FCC TEST REPORT
(15.407)

REPORT NO.:	RF140922C14A
MODEL NO.:	MX64W-HW
FCC ID:	UDX-60032015
RECEIVED:	Sep. 22, 2014
TESTED:	Oct. 07, 2014 ~ Jan. 07, 2015
ISSUED:	Jan. 07, 2015

APPLICANT:	Cisco Systems, Inc.
ADDRESS:	170 West Tasman Drive, San Jose, CA 95134

ISSUED BY:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
LAB ADDRESS:	No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan, R.O.C.
TEST LOCATION:	No. 19, Hwa Ya 2nd Rd, Wen Hwa Tsuen, Kwei Shan Hsiang, Taoyuan Hsien 333, Taiwan, R.O.C.

This report should not be used by the client to claim product certification, approval, or endorsement by TAF or any government agencies.

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RELEASE CONTROL RECORD

ISSUE NO.	REASON FOR CHANGE	DATE ISSUED
RF140922C14A	Original release.	Jan. 07, 2015

1. CERTIFICATION

PRODUCT:	Wireless 802.11abgn/ac Router
MODEL:	MX64W-HW
BRAND:	Cisco
APPLICANT:	Cisco Systems, Inc.
TESTED:	Oct. 07, 2014 ~ Jan. 07, 2015
TEST SAMPLE:	ENGINEERING SAMPLE
STANDARDS:	**FCC Part 15, Subpart E (Section 15.407)**

The above equipment (model: MX64W-HW) has been tested by **Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch,** and found compliance with the requirement of the above standards. The test record, data evaluation & Equipment Under Test (EUT) configurations represented herein are true and accurate accounts of the measurements of the sample's EMC characteristics under the conditions specified in this report.

PREPARED BY : _____ **, DATE :** Jan. 07, 2015

Pettie Chen / Senior Specialist

APPROVED BY : _____ **, DATE :** Jan. 07, 2015

Ken Liu / Senior Manager

2. SUMMARY OF TEST RESULTS

The EUT has been tested according to the following specifications:

APPLIED STANDARD: FCC PART 15, SUBPART E (SECTION 15.407)			
STANDARD SECTION	**TEST TYPE**	**RESULT**	**REMARK**
15.407(b)(6)	AC Power Conducted Emissions	PASS	Meet the requirement of limit. Minimum passing margin is -11.40dB at 0.18903MHz.
15.407(b) (1/2/3/4/6)	Radiated Emissions & Band Edge Measurement	PASS	Meet the requirement of limit. Minimum passing margin is -1.0dB at 5350.00, 5380.00, 5400.00, 5435.00, 5460.00, 5470.00, 5480.00, 5725.00MHz.
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(g)	Frequency Stability	PASS	Meet the requirement of limit.
15.203	Antenna Requirement	PASS	Antenna connector is RSMA 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	UNCERTAINTY
Conducted emissions	9kHz~30MHz	2.44 dB
Radiated emissions	30MHz ~ 200MHz	3.63 dB
	200MHz ~1000MHz	3.64 dB
	1GHz ~ 18GHz	2.29 dB
	18GHz ~ 40GHz	2.29 dB

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k = 2.

3. GENERAL INFORMATION

3.1 GENERAL DESCRIPTION OF EUT

EUT	Wireless 802.11abgn/ac Router
MODEL NO.	MX64W-HW
POWER SUPPLY	12Vdc (adapter)
MODULATION TYPE	256QAM, 64QAM, 16QAM, QPSK, BPSK
MODULATION TECHNOLOGY	OFDM
TRANSFER RATE	802.11a: 54.0/ 48.0/ 36.0/ 24.0/ 18.0/ 12.0/ 9.0/ 6.0Mbps 802.11n: up to 300.0Mbps 802.11ac: up to 866.6Mbps
OPERATING FREQUENCY	5260 ~ 5320MHz, 5500 ~ 5700MHz
NUMBER OF CHANNEL	5260 ~ 5320MHz: 4 for 802.11a, 802.11n (HT20), 802.11ac (VHT20) 2 for 802.11n (HT40), 802.11ac (VHT40) 1 for 802.11ac (VHT80) 5500 ~ 5700MHz: 8 for 802.11a, 802.11n (HT20), 802.11ac (VHT20) 3 for 802.11n (HT40), 802.11ac (VHT40) 1 for 802.11ac (VHT80)
OUTPUT POWER	For 5260 ~ 5320MHz: 1TX: 187.068 mW 2TX: 250.210 mW For 5500 ~ 5700MHz: 1TX: 200.909 mW 2TX: 200.966 mW
ANTENNA TYPE	Refer to note
ANTENNA CONNECTOR	Refer to note
DATA CABLE	NA
I/O PORTS	Refer to user's manual
ACCESSORY DEVICES	Adapter

NOTE:

1. This report is prepared for FCC class II permissive change. This report is issued as a supplementary report of BV ADT report no.: RF140922C14-1. Difference compared with the original report is adding 5260~5320MHz and 5500~5700MHz band. Therefore, the EUT was re-tested and presented in the test report.

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

MODULATION MODE	TX FUNCTION
802.11a	1TX/2TX
802.11b	1TX/2TX
802.11g	1TX/2TX
802.11n (20MHz)	1TX/2TX
802.11n (40MHz) (For 5.0GHz Band only)	1TX/2TX
802.11ac (20MHz)	1TX/2TX
802.11ac (40MHz)	1TX/2TX
802.11ac (80MHz)	1TX/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. The EUT consumes power from the following adapters.

Adapter 1	
Brand	DELTA Electronics, INC.
Model	EADP-30HB B
Input Power	100-240Vac, 1A, 50-60Hz
Output Power	12Vdc, 2.5A
Power Line	1.8m DC cable with 1 core

Adapter 2	
Brand	Powertron Electronics Corp.
Model	PA1024-120T1A200 PA10247-2T1
Input Power	100-240Vac, 50-60Hz, 0.6A
Output Power	12Vdc, 2.0A, 24W Max
Power Line	1.55m DC cable with 1 core

*Adapter 1 was the worst for the final report.

4. The following antennas were provided to the EUT.

Antenna Type	Dipole antenna									
Antenna Connector	RSMA									
Ant. Gain(dBi)	**Frequency (MHz)**									
	2.4GHz Band	**4900**	**5050**	**5150**	**5250**	**5350**	**5450**	**5550**	**5650**	**5750**	**5875**
	3.36	3.51	3.61	3.60	3.36	3.44	3.64	3.03	3.76	3.33	3.07

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

3.2 DESCRIPTION OF TEST MODES

FOR 5260 ~ 5320MHz

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
52	5260 MHz	60	5300 MHz
56	5280 MHz	64	5320 MHz

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
54	5270 MHz	62	5310 MHz

1 channel is provided for 802.11ac (VHT80):

CHANNEL	FREQUENCY
58	5290MHz

FOR 5500 ~ 5700MHz

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

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

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

CHANNEL	FREQUENCY	CHANNEL	FREQUENCY
102	5510 MHz	134	5670 MHz
110	5550 MHz		

1 channel is provided for 802.11ac (VHT80):

CHANNEL	FREQUENCY
106	5530MHz

3.2.1 TEST MODE APPLICABILITY AND TESTED CHANNEL DETAIL

EUT CONFIGURE MODE	APPLICABLE TO				DESCRIPTION
	RE≥1G	RE<1G	PLC	APCM	
-	√	√	√	√	-

Where **RE≥1G:** Radiated Emission above 1GHz **RE<1G:** Radiated Emission below 1GHz
PLC: Power Line Conducted Emission **APCM:** Antenna Port Conducted Measurement

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

RADIATED EMISSION TEST (ABOVE 1GHz):

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

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

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)	TX FUNCTION
-	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	BPSK	6.0	1TX/2TX
	802.11n (HT20)		52 to 64	52, 60, 64	OFDM	BPSK	7.2	1TX/2TX
	802.11n (HT40)		54 to 62	54, 62	OFDM	BPSK	15.0	1TX/2TX
	802.11ac (VHT80)		58	58	OFDM	BPSK	32.5	1TX
			58	58	OFDM	BPSK	65.0	2TX
	802.11a	5500-5700	100 to 140	100, 116, 140	OFDM	BPSK	6.0	1TX/2TX
	802.11n (HT20)		100 to 140	100, 116, 140	OFDM	BPSK	7.2	1TX/2TX
	802.11n (HT40)		102 to 134	102, 110, 134	OFDM	BPSK	15.0	1TX/2TX
	802.11ac (VHT80)		106	106	OFDM	BPSK	32.5	1TX
			106	106	OFDM	BPSK	65.0	2TX

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)	TX FUNCTION
-	802.11n (HT20)	5260-5320, 5500-5700	52 to 64, 100 to 140	52	OFDM	BPSK	7.2	2TX

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)	TX FUNCTION
-	802.11n (HT20)	5260-5320, 5500-5700	52 to 64, 100 to 140	52	OFDM	BPSK	7.2	2TX

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)	TX FUNCTION
-	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	BPSK	6.0	1TX/2TX
	802.11n (HT20)		52 to 64	52, 60, 64	OFDM	BPSK	7.2	1TX/2TX
	802.11n (HT40)		54 to 62	54, 62	OFDM	BPSK	15.0	1TX/2TX
	802.11ac (VHT80)		58	58	OFDM	BPSK	32.5	1TX
			58	58	OFDM	BPSK	65.0	2TX
	802.11a	5500-5700	100 to 140	100, 116, 140	OFDM	BPSK	6.0	1TX/2TX
	802.11n (HT20)		100 to 140	100, 116, 140	OFDM	BPSK	7.2	1TX/2TX
	802.11n (HT40)		102 to 134	102, 110, 134	OFDM	BPSK	15.0	1TX/2TX
	802.11ac (VHT80)		106	106	OFDM	BPSK	32.5	1TX
			106	106	OFDM	BPSK	65.0	2TX

TEST CONDITION:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE>1G	25deg. C, 65%RH	120Vac, 60Hz	Tank Wu
RE<1G	25deg. C, 60%RH	120Vac, 60Hz	Ted Chang
PLC	25deg. C, 65%RH	120Vac, 60Hz	Chris Lin
APCM	25deg. C, 60%RH	120Vac, 60Hz	Nick Chen

3.3 DUTY CYCLE OF TEST SIGNAL

1TX:

Duty cycle is > 98%, duty factor shall be considered.

802.11n (HT20): Duty cycle = 1.917/1.952 = 0.982

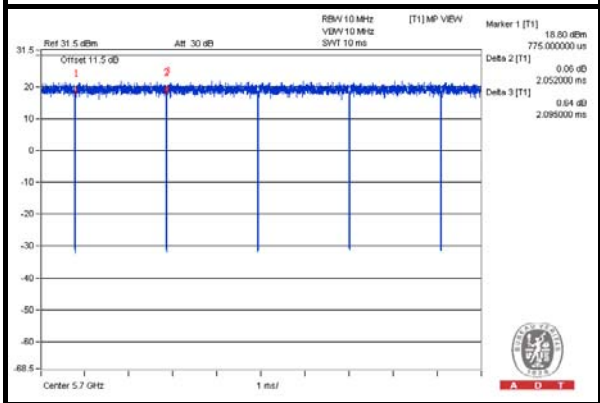
Duty cycle of test signal is < 98 %, duty factor is required.

802.11a: Duty cycle = 2.052/2.095 = 0.979, Duty factor = 10 * log(1/0.979) = 0.09

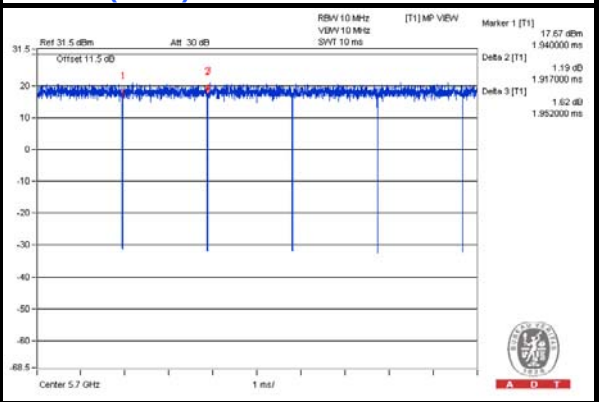
802.11n (HT40): Duty cycle = 0.942/0.962 = 0.979, Duty factor = 10 * log(1/0.979) = 0.09

802.11ac (VHT80): Duty cycle = 0.453/0.488 = 0.928, Duty factor = 10 * log(1/0.928) = 0.32

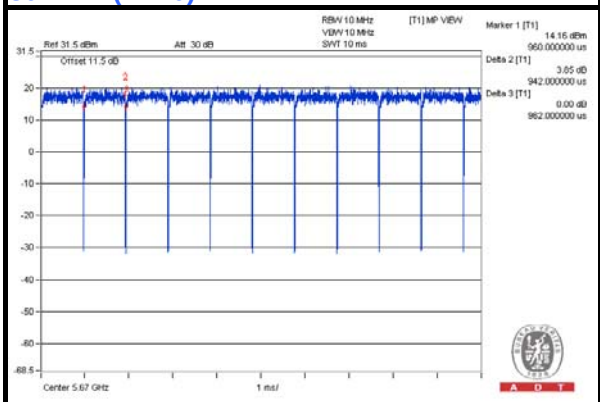
802.11a



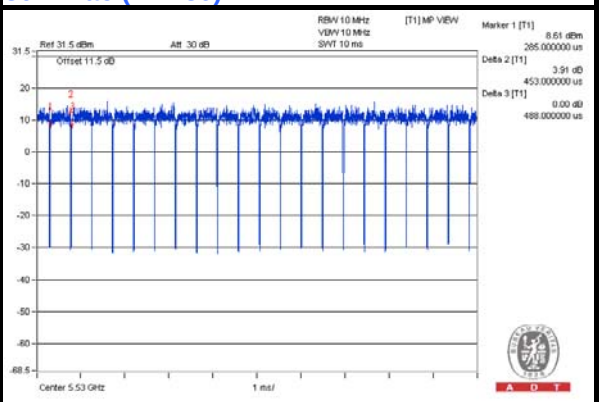
802.11n (HT20)



802.11n (HT40)



802.11ac (VHT80)



2TX:

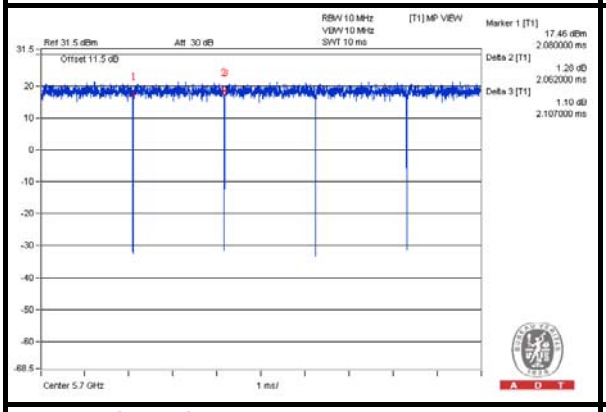
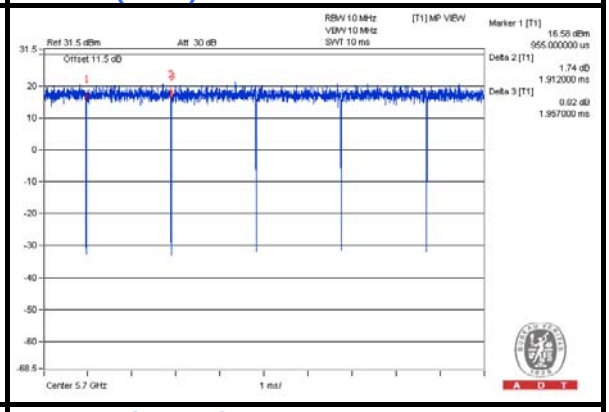
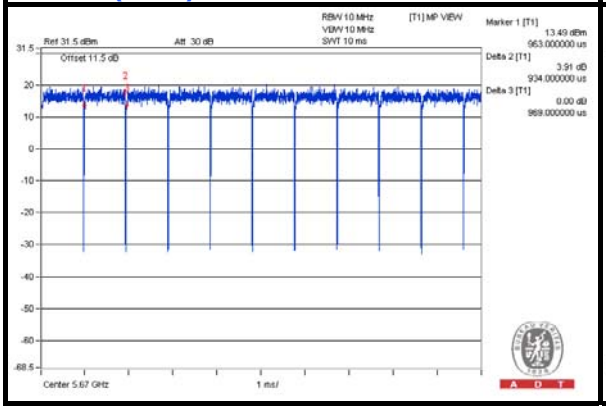
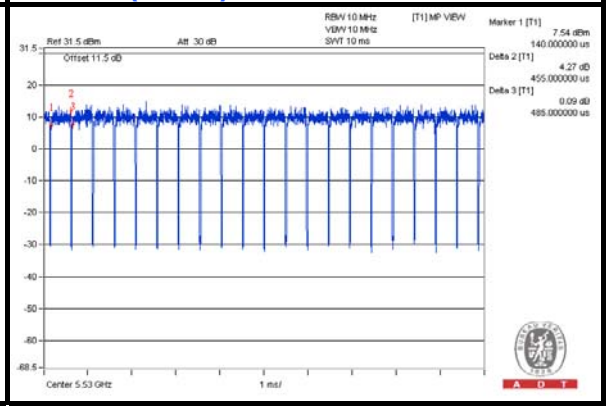
Duty cycle of test signal is < 98 %, duty factor is required.

