FCC Test Report

Report No.:	RF170502C07-3
FCC ID:	NM8G011A
Test Model:	G011A
Received Date:	May 02, 2017
Test Date:	Jun. 02, 2017 ~ Jul. 18, 2017
Issued Date:	Jul. 19, 2017
Applicant:	HTC Corporation
Address:	1F, 6-3 Baoqiang Road, Xindian District, New Taipei City, Taiwan 231
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
RF170502C07-3	Original Release	Jul. 19, 2017

1 Certificate of Conformity

Product:	Smartphone
Test Model:	G011A
Sample Status:	Production Unit
Applicant:	HTC Corporation
Test Date:	Jun. 02, 2017 ~ Jul. 18, 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:** Jul. 19, 2017

Ivonne Wu / Supervisor

Approved by : _____ , **Date:** Jul. 19, 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 -3.45 dB at 0.60126 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 -1.13 dB at 5149.528 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
Test Model	G011A
Status of EUT	Production Unit
Power Supply Rating	5.0 Vdc or 9.0 Vdc (adapter) 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	110.670 mW for 5180 ~ 5240 MHz 107.551 mW for 5260 ~ 5320 MHz 111.311 mW for 5500 ~ 5700 MHz 111.572 mW for 5745 ~ 5825 MHz
Antenna Type	PIFA antenna with -1.54 dBi (Main) / -4.71 dBi (Aux.) gain (5180 ~ 5240 MHz) PIFA antenna with -1.34 dBi (Main) / -4.58 dBi (Aux.) gain (5260 ~ 5320 MHz) PIFA antenna with -1.26 dBi (Main) / -4.13 dBi (Aux.) gain (5500 ~ 5700 MHz) PIFA antenna with -1.21 dBi (Main) / -4.31 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. There're 2 configuraitons for the EUT listed as below.
   Main Sample: EUT + Battery 1
   2nd Sample: EUT + Battery 2
   ✧ Only the worst test data was presented in the report.
2. 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)
   ** In test mode assessment for 1TX, both antennas (Ant 0 and Ant1) must be considered for testing, the worst case is determined by the max antenna gain.
3. The EUT's accessories list refers to EMI report.
4. The above EUT information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or user's manual.

3.2 Description of Test Modes

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	
A	√	√	√	√	Main Sample
B	√	√	√	-	2nd Sample

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 **Y-plane** for 5180-5240MHz and **Z-plane** for 5260-5320MHz & 5500-5700MHz & 5745-5825MHz for mode A, and **Y-plane** for 5180-5240MHz & 5260-5320MHz and **Z-plane** for 5500-5700MHz & 5745-5825MHz.
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)
A	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
B	5180-5240	802.11ac (VHT80)	42	42	OFDM	BPSK	MCS0
	5260-5320	802.11ac (VHT80)	58	58	OFDM	BPSK	MCS0
	5500-5700	802.11ac (VHT80)	106	106	OFDM	BPSK	MCS0
	5745-5825	802.11n (HT40)	151 to 159	159	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)
A, B	5180-5240	802.11ac (VHT80)	42	42	OFDM	BPSK	MCS0
	5260-5320	802.11ac (VHT80)	58	58	OFDM	BPSK	MCS0
	5500-5700	802.11ac (VHT80)	106	106	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)
A, B	5180-5320	802.11ac (VHT80)	42	42	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)
A	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	Carlos Chen

3.3 Duty Cycle of Test Signal

MODULATION TYPE: BPSK

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

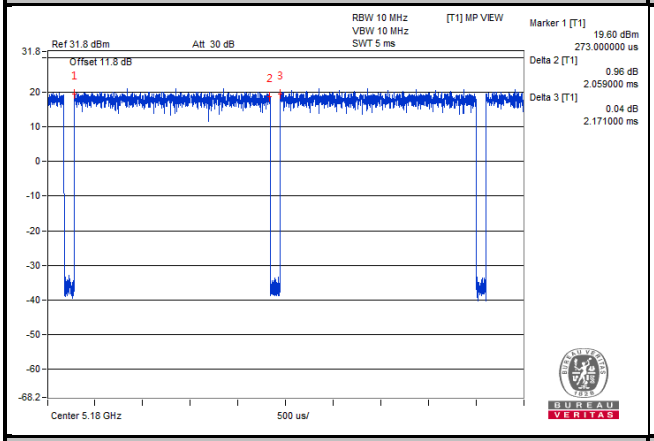
802.11a: Duty cycle = 2.059/2.171 = 0.948, Duty factor = 10 * log(1/0.948) = 0.23

802.11n (HT20): Duty cycle = 1.920/2.034 = 0.944, Duty factor = 10 * log(1/0.944) = 0.25

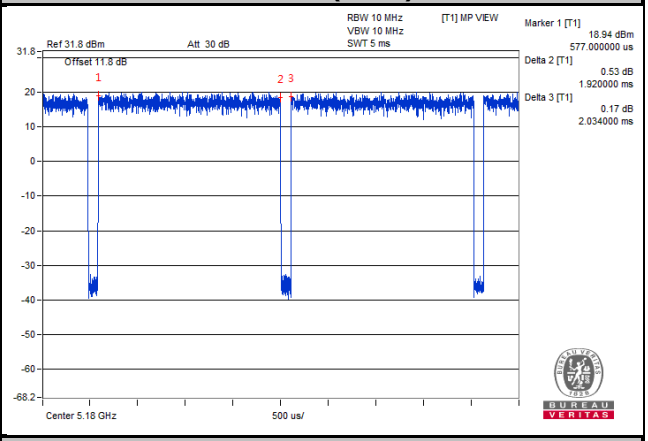
802.11n (HT40): Duty cycle = 945/1045 = 0.904, Duty factor = 10 * log(1/0.904) = 0.44

802.11ac (VHT80): Duty cycle = 461/559 = 0.825, Duty factor = 10 * log(1/0.825) = 0.84

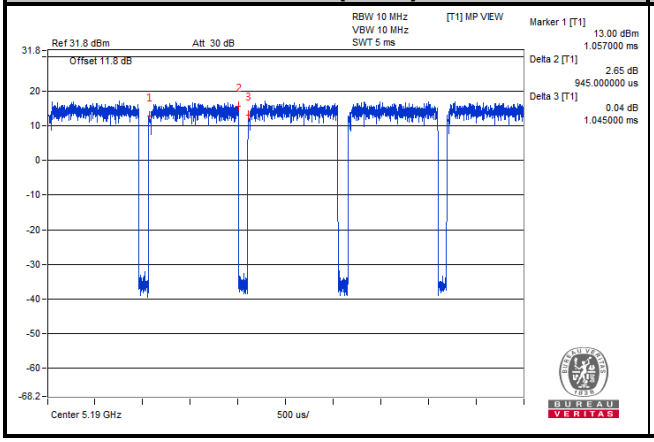
802.11a



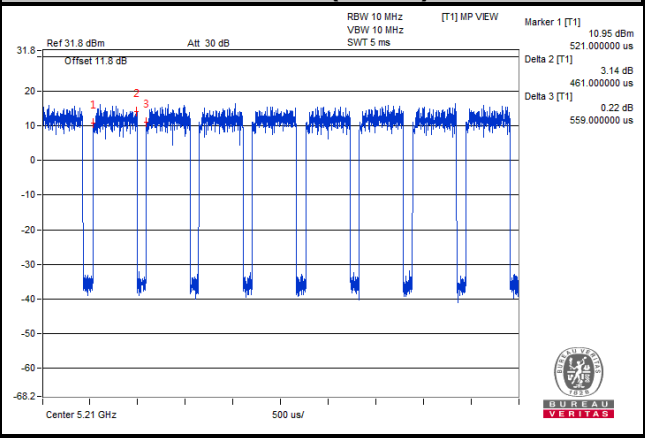
802.11n (HT20)



802.11n (HT40)



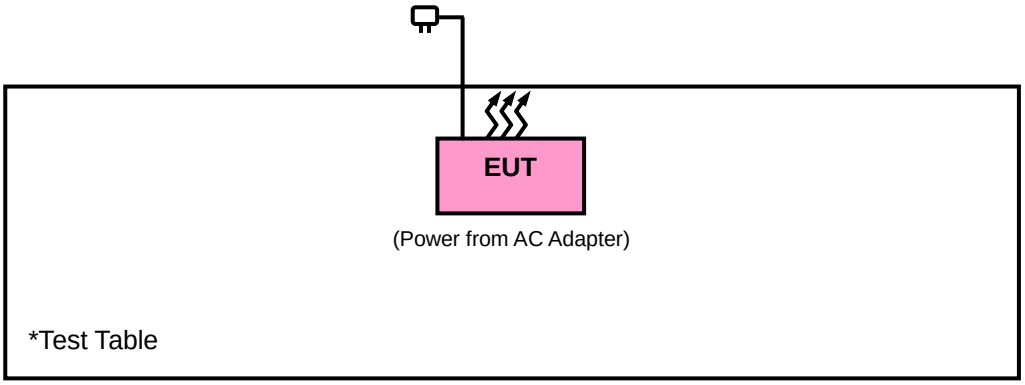
802.11ac (VHT80)



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 v01r04
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 v01r04		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 & Manaufacturer	Model No.	Serial No.	Date of Calibration	Due Date of Calibration
Test Receiver Agilent Technologies	N9010A	MY52220314	Nov. 16, 2016	Nov. 15, 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
Fixed Attenuator Mini-Circuits	BW-N10W5+	NA	Jul. 07, 2017	Jul. 06, 2018
Bluetooth Tester	CBT	100946	Jul. 29, 2016	Jul. 28, 2018
Loop Antenna	EM-6879	269	Aug. 11, 2016	Aug. 10, 2017
Preamplifier Agilent	310N	187226	Jun. 24, 2016	Jun. 23, 2017
Preamplifier Agilent	310N	187226	Jun. 23, 2017	Jun. 22, 2018
Preamplifier Agilent	83017A	MY39501357	Jun. 24, 2016	Jun. 23, 2017
Preamplifier Agilent	83017A	MY39501357	Jun. 23, 2017	Jun. 22, 2018
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	5D-FB	Cable-CH1-01(RFC-SMS-100-SMS-120+RFC-SMS-100-SMS-400)	Jun. 23, 2017	Jun. 22, 2018
RF signal cable ETS-LINDGREN	8D-FB	Cable-CH1-02(RFC-SMS-100-SMS-24)	Jun. 24, 2016	Jun. 23, 2017
RF signal cable ETS-LINDGREN	8D-FB	Cable-CH1-02(RFC-SMS-100-SMS-24)	Jun. 23, 2017	Jun. 22, 2018
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
Temperature & Humidity Chamber	GTH-120-40-CP-AR	MAA1306-019	Sep. 02, 2016	Sep. 01, 2017

DC Power Supply Topward	33010D	807748	Oct. 25, 2016	Oct. 24, 2018
Digital Multimeter Fluke	87-III	73680266	Nov. 10, 2016	Nov. 09, 2017

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:

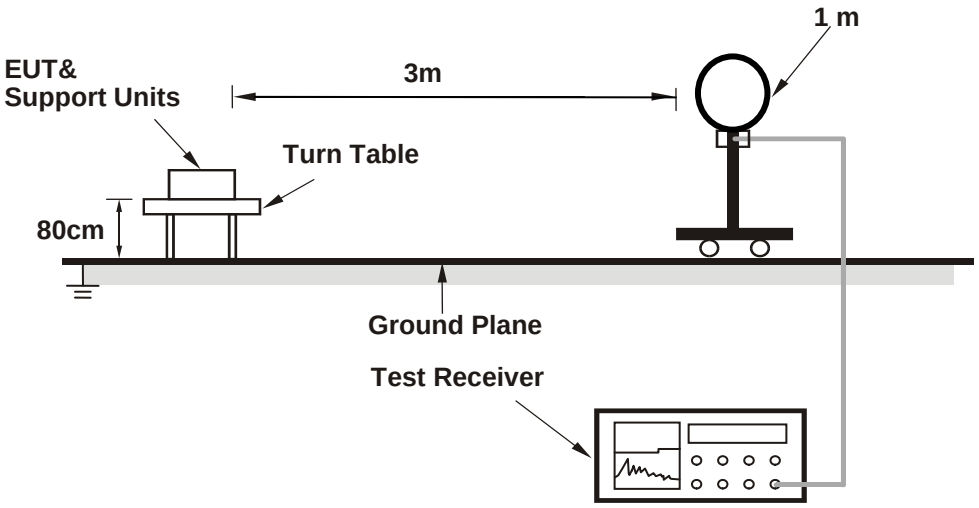
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz & 360 kHz for Quasi-peak detection (QP) at frequency below 1 GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1 GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 1/T for Average (Duty cycle < 98 %) 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

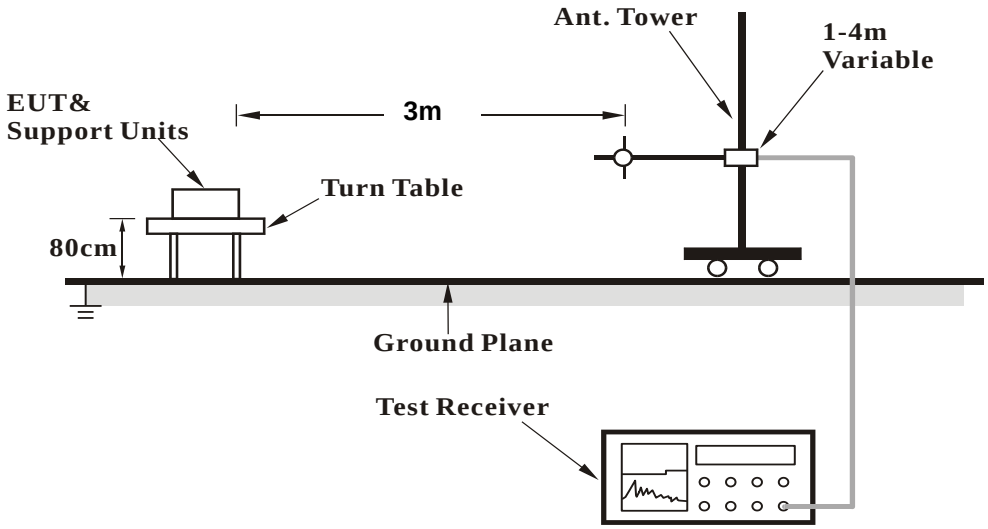
No deviation.

4.1.6 Test Set Up

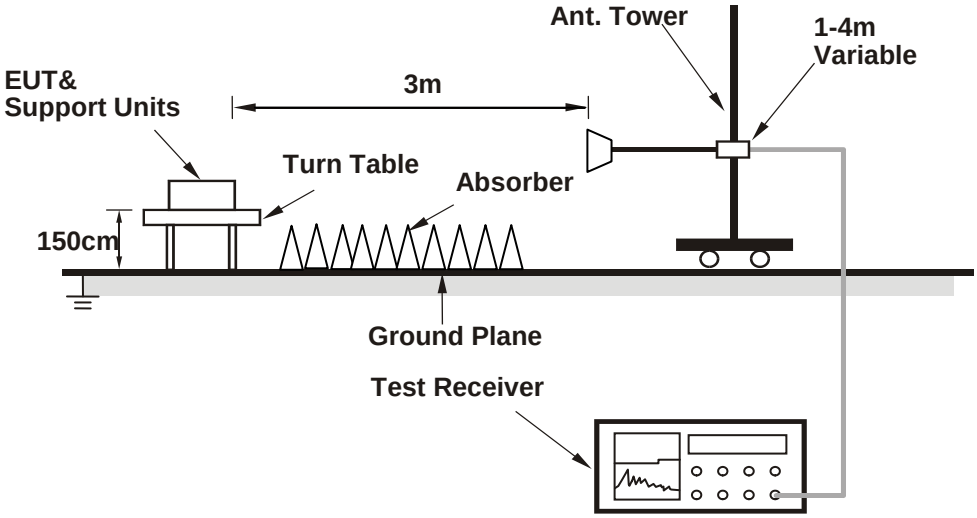
<Radiated emission below 30MHz>



<Frequency Range below 1 GHz>



<Frequency Range above 1 GHz>



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：

Mode A

<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**
5063.27	52.72	44.62	74	-21.28	34.05	8.03	33.98	110	342	Peak
5150	42.48	34.23	54	-11.52	34.12	8.13	34	110	342	Average
5180	96.83	88.52			34.15	8.16	34	110	342	Average
5180	103.69	95.38			34.15	8.16	34	110	342	Peak
*10360	53.99	39.69	68.2	-14.21	37.12	12.3	35.12	150	300	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**
5048.421	52.83	44.77	74	-21.17	34.04	8	33.98	124	242	Peak
5134.7	42.06	33.81	54	-11.94	34.11	8.13	33.99	124	242	Average
5180	94.24	85.93			34.15	8.16	34	124	242	Average
5180	101.18	92.87			34.15	8.16	34	124	242	Peak
*10360	54.65	40.35	68.2	-13.55	37.12	12.3	35.12	112	314	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**
5085.95	53.24	45.08	74	-20.76	34.07	8.07	33.98	106	326	Peak
5111.3	42.52	34.32	54	-11.48	34.09	8.1	33.99	106	326	Average
5220	96.57	88.18			34.17	8.22	34	106	326	Average
5220	103.47	95.08			34.17	8.22	34	106	326	Peak
*5422.05	53.15	44.38	68.2	-15.05	34.33	8.48	34.04	106	326	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**
5070.5	53.25	45.15	74	-20.75	34.05	8.03	33.98	103	255	Peak
5127.05	42.43	34.21	54	-11.57	34.11	8.1	33.99	103	255	Average
5220	92.05	83.66			34.17	8.22	34	103	255	Average
5220	101.07	92.68			34.17	8.22	34	103	255	Peak
*5426.23	53.42	44.65	68.2	-14.78	34.33	8.48	34.04	103	255	Peak

Remarks:

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

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	96.28	87.84			34.19	8.26	34.01	106	326	Average
5240	103.43	94.99			34.19	8.26	34.01	106	326	Peak
5445	43.66	34.84	54	-10.34	34.35	8.51	34.04	106	326	Average
5446	53.55	44.72	74	-20.45	34.36	8.51	34.04	106	326	Peak
*10480	55.73	41.22	68.2	-12.47	37.19	12.53	35.21	119	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**
5240	94.82	86.38			34.19	8.26	34.01	103	255	Average
5240	101.72	93.28			34.19	8.26	34.01	103	255	Peak
5454	42.88	34.06	54	-11.12	34.36	8.51	34.05	103	255	Average
5454	53.77	44.95	74	-20.23	34.36	8.51	34.05	103	255	Peak
*10480	56.89	42.38	68.2	-11.31	37.19	12.53	35.21	119	314	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**
5064.2	53.75	45.65	74	-20.25	34.05	8.03	33.98	221	0	Peak
5120.75	42.54	34.34	54	-11.46	34.09	8.1	33.99	221	0	Average
5260	92.5	84.04			34.21	8.26	34.01	221	0	Average
5260	99.86	91.4			34.21	8.26	34.01	221	0	Peak
10520	56.14	41.55	68.2	-12.06	37.21	12.61	35.23	164	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**
5130.95	53.3	45.08	74	-20.7	34.11	8.1	33.99	104	24	Peak
5131.1	42.48	34.26	54	-11.52	34.11	8.1	33.99	104	24	Average
5260	95.5	87.04			34.21	8.26	34.01	104	24	Average
5260	102.71	94.25			34.21	8.26	34.01	104	24	Peak
10520	55.5	40.91	68.2	-12.7	37.21	12.61	35.23	147	77	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**
5115.8	53.79	45.59	74	-20.21	34.09	8.1	33.99	221	0	Peak
5125.1	42.61	34.39	54	-11.39	34.11	8.1	33.99	221	0	Average
5300	92.83	84.29			34.24	8.32	34.02	221	0	Average
5300	99.96	91.42			34.24	8.32	34.02	221	0	Peak
5444.71	42.63	33.84	54	-11.37	34.35	8.48	34.04	221	0	Average
5455.82	53.46	44.64	74	-20.54	34.36	8.51	34.05	221	0	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**
5118.5	42.59	34.39	54	-11.41	34.09	8.1	33.99	104	24	Average
5136.05	52.57	44.32	74	-21.43	34.11	8.13	33.99	104	24	Peak
5300	95.06	86.52			34.24	8.32	34.02	104	24	Average
5300	102.47	93.93			34.24	8.32	34.02	104	24	Peak
5356.6	54.37	45.74	74	-19.63	34.28	8.38	34.03	104	24	Peak
5366.83	42.94	34.3	54	-11.06	34.29	8.38	34.03	104	24	Average

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	92.24	83.66			34.25	8.35	34.02	209	0	Average
5320	99.53	90.95			34.25	8.35	34.02	209	0	Peak
5357.41	52.98	44.35	74	-21.02	34.28	8.38	34.03	209	0	Peak
5375.23	42.39	33.73	54	-11.61	34.29	8.41	34.04	209	0	Average
10640	46.72	31.99	54	-7.28	37.31	12.71	35.29	115	246	Average
10640	56.12	41.39	74	-17.88	37.31	12.71	35.29	115	246	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	95.63	87.05			34.25	8.35	34.02	108	24	Average
5320	102.29	93.71			34.25	8.35	34.02	108	24	Peak
5352.66	54.28	45.65	74	-19.72	34.28	8.38	34.03	108	24	Peak
5358.44	43.27	34.64	54	-10.73	34.28	8.38	34.03	108	24	Average
10640	46.6	31.87	54	-7.4	37.31	12.71	35.29	124	310	Average
10640	56.47	41.74	74	-17.53	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**
5432.64	53.27	44.48	74	-20.73	34.35	8.48	34.04	125	354	Peak
5458.342	42.44	33.62	54	-11.56	34.36	8.51	34.05	125	354	Average
*5468.273	51.86	43.03	68.2	-16.34	34.37	8.51	34.05	125	354	Peak
5500	93.16	84.24			34.4	8.57	34.05	125	354	Average
5500	100.63	91.71			34.4	8.57	34.05	125	354	Peak
11000	46.83	31.75	54	-7.17	37.6	12.96	35.48	180	7	Average
11000	56.29	41.21	74	-17.71	37.6	12.96	35.48	180	7	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**
5389.273	53.24	44.56	74	-20.76	34.31	8.41	34.04	117	13	Peak
5454.683	43.11	34.29	54	-10.89	34.36	8.51	34.05	117	13	Average
*5469.421	52.28	43.45	68.2	-15.92	34.37	8.51	34.05	117	13	Peak
5500	96.34	87.42			34.4	8.57	34.05	117	13	Average
5500	103.46	94.54			34.4	8.57	34.05	117	13	Peak
11000	46.97	31.89	54	-7.03	37.6	12.96	35.48	134	77	Average
11000	57.05	41.97	74	-16.95	37.6	12.96	35.48	134	77	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**
5445.48	52.61	43.79	74	-21.39	34.35	8.51	34.04	148	0	Peak
5447.9	42.81	33.98	54	-11.19	34.36	8.51	34.04	148	0	Average
*5470	54.57	45.74	68.2	-13.63	34.37	8.51	34.05	148	0	Peak
5580	96.25	87.26			34.47	8.6	34.08	148	0	Average
5580	103.38	94.39			34.47	8.6	34.08	148	0	Peak
*5724.8	53.66	44.5	68.2	-14.54	34.62	8.65	34.11	148	0	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**
5434.26	53.21	44.42	74	-20.79	34.35	8.48	34.04	102	7	Peak
5452.52	42.65	33.83	54	-11.35	34.36	8.51	34.05	102	7	Average
*5469.36	54.4	45.57	68.2	-13.8	34.37	8.51	34.05	102	7	Peak
5580	92.8	83.81			34.47	8.6	34.08	102	7	Average
5580	100.4	91.41			34.47	8.6	34.08	102	7	Peak
*5724.5	54.02	44.86	68.2	-14.18	34.62	8.65	34.11	102	7	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	92.01	82.88			34.59	8.64	34.1	130	360	Average
5700	99.52	90.39			34.59	8.64	34.1	130	360	Peak
*5724.52	53.17	44.01	68.2	-15.03	34.62	8.65	34.11	130	360	Peak
11400	46.81	31.71	54	-7.19	37.84	12.67	35.41	151	181	Average
11400	56.82	41.72	74	-17.18	37.84	12.67	35.41	151	181	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	95	85.87			34.59	8.64	34.1	111	354	Average
5700	102	92.87			34.59	8.64	34.1	111	354	Peak
*5725.4	52.97	43.81	68.2	-15.23	34.62	8.65	34.11	111	354	Peak
11400	46.77	31.67	54	-7.23	37.84	12.67	35.41	106	60	Average
11400	56.65	41.55	74	-17.35	37.84	12.67	35.41	106	60	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	92.07	82.88			34.64	8.66	34.11	124	17	Average
5745	99.23	90.04			34.64	8.66	34.11	124	17	Peak
11490	47.02	31.9	54	-6.98	37.89	12.62	35.39	165	22	Average
11490	56.37	41.25	74	-17.63	37.89	12.62	35.39	165	22	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	94.27	85.08			34.64	8.66	34.11	166	2	Average
5745	101.18	91.99			34.64	8.66	34.11	166	2	Peak
11490	46.86	31.74	54	-7.14	37.89	12.62	35.39	121	212	Average
11490	57.21	42.09	74	-16.79	37.89	12.62	35.39	121	212	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**
*5544.1	54.89	45.95	68.2	-13.31	34.43	8.58	34.07	124	17	Peak
5653.3	54.09	44.99	70.64	-16.55	34.56	8.63	34.09	124	17	Peak
5923.15	52.21	42.81	69.57	-17.36	34.83	8.73	34.16	124	17	Peak
*6015.55	53.95	44.45	68.2	-14.25	34.92	8.76	34.18	124	17	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**
*5584	54.33	45.32	68.2	-13.87	34.49	8.6	34.08	166	2	Peak
5651.725	52.12	43.03	69.48	-17.36	34.56	8.62	34.09	166	2	Peak
5923.15	53.48	44.08	69.57	-16.09	34.83	8.73	34.16	166	2	Peak
*5957.8	55.63	46.18	68.2	-12.57	34.87	8.74	34.16	166	2	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	92.31	83.08			34.68	8.68	34.13	132	8	Average
5785	99.27	90.04			34.68	8.68	34.13	132	8	Peak
11570	46.99	31.68	54	-7.01	38	12.68	35.37	112	52	Average
11570	55.93	40.62	74	-18.07	38	12.68	35.37	112	52	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	93.77	84.54			34.68	8.68	34.13	174	359	Average
5785	101	91.77			34.68	8.68	34.13	174	359	Peak
11570	47.18	31.87	54	-6.82	38	12.68	35.37	134	255	Average
11570	57.17	41.86	74	-16.83	38	12.68	35.37	134	255	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**
*5622.85	53.74	44.69	68.2	-14.46	34.52	8.61	34.08	132	8	Peak
5651.725	52.53	43.44	69.48	-16.95	34.56	8.62	34.09	132	8	Peak
5922.625	52.68	43.28	69.96	-17.28	34.83	8.73	34.16	132	8	Peak
*5988.775	54.94	45.48	68.2	-13.26	34.88	8.75	34.17	132	8	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**
*5568.25	54.65	45.66	68.2	-13.55	34.47	8.59	34.07	174	359	Peak
5651.2	52.14	43.05	69.09	-16.95	34.56	8.62	34.09	174	359	Peak
5922.1	53.37	43.97	70.35	-16.98	34.83	8.73	34.16	174	359	Peak
*5945.725	54.5	45.07	68.2	-13.7	34.85	8.74	34.16	174	359	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	92.07	82.78			34.73	8.69	34.13	130	11	Average
5825	99.46	90.17			34.73	8.69	34.13	130	11	Peak
11650	47.24	31.71	54	-6.76	38.09	12.8	35.36	150	265	Average
11650	55.71	40.18	74	-18.29	38.09	12.8	35.36	150	265	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	94.07	84.78			34.73	8.69	34.13	169	6	Average
5825	101.33	92.04			34.73	8.69	34.13	169	6	Peak
11650	47.29	31.76	54	-6.71	38.09	12.8	35.36	132	123	Average
11650	56.24	40.71	74	-17.76	38.09	12.8	35.36	132	123	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**
*5546.725	54.04	45.1	68.2	-14.16	34.43	8.58	34.07	130	11	Peak
5652.25	53.18	44.09	69.86	-16.68	34.56	8.62	34.09	130	11	Peak
5923.15	52.6	43.2	69.57	-16.97	34.83	8.73	34.16	130	11	Peak
*5940.475	54.62	45.19	68.2	-13.58	34.85	8.74	34.16	130	11	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**
*5571.925	54.84	45.85	68.2	-13.36	34.47	8.59	34.07	169	6	Peak
5652.25	54.16	45.07	69.86	-15.7	34.56	8.62	34.09	169	6	Peak
5922.1	53.59	44.19	70.35	-16.76	34.83	8.73	34.16	169	6	Peak
*5976.7	54.74	45.28	68.2	-13.46	34.88	8.75	34.17	169	6	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**
5076.41	42.55	34.43	54	-11.45	34.07	8.03	33.98	109	2	Average
5133.64	54.26	46.01	74	-19.74	34.11	8.13	33.99	109	2	Peak
5180	96.44	88.13			34.15	8.16	34	109	2	Average
5180	103.39	95.08			34.15	8.16	34	109	2	Peak
*10360	56.68	42.38	68.2	-11.52	37.12	12.3	35.12	122	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**
5024.74	52.87	44.84	74	-21.13	34.03	7.97	33.97	106	255	Peak
5142.08	42.22	33.96	54	-11.78	34.12	8.13	33.99	106	255	Average
5180	93.26	84.95			34.15	8.16	34	106	255	Average
5180	102.11	93.8			34.15	8.16	34	106	255	Peak
*10360	55.86	41.56	68.2	-12.34	37.12	12.3	35.12	104	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**
5103.65	53.37	45.21	74	-20.63	34.08	8.07	33.99	119	356	Peak
5130.8	42.47	34.25	54	-11.53	34.11	8.1	33.99	119	356	Average
5220	95.9	87.51			34.17	8.22	34	119	356	Average
5220	103.56	95.17			34.17	8.22	34	119	356	Peak
5443.5	53.05	44.26	74	-20.95	34.35	8.48	34.04	119	356	Peak
5445.81	42.61	33.78	54	-11.39	34.36	8.51	34.04	119	356	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**
5100.35	52.76	44.6	74	-21.24	34.08	8.07	33.99	103	255	Peak
5125.7	42.52	34.3	54	-11.48	34.11	8.1	33.99	103	255	Average
5220	93.86	85.47			34.17	8.22	34	103	255	Average
5220	102.21	93.82			34.17	8.22	34	103	255	Peak
5356.38	53.37	44.74	74	-20.63	34.28	8.38	34.03	103	255	Peak
5371.45	42.56	33.89	54	-11.44	34.29	8.41	34.03	103	255	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	96.18	87.74			34.19	8.26	34.01	106	356	Average
5240	103.41	94.97			34.19	8.26	34.01	106	356	Peak
5448.45	53.33	44.5	74	-20.67	34.36	8.51	34.04	106	356	Peak
5453.4	42.73	33.91	54	-11.27	34.36	8.51	34.05	106	356	Average
*10480	57.16	42.65	68.2	-11.04	37.19	12.53	35.21	119	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**
5240	94.21	85.77			34.19	8.26	34.01	103	255	Average
5240	102.25	93.81			34.19	8.26	34.01	103	255	Peak
5358.25	52.97	44.34	74	-21.03	34.28	8.38	34.03	103	255	Peak
5449	42.74	33.91	54	-11.26	34.36	8.51	34.04	103	255	Average
*10480	55.93	41.42	68.2	-12.27	37.19	12.53	35.21	144	159	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**
5102.15	53.39	45.23	74	-20.61	34.08	8.07	33.99	217	296	Peak
5109.95	42.6	34.4	54	-11.4	34.09	8.1	33.99	217	296	Average
5260	94.96	86.5			34.21	8.26	34.01	217	296	Average
5260	102.35	93.89			34.21	8.26	34.01	217	296	Peak
*10520	57.29	42.7	68.2	-10.91	37.21	12.61	35.23	152	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**
5132.75	42.5	34.28	54	-11.5	34.11	8.1	33.99	102	169	Average
5146.7	53.65	45.4	74	-20.35	34.12	8.13	34	102	169	Peak
5260	96.11	87.65			34.21	8.26	34.01	102	169	Average
5260	103.41	94.95			34.21	8.26	34.01	102	169	Peak
*10520	56.13	41.54	68.2	-12.07	37.21	12.61	35.23	124	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**
5057.6	52.67	44.57	74	-21.33	34.05	8.03	33.98	217	296	Peak
5104.4	42.43	34.27	54	-11.57	34.08	8.07	33.99	217	296	Average
5300	94.51	85.97			34.24	8.32	34.02	217	296	Average
5300	102.18	93.64			34.24	8.32	34.02	217	296	Peak
5358.8	42.88	34.25	54	-11.12	34.28	8.38	34.03	217	296	Average
5377.06	54.15	45.49	74	-19.85	34.29	8.41	34.04	217	296	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**
5060	53.48	45.38	74	-20.52	34.05	8.03	33.98	102	169	Peak
5129.15	42.42	34.2	54	-11.58	34.11	8.1	33.99	102	169	Average
5300	95.98	87.44			34.24	8.32	34.02	102	169	Average
5300	103.64	95.1			34.24	8.32	34.02	102	169	Peak
5443.06	42.65	33.86	54	-11.35	34.35	8.48	34.04	102	169	Average
5455.16	53.97	45.15	74	-20.03	34.36	8.51	34.05	102	169	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	96.37	87.79			34.25	8.35	34.02	211	303	Average
5320	102.69	94.11			34.25	8.35	34.02	211	303	Peak
5357.257	53.34	44.71	74	-20.66	34.28	8.38	34.03	211	303	Peak
5362.29	43.36	34.72	54	-10.64	34.29	8.38	34.03	211	303	Average
10640	46.74	32.01	54	-7.26	37.31	12.71	35.29	137	285	Average
10640	56.86	42.13	74	-17.14	37.31	12.71	35.29	137	285	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	96.41	87.83			34.25	8.35	34.02	106	173	Average
5320	103.58	95			34.25	8.35	34.02	106	173	Peak
5358.67	53.34	44.71	74	-20.66	34.28	8.38	34.03	106	173	Peak
5427.88	42.43	33.66	54	-11.57	34.33	8.48	34.04	106	173	Average
10640	46.87	32.14	54	-7.13	37.31	12.71	35.29	112	310	Average
10640	58.26	43.53	74	-15.74	37.31	12.71	35.29	112	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**
5438.14	42.86	34.07	54	-11.14	34.35	8.48	34.04	105	360	Average
5458.72	52.64	43.82	74	-21.36	34.36	8.51	34.05	105	360	Peak
*5470.09	52.43	43.6	68.2	-15.77	34.37	8.51	34.05	105	360	Peak
5500	97.48	88.56			34.4	8.57	34.05	100	9	Average
5500	104.66	95.74			34.4	8.57	34.05	100	9	Peak
11000	57.16	42.08	74	-16.84	37.6	12.96	35.48	155	157	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**
5402.68	52.52	43.8	74	-21.48	34.32	8.44	34.04	108	17	Peak
5423.8	42.61	33.84	54	-11.39	34.33	8.48	34.04	108	17	Average
*5469.21	52.19	43.36	68.2	-16.01	34.37	8.51	34.05	108	17	Peak
5500	94.28	85.36			34.4	8.57	34.05	105	42	Average
5500	101.68	92.76			34.4	8.57	34.05	105	42	Peak
11000	56.8	41.72	74	-17.2	37.6	12.96	35.48	139	336	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**
5382.32	52.91	44.23	74	-21.09	34.31	8.41	34.04	100	4	Peak
5448.56	42.75	33.92	54	-11.25	34.36	8.51	34.04	100	4	Average
*5468.72	52.11	43.28	68.2	-16.09	34.37	8.51	34.05	100	4	Peak
5580	93.3	84.31			34.47	8.6	34.08	100	4	Average
5580	100.94	91.95			34.47	8.6	34.08	100	4	Peak
*5725.56	52.86	43.7	68.2	-15.34	34.62	8.65	34.11	100	4	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**
5448.72	52.99	44.16	74	-21.01	34.36	8.51	34.04	102	169	Peak
5452.08	42.64	33.82	54	-11.36	34.36	8.51	34.05	102	169	Average
*5468.24	53.05	44.22	68.2	-15.15	34.37	8.51	34.05	102	169	Peak
5580	94.34	85.35			34.47	8.6	34.08	102	169	Average
5580	101.88	92.89			34.47	8.6	34.08	102	169	Peak
*5724.28	52.36	43.2	68.2	-15.84	34.62	8.65	34.11	102	169	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	97.13	88			34.59	8.64	34.1	106	12	Average
5700	104.37	95.24			34.59	8.64	34.1	106	12	Peak
*5724.712	53.19	44.03	68.2	-15.01	34.62	8.65	34.11	128	27	Peak
11400	46.79	31.69	54	-7.21	37.84	12.67	35.41	105	68	Average
11400	56.64	41.54	74	-17.36	37.84	12.67	35.41	105	68	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	94.28	85.15			34.59	8.64	34.1	105	326	Average
5700	101.28	92.15			34.59	8.64	34.1	105	326	Peak
*5725.04	52.93	43.77	68.2	-15.27	34.62	8.65	34.11	106	302	Peak
11400	47.14	32.04	54	-6.86	37.84	12.67	35.41	125	284	Average
11400	57.24	42.14	74	-16.76	37.84	12.67	35.41	125	284	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	92.16	82.97			34.64	8.66	34.11	100	39	Average
5745	99.19	90			34.64	8.66	34.11	100	39	Peak
11490	47.01	31.89	54	-6.99	37.89	12.62	35.39	121	112	Average
11490	56.89	41.77	74	-17.11	37.89	12.62	35.39	121	112	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	94.07	84.88			34.64	8.66	34.11	159	0	Average
5745	101.21	92.02			34.64	8.66	34.11	159	0	Peak
11490	47.22	32.1	54	-6.78	37.89	12.62	35.39	187	295	Average
11490	57.65	42.53	74	-16.35	37.89	12.62	35.39	187	295	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**
*5570.35	54.77	45.78	68.2	-13.43	34.47	8.59	34.07	100	39	Peak
5651.2	51.54	42.45	69.09	-17.55	34.56	8.62	34.09	100	39	Peak
5923.675	52.21	42.81	69.18	-16.97	34.83	8.73	34.16	100	39	Peak
*5979.325	53.87	44.41	68.2	-14.33	34.88	8.75	34.17	100	39	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**
*5613.925	54.49	45.46	68.2	-13.71	34.5	8.61	34.08	159	0	Peak
5652.25	53.17	44.08	69.86	-16.69	34.56	8.62	34.09	159	0	Peak
5922.625	51.67	42.27	69.96	-18.29	34.83	8.73	34.16	159	0	Peak
*5962.525	54.24	44.8	68.2	-13.96	34.87	8.74	34.17	159	0	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	92.61	83.38			34.68	8.68	34.13	100	34	Average
5785	99.38	90.15			34.68	8.68	34.13	100	34	Peak
11570	47.15	31.84	54	-6.85	38	12.68	35.37	187	77	Average
11570	57.32	42.01	74	-16.68	38	12.68	35.37	187	77	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	94.02	84.79			34.68	8.68	34.13	165	0	Average
5785	101.46	92.23			34.68	8.68	34.13	165	0	Peak
11570	47.08	31.77	54	-6.92	38	12.68	35.37	135	255	Average
11570	57.32	42.01	74	-16.68	38	12.68	35.37	135	255	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**
*5623.9	54.15	45.1	68.2	-14.05	34.52	8.61	34.08	100	34	Peak
5651.2	52.89	43.8	69.09	-16.2	34.56	8.62	34.09	100	34	Peak
5923.15	51.66	42.26	69.57	-17.91	34.83	8.73	34.16	100	34	Peak
*5965.675	54.47	45.02	68.2	-13.73	34.87	8.75	34.17	100	34	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	54.19	45.2	68.2	-14.01	34.47	8.59	34.07	165	0	Peak
5651.2	51.54	42.45	69.09	-17.55	34.56	8.62	34.09	165	0	Peak
5923.15	51.18	41.78	69.57	-18.39	34.83	8.73	34.16	165	0	Peak
*5977.225	55	45.54	68.2	-13.2	34.88	8.75	34.17	165	0	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	92.08	82.79			34.73	8.69	34.13	100	32	Average
5825	99.26	89.97			34.73	8.69	34.13	100	32	Peak
11650	47.53	32	54	-6.47	38.09	12.8	35.36	157	66	Average
11650	57.07	41.54	74	-16.93	38.09	12.8	35.36	157	66	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	94.26	84.97			34.73	8.69	34.13	158	0	Average
5825	101.43	92.14			34.73	8.69	34.13	158	0	Peak
11650	47.39	31.86	54	-6.61	38.09	12.8	35.36	113	311	Average
11650	59.11	43.58	74	-14.89	38.09	12.8	35.36	113	311	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**
*5598.175	53.75	44.74	68.2	-14.45	34.49	8.6	34.08	100	32	Peak
5651.2	52.35	43.26	69.09	-16.74	34.56	8.62	34.09	100	32	Peak
5923.15	53.41	44.01	69.57	-16.16	34.83	8.73	34.16	100	32	Peak
*5975.125	54.04	44.58	68.2	-14.16	34.88	8.75	34.17	100	32	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**
*5607.1	54.25	45.22	68.2	-13.95	34.5	8.61	34.08	158	0	Peak
5651.2	52.13	43.04	69.09	-16.96	34.56	8.62	34.09	158	0	Peak
5922.625	52.44	43.04	69.96	-17.52	34.83	8.73	34.16	158	0	Peak
*6011.875	53.96	44.46	68.2	-14.24	34.92	8.76	34.18	158	0	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**
5149.762	52.84	44.59	54	-1.16	34.12	8.13	34	141	6	Average
5149.78	63.11	54.86	74	-10.89	34.12	8.13	34	141	6	Peak
5190	94.28	85.94			34.15	8.19	34	115	12	Average
5190	101.52	93.18			34.15	8.19	34	115	12	Peak
5364.29	53.39	44.75	74	-20.61	34.29	8.38	34.03	141	6	Peak
5434.11	42.38	33.59	54	-11.62	34.35	8.48	34.04	141	6	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**
5149.36	50.44	42.19	54	-3.56	34.12	8.13	34	137	219	Average
5150	59.37	51.12	74	-14.63	34.12	8.13	34	137	219	Peak
5190	93.36	85.02			34.15	8.19	34	105	248	Average
5190	100.77	92.43			34.15	8.19	34	105	248	Peak
5374.27	42.46	33.8	54	-11.54	34.29	8.41	34.04	137	219	Average
5396.07	53.82	45.1	74	-20.18	34.32	8.44	34.04	137	219	Peak

