

FCC Test Report

Report No.: RF150216C17

FCC ID: TE7CPE510V1

Test Model: CPE510

Received Date: Feb. 16, 2015

Test Date: Mar. 27 ~ Apr. 14, 2015

Issued Date: May 05, 2015

Applicant: TP-LINK TECHNOLOGIES CO., LTD.

Address: Building 24 (floors 1,3,4,5) and 28 (floors1-4) Central Science and Technology Park, Shennan Rd, Nanshan, Shenzhen, China

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

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

Test Location: No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City 33383, TAIWAN (R.O.C.)



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

Table of Contents

Release Control Record	4
1 Certificate of Conformity	5
2 Summary of Test Results	6
2.1 Measurement Uncertainty	6
2.2 Modification Record	6
3 General Information	7
3.1 General Description of EUT	7
3.2 Description of Test Modes	8
3.2.1 Test Mode Applicability and Tested Channel Detail	9
3.3 Duty Cycle of Test Signal	11
3.4 Description of Support Units	12
3.4.1 Configuration of System under Test	12
3.5 General Description of Applied Standards	13
4 Test Types and Results	14
4.1 Radiated Emission and Bandedge Measurement	14
4.1.1 Limits of Radiated Emission and Bandedge Measurement	14
4.1.2 Test Instruments	15
4.1.3 Test Procedures	16
4.1.4 Deviation from Test Standard	16
4.1.5 Test Set Up	17
4.1.6 EUT Operating Conditions	17
4.1.7 Test Results	18
4.2 Conducted Emission Measurement	47
4.2.1 Limits of Conducted Emission Measurement	47
4.2.2 Test Instruments	47
4.2.3 Test Procedures	48
4.2.4 Deviation from Test Standard	48
4.2.5 Test Setup	48
4.2.6 EUT Operating Conditions	48
4.2.7 Test Results	49
4.3 Transmit Power Measurement	51
4.3.1 Limits of Transmit Power Measurement	51
4.3.2 Test Setup	51
4.3.3 Test Instruments	51
4.3.4 Test Procedure	51
4.3.5 Deviation from Test Standard	52
4.3.6 EUT Operating Conditions	52
4.3.7 Test Result	53
4.4 Peak Power Spectral Density Measurement	60
4.4.1 Limits of Peak Power Spectral Density Measurement	60
4.4.2 Test Setup	60
4.4.3 Test Instruments	60
4.4.4 Test Procedures	60
4.4.5 Deviation from Test Standard	61
4.4.6 EUT Operating Conditions	61
4.4.7 Test Results	62
4.5 Frequency Stability	68
4.5.1 Limits of Frequency Stability Measurement	68
4.5.2 Test Setup	68
4.5.3 Test Instruments	68
4.5.4 Test Procedure	68
4.5.5 Deviation from Test Standard	68
4.5.6 EUT Operating Condition	68

4.5.7 Test Results	69
4.6 6dB Bandwidth Measurement.....	70
4.6.1 Limits of 6dB Bandwidth Measurement.....	70
4.6.2 Test Setup.....	70
4.6.3 Test Instruments	70
4.6.4 Test Procedure	70
4.6.5 Deviation from Test Standard	70
4.6.6 EUT Operating Condition	70
4.6.7 Test Results	71
5 Pictures of Test Arrangements.....	73
Appendix – Information on the Testing Laboratories	74



A D T

Release Control Record

Issue No.	Description	Date Issued
RF150216C17	Original release	May 05, 2015

1 Certificate of Conformity

Product: 5GHz 300Mbps 13dBi Outdoor CPE

Brand: TP-LINK

Test Model: CPE510

Sample Status: Prototype

Applicant: TP-LINK TECHNOLOGIES CO., LTD.

Test Date: Mar. 27 ~ Apr. 14, 2015

Standards: 47 CFR FCC Part 15, Subpart E (Section 15.407)
ANSI C63.10:2009

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:** May 05, 2015
Celine Chou / Specialist

Approved by : Ken Liu , **Date:** May 05, 2015
Ken Liu / Senior Manager

2 Summary of Test Results

47 CFR FCC Part 15, Subpart E (Section 15.407)			
FCC Clause	Test Item	Result	Remarks
15.207 15.407(b)(6)	AC Power Conducted Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -7.28dB at 23.12907MHz.
15.407(b) (1/2/3/4/6)	Radiated Emissions & Band Edge Measurement	Pass	Meet the requirement of limit. Minimum passing margin is -0.5dB at 5714.00MHz.
15.407(a)(1/2 /3)	Max Average Transmit Power	Pass	Meet the requirement of limit.
15.407(a)(1/2 /3)	Peak Power Spectral Density	Pass	Meet the requirement of limit.
15.407(e)	6dB bandwidth	Pass	Meet the requirement of limit. (U-NII-3 Band only)
15.407(g)	Frequency Stability	Pass	Meet the requirement of limit.
15.203	Antenna Requirement	Pass	Antenna connector is solder 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 ports0	150kHz ~ 30MHz	2.44 dB
Radiated Emissions up to 1 GHz	30MHz ~ 200MHz	3.59 dB
	200MHz ~1000MHz	3.60 dB
Radiated Emissions above 1 GHz	1GHz ~ 18GHz	2.29 dB
	18GHz ~ 40GHz	2.29 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	5GHz 300Mbps 13dBi Outdoor CPE
Brand	TP-LINK
Test Model	CPE510
Status of EUT	Prototype
Power Supply Rating	24Vdc (POE)
Modulation Type	64QAM, 16QAM, QPSK, BPSK for OFDM
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 (HT5): MCS0 ~ 15 802.11n (HT10): MCS0 ~ 15 802.11n (HT20): MCS0 ~ 15 802.11n (HT40): MCS0 ~ 15
Operating Frequency	5180 ~ 5240MHz, 5745 ~ 5825MHz
Number of Channel	5180 ~ 5240MHz: 4 for 802.11a, 802.11n (HT5), 802.11n (HT10), 802.11n (HT20) 2 for 802.11n (HT40) 5745 ~ 5825MHz: 5 for 802.11a, 802.11n (HT5), 802.11n (HT10), 802.11n (HT20) 2 for 802.11n (HT40)
Output Power	5180 ~ 5240MHz: 198.550mW 5745 ~ 5825MHz: 194.998mW
Antenna Type	Cross-polarized antenna with 13dBi gain
Antenna Connector	solder
Accessory Device	POE
Data Cable Supplied	NA

Note:

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

Modulation Mode	TX Function
802.11a	2TX
802.11n (HT5)	2TX
802.11n (HT10)	2TX
802.11n (HT20)	2TX
802.11n (HT40)	2TX

- The EUT uses following POE.

POE	
Brand	TP-LINK
Model	T240100-2-POE
Input Power	100-240Vac, 50-60Hz
Output Power	24Vdc, 1A
Power Line	AC: 1.4m non-shielded cable without core

3.2 Description of Test Modes

For 5180 ~ 5240MHz

4 channels are provided for 802.11a, 802.11n (HT5), 802.11n (HT10), 802.11n (HT20):

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

2 channels are provided for 802.11n (HT40):

Channel	Frequency	Channel	Frequency
38	5190 MHz	46	5230 MHz

For 5745 ~ 5825MHz:

5 channels are provided for 802.11a, 802.11n (HT5), 802.11n (HT10), 802.11n (HT20):

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

2 channels are provided for 802.11n (HT40):

Channel	Frequency	Channel	Frequency
151	5755MHz	159	5795MHz

3.2.1 Test Mode Applicability and Tested Channel Detail

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

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

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

Radiated Emission Test (Above 1GHz):

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

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
-	802.11a	5180-5240	36 to 48	36, 40, 48	OFDM	BPSK	6.0
-	802.11n (HT5)		36 to 48	36, 40, 48	OFDM	BPSK	MCS0
-	802.11n (HT10)		36 to 48	36, 40, 48	OFDM	BPSK	MCS0
-	802.11n (HT20)		36 to 48	36, 40, 48	OFDM	BPSK	MCS0
-	802.11n (HT40)		38 to 46	38, 46	OFDM	BPSK	MCS0
-	802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	BPSK	6.0
-	802.11n (HT5)		149 to 165	149, 157, 165	OFDM	BPSK	MCS0
-	802.11n (HT10)		149 to 165	149, 157, 165	OFDM	BPSK	MCS0
-	802.11n (HT20)		149 to 165	149, 157, 165	OFDM	BPSK	MCS0
-	802.11n (HT40)		151 to 159	151, 159	OFDM	BPSK	MCS0

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	5745-5825	149 to 165		OFDM	BPSK	6.0

Power Line Conducted Emission Test:

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

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
-	802.11a	5180-5240	36 to 48	36	OFDM	BPSK	6.0
	802.11a	5745-5825	149 to 165		OFDM	BPSK	6.0

Antenna Port Conducted Measurement:

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

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
-	802.11a	5180-5240	36 to 48	36, 40, 48	OFDM	BPSK	6.0
-	802.11n (HT5)		36 to 48	36, 40, 48	OFDM	BPSK	MCS0
-	802.11n (HT10)		36 to 48	36, 40, 48	OFDM	BPSK	MCS0
-	802.11n (HT20)		36 to 48	36, 40, 48	OFDM	BPSK	MCS0
-	802.11n (HT40)		38 to 46	38, 46	OFDM	BPSK	MCS0
-	802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	BPSK	6.0
-	802.11n (HT5)		149 to 165	149, 157, 165	OFDM	BPSK	MCS0
-	802.11n (HT10)		149 to 165	149, 157, 165	OFDM	BPSK	MCS0
-	802.11n (HT20)		149 to 165	149, 157, 165	OFDM	BPSK	MCS0
-	802.11n (HT40)		151 to 159	151, 159	OFDM	BPSK	MCS0

Test Condition:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE $\geq$ 1G	25deg. C, 65%RH	120Vac, 60Hz	Chris Lin
RE<1G	25deg. C, 65%RH	120Vac, 60Hz	Chris Lin
PLC	25deg. C, 65%RH	120Vac, 60Hz	Chris Lin
APCM	25deg. C, 60%RH	120Vac, 60Hz	Frank Liu

3.3 Duty Cycle of Test Signal

Duty cycle of test signal is > 98 %, duty factor is not required.



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.

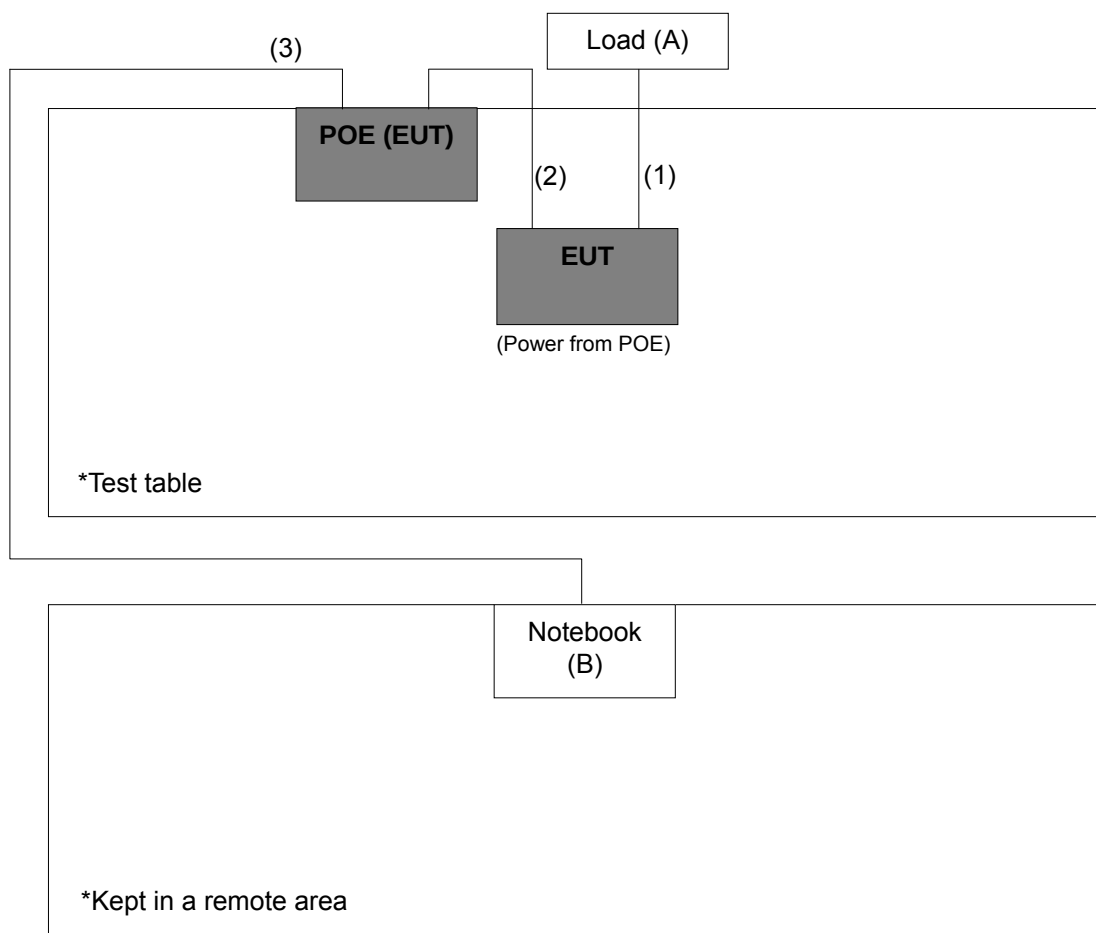
ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Load	NA	NA	NA	NA	-
B.	Notebook	DELL	E5430	FKKCYW1	FCC DoC Approved	-

