

FCC Test Report

Report No.: RF171221C06-5 R1

FCC ID: VQK-F04K

Test Model: F-04K

Received Date: Dec. 21, 2017

Test Date: Feb. 17, 2018 ~ Feb. 27, 2018

Issued Date: Apr. 16, 2018

Applicant: Fujitsu Limited

Address: 1-1, Kamikodanaka 4-chome, Nakahara-ku, Kawasaki 211-8588, Japan

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

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

Test Location (1): No. 19, Hwa Ya 2nd Rd, Wen Hwa Tsuen, Kwei Shan Hsiang, Taoyuan
Hsien 333, Taiwan, R.O.C.

FCC Registration /
Designation Number: 788550 / TW0003



This report is for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence, provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents. Unless specific mention, the uncertainty of measurement has been explicitly taken into account to declare the compliance or non-compliance to the specification. The report must not be used by the client to claim product certification, approval, or endorsement by TAF or any government agencies.

Table of Contents

Release Control Record	4
1 Certificate of Conformity	5
2 Summary of Test Results.....	6
2.1 Measurement Uncertainty.....	6
2.2 Modification Record	6
3 General Information	7
3.1 General Description of EUT	7
3.2 Description of Test Modes.....	9
3.2.1 Test Mode Applicability and Tested Channel Detail.....	11
3.3 Duty Cycle of Test Signal	13
3.4 Description of Support Units	14
3.4.1 Configuration of System under Test	14
3.5 General Description of Applied Standards.....	15
4 Test Types and Results	16
4.1 Radiated Emission and Bandedge Measurement	16
4.1.1 Limits of Radiated Emission and Bandedge Measurement	16
4.1.2 Limits of Unwanted Emission Out of the Restricted Bands	17
4.1.3 Test Instruments	18
4.1.4 Test Procedures.....	20
4.1.5 Deviation from Test Standard	20
4.1.6 Test Set Up	21
4.1.7 EUT Operating Conditions.....	22
4.1.8 Test Results	23
4.2 Conducted Emission Measurement.....	53
4.2.1 Limits of Conducted Emission Measurement	53
4.2.2 Test Instruments	53
4.2.3 Test Procedures.....	54
4.2.4 Deviation from Test Standard	54
4.2.5 Test Setup.....	54
4.2.6 EUT Operating Conditions.....	54
4.2.7 Test Results	55
4.3 Transmit Power Measurment.....	57
4.3.1 Limits of Transmit Power Measurement	57
4.3.2 Test Setup.....	57
4.3.3 Test Instruments	58
4.3.4 Test Procedure	58
4.3.5 Deviation fromTest Standard	58
4.3.6 EUT Operating Conditions.....	58
4.3.7 Test Result	59
4.4 Occupied Bandwidth Measurement.....	63
4.4.1 Test Setup.....	63
4.4.2 Test Instruments	63
4.4.3 Test Procedure	63
4.4.4 Test Results	64
4.5 Peak Power Spectral Density Measurement	66
4.5.1 Limits of Peak Power Spectral Density Measurement	66
4.5.2 Test Setup.....	66
4.5.3 Test Instruments	66
4.5.4 Test Procedures.....	66
4.5.5 Deviation from Test Standard	66
4.5.6 EUT Operating Conditions.....	66
4.5.7 Test Results	67
4.6 Frequency Stability	70

4.6.1 Limit of Frequency Stability Measurement	70
4.6.2 Test Setup.....	70
4.6.3 Test Instruments	70
4.6.4 Test Procedure	70
4.6.5 Deviation from Test Standard	70
4.6.6 EUT Operating Condition	70
4.6.7 Test Results	71
5 Pictures of Test Arrangements.....	72
Appendix – Information on the Testing Laboratories	73

Release Control Record

Issue No.	Description	Date Issued
RF171221C06-5	Original Release	Mar. 05, 2018
RF171221C06-5 R1	Revise battery voltage	Apr. 16, 2018

1 Certificate of Conformity

Product: Smart Phone

Brand: FUJITSU

Test Model: F-04K

Sample Status: Identical Prototype

Applicant: Fujitsu Limited

Test Date: Feb. 17, 2018 ~ Feb. 27, 2018

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

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

Prepared by : 
_____, **Date:** Apr. 16, 2018

Ivonne Wu / Supervisor

Approved by : 
_____, **Date:** Apr. 16, 2018

Dylan Chiou / Project Engineer

2 Summary of Test Results

47 CFR FCC Part 15, Subpart E (Section 15.407)			
FCC Clause	Test Item	Result	Remarks
15.407(b)(6)	AC Power Conducted Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -5.79 dB at 0.62311 MHz.
15.407(b) (1/2/3/4(i/ii)/6)	Radiated Emissions & Band Edge Measurement	Pass	Meet the requirement of limit. Minimum passing margin is -4.88 dB at 11160 MHz.
15.407(a)(1/2/3)	Max Average Transmit Power	Pass	Meet the requirement of limit.
---	Occupied Bandwidth Measurement	-	Reference only
15.407(a)(1/2/3)	Peak Power Spectral Density	Pass	Meet the requirement of limit.
15.407(e)	6 dB Bandwidth	Pass	Meet the requirement of limit. (U-NII-3 Band only)
15.407(g)	Frequency Stability	Pass	Meet the requirement of limit.
15.203	Antenna Requirement	Pass	No antenna connector is used.

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

2.1 Measurement Uncertainty

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

Measurement	Frequency	Expended Uncertainty (k=2) (±)
Conducted Emissions at mains ports	150 kHz ~ 30 MHz	2.44 dB
Radiated Emissions up to 1 GHz	30 MHz ~ 200 MHz	2.93 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	Smart Phone
Brand	FUJITSU
Test Model	F-04K
Status of EUT	Identical Prototype
Power Supply Rating	5.0 Vdc (adapter or host equipment) 3.8 Vdc (Li-ion battery)
Normal Testing Voltage	3.9 Vdc
Modulation Type	256QAM, 64QAM, 16QAM, QPSK, BPSK
Modulation Technology	OFDM
Transfer Rate	802.11a: 54.0/ 48.0/ 36.0/ 24.0/ 18.0/ 12.0/ 9.0/ 6.0 Mbps 802.11n: up to 150 802.11ac: up to 433.3
Operating Frequency	5180 ~ 5240 MHz, 5260 ~ 5320 MHz, 5500 ~ 5700 MHz
Number of Channel	5180 ~ 5240 MHz: 4 for 802.11a, 802.11n (HT20) 2 for 802.11n (HT40) 1 for 802.11ac (VHT80) 5260 ~ 5320 MHz: 4 for 802.11a, 802.11n (HT20) 2 for 802.11n (HT40) 1 for 802.11ac (VHT80) 5500 ~ 5700 MHz: 11 for 802.11a, 802.11n (HT20) 5 for 802.11n (HT40) 2 for 802.11ac (VHT80)
Output Power	12.359 mW for 5180 ~ 5240 MHz 11.776 mW for 5260 ~ 5320 MHz 12.503 mW for 5500 ~ 5700 MHz
Antenna Type	$\lambda/4$ Monopole Antenna antenna with -3.0 dBi gain
Antenna Connector	N/A
Accessory Device	Refer to Note as below
Data Cable Supplied	Refer to Note as below

Note:

1. The EUT provides one transmitter and receiver.

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

* The modulation and bandwidth are similar for 802.11n mode for HT20 / HT40 and 802.11ac mode for VHT20 / VHT40, therefore investigated worst case to representative mode in test report. (Final test mode refer section 3.2.1)

2. The EUT contains following accessory devices.

Product	Brand	Model	Description
Battery	FUJITSU CONNECTED TECHNOLOGIES Ltd.	CA54310-0067	3.8 Vdc, 2580 mAh

3. The EUT uses following adapter which provided by client as support unit.

Product	Brand	Model	Description
Adapter	NTT docomo	AC Adapter 01	I/P: 100-240Vac, 0.8A, O/P: 5.0Vdc, 3.0A

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

3.2 Description of Test Modes

For 5180 ~ 5240 MHz

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

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

2 channels are provided for 802.11n (HT40):

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

1 channel is provided for 802.11ac (VHT80):

Channel	Frequency (MHz)
42	5210

For 5260 ~ 5320 MHz

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

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

2 channels are provided for 802.11n (HT40):

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

1 channel is provided for 802.11ac (VHT80):

Channel	Frequency (MHz)
58	5290

For 5500 ~ 5700 MHz

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

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

5 channels are provided for 802.11n (HT40):

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

2 channels are provided for 802.11ac (VHT80):

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

3.2.1 Test Mode Applicability and Tested Channel Detail

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

Where RE≥1G: Radiated Emission above 1 GHz

PLC: Power Line Conducted Emission

RE<1G: Radiated Emission below 1 GHz

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**.
2. “-” means no effect.

Radiated Emission Test (Above 1 GHz):

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

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

Radiated Emission Test (Below 1 GHz):

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

EUT Configure Mode	Frequency Band (MHz)	Mode	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
-	5500-5700	802.11a	100 to 140	116	OFDM	BPSK	MCS0

Power Line Conducted Emission Test:

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

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

Test Condition:

Applicable To	Environmental Conditions	Input Power	Tested by
RE≥1G	25 deg. C, 65 % RH	120 Vac, 60 Hz	Jisyong Wang
RE<1G	25 deg. C, 65 % RH	120 Vac, 60 Hz	Jisyong Wang
PLC	25 deg. C, 65 % RH	120 Vac, 60 Hz	Getaz Yang
APCM	25 deg. C, 65 % RH	3.9 Vdc	Vincent Huang

3.3 Duty Cycle of Test Signal

MODULATION TYPE: BPSK

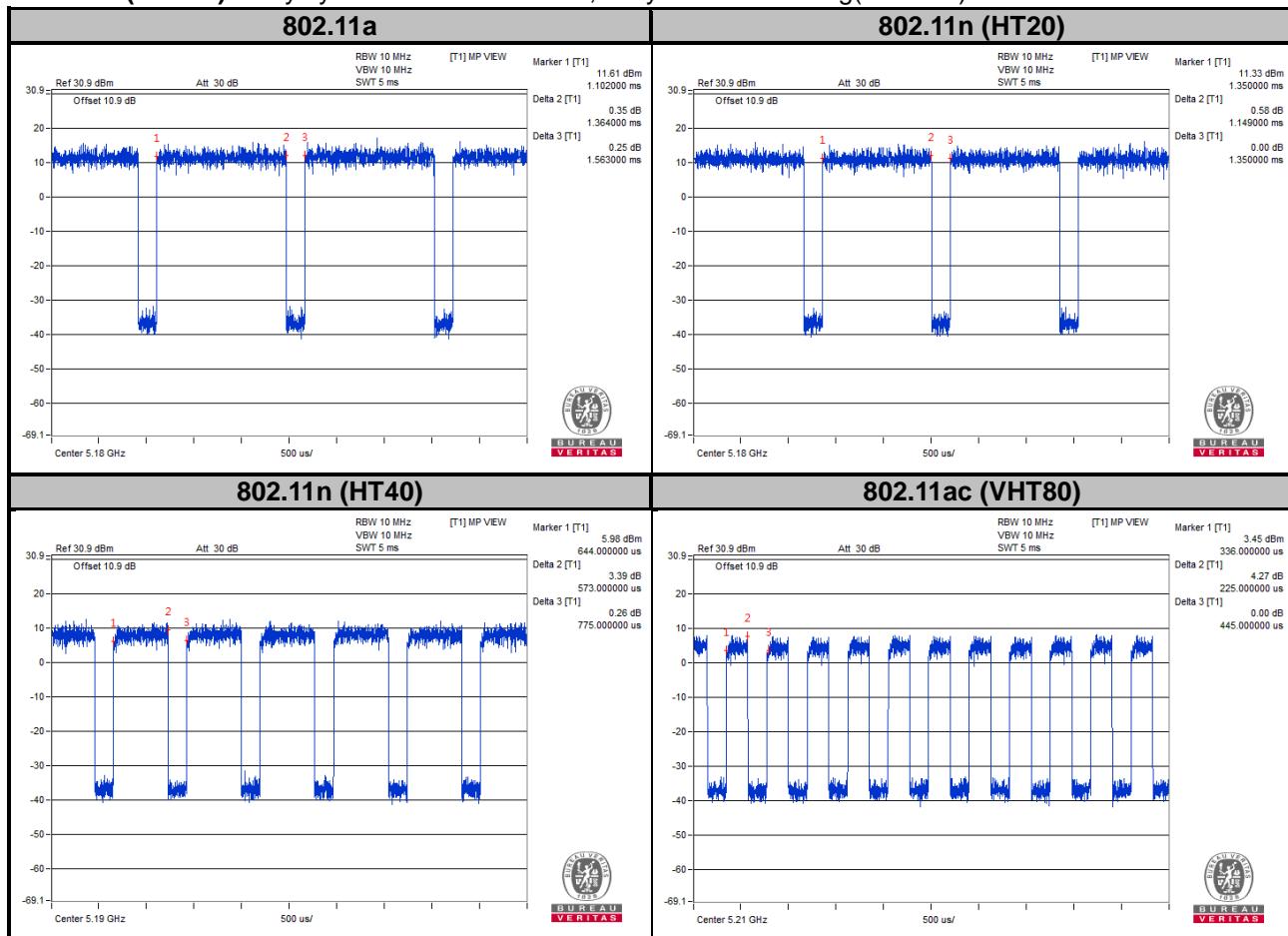
Duty cycle of test signal is < 98 %, duty factor is required.

