

FCC Test Report

Report No.: RF171218C14-3

FCC ID: NM82Q55200

Test Model: 2Q55200

Received Date: Dec. 18, 2017

Test Date: Jan. 06 ~ Jan. 13, 2018

Issued Date: Jan. 26, 2018

Applicant: HTC Corporation

Address: 88 Section 3, Zhongxing Road, Xindian District, New Taipei City 231, Taiwan

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

Lab Address: No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan (R.O.C.)

Test Location (1): No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City 33383, TAIWAN (R.O.C.)

**FCC Registration/
Designation Number:** 788550 / TW0003

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

**FCC Registration/
Designation Number:** 810758 / TW1085



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Release Control Record

Issue No.	Description	Date Issued
RF171218C14-3	Original release.	Jan. 26, 2018

1 Certificate of Conformity

Product: Smartphone

Brand: HTC

Test Model: 2Q55200

Sample Status: Production Unit

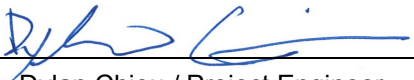
Applicant: HTC Corporation

Test Date: Jan. 06 ~ Jan. 13, 2018

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 :  , **Date:** Jan. 26, 2018
Pettie Chen / Senior Specialist

Approved by :  , **Date:** Jan. 26, 2018
Dylan Chiou / Project Engineer

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 -29.65dB at 17.85448MHz.
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 -1.1dB at 5470.00MHz.
15.407(a)(1/2/3)	Max Average Transmit Power	Pass	Meet the requirement of limit.
---	Occupied Bandwidth Measurement	Pass	Meet the requirement of limit.
15.407(a)(1/2/3)	Peak Power Spectral Density	Pass	Meet the requirement of limit. (U-NII-3 Band only)
15.407(e)	6dB bandwidth	Pass	Meet the requirement of limit.
15.407(g)	Frequency Stability	Pass	Meet the requirement of limit.
15.203	Antenna Requirement	Pass	No antenna connector is used.

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 ~ 1000MHz	5.53 dB
Radiated Emissions above 1 GHz	1GHz ~ 6GHz	5.08 dB
	6GHz ~ 18GHz	4.98 dB
	18GHz ~ 40GHz	5.19 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	Smartphone
Brand	HTC
Test Model	2Q55200
Sample Status	Production Unit
Power Supply Rating	5 Vdc or 9 Vdc or 12 Vdc (adapter) 3.85 Vdc (Li-ion battery)
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 MCS15 802.11ac: up to V9
Operating Frequency	5180~5240MHz, 5260~5320MHz, 5500~5700MHz, 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 5260~5320MHz: 802.11a, 802.11n (HT20), 802.11ac (VHT20): 4 802.11n (HT40), 802.11ac (VHT40): 2 802.11ac (VHT80): 1 5500~5700MHz: 802.11a, 802.11n (HT20), 802.11ac (VHT20): 11 802.11n (HT40), 802.11ac (VHT40): 5 802.11ac (VHT80): 2 5745~5825MHz: 802.11a, 802.11n (HT20), 802.11ac (VHT20): 5 802.11n (HT40), 802.11ac (VHT40): 2 802.11ac (VHT80): 1
Output Power	5180~5240MHz: 139.189mW 5260~5320MHz: 139.439mW 5500~5700MHz: 140.795mW 5745~5825MHz: 139.727mW
Antenna Type	5180~5240MHz: PIFA antenna with -1.5 dBi gain (Main) / -3.7 dBi gain (Aux.) 5260~5320MHz: PIFA antenna with -1.4 dBi gain (Main) / -3.6 dBi gain (Aux.) 5500~5700MHz: PIFA antenna with -1.6 dBi gain (Main) / -3.3 dBi gain (Aux.) 5745~5825MHz: PIFA antenna with -1.4 dBi gain (Main) / -3.6 dBi gain (Aux.)
Antenna Connector	NA
Accessory Device	NA
Cable Supplied	NA

Note:

1. The EUT incorporates a MIMO function. Physically, the EUT provides 2 completed transmitters and 2 receivers.

Modulation Mode	TX Function
802.11a	1TX
802.11n (HT20)	2TX
802.11n (HT40)	2TX
802.11ac (VHT20)	2TX
802.11ac (VHT40)	2TX
802.11ac (VHT80)	2TX

* For 802.11a: Ant. 1 was the worst case for the final tests.

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

2. Spurious emission of the simultaneous operation (listed as below) has been evaluated and no non-compliance was found.

No.	Operation Mode
1	GSM+WiFi 2.4GHz
2	GSM+WiFi 5GHz
3	GSM+BT
4	WCDMA+WiFi 2.4GHz
5	WCDMA+WiFi 5GHz
6	WCDMA+BT
7	LTE+WiFi 2.4GHz
8	LTE+WiFi 5GHz
9	LTE+BT
10	WiFi 2.4GHz+BT(WiFi and BT can transmit simultaneously in the different antenna.)
11	WiFi 5GHz+BT(WiFi and BT can transmit simultaneously in the different antenna.)
12	WiFi 2.4GHz+WiFi 5GHz (2.4GHz+5GHz can transmit simultaneously in the different antenna.)
13	WWAN+WiFi 2.4GHz+BT
14	WWAN+WiFi 5GHz+BT

3. The EUT's accessories list refers to Ext. Pho.
4. The above EUT information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or user's manual.

3.2 Description of Test Modes

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

5260~5320MHz:

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

Channel	Frequency	Channel	Frequency
52	5260 MHz	60	5300 MHz
56	5280 MHz	64	5320 MHz

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

Channel	Frequency	Channel	Frequency
54	5270 MHz	62	5310 MHz

1 channel is provided for 802.11ac (VHT80):

Channel	Frequency
58	5290MHz

5500~5700MHz:

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

Channel	Frequency	Channel	Frequency
100	5500 MHz	124	5620 MHz
104	5520 MHz	128	5640 MHz
108	5540 MHz	132	5660 MHz
112	5560 MHz	136	5680 MHz
116	5580 MHz	140	5700 MHz
120	5600 MHz		

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

Channel	Frequency	Channel	Frequency
102	5510 MHz	126	5630 MHz
110	5550 MHz	134	5670 MHz
118	5590 MHz		

2 channels are provided for 802.11ac (VHT80):

Channel	Frequency	Channel	Frequency
106	5530MHz	122	5610 MHz

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	
-	√	√	√	√	-

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.
2. "-" means no effect.

Radiated Emission Test (Above 1GHz):

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

EUT Configure Mode	Mode	Frequency Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Data Rate (Mbps)
-	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
	802.11n (HT40)		38 to 46	38, 46	OFDM	13.5
	802.11ac (VHT80)		42	42	OFDM	58.5
-	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	6.0
	802.11n (HT20)		52 to 64	52, 60, 64	OFDM	6.5
	802.11n (HT40)		54 to 62	54, 62	OFDM	13.5
	802.11ac (VHT80)		58	58	OFDM	58.5
-	802.11a	5500-5700	100 to 140	100, 116, 140	OFDM	6.0
	802.11n (HT20)		100 to 140	100, 116, 140	OFDM	6.5
	802.11n (HT40)		102 to 134	102, 110, 134	OFDM	13.5
	802.11ac (VHT80)		106 to 122	106, 122	OFDM	58.5
-	802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	6.0
	802.11n (HT20)		149 to 165	149, 157, 165	OFDM	6.5
	802.11n (HT40)		151 to 159	151, 159	OFDM	13.5
	802.11ac (VHT80)		155	155	OFDM	58.5

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)
-	802.11a	5180-5240	36 to 48	149	OFDM	6.0
		5260-5320	52 to 64		OFDM	6.0
		5500-5700	100 to 140		OFDM	6.0
		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)
-	802.11a	5180-5240	36 to 48	149	OFDM	6.0
		5260-5320	52 to 64		OFDM	6.0
		5500-5700	100 to 140		OFDM	6.0
		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)
-	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
	802.11n (HT40)		38 to 46	38, 46	OFDM	13.5
	802.11ac (VHT80)		42	42	OFDM	58.5
-	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	6.0
	802.11n (HT20)		52 to 64	52, 60, 64	OFDM	6.5
	802.11n (HT40)		54 to 62	54, 62	OFDM	13.5
	802.11ac (VHT80)		58	58	OFDM	58.5
-	802.11a	5500-5700	100 to 140	100, 116, 140	OFDM	6.0
	802.11n (HT20)		100 to 140	100, 116, 140	OFDM	6.5
	802.11n (HT40)		102 to 134	102, 110, 134	OFDM	13.5
	802.11ac (VHT80)		106 to 122	106, 122	OFDM	58.5
-	802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	6.0
	802.11n (HT20)		149 to 165	149, 157, 165	OFDM	6.5
	802.11n (HT40)		151 to 159	151, 159	OFDM	13.5
	802.11ac (VHT80)		155	155	OFDM	58.5

Test Condition:

Applicable to	Environmental Conditions	Input Power	Tested by
RE \geq 1G	23deg. C, 70%RH	120Vac, 60Hz	Rey Chen
RE<1G	24deg. C, 67%RH	120Vac, 60Hz	Weiwei Lo
PLC	25deg. C, 70%RH	120Vac, 60Hz	Matthew Yang
APCM	25deg. C, 60%RH	120Vac, 60Hz	Ted Chang

3.3 Duty Cycle of Test Signal

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

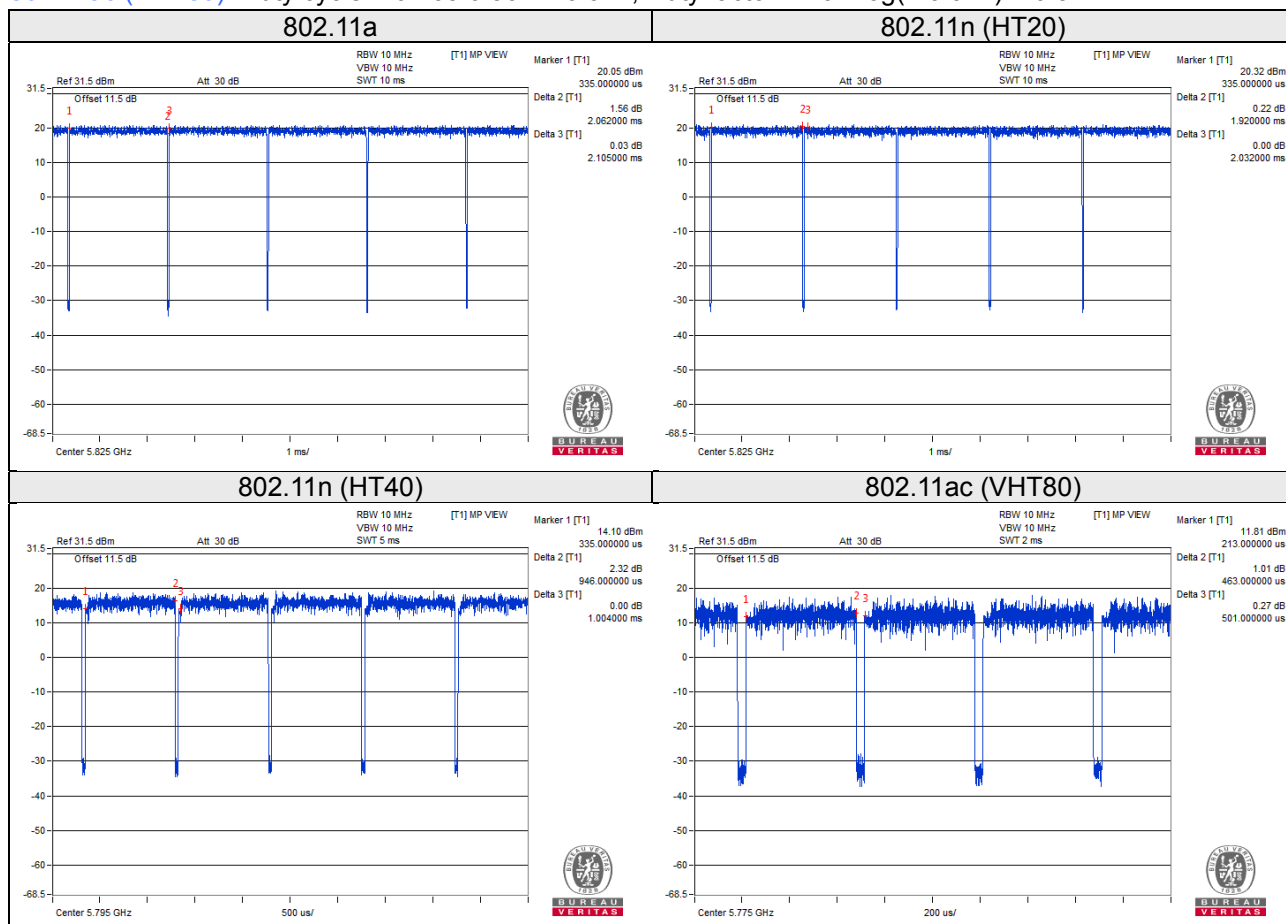
Duty cycle of test signal is $< 98\%$, duty factor shall be considered.

802.11a: Duty cycle = $2.062/2.105 = 0.98$

802.11n (HT20): Duty cycle = $1.92/2.032 = 0.945$, Duty factor = $10 * \log(1/0.945) = 0.25$

802.11n (HT40): Duty cycle = $0.946/1.004 = 0.942$, Duty factor = $10 * \log(1/0.942) = 0.26$

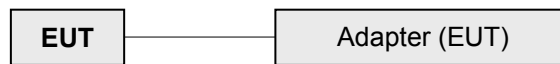
802.11ac (VHT80): Duty cycle = $0.463/0.501 = 0.924$, Duty factor = $10 * \log(1/0.924) = 0.34$



3.4 Description of Support Units

The EUT has been tested as an independent unit together with other necessary accessories or support units.

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.

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:

- The lower limit shall apply at the transition frequencies.
- Emission level (dBuV/m) = 20 log Emission level (uV/m).
- 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 (dBµV/m)	AV: 54 (dBµV/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(dBµV/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(dBµV/m) ^{*1} PK: 105.2 (dBµV/m) ^{*2} PK: 110.8(dBµV/m) ^{*3} PK: 122.2 (dBµV/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:

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

4.1.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Test Receiver Agilent	N9038A	MY50010156	July 12, 2017	July 11, 2018
Loop Antenna ^(*) TESEQ	HLA 6121	45745	May 19, 2017	May 18, 2018
Pre-Amplifier Mini-Circuits	ZFL-1000VH2B	AMP-ZFL-05	May 06, 2017	May 05, 2018
Trilog Broadband Antenna SCHWARZBECK	VULB 9168	9168-361	Nov. 29, 2017	Nov. 28, 2018
RF Cable	8D	966-3-1 966-3-2 966-3-3	Apr. 01, 2017	Mar. 31, 2018
Fixed attenuator Mini-Circuits	UNAT-5+	PAD-3m-3-01	Oct. 03, 2017	Oct. 02, 2018
Horn_Antenna SCHWARZBECK	BBHA9120-D	9120D-406	Dec. 12, 2017	Dec. 11, 2018
Pre-Amplifier EMCI	EMC12630SE	980384	Feb. 02, 2017	Feb. 01, 2018
RF Cable	EMC104-SM-SM-1200 EMC104-SM-SM-2000 EMC104-SM-SM-5000	160922 150317 150322	Feb. 02, 2017 Mar. 29, 2017 Mar. 29, 2017	Feb. 01, 2018 Mar. 28, 2018 Mar. 28, 2018
Spectrum Analyzer Keysight	N9030A	MY54490679	July 25, 2017	July 24, 2018
Pre-Amplifier EMCI	EMC184045SE	980386	Feb. 02, 2017	Feb. 01, 2018
Horn_Antenna SCHWARZBECK	BBHA 9170	BBHA9170608	Dec. 14, 2017	Dec. 13, 2018
RF Cable	SUCOFLEX 102	36432/2 36433/2	Jan. 11, 2017 Jan. 11, 2018	Jan. 10, 2018 Jan. 10, 2019
Software	ADT_Radiated_V8.7.08	NA	NA	NA
Antenna Tower & Turn Table Max-Full	MF-7802	MF780208406	NA	NA
Boresight Antenna Fixture	FBA-01	FBA-SIP01	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 calibration interval of the above test instruments is 24 months and the calibrations are traceable to NML/ROC and NIST/USA.
3. The test was performed in 966 Chamber No. 3.
4. The CANADA Site Registration No. is 20331-1
5. Loop antenna was used for all emissions below 30 MHz.

