

FCC Test Report

Report No.: RF130911C29E

FCC ID: UDX-60026010

Test Model: MR18-HW

Received Date: Oct. 05, 2015

Test Date: Oct. 13 ~ Nov. 10, 2015

Issued Date: Nov. 20, 2015

Applicant: Cisco Systems, Inc.

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A D T

Release Control Record

Issue No.	Description	Date Issued
RF130911C29E	Original release.	Nov. 20, 2015

1 Certificate of Conformity

Product: Wireless 802.11 abgn AP

Brand: Cisco

Test Model: MR18-HW

Sample Status: Engineering sample

Applicant: Cisco Systems, Inc.

Test Date: Oct. 13 ~ Nov. 10, 2015

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

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

Prepared by : , **Date:** Nov. 20, 2015
Suntee Liu / Specialist

Approved by : , **Date:** Nov. 20, 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
15.407(b)(6)	AC Power Conducted Emissions	PASS	Meet the requirement of limit. Minimum passing margin is -7.77dB at 0.54882MHz.
15.407(b)(1/2/3/4/6)	Radiated Emissions & Band Edge Measurement	PASS	Meet the requirement of limit. Minimum passing margin is -0.3dB at 5722.90MHz.
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 IPEX not a standard connector.

2.1 Measurement Uncertainty

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

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

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	Wireless 802.11 abgn AP
Brand	Cisco
Test Model	MR18-HW
Sample Status	Engineering sample
Power Supply Rating	12Vdc (Adapter) 48Vdc (POE)
Modulation Type	64QAM, 16QAM, QPSK, BPSK
Modulation Technology	OFDM
Transfer Rate	802.11a: 54/48/36/24/18/12/9/6Mbps 802.11n: up to 300Mbps 802.11ac: up to 867Mbps
Operating Frequency	5180 ~ 5240MHz & 5745 ~ 5825MHz
Number of Channel	5180 ~ 5240MHz: 4 for 802.11a, 802.11n (HT20) 2 for 802.11n (HT40) 5745 ~ 5825MHz: 5 for 802.11a, 802.11n (HT20) 2 for 802.11n (HT40)
Output Power	5180 ~ 5240MHz: 242.061mW 5745 ~ 5825MHz: 187.487mW
Antenna Type	Refer to Note
Antenna Connector	Refer to Note
Accessory Device	NA
Data Cable Supplied	NA

Note:

1. This report is issued as a supplementary report to BV ADT report no.: RF130911C29-1. The difference compared with the original report is updating standard to new rule version. All test items are re-tested and recorded in this report.
2. The EUT incorporates a MIMO function. Physically, the EUT provides 2 completed transmitters and 2 receivers.

Radio 1	
Modulation Mode	TX Function
802.11b	2TX
802.11g	2TX
802.11n (HT20) - MCS 8-15	2TX
802.11n (HT40) - MCS 8-15	2TX

Radio 2	
Modulation Mode	TX Function
802.11a	2TX
802.11n (HT20) - MCS 8-15	2TX
802.11n (HT40) - MCS 8-15	2TX

Radio 3	
Modulation Mode	TX Function
802.11b	1TX
802.11g	1TX
802.11a	1TX
802.11n (HT20) - MCS 0-7	1TX
802.11n (HT40) - MCS 0-7	1TX

3. The EUT consumes power from the following adapter (support unit).

Brand	Ruckus
Model	HK-AD-120A100-US
Input Power	100-240Vac, 50/60Hz, 0.4A
Output Power	12Vdc, 1.0A
Power Line	1.8m cable without core attached on adapter

4. The EUT consumes power from the following POE (support unit).

Brand	SONICWALL
Model	PD-6083G300
Input Power	100-250Vac, 50/60Hz, 0.5A
Output Power	48Vdc, 0.35A

5. The EUT uses following antennas.

Radio	Antenna Type	Connector	Gain (dBi)		Remark
1	PIFA	IPEX	4		2.4GHz only
2	PIFA	IPEX	5180-5240MHz	4	5GHz only
			5745-5825MHz	6	
3	Printed	IPEX	2		2.4GHz + 5GHz combo

3.2 Description of Test Modes

FOR 5180 ~ 5240MHz:

4 channels are provided for 802.11a, 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 (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 \geq 1G	RE<1G	PLC	APCM	
A	-	√	√	-	Radio 2, Power from adapter
B	√	√	√	√	Radio 2, Power from POE
C	-	√	√	-	Radio 3, Power from adapter
D	√	√	√	√	Radio 3, Power from POE

Where **RE \geq 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 X-plane and Z-plane. The worst case was found when positioned on **Z-plane**.
- "-" means no effect.

