

FCC Test Report

Report No.: RF151109C19-4

FCC ID: QHQ-20430250

Test Model: Link Box PLUS

Received Date: Nov. 09, 2015

Test Date: Nov. 13, 2015 ~ Dec. 21, 2015

Issued Date: Dec. 29, 2015

Applicant: LAERDAL MEDICAL AS

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Release Control Record

Issue No.	Description	Date Issued
RF151109C19-4	Original Release	Dec. 29, 2015

1 Certificate of Conformity

Product: Link Box PLUS

Brand: Laerdal Medical AS

Test Model: Link Box PLUS

Sample Status: Identical Prototype

Applicant: LAERDAL MEDICAL AS

Test Date: Nov. 13, 2015 ~ Dec. 21, 2015

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 :

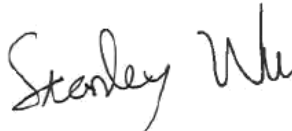


Date:

Dec. 29, 2015

Ivonne Wu / Supervisor

Approved by :



Date:

Dec. 29, 2015

Stanley Wu / Assistant Manager

2 Summary of Test Results

47 CFR FCC Part 15, Subpart E (Section 15.407)			
FCC Clause	Test Item	Result	Remarks
15.407(b)(6)	AC Power Conducted Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -18.15 dB at 24.00100 MHz.
15.407(b) (1/2/3/4/6)	Radiated Emissions & Band Edge Measurement	Pass	Meet the requirement of limit. Minimum passing margin is 1.00 dB at 15900 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.

2.1 Measurement Uncertainty

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

Measurement	Frequency	Expanded Uncertainty (k=2) (±)
Conducted Emissions at mains ports	150 kHz ~ 30 MHz	2.44 dB
Radiated Emissions up to 1 GHz	30 MHz ~ 200 MHz	2.93 dB
	200 MHz ~ 1000 MHz	2.95 dB
Radiated Emissions above 1 GHz	1 GHz ~ 18 GHz	2.26 dB
	18 GHz ~ 40 GHz	1.94 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	Link Box PLUS
Brand	Laerdal Medical AS
Test Model	Link Box PLUS
Status of EUT	Identical Prototype
Power Supply Rating	12 Vdc (adapter)
Modulation Type	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 MCS7
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) 5260 ~ 5320 MHz: 4 for 802.11a, 802.11n (HT20) 2 for 802.11n (HT40) 5500 ~ 5700 MHz: 11 for 802.11a, 802.11n (HT20) 5 for 802.11n (HT40) 5745 ~ 5825 MHz: 5 for 802.11a, 802.11n (HT20) 2 for 802.11n (HT40)
Output Power	19.42 mW for 5180 ~ 5240 MHz 18.47 mW for 5260 ~ 5320 MHz 27.72 mW for 5500 ~ 5700 MHz 29.78 mW for 5745 ~ 5825 MHz
Antenna Type	PCB antenna with 1.78 dBi gain (5180 ~ 5240 MHz) PCB antenna with 1.78 dBi gain (5260 ~ 5320 MHz) PCB antenna with -1.59 dBi gain (5500 ~ 5700 MHz) PCB antenna with -0.37 dBi gain (5745 ~ 5825 MHz)
Antenna Connector	N/A
Accessory Device	Refer to Note as below
Data Cable Supplied	Refer to Note as below

Note:

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

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

- The EUT contains following accessory devices.

Product	Brand	Model	Description
Adapter	FSP	FSP040-RHAN2	I/P: 100-240 Vac, 50/60 Hz, 1.5 A O/P: 12 Vdc, 3.33 A 1.15m non-shielded cable w/ one core

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

3.2 Description of Test Modes

FOR 5180 ~ 5240 MHz

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

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

2 channels are provided for 802.11n (HT40):

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

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

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		

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

3.2.1 Test Mode Applicability and Tested Channel Detail

EUT Configure Mode	Applicable To				Description
	RE $\geq$ 1G	RE<1G	PLC	APCM	
-	√	√	√	√	-

Where **RE $\geq$ 1G**: Radiated Emission above 1 GHz

RE<1G: Radiated Emission below 1 GHz

PLC: Power Line Conducted Emission

APCM: Antenna Port Conducted Measurement

NOTE:

1. The EUT had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on **Z-plane** for 5180-5240 MHz & 5260-5320 MHz, **Y-plane** for 5500-5700 MHz & 5745-5825 MHz for 1TX, **X-plane** for 5500-5700 MHz for 2TX, and **Z-plane** for 5745-5825 MHz for 2TX.

2. "-" means no effect.

Radiated Emission Test (Above 1 GHz):

☒ Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates and antenna ports (if EUT with antenna diversity architecture).

☒ Following channel(s) was (were) selected for the final test as listed below.

EUT Configure Mode	Mode	Frequency Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
-	802.11a	5180-5240	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
-	802.11a	5260-5320	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
-	802.11a	5500-5700	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
-	802.11a	5745-5825	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

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	Mode	Frequency Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
-	802.11a	5180-5240	36 to 48	36	OFDM	BPSK	6.0
-	802.11a	5260-5320	52 to 64	60	OFDM	BPSK	6.0
-	802.11a	5500-5700	100 to 140	100	OFDM	BPSK	6.0
-	802.11n (HT40)	5745-5825	151 to 159	151	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	Mode	Frequency Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
-	802.11a	5260-5320	52 to 64	60	OFDM	BPSK	6.0

Antenna Port Conducted Measurement:

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

EUT Configure Mode	Mode	Frequency Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
-	802.11a	5180-5240	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
-	802.11a	5260-5320	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
-	802.11a	5500-5700	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
-	802.11a	5745-5825	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

Test Condition:

Applicable To	Environmental Conditions	Input Power	Tested by
RE≥1G	25 deg. C, 65 % RH	120 Vac, 60 Hz	Gavin Wu
RE<1G	25 deg. C, 65 % RH	120 Vac, 60 Hz	Gavin Wu
PLC	25 deg. C, 65 % RH	120 Vac, 60 Hz	Toby Tian
APCM	25 deg. C, 65 % RH	12 Vdc	Taylor Liu

3.3 Duty Cycle of Test Signal

<1TX>

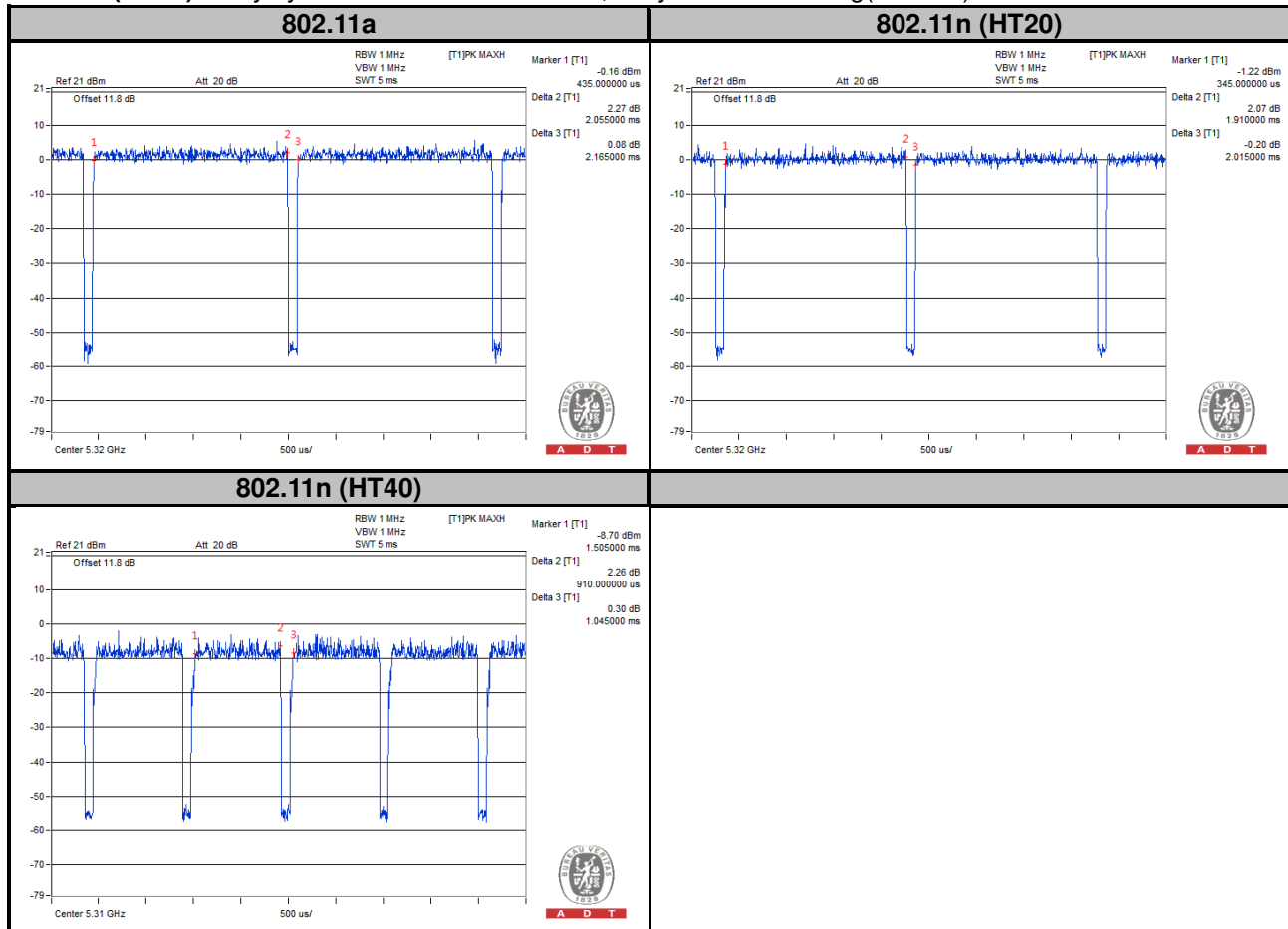
MODULATION TYPE: BPSK

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

802.11a: Duty cycle = $2.055/2.165 = 0.949$, Duty factor = $10 * \log(1/0.949) = 0.23$

802.11n (HT20): Duty cycle = $1.910/2.015 = 0.948$, Duty factor = $10 * \log(1/0.948) = 0.23$

802.11n (HT40): Duty cycle = $0.910/1.045 = 0.871$, Duty factor = $10 * \log(1/0.871) = 0.60$



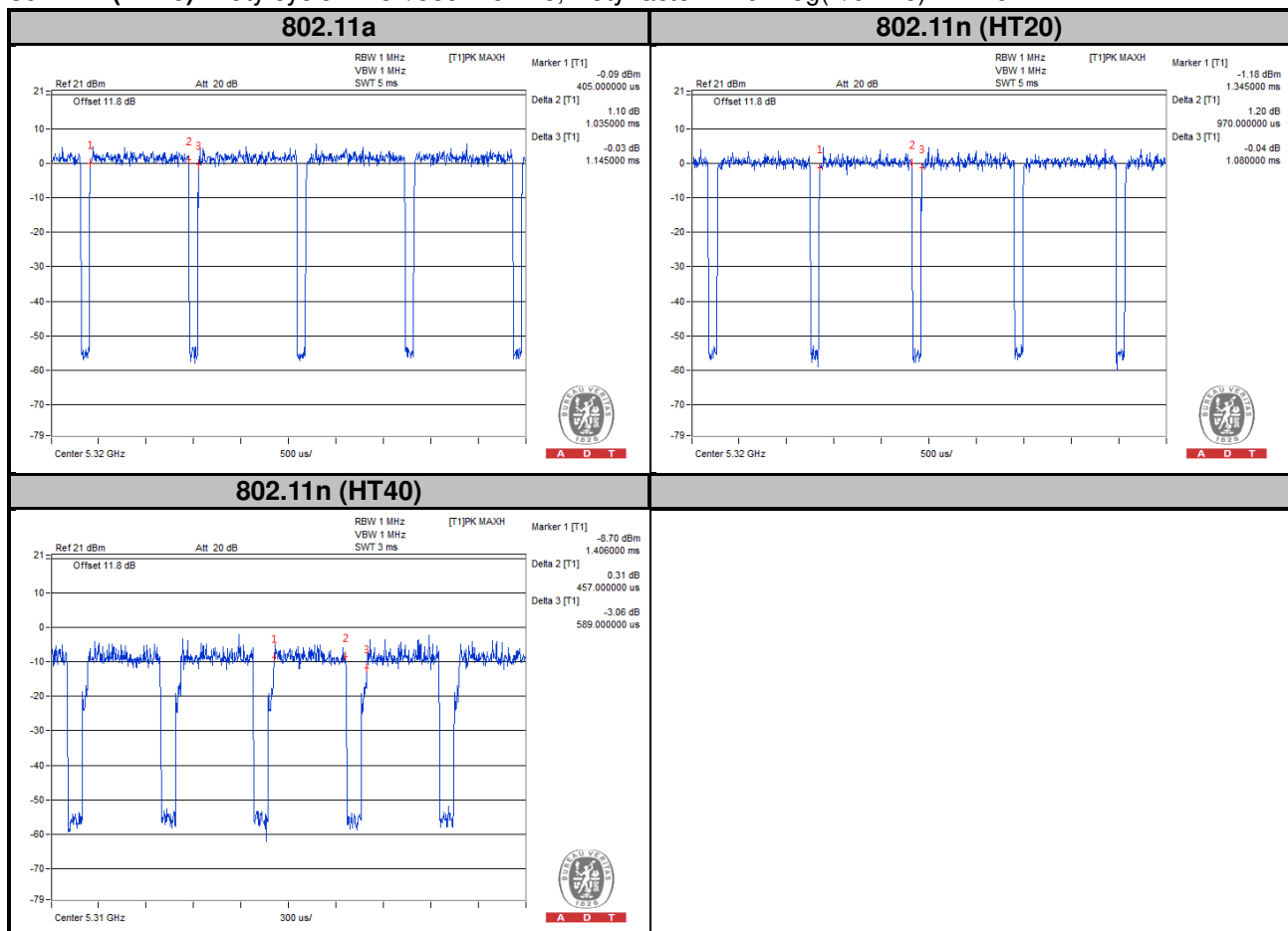
MODULATION TYPE: QPSK

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

802.11a: Duty cycle = $1.035/1.145 = 0.904$, Duty factor = $10 * \log(1/0.904) = 0.44$

802.11n (HT20): Duty cycle = $0.970/1.080 = 0.898$, Duty factor = $10 * \log(1/0.898) = 0.47$

802.11n (HT40): Duty cycle = $457/589 = 0.776$, Duty factor = $10 * \log(1/0.776) = 1.10$



MODULATION TYPE: 16QAM

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

802.11a: Duty cycle = $520/630 = 0.825$, Duty factor = $10 * \log(1/0.825) = 0.83$

802.11n (HT20): Duty cycle = $500/605 = 0.826$, Duty factor = $10 * \log(1/0.826) = 0.83$

802.11n (HT40): Duty cycle = $229/363 = 0.631$, Duty factor = $10 * \log(1/0.631) = 2.00$



MODULATION TYPE: 64QAM

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

802.11a: Duty cycle = $268/378 = 0.709$, Duty factor = $10 * \log(1/0.709) = 1.49$

802.11n (HT20): Duty cycle = $264/377 = 0.700$, Duty factor = $10 * \log(1/0.700) = 1.55$

802.11n (HT40): Duty cycle = $119/251 = 0.474$, Duty factor = $10 * \log(1/0.474) = 3.24$



<2TX>

MODULATION TYPE: BPSK

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

802.11a: Duty cycle = $2.048/2.160 = 0.948$, Duty factor = $10 * \log(1/0.948) = 0.23$

802.11n (HT20): Duty cycle = $1.891/2.011 = 0.940$, Duty factor = $10 * \log(1/0.940) = 0.27$

802.11n (HT40): Duty cycle = $929.49/1033.65 = 0.899$, Duty factor = $10 * \log(1/0.899) = 0.46$



MODULATION TYPE: QPSK

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

802.11a: Duty cycle = $1.022/1.135 = 0.900$, Duty factor = $10 * \log(1/0.900) = 0.45$

802.11n (HT20): Duty cycle = $945.51/1065.71 = 0.887$, Duty factor = $10 * \log(1/0.887) = 0.52$

802.11n (HT40): Duty cycle = $472.76/584.94 = 0.808$, Duty factor = $10 * \log(1/0.808) = 0.92$



MODULATION TYPE: 16QAM

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

802.11a: Duty cycle = $509.62/629.81 = 0.809$, Duty factor = $10 * \log(1/0.809) = 0.92$

802.11n (HT20): Duty cycle = $480.77/592.95 = 0.811$, Duty factor = $10 * \log(1/0.811) = 0.91$

802.11n (HT40): Duty cycle = $245.19/350.96 = 0.699$, Duty factor = $10 * \log(1/0.699) = 1.56$



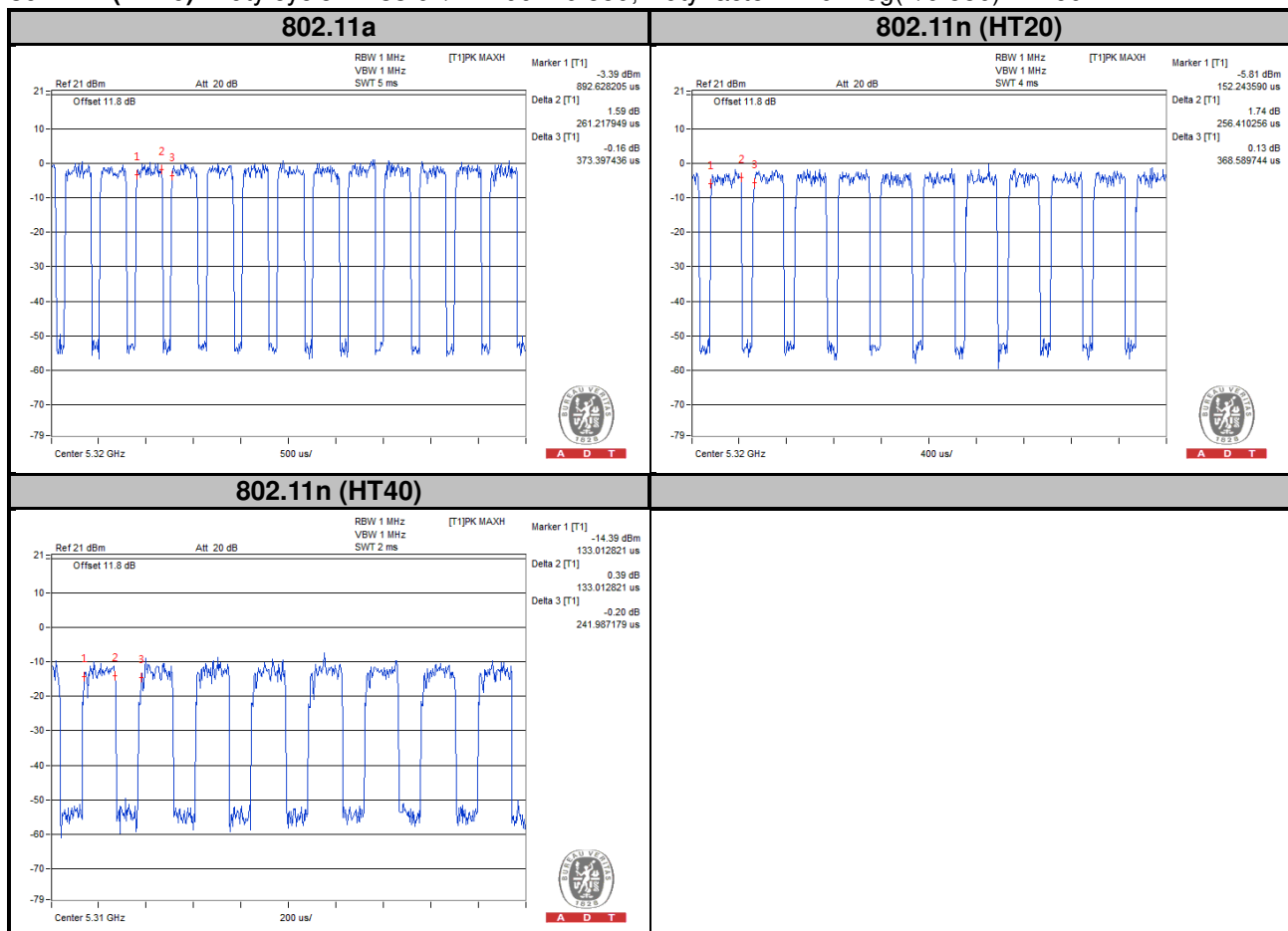
MODULATION TYPE: 64QAM

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

802.11a: Duty cycle = $261.22/373.40 = 0.700$, Duty factor = $10 * \log(1/0.700) = 1.55$

802.11n (HT20): Duty cycle = $256.41/368.59 = 0.696$, Duty factor = $10 * \log(1/0.696) = 1.58$

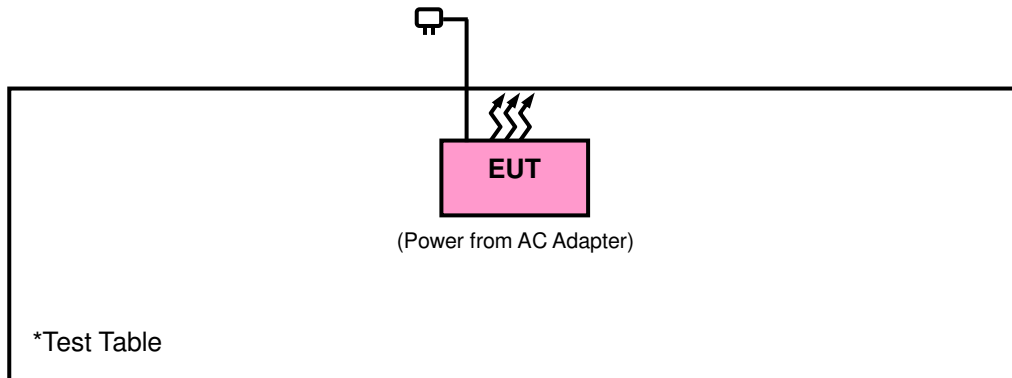
802.11n (HT40): Duty cycle = $133.01/241.99 = 0.550$, Duty factor = $10 * \log(1/0.550) = 2.60$