Note:

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

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

3.4.1 Configuration of System under Test



3.5 General Description of Applied Standards

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

FCC Part 15, Subpart E (15.407)

789033 D02 General UNII Test Procedures New Rules 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. Other emissions shall be at least 20dB below the highest level of the desired power:

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

NOTE:

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

LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS

APPLICABLE TO	LIMIT	
789033 D02 General UNII Test Procedures New Rules v01	FIELD STRENGTH AT 3m	
	PK:74 (dBuV/m)	AV:54 (dBuV/m)
APPLICABLE TO	EIRP LIMIT	EQUIVALENT FIELD STRENGTH AT 3m
15.407(b)(1)	PK:-27 (dBm/MHz)	PK:68.2(dBuV/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(dBuV/m) ^{*1} PK:78.2 (dBuV/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:

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

4.1.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Date of Calibration	Due Date of Calibration
Test Receiver ROHDE & SCHWARZ	ESCI	100424	Oct. 06, 2014	Oct. 05, 2015
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100040	Jul. 25, 2014	Jul. 24, 2015
BILOG Antenna SCHWARZBECK	VULB9168	9168-155	Feb. 06, 2015	Feb. 05, 2016
HORN Antenna SCHWARZBECK	BBHA 9120D	9120D-1170	Feb. 05, 2015	Feb. 04, 2016
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170241	Feb. 09, 2015	Feb. 08, 2016
Preamplifier Agilent	8449B	3008A01960	Aug. 09, 2014	Aug. 08, 2015
Preamplifier Agilent	8447D	2944A10631	Aug. 09, 2014	Aug. 08, 2015
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	309220/4	Aug. 09, 2014	Aug. 08, 2015
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	250724/4	Aug. 09, 2014	Aug. 08, 2015
RF signal cable HUBER+SUHNNER	SUCOFLEX 104	295012/4	Aug. 09, 2014	Aug. 08, 2015
Software BV ADT	ADT_Radiated_ V7.6.15.9.4	NA	NA	NA
Antenna Tower inn-co GmbH	MA 4000	010303	NA	NA
Antenna Tower Controller BV ADT	AT100	AT93021703	NA	NA
Turn Table BV ADT	TT100.	TT93021703	NA	NA
Turn Table Controller BV ADT	SC100.	SC93021703	NA	NA
26GHz ~ 40GHz Amplifier	EM26400	815221	Oct. 18, 2014	Oct. 17, 2015
High Speed Peak Power Meter	ML2495A	0824011	Jul. 26, 2014	Jul. 25, 2015
Power Sensor	MA2411B	0738171	Jul. 26, 2014	Jul. 25, 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 4.
 3. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
 4. The FCC Site Registration No. is 460141.
 5. The IC Site Registration No. is IC7450F-4.

4.1.3 Test Procedures

- a. The EUT was placed on the top of a rotating table 0.8 meters 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:

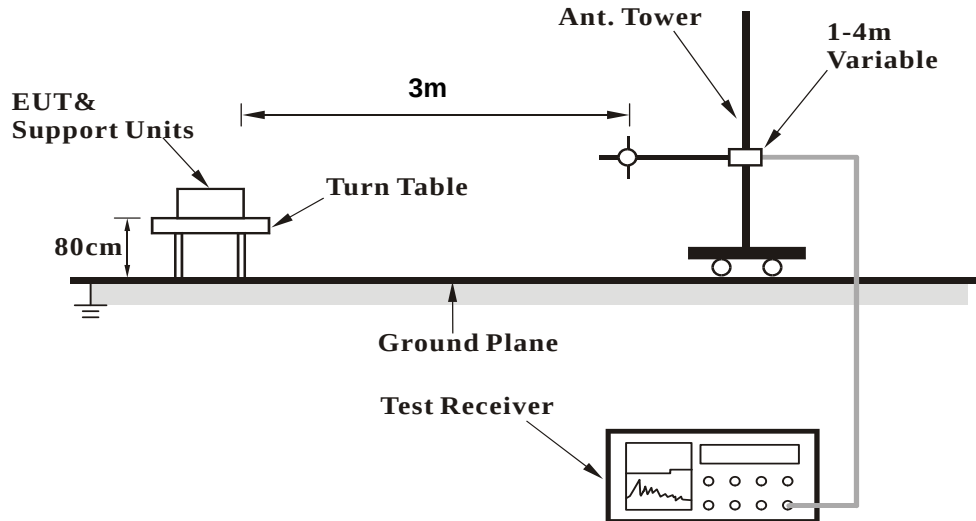
1. For emission measurements above 1 GHz, the EUT shall be placed at a height of 1.5 m above the ground at 3 meter chamber room for test.
2. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
4. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 3MHz for RMS Average (Duty cycle < 98%) for Average detection (AV) at frequency above 1GHz, then the measurement results was added to a correction factor ($10 \log(1/\text{duty cycle})$).
5. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is 10Hz (Duty cycle $\geq 98\%$) for Average detection (AV) at frequency above 1GHz.
6. All modes of operation were investigated and the worst-case emissions are reported.

4.1.4 Deviation from Test Standard

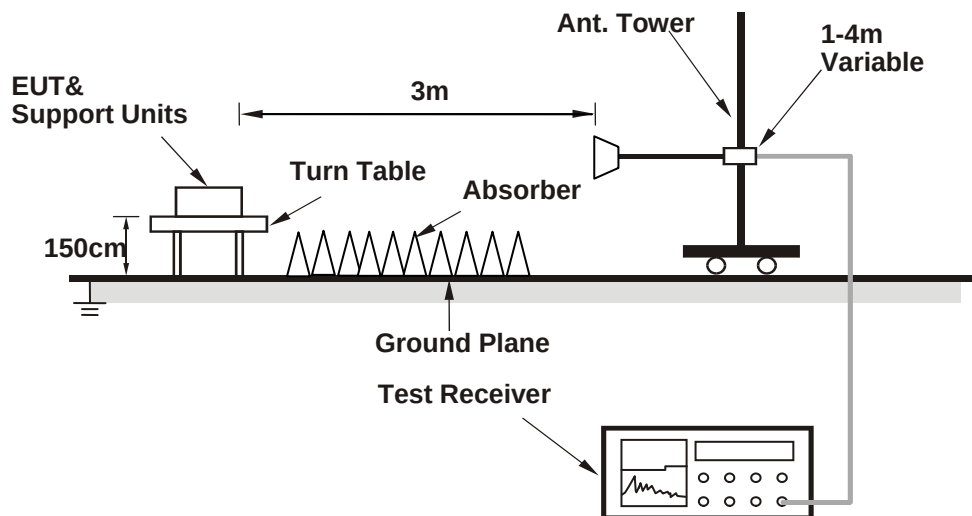
No deviation.

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

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

4.1.7 Test Results

Above 1GHz Data

802.11a

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	57.9 PK	74.0	-16.1	1.56 H	4	52.60	5.30
2	5150.00	45.7 AV	54.0	-8.3	1.56 H	4	40.40	5.30
3	*5180.00	114.5 PK			1.66 H	7	75.30	39.20
4	*5180.00	103.1 AV			1.66 H	7	63.90	39.20
5	#10360.00	60.2 PK	74.0	-13.8	1.58 H	74	41.80	18.40
6	#10360.00	47.1 AV	54.0	-6.9	1.58 H	74	28.70	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	57.2 PK	74.0	-16.8	1.75 V	10	51.90	5.30
2	5150.00	46.3 AV	54.0	-7.7	1.75 V	10	41.00	5.30
3	*5180.00	113.2 PK			1.68 V	0	74.00	39.20
4	*5180.00	102.4 AV			1.68 V	0	63.20	39.20
5	#10360.00	59.4 PK	74.0	-14.6	1.27 V	48	41.00	18.40
6	#10360.00	47.4 AV	54.0	-6.6	1.27 V	48	29.00	18.40

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	113.5 PK			1.73 H	7	74.20	39.30
2	*5200.00	102.7 AV			1.73 H	7	63.40	39.30
3	#10400.00	60.1 PK	74.0	-13.9	1.24 H	78	41.90	18.20
4	#10400.00	48.1 AV	54.0	-5.9	1.24 H	78	29.90	18.20
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	113.8 PK			1.84 V	0	74.50	39.30
2	*5200.00	102.3 AV			1.84 V	0	63.00	39.30
3	#10400.00	60.1 PK	74.0	-13.9	1.23 V	87	41.90	18.20
4	#10400.00	48.1 AV	54.0	-5.9	1.23 V	87	29.90	18.20

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	114.3 PK			1.75 H	10	75.00	39.30
2	*5240.00	104.8 AV			1.75 H	10	65.50	39.30
3	5350.00	56.8 PK	74.0	-17.2	1.84 H	9	51.20	5.60
4	5350.00	45.9 AV	54.0	-8.1	1.84 H	9	40.30	5.60
5	#10480.00	59.2 PK	74.0	-14.8	1.55 H	204	41.60	17.60
6	#10480.00	47.5 AV	54.0	-6.5	1.55 H	204	29.90	17.60
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	113.8 PK			1.85 V	0	74.50	39.30
2	*5240.00	103.1 AV			1.85 V	0	63.80	39.30
3	5350.00	58.6 PK	74.0	-15.4	1.74 V	10	53.00	5.60
4	5350.00	45.9 AV	54.0	-8.1	1.74 V	10	40.30	5.60
5	#10480.00	60.2 PK	74.0	-13.8	1.52 V	207	42.60	17.60
6	#10480.00	47.2 AV	54.0	-6.8	1.52 V	207	29.60	17.60

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5714.00	65.7 PK	74.0	-8.3	1.83 H	0	59.40	6.30
2	#5714.00	49.9 AV	54.0	-4.1	1.83 H	0	43.60	6.30
3	#5722.00	72.6 PK	78.2	-5.6	1.79 H	357	66.30	6.30
4	#5725.00	64.7 PK	78.2	-13.5	1.90 H	10	58.40	6.30
5	*5745.00	118.5 PK			1.76 H	357	78.20	40.30
6	*5745.00	108.2 AV			1.76 H	357	67.90	40.30
7	11490.00	59.1 PK	74.0	-14.9	1.23 H	97	41.90	17.20
8	11490.00	45.9 AV	54.0	-8.1	1.23 H	97	28.70	17.20
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5714.00	63.9 PK	74.0	-10.1	1.90 V	10	57.60	6.30
2	#5714.00	48.9 AV	54.0	-5.1	1.90 V	10	42.60	6.30
3	#5722.00	67.0 PK	78.2	-11.2	1.82 V	360	60.70	6.30
4	#5725.00	61.7 PK	78.2	-16.5	1.85 V	12	55.40	6.30
5	*5745.00	117.3 PK			1.79 V	8	77.00	40.30
6	*5745.00	107.1 AV			1.79 V	8	66.80	40.30
7	11490.00	59.1 PK	74.0	-14.9	1.23 V	55	41.90	17.20
8	11490.00	46.2 AV	54.0	-7.8	1.23 V	55	29.00	17.20

