FCC Test Report

Report No.:	RF150709C20A
FCC ID:	RSL-TQ4400E
Test Model:	AT-TQ4400e
Received Date:	Jul. 09, 2015
Test Date:	Aug. 05 ~ Sep. 25, 2015
Issued Date:	Jun. 23, 2016
Applicant:	Allied Telesis K.K.
Address:	2nd. TOC Bldg. 7-21-11 Nishi-Gotanda,Shinagawa-ku, Tokyo Japan, 141-0031
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:	No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City 33383, TAIWAN (R.O.C.)

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Release Control Record

Issue No.	Description	Date Issued
RF150709C20A	Original release.	Jun. 23, 2016

1 Certificate of Conformity

Product: Outdoor Wireless Access Point

Brand: Allied Telesis™

Test Model: AT-TQ4400e

Sample Status: Engineering sample

Applicant: Allied Telesis K.K.

Test Date: Aug. 05 ~ Sep. 25, 2015

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

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

Prepared by : _____ , **Date:** Jun. 23, 2016
Ivy Lin / Specialist

Approved by : _____ , **Date:** Jun. 23, 2016
Ken Liu / Senior Manager

2 Summary of Test Results

47 CFR FCC Part 15, Subpart E (section 15.407)			
FCC Clause	Test Item	Result	Remarks
15.207 15.407(b)(6)	AC Power Conducted Emissions	PASS	Meet the requirement of limit. Minimum passing margin is -7.76dB at 0.49992MHz.
15.407(b) (1/2/3/4/6)	Radiated Emissions & Band Edge Measurement	PASS	Meet the requirement of limit. Minimum passing margin is -1.1dB at 5745.00MHz, 58.71MHz.
15.407(a)(1/2/3)	Max Average Transmit Power	Pass	Meet the requirement of limit.
15.407(a)(1/2/3)	Peak Power Spectral Density	Pass	Meet the requirement of limit.
15.407(g)	Frequency Stability	Pass	Meet the requirement of limit.
15.203	Antenna Requirement	Pass	Antenna connector is N-Type. (The device is professionally installed)

2.1 Measurement Uncertainty

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

Measurement	Frequency	Expanded Uncertainty (k=2) (±)
Conducted Emissions at mains ports	150kHz ~ 30MHz	2.44 dB
Radiated Emissions up to 1 GHz	30MHz ~ 200MHz	3.86 dB
	200MHz ~1000MHz	3.87 dB
Radiated Emissions above 1 GHz	1GHz ~ 18GHz	2.29 dB
	18GHz ~ 40GHz	2.29 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	Outdoor Wireless Access Point
Brand	Allied Telesis™
Test Model	AT-TQ4400e
Status of EUT	Engineering sample
Power Supply Rating	48Vdc (POE)
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/ 6.0Mbps 802.11n: up to 300.0Mbps 802.11ac: up to 867.0Mbps
Operating Frequency	5260 ~ 5320MHz, 5500 ~ 5700MHz
Number of Channel	5260 ~ 5320MHz: 4 for 802.11a, 802.11n (HT20) , 802.11ac (VHT20) 2 for 802.11n (HT40), 802.11ac (VHT40) 1 for 802.11ac (VHT80) 5500 ~ 5700MHz: 8 for 802.11a, 802.11n (HT20), 802.11ac (VHT20) 3 for 802.11n (HT40), 802.11ac (VHT40) 1 for 802.11ac (VHT80)
Output Power	5260 ~ 5320MHz: 100.333mW 5500 ~ 5700MHz: 113.12mW
Antenna Type	Dipole antenna with 7.0dBi gain
Antenna Connector	N-Type (The device is professionally installed)
Accessory Device	NA
Data Cable Supplied	1.75m non-shielded ground line without core

Note:

1. This report is prepared for FCC class II permissive change.
2. This report is issued as a supplementary report of BV ADT report no.: RF150709C20-1. The difference compared with the original report is adding 5.26GHz to 5.32GHz and 5.50GHz to 5.70GHz by software.
3. The EUT incorporates a MIMO function. Physically, the EUT provides 2 completed transmitters and 2 receivers.

Modulation Mode	Data Rate (MCS)	TX & RX Function	
802.11a	6 ~ 54Mbps	2TX (CDD)	2RX
802.11n (HT20)	MCS 0 ~ 15	2TX (CDD)	2RX
802.11n (HT40)	MCS 0 ~ 15	2TX (CDD)	2RX
802.11ac (VHT20)	MCS 0 ~ 8	2TX (CDD)	2RX
802.11ac (VHT40)	MCS 0 ~ 9	2TX (CDD)	2RX
802.11ac (VHT80)	MCS 0 ~ 9	2TX (CDD)	2RX

*The modulation and bandwidth are similar for 802.11n mode for 20MHz/40MHz and 802.11ac mode for 20MHz/40MHz, therefore investigated worst case to representative mode in test report. (Final test mode refer section 3.2.1)

4. The EUT has disabled the 5600 ~ 5650 MHz band.

5. The EUT uses following adapter and PoE.

Adapter supplied PoE (Support unit only)	
Brand	Powertron Electronics Corp.
Model	PA1024-4DU
Input Power	100-240Vac, 50-60Hz, 0.6A
Output Power	48Vdc, 0.38A, 18.24W Max
Power Line	1.8m power cable with 1 core attached on adapter

PoE (Support unit only)	
Brand	EnGenius
Model	EPE-24GR
Power Rating	48Vdc

6. 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 5260 ~ 5320MHz

4 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20):

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

2 channels are provided for 802.11n (HT40), 802.11ac (VHT40):

Channel	Frequency	Channel	Frequency
54	5270 MHz	62	5310 MHz

1 channel is provided for 802.11ac (VHT80):

Channel	Frequency
58	5290 MHz

FOR 5500 ~ 5700MHz

8 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20):

Channel	Frequency	Channel	Frequency
100	5500 MHz	116	5580 MHz
104	5520 MHz	132	5660 MHz
108	5540 MHz	136	5680 MHz
112	5560 MHz	140	5700 MHz

3 channels are provided for 802.11n (HT40), 802.11ac (VHT40):

Channel	Frequency	Channel	Frequency
102	5510 MHz	134	5670 MHz
110	5550 MHz		

1 channel is provided for 802.11ac (VHT80):

Channel	Frequency
106	5530MHz

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 1GHz & Bandedge Measurement **RE<1G:** Radiated Emission below 1GHz

PLC: Power Line Conducted Emission **APCM:** Antenna Port Conducted Measurement

NOTE: The EUT had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on **Z-plane**.

Radiated Emission Test (Above 1GHz):

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

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

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
-	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	BPSK	6.0
-	802.11n (HT20)		52 to 64	52, 60, 64	OFDM	BPSK	7.2
-	802.11n (HT40)		54 to 62	54, 62	OFDM	BPSK	15.0
-	802.11ac (VHT80)		58	58	OFDM	BPSK	87.8
-	802.11a	5500-5700	100 to 140	100, 116, 140	OFDM	BPSK	6.0
-	802.11n (HT20)		100 to 140	100, 116, 140	OFDM	BPSK	7.2
-	802.11n (HT40)		102 to 134	102, 110, 134	OFDM	BPSK	15.0
-	802.11ac (VHT80)		106	106	OFDM	BPSK	87.8

Radiated Emission Test (Below 1GHz):

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

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

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
-	802.11a	5260-5320	52 to 64	140	OFDM	BPSK	6.0
		5500-5700	100 to 140		OFDM	BPSK	6.0

Power Line Conducted Emission Test:

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

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

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
-	802.11a	5260-5320	52 to 64	140	OFDM	BPSK	6.0
		5500-5700	100 to 140		OFDM	BPSK	6.0

Antenna Port Conducted Measurement:

☒ This item includes all test value of each mode, but only includes spectrum plot of worst value of each mode.

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

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

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
-	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	BPSK	6.0
-	802.11n (HT20)		52 to 64	52, 60, 64	OFDM	BPSK	7.2
-	802.11n (HT40)		54 to 62	54, 62	OFDM	BPSK	15.0
-	802.11ac (VHT80)		58	58	OFDM	BPSK	87.8
-	802.11a	5500-5700	100 to 140	100, 116, 140	OFDM	BPSK	6.0
-	802.11n (HT20)		100 to 140	100, 116, 140	OFDM	BPSK	7.2
-	802.11n (HT40)		102 to 134	102, 110, 134	OFDM	BPSK	15.0
-	802.11ac (VHT80)		106	106	OFDM	BPSK	87.8

Test Condition:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER (POE)	TESTED BY
RE≥1G	18deg. C, 70%RH	48Vdc	Nick Hsu,
RE<1G	18deg. C, 70%RH	48Vdc	Nick Hsu
PLC	18deg. C, 70%RH	48Vdc	Nick Hsu
APCM	25deg. C, 60%RH	48Vdc	Leo Tsai

3.3 Duty Cycle of Test Signal

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

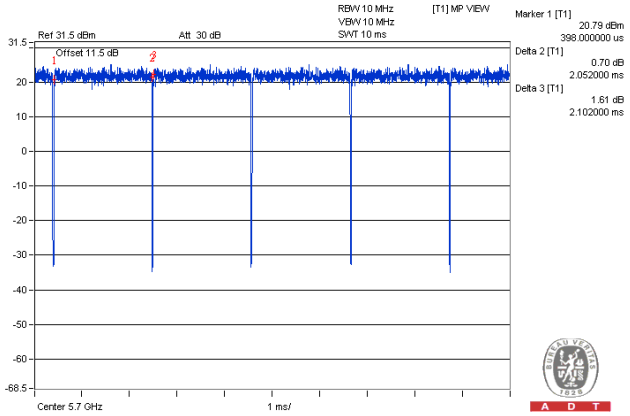
802.11a: Duty cycle = 2.052/2.102 =0.976, Duty factor = 10 * log(1/0.976) = 0.10

802.11n (HT20): Duty cycle = 1.910/1.957 =0.976, Duty factor = 10 * log(1/0.976) = 0.11

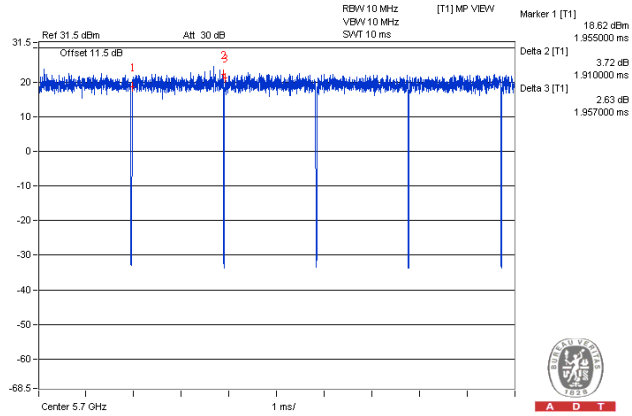
802.11n (HT40): Duty cycle = 0.942/0.982 =0.959, Duty factor = 10 * log(1/0.959) = 0.18