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**
5067.8	52.92	44.82	74	-21.08	34.05	8.03	33.98	106	356	Peak
5123.3	43.07	34.85	54	-10.93	34.11	8.1	33.99	106	356	Average
5230	94.42	86.02			34.19	8.22	34.01	106	356	Average
5230	101.58	93.18			34.19	8.22	34.01	106	356	Peak
5402.14	53.24	44.52	74	-20.76	34.32	8.44	34.04	106	356	Peak
5439.98	43.3	34.51	54	-10.7	34.35	8.48	34.04	106	356	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**
5107.85	53.6	45.4	74	-20.4	34.09	8.1	33.99	103	255	Peak
5148.8	42.83	34.58	54	-11.17	34.12	8.13	34	103	255	Average
5230	93.32	84.92			34.19	8.22	34.01	103	255	Average
5230	100.4	92			34.19	8.22	34.01	103	255	Peak
5360.56	53.5	44.86	74	-20.5	34.29	8.38	34.03	103	255	Peak
5382.01	43	34.32	54	-11	34.31	8.41	34.04	103	255	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**
5037.8	53.18	45.11	74	-20.82	34.04	8	33.97	217	296	Peak
5132.3	42.75	34.53	54	-11.25	34.11	8.1	33.99	217	296	Average
5270	92.82	84.33			34.21	8.29	34.01	217	296	Average
5270	100.22	91.73			34.21	8.29	34.01	217	296	Peak
5361.44	43.26	34.62	54	-10.74	34.29	8.38	34.03	217	296	Average
5378.16	53.83	45.15	74	-20.17	34.31	8.41	34.04	217	296	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**
5135.9	42.78	34.53	54	-11.22	34.11	8.13	33.99	102	169	Average
5136.65	53.08	44.83	74	-20.92	34.11	8.13	33.99	102	169	Peak
5270	93.86	85.37			34.21	8.29	34.01	102	169	Average
5270	101.16	92.67			34.21	8.29	34.01	102	169	Peak
5416.88	53.41	44.68	74	-20.59	34.33	8.44	34.04	102	169	Peak
5446.8	43.12	34.29	54	-10.88	34.36	8.51	34.04	102	169	Average

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**
5096.34	52.92	44.76	74	-21.08	34.08	8.07	33.99	223	285	Peak
5106.182	42.16	33.99	54	-11.84	34.09	8.07	33.99	223	285	Average
5310	93.27	84.72			34.25	8.32	34.02	223	304	Average
5310	100.65	92.1			34.25	8.32	34.02	223	304	Peak
5350.23	49.5	40.87	54	-4.5	34.28	8.38	34.03	223	285	Average
5350.72	59.29	50.66	74	-14.71	34.28	8.38	34.03	223	285	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**
5065.29	42.3	34.2	54	-11.7	34.05	8.03	33.98	120	217	Average
5127.44	52.83	44.61	74	-21.17	34.11	8.1	33.99	120	217	Peak
5310	94.32	85.77			34.25	8.32	34.02	114	205	Average
5310	101.46	92.91			34.25	8.32	34.02	114	205	Peak
5350	50.68	42.05	54	-3.32	34.28	8.38	34.03	120	217	Average
5352.28	59.06	50.43	74	-14.94	34.28	8.38	34.03	120	217	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**
5459.386	56.75	47.93	74	-17.25	34.36	8.51	34.05	108	284	Peak
5460	49.3	40.48	54	-4.7	34.36	8.51	34.05	108	284	Average
*5469.775	61.96	53.13	68.2	-6.24	34.37	8.51	34.05	108	284	Peak
5510	96.48	87.57			34.4	8.57	34.06	100	326	Average
5510	103.27	94.36			34.4	8.57	34.06	100	326	Peak
*5725.48	53.1	43.94	68.2	-15.1	34.62	8.65	34.11	108	284	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**
5459.638	46.93	38.11	54	-7.07	34.36	8.51	34.05	106	48	Average
5459.85	56.08	47.26	74	-17.92	34.36	8.51	34.05	106	48	Peak
*5470	60.29	51.46	68.2	-7.91	34.37	8.51	34.05	106	48	Peak
5510	94.28	85.37			34.4	8.57	34.06	106	53	Average
5510	100.35	91.44			34.4	8.57	34.06	106	53	Peak
*5725.16	52.19	43.03	68.2	-16.01	34.62	8.65	34.11	106	48	Peak

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**
5383.44	53.02	44.34	74	-20.98	34.31	8.41	34.04	100	4	Peak
5445.84	43.34	34.51	54	-10.66	34.36	8.51	34.04	100	4	Average
*5470	53.15	44.32	68.2	-15.05	34.37	8.51	34.05	100	4	Peak
5550	95.98	87.01			34.45	8.59	34.07	100	4	Average
5550	103.29	94.32			34.45	8.59	34.07	100	4	Peak
*5724.6	52.6	43.44	68.2	-15.6	34.62	8.65	34.11	100	4	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**
5442.64	53.65	44.86	74	-20.35	34.35	8.48	34.04	102	169	Peak
5455.12	43.29	34.47	54	-10.71	34.36	8.51	34.05	102	169	Average
*5470.32	52.13	43.3	68.2	-16.07	34.37	8.51	34.05	102	169	Peak
5550	93.38	84.41			34.45	8.59	34.07	102	169	Average
5550	100.75	91.78			34.45	8.59	34.07	102	169	Peak
*5724.52	52.47	43.31	68.2	-15.73	34.62	8.65	34.11	102	169	Peak

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**
5396.26	42.76	34.04	54	-11.24	34.32	8.44	34.04	127	272	Average
5396.63	53.19	44.47	74	-20.81	34.32	8.44	34.04	127	272	Peak
*5469.58	51.47	42.64	68.2	-16.73	34.37	8.51	34.05	127	272	Peak
5670	96.27	87.17			34.57	8.63	34.1	104	342	Average
5670	101.83	92.73			34.57	8.63	34.1	104	342	Peak
*5724.69	51.27	42.11	68.2	-16.93	34.62	8.65	34.11	127	272	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**
5386.34	42.82	34.14	54	-11.18	34.31	8.41	34.04	105	10	Average
5442.26	52.93	44.14	74	-21.07	34.35	8.48	34.04	105	10	Peak
*5470.26	51.43	42.6	68.2	-16.77	34.37	8.51	34.05	105	10	Peak
5670	92.89	83.79			34.57	8.63	34.1	112	26	Average
5670	99.08	89.98			34.57	8.63	34.1	112	26	Peak
*5725.23	53.26	44.1	68.2	-14.94	34.62	8.65	34.11	105	10	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	91.39	82.18			34.66	8.66	34.11	100	26	Average
5755	98.92	89.71			34.66	8.66	34.11	100	26	Peak
11510	47.88	32.77	54	-6.12	37.9	12.6	35.39	143	288	Average
11510	57.84	42.73	74	-16.16	37.9	12.6	35.39	143	288	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	93.63	84.42			34.66	8.66	34.11	160	355	Average
5755	100.28	91.07			34.66	8.66	34.11	160	355	Peak
11510	47.46	32.35	54	-6.54	37.9	12.6	35.39	154	206	Average
11510	57.45	42.34	74	-16.55	37.9	12.6	35.39	154	206	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**
*5612.35	54.51	45.48	68.2	-13.69	34.5	8.61	34.08	100	26	Peak
5651.725	52.52	43.43	69.48	-16.96	34.56	8.62	34.09	100	26	Peak
5922.625	52.25	42.85	69.96	-17.71	34.83	8.73	34.16	100	26	Peak
*5983.525	55.3	45.84	68.2	-12.9	34.88	8.75	34.17	100	26	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**
*5597.125	54.02	45.01	68.2	-14.18	34.49	8.6	34.08	160	355	Peak
5651.725	51.21	42.12	69.48	-18.27	34.56	8.62	34.09	160	355	Peak
5922.1	53.47	44.07	70.35	-16.88	34.83	8.73	34.16	160	355	Peak
*5954.125	54.69	45.26	68.2	-13.51	34.85	8.74	34.16	160	355	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	90.96	81.72			34.69	8.68	34.13	100	28	Average
5795	98.19	88.95			34.69	8.68	34.13	100	28	Peak
11590	47.9	32.53	54	-6.1	38.02	12.72	35.37	154	119	Average
11590	57.13	41.76	74	-16.87	38.02	12.72	35.37	154	119	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	93.35	84.11			34.69	8.68	34.13	160	0	Average
5795	100.53	91.29			34.69	8.68	34.13	160	0	Peak
11590	47.92	32.55	54	-6.08	38.02	12.72	35.37	124	244	Average
11590	56.92	41.55	74	-17.08	38.02	12.72	35.37	124	244	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**
*5543.575	54.88	45.94	68.2	-13.32	34.43	8.58	34.07	100	28	Peak
5652.25	53.94	44.85	69.86	-15.92	34.56	8.62	34.09	100	28	Peak
5922.625	52.77	43.37	69.96	-17.19	34.83	8.73	34.16	100	28	Peak
*5954.125	54.31	44.88	68.2	-13.89	34.85	8.74	34.16	100	28	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**
*5578.75	53.66	44.67	68.2	-14.54	34.47	8.6	34.08	160	0	Peak
5651.2	53.29	44.2	69.09	-15.8	34.56	8.62	34.09	160	0	Peak
5922.1	52.91	43.51	70.35	-17.44	34.83	8.73	34.16	160	0	Peak
*5936.275	53.35	43.95	68.2	-14.85	34.83	8.73	34.16	160	0	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**
5149.528	52.87	44.62	54	-1.13	34.12	8.13	34	118	306	Average
5149.64	62.58	54.33	74	-11.42	34.12	8.13	34	118	306	Peak
5210	91.4	83.04			34.17	8.19	34	108	349	Average
5210	98.42	90.06			34.17	8.19	34	108	349	Peak
5386.41	53.43	44.75	74	-20.57	34.31	8.41	34.04	118	306	Peak
5428.44	42.67	33.9	54	-11.33	34.33	8.48	34.04	118	306	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**
5145.05	50.76	42.51	54	-3.24	34.12	8.13	34	111	196	Average
5148.672	60.91	52.66	74	-13.09	34.12	8.13	34	111	196	Peak
5210	89.64	81.28			34.17	8.19	34	108	244	Average
5210	96.69	88.33			34.17	8.19	34	108	244	Peak
5402.47	53.18	44.46	74	-20.82	34.32	8.44	34.04	111	196	Peak
5428.37	42.49	33.72	54	-11.51	34.33	8.48	34.04	111	196	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**
5074.33	53.08	44.96	74	-20.92	34.07	8.03	33.98	179	293	Peak
5125.67	42.19	33.97	54	-11.81	34.11	8.1	33.99	179	263	Average
5290	90.51	81.98			34.23	8.32	34.02	220	296	Average
5290	97.76	89.23			34.23	8.32	34.02	220	296	Peak
5350.12	51.27	42.64	54	-2.73	34.28	8.38	34.03	179	263	Average
5354.28	63.12	54.49	74	-10.88	34.28	8.38	34.03	179	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**
5087.93	52.81	44.65	74	-21.19	34.07	8.07	33.98	106	237	Peak
5123.64	42.11	33.89	54	-11.89	34.11	8.1	33.99	106	237	Average
5290	91.18	82.65			34.23	8.32	34.02	105	258	Average
5290	98.42	89.89			34.23	8.32	34.02	105	258	Peak
5352.76	52.86	44.23	54	-1.14	34.28	8.38	34.03	106	237	Average
5357.44	61.38	52.75	74	-12.62	34.28	8.38	34.03	106	237	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**
5452.63	51.18	42.36	54	-2.82	34.36	8.51	34.05	113	308	Average
5458.472	59.76	50.94	74	-14.24	34.36	8.51	34.05	113	308	Peak
*5470.155	62.37	53.54	68.2	-5.83	34.37	8.51	34.05	113	308	Peak
5530	92.51	83.58			34.42	8.58	34.07	102	329	Average
5530	99.12	90.19			34.42	8.58	34.07	102	329	Peak
*5724.85	51.83	42.67	68.2	-16.37	34.62	8.65	34.11	113	308	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**
5457.42	51.23	42.41	54	-2.77	34.36	8.51	34.05	128	357	Average
5458.13	60.26	51.44	74	-13.74	34.36	8.51	34.05	128	357	Peak
*5470.29	61.28	52.45	68.2	-6.92	34.37	8.51	34.05	128	357	Peak
5530	89.63	80.7			34.42	8.58	34.07	100	61	Average
5530	96.75	87.82			34.42	8.58	34.07	100	61	Peak
*5724.83	52.09	42.93	68.2	-16.11	34.62	8.65	34.11	128	357	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**
5455.92	54.83	46.01	74	-19.17	34.36	8.51	34.05	102	329	Peak
5459.76	43.9	35.08	54	-10.1	34.36	8.51	34.05	102	329	Average
*5468.08	52.53	43.7	68.2	-15.67	34.37	8.51	34.05	102	329	Peak
5610	93.55	84.52			34.5	8.61	34.08	102	329	Average
5610	100.03	91			34.5	8.61	34.08	102	329	Peak
*5724.92	53.92	44.76	68.2	-14.28	34.62	8.65	34.11	102	329	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**
5369.04	53.21	44.54	74	-20.79	34.29	8.41	34.03	100	61	Peak
5459.92	43.92	35.1	54	-10.08	34.36	8.51	34.05	100	61	Average
*5468.56	52.93	44.1	68.2	-15.27	34.37	8.51	34.05	100	61	Peak
5610	90.44	81.41			34.5	8.61	34.08	100	61	Average
5610	97.74	88.71			34.5	8.61	34.08	100	61	Peak
*5724.92	54.03	44.87	68.2	-14.17	34.62	8.65	34.11	100	61	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	90.08	80.85			34.68	8.67	34.12	103	26	Average
5775	96.26	87.03			34.68	8.67	34.12	103	26	Peak
11550	47.85	32.58	54	-6.15	37.97	12.68	35.38	132	359	Average
11550	56.11	40.84	74	-17.89	37.97	12.68	35.38	132	359	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	92.24	83.01			34.68	8.67	34.12	153	0	Average
5775	98.42	89.19			34.68	8.67	34.12	153	0	Peak
11550	47.63	32.36	54	-6.37	37.97	12.68	35.38	105	28	Average
11550	56.66	41.39	74	-17.34	37.97	12.68	35.38	105	28	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**
*5554.6	54.79	45.82	68.2	-13.41	34.45	8.59	34.07	103	26	Peak
5652.25	53.74	44.65	69.86	-16.12	34.56	8.62	34.09	103	26	Peak
5923.15	51.69	42.29	69.57	-17.88	34.83	8.73	34.16	103	26	Peak
*5959.9	55.1	45.66	68.2	-13.1	34.87	8.74	34.17	103	26	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**
*5616.55	54.77	45.72	68.2	-13.43	34.52	8.61	34.08	153	0	Peak
5652.25	53.3	44.21	69.86	-16.56	34.56	8.62	34.09	153	0	Peak
5922.625	52.55	43.15	69.96	-17.41	34.83	8.73	34.16	153	0	Peak
*5996.125	53.72	44.23	68.2	-14.48	34.9	8.76	34.17	153	0	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