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5785.00	117.6 PK			1.82 H	359	77.20	40.40
2	*5785.00	106.5 AV			1.82 H	359	66.10	40.40
3	11570.00	59.2 PK	74.0	-14.8	1.23 H	87	41.90	17.30
4	11570.00	47.2 AV	54.0	-6.8	1.23 H	87	29.90	17.30
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5785.00	117.1 PK			1.75 V	4	76.70	40.40
2	*5785.00	106.7 AV			1.75 V	4	66.30	40.40
3	11570.00	58.8 PK	74.0	-15.2	1.52 V	63	41.50	17.30
4	11570.00	46.3 AV	54.0	-7.7	1.52 V	63	29.00	17.30

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5825.00	117.6 PK			1.83 H	1	77.10	40.50
2	*5825.00	105.7 AV			1.83 H	1	65.20	40.50
3	#5850.00	52.6 PK	78.2	-25.6	1.81 H	10	46.00	6.60
4	#5853.00	60.0 PK	78.2	-18.2	1.80 H	10	53.40	6.60
5	#5861.00	59.6 PK	74.0	-14.4	1.85 H	30	53.00	6.60
6	#5861.00	47.1 AV	54.0	-6.9	1.85 H	30	40.50	6.60
7	11650.00	60.3 PK	74.0	-13.7	1.23 H	64	42.60	17.70
8	11650.00	46.7 AV	54.0	-7.3	1.23 H	64	29.00	17.70
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5825.00	117.5 PK			1.81 V	4	77.00	40.50
2	*5825.00	106.7 AV			1.81 V	4	66.20	40.50
3	#5850.00	50.3 PK	78.2	-27.9	1.78 V	10	43.70	6.60
4	#5853.00	49.2 PK	78.2	-29.0	1.79 V	10	42.60	6.60
5	#5861.00	59.6 PK	74.0	-14.4	1.78 V	10	53.00	6.60
6	#5861.00	46.7 AV	54.0	-7.3	1.78 V	10	40.10	6.60
7	11650.00	59.3 PK	74.0	-14.7	1.25 V	74	41.60	17.70
8	11650.00	47.6 AV	54.0	-6.4	1.25 V	74	29.90	17.70

Remarks:

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

802.11n (HT5)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	60.5 PK	74.0	-13.5	1.80 H	10	55.20	5.30
2	5150.00	47.9 AV	54.0	-6.1	1.80 H	10	42.60	5.30
3	*5180.00	120.4 PK			1.78 H	6	81.20	39.20
4	*5180.00	110.8 AV			1.78 H	6	71.60	39.20
5	#10360.00	61.0 PK	74.0	-13.0	1.55 H	47	42.60	18.40
6	#10360.00	48.3 AV	54.0	-5.7	1.55 H	47	29.90	18.40
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	59.7 PK	74.0	-14.3	1.85 V	10	54.40	5.30
2	5150.00	46.2 AV	54.0	-7.8	1.85 V	10	40.90	5.30
3	*5180.00	119.3 PK			1.81 V	4	80.10	39.20
4	*5180.00	109.7 AV			1.81 V	4	70.50	39.20
5	#10360.00	60.2 PK	74.0	-13.8	1.25 V	74	41.80	18.40
6	#10360.00	47.4 AV	54.0	-6.6	1.25 V	74	29.00	18.40

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	119.5 PK			1.75 H	4	80.20	39.30
2	*5200.00	109.6 AV			1.75 H	4	70.30	39.30
3	#10400.00	60.8 PK	74.0	-13.2	1.26 H	87	42.60	18.20
4	#10400.00	48.6 AV	54.0	-5.4	1.26 H	87	30.40	18.20
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	119.4 PK			1.78 V	10	80.10	39.30
2	*5200.00	109.2 AV			1.78 V	10	69.90	39.30
3	#10400.00	59.9 PK	74.0	-14.1	1.32 V	65	41.70	18.20
4	#10400.00	48.6 AV	54.0	-5.4	1.32 V	65	30.40	18.20

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	119.8 PK			1.95 H	13	80.50	39.30
2	*5240.00	109.0 AV			1.95 H	13	69.70	39.30
3	5350.00	58.3 PK	74.0	-15.7	1.85 H	15	52.70	5.60
4	5350.00	48.3 AV	54.0	-5.7	1.85 H	15	42.70	5.60
5	#10480.00	59.5 PK	74.0	-14.5	1.23 H	65	41.90	17.60
6	#10480.00	46.6 AV	54.0	-7.4	1.23 H	65	29.00	17.60
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	119.8 PK			1.75 V	10	80.50	39.30
2	*5240.00	109.0 AV			1.75 V	10	69.70	39.30
3	5350.00	58.6 PK	74.0	-15.4	1.80 V	10	53.00	5.60
4	5350.00	45.7 AV	54.0	-8.3	1.80 V	10	40.10	5.60
5	#10480.00	59.2 PK	74.0	-14.8	1.55 V	222	41.60	17.60
6	#10480.00	47.6 AV	54.0	-6.4	1.55 V	222	30.00	17.60

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5714.00	66.8 PK	74.0	-7.2	1.72 H	10	60.50	6.30
2	#5714.00	49.6 AV	54.0	-4.4	1.72 H	10	43.30	6.30
3	#5722.00	63.9 PK	78.2	-14.3	1.74 H	10	57.60	6.30
4	#5725.00	64.8 PK	78.2	-13.4	1.77 H	10	58.50	6.30
5	*5745.00	119.3 PK			1.71 H	2	79.00	40.30
6	*5745.00	109.9 AV			1.71 H	2	69.60	40.30
7	11490.00	58.2 PK	74.0	-15.8	1.23 H	65	41.00	17.20
8	11490.00	45.9 AV	54.0	-8.1	1.23 H	65	28.70	17.20
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5714.00	63.2 PK	74.0	-10.8	1.78 V	10	56.90	6.30
2	#5714.00	49.2 AV	54.0	-4.8	1.78 V	10	42.90	6.30
3	#5722.00	60.3 PK	78.2	-17.9	1.78 V	4	54.00	6.30
4	*5745.00	119.5 PK			1.71 V	2	79.20	40.30
5	*5745.00	109.9 AV			1.71 V	2	69.60	40.30
6	#5850.00	65.3 PK	78.2	-12.9	4.00 V	N/A	58.70	6.60
7	11490.00	59.8 PK	74.0	-14.2	1.47 V	48	42.60	17.20
8	11490.00	45.9 AV	54.0	-8.1	1.47 V	48	28.70	17.20

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5785.00	119.3 PK			1.75 H	6	78.90	40.40
2	*5785.00	109.8 AV			1.75 H	6	69.40	40.40
3	11570.00	58.9 PK	74.0	-15.1	1.17 H	301	41.60	17.30
4	11570.00	46.7 AV	54.0	-7.3	1.17 H	301	29.40	17.30
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5785.00	119.5 PK			1.80 V	10	79.10	40.40
2	*5785.00	109.9 AV			1.80 V	10	69.50	40.40
3	11570.00	59.8 PK	74.0	-14.2	1.56 V	60	42.50	17.30
4	11570.00	45.9 AV	54.0	-8.1	1.56 V	60	28.60	17.30

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5825.00	119.8 PK			1.96 H	3	79.30	40.50
2	*5825.00	109.9 AV			1.96 H	3	69.40	40.50
3	#5850.00	55.6 PK	78.2	-22.6	1.23 H	65	49.00	6.60
4	#5853.00	60.5 PK	78.2	-17.7	1.85 H	4	53.90	6.60
5	#5861.00	61.3 PK	74.0	-12.7	2.00 H	10	54.70	6.60
6	#5861.00	48.6 AV	54.0	-5.4	2.00 H	10	42.00	6.60
7	11650.00	60.3 PK	74.0	-13.7	1.47 H	44	42.60	17.70
8	11650.00	47.7 AV	54.0	-6.3	1.47 H	44	30.00	17.70
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5825.00	119.3 PK			1.97 V	10	78.80	40.50
2	*5825.00	110.5 AV			1.97 V	10	70.00	40.50
3	#5850.00	52.9 PK	78.2	-25.3	1.87 V	41	46.30	6.60
4	#5853.00	60.6 PK	78.2	-17.6	1.90 V	20	54.00	6.60
5	#5861.00	61.6 PK	74.0	-12.4	1.78 V	4	55.00	6.60
6	#5861.00	48.6 AV	54.0	-5.4	1.78 V	4	42.00	6.60
7	11650.00	59.2 PK	74.0	-14.8	1.47 V	85	41.50	17.70
8	11650.00	46.4 AV	54.0	-7.6	1.47 V	85	28.70	17.70

Remarks:

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

802.11n (HT10)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	58.5 PK	74.0	-15.5	1.80 H	10	53.20	5.30
2	5150.00	46.3 AV	54.0	-7.7	1.80 H	10	41.00	5.30
3	*5180.00	118.8 PK			1.75 H	3	79.60	39.20
4	*5180.00	107.5 AV			1.75 H	3	68.30	39.20
5	#10360.00	61.0 PK	74.0	-13.0	1.23 H	87	42.60	18.40
6	#10360.00	47.4 AV	54.0	-6.6	1.23 H	87	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	58.2 PK	74.0	-15.8	1.75 V	10	52.90	5.30
2	5150.00	46.2 AV	54.0	-7.8	1.75 V	10	40.90	5.30
3	*5180.00	118.4 PK			1.74 V	6	79.20	39.20
4	*5180.00	107.0 AV			1.74 V	6	67.80	39.20
5	#10360.00	60.3 PK	74.0	-13.7	1.36 V	54	41.90	18.40
6	#10360.00	47.0 AV	54.0	-7.0	1.36 V	54	28.60	18.40

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	118.9 PK			1.77 H	4	79.60	39.30
2	*5200.00	107.2 AV			1.77 H	4	67.90	39.30
3	#10400.00	59.8 PK	74.0	-14.2	1.47 H	88	41.60	18.20
4	#10400.00	47.2 AV	54.0	-6.8	1.47 H	88	29.00	18.20
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	118.7 PK			1.91 V	4	79.40	39.30
2	*5200.00	107.8 AV			1.91 V	4	68.50	39.30
3	#10400.00	60.8 PK	74.0	-13.2	1.55 V	221	42.60	18.20
4	#10400.00	48.1 AV	54.0	-5.9	1.55 V	221	29.90	18.20

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	118.1 PK			1.72 H	3	78.80	39.30
2	*5240.00	107.1 AV			1.72 H	3	67.80	39.30
3	5350.00	59.2 PK	74.0	-14.8	1.78 H	10	53.60	5.60
4	5350.00	46.8 AV	54.0	-7.2	1.78 H	10	41.20	5.60
5	#10480.00	60.2 PK	74.0	-13.8	1.25 H	74	42.60	17.60
6	#10480.00	47.3 AV	54.0	-6.7	1.25 H	74	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	*5240.00	118.5 PK			1.81 V	12	79.20	39.30
2	*5240.00	106.8 AV			1.81 V	12	67.50	39.30
3	5350.00	59.2 PK	74.0	-14.8	1.85 V	6	53.60	5.60
4	5350.00	45.7 AV	54.0	-8.3	1.85 V	6	40.10	5.60
5	#10480.00	59.1 PK	74.0	-14.9	1.06 V	32	41.50	17.60
6	#10480.00	46.3 AV	54.0	-7.7	1.06 V	32	28.70	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)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5714.00	65.2 PK	74.0	-8.8	1.80 H	10	58.90	6.30
2	#5714.00	51.3 AV	54.0	-2.7	1.80 H	10	45.00	6.30
3	#5722.00	65.5 PK	78.2	-12.7	1.90 H	12	59.20	6.30
4	#5725.00	64.9 PK	78.2	-13.3	1.81 H	14	58.60	6.30
5	*5745.00	119.6 PK			1.84 H	4	79.30	40.30
6	*5745.00	109.1 AV			1.84 H	4	68.80	40.30
7	11490.00	58.9 PK	74.0	-15.1	1.25 H	74	41.70	17.20
8	11490.00	46.2 AV	54.0	-7.8	1.25 H	74	29.00	17.20
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5714.00	61.2 PK	74.0	-12.8	1.60 V	10	54.90	6.30
2	#5714.00	48.9 AV	54.0	-5.1	1.60 V	10	42.60	6.30
3	#5722.00	63.3 PK	78.2	-14.9	1.60 V	20	57.00	6.30
4	#5725.00	61.4 PK	78.2	-16.8	1.75 V	10	55.10	6.30
5	*5745.00	119.5 PK			1.50 V	0	79.20	40.30
6	*5745.00	109.3 AV			1.50 V	0	69.00	40.30
7	11490.00	59.1 PK	74.0	-14.9	1.36 V	98	41.90	17.20
8	11490.00	45.9 AV	54.0	-8.1	1.36 V	98	28.70	17.20