802.11ac (VHT80): Duty cycle = 0.455/0.495 =0.919, Duty factor = 10 * log(1/0.919) = 0.37

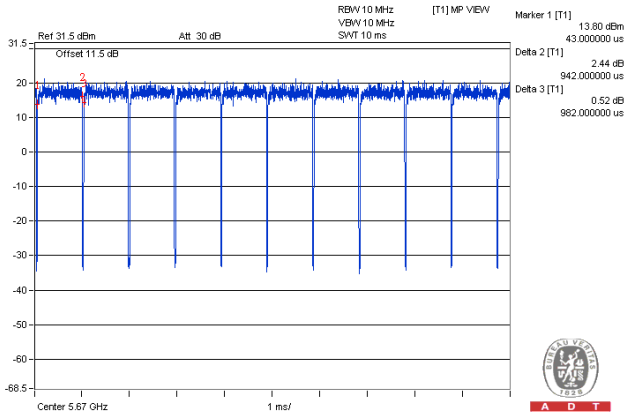
802.11a



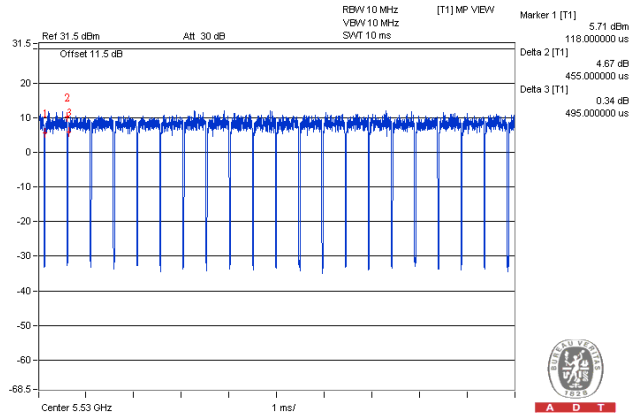
802.11n (HT20)



802.11n (HT40)



802.11ac (VHT80)



3.4 Description of Support Units

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

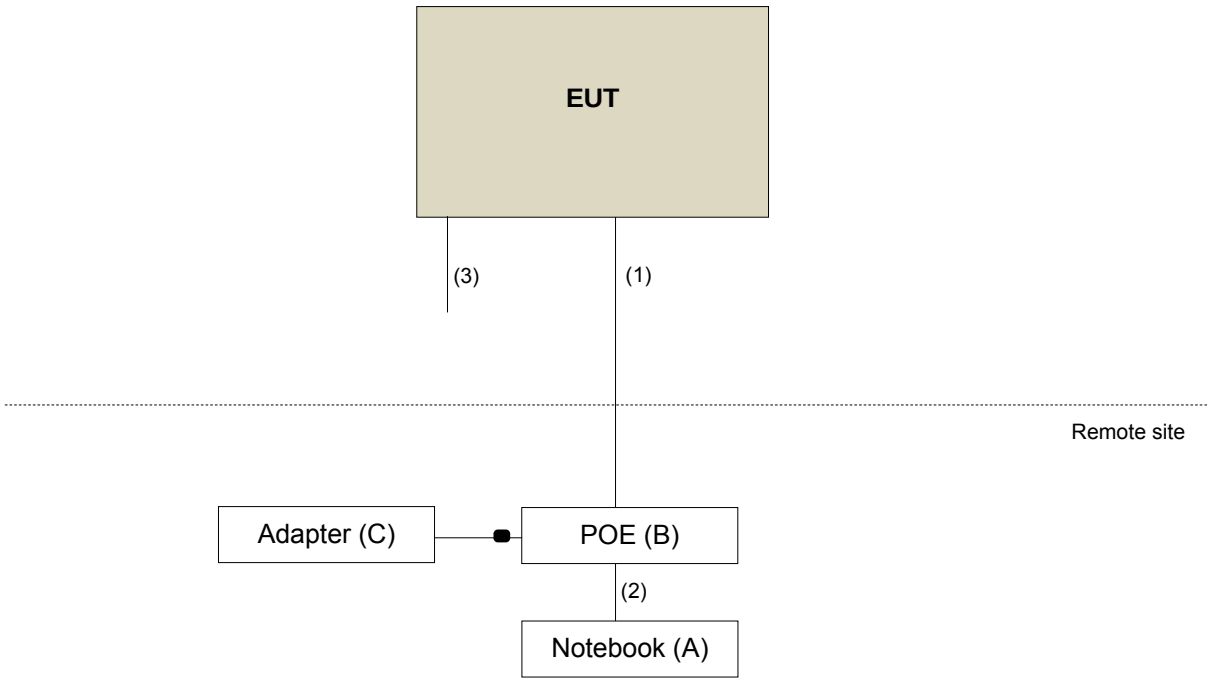
ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Notebook	DELL	E5410	1HC2XM1	FCC DoC Approved	-
B.	PoE	EnGenius	EPE-24GR	NA	NA	Provided by the manufacturer
C.	Adapter	Powertron Electronics Corp.	PA1024-4DU	NA	NA	Provided by the manufacturer

Note:

1. All power cords of the above support units are non-shielded (1.8m).
2. Item A acted as a communication partner to transfer data.

ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	RJ45 cable	1	5	N	0	-
2.	RJ45 cable	1	1.8	N	0	-
3.	Ground line	1	1.75	N	0	Accessory

3.4.1 Configuration of System under Test



3.5 General Description of Applied Standards

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

FCC Part 15, Subpart E (15.407)

KDB 789033 D02 General UNII Test Procedure New Rules v01r02

KDB 662911 D01 Multiple Transmitter Output v02r01

ANSI C63.10-2013

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

NOTE: The EUT is also considered as a kind of computer peripheral, because the connection to computer is necessary for typical use. It has been verified to comply with the requirements of FCC Part 15, Subpart B, Class B (DoC). The test report has been issued separately.

4 Test Types and Results

4.1 Radiated Emission and Bandedge Measurement

4.1.1 Limits of Radiated Emission and Bandedge Measurement

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

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

NOTE:

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

Limits Of Unwanted Emission Out Of The Restricted Bands

Applicable To	Limit	
789033 D02 General UNII Test Procedure New Rules v01r02	FIELD STRENGTH at 3m	
	PK:74 (dBμV/m)	AV:54 (dBμV/m)
Applicable To	EIRP Limit	Equivalent Field Strength at 3m
15.407(b)(1)	PK:-27 (dBm/MHz)	PK:68.2(dBμV/m)
15.407(b)(2)		
15.407(b)(3)		
15.407(b)(4)(i)	PK:-27 (dBm/MHz) *1 PK:10 (dBm/MHz) *2 PK:15.6 (dBm/MHz) *3 PK:27 (dBm/MHz) *4	PK: 68.2(dBμV/m) *1 PK:105.2 (dBμV/m) *2 PK: 110.8(dBμV/m) *3 PK:122.2 (dBμV/m) *4
15.407(b)(4)(ii)	FIELD STRENGTH at 3m / § 15.247(d),	
	PK:74 (dBμV/m)	AV:54 (dBμV/m)

*1 beyond 75 MHz or more above of the band edge.

*2 below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above.

*3 below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above.

*4 from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

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

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

4.1.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Test Receiver ROHDE & SCHWARZ	ESIB7	100187	Apr. 10, 2015	Apr. 09, 2016
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100040	Jul. 08, 2015	Jul. 07, 2016
BILOG Antenna SCHWARZBECK	VULB9168	9168-160	Feb. 05, 2015	Feb. 04, 2016
HORN Antenna SCHWARZBECK	9120D	209	Feb. 09, 2015	Feb. 08, 2016
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170241	Feb. 09, 2015	Feb. 08, 2016
Loop Antenna R&S	HFH2-Z2	100070	Mar. 06, 2014	Mar. 05, 2016
Preamplifier Agilent	8447D	2944A10738	Oct.18, 2014	Oct. 17, 2015
Preamplifier Agilent	8449B	3008A01964	Aug. 22, 2014	Aug. 21, 2015
			Aug. 22, 2015	Aug. 21, 2016
RF signal cable HUBER+SUHNER	SUCOFLEX 104	Cable-CH3-03(214378)	Aug. 22, 2014	Aug. 21, 2015
			Aug. 22, 2015	Aug. 21, 2016
RF signal cable HUBER+SUHNER	SUCOFLEX 106	Cable-CH3-03(309224+12738)	Aug. 22, 2014	Aug. 21, 2015
			Aug. 22, 2015	Aug. 21, 2016
Software BV ADT	ADT_Radiated_V7.6.15.9.4	NA	NA	NA
Antenna Tower inn-co GmbH	MA 4000	013303	NA	NA
Antenna Tower Controller BV ADT	AT100	AT93021702	NA	NA
Turn Table BV ADT	TT100	TT93021702	NA	NA
Turn Table Controller BV ADT	SC100	SC93021702	NA	NA
26GHz ~ 40GHz Amplifier	EM26400	815221	Oct. 18, 2014	Oct. 17, 2015
High Speed Peak Power Meter	ML2495A	0824011	Jul. 09, 2015	Jul. 08, 2016
Power Sensor	MA2411B	0738171	Jul. 09, 2015	Jul. 08, 2016
WIT Standard Temperature And Humidity Chamber	TH-4S-C	W981030	Jun. 08, 2015	Jun. 07, 2016

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 calibration interval of the loop antenna is 24 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in HwaYa Chamber 3.
3. The horn antenna and preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
4. The FCC Site Registration No. is 988962.
5. The IC Site Registration No. is IC 7450F-3.

4.1.3 Test Procedures

a. The EUT was placed on the top of a rotating table 0.8 meters (for below 1GHz) / 1.5 meters (for above 1GHz) above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.

