54.0	-5.0	2.32 V	280	30.7	18.3

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5640.00	52.7 PK	68.2	-15.5	1.70 H	339	48.4	4.3
2	*5825.00	129.5 PK			1.71 H	339	88.9	40.6
3	*5825.00	118.5 AV			1.71 H	339	77.9	40.6
4	#5924.80	53.1 PK	68.3	-15.2	1.70 H	339	48.2	4.9
5	11650.00	63.6 PK	74.0	-10.4	1.80 H	339	45.5	18.1
6	11650.00	51.6 AV	54.0	-2.4	1.80 H	339	33.5	18.1

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	#5600.00	52.2 PK	68.2	-16.0	2.79 V	353	48.0	4.2
2	*5825.00	115.5 PK			2.79 V	253	74.9	40.6
3	*5825.00	105.2 AV			2.79 V	253	64.6	40.6
4	#5936.00	52.1 PK	68.2	-16.1	2.79 V	353	47.1	5.0
5	11650.00	62.0 PK	74.0	-12.0	2.52 V	277	43.9	18.1
6	11650.00	48.6 AV	54.0	-5.4	2.52 V	277	30.5	18.1

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.

802.11n (HT40)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	59.2 PK	74.0	-14.8	2.20 H	336	55.6	3.6
2	5150.00	47.2 AV	54.0	-6.8	2.20 H	336	43.6	3.6
3	*5190.00	111.8 PK			2.23 H	338	72.3	39.5
4	*5190.00	102.5 AV			2.23 H	338	63.0	39.5
5	#10380.00	57.8 PK	74.0	-16.2	2.01 H	37	42.1	15.7
6	#10380.00	44.9 AV	54.0	-9.1	2.01 H	37	29.2	15.7

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	58.0 PK	74.0	-16.0	2.89 V	249	54.4	3.6
2	5150.00	45.8 AV	54.0	-8.2	2.89 V	249	42.2	3.6
3	*5190.00	97.2 PK			3.12 V	238	57.7	39.5
4	*5190.00	87.7 AV			3.12 V	238	48.2	39.5
5	#10380.00	57.4 PK	74.0	-16.6	1.77 V	305	41.7	15.7
6	#10380.00	44.4 AV	54.0	-9.6	1.77 V	305	28.7	15.7

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5230.00	113.4 PK			2.34 H	339	73.9	39.5
2	*5230.00	102.8 AV			2.34 H	339	63.3	39.5
3	5350.00	56.3 PK	74.0	-17.7	2.26 H	323	52.4	3.9
4	5350.00	44.4 AV	54.0	-9.6	2.26 H	323	40.5	3.9
5	#10460.00	58.3 PK	74.0	-15.7	1.99 H	33	41.9	16.4
6	#10460.00	45.3 AV	54.0	-8.7	1.99 H	33	28.9	16.4

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	*5230.00	97.2 PK			3.28 V	238	57.7	39.5
2	*5230.00	87.2 AV			3.28 V	238	47.7	39.5
3	5350.00	54.7 PK	74.0	-19.3	3.10 V	250	50.8	3.9
4	5350.00	43.8 AV	54.0	-10.2	3.10 V	250	39.9	3.9
5	#10460.00	58.0 PK	74.0	-16.0	1.76 V	360	41.6	16.4
6	#10460.00	45.0 AV	54.0	-9.0	1.76 V	360	28.6	16.4

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5639.20	63.3 PK	68.2	-4.9	1.77 H	346	59.0	4.3
2	#5650.00	67.2 PK	68.2	-1.0	1.95 H	341	62.9	4.3
3	*5755.00	124.3 PK			1.77 H	346	83.9	40.4
4	*5755.00	114.6 AV			1.77 H	346	74.2	40.4
5	#5974.40	56.7 PK	68.2	-11.5	1.76 H	346	51.5	5.2
6	11510.00	62.3 PK	74.0	-11.7	2.13 H	346	44.1	18.2
7	11510.00	49.5 AV	54.0	-4.5	2.13 H	346	31.3	18.2

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	#5601.60	54.9 PK	68.2	-13.3	2.97 V	255	50.7	4.2
2	#5650.00	58.1 PK	68.2	-10.1	2.87 V	265	53.8	4.3
3	*5755.00	109.5 PK			2.97 V	255	69.1	40.4
4	*5755.00	98.9 AV			2.97 V	255	58.5	40.4
5	#5965.60	57.3 PK	68.2	-10.9	2.97 V	255	52.1	5.2
6	11510.00	61.1 PK	74.0	-12.9	1.85 V	296	42.9	18.2
7	11510.00	48.1 AV	54.0	-5.9	1.85 V	296	29.9	18.2

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5639.20	61.0 PK	68.2	-7.2	1.87 H	346	56.7	4.3
2	*5795.00	125.3 PK			1.87 H	349	84.8	40.5
3	*5795.00	115.4 AV			1.87 H	349	74.9	40.5
4	#5925.00	64.6 PK	68.2	-3.6	1.83 H	343	59.7	4.9
5	#5927.20	60.8 PK	68.2	-7.4	1.87 H	346	55.9	4.9
6	11590.00	62.8 PK	74.0	-11.2	2.10 H	348	44.6	18.2
7	11590.00	50.5 AV	54.0	-3.5	2.10 H	348	32.3	18.2

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	#5629.60	56.1 PK	68.2	-12.1	3.03 V	259	51.8	4.3
2	*5795.00	110.0 PK			3.03 V	259	69.5	40.5
3	*5795.00	99.4 AV			3.03 V	259	58.9	40.5
4	#5925.00	57.7 PK	68.2	-10.5	2.76 V	266	52.8	4.9
5	#5947.20	57.0 PK	68.2	-11.2	3.03 V	259	51.9	5.1
6	11590.00	62.3 PK	74.0	-11.7	1.88 V	290	44.1	18.2
7	11590.00	49.1 AV	54.0	-4.9	1.88 V	290	30.9	18.2

Remarks:

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

802.11ac (VHT80)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	62.5 PK	74.0	-11.5	2.30 H	330	58.9	3.6
2	5150.00	51.2 AV	54.0	-2.8	2.30 H	330	47.6	3.6
3	*5210.00	108.8 PK			1.92 H	339	69.3	39.5
4	*5210.00	98.9 AV			1.92 H	339	59.4	39.5
5	5350.00	57.0 PK	74.0	-17.0	2.02 H	340	53.1	3.9
6	5350.00	46.1 AV	54.0	-7.9	2.02 H	340	42.2	3.9
7	#10420.00	57.5 PK	74.0	-16.5	1.98 H	34	41.6	15.9
8	#10420.00	44.3 AV	54.0	-9.7	1.98 H	34	28.4	15.9
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	56.1 PK	74.0	-17.9	1.97 V	244	52.5	3.6
2	5150.00	44.7 AV	54.0	-9.3	1.97 V	244	41.1	3.6
3	*5210.00	94.1 PK			3.48 V	249	54.6	39.5
4	*5210.00	84.5 AV			3.48 V	249	45.0	39.5
5	5350.00	58.3 PK	74.0	-15.7	2.12 V	226	54.4	3.9
6	5350.00	46.3 AV	54.0	-7.7	2.12 V	226	42.4	3.9
7	#10420.00	57.1 PK	74.0	-16.9	1.69 V	300	41.2	15.9
8	#10420.00	43.9 AV	54.0	-10.1	1.69 V	300	28.0	15.9

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5640.00	63.5 PK	68.2	-4.7	1.78 H	348	59.2	4.3
2	#5650.00	66.5 PK	68.2	-1.7	1.87 H	346	62.2	4.3
3	*5775.00	116.6 PK			1.78 H	348	76.1	40.5
4	*5775.00	106.5 AV			1.78 H	348	66.0	40.5
5	#5925.00	59.4 PK	68.2	-8.8	1.90 H	356	54.5	4.9
6	#5940.00	57.1 PK	68.2	-11.1	1.78 H	348	52.1	5.0
7	11550.00	60.0 PK	74.0	-14.0	2.22 H	343	41.7	18.3
8	11550.00	47.0 AV	54.0	-7.0	2.22 H	343	28.7	18.3

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	#5616.80	55.3 PK	68.2	-12.9	2.75 V	261	51.0	4.3
2	#5650.00	58.4 PK	68.2	-9.8	2.77 V	266	54.1	4.3
3	*5775.00	102.6 PK			2.75 V	261	62.1	40.5
4	*5775.00	92.5 AV			2.75 V	261	52.0	40.5
5	#5925.00	57.7 PK	68.2	-10.5	2.98 V	255	52.8	4.9
6	#5960.00	56.1 PK	68.2	-12.1	2.75 V	261	51.0	5.1
7	11550.00	59.6 PK	74.0	-14.4	1.78 V	286	41.3	18.3
8	11550.00	46.4 AV	54.0	-7.6	1.78 V	286	28.1	18.3

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.

Mode B2

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	5150.00	64.1 PK	74.0	-9.9	1.87 H	333	60.5	3.6
2	5150.00	48.3 AV	54.0	-5.7	1.87 H	333	44.7	3.6
3	*5180.00	124.6 PK			1.71 H	351	85.1	39.5
4	*5180.00	113.3 AV			1.71 H	351	73.8	39.5
5	#10360.00	56.7 PK	74.0	-17.3	1.87 H	289	41.0	15.7
6	#10360.00	44.2 AV	54.0	-9.8	1.87 H	289	28.5	15.7

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	62.8 PK	74.0	-11.2	1.72 V	349	59.2	3.6
2	5150.00	49.9 AV	54.0	-4.1	1.72 V	349	46.3	3.6
3	*5180.00	122.5 PK			1.94 V	346	83.0	39.5
4	*5180.00	111.9 AV			1.94 V	346	72.4	39.5
5	#10360.00	57.2 PK	74.0	-16.8	1.92 V	287	41.5	15.7
6	#10360.00	44.1 AV	54.0	-9.9	1.92 V	287	28.4	15.7

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	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz	FUNCTION	Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	124.4 PK			1.64 H	353	84.9	39.5
2	*5200.00	113.7 AV			1.64 H	353	74.2	39.5
3	#10400.00	56.9 PK	74.0	-17.1	1.99 H	278	41.3	15.6
4	#10400.00	43.6 AV	54.0	-10.4	1.99 H	278	28.0	15.6

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	*5200.00	122.7 PK			1.96 V	347	83.2	39.5
2	*5200.00	112.1 AV			1.96 V	347	72.6	39.5
3	#10400.00	56.8 PK	74.0	-17.2	1.86 V	275	41.2	15.6
4	#10400.00	43.6 AV	54.0	-10.4	1.86 V	275	28.0	15.6

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	124.7 PK			1.67 H	353	85.2	39.5
2	*5240.00	113.9 AV			1.67 H	353	74.4	39.5
3	5350.00	57.6 PK	74.0	-16.4	1.60 H	350	53.7	3.9
4	5350.00	45.8 AV	54.0	-8.2	1.60 H	350	41.9	3.9
5	#10480.00	57.2 PK	74.0	-16.8	1.96 H	278	40.4	16.8
6	#10480.00	43.7 AV	54.0	-10.3	1.96 H	278	26.9	16.8

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	123.5 PK			1.59 V	347	84.0	39.5
2	*5240.00	112.2 AV			1.59 V	347	72.7	39.5
3	5350.00	58.1 PK	74.0	-15.9	1.69 V	351	54.2	3.9
4	5350.00	47.9 AV	54.0	-6.1	1.69 V	351	44.0	3.9
5	#10480.00	56.7 PK	74.0	-17.3	1.93 V	312	39.9	16.8
6	#10480.00	43.7 AV	54.0	-10.3	1.93 V	312	26.9	16.8

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5648.80	58.3 PK	68.2	-9.9	1.66 H	349	54.0	4.3
2	*5745.00	125.6 PK			1.66 H	349	85.2	40.4
3	*5745.00	115.1 AV			1.66 H	349	74.7	40.4
4	#5949.60	58.6 PK	68.2	-9.6	1.66 H	349	53.5	5.1
5	11490.00	61.0 PK	74.0	-13.0	2.12 H	37	42.8	18.2
6	11490.00	48.0 AV	54.0	-6.0	2.12 H	37	29.8	18.2

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	#5624.00	58.0 PK	68.2	-10.2	1.93 V	352	53.7	4.3
2	*5745.00	123.2 PK			1.93 V	351	82.8	40.4
3	*5745.00	113.5 AV			1.93 V	351	73.1	40.4
4	#5954.40	58.5 PK	68.2	-9.7	1.93 V	352	53.4	5.1
5	11490.00	60.2 PK	74.0	-13.8	1.56 V	255	42.0	18.2
6	11490.00	47.1 AV	54.0	-6.9	1.56 V	255	28.9	18.2

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5616.80	57.0 PK	68.2	-11.2	1.71 H	351	52.7	4.3
2	*5785.00	125.0 PK			1.71 H	351	84.5	40.5
3	*5785.00	114.4 AV			1.71 H	351	73.9	40.5
4	#5926.40	58.2 PK	68.2	-10.0	1.71 H	351	53.3	4.9
5	11570.00	61.0 PK	74.0	-13.0	2.19 H	40	42.7	18.3
6	11570.00	47.8 AV	54.0	-6.2	2.19 H	40	29.5	18.3

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	#5641.60	55.7 PK	68.2	-12.5	1.98 V	343	51.4	4.3
2	*5785.00	123.7 PK			1.98 V	343	83.2	40.5
3	*5785.00	113.2 AV			1.98 V	343	72.7	40.5
4	#5940.80	57.6 PK	68.2	-10.6	1.98 V	343	52.6	5.0
5	11570.00	59.9 PK	74.0	-14.1	1.78 V	279	41.6	18.3
6	11570.00	46.9 AV	54.0	-7.1	1.78 V	279	28.6	18.3

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5629.60	57.2 PK	68.2	-11.0	1.66 H	350	52.9	4.3
2	*5825.00	125.3 PK			1.66 H	350	84.7	40.6
3	*5825.00	114.7 AV			1.66 H	350	74.1	40.6
4	#5964.80	59.4 PK	68.2	-8.8	1.66 H	350	54.2	5.2
5	11650.00	61.2 PK	74.0	-12.8	2.00 H	17	43.1	18.1
6	11650.00	48.1 AV	54.0	-5.9	2.00 H	17	30.0	18.1

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	#5645.60	56.8 PK	68.2	-11.4	1.99 V	348	52.5	4.3
2	*5825.00	121.5 PK			1.98 V	347	80.9	40.6
3	*5825.00	111.2 AV			1.98 V	347	70.6	40.6
4	#5944.80	58.4 PK	68.2	-9.8	1.99 V	348	53.3	5.1
5	11650.00	60.3 PK	74.0	-13.7	1.65 V	284	42.2	18.1
6	11650.00	47.1 AV	54.0	-6.9	1.65 V	284	29.0	18.1

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.

802.11n (HT20)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	61.2 PK	74.0	-12.8	1.68 H	348	57.6	3.6
2	5150.00	49.0 AV	54.0	-5.0	1.68 H	348	45.4	3.6
3	*5180.00	124.5 PK			1.70 H	353	85.0	39.5
4	*5180.00	113.5 AV			1.70 H	353	74.0	39.5
5	#10360.00	56.8 PK	74.0	-17.2	1.86 H	256	41.1	15.7
6	#10360.00	44.0 AV	54.0	-10.0	1.86 H	256	28.3	15.7

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	62.0 PK	74.0	-12.0	1.67 V	350	58.4	3.6
2	5150.00	49.6 AV	54.0	-4.4	1.67 V	350	46.0	3.6
3	*5180.00	121.6 PK			1.80 V	353	82.1	39.5
4	*5180.00	111.6 AV			1.80 V	353	72.1	39.5
5	#10360.00	57.4 PK	74.0	-16.6	1.87 V	308	41.7	15.7
6	#10360.00	43.9 AV	54.0	-10.1	1.87 V	308	28.2	15.7

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	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz	FUNCTION	Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	124.5 PK			1.74 H	351	85.0	39.5
2	*5200.00	113.5 AV			1.74 H	351	74.0	39.5
3	#10400.00	57.1 PK	74.0	-16.9	1.90 H	302	41.5	15.6
4	#10400.00	43.9 AV	54.0	-10.1	1.90 H	302	28.3	15.6

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	*5200.00	122.5 PK			1.56 V	346	83.0	39.5
2	*5200.00	111.7 AV			1.56 V	346	72.2	39.5
3	#10400.00	56.8 PK	74.0	-17.2	2.06 V	287	41.2	15.6
4	#10400.00	43.5 AV	54.0	-10.5	2.06 V	287	27.9	15.6

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	125.0 PK			1.68 H	352	85.5	39.5
2	*5240.00	113.9 AV			1.68 H	352	74.4	39.5
3	5350.00	58.3 PK	74.0	-15.7	1.52 H	350	54.4	3.9
4	5350.00	46.1 AV	54.0	-7.9	1.52 H	350	42.2	3.9
5	#10480.00	57.5 PK	74.0	-16.5	1.94 H	268	40.7	16.8
6	#10480.00	43.9 AV	54.0	-10.1	1.94 H	268	27.1	16.8

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	123.8 PK			1.96 V	347	84.3	39.5
2	*5240.00	112.6 AV			1.96 V	347	73.1	39.5
3	5350.00	57.6 PK	74.0	-16.4	1.66 V	348	53.7	3.9
4	5350.00	46.2 AV	54.0	-7.8	1.66 V	348	42.3	3.9
5	#10480.00	57.3 PK	74.0	-16.7	1.92 V	283	40.5	16.8
6	#10480.00	43.8 AV	54.0	-10.2	1.92 V	283	27.0	16.8

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5634.40	60.8 PK	68.2	-7.4	1.72 H	350	56.5	4.3
2	*5745.00	125.5 PK			1.72 H	350	85.1	40.4
3	*5745.00	114.6 AV			1.72 H	350	74.2	40.4
4	#5935.20	57.7 PK	68.2	-10.5	1.72 H	350	52.7	5.0
5	11490.00	61.2 PK	74.0	-12.8	2.22 H	24	43.0	18.2
6	11490.00	48.5 AV	54.0	-5.5	2.22 H	24	30.3	18.2

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	#5634.40	58.4 PK	68.2	-9.8	1.90 V	350	54.1	4.3
2	*5745.00	124.2 PK			1.90 V	350	83.8	40.4
3	*5745.00	114.1 AV			1.90 V	350	73.7	40.4
4	#5975.20	58.2 PK	68.2	-10.0	1.90 V	350	53.0	5.2
5	11490.00	60.3 PK	74.0	-13.7	1.61 V	33	42.1	18.2
6	11490.00	47.6 AV	54.0	-6.4	1.61 V	33	29.4	18.2

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5630.40	57.1 PK	68.2	-11.1	1.70 H	348	52.8	4.3
2	*5785.00	125.4 PK			1.70 H	348	84.9	40.5
3	*5785.00	114.8 AV			1.70 H	348	74.3	40.5
4	#5933.60	58.2 PK	68.2	-10.0	1.70 H	348	53.2	5.0
5	11570.00	61.2 PK	74.0	-12.8	2.20 H	36	42.9	18.3
6	11570.00	48.3 AV	54.0	-5.7	2.20 H	36	30.0	18.3

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	#5640.00	57.6 PK	68.2	-10.6	1.85 V	350	53.3	4.3
2	*5785.00	124.1 PK			1.85 V	350	83.6	40.5
3	*5785.00	113.8 AV			1.85 V	350	73.3	40.5
4	#5967.20	58.1 PK	68.2	-10.1	1.85 V	350	52.9	5.2
5	11570.00	60.9 PK	74.0	-13.1	1.66 V	250	42.6	18.3
6	11570.00	47.9 AV	54.0	-6.1	1.66 V	250	29.6	18.3

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5624.80	57.0 PK	68.2	-11.2	1.69 H	350	52.7	4.3
2	*5825.00	125.2 PK			1.70 H	350	84.6	40.6
3	*5825.00	114.1 AV			1.70 H	350	73.5	40.6
4	#5936.00	57.7 PK	68.2	-10.5	1.69 H	350	52.7	5.0
5	11650.00	61.3 PK	74.0	-12.7	2.19 H	43	43.2	18.1
6	11650.00	48.5 AV	54.0	-5.5	2.19 H	43	30.4	18.1

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	#5623.20	56.7 PK	68.2	-11.5	1.84 V	350	52.4	4.3
2	*5825.00	123.7 PK			1.84 V	350	83.1	40.6
3	*5825.00	113.5 AV			1.84 V	350	72.9	40.6
4	#5926.40	58.2 PK	68.2	-10.0	1.84 V	350	53.3	4.9
5	11650.00	60.7 PK	74.0	-13.3	1.54 V	270	42.6	18.1
6	11650.00	47.8 AV	54.0	-6.2	1.54 V	270	29.7	18.1

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.

802.11n (HT40)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	67.9 PK	74.0	-6.1	1.73 H	354	64.3	3.6
2	5150.00	52.5 AV	54.0	-1.5	1.73 H	354	48.9	3.6
3	*5190.00	119.9 PK			1.73 H	352	80.4	39.5
4	*5190.00	109.6 AV			1.73 H	352	70.1	39.5
5	#10380.00	56.7 PK	74.0	-17.3	1.93 H	297	41.0	15.7
6	#10380.00	44.0 AV	54.0	-10.0	1.93 H	297	28.3	15.7

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	1.88 V	347	61.7	3.6
2	5150.00	49.1 AV	54.0	-4.9	1.88 V	347	45.5	3.6
3	*5190.00	119.1 PK			1.93 V	353	79.6	39.5
4	*5190.00	109.0 AV			1.93 V	353	69.5	39.5
5	#10380.00	58.3 PK	74.0	-15.7	2.07 V	288	42.6	15.7
6	#10380.00	45.5 AV	54.0	-8.5	2.07 V	288	29.8	15.7

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	59.9 PK	74.0	-14.1	1.61 H	351	56.3	3.6
2	5150.00	45.8 AV	54.0	-8.2	1.61 H	351	42.2	3.6
3	*5230.00	120.0 PK			1.63 H	355	80.5	39.5
4	*5230.00	110.0 AV			1.63 H	355	70.5	39.5
5	5350.00	58.2 PK	74.0	-15.8	1.60 H	345	54.3	3.9
6	5350.00	45.0 AV	54.0	-9.0	1.60 H	345	41.1	3.9
7	#10460.00	57.2 PK	74.0	-16.8	1.94 H	309	40.8	16.4
8	#10460.00	43.8 AV	54.0	-10.2	1.94 H	309	27.4	16.4

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	59.6 PK	74.0	-14.4	1.91 V	353	56.0	3.6
2	5150.00	49.1 AV	54.0	-4.9	1.91 V	353	45.5	3.6
3	*5230.00	120.8 PK			1.94 V	350	81.3	39.5
4	*5230.00	110.7 AV			1.94 V	350	71.2	39.5
5	5350.00	58.9 PK	74.0	-15.1	1.88 V	340	55.0	3.9
6	5350.00	46.4 AV	54.0	-7.6	1.88 V	340	42.5	3.9
7	#10460.00	57.1 PK	74.0	-16.9	2.21 V	287	40.7	16.4
8	#10460.00	43.6 AV	54.0	-10.4	2.21 V	287	27.2	16.4

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5628.80	58.2 PK	68.2	-10.0	1.68 H	351	53.9	4.3
2	*5755.00	121.3 PK			1.68 H	351	80.9	40.4
3	*5755.00	111.4 AV			1.68 H	351	71.0	40.4
4	#5950.40	57.9 PK	68.2	-10.3	1.68 H	351	52.8	5.1
5	11510.00	59.5 PK	74.0	-14.5	2.12 H	11	41.3	18.2
6	11510.00	46.8 AV	54.0	-7.2	2.12 H	11	28.6	18.2

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	#5643.20	59.7 PK	68.2	-8.5	1.91 V	346	55.4	4.3
2	*5755.00	121.3 PK			1.89 V	348	80.9	40.4
3	*5755.00	111.3 AV			1.89 V	348	70.9	40.4
4	#5952.00	59.3 PK	68.2	-8.9	1.91 V	346	54.2	5.1
5	11510.00	59.4 PK	74.0	-14.6	1.67 V	268	41.2	18.2
6	11510.00	46.4 AV	54.0	-7.6	1.67 V	268	28.2	18.2

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5633.60	57.2 PK	68.2	-11.0	1.69 H	352	52.9	4.3
2	*5795.00	121.1 PK			1.70 H	350	80.6	40.5
3	*5795.00	111.3 AV			1.70 H	350	70.8	40.5
4	#5959.20	57.7 PK	68.2	-10.5	1.69 H	352	52.6	5.1
5	11590.00	60.1 PK	74.0	-13.9	2.13 H	31	41.9	18.2
7	11590.00	49.3 AV	54.0	-4.7	1.66 H	0	31.1	18.2

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	#5648.00	57.8 PK	68.2	-10.4	1.93 V	348	53.5	4.3
2	*5795.00	121.9 PK			1.93 V	348	81.4	40.5
3	*5795.00	111.3 AV			1.93 V	348	70.8	40.5
4	#5931.20	58.4 PK	68.2	-9.8	1.93 V	348	53.4	5.0
5	11590.00	59.5 PK	74.0	-14.5	1.56 V	296	41.3	18.2
6	11590.00	46.1 AV	54.0	-7.9	1.56 V	296	27.9	18.2

Remarks:

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

802.11ac (VHT80)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	72.4 PK	74.0	-1.6	1.60 H	351	68.8	3.6
2	5150.00	52.2 AV	54.0	-1.8	1.60 H	351	48.6	3.6
3	*5210.00	112.4 PK			1.71 H	351	72.9	39.5
4	*5210.00	103.1 AV			1.71 H	351	63.6	39.5
5	5350.00	56.5 PK	74.0	-17.5	1.70 H	350	52.6	3.9
6	5350.00	45.3 AV	54.0	-8.7	1.70 H	350	41.4	3.9
7	#10420.00	56.5 PK	74.0	-17.5	1.80 H	33	40.6	15.9
8	#10420.00	43.6 AV	54.0	-10.4	1.80 H	33	27.7	15.9
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	70.4 PK	74.0	-3.6	1.93 V	348	66.8	3.6
2	5150.00	53.0 AV	54.0	-1.0	1.93 V	348	49.4	3.6
3	*5210.00	112.4 PK			1.91 V	348	72.9	39.5
4	*5210.00	102.3 AV			1.91 V	348	62.8	39.5
5	5350.00	55.9 PK	74.0	-18.1	1.90 V	350	52.0	3.9
6	5350.00	44.5 AV	54.0	-9.5	1.90 V	350	40.6	3.9
7	#10420.00	57.3 PK	74.0	-16.7	2.09 V	31	41.4	15.9
8	#10420.00	44.7 AV	54.0	-9.3	2.09 V	31	28.8	15.9

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5642.40	60.9 PK	68.2	-7.3	1.68 H	349	56.6	4.3
2	#5650.00	64.9 PK	68.2	-3.3	1.92 H	349	60.6	4.3
3	*5775.00	118.4 PK			1.68 H	349	77.9	40.5
4	*5775.00	107.6 AV			1.68 H	349	67.1	40.5
5	#5924.80	58.6 PK	68.3	-9.7	1.68 H	349	53.7	4.9
6	#5925.00	62.9 PK	68.2	-5.3	1.68 H	349	58.0	4.9
7	11550.00	59.9 PK	74.0	-14.1	2.28 H	4	41.6	18.3
8	11550.00	46.6 AV	54.0	-7.4	2.28 H	4	28.3	18.3

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	#5629.60	60.4 PK	68.2	-7.8	1.91 V	350	56.1	4.3
2	#5650.00	63.2 PK	68.2	-5.0	2.08 V	349	58.9	4.3
3	*5775.00	118.0 PK			1.94 V	350	77.5	40.5
4	*5775.00	107.8 AV			1.94 V	350	67.3	40.5
5	#5925.00	65.4 PK	68.2	-2.8	1.84 V	348	60.5	4.9
6	#5966.40	58.8 PK	68.2	-9.4	1.91 V	350	53.6	5.2
7	11550.00	59.5 PK	74.0	-14.5	1.64 V	304	41.2	18.3
8	11550.00	46.3 AV	54.0	-7.7	1.64 V	304	28.0	18.3

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 Worst-Case Data: 802.11a

Mode A1

CHANNEL	TX Channel 36	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 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	90.17	37.0 QP	43.5	-6.5	2.01 H	93	56.6	-19.6
2	142.67	34.6 QP	43.5	-8.9	2.01 H	119	48.8	-14.2
3	187.39	37.3 QP	43.5	-6.2	1.01 H	9	53.4	-16.1
4	216.55	34.4 QP	46.0	-11.6	1.50 H	261	50.5	-16.1
5	743.45	35.8 QP	46.0	-10.2	1.01 H	225	40.8	-5.0
6	875.67	32.5 QP	46.0	-13.5	2.01 H	253	36.0	-3.5

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	45.45	38.1 QP	40.0	-1.9	1.01 V	353	52.8	-14.7
2	78.51	35.7 QP	40.0	-4.3	1.01 V	121	53.9	-18.2
3	142.67	19.2 QP	43.5	-24.3	1.01 V	230	33.4	-14.2
4	191.28	19.9 QP	43.5	-23.6	1.01 V	202	36.3	-16.4
5	743.45	33.2 QP	46.0	-12.8	1.09 V	238	38.2	-5.0
6	939.83	30.3 QP	46.0	-15.7	1.09 V	37	32.7	-2.4

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

Mode A2

CHANNEL	TX Channel 36	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 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	91.48	36.5 QP	43.5	-7.0	1.99 H	43	56.1	-19.6
2	160.17	39.3 QP	43.5	-4.2	1.49 H	86	53.1	-13.8
3	190.06	39.8 QP	43.5	-3.7	1.49 H	162	56.1	-16.3
4	288.49	27.8 QP	46.0	-18.2	1.49 H	280	40.8	-13.0
5	624.85	25.0 QP	46.0	-21.0	1.49 H	61	32.0	-7.0
6	875.67	32.9 QP	46.0	-13.1	1.49 H	41	36.4	-3.5
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	55.44	34.1 QP	40.0	-5.9	1.00 V	41	48.6	-14.5
2	91.68	33.9 QP	43.5	-9.6	1.00 V	184	53.5	-19.6
3	97.95	38.0 QP	43.5	-5.5	1.00 V	182	56.8	-18.8
4	191.28	38.8 QP	43.5	-4.7	1.49 V	135	55.2	-16.4
5	290.43	25.7 QP	46.0	-20.3	1.00 V	204	38.7	-13.0
6	624.85	26.5 QP	46.0	-19.5	1.49 V	75	33.5	-7.0

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

Mode B1

CHANNEL	TX Channel 36	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 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	80.45	35.0 QP	40.0	-5.0	1.49 H	68	53.6	-18.6
2	142.67	33.8 QP	43.5	-9.7	1.50 H	105	48.0	-14.2
3	189.33	36.2 QP	43.5	-7.3	1.49 H	16	52.4	-16.2
4	216.55	33.0 QP	46.0	-13.0	1.00 H	278	49.1	-16.1
5	500.42	31.3 QP	46.0	-14.7	1.49 H	16	40.8	-9.5
6	875.67	34.0 QP	46.0	-12.0	1.50 H	57	37.5	-3.5

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	30.90	36.6 QP	40.0	-3.4	1.51 V	171	53.0	-16.4
2	59.06	37.2 QP	40.0	-2.8	1.00 V	16	51.9	-14.7
3	80.45	37.5 QP	40.0	-2.5	1.51 V	170	56.1	-18.6
4	140.72	33.4 QP	43.5	-10.1	1.51 V	264	47.8	-14.4
5	191.28	37.2 QP	43.5	-6.3	1.51 V	205	53.6	-16.4
6	733.73	39.5 QP	46.0	-6.5	1.51 V	9	44.7	-5.2

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

Mode B2

CHANNEL	TX Channel 36	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 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	61.01	37.3 QP	40.0	-2.7	1.50 H	243	52.3	-15.0
2	76.85	38.1 QP	40.0	-1.9	2.00 H	150	55.8	-17.7
3	90.17	37.5 QP	43.5	-6.0	1.99 H	261	57.1	-19.6
4	185.44	37.8 QP	43.5	-5.7	1.50 H	177	53.7	-15.9
5	337.10	26.7 QP	46.0	-19.3	1.00 H	310	38.8	-12.1
6	933.99	36.7 QP	46.0	-9.3	1.99 H	326	39.1	-2.4

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	38.25	37.5 QP	40.0	-2.5	1.00 V	0	50.0	-12.5
2	62.54	38.7 QP	40.0	-1.3	1.00 V	288	51.3	-12.6
3	195.16	37.5 QP	43.5	-6.0	1.01 V	103	52.0	-14.5
4	729.84	33.3 QP	46.0	-12.7	1.50 V	331	37.5	-4.2
5	875.67	34.0 QP	46.0	-12.0	1.01 V	172	36.4	-2.4
6	932.05	43.2 QP	46.0	-2.8	1.99 V	54	44.6	-1.4

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

FCC PART 15.207:

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.	Cal. Date	Cal. Due
Test Receiver ROHDE & SCHWARZ	ESCS 30	100288	Aug. 17, 2017	Aug. 16, 2018
RF signal cable (with 10dB PAD) Woken	5D-FB	Cable-cond1-01	Sep. 05, 2017	Sep. 04, 2018
LISN ROHDE & SCHWARZ (EUT)	ESH3-Z5	835239/001	Mar. 10, 2017	Mar. 09, 2018
LISN ROHDE & SCHWARZ (Peripheral)	ESH3-Z5	100311	Aug. 15, 2017	Aug. 14, 2018
Software ADT	BV ADT_Cond_ V7.3.7.3	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 HwaYa Shielded Room 1.