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5785.00	119.0 PK			1.83 H	0	78.60	40.40
2	*5785.00	109.6 AV			1.83 H	0	69.20	40.40
3	11570.00	59.8 PK	74.0	-14.2	1.36 H	87	42.50	17.30
4	11570.00	47.0 AV	54.0	-7.0	1.36 H	87	29.70	17.30
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5785.00	119.0 PK			1.83 V	0	78.60	40.40
2	*5785.00	109.9 AV			1.83 V	0	69.50	40.40
3	11570.00	59.2 PK	74.0	-14.8	1.58 V	74	41.90	17.30
4	11570.00	46.3 AV	54.0	-7.7	1.58 V	74	29.00	17.30

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5825.00	119.2 PK			1.98 H	7	78.70	40.50
2	*5825.00	108.9 AV			1.98 H	7	68.40	40.50
3	#5850.00	54.5 PK	78.2	-23.7	1.78 H	10	47.90	6.60
4	#5853.00	62.6 PK	78.2	-15.6	1.88 H	14	56.00	6.60
5	#5861.00	62.2 PK	74.0	-11.8	1.90 H	10	55.60	6.60
6	#5861.00	49.2 AV	54.0	-4.8	1.90 H	10	42.60	6.60
7	11650.00	59.3 PK	74.0	-14.7	1.47 H	44	41.60	17.70
8	11650.00	46.4 AV	54.0	-7.6	1.47 H	44	28.70	17.70
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5825.00	119.6 PK			1.75 V	0	79.10	40.50
2	*5825.00	109.1 AV			1.75 V	0	68.60	40.50
3	#5850.00	51.1 PK	78.2	-27.1	1.77 V	14	44.50	6.60
4	#5853.00	58.5 PK	78.2	-19.7	1.82 V	13	51.90	6.60
5	#5861.00	60.6 PK	74.0	-13.4	1.80 V	10	54.00	6.60
6	#5861.00	47.8 AV	54.0	-6.2	1.80 V	10	41.20	6.60
7	11650.00	60.2 PK	74.0	-13.8	1.69 V	32	42.50	17.70
8	11650.00	48.1 AV	54.0	-5.9	1.69 V	32	30.40	17.70

Remarks:

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

802.11n (HT20)

CHANNEL	TX Channel 36	DETECTOR FUNCTION	Peak (PK)
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	57.6 PK	74.0	-16.4	1.79 H	10	52.30	5.30
2	5150.00	45.4 AV	54.0	-8.6	1.79 H	10	40.10	5.30
3	*5180.00	114.1 PK			1.66 H	6	74.90	39.20
4	*5180.00	103.7 AV			1.66 H	6	64.50	39.20
5	#10360.00	60.1 PK	74.0	-13.9	1.25 H	74	41.70	18.40
6	#10360.00	47.4 AV	54.0	-6.6	1.25 H	74	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	57.3 PK	74.0	-16.7	1.10 V	12	52.00	5.30
2	5150.00	45.7 AV	54.0	-8.3	1.10 V	12	40.40	5.30
3	*5180.00	113.1 PK			1.60 V	0	73.80	39.30
4	*5180.00	103.2 AV			1.60 V	0	63.90	39.30
5	#10360.00	60.2 PK	74.0	-13.8	1.30 V	62	41.80	18.40
6	#10360.00	47.4 AV	54.0	-6.6	1.30 V	62	29.00	18.40

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	114.7 PK			1.79 H	0	75.40	39.30
2	*5200.00	104.8 AV			1.79 H	0	65.50	39.30
3	#10400.00	60.1 PK	74.0	-13.9	1.26 H	308	41.90	18.20
4	#10400.00	48.1 AV	54.0	-5.9	1.26 H	308	29.90	18.20
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	113.1 PK			1.60 V	4	73.80	39.30
2	*5200.00	102.6 AV			1.60 V	4	63.30	39.30
3	#10400.00	60.7 PK	74.0	-13.3	1.26 V	333	42.50	18.20
4	#10400.00	46.8 AV	54.0	-7.2	1.26 V	333	28.60	18.20

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	114.8 PK			1.79 H	5	75.50	39.30
2	*5240.00	103.2 AV			1.79 H	5	63.90	39.30
3	5350.00	58.6 PK	74.0	-15.4	1.87 H	10	53.00	5.60
4	5350.00	45.8 AV	54.0	-8.2	1.87 H	10	40.20	5.60
5	#10480.00	59.5 PK	74.0	-14.5	1.33 H	147	41.90	17.60
6	#10480.00	46.3 AV	54.0	-7.7	1.33 H	147	28.70	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	*5240.00	113.8 PK			1.73 V	356	74.50	39.30
2	*5240.00	102.4 AV			1.73 V	356	63.10	39.30
3	5350.00	57.5 PK	74.0	-16.5	1.75 V	350	51.90	5.60
4	5350.00	45.6 AV	54.0	-8.4	1.75 V	350	40.00	5.60
5	#10480.00	58.8 PK	74.0	-15.2	1.05 V	44	41.20	17.60
6	#10480.00	47.3 AV	54.0	-6.7	1.05 V	44	29.70	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)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5714.00	64.4 PK	74.0	-9.6	1.35 H	10	58.10	6.30
2	#5714.00	50.4 AV	54.0	-3.6	1.35 H	10	44.10	6.30
3	#5722.00	74.1 PK	78.2	-4.1	1.30 H	360	67.80	6.30
4	#5725.00	65.0 PK	78.2	-13.2	1.74 H	10	58.70	6.30
5	*5745.00	118.4 PK			1.27 H	357	78.10	40.30
6	*5745.00	108.5 AV			1.27 H	357	68.20	40.30
7	11490.00	59.8 PK	74.0	-14.2	1.47 H	48	42.60	17.20
8	11490.00	47.1 AV	54.0	-6.9	1.47 H	48	29.90	17.20
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5714.00	63.3 PK	74.0	-10.7	1.80 V	12	57.00	6.30
2	#5714.00	49.9 AV	54.0	-4.1	1.80 V	12	43.60	6.30
3	#5722.00	72.2 PK	78.2	-6.0	1.70 V	10	65.90	6.30
4	#5725.00	61.3 PK	78.2	-16.9	1.86 V	13	55.00	6.30
5	*5745.00	118.0 PK			1.76 V	8	77.70	40.30
6	*5745.00	108.0 AV			1.76 V	8	67.70	40.30
7	11490.00	58.7 PK	74.0	-15.3	1.63 V	205	41.50	17.20
8	11490.00	45.9 AV	54.0	-8.1	1.63 V	205	28.70	17.20

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5785.00	117.5 PK			1.74 H	0	77.10	40.40
2	*5785.00	106.6 AV			1.74 H	0	66.20	40.40
3	11570.00	59.8 PK	74.0	-14.2	1.36 H	89	42.50	17.30
4	11570.00	46.3 AV	54.0	-7.7	1.36 H	89	29.00	17.30
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5785.00	117.1 PK			1.83 V	8	76.70	40.40
2	*5785.00	105.5 AV			1.83 V	8	65.10	40.40
3	11570.00	58.9 PK	74.0	-15.1	1.25 V	87	41.60	17.30
4	11570.00	47.0 AV	54.0	-7.0	1.25 V	87	29.70	17.30

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5825.00	117.1 PK			1.87 H	2	76.60	40.50
2	*5825.00	107.0 AV			1.87 H	2	66.50	40.50
3	#5850.00	53.6 PK	78.2	-24.6	1.78 H	8	47.00	6.60
4	#5853.00	60.6 PK	78.2	-17.6	1.80 H	10	54.00	6.60
5	#5861.00	59.6 PK	74.0	-14.4	1.90 H	10	53.00	6.60
6	#5861.00	47.5 AV	54.0	-6.5	1.90 H	10	40.90	6.60
7	11650.00	60.3 PK	74.0	-13.7	1.52 H	69	42.60	17.70
8	11650.00	47.6 AV	54.0	-6.4	1.52 H	69	29.90	17.70
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5825.00	117.3 PK			1.73 V	0	76.80	40.50
2	*5825.00	106.1 AV			1.73 V	0	65.60	40.50
3	#5850.00	50.6 PK	78.2	-27.6	1.76 V	10	44.00	6.60
4	#5853.00	65.5 PK	78.2	-12.7	1.78 V	10	58.90	6.60
5	#5861.00	62.7 PK	74.0	-11.3	1.80 V	10	56.10	6.60
6	#5861.00	46.9 AV	54.0	-7.1	1.80 V	10	40.30	6.60
7	11650.00	59.6 PK	74.0	-14.4	1.06 V	54	41.90	17.70
8	11650.00	46.4 AV	54.0	-7.6	1.06 V	54	28.70	17.70

Remarks:

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

802.11n (HT40)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	62.9 PK	74.0	-11.1	1.29 H	355	57.60	5.30
2	5150.00	50.4 AV	54.0	-3.6	1.29 H	355	45.10	5.30
3	*5190.00	109.5 PK			1.58 H	10	70.30	39.20
4	*5190.00	100.0 AV			1.58 H	10	60.80	39.20
5	#10380.00	59.8 PK	74.0	-14.2	1.28 H	74	41.60	18.20
6	#10380.00	47.2 AV	54.0	-6.8	1.28 H	74	29.00	18.20
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	64.3 PK	74.0	-9.7	1.71 V	0	59.00	5.30
2	5150.00	51.6 AV	54.0	-2.4	1.71 V	0	46.30	5.30
3	*5190.00	109.5 PK			1.61 V	5	70.30	39.20
4	*5190.00	99.6 AV			1.61 V	5	60.40	39.20
5	#10380.00	60.0 PK	74.0	-14.0	1.26 V	87	41.80	18.20
6	#10380.00	48.1 AV	54.0	-5.9	1.26 V	87	29.90	18.20

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5230.00	110.1 PK			1.77 H	4	70.80	39.30
2	*5230.00	99.7 AV			1.77 H	4	60.40	39.30
3	5350.00	58.2 PK	74.0	-15.8	1.80 H	10	52.60	5.60
4	5350.00	45.9 AV	54.0	-8.1	1.80 H	10	40.30	5.60
5	#10460.00	60.3 PK	74.0	-13.7	1.55 H	222	42.60	17.70
6	#10460.00	46.4 AV	54.0	-7.6	1.55 H	222	28.70	17.70
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5230.00	109.7 PK			1.79 V	0	70.40	39.30
2	*5230.00	99.9 AV			1.79 V	0	60.60	39.30
3	5350.00	57.6 PK	74.0	-16.4	1.76 V	13	52.00	5.60
4	5350.00	46.8 AV	54.0	-7.2	1.76 V	13	41.20	5.60
5	#10460.00	59.4 PK	74.0	-14.6	1.09 V	63	41.70	17.70
6	#10460.00	46.4 AV	54.0	-7.6	1.09 V	63	28.70	17.70

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5714.00	66.8 PK	74.0	-7.2	1.75 H	2	60.50	6.30
2	#5714.00	53.5 AV	54.0	-0.5	1.75 H	2	47.20	6.30
3	#5722.00	71.8 PK	78.2	-6.4	1.68 H	358	65.50	6.30
4	#5725.00	65.3 PK	78.2	-12.9	1.70 H	0	59.00	6.30
5	*5755.00	113.1 PK			1.78 H	0	72.80	40.30
6	*5755.00	102.4 AV			1.78 H	0	62.10	40.30
7	11510.00	59.7 PK	74.0	-14.3	1.39 H	64	42.60	17.10
8	11510.00	46.1 AV	54.0	-7.9	1.39 H	64	29.00	17.10
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5714.00	69.6 PK	74.0	-4.4	1.78 V	10	63.30	6.30
2	#5714.00	52.8 AV	54.0	-1.2	1.78 V	10	46.50	6.30
3	#5722.00	73.2 PK	78.2	-5.0	1.80 V	12	66.90	6.30
4	#5725.00	63.2 PK	78.2	-15.0	1.80 V	13	56.90	6.30
5	*5755.00	112.1 PK			1.76 V	358	71.80	40.30
6	*5755.00	101.1 AV			1.76 V	358	60.80	40.30
7	11510.00	58.7 PK	74.0	-15.3	1.52 V	222	41.60	17.10
8	11510.00	45.8 AV	54.0	-8.2	1.52 V	222	28.70	17.10