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

Radiated Emission Test (Below 1GHz):

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

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
A, B, C, D	802.11a	5180-5240	36 to 48	40	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)
A, B, C, D	802.11a	5180-5240	36 to 48	40	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)
B, D	802.11a	5180-5240	36 to 48	36, 40, 48	OFDM	BPSK	6.0
B, D	802.11n (HT20)		36 to 48	36, 40, 48	OFDM	BPSK	7.2
B, D	802.11n (HT40)		38 to 46	38, 46	OFDM	BPSK	15.0
B, D	802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	BPSK	6.0
B, D	802.11n (HT20)		149 to 165	149, 157, 165	OFDM	BPSK	7.2
B, D	802.11n (HT40)		151 to 159	151, 159	OFDM	BPSK	15.0

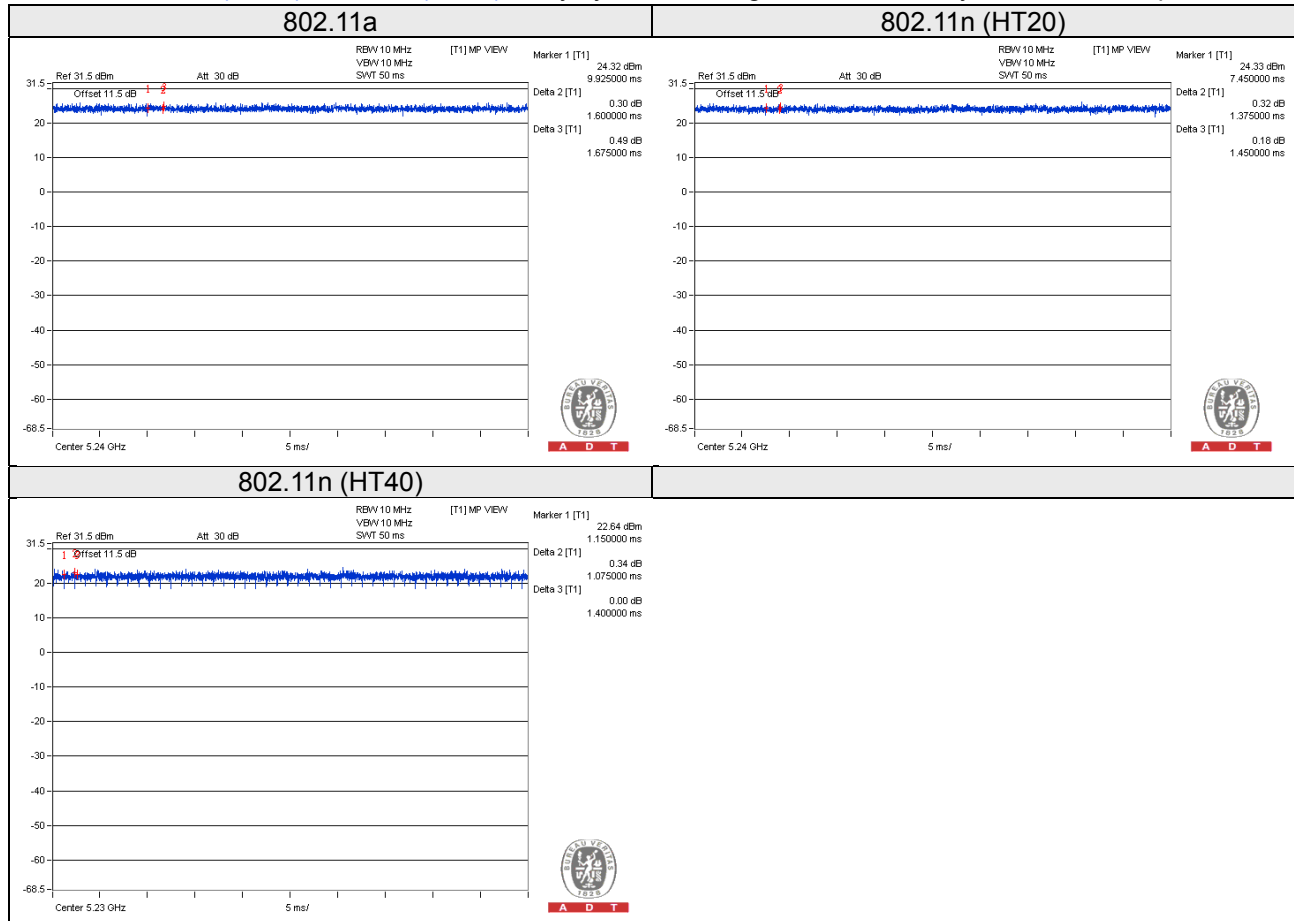
Test Condition:

Applicable to	Environmental Conditions	Input Power	Tested by
RE \geq 1G	21 deg. C, 70% RH 18 deg. C, 70% RH	120Vac, 60Hz	Nick Hsu Jones Chang
RE<1G	21 deg. C, 70% RH	120Vac, 60Hz	Jones Chang
PLC	18 deg. C, 70% RH	120Vac, 60Hz	Nick Hsu
APCM	25 deg. C, 60% RH	120Vac, 60Hz	Leo Tsai

3.3 Duty Cycle of Test Signal

Test Mode B

802.11a, 802.11n (HT20), 802.11n (HT40): Duty cycle of test signal is $\geq 98\%$, duty factor is not required.