802.11a: Duty cycle = $1.364/1.563 = 0.873$, Duty factor = $10 * \log(1/0.873) = 0.59$

802.11n (HT20): Duty cycle = $1.149/1.350 = 0.851$, Duty factor = $10 * \log(1/0.851) = 0.70$

802.11n (HT40): Duty cycle = $573/775 = 0.739$, Duty factor = $10 * \log(1/0.739) = 1.31$

802.11ac (VHT80): Duty cycle = $225/445 = 0.506$, Duty factor = $10 * \log(1/0.506) = 2.96$



3.4 Description of Support Units

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

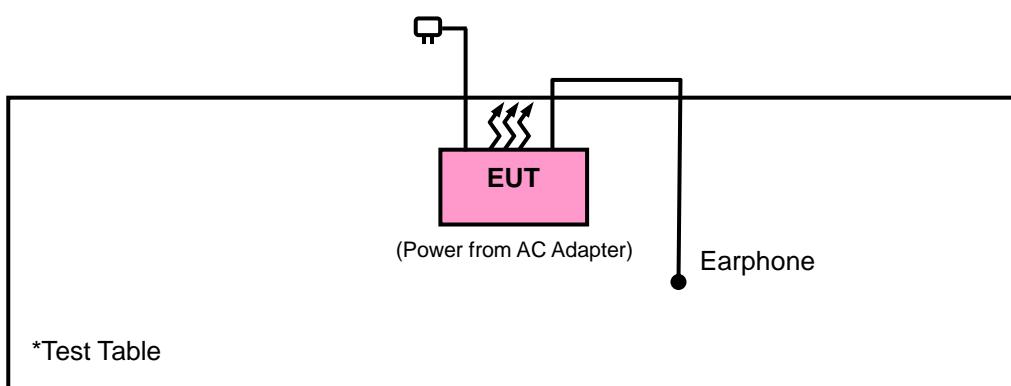
No.	Product	Brand	Model No.	Serial No.	FCC ID
1.	Earphone	Apple	MD827FE	N/A	N/A

No.	Signal Cable Description Of The Above Support Units
1.	N/A

Note:

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

3.4.1 Configuration of System under Test



3.5 General Description of Applied Standards

The EUT is a RF Product. According to the specifications of the manufacturer, it must comply with the requirements of the following standards:

FCC Part 15, Subpart E (15.407)

789033 D02 General UNII Test Procedures New Rules v02r01

644545 D01 Guidance for IEEE 802 11ac v01r02

ANSI C63.10-2013

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

4 Test Types and Results

4.1 Radiated Emission and Bandedge Measurement

4.1.1 Limits of Radiated Emission and Bandedge Measurement

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table. Other emissions shall be at least 20 dB below the highest level of the desired power:

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

Note:

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

4.1.2 Limits of Unwanted Emission Out of the Restricted Bands

Applicable To		Limit	
789033 D02 General UNII Test Procedures New Rules v02r01		Field Strength at 3 m	
		PK: 74 (dB μ V/m)	AV: 54 (dB μ V/m)
Frequency Band	Applicable To	EIRP Limit	
		Equivalent Field Strength at 3 m	
5150~5250 MHz	15.407(b)(1)	PK: -27 (dBm/MHz)	PK: 68.2 (dB μ V/m)
5250~5350 MHz	15.407(b)(2)		
5470~5725 MHz	15.407(b)(3)		

Note:

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

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

4.1.3 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Date of Calibration	Due Date of Calibration
Test Receiver Agilent	N9038A	MY52260177	Jul. 05, 2017	Jul. 04, 2018
Spectrum Analyzer Agilent	N9010A	MY52220314	Nov. 24, 2017	Nov. 23, 2018
Spectrum Analyzer ROHDE & SCHWARZ	FSU43	100115	Nov. 23, 2017	Nov. 22, 2018
Double Ridge Guide Horn Antenna EMCO	3115	5619	Nov. 30, 2017	Nov. 29, 2018
BILOG Antenna SCHWARZBECK	VULB 9168	9168-153	Dec. 06, 2017	Dec. 05, 2018
RF signal cable ETS-LINDGREN	5D-FB	Cable-CH1-01(R FC-SMS-100-SM S-120+RFC-SMS -100-SMS-400)	Jun. 23, 2017	Jun. 22, 2018
MXG Vector signal generator Agilent	N5182B	MY53050430	Oct. 24, 2017	Oct. 23, 2018
Loop Antenna	EM-6879	269	Aug. 11, 2017	Aug. 10, 2018
Preamplifier EMCI	EMC001340	980201	Nov. 01, 2017	Oct. 30, 2018
Bluetooth Tester	CBT	100946	Jul. 29, 2016	Jul. 28, 2018
Preamplifier EMCI	EMC 012645	980115	Oct. 20, 2017	Oct. 19, 2018
Preamplifier EMCI	EMC 184045	980116	Oct. 20, 2017	Oct. 19, 2018
Preamplifier EMCI	EMC 330H	980112	Oct. 13, 2017	Oct. 12, 2018
Power Meter Anritsu	ML2495A	1012010	Aug. 15, 2017	Aug. 14, 2018
Power Sensor Anritsu	MA2411B	1315050	Aug. 15, 2017	Aug. 14, 2018
RF Coaxial Cable HUBER+SUHNNER	EMC104-SM-SM-8000&3000	140811+170717	Oct. 20, 2017	Oct. 19, 2018
RF Coaxial Cable HUBER+SUHNNER	SUCOFLEX 104	EMC104-SM-SM-1000(140807)	Oct. 20, 2017	Oct. 19, 2018
RF Coaxial Cable Worken	8D-FB	Cable-Ch10-01	Oct. 20, 2017	Oct. 19, 2018
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
Temperature & Humidity Chamber	GTH-120-40-CP-AR	MAA1306-019	Sep. 08, 2017	Sep. 07, 2018
DC Power Supply Topward	33010D	807748	Oct. 25, 2016	Oct. 24, 2018
Digital Multimeter Fluke	87-III	70360742	Jun. 30, 2017	Jun. 29, 2018

- Note:
1. The calibration interval of the above test instruments is 12 / 24 months and the calibrations are traceable to NML/ROC and NIST/USA.
 2. The test was performed in 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 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:

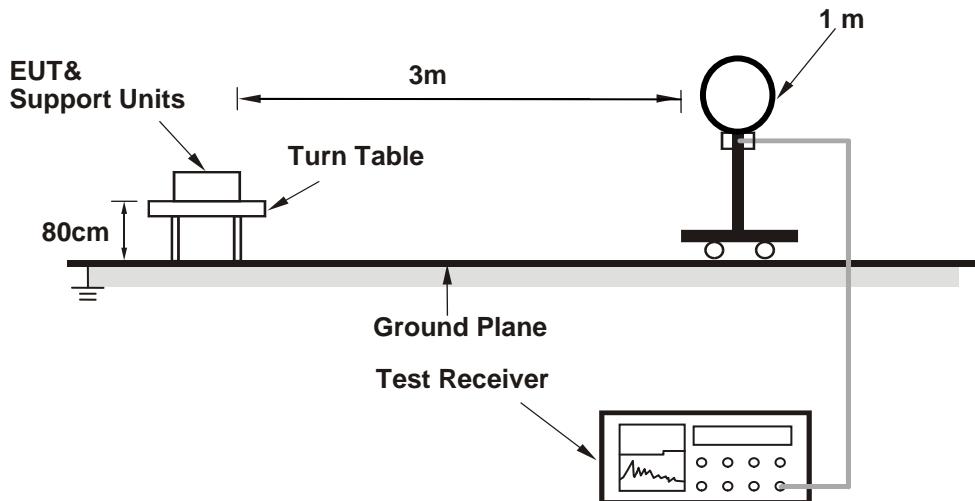
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz & 360 kHz for Quasi-peak detection (QP) at frequency below 1 GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency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

4.1.5 Deviation from Test Standard

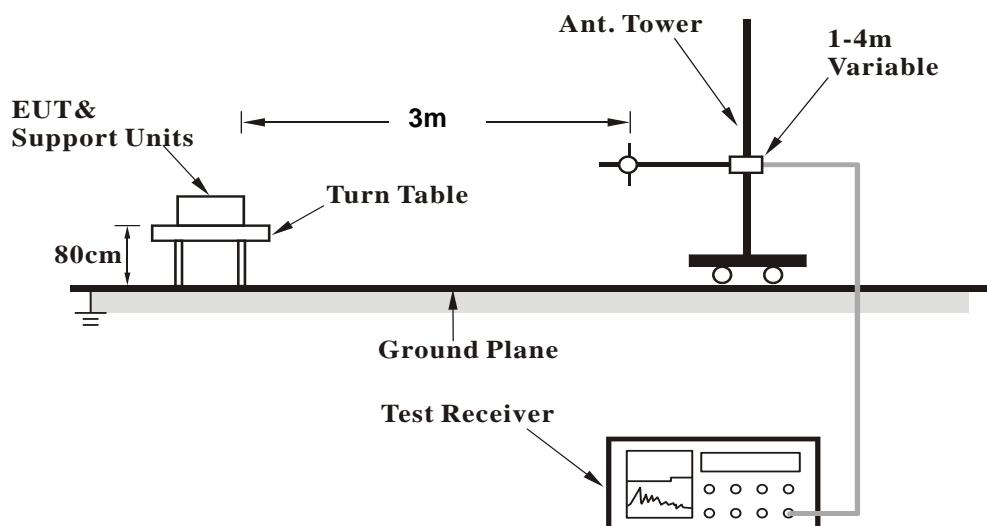
No deviation.

4.1.6 Test Set Up

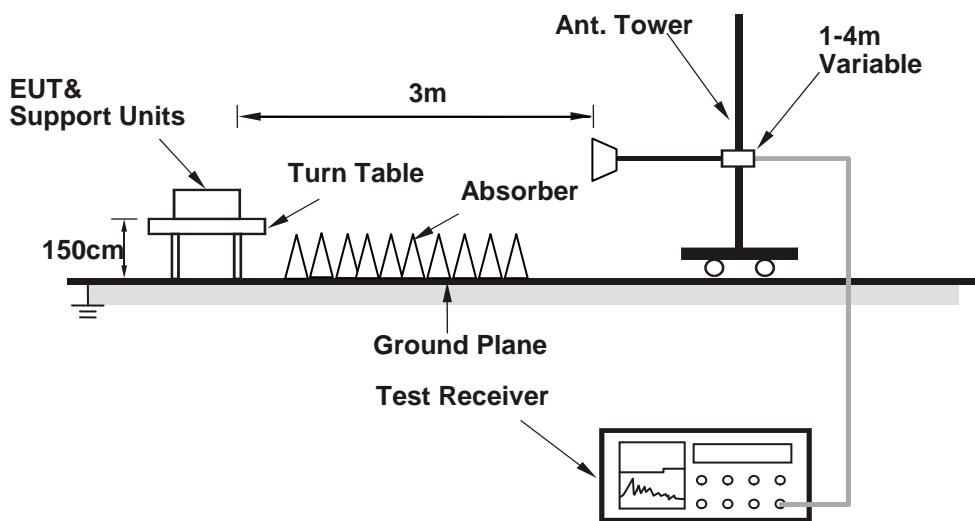
<Radiated emission below 30 MHz>



<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 :

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	Jisyong Wang

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
5127.8	42.77	42.44	54	-11.23	31.31	6.32	37.3	183	313	Average
5127.8	52.82	52.49	74	-21.18	31.31	6.32	37.3	183	313	Peak
5180	95.85	95.23			31.59	6.37	37.34	183	313	Average
5180	104.98	104.36			31.59	6.37	37.34	183	313	Peak
*10360	55.02	57.8	68.2	-13.18	39.46	10.21	52.45	135	99	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
5127.98	40.45	40.12	54	-13.55	31.31	6.32	37.3	190	284	Average
5127.98	50.45	50.12	74	-23.55	31.31	6.32	37.3	190	284	Peak
5180	90.79	90.41			31.35	6.37	37.34	190	284	Average
5180	100.2	99.82			31.35	6.37	37.34	190	284	Peak
*10360	55.04	57.82	68.2	-13.16	39.46	10.21	52.45	170	116	Peak

