FCC Test Report

Report No.:	RF170301C11-4
FCC ID:	NM82PZC500
Test Model:	2PZC500
Received Date:	Mar. 01, 2017
Test Date:	Mar. 27, 2017 ~ Apr. 17, 2017
Issued Date:	May 03, 2017
Applicant:	HTC Corporation
Address:	No.23 Xinghua Road,Taoyuan District, Taoyuan City 330, Taiwan
Issued By:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
Lab Address:	No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan (R.O.C)
Test Location (1):	No. 19, Hwa Ya 2nd Rd, Wen Hwa Tsuen, Kwei Shan Hsiang, Taoyuan Hsien 333, Taiwan, R.O.C.
Test Location (2):	No.215, Sec. 3, Beixin Rd., Xindian Dist., New Taipei City 231, Taiwan, R.O.C

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Release Control Record

Issue No.	Description	Date Issued
RF170301C11-4	Original Release	May 03, 2017

1 Certificate of Conformity

Product:	Smartphone
Brand:	HTC
Test Model:	2PZC500
Sample Status:	Production Unit
Applicant:	HTC Corporation
Test Date:	Mar. 27, 2017 ~ Apr. 17, 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:** May 03, 2017

Ivonne Wu / Supervisor

Approved by : _____ , **Date:** May 03, 2017

David Huang / Project Engineer

2 Summary of Test Results

47 CFR FCC Part 15, Subpart E (Section 15.407)			
FCC Clause	**Test Item**	**Result**	**Remarks**
15.407(b)(6)	AC Power Conducted Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -19.15 dB at 0.59574 MHz.
15.407(b) (1/2/3/4(i/ii)/6)	Radiated Emissions & Band Edge Measurement	Pass	Meet the requirement of limit. Minimum passing margin is -1.39 dB at 5354.18 MHz.
15.407(a)(1/2/3)	Max Average Transmit Power	Pass	Meet the requirement of limit.
15.407(a)(1/2/3)	Peak Power Spectral Density	Pass	Meet the requirement of limit.
15.407(e)	6 dB Bandwidth	Pass	Meet the requirement of limit. (U-NII-3 Band only)
15.407(g)	Frequency Stability	Pass	Meet the requirement of limit.
15.203	Antenna Requirement	Pass	No antenna connector is used.

*For U-NII-3 band compliance with rule part 15.407(b)(4)(i), the OOBE 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	Expended Uncertainty (k=2) (±)
Conducted Emissions at mains ports	150 kHz ~ 30 MHz	2.44 dB
Radiated Emissions up to 1 GHz	30 MHz ~ 200 MHz	2.0153 dB
	200 MHz ~1000 MHz	2.0224 dB
Radiated Emissions above 1 GHz	1 GHz ~ 18 GHz	1.0121 dB
	18 GHz ~ 40 GHz	1.1508 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	Smartphone
Brand	HTC
Test Model	2PZC500
Status of EUT	Production Unit
Power Supply Rating	5 Vdc or 9 Vdc or 12 Vdc (adapter) 5.0 Vdc (host equipment) 3.85 Vdc (Li-ion battery)
Modulation Type	256QAM, 64QAM, 16QAM, QPSK, BPSK
Modulation Technology	OFDM
Transfer Rate	802.11a: 54.0/ 48.0/ 36.0/ 24.0/ 18.0/ 12.0/ 9.0/ 6.0 Mbps 802.11n: up to MCS15 802.11ac: up to V9
Operating Frequency	5180 ~ 5240 MHz, 5260 ~ 5320 MHz, 5500 ~ 5700 MHz, 5745 ~ 5825 MHz
Number of Channel	5180 ~ 5240 MHz: 4 for 802.11a, 802.11n (HT20) 2 for 802.11n (HT40) 1 for 802.11ac (VHT80) 5260 ~ 5320 MHz: 4 for 802.11a, 802.11n (HT20) 2 for 802.11n (HT40) 1 for 802.11ac (VHT80) 5500 ~ 5700 MHz: 11 for 802.11a, 802.11n (HT20) 5 for 802.11n (HT40) 2 for 802.11ac (VHT80) 5745 ~ 5825 MHz: 5 for 802.11a, 802.11n (HT20) 2 for 802.11n (HT40) 1 for 802.11ac (VHT80)
Output Power	42.204 mW for 5180 ~ 5240 MHz 42.976 mW for 5260 ~ 5320 MHz 43.152 mW for 5500 ~ 5700 MHz 42.807 mW for 5745 ~ 5825 MHz
Antenna Type	PIFA antenna with 0.5 dBi (Main) / -0.5 dBi (Aux.) gain (5180 ~ 5240 MHz) PIFA antenna with -2 dBi (Main) / -1.5 dBi (Aux.) gain (5260 ~ 5320 MHz) PIFA antenna with -2 dBi (Main) / -1.5 dBi (Aux.) gain (5500 ~ 5700 MHz) PIFA antenna with -1.5 dBi (Main) / -2.5 dBi (Aux.) gain (5745 ~ 5825 MHz)
Antenna Connector	N/A
Accessory Device	Refer to Note as below
Data Cable Supplied	Refer to Note as below

Note:

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

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

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

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

3.2 Description of Test Modes

For 5180 ~ 5240 MHz

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

Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	44	5220
40	5200	48	5240

2 channels are provided for 802.11n (HT40):

Channel	Frequency (MHz)	Channel	Frequency (MHz)
38	5190	46	5230

1 channel is provided for 802.11ac (VHT80):

Channel	Frequency (MHz)
42	5210

For 5260 ~ 5320 MHz

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

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

2 channels are provided for 802.11n (HT40):

Channel	Frequency (MHz)	Channel	Frequency (MHz)
54	5270	62	5310

1 channel is provided for 802.11ac (VHT80):

Channel	Frequency (MHz)
58	5290

For 5500 ~ 5700 MHz

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

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

5 channels are provided for 802.11n (HT40):

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

2 channels are provided for 802.11ac (VHT80):

Channel	Frequency (MHz)	Channel	Frequency (MHz)
106	5530	122	5610

For 5745 ~ 5825 MHz:

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

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

2 channels are provided for 802.11n (HT40):

Channel	Frequency (MHz)	Channel	Frequency (MHz)
151	5755	159	5795

1 channel is provided for 802.11ac (VHT80):

Channel	Frequency (MHz)
155	5775

3.2.1 Test Mode Applicability and Tested Channel Detail

EUT Configure Mode	Applicable To				Description
	RE≥1G	RE<1G	PLC	APCM	
-	√	√	√	√	-

Where **RE≥1G:** Radiated Emission above 1 GHz **RE<1G:** Radiated Emission below 1 GHz
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** for 5180-5240MHz & 5500-5700MHz (1TX) and 5500-5700MHz (2TX), and **Y-plane** for 5260-5320MHz & 5745-5825MHz (1TX) and 5180-5240MHz & 5260-5320MHz &5745-5825MHz (2TX).
2. "-" means no effect.

Radiated Emission Test (Above 1 GHz):

☒ 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	Frequency Band (MHz)	Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
-	5180-5240	802.11a	36 to 48	36, 44, 48	OFDM	BPSK	6.0
-		802.11n (HT20)	36 to 48	36, 44, 48	OFDM	BPSK	MCS0
-		802.11n (HT40)	38 to 46	38, 46	OFDM	BPSK	MCS0
-		802.11ac (VHT80)	42	42	OFDM	BPSK	MCS0
-	5260-5320	802.11a	52 to 64	52, 60, 64	OFDM	BPSK	6.0
-		802.11n (HT20)	52 to 64	52, 60, 64	OFDM	BPSK	MCS0
-		802.11n (HT40)	54 to 62	54, 62	OFDM	BPSK	MCS0
-		802.11ac (VHT80)	58	58	OFDM	BPSK	MCS0
-	5500-5700	802.11a	100 to 140	100, 116, 140	OFDM	BPSK	6.0
-		802.11n (HT20)	100 to 140	100, 116, 140	OFDM	BPSK	MCS0
-		802.11n (HT40)	102 to 134	102, 110, 134	OFDM	BPSK	MCS0
-		802.11ac (VHT80)	106 to 122	106, 122	OFDM	BPSK	MCS0
-	5745-5825	802.11a	149 to 165	149, 157, 165	OFDM	BPSK	6.0
-		802.11n (HT20)	149 to 165	149, 157, 165	OFDM	BPSK	MCS0
-		802.11n (HT40)	151 to 159	151, 159	OFDM	BPSK	MCS0
-		802.11ac (VHT80)	155	155	OFDM	BPSK	MCS0

Radiated Emission Test (Below 1 GHz):

☒ 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	Frequency Band (MHz)	Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
-	5180-5240	802.11ac (VHT80)	42	42	OFDM	BPSK	MCS0
-	5260-5320	802.11ac (VHT80)	58	58	OFDM	BPSK	MCS0
-	5500-5700	802.11n (HT20)	100 to 140	100	OFDM	BPSK	MCS0
	5745-5825	802.11n (HT40)	151 to 159	159	OFDM	BPSK	MCS0

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	Frequency Band (MHz)	Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
-	5260-5320	802.11ac (VHT80)	58	58	OFDM	BPSK	MCS0

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	Frequency Band (MHz)	Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
-	5180-5240	802.11a	36 to 48	36, 44, 48	OFDM	BPSK	6.0
-		802.11n (HT20)	36 to 48	36, 44, 48	OFDM	BPSK	MCS0
-		802.11n (HT40)	38 to 46	38, 46	OFDM	BPSK	MCS0
-		802.11ac (VHT80)	42	42	OFDM	BPSK	MCS0
-	5260-5320	802.11a	52 to 64	52, 60, 64	OFDM	BPSK	6.0
-		802.11n (HT20)	52 to 64	52, 60, 64	OFDM	BPSK	MCS0
-		802.11n (HT40)	54 to 62	54, 62	OFDM	BPSK	MCS0
-		802.11ac (VHT80)	58	58	OFDM	BPSK	MCS0
-	5500-5700	802.11a	100 to 140	100, 116, 140	OFDM	BPSK	6.0
-		802.11n (HT20)	100 to 140	100, 116, 140	OFDM	BPSK	MCS0
-		802.11n (HT40)	102 to 134	102, 110, 134	OFDM	BPSK	MCS0
-		802.11ac (VHT80)	106 to 122	106, 122	OFDM	BPSK	MCS0
-	5745-5825	802.11a	149 to 165	149, 157, 165	OFDM	BPSK	6.0
-		802.11n (HT20)	149 to 165	149, 157, 165	OFDM	BPSK	MCS0
-		802.11n (HT40)	151 to 159	151, 159	OFDM	BPSK	MCS0
-		802.11ac (VHT80)	155	155	OFDM	BPSK	MCS0

Test Condition:

Applicable To	Environmental Conditions	Input Power	Tested by
RE≥1G	25 deg. C, 65 % RH	120 Vac, 60 Hz	Karl Lee
RE<1G	25 deg. C, 65 % RH	120 Vac, 60 Hz	Karl Lee
PLC	25 deg. C, 65 % RH	120 Vac, 60 Hz	Getaz Yang
APCM	25 deg. C, 65 % RH	3.85 Vdc	Wayne Lin

3.3 Duty Cycle of Test Signal

MODULATION TYPE: BPSK

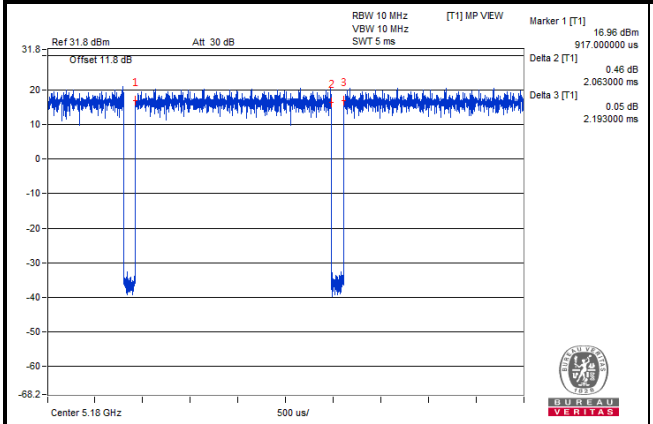
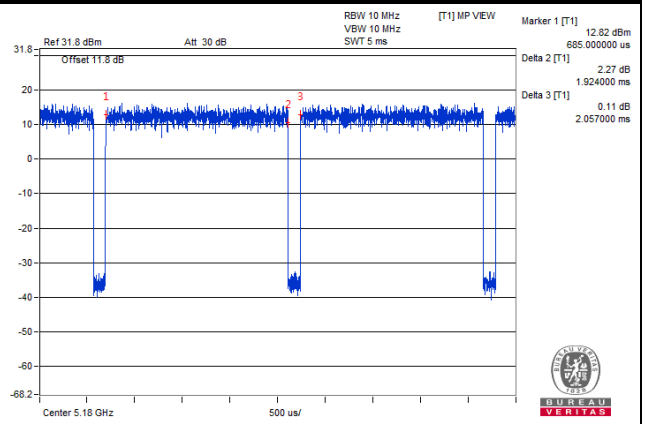
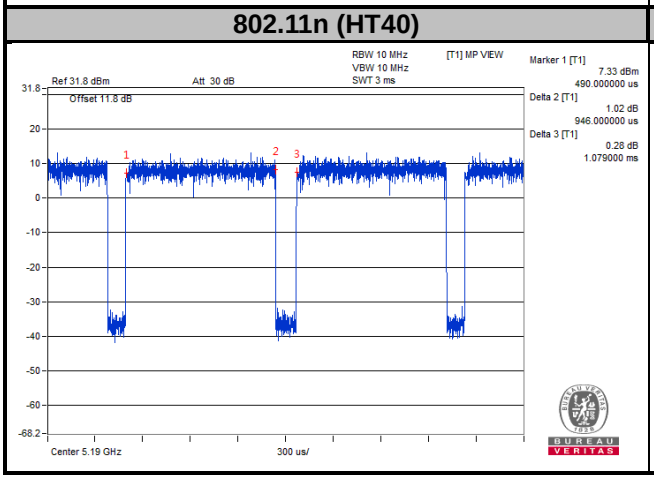
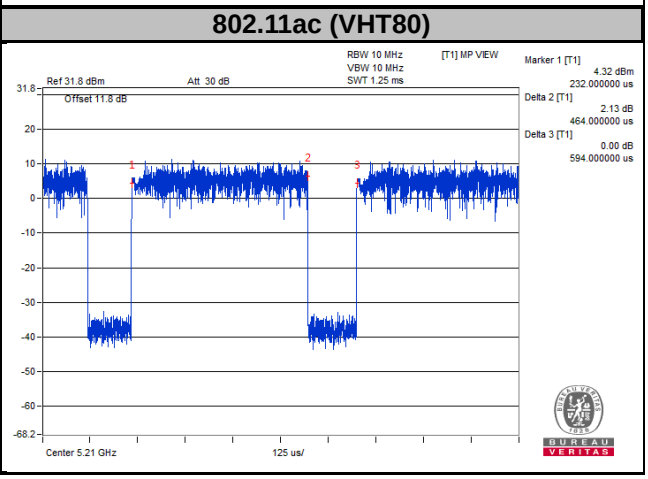
Duty cycle of test signal is < 98 %, duty factor is required.

802.11a: Duty cycle = 2.063/2.193 = 0.941, Duty factor = 10 * log(1/0.941) = 0.27

802.11n (HT20): Duty cycle = 1.924/2.057 = 0.935, Duty factor = 10 * log(1/0.935) = 0.29

802.11n (HT40): Duty cycle = 0.946/1.079 = 0.877, Duty factor = 10 * log(1/0.877) = 0.57

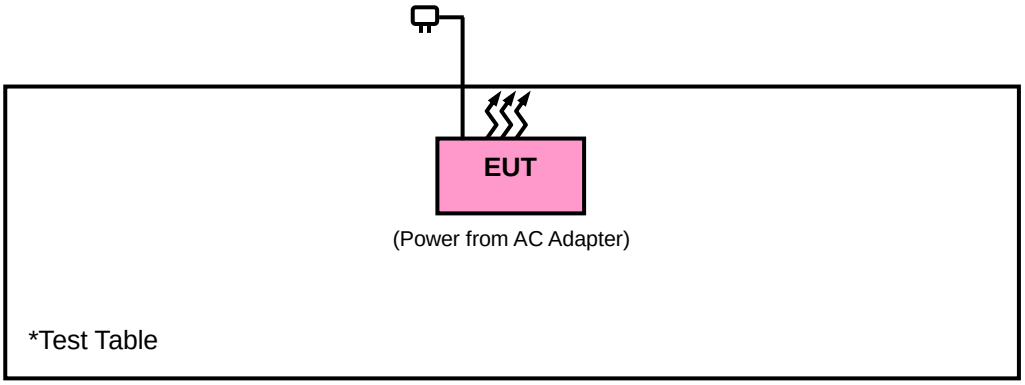
802.11ac (VHT80): Duty cycle = 464/594 = 0.781, Duty factor = 10 * log(1/0.781) = 1.07

802.11a	802.11n (HT20)
	
802.11n (HT40)	**802.11ac (VHT80)**
	

3.4 Description of Support Units

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

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)
789033 D02 General UNII Test Procedures New Rules v01r03
644545 D01 Guidance for IEEE 802 11ac v01r02
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. Other emissions shall be at least 20 dB below the highest level of the desired power:

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 1000 MHz, 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 20 dB under any condition of modulation.

4.1.2 Limits of Unwanted Emission Out of the Restricted Bands

Applicable To		Limit	
789033 D02 General UNII Test Procedures New Rules v01r03		Field Strength at 3 m	
		PK: 74 (dBμV/m)	AV: 54 (dBμV/m)
Frequency Band	**Applicable To**	**EIRP Limit**	**Equivalent Field Strength at 3 m**
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:

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

4.1.3 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Date of Calibration	Due Date of Calibration
Test Receiver Agilent Technologies	N9038A	MY52260177	Jun. 21, 2016	Jun. 20, 2017
Spectrum Analyzer ROHDE & SCHWARZ	FSU43	101261	Dec. 13, 2016	Dec. 12, 2017
BILOG Antenna SCHWARZBECK	VULB9168	9168-472	Dec. 16, 2016	Dec. 15, 2017
HORN Antenna ETS-Lindgren	3117	00143293	Dec. 29, 2016	Dec. 28, 2017
HORN Antenna SCHWARZBECK	BBHA 9170	9170-480	Dec. 14, 2016	Dec. 13, 2017
Fixed Attenuator Mini-Circuits	BW-N10W5+	NA	Jul. 08, 2016	Jul. 07, 2017
Bluetooth Tester	CBT	100980	Apr. 27, 2015	Apr. 26, 2017
Loop Antenna	EM-6879	269	Aug. 11, 2016	Aug. 10, 2017
Preamplifier Agilent	310N	187226	Jun. 24, 2016	Jun. 23, 2017
Preamplifier Agilent	83017A	MY39501357	Jun. 24, 2016	Jun. 23, 2017
Power Meter Anritsu	ML2495A	1232002	Sep. 08, 2016	Sep. 07, 2017
Power Sensor Anritsu	MA2411B	1207325	Sep. 08, 2016	Sep. 07, 2017
RF signal cable ETS-LINDGREN	5D-FB	Cable-CH1-01(RFC-SMS-100-SMS-120+RFC-SMS-100-SMS-400)	Jun. 24, 2016	Jun. 23, 2017
RF signal cable ETS-LINDGREN	8D-FB	Cable-CH1-02(RFC-SMS-100-SMS-24)	Jun. 24, 2016	Jun. 23, 2017
Software BV ADT	E3 8.130425b	NA	NA	NA
Antenna Tower MF	NA	NA	NA	NA
Turn Table MF	NA	NA	NA	NA
Antenna Tower &Turn Table Controller MF	MF-7802	NA	NA	NA

Note: 1. The calibration interval of the above test instruments is 12 / 24 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in HsinTien Chamber 1.
3. The horn antenna and preamplifier (model: 83017A) are used only for the measurement of emission frequency above 1 GHz if tested.
4. The FCC Site Registration No. is 149147.
5. The IC Site Registration No. is IC7450I-1.