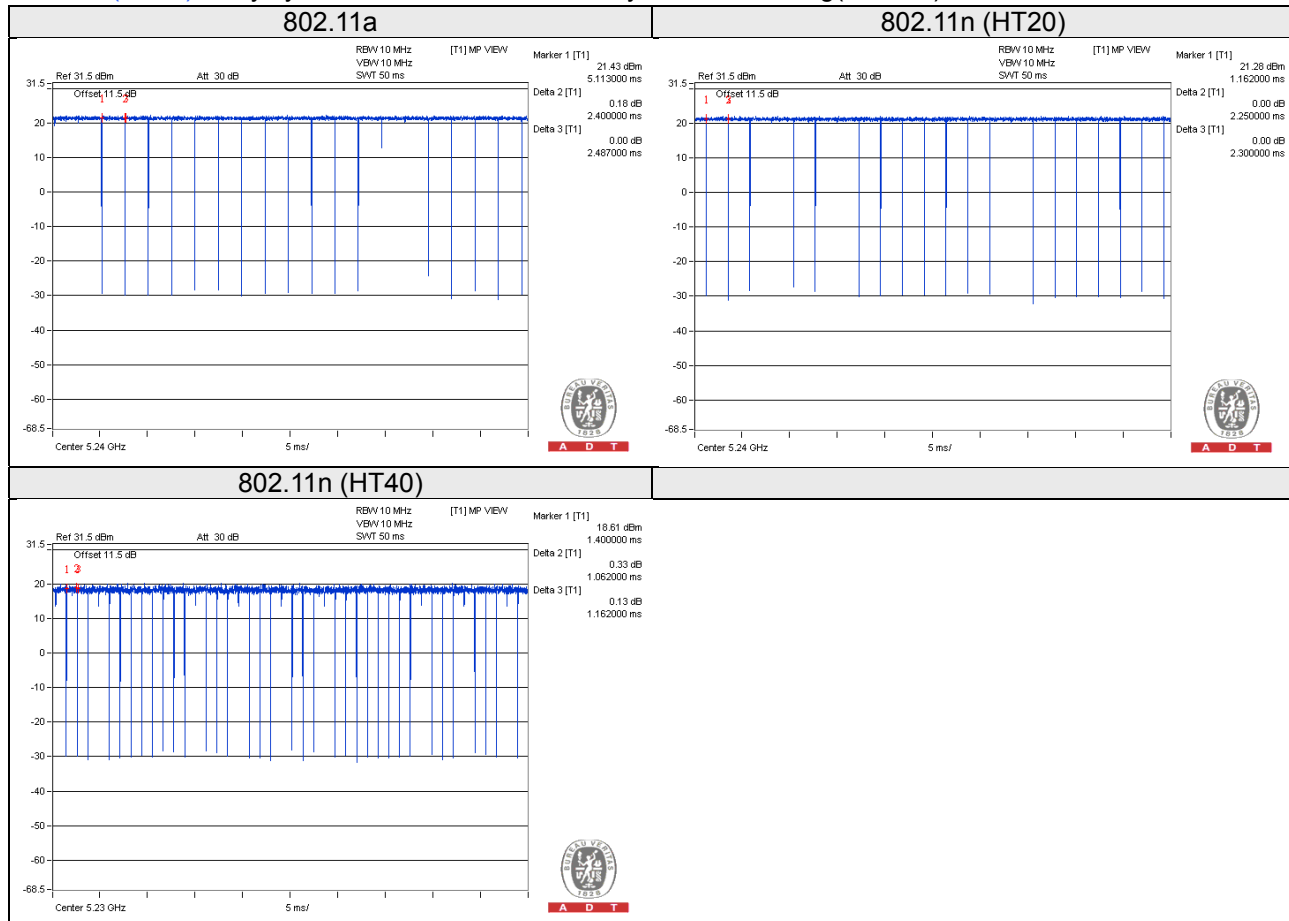
Test Mode D

802.11a, 802.11n (HT20), 802.11n (HT40): Duty cycle of test signal is < 98%, duty factor shall be considered.