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:

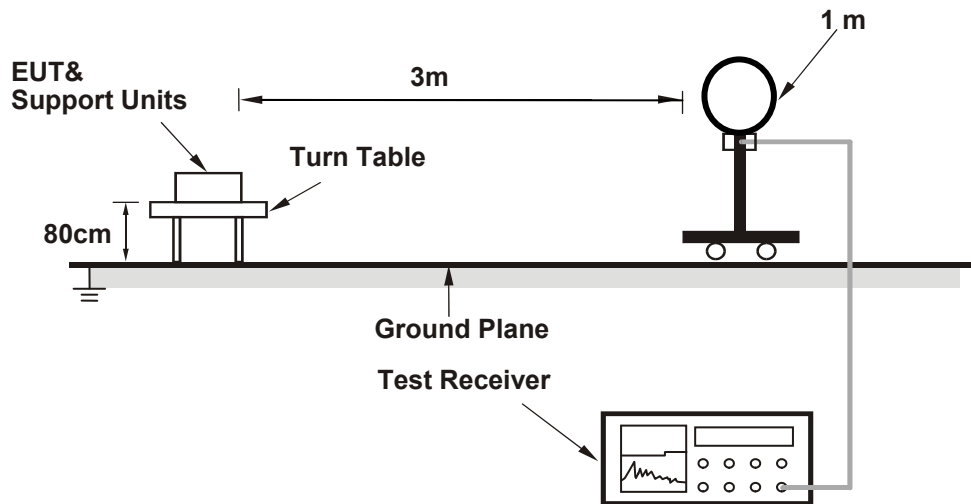
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.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

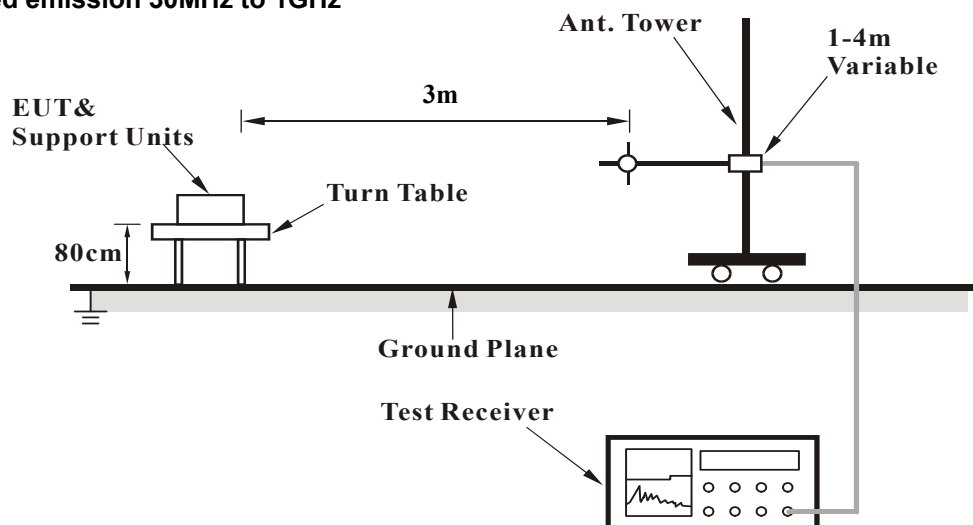
No deviation.

4.1.5 Test Set Up

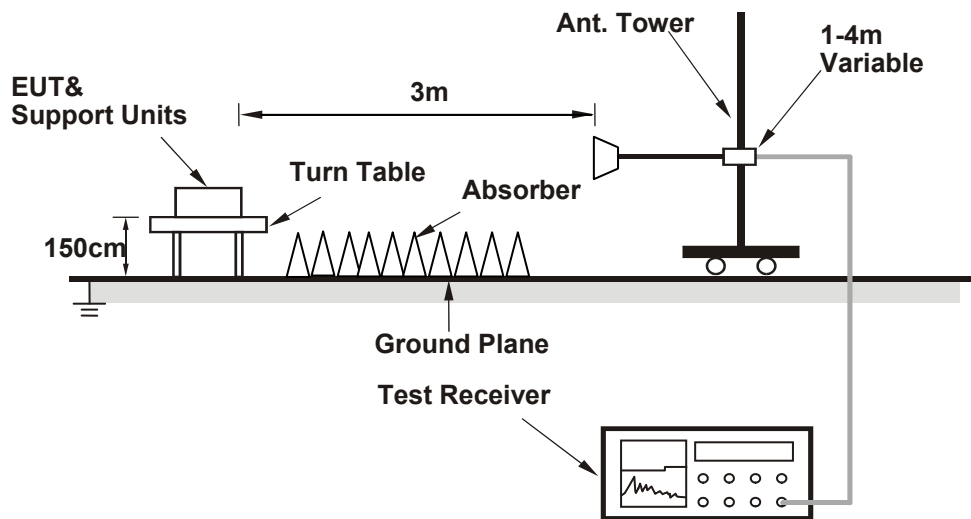
For Radiated emission below 30MHz



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

- a. Set the EUT under transmission condition continuously at specific channel frequency.

4.1.7 Test Results

Above 1GHz data:

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	64.0 PK	74.0	-10.0	1.11 H	242	60.0	4.0
2	5150.00	50.8 AV	54.0	-3.2	1.11 H	242	46.8	4.0
3	*5180.00	110.9 PK			1.11 H	242	107.0	3.9
4	*5180.00	100.9 AV			1.11 H	242	97.0	3.9
5	#10360.00	47.3 PK	74.0	-26.7	2.10 H	164	34.6	12.7
6	#10360.00	36.8 AV	54.0	-17.2	2.10 H	164	24.1	12.7
7	15540.00	48.3 PK	74.0	-25.7	1.57 H	271	35.4	12.9
8	15540.00	37.1 AV	54.0	-16.9	1.57 H	271	24.2	12.9
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	46.1 PK	74.0	-27.9	1.52 V	203	42.1	4.0
2	5150.00	35.9 AV	54.0	-18.1	1.52 V	203	41.9	4.0
3	*5180.00	106.5 PK			1.52 V	203	102.6	3.9
4	*5180.00	96.3 AV			1.52 V	203	92.4	3.9
5	#10360.00	46.2 PK	74.0	-27.8	3.23 V	258	33.5	12.7
6	#10360.00	35.7 AV	54.0	-18.3	3.23 V	258	23.0	12.7
7	15540.00	47.8 PK	74.0	-26.2	2.07 V	141	34.9	12.9
8	15540.00	36.6 AV	54.0	-17.4	2.07 V	141	23.7	12.9

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 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	5150.00	49.2 PK	74.0	-24.8	1.16 H	242	45.2	4.0
2	5150.00	36.9 AV	54.0	-17.1	1.16 H	242	32.9	4.0
3	*5200.00	109.1 PK			1.16 H	242	105.3	3.8
4	*5200.00	99.1 AV			1.16 H	242	95.3	3.8
5	5432.00	48.9 PK	74.0	-25.1	1.20 H	255	44.9	4.0
6	5432.00	37.9 AV	54.0	-16.1	1.20 H	255	33.9	4.0
7	#10400.00	47.2 PK	74.0	-26.8	2.12 H	164	34.5	12.7
8	#10400.00	36.9 AV	54.0	-17.1	2.12 H	164	24.2	12.7
9	15600.00	48.4 PK	74.0	-25.6	1.53 H	267	35.3	13.1
10	15600.00	37.2 AV	54.0	-16.8	1.53 H	267	24.1	13.1

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	5150.00	44.0 PK	74.0	-30.0	1.49 V	201	40.0	4.0
2	5150.00	32.0 AV	54.0	-22.0	1.49 V	201	28.0	4.0
3	*5200.00	104.7 PK			1.49 V	201	100.9	3.8
4	*5200.00	94.5 AV			1.49 V	201	90.7	3.8
5	5432.00	43.7 PK	74.0	-30.3	1.49 V	201	39.7	4.0
6	5432.00	33.0 AV	54.0	-21.0	1.49 V	201	29.0	4.0
7	#10400.00	46.6 PK	74.0	-27.4	3.28 V	253	33.9	12.7
8	#10400.00	36.1 AV	54.0	-17.9	3.28 V	253	23.4	12.7
9	15600.00	47.8 PK	74.0	-26.2	2.09 V	135	34.7	13.1
10	15600.00	36.8 AV	54.0	-17.2	2.09 V	135	23.7	13.1

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.

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	109.1 PK			1.24 H	242	105.4	3.7
2	*5240.00	99.3 AV			1.24 H	242	95.6	3.7
3	5350.00	48.1 PK	74.0	-25.9	1.24 H	242	44.3	3.8
4	5350.00	36.5 AV	54.0	-17.5	1.24 H	242	32.7	3.8
5	#10480.00	47.3 PK	74.0	-26.7	2.09 H	167	34.0	13.3
6	#10480.00	36.8 AV	54.0	-17.2	2.09 H	167	23.5	13.3
7	15720.00	48.3 PK	74.0	-25.7	1.62 H	263	35.1	13.2
8	15720.00	36.8 AV	54.0	-17.2	1.62 H	263	23.6	13.2

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	*5240.00	104.7 PK			1.53 V	189	101.0	3.7
2	*5240.00	94.7 AV			1.53 V	189	91.0	3.7
3	5350.00	42.9 PK	74.0	-31.1	1.53 V	189	39.1	3.8
4	5350.00	31.6 AV	54.0	-22.4	1.53 V	189	27.8	3.8
5	#10480.00	46.2 PK	74.0	-27.8	3.25 V	268	32.9	13.3
6	#10480.00	35.5 AV	54.0	-18.5	3.25 V	268	22.2	13.3
7	15720.00	47.1 PK	74.0	-26.9	2.05 V	148	33.9	13.2
8	15720.00	36.2 AV	54.0	-17.8	2.05 V	148	23.0	13.2

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 52	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	48.5 PK	74.0	-25.5	1.16 H	244	44.5	4.0
2	5150.00	36.2 AV	54.0	-17.8	1.16 H	244	32.2	4.0
3	*5260.00	109.5 PK			1.16 H	244	105.8	3.7
4	*5260.00	99.7 AV			1.16 H	244	96.0	3.7
5	#10520.00	48.0 PK	74.0	-26.0	2.05 H	174	34.6	13.4
6	#10520.00	37.2 AV	54.0	-16.8	2.05 H	174	23.8	13.4
7	15780.00	48.1 PK	74.0	-25.9	1.53 H	259	35.0	13.1
8	15780.00	36.8 AV	54.0	-17.2	1.53 H	259	23.7	13.1

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	5150.00	43.3 PK	74.0	-30.7	1.57 V	214	39.3	4.0
2	5150.00	31.3 AV	54.0	-22.7	1.57 V	214	27.3	4.0
3	*5260.00	105.1 PK			1.57 V	214	101.4	3.7
4	*5260.00	95.1 AV			1.57 V	214	91.4	3.7
5	#10520.00	46.3 PK	74.0	-27.7	3.21 V	264	32.9	13.4
6	#10520.00	36.0 AV	54.0	-18.0	3.21 V	264	22.6	13.4
7	15780.00	48.5 PK	74.0	-25.5	2.09 V	138	35.4	13.1
8	15780.00	37.1 AV	54.0	-16.9	2.09 V	138	24.0	13.1

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.

CHANNEL	TX Channel 60	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	*5300.00	109.9 PK			1.18 H	242	106.1	3.8
2	*5300.00	100.2 AV			1.18 H	242	96.4	3.8
3	5350.00	53.6 PK	74.0	-20.4	1.18 H	242	49.8	3.8
4	5350.00	42.1 AV	54.0	-11.9	1.18 H	242	38.3	3.8
5	10600.00	46.8 PK	74.0	-27.2	2.14 H	157	33.7	13.1
6	10600.00	36.5 AV	54.0	-17.5	2.14 H	157	23.4	13.1
7	15900.00	48.0 PK	74.0	-26.0	1.61 H	255	35.6	12.4
8	15900.00	37.0 AV	54.0	-17.0	1.61 H	255	24.6	12.4

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	*5300.00	105.5 PK			1.52 V	211	101.7	3.8
2	*5300.00	95.6 AV			1.52 V	211	91.8	3.8
3	5350.00	48.4 PK	74.0	-25.6	1.52 V	211	44.6	3.8
4	5350.00	37.2 AV	54.0	-16.8	1.52 V	211	33.4	3.8
5	10600.00	45.7 PK	74.0	-28.3	3.27 V	250	32.6	13.1
6	10600.00	35.4 AV	54.0	-18.6	3.27 V	250	22.3	13.1
7	15900.00	48.2 PK	74.0	-25.8	2.03 V	135	35.8	12.4
8	15900.00	36.9 AV	54.0	-17.1	2.03 V	135	24.5	12.4

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 64	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	*5320.00	110.0 PK			1.19 H	239	106.1	3.9
2	*5320.00	100.4 AV			1.19 H	239	96.5	3.9
3	5350.00	59.2 PK	74.0	-14.8	1.19 H	239	55.4	3.8
4	5350.00	47.9 AV	54.0	-6.1	1.19 H	239	44.1	3.8
5	10640.00	47.2 PK	74.0	-26.8	2.08 H	172	34.0	13.2
6	10640.00	36.5 AV	54.0	-17.5	2.08 H	172	23.3	13.2
7	15960.00	48.6 PK	74.0	-25.4	1.62 H	255	36.1	12.5
8	15960.00	37.1 AV	54.0	-16.9	1.62 H	255	24.6	12.5

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	*5320.00	105.6 PK			1.53 V	212	101.7	3.9
2	*5320.00	95.8 AV			1.53 V	212	91.9	3.9
3	5350.00	54.0 PK	74.0	-20.0	1.53 V	212	50.2	3.8
4	5350.00	43.0 AV	54.0	-11.0	1.53 V	212	39.2	3.8
5	10640.00	45.7 PK	74.0	-28.3	3.18 V	255	32.5	13.2
6	10640.00	35.3 AV	54.0	-18.7	3.18 V	255	22.1	13.2
7	15960.00	48.2 PK	74.0	-25.8	2.05 V	156	35.7	12.5
8	15960.00	37.0 AV	54.0	-17.0	2.05 V	156	24.5	12.5

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 100	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	#5470.00	61.5 PK	74.0	-12.5	1.09 H	244	57.5	4.0
2	#5470.00	47.7 AV	54.0	-6.3	1.09 H	244	43.7	4.0
3	*5500.00	109.8 PK			1.09 H	244	105.8	4.0
4	*5500.00	100.2 AV			1.09 H	244	96.2	4.0
5	11000.00	47.6 PK	74.0	-26.4	2.08 H	163	34.4	13.2
6	11000.00	37.1 AV	54.0	-16.9	2.08 H	163	23.9	13.2
7	#16500.00	48.8 PK	74.0	-25.2	1.56 H	271	34.6	14.2
8	#16500.00	37.3 AV	54.0	-16.7	1.56 H	271	23.1	14.2

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	#5470.00	56.3 PK	74.0	-17.7	1.49 V	191	52.3	4.0
2	#5470.00	42.8 AV	54.0	-11.2	1.49 V	191	38.8	4.0
3	*5500.00	105.4 PK			1.49 V	191	101.4	4.0
4	*5500.00	95.6 AV			1.49 V	191	91.6	4.0
5	11000.00	45.9 PK	74.0	-28.1	3.21 V	253	32.7	13.2
6	11000.00	35.5 AV	54.0	-18.5	3.21 V	253	22.3	13.2
7	#16500.00	48.0 PK	74.0	-26.0	2.01 V	151	33.8	14.2
8	#16500.00	36.9 AV	54.0	-17.1	2.01 V	151	22.7	14.2

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 116	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	#5470.00	49.2 PK	74.0	-24.8	1.03 H	245	45.2	4.0
2	#5470.00	37.5 AV	54.0	-16.5	1.03 H	245	33.5	4.0
3	*5580.00	109.2 PK			1.03 H	245	105.1	4.1
4	*5580.00	99.5 AV			1.03 H	245	95.4	4.1
5	#5725.00	49.4 PK	74.0	-24.6	1.03 H	245	45.2	4.2
6	#5725.00	37.6 AV	54.0	-16.4	1.03 H	245	33.4	4.2
7	11160.00	46.9 PK	74.0	-27.1	2.15 H	159	33.7	13.2
8	11160.00	36.4 AV	54.0	-17.6	2.15 H	159	23.2	13.2
9	#16740.00	48.5 PK	74.0	-25.5	1.61 H	259	33.1	15.4
10	#16740.00	37.3 AV	54.0	-16.7	1.61 H	259	21.9	15.4

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	#5470.00	44.0 PK	74.0	-30.0	1.58 V	198	40.0	4.0
2	#5470.00	32.6 AV	54.0	-21.4	1.58 V	198	28.6	4.0
3	*5580.00	104.8 PK			1.58 V	198	100.7	4.1
4	*5580.00	94.9 AV			1.58 V	198	90.8	4.1
5	#5725.00	44.2 PK	74.0	-29.8	1.58 V	198	40.0	4.2
6	#5725.00	32.7 AV	54.0	-21.3	1.58 V	198	28.5	4.2
7	11160.00	46.3 PK	74.0	-27.7	3.21 V	245	33.1	13.2
8	11160.00	35.7 AV	54.0	-18.3	3.21 V	245	22.5	13.2
9	#16740.00	47.7 PK	74.0	-26.3	2.11 V	147	32.3	15.4
10	#16740.00	36.2 AV	54.0	-17.8	2.11 V	147	20.8	15.4

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 140	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	*5700.00	108.3 PK			1.04 H	246	104.1	4.2
2	*5700.00	98.9 AV			1.04 H	246	94.7	4.2
3	#5725.00	58.6 PK	74.0	-15.4	1.04 H	246	54.4	4.2
4	#5725.00	47.2 AV	54.0	-6.8	1.04 H	246	43.0	4.2
5	11400.00	47.6 PK	74.0	-26.4	2.07 H	155	33.7	13.9
6	11400.00	37.1 AV	54.0	-16.9	2.07 H	155	23.2	13.9
7	#17100.00	47.8 PK	74.0	-26.2	1.62 H	258	31.2	16.6
8	#17100.00	36.9 AV	54.0	-17.1	1.62 H	258	20.3	16.6

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	*5700.00	103.9 PK			1.50 V	211	99.7	4.2
2	*5700.00	94.3 AV			1.50 V	211	90.1	4.2
3	#5725.00	53.4 PK	74.0	-20.6	1.50 V	211	49.2	4.2
4	#5725.00	42.3 AV	54.0	-11.7	1.50 V	211	38.1	4.2
5	11400.00	46.2 PK	74.0	-27.8	3.28 V	268	32.3	13.9
6	11400.00	35.6 AV	54.0	-18.4	3.28 V	268	21.7	13.9
7	#17100.00	47.9 PK	74.0	-26.1	2.11 V	146	31.3	16.6
8	#17100.00	37.0 AV	54.0	-17.0	2.11 V	146	20.4	16.6