Remarks:

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

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

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
5118.98	38.43	38.13	54	-15.57	31.29	6.31	37.3	187	313	Average
5118.98	50.51	50.26	74	-23.49	31.25	6.27	37.27	187	313	Peak
5220	95.74	95.33			31.37	6.4	37.36	187	313	Average
5220	104.76	104.35			31.37	6.4	37.36	187	313	Peak
5451.75	38.54	37.55	54	-15.46	31.56	6.51	37.08	187	313	Average
5451.75	50.29	49.49	74	-23.71	31.51	6.47	37.18	187	313	Peak
*10440	54.37	57.13	68.2	-13.83	39.55	10.21	52.52	132	95	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
5140.94	38.4	38.05	54	-15.6	31.32	6.33	37.3	189	284	Average
5140.94	50.81	50.57	74	-23.19	31.24	6.25	37.25	189	284	Peak
5220	90.65	90.24			31.37	6.4	37.36	189	284	Average
5220	99.72	99.31			31.37	6.4	37.36	189	284	Peak
5425.24	38.53	37.64	54	-15.47	31.53	6.49	37.13	189	284	Average
5425.24	50.33	49.53	74	-23.67	31.51	6.47	37.18	189	284	Peak
*10440	54.19	56.95	68.2	-14.01	39.55	10.21	52.52	166	112	Peak

Remarks:

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

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

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
5139.32	38.64	38.3	54	-15.36	31.31	6.33	37.3	181	312	Average
5139.32	50.61	50.28	74	-23.39	31.31	6.32	37.3	181	312	Peak
5240	95.62	95.13			31.39	6.42	37.32	181	312	Average
5240	105	104.51			31.39	6.42	37.32	181	312	Peak
5426.56	38.56	37.67	54	-15.44	31.53	6.49	37.13	181	312	Average
5426.56	50.41	49.61	74	-23.59	31.51	6.47	37.18	181	312	Peak
*10480	55.51	58.35	68.2	-12.69	39.6	10.22	52.66	121	87	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
5147.78	38.32	37.98	54	-15.68	31.32	6.34	37.32	186	284	Average
5147.78	50.86	50.55	74	-23.14	31.29	6.3	37.28	186	284	Peak
5240	90.55	90.06			31.39	6.42	37.32	186	284	Average
5240	99.66	99.17			31.39	6.42	37.32	186	284	Peak
5448.34	38.53	37.69	54	-15.47	31.53	6.49	37.18	186	284	Average
5448.34	50.82	49.89	74	-23.18	31.56	6.5	37.13	186	284	Peak
*10480	56.28	59.12	68.2	-11.92	39.6	10.22	52.66	174	121	Peak

Remarks:

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

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

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5112.5	38.4	38.09	54	-15.6	31.29	6.3	37.28	174	312	Average
5112.5	50.63	50.37	74	-23.37	31.25	6.26	37.25	174	312	Peak
5260	95.82	95.01			31.65	6.43	37.27	174	312	Average
5260	104.93	104.12			31.65	6.43	37.27	174	312	Peak
5401.7	38.65	37.84	54	-15.35	31.52	6.47	37.18	174	312	Average
5401.7	52.07	51.26	74	-21.93	31.52	6.47	37.18	174	312	Peak
*10520	54.93	57.73	68.2	-13.27	39.66	10.27	52.73	155	201	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5135.72	38.07	37.73	54	-15.93	31.31	6.33	37.3	195	285	Average
5135.72	50.21	49.9	74	-23.79	31.29	6.3	37.28	195	285	Peak
5260	89.32	88.75			31.41	6.43	37.27	195	285	Average
5260	98.52	97.95			31.41	6.43	37.27	195	285	Peak
5450.21	38.58	37.59	54	-15.42	31.56	6.51	37.08	195	285	Average
5450.21	51.44	50.52	74	-22.56	31.55	6.5	37.13	195	285	Peak
*10520	54.29	57.09	68.2	-13.91	39.66	10.27	52.73	136	81	Peak

Remarks:

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

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

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5113.76	38.54	38.23	54	-15.46	31.29	6.3	37.28	181	313	Average
5113.76	50.93	50.62	74	-23.07	31.29	6.3	37.28	181	313	Peak
5300	95.33	94.62			31.44	6.46	37.19	181	313	Average
5300	104.53	103.82			31.44	6.46	37.19	181	313	Peak
5352.53	41.88	41.11	54	-12.12	31.48	6.47	37.18	181	313	Average
5352.53	51.44	50.67	74	-22.56	31.48	6.47	37.18	181	313	Peak
10600	46.91	49.74	54	-7.09	39.85	10.43	53.11	157	211	Average
10600	54.93	57.76	74	-19.07	39.85	10.43	53.11	157	211	Peak

Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5149.58	38.15	37.81	54	-15.85	31.32	6.34	37.32	193	287	Average
5149.58	50.53	50.18	74	-23.47	31.32	6.33	37.3	193	287	Peak
5300	88.86	88.15			31.44	6.46	37.19	193	287	Average
5300	98.38	97.67			31.44	6.46	37.19	193	287	Peak
5460	38.81	38.04	54	-15.19	31.48	6.47	37.18	193	287	Average
5460	50.77	49.78	74	-23.23	31.56	6.51	37.08	193	287	Peak
10600	46.28	49.11	54	-7.72	39.85	10.43	53.11	137	88	Average
10600	55.7	58.53	74	-18.3	39.85	10.43	53.11	137	88	Peak

Remarks:

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

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

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5320	95.32	94.6			31.45	6.46	37.19	182	311	Average
5320	104.81	104.09			31.45	6.46	37.19	182	311	Peak
5372.55	42.23	41.45	54	-11.77	31.49	6.47	37.18	182	311	Average
5372.55	52.71	51.93	74	-21.29	31.49	6.47	37.18	182	311	Peak
10640	46.97	49.75	54	-7.03	39.93	10.36	53.07	156	203	Average
10640	56.08	58.86	74	-17.92	39.93	10.36	53.07	156	203	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5320	89.33	88.61			31.45	6.46	37.19	181	284	Average
5320	98.27	97.55			31.45	6.46	37.19	181	284	Peak
5406.1	38.98	38.2	54	-15.02	31.49	6.47	37.18	181	284	Average
5406.1	51.22	50.41	74	-22.78	31.52	6.47	37.18	181	284	Peak
10640	46.34	49.12	54	-7.66	39.93	10.36	53.07	139	94	Average
10640	56.14	58.92	74	-17.86	39.93	10.36	53.07	139	94	Peak

Remarks:

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

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

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
5447.76	41.47	40.33	54	-12.53	31.77	6.5	37.13	172	197	Average
5447.76	52.31	51.17	74	-21.69	31.77	6.5	37.13	172	197	Peak
*5470	51.42	50.19	68.2	-16.78	31.79	6.52	37.08	172	197	Peak
5500	93.24	91.92			31.81	6.54	37.03	172	197	Average
5500	103.17	101.85			31.81	6.54	37.03	172	197	Peak
*5725	50.74	49.23	68.2	-17.46	32.18	6.76	37.43	172	197	Peak
11000	47.5	49.4	54	-6.5	40.73	10.4	53.03	123	125	Average
11000	57.59	59.49	74	-16.41	40.73	10.4	53.03	123	125	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
5447.92	39.53	38.39	54	-14.47	31.77	6.5	37.13	177	243	Average
5447.92	50.69	49.55	74	-23.31	31.77	6.5	37.13	177	243	Peak
*5470	50.22	48.99	68.2	-17.98	31.79	6.52	37.08	177	243	Peak
5500	85.87	84.55			31.81	6.54	37.03	177	243	Average
5500	96.2	94.88			31.81	6.54	37.03	177	243	Peak
*5725	50.32	48.81	68.2	-17.88	32.18	6.76	37.43	177	243	Peak
11000	47.4	49.3	54	-6.6	40.73	10.4	53.03	256	231	Average
11000	57.42	59.32	74	-16.58	40.73	10.4	53.03	256	231	Peak

Remarks:

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

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

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5381.52	38.94	37.92	54	-15.06	31.73	6.47	37.18	173	199	Average
5381.52	51.92	50.9	74	-22.08	31.73	6.47	37.18	173	199	Peak
*5470	49.82	48.59	68.2	-18.38	31.79	6.52	37.08	173	199	Peak
5580	94.26	92.85			31.92	6.65	37.16	173	199	Average
5580	104.05	102.64			31.92	6.65	37.16	173	199	Peak
*5725	51.05	49.54	68.2	-17.15	32.18	6.76	37.43	173	199	Peak
11160	48.91	50.61	54	-5.09	40.56	10.52	52.78	251	165	Average
11160	58.97	60.67	74	-15.03	40.56	10.52	52.78	251	165	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	38.96	37.83	54	-15.04	31.76	6.5	37.13	168	252	Average
5442	51.88	50.75	74	-22.12	31.76	6.5	37.13	168	252	Peak
*5470	50.24	49.01	68.2	-17.96	31.79	6.52	37.08	168	252	Peak
5580	89.15	87.74			31.92	6.65	37.16	168	252	Average
5580	99.15	97.74			31.92	6.65	37.16	168	252	Peak
*5725	50.98	49.47	68.2	-17.22	32.18	6.76	37.43	168	252	Peak
11160	49.12	50.82	54	-4.88	40.56	10.52	52.78	285	145	Average
11160	59.15	60.85	74	-14.85	40.56	10.52	52.78	285	145	Peak

Remarks:

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

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

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
5409.68	39.02	37.98	54	-14.98	31.74	6.48	37.18	180	195	Average
5409.68	51.4	50.36	74	-22.6	31.74	6.48	37.18	180	195	Peak
*5470	50.02	48.79	68.2	-18.18	31.79	6.52	37.08	180	195	Peak
5700	94.7	93.25			32.12	6.73	37.4	180	195	Average
5700	104.23	102.78			32.12	6.73	37.4	180	195	Peak
*5725	53.25	51.74	68.2	-14.95	32.18	6.76	37.43	180	195	Peak
11400	47.27	49.17	54	-6.73	40.33	10.47	52.7	201	236	Average
11400	57.28	59.18	74	-16.72	40.33	10.47	52.7	201	236	Peak

Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5380.72	38.85	37.83	54	-15.15	31.73	6.47	37.18	168	253	Average
5380.72	51.2	50.18	74	-22.8	31.73	6.47	37.18	168	253	Peak
*5470	50.97	49.74	68.2	-17.23	31.79	6.52	37.08	168	253	Peak
5700	88.9	87.45			32.12	6.73	37.4	168	253	Average
5700	98.95	97.5			32.12	6.73	37.4	168	253	Peak
*5725	50.83	49.32	68.2	-17.37	32.18	6.76	37.43	168	253	Peak
11400	47.48	49.38	54	-6.52	40.33	10.47	52.7	285	165	Average
11400	57.49	59.39	74	-16.51	40.33	10.47	52.7	285	165	Peak

Remarks:

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

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			Jisyong Wang		

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
5128.52	43.57	43.24	54	-10.43	31.31	6.32	37.3	183	313	Average
5128.52	54.01	53.68	74	-19.99	31.31	6.32	37.3	183	313	Peak
5180	95.35	94.97			31.35	6.37	37.34	183	313	Average
5180	104.46	104.08			31.35	6.37	37.34	183	313	Peak
*10360	54.75	57.51	68.2	-13.45	39.48	10.21	52.45	133	102	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
5128.16	40.86	40.53	54	-13.14	31.31	6.32	37.3	198	287	Average
5128.16	50.87	50.54	74	-23.13	31.31	6.32	37.3	198	287	Peak
5180	90.58	90.2			31.35	6.37	37.34	198	287	Average
5180	99.92	99.54			31.35	6.37	37.34	198	287	Peak
*10360	53.89	56.65	68.2	-14.31	39.48	10.21	52.45	171	112	Peak

Remarks:

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

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

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5124.02	38.57	38.34	54	-15.43	31.23	6.24	37.24	181	311	Average
5124.02	50.63	50.31	74	-23.37	31.31	6.31	37.3	181	311	Peak
5220	95.63	95.22			31.37	6.4	37.36	181	311	Average
5220	104.88	104.47			31.37	6.4	37.36	181	311	Peak
5453.73	38.47	37.48	54	-15.53	31.56	6.51	37.08	181	311	Average
5453.73	50.33	49.41	74	-23.67	31.55	6.5	37.13	181	311	Peak
*10440	55.14	57.9	68.2	-13.06	39.55	10.21	52.52	136	109	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
5140.4	38.15	37.81	54	-15.85	31.31	6.33	37.3	196	287	Average
5140.4	50.63	50.28	74	-23.37	31.32	6.33	37.3	196	287	Peak
5220	90.58	90.17			31.37	6.4	37.36	196	287	Average
5220	99.91	99.5			31.37	6.4	37.36	196	287	Peak
5459.01	38.55	37.56	54	-15.45	31.56	6.51	37.08	196	287	Average
5459.01	50.63	49.64	74	-23.37	31.56	6.51	37.08	196	287	Peak
*10440	55.29	58.05	68.2	-12.91	39.55	10.21	52.52	164	121	Peak

Remarks:

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

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

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
5148.86	38.51	38.17	54	-15.49	31.32	6.34	37.32	183	314	Average
5148.86	51.59	51.37	74	-22.41	31.23	6.23	37.24	183	314	Peak
5240	95.57	95.08			31.39	6.42	37.32	183	314	Average
5240	104.8	104.31			31.39	6.42	37.32	183	314	Peak
5454.06	38.65	37.76	54	-15.35	31.53	6.49	37.13	183	314	Average
5454.06	51.07	50.08	74	-22.93	31.56	6.51	37.08	183	314	Peak
*10480	55.13	57.97	68.2	-13.07	39.6	10.22	52.66	133	98	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	38.3	37.96	54	-15.7	31.31	6.33	37.3	194	288	Average
5138.42	50.68	50.44	74	-23.32	31.24	6.25	37.25	194	288	Peak
5240	90.54	90.05			31.39	6.42	37.32	194	288	Average
5240	99.85	99.36			31.39	6.42	37.32	194	288	Peak
5423.26	38.52	37.68	54	-15.48	31.53	6.49	37.18	194	288	Average
5423.26	50.39	49.58	74	-23.61	31.52	6.47	37.18	194	288	Peak
*10480	53.55	56.39	68.2	-14.65	39.6	10.22	52.66	166	109	Peak

Remarks:

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

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

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
5114.66	38.54	38.23	54	-15.46	31.29	6.3	37.28	182	313	Average
5114.66	50.15	49.88	74	-23.85	31.27	6.27	37.27	182	313	Peak
5260	95.43	94.86			31.41	6.43	37.27	182	313	Average
5260	104.21	103.64			31.41	6.43	37.27	182	313	Peak
5450.1	38.65	37.66	54	-15.35	31.56	6.51	37.08	182	313	Average
5450.1	50.65	49.87	74	-23.35	31.49	6.47	37.18	182	313	Peak
*10520	54.5	57.3	68.2	-13.7	39.66	10.27	52.73	150	209	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
5137.16	38.34	38	54	-15.66	31.31	6.33	37.3	196	286	Average
5137.16	50.41	50.11	74	-23.59	31.29	6.31	37.3	196	286	Peak
5260	89.29	88.72			31.41	6.43	37.27	196	286	Average
5260	98.17	97.6			31.41	6.43	37.27	196	286	Peak
5454.94	38.52	37.71	54	-15.48	31.52	6.47	37.18	196	286	Average
5454.94	51.14	50.15	74	-22.86	31.56	6.51	37.08	196	286	Peak
*10520	54.33	57.13	68.2	-13.87	39.66	10.27	52.73	133	77	Peak

Remarks:

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

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

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
5148.86	38.59	38.27	54	-15.41	31.29	6.31	37.28	182	313	Average
5148.86	51.63	51.29	74	-22.37	31.32	6.34	37.32	182	313	Peak
5300	95.03	94.32			31.44	6.46	37.19	182	313	Average
5300	104.42	103.71			31.44	6.46	37.19	182	313	Peak
5351.76	42.46	41.69	54	-11.54	31.48	6.47	37.18	182	313	Average
5351.76	52.41	51.64	74	-21.59	31.48	6.47	37.18	182	313	Peak
10600	46.61	49.44	54	-7.39	39.85	10.43	53.11	150	203	Average
10600	55.47	58.3	74	-18.53	39.85	10.43	53.11	150	203	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
5139.14	38.23	37.89	54	-15.77	31.31	6.33	37.3	191	288	Average
5139.14	50.56	50.25	74	-23.44	31.29	6.3	37.28	191	288	Peak
5300	89.43	88.72			31.44	6.46	37.19	191	288	Average
5300	98.42	97.71			31.44	6.46	37.19	191	288	Peak
5411.49	39.15	38.38	54	-14.85	31.48	6.47	37.18	191	288	Average
5411.49	51.01	50.19	74	-22.99	31.52	6.48	37.18	191	288	Peak
10600	45.39	48.22	54	-8.61	39.85	10.43	53.11	141	92	Average
10600	55.1	57.93	74	-18.9	39.85	10.43	53.11	141	92	Peak

Remarks:

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

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

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5320	95.17	94.45			31.45	6.46	37.19	182	313	Average
5320	104.31	103.59			31.45	6.46	37.19	182	313	Peak
5372.11	42.56	41.78	54	-11.44	31.49	6.47	37.18	182	313	Average
5372.11	52.3	51.52	74	-21.7	31.49	6.47	37.18	182	313	Peak
10640	46.96	49.74	54	-7.04	39.93	10.36	53.07	160	215	Average
10640	56.97	59.75	74	-17.03	39.93	10.36	53.07	160	215	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5320	89.09	88.37			31.45	6.46	37.19	185	283	Average
5320	98.01	97.29			31.45	6.46	37.19	185	283	Peak
5456.15	39.07	38.29	54	-14.93	31.49	6.47	37.18	185	283	Average
5456.15	51.12	50.13	74	-22.88	31.56	6.51	37.08	185	283	Peak
10640	46.46	49.24	54	-7.54	39.93	10.36	53.07	138	87	Average
10640	56.44	59.22	74	-17.56	39.93	10.36	53.07	138	87	Peak

Remarks:

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

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

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
5448.56	42.03	40.89	54	-11.97	31.77	6.5	37.13	186	198	Average
5448.56	52.09	50.95	74	-21.91	31.77	6.5	37.13	186	198	Peak
*5470	50.5	49.27	68.2	-17.7	31.79	6.52	37.08	186	198	Peak
5500	92.87	91.55			31.81	6.54	37.03	186	198	Average
5500	102.56	101.24			31.81	6.54	37.03	186	198	Peak
*5725	52.62	51.11	68.2	-15.58	32.18	6.76	37.43	186	198	Peak
11000	47.4	33.69	54	-6.6	40.73	10.4	37.42	152	123	Average
11000	57.43	43.72	74	-16.57	40.73	10.4	37.42	152	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
5375.12	39.65	38.64	54	-14.35	31.72	6.47	37.18	170	253	Average
5375.12	51.85	50.84	74	-22.15	31.72	6.47	37.18	170	253	Peak
*5470	50.2	48.97	68.2	-18	31.79	6.52	37.08	170	253	Peak
5500	87.25	85.93			31.81	6.54	37.03	170	253	Average
5500	97.29	95.97			31.81	6.54	37.03	170	253	Peak
*5725	50.64	49.13	68.2	-17.56	32.18	6.76	37.43	170	253	Peak
11000	47	48.9	54	-7	40.73	10.4	53.03	165	123	Average
11000	57.1	59	74	-16.9	40.73	10.4	53.03	165	123	Peak

Remarks:

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

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

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
5433.36	39.06	37.94	54	-14.94	31.76	6.49	37.13	182	194	Average
5433.36	51.52	50.4	74	-22.48	31.76	6.49	37.13	182	194	Peak
*5470	50.6	49.37	68.2	-17.6	31.79	6.52	37.08	182	194	Peak
5580	93.1	91.69			31.92	6.65	37.16	182	194	Average
5580	103.48	102.07			31.92	6.65	37.16	182	194	Peak
*5725	51.85	50.34	68.2	-16.35	32.18	6.76	37.43	182	194	Peak
11160	48.91	50.61	54	-5.09	40.56	10.52	52.78	295	236	Average
11160	58.93	60.63	74	-15.07	40.56	10.52	52.78	295	236	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5377.84	38.97	37.95	54	-15.03	31.73	6.47	37.18	162	252	Average
5377.84	51.24	50.22	74	-22.76	31.73	6.47	37.18	162	252	Peak
*5470	49.74	48.51	68.2	-18.46	31.79	6.52	37.08	162	252	Peak
5580	87.81	86.4			31.92	6.65	37.16	162	252	Average
5580	98.5	97.09			31.92	6.65	37.16	162	252	Peak
*5725	52.81	51.3	68.2	-15.39	32.18	6.76	37.43	162	252	Peak
11160	47.81	49.51	54	-6.19	40.56	10.52	52.78	141	125	Average
11160	58.27	59.97	74	-15.73	40.56	10.52	52.78	141	125	Peak

Remarks:

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

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

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
5376.08	38.9	37.89	54	-15.1	31.72	6.47	37.18	186	195	Average
5376.08	51.07	50.06	74	-22.93	31.72	6.47	37.18	186	195	Peak
*5470	51.04	49.84	68.2	-17.16	31.77	6.51	37.08	186	195	Peak
5700	93.7	92.25			32.12	6.73	37.4	186	195	Average
5700	103.74	102.29			32.12	6.73	37.4	186	195	Peak
*5725	52.48	50.97	68.2	-15.72	32.18	6.76	37.43	186	195	Peak
11400	46.33	48.23	54	-7.67	40.33	10.47	52.7	132	256	Average
11400	56.44	58.34	74	-17.56	40.33	10.47	52.7	132	256	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
5430.8	38.85	37.73	54	-15.15	31.76	6.49	37.13	159	252	Average
5430.8	51.51	50.39	74	-22.49	31.76	6.49	37.13	159	252	Peak
*5470	50.22	49.02	68.2	-17.98	31.77	6.51	37.08	159	252	Peak
5700	88.33	86.88			32.12	6.73	37.4	159	252	Average
5700	98.34	96.89			32.12	6.73	37.4	159	252	Peak
*5725	51.2	49.69	68.2	-17	32.18	6.76	37.43	159	252	Peak
11400	46.89	48.79	54	-7.11	40.33	10.47	52.7	295	236	Average
11400	56.9	58.8	74	-17.1	40.33	10.47	52.7	295	236	Peak

Remarks:

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

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		Jisyong Wang		

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5149.76	42.54	42.2	54	-11.46	31.32	6.34	37.32	183	314	Average
5149.76	54.51	54.17	74	-19.49	31.32	6.34	37.32	183	314	Peak
5190	93.12	92.73			31.35	6.38	37.34	183	314	Average
5190	102.07	101.68			31.35	6.38	37.34	183	314	Peak
5405.11	38.89	38.08	54	-15.11	31.52	6.47	37.18	183	314	Average
5405.11	50.92	50.12	74	-23.08	31.51	6.47	37.18	183	314	Peak
*10380	54.59	57.33	68.2	-13.61	39.5	10.21	52.45	133	97	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5149.58	40.34	40	54	-13.66	31.32	6.34	37.32	198	286	Average
5149.58	51.39	51.05	74	-22.61	31.32	6.34	37.32	198	286	Peak
5190	88.03	87.64			31.35	6.38	37.34	198	286	Average
5190	96.77	96.38			31.35	6.38	37.34	198	286	Peak
5442.84	38.9	38.12	54	-15.1	31.49	6.47	37.18	198	286	Average
5442.84	51.14	50.22	74	-22.86	31.55	6.5	37.13	198	286	Peak
*10380	53.76	56.5	68.2	-14.44	39.5	10.21	52.45	166	111	Peak

Remarks:

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

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
5127.08	40.82	40.49	54	-13.18	31.31	6.32	37.3	180	313	Average
5127.08	52.09	51.76	74	-21.91	31.31	6.32	37.3	180	313	Peak
5230	93	92.52			31.39	6.41	37.32	180	313	Average
5230	103.04	102.56			31.39	6.41	37.32	180	313	Peak
5443.72	38.98	38.06	54	-15.02	31.55	6.5	37.13	180	313	Average
5443.72	51.63	50.79	74	-22.37	31.53	6.49	37.18	180	313	Peak
*10460	54.43	57.23	68.2	-13.77	39.57	10.22	52.59	131	95	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
5127.98	39.53	39.2	54	-14.47	31.31	6.32	37.3	197	287	Average
5127.98	50.82	50.49	74	-23.18	31.31	6.32	37.3	197	287	Peak
5230	88.03	87.55			31.39	6.41	37.32	197	287	Average
5230	96.96	96.48			31.39	6.41	37.32	197	287	Peak
5391.91	38.95	38.15	54	-15.05	31.51	6.47	37.18	197	287	Average
5391.91	50.6	49.8	74	-23.4	31.51	6.47	37.18	197	287	Peak
*10460	55.28	58.08	68.2	-12.92	39.57	10.22	52.59	174	118	Peak