802.11a: Duty cycle = $2.4/2.48 = 0.965$, Duty factor = $10 * \log(1/0.965) = 0.15$

802.11n (HT20): Duty cycle = $2.25/2.3 = 0.978$, Duty factor = $10 * \log(1/0.978) = 0.10$

802.11n (HT40): Duty cycle = $1.06/1.16 = 0.914$, Duty factor = $10 * \log(1/0.914) = 0.39$



3.4 Description of Support Units

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

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Notebook	DELL	E5410	1HC2XM1	FCC DoC Approved	-
B.	Adapter	Ruckus	HK-AD-120A100-US	NA	NA	-
C.	POE	SONICWALL	PD-6083G300	NA	NA	-

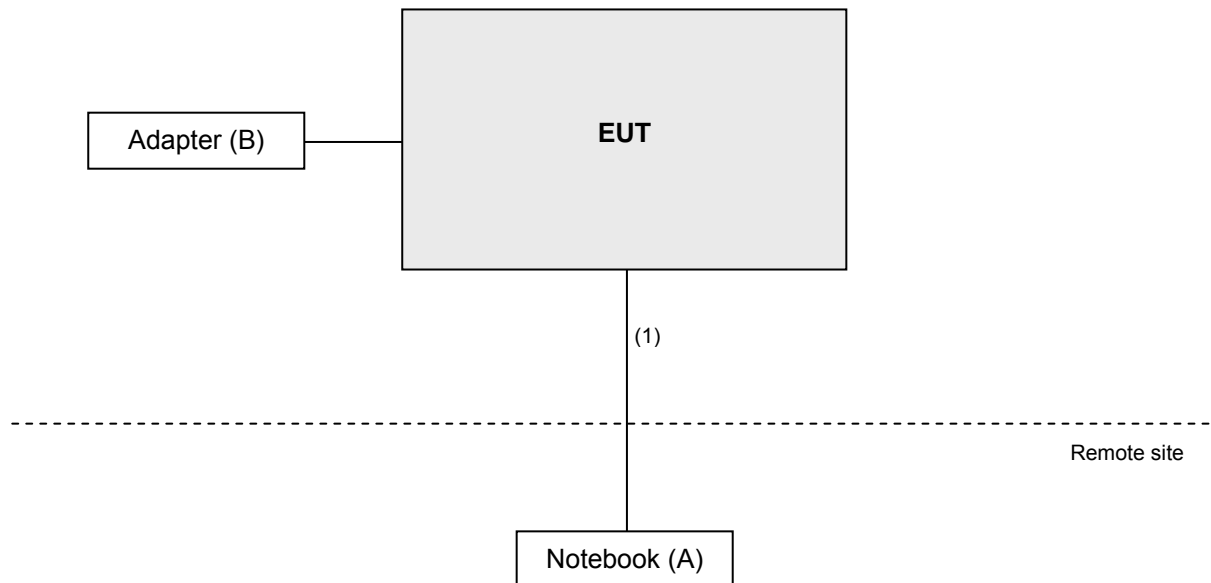
Note:

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

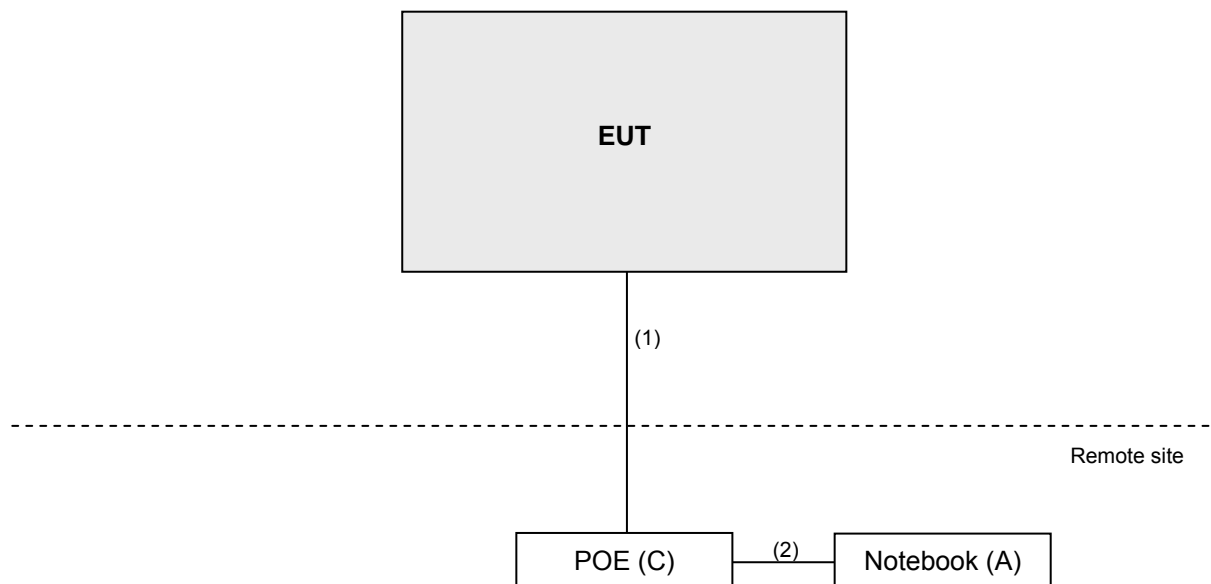
ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	RJ45	1	10	N	0	-
2.	RJ45	1	5	N	0	-

