FCC Test Report

Report No.:	RF150612C01-1
FCC ID:	VQK-F02H
Test Model:	F-02H
Received Date:	Jun. 12, 2015
Test Date:	Aug. 05 ~ Aug. 20, 2015
Issued Date:	Sep. 04, 2015
Applicant:	FUJITSU LIMITED
Address:	1-1, Kamikodanaka 4-chome, Nakahara-ku, Kawasaki 211-8588, Japan
Issued By:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
Lab Address:	No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan, R.O.C.
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Release Control Record

Issue No.	Description	Date Issued
RF150612C01-1	Original release	Sep. 04, 2015

1 Certificate of Conformity

Product:	Smart Phone
Brand:	FUJITSU
Test Model:	F-02H
Sample Status:	Engineering sample
Applicant:	FUJITSU LIMITED
Test Date:	Aug. 05 ~ Aug. 20, 2015
Standards:	47 CFR FCC Part 15, Subpart E (Section 15.407) ANSI C63.10:2013

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

Prepared by : Celine Chou , **Date:** Sep. 04, 2015

Celine Chou / Specialist

Approved by : Ken Liu , **Date:** Sep. 04, 2015

Ken Liu / Senior Manager

2 Summary of Test Results

47 CFR FCC Part 15, Subpart E (Section 15.407)			
FCC Clause	Test Item	Result	Remarks
15.207 15.407(b)(6)	AC Power Conducted Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -13.84dB at 4.08594MHz.
15.407(b) (1/2/3/4/6)	Radiated Emissions & Band Edge Measurement	Pass	Meet the requirement of limit. Minimum passing margin is -4.0dB at 5350.00MHz.
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 Murata 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	Expended Uncertainty (k=2) (±)
Conducted Emissions at mains ports	150kHz ~ 30MHz	2.44 dB
Radiated Emissions up to 1 GHz	30MHz ~ 200MHz	3.86 dB
	200MHz ~1000MHz	3.87 dB
Radiated Emissions above 1 GHz	1GHz ~ 18GHz	2.29 dB
	18GHz ~ 40GHz	2.29 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	Smart Phone
Brand	FUJITSU
Test Model	F-02H
Sample Status	Engineering sample
Power Supply Rating	3.8Vdc (Battery) 5Vdc (Adapter or cradle)
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 150Mbps 802.11ac: up to 433.3Mbps
Operating Frequency	5180 ~ 5240MHz, 5260 ~ 5320MHz, 5500 ~ 5700MHz
Number of Channel	5180MHz ~ 5240MHz 802.11a, 802.11n (HT20), 802.11ac (VHT20): 4 802.11n (HT40), 802.11ac (VHT40): 2 802.11ac (VHT80): 1 5260MHz ~ 5320MHz: 802.11a, 802.11n (HT20), 802.11ac (VHT20): 4 802.11n (HT40), 802.11ac (VHT40): 2 802.11ac (VHT80): 1 5500MHz ~ 5700MHz: 802.11a, 802.11n (HT20), 802.11ac (VHT20): 11 802.11n (HT40), 802.11ac (VHT40): 5 802.11ac (VHT80): 2
Output Power	5180MHz ~ 5240MHz: 74.206mW 5260MHz ~ 5320MHz: 77.750mW 5500MHz ~ 5700MHz: 68.834mW
Antenna Type	Ant. 1: λ/4 Monopole antenna with -6.7dBi gain Ant. 2: λ/4 Monopole antenna with -7.1dBi gain
Antenna Connector	Murata
Accessory Device	Refer to Note as below
Data Cable Supplied	NA

Note:

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

Modulation Mode	TX Function
802.11a	1TX
802.11n (HT20)	2TX
802.11n (HT40)	2TX
802.11ac (VHT80)	2TX

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

2. The EUT contains the following accessories.

Product	Brand	Model	Description
Battery	NTT docomo	N/A	3.8Vdc, 3390mAh, 12.8Wh (Built-in battery)
Cradle	NTT docomo	F52	Input: 5.0Vdc, 1.5A Output: 5.0Vdc, 1.5A

3. The following adapter is support unit only.

Product	Brand	Model	Description
Adapter	NTT docomo	AC Adapter 04	Input: 100-240Vac, 50-60Hz, 0.22A Output: 5.0Vdc, 1.8A Power line: 1.05m cable with two cores attached on adapter

4. SW version is R021.1e
5. HW version is v2.1.0.
6. IMEI Code: 351914070005043 and 35914070005050.
7. The above EUT information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or User's Manual.

3.2 Description of Test Modes

For 5180 ~ 5240MHz

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

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

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

Channel	Frequency	Channel	Frequency
38	5190 MHz	46	5230 MHz

1 channel is provided for 802.11ac (VHT80):

Channel	Frequency
42	5210MHz

For 5260 ~ 5320MHz

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

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

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

Channel	Frequency	Channel	Frequency
54	5270 MHz	62	5310 MHz

1 channel is provided for 802.11ac (VHT80):

Channel	Frequency
58	5290MHz

For 5500 ~ 5700MHz

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

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

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

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

2 channels are provided for 802.11ac (VHT80):

Channel	Frequency	Channel	Frequency
106	5530MHz	122	5610 MHz

3.2.1 Test Mode Applicability and Tested Channel Detail

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

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

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

Note: The EUT had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on **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)
-	802.11a	5180-5240	36 to 48	36, 40, 48	OFDM	BPSK	6.0
-	802.11n (HT20)		36 to 48	36, 40, 48	OFDM	BPSK	7.2
-	802.11n (HT40)		38 to 46	38, 46	OFDM	BPSK	15.0
-	802.11ac (VHT80)		42	42	OFDM	BPSK	65.0
-	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	BPSK	6.0
-	802.11n (HT20)		52 to 64	52, 60, 64	OFDM	BPSK	7.2
-	802.11n (HT40)		54 to 62	54, 62	OFDM	BPSK	15.0
-	802.11ac (VHT80)		58	58	OFDM	BPSK	65.0
-	802.11a	5500-5700	100 to 140	100, 116, 140	OFDM	BPSK	6.0
-	802.11n (HT20)		100 to 140	100, 116, 140	OFDM	BPSK	7.2
-	802.11n (HT40)		102 to 134	102, 110, 134	OFDM	BPSK	15.0
-	802.11ac (VHT80)		106	106	OFDM	BPSK	65.0

Radiated Emission Test (Below 1GHz):

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

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

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
-	802.11a	5180-5240	36 to 48	36	OFDM	BPSK	6.0
-	802.11a	5260-5320	52 to 64		OFDM	BPSK	6.0
-	802.11a	5500-5700	100 to 140		OFDM	BPSK	6.0

Power Line Conducted Emission Test:

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

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

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
-	802.11a	5180-5240	36 to 48	36	OFDM	BPSK	6.0
-	802.11a	5260-5320	52 to 64		OFDM	BPSK	6.0
-	802.11a	5500-5700	100 to 140		OFDM	BPSK	6.0

Antenna Port Conducted Measurement:

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

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

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

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
-	802.11a	5180-5240	36 to 48	36, 40, 48	OFDM	BPSK	6.0
-	802.11n (HT20)		36 to 48	36, 40, 48	OFDM	BPSK	7.2
-	802.11n (HT40)		38 to 46	38, 46	OFDM	BPSK	15.0
-	802.11ac (VHT80)		42	42	OFDM	BPSK	65.0
-	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	BPSK	6.0
-	802.11n (HT20)		52 to 64	52, 60, 64	OFDM	BPSK	7.2
-	802.11n (HT40)		54 to 62	54, 62	OFDM	BPSK	15.0
-	802.11ac (VHT80)		58	58	OFDM	BPSK	65.0
-	802.11a	5500-5700	100 to 140	100, 116, 140	OFDM	BPSK	6.0
-	802.11n (HT20)		100 to 140	100, 116, 140	OFDM	BPSK	7.2
-	802.11n (HT40)		102 to 134	102, 110, 134	OFDM	BPSK	15.0
-	802.11ac (VHT80)		106	106	OFDM	BPSK	65.0

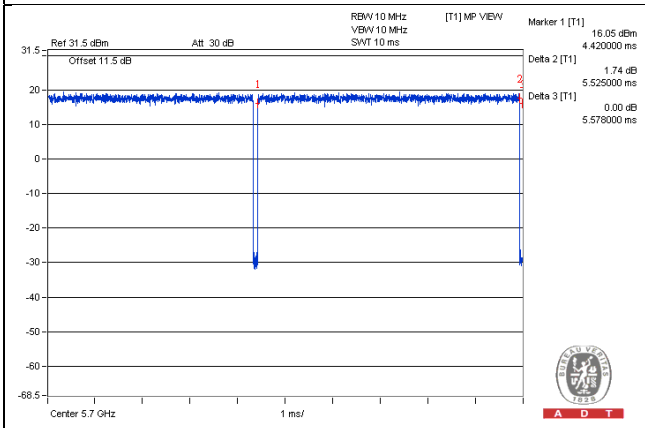
Test Condition:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE≥1G	22deg. C, 70%RH	120Vac, 60Hz	Jones Chang
RE<1G	22deg. C, 70%RH	120Vac, 60Hz	Jones Chang
PLC	20deg. C, 70%RH	120Vac, 60Hz	Jones Chang
APCM	24deg. C, 64%RH	120Vac, 60Hz	Match Tsui

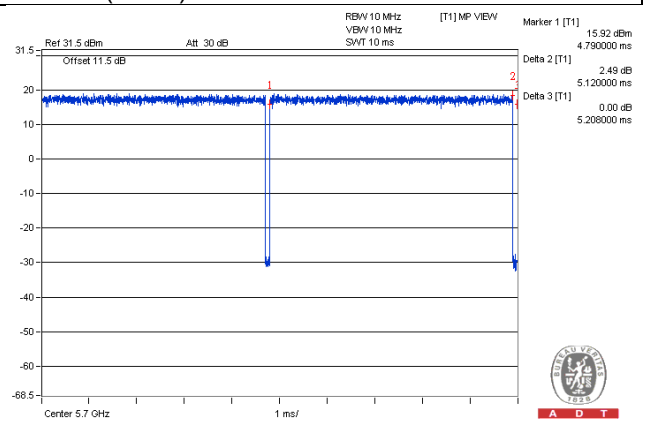
3.3 Duty Cycle of Test Signal

802.11a, 802.11n (HT20): Duty cycle of test signal is > 98 %, duty factor is not required.
802.11n (HT40), 802.11ac (VHT80): Duty cycle of test signal is < 98 %, duty factor shall be considered.
802.11n (HT40): Duty cycle = 2.478/2.590 = 0.957, Duty factor = 10 * log(1/0.957) = 0.19
802.11ac (VHT80): Duty cycle = 1.173/1.270 = 0.924, Duty factor = 10 * log(1/0.924) = 0.35