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 v01

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:

- The lower limit shall apply at the transition frequencies.
- Emission level (dBuV/m) = 20 log Emission level (uV/m).
- 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 v01	Field Strength at 3 m	
	PK: 74 (dBμV/m)	AV: 54 (dBμV/m)
Applicable To	EIRP Limit	Equivalent Field Strength at 3 m
15.407(b)(1)	PK: -27 (dBm/MHz)	PK: 68.2 (dBμV/m)
15.407(b)(2)		
15.407(b)(3)		
15.407(b)(4)	PK: -27 (dBm/MHz) ^{*1} PK: -17 (dBm/MHz) ^{*2}	PK: 68.2 (dBμV/m) ^{*1} PK: 78.2 (dBμV/m) ^{*2}

NOTE: ^{*1} beyond 10 MHz of the band edge ^{*2} within 10 MHz of band edge

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

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

4.1.3 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Date of Calibration	Due Date of Calibration
Test Receiver Agilent	N9038A	MY51210203	Jan. 21, 2015	Jan. 21, 2016
Spectrum Analyzer Agilent	N9010A	MY52220207	Sep. 11, 2015	Sep. 10, 2016
Spectrum Analyzer R&S	FSW26	102023	Aug. 21, 2015	Aug. 20, 2016
BILOG Antenna SCHWARZBECK	VULB9168	9168-472	Feb. 04, 2015	Feb. 04, 2016
HORN Antenna SCHWARZBECK	BBHA 9120 D	9120D-969	Feb. 09, 2015	Feb. 09, 2016
HORN Antenna SCHWARZBECK	BBHA 9170	9170-480	Feb. 04, 2015	Feb. 04, 2016
Loop Antenna	EM-6879	269	Jul. 31, 2015	Jul. 30, 2016
Preamplifier Agilent	8447D	2944A10628	Oct. 15, 2015	Oct. 14, 2016
Preamplifier EMCI	EMC 184045	980116	Jan. 09, 2015	Jan. 08, 2016
Preamplifier EMCI	EMC 330H	980112	Dec. 27, 2014	Dec. 26, 2015
Power Meter Anritsu	ML2495A	1232002	Sep. 21, 2015	Sep. 20, 2016
Power Sensor Anritsu	MA2411B	1207325	Sep. 21, 2015	Sep. 20, 2016
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	309219/4 2950114	Oct. 12, 2015	Oct. 11, 2016
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	250130/4	Oct. 12, 2015	Oct. 11, 2016
RF Coaxial Cable Worken	8D-FB	Cable-Ch10-01	Oct. 12, 2015	Oct. 11, 2016
Software BV ADT	E3 6.120103	NA	NA	NA
Antenna Tower MF	MFA-440H	NA	NA	NA
Turn Table MF	MFT-201SS	NA	NA	NA
Antenna Tower & Turn Table Controller MF	MF-7802	NA	NA	NA

- Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in HwaYa Chamber 10.
3. The horn antenna and preamplifier (model: EMC 184045) are used only for the measurement of emission frequency above 1 GHz if tested.
4. The FCC Site Registration No. is 690701.
5. The IC Site Registration No. is IC7450F-10.

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:

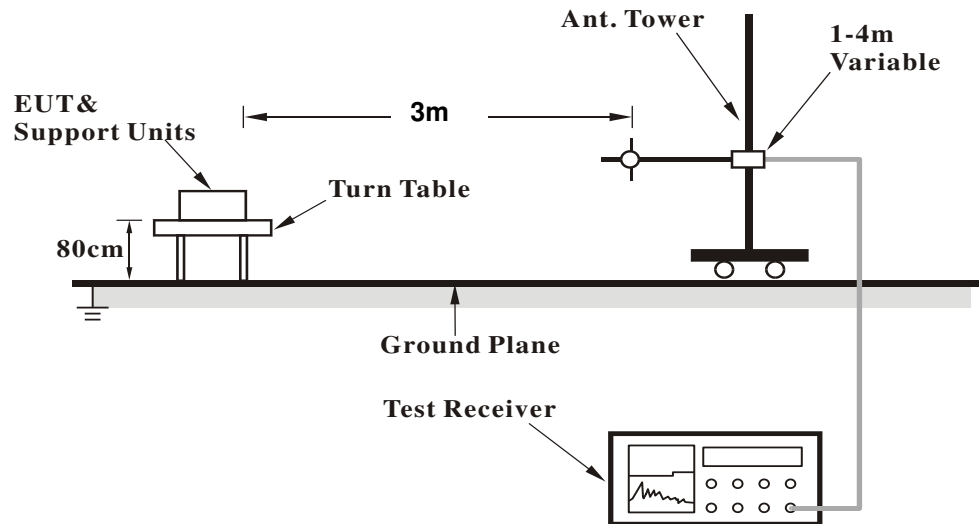
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz for Quasi-peak detection (QP) at frequency below 1 GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1 GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for RMS Average (Duty cycle < 98 %) for Average detection (AV) at frequency above 1 GHz, then the measurement results was added to a correction factor ($10 \log(1/\text{duty cycle})$).
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

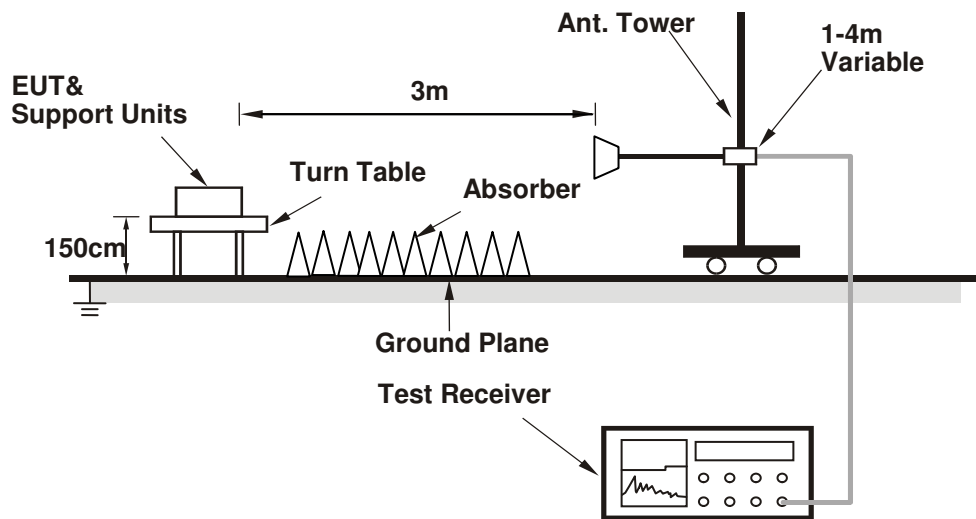
No deviation.

4.1.6 Test Set Up

<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

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

4.1.8 Test Results

ABOVE 1 GHz DATA :

<1TX>

802.11a

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

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
5150	51.57	51.37	54	-2.43	31.32	6.2	37.32	133	46	Average
5150	68.94	68.74	74	-5.06	31.32	6.2	37.32	133	46	Peak
5180	97.2	96.97			31.35	6.22	37.34	133	46	Average
5180	106.8	106.57			31.35	6.22	37.34	133	46	Peak
5384	40.56	39.92	54	-13.44	31.51	6.31	37.18	133	46	Average
5384	60.64	60	74	-13.36	31.51	6.31	37.18	133	46	Peak
10360	54.09	57.99	68.2	-14.11	39.19	9.05	52.14	167	166	Peak
15540	52.1	52.82	54	-1.9	38.1	12.53	51.35	194	60	Average
15540	63.73	64.45	74	-10.27	38.1	12.53	51.35	194	60	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
5142	46.68	46.46	54	-7.32	31.32	6.2	37.3	242	65	Average
5142	64.24	64.02	74	-9.76	31.32	6.2	37.3	242	65	Peak
5180	93.53	93.3			31.35	6.22	37.34	242	65	Average
5180	102.98	102.75			31.35	6.22	37.34	242	65	Peak
5378	39.21	38.57	54	-14.79	31.51	6.31	37.18	242	65	Average
5378	60.27	59.63	74	-13.73	31.51	6.31	37.18	242	65	Peak
10360	53.94	57.84	68.2	-14.26	39.19	9.05	52.14	206	114	Peak
15540	52.95	53.67	54	-1.05	38.1	12.53	51.35	180	20	Average
15540	64.98	65.7	74	-9.02	38.1	12.53	51.35	180	20	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 5180 MHz: Fundamental frequency.
- 10360 MHz: 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	Gavin Wu

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
5140	46.31	46.09	54	-7.69	31.32	6.2	37.3	102	55	Average
5140	60.96	60.74	74	-13.04	31.32	6.2	37.3	102	55	Peak
5220	99.77	99.52			31.37	6.24	37.36	102	55	Average
5220	109.04	108.79			31.37	6.24	37.36	102	55	Peak
5372	46.58	45.96	54	-7.42	31.49	6.31	37.18	102	55	Average
5372	60.48	59.86	74	-13.52	31.49	6.31	37.18	102	55	Peak
10440	53.38	57.48	68.2	-14.82	39.29	9.09	52.48	188	135	Peak
15660	51.9	54.76	54	-2.1	37.77	12.52	53.15	192	64	Average
15660	64.46	67.32	74	-9.54	37.77	12.52	53.15	192	64	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
5038	42.8	42.65	54	-11.2	31.24	6.15	37.24	221	51	Average
5038	59.88	59.73	74	-14.12	31.24	6.15	37.24	221	51	Peak
5220	97.46	97.21			31.37	6.24	37.36	221	51	Average
5220	106.72	106.47			31.37	6.24	37.36	221	51	Peak
5366	43.67	43.05	54	-10.33	31.49	6.31	37.18	221	51	Average
5366	60.27	59.65	74	-13.73	31.49	6.31	37.18	221	51	Peak
10440	55.02	59.12	68.2	-13.18	39.29	9.09	52.48	176	79	Peak
15660	52.01	54.87	54	-1.99	37.77	12.52	53.15	206	23	Average
15660	63.47	66.33	74	-10.53	37.77	12.52	53.15	206	23	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 5220 MHz: Fundamental frequency.
- 10440 MHz: 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	Gavin Wu

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
5088	45.29	45.1	54	-8.71	31.27	6.19	37.27	131	46	Average
5088	61.11	60.92	74	-12.89	31.27	6.19	37.27	131	46	Peak
5240	100.09	99.77			31.39	6.25	37.32	131	46	Average
5240	109.42	109.1			31.39	6.25	37.32	131	46	Peak
5388	44.85	44.21	54	-9.15	31.51	6.31	37.18	131	46	Average
5388	61.25	60.61	74	-12.75	31.51	6.31	37.18	131	46	Peak
10480	54.67	58.92	68.2	-13.53	39.37	9.09	52.71	203	119	Peak
15720	50.78	53.66	54	-3.22	37.57	12.52	52.97	190	64	Average
15720	63.36	66.24	74	-10.64	37.57	12.52	52.97	190	64	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	42.34	42.19	54	-11.66	31.25	6.17	37.27	210	53	Average
5070	59.5	59.35	74	-14.5	31.25	6.17	37.27	210	53	Peak
5240	97.32	97			31.39	6.25	37.32	210	53	Average
5240	106.64	106.32			31.39	6.25	37.32	210	53	Peak
5422	42.7	42.03	54	-11.3	31.53	6.32	37.18	210	53	Average
5422	60.17	59.5	74	-13.83	31.53	6.32	37.18	210	53	Peak
10480	55.52	59.77	68.2	-12.68	39.37	9.09	52.71	174	208	Peak
15720	52.09	54.97	54	-1.91	37.57	12.52	52.97	189	18	Average
15720	63.51	66.39	74	-10.49	37.57	12.52	52.97	189	18	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 5240 MHz: Fundamental frequency.
- 10480 MHz: 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	Gavin Wu

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
5106	43.78	43.58	54	-10.22	31.29	6.19	37.28	130	41	Average
5106	60.38	60.18	74	-13.62	31.29	6.19	37.28	130	41	Peak
5260	100.16	99.77			31.41	6.25	37.27	130	41	Average
5260	109.03	108.64			31.41	6.25	37.27	130	41	Peak
5350	43.89	43.3	54	-10.11	31.48	6.29	37.18	130	41	Average
5350	60.72	60.13	74	-13.28	31.48	6.29	37.18	130	41	Peak
15780	52.78	54.24	54	-1.22	37.43	12.5	51.39	166	31	Average
15780	65.7	67.16	74	-8.3	37.43	12.5	51.39	166	31	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
5138	42.33	42.12	54	-11.67	31.31	6.2	37.3	217	66	Average
5138	59.8	59.59	74	-14.2	31.31	6.2	37.3	217	66	Peak
5260	96.96	96.57			31.41	6.25	37.27	217	66	Average
5260	106.36	105.97			31.41	6.25	37.27	217	66	Peak
5412	38.38	37.71	54	-15.62	31.53	6.32	37.18	217	66	Average
5412	60.45	59.78	74	-13.55	31.53	6.32	37.18	217	66	Peak
15780	50.95	52.41	54	-3.05	37.43	12.5	51.39	189	36	Average
15780	62.13	63.59	74	-11.87	37.43	12.5	51.39	189	36	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 5260 MHz: Fundamental frequency.

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	Gavin Wu

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
5116	43.08	42.88	54	-10.92	31.29	6.19	37.28	130	42	Average
5116	60.92	60.72	74	-13.08	31.29	6.19	37.28	130	42	Peak
5300	99.19	98.67			31.44	6.27	37.19	130	42	Average
5300	109.78	109.26			31.44	6.27	37.19	130	42	Peak
5350	51.41	50.82	54	-2.59	31.48	6.29	37.18	130	42	Average
5350	65.86	65.27	74	-8.14	31.48	6.29	37.18	130	42	Peak
15900	53	54.43	54	-1	37.09	12.49	51.01	161	26	Average
15900	65.7	67.13	74	-8.3	37.09	12.49	51.01	161	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
5108	40.58	40.38	54	-13.42	31.29	6.19	37.28	207	68	Average
5108	59.81	59.61	74	-14.19	31.29	6.19	37.28	207	68	Peak
5300	97.37	96.85			31.44	6.27	37.19	207	68	Average
5300	106.64	106.12			31.44	6.27	37.19	207	68	Peak
5350	47.23	46.64	54	-6.77	31.48	6.29	37.18	207	68	Average
5350	62.83	62.24	74	-11.17	31.48	6.29	37.18	207	68	Peak
15900	50.81	52.24	54	-3.19	37.09	12.49	51.01	198	12	Average
15900	62.25	63.68	74	-11.75	37.09	12.49	51.01	198	12	Peak

Remarks:

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

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5148	41.89	41.69	54	-12.11	31.32	6.2	37.32	150	39	Average
5148	59.64	59.44	74	-14.36	31.32	6.2	37.32	150	39	Peak
5320	96.72	96.17			31.45	6.29	37.19	150	39	Average
5320	105.56	105.01			31.45	6.29	37.19	150	39	Peak
5350	52.69	52.1	54	-1.31	31.48	6.29	37.18	150	39	Average
5350	67.9	67.31	74	-6.1	31.48	6.29	37.18	150	39	Peak
10640	46.03	49.48	54	-7.97	39.62	9.2	52.27	187	314	Average
10640	55.73	59.18	74	-18.27	39.62	9.2	52.27	187	314	Peak
15960	52.2	55.37	54	-1.8	36.9	12.49	52.56	162	41	Average
15960	65.1	68.27	74	-8.9	36.9	12.49	52.56	162	41	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	38.99	38.84	54	-15.01	31.25	6.17	37.27	205	67	Average
5070	59.9	59.75	74	-14.1	31.25	6.17	37.27	205	67	Peak
5320	94.43	93.88			31.45	6.29	37.19	205	67	Average
5320	103.54	102.99			31.45	6.29	37.19	205	67	Peak
5350	49.92	49.33	54	-4.08	31.48	6.29	37.18	205	67	Average
5350	65.59	65	74	-8.41	31.48	6.29	37.18	205	67	Peak
10640	46.77	50.22	54	-7.23	39.62	9.2	52.27	195	211	Average
10640	56.74	60.19	74	-17.26	39.62	9.2	52.27	195	211	Peak
15960	50.59	53.76	54	-3.41	36.9	12.49	52.56	190	29	Average
15960	62.53	65.7	74	-11.47	36.9	12.49	52.56	190	29	Peak

Remarks:

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

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
5460	45.69	44.87	54	-8.31	31.56	6.34	37.08	191	23	Average
5460	61.78	60.96	74	-12.22	31.56	6.34	37.08	191	23	Peak
5470	63.14	62.31	68.2	-5.06	31.57	6.34	37.08	191	23	Peak
5500	89.22	88.29			31.6	6.36	37.03	191	23	Average
5500	98.58	97.65			31.6	6.36	37.03	191	23	Peak
5725	59.41	58.13	68.2	-8.79	31.96	6.75	37.43	191	23	Peak
16500	62.63	65.65	68.2	-5.57	38.3	12.68	54	167	20	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
5458	51.47	50.65	54	-2.53	31.56	6.34	37.08	100	54	Average
5458	68.08	67.26	74	-5.92	31.56	6.34	37.08	100	54	Peak
5470	67.11	66.28	68.2	-1.09	31.57	6.34	37.08	100	54	Peak
5500	95.43	94.5			31.6	6.36	37.03	100	54	Average
5500	104.73	103.8			31.6	6.36	37.03	100	54	Peak
5725	57.8	56.52	68.2	-10.4	31.96	6.75	37.43	100	54	Peak
16500	62.36	65.38	68.2	-5.84	38.3	12.68	54	197	23	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 5500 MHz: Fundamental frequency.
- 5470 MHz & 5725 MHz & 16500 MHz: 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	Gavin Wu

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
5352	39.9	39.31	54	-14.1	31.48	6.29	37.18	158	27	Average
5352	60.23	59.64	74	-13.77	31.48	6.29	37.18	158	27	Peak
5470	60.92	60.09	68.2	-7.28	31.57	6.34	37.08	158	27	Peak
5580	88.82	87.78			31.71	6.49	37.16	158	27	Average
5580	98.67	97.63			31.71	6.49	37.16	158	27	Peak
5725	61.16	59.88	68.2	-7.04	31.96	6.75	37.43	158	27	Peak
11160	52.27	55.99	54	-1.73	40.1	9.57	53.39	103	84	Average
11160	62.23	65.95	74	-11.77	40.1	9.57	53.39	103	84	Peak
16740	64.25	64.05	68.2	-3.95	39.6	12.93	52.33	170	30	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	39.62	38.86	54	-14.38	31.55	6.34	37.13	106	49	Average
5442	60.68	59.92	74	-13.32	31.55	6.34	37.13	106	49	Peak
5470	59.69	58.86	68.2	-8.51	31.57	6.34	37.08	106	49	Peak
5580	95.4	94.36			31.71	6.49	37.16	106	49	Average
5580	105.38	104.34			31.71	6.49	37.16	106	49	Peak
5725	60.46	59.18	68.2	-7.74	31.96	6.75	37.43	106	49	Peak
11160	50.99	54.71	54	-3.01	40.1	9.57	53.39	104	135	Average
11160	61.3	65.02	74	-12.7	40.1	9.57	53.39	104	135	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. 5470 MHz & 5725 MHz & 16740 MHz: 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	Gavin Wu

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
5426	39.49	38.77	54	-14.51	31.53	6.32	37.13	145	34	Average
5426	61.38	60.66	74	-12.62	31.53	6.32	37.13	145	34	Peak
5470	59.33	58.5	68.2	-8.87	31.57	6.34	37.08	145	34	Peak
5700	89.76	88.57			31.9	6.69	37.4	145	34	Average
5700	99.46	98.27			31.9	6.69	37.4	145	34	Peak
5725	65.35	64.07	68.2	-2.85	31.96	6.75	37.43	145	34	Peak
11400	48.95	51.21	54	-5.05	39.96	9.91	52.13	100	60	Average
11400	62.36	64.62	74	-11.64	39.96	9.91	52.13	100	60	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
5404	46.5	45.84	54	-7.5	31.52	6.32	37.18	116	54	Average
5404	60.7	60.04	74	-13.3	31.52	6.32	37.18	116	54	Peak
5470	60.1	59.27	68.2	-8.1	31.57	6.34	37.08	116	54	Peak
5700	96.79	95.6			31.9	6.69	37.4	116	54	Average
5700	105.79	104.6			31.9	6.69	37.4	116	54	Peak
5725	67.05	65.77	68.2	-1.15	31.96	6.75	37.43	116	54	Peak
11400	46.95	49.21	54	-7.05	39.96	9.91	52.13	100	257	Average
11400	60.58	62.84	74	-13.42	39.96	9.91	52.13	100	257	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 5700 MHz: Fundamental frequency.
- 5470 MHz & 5725 MHz: 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	Gavin Wu

