

FCC Test Report

Report No.: RF150402C20-1

FCC ID: TE7T6E

Test Model: Archer T6E

Received Date: Apr. 02, 2015

Test Date: May 25 ~ Jul. 30, 2015

Issued Date: Aug. 05, 2015

Applicant: TP-LINK TECHNOLOGIES CO., LTD.

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Release Control Record

Issue No.	Description	Date Issued
RF150402C20-1	Original release	Aug. 05, 2015

1 Certificate of Conformity

Product: AC1300 Wireless Dual Band PCI Express Adapter

Brand: TP-LINK

Test Model: Archer T6E

Sample Status: Prototype

Applicant: TP-LINK TECHNOLOGIES CO., LTD.

Test Date: May 25 ~ Jul. 30, 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 : Celine Chou , **Date:** Aug. 05, 2015
Celine Chou / Specialist

Approved by : Ken Liu , **Date:** Aug. 05, 2015
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 -9.20dB at 23.85242MHz.
15.407(b) (1/2/3/4/6)	Radiated Emissions & Band Edge Measurement	Pass	Meet the requirement of limit. Minimum passing margin is -0.1dB at 5722.90, 5150.00, 5470.00MHz.
15.407(a)(1/2 /3)	Max Average Transmit Power	Pass	Meet the requirement of limit.
15.407(a)(1/2 /3)	Peak Power Spectral Density	Pass	Meet the requirement of limit.
15.407(e)	6dB 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	Antenna connector is PR-SMA not a standard connector.

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) (\pm)
Conducted Emissions at mains ports	150kHz ~ 30MHz	2.44 dB
Radiated Emissions up to 1 GHz	30MHz ~ 200MHz	3.59 dB
	200MHz ~ 1000MHz	3.60 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	AC1300 Wireless Dual Band PCI Express Adapter
Brand	TP-LINK
Test Model	Archer T6E
Status of EUT	Prototype
Power Supply Rating	12Vdc or 3.3Vdc from host equipment
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 300Mbps 802.11ac: up to 866.7Mbps
Operating Frequency	5180 ~ 5240MHz, 5260 ~ 5320MHz, 5500 ~ 5700MHz & 5745 ~ 5825MHz
Number of Channel	5180MHz ~ 5240MHz 802.11a, 802.11n (HT20), 802.11ac (VHT20): 4 802.11n (HT40), 802.11ac (VHT40): 2 802.11ac (VHT80): 1 5260MHz ~ 5320MHz: 802.11a, 802.11n (HT20), 802.11ac (VHT20): 4, 802.11n (HT40), 802.11ac (VHT40): 2, 802.11ac (VHT80): 1 5500MHz ~ 5700MHz: 802.11a, 802.11n (HT20), 802.11ac (VHT20): 11, 802.11n (HT40), 802.11ac (VHT40): 5, 802.11ac (VHT80): 2 5745MHz ~ 5825MHz: 802.11a, 802.11n (HT20), 802.11ac (VHT20): 5, 802.11n (HT40), 802.11ac (VHT40): 2, 802.11ac (VHT80): 1
Output Power	5180MHz ~ 5240MHz: 841.489mW 5260MHz ~ 5320MHz: 250.610mW 5500MHz ~ 5700MHz: 249.416mW 5745MHz ~ 5825MHz: 568.337mW
Antenna Type	Omni-Directional antenna with 2dBi gain
Antenna Connector	PR-SMA
Accessory Device	N/A
Data Cable Supplied	N/A

Note:

1. The EUT incorporates a MIMO function. Physically, the EUT provides 2 completed transmitters and 2 receivers.

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

* 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)

3.2 Description of Test Modes

For 5180 ~ 5240MHz

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

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

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

Channel	Frequency	Channel	Frequency
38	5190 MHz	46	5230 MHz

1 channel is provided for 802.11ac (VHT80):

Channel	Frequency
42	5210MHz

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	5290MHz

For 5500 ~ 5700MHz

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

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

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

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

2 channels are provided for 802.11ac (VHT80):

Channel	Frequency	Channel	Frequency
106	5530MHz	122	5610 MHz

For 5745 ~ 5825MHz:

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

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

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

Channel	Frequency	Channel	Frequency
151	5755MHz	159	5795MHz

1 channel is provided for 802.11ac (VHT80):

Channel	Frequency
155	5775MHz

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

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	5180-5240	36 to 48	36, 40, 48	OFDM	BPSK	6.0
-	802.11n (HT20)		36 to 48	36, 40, 48	OFDM	BPSK	7.2
-	802.11n (HT40)		38 to 46	38, 46	OFDM	BPSK	15.0
-	802.11ac (VHT80)		42	42	OFDM	BPSK	65.0
-	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	65.0
-	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	65.0
-	802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	BPSK	6.0
-	802.11n (HT20)		149 to 165	149, 157, 165	OFDM	BPSK	7.2
-	802.11n (HT40)		151 to 159	151, 159	OFDM	BPSK	15.0
-	802.11ac (VHT80)		155	155	OFDM	BPSK	65.0

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	5180-5240	36 to 48	36	OFDM	BPSK	6.0
-	802.11a	5260-5320	52 to 64		OFDM	BPSK	6.0
-	802.11a	5500-5700	100 to 140		OFDM	BPSK	6.0
-	802.11a	5745-5825	149 to 165		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	5180-5240	36 to 48	36	OFDM	BPSK	6.0
-	802.11a	5260-5320	52 to 64		OFDM	BPSK	6.0
-	802.11a	5500-5700	100 to 140		OFDM	BPSK	6.0
-	802.11a	5745-5825	149 to 165		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	5180-5240	36 to 48	36, 40, 48	OFDM	BPSK	6.0
-	802.11n (HT20)		36 to 48	36, 40, 48	OFDM	BPSK	7.2
-	802.11n (HT40)		38 to 46	38, 46	OFDM	BPSK	15.0
-	802.11ac (VHT80)		42	42	OFDM	BPSK	65.0
-	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	65.0
-	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	65.0
-	802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	BPSK	6.0
-	802.11n (HT20)		149 to 165	149, 157, 165	OFDM	BPSK	7.2
-	802.11n (HT40)		151 to 159	151, 159	OFDM	BPSK	15.0
-	802.11ac (VHT80)		155	155	OFDM	BPSK	65.0

Test Condition:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER (SYSTEM)	TESTED BY
RE≥1G	25deg. C, 66%RH	120Vac, 60Hz	Alan Wu
RE<1G	26deg. C, 63%RH	120Vac, 60Hz	Alan Wu
PLC	20deg. C, 70%RH	120Vac, 60Hz	Jones Chang
APCM	25deg. C, 60%RH	120Vac, 60Hz	Frank Liu

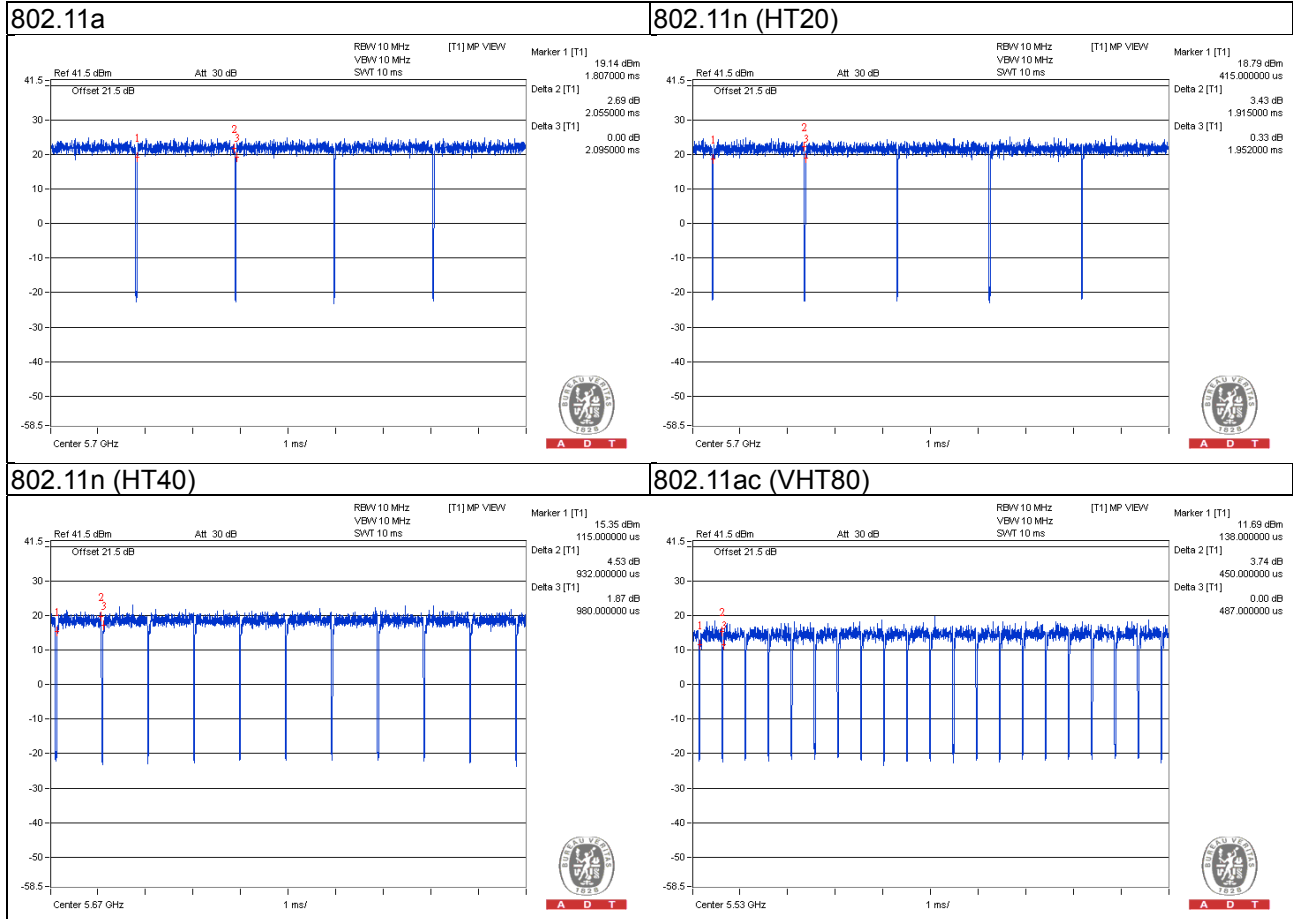
3.3 Duty Cycle of Test Signal

802.11a, 802.11n (HT20): Duty cycle of test signal is > 98%, duty factor is not required.

802.11n (HT40), 802.11ac (VHT80): Duty cycle of test signal is < 98 %, duty factor shall be considered.

802.11n (HT40): Duty cycle = $0.932/0.980 = 0.951$, Duty factor = $10 * \log(1/0.951) = 0.22$

802.11ac (VHT80): Duty cycle = $0.450/0.487 = 0.924$, Duty factor = $10 * \log(1/0.924) = 0.34$



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.

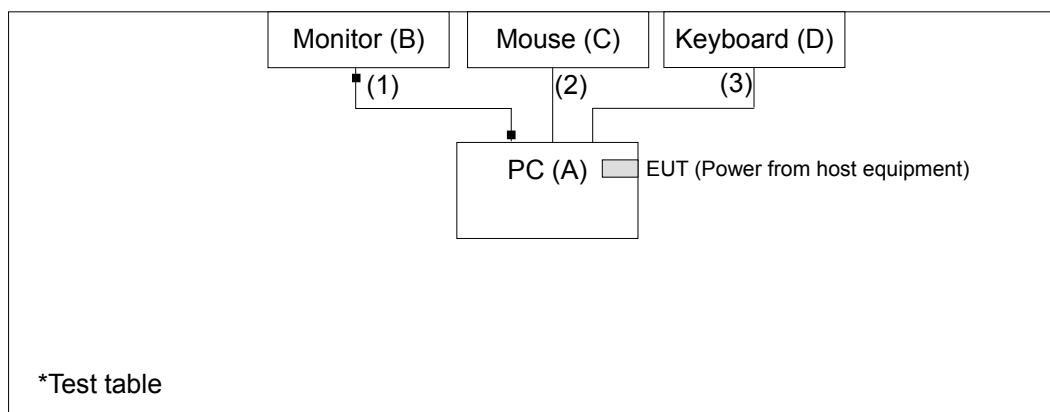
ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	PC	HP	PRO6300 MT	SGH237SVPH	FCC DoC Approved	-
B.	Monitor	Samsung	173v	N/A	FCC DoC Approved	-
C.	Mouse	DELL	MS111-P	CN-011D3V-71581-1 CJ-093C	FCC DoC Approved	-
D.	Keyboard	DELL	KB4021	CN-05V23T-71581-1 AK-00IX-A01	FCC DoC Approved	-

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

ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	D-SUB	1	1.8	Y	2	-
2.	USB	1	1.8	Y	0	-
3.	USB	1	1.8	Y	0	-

Note: The core(s) is(are) originally attached to the cable(s).

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 Procedure New Rules v01

662911 D01 Multiple Transmitter Output v02r01

ANSI C63.10-2013

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

Note: The EUT 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.

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 Procedures New Rules v01	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)	PK:-27 (dBm/MHz) ^{*1} PK:-17 (dBm/MHz) ^{*2}	PK: 68.2(dBµV/m) ^{*1} PK:78.2 (dBµV/m) ^{*2}

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

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

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

4.1.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Test Receiver ROHDE & SCHWARZ	ESCI	100424	Oct. 06, 2014	Oct. 05, 2015
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100040	Jul. 08, 2014	Jul. 07, 2015
			Jul. 08, 2015	Jul. 07, 2016
BILOG Antenna SCHWARZBECK	VULB9168	9168-155	Feb. 06, 2015	Feb. 05, 2016
HORN Antenna SCHWARZBECK	BBHA 9120D	9120D-1170	Feb. 05, 2015	Feb. 04, 2016
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170241	Feb. 09, 2015	Feb. 08, 2016
Preamplifier Agilent	8449B	3008A01960	Aug. 09, 2014	Aug. 08, 2015
Preamplifier Agilent	8447D	2944A10631	Aug. 09, 2014	Aug. 08, 2015
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	309220/4	Aug. 09, 2014	Aug. 08, 2015
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	250724/4	Aug. 09, 2014	Aug. 08, 2015
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	295012/4	Aug. 09, 2014	Aug. 08, 2015
Software BV ADT	ADT_Radiated_ V7.6.15.9.4	NA	NA	NA
Antenna Tower inn-co GmbH	MA 4000	010303	NA	NA
Antenna Tower Controller BV ADT	AT100	AT93021703	NA	NA
Turn Table BV ADT	TT100	TT93021703	NA	NA
Turn Table Controller BV ADT	SC100.	SC93021703	NA	NA
26GHz ~ 40GHz Amplifier	EM26400	815221	Oct. 18, 2014	Oct. 17, 2015
High Speed Peak Power Meter	ML2495A	0824011	Jul. 09, 2014	Jul. 08, 2015
			Jul. 09, 2015	Jul. 08, 2016
Power Sensor	MA2411B	0738171	Jul. 09, 2014	Jul. 08, 2015
			Jul. 09, 2015	Jul. 08, 2016
WIT Standard Temperature And Humidity Chamber	TH-4S-C	W981030	Jun. 08, 2014	Jun. 07, 2015
			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 test was performed in HwaYa Chamber 4.
 3. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
 4. The FCC Site Registration No. is 460141.
 5. The IC Site Registration No. is IC7450F-4.