4.1.4 Test Procedures

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

Note:

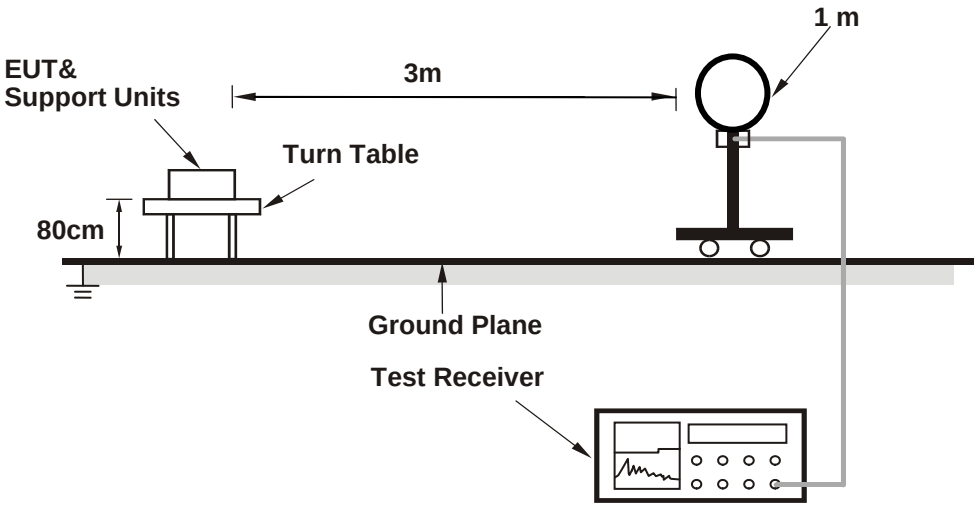
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz & 360 kHz for Quasi-peak detection (QP) at frequency below 1 GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1 GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 1/T for RMS Average (Duty cycle < 98 %) for Peak detection at frequency above 1 GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 10 Hz (Duty cycle ≥ 98 %) for Average detection (AV) at frequency above 1 GHz.
5. All modes of operation were investigated and the worst-case emissions are reported.

4.1.5 Deviation from Test Standard

No deviation.

4.1.6 Test Set Up

<Radiated emission below 30MHz>



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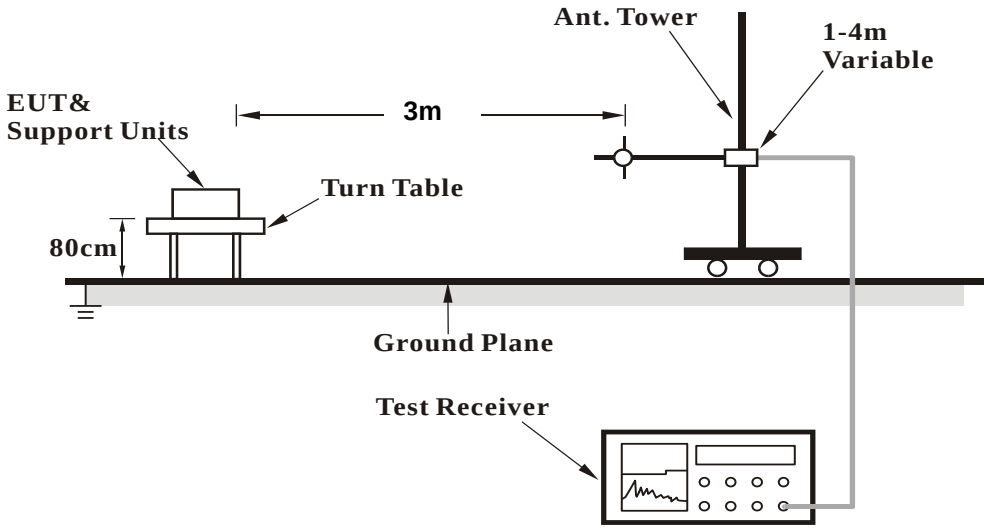

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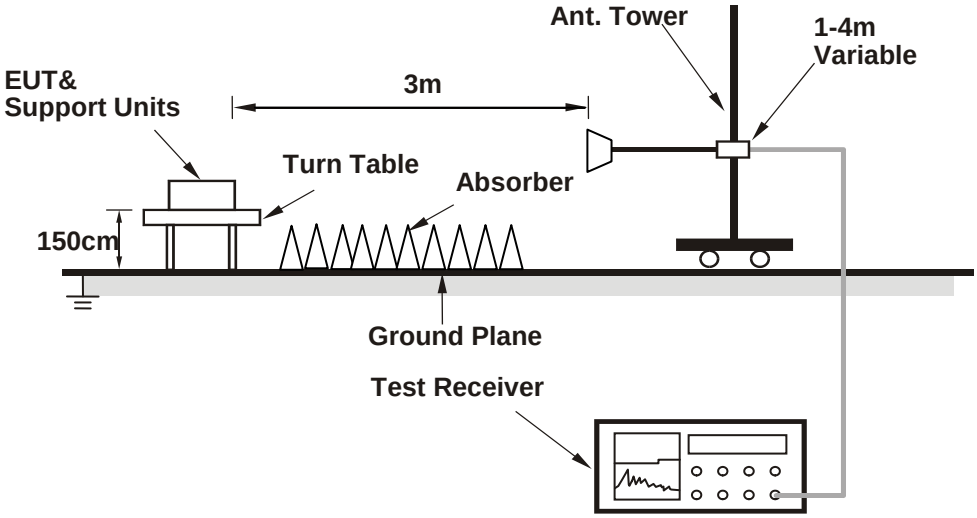


For the actual test configuration, please refer to the attached file (Test Setup Photo).

4.1.7 EUT Operating Conditions

a. Placed the EUT on a testing table.
b. Use the software to control the EUT under transmission condition continuously at specific channel frequency.

4.1.8 Test Results

Above 1 GHz Data：

<1TX>

802.11a

EUT Test Condition		Measurement Detail	
Channel	Channel 36	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Karl Lee

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5144.9	54.12	45.87	74	-19.88	34.12	8.13	34	104	0	Peak
5147.45	43.5	35.25	54	-10.5	34.12	8.13	34	104	0	Average
5180	98.61	90.3			34.15	8.16	34	104	0	Average
5180	106	97.69			34.15	8.16	34	104	0	Peak
*10360	46.75	32.45	54	-7.25	37.12	12.3	35.12	139	177	Average
*10360	55.42	41.12	74	-18.58	37.12	12.3	35.12	139	177	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5084.15	53.12	44.96	74	-20.88	34.07	8.07	33.98	162	307	Peak
5145.65	43.14	34.89	54	-10.86	34.12	8.13	34	162	307	Average
5180	94.49	86.18			34.15	8.16	34	162	307	Average
5180	101.71	93.4			34.15	8.16	34	162	307	Peak
*10360	47.68	33.38	54	-6.32	37.12	12.3	35.12	157	114	Average
*10360	56.37	42.07	74	-17.63	37.12	12.3	35.12	157	114	Peak

Remarks:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5180 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 44	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Karl Lee

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5075.15	53.62	45.5	74	-20.38	34.07	8.03	33.98	103	0	Peak
5146.85	42.7	34.45	54	-11.3	34.12	8.13	34	103	0	Average
5220	98.87	90.48			34.17	8.22	34	103	0	Average
5220	106.06	97.67			34.17	8.22	34	103	0	Peak
5425.24	53.24	44.47	74	-20.76	34.33	8.48	34.04	103	0	Peak
5448.12	42.8	33.97	54	-11.2	34.36	8.51	34.04	103	0	Average
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5132.3	53.17	44.95	74	-20.83	34.11	8.1	33.99	160	307	Peak
5148.8	42.72	34.47	54	-11.28	34.12	8.13	34	160	307	Average
5220	94.95	86.56			34.17	8.22	34	160	307	Average
5220	102.03	93.64			34.17	8.22	34	160	307	Peak
5433.82	42.98	34.19	54	-11.02	34.35	8.48	34.04	160	307	Average
5444.49	53.82	45.03	74	-20.18	34.35	8.48	34.04	160	307	Peak

Remarks:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5220 MHz: Fundamental Frequency

EUT Test Condition		Measurement Detail	
Channel	Channel 48	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Karl Lee

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5240	98.59	90.15			34.19	8.26	34.01	166	0	Average
5240	106.05	97.61			34.19	8.26	34.01	166	0	Peak
5380.58	53.74	45.06	74	-20.26	34.31	8.41	34.04	166	0	Peak
5439.54	42.8	34.01	54	-11.2	34.35	8.48	34.04	166	0	Average
*10480	46.76	32.25	54	-7.24	37.19	12.53	35.21	125	164	Average
*10480	55.8	41.29	74	-18.2	37.19	12.53	35.21	125	164	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5240	94.9	86.46			34.19	8.26	34.01	159	307	Average
5240	102.19	93.75			34.19	8.26	34.01	159	307	Peak
5416.88	53.72	44.99	74	-20.28	34.33	8.44	34.04	159	307	Peak
5442.84	42.79	34	54	-11.21	34.35	8.48	34.04	159	307	Average
*10480	46.89	32.38	54	-7.11	37.19	12.53	35.21	127	263	Average
*10480	55.5	40.99	74	-18.5	37.19	12.53	35.21	127	263	Peak

Remarks:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5240 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 52	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Karl Lee

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5080.25	52.79	44.67	74	-21.21	34.07	8.03	33.98	114	249	Peak
5126.75	42.65	34.43	54	-11.35	34.11	8.1	33.99	114	249	Average
5260	94.96	86.5			34.21	8.26	34.01	114	249	Average
5260	102.1	93.64			34.21	8.26	34.01	114	249	Peak
*10520	47.63	33.04	54	-6.37	37.21	12.61	35.23	158	174	Average
*10520	56.46	41.87	74	-17.54	37.21	12.61	35.23	158	174	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5112.65	42.51	34.31	54	-11.49	34.09	8.1	33.99	169	0	Average
5114.6	53.05	44.85	74	-20.95	34.09	8.1	33.99	169	0	Peak
5260	98.02	89.56			34.21	8.26	34.01	169	0	Average
5260	105.44	96.98			34.21	8.26	34.01	169	0	Peak
*10520	47.69	33.1	54	-6.31	37.21	12.61	35.23	137	185	Average
*10520	57.14	42.55	74	-16.86	37.21	12.61	35.23	137	185	Peak

Remarks:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5260 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 60	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Karl Lee

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5107.7	53.07	44.87	74	-20.93	34.09	8.1	33.99	128	248	Peak
5126.9	42.63	34.41	54	-11.37	34.11	8.1	33.99	128	248	Average
5300	94.64	86.1			34.24	8.32	34.02	128	248	Average
5300	101.9	93.36			34.24	8.32	34.02	128	248	Peak
5361.55	43.01	34.37	54	-10.99	34.29	8.38	34.03	128	248	Average
5367.49	53.79	45.12	74	-20.21	34.29	8.41	34.03	128	248	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5089.1	52.75	44.58	74	-21.25	34.08	8.07	33.98	203	0	Peak
5124.05	42.57	34.35	54	-11.43	34.11	8.1	33.99	203	0	Average
5300	97.29	88.75			34.24	8.32	34.02	203	0	Average
5300	104.6	96.06			34.24	8.32	34.02	203	0	Peak
5351.21	43.57	34.94	54	-10.43	34.28	8.38	34.03	203	0	Average
5370.9	54.34	45.67	74	-19.66	34.29	8.41	34.03	203	0	Peak

Remarks:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5300 MHz: Fundamental Frequency

EUT Test Condition		Measurement Detail	
Channel	Channel 64	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Karl Lee

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5320	94.34	85.76			34.25	8.35	34.02	208	248	Average
5320	101.36	92.78			34.25	8.35	34.02	208	248	Peak
5351.43	43.28	34.65	54	-10.72	34.28	8.38	34.03	208	248	Average
5355.72	54.51	45.88	74	-19.49	34.28	8.38	34.03	208	248	Peak
10640	46.31	31.58	54	-7.69	37.31	12.71	35.29	105	88	Average
10640	56.11	41.38	74	-17.89	37.31	12.71	35.29	105	88	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5320	97.75	89.17			34.25	8.35	34.02	159	0	Average
5320	104.87	96.29			34.25	8.35	34.02	159	0	Peak
5350	44.23	35.6	54	-9.77	34.28	8.38	34.03	159	0	Average
5368.15	54.26	45.59	74	-19.74	34.29	8.41	34.03	159	0	Peak
10640	45.95	31.22	54	-8.05	37.31	12.71	35.29	124	310	Average
10640	57.18	42.45	74	-16.82	37.31	12.71	35.29	124	310	Peak

Remarks:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5320 MHz: Fundamental Frequency

EUT Test Condition		Measurement Detail	
Channel	Channel 100	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Karl Lee

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5443.76	53.8	45.01	74	-20.2	34.35	8.48	34.04	144	0	Peak
5456.56	44.02	35.2	54	-9.98	34.36	8.51	34.05	144	0	Average
*5469.68	53.3	44.47	74	-20.7	34.37	8.51	34.05	144	0	Peak
*5470.48	44.3	35.47	54	-9.7	34.37	8.51	34.05	144	0	Average
5500	98.12	89.2			34.4	8.57	34.05	144	0	Average
5500	104.68	95.76			34.4	8.57	34.05	144	0	Peak
11000	46.64	31.56	54	-7.36	37.6	12.96	35.48	105	129	Average
11000	56.85	41.77	74	-17.15	37.6	12.96	35.48	105	129	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5441.68	53.73	44.94	74	-20.27	34.35	8.48	34.04	101	10	Peak
5455.76	42.94	34.12	54	-11.06	34.36	8.51	34.05	101	10	Average
*5470.16	52.7	43.87	74	-21.3	34.37	8.51	34.05	101	10	Peak
*5470.48	43.08	34.25	54	-10.92	34.37	8.51	34.05	101	10	Average
5500	92.59	83.67			34.4	8.57	34.05	101	10	Average
5500	98.29	89.37			34.4	8.57	34.05	101	10	Peak
11000	46.78	31.7	54	-7.22	37.6	12.96	35.48	104	157	Average
11000	56.84	41.76	74	-17.16	37.6	12.96	35.48	104	157	Peak

Remarks:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5500 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 116	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Karl Lee

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5381.2	53.1	44.42	74	-20.9	34.31	8.41	34.04	144	0	Peak
5456.88	43.05	34.23	54	-10.95	34.36	8.51	34.05	144	0	Average
*5470.16	43.16	34.33	54	-10.84	34.37	8.51	34.05	144	0	Average
*5470.32	52.37	43.54	74	-21.63	34.37	8.51	34.05	144	0	Peak
5580	98.26	89.27			34.47	8.6	34.08	144	0	Average
5580	104.52	95.53			34.47	8.6	34.08	144	0	Peak
*5723.96	52.3	43.14	74	-21.7	34.62	8.65	34.11	144	0	Peak
*5725.88	43.4	34.24	54	-10.6	34.62	8.65	34.11	144	0	Average
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5404.08	53.63	44.91	74	-20.37	34.32	8.44	34.04	101	10	Peak
5456.72	42.92	34.1	54	-11.08	34.36	8.51	34.05	101	10	Average
*5468.08	53.18	44.35	74	-20.82	34.37	8.51	34.05	101	10	Peak
*5468.72	42.74	33.91	54	-11.26	34.37	8.51	34.05	101	10	Average
5580	92.49	83.5			34.47	8.6	34.08	101	10	Average
5580	98.72	89.73			34.47	8.6	34.08	101	10	Peak
*5724.12	52.32	43.16	74	-21.68	34.62	8.65	34.11	101	10	Peak
*5725.32	43.16	34	54	-10.84	34.62	8.65	34.11	101	10	Average

Remarks:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5580 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 140	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Karl Lee

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5700	97.49	88.36			34.59	8.64	34.1	120	0	Average
5700	103.01	93.88			34.59	8.64	34.1	120	0	Peak
*5723.96	45.04	35.88	54	-8.96	34.62	8.65	34.11	120	0	Average
*5725.08	54.83	45.67	74	-19.17	34.62	8.65	34.11	120	0	Peak
11400	46.58	31.48	54	-7.42	37.84	12.67	35.41	180	270	Average
11400	57.81	42.71	74	-16.19	37.84	12.67	35.41	180	270	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5700	91.05	81.92			34.59	8.64	34.1	101	10	Average
5700	97.8	88.67			34.59	8.64	34.1	101	10	Peak
*5724.04	52.99	43.83	74	-21.01	34.62	8.65	34.11	101	10	Peak
*5724.36	43.84	34.68	54	-10.16	34.62	8.65	34.11	101	10	Average
11400	46.4	31.3	54	-7.6	37.84	12.67	35.41	153	343	Average
11400	58.12	43.02	74	-15.88	37.84	12.67	35.41	153	343	Peak

Remarks:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5700 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 149	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Karl Lee

<Spurious Emission>

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5745	91.53	82.34			34.64	8.66	34.11	107	282	Average
5745	98.26	89.07			34.64	8.66	34.11	107	282	Peak
11490	46.56	31.44	54	-7.44	37.89	12.62	35.39	141	126	Average
11490	56.28	41.16	74	-17.72	37.89	12.62	35.39	141	126	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5745	96.54	87.35			34.64	8.66	34.11	179	3	Average
5745	103.82	94.63			34.64	8.66	34.11	179	3	Peak
11490	47.11	31.99	54	-6.89	37.89	12.62	35.39	159	166	Average
11490	56.76	41.64	74	-17.24	37.89	12.62	35.39	159	166	Peak