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 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	#5636.22	50.4 PK	68.2	-17.8	1.11 H	246	46.3	4.1
2	*5745.00	109.8 PK			1.11 H	246	105.6	4.2
3	*5745.00	99.4 AV			1.11 H	246	95.2	4.2
4	#5991.14	50.0 PK	68.2	-18.2	1.11 H	246	45.3	4.7
5	11490.00	47.6 PK	74.0	-26.4	2.16 H	177	33.8	13.8
6	11490.00	37.2 AV	54.0	-16.8	2.16 H	177	23.4	13.8
7	#17235.00	48.7 PK	74.0	-25.3	1.52 H	263	32.4	16.3
8	#17235.00	37.4 AV	54.0	-16.6	1.52 H	263	21.1	16.3

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	#5604.48	49.5 PK	68.2	-18.7	1.54 V	182	45.3	4.2
2	*5745.00	105.9 PK			1.54 V	182	101.7	4.2
3	*5745.00	96.0 AV			1.54 V	182	91.8	4.2
4	#5966.53	50.7 PK	68.2	-17.5	1.82 V	154	46.0	4.7
5	11490.00	46.0 PK	74.0	-28.0	3.26 V	259	32.2	13.8
6	11490.00	35.4 AV	54.0	-18.6	3.26 V	259	21.6	13.8
7	#17235.00	47.9 PK	74.0	-26.1	2.09 V	137	31.6	16.3
8	#17235.00	37.0 AV	54.0	-17.0	2.09 V	137	20.7	16.3

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 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	#5555.33	49.3 PK	68.2	-18.9	1.14 H	244	45.3	4.0
2	*5785.00	109.5 PK			1.14 H	244	105.2	4.3
3	*5785.00	99.1 AV			1.14 H	244	94.8	4.3
4	#6015.60	49.7 PK	68.2	-18.5	1.14 H	244	45.0	4.7
5	11570.00	47.9 PK	74.0	-26.1	2.12 H	153	34.0	13.9
6	11570.00	37.2 AV	54.0	-16.8	2.12 H	153	23.3	13.9
7	#17355.00	48.1 PK	74.0	-25.9	1.59 H	267	30.9	17.2
8	#17355.00	37.1 AV	54.0	-16.9	1.59 H	267	19.9	17.2

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	#5632.32	50.5 PK	68.2	-17.7	1.32 V	166	46.3	4.2
2	*5785.00	106.8 PK			1.32 V	166	102.5	4.3
3	*5785.00	96.7 AV			1.32 V	166	92.4	4.3
4	#5979.36	49.0 PK	68.2	-19.2	1.32 V	166	44.3	4.7
5	11570.00	46.6 PK	74.0	-27.4	3.18 V	259	32.7	13.9
6	11570.00	36.0 AV	54.0	-18.0	3.18 V	259	22.1	13.9
7	#17355.00	47.9 PK	74.0	-26.1	2.09 V	125	30.7	17.2
8	#17355.00	36.9 AV	54.0	-17.1	2.09 V	125	19.7	17.2

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 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	#5649.03	49.9 PK	68.2	-18.3	1.24 H	244	45.8	4.1
2	*5825.00	109.7 PK			1.24 H	244	105.2	4.5
3	*5825.00	99.6 AV			1.24 H	244	95.1	4.5
4	#5977.31	49.4 PK	68.2	-18.8	1.24 H	244	44.7	4.7
5	11650.00	46.8 PK	74.0	-27.2	2.08 H	170	33.1	13.7
6	11650.00	36.5 AV	54.0	-17.5	2.08 H	170	22.8	13.7
7	#17475.00	48.1 PK	74.0	-25.9	1.60 H	268	30.0	18.1
8	#17475.00	37.2 AV	54.0	-16.8	1.60 H	268	19.1	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	#5628.51	50.2 PK	68.2	-18.0	1.31 V	171	46.0	4.2
2	*5825.00	108.1 PK			1.31 V	171	103.6	4.5
3	*5825.00	98.3 AV			1.31 V	171	93.8	4.5
4	#5927.30	51.0 PK	68.2	-17.2	1.31 V	171	46.3	4.7
5	11650.00	46.2 PK	74.0	-27.8	3.26 V	267	32.5	13.7
6	11650.00	35.8 AV	54.0	-18.2	3.26 V	267	22.1	13.7
7	#17475.00	47.8 PK	74.0	-26.2	2.03 V	149	29.7	18.1
8	#17475.00	36.5 AV	54.0	-17.5	2.03 V	149	18.4	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) 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	62.6 PK	74.0	-11.4	1.11 H	244	58.6	4.0
2	5150.00	50.4 AV	54.0	-3.6	1.11 H	244	46.4	4.0
3	*5180.00	111.2 PK			1.11 H	244	107.3	3.9
4	*5180.00	103.2 AV			1.11 H	244	99.3	3.9
5	#10360.00	48.0 PK	74.0	-26.0	1.58 H	277	35.3	12.7
6	#10360.00	36.8 AV	54.0	-17.2	1.58 H	277	24.1	12.7
7	15540.00	48.2 PK	74.0	-25.8	1.10 H	246	35.3	12.9
8	15540.00	37.4 AV	54.0	-16.6	1.10 H	246	24.5	12.9

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	59.3 PK	74.0	-14.7	1.18 V	267	55.3	4.0
2	5150.00	46.6 AV	54.0	-7.4	1.18 V	267	42.6	4.0
3	*5180.00	106.5 PK			1.18 V	267	102.6	3.9
4	*5180.00	98.5 AV			1.18 V	267	94.6	3.9
5	#10360.00	47.7 PK	74.0	-26.3	1.97 V	152	35.0	12.7
6	#10360.00	36.5 AV	54.0	-17.5	1.97 V	152	23.8	12.7
7	15540.00	44.8 PK	74.0	-29.2	1.18 V	273	31.9	12.9
8	15540.00	33.7 AV	54.0	-20.3	1.18 V	273	20.8	12.9

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 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	5150.00	48.7 PK	74.0	-25.3	1.05 H	238	44.7	4.0
2	5150.00	39.3 AV	54.0	-14.7	1.05 H	238	35.3	4.0
3	*5200.00	110.9 PK			1.05 H	238	107.1	3.8
4	*5200.00	102.8 AV			1.05 H	238	99.0	3.8
5	5350.00	48.8 PK	74.0	-25.2	1.05 H	238	45.0	3.8
6	5350.00	38.2 AV	54.0	-15.8	1.05 H	238	34.4	3.8
7	#10400.00	47.9 PK	74.0	-26.1	1.57 H	283	35.2	12.7
8	#10400.00	36.8 AV	54.0	-17.2	1.57 H	283	24.1	12.7
9	15600.00	48.5 PK	74.0	-25.5	1.08 H	241	35.4	13.1
10	15600.00	37.5 AV	54.0	-16.5	1.08 H	241	24.4	13.1

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	5150.00	45.4 PK	74.0	-28.6	1.18 V	269	41.4	4.0
2	5150.00	35.5 AV	54.0	-18.5	1.18 V	269	31.5	4.0
3	*5200.00	106.2 PK			1.18 V	269	102.4	3.8
4	*5200.00	98.1 AV			1.18 V	269	94.3	3.8
5	5350.00	45.5 PK	74.0	-28.5	1.18 V	269	41.7	3.8
6	5350.00	34.4 AV	54.0	-19.6	1.18 V	269	30.6	3.8
7	#10400.00	47.8 PK	74.0	-26.2	2.04 V	127	35.1	12.7
8	#10400.00	36.4 AV	54.0	-17.6	2.04 V	127	23.7	12.7
9	15600.00	44.4 PK	74.0	-29.6	1.15 V	265	31.3	13.1
10	15600.00	33.2 AV	54.0	-20.8	1.15 V	265	20.1	13.1

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.

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	110.6 PK			1.04 H	243	106.9	3.7
2	*5240.00	102.6 AV			1.04 H	243	98.9	3.7
3	5350.00	49.4 PK	74.0	-24.6	1.04 H	243	45.6	3.8
4	5350.00	38.4 AV	54.0	-15.6	1.04 H	243	34.6	3.8
5	#10480.00	48.5 PK	74.0	-25.5	1.59 H	275	35.2	13.3
6	#10480.00	37.2 AV	54.0	-16.8	1.59 H	275	23.9	13.3
7	15720.00	48.1 PK	74.0	-25.9	1.12 H	263	34.9	13.2
8	15720.00	37.2 AV	54.0	-16.8	1.12 H	263	24.0	13.2

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	*5240.00	105.9 PK			1.24 V	280	102.2	3.7
2	*5240.00	97.9 AV			1.24 V	280	94.2	3.7
3	5350.00	46.1 PK	74.0	-27.9	1.24 V	280	42.3	3.8
4	5350.00	34.6 AV	54.0	-19.4	1.24 V	280	30.8	3.8
5	#10480.00	47.8 PK	74.0	-26.2	2.00 V	147	34.5	13.3
6	#10480.00	36.6 AV	54.0	-17.4	2.00 V	147	23.3	13.3
7	15720.00	44.9 PK	74.0	-29.1	1.18 V	247	31.7	13.2
8	15720.00	33.7 AV	54.0	-20.3	1.18 V	247	20.5	13.2

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 52	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	48.1 PK	74.0	-25.9	1.10 H	253	44.1	4.0
2	5150.00	37.2 AV	54.0	-16.8	1.10 H	253	33.2	4.0
3	*5260.00	111.3 PK			1.10 H	253	107.6	3.7
4	*5260.00	103.4 AV			1.10 H	253	99.7	3.7
5	#10520.00	46.9 PK	74.0	-27.1	2.07 H	178	33.5	13.4
6	#10520.00	35.9 AV	54.0	-18.1	2.07 H	178	22.5	13.4
7	15780.00	48.1 PK	74.0	-25.9	1.54 H	273	35.0	13.1
8	15780.00	36.9 AV	54.0	-17.1	1.54 H	273	23.8	13.1

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	5150.00	44.8 PK	74.0	-29.2	1.14 V	261	40.8	4.0
2	5150.00	33.4 AV	54.0	-20.6	1.14 V	261	29.4	4.0
3	*5260.00	106.6 PK			1.14 V	261	102.9	3.7
4	*5260.00	98.7 AV			1.14 V	261	95.0	3.7
5	#10520.00	47.3 PK	74.0	-26.7	3.17 V	254	33.9	13.4
6	#10520.00	35.9 AV	54.0	-18.1	3.17 V	254	22.5	13.4
7	15780.00	48.0 PK	74.0	-26.0	2.01 V	143	34.9	13.1
8	15780.00	36.8 AV	54.0	-17.2	2.01 V	143	23.7	13.1

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.

CHANNEL	TX Channel 60	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	*5300.00	111.1 PK			1.12 H	244	107.3	3.8
2	*5300.00	102.9 AV			1.12 H	244	99.1	3.8
3	10600.00	48.2 PK	74.0	-25.8	1.51 H	283	35.1	13.1
4	10600.00	37.2 AV	54.0	-16.8	1.51 H	283	24.1	13.1
5	15900.00	48.5 PK	74.0	-25.5	1.07 H	263	36.1	12.4
6	15900.00	37.5 AV	54.0	-16.5	1.07 H	263	25.1	12.4

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	*5300.00	106.4 PK			1.14 V	281	102.6	3.8
2	*5300.00	98.2 AV			1.14 V	281	94.4	3.8
3	10600.00	48.0 PK	74.0	-26.0	2.00 V	157	34.9	13.1
4	10600.00	36.7 AV	54.0	-17.3	2.00 V	157	23.6	13.1
5	15900.00	44.5 PK	74.0	-29.5	1.15 V	273	32.1	12.4
6	15900.00	33.1 AV	54.0	-20.9	1.15 V	273	20.7	12.4

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 64	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	*5320.00	111.2 PK			1.14 H	245	107.3	3.9
2	*5320.00	102.6 AV			1.14 H	245	98.7	3.9
3	5350.00	60.2 PK	74.0	-13.8	1.14 H	245	56.4	3.8
4	5350.00	49.6 AV	54.0	-4.4	1.14 H	245	45.8	3.8
5	10640.00	48.1 PK	74.0	-25.9	1.49 H	273	34.9	13.2
6	10640.00	37.0 AV	54.0	-17.0	1.49 H	273	23.8	13.2
7	15960.00	48.3 PK	74.0	-25.7	1.05 H	254	35.8	12.5
8	15960.00	37.3 AV	54.0	-16.7	1.05 H	254	24.8	12.5

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	*5320.00	106.5 PK			1.13 V	252	102.6	3.9
2	*5320.00	97.9 AV			1.13 V	252	94.0	3.9
3	5350.00	56.9 PK	74.0	-17.1	1.13 V	252	53.1	3.8
4	5350.00	45.8 AV	54.0	-8.2	1.13 V	252	42.0	3.8
5	10640.00	48.3 PK	74.0	-25.7	1.97 V	138	35.1	13.2
6	10640.00	36.9 AV	54.0	-17.1	1.97 V	138	23.7	13.2
7	15960.00	44.8 PK	74.0	-29.2	1.11 V	276	32.3	12.5
8	15960.00	33.4 AV	54.0	-20.6	1.11 V	276	20.9	12.5

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 100	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	#5470.00	60.1 PK	74.0	-13.9	1.14 H	243	56.1	4.0
2	#5470.00	48.5 AV	54.0	-5.5	1.14 H	243	44.5	4.0
3	*5500.00	111.9 PK			1.14 H	243	107.9	4.0
4	*5500.00	103.6 AV			1.14 H	243	99.6	4.0
5	11000.00	48.6 PK	74.0	-25.4	1.59 H	265	35.4	13.2
6	11000.00	37.3 AV	54.0	-16.7	1.59 H	265	24.1	13.2
7	#16500.00	48.4 PK	74.0	-25.6	1.15 H	260	34.2	14.2
8	#16500.00	37.2 AV	54.0	-16.8	1.15 H	260	23.0	14.2

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	#5470.00	56.8 PK	74.0	-17.2	1.19 V	282	52.8	4.0
2	#5470.00	44.7 AV	54.0	-9.3	1.19 V	282	40.7	4.0
3	*5500.00	107.2 PK			1.19 V	282	103.2	4.0
4	*5500.00	98.9 AV			1.19 V	282	94.9	4.0
5	11000.00	47.8 PK	74.0	-26.2	2.02 V	132	34.6	13.2
6	11000.00	36.9 AV	54.0	-17.1	2.02 V	132	23.7	13.2
7	#16500.00	44.5 PK	74.0	-29.5	1.09 V	262	30.3	14.2
8	#16500.00	33.3 AV	54.0	-20.7	1.09 V	262	19.1	14.2

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 116	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	*5580.00	111.8 PK			1.13 H	243	107.7	4.1
2	*5580.00	103.0 AV			1.13 H	243	98.9	4.1
3	11160.00	47.7 PK	74.0	-26.3	1.49 H	264	34.5	13.2
4	11160.00	36.6 AV	54.0	-17.4	1.49 H	264	23.4	13.2
5	#16740.00	48.6 PK	74.0	-25.4	1.06 H	240	33.2	15.4
6	#16740.00	37.6 AV	54.0	-16.4	1.06 H	240	22.2	15.4

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	*5580.00	107.1 PK			1.19 V	258	103.0	4.1
2	*5580.00	98.3 AV			1.19 V	258	94.2	4.1
3	11160.00	47.5 PK	74.0	-26.5	2.05 V	145	34.3	13.2
4	11160.00	36.4 AV	54.0	-17.6	2.05 V	145	23.2	13.2
5	#16740.00	44.8 PK	74.0	-29.2	1.13 V	248	29.4	15.4
6	#16740.00	33.7 AV	54.0	-20.3	1.13 V	248	18.3	15.4

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 140	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	*5700.00	111.4 PK			1.13 H	244	107.2	4.2
2	*5700.00	102.9 AV			1.13 H	244	98.7	4.2
3	#5725.00	60.9 PK	74.0	-13.1	1.13 H	244	56.7	4.2
4	#5725.00	51.7 AV	54.0	-2.3	1.13 H	244	47.5	4.2
5	11400.00	48.5 PK	74.0	-25.5	1.56 H	286	34.6	13.9
6	11400.00	37.2 AV	54.0	-16.8	1.56 H	286	23.3	13.9
7	#17100.00	48.5 PK	74.0	-25.5	1.13 H	240	31.9	16.6
8	#17100.00	37.3 AV	54.0	-16.7	1.13 H	240	20.7	16.6

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	*5700.00	106.7 PK			1.20 V	278	102.5	4.2
2	*5700.00	98.2 AV			1.20 V	278	94.0	4.2
3	#5725.00	57.6 PK	74.0	-16.4	1.20 V	278	53.4	4.2
4	#5725.00	47.9 AV	54.0	-6.1	1.20 V	278	43.7	4.2
5	11400.00	47.9 PK	74.0	-26.1	2.00 V	137	34.0	13.9
6	11400.00	36.9 AV	54.0	-17.1	2.00 V	137	23.0	13.9
7	#17100.00	44.9 PK	74.0	-29.1	1.16 V	261	28.3	16.6
8	#17100.00	33.5 AV	54.0	-20.5	1.16 V	261	16.9	16.6