3. The VCCI Site Registration No. is C-2040.

4.2.3 Test Procedures

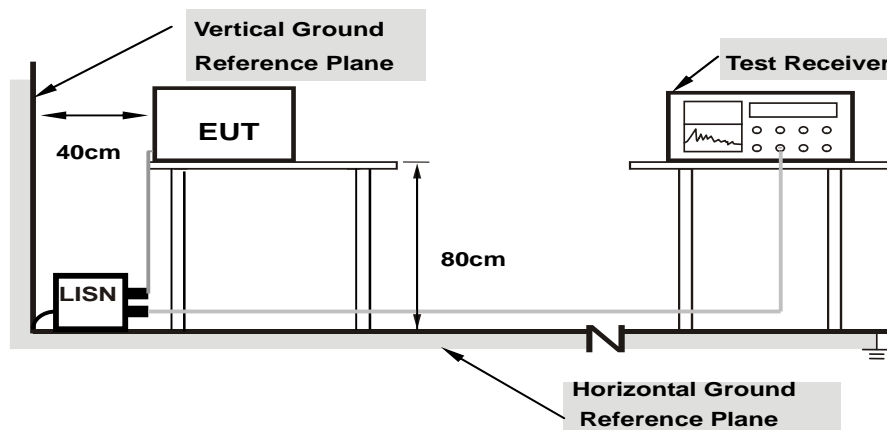
- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance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

NOTE: The resolution bandwidth and video bandwidth of test receiver is 9kHz for quasi-peak detection (QP) and average detection (AV) at frequency 0.15MHz-30MHz.

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 Conditions

Same as 4.1.6.

4.2.7 Test Results

Worst-case data: 802.11a

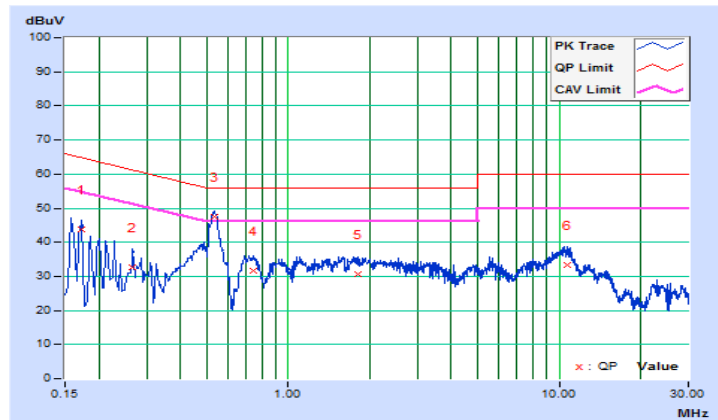
Mode A1

Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
			1	0.17328	10.39	33.40	17.44	43.79	27.83	64.80
2	0.26730	10.40	22.12	13.14	32.52	23.54	61.20	51.20	-28.68	-27.66
3	0.53318	10.41	37.15	32.10	47.56	42.51	56.00	46.00	-8.44	-3.49
4	0.74041	10.42	21.11	16.49	31.53	26.91	56.00	46.00	-24.47	-19.09
5	1.80803	10.46	20.09	15.15	30.55	25.61	56.00	46.00	-25.45	-20.39
6	10.72655	10.90	22.43	17.43	33.33	28.33	60.00	50.00	-26.67	-21.67

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.

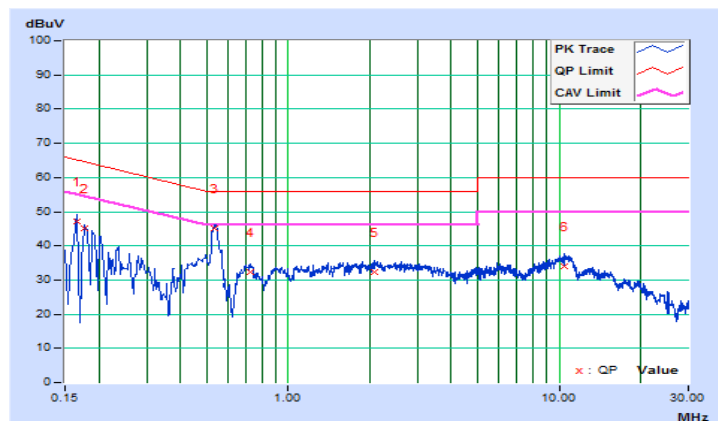


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
			1	0.16564	10.16	36.99	19.41	47.15	29.57	65.18
2	0.17744	10.16	34.80	17.85	44.96	28.01	64.60	54.60	-19.64	-26.59
3	0.53663	10.17	34.95	29.74	45.12	39.91	56.00	46.00	-10.88	-6.09
4	0.72848	10.18	22.11	17.64	32.29	27.82	56.00	46.00	-23.71	-18.18
5	2.08936	10.24	22.18	17.53	32.42	27.77	56.00	46.00	-23.58	-18.23
6	10.49977	10.60	23.32	18.49	33.92	29.09	60.00	50.00	-26.08	-20.91

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.



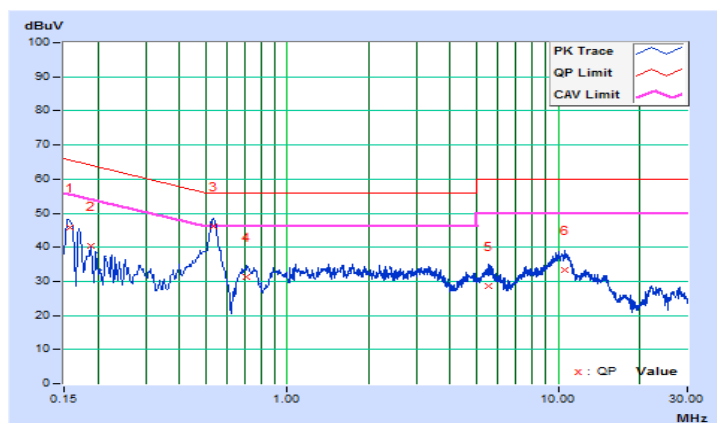
Mode A2

Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
			1	0.15782	10.39	35.45	19.56	45.84	29.95	65.58
2	0.18903	10.39	30.07	15.29	40.46	25.68	64.08	54.08	-23.62	-28.40
3	0.53240	10.41	35.88	30.87	46.29	41.28	56.00	46.00	-9.71	-4.72
4	0.70913	10.41	20.83	16.74	31.24	27.15	56.00	46.00	-24.76	-18.85
5	5.56535	10.64	18.11	11.78	28.75	22.42	60.00	50.00	-31.25	-27.58
6	10.62880	10.89	22.42	17.39	33.31	28.28	60.00	50.00	-26.69	-21.72

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.

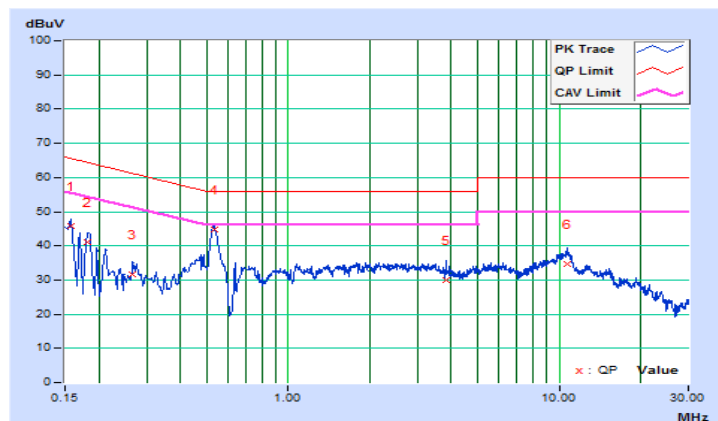


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
			1	0.15760	10.16	35.50	19.48	45.66	29.64	65.59
2	0.18122	10.16	30.91	14.93	41.07	25.09	64.43	54.43	-23.36	-29.34
3	0.26730	10.16	21.58	13.33	31.74	23.49	61.20	51.20	-29.46	-27.71
4	0.53240	10.17	34.71	29.70	44.88	39.87	56.00	46.00	-11.12	-6.13
5	3.82931	10.32	19.56	14.30	29.88	24.62	56.00	46.00	-26.12	-21.38
6	10.76565	10.61	24.05	19.37	34.66	29.98	60.00	50.00	-25.34	-20.02

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.



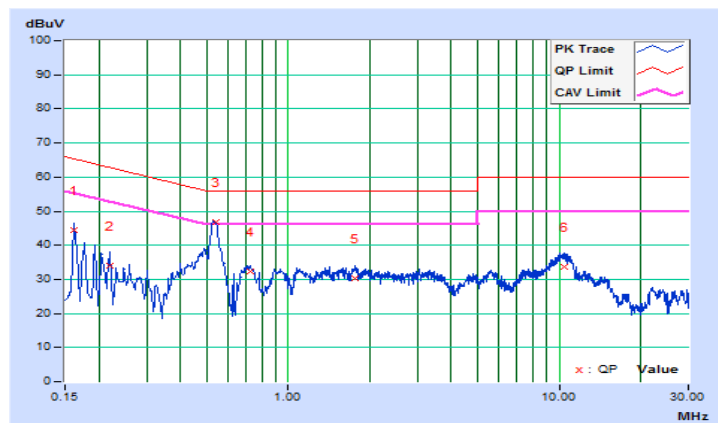
Mode B1

Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
			1	0.16173	10.39	33.90	18.14	44.29	28.53	65.37
2	0.22024	10.40	23.61	11.55	34.01	21.95	62.81	52.81	-28.80	-30.86
3	0.53804	10.41	36.39	31.30	46.80	41.71	56.00	46.00	-9.20	-4.29
4	0.72084	10.41	21.82	17.42	32.23	27.83	56.00	46.00	-23.77	-18.17
5	1.77265	10.46	19.96	15.83	30.42	26.29	56.00	46.00	-25.58	-19.71
6	10.39029	10.88	22.64	17.61	33.52	28.49	60.00	50.00	-26.48	-21.51

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.

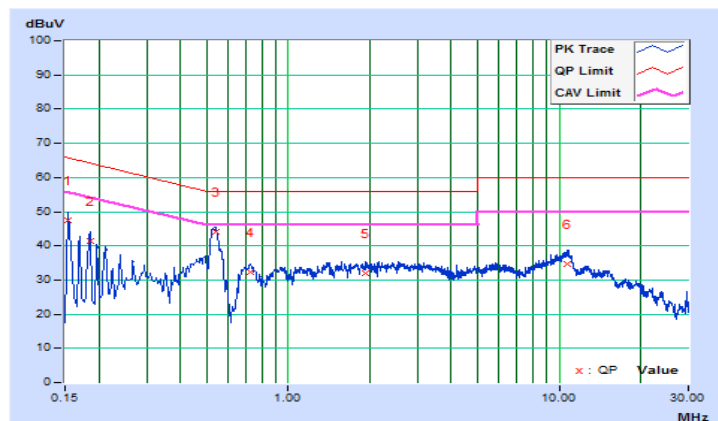


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
			1	0.15391	10.15	37.49	21.03	47.64	31.18	65.79
2	0.18508	10.16	31.30	15.52	41.46	25.68	64.25	54.25	-22.79	-28.57
3	0.54089	10.17	33.85	28.83	44.02	39.00	56.00	46.00	-11.98	-7.00
4	0.72465	10.18	22.28	17.79	32.46	27.97	56.00	46.00	-23.54	-18.03
5	1.91732	10.23	21.82	17.49	32.05	27.72	56.00	46.00	-23.95	-18.28
6	10.74219	10.61	24.07	19.48	34.68	30.09	60.00	50.00	-25.32	-19.91

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.



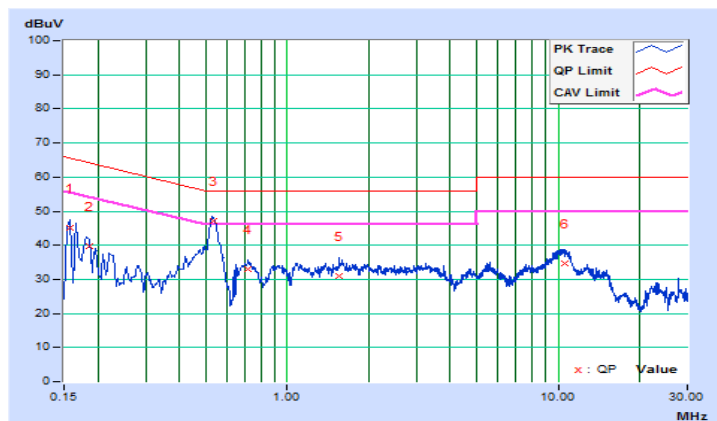
Mode B2

Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
			1	0.15760	10.39	34.89	19.17	45.28	29.56	65.59
2	0.18519	10.39	29.43	14.88	39.82	25.27	64.25	54.25	-24.43	-28.98
3	0.53318	10.41	36.68	31.60	47.09	42.01	56.00	46.00	-8.91	-3.99
4	0.71705	10.41	22.43	18.03	32.84	28.44	56.00	46.00	-23.16	-17.56
5	1.54978	10.45	20.57	16.48	31.02	26.93	56.00	46.00	-24.98	-19.07
6	10.59359	10.89	23.68	18.47	34.57	29.36	60.00	50.00	-25.43	-20.64

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.

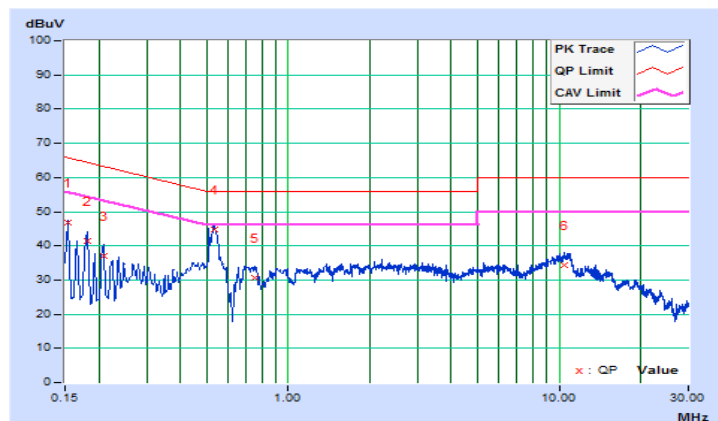


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
			1	0.15391	10.15	36.66	20.38	46.81	30.53	65.79
2	0.18122	10.16	31.18	15.20	41.34	25.36	64.43	54.43	-23.09	-29.07
3	0.20838	10.16	26.74	13.11	36.90	23.27	63.27	53.27	-26.37	-30.00
4	0.53240	10.17	34.70	29.74	44.87	39.91	56.00	46.00	-11.13	-6.09
5	0.75585	10.18	20.60	16.31	30.78	26.49	56.00	46.00	-25.22	-19.51
6	10.45285	10.60	23.65	18.84	34.25	29.44	60.00	50.00	-25.75	-20.56

Remarks:

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



4.3 Transmit Power Measurement

4.3.1 Limits of Transmit Power Measurement

Operation Band	EUT Category		Limit
U-NII-1	√	Outdoor Access Point	1 Watt (30 dBm) (Max. e.i.r.p \leq 125 mW (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	250 mW (24 dBm)
U-NII-2A			250 mW (24 dBm) or 11 dBm+10 log B*
U-NII-2C			250 mW (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 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} ;

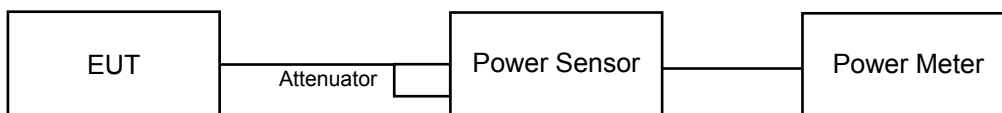
Array Gain = $5 \log(N_{ANT}/N_{SS})$ dB or 3 dB, whichever is less for 20-MHz channel widths with $N_{ANT} \geq 5$.

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

4.3.2 Test Setup

For Power Output

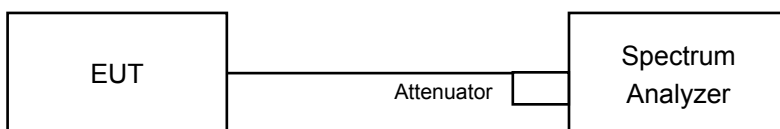
802.11a, 802.11n (HT20), 802.11n (HT40)



802.11ac (VHT80)



For Bandwidth



4.3.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.3.4 Test Procedure

For Average Power Measurement

802.11a, 802.11n (HT20), 802.11n (HT40)

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 and set the detector to AVERAGE. Duty factor is not added to measured value.

802.11ac (VHT80)

- 1) Set span to encompass the entire 26 dB EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal.
- 2) Set sweep trigger to "free run".
- 3) Set RBW = 1 MHz.
- 4) Set VBW \geq 3 MHz.
- 5) Number of points in sweep \geq 2 Span / RBW.
- 6) Sweep time \leq (number of points in sweep) * T
- 7) Using emission bandwidth to determine the frequency span for integration the channel bandwidth.
- 8) Detector = RMS.
- 9) Trace mode = max hold.
- 10) Allow max hold to run for at least 60 seconds, or longer as needed to allow the trace to stabilize.

For 26dB Bandwidth

- 1) Set RBW = approximately 1% of the emission bandwidth.
- 2) Set the VBW > RBW.
- 3) Detector = Peak.
- 4) Trace mode = max hold.
- 5) Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

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 Result

Power Output:

Mode A1

For U-NII-1 Band

CDD Mode

802.11a

Chan.	Freq. (MHz)	Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3							
36	5180	4.77	4.94	4.93	4.61	12.121	10.84	29	7	17.84	21	Pass
40	5200	4.85	5.04	4.92	4.78	12.358	10.92	29	7	17.92	21	Pass
48	5240	4.48	4.52	4.79	4.13	11.237	10.51	29	7	17.51	21	Pass

Note:

- Gain = 7dBi > 6dBi, so the limit shall be reduced to $30 - (7 - 6) = 29$ dBm.
- EIRP = conducted power + (7dBi) + array gain = (0 dB (i.e., no array gain) for NANT ≤ 4)

802.11n (HT20)

Chan.	Freq. (MHz)	Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3							
36	5180	4.45	4.71	4.55	4.26	11.262	10.52	29	7	17.52	21	Pass
40	5200	4.48	4.89	4.66	4.41	11.573	10.63	29	7	17.63	21	Pass
48	5240	4.95	4.70	5.00	4.22	11.881	10.75	29	7	17.75	21	Pass

Note:

- Gain = 7dBi > 6dBi, so the limit shall be reduced to $30 - (7 - 6) = 29$ dBm.
- EIRP = conducted power + (7dBi) + array gain = (0 dB (i.e., no array gain) for NANT ≤ 4)

802.11n (HT40)

Chan.	Freq. (MHz)	Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3							
38	5190	4.66	5.04	4.87	4.63	12.089	10.82	29	7	17.82	21	Pass
46	5230	5.04	4.94	4.99	4.61	12.357	10.92	29	7	17.92	21	Pass

Note:

- Gain = 7dBi > 6dBi, so the limit shall be reduced to $30 - (7 - 6) = 29$ dBm.
- EIRP = conducted power + (7dBi) + array gain = (0 dB (i.e., no array gain) for NANT ≤ 4)

802.11ac (VHT80)

Chan.	Freq. (MHz)	Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3							
42	5210	4.63	4.89	4.65	4.26	11.571	10.63	29	7	17.63	21	Pass

Note:

- Gain = 7dBi > 6dBi, so the limit shall be reduced to $30 - (7 - 6) = 29$ dBm.
- EIRP = conducted power + (7dBi) + array gain = (0 dB (i.e., no array gain) for NANT ≤ 4)

Beamforming Mode

802.11n (HT20)

Chan.	Freq. (MHz)	Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3							
36	5180	-1.57	-1.31	-1.47	-1.76	2.816	4.50	22.98	13.02	17.52	21	Pass
40	5200	-1.54	-1.13	-1.36	-1.61	2.893	4.61	22.98	13.02	17.63	21	Pass
48	5240	-1.07	-1.32	-1.02	-1.80	2.970	4.73	22.98	13.02	17.75	21	Pass

Note:

1. Directional Gain = $7 + 10\log(4) = 13.02\text{dBi} > 6\text{dBi}$, so the limit shall be reduced to $30 - (13.02 - 6) = 22.98\text{dBm}$.

2. EIRP = conducted power + (7dBi) + beamforming gain (6.02dBi)

802.11n (HT40)

Chan.	Freq. (MHz)	Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3							
38	5190	-1.36	-0.98	-1.15	-1.39	3.022	4.80	22.98	13.02	17.82	21	Pass
46	5230	-0.98	-1.08	-1.03	-1.41	3.089	4.90	22.98	13.02	17.92	21	Pass

Note:

1. Directional Gain = $7 + 10\log(4) = 13.02\text{dBi} > 6\text{dBi}$, so the limit shall be reduced to $30 - (13.02 - 6) = 22.98\text{dBm}$.

2. EIRP = conducted power + (7dBi) + beamforming gain (6.02dBi)

802.11ac (VHT80)

Chan.	Freq. (MHz)	Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3							
42	5210	-1.39	-1.13	-1.37	-1.76	2.893	4.61	22.98	13.02	17.63	21	Pass

Note:

1. Directional Gain = $7 + 10\log(4) = 13.02\text{dBi} > 6\text{dBi}$, so the limit shall be reduced to $30 - (13.02 - 6) = 22.98\text{dBm}$.

2. EIRP = conducted power + (7dBi) + beamforming gain (6.02dBi)

For U-NII-3 Band

CDD Mode

802.11a

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
149	5745	19.71	19.68	19.92	19.21	367.981	25.66	29	Pass
157	5785	19.57	19.61	19.93	19.19	363.370	25.60	29	Pass
165	5825	19.58	19.71	19.92	19.16	364.912	25.62	29	Pass

Note: Gain = 7dBi > 6dBi, so the limit shall be reduced to 30-(7-6) = 29dBm.

802.11n (HT20)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
149	5745	19.76	19.75	19.98	19.25	372.711	25.71	29	Pass
157	5785	19.73	19.79	20.03	19.32	375.452	25.75	29	Pass
165	5825	19.72	19.77	20.21	19.43	381.252	25.81	29	Pass

Note: Gain = 7dBi > 6dBi, so the limit shall be reduced to 30-(7-6) = 29dBm.

802.11n (HT40)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
151	5755	20.31	19.74	20.11	19.64	396.198	25.98	29	Pass
159	5795	20.01	19.88	20.19	19.67	394.661	25.96	29	Pass

Note: Gain = 7dBi > 6dBi, so the limit shall be reduced to 30-(7-6) = 29dBm.

802.11ac (VHT80)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
155	5775	15.31	14.77	15.09	14.66	125.482	20.99	29	Pass

Note: Gain = 7dBi > 6dBi, so the limit shall be reduced to 30-(7-6) = 29dBm.

Beamforming Mode

802.11n (HT20)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
149	5745	13.74	13.73	13.96	13.23	93.177	19.69	22.98	Pass
157	5785	13.71	13.77	14.01	13.30	93.863	19.72	22.98	Pass
165	5825	13.70	13.75	14.19	13.41	95.313	19.79	22.98	Pass

Note:

1. Directional Gain = $7 + 10\log(4) = 13.02\text{dBi} > 6\text{dBi}$, so the limit shall be reduced to $30 - (13.02 - 6) = 22.98\text{dBm}$.

802.11n (HT40)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
151	5755	14.29	13.72	14.09	13.62	99.050	19.96	22.98	Pass
159	5795	13.99	13.86	14.17	13.65	98.665	19.94	22.98	Pass

Note:

1. Directional Gain = $7 + 10\log(4) = 13.02\text{dBi} > 6\text{dBi}$, so the limit shall be reduced to $30 - (13.02 - 6) = 22.98\text{dBm}$.

802.11ac (VHT80)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
155	5775	9.29	8.75	9.07	8.64	31.370	14.97	22.98	Pass

Note:

1. Directional Gain = $7 + 10\log(4) = 13.02\text{dBi} > 6\text{dBi}$, so the limit shall be reduced to $30 - (13.02 - 6) = 22.98\text{dBm}$.

Mode A2

For U-NII-1 Band

CDD Mode

802.11a

Chan.	Freq. (MHz)	Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3							
36	5180	6.52	6.57	6.61	6.64	18.220	12.61	17.5	3.94	16.55	21	Pass
40	5200	6.43	6.45	6.72	6.61	18.091	12.57	17.5	3.94	16.51	21	Pass
48	5240	6.52	6.54	6.66	6.50	18.096	12.58	17.5	3.94	16.52	21	Pass

Note:

1. Gain = 18.5dBi > 6dBi, so the limit shall be reduced to $30-(18.5-6) = 17.5$ dBm.
2. Gain = 3.94dBi (above 30 degrees from the horizon)
3. EIRP = conducted power +(3.94dBi) + array gain = (0 dB (i.e., no array gain) for NANT ≤ 4)

802.11n (HT20)

Chan.	Freq. (MHz)	Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3							
36	5180	6.84	6.94	6.81	7.23	19.855	12.98	17.5	3.94	16.92	21	Pass
40	5200	6.54	6.69	6.86	6.84	18.859	12.76	17.5	3.94	16.70	21	Pass
48	5240	6.71	6.77	7.03	6.58	19.038	12.80	17.5	3.94	16.74	21	Pass

Note:

1. Gain = 18.5dBi > 6dBi, so the limit shall be reduced to $30-(18.5-6) = 17.5$ dBm.
2. Gain = 3.94dBi (above 30 degrees from the horizon)
3. EIRP = conducted power +(3.94dBi) + array gain = (0 dB (i.e., no array gain) for NANT ≤ 4)

802.11n (HT40)

Chan.	Freq. (MHz)	Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3							
38	5190	7.89	7.99	7.91	7.93	24.836	13.95	17.5	3.94	17.89	21	Pass
46	5230	7.54	7.56	7.78	7.59	23.116	13.64	17.5	3.94	17.58	21	Pass

Note:

1. Gain = 18.5dBi > 6dBi, so the limit shall be reduced to $30-(18.5-6) = 17.5$ dBm.
2. Gain = 3.94dBi (above 30 degrees from the horizon)
3. EIRP = conducted power +(3.94dBi) + array gain = (0 dB (i.e., no array gain) for NANT ≤ 4)

802.11ac (VHT80)

Chan.	Freq. (MHz)	Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3							
42	5210	7.74	7.91	7.94	7.89	24.498	13.89	17.5	3.94	17.83	21	Pass

Note:

1. Gain = 18.5dBi > 6dBi, so the limit shall be reduced to $30-(18.5-6) = 17.5$ dBm.
2. Gain = 3.94dBi (above 30 degrees from the horizon)
3. EIRP = conducted power +(3.94dBi) + array gain = (0 dB (i.e., no array gain) for NANT ≤ 4)

Beamforming Mode

802.11n (HT20)

Chan.	Freq. (MHz)	Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3							
36	5180	0.82	0.92	0.79	1.21	4.964	6.96	12.73	8.71	15.67	21	Pass
40	5200	0.52	0.67	0.84	0.82	4.715	6.73	12.73	8.71	15.44	21	Pass
48	5240	0.69	0.75	1.01	0.56	4.759	6.78	12.73	8.71	15.49	21	Pass

Note:

1. Directional Gain = $18.5 + 10\log(3) = 23.27\text{dBi}$, so the limit shall be reduced to $30 - (23.27 - 6) = 12.73\text{dBm}$.
2. Gain = 3.94dBi (above 30 degrees from the horizon)
3. EIRP = conducted power + (3.94dBi) + array gain (4.77dBi)

802.11n (HT40)

Chan.	Freq. (MHz)	Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3							
38	5190	1.87	1.97	1.89	1.91	6.209	7.93	12.73	8.71	16.64	21	Pass
46	5230	1.52	1.54	1.76	1.57	5.779	7.62	12.73	8.71	16.33	21	Pass

Note:

1. Directional Gain = $18.5 + 10\log(3) = 23.27\text{dBi}$, so the limit shall be reduced to $30 - (23.27 - 6) = 12.73\text{dBm}$.
2. Gain = 3.94dBi (above 30 degrees from the horizon)
3. EIRP = conducted power + (3.94dBi) + array gain (4.77dBi)

802.11ac (VHT80)

Chan.	Freq. (MHz)	Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3							
42	5210	1.72	1.89	1.92	1.87	6.124	7.87	12.73	8.71	16.58	21	Pass

Note:

1. Directional Gain = $18.5 + 10\log(3) = 23.27\text{dBi}$, so the limit shall be reduced to $30 - (23.27 - 6) = 12.73\text{dBm}$.
2. Gain = 3.94dBi (above 30 degrees from the horizon)
3. EIRP = conducted power + (3.94dBi) + array gain (4.77dBi)

For U-NII-3 Band

CDD Mode

802.11a

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
149	5745	8.42	8.23	8.58	7.93	27.023	14.32	17.5	Pass
157	5785	8.37	8.03	8.63	7.78	26.517	14.24	17.5	Pass
165	5825	8.33	8.00	8.46	7.83	26.200	14.18	17.5	Pass

Note: Gain = 18.5dBi > 6dBi, so the limit shall be reduced to $30-(18.5-6) = 17.5$ dBm.

802.11n (HT20)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
149	5745	8.29	7.84	8.11	7.67	25.145	14.00	17.5	Pass
157	5785	8.25	7.72	8.38	7.45	25.045	13.99	17.5	Pass
165	5825	8.11	7.88	8.16	7.59	24.896	13.96	17.5	Pass

Note: Gain = 18.5dBi > 6dBi, so the limit shall be reduced to $30-(18.5-6) = 17.5$ dBm.

802.11n (HT40)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
151	5755	8.39	7.85	8.41	7.97	26.197	14.18	17.5	Pass
159	5795	8.41	7.81	8.36	7.83	25.895	14.13	17.5	Pass

Note: Gain = 18.5dBi > 6dBi, so the limit shall be reduced to $30-(18.5-6) = 17.5$ dBm.