802.11a: Duty cycle = 2.062/2.107 = 0.979, Duty factor = 10 * log(1/0.979) = 0.09

802.11n (HT20): Duty cycle = 1.912/1.957 = 0.977, Duty factor = 10 * log(1/0.977) = 0.10

802.11n (HT40): Duty cycle = 0.934/0.969 = 0.964, Duty factor = 10 * log(1/0.964) = 0.16

802.11ac (VHT80): Duty cycle = 0.455/0.485 = 0.938, Duty factor = 10 * log(1/0.938) = 0.28

802.11a	802.11n (HT20)
	
802.11n (HT40)	**802.11ac (VHT80)**
	

3.4 DESCRIPTION OF SUPPORT UNITS

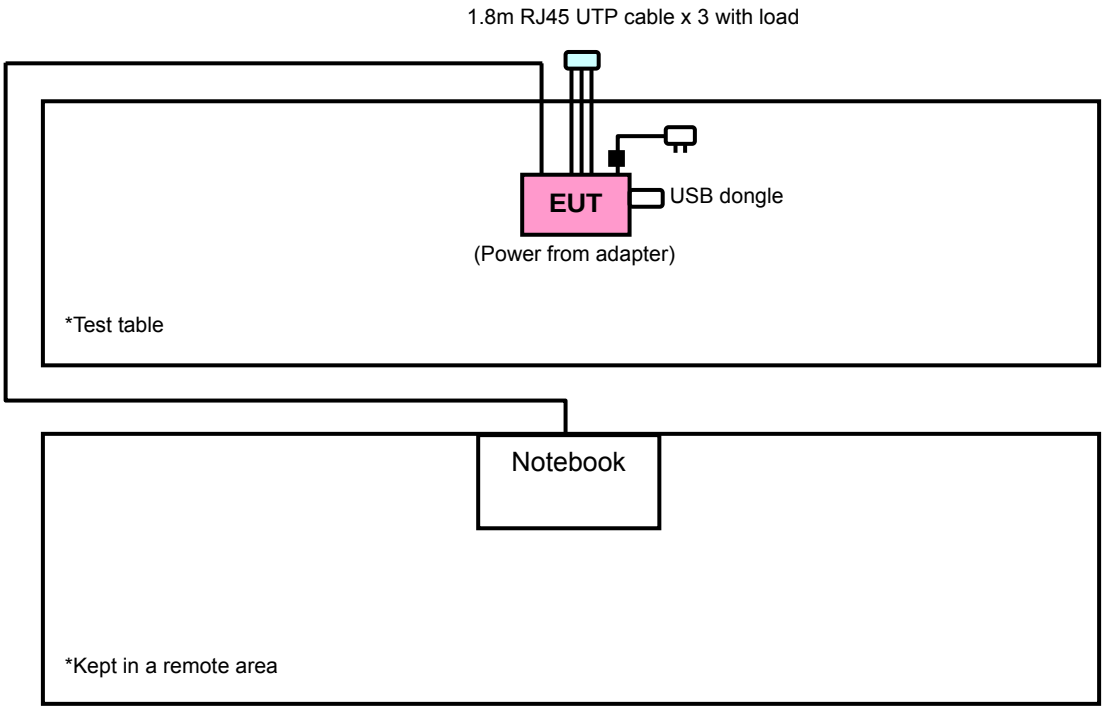
The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

NO.	PRODUCT	BRAND	MODEL NO.	SERIAL NO.	FCC ID
1	Notebook	DELL	D531	CN-0XM006-48643-81U-2973	QDS-BRCM1020
2	USB Dongle	SANDISK	SDCZ6-1024	NA	NA

NO.	SIGNAL CABLE DESCRIPTION OF THE ABOVE SUPPORT UNITS
1	10m RJ45 UTP cable
2	NA

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

3.4.1 CONFIGURATION OF SYSTEM UNDER TEST



3.5 GENERAL DESCRIPTION OF APPLIED STANDARDS

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

FCC Part 15, Subpart E (15.407)
789033 D02 General UNII Test Procedures New Rules v01
662911 D01 Multiple Transmitter Output v02r01
ANSI C63.10-2009

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.

4.1.2 LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS

APPLICABLE TO	LIMIT	
789033 D02 General UNII Test Procedures New Rules v01	FIELD STRENGTH AT 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:

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

4.1.3 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESCI	100744	Apr. 15, 2014	Apr. 14, 2015
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100269	Feb. 11, 2014	Feb. 10, 2015
BILOG Antenna SCHWARZBECK	VULB9168	9168-156	Feb. 25, 2014	Feb. 24, 2015
HORN Antenna SCHWARZBECK	BBHA 9120 D	9120D-209	Aug. 25, 2014	Aug. 24, 2015
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170241	Feb. 17, 2014	Feb. 16, 2015
Preamplifier Agilent	8449B	3008A01911	Aug. 09, 2014	Aug. 08, 2015
Preamplifier Agilent	8447D	2944A10638	Aug. 09, 2014	Aug. 08, 2015
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	248780/4 309222/4 274092/4	Aug. 09, 2014	Aug. 08, 2015
RF signal cable Worken	8D-FB	Cable-CH9-01	Aug. 11, 2014	Aug. 10, 2015
Software BV ADT	ADT_Radiated_ V7.6.15.9.4	NA	NA	NA
Antenna Tower EMCO	2070/2080	512.835.4684	NA	NA
Turn Table EMCO	2087-2.03	NA	NA	NA
Antenna Tower &Turn Table Controller EMCO	2090	NA	NA	NA
High Speed Peak Power Meter	ML2495A	0824011	Jul. 26, 2014	Jul. 25, 2015
Power Sensor	MA2411B	0738171	Jul. 26, 2014	Jul. 25, 2015
26GHz ~ 40GHz Amplifier	EM26400	815221	Oct. 18, 2014	Oct. 17, 2015
WIT Standard Temperature And Humidity Chamber	TH-4S-C	W981030	Jun. 09, 2014	Jun. 08, 2015

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 9.

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 215374.

5. The IC Site Registration No. is IC 7450F-9.

4.1.4 TEST PROCEDURES

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter semi-anechoic camber. 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 antenna is a broadband antenna, and its height 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 Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.

NOTE:

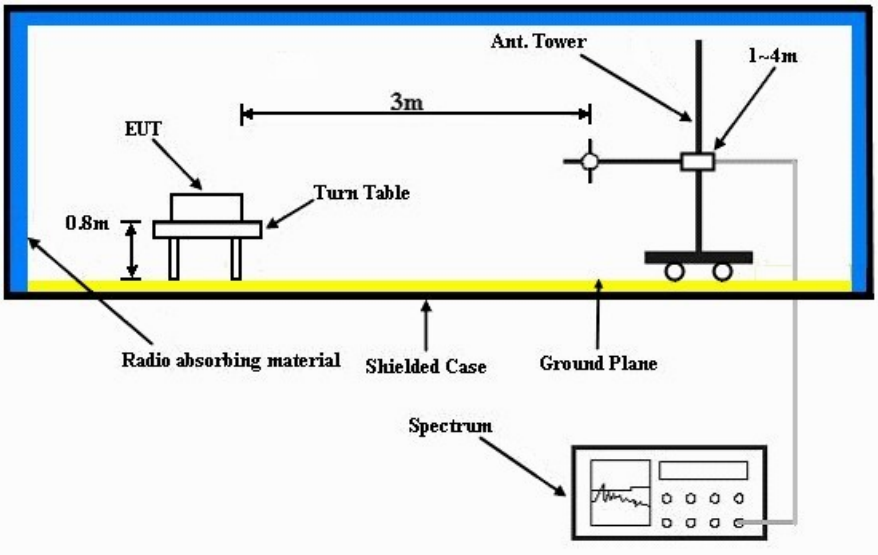
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and video bandwidth is 3MHz for Peak detection at frequency above 1GHz.
3. The resolution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

4.1.5 DEVIATION FROM TEST STANDARD

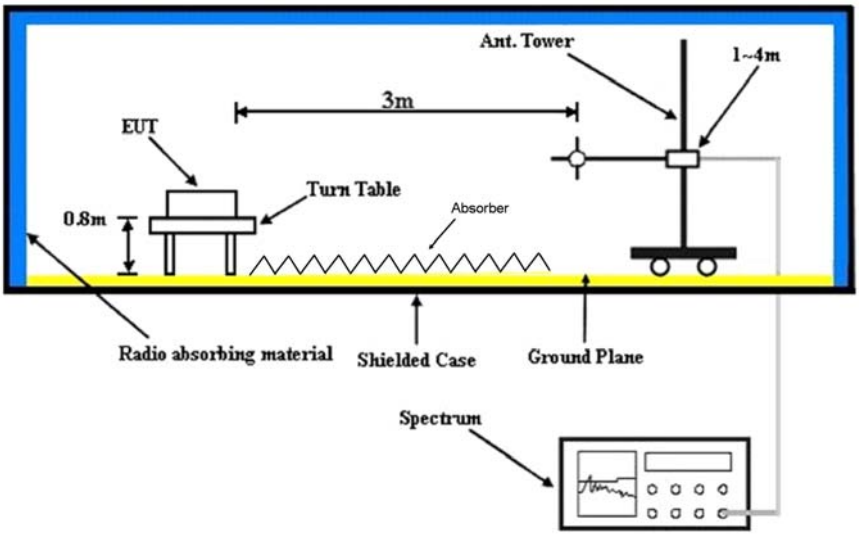
No deviation.

4.1.6 TEST SETUP

Frequency range 30MHz~1GHz



Frequency range above 1GHz



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

4.1.7 EUT OPERATING CONDITION

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

4.1.8 TEST RESULTS

ABOVE 1GHz DATA

1TX:

802.11a

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	57.7 PK	74.0	-16.3	1.10 H	2	55.70	2.00
2	5150.00	44.9 AV	54.0	-9.1	1.10 H	2	42.90	2.00
3	*5260.00	114.8 PK			1.06 H	4	74.70	40.10
4	*5260.00	104.4 AV			1.06 H	4	64.30	40.10
5	5420.00	62.7 PK	74.0	-11.3	1.02 H	2	60.60	2.10
6	5420.00	50.8 AV	54.0	-3.2	1.02 H	2	48.70	2.10
7	#10520.00	62.7 PK	74.0	-11.3	1.00 H	29	46.80	15.90
8	#10520.00	49.4 AV	54.0	-4.6	1.00 H	29	33.50	15.90
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	**FREQ. (MHz)**	**EMISSION LEVEL (dBuV/m)**	**LIMIT (dBuV/m)**	**MARGIN (dB)**	**ANTENNA HEIGHT (m)**	**TABLE ANGLE (Degree)**	**RAW VALUE (dBuV)**	**CORRECTION FACTOR (dB/m)**
1	5150.00	56.1 PK	74.0	-17.9	1.00 V	111	54.10	2.00
2	5150.00	42.9 AV	54.0	-11.1	1.00 V	111	40.90	2.00
3	*5260.00	103.0 PK			1.11 V	79	62.90	40.10
4	*5260.00	92.6 AV			1.11 V	79	52.50	40.10
5	5420.00	57.8 PK	74.0	-16.2	1.00 V	111	55.70	2.10
6	5420.00	44.8 AV	54.0	-9.2	1.00 V	111	42.70	2.10
7	#10520.00	62.1 PK	74.0	-11.9	1.00 V	198	46.20	15.90
8	#10520.00	49.0 AV	54.0	-5.0	1.00 V	198	33.10	15.90

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier 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	*5300.00	112.0 PK			1.04 H	359	71.90	40.10
2	*5300.00	101.8 AV			1.04 H	359	61.70	40.10
3	5380.00	65.6 PK	74.0	-8.4	1.02 H	359	63.60	2.00
4	**5380.00**	**53.0 AV**	**54.0**	**-1.0**	**1.02 H**	**359**	**51.00**	**2.00**
5	10600.00	62.8 PK	74.0	-11.2	1.00 H	252	46.20	16.60
6	10600.00	49.2 AV	54.0	-4.8	1.00 H	252	32.60	16.60
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	*5300.00	100.5 PK			1.00 V	81	60.40	40.10
2	*5300.00	90.4 AV			1.00 V	81	50.30	40.10
3	5380.00	58.5 PK	74.0	-15.5	1.00 V	81	56.50	2.00
4	5380.00	45.5 AV	54.0	-8.5	1.00 V	81	43.50	2.00
5	10600.00	62.5 PK	74.0	-11.5	1.00 V	82	45.90	16.60
6	10600.00	49.0 AV	54.0	-5.0	1.00 V	82	32.40	16.60

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) – Pre-Amplifier 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	115.2 PK			1.02 H	200	75.00	40.20
2	*5320.00	104.8 AV			1.02 H	200	64.60	40.20
3	5350.00	69.8 PK	74.0	-4.2	1.25 H	199	67.80	2.00
4	5350.00	51.7 AV	54.0	-2.3	1.25 H	199	49.70	2.00
5	5400.00	65.1 PK	74.0	-8.9	1.01 H	201	63.00	2.10
6	**5400.00**	**53.0 AV**	**54.0**	**-1.0**	**1.01 H**	**201**	**50.90**	**2.10**
7	#5480.00	67.0 PK	68.2	-1.2	1.00 H	194	64.80	2.20
8	10640.00	62.7 PK	74.0	-11.3	1.05 H	63	45.90	16.80
9	10640.00	49.1 AV	54.0	-4.9	1.05 H	63	32.30	16.80
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	103.2 PK			1.00 V	80	63.00	40.20
2	*5320.00	92.8 AV			1.00 V	80	52.60	40.20
3	5350.00	61.9 PK	74.0	-12.1	1.25 V	95	59.90	2.00
4	5350.00	44.6 AV	54.0	-9.4	1.25 V	95	42.60	2.00
5	5400.00	60.7 PK	74.0	-13.3	1.04 V	51	58.60	2.10
6	5400.00	44.3 AV	54.0	-9.7	1.04 V	51	42.20	2.10
7	#5480.00	60.0 PK	68.2	-8.2	1.06 V	32	57.80	2.20
8	10640.00	61.5 PK	74.0	-12.5	1.02 V	65	44.70	16.80
9	10640.00	48.0 AV	54.0	-6.0	1.02 V	65	31.20	16.80

