

FCC Test Report

Report No.: RF170425C16A-1 R1

FCC ID: PY317100368

Test Model: A7000

Received Date: Apr. 26, 2017

Test Date: May 15 ~ Jun. 03, 2017

Issued Date: Jun. 20, 2017

Applicant: NETGEAR Inc.

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

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Release Control Record

Issue No.	Description	Date Issued
RF170425C16A-1	Original release.	Jun. 09, 2017
RF170425C16A-1 R1	Revised cable length of cradle	Jun. 20, 2017

1 Certificate of Conformity

Product: A1900 USB 3.0 Wireless Adapter

Brand: NETGEAR

Test Model: A7000

Sample Status: Engineering sample

Applicant: NETGEAR Inc.

Test Date: May 15 ~ Jun. 03, 2017

Standards: 47 CFR FCC Part 15, Subpart E (Section 15.407)
ANSI C63.10:2013

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

Prepared by :  , **Date:** Jun. 20, 2017
Pettie Chen / Senior Specialist

Approved by :  , **Date:** Jun. 20, 2017
Ken Liu / Senior Manager

2 Summary of Test Results

47 CFR FCC Part 15, Subpart E (Section 15.407)			
FCC Clause	Test Item	Result	Remarks
15.407(b)(6)	AC Power Conducted Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -16.07dB at 0.24614MHz.
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 -0.1dB at 5350.00, 5470.00, 5725.00MHz.
15.407(a)(1/2/3)	Max Average Transmit Power	Pass	Meet the requirement of limit.
---	Occupied Bandwidth Measurement	-	Reference only.
15.407(a)(1/2/3)	Peak Power Spectral Density	Pass	Meet the requirement of limit.
15.407(e)	6dB bandwidth	Pass	Meet the requirement of limit. (U-NII-3 Band only)
15.407(g)	Frequency Stability	Pass	Meet the requirement of limit.
15.203	Antenna Requirement	Pass	Antenna connector is i-pex(MHF) not a standard connector.

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

2.1 Measurement Uncertainty

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

Measurement	Frequency	Expanded Uncertainty (k=2) (±)
Conducted Emissions at mains ports	150kHz ~ 30MHz	2.94 dB
Radiated Emissions up to 1 GHz	30MHz ~ 200MHz	3.63 dB
	200MHz ~ 1000MHz	3.64 dB
Radiated Emissions above 1 GHz	1GHz ~ 18GHz	2.29 dB
	18GHz ~ 40GHz	2.29 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	A1900 USB 3.0 Wireless Adapter
Brand	NETGEAR
Test Model	A7000
Sample Status	Engineering sample
Power Supply Rating	5Vdc (host or cradle)
Modulation Type	256QAM, 64QAM, 16QAM, QPSK, BPSK for OFDM
Modulation Technology	OFDM
Transfer Rate	802.11a: 54.0/ 48.0/ 36.0/ 24.0/ 18.0/ 12.0/ 9.0/ 6.0Mbps 802.11n: up to 450Mbps 802.11ac: up to 1300Mbps
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	CDD Mode: 5180MHz ~ 5240MHz: 113.381mW 5260MHz ~ 5320MHz: 113.671mW 5500MHz ~ 5700MHz: 108.022mW 5745MHz ~ 5825MHz: 110.799mW Beamforming Mode: 5180MHz ~ 5240MHz: 113.381mW 5260MHz ~ 5320MHz: 113.671mW 5500MHz ~ 5700MHz: 108.022mW 5745MHz ~ 5825MHz: 110.799mW
Antenna Type	Refer to Note
Antenna Connector	Refer to Note
Accessory Device	Cradle (1.0m USB cable)
Data Cable Supplied	NA

Note:

1. The EUT incorporates a MIMO function. Physically, the EUT provides 3 completed transmitters and 3 receivers.

Modulation Mode	TX Function	Beamforming
802.11a	3TX	Not Support
802.11n (HT20)	3TX	Support
802.11n (HT40)	3TX	Support
802.11ac (VHT80)	3TX	Support

* For 802.11n and 802.11ac, CDD mode and Beamforming mode are presented in power output test item. For other test items, CDD mode is the worst case for final tests after pretesting.

2. The following antennas were provided to the EUT.

Ant	Antenna Type	Antenna Gain(dBi) Including cable loss	Frequency range (MHz to MHz)	Connector Type
ant0	PIFA	3.5 (5G) Rx only	2400-2500; 5180-5825	none (like solder)

Antenna Type		Dipole		Antenna Connector	i-pex(MHF)
Antenna Gain (dBi)					
Ant	Frequency (MHz)				
	2.4GHz	U-NII-1	U-NII-2a	U-NII-2c	U-NII-3
ant1	2.63	1.11	2.01	2.44	3.20
ant2	2.87	4.46	4.35	4.88	4.48
ant3	3.06	2.44	2.69	3.48	3.00

3. The 2.4 and 5GHz cannot transmit simultaneously.
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 Z-plane.

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	Freq. Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
-	802.11a	5180-5240	36 to 48	36, 40, 48	OFDM	BPSK	6.0
-	802.11n (HT20)		36 to 48	36, 40, 48	OFDM	BPSK	6.5
-	802.11n (HT40)		38 to 46	38, 46	OFDM	BPSK	13.5
-	802.11ac (VHT80)		42	42	OFDM	BPSK	87.8
-	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	BPSK	6.0
-	802.11n (HT20)		52 to 64	52, 60, 64	OFDM	BPSK	6.5
-	802.11n (HT40)		54 to 62	54, 62	OFDM	BPSK	13.5
-	802.11ac (VHT80)		58	58	OFDM	BPSK	87.8
-	802.11a	5500-5700	100 to 140	100, 116, 140	OFDM	BPSK	6.0
-	802.11n (HT20)		100 to 140	100, 116, 140	OFDM	BPSK	6.5
-	802.11n (HT40)		102 to 134	102, 110, 134	OFDM	BPSK	13.5
-	802.11ac (VHT80)		106 to 122	106, 122	OFDM	BPSK	87.8
-	802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	BPSK	6.0
-	802.11n (HT20)		149 to 165	149, 157, 165	OFDM	BPSK	6.5
-	802.11n (HT40)		151 to 159	151, 159	OFDM	BPSK	13.5
-	802.11ac (VHT80)		155	155	OFDM	BPSK	87.8

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	Freq. Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
-	802.11a	5180-5240	36 to 48	100	OFDM	BPSK	6.0
		5260-5320	52 to 64		OFDM	BPSK	6.0
		5500-5700	100 to 140		OFDM	BPSK	6.0
		5745-5825	149 to 165		OFDM	BPSK	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	Freq. Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
-	802.11a	5180-5240	36 to 48	100	OFDM	BPSK	6.0
		5260-5320	52 to 64		OFDM	BPSK	6.0
		5500-5700	100 to 140		OFDM	BPSK	6.0
		5745-5825	149 to 165		OFDM	BPSK	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.

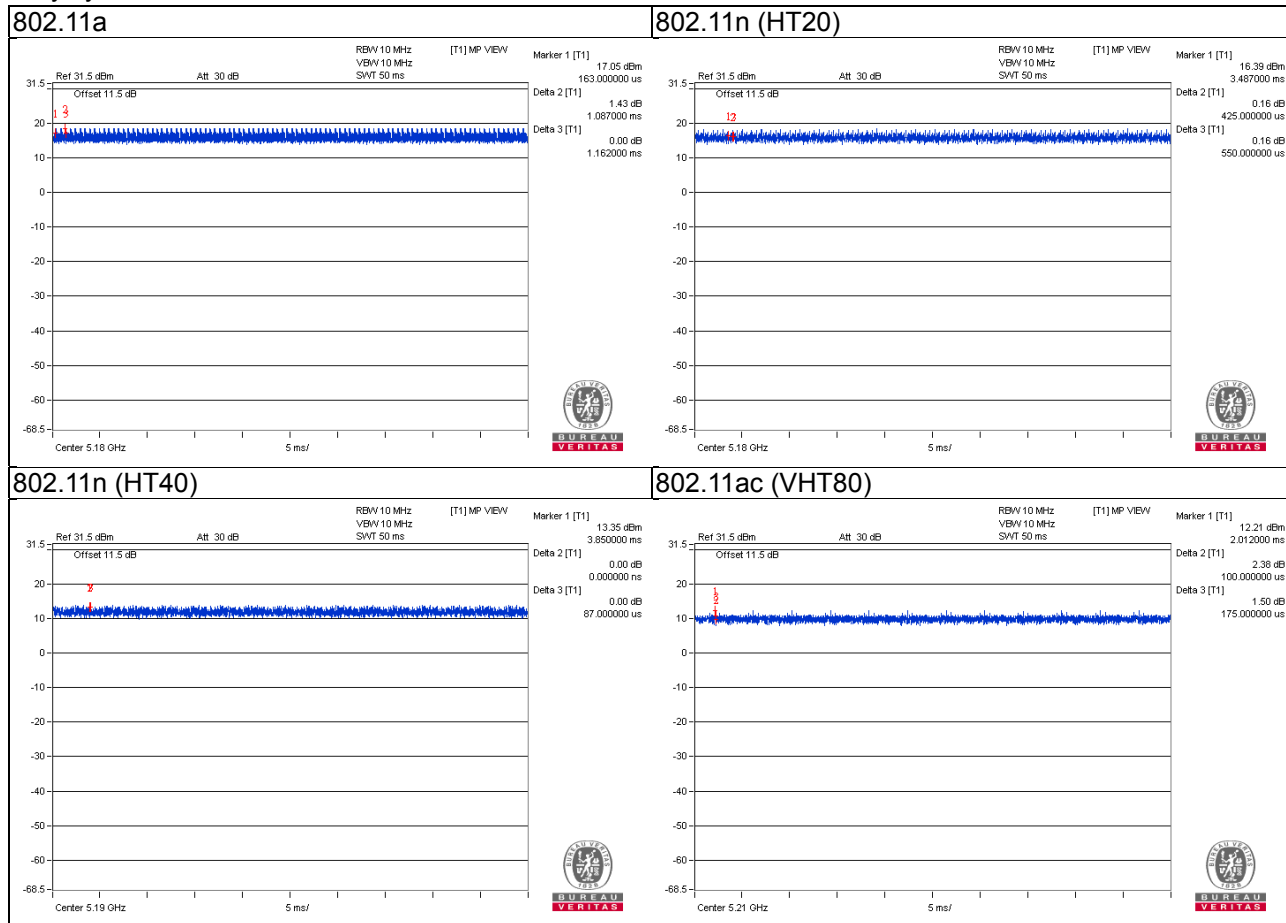
EUT Configure Mode	Mode	Freq. Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
-	802.11a	5180-5240	36 to 48	36, 40, 48	OFDM	BPSK	6.0
-	802.11n (HT20)		36 to 48	36, 40, 48	OFDM	BPSK	6.5
-	802.11n (HT40)		38 to 46	38, 46	OFDM	BPSK	13.5
-	802.11ac (VHT80)		42	42	OFDM	BPSK	87.8
-	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	BPSK	6.0
-	802.11n (HT20)		52 to 64	52, 60, 64	OFDM	BPSK	6.5
-	802.11n (HT40)		54 to 62	54, 62	OFDM	BPSK	13.5
-	802.11ac (VHT80)		58	58	OFDM	BPSK	87.8
-	802.11a	5500-5700	100 to 140	100, 116, 140	OFDM	BPSK	6.0
-	802.11n (HT20)		100 to 140	100, 116, 140	OFDM	BPSK	6.5
-	802.11n (HT40)		102 to 134	102, 110, 134	OFDM	BPSK	13.5
-	802.11ac (VHT80)		106 to 122	106, 122	OFDM	BPSK	87.8
-	802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	BPSK	6.0
-	802.11n (HT20)		149 to 165	149, 157, 165	OFDM	BPSK	6.5
-	802.11n (HT40)		151 to 159	151, 159	OFDM	BPSK	13.5
-	802.11ac (VHT80)		155	155	OFDM	BPSK	87.8

Test Condition:

Applicable To	Environmental Conditions	Input Power (System)	Tested By
RE _≥ 1G	25deg. C, 70%RH	120Vac, 60Hz	Matthew Yang
RE _{<} 1G	25deg. C, 70%RH	120Vac, 60Hz	Matthew Yang
PLC	25deg. C, 75%RH	120Vac, 60Hz	Chris Lin
APCM	24deg. C, 64%RH	120Vac, 60Hz	Ted Chang

3.3 Duty Cycle of Test Signal

Duty cycle = 100%



3.4 Description of Support Units

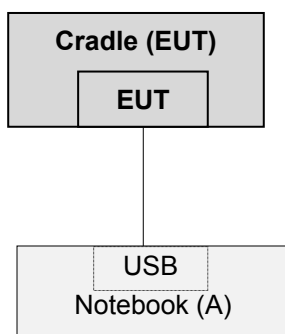
The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Notebook	SONY	SVS151A12P	275548477000805	FCC DoC Approved	-

Note:

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

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 Procedures New Rules v01r04

KDB 662911 D01 Multiple Transmitter Output v02r01

ANSI C63.10-2013

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

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

4 Test Types and Results

4.1 Radiated Emission and Bandedge Measurement

4.1.1 Limits of Radiated Emission and Bandedge Measurement

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

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

NOTE:

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

Limits of unwanted emission out of the restricted bands

Applicable To			Limit	
789033 D02 General UNII Test Procedure New Rules v01r04			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	☒	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}
	☐	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:

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

4.1.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Test Receiver ROHDE & SCHWARZ	ESCI	100424	Oct. 24, 2016	Oct. 23, 2017
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100040	Aug. 16, 2016	Aug. 15, 2017
BILOG Antenna SCHWARZBECK	VULB9168	9168-155	Dec. 28, 2016	Dec. 27, 2017
HORN Antenna SCHWARZBECK	BBHA 9120D	9120D-1170	Dec. 15, 2016	Dec. 14, 2017
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170241	Dec. 14, 2016	Dec. 13, 2017
Loop Antenna	EM-6879	269	Aug. 11, 2016	Aug. 10, 2017
Preamplifier Agilent	8449B	3008A01960	Aug. 09, 2016	Aug. 08, 2017
Preamplifier Agilent	8447D	2944A10631	Aug. 09, 2016	Aug. 08, 2017
RF signal cable HUBER+SUHNER	SUCOFLEX 104	MY 13380+295012/04	Aug. 09, 2016	Aug. 08, 2017
RF signal cable HUBER+SUHNER	SUCOFLEX 104	Cable-CH4-03 (250724)	Aug. 09, 2016	Aug. 08, 2017
Software BV ADT	ADT_Radiated_ V7.6.15.9.4	NA	NA	NA
Antenna Tower inn-co GmbH	MA 4000	010303	NA	NA
Antenna Tower Controller BV ADT	AT100	AT93021703	NA	NA
Turn Table BV ADT	TT100	TT93021703	NA	NA
Turn Table Controller BV ADT	SC100	SC93021703	NA	NA
Turn Table BV ADT	TT100	TT93021705	NA	NA
Turn Table Controller BV ADT	SC100	SC93021705	NA	NA
High Speed Peak Power Meter	ML2495A	0824012	Aug. 11, 2016	Aug. 10, 2017
Power Sensor	MA2411B	0738171	Aug. 11, 2016	Aug. 10, 2017

Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in HwaYa Chamber 4.
3. The horn antenna and preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
4. The FCC Site Registration No. is 460141.
5. The IC Site Registration No. is IC7450F-4.

4.1.3 Test Procedures

For Radiated emission below 30MHz

- 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.
- The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- Both X and Y axes of the antenna are set to make the measurement.
- 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.
- The test-receiver system was set to Quasi-Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

Note:

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

For Radiated emission above 30MHz

- 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.
- The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- 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.
- 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.
- 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.
- 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:

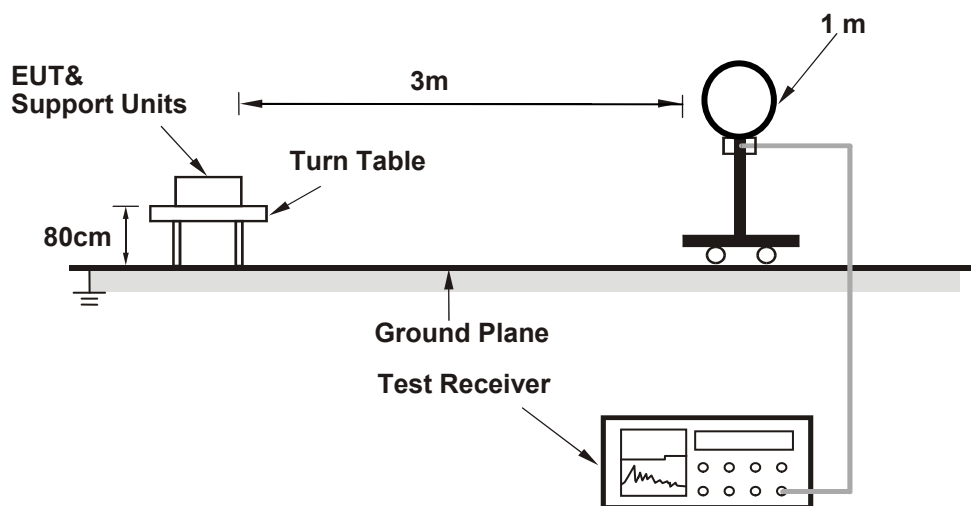
- The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
- The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
- 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.
- All modes of operation were investigated and the worst-case emissions are reported.