802.11ac (VHT80)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
155	5775	8.44	7.61	8.17	7.62	25.092	14.00	17.5	Pass

Note: Gain = 18.5dBi > 6dBi, so the limit shall be reduced to $30-(18.5-6) = 17.5$ dBm.

Beamforming Mode

802.11n (HT20)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
149	5745	2.27	1.82	2.09	1.65	6.286	7.98	12.73	Pass
157	5785	2.23	1.70	2.36	1.43	6.261	7.97	12.73	Pass
165	5825	2.09	1.86	2.14	1.57	6.224	7.94	12.73	Pass

Note:

1. Directional Gain = $18.5 + 10\log(3) = 23.27\text{dBi} > 6\text{dBi}$, so the limit shall be reduced to $30 - (23.27 - 6) = 12.73\text{dBm}$.

802.11n (HT40)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
151	5755	2.37	1.83	2.39	1.95	6.550	8.16	12.73	Pass
159	5795	2.39	1.79	2.34	1.81	6.474	8.11	12.73	Pass

Note:

1. Directional Gain = $18.5 + 10\log(3) = 23.27\text{dBi} > 6\text{dBi}$, so the limit shall be reduced to $30 - (23.27 - 6) = 12.73\text{dBm}$.

802.11ac (VHT80)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
155	5775	2.42	1.59	2.15	1.60	6.273	7.97	12.73	Pass

Note:

1. Directional Gain = $18.5 + 10\log(3) = 23.27\text{dBi} > 6\text{dBi}$, so the limit shall be reduced to $30 - (23.27 - 6) = 12.73\text{dBm}$.

Mode B1

For U-NII-1 Band

CDD Mode

802.11a

Chan.	Freq. (MHz)	Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3							
36	5180	5.04	4.56	5.36	4.66	12.410	10.94	29	7	17.94	21	Pass
40	5200	5.05	4.55	5.54	4.24	12.286	10.89	29	7	17.89	21	Pass
48	5240	4.51	4.42	4.94	4.13	11.299	10.53	29	7	17.53	21	Pass

Note:

1. Gain = 7dBi > 6dBi, so the limit shall be reduced to 30-(7-6) = 29dBm.
2. EIRP = conducted power +(7dBi) + array gain = (0 dB (i.e., no array gain) for NANT ≤ 4)

802.11n (HT20)

Chan.	Freq. (MHz)	Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3							
36	5180	4.56	4.33	5.11	4.03	11.340	10.55	29	7	17.55	21	Pass
40	5200	4.57	4.37	5.29	4.11	11.556	10.63	29	7	17.63	21	Pass
48	5240	4.56	4.36	5.32	4.39	11.739	10.70	29	7	17.70	21	Pass

Note:

1. Gain = 7dBi > 6dBi, so the limit shall be reduced to 30-(7-6) = 29dBm.
2. EIRP = conducted power +(7dBi) + array gain = (0 dB (i.e., no array gain) for NANT ≤ 4)

802.11n (HT40)

Chan.	Freq. (MHz)	Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3							
38	5190	4.94	4.34	5.02	4.31	11.710	10.69	29	7	17.69	21	Pass
46	5230	4.89	4.33	5.19	4.43	11.870	10.74	29	7	17.74	21	Pass

Note:

1. Gain = 7dBi > 6dBi, so the limit shall be reduced to 30-(7-6) = 29dBm.
2. EIRP = conducted power +(7dBi) + array gain = (0 dB (i.e., no array gain) for NANT ≤ 4)

802.11ac (VHT80)

Chan.	Freq. (MHz)	Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3							
42	5210	4.83	4.31	4.93	4.06	11.398	10.57	29	7	17.57	21	Pass

Note:

1. Gain = 7dBi > 6dBi, so the limit shall be reduced to 30-(7-6) = 29dBm.
2. EIRP = conducted power +(7dBi) + array gain = (0 dB (i.e., no array gain) for NANT ≤ 4)

Beamforming Mode

802.11n (HT20)

Chan.	Freq. (MHz)	Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3							
36	5180	-1.46	-1.69	-0.91	-1.99	2.835	4.53	22.98	13.02	17.55	21	Pass
40	5200	-1.45	-1.65	-0.73	-1.91	2.889	4.61	22.98	13.02	17.63	21	Pass
48	5240	-1.46	-1.66	-0.70	-1.63	2.935	4.68	22.98	13.02	17.70	21	Pass

Note:

1. Directional Gain = $7 + 10\log(4) = 13.02\text{dBi} > 6\text{dBi}$, so the limit shall be reduced to $30 - (13.02 - 6) = 22.98\text{dBm}$.

2. EIRP = conducted power + (7dBi) + beamforming gain (6.02dBi)

802.11n (HT40)

Chan.	Freq. (MHz)	Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3							
38	5190	-1.08	-1.68	-1.00	-1.71	2.927	4.66	22.98	13.02	17.69	21	Pass
46	5230	-1.13	-1.69	-0.83	-1.59	2.968	4.72	22.98	13.02	17.74	21	Pass

Note:

1. Directional Gain = $7 + 10\log(4) = 13.02\text{dBi} > 6\text{dBi}$, so the limit shall be reduced to $30 - (13.02 - 6) = 22.98\text{dBm}$.

2. EIRP = conducted power + (7dBi) + beamforming gain (6.02dBi)

802.11ac (VHT80)

Chan.	Freq. (MHz)	Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3							
42	5210	-1.19	-1.71	-1.09	-1.96	2.849	4.55	22.98	13.02	17.57	21	Pass

Note:

1. Directional Gain = $7 + 10\log(4) = 13.02\text{dBi} > 6\text{dBi}$, so the limit shall be reduced to $30 - (13.02 - 6) = 22.98\text{dBm}$.

2. EIRP = conducted power + (7dBi) + beamforming gain (6.02dBi)

For U-NII-3 Band

CDD Mode

802.11a

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
149	5745	19.75	19.61	20.31	19.67	385.899	25.86	29	Pass
157	5785	19.25	19.58	20.22	19.76	374.742	25.74	29	Pass
165	5825	19.13	19.28	20.16	19.89	367.821	25.66	29	Pass

Note: Gain = 7dBi > 6dBi, so the limit shall be reduced to 30-(7-6) = 29dBm.

802.11n (HT20)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
149	5745	18.98	19.26	20.15	19.46	355.223	25.51	29	Pass
157	5785	18.92	19.23	20.08	19.60	354.796	25.50	29	Pass
165	5825	19.43	19.43	20.46	19.93	384.974	25.85	29	Pass

Note: Gain = 7dBi > 6dBi, so the limit shall be reduced to 30-(7-6) = 29dBm.

802.11n (HT40)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
151	5755	19.65	19.87	20.39	20.18	402.936	26.05	29	Pass
159	5795	18.62	18.69	19.51	19.23	319.823	25.05	29	Pass

Note: Gain = 7dBi > 6dBi, so the limit shall be reduced to 30-(7-6) = 29dBm.

802.11ac (VHT80)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
155	5775	15.39	15.58	16.28	15.57	149.255	21.74	29	Pass

Note: Gain = 7dBi > 6dBi, so the limit shall be reduced to 30-(7-6) = 29dBm.

Beamforming Mode

802.11n (HT20)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
149	5745	12.96	13.24	14.13	13.44	88.806	19.48	22.98	Pass
157	5785	12.90	13.21	14.06	13.58	88.699	19.48	22.98	Pass
165	5825	13.41	13.41	14.44	13.91	96.244	19.83	22.98	Pass

Note:

1. Directional Gain = $7 + 10\log(4) = 13.02\text{dBi} > 6\text{dBi}$, so the limit shall be reduced to $30 - (13.02 - 6) = 22.98\text{dBm}$.

802.11n (HT40)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
151	5755	13.63	13.85	14.37	14.16	100.734	20.03	22.98	Pass
159	5795	12.60	12.67	13.49	13.21	79.955	19.03	22.98	Pass

Note:

1. Directional Gain = $7 + 10\log(4) = 13.02\text{dBi} > 6\text{dBi}$, so the limit shall be reduced to $30 - (13.02 - 6) = 22.98\text{dBm}$.

802.11ac (VHT80)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
155	5775	9.37	9.56	10.26	9.55	37.314	15.72	22.98	Pass

Note:

1. Directional Gain = $7 + 10\log(4) = 13.02\text{dBi} > 6\text{dBi}$, so the limit shall be reduced to $30 - (13.02 - 6) = 22.98\text{dBm}$.

Mode B2

For U-NII-1 Band

CDD Mode

802.11a

Chan.	Freq. (MHz)	Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3							
36	5180	6.58	6.24	7.26	6.26	18.305	12.63	17.5	3.94	16.57	21	Pass
40	5200	6.58	6.28	7.37	6.25	18.471	12.66	17.5	3.94	16.60	21	Pass
48	5240	6.51	6.61	7.39	6.62	19.133	12.82	17.5	3.94	16.76	21	Pass

Note:

1. Gain = 18.5dBi > 6dBi, so the limit shall be reduced to $30-(18.5-6) = 17.5$ dBm.
2. Gain = 3.94dBi (above 30 degrees from the horizon)
3. EIRP = conducted power +(3.94dBi) + array gain = (0 dB (i.e., no array gain) for NANT ≤ 4)

802.11n (HT20)

Chan.	Freq. (MHz)	Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3							
36	5180	6.73	6.52	7.39	6.51	19.157	12.82	17.5	3.94	16.76	21	Pass
40	5200	6.58	6.59	7.55	6.51	19.276	12.85	17.5	3.94	16.79	21	Pass
48	5240	6.61	6.63	7.54	6.69	19.526	12.91	17.5	3.94	16.85	21	Pass

Note:

1. Gain = 18.5dBi > 6dBi, so the limit shall be reduced to $30-(18.5-6) = 17.5$ dBm.
2. Gain = 3.94dBi (above 30 degrees from the horizon)
3. EIRP = conducted power +(3.94dBi) + array gain = (0 dB (i.e., no array gain) for NANT ≤ 4)

802.11n (HT40)

Chan.	Freq. (MHz)	Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3							
38	5190	7.61	7.43	8.15	7.02	22.868	13.59	17.5	3.94	17.53	21	Pass
46	5230	7.65	7.51	8.40	7.40	23.870	13.78	17.5	3.94	17.72	21	Pass

Note:

1. Gain = 18.5dBi > 6dBi, so the limit shall be reduced to $30-(18.5-6) = 17.5$ dBm.
2. Gain = 3.94dBi (above 30 degrees from the horizon)
3. EIRP = conducted power +(3.94dBi) + array gain = (0 dB (i.e., no array gain) for NANT ≤ 4)

802.11ac (VHT80)

Chan.	Freq. (MHz)	Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3							
42	5210	7.62	7.33	8.14	7.03	22.752	13.57	17.5	3.94	17.51	21	Pass

Note:

1. Gain = 18.5dBi > 6dBi, so the limit shall be reduced to $30-(18.5-6) = 17.5$ dBm.
2. Gain = 3.94dBi (above 30 degrees from the horizon)
3. EIRP = conducted power +(3.94dBi) + array gain = (0 dB (i.e., no array gain) for NANT ≤ 4)

Beamforming Mode

802.11n (HT20)

Chan.	Freq. (MHz)	Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3							
36	5180	0.71	0.50	1.37	0.49	4.789	6.80	12.73	8.71	15.51	21	Pass
40	5200	0.56	0.57	1.53	0.49	4.819	6.83	12.73	8.71	15.54	21	Pass
48	5240	0.59	0.61	1.52	0.67	4.882	6.89	12.73	8.71	15.60	21	Pass

Note:

1. Directional Gain = $18.5 + 10\log(3) = 23.27\text{dBi}$, so the limit shall be reduced to $30 - (23.27 - 6) = 12.73\text{dBm}$.
2. Gain = 3.94dBi (above 30 degrees from the horizon)
3. EIRP = conducted power + (3.94dBi) + array gain (4.77dBi)

802.11n (HT40)

Chan.	Freq. (MHz)	Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3							
38	5190	1.59	1.41	2.13	1.00	5.717	7.57	12.73	8.71	16.28	21	Pass
46	5230	1.63	1.49	2.38	1.38	5.968	7.76	12.73	8.71	16.47	21	Pass

Note:

1. Directional Gain = $18.5 + 10\log(3) = 23.27\text{dBi}$, so the limit shall be reduced to $30 - (23.27 - 6) = 12.73\text{dBm}$.
2. Gain = 3.94dBi (above 30 degrees from the horizon)
3. EIRP = conducted power + (3.94dBi) + array gain (4.77dBi)

802.11ac (VHT80)

Chan.	Freq. (MHz)	Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Gain (dBi)	EIRP (dBm)	EIRP Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3							
42	5210	1.60	1.31	2.12	1.01	5.688	7.55	12.73	8.71	16.26	21	Pass

Note:

1. Directional Gain = $18.5 + 10\log(3) = 23.27\text{dBi}$, so the limit shall be reduced to $30 - (23.27 - 6) = 12.73\text{dBm}$.
2. Gain = 3.94dBi (above 30 degrees from the horizon)
3. EIRP = conducted power + (3.94dBi) + array gain (4.77dBi)

For U-NII-3 Band

CDD Mode

802.11a

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
149	5745	7.58	8.09	8.79	8.03	26.091	14.16	17.5	Pass
157	5785	7.41	7.92	8.70	8.23	25.768	14.11	17.5	Pass
165	5825	7.66	7.82	8.75	8.22	26.023	14.15	17.5	Pass

Note: Gain = 18.5dBi > 6dBi, so the limit shall be reduced to $30-(18.5-6) = 17.5$ dBm.

802.11n (HT20)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
149	5745	7.68	8.23	8.92	8.07	26.724	14.27	17.5	Pass
157	5785	7.67	8.09	8.63	8.28	26.315	14.20	17.5	Pass
165	5825	7.78	8.03	8.69	8.26	26.446	14.22	17.5	Pass

Note: Gain = 18.5dBi > 6dBi, so the limit shall be reduced to $30-(18.5-6) = 17.5$ dBm.

802.11n (HT40)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
151	5755	7.49	7.94	8.77	7.99	25.662	14.09	17.5	Pass
159	5795	7.61	7.84	8.63	8.21	25.766	14.11	17.5	Pass

Note: Gain = 18.5dBi > 6dBi, so the limit shall be reduced to $30-(18.5-6) = 17.5$ dBm.

802.11ac (VHT80)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
155	5775	7.63	7.98	8.85	8.31	26.525	14.24	17.5	Pass

Note: Gain = 18.5dBi > 6dBi, so the limit shall be reduced to $30-(18.5-6) = 17.5$ dBm.

Beamforming Mode

802.11n (HT20)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
149	5745	1.66	2.21	2.90	2.05	6.681	8.25	12.73	Pass
157	5785	1.65	2.07	2.61	2.26	6.578	8.18	12.73	Pass
165	5825	1.76	2.01	2.67	2.24	6.612	8.20	12.73	Pass

Note:

1. Directional Gain = $18.5 + 10\log(3) = 23.27\text{dBi} > 6\text{dBi}$, so the limit shall be reduced to $30 - (23.27 - 6) = 12.73\text{dBm}$.

802.11n (HT40)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
151	5755	1.47	1.92	2.75	1.97	6.416	8.07	12.73	Pass
159	5795	1.59	1.82	2.61	2.19	6.441	8.09	12.73	Pass

Note:

1. Directional Gain = $18.5 + 10\log(3) = 23.27\text{dBi} > 6\text{dBi}$, so the limit shall be reduced to $30 - (23.27 - 6) = 12.73\text{dBm}$.

802.11ac (VHT80)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
155	5775	1.61	1.96	2.83	2.29	6.631	8.22	12.73	Pass

Note:

1. Directional Gain = $18.5 + 10\log(3) = 23.27\text{dBi} > 6\text{dBi}$, so the limit shall be reduced to $30 - (23.27 - 6) = 12.73\text{dBm}$.

26dB Bandwidth:

Mode A1

802.11a

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
36	5180	19.99	19.76	19.85	19.65
40	5200	19.95	19.89	20.08	19.49
48	5240	20.15	19.93	20.11	20.10

802.11n (HT20)

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
36	5180	20.83	20.67	20.98	20.61
40	5200	20.75	20.64	20.68	20.42
48	5240	20.66	20.54	20.70	20.61

802.11n (HT40)

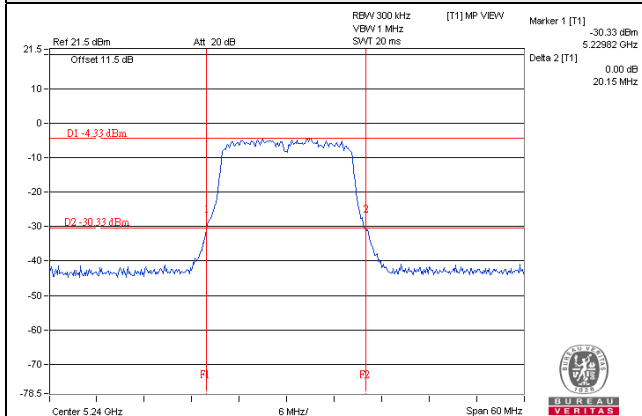
Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
38	5190	40.88	40.57	40.54	40.68
46	5230	40.81	40.72	40.67	40.67

802.11ac (VHT80)

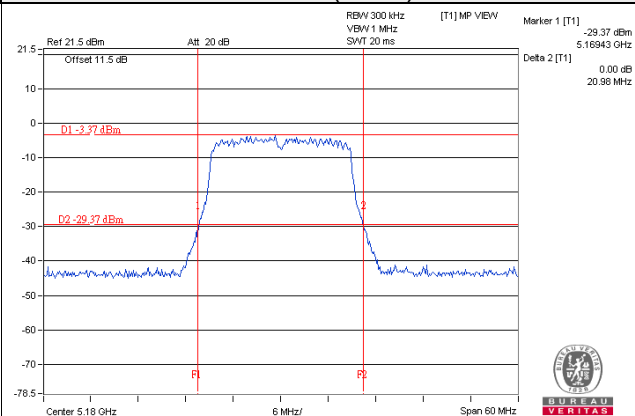
Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
42	5210	85.59	85.50	85.32	84.05

Spectrum Plot of Worst Value

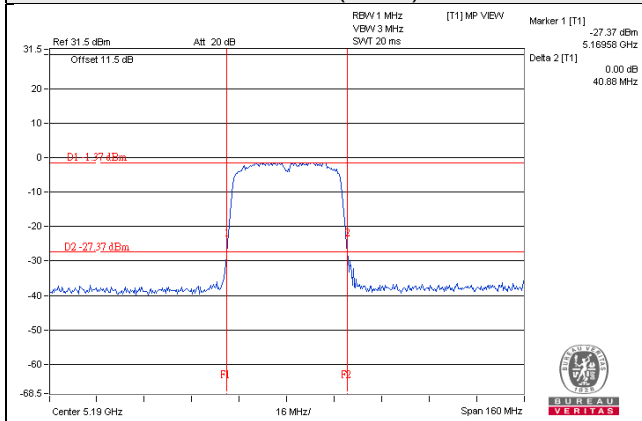
802.11a



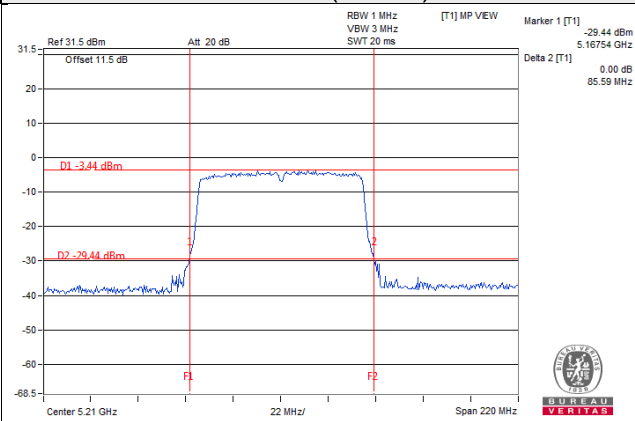
802.11n (HT20)



802.11n (HT40)



802.11ac (VHT80)



Mode A2
802.11a

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
36	5180	20.20	19.70	20.05	19.48
40	5200	20.06	20.10	20.08	19.61
48	5240	20.09	20.04	19.95	19.84

802.11n (HT20)

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
36	5180	20.73	20.80	20.81	20.57
40	5200	20.61	20.65	20.96	20.54
48	5240	20.82	20.89	20.71	20.52

802.11n (HT40)

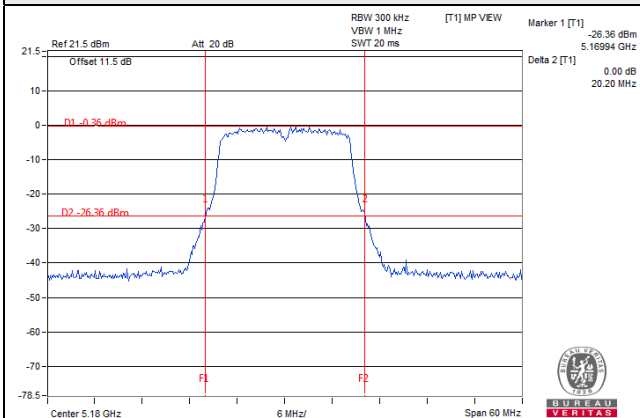
Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
38	5190	40.79	40.91	40.71	40.58
46	5230	40.87	40.49	40.65	40.55

802.11ac (VHT80)

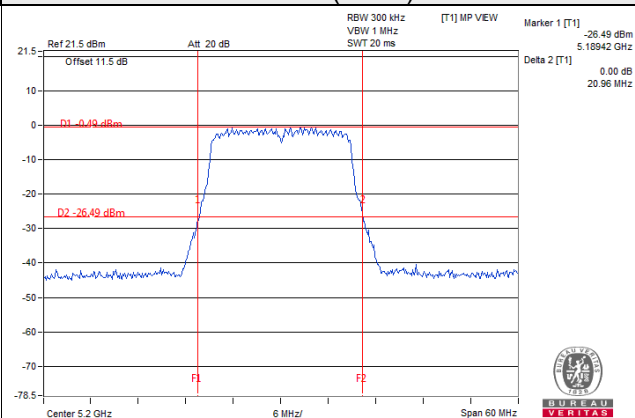
Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
42	5210	87.67	84.86	85.30	84.60

Spectrum Plot of Worst Value

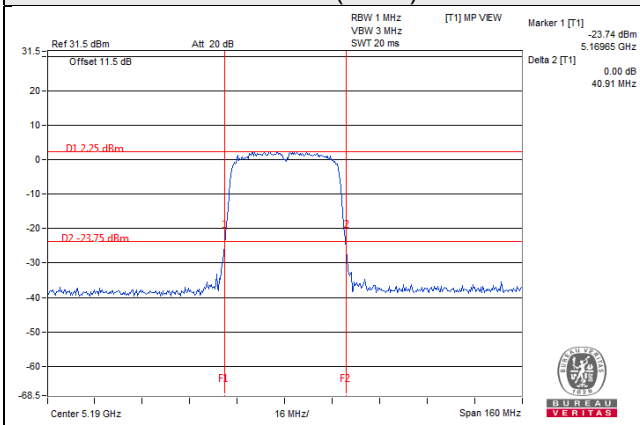
802.11a



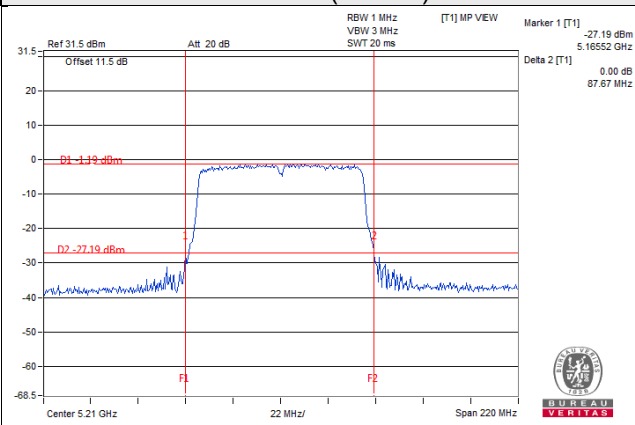
802.11n (HT20)



802.11n (HT40)



802.11ac (VHT80)



Mode B1
802.11a

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
36	5180	19.93	19.84	20.18	19.50
40	5200	20.14	19.86	19.71	20.00
48	5240	20.09	20.16	20.05	19.61

802.11n (HT20)

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
36	5180	20.94	20.99	20.65	20.62
40	5200	21.12	20.59	20.62	20.59
48	5240	21.05	20.54	20.67	20.66

802.11n (HT40)

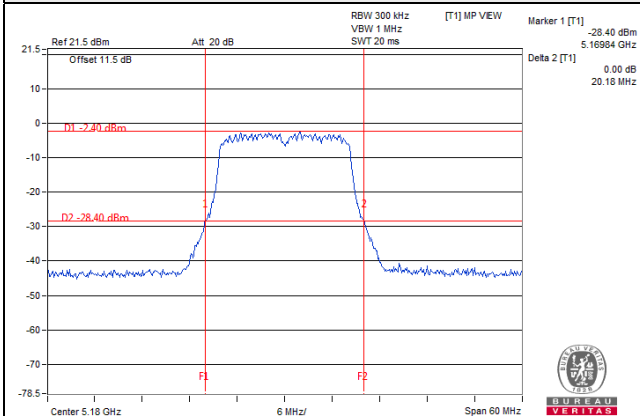
Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
38	5190	40.81	40.82	40.48	40.48
46	5230	40.87	40.66	40.60	40.71

802.11ac (VHT80)

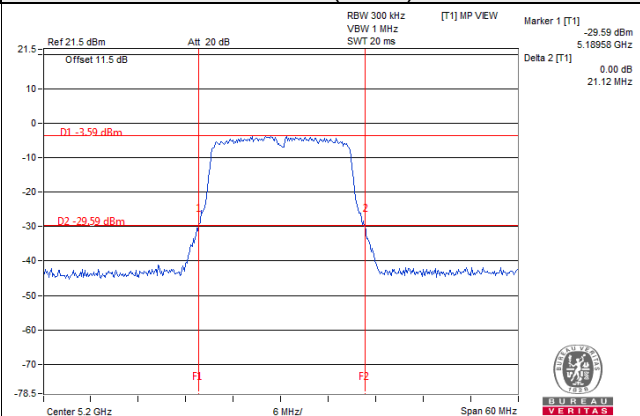
Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
42	5210	88.89	88.26	85.07	85.58

Spectrum Plot of Worst Value

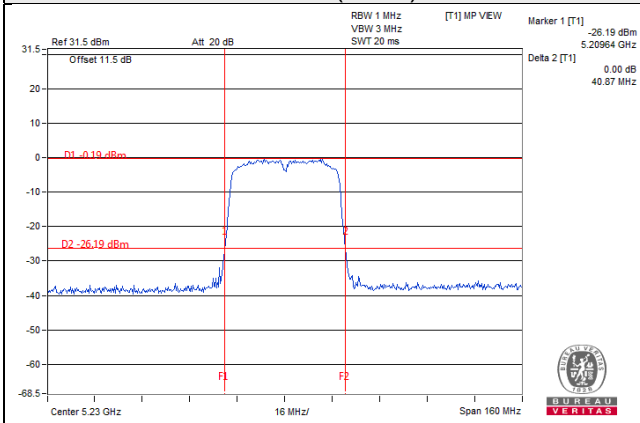
802.11a



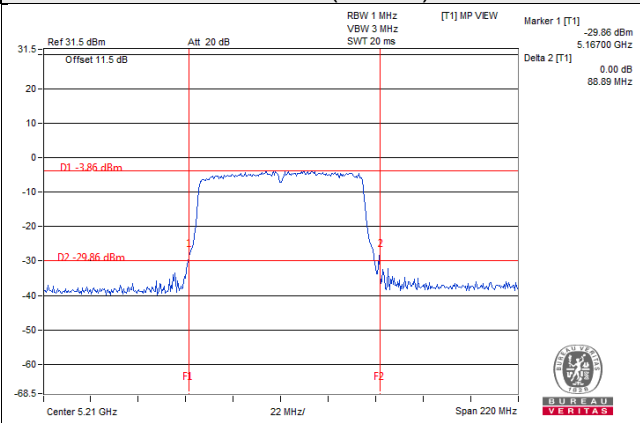
802.11n (HT20)



802.11n (HT40)



802.11ac (VHT80)



Mode B2
802.11a

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
36	5180	20.02	19.70	20.24	19.63
40	5200	20.02	19.78	20.41	19.81
48	5240	19.95	19.82	20.19	19.77

802.11n (HT20)

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
36	5180	20.62	20.61	20.89	20.52
40	5200	20.51	20.52	20.79	20.47
48	5240	20.47	20.61	20.73	20.48

802.11n (HT40)

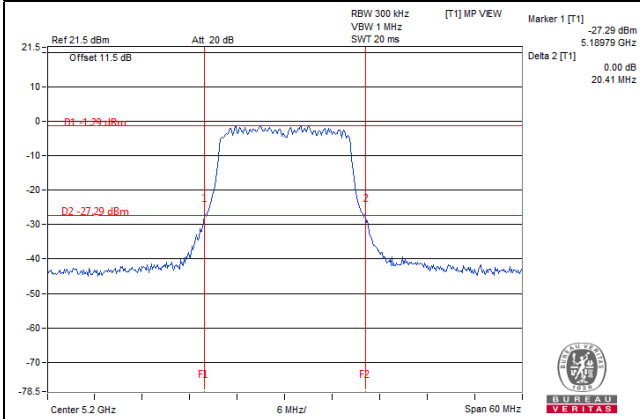
Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
38	5190	40.73	40.91	40.62	40.63
46	5230	40.80	40.88	40.51	40.52

802.11ac (VHT80)

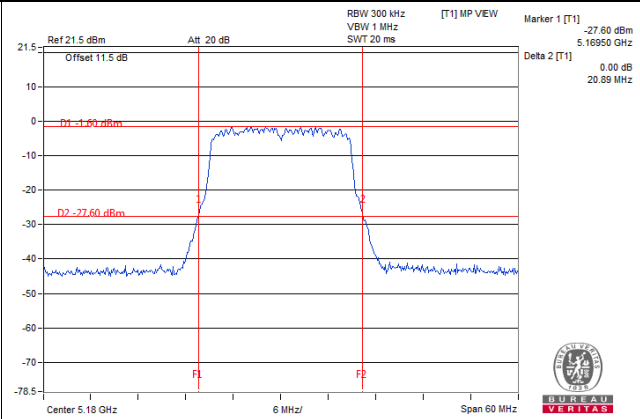
Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
42	5210	86.83	87.58	85.88	86.42

Spectrum Plot of Worst Value

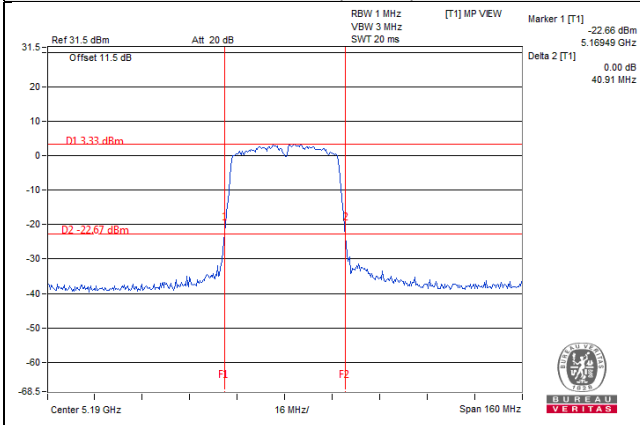
802.11a



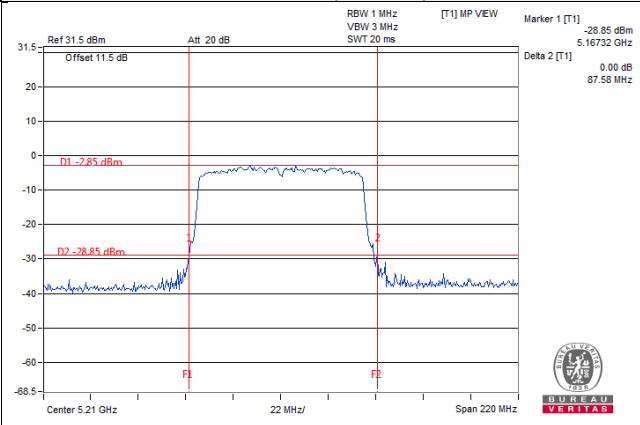
802.11n (HT20)



802.11n (HT40)

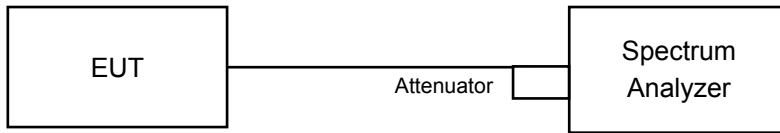


802.11ac (VHT80)



4.4 Occupied Bandwidth Measurement

4.4.1 Test Setup



4.4.2 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.4.3 Test Procedure

The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with resolution bandwidth in the range of 1% to 5% of the anticipated emission bandwidth, and a video bandwidth at least 3x the resolution bandwidth and set the detector to SAMPLE. The width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5% of the total mean power of a given emission.