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 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	#5642.19	50.4 PK	68.2	-17.8	1.06 H	190	46.3	4.1
2	*5745.00	111.6 PK			1.06 H	190	107.4	4.2
3	*5745.00	101.2 AV			1.06 H	190	97.0	4.2
4	#5956.49	51.3 PK	68.2	-16.9	1.06 H	190	46.7	4.6
5	11490.00	47.8 PK	74.0	-26.2	1.50 H	173	34.0	13.8
6	11490.00	37.2 AV	54.0	-16.8	1.50 H	173	23.4	13.8
7	#17235.00	51.2 PK	74.0	-22.8	1.66 H	125	34.9	16.3
8	#17235.00	40.8 AV	54.0	-13.2	1.66 H	125	24.5	16.3

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	#5620.12	51.6 PK	68.2	-16.6	1.49 V	174	47.4	4.2
2	*5745.00	107.0 PK			1.49 V	174	102.8	4.2
3	*5745.00	97.0 AV			1.49 V	174	92.8	4.2
4	#5982.58	52.4 PK	68.2	-15.8	1.49 V	174	47.7	4.7
5	11490.00	49.7 PK	74.0	-24.3	1.28 V	323	35.9	13.8
6	11490.00	38.2 AV	54.0	-15.8	1.28 V	323	24.4	13.8
7	#17235.00	52.0 PK	74.0	-22.0	1.55 V	213	35.7	16.3
8	#17235.00	40.9 AV	54.0	-13.1	1.55 V	213	24.6	16.3

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 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	#5641.35	50.3 PK	68.2	-17.9	1.02 H	190	46.2	4.1
2	*5785.00	111.1 PK			1.02 H	190	106.8	4.3
3	*5785.00	100.8 AV			1.02 H	190	96.5	4.3
4	#5959.78	50.6 PK	68.2	-17.6	1.02 H	190	46.0	4.6
5	11570.00	48.5 PK	74.0	-25.5	1.50 H	286	34.6	13.9
6	11570.00	37.1 AV	54.0	-16.9	1.50 H	286	23.2	13.9
7	#17355.00	48.5 PK	74.0	-25.5	1.05 H	256	31.3	17.2
8	#17355.00	37.6 AV	54.0	-16.4	1.05 H	256	20.4	17.2

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	#5601.68	49.2 PK	68.2	-19.0	1.49 V	189	45.0	4.2
2	*5785.00	106.8 PK			1.49 V	189	102.5	4.3
3	*5785.00	96.6 AV			1.49 V	189	92.3	4.3
4	#5930.18	49.4 PK	68.2	-18.8	1.49 V	189	44.7	4.7
5	11570.00	48.1 PK	74.0	-25.9	2.00 V	131	34.2	13.9
6	11570.00	37.1 AV	54.0	-16.9	2.00 V	131	23.2	13.9
7	#17355.00	44.6 PK	74.0	-29.4	1.12 V	267	27.4	17.2
8	#17355.00	33.1 AV	54.0	-20.9	1.12 V	267	15.9	17.2

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 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	#5589.47	50.0 PK	68.2	-18.2	1.04 H	191	45.9	4.1
2	*5825.00	111.6 PK			1.04 H	191	107.1	4.5
3	*5825.00	101.1 AV			1.04 H	191	96.6	4.5
4	#5964.15	50.4 PK	68.2	-17.8	1.04 H	191	45.7	4.7
5	11650.00	47.9 PK	74.0	-26.1	1.58 H	287	34.2	13.7
6	11650.00	36.7 AV	54.0	-17.3	1.58 H	287	23.0	13.7
7	#17475.00	48.4 PK	74.0	-25.6	1.16 H	263	30.3	18.1
8	#17475.00	37.6 AV	54.0	-16.4	1.16 H	263	19.5	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	#5630.29	49.3 PK	68.2	-18.9	1.47 V	167	45.1	4.2
2	*5825.00	107.6 PK			1.47 V	167	103.1	4.5
3	*5825.00	97.2 AV			1.47 V	167	92.7	4.5
4	#5972.39	48.9 PK	68.2	-19.3	1.47 V	167	44.2	4.7
5	11650.00	47.6 PK	74.0	-26.4	2.00 V	148	33.9	13.7
6	11650.00	36.3 AV	54.0	-17.7	2.00 V	148	22.6	13.7
7	#17475.00	44.6 PK	74.0	-29.4	1.14 V	251	26.5	18.1
8	#17475.00	33.2 AV	54.0	-20.8	1.14 V	251	15.1	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) 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	63.2 PK	74.0	-10.8	1.01 H	242	59.2	4.0
2	5150.00	52.8 AV	54.0	-1.2	1.01 H	242	48.8	4.0
3	*5190.00	106.5 PK			1.01 H	242	102.6	3.9
4	*5190.00	97.0 AV			1.01 H	242	93.1	3.9
5	5412.00	53.2 PK	74.0	-20.8	1.02 H	244	49.2	4.0
6	5412.00	42.5 AV	54.0	-11.5	1.02 H	244	38.5	4.0
7	#10380.00	48.8 PK	74.0	-25.2	1.48 H	263	36.0	12.8
8	#10380.00	37.3 AV	54.0	-16.7	1.48 H	263	24.5	12.8
9	15570.00	48.0 PK	74.0	-26.0	1.08 H	242	35.0	13.0
10	15570.00	37.3 AV	54.0	-16.7	1.08 H	242	24.3	13.0

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	63.5 PK	74.0	-10.5	1.06 V	174	59.5	4.0
2	5150.00	52.6 AV	54.0	-1.4	1.06 V	174	48.6	4.0
3	*5190.00	100.1 PK			1.06 V	174	96.2	3.9
4	*5190.00	90.8 AV			1.06 V	174	86.9	3.9
5	5350.00	52.7 PK	74.0	-21.3	1.06 V	174	48.9	3.8
6	5350.00	41.9 AV	54.0	-12.1	1.06 V	174	38.1	3.8
7	#10380.00	48.0 PK	74.0	-26.0	2.01 V	153	35.2	12.8
8	#10380.00	36.9 AV	54.0	-17.1	2.01 V	153	24.1	12.8
9	15570.00	45.3 PK	74.0	-28.7	1.11 V	269	32.3	13.0
10	15570.00	33.7 AV	54.0	-20.3	1.11 V	269	20.7	13.0

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
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	109.6 PK			1.15 H	242	105.9	3.7
2	*5230.00	100.6 AV			1.15 H	242	96.9	3.7
3	5458.00	54.2 PK	74.0	-19.8	1.18 H	215	50.1	4.1
4	5458.00	45.8 AV	54.0	-8.2	1.18 H	215	41.7	4.1
5	#10460.00	48.3 PK	74.0	-25.7	1.49 H	270	35.1	13.2
6	#10460.00	37.0 AV	54.0	-17.0	1.49 H	270	23.8	13.2
7	15690.00	48.0 PK	74.0	-26.0	1.13 H	257	34.6	13.4
8	15690.00	36.9 AV	54.0	-17.1	1.13 H	257	23.5	13.4

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	104.9 PK			1.04 V	160	101.2	3.7
2	*5230.00	95.9 AV			1.04 V	160	92.2	3.7
3	5458.00	50.9 PK	74.0	-23.1	1.04 V	160	46.8	4.1
4	5458.00	42.0 AV	54.0	-12.0	1.04 V	160	37.9	4.1
5	#10460.00	48.0 PK	74.0	-26.0	1.96 V	143	34.8	13.2
6	#10460.00	36.7 AV	54.0	-17.3	1.96 V	143	23.5	13.2
7	15690.00	44.4 PK	74.0	-29.6	1.12 V	275	31.0	13.4
8	15690.00	33.2 AV	54.0	-20.8	1.12 V	275	19.8	13.4

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 54	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	48.6 PK	74.0	-25.4	1.21 H	243	44.6	4.0
2	5150.00	38.6 AV	54.0	-15.4	1.21 H	243	34.6	4.0
3	*5270.00	110.7 PK			1.21 H	243	107.0	3.7
4	*5270.00	102.9 AV			1.21 H	243	99.2	3.7
5	#10540.00	47.8 PK	74.0	-26.2	1.55 H	272	34.5	13.3
6	#10540.00	36.5 AV	54.0	-17.5	1.55 H	272	23.2	13.3
7	15810.00	48.8 PK	74.0	-25.2	1.11 H	267	35.8	13.0
8	15810.00	37.7 AV	54.0	-16.3	1.11 H	267	24.7	13.0

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	45.3 PK	74.0	-28.7	1.03 V	185	41.3	4.0
2	5150.00	34.8 AV	54.0	-19.2	1.03 V	185	30.8	4.0
3	*5270.00	106.0 PK			1.03 V	185	102.3	3.7
4	*5270.00	98.2 AV			1.03 V	185	94.5	3.7
5	#10540.00	47.4 PK	74.0	-26.6	1.97 V	130	34.1	13.3
6	#10540.00	36.4 AV	54.0	-17.6	1.97 V	130	23.1	13.3
7	15810.00	45.6 PK	74.0	-28.4	1.11 V	246	32.6	13.0
8	15810.00	33.9 AV	54.0	-20.1	1.11 V	246	20.9	13.0

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
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

CHANNEL	TX Channel 62	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	*5310.00	106.9 PK			1.21 H	242	103.1	3.8
2	*5310.00	98.8 AV			1.21 H	242	95.0	3.8
3	5350.00	61.8 PK	74.0	-12.2	1.21 H	242	58.0	3.8
4	5350.00	52.9 AV	54.0	-1.1	1.21 H	242	49.1	3.8
5	10620.00	48.4 PK	74.0	-25.6	1.50 H	277	35.3	13.1
6	10620.00	36.9 AV	54.0	-17.1	1.50 H	277	23.8	13.1
7	15930.00	47.6 PK	74.0	-26.4	1.09 H	242	35.2	12.4
8	15930.00	36.9 AV	54.0	-17.1	1.09 H	242	24.5	12.4

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	*5310.00	102.2 PK			1.01 V	169	98.4	3.8
2	*5310.00	94.1 AV			1.01 V	169	90.3	3.8
3	5350.00	58.5 PK	74.0	-15.5	1.01 V	169	54.7	3.8
4	5350.00	49.1 AV	54.0	-4.9	1.01 V	169	45.3	3.8
5	10620.00	48.3 PK	74.0	-25.7	1.99 V	149	35.2	13.1
6	10620.00	36.9 AV	54.0	-17.1	1.99 V	149	23.8	13.1
7	15930.00	45.3 PK	74.0	-28.7	1.12 V	257	32.9	12.4
8	15930.00	33.8 AV	54.0	-20.2	1.12 V	257	21.4	12.4

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 102	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	#5470.00	67.8 PK	74.0	-6.2	1.23 H	239	63.8	4.0
2	#5470.00	52.8 AV	54.0	-1.2	1.23 H	239	48.8	4.0
3	*5510.00	107.6 PK			1.23 H	239	103.6	4.0
4	*5510.00	99.0 AV			1.23 H	239	95.0	4.0
5	11020.00	47.8 PK	74.0	-26.2	1.57 H	269	34.5	13.3
6	11020.00	36.7 AV	54.0	-17.3	1.57 H	269	23.4	13.3
7	#16530.00	47.9 PK	74.0	-26.1	1.14 H	261	33.4	14.5
8	#16530.00	36.8 AV	54.0	-17.2	1.14 H	261	22.3	14.5

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	#5470.00	64.5 PK	74.0	-9.5	1.08 V	167	60.5	4.0
2	#5470.00	49.0 AV	54.0	-5.0	1.08 V	167	45.0	4.0
3	*5510.00	102.9 PK			1.08 V	167	98.9	4.0
4	*5510.00	94.3 AV			1.08 V	167	90.3	4.0
5	11020.00	47.7 PK	74.0	-26.3	1.96 V	140	34.4	13.3
6	11020.00	36.6 AV	54.0	-17.4	1.96 V	140	23.3	13.3
7	#16530.00	44.7 PK	74.0	-29.3	1.15 V	268	30.2	14.5
8	#16530.00	33.3 AV	54.0	-20.7	1.15 V	268	18.8	14.5

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 110	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	*5550.00	109.4 PK			1.16 H	238	105.4	4.0
2	*5550.00	101.8 AV			1.16 H	238	97.8	4.0
3	#5772.00	53.4 PK	74.0	-20.6	1.16 H	238	49.2	4.2
4	#5772.00	45.3 AV	54.0	-8.7	1.16 H	238	41.1	4.2
5	11100.00	48.0 PK	74.0	-26.0	1.56 H	262	34.6	13.4
6	11100.00	37.1 AV	54.0	-16.9	1.56 H	262	23.7	13.4
7	#16650.00	48.2 PK	74.0	-25.8	1.14 H	258	32.9	15.3
8	#16650.00	37.1 AV	54.0	-16.9	1.14 H	258	21.8	15.3

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	*5550.00	104.7 PK			1.10 V	163	100.7	4.0
2	*5550.00	97.1 AV			1.10 V	163	93.1	4.0
3	#5772.00	50.1 PK	74.0	-23.9	1.10 V	163	45.9	4.2
4	#5772.00	41.5 AV	54.0	-12.5	1.10 V	163	37.3	4.2
5	11100.00	47.9 PK	74.0	-26.1	1.96 V	144	34.5	13.4
6	11100.00	36.5 AV	54.0	-17.5	1.96 V	144	23.1	13.4
7	#16650.00	44.2 PK	74.0	-29.8	1.13 V	260	28.9	15.3
8	#16650.00	33.0 AV	54.0	-21.0	1.13 V	260	17.7	15.3

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 134	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	*5670.00	108.8 PK			1.18 H	240	104.7	4.1
2	*5670.00	100.8 AV			1.18 H	240	96.7	4.1
3	#5725.00	60.9 PK	74.0	-13.1	1.18 H	240	56.7	4.2
4	#5725.00	51.7 AV	54.0	-2.3	1.18 H	240	47.5	4.2
5	11340.00	48.3 PK	74.0	-25.7	1.48 H	271	34.7	13.6
6	11340.00	37.2 AV	54.0	-16.8	1.48 H	271	23.6	13.6
7	#17010.00	48.7 PK	74.0	-25.3	1.12 H	254	32.2	16.5
8	#17010.00	37.7 AV	54.0	-16.3	1.12 H	254	21.2	16.5

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	*5670.00	104.1 PK			1.05 V	178	100.0	4.1
2	*5670.00	96.1 AV			1.05 V	178	92.0	4.1
3	#5725.00	57.6 PK	74.0	-16.4	1.05 V	178	53.4	4.2
4	#5725.00	47.9 AV	54.0	-6.1	1.05 V	178	43.7	4.2
5	11340.00	48.0 PK	74.0	-26.0	2.00 V	144	34.4	13.6
6	11340.00	36.6 AV	54.0	-17.4	2.00 V	144	23.0	13.6
7	#17010.00	45.0 PK	74.0	-29.0	1.09 V	273	28.5	16.5
8	#17010.00	33.8 AV	54.0	-20.2	1.09 V	273	17.3	16.5

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	#5618.26	50.4 PK	68.2	-17.8	1.04 H	190	46.2	4.2
2	*5755.00	108.2 PK			1.04 H	190	103.9	4.3
3	*5755.00	99.1 AV			1.04 H	190	94.8	4.3
4	#5937.40	49.8 PK	68.2	-18.4	1.04 H	190	45.1	4.7
5	11510.00	47.6 PK	74.0	-26.4	1.57 H	258	33.7	13.9
6	11510.00	36.4 AV	54.0	-17.6	1.57 H	258	22.5	13.9
7	#17265.00	48.8 PK	74.0	-25.2	1.12 H	243	32.2	16.6
8	#17265.00	37.6 AV	54.0	-16.4	1.12 H	243	21.0	16.6

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	#5610.79	50.2 PK	68.2	-18.0	1.51 V	175	46.0	4.2
2	*5755.00	103.2 PK			1.50 V	178	98.9	4.3
3	*5755.00	94.6 AV			1.50 V	178	90.3	4.3
4	#6023.05	50.7 PK	68.2	-17.5	1.51 V	175	45.9	4.8
5	11510.00	47.8 PK	74.0	-26.2	1.96 V	152	33.9	13.9
6	11510.00	36.6 AV	54.0	-17.4	1.96 V	152	22.7	13.9
7	#17265.00	45.0 PK	74.0	-29.0	1.09 V	248	28.4	16.6
8	#17265.00	33.7 AV	54.0	-20.3	1.09 V	248	17.1	16.6

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 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	#5572.57	53.1 PK	68.2	-15.1	1.04 H	192	49.0	4.1
2	*5795.00	108.7 PK			1.04 H	192	104.4	4.3
3	*5795.00	99.2 AV			1.04 H	192	94.9	4.3
4	#5974.41	49.3 PK	68.2	-18.9	1.04 H	192	44.6	4.7
5	11590.00	48.1 PK	74.0	-25.9	1.54 H	261	34.2	13.9
6	11590.00	36.6 AV	54.0	-17.4	1.54 H	261	22.7	13.9
7	#17385.00	48.2 PK	74.0	-25.8	1.10 H	240	30.7	17.5
8	#17385.00	37.3 AV	54.0	-16.7	1.10 H	240	19.8	17.5

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	#5571.61	51.8 PK	68.2	-16.4	1.60 V	177	47.7	4.1
2	*5795.00	103.9 PK			1.60 V	177	99.6	4.3
3	*5795.00	95.2 AV			1.60 V	177	90.9	4.3
4	#5969.47	50.1 PK	68.2	-18.1	1.60 V	177	45.4	4.7
5	11590.00	48.4 PK	74.0	-25.6	2.04 V	144	34.5	13.9
6	11590.00	36.9 AV	54.0	-17.1	2.04 V	144	23.0	13.9
7	#17385.00	44.9 PK	74.0	-29.1	1.10 V	266	27.4	17.5
8	#17385.00	33.3 AV	54.0	-20.7	1.10 V	266	15.8	17.5

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.