4.1.4 Deviation from Test Standard

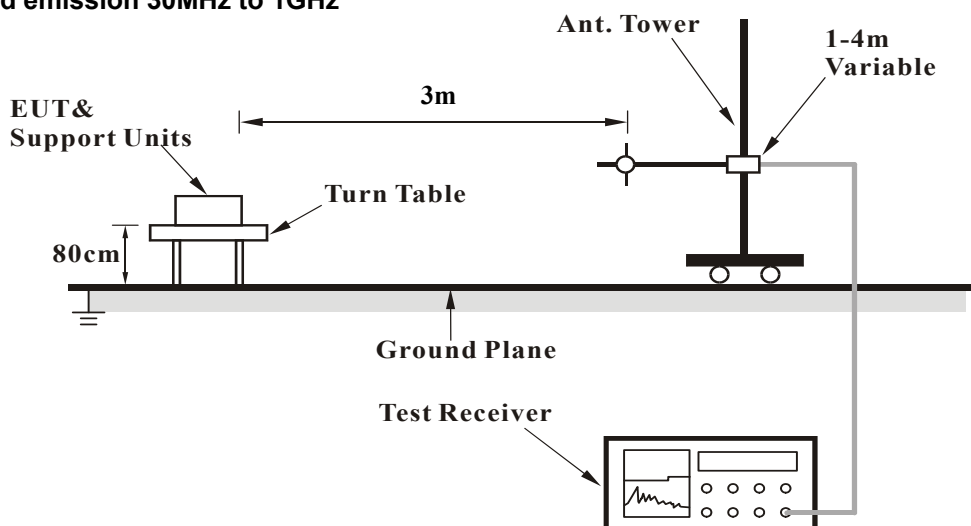
No deviation.

4.1.5 Test Set Up

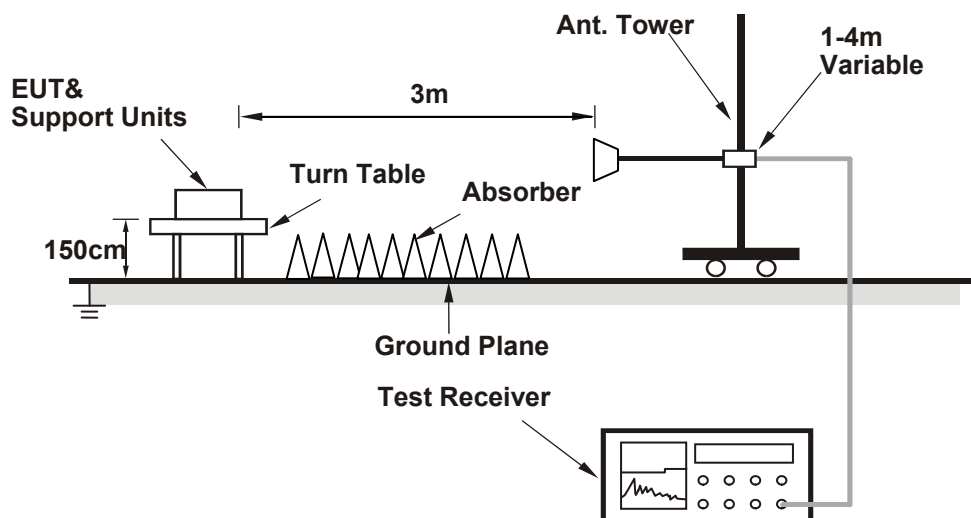
For Radiated emission below 30MHz



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

- Connected the EUT with the notebook via cradle and placed them on the testing table.
- Set the EUT under transmitting condition.

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	67.5 PK	74.0	-6.5	1.72 H	25	61.40	6.10
2	5150.00	52.1 AV	54.0	-1.9	1.72 H	25	46.00	6.10
3	*5180.00	114.2 PK			1.72 H	25	74.00	40.20
4	*5180.00	104.7 AV			1.72 H	25	64.50	40.20
5	#10360.00	59.1 PK	74.0	-14.9	1.07 H	54	41.20	17.90
6	#10360.00	47.5 AV	54.0	-6.5	1.07 H	54	29.60	17.90
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	67.0 PK	74.0	-7.0	2.51 V	131	60.90	6.10
2	5150.00	53.5 AV	54.0	-0.5	2.51 V	131	47.40	6.10
3	*5180.00	116.8 PK			2.51 V	131	76.60	40.20
4	*5180.00	107.5 AV			2.51 V	131	67.30	40.20
5	#10360.00	58.4 PK	74.0	-15.6	1.33 V	228	40.50	17.90
6	#10360.00	46.3 AV	54.0	-7.7	1.33 V	228	28.40	17.90

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	114.3 PK			1.75 H	21	74.10	40.20
2	*5200.00	104.9 AV			1.75 H	21	64.70	40.20
3	#10400.00	60.5 PK	74.0	-13.5	1.00 H	2	42.30	18.20
4	#10400.00	47.6 AV	54.0	-6.4	1.00 H	2	29.40	18.20
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	117.1 PK			2.49 V	140	76.90	40.20
2	*5200.00	107.7 AV			2.49 V	140	67.50	40.20
3	#10400.00	58.7 PK	74.0	-15.3	1.20 V	63	40.50	18.20
4	#10400.00	46.6 AV	54.0	-7.4	1.20 V	63	28.40	18.20

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)
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	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	*5240.00	113.9 PK			1.88 H	32	73.50	40.40
2	*5240.00	103.6 AV			1.88 H	32	63.20	40.40
3	5350.00	59.5 PK	74.0	-14.5	1.88 H	32	53.00	6.50
4	5350.00	46.8 AV	54.0	-7.2	1.88 H	32	40.30	6.50
5	#10480.00	59.0 PK	74.0	-15.0	1.32 H	65	40.60	18.40
6	#10480.00	47.0 AV	54.0	-7.0	1.32 H	65	28.60	18.40
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	115.2 PK			2.79 V	133	74.80	40.40
2	*5240.00	106.1 AV			2.79 V	133	65.70	40.40
3	5350.00	60.1 PK	74.0	-13.9	2.79 V	133	53.60	6.50
4	5350.00	47.8 AV	54.0	-6.2	2.79 V	133	41.30	6.50
5	#10480.00	59.7 PK	74.0	-14.3	1.30 V	58	41.30	18.40
6	#10480.00	47.7 AV	54.0	-6.3	1.30 V	58	29.30	18.40

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)
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	57.2 PK	74.0	-16.8	3.63 H	207	51.10	6.10
2	5150.00	45.2 AV	54.0	-8.8	3.63 H	207	39.10	6.10
3	*5260.00	113.6 PK			3.63 H	207	73.20	40.40
4	*5260.00	104.5 AV			3.63 H	207	64.10	40.40
5	#10520.00	59.5 PK	74.0	-14.5	3.24 H	197	41.10	18.40
6	#10520.00	46.4 AV	54.0	-7.6	3.24 H	197	28.00	18.40
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	60.6 PK	74.0	-13.4	2.11 V	99	54.50	6.10
2	5150.00	47.5 AV	54.0	-6.5	2.11 V	99	41.40	6.10
3	*5260.00	119.4 PK			2.11 V	99	79.00	40.40
4	*5260.00	109.8 AV			2.11 V	99	69.40	40.40
5	#10520.00	59.6 PK	74.0	-14.4	2.86 V	159	41.20	18.40
6	#10520.00	46.8 AV	54.0	-7.2	2.86 V	159	28.40	18.40

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)
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	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	*5300.00	112.7 PK			2.75 H	108	72.20	40.50
2	*5300.00	103.1 AV			2.75 H	108	62.60	40.50
3	10600.00	59.8 PK	74.0	-14.2	1.67 H	241	41.00	18.80
4	10600.00	47.3 AV	54.0	-6.7	1.67 H	241	28.50	18.80
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	118.3 PK			1.95 V	99	77.80	40.50
2	*5300.00	108.8 AV			1.95 V	99	68.30	40.50
3	10600.00	60.3 PK	74.0	-13.7	2.97 V	134	41.50	18.80
4	10600.00	47.5 AV	54.0	-6.5	2.97 V	134	28.70	18.80

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)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

CHANNEL	TX Channel 64	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	*5320.00	112.5 PK			2.69 H	107	72.00	40.50
2	*5320.00	103.2 AV			2.69 H	107	62.70	40.50
3	5350.00	66.6 PK	74.0	-7.4	2.69 H	107	60.10	6.50
4	5350.00	52.6 AV	54.0	-1.4	2.69 H	107	46.10	6.50
5	10640.00	60.2 PK	74.0	-13.8	3.11 H	214	41.20	19.00
6	10640.00	47.1 AV	54.0	-6.9	3.11 H	214	28.10	19.00
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	116.2 PK			2.26 V	115	75.70	40.50
2	*5320.00	106.8 AV			2.26 V	115	66.30	40.50
3	5350.00	69.0 PK	74.0	-5.0	2.26 V	115	62.50	6.50
4	5350.00	53.8 AV	54.0	-0.2	2.26 V	115	47.30	6.50
5	10640.00	60.7 PK	74.0	-13.3	2.98 V	164	41.70	19.00
6	10640.00	47.5 AV	54.0	-6.5	2.98 V	164	28.50	19.00

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)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * " : Fundamental frequency.

CHANNEL	TX Channel 100	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	5460.00	61.7 PK	74.0	-12.3	3.49 H	191	55.00	6.70
2	5460.00	47.5 AV	54.0	-6.5	3.49 H	191	40.80	6.70
3	#5470.00	66.7 PK	74.0	-7.3	3.49 H	191	60.00	6.70
4	#5470.00	50.4 AV	54.0	-3.6	3.49 H	191	43.70	6.70
5	*5500.00	112.3 PK			3.49 H	191	71.40	40.90
6	*5500.00	103.0 AV			3.49 H	191	62.10	40.90
7	11000.00	60.4 PK	74.0	-13.6	1.97 H	224	41.10	19.30
8	11000.00	46.7 AV	54.0	-7.3	1.97 H	224	27.40	19.30
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	5460.00	63.2 PK	74.0	-10.8	2.00 V	110	56.50	6.70
2	5460.00	49.0 AV	54.0	-5.0	2.00 V	110	42.30	6.70
3	#5470.00	67.8 PK	74.0	-6.2	2.00 V	110	61.10	6.70
4	#5470.00	53.1 AV	54.0	-0.9	2.00 V	110	46.40	6.70
5	*5500.00	115.8 PK			2.00 V	110	74.90	40.90
6	*5500.00	106.3 AV			2.00 V	110	65.40	40.90
7	11000.00	60.5 PK	74.0	-13.5	1.69 V	258	41.20	19.30
8	11000.00	47.1 AV	54.0	-6.9	1.69 V	258	27.80	19.30

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)
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	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	*5580.00	113.8 PK			2.66 H	184	72.80	41.00
2	*5580.00	104.5 AV			2.66 H	184	63.50	41.00
3	11160.00	61.2 PK	74.0	-12.8	2.66 H	184	41.40	19.80
4	11160.00	47.9 AV	54.0	-6.1	2.66 H	184	28.10	19.80
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	119.1 PK			2.85 V	108	78.10	41.00
2	*5580.00	109.8 AV			2.85 V	108	68.80	41.00
3	11160.00	61.6 PK	74.0	-12.4	2.67 V	148	41.80	19.80
4	11160.00	48.0 AV	54.0	-6.0	2.67 V	148	28.20	19.80

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)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

CHANNEL	TX Channel 140	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	*5700.00	113.3 PK			2.90 H	185	71.80	41.50
2	*5700.00	104.3 AV			2.90 H	185	62.80	41.50
3	#5725.00	66.5 PK	74.0	-7.5	2.90 H	185	59.20	7.30
4	#5725.00	53.1 AV	54.0	-0.9	2.90 H	185	45.80	7.30
5	11400.00	61.5 PK	74.0	-12.5	1.83 H	219	41.10	20.40
6	11400.00	48.3 AV	54.0	-5.7	1.83 H	219	27.90	20.40
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	116.7 PK			2.05 V	110	75.20	41.50
2	*5700.00	107.2 AV			2.05 V	110	65.70	41.50
3	#5725.00	69.1 PK	74.0	-4.9	2.05 V	110	61.80	7.30
4	#5725.00	53.9 AV	54.0	-0.1	2.05 V	110	46.60	7.30
5	11400.00	61.8 PK	74.0	-12.2	1.66 V	204	41.40	20.40
6	11400.00	48.4 AV	54.0	-5.6	1.66 V	204	28.00	20.40

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)
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	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	#5601.60	59.8 PK	68.2	-8.4	3.35 H	350	52.90	6.90
2	*5745.00	114.2 PK			3.35 H	350	72.60	41.60
3	*5745.00	104.7 AV			3.35 H	350	63.10	41.60
4	#5936.00	60.4 PK	68.2	-7.8	3.35 H	350	52.60	7.80
5	11490.00	60.9 PK	74.0	-13.1	1.25 H	87	40.60	20.30
6	11490.00	49.0 AV	54.0	-5.0	1.25 H	87	28.70	20.30
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5624.00	60.6 PK	68.2	-7.6	2.54 V	359	53.60	7.00
2	*5745.00	115.2 PK			2.54 V	359	73.60	41.60
3	*5745.00	105.9 AV			2.54 V	359	64.30	41.60
4	#5933.60	60.0 PK	68.2	-8.2	2.54 V	359	52.20	7.80
5	11490.00	61.5 PK	74.0	-12.5	1.25 V	96	41.20	20.30
6	11490.00	49.7 AV	54.0	-4.3	1.25 V	96	29.40	20.30

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)
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	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	#5643.20	60.7 PK	68.2	-7.5	2.21 H	68	53.60	7.10
2	*5785.00	114.8 PK			2.21 H	68	73.20	41.60
3	*5785.00	105.1 AV			2.21 H	68	63.50	41.60
4	#5926.40	61.0 PK	68.2	-7.2	2.21 H	68	53.20	7.80
5	11570.00	60.7 PK	74.0	-13.3	1.05 H	69	40.60	20.10
6	11570.00	48.5 AV	54.0	-5.5	1.05 H	69	28.40	20.10
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5608.00	59.5 PK	68.2	-8.7	1.00 V	118	52.60	6.90
2	*5785.00	116.1 PK			1.00 V	118	74.50	41.60
3	*5785.00	106.0 AV			1.00 V	118	64.40	41.60
4	#5986.40	59.7 PK	68.2	-8.5	1.00 V	118	51.80	7.90
5	11570.00	61.8 PK	74.0	-12.2	1.32 V	58	41.70	20.10
6	11570.00	49.7 AV	54.0	-4.3	1.32 V	58	29.60	20.10

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)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

CHANNEL	TX Channel 165	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	#5624.80	59.3 PK	68.2	-8.9	1.04 H	213	52.30	7.00
2	*5825.00	113.9 PK			1.04 H	213	72.10	41.80
3	*5825.00	104.4 AV			1.04 H	213	62.60	41.80
4	#5932.00	60.1 PK	68.2	-8.1	1.04 H	213	52.30	7.80
5	11650.00	60.3 PK	74.0	-13.7	1.13 H	26	40.50	19.80
6	11650.00	48.2 AV	54.0	-5.8	1.13 H	26	28.40	19.80
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	#5630.40	59.7 PK	68.2	-8.5	1.00 V	119	52.70	7.00
2	*5825.00	116.0 PK			1.00 V	119	74.20	41.80
3	*5825.00	106.4 AV			1.00 V	119	64.60	41.80
4	#5990.40	60.8 PK	68.2	-7.4	1.00 V	119	52.90	7.90
5	11650.00	61.0 PK	74.0	-13.0	1.16 V	32	41.20	19.80
6	11650.00	49.4 AV	54.0	-4.6	1.16 V	32	29.60	19.80

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)
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	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	67.3 PK	74.0	-6.7	3.75 H	357	61.20	6.10
2	5150.00	49.4 AV	54.0	-4.6	3.75 H	357	43.30	6.10
3	*5180.00	111.4 PK			3.75 H	357	71.20	40.20
4	*5180.00	102.3 AV			3.75 H	357	62.10	40.20
5	#10360.00	58.4 PK	74.0	-15.6	1.32 H	65	40.50	17.90
6	#10360.00	46.3 AV	54.0	-7.7	1.32 H	65	28.40	17.90
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	69.8 PK	74.0	-4.2	1.93 V	5	63.70	6.10
2	5150.00	53.8 AV	54.0	-0.2	1.93 V	5	47.70	6.10
3	*5180.00	115.3 PK			1.93 V	5	75.10	40.20
4	*5180.00	106.7 AV			1.93 V	5	66.50	40.20
5	#10360.00	59.4 PK	74.0	-14.6	1.06 V	54	41.50	17.90
6	#10360.00	47.5 AV	54.0	-6.5	1.06 V	54	29.60	17.90