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 detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

Note:

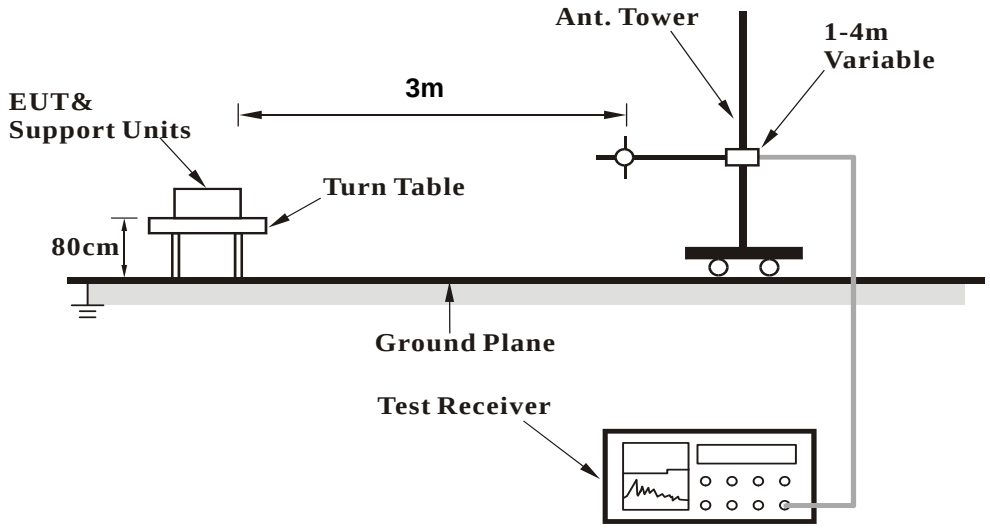
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 3MHz for RMS Average (Duty cycle < 98%) for Average detection (AV) at frequency above 1GHz, then the measurement results was added to a correction factor (10 log(1/duty cycle)).
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 10Hz (Duty cycle ≥ 98%) for Average detection (AV) at frequency above 1GHz.
5. All modes of operation were investigated and the worst-case emissions are reported.

4.1.4 Deviation from Test Standard

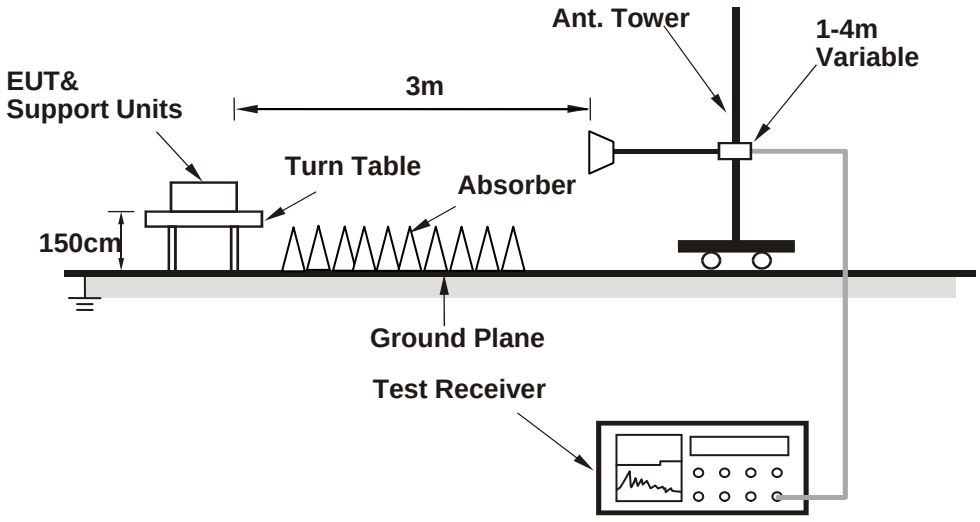
No deviation.

4.1.5 Test Set Up

<Frequency Range below 1GHz>



<Frequency Range above 1GHz>



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

4.1.6 EUT Operating Conditions

a. Placed the EUT on the testing table.
b. Prepared a notebook to act as a communication partner and placed it outside of testing area.
c. The communication partner connected with EUT via a RJ45 cable and ran a test program (provided by manufacturer) to enable EUT under transmission condition continuously at specific channel frequency.
d. The communication partner sent data to EUT by command "PING".

4.1.7 Test Results

Above 1GHz Data

802.11a

CHANNEL	TX Channel 52	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5260.00	99.1 PK			1.35 H	216	59.40	39.70
2	*5260.00	89.3 AV			1.35 H	216	49.60	39.70
3	5420.00	56.7 PK	74.0	-17.3	1.36 H	217	50.40	6.30
4	5420.00	44.7 AV	54.0	-9.3	1.36 H	217	38.40	6.30
5	#10520.00	59.4 PK	74.0	-14.6	1.08 H	211	40.20	19.20
6	#10520.00	47.3 AV	54.0	-6.7	1.08 H	211	28.10	19.20
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5260.00	114.6 PK			1.94 V	313	74.90	39.70
2	*5260.00	105.5 AV			1.94 V	313	65.80	39.70
3	5420.00	63.9 PK	74.0	-10.1	1.94 V	122	57.60	6.30
4	5420.00	52.6 AV	54.0	-1.4	1.94 V	122	46.30	6.30
5	#10520.00	59.6 PK	74.0	-14.4	1.75 V	242	40.40	19.20
6	#10520.00	47.2 AV	54.0	-6.8	1.75 V	242	28.00	19.20

REMARKS:

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

CHANNEL	TX Channel 60	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	97.7 PK			1.11 H	153	58.00	39.70
2	*5300.00	88.3 AV			1.11 H	153	48.60	39.70
3	5460.00	57.8 PK	74.0	-16.2	1.07 H	155	51.40	6.40
4	5460.00	44.9 AV	54.0	-9.1	1.07 H	155	38.50	6.40
5	10600.00	59.7 PK	74.0	-14.3	1.05 H	85	40.60	19.10
6	10600.00	47.4 AV	54.0	-6.6	1.05 H	85	28.30	19.10
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	115.1 PK			1.91 V	121	75.40	39.70
2	*5300.00	105.6 AV			1.91 V	121	65.90	39.70
3	5460.00	64.2 PK	74.0	-9.8	1.92 V	299	57.80	6.40
4	5460.00	52.6 AV	54.0	-1.4	1.92 V	299	46.20	6.40
5	10600.00	59.8 PK	74.0	-14.2	1.84 V	46	40.70	19.10
6	10600.00	47.5 AV	54.0	-6.5	1.84 V	46	28.40	19.10

REMARKS:

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

CHANNEL	TX Channel 64	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	99.6 PK			1.41 H	138	59.90	39.70
2	*5320.00	90.2 AV			1.41 H	138	50.50	39.70
3	5400.00	56.0 PK	74.0	-18.0	1.20 H	104	49.70	6.30
4	5400.00	44.0 AV	54.0	-10.0	1.20 H	104	37.70	6.30
5	10640.00	59.2 PK	74.0	-14.8	1.15 H	82	40.30	18.90
6	10640.00	46.0 AV	54.0	-8.0	1.15 H	82	27.10	18.90
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	115.9 PK			1.93 V	92	76.20	39.70
2	*5320.00	106.7 AV			1.93 V	92	67.00	39.70
3	5400.00	63.6 PK	74.0	-10.4	4.00 V	294	57.30	6.30
4	5400.00	52.5 AV	54.0	-1.5	4.00 V	294	46.20	6.30
5	10640.00	60.2 PK	74.0	-13.8	1.80 V	33	41.30	18.90
6	10640.00	46.1 AV	54.0	-7.9	1.80 V	33	27.20	18.90

REMARKS:

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

CHANNEL	TX Channel 100	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5420.00	56.5 PK	74.0	-17.5	1.10 H	136	50.20	6.30
2	5420.00	44.4 AV	54.0	-9.6	1.10 H	136	38.10	6.30
3	#5470.00	57.0 PK	74.0	-17.0	1.02 H	148	50.60	6.40
4	#5470.00	44.1 AV	54.0	-9.9	1.02 H	148	37.70	6.40
5	*5500.00	99.5 PK			1.01 H	150	59.50	40.00
6	*5500.00	90.3 AV			1.01 H	150	50.30	40.00
7	11000.00	58.8 PK	74.0	-15.2	1.02 H	84	39.20	19.60
8	11000.00	46.4 AV	54.0	-7.6	1.02 H	84	26.80	19.60
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5420.00	63.7 PK	74.0	-10.3	1.84 V	121	57.40	6.30
2	5420.00	52.3 AV	54.0	-1.7	1.84 V	121	46.00	6.30
3	#5470.00	67.4 PK	74.0	-6.6	1.83 V	121	61.00	6.40
4	#5470.00	48.7 AV	54.0	-5.3	1.83 V	121	42.30	6.40
5	*5500.00	116.5 PK			1.76 V	297	76.50	40.00
6	*5500.00	106.7 AV			1.76 V	297	66.70	40.00
7	11000.00	59.3 PK	74.0	-14.7	1.65 V	241	39.70	19.60
8	11000.00	46.2 AV	54.0	-7.8	1.65 V	241	26.60	19.60

REMARKS:

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

CHANNEL	TX Channel 116	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5420.00	57.3 PK	74.0	-16.7	1.06 H	129	51.00	6.30
2	5420.00	44.5 AV	54.0	-9.5	1.06 H	129	38.20	6.30
3	*5580.00	99.4 PK			1.00 H	152	59.30	40.10
4	*5580.00	90.8 AV			1.00 H	152	50.70	40.10
5	11160.00	57.7 PK	74.0	-16.3	1.02 H	69	38.50	19.20
6	11160.00	45.0 AV	54.0	-9.0	1.02 H	69	25.80	19.20
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5420.00	63.5 PK	74.0	-10.5	1.85 V	119	57.20	6.30
2	5420.00	52.6 AV	54.0	-1.4	1.85 V	119	46.30	6.30
3	*5580.00	115.3 PK			1.85 V	122	75.20	40.10
4	*5580.00	105.8 AV			1.85 V	122	65.70	40.10
5	11160.00	57.7 PK	74.0	-16.3	1.69 V	87	38.50	19.20
6	11160.00	45.2 AV	54.0	-8.8	1.69 V	87	26.00	19.20

REMARKS:

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

CHANNEL	TX Channel 140	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5540.00	57.5 PK	68.2	-10.7	1.32 H	142	50.90	6.60
2	*5700.00	101.9 PK			1.00 H	161	61.60	40.30
3	*5700.00	92.5 AV			1.00 H	161	52.20	40.30
4	#5725.00	60.2 PK	74.0	-13.8	1.27 H	142	53.40	6.80
5	#5725.00	45.5 AV	54.0	-8.5	1.27 H	142	38.70	6.80
6	11400.00	59.0 PK	74.0	-15.0	1.05 H	79	40.50	18.50
7	11400.00	45.9 AV	54.0	-8.1	1.05 H	79	27.40	18.50
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5540.00	66.0 PK	68.2	-2.2	2.23 V	121	59.40	6.60
2	*5700.00	116.5 PK			2.22 V	92	76.20	40.30
3	*5700.00	106.5 AV			2.22 V	92	66.20	40.30
4	#5725.00	70.8 PK	74.0	-3.2	2.19 V	111	64.00	6.80
5	#5725.00	52.8 AV	54.0	-1.2	2.19 V	111	46.00	6.80
6	11400.00	59.2 PK	74.0	-14.8	2.17 V	34	40.70	18.50
7	11400.00	45.8 AV	54.0	-8.2	2.17 V	34	27.30	18.50

REMARKS:

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

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CHANNEL	TX Channel 52	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5260.00	97.5 PK			1.07 H	153	57.80	39.70
2	*5260.00	88.3 AV			1.07 H	153	48.60	39.70
3	5420.00	56.1 PK	74.0	-17.9	1.00 H	169	49.80	6.30
4	5420.00	44.0 AV	54.0	-10.0	1.00 H	169	37.70	6.30
5	#10520.00	59.8 PK	74.0	-14.2	1.06 H	124	40.60	19.20
6	#10520.00	46.9 AV	54.0	-7.1	1.06 H	124	27.70	19.20
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5260.00	114.9 PK			1.83 V	120	75.20	39.70
2	*5260.00	105.5 AV			1.83 V	120	65.80	39.70
3	5420.00	63.8 PK	74.0	-10.2	1.82 V	123	57.50	6.30
4	5420.00	52.8 AV	54.0	-1.2	1.82 V	123	46.50	6.30
5	#10520.00	60.2 PK	74.0	-13.8	1.72 V	82	41.00	19.20
6	#10520.00	47.0 AV	54.0	-7.0	1.72 V	82	27.80	19.20

REMARKS:

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

CHANNEL	TX Channel 60	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	97.2 PK			1.00 H	152	57.50	39.70
2	*5300.00	87.4 AV			1.00 H	152	47.70	39.70
3	5420.00	56.7 PK	74.0	-17.3	1.04 H	173	50.40	6.30
4	5420.00	44.3 AV	54.0	-9.7	1.04 H	173	38.00	6.30
5	10600.00	59.5 PK	74.0	-14.5	1.20 H	69	40.40	19.10
6	10600.00	47.2 AV	54.0	-6.8	1.20 H	69	28.10	19.10
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	114.6 PK			1.82 V	121	74.90	39.70
2	*5300.00	105.1 AV			1.82 V	121	65.40	39.70
3	5460.00	62.8 PK	74.0	-11.2	1.81 V	122	56.40	6.40
4	5460.00	52.2 AV	54.0	-1.8	1.81 V	122	45.80	6.40
5	10600.00	60.4 PK	74.0	-13.6	1.76 V	102	41.30	19.10
6	10600.00	47.1 AV	54.0	-6.9	1.76 V	102	28.00	19.10

REMARKS:

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

CHANNEL	TX Channel 64	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	99.4 PK			1.46 H	161	59.70	39.70
2	*5320.00	89.7 AV			1.46 H	161	50.00	39.70
3	5400.00	56.5 PK	74.0	-17.5	1.17 H	137	50.20	6.30
4	5400.00	44.4 AV	54.0	-9.6	1.17 H	137	38.10	6.30
5	10640.00	58.8 PK	74.0	-15.2	1.02 H	310	39.90	18.90
6	10640.00	45.9 AV	54.0	-8.1	1.02 H	310	27.00	18.90
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	116.2 PK			1.85 V	300	76.50	39.70
2	*5320.00	107.2 AV			1.85 V	300	67.50	39.70
3	5400.00	64.5 PK	74.0	-9.5	1.85 V	115	58.20	6.30
4	5400.00	52.8 AV	54.0	-1.2	1.85 V	115	46.50	6.30
5	10640.00	59.0 PK	74.0	-15.0	1.79 V	300	40.10	18.90
6	10640.00	46.0 AV	54.0	-8.0	1.79 V	300	27.10	18.90

REMARKS:

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

CHANNEL	TX Channel 100	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5420.00	56.6 PK	74.0	-17.4	1.00 H	140	50.30	6.30
2	5420.00	44.7 AV	54.0	-9.3	1.00 H	140	38.40	6.30
3	#5470.00	57.9 PK	74.0	-16.1	1.04 H	166	51.50	6.40
4	#5470.00	44.4 AV	54.0	-9.6	1.04 H	166	38.00	6.40
5	*5500.00	100.3 PK			1.14 H	149	60.30	40.00
6	*5500.00	91.0 AV			1.14 H	149	51.00	40.00
7	11000.00	58.3 PK	74.0	-15.7	1.03 H	69	38.70	19.60
8	11000.00	45.8 AV	54.0	-8.2	1.03 H	69	26.20	19.60
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5420.00	63.7 PK	74.0	-10.3	1.90 V	124	57.40	6.30
2	5420.00	52.4 AV	54.0	-1.6	1.90 V	124	46.10	6.30
3	#5470.00	71.5 PK	74.0	-2.5	1.88 V	127	65.10	6.40
4	#5470.00	51.1 AV	54.0	-2.9	1.88 V	127	44.70	6.40
5	*5500.00	116.7 PK			1.86 V	122	76.70	40.00
6	*5500.00	107.5 AV			1.86 V	122	67.50	40.00
7	11000.00	58.7 PK	74.0	-15.3	1.75 V	100	39.10	19.60
8	11000.00	45.8 AV	54.0	-8.2	1.75 V	100	26.20	19.60

REMARKS:

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

CHANNEL	TX Channel 116	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5420.00	58.5 PK	74.0	-15.5	1.08 H	147	52.20	6.30
2	5420.00	44.9 AV	54.0	-9.1	1.08 H	147	38.60	6.30
3	*5580.00	99.6 PK			1.16 H	164	59.50	40.10
4	*5580.00	90.1 AV			1.16 H	164	50.00	40.10
5	11100.00	57.5 PK	74.0	-16.5	1.08 H	30	38.60	18.90
6	11100.00	44.8 AV	54.0	-9.2	1.08 H	30	25.90	18.90
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5420.00	64.1 PK	74.0	-9.9	1.94 V	105	57.80	6.30
2	5420.00	52.4 AV	54.0	-1.6	1.94 V	105	46.10	6.30
3	*5580.00	114.4 PK			1.96 V	109	74.30	40.10
4	*5580.00	105.4 AV			1.96 V	109	65.30	40.10
5	11160.00	57.7 PK	74.0	-16.3	1.86 V	86	38.50	19.20
6	11160.00	45.1 AV	54.0	-8.9	1.86 V	86	25.90	19.20

REMARKS:

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

CHANNEL	TX Channel 140	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	100.3 PK			1.00 H	159	60.00	40.30
2	*5700.00	90.7 AV			1.00 H	159	50.40	40.30
3	#5725.00	60.5 PK	74.0	-13.5	1.08 H	154	53.70	6.80
4	#5725.00	45.0 AV	54.0	-9.0	1.08 H	154	38.20	6.80
5	11400.00	59.1 PK	74.0	-14.9	1.03 H	108	40.60	18.50
6	11400.00	46.5 AV	54.0	-7.5	1.03 H	108	28.00	18.50
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	112.5 PK			1.53 V	310	72.20	40.30
2	*5700.00	102.8 AV			1.53 V	310	62.50	40.30
3	#5725.00	72.3 PK	74.0	-1.7	1.37 V	329	65.50	6.80
4	#5725.00	50.9 AV	54.0	-3.1	1.37 V	329	44.10	6.80
5	11400.00	58.2 PK	74.0	-15.8	1.64 V	222	39.70	18.50
6	11400.00	45.4 AV	54.0	-8.6	1.64 V	222	26.90	18.50

REMARKS:

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

802.11n (HT40)

CHANNEL	TX Channel 54	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5270.00	94.6 PK			1.00 H	152	54.90	39.70
2	*5270.00	85.7 AV			1.00 H	152	46.00	39.70
3	5350.00	56.5 PK	74.0	-17.5	1.15 H	148	50.40	6.10
4	5350.00	44.4 AV	54.0	-9.6	1.15 H	148	38.30	6.10
5	#10540.00	60.1 PK	74.0	-13.9	1.06 H	97	40.90	19.20
6	#10540.00	47.4 AV	54.0	-6.6	1.06 H	97	28.20	19.20
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5270.00	111.9 PK			1.86 V	319	72.20	39.70
2	*5270.00	101.7 AV			1.86 V	319	62.00	39.70
3	5365.00	63.0 PK	74.0	-11.0	1.95 V	121	56.90	6.10
4	5365.00	52.5 AV	54.0	-1.5	1.95 V	121	46.40	6.10
5	#10540.00	59.7 PK	74.0	-14.3	1.15 V	253	40.50	19.20
6	#10540.00	47.2 AV	54.0	-6.8	1.15 V	253	28.00	19.20

REMARKS:

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

CHANNEL	TX Channel 62	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5310.00	94.4 PK			1.00 H	152	54.70	39.70
2	*5310.00	85.3 AV			1.00 H	152	45.60	39.70
3	5350.00	56.9 PK	74.0	-17.1	1.09 H	166	50.80	6.10
4	5350.00	44.2 AV	54.0	-9.8	1.09 H	166	38.10	6.10
5	10620.00	59.1 PK	74.0	-14.9	1.06 H	211	40.10	19.00
6	10620.00	46.9 AV	54.0	-7.1	1.06 H	211	27.90	19.00
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5310.00	111.5 PK			1.85 V	319	71.80	39.70
2	*5310.00	102.2 AV			1.85 V	319	62.50	39.70
3	5350.00	67.1 PK	74.0	-6.9	1.85 V	116	61.00	6.10
4	5350.00	52.4 AV	54.0	-1.6	1.85 V	116	46.30	6.10
5	10620.00	59.9 PK	74.0	-14.1	1.70 V	192	40.90	19.00
6	10620.00	46.7 AV	54.0	-7.3	1.70 V	192	27.70	19.00

REMARKS:

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

CHANNEL	TX Channel 102	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5420.00	58.1 PK	74.0	-15.9	1.05 H	135	51.80	6.30
2	5420.00	45.0 AV	54.0	-9.0	1.05 H	135	38.70	6.30
3	#5470.00	57.5 PK	74.0	-16.5	1.19 H	128	51.10	6.40
4	#5470.00	45.1 AV	54.0	-8.9	1.19 H	128	38.70	6.40
5	*5510.00	94.4 PK			1.14 H	159	54.40	40.00
6	*5510.00	85.2 AV			1.14 H	159	45.20	40.00
7	11020.00	58.5 PK	74.0	-15.5	1.03 H	52	39.10	19.40
8	11020.00	46.0 AV	54.0	-8.0	1.03 H	52	26.60	19.40
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5420.00	60.2 PK	74.0	-13.8	1.75 V	123	53.90	6.30
2	5420.00	49.5 AV	54.0	-4.5	1.75 V	123	43.20	6.30
3	#5470.00	68.2 PK	74.0	-5.8	1.87 V	77	61.80	6.40
4	#5470.00	52.5 AV	54.0	-1.5	1.87 V	77	46.10	6.40
5	*5510.00	110.7 PK			1.75 V	294	70.70	40.00
6	*5510.00	101.5 AV			1.75 V	294	61.50	40.00
7	11020.00	58.3 PK	74.0	-15.7	1.69 V	259	38.90	19.40
8	11020.00	45.9 AV	54.0	-8.1	1.69 V	259	26.50	19.40