<Ouf of Band Emission (OOBE)>

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
*5614.975	42.91	33.88	54	-11.09	34.5	8.61	34.08	107	282	Average
*5614.975	53.84	44.81	74	-20.16	34.5	8.61	34.08	107	282	Peak
5653.3	53.82	44.72	76.06	-22.24	34.56	8.63	34.09	107	282	Peak
5923.15	54.17	44.77	75.15	-20.98	34.83	8.73	34.16	107	282	Peak
*5933.65	43.55	34.15	54	-10.45	34.83	8.73	34.16	107	282	Average
*5933.65	54.39	44.99	74	-19.61	34.83	8.73	34.16	107	282	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
*5547.25	42.58	33.64	54	-11.42	34.43	8.58	34.07	179	3	Average
*5547.25	54.78	45.84	74	-19.22	34.43	8.58	34.07	179	3	Peak
5652.775	51.9	42.8	75.73	-23.83	34.56	8.63	34.09	179	3	Peak
5920	53.57	44.19	77.12	-23.55	34.81	8.73	34.16	179	3	Peak
*5977.225	43.36	33.9	54	-10.64	34.88	8.75	34.17	179	3	Average
*5977.225	53.72	44.26	74	-20.28	34.88	8.75	34.17	179	3	Peak

Remarks:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5745 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 157	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Karl Lee

<Spurious Emission>

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5785	90.95	81.72			34.68	8.68	34.13	105	280	Average
5785	98.29	89.06			34.68	8.68	34.13	105	280	Peak
11570	48.74	33.43	54	-5.26	38	12.68	35.37	196	177	Average
11570	57.92	42.61	74	-16.08	38	12.68	35.37	196	177	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5785	96.31	87.08			34.68	8.68	34.13	153	6	Average
5785	103.23	94			34.68	8.68	34.13	153	6	Peak
11570	48.3	32.99	54	-5.7	38	12.68	35.37	164	132	Average
11570	57.57	42.26	74	-16.43	38	12.68	35.37	164	132	Peak

<Ouf of Band Emission (OOBE)>

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
*5548.825	42.47	33.5	54	-11.53	34.45	8.59	34.07	105	280	Average
*5548.825	54.05	45.08	74	-19.95	34.45	8.59	34.07	105	280	Peak
5652.775	53.04	43.94	75.73	-22.69	34.56	8.63	34.09	105	280	Peak
5922.1	53.51	44.11	75.81	-22.3	34.83	8.73	34.16	105	280	Peak
*5983	43.75	34.29	54	-10.25	34.88	8.75	34.17	105	280	Average
*5983	54.32	44.86	74	-19.68	34.88	8.75	34.17	105	280	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
*5570.35	42.71	33.72	54	-11.29	34.47	8.59	34.07	153	6	Average
*5570.35	53.92	44.93	74	-20.08	34.47	8.59	34.07	153	6	Peak
5656.975	53.47	44.38	78.35	-24.88	34.56	8.63	34.1	153	6	Peak
5919.475	53.05	43.67	77.45	-24.4	34.81	8.73	34.16	153	6	Peak
*5967.25	43.69	34.24	54	-10.31	34.87	8.75	34.17	153	6	Average
*5967.25	54.82	45.37	74	-19.18	34.87	8.75	34.17	153	6	Peak

Remarks:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5785 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 165	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Karl Lee

<Spurious Emission>

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5825	90.71	81.42			34.73	8.69	34.13	113	278	Average
5825	98.1	88.81			34.73	8.69	34.13	113	278	Peak
11650	48.53	33	54	-5.47	38.09	12.8	35.36	152	188	Average
11650	57.6	42.07	74	-16.4	38.09	12.8	35.36	152	188	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5825	96.72	87.43			34.73	8.69	34.13	160	1	Average
5825	103.9	94.61			34.73	8.69	34.13	160	1	Peak
11650	48.57	33.04	54	-5.43	38.09	12.8	35.36	174	129	Average
11650	57.76	42.23	74	-16.24	38.09	12.8	35.36	174	129	Peak

<Ouf of Band Emission (OOBE)>

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
*5629.675	42.85	33.8	54	-11.15	34.52	8.62	34.09	113	278	Average
*5629.675	53.35	44.3	74	-20.65	34.52	8.62	34.09	113	278	Peak
5655.4	53.64	44.55	77.37	-23.73	34.56	8.63	34.1	113	278	Peak
5915.8	53.65	44.27	79.74	-26.09	34.81	8.73	34.16	113	278	Peak
*6020.8	43.64	34.13	54	-10.36	34.92	8.77	34.18	113	278	Average
*6020.8	54.21	44.7	74	-19.79	34.92	8.77	34.18	113	278	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
*5555.65	42.73	33.76	54	-11.27	34.45	8.59	34.07	160	1	Average
*5555.65	54.45	45.48	74	-19.55	34.45	8.59	34.07	160	1	Peak
5653.825	52.96	43.87	76.39	-23.43	34.56	8.63	34.1	160	1	Peak
5922.625	52.79	43.39	75.48	-22.69	34.83	8.73	34.16	160	1	Peak
*5990.35	43.65	34.16	54	-10.35	34.9	8.76	34.17	160	1	Average
*5990.35	54.72	45.23	74	-19.28	34.9	8.76	34.17	160	1	Peak

Remarks:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5825 MHz: Fundamental Frequency
3. *: Out of Restricted Band

<2TX>

802.11n (HT20)

EUT Test Condition		Measurement Detail	
Channel	Channel 36	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Karl Lee

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5141.75	53.38	45.12	74	-20.62	34.12	8.13	33.99	109	164	Peak
5147.9	43.43	35.18	54	-10.57	34.12	8.13	34	109	164	Average
5180	96.36	88.05			34.15	8.16	34	106	173	Average
5180	104.88	96.57			34.15	8.16	34	106	173	Peak
*10360	46.36	32.06	54	-7.64	37.12	12.3	35.12	129	117	Average
*10360	55.42	41.12	74	-18.58	37.12	12.3	35.12	129	117	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5006.75	53.28	45.27	74	-20.72	34.01	7.97	33.97	132	21	Peak
5149.4	43.22	34.97	54	-10.78	34.12	8.13	34	132	21	Average
5180	97.26	88.95			34.15	8.16	34	132	4	Average
5180	105.75	97.44			34.15	8.16	34	132	4	Peak
*10360	46.57	32.27	54	-7.43	37.12	12.3	35.12	157	234	Average
*10360	55.58	41.28	74	-18.42	37.12	12.3	35.12	157	234	Peak

Remarks:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5180 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 44	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Karl Lee

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5130.5	42.6	34.38	54	-11.4	34.11	8.1	33.99	105	173	Average
5137.4	53.46	45.21	74	-20.54	34.11	8.13	33.99	105	173	Peak
5220	98.07	89.68			34.17	8.22	34	105	173	Average
5220	105.76	97.37			34.17	8.22	34	105	173	Peak
5410.72	53.25	44.53	74	-20.75	34.32	8.44	34.04	105	173	Peak
5449.77	42.67	33.85	54	-11.33	34.36	8.51	34.05	105	173	Average
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5128.7	53.52	45.3	74	-20.48	34.11	8.1	33.99	123	4	Peak
5145.05	42.66	34.41	54	-11.34	34.12	8.13	34	123	4	Average
5220	98.99	90.6			34.17	8.22	34	123	4	Average
5220	106.57	98.18			34.17	8.22	34	123	4	Peak
5367.38	53.78	45.11	74	-20.22	34.29	8.41	34.03	123	4	Peak
5446.36	42.77	33.94	54	-11.23	34.36	8.51	34.04	123	4	Average

Remarks:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5220 MHz: Fundamental Frequency

EUT Test Condition		Measurement Detail	
Channel	Channel 48	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Karl Lee

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5240	98.04	89.6			34.19	8.26	34.01	105	190	Average
5240	105.14	96.7			34.19	8.26	34.01	105	190	Peak
5432.17	53.98	45.19	74	-20.02	34.35	8.48	34.04	105	190	Peak
5450.76	42.77	33.95	54	-11.23	34.36	8.51	34.05	105	190	Average
*10480	47.77	33.26	54	-6.23	37.19	12.53	35.21	127	166	Average
*10480	56.22	41.71	74	-17.78	37.19	12.53	35.21	127	166	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5240	98.67	90.23			34.19	8.26	34.01	123	2	Average
5240	106.21	97.77			34.19	8.26	34.01	123	2	Peak
5436.9	54.66	45.87	74	-19.34	34.35	8.48	34.04	123	2	Peak
5442.84	42.65	33.86	54	-11.35	34.35	8.48	34.04	123	2	Average
*10480	48.27	33.76	54	-5.73	37.19	12.53	35.21	137	129	Average
*10480	57.02	42.51	74	-16.98	37.19	12.53	35.21	137	129	Peak

Remarks:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5240 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 52	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Karl Lee

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5081	54.44	46.32	74	-19.56	34.07	8.03	33.98	111	190	Peak
5102.3	42.67	34.51	54	-11.33	34.08	8.07	33.99	111	190	Average
5260	98.75	90.29			34.21	8.26	34.01	111	190	Average
5260	105.85	97.39			34.21	8.26	34.01	111	190	Peak
*10520	45.6	31.01	54	-8.4	37.21	12.61	35.23	102	199	Average
*10520	56.29	41.7	74	-17.71	37.21	12.61	35.23	102	199	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5126.6	53.45	45.23	74	-20.55	34.11	8.1	33.99	100	4	Peak
5142.35	42.65	34.39	54	-11.35	34.12	8.13	33.99	100	4	Average
5260	99.06	90.6			34.21	8.26	34.01	100	4	Average
5260	106.9	98.44			34.21	8.26	34.01	100	4	Peak
*10520	45.75	31.16	54	-8.25	37.21	12.61	35.23	159	213	Average
*10520	57.06	42.47	74	-16.94	37.21	12.61	35.23	159	213	Peak

Remarks:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5260 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 60	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Karl Lee

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5124.5	42.72	34.5	54	-11.28	34.11	8.1	33.99	111	190	Average
5136.35	53.49	45.24	74	-20.51	34.11	8.13	33.99	111	190	Peak
5300	98.77	90.23			34.24	8.32	34.02	111	190	Average
5300	105.18	96.64			34.24	8.32	34.02	111	190	Peak
5352.64	43.22	34.59	54	-10.78	34.28	8.38	34.03	111	190	Average
5377.61	54.15	45.47	74	-19.85	34.31	8.41	34.04	111	190	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5105.3	42.81	34.65	54	-11.19	34.08	8.07	33.99	100	4	Average
5135	54.39	46.14	74	-19.61	34.11	8.13	33.99	100	4	Peak
5300	99.52	90.98			34.24	8.32	34.02	100	4	Average
5300	106.1	97.56			34.24	8.32	34.02	100	4	Peak
5352.42	43.09	34.46	54	-10.91	34.28	8.38	34.03	100	4	Average
5446.69	53.36	44.53	74	-20.64	34.36	8.51	34.04	100	4	Peak

Remarks:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5300 MHz: Fundamental Frequency

EUT Test Condition		Measurement Detail	
Channel	Channel 64	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Karl Lee

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5320	98.66	90.08			34.25	8.35	34.02	111	190	Average
5320	105.5	96.92			34.25	8.35	34.02	111	190	Peak
5354.29	43.2	34.57	54	-10.8	34.28	8.38	34.03	111	190	Average
5361	54.31	45.67	74	-19.69	34.29	8.38	34.03	111	190	Peak
10640	45.72	30.99	54	-8.28	37.31	12.71	35.29	159	210	Average
10640	57.06	42.33	74	-16.94	37.31	12.71	35.29	159	210	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5320	99.25	90.67			34.25	8.35	34.02	106	4	Average
5320	106.36	97.78			34.25	8.35	34.02	106	4	Peak
5350.11	43.46	34.83	54	-10.54	34.28	8.38	34.03	106	4	Average
5370.46	53.58	44.91	74	-20.42	34.29	8.41	34.03	106	4	Peak
10640	46.21	31.48	54	-7.79	37.31	12.71	35.29	181	256	Average
10640	56.78	42.05	74	-17.22	37.31	12.71	35.29	181	256	Peak

Remarks:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5320 MHz: Fundamental Frequency

EUT Test Condition		Measurement Detail	
Channel	Channel 100	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Karl Lee

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5411.12	54.16	45.44	74	-19.84	34.32	8.44	34.04	171	140	Peak
5458.32	43.55	34.73	54	-10.45	34.36	8.51	34.05	171	140	Average
*5468.4	43.52	34.69	54	-10.48	34.37	8.51	34.05	171	140	Average
*5469.36	52.37	43.54	74	-21.63	34.37	8.51	34.05	171	140	Peak
5500	98.7	89.78			34.4	8.57	34.05	171	140	Average
5500	105.13	96.21			34.4	8.57	34.05	171	140	Peak
11000	48.62	33.54	54	-5.38	37.6	12.96	35.48	105	172	Average
11000	57.74	42.66	74	-16.26	37.6	12.96	35.48	105	172	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5456.56	53.63	44.81	74	-20.37	34.36	8.51	34.05	140	180	Peak
5459.92	43.19	34.37	54	-10.81	34.36	8.51	34.05	140	180	Average
*5468.24	52.53	43.7	74	-21.47	34.37	8.51	34.05	140	180	Peak
*5469.36	43.22	34.39	54	-10.78	34.37	8.51	34.05	140	180	Average
5500	95.25	86.33			34.4	8.57	34.05	140	180	Average
5500	102.06	93.14			34.4	8.57	34.05	140	180	Peak
11000	49.25	34.17	54	-4.75	37.6	12.96	35.48	164	118	Average
11000	58.13	43.05	74	-15.87	37.6	12.96	35.48	164	118	Peak

Remarks:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5500 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 116	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Karl Lee

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5422.96	53.29	44.52	74	-20.71	34.33	8.48	34.04	166	142	Peak
5459.28	42.8	33.98	54	-11.2	34.36	8.51	34.05	166	142	Average
*5468.24	42.72	33.89	54	-11.28	34.37	8.51	34.05	166	142	Average
*5470.32	51.79	42.96	74	-22.21	34.37	8.51	34.05	166	142	Peak
5580	98.29	89.3			34.47	8.6	34.08	166	142	Average
5580	105.79	96.8			34.47	8.6	34.08	166	142	Peak
*5724.92	53.35	44.19	74	-20.65	34.62	8.65	34.11	166	142	Peak
*5725.4	43.16	34	54	-10.84	34.62	8.65	34.11	166	142	Average
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5423.6	42.75	33.98	54	-11.25	34.33	8.48	34.04	118	168	Average
5458.32	53.06	44.24	74	-20.94	34.36	8.51	34.05	118	168	Peak
*5469.2	42.54	33.71	54	-11.46	34.37	8.51	34.05	118	168	Average
*5470.16	51.71	42.88	74	-22.29	34.37	8.51	34.05	118	168	Peak
5580	95.17	86.18			34.47	8.6	34.08	118	168	Average
5580	102.69	93.7			34.47	8.6	34.08	118	168	Peak
*5725.64	43.14	33.98	54	-10.86	34.62	8.65	34.11	118	168	Average
*5725.72	52.73	43.57	74	-21.27	34.62	8.65	34.11	118	168	Peak

Remarks:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5580 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 140	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Karl Lee

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5700	98.3	89.17			34.59	8.64	34.1	234	142	Average
5700	105.84	96.71			34.59	8.64	34.1	234	142	Peak
*5725.16	43.45	34.29	54	-10.55	34.62	8.65	34.11	234	166	Average
*5725.16	54.63	45.47	74	-19.37	34.62	8.65	34.11	234	166	Peak
11400	47.49	32.39	54	-6.51	37.84	12.67	35.41	159	267	Average
11400	56.57	41.47	74	-17.43	37.84	12.67	35.41	159	267	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5700	94.87	85.74			34.59	8.64	34.1	122	190	Average
5700	102.63	93.5			34.59	8.64	34.1	122	190	Peak
*5725.64	43.99	34.83	54	-10.01	34.62	8.65	34.11	122	190	Average
*5726.04	54.13	44.97	74	-19.87	34.62	8.65	34.11	122	190	Peak
11400	47.69	32.59	54	-6.31	37.84	12.67	35.41	157	114	Average
11400	56.75	41.65	74	-17.25	37.84	12.67	35.41	157	114	Peak

Remarks:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5700 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 149	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Karl Lee

<Spurious Emission>

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5745	93.45	84.26			34.64	8.66	34.11	113	195	Average
5745	100.76	91.57			34.64	8.66	34.11	113	195	Peak
11490	47.96	32.84	54	-6.04	37.89	12.62	35.39	158	263	Average
11490	56.83	41.71	74	-17.17	37.89	12.62	35.39	158	263	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5745	97.45	88.26			34.64	8.66	34.11	102	151	Average
5745	104.18	94.99			34.64	8.66	34.11	102	151	Peak
11490	48.28	33.16	54	-5.72	37.89	12.62	35.39	127	159	Average
11490	57.45	42.33	74	-16.55	37.89	12.62	35.39	127	159	Peak

<Ouf of Band Emission (OOBE)>

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
*5638.6	43.84	34.77	54	-10.16	34.54	8.62	34.09	113	195	Average
*5638.6	53.47	44.4	74	-20.53	34.54	8.62	34.09	113	195	Peak
5651.2	50.57	41.48	74.75	-24.18	34.56	8.62	34.09	113	195	Peak
5921.575	52.4	43	76.14	-23.74	34.83	8.73	34.16	113	195	Peak
*6007.675	44.38	34.87	54	-9.62	34.92	8.76	34.17	113	195	Average
*6007.675	54.74	45.23	74	-19.26	34.92	8.76	34.17	113	195	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
*5600.8	44	34.97	54	-10	34.5	8.61	34.08	102	151	Average
*5600.8	53.71	44.68	74	-20.29	34.5	8.61	34.08	102	151	Peak
5656.45	52.4	43.31	78.02	-25.62	34.56	8.63	34.1	102	151	Peak
5920.525	52.71	43.33	76.79	-24.08	34.81	8.73	34.16	102	151	Peak
*5969.875	44.52	35.07	54	-9.48	34.87	8.75	34.17	102	151	Average
*5969.875	53.6	44.15	74	-20.4	34.87	8.75	34.17	102	151	Peak

Remarks:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5745 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 157	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Karl Lee

<Spurious Emission>

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5785	93.56	84.33			34.68	8.68	34.13	113	195	Average
5785	100.3	91.07			34.68	8.68	34.13	113	195	Peak
11570	49.12	33.81	54	-4.88	38	12.68	35.37	129	167	Average
11570	58.46	43.15	74	-15.54	38	12.68	35.37	129	167	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5785	97.44	88.21			34.68	8.68	34.13	102	151	Average
5785	104.25	95.02			34.68	8.68	34.13	102	151	Peak
11570	47.86	32.55	54	-6.14	38	12.68	35.37	157	224	Average
11570	56.84	41.53	74	-17.16	38	12.68	35.37	157	224	Peak