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5795.00	112.9 PK			1.72 H	2	72.50	40.40
2	*5795.00	102.9 AV			1.72 H	2	62.50	40.40
3	#5850.00	53.5 PK	78.2	-24.7	1.80 H	14	46.90	6.60
4	#5853.00	63.6 PK	78.2	-14.6	1.76 H	13	57.00	6.60
5	#5861.00	60.5 PK	74.0	-13.5	1.78 H	10	53.90	6.60
6	#5861.00	47.1 AV	54.0	-6.9	1.78 H	10	40.50	6.60
7	11590.00	58.7 PK	74.0	-15.3	1.52 H	63	41.50	17.20
8	11590.00	45.9 AV	54.0	-8.1	1.52 H	63	28.70	17.20
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5795.00	113.0 PK			1.66 V	3	72.60	40.40
2	*5795.00	103.8 AV			1.66 V	3	63.40	40.40
3	#5850.00	50.6 PK	78.2	-27.6	1.74 V	15	44.00	6.60
4	#5853.00	64.5 PK	78.2	-13.7	1.71 V	20	57.90	6.60
5	#5861.00	62.2 PK	74.0	-11.8	1.70 V	6	55.60	6.60
6	#5861.00	48.6 AV	54.0	-5.4	1.70 V	6	42.00	6.60
7	11590.00	59.1 PK	74.0	-14.9	1.25 V	74	41.90	17.20
8	11590.00	45.9 AV	54.0	-8.1	1.25 V	74	28.70	17.20

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
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	97.81	30.1 QP	43.5	-13.4	2.00 H	167	49.30	-19.20
2	218.12	38.7 QP	46.0	-7.3	1.26 H	13	55.20	-16.50
3	388.87	24.1 QP	46.0	-21.9	1.26 H	13	35.10	-11.00
4	499.48	22.5 QP	46.0	-23.5	1.26 H	355	31.40	-8.90
5	780.83	29.8 QP	46.0	-16.2	1.51 H	153	33.10	-3.30
6	936.07	35.0 QP	46.0	-11.0	1.00 H	272	36.00	-1.00
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	37.66	39.0 QP	40.0	-1.0	1.25 V	146	53.80	-14.80
2	74.53	33.9 QP	40.0	-6.1	1.25 V	192	50.80	-16.90
3	142.44	30.4 QP	43.5	-13.1	1.25 V	8	44.60	-14.20
4	220.06	27.0 QP	46.0	-19.0	2.00 V	68	43.40	-16.40
5	780.83	28.2 QP	46.0	-17.8	2.00 V	6	31.50	-3.30
6	936.07	33.0 QP	46.0	-13.0	1.25 V	136	34.00	-1.00

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

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.	Date of Calibration	Due Date of Calibration
Test Receiver ROHDE & SCHWARZ	ESCI	100613	Nov. 11, 2014	Nov. 10, 2015
RF signal cable Woken	5D-FB	Cable-HYC01-01	Dec. 26, 2014	Dec. 25, 2015
LISN ROHDE & SCHWARZ (EUT)	ESH3-Z5	835239/001	Mar. 02, 2015	Mar. 01, 2016
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.

4.2.3 Test Procedures

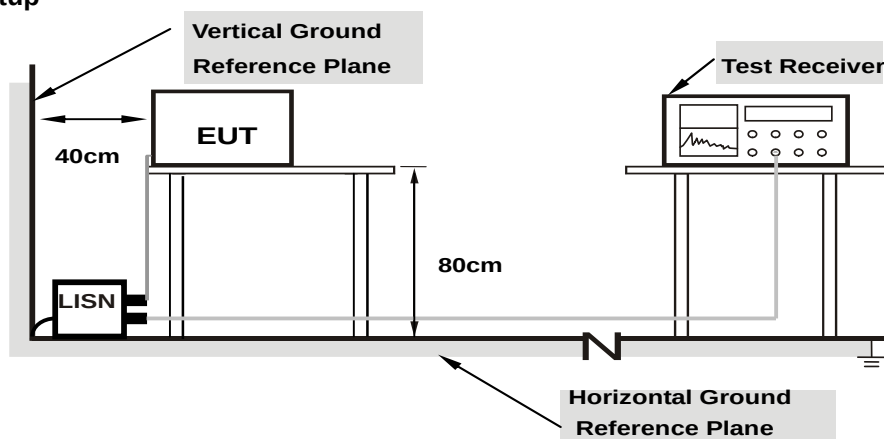
- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance for the measuring instrument.
- Both lines of the power mains connected to the EUT were checked for maximum conducted interference.
- The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

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

4.2.4 Deviation from Test Standard

No deviation.

4.2.5 Test Setup



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

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

4.2.6 EUT Operating Conditions

Same as 4.1.6.

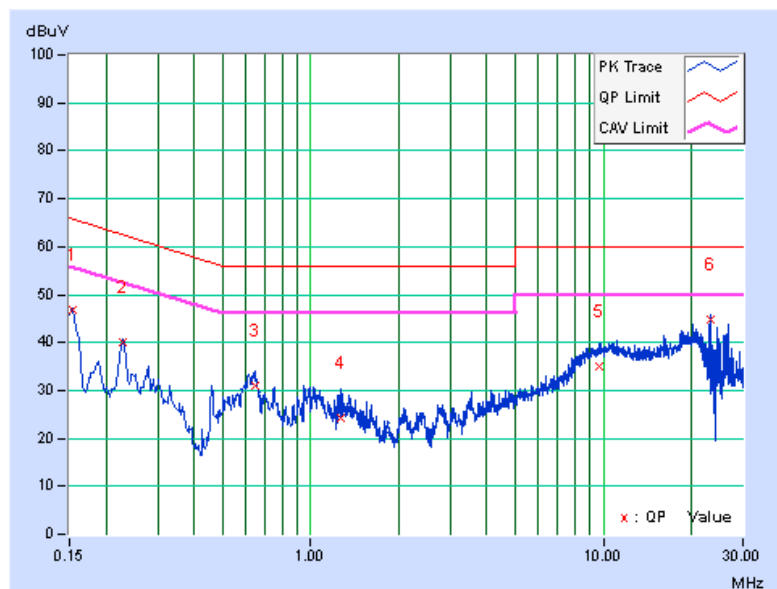
4.2.7 Test Results

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

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15391	0.05	46.61	46.28	46.66	46.33	65.79	55.79	-19.13	-9.46
2	0.22791	0.06	40.15	38.04	40.21	38.10	62.53	52.53	-22.32	-14.43
3	0.64266	0.07	30.87	25.79	30.94	25.86	56.00	46.00	-25.06	-20.14
4	1.26044	0.09	24.05	18.13	24.14	18.22	56.00	46.00	-31.86	-27.78
5	9.69040	0.44	34.60	29.43	35.04	29.87	60.00	50.00	-24.96	-20.13
6	23.12907	0.99	43.69	41.73	44.68	42.72	60.00	50.00	-15.32	-7.28

Remarks:

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

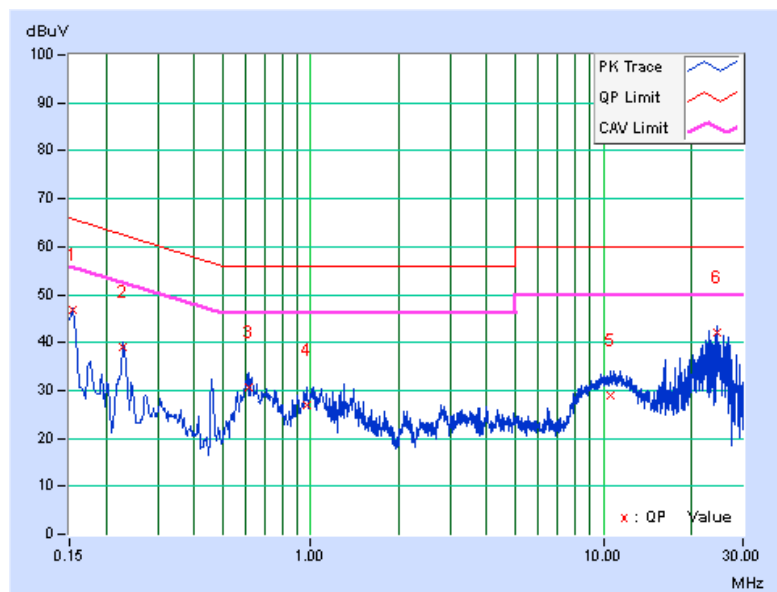


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
-------	-------------	-------------------	--------------------------------

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15391	0.05	46.65	46.53	46.70	46.58	65.79	55.79	-19.09	-9.21
2	0.22851	0.05	39.02	38.48	39.07	38.53	62.50	52.50	-23.43	-13.97
3	0.61138	0.07	30.73	24.33	30.80	24.40	56.00	46.00	-25.20	-21.60
4	0.96719	0.08	26.94	21.33	27.02	21.41	56.00	46.00	-28.98	-24.59
5	10.60534	0.44	28.68	23.08	29.12	23.52	60.00	50.00	-30.88	-26.48
6	24.34899	0.79	41.32	39.45	42.11	40.24	60.00	50.00	-17.89	-9.76

Remarks:

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



4.3 Transmit Power Measurement

4.3.1 Limits of Transmit Power Measurement

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

*B is the 26 dB emission bandwidth in megahertz

Per KDB 662911 Method of conducted output power measurement on IEEE 802.11 devices,

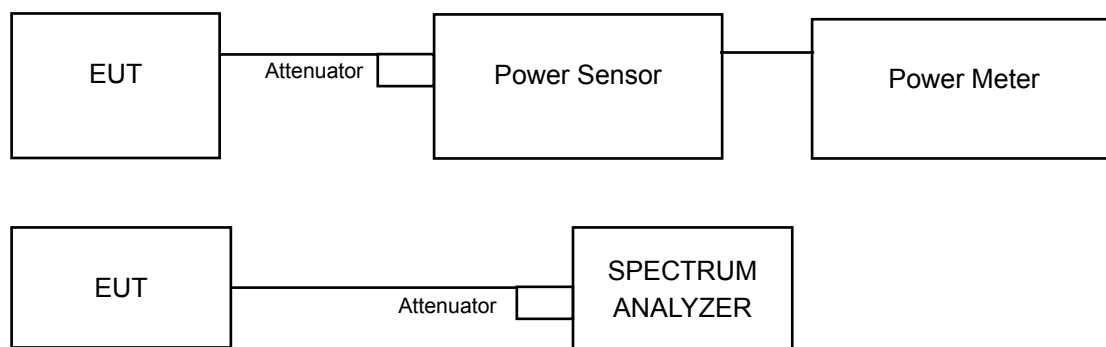
Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;

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

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

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

4.3.2 Test Setup



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

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

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

4.3.5 Deviation from Test Standard

No deviation.