REMARKS:

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

CHANNEL	TX Channel 110	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	57.5 PK	74.0	-16.5	1.13 H	179	51.10	6.40
2	5460.00	44.9 AV	54.0	-9.1	1.13 H	179	38.50	6.40
3	#5470.00	57.4 PK	68.2	-10.8	1.00 H	207	51.00	6.40
4	*5550.00	96.7 PK			1.00 H	161	56.60	40.10
5	*5550.00	88.2 AV			1.00 H	161	48.10	40.10
6	11100.00	59.5 PK	74.0	-14.5	1.02 H	69	40.60	18.90
7	11100.00	45.8 AV	54.0	-8.2	1.02 H	69	26.90	18.90
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	64.6 PK	74.0	-9.4	1.94 V	123	58.20	6.40
2	5460.00	52.5 AV	54.0	-1.5	1.94 V	123	46.10	6.40
3	#5470.00	63.2 PK	68.2	-5.0	1.91 V	97	56.80	6.40
4	*5550.00	113.2 PK			1.90 V	118	73.10	40.10
5	*5550.00	103.5 AV			1.90 V	118	63.40	40.10
6	11100.00	58.7 PK	74.0	-15.3	1.81 V	69	39.80	18.90
7	11100.00	46.0 AV	54.0	-8.0	1.81 V	69	27.10	18.90

REMARKS:

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

CHANNEL	TX Channel 134	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5670.00	97.4 PK			1.00 H	160	57.20	40.20
2	*5670.00	88.8 AV			1.00 H	160	48.60	40.20
3	#5745.00	58.0 PK	74.0	-16.0	1.11 H	161	51.10	6.90
4	#5745.00	46.3 AV	54.0	-7.7	1.11 H	161	39.40	6.90
5	11340.00	58.7 PK	74.0	-15.3	1.06 H	16	39.50	19.20
6	11340.00	46.5 AV	54.0	-7.5	1.06 H	16	27.30	19.20
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5670.00	111.5 PK			1.89 V	305	71.30	40.20
2	*5670.00	102.2 AV			1.89 V	305	62.00	40.20
3	#5745.00	68.4 PK	74.0	-5.6	1.87 V	130	61.50	6.90
4	**#5745.00**	**52.9 AV**	**54.0**	**-1.1**	**1.87 V**	**130**	**46.00**	**6.90**
5	11340.00	58.8 PK	74.0	-15.2	1.80 V	238	39.60	19.20
6	11340.00	46.2 AV	54.0	-7.8	1.80 V	238	27.00	19.20

REMARKS:

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

802.11ac (VHT80)

CHANNEL	TX Channel 58	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5290.00	88.6 PK			1.00 H	153	48.90	39.70
2	*5290.00	79.5 AV			1.00 H	153	39.80	39.70
3	5350.00	56.9 PK	74.0	-17.1	1.09 H	138	50.80	6.10
4	5350.00	44.2 AV	54.0	-9.8	1.09 H	138	38.10	6.10
5	#10580.00	59.8 PK	74.0	-14.2	1.02 H	78	40.50	19.30
6	#10580.00	47.5 AV	54.0	-6.5	1.02 H	78	28.20	19.30
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5290.00	105.2 PK			2.02 V	303	65.50	39.70
2	*5290.00	96.8 AV			2.02 V	303	57.10	39.70
3	5350.00	66.0 PK	74.0	-8.0	2.00 V	305	59.90	6.10
4	5350.00	52.5 AV	54.0	-1.5	2.00 V	305	46.40	6.10
5	#10580.00	60.4 PK	74.0	-13.6	1.81 V	211	41.10	19.30
6	#10580.00	47.8 AV	54.0	-6.2	1.81 V	211	28.50	19.30

REMARKS:

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

CHANNEL	TX Channel 106	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	57.7 PK	74.0	-16.3	1.10 H	181	51.30	6.40
2	5460.00	45.7 AV	54.0	-8.3	1.10 H	181	39.30	6.40
3	#5470.00	57.1 PK	74.0	-16.9	1.00 H	174	50.70	6.40
4	#5470.00	46.0 AV	54.0	-8.0	1.00 H	174	39.60	6.40
5	*5530.00	89.5 PK			1.00 H	160	49.50	40.00
6	*5530.00	81.0 AV			1.00 H	160	41.00	40.00
7	11060.00	58.1 PK	74.0	-15.9	1.02 H	69	38.90	19.20
8	11060.00	46.9 AV	54.0	-7.1	1.02 H	69	27.70	19.20
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	65.2 PK	74.0	-8.8	1.93 V	303	58.80	6.40
2	5460.00	50.9 AV	54.0	-3.1	1.93 V	303	44.50	6.40
3	#5470.00	68.4 PK	74.0	-5.6	1.95 V	302	62.00	6.40
4	#5470.00	52.6 AV	54.0	-1.4	1.95 V	302	46.20	6.40
5	*5530.00	106.2 PK			1.91 V	111	66.20	40.00
6	*5530.00	97.1 AV			1.91 V	111	57.10	40.00
7	11060.00	59.2 PK	74.0	-14.8	1.82 V	59	40.00	19.20
8	11060.00	46.2 AV	54.0	-7.8	1.82 V	59	27.00	19.20

REMARKS:

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

Below 1GHz worst-case data

802.11a

CHANNEL	TX Channel 140	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	39.62	26.4 QP	40.0	-13.6	1.99 H	109	41.60	-15.20
2	57.12	30.8 QP	40.0	-9.2	1.99 H	213	45.60	-14.80
3	66.84	28.7 QP	40.0	-11.3	1.99 H	243	44.40	-15.70
4	90.17	26.7 QP	43.5	-16.8	1.99 H	248	46.60	-19.90
5	99.89	33.9 QP	43.5	-9.6	1.99 H	278	52.80	-18.90
6	323.49	25.2 QP	46.0	-20.8	1.00 H	153	36.90	-11.70
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	39.62	37.1 QP	40.0	-2.9	1.00 V	256	52.30	-15.20
2	**58.71**	**38.9 QP**	**40.0**	**-1.1**	**1.32 V**	**13**	**53.70**	**-14.80**
3	66.84	36.9 QP	40.0	-3.1	1.00 V	26	52.60	-15.70
4	99.89	30.7 QP	43.5	-12.8	1.00 V	274	49.60	-18.90
5	140.72	28.3 QP	43.5	-15.2	1.00 V	5	42.90	-14.60
6	321.54	26.2 QP	46.0	-19.8	1.49 V	116	38.00	-11.80

REMARKS:

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

4.2 Conducted Emission Measurement

4.2.1 Limits of Conducted Emission Measurement

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

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

4.2.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Test Receiver ROHDE & SCHWARZ	ESCS 30	100288	Apr. 27, 2015	Apr. 26, 2016
RF signal cable (with 10dB PAD) Woken	5D-FB	Cable-cond2-01	Dec. 26, 2014	Dec. 25, 2015
LISN ROHDE & SCHWARZ (EUT)	ESH2-Z5	100100	Dec. 30, 2014	Dec. 29, 2015
LISN ROHDE & SCHWARZ (Peripheral)	ESH3-Z5	100312	Jul. 21, 2015	Jul. 20, 2016
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 2.
3. The VCCI Site Registration No. is C-2047.

4.2.3 Test Procedures

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

b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.

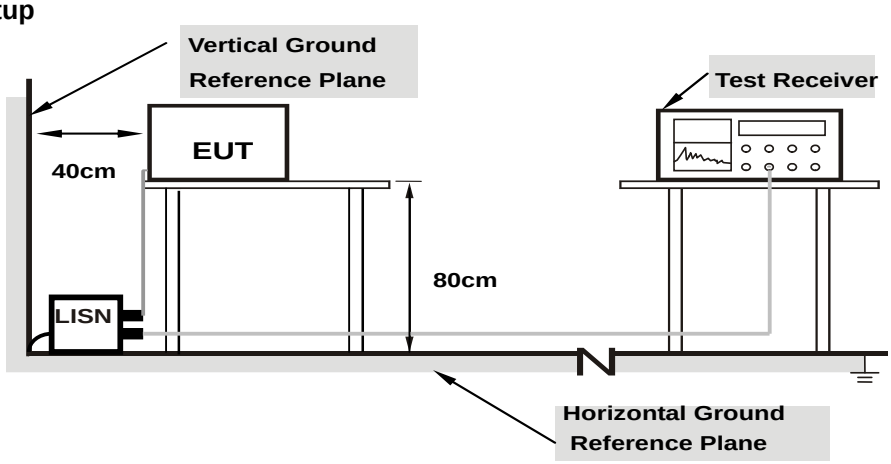
c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

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

4.2.4 Deviation from Test Standard

No deviation.

4.2.5 Test Setup



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

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

4.2.6 EUT Operating Conditions

Same as 4.1.6.

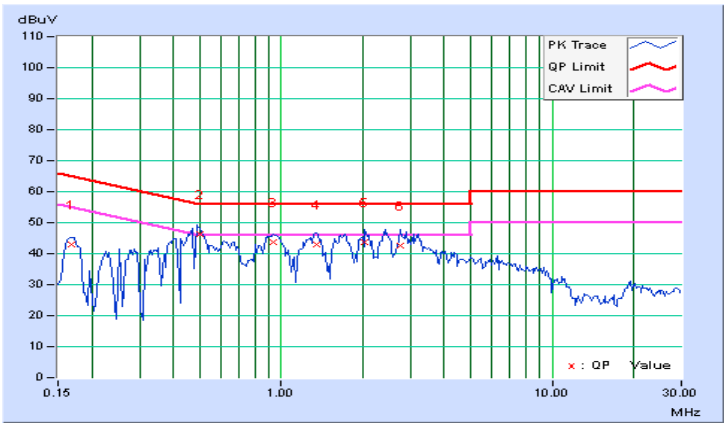
4.2.7 Test Results

Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16835	9.94	33.11	27.94	43.05	37.88	65.04	55.04	-21.99	-17.16
2	**0.49992**	**9.97**	**36.37**	**28.27**	**46.34**	**38.24**	**56.00**	**46.00**	**-9.66**	**-7.76**
3	0.93761	10.05	33.79	24.35	43.84	34.40	56.00	46.00	-12.16	-11.60
4	1.35156	10.10	32.69	20.77	42.79	30.87	56.00	46.00	-13.21	-15.13
5	2.03125	10.16	33.52	23.63	43.68	33.79	56.00	46.00	-12.32	-12.21
6	2.75000	10.20	32.46	22.85	42.66	33.05	56.00	46.00	-13.34	-12.95

Remarks:

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

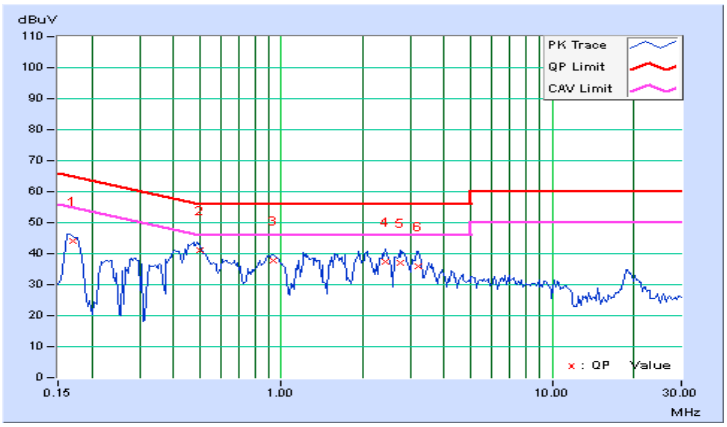


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16945	9.96	33.94	25.52	43.90	35.48	64.99	54.99	-21.09	-19.51
2	0.50001	10.01	31.06	22.69	41.07	32.70	56.00	46.00	-14.93	-13.30
3	0.93516	10.07	27.69	18.26	37.76	28.33	56.00	46.00	-18.24	-17.67
4	2.43750	10.22	27.05	17.19	37.27	27.41	56.00	46.00	-18.73	-18.59
5	2.76172	10.24	26.87	16.95	37.11	27.19	56.00	46.00	-18.89	-18.81
6	3.20703	10.26	25.76	17.16	36.02	27.42	56.00	46.00	-19.98	-18.58

Remarks:

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



4.3 Transmit Power Measurment

4.3.1 Limits of Transmit Power Measurement

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

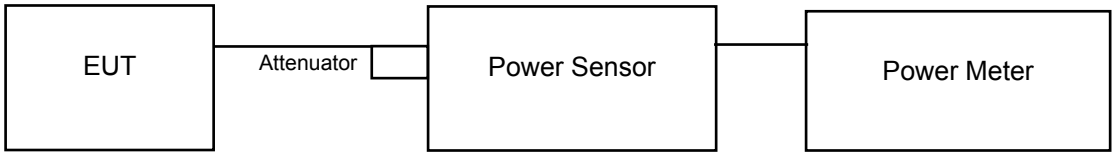
*B is the 26 dB emission bandwidth in megahertz

Per KDB 662911 Method of conducted output power measurement on IEEE 802.11 devices,
Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;
Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT};
Array Gain = 5 log(N_{ANT}/N_{SS}) dB or 3 dB, whichever is less for 20-MHz channel widths with $N_{ANT} \geq 5$.
For power measurements on all other devices: Array Gain = 10 log(N_{ANT}/N_{SS}) dB.

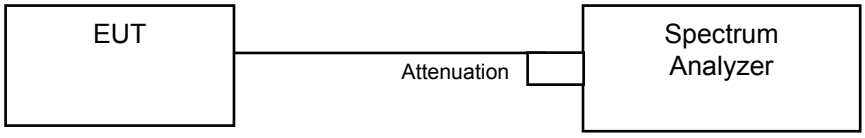
4.3.2 Test Setup

For Power Output Measurment

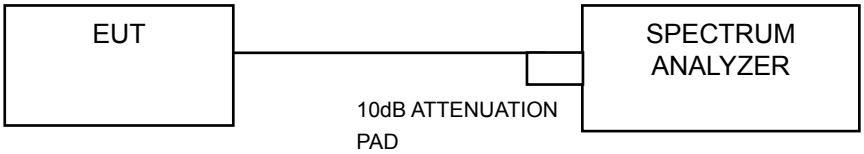
For 802.11a, 802.11n (HT20), 802.11n (HT40), 802.11ac (VHT20), 802.11ac (VHT40)



For 802.11ac (VHT80)



For 26dBc Bandwidth and Occupied Bandwidth Measurment



4.3.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.3.4 Test Procedure

For Power Output Measurment

For 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.

For 802.11ac (VHT80)

a. Set span to encompass the entire 26 dB EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal.
b. Set sweep trigger to “free run”.
c. Set RBW = 1 MHz.
d. Set VBW ≥ 3 MHz
e. Number of points in sweep ≥ 2 Span / RBW.
f. Sweep time ≤ (number of points in sweep) * T
g. Detector = RMS.
h. Trace mode = max hold.
i. Allow max hold to run for at least 60 seconds, or longer as needed to allow the trace to stabilize.

For Occupied Bandwidth Measurment

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.

4.3.5 Deviation fromTest Standard

No deviation.

4.3.6 EUT Operating Conditions

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

4.3.7 Test Result

Power Output:

802.11a

Channel	Frequency (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
52	5260	14.59	14.10	54.478	17.36	23.00	Pass
60	5300	15.95	14.14	65.297	18.15	23.00	Pass
64	5320	16.74	16.28	89.668	19.53	23.00	Pass
100	5500	17.54	16.61	102.568	20.11	23.00	Pass
116	5580	15.74	15.44	72.492	18.60	23.00	Pass
140	5700	17.73	17.31	**113.120**	20.54	23.00	Pass

* Gain = 7.00 dBi > 6dBi, so the power limit shall be reduced to 24-(7.00-6) = 23.00dBm.

Note:

Chain 0

1. 11dBm + 10log(20.51) = 24.12 dBm > 23dBm.
2. 11dBm + 10log(20.43) = 24.10 dBm > 23dBm.
3. 11dBm + 10log(20.42) = 24.10 dBm > 23dBm.
4. 11dBm + 10log(20.45) = 24.11 dBm > 23dBm.
5. 11dBm + 10log(20.41) = 24.10 dBm > 23dBm.
6. 11dBm + 10log(20.32) = 24.08 dBm > 23dBm.

Chain 1

1. 11dBm + 10log(20.35) = 24.09 dBm > 23dBm.
2. 11dBm + 10log(20.50) = 24.12 dBm > 23dBm.
3. 11dBm + 10log(20.55) = 24.13 dBm > 23dBm.
4. 11dBm + 10log(20.47) = 24.11 dBm > 23dBm.
5. 11dBm + 10log(20.44) = 24.10 dBm > 23dBm.
6. 11dBm + 10log(20.43) = 24.10 dBm > 23dBm.

802.11n (HT20)

Channel	Frequency (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
52	5260	14.51	14.21	54.612	17.37	23.00	Pass
60	5300	14.92	14.30	57.961	17.63	23.00	Pass
64	5320	17.19	16.81	**100.333**	20.01	23.00	Pass
100	5500	17.81	17.11	111.799	20.48	23.00	Pass
116	5580	16.52	15.90	83.78	19.23	23.00	Pass
140	5700	17.10	16.38	94.737	19.77	23.00	Pass

* Gain = 7.00 dBi > 6dBi, so the power limit shall be reduced to 24-(7.00-6) = 23.00dBm.

Note:
Chain 0
1. 11dBm + 10log(20.72) = 24.16 dBm > 23dBm.
2. 11dBm + 10log(20.87) = 24.20 dBm > 23dBm.
3. 11dBm + 10log(20.81) = 24.18 dBm > 23dBm.
4. 11dBm + 10log(20.77) = 24.17 dBm > 23dBm.
5. 11dBm + 10log(20.70) = 24.16 dBm > 23dBm.
6. 11dBm + 10log(20.77) = 24.17 dBm > 23dBm.

Chain 1
1. 11dBm + 10log(20.56) = 24.13 dBm > 23dBm.
2. 11dBm + 10log(20.66) = 24.15 dBm > 23dBm.
3. 11dBm + 10log(20.58) = 24.13 dBm > 23dBm.
4. 11dBm + 10log(20.63) = 24.14 dBm > 23dBm.
5. 11dBm + 10log(20.46) = 24.11 dBm > 23dBm.
6. 11dBm + 10log(20.65) = 24.15 dBm > 23dBm.

802.11n (HT40)

Channel	Frequency (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
54	5270	15.11	14.66	61.676	17.90	23.00	Pass
62	5310	15.69	15.12	69.577	18.42	23.00	Pass
102	5510	14.72	14.19	55.89	17.47	23.00	Pass
110	5550	16.25	15.96	81.616	19.12	23.00	Pass
134	5670	17.71	17.19	111.38	20.47	23.00	Pass

* Gain = 7.00 dBi > 6dBi, so the power limit shall be reduced to 24-(7.00-6) = 23.00dBm.

Note:
Chain 0
1. 11dBm + 10log(41.55) = 27.19 dBm > 23dBm.
2. 11dBm + 10log(41.74) = 27.21 dBm > 23dBm.
3. 11dBm + 10log(41.61) = 27.19 dBm > 23dBm.
4. 11dBm + 10log(41.81) = 27.21 dBm > 23dBm.
5. 11dBm + 10log(50.58) = 28.04 dBm > 23dBm.

Chain 1
1. 11dBm + 10log(41.26) = 27.16 dBm > 23dBm.
2. 11dBm + 10log(41.14) = 27.14 dBm > 23dBm.
3. 11dBm + 10log(41.08) = 27.14 dBm > 23dBm.
4. 11dBm + 10log(41.14) = 27.14 dBm > 23dBm.
5. 11dBm + 10log(41.13) = 27.14 dBm > 23dBm.

802.11ac (VHT80)

Channel	Frequency (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
58	5290	12.51	12.60	36.021	15.57	23.00	Pass
106	5530	12.98	12.90	39.359	15.95	23.00	Pass

* Gain = 7.00 dBi > 6dBi, so the power limit shall be reduced to 24-(7.00-6) = 23.00dBm.

Note:
Chain 0
1. 11dBm + 10log(82.82) = 30.18 dBm > 23dBm.
2. 11dBm + 10log(82.96) = 30.19 dBm > 23dBm.

Chain 1
1. 11dBm + 10log(82.28) = 30.15 dBm > 23dBm.
2. 11dBm + 10log(82.70) = 30.18 dBm > 23dBm.