<Ouf of Band Emission (OOBE)>

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
*5646.475	43.85	34.78	54	-10.15	34.54	8.62	34.09	113	195	Average
*5646.475	53.71	44.64	74	-20.29	34.54	8.62	34.09	113	195	Peak
5657.5	53.78	44.69	78.68	-24.9	34.56	8.63	34.1	113	195	Peak
5922.625	51.68	42.28	75.48	-23.8	34.83	8.73	34.16	113	195	Peak
*6014.5	44.28	34.78	54	-9.72	34.92	8.76	34.18	113	195	Average
*6014.5	53.83	44.33	74	-20.17	34.92	8.76	34.18	113	195	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
*5505.25	43.55	34.64	54	-10.45	34.4	8.57	34.06	102	151	Average
*5505.25	53.34	44.43	74	-20.66	34.4	8.57	34.06	102	151	Peak
5651.725	53.29	44.2	75.08	-21.79	34.56	8.62	34.09	102	151	Peak
5923.675	52.01	42.61	74.83	-22.82	34.83	8.73	34.16	102	151	Peak
*6007.15	44.47	34.96	54	-9.53	34.92	8.76	34.17	102	151	Average
*6007.15	54.37	44.86	74	-19.63	34.92	8.76	34.17	102	151	Peak

Remarks:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5785 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 165	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Karl Lee

<Spurious Emission>

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5825	93.2	83.91			34.73	8.69	34.13	113	195	Average
5825	100.91	91.62			34.73	8.69	34.13	113	195	Peak
11650	48.36	32.83	54	-5.64	38.09	12.8	35.36	108	147	Average
11650	57.09	41.56	74	-16.91	38.09	12.8	35.36	108	147	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5825	97.55	88.26			34.73	8.69	34.13	100	151	Average
5825	104.34	95.05			34.73	8.69	34.13	100	151	Peak
11650	48.43	32.9	54	-5.57	38.09	12.8	35.36	157	69	Average
11650	57.42	41.89	74	-16.58	38.09	12.8	35.36	157	69	Peak

<Ouf of Band Emission (OOBE)>

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
*5600.275	44.44	35.42	54	-9.56	34.5	8.6	34.08	113	195	Average
*5600.275	54.04	45.02	74	-19.96	34.5	8.6	34.08	113	195	Peak
5650.675	52.28	43.19	74.42	-22.14	34.56	8.62	34.09	113	195	Peak
5923.675	53.57	44.17	74.83	-21.26	34.83	8.73	34.16	113	195	Peak
*5945.2	44.29	34.86	54	-9.71	34.85	8.74	34.16	113	195	Average
*5945.2	54.15	44.72	74	-19.85	34.85	8.74	34.16	113	195	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
*5630.2	44.49	35.44	54	-9.51	34.52	8.62	34.09	100	151	Average
*5630.2	53.97	44.92	74	-20.03	34.52	8.62	34.09	100	151	Peak
5653.3	51.59	42.49	76.06	-24.47	34.56	8.63	34.09	100	151	Peak
5924.2	53.22	43.82	74.5	-21.28	34.83	8.73	34.16	100	151	Peak
*5971.45	45.02	35.57	54	-8.98	34.87	8.75	34.17	100	151	Average
*5971.45	54.15	44.7	74	-19.85	34.87	8.75	34.17	100	151	Peak

Remarks:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5825 MHz: Fundamental Frequency
3. *: Out of Restricted Band

802.11n (HT40)

EUT Test Condition		Measurement Detail	
Channel	Channel 38	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Karl Lee

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5149.4	56.51	48.26	74	-17.49	34.12	8.13	34	102	154	Peak
5149.85	46.71	38.46	54	-7.29	34.12	8.13	34	102	154	Average
5190	95.44	87.1			34.15	8.19	34	106	173	Average
5190	102.27	93.93			34.15	8.19	34	106	173	Peak
5389.93	53.17	44.49	74	-20.83	34.31	8.41	34.04	102	154	Peak
5451.09	43.15	34.33	54	-10.85	34.36	8.51	34.05	102	154	Average
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5142.65	57.23	48.97	74	-16.77	34.12	8.13	33.99	126	4	Peak
5146.85	48.08	39.83	54	-5.92	34.12	8.13	34	126	4	Average
5190	95.84	87.5			34.15	8.19	34	132	4	Average
5190	103.44	95.1			34.15	8.19	34	132	4	Peak
5402.47	53.29	44.57	74	-20.71	34.32	8.44	34.04	126	4	Peak
5440.31	43.47	34.68	54	-10.53	34.35	8.48	34.04	126	4	Average

Remarks:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5190 MHz: Fundamental Frequency

EUT Test Condition		Measurement Detail	
Channel	Channel 46	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Karl Lee

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5148.8	53.19	44.94	74	-20.81	34.12	8.13	34	105	173	Peak
5150	43.14	34.89	54	-10.86	34.12	8.13	34	105	173	Average
5230	95.01	86.61			34.19	8.22	34.01	105	173	Average
5230	101.85	93.45			34.19	8.22	34.01	105	173	Peak
5443.94	43.25	34.46	54	-10.75	34.35	8.48	34.04	105	173	Average
5456.04	53.69	44.87	74	-20.31	34.36	8.51	34.05	105	173	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5066	53.32	45.22	74	-20.68	34.05	8.03	33.98	123	2	Peak
5143.7	43.03	34.77	54	-10.97	34.12	8.13	33.99	123	2	Average
5230	94.69	86.29			34.19	8.22	34.01	123	2	Average
5230	102.97	94.57			34.19	8.22	34.01	123	2	Peak
5431.51	53.51	44.72	74	-20.49	34.35	8.48	34.04	123	2	Peak
5457.47	43.29	34.47	54	-10.71	34.36	8.51	34.05	123	2	Average

Remarks:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5230 MHz: Fundamental Frequency

EUT Test Condition		Measurement Detail	
Channel	Channel 54	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Karl Lee

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5136.2	53.69	45.44	74	-20.31	34.11	8.13	33.99	111	190	Peak
5147.15	43.07	34.82	54	-10.93	34.12	8.13	34	111	190	Average
5270	95.36	86.87			34.21	8.29	34.01	111	190	Average
5270	102.25	93.76			34.21	8.29	34.01	111	190	Peak
5428.54	53.84	45.05	74	-20.16	34.35	8.48	34.04	111	190	Peak
5432.17	43.35	34.56	54	-10.65	34.35	8.48	34.04	111	190	Average
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5078	53.32	45.2	74	-20.68	34.07	8.03	33.98	100	4	Peak
5104.4	43.08	34.92	54	-10.92	34.08	8.07	33.99	100	4	Average
5270	96.55	88.06			34.21	8.29	34.01	100	4	Average
5270	103.04	94.55			34.21	8.29	34.01	100	4	Peak
5371.01	43.35	34.68	54	-10.65	34.29	8.41	34.03	100	4	Average
5449.99	53.51	44.69	74	-20.49	34.36	8.51	34.05	100	4	Peak

Remarks:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5270 MHz: Fundamental Frequency

EUT Test Condition		Measurement Detail	
Channel	Channel 62	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Karl Lee

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5112.8	54.03	45.83	74	-19.97	34.09	8.1	33.99	111	190	Peak
5136.2	43.17	34.92	54	-10.83	34.11	8.13	33.99	111	190	Average
5310	95.85	87.3			34.25	8.32	34.02	111	190	Average
5310	102.55	94			34.25	8.32	34.02	111	190	Peak
5351.98	55.06	46.43	74	-18.94	34.28	8.38	34.03	111	190	Peak
5353.52	45.67	37.04	54	-8.33	34.28	8.38	34.03	111	190	Average
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5047.7	53.21	45.15	74	-20.79	34.04	8	33.98	108	4	Peak
5122.85	43.11	34.89	54	-10.89	34.11	8.1	33.99	108	4	Average
5310	96.49	87.94			34.25	8.32	34.02	108	4	Average
5310	103.34	94.79			34.25	8.32	34.02	108	4	Peak
5356.6	43.99	35.36	54	-10.01	34.28	8.38	34.03	108	4	Average
5448.67	54.16	45.33	74	-19.84	34.36	8.51	34.04	108	4	Peak

Remarks:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5310 MHz: Fundamental Frequency

EUT Test Condition		Measurement Detail	
Channel	Channel 102	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Karl Lee

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5436.24	53.51	44.72	74	-20.49	34.35	8.48	34.04	113	138	Peak
5459.28	44.2	35.38	54	-9.8	34.36	8.51	34.05	113	138	Average
*5470.32	57.2	48.37	74	-16.8	34.37	8.51	34.05	113	138	Peak
*5470.96	48.79	39.93	54	-5.21	34.37	8.54	34.05	113	138	Average
5510	96.97	88.06			34.4	8.57	34.06	108	144	Average
5510	104.31	95.4			34.4	8.57	34.06	108	144	Peak
*5725.08	52.46	43.3	74	-21.54	34.62	8.65	34.11	113	138	Peak
*5725.24	43.49	34.33	54	-10.51	34.62	8.65	34.11	113	138	Average
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5404.88	53.58	44.86	74	-20.42	34.32	8.44	34.04	146	161	Peak
5457.84	43.44	34.62	54	-10.56	34.36	8.51	34.05	146	161	Average
*5470.32	55.35	46.52	74	-18.65	34.37	8.51	34.05	146	161	Peak
*5470.96	46.23	37.37	54	-7.77	34.37	8.54	34.05	146	161	Average
5510	93.93	85.02			34.4	8.57	34.06	157	161	Average
5510	101.53	92.62			34.4	8.57	34.06	157	161	Peak
*5724.68	52.2	43.04	74	-21.8	34.62	8.65	34.11	146	161	Peak
*5726.04	43.66	34.5	54	-10.34	34.62	8.65	34.11	146	161	Average

Remarks:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5510 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 110	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Karl Lee

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5395.76	53.01	44.29	74	-20.99	34.32	8.44	34.04	173	144	Peak
5458.64	43.22	34.4	54	-10.78	34.36	8.51	34.05	173	144	Average
*5468.88	52.61	43.78	74	-21.39	34.37	8.51	34.05	173	144	Peak
*5469.68	43.33	34.5	54	-10.67	34.37	8.51	34.05	173	144	Average
5550	96.5	87.53			34.45	8.59	34.07	175	142	Average
5550	104.41	95.44			34.45	8.59	34.07	175	142	Peak
*5724.12	43.72	34.56	54	-10.28	34.62	8.65	34.11	173	144	Average
*5725.4	53.44	44.28	74	-20.56	34.62	8.65	34.11	173	144	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5372.08	42.98	34.31	54	-11.02	34.29	8.41	34.03	132	175	Average
5415.12	53.25	44.52	74	-20.75	34.33	8.44	34.04	132	175	Peak
*5468.08	51.97	43.14	74	-22.03	34.37	8.51	34.05	132	175	Peak
*5469.52	42.88	34.05	54	-11.12	34.37	8.51	34.05	132	175	Average
5550	93.58	84.61			34.45	8.59	34.07	132	175	Average
5550	101.67	92.7			34.45	8.59	34.07	132	175	Peak
*5724.12	52.8	43.64	74	-21.2	34.62	8.65	34.11	132	175	Peak
*5725.56	43.8	34.64	54	-10.2	34.62	8.65	34.11	132	175	Average

Remarks:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5550 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 134	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Karl Lee

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5392.72	52.91	44.23	74	-21.09	34.31	8.41	34.04	177	142	Peak
5444.88	43.34	34.52	54	-10.66	34.35	8.51	34.04	177	142	Average
*5470	43.19	34.36	54	-10.81	34.37	8.51	34.05	177	142	Average
*5470.64	51.78	42.95	74	-22.22	34.37	8.51	34.05	177	142	Peak
5670	96.97	87.87			34.57	8.63	34.1	177	142	Average
5670	104.2	95.1			34.57	8.63	34.1	177	142	Peak
*5725.32	44.39	35.23	54	-9.61	34.62	8.65	34.11	177	142	Average
*5725.88	53.29	44.13	74	-20.71	34.62	8.65	34.11	177	142	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5415.28	53.57	44.84	74	-20.43	34.33	8.44	34.04	130	180	Peak
5457.84	43.47	34.65	54	-10.53	34.36	8.51	34.05	130	180	Average
*5469.52	43.21	34.38	54	-10.79	34.37	8.51	34.05	130	180	Average
*5470.48	51.99	43.16	74	-22.01	34.37	8.51	34.05	130	180	Peak
5670	93.97	84.87			34.57	8.63	34.1	130	180	Average
5670	101.1	92			34.57	8.63	34.1	130	180	Peak
*5723.96	44.06	34.9	54	-9.94	34.62	8.65	34.11	130	180	Average
*5724.92	52.18	43.02	74	-21.82	34.62	8.65	34.11	130	180	Peak

Remarks:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5670 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 151	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Karl Lee

<Spurious Emission>

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5755	92.25	83.04			34.66	8.66	34.11	113	195	Average
5755	99.14	89.93			34.66	8.66	34.11	113	195	Peak
11510	47.38	32.27	54	-6.62	37.9	12.6	35.39	116	238	Average
11510	56.53	41.42	74	-17.47	37.9	12.6	35.39	116	238	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5755	96.69	87.48			34.66	8.66	34.11	102	151	Average
5755	103.37	94.16			34.66	8.66	34.11	102	151	Peak
11510	48.52	33.41	54	-5.48	37.9	12.6	35.39	137	115	Average
11510	57.15	42.04	74	-16.85	37.9	12.6	35.39	137	115	Peak

<Ouf of Band Emission (OOBE)>

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
*5591.35	45.34	36.33	54	-8.66	34.49	8.6	34.08	113	195	Average
*5591.35	53.77	44.76	74	-20.23	34.49	8.6	34.08	113	195	Peak
5651.725	51.56	42.47	75.08	-23.52	34.56	8.62	34.09	113	195	Peak
5921.575	51.53	42.13	76.14	-24.61	34.83	8.73	34.16	113	195	Peak
*6002.95	45.62	36.13	54	-8.38	34.9	8.76	34.17	113	195	Average
*6002.95	55.55	46.06	74	-18.45	34.9	8.76	34.17	113	195	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
*5512.075	45.07	36.16	54	-8.93	34.4	8.57	34.06	102	151	Average
*5512.075	53.98	45.07	74	-20.02	34.4	8.57	34.06	102	151	Peak
5652.25	51.84	42.75	75.4	-23.56	34.56	8.62	34.09	102	151	Peak
5921.575	51.33	41.93	76.14	-24.81	34.83	8.73	34.16	102	151	Peak
*6000.325	45.62	36.13	54	-8.38	34.9	8.76	34.17	102	151	Average
*6000.325	55.18	45.69	74	-18.82	34.9	8.76	34.17	102	151	Peak

Remarks:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5755 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 159	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Karl Lee

<Spurious Emission>

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5795	92.55	83.31			34.69	8.68	34.13	113	195	Average
5795	99.36	90.12			34.69	8.68	34.13	113	195	Peak
11590	48.64	33.27	54	-5.36	38.02	12.72	35.37	136	278	Average
11590	57.49	42.12	74	-16.51	38.02	12.72	35.37	136	278	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5795	96.66	87.42			34.69	8.68	34.13	100	151	Average
5795	103.63	94.39			34.69	8.68	34.13	100	151	Peak
11590	49.08	33.71	54	-4.92	38.02	12.72	35.37	168	127	Average
11590	58.17	42.8	74	-15.83	38.02	12.72	35.37	168	127	Peak

<Ouf of Band Emission (OOBE)>

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
*5606.05	44.89	35.86	54	-9.11	34.5	8.61	34.08	113	195	Average
*5606.05	53.84	44.81	74	-20.16	34.5	8.61	34.08	113	195	Peak
5655.4	53.42	44.33	77.37	-23.95	34.56	8.63	34.1	113	195	Peak
5924.2	52.52	43.12	74.5	-21.98	34.83	8.73	34.16	113	195	Peak
*6007.675	45.38	35.87	54	-8.62	34.92	8.76	34.17	113	195	Average
*6007.675	54.41	44.9	74	-19.59	34.92	8.76	34.17	113	195	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
*5624.95	44.91	35.86	54	-9.09	34.52	8.61	34.08	100	151	Average
*5624.95	54.5	45.45	74	-19.5	34.52	8.61	34.08	100	151	Peak
5652.775	51.21	42.11	75.73	-24.52	34.56	8.63	34.09	100	151	Peak
5921.05	53.87	44.49	76.46	-22.59	34.81	8.73	34.16	100	151	Peak
*5952.55	45.44	36.01	54	-8.56	34.85	8.74	34.16	100	151	Average
*5952.55	55.36	45.93	74	-18.64	34.85	8.74	34.16	100	151	Peak

Remarks:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5795 MHz: Fundamental Frequency
3. *: Out of Restricted Band

802.11ac (VHT80)

EUT Test Condition		Measurement Detail	
Channel	Channel 42	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Karl Lee

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5136.95	60.86	52.61	74	-13.14	34.11	8.13	33.99	116	175	Peak
5138.6	51.94	43.69	54	-2.06	34.11	8.13	33.99	116	175	Peak
5210	94.32	85.96			34.17	8.19	34	105	190	Average
5210	102.41	94.05			34.17	8.19	34	105	190	Peak
5394.44	53.16	44.45	74	-20.84	34.31	8.44	34.04	116	175	Peak
5433.16	43.55	34.76	54	-10.45	34.35	8.48	34.04	116	175	Average
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5142.8	52.26	44	54	-1.74	34.12	8.13	33.99	137	4	Peak
5144.75	61.78	53.53	74	-12.22	34.12	8.13	34	137	4	Peak
5210	93.87	85.52			34.16	8.19	34	146	4	Average
5210	101.42	93.07			34.16	8.19	34	146	4	Peak
5378.6	53.82	45.14	74	-20.18	34.31	8.41	34.04	137	4	Peak
5457.14	43.53	34.71	54	-10.47	34.36	8.51	34.05	137	4	Average

Remarks:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5210 MHz: Fundamental Frequency

EUT Test Condition		Measurement Detail	
Channel	Channel 58	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Karl Lee

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5093.6	53.48	45.32	74	-20.52	34.08	8.07	33.99	111	190	Peak
5145.5	43.43	35.18	54	-10.57	34.12	8.13	34	111	190	Average
5290	92.05	83.52			34.23	8.32	34.02	111	190	Average
5290	99.11	90.58			34.23	8.32	34.02	111	190	Peak
5350.11	51.17	42.54	54	-2.83	34.28	8.38	34.03	102	190	Average
5365.62	58.53	49.89	74	-15.47	34.29	8.38	34.03	102	190	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5072.9	43.52	35.4	54	-10.48	34.07	8.03	33.98	100	4	Average
5109.65	53.5	45.3	74	-20.5	34.09	8.1	33.99	100	4	Peak
5290	93.44	84.91			34.23	8.32	34.02	100	4	Average
5290	100.03	91.5			34.23	8.32	34.02	100	4	Peak
5354.18	52.61	43.98	54	-1.39	34.28	8.38	34.03	106	184	Average
5355.39	62.15	53.52	74	-11.85	34.28	8.38	34.03	106	184	Peak