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:

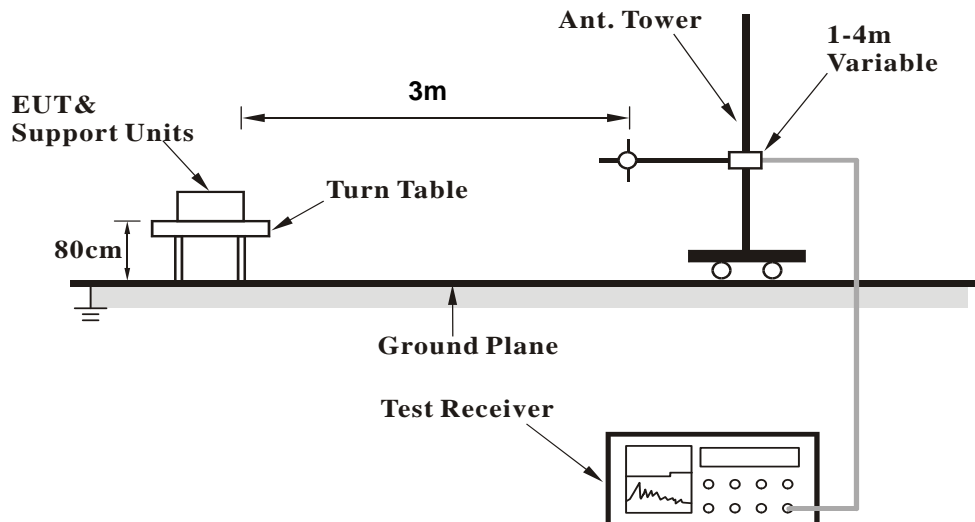
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
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 ($10 \log(1/\text{duty cycle})$).
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 10Hz (Duty cycle $\geq 98\%$) 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

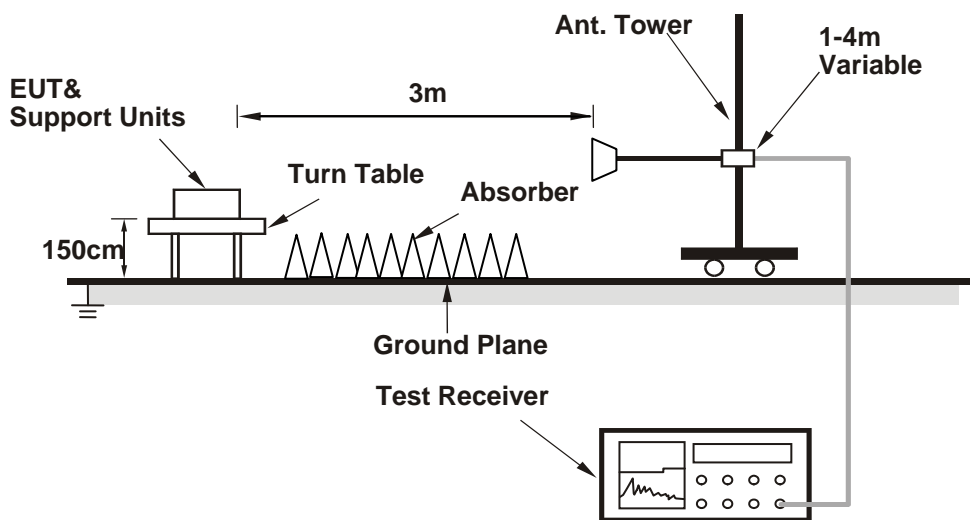
No deviation.

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

Installed the EUT in the PC and set the EUT under transmission condition continuously at specific channel frequency.

4.1.7 Test Results

Above 1GHz Data

802.11a

CHANNEL	TX Channel 36	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

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	5100.00	58.1 PK	74.0	-15.9	1.03 H	175	52.90	5.20
2	5100.00	44.7 AV	54.0	-9.3	1.03 H	175	39.50	5.20
3	5150.00	56.4 PK	74.0	-17.6	1.08 H	173	51.10	5.30
4	5150.00	43.4 AV	54.0	-10.6	1.08 H	173	38.10	5.30
5	*5180.00	105.5 PK			1.08 H	173	66.30	39.20
6	*5180.00	95.8 AV			1.08 H	173	56.60	39.20
7	#10360.00	60.0 PK	74.0	-14.0	1.00 H	188	41.60	18.40
8	#10360.00	47.2 AV	54.0	-6.8	1.00 H	188	28.80	18.40

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	5100.00	64.8 PK	74.0	-9.2	2.45 V	309	59.60	5.20
2	5100.00	53.8 AV	54.0	-0.2	2.45 V	309	48.60	5.20
3	5150.00	65.4 PK	74.0	-8.6	2.42 V	309	60.10	5.30
4	5150.00	49.6 AV	54.0	-4.4	2.42 V	309	44.30	5.30
5	*5180.00	116.2 PK			2.45 V	333	77.00	39.20
6	*5180.00	106.7 AV			2.45 V	333	67.50	39.20
7	#10360.00	61.2 PK	74.0	-12.8	1.00 V	352	42.80	18.40
8	#10360.00	48.3 AV	54.0	-5.7	1.00 V	352	29.90	18.40

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 40	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

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	5120.00	57.7 PK	74.0	-16.3	1.00 H	172	52.50	5.20
2	5120.00	44.8 AV	54.0	-9.2	1.00 H	172	39.60	5.20
3	*5200.00	105.5 PK			1.00 H	176	66.20	39.30
4	*5200.00	96.1 AV			1.00 H	176	56.80	39.30
5	#10400.00	60.6 PK	74.0	-13.4	1.00 H	189	42.40	18.20
6	#10400.00	47.3 AV	54.0	-6.7	1.00 H	189	29.10	18.20
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	5120.00	64.8 PK	74.0	-9.2	1.52 V	332	59.60	5.20
2	5120.00	53.6 AV	54.0	-0.4	1.52 V	332	48.40	5.20
3	*5200.00	117.4 PK			1.50 V	337	78.10	39.30
4	*5200.00	107.9 AV			1.50 V	337	68.60	39.30
5	#10400.00	61.8 PK	74.0	-12.2	1.00 V	354	43.60	18.20
6	#10400.00	49.0 AV	54.0	-5.0	1.00 V	354	30.80	18.20

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 48	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

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	5020.00	56.9 PK	74.0	-17.1	1.69 H	192	51.80	5.10
2	5020.00	44.4 AV	54.0	-9.6	1.69 H	192	39.30	5.10
3	*5240.00	113.2 PK			1.64 H	190	73.90	39.30
4	*5240.00	103.5 AV			1.64 H	190	64.20	39.30
5	#10480.00	60.2 PK	74.0	-13.8	1.00 H	181	42.60	17.60
6	#10480.00	47.6 AV	54.0	-6.4	1.00 H	181	30.00	17.60

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	5020.00	63.9 PK	74.0	-10.1	1.55 V	331	58.80	5.10
2	5020.00	52.2 AV	54.0	-1.8	1.55 V	331	47.10	5.10
3	*5240.00	121.1 PK			1.55 V	335	81.80	39.30
4	*5240.00	112.0 AV			1.55 V	335	72.70	39.30
5	#10480.00	60.4 PK	74.0	-13.6	1.00 V	4	42.80	17.60
6	#10480.00	48.1 AV	54.0	-5.9	1.00 V	4	30.50	17.60

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

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	5150.00	56.3 PK	74.0	-17.7	1.15 H	98	51.00	5.30
2	5150.00	44.3 AV	54.0	-9.7	1.15 H	98	39.00	5.30
3	*5260.00	106.8 PK			1.00 H	69	67.50	39.30
4	*5260.00	98.0 AV			1.00 H	69	58.70	39.30
5	#10520.00	60.4 PK	74.0	-13.6	1.22 H	65	43.00	17.40
6	#10520.00	46.1 AV	54.0	-7.9	1.22 H	65	28.70	17.40

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	5150.00	59.4 PK	74.0	-14.6	2.60 V	150	54.10	5.30
2	5150.00	46.0 AV	54.0	-8.0	2.60 V	150	40.70	5.30
3	*5260.00	114.8 PK			1.00 V	50	75.50	39.30
4	*5260.00	105.5 AV			1.00 V	50	66.20	39.30
5	5405.00	61.8 PK	74.0	-12.2	2.72 V	146	56.10	5.70
6	5405.00	52.3 AV	54.0	-1.7	2.72 V	146	46.60	5.70
7	#10520.00	60.0 PK	74.0	-14.0	1.55 V	96	42.60	17.40
8	#10520.00	46.4 AV	54.0	-7.6	1.55 V	96	29.00	17.40

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

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	5150.00	56.9 PK	74.0	-17.1	1.05 H	136	51.60	5.30
2	5150.00	44.3 AV	54.0	-9.7	1.05 H	136	39.00	5.30
3	*5300.00	106.2 PK			1.00 H	69	66.80	39.40
4	*5300.00	96.9 AV			1.00 H	69	57.50	39.40
5	10600.00	60.0 PK	74.0	-14.0	1.65 H	97	42.60	17.40
6	10600.00	46.1 AV	54.0	-7.9	1.65 H	97	28.70	17.40

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	*5300.00	113.6 PK			1.13 V	52	74.20	39.40
2	*5300.00	105.0 AV			1.13 V	52	65.60	39.40
3	5374.00	62.5 PK	74.0	-11.5	2.42 V	149	56.90	5.60
4	5374.00	51.9 AV	54.0	-2.1	2.42 V	149	46.30	5.60
5	10600.00	60.2 PK	74.0	-13.8	1.62 V	87	42.80	17.40
6	10600.00	46.1 AV	54.0	-7.9	1.62 V	87	28.70	17.40

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.

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

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	111.4 PK			1.49 H	31	72.00	39.40
2	*5320.00	101.7 AV			1.49 H	31	62.30	39.40
3	5350.00	57.6 PK	74.0	-16.4	1.15 H	206	52.00	5.60
4	5350.00	43.5 AV	54.0	-10.5	1.15 H	206	37.90	5.60
5	10640.00	60.2 PK	74.0	-13.8	1.23 H	65	43.00	17.20
6	10640.00	45.1 AV	54.0	-8.9	1.23 H	65	27.90	17.20

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	*5320.00	115.0 PK			1.89 V	149	75.60	39.40
2	*5320.00	105.7 AV			1.89 V	149	66.30	39.40
3	5350.00	63.3 PK	74.0	-10.7	2.50 V	170	57.70	5.60
4	5350.00	47.5 AV	54.0	-6.5	2.50 V	170	41.90	5.60
5	5400.00	64.1 PK	74.0	-9.9	2.46 V	162	58.40	5.70
6	5400.00	53.7 AV	54.0	-0.3	2.46 V	162	48.00	5.70
7	10640.00	60.2 PK	74.0	-13.8	1.28 V	47	43.00	17.20
8	10640.00	46.2 AV	54.0	-7.8	1.28 V	47	29.00	17.20

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

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	59.9 PK	74.0	-14.1	1.43 H	212	54.20	5.70
2	5420.00	48.1 AV	54.0	-5.9	1.43 H	212	42.40	5.70
3	5460.00	58.1 PK	74.0	-15.9	1.46 H	218	52.20	5.90
4	5460.00	44.1 AV	54.0	-9.9	1.46 H	218	38.20	5.90
5	#5470.00	60.9 PK	74.0	-13.1	1.46 H	218	55.00	5.90
6	#5470.00	45.7 AV	54.0	-8.3	1.46 H	218	39.80	5.90
7	*5500.00	107.5 PK			1.46 H	218	67.80	39.70
8	*5500.00	97.9 AV			1.46 H	218	58.20	39.70
9	11000.00	60.2 PK	74.0	-13.8	1.00 H	181	41.70	18.50
10	11000.00	46.6 AV	54.0	-7.4	1.00 H	181	28.10	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	5420.00	64.0 PK	74.0	-10.0	2.58 V	335	58.30	5.70
2	5420.00	53.0 AV	54.0	-1.0	2.58 V	335	47.30	5.70
3	5460.00	59.8 PK	74.0	-14.2	2.54 V	330	53.90	5.90
4	5460.00	46.7 AV	54.0	-7.3	2.54 V	330	40.80	5.90
5	#5470.00	67.6 PK	74.0	-6.4	2.54 V	330	61.70	5.90
6	#5470.00	48.4 AV	54.0	-5.6	2.54 V	330	42.50	5.90
7	*5500.00	116.4 PK			2.49 V	334	76.70	39.70
8	*5500.00	107.0 AV			2.49 V	334	67.30	39.70
9	11000.00	61.0 PK	74.0	-13.0	1.00 V	353	42.50	18.50
10	11000.00	48.0 AV	54.0	-6.0	1.00 V	353	29.50	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.

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

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	*5580.00	106.6 PK			1.00 H	212	66.70	39.90
2	*5580.00	97.2 AV			1.00 H	212	57.30	39.90
3	11160.00	60.3 PK	74.0	-13.7	1.00 H	187	41.80	18.50
4	11160.00	47.0 AV	54.0	-7.0	1.00 H	187	28.50	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	*5580.00	116.5 PK			2.47 V	329	76.60	39.90
2	*5580.00	107.3 AV			2.47 V	329	67.40	39.90
3	11160.00	61.1 PK	74.0	-12.9	1.00 V	6	42.60	18.50
4	11160.00	48.3 AV	54.0	-5.7	1.00 V	6	29.80	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.