Mode B

<2TX>

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**
5149.4	52.29	44.04	54	-1.71	34.12	8.13	34	112	0	Average
5149.4	62.11	53.86	74	-11.89	34.12	8.13	34	112	0	Peak
5210	93.47	85.11			34.17	8.19	34	100	236	Average
5210	99.35	90.99			34.17	8.19	34	100	236	Peak
5350.22	46.54	37.91	54	-7.46	34.28	8.38	34.03	100	236	Average
5350.22	55.69	47.06	74	-18.31	34.28	8.38	34.03	100	236	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**
5149.25	52.74	44.49	54	-1.26	34.12	8.13	34	101	53	Average
5149.25	63.2	54.95	74	-10.8	34.12	8.13	34	101	53	Peak
5210	92.44	84.08			34.17	8.19	34	100	53	Average
5210	98.35	89.99			34.17	8.19	34	100	53	Peak
5351.76	46.83	38.2	54	-7.17	34.28	8.38	34.03	100	53	Average
5351.76	56.95	48.32	74	-17.05	34.28	8.38	34.03	100	53	Peak

Remarks:

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

802.11ac (VHT80)

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**
5113.1	46.21	38.01	54	-7.79	34.09	8.1	33.99	103	360	Average
5113.1	55.99	47.79	74	-18.01	34.09	8.1	33.99	103	360	Peak
5290	91.68	83.15			34.23	8.32	34.02	103	360	Average
5290	97.93	89.4			34.23	8.32	34.02	103	360	Peak
5361.77	52.37	43.73	54	-1.63	34.29	8.38	34.03	102	358	Average
5361.77	62.99	54.35	74	-11.01	34.29	8.38	34.03	102	358	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**
5136.35	46.5	38.25	54	-7.5	34.11	8.13	33.99	100	5	Average
5136.35	55.78	47.53	74	-18.22	34.11	8.13	33.99	100	5	Peak
5290	90.57	82.04			34.23	8.32	34.02	100	5	Average
5290	96.89	88.36			34.23	8.32	34.02	100	5	Peak
5355.5	50.5	41.87	54	-3.5	34.28	8.38	34.03	100	5	Average
5355.5	60.08	51.45	74	-13.92	34.28	8.38	34.03	100	5	Peak

Remarks:

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

802.11ac (VHT80)

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**
5457.68	49.76	40.94	54	-4.24	34.36	8.51	34.05	180	180	Average
5457.68	58.64	49.82	74	-15.36	34.36	8.51	34.05	180	180	Peak
*5469.2	59.45	50.62	68.2	-8.75	34.37	8.51	34.05	180	180	Peak
5530	93.62	84.69			34.42	8.58	34.07	180	180	Average
5530	99.76	90.83			34.42	8.58	34.07	180	180	Peak
*5725.32	53.89	44.73	68.2	-14.31	34.62	8.65	34.11	180	180	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**
5456.4	51	42.18	54	-3	34.36	8.51	34.05	134	6	Average
5456.4	60.79	51.97	74	-13.21	34.36	8.51	34.05	134	6	Peak
*5470.64	64.75	55.92	68.2	-3.45	34.37	8.51	34.05	134	6	Peak
5530	96.33	87.4			34.42	8.58	34.07	140	6	Average
5530	102.51	93.58			34.42	8.58	34.07	140	6	Peak
*5725.96	53.77	44.61	68.2	-14.43	34.62	8.65	34.11	140	6	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

802.11n (HT40)

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	95.28	86.04			34.69	8.68	34.13	120	175	Average
5795	101.11	91.87			34.69	8.68	34.13	120	175	Peak
11590	47.22	31.85	54	-6.78	38.02	12.72	35.37	143	350	Average
11590	55.08	39.71	74	-18.92	38.02	12.72	35.37	143	350	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	98.74	89.5			34.69	8.68	34.13	152	3	Average
5795	104.22	94.98			34.69	8.68	34.13	152	3	Peak
11590	47.32	31.95	54	-6.68	38.02	12.72	35.37	189	99	Average
11590	55.38	40.01	74	-18.62	38.02	12.72	35.37	189	99	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**
*5536.75	57.04	48.1	68.2	-11.16	34.43	8.58	34.07	120	175	Peak
5652.775	55.19	46.09	70.25	-15.06	34.56	8.63	34.09	120	175	Peak
5920.525	54.78	45.4	71.51	-16.73	34.81	8.73	34.16	120	175	Peak
*5967.25	56.37	46.92	68.2	-11.83	34.87	8.75	34.17	120	175	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**
*5621.8	57.36	48.31	68.2	-10.84	34.52	8.61	34.08	152	3	Peak
5654.35	56.93	47.84	71.42	-14.49	34.56	8.63	34.1	152	3	Peak
5916.325	55.3	45.92	74.62	-19.32	34.81	8.73	34.16	152	3	Peak
*5979.85	55.75	46.29	68.2	-12.45	34.88	8.75	34.17	152	3	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

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:

Mode A

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**
54.84	27.09	44.28	40	-12.91	14.14	0.9	32.23	144	154	Peak
97.5	18.76	37.61	43.5	-24.74	12.02	1.28	32.15	126	125	Peak
194.43	29.13	48.86	43.5	-14.37	10.94	1.61	32.28	102	114	Peak
315.4	27.07	43.67	46	-18.93	13.4	2.11	32.11	113	162	Peak
540.8	17.88	30.4	46	-28.12	16.9	2.76	32.18	165	195	Peak
727	20.88	30.25	46	-25.12	19.59	3.16	32.12	185	145	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**
34.05	36.01	55.68	40	-3.99	11.83	0.74	32.24	199	156	QP
53.22	33.83	50.86	40	-6.17	14.3	0.9	32.23	184	152	QP
175.26	20.65	41.84	43.5	-22.85	9.44	1.61	32.24	102	154	Peak
426.7	14.65	29.13	46	-31.35	15.29	2.41	32.18	141	155	Peak
660.5	19.37	29.9	46	-26.63	18.62	2.99	32.14	188	154	Peak
860.7	23.48	30.61	46	-22.52	21.16	3.44	31.73	105	142	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**
34.59	34.91	54.32	40	-5.09	12.09	0.74	32.24	112	152	Peak
90.48	18.5	38.64	43.5	-25	10.46	1.11	31.71	132	265	Peak
193.35	29.52	49.37	43.5	-13.98	10.81	1.61	32.27	105	148	Peak
323.8	14.59	30.96	46	-31.41	13.62	2.11	32.1	156	142	Peak
668.9	19.32	29.64	46	-26.68	18.76	3.05	32.13	188	145	Peak
768.3	20.96	29.85	46	-25.04	20	3.22	32.11	196	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**
34.05	36.19	55.86	40	-3.81	11.83	0.74	32.24	104	157	QP
53.22	36.03	53.06	40	-3.97	14.3	0.9	32.23	188	142	QP
172.83	21.54	43	43.5	-21.96	9.26	1.52	32.24	125	165	Peak
359.5	14.71	30.2	46	-31.29	14.35	2.26	32.1	196	174	Peak
594.7	18.57	30.04	46	-27.43	17.85	2.87	32.19	146	185	Peak
785.1	20.95	29.58	46	-25.05	20.18	3.27	32.08	135	168	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 106	**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**
41.88	25.97	43.67	40	-14.03	13.78	0.74	32.22	136	215	Peak
89.4	18.4	38.84	43.5	-25.1	10.21	1.11	31.76	104	158	Peak
163.92	26.91	48.76	43.5	-16.59	8.89	1.52	32.26	116	154	Peak
317.5	23.68	40.23	46	-22.32	13.45	2.11	32.11	188	142	Peak
510.7	17.82	30.75	46	-28.18	16.49	2.7	32.12	196	142	Peak
707.4	21.49	31.15	46	-24.51	19.33	3.11	32.1	124	184	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**
46.47	33.41	50.27	40	-6.59	14.46	0.9	32.22	111	154	QP
96.96	19.03	37.97	43.5	-24.47	11.88	1.28	32.1	199	152	Peak
193.89	21.76	41.54	43.5	-21.74	10.88	1.61	32.27	174	148	Peak
432.3	15.38	29.79	46	-30.62	15.35	2.41	32.17	103	261	Peak
680.1	20.96	31.09	46	-25.04	18.93	3.05	32.11	155	124	Peak
739.6	20.85	30.11	46	-25.15	19.71	3.16	32.13	169	157	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**
51.6	23.96	40.83	40	-16.04	14.46	0.9	32.23	104	154	Peak
98.04	24	42.85	43.5	-19.5	12.02	1.28	32.15	112	158	Peak
188.22	35.03	55.22	43.5	-8.47	10.45	1.61	32.25	132	165	Peak
323.8	25.7	42.07	46	-20.3	13.62	2.11	32.1	195	174	Peak
646.5	18.92	29.68	46	-27.08	18.4	2.99	32.15	105	186	Peak
745.9	20.88	30.03	46	-25.12	19.77	3.22	32.14	111	215	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**
34.59	35.44	54.85	40	-4.56	12.09	0.74	32.24	132	165	QP
45.12	36.74	53.65	40	-3.26	14.41	0.9	32.22	115	142	QP
58.89	33.6	51.41	40	-6.4	13.52	0.9	32.23	103	265	Peak
384.7	14.78	29.93	46	-31.22	14.69	2.34	32.18	162	142	Peak
622	18.93	30.02	46	-27.07	18.15	2.93	32.17	188	142	Peak
716.5	20.35	29.88	46	-25.65	19.47	3.11	32.11	196	158	Peak

Remarks:

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

Mode B

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**
63.48	8.6	27.58	40	-31.4	12.35	0.9	32.23	129	137	Peak
124.23	12.11	33.3	43.5	-31.39	9.67	1.38	32.24	105	112	Peak
255.72	13.87	31.61	46	-32.13	12.42	1.94	32.1	153	134	Peak
403.6	13.63	28.47	46	-32.37	15.04	2.34	32.22	105	228	Peak
510	16.35	29.36	46	-29.65	16.48	2.63	32.12	124	113	Peak
807.5	20.48	28.73	46	-25.52	20.45	3.32	32.02	196	305	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**
75.36	13.04	35.75	40	-26.96	8.4	1.11	32.22	156	213	Peak
138	7.74	30.08	43.5	-35.76	8.54	1.38	32.26	108	137	Peak
231.42	11.88	30.38	46	-34.12	11.82	1.85	32.17	126	133	Peak
377.7	12.1	27.43	46	-33.9	14.56	2.26	32.15	107	134	Peak
446.3	14.57	28.72	46	-31.43	15.51	2.49	32.15	196	312	Peak
762	20.47	29.43	46	-25.53	19.94	3.22	32.12	127	254	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**
54.57	12.79	29.9	40	-27.21	14.22	0.9	32.23	132	64	Peak
120.45	12.12	32.93	43.5	-31.38	10.16	1.28	32.25	159	172	Peak
216.57	21.16	40.47	46	-24.84	11.27	1.65	32.23	133	106	Peak
447	14.76	28.9	46	-31.24	15.52	2.49	32.15	115	246	Peak
686.4	19.91	29.93	46	-26.09	19.03	3.05	32.1	130	128	Peak
895.7	22.46	29.05	46	-23.54	21.43	3.49	31.51	196	352	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**
38.64	32.87	51.18	40	-7.13	13.18	0.74	32.23	156	234	Peak
47.55	24.75	41.56	40	-15.25	14.51	0.9	32.22	185	231	Peak
207.66	15.96	35.44	43.5	-27.54	11.14	1.65	32.27	117	129	Peak
409.9	14.07	28.75	46	-31.93	15.12	2.41	32.21	142	169	Peak
563.2	17.17	29.2	46	-28.83	17.35	2.82	32.2	183	234	Peak
757.1	19.93	28.95	46	-26.07	19.89	3.22	32.13	177	42	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 106	**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**
58.35	9.56	27.21	40	-30.44	13.68	0.9	32.23	154	137	Peak
96.69	17.38	36.32	43.5	-26.12	11.88	1.28	32.1	164	122	Peak
251.4	14.72	32.54	46	-31.28	12.34	1.94	32.1	196	313	Peak
342	14.04	29.82	46	-31.96	14.11	2.19	32.08	133	156	Peak
559.7	15.92	28.08	46	-30.08	17.28	2.76	32.2	149	324	Peak
800.5	20.33	28.74	46	-25.67	20.33	3.32	32.06	164	112	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**
53.49	20.88	37.91	40	-19.12	14.3	0.9	32.23	124	163	Peak
147.45	7.48	29.84	43.5	-36.02	8.39	1.52	32.27	185	217	Peak
240.33	11.24	29.42	46	-34.76	12.1	1.85	32.13	164	119	Peak
381.9	13.12	28.32	46	-32.88	14.63	2.34	32.17	106	234	Peak
609.4	19.13	30.43	46	-26.87	18.02	2.87	32.19	148	114	Peak
908.3	21.97	28.36	46	-24.03	21.5	3.53	31.42	136	192	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**
41.07	11.49	29.39	40	-28.51	13.59	0.74	32.23	134	165	Peak
163.11	22.16	44.05	43.5	-21.34	8.85	1.52	32.26	187	124	Peak
232.5	16.31	34.77	46	-29.69	11.86	1.85	32.17	169	138	Peak
343.4	13.42	29.19	46	-32.58	14.12	2.19	32.08	128	123	Peak
632.5	17.27	28.27	46	-28.73	18.23	2.93	32.16	196	352	Peak
814.5	20.76	28.86	46	-25.24	20.56	3.32	31.98	126	185	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**
47.55	25.21	42.02	40	-14.79	14.51	0.9	32.22	125	73	Peak
156.9	12.5	34.61	43.5	-31	8.64	1.52	32.27	158	34	Peak
247.89	11.26	29.23	46	-34.74	12.28	1.85	32.1	196	342	Peak
470.1	14.64	28.31	46	-31.36	15.9	2.56	32.13	196	187	Peak
814.5	21.39	29.49	46	-24.61	20.56	3.32	31.98	153	112	Peak
909.7	22.18	28.55	46	-23.82	21.51	3.53	31.41	158	120	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/AMN ROHDE & SCHWARZ (EUT)	ESH3-Z5	835239/001	Mar. 10, 2017	Mar. 09, 2018
LISN/AMN 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