4.4.4 Test Result

Mode A1

802.11a

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
36	5180	16.56	16.44	16.56	16.44
40	5200	16.56	16.32	16.56	16.44
48	5240	16.56	16.44	16.56	16.44
149	5745	16.68	17.64	16.56	16.56
157	5785	16.56	16.56	16.68	16.56
165	5825	16.56	16.56	16.68	16.68

802.11n (HT20)

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
36	5180	17.76	17.64	17.64	17.64
40	5200	17.76	17.64	17.64	17.64
48	5240	17.64	17.64	17.76	17.64
149	5745	17.76	17.76	17.76	17.92
157	5785	17.76	17.76	17.76	17.76
165	5825	17.88	17.88	17.88	17.88

802.11n (HT40)

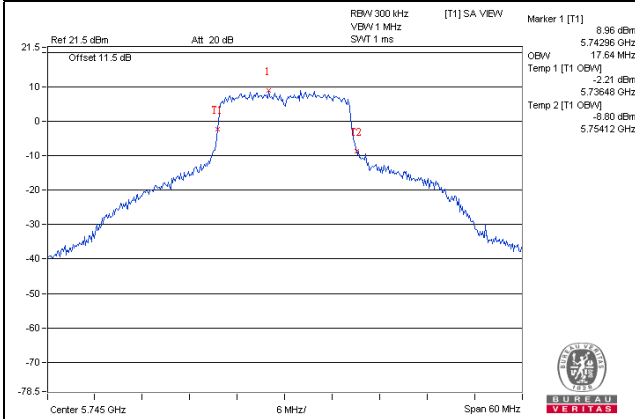
Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
38	5190	36.12	36.24	36.12	36.12
46	5230	36.00	36.12	36.00	36.24
151	5755	36.48	36.36	36.60	36.36
159	5795	36.36	36.48	36.60	36.48

802.11ac (VHT80)

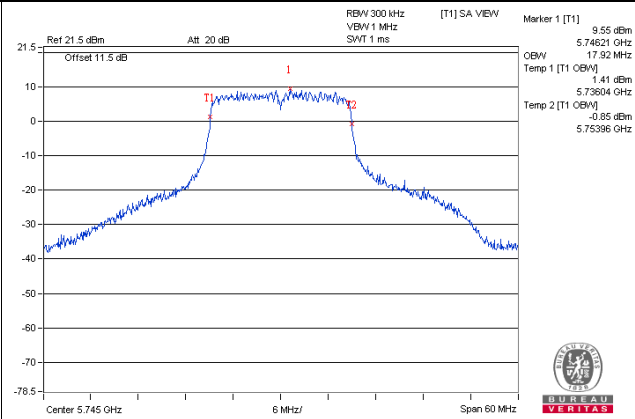
Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
42	5210	76.32	76.56	76.32	76.32
155	5775	75.84	75.84	75.84	75.84

Spectrum Plot of Worst Value

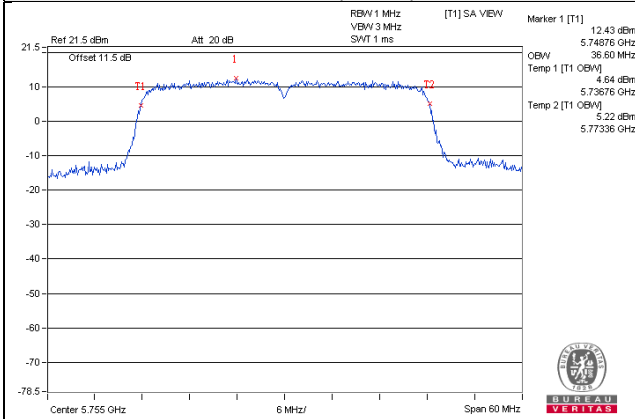
802.11a



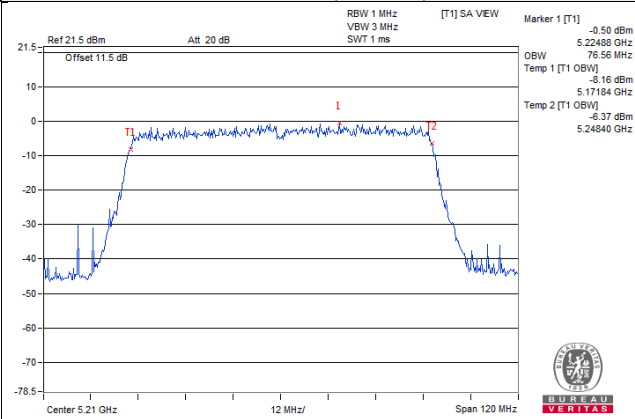
802.11n (HT20)



802.11n (HT40)



802.11ac (VHT80)



Mode A2

802.11a

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
36	5180	16.56	16.56	16.56	16.44
40	5200	16.56	16.44	16.56	16.32
48	5240	16.56	16.44	16.56	16.44
149	5745	16.52	16.52	16.43	16.52
157	5785	16.56	16.56	16.44	16.56
165	5825	16.56	16.56	16.44	16.44

802.11n (HT20)

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
36	5180	17.64	17.64	17.64	17.64
40	5200	17.76	17.64	17.76	17.64
48	5240	17.64	17.64	17.64	17.64
149	5745	17.64	17.64	17.64	17.76
157	5785	17.64	17.76	17.64	17.76
165	5825	17.64	17.64	17.64	17.64

802.11n (HT40)

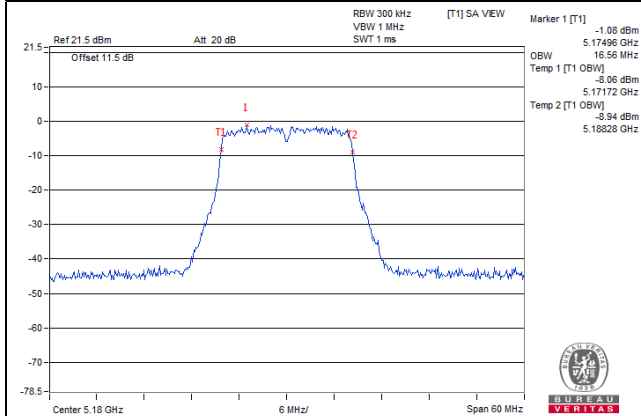
Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
38	5190	36.12	36.24	36.00	36.12
46	5230	36.24	36.00	36.00	36.12
151	5755	36.12	36.12	36.12	36.12
159	5795	36.12	36.12	36.12	36.00

802.11ac (VHT80)

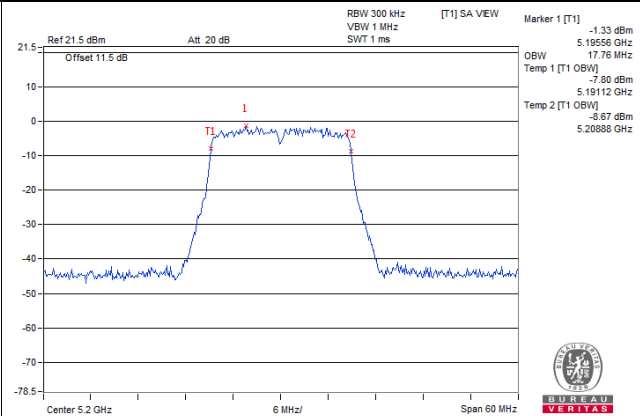
Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
42	5210	75.84	75.84	75.84	76.32
155	5775	76.08	75.84	75.84	75.84

Spectrum Plot of Worst Value

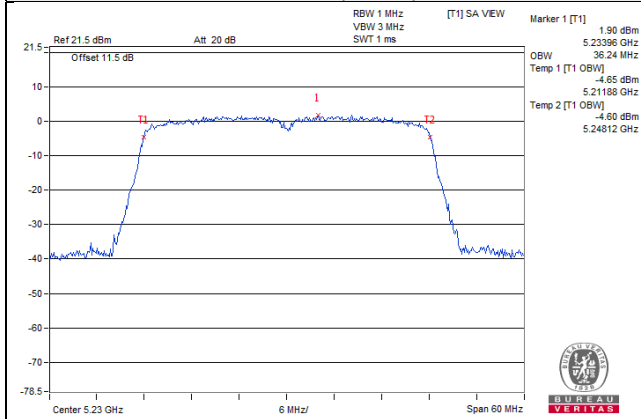
802.11a



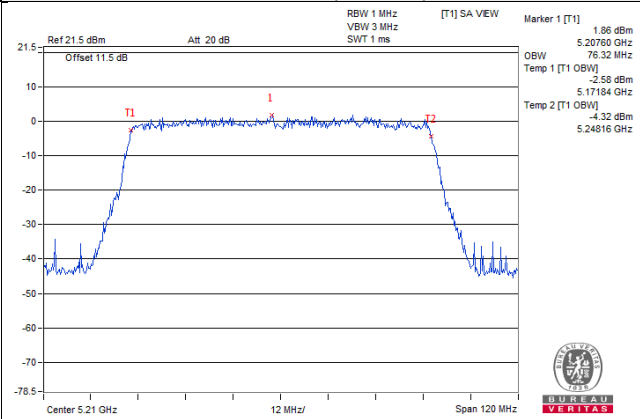
802.11n (HT20)



802.11n (HT40)



802.11ac (VHT80)



Mode B1
802.11a

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
36	5180	16.56	16.44	16.56	16.44
40	5200	16.44	16.44	16.44	16.44
48	5240	16.44	16.44	16.44	16.44
149	5745	16.68	16.56	16.80	16.68
157	5785	16.80	16.56	16.80	16.68
165	5825	16.80	16.56	16.92	16.56

802.11n (HT20)

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
36	5180	17.64	17.64	17.64	17.64
40	5200	17.64	17.64	17.64	17.64
48	5240	17.64	17.64	17.64	17.64
149	5745	17.76	17.64	17.76	17.76
157	5785	17.76	17.64	17.88	17.76
165	5825	18.00	17.76	18.00	17.76

802.11n (HT40)

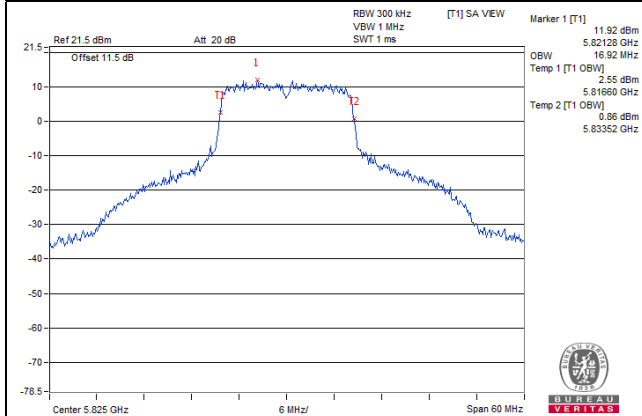
Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
38	5190	36.12	36.12	36.12	36.12
46	5230	36.12	36.12	36.12	36.12
151	5755	36.48	36.24	36.60	36.36
159	5795	36.24	36.12	36.24	36.12

802.11ac (VHT80)

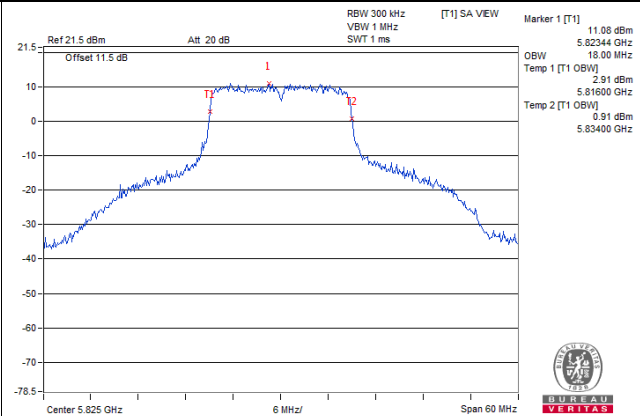
Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
42	5210	75.84	76.56	75.84	75.84
155	5775	75.84	75.84	75.84	75.84

Spectrum Plot of Worst Value

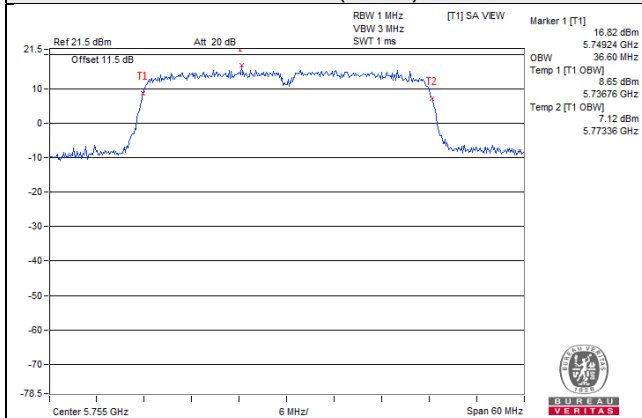
802.11a



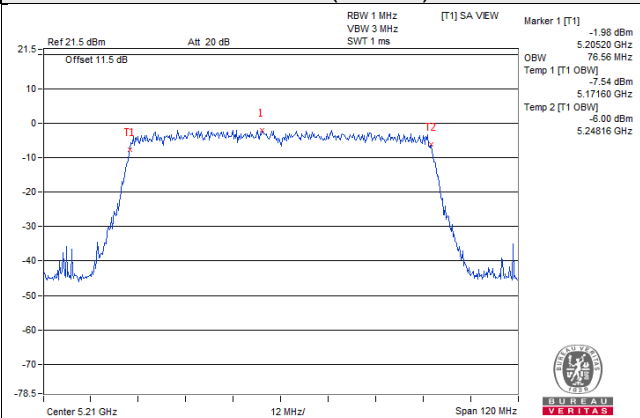
802.11n (HT20)



802.11n (HT40)



802.11ac (VHT80)



Mode B2

802.11a

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
36	5180	16.52	16.43	16.52	16.43
40	5200	16.56	16.44	16.44	16.44
48	5240	16.44	16.44	16.44	16.44
149	5745	16.52	16.52	16.43	16.52
157	5785	16.56	16.56	16.44	16.56
165	5825	16.56	16.56	16.44	16.44

802.11n (HT20)

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
36	5180	17.64	17.64	17.64	17.64
40	5200	17.64	17.64	17.64	17.64
48	5240	17.64	17.64	17.64	17.64
149	5745	17.64	17.64	17.64	17.76
157	5785	17.64	17.76	17.64	17.76
165	5825	17.64	17.64	17.64	17.64

802.11n (HT40)

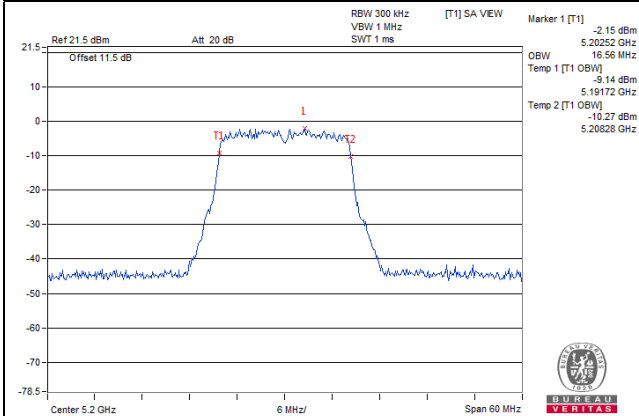
Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
38	5190	36.12	36.24	36.00	36.12
46	5230	36.00	36.12	36.00	36.12
151	5755	36.00	36.00	36.00	36.00
159	5795	36.00	36.00	36.12	36.00

802.11ac (VHT80)

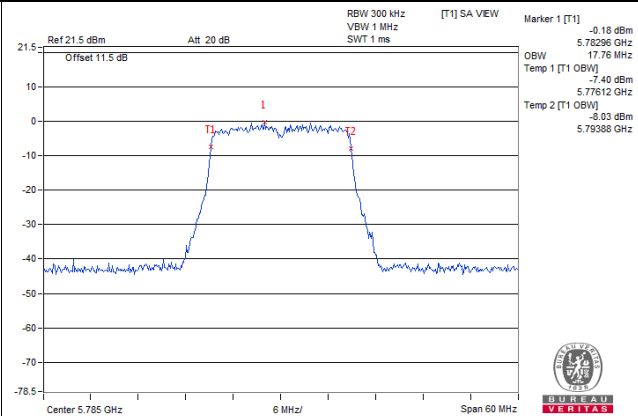
Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
42	5210	75.84	76.08	75.84	76.08
155	5775	76.08	75.84	76.08	75.84

Spectrum Plot of Worst Value

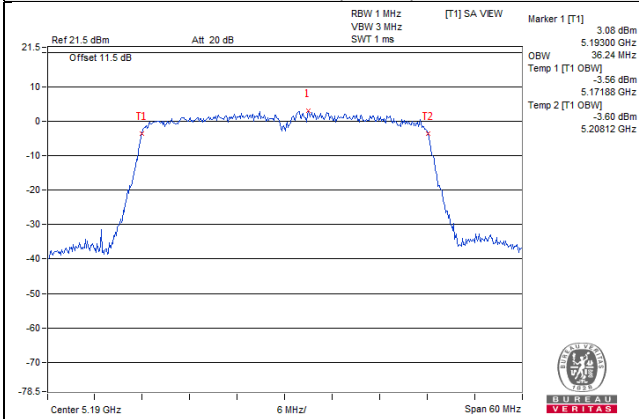
802.11a



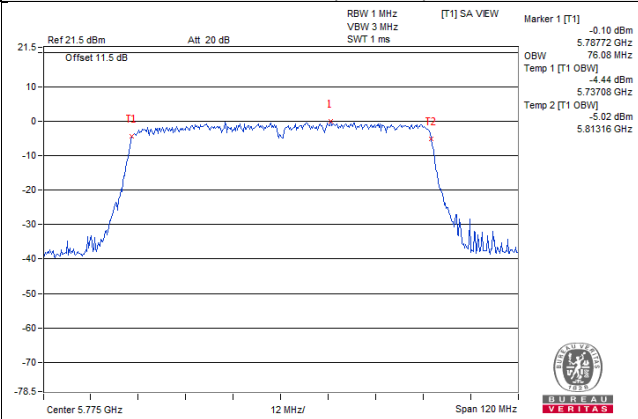
802.11n (HT20)



802.11n (HT40)



802.11ac (VHT80)

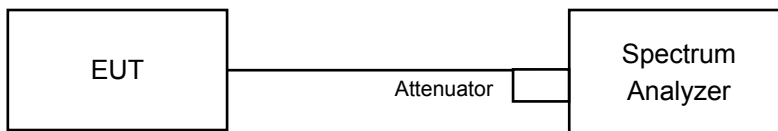


4.5 Peak Power Spectral Density Measurement

4.5.1 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	
U-NII-2A			11dBm/ MHz
U-NII-2C			11dBm/ MHz
U-NII-3	√		30dBm/ 500kHz

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

For U-NII-1, U-NII-2A, U-NII-2C Band

Duty cycle of test signal is $\geq 98\%$

Using method SA-1

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

Duty cycle of test signal is $< 98\%$

Using method SA-2

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

For U-NII-3 Band

Duty cycle of test signal is $\geq 98\%$

Using method SA-1

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

Duty cycle of test signal is $< 98\%$

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

4.5.5 Deviation from Test Standard

No deviation.

4.5.6 EUT Operating Conditions

Same as 4.3.6.

4.5.7 Test Results

Mode A1

For U-NII-1 Band

802.11a

Chan.	Freq. (MHz)	PSD W/O Duty Factor (dBm/MHz)				Total PSD W/O Duty Factor (dBm/MHz)	Duty Factor (dB)	Total PSD Wth Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3					
36	5180	-8.89	-8.65	-9.00	-9.65	-3.01	0.16	-2.85	9.98	Pass
40	5200	-8.82	-8.65	-8.81	-9.42	-2.90	0.16	-2.74	9.98	Pass
48	5240	-9.23	-8.21	-7.95	-8.87	-2.52	0.16	-2.36	9.98	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. Gain = 7 + 10log(4) = 13.02dBi > 6dBi, so the limit shall be reduced to 17-(13.02-6) = 9.98dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11n (HT20)

Chan.	Freq. (MHz)	PSD (dBm/MHz)				Total PSD (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3			
36	5180	-9.45	-9.00	-9.21	-9.93	-3.36	9.98	Pass
40	5200	-9.37	-8.92	-9.01	-9.72	-3.22	9.98	Pass
48	5240	-8.94	-8.99	-8.65	-9.71	-3.03	9.98	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. Gain = 7 + 10log(4) = 13.02dBi > 6dBi, so the limit shall be reduced to 17-(13.02-6) = 9.98dBm.

802.11n (HT40)

Chan.	Freq. (MHz)	PSD W/O Duty Factor (dBm/MHz)				Total PSD W/O Duty Factor (dBm/MHz)	Duty Factor (dB)	Total PSD Wth Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3					
38	5190	-11.94	-11.51	-11.78	-12.34	-5.86	0.14	-5.72	9.98	Pass
46	5230	-11.69	-11.44	-11.29	-12.28	-5.64	0.14	-5.50	9.98	Pass

Note:

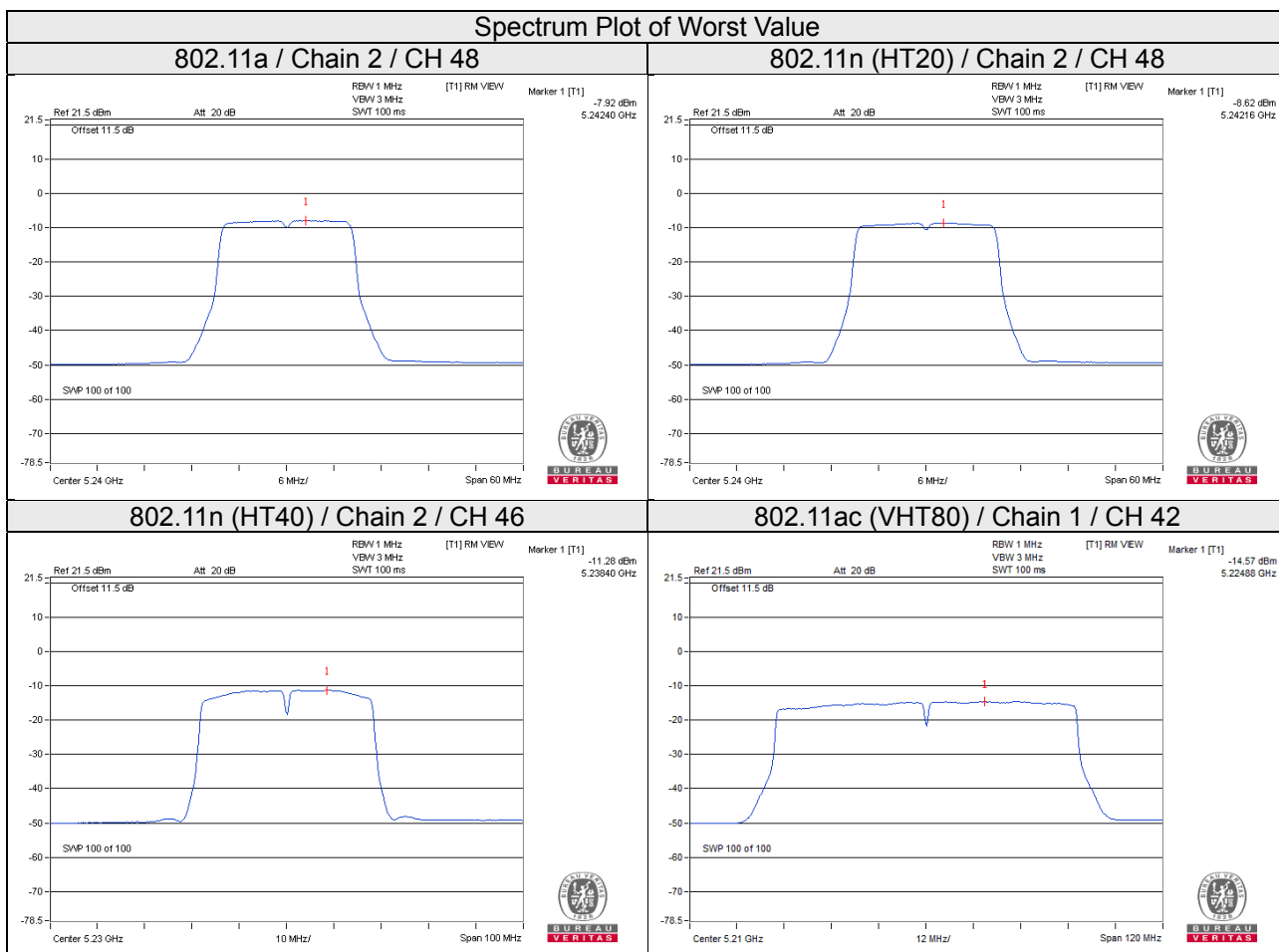
1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Gain = 7 + 10log(4) = 13.02dBi > 6dBi, so the limit shall be reduced to 17-(13.02-6) = 9.98dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11ac (VHT80)

Chan.	Freq. (MHz)	PSD W/O Duty Factor (dBm/MHz)				Total PSD W/O Duty Factor (dBm/MHz)	Duty Factor (dB)	Total PSD Wth Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3					
42	5210	-14.72	-14.57	-14.88	-15.26	-8.83	0.24	-8.59	9.98	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. $\text{Gain} = 7 + 10\log(4) = 13.02\text{dBi} > 6\text{dBi}$, so the limit shall be reduced to $17 - (13.02 - 6) = 9.98\text{dBm}$.
3. Refer to section 3.3 for duty cycle spectrum plot.



For U-NII-3 Band
 802.11a

TX chain	Chan.	Freq. (MHz)	PSD W/O Duty Factor		10 log (N=4) dB	Duty Factor (dB)	Total PSD With Duty Factor (dBm/500kHz)	Limit (dBm/500kHz)	Pass / Fail
			(dBm/300kHz)	(dBm/500kHz)					
0	149	5745	-4.46	-2.24	6.02	0.16	3.94	22.98	Pass
	157	5785	-4.31	-2.09	6.02	0.16	4.09	22.98	Pass
	165	5825	-4.01	-1.79	6.02	0.16	4.39	22.98	Pass
1	149	5745	-4.41	-2.19	6.02	0.16	3.99	22.98	Pass
	157	5785	-3.94	-1.72	6.02	0.16	4.46	22.98	Pass
	165	5825	-3.81	-1.59	6.02	0.16	4.59	22.98	Pass
2	149	5745	-3.70	-1.48	6.02	0.16	4.70	22.98	Pass
	157	5785	-3.74	-1.52	6.02	0.16	4.66	22.98	Pass
	165	5825	-3.76	-1.54	6.02	0.16	4.64	22.98	Pass
3	149	5745	-4.37	-2.15	6.02	0.16	4.03	22.98	Pass
	157	5785	-4.46	-2.24	6.02	0.16	3.94	22.98	Pass
	165	5825	-4.28	-2.06	6.02	0.16	4.12	22.98	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. $\text{Gain} = 7 + 10\log(4) = 13.02\text{dBi} > 6\text{dBi}$, so the limit shall be reduced to $30 - (13.02 - 6) = 22.98\text{dBm}$.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11n (HT20)

TX chain	Chan.	Freq. (MHz)	PSD		10 log (N=4) dB	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	Pass / Fail
			(dBm/300kHz)	(dBm/500kHz)				
0	149	5745	-4.53	-2.31	6.02	3.71	22.98	Pass
	157	5785	-4.64	-2.42	6.02	3.60	22.98	Pass
	165	5825	-4.52	-2.30	6.02	3.72	22.98	Pass
1	149	5745	-4.96	-2.74	6.02	3.28	22.98	Pass
	157	5785	-4.79	-2.57	6.02	3.45	22.98	Pass
	165	5825	-4.42	-2.20	6.02	3.82	22.98	Pass
2	149	5745	-4.17	-1.95	6.02	4.07	22.98	Pass
	157	5785	-4.22	-2.00	6.02	4.02	22.98	Pass
	165	5825	-4.06	-1.84	6.02	4.18	22.98	Pass
3	149	5745	-4.52	-2.30	6.02	3.72	22.98	Pass
	157	5785	-4.73	-2.51	6.02	3.51	22.98	Pass
	165	5825	-4.83	-2.61	6.02	3.41	22.98	Pass

Note:

- 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.
- Gain = 7 + 10log(4) = 13.02dBi > 6dBi, so the limit shall be reduced to 30-(13.02-6) = 22.98dBm.

802.11n (HT40)

TX chain	Chan.	Freq. (MHz)	PSD W/O Duty Factor		10 log (N=4) dB	Duty Factor (dB)	Total PSD With Duty Factor (dBm/500kHz)	Limit (dBm/500kHz)	Pass / Fail
			(dBm/300kHz)	(dBm/500kHz)					
0	151	5755	-7.16	-4.94	6.02	0.14	1.22	22.98	Pass
	159	5795	-7.37	-5.15	6.02	0.14	1.01	22.98	Pass
1	151	5755	-7.64	-5.42	6.02	0.14	0.74	22.98	Pass
	159	5795	-7.45	-5.23	6.02	0.14	0.93	22.98	Pass
2	151	5755	-7.03	-4.81	6.02	0.14	1.35	22.98	Pass
	159	5795	-7.00	-4.78	6.02	0.14	1.38	22.98	Pass
3	151	5755	-7.23	-5.01	6.02	0.14	1.15	22.98	Pass
	159	5795	-7.36	-5.14	6.02	0.14	1.02	22.98	Pass

Note:

- 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.
- Gain = 7 + 10log(4) = 13.02dBi > 6dBi, so the limit shall be reduced to 30-(13.02-6) = 22.98dBm.
- Refer to section 3.3 for duty cycle spectrum plot.