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	112.3 PK			3.68 H	355	72.10	40.20
2	*5200.00	103.1 AV			3.68 H	355	62.90	40.20
3	#10400.00	58.7 PK	74.0	-15.3	1.05 H	63	40.50	18.20
4	#10400.00	46.6 AV	54.0	-7.4	1.05 H	63	28.40	18.20
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	116.1 PK			1.99 V	11	75.90	40.20
2	*5200.00	107.2 AV			1.99 V	11	67.00	40.20
3	#10400.00	59.4 PK	74.0	-14.6	1.35 V	87	41.20	18.20
4	#10400.00	47.8 AV	54.0	-6.2	1.35 V	87	29.60	18.20

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)
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	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	*5240.00	113.9 PK			3.55 H	349	73.50	40.40
2	*5240.00	104.6 AV			3.55 H	349	64.20	40.40
3	5350.00	59.1 PK	74.0	-14.9	3.55 H	349	52.60	6.50
4	5350.00	46.1 AV	54.0	-7.9	3.55 H	349	39.60	6.50
5	#10480.00	58.9 PK	74.0	-15.1	1.14 H	47	40.50	18.40
6	#10480.00	46.8 AV	54.0	-7.2	1.14 H	47	28.40	18.40
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	117.2 PK			2.05 V	17	76.80	40.40
2	*5240.00	107.9 AV			2.05 V	17	67.50	40.40
3	5350.00	59.1 PK	74.0	-14.9	2.05 V	17	52.60	6.50
4	5350.00	46.5 AV	54.0	-7.5	2.05 V	17	40.00	6.50
5	#10480.00	59.6 PK	74.0	-14.4	1.05 V	44	41.20	18.40
6	#10480.00	48.0 AV	54.0	-6.0	1.05 V	44	29.60	18.40

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)
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	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	59.7 PK	74.0	-14.3	3.59 H	206	53.60	6.10
2	5150.00	45.7 AV	54.0	-8.3	3.59 H	206	39.60	6.10
3	*5260.00	114.0 PK			3.59 H	206	73.60	40.40
4	*5260.00	104.5 AV			3.59 H	206	64.10	40.40
5	#10520.00	59.5 PK	74.0	-14.5	1.25 H	241	41.10	18.40
6	#10520.00	46.8 AV	54.0	-7.2	1.25 H	241	28.40	18.40
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	60.5 PK	74.0	-13.5	2.10 V	113	54.40	6.10
2	5150.00	48.3 AV	54.0	-5.7	2.10 V	113	42.20	6.10
3	*5260.00	118.2 PK			2.10 V	113	77.80	40.40
4	*5260.00	109.3 AV			2.10 V	113	68.90	40.40
5	#10520.00	59.8 PK	74.0	-14.2	2.58 V	164	41.40	18.40
6	#10520.00	47.1 AV	54.0	-6.9	2.58 V	164	28.70	18.40

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)
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	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	*5300.00	113.1 PK			2.78 H	108	72.60	40.50
2	*5300.00	103.4 AV			2.78 H	108	62.90	40.50
3	10600.00	59.7 PK	74.0	-14.3	2.97 H	183	40.90	18.80
4	10600.00	47.1 AV	54.0	-6.9	2.97 H	183	28.30	18.80
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	116.4 PK			2.30 V	114	75.90	40.50
2	*5300.00	106.9 AV			2.30 V	114	66.40	40.50
3	10600.00	60.2 PK	74.0	-13.8	2.69 V	128	41.40	18.80
4	10600.00	47.3 AV	54.0	-6.7	2.69 V	128	28.50	18.80

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)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

CHANNEL	TX Channel 64	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	*5320.00	114.1 PK			2.49 H	112	73.60	40.50
2	*5320.00	104.7 AV			2.49 H	112	64.20	40.50
3	5350.00	67.3 PK	74.0	-6.7	2.49 H	112	60.80	6.50
4	5350.00	51.9 AV	54.0	-2.1	2.49 H	112	45.40	6.50
5	10640.00	61.0 PK	74.0	-13.0	2.64 H	169	42.00	19.00
6	10640.00	47.1 AV	54.0	-6.9	2.64 H	169	28.10	19.00
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	117.5 PK			2.07 V	101	77.00	40.50
2	*5320.00	107.7 AV			2.07 V	101	67.20	40.50
3	5350.00	70.3 PK	74.0	-3.7	2.07 V	101	63.80	6.50
4	5350.00	53.9 AV	54.0	-0.1	2.07 V	101	47.40	6.50
5	10640.00	61.1 PK	74.0	-12.9	2.80 V	166	42.10	19.00
6	10640.00	47.4 AV	54.0	-6.6	2.80 V	166	28.40	19.00

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)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * " : Fundamental frequency.

CHANNEL	TX Channel 100	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	5460.00	64.2 PK	74.0	-9.8	2.91 H	121	57.50	6.70
2	5460.00	47.6 AV	54.0	-6.4	2.91 H	121	40.90	6.70
3	#5470.00	68.0 PK	74.0	-6.0	2.91 H	121	61.30	6.70
4	#5470.00	51.6 AV	54.0	-2.4	2.91 H	121	44.90	6.70
5	*5500.00	112.5 PK			2.91 H	121	71.60	40.90
6	*5500.00	103.9 AV			2.91 H	121	63.00	40.90
7	11000.00	60.8 PK	74.0	-13.2	1.69 H	261	41.50	19.30
8	11000.00	47.3 AV	54.0	-6.7	1.69 H	261	28.00	19.30
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	5460.00	66.2 PK	74.0	-7.8	1.07 V	174	59.50	6.70
2	5460.00	49.7 AV	54.0	-4.3	1.07 V	174	43.00	6.70
3	#5470.00	71.9 PK	74.0	-2.1	1.07 V	174	65.20	6.70
4	#5470.00	53.9 AV	54.0	-0.1	1.07 V	174	47.20	6.70
5	*5500.00	115.6 PK			1.07 V	174	74.70	40.90
6	*5500.00	106.3 AV			1.07 V	174	65.40	40.90
7	11000.00	61.0 PK	74.0	-13.0	1.44 V	263	41.70	19.30
8	11000.00	47.5 AV	54.0	-6.5	1.44 V	263	28.20	19.30

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)
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	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	*5580.00	109.9 PK			2.93 H	359	68.90	41.00
2	*5580.00	101.8 AV			2.93 H	359	60.80	41.00
3	11160.00	60.3 PK	74.0	-13.7	1.88 H	191	40.50	19.80
4	11160.00	47.5 AV	54.0	-6.5	1.88 H	191	27.70	19.80
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	115.0 PK			1.11 V	164	74.00	41.00
2	*5580.00	105.7 AV			1.11 V	164	64.70	41.00
3	11160.00	60.6 PK	74.0	-13.4	2.87 V	162	40.80	19.80
4	11160.00	47.8 AV	54.0	-6.2	2.87 V	162	28.00	19.80

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)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

CHANNEL	TX Channel 140	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	*5700.00	110.4 PK			2.49 H	3	68.90	41.50
2	*5700.00	101.2 AV			2.49 H	3	59.70	41.50
3	#5725.00	63.6 PK	74.0	-10.4	2.49 H	3	56.30	7.30
4	#5725.00	48.9 AV	54.0	-5.1	2.49 H	3	41.60	7.30
5	11400.00	61.5 PK	74.0	-12.5	2.49 H	360	41.10	20.40
6	11400.00	48.4 AV	54.0	-5.6	2.49 H	360	28.00	20.40
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	113.2 PK			2.50 V	175	71.70	41.50
2	*5700.00	104.0 AV			2.50 V	175	62.50	41.50
3	#5725.00	69.7 PK	74.0	-4.3	2.50 V	176	62.40	7.30
4	#5725.00	53.8 AV	54.0	-0.2	2.50 V	176	46.50	7.30
5	11400.00	61.7 PK	74.0	-12.3	1.74 V	266	41.30	20.40
6	11400.00	48.6 AV	54.0	-5.4	1.74 V	266	28.20	20.40

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)
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	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	#5644.00	60.5 PK	68.2	-7.7	1.34 H	220	53.40	7.10
2	*5745.00	113.1 PK			1.34 H	220	71.50	41.60
3	*5745.00	103.7 AV			1.34 H	220	62.10	41.60
4	#5962.40	61.5 PK	68.2	-6.7	1.13 H	220	53.60	7.90
5	11490.00	60.8 PK	74.0	-13.2	1.05 H	63	40.50	20.30
6	11490.00	48.4 AV	54.0	-5.6	1.05 H	63	28.10	20.30
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	#5604.00	60.0 PK	68.2	-8.2	1.05 V	116	53.10	6.90
2	*5745.00	115.1 PK			1.05 V	116	73.50	41.60
3	*5745.00	105.4 AV			1.05 V	116	63.80	41.60
4	#5932.00	60.5 PK	68.2	-7.7	1.05 V	116	52.70	7.80
5	11490.00	61.8 PK	74.0	-12.2	1.25 V	87	41.50	20.30
6	11490.00	49.9 AV	54.0	-4.1	1.25 V	87	29.60	20.30

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)
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	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	#5612.80	59.9 PK	68.2	-8.3	1.00 H	216	53.00	6.90
2	*5785.00	113.3 PK			1.00 H	216	71.70	41.60
3	*5785.00	104.5 AV			1.00 H	216	62.90	41.60
4	#5971.20	60.0 PK	68.2	-8.2	1.00 H	216	52.10	7.90
5	11570.00	60.7 PK	74.0	-13.3	1.32 H	69	40.60	20.10
6	11570.00	48.7 AV	54.0	-5.3	1.32 H	69	28.60	20.10
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5636.80	59.7 PK	68.2	-8.5	1.07 V	111	52.70	7.00
2	*5785.00	116.2 PK			1.07 V	111	74.60	41.60
3	*5785.00	106.1 AV			1.07 V	111	64.50	41.60
4	#5992.00	60.5 PK	68.2	-7.7	1.07 V	111	52.60	7.90
5	11570.00	61.6 PK	74.0	-12.4	1.32 V	66	41.50	20.10
6	11570.00	49.5 AV	54.0	-4.5	1.32 V	66	29.40	20.10

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)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5825.00	114.7 PK			1.06 H	215	72.90	41.80
2	*5825.00	104.2 AV			1.06 H	215	62.40	41.80
3	11650.00	60.3 PK	74.0	-13.7	1.32 H	55	40.50	19.80
4	11650.00	48.1 AV	54.0	-5.9	1.32 H	55	28.30	19.80
5	#5607.20	59.7 PK	68.2	-8.5	1.06 H	215	52.80	6.90
6	#5972.80	59.7 PK	68.2	-8.5	1.06 H	215	51.80	7.90
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5825.00	115.6 PK			1.00 V	118	73.80	41.80
2	*5825.00	106.3 AV			1.00 V	118	64.50	41.80
3	11650.00	61.3 PK	74.0	-12.7	1.36 V	45	41.50	19.80
4	11650.00	49.3 AV	54.0	-4.7	1.36 V	45	29.50	19.80
5	#5644.00	59.9 PK	68.2	-8.3	1.00 V	118	52.80	7.10
6	#5976.00	60.3 PK	68.2	-7.9	1.00 V	118	52.40	7.90

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
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	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	64.8 PK	74.0	-9.2	1.23 H	9	58.70	6.10
2	5150.00	48.8 AV	54.0	-5.2	1.23 H	9	42.70	6.10
3	*5190.00	105.7 PK			1.23 H	9	65.50	40.20
4	*5190.00	96.8 AV			1.23 H	9	56.60	40.20
5	#10380.00	58.2 PK	74.0	-15.8	1.36 H	98	40.20	18.00
6	#10380.00	46.4 AV	54.0	-7.6	1.36 H	98	28.40	18.00
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	68.9 PK	74.0	-5.1	2.25 V	93	62.80	6.10
2	5150.00	53.6 AV	54.0	-0.4	2.25 V	93	47.50	6.10
3	*5190.00	109.7 PK			2.25 V	93	69.50	40.20
4	*5190.00	99.8 AV			2.25 V	93	59.60	40.20
5	#10380.00	59.5 PK	74.0	-14.5	1.20 V	65	41.50	18.00
6	#10380.00	47.6 AV	54.0	-6.4	1.20 V	65	29.60	18.00

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)
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	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	*5230.00	112.1 PK			1.27 H	7	71.70	40.40
2	*5230.00	101.9 AV			1.27 H	7	61.50	40.40
3	5350.00	59.1 PK	74.0	-14.9	1.27 H	7	52.60	6.50
4	5350.00	46.1 AV	54.0	-7.9	1.27 H	7	39.60	6.50
5	#10460.00	58.5 PK	74.0	-15.5	1.16 H	32	40.30	18.20
6	#10460.00	46.6 AV	54.0	-7.4	1.16 H	32	28.40	18.20
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	114.7 PK			2.22 V	88	74.30	40.40
2	*5230.00	104.9 AV			2.22 V	88	64.50	40.40
3	5350.00	58.1 PK	74.0	-15.9	2.22 V	88	51.60	6.50
4	5350.00	47.0 AV	54.0	-7.0	2.22 V	88	40.50	6.50
5	#10460.00	60.1 PK	74.0	-13.9	1.16 V	32	41.90	18.20
6	#10460.00	48.1 AV	54.0	-5.9	1.16 V	32	29.90	18.20

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)
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	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	58.9 PK	74.0	-15.1	1.13 H	186	52.80	6.10
2	5150.00	46.2 AV	54.0	-7.8	1.13 H	186	40.10	6.10
3	*5270.00	110.8 PK			1.13 H	186	70.40	40.40
4	*5270.00	100.6 AV			1.13 H	186	60.20	40.40
5	#10540.00	60.2 PK	74.0	-13.8	1.28 H	65	41.60	18.60
6	#10540.00	46.7 AV	54.0	-7.3	1.28 H	65	28.10	18.60
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	58.7 PK	74.0	-15.3	1.97 V	185	52.60	6.10
2	5150.00	45.8 AV	54.0	-8.2	1.97 V	185	39.70	6.10
3	*5270.00	112.5 PK			1.97 V	185	72.10	40.40
4	*5270.00	103.3 AV			1.97 V	185	62.90	40.40
5	#10540.00	60.0 PK	74.0	-14.0	1.75 V	333	41.40	18.60
6	#10540.00	46.9 AV	54.0	-7.1	1.75 V	333	28.30	18.60

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)
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	106.7 PK			1.13 H	179	66.20	40.50
2	*5310.00	96.0 AV			1.13 H	179	55.50	40.50
3	5350.00	68.8 PK	74.0	-5.2	1.13 H	179	62.30	6.50
4	5350.00	52.0 AV	54.0	-2.0	1.13 H	179	45.50	6.50
5	10620.00	60.3 PK	74.0	-13.7	1.35 H	70	41.40	18.90
6	10620.00	47.3 AV	54.0	-6.7	1.35 H	70	28.40	18.90
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5310.00	108.8 PK			1.75 V	177	68.30	40.50
2	*5310.00	98.7 AV			1.75 V	177	58.20	40.50
3	5350.00	71.1 PK	74.0	-2.9	1.75 V	177	64.60	6.50
4	5350.00	53.7 AV	54.0	-0.3	1.75 V	177	47.20	6.50
5	10620.00	60.1 PK	74.0	-13.9	2.01 V	192	41.20	18.90
6	10620.00	47.7 AV	54.0	-6.3	2.01 V	192	28.80	18.90

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

CHANNEL	TX Channel 102	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	5460.00	60.6 PK	74.0	-13.4	2.25 H	114	53.90	6.70
2	5460.00	46.8 AV	54.0	-7.2	2.25 H	114	40.10	6.70
3	#5470.00	64.3 PK	74.0	-9.7	2.25 H	114	57.60	6.70
4	#5470.00	48.3 AV	54.0	-5.7	2.25 H	114	41.60	6.70
5	*5510.00	105.1 PK			2.25 H	114	64.20	40.90
6	*5510.00	95.8 AV			2.25 H	114	54.90	40.90
7	11020.00	60.3 PK	74.0	-13.7	2.37 H	151	41.00	19.30
8	11020.00	47.2 AV	54.0	-6.8	2.37 H	151	27.90	19.30
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	5460.00	63.0 PK	74.0	-11.0	2.33 V	113	56.30	6.70
2	5460.00	49.5 AV	54.0	-4.5	2.33 V	113	42.80	6.70
3	#5470.00	68.5 PK	74.0	-5.5	2.33 V	113	61.80	6.70
4	#5470.00	53.7 AV	54.0	-0.3	2.33 V	113	47.00	6.70
5	*5510.00	110.4 PK			2.33 V	113	69.50	40.90
6	*5510.00	101.3 AV			2.33 V	113	60.40	40.90
7	11020.00	60.4 PK	74.0	-13.6	1.75 V	285	41.10	19.30
8	11020.00	47.6 AV	54.0	-6.4	1.75 V	285	28.30	19.30

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)
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	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	*5550.00	111.6 PK			2.33 H	114	70.60	41.00
2	*5550.00	102.8 AV			2.33 H	114	61.80	41.00
3	11100.00	60.7 PK	74.0	-13.3	3.11 H	218	40.90	19.80
4	11100.00	47.9 AV	54.0	-6.1	3.11 H	218	28.10	19.80
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	113.5 PK			1.50 V	164	72.50	41.00
2	*5550.00	104.2 AV			1.50 V	164	63.20	41.00
3	11100.00	61.3 PK	74.0	-12.7	1.28 V	201	41.50	19.80
4	11100.00	48.2 AV	54.0	-5.8	1.28 V	201	28.40	19.80