Remarks:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5290 MHz: Fundamental Frequency

EUT Test Condition		Measurement Detail	
Channel	Channel 106	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Karl Lee

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5454	57.8	48.98	74	-16.2	34.36	8.51	34.05	109	140	Peak
5459.92	47.94	39.12	54	-6.06	34.36	8.51	34.05	109	140	Average
*5468.08	48.7	39.87	54	-5.3	34.37	8.51	34.05	109	140	Average
*5468.24	57.29	48.46	74	-16.71	34.37	8.51	34.05	109	140	Peak
5530	93.42	84.49			34.42	8.58	34.07	116	142	Average
5530	100.39	91.46			34.42	8.58	34.07	116	142	Peak
*5725.16	43.94	34.78	54	-10.06	34.62	8.65	34.11	109	140	Average
*5725.24	52.74	43.58	74	-21.26	34.62	8.65	34.11	109	140	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5457.84	47.18	38.36	54	-6.82	34.36	8.51	34.05	119	175	Average
5459.28	56.25	47.43	74	-17.75	34.36	8.51	34.05	119	175	Peak
*5470.8	46.27	37.41	54	-7.73	34.37	8.54	34.05	119	175	Average
*5470.96	55.54	46.68	74	-18.46	34.37	8.54	34.05	119	175	Peak
5530	90.19	81.26			34.42	8.58	34.07	119	175	Average
5530	97.74	88.81			34.42	8.58	34.07	119	175	Peak
*5724.68	43.68	34.52	54	-10.32	34.62	8.65	34.11	119	175	Average
*5725.64	52.33	43.17	74	-21.67	34.62	8.65	34.11	119	175	Peak

Remarks:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5530 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 122	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Karl Lee

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5406.96	53.16	44.44	74	-20.84	34.32	8.44	34.04	114	142	Peak
5449.68	43.39	34.56	54	-10.61	34.36	8.51	34.04	114	142	Average
*5468.72	43.37	34.54	54	-10.63	34.37	8.51	34.05	114	142	Average
*5469.2	51.89	43.06	74	-22.11	34.37	8.51	34.05	114	142	Peak
5610	93.2	84.17			34.5	8.61	34.08	114	142	Average
5610	100.58	91.55			34.5	8.61	34.08	114	142	Peak
*5724.6	43.82	34.66	54	-10.18	34.62	8.65	34.11	114	142	Average
*5725.96	53.09	43.93	74	-20.91	34.62	8.65	34.11	114	142	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5400.88	52.76	44.04	74	-21.24	34.32	8.44	34.04	132	175	Peak
5423.44	43.35	34.58	54	-10.65	34.33	8.48	34.04	132	175	Average
*5470.16	51.66	42.83	74	-22.34	34.37	8.51	34.05	132	175	Peak
*5470.96	43.13	34.27	54	-10.87	34.37	8.54	34.05	132	175	Average
5610	89.89	80.86			34.5	8.61	34.08	132	175	Average
5610	97.59	88.56			34.5	8.61	34.08	132	175	Peak
*5724.44	43.87	34.71	54	-10.13	34.62	8.65	34.11	132	175	Average
*5725.32	52.53	43.37	74	-21.47	34.62	8.65	34.11	132	175	Peak

Remarks:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5610 MHz: Fundamental Frequency
3. *: Out of Restricted Band

EUT Test Condition		Measurement Detail	
Channel	Channel 155	**Frequency Range**	1 GHz ~ 40 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Average (AV)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Karl Lee

<Spurious Emission>

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5775	89.7	80.47			34.68	8.67	34.12	113	195	Average
5775	96.25	87.02			34.68	8.67	34.12	113	195	Peak
11550	48.16	32.89	54	-5.84	37.97	12.68	35.38	105	325	Average
11550	57.48	42.21	74	-16.52	37.97	12.68	35.38	105	325	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
5775	93.86	84.63			34.68	8.67	34.12	100	151	Average
5775	100.44	91.21			34.68	8.67	34.12	100	151	Peak
11550	48.15	32.88	54	-5.85	37.97	12.68	35.38	187	126	Average
11550	56.53	41.26	74	-17.47	37.97	12.68	35.38	187	126	Peak

<Ouf of Band Emission (OOBE)>

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
*5567.725	46.28	3.22	54	-7.72	34.47	8.59	0	113	195	Average
*5567.725	53.34	10.28	74	-20.66	34.47	8.59	0	113	195	Peak
5654.35	51.99	8.8	76.71	-24.72	34.56	8.63	0	113	195	Peak
5921.05	51.68	8.14	76.46	-24.78	34.81	8.73	0	113	195	Peak
*5996.125	46.18	2.52	54	-7.82	34.9	8.76	0	113	195	Average
*5996.125	53.41	9.75	74	-20.59	34.9	8.76	0	113	195	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
*5530.975	46.15	37.21	54	-7.85	34.43	8.58	34.07	100	151	Average
*5530.975	53.74	44.8	74	-20.26	34.43	8.58	34.07	100	151	Peak
5650.15	51.96	42.87	74.09	-22.13	34.56	8.62	34.09	100	151	Peak
5924.2	53.3	43.9	74.5	-21.2	34.83	8.73	34.16	100	151	Peak
*6016.075	46.67	37.17	54	-7.33	34.92	8.76	34.18	100	151	Average
*6016.075	53.92	44.42	74	-20.08	34.92	8.76	34.18	100	151	Peak

Remarks:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value
2. 5775 MHz: Fundamental Frequency
3. *: Out of Restricted Band

9 kHz ~ 30 MHz DATA:

The amplitude of spurious emissions attenuated more than 20 dB below the permissible value is not required to be report.

30 MHz ~ 1 GHz WORST-CASE DATA:

802.11ac (VHT80)

EUT Test Condition		Measurement Detail	
Channel	Channel 42	**Frequency Range**	30 MHz ~ 1 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Quasi-peak (QP)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Karl Lee

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
66.18	25.63	49.31	40	-14.37	7.64	0.9	32.22	165	193	Peak
142.86	20.45	41.79	43.5	-23.05	9.55	1.38	32.27	177	283	Peak
250.86	20.3	37.42	46	-25.7	13.04	1.94	32.1	154	118	Peak
448.4	21.05	32.74	46	-24.95	17.97	2.49	32.15	148	126	Peak
690.6	24.54	30.4	46	-21.46	23.19	3.05	32.1	106	223	Peak
853.7	25.22	29.55	46	-20.78	24	3.44	31.77	195	221	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
72.12	23.49	46.44	40	-16.51	8.16	1.11	32.22	164	110	Peak
148.53	17.54	38.31	43.5	-25.96	9.98	1.52	32.27	198	152	Peak
251.4	15.49	32.61	46	-30.51	13.04	1.94	32.1	142	133	Peak
394.5	18.2	30.27	46	-27.8	17.8	2.34	32.21	126	131	Peak
645.8	22.96	30.02	46	-23.04	22.1	2.99	32.15	164	138	Peak
845.3	25.45	30.14	46	-20.55	23.75	3.38	31.82	187	154	Peak

Remarks:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value

802.11ac (VHT80)

EUT Test Condition		Measurement Detail	
Channel	Channel 58	**Frequency Range**	30 MHz ~ 1 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Quasi-peak (QP)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Karl Lee

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
86.7	23.76	45.83	40	-16.24	8.73	1.11	31.91	146	207	Peak
160.41	20.22	40.17	43.5	-23.28	10.8	1.52	32.27	149	320	Peak
257.34	19.28	36.23	46	-26.72	13.21	1.94	32.1	168	124	Peak
424.6	17.68	29.75	46	-28.32	17.7	2.41	32.18	192	165	Peak
671.7	24.24	29.91	46	-21.76	23.4	3.05	32.12	147	130	Peak
794.9	25.14	29.52	46	-20.86	24.42	3.27	32.07	185	264	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
66.72	29.23	52.87	40	-10.77	7.68	0.9	32.22	109	262	Peak
154.74	19.49	39.79	43.5	-24.01	10.45	1.52	32.27	174	123	Peak
244.65	15.82	33.32	46	-30.18	12.77	1.85	32.12	134	160	Peak
446.3	18.05	29.76	46	-27.95	17.95	2.49	32.15	120	186	Peak
683.6	24.03	29.82	46	-21.97	23.27	3.05	32.11	198	24	Peak
851.6	26.01	30.55	46	-19.99	23.8	3.44	31.78	153	234	Peak

Remarks:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value

802.11n (HT20)

EUT Test Condition		Measurement Detail	
Channel	Channel 100	**Frequency Range**	30 MHz ~ 1 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Quasi-peak (QP)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Karl Lee

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
85.35	23.63	45.82	40	-16.37	8.66	1.11	31.96	185	203	Peak
163.38	19.55	39.78	43.5	-23.95	10.51	1.52	32.26	145	119	Peak
252.21	18.81	35.89	46	-27.19	13.08	1.94	32.1	164	117	Peak
398.7	17.85	29.63	46	-28.15	18.1	2.34	32.22	126	118	Peak
619.9	23.16	30.45	46	-22.84	21.96	2.93	32.18	135	204	Peak
851.6	25.22	29.76	46	-20.78	23.8	3.44	31.78	193	324	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
61.86	31.39	55.69	40	-8.61	7.03	0.9	32.23	166	231	Peak
155.55	19.32	39.56	43.5	-24.18	10.51	1.52	32.27	154	137	Peak
262.2	19.8	36.6	46	-26.2	13.37	1.94	32.11	196	275	Peak
387.5	20.44	33.09	46	-25.56	17.2	2.34	32.19	149	185	Peak
669.6	24.05	29.95	46	-21.95	23.18	3.05	32.13	174	116	Peak
825	24.98	30.02	46	-21.02	23.5	3.38	31.92	159	234	Peak

Remarks:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   Margin value = Emission level – Limit value

802.11n (HT40)

EUT Test Condition		Measurement Detail	
Channel	Channel 159	**Frequency Range**	30 MHz ~ 1 GHz
Input Power	120 Vac, 60 Hz	**Detector Function**	Peak (PK) Quasi-peak (QP)
Environmental Conditions	25 deg. C, 65 % RH	**Tested By**	Karl Lee

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
86.43	23.89	45.96	40	-16.11	8.73	1.11	31.91	197	35	Peak
163.11	19.67	39.83	43.5	-23.83	10.58	1.52	32.26	124	159	Peak
247.35	18.35	35.73	46	-27.65	12.88	1.85	32.11	170	188	Peak
426.7	18.47	30.51	46	-27.53	17.73	2.41	32.18	184	320	Peak
711.6	24.73	30.49	46	-21.27	23.23	3.11	32.1	121	100	Peak
799.8	25.93	30.07	46	-20.07	24.6	3.32	32.06	135	333	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	**Emission Level (dBuV/m)**	**Read Level (dBuV)**	**Limit (dBuV/m)**	**Margin (dB)**	**Antenna Factor (dB/m)**	**Cable Loss (dB)**	**Preamp Factor (dB)**	**Antenna Height (cm)**	**Table Angle (Degree)**	**Remark**
31.35	26.82	41.52	40	-13.18	16.82	0.74	32.26	115	187	Peak
156.09	19.49	39.73	43.5	-24.01	10.51	1.52	32.27	160	132	Peak
256.8	18.4	35.35	46	-27.6	13.21	1.94	32.1	164	4	Peak
458.9	19.25	30.47	46	-26.75	18.36	2.56	32.14	192	255	Peak
519.1	20.74	29.85	46	-25.26	20.32	2.7	32.13	190	203	Peak
691.3	25.18	31.04	46	-20.82	23.19	3.05	32.1	125	251	Peak

Remarks:

1. Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
   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 0.50 MHz.

4.2.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Date Of Calibration	Due Date Of Calibration
Test Receiver ROHDE & SCHWARZ	ESCI	100613	Nov. 21, 2016	Nov. 20, 2017
RF signal cable (with 10dB PAD) Woken	5D-FB	Cable-cond1-01	Dec. 22, 2016	Dec. 21, 2017
LISN ROHDE & SCHWARZ (EUT)	ESH3-Z5	835239/001	Mar. 10, 2017	Mar. 09, 2018
LISN ROHDE & SCHWARZ (Peripheral)	ESH3-Z5	100311	Jul. 28, 2016	Jul. 27, 2017
Software ADT	BV ADT_Cond_ V7.3.7.3	NA	NA	NA

Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in HwaYa Shielded Room 1.
3. The VCCI Site Registration No. is C-2040.

4.2.3 Test Procedures

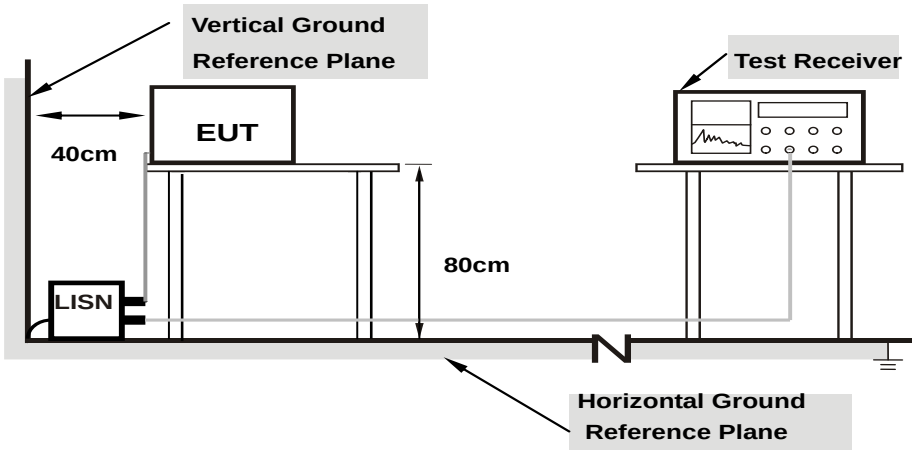
a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling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

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

4.2.4 Deviation from Test Standard

No deviation.

4.2.5 Test Setup



Note: 1.Support units were connected to second LISN.
2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

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

4.2.6 EUT Operating Conditions

a. Placed the EUT on a testing table.
b. Use the software to control the EUT under transmission condition continuously at specific channel frequency.

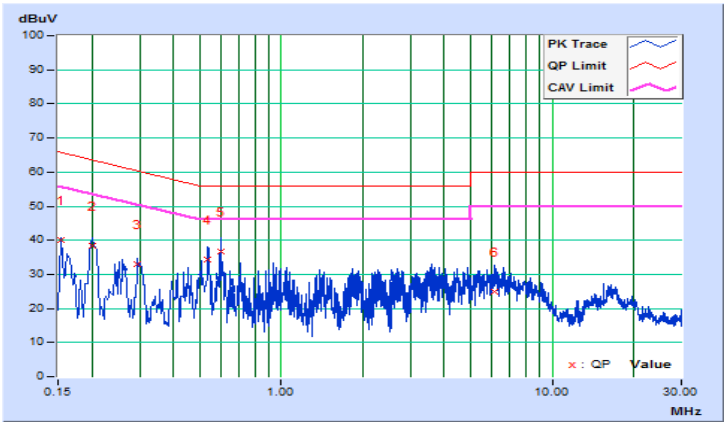
4.2.7 Test Results

Frequency Range	150kHz ~ 30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9kHz
Input Power	120Vac, 60Hz	Environmental Conditions	25℃, 65%RH
Tested by	Getaz Yang	Test Date	2017/4/6

Phase Of Power : Line (L)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15391	10.35	29.64	15.11	39.99	25.46	65.79	55.79	-25.80	-30.33
2	0.20084	10.37	28.17	16.27	38.54	26.64	63.58	53.58	-25.04	-26.94
3	0.29467	10.38	22.58	9.00	32.96	19.38	60.39	50.39	-27.43	-31.01
4	0.53709	10.40	24.07	10.09	34.47	20.49	56.00	46.00	-21.53	-25.51
5	0.59574	10.40	26.45	11.61	36.85	22.01	56.00	46.00	-19.15	-23.99
6	6.12839	10.66	14.42	5.67	25.08	16.33	60.00	50.00	-34.92	-33.67

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

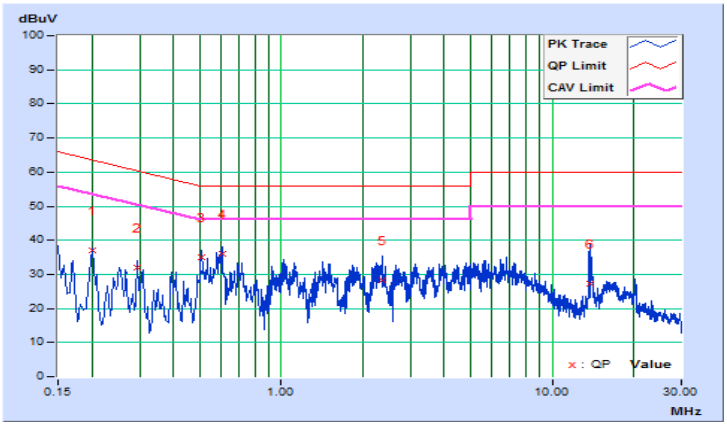


Frequency Range	150kHz ~ 30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9kHz
Input Power	120Vac, 60Hz	Environmental Conditions	25℃, 65%RH
Tested by	Getaz Yang	Test Date	2017/4/6

Phase Of Power : Neutral (N)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.20084	10.14	26.78	18.31	36.92	28.45	63.58	53.58	-26.66	-25.13
2	0.29467	10.15	21.68	12.61	31.83	22.76	60.39	50.39	-28.56	-27.63
3	0.50581	10.16	24.72	14.21	34.88	24.37	56.00	46.00	-21.12	-21.63
4	0.60356	10.16	25.96	14.93	36.12	25.09	56.00	46.00	-19.88	-20.91
5	2.35524	10.25	17.91	10.77	28.16	21.02	56.00	46.00	-27.84	-24.98
6	13.89756	10.71	16.57	3.55	27.28	14.26	60.00	50.00	-32.72	-35.74

Remarks:

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



4.3 Transmit Power Measurment

4.3.1 Limits of Transmit Power Measurement

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

*B is the 26 dB emission bandwidth in megahertz

Per KDB 662911 Method of conducted output power measurement on IEEE 802.11 devices,

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

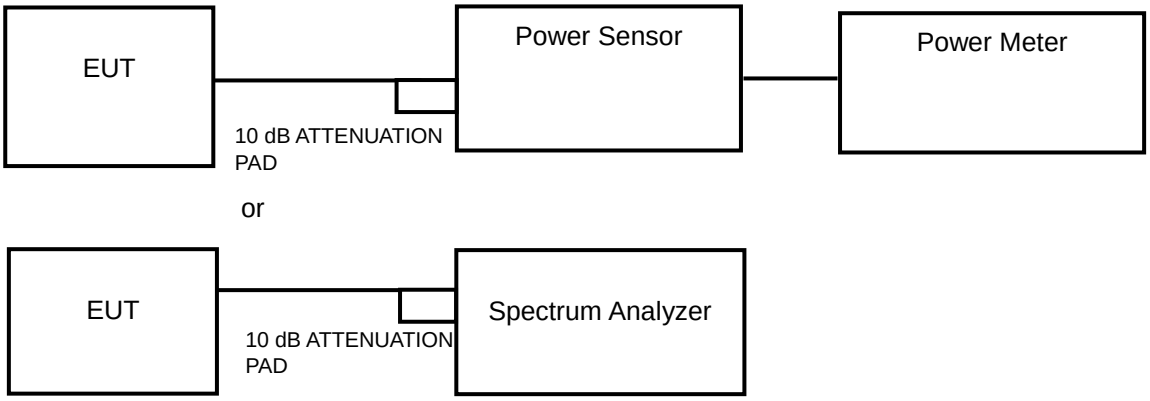
Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT};

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

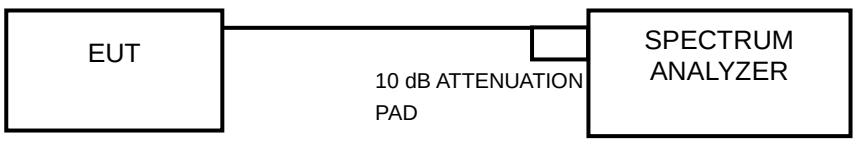
For power measurements on all other devices: Array Gain = 10 log(N_{ANT}/N_{SS}) dB.