4.3.6 EUT Operating Conditions

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

4.3.7 Test Result

Power Output:

802.11a

Chan.	Chan. Freq. (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
36	5180	19.45	20.11	190.670	22.80	30	Pass
40	5200	19.54	20.23	195.389	22.91	30	Pass
48	5240	19.16	20.45	193.331	22.86	30	Pass
149	5745	19.75	19.87	191.457	22.82	30	Pass
157	5785	19.51	19.78	184.391	22.66	30	Pass
165	5825	19.89	19.89	194.998	22.90	30	Pass

802.11n (HT5)

Chan.	Chan. Freq. (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
36	5180	19.24	20.34	192.089	22.84	30	Pass
40	5200	19.24	20.57	197.971	22.97	30	Pass
48	5240	19.18	20.11	185.359	22.68	30	Pass
149	5745	19.50	19.53	178.868	22.53	30	Pass
157	5785	19.27	19.29	169.446	22.29	30	Pass
165	5825	19.46	19.20	171.484	22.34	30	Pass

802.11n (HT10)

Chan.	Chan. Freq. (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
36	5180	19.17	20.23	188.043	22.74	30	Pass
40	5200	19.02	20.10	182.128	22.60	30	Pass
48	5240	19.06	19.71	174.079	22.41	30	Pass
149	5745	19.42	19.38	174.194	22.41	30	Pass
157	5785	19.49	19.40	176.016	22.46	30	Pass
165	5825	19.36	19.33	172.002	22.36	30	Pass

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				
36	5180	19.35	20.34	194.242	22.88	30	Pass
40	5200	19.45	20.34	196.248	22.93	30	Pass
48	5240	19.31	20.33	193.205	22.86	30	Pass
149	5745	19.26	19.22	167.893	22.25	30	Pass
157	5785	19.31	19.36	171.608	22.35	30	Pass
165	5825	19.01	19.78	174.676	22.42	30	Pass

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				
38	5190	19.31	20.54	198.550	22.98	30	Pass
46	5230	19.34	20.46	197.074	22.95	30	Pass
151	5755	18.42	19.52	159.038	22.02	30	Pass
159	5795	19.38	19.42	174.194	22.41	30	Pass

26dB Bandwidth:

802.11a

Channel	Channel Frequency (MHz)	26dBc Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
36	5180	23.44	23.61	Pass
40	5200	23.40	23.42	Pass
48	5240	23.22	22.97	Pass

802.11n (HT5)

Channel	Channel Frequency (MHz)	26dBc Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
36	5180	5.55	5.32	Pass
40	5200	5.50	5.70	Pass
48	5240	5.74	5.35	Pass

802.11n (HT10)

Channel	Channel Frequency (MHz)	26dBc Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
36	5180	9.88	9.78	Pass
40	5200	9.86	9.78	Pass
48	5240	9.97	9.89	Pass

802.11n (HT20)

Channel	Channel Frequency (MHz)	26dBc Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
36	5180	23.84	23.87	Pass
40	5200	24.04	24.08	Pass
48	5240	23.53	23.46	Pass

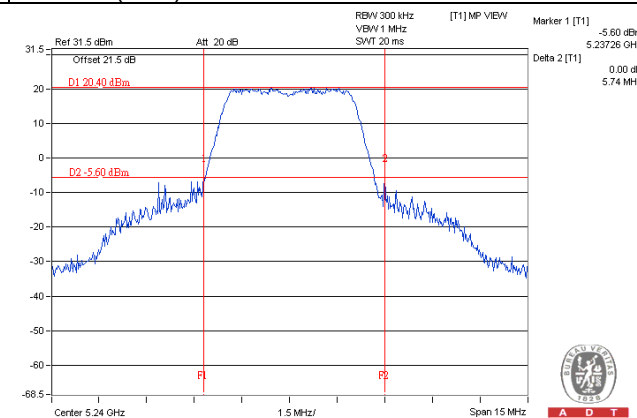
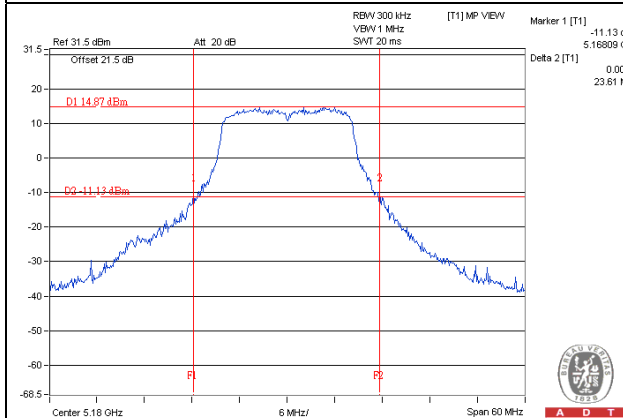
802.11n (HT40)

Channel	Channel Frequency (MHz)	26dBc Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
38	5180	51.19	49.11	Pass
46	5200	49.47	48.72	Pass

Spectrum Plot of Worst Value

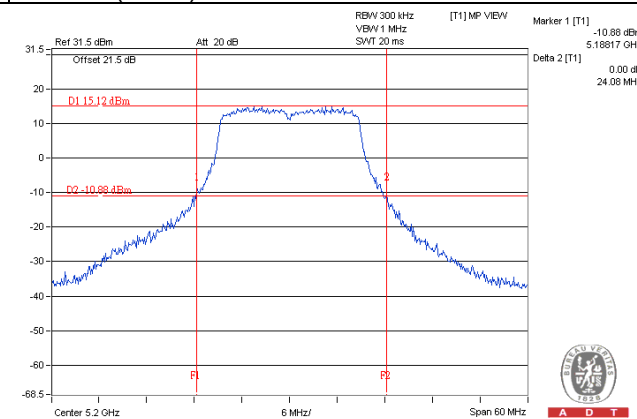
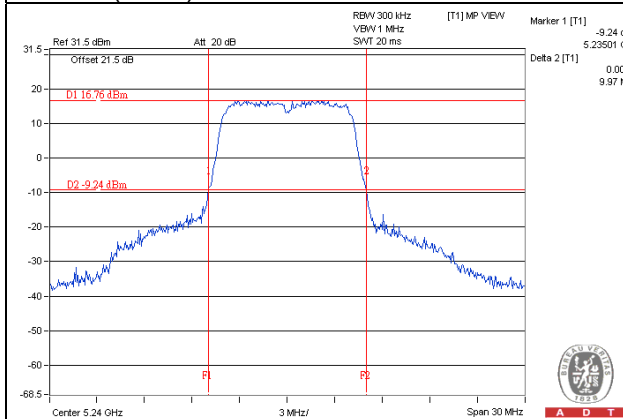
802.11a

802.11n (HT5)

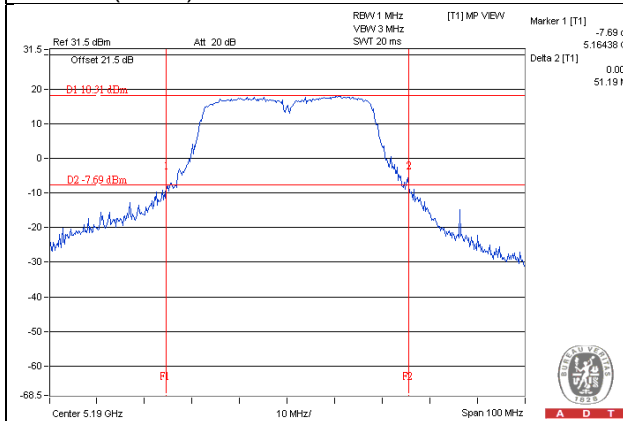


802.11n (HT10)

802.11n (HT20)



802.11n (HT40)



Occupied Bandwidth:

802.11a

Channel	Channel Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
36	5180	16.80	16.80
40	5200	16.68	16.68
48	5240	16.80	16.68
149	5745	16.80	16.68
157	5785	16.70	16.80
165	5825	16.70	16.80

802.11n (HT5)

Channel	Channel Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
36	5180	4.41	4.41
40	5200	4.38	4.41
48	5240	4.41	4.41
149	5745	4.35	4.38
157	5785	4.40	4.40
165	5825	4.37	4.40

802.11n (HT10)

Channel	Channel Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
36	5180	8.40	8.40
40	5200	8.34	8.34
48	5240	8.40	8.34
149	5745	8.40	8.34
157	5785	8.40	8.30
165	5825	8.30	8.35

802.11n (HT20)

Channel	Channel Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
36	5180	17.88	18.00
40	5200	17.88	17.88
48	5240	17.88	17.88
149	5745	18.00	17.76
157	5785	17.90	17.70
165	5825	17.80	17.80

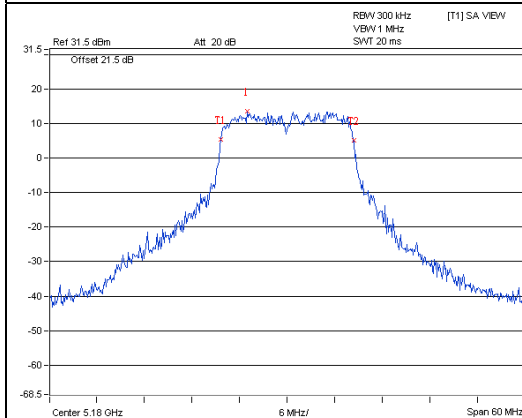
802.11n (HT40)

Channel	Channel Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
38	5180	36.72	36.84
46	5200	36.96	36.72
151	5755	36.72	36.72
159	5795	36.70	36.80

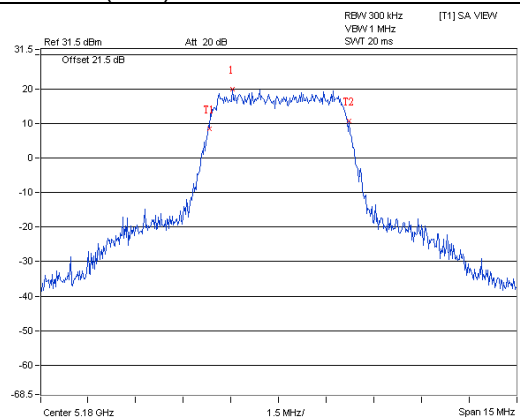
Spectrum Plot of Worst Value

802.11a

802.11n (HT5)



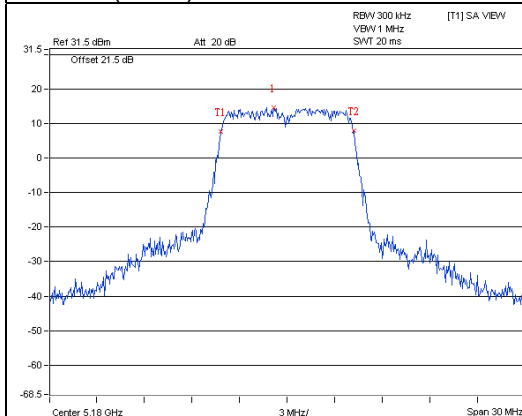
A D T



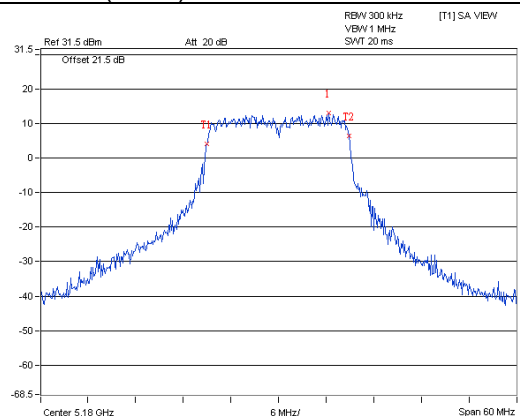
A D T

802.11n (HT10)

802.11n (HT20)

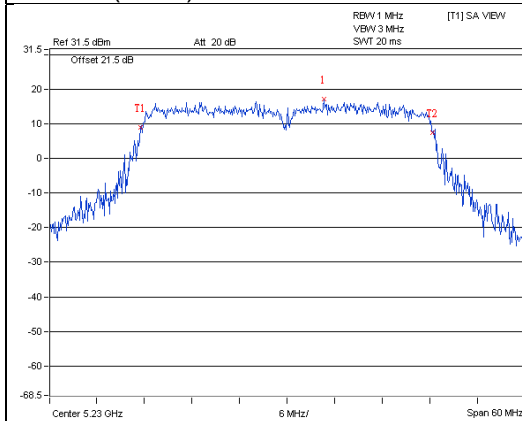


A D T



A D T

802.11n (HT40)



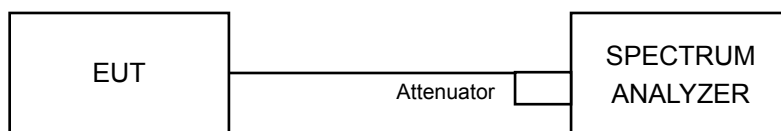
A D T

4.4 Peak Power Spectral Density Measurement

4.4.1 Limits of Peak Power Spectral Density Measurement

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

4.4.2 Test Setup



4.4.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.4.4 Test Procedures

For U-NII-1 band:

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

Using method SA-1

- Set span to encompass the entire emission bandwidth (EBW) of the signal.
- Set RBW = 30 kHz, Set VBW $\geq$ 1 MHz, Detector = RMS
- Set Channel power measure = 1MHz
- Sweep time = auto, trigger set to "free run".
- Trace average at least 100 traces in power averaging mode.
- Record the max value

For U-NII-3 band:

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

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

- Set RBW = 500 kHz, Set VBW $\geq$ 3 RBW, Detector = RMS

- Sweep time = auto, trigger set to "free run" .