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)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

CHANNEL	TX Channel 134	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	*5670.00	109.8 PK			2.33 H	112	68.50	41.30
2	*5670.00	100.9 AV			2.33 H	112	59.60	41.30
3	#5725.00	63.7 PK	74.0	-10.3	2.33 H	112	56.40	7.30
4	#5725.00	50.3 AV	54.0	-3.7	2.33 H	112	43.00	7.30
5	11340.00	61.2 PK	74.0	-12.8	2.79 H	154	41.00	20.20
6	11340.00	48.4 AV	54.0	-5.6	2.79 H	154	28.20	20.20
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	112.4 PK			2.53 V	111	71.10	41.30
2	*5670.00	102.8 AV			2.53 V	111	61.50	41.30
3	#5725.00	66.0 PK	74.0	-8.0	2.53 V	111	58.70	7.30
4	#5725.00	53.8 AV	54.0	-0.2	2.53 V	111	46.50	7.30
5	11340.00	61.5 PK	74.0	-12.5	1.69 V	208	41.30	20.20
6	11340.00	48.5 AV	54.0	-5.5	1.69 V	208	28.30	20.20

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)
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	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	#5615.20	60.4 PK	68.2	-7.8	3.28 H	8	53.50	6.90
2	*5755.00	110.9 PK			3.28 H	8	69.30	41.60
3	*5755.00	101.3 AV			3.28 H	8	59.70	41.60
4	#5983.20	61.6 PK	68.2	-6.6	3.28 H	8	53.70	7.90
5	11510.00	61.8 PK	74.0	-12.2	1.42 H	250	41.60	20.20
6	11510.00	49.6 AV	54.0	-4.4	1.42 H	250	29.40	20.20
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	#5618.40	61.4 PK	68.2	-6.8	1.07 V	149	54.50	6.90
2	*5755.00	112.6 PK			1.07 V	149	71.00	41.60
3	*5755.00	102.7 AV			1.07 V	149	61.10	41.60
4	#5959.20	62.1 PK	68.2	-6.1	1.07 V	149	54.20	7.90
5	11510.00	63.7 PK	74.0	-10.3	1.60 V	255	43.50	20.20
6	11510.00	50.9 AV	54.0	-3.1	1.60 V	255	30.70	20.20

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)
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	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	#5601.60	60.6 PK	68.2	-7.6	3.73 H	166	53.70	6.90
2	*5795.00	110.5 PK			3.73 H	166	68.80	41.70
3	*5795.00	101.1 AV			3.73 H	166	59.40	41.70
4	#5940.00	61.4 PK	68.2	-6.8	3.73 H	166	53.60	7.80
5	11590.00	61.3 PK	74.0	-12.7	3.04 H	145	41.20	20.10
6	11590.00	49.2 AV	54.0	-4.8	3.04 H	145	29.10	20.10
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	#5630.40	62.0 PK	68.2	-6.2	2.83 V	113	55.00	7.00
2	*5795.00	114.9 PK			2.83 V	113	73.20	41.70
3	*5795.00	105.4 AV			2.83 V	113	63.70	41.70
4	#5946.40	61.5 PK	68.2	-6.7	2.83 V	113	53.70	7.80
5	11590.00	61.0 PK	74.0	-13.0	3.54 V	167	40.90	20.10
6	11590.00	48.8 AV	54.0	-5.2	3.54 V	167	28.70	20.10

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)
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	65.4 PK	74.0	-8.6	1.35 H	18	59.30	6.10
2	5150.00	49.5 AV	54.0	-4.5	1.35 H	18	43.40	6.10
3	*5210.00	101.1 PK			1.35 H	18	60.80	40.30
4	*5210.00	90.6 AV			1.35 H	18	50.30	40.30
5	5350.00	57.4 PK	74.0	-16.6	1.35 H	18	50.90	6.50
6	5350.00	44.5 AV	54.0	-9.5	1.35 H	18	38.00	6.50
7	#10420.00	58.6 PK	74.0	-15.4	1.25 H	68	40.50	18.10
8	#10420.00	46.5 AV	54.0	-7.5	1.25 H	68	28.40	18.10
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	69.6 PK	74.0	-4.4	2.44 V	126	63.50	6.10
2	5150.00	53.7 AV	54.0	-0.3	2.44 V	126	47.60	6.10
3	*5210.00	103.6 PK			2.44 V	126	63.30	40.30
4	*5210.00	94.2 AV			2.44 V	126	53.90	40.30
5	5350.00	58.0 PK	74.0	-16.0	2.44 V	126	51.50	6.50
6	5350.00	45.7 AV	54.0	-8.3	2.44 V	126	39.20	6.50
7	#10420.00	59.3 PK	74.0	-14.7	1.25 V	87	41.20	18.10
8	#10420.00	47.4 AV	54.0	-6.6	1.25 V	87	29.30	18.10

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)
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	59.1 PK	74.0	-14.9	1.26 H	171	53.00	6.10
2	5150.00	46.1 AV	54.0	-7.9	1.26 H	171	40.00	6.10
3	*5290.00	102.2 PK			1.26 H	171	61.80	40.40
4	*5290.00	92.2 AV			1.26 H	171	51.80	40.40
5	5350.00	67.2 PK	74.0	-6.8	1.26 H	171	60.70	6.50
6	5350.00	52.6 AV	54.0	-1.4	1.26 H	171	46.10	6.50
7	#10580.00	60.2 PK	74.0	-13.8	1.32 H	59	41.50	18.70
8	#10580.00	47.0 AV	54.0	-7.0	1.32 H	59	28.30	18.70
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	58.7 PK	74.0	-15.3	1.98 V	249	52.60	6.10
2	5150.00	45.3 AV	54.0	-8.7	1.98 V	249	39.20	6.10
3	*5290.00	103.1 PK			1.98 V	249	62.70	40.40
4	*5290.00	93.7 AV			1.98 V	249	53.30	40.40
5	5350.00	69.6 PK	74.0	-4.4	1.98 V	249	63.10	6.50
6	5350.00	53.9 AV	54.0	-0.1	1.98 V	249	47.40	6.50
7	#10580.00	60.3 PK	74.0	-13.7	2.68 V	142	41.60	18.70
8	#10580.00	46.9 AV	54.0	-7.1	2.68 V	142	28.20	18.70

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)
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	5460.00	60.7 PK	74.0	-13.3	2.29 H	112	54.00	6.70
2	5460.00	47.2 AV	54.0	-6.8	2.29 H	112	40.50	6.70
3	#5470.00	62.1 PK	74.0	-11.9	2.29 H	112	55.40	6.70
4	#5470.00	48.3 AV	54.0	-5.7	2.29 H	112	41.60	6.70
5	*5530.00	102.9 PK			2.29 H	112	62.00	40.90
6	*5530.00	93.1 AV			2.29 H	112	52.20	40.90
7	#5725.00	58.8 PK	74.0	-15.2	2.29 H	112	51.50	7.30
8	#5725.00	45.8 AV	54.0	-8.2	2.29 H	112	38.50	7.30
9	11060.00	60.3 PK	74.0	-13.7	1.64 H	315	40.70	19.60
10	11060.00	47.8 AV	54.0	-6.2	1.64 H	315	28.20	19.60
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	5460.00	64.8 PK	74.0	-9.2	2.29 V	93	58.10	6.70
2	5460.00	52.4 AV	54.0	-1.6	2.29 V	93	45.70	6.70
3	#5470.00	69.1 PK	74.0	-4.9	2.29 V	93	62.40	6.70
4	#5470.00	53.7 AV	54.0	-0.3	2.29 V	93	47.00	6.70
5	*5530.00	105.3 PK			2.29 V	93	64.40	40.90
6	*5530.00	96.3 AV			2.29 V	93	55.40	40.90
7	#5725.00	58.7 PK	74.0	-15.3	2.29 V	93	51.40	7.30
8	#5725.00	45.6 AV	54.0	-8.4	2.29 V	93	38.30	7.30
9	11060.00	60.4 PK	74.0	-13.6	1.55 V	147	40.80	19.60
10	11060.00	47.9 AV	54.0	-6.1	1.55 V	147	28.30	19.60

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)
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	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	5460.00	60.0 PK	74.0	-14.0	3.19 H	181	53.30	6.70
2	5460.00	46.8 AV	54.0	-7.2	3.19 H	181	40.10	6.70
3	#5470.00	62.9 PK	74.0	-11.1	3.19 H	181	56.20	6.70
4	#5470.00	47.7 AV	54.0	-6.3	3.19 H	181	41.00	6.70
5	*5610.00	107.2 PK			3.19 H	181	66.10	41.10
6	*5610.00	97.4 AV			3.19 H	181	56.30	41.10
7	#5725.00	63.7 PK	74.0	-10.3	3.19 H	181	56.40	7.30
8	#5725.00	50.3 AV	54.0	-3.7	3.19 H	181	43.00	7.30
9	11220.00	60.7 PK	74.0	-13.3	1.91 H	243	40.80	19.90
10	11220.00	48.0 AV	54.0	-6.0	1.91 H	243	28.10	19.90
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	61.3 PK	74.0	-12.7	2.38 V	86	54.60	6.70
2	5460.00	48.9 AV	54.0	-5.1	2.38 V	86	42.20	6.70
3	#5470.00	62.3 PK	74.0	-11.7	2.38 V	86	55.60	6.70
4	#5470.00	49.8 AV	54.0	-4.2	2.38 V	86	43.10	6.70
5	*5610.00	111.5 PK			2.38 V	86	70.40	41.10
6	*5610.00	101.8 AV			2.38 V	86	60.70	41.10
7	#5725.00	61.9 PK	74.0	-12.1	2.38 V	86	54.60	7.30
8	#5725.00	50.4 AV	54.0	-3.6	2.38 V	86	43.10	7.30
9	11220.00	61.0 PK	74.0	-13.0	1.58 V	136	41.10	19.90
10	11220.00	48.3 AV	54.0	-5.7	1.58 V	136	28.40	19.90

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
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	#5601.60	60.6 PK	68.2	-7.6	3.73 H	166	53.70	6.90
2	*5775.00	109.6 PK			3.84 H	174	68.00	41.60
3	*5775.00	99.9 AV			3.84 H	174	58.30	41.60
4	#5940.00	61.4 PK	68.2	-6.8	3.73 H	166	53.60	7.80
5	11550.00	61.7 PK	74.0	-12.3	3.41 H	145	41.50	20.20
6	11550.00	48.9 AV	54.0	-5.1	3.41 H	145	28.70	20.20
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	#5630.40	62.0 PK	68.2	-6.2	2.83 V	113	55.00	7.00
2	*5775.00	111.9 PK			1.29 V	158	70.30	41.60
3	*5775.00	101.7 AV			1.29 V	158	60.10	41.60
4	#5946.40	61.5 PK	68.2	-6.7	2.83 V	113	53.70	7.80
5	11550.00	61.3 PK	74.0	-12.7	1.90 V	256	41.10	20.20
6	11550.00	49.1 AV	54.0	-4.9	1.90 V	256	28.90	20.20

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)
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 100	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	119.16	35.6 QP	43.5	-7.9	1.50 H	280	51.70	-16.10
2	168.03	39.1 QP	43.5	-4.4	1.78 H	284	53.10	-14.00
3	232.36	41.8 QP	46.0	-4.2	1.24 H	259	57.40	-15.60
4	351.87	42.2 QP	46.0	-3.8	1.07 H	261	53.60	-11.40
5	730.38	37.8 QP	46.0	-8.2	1.50 H	317	41.40	-3.60
6	893.38	41.3 QP	46.0	-4.7	1.99 H	91	42.30	-1.00
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	38.36	35.6 QP	40.0	-4.4	1.17 V	158	50.60	-15.00
2	119.16	37.8 QP	43.5	-5.7	1.00 V	208	53.90	-16.10
3	225.76	41.0 QP	46.0	-5.0	1.00 V	0	57.20	-16.20
4	353.69	42.8 QP	46.0	-3.2	1.42 V	83	54.10	-11.30
5	447.09	37.6 QP	46.0	-8.4	1.99 V	192	47.00	-9.40
6	895.32	38.4 QP	46.0	-7.6	1.24 V	65	39.40	-1.00

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	ESCS 30	100288	Aug. 18, 2016	Aug. 17, 2017
RF signal cable (with 10dB PAD) Woken	5D-FB	Cable-cond2-01	Dec. 22, 2016	Dec. 21, 2017
LISN ROHDE & SCHWARZ (EUT)	ESH2-Z5	100100	Jan. 17, 2017	Jan. 16, 2018
LISN ROHDE & SCHWARZ (Peripheral)	ESH3-Z5	100312	Jul. 26, 2016	Jul. 25, 2017
Software ADT	BV ADT_Conc_ V7.3.7.3	NA	NA	NA

Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

2. The test was performed in HwaYa Shielded Room 2.

3. The VCCI Site Registration No. is C-2047.

4.2.3 Test Procedures

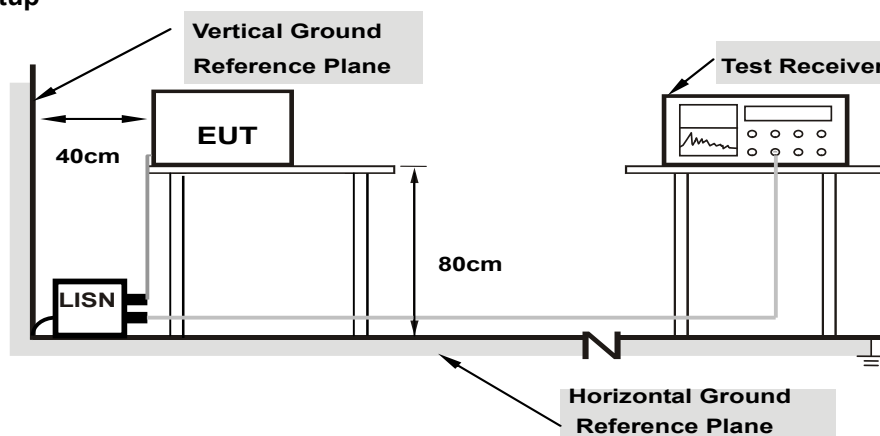
- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance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

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

4.2.4 Deviation from Test Standard

No deviation.

4.2.5 Test Setup



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

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

4.2.6 EUT Operating Conditions

Same as 4.1.6.

4.2.7 Test Results

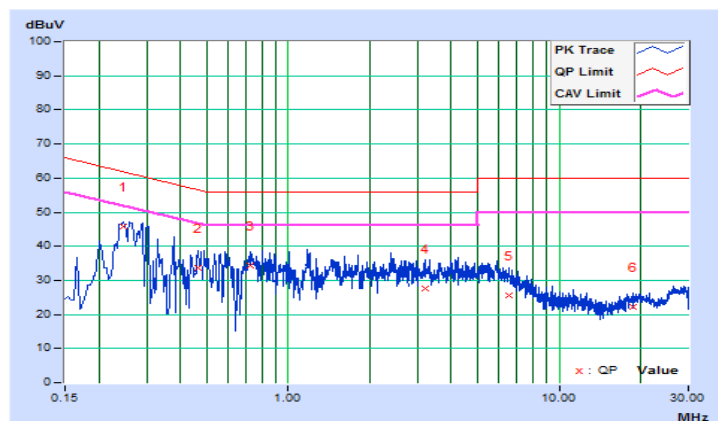
Worst-case data: 802.11a

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	0.24614	10.38	35.44	23.42	45.82	33.80	61.89	51.89	-16.07	-18.09
2	0.46444	10.40	23.37	10.65	33.77	21.05	56.61	46.61	-22.84	-25.56
3	0.72200	10.40	23.85	6.88	34.25	17.28	56.00	46.00	-21.75	-28.72
4	3.21400	10.53	17.10	4.65	27.63	15.18	56.00	46.00	-28.37	-30.82
5	6.54600	10.68	14.90	4.72	25.58	15.40	60.00	50.00	-34.42	-34.60
6	18.81800	11.29	11.10	7.04	22.39	18.33	60.00	50.00	-37.61	-31.67

Remarks:

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

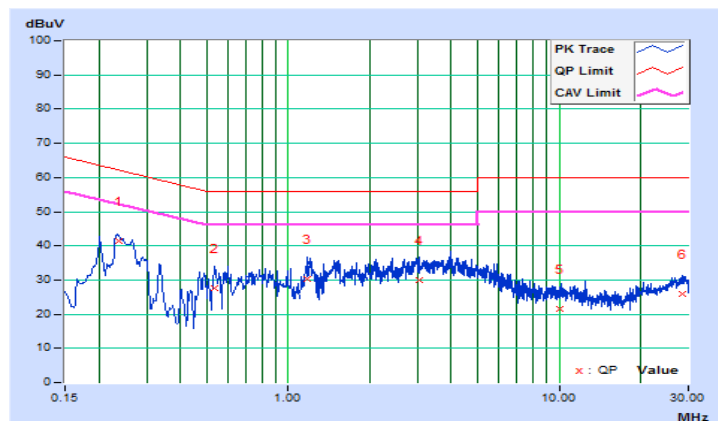


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.23800	10.14	31.15	18.75	41.29	28.89	62.17	52.17	-20.88	-23.28
2	0.53404	10.16	17.51	14.29	27.67	24.45	56.00	46.00	-28.33	-21.55
3	1.18200	10.18	20.16	4.54	30.34	14.72	56.00	46.00	-25.66	-31.28
4	3.03800	10.29	19.75	5.70	30.04	15.99	56.00	46.00	-25.96	-30.01
5	10.00200	10.55	10.94	4.93	21.49	15.48	60.00	50.00	-38.51	-34.52
6	28.49000	11.15	14.69	9.56	25.84	20.71	60.00	50.00	-34.16	-29.29

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

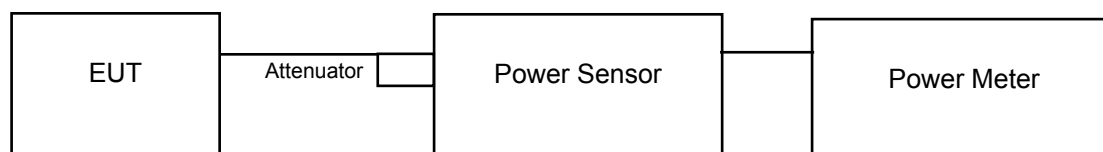
4.3.1 Limits of Transmit Power Measurement

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)

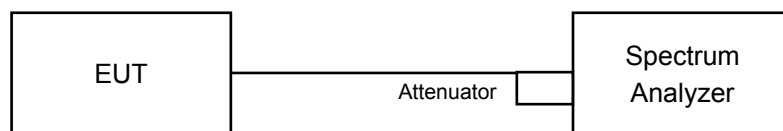
*B is the 26 dB emission bandwidth in megahertz

4.3.2 Test Setup

For Power Output Measurement



For 26dB 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, 802.11ac (VHT20), 802.11ac (VHT40)

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

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

4.3.5 Deviation from Test Standard

No deviation.