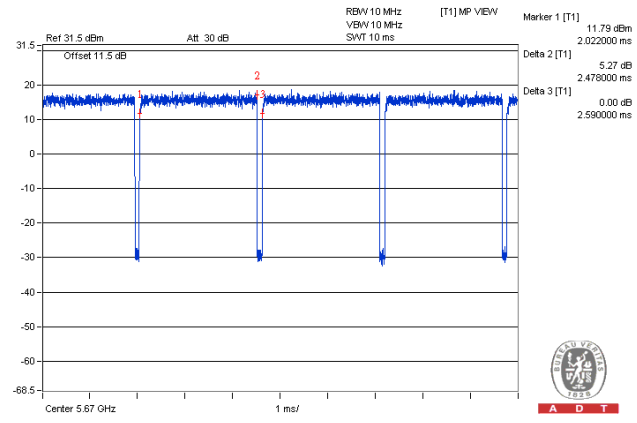
802.11a



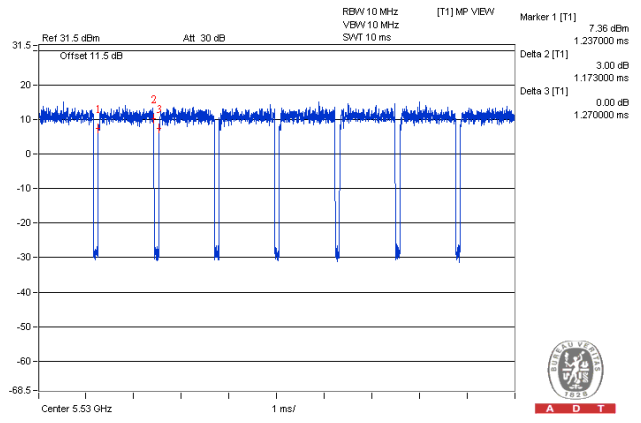
802.11n (HT20)



802.11n (HT40)



802.11ac (VHT80)



3.4 Description of Support Units

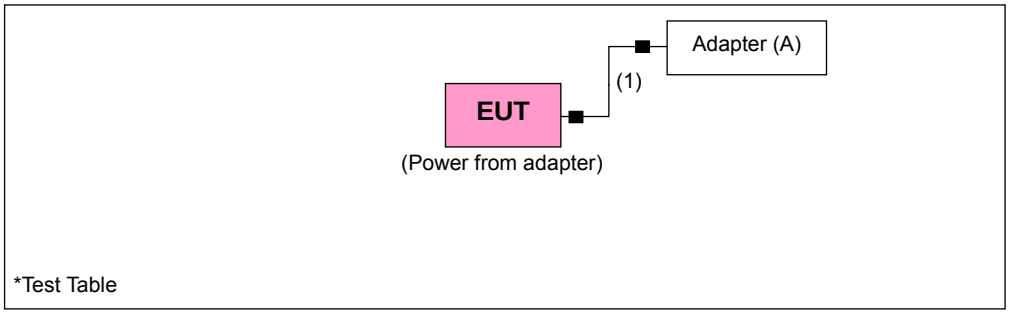
The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Adapter	NTT docomo	AC Adapter 04	NA	NA	Provided by the client

ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	Power cable	1	1.05	Y	2	Provided by the client Attached on adapter

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

3.4.1 Configuration of System under Test



3.5 General Description of Applied Standards

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

FCC Part 15, Subpart E (15.407)

789033 D02 General UNII Test Procedure New Rules v01

662911 D01 Multiple Transmitter Output v02r01

ANSI C63.10-2013

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

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

4 Test Types and Results

4.1 Radiated Emission and Bandedge Measurement

4.1.1 Limits of Radiated Emission and Bandedge Measurement

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table.

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

Note:

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

LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS

APPLICABLE TO	LIMIT	
789033 D02 General UNII Test Procedures New Rules v01	FIELD STRENGTH AT 3m	
	PK:74 (dBμV/m)	AV:54 (dBμV/m)
APPLICABLE TO	EIRP LIMIT	EQUIVALENT FIELD STRENGTH AT 3m
15.407(b)(1)	PK:-27 (dBm/MHz)	PK:68.2(dBμV/m)
15.407(b)(2)		
15.407(b)(3)		
15.407(b)(4)	PK:-27 (dBm/MHz) [*1] PK:-17 (dBm/MHz) [*2]	PK: 68.2(dBμV/m) [*1] PK:78.2 (dBμV/m) [*2]

Note: [*1] beyond 10MHz of the band edge [*2] within 10 MHz of band edge

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

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

4.1.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Test Receiver ROHDE & SCHWARZ	ESIB7	100187	Apr. 10, 2015	Apr. 09, 2016
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100041	Aug. 29, 2014	Aug. 28, 2015
BILOG Antenna SCHWARZBECK	VULB9168	9168-160	Feb. 05, 2015	Feb. 04, 2016
HORN Antenna SCHWARZBECK	9120D	209	Feb. 09, 2015	Feb. 08, 2016
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170241	Feb. 09, 2015	Feb. 08, 2016
Preamplifier Agilent	8447D	2944A10738	Oct.18, 2014	Oct. 17, 2015
Preamplifier Agilent	8449B	3008A01964	Aug. 22, 2014	Aug. 21, 2015
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	214378/4	Aug. 22, 2014	Aug. 21, 2015
RF signal cable HUBER+SUHNNER	SUCOFLEX 106	12738/6 +309224/4	Aug. 22, 2014	Aug. 21, 2015
Software BV ADT	ADT_Radiated_ V7.6.15.9.4	NA	NA	NA
Antenna Tower inn-co GmbH	MA 4000	013303	NA	NA
Antenna Tower Controller BV ADT	AT100	AT93021702	NA	NA
Turn Table BV ADT	TT100	TT93021702	NA	NA
Turn Table Controller BV ADT	SC100	SC93021702	NA	NA
26GHz ~ 40GHz Amplifier	EM26400	815221	Oct. 18, 2014	Oct. 17, 2015
High Speed Peak Power Meter	ML2495A	0824011	Jul. 09, 2015	Jul. 08, 2016
Power Sensor	MA2411B	0738171	Jul. 09, 2015	Jul. 08, 2016
WIT Standard Temperature And Humidity Chamber	TH-4S-C	W981030	Jun. 08, 2015	Jun. 07, 2016

Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in HwaYa Chamber 3.
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 988962.
5. The IC Site Registration No. is IC 7450F-3.

4.1.3 Test Procedures

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

b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.

c. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.

e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.

f. The test-receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

Note:

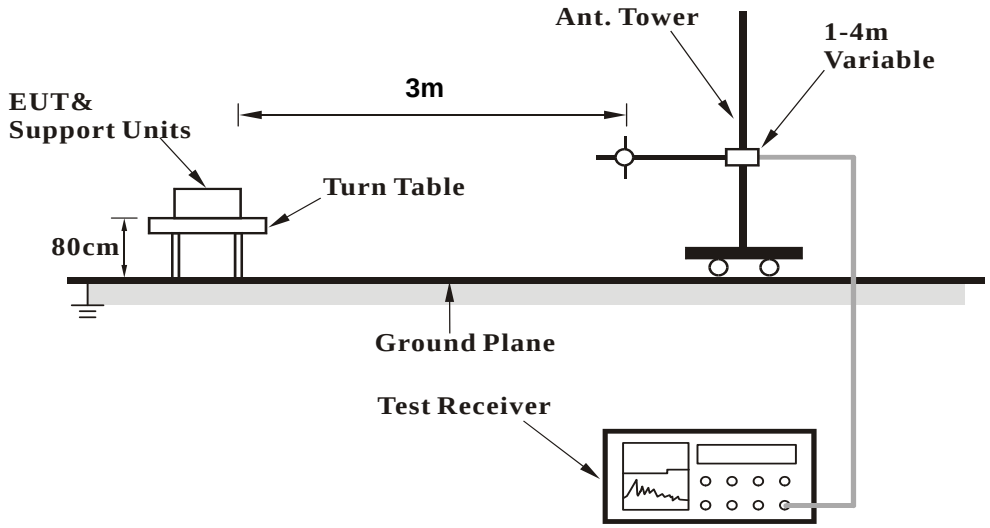
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.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

4.1.4 Deviation from Test Standard

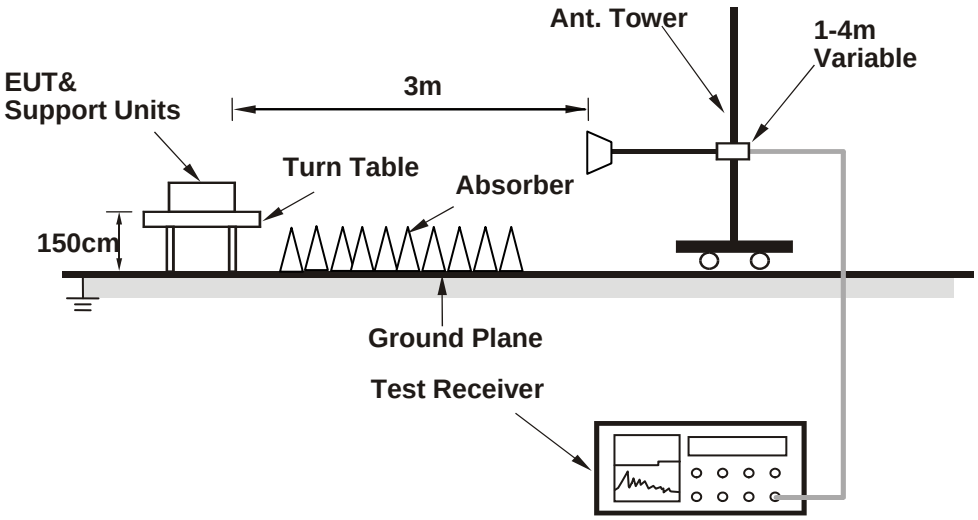
No deviation.

4.1.5 Test Set Up

<Frequency Range below 1GHz>



<Frequency Range above 1GHz>



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

4.1.6 EUT Operating Conditions

Set the EUT under transmission condition continuously at specific channel frequency.