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier 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 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	66.4 PK	74.0	-7.6	1.00 H	1	64.30	2.10
2	5420.00	52.0 AV	54.0	-2.0	1.00 H	1	49.90	2.10
3	#5470.00	72.4 PK	74.0	-1.6	1.00 H	8	70.20	2.20
4	#5470.00	52.9 AV	54.0	-1.1	1.00 H	8	50.70	2.20
5	*5500.00	116.2 PK			1.00 H	8	75.90	40.30
6	*5500.00	106.0 AV			1.00 H	8	65.70	40.30
7	11000.00	61.8 PK	74.0	-12.2	1.00 H	184	43.50	18.30
8	11000.00	48.3 AV	54.0	-5.7	1.00 H	184	30.00	18.30
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	5420.00	57.7 PK	74.0	-16.3	1.06 V	83	55.60	2.10
2	5420.00	45.2 AV	54.0	-8.8	1.06 V	83	43.10	2.10
3	#5470.00	62.1 PK	74.0	-11.9	1.04 V	92	59.90	2.20
4	#5470.00	46.2 AV	54.0	-7.8	1.04 V	92	44.00	2.20
5	*5500.00	103.6 PK			1.04 V	92	63.30	40.30
6	*5500.00	93.1 AV			1.04 V	92	52.80	40.30
7	11000.00	61.5 PK	74.0	-12.5	1.00 V	315	43.20	18.30
8	11000.00	48.2 AV	54.0	-5.8	1.00 V	315	29.90	18.30

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) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	62.4 PK	74.0	-11.6	1.02 H	9	60.30	2.10
2	5460.00	50.4 AV	54.0	-3.6	1.02 H	9	48.30	2.10
3	*5580.00	115.9 PK			1.18 H	360	75.40	40.50
4	*5580.00	105.2 AV			1.18 H	360	64.70	40.50
5	11160.00	60.8 PK	74.0	-13.2	1.00 H	277	43.20	17.60
6	11160.00	47.4 AV	54.0	-6.6	1.00 H	277	29.80	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	5460.00	58.7 PK	74.0	-15.3	1.12 V	92	56.60	2.10
2	5460.00	45.2 AV	54.0	-8.8	1.12 V	92	43.10	2.10
3	*5580.00	105.3 PK			1.12 V	92	64.80	40.50
4	*5580.00	94.9 AV			1.12 V	92	54.40	40.50
5	11160.00	61.1 PK	74.0	-12.9	1.00 V	23	43.50	17.60
6	11160.00	47.8 AV	54.0	-6.2	1.00 V	23	30.20	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) – Pre-Amplifier 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	111.2 PK			1.00 H	17	70.40	40.80
2	*5700.00	100.8 AV			1.00 H	17	60.00	40.80
3	#5725.00	71.3 PK	74.0	-2.7	1.00 H	17	68.70	2.60
4	**#5725.00**	**53.0 AV**	**54.0**	**-1.0**	**1.00 H**	**17**	**50.40**	**2.60**
5	11400.00	61.7 PK	74.0	-12.3	1.00 H	263	45.20	16.50
6	11400.00	47.5 AV	54.0	-6.5	1.00 H	263	31.00	16.50
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	99.1 PK			1.00 V	100	58.30	40.80
2	*5700.00	89.1 AV			1.00 V	100	48.30	40.80
3	#5725.00	58.4 PK	74.0	-15.6	1.00 V	100	55.80	2.60
4	#5725.00	44.2 AV	54.0	-9.8	1.00 V	100	41.60	2.60
5	11400.00	60.9 PK	74.0	-13.1	1.00 V	65	44.40	16.50
6	11400.00	47.7 AV	54.0	-6.3	1.00 V	65	31.20	16.50

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) – Pre-Amplifier 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 52	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	58.1 PK	74.0	-15.9	1.00 H	6	56.10	2.00
2	5150.00	45.7 AV	54.0	-8.3	1.00 H	6	43.70	2.00
3	*5260.00	115.3 PK			1.04 H	0	75.20	40.10
4	*5260.00	104.6 AV			1.04 H	0	64.50	40.10
5	5420.00	63.2 PK	74.0	-10.8	1.01 H	358	61.10	2.10
6	5420.00	51.1 AV	54.0	-2.9	1.01 H	358	49.00	2.10
7	#10520.00	62.8 PK	74.0	-11.2	1.00 H	45	46.90	15.90
8	#10520.00	49.3 AV	54.0	-4.7	1.00 H	45	33.40	15.90
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	57.4 PK	74.0	-16.6	1.00 V	118	55.40	2.00
2	5150.00	45.5 AV	54.0	-8.5	1.00 V	118	43.50	2.00
3	*5260.00	102.2 PK			1.00 V	122	62.10	40.10
4	*5260.00	91.9 AV			1.00 V	122	51.80	40.10
5	5420.00	58.3 PK	74.0	-15.7	1.00 V	114	56.20	2.10
6	5420.00	44.9 AV	54.0	-9.1	1.00 V	114	42.80	2.10
7	#10520.00	62.3 PK	74.0	-11.7	1.00 V	235	46.40	15.90
8	#10520.00	48.8 AV	54.0	-5.2	1.00 V	235	32.90	15.90

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier 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	*5300.00	112.6 PK			1.02 H	4	72.50	40.10
2	*5300.00	101.4 AV			1.02 H	4	61.30	40.10
3	5380.00	64.4 PK	74.0	-9.6	1.02 H	4	62.40	2.00
4	**5380.00**	**53.0 AV**	**54.0**	**-1.0**	**1.02 H**	**4**	**51.00**	**2.00**
5	10600.00	63.0 PK	74.0	-11.0	1.00 H	132	46.40	16.60
6	10600.00	49.7 AV	54.0	-4.3	1.00 H	132	33.10	16.60
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	*5300.00	101.4 PK			1.00 V	80	61.30	40.10
2	*5300.00	90.2 AV			1.00 V	80	50.10	40.10
3	5380.00	58.9 PK	74.0	-15.1	1.00 V	80	56.90	2.00
4	5380.00	46.1 AV	54.0	-7.9	1.00 V	80	44.10	2.00
5	10600.00	62.5 PK	74.0	-11.5	1.00 V	348	45.90	16.60
6	10600.00	49.5 AV	54.0	-4.5	1.00 V	348	32.90	16.60

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) – Pre-Amplifier 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	115.3 PK			1.03 H	355	75.10	40.20
2	*5320.00	103.9 AV			1.03 H	355	63.70	40.20
3	5350.00	72.2 PK	74.0	-1.8	1.03 H	359	70.20	2.00
4	5350.00	52.9 AV	54.0	-1.1	1.03 H	359	50.90	2.00
5	10640.00	63.0 PK	74.0	-11.0	1.00 H	208	46.20	16.80
6	10640.00	49.5 AV	54.0	-4.5	1.00 H	208	32.70	16.80
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	103.7 PK			1.00 V	80	63.50	40.20
2	*5320.00	93.0 AV			1.00 V	80	52.80	40.20
3	5350.00	59.6 PK	74.0	-14.4	1.00 V	80	57.60	2.00
4	5350.00	45.5 AV	54.0	-8.5	1.00 V	80	43.50	2.00
5	10640.00	63.0 PK	74.0	-11.0	1.00 V	87	46.20	16.80
6	10640.00	49.3 AV	54.0	-4.7	1.00 V	87	32.50	16.80

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier 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	66.2 PK	74.0	-7.8	1.00 H	5	64.10	2.10
2	5420.00	52.4 AV	54.0	-1.6	1.00 H	5	50.30	2.10
3	#5470.00	70.7 PK	74.0	-3.3	1.00 H	6	68.50	2.20
4	#5470.00	52.8 AV	54.0	-1.2	1.00 H	6	50.60	2.20
5	*5500.00	116.3 PK			1.00 H	6	76.00	40.30
6	*5500.00	105.5 AV			1.00 H	6	65.20	40.30
7	11000.00	62.1 PK	74.0	-11.9	1.00 H	179	43.80	18.30
8	11000.00	48.9 AV	54.0	-5.1	1.00 H	179	30.60	18.30
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	5420.00	58.4 PK	74.0	-15.6	1.00 V	76	56.30	2.10
2	5420.00	45.7 AV	54.0	-8.3	1.00 V	76	43.60	2.10
3	#5470.00	59.9 PK	74.0	-14.1	1.00 V	63	57.70	2.20
4	#5470.00	45.5 AV	54.0	-8.5	1.00 V	63	43.30	2.20
5	*5500.00	102.2 PK			1.00 V	63	61.90	40.30
6	*5500.00	91.8 AV			1.00 V	63	51.50	40.30
7	11000.00	61.8 PK	74.0	-12.2	1.00 V	5	43.50	18.30
8	11000.00	48.4 AV	54.0	-5.6	1.00 V	5	30.10	18.30

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) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	61.8 PK	74.0	-12.2	1.00 H	355	59.70	2.10
2	5460.00	50.5 AV	54.0	-3.5	1.00 H	355	48.40	2.10
3	*5580.00	118.7 PK			1.00 H	12	78.20	40.50
4	*5580.00	107.5 AV			1.00 H	12	67.00	40.50
5	11160.00	61.4 PK	74.0	-12.6	1.00 H	256	43.80	17.60
6	11160.00	48.8 AV	54.0	-5.2	1.00 H	256	31.20	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	5460.00	57.9 PK	74.0	-16.1	1.00 V	93	55.80	2.10
2	5460.00	44.6 AV	54.0	-9.4	1.00 V	93	42.50	2.10
3	*5580.00	107.4 PK			1.00 V	93	66.90	40.50
4	*5580.00	96.0 AV			1.00 V	93	55.50	40.50
5	11160.00	61.1 PK	74.0	-12.9	1.00 V	291	43.50	17.60
6	11160.00	48.5 AV	54.0	-5.5	1.00 V	291	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) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	109.7 PK			1.05 H	10	68.90	40.80
2	*5700.00	98.9 AV			1.05 H	10	58.10	40.80
3	#5725.00	71.3 PK	74.0	-2.7	1.05 H	10	68.70	2.60
4	#5725.00	52.9 AV	54.0	-1.1	1.05 H	10	50.30	2.60
5	11400.00	62.1 PK	74.0	-11.9	1.00 H	245	45.60	16.50
6	11400.00	48.0 AV	54.0	-6.0	1.00 H	245	31.50	16.50
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	100.2 PK			1.01 V	77	59.40	40.80
2	*5700.00	89.5 AV			1.01 V	77	48.70	40.80
3	#5725.00	61.5 PK	74.0	-12.5	1.01 V	76	58.90	2.60
4	#5725.00	45.5 AV	54.0	-8.5	1.01 V	76	42.90	2.60
5	11400.00	61.3 PK	74.0	-12.7	1.00 V	66	44.80	16.50
6	11400.00	47.7 AV	54.0	-6.3	1.00 V	66	31.20	16.50

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) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

802.11n (HT40)

CHANNEL	TX Channel 54	DETECTOR FUNCTION	Peak (PK)
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	57.1 PK	74.0	-16.9	1.00 H	206	55.10	2.00
2	5150.00	44.1 AV	54.0	-9.9	1.00 H	206	42.10	2.00
3	*5270.00	112.0 PK			1.04 H	203	71.90	40.10
4	*5270.00	101.2 AV			1.04 H	203	61.10	40.10
5	5435.00	64.7 PK	74.0	-9.3	1.00 H	205	62.60	2.10
6	**5435.00**	**53.0 AV**	**54.0**	**-1.0**	**1.00 H**	**205**	**50.90**	**2.10**
7	#10540.00	63.8 PK	74.0	-10.2	1.00 H	58	47.70	16.10
8	#10540.00	50.2 AV	54.0	-3.8	1.00 H	58	34.10	16.10
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	5150.00	56.2 PK	74.0	-17.8	1.00 V	256	54.20	2.00
2	5150.00	42.7 AV	54.0	-11.3	1.00 V	256	40.70	2.00
3	*5270.00	103.5 PK			1.06 V	256	63.40	40.10
4	*5270.00	92.7 AV			1.06 V	256	52.60	40.10
5	5435.00	57.8 PK	74.0	-16.2	1.06 V	256	55.70	2.10
6	5435.00	44.8 AV	54.0	-9.2	1.06 V	256	42.70	2.10
7	#10540.00	62.8 PK	74.0	-11.2	1.00 V	4	46.70	16.10
8	#10540.00	49.5 AV	54.0	-4.5	1.00 V	4	33.40	16.10

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) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5310.00	108.5 PK			1.02 H	197	68.40	40.10
2	*5310.00	97.2 AV			1.02 H	197	57.10	40.10
3	5350.00	72.7 PK	74.0	-1.3	1.02 H	197	70.70	2.00
4	5350.00	51.9 AV	54.0	-2.1	1.02 H	197	49.90	2.00
5	10620.00	64.2 PK	74.0	-9.8	1.00 H	349	47.60	16.60
6	10620.00	50.2 AV	54.0	-3.8	1.00 H	349	33.60	16.60
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	*5310.00	95.6 PK			1.00 V	116	55.50	40.10
2	*5310.00	84.8 AV			1.00 V	116	44.70	40.10
3	5350.00	57.6 PK	74.0	-16.4	1.00 V	116	55.60	2.00
4	5350.00	44.7 AV	54.0	-9.3	1.00 V	116	42.70	2.00
5	10620.00	63.7 PK	74.0	-10.3	1.00 V	100	47.10	16.60
6	10620.00	50.1 AV	54.0	-3.9	1.00 V	100	33.50	16.60

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) – Pre-Amplifier 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	5435.00	64.1 PK	74.0	-9.9	1.00 H	190	62.00	2.10
2	5435.00	49.7 AV	54.0	-4.3	1.00 H	190	47.60	2.10
3	#5470.00	72.9 PK	74.0	-1.1	1.00 H	195	70.70	2.20
4	#5470.00	52.4 AV	54.0	-1.6	1.00 H	195	50.20	2.20
5	*5510.00	108.8 PK			1.00 H	198	68.50	40.30
6	*5510.00	97.7 AV			1.00 H	198	57.40	40.30
7	11020.00	60.7 PK	74.0	-13.3	1.00 H	98	42.60	18.10
8	11020.00	47.9 AV	54.0	-6.1	1.00 H	98	29.80	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	5435.00	58.5 PK	74.0	-15.5	1.00 V	257	56.40	2.10
2	5435.00	45.0 AV	54.0	-9.0	1.00 V	257	42.90	2.10
3	#5470.00	63.9 PK	74.0	-10.1	1.16 V	257	61.70	2.20
4	#5470.00	46.0 AV	54.0	-8.0	1.16 V	257	43.80	2.20
5	*5510.00	99.2 PK			1.12 V	257	58.90	40.30
6	*5510.00	87.9 AV			1.12 V	257	47.60	40.30
7	11020.00	61.1 PK	74.0	-12.9	1.00 V	145	43.00	18.10
8	11020.00	48.0 AV	54.0	-6.0	1.00 V	145	29.90	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) – Pre-Amplifier 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	5460.00	68.7 PK	74.0	-5.3	1.00 H	195	66.60	2.10
2	5460.00	52.2 AV	54.0	-1.8	1.00 H	195	50.10	2.10
3	#5470.00	68.5 PK	74.0	-5.5	1.00 H	195	66.30	2.20
4	**#5470.00**	**53.0 AV**	**54.0**	**-1.0**	**1.00 H**	**195**	**50.80**	**2.20**
5	*5550.00	112.1 PK			1.00 H	195	71.70	40.40
6	*5550.00	101.9 AV			1.00 H	195	61.50	40.40
7	#5725.00	59.1 PK	74.0	-14.9	1.15 H	178	56.50	2.60
8	#5725.00	47.6 AV	54.0	-6.4	1.15 H	178	45.00	2.60
9	11100.00	62.1 PK	74.0	-11.9	1.00 H	332	44.30	17.80
10	11100.00	48.2 AV	54.0	-5.8	1.00 H	332	30.40	17.80
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	57.5 PK	74.0	-16.5	1.00 V	263	55.40	2.10
2	5460.00	45.4 AV	54.0	-8.6	1.00 V	263	43.30	2.10
3	#5470.00	59.3 PK	74.0	-14.7	1.00 V	259	57.10	2.20
4	#5470.00	45.8 AV	54.0	-8.2	1.00 V	259	43.60	2.20
5	*5550.00	102.7 PK			1.00 V	259	62.30	40.40
6	*5550.00	91.7 AV			1.00 V	259	51.30	40.40
7	#5725.00	56.2 PK	74.0	-17.8	1.00 V	260	53.60	2.60
8	#5725.00	42.7 AV	54.0	-11.3	1.00 V	260	40.10	2.60
9	11100.00	62.0 PK	74.0	-12.0	1.00 V	185	44.20	17.80
10	11100.00	49.7 AV	54.0	-4.3	1.00 V	185	31.90	17.80