4.3.2 Test Setup

<Power Output Measurement>



<26 dB Bandwidth>



4.3.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.3.4 Test Procedure

Average Power Measurement

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

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

<802.11ac (VHT80)>

Method SA-1 is used to perform output power measurement, trigger and gating function of spectrum analyzer is enabled to measure max output power of TX on burst. Duty factor is not added to measured value.

26 dB 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 fromTest 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:

<1TX>

802.11a

Channel	Frequency (MHz)	Maximum Conducted Power (mW)	Maximum Conducted Power (dBm)	Power Limit (dBm)	Pass / Fail
36	5180	40.926	16.12	24	Pass
44	5220	41.115	16.14	24	Pass
48	5240	40.179	16.04	24	Pass
52	5260	40.551	16.08	24	Pass
60	5300	41.400	16.17	24	Pass
64	5320	41.976	16.23	24	Pass
100	5500	42.364	16.27	24	Pass
116	5580	43.152	16.35	24	Pass
140	5700	41.210	16.15	24	Pass
149	5745	42.073	16.24	30	Pass
157	5785	42.267	16.26	30	Pass
165	5825	41.210	16.15	30	Pass

Note:

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

1. 11 dBm + 10log (25.64) = 25.09 dBm > 24 dBm.
2. 11 dBm + 10log (25.71) = 25.10 dBm > 24 dBm.
3. 11 dBm + 10log (25.74) = 25.11 dBm > 24 dBm.
4. 11 dBm + 10log (24.14) = 24.83 dBm > 24 dBm.
5. 11 dBm + 10log (27.58) = 25.41 dBm > 24 dBm.
6. 11 dBm + 10log (36.96) = 26.68 dBm > 24 dBm.

<2TX>

802.11n (HT20)

Channel	Frequency (MHz)	Maximum Cunducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
36	5180	12.61	13.53	40.781	16.10	24	Pass
44	5220	12.85	13.54	41.870	16.22	24	Pass
48	5240	12.77	13.67	42.204	16.25	24	Pass
52	5260	12.74	13.56	41.492	16.18	24	Pass
60	5300	12.73	13.35	40.377	16.06	24	Pass
64	5320	12.94	13.62	42.693	16.30	24	Pass
100	5500	13.15	13.34	42.231	16.26	24	Pass
116	5580	13.26	13.18	41.981	16.23	24	Pass
140	5700	13.70	12.63	41.765	16.21	24	Pass
149	5745	13.38	12.75	40.614	16.09	30	Pass
157	5785	13.72	12.83	42.737	16.31	30	Pass
165	5825	13.54	12.62	40.875	16.11	30	Pass

Note:

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

Chain 0

1. 11 dBm + 10log (23.81) = 24.77 dBm > 24 dBm.
2. 11 dBm + 10log (23.82) = 24.77 dBm > 24 dBm.
3. 11 dBm + 10log (23.79) = 24.76 dBm > 24 dBm.
4. 11 dBm + 10log (23.70) = 24.75 dBm > 24 dBm.
5. 11 dBm + 10log (23.28) = 24.67 dBm > 24 dBm.
6. 11 dBm + 10log (36.25) = 26.59 dBm > 24 dBm.

Chain 1

1. 11 dBm + 10log (23.47) = 24.71 dBm > 24 dBm.
2. 11 dBm + 10log (23.21) = 24.66 dBm > 24 dBm.
3. 11 dBm + 10log (23.28) = 24.67 dBm > 24 dBm.
4. 11 dBm + 10log (24.54) = 24.90 dBm > 24 dBm.
5. 11 dBm + 10log (23.35) = 24.68 dBm > 24 dBm.
6. 11 dBm + 10log (23.38) = 24.69 dBm > 24 dBm.

802.11n (HT40)

Channel	Frequency (MHz)	Maximum Cunducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
38	5190	12.74	13.55	41.440	16.17	24	Pass
46	5230	12.84	13.49	41.567	16.19	24	Pass
54	5270	12.94	13.57	42.430	16.28	24	Pass
62	5310	12.88	13.34	40.986	16.13	24	Pass
102	5510	13.16	13.23	41.739	16.21	24	Pass
110	5550	13.16	13.27	41.934	16.23	24	Pass
134	5670	13.57	12.80	41.806	16.21	24	Pass
151	5755	13.70	12.87	42.807	16.32	30	Pass
159	5795	13.57	12.86	42.071	16.24	30	Pass

Note:

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

Chain 0

1. 11 dBm + 10log (43.61) = 27.40 dBm > 24 dBm.
2. 11 dBm + 10log (51.08) = 28.08 dBm > 24 dBm.
3. 11 dBm + 10log (44.33) = 27.47 dBm > 24 dBm.
4. 11 dBm + 10log (44.50) = 27.48 dBm > 24 dBm.
5. 11 dBm + 10log (63.08) = 29.00 dBm > 24 dBm.

Chain 1

1. 11 dBm + 10log (43.64) = 27.40 dBm > 24 dBm.
2. 11 dBm + 10log (43.84) = 27.42 dBm > 24 dBm.
3. 11 dBm + 10log (43.76) = 27.41 dBm > 24 dBm.
4. 11 dBm + 10log (43.36) = 27.37 dBm > 24 dBm.
5. 11 dBm + 10log (51.57) = 28.12 dBm > 24 dBm.

802.11ac (VHT80)

Channel	Frequency (MHz)	Maximum Cunducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
42	5210	13.06	13.28	41.512	16.18	24	Pass
58	5290	13.07	13.36	41.954	16.23	24	Pass
106	5530	13.30	13.07	41.656	16.20	24	Pass
122	5610	13.45	12.76	41.011	16.13	24	Pass
155	5775	13.65	12.83	42.361	16.27	30	Pass

Note:

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

Chain 0

1. 11 dBm + 10log (93.90) = 30.73 dBm > 24 dBm.
2. 11 dBm + 10log (86.41) = 30.37 dBm > 24 dBm.
3. 11 dBm + 10log (86.77) = 30.38 dBm > 24 dBm.

Chain 1

1. 11 dBm + 10log (85.96) = 30.34 dBm > 24 dBm.
2. 11 dBm + 10log (85.10) = 30.30 dBm > 24 dBm.
3. 11 dBm + 10log (85.62) = 30.33 dBm > 24 dBm.

26 dB Bandwidth:

<1TX>

802.11a

Channel	Frequency (MHz)	26 dBc Bandwidth (MHz)
36	5180	25.19
44	5220	25.55
48	5240	25.48
52	5260	25.64
60	5300	25.71
64	5320	25.74
100	5500	24.14
116	5580	27.58
140	5700	36.96

<2TX>

802.11n (HT20)

Channel	Frequency (MHz)	26 dBc Bandwidth (MHz)	
		Chain 0	Chain 1
36	5180	23.59	23.46
44	5220	23.37	23.61
48	5240	23.71	23.29
52	5260	23.81	23.47
60	5300	23.82	23.21
64	5320	23.79	23.28
100	5500	23.70	24.54
116	5580	23.28	23.35
140	5700	36.25	23.38

802.11n (HT40)

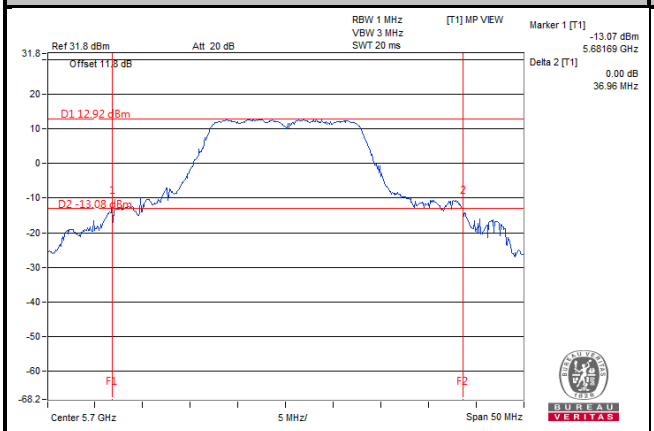
Channel	Frequency (MHz)	26 dBc Bandwidth (MHz)	
		Chain 0	Chain 1
38	5190	46.35	46.38
46	5230	44.23	43.96
54	5270	43.61	43.64
62	5310	51.08	43.84
102	5510	44.33	43.76
110	5550	44.50	43.36
134	5670	63.08	51.57

802.11ac (VHT80)

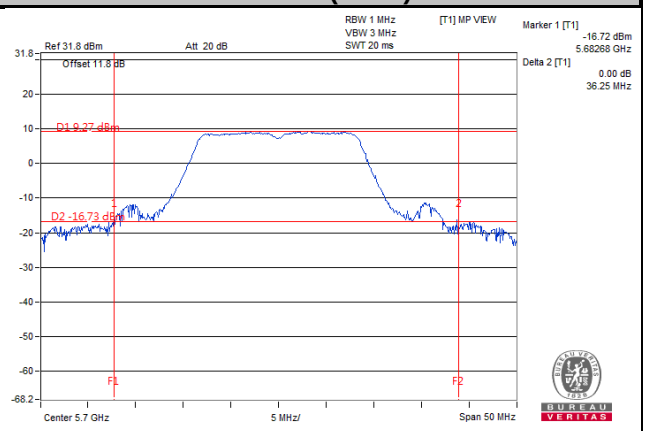
Channel	Frequency (MHz)	26 dBc Bandwidth (MHz)	
		Chain 0	Chain 1
42	5210	88.31	90.98
58	5290	93.90	85.96
106	5530	86.41	85.10
122	5610	86.77	85.62

Spectrum Plot of Worst Value

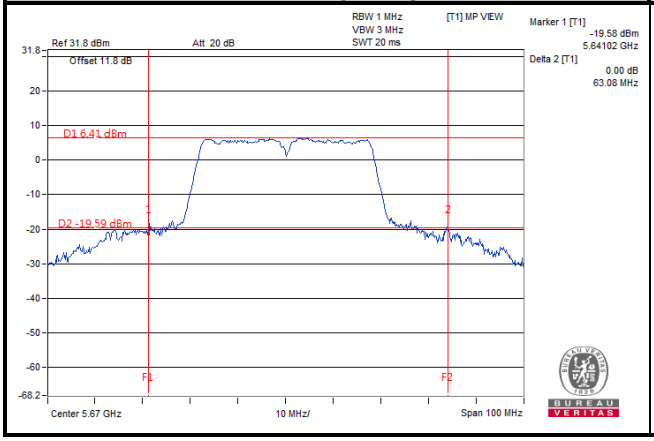
802.11a



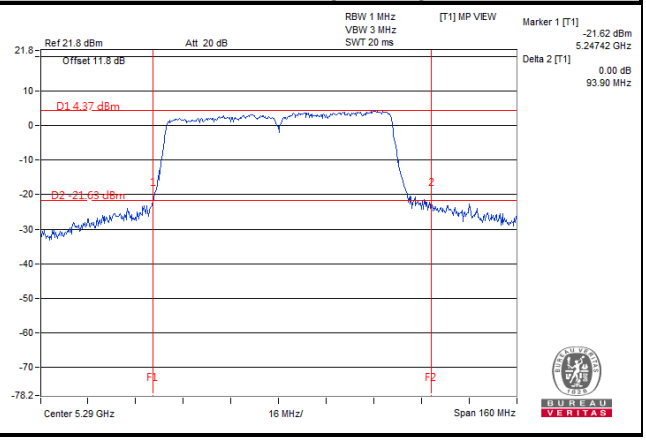
802.11n (HT20)



802.11n (HT40)



802.11ac (VHT80)

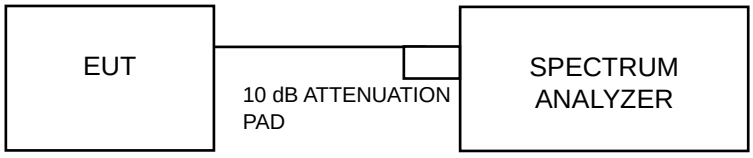


4.4 Peak Power Spectral Density Measurement

4.4.1 Limits of Peak Power Spectral Density Measurement

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

4.4.2 Test Setup



4.4.3 Test Instruments

Refer to section 4.1.3 to get information of above instrument.

4.4.4 Test Procedures

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

Using method SA-2

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

※For U-NII-3:

1. Set span to encompass the entire emission bandwidth (EBW) of the signal.
2. Set RBW = 500 kHz, Set VBW ≥ 3 RBW, Detector = RMS
3. Use the peak marker function to determine the maximum power level in any 500 kHz band segment within the fundamental EBW.
4. Sweep time = auto, trigger set to “free run”.
5. Trace average at least 100 traces in power averaging mode.
6. Record the max value and add 10 log (1/duty cycle)

4.4.5 Deviation from Test Standard

No deviation.

4.4.6 EUT Operating Conditions

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

4.4.7 Test Results

<1TX>

802.11a

Channel	Frequency (MHz)	PSD w/o Duty Factor (dBm/MHz)	Duty Factor (dB)	PSD with Duty Factor (dBm/MHz)	Maximum Limit (dBm/MHz)	Pass / Fail
36	5180	3.18	0.27	3.45	11	Pass
44	5220	3.53	0.27	3.80	11	Pass
48	5240	3.14	0.27	3.41	11	Pass
52	5260	3.39	0.27	3.66	11	Pass
60	5300	3.45	0.27	3.72	11	Pass
64	5320	3.67	0.27	3.94	11	Pass
100	5500	3.79	0.27	4.06	11	Pass
116	5580	3.88	0.27	4.15	11	Pass
140	5700	3.63	0.27	3.90	11	Pass

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

<2TX>

802.11n (HT20)

Channel	Frequency (MHz)	PSD (dBm/MHz)		Duty Factor (dB)	Total PSD with Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1				
36	5180	-0.55	-0.06	0.29	3.00	11	Pass
44	5220	-0.12	0.13	0.29	3.31	11	Pass
48	5240	-0.28	0.26	0.29	3.30	11	Pass
52	5260	-0.32	0.13	0.29	3.21	11	Pass
60	5300	-0.20	0.13	0.29	3.27	11	Pass
64	5320	-0.32	0.27	0.29	3.29	11	Pass
100	5500	-0.22	0.16	0.29	3.27	11	Pass
116	5580	-0.06	0.18	0.29	3.36	11	Pass
140	5700	-0.01	0.25	0.29	3.42	11	Pass

Note:

1. 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.
2. **For U-NII-1 Band:**
   Directional gain = $10\log[(10^{G1/20} + 10^{G2/20})^2 / N_{ANT}] = 3.02$ dBi < 6 dBi, so the limit doesn't need to be reduced.
   For U-NII-2A, U-NII-2C Band:
   Directional gain = $10\log[(10^{G1/20} + 10^{G2/20})^2 / N_{ANT}] = 1.26$ dBi < 6 dBi, so the limit doesn't need to be reduced.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11n (HT40)

Channel	Frequency (MHz)	PSD (dBm/MHz)		Duty Factor (dB)	Total PSD with Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1				
38	5190	-3.45	-2.88	0.57	0.42	11	Pass
46	5230	-3.22	-2.85	0.57	0.55	11	Pass
54	5270	-3.12	-2.58	0.57	0.74	11	Pass
62	5310	-3.25	-2.60	0.57	0.67	11	Pass
102	5510	-2.99	-2.78	0.57	0.70	11	Pass
110	5550	-2.96	-2.71	0.57	0.75	11	Pass
134	5670	-2.88	-2.92	0.57	0.68	11	Pass

Note:

1. 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.
2. **For U-NII-1 Band:**
   Directional gain = $10\log[(10^{G1/20} + 10^{G2/20})^2 / N_{ANT}]$ = 3.02 dBi < 6 dBi, so the limit doesn't need to be reduced.
   For U-NII-2A, U-NII-2C Band:
   Directional gain = $10\log[(10^{G1/20} + 10^{G2/20})^2 / N_{ANT}]$ = 1.26 dBi < 6 dBi, so the limit doesn't need to be reduced.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11ac (VHT80)

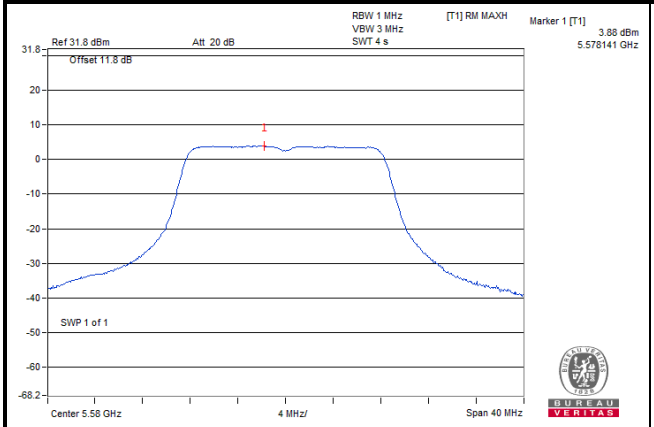
Channel	Frequency (MHz)	PSD (dBm/MHz)		Duty Factor (dB)	Total PSD with Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1				
42	5210	-5.78	-5.11	1.07	-1.35	11	Pass
58	5290	-5.59	-5.14	1.07	-1.28	11	Pass
106	5530	-5.49	-5.25	1.07	-1.29	11	Pass
122	5610	-5.66	-5.52	1.07	-1.51	11	Pass

Note:

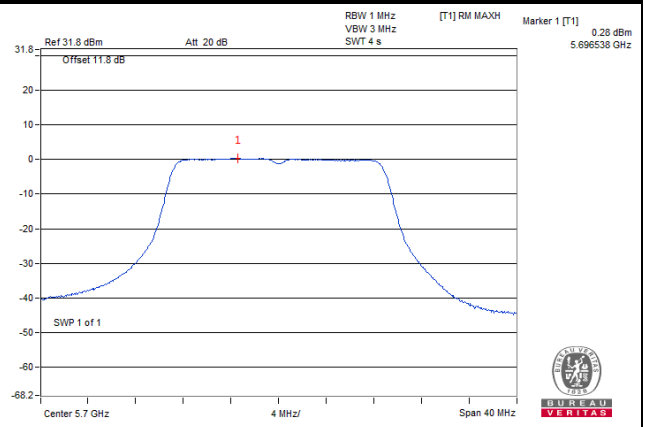
1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. **For U-NII-1 Band:**
   Directional gain = $10\log[(10^{G1/20} + 10^{G2/20})^2 / N_{ANT}]$ = 3.02 dBi < 6 dBi, so the limit doesn't need to be reduced.
   For U-NII-2A, U-NII-2C Band:
   Directional gain = $10\log[(10^{G1/20} + 10^{G2/20})^2 / N_{ANT}]$ = 1.26 dBi < 6 dBi, so the limit doesn't need to be reduced.
3. Refer to section 3.3 for duty cycle spectrum plot.