3.4.1 Configuration of System under Test

Test Mode A, C



Test Mode B, D



3.5 General Description of Applied Standard

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 C63.10:2013

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

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

4 Test Types and Results

4.1 Radiated Emission and Bandedge Measurement

4.1.1 Limits of Radiated Emission and Bandedge Measurement

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

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

NOTE:

- The lower limit shall apply at the transition frequencies.
- Emission level (dBuV/m) = 20 log Emission level (uV/m).
- 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.	Cal. Date	Cal. Due
Test Receiver ROHDE & SCHWARZ	ESIB7	100187	Apr. 10, 2015	Apr. 09, 2016
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100040	Jul. 08, 2015	Jul. 07, 2016
BILOG Antenna SCHWARZBECK	VULB9168	9168-160	Feb. 05, 2015	Feb. 04, 2016
HORN Antenna SCHWARZBECK	9120D	209	Feb. 09, 2015	Feb. 08, 2016
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170241	Feb. 09, 2015	Feb. 08, 2016
Loop Antenna R&S	HFH2-Z2	100070	Mar. 06, 2014	Mar. 05, 2016
Preamplifier Agilent	8447D	2944A10738	Oct.18, 2014 Oct.18, 2015	Oct. 17, 2015 Oct. 17, 2016
Preamplifier Agilent	8449B	3008A01964	Aug. 22, 2015	Aug. 21, 2016
RF signal cable HUBER+SUHNER	SUCOFLEX 104	Cable-CH3-03 (214378)	Aug. 22, 2015	Aug. 21, 2016
RF signal cable HUBER+SUHNER	SUCOFLEX 106	Cable-CH3-03 (309224+12738)	Aug. 22, 2015	Aug. 21, 2016
Software BV ADT	ADT_Radiated_ V7.6.15.9.4	NA	NA	NA
Antenna Tower inn-co GmbH	MA 4000	013303	NA	NA
Antenna Tower Controller BV ADT	AT100	AT93021702	NA	NA
Turn Table BV ADT	TT100	TT93021702	NA	NA
Turn Table Controller BV ADT	SC100	SC93021702	NA	NA
High Speed Peak Power Meter	ML2495A	0824011	Jul. 09, 2015	Jul. 08, 2016
Power Sensor	MA2411B	0738171	Jul. 09, 2015	Jul. 08, 2016

- Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The calibration interval of the loop antenna is 24 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in HwaYa Chamber 3.
3. The horn antenna and preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
4. The FCC Site Registration No. is 988962.
5. The IC Site Registration No. is IC 7450F-3.

4.1.3 Test Procedure

- a. The EUT was placed on the top of a rotating table 0.8 meters (for below 1GHz) / 1.5 meters (for above 1GHz) above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.
- f. The test-receiver system was set to peak and average detect function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

Note:

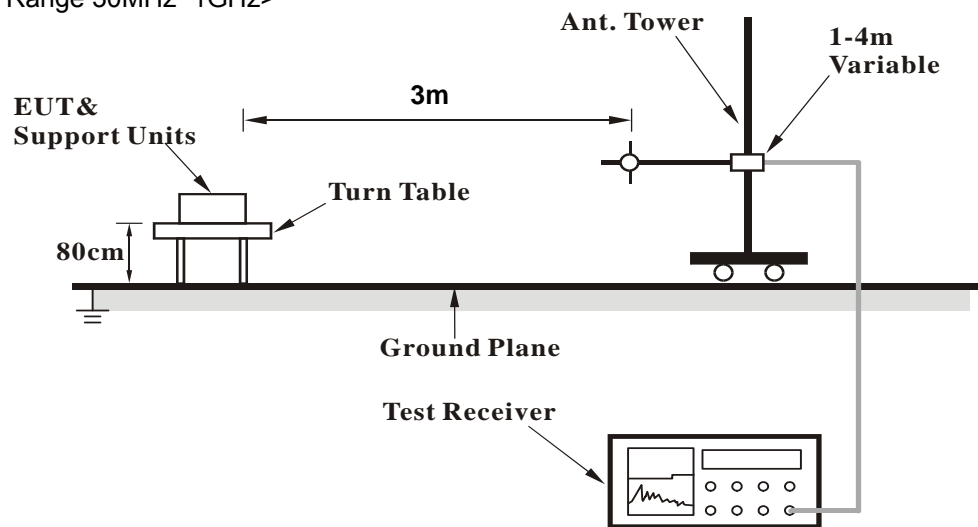
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.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