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5670.00	110.5 PK			1.00 H	360	69.80	40.70
2	*5670.00	99.4 AV			1.00 H	360	58.70	40.70
3	#5725.00	72.4 PK	74.0	-1.6	1.00 H	360	69.80	2.60
4	#5725.00	52.9 AV	54.0	-1.1	1.00 H	360	50.30	2.60
5	11340.00	61.9 PK	74.0	-12.1	1.00 H	98	45.10	16.80
6	11340.00	48.4 AV	54.0	-5.6	1.00 H	98	31.60	16.80
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	97.6 PK			1.00 V	251	56.90	40.70
2	*5670.00	87.3 AV			1.00 V	251	46.60	40.70
3	#5725.00	57.5 PK	74.0	-16.5	1.00 V	251	54.90	2.60
4	#5725.00	44.1 AV	54.0	-9.9	1.00 V	251	41.50	2.60
5	11340.00	62.1 PK	74.0	-11.9	1.00 V	182	45.30	16.80
6	11340.00	48.3 AV	54.0	-5.7	1.00 V	182	31.50	16.80

REMARKS:

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

802.11ac (VHT80)

CHANNEL	TX Channel 58	DETECTOR FUNCTION	Peak (PK)
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	103.9 PK			1.23 H	197	63.80	40.10
2	*5290.00	92.7 AV			1.23 H	197	52.60	40.10
3	5350.00	71.6 PK	74.0	-2.4	1.23 H	197	69.60	2.00
4	**5350.00**	**53.0 AV**	**54.0**	**-1.0**	**1.23 H**	**197**	**51.00**	**2.00**
5	#10580.00	63.6 PK	74.0	-10.4	1.00 H	78	47.30	16.30
6	#10580.00	50.3 AV	54.0	-3.7	1.00 H	78	34.00	16.30
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	96.4 PK			1.18 V	253	56.30	40.10
2	*5290.00	85.4 AV			1.18 V	253	45.30	40.10
3	5350.00	58.2 PK	74.0	-15.8	1.18 V	253	56.20	2.00
4	5350.00	44.4 AV	54.0	-9.6	1.18 V	253	42.40	2.00
5	#10580.00	63.1 PK	74.0	-10.9	1.00 V	198	46.80	16.30
6	#10580.00	49.8 AV	54.0	-4.2	1.00 V	198	33.50	16.30

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) – Pre-Amplifier 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	70.0 PK	74.0	-4.0	1.00 H	194	67.90	2.10
2	5460.00	52.3 AV	54.0	-1.7	1.00 H	194	50.20	2.10
3	#5470.00	72.7 PK	74.0	-1.3	1.00 H	191	70.50	2.20
4	**#5470.00**	**53.0 AV**	**54.0**	**-1.0**	**1.00 H**	**191**	**50.80**	**2.20**
5	*5530.00	105.1 PK			1.00 H	194	64.70	40.40
6	*5530.00	94.1 AV			1.00 H	194	53.70	40.40
7	11060.00	61.8 PK	74.0	-12.2	1.00 H	210	43.80	18.00
8	11060.00	48.6 AV	54.0	-5.4	1.00 H	210	30.60	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	5460.00	60.3 PK	74.0	-13.7	1.00 V	259	58.20	2.10
2	5460.00	45.7 AV	54.0	-8.3	1.00 V	259	43.60	2.10
3	#5470.00	64.0 PK	74.0	-10.0	1.02 V	260	61.80	2.20
4	#5470.00	46.6 AV	54.0	-7.4	1.02 V	260	44.40	2.20
5	*5530.00	94.9 PK			1.02 V	260	54.50	40.40
6	*5530.00	83.9 AV			1.02 V	260	43.50	40.40
7	11060.00	62.0 PK	74.0	-12.0	1.00 V	36	44.00	18.00
8	11060.00	48.7 AV	54.0	-5.3	1.00 V	36	30.70	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) – Pre-Amplifier 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.

2TX:

802.11a

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	58.3 PK	74.0	-15.7	1.00 H	207	56.30	2.00
2	5150.00	45.9 AV	54.0	-8.1	1.00 H	207	43.90	2.00
3	*5260.00	116.8 PK			1.05 H	4	76.70	40.10
4	*5260.00	106.7 AV			1.05 H	4	66.60	40.10
5	5420.00	63.2 PK	74.0	-10.8	1.02 H	2	61.10	2.10
6	5420.00	51.4 AV	54.0	-2.6	1.02 H	2	49.30	2.10
7	#5500.00	64.9 PK	74.0	-9.1	1.01 H	0	62.60	2.30
8	#5500.00	52.6 AV	54.0	-1.4	1.01 H	0	50.30	2.30
9	#10520.00	62.9 PK	74.0	-11.1	1.00 H	178	47.00	15.90
10	#10520.00	49.6 AV	54.0	-4.4	1.00 H	178	33.70	15.90
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	57.2 PK	74.0	-16.8	1.00 V	121	55.20	2.00
2	5150.00	43.9 AV	54.0	-10.1	1.00 V	121	41.90	2.00
3	*5260.00	107.9 PK			1.64 V	272	67.80	40.10
4	*5260.00	98.0 AV			1.64 V	272	57.90	40.10
5	5420.00	59.0 PK	74.0	-15.0	1.00 V	113	56.90	2.10
6	5420.00	45.9 AV	54.0	-8.1	1.00 V	113	43.80	2.10
7	#5500.00	59.5 PK	74.0	-14.5	1.00 V	159	57.20	2.30
8	#5500.00	46.2 AV	54.0	-7.8	1.00 V	159	43.90	2.30
9	#10520.00	62.4 PK	74.0	-11.6	1.00 V	145	46.50	15.90
10	#10520.00	49.3 AV	54.0	-4.7	1.00 V	145	33.40	15.90

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier 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	*5300.00	111.2 PK			1.02 H	201	71.10	40.10
2	*5300.00	102.4 AV			1.02 H	201	62.30	40.10
3	5380.00	64.5 PK	74.0	-9.5	1.01 H	4	62.50	2.00
4	**5380.00**	**53.0 AV**	**54.0**	**-1.0**	**1.01 H**	**4**	**51.00**	**2.00**
5	5460.00	64.4 PK	74.0	-9.6	1.01 H	195	62.30	2.10
6	**5460.00**	**53.0 AV**	**54.0**	**-1.0**	**1.01 H**	**195**	**50.90**	**2.10**
7	#5540.00	62.4 PK	74.0	-11.6	1.00 H	192	60.10	2.30
8	#5540.00	51.3 AV	54.0	-2.7	1.00 H	192	49.00	2.30
9	10600.00	63.4 PK	74.0	-10.6	1.00 H	236	46.80	16.60
10	10600.00	49.6 AV	54.0	-4.4	1.00 H	236	33.00	16.60
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	*5300.00	100.4 PK			1.00 V	105	60.30	40.10
2	*5300.00	90.5 AV			1.00 V	105	50.40	40.10
3	5380.00	59.2 PK	74.0	-14.8	1.00 V	109	57.20	2.00
4	5380.00	46.1 AV	54.0	-7.9	1.00 V	109	44.10	2.00
5	5460.00	58.9 PK	74.0	-15.1	1.08 V	49	56.80	2.10
6	5460.00	45.2 AV	54.0	-8.8	1.08 V	49	43.10	2.10
7	#5540.00	57.2 PK	74.0	-16.8	1.03 V	88	54.90	2.30
8	#5540.00	44.8 AV	54.0	-9.2	1.03 V	88	42.50	2.30
9	10600.00	64.1 PK	74.0	-9.9	1.00 V	23	47.50	16.60
10	10600.00	50.4 AV	54.0	-3.6	1.00 V	23	33.80	16.60

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) – Pre-Amplifier 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 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	112.7 PK			1.01 H	200	72.50	40.20
2	*5320.00	102.9 AV			1.01 H	200	62.70	40.20
3	5350.00	69.5 PK	74.0	-4.5	1.01 H	197	67.50	2.00
4	5350.00	60.1 PK	74.0	-13.9	1.02 H	192	58.10	2.00
5	5350.00	52.9 AV	54.0	-1.1	1.01 H	197	50.90	2.00
6	5350.00	46.0 AV	54.0	-8.0	1.02 H	192	44.00	2.00
7	5400.00	61.7 PK	74.0	-12.3	1.02 H	191	59.60	2.10
8	5400.00	50.2 AV	54.0	-3.8	1.02 H	191	48.10	2.10
9	#5480.00	67.1 PK	68.2	-1.1	1.00 H	196	64.90	2.20
10	10640.00	63.1 PK	74.0	-10.9	1.00 H	197	46.30	16.80
11	10640.00	49.8 AV	54.0	-4.2	1.00 H	197	33.00	16.80
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	101.0 PK			1.00 V	111	60.80	40.20
2	*5320.00	91.9 AV			1.00 V	111	51.70	40.20
3	5350.00	58.8 PK	74.0	-15.2	1.00 V	132	56.80	2.00
4	5350.00	44.9 AV	54.0	-9.1	1.00 V	132	42.90	2.00
5	5400.00	57.9 PK	74.0	-16.1	1.00 V	229	55.80	2.10
6	5400.00	44.2 AV	54.0	-9.8	1.00 V	229	42.10	2.10
7	#5480.00	59.7 PK	68.2	-8.5	1.00 V	99	57.50	2.20
8	#5550.00	58.8 PK	74.0	-15.2	1.17 V	266	56.50	2.30
9	#5550.00	45.1 AV	54.0	-8.9	1.17 V	266	42.80	2.30
10	10640.00	62.9 PK	74.0	-11.1	1.00 V	45	46.10	16.80
11	10640.00	49.6 AV	54.0	-4.4	1.00 V	45	32.80	16.80

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier 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 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	64.3 PK	74.0	-9.7	1.12 H	354	62.20	2.10
2	5420.00	52.4 AV	54.0	-1.6	1.12 H	354	50.30	2.10
3	**#5470.00**	**73.0 PK**	**74.0**	**-1.0**	**1.00 H**	**354**	**70.80**	**2.20**
4	**#5470.00**	**53.0 AV**	**54.0**	**-1.0**	**1.00 H**	**354**	**50.80**	**2.20**
5	*5500.00	117.6 PK			1.01 H	2	77.30	40.30
6	*5500.00	107.8 AV			1.01 H	2	67.50	40.30
7	11000.00	61.7 PK	74.0	-12.3	1.00 H	298	43.40	18.30
8	11000.00	48.2 AV	54.0	-5.8	1.00 H	298	29.90	18.30
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	5420.00	57.8 PK	74.0	-16.2	1.00 V	104	55.70	2.10
2	5420.00	44.8 AV	54.0	-9.2	1.00 V	104	42.70	2.10
3	#5470.00	60.0 PK	74.0	-14.0	1.00 V	86	57.80	2.20
4	#5470.00	45.5 AV	54.0	-8.5	1.00 V	86	43.30	2.20
5	*5500.00	104.8 PK			1.47 V	162	64.50	40.30
6	*5500.00	95.0 AV			1.47 V	162	54.70	40.30
7	11000.00	62.3 PK	74.0	-11.7	1.00 V	109	44.00	18.30
8	11000.00	48.3 AV	54.0	-5.7	1.00 V	109	30.00	18.30

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) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	59.5 PK	74.0	-14.5	1.00 H	10	57.40	2.10
2	5460.00	47.2 AV	54.0	-6.8	1.00 H	10	45.10	2.10
3	*5580.00	118.4 PK			1.00 H	14	77.90	40.50
4	*5580.00	108.7 AV			1.00 H	14	68.20	40.50
5	11160.00	60.4 PK	74.0	-13.6	1.00 H	215	42.80	17.60
6	11160.00	47.3 AV	54.0	-6.7	1.00 H	215	29.70	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	5460.00	58.8 PK	74.0	-15.2	1.00 V	124	56.70	2.10
2	5460.00	44.9 AV	54.0	-9.1	1.00 V	124	42.80	2.10
3	*5580.00	106.8 PK			1.00 V	165	66.30	40.50
4	*5580.00	96.6 AV			1.00 V	165	56.10	40.50
5	11160.00	61.4 PK	74.0	-12.6	1.00 V	8	43.80	17.60
6	11160.00	48.3 AV	54.0	-5.7	1.00 V	8	30.70	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) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	113.5 PK			1.00 H	13	72.70	40.80
2	*5700.00	104.1 AV			1.00 H	13	63.30	40.80
3	#5725.00	71.8 PK	74.0	-2.2	1.07 H	5	69.20	2.60
4	#5725.00	52.9 AV	54.0	-1.1	1.07 H	5	50.30	2.60
5	11400.00	61.9 PK	74.0	-12.1	1.00 H	169	45.40	16.50
6	11400.00	48.3 AV	54.0	-5.7	1.00 H	169	31.80	16.50
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	99.9 PK			1.00 V	83	59.10	40.80
2	*5700.00	90.0 AV			1.00 V	83	49.20	40.80
3	#5725.00	62.1 PK	74.0	-11.9	1.00 V	109	59.50	2.60
4	#5725.00	45.4 AV	54.0	-8.6	1.00 V	109	42.80	2.60
5	11400.00	61.4 PK	74.0	-12.6	1.00 V	36	44.90	16.50
6	11400.00	48.1 AV	54.0	-5.9	1.00 V	36	31.60	16.50

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) – Pre-Amplifier 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 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	58.7 PK	74.0	-15.3	1.00 H	5	56.70	2.00
2	5150.00	46.1 AV	54.0	-7.9	1.00 H	5	44.10	2.00
3	*5260.00	117.0 PK			1.05 H	7	76.90	40.10
4	*5260.00	106.7 AV			1.05 H	7	66.60	40.10
5	5420.00	62.5 PK	74.0	-11.5	1.01 H	5	60.40	2.10
6	5420.00	50.9 AV	54.0	-3.1	1.01 H	5	48.80	2.10
7	#5500.00	64.0 PK	74.0	-10.0	1.01 H	354	61.70	2.30
8	#5500.00	52.5 AV	54.0	-1.5	1.01 H	354	50.20	2.30
9	#10520.00	63.2 PK	74.0	-10.8	1.00 H	166	47.30	15.90
10	#10520.00	49.6 AV	54.0	-4.4	1.00 H	166	33.70	15.90
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5260.00	99.6 PK			1.00 V	186	59.50	40.10
2	*5260.00	90.2 AV			1.00 V	186	50.10	40.10
3	5380.00	59.3 PK	74.0	-14.7	1.00 V	162	57.30	2.00
4	5380.00	46.7 AV	54.0	-7.3	1.00 V	162	44.70	2.00
5	#5500.00	59.3 PK	74.0	-14.7	1.00 V	166	57.00	2.30
6	#5500.00	46.1 AV	54.0	-7.9	1.00 V	166	43.80	2.30
7	#10520.00	63.2 PK	74.0	-10.8	1.00 V	19	47.30	15.90
8	#10520.00	49.4 AV	54.0	-4.6	1.00 V	19	33.50	15.90