4.1.7 Test Results

Above 1GHz Data

802.11a

CHANNEL	TX Channel 36	DETECTOR FUNCTION	Peak (PK) 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	57.8 PK	74.0	-16.2	1.23 H	88	51.80	6.00
2	5150.00	45.6 AV	54.0	-8.4	1.23 H	88	39.60	6.00
3	*5180.00	101.2 PK			1.15 H	281	61.70	39.50
4	*5180.00	91.1 AV			1.15 H	281	51.60	39.50
5	#10360.00	60.1 PK	74.0	-13.9	1.54 H	333	41.70	18.40
6	#10360.00	47.4 AV	54.0	-6.6	1.54 H	333	29.00	18.40
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	57.8 PK	74.0	-16.2	1.80 V	144	51.80	6.00
2	5150.00	45.5 AV	54.0	-8.5	1.80 V	144	39.50	6.00
3	*5180.00	100.3 PK			1.80 V	150	60.80	39.50
4	*5180.00	89.3 AV			1.80 V	150	49.80	39.50
5	#10360.00	60.3 PK	74.0	-13.7	1.44 V	179	41.90	18.40
6	#10360.00	47.2 AV	54.0	-6.8	1.44 V	179	28.80	18.40

Remarks:

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

CHANNEL	TX Channel 40	DETECTOR FUNCTION	Peak (PK) 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	*5200.00	102.3 PK			1.06 H	282	62.70	39.60
2	*5200.00	91.5 AV			1.06 H	282	51.90	39.60
3	#10400.00	60.4 PK	74.0	-13.6	1.31 H	94	41.90	18.50
4	#10400.00	47.0 AV	54.0	-7.0	1.31 H	94	28.50	18.50
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	101.4 PK			1.97 V	254	61.80	39.60
2	*5200.00	91.0 AV			1.97 V	254	51.40	39.60
3	#10400.00	61.2 PK	74.0	-12.8	1.51 V	19	42.70	18.50
4	#10400.00	47.8 AV	54.0	-6.2	1.51 V	19	29.30	18.50

Remarks:

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

CHANNEL	TX Channel 48	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	*5240.00	100.1 PK			1.11 H	285	60.50	39.60
2	*5240.00	89.4 AV			1.11 H	285	49.80	39.60
3	5350.00	59.3 PK	74.0	-14.7	1.42 H	55	53.20	6.10
4	5350.00	46.4 AV	54.0	-7.6	1.42 H	55	40.30	6.10
5	#10480.00	61.2 PK	74.0	-12.8	1.32 H	209	42.20	19.00
6	#10480.00	48.4 AV	54.0	-5.6	1.32 H	209	29.40	19.00
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	101.1 PK			1.99 V	258	61.50	39.60
2	*5240.00	90.9 AV			1.99 V	258	51.30	39.60
3	5350.00	57.7 PK	74.0	-16.3	1.43 V	111	51.60	6.10
4	5350.00	45.7 AV	54.0	-8.3	1.43 V	111	39.60	6.10
5	#10480.00	61.9 PK	74.0	-12.1	1.77 V	143	42.90	19.00
6	#10480.00	48.6 AV	54.0	-5.4	1.77 V	143	29.60	19.00

Remarks:

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

CHANNEL	TX Channel 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	57.9 PK	74.0	-16.1	1.45 H	19	51.90	6.00
2	5150.00	46.5 AV	54.0	-7.5	1.45 H	19	40.50	6.00
3	*5260.00	102.5 PK			2.20 H	237	62.80	39.70
4	*5260.00	91.6 AV			2.20 H	237	51.90	39.70
5	#10520.00	61.2 PK	74.0	-12.8	1.24 H	301	42.00	19.20
6	#10520.00	47.8 AV	54.0	-6.2	1.24 H	301	28.60	19.20
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	56.5 PK	74.0	-17.5	1.30 V	179	50.50	6.00
2	5150.00	45.2 AV	54.0	-8.8	1.30 V	179	39.20	6.00
3	*5260.00	101.2 PK			1.98 V	315	61.50	39.70
4	*5260.00	90.3 AV			1.98 V	315	50.60	39.70
5	#10520.00	60.8 PK	74.0	-13.2	1.78 V	123	41.60	19.20
6	#10520.00	47.7 AV	54.0	-6.3	1.78 V	123	28.50	19.20

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	100.0 PK			2.07 H	313	60.30	39.70
2	*5300.00	89.9 AV			2.07 H	313	50.20	39.70
3	10600.00	61.1 PK	74.0	-12.9	1.72 H	321	42.00	19.10
4	10600.00	48.0 AV	54.0	-6.0	1.72 H	321	28.90	19.10
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	102.0 PK			1.95 V	261	62.30	39.70
2	*5300.00	91.6 AV			1.95 V	261	51.90	39.70
3	10600.00	60.6 PK	74.0	-13.4	1.68 V	277	41.50	19.10
4	10600.00	47.7 AV	54.0	-6.3	1.68 V	277	28.60	19.10

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	100.8 PK			1.99 H	316	61.10	39.70
2	*5320.00	90.9 AV			1.99 H	316	51.20	39.70
3	5400.00	57.8 PK	74.0	-16.2	1.99 H	256	51.50	6.30
4	5400.00	46.7 AV	54.0	-7.3	1.99 H	256	40.40	6.30
5	10640.00	60.4 PK	74.0	-13.6	1.39 H	300	41.50	18.90
6	10640.00	47.5 AV	54.0	-6.5	1.39 H	300	28.60	18.90
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	101.6 PK			1.80 V	260	61.90	39.70
2	*5320.00	91.3 AV			1.80 V	260	51.60	39.70
3	5350.00	56.7 PK	74.0	-17.3	1.74 V	0	50.60	6.10
4	5350.00	45.6 AV	54.0	-8.4	1.74 V	0	39.50	6.10
5	10640.00	60.5 PK	74.0	-13.5	1.66 V	137	41.60	18.90
6	10640.00	47.3 AV	54.0	-6.7	1.66 V	137	28.40	18.90

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	58.3 PK	74.0	-15.7	1.55 H	300	51.90	6.40
2	5460.00	47.3 AV	54.0	-6.7	1.55 H	300	40.90	6.40
3	#5470.00	59.2 PK	74.0	-14.8	1.60 H	223	52.80	6.40
4	#5470.00	48.0 AV	54.0	-6.0	1.60 H	223	41.60	6.40
5	*5500.00	100.3 PK			2.30 H	317	60.30	40.00
6	*5500.00	90.6 AV			2.30 H	317	50.60	40.00
7	11000.00	61.9 PK	74.0	-12.1	1.93 H	292	42.30	19.60
8	11000.00	48.9 AV	54.0	-5.1	1.93 H	292	29.30	19.60
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	58.4 PK	74.0	-15.6	1.89 V	244	52.00	6.40
2	5460.00	45.4 AV	54.0	-8.6	1.89 V	244	39.00	6.40
3	#5470.00	59.9 PK	74.0	-14.1	1.69 V	250	53.50	6.40
4	#5470.00	46.2 AV	54.0	-7.8	1.69 V	250	39.80	6.40
5	*5500.00	103.6 PK			1.78 V	263	63.60	40.00
6	*5500.00	93.2 AV			1.78 V	263	53.20	40.00
7	11000.00	61.6 PK	74.0	-12.4	1.59 V	128	42.00	19.60
8	11000.00	48.6 AV	54.0	-5.4	1.59 V	128	29.00	19.60

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5580.00	102.4 PK			1.94 H	282	62.30	40.10
2	*5580.00	92.2 AV			1.94 H	282	52.10	40.10
3	11160.00	61.1 PK	74.0	-12.9	1.41 H	180	41.90	19.20
4	11160.00	47.9 AV	54.0	-6.1	1.41 H	180	28.70	19.20
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5580.00	102.2 PK			1.32 V	271	62.10	40.10
2	*5580.00	91.6 AV			1.32 V	271	51.50	40.10
3	11160.00	60.6 PK	74.0	-13.4	1.56 V	322	41.40	19.20
4	11160.00	47.4 AV	54.0	-6.6	1.56 V	322	28.20	19.20

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	102.9 PK			1.86 H	358	62.60	40.30
2	*5700.00	92.4 AV			1.86 H	358	52.10	40.30
3	#5725.00	58.7 PK	74.0	-15.3	1.90 H	355	51.90	6.80
4	#5725.00	47.7 AV	54.0	-6.3	1.90 H	355	40.90	6.80
5	11400.00	60.1 PK	74.0	-13.9	1.25 H	38	41.60	18.50
6	11400.00	46.9 AV	54.0	-7.1	1.25 H	38	28.40	18.50
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	102.7 PK			1.42 V	266	62.40	40.30
2	*5700.00	92.3 AV			1.42 V	266	52.00	40.30
3	#5725.00	59.6 PK	74.0	-14.4	1.42 V	266	52.80	6.80
4	#5725.00	47.8 AV	54.0	-6.2	1.42 V	266	41.00	6.80
5	11400.00	59.5 PK	74.0	-14.5	1.52 V	292	41.00	18.50
6	11400.00	46.7 AV	54.0	-7.3	1.52 V	292	28.20	18.50

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	58.5 PK	74.0	-15.5	1.54 H	295	52.50	6.00
2	5150.00	46.5 AV	54.0	-7.5	1.54 H	295	40.50	6.00
3	*5180.00	99.9 PK			1.32 H	283	60.40	39.50
4	*5180.00	89.9 AV			1.32 H	283	50.40	39.50
5	#10360.00	61.1 PK	74.0	-12.9	1.60 H	165	42.70	18.40
6	#10360.00	48.0 AV	54.0	-6.0	1.60 H	165	29.60	18.40
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	59.1 PK	74.0	-14.9	1.34 V	154	53.10	6.00
2	5150.00	48.0 AV	54.0	-6.0	1.34 V	154	42.00	6.00
3	*5180.00	99.0 PK			1.55 V	146	59.50	39.50
4	*5180.00	89.1 AV			1.55 V	146	49.60	39.50
5	#10360.00	60.8 PK	74.0	-13.2	1.72 V	244	42.40	18.40
6	#10360.00	47.8 AV	54.0	-6.2	1.72 V	244	29.40	18.40

Remarks:

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

CHANNEL	TX Channel 40	DETECTOR FUNCTION	Peak (PK) 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	*5200.00	99.0 PK			1.30 H	277	59.40	39.60
2	*5200.00	88.9 AV			1.30 H	277	49.30	39.60
3	#10400.00	61.0 PK	74.0	-13.0	1.49 H	177	42.50	18.50
4	#10400.00	47.8 AV	54.0	-6.2	1.49 H	177	29.30	18.50
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	97.2 PK			1.54 V	151	57.60	39.60
2	*5200.00	87.4 AV			1.54 V	151	47.80	39.60
3	#10400.00	60.8 PK	74.0	-13.2	1.60 V	77	42.30	18.50
4	#10400.00	47.6 AV	54.0	-6.4	1.60 V	77	29.10	18.50

Remarks:

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

CHANNEL	TX Channel 48	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	*5240.00	100.1 PK			1.31 H	278	60.50	39.60
2	*5240.00	90.0 AV			1.31 H	278	50.40	39.60
3	5350.00	58.8 PK	74.0	-15.2	1.30 H	277	52.70	6.10
4	5350.00	46.8 AV	54.0	-7.2	1.30 H	277	40.70	6.10
5	#10480.00	61.1 PK	74.0	-12.9	1.22 H	303	42.10	19.00
6	#10480.00	47.9 AV	54.0	-6.1	1.22 H	303	28.90	19.00
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	99.0 PK			1.70 V	260	59.40	39.60
2	*5240.00	88.5 AV			1.70 V	260	48.90	39.60
3	5350.00	59.4 PK	74.0	-14.6	1.35 V	215	53.30	6.10
4	5350.00	47.2 AV	54.0	-6.8	1.35 V	215	41.10	6.10
5	#10480.00	61.3 PK	74.0	-12.7	1.44 V	222	42.30	19.00
6	#10480.00	48.2 AV	54.0	-5.8	1.44 V	222	29.20	19.00

Remarks:

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

CHANNEL	TX Channel 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	56.4 PK	74.0	-17.6	1.44 H	252	50.40	6.00
2	5150.00	45.1 AV	54.0	-8.9	1.44 H	252	39.10	6.00
3	*5260.00	98.5 PK			2.00 H	312	58.80	39.70
4	*5260.00	88.5 AV			2.00 H	312	48.80	39.70
5	#10520.00	61.2 PK	74.0	-12.8	1.51 H	73	42.00	19.20
6	#10520.00	48.4 AV	54.0	-5.6	1.51 H	73	29.20	19.20
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	56.8 PK	74.0	-17.2	1.70 V	233	50.80	6.00
2	5150.00	45.7 AV	54.0	-8.3	1.70 V	233	39.70	6.00
3	*5260.00	100.2 PK			1.80 V	262	60.50	39.70
4	*5260.00	90.1 AV			1.80 V	262	50.40	39.70
5	#10520.00	61.6 PK	74.0	-12.4	1.50 V	222	42.40	19.20
6	#10520.00	48.7 AV	54.0	-5.3	1.50 V	222	29.50	19.20

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	98.1 PK			1.81 H	312	58.40	39.70
2	*5300.00	87.8 AV			1.81 H	312	48.10	39.70
3	10600.00	61.6 PK	74.0	-12.4	1.60 H	212	42.50	19.10
4	10600.00	48.3 AV	54.0	-5.7	1.60 H	212	29.20	19.10
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	99.7 PK			1.78 V	265	60.00	39.70
2	*5300.00	89.6 AV			1.78 V	265	49.90	39.70
3	10600.00	61.8 PK	74.0	-12.2	1.66 V	315	42.70	19.10
4	10600.00	48.7 AV	54.0	-5.3	1.66 V	315	29.60	19.10

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	98.2 PK			1.98 H	271	58.50	39.70
2	*5320.00	88.3 AV			1.98 H	271	48.60	39.70
3	5350.00	59.1 PK	74.0	-14.9	1.99 H	210	53.00	6.10
4	5350.00	46.6 AV	54.0	-7.4	1.99 H	210	40.50	6.10
5	10640.00	60.6 PK	74.0	-13.4	1.43 H	176	41.70	18.90
6	10640.00	47.8 AV	54.0	-6.2	1.43 H	176	28.90	18.90
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	100.6 PK			1.80 V	266	60.90	39.70
2	*5320.00	90.3 AV			1.80 V	266	50.60	39.70
3	5350.00	56.7 PK	74.0	-17.3	1.78 V	270	50.60	6.10
4	5350.00	45.4 AV	54.0	-8.6	1.78 V	270	39.30	6.10
5	10640.00	61.2 PK	74.0	-12.8	1.55 V	184	42.30	18.90
6	10640.00	48.4 AV	54.0	-5.6	1.55 V	184	29.50	18.90

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	56.3 PK	74.0	-17.7	1.63 H	100	49.90	6.40
2	5460.00	45.3 AV	54.0	-8.7	1.63 H	100	38.90	6.40
3	#5470.00	56.9 PK	74.0	-17.1	1.63 H	111	50.50	6.40
4	#5470.00	46.0 AV	54.0	-8.0	1.63 H	111	39.60	6.40
5	*5500.00	101.2 PK			1.99 H	314	61.20	40.00
6	*5500.00	90.8 AV			1.99 H	314	50.80	40.00
7	11000.00	61.5 PK	74.0	-12.5	1.00 H	229	41.90	19.60
8	11000.00	48.7 AV	54.0	-5.3	1.00 H	229	29.10	19.60
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	57.0 PK	74.0	-17.0	1.77 V	231	50.60	6.40
2	5460.00	46.0 AV	54.0	-8.0	1.77 V	231	39.60	6.40
3	#5470.00	57.5 PK	74.0	-16.5	1.77 V	231	51.10	6.40
4	#5470.00	46.6 AV	54.0	-7.4	1.77 V	231	40.20	6.40
5	*5500.00	102.1 PK			1.81 V	267	62.10	40.00
6	*5500.00	91.9 AV			1.81 V	267	51.90	40.00
7	11000.00	62.2 PK	74.0	-11.8	1.56 V	331	42.60	19.60
8	11000.00	49.1 AV	54.0	-4.9	1.56 V	331	29.50	19.60

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5580.00	101.6 PK			1.77 H	311	61.50	40.10
2	*5580.00	91.2 AV			1.77 H	311	51.10	40.10
3	11160.00	61.3 PK	74.0	-12.7	1.53 H	236	42.10	19.20
4	11160.00	48.4 AV	54.0	-5.6	1.53 H	236	29.20	19.20
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5580.00	101.3 PK			1.64 V	267	61.20	40.10
2	*5580.00	90.9 AV			1.64 V	267	50.80	40.10
3	11160.00	61.2 PK	74.0	-12.8	1.49 V	299	42.00	19.20
4	11160.00	47.9 AV	54.0	-6.1	1.49 V	299	28.70	19.20

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	100.9 PK			2.01 H	308	60.60	40.30
2	*5700.00	91.3 AV			2.01 H	308	51.00	40.30
3	#5725.00	61.9 PK	74.0	-12.1	2.02 H	308	55.10	6.80
4	#5725.00	49.8 AV	54.0	-4.2	2.02 H	308	43.00	6.80
5	11400.00	61.2 PK	74.0	-12.8	1.19 H	343	42.70	18.50
6	11400.00	48.1 AV	54.0	-5.9	1.19 H	343	29.60	18.50
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	101.4 PK			1.66 V	269	61.10	40.30
2	*5700.00	91.4 AV			1.66 V	269	51.10	40.30
3	#5725.00	61.4 PK	74.0	-12.6	1.59 V	259	54.60	6.80
4	#5725.00	49.0 AV	54.0	-5.0	1.59 V	259	42.20	6.80
5	11400.00	61.0 PK	74.0	-13.0	1.43 V	187	42.50	18.50
6	11400.00	47.6 AV	54.0	-6.4	1.43 V	187	29.10	18.50

Remarks:

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

802.11n (HT40)

CHANNEL	TX Channel 38	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	60.7 PK	74.0	-13.3	1.32 H	282	54.70	6.00
2	5150.00	47.6 AV	54.0	-6.4	1.32 H	282	41.60	6.00
3	*5190.00	96.2 PK			1.31 H	282	56.70	39.50
4	*5190.00	86.4 AV			1.31 H	282	46.90	39.50
5	#10380.00	60.0 PK	74.0	-14.0	1.27 H	290	41.50	18.50
6	#10380.00	46.8 AV	54.0	-7.2	1.27 H	290	28.30	18.50
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	60.4 PK	74.0	-13.6	1.82 V	266	54.40	6.00
2	5150.00	48.2 AV	54.0	-5.8	1.82 V	266	42.20	6.00
3	*5190.00	95.9 PK			1.82 V	266	56.40	39.50
4	*5190.00	85.9 AV			1.82 V	266	46.40	39.50
5	#10380.00	60.0 PK	74.0	-14.0	1.70 V	193	41.50	18.50
6	#10380.00	47.1 AV	54.0	-6.9	1.70 V	193	28.60	18.50

Remarks:

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

CHANNEL	TX Channel 46	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	*5230.00	96.4 PK			1.44 H	285	56.80	39.60
2	*5230.00	86.3 AV			1.44 H	285	46.70	39.60
3	5350.00	57.4 PK	74.0	-16.6	1.29 H	190	51.30	6.10
4	5350.00	47.0 AV	54.0	-7.0	1.29 H	190	40.90	6.10
5	#10460.00	60.2 PK	74.0	-13.8	1.19 H	185	41.30	18.90
6	#10460.00	47.1 AV	54.0	-6.9	1.19 H	185	28.20	18.90
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5230.00	96.8 PK			1.83 V	264	57.20	39.60
2	*5230.00	87.1 AV			1.83 V	264	47.50	39.60
3	5400.00	59.3 PK	74.0	-14.7	1.66 V	235	53.00	6.30
4	5400.00	47.5 AV	54.0	-6.5	1.66 V	235	41.20	6.30
5	#10460.00	60.9 PK	74.0	-13.1	1.59 V	168	42.00	18.90
6	#10460.00	47.8 AV	54.0	-6.2	1.59 V	168	28.90	18.90

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5270.00	96.3 PK			2.00 H	313	56.60	39.70
2	*5270.00	85.6 AV			2.00 H	313	45.90	39.70
3	5350.00	56.7 PK	74.0	-17.3	1.80 H	230	50.60	6.10
4	5350.00	45.4 AV	54.0	-8.6	1.80 H	230	39.30	6.10
5	#10540.00	61.0 PK	74.0	-13.0	1.33 H	129	41.80	19.20
6	#10540.00	47.7 AV	54.0	-6.3	1.33 H	129	28.50	19.20
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5270.00	97.9 PK			1.79 V	269	58.20	39.70
2	*5270.00	88.7 AV			1.79 V	269	49.00	39.70
3	5350.00	48.6 PK	74.0	-25.4	1.71 V	280	42.50	6.10
4	5350.00	45.7 AV	54.0	-8.3	1.71 V	280	39.60	6.10
5	#10540.00	61.4 PK	74.0	-12.6	1.39 V	222	42.20	19.20
6	#10540.00	48.2 AV	54.0	-5.8	1.39 V	222	29.00	19.20

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5310.00	96.1 PK			1.97 H	274	56.40	39.70
2	*5310.00	85.9 AV			1.97 H	274	46.20	39.70
3	5350.00	61.1 PK	74.0	-12.9	1.17 H	274	55.00	6.10
4	**5350.00**	**50.0 AV**	**54.0**	**-4.0**	**1.17 H**	**274**	**43.90**	**6.10**
5	10620.00	60.7 PK	74.0	-13.3	1.47 H	212	41.70	19.00
6	10620.00	47.9 AV	54.0	-6.1	1.47 H	212	28.90	19.00
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5310.00	98.3 PK			1.81 V	268	58.60	39.70
2	*5310.00	88.1 AV			1.81 V	268	48.40	39.70
3	5350.00	63.2 PK	74.0	-10.8	1.90 V	265	57.10	6.10
4	5350.00	49.5 AV	54.0	-4.5	1.90 V	265	43.40	6.10
5	10620.00	60.6 PK	74.0	-13.4	1.66 V	256	41.60	19.00
6	10620.00	47.5 AV	54.0	-6.5	1.66 V	256	28.50	19.00