Remarks:

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

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
5135	39.15	38.82	54	-14.85	31.31	6.32	37.3	182	310	Average
5135	50.41	50.12	74	-23.59	31.28	6.29	37.28	182	310	Peak
5270	92.51	91.93			31.41	6.44	37.27	182	310	Average
5270	101.95	101.37			31.41	6.44	37.27	182	310	Peak
5415.67	39.84	39.06	54	-14.16	31.49	6.47	37.18	182	310	Average
5415.67	51.16	50.33	74	-22.84	31.53	6.48	37.18	182	310	Peak
*10540	54.82	57.67	68.2	-13.38	39.7	10.31	52.86	149	198	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
5107.28	38.56	38.28	54	-15.44	31.27	6.28	37.27	194	286	Average
5107.28	50.36	50.05	74	-23.64	31.29	6.3	37.28	194	286	Peak
5270	87.11	86.53			31.41	6.44	37.27	194	286	Average
5270	96.35	95.77			31.41	6.44	37.27	194	286	Peak
5449.33	38.89	37.96	54	-15.11	31.56	6.5	37.13	194	286	Average
5449.33	50.67	49.74	74	-23.33	31.56	6.5	37.13	194	286	Peak
*10540	55.37	58.22	68.2	-12.83	39.7	10.31	52.86	133	78	Peak

Remarks:

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

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		Jisyong Wang		

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
5137.16	38.97	38.64	54	-15.03	31.31	6.32	37.3	179	314	Average
5137.16	50.34	50	74	-23.66	31.31	6.33	37.3	179	314	Peak
5310	92.2	91.48			31.45	6.46	37.19	179	314	Average
5310	101.51	100.79			31.45	6.46	37.19	179	314	Peak
5352.86	40.94	40.17	54	-13.06	31.48	6.47	37.18	179	314	Average
5352.86	53.76	52.99	74	-20.24	31.48	6.47	37.18	179	314	Peak
10620	46.85	49.66	54	-7.15	39.89	10.39	53.09	149	184	Average
10620	54.86	57.67	74	-19.14	39.89	10.39	53.09	149	184	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5138.06	38.69	38.35	54	-15.31	31.31	6.33	37.3	194	286	Average
5138.06	50.63	50.37	74	-23.37	31.25	6.26	37.25	194	286	Peak
5310	87.95	87.23			31.45	6.46	37.19	194	286	Average
5310	96.77	96.05			31.45	6.46	37.19	194	286	Peak
5413.58	38.9	38.07	54	-15.1	31.53	6.48	37.18	194	286	Average
5413.58	51.52	50.75	74	-22.48	31.48	6.47	37.18	194	286	Peak
10620	46.35	49.16	54	-7.65	39.89	10.39	53.09	132	97	Average
10620	55.57	58.38	74	-18.43	39.89	10.39	53.09	132	97	Peak

Remarks:

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

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

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5406.64	39.93	38.9	54	-14.07	31.74	6.47	37.18	182	198	Average
5406.64	52.24	51.21	74	-21.76	31.74	6.47	37.18	182	198	Peak
*5470	51.88	50.65	68.2	-16.32	31.79	6.52	37.08	182	198	Peak
5510	89.61	88.31			31.81	6.55	37.06	182	198	Average
5510	99.7	98.4			31.81	6.55	37.06	182	198	Peak
*5725	51.37	49.86	68.2	-16.83	32.18	6.76	37.43	182	198	Peak
11020	48.33	50.16	54	-5.67	40.71	10.41	52.95	111	132	Average
11020	58.33	60.16	74	-15.67	40.71	10.41	52.95	111	132	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
5423.6	38.82	37.76	54	-15.18	31.75	6.49	37.18	175	252	Average
5423.6	51.55	50.49	74	-22.45	31.75	6.49	37.18	175	252	Peak
*5470	51.09	49.86	68.2	-17.11	31.79	6.52	37.08	175	252	Peak
5510	84.14	82.84			31.81	6.55	37.06	175	252	Average
5510	94.15	92.85			31.81	6.55	37.06	175	252	Peak
*5725	50.76	49.25	68.2	-17.44	32.18	6.76	37.43	175	252	Peak
11020	47.78	49.61	54	-6.22	40.71	10.41	52.95	321	256	Average
11020	57.78	59.61	74	-16.22	40.71	10.41	52.95	321	256	Peak

Remarks:

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

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

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
5423.6	40.12	39.06	54	-13.88	31.75	6.49	37.18	189	198	Average
5423.6	51.25	50.19	74	-22.75	31.75	6.49	37.18	189	198	Peak
*5470	49.83	48.6	68.2	-18.37	31.79	6.52	37.08	189	198	Peak
5550	90.08	88.67			31.89	6.61	37.09	189	198	Average
5550	100.04	98.63			31.89	6.61	37.09	189	198	Peak
*5725	51.6	50.09	68.2	-16.6	32.18	6.76	37.43	189	198	Peak
11100	47.84	49.45	54	-6.16	40.63	10.47	52.71	256	123	Average
11100	57.89	59.5	74	-16.11	40.63	10.47	52.71	256	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
5380.56	39.04	38.02	54	-14.96	31.73	6.47	37.18	182	243	Average
5380.56	52.58	51.56	74	-21.42	31.73	6.47	37.18	182	243	Peak
*5470	50.87	49.64	68.2	-17.33	31.79	6.52	37.08	182	243	Peak
5550	84.28	82.87			31.89	6.61	37.09	182	243	Average
5550	94.21	92.8			31.89	6.61	37.09	182	243	Peak
*5725	50.59	49.08	68.2	-17.61	32.18	6.76	37.43	182	243	Peak
11100	47.39	49	54	-6.61	40.63	10.47	52.71	111	145	Average
11100	58.37	59.98	74	-15.63	40.63	10.47	52.71	111	145	Peak

Remarks:

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

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

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
5398.96	38.88	37.85	54	-15.12	31.74	6.47	37.18	183	196	Average
5398.96	50.95	49.92	74	-23.05	31.74	6.47	37.18	183	196	Peak
*5470	49.9	48.67	68.2	-18.3	31.79	6.52	37.08	183	196	Peak
5670	90.67	89.2			32.09	6.72	37.34	183	196	Average
5670	100.67	99.2			32.09	6.72	37.34	183	196	Peak
*5725	51.4	49.89	68.2	-16.8	32.18	6.76	37.43	183	196	Peak
11340	47.33	49.13	54	-6.67	40.4	10.52	52.72	203	256	Average
11340	57.34	59.14	74	-16.66	40.4	10.52	52.72	203	256	Peak

Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5434.32	38.69	37.57	54	-15.31	31.76	6.49	37.13	166	252	Average
5434.32	51.05	49.93	74	-22.95	31.76	6.49	37.13	166	252	Peak
*5470	49.91	48.69	68.2	-18.29	31.79	6.51	37.08	166	252	Peak
5670	85.33	83.86			32.09	6.72	37.34	166	252	Average
5670	95.15	93.68			32.09	6.72	37.34	166	252	Peak
*5725	50.96	49.45	68.2	-17.24	32.18	6.76	37.43	166	252	Peak
11340	46.78	48.58	54	-7.22	40.4	10.52	52.72	285	265	Average
11340	56.79	58.59	74	-17.21	40.4	10.52	52.72	285	265	Peak

Remarks:

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

802.11ac (VHT80)

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

Antenna Polarity & Test Distance: Horizontal at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5149.94	45.28	44.94	54	-8.72	31.32	6.34	37.32	182	313	Average
5149.94	57.26	56.92	74	-16.74	31.32	6.34	37.32	182	313	Peak
5210	89.96	89.55			31.37	6.4	37.36	182	313	Average
5210	99.78	99.37			31.37	6.4	37.36	182	313	Peak
5440.2	39.34	38.54	54	-14.66	31.51	6.47	37.18	182	313	Average
5440.2	50.78	49.86	74	-23.22	31.55	6.5	37.13	182	313	Peak
*10420	53.86	56.57	68.2	-14.34	39.53	10.21	52.45	129	112	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5149.76	41.92	41.58	54	-12.08	31.32	6.34	37.32	185	284	Average
5149.76	54.54	54.2	74	-19.46	31.32	6.34	37.32	185	284	Peak
5210	87.73	87.32			31.37	6.4	37.36	185	284	Average
5210	94.55	94.14			31.37	6.4	37.36	185	284	Peak
5396.2	39.3	38.49	54	-14.7	31.52	6.47	37.18	185	284	Average
5396.2	50.98	50.18	74	-23.02	31.51	6.47	37.18	185	284	Peak
*10420	55.41	58.12	68.2	-12.79	39.53	10.21	52.45	159	100	Peak

Remarks:

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

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

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
5142.2	39.06	38.71	54	-14.94	31.32	6.33	37.3	179	309	Average
5142.2	50.4	50.07	74	-23.6	31.31	6.32	37.3	179	309	Peak
5290	88.76	88.11			31.43	6.45	37.23	179	309	Average
5290	98.99	98.34			31.43	6.45	37.23	179	309	Peak
5350.66	40.91	40.14	54	-13.09	31.48	6.47	37.18	179	309	Average
5350.66	52.53	51.76	74	-21.47	31.48	6.47	37.18	179	309	Peak
*10580	55.47	58.38	68.2	-12.73	39.81	10.39	53.11	161	207	Peak

Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5136.98	38.92	38.58	54	-15.08	31.31	6.33	37.3	191	284	Average
5136.98	50.18	49.94	74	-23.82	31.24	6.25	37.25	191	284	Peak
5290	82.6	81.95			31.43	6.45	37.23	191	284	Average
5290	92.75	92.1			31.43	6.45	37.23	191	284	Peak
5418.86	39.19	38.38	54	-14.81	31.52	6.47	37.18	191	284	Average
5418.86	50.53	49.7	74	-23.47	31.53	6.48	37.18	191	284	Peak
*10580	55.67	58.58	68.2	-12.53	39.81	10.39	53.11	129	74	Peak

Remarks:

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

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

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
5440.72	41.31	40.18	54	-12.69	31.76	6.5	37.13	182	200	Average
5440.72	53.81	52.68	74	-20.19	31.76	6.5	37.13	182	200	Peak
*5470	53.85	52.62	68.2	-14.35	31.79	6.52	37.08	182	200	Peak
5530	87.17	85.84			31.84	6.58	37.09	182	200	Average
5530	97.21	95.88			31.84	6.58	37.09	182	200	Peak
*5725	50.56	49.05	68.2	-17.64	32.18	6.76	37.43	182	200	Peak
11060	48.88	50.57	54	-5.12	40.66	10.44	52.79	123	125	Average
11060	58.88	60.57	74	-15.12	40.66	10.44	52.79	123	125	Peak
Antenna Polarity & Test Distance: Vertical at 3 m										
Frequency (MHz)	Emission Level (dBuV/m)	Read Level (dBuV)	Limit (dBuV/m)	Margin (dB)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Antenna Height (cm)	Table Angle (Degree)	Remark
5457.52	39.8	38.6	54	-14.2	31.77	6.51	37.08	170	245	Average
5457.52	51.29	50.09	74	-22.71	31.77	6.51	37.08	170	245	Peak
*5470	50.61	49.41	68.2	-17.59	31.77	6.51	37.08	170	245	Peak
5530	80.06	78.73			31.84	6.58	37.09	170	245	Average
5530	90.06	88.73			31.84	6.58	37.09	170	245	Peak
*5725	50.81	49.3	68.2	-17.39	32.18	6.76	37.43	170	245	Peak
11060	48.9	50.59	54	-5.1	40.66	10.44	52.79	205	265	Average
11060	58.9	60.59	74	-15.1	40.66	10.44	52.79	205	265	Peak

Remarks:

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

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

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
5413.36	39.65	38.6	54	-14.35	31.75	6.48	37.18	173	194	Average
5413.36	51.52	50.47	74	-22.48	31.75	6.48	37.18	173	194	Peak
*5470	50.03	48.8	68.2	-18.17	31.79	6.52	37.08	173	194	Peak
5610	88.81	87.37			31.98	6.68	37.22	173	194	Average
5610	98.82	97.38			31.98	6.68	37.22	173	194	Peak
*5725	50.67	49.16	68.2	-17.53	32.18	6.76	37.43	173	194	Peak
11220	48.46	50.21	54	-5.54	40.51	10.55	52.81	203	256	Average
11220	58.57	60.32	74	-15.43	40.51	10.55	52.81	203	256	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
5445.04	39.39	38.26	54	-14.61	31.76	6.5	37.13	190	244	Average
5445.04	50.92	49.79	74	-23.08	31.76	6.5	37.13	190	244	Peak
*5470	50.08	48.86	68.2	-18.12	31.79	6.51	37.08	190	244	Peak
5610	82.31	80.87			31.98	6.68	37.22	190	244	Average
5610	92.28	90.84			31.98	6.68	37.22	190	244	Peak
*5725	51.09	49.58	68.2	-17.11	32.18	6.76	37.43	190	244	Peak
11220	48.71	50.46	54	-5.29	40.51	10.55	52.81	162	111	Average
11220	58.72	60.47	74	-15.28	40.51	10.55	52.81	162	111	Peak

Remarks:

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

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 116	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				Jisyong Wang	

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
43.58	19.28	36.3	40	-20.72	13.59	0.5	31.11	102	256	Peak
171.62	22.47	41.57	43.5	-21.03	11.57	1.08	31.75	111	145	Peak
199.75	19.07	40.25	43.5	-24.43	9.36	1.23	31.77	163	258	Peak
260.86	19.53	38.12	46	-26.47	11.79	1.49	31.87	111	194	Peak
536.34	22.4	33.32	46	-23.6	18.15	2.65	31.72	185	142	Peak
967.99	29.34	33.01	54	-24.66	23.89	4.32	31.88	111	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
44.55	20.57	37.6	40	-19.43	13.6	0.51	31.14	102	256	Peak
147.37	15.15	33.19	43.5	-28.35	12.61	0.97	31.62	185	164	Peak
322.94	17.02	33.63	46	-28.98	13.5	1.76	31.87	201	256	Peak
659.53	25.26	33.74	46	-20.74	20.33	3.14	31.95	174	156	Peak
849.65	28.2	33.37	46	-17.8	22.86	3.84	31.87	132	256	Peak
964.11	29.73	33.47	54	-24.27	23.87	4.3	31.91	174	298	Peak

Remarks:

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

4.2 Conducted Emission Measurement

4.2.1 Limits of Conducted Emission Measurement

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

Note: 1. The lower limit shall apply at the transition frequencies.
 2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50 MHz.

4.2.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Date Of Calibration	Due Date Of Calibration
Test Receiver ROHDE & SCHWARZ	ESCI	100613	Nov. 23, 2017	Nov. 22, 2018
RF signal cable (with 10dB PAD) Woken	5D-FB	Cable-cond1-01	Sep. 05, 2017	Sep. 04, 2018
LISN/AMN ROHDE & SCHWARZ (EUT)	ESH3-Z5	835239/001	Mar. 10, 2017	Mar. 09, 2018
LISN/AMN ROHDE & SCHWARZ (Peripheral)	ESH3-Z5	100311	Aug. 15, 2017	Aug. 14, 2018
Software ADT	BV ADT_Cond_V7.3.7.3	NA	NA	NA

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

4.2.3 Test Procedures

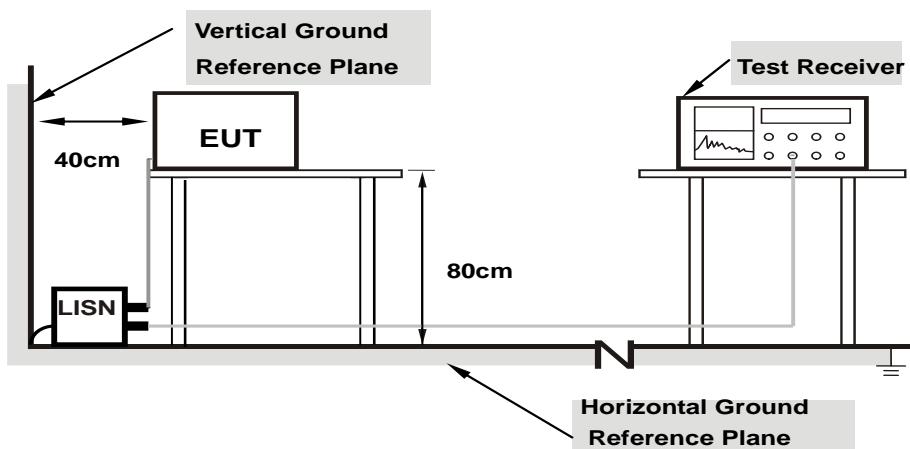
- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance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

- Support units were connected to second LISN.
- Both of LISNs (AMN) are 80 cm from EUT and at least 80 cm 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.

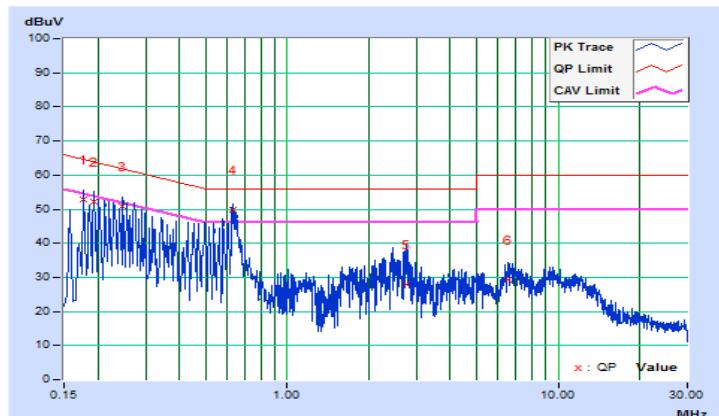
4.2.7 Test Results

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	Getaz Yang	Test Date	2018/2/27

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	0.17737	10.10	42.79	26.44	52.89	36.54	64.61	54.61	-11.72	-18.07
2	0.19301	10.10	42.20	23.78	52.30	33.88	63.91	53.91	-11.61	-20.03
3	0.24775	10.11	40.85	22.71	50.96	32.82	61.83	51.83	-10.87	-19.01
4	0.62702	10.13	39.59	27.02	49.72	37.15	56.00	46.00	-6.28	-8.85
5	2.75797	10.22	17.70	7.02	27.92	17.24	56.00	46.00	-28.08	-28.76
6	6.51157	10.43	18.87	7.63	29.30	18.06	60.00	50.00	-30.70	-31.94

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

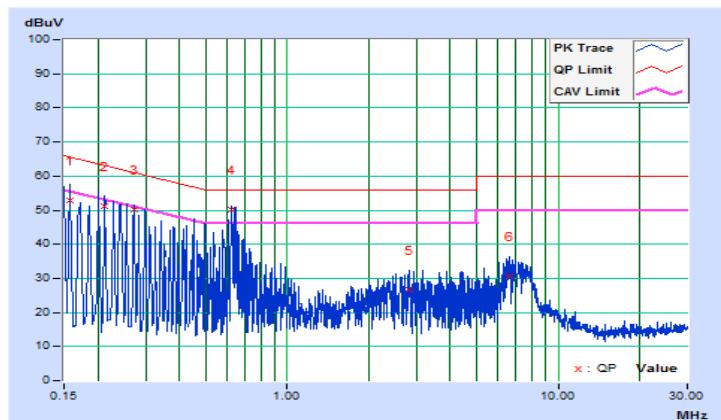


Frequency Range	150kHz ~ 30MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9kHz
Input Power	120Vac, 60Hz	Environmental Conditions	25°C, 65%RH
Tested by	Getaz Yang	Test Date	2018/2/27

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	10.10	42.75	24.02	52.85	34.12	65.58	55.58	-12.73	-21.46
2	0.21256	10.10	41.24	22.89	51.34	32.99	63.10	53.10	-11.76	-20.11
3	0.27120	10.11	40.07	22.43	50.18	32.54	61.08	51.08	-10.90	-18.54
4	0.62311	10.12	40.09	24.99	50.21	35.11	56.00	46.00	-5.79	-10.89
5	2.82969	10.21	16.55	5.82	26.76	16.03	56.00	46.00	-29.24	-29.97
6	6.58195	10.37	20.24	8.04	30.61	18.41	60.00	50.00	-29.39	-31.59

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

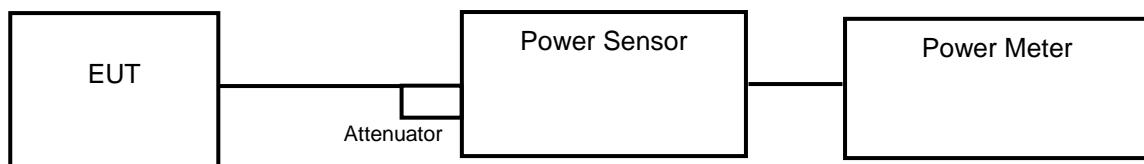
4.3.1 Limits of Transmit Power Measurement

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)

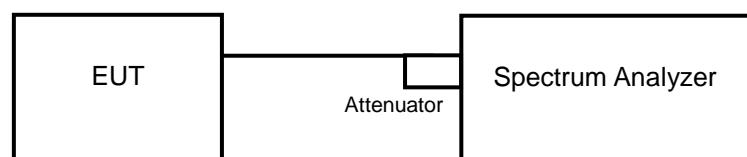
*B is the 26 dB emission bandwidth in megahertz

4.3.2 Test Setup

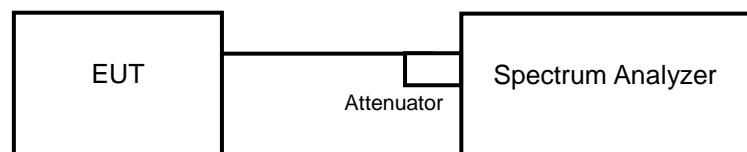
<Power Output Measurement>



or



<26 dB Bandwidth>



4.3.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.3.4 Test Procedure

Average Power Measurement

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

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

<802.11ac (VHT80)>

- 1) Set span to encompass the entire 26 dB EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal.
- 2) Set sweep trigger to “free run”.
- 3) Set RBW = 1 MHz.
- 4) Set VBW \geq 3 MHz
- 5) Number of points in sweep \geq 2 Span / RBW.
- 6) Sweep time \leq (number of points in sweep) * T
- 7) Using emission bandwidth to determine the frequency span for integration the channel bandwidth.
- 8) Detector = RMS.
- 9) Trace mode = max hold.
- 10) Allow max hold to run for at least 60 seconds, or longer as needed to allow the trace to stabilize.

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:

802.11a

Channel	Frequency (MHz)	Maximum Conducted Power (mW)	Maximum Conducted Power (dBm)	Power Limit (dBm)	Pass / Fail
36	5180	11.803	10.72	24	Pass
44	5220	11.614	10.65	24	Pass
48	5240	11.508	10.61	24	Pass
52	5260	11.588	10.64	24	Pass
60	5300	11.722	10.69	24	Pass
64	5320	11.272	10.52	24	Pass
100	5500	11.614	10.65	24	Pass
116	5580	11.402	10.57	24	Pass
140	5700	11.324	10.54	24	Pass

Note:

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

1. $11 \text{ dBm} + 10\log(22.78) = 24.57 \text{ dBm} > 24 \text{ dBm}$.
2. $11 \text{ dBm} + 10\log(22.59) = 24.53 \text{ dBm} > 24 \text{ dBm}$.
3. $11 \text{ dBm} + 10\log(22.68) = 24.55 \text{ dBm} > 24 \text{ dBm}$.
4. $11 \text{ dBm} + 10\log(22.54) = 24.52 \text{ dBm} > 24 \text{ dBm}$.
5. $11 \text{ dBm} + 10\log(22.35) = 24.49 \text{ dBm} > 24 \text{ dBm}$.
6. $11 \text{ dBm} + 10\log(22.64) = 24.54 \text{ dBm} > 24 \text{ dBm}$.

802.11n (HT20)

Channel	Frequency (MHz)	Maximum Conducted Power (mW)	Maximum Conducted Power (dBm)	Power Limit (dBm)	Pass / Fail
36	5180	12.359	10.92	24	Pass
44	5220	11.272	10.52	24	Pass
48	5240	11.995	10.79	24	Pass
52	5260	11.776	10.71	24	Pass
60	5300	11.298	10.53	24	Pass
64	5320	11.298	10.53	24	Pass
100	5500	12.503	10.97	24	Pass
116	5580	11.641	10.66	24	Pass
140	5700	11.143	10.47	24	Pass

Note:

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

1. $11 \text{ dBm} + 10\log(22.64) = 24.54 \text{ dBm} > 24 \text{ dBm}$.
2. $11 \text{ dBm} + 10\log(22.63) = 24.54 \text{ dBm} > 24 \text{ dBm}$.
3. $11 \text{ dBm} + 10\log(22.38) = 24.49 \text{ dBm} > 24 \text{ dBm}$.
4. $11 \text{ dBm} + 10\log(22.79) = 24.57 \text{ dBm} > 24 \text{ dBm}$.
5. $11 \text{ dBm} + 10\log(22.64) = 24.54 \text{ dBm} > 24 \text{ dBm}$.
6. $11 \text{ dBm} + 10\log(22.49) = 24.51 \text{ dBm} > 24 \text{ dBm}$.