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

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	107.3 PK			1.02 H	212	67.10	40.20
2	*5700.00	97.8 AV			1.02 H	212	57.60	40.20
3	#5725.00	61.5 PK	74.0	-12.5	1.04 H	212	55.20	6.30
4	#5725.00	45.7 AV	54.0	-8.3	1.04 H	212	39.40	6.30
5	11400.00	60.0 PK	74.0	-14.0	1.00 H	186	41.90	18.10
6	11400.00	46.3 AV	54.0	-7.7	1.00 H	186	28.20	18.10
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	*5700.00	116.8 PK			2.59 V	329	76.60	40.20
2	*5700.00	107.5 AV			2.59 V	329	67.30	40.20
3	#5725.00	70.1 PK	74.0	-3.9	2.49 V	328	63.80	6.30
4	#5725.00	52.1 AV	54.0	-1.9	2.49 V	328	45.80	6.30
5	11400.00	60.4 PK	74.0	-13.6	1.00 V	356	42.30	18.10
6	11400.00	47.9 AV	54.0	-6.1	1.00 V	356	29.80	18.10

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.
6. " # ": The radiated frequency is out of the restricted band.

CHANNEL	TX Channel 149	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

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	#5714.00	59.3 PK	74.0	-14.7	1.21 H	193	53.00	6.30
2	#5714.00	45.3 AV	54.0	-8.7	1.21 H	193	39.00	6.30
3	#5722.00	68.7 PK	78.2	-9.5	1.10 H	194	62.40	6.30
4	#5725.00	61.6 PK	78.2	-16.6	2.10 H	191	55.30	6.30
5	*5745.00	106.8 PK			1.00 H	191	66.50	40.30
6	*5745.00	97.4 AV			1.00 H	191	57.10	40.30
7	11490.00	60.2 PK	74.0	-13.8	1.52 H	69	43.00	17.20
8	11490.00	47.1 AV	54.0	-6.9	1.52 H	69	29.90	17.20

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	#5714.00	71.2 PK	74.0	-2.8	2.17 V	151	64.90	6.30
2	#5714.00	53.5 AV	54.0	-0.5	2.17 V	151	47.20	6.30
3	#5722.00	76.5 PK	78.2	-1.7	1.00 V	46	70.20	6.30
4	#5725.00	72.7 PK	78.2	-5.5	2.44 V	152	66.40	6.30
5	*5745.00	118.9 PK			3.03 V	150	78.60	40.30
6	*5745.00	109.8 AV			3.03 V	150	69.50	40.30
7	11490.00	60.2 PK	74.0	-13.8	1.15 V	87	43.00	17.20
8	11490.00	47.1 AV	54.0	-6.9	1.15 V	87	29.90	17.20

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 157	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

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	#5704.00	59.2 PK	68.2	-9.0	1.73 H	195	52.90	6.30
2	*5785.00	111.0 PK			1.11 H	158	70.60	40.40
3	*5785.00	101.0 AV			1.11 H	158	60.60	40.40
4	11570.00	59.9 PK	74.0	-14.1	1.57 H	48	42.60	17.30
5	11570.00	45.3 AV	54.0	-8.7	1.57 H	48	28.00	17.30
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	#5704.00	67.7 PK	68.2	-0.5	2.35 V	152	61.40	6.30
2	*5785.00	120.2 PK			2.91 V	150	79.80	40.40
3	*5785.00	110.3 AV			2.91 V	150	69.90	40.40
4	11570.00	60.0 PK	74.0	-14.0	1.59 V	87	42.70	17.30
5	11570.00	47.3 AV	54.0	-6.7	1.59 V	87	30.00	17.30

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.

CHANNEL	TX Channel 165	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

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	*5825.00	109.2 PK			1.00 H	190	68.70	40.50
2	*5825.00	100.0 AV			1.00 H	190	59.50	40.50
3	#5850.00	64.1 PK	78.2	-14.1	1.87 H	49	57.50	6.60
4	#5853.00	67.9 PK	78.2	-10.3	1.26 H	153	61.30	6.60
5	#5861.00	64.5 PK	74.0	-9.5	1.93 H	194	57.90	6.60
6	#5861.00	48.1 AV	54.0	-5.9	1.93 H	194	41.50	6.60
7	11650.00	60.7 PK	74.0	-13.3	1.56 H	74	43.00	17.70
8	11650.00	46.7 AV	54.0	-7.3	1.56 H	74	29.00	17.70

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	*5825.00	120.9 PK			2.29 V	150	80.40	40.50
2	*5825.00	111.7 AV			2.29 V	150	71.20	40.50
3	#5850.00	68.3 PK	78.2	-9.9	2.47 V	148	61.70	6.60
4	#5853.00	76.7 PK	78.2	-1.5	2.46 V	150	70.10	6.60
5	#5861.00	72.9 PK	74.0	-1.1	2.27 V	150	66.30	6.60
6	#5861.00	53.8 AV	54.0	-0.2	2.27 V	150	47.20	6.60
7	11650.00	60.3 PK	74.0	-13.7	1.59 V	74	42.60	17.70
8	11650.00	46.7 AV	54.0	-7.3	1.59 V	74	29.00	17.70

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 (HT20)

CHANNEL	TX Channel 36	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	5100.00	58.2 PK	74.0	-15.8	1.52 H	208	53.00	5.20
2	5100.00	46.3 AV	54.0	-7.7	1.52 H	208	41.10	5.20
3	5150.00	61.8 PK	74.0	-12.2	1.53 H	209	56.50	5.30
4	5150.00	45.1 AV	54.0	-8.9	1.53 H	209	39.80	5.30
5	*5180.00	110.3 PK			1.53 H	209	71.10	39.20
6	*5180.00	100.3 AV			1.53 H	209	61.10	39.20
7	#10360.00	60.2 PK	74.0	-13.8	1.00 H	180	41.80	18.40
8	#10360.00	47.4 AV	54.0	-6.6	1.00 H	180	29.00	18.40

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	5100.00	64.9 PK	74.0	-9.1	2.49 V	320	59.70	5.20
2	5100.00	53.6 AV	54.0	-0.4	2.49 V	320	48.40	5.20
3	5150.00	69.0 PK	74.0	-5.0	2.40 V	318	63.70	5.30
4	5150.00	51.2 AV	54.0	-2.8	2.40 V	318	45.90	5.30
5	*5180.00	116.5 PK			2.33 V	332	77.30	39.20
6	*5180.00	106.5 AV			2.33 V	332	67.30	39.20
7	#10360.00	61.8 PK	74.0	-12.2	1.00 V	7	43.40	18.40
8	#10360.00	48.8 AV	54.0	-5.2	1.00 V	7	30.40	18.40

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 40	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

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	5120.00	57.8 PK	74.0	-16.2	1.72 H	216	52.60	5.20
2	5120.00	46.0 AV	54.0	-8.0	1.72 H	216	40.80	5.20
3	*5200.00	110.2 PK			1.71 H	218	70.90	39.30
4	*5200.00	100.4 AV			1.71 H	218	61.10	39.30
5	#10400.00	60.9 PK	74.0	-13.1	1.00 H	188	42.70	18.20
6	#10400.00	47.5 AV	54.0	-6.5	1.00 H	188	29.30	18.20

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	5120.00	64.8 PK	74.0	-9.2	2.38 V	319	59.60	5.20
2	5120.00	53.5 AV	54.0	-0.5	2.38 V	319	48.30	5.20
3	*5200.00	116.9 PK			2.43 V	333	77.60	39.30
4	*5200.00	107.2 AV			2.43 V	333	67.90	39.30
5	#10400.00	61.5 PK	74.0	-12.5	1.00 V	351	43.30	18.20
6	#10400.00	48.9 AV	54.0	-5.1	1.00 V	351	30.70	18.20

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 48	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

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	*5240.00	115.5 PK			1.67 H	216	76.20	39.30
2	*5240.00	105.8 AV			1.67 H	216	66.50	39.30
3	5400.00	59.7 PK	74.0	-14.3	1.62 H	218	54.00	5.70
4	5400.00	48.2 AV	54.0	-5.8	1.62 H	218	42.50	5.70
5	#10480.00	60.0 PK	74.0	-14.0	1.00 H	186	42.40	17.60
6	#10480.00	47.7 AV	54.0	-6.3	1.00 H	186	30.10	17.60
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	*5240.00	120.7 PK			2.40 V	333	81.40	39.30
2	*5240.00	111.0 AV			2.40 V	333	71.70	39.30
3	5400.00	64.6 PK	74.0	-9.4	2.40 V	328	58.90	5.70
4	5400.00	52.6 AV	54.0	-1.4	2.40 V	328	46.90	5.70
5	#10480.00	60.7 PK	74.0	-13.3	1.00 V	1	43.10	17.60
6	#10480.00	48.5 AV	54.0	-5.5	1.00 V	1	30.90	17.60

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

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	5150.00	57.3 PK	74.0	-16.7	1.10 H	85	52.00	5.30
2	5150.00	44.3 AV	54.0	-9.7	1.10 H	85	39.00	5.30
3	*5260.00	108.7 PK			1.40 H	62	69.40	39.30
4	*5260.00	98.7 AV			1.40 H	62	59.40	39.30
5	#10520.00	60.2 PK	74.0	-13.8	1.55 H	221	42.80	17.40
6	#10520.00	47.3 AV	54.0	-6.7	1.55 H	221	29.90	17.40

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	5042.00	62.2 PK	74.0	-11.8	2.37 V	134	57.00	5.20
2	5042.00	51.9 AV	54.0	-2.1	2.37 V	134	46.70	5.20
3	5150.00	59.1 PK	74.0	-14.9	2.40 V	136	53.80	5.30
4	5150.00	46.4 AV	54.0	-7.6	2.40 V	136	41.10	5.30
5	*5260.00	114.4 PK			1.00 V	50	75.10	39.30
6	*5260.00	104.8 AV			1.00 V	50	65.50	39.30
7	#10520.00	60.0 PK	74.0	-14.0	1.18 V	74	42.60	17.40
8	#10520.00	46.4 AV	54.0	-7.6	1.18 V	74	29.00	17.40

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

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	107.6 PK			1.53 H	61	68.20	39.40
2	*5300.00	97.9 AV			1.53 H	61	58.50	39.40
3	10600.00	60.4 PK	74.0	-13.6	1.57 H	48	43.00	17.40
4	10600.00	46.1 AV	54.0	-7.9	1.57 H	48	28.70	17.40

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	*5300.00	114.5 PK			1.00 V	51	75.10	39.40
2	*5300.00	105.2 AV			1.00 V	51	65.80	39.40
3	5377.00	64.0 PK	74.0	-10.0	2.58 V	150	58.40	5.60
4	5377.00	53.3 AV	54.0	-0.7	2.58 V	150	47.70	5.60
5	10600.00	60.4 PK	74.0	-13.6	1.52 V	98	43.00	17.40
6	10600.00	46.4 AV	54.0	-7.6	1.52 V	98	29.00	17.40

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.

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

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	109.3 PK			1.50 H	60	69.90	39.40
2	*5320.00	99.5 AV			1.50 H	60	60.10	39.40
3	5350.00	57.8 PK	74.0	-16.2	1.66 H	58	52.20	5.60
4	5350.00	48.2 AV	54.0	-5.8	1.66 H	58	42.60	5.60
5	10640.00	59.9 PK	74.0	-14.1	1.55 H	221	42.70	17.20
6	10640.00	45.9 AV	54.0	-8.1	1.55 H	221	28.70	17.20
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	*5320.00	114.9 PK			2.61 V	146	75.50	39.40
2	*5320.00	105.1 AV			2.61 V	146	65.70	39.40
3	5350.00	61.1 PK	74.0	-12.9	2.70 V	150	55.50	5.60
4	5350.00	46.3 AV	54.0	-7.7	2.70 V	150	40.70	5.60
5	5402.00	63.0 PK	74.0	-11.0	2.66 V	166	57.30	5.70
6	5402.00	52.3 AV	54.0	-1.7	2.66 V	166	46.60	5.70
7	10640.00	59.9 PK	74.0	-14.1	1.52 V	97	42.70	17.20
8	10640.00	45.9 AV	54.0	-8.1	1.52 V	97	28.70	17.20

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

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	60.4 PK	74.0	-13.6	1.48 H	213	54.70	5.70
2	5420.00	48.2 AV	54.0	-5.8	1.48 H	213	42.50	5.70
3	5460.00	60.9 PK	74.0	-13.1	1.49 H	219	55.00	5.90
4	5460.00	45.2 AV	54.0	-8.8	1.49 H	219	39.30	5.90
5	#5470.00	62.8 PK	74.0	-11.2	1.49 H	219	56.90	5.90
6	#5470.00	46.5 AV	54.0	-7.5	1.49 H	219	40.60	5.90
7	*5500.00	108.8 PK			1.49 H	219	69.10	39.70
8	*5500.00	99.4 AV			1.49 H	219	59.70	39.70
9	11000.00	60.6 PK	74.0	-13.4	1.00 H	185	42.10	18.50
10	11000.00	47.1 AV	54.0	-6.9	1.00 H	185	28.60	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	5420.00	63.3 PK	74.0	-10.7	2.58 V	327	57.60	5.70
2	5420.00	53.0 AV	54.0	-1.0	2.58 V	327	47.30	5.70
3	5460.00	64.0 PK	74.0	-10.0	2.53 V	326	58.10	5.90
4	5460.00	46.3 AV	54.0	-7.7	2.53 V	326	40.40	5.90
5	#5470.00	70.7 PK	74.0	-3.3	2.53 V	326	64.80	5.90
6	#5470.00	48.6 AV	54.0	-5.4	2.53 V	326	42.70	5.90
7	*5500.00	117.4 PK			2.52 V	332	77.70	39.70
8	*5500.00	107.2 AV			2.52 V	332	67.50	39.70
9	11000.00	61.1 PK	74.0	-12.9	1.00 V	359	42.60	18.50
10	11000.00	48.2 AV	54.0	-5.8	1.00 V	359	29.70	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.

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

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	*5580.00	107.8 PK			1.52 H	220	67.90	39.90
2	*5580.00	98.0 AV			1.52 H	220	58.10	39.90
3	11160.00	60.7 PK	74.0	-13.3	1.00 H	181	42.20	18.50
4	11160.00	47.1 AV	54.0	-6.9	1.00 H	181	28.60	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	*5580.00	117.3 PK			2.47 V	330	77.40	39.90
2	*5580.00	106.7 AV			2.47 V	330	66.80	39.90
3	11160.00	61.7 PK	74.0	-12.3	1.00 V	1	43.20	18.50
4	11160.00	48.4 AV	54.0	-5.6	1.00 V	1	29.90	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.