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	59.0 PK	74.0	-15.0	1.70 H	169	52.60	6.40
2	5460.00	47.2 AV	54.0	-6.8	1.70 H	169	40.80	6.40
3	#5470.00	59.7 PK	74.0	-14.3	1.70 H	169	53.30	6.40
4	#5470.00	47.5 AV	54.0	-6.5	1.70 H	169	41.10	6.40
5	*5510.00	99.1 PK			2.00 H	309	59.10	40.00
6	*5510.00	88.7 AV			2.00 H	309	48.70	40.00
7	11020.00	61.0 PK	74.0	-13.0	1.29 H	211	41.60	19.40
8	11020.00	48.1 AV	54.0	-5.9	1.29 H	211	28.70	19.40
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	56.6 PK	74.0	-17.4	1.50 V	152	50.20	6.40
2	5460.00	45.5 AV	54.0	-8.5	1.50 V	152	39.10	6.40
3	#5470.00	57.2 PK	74.0	-16.8	1.50 V	152	50.80	6.40
4	#5470.00	46.2 AV	54.0	-7.8	1.50 V	152	39.80	6.40
5	*5510.00	98.7 PK			1.71 V	270	58.70	40.00
6	*5510.00	89.2 AV			1.71 V	270	49.20	40.00
7	11020.00	61.2 PK	74.0	-12.8	1.44 V	290	41.80	19.40
8	11020.00	48.0 AV	54.0	-6.0	1.44 V	290	28.60	19.40

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5550.00	98.4 PK			2.02 H	314	58.30	40.10
2	*5550.00	87.8 AV			2.02 H	314	47.70	40.10
3	11100.00	60.8 PK	74.0	-13.2	1.62 H	333	41.90	18.90
4	11100.00	47.8 AV	54.0	-6.2	1.62 H	333	28.90	18.90
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5550.00	98.8 PK			1.71 V	270	58.70	40.10
2	*5550.00	88.8 AV			1.71 V	270	48.70	40.10
3	11100.00	60.4 PK	74.0	-13.6	1.66 V	189	41.50	18.90
4	11100.00	47.3 AV	54.0	-6.7	1.66 V	189	28.40	18.90

Remarks:

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

CHANNEL	TX Channel 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	98.7 PK			2.00 H	314	58.50	40.20
2	*5670.00	88.8 AV			2.00 H	314	48.60	40.20
3	#5725.00	58.7 PK	74.0	-15.3	1.67 H	340	51.90	6.80
4	#5725.00	47.5 AV	54.0	-6.5	1.67 H	340	40.70	6.80
5	11340.00	60.7 PK	74.0	-13.3	1.00 H	133	41.50	19.20
6	11340.00	47.5 AV	54.0	-6.5	1.00 H	133	28.30	19.20
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5670.00	98.9 PK			1.84 V	270	58.70	40.20
2	*5670.00	88.6 AV			1.84 V	270	48.40	40.20
3	#5725.00	58.5 PK	74.0	-15.5	1.84 V	270	51.70	6.80
4	#5725.00	47.4 AV	54.0	-6.6	1.84 V	270	40.60	6.80
5	11340.00	60.4 PK	74.0	-13.6	1.54 V	220	41.20	19.20
6	11340.00	47.6 AV	54.0	-6.4	1.54 V	220	28.40	19.20

Remarks:

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

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CHANNEL	TX Channel 42	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	58.3 PK	74.0	-15.7	1.40 H	300	52.30	6.00
2	5150.00	46.1 AV	54.0	-7.9	1.40 H	300	40.10	6.00
3	*5210.00	92.2 PK			1.33 H	286	52.60	39.60
4	*5210.00	82.5 AV			1.33 H	286	42.90	39.60
5	#10420.00	59.6 PK	74.0	-14.4	1.23 H	199	41.00	18.60
6	#10420.00	46.8 AV	54.0	-7.2	1.23 H	199	28.20	18.60
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	5150.00	56.9 PK	74.0	-17.1	1.70 V	260	50.90	6.00
2	5150.00	45.8 AV	54.0	-8.2	1.70 V	260	39.80	6.00
3	*5210.00	91.4 PK			1.79 V	263	51.80	39.60
4	*5210.00	81.8 AV			1.79 V	263	42.20	39.60
5	#10420.00	59.5 PK	74.0	-14.5	1.53 V	250	40.90	18.60
6	#10420.00	46.5 AV	54.0	-7.5	1.53 V	250	27.90	18.60

Remarks:

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

CHANNEL	TX Channel 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	89.8 PK			1.78 H	275	50.10	39.70
2	*5290.00	82.0 AV			1.78 H	275	42.30	39.70
3	5350.00	58.6 PK	74.0	-15.4	1.78 H	309	52.50	6.10
4	5350.00	46.6 AV	54.0	-7.4	1.78 H	309	40.50	6.10
5	#10580.00	60.8 PK	74.0	-13.2	1.28 H	177	41.50	19.30
6	#10580.00	48.0 AV	54.0	-6.0	1.28 H	177	28.70	19.30
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5290.00	92.3 PK			1.79 V	271	52.60	39.70
2	*5290.00	82.8 AV			1.79 V	271	43.10	39.70
3	5350.00	61.0 PK	74.0	-13.0	1.67 V	313	54.90	6.10
4	5350.00	48.7 AV	54.0	-5.3	1.67 V	313	42.60	6.10
5	#10580.00	61.4 PK	74.0	-12.6	1.37 V	142	42.10	19.30
6	#10580.00	48.6 AV	54.0	-5.4	1.37 V	142	29.30	19.30

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	58.1 PK	74.0	-15.9	1.90 H	319	51.70	6.40
2	5460.00	46.1 AV	54.0	-7.9	1.90 H	319	39.70	6.40
3	#5470.00	58.5 PK	74.0	-15.5	1.90 H	319	52.10	6.40
4	#5470.00	46.4 AV	54.0	-7.6	1.90 H	319	40.00	6.40
5	*5530.00	93.4 PK			1.99 H	310	53.40	40.00
6	*5530.00	83.9 AV			1.99 H	310	43.90	40.00
7	11060.00	60.5 PK	74.0	-13.5	1.29 H	209	41.30	19.20
8	11060.00	47.7 AV	54.0	-6.3	1.29 H	209	28.50	19.20
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	58.3 PK	74.0	-15.7	1.80 V	200	51.90	6.40
2	5460.00	46.9 AV	54.0	-7.1	1.80 V	200	40.50	6.40
3	#5470.00	59.7 PK	74.0	-14.3	1.80 V	200	53.30	6.40
4	#5470.00	47.9 AV	54.0	-6.1	1.80 V	200	41.50	6.40
5	*5530.00	94.3 PK			1.83 V	268	54.30	40.00
6	*5530.00	85.0 AV			1.83 V	268	45.00	40.00
7	11060.00	60.3 PK	74.0	-13.7	1.65 V	269	41.10	19.20
8	11060.00	47.3 AV	54.0	-6.7	1.65 V	269	28.10	19.20

Remarks:

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

Below 1GHz Data: 802.11a

CHANNEL	TX Channel 36	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	57.12	28.7 QP	40.0	-11.3	1.50 H	9	43.50	-14.80
2	70.73	18.0 QP	40.0	-22.0	1.50 H	327	34.30	-16.30
3	86.28	16.6 QP	40.0	-23.4	1.50 H	181	36.30	-19.70
4	142.67	15.4 QP	43.5	-28.1	1.01 H	274	29.80	-14.40
5	325.43	19.3 QP	46.0	-26.7	1.01 H	245	31.00	-11.70
6	358.48	17.6 QP	46.0	-28.4	1.50 H	299	29.00	-11.40
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	31.84	32.8 QP	40.0	-7.2	1.00 V	251	48.90	-16.10
2	57.12	27.3 QP	40.0	-12.7	1.00 V	276	42.10	-14.80
3	107.67	16.4 QP	43.5	-27.1	1.49 V	290	34.20	-17.80
4	286.55	15.1 QP	46.0	-30.9	1.49 V	39	27.90	-12.80
5	325.43	16.6 QP	46.0	-29.4	1.49 V	177	28.30	-11.70
6	434.31	18.5 QP	46.0	-27.5	1.00 V	74	28.00	-9.50

Remarks:

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

4.2 Conducted Emission Measurement

4.2.1 Limits of Conducted Emission Measurement

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

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

4.2.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Test Receiver ROHDE & SCHWARZ	ESCS30	100288	Apr. 27, 2015	Apr. 26, 2016
RF signal cable (with 10dB PAD) Woken	5D-FB	Cable-cond2-01	Dec. 26, 2014	Dec. 25, 2015
LISN ROHDE & SCHWARZ (EUT)	ESH2-Z5	100100	Dec. 30, 2014	Dec. 29, 2015
LISN ROHDE & SCHWARZ (Peripheral)	ESH3-Z5	100312	Jul. 21, 2015	Jul. 20, 2016
Software ADT	BV ADT_Cond_ V7.3.7.3	NA	NA	NA

Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in HwaYa Shielded Room 2.
3. The VCCI Site Registration No. is C-2047.

4.2.3 Test Procedures

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

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

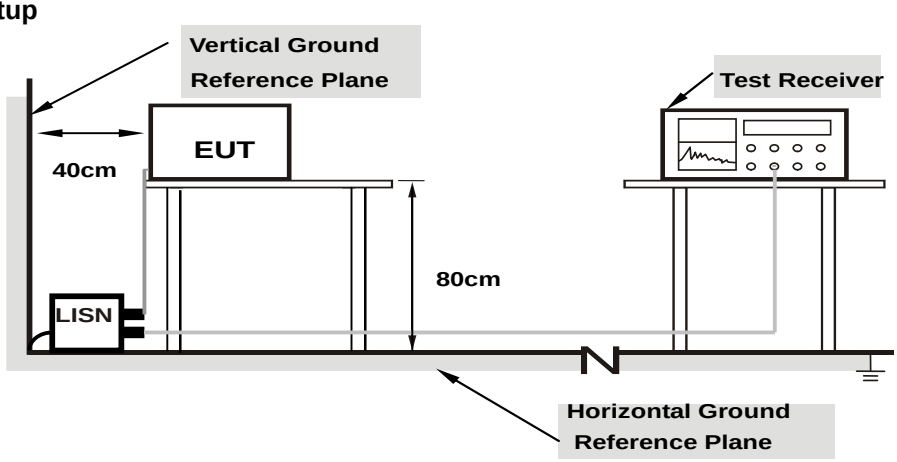
c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

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

4.2.4 Deviation from Test Standard

No deviation.