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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	64.7 PK	74.0	-9.3	1.07 H	239	60.7	4.0
2	5150.00	52.7 AV	54.0	-1.3	1.07 H	239	48.7	4.0
3	*5210.00	102.2 PK			1.07 H	239	98.4	3.8
4	*5210.00	93.3 AV			1.07 H	239	89.5	3.8
5	5350.00	50.2 PK	74.0	-23.8	1.07 H	239	46.4	3.8
6	5350.00	38.4 AV	54.0	-15.6	1.07 H	239	34.6	3.8
7	#10420.00	48.0 PK	74.0	-26.0	1.53 H	264	35.1	12.9
8	#10420.00	37.0 AV	54.0	-17.0	1.53 H	264	24.1	12.9
9	15630.00	48.3 PK	74.0	-25.7	1.06 H	243	35.0	13.3
10	15630.00	37.4 AV	54.0	-16.6	1.06 H	243	24.1	13.3

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	5150.00	61.4 PK	74.0	-12.6	1.04 V	181	57.4	4.0
2	5150.00	48.9 AV	54.0	-5.1	1.04 V	181	44.9	4.0
3	*5210.00	97.5 PK			1.04 V	181	93.7	3.8
4	*5210.00	88.6 AV			1.04 V	181	84.8	3.8
5	5350.00	46.9 PK	74.0	-27.1	1.04 V	181	43.1	3.8
6	5350.00	34.6 AV	54.0	-19.4	1.04 V	181	30.8	3.8
7	#10420.00	48.2 PK	74.0	-25.8	2.06 V	131	35.3	12.9
8	#10420.00	37.0 AV	54.0	-17.0	2.06 V	131	24.1	12.9
9	15630.00	45.2 PK	74.0	-28.8	1.15 V	256	31.9	13.3
10	15630.00	33.7 AV	54.0	-20.3	1.15 V	256	20.4	13.3

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 58	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	52.9 PK	74.0	-21.1	1.11 H	242	48.9	4.0
2	5150.00	43.4 AV	54.0	-10.6	1.11 H	242	39.4	4.0
3	*5290.00	102.0 PK			1.11 H	242	98.2	3.8
4	*5290.00	93.0 AV			1.11 H	242	89.2	3.8
5	5350.00	62.8 PK	74.0	-11.2	1.11 H	242	59.0	3.8
6	5350.00	52.8 AV	54.0	-1.2	1.11 H	242	49.0	3.8
7	#10580.00	48.5 PK	74.0	-25.5	1.51 H	282	35.4	13.1
8	#10580.00	37.1 AV	54.0	-16.9	1.51 H	282	24.0	13.1
9	15870.00	47.7 PK	74.0	-26.3	1.15 H	239	35.1	12.6
10	15870.00	37.0 AV	54.0	-17.0	1.15 H	239	24.4	12.6

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	5150.00	49.6 PK	74.0	-24.4	1.08 V	179	45.6	4.0
2	5150.00	39.6 AV	54.0	-14.4	1.08 V	179	35.6	4.0
3	*5290.00	97.3 PK			1.08 V	179	93.5	3.8
4	*5290.00	88.3 AV			1.08 V	179	84.5	3.8
5	5350.00	59.5 PK	74.0	-14.5	1.08 V	179	55.7	3.8
6	5350.00	49.0 AV	54.0	-5.0	1.08 V	179	45.2	3.8
7	#10580.00	47.6 PK	74.0	-26.4	1.99 V	148	34.5	13.1
8	#10580.00	36.4 AV	54.0	-17.6	1.99 V	148	23.3	13.1
9	15870.00	45.3 PK	74.0	-28.7	1.08 V	273	32.7	12.6
10	15870.00	33.8 AV	54.0	-20.2	1.08 V	273	21.2	12.6

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 106	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	#5470.00	67.8 PK	74.0	-6.2	1.08 H	243	63.8	4.0
2	#5470.00	52.9 AV	54.0	-1.1	1.08 H	243	48.9	4.0
3	*5530.00	102.6 PK			1.08 H	243	98.6	4.0
4	*5530.00	93.1 AV			1.08 H	243	89.1	4.0
5	#5725.00	49.7 PK	74.0	-24.3	1.00 H	0	45.5	4.2
6	#5725.00	38.1 AV	54.0	-15.9	1.00 H	0	33.9	4.2
7	11060.00	48.1 PK	74.0	-25.9	1.54 H	270	34.8	13.3
8	11060.00	36.8 AV	54.0	-17.2	1.54 H	270	23.5	13.3
9	#16590.00	48.2 PK	74.0	-25.8	1.07 H	266	33.0	15.2
10	#16590.00	37.1 AV	54.0	-16.9	1.07 H	266	21.9	15.2

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	#5470.00	64.5 PK	74.0	-9.5	1.00 V	174	60.5	4.0
2	#5470.00	49.1 AV	54.0	-4.9	1.00 V	174	45.1	4.0
3	*5530.00	97.9 PK			1.00 V	174	93.9	4.0
4	*5530.00	88.4 AV			1.00 V	174	84.4	4.0
5	#5725.00	46.4 PK	74.0	-27.6	1.00 V	174	42.2	4.2
6	#5725.00	34.3 AV	54.0	-19.7	1.00 V	174	30.1	4.2
7	11060.00	47.4 PK	74.0	-26.6	1.98 V	153	34.1	13.3
8	11060.00	36.5 AV	54.0	-17.5	1.98 V	153	23.2	13.3
9	#16590.00	45.0 PK	74.0	-29.0	1.10 V	253	29.8	15.2
10	#16590.00	33.8 AV	54.0	-20.2	1.10 V	253	18.6	15.2

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 122	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	*5610.00	106.2 PK			1.09 H	242	102.0	4.2
2	*5610.00	97.3 AV			1.09 H	242	93.1	4.2
3	#5725.00	56.5 PK	74.0	-17.5	1.09 H	242	52.3	4.2
4	#5725.00	47.5 AV	54.0	-6.5	1.09 H	242	43.3	4.2
5	11220.00	47.7 PK	74.0	-26.3	1.57 H	271	34.4	13.3
6	11220.00	36.7 AV	54.0	-17.3	1.57 H	271	23.4	13.3
7	#16830.00	48.2 PK	74.0	-25.8	1.05 H	237	32.5	15.7
8	#16830.00	37.3 AV	54.0	-16.7	1.05 H	237	21.6	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	*5610.00	101.5 PK			1.07 V	173	97.3	4.2
2	*5610.00	92.6 AV			1.07 V	173	88.4	4.2
3	#5725.00	53.2 PK	74.0	-20.8	1.07 V	173	49.0	4.2
4	#5725.00	43.7 AV	54.0	-10.3	1.07 V	173	39.5	4.2
5	11220.00	48.7 PK	74.0	-25.3	2.06 V	136	35.4	13.3
6	11220.00	37.3 AV	54.0	-16.7	2.06 V	136	24.0	13.3
7	#16830.00	45.5 PK	74.0	-28.5	1.09 V	268	29.8	15.7
8	#16830.00	33.9 AV	54.0	-20.1	1.09 V	268	18.2	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 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	#5645.74	55.6 PK	68.2	-12.6	1.04 H	189	51.5	4.1
2	*5775.00	105.6 PK			1.04 H	189	101.4	4.2
3	*5775.00	96.8 AV			1.04 H	189	92.6	4.2
4	#5938.78	51.8 PK	68.2	-16.4	1.04 H	189	47.1	4.7
5	11550.00	47.8 PK	74.0	-26.2	1.57 H	257	33.9	13.9
6	11550.00	36.4 AV	54.0	-17.6	1.57 H	257	22.5	13.9
7	#17325.00	48.6 PK	74.0	-25.4	1.06 H	255	31.6	17.0
8	#17325.00	37.6 AV	54.0	-16.4	1.06 H	255	20.6	17.0

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	#5630.32	49.6 PK	68.2	-18.6	1.56 V	183	45.4	4.2
2	*5775.00	100.9 PK			1.56 V	183	96.7	4.2
3	*5775.00	92.4 AV			1.56 V	183	88.2	4.2
4	#5963.90	50.0 PK	68.2	-18.2	1.56 V	183	45.3	4.7
5	11550.00	47.5 PK	74.0	-26.5	2.03 V	149	33.6	13.9
6	11550.00	36.5 AV	54.0	-17.5	2.03 V	149	22.6	13.9
7	#17325.00	44.8 PK	74.0	-29.2	1.17 V	268	27.8	17.0
8	#17325.00	33.3 AV	54.0	-20.7	1.17 V	268	16.3	17.0

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
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

Below 1GHz Worst-Case Data: 802.11a

CHANNEL	TX Channel 149	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	62.66	34.2 QP	40.0	-5.8	3.00 H	152	43.0	-8.8
2	135.49	38.3 QP	43.5	-5.2	2.00 H	280	47.0	-8.7
3	199.87	29.4 QP	43.5	-14.1	2.00 H	95	40.7	-11.3
4	249.51	32.7 QP	46.0	-13.3	1.00 H	309	42.0	-9.3
5	465.55	28.4 QP	46.0	-17.6	2.00 H	316	31.8	-3.4
6	774.43	32.3 QP	46.0	-13.7	2.00 H	218	29.9	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	62.81	35.5 QP	40.0	-4.5	2.00 V	349	44.3	-8.8
2	135.49	31.5 QP	43.5	-12.0	1.00 V	321	40.2	-8.7
3	460.85	29.0 QP	46.0	-17.0	1.50 V	360	32.4	-3.4
4	558.43	30.3 QP	46.0	-15.7	1.00 V	281	31.9	-1.6
5	673.01	30.2 QP	46.0	-15.8	1.00 V	232	29.8	0.4
6	798.07	33.8 QP	46.0	-12.2	1.50 V	21	31.3	2.5

Remarks:

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

4.2 Conducted Emission Measurement

4.2.1 Limits of Conducted Emission Measurement

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

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

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

4.2.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Test Receiver ROHDE & SCHWARZ	ESCI	100613	Nov. 23, 2017	Nov. 22, 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
Extension Cord	Extension Cord	1-1	Dec. 22, 2017	Dec. 21, 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 Shielded Room 1.

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

4.2.3 Test Procedures

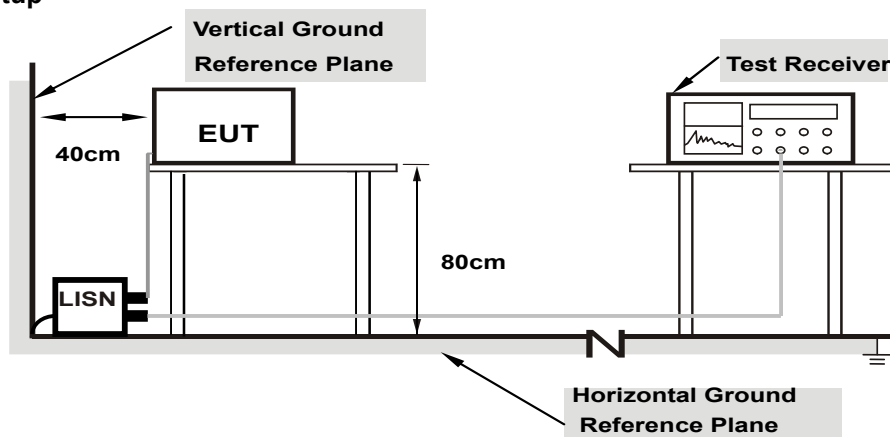
- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance 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.

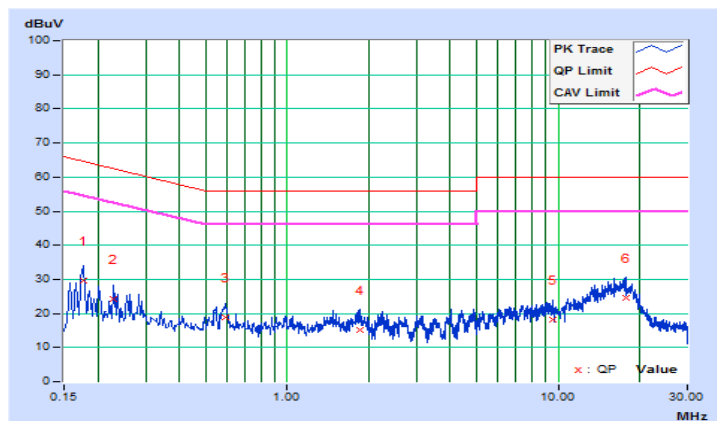
4.2.7 Test Results

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	0.17698	10.16	19.48	6.54	29.64	16.70	64.63
2	0.22820	10.16	13.96	3.88	24.12	14.04	62.51	52.51	-38.39	-38.47
3	0.59158	10.20	8.81	5.14	19.01	15.34	56.00	46.00	-36.99	-30.66
4	1.85476	10.23	4.97	1.51	15.20	11.74	56.00	46.00	-40.80	-34.26
5	9.53400	10.63	7.40	2.22	18.03	12.85	60.00	50.00	-41.97	-37.15
6	17.85448	11.12	13.61	9.23	24.73	20.35	60.00	50.00	-35.27	-29.65

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.

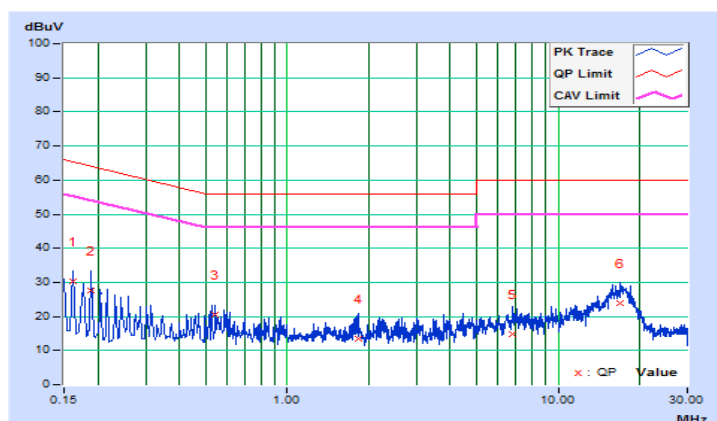


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
			1	0.16173	10.15	20.11	6.19	30.26	16.34	65.37
2	0.18910	10.16	17.61	4.06	27.77	14.22	64.08	54.08	-36.31	-39.86
3	0.54100	10.20	10.32	1.23	20.52	11.43	56.00	46.00	-35.48	-34.57
4	1.83130	10.22	3.33	2.24	13.55	12.46	56.00	46.00	-42.45	-33.54
5	6.82437	10.45	4.20	1.87	14.65	12.32	60.00	50.00	-45.35	-37.68
6	17.02165	10.89	13.03	7.83	23.92	18.72	60.00	50.00	-36.08	-31.28

REMARKS:

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



4.3 Transmit Power Measurement

4.3.1 Limits of Transmit Power Measurement

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

*B is the 26 dB emission bandwidth in megahertz

Per KDB 662911 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} ;

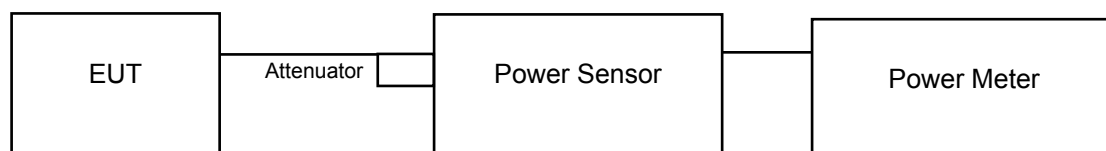
Array Gain = $5 \log(N_{ANT}/N_{SS})$ dB or 3 dB, whichever is less for 20-MHz channel widths with $N_{ANT} \geq 5$.

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

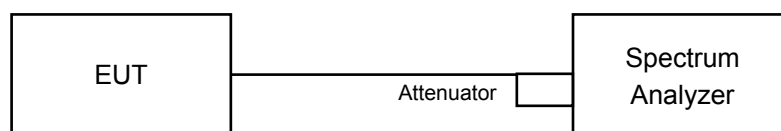
4.3.2 Test Setup

For Power Output

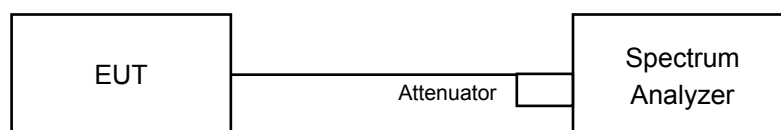
802.11a, 802.11n (HT20), 802.11n (HT40)



802.11ac (VHT80)



For 26dB and Occupied 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

For 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. Duty factor is not added to measured value.

For 802.11ac (VHT80)

- a. Set span to encompass the entire 26 dB EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal.
- b. Set sweep trigger to "free run".
- c. Set RBW = 1 MHz
- d. Set VBW \geq 3 MHz
- e. Number of points in sweep \geq 2 Span / RBW
- f. Sweep time \leq (number of points in sweep) * T
- g. Using emission bandwidth to determine the frequency span for integration the channel bandwidth.
- h. Detector = RMS
- i. Trace mode = max hold
- j. Allow max hold to run for at least 60 seconds, or longer as needed to allow the trace to stabilize.
- k. Compute power by integrating the spectrum across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal using the instrument's band power measurement function with band limits set equal to the EBW (or occupied bandwidth) band edges. If the instrument does not have a band power function, sum the spectrum levels (in power units) at 1 MHz intervals extending across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the spectrum.

For 26dB Bandwidth

- a. Set RBW = approximately 1% of the emission bandwidth.
- b. Set the VBW > RBW.
- c. Detector = Peak.
- d. Trace mode = max hold.
- e. 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%.