26dB Bandwidth:

802.11a

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
52	5260	20.51	20.35	Pass
60	5300	20.43	20.50	Pass
64	5320	20.42	20.55	Pass
100	5500	20.45	20.47	Pass
116	5580	20.41	20.44	Pass
140	5700	20.32	20.43	Pass

802.11n (HT20)

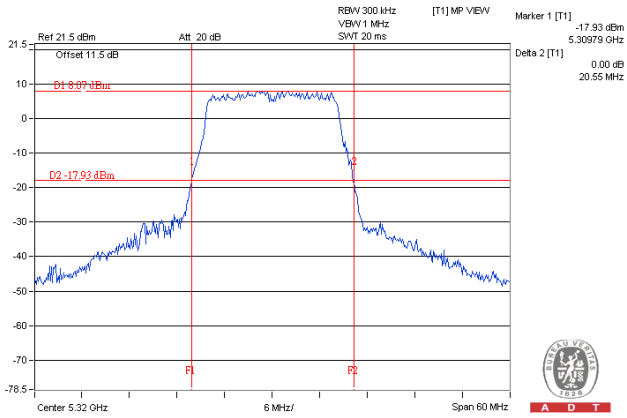
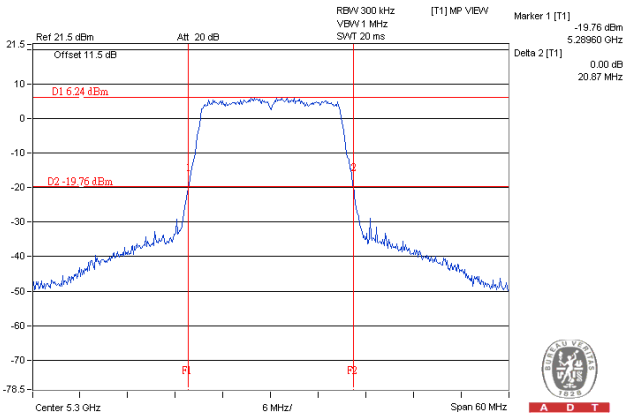
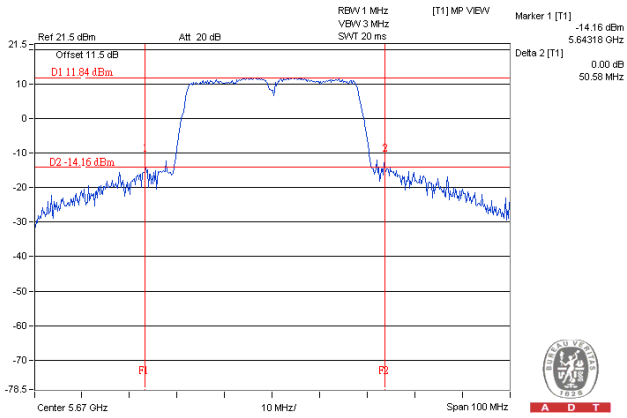
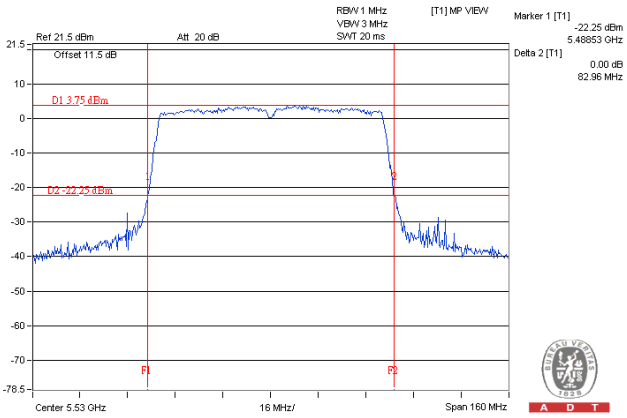
Channel	Frequency (MHz)	26dBc Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
52	5260	20.72	20.56	Pass
60	5300	20.87	20.66	Pass
64	5320	20.81	20.58	Pass
100	5500	20.77	20.63	Pass
116	5580	20.70	20.46	Pass
140	5700	20.77	20.65	Pass

802.11n (HT40)

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
54	5270	41.55	41.26	Pass
62	5310	41.74	41.14	Pass
102	5510	41.61	41.08	Pass
110	5550	41.81	41.14	Pass
134	5670	50.58	41.13	Pass

802.11ac (VHT80)

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
58	5290	82.82	82.28	Pass
106	5530	82.96	82.70	Pass

Spectrum Plot of Worst Value	
802.11a	802.11n (HT20)
	
802.11n (HT40)	802.11ac (VHT80)
	

Occupied Bandwidth:

802.11a

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
52	5260	16.80	16.80	Pass
60	5300	16.80	16.80	Pass
64	5320	16.80	16.80	Pass
100	5500	16.92	16.80	Pass
116	5580	16.80	16.80	Pass
140	5700	16.80	16.80	Pass

802.11n (HT20)

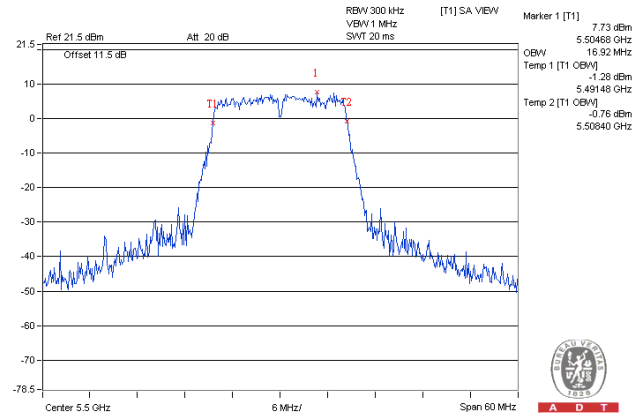
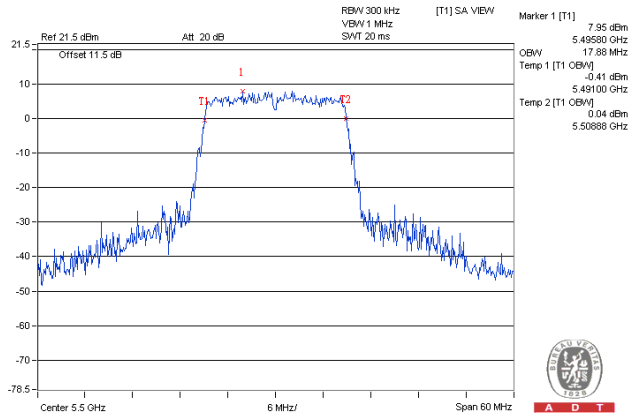
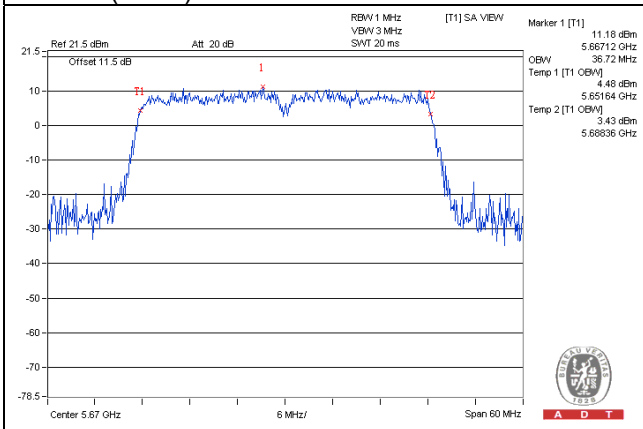
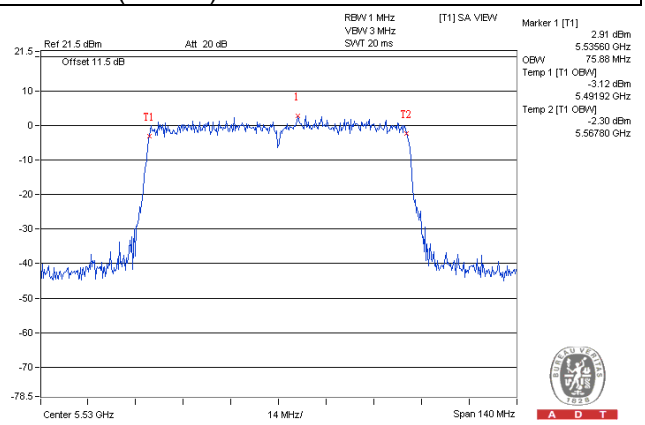
Channel	Frequency (MHz)	Occupied Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
52	5260	17.76	17.88	Pass
60	5300	17.88	17.76	Pass
64	5320	17.88	17.88	Pass
100	5500	17.88	17.76	Pass
116	5580	17.88	17.88	Pass
140	5700	17.88	17.88	Pass

802.11n (HT40)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
54	5270	36.72	36.60	Pass
62	5310	36.60	36.72	Pass
102	5510	36.60	36.60	Pass
110	5550	36.60	36.72	Pass
134	5670	36.72	36.60	Pass

802.11ac (VHT80)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
58	5290	75.88	75.88	Pass
106	5530	75.88	75.88	Pass

Spectrum Plot of Worst Value	
802.11a	802.11n (HT20)
	
802.11n (HT40)	802.11ac (VHT80)
	

EUT MAXIMUM CONDUCTED POWER

802.11a

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	89.668	19.53
5470~5725	113.12	20.54

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

802.11n (HT20)

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	100.333	20.01
5470~5725	111.799	20.48

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

802.11n (HT40)

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	69.577	18.42
5470~5725	111.38	20.47

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

802.11ac (VHT80)

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	36.021	15.57
5470~5725	39.359	15.95

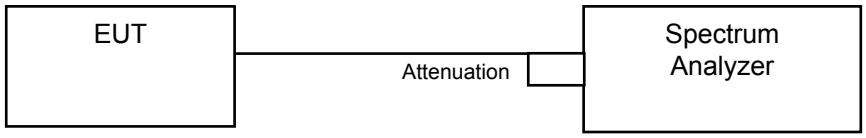
NOTE: Manufacturer provides Transmit Power Control description to meet this requirement.

4.4 Peak Power Spectral Density Measurement

4.4.1 Limits of Peak Power Spectral Density Measurement

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

4.4.2 Test Setup



4.4.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.4.4 Test Procedures

a. Set span to encompass the entire emission bandwidth (EBW) of the signal.

b. Set RBW = 1 MHz, Set VBW ≥ 3 MHz, Detector = RMS

c. Sweep time = auto, trigger set to “free run”.

d. Trace average at least 100 traces in power averaging mode.

e. Record the max value and add 10 log (1/duty cycle)

4.4.5 Deviation from Test Standard

No deviation.

4.4.6 EUT Operating Conditions

Same as Item 4.3.6.

4.4.7 Test Results

802.11a

Channel	Frequency (MHz)	PSD (dBm)		Total PSD W/O Duty Factor (dBm)	Duty Factor	Total PSD With Duty Factor (dBm)	Max. Limit (dBm)	Pass / Fail
		Chain 0	Chain 1					
52	5260	1.61	1.28	4.46	0.10	4.56	6.99	Pass
60	5300	1.67	0.95	4.34	0.10	4.44	6.99	Pass
64	5320	3.82	2.66	6.29	0.10	6.39	6.99	Pass
100	5500	3.80	3.08	6.47	0.10	6.57	6.99	Pass
116	5580	2.32	2.26	5.31	0.10	5.41	6.99	Pass
140	5700	4.01	2.90	6.51	0.10	6.61	6.99	Pass

Note: 1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.

2. Directional gain = 7.00dBi + 10log(2) = 10.01dBi > 6dBi, so the power density limit shall be reduced to 11-(10.01-6) = 6.99dBm.