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
*5714	63.57	62.38	68.2	-4.63	31.93	6.69	37.43	174	34	Peak
*5725	73.39	72.11	78.2	-4.81	31.96	6.75	37.43	174	34	Peak
5745	93.11	91.84			31.99	6.75	37.47	174	34	Average
5745	102.85	101.58			31.99	6.75	37.47	174	34	Peak
*5850	60.88	59.36	78.2	-17.32	32.15	6.88	37.51	174	34	Peak
*5861	61.92	60.29	68.2	-6.28	32.18	6.95	37.5	174	34	Peak
11490	47.61	50.5	54	-6.39	39.91	10.03	52.83	105	297	Average
11490	57.72	60.61	74	-16.28	39.91	10.03	52.83	105	297	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
*5714	65.16	63.97	68.2	-3.04	31.93	6.69	37.43	115	56	Peak
*5725	76.2	74.92	78.2	-2	31.96	6.75	37.43	115	56	Peak
5745	98.38	97.11			31.99	6.75	37.47	115	56	Average
5745	108.54	107.27			31.99	6.75	37.47	115	56	Peak
*5850	60.4	58.88	78.2	-17.8	32.15	6.88	37.51	115	56	Peak
*5861	61.19	59.56	68.2	-7.01	32.18	6.95	37.5	115	56	Peak
11490	48.57	51.46	54	-5.43	39.91	10.03	52.83	100	117	Average
11490	59.86	62.75	74	-14.14	39.91	10.03	52.83	100	117	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 5745 MHz: Fundamental frequency.
- *: 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	Gavin Wu

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
*5714	58.94	57.75	68.2	-9.26	31.93	6.69	37.43	144	34	Peak
*5725	60.56	59.28	78.2	-17.64	31.96	6.75	37.43	144	34	Peak
5785	93.54	92.22			32.04	6.82	37.54	144	34	Average
5785	102.44	101.12			32.04	6.82	37.54	144	34	Peak
*5850	59.49	57.97	78.2	-18.71	32.15	6.88	37.51	144	34	Peak
*5861	59.87	58.24	68.2	-8.33	32.18	6.95	37.5	144	34	Peak
11570	47.14	50.6	54	-6.86	39.78	10.09	53.33	187	296	Average
11570	55.55	59.01	74	-18.45	39.78	10.09	53.33	187	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
*5714	62.94	61.75	68.2	-5.26	31.93	6.69	37.43	114	56	Peak
*5725	60.33	59.05	78.2	-17.87	31.96	6.75	37.43	114	56	Peak
5785	99.15	97.83			32.04	6.82	37.54	114	56	Average
5785	108.45	107.13			32.04	6.82	37.54	114	56	Peak
*5850	60.07	58.55	78.2	-18.13	32.15	6.88	37.51	114	56	Peak
*5861	59.67	58.04	68.2	-8.53	32.18	6.95	37.5	114	56	Peak
11570	46.62	50.08	54	-7.38	39.78	10.09	53.33	102	112	Average
11570	54.36	57.82	74	-19.64	39.78	10.09	53.33	102	112	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 5785 MHz: Fundamental frequency.
- *: 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	Gavin Wu

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
*5714	60.41	59.22	68.2	-7.79	31.93	6.69	37.43	130	32	Peak
*5725	58.9	57.62	78.2	-19.3	31.96	6.75	37.43	130	32	Peak
5825	93.19	91.72			32.12	6.88	37.53	130	32	Average
5825	102.38	100.91			32.12	6.88	37.53	130	32	Peak
*5850	68.14	66.62	78.2	-10.06	32.15	6.88	37.51	130	32	Peak
*5861	62.42	60.79	68.2	-5.78	32.18	6.95	37.5	130	32	Peak
11650	45.42	48.97	54	-8.58	39.65	10.15	53.35	186	295	Average
11650	56.98	60.53	74	-17.02	39.65	10.15	53.35	186	295	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
*5714	59.07	57.88	68.2	-9.13	31.93	6.69	37.43	114	59	Peak
*5725	60.91	59.63	78.2	-17.29	31.96	6.75	37.43	114	59	Peak
5825	99.33	97.86			32.12	6.88	37.53	114	59	Average
5825	109.19	107.72			32.12	6.88	37.53	114	59	Peak
*5850	73.82	72.3	78.2	-4.38	32.15	6.88	37.51	114	59	Peak
*5861	66.86	65.23	68.2	-1.34	32.18	6.95	37.5	114	59	Peak
11650	44.06	47.61	54	-9.94	39.65	10.15	53.35	100	290	Average
11650	53.36	56.91	74	-20.64	39.65	10.15	53.35	100	290	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 5825 MHz: Fundamental frequency.
- *: Out of restricted band

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	Gavin Wu

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5148	52.77	52.57	54	-1.23	31.32	6.2	37.32	125	44	Average
5148	68.32	68.12	74	-5.68	31.32	6.2	37.32	125	44	Peak
5180	97.53	97.3			31.35	6.22	37.34	125	44	Average
5180	106.43	106.2			31.35	6.22	37.34	125	44	Peak
5456	40.53	39.71	54	-13.47	31.56	6.34	37.08	125	44	Average
5456	59.78	58.96	74	-14.22	31.56	6.34	37.08	125	44	Peak
10360	55.31	59.21	68.2	-12.89	39.19	9.05	52.14	201	197	Peak
15540	52.45	53.17	54	-1.55	38.1	12.53	51.35	195	63	Average
15540	64.52	65.24	74	-9.48	38.1	12.53	51.35	195	63	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
5150	51.36	51.16	54	-2.64	31.32	6.2	37.32	224	57	Average
5150	67.9	67.7	74	-6.1	31.32	6.2	37.32	224	57	Peak
5180	94.14	93.91			31.35	6.22	37.34	224	57	Average
5180	103.78	103.55			31.35	6.22	37.34	224	57	Peak
5350	39.58	38.99	54	-14.42	31.48	6.29	37.18	224	57	Average
5350	60.43	59.84	74	-13.57	31.48	6.29	37.18	224	57	Peak
10360	54.04	57.94	68.2	-14.16	39.19	9.05	52.14	187	154	Peak
15540	52.94	53.66	54	-1.06	38.1	12.53	51.35	189	16	Average
15540	65.07	65.79	74	-8.93	38.1	12.53	51.35	189	16	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 5180 MHz: Fundamental frequency.
- 10360 MHz: 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	Gavin Wu

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
5058	44.17	44	54	-9.83	31.25	6.17	37.25	195	41	Average
5058	60.31	60.14	74	-13.69	31.25	6.17	37.25	195	41	Peak
5220	97.39	97.14			31.37	6.24	37.36	195	41	Average
5220	106.79	106.54			31.37	6.24	37.36	195	41	Peak
5378	45.02	44.38	54	-8.98	31.51	6.31	37.18	195	41	Average
5378	60.62	59.98	74	-13.38	31.51	6.31	37.18	195	41	Peak
10440	53.7	57.8	68.2	-14.5	39.29	9.09	52.48	165	211	Peak
15660	50.94	53.8	54	-3.06	37.77	12.52	53.15	192	64	Average
15660	61.71	64.57	74	-12.29	37.77	12.52	53.15	192	64	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
5032	40.85	40.71	54	-13.15	31.23	6.15	37.24	222	53	Average
5032	59.96	59.82	74	-14.04	31.23	6.15	37.24	222	53	Peak
5220	94.46	94.21			31.37	6.24	37.36	222	53	Average
5220	104.33	104.08			31.37	6.24	37.36	222	53	Peak
5412	42.97	42.3	54	-11.03	31.53	6.32	37.18	222	53	Average
5412	61.11	60.44	74	-12.89	31.53	6.32	37.18	222	53	Peak
10440	54.57	58.67	68.2	-13.63	39.29	9.09	52.48	197	152	Peak
15660	51.24	54.1	54	-2.76	37.77	12.52	53.15	193	31	Average
15660	61.55	64.41	74	-12.45	37.77	12.52	53.15	193	31	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 5220 MHz: Fundamental frequency.
- 10440 MHz: 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	Gavin Wu

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
5012	43.22	43.11	54	-10.78	31.21	6.13	37.23	146	44	Average
5012	59.66	59.55	74	-14.34	31.21	6.13	37.23	146	44	Peak
5240	96.99	96.67			31.39	6.25	37.32	146	44	Average
5240	106.21	105.89			31.39	6.25	37.32	146	44	Peak
5384	44.34	43.7	54	-9.66	31.51	6.31	37.18	146	44	Average
5384	60.99	60.35	74	-13.01	31.51	6.31	37.18	146	44	Peak
10480	53.34	57.59	68.2	-14.86	39.37	9.09	52.71	206	137	Peak
15720	50.48	53.36	54	-3.52	37.57	12.52	52.97	193	63	Average
15720	63.44	66.32	74	-10.56	37.57	12.52	52.97	193	63	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
5102	40.85	40.66	54	-13.15	31.28	6.19	37.28	211	50	Average
5102	60.17	59.98	74	-13.83	31.28	6.19	37.28	211	50	Peak
5240	94.58	94.26			31.39	6.25	37.32	211	50	Average
5240	103.96	103.64			31.39	6.25	37.32	211	50	Peak
5418	41.96	41.29	54	-12.04	31.53	6.32	37.18	211	50	Average
5418	60.29	59.62	74	-13.71	31.53	6.32	37.18	211	50	Peak
10480	53.66	57.91	68.2	-14.54	39.37	9.09	52.71	204	122	Peak
15720	51.89	54.77	54	-2.11	37.57	12.52	52.97	208	22	Average
15720	64.18	67.06	74	-9.82	37.57	12.52	52.97	208	22	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 5240 MHz: Fundamental frequency.
- 10480 MHz: 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	Gavin Wu

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
5008	41.86	41.75	54	-12.14	31.21	6.13	37.23	130	49	Average
5008	60.01	59.9	74	-13.99	31.21	6.13	37.23	130	49	Peak
5260	96.94	96.55			31.41	6.25	37.27	130	49	Average
5260	106.35	105.96			31.41	6.25	37.27	130	49	Peak
5408	42.8	42.14	54	-11.2	31.52	6.32	37.18	130	49	Average
5408	59.97	59.31	74	-14.03	31.52	6.32	37.18	130	49	Peak
15780	52.53	53.99	54	-1.47	37.43	12.5	51.39	162	34	Average
15780	66.01	67.47	74	-7.99	37.43	12.5	51.39	162	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
5050	40.87	40.73	54	-13.13	31.24	6.15	37.25	216	62	Average
5050	59.71	59.57	74	-14.29	31.24	6.15	37.25	216	62	Peak
5260	93.99	93.6			31.41	6.25	37.27	216	62	Average
5260	103.44	103.05			31.41	6.25	37.27	216	62	Peak
5452	41.31	40.49	54	-12.69	31.56	6.34	37.08	216	62	Average
5452	59.66	58.84	74	-14.34	31.56	6.34	37.08	216	62	Peak
15780	50.44	51.9	54	-3.56	37.43	12.5	51.39	188	24	Average
15780	62.29	63.75	74	-11.71	37.43	12.5	51.39	188	24	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 5260 MHz: Fundamental frequency.

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	Gavin Wu

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
5024	41.17	41.03	54	-12.83	31.23	6.15	37.24	116	47	Average
5024	60.48	60.34	74	-13.52	31.23	6.15	37.24	116	47	Peak
5300	95.9	95.38			31.44	6.27	37.19	116	47	Average
5300	105.38	104.86			31.44	6.27	37.19	116	47	Peak
5350	44.27	43.68	54	-9.73	31.48	6.29	37.18	116	47	Average
5350	63.53	62.94	74	-10.47	31.48	6.29	37.18	116	47	Peak
15900	52.99	54.42	54	-1.01	37.09	12.49	51.01	166	44	Average
15900	65.29	66.72	74	-8.71	37.09	12.49	51.01	166	44	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5072	39.46	39.29	54	-14.54	31.27	6.17	37.27	217	59	Average
5072	59.83	59.66	74	-14.17	31.27	6.17	37.27	217	59	Peak
5300	93.94	93.42			31.44	6.27	37.19	217	59	Average
5300	103.13	102.61			31.44	6.27	37.19	217	59	Peak
5356	41.38	40.79	54	-12.62	31.48	6.29	37.18	217	59	Average
5356	60.12	59.53	74	-13.88	31.48	6.29	37.18	217	59	Peak
15900	51.1	52.53	54	-2.9	37.09	12.49	51.01	186	23	Average
15900	64.78	66.21	74	-9.22	37.09	12.49	51.01	186	23	Peak

Remarks:

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

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
5046	41.67	41.53	54	-12.33	31.24	6.15	37.25	115	49	Average
5046	60.55	60.41	74	-13.45	31.24	6.15	37.25	115	49	Peak
5320	96.06	95.51			31.45	6.29	37.19	115	49	Average
5320	106.1	105.55			31.45	6.29	37.19	115	49	Peak
5350	51.13	50.54	54	-2.87	31.48	6.29	37.18	115	49	Average
5350	68.53	67.94	74	-5.47	31.48	6.29	37.18	115	49	Peak
10640	45.88	49.33	54	-8.12	39.62	9.2	52.27	182	301	Average
10640	55.22	58.67	74	-18.78	39.62	9.2	52.27	182	301	Peak
15960	52.52	55.69	54	-1.48	36.9	12.49	52.56	162	39	Average
15960	64.57	67.74	74	-9.43	36.9	12.49	52.56	162	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
5124	39.42	39.22	54	-14.58	31.31	6.19	37.3	214	66	Average
5124	60.52	60.32	74	-13.48	31.31	6.19	37.3	214	66	Peak
5320	93.96	93.41			31.45	6.29	37.19	214	66	Average
5320	103.19	102.64			31.45	6.29	37.19	214	66	Peak
5350	49.99	49.4	54	-4.01	31.48	6.29	37.18	214	66	Average
5350	66.17	65.58	74	-7.83	31.48	6.29	37.18	214	66	Peak
10640	45.86	49.31	54	-8.14	39.62	9.2	52.27	197	202	Average
10640	54.77	58.22	74	-19.23	39.62	9.2	52.27	197	202	Peak
15960	50.27	53.44	54	-3.73	36.9	12.49	52.56	186	21	Average
15960	63.8	66.97	74	-10.2	36.9	12.49	52.56	186	21	Peak

Remarks:

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

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
5456	44.48	43.66	54	-9.52	31.56	6.34	37.08	200	23	Average
5456	62.72	61.9	74	-11.28	31.56	6.34	37.08	200	23	Peak
5470	62.2	61.37	68.2	-6	31.57	6.34	37.08	200	23	Peak
5500	87.9	86.97			31.6	6.36	37.03	200	23	Average
5500	97.33	96.4			31.6	6.36	37.03	200	23	Peak
5725	60.2	58.92	68.2	-8	31.96	6.75	37.43	200	23	Peak
11000	46.31	50.21	54	-7.69	40.2	9.35	53.45	100	355	Average
11000	56.52	60.42	74	-17.48	40.2	9.35	53.45	100	355	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
5458	50	49.18	54	-4	31.56	6.34	37.08	100	61	Average
5458	66.88	66.06	74	-7.12	31.56	6.34	37.08	100	61	Peak
5470	66.85	66.02	68.2	-1.35	31.57	6.34	37.08	100	61	Peak
5500	94.93	94			31.6	6.36	37.03	100	61	Average
5500	104.61	103.68			31.6	6.36	37.03	100	61	Peak
5725	60.57	59.35	68.2	-7.63	31.96	6.69	37.43	100	61	Peak
11000	45.36	49.26	54	-8.64	40.2	9.35	53.45	144	178	Average
11000	55.16	59.06	74	-18.84	40.2	9.35	53.45	144	178	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 5500 MHz: Fundamental frequency.
- 5470 MHz & 5725 MHz: 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	Gavin Wu

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
5458	38.83	38.01	54	-15.17	31.56	6.34	37.08	134	352	Average
5458	60.29	59.47	74	-13.71	31.56	6.34	37.08	134	352	Peak
5470	58.54	57.71	68.2	-9.66	31.57	6.34	37.08	134	352	Peak
5580	85.73	84.69			31.71	6.49	37.16	134	352	Average
5580	95.22	94.18			31.71	6.49	37.16	134	352	Peak
5725	59.69	58.41	68.2	-8.51	31.96	6.75	37.43	134	352	Peak
11160	45.61	49.33	54	-8.39	40.1	9.57	53.39	100	240	Average
11160	54.2	57.92	74	-19.8	40.1	9.57	53.39	100	240	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
5432	39.28	38.54	54	-14.72	31.55	6.32	37.13	169	52	Average
5432	61.5	60.76	74	-12.5	31.55	6.32	37.13	169	52	Peak
5470	58.49	57.66	68.2	-9.71	31.57	6.34	37.08	169	52	Peak
5580	93.43	92.39			31.71	6.49	37.16	169	52	Average
5580	104.13	103.09			31.71	6.49	37.16	169	52	Peak
5725	59.72	58.44	68.2	-8.48	31.96	6.75	37.43	169	52	Peak
11160	44.47	48.19	54	-9.53	40.1	9.57	53.39	100	118	Average
11160	54.5	58.22	74	-19.5	40.1	9.57	53.39	100	118	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 5580 MHz: Fundamental frequency.
- 5470 MHz & 5725 MHz: 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	Gavin Wu

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emissino 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
5348	39.58	38.99	54	-14.42	31.48	6.29	37.18	162	35	Average
5348	60.86	60.27	74	-13.14	31.48	6.29	37.18	162	35	Peak
5470	58.5	57.67	68.2	-9.7	31.57	6.34	37.08	162	35	Peak
5700	87.93	86.74			31.9	6.69	37.4	162	35	Average
5700	97.35	96.16			31.9	6.69	37.4	162	35	Peak
5725	62.28	61	68.2	-5.92	31.96	6.75	37.43	162	35	Peak
11400	44.76	47.02	54	-9.24	39.96	9.91	52.13	100	25	Average
11400	55.06	57.32	74	-18.94	39.96	9.91	52.13	100	25	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emissino 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	43.91	43.25	54	-10.09	31.52	6.32	37.18	117	54	Average
5402	60.49	59.83	74	-13.51	31.52	6.32	37.18	117	54	Peak
5470	58.08	57.25	68.2	-10.12	31.57	6.34	37.08	117	54	Peak
5700	94.61	93.42			31.9	6.69	37.4	117	54	Average
5700	104.06	102.87			31.9	6.69	37.4	117	54	Peak
5725	65.29	64.01	68.2	-2.91	31.96	6.75	37.43	117	54	Peak
11400	44.28	46.54	54	-9.72	39.96	9.91	52.13	100	291	Average
11400	54.21	56.47	74	-19.79	39.96	9.91	52.13	100	291	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 5700 MHz: Fundamental frequency.
- 5470 MHz & 5725 MHz: 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	Gavin Wu

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
*5714	60.16	58.97	68.2	-8.04	31.93	6.69	37.43	175	29	Peak
*5725	61.78	60.5	78.2	-16.42	31.96	6.75	37.43	175	29	Peak
5745	89.8	88.53			31.99	6.75	37.47	175	29	Average
5745	99.21	97.94			31.99	6.75	37.47	175	29	Peak
*5850	61.47	59.95	78.2	-16.73	32.15	6.88	37.51	175	29	Peak
*5861	61.35	59.72	68.2	-6.85	32.18	6.95	37.5	175	29	Peak
11490	45.02	47.91	54	-8.98	39.91	10.03	52.83	100	162	Average
11490	53.23	56.12	74	-20.77	39.91	10.03	52.83	100	162	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
*5714	61.99	60.8	68.2	-6.21	31.93	6.69	37.43	102	60	Peak
*5725	66.77	65.49	78.2	-11.43	31.96	6.75	37.43	102	60	Peak
5745	94.84	93.57			31.99	6.75	37.47	102	60	Average
5745	104.23	102.96			31.99	6.75	37.47	102	60	Peak
*5850	60.15	58.63	78.2	-18.05	32.15	6.88	37.51	102	60	Peak
*5861	60.71	59.08	68.2	-7.49	32.18	6.95	37.5	102	60	Peak
11490	44.38	47.27	54	-9.62	39.91	10.03	52.83	100	311	Average
11490	52.72	55.61	74	-21.28	39.91	10.03	52.83	100	311	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 5745 MHz: Fundamental frequency.
- *: 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	Gavin Wu

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
*5714	59.51	58.32	68.2	-8.69	31.93	6.69	37.43	124	30	Peak
*5725	60.57	59.29	78.2	-17.63	31.96	6.75	37.43	124	30	Peak
5785	90.84	89.52			32.04	6.82	37.54	124	30	Average
5785	100.32	99			32.04	6.82	37.54	124	30	Peak
*5850	61.12	59.6	78.2	-17.08	32.15	6.88	37.51	124	30	Peak
*5861	60.61	58.98	68.2	-7.59	32.18	6.95	37.5	124	30	Peak
11570	43.12	46.58	54	-10.88	39.78	10.09	53.33	100	263	Average
11570	53.49	56.95	74	-20.51	39.78	10.09	53.33	100	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
*5714	61.48	60.29	68.2	-6.72	31.93	6.69	37.43	101	58	Peak
*5725	60.46	59.18	78.2	-17.74	31.96	6.75	37.43	101	58	Peak
5785	95.85	94.53			32.04	6.82	37.54	101	58	Average
5785	105.21	103.89			32.04	6.82	37.54	101	58	Peak
*5850	59.41	57.89	78.2	-18.79	32.15	6.88	37.51	101	58	Peak
*5861	60.48	58.85	68.2	-7.72	32.18	6.95	37.5	101	58	Peak
11570	42.1	45.56	54	-11.9	39.78	10.09	53.33	100	316	Average
11570	52.75	56.21	74	-21.25	39.78	10.09	53.33	100	316	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 5785 MHz: Fundamental frequency.
- *: 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	Gavin Wu