4.1.4 Deviation from Test Standard

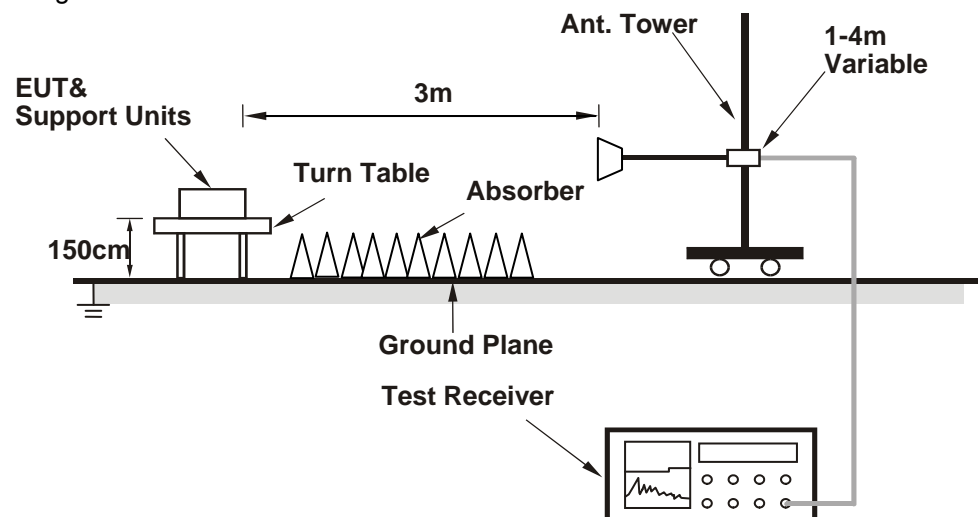
No deviation.

4.1.5 Test Setup

<Frequency Range 30MHz~1GHz>



<Frequency Range above 1GHz>



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

4.1.6 EUT Operating Conditions

- Placed the EUT on the testing table.
- Prepared a notebook to act as a 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".
- The necessary accessories enable the system in full functions.

4.1.7 Test Results

Above 1GHz Data:

Test Mode B

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	71.1 PK	74.0	-2.9	1.54 H	302	64.90	6.20
2	5150.00	52.2 AV	54.0	-1.8	1.54 H	302	46.00	6.20
3	*5180.00	116.1 PK			1.65 H	298	76.60	39.50
4	*5180.00	106.2 AV			1.65 H	298	66.70	39.50
5	#10360.00	58.5 PK	74.0	-15.5	1.44 H	49	41.50	17.00
6	#10360.00	45.5 AV	54.0	-8.5	1.44 H	49	28.50	17.00
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	59.0 PK	74.0	-15.0	2.16 V	336	52.80	6.20
2	5150.00	47.2 AV	54.0	-6.8	2.16 V	336	41.00	6.20
3	*5180.00	111.4 PK			1.99 V	359	71.90	39.50
4	*5180.00	101.7 AV			1.99 V	359	62.20	39.50
5	#10360.00	57.9 PK	74.0	-16.1	2.16 V	79	40.90	17.00
6	#10360.00	44.9 AV	54.0	-9.1	2.16 V	79	27.90	17.00

REMARKS:

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

CHANNEL	TX Channel 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			1.47 H	295	79.30	39.60
2	*5200.00	107.7 AV			1.47 H	295	68.10	39.60
3	#10400.00	57.1 PK	74.0	-16.9	1.07 H	252	40.10	17.00
4	#10400.00	45.5 AV	54.0	-8.5	1.07 H	252	28.50	17.00
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	*5200.00	112.8 PK			1.90 V	10	73.20	39.60
2	*5200.00	102.7 AV			1.90 V	10	63.10	39.60
3	#10400.00	57.3 PK	74.0	-16.7	1.14 V	43	40.30	17.00
4	#10400.00	45.1 AV	54.0	-8.9	1.14 V	43	28.10	17.00

REMARKS:

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

CHANNEL	TX Channel 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	119.3 PK			1.53 H	295	79.70	39.60
2	*5240.00	109.1 AV			1.53 H	295	69.50	39.60
3	5350.00	60.5 PK	74.0	-13.5	1.48 H	291	54.10	6.40
4	5350.00	47.9 AV	54.0	-6.1	1.48 H	291	41.50	6.40
5	#10480.00	57.5 PK	74.0	-16.5	1.17 H	318	39.50	18.00
6	#10480.00	45.7 AV	54.0	-8.3	1.17 H	318	27.70	18.00
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	114.2 PK			1.96 V	3	74.60	39.60
2	*5240.00	104.1 AV			1.96 V	3	64.50	39.60
3	5350.00	58.2 PK	74.0	-15.8	2.15 V	354	51.80	6.40
4	5350.00	46.6 AV	54.0	-7.4	2.15 V	354	40.20	6.40
5	#10480.00	59.8 PK	74.0	-14.2	1.17 V	323	41.80	18.00
6	#10480.00	48.1 AV	54.0	-5.9	1.17 V	323	30.10	18.00