3. Refer to section 3.3 for duty cycle spectrum plot.

802.11n (HT20)

Channel	Frequency (MHz)	PSD (dBm)		Total PSD W/O Duty Factor (dBm)	Duty Factor	Total PSD With Duty Factor (dBm)	Max. Limit (dBm)	Pass / Fail
		Chain 0	Chain 1					
52	5260	1.44	0.78	4.13	0.11	4.24	6.99	Pass
60	5300	1.42	0.70	4.08	0.11	4.19	6.99	Pass
64	5320	3.33	3.28	6.31	0.11	6.42	6.99	Pass
100	5500	4.14	3.36	6.77	0.11	6.88	6.99	Pass
116	5580	2.71	2.24	5.49	0.11	5.60	6.99	Pass
140	5700	3.47	2.41	5.98	0.11	6.09	6.99	Pass

Note: 1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.

2. Directional gain = 7.00dBi + 10log(2) = 10.01dBi > 6dBi, so the power density limit shall be reduced to 11-(10.01-6) = 6.99dBm.

3. Refer to section 3.3 for duty cycle spectrum plot.

802.11n (HT40)

Channel	Frequency (MHz)	PSD (dBm)		Total PSD W/O Duty Factor (dBm)	Duty Factor	Total PSD With Duty Factor (dBm)	Max. Limit (dBm)	Pass / Fail
		Chain 0	Chain 1					
54	5270	-1.01	-1.95	1.56	0.18	1.74	6.99	Pass
62	5310	-0.73	-1.56	1.89	0.18	2.07	6.99	Pass
102	5510	-1.86	-2.58	0.81	0.18	0.99	6.99	Pass
110	5550	-0.28	-0.76	2.50	0.18	2.68	6.99	Pass
134	5670	0.86	0.14	3.53	0.18	3.71	6.99	Pass

Note: 1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.

2. Directional gain = 7.00dBi + 10log(2) = 10.01dBi > 6dBi, so the power density limit shall be reduced to 11-(10.01-6) = 6.99dBm.

3. Refer to section 3.3 for duty cycle spectrum plot.

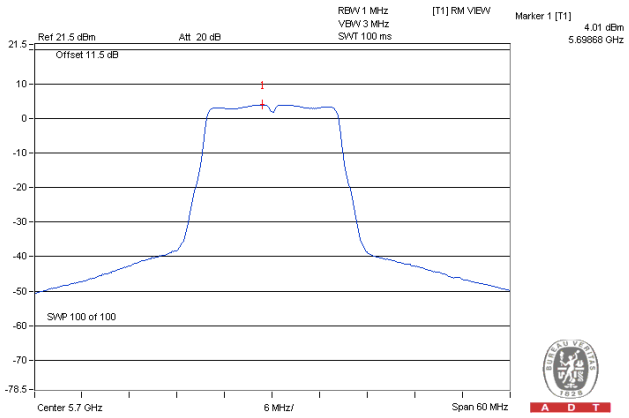
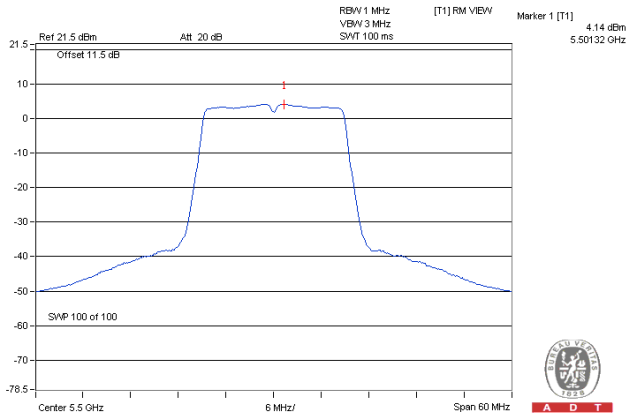
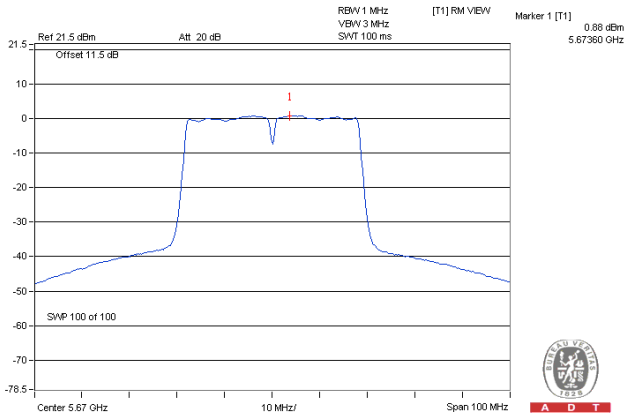
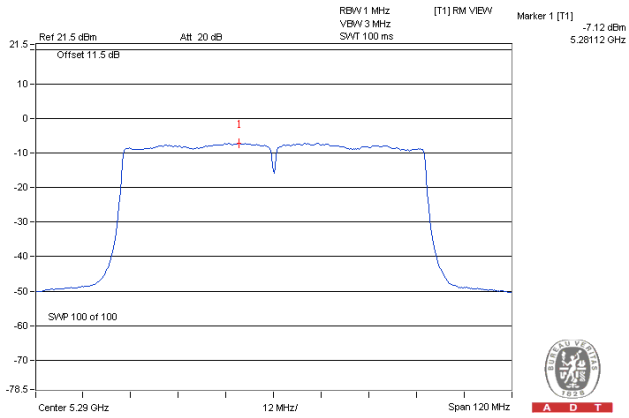
802.11ac (VHT80)

Channel	Frequency (MHz)	PSD (dBm)		Total PSD W/O Duty Factor (dBm)	Duty Factor	Total PSD With Duty Factor (dBm)	Max. Limit (dBm)	Pass / Fail
		Chain 0	Chain 1					
58	5290	-7.15	-7.46	-4.29	0.37	-3.92	6.99	Pass
106	5530	-7.25	-7.27	-4.25	0.37	-3.88	6.99	Pass

Note: 1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.

2. Directional gain = 7.00dBi + 10log(2) = 10.01dBi > 6dBi, so the power density limit shall be reduced to 11-(10.01-6) = 6.99dBm.

3. Refer to section 3.3 for duty cycle spectrum plot.

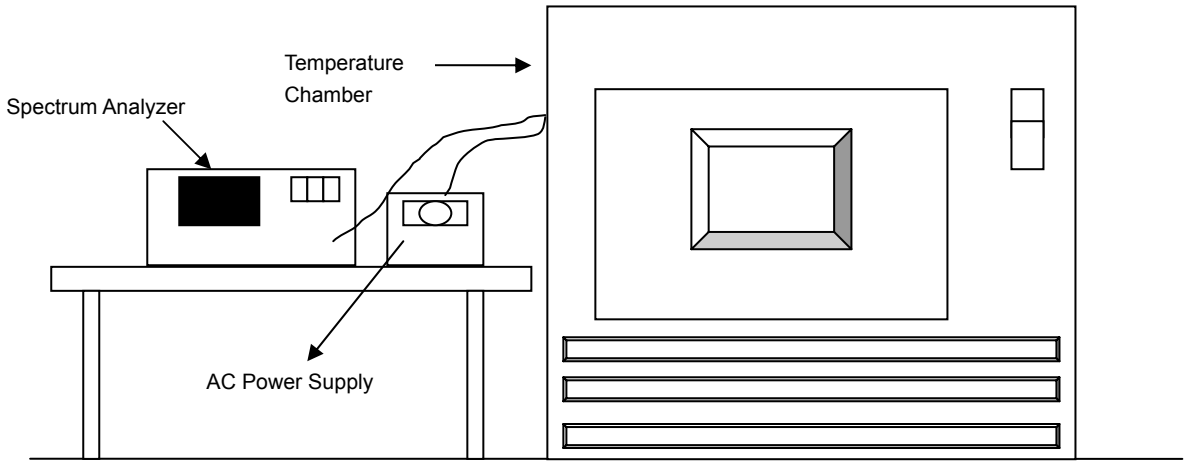
SPECTRUM PLOT OF WORST VALUE	
802.11a / CH 140 / Chain 0	802.11n (HT20) / CH 100 / Chain 0
	
802.11n (HT40) / CH 134 / Chain 0	802.11ac (VHT80) / CH 58 / Chain 0
	

4.5 Frequency Stability

4.5.1 Limits of Frequency Stability Measurement

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

4.5.2 Test Setup



4.5.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.5.4 Test Procedure

a. The EUT was placed inside the environmental test chamber and powered by nominal AC voltage.

b. Turn the EUT on and couple its output to a spectrum analyzer.

c. Turn the EUT off and set the chamber to the highest temperature specified.

d. 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.

e. Repeat step 2 and 3 with the temperature chamber set to the lowest temperature.

f. 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.

4.5.5 Deviation from Test Standard

No deviation.

4.5.6 EUT Operating Condition

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

4.5.7 Test Results

Frequemcy Stability Versus Temp.									
Operating Frequency: 5260MHz									
Temp. (℃)	Power Supply (Vac)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)
50	120	5260.0150	0.00029	5260.0169	0.00032	5260.0129	0.00025	5260.0142	0.00027
40	120	5260.0232	0.00044	5260.0214	0.00041	5260.0254	0.00048	5260.0239	0.00045
30	120	5260.0230	0.00044	5260.0257	0.00049	5260.0247	0.00047	5260.0238	0.00045
20	120	5260.0235	0.00045	5260.0238	0.00045	5260.0262	0.00050	5260.0284	0.00054
10	120	5259.9917	-0.00016	5259.9921	-0.00015	5259.9899	-0.00019	5259.9889	-0.00021
0	120	5259.9844	-0.00030	5259.9846	-0.00029	5259.9890	-0.00021	5259.9880	-0.00023
-10	120	5260.0209	0.00040	5260.0190	0.00036	5260.0174	0.00033	5260.0201	0.00038
-20	120	5259.9810	-0.00036	5259.9818	-0.00035	5259.9790	-0.00040	5259.9816	-0.00035
-30	120	5260.0030	0.00006	5260.0044	0.00008	5260.0040	0.00008	5260.0036	0.00007

Frequemcy Stability Versus Voltage									
Operating Frequency: 5260MHz									
Temp. (℃)	Power Supply (Vac)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)
20	138	5260.0237	0.00045	5260.0246	0.00047	5260.0267	0.00051	5260.0289	0.00055
	120	5260.0235	0.00045	5260.0238	0.00045	5260.0262	0.00050	5260.0284	0.00054
	102	5260.0235	0.00045	5260.0234	0.00044	5260.0266	0.00051	5260.0291	0.00055

5 Pictures of Test Arrangements

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

Appendix – Information on the Testing Laboratories

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

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

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Web Site: www.bureauveritas-adt.com

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

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