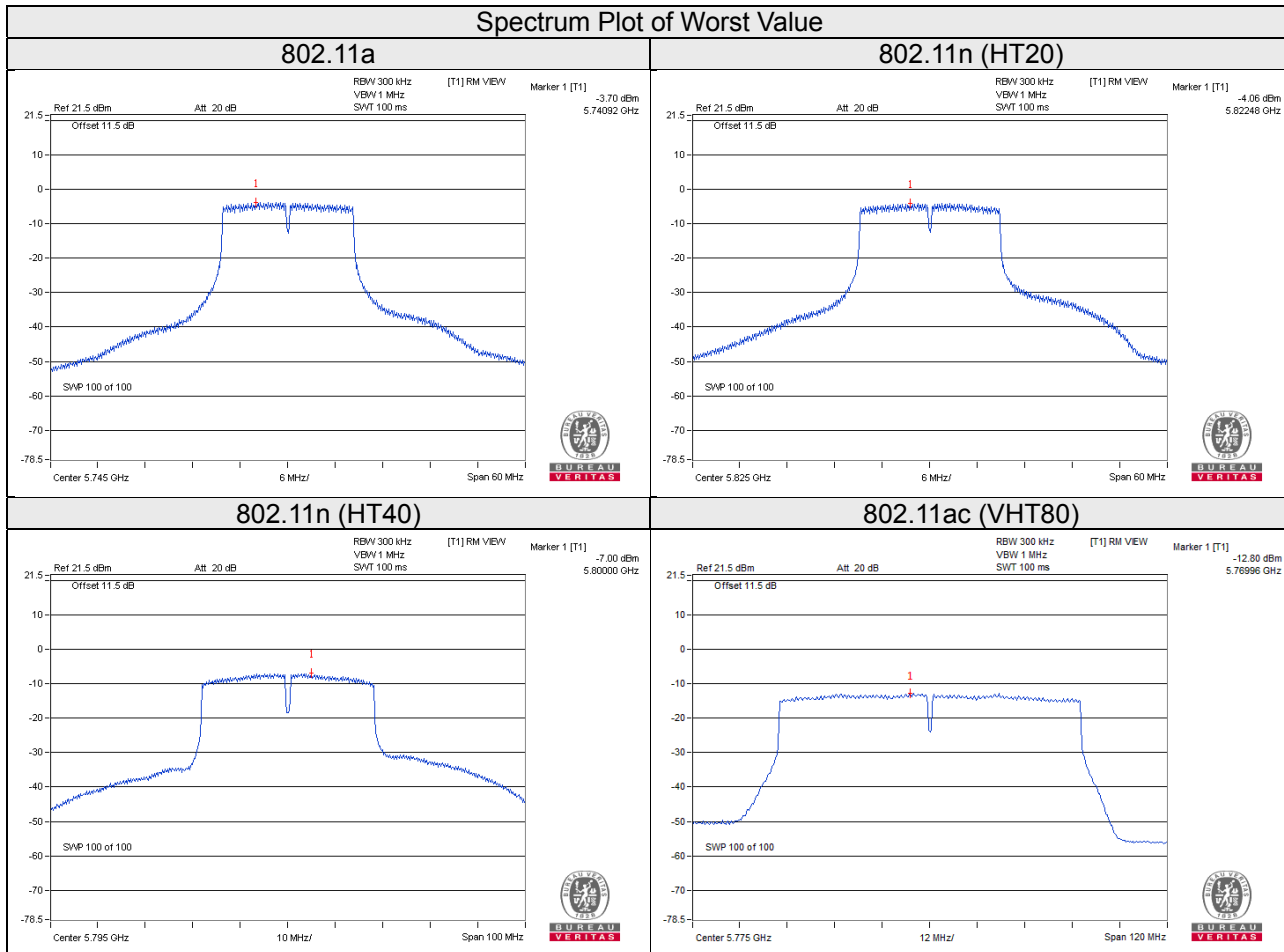
802.11ac (VHT80)

TX chain	Chan.	Freq. (MHz)	PSD W/O Duty Factor		10 log (N=4) dB	Duty Factor (dB)	Total PSD With Duty Factor (dBm/500kHz)	Limit (dBm/500kHz)	Pass / Fail
			(dBm/300kHz)	(dBm/500kHz)					
0	155	5775	-12.80	-10.58	6.02	0.24	-4.32	22.98	Pass
1	155	5775	-13.19	-10.97	6.02	0.24	-4.71	22.98	Pass
2	155	5775	-12.80	-10.58	6.02	0.24	-4.32	22.98	Pass
3	155	5775	-13.40	-11.18	6.02	0.24	-4.92	22.98	Pass

Note:

- 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.
- Gain = 7 + 10log(4) = 13.02dBi > 6dBi, so the limit shall be reduced to 30-(13.02-6) = 22.98dBm.
- Refer to section 3.3 for duty cycle spectrum plot.

Spectrum Plot of Worst Value



Mode A2

For U-NII-1 Band

802.11a

Chan.	Freq. (MHz)	PSD W/O Duty Factor (dBm/MHz)				Total PSD W/O Duty Factor (dBm/MHz)	Duty Factor (dB)	Total PSD Wth Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3					
36	5180	-6.43	-6.35	-6.66	-6.53	-0.47	0.16	-0.31	-0.27	Pass
40	5200	-6.76	-6.71	-7.02	-6.81	-0.80	0.16	-0.64	-0.27	Pass
48	5240	-6.91	-6.75	-6.62	-6.68	-0.72	0.16	-0.56	-0.27	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. This antenna was cross-polarized antenna.
3. Gain = $18.5 + 10\log(3) = 23.27\text{dBi} > 6\text{dBi}$, so the limit shall be reduced to $17 - (23.27 - 6) = -0.27\text{dBm}$.
4. Refer to section 3.3 for duty cycle spectrum plot.

802.11n (HT20)

Chan.	Freq. (MHz)	PSD (dBm/MHz)				Total PSD (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3			
36	5180	-6.46	-6.40	-6.76	-6.62	-0.54	-0.27	Pass
40	5200	-6.41	-6.29	-6.59	-6.41	-0.40	-0.27	Pass
48	5240	-6.59	-6.80	-6.71	-6.68	-0.67	-0.27	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. This antenna was cross-polarized antenna.
3. Gain = $18.5 + 10\log(3) = 23.27\text{dBi} > 6\text{dBi}$, so the limit shall be reduced to $17 - (23.27 - 6) = -0.27\text{dBm}$.

802.11n (HT40)

Chan.	Freq. (MHz)	PSD W/O Duty Factor (dBm/MHz)				Total PSD W/O Duty Factor (dBm/MHz)	Duty Factor (dB)	Total PSD Wth Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3					
38	5190	-8.51	-8.41	-8.48	-8.29	-0.47	0.14	-2.26	-0.27	Pass
46	5230	-8.47	-8.68	-8.89	-8.51	-0.80	0.14	-2.47	-0.27	Pass

Note:

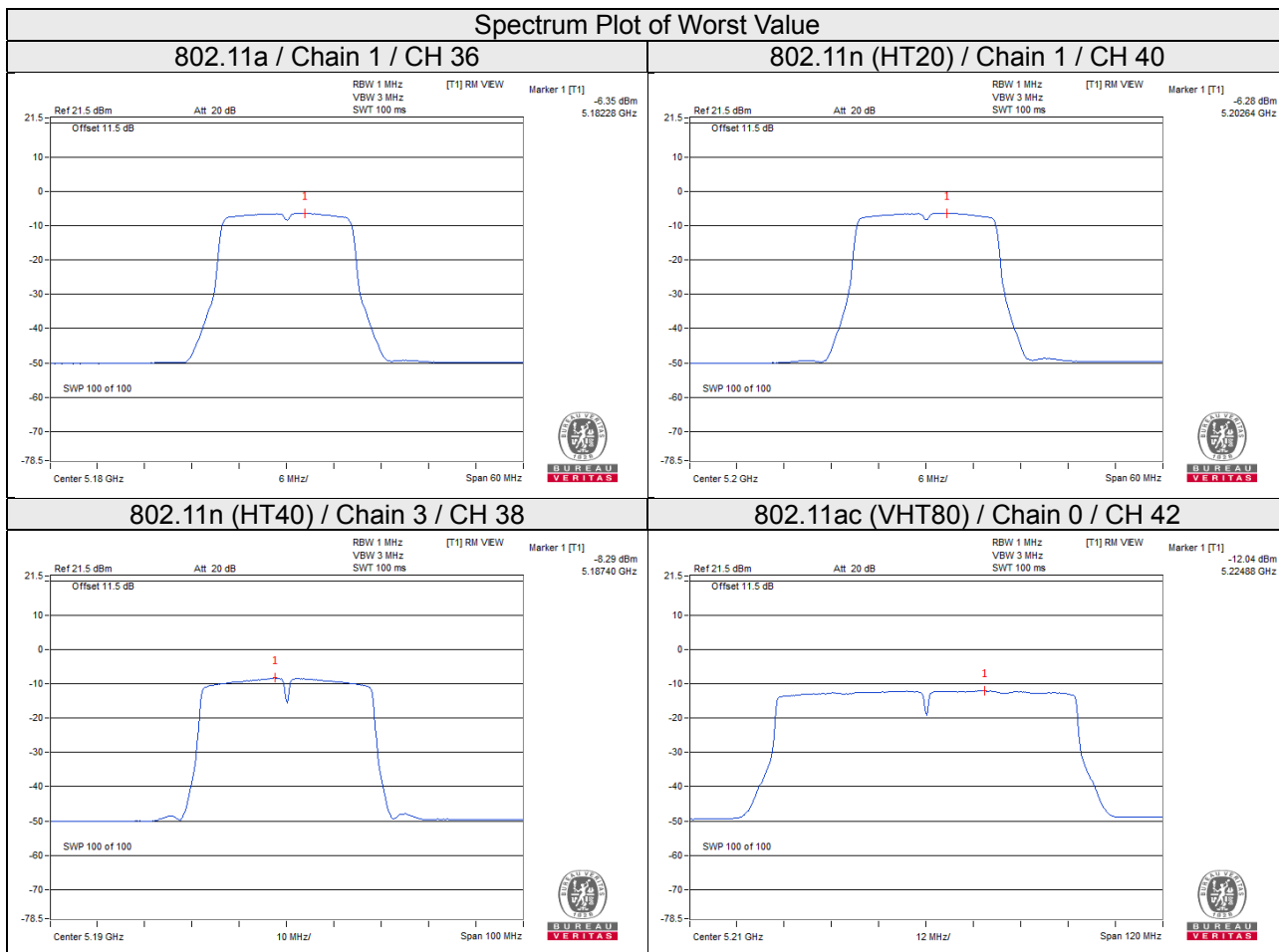
1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. This antenna was cross-polarized antenna.
3. Gain = $18.5 + 10\log(3) = 23.27\text{dBi} > 6\text{dBi}$, so the limit shall be reduced to $17 - (23.27 - 6) = -0.27\text{dBm}$.
4. Refer to section 3.3 for duty cycle spectrum plot.

802.11ac (VHT80)

Chan.	Freq. (MHz)	PSD W/O Duty Factor (dBm/MHz)				Total PSD W/O Duty Factor (dBm/MHz)	Duty Factor (dB)	Total PSD Wth Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3					
42	5210	-12.09	-12.16	-12.30	-12.18	-2.40	0.24	-5.92	-0.27	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. This antenna was cross-polarized antenna.
3. $\text{Gain} = 18.5 + 10\log(3) = 23.27\text{dBi} > 6\text{dBi}$, so the limit shall be reduced to $17 - (23.27 - 6) = -0.27\text{dBm}$.
4. Refer to section 3.3 for duty cycle spectrum plot.



For U-NII-3 Band
 802.11a

TX chain	Chan.	Freq. (MHz)	PSD W/O Duty Factor		10 log (N=4) dB	Duty Factor (dB)	Total PSD With Duty Factor (dBm/500kHz)	Limit (dBm/500kHz)	Pass / Fail
			(dBm/300kHz)	(dBm/500kHz)					
0	149	5745	-12.88	-10.66	6.02	0.16	-4.48	12.73	Pass
	157	5785	-12.97	-10.75	6.02	0.16	-4.57	12.73	Pass
	165	5825	-12.98	-10.76	6.02	0.16	-4.58	12.73	Pass
1	149	5745	-13.23	-11.01	6.02	0.16	-4.83	12.73	Pass
	157	5785	-13.30	-11.08	6.02	0.16	-4.90	12.73	Pass
	165	5825	-13.16	-10.94	6.02	0.16	-4.76	12.73	Pass
2	149	5745	-12.64	-10.42	6.02	0.16	-4.24	12.73	Pass
	157	5785	-12.47	-10.25	6.02	0.16	-4.07	12.73	Pass
	165	5825	-12.80	-10.58	6.02	0.16	-4.40	12.73	Pass
3	149	5745	-13.57	-11.35	6.02	0.16	-5.17	12.73	Pass
	157	5785	-13.23	-11.01	6.02	0.16	-4.83	12.73	Pass
	165	5825	-13.02	-10.80	6.02	0.16	-4.62	12.73	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. This antenna was cross-polarized antenna.
3. Gain = $18.5 + 10\log(3) = 23.27\text{dBi} > 6\text{dBi}$, so the limit shall be reduced to $30 - (23.27 - 6) = 12.73\text{dBm}$.
4. Refer to section 3.3 for duty cycle spectrum plot.

802.11n (HT20)

TX chain	Chan.	Freq. (MHz)	PSD		10 log (N=4) dB	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	Pass / Fail
			(dBm/300kHz)	(dBm/500kHz)				
0	149	5745	-13.69	-11.47	6.02	-5.45	12.73	Pass
	157	5785	-13.73	-11.51	6.02	-5.49	12.73	Pass
	165	5825	-13.63	-11.41	6.02	-5.39	12.73	Pass
1	149	5745	-14.01	-11.79	6.02	-5.77	12.73	Pass
	157	5785	-13.90	-11.68	6.02	-5.66	12.73	Pass
	165	5825	-13.67	-11.45	6.02	-5.43	12.73	Pass
2	149	5745	-13.12	-10.90	6.02	-4.88	12.73	Pass
	157	5785	-12.91	-10.69	6.02	-4.67	12.73	Pass
	165	5825	-13.26	-11.04	6.02	-5.02	12.73	Pass
3	149	5745	-14.10	-11.88	6.02	-5.86	12.73	Pass
	157	5785	-13.92	-11.70	6.02	-5.68	12.73	Pass
	165	5825	-13.65	-11.43	6.02	-5.41	12.73	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. This antenna was cross-polarized antenna.
3. Gain = $18.5 + 10\log(3) = 23.27\text{dBi} > 6\text{dBi}$, so the limit shall be reduced to $30 - (23.27 - 6) = 12.73\text{dBm}$.

802.11n (HT40)

TX chain	Chan.	Freq. (MHz)	PSD W/O Duty Factor		10 log (N=4) dB	Duty Factor (dB)	Total PSD With Duty Factor (dBm/500kHz)	Limit (dBm/500kHz)	Pass / Fail
			(dBm/300kHz)	(dBm/500kHz)					
0	151	5755	-16.49	-14.27	6.02	0.14	-8.11	12.73	Pass
	159	5795	-16.54	-14.32	6.02	0.14	-8.16	12.73	Pass
1	151	5755	-16.85	-14.63	6.02	0.14	-8.47	12.73	Pass
	159	5795	-16.82	-14.60	6.02	0.14	-8.44	12.73	Pass
2	151	5755	-16.01	-13.79	6.02	0.14	-7.63	12.73	Pass
	159	5795	-15.92	-13.70	6.02	0.14	-7.54	12.73	Pass
3	151	5755	-16.57	-14.35	6.02	0.14	-8.19	12.73	Pass
	159	5795	-16.63	-14.41	6.02	0.14	-8.25	12.73	Pass

Note:

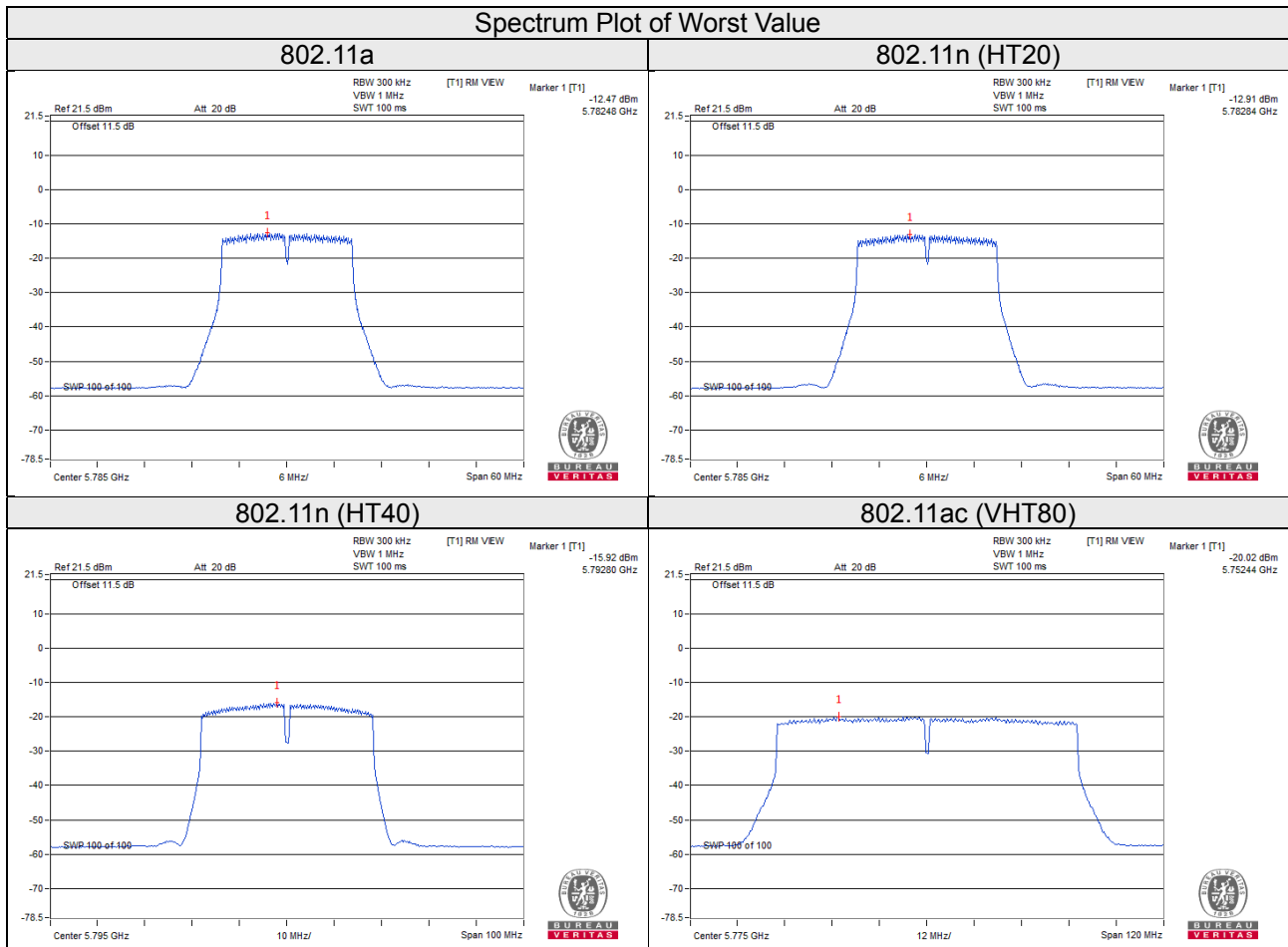
1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. This antenna was cross-polarized antenna.
3. Gain = $18.5 + 10\log(3) = 23.27\text{dBi} > 6\text{dBi}$, so the limit shall be reduced to $30 - (23.27 - 6) = 12.73\text{dBm}$.
4. Refer to section 3.3 for duty cycle spectrum plot.

802.11ac (VHT80)

TX chain	Chan.	Freq. (MHz)	PSD W/O Duty Factor		10 log (N=4) dB	Duty Factor (dB)	Total PSD With Duty Factor (dBm/500kHz)	Limit (dBm/500kHz)	Pass / Fail
			(dBm/300kHz)	(dBm/500kHz)					
0	155	5775	-20.07	-17.85	6.02	0.24	-11.59	12.73	Pass
1	155	5775	-20.64	-18.42	6.02	0.24	-12.16	12.73	Pass
2	155	5775	-20.02	-17.80	6.02	0.24	-11.54	12.73	Pass
3	155	5775	-20.41	-18.19	6.02	0.24	-11.93	12.73	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. This antenna was cross-polarized antenna.
3. Gain = $18.5 + 10\log(3) = 23.27\text{dBi} > 6\text{dBi}$, so the limit shall be reduced to $30 - (23.27 - 6) = 12.73\text{dBm}$.
4. Refer to section 3.3 for duty cycle spectrum plot.



Mode B1

For U-NII-1 Band

802.11a

Chan.	Freq. (MHz)	PSD W/O Duty Factor (dBm/MHz)				Total PSD W/O Duty Factor (dBm/MHz)	Duty Factor (dB)	Total PSD Wth Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3					
36	5180	-8.20	-8.28	-7.87	-8.31	-2.14	0.16	-1.98	9.98	Pass
40	5200	-8.20	-8.30	-7.73	-8.12	-2.06	0.16	-1.90	9.98	Pass
48	5240	-7.65	-7.87	-6.94	-7.36	-1.42	0.16	-1.26	9.98	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. Gain = 7 + 10log(4) = 13.02dBi > 6dBi, so the limit shall be reduced to 17-(13.02-6) = 9.98dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11n (HT20)

Chan.	Freq. (MHz)	PSD (dBm/MHz)				Total PSD (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3			
36	5180	-8.47	-8.74	-8.26	-8.97	-2.58	9.98	Pass
40	5200	-8.43	-8.74	-8.09	-8.86	-2.50	9.98	Pass
48	5240	-8.39	-8.84	-7.78	-8.54	-2.35	9.98	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. Gain = 7 + 10log(4) = 13.02dBi > 6dBi, so the limit shall be reduced to 17-(13.02-6) = 9.98dBm.

802.11n (HT40)

Chan.	Freq. (MHz)	PSD W/O Duty Factor (dBm/MHz)				Total PSD W/O Duty Factor (dBm/MHz)	Duty Factor (dB)	Total PSD Wth Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3					
38	5190	-11.14	-11.41	-10.99	-11.08	-5.13	0.14	-4.99	9.98	Pass
46	5230	-11.07	-11.47	-10.48	-10.68	-4.89	0.14	-4.75	9.98	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. Gain = 7 + 10log(4) = 13.02dBi > 6dBi, so the limit shall be reduced to 17-(13.02-6) = 9.98dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

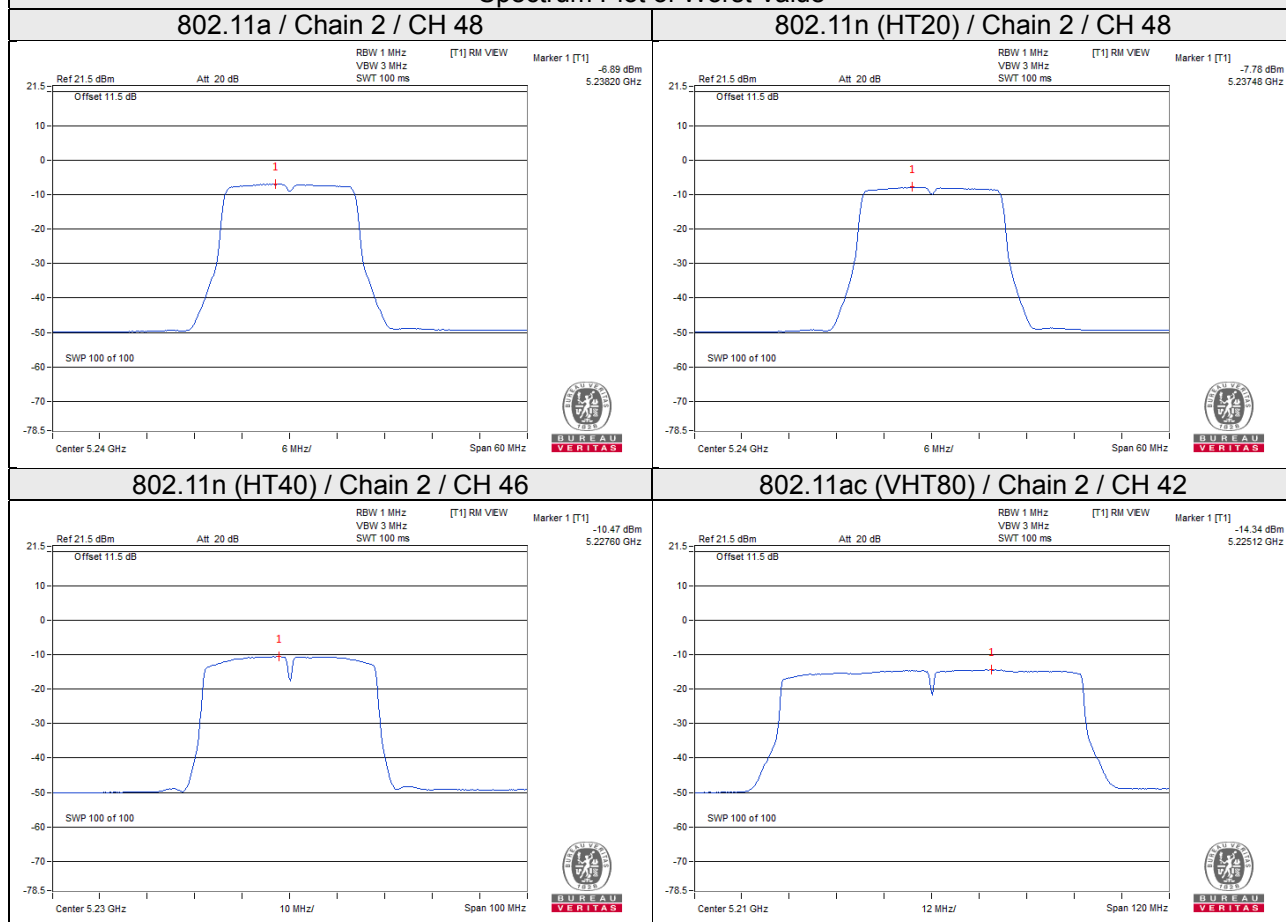
802.11ac (VHT80)

Chan.	Freq. (MHz)	PSD W/O Duty Factor (dBm/MHz)				Total PSD W/O Duty Factor (dBm/MHz)	Duty Factor (dB)	Total PSD Wth Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3					
42	5210	-14.93	-15.38	-14.34	-14.95	-5.13	0.24	-8.62	9.98	Pass

Note:

- 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.
- Gain = $7 + 10\log(4) = 13.02\text{dBi} > 6\text{dBi}$, so the limit shall be reduced to $17 - (13.02 - 6) = 9.98\text{dBm}$.
- Refer to section 3.3 for duty cycle spectrum plot.

Spectrum Plot of Worst Value



For U-NII-3 Band
 802.11a

TX chain	Chan.	Freq. (MHz)	PSD W/O Duty Factor		10 log (N=4) dB	Duty Factor (dB)	Total PSD With Duty Factor (dBm/500kHz)	Limit (dBm/500kHz)	Pass / Fail
			(dBm/300kHz)	(dBm/500kHz)					
0	149	5745	-2.13	0.09	6.02	0.16	6.27	22.98	Pass
	157	5785	-2.20	0.02	6.02	0.16	6.20	22.98	Pass
	165	5825	-2.43	-0.21	6.02	0.16	5.97	22.98	Pass
1	149	5745	-1.59	0.63	6.02	0.16	6.81	22.98	Pass
	157	5785	-1.28	0.94	6.02	0.16	7.12	22.98	Pass
	165	5825	-1.72	0.50	6.02	0.16	6.68	22.98	Pass
2	149	5745	-1.33	0.89	6.02	0.16	7.07	22.98	Pass
	157	5785	-1.32	0.90	6.02	0.16	7.08	22.98	Pass
	165	5825	-1.30	0.92	6.02	0.16	7.10	22.98	Pass
3	149	5745	-1.53	0.69	6.02	0.16	6.87	22.98	Pass
	157	5785	-1.57	0.65	6.02	0.16	6.83	22.98	Pass
	165	5825	-1.66	0.56	6.02	0.16	6.74	22.98	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. $\text{Gain} = 7 + 10\log(4) = 13.02\text{dBi} > 6\text{dBi}$, so the limit shall be reduced to $30 - (13.02 - 6) = 22.98\text{dBm}$.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11n (HT20)

TX chain	Chan.	Freq. (MHz)	PSD		10 log (N=4) dB	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	Pass / Fail
			(dBm/300kHz)	(dBm/500kHz)				
0	149	5745	-2.02	0.20	6.02	6.22	22.98	Pass
	157	5785	-2.21	0.01	6.02	6.03	22.98	Pass
	165	5825	-1.70	0.52	6.02	6.54	22.98	Pass
1	149	5745	-2.00	0.22	6.02	6.24	22.98	Pass
	157	5785	-1.70	0.52	6.02	6.54	22.98	Pass
	165	5825	-1.61	0.61	6.02	6.63	22.98	Pass
2	149	5745	-1.41	0.81	6.02	6.83	22.98	Pass
	157	5785	-1.42	0.80	6.02	6.82	22.98	Pass
	165	5825	-1.14	1.08	6.02	7.10	22.98	Pass
3	149	5745	-1.87	0.35	6.02	6.37	22.98	Pass
	157	5785	-1.93	0.29	6.02	6.31	22.98	Pass
	165	5825	-1.59	0.63	6.02	6.65	22.98	Pass

Note:

- 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.
- Gain = 7 + 10log(4) = 13.02dBi > 6dBi, so the limit shall be reduced to 30-(13.02-6) = 22.98dBm.

802.11n (HT40)

TX chain	Chan.	Freq. (MHz)	PSD W/O Duty Factor		10 log (N=4) dB	Duty Factor (dB)	Total PSD With Duty Factor (dBm/500kHz)	Limit (dBm/500kHz)	Pass / Fail
			(dBm/300kHz)	(dBm/500kHz)					
0	151	5755	-4.35	-2.13	6.02	0.14	4.03	22.98	Pass
	159	5795	-5.37	-3.15	6.02	0.14	3.01	22.98	Pass
1	151	5755	-4.38	-2.16	6.02	0.14	4.00	22.98	Pass
	159	5795	-5.20	-2.98	6.02	0.14	3.18	22.98	Pass
2	151	5755	-3.73	-1.51	6.02	0.14	4.65	22.98	Pass
	159	5795	-4.80	-2.58	6.02	0.14	3.58	22.98	Pass
3	151	5755	-4.02	-1.80	6.02	0.14	4.36	22.98	Pass
	159	5795	-5.25	-3.03	6.02	0.14	3.13	22.98	Pass

Note:

- 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.
- Gain = 7 + 10log(4) = 13.02dBi > 6dBi, so the limit shall be reduced to 30-(13.02-6) = 22.98dBm.
- Refer to section 3.3 for duty cycle spectrum plot.