Spectrum Plot of Worst Value

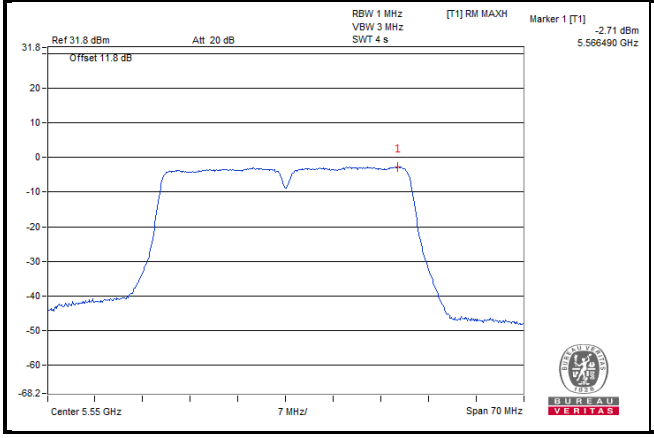
802.11a



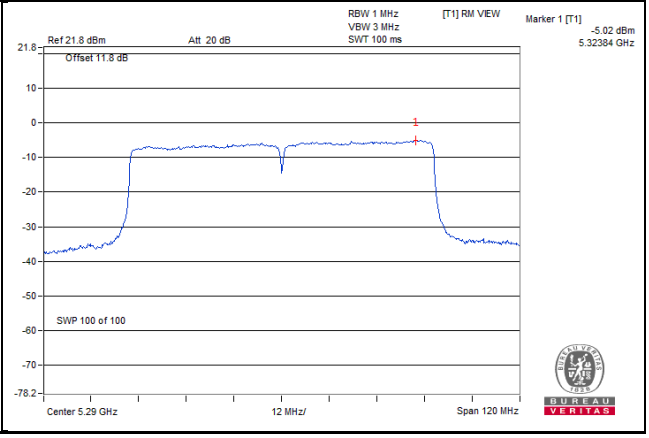
802.11n (HT20)



802.11n (HT40)



802.11ac (VHT80)



For U-NII-3 Band

<1TX>

802.11a

Channel	Frequency (MHz)	PSD w/o Duty Factor (dBm/500 kHz)	Duty Factor (dB)	PSD with Duty Factor (dBm/500 kHz)	Limit (dBm/500 kHz)	Pass / Fail
149	5745	1.79	0.27	2.06	30	Pass
157	5785	1.84	0.27	2.11	30	Pass
165	5825	1.75	0.27	2.02	30	Pass

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

<2TX>

802.11n (HT20)

TX Chain	Channel	Frequency (MHz)	PSD (dBm/500 kHz)	10 log (N=2) dB	Duty Factor (dB)	Total PSD with Duty Factor (dBm/500 kHz)	Limit (dBm/500 kHz)	Pass / Fail
0	149	5745	-2.27	3.01	0.29	1.03	30	Pass
	157	5785	-2.00	3.01	0.29	1.30	30	Pass
	165	5825	-2.00	3.01	0.29	1.30	30	Pass
1	149	5745	-2.82	3.01	0.29	0.48	30	Pass
	157	5785	-2.58	3.01	0.29	0.72	30	Pass
	165	5825	-2.99	3.01	0.29	0.31	30	Pass

Note:

1. 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.
2. Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2 / N_{ANT}] = 1.02 < 6$ dBi, so the limit does not need to be reduced.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11n (HT40)

TX Chain	Channel	Frequency (MHz)	PSD (dBm/500 kHz)	10 log (N=2) dB	Duty Factor (dB)	Total PSD with Duty Factor (dBm/500 kHz)	Limit (dBm/500 kHz)	Pass / Fail
0	151	5755	-5.29	3.01	0.57	-1.71	30	Pass
	159	5795	-5.49	3.01	0.57	-1.91	30	Pass
1	151	5755	-5.64	3.01	0.57	-2.06	30	Pass
	159	5795	-5.70	3.01	0.57	-2.12	30	Pass

Note:

1. 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.
2. Directional gain = $10 \log[(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2 / N_{ANT}] = 1.02 < 6$ dBi, so the limit does not need to be reduced.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11ac (VHT80)

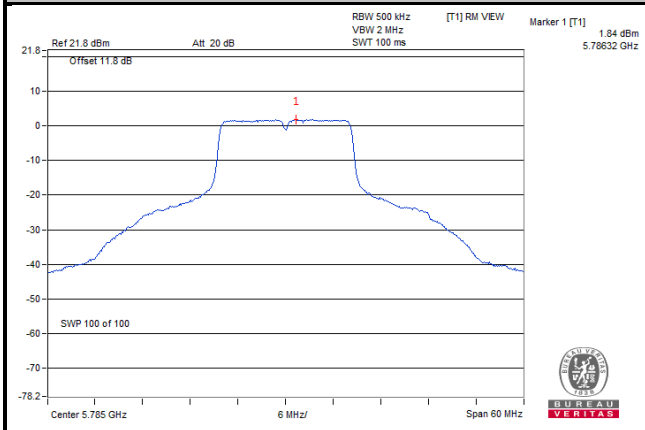
TX Chain	Channel	Frequency (MHz)	PSD (dBm/500 kHz)	10 log (N=2) dB	Duty Factor (dB)	Total PSD with Duty Factor (dBm/500 kHz)	Limit (dBm/500 kHz)	Pass / Fail
0	155	5775	-6.44	3.01	1.07	-2.36	30	Pass
1	155	5775	-6.74	3.01	1.07	-2.66	30	Pass

Note:

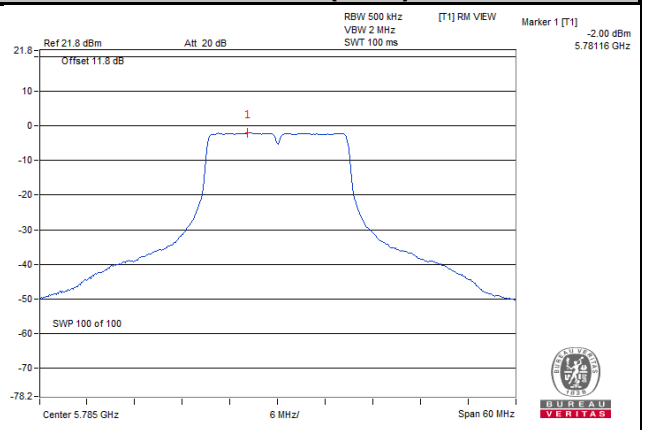
1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2 / N_{ANT}$]= 1.02 < 6 dBi, so the limit does not need to be reduced.
3. Refer to section 3.3 for duty cycle spectrum plot.

Spectrum Plot of Worst Value

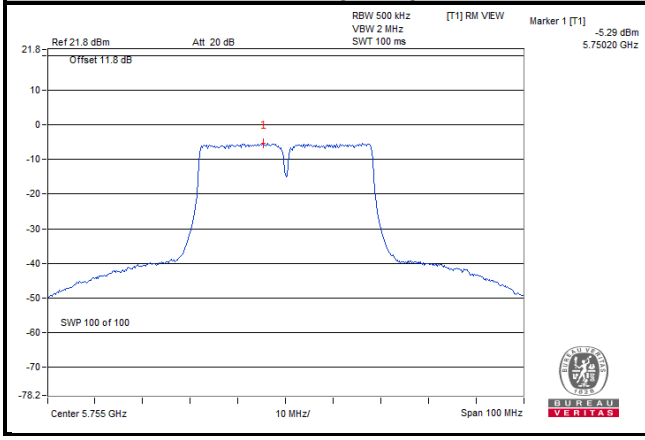
802.11a



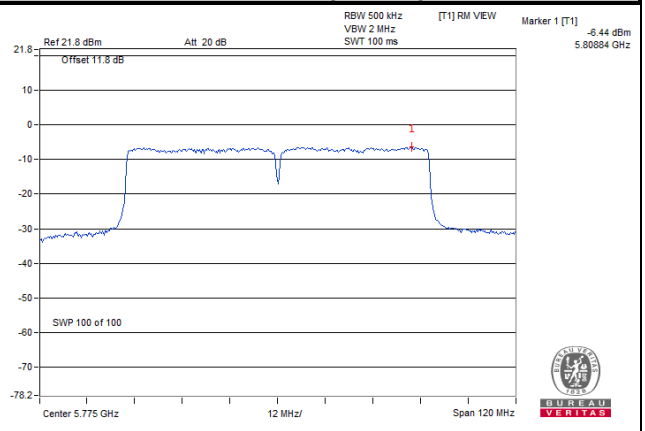
802.11n (HT20)



802.11n (HT40)



802.11ac (VHT80)

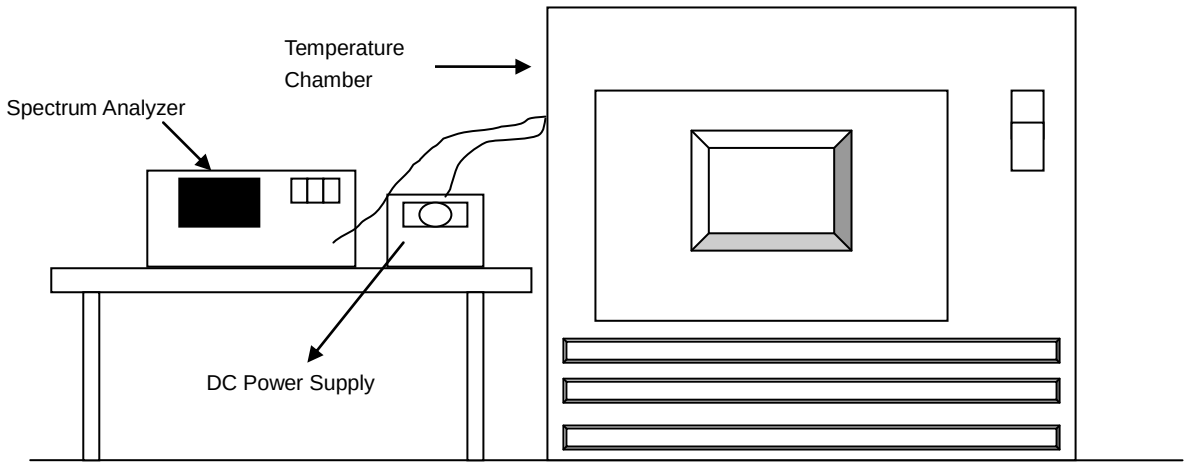


4.5 Frequency Stability

4.5.1 Limit of Frequency Stability Measurement

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

4.5.2 Test Setup



4.5.3 Test Instruments

Refer to section 4.1.3 to get information of above instrument.

4.5.4 Test Procedure

a. To ensure emission at the band edge is maintained within the authorized band, those values shall be measured by radiation emissions at upper and lower frequency points, and finally compensated by frequency deviation as procedures below.
b. The EUT was operated at the maximum output power, and connected to the spectrum analyzer, which is set to maximum hold function and peak detector. The peak value of the power envelope was measured and noted. The upper and lower frequency points were respectively measured relatively 10 dB lower than the measured peak value.
c. The frequency deviation was calculated by adding the upper frequency point and the lower frequency point divided by two. Those detailed values of frequency deviation are provided in table below.

4.5.5 Deviation from Test Standard

No deviation.

4.5.6 EUT Operating Condition

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

4.5.7 Test Results

Frequency Stability Versus Temp.									
Operating Frequency: 5180 MHz									
Temp. (℃)	Power Supply (Vdc)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)
55	3.85	5180.0219	0.00042	5180.0219	0.00042	5180.0214	0.00041	5180.0192	0.00037
50	3.85	5180.0135	0.00026	5180.0152	0.00029	5180.0156	0.00030	5180.0148	0.00029
40	3.85	5180.0252	0.00049	5180.0236	0.00046	5180.0255	0.00049	5180.0255	0.00049
30	3.85	5179.9908	-0.00018	5179.9887	-0.00022	5179.9922	-0.00015	5179.9888	-0.00022
20	3.85	5179.9787	-0.00041	5179.9779	-0.00043	5179.977	-0.00044	5179.9792	-0.00040
10	3.85	5179.9817	-0.00035	5179.9833	-0.00032	5179.9852	-0.00029	5179.9814	-0.00036
0	3.85	5180.0066	0.00013	5180.0027	0.00005	5180.0076	0.00015	5180.0053	0.00010
-10	3.85	5179.9931	-0.00013	5179.9933	-0.00013	5179.9966	-0.00007	5179.9943	-0.00011
-20	3.85	5179.984	-0.00031	5179.9857	-0.00028	5179.9822	-0.00034	5179.9826	-0.00034
-30	3.85	5180.0278	0.00054	5180.028	0.00054	5180.0265	0.00051	5180.0247	0.00048

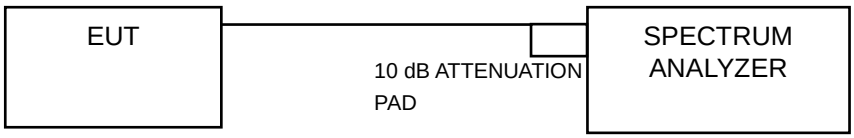
Frequency Stability Versus Temp.									
Operating Frequency: 5180 MHz									
Temp. (℃)	Power Supply (Vdc)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)
20	4.4	5179.9785	-0.00042	5179.9778	-0.00043	5179.9767	-0.00045	5179.9786	-0.00041
	3.85	5179.9787	-0.00041	5179.9779	-0.00043	5179.977	-0.00044	5179.9792	-0.00040
	3.6	5179.9789	-0.00041	5179.9781	-0.00042	5179.9767	-0.00045	5179.979	-0.00041

4.6 6 dB Bandwidth Measurment

4.6.1 Limits of 6 dB Bandwidth Measurement

The minimum of 6 dB Bandwidth Measurement is 0.5 MHz.

4.6.2 Test Setup



4.6.3 Test Instruments

Refer to section 4.1.3 to get information of above instrument.

4.6.4 Test Procedure

MEASUREMENT PROCEDURE REF

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

4.6.5 Deviation from Test Standard

No deviation.

4.6.6 EUT Operating Condition

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

4.6.7 Test Results

<1TX>

802.11a

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
149	5745	16.37	0.5	Pass
157	5785	16.38	0.5	Pass
165	5825	16.37	0.5	Pass

<2TX>

802.11n (HT20)

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
149	5745	17.62	17.65	0.5	Pass
157	5785	17.61	17.62	0.5	Pass
165	5825	17.64	17.64	0.5	Pass

802.11n (HT40)

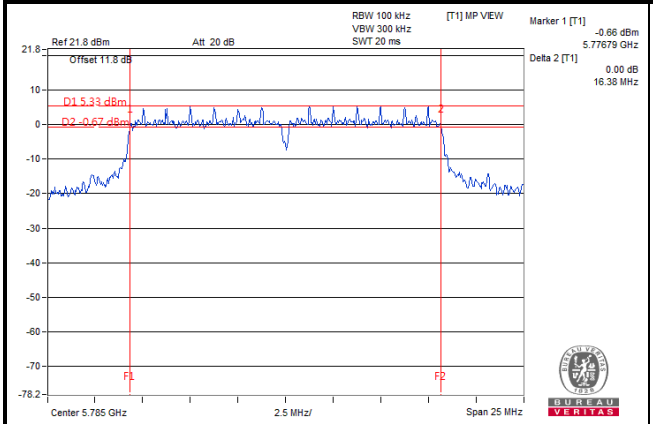
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
151	5755	36.41	36.42	0.5	Pass
159	5795	36.23	36.39	0.5	Pass

802.11ac (VHT80)

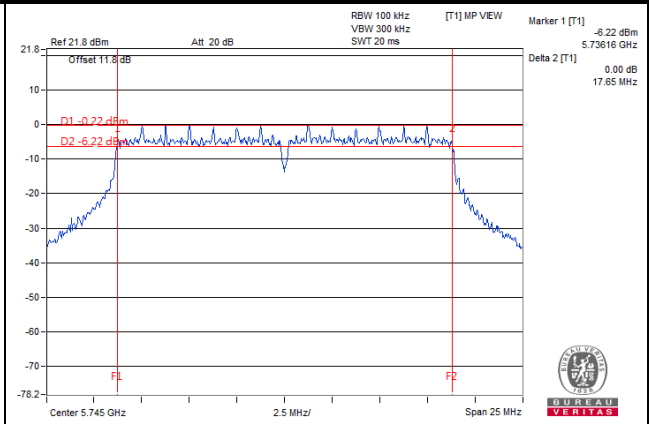
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
155	5775	76.33	76.61	0.5	Pass

Spectrum Plot of Worst Value

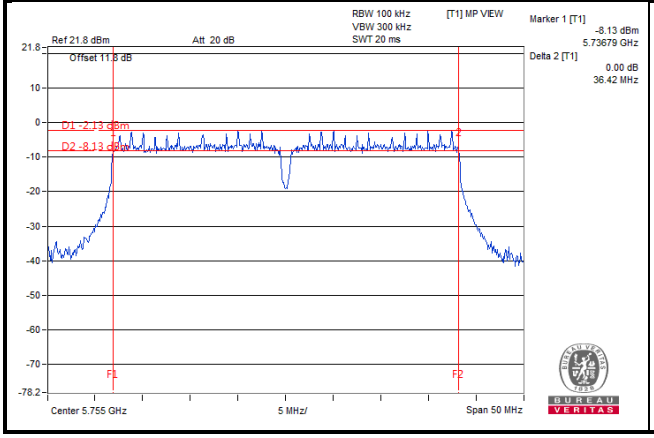
802.11a



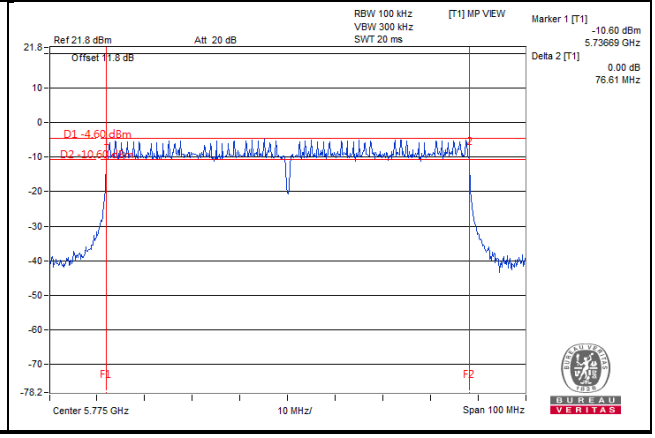
802.11n (HT20)