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

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	108.7 PK			1.42 H	212	68.50	40.20
2	*5700.00	98.6 AV			1.42 H	212	58.40	40.20
3	#5725.00	67.2 PK	74.0	-6.8	1.42 H	212	60.90	6.30
4	#5725.00	48.0 AV	54.0	-6.0	1.42 H	212	41.70	6.30
5	11400.00	60.5 PK	74.0	-13.5	1.00 H	184	42.40	18.10
6	11400.00	46.8 AV	54.0	-7.2	1.00 H	184	28.70	18.10

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	*5700.00	116.3 PK			2.49 V	328	76.10	40.20
2	*5700.00	106.7 AV			2.49 V	328	66.50	40.20
3	#5725.00	73.3 PK	74.0	-0.7	2.38 V	327	67.00	6.30
4	#5725.00	53.8 AV	54.0	-0.2	2.38 V	327	47.50	6.30
5	11400.00	60.9 PK	74.0	-13.1	1.00 V	15	42.80	18.10
6	11400.00	48.1 AV	54.0	-5.9	1.00 V	15	30.00	18.10

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.
6. " # ": The radiated frequency is out of the restricted band.

CHANNEL	TX Channel 149	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

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	#5714.90	65.3 PK	74.0	-8.7	1.82 H	249	59.00	6.30
2	#5714.90	45.8 AV	54.0	-8.2	1.82 H	249	39.50	6.30
3	#5722.90	74.1 PK	78.2	-4.1	1.82 H	249	67.80	6.30
4	#5725.00	54.1 PK	78.2	-24.1	1.82 H	249	47.80	6.30
5	*5745.00	109.9 PK			1.85 H	245	69.60	40.30
6	*5745.00	99.9 AV			1.85 H	245	59.60	40.30
7	11490.00	58.8 PK	74.0	-15.2	1.00 H	181	41.60	17.20
8	11490.00	44.8 AV	54.0	-9.2	1.00 H	181	27.60	17.20

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	#5714.90	72.3 PK	74.0	-1.7	2.38 V	336	66.00	6.30
2	#5714.90	52.1 AV	54.0	-1.9	2.38 V	336	45.80	6.30
3	#5722.90	78.1 PK	78.2	-0.1	2.38 V	336	71.80	6.30
4	#5725.00	55.2 PK	78.2	-23.0	2.38 V	336	48.90	6.30
5	*5745.00	117.8 PK			2.36 V	333	77.50	40.30
6	*5745.00	107.9 AV			2.36 V	333	67.60	40.30
7	11490.00	59.5 PK	74.0	-14.5	1.00 V	8	42.30	17.20
8	11490.00	46.3 AV	54.0	-7.7	1.00 V	8	29.10	17.20

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 157	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

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	#5705.00	60.7 PK	68.2	-7.5	1.95 H	231	54.40	6.30
2	*5785.00	111.0 PK			2.00 H	237	70.60	40.40
3	*5785.00	101.0 AV			2.00 H	237	60.60	40.40
4	11570.00	59.1 PK	74.0	-14.9	1.00 H	183	41.80	17.30
5	11570.00	45.1 AV	54.0	-8.9	1.00 H	183	27.80	17.30

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	#5705.00	67.7 PK	68.2	-0.5	2.67 V	334	61.40	6.30
2	*5785.00	119.7 PK			2.61 V	338	79.30	40.40
3	*5785.00	109.4 AV			2.61 V	338	69.00	40.40
4	11570.00	59.6 PK	74.0	-14.4	1.00 V	6	42.30	17.30
5	11570.00	46.9 AV	54.0	-7.1	1.00 V	6	29.60	17.30

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.

CHANNEL	TX Channel 165	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

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	*5825.00	110.5 PK			1.98 H	246	70.00	40.50
2	*5825.00	100.7 AV			1.98 H	246	60.20	40.50
3	#5850.00	54.2 PK	78.2	-24.0	1.98 H	240	47.60	6.60
4	#5852.10	67.1 PK	78.2	-11.1	1.98 H	240	60.50	6.60
5	#5860.10	62.7 PK	74.0	-11.3	1.98 H	240	56.10	6.60
6	#5860.10	47.4 AV	54.0	-6.6	1.98 H	240	40.80	6.60
7	11650.00	60.0 PK	74.0	-14.0	1.00 H	188	42.30	17.70
8	11650.00	46.2 AV	54.0	-7.8	1.00 H	188	28.50	17.70

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	*5825.00	120.2 PK			2.40 V	334	79.70	40.50
2	*5825.00	110.3 AV			2.40 V	334	69.80	40.50
3	#5850.00	55.4 PK	78.2	-22.8	2.39 V	336	48.80	6.60
4	#5852.10	77.3 PK	78.2	-0.9	2.39 V	336	70.70	6.60
5	#5860.10	70.7 PK	74.0	-3.3	2.39 V	336	64.10	6.60
6	#5860.10	53.8 AV	54.0	-0.2	2.39 V	336	47.20	6.60
7	11650.00	60.2 PK	74.0	-13.8	1.00 V	356	42.50	17.70
8	11650.00	46.3 AV	54.0	-7.7	1.00 V	356	28.60	17.70

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 38	DETECTOR	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz	FUNCTION	Average (AV)

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	5150.00	61.0 PK	74.0	-13.0	1.71 H	211	55.70	5.30
2	5150.00	48.5 AV	54.0	-5.5	1.71 H	211	43.20	5.30
3	*5190.00	104.1 PK			1.71 H	212	64.90	39.20
4	*5190.00	94.1 AV			1.71 H	212	54.90	39.20
5	#10380.00	59.5 PK	74.0	-14.5	1.00 H	182	41.30	18.20
6	#10380.00	47.0 AV	54.0	-7.0	1.00 H	182	28.80	18.20

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	5150.00	67.1 PK	74.0	-6.9	2.34 V	320	61.80	5.30
2	5150.00	53.9 AV	54.0	-0.1	2.34 V	320	48.60	5.30
3	*5190.00	109.6 PK			2.34 V	326	70.40	39.20
4	*5190.00	99.7 AV			2.34 V	326	60.50	39.20
5	#10380.00	60.0 PK	74.0	-14.0	1.00 V	8	41.80	18.20
6	#10380.00	47.6 AV	54.0	-6.4	1.00 V	8	29.40	18.20

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 46	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

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	5150.00	61.5 PK	74.0	-12.5	1.64 H	210	56.20	5.30
2	5150.00	48.7 AV	54.0	-5.3	1.64 H	210	43.40	5.30
3	*5230.00	112.7 PK			1.69 H	214	73.40	39.30
4	*5230.00	102.5 AV			1.69 H	214	63.20	39.30
5	#10460.00	59.9 PK	74.0	-14.1	1.00 H	184	42.20	17.70
6	#10460.00	47.5 AV	54.0	-6.5	1.00 H	184	29.80	17.70

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	5150.00	66.5 PK	74.0	-7.5	2.26 V	335	61.20	5.30
2	5150.00	53.6 AV	54.0	-0.4	2.26 V	335	48.30	5.30
3	*5230.00	116.3 PK			2.22 V	337	77.00	39.30
4	*5230.00	106.4 AV			2.22 V	337	67.10	39.30
5	#10460.00	60.3 PK	74.0	-13.7	1.00 V	352	42.60	17.70
6	#10460.00	48.0 AV	54.0	-6.0	1.00 V	352	30.30	17.70

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

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	5150.00	56.3 PK	74.0	-17.7	1.06 H	118	51.00	5.30
2	5150.00	44.3 AV	54.0	-9.7	1.06 H	118	39.00	5.30
3	*5270.00	103.1 PK			1.27 H	63	63.80	39.30
4	*5270.00	93.7 AV			1.27 H	63	54.40	39.30
5	#10540.00	60.4 PK	74.0	-13.6	1.33 H	224	43.00	17.40
6	#10540.00	46.4 AV	54.0	-7.6	1.33 H	224	29.00	17.40

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	5150.00	58.3 PK	74.0	-15.7	1.56 V	97	53.00	5.30
2	5150.00	46.2 AV	54.0	-7.8	1.56 V	97	40.90	5.30
3	*5270.00	112.6 PK			1.12 V	51	73.30	39.30
4	*5270.00	102.4 AV			1.12 V	51	63.10	39.30
5	#10540.00	60.0 PK	74.0	-14.0	1.55 V	41	42.60	17.40
6	#10540.00	45.2 AV	54.0	-8.8	1.55 V	41	27.80	17.40

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

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	103.4 PK			1.66 H	64	64.00	39.40
2	*5310.00	93.5 AV			1.66 H	64	54.10	39.40
3	5350.00	60.6 PK	74.0	-13.4	1.97 H	19	55.00	5.60
4	5350.00	46.8 AV	54.0	-7.2	1.97 H	19	41.20	5.60
5	10620.00	59.9 PK	74.0	-14.1	1.55 H	221	42.60	17.30
6	10620.00	45.2 AV	54.0	-8.8	1.55 H	221	27.90	17.30

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	*5310.00	112.1 PK			1.80 V	146	72.70	39.40
2	*5310.00	101.9 AV			1.80 V	146	62.50	39.40
3	5350.00	70.0 PK	74.0	-4.0	1.80 V	148	64.40	5.60
4	5350.00	53.5 AV	54.0	-0.5	1.80 V	148	47.90	5.60
5	10620.00	60.9 PK	74.0	-13.1	1.55 V	221	43.60	17.30
6	10620.00	47.2 AV	54.0	-6.8	1.55 V	221	29.90	17.30

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.

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

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	59.9 PK	74.0	-14.1	1.44 H	216	54.00	5.90
2	5460.00	44.7 AV	54.0	-9.3	1.44 H	216	38.80	5.90
3	#5470.00	63.8 PK	74.0	-10.2	1.44 H	216	57.90	5.90
4	#5470.00	47.6 AV	54.0	-6.4	1.44 H	216	41.70	5.90
5	*5510.00	105.1 PK			1.43 H	211	65.40	39.70
6	*5510.00	95.5 AV			1.43 H	211	55.80	39.70
7	11020.00	59.5 PK	74.0	-14.5	1.00 H	180	41.10	18.40
8	11020.00	46.3 AV	54.0	-7.7	1.00 H	180	27.90	18.40

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	5460.00	64.8 PK	74.0	-9.2	2.52 V	332	58.90	5.90
2	5460.00	47.3 AV	54.0	-6.7	2.52 V	332	41.40	5.90
3	#5470.00	70.6 PK	74.0	-3.4	2.52 V	332	64.70	5.90
4	#5470.00	53.7 AV	54.0	-0.3	2.52 V	332	47.80	5.90
5	*5510.00	112.2 PK			2.49 V	335	72.50	39.70
6	*5510.00	102.0 AV			2.49 V	335	62.30	39.70
7	11020.00	59.7 PK	74.0	-14.3	1.00 V	3	41.30	18.40
8	11020.00	47.5 AV	54.0	-6.5	1.00 V	3	29.10	18.40

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)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

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	#5470.00	59.8 PK	74.0	-14.2	1.36 H	210	53.90	5.90
2	#5470.00	45.7 AV	54.0	-8.3	1.36 H	210	39.80	5.90
3	*5550.00	105.3 PK			1.40 H	210	65.40	39.90
4	*5550.00	95.4 AV			1.40 H	210	55.50	39.90
5	11100.00	59.9 PK	74.0	-14.1	1.00 H	186	41.90	18.00
6	11100.00	46.9 AV	54.0	-7.1	1.00 H	186	28.90	18.00

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	#5470.00	64.4 PK	74.0	-9.6	2.24 V	336	58.50	5.90
2	#5470.00	50.9 AV	54.0	-3.1	2.24 V	336	45.00	5.90
3	*5550.00	113.0 PK			2.48 V	332	73.10	39.90
4	*5550.00	102.7 AV			2.48 V	332	62.80	39.90
5	11100.00	60.4 PK	74.0	-13.6	1.00 V	356	42.40	18.00
6	11100.00	48.0 AV	54.0	-6.0	1.00 V	356	30.00	18.00

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

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	105.7 PK			1.56 H	208	65.50	40.20
2	*5670.00	95.5 AV			1.56 H	208	55.30	40.20
3	#5725.00	61.0 PK	74.0	-13.0	1.52 H	200	54.70	6.30
4	#5725.00	47.1 AV	54.0	-6.9	1.52 H	200	40.80	6.30
5	11340.00	59.2 PK	74.0	-14.8	1.00 H	182	40.20	19.00
6	11340.00	45.9 AV	54.0	-8.1	1.00 H	182	26.90	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	*5670.00	112.6 PK			2.40 V	335	72.40	40.20
2	*5670.00	102.3 AV			2.40 V	335	62.10	40.20
3	#5725.00	66.5 PK	74.0	-7.5	2.39 V	327	60.20	6.30
4	#5725.00	50.9 AV	54.0	-3.1	2.39 V	327	44.60	6.30
5	11340.00	60.0 PK	74.0	-14.0	1.00 V	6	41.00	19.00
6	11340.00	47.5 AV	54.0	-6.5	1.00 V	6	28.50	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.
6. " # ": The radiated frequency is out of the restricted band.

CHANNEL	TX Channel 151	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

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	#5714.90	60.1 PK	74.0	-13.9	1.98 H	248	53.80	6.30
2	#5714.90	46.8 AV	54.0	-7.2	1.98 H	248	40.50	6.30
3	#5722.90	64.0 PK	78.2	-14.2	1.98 H	248	57.70	6.30
4	#5725.00	48.3 PK	78.2	-29.9	1.98 H	248	42.00	6.30
5	*5755.00	102.7 PK			1.99 H	246	62.40	40.30
6	*5755.00	93.2 AV			1.99 H	246	52.90	40.30
7	11510.00	58.6 PK	74.0	-15.4	1.00 H	186	41.50	17.10
8	11510.00	44.5 AV	54.0	-9.5	1.00 H	186	27.40	17.10

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	#5714.90	68.7 PK	74.0	-5.3	2.56 V	335	62.40	6.30
2	#5714.90	53.7 AV	54.0	-0.3	2.56 V	335	47.40	6.30
3	#5722.90	73.2 PK	78.2	-5.0	2.56 V	335	66.90	6.30
4	#5725.00	49.3 PK	78.2	-28.9	2.56 V	335	43.00	6.30
5	*5755.00	111.9 PK			2.65 V	337	71.60	40.30
6	*5755.00	101.6 AV			2.65 V	337	61.30	40.30
7	11510.00	59.0 PK	74.0	-15.0	1.00 V	358	41.90	17.10
8	11510.00	45.9 AV	54.0	-8.1	1.00 V	358	28.80	17.10

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.
6. " # ": The radiated frequency is out of the restricted band.