4.3.6 EUT Operating Conditions

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

4.3.7 Test Result

Power Output:

CDD Mode

802.11a

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)			Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 1	Chain 2	Chain 3				
36	5180	15.63	15.72	15.77	111.641	20.48	24	Pass
40	5200	15.60	15.81	15.69	111.483	20.47	24	Pass
48	5240	15.64	15.68	15.87	112.264	20.50	24	Pass
52	5260	15.51	15.68	15.37	106.981	20.29	23.90	Pass
60	5300	15.55	15.26	15.46	104.622	20.20	23.90	Pass
64	5320	15.42	15.62	15.83	109.591	20.40	23.91	Pass
100	5500	15.70	15.58	15.29	107.101	20.30	23.92	Pass
116	5580	15.35	15.42	15.06	101.174	20.05	23.90	Pass
140	5700	15.54	15.23	15.44	104.148	20.18	23.91	Pass
149	5745	15.03	15.62	15.84	106.688	20.28	30	Pass
157	5785	15.09	15.45	15.98	106.988	20.29	30	Pass
165	5825	15.40	15.43	15.88	108.314	20.35	30	Pass

Note:

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

Chain 1

1. $11\text{dBm} + 10\log(19.53) = 23.90 < 24\text{dBm}$
2. $11\text{dBm} + 10\log(19.51) = 23.90 < 24\text{dBm}$
3. $11\text{dBm} + 10\log(19.55) = 23.91 < 24\text{dBm}$
4. $11\text{dBm} + 10\log(19.60) = 23.92 < 24\text{dBm}$
5. $11\text{dBm} + 10\log(19.53) = 23.90 < 24\text{dBm}$
6. $11\text{dBm} + 10\log(19.58) = 23.91 < 24\text{dBm}$

Chain 2

1. $11\text{dBm} + 10\log(19.67) = 23.94 < 24\text{dBm}$
2. $11\text{dBm} + 10\log(19.71) = 23.95 < 24\text{dBm}$
3. $11\text{dBm} + 10\log(19.70) = 23.94 < 24\text{dBm}$
4. $11\text{dBm} + 10\log(19.67) = 23.94 < 24\text{dBm}$
5. $11\text{dBm} + 10\log(19.69) = 23.94 < 24\text{dBm}$
6. $11\text{dBm} + 10\log(20.57) = 24.13 < 24\text{dBm}$

Chain 3

1. $11\text{dBm} + 10\log(19.66) = 23.94 < 24\text{dBm}$
2. $11\text{dBm} + 10\log(19.65) = 23.93 < 24\text{dBm}$
3. $11\text{dBm} + 10\log(19.65) = 23.93 < 24\text{dBm}$
4. $11\text{dBm} + 10\log(19.68) = 23.94 < 24\text{dBm}$
5. $11\text{dBm} + 10\log(19.65) = 23.93 < 24\text{dBm}$
6. $11\text{dBm} + 10\log(19.74) = 23.95 < 24\text{dBm}$

802.11n (HT20)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)			Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 1	Chain 2	Chain 3				
36	5180	15.81	15.33	15.75	109.810	20.41	24	Pass
40	5200	15.61	15.72	15.62	110.192	20.42	24	Pass
48	5240	15.73	15.71	15.82	112.844	20.52	24	Pass
52	5260	15.54	15.19	15.53	104.574	20.19	24	Pass
60	5300	15.30	15.02	15.68	102.636	20.11	24	Pass
64	5320	15.45	15.81	15.42	108.016	20.33	24	Pass
100	5500	15.20	15.37	15.38	102.062	20.09	24	Pass
116	5580	15.32	15.11	15.47	101.712	20.07	24	Pass
140	5700	15.24	15.32	15.43	102.375	20.10	24	Pass
149	5745	15.11	15.85	15.61	107.285	20.31	30	Pass
157	5785	15.07	15.49	15.82	105.731	20.24	30	Pass
165	5825	15.46	15.55	15.78	108.892	20.37	30	Pass

Note:

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

Chain 1

1. $11\text{dBm} + 10\log(20.25) = 24.06 > 24\text{dBm}$
2. $11\text{dBm} + 10\log(20.25) = 24.06 > 24\text{dBm}$
3. $11\text{dBm} + 10\log(20.14) = 24.04 > 24\text{dBm}$
4. $11\text{dBm} + 10\log(20.12) = 24.04 > 24\text{dBm}$
5. $11\text{dBm} + 10\log(20.31) = 24.08 > 24\text{dBm}$
6. $11\text{dBm} + 10\log(20.31) = 24.08 > 24\text{dBm}$

Chain 2

1. $11\text{dBm} + 10\log(20.48) = 24.11 > 24\text{dBm}$
2. $11\text{dBm} + 10\log(20.40) = 24.10 > 24\text{dBm}$
3. $11\text{dBm} + 10\log(20.43) = 24.10 > 24\text{dBm}$
4. $11\text{dBm} + 10\log(20.48) = 24.11 > 24\text{dBm}$
5. $11\text{dBm} + 10\log(20.51) = 24.12 > 24\text{dBm}$
6. $11\text{dBm} + 10\log(20.48) = 24.11 > 24\text{dBm}$

Chain 3

1. $11\text{dBm} + 10\log(20.34) = 24.08 > 24\text{dBm}$
2. $11\text{dBm} + 10\log(20.45) = 24.11 > 24\text{dBm}$
3. $11\text{dBm} + 10\log(20.41) = 24.10 > 24\text{dBm}$
4. $11\text{dBm} + 10\log(20.33) = 24.08 > 24\text{dBm}$
5. $11\text{dBm} + 10\log(20.37) = 24.09 > 24\text{dBm}$
6. $11\text{dBm} + 10\log(20.49) = 24.12 > 24\text{dBm}$

802.11n (HT40)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)			Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 1	Chain 2	Chain 3				
38	5190	15.89	15.24	15.17	105.120	20.22	24	Pass
46	5230	15.48	15.86	15.69	110.934	20.45	24	Pass
54	5270	15.64	15.36	14.97	102.405	20.10	24	Pass
62	5310	15.60	15.36	14.87	101.354	20.06	24	Pass
102	5510	15.39	15.45	15.53	105.396	20.23	24	Pass
110	5550	15.71	15.34	15.35	105.714	20.24	24	Pass
134	5670	15.18	15.37	15.30	101.280	20.06	24	Pass
151	5755	15.39	15.78	15.70	109.592	20.40	30	Pass
159	5795	15.30	15.59	15.73	107.519	20.31	30	Pass

Note:

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

Chain 1

1. $11\text{dBm} + 10\log(41.82) = 27.21 > 24\text{dBm}$
2. $11\text{dBm} + 10\log(41.88) = 27.22 > 24\text{dBm}$
3. $11\text{dBm} + 10\log(42.09) = 27.24 > 24\text{dBm}$
4. $11\text{dBm} + 10\log(41.80) = 27.21 > 24\text{dBm}$
5. $11\text{dBm} + 10\log(42.02) = 27.23 > 24\text{dBm}$

Chain 2

1. $11\text{dBm} + 10\log(41.93) = 27.23 > 24\text{dBm}$
2. $11\text{dBm} + 10\log(42.12) = 27.24 > 24\text{dBm}$
3. $11\text{dBm} + 10\log(42.15) = 27.25 > 24\text{dBm}$
4. $11\text{dBm} + 10\log(42.16) = 27.25 > 24\text{dBm}$
5. $11\text{dBm} + 10\log(42.01) = 27.23 > 24\text{dBm}$

Chain 3

1. $11\text{dBm} + 10\log(41.89) = 27.22 > 24\text{dBm}$
2. $11\text{dBm} + 10\log(42.12) = 27.24 > 24\text{dBm}$
3. $11\text{dBm} + 10\log(42.17) = 27.25 > 24\text{dBm}$
4. $11\text{dBm} + 10\log(41.93) = 27.23 > 24\text{dBm}$
5. $11\text{dBm} + 10\log(42.09) = 27.24 > 24\text{dBm}$

802.11ac (VHT80)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)			Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 1	Chain 2	Chain 3				
42	5210	15.65	15.82	15.85	113.381	20.55	24	Pass
58	5290	15.63	15.95	15.77	113.671	20.56	24	Pass
106	5530	15.22	15.73	15.64	107.321	20.31	24	Pass
122	5610	15.20	15.71	15.76	108.022	20.34	24	Pass
155	5775	15.31	15.79	15.90	110.799	20.45	24	Pass

Note:

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

Chain 1

1. $11\text{dBm} + 10\log(82.23) = 30.15 > 24\text{dBm}$
2. $11\text{dBm} + 10\log(82.46) = 30.16 > 24\text{dBm}$
3. $11\text{dBm} + 10\log(82.20) = 30.15 > 24\text{dBm}$

Chain 2

1. $11\text{dBm} + 10\log(82.67) = 30.17 > 24\text{dBm}$
2. $11\text{dBm} + 10\log(82.25) = 30.15 > 24\text{dBm}$
3. $11\text{dBm} + 10\log(82.52) = 30.17 > 24\text{dBm}$

Chain 3

1. $11\text{dBm} + 10\log(82.48) = 30.16 > 24\text{dBm}$
2. $11\text{dBm} + 10\log(82.74) = 30.18 > 24\text{dBm}$
3. $11\text{dBm} + 10\log(82.79) = 30.18 > 24\text{dBm}$

Beamforming Mode

802.11n (HT20)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)			Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 1	Chain 2	Chain 3				
36	5180	15.81	15.33	15.75	109.810	20.41	22.45	Pass
40	5200	15.61	15.72	15.62	110.192	20.42	22.45	Pass
48	5240	15.73	15.71	15.82	112.844	20.52	22.45	Pass
52	5260	15.54	15.19	15.53	104.574	20.19	22.16	Pass
60	5300	15.30	15.02	15.68	102.636	20.11	22.16	Pass
64	5320	15.45	15.81	15.42	108.016	20.33	22.16	Pass
100	5500	15.20	15.37	15.38	102.062	20.09	21.57	Pass
116	5580	15.32	15.11	15.47	101.712	20.07	21.57	Pass
140	5700	15.24	15.32	15.43	102.375	20.10	21.57	Pass
149	5745	15.11	15.85	15.61	107.285	20.31	27.34	Pass
157	5785	15.07	15.49	15.82	105.731	20.24	27.34	Pass
165	5825	15.46	15.55	15.78	108.892	20.37	27.34	Pass

*For 5180~5240MHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/3] = 7.55\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $24 - (7.55 - 6) = 22.45\text{dBm}$.
 For 5260 ~ 5320MHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/3] = 7.84\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $24 - (7.84 - 6) = 22.16\text{dBm}$.
 For 5500 ~ 5700MHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/3] = 8.43\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $24 - (8.43 - 6) = 21.57\text{dBm}$.
 For 5745 ~ 5825MHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/3] = 8.36\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $30 - (8.66 - 6) = 27.34\text{dBm}$.

Note:

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

Chain 1

1. $11\text{dBm} + 10\log(20.25) = 24.06 > 22.16\text{dBm}$
2. $11\text{dBm} + 10\log(20.25) = 24.06 > 22.16\text{dBm}$
3. $11\text{dBm} + 10\log(20.14) = 24.04 > 22.16\text{dBm}$
4. $11\text{dBm} + 10\log(20.12) = 24.04 > 21.57\text{dBm}$
5. $11\text{dBm} + 10\log(20.31) = 24.08 > 21.57\text{dBm}$
6. $11\text{dBm} + 10\log(20.31) = 24.08 > 21.57\text{dBm}$

Chain 2

1. $11\text{dBm} + 10\log(20.48) = 24.11 > 22.16\text{dBm}$
2. $11\text{dBm} + 10\log(20.40) = 24.10 > 22.16\text{dBm}$
3. $11\text{dBm} + 10\log(20.43) = 24.10 > 22.16\text{dBm}$
4. $11\text{dBm} + 10\log(20.48) = 24.11 > 21.57\text{dBm}$
5. $11\text{dBm} + 10\log(20.51) = 24.12 > 21.57\text{dBm}$
6. $11\text{dBm} + 10\log(20.48) = 24.11 > 21.57\text{dBm}$

Chain 3

1. $11\text{dBm} + 10\log(20.34) = 24.08 > 22.16\text{dBm}$
2. $11\text{dBm} + 10\log(20.45) = 24.11 > 22.16\text{dBm}$
3. $11\text{dBm} + 10\log(20.41) = 24.10 > 22.16\text{dBm}$
4. $11\text{dBm} + 10\log(20.33) = 24.08 > 21.57\text{dBm}$
5. $11\text{dBm} + 10\log(20.37) = 24.09 > 21.57\text{dBm}$
6. $11\text{dBm} + 10\log(20.49) = 24.12 > 21.57\text{dBm}$

802.11n (HT40)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)			Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 1	Chain 2	Chain 3				
38	5190	15.89	15.24	15.17	105.120	20.22	22.45	Pass
46	5230	15.48	15.86	15.69	110.934	20.45	22.45	Pass
54	5270	15.64	15.36	14.97	102.405	20.10	22.16	Pass
62	5310	15.60	15.36	14.87	101.354	20.06	22.16	Pass
102	5510	15.39	15.45	15.53	105.396	20.23	21.57	Pass
110	5550	15.71	15.34	15.35	105.714	20.24	21.57	Pass
134	5670	15.18	15.37	15.30	101.280	20.06	21.57	Pass
151	5755	15.39	15.78	15.70	109.592	20.40	27.34	Pass
159	5795	15.30	15.59	15.73	107.519	20.31	27.34	Pass

*For 5180~5240MHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/3] = 7.55\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $24 - (7.55 - 6) = 22.45\text{dBm}$.
 For 5260 ~ 5320MHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/3] = 7.84\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $24 - (7.84 - 6) = 22.16\text{dBm}$.
 For 5500 ~ 5700MHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/3] = 8.43\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $24 - (8.43 - 6) = 21.57\text{dBm}$.
 For 5745 ~ 5825MHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/3] = 8.36\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $30 - (8.66 - 6) = 27.34\text{dBm}$.