For Occupied Bandwidth

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 Sampling. 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.

4.3.5 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:

802.11a

Chan.	Freq. (MHz)	Conducted Power (mW)	Conducted Power (dBm)	Power Limit (dBm)	Pass / Fail
36	5180	69.663	18.43	24.00	Pass
40	5200	66.988	18.26	24.00	Pass
48	5240	69.984	18.45	24.00	Pass
52	5260	70.632	18.49	24.00	Pass
60	5300	69.823	18.44	24.00	Pass
64	5320	70.469	18.48	24.00	Pass
100	5500	69.984	18.45	24.00	Pass
116	5580	70.632	18.49	24.00	Pass
140	5700	68.865	18.38	24.00	Pass
149	5745	70.146	18.46	30.00	Pass
157	5785	70.469	18.48	30.00	Pass
165	5825	68.865	18.38	30.00	Pass

Note:

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

1. $11\text{dBm} + 10\log(32.76) = 26.15\text{ dBm} > 24\text{dBm}$
2. $11\text{dBm} + 10\log(28.98) = 25.62\text{ dBm} > 24\text{dBm}$
3. $11\text{dBm} + 10\log(28.38) = 25.53\text{ dBm} > 24\text{dBm}$
4. $11\text{dBm} + 10\log(28.31) = 25.52\text{ dBm} > 24\text{dBm}$
5. $11\text{dBm} + 10\log(26.66) = 25.26\text{ dBm} > 24\text{dBm}$
6. $11\text{dBm} + 10\log(26.93) = 25.30\text{ dBm} > 24\text{dBm}$

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				
36	5180	17.33	19.30	139.189	21.44	24.00	Pass
40	5200	17.15	19.27	136.408	21.35	24.00	Pass
48	5240	17.24	19.11	134.436	21.29	24.00	Pass
52	5260	17.28	19.02	133.255	21.25	24.00	Pass
60	5300	17.35	19.30	139.439	21.44	24.00	Pass
64	5320	17.27	19.22	136.893	21.36	24.00	Pass
100	5500	17.62	19.19	140.795	21.49	24.00	Pass
116	5580	17.94	18.66	135.681	21.33	24.00	Pass
140	5700	18.18	18.56	137.545	21.38	24.00	Pass
149	5745	18.07	18.34	132.355	21.22	30.00	Pass
157	5785	18.13	18.70	139.144	21.43	30.00	Pass
165	5825	18.21	18.55	137.836	21.39	30.00	Pass

Note:

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

Chain 0

1. $11\text{dBm} + 10\log(27.57) = 25.40\text{ dBm} > 24\text{dBm}$
2. $11\text{dBm} + 10\log(25.95) = 25.14\text{ dBm} > 24\text{dBm}$
3. $11\text{dBm} + 10\log(24.86) = 24.96\text{ dBm} > 24\text{dBm}$
4. $11\text{dBm} + 10\log(25.98) = 25.15\text{ dBm} > 24\text{dBm}$
5. $11\text{dBm} + 10\log(26.96) = 25.31\text{ dBm} > 24\text{dBm}$
6. $11\text{dBm} + 10\log(27.73) = 25.43\text{ dBm} > 24\text{dBm}$

Chain 1

1. $11\text{dBm} + 10\log(35.42) = 26.49\text{ dBm} > 24\text{dBm}$
2. $11\text{dBm} + 10\log(38.28) = 26.83\text{ dBm} > 24\text{dBm}$
3. $11\text{dBm} + 10\log(39.01) = 26.91\text{ dBm} > 24\text{dBm}$
4. $11\text{dBm} + 10\log(38.99) = 26.91\text{ dBm} > 24\text{dBm}$
5. $11\text{dBm} + 10\log(29.40) = 25.68\text{ dBm} > 24\text{dBm}$
6. $11\text{dBm} + 10\log(30.17) = 25.80\text{ dBm} > 24\text{dBm}$

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				
38	5190	14.62	16.12	69.899	18.44	24.00	Pass
46	5230	17.28	19.03	133.439	21.25	24.00	Pass
54	5270	17.23	19.29	137.763	21.39	24.00	Pass
62	5310	14.44	16.35	70.949	18.51	24.00	Pass
102	5510	15.50	16.92	84.685	19.28	24.00	Pass
110	5550	17.66	19.08	139.255	21.44	24.00	Pass
134	5670	18.06	18.80	139.831	21.46	24.00	Pass
151	5755	17.96	18.50	133.312	21.25	30.00	Pass
159	5795	18.13	18.45	134.997	21.30	30.00	Pass

Note:

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

Chain 0

1. $11\text{dBm} + 10\log(42.47) = 27.28\text{ dBm} > 24\text{dBm}$
2. $11\text{dBm} + 10\log(42.08) = 27.24\text{ dBm} > 24\text{dBm}$
3. $11\text{dBm} + 10\log(42.14) = 27.25\text{ dBm} > 24\text{dBm}$
4. $11\text{dBm} + 10\log(42.74) = 27.31\text{ dBm} > 24\text{dBm}$
5. $11\text{dBm} + 10\log(60.58) = 28.82\text{ dBm} > 24\text{dBm}$

Chain 1

1. $11\text{dBm} + 10\log(90.11) = 30.55\text{ dBm} > 24\text{dBm}$
2. $11\text{dBm} + 10\log(42.01) = 27.23\text{ dBm} > 24\text{dBm}$
3. $11\text{dBm} + 10\log(42.39) = 27.27\text{ dBm} > 24\text{dBm}$
4. $11\text{dBm} + 10\log(74.32) = 29.71\text{ dBm} > 24\text{dBm}$
5. $11\text{dBm} + 10\log(63.58) = 29.03\text{ dBm} > 24\text{dBm}$

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				
42	5210	14.04	15.91	64.345	18.09	24.00	Pass
58	5290	13.70	15.85	61.901	17.92	24.00	Pass
106	5530	13.44	14.26	48.749	16.88	24.00	Pass
122	5610	18.14	18.65	138.445	21.41	24.00	Pass
155	5775	18.18	18.69	139.727	21.45	30.00	Pass

Note:

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

Chain 0

1. $11\text{dBm} + 10\log(83.88) = 30.24\text{ dBm} > 24\text{dBm}$
2. $11\text{dBm} + 10\log(83.80) = 30.23\text{ dBm} > 24\text{dBm}$
3. $11\text{dBm} + 10\log(116.26) = 31.65\text{ dBm} > 24\text{dBm}$

Chain 1

1. $11\text{dBm} + 10\log(83.50) = 30.22\text{ dBm} > 24\text{dBm}$
2. $11\text{dBm} + 10\log(83.17) = 30.20\text{ dBm} > 24\text{dBm}$
3. $11\text{dBm} + 10\log(133.49) = 32.25\text{ dBm} > 24\text{dBm}$

26dB Bandwidth:

802.11a

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)
36	5180	35.96
40	5200	33.41
48	5240	32.26
52	5260	32.76
60	5300	28.98
64	5320	28.38
100	5500	28.31
116	5580	26.66
140	5700	26.93

802.11n (HT20)

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)	
		Chain 0	Chain 1
36	5180	32.51	33.92
40	5200	29.03	34.17
48	5240	27.91	32.69
52	5260	27.57	35.42
60	5300	25.95	38.28
64	5320	24.86	39.01
100	5500	25.98	38.99
116	5580	26.96	29.40
140	5700	27.73	30.17

802.11n (HT40)

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)	
		Chain 0	Chain 1
38	5190	42.03	41.92
46	5230	42.30	74.38
54	5270	42.47	90.11
62	5310	42.08	42.01
102	5510	42.14	42.39
110	5550	42.74	74.32
134	5670	60.58	63.58

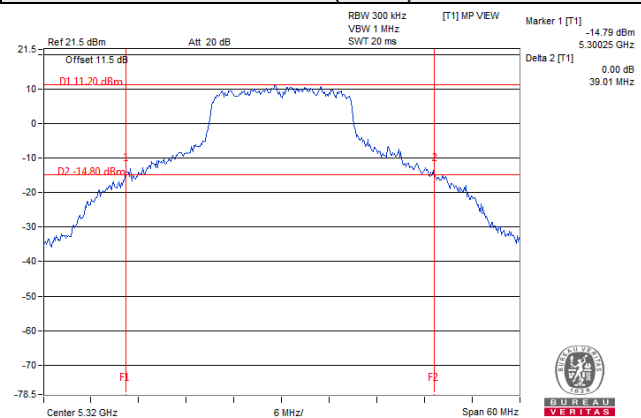
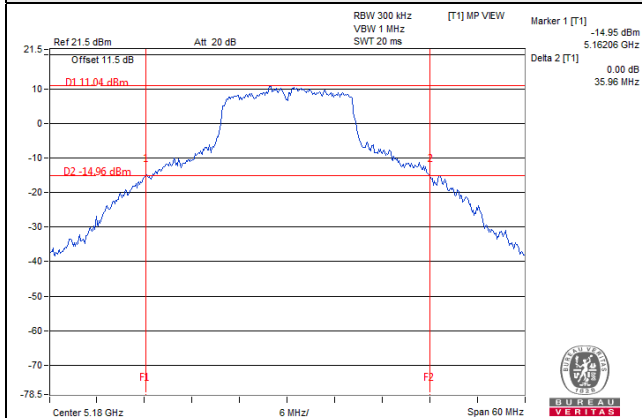
802.11ac (VHT80)

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)	
		Chain 0	Chain 1
42	5210	83.20	83.14
58	5290	83.88	83.50
106	5530	83.80	83.17
122	5610	116.26	133.49

Spectrum Plot of Worst Value

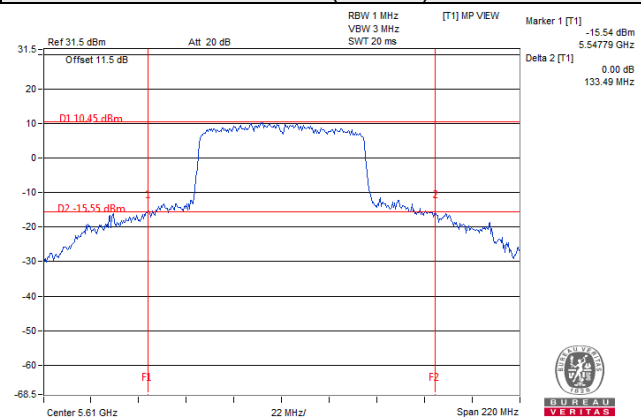
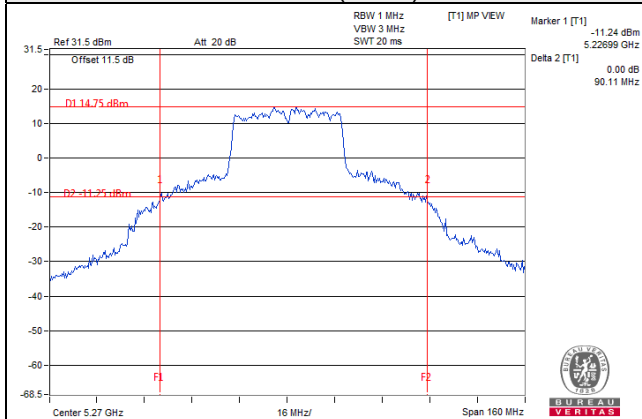
802.11a

802.11n (HT20)



802.11n (HT40)

802.11ac (VHT80)



EUT Maximum Conducted Power

802.11a

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	70.632	18.49
5470~5725	70.632	18.49

Note: Manufacturer provides Transmit Power Control description to meet this requirement.

802.11n (HT20)

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	139.439	21.44
5470~5725	140.795	21.49

Note: Manufacturer provides Transmit Power Control description to meet this requirement.

802.11n (HT40)

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	137.763	21.39
5470~5725	139.831	21.46

Note: Manufacturer provides Transmit Power Control description to meet this requirement.

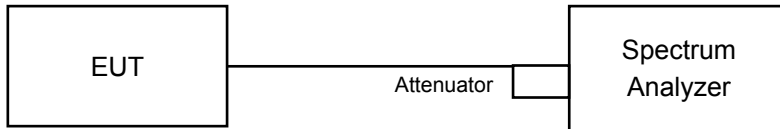
802.11ac (VHT80)

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	61.901	17.92
5470~5725	138.445	21.41

Note: Manufacturer provides Transmit Power Control description to meet this requirement.

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 sampling. 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

802.11a

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)
36	5180	21.36
40	5200	18.60
48	5240	17.88
52	5260	18.00
60	5300	17.28
64	5320	17.28
100	5500	17.16
116	5580	17.16
140	5700	17.16
149	5745	17.40
157	5785	17.28
165	5825	18.84

802.11n (HT20)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
36	5180	18.48	19.68
40	5200	18.24	19.08
48	5240	18.00	18.84
52	5260	18.00	19.68
60	5300	17.88	21.00
64	5320	17.88	22.08
100	5500	18.00	21.72
116	5580	18.00	18.12
140	5700	18.12	18.36
149	5745	18.96	21.00
157	5785	19.68	21.96
165	5825	22.80	22.44

802.11n (HT40)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
38	5190	36.60	36.60
46	5230	36.72	37.08
54	5270	36.72	38.64
62	5310	36.60	36.60
102	5510	36.60	36.60
110	5550	36.60	37.08
134	5670	36.72	36.84
151	5755	36.84	37.08
159	5795	37.08	37.20

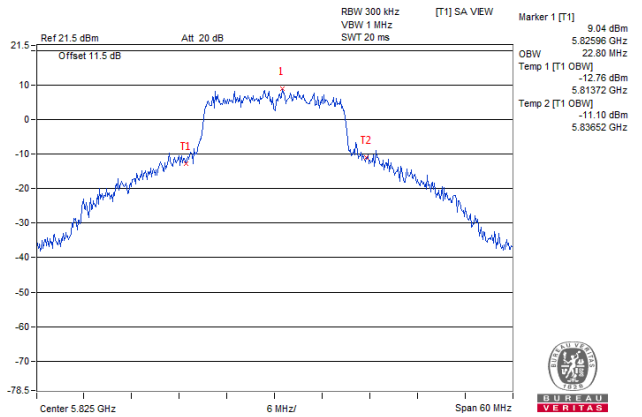
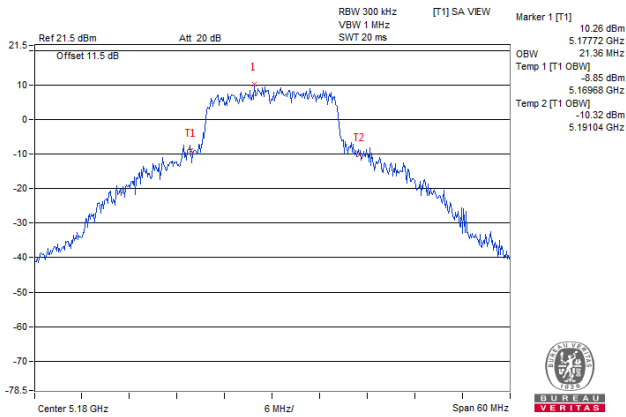
802.11ac (VHT80)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
42	5210	75.60	75.60
58	5290	75.84	75.84
106	5530	75.84	75.84
122	5610	76.32	76.32
155	5775	77.04	78.48

Spectrum Plot of Worst Value

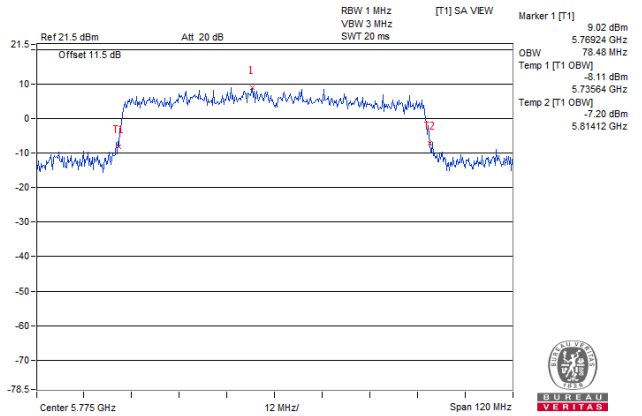
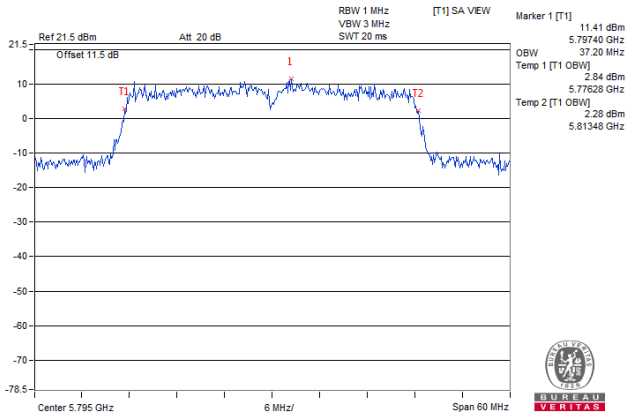
802.11a

802.11n (HT20)



802.11n (HT40)

802.11ac (VHT80)

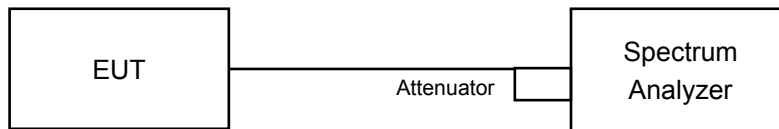


4.5 Peak Power Spectral Density Measurement

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	11dBm/ MHz
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

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

802.11a

Chan.	Freq. (MHz)	PSD (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
36	5180	5.27	11	Pass
40	5200	4.96	11	Pass
48	5240	5.37	11	Pass
52	5260	5.53	11	Pass
60	5300	5.40	11	Pass
64	5320	5.58	11	Pass
100	5500	6.14	11	Pass
116	5580	5.84	11	Pass
140	5700	3.85	11	Pass

802.11n (HT20)

Chan.	Freq. (MHz)	PSD W/O Duty Factor (dBm/MHz)		Duty Factor (dB)	Total PSD With Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1				
36	5180	3.46	5.14	0.25	7.64	11.00	Pass
40	5200	3.08	5.10	0.25	7.46	11.00	Pass
48	5240	3.02	4.85	0.25	7.29	11.00	Pass
52	5260	3.24	5.21	0.25	7.59	11.00	Pass
60	5300	3.12	5.30	0.25	7.60	11.00	Pass
64	5320	3.36	5.45	0.25	7.79	11.00	Pass
100	5500	4.48	5.66	0.25	8.37	11.00	Pass
116	5580	4.11	4.96	0.25	7.81	11.00	Pass
140	5700	2.81	3.53	0.25	6.44	11.00	Pass

Note:

- Method 1 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.
- 5180~5240MHz: Directional gain = $-1.5\text{dBi} + 10\log(2) = 1.51\text{dBi} < 6\text{dBi}$, so the limit no need to reduce.
5260~5320MHz: Directional gain = $-1.4\text{dBi} + 10\log(2) = 1.61\text{dBi} < 6\text{dBi}$, so the limit no need to reduce.
5500~5700MHz: Directional gain = $-1.6\text{dBi} + 10\log(2) = 1.41\text{dBi} < 6\text{dBi}$, so the limit no need to reduce.
- Refer to section 3.3 for duty cycle spectrum plot.