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier 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	*5300.00	112.4 PK			1.01 H	199	72.30	40.10
2	*5300.00	102.3 AV			1.01 H	199	62.20	40.10
3	5380.00	63.6 PK	74.0	-10.4	1.02 H	5	61.60	2.00
4	5380.00	52.6 AV	54.0	-1.4	1.02 H	5	50.60	2.00
5	10600.00	63.5 PK	74.0	-10.5	1.00 H	233	46.90	16.60
6	10600.00	49.7 AV	54.0	-4.3	1.00 H	233	33.10	16.60
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	*5300.00	99.4 PK			1.00 V	183	59.30	40.10
2	*5300.00	90.1 AV			1.00 V	183	50.00	40.10
3	5380.00	59.3 PK	74.0	-14.7	1.00 V	162	57.30	2.00
4	5380.00	46.7 AV	54.0	-7.3	1.00 V	162	44.70	2.00
5	10600.00	63.9 PK	74.0	-10.1	1.00 V	19	47.30	16.60
6	10600.00	50.1 AV	54.0	-3.9	1.00 V	19	33.50	16.60

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) – Pre-Amplifier 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	112.8 PK			1.05 H	192	72.60	40.20
2	*5320.00	103.5 AV			1.05 H	192	63.30	40.20
3	5350.00	65.0 PK	74.0	-9.0	1.02 H	189	63.00	2.00
4	5350.00	47.0 AV	54.0	-7.0	1.02 H	189	45.00	2.00
5	5400.00	62.8 PK	74.0	-11.2	1.00 H	195	60.70	2.10
6	5400.00	49.4 AV	54.0	-4.6	1.00 H	195	47.30	2.10
7	**#5480.00**	**67.2 PK**	**68.2**	**-1.0**	**1.00 H**	**191**	**65.00**	**2.20**
8	#5560.00	62.5 PK	74.0	-11.5	1.00 H	189	60.20	2.30
9	#5560.00	50.5 AV	54.0	-3.5	1.00 H	189	48.20	2.30
10	10640.00	63.0 PK	74.0	-11.0	1.00 H	189	46.20	16.80
11	10640.00	46.7 AV	54.0	-7.3	1.00 H	189	29.90	16.80
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	103.4 PK			1.00 V	179	63.20	40.20
2	*5320.00	93.1 AV			1.00 V	179	52.90	40.20
3	5350.00	58.5 PK	74.0	-15.5	1.00 V	139	56.50	2.00
4	5350.00	44.8 AV	54.0	-9.2	1.00 V	139	42.80	2.00
5	5400.00	57.6 PK	74.0	-16.4	1.00 V	132	55.50	2.10
6	5400.00	45.3 AV	54.0	-8.7	1.00 V	132	43.20	2.10
7	#5480.00	60.1 PK	68.2	-8.1	1.00 V	109	57.90	2.20
8	#5560.00	58.8 PK	74.0	-15.2	1.00 V	88	56.50	2.30
9	#5560.00	47.4 AV	54.0	-6.6	1.00 V	88	45.10	2.30
10	10640.00	63.1 PK	74.0	-10.9	1.00 V	39	46.30	16.80
11	10640.00	49.7 AV	54.0	-4.3	1.00 V	39	32.90	16.80

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier 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 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	66.8 PK	74.0	-7.2	1.01 H	358	64.70	2.10
2	5420.00	51.9 AV	54.0	-2.1	1.01 H	358	49.80	2.10
3	#5470.00	72.8 PK	74.0	-1.2	1.00 H	359	70.60	2.20
4	**#5470.00**	**53.0 AV**	**54.0**	**-1.0**	**1.00 H**	**359**	**50.80**	**2.20**
5	*5500.00	117.7 PK			1.00 H	5	77.40	40.30
6	*5500.00	107.7 AV			1.00 H	5	67.40	40.30
7	11000.00	61.8 PK	74.0	-12.2	1.00 H	278	43.50	18.30
8	11000.00	48.4 AV	54.0	-5.6	1.00 H	278	30.10	18.30
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	5420.00	58.0 PK	74.0	-16.0	1.00 V	106	55.90	2.10
2	5420.00	45.2 AV	54.0	-8.8	1.00 V	106	43.10	2.10
3	#5470.00	60.1 PK	74.0	-13.9	1.00 V	62	57.90	2.20
4	#5470.00	45.8 AV	54.0	-8.2	1.00 V	62	43.60	2.20
5	*5500.00	104.6 PK			1.00 V	165	64.30	40.30
6	*5500.00	94.3 AV			1.00 V	165	54.00	40.30
7	11000.00	62.4 PK	74.0	-11.6	1.00 V	108	44.10	18.30
8	11000.00	48.5 AV	54.0	-5.5	1.00 V	108	30.20	18.30

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) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	59.8 PK	74.0	-14.2	1.02 H	357	57.70	2.10
2	5460.00	47.4 AV	54.0	-6.6	1.02 H	357	45.30	2.10
3	*5580.00	118.6 PK			1.00 H	8	78.10	40.50
4	*5580.00	108.3 AV			1.00 H	8	67.80	40.50
5	11160.00	61.1 PK	74.0	-12.9	1.00 H	196	43.50	17.60
6	11160.00	47.7 AV	54.0	-6.3	1.00 H	196	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	5460.00	59.0 PK	74.0	-15.0	1.00 V	129	56.90	2.10
2	5460.00	45.2 AV	54.0	-8.8	1.00 V	129	43.10	2.10
3	*5580.00	106.4 PK			1.00 V	162	65.90	40.50
4	*5580.00	96.0 AV			1.00 V	162	55.50	40.50
5	11160.00	61.5 PK	74.0	-12.5	1.00 V	15	43.90	17.60
6	11160.00	48.3 AV	54.0	-5.7	1.00 V	15	30.70	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) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	112.3 PK			1.00 H	12	71.50	40.80
2	*5700.00	102.3 AV			1.00 H	12	61.50	40.80
3	#5725.00	71.3 PK	74.0	-2.7	1.00 H	5	68.70	2.60
4	#5725.00	52.9 AV	54.0	-1.1	1.00 H	5	50.30	2.60
5	11400.00	62.3 PK	74.0	-11.7	1.00 H	145	45.80	16.50
6	11400.00	48.6 AV	54.0	-5.4	1.00 H	145	32.10	16.50
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	98.8 PK			1.00 V	83	58.00	40.80
2	*5700.00	89.0 AV			1.00 V	83	48.20	40.80
3	#5725.00	62.4 PK	74.0	-11.6	1.00 V	119	59.80	2.60
4	#5725.00	45.7 AV	54.0	-8.3	1.00 V	119	43.10	2.60
5	11400.00	61.7 PK	74.0	-12.3	1.00 V	56	45.20	16.50
6	11400.00	48.6 AV	54.0	-5.4	1.00 V	56	32.10	16.50

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) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

802.11n (HT40)

CHANNEL	TX Channel 54	DETECTOR FUNCTION	Peak (PK)
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	1.00 H	2	54.90	2.00
2	5150.00	45.1 AV	54.0	-8.9	1.00 H	2	43.10	2.00
3	*5270.00	113.1 PK			1.04 H	356	73.00	40.10
4	*5270.00	103.5 AV			1.04 H	356	63.40	40.10
5	5350.00	65.9 PK	74.0	-8.1	1.03 H	197	63.90	2.00
6	5350.00	52.9 AV	54.0	-1.1	1.03 H	197	50.90	2.00
7	#10540.00	63.1 PK	74.0	-10.9	1.00 H	133	47.00	16.10
8	#10540.00	50.1 AV	54.0	-3.9	1.00 H	133	34.00	16.10
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	5150.00	56.2 PK	74.0	-17.8	1.00 V	186	54.20	2.00
2	5150.00	42.8 AV	54.0	-11.2	1.00 V	186	40.80	2.00
3	*5270.00	101.3 PK			1.62 V	304	61.20	40.10
4	*5270.00	91.2 AV			1.62 V	304	51.10	40.10
5	5350.00	58.7 PK	74.0	-15.3	1.00 V	180	56.70	2.00
6	5350.00	45.1 AV	54.0	-8.9	1.00 V	180	43.10	2.00
7	#10540.00	62.6 PK	74.0	-11.4	1.00 V	315	46.50	16.10
8	#10540.00	49.9 AV	54.0	-4.1	1.00 V	315	33.80	16.10

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) – Pre-Amplifier 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	109.2 PK			1.03 H	195	69.10	40.10
2	*5310.00	99.1 AV			1.03 H	195	59.00	40.10
3	5350.00	72.6 PK	74.0	-1.4	1.02 H	198	70.60	2.00
4	5350.00	52.5 AV	54.0	-1.5	1.02 H	198	50.50	2.00
5	10620.00	64.3 PK	74.0	-9.7	1.00 H	320	47.70	16.60
6	10620.00	50.2 AV	54.0	-3.8	1.00 H	320	33.60	16.60
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	*5310.00	96.3 PK			1.00 V	115	56.20	40.10
2	*5310.00	86.8 AV			1.00 V	115	46.70	40.10
3	5350.00	59.2 PK	74.0	-14.8	1.00 V	84	57.20	2.00
4	5350.00	45.1 AV	54.0	-8.9	1.00 V	84	43.10	2.00
5	10620.00	63.9 PK	74.0	-10.1	1.00 V	98	47.30	16.60
6	10620.00	50.3 AV	54.0	-3.7	1.00 V	98	33.70	16.60

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) – Pre-Amplifier 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	5435.00	63.6 PK	74.0	-10.4	1.00 H	197	61.50	2.10
2	5435.00	51.0 AV	54.0	-3.0	1.00 H	197	48.90	2.10
3	**#5470.00**	**73.0 PK**	**74.0**	**-1.0**	**1.00 H**	**358**	**70.80**	**2.20**
4	#5470.00	52.7 AV	54.0	-1.3	1.00 H	358	50.50	2.20
5	*5510.00	111.1 PK			1.00 H	8	70.80	40.30
6	*5510.00	101.0 AV			1.00 H	8	60.70	40.30
7	11020.00	61.3 PK	74.0	-12.7	1.00 H	114	43.20	18.10
8	11020.00	49.2 AV	54.0	-4.8	1.00 H	114	31.10	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	5435.00	57.6 PK	74.0	-16.4	1.00 V	152	55.50	2.10
2	5435.00	45.1 AV	54.0	-8.9	1.00 V	152	43.00	2.10
3	#5470.00	59.2 PK	74.0	-14.8	1.00 V	119	57.00	2.20
4	#5470.00	45.6 AV	54.0	-8.4	1.00 V	119	43.40	2.20
5	*5510.00	97.7 PK			1.00 V	169	57.40	40.30
6	*5510.00	88.3 AV			1.00 V	169	48.00	40.30
7	11020.00	61.4 PK	74.0	-12.6	1.00 V	132	43.30	18.10
8	11020.00	48.6 AV	54.0	-5.4	1.00 V	132	30.50	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) – Pre-Amplifier 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	5460.00	64.5 PK	74.0	-9.5	1.00 H	201	62.40	2.10
2	5460.00	51.7 AV	54.0	-2.3	1.00 H	201	49.60	2.10
3	#5470.00	69.2 PK	74.0	-4.8	1.02 H	359	67.00	2.20
4	**#5470.00**	**53.0 AV**	**54.0**	**-1.0**	**1.02 H**	**359**	**50.80**	**2.20**
5	*5550.00	115.8 PK			1.00 H	360	75.40	40.40
6	*5550.00	105.7 AV			1.00 H	360	65.30	40.40
7	#5725.00	61.6 PK	74.0	-12.4	1.00 H	4	59.00	2.60
8	#5725.00	50.8 AV	54.0	-3.2	1.00 H	4	48.20	2.60
9	11100.00	62.4 PK	74.0	-11.6	1.00 H	298	44.60	17.80
10	11100.00	48.9 AV	54.0	-5.1	1.00 H	298	31.10	17.80
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	58.2 PK	74.0	-15.8	1.00 V	77	56.10	2.10
2	5460.00	45.4 AV	54.0	-8.6	1.00 V	77	43.30	2.10
3	#5470.00	59.8 PK	74.0	-14.2	1.00 V	49	57.60	2.20
4	#5470.00	45.9 AV	54.0	-8.1	1.00 V	49	43.70	2.20
5	*5550.00	101.9 PK			1.00 V	29	61.50	40.40
6	*5550.00	92.5 AV			1.00 V	29	52.10	40.40
7	#5725.00	56.6 PK	74.0	-17.4	1.00 V	90	54.00	2.60
8	#5725.00	43.6 AV	54.0	-10.4	1.00 V	90	41.00	2.60
9	11100.00	62.3 PK	74.0	-11.7	1.00 V	177	44.50	17.80
10	11100.00	51.6 AV	54.0	-2.4	1.00 V	177	33.80	17.80

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5670.00	112.5 PK			1.00 H	3	71.80	40.70
2	*5670.00	102.4 AV			1.00 H	3	61.70	40.70
3	#5725.00	70.5 PK	74.0	-3.5	1.00 H	3	67.90	2.60
4	#5725.00	52.9 AV	54.0	-1.1	1.00 H	3	50.30	2.60
5	11340.00	62.4 PK	74.0	-11.6	1.00 H	36	45.60	16.80
6	11340.00	48.9 AV	54.0	-5.1	1.00 H	36	32.10	16.80
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	100.7 PK			1.19 V	97	60.00	40.70
2	*5670.00	90.8 AV			1.19 V	97	50.10	40.70
3	#5725.00	49.3 PK	74.0	-24.7	1.17 V	104	46.70	2.60
4	#5725.00	45.4 AV	54.0	-8.6	1.17 V	104	42.80	2.60
5	11340.00	62.3 PK	74.0	-11.7	1.00 V	117	45.50	16.80
6	11340.00	48.9 AV	54.0	-5.1	1.00 V	117	32.10	16.80

REMARKS:

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

802.11ac (VHT80)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5290.00	105.2 PK			1.15 H	198	65.10	40.10
2	*5290.00	95.5 AV			1.15 H	198	55.40	40.10
3	5350.00	71.9 PK	74.0	-2.1	1.03 H	196	69.90	2.00
4	5350.00	52.6 AV	54.0	-1.4	1.03 H	196	50.60	2.00
5	#10580.00	63.5 PK	74.0	-10.5	1.00 H	26	47.20	16.30
6	#10580.00	50.8 AV	54.0	-3.2	1.00 H	26	34.50	16.30
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	96.2 PK			1.50 V	263	56.10	40.10
2	*5290.00	85.2 AV			1.50 V	263	45.10	40.10
3	5350.00	61.0 PK	74.0	-13.0	1.15 V	266	59.00	2.00
4	5350.00	45.1 AV	54.0	-8.9	1.15 V	266	43.10	2.00
5	#10580.00	62.8 PK	74.0	-11.2	1.00 V	203	46.50	16.30
6	#10580.00	49.7 AV	54.0	-4.3	1.00 V	203	33.40	16.30

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) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	68.3 PK	74.0	-5.7	1.00 H	199	66.20	2.10
2	5460.00	52.4 AV	54.0	-1.6	1.00 H	199	50.30	2.10
3	#5470.00	72.9 PK	74.0	-1.1	1.12 H	357	70.70	2.20
4	#5470.00	52.7 AV	54.0	-1.3	1.12 H	357	50.50	2.20
5	*5530.00	107.0 PK			1.00 H	9	66.60	40.40
6	*5530.00	96.8 AV			1.00 H	9	56.40	40.40
7	11060.00	62.2 PK	74.0	-11.8	1.00 H	110	44.20	18.00
8	11060.00	49.1 AV	54.0	-4.9	1.00 H	110	31.10	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	5460.00	58.8 PK	74.0	-15.2	1.00 V	169	56.70	2.10
2	5460.00	45.8 AV	54.0	-8.2	1.00 V	169	43.70	2.10
3	#5470.00	62.1 PK	74.0	-11.9	1.00 V	166	59.90	2.20
4	#5470.00	46.3 AV	54.0	-7.7	1.00 V	166	44.10	2.20
5	*5530.00	94.1 PK			1.00 V	164	53.70	40.40
6	*5530.00	84.0 AV			1.00 V	164	43.60	40.40
7	11060.00	62.2 PK	74.0	-11.8	1.00 V	6	44.20	18.00
8	11060.00	49.1 AV	54.0	-4.9	1.00 V	6	31.10	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) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

BELOW 1GHz WORST-CASE DATA

802.11n (HT20)

CHANNEL	TX Channel 52	**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	101.90	23.5 QP	43.5	-20.0	1.24 H	292	41.90	-18.40
2	199.10	28.8 QP	43.5	-14.7	1.00 H	137	45.40	-16.60
3	288.50	32.0 QP	46.0	-14.0	1.00 H	157	44.70	-12.70
4	424.60	23.4 QP	46.0	-22.6	1.99 H	194	33.30	-9.90
5	500.40	25.7 QP	46.0	-20.3	1.49 H	168	34.30	-8.60
6	799.80	29.9 QP	46.0	-16.1	1.24 H	172	32.60	-2.70
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	35.80	34.5 QP	40.0	-5.5	1.49 V	27	49.90	-15.40
2	88.30	34.0 QP	43.5	-9.5	1.24 V	306	53.80	-19.80
3	317.70	29.9 QP	46.0	-16.1	1.49 V	213	41.90	-12.00
4	424.60	26.8 QP	46.0	-19.2	1.00 V	115	36.70	-9.90
5	500.40	27.0 QP	46.0	-19.0	1.99 V	112	35.60	-8.60
6	828.90	34.1 QP	46.0	-11.9	1.00 V	242	36.40	-2.30

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) – Pre-Amplifier 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 OF EMISSION (MHz)	CONDUCTED LIMIT (dBμV)	
	Quasi-peak	Average
0.15 ~ 0.5	66 to 56	56 to 46
0.5 ~ 5	56	46
5 ~ 30	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.