CHANNEL	TX Channel 159	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

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	*5795.00	106.8 PK			1.84 H	238	66.40	40.40
2	*5795.00	97.5 AV			1.84 H	238	57.10	40.40
3	#5850.00	47.8 PK	78.2	-30.4	1.89 H	236	41.20	6.60
4	#5852.10	61.7 PK	78.2	-16.5	1.89 H	236	55.10	6.60
5	#5860.10	59.8 PK	74.0	-14.2	1.89 H	276	53.20	6.60
6	#5860.10	46.5 AV	54.0	-7.5	1.89 H	276	39.90	6.60
7	11590.00	59.4 PK	74.0	-14.6	1.00 H	183	42.20	17.20
8	11590.00	45.8 AV	54.0	-8.2	1.00 H	183	28.60	17.20

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	*5795.00	115.3 PK			2.42 V	337	74.90	40.40
2	*5795.00	105.1 AV			2.42 V	337	64.70	40.40
3	#5850.00	48.0 PK	78.2	-30.2	2.47 V	335	41.40	6.60
4	#5852.10	70.9 PK	78.2	-7.3	2.47 V	335	64.30	6.60
5	#5860.10	68.8 PK	74.0	-5.2	2.47 V	335	62.20	6.60
6	#5860.10	53.7 AV	54.0	-0.3	2.47 V	335	47.10	6.60
7	11590.00	59.8 PK	74.0	-14.2	1.00 V	7	42.60	17.20
8	11590.00	46.1 AV	54.0	-7.9	1.00 V	7	28.90	17.20

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 42	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

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	5150.00	61.1 PK	74.0	-12.9	1.63 H	210	55.80	5.30
2	5150.00	48.5 AV	54.0	-5.5	1.63 H	210	43.20	5.30
3	*5210.00	98.8 PK			1.66 H	217	59.50	39.30
4	*5210.00	89.2 AV			1.66 H	217	49.90	39.30
5	#10420.00	59.4 PK	74.0	-14.6	1.00 H	183	41.40	18.00
6	#10420.00	46.8 AV	54.0	-7.2	1.00 H	183	28.80	18.00

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	5150.00	69.2 PK	74.0	-4.8	2.36 V	332	63.90	5.30
2	5150.00	53.6 AV	54.0	-0.4	2.36 V	332	48.30	5.30
3	*5210.00	104.3 PK			2.42 V	336	65.00	39.30
4	*5210.00	94.2 AV			2.42 V	336	54.90	39.30
5	#10420.00	59.7 PK	74.0	-14.3	1.00 V	355	41.70	18.00
6	#10420.00	47.3 AV	54.0	-6.7	1.00 V	355	29.30	18.00

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.
6. " # ": The radiated frequency is out of the restricted band.

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

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	99.5 PK			1.00 H	66	60.20	39.30
2	*5290.00	90.1 AV			1.00 H	66	50.80	39.30
3	5350.00	58.6 PK	74.0	-15.4	1.18 H	133	53.00	5.60
4	5350.00	47.2 AV	54.0	-6.8	1.18 H	133	41.60	5.60
5	#10580.00	60.9 PK	74.0	-13.1	1.17 H	41	43.60	17.30
6	#10580.00	47.2 AV	54.0	-6.8	1.17 H	41	29.90	17.30

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	108.6 PK			1.31 V	58	69.30	39.30
2	*5290.00	98.8 AV			1.31 V	58	59.50	39.30
3	5350.00	71.7 PK	74.0	-2.3	2.48 V	145	66.10	5.60
4	5350.00	53.6 AV	54.0	-0.4	2.48 V	145	48.00	5.60
5	#10580.00	59.9 PK	74.0	-14.1	1.59 V	63	42.60	17.30
6	#10580.00	46.0 AV	54.0	-8.0	1.59 V	63	28.70	17.30

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)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

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	63.0 PK	74.0	-11.0	1.79 H	210	57.10	5.90
2	5460.00	48.0 AV	54.0	-6.0	1.79 H	210	42.10	5.90
3	#5470.00	65.6 PK	74.0	-8.4	1.79 H	210	59.70	5.90
4	#5470.00	48.5 AV	54.0	-5.5	1.79 H	210	42.60	5.90
5	*5530.00	102.3 PK			1.79 H	213	62.50	39.80
6	*5530.00	92.1 AV			1.79 H	213	52.30	39.80
7	11060.00	58.8 PK	74.0	-15.2	1.00 H	189	40.60	18.20
8	11060.00	45.5 AV	54.0	-8.5	1.00 H	189	27.30	18.20

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	67.8 PK	74.0	-6.2	2.43 V	333	61.90	5.90
2	5460.00	52.8 AV	54.0	-1.2	2.43 V	333	46.90	5.90
3	#5470.00	71.5 PK	74.0	-2.5	2.43 V	333	65.60	5.90
4	#5470.00	53.9 AV	54.0	-0.1	2.43 V	333	48.00	5.90
5	*5530.00	108.2 PK			2.40 V	333	68.40	39.80
6	*5530.00	97.9 AV			2.40 V	333	58.10	39.80
7	11060.00	59.2 PK	74.0	-14.8	1.00 V	351	41.00	18.20
8	11060.00	47.0 AV	54.0	-7.0	1.00 V	351	28.80	18.20

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 155	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

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	#5714.90	57.5 PK	74.0	-16.5	1.95 H	233	51.20	6.30
2	#5714.90	46.0 AV	54.0	-8.0	1.95 H	233	39.70	6.30
3	#5722.90	61.5 PK	78.2	-16.7	1.95 H	233	55.20	6.30
4	#5725.00	47.3 PK	78.2	-30.9	1.95 H	233	41.00	6.30
5	*5775.00	99.0 PK			1.98 H	234	58.60	40.40
6	*5775.00	89.0 AV			1.98 H	234	48.60	40.40
7	11550.00	58.4 PK	74.0	-15.6	1.00 H	182	41.30	17.10
8	11550.00	44.4 AV	54.0	-9.6	1.00 H	182	27.30	17.10

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	#5714.90	68.6 PK	74.0	-5.4	2.38 V	337	62.30	6.30
2	#5714.90	53.6 AV	54.0	-0.4	2.38 V	337	47.30	6.30
3	#5722.90	73.0 PK	78.2	-5.2	2.38 V	337	66.70	6.30
4	#5725.00	47.5 PK	78.2	-30.7	2.38 V	337	41.20	6.30
5	*5775.00	108.1 PK			2.42 V	335	67.70	40.40
6	*5775.00	96.9 AV			2.42 V	335	56.50	40.40
7	11550.00	58.9 PK	74.0	-15.1	1.00 V	3	41.80	17.10
8	11550.00	45.5 AV	54.0	-8.5	1.00 V	3	28.40	17.10

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.
6. " # ": The radiated frequency is out of the restricted band.

Below 1GHz Data: 802.11a

CHANNEL	TX Channel 36	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	59.01	25.2 QP	40.0	-14.8	1.75 H	89	39.60	-14.40
2	95.87	28.3 QP	43.5	-15.2	1.99 H	201	47.60	-19.30
3	233.64	29.1 QP	46.0	-16.9	1.99 H	12	44.70	-15.60
4	299.62	33.8 QP	46.0	-12.2	1.00 H	36	46.40	-12.60
5	328.72	39.8 QP	46.0	-6.2	1.00 H	144	51.60	-11.80
6	487.83	28.6 QP	46.0	-17.4	1.25 H	76	37.90	-9.30
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	59.01	31.0 QP	40.0	-9.0	2.00 V	147	45.40	-14.40
2	185.13	29.4 QP	43.5	-14.1	1.24 V	28	45.20	-15.80
3	297.68	33.0 QP	46.0	-13.0	1.24 V	13	45.70	-12.70
4	328.72	34.5 QP	46.0	-11.5	1.24 V	95	46.30	-11.80
5	497.54	27.7 QP	46.0	-18.3	1.00 V	293	36.70	-9.00
6	676.05	28.1 QP	46.0	-17.9	3.00 V	320	33.80	-5.70

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	ESCI	100613	Nov. 11, 2014	Nov. 10, 2015
RF signal cable Woken	5D-FB	Cable-HYC01-01	Dec. 26, 2014	Dec. 25, 2015
LISN ROHDE & SCHWARZ (EUT)	ESH3-Z5	835239/001	Feb. 26, 2015	Feb. 25, 2016
LISN ROHDE & SCHWARZ (Peripheral)	ESH3-Z5	100311	Jul. 24, 2014	Jul. 23, 2015
			Jul. 24, 2015	Jul. 23, 2016
Software ADT	BV ADT_Cond_ V7.3.7.3	NA	NA	NA

- Notes: 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

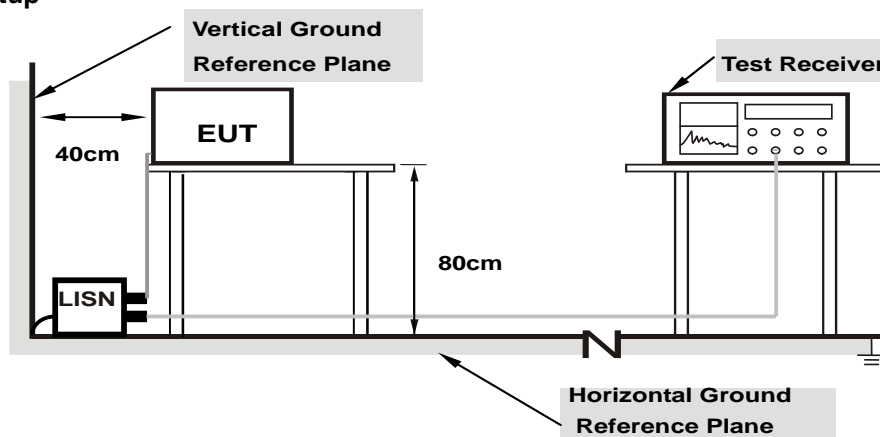
- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance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

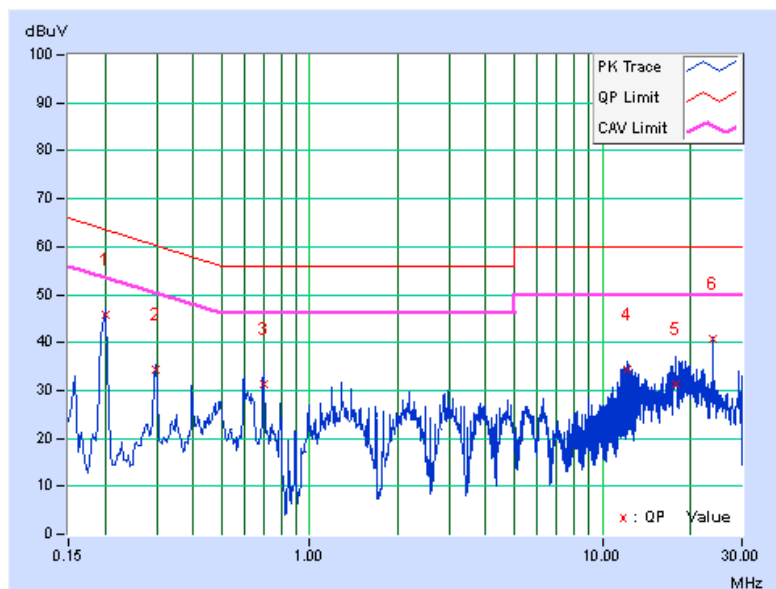
4.2.7 Test Results

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

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
			1	0.20084	0.06	45.68	38.46	45.74	38.52	63.58
2	0.29858	0.06	34.33	31.18	34.39	31.24	60.28	50.28	-25.89	-19.04
3	0.69349	0.07	31.14	26.69	31.21	26.76	56.00	46.00	-24.79	-19.24
4	12.09896	0.54	33.64	29.93	34.18	30.47	60.00	50.00	-25.82	-19.53
5	17.74500	0.80	30.49	21.85	31.29	22.65	60.00	50.00	-28.71	-27.35
6	23.85242	1.01	39.86	39.79	40.87	40.80	60.00	50.00	-19.13	-9.20

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.

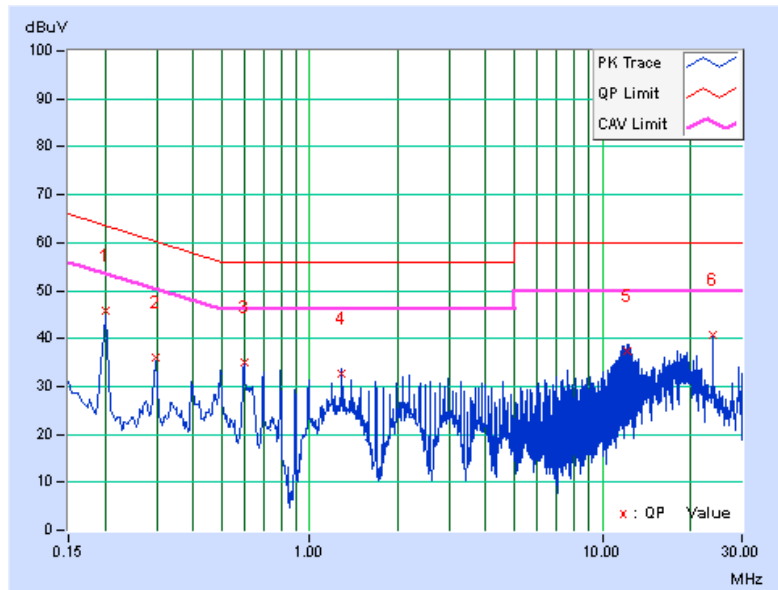


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
-------	-------------	-------------------	--------------------------------

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
			1	0.20084	0.05	45.59	39.34	45.64	39.39	63.58
2	0.29858	0.05	35.84	32.44	35.89	32.49	60.28	50.28	-24.39	-17.79
3	0.59574	0.07	34.94	29.50	35.01	29.57	56.00	46.00	-20.99	-16.43
4	1.28781	0.09	32.42	27.57	32.51	27.66	56.00	46.00	-23.49	-18.34
5	12.10287	0.49	36.75	31.79	37.24	32.28	60.00	50.00	-22.76	-17.72
6	23.85242	0.78	39.89	39.75	40.67	40.53	60.00	50.00	-19.33	-9.47

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 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 $N_{ANT} \leq 4$;

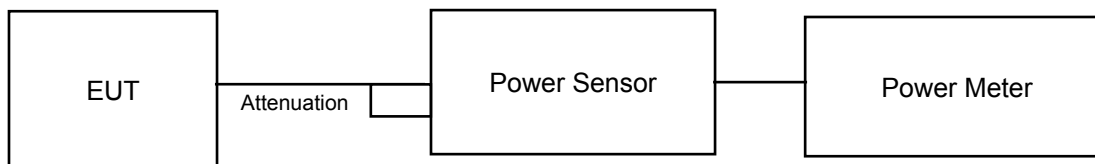
Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT} ;

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

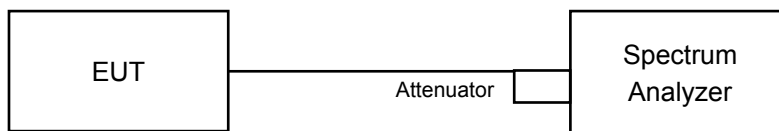
For power measurements on all other devices: Array Gain = $10 \log(N_{ANT}/N_{SS})$ dB.