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
*5714	58.58	57.39	68.2	-9.62	31.93	6.69	37.43	103	34	Peak
*5725	58.4	57.12	78.2	-19.8	31.96	6.75	37.43	103	34	Peak
5825	90.86	89.39			32.12	6.88	37.53	103	34	Average
5825	100.52	99.05			32.12	6.88	37.53	103	34	Peak
*5850	65.4	63.88	78.2	-12.8	32.15	6.88	37.51	103	34	Peak
*5861	59.92	58.29	68.2	-8.28	32.18	6.95	37.5	103	34	Peak
11650	42.66	46.21	54	-11.34	39.65	10.15	53.35	100	221	Average
11650	52.4	55.95	74	-21.6	39.65	10.15	53.35	100	221	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
*5714	59.93	58.74	68.2	-8.27	31.93	6.69	37.43	101	63	Peak
*5725	59.75	58.47	78.2	-18.45	31.96	6.75	37.43	101	63	Peak
5825	95.2	93.73			32.12	6.88	37.53	101	63	Average
5825	105.6	104.13			32.12	6.88	37.53	101	63	Peak
*5850	65.25	63.73	78.2	-12.95	32.15	6.88	37.51	101	63	Peak
*5861	63.77	62.14	68.2	-4.43	32.18	6.95	37.5	101	63	Peak
11650	42.1	45.65	54	-11.9	39.65	10.15	53.35	100	135	Average
11650	52.25	55.8	74	-21.75	39.65	10.15	53.35	100	135	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 5825 MHz: Fundamental frequency.
- *: 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	Gavin Wu

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
5150	52.94	52.74	54	-1.06	31.32	6.2	37.32	117	42	Average
5150	70.2	70	74	-3.8	31.32	6.2	37.32	117	42	Peak
5190	91.86	91.63			31.35	6.22	37.34	117	42	Average
5190	100.63	100.4			31.35	6.22	37.34	117	42	Peak
5422	42.53	41.86	54	-11.47	31.53	6.32	37.18	117	42	Average
5422	60.08	59.41	74	-13.92	31.53	6.32	37.18	117	42	Peak
10380	54.26	58.25	68.2	-13.94	39.21	9.05	52.25	211	216	Peak
15570	47.49	48.67	54	-6.51	38.01	12.53	51.72	194	79	Average
15570	57.43	58.61	74	-16.57	38.01	12.53	51.72	194	79	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
5148	49.84	49.64	54	-4.16	31.32	6.2	37.32	202	71	Average
5148	67.72	67.52	74	-6.28	31.32	6.2	37.32	202	71	Peak
5190	88.6	88.37			31.35	6.22	37.34	202	71	Average
5190	97.98	97.75			31.35	6.22	37.34	202	71	Peak
5352	40.8	40.21	54	-13.2	31.48	6.29	37.18	202	71	Average
5352	59.99	59.4	74	-14.01	31.48	6.29	37.18	202	71	Peak
10380	53.49	57.48	68.2	-14.71	39.21	9.05	52.25	205	147	Peak
15570	48.76	49.94	54	-5.24	38.01	12.53	51.72	207	32	Average
15570	58.69	59.87	74	-15.31	38.01	12.53	51.72	207	32	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 5190 MHz: Fundamental frequency.
- 10380 MHz: Out of restricted band

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	Gavin Wu

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
5138	47.26	47.05	54	-6.74	31.31	6.2	37.3	147	40	Average
5138	61.87	61.66	74	-12.13	31.31	6.2	37.3	147	40	Peak
5230	94.34	94.03			31.39	6.24	37.32	147	40	Average
5230	103.37	103.06			31.39	6.24	37.32	147	40	Peak
5414	43.67	43	54	-10.33	31.53	6.32	37.18	147	40	Average
5414	62.29	61.62	74	-11.71	31.53	6.32	37.18	147	40	Peak
10460	54.95	59.14	68.2	-13.25	39.32	9.09	52.6	211	216	Peak
15690	48.12	51.42	54	-5.88	37.67	12.52	53.49	195	64	Average
15690	59.69	62.99	74	-14.31	37.67	12.52	53.49	195	64	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5066	42.48	42.31	54	-11.52	31.25	6.17	37.25	199	60	Average
5066	60.11	59.94	74	-13.89	31.25	6.17	37.25	199	60	Peak
5230	90.88	90.57			31.39	6.24	37.32	199	60	Average
5230	100.22	99.91			31.39	6.24	37.32	199	60	Peak
5372	40.96	40.34	54	-13.04	31.49	6.31	37.18	199	60	Average
5372	60.3	59.68	74	-13.7	31.49	6.31	37.18	199	60	Peak
10460	54.7	58.89	68.2	-13.5	39.32	9.09	52.6	195	132	Peak
15690	50.36	53.66	54	-3.64	37.67	12.52	53.49	185	22	Average
15690	59.68	62.98	74	-14.32	37.67	12.52	53.49	185	22	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 5230 MHz: Fundamental frequency.
- 10460 MHz: Out of restricted band

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	Gavin Wu

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
5010	41.89	41.78	54	-12.11	31.21	6.13	37.23	101	48	Average
5010	59.91	59.8	74	-14.09	31.21	6.13	37.23	101	48	Peak
5270	93.87	93.48			31.41	6.25	37.27	101	48	Average
5270	103.35	102.96			31.41	6.25	37.27	101	48	Peak
5350	47.93	47.34	54	-6.07	31.48	6.29	37.18	101	48	Average
5350	63.88	63.29	74	-10.12	31.48	6.29	37.18	101	48	Peak
15810	52.35	53.81	54	-1.65	37.33	12.5	51.29	164	35	Average
15810	63.8	65.26	74	-10.2	37.33	12.5	51.29	164	35	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
5098	39.79	39.6	54	-14.21	31.28	6.19	37.28	210	40	Average
5098	60.22	60.03	74	-13.78	31.28	6.19	37.28	210	40	Peak
5270	92.51	92.12			31.41	6.25	37.27	210	40	Average
5270	101.98	101.59			31.41	6.25	37.27	210	40	Peak
5376	43.74	43.12	54	-10.26	31.49	6.31	37.18	210	40	Average
5376	61.02	60.4	74	-12.98	31.49	6.31	37.18	210	40	Peak
15810	50.66	52.12	54	-3.34	37.33	12.5	51.29	187	13	Average
15810	62.79	64.25	74	-11.21	37.33	12.5	51.29	187	13	Peak

Remarks:

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

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
5004	40.08	39.97	54	-13.92	31.21	6.13	37.23	150	40	Average
5004	60.22	60.11	74	-13.78	31.21	6.13	37.23	150	40	Peak
5310	90.51	89.98			31.45	6.27	37.19	150	40	Average
5310	100.1	99.57			31.45	6.27	37.19	150	40	Peak
5350	52.92	52.33	54	-1.08	31.48	6.29	37.18	150	40	Average
5350	70.81	70.22	74	-3.19	31.48	6.29	37.18	150	40	Peak
10620	45.42	49.01	54	-8.58	39.59	9.16	52.34	185	330	Average
10620	56.3	59.89	74	-17.7	39.59	9.16	52.34	185	330	Peak
15930	50.62	52.67	54	-3.38	36.99	12.49	51.53	167	47	Average
15930	61.39	63.44	74	-12.61	36.99	12.49	51.53	167	47	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
5078	39.04	38.87	54	-14.96	31.27	6.17	37.27	209	39	Average
5078	60.49	60.32	74	-13.51	31.27	6.17	37.27	209	39	Peak
5310	88.57	88.04			31.45	6.27	37.19	209	39	Average
5310	97.47	96.94			31.45	6.27	37.19	209	39	Peak
5350	49.22	48.63	54	-4.78	31.48	6.29	37.18	209	39	Average
5350	66.62	66.03	74	-7.38	31.48	6.29	37.18	209	39	Peak
10620	45.36	48.95	54	-8.64	39.59	9.16	52.34	190	243	Average
10620	55.9	59.49	74	-18.1	39.59	9.16	52.34	190	243	Peak
15930	48.05	50.1	54	-5.95	36.99	12.49	51.53	188	27	Average
15930	59.08	61.13	74	-14.92	36.99	12.49	51.53	188	27	Peak

Remarks:

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

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
5404	42.08	41.42	54	-11.92	31.52	6.32	37.18	159	350	Average
5404	61.05	60.39	74	-12.95	31.52	6.32	37.18	159	350	Peak
5470	62.22	61.39	68.2	-5.98	31.57	6.34	37.08	159	350	Peak
5510	81.55	80.65			31.6	6.36	37.06	159	350	Average
5510	90.9	90			31.6	6.36	37.06	159	350	Peak
5725	60.58	59.3	68.2	-7.62	31.96	6.75	37.43	159	350	Peak
11020	42.92	46.87	54	-11.08	40.19	9.35	53.49	100	135	Average
11020	53.84	57.79	74	-20.16	40.19	9.35	53.49	100	135	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
5460	47.33	46.51	54	-6.67	31.56	6.34	37.08	100	49	Average
5460	63.6	62.78	74	-10.4	31.56	6.34	37.08	100	49	Peak
5470	66.43	65.6	68.2	-1.77	31.57	6.34	37.08	100	49	Peak
5510	88.73	87.83			31.6	6.36	37.06	100	49	Average
5510	98.4	97.5			31.6	6.36	37.06	100	49	Peak
5725	59.8	58.52	68.2	-8.4	31.96	6.75	37.43	100	49	Peak
11020	41.49	45.44	54	-12.51	40.19	9.35	53.49	100	156	Average
11020	53.93	57.88	74	-20.07	40.19	9.35	53.49	100	156	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 5510 MHz: Fundamental frequency.
- 5470 MHz & 5725 MHz: 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	Gavin Wu

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
5426	39.68	38.96	54	-14.32	31.53	6.32	37.13	158	352	Average
5426	60.61	59.89	74	-13.39	31.53	6.32	37.13	158	352	Peak
5470	59.28	58.45	68.2	-8.92	31.57	6.34	37.08	158	352	Peak
5550	81.92	80.91			31.68	6.42	37.09	158	352	Average
5550	91.22	90.21			31.68	6.42	37.09	158	352	Peak
5725	59.84	58.56	68.2	-8.36	31.96	6.75	37.43	158	352	Peak
11100	42.84	46.85	54	-11.16	40.14	9.46	53.61	100	133	Average
11100	53.29	57.3	74	-20.71	40.14	9.46	53.61	100	133	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
5454	42.77	41.95	54	-11.23	31.56	6.34	37.08	100	49	Average
5454	61.06	60.24	74	-12.94	31.56	6.34	37.08	100	49	Peak
5470	60.06	59.23	68.2	-8.14	31.57	6.34	37.08	100	49	Peak
5550	89.2	88.19			31.68	6.42	37.09	100	49	Average
5550	99.31	98.3			31.68	6.42	37.09	100	49	Peak
5725	61.47	60.19	68.2	-6.73	31.96	6.75	37.43	100	49	Peak
11100	41.86	45.87	54	-12.14	40.14	9.46	53.61	100	192	Average
11100	53.79	57.8	74	-20.21	40.14	9.46	53.61	100	192	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 5550 MHz: Fundamental frequency.
- 5470 MHz & 5725 MHz: 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	Gavin Wu

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
5418	40.11	39.44	54	-13.89	31.53	6.32	37.18	141	25	Average
5418	61.11	60.44	74	-12.89	31.53	6.32	37.18	141	25	Peak
5470	59.5	58.67	68.2	-8.7	31.57	6.34	37.08	141	25	Peak
5670	83.98	82.82			31.88	6.62	37.34	141	25	Average
5670	93.42	92.26			31.88	6.62	37.34	141	25	Peak
5725	60.75	59.47	68.2	-7.45	31.96	6.75	37.43	141	25	Peak
11340	44.88	47.59	54	-9.12	40	9.8	52.51	100	176	Average
11340	56.01	58.72	74	-17.99	40	9.8	52.51	100	176	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
5420	42.08	41.41	54	-11.92	31.53	6.32	37.18	109	62	Average
5420	61.07	60.4	74	-12.93	31.53	6.32	37.18	109	62	Peak
5470	58.72	57.89	68.2	-9.48	31.57	6.34	37.08	109	62	Peak
5670	91.09	89.93			31.88	6.62	37.34	109	62	Average
5670	100.56	99.4			31.88	6.62	37.34	109	62	Peak
5725	60.85	59.57	68.2	-7.35	31.96	6.75	37.43	109	62	Peak
11340	43.85	46.56	54	-10.15	40	9.8	52.51	100	340	Average
11340	54.52	57.23	74	-19.48	40	9.8	52.51	100	340	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 5670 MHz: Fundamental frequency.
- 5470 MHz & 5725 MHz: 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	Gavin Wu

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
*5714	65.73	64.54	68.2	-2.47	31.93	6.69	37.43	159	35	Peak
*5725	67.08	65.8	78.2	-11.12	31.96	6.75	37.43	159	35	Peak
5755	87.79	86.5			32.01	6.75	37.47	159	35	Average
5755	97.13	95.84			32.01	6.75	37.47	159	35	Peak
*5850	60.27	58.75	78.2	-17.93	32.15	6.88	37.51	159	35	Peak
*5861	60.62	58.99	68.2	-7.58	32.18	6.95	37.5	159	35	Peak
11510	43.78	46.92	54	-10.22	39.9	10.03	53.07	100	124	Average
11510	52.51	55.65	74	-21.49	39.9	10.03	53.07	100	124	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
*5714	67.03	65.84	68.2	-1.17	31.93	6.69	37.43	115	56	Peak
*5725	73.03	71.75	78.2	-5.17	31.96	6.75	37.43	115	56	Peak
5755	92.64	91.35			32.01	6.75	37.47	115	56	Average
5755	102.44	101.15			32.01	6.75	37.47	115	56	Peak
*5850	61.04	59.52	78.2	-17.16	32.15	6.88	37.51	115	56	Peak
*5861	59.76	58.13	68.2	-8.44	32.18	6.95	37.5	115	56	Peak
11510	42.59	45.73	54	-11.41	39.9	10.03	53.07	100	118	Average
11510	53.36	56.5	74	-20.64	39.9	10.03	53.07	100	118	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 5755 MHz: Fundamental frequency.
- *: 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	Gavin Wu

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
*5714	59.69	58.5	68.2	-8.51	31.93	6.69	37.43	158	33	Peak
*5725	60.47	59.19	78.2	-17.73	31.96	6.75	37.43	158	33	Peak
5795	87.99	86.64			32.07	6.82	37.54	158	33	Average
5795	97.96	96.61			32.07	6.82	37.54	158	33	Peak
*5850	62.45	60.93	78.2	-15.75	32.15	6.88	37.51	158	33	Peak
*5861	61.58	59.95	68.2	-6.62	32.18	6.95	37.5	158	33	Peak
11590	42.93	46.43	54	-11.07	39.74	10.09	53.33	100	163	Average
11590	51.8	55.3	74	-22.2	39.74	10.09	53.33	100	163	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
*5714	63.05	61.86	68.2	-5.15	31.93	6.69	37.43	115	58	Peak
*5725	62.86	61.58	78.2	-15.34	31.96	6.75	37.43	115	58	Peak
5795	92.94	91.59			32.07	6.82	37.54	115	58	Average
5795	102.46	101.11			32.07	6.82	37.54	115	58	Peak
*5850	62.72	61.2	78.2	-15.48	32.15	6.88	37.51	115	58	Peak
*5861	61.59	59.96	68.2	-6.61	32.18	6.95	37.5	115	58	Peak
11590	45.9	49.4	54	-8.1	39.74	10.09	53.33	105	197	Average
11590	52.49	55.99	74	-21.51	39.74	10.09	53.33	105	197	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 5795 MHz: Fundamental frequency.
- *: Out of restricted band

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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	Gavin Wu

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
5150	49.08	48.88	54	-4.92	31.32	6.2	37.32	182	307	Average
5150	65.89	65.69	74	-8.11	31.32	6.2	37.32	182	307	Peak
5180	98.97	98.74			31.35	6.22	37.34	182	307	Average
5180	108.34	108.11			31.35	6.22	37.34	182	307	Peak
5354	41.55	40.96	54	-12.45	31.48	6.29	37.18	182	307	Average
5354	62.26	61.67	74	-11.74	31.48	6.29	37.18	182	307	Peak
15540	47.1	47.82	54	-6.9	38.1	12.53	51.35	100	290	Average
15540	57.85	58.57	74	-16.15	38.1	12.53	51.35	100	290	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
5146	45.51	45.31	54	-8.49	31.32	6.2	37.32	100	303	Average
5146	65.39	65.19	74	-8.61	31.32	6.2	37.32	100	303	Peak
5180	96.5	96.27			31.35	6.22	37.34	100	303	Average
5180	105.89	105.66			31.35	6.22	37.34	100	303	Peak
5460	39.05	38.23	54	-14.95	31.56	6.34	37.08	100	303	Average
5460	60.69	59.87	74	-13.31	31.56	6.34	37.08	100	303	Peak
15540	52.81	53.53	54	-1.19	38.1	12.53	51.35	192	329	Average
15540	63.94	64.66	74	-10.06	38.1	12.53	51.35	192	329	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 5180 MHz: Fundamental frequency.

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	Gavin Wu

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
5078	45.48	45.31	54	-8.52	31.27	6.17	37.27	178	307	Average
5078	62.84	62.67	74	-11.16	31.27	6.17	37.27	178	307	Peak
5220	100.19	99.94			31.37	6.24	37.36	178	307	Average
5220	109.65	109.4			31.37	6.24	37.36	178	307	Peak
5392	47.4	46.76	54	-6.6	31.51	6.31	37.18	178	307	Average
5392	62.12	61.48	74	-11.88	31.51	6.31	37.18	178	307	Peak
15660	49.8	52.66	54	-4.2	37.77	12.52	53.15	165	299	Average
15660	62.91	65.77	74	-11.09	37.77	12.52	53.15	165	299	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
5010	41.58	41.47	54	-12.42	31.21	6.13	37.23	113	302	Average
5010	60.95	60.84	74	-13.05	31.21	6.13	37.23	113	302	Peak
5220	97.9	97.65			31.37	6.24	37.36	113	302	Average
5220	107.23	106.98			31.37	6.24	37.36	113	302	Peak
5366	41.71	41.09	54	-12.29	31.49	6.31	37.18	113	302	Average
5366	61.56	60.94	74	-12.44	31.49	6.31	37.18	113	302	Peak
15660	52.89	55.75	54	-1.11	37.77	12.52	53.15	187	330	Average
15660	66.55	69.41	74	-7.45	37.77	12.52	53.15	187	330	Peak

Remarks:

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

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
5084	44.49	44.32	54	-9.51	31.27	6.17	37.27	181	312	Average
5084	61.61	61.44	74	-12.39	31.27	6.17	37.27	181	312	Peak
5240	99.9	99.58			31.39	6.25	37.32	181	312	Average
5240	109.28	108.96			31.39	6.25	37.32	181	312	Peak
5408	47.17	46.51	54	-6.83	31.52	6.32	37.18	181	312	Average
5408	62.66	62	74	-11.34	31.52	6.32	37.18	181	312	Peak
15720	49.91	52.79	54	-4.09	37.57	12.52	52.97	187	295	Average
15720	65.15	68.03	74	-8.85	37.57	12.52	52.97	187	295	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5112	41.67	41.47	54	-12.33	31.29	6.19	37.28	106	303	Average
5112	61.05	60.85	74	-12.95	31.29	6.19	37.28	106	303	Peak
5240	97.96	97.64			31.39	6.25	37.32	106	303	Average
5240	106.64	106.32			31.39	6.25	37.32	106	303	Peak
5458	41.78	40.96	54	-12.22	31.56	6.34	37.08	106	303	Average
5458	60.72	59.9	74	-13.28	31.56	6.34	37.08	106	303	Peak
15720	52.43	55.31	54	-1.57	37.57	12.52	52.97	162	325	Average
15720	65.39	68.27	74	-8.61	37.57	12.52	52.97	162	325	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 5240 MHz: Fundamental frequency.



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	Gavin Wu

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
5132	43.2	42.99	54	-10.8	31.31	6.2	37.3	182	147	Average
5132	60.41	60.2	74	-13.59	31.31	6.2	37.3	182	147	Peak
5260	98.6	98.21			31.41	6.25	37.27	182	147	Average
5260	107.65	107.26			31.41	6.25	37.27	182	147	Peak
5350	45.55	44.96	54	-8.45	31.48	6.29	37.18	182	147	Average
5350	61.51	60.92	74	-12.49	31.48	6.29	37.18	182	147	Peak
15780	52.41	53.87	54	-1.59	37.43	12.5	51.39	174	80	Average
15780	65.4	66.86	74	-8.6	37.43	12.5	51.39	174	80	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
5116	41.31	41.11	54	-12.69	31.29	6.19	37.28	194	166	Average
5116	60.72	60.52	74	-13.28	31.29	6.19	37.28	194	166	Peak
5260	96.04	95.65			31.41	6.25	37.27	194	166	Average
5260	105.37	104.98			31.41	6.25	37.27	194	166	Peak
5450	43.1	42.28	54	-10.9	31.56	6.34	37.08	194	166	Average
5450	61.86	61.04	74	-12.14	31.56	6.34	37.08	194	166	Peak
15780	51.98	53.44	54	-2.02	37.43	12.5	51.39	184	146	Average
15780	65.27	66.73	74	-8.73	37.43	12.5	51.39	184	146	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 5260 MHz: Fundamental frequency.