3. All emanations from a class A/B digital device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified above.

4.2.2 TEST INSTRUMENTS

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESCI	100612	Sep. 30, 2014	Sep. 29, 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. 13, 2014	Feb. 12, 2015
LISN ROHDE & SCHWARZ (Peripheral)	ESH3-Z5	100311	Jul. 21, 2014	Jul. 20, 2015
Software ADT	BV ADT_Cond_ V7.3.7.3	NA	NA	NA

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

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

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

4. Tested Date: Jan. 07, 2015

4.2.3 TEST PROCEDURES

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

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

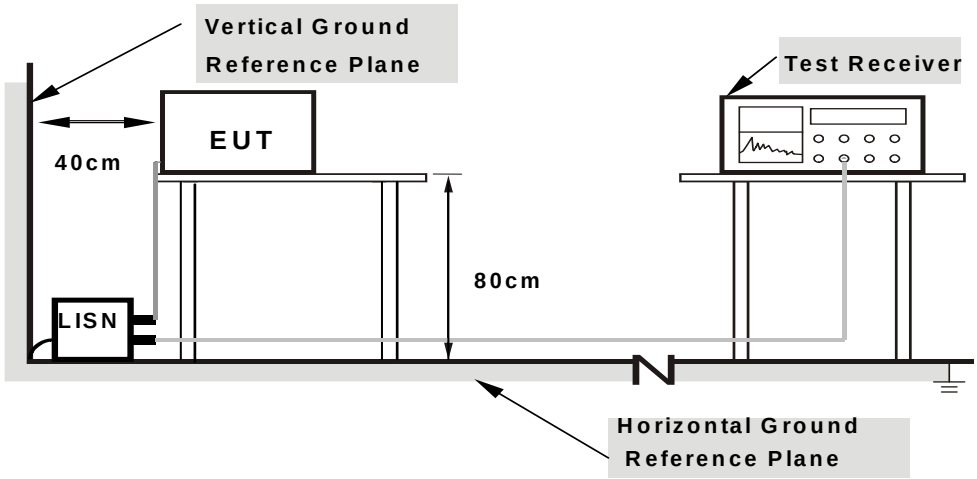
c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) were not recorded.

NOTE: All modes of operation were investigated and the worst-case emissions are reported.

4.2.4 DEVIATION FROM TEST STANDARD

No deviation.

4.2.5 TEST SETUP



Note: 1.Support units were connected to second LISN.
2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

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

4.2.6 EUT OPERATING CONDITIONS

Same as 4.1.6.

4.2.7 TEST RESULTS

CONDUCTED WORST-CASE DATA：

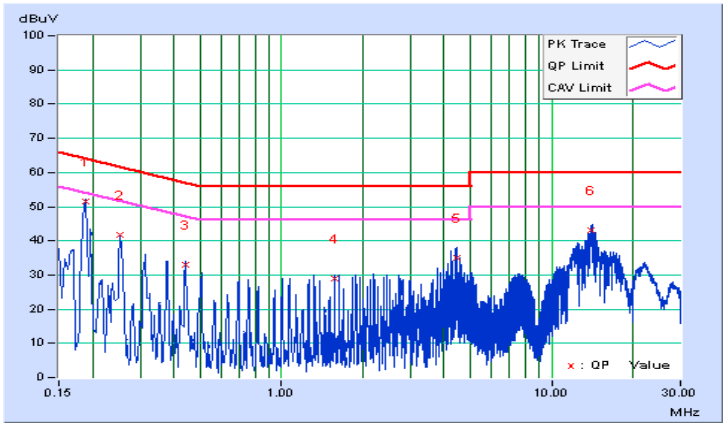
802.11n (HT20)

PHASE	Line 1	6dB BANDWIDTH	9kHz

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.18903	0.07	51.58	41.83	51.65	41.90	64.08	54.08	-12.43	-12.18
2	0.25192	0.07	41.60	32.48	41.67	32.55	61.69	51.69	-20.02	-19.14
3	0.43934	0.08	33.06	29.82	33.14	29.90	57.07	47.07	-23.93	-17.17
4	1.57324	0.13	28.99	28.66	29.12	28.79	56.00	46.00	-26.88	-17.21
5	4.46664	0.25	34.86	28.55	35.11	28.80	56.00	46.00	-20.89	-17.20
6	13.91320	0.72	42.28	36.13	43.00	36.85	60.00	50.00	-17.00	-13.15

REMARKS:

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

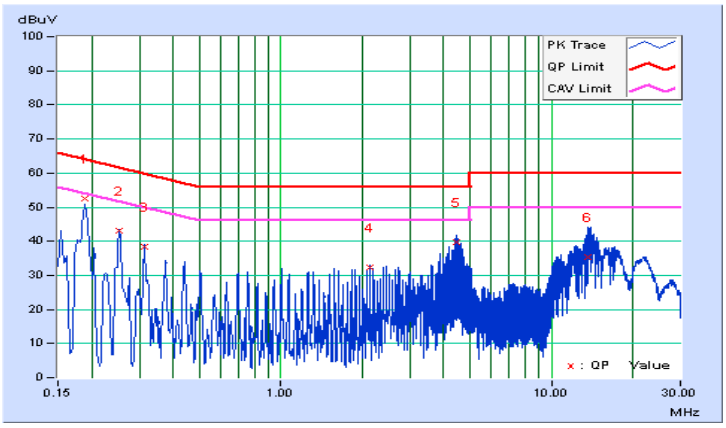


PHASE	Line 2	6dB BANDWIDTH	9kHz

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	**0.18903**	**0.05**	**52.63**	**43.19**	**52.68**	**43.24**	**64.08**	**54.08**	**-11.40**	**-10.84**
2	0.25192	0.06	43.03	34.15	43.09	34.21	61.69	51.69	-18.61	-17.49
3	0.31422	0.06	38.38	33.00	38.44	33.06	59.86	49.86	-21.42	-16.80
4	2.14014	0.14	32.23	31.85	32.37	31.99	56.00	46.00	-23.63	-14.01
5	4.46664	0.23	39.64	33.81	39.87	34.04	56.00	46.00	-16.13	-11.96
6	13.65123	0.61	34.79	24.84	35.40	25.45	60.00	50.00	-24.60	-24.55

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 ≦ 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

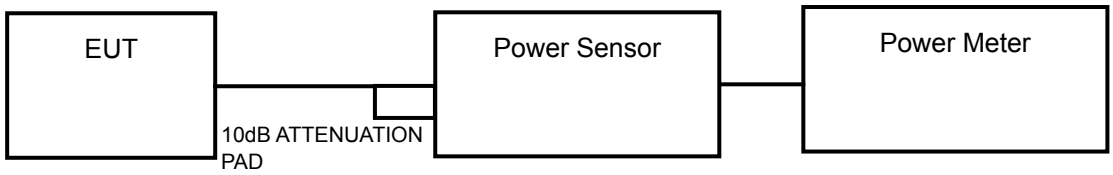
Per KDB 662911 D01 Multiple Transmitter Output v02r01 Method of conducted output power measurement on IEEE 802.11 devices,

Array Gain = 0 dB (i.e., no array gain) for NANT ≤ 4;
Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any NANT;
Array Gain = 5 log(NANT/NSS) dB or 3 dB, whichever is less for 20-MHz channel widths with NANT ≥ 5.

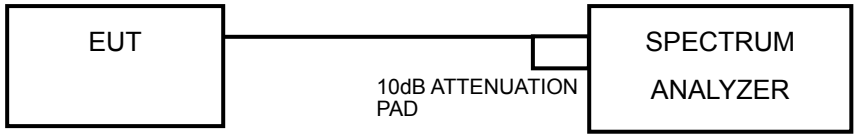
For power measurements on all other devices: Array Gain = 10 log(NANT/NSS) dB.

4.3.2 TEST SETUP

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



For 802.11ac (VHT80)



4.3.3 TEST INSTRUMENTS

Refer to section 4.1.3 to get information of above instrument.

4.3.4 TEST PROCEDURE

FOR AVERAGE POWER MEASUREMENT

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

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

For 802.11ac (VHT80)

1) Set span to encompass the entire 26 dB EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal.
2) Set sweep trigger to “free run”.
3) Set RBW = 1 MHz.
4) Set VBW ≥ 3 MHz
5) Number of points in sweep ≥ 2 Span / RBW.
6) Sweep time ≤ (number of points in sweep) * T
7) Detector = RMS.
8) Trace mode = max hold.
9) 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 specific channel frequencies individually.

4.3.7 TEST RESULTS

POWER OUTPUT:

1TX:

802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	MAXIMUM CONDUCTED POWER (mW)	MAXIMUM CONDUCTED POWER (dBm)	POWER LIMIT (dBm)	PASS/FAIL
52	5260	**187.068**	22.72	24	PASS
60	5300	89.536	19.52	24	PASS
64	5320	146.893	21.67	24	PASS
100	5500	105.925	20.25	24	PASS
116	5580	191.426	22.82	24	PASS
140	5700	82.794	19.18	24	PASS

NOTE:
1. 11dBm + 10log(34.91) = 26.43 dBm > 24dBm.
2. 11dBm + 10log(20.87) = 24.20 dBm > 24dBm.
3. 11dBm + 10log(33.10) = 26.20 dBm > 24dBm.
4. 11dBm + 10log(33.26) = 26.22 dBm > 24dBm.
5. 11dBm + 10log(45.25) = 27.56 dBm > 24dBm.
6. 11dBm + 10log(33.62) = 26.27 dBm > 24dBm.

802.11n (HT20)

CHANNEL	CHANNEL FREQUENCY (MHz)	MAXIMUM CONDUCTED POWER (mW)	MAXIMUM CONDUCTED POWER (dBm)	POWER LIMIT (dBm)	PASS/FAIL
52	5260	**187.068**	22.72	24	PASS
60	5300	66.222	18.21	24	PASS
64	5320	120.781	20.82	24	PASS
100	5500	90.573	19.57	24	PASS
116	5580	**200.909**	23.03	24	PASS
140	5700	66.681	18.24	24	PASS

NOTE:
1. 11dBm + 10log(40.78) = 27.10 dBm > 24dBm.
2. 11dBm + 10log(20.81) = 24.18 dBm > 24dBm.
3. 11dBm + 10log(29.70) = 25.73 dBm > 24dBm.
4. 11dBm + 10log(32.01) = 26.05 dBm > 24dBm.
5. 11dBm + 10log(48.89) = 27.89 dBm > 24dBm.
6. 11dBm + 10log(34.87) = 26.42 dBm > 24dBm.

802.11n (HT40)

CHANNEL	CHANNEL FREQUENCY (MHz)	MAXIMUM CONDUCTED POWER (mW)	MAXIMUM CONDUCTED POWER (dBm)	POWER LIMIT (dBm)	PASS/FAIL
54	5270	151.356	21.80	24	PASS
62	5310	52.845	17.23	24	PASS
102	5510	44.875	16.52	24	PASS
110	5550	121.899	20.86	24	PASS
134	5670	108.893	20.37	24	PASS

NOTE:
1. 11dBm + 10log(88.45) = 30.47 dBm > 24dBm.
2. 11dBm + 10log(41.59) = 27.19 dBm > 24dBm.
3. 11dBm + 10log(41.66) = 27.20 dBm > 24dBm.
4. 11dBm + 10log(91.27) = 30.60 dBm > 24dBm.
5. 11dBm + 10log(94.85) = 30.77 dBm > 24dBm.

802.11ac (VHT80)

CHANNEL	CHANNEL FREQUENCY (MHz)	MAXIMUM CONDUCTED POWER (mW)	MAXIMUM CONDUCTED POWER (dBm)	POWER LIMIT (dBm)	PASS/FAIL
58	5290	54.325	17.35	24	PASS
106	5530	40.179	16.04	24	PASS

NOTE:
1. 11dBm + 10log(82.89) = 30.19 dBm > 24dBm.
2. 11dBm + 10log(83.42) = 30.21 dBm > 24dBm.

2TX:

802.11a

CHAN.	CHAN. FREQ. (MHz)	MAXIMUM CONDUCTED POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
52	5260	19.38	18.98	165.764	22.19	24	PASS
60	5300	16.86	15.36	82.885	19.18	24	PASS
64	5320	17.26	15.84	91.582	19.62	24	PASS
100	5500	18.67	18.48	144.090	21.59	24	PASS
116	5580	19.51	19.11	170.801	22.32	24	PASS
140	5700	17.68	17.06	109.430	20.39	24	PASS

NOTE:

CHAIN 0

1. 11dBm + 10log(31.94) = 26.04 dBm > 24dBm.
2. 11dBm + 10log(20.25) = 24.06 dBm > 24dBm.
3. 11dBm + 10log(20.48) = 24.11 dBm > 24dBm.
4. 11dBm + 10log(25.75) = 25.11 dBm > 24dBm.
5. 11dBm + 10log(33.86) = 26.30 dBm > 24dBm.
6. 11dBm + 10log(28.94) = 25.61 dBm > 24dBm.

CHAIN 1

1. 11dBm + 10log(38.02) = 26.80 dBm > 24dBm.
2. 11dBm + 10log(20.29) = 24.07 dBm > 24dBm.
3. 11dBm + 10log(20.40) = 24.10 dBm > 24dBm.
4. 11dBm + 10log(29.55) = 25.71 dBm > 24dBm.
5. 11dBm + 10log(36.61) = 26.64 dBm > 24dBm.
6. 11dBm + 10log(26.92) = 25.30 dBm > 24dBm.

802.11n (HT20)

CHAN.	CHAN. FREQ. (MHz)	MAXIMUM CONDUCTED POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
52	5260	21.65	20.17	**250.210**	23.98	24	PASS
60	5300	16.90	15.44	83.973	19.24	24	PASS
64	5320	17.76	16.65	105.942	20.25	24	PASS
100	5500	18.58	18.38	140.976	21.49	24	PASS
116	5580	20.11	19.93	**200.966**	23.03	24	PASS
140	5700	16.83	16.36	91.446	19.61	24	PASS

NOTE:

CHAIN 0

1. 11dBm + 10log(34.55) = 26.38 dBm > 24dBm.
2. 11dBm + 10log(20.77) = 24.17 dBm > 24dBm.
3. 11dBm + 10log(22.82) = 24.58 dBm > 24dBm.
4. 11dBm + 10log(30.20) = 25.80 dBm > 24dBm.
5. 11dBm + 10log(41.34) = 27.16 dBm > 24dBm.
6. 11dBm + 10log(29.44) = 25.69 dBm > 24dBm.