802.11n (HT40)

Chan.	Freq. (MHz)	PSD W/O Duty Factor (dBm/MHz)		Duty Factor (dB)	Total PSD With Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1				
38	5190	-3.49	-1.96	0.26	0.61	11.00	Pass
46	5230	0.70	2.64	0.26	5.05	11.00	Pass
54	5270	0.99	3.03	0.26	5.40	11.00	Pass
62	5310	-2.67	-0.78	0.26	1.65	11.00	Pass
102	5510	-1.25	0.01	0.26	2.70	11.00	Pass
110	5550	1.74	2.68	0.26	5.51	11.00	Pass
134	5670	0.38	0.71	0.26	3.82	11.00	Pass

Note:

- Method 1 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.
- 5180~5240MHz: Directional gain = $-1.5\text{dBi}+10\log(2)=1.51\text{dBi}<6\text{dBi}$, so the limit no need to reduce.
5260~5320MHz: Directional gain = $-1.4\text{dBi}+10\log(2)=1.61\text{dBi}<6\text{dBi}$, so the limit no need to reduce.
5500~5700MHz: Directional gain = $-1.6\text{dBi}+10\log(2)=1.41\text{dBi}<6\text{dBi}$, so the limit no need to reduce.
- Refer to section 3.3 for duty cycle spectrum plot.

802.11ac (VHT80)

Chan.	Freq. (MHz)	PSD W/O Duty Factor (dBm/MHz)		Duty Factor (dB)	Total PSD With Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1				
42	5210	-6.94	-5.07	0.34	-2.55	11.00	Pass
58	5290	-7.03	-5.23	0.34	-2.68	11.00	Pass
106	5530	-6.40	-5.51	0.34	-2.58	11.00	Pass
122	5610	-1.16	-1.01	0.34	2.27	11.00	Pass

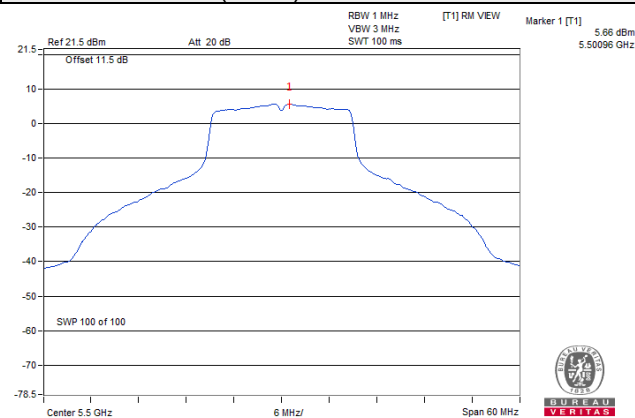
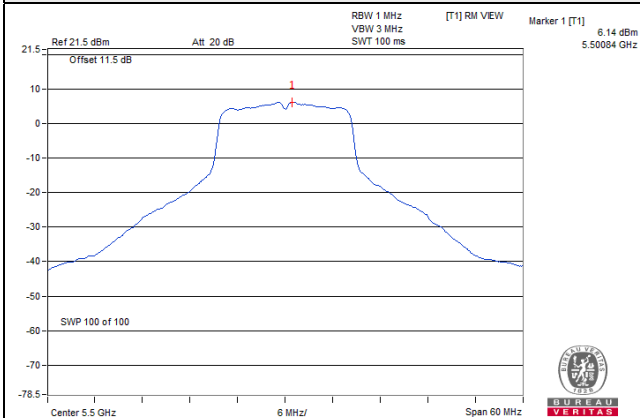
Note:

- Method 1 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.
- 5180~5240MHz: Directional gain = $-1.5\text{dBi}+10\log(2)=1.51\text{dBi}<6\text{dBi}$, so the limit no need to reduce.
5260~5320MHz: Directional gain = $-1.4\text{dBi}+10\log(2)=1.61\text{dBi}<6\text{dBi}$, so the limit no need to reduce.
5500~5700MHz: Directional gain = $-1.6\text{dBi}+10\log(2)=1.41\text{dBi}<6\text{dBi}$, so the limit no need to reduce.
- Refer to section 3.3 for duty cycle spectrum plot.

Spectrum Plot of Worst Value

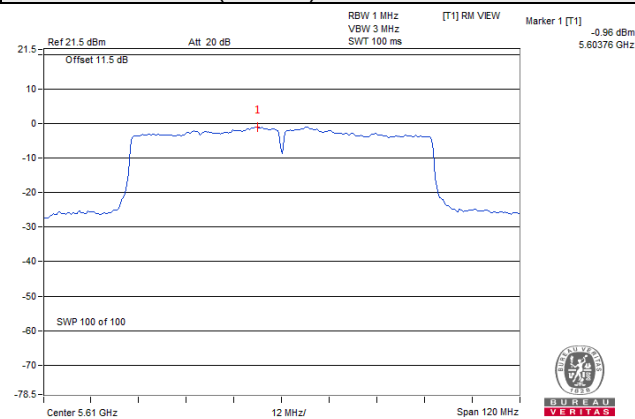
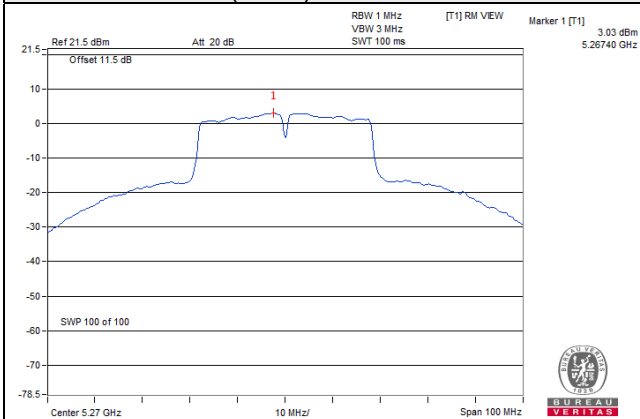
802.11a / CH 100

802.11n (HT20) / Chain 1 / CH 100



802.11n (HT40) / Chain 1 / CH 54

802.11ac (VHT80) / Chain 1 / CH 122



For U-NII-3 band:
802.11a

Chan.	Freq. (MHz)	PSD W/O Duty Factor		Limit (dBm/500kHz)	Pass / Fail
		(dBm/300kHz)	(dBm/500kHz)		
149	5745	-3.43	-1.21	30.00	Pass
157	5785	-3.19	-0.97	30.00	Pass
165	5825	-2.97	-0.75	30.00	Pass

802.11n (HT20)

TX chain	Channel	Freq. (MHz)	PSD (dBm/300kHz)	PSD (dBm/500kHz)	10 log (N=2) dB	Duty factor	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	Pass / Fail
0	149	5745	-3.59	-1.37	3.01	0.25	1.89	30.00	Pass
	157	5785	-3.51	-1.29	3.01	0.25	1.97	30.00	Pass
	165	5825	-3.58	-1.36	3.01	0.25	1.90	30.00	Pass
1	149	5745	-3.40	-1.18	3.01	0.25	2.08	30.00	Pass
	157	5785	-3.63	-1.41	3.01	0.25	1.85	30.00	Pass
	165	5825	-3.93	-1.71	3.01	0.25	1.55	30.00	Pass

Note:

- Method 1 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.
- 5745~5825MHz: Directional gain = $-1.4\text{dBi} + 10\log(2) = 1.61\text{dBi} < 6\text{dBi}$, so the limit no need to reduce.
- Refer to section 3.3 for duty cycle spectrum plot.

802.11n (HT40)

TX chain	Channel	Freq. (MHz)	PSD (dBm/300kHz)	PSD (dBm/500kHz)	10 log (N=2) dB	Duty factor	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	Pass / Fail
0	151	5755	-7.52	-5.30	3.01	0.26	-2.03	30.00	Pass
	159	5795	-7.28	-5.06	3.01	0.26	-1.79	30.00	Pass
1	151	5755	-7.04	-4.82	3.01	0.26	-1.55	30.00	Pass
	159	5795	-7.06	-4.84	3.01	0.26	-1.57	30.00	Pass

Note:

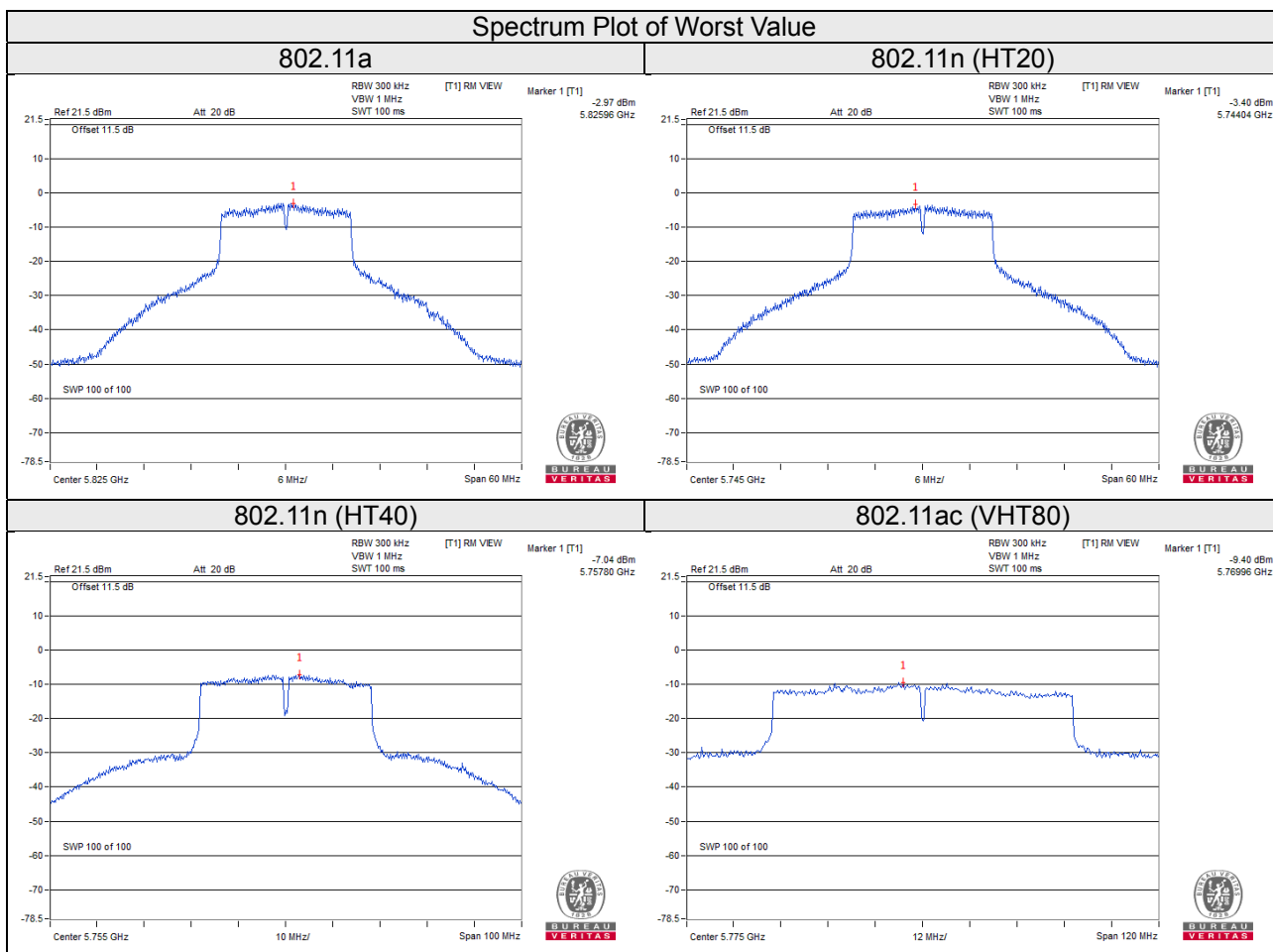
- Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
- 5745~5825MHz: Directional gain = $-1.4\text{dBi} + 10\log(2) = 1.61\text{dBi} < 6\text{dBi}$, so the limit no need to reduce.
- Refer to section 3.3 for duty cycle spectrum plot.

802.11ac (VHT80)

TX chain	Channel	Freq. (MHz)	PSD (dBm/300kHz)	PSD (dBm/500kHz)	10 log (N=2) dB	Duty factor	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	Pass / Fail
0	155	5775	-9.72	-7.50	3.01	0.34	-4.15	30.00	Pass
1	155	5775	-9.40	-7.18	3.01	0.34	-3.83	30.00	Pass

Note:

- Method 1 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.
- 5745~5825MHz: Directional gain = $-1.4\text{dBi} + 10\log(2) = 1.61\text{dBi} < 6\text{dBi}$, so the limit no need to reduce.
- Refer to section 3.3 for duty cycle spectrum plot.

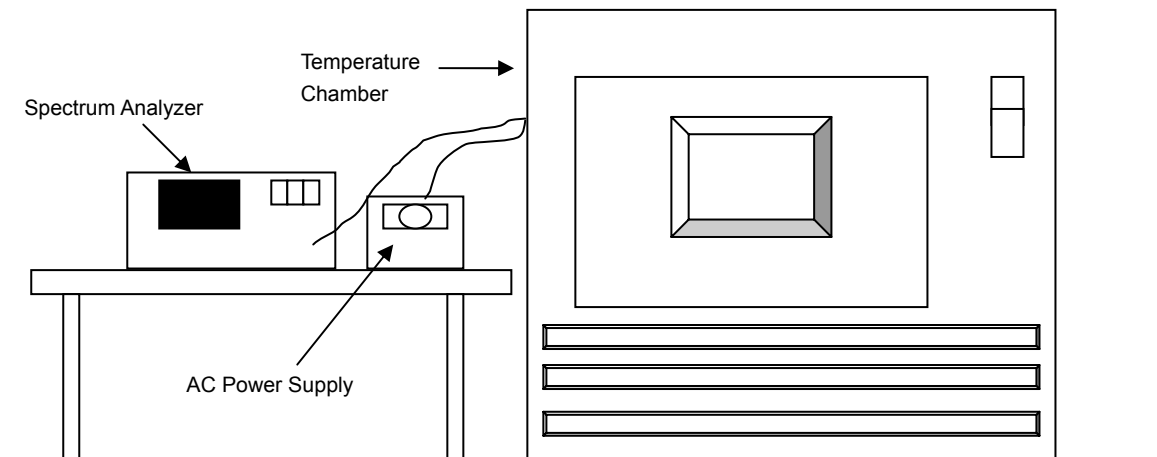


4.6 Frequency Stability

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

Frequency Stability Versus Temp.									
Operating Frequency: 5180MHz									
Temp. (°C)	Power Supply (Vac)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)
50	120	5179.9959	-0.00008	5179.9958	-0.00008	5179.9959	-0.00008	5179.9945	-0.00011
40	120	5180.0086	0.00017	5180.0077	0.00015	5180.0101	0.00019	5180.0090	0.00017
30	120	5180.0234	0.00045	5180.0252	0.00049	5180.0220	0.00042	5180.0212	0.00041
20	120	5179.9768	-0.00045	5179.9787	-0.00041	5179.9787	-0.00041	5179.9747	-0.00049
10	120	5180.0009	0.00002	5180.0023	0.00004	5180.0009	0.00002	5180.0004	0.00001
0	120	5179.9828	-0.00033	5179.9830	-0.00033	5179.9790	-0.00041	5179.9805	-0.00038
-10	120	5180.0121	0.00023	5180.0135	0.00026	5180.0136	0.00026	5180.0120	0.00023
-20	120	5180.0011	0.00002	5180.0006	0.00001	5180.0007	0.00001	5180.0014	0.00003
-30	120	5180.0231	0.00045	5180.0229	0.00044	5180.0208	0.00040	5180.0229	0.00044