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

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

- Scale the observed power level to an equivalent value in 500 kHz by adjusting (reducing) the measured power by a bandwidth correction factor (BWCF) where BWCF = 10log(500 kHz/300kHz)

4.4.5 Deviation from Test Standard

No deviation.

4.4.6 EUT Operating Conditions

Same as Item 4.3.6.

4.4.7 Test Results

For U-NII-1 Band

802.11a

Chan.	Chan. Freq. (MHz)	PSD (dBm)		Total PSD (dBm)	Max. Limit (dBm)	Pass/Fail
		Chain 0	Chain 1			
36	5180	7.53	7.85	10.70	17	Pass
40	5200	8.30	8.06	11.19	17	Pass
48	5240	8.20	7.90	11.06	17	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 = $13\text{dBi} + 10\log(2) = 16.01\text{dBi} < 23\text{dBi}$, so the power density limit no need to reduced.

802.11n (HT5)

Chan.	Chan. Freq. (MHz)	PSD (dBm)		Total PSD (dBm)	Max. Limit (dBm)	Pass/Fail
		Chain 0	Chain 1			
36	5180	12.04	11.93	15.00	17	Pass
40	5200	12.03	11.90	14.98	17	Pass
48	5240	11.83	11.79	14.82	17	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 = $13\text{dBi} + 10\log(2) = 16.01\text{dBi} < 23\text{dBi}$, so the power density limit no need to reduced.

802.11n (HT10)

Chan.	Chan. Freq. (MHz)	PSD (dBm)		Total PSD (dBm)	Max. Limit (dBm)	Pass/Fail
		Chain 0	Chain 1			
36	5180	8.92	9.06	12.00	17	Pass
40	5200	9.59	9.16	12.39	17	Pass
48	5240	9.56	9.02	12.31	17	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 = $13\text{dBi} + 10\log(2) = 16.01\text{dBi} < 23\text{dBi}$, so the power density limit no need to reduced.

802.11n (HT20)

Chan.	Chan. Freq. (MHz)	PSD (dBm)		Total PSD (dBm)	Max. Limit (dBm)	Pass/Fail
		Chain 0	Chain 1			
36	5180	7.62	7.04	10.35	17	Pass
40	5200	7.74	7.68	10.72	17	Pass
48	5240	8.05	7.75	10.91	17	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 = 13dBi + 10log(2) = 16.01dBi < 23dBi, so the power density limit no need to reduced.

802.11n (HT40)

Chan.	Chan. Freq. (MHz)	PSD (dBm)		Total PSD (dBm)	Max. Limit (dBm)	Pass/Fail
		Chain 0	Chain 1			
38	5190	5.15	4.99	8.08	17	Pass
46	5230	4.72	4.04	7.40	17	Pass

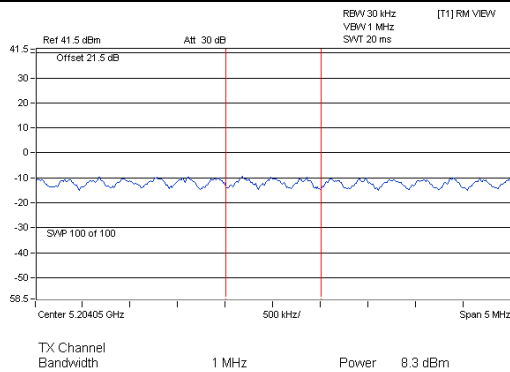
Note:

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 = 13dBi + 10log(2) = 16.01dBi < 23dBi, so the power density limit no need to reduced.

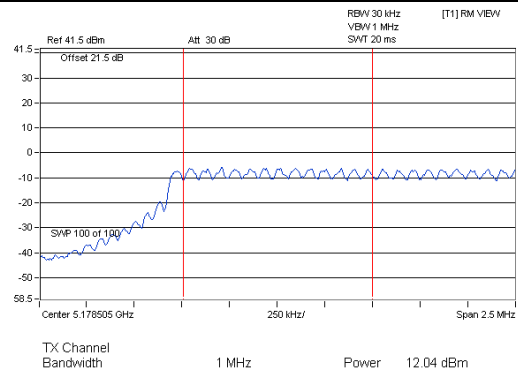
Spectrum Plot of Worst Value

802.11a

802.11n (HT5)



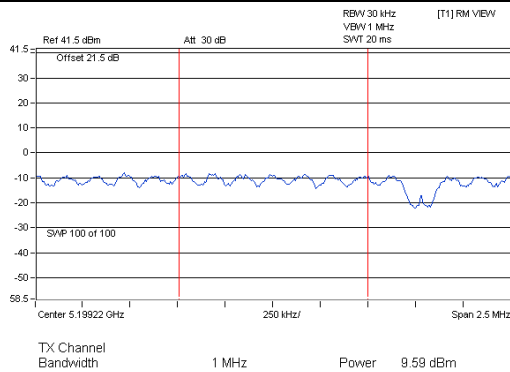
A D T



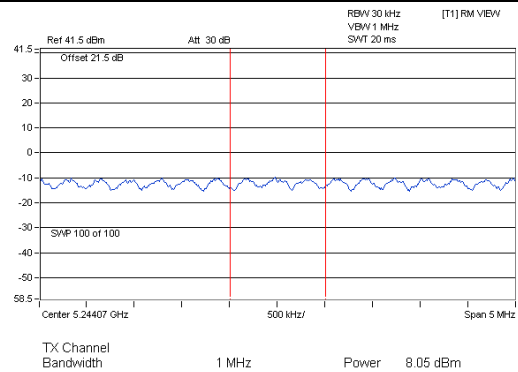
A D T

802.11n (HT10)

802.11n (HT20)

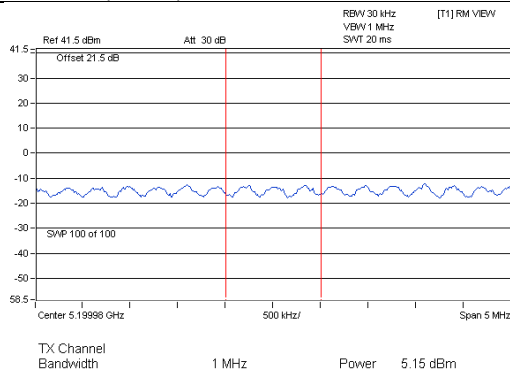


A D T



A D T

802.11n (HT40)



A D T

For U-NII-3 Band

802.11a

TX chain	Channel	Freq. (MHz)	PSD (dBm/300kHz)	PSD (dBm/500kHz)	10 log (N=2) dB	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	Pass /Fail
0	149	5745	-0.87	1.35	3.01	4.36	19.99	Pass
	157	5785	-1.70	0.52	3.01	3.53	19.99	Pass
	165	5825	-2.86	-0.64	3.01	2.37	19.99	Pass
1	149	5745	-1.49	0.73	3.01	3.74	19.99	Pass
	157	5785	-0.14	2.08	3.01	5.09	19.99	Pass
	165	5825	-1.40	0.82	3.01	3.83	19.99	Pass

Note:

1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 13dBi + 10log(2) = 16.01dBi > 6dBi, so the power density limit shall be reduced to 30-(16.01-6) = 19.99dBm.

802.11n (HT5)

TX chain	Channel	Freq. (MHz)	PSD (dBm/300kHz)	PSD (dBm/500kHz)	10 log (N=2) dB	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	Pass /Fail
0	149	5745	3.37	5.59	3.01	8.60	19.99	Pass
	157	5785	4.66	6.88	3.01	9.89	19.99	Pass
	165	5825	3.30	5.52	3.01	8.53	19.99	Pass
1	149	5745	1.63	3.85	3.01	6.86	19.99	Pass
	157	5785	1.83	4.05	3.01	7.06	19.99	Pass
	165	5825	0.70	2.92	3.01	5.93	19.99	Pass

Note:

1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 13dBi + 10log(2) = 16.01dBi > 6dBi, so the power density limit shall be reduced to 30-(16.01-6) = 19.99dBm.

802.11n (HT10)

TX chain	Channel	Freq. (MHz)	PSD (dBm/300kHz)	PSD (dBm/500kHz)	10 log (N=2) dB	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	Pass /Fail
0	149	5745	1.15	3.37	3.01	6.38	19.99	Pass
	157	5785	-0.20	2.02	3.01	5.03	19.99	Pass
	165	5825	-1.52	0.70	3.01	3.71	19.99	Pass
1	149	5745	-1.61	0.61	3.01	3.62	19.99	Pass
	157	5785	-1.53	0.69	3.01	3.70	19.99	Pass
	165	5825	-2.49	-0.27	3.01	2.74	19.99	Pass

Note:

- Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
- Directional gain = 13dBi + 10log(2) = 16.01dBi > 6dBi, so the power density limit shall be reduced to 30-(16.01-6) = 19.99dBm.

802.11n (HT20)

TX chain	Channel	Freq. (MHz)	PSD (dBm/300kHz)	PSD (dBm/500kHz)	10 log (N=2) dB	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	Pass /Fail
0	149	5745	-1.39	0.83	3.01	3.84	19.99	Pass
	157	5785	-1.31	0.91	3.01	3.92	19.99	Pass
	165	5825	-1.90	0.32	3.01	3.33	19.99	Pass
1	149	5745	-1.56	0.66	3.01	3.67	19.99	Pass
	157	5785	-2.33	-0.11	3.01	2.90	19.99	Pass
	165	5825	-3.49	-1.27	3.01	1.74	19.99	Pass

Note:

- Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
- Directional gain = 13dBi + 10log(2) = 16.01dBi > 6dBi, so the power density limit shall be reduced to 30-(16.01-6) = 19.99dBm.

802.11n (HT40)

TX chain	Channel	Freq. (MHz)	PSD (dBm/300kHz)	PSD (dBm/500kHz)	10 log (N=2) dB	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	Pass /Fail
0	151	5755	-4.92	-2.70	3.01	0.31	19.99	Pass
	159	5795	-4.82	-2.60	3.01	0.41	19.99	Pass
1	151	5755	-5.35	-3.13	3.01	-0.12	19.99	Pass
	159	5795	-6.62	-4.40	3.01	-1.39	19.99	Pass

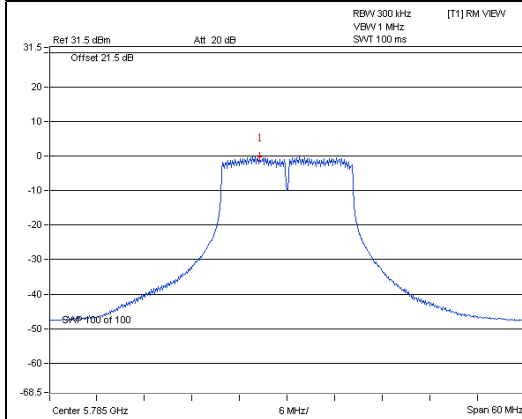
Note:

- Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
- Directional gain = 13dBi + 10log(2) = 16.01dBi > 6dBi, so the power density limit shall be reduced to 30-(16.01-6) = 19.99dBm.