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	Gavin Wu

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
5138	42.82	42.61	54	-11.18	31.31	6.2	37.3	187	136	Average
5138	60.11	59.9	74	-13.89	31.31	6.2	37.3	187	136	Peak
5300	98.19	97.67			31.44	6.27	37.19	187	136	Average
5300	107.16	106.64			31.44	6.27	37.19	187	136	Peak
5348	43.93	43.34	54	-10.07	31.48	6.29	37.18	187	136	Average
5348	61.08	60.49	74	-12.92	31.48	6.29	37.18	187	136	Peak
15900	52.16	53.59	54	-1.84	37.09	12.49	51.01	175	64	Average
15900	66.04	67.47	74	-7.96	37.09	12.49	51.01	175	64	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
5140	41.06	40.84	54	-12.94	31.32	6.2	37.3	183	170	Average
5140	60.14	59.92	74	-13.86	31.32	6.2	37.3	183	170	Peak
5300	95.52	95			31.44	6.27	37.19	183	170	Average
5300	104.76	104.24			31.44	6.27	37.19	183	170	Peak
5350	42.25	41.66	54	-11.75	31.48	6.29	37.18	183	170	Average
5350	62.27	61.68	74	-11.73	31.48	6.29	37.18	183	170	Peak
15900	51.81	53.24	54	-2.19	37.09	12.49	51.01	182	157	Average
15900	65.71	67.14	74	-8.29	37.09	12.49	51.01	182	157	Peak

Remarks:

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

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
5094	43.95	43.76	54	-10.05	31.28	6.19	37.28	160	136	Average
5094	60.54	60.35	74	-13.46	31.28	6.19	37.28	160	136	Peak
5320	98.92	98.37			31.45	6.29	37.19	160	136	Average
5320	107.72	107.17			31.45	6.29	37.19	160	136	Peak
5350	50.51	49.92	54	-3.49	31.48	6.29	37.18	160	136	Average
5350	69.28	68.69	74	-4.72	31.48	6.29	37.18	160	136	Peak
15960	51.49	54.66	54	-2.51	36.9	12.49	52.56	176	77	Average
15960	64.52	67.69	74	-9.48	36.9	12.49	52.56	176	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
5150	39.81	39.61	54	-14.19	31.32	6.2	37.32	183	176	Average
5150	60.51	60.31	74	-13.49	31.32	6.2	37.32	183	176	Peak
5320	96.05	95.5			31.45	6.29	37.19	183	176	Average
5320	105.15	104.6			31.45	6.29	37.19	183	176	Peak
5350	49.12	48.53	54	-4.88	31.48	6.29	37.18	183	176	Average
5350	64.25	63.66	74	-9.75	31.48	6.29	37.18	183	176	Peak
15960	51.26	54.43	54	-2.74	36.9	12.49	52.56	182	160	Average
15960	64.47	67.64	74	-9.53	36.9	12.49	52.56	182	160	Peak

Remarks:

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

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
5460	46.75	45.93	54	-7.25	31.56	6.34	37.08	199	136	Average
5460	62.67	61.85	74	-11.33	31.56	6.34	37.08	199	136	Peak
5470	62.34	61.51	68.2	-5.86	31.57	6.34	37.08	199	136	Peak
5500	95.16	94.23			31.6	6.36	37.03	199	136	Average
5500	104.36	103.43			31.6	6.36	37.03	199	136	Peak
5725	60.29	59.01	68.2	-7.91	31.96	6.75	37.43	199	136	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
5458	43.7	42.88	54	-10.3	31.56	6.34	37.08	217	291	Average
5458	61.88	61.06	74	-12.12	31.56	6.34	37.08	217	291	Peak
5470	60.97	60.14	68.2	-7.23	31.57	6.34	37.08	217	291	Peak
5500	90.24	89.31			31.6	6.36	37.03	217	291	Average
5500	98.95	98.02			31.6	6.36	37.03	217	291	Peak
5725	59.82	58.54	68.2	-8.38	31.96	6.75	37.43	217	291	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 5500 MHz: Fundamental frequency.
- 5470 MHz & 5725 MHz: 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	Gavin Wu

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
5388	42.79	42.15	54	-11.21	31.51	6.31	37.18	195	133	Average
5388	60.45	59.81	74	-13.55	31.51	6.31	37.18	195	133	Peak
5470	60.1	59.27	68.2	-8.1	31.57	6.34	37.08	195	133	Peak
5580	95.41	94.37			31.71	6.49	37.16	195	133	Average
5580	104.31	103.27			31.71	6.49	37.16	195	133	Peak
5725	61.47	60.19	68.2	-6.73	31.96	6.75	37.43	195	133	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
5454	40.01	39.19	54	-13.99	31.56	6.34	37.08	214	292	Average
5454	60.54	59.72	74	-13.46	31.56	6.34	37.08	214	292	Peak
5470	60.29	59.46	68.2	-7.91	31.57	6.34	37.08	214	292	Peak
5580	89.46	88.42			31.71	6.49	37.16	214	292	Average
5580	98.94	97.9			31.71	6.49	37.16	214	292	Peak
5725	61.01	59.73	68.2	-7.19	31.96	6.75	37.43	214	292	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 5580 MHz: Fundamental frequency.
- 5470 MHz & 5725 MHz: 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	Gavin Wu

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
5402	47.93	47.27	54	-6.07	31.52	6.32	37.18	209	144	Average
5402	61.36	60.7	74	-12.64	31.52	6.32	37.18	209	144	Peak
5470	59.96	59.13	68.2	-8.24	31.57	6.34	37.08	209	144	Peak
5700	95.1	93.91			31.9	6.69	37.4	209	144	Average
5700	104	102.81			31.9	6.69	37.4	209	144	Peak
5725	62.46	61.18	68.2	-5.74	31.96	6.75	37.43	209	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
5424	42.25	41.58	54	-11.75	31.53	6.32	37.18	206	284	Average
5424	60.13	59.46	74	-13.87	31.53	6.32	37.18	206	284	Peak
5470	58.85	58.02	68.2	-9.35	31.57	6.34	37.08	206	284	Peak
5700	89.73	88.54			31.9	6.69	37.4	206	284	Average
5700	98.56	97.37			31.9	6.69	37.4	206	284	Peak
5725	62.69	61.41	68.2	-5.51	31.96	6.75	37.43	206	284	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 5700 MHz: Fundamental frequency.
- 5470 MHz & 5725 MHz: 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	Gavin Wu

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
*5714	64.99	63.8	68.2	-3.21	31.93	6.69	37.43	162	317	Peak
*5725	67.42	66.14	78.2	-10.78	31.96	6.75	37.43	162	317	Peak
5745	95.56	94.29			31.99	6.75	37.47	162	317	Average
5745	104.46	103.19			31.99	6.75	37.47	162	317	Peak
*5850	61.96	60.44	78.2	-16.24	32.15	6.88	37.51	162	317	Peak
*5861	59.32	57.69	68.2	-8.88	32.18	6.95	37.5	162	317	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
*5714	65.01	63.82	68.2	-3.19	31.93	6.69	37.43	190	312	Peak
*5725	68.71	67.43	78.2	-9.49	31.96	6.75	37.43	190	312	Peak
5745	98.03	96.76			31.99	6.75	37.47	190	312	Average
5745	107.54	106.27			31.99	6.75	37.47	190	312	Peak
*5850	60.68	59.16	78.2	-17.52	32.15	6.88	37.51	190	312	Peak
*5861	60.69	59.06	68.2	-7.51	32.18	6.95	37.5	190	312	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 5745 MHz: Fundamental frequency.
- *: 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	Gavin Wu

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
*5714	60.67	59.48	68.2	-7.53	31.93	6.69	37.43	166	309	Peak
*5725	60.82	59.54	78.2	-17.38	31.96	6.75	37.43	166	309	Peak
5785	96.46	95.14			32.04	6.82	37.54	166	309	Average
5785	105.06	103.74			32.04	6.82	37.54	166	309	Peak
*5850	60.26	58.74	78.2	-17.94	32.15	6.88	37.51	166	309	Peak
*5861	61.02	59.39	68.2	-7.18	32.18	6.95	37.5	166	309	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
*5714	59.69	58.5	68.2	-8.51	31.93	6.69	37.43	190	314	Peak
*5725	60.48	59.2	78.2	-17.72	31.96	6.75	37.43	190	314	Peak
5785	99.21	97.89			32.04	6.82	37.54	190	314	Average
5785	107.97	106.65			32.04	6.82	37.54	190	314	Peak
*5850	58.61	57.09	78.2	-19.59	32.15	6.88	37.51	190	314	Peak
*5861	61.23	59.6	68.2	-6.97	32.18	6.95	37.5	190	314	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 5785 MHz: Fundamental frequency.
- *: Out of restricted band



A D T

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	Gavin Wu

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
*5714	61.41	60.22	68.2	-6.79	31.93	6.69	37.43	165	307	Peak
*5725	60.16	58.88	78.2	-18.04	31.96	6.75	37.43	165	307	Peak
5825	96.38	94.91			32.12	6.88	37.53	165	307	Average
5825	105.36	103.89			32.12	6.88	37.53	165	307	Peak
*5850	66.09	64.57	78.2	-12.11	32.15	6.88	37.51	165	307	Peak
*5861	61.79	60.16	68.2	-6.41	32.18	6.95	37.5	165	307	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
*5714	61.15	59.96	68.2	-7.05	31.93	6.69	37.43	187	318	Peak
*5725	60.01	58.73	78.2	-18.19	31.96	6.75	37.43	187	318	Peak
5825	99.26	97.79			32.12	6.88	37.53	187	318	Average
5825	108.71	107.24			32.12	6.88	37.53	187	318	Peak
*5850	66.18	64.66	78.2	-12.02	32.15	6.88	37.51	187	318	Peak
*5861	61.27	59.64	68.2	-6.93	32.18	6.95	37.5	187	318	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 5825 MHz: Fundamental frequency.
- *: Out of restricted band

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	Gavin Wu

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
5150	50.59	50.39	54	-3.41	31.32	6.2	37.32	173	307	Average
5150	70.08	69.88	74	-3.92	31.32	6.2	37.32	173	307	Peak
5180	98.6	98.37			31.35	6.22	37.34	173	307	Average
5180	108.1	107.87			31.35	6.22	37.34	173	307	Peak
5380	41.6	40.96	54	-12.4	31.51	6.31	37.18	173	307	Average
5380	62.58	61.94	74	-11.42	31.51	6.31	37.18	173	307	Peak
15540	48.39	49.11	54	-5.61	38.1	12.53	51.35	110	318	Average
15540	58.35	59.07	74	-15.65	38.1	12.53	51.35	110	318	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
5148	47.93	47.73	54	-6.07	31.32	6.2	37.32	100	301	Average
5148	65.89	65.69	74	-8.11	31.32	6.2	37.32	100	301	Peak
5180	96.11	95.88			31.35	6.22	37.34	100	301	Average
5180	104.96	104.73			31.35	6.22	37.34	100	301	Peak
5388	39.04	38.4	54	-14.96	31.51	6.31	37.18	100	301	Average
5388	60.84	60.2	74	-13.16	31.51	6.31	37.18	100	301	Peak
15540	52.78	53.5	54	-1.22	38.1	12.53	51.35	172	327	Average
15540	65.12	65.84	74	-8.88	38.1	12.53	51.35	172	327	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 5180 MHz: Fundamental frequency.

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	Gavin Wu

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	44.38	44.21	54	-9.62	31.27	6.17	37.27	174	312	Average
5074	60.36	60.19	74	-13.64	31.27	6.17	37.27	174	312	Peak
5220	98.14	97.89			31.37	6.24	37.36	174	312	Average
5220	107.33	107.08			31.37	6.24	37.36	174	312	Peak
5374	46.67	46.05	54	-7.33	31.49	6.31	37.18	174	312	Average
5374	61.48	60.86	74	-12.52	31.49	6.31	37.18	174	312	Peak
15660	45.73	48.59	54	-8.27	37.77	12.52	53.15	106	318	Average
15660	57.6	60.46	74	-16.4	37.77	12.52	53.15	106	318	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	40.59	40.38	54	-13.41	31.31	6.2	37.3	113	300	Average
5132	60.1	59.89	74	-13.9	31.31	6.2	37.3	113	300	Peak
5220	95.49	95.24			31.37	6.24	37.36	113	300	Average
5220	104.02	103.77			31.37	6.24	37.36	113	300	Peak
5456	41.17	40.35	54	-12.83	31.56	6.34	37.08	113	300	Average
5456	60.62	59.8	74	-13.38	31.56	6.34	37.08	113	300	Peak
15660	50.42	53.28	54	-3.58	37.77	12.52	53.15	192	328	Average
15660	60.95	63.81	74	-13.05	37.77	12.52	53.15	192	328	Peak

Remarks:

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

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
5128	44.05	43.84	54	-9.95	31.31	6.2	37.3	180	307	Average
5128	60.97	60.76	74	-13.03	31.31	6.2	37.3	180	307	Peak
5240	98.21	97.89			31.39	6.25	37.32	180	307	Average
5240	107.25	106.93			31.39	6.25	37.32	180	307	Peak
5386	45.72	45.08	54	-8.28	31.51	6.31	37.18	180	307	Average
5386	61.86	61.22	74	-12.14	31.51	6.31	37.18	180	307	Peak
15720	46.59	49.47	54	-7.41	37.57	12.52	52.97	106	319	Average
15720	56.86	59.74	74	-17.14	37.57	12.52	52.97	106	319	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
5016	39.65	39.52	54	-14.35	31.21	6.15	37.23	111	301	Average
5016	59.89	59.76	74	-14.11	31.21	6.15	37.23	111	301	Peak
5240	95.02	94.7			31.39	6.25	37.32	111	301	Average
5240	103.7	103.38			31.39	6.25	37.32	111	301	Peak
5460	41.84	41.02	54	-12.16	31.56	6.34	37.08	111	301	Average
5460	60.54	59.72	74	-13.46	31.56	6.34	37.08	111	301	Peak
15720	51.11	53.99	54	-2.89	37.57	12.52	52.97	194	332	Average
15720	62.55	65.43	74	-11.45	37.57	12.52	52.97	194	332	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 5240 MHz: Fundamental frequency.

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	Gavin Wu

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
5142	42.47	42.25	54	-11.53	31.32	6.2	37.3	171	135	Average
5142	60.42	60.2	74	-13.58	31.32	6.2	37.3	171	135	Peak
5260	97.6	97.21			31.41	6.25	37.27	171	135	Average
5260	106.86	106.47			31.41	6.25	37.27	171	135	Peak
5418	44.6	43.93	54	-9.4	31.53	6.32	37.18	171	135	Average
5418	61.81	61.14	74	-12.19	31.53	6.32	37.18	171	135	Peak
15780	49.33	50.79	54	-4.67	37.43	12.5	51.39	201	336	Average
15780	58.08	59.54	74	-15.92	37.43	12.5	51.39	201	336	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
5114	40.31	40.11	54	-13.69	31.29	6.19	37.28	177	179	Average
5114	60.39	60.19	74	-13.61	31.29	6.19	37.28	177	179	Peak
5260	95.34	94.95			31.41	6.25	37.27	177	179	Average
5260	104.45	104.06			31.41	6.25	37.27	177	179	Peak
5358	42.71	42.1	54	-11.29	31.48	6.31	37.18	177	179	Average
5358	61.1	60.49	74	-12.9	31.48	6.31	37.18	177	179	Peak
15780	49.75	51.21	54	-4.25	37.43	12.5	51.39	177	252	Average
15780	61.82	63.28	74	-12.18	37.43	12.5	51.39	177	252	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 5260 MHz: Fundamental frequency.

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	Gavin Wu

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
5046	42.09	41.95	54	-11.91	31.24	6.15	37.25	185	141	Average
5046	60.85	60.71	74	-13.15	31.24	6.15	37.25	185	141	Peak
5300	97.59	97.07			31.44	6.27	37.19	185	141	Average
5300	106.72	106.2			31.44	6.27	37.19	185	141	Peak
5352	43.24	42.65	54	-10.76	31.48	6.29	37.18	185	141	Average
5352	61.88	61.29	74	-12.12	31.48	6.29	37.18	185	141	Peak
15900	49.89	51.32	54	-4.11	37.09	12.49	51.01	177	251	Average
15900	61.08	62.51	74	-12.92	37.09	12.49	51.01	177	251	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
5090	39.89	39.69	54	-14.11	31.28	6.19	37.27	167	183	Average
5090	60.22	60.02	74	-13.78	31.28	6.19	37.27	167	183	Peak
5300	95.16	94.64			31.44	6.27	37.19	167	183	Average
5300	104.4	103.88			31.44	6.27	37.19	167	183	Peak
5378	41.34	40.7	54	-12.66	31.51	6.31	37.18	167	183	Average
5378	61.11	60.47	74	-12.89	31.51	6.31	37.18	167	183	Peak
15900	50.37	51.8	54	-3.63	37.09	12.49	51.01	182	326	Average
15900	62.18	63.61	74	-11.82	37.09	12.49	51.01	182	326	Peak

Remarks:

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

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	42.14	41.97	54	-11.86	31.27	6.17	37.27	169	140	Average
5076	60.49	60.32	74	-13.51	31.27	6.17	37.27	169	140	Peak
5320	97.23	96.68			31.45	6.29	37.19	169	140	Average
5320	106.47	105.92			31.45	6.29	37.19	169	140	Peak
5352	46.71	46.12	54	-7.29	31.48	6.29	37.18	169	140	Average
5352	64.9	64.31	74	-9.1	31.48	6.29	37.18	169	140	Peak
15960	47.32	50.49	54	-6.68	36.9	12.49	52.56	173	252	Average
15960	59.73	62.9	74	-14.27	36.9	12.49	52.56	173	252	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
5020	39.17	39.05	54	-14.83	31.21	6.15	37.24	167	179	Average
5020	60.1	59.98	74	-13.9	31.21	6.15	37.24	167	179	Peak
5320	94.82	94.27			31.45	6.29	37.19	167	179	Average
5320	104.27	103.72			31.45	6.29	37.19	167	179	Peak
5358	44.38	43.77	54	-9.62	31.48	6.31	37.18	167	179	Average
5358	61.12	60.51	74	-12.88	31.48	6.31	37.18	167	179	Peak
15950	48.08	50.69	54	-5.92	36.94	12.49	52.04	180	327	Average
15950	61.01	63.62	74	-12.99	36.94	12.49	52.04	180	327	Peak

Remarks:

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

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
5460	45.22	44.4	54	-8.78	31.56	6.34	37.08	197	131	Average
5460	61.54	60.72	74	-12.46	31.56	6.34	37.08	197	131	Peak
5470	65.9	65.07	68.2	-2.3	31.57	6.34	37.08	197	131	Peak
5500	93.9	92.97			31.6	6.36	37.03	197	131	Average
5500	103.22	102.29			31.6	6.36	37.03	197	131	Peak
5725	60.3	59.02	68.2	-7.9	31.96	6.75	37.43	197	131	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
5350	41.26	40.67	54	-12.74	31.48	6.29	37.18	226	290	Average
5350	60.71	60.12	74	-13.29	31.48	6.29	37.18	226	290	Peak
5470	58.95	58.12	68.2	-9.25	31.57	6.34	37.08	226	290	Peak
5500	88.45	87.52			31.6	6.36	37.03	226	290	Average
5500	97.69	96.76			31.6	6.36	37.03	226	290	Peak
5725	59.76	58.48	68.2	-8.44	31.96	6.75	37.43	226	290	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 5500 MHz: Fundamental frequency.
- 5470 MHz & 5725 MHz: 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	Gavin Wu

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
5408	41.94	41.28	54	-12.06	31.52	6.32	37.18	197	123	Average
5408	60.38	59.72	74	-13.62	31.52	6.32	37.18	197	123	Peak
5470	59.4	58.57	68.2	-8.8	31.57	6.34	37.08	197	123	Peak
5580	94.19	93.15			31.71	6.49	37.16	197	123	Average
5580	103.53	102.49			31.71	6.49	37.16	197	123	Peak
5725	60.68	59.4	68.2	-7.52	31.96	6.75	37.43	197	123	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
5440	39.61	38.85	54	-14.39	31.55	6.34	37.13	213	296	Average
5440	60.88	60.12	74	-13.12	31.55	6.34	37.13	213	296	Peak
5470	60.24	59.41	68.2	-7.96	31.57	6.34	37.08	213	296	Peak
5580	88.37	87.33			31.71	6.49	37.16	213	296	Average
5580	97.74	96.7			31.71	6.49	37.16	213	296	Peak
5725	60.18	58.9	68.2	-8.02	31.96	6.75	37.43	213	296	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 5580 MHz: Fundamental frequency.
- 5470 MHz & 5725 MHz: 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	Gavin Wu

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
5374	45.89	45.27	54	-8.11	31.49	6.31	37.18	209	128	Average
5374	61.06	60.44	74	-12.94	31.49	6.31	37.18	209	128	Peak
5470	59	58.17	68.2	-9.2	31.57	6.34	37.08	209	128	Peak
5700	93.77	92.58			31.9	6.69	37.4	209	128	Average
5700	103.09	101.9			31.9	6.69	37.4	209	128	Peak
5725	62.13	60.85	68.2	-6.07	31.96	6.75	37.43	209	128	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
5398	40.75	40.09	54	-13.25	31.52	6.32	37.18	207	282	Average
5398	61.29	60.63	74	-12.71	31.52	6.32	37.18	207	282	Peak
5470	58.42	57.59	68.2	-9.78	31.57	6.34	37.08	207	282	Peak
5700	88.63	87.44			31.9	6.69	37.4	207	282	Average
5700	98.07	96.88			31.9	6.69	37.4	207	282	Peak
5725	61.4	60.12	68.2	-6.8	31.96	6.75	37.43	207	282	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 5700 MHz: Fundamental frequency.
- 5470 MHz & 5725 MHz: 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	Gavin Wu

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
*5714	60.28	59.09	68.2	-7.92	31.93	6.69	37.43	165	323	Peak
*5725	62.42	61.14	78.2	-15.78	31.96	6.75	37.43	165	323	Peak
5745	92.68	91.41			31.99	6.75	37.47	165	323	Average
5745	101.79	100.52			31.99	6.75	37.47	165	323	Peak
*5850	59.64	58.12	78.2	-18.56	32.15	6.88	37.51	165	323	Peak
*5861	60.56	58.93	68.2	-7.64	32.18	6.95	37.5	165	323	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
*5714	62.87	61.68	68.2	-5.33	31.93	6.69	37.43	191	328	Peak
*5725	62.98	61.7	78.2	-15.22	31.96	6.75	37.43	191	328	Peak
5745	95.91	94.64			31.99	6.75	37.47	191	328	Average
5745	105.22	103.95			31.99	6.75	37.47	191	328	Peak
*5850	60.96	59.44	78.2	-17.24	32.15	6.88	37.51	191	328	Peak
*5861	60.65	59.02	68.2	-7.55	32.18	6.95	37.5	191	328	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 5745 MHz: Fundamental frequency.
- *: 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	Gavin Wu