802.11n (HT40)

Channel	Frequency (MHz)	Maximum Conducted Power (mW)	Maximum Conducted Power (dBm)	Power Limit (dBm)	Pass / Fail
38	5190	11.858	10.74	24	Pass
46	5230	11.508	10.61	24	Pass
54	5270	11.272	10.52	24	Pass
62	5310	11.246	10.51	24	Pass
102	5510	11.995	10.79	24	Pass
110	5550	11.143	10.47	24	Pass
134	5670	11.246	10.51	24	Pass

Note:

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

1. $11 \text{ dBm} + 10\log(45.54) = 27.58 \text{ dBm} > 24 \text{ dBm}$.
2. $11 \text{ dBm} + 10\log(45.47) = 27.57 \text{ dBm} > 24 \text{ dBm}$.
3. $11 \text{ dBm} + 10\log(45.37) = 27.56 \text{ dBm} > 24 \text{ dBm}$.
4. $11 \text{ dBm} + 10\log(45.14) = 27.54 \text{ dBm} > 24 \text{ dBm}$.
5. $11 \text{ dBm} + 10\log(45.31) = 27.56 \text{ dBm} > 24 \text{ dBm}$.

802.11ac (VHT80)

Channel	Frequency (MHz)	Maximum Conducted Power (mW)	Maximum Conducted Power (dBm)	Power Limit (dBm)	Pass / Fail
42	5210	11.803	10.72	24	Pass
58	5290	11.169	10.48	24	Pass
106	5530	11.246	10.51	24	Pass
122	5610	10.889	10.37	24	Pass

Note:

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

1. $11 \text{ dBm} + 10\log(85.70) = 30.32 \text{ dBm} > 24 \text{ dBm}$.
2. $11 \text{ dBm} + 10\log(86.25) = 30.35 \text{ dBm} > 24 \text{ dBm}$.
3. $11 \text{ dBm} + 10\log(86.02) = 30.34 \text{ dBm} > 24 \text{ dBm}$.

26 dB Bandwidth:
802.11a

Channel	Frequency (MHz)	26 dBc Bandwidth (MHz)
36	5180	22.40
44	5220	22.40
48	5240	22.45
52	5260	22.78
60	5300	22.59
64	5320	22.68
100	5500	22.54
116	5580	22.35
140	5700	22.64

802.11n (HT20)

Channel	Frequency (MHz)	26 dBc Bandwidth (MHz)
36	5180	23.02
44	5220	22.93
48	5240	22.68
52	5260	22.64
60	5300	22.63
64	5320	22.38
100	5500	22.79
116	5580	22.64
140	5700	22.49

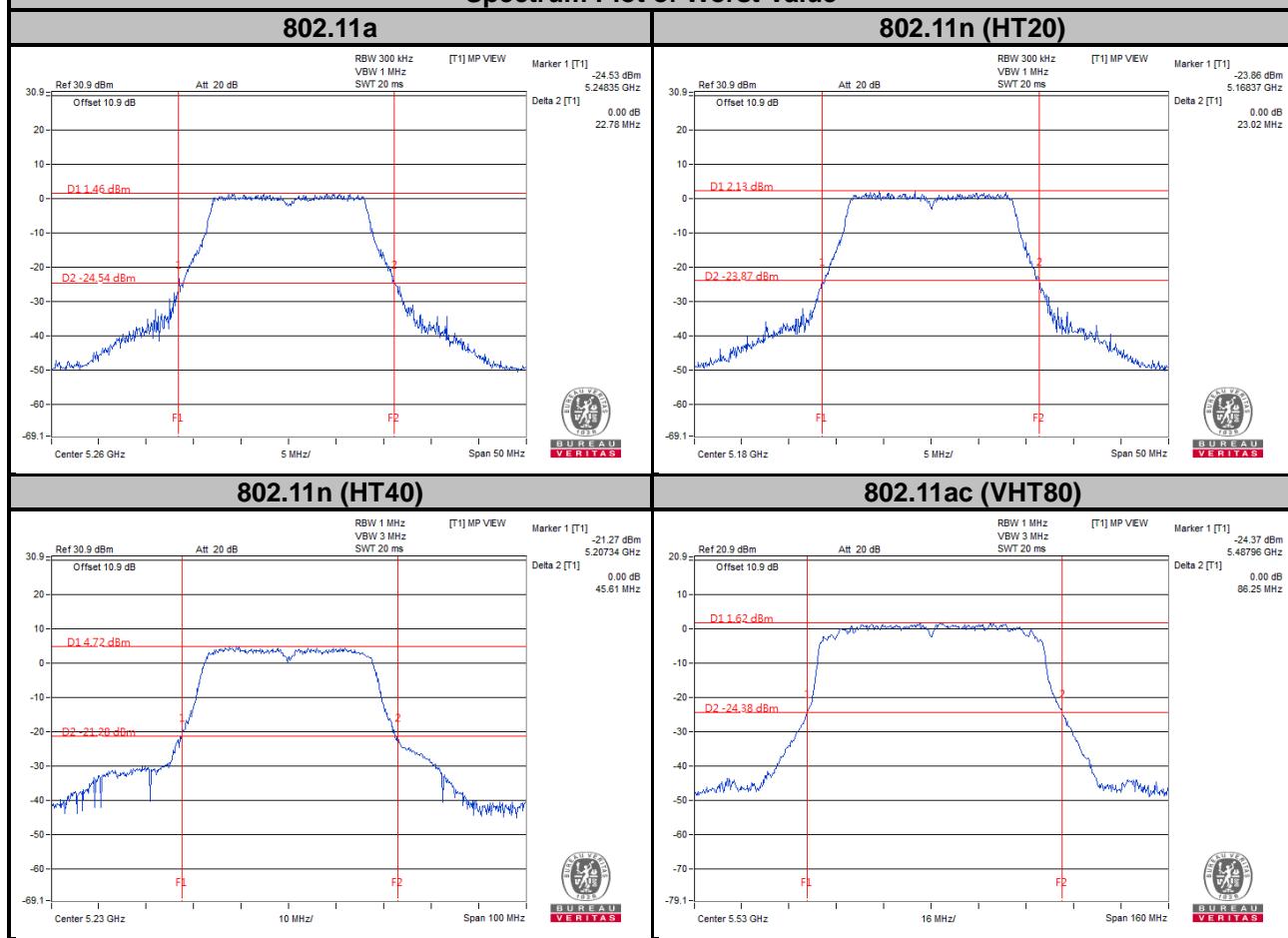
802.11n (HT40)

Channel	Frequency (MHz)	26 dBc Bandwidth (MHz)
38	5190	45.16
46	5230	45.61
54	5270	45.54
62	5310	45.47
102	5510	45.37
110	5550	45.14
134	5670	45.31

802.11ac (VHT80)

Channel	Frequency (MHz)	26 dBc Bandwidth (MHz)
42	5210	86.13
58	5290	85.70
106	5530	86.25
122	5610	86.02

Spectrum Plot of Worst Value



4.4 Occupied Bandwidth Measurement

4.4.1 Test Setup



4.4.2 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.4.3 Test Procedure

The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with resolution bandwidth in the range of 1 % to 5 % of the anticipated emission bandwidth, and a video bandwidth at least 3x the resolution bandwidth and set the detector to SAMPLE. The width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5 % of the total mean power of a given emission.

4.4.4 Test Results

802.11a

Channel	Channel Frequency (MHz)	Occupied Bandwidth (MHz)
36	5180	17.31
40	5200	17.31
48	5240	17.30
52	5260	17.31
60	5300	17.31
64	5320	17.31
100	5500	17.21
116	5580	17.26
140	5700	17.21

802.11n (HT20)

Channel	Channel Frequency (MHz)	Occupied Bandwidth (MHz)
36	5180	18.22
40	5200	18.22
48	5240	18.22
52	5260	18.13
60	5300	18.22
64	5320	18.22
100	5500	18.17
116	5580	18.18
140	5700	18.22

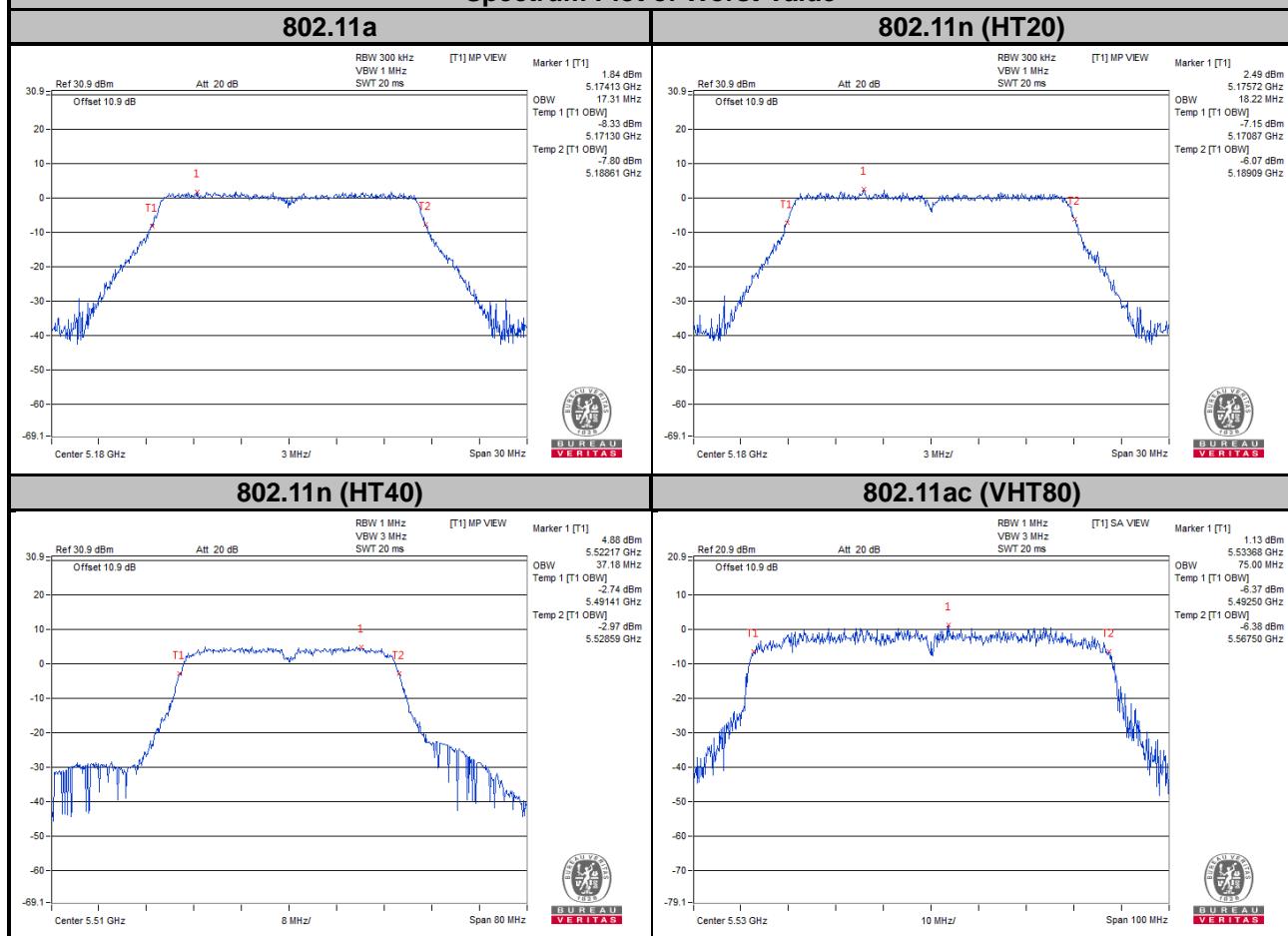
802.11n (HT40)

Channel	Channel Frequency (MHz)	Occupied Bandwidth (MHz)
38	5190	36.92
46	5230	36.92
54	5270	37.05
62	5310	37.05
102	5510	37.18
110	5550	36.92
134	5670	36.92

802.11ac (VHT80)

Channel	Channel Frequency (MHz)	Occupied Bandwidth (MHz)
42	5210	74.84
58	5290	74.68
106	5530	75.00
122	5610	75.00

Spectrum Plot of Worst Value

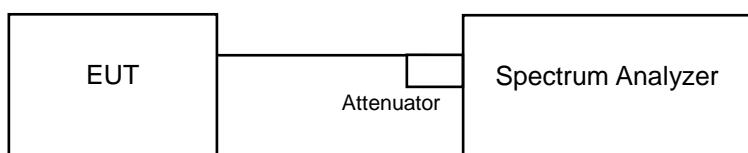


4.5 Peak Power Spectral Density Measurement

4.5.1 Limits of Peak Power Spectral Density Measurement

Operation Band	EUT Category		Limit
U-NII-1		Outdoor Access Point	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

4.5.2 Test Setup



4.5.3 Test Instruments

Refer to section 4.1.3 to get information of above instrument.