4.3.2 Test Setup

For Power Output Measurement



For 26dB and Occupied Bandwidth



4.3.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.3.4 Test Procedure

For Average Power Measurement

For 802.11a, 802.11n (HT20), 802.11n (HT40)

789033 D02 General UNII Test Procedures New Rules v01 E/3/b

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)

789033 D02 General UNII Test Procedure New Rules v01 E/2/f

- 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. 4Set VBW \geq 3 MHz
- e. Number of points in sweep \geq 2 Span / RBW.
- f. Sweep time \leq (number of points in sweep) * T
- g. Using emission bandwidth to determine the frequency span for integration the channel bandwidth.
- h. Detector = RMS.
- i. Trace mode = max hold.
- j. Allow max hold to run for at least 60 seconds, or longer as needed to allow the trace to stabilize.

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

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
36	5180	21.48	21.61	285.482	24.56	30	Pass
40	5200	21.62	21.73	294.147	24.69	30	Pass
48	5240	26.28	26.20	841.489	29.25	30	Pass
52	5260	20.86	20.98	247.213	23.93	24	Pass
60	5300	20.88	20.98	247.776	23.94	24	Pass
64	5320	20.68	21.26	250.610	23.99	24	Pass
100	5500	20.77	21.14	249.416	23.97	24	Pass
116	5580	20.84	21.06	248.983	23.96	24	Pass
140	5700	20.52	20.91	236.030	23.73	24	Pass
149	5745	22.06	22.77	349.928	25.44	30	Pass
157	5785	23.96	24.41	524.944	27.20	30	Pass
165	5825	24.09	24.94	568.337	27.55	30	Pass

Note:

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

Chain 0

1. $11\text{dBm} + 10\log (20.67) = 24.15 > 24\text{dBm}$
2. $11\text{dBm} + 10\log (20.52) = 24.12 > 24\text{dBm}$
3. $11\text{dBm} + 10\log (20.60) = 24.14 > 24\text{dBm}$
4. $11\text{dBm} + 10\log (20.64) = 24.15 > 24\text{dBm}$
5. $11\text{dBm} + 10\log (20.56) = 24.13 > 24\text{dBm}$
6. $11\text{dBm} + 10\log (20.68) = 24.16 > 24\text{dBm}$

Chain 1

1. $11\text{dBm} + 10\log (20.63) = 24.14 > 24\text{dBm}$
2. $11\text{dBm} + 10\log (20.63) = 24.14 > 24\text{dBm}$
3. $11\text{dBm} + 10\log (20.48) = 24.11 > 24\text{dBm}$
4. $11\text{dBm} + 10\log (20.60) = 24.14 > 24\text{dBm}$
5. $11\text{dBm} + 10\log (20.51) = 24.12 > 24\text{dBm}$
6. $11\text{dBm} + 10\log (20.63) = 24.14 > 24\text{dBm}$

802.11n (HT20)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
36	5180	21.95	22.09	318.483	25.03	30	Pass
40	5200	22.14	22.24	331.176	25.20	30	Pass
48	5240	26.20	26.10	824.249	29.16	30	Pass
52	5260	20.81	20.92	244.099	23.88	24	Pass
60	5300	20.82	20.92	244.376	23.88	24	Pass
64	5320	20.74	21.12	247.997	23.94	24	Pass
100	5500	20.57	21.30	248.921	23.96	24	Pass
116	5580	20.87	20.97	247.206	23.93	24	Pass
140	5700	20.79	20.98	245.264	23.90	24	Pass
149	5745	20.75	21.08	247.083	23.93	30	Pass
157	5785	23.28	23.62	442.958	26.46	30	Pass
165	5825	22.97	23.40	416.929	26.20	30	Pass

Note:

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

Chain 0

1. $11\text{dBm} + 10\log (20.94) = 24.21 > 24\text{dBm}$
2. $11\text{dBm} + 10\log (21.01) = 24.22 > 24\text{dBm}$
3. $11\text{dBm} + 10\log (20.99) = 24.22 > 24\text{dBm}$
4. $11\text{dBm} + 10\log (21.07) = 24.24 > 24\text{dBm}$
5. $11\text{dBm} + 10\log (21.04) = 24.23 > 24\text{dBm}$
6. $11\text{dBm} + 10\log (21.53) = 24.33 > 24\text{dBm}$

Chain 1

1. $11\text{dBm} + 10\log (20.69) = 24.16 > 24\text{dBm}$
2. $11\text{dBm} + 10\log (20.78) = 24.18 > 24\text{dBm}$
3. $11\text{dBm} + 10\log (20.56) = 24.13 > 24\text{dBm}$
4. $11\text{dBm} + 10\log (20.61) = 24.14 > 24\text{dBm}$
5. $11\text{dBm} + 10\log (20.76) = 24.17 > 24\text{dBm}$
6. $11\text{dBm} + 10\log (20.58) = 24.13 > 24\text{dBm}$

802.11n (HT40)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
38	5190	18.16	18.20	131.533	21.19	30	Pass
46	5230	24.58	24.63	577.480	27.62	30	Pass
54	5270	20.73	20.84	239.643	23.80	24	Pass
62	5310	20.88	21.02	248.936	23.96	24	Pass
102	5510	19.34	19.71	179.442	22.54	24	Pass
110	5550	20.67	20.83	237.741	23.76	24	Pass
134	5670	20.32	20.70	225.137	23.52	24	Pass
151	5755	17.69	18.06	122.722	20.89	30	Pass
159	5795	21.71	22.17	313.068	24.96	30	Pass

Note:

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

Chain 0

1. $11\text{dBm} + 10\log (41.20) = 27.15 > 24\text{dBm}$
2. $11\text{dBm} + 10\log (41.35) = 27.16 > 24\text{dBm}$
3. $11\text{dBm} + 10\log (41.38) = 27.17 > 24\text{dBm}$
4. $11\text{dBm} + 10\log (46.42) = 27.67 > 24\text{dBm}$
5. $11\text{dBm} + 10\log (49.23) = 27.92 > 24\text{dBm}$

Chain 1

1. $11\text{dBm} + 10\log (40.94) = 27.12 > 24\text{dBm}$
2. $11\text{dBm} + 10\log (40.72) = 27.10 > 24\text{dBm}$
3. $11\text{dBm} + 10\log (40.73) = 27.10 > 24\text{dBm}$
4. $11\text{dBm} + 10\log (40.80) = 27.11 > 24\text{dBm}$
5. $11\text{dBm} + 10\log (40.73) = 27.10 > 24\text{dBm}$

802.11ac (VHT80)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
42	5210	17.43	17.72	114.491	20.59	30	Pass
58	5290	20.85	21.09	250.148	23.98	24	Pass
106	5530	19.08	19.32	166.417	22.21	24	Pass
155	5775	16.46	16.89	93.124	19.69	30	Pass

Note:

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

Chain 0

1. $11\text{dBm} + 10\log (82.72) = 30.18 > 24\text{dBm}$
2. $11\text{dBm} + 10\log (83.39) = 30.21 > 24\text{dBm}$

Chain 1

1. $11\text{dBm} + 10\log (82.41) = 30.16 > 24\text{dBm}$
2. $11\text{dBm} + 10\log (82.81) = 30.18 > 24\text{dBm}$

26dB Bandwidth:
802.11a

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
36	5180	20.56	20.69	Pass
40	5200	20.58	20.67	Pass
48	5240	33.09	33.10	Pass
52	5260	20.67	20.63	Pass
60	5300	20.52	20.63	Pass
64	5320	20.60	20.48	Pass
100	5500	20.64	20.60	Pass
116	5580	20.56	20.51	Pass
140	5700	20.68	20.63	Pass

802.11n (HT20)

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
36	5180	20.96	20.48	Pass
40	5200	20.91	20.60	Pass
48	5240	39.63	35.49	Pass
52	5260	20.94	20.69	Pass
60	5300	21.01	20.78	Pass
64	5320	20.99	20.56	Pass
100	5500	21.07	20.61	Pass
116	5580	21.04	20.76	Pass
140	5700	21.53	20.58	Pass

802.11n (HT40)

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
38	5190	41.21	40.92	Pass
46	5230	62.51	59.40	Pass
54	5270	41.20	40.94	Pass
62	5310	41.35	40.72	Pass
102	5510	41.38	40.73	Pass
110	5550	46.42	40.80	Pass
134	5670	49.23	40.73	Pass

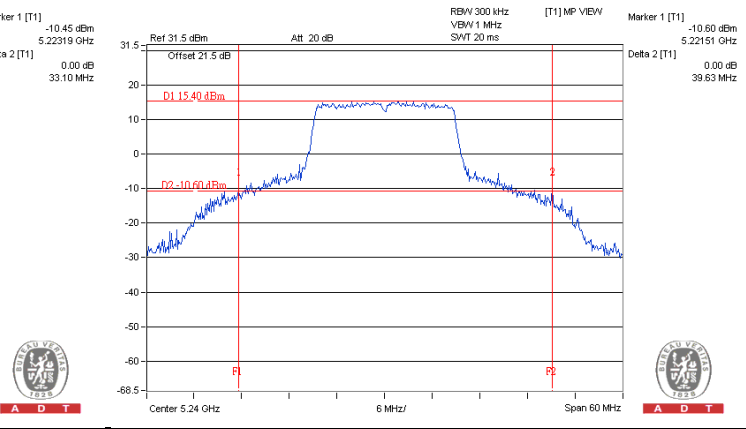
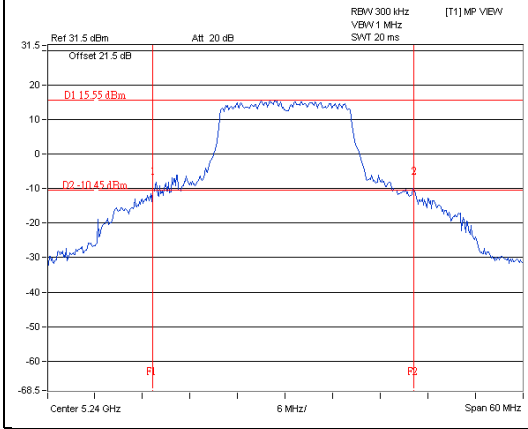
802.11ac (VHT80)

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
42	5210	83.13	82.62	Pass
58	5290	82.72	82.41	Pass
106	5530	83.39	82.81	Pass

Spectrum Plot of Worst Value

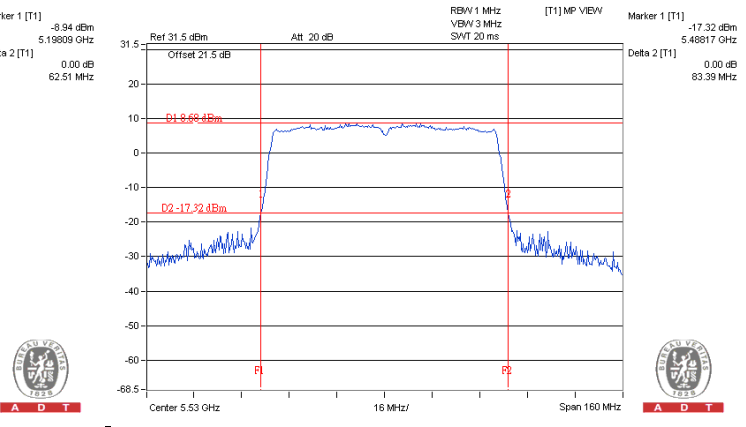
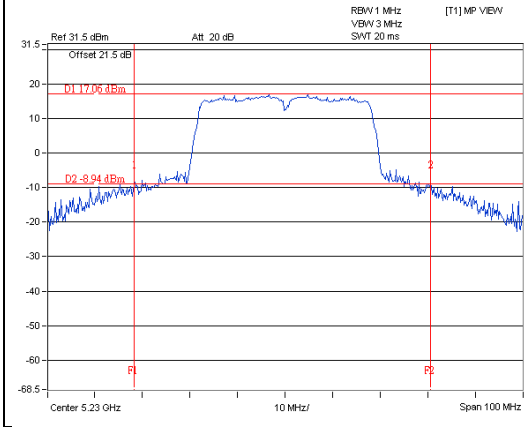
802.11a

802.11n (HT20)



802.11n (HT40)

802.11ac (VHT80)



Occupied Bandwidth:
802.11a

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
36	5180	16.92	16.80
40	5200	16.92	16.80
48	5240	17.64	17.40
52	5260	16.92	16.92
60	5300	16.92	16.92
64	5320	16.92	16.92
100	5500	17.04	16.80
116	5580	16.92	16.92
140	5700	17.04	16.92
149	5745	17.13	17.13
157	5785	17.88	17.88
165	5825	17.88	18.12

802.11n (HT20)

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
36	5180	18.00	17.76
40	5200	18.00	17.88
48	5240	18.60	18.24
52	5260	18.00	17.76
60	5300	18.00	17.76
64	5320	18.00	17.76
100	5500	18.00	17.88
116	5580	18.00	17.88
140	5700	18.00	17.88
149	5745	18.00	18.00
157	5785	18.24	18.24
165	5825	18.24	18.12

802.11n (HT40)