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5714.90	69.0 PK	74.0	-5.0	1.63 H	47	61.80	7.20
2	#5714.90	51.1 AV	54.0	-2.9	1.63 H	47	43.90	7.20
3	#5722.90	77.3 PK	78.2	-0.9	1.85 H	41	70.10	7.20
4	#5725.00	64.0 PK	78.2	-14.2	1.70 H	46	56.80	7.20
5	*5745.00	116.2 PK			1.74 H	48	75.80	40.40
6	*5745.00	105.7 AV			1.74 H	48	65.30	40.40
7	11490.00	64.5 PK	74.0	-9.5	1.68 H	73	46.20	18.30
8	11490.00	51.4 AV	54.0	-2.6	1.68 H	73	33.10	18.30
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5714.90	66.5 PK	74.0	-7.5	1.12 V	358	59.30	7.20
2	#5714.90	48.4 AV	54.0	-5.6	1.12 V	358	41.20	7.20
3	#5722.90	75.9 PK	78.2	-2.3	1.31 V	5	68.70	7.20
4	#5725.00	61.8 PK	78.2	-16.4	1.22 V	328	54.60	7.20
5	*5745.00	111.3 PK			1.63 V	0	70.90	40.40
6	*5745.00	101.6 AV			1.63 V	0	61.20	40.40
7	11490.00	65.9 PK	74.0	-8.1	1.42 V	0	47.60	18.30
8	11490.00	52.9 AV	54.0	-1.1	1.42 V	0	34.60	18.30

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
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	115.7 PK			1.66 H	300	75.20	40.50
2	*5785.00	106.1 AV			1.66 H	300	65.60	40.50
3	11570.00	62.7 PK	74.0	-11.3	1.70 H	72	44.50	18.20
4	11570.00	51.1 AV	54.0	-2.9	1.70 H	72	32.90	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	*5785.00	111.3 PK			1.29 V	359	70.80	40.50
2	*5785.00	101.9 AV			1.29 V	359	61.40	40.50
3	11570.00	67.4 PK	74.0	-6.6	1.00 V	9	49.20	18.20
4	11570.00	53.2 AV	54.0	-0.8	1.00 V	9	35.00	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 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	115.7 PK			1.62 H	52	75.20	40.50
2	*5825.00	105.5 AV			1.62 H	52	65.00	40.50
3	#5850.00	54.5 PK	78.2	-23.7	1.63 H	43	47.00	7.50
4	#5852.10	68.1 PK	78.2	-10.1	1.45 H	52	60.50	7.60
5	#5860.10	62.4 PK	74.0	-11.6	1.50 H	43	54.80	7.60
6	#5860.10	48.0 AV	54.0	-6.0	1.50 H	43	40.40	7.60
7	11650.00	63.9 PK	74.0	-10.1	1.56 H	74	45.20	18.70
8	11650.00	49.9 AV	54.0	-4.1	1.56 H	74	31.20	18.70
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	110.0 PK			1.69 V	22	69.50	40.50
2	*5825.00	100.1 AV			1.69 V	22	59.60	40.50
3	#5850.00	51.8 PK	78.2	-26.4	1.67 V	8	44.30	7.50
4	#5852.10	67.4 PK	78.2	-10.8	1.60 V	3	59.80	7.60
5	#5860.10	62.7 PK	74.0	-11.3	1.41 V	0	55.10	7.60
6	#5860.10	47.8 AV	54.0	-6.2	1.41 V	0	40.20	7.60
7	11650.00	66.4 PK	74.0	-7.6	2.13 V	349	47.70	18.70
8	11650.00	53.1 AV	54.0	-0.9	2.13 V	349	34.40	18.70

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	69.2 PK	74.0	-4.8	1.65 H	301	63.00	6.20
2	5150.00	52.3 AV	54.0	-1.7	1.65 H	301	46.10	6.20
3	*5180.00	117.8 PK			1.54 H	294	78.30	39.50
4	*5180.00	106.5 AV			1.54 H	294	67.00	39.50
5	#10360.00	57.0 PK	74.0	-17.0	1.10 H	342	40.00	17.00
6	#10360.00	44.5 AV	54.0	-9.5	1.10 H	342	27.50	17.00
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	59.2 PK	74.0	-14.8	1.26 V	13	53.00	6.20
2	5150.00	46.7 AV	54.0	-7.3	1.26 V	13	40.50	6.20
3	*5180.00	106.9 PK			1.00 V	51	67.40	39.50
4	*5180.00	96.8 AV			1.00 V	51	57.30	39.50
5	#10360.00	56.8 PK	74.0	-17.2	1.34 V	354	39.80	17.00
6	#10360.00	45.6 AV	54.0	-8.4	1.34 V	354	28.60	17.00