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
*5714	60.36	59.17	68.2	-7.84	31.93	6.69	37.43	168	316	Peak
*5725	60.34	59.06	78.2	-17.86	31.96	6.75	37.43	168	316	Peak
5785	92.82	91.5			32.04	6.82	37.54	168	316	Average
5785	101.74	100.42			32.04	6.82	37.54	168	316	Peak
*5850	61.03	59.51	78.2	-17.17	32.15	6.88	37.51	168	316	Peak
*5861	60.78	59.15	68.2	-7.42	32.18	6.95	37.5	168	316	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
*5714	60.97	59.78	68.2	-7.23	31.93	6.69	37.43	187	321	Peak
*5725	60.57	59.29	78.2	-17.63	31.96	6.75	37.43	187	321	Peak
5785	96.01	94.69			32.04	6.82	37.54	187	321	Average
5785	105.21	103.89			32.04	6.82	37.54	187	321	Peak
*5850	60.78	59.26	78.2	-17.42	32.15	6.88	37.51	187	321	Peak
*5861	60.35	58.72	68.2	-7.85	32.18	6.95	37.5	187	321	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 5785 MHz: Fundamental frequency.
- *: 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	Gavin Wu

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
*5714	60.21	59.02	68.2	-7.99	31.93	6.69	37.43	165	313	Peak
*5725	60.6	59.32	78.2	-17.6	31.96	6.75	37.43	165	313	Peak
5825	93.34	91.87			32.12	6.88	37.53	165	313	Average
5825	102.31	100.84			32.12	6.88	37.53	165	313	Peak
*5850	62.05	60.53	78.2	-16.15	32.15	6.88	37.51	165	313	Peak
*5861	60.83	59.2	68.2	-7.37	32.18	6.95	37.5	165	313	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
*5714	60.78	59.59	68.2	-7.42	31.93	6.69	37.43	181	326	Peak
*5725	60.71	59.43	78.2	-17.49	31.96	6.75	37.43	181	326	Peak
5825	96.99	95.52			32.12	6.88	37.53	181	326	Average
5825	106.01	104.54			32.12	6.88	37.53	181	326	Peak
*5850	63.45	61.93	78.2	-14.75	32.15	6.88	37.51	181	326	Peak
*5861	60.73	59.1	68.2	-7.47	32.18	6.95	37.5	181	326	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 5825 MHz: Fundamental frequency.
- *: 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	Gavin Wu

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
5150	51.14	50.94	54	-2.86	31.32	6.2	37.32	172	304	Average
5150	68.36	68.16	74	-5.64	31.32	6.2	37.32	172	304	Peak
5190	92.85	92.62			31.35	6.22	37.34	172	304	Average
5190	102.31	102.08			31.35	6.22	37.34	172	304	Peak
5352	43.4	42.81	54	-10.6	31.48	6.29	37.18	172	304	Average
5352	60.94	60.35	74	-13.06	31.48	6.29	37.18	172	304	Peak
15569	46.48	47.66	54	-7.52	38.01	12.53	51.72	118	273	Average
15569	56.14	57.32	74	-17.86	38.01	12.53	51.72	118	273	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
5142	47.97	47.75	54	-6.03	31.32	6.2	37.3	100	296	Average
5142	63.46	63.24	74	-10.54	31.32	6.2	37.3	100	296	Peak
5190	89.83	89.6			31.35	6.22	37.34	100	296	Average
5190	98.43	98.2			31.35	6.22	37.34	100	296	Peak
5354	39.74	39.15	54	-14.26	31.48	6.29	37.18	100	296	Average
5354	60.6	60.01	74	-13.4	31.48	6.29	37.18	100	296	Peak
15570	46.98	48.16	54	-7.02	38.01	12.53	51.72	174	334	Average
15570	56.27	57.45	74	-17.73	38.01	12.53	51.72	174	334	Peak

Remarks:

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

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
5098	45.74	45.55	54	-8.26	31.28	6.19	37.28	175	315	Average
5098	62.03	61.84	74	-11.97	31.28	6.19	37.28	175	315	Peak
5230	95.64	95.33			31.39	6.24	37.32	175	315	Average
5230	104.69	104.38			31.39	6.24	37.32	175	315	Peak
5442	45.07	44.31	54	-8.93	31.55	6.34	37.13	175	315	Average
5442	61.25	60.49	74	-12.75	31.55	6.34	37.13	175	315	Peak
15690	47.28	50.58	54	-6.72	37.67	12.52	53.49	176	253	Average
15690	58.74	62.04	74	-15.26	37.67	12.52	53.49	176	253	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5084	42.8	42.63	54	-11.2	31.27	6.17	37.27	113	287	Average
5084	61.08	60.91	74	-12.92	31.27	6.17	37.27	113	287	Peak
5230	92.28	91.97			31.39	6.24	37.32	113	287	Average
5230	101.19	100.88			31.39	6.24	37.32	113	287	Peak
5380	40.32	39.68	54	-13.68	31.51	6.31	37.18	113	287	Average
5380	61.12	60.48	74	-12.88	31.51	6.31	37.18	113	287	Peak
15690	48.87	52.17	54	-5.13	37.67	12.52	53.49	178	331	Average
15690	58.7	62	74	-15.3	37.67	12.52	53.49	178	331	Peak

Remarks:

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

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
5098	41.88	41.69	54	-12.12	31.28	6.19	37.28	178	130	Average
5098	60.19	60	74	-13.81	31.28	6.19	37.28	178	130	Peak
5270	94.63	94.24			31.41	6.25	37.27	178	130	Average
5270	103.51	103.12			31.41	6.25	37.27	178	130	Peak
5456	44.69	43.87	54	-9.31	31.56	6.34	37.08	178	130	Average
5456	61.52	60.7	74	-12.48	31.56	6.34	37.08	178	130	Peak
15810	49.3	50.76	54	-4.7	37.33	12.5	51.29	173	255	Average
15810	59.91	61.37	74	-14.09	37.33	12.5	51.29	173	255	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
5140	39.25	39.03	54	-14.75	31.32	6.2	37.3	169	181	Average
5140	60.82	60.6	74	-13.18	31.32	6.2	37.3	169	181	Peak
5270	91.95	91.56			31.41	6.25	37.27	169	181	Average
5270	101.08	100.69			31.41	6.25	37.27	169	181	Peak
5396	41.37	40.72	54	-12.63	31.52	6.31	37.18	169	181	Average
5396	60.84	60.19	74	-13.16	31.52	6.31	37.18	169	181	Peak
15810	50.45	51.91	54	-3.55	37.33	12.5	51.29	186	324	Average
15810	62.06	63.52	74	-11.94	37.33	12.5	51.29	186	324	Peak

Remarks:

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

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	40.59	40.42	54	-13.41	31.25	6.17	37.25	169	137	Average
5064	60.87	60.7	74	-13.13	31.25	6.17	37.25	169	137	Peak
5310	92.11	91.59			31.44	6.27	37.19	169	137	Average
5310	101.26	100.74			31.44	6.27	37.19	169	137	Peak
5350	50.28	49.69	54	-3.72	31.48	6.29	37.18	169	137	Average
5350	68.99	68.4	74	-5.01	31.48	6.29	37.18	169	137	Peak
15930	47.28	49.33	54	-6.72	36.99	12.49	51.53	180	330	Average
15930	57.75	59.8	74	-16.25	36.99	12.49	51.53	180	330	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
5050	39.58	39.44	54	-14.42	31.24	6.15	37.25	174	170	Average
5050	60.18	60.04	74	-13.82	31.24	6.15	37.25	174	170	Peak
5310	89.61	89.08			31.45	6.27	37.19	174	170	Average
5310	98.92	98.39			31.45	6.27	37.19	174	170	Peak
5350	46.97	46.38	54	-7.03	31.48	6.29	37.18	174	170	Average
5350	62.97	62.38	74	-11.03	31.48	6.29	37.18	174	170	Peak
15930	47.6	49.65	54	-6.4	36.99	12.49	51.53	181	327	Average
15930	59.08	61.13	74	-14.92	36.99	12.49	51.53	181	327	Peak

Remarks:

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

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
5370	41.41	40.79	54	-12.59	31.49	6.31	37.18	194	135	Average
5370	61.21	60.59	74	-12.79	31.49	6.31	37.18	194	135	Peak
5470	59.17	58.34	68.2	-9.03	31.57	6.34	37.08	194	135	Peak
5510	86.74	85.84			31.6	6.36	37.06	194	135	Average
5510	95.53	94.63			31.6	6.36	37.06	194	135	Peak
5725	59.07	57.79	68.2	-9.13	31.96	6.75	37.43	194	135	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
5450	39.93	39.11	54	-14.07	31.56	6.34	37.08	215	308	Average
5450	61.54	60.72	74	-12.46	31.56	6.34	37.08	215	308	Peak
5470	60.99	60.16	68.2	-7.21	31.57	6.34	37.08	215	308	Peak
5510	80.83	79.93			31.6	6.36	37.06	215	308	Average
5510	90.05	89.15			31.6	6.36	37.06	215	308	Peak
5725	60.62	59.34	68.2	-7.58	31.96	6.75	37.43	215	308	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 5510 MHz: Fundamental frequency.
- 5470 MHz & 5725 MHz: 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	Gavin Wu

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
5420	40.76	40.09	54	-13.24	31.53	6.32	37.18	204	121	Average
5420	60.73	60.06	74	-13.27	31.53	6.32	37.18	204	121	Peak
5470	59.95	59.12	68.2	-8.25	31.57	6.34	37.08	204	121	Peak
5550	88.67	87.66			31.68	6.42	37.09	204	121	Average
5550	97.73	96.72			31.68	6.42	37.09	204	121	Peak
5725	60.16	58.88	68.2	-8.04	31.96	6.75	37.43	204	121	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	39.51	38.75	54	-14.49	31.55	6.34	37.13	214	285	Average
5442	59.86	59.1	74	-14.14	31.55	6.34	37.13	214	285	Peak
5470	59.87	59.04	68.2	-8.33	31.57	6.34	37.08	214	285	Peak
5550	83.02	82.01			31.68	6.42	37.09	214	285	Average
5550	92.58	91.57			31.68	6.42	37.09	214	285	Peak
5725	60.12	58.84	68.2	-8.08	31.96	6.75	37.43	214	285	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 5550 MHz: Fundamental frequency.
- 5470 MHz & 5725 MHz: 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	Gavin Wu

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
5360	42.74	42.13	54	-11.26	31.48	6.31	37.18	193	148	Average
5360	61.66	61.05	74	-12.34	31.48	6.31	37.18	193	148	Peak
5470	58.84	58.01	68.2	-9.36	31.57	6.34	37.08	193	148	Peak
5670	88.53	87.37			31.88	6.62	37.34	193	148	Average
5670	97.67	96.51			31.88	6.62	37.34	193	148	Peak
5725	62.14	60.86	68.2	-6.06	31.96	6.75	37.43	193	148	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
5420	39.23	38.56	54	-14.77	31.53	6.32	37.18	212	303	Average
5420	60.68	60.01	74	-13.32	31.53	6.32	37.18	212	303	Peak
5470	59.79	58.96	68.2	-8.41	31.57	6.34	37.08	212	303	Peak
5670	83.43	82.27			31.88	6.62	37.34	212	303	Average
5670	92.56	91.4			31.88	6.62	37.34	212	303	Peak
5725	61.17	59.89	68.2	-7.03	31.96	6.75	37.43	212	303	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 5670 MHz: Fundamental frequency.
- 5470 MHz & 5725 MHz: 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	Gavin Wu

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
*5714	64.36	63.17	68.2	-3.84	31.93	6.69	37.43	163	306	Peak
*5725	64.58	63.3	78.2	-13.62	31.96	6.75	37.43	163	306	Peak
5755	88.81	87.52			32.01	6.75	37.47	163	306	Average
5755	97.79	96.5			32.01	6.75	37.47	163	306	Peak
*5850	60.9	59.38	78.2	-17.3	32.15	6.88	37.51	163	306	Peak
*5861	60.06	58.43	68.2	-8.14	32.18	6.95	37.5	163	306	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
*5714	64.74	63.55	68.2	-3.46	31.93	6.69	37.43	191	320	Peak
*5725	67.28	66	78.2	-10.92	31.96	6.75	37.43	191	320	Peak
5755	91.81	90.52			32.01	6.75	37.47	191	320	Average
5755	101.22	99.93			32.01	6.75	37.47	191	320	Peak
*5850	60.25	58.73	78.2	-17.95	32.15	6.88	37.51	191	320	Peak
*5861	60.9	59.27	68.2	-7.3	32.18	6.95	37.5	191	320	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 5755 MHz: Fundamental frequency.
- *: 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	Gavin Wu

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
*5714	59.88	58.69	68.2	-8.32	31.93	6.69	37.43	165	296	Peak
*5725	60.41	59.13	78.2	-17.79	31.96	6.75	37.43	165	296	Peak
5795	89.63	88.28			32.07	6.82	37.54	165	296	Average
5795	98.61	97.26			32.07	6.82	37.54	165	296	Peak
*5850	60.3	58.78	78.2	-17.9	32.15	6.88	37.51	165	296	Peak
*5861	61.16	59.53	68.2	-7.04	32.18	6.95	37.5	165	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
*5714	60.76	59.57	68.2	-7.44	31.93	6.69	37.43	182	338	Peak
*5725	61.05	59.77	78.2	-17.15	31.96	6.75	37.43	182	338	Peak
5795	92.66	91.31			32.07	6.82	37.54	182	338	Average
5795	101.8	100.45			32.07	6.82	37.54	182	338	Peak
*5850	60.66	59.14	78.2	-17.54	32.15	6.88	37.51	182	338	Peak
*5861	62.2	60.57	68.2	-6	32.18	6.95	37.5	182	338	Peak

Remarks:

- Emission Level = Read Level + Antenna Factor + Cable Loss - Preamp Factor
Margin value = Emission level – Limit value
- 5795 MHz: Fundamental frequency.
- *: Out of restricted band

9 kHz ~ 30 MHz DATA:

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

30 MHz ~ 1 GHz WORST-CASE DATA:

802.11a

EUT Test Condition		Measurement Detail	
Channel	Channel 36	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	Gavin Wu

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
38.73	19.04	36.02	40	-20.96	13.39	0.63	31	135	4	Peak
174.53	24.14	43.48	43.5	-19.36	11.28	1.16	31.78	125	359	Peak
238.55	20.93	40.28	46	-25.07	10.99	1.45	31.79	117	59	Peak
719.67	34.92	43.01	46	-11.08	21.09	2.48	31.66	124	287	Peak
768.17	35.6	42.59	46	-10.4	21.78	2.56	31.33	137	164	Peak
815.7	32.45	38.93	46	-13.55	22.43	2.63	31.54	106	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
38.73	29.63	46.61	40	-10.37	13.39	0.63	31	123	149	Peak
49.4	25.73	43.23	40	-14.27	13.08	0.7	31.28	109	8	Peak
251.16	21.24	40.17	46	-24.76	11.51	1.49	31.93	112	129	Peak
496.57	23.13	35.47	46	-22.87	17.25	2.08	31.67	100	50	Peak
719.67	27.6	35.69	46	-18.4	21.09	2.48	31.66	113	358	Peak
768.17	29.52	36.51	46	-16.48	21.78	2.56	31.33	118	311	Peak

Remarks:

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

802.11a

EUT Test Condition		Measurement Detail	
Channel	Channel 60	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	Gavin Wu

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
40.67	22.35	39.17	40	-17.65	13.55	0.65	31.02	124	211	Peak
174.53	24.7	44.04	43.5	-18.8	11.28	1.16	31.78	108	33	Peak
234.67	20.66	40.21	46	-25.34	10.83	1.44	31.82	114	217	Peak
719.67	35.24	43.33	46	-10.76	21.09	2.48	31.66	128	80	Peak
768.17	35.25	42.24	46	-10.75	21.78	2.56	31.33	120	146	Peak
815.7	32.53	39.01	46	-13.47	22.43	2.63	31.54	115	130	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
37.76	29.85	47	40	-10.15	13.24	0.63	31.02	104	51	Peak
49.4	26.24	43.74	40	-13.76	13.08	0.7	31.28	136	103	Peak
233.7	20.8	40.41	46	-25.2	10.79	1.43	31.83	101	179	Peak
488.81	22.64	35.25	46	-23.36	17.1	2.07	31.78	138	312	Peak
624.61	30.64	40.6	46	-15.36	19.9	2.3	32.16	106	57	Peak
768.17	28.22	35.21	46	-17.78	21.78	2.56	31.33	104	125	Peak

Remarks:

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

802.11a

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

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
37.76	18.18	35.33	40	-21.82	13.24	0.63	31.02	109	219	Peak
175.5	24.14	43.58	43.5	-19.36	11.19	1.16	31.79	123	286	Peak
240.49	20.53	39.79	46	-25.47	11.07	1.46	31.79	113	180	Peak
672.14	28.59	37.53	46	-17.41	20.48	2.4	31.82	119	358	Peak
719.67	34.59	42.68	46	-11.41	21.09	2.48	31.66	123	176	Peak
768.17	35.13	42.12	46	-10.87	21.78	2.56	31.33	103	333	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
38.73	29.69	46.67	40	-10.31	13.39	0.63	31	111	105	Peak
49.4	25.07	42.57	40	-14.93	13.08	0.7	31.28	122	90	Peak
253.1	21.34	40.18	46	-24.66	11.57	1.5	31.91	120	204	Peak
492.69	22.84	35.31	46	-23.16	17.18	2.08	31.73	129	248	Peak
719.67	27.68	35.77	46	-18.32	21.09	2.48	31.66	101	129	Peak
768.17	29.77	36.76	46	-16.23	21.78	2.56	31.33	128	48	Peak

Remarks:

- 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 151	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	Gavin Wu

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
34.85	18.48	36.15	40	-21.52	12.79	0.6	31.06	117	253	Peak
174.53	23.97	43.31	43.5	-19.53	11.28	1.16	31.78	131	205	Peak
240.49	20.77	40.03	46	-25.23	11.07	1.46	31.79	118	332	Peak
672.14	29.43	38.37	46	-16.57	20.48	2.4	31.82	114	35	Peak
719.67	34.51	42.6	46	-11.49	21.09	2.48	31.66	103	341	Peak
768.17	35.12	42.11	46	-10.88	21.78	2.56	31.33	119	16	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
38.73	28.86	45.84	40	-11.14	13.39	0.63	31	134	295	Peak
49.4	27.05	44.55	40	-12.95	13.08	0.7	31.28	128	25	Peak
233.7	21.23	40.84	46	-24.77	10.79	1.43	31.83	104	207	Peak
652.74	24.8	34.2	46	-21.2	20.24	2.36	32	106	212	Peak
719.67	27.95	36.04	46	-18.05	21.09	2.48	31.66	110	319	Peak
768.17	29.26	36.25	46	-16.74	21.78	2.56	31.33	133	72	Peak

Remarks:

- 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. 16, 2015	Nov. 15, 2016
RF signal cable (with 10dB PAD) Woken	5D-FB	Cable-cond1-01	Dec. 26, 2014	Dec. 25, 2015
LISN ROHDE & SCHWARZ (EUT)	ESH3-Z5	835239/001	Feb. 26, 2015	Feb. 25, 2016
LISN ROHDE & SCHWARZ (Peripheral)	ESH3-Z5	100311	Jul. 24, 2015	Jul. 23, 2016
Software ADT	BV ADT_Conc_ V7.3.7.3	NA	NA	NA

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

2. The test was performed in HwaYa Shielded Room 1.

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

4.2.3 Test Procedures

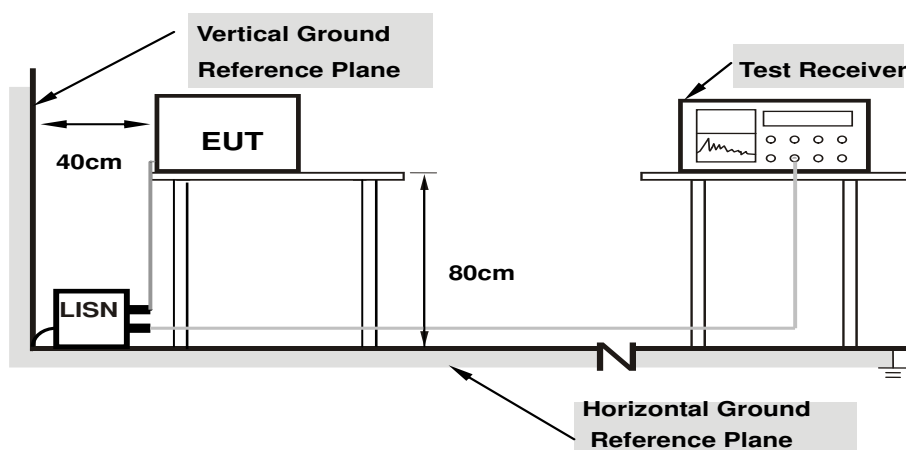
- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.
- Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- The frequency range from 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

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

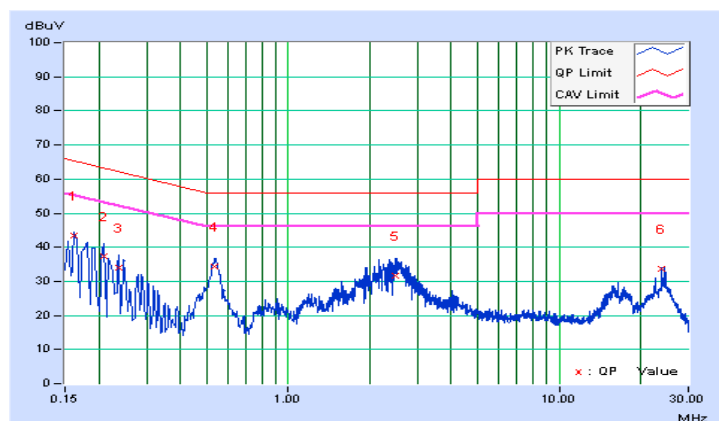
4.2.7 Test Results

Frequency Range	150kHz ~ 30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9kHz
Input Power	120Vac, 60Hz	Environmental Conditions	25°C, 65%RH
Tested by	Toby Tian	Test Date	2015/11/14