Note:

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

Chain 1

1. $11\text{dBm} + 10\log(41.82) = 27.21 > 22.16\text{dBm}$
2. $11\text{dBm} + 10\log(41.88) = 27.22 > 22.16\text{dBm}$
3. $11\text{dBm} + 10\log(42.09) = 27.24 > 21.57\text{dBm}$
4. $11\text{dBm} + 10\log(41.80) = 27.21 > 21.57\text{dBm}$
5. $11\text{dBm} + 10\log(42.02) = 27.23 > 21.57\text{dBm}$

Chain 2

1. $11\text{dBm} + 10\log(41.93) = 27.23 > 22.16\text{dBm}$
2. $11\text{dBm} + 10\log(42.12) = 27.24 > 22.16\text{dBm}$
3. $11\text{dBm} + 10\log(42.15) = 27.25 > 21.57\text{dBm}$
4. $11\text{dBm} + 10\log(42.16) = 27.25 > 21.57\text{dBm}$
5. $11\text{dBm} + 10\log(42.01) = 27.23 > 21.57\text{dBm}$

Chain 3

1. $11\text{dBm} + 10\log(41.89) = 27.22 > 22.16\text{dBm}$
2. $11\text{dBm} + 10\log(42.12) = 27.24 > 22.16\text{dBm}$
3. $11\text{dBm} + 10\log(42.17) = 27.25 > 21.57\text{dBm}$
4. $11\text{dBm} + 10\log(41.93) = 27.23 > 21.57\text{dBm}$
5. $11\text{dBm} + 10\log(42.09) = 27.24 > 21.57\text{dBm}$

802.11ac (VHT80)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)			Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 1	Chain 2	Chain 3				
42	5210	15.65	15.82	15.85	113.381	20.55	22.45	Pass
58	5290	15.63	15.95	15.77	113.671	20.56	22.16	Pass
106	5530	15.22	15.73	15.64	107.321	20.31	21.57	Pass
122	5610	15.20	15.71	15.76	108.022	20.34	21.57	Pass
155	5775	15.31	15.79	15.90	110.799	20.45	27.34	Pass

*For 5180~5240MHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/3] = 7.55\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $24 - (7.55 - 6) = 22.45\text{dBm}$.
For 5260 ~ 5320MHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/3] = 7.84\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $24 - (7.84 - 6) = 22.16\text{dBm}$.
For 5500 ~ 5700MHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/3] = 8.43\text{dBi} > 6\text{dBi}$, so the power limit shall be reduced to $24 - (8.43 - 6) = 21.57\text{dBm}$.
For 5745 ~ 5825MHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/3] = 8.36\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $30 - (8.66 - 6) = 27.34\text{dBm}$.

Note:

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

Chain 1

1. $11\text{dBm} + 10\log(82.23) = 30.15 > 22.16\text{dBm}$
2. $11\text{dBm} + 10\log(82.46) = 30.16 > 21.57\text{dBm}$
3. $11\text{dBm} + 10\log(82.20) = 30.15 > 21.57\text{dBm}$

Chain 2

1. $11\text{dBm} + 10\log(82.67) = 30.17 > 22.16\text{dBm}$
2. $11\text{dBm} + 10\log(82.25) = 30.15 > 21.57\text{dBm}$
3. $11\text{dBm} + 10\log(82.52) = 30.17 > 21.57\text{dBm}$

Chain 3

1. $11\text{dBm} + 10\log(82.48) = 30.16 > 22.16\text{dBm}$
2. $11\text{dBm} + 10\log(82.74) = 30.18 > 21.57\text{dBm}$
3. $11\text{dBm} + 10\log(82.79) = 30.18 > 21.57\text{dBm}$

26dB Bandwidth:
802.11a

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)		
		Chain 1	Chain 2	Chain 3
36	5180	19.53	19.62	19.70
40	5200	19.64	19.49	19.59
48	5240	19.52	19.68	19.75
52	5260	19.53	19.67	19.66
60	5300	19.51	19.71	19.65
64	5320	19.55	19.70	19.65
100	5500	19.60	19.67	19.68
116	5580	19.53	19.69	19.65
140	5700	19.58	20.57	19.74

802.11n (HT20)

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)		
		Chain 1	Chain 2	Chain 3
36	5180	20.17	20.39	20.32
40	5200	20.29	20.20	20.31
48	5240	20.13	20.34	20.41
52	5260	20.25	20.48	20.34
60	5300	20.25	20.40	20.45
64	5320	20.14	20.43	20.41
100	5500	20.12	20.48	20.33
116	5580	20.31	20.51	20.37
140	5700	20.31	20.48	20.49

802.11n (HT40)

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)		
		Chain 1	Chain 2	Chain 3
38	5190	41.73	42.23	42.10
46	5230	41.73	41.45	42.10
54	5270	41.82	41.93	41.89
62	5310	41.88	42.12	42.12
102	5510	42.09	42.15	42.17
110	5550	41.80	42.16	41.93
134	5670	42.02	42.01	42.09

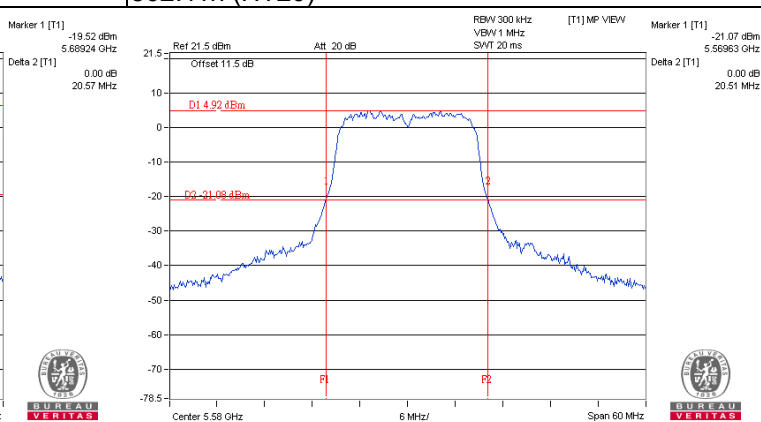
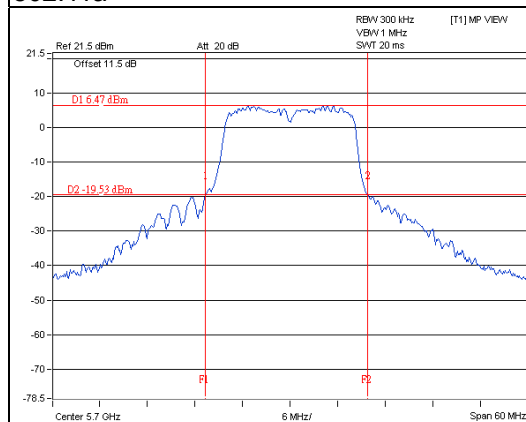
802.11ac (VHT80)

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)		
		Chain 1	Chain 2	Chain 3
42	5210	82.07	81.26	82.88
58	5290	82.23	82.67	82.48
106	5530	82.46	82.25	82.74
122	5610	82.20	82.52	82.79

Spectrum Plot of Worst Value

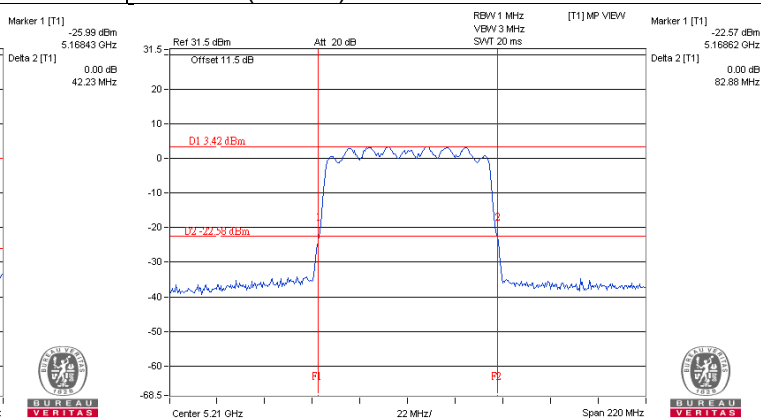
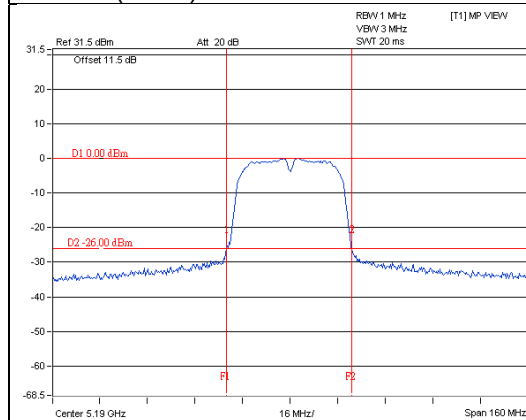
802.11a

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	109.591	20.40
5470~5725	107.101	20.30

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	108.016	20.33
5470~5725	102.375	20.10

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	102.405	20.10
5470~5725	105.714	20.24

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

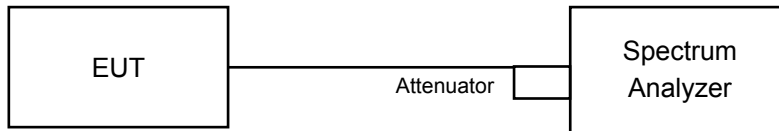
802.11ac (VHT80)

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	113.671	20.56
5470~5725	108.022	20.34

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)		
		Chain 1	Chain 2	Chain 3
36	5180	16.32	16.32	16.32
40	5200	16.32	16.32	16.56
48	5240	16.32	16.32	16.44
52	5260	16.32	16.44	16.44
60	5300	16.32	16.44	16.44
64	5320	16.32	16.44	16.44
100	5500	16.32	16.44	16.44
116	5580	16.32	16.44	16.44
140	5700	16.32	16.56	16.32
149	5745	16.34	16.34	16.43
157	5785	16.32	16.44	16.56
165	5825	16.32	16.44	16.32

802.11n (HT20)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)		
		Chain 1	Chain 2	Chain 3
36	5180	17.40	17.40	17.40
40	5200	17.40	17.40	17.52
48	5240	17.40	17.40	17.40
52	5260	17.40	17.40	17.40
60	5300	17.40	17.40	17.40
64	5320	17.40	17.40	17.40
100	5500	17.40	17.40	17.40
116	5580	17.40	17.40	17.40
140	5700	17.40	17.40	17.40
149	5745	17.40	17.40	17.40
157	5785	17.40	17.40	17.40
165	5825	17.40	17.40	17.52

802.11n (HT40)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)		
		Chain 1	Chain 2	Chain 3
38	5190	35.64	35.52	35.76
46	5230	35.64	35.40	35.76
54	5270	35.64	35.76	35.76
62	5310	35.64	35.76	35.64
102	5510	35.76	35.76	35.76
110	5550	35.64	35.88	35.76
134	5670	35.64	35.76	35.76
151	5755	35.64	35.52	35.76
159	5795	35.64	35.40	35.88

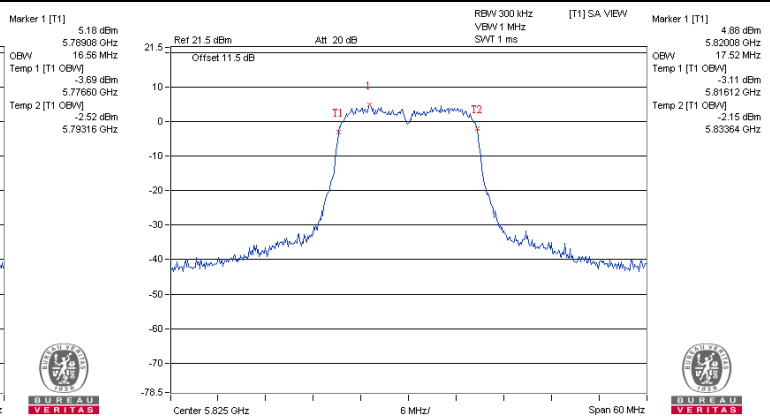
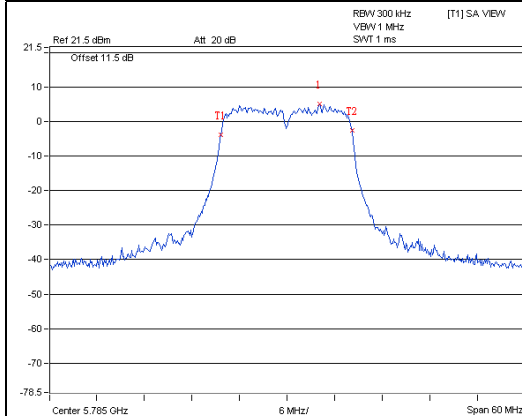
802.11ac (VHT80)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)		
		Chain 1	Chain 2	Chain 3
42	5210	75.12	73.68	75.12
58	5290	74.88	75.12	75.12
106	5530	74.88	74.88	75.12
122	5610	75.12	75.12	75.12
155	5775	75.12	73.68	75.12

Spectrum Plot of Worst Value

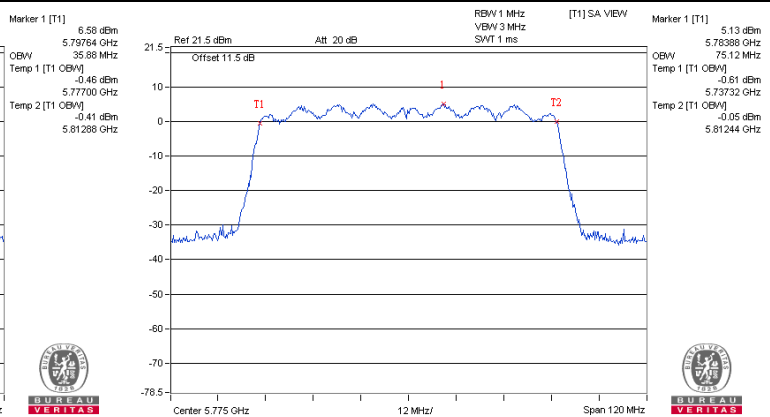
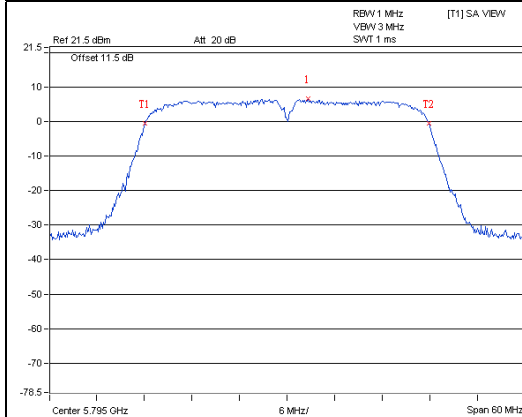
802.11a

802.11n (HT20)



802.11n (HT40)

802.11ac (VHT80)

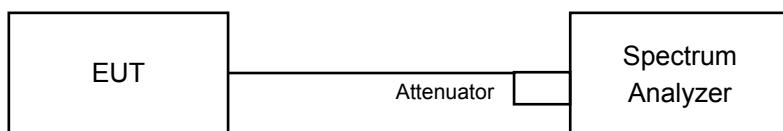


4.5 Peak Power Spectral Density Measurement

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 > 98%:

- 1) Set span to encompass the entire emission bandwidth (EBW) of the signal.
- 2) Set RBW = 30 kHz, Set VBW $\geq$ 1 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

For U-NII-3 band

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 $\geq$ 1 MHz, Detector = RMS
- 3) Use the peak marker function to determine the maximum power level in any 300 kHz band segment within the fundamental EBW.
- 4) Scale the observed power level to an equivalent value in 500 kHz by adjusting (reducing) the measured power by a bandwidth correction factor (BWCF) where $BWCF = 10\log(500 \text{ kHz}/300\text{kHz})$
- 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

4.5.5 Deviation from Test Standard

No deviation.

4.5.6 EUT Operating Conditions

Same as Item 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)			Total PSD (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 1	Chain 2	Chain 3			
36	5180	-1.08	-4.14	-0.17	3.28	9.45	Pass
40	5200	-1.12	-3.08	0.32	3.69	9.45	Pass
48	5240	-1.18	-2.61	-0.06	3.61	9.45	Pass
52	5260	1.21	-1.56	0.47	4.96	9.16	Pass
60	5300	-1.22	-0.87	-0.23	4.02	9.16	Pass
64	5320	-0.49	-0.10	0.02	4.59	9.16	Pass
100	5500	-0.59	-0.10	1.15	4.99	8.57	Pass
116	5580	-0.98	0.97	0.12	4.88	8.57	Pass
140	5700	-1.56	3.04	0.01	5.70	8.57	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.
- For 5180~5240MHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/3] = 7.55\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $11-(7.55-6) = 9.45\text{dBm}$.
 For 5260 ~ 5320MHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/3] = 7.84\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $11-(7.84-6) = 9.16\text{dBm}$.
 For 5500 ~ 5700MHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/3] = 8.43\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $11-(8.43-6) = 8.57\text{dBm}$.

802.11n (HT20)

Chan.	Freq. (MHz)	PSD (dBm/MHz)			Total PSD (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 1	Chain 2	Chain 3			
36	5180	-0.88	-4.12	-1.55	2.80	9.45	Pass
40	5200	-0.79	-3.26	0.02	3.64	9.45	Pass
48	5240	-1.54	-2.86	0.63	3.76	9.45	Pass
52	5260	-1.46	0.54	-0.23	4.46	9.16	Pass
60	5300	-1.16	-0.26	-0.27	4.23	9.16	Pass
64	5320	-2.37	-5.82	-1.38	1.96	9.16	Pass
100	5500	-1.89	-0.51	-0.12	4.00	8.57	Pass
116	5580	-0.95	0.99	-0.63	4.66	8.57	Pass
140	5700	-2.23	1.44	-1.11	4.42	8.57	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.
- For 5180~5240MHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/3] = 7.55\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $11-(7.55-6) = 9.45\text{dBm}$.
For 5260 ~ 5320MHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/3] = 7.84\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $11-(7.84-6) = 9.16\text{dBm}$.
For 5500 ~ 5700MHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/3] = 8.43\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $11-(8.43-6) = 8.57\text{dBm}$.