4.2.5 Test Setup



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

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

4.2.6 EUT Operating Conditions

Same as 4.1.6.

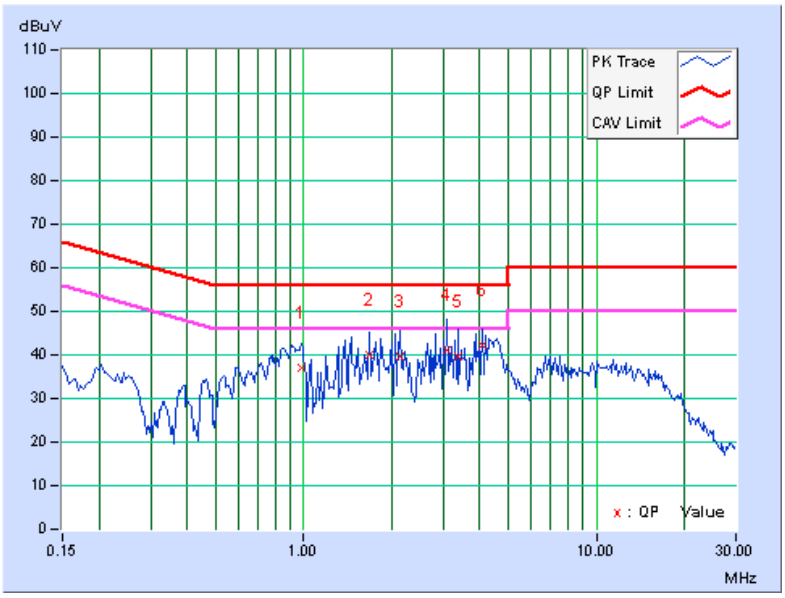
4.2.7 Test Results

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

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.97813	0.30	36.74	24.99	37.04	25.29	56.00	46.00	-18.96	-20.71
2	1.68359	0.34	39.77	30.23	40.11	30.57	56.00	46.00	-15.89	-15.43
3	2.13672	0.36	39.15	29.41	39.51	29.77	56.00	46.00	-16.49	-16.23
4	3.09375	0.40	40.67	28.55	41.07	28.95	56.00	46.00	-14.93	-17.05
5	3.37109	0.41	39.18	26.60	39.59	27.01	56.00	46.00	-16.41	-18.99
6	**4.08594**	**0.43**	**41.73**	**28.06**	**42.16**	**28.49**	**56.00**	**46.00**	**-13.84**	**-17.51**

Remarks:

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

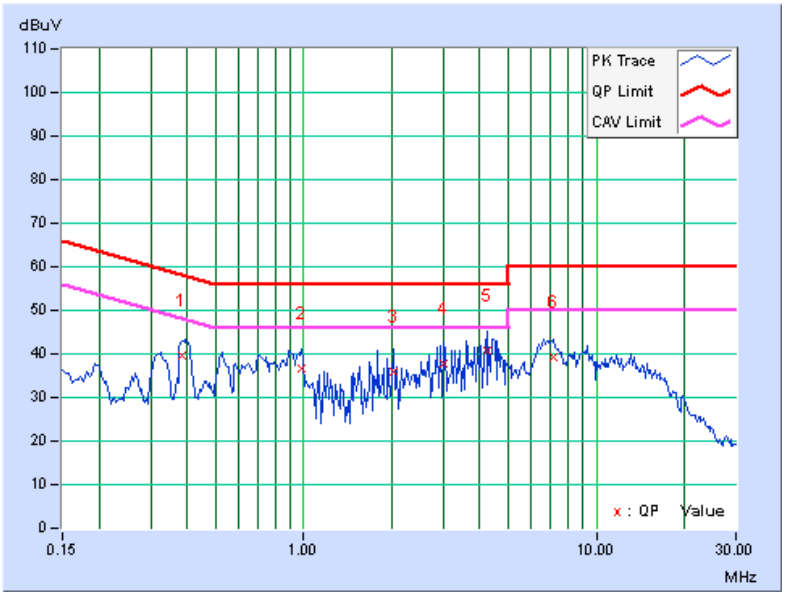


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.38438	0.25	39.56	29.96	39.81	30.21	58.18	48.18	-18.38	-17.98
2	0.98594	0.31	36.40	27.71	36.71	28.02	56.00	46.00	-19.29	-17.98
3	2.01953	0.40	35.44	25.08	35.84	25.48	56.00	46.00	-20.16	-20.52
4	3.02734	0.43	37.19	25.69	37.62	26.12	56.00	46.00	-18.38	-19.88
5	4.21875	0.46	40.22	26.64	40.68	27.10	56.00	46.00	-15.32	-18.90
6	7.10156	0.52	38.74	33.83	39.26	34.35	60.00	50.00	-20.74	-15.65

Remarks:

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



4.3 Transmit Power Measurment

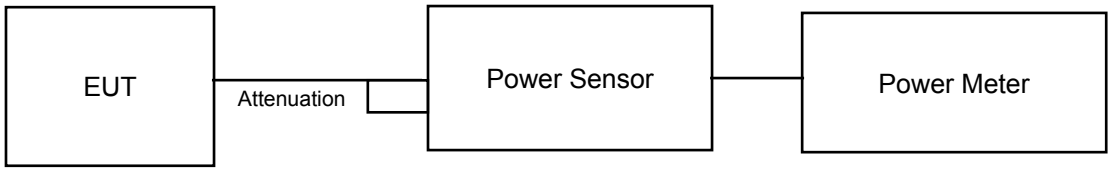
4.3.1 Limits of Transmit Power Measurement

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

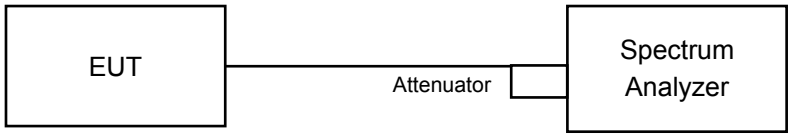
*B is the 26 dB emission bandwidth in megahertz

4.3.2 Test Setup

For Power Output Measurement



For 26dB and Occupied Bandwidth



4.3.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.3.4 Test Procedure

For Average Power Measurement

For 802.11a, 802.11n (HT20), 802.11n (HT40)
Method PM is used to perform output power measurement, trigger and gating function of wide band power meter is enabled to measure max output power of TX on burst. Duty factor is not added to measured value.

For 802.11ac (VHT80)

a. Set span to encompass the entire 26 dB EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal.

b. Set sweep trigger to “free run”.

c. Set RBW = 1 MHz.

d. 4Set VBW ≥ 3 MHz

e. Number of points in sweep ≥ 2 Span / RBW.

f. Sweep time ≤ (number of points in sweep) * T

g. Using emission bandwidth to determine the frequency span for integration the channel bandwidth.

h. Detector = RMS.

i. Trace mode = max hold.

j. Allow max hold to run for at least 60 seconds, or longer as needed to allow the trace to stabilize.

4.3.5 Deviation fromTest Standard

No deviation.

4.3.6 EUT Operating Conditions

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

4.3.7 Test Result

Power Output:

802.11a

Chan.	Freq. (MHz)	Maximum Conducted Power (mW)	Maximum Conducted Power (dBm)	Power Limit (dBm)	Pass / Fail
36	5180	40.179	16.04	24	Pass
40	5200	42.462	16.28	24	Pass
48	5240	41.879	16.22	24	Pass
52	5260	43.251	16.36	24	Pass
60	5300	45.082	16.54	24	Pass
64	5320	41.976	16.23	24	Pass
100	5500	32.211	15.08	24	Pass
116	5580	32.359	15.10	24	Pass
140	5700	28.708	14.58	24	Pass

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

1. 11dBm + 10log (20.41) = 24.10 > 24dBm
2. 11dBm + 10log (20.25) = 24.06 > 24dBm
3. 11dBm + 10log (20.52) = 24.12 > 24dBm
4. 11dBm + 10log (20.47) = 24.11 > 24dBm
5. 11dBm + 10log (20.31) = 24.08 > 24dBm
6. 11dBm + 10log (21.04) = 24.23 > 24dBm

802.11n (HT20)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
36	5180	16.18	13.49	63.831	18.05	24	Pass
40	5200	16.07	13.36	62.135	17.93	24	Pass
48	5240	16.06	13.55	63.011	17.99	24	Pass
52	5260	16.49	13.81	68.610	18.36	24	Pass
60	5300	16.19	14.07	67.118	18.27	24	Pass
64	5320	16.14	13.96	66.004	18.20	24	Pass
100	5500	14.99	14.48	59.604	17.75	24	Pass
116	5580	14.76	14.53	58.302	17.66	24	Pass
140	5700	14.82	14.21	56.702	17.54	24	Pass

Note:
For U-NII-2A, U-NII-2C Band:
Chain 0
1. 11dBm + 10log (20.71) = 24.16 > 24dBm
2. 11dBm + 10log (20.78) = 24.18 > 24dBm
3. 11dBm + 10log (21.37) = 24.30 > 24dBm
4. 11dBm + 10log (20.60) = 24.14 > 24dBm
5. 11dBm + 10log (21.22) = 24.27 > 24dBm
6. 11dBm + 10log (21.21) = 24.27 > 24dBm

Chain 1
1. 11dBm + 10log (20.85) = 24.19 > 24dBm
2. 11dBm + 10log (21.25) = 24.27 > 24dBm
3. 11dBm + 10log (20.88) = 24.20 > 24dBm
4. 11dBm + 10log (22.86) = 24.59 > 24dBm
5. 11dBm + 10log (24.65) = 24.92 > 24dBm
6. 11dBm + 10log (28.88) = 25.61 > 24dBm

802.11n (HT40)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
38	5190	16.77	14.13	73.416	18.66	24	Pass
46	5230	16.82	14.17	**74.206**	18.70	24	Pass
54	5270	16.84	14.69	**77.750**	18.91	24	Pass
62	5310	15.58	15.29	69.947	18.45	24	Pass
102	5510	15.40	15.30	68.558	18.36	24	Pass
110	5550	15.52	15.21	**68.834**	18.38	24	Pass
134	5670	15.40	15.30	68.558	18.36	24	Pass