4.5.4 Test 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 \geq 3 RBW, Detector = RMS
3. Sweep time = auto, trigger set to “free run”.
4. Trace average at least 100 traces in power averaging mode.
5. Record the max value and add 10 log (1/duty cycle)

4.5.5 Deviation from Test Standard

No deviation.

4.5.6 EUT Operating Conditions

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

4.5.7 Test Results

802.11a

Channel	Frequency (MHz)	PSD w/o Duty Factor (dBm/MHz)	Duty Factor (dB)	PSD with Duty Factor (dBm/MHz)	Maximum Limit (dBm/MHz)	Pass / Fail
36	5180	-1.68	0.59	-1.09	11	Pass
44	5220	-2.26	0.59	-1.67	11	Pass
48	5240	-2.29	0.59	-1.70	11	Pass
52	5260	-2.29	0.59	-1.70	11	Pass
60	5300	-1.85	0.59	-1.26	11	Pass
64	5320	-2.31	0.59	-1.72	11	Pass
100	5500	-2.08	0.59	-1.49	11	Pass
116	5580	-1.54	0.59	-0.95	11	Pass
140	5700	-1.55	0.59	-0.96	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/MHz)	Duty Factor (dB)	PSD with Duty Factor (dBm/MHz)	Maximum Limit (dBm/MHz)	Pass / Fail
36	5180	-2.33	0.70	-1.63	11	Pass
44	5220	-2.81	0.70	-2.11	11	Pass
48	5240	-2.91	0.70	-2.21	11	Pass
52	5260	-2.84	0.70	-2.14	11	Pass
60	5300	-2.64	0.70	-1.94	11	Pass
64	5320	-2.74	0.70	-2.04	11	Pass
100	5500	-2.42	0.70	-1.72	11	Pass
116	5580	-1.97	0.70	-1.27	11	Pass
140	5700	-2.15	0.70	-1.45	11	Pass

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

802.11n (HT40)

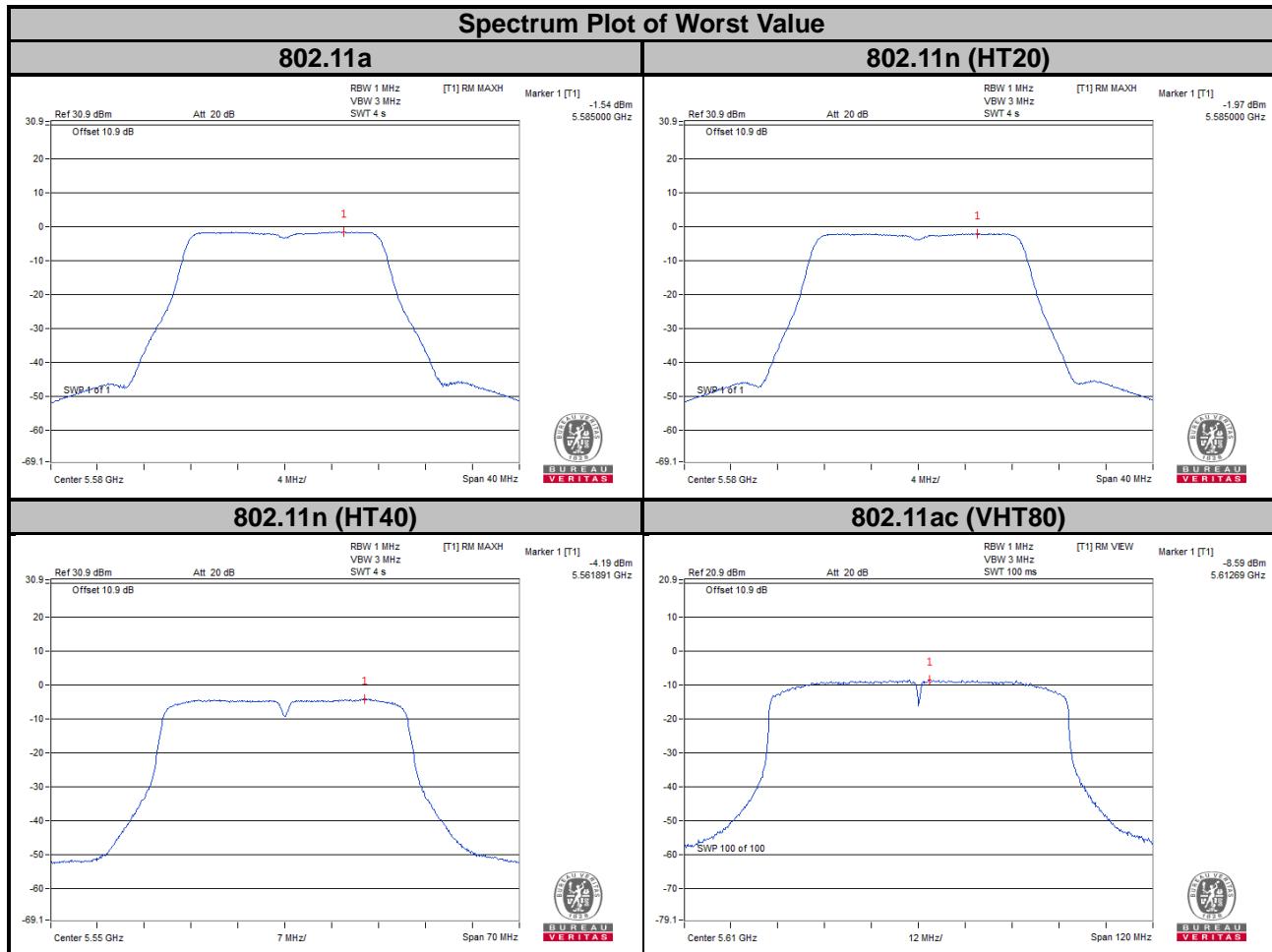
Channel	Frequency (MHz)	PSD w/o Duty Factor (dBm/MHz)	Duty Factor (dB)	PSD with Duty Factor (dBm/MHz)	Maximum Limit (dBm/MHz)	Pass / Fail
38	5190	-4.33	1.31	-3.02	11	Pass
46	5230	-4.96	1.31	-3.65	11	Pass
54	5270	-4.99	1.31	-3.68	11	Pass
62	5310	-4.99	1.31	-3.68	11	Pass
102	5510	-4.49	1.31	-3.18	11	Pass
110	5550	-4.19	1.31	-2.88	11	Pass
134	5670	-4.29	1.31	-2.98	11	Pass

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

802.11ac (VHT80)

Channel	Frequency (MHz)	PSD w/o Duty Factor (dBm/MHz)	Duty Factor (dB)	PSD with Duty Factor (dBm/MHz)	Maximum Limit (dBm/MHz)	Pass / Fail
42	5210	-9.31	2.96	-6.35	11	Pass
58	5290	-9.24	2.96	-6.28	11	Pass
106	5530	-8.68	2.96	-5.72	11	Pass
122	5610	-8.59	2.96	-5.63	11	Pass

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

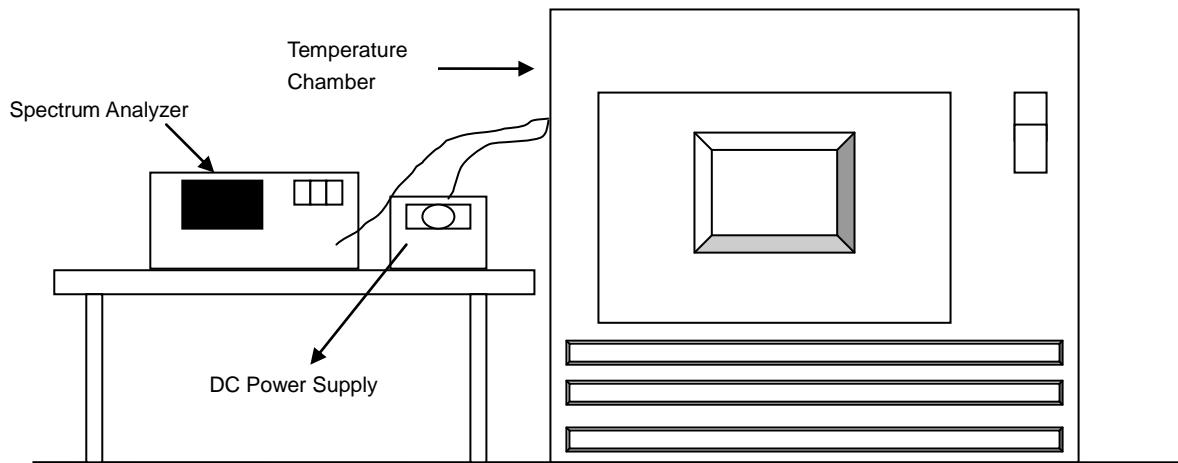


4.6 Frequency Stability

4.6.1 Limit of Frequency Stability Measurement

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

4.6.2 Test Setup



4.6.3 Test Instruments

Refer to section 4.1.3 to get information of above instrument.

4.6.4 Test Procedure

- The EUT was placed inside the environmental test chamber and powered by nominal DC voltage.
- Turn the EUT on and couple its output to a spectrum analyzer.
- Turn the EUT off and set the chamber to the highest temperature specified.
- Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT on and measure the operating frequency after 2, 5, and 10 Minutes.
- Repeat step 2 and 3 with the temperature chamber set to the lowest temperature.
- The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 Minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.

4.6.5 Deviation from Test Standard

No deviation.

4.6.6 EUT Operating Condition

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

4.6.7 Test Results

Frequency Stability Versus Temp.									
Operating Frequency: 5180 MHz									
Temp. (°C)	Power Supply (Vdc)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Frequency Drift (%)						
50	3.9	5179.9918	-0.00016	5179.9925	-0.00014	5179.9945	-0.00011	5179.9955	-0.00009
40	3.9	5179.9813	-0.00036	5179.9793	-0.00040	5179.9826	-0.00034	5179.9806	-0.00037
30	3.9	5179.9838	-0.00031	5179.9833	-0.00032	5179.9833	-0.00032	5179.9836	-0.00032
20	3.9	5180.0175	0.00034	5180.0171	0.00033	5180.019	0.00037	5180.0186	0.00036
10	3.9	5179.991	-0.00017	5179.9943	-0.00011	5179.9914	-0.00017	5179.9933	-0.00013
0	3.9	5179.9885	-0.00022	5179.991	-0.00017	5179.988	-0.00023	5179.9881	-0.00023
-10	3.9	5180.0044	0.00008	5180.005	0.00010	5180.0038	0.00007	5180.0066	0.00013
-20	3.9	5179.9934	-0.00013	5179.9936	-0.00012	5179.992	-0.00015	5179.9918	-0.00016
-30	3.9	5179.9838	-0.00031	5179.9813	-0.00036	5179.9801	-0.00038	5179.9825	-0.00034

Frequency Stability Versus Temp.									
Operating Frequency: 5180 MHz									
Temp. (°C)	Power Supply (Vdc)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Frequency Drift (%)						
20	4.485	5180.0184	0.00036	5180.0168	0.00032	5180.0185	0.00036	5180.0186	0.00036
	3.9	5180.0175	0.00034	5180.0171	0.00033	5180.019	0.00037	5180.0186	0.00036
	3.315	5180.0176	0.00034	5180.0176	0.00034	5180.02	0.00039	5180.0182	0.00035

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 FCC recognized accredited test firms and accredited according to ISO/IEC 17025.

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

Linko EMC/RF Lab

Tel: 886-2-26052180

Fax: 886-2-26051924

Hsin Chu EMC/RF/Telecom Lab

Tel: 886-3-6668565

Fax: 886-3-6668323

Hwa Ya EMC/RF/Safety

Tel: 886-3-3183232

Fax: 886-3-3270892

Email: service.adt@tw.bureauveritas.com

Web Site: www.bureauveritas-adt.com

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

--- END ---