CHAIN 1

1. 11dBm + 10log(42.11) = 27.24 dBm > 24dBm.
2. 11dBm + 10log(20.66) = 24.15 dBm > 24dBm.
3. 11dBm + 10log(25.61) = 25.08 dBm > 24dBm.
4. 11dBm + 10log(28.14) = 25.49 dBm > 24dBm.
5. 11dBm + 10log(41.55) = 27.19 dBm > 24dBm.
6. 11dBm + 10log(23.35) = 24.68 dBm > 24dBm.

802.11n (HT40)

CHAN.	CHAN. FREQ. (MHz)	MAXIMUM CONDUCTED POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
54	5270	19.69	18.33	161.188	22.07	24	PASS
62	5310	16.25	14.91	73.144	18.64	24	PASS
102	5510	15.14	14.93	63.776	18.05	24	PASS
110	5550	19.64	19.35	178.144	22.51	24	PASS
134	5670	18.81	18.02	139.420	21.44	24	PASS

NOTE:
CHAIN 0
1. 11dBm + 10log(61.01) = 28.85 dBm > 24dBm.
2. 11dBm + 10log(41.48) = 27.18 dBm > 24dBm.
3. 11dBm + 10log(41.64) = 27.20 dBm > 24dBm.
4. 11dBm + 10log(86.07) = 30.35 dBm > 24dBm.
5. 11dBm + 10log(87.44) = 30.42 dBm > 24dBm.

CHAIN 1
1. 11dBm + 10log(77.48) = 29.89 dBm > 24dBm.
2. 11dBm + 10log(45.16) = 27.55 dBm > 24dBm.
3. 11dBm + 10log(41.04) = 27.13 dBm > 24dBm.
4. 11dBm + 10log(83.30) = 30.21 dBm > 24dBm.
5. 11dBm + 10log(87.65) = 30.43 dBm > 24dBm.

802.11ac (VHT80)

CHAN.	CHAN. FREQ. (MHz)	MAXIMUM CONDUCTED POWER (dBm)		TOTAL POWER (mW)	TOTAL POWER (dBm)	POWER LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1				
58	5290	15.81	14.21	64.470	18.09	24	PASS
106	5530	14.51	14.11	54.012	17.32	24	PASS

NOTE:
CHAIN 0
1. 11dBm + 10log(83.23) = 30.20 dBm > 24dBm.
2. 11dBm + 10log(82.76) = 30.18 dBm > 24dBm.

CHAIN 1
1. 11dBm + 10log(82.45) = 30.16 dBm > 24dBm.
2. 11dBm + 10log(82.53) = 30.17 dBm > 24dBm.

26dB BANDWIDTH:

1TX:

802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)	PASS / FAIL
52	5260	34.91	PASS
60	5300	20.87	PASS
64	5320	33.10	PASS
100	5500	33.26	PASS
116	5580	45.25	PASS
140	5700	33.62	PASS

802.11n (HT20)

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)	PASS / FAIL
52	5260	40.78	PASS
60	5300	20.81	PASS
64	5320	29.70	PASS
100	5500	32.01	PASS
116	5580	48.89	PASS
140	5700	34.87	PASS

802.11n (HT40)

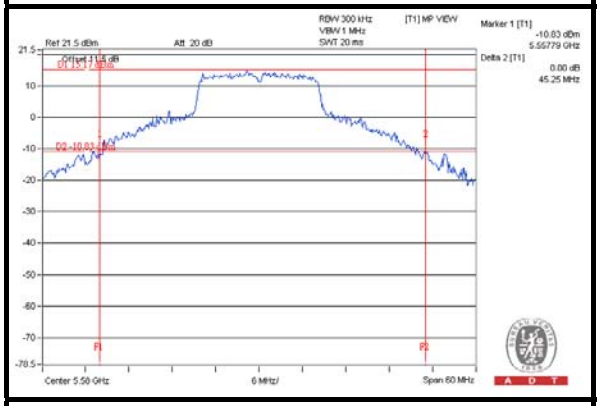
CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)	PASS / FAIL
54	5270	88.45	PASS
62	5310	41.59	PASS
102	5510	41.66	PASS
110	5550	91.27	PASS
134	5670	94.85	PASS

802.11ac (VHT80)

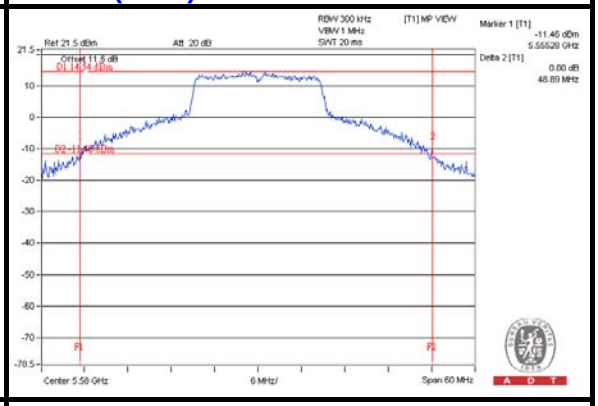
CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)	PASS / FAIL
58	5290	82.89	PASS
106	5530	83.42	PASS

SPECTRUM PLOT OF WORST VALUE

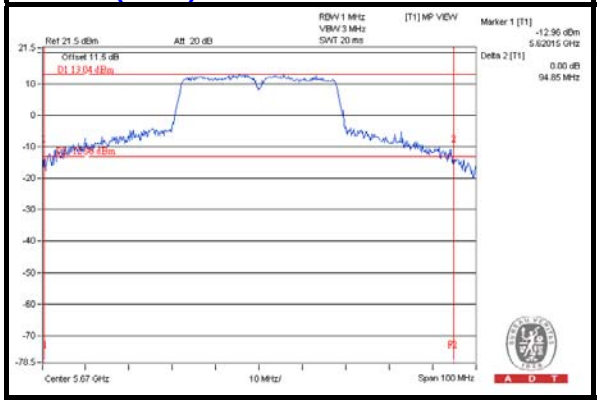
802.11a



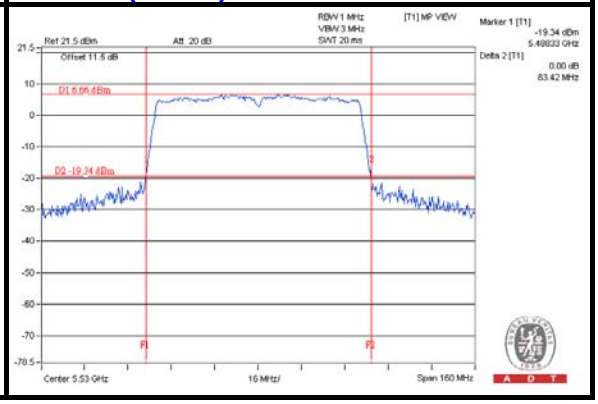
802.11n (HT20)



802.11n (HT40)



802.11ac (VHT80)



2TX:

802.11a

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)		PASS / FAIL
		CHAIN 0	CHAIN 1	
52	5260	31.94	38.02	PASS
60	5300	20.25	20.29	PASS
64	5320	20.48	20.40	PASS
100	5500	25.75	29.55	PASS
116	5580	33.86	36.61	PASS
140	5700	28.94	26.92	PASS

802.11n (HT20)

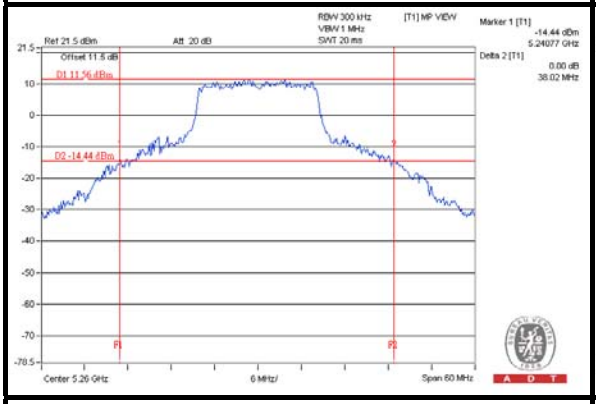
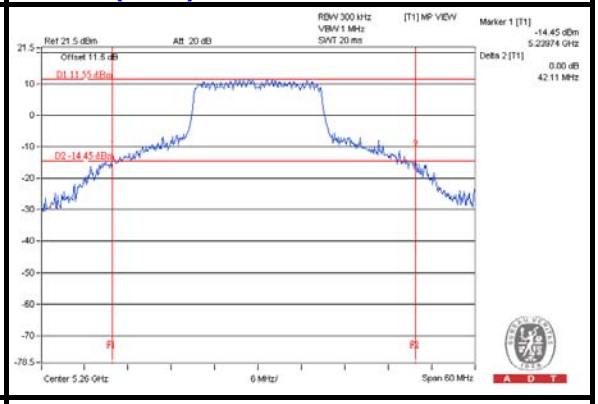
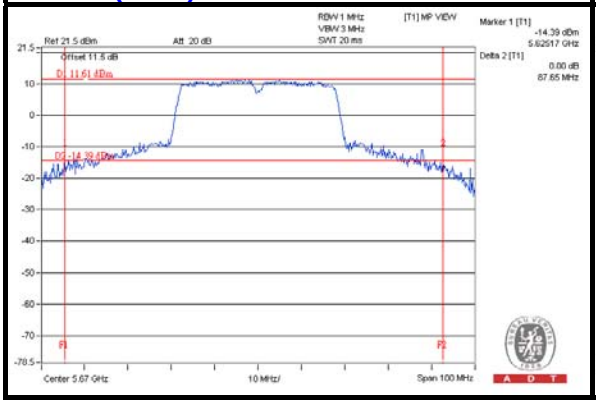
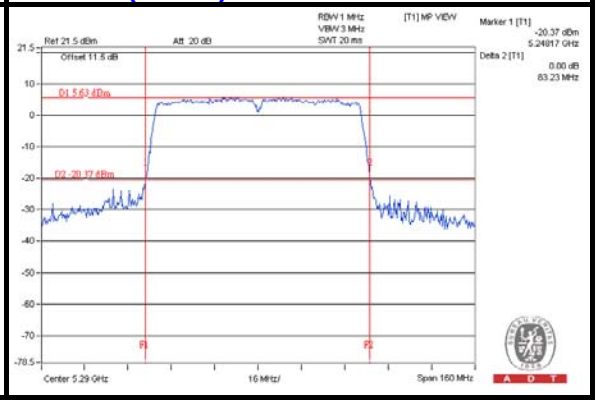
CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)		PASS / FAIL
		CHAIN 0	CHAIN 1	
52	5260	34.55	42.11	PASS
60	5300	20.77	20.66	PASS
64	5320	22.82	25.61	PASS
100	5500	30.20	28.14	PASS
116	5580	41.34	41.55	PASS
140	5700	29.44	23.35	PASS

802.11n (HT40)

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)		PASS / FAIL
		CHAIN 0	CHAIN 1	
54	5270	61.01	77.48	PASS
62	5310	41.48	45.16	PASS
102	5510	41.64	41.04	PASS
110	5550	86.07	83.30	PASS
134	5670	87.44	87.65	PASS

802.11ac (VHT80)

CHANNEL	CHANNEL FREQUENCY (MHz)	26dBc BANDWIDTH (MHz)		PASS / FAIL
		CHAIN 0	CHAIN 1	
58	5290	83.23	82.45	PASS
106	5530	82.76	82.53	PASS

SPECTRUM PLOT OF WORST VALUE	
802.11a	**802.11n (HT20)**
	
802.11n (HT40)	**802.11ac (VHT80)**
	

EUT MAXIMUM CONDUCTED POWER

1TX:

802.11a

FREQUENCY BAND (MHz)	MAX. POWER	
	OUTPUT POWER (mW)	OUTPUT POWER (dBm)
5250~5350	187.068	22.72
5470~5725	191.426	22.82

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	187.068	22.72
5470~5725	200.909	23.03

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	151.356	21.80
5470~5725	121.899	20.86

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	54.325	17.35
5470~5725	40.179	16.04

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

2TX:

802.11a

FREQUENCY BAND (MHz)	MAX. POWER	
	OUTPUT POWER (mW)	OUTPUT POWER (dBm)
5250~5350	165.764	22.19
5470~5725	170.801	22.32

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	250.210	23.98
5470~5725	200.966	23.03

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	161.188	22.07
5470~5725	178.144	22.51

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	64.470	18.09
5470~5725	54.012	17.32

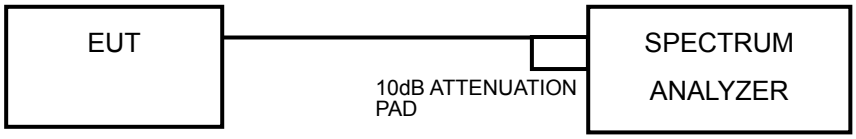
NOTE: Manufacturer provides Transmit Power Control description to meet this requirement.

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/ MHz

4.4.2 TEST SETUP



4.4.3 TEST INSTRUMENTS

Refer to section 4.1.3 to get information of above instrument.

4.4.4 TEST PROCEDURES

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

Without duty factor:

Using method SA-2

1) Set span to encompass the entire emission bandwidth (EBW) of the signal.
2) Set RBW = 30 kHz, Set VBW ≥ 1 MHz, Detector = RMS
3) Set Channel power measure = 1MHz
4) Sweep time = auto, trigger set to “free run”.
5) Trace average at least 100 traces in power averaging mode.
6) Record the max value

With duty factor:

1) Set span to encompass the entire emission bandwidth (EBW) of the signal.
2) Set RBW = 30 kHz, Set VBW ≥ 1 MHz, Detector = RMS
3) Set Channel power measure = 1MHz
4) Sweep time = auto, trigger set to “free run”.
5) Trace average at least 100 traces in power averaging mode.
6) Record the max value and add 10 log (1/duty cycle)

4.4.5 DEVIATION FROM TEST STANDARD

No deviation.

4.4.6 EUT OPERATING CONDITIONS

Same as 4.3.6.