802.11n (HT40)

Chan.	Freq. (MHz)	PSD (dBm/MHz)			Total PSD (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 1	Chain 2	Chain 3			
38	5190	-5.40	-9.54	-4.25	-1.10	9.45	Pass
46	5230	-4.23	-7.98	-3.05	0.14	9.45	Pass
54	5270	-3.93	-2.68	-3.59	1.40	9.16	Pass
62	5310	-5.36	-5.02	-3.89	0.06	9.16	Pass
102	5510	-3.65	-3.16	-3.67	1.28	8.57	Pass
110	5550	-3.64	-2.49	-3.72	1.53	8.57	Pass
134	5670	-4.95	-4.09	-4.50	0.27	8.57	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.
- For 5180~5240MHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/3] = 7.55\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $11-(7.55-6) = 9.45\text{dBm}$.
For 5260 ~ 5320MHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/3] = 7.84\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $11-(7.84-6) = 9.16\text{dBm}$.
For 5500 ~ 5700MHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/3] = 8.43\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $11-(8.43-6) = 8.57\text{dBm}$.

802.11ac (VHT80)

Chan.	Freq. (MHz)	PSD (dBm/MHz)			Total PSD (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 1	Chain 2	Chain 3			
42	5210	-7.18	-10.94	-5.88	-2.76	9.45	Pass
58	5290	-7.24	-7.65	-7.01	-2.52	9.16	Pass
106	5530	-9.36	-9.75	-6.18	-3.35	8.57	Pass
122	5610	-8.75	-6.35	-4.71	-1.53	8.57	Pass

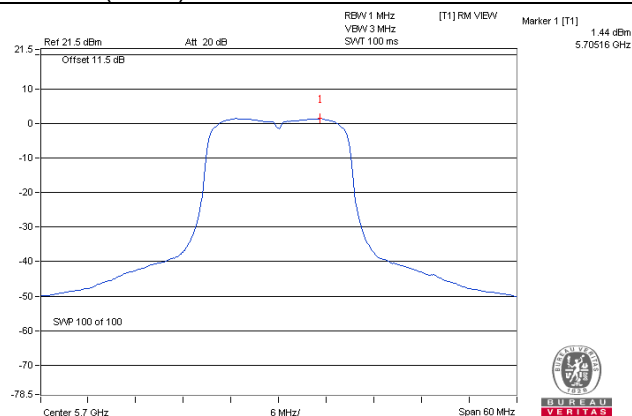
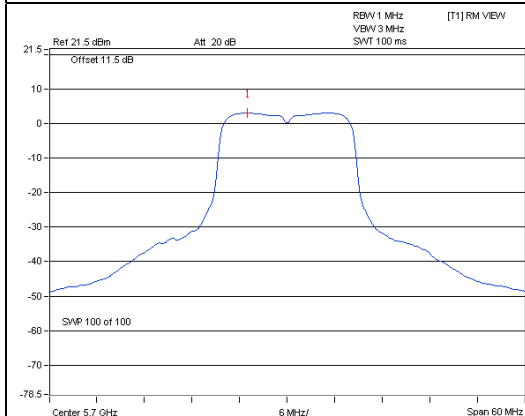
Note:

- 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.
- For 5180~5240MHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/3] = 7.55\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $11-(7.55-6) = 9.45\text{dBm}$.
 For 5260 ~ 5320MHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/3] = 7.84\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $11-(7.84-6) = 9.16\text{dBm}$.
 For 5500 ~ 5700MHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/3] = 8.43\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $11-(8.43-6) = 8.57\text{dBm}$.

Spectrum Plot of Worst Value

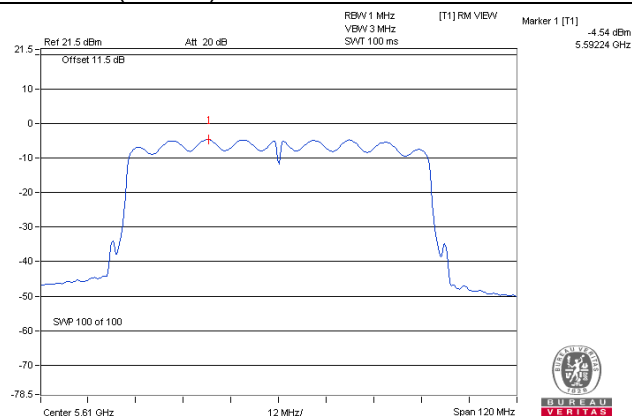
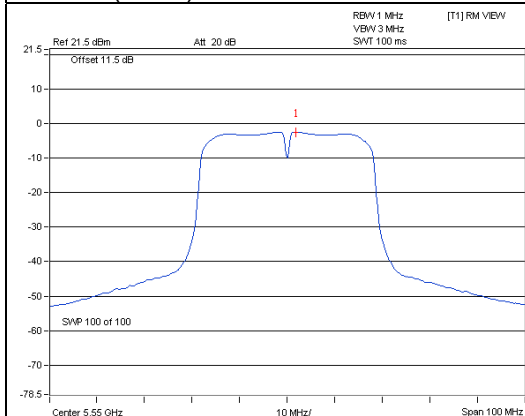
802.11a / Chain 2 / Ch 140

802.11n (HT20) / Chain 2 / Ch 140



802.11n (HT40) / Chain 2 / Ch 110

802.11ac (VHT80) / Chain 3 / Ch 122



For U-NII-3 Band

802.11a

TX chain	Chan.	Freq. (MHz)	PSD		10 log (N=3) dB	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	Pass / Fail
			(dBm/300kHz)	(dBm/500kHz)				
1	149	5745	-7.69	-5.47	4.77	-0.70	27.34	Pass
	157	5785	-7.32	-5.10	4.77	-0.33	27.34	Pass
	165	5825	-7.31	-5.09	4.77	-0.32	27.34	Pass
2	149	5745	-9.02	-6.80	4.77	-2.03	27.34	Pass
	157	5785	-10.35	-8.13	4.77	-3.36	27.34	Pass
	165	5825	-10.69	-8.47	4.77	-3.70	27.34	Pass
3	149	5745	-7.01	-4.79	4.77	-0.02	27.34	Pass
	157	5785	-7.59	-5.37	4.77	-0.60	27.34	Pass
	165	5825	-7.48	-5.26	4.77	-0.49	27.34	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.
- For 5745 ~ 5825MHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/3] = 8.36\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $30 - (8.66 - 6) = 27.34\text{dBm}$.

802.11n (HT20)

TX chain	Chan.	Freq. (MHz)	PSD		10 log (N=3) dB	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	Pass / Fail
			(dBm/300kHz)	(dBm/500kHz)				
1	149	5745	-7.15	-4.93	4.77	-0.16	27.34	Pass
	157	5785	-7.53	-5.31	4.77	-0.54	27.34	Pass
	165	5825	-7.80	-5.58	4.77	-0.81	27.34	Pass
2	149	5745	-9.25	-7.03	4.77	-2.26	27.34	Pass
	157	5785	-9.30	-7.08	4.77	-2.31	27.34	Pass
	165	5825	-9.79	-7.57	4.77	-2.80	27.34	Pass
3	149	5745	-7.47	-5.25	4.77	-0.48	27.34	Pass
	157	5785	-7.33	-5.11	4.77	-0.34	27.34	Pass
	165	5825	-7.29	-5.07	4.77	-0.30	27.34	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.
- For 5745 ~ 5825MHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/3] = 8.36\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $30 - (8.66 - 6) = 27.34\text{dBm}$.

802.11n (HT40)

TX chain	Chan.	Freq. (MHz)	PSD		10 log (N=3) dB	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	Pass / Fail
			(dBm/300kHz)	(dBm/500kHz)				
1	151	5755	-12.05	-9.83	4.77	-5.06	27.34	Pass
	159	5795	-11.61	-9.39	4.77	-4.62	27.34	Pass
2	151	5755	-15.09	-12.87	4.77	-8.10	27.34	Pass
	159	5795	-14.06	-11.84	4.77	-7.07	27.34	Pass
3	151	5755	-11.53	-9.31	4.77	-4.54	27.34	Pass
	159	5795	-11.71	-9.49	4.77	-4.72	27.34	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.
- For 5745 ~ 5825MHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/3] = 8.36\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $30-(8.66-6) = 27.34\text{dBm}$.

802.11ac (VHT80)

TX chain	Chan.	Freq. (MHz)	PSD		10 log (N=3) dB	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	Pass / Fail
			(dBm/300kHz)	(dBm/500kHz)				
1	155	5775	-13.50	-11.28	4.77	-6.51	27.34	Pass
2	155	5775	-17.50	-15.28	4.77	-10.51	27.34	Pass
3	155	5775	-13.43	-11.21	4.77	-6.44	27.34	Pass

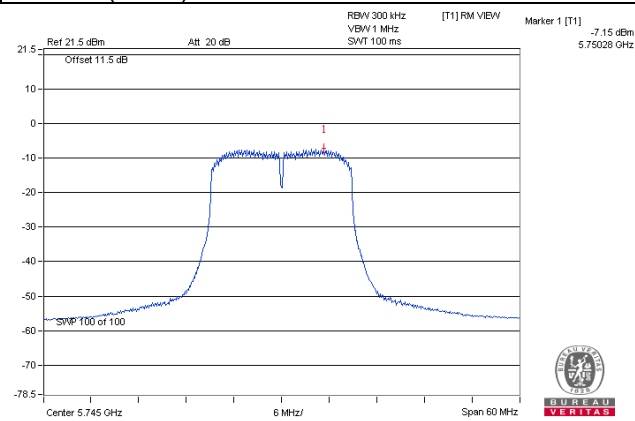
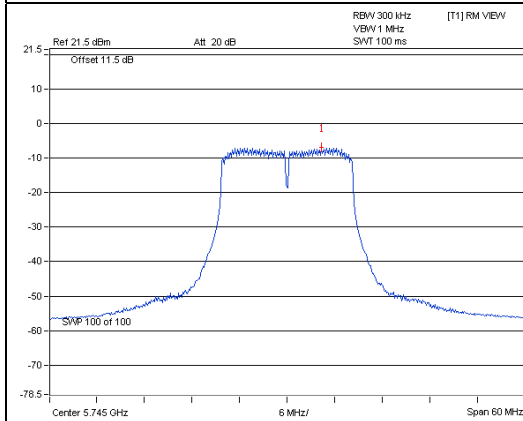
Note:

- 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.
- For 5745 ~ 5825MHz: Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/3] = 8.36\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $30-(8.66-6) = 27.34\text{dBm}$.

Spectrum Plot of Worst Value

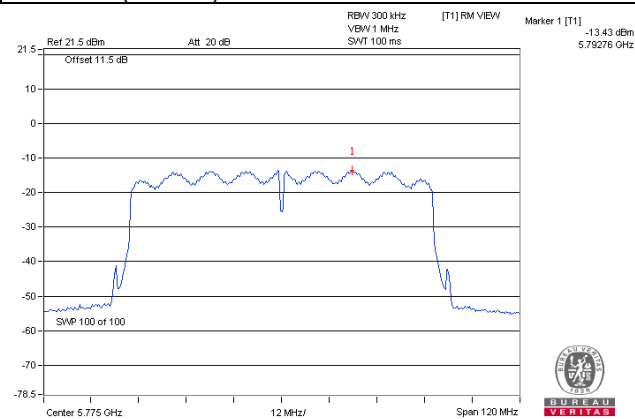
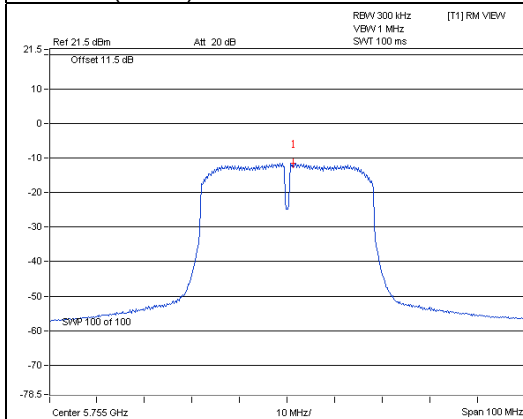
802.11a

802.11n (HT20)



802.11n (HT40)

802.11ac (VHT80)

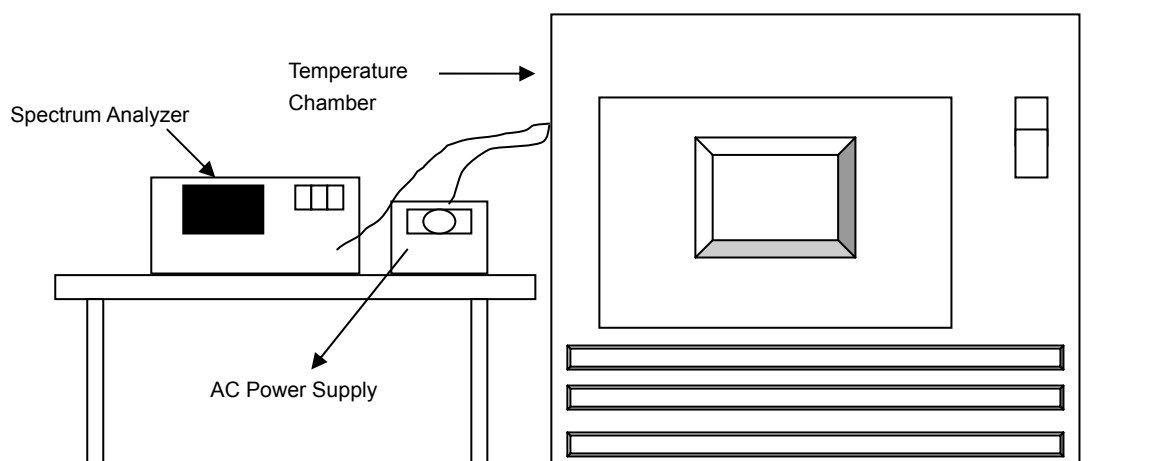


4.6 Frequency Stability

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

Description & Manufacturer	Model No.	Serial No.	Date Of Calibration	Due Date Of Calibration
Spectrum Analyzer Agilent	E4446A	MY51100039	Aug. 29, 2016	Aug. 28, 2017
WIT STANDARD TEMPERATURE AND HUMIDITY CHAMBER	TH-4S-C	W981030	Jun. 08, 2016	Jun. 07, 2017
Digital Multimeter Fluke	87-III	70360742	Jul. 01, 2016	Jun. 30, 2017
AC Power Supply Extech	CFW-105	E000603	NA	NA

Note: The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

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	5180.0154	0.00030	5180.0190	0.00037	5180.0167	0.00032	5180.0170	0.00033
40	120	5179.9799	-0.00039	5179.9782	-0.00042	5179.9773	-0.00044	5179.9766	-0.00045
30	120	5180.0161	0.00031	5180.0170	0.00033	5180.0175	0.00034	5180.0182	0.00035
20	120	5180.0061	0.00012	5180.0071	0.00014	5180.0066	0.00013	5180.0077	0.00015
10	120	5179.9868	-0.00025	5179.9872	-0.00025	5179.9871	-0.00025	5179.9876	-0.00024
0	120	5180.0199	0.00038	5180.0220	0.00042	5180.0224	0.00043	5180.0220	0.00042
-10	120	5180.0078	0.00015	5180.0075	0.00014	5180.0086	0.00017	5180.0062	0.00012
-20	120	5179.9969	-0.00006	5179.9964	-0.00007	5179.9988	-0.00002	5179.9962	-0.00007
-30	120	5180.0163	0.00031	5180.0166	0.00032	5180.0168	0.00032	5180.0169	0.00033

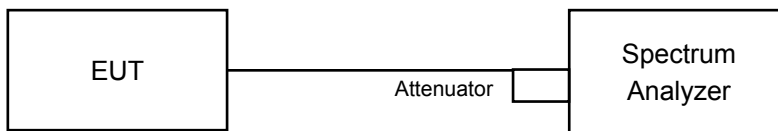
Frequency Stability Versus Voltage									
Operating Frequency: 5180MHz									
Temp. (°C)	Power Supply (Vac)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)
20	138	5180.0068	0.00013	5180.0073	0.00014	5180.0060	0.00012	5180.0076	0.00015
	120	5180.0061	0.00012	5180.0071	0.00014	5180.0066	0.00013	5180.0077	0.00015
	102	5180.0055	0.00011	5180.0072	0.00014	5180.0074	0.00014	5180.0078	0.00015

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
		Chain 1	Chain 2	Chain 3		
149	5745	16.40	16.37	16.40	0.5	Pass
157	5785	16.42	16.41	16.44	0.5	Pass
165	5825	16.41	16.42	16.45	0.5	Pass

802.11n (HT20)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)			Minimum Limit (MHz)	Pass / Fail
		Chain 1	Chain 2	Chain 3		
149	5745	17.11	16.86	17.05	0.5	Pass
157	5785	17.04	16.92	17.14	0.5	Pass
165	5825	16.91	16.88	17.14	0.5	Pass

802.11n (HT40)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)			Minimum Limit (MHz)	Pass / Fail
		Chain 1	Chain 2	Chain 3		
151	5755	35.36	33.95	35.78	0.5	Pass
159	5795	35.36	34.34	35.36	0.5	Pass