Note:
For U-NII-2A, U-NII-2C Band:
Chain 0
1. 11dBm + 10log (42.83) = 27.32 > 24dBm
2. 11dBm + 10log (43.10) = 27.34 > 24dBm
3. 11dBm + 10log (43.16) = 27.35 > 24dBm
4. 11dBm + 10log (43.74) = 27.41 > 24dBm
5. 11dBm + 10log (43.91) = 27.43 > 24dBm
Chain 1
1. 11dBm + 10log (43.88) = 27.42 > 24dBm
2. 11dBm + 10log (43.72) = 27.41 > 24dBm
3. 11dBm + 10log (55.60) = 28.45 > 24dBm
4. 11dBm + 10log (66.68) = 29.24 > 24dBm
5. 11dBm + 10log (76.86) = 29.86 > 24dBm

802.11ac (VHT80)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
42	5210	14.90	12.01	46.788	16.70	24	Pass
58	5290	15.03	12.43	49.340	16.93	24	Pass
106	5530	13.66	12.74	42.020	16.23	24	Pass

Note:
For U-NII-2A, U-NII-2C Band:
Chain 0
1. 11dBm + 10log (84.08) = 30.25 > 24dBm
2. 11dBm + 10log (83.56) = 30.22 > 24dBm
Chain 1
1. 11dBm + 10log (83.08) = 30.19 > 24dBm
2. 11dBm + 10log (84.24) = 30.26 > 24dBm

26dB Bandwidth:

802.11a

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)	Pass / Fail
36	5180	20.72	Pass
40	5200	19.83	Pass
48	5240	20.66	Pass
52	5260	20.41	Pass
60	5300	20.25	Pass
64	5320	20.52	Pass
100	5500	20.47	Pass
116	5580	20.31	Pass
140	5700	21.04	Pass

802.11n (HT20)

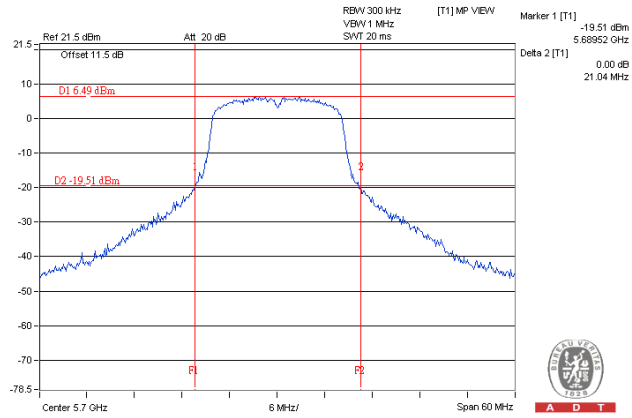
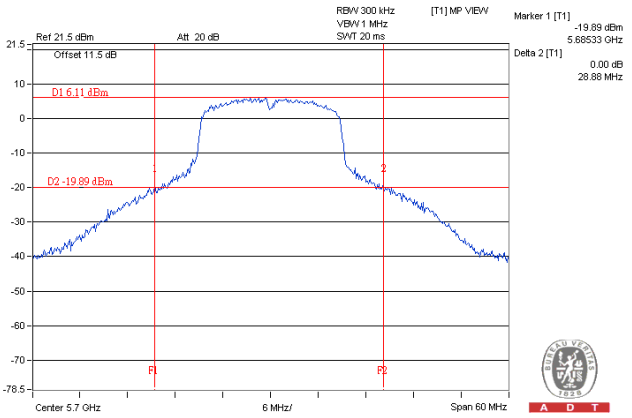
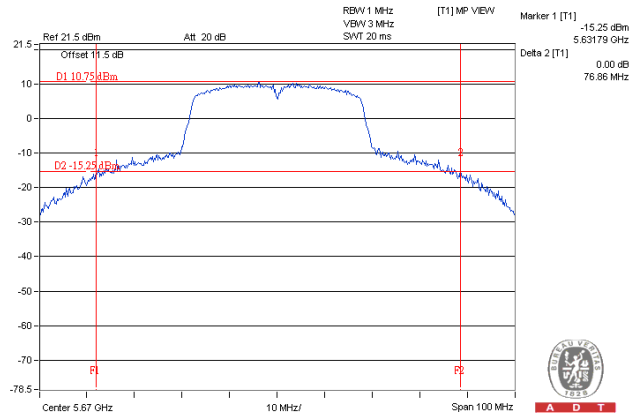
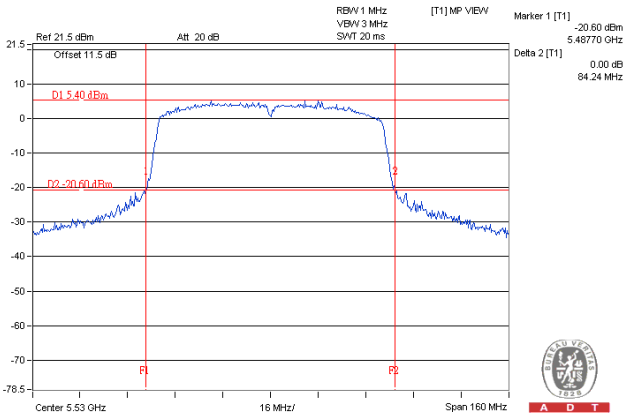
Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
36	5180	20.90	20.59	Pass
40	5200	20.83	20.50	Pass
48	5240	21.15	21.19	Pass
52	5260	20.71	20.85	Pass
60	5300	20.78	21.25	Pass
64	5320	21.37	20.88	Pass
100	5500	20.60	22.86	Pass
116	5580	21.22	24.65	Pass
140	5700	21.21	28.88	Pass

802.11n (HT40)

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
38	5190	42.73	42.90	Pass
46	5230	42.48	42.50	Pass
54	5270	42.83	43.88	Pass
62	5310	43.10	43.72	Pass
102	5510	43.16	55.60	Pass
110	5550	43.74	66.68	Pass
134	5670	43.91	76.86	Pass

802.11ac (VHT80)

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
42	5210	83.58	82.97	Pass
58	5290	84.08	83.08	Pass
106	5530	83.56	84.24	Pass

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

Occupied Bandwidth:

802.11a

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)
36	5180	16.44
40	5200	16.32
48	5240	16.32
52	5260	16.44
60	5300	16.44
64	5320	16.44
100	5500	16.44
116	5580	16.44
140	5700	16.44

802.11n (HT20)

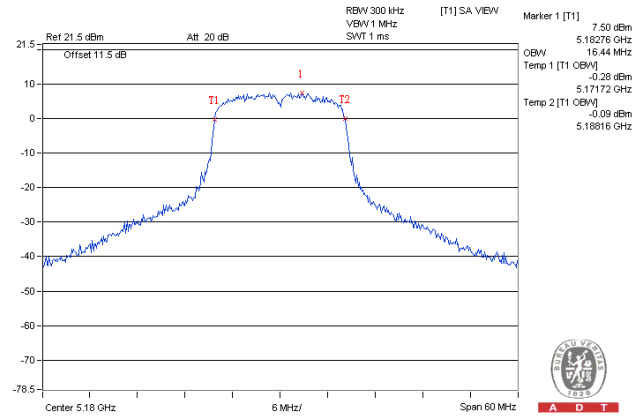
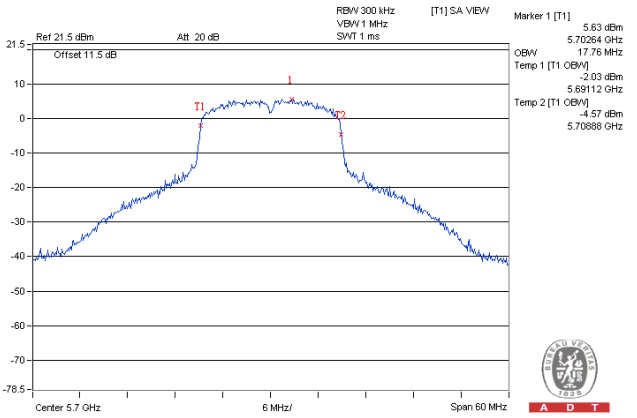
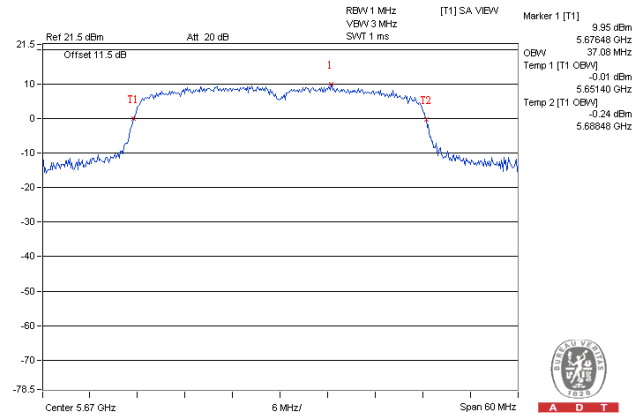
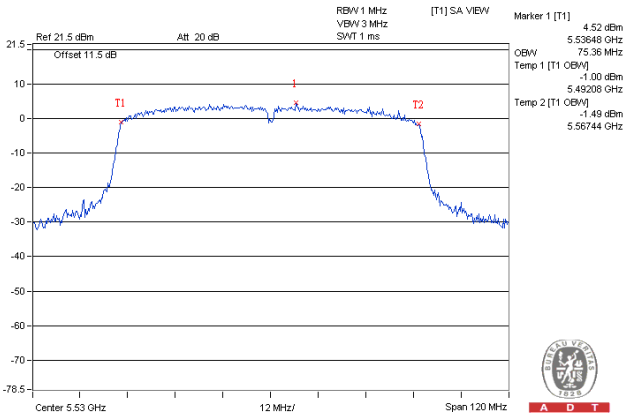
Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
36	5180	17.52	17.52
40	5200	17.40	17.52
48	5240	17.40	17.52
52	5260	17.52	17.52
60	5300	17.52	17.52
64	5320	17.52	17.52
100	5500	17.40	17.52
116	5580	17.40	17.64
140	5700	17.52	17.76

802.11n (HT40)

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
38	5190	36.00	36.12
46	5230	36.12	36.12
54	5270	36.24	36.12
62	5310	36.12	36.24
102	5510	36.12	36.36
110	5550	36.12	36.36
134	5670	36.12	37.08

802.11ac (VHT80)

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
42	5210	75.12	75.12
58	5290	75.12	75.12
106	5530	75.12	75.36

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

EUT MAXIMUM CONDUCTED POWER

802.11a

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	45.082	16.54
5470~5725	32.359	15.10

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	68.610	18.36
5470~5725	59.604	17.75

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	77.750	18.91
5470~5725	68.834	18.38

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	49.340	16.93
5470~5725	42.020	16.23

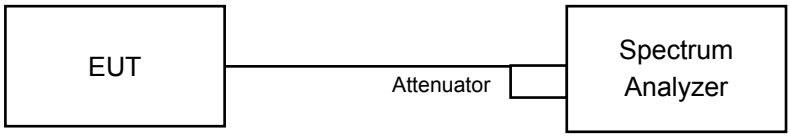
Note: Manufacturer provides Transmit Power Control description to meet this requirement.