802.11n (HT40)



802.11ac (VHT80)



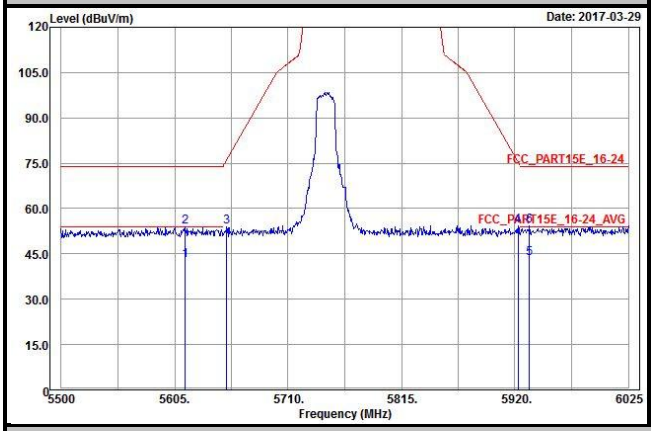
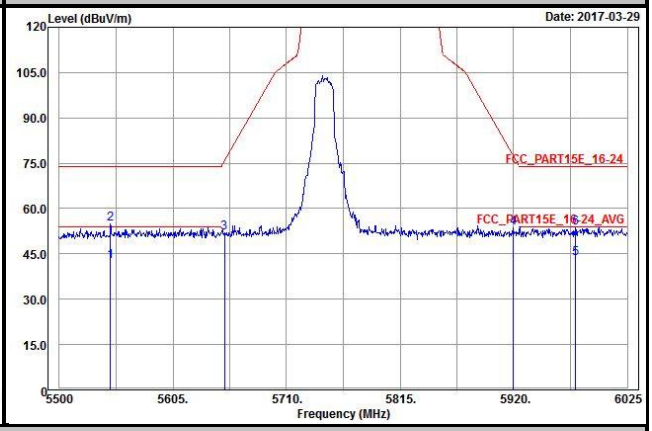
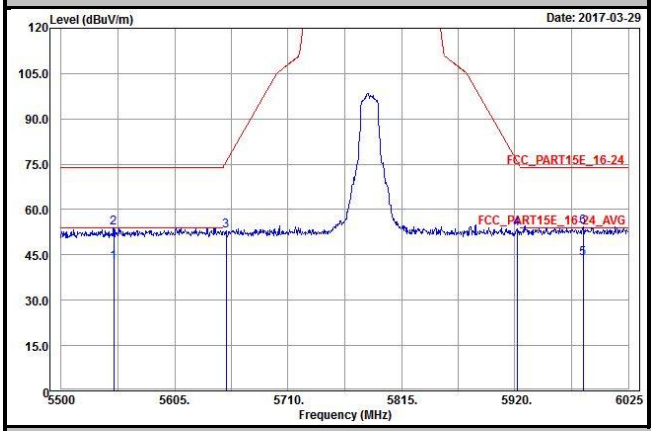
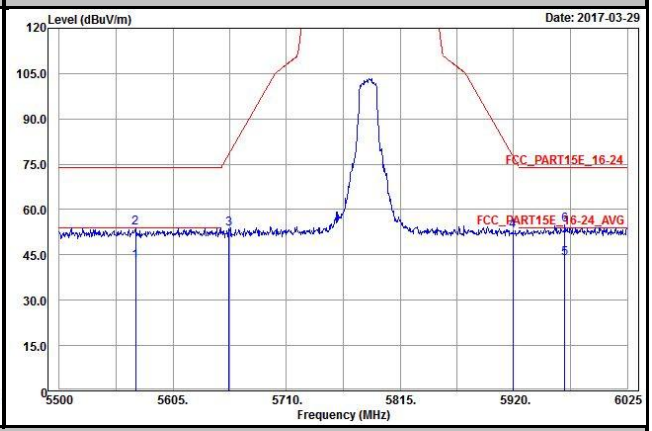
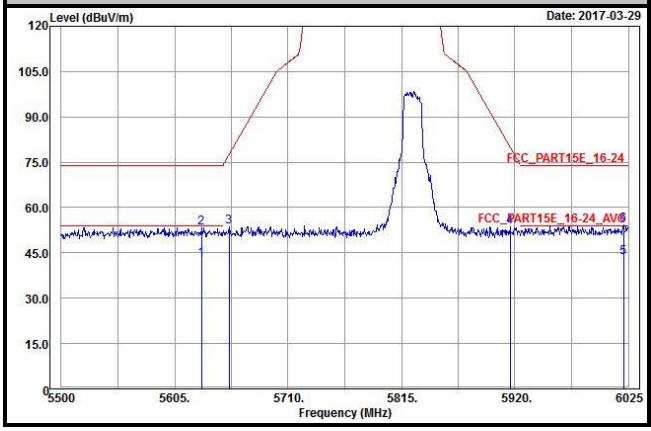
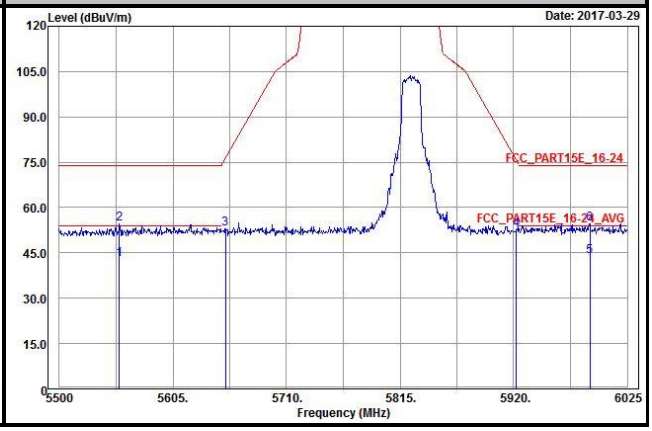
5 Pictures of Test Arrangements

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

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

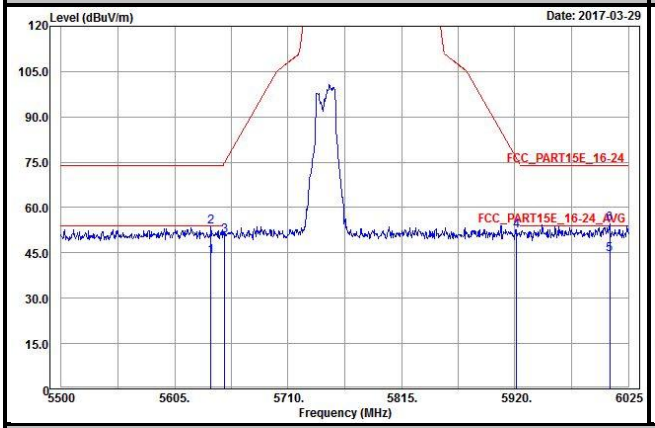
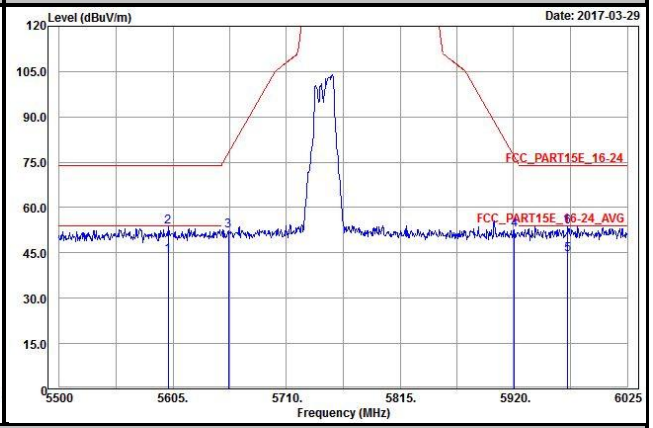
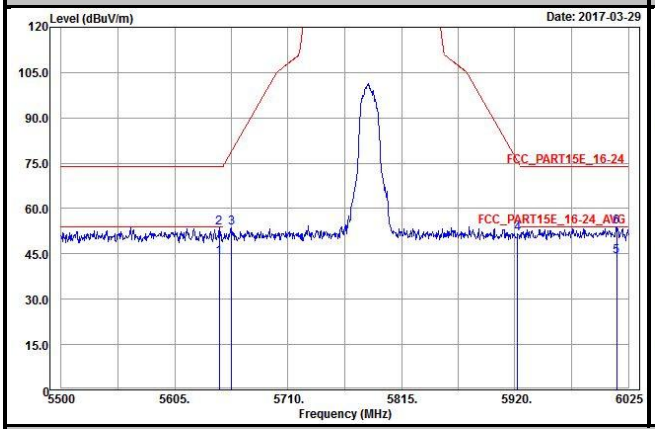
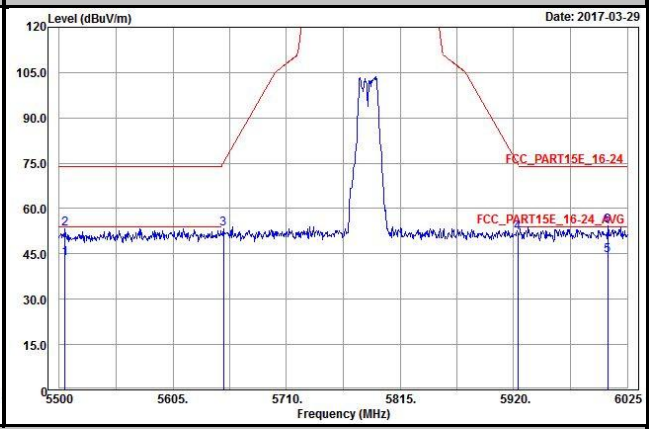
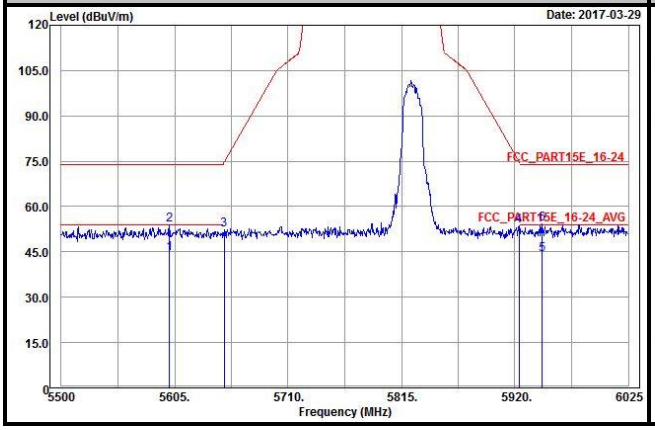
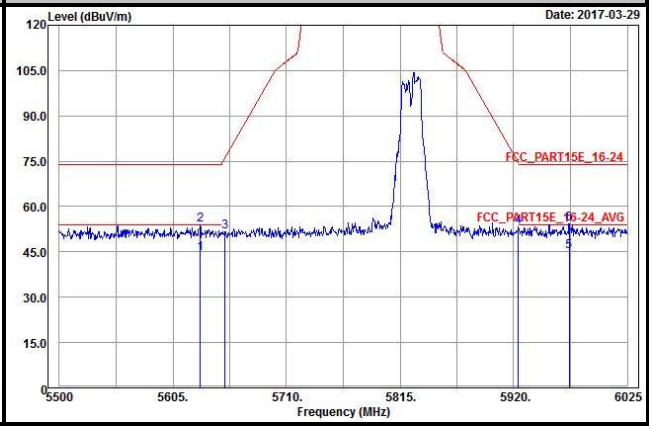
<1TX>

802.11a

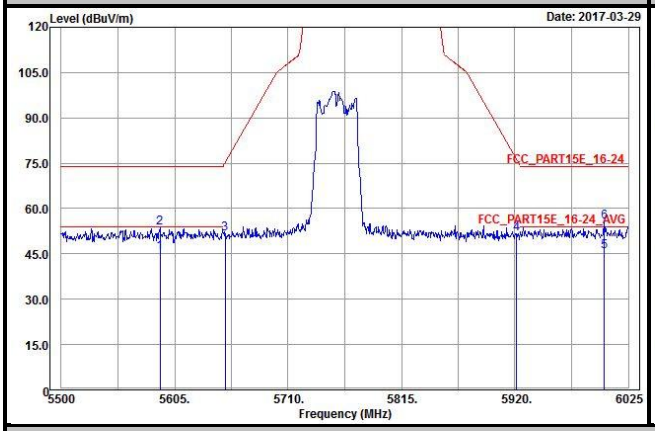
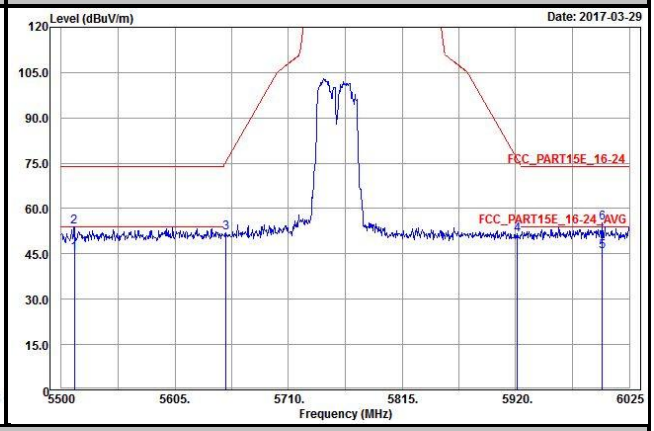
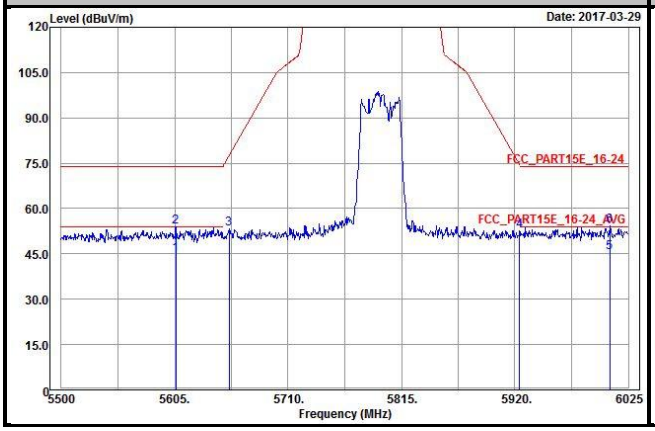
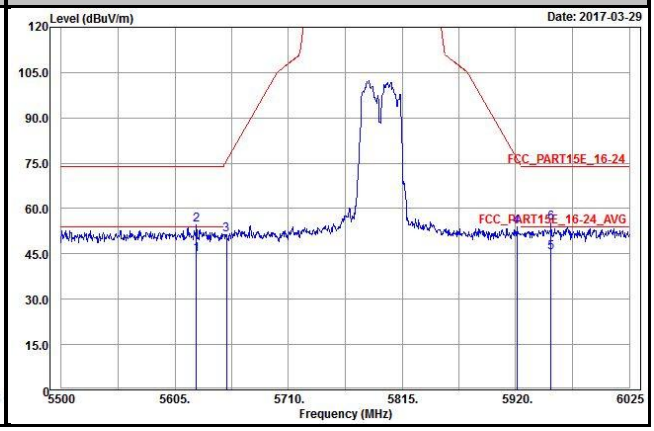
Ch 149	
Horizontal	Vertical
	
Ch 157	
Horizontal	Vertical
	
Ch 165	
Horizontal	Vertical
	

<2TX>

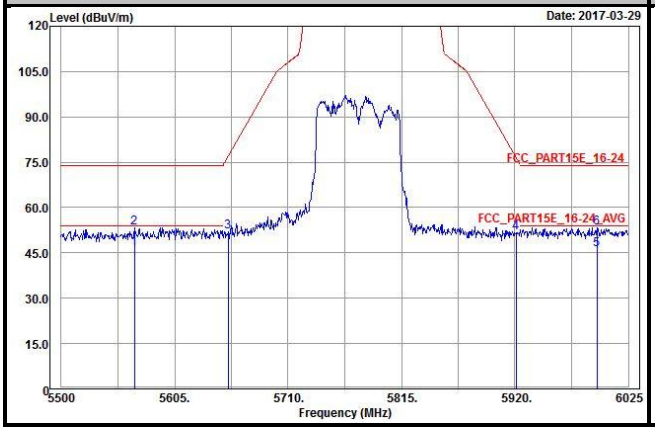
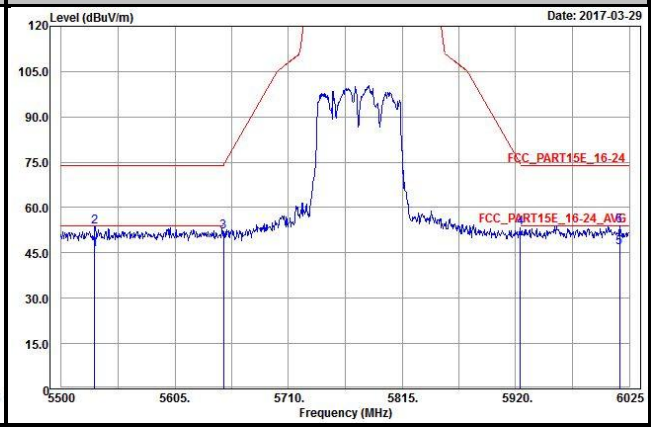
802.11n (HT20)

Ch 149	
Horizontal	Vertical
	
Ch 157	
Horizontal	Vertical
	
Ch 165	
Horizontal	Vertical
	

802.11n (HT40)

Ch 151	
Horizontal	Vertical
	
Ch 159	
Horizontal	**Vertical**
	

802.11ac (VHT80)

Ch 155	
Horizontal	Vertical
	

Appendix – Information on the Testing Laboratories

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

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

Linko EMC/RF Lab
Tel: 886-2-26052180
Fax: 886-2-26051924

Hsin Chu EMC/RF/Telecom Lab
Tel: 886-3-6668565
Fax: 886-3-6668323

Hwa Ya EMC/RF/Safety
Tel: 886-3-3183232
Fax: 886-3-3270892

Email: service.adt@tw.bureauveritas.com
Web Site: www.bureauveritas-adt.com

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

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