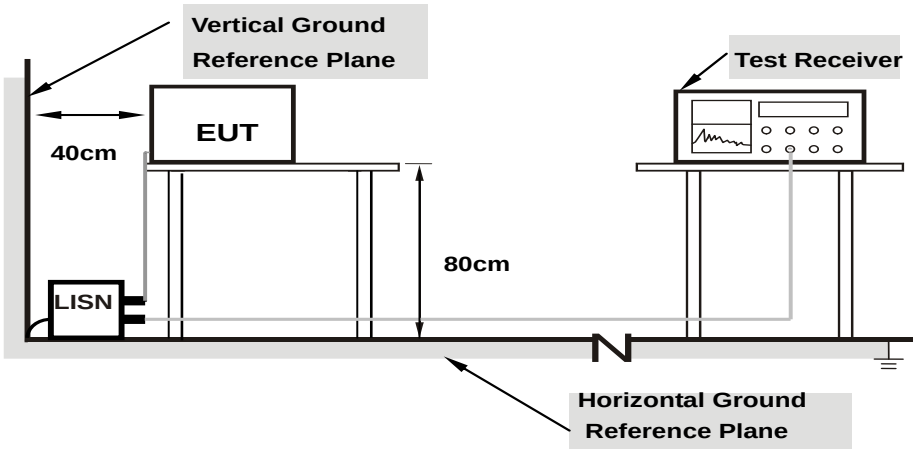
a. The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling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

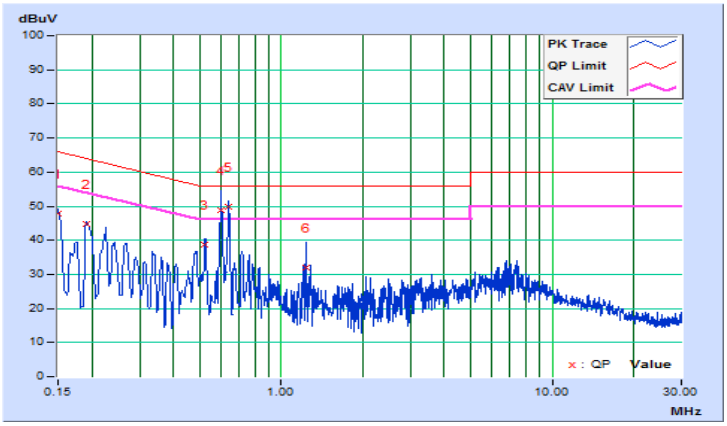
Mode A

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	2017/6/28

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	0.15000	10.34	37.49	25.26	47.83	35.60	66.00	56.00	-18.17	-20.40
2	0.19013	10.37	34.50	23.27	44.87	33.64	64.03	54.03	-19.16	-20.39
3	0.52290	10.40	28.21	20.61	38.61	31.01	56.00	46.00	-17.39	-14.99
4	0.59810	10.40	38.54	31.28	48.94	41.68	56.00	46.00	-7.06	-4.32
5	0.63800	10.40	39.46	32.14	49.86	42.54	56.00	46.00	-6.14	-3.46
6	1.23800	10.41	21.68	10.52	32.09	20.93	56.00	46.00	-23.91	-25.07

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

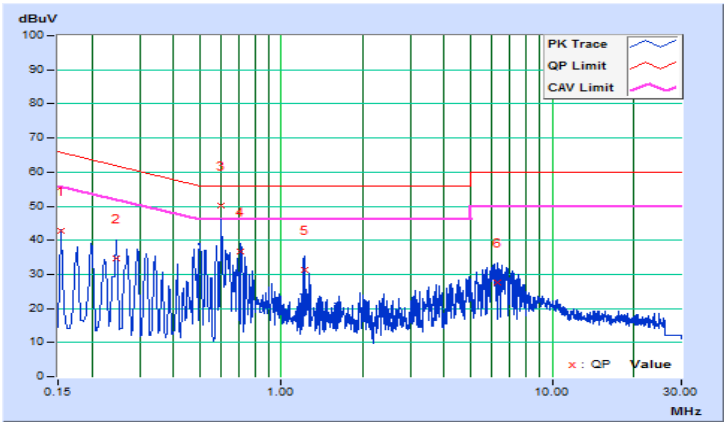


Frequency Range	150kHz ~ 30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9kHz
Input Power	120Vac, 60Hz	Environmental Conditions	25℃, 65%RH
Tested by	Getaz Yang	Test Date	2017/6/28

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	0.15400	10.11	32.72	20.53	42.83	30.64	65.78	55.78	-22.95	-25.14
2	0.24600	10.14	24.54	12.81	34.68	22.95	61.89	51.89	-27.21	-28.94
3	0.60126	10.16	40.10	32.39	50.26	42.55	56.00	46.00	-5.74	-3.45
4	0.71000	10.17	26.62	21.20	36.79	31.37	56.00	46.00	-19.21	-14.63
5	1.21400	10.18	21.00	9.23	31.18	19.41	56.00	46.00	-24.82	-26.59
6	6.27800	10.42	17.22	1.85	27.64	12.27	60.00	50.00	-32.36	-37.73

Remarks:

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



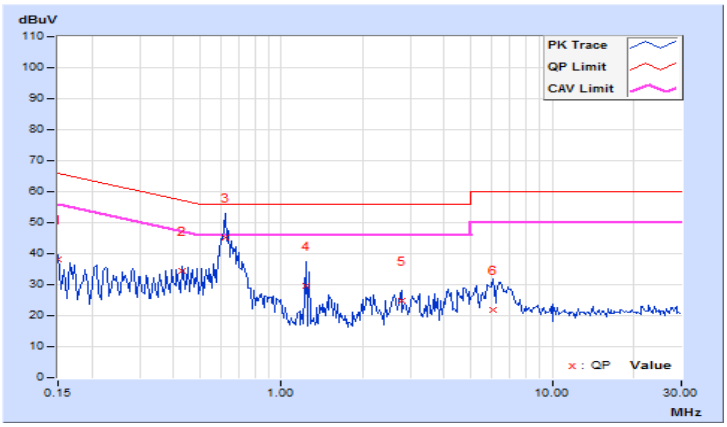
Mode B

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	2017/7/18

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	0.15000	10.06	28.02	18.90	38.08	28.96	66.00	56.00	-27.92	-27.04
2	0.43125	9.92	24.61	18.39	34.53	28.31	57.23	47.23	-22.70	-18.92
3	0.61875	9.95	35.30	30.77	45.25	40.72	56.00	46.00	-10.75	-5.28
4	1.23047	9.99	19.65	3.98	29.64	13.97	56.00	46.00	-26.36	-32.03
5	2.78516	9.98	14.68	9.78	24.66	19.76	56.00	46.00	-31.34	-26.24
6	6.05859	10.07	11.93	1.64	22.00	11.71	60.00	50.00	-38.00	-38.29

Remarks:

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

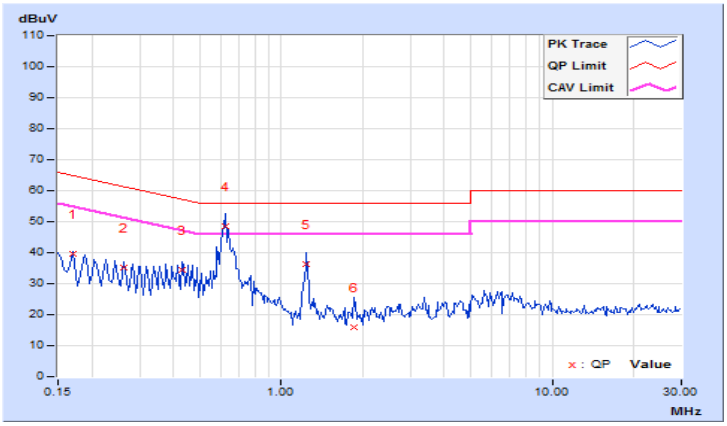


Frequency Range	150kHz ~ 30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9kHz
Input Power	120Vac, 60Hz	Environmental Conditions	25℃, 65%RH
Tested by	Getaz Yang	Test Date	2017/7/18

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	0.16953	9.85	29.80	14.58	39.65	24.43	64.98	54.98	-25.33	-30.55
2	0.26328	9.84	25.40	12.70	35.24	22.54	61.33	51.33	-26.09	-28.79
3	0.43125	9.95	24.55	14.20	34.50	24.15	57.23	47.23	-22.73	-23.08
4	0.62266	9.94	38.58	28.20	48.52	38.14	56.00	46.00	-7.48	-7.86
5	1.24219	9.93	26.32	14.80	36.25	24.73	56.00	46.00	-19.75	-21.27
6	1.85547	9.97	6.05	-7.68	16.02	2.29	56.00	46.00	-39.98	-43.71

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 $N_{ANT} \leq 4$;

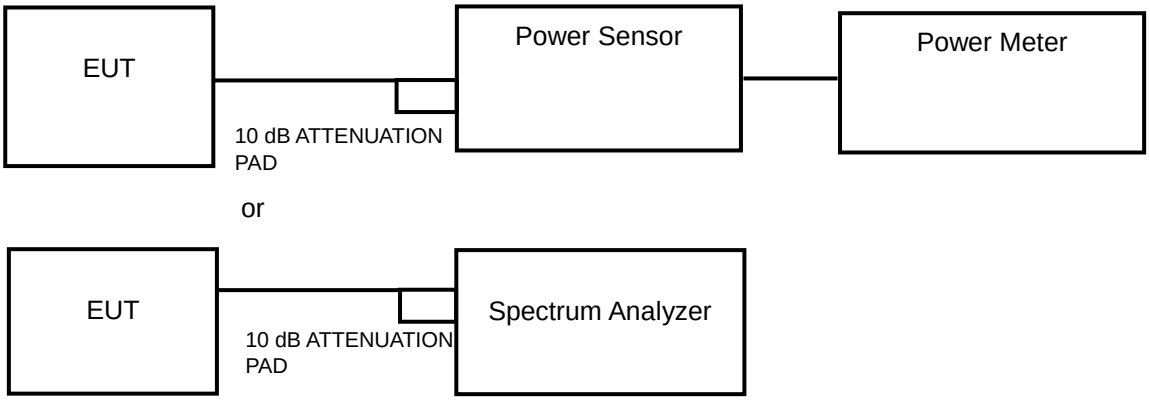
Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT};

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

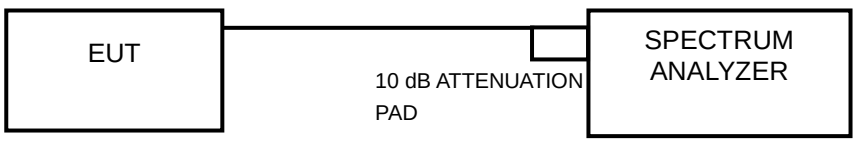
For power measurements on all other devices: Array Gain = 10 log(N_{ANT}/N_{SS}) dB.

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	66.681	18.24	24	Pass
44	5220	67.764	18.31	24	Pass
48	5240	70.146	18.46	24	Pass
52	5260	65.464	18.16	24	Pass
60	5300	65.615	18.17	24	Pass
64	5320	69.024	18.39	24	Pass
100	5500	66.222	18.21	24	Pass
116	5580	65.615	18.17	24	Pass
140	5700	69.343	18.41	24	Pass
149	5745	65.615	18.17	30	Pass
157	5785	69.024	18.39	30	Pass
165	5825	66.374	18.22	30	Pass

Note:

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

1. 11 dBm + 10log (24.23) = 24.84 dBm > 24 dBm.
2. 11 dBm + 10log (24.32) = 24.86 dBm > 24 dBm.
3. 11 dBm + 10log (24.84) = 24.95 dBm > 24 dBm.
4. 11 dBm + 10log (24.65) = 24.92 dBm > 24 dBm.
5. 11 dBm + 10log (24.20) = 24.84 dBm > 24 dBm.
6. 11 dBm + 10log (23.77) = 24.76 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	17.24	17.33	107.042	20.30	24	Pass
44	5220	17.21	17.16	104.601	20.20	24	Pass
48	5240	17.43	16.93	104.652	20.20	24	Pass
52	5260	17.39	17.22	107.551	20.32	24	Pass
60	5300	17.29	16.97	103.353	20.14	24	Pass
64	5320	17.21	17.21	105.203	20.22	24	Pass
100	5500	16.98	17.42	105.096	20.22	24	Pass
116	5580	17.12	17.39	106.351	20.27	24	Pass
140	5700	17.16	17.33	106.075	20.26	24	Pass
149	5745	17.33	17.27	107.409	20.31	30	Pass
157	5785	17.36	16.85	102.868	20.12	30	Pass
165	5825	17.51	17.42	111.572	20.48	30	Pass

Note:

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

Chain 0

1. 11 dBm + 10log (25.36) = 25.04 dBm > 24 dBm.
2. 11 dBm + 10log (24.90) = 24.96 dBm > 24 dBm.
3. 11 dBm + 10log (24.98) = 24.98 dBm > 24 dBm.
4. 11 dBm + 10log (24.19) = 24.84 dBm > 24 dBm.
5. 11 dBm + 10log (23.27) = 24.67 dBm > 24 dBm.
6. 11 dBm + 10log (24.01) = 24.80 dBm > 24 dBm.

Chain 1

1. 11 dBm + 10log (25.64) = 25.09 dBm > 24 dBm.
2. 11 dBm + 10log (24.11) = 24.82 dBm > 24 dBm.
3. 11 dBm + 10log (25.36) = 25.04 dBm > 24 dBm.
4. 11 dBm + 10log (28.32) = 25.52 dBm > 24 dBm.
5. 11 dBm + 10log (27.22) = 25.35 dBm > 24 dBm.
6. 11 dBm + 10log (25.95) = 25.14 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	17.33	17.23	106.920	20.29	24	Pass
46	5230	17.42	17.44	110.670	20.44	24	Pass
54	5270	17.15	17.13	103.522	20.15	24	Pass
62	5310	17.55	16.97	106.659	20.28	24	Pass
102	5510	17.45	17.42	110.798	20.45	24	Pass
110	5550	17.48	17.43	111.311	20.47	24	Pass
134	5670	17.62	17.23	110.654	20.44	24	Pass
151	5755	17.11	17.33	105.480	20.23	30	Pass
159	5795	17.09	17.21	103.770	20.16	30	Pass

Note:

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

Chain 0

1. 11 dBm + 10log (42.05) = 27.24 dBm > 24 dBm.
2. 11 dBm + 10log (42.01) = 27.23 dBm > 24 dBm.
3. 11 dBm + 10log (41.95) = 27.23 dBm > 24 dBm.
4. 11 dBm + 10log (42.13) = 27.25 dBm > 24 dBm.
5. 11 dBm + 10log (41.97) = 27.23 dBm > 24 dBm.

Chain 1

1. 11 dBm + 10log (42.18) = 27.25 dBm > 24 dBm.
2. 11 dBm + 10log (42.21) = 27.25 dBm > 24 dBm.
3. 11 dBm + 10log (42.07) = 27.24 dBm > 24 dBm.
4. 11 dBm + 10log (42.14) = 27.25 dBm > 24 dBm.
5. 11 dBm + 10log (41.95) = 27.23 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	16.13	16.03	81.107	19.09	24	Pass
58	5290	16.21	16.13	82.803	19.18	24	Pass
106	5530	17.19	17.51	108.724	20.36	24	Pass
122	5610	17.13	17.08	102.692	20.12	24	Pass
155	5775	17.36	17.39	109.278	20.39	30	Pass

Note:

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

Chain 0

1. 11 dBm + 10log (84.30) = 30.26 dBm > 24 dBm.
2. 11 dBm + 10log (83.83) = 30.23 dBm > 24 dBm.
3. 11 dBm + 10log (84.15) = 30.25 dBm > 24 dBm.

Chain 1

1. 11 dBm + 10log (83.70) = 30.23 dBm > 24 dBm.
2. 11 dBm + 10log (82.92) = 30.19 dBm > 24 dBm.
3. 11 dBm + 10log (83.98) = 30.24 dBm > 24 dBm.