4.4 Peak Power Spectral Density Measurement

4.4.1 Limits of Peak Power Spectral Density Measurement

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

4.4.2 Test Setup



4.4.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.4.4 Test Procedures

Using method SA-1

Duty cycle >98%

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

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

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

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

e. Record the max value

Using method SA-2

Duty cycle <98%

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

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

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

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

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

4.4.5 Deviation from Test Standard

No deviation.

4.4.6 EUT Operating Conditions

Same as Item 4.3.6.

4.4.7 Test Results

802.11a

Chan.	Freq. (MHz)	PSD (dBm)	Max. Limit (dBm)	Pass / Fail
36	5180	3.61	11.00	Pass
40	5200	3.53	11.00	Pass
48	5240	3.71	11.00	Pass
52	5260	3.95	11.00	Pass
60	5300	3.71	11.00	Pass
64	5320	3.58	11.00	Pass
100	5500	2.61	11.00	Pass
116	5580	2.28	11.00	Pass
140	5700	1.90	11.00	Pass

802.11n (HT20)

Chan.	Freq. (MHz)	PSD (dBm)		Total PSD (dBm)	Max. Limit (dBm)	Pass / Fail
		Chain 0	Chain 1			
36	5180	3.21	0.21	4.97	11.00	Pass
40	5200	3.17	0.26	4.96	11.00	Pass
48	5240	3.29	0.47	5.11	11.00	Pass
52	5260	3.49	0.81	5.36	11.00	Pass
60	5300	3.26	0.82	5.22	11.00	Pass
64	5320	3.18	1.17	5.30	11.00	Pass
100	5500	2.09	1.74	4.93	11.00	Pass
116	5580	1.75	1.67	4.72	11.00	Pass
140	5700	1.44	1.42	4.44	11.00	Pass

Note:

1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \ldots + 10^{GN/20})^2/3$]= -3.89 dBi < 6dBi , so the power density limit no need to reduced.

802.11n (HT40)

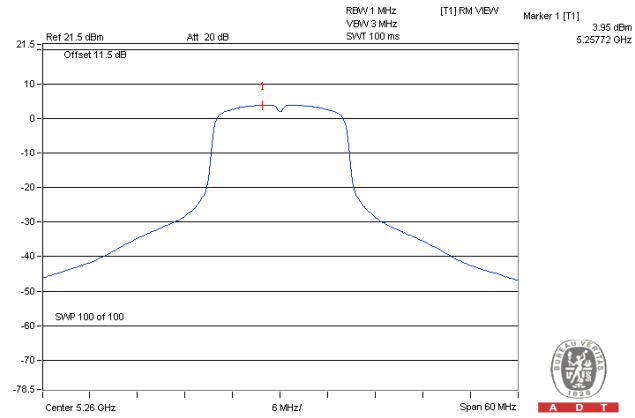
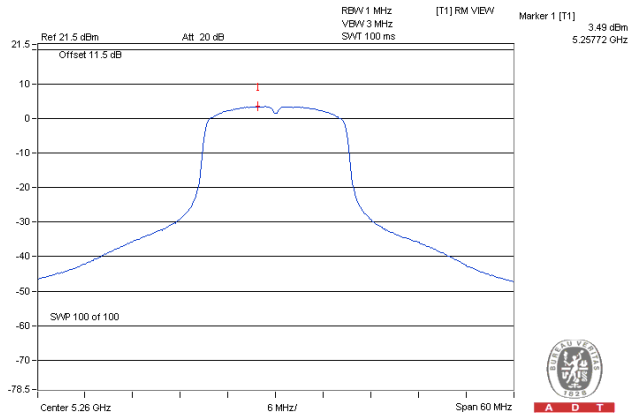
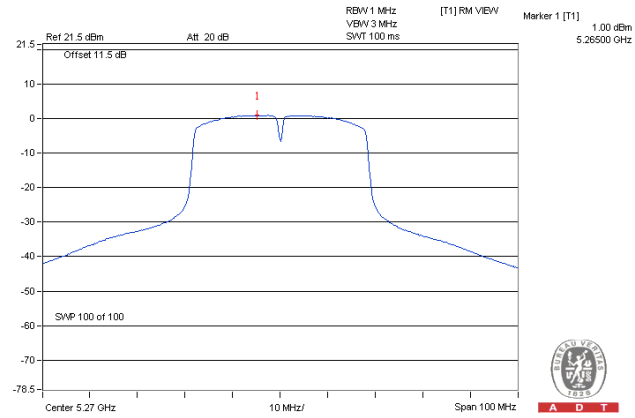
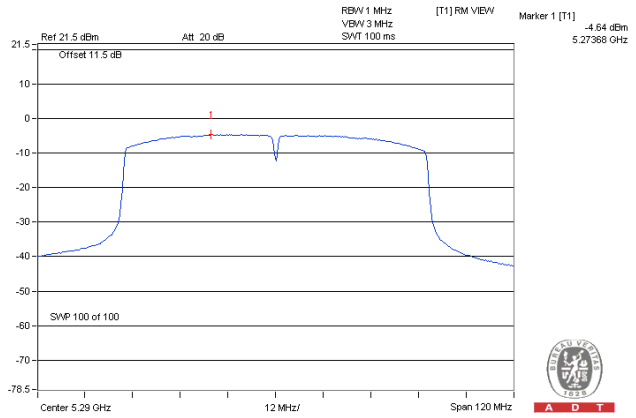
Chan.	Freq. (MHz)	PSD (dBm)		Total PSD w/o duty factor (dBm)	Duty factor	Total PSD with duty factor (dBm)	Max. Limit (dBm)	Pass / Fail
		Chain 0	Chain 1					
38	5190	0.58	-1.88	2.53	0.19	2.72	11.00	Pass
46	5230	0.72	-1.71	2.68	0.19	2.87	11.00	Pass
54	5270	1.00	-1.34	2.99	0.19	3.18	11.00	Pass
62	5310	0.65	-1.28	2.80	0.19	2.99	11.00	Pass
102	5510	-0.50	-0.83	2.35	0.19	2.54	11.00	Pass
110	5550	-0.64	-0.94	2.22	0.19	2.41	11.00	Pass
134	5670	-0.93	-0.79	2.15	0.19	2.34	11.00	Pass

Note:
1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \ldots + 10^{GN/20})^2/3$]= -3.89 dBi < 6dBi , so the power density limit no need to reduced.
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					
42	5210	-4.70	-7.28	-2.79	0.35	-2.44	11.00	Pass
58	5290	-4.64	-6.86	-2.60	0.35	-2.25	11.00	Pass
106	5530	-5.89	-6.44	-3.15	0.35	-2.80	11.00	Pass

Note:
1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \ldots + 10^{GN/20})^2/3$]= -3.89 dBi < 6dBi , so the power density limit no need to reduced.
3. Refer to section 3.3 for duty cycle spectrum plot.

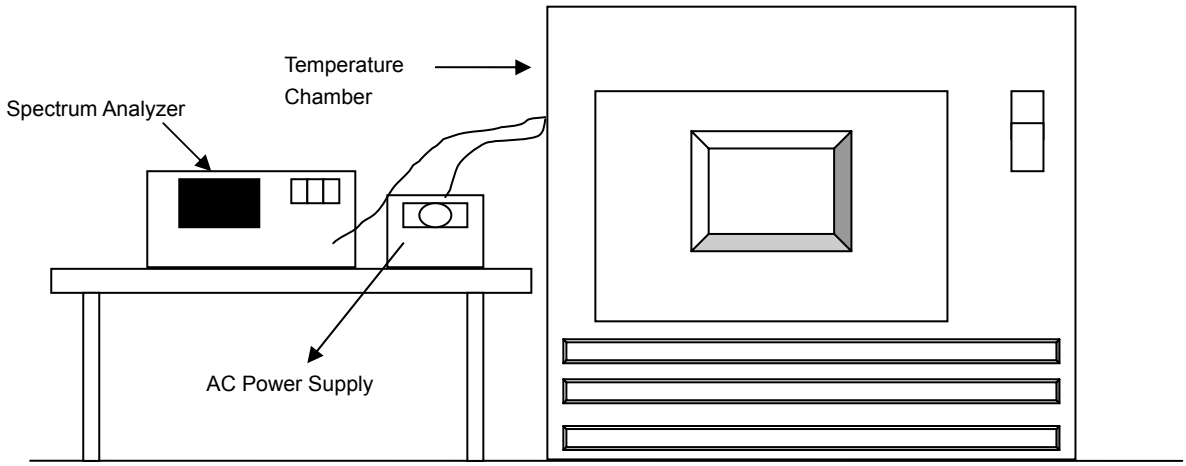
Spectrum Plot of Worst Value	
802.11a	802.11n (HT20)
	
802.11n (HT40)	802.11ac (VHT80)
	

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 4.1.2 to get information of above instrument.

4.5.4 Test Procedure

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

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

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

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

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

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

4.5.5 Deviation from Test Standard

No deviation.

4.5.6 EUT Operating Condition

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

4.5.7 Test Results

Frequemcy Stability Versus Temp.									
Operating Frequency: 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	5320.0017	0.00003	5320.002	0.00004	5320.0006	0.00001	5319.9994	-0.00001
40	120	5320.0142	0.00027	5320.0156	0.00029	5320.0122	0.00023	5320.015	0.00028
30	120	5319.996	-0.00008	5319.9951	-0.00009	5319.9971	-0.00005	5319.9946	-0.00010
20	120	5319.9788	-0.00040	5319.9796	-0.00038	5319.9811	-0.00036	5319.9776	-0.00042
10	120	5319.9864	-0.00026	5319.9824	-0.00033	5319.9864	-0.00026	5319.9865	-0.00025
0	120	5320.0182	0.00034	5320.0202	0.00038	5320.0222	0.00042	5320.0184	0.00035
-10	120	5319.9855	-0.00027	5319.9851	-0.00028	5319.9825	-0.00033	5319.982	-0.00034
-20	120	5319.9996	-0.00001	5320.0005	0.00001	5319.9999	0.00000	5319.9972	-0.00005
-30	120	5320.0202	0.00038	5320.0219	0.00041	5320.0191	0.00036	5320.0189	0.00036

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	5319.9783	-0.00041	5319.9794	-0.00039	5319.9811	-0.00036	5319.977	-0.00043
	120	5319.9788	-0.00040	5319.9796	-0.00038	5319.9811	-0.00036	5319.9776	-0.00042
	102	5319.979	-0.00039	5319.9791	-0.00039	5319.9814	-0.00035	5319.9775	-0.00042

5 Pictures of Test Arrangements

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

Appendix – Information on the Testing Laboratories

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

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

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

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