4.4.7 TEST RESULTS

1TX:

802.11a

CHANNEL	FREQUENCY (MHz)	PSD W/O DUTY FACTOR (dBm)	DUTY FACTOR	PSD WITH DUTY FACTOR (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
52	5260	8.15	0.09	8.24	11	PASS
60	5300	5.80	0.09	5.89	11	PASS
64	5320	8.12	0.09	8.21	11	PASS
100	5500	7.53	0.09	7.62	11	PASS
116	5580	10.10	0.09	10.19	11	PASS
140	5700	4.42	0.09	4.51	11	PASS

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

802.11n (HT20)

CHANNEL	FREQUENCY (MHz)	PSD (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
52	5260	8.66	11	PASS
60	5300	4.34	11	PASS
64	5320	6.54	11	PASS
100	5500	6.31	11	PASS
116	5580	9.53	11	PASS
140	5700	2.97	11	PASS

802.11n (HT40)

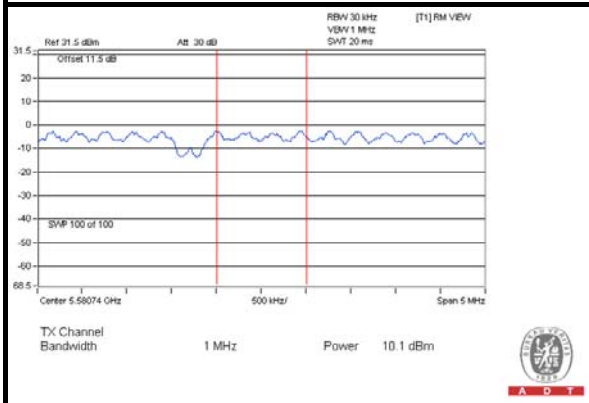
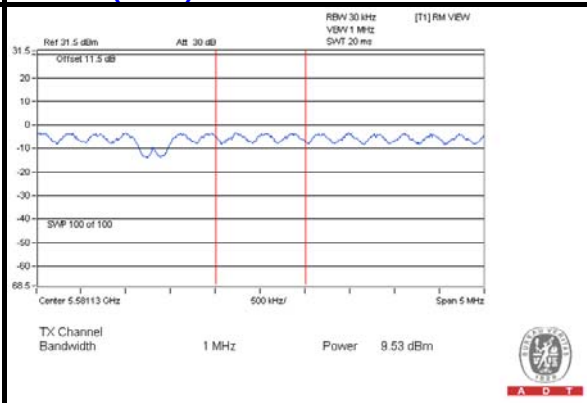
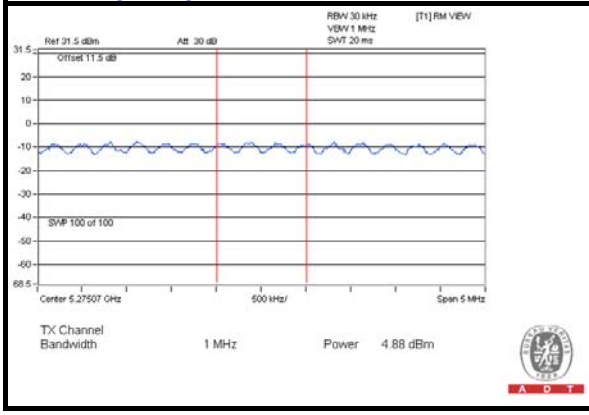
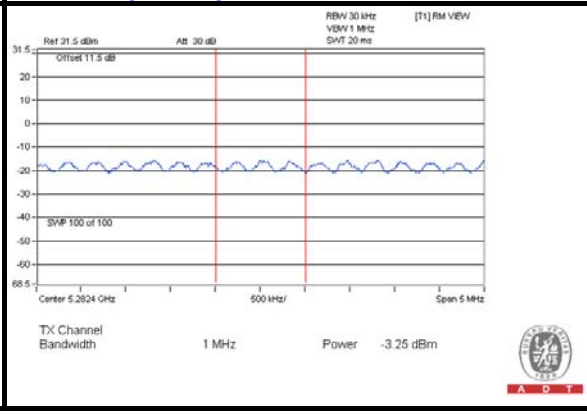
CHANNEL	FREQUENCY (MHz)	PSD W/O DUTY FACTOR (dBm)	DUTY FACTOR	PSD WITH DUTY FACTOR (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
54	5270	4.88	0.09	4.97	11	PASS
62	5310	0.12	0.09	0.21	11	PASS
102	5510	-0.67	0.09	-0.58	11	PASS
110	5550	4.62	0.09	4.71	11	PASS
134	5670	2.15	0.09	2.24	11	PASS

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

802.11ac (VHT80)

CHANNEL	FREQUENCY (MHz)	PSD W/O DUTY FACTOR (dBm)	DUTY FACTOR	PSD WITH DUTY FACTOR (dBm)	MAXIMUM LIMIT (dBm)	PASS/FAIL
58	5290	-3.25	0.32	-2.93	11	PASS
106	5530	-3.85	0.32	-3.53	11	PASS

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

SPECTRUM PLOT OF WORST VALUE	
802.11a	**802.11n (HT20)**
	
802.11n (HT40)	**802.11ac (VHT80)**
	

2TX:

802.11a

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					
52	5260	7.98	6.44	10.29	0.09	10.38	10.55	PASS
60	5300	3.21	2.20	5.75	0.09	5.84	10.55	PASS
64	5320	3.86	2.49	6.24	0.09	6.33	10.55	PASS
100	5500	5.70	5.37	8.55	0.09	8.64	10.23	PASS
116	5580	7.33	6.78	10.08	0.09	10.17	10.23	PASS
140	5700	3.07	2.44	5.78	0.09	5.87	10.23	PASS

NOTE:

1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. **For U-NII-2A Band:** Directional gain = 3.44dBi + 10log(2) = 6.45dBi > 6dBi, so the power density limit shall be reduced to 11-(6.45-6) = 10.55dBm.
   For U-NII-2C Band: Directional gain = 3.76dBi + 10log(2) = 6.77dBi > 6dBi, so the power density limit shall be reduced to 11-(6.77-6) = 10.23dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11n (HT20)

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					
52	5260	7.55	6.45	10.05	0.10	10.15	10.55	PASS
60	5300	2.52	1.49	5.05	0.10	5.15	10.55	PASS
64	5320	3.91	2.70	6.36	0.10	6.46	10.55	PASS
100	5500	5.41	5.02	8.23	0.10	8.33	10.23	PASS
116	5580	7.29	6.66	10.00	0.10	10.10	10.23	PASS
140	5700	2.26	1.30	4.82	0.10	4.92	10.23	PASS

NOTE:

1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. **For U-NII-2A Band:** Directional gain = 3.44dBi + 10log(2) = 6.45dBi > 6dBi, so the power density limit shall be reduced to 11-(6.45-6) = 10.55dBm.
   For U-NII-2C Band: Directional gain = 3.76dBi + 10log(2) = 6.77dBi > 6dBi, so the power density limit shall be reduced to 11-(6.77-6) = 10.23dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

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					
54	5270	1.95	1.16	4.58	0.16	4.74	10.55	PASS
62	5310	-1.49	-2.00	1.27	0.16	1.43	10.55	PASS
102	5510	-1.51	-1.64	1.44	0.16	1.60	10.23	PASS
110	5550	3.44	3.06	6.26	0.16	6.42	10.23	PASS
134	5670	1.35	0.35	3.89	0.16	4.05	10.23	PASS

NOTE:

1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. **For U-NII-2A Band:** Directional gain = 3.44dBi + 10log(2) = 6.45dBi > 6dBi, so the power density limit shall be reduced to 11-(6.45-6) = 10.55dBm.
   For U-NII-2C Band: Directional gain = 3.76dBi + 10log(2) = 6.77dBi > 6dBi, so the power density limit shall be reduced to 11-(6.77-6) = 10.23dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11ac (VHT80)

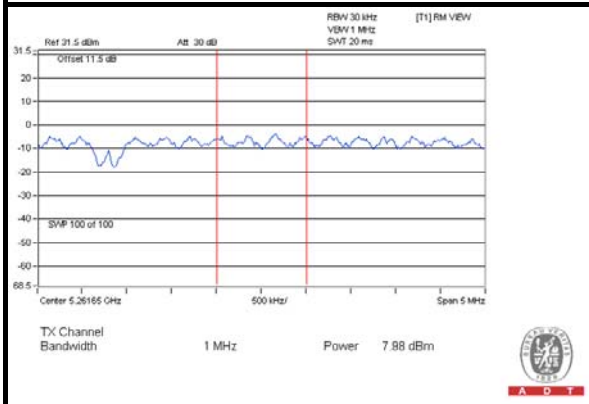
CHAN.	FREQ. (MHz)	PSD (dBm)		TOTAL PSD W/O DUTY FACTOR (dBm)	DUTY FACTOR	TOTAL PSD WITH DUTY FACTOR (dBm)	MAX. LIMIT (dBm)	PASS / FAIL
		CHAIN 0	CHAIN 1					
58	5290	-4.59	-6.08	-2.26	0.28	-1.98	10.55	PASS
106	5530	-4.92	-5.52	-2.20	0.28	-1.92	10.23	PASS

NOTE:

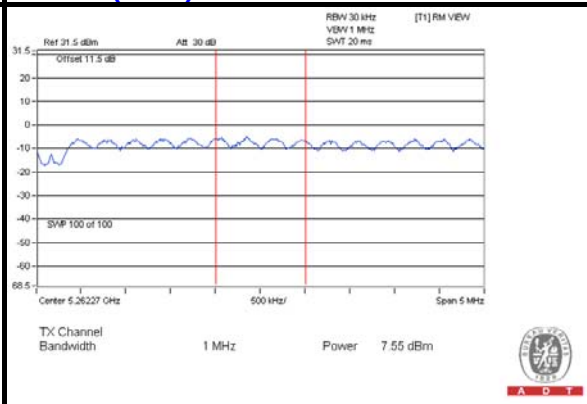
1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. **For U-NII-2A Band:** Directional gain = 3.44dBi + 10log(2) = 6.45dBi > 6dBi, so the power density limit shall be reduced to 11-(6.45-6) = 10.55dBm.
   For U-NII-2C Band: Directional gain = 3.76dBi + 10log(2) = 6.77dBi > 6dBi, so the power density limit shall be reduced to 11-(6.77-6) = 10.23dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

SPECTRUM PLOT OF WORST VALUE

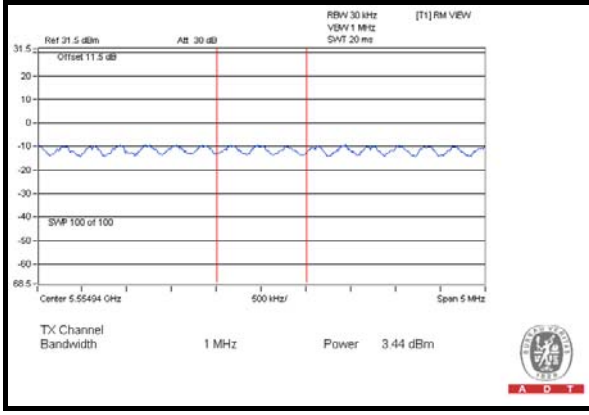
802.11a



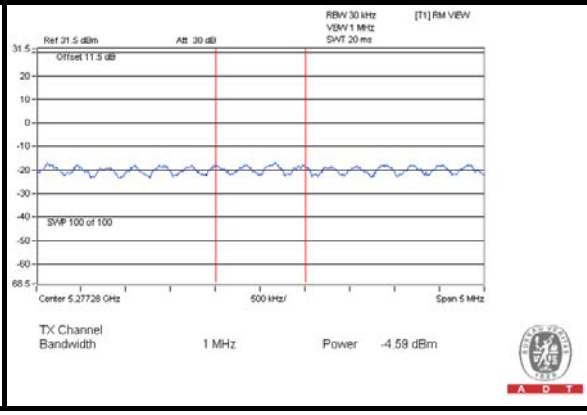
802.11n (HT20)



802.11n (HT40)



802.11ac (VHT80)

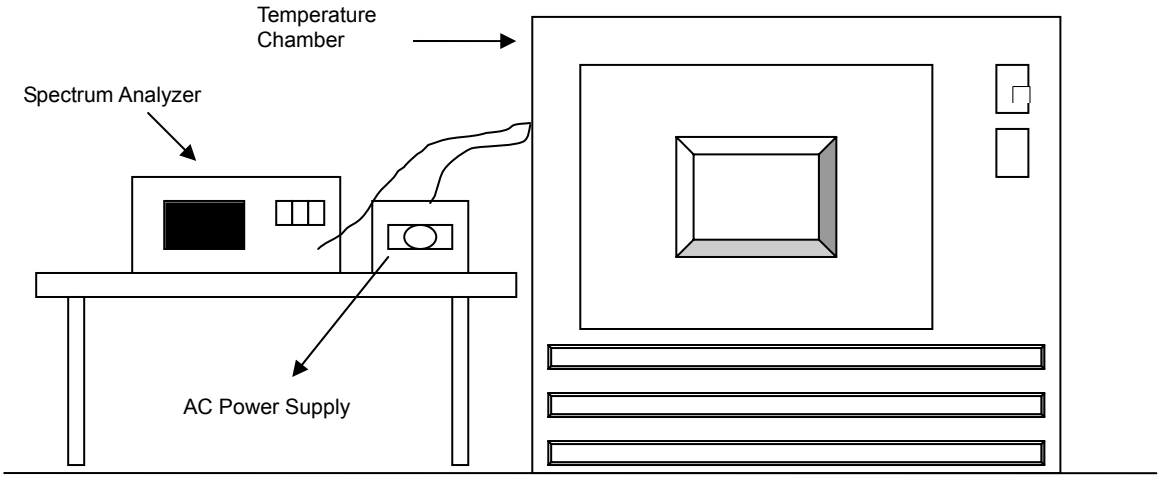


4.5 FREQUENCY STABILITY

4.5.1 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 4.1.3 to get information of above instrument.

4.5.4 TEST PROCEDURE

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

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

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

d. Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT on and measure the operating frequency after 2, 5, and 10 minutes.

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

f. The test chamber was allowed to stabilize at +20 degree C for a minimum of 30 minutes. The supply voltage was then adjusted on the EUT from 85% to 115% and the frequency record.

4.5.5 DEVIATION FROM TEST STANDARD

No deviation.

4.5.6 EUT OPERATING CONDITION

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

4.5.7 TEST RESULTS

1TX:

FREQUEMCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5320MHz									
TEMP. (℃)	POWER SUPPLY (Vac)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)
50	120	5319.9981	-0.00004	5319.9947	-0.00010	5319.9980	-0.00004	5319.9972	-0.00005
40	120	5320.0247	0.00046	5320.0222	0.00042	5320.0237	0.00045	5320.0212	0.00040
30	120	5320.0080	0.00015	5320.0067	0.00013	5320.0084	0.00016	5320.0057	0.00011
20	120	5320.0112	0.00021	5320.0082	0.00015	5320.0091	0.00017	5320.0113	0.00021
10	120	5320.0105	0.00020	5320.0091	0.00017	5320.0089	0.00017	5320.0098	0.00018
0	120	5320.0078	0.00015	5320.0059	0.00011	5320.0075	0.00014	5320.0089	0.00017
-10	120	5320.0151	0.00028	5320.0140	0.00026	5320.0172	0.00032	5320.0141	0.00027
-20	120	5319.9745	-0.00048	5319.9788	-0.00040	5319.9775	-0.00042	5319.9754	-0.00046
-30	120	5320.0009	0.00002	5319.9969	-0.00006	5319.9991	-0.00002	5319.9985	-0.00003

FREQUEMCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5320MHz									
TEMP. (℃)	POWER SUPPLY (Vac)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)
20	138	5320.0108	0.00020	5320.0089	0.00017	5320.0090	0.00017	5320.0116	0.00022
	120	5320.0112	0.00021	5320.0082	0.00015	5320.0091	0.00017	5320.0113	0.00021
	102	5320.0108	0.00020	5320.0078	0.00015	5320.0094	0.00018	5320.0111	0.00021

2TX:

FREQUEMCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5320MHz									
TEMP. (℃)	POWER SUPPLY (Vac)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)
50	120	5320.0141	0.00027	5320.0148	0.00028	5320.0154	0.00029	5320.0150	0.00028
40	120	5319.9806	-0.00036	5319.9789	-0.00040	5319.9808	-0.00036	5319.9788	-0.00040
30	120	5320.0209	0.00039	5320.0171	0.00032	5320.0174	0.00033	5320.0192	0.00036
20	120	5320.0058	0.00011	5320.0044	0.00008	5320.0063	0.00012	5320.0045	0.00008
10	120	5320.0178	0.00033	5320.0170	0.00032	5320.0194	0.00036	5320.0154	0.00029
0	120	5319.9988	-0.00002	5319.9982	-0.00003	5319.9989	-0.00002	5319.9992	-0.00002
-10	120	5319.9767	-0.00044	5319.9773	-0.00043	5319.9773	-0.00043	5319.9734	-0.00050
-20	120	5320.0235	0.00044	5320.0233	0.00044	5320.0198	0.00037	5320.0234	0.00044
-30	120	5319.9868	-0.00025	5319.9835	-0.00031	5319.9825	-0.00033	5319.9840	-0.00030

FREQUEMCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5320MHz									
TEMP. (℃)	POWER SUPPLY (Vac)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)
20	138	5320.0055	0.00010	5320.0037	0.00007	5320.0067	0.00013	5320.0039	0.00007
	120	5320.0058	0.00011	5320.0044	0.00008	5320.0063	0.00012	5320.0045	0.00008
	102	5320.0050	0.00009	5320.0051	0.00010	5320.0067	0.00013	5320.0053	0.00010

5. PHOTOGRAPHS OF THE TEST CONFIGURATION

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

6. INFORMATION ON THE TESTING LABORATORIES

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

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

Linko EMC/RF Lab:
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Email: service.adt@tw.bureauveritas.com
Web Site: www.bureauveritas-adt.com

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

7. APPENDIX A – MODIFICATIONS RECORDERS FOR ENGINEERING CHANGES TO THE EUT BY THE LAB

No modifications were made to the EUT by the lab during the test.

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