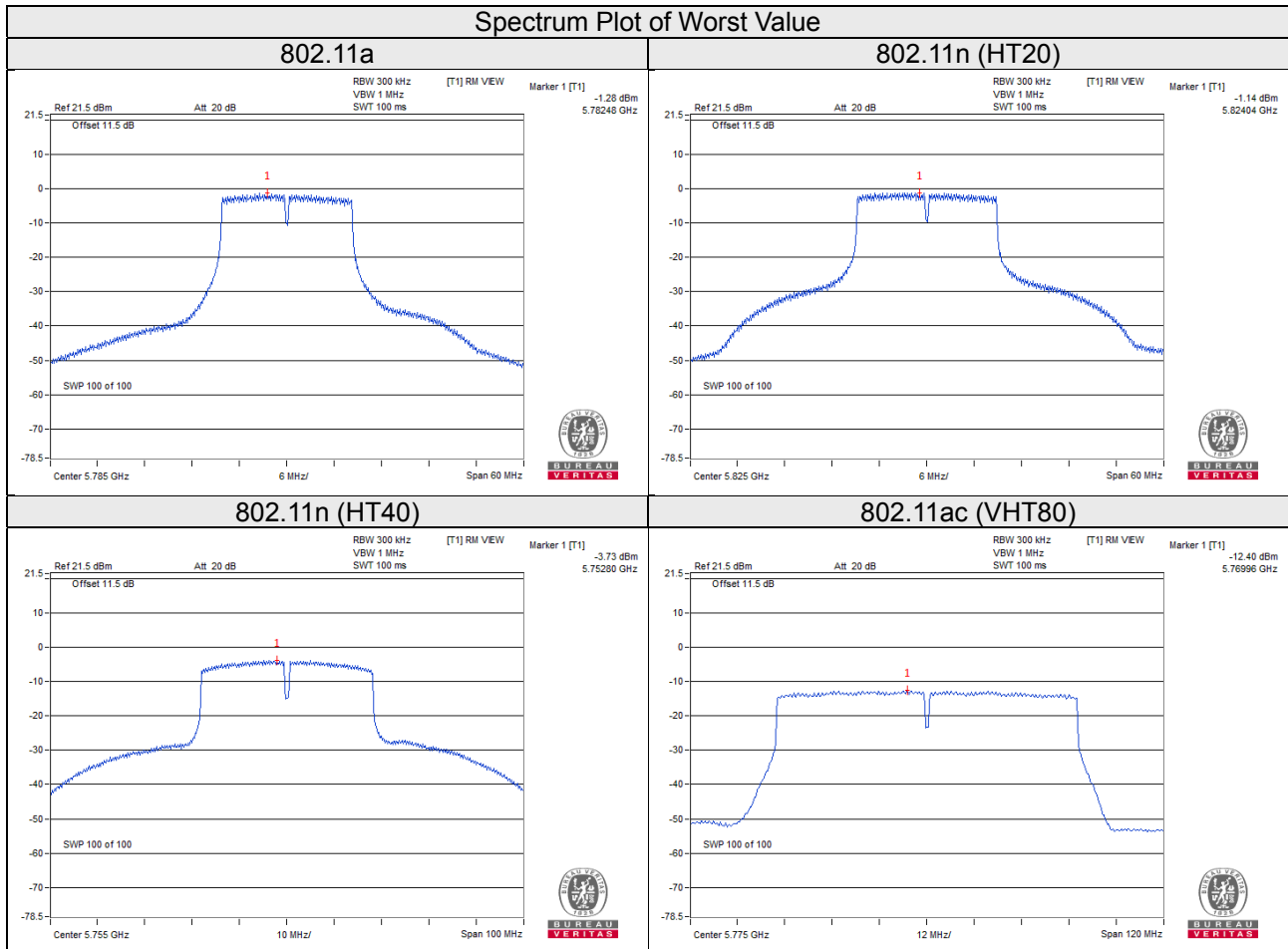
802.11ac (VHT80)

TX chain	Chan.	Freq. (MHz)	PSD W/O Duty Factor		10 log (N=4) dB	Duty Factor (dB)	Total PSD With Duty Factor (dBm/500kHz)	Limit (dBm/500kHz)	Pass / Fail
			(dBm/300kHz)	(dBm/500kHz)					
0	155	5775	-13.21	-10.99	6.02	0.24	-4.73	22.98	Pass
1	155	5775	-13.30	-11.08	6.02	0.24	-4.82	22.98	Pass
2	155	5775	-12.40	-10.18	6.02	0.24	-3.92	22.98	Pass
3	155	5775	-12.90	-10.68	6.02	0.24	-4.42	22.98	Pass

Note:

- 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.
- Gain = 7 + 10log(4) = 13.02dBi > 6dBi, so the limit shall be reduced to 30-(13.02-6) = 22.98dBm.
- Refer to section 3.3 for duty cycle spectrum plot.

Spectrum Plot of Worst Value



Mode B2

For U-NII-1 Band

802.11a

Chan.	Freq. (MHz)	PSD W/O Duty Factor (dBm/MHz)				Total PSD W/O Duty Factor (dBm/MHz)	Duty Factor (dB)	Total PSD Wth Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3					
36	5180	-6.65	-6.87	-6.32	-6.88	-8.86	0.16	-0.49	-0.27	Pass
40	5200	-6.63	-6.86	-6.16	-6.76	-4.89	0.16	-0.41	-0.27	Pass
48	5240	-6.65	-7.10	-6.41	-6.37	-1.42	0.16	-0.44	-0.27	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. This antenna was cross-polarized antenna.
3. Gain = $18.5 + 10\log(3) = 23.27\text{dBi} > 6\text{dBi}$, so the limit shall be reduced to $17 - (23.27 - 6) = -0.27\text{dBm}$.
4. Refer to section 3.3 for duty cycle spectrum plot.

802.11n (HT20)

Chan.	Freq. (MHz)	PSD (dBm/MHz)				Total PSD (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3			
36	5180	-6.56	-6.86	-6.25	-6.87	-0.61	-0.27	Pass
40	5200	-6.56	-6.86	-6.05	-6.76	-0.53	-0.27	Pass
48	5240	-6.47	-6.95	-5.86	-6.24	-0.34	-0.27	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. This antenna was cross-polarized antenna.
3. Gain = $18.5 + 10\log(3) = 23.27\text{dBi} > 6\text{dBi}$, so the limit shall be reduced to $17 - (23.27 - 6) = -0.27\text{dBm}$.

802.11n (HT40)

Chan.	Freq. (MHz)	PSD W/O Duty Factor (dBm/MHz)				Total PSD W/O Duty Factor (dBm/MHz)	Duty Factor (dB)	Total PSD Wth Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3					
38	5190	-7.98	-7.36	-7.36	-8.36	-1.72	0.14	-1.58	-0.27	Pass
46	5230	-7.89	-7.48	-7.30	-8.49	-1.74	0.14	-1.60	-0.27	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. This antenna was cross-polarized antenna.
3. Gain = $18.5 + 10\log(3) = 23.27\text{dBi} > 6\text{dBi}$, so the limit shall be reduced to $17 - (23.27 - 6) = -0.27\text{dBm}$.
4. Refer to section 3.3 for duty cycle spectrum plot.

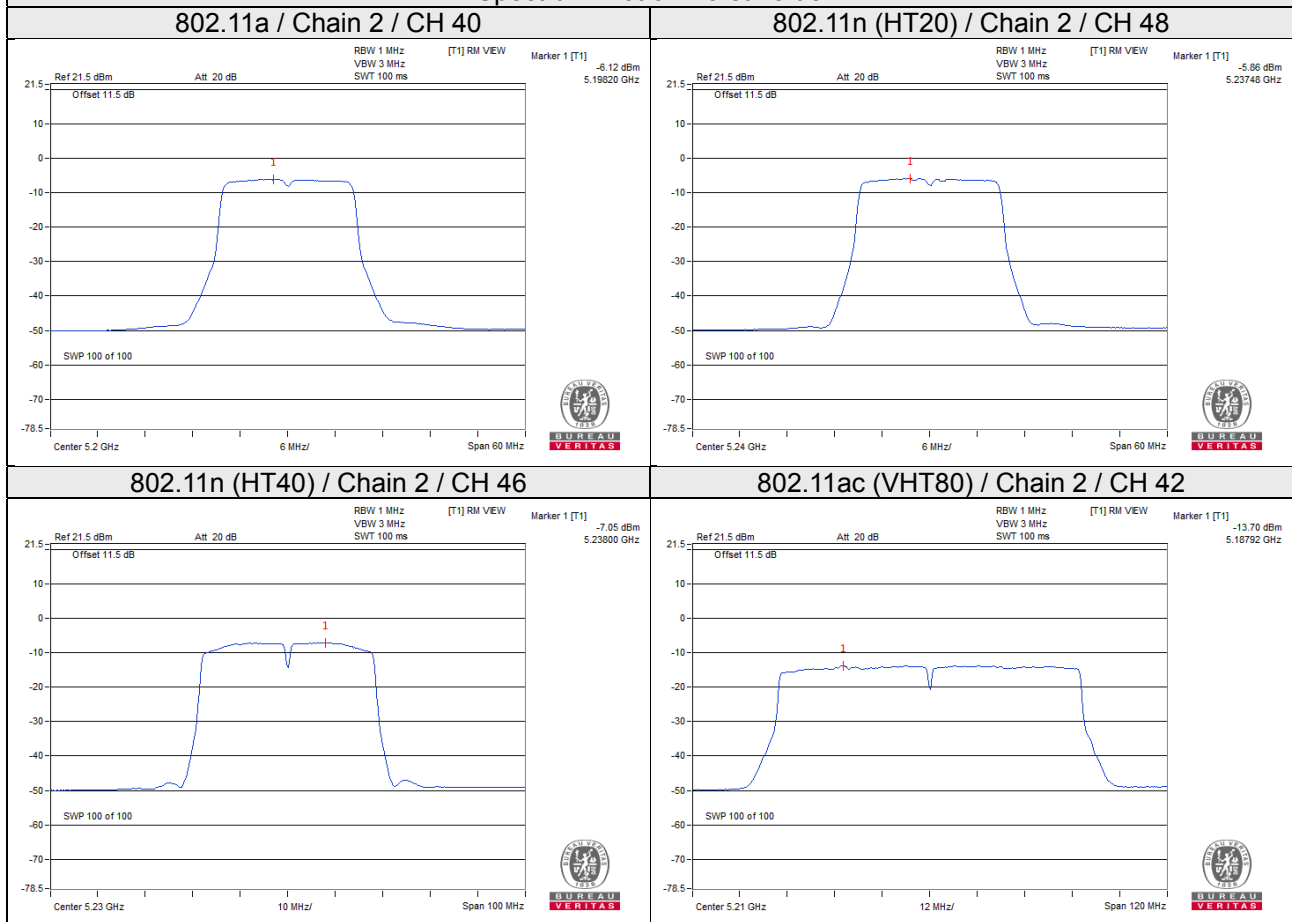
802.11ac (VHT80)

Chan.	Freq. (MHz)	PSD W/O Duty Factor (dBm/MHz)				Total PSD W/O Duty Factor (dBm/MHz)	Duty Factor (dB)	Total PSD Wth Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3					
42	5210	-14.33	-13.78	-13.70	-14.49	-1.72	0.24	-7.80	-0.27	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. This antenna was cross-polarized antenna.
3. $\text{Gain} = 18.5 + 10\log(3) = 23.27\text{dBi} > 6\text{dBi}$, so the limit shall be reduced to $17 - (23.27 - 6) = -0.27\text{dBm}$.
4. Refer to section 3.3 for duty cycle spectrum plot.

Spectrum Plot of Worst Value



For U-NII-3 Band
 802.11a

TX chain	Chan.	Freq. (MHz)	PSD W/O Duty Factor		10 log (N=4) dB	Duty Factor (dB)	Total PSD With Duty Factor (dBm/500kHz)	Limit (dBm/500kHz)	Pass / Fail
			(dBm/300kHz)	(dBm/500kHz)					
0	149	5745	-12.88	-10.66	6.02	0.16	-4.48	12.73	Pass
	157	5785	-12.97	-10.75	6.02	0.16	-4.57	12.73	Pass
	165	5825	-12.98	-10.76	6.02	0.16	-4.58	12.73	Pass
1	149	5745	-13.23	-11.01	6.02	0.16	-4.83	12.73	Pass
	157	5785	-13.30	-11.08	6.02	0.16	-4.90	12.73	Pass
	165	5825	-13.16	-10.94	6.02	0.16	-4.76	12.73	Pass
2	149	5745	-12.64	-10.42	6.02	0.16	-4.24	12.73	Pass
	157	5785	-12.47	-10.25	6.02	0.16	-4.07	12.73	Pass
	165	5825	-12.80	-10.58	6.02	0.16	-4.40	12.73	Pass
3	149	5745	-13.57	-11.35	6.02	0.16	-5.17	12.73	Pass
	157	5785	-13.23	-11.01	6.02	0.16	-4.83	12.73	Pass
	165	5825	-13.02	-10.80	6.02	0.16	-4.62	12.73	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. This antenna was cross-polarized antenna.
3. Gain = $18.5 + 10\log(3) = 23.27\text{dBi} > 6\text{dBi}$, so the limit shall be reduced to $30 - (23.27 - 6) = 12.73\text{dBm}$.
4. Refer to section 3.3 for duty cycle spectrum plot.

802.11n (HT20)

TX chain	Chan.	Freq. (MHz)	PSD		10 log (N=4) dB	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	Pass / Fail
			(dBm/300kHz)	(dBm/500kHz)				
0	149	5745	-13.69	-11.47	6.02	-5.45	12.73	Pass
	157	5785	-13.73	-11.51	6.02	-5.49	12.73	Pass
	165	5825	-13.63	-11.41	6.02	-5.39	12.73	Pass
1	149	5745	-14.01	-11.79	6.02	-5.77	12.73	Pass
	157	5785	-13.90	-11.68	6.02	-5.66	12.73	Pass
	165	5825	-13.67	-11.45	6.02	-5.43	12.73	Pass
2	149	5745	-13.12	-10.90	6.02	-4.88	12.73	Pass
	157	5785	-12.91	-10.69	6.02	-4.67	12.73	Pass
	165	5825	-13.26	-11.04	6.02	-5.02	12.73	Pass
3	149	5745	-14.10	-11.88	6.02	-5.86	12.73	Pass
	157	5785	-13.92	-11.70	6.02	-5.68	12.73	Pass
	165	5825	-13.65	-11.43	6.02	-5.41	12.73	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. This antenna was cross-polarized antenna.
3. Gain = $18.5 + 10\log(3) = 23.27\text{dBi} > 6\text{dBi}$, so the limit shall be reduced to $30 - (23.27 - 6) = 12.73\text{dBm}$.

802.11n (HT40)

TX chain	Chan.	Freq. (MHz)	PSD W/O Duty Factor		10 log (N=4) dB	Duty Factor (dB)	Total PSD With Duty Factor (dBm/500kHz)	Limit (dBm/500kHz)	Pass / Fail
			(dBm/300kHz)	(dBm/500kHz)					
0	151	5755	-16.20	-13.98	6.02	0.14	-7.82	12.73	Pass
	159	5795	-16.31	-14.09	6.02	0.14	-7.93	12.73	Pass
1	151	5755	-15.58	-13.36	6.02	0.14	-7.20	12.73	Pass
	159	5795	-15.55	-13.33	6.02	0.14	-7.17	12.73	Pass
2	151	5755	-15.30	-13.08	6.02	0.14	-6.92	12.73	Pass
	159	5795	-15.56	-13.34	6.02	0.14	-7.18	12.73	Pass
3	151	5755	-16.80	-14.58	6.02	0.14	-8.42	12.73	Pass
	159	5795	-16.69	-14.47	6.02	0.14	-8.31	12.73	Pass

Note:

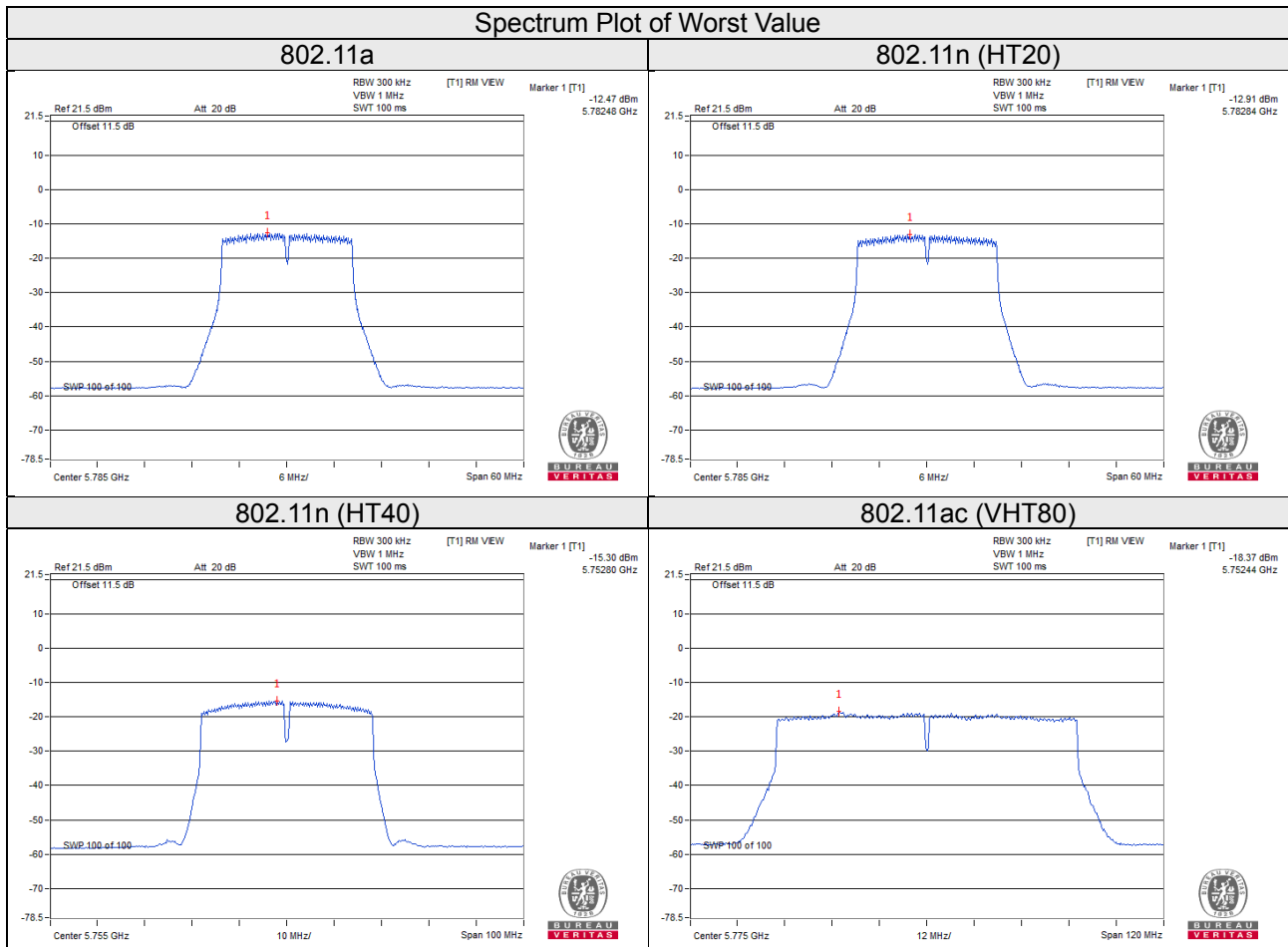
1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. This antenna was cross-polarized antenna.
3. Gain = $18.5 + 10\log(3) = 23.27\text{dBi} > 6\text{dBi}$, so the limit shall be reduced to $30 - (23.27 - 6) = 12.73\text{dBm}$.
4. Refer to section 3.3 for duty cycle spectrum plot.

802.11ac (VHT80)

TX chain	Chan.	Freq. (MHz)	PSD W/O Duty Factor		10 log (N=4) dB	Duty Factor (dB)	Total PSD With Duty Factor (dBm/500kHz)	Limit (dBm/500kHz)	Pass / Fail
			(dBm/300kHz)	(dBm/500kHz)					
0	155	5775	-19.10	-16.88	6.02	0.24	-10.62	12.73	Pass
1	155	5775	-18.81	-16.59	6.02	0.24	-10.33	12.73	Pass
2	155	5775	-18.37	-16.15	6.02	0.24	-9.89	12.73	Pass
3	155	5775	-20.23	-18.01	6.02	0.24	-11.75	12.73	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. This antenna was cross-polarized antenna.
3. Gain = $18.5 + 10\log(3) = 23.27\text{dBi} > 6\text{dBi}$, so the limit shall be reduced to $30 - (23.27 - 6) = 12.73\text{dBm}$.
4. Refer to section 3.3 for duty cycle spectrum plot.

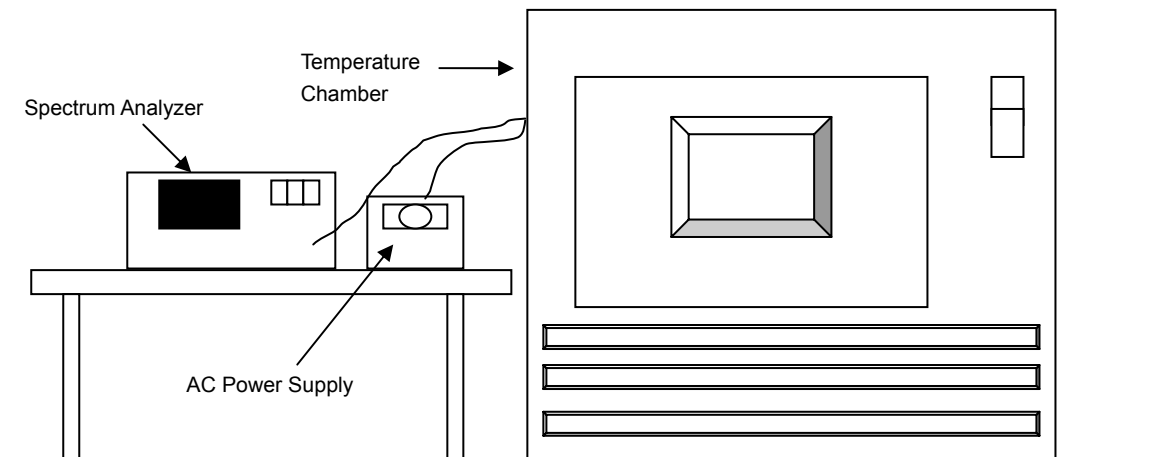


4.6 Frequency Stability

4.6.1 Limits of Frequency Stability Measurement

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

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 Procedure

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

4.6.5 Deviation from Test Standard

No deviation.

4.6.6 EUT Operating Condition

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

4.6.7 Test Results

Mode A1, B1

Frequency Stability Versus Temp.									
Operating Frequency: 5180MHz									
Temp. (°C)	Power Supply (Vac)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)
50	120	5180.0067	0.00013	5180.0026	0.00005	5180.0049	0.00009	5180.0052	0.00010
40	120	5179.9781	-0.00042	5179.9802	-0.00038	5179.9818	-0.00035	5179.9785	-0.00042
30	120	5179.9997	-0.00001	5179.9983	-0.00003	5179.9998	0.00000	5179.9986	-0.00003
20	120	5180.0058	0.00011	5180.0058	0.00011	5180.0043	0.00008	5180.0054	0.00010
10	120	5180.0034	0.00007	5180.0036	0.00007	5180.0011	0.00002	5180.0019	0.00004
0	120	5180.007	0.00014	5180.0031	0.00006	5180.0041	0.00008	5180.007	0.00014
-10	120	5179.9774	-0.00044	5179.9744	-0.00049	5179.9779	-0.00043	5179.9747	-0.00049
-20	120	5179.9863	-0.00026	5179.9854	-0.00028	5179.9849	-0.00029	5179.9881	-0.00023
-30	120	5180.0012	0.00002	5180.0003	0.00001	5180.0011	0.00002	5179.9979	-0.00004

Frequency Stability Versus Voltage									
Operating Frequency: 5180MHz									
Temp. (°C)	Power Supply (Vac)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)
20	138	5180.0056	0.00011	5180.0056	0.00011	5180.0044	0.00008	5180.0064	0.00012
	120	5180.0058	0.00011	5180.0058	0.00011	5180.0043	0.00008	5180.0054	0.00010
	102	5180.0055	0.00011	5180.0049	0.00009	5180.0052	0.00010	5180.0048	0.00009

Mode A2, B2

Frequency Stability Versus Temp.									
Operating Frequency: 5180MHz									
Temp. (°C)	Power Supply (Vac)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)
50	120	5180.0238	0.00046	5180.024	0.00046	5180.0244	0.00047	5180.0241	0.00047
40	120	5180.02	0.00039	5180.0171	0.00033	5180.0171	0.00033	5180.0217	0.00042
30	120	5180.0214	0.00041	5180.0186	0.00036	5180.017	0.00033	5180.0214	0.00041
20	120	5179.9764	-0.00046	5179.975	-0.00048	5179.9792	-0.00040	5179.9791	-0.00040
10	120	5179.9973	-0.00005	5179.9977	-0.00004	5180.0002	0.00000	5180.0007	0.00001
0	120	5180.022	0.00042	5180.0221	0.00043	5180.0207	0.00040	5180.0232	0.00045
-10	120	5179.9873	-0.00025	5179.9878	-0.00024	5179.9889	-0.00021	5179.9891	-0.00021
-20	120	5180.0168	0.00032	5180.0153	0.00030	5180.0182	0.00035	5180.0168	0.00032
-30	120	5180.0112	0.00022	5180.0143	0.00028	5180.0136	0.00026	5180.0137	0.00026

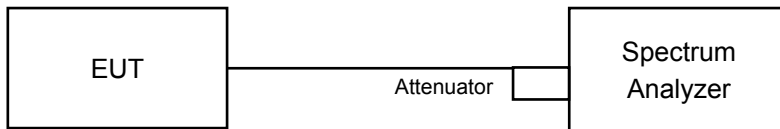
Frequency Stability Versus Voltage									
Operating Frequency: 5180MHz									
Temp. (°C)	Power Supply (Vac)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)
20	138	5179.9767	-0.00045	5179.9742	-0.00050	5179.9786	-0.00041	5179.9796	-0.00039
	120	5179.9764	-0.00046	5179.975	-0.00048	5179.9792	-0.00040	5179.9791	-0.00040
	102	5179.9772	-0.00044	5179.9742	-0.00050	5179.9782	-0.00042	5179.9796	-0.00039

4.7 6dB Bandwidth Measurement

4.7.1 Limits of 6dB Bandwidth Measurement

The minimum of 6dB Bandwidth Measurement is 0.5MHz.

4.7.2 Test Setup



4.7.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.7.4 Test Procedure

Measurement Procedure REF

- Set resolution bandwidth (RBW) = 100kHz
- Set the video bandwidth (VBW) $\geq 3 \times$ RBW, Detector = Peak.
- Trace mode = max hold.
- Sweep = auto couple.
- 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

4.7.5 Deviation from Test Standard

No deviation.

4.7.6 EUT Operating Condition

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

4.7.7 Test Results

Mode A1

802.11a

Chan.	Freq. (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
149	5745	16.32	16.35	16.37	16.36	0.5	Pass
157	5785	16.32	16.36	16.38	16.37	0.5	Pass
165	5825	16.33	16.35	16.35	16.34	0.5	Pass

802.11n (HT20)

Chan.	Freq. (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
149	5745	16.36	17.20	17.19	17.58	0.5	Pass
157	5785	16.59	17.17	16.36	17.60	0.5	Pass
165	5825	16.96	17.56	16.59	17.19	0.5	Pass

802.11n (HT40)

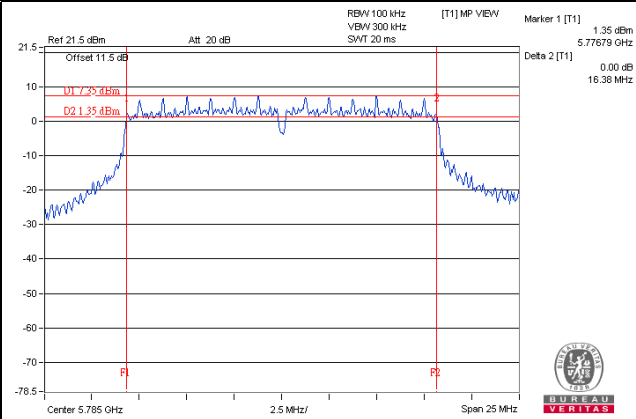
Chan.	Freq. (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
151	5755	35.24	35.19	35.17	35.12	0.5	Pass
159	5795	35.14	33.91	35.25	35.22	0.5	Pass

802.11ac (VHT80)

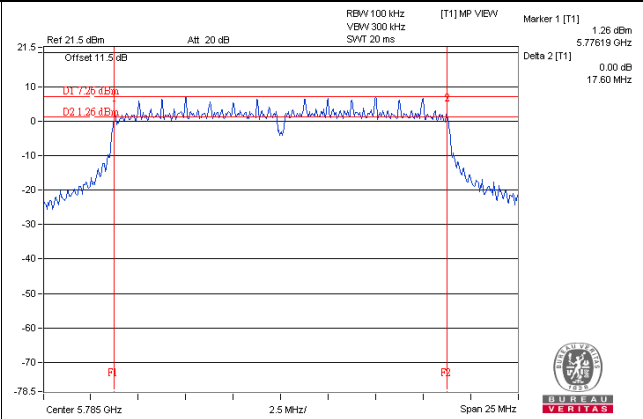
Chan.	Freq. (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
155	5775	75.46	75.45	75.47	75.47	0.5	Pass

Spectrum Plot of Worst Value

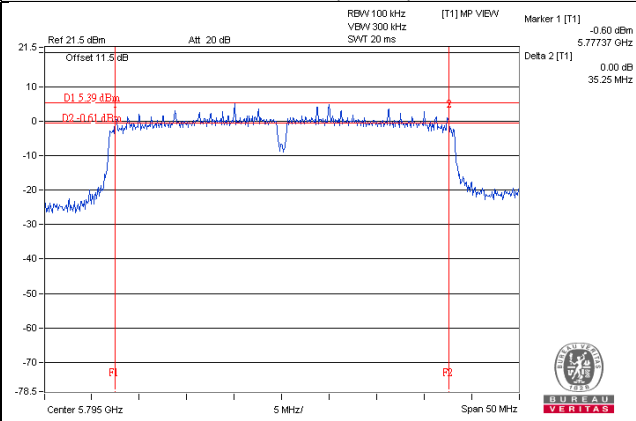
802.11a



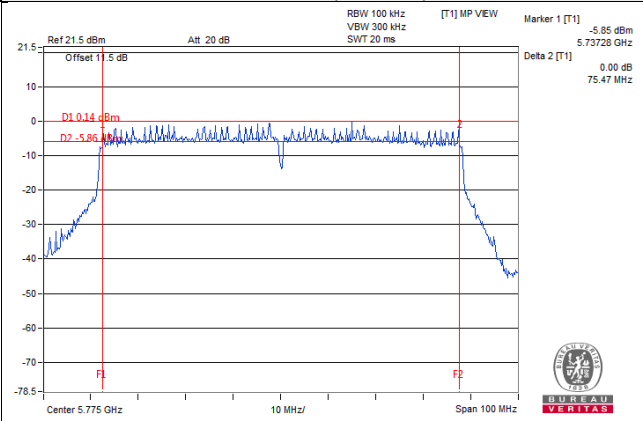
802.11n (HT20)



802.11n (HT40)



802.11ac (VHT80)



Mode A2

802.11a

Chan.	Freq. (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
149	5745	16.34	16.34	16.36	16.35	0.5	Pass
157	5785	16.38	16.36	16.36	16.37	0.5	Pass
165	5825	16.37	16.37	16.36	16.35	0.5	Pass

802.11n (HT20)

Chan.	Freq. (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
149	5745	17.32	17.37	17.35	17.61	0.5	Pass
157	5785	17.21	17.56	17.21	17.62	0.5	Pass
165	5825	17.22	16.73	17.20	17.62	0.5	Pass

802.11n (HT40)

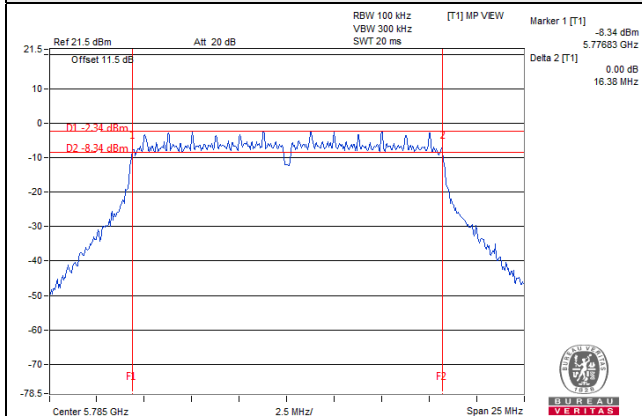
Chan.	Freq. (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
151	5755	35.28	35.18	35.21	35.26	0.5	Pass
159	5795	35.17	35.18	35.21	35.26	0.5	Pass