26 dB Bandwidth:

<1TX>

802.11a

Channel	Frequency (MHz)	26 dBc Bandwidth (MHz)
36	5180	23.60
44	5220	24.20
48	5240	24.50
52	5260	24.23
60	5300	24.32
64	5320	24.84
100	5500	24.65
116	5580	24.20
140	5700	23.77

<2TX>

802.11n (HT20)

Channel	Frequency (MHz)	26 dBc Bandwidth (MHz)	
		Chain 0	Chain 1
36	5180	23.94	24.10
44	5220	24.05	25.89
48	5240	23.76	24.10
52	5260	25.36	25.64
60	5300	24.90	24.11
64	5320	24.98	25.36
100	5500	24.19	28.32
116	5580	23.27	27.22
140	5700	24.01	25.95

802.11n (HT40)

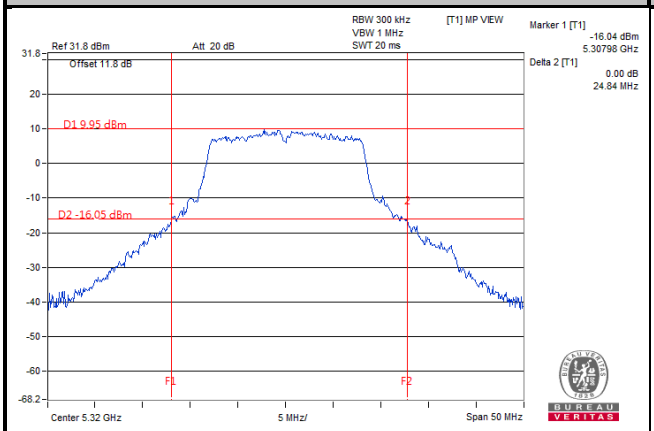
Channel	Frequency (MHz)	26 dBc Bandwidth (MHz)	
		Chain 0	Chain 1
38	5190	42.00	42.35
46	5230	42.07	42.21
54	5270	42.05	42.18
62	5310	42.01	42.21
102	5510	41.95	42.07
110	5550	42.13	42.14
134	5670	41.97	41.95

802.11ac (VHT80)

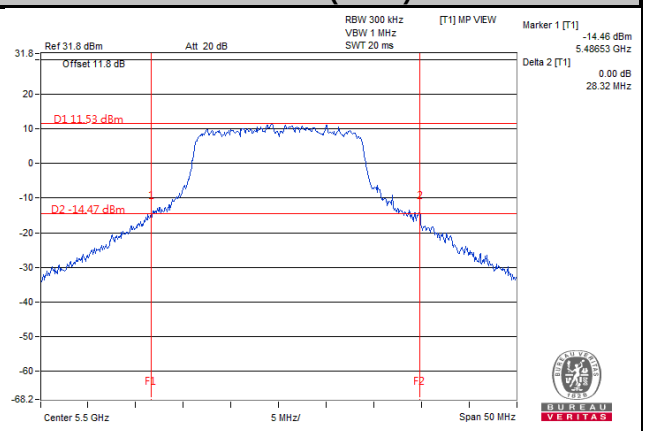
Channel	Frequency (MHz)	26 dBc Bandwidth (MHz)	
		Chain 0	Chain 1
42	5210	83.94	83.37
58	5290	84.30	83.70
106	5530	83.83	82.92
122	5610	84.15	83.98

Spectrum Plot of Worst Value

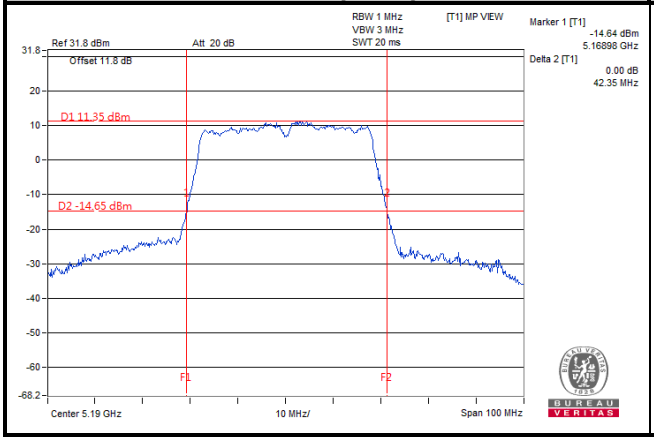
802.11a



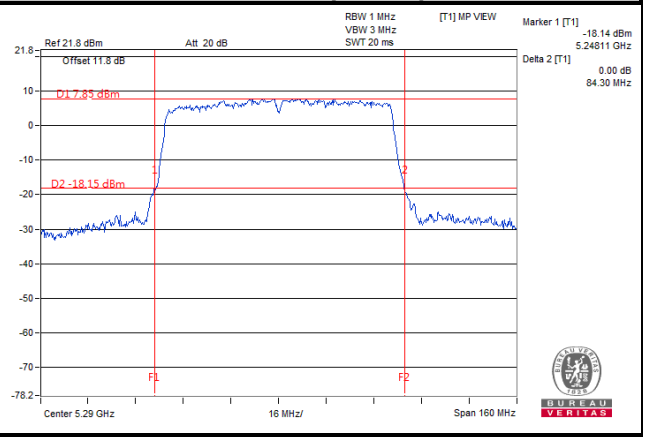
802.11n (HT20)



802.11n (HT40)



802.11ac (VHT80)



Occupied Bandwidth

<1TX>

802.11a

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	Pass / Fail
36	5180	16.77	Pass
44	5220	16.82	Pass
48	5240	16.82	Pass
52	5260	16.82	Pass
60	5300	16.87	Pass
64	5320	16.82	Pass
100	5500	16.82	Pass
116	5580	16.82	Pass
140	5700	16.82	Pass

<2TX>

802.11n (HT20)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
36	5180	17.93	17.88	Pass
44	5220	17.98	17.88	Pass
48	5240	17.98	17.93	Pass
52	5260	17.93	17.93	Pass
60	5300	17.93	17.88	Pass
64	5320	17.98	17.93	Pass
100	5500	17.93	18.07	Pass
116	5580	17.88	17.98	Pass
140	5700	17.98	17.93	Pass

802.11n (HT40)

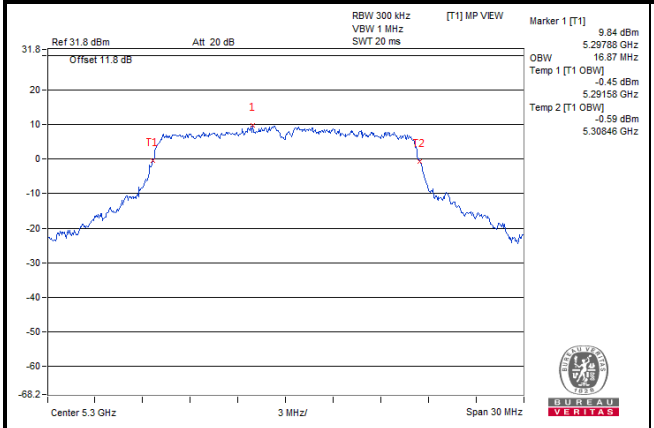
Channel	Frequency (MHz)	Occupied Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
38	5190	36.66	36.53	Pass
46	5230	36.66	36.53	Pass
54	5270	36.79	36.66	Pass
62	5310	36.66	36.53	Pass
102	5510	36.66	36.53	Pass
110	5550	36.66	36.66	Pass
134	5670	36.66	36.53	Pass

802.11ac (VHT80)

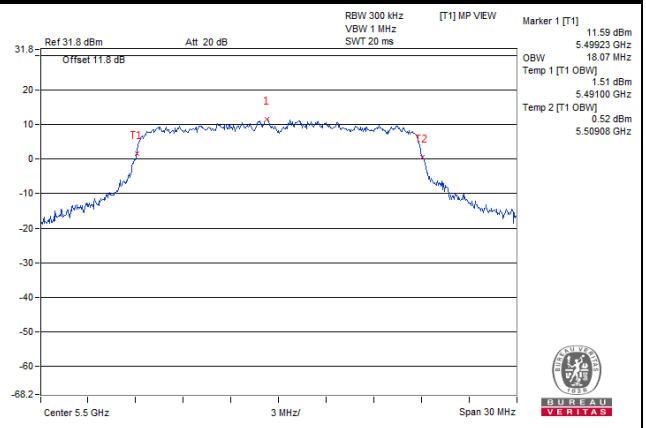
Channel	Frequency (MHz)	Occupied Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
42	5210	75.80	75.80	Pass
58	5290	75.80	75.80	Pass
106	5530	75.96	75.64	Pass

Spectrum Plot of Worst Value

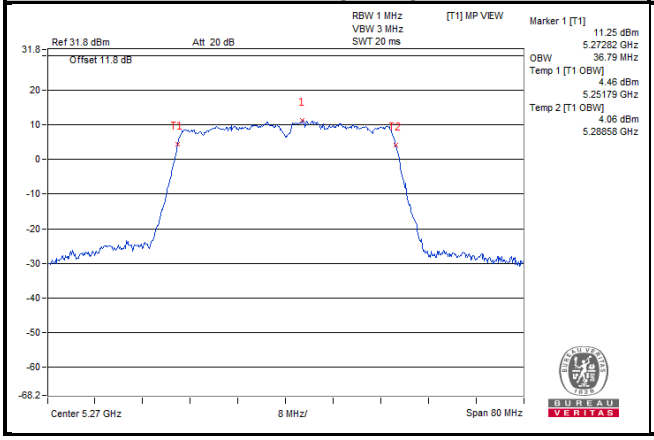
802.11a



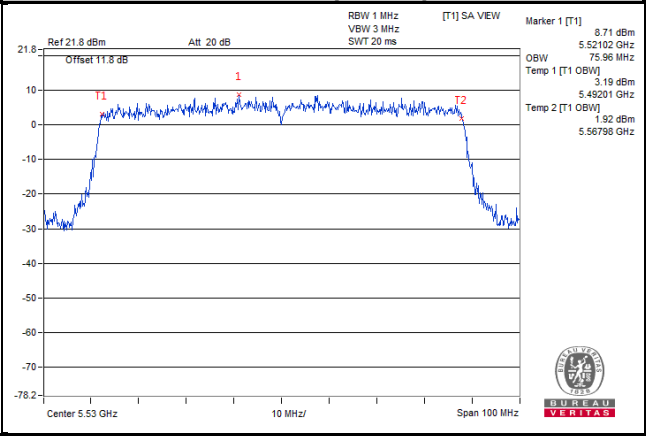
802.11n (HT20)



802.11n (HT40)



802.11ac (VHT80)



Occupied Bandwidth

<1TX>

802.11a

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	Pass / Fail
149	5745	16.73	Pass
157	5785	16.70	Pass
165	5825	16.70	Pass

<2TX>

802.11n (HT20)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
149	5745	17.78	17.83	Pass
157	5785	17.85	17.80	Pass
165	5825	17.90	17.85	Pass

802.11n (HT40)

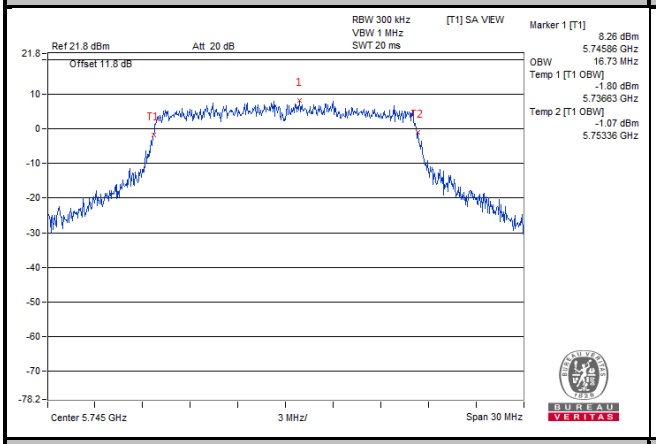
Channel	Frequency (MHz)	Occupied Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
151	5755	36.69	36.53	Pass
159	5795	36.50	36.66	Pass

802.11ac (VHT80)

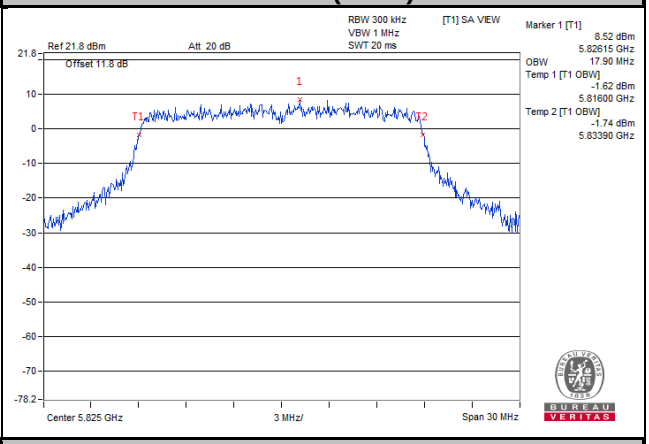
Channel	Frequency (MHz)	Occupied Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
155	5775	75.96	75.96	Pass

Spectrum Plot of Worst Value

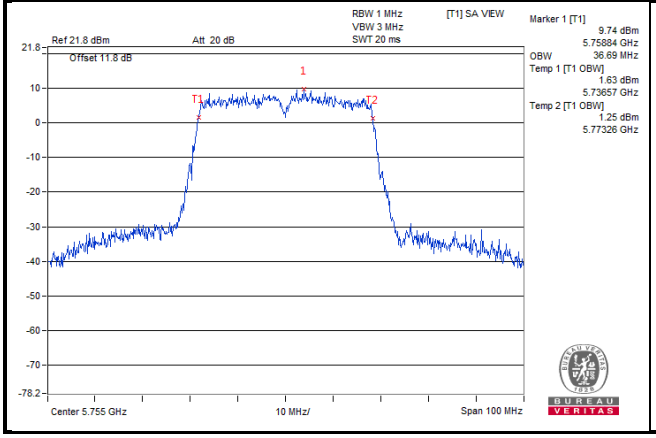
802.11a



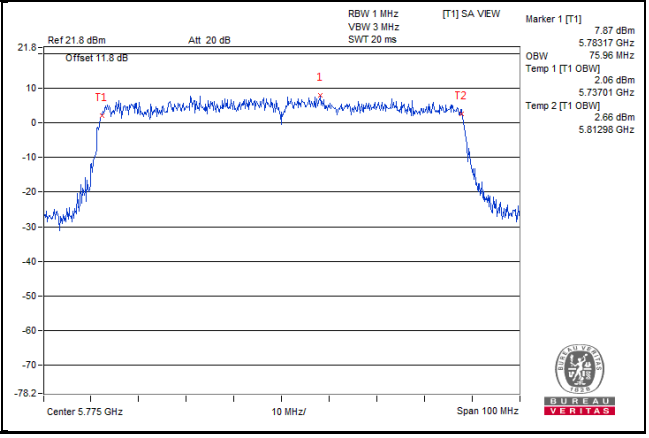
802.11n (HT20)



802.11n (HT40)



802.11ac (VHT80)

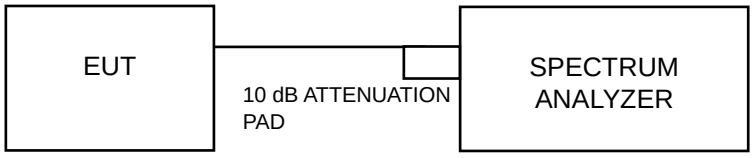


4.4 Peak Power Spectral Density Measurement

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	5.35	0.23	5.58	11	Pass
44	5220	5.88	0.23	6.11	11	Pass
48	5240	6.20	0.23	6.43	11	Pass
52	5260	6.11	0.23	6.34	11	Pass
60	5300	6.08	0.23	6.31	11	Pass
64	5320	6.20	0.23	6.43	11	Pass
100	5500	7.58	0.23	7.81	11	Pass
116	5580	7.03	0.23	7.26	11	Pass
140	5700	6.22	0.23	6.45	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	4.22	5.65	0.25	8.25	11	Pass
44	5220	4.11	5.71	0.25	8.24	11	Pass
48	5240	4.27	5.53	0.25	8.21	11	Pass
52	5260	4.54	5.94	0.25	8.56	11	Pass
60	5300	5.11	5.88	0.25	8.77	11	Pass
64	5320	5.13	6.45	0.25	9.10	11	Pass
100	5500	5.83	7.67	0.25	10.11	11	Pass
116	5580	5.64	7.19	0.25	9.74	11	Pass
140	5700	4.07	5.94	0.25	8.37	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 = $10\log[(10^{G1/20} + 10^{G2/20})^2 / N_{ANT}] = 0.2$ dBi < 6 dBi, so the power density limit doesn't need to be reduced.
   For U-NII-2A, U-NII-2C Band:
   Directional gain = $10\log[(10^{G1/20} + 10^{G2/20})^2 / N_{ANT}] = 0.43$ dBi < 6 dBi, so the power density 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	1.28	1.47	0.44	4.83	11	Pass
46	5230	1.20	0.27	0.44	4.21	11	Pass
54	5270	1.47	1.51	0.44	4.94	11	Pass
62	5310	2.30	2.03	0.44	5.62	11	Pass
102	5510	3.33	3.81	0.44	7.03	11	Pass
110	5550	2.86	3.69	0.44	6.75	11	Pass
134	5670	1.93	2.49	0.44	5.67	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 = $10\log[(10^{G1/20} + 10^{G2/20})^2 / N_{ANT}] = 0.2$ dBi < 6 dBi, so the power density limit doesn't need to be reduced.
   For U-NII-2A, U-NII-2C Band:
   Directional gain = $10\log[(10^{G1/20} + 10^{G2/20})^2 / N_{ANT}] = 0.43$ dBi < 6 dBi, so the power density limit doesn't need to be reduced.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11ac (VHT80)

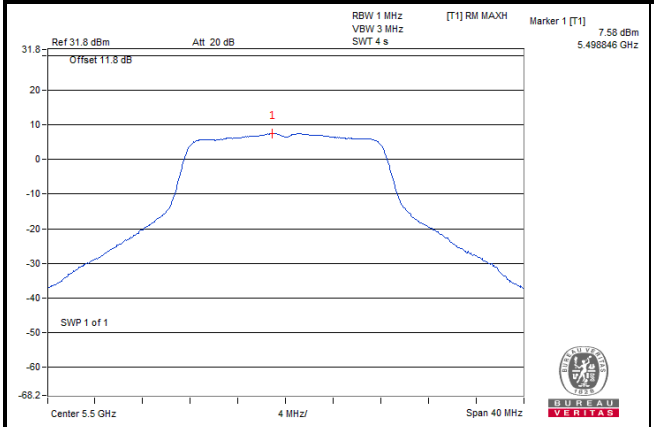
Channel	Frequency (MHz)	PSD (dBm/MHz)		Duty Factor (dB)	Total PSD with Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1				
42	5210	-2.33	-2.64	0.84	1.37	11	Pass
58	5290	-2.32	-1.81	0.84	1.79	11	Pass
106	5530	-0.93	-0.61	0.84	3.08	11	Pass
122	5610	-0.79	-0.49	0.84	3.21	11	Pass

Note:

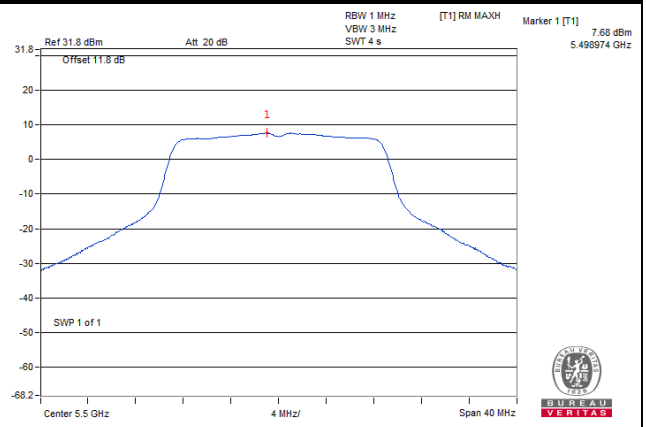
1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. **For U-NII-1 Band:**
   Directional gain = $10\log[(10^{G1/20} + 10^{G2/20})^2 / N_{ANT}] = 0.2$ dBi < 6 dBi, so the power density limit doesn't need to be reduced.
   For U-NII-2A, U-NII-2C Band:
   Directional gain = $10\log[(10^{G1/20} + 10^{G2/20})^2 / N_{ANT}] = 0.43$ dBi < 6 dBi, so the power density limit doesn't need to be reduced.
3. Refer to section 3.3 for duty cycle spectrum plot.