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	0.16181	9.82	33.70	13.73	43.52	23.55	65.37	55.37	-21.85	-31.82
2	0.20865	9.84	27.66	8.03	37.50	17.87	63.26	53.26	-25.76	-35.39
3	0.23602	9.85	24.32	6.86	34.17	16.71	62.24	52.24	-28.07	-35.53
4	0.53709	9.89	24.51	14.66	34.40	24.55	56.00	46.00	-21.60	-21.45
5	2.49991	10.03	21.64	9.06	31.67	19.09	56.00	46.00	-24.33	-26.91
6	24.00100	11.24	22.29	20.61	33.53	31.85	60.00	50.00	-26.47	-18.15

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

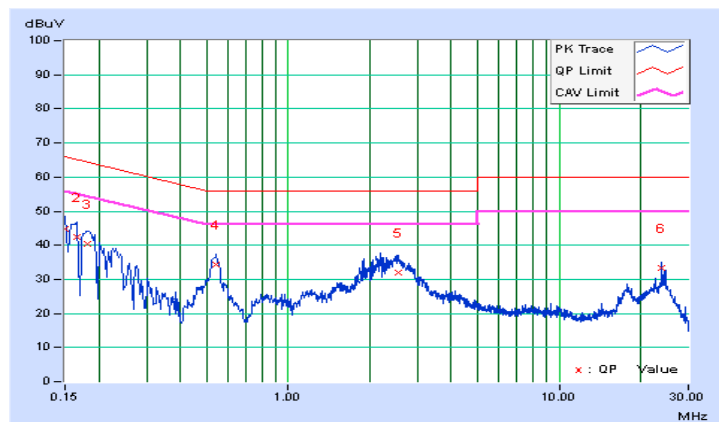


Frequency Range	150kHz ~ 30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9kHz
Input Power	120Vac, 60Hz	Environmental Conditions	25°C, 65%RH
Tested by	Toby Tian	Test Date	2015/11/14

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	0.15000	9.82	35.00	20.67	44.82	30.49	66.00	56.00	-21.18	-25.51
2	0.16564	9.82	32.66	12.70	42.48	22.52	65.18	55.18	-22.69	-32.65
3	0.18075	9.83	30.71	11.10	40.54	20.93	64.45	54.45	-23.91	-33.52
4	0.54089	9.89	24.39	14.64	34.28	24.53	56.00	46.00	-21.72	-21.47
5	2.54683	10.03	21.81	9.03	31.84	19.06	56.00	46.00	-24.16	-26.94
6	24.00100	11.02	22.16	20.49	33.18	31.51	60.00	50.00	-26.82	-18.49

Remarks:

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



4.3 Transmit Power Measurement

4.3.1 Limits of Transmit Power Measurement

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

*B is the 26 dB emission bandwidth in megahertz

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

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

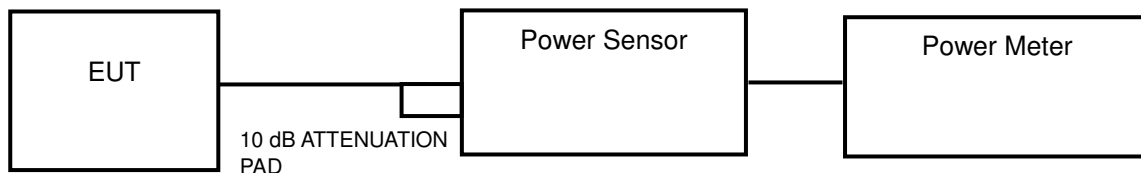
Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT} ;

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

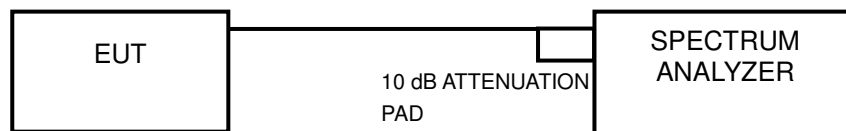
For power measurements on all other devices: Array Gain = 10 log(N_{ANT}/N_{SS}) dB.

4.3.2 Test Setup

<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.

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 from Test Standard

No deviation.

4.3.6 EUT Operating Conditions

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

4.3.7 Test Result

Power Output:

<1TX>

802.11a

Channel	Frequency (MHz)	Maximum Conducted Power (mW)	Maximum Conducted Power (dBm)	Power Limit (dBm)	Pass / Fail
36	5180	13.12	11.18	24	Pass
44	5220	17.78	12.50	24	Pass
48	5240	16.44	12.16	24	Pass
52	5260	13.68	11.36	24	Pass
60	5300	13.58	11.33	24	Pass
64	5320	16.29	12.12	24	Pass
100	5500	22.59	13.54	24	Pass
116	5580	27.35	14.37	24	Pass
140	5700	25.70	14.10	24	Pass
149	5745	26.06	14.16	30	Pass
157	5785	27.67	14.42	30	Pass
165	5825	23.66	13.74	30	Pass

NOTE:

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

1. $11 \text{ dBm} + 10\log(24.73) = 24.93 \text{ dBm} > 24 \text{ dBm}$.
2. $11 \text{ dBm} + 10\log(21.79) = 24.38 \text{ dBm} > 24 \text{ dBm}$.
3. $11 \text{ dBm} + 10\log(23.40) = 24.69 \text{ dBm} > 24 \text{ dBm}$.
4. $11 \text{ dBm} + 10\log(27.89) = 25.45 \text{ dBm} > 24 \text{ dBm}$.
5. $11 \text{ dBm} + 10\log(39.24) = 26.94 \text{ dBm} > 24 \text{ dBm}$.
6. $11 \text{ dBm} + 10\log(36.44) = 26.62 \text{ dBm} > 24 \text{ dBm}$.

802.11n (HT20)

Channel	Frequency (MHz)	Maximum Conducted Power (mW)	Maximum Conducted Power (dBm)	Power Limit (dBm)	Pass / Fail
36	5180	15.81	11.99	24	Pass
44	5220	15.42	11.88	24	Pass
48	5240	15.00	11.76	24	Pass
52	5260	13.24	11.22	24	Pass
60	5300	12.71	11.04	24	Pass
64	5320	12.88	11.10	24	Pass
100	5500	17.62	12.46	24	Pass
116	5580	17.82	12.51	24	Pass
140	5700	17.38	12.40	24	Pass
149	5745	14.22	11.53	30	Pass
157	5785	15.45	11.89	30	Pass
165	5825	15.31	11.85	30	Pass

NOTE:

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

1. $11 \text{ dBm} + 10\log(25.67) = 25.09 \text{ dBm} > 24 \text{ dBm}$.
2. $11 \text{ dBm} + 10\log(26.16) = 25.18 \text{ dBm} > 24 \text{ dBm}$.
3. $11 \text{ dBm} + 10\log(25.39) = 25.05 \text{ dBm} > 24 \text{ dBm}$.
4. $11 \text{ dBm} + 10\log(25.55) = 25.07 \text{ dBm} > 24 \text{ dBm}$.
5. $11 \text{ dBm} + 10\log(26.42) = 25.22 \text{ dBm} > 24 \text{ dBm}$.
6. $11 \text{ dBm} + 10\log(26.31) = 25.20 \text{ dBm} > 24 \text{ dBm}$.

802.11n (HT40)

Channel	Frequency (MHz)	Maximum Conducted Power (mW)	Maximum Conducted Power (dBm)	Power Limit (dBm)	Pass / Fail
38	5190	9.38	9.72	24	Pass
46	5230	14.83	11.71	24	Pass
54	5270	16.33	12.13	24	Pass
62	5310	10.69	10.29	24	Pass
102	5510	10.12	10.05	24	Pass
110	5550	15.42	11.88	24	Pass
134	5670	16.52	12.18	24	Pass
151	5755	14.19	11.52	30	Pass
159	5795	15.70	11.96	30	Pass

NOTE:

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

1. $11 \text{ dBm} + 10\log(67.33) = 29.28 \text{ dBm} > 24 \text{ dBm}$.
2. $11 \text{ dBm} + 10\log(54.13) = 28.33 \text{ dBm} > 24 \text{ dBm}$.
3. $11 \text{ dBm} + 10\log(47.29) = 27.75 \text{ dBm} > 24 \text{ dBm}$.
4. $11 \text{ dBm} + 10\log(68.15) = 29.33 \text{ dBm} > 24 \text{ dBm}$.
5. $11 \text{ dBm} + 10\log(55.14) = 28.41 \text{ dBm} > 24 \text{ dBm}$.

<2TX>

802.11a

Channel	Frequency (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
36	5180	9.11	7.90	14.31	11.56	24	Pass
44	5220	10.43	9.23	19.42	12.88	24	Pass
48	5240	10.42	9.01	18.98	12.78	24	Pass
52	5260	9.71	8.08	15.78	11.98	24	Pass
60	5300	9.57	8.08	15.48	11.90	24	Pass
64	5320	10.23	8.99	18.47	12.66	24	Pass
100	5500	11.66	10.40	25.62	14.09	24	Pass
116	5580	12.07	10.65	27.72	14.43	24	Pass
140	5700	11.75	10.55	26.31	14.20	24	Pass
149	5745	12.26	10.68	28.52	14.55	30	Pass
157	5785	12.41	10.92	29.78	14.74	30	Pass
165	5825	12.01	10.22	26.41	14.22	30	Pass

NOTE:

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

CHAIN 0

1. 11 dBm + 10log (39.61) = 26.98 dBm > 24 dBm.
2. 11 dBm + 10log (36.98) = 26.68 dBm > 24 dBm.
3. 11 dBm + 10log (38.73) = 26.88 dBm > 24 dBm.
4. 11 dBm + 10log (41.62) = 27.19 dBm > 24 dBm.
5. 11 dBm + 10log (42.09) = 27.24 dBm > 24 dBm.
6. 11 dBm + 10log (38.53) = 26.86 dBm > 24 dBm.

CHAIN 1

1. 11 dBm + 10log (32.94) = 26.18 dBm > 24 dBm.
2. 11 dBm + 10log (34.48) = 26.38 dBm > 24 dBm.
3. 11 dBm + 10log (38.03) = 26.80 dBm > 24 dBm.
4. 11 dBm + 10log (43.24) = 27.36 dBm > 24 dBm.
5. 11 dBm + 10log (43.18) = 27.35 dBm > 24 dBm.
6. 11 dBm + 10log (39.87) = 27.01 dBm > 24 dBm.

802.11n (HT20)

Channel	Frequency (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
36	5180	9.98	8.64	17.27	12.37	24	Pass
44	5220	9.83	8.63	16.91	12.28	24	Pass
48	5240	9.57	8.62	16.34	12.13	24	Pass
52	5260	8.78	7.72	13.47	11.29	24	Pass
60	5300	8.67	7.59	13.10	11.17	24	Pass
64	5320	8.67	7.54	13.04	11.15	24	Pass
100	5500	10.67	9.04	19.68	12.94	24	Pass
116	5580	10.62	9.24	19.93	12.99	24	Pass
140	5700	10.53	9.10	19.43	12.88	24	Pass
149	5745	9.89	7.67	15.60	11.93	30	Pass
157	5785	10.30	7.89	16.87	12.27	30	Pass
165	5825	10.31	8.01	17.06	12.32	30	Pass

NOTE:

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

CHAIN 0

1. $11 \text{ dBm} + 10\log(27.64) = 25.42 \text{ dBm} > 24 \text{ dBm}$.
2. $11 \text{ dBm} + 10\log(29.59) = 25.71 \text{ dBm} > 24 \text{ dBm}$.
3. $11 \text{ dBm} + 10\log(28.77) = 25.59 \text{ dBm} > 24 \text{ dBm}$.
4. $11 \text{ dBm} + 10\log(42.91) = 27.33 \text{ dBm} > 24 \text{ dBm}$.
5. $11 \text{ dBm} + 10\log(42.41) = 27.27 \text{ dBm} > 24 \text{ dBm}$.
6. $11 \text{ dBm} + 10\log(37.77) = 26.77 \text{ dBm} > 24 \text{ dBm}$.

CHAIN 1

1. $11 \text{ dBm} + 10\log(26.42) = 25.22 \text{ dBm} > 24 \text{ dBm}$.
2. $11 \text{ dBm} + 10\log(26.00) = 25.15 \text{ dBm} > 24 \text{ dBm}$.
3. $11 \text{ dBm} + 10\log(28.24) = 25.51 \text{ dBm} > 24 \text{ dBm}$.
4. $11 \text{ dBm} + 10\log(42.74) = 27.31 \text{ dBm} > 24 \text{ dBm}$.
5. $11 \text{ dBm} + 10\log(41.88) = 27.22 \text{ dBm} > 24 \text{ dBm}$.
6. $11 \text{ dBm} + 10\log(38.11) = 26.81 \text{ dBm} > 24 \text{ dBm}$.

802.11n (HT40)

Channel	Frequency (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
38	5190	7.54	5.75	9.43	9.75	24	Pass
46	5230	9.61	8.47	16.17	12.09	24	Pass
54	5270	9.61	8.67	16.50	12.18	24	Pass
62	5310	7.89	6.63	10.75	10.32	24	Pass
102	5510	8.05	5.89	10.26	10.11	24	Pass
110	5550	9.55	7.98	15.30	11.85	24	Pass
134	5670	9.96	8.72	17.36	12.39	24	Pass
151	5755	10.09	7.45	15.77	11.98	30	Pass
159	5795	10.23	7.89	16.70	12.23	30	Pass

NOTE:

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

CHAIN 0

1. $11 \text{ dBm} + 10\log(79.87) = 30.02 \text{ dBm} > 24 \text{ dBm}$.
2. $11 \text{ dBm} + 10\log(72.31) = 29.59 \text{ dBm} > 24 \text{ dBm}$.
3. $11 \text{ dBm} + 10\log(70.34) = 29.47 \text{ dBm} > 24 \text{ dBm}$.
4. $11 \text{ dBm} + 10\log(89.30) = 30.51 \text{ dBm} > 24 \text{ dBm}$.
5. $11 \text{ dBm} + 10\log(81.53) = 30.11 \text{ dBm} > 24 \text{ dBm}$.

CHAIN 1

1. $11 \text{ dBm} + 10\log(67.57) = 29.30 \text{ dBm} > 24 \text{ dBm}$.
2. $11 \text{ dBm} + 10\log(62.78) = 28.98 \text{ dBm} > 24 \text{ dBm}$.
3. $11 \text{ dBm} + 10\log(68.01) = 29.33 \text{ dBm} > 24 \text{ dBm}$.
4. $11 \text{ dBm} + 10\log(86.55) = 30.37 \text{ dBm} > 24 \text{ dBm}$.
5. $11 \text{ dBm} + 10\log(82.89) = 30.19 \text{ dBm} > 24 \text{ dBm}$.

26 dB Bandwidth:

<1TX>

802.11a

Channel	Frequency (MHz)	26 dBc Bandwidth (MHz)	Pass / Fail
36	5180	24.29	Pass
44	5220	27.88	Pass
48	5240	28.50	Pass
52	5260	24.73	Pass
60	5300	21.79	Pass
64	5320	23.40	Pass
100	5500	27.89	Pass
116	5580	39.24	Pass
140	5700	36.44	Pass

802.11n (HT20)

Channel	Frequency (MHz)	26 dBc Bandwidth (MHz)	Pass / Fail
36	5180	24.69	Pass
44	5220	26.44	Pass
48	5240	24.00	Pass
52	5260	25.67	Pass
60	5300	26.16	Pass
64	5320	25.39	Pass
100	5500	25.55	Pass
116	5580	26.42	Pass
140	5700	26.31	Pass

802.11n (HT40)

Channel	Frequency (MHz)	26 dBc Bandwidth (MHz)	Pass / Fail
38	5190	48.14	Pass
46	5230	63.02	Pass
54	5270	67.33	Pass
62	5310	54.13	Pass
102	5510	47.29	Pass
110	5550	68.15	Pass
134	5670	55.14	Pass

<2TX>

802.11a

Channel	Frequency (MHz)	26 dBc Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
36	5180	25.97	26.21	Pass
44	5220	38.25	36.88	Pass
48	5240	37.30	36.98	Pass
52	5260	39.61	32.94	Pass
60	5300	36.98	34.48	Pass
64	5320	38.73	38.03	Pass
100	5500	41.62	43.24	Pass
116	5580	42.09	43.18	Pass
140	5700	38.53	39.87	Pass

802.11n (HT20)

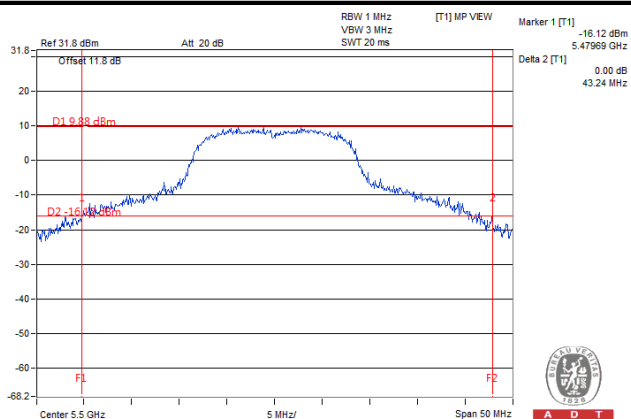
Channel	Frequency (MHz)	26 dBc Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
36	5180	27.79	27.21	Pass
44	5220	36.25	27.36	Pass
48	5240	36.69	27.13	Pass
52	5260	27.64	26.42	Pass
60	5300	29.59	26.00	Pass
64	5320	28.77	28.24	Pass
100	5500	42.91	42.74	Pass
116	5580	42.41	41.88	Pass
140	5700	37.77	38.11	Pass

802.11n (HT40)

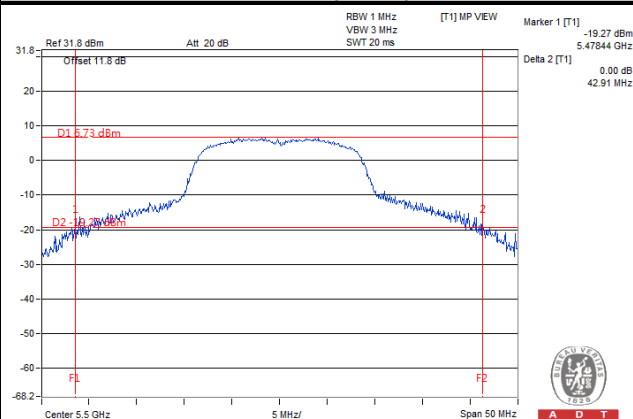
Channel	Frequency (MHz)	26 dBc Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
38	5190	48.74	53.84	Pass
46	5230	76.79	68.99	Pass
54	5270	79.87	67.57	Pass
62	5310	72.31	62.78	Pass
102	5510	70.34	68.01	Pass
110	5550	89.30	86.55	Pass
134	5670	81.53	82.89	Pass

Spectrum Plot of Worst Value

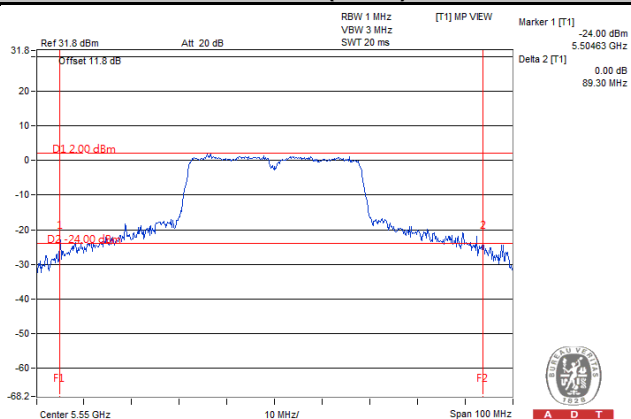
802.11a



802.11n (HT20)



802.11n (HT40)

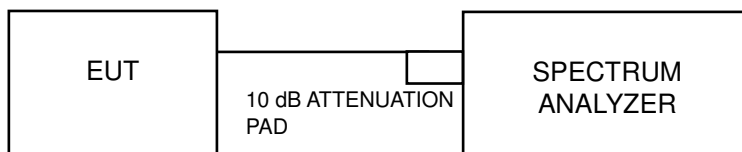


4.4 Peak Power Spectral Density Measurement

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

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)	Duty Factor	PSD with Duty Factor (dBm)	Maximum Limit (dBm)	Pass / Fail
36	5180	-0.83	0.23	-0.60	11	Pass
44	5220	0.68	0.23	0.91	11	Pass
48	5240	-0.10	0.23	0.13	11	Pass
52	5260	-1.07	0.23	-0.84	11	Pass
60	5300	-1.09	0.23	-0.86	11	Pass
64	5320	-1.21	0.23	-0.98	11	Pass
100	5500	0.67	0.23	0.90	11	Pass
116	5580	2.18	0.23	2.41	11	Pass
140	5700	2.06	0.23	2.29	11	Pass

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

802.11n (HT20)

Channel	Frequency (MHz)	PSD w/o Duty Factor (dBm)	Duty Factor	PSD with Duty Factor (dBm)	Maximum Limit (dBm)	Pass / Fail
36	5180	-1.23	0.23	-1.00	11	Pass
44	5220	-1.45	0.23	-1.22	11	Pass
48	5240	-1.40	0.23	-1.17	11	Pass
52	5260	-1.50	0.23	-1.27	11	Pass
60	5300	-1.52	0.23	-1.29	11	Pass
64	5320	-1.66	0.23	-1.43	11	Pass
100	5500	-0.65	0.23	-0.42	11	Pass
116	5580	-0.18	0.23	0.05	11	Pass
140	5700	-0.17	0.23	0.06	11	Pass

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

802.11n (HT40)

Channel	Frequency (MHz)	PSD w/o Duty Factor (dBm)	Duty Factor	PSD with Duty Factor (dBm)	Maximum Limit (dBm)	Pass / Fail
38	5190	-6.70	0.60	-6.10	11	Pass
46	5230	-5.02	0.60	-4.42	11	Pass
54	5270	-4.20	0.60	-3.60	11	Pass
62	5310	-5.99	0.60	-5.39	11	Pass
102	5510	-7.08	0.60	-6.48	11	Pass
110	5550	-4.77	0.60	-4.17	11	Pass
134	5670	-3.83	0.60	-3.23	11	Pass

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

<2TX>

802.11a

Channel	Frequency (MHz)	PSD (dBm)		Total PSD w/o Duty Factor (dBm)	Duty Factor	Total PSD with Duty Factor (dBm)	Maximum Limit (dBm)	Pass / Fail
		Chain 0	Chain 1					
36	5180	-6.68	-4.63	-2.52	0.23	-2.29	11	Pass
44	5220	-4.34	-2.56	-0.35	0.23	-0.12	11	Pass
48	5240	-4.18	-2.36	-0.17	0.23	0.07	11	Pass
52	5260	-5.01	-3.05	-0.91	0.23	-0.68	11	Pass
60	5300	-5.76	-2.83	-1.04	0.23	-0.81	11	Pass
64	5320	-5.19	-1.69	-0.09	0.23	0.15	11	Pass
100	5500	-0.90	-0.28	2.43	0.23	2.66	11	Pass
116	5580	-0.73	-0.20	2.55	0.23	2.78	11	Pass
140	5700	-3.25	-1.12	0.95	0.23	1.19	11	Pass

NOTE:

1. Directional gain = $1.78 \text{ dBi} + 10\log(2) = 4.79 \text{ dBi} < 6 \text{ dBi}$, so the power density limit no need to be reduced.
2. Refer to section 3.3 for duty cycle spectrum plot.