802.11ac (VHT80)

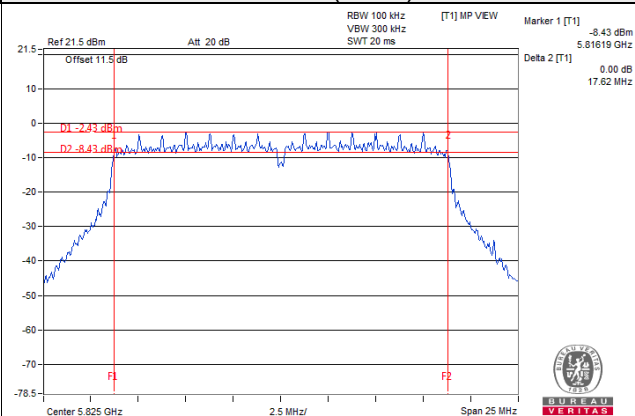
Chan.	Freq. (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
155	5775	75.47	75.46	75.45	75.39	0.5	Pass

Spectrum Plot of Worst Value

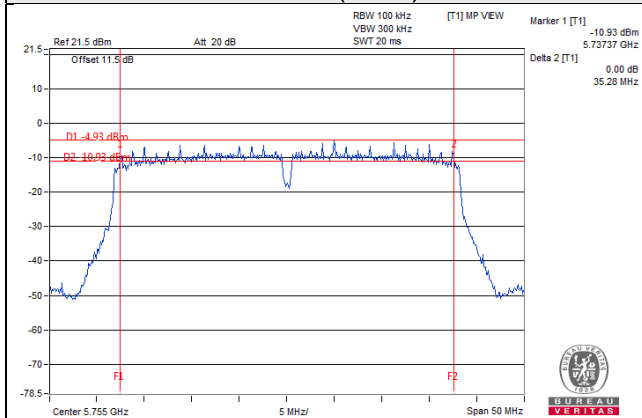
802.11a



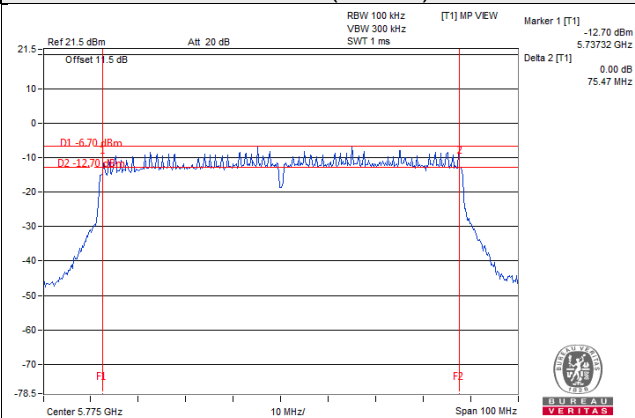
802.11n (HT20)



802.11n (HT40)



802.11ac (VHT80)



Mode B1
802.11a

Chan.	Freq. (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
149	5745	16.34	16.37	16.34	16.37	0.5	Pass
157	5785	16.37	16.37	16.36	16.38	0.5	Pass
165	5825	16.37	16.34	16.37	16.37	0.5	Pass

802.11n (HT20)

Chan.	Freq. (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
149	5745	16.92	17.56	17.18	17.61	0.5	Pass
157	5785	17.57	17.21	17.23	17.57	0.5	Pass
165	5825	17.57	17.19	17.56	17.20	0.5	Pass

802.11n (HT40)

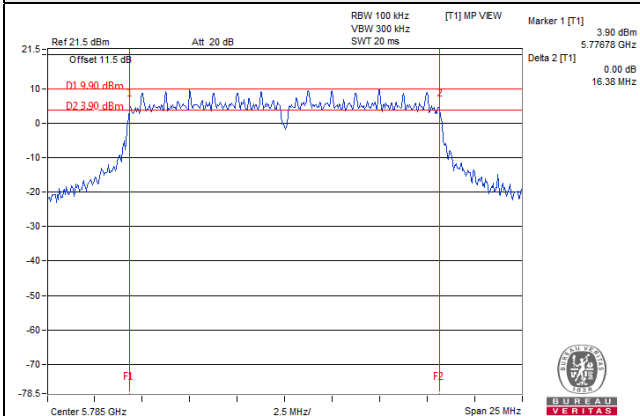
Chan.	Freq. (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
151	5755	35.19	35.19	35.17	35.13	0.5	Pass
159	5795	35.16	35.20	35.18	35.24	0.5	Pass

802.11ac (VHT80)

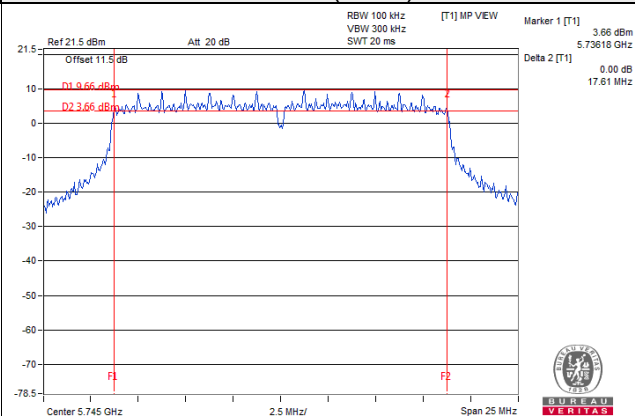
Chan.	Freq. (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
155	5775	75.52	75.44	75.39	75.46	0.5	Pass

Spectrum Plot of Worst Value

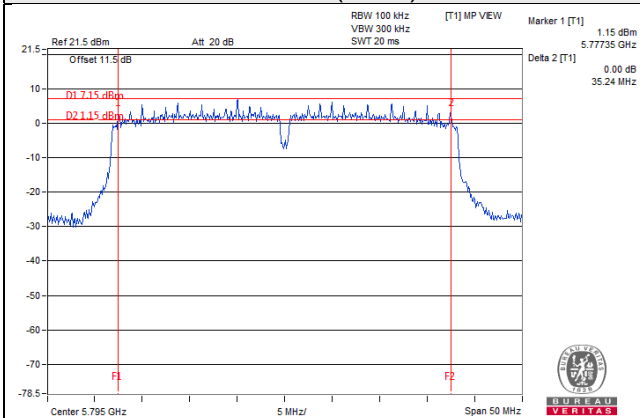
802.11a



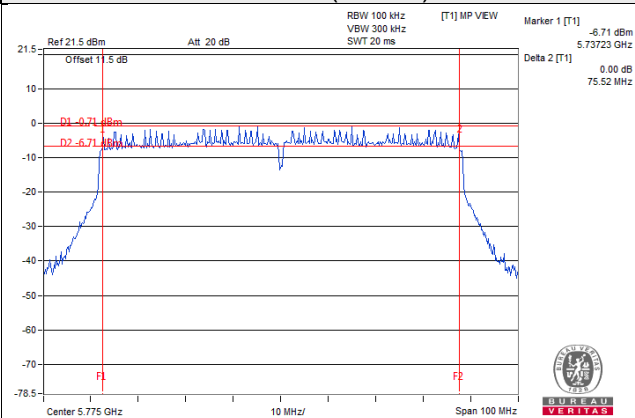
802.11n (HT20)



802.11n (HT40)



802.11ac (VHT80)



Mode B2
802.11a

Chan.	Freq. (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
149	5745	16.34	16.34	16.36	16.35	0.5	Pass
157	5785	16.38	16.36	16.36	16.37	0.5	Pass
165	5825	16.37	16.37	16.36	16.35	0.5	Pass

802.11n (HT20)

Chan.	Freq. (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
149	5745	17.32	17.37	17.35	17.61	0.5	Pass
157	5785	17.21	17.56	17.21	17.62	0.5	Pass
165	5825	17.22	16.73	17.20	17.62	0.5	Pass

802.11n (HT40)

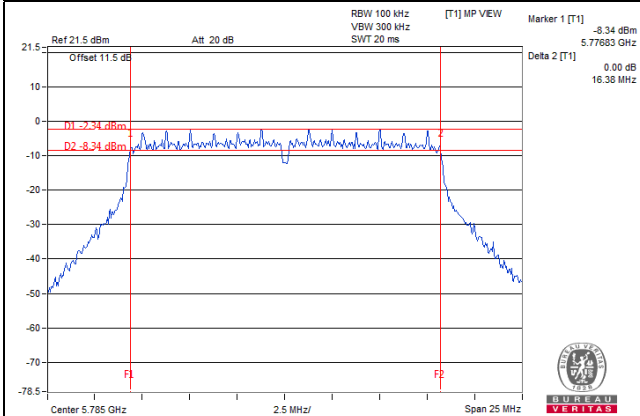
Chan.	Freq. (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
151	5755	35.19	35.15	35.16	35.17	0.5	Pass
159	5795	35.19	35.18	35.18	35.14	0.5	Pass

802.11ac (VHT80)

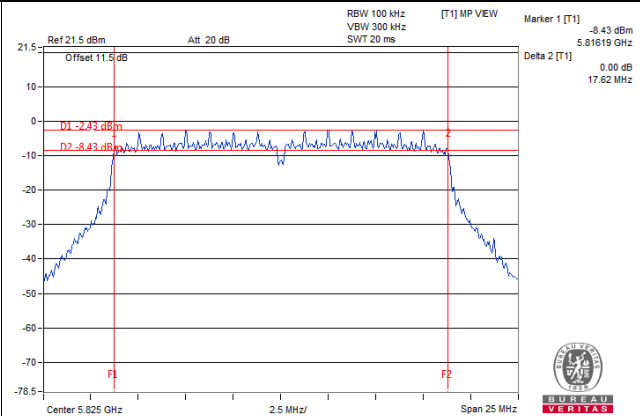
Chan.	Freq. (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
155	5775	75.48	75.46	75.47	75.41	0.5	Pass

Spectrum Plot of Worst Value

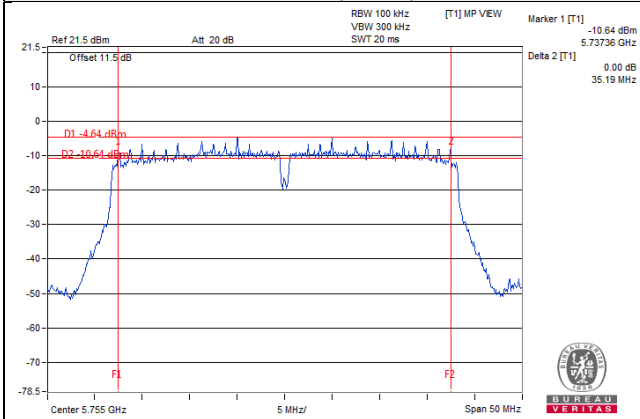
802.11a



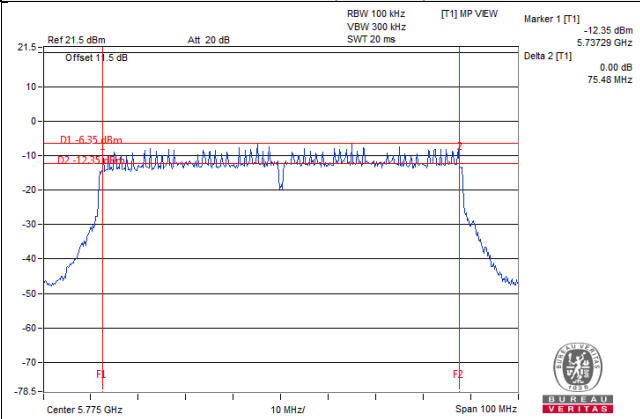
802.11n (HT20)



802.11n (HT40)



802.11ac (VHT80)



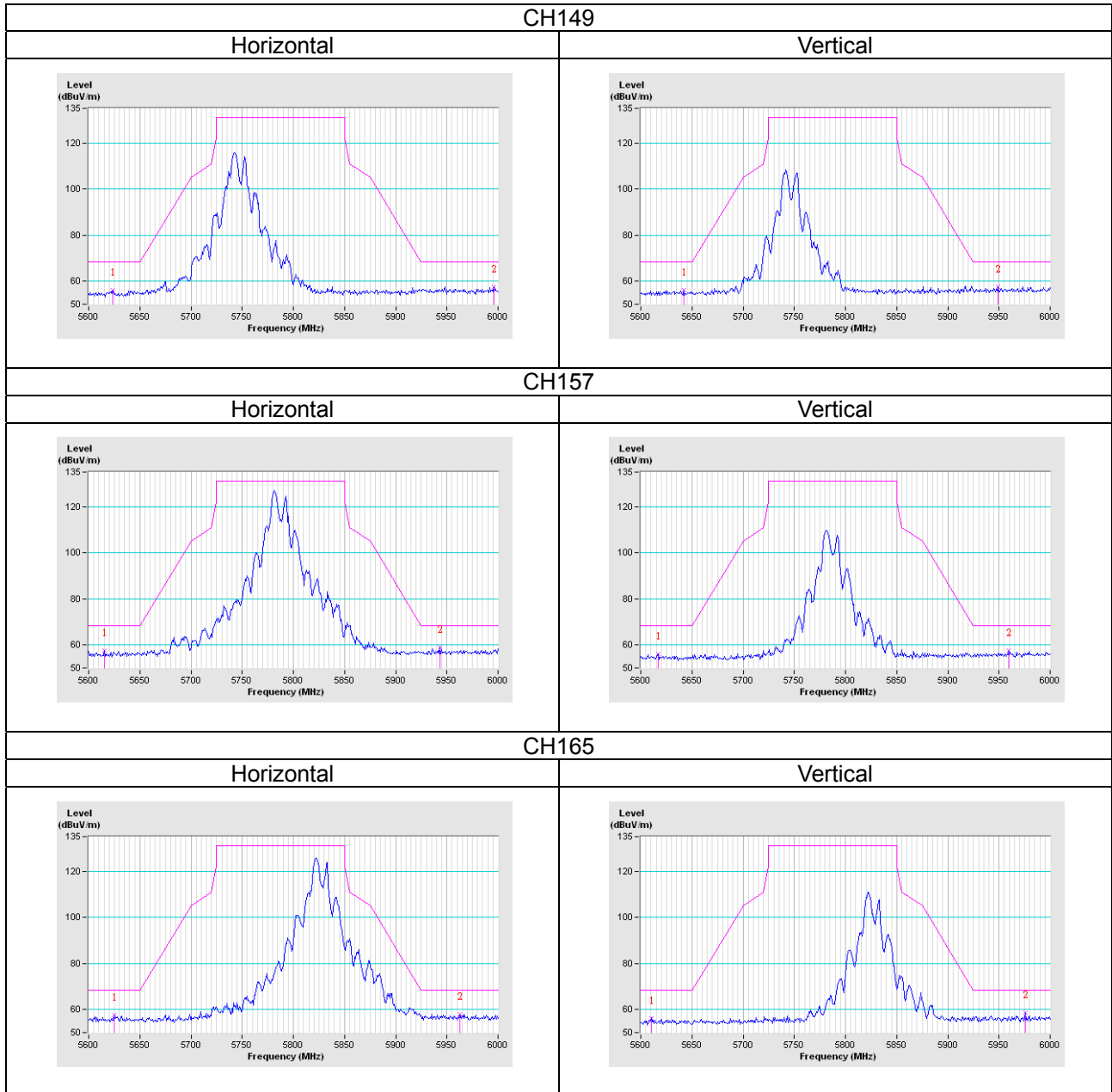
5 Pictures of Test Arrangements

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

Annex A- Radiated Out of Band Emission (OOBE) Measurement (For U-NII-3 Band)

Mode A1

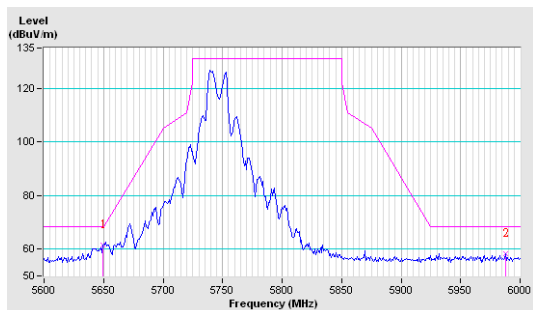
802.11a



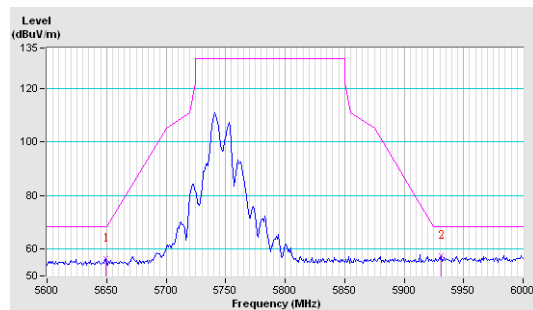
802.11n (HT20)

CH149

Horizontal

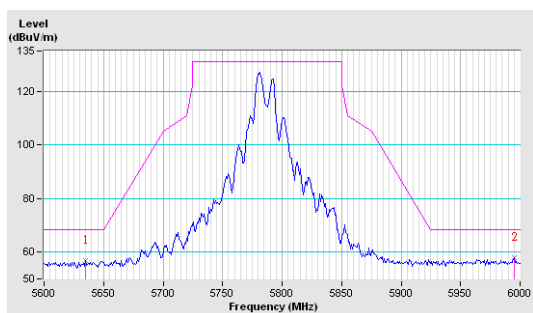


Vertical

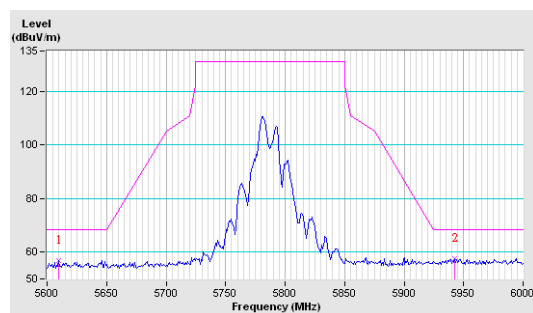


CH157

Horizontal

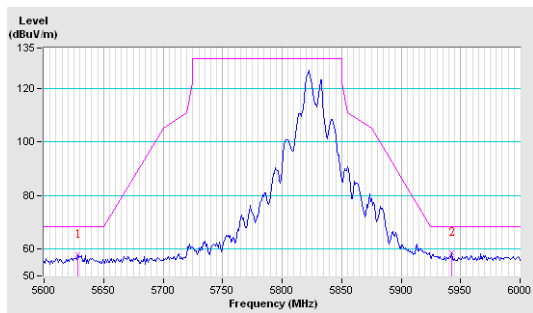


Vertical

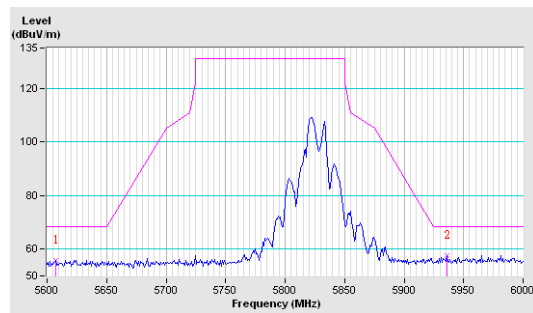


CH165

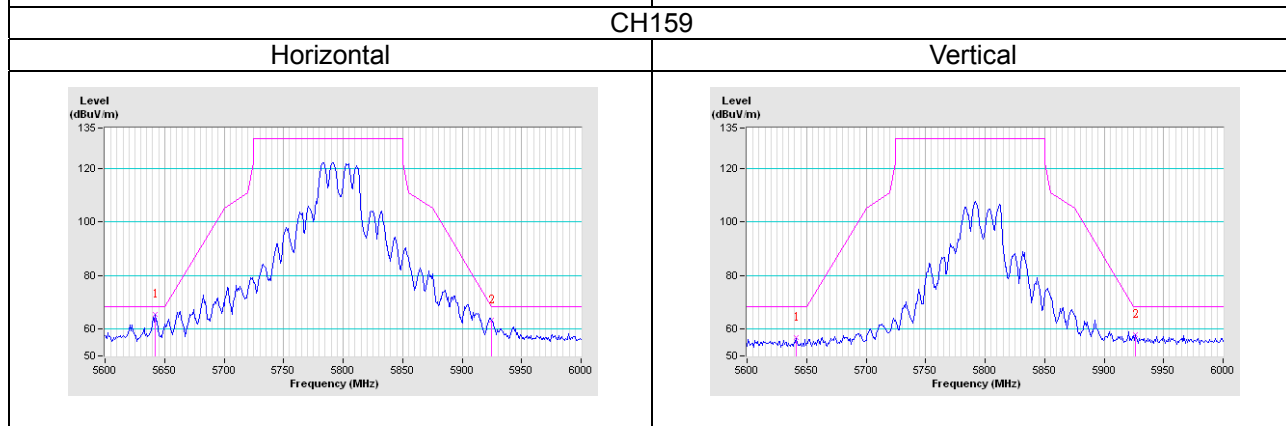
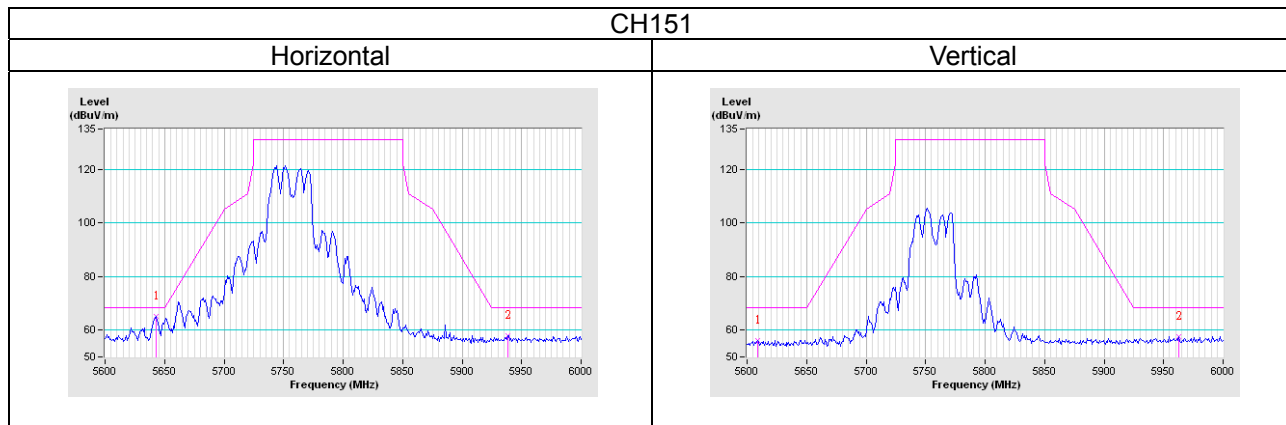
Horizontal



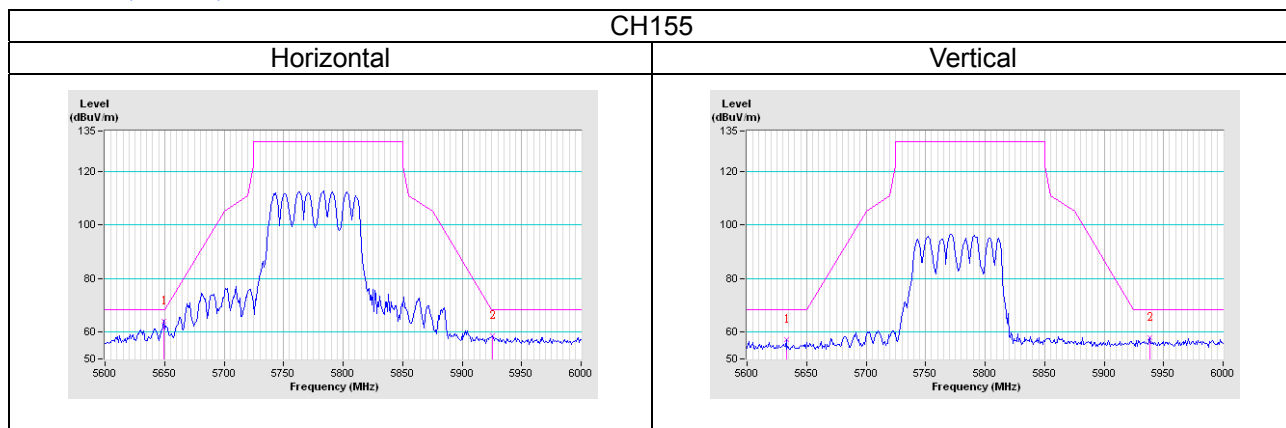
Vertical



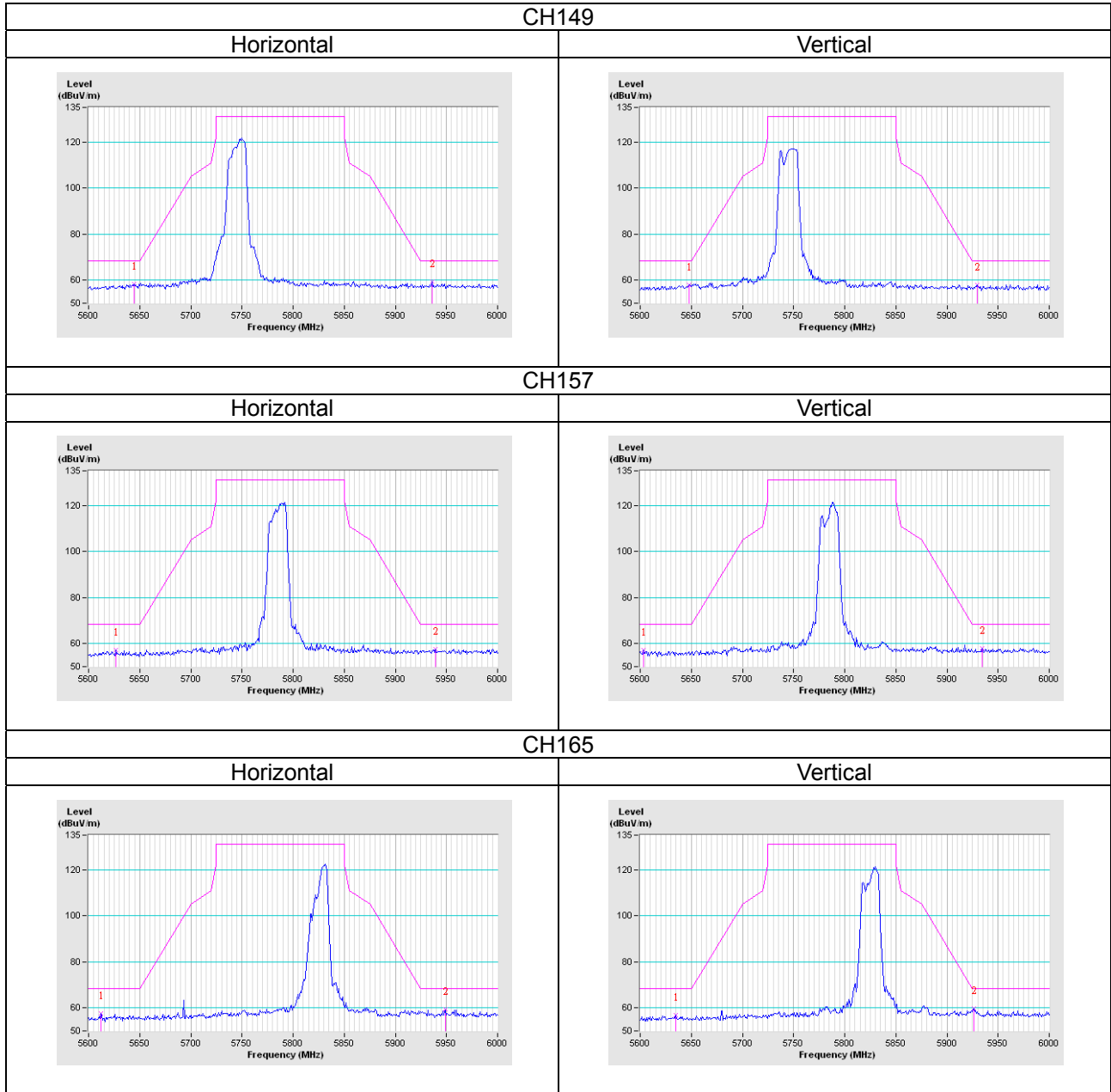
802.11n (HT40)



802.11ac (VHT80)



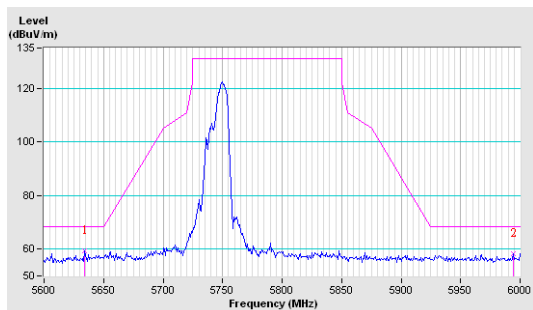
Mode A2
802.11a



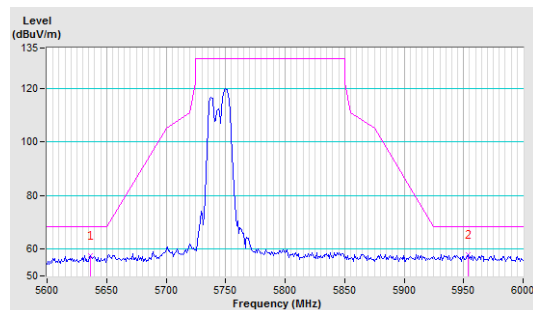
802.11n (HT20)