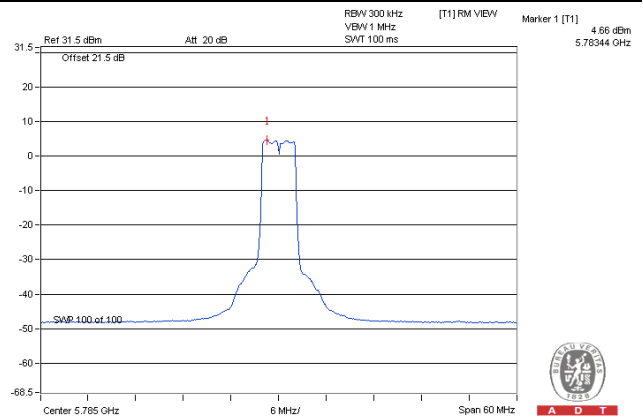
Spectrum Plot of Worst Value

802.11a

802.11n (HT5)



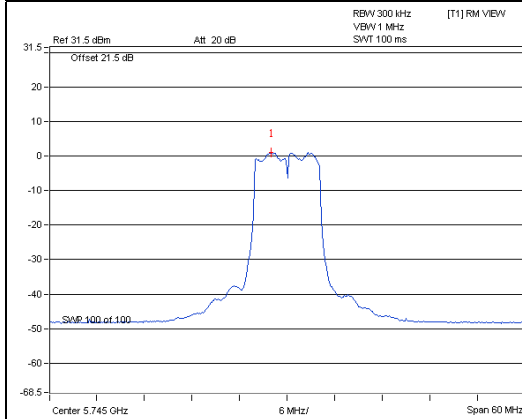
A D T



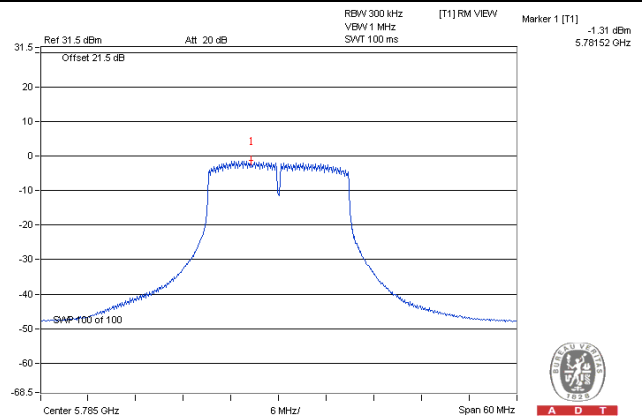
A D T

802.11n (HT10)

802.11n (HT20)

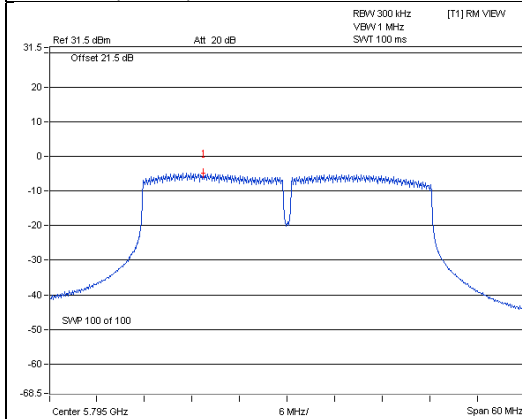


A D T



A D T

802.11n (HT40)



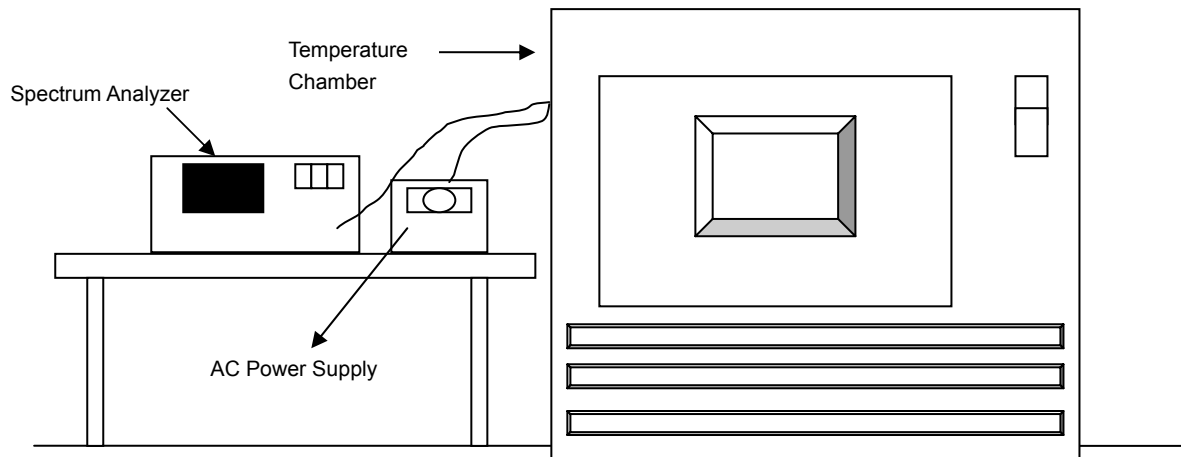
A D T

4.5 Frequency Stability

4.5.1 Limits of Frequency Stability Measurement

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

4.5.2 Test Setup



4.5.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.5.4 Test Procedure

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

4.5.5 Deviation from Test Standard

No deviation.

4.5.6 EUT Operating Condition

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

4.5.7 Test Results

Frequency Stability Versus Temp.									
Operating Frequency: 5240MHz									
Temp. (°C)	Power Supply (Vac)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)
50	120	5239.9814	-0.00035	5239.9779	-0.00042	5239.9782	-0.00042	5239.9803	-0.00038
40	120	5240.0033	0.00006	5240.0061	0.00012	5240.0068	0.00013	5240.0034	0.00006
30	120	5239.9827	-0.00033	5239.9853	-0.00028	5239.9825	-0.00033	5239.9874	-0.00024
20	120	5240.0086	0.00016	5240.0067	0.00013	5240.0091	0.00017	5240.0087	0.00017
10	120	5240.0137	0.00026	5240.0096	0.00018	5240.0093	0.00018	5240.01	0.00019
0	120	5240.0253	0.00048	5240.0228	0.00044	5240.0256	0.00049	5240.0253	0.00048
-10	120	5239.9903	-0.00019	5239.9871	-0.00025	5239.9881	-0.00023	5239.9907	-0.00018
-20	120	5240.0102	0.00019	5240.013	0.00025	5240.0099	0.00019	5240.0101	0.00019
-30	120	5239.976	-0.00046	5239.9776	-0.00043	5239.9757	-0.00046	5239.9763	-0.00045

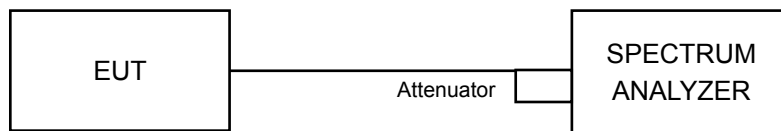
Frequency Stability Versus Temp.									
Operating Frequency: 5240MHz									
Temp. (°C)	Power Supply (Vac)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)
20	138	5240.009	0.00017	5240.0057	0.00011	5240.0082	0.00016	5240.0095	0.00018
	120	5240.0086	0.00016	5240.0067	0.00013	5240.0091	0.00017	5240.0087	0.00017
	102	5240.0086	0.00016	5240.0066	0.00013	5240.0095	0.00018	5240.0096	0.00018

4.6 6dB Bandwidth Measurement

4.6.1 Limits of 6dB Bandwidth Measurement

The minimum of 6dB Bandwidth Measurement is 0.5MHz.

4.6.2 Test Setup



4.6.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.6.4 Test Procedure

MEASUREMENT PROCEDURE REF

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

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

4.6.5 Deviation from Test Standard

No deviation.

4.6.6 EUT Operating Condition

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

4.6.7 Test Results

802.11a

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
149	5745	16.41	16.57	0.5	Pass
157	5785	16.51	16.59	0.5	Pass
165	5825	16.46	16.52	0.5	Pass

802.11n (HT5)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
149	5745	4.15	4.13	0.5	Pass
157	5785	4.14	4.15	0.5	Pass
165	5825	4.15	4.14	0.5	Pass

802.11n (HT10)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
149	5745	8.21	8.24	0.5	Pass
157	5785	8.25	8.22	0.5	Pass
165	5825	8.22	8.24	0.5	Pass

802.11n (HT20)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
149	5745	17.73	17.72	0.5	Pass
157	5785	17.74	17.66	0.5	Pass
165	5825	17.66	17.69	0.5	Pass

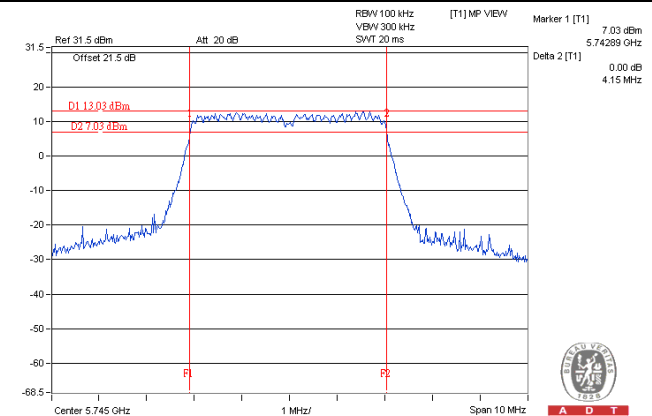
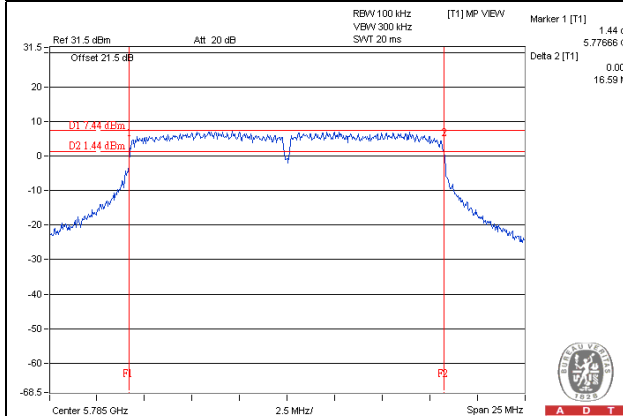
802.11n (HT40)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
151	5755	36.61	36.47	0.5	Pass
159	5795	36.57	36.60	0.5	Pass

Spectrum Plot of Worst Value

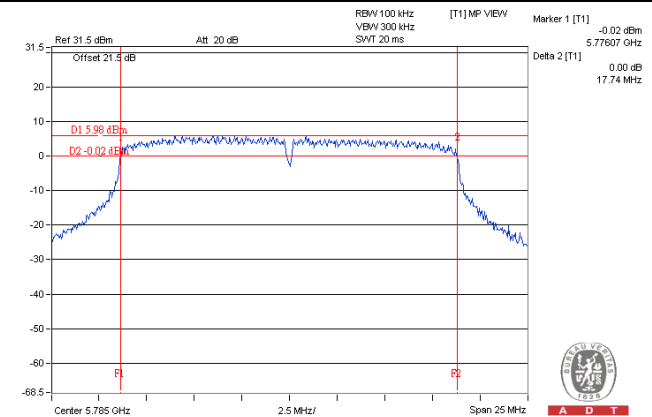
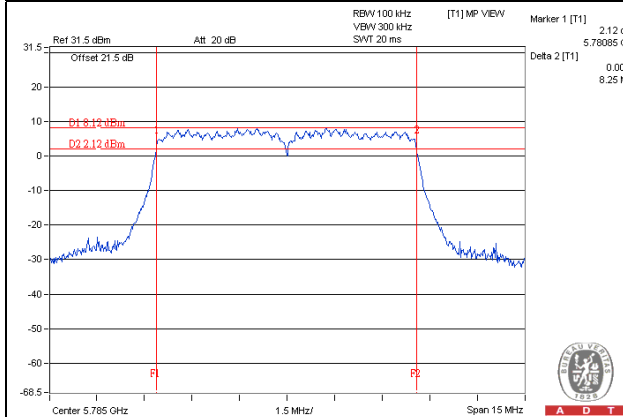
802.11a

802.11n (HT5)

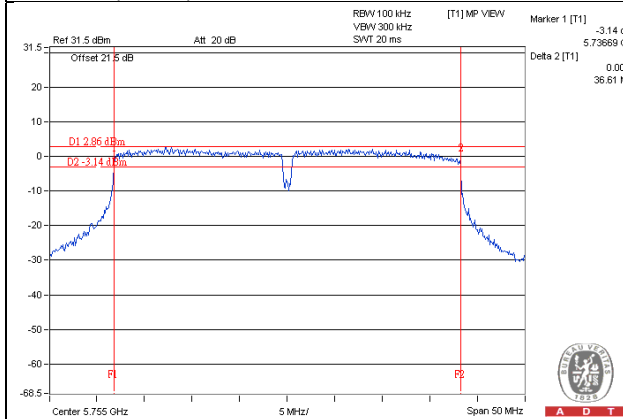


802.11n (HT10)

802.11n (HT20)



802.11n (HT40)



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:

Linko EMC/RF Lab

Tel: 886-2-26052180

Fax: 886-2-26051924

Hsin Chu EMC/RF Lab/Telecom Lab

Tel: 886-3-5935343

Fax: 886-3-5935342

Hwa Ya EMC/RF/Safety

Tel: 886-3-3183232

Fax: 886-3-3270892

Email: service.adt@tw.bureauveritas.com

Web Site: www.bureauveritas-adt.com

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

--- END ---