802.11n (HT20)

Channel	Frequency (MHz)	PSD (dBm)		Total PSD w/o Duty Factor (dBm)	Duty Factor	Total PSD with Duty Factor (dBm)	Maximum Limit (dBm)	Pass / Fail
		Chain 0	Chain 1					
36	5180	-6.00	-4.84	-2.37	0.27	-2.10	11	Pass
44	5220	-5.65	-4.43	-1.99	0.27	-1.72	11	Pass
48	5240	-5.25	-4.37	-1.78	0.27	-1.51	11	Pass
52	5260	-6.10	-5.01	-2.51	0.27	-2.24	11	Pass
60	5300	-5.78	-4.68	-2.18	0.27	-1.92	11	Pass
64	5320	-5.54	-4.51	-1.98	0.27	-1.72	11	Pass
100	5500	-2.46	-2.36	0.60	0.27	0.87	11	Pass
116	5580	-2.46	-2.25	0.66	0.27	0.92	11	Pass
140	5700	-2.92	-3.10	0.00	0.27	0.27	11	Pass

NOTE:

1. Directional gain = 1.78 dBi + 10log(2) = 4.79 dBi < 6 dBi , so the power density limit no need to be reduced.
2. Refer to section 3.3 for duty cycle spectrum plot.

802.11n (HT40)

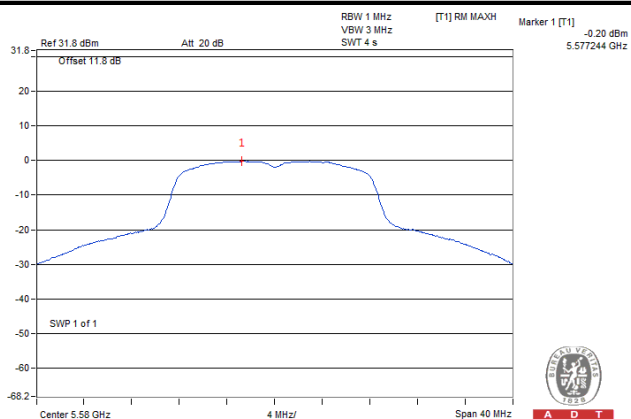
Channel	Frequency (MHz)	PSD (dBm)		Total PSD w/o Duty Factor (dBm)	Duty Factor	Total PSD with Duty Factor (dBm)	Maximum Limit (dBm)	Pass / Fail
		Chain 0	Chain 1					
38	5190	-11.59	-10.65	-8.08	0.46	-7.62	11	Pass
46	5230	-8.76	-7.48	-5.06	0.46	-4.60	11	Pass
54	5270	-8.44	-7.90	-5.15	0.46	-4.69	11	Pass
62	5310	-9.65	-8.53	-6.04	0.46	-5.58	11	Pass
102	5510	-8.71	-8.93	-5.81	0.46	-5.35	11	Pass
110	5550	-7.08	-6.81	-3.93	0.46	-3.47	11	Pass
134	5670	-6.70	-6.77	-3.72	0.46	-3.26	11	Pass

NOTE:

1. Directional gain = 1.78 dBi + 10log(2) = 4.79 dBi < 6 dBi , so the power density limit no need to be reduced.
2. Refer to section 3.3 for duty cycle spectrum plot.

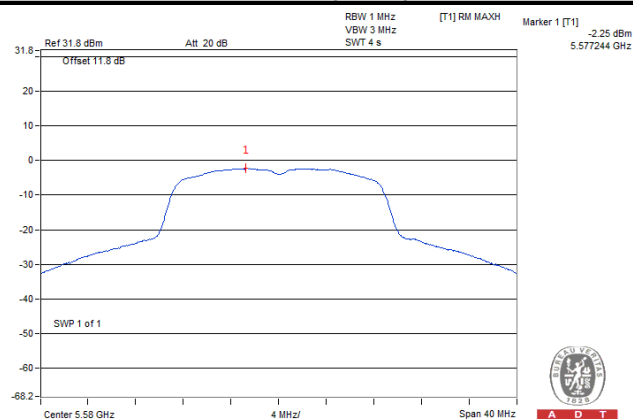
Spectrum Plot of Worst Value

802.11a



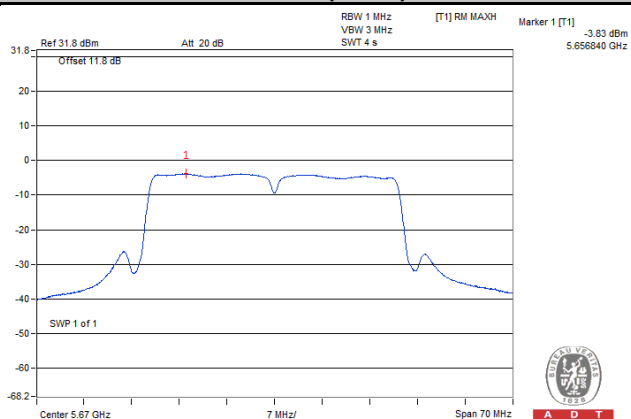
A D T

802.11n (HT20)



A D T

802.11n (HT40)



A D T

For U-NII-3 Band

<1TX>

802.11a

Channel	Frequency (MHz)	PSD w/o Duty Factor (dBm)	Duty Factor	PSD with Duty Factor (dBm)	Limit (dBm/500 kHz)	Pass / Fail
149	5745	-0.39	0.23	-0.16	30	Pass
157	5785	-0.38	0.23	-0.15	30	Pass
165	5825	-0.79	0.23	-0.56	30	Pass

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

802.11n (HT20)

Channel	Frequency (MHz)	PSD w/o Duty Factor (dBm)	Duty Factor	PSD with Duty Factor (dBm)	Limit (dBm/500 kHz)	Pass / Fail
149	5745	-3.74	0.23	-3.51	30	Pass
157	5785	-3.50	0.23	-3.27	30	Pass
165	5825	-2.97	0.23	-2.74	30	Pass

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

802.11n (HT40)

Channel	Frequency (MHz)	PSD w/o Duty Factor (dBm)	Duty Factor	PSD with Duty Factor (dBm)	Limit (dBm/500 kHz)	Pass / Fail
151	5755	-7.22	0.60	-6.62	30	Pass
159	5795	-6.91	0.60	-6.31	30	Pass

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

<2TX>

802.11a

TX Chain	Channel	Frequency (MHz)	PSD (dBm/500 kHz)	10 log (N=2) dB	Total PSD without Duty Factor (dBm/500 kHz)	Duty Factor	Total PSD with Duty Factor (dBm/500 kHz)	Limit (dBm/500 kHz)	Pass / Fail
0	149	5745	-3.35	3.01	-0.34	0.23	-0.11	30	Pass
	157	5785	-2.24	3.01	0.77	0.23	1.00	30	Pass
	165	5825	-2.12	3.01	0.89	0.23	1.12	30	Pass
1	149	5745	-4.36	3.01	-1.35	0.23	-1.12	30	Pass
	157	5785	-3.80	3.01	-0.79	0.23	-0.56	30	Pass
	165	5825	-3.93	3.01	-0.92	0.23	-0.69	30	Pass

NOTE:

1. Directional gain = $-0.37 \text{ dBi} + 10\log(2) = 2.64 \text{ dBi} < 6 \text{ dBi}$, so the power density limit no need to be reduced.
2. Refer to section 3.3 for duty cycle spectrum plot.

802.11n (HT20)

TX Chain	Channel	Frequency (MHz)	PSD (dBm/500 kHz)	10 log (N=2) dB	Total PSD without Duty Factor (dBm/500 kHz)	Duty Factor	Total PSD with Duty Factor (dBm/500 kHz)	Limit (dBm/500 kHz)	Pass / Fail
0	149	5745	-5.55	3.01	-2.54	0.27	-2.27	30	Pass
	157	5785	-4.22	3.01	-1.21	0.27	-0.94	30	Pass
	165	5825	-3.95	3.01	-0.94	0.27	-0.67	30	Pass
1	149	5745	-6.99	3.01	-3.98	0.27	-3.71	30	Pass
	157	5785	-6.68	3.01	-3.67	0.27	-3.40	30	Pass
	165	5825	-5.99	3.01	-2.98	0.27	-2.71	30	Pass

NOTE:

1. Directional gain = $-0.37 \text{ dBi} + 10\log(2) = 2.64 \text{ dBi} < 6 \text{ dBi}$, so the power density limit no need to be reduced.
2. Refer to section 3.3 for duty cycle spectrum plot.

802.11n (HT40)

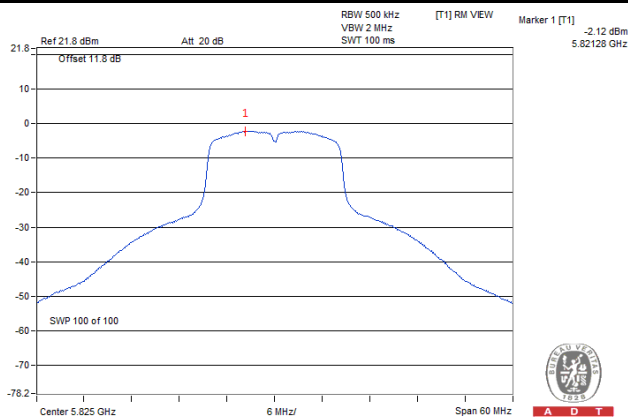
TX Chain	Channel	Frequency (MHz)	PSD (dBm/500 kHz)	10 log (N=2) dB	Total PSD without Duty Factor (dBm/500 kHz)	Duty Factor	Total PSD with Duty Factor (dBm/500 kHz)	Limit (dBm/500 kHz)	Pass / Fail
0	151	5755	-8.81	3.01	-5.80	0.46	-5.80	30	Pass
	159	5795	-7.60	3.01	-4.59	0.46	-4.59	30	Pass
1	151	5755	-10.73	3.01	-7.72	0.46	-7.72	30	Pass
	159	5795	-10.10	3.01	-7.09	0.46	-7.09	30	Pass

NOTE:

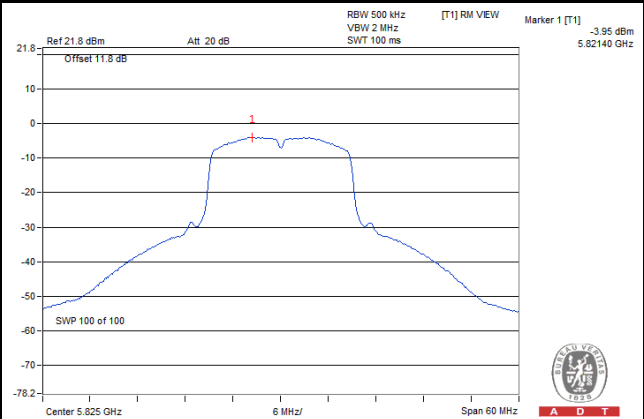
1. Directional gain = $-0.37 \text{ dBi} + 10\log(2) = 2.64 \text{ dBi} < 6 \text{ dBi}$, so the power density limit no need to be reduced.
2. Refer to section 3.3 for duty cycle spectrum plot.

Spectrum Plot of Worst Value

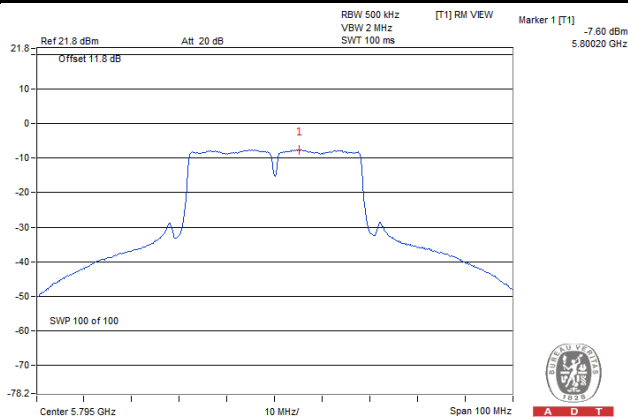
802.11a



802.11n (HT20)



802.11n (HT40)

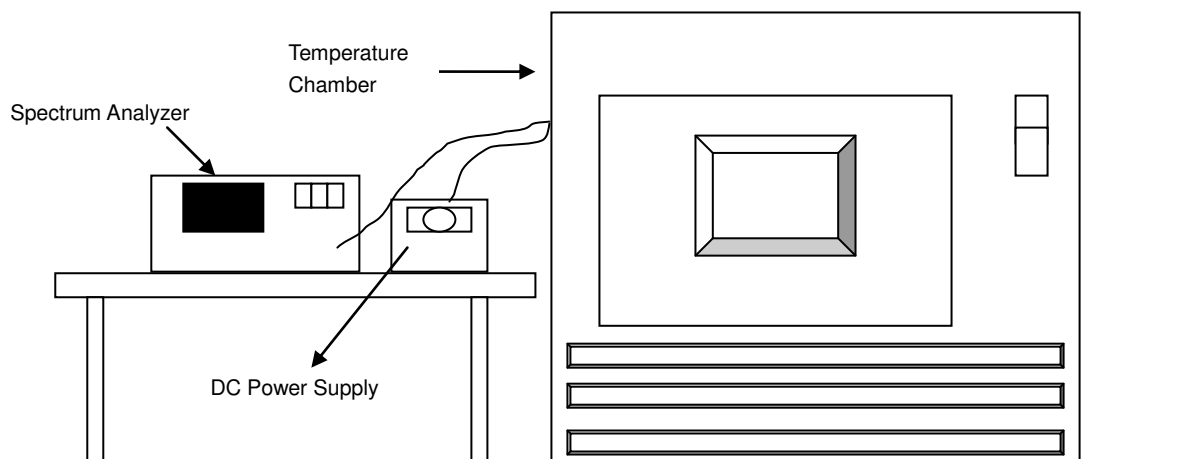


4.5 Frequency Stability

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

- 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.
- 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.
- 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: 5320 MHz									
Temp. (°C)	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	12.0	5320.024846	4.670	5320.024731	4.649	5320.025038	4.706	5320.024500	4.605
40	12.0	5320.024922	4.685	5320.024784	4.659	5320.024778	4.658	5320.025072	4.713
30	12.0	5320.025707	4.832	5320.025955	4.879	5320.026016	4.890	5320.026070	4.900
20	12.0	5320.026986	5.073	5320.027537	5.176	5320.027406	5.152	5320.027146	5.103
10	12.0	5320.028827	5.419	5320.028966	5.445	5320.028401	5.339	5320.028539	5.364
0	12.0	5320.027497	5.169	5320.026962	5.068	5320.027153	5.104	5320.027075	5.089
-10	12.0	5320.025608	4.814	5320.025439	4.782	5320.025820	4.853	5320.025528	4.798
-20	12.0	5320.025433	4.781	5320.025222	4.741	5320.024888	4.678	5320.024978	4.695
-30	12.0	5320.024098	4.530	5320.023768	4.468	5320.023909	4.494	5320.023719	4.458

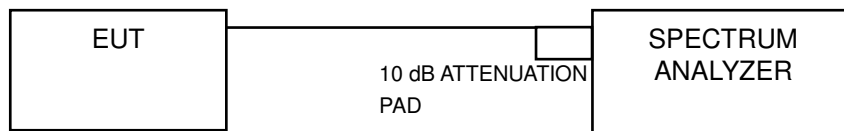
Frequency Stability Versus Temp.									
Operating Frequency: 5320 MHz									
Temp. (°C)	Power Supply (Vdc)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)	Measured Frequency (MHz)	Frequency Drift (ppm)
20	9.0	5320.027821	5.230	5320.027504	5.170	5320.027612	5.190	5320.027749	5.216
	12.0	5320.026986	5.073	5320.027537	5.176	5320.027406	5.152	5320.027146	5.103
	15.0	5320.029430	5.532	5320.029265	5.501	5320.029233	5.495	5320.029298	5.507

4.6 6 dB Bandwidth Measurement

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

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

4.6.5 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	15.35	0.5	Pass
157	5785	16.05	0.5	Pass
165	5825	15.31	0.5	Pass

802.11n (HT20)

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
149	5745	15.75	0.5	Pass
157	5785	15.17	0.5	Pass
165	5825	15.17	0.5	Pass

802.11n (HT40)

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
151	5755	36.40	0.5	Pass
159	5795	36.44	0.5	Pass

<2TX>

802.11a

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
149	5745	16.04	15.15	0.5	Pass
157	5785	16.09	15.17	0.5	Pass
165	5825	15.49	16.02	0.5	Pass

802.11n (HT20)

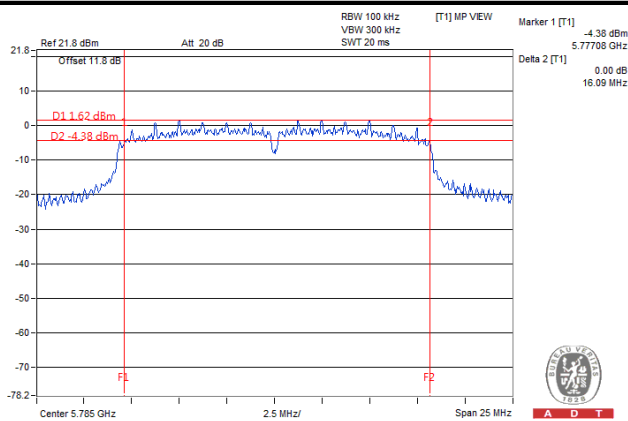
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
149	5745	15.49	16.34	0.5	Pass
157	5785	15.60	16.32	0.5	Pass
165	5825	15.74	15.73	0.5	Pass

802.11n (HT40)

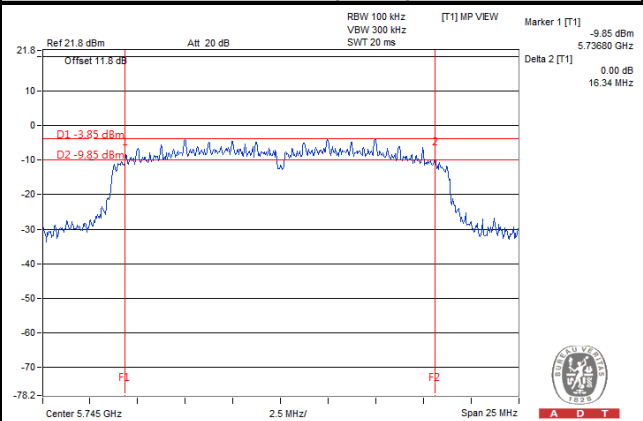
Channel	Frequency (MHz)	6 dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
151	5755	36.47	36.43	0.5	Pass
159	5795	36.41	36.39	0.5	Pass

Spectrum Plot of Worst Value

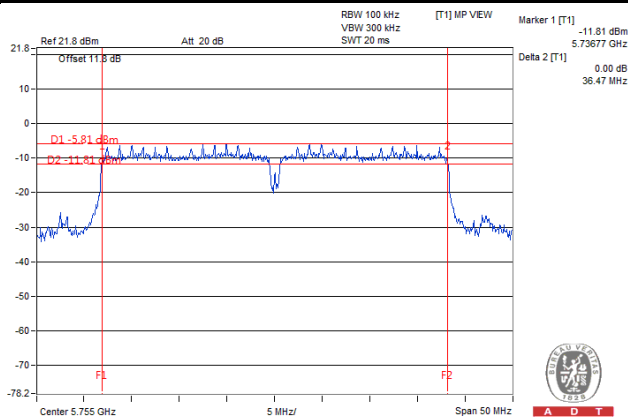
802.11a



802.11n (HT20)



802.11n (HT40)



5 Pictures of Test Arrangements

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

Appendix – Information on the Testing Laboratories

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

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

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Email: service.adt@tw.bureauveritas.com

Web Site: www.bureauveritas-adt.com

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

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