Spectrum Plot of Worst Value

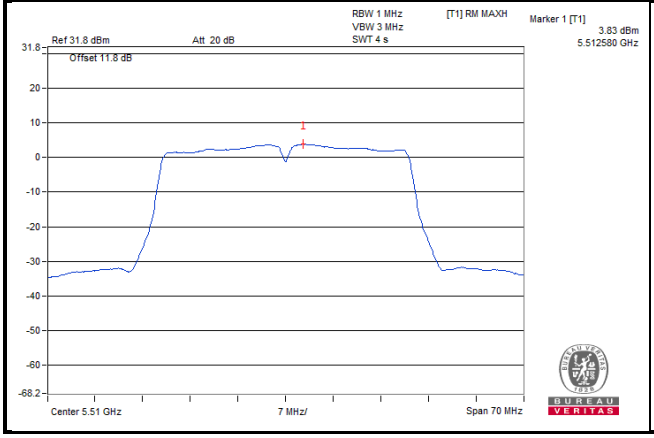
802.11a



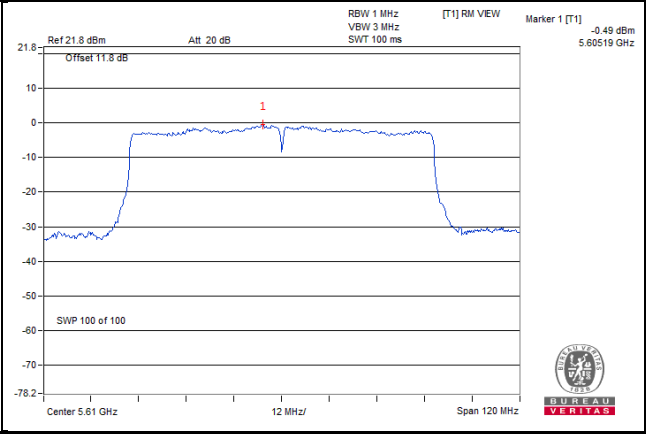
802.11n (HT20)



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	2.83	0.23	3.06	30	Pass
157	5785	3.23	0.23	3.46	30	Pass
165	5825	3.65	0.23	3.88	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	1.45	3.01	0.25	4.71	30	Pass
	157	5785	2.01	3.01	0.25	5.27	30	Pass
	165	5825	2.41	3.01	0.25	5.67	30	Pass
1	149	5745	1.60	3.01	0.25	4.86	30	Pass
	157	5785	1.74	3.01	0.25	5.00	30	Pass
	165	5825	2.65	3.01	0.25	5.91	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 = $10 \log[(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2 / N_{ANT}] = 0.39 < 6$ dBi, so the limit doesn't need to be reduced.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11n (HT40)

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	-1.62	3.01	0.44	1.83	30	Pass
	159	5795	-0.89	3.01	0.44	2.56	30	Pass
1	151	5755	-1.36	3.01	0.44	2.09	30	Pass
	159	5795	-0.80	3.01	0.44	2.65	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 = $10 \log[(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2 / N_{ANT}] = 0.39 < 6$ dBi, so the limit doesn't need to be reduced.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11ac (VHT80)

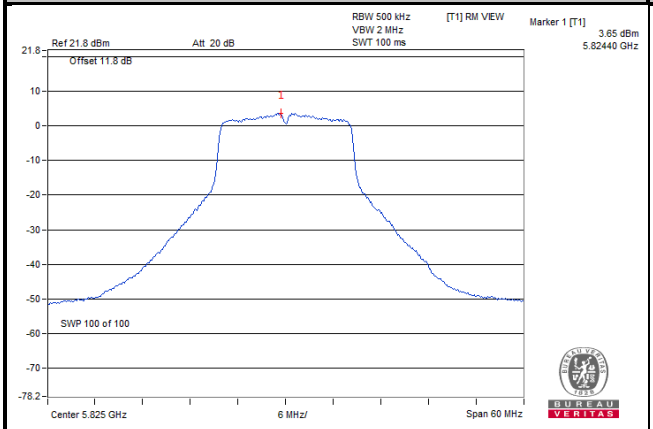
TX Chain	Channel	Frequency (MHz)	PSD (dBm/500 kHz)	10 log (N=2) dB	Duty Factor (dB)	Total PSD with Duty Factor (dBm/500 kHz)	Limit (dBm/500 kHz)	Pass / Fail
0	155	5775	-3.31	3.01	0.84	0.54	30	Pass
1	155	5775	-3.21	3.01	0.84	0.64	30	Pass

Note:

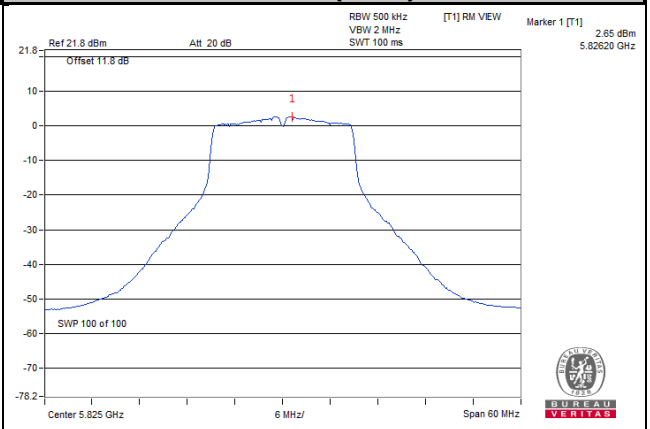
1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2 / N_{ANT}$]= 0.39 < 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

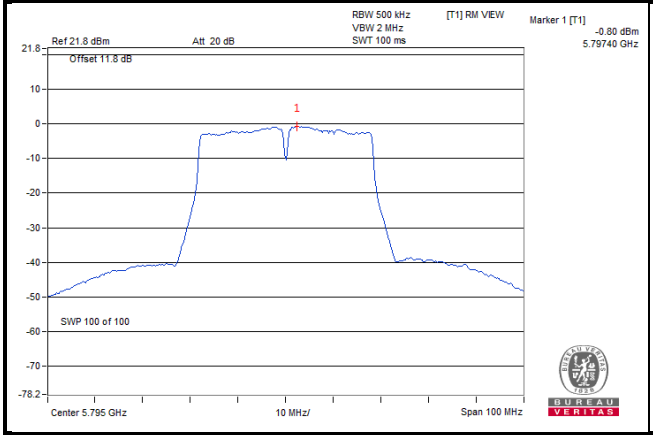
802.11a



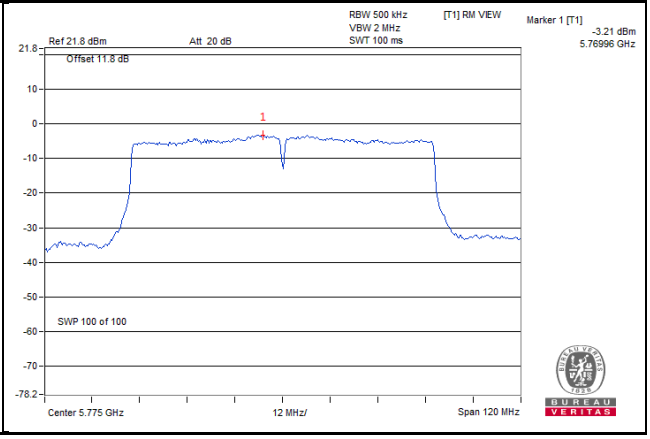
802.11n (HT20)



802.11n (HT40)



802.11ac (VHT80)

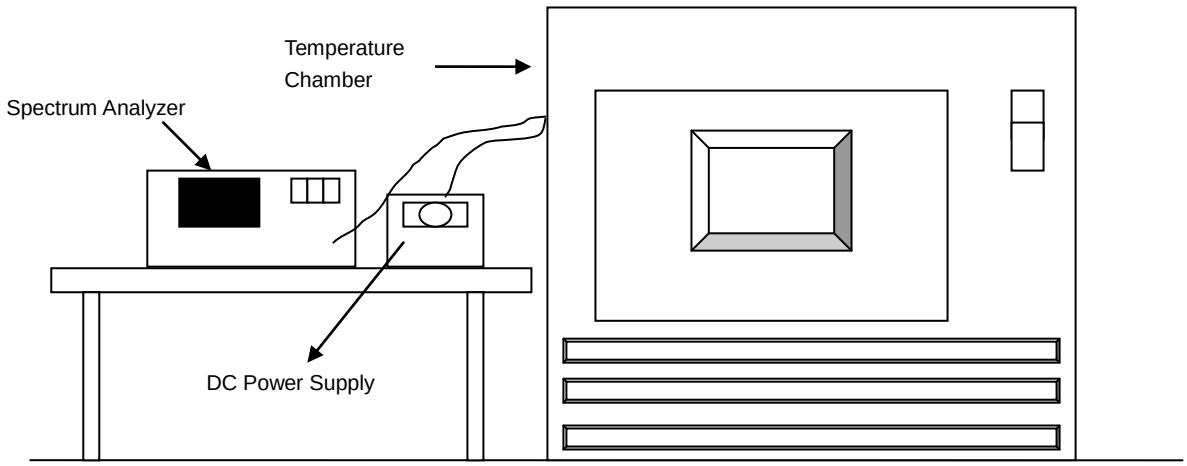


4.5 Frequency Stability

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)
50	3.85	5180.0166	3.20000	5180.0125	2.41000	5180.0166	3.20000	5180.0172	3.32000
40	3.85	5179.9788	-4.09000	5179.9805	-3.76000	5179.9786	-4.13000	5179.9796	-3.94000
30	3.85	5179.9982	-0.35000	5179.9951	-0.95000	5179.9957	-0.83000	5179.9998	-0.04000
20	3.85	5180.0001	0.02000	5179.9995	-0.10000	5179.9976	-0.46000	5179.9962	-0.73000
10	3.85	5180.0069	1.33000	5180.0074	1.43000	5180.0057	1.10000	5180.0045	0.87000
0	3.85	5180.0057	1.10000	5180.0041	0.79000	5180.0038	0.73000	5180.0044	0.85000
-10	3.85	5179.9915	-1.64000	5179.9896	-2.01000	5179.9938	-1.20000	5179.9913	-1.68000
-20	3.85	5180.0059	1.14000	5180.005	0.97000	5180.0022	0.42000	5180.0035	0.68000
-30	3.85	5179.9943	-1.10000	5179.9956	-0.85000	5179.9963	-0.71000	5179.9989	-0.21000

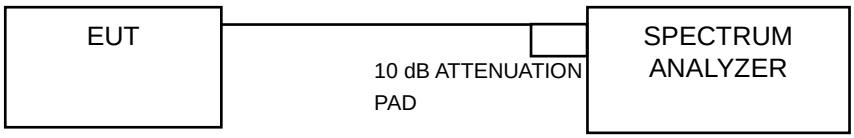
Frequency Stability Versus Temp.									
Operating Frequency: 5180 MHz									
Temp. (℃)	Power Supply (Vdc)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)
20	4.4275	5180.0006	0.12000	5179.9985	-0.29000	5179.997	-0.58000	5179.9968	-0.62000
	3.85	5180.0001	0.02000	5179.9995	-0.10000	5179.9976	-0.46000	5179.9962	-0.73000
	3.2725	5180.0006	0.12000	5179.9986	-0.27000	5179.9968	-0.62000	5179.9958	-0.81000

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	15.58	0.5	Pass
157	5785	15.58	0.5	Pass
165	5825	15.38	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	16.18	15.49	0.5	Pass
157	5785	15.14	15.17	0.5	Pass
165	5825	16.83	15.50	0.5	Pass

802.11n (HT40)

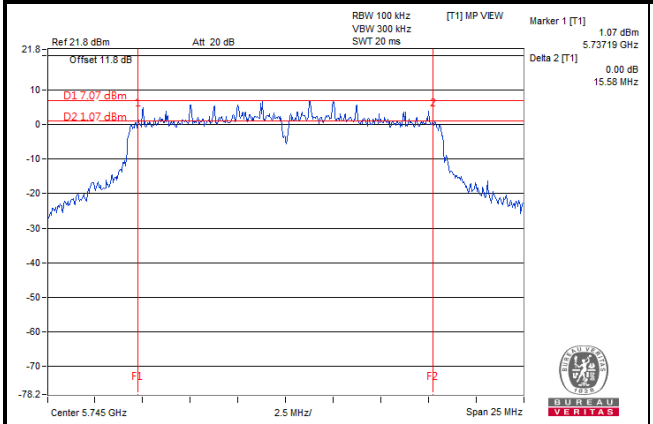
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
151	5755	35.26	35.28	0.5	Pass
159	5795	35.27	35.27	0.5	Pass

802.11ac (VHT80)

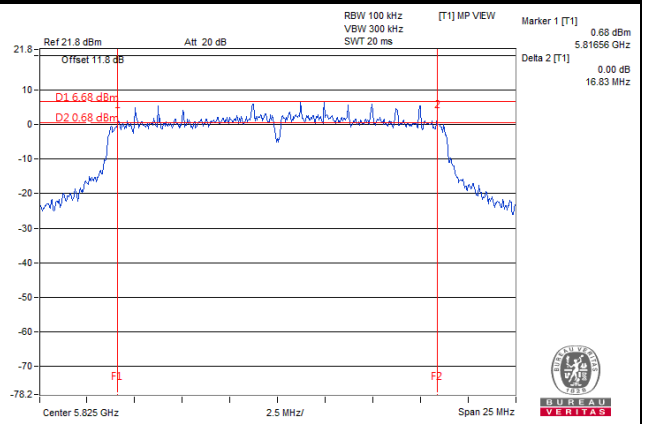
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
155	5775	75.41	75.47	0.5	Pass

Spectrum Plot of Worst Value

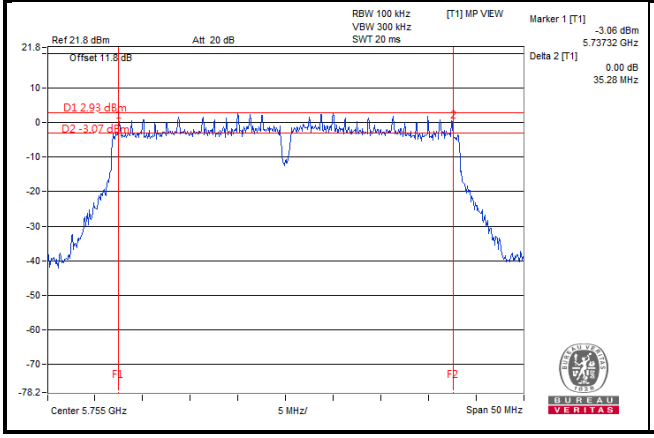
802.11a



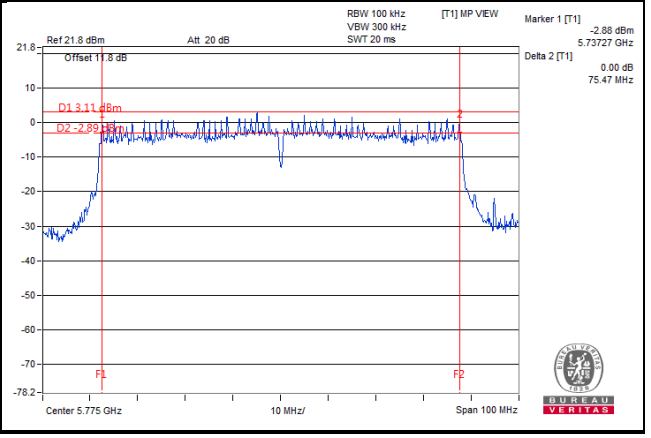
802.11n (HT20)



802.11n (HT40)



802.11ac (VHT80)



5 Pictures of Test Arrangements

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

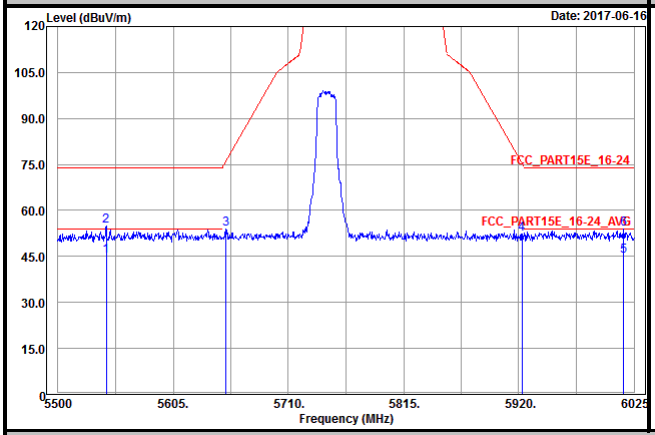
Annex A- Radiated Out of Band Emisison (OOBE) Measurement (For U-NII-3 band)