CH149

Horizontal

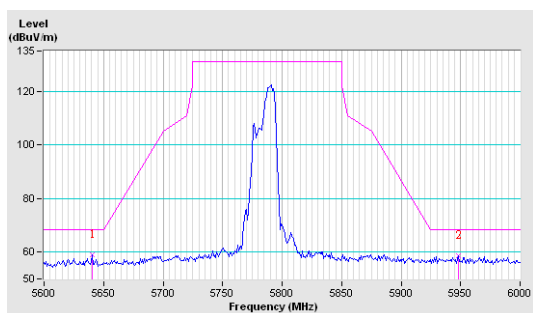


Vertical

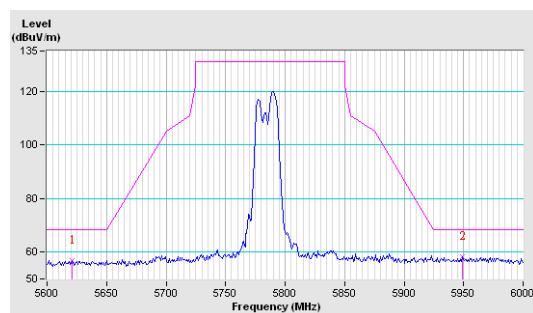


CH157

Horizontal

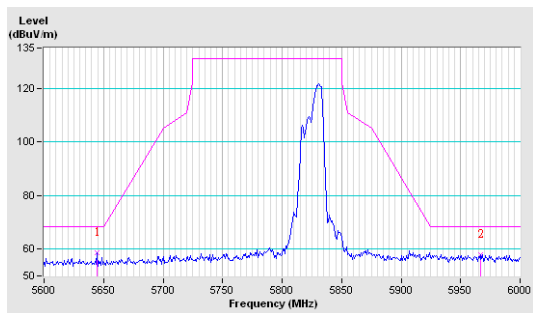


Vertical

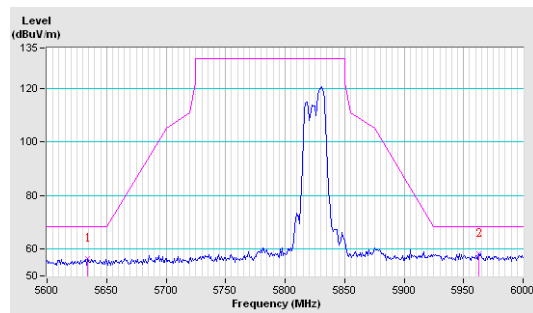


CH165

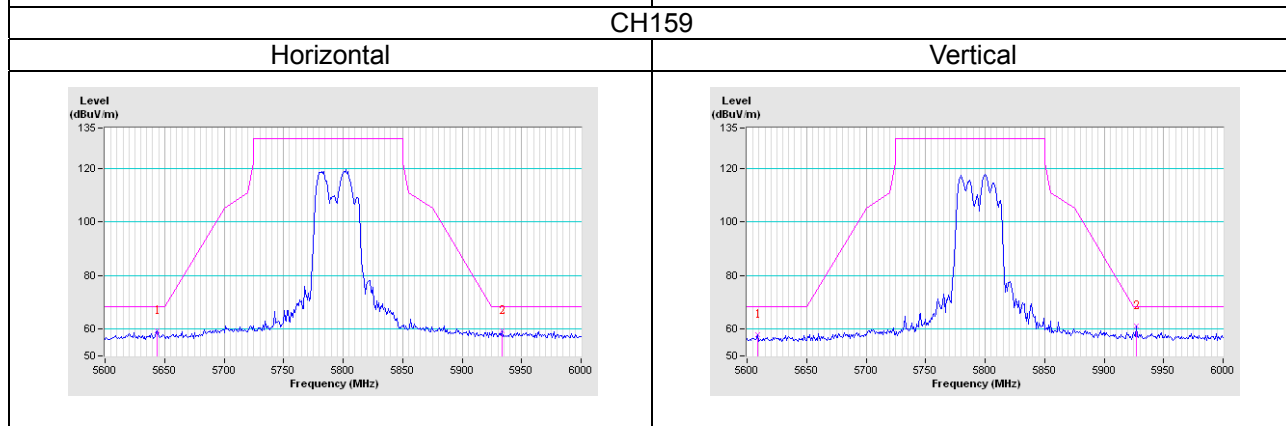
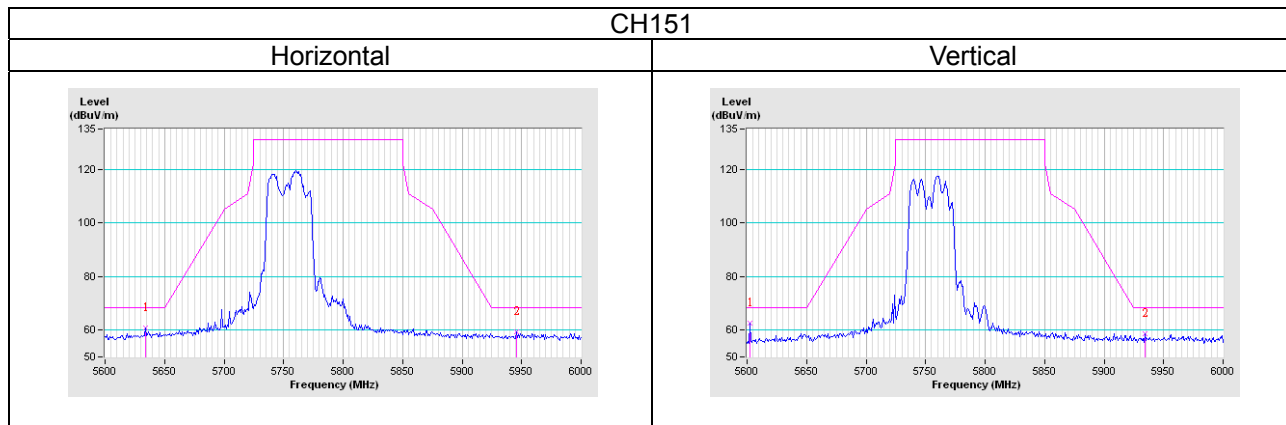
Horizontal



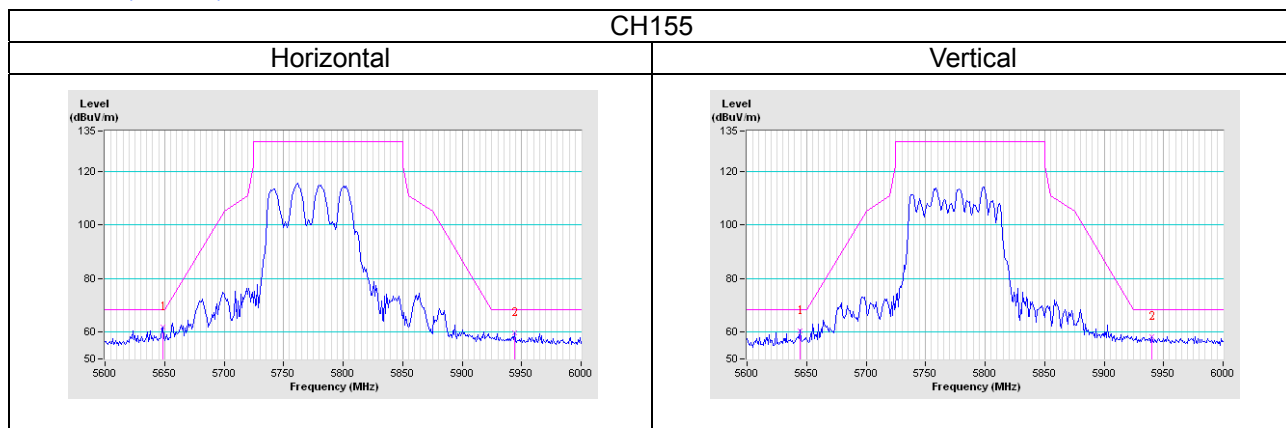
Vertical



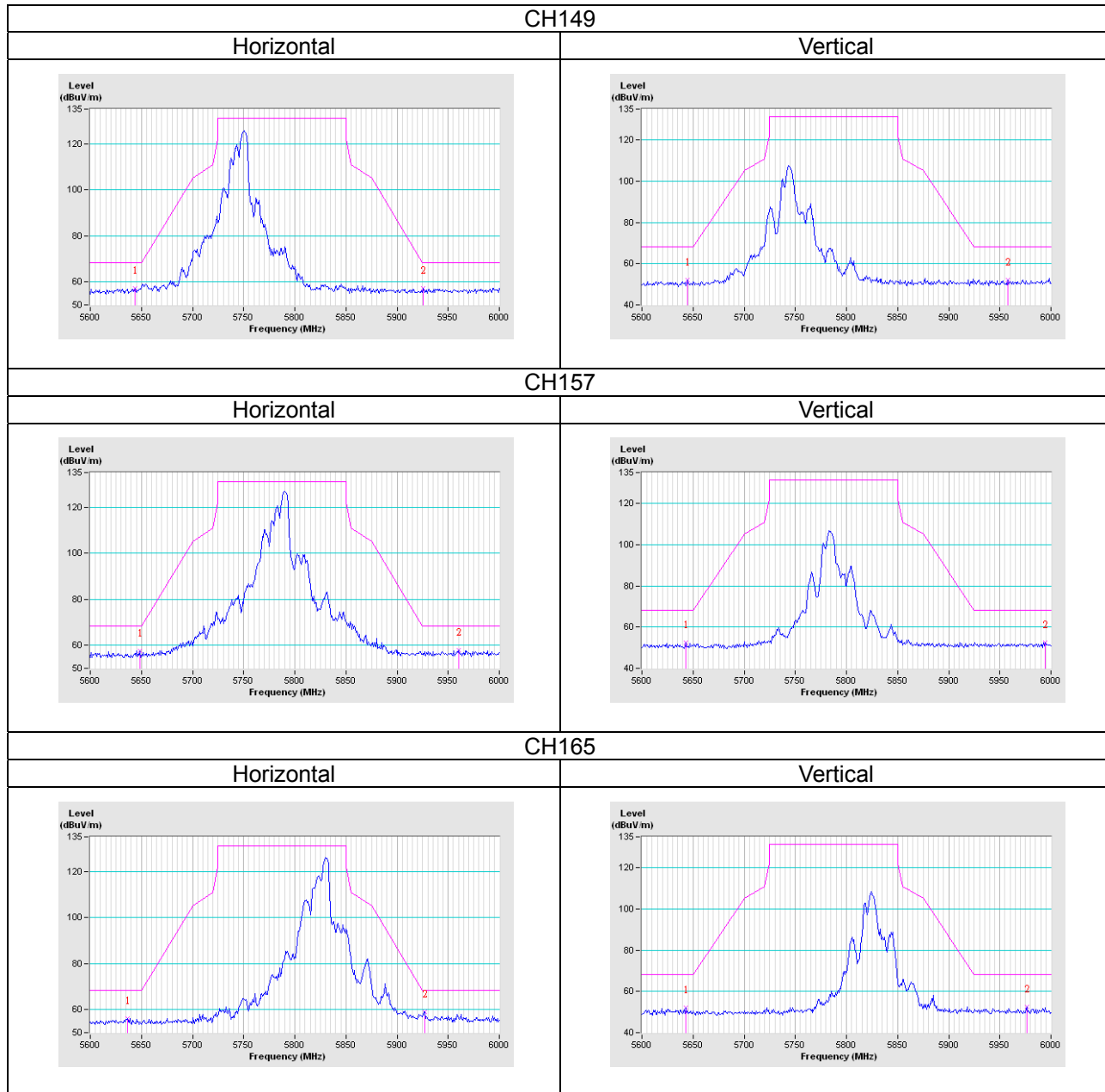
802.11n (HT40)



802.11ac (VHT80)



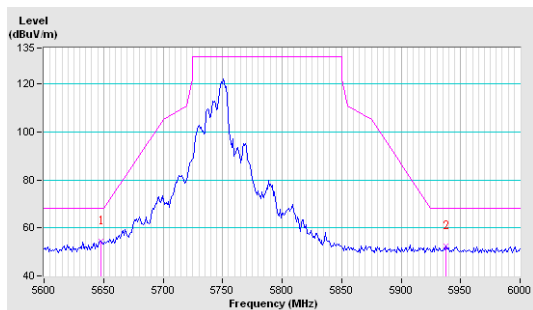
Mode B1
802.11a



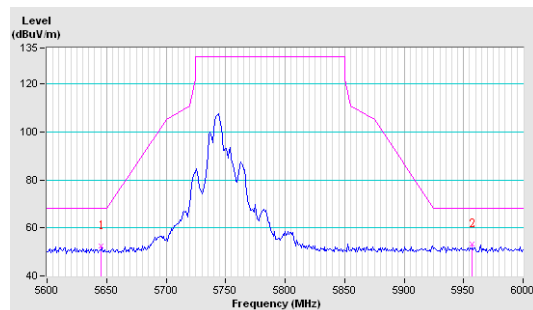
802.11n (HT20)

CH149

Horizontal

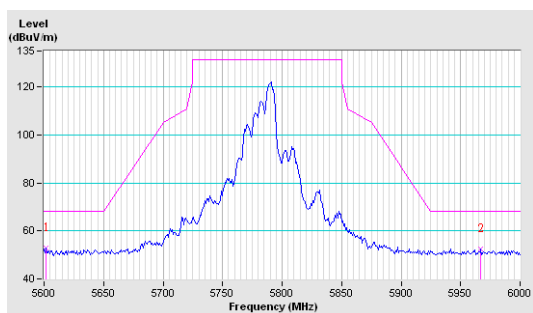


Vertical

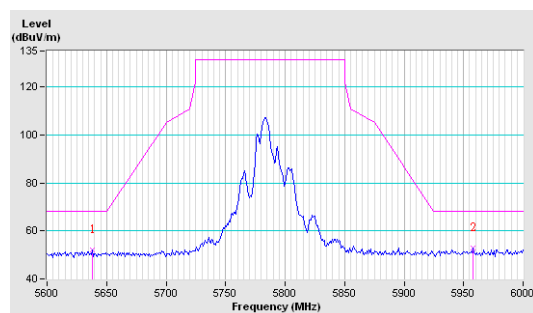


CH157

Horizontal

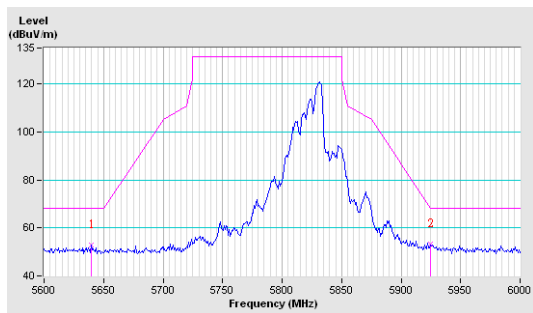


Vertical

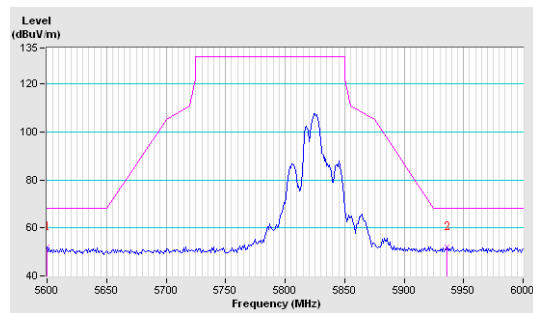


CH165

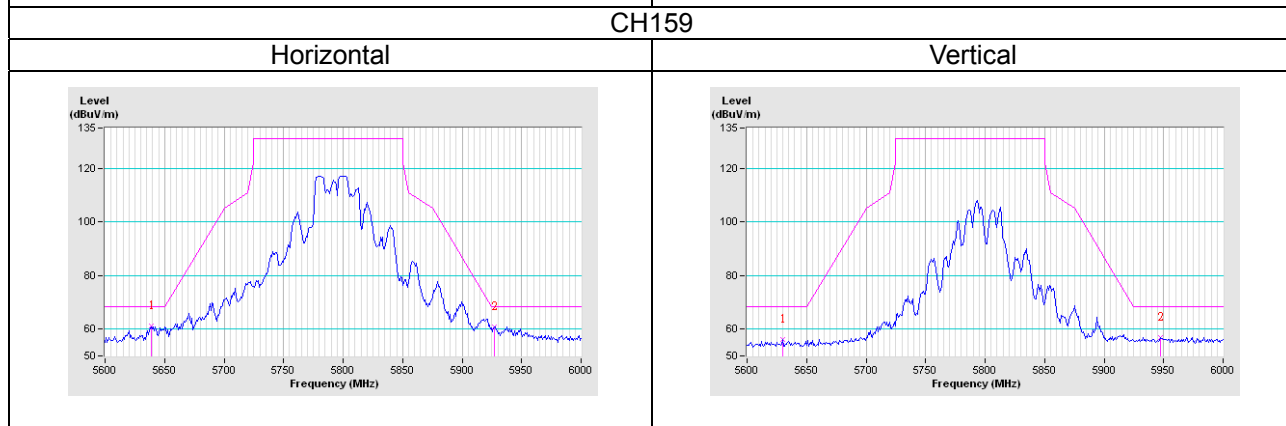
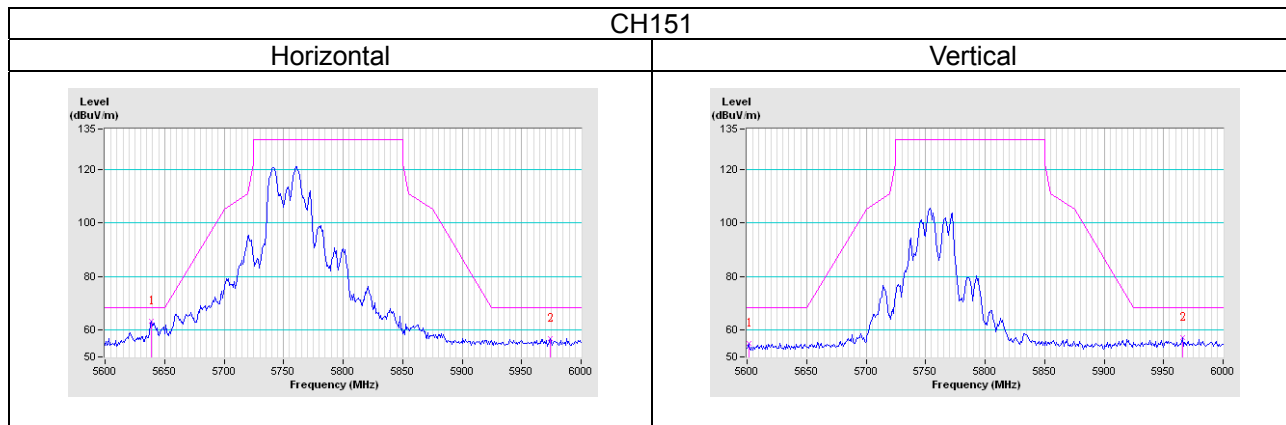
Horizontal



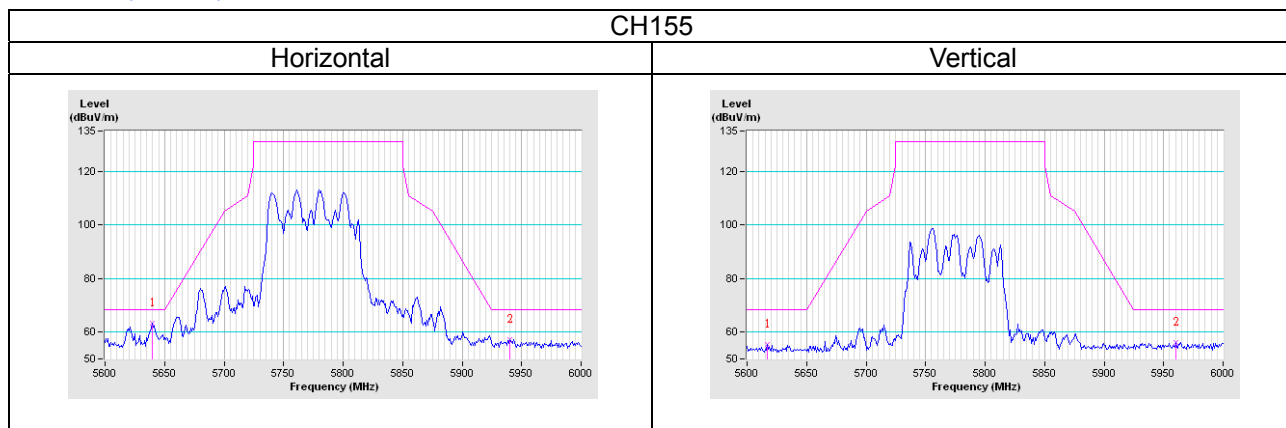
Vertical



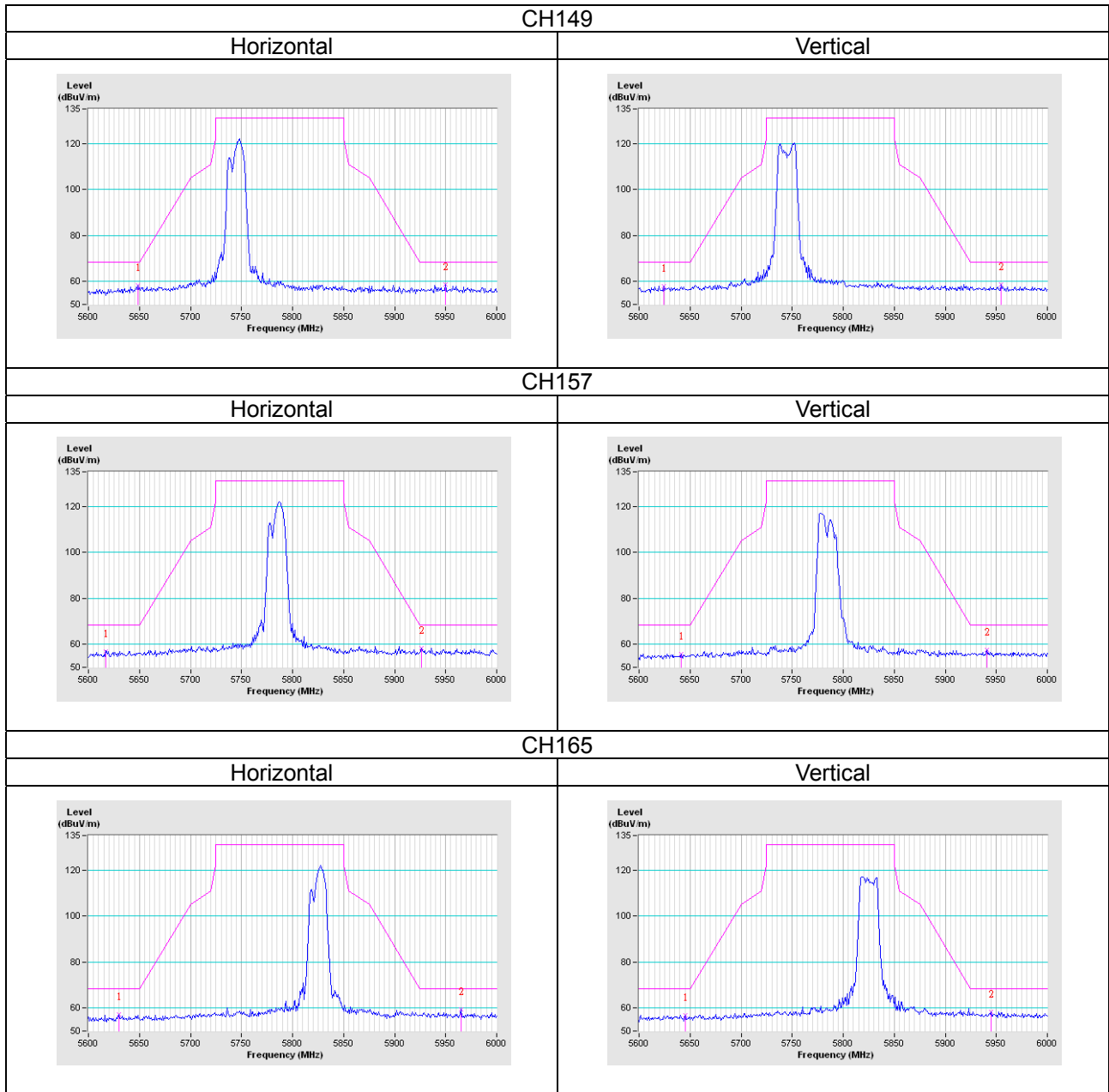
802.11n (HT40)



802.11ac (VHT80)



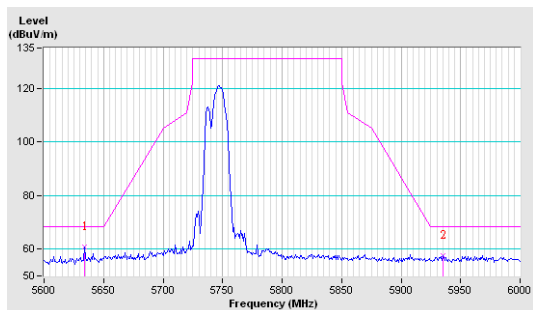
Mode B2
802.11a



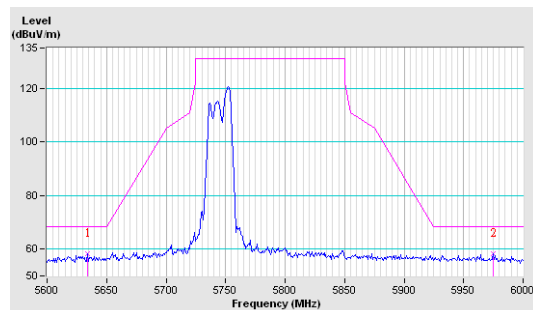
802.11n (HT20)

CH149

Horizontal

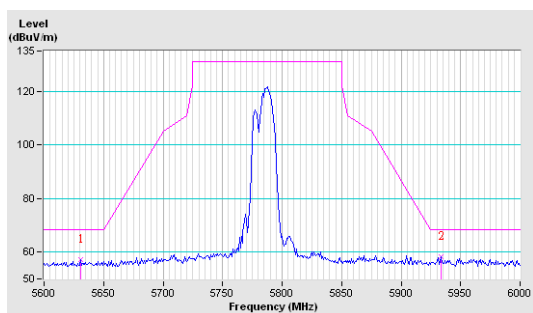


Vertical

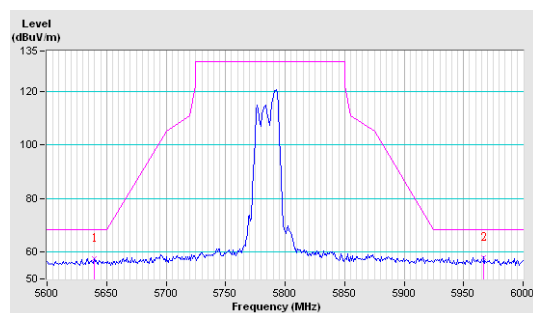


CH157

Horizontal

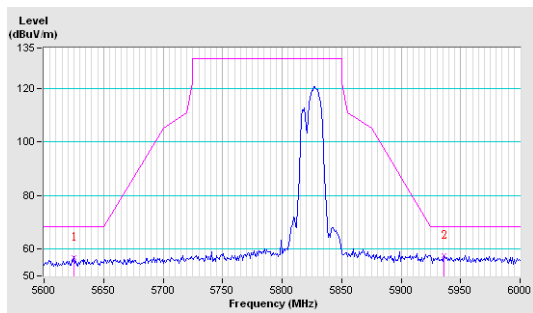


Vertical

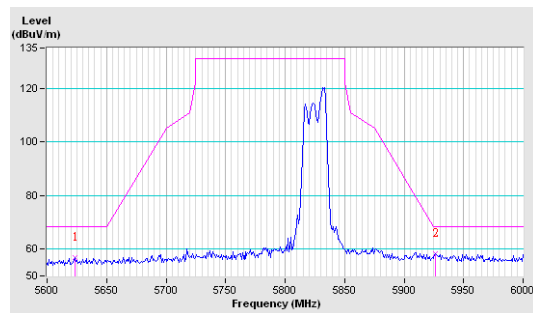


CH165

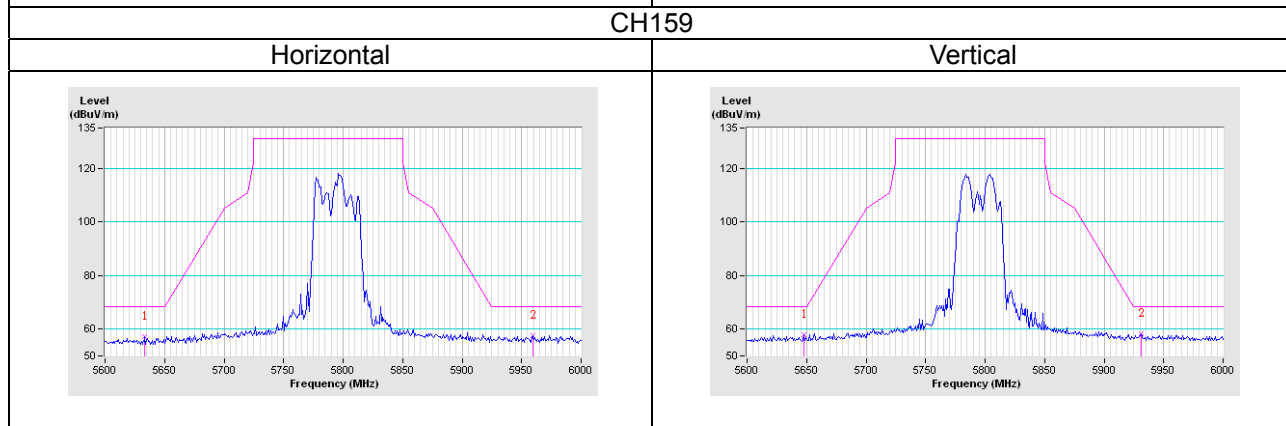
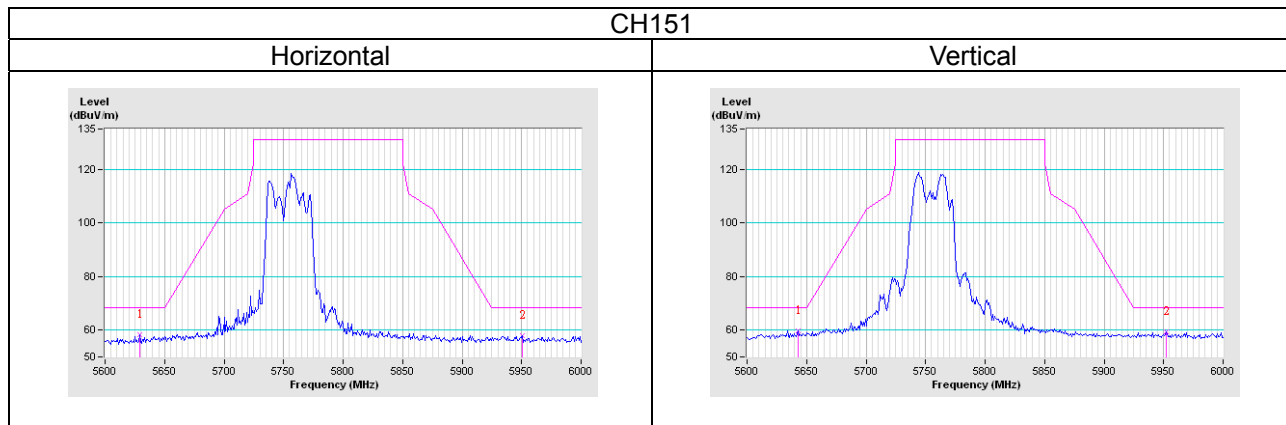
Horizontal



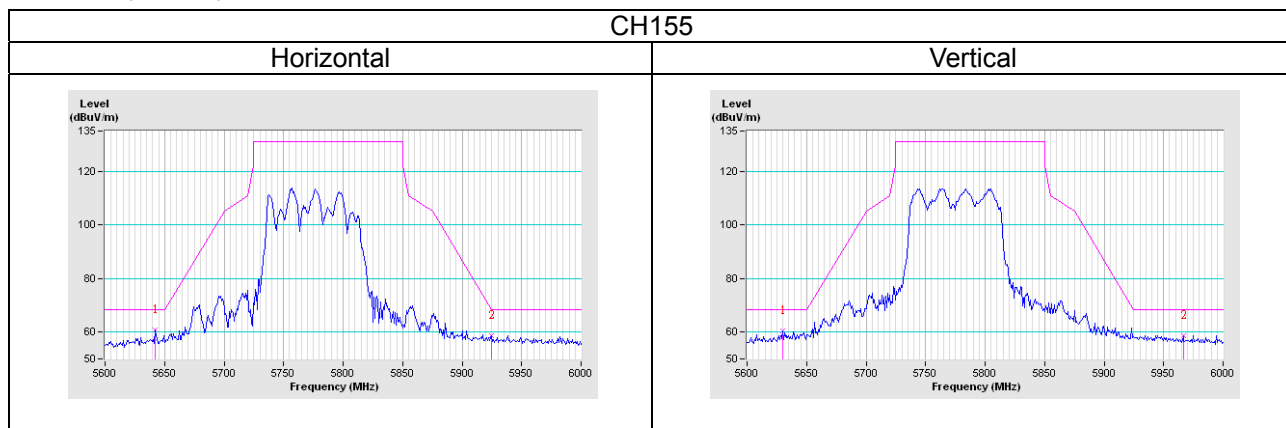
Vertical



802.11n (HT40)



802.11ac (VHT80)



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 FCC recognized accredited test firms and accredited and approved according to ISO/IEC 17025.

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

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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.

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