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
38	5190	36.60	36.60
46	5230	36.84	36.84
54	5270	36.72	36.72
62	5310	36.72	36.72
102	5510	36.60	36.72
110	5550	36.60	36.72
134	5670	36.72	36.60
151	5755	36.60	36.72
159	5795	36.84	36.72

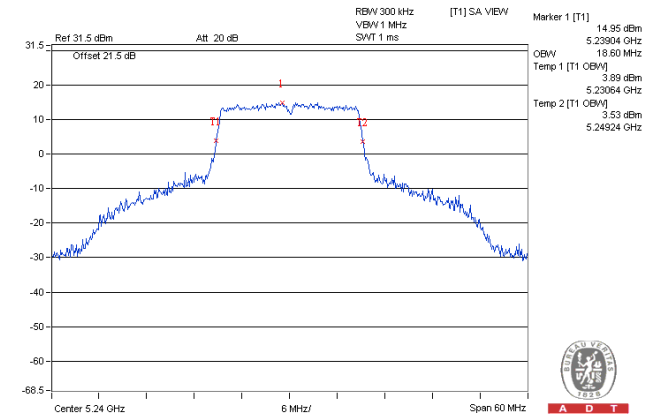
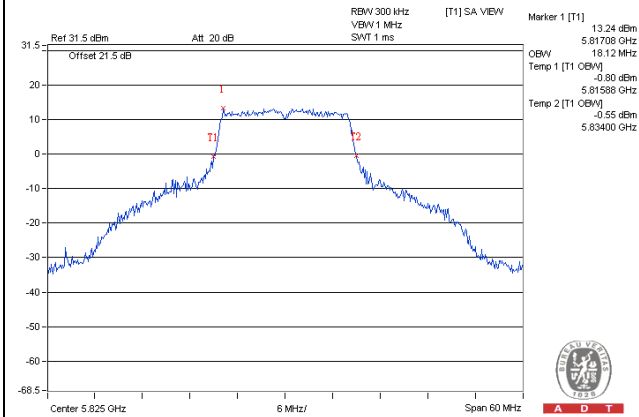
802.11ac (VHT80)

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
42	5210	75.84	76.08
58	5290	75.84	75.84
106	5530	75.84	75.84
155	5775	75.84	75.84

Spectrum Plot of Worst Value

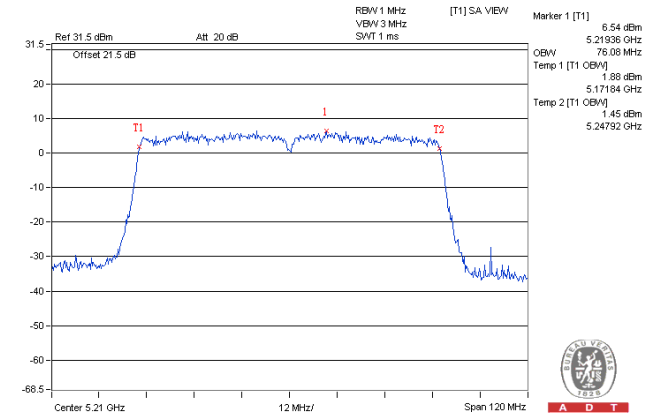
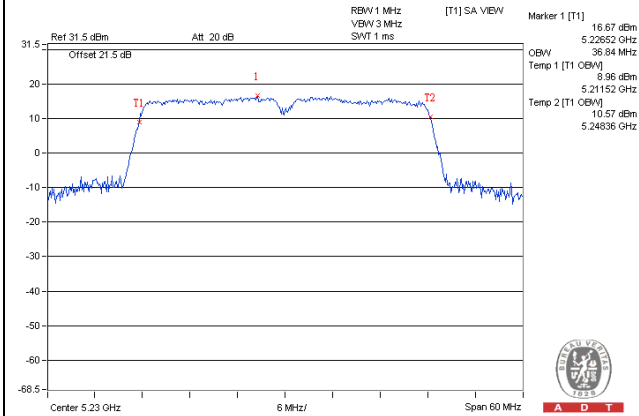
802.11a

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	250.610	23.99
5470~5725	249.416	23.97

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	247.997	23.94
5470~5725	248.921	23.96

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	248.936	23.96
5470~5725	237.741	23.76

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	250.148	23.98
5470~5725	166.417	22.21

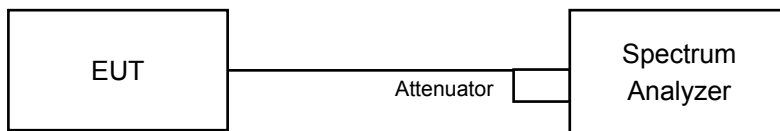
Note: Manufacturer provides Transmit Power Control description to meet this requirement.

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

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

789033 D02 General UNII Test Procedures New Rules v01 E/2/b

For duty cycle $\geq 98\%$

Using method SA-1

- Set span to encompass the entire emission bandwidth (EBW) of the signal.
- Set RBW = 1 MHz, Set VBW ≥ 3 MHz, Detector = RMS
- Sweep time = auto, trigger set to "free run".
- Trace average at least 100 traces in power averaging mode.
- Record the max value

Using method SA-2

For Duty cycle $< 98\%$

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

For U-NII-3 band:

789033 D02 General UNII Test Procedures New Rules v01 F/5

For duty cycle $\geq 98\%$

- a. Set span to encompass the entire emission bandwidth (EBW) of the signal.
- b. Set RBW = 300 kHz, Set VBW ≥ 1 MHz, Detector = RMS
- c. Use the peak marker function to determine the maximum power level in any 300 kHz band segment within the fundamental EBW.
- d. Scale the observed power level to an equivalent value in 500 kHz by adjusting (reducing) the measured power by a bandwidth correction factor (BWCF) where $BWCF = 10\log(500 \text{ kHz}/300\text{kHz})$
- e. Sweep time = auto, trigger set to "free run".
- f. Trace average at least 100 traces in power averaging mode.
- g. Record the max value

For Duty cycle $< 98\%$

- a. Set span to encompass the entire emission bandwidth (EBW) of the signal.
- b. Set RBW = 300 kHz, Set VBW ≥ 1 MHz, Detector = RMS
- c. Use the peak marker function to determine the maximum power level in any 300 kHz band segment within the fundamental EBW.
- d. Scale the observed power level to an equivalent value in 500 kHz by adjusting (reducing) the measured power by a bandwidth correction factor (BWCF) where $BWCF = 10\log(500 \text{ kHz}/300\text{kHz})$
- e. Sweep time = auto, trigger set to "free run".
- f. Trace average at least 100 traces in power averaging mode.
- g. Record the max value and add $10 \log (1/\text{duty cycle})$

4.4.5 Deviation from Test Standard

No deviation.

4.4.6 EUT Operating Conditions

Same as Item 4.3.6.

4.4.7 Test Results

For U-NII-1, U-NII-2A, U-NII-2C Band

802.11a

Chan.	Freq. (MHz)	PSD (dBm)		Total PSD (dBm)	Max. Limit (dBm)	Pass / Fail
		Chain 0	Chain 1			
36	5180	7.04	6.58	9.83	17	Pass
40	5200	6.79	6.63	9.72	17	Pass
48	5240	11.28	11.27	14.29	17	Pass
52	5260	6.17	6.15	9.17	11	Pass
60	5300	6.35	5.88	9.13	11	Pass
64	5320	6.40	5.75	9.10	11	Pass
100	5500	6.88	6.22	9.57	11	Pass
116	5580	6.25	6.39	9.33	11	Pass
140	5700	5.37	5.65	8.52	11	Pass

Note:

- 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.
- Directional gain = $2\text{dBi} + 10\log(2) = 5.01\text{dBi} < 6\text{dBi}$, so the power density limit no need to reduce.

802.11n (HT20)

Chan.	Freq. (MHz)	PSD (dBm)		Total PSD (dBm)	Max. Limit (dBm)	Pass / Fail
		Chain 0	Chain 1			
36	5180	7.17	6.63	9.92	17	Pass
40	5200	7.30	6.63	9.99	17	Pass
48	5240	11.16	10.74	13.97	17	Pass
52	5260	5.93	5.60	8.78	11	Pass
60	5300	5.97	5.56	8.78	11	Pass
64	5320	6.02	5.46	8.76	11	Pass
100	5500	6.58	5.67	9.16	11	Pass
116	5580	5.92	5.85	8.90	11	Pass
140	5700	5.24	5.14	8.20	11	Pass

Note:

- 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.
- Directional gain = $2\text{dBi} + 10\log(2) = 5.01\text{dBi} < 6\text{dBi}$, so the power density limit no need to reduce.

802.11n (HT40)

Chan.	Freq. (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					
38	5190	0.19	-0.11	3.05	0.22	3.27	17	Pass
46	5230	6.69	6.18	9.45	0.22	9.67	17	Pass
54	5270	2.75	2.48	5.63	0.22	5.85	11	Pass
62	5310	2.87	2.29	5.60	0.22	5.82	11	Pass
102	5510	1.81	0.99	4.43	0.22	4.65	11	Pass
110	5550	2.66	2.57	5.62	0.22	5.84	11	Pass
134	5670	1.83	2.12	4.99	0.22	5.21	11	Pass

Note:

- 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.
- Directional gain = $2\text{dBi} + 10\log(2) = 5.01\text{dBi} < 6\text{dBi}$, so the power density limit no need to reduce.
- Refer to section 3.3 for duty cycle spectrum plot.

802.11ac (VHT80)

Chan.	Freq. (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					
42	5210	-3.72	-4.41	-1.04	0.34	-0.70	17	Pass
58	5290	-0.37	-0.84	2.41	0.34	2.75	11	Pass
106	5530	-2.02	-2.49	0.76	0.34	1.10	11	Pass

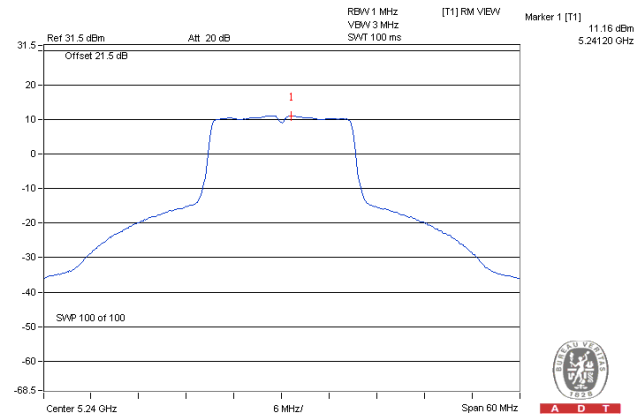
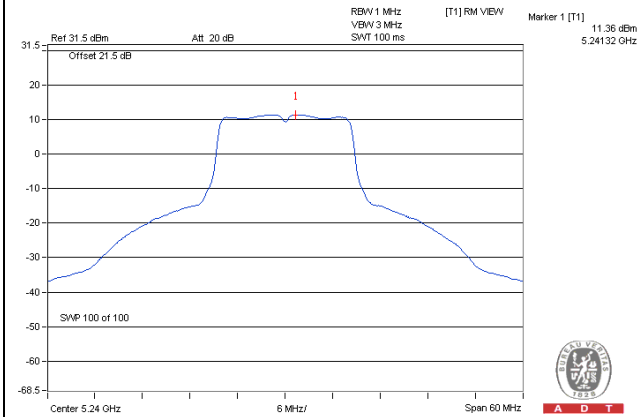
Note:

- 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.
- Directional gain = $2\text{dBi} + 10\log(2) = 5.01\text{dBi} < 6\text{dBi}$, so the power density limit no need to reduce.
- Refer to section 3.3 for duty cycle spectrum plot.

Spectrum Plot of Worst Value

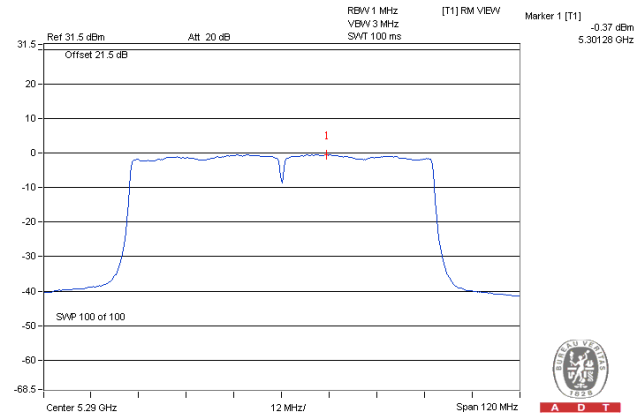
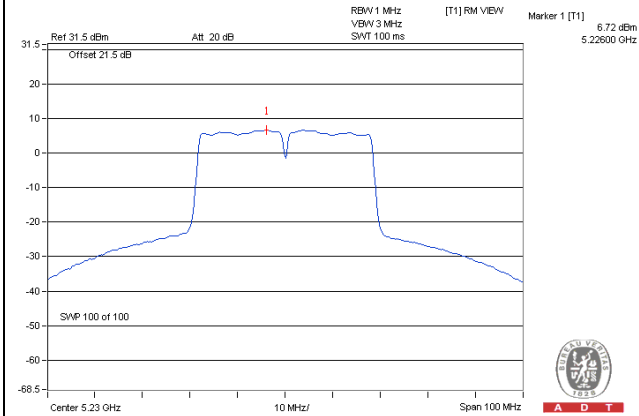
802.11a / Chain 0 / CH 48

802.11n (HT20) / Chain 0 / CH 48



802.11n (HT40) / Chain 0 / CH 46

802.11ac (VHT80) / Chain 0 / CH 58



For U-NII-3 Band

802.11a

TX chain	Chan.	Freq. (MHz)	PSD (dBm/300 kHz)	PSD (dBm/500 kHz)	10 log (N=2) dB	Total PSD (dBm/500 kHz)	Limit (dBm/500 kHz)	Pass / Fail
0	149	5745	-1.18	1.04	3.01	4.05	30	Pass
	157	5785	0.64	2.86	3.01	5.87	30	Pass
	165	5825	1.23	3.45	3.01	6.46	30	Pass
1	149	5745	-1.31	0.91	3.01	3.92	30	Pass
	157	5785	0.80	3.02	3.01	6.03	30	Pass
	165	5825	1.30	3.52	3.01	6.53	30	Pass

Note:

1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 2dBi + 10log(2) = 5.01dBi < 6dBi , so the power density limit no need to reduce.