Mode A

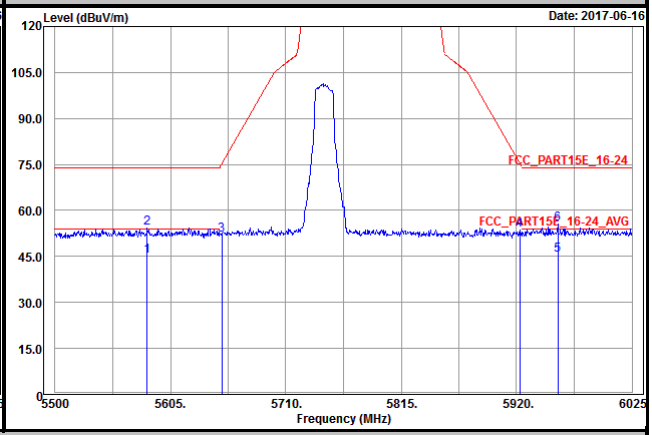
802.11a

Ch 149

Horizontal

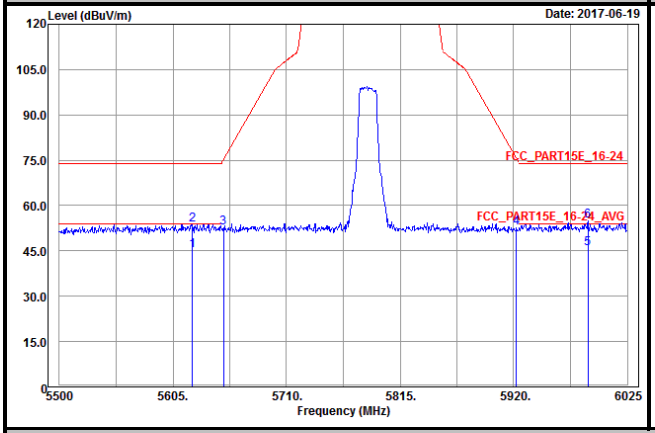


Vertical

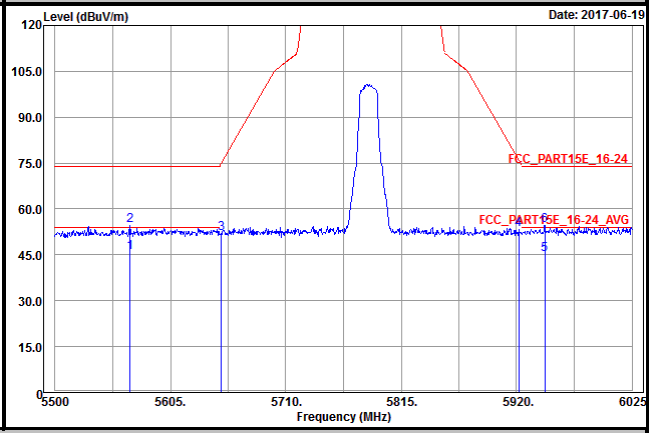


Ch 157

Horizontal

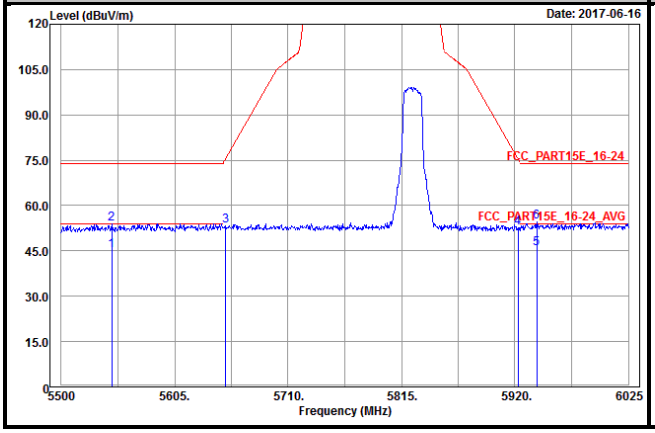


Vertical

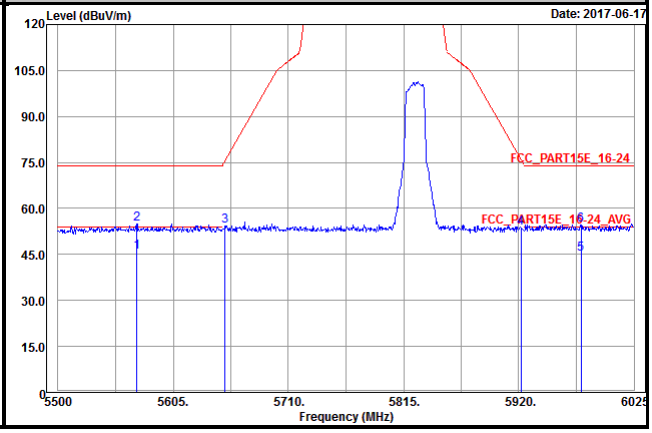


Ch 165

Horizontal



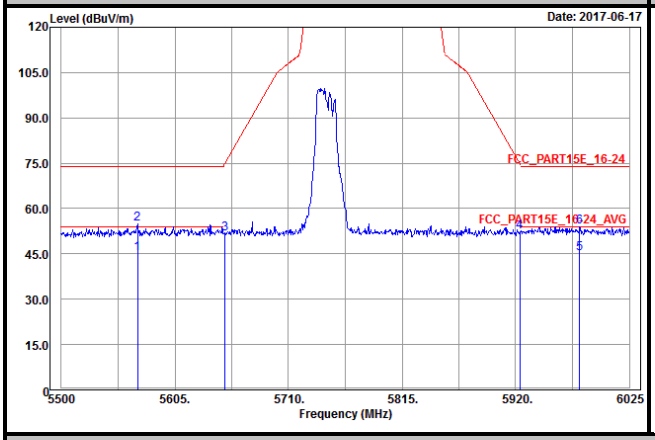
Vertical



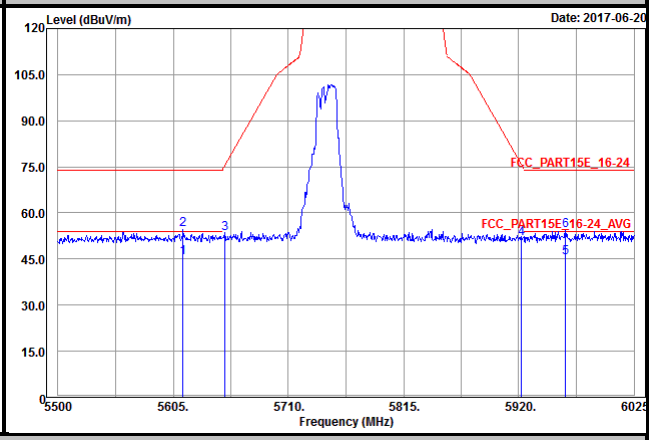
802.11n (HT20)

Ch 149

Horizontal

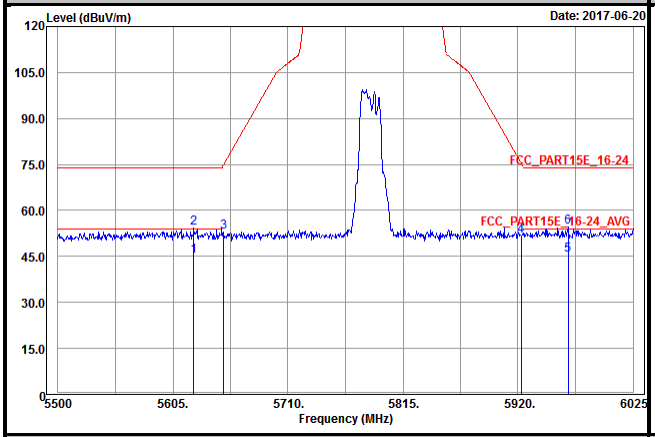


Vertical

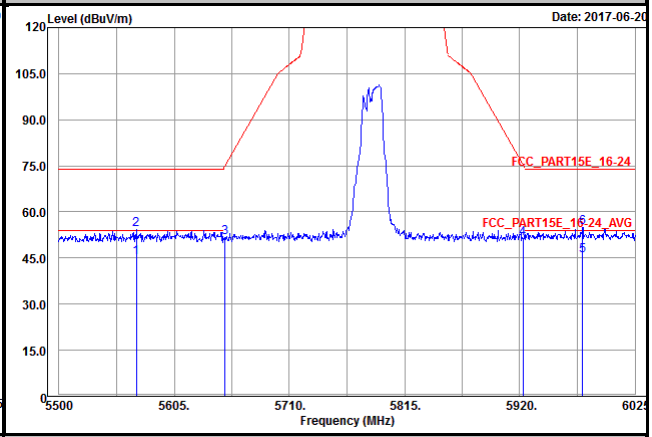


Ch 157

Horizontal

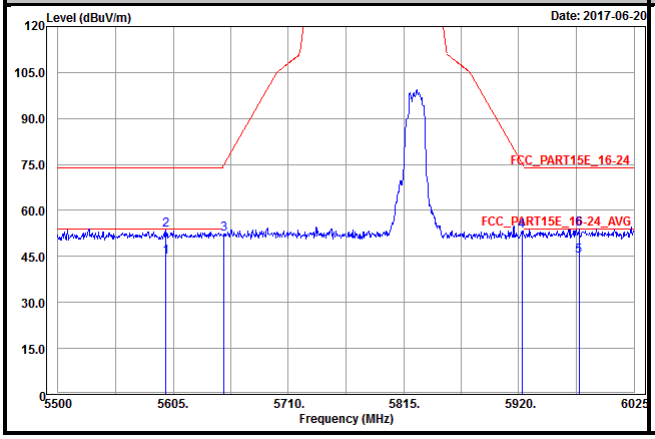


Vertical

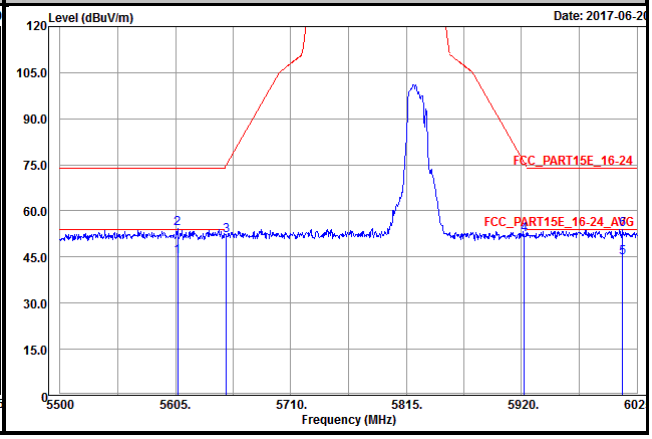


Ch 165

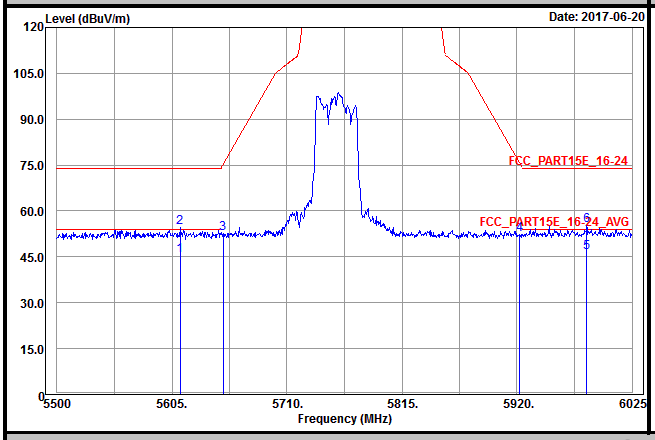
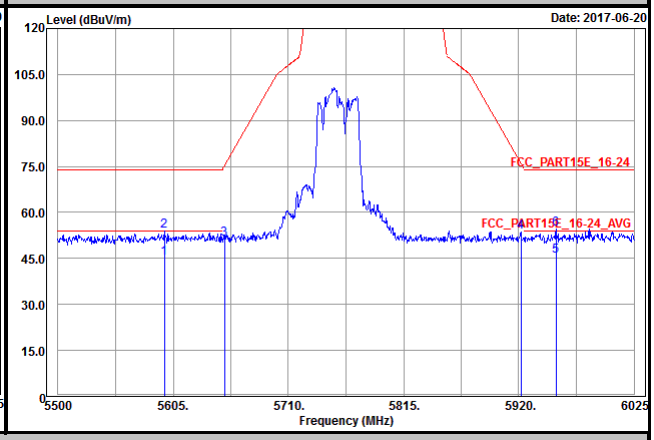
Horizontal

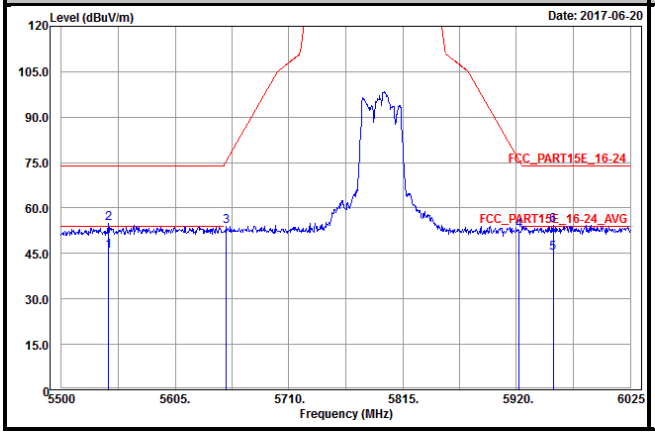
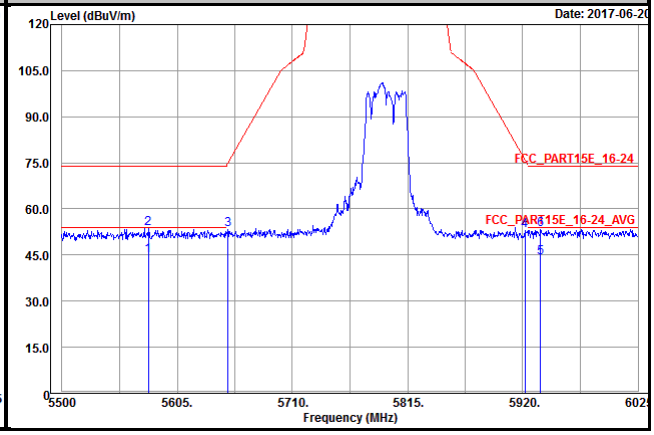


Vertical

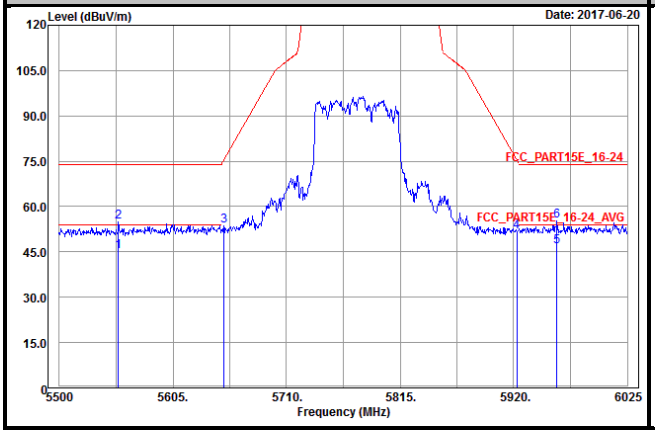
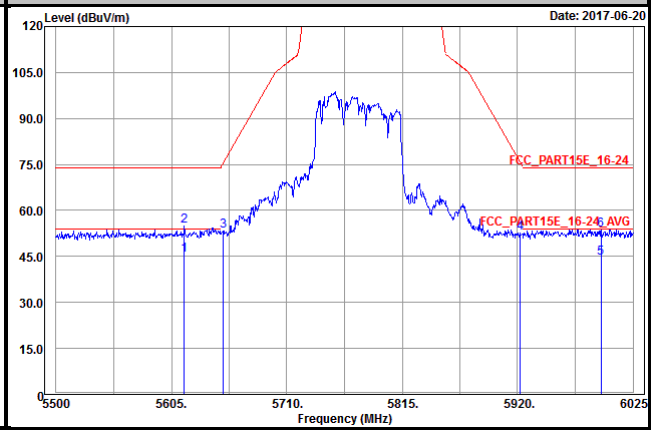


802.11n (HT40)

Ch 151	
Horizontal	Vertical
	

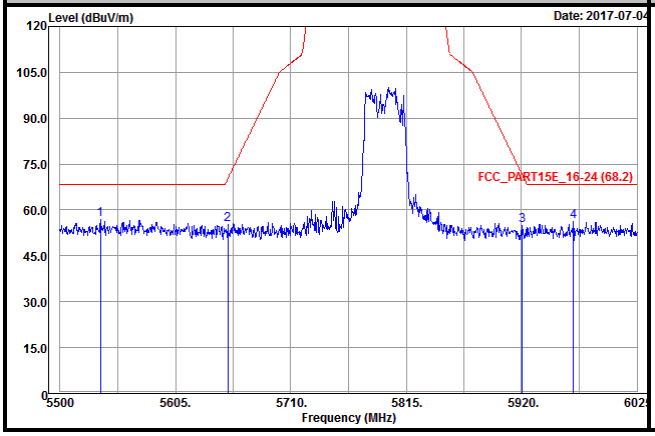
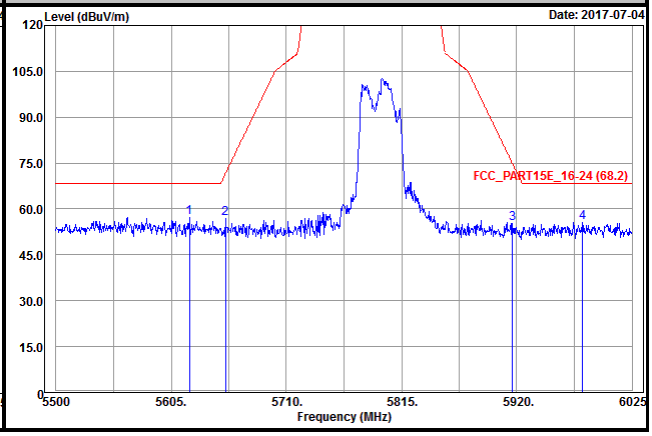
Ch 159	
Horizontal	Vertical
	

802.11ac (VHT80)

Ch 155	
Horizontal	Vertical
	

Mode B

802.11n (HT40)

Ch 159	
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.

--- END ---