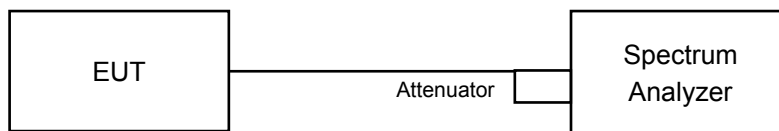
Frequency Stability Versus Voltage									
Operating Frequency: 5180MHz									
Temp. (°C)	Power Supply (Vac)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)
20	138	5179.9772	-0.00044	5179.9794	-0.00040	5179.9787	-0.00041	5179.9738	-0.00051
	120	5179.9768	-0.00045	5179.9787	-0.00041	5179.9787	-0.00041	5179.9747	-0.00049
	102	5179.9769	-0.00045	5179.9780	-0.00042	5179.9791	-0.00040	5179.9750	-0.00048

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

802.11a

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
149	5745	15.68	0.5	Pass
157	5785	15.21	0.5	Pass
165	5825	15.39	0.5	Pass

802.11n (HT20)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
149	5745	16.21	16.59	0.5	Pass
157	5785	16.57	16.58	0.5	Pass
165	5825	16.57	16.58	0.5	Pass

802.11n (HT40)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
151	5755	35.26	35.62	0.5	Pass
159	5795	35.23	35.59	0.5	Pass

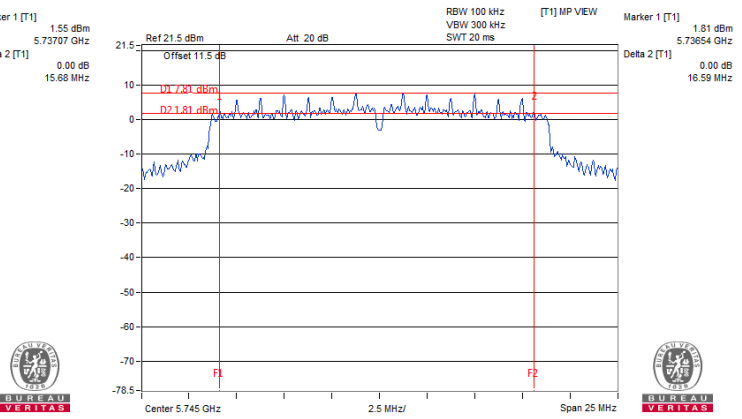
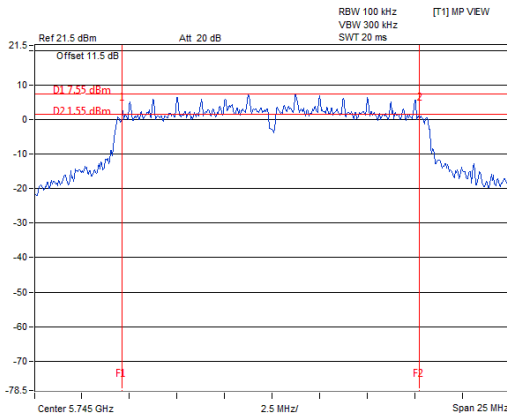
802.11ac (VHT80)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
155	5775	75.31	75.23	0.5	Pass

Spectrum Plot of Worst Value

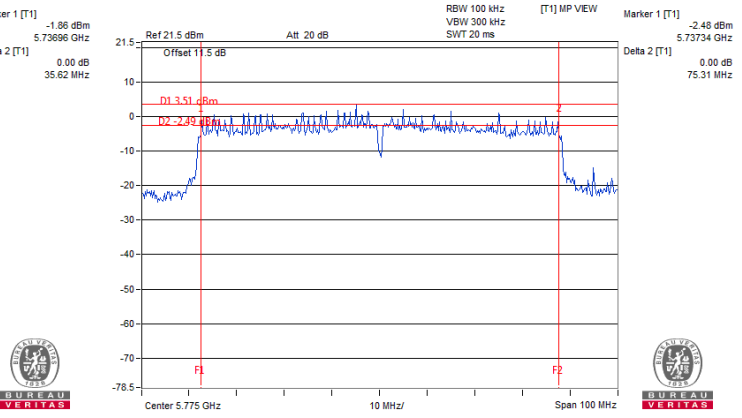
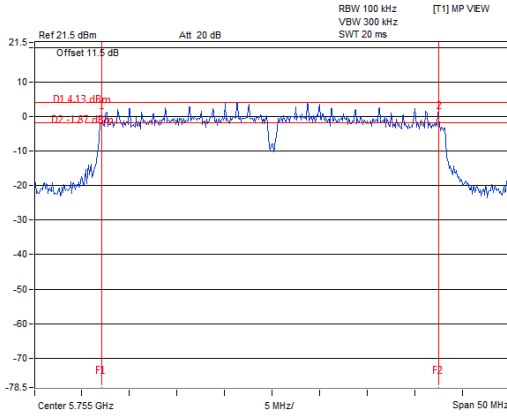
802.11a

802.11n (HT20)



802.11n (HT40)

802.11ac (VHT80)

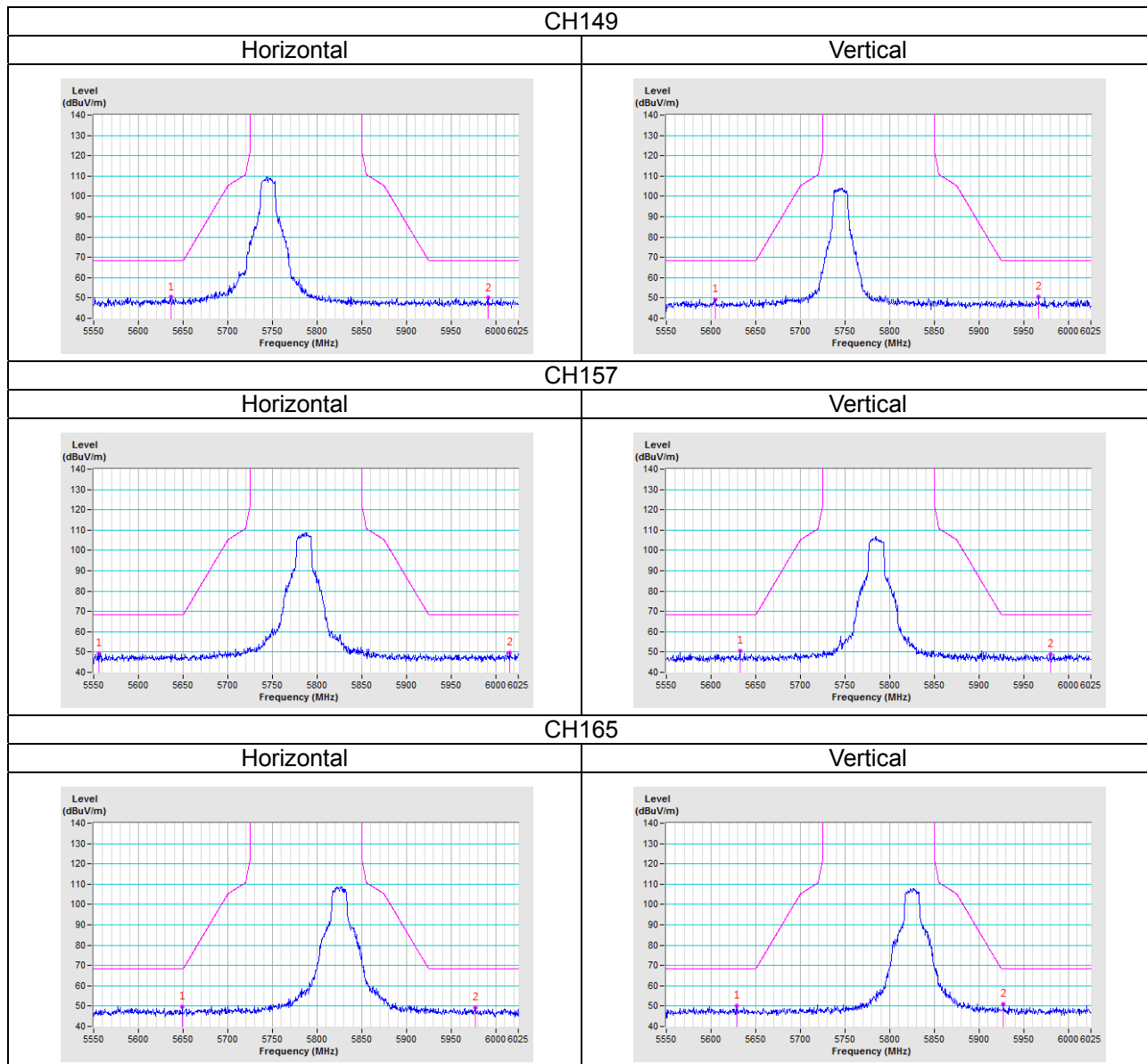


5 Pictures of Test Arrangements

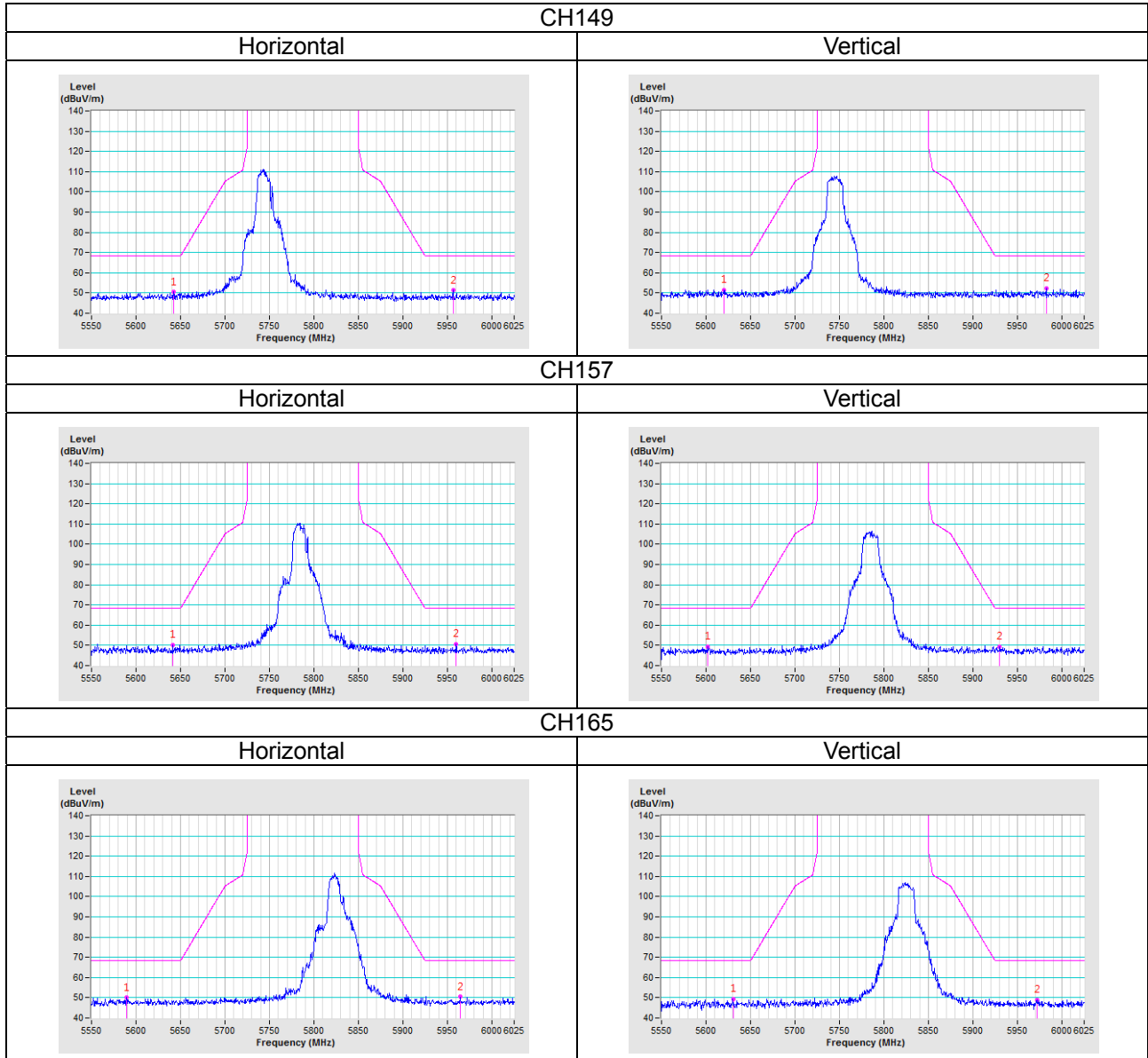
Please refer to the attached file (Test Setup Photo).

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

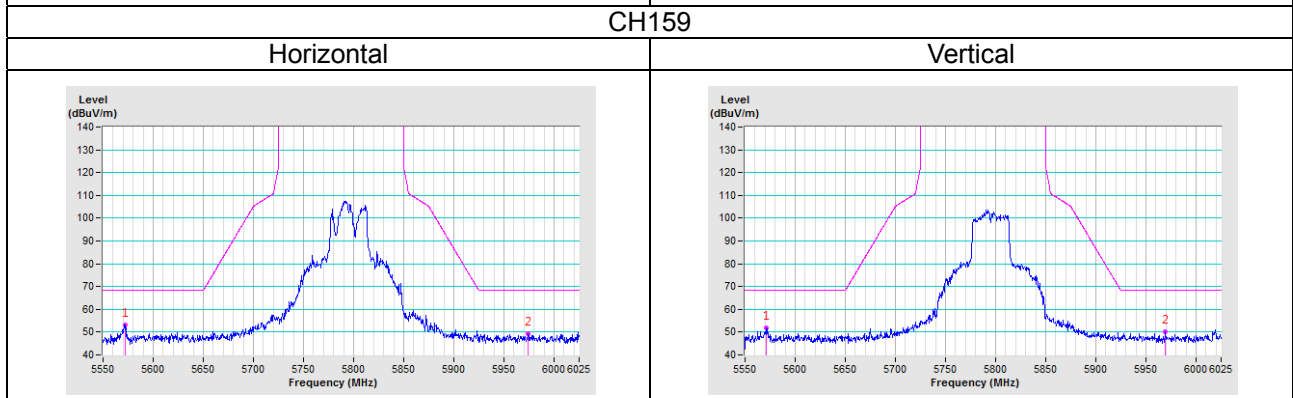
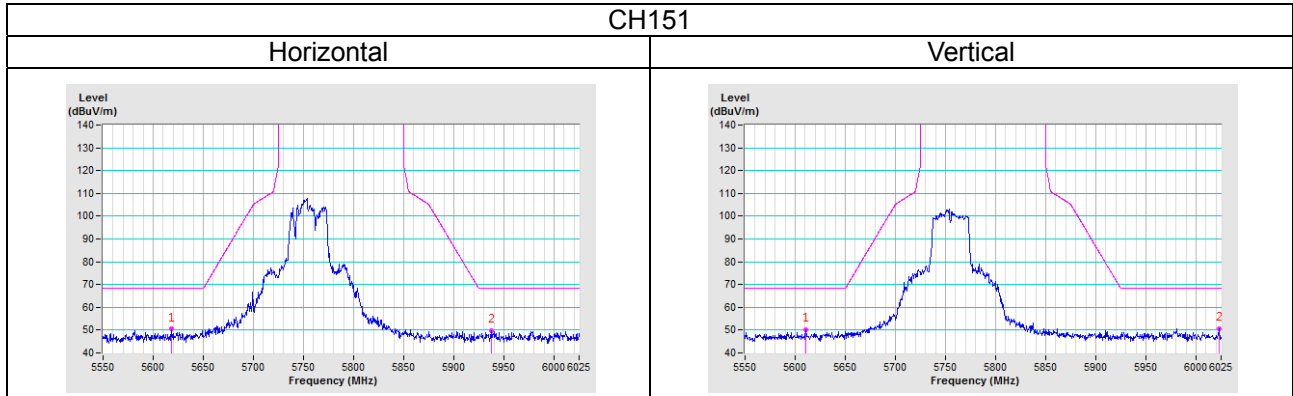
802.11a



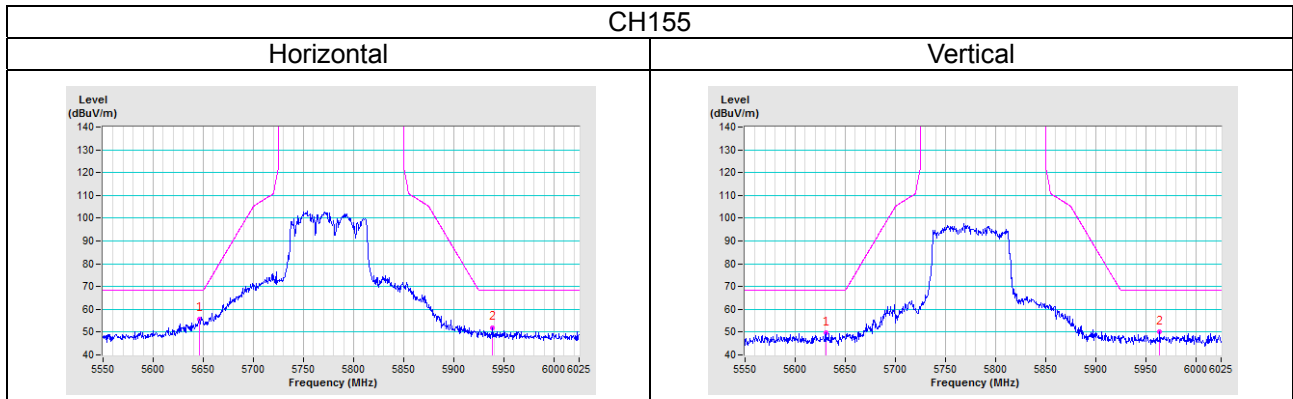
802.11n (HT20)



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 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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