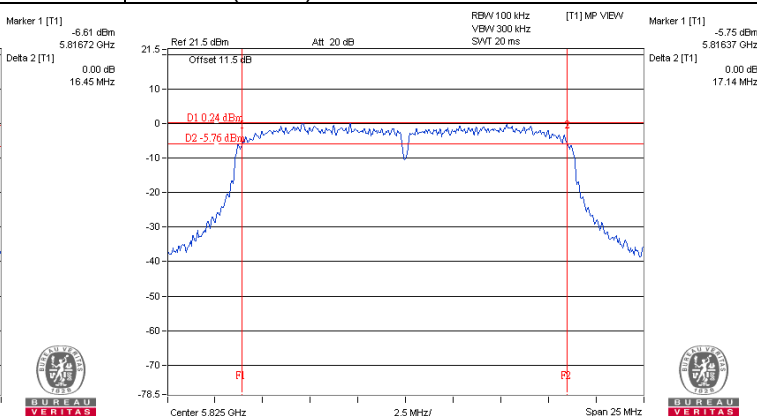
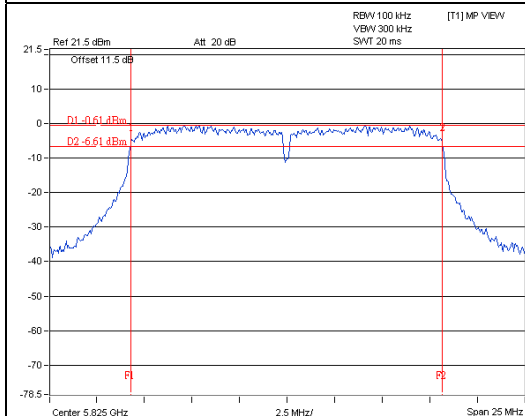
802.11ac (VHT80)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)			Minimum Limit (MHz)	Pass / Fail
		Chain 1	Chain 2	Chain 3		
155	5775	75.94	66.45	76.02	0.5	Pass

Spectrum Plot of Worst Value

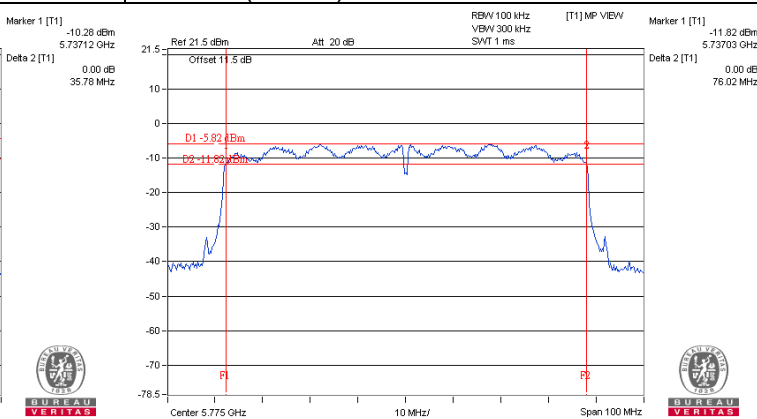
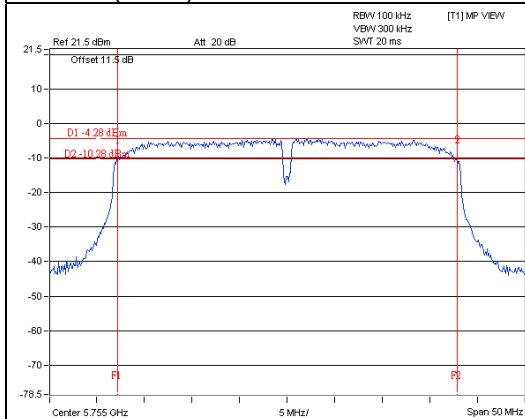
802.11a

802.11n (HT20)



802.11n (HT40)

802.11ac (VHT80)

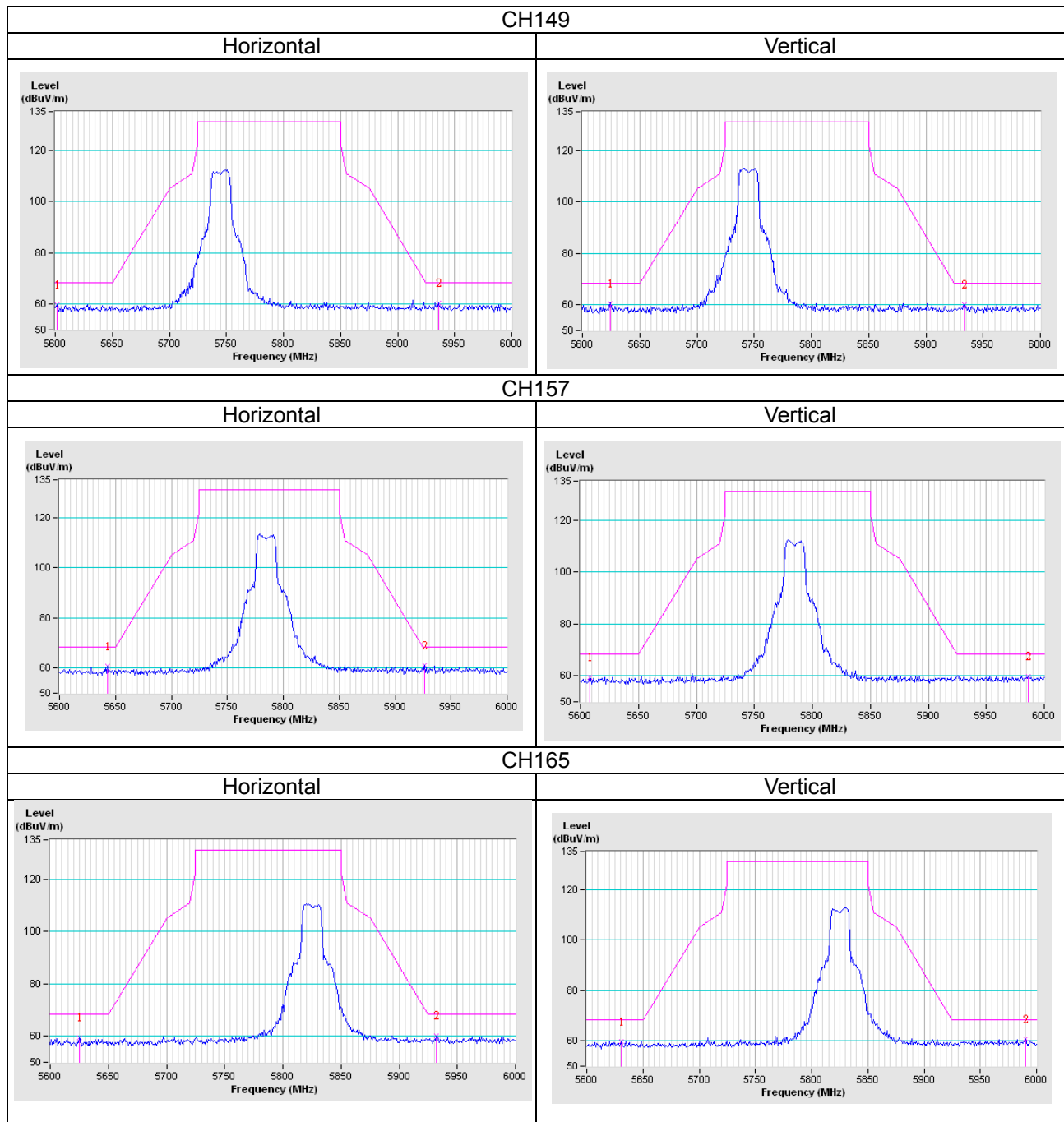


5 Pictures of Test Arrangements

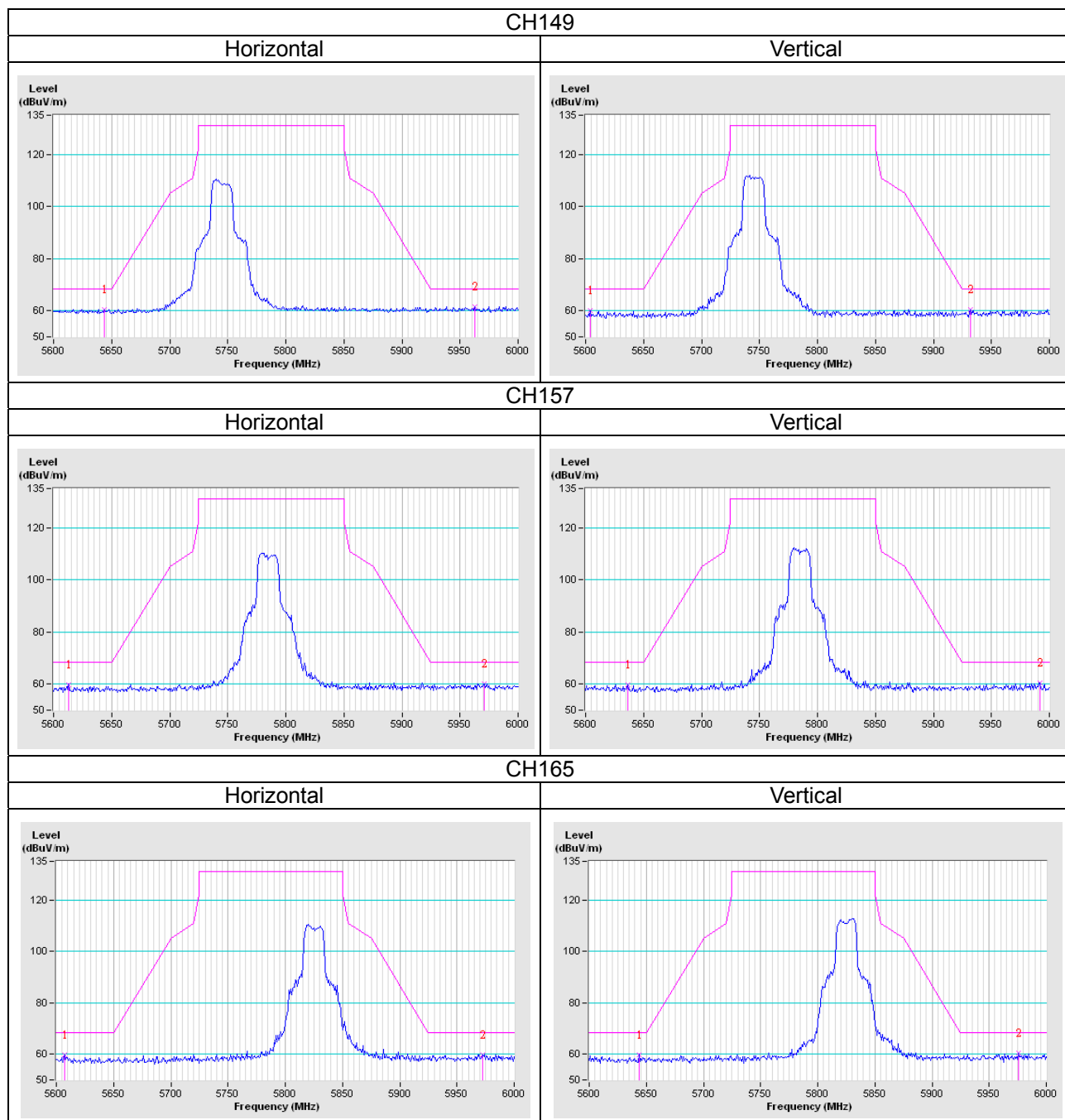
Please refer to the attached file (Test Setup Photo).

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

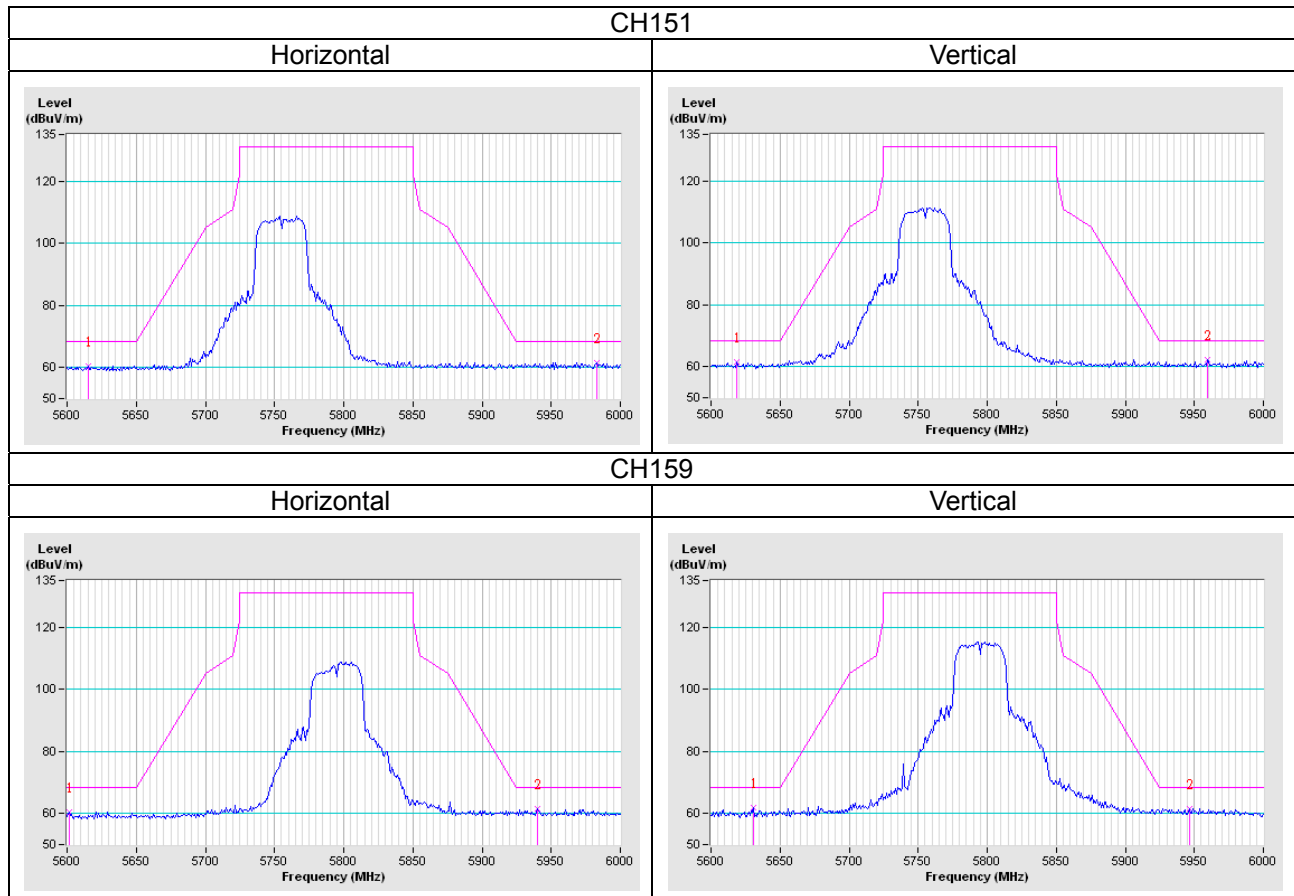
802.11a



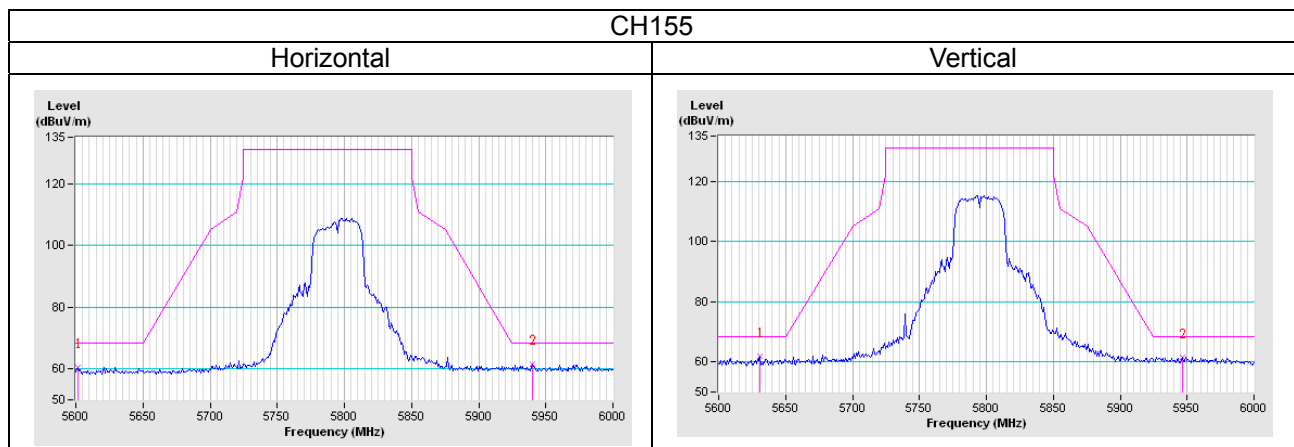
802.11n (HT20)



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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Fax: 886-2-26051924

Hsin Chu EMC/RF/Telecom Lab

Tel: 886-3-6668565

Fax: 886-3-6668323

Hwa Ya EMC/RF/Safety Lab

Tel: 886-3-3183232

Fax: 886-3-3270892

Email: service.adt@tw.bureauveritas.com

Web Site: www.bureauveritas-adt.com

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

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