802.11n (HT20)

TX chain	Chan.	Freq. (MHz)	PSD (dBm/300 kHz)	PSD (dBm/500 kHz)	10 log (N=2) dB	Total PSD (dBm/500 kHz)	Limit (dBm/500 kHz)	Pass / Fail
0	149	5745	-3.17	-0.95	3.01	2.06	30	Pass
	157	5785	-0.40	1.82	3.01	4.83	30	Pass
	165	5825	-0.39	1.83	3.01	4.84	30	Pass
1	149	5745	-3.08	-0.86	3.01	2.15	30	Pass
	157	5785	-0.54	1.68	3.01	4.69	30	Pass
	165	5825	-0.35	1.87	3.01	4.88	30	Pass

Note:

1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 2dBi + 10log(2) = 5.01dBi < 6dBi , so the power density limit no need to reduce.

802.11n (HT40)

TX chain	Chan.	Freq. (MHz)	PSD (dBm/300 kHz)	PSD (dBm/500 kHz)	10 log (N=2) dB	Duty factor	Total PSD (dBm/500 kHz)	Limit (dBm/500 kHz)	Pass / Fail
0	151	5755	-9.40	-7.18	3.01	0.22	-3.95	30	Pass
	159	5795	-5.15	-2.93	3.01	0.22	0.30	30	Pass
1	151	5755	-9.45	-7.23	3.01	0.22	-4.00	30	Pass
	159	5795	-5.09	-2.87	3.01	0.22	0.36	30	Pass

Note:

1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 2dBi + 10log(2) = 5.01dBi < 6dBi , so the power density limit no need to reduce.
3. Refer to section 3.3 for duty cycle spectrum plot.

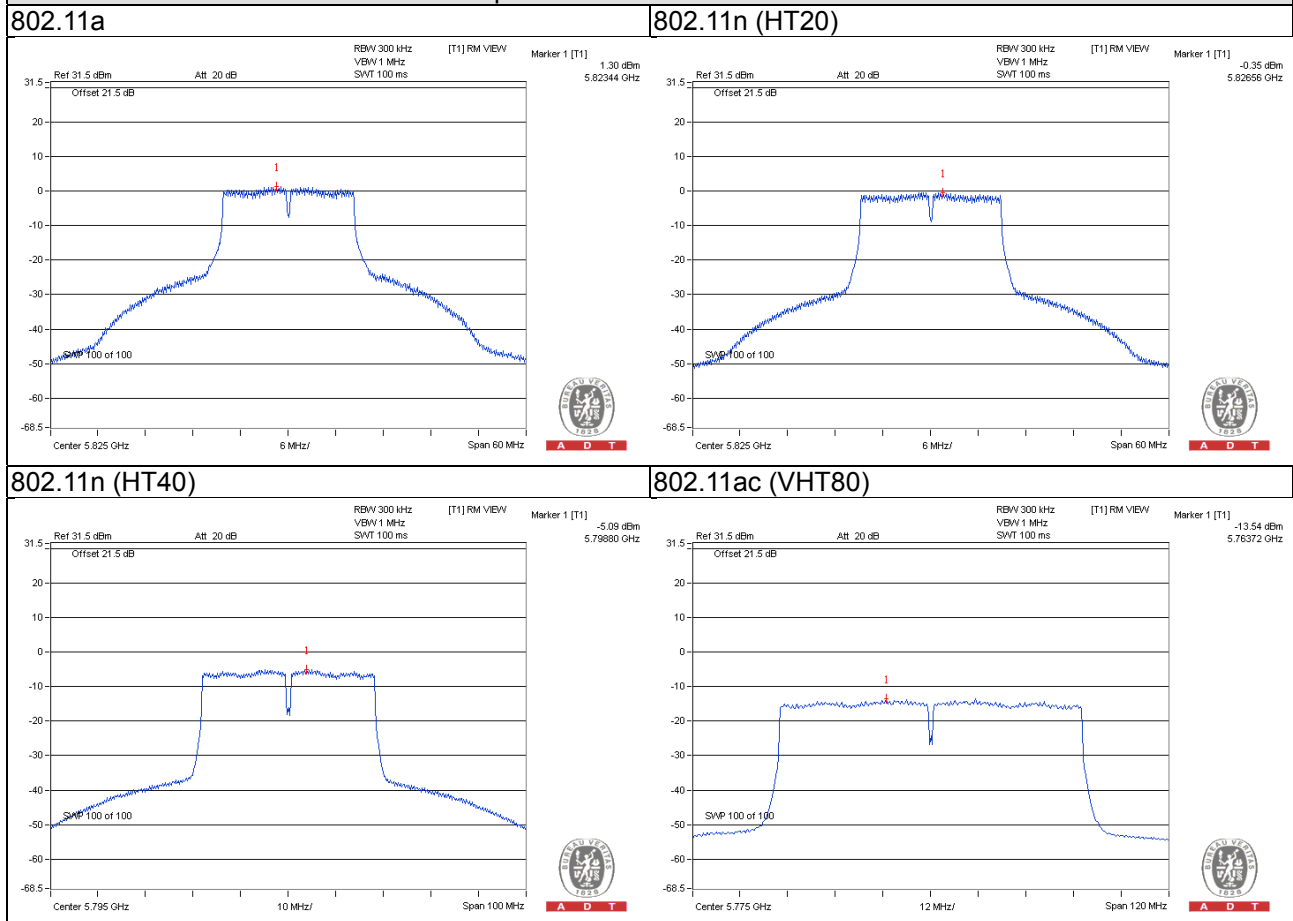
802.11ac (VHT80)

TX chain	Chan.	Freq. (MHz)	PSD (dBm/300 kHz)	PSD (dBm/500 kHz)	10 log (N=2) dB	Duty factor	Total PSD (dBm/500 kHz)	Limit (dBm/500 kHz)	Pass / Fail
0	155	5775	-13.54	-11.32	3.01	0.34	-7.97	30	Pass
1	155	5775	-13.59	-11.37	3.01	0.34	-8.02	30	Pass

Note:

1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 2dBi + 10log(2) = 5.01dBi < 6dBi , so the power density limit no need to reduce.
3. Refer to section 3.3 for duty cycle spectrum plot.

Spectrum Plot of Worst Value

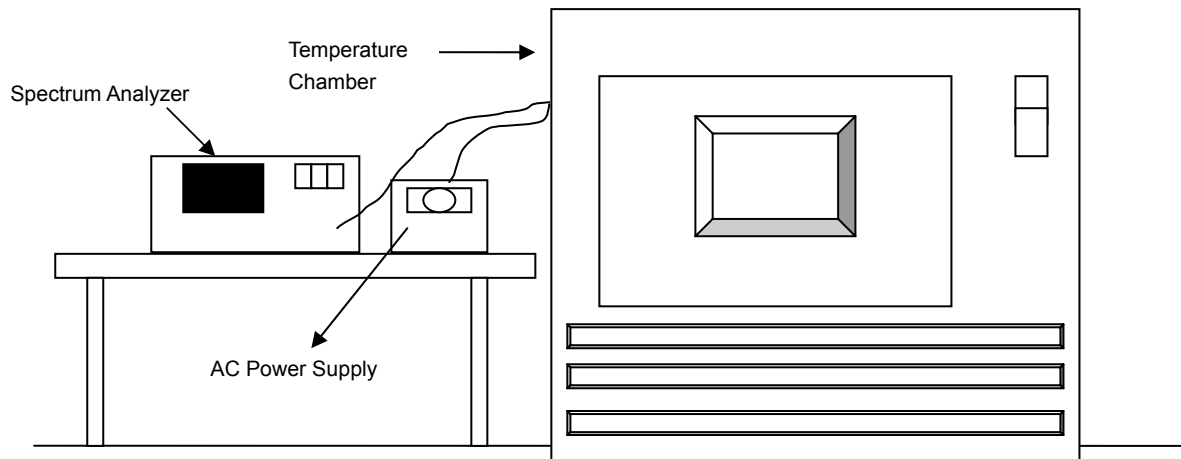


4.5 Frequency Stability

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

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

4.5.5 Deviation from Test Standard

No deviation.

4.5.6 EUT Operating Condition

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

4.5.7 Test Results

Frequency Stability Versus Temp.									
Operating Frequency: 5180MHz									
Temp. (°C)	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	5180.0213	0.00041	5180.0206	0.00040	5180.0179	0.00035	5180.0185	0.00036
40	120	5179.9754	-0.00047	5179.9784	-0.00042	5179.9784	-0.00042	5179.977	-0.00044
30	120	5179.9828	-0.00033	5179.9844	-0.00030	5179.9847	-0.00030	5179.9852	-0.00029
20	120	5179.9794	-0.00040	5179.9806	-0.00037	5179.9788	-0.00041	5179.9804	-0.00038
10	120	5180.0089	0.00017	5180.0101	0.00019	5180.0096	0.00019	5180.0106	0.00020
0	120	5179.9809	-0.00037	5179.9802	-0.00038	5179.9829	-0.00033	5179.9828	-0.00033
-10	120	5179.9847	-0.00030	5179.985	-0.00029	5179.9861	-0.00027	5179.9882	-0.00023
-20	120	5179.9753	-0.00048	5179.9718	-0.00054	5179.9723	-0.00053	5179.9721	-0.00054
-30	120	5179.9775	-0.00043	5179.9804	-0.00038	5179.9799	-0.00039	5179.9762	-0.00046

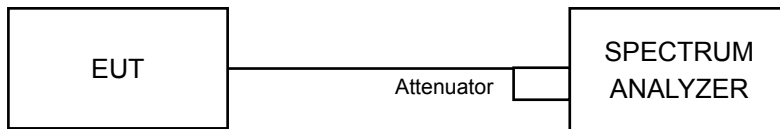
Frequency Stability Versus Temp.									
Operating Frequency: 5180MHz									
Temp. (°C)	Power Supply (Vac)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)
20	138	5179.9786	-0.00041	5179.9803	-0.00038	5179.9793	-0.00040	5179.9801	-0.00038
	120	5179.9794	-0.00040	5179.9806	-0.00037	5179.9788	-0.00041	5179.9804	-0.00038
	102	5179.9793	-0.00040	5179.9809	-0.00037	5179.9797	-0.00039	5179.9808	-0.00037

4.6 6dB Bandwidth Measurement

4.6.1 Limits of 6dB Bandwidth Measurement

The minimum of 6dB Bandwidth Measurement is 0.5MHz.

4.6.2 Test Setup



4.6.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.6.4 Test Procedure

789033 D02 General UNII Test Procedures New Rules v01 (C)

MEASUREMENT PROCEDURE REF

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

4.6.5 Deviation from Test Standard

No deviation.

4.6.6 EUT Operating Condition

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

4.6.7 Test Results

802.11a

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
149	5745	16.41	16.42	0.5	Pass
157	5785	16.43	16.44	0.5	Pass
165	5825	16.43	16.44	0.5	Pass

802.11n (HT20)

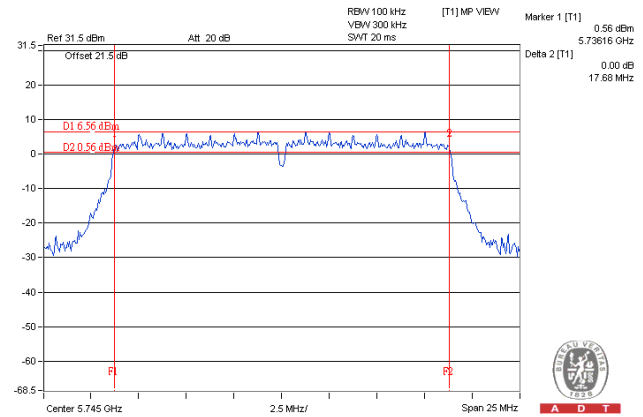
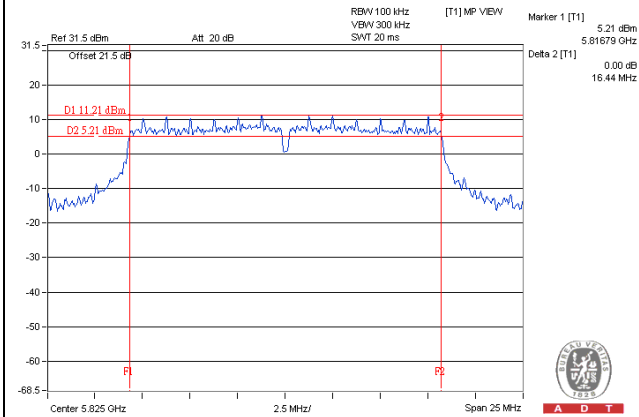
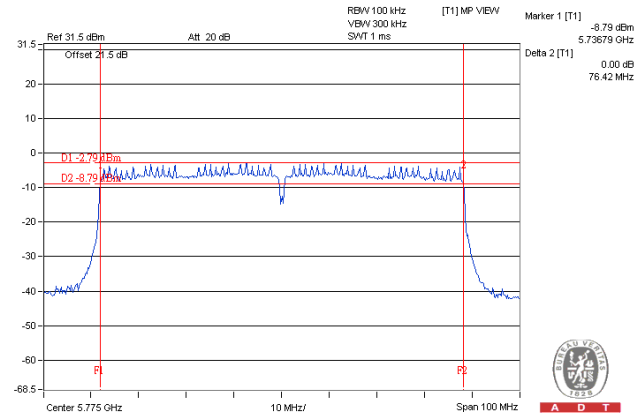
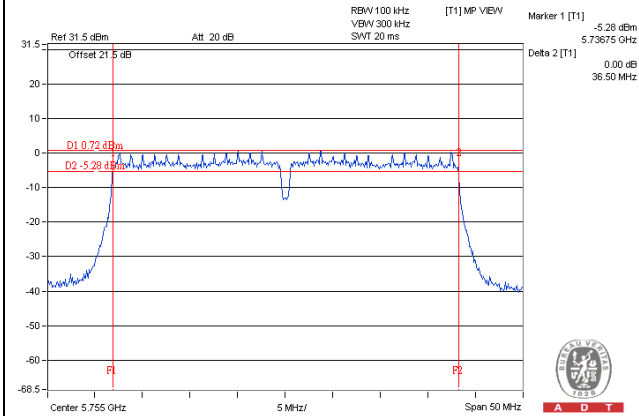
Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
149	5745	17.68	17.68	0.5	Pass
157	5785	17.66	17.65	0.5	Pass
165	5825	17.67	17.67	0.5	Pass

802.11n (HT40)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
151	5755	36.49	36.50	0.5	Pass
159	5795	36.48	36.48	0.5	Pass

802.11ac (VHT80)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
155	5775	76.42	76.35	0.5	Pass

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

5 Pictures of Test Arrangements

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



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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