REMARKS:

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

CHANNEL	TX Channel 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	119.3 PK			1.63 H	299	79.70	39.60
2	*5200.00	108.7 AV			1.63 H	299	69.10	39.60
3	#10400.00	58.6 PK	74.0	-15.4	1.09 H	339	41.60	17.00
4	#10400.00	45.9 AV	54.0	-8.1	1.09 H	339	28.90	17.00
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	*5200.00	110.5 PK			1.00 V	55	70.90	39.60
2	*5200.00	99.5 AV			1.00 V	55	59.90	39.60
3	#10400.00	57.6 PK	74.0	-16.4	1.33 V	315	40.60	17.00
4	#10400.00	45.8 AV	54.0	-8.2	1.33 V	315	28.80	17.00

REMARKS:

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

CHANNEL	TX Channel 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	119.6 PK			1.62 H	296	80.00	39.60
2	*5240.00	108.6 AV			1.62 H	296	69.00	39.60
3	5350.00	60.4 PK	74.0	-13.6	1.74 H	303	54.00	6.40
4	5350.00	48.4 AV	54.0	-5.6	1.74 H	303	42.00	6.40
5	#10480.00	58.8 PK	74.0	-15.2	2.01 H	353	40.80	18.00
6	#10480.00	46.9 AV	54.0	-7.1	2.01 H	353	28.90	18.00
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	109.9 PK			1.49 V	40	70.30	39.60
2	*5240.00	98.6 AV			1.49 V	40	59.00	39.60
3	5350.00	56.9 PK	74.0	-17.1	1.32 V	51	50.50	6.40
4	5350.00	44.3 AV	54.0	-9.7	1.32 V	51	37.90	6.40
5	#10480.00	59.5 PK	74.0	-14.5	1.17 V	323	41.50	18.00
6	#10480.00	47.4 AV	54.0	-6.6	1.17 V	323	29.40	18.00

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5714.90	66.4 PK	74.0	-7.6	1.54 H	280	59.20	7.20
2	#5714.90	48.5 AV	54.0	-5.5	1.54 H	280	41.30	7.20
3	#5722.90	77.3 PK	78.2	-0.9	1.61 H	288	70.10	7.20
4	#5725.00	62.3 PK	78.2	-15.9	1.82 H	69	55.10	7.20
5	*5745.00	115.4 PK			1.77 H	54	75.00	40.40
6	*5745.00	104.3 AV			1.77 H	54	63.90	40.40
7	11490.00	60.2 PK	74.0	-13.8	1.63 H	284	41.90	18.30
8	11490.00	48.4 AV	54.0	-5.6	1.63 H	284	30.10	18.30
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5714.90	60.0 PK	74.0	-14.0	1.38 V	301	52.80	7.20
2	#5714.90	47.2 AV	54.0	-6.8	1.38 V	301	40.00	7.20
3	#5722.90	68.6 PK	78.2	-9.6	1.22 V	9	61.40	7.20
4	#5725.00	53.7 PK	78.2	-24.5	1.09 V	333	46.50	7.20
5	*5745.00	110.8 PK			2.00 V	323	70.40	40.40
6	*5745.00	110.2 AV			2.00 V	323	69.80	40.40
7	11490.00	63.4 PK	74.0	-10.6	1.08 V	284	45.10	18.30
8	11490.00	50.2 AV	54.0	-3.8	1.08 V	284	31.90	18.30

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
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	116.5 PK			1.50 H	295	76.00	40.50
2	*5785.00	106.0 AV			1.50 H	295	65.50	40.50
3	11570.00	62.5 PK	74.0	-11.5	1.58 H	310	44.30	18.20
4	11570.00	50.0 AV	54.0	-4.0	1.58 H	310	31.80	18.20
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5785.00	112.4 PK			1.17 V	1	71.90	40.50
2	*5785.00	101.9 AV			1.17 V	1	61.40	40.50
3	11570.00	63.4 PK	74.0	-10.6	1.06 V	18	45.20	18.20
4	11570.00	53.1 AV	54.0	-0.9	1.06 V	18	34.90	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 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	116.0 PK			1.79 H	291	75.50	40.50
2	*5825.00	105.4 AV			1.79 H	291	64.90	40.50
3	#5850.00	53.7 PK	78.2	-24.5	1.11 H	64	46.20	7.50
4	#5852.10	65.7 PK	78.2	-12.5	1.03 H	64	58.10	7.60
5	#5860.10	62.8 PK	74.0	-11.2	1.40 H	69	55.20	7.60
6	#5860.10	46.9 AV	54.0	-7.1	1.40 H	69	39.30	7.60
7	11650.00	62.8 PK	74.0	-11.2	1.00 H	9	44.10	18.70
8	11650.00	51.0 AV	54.0	-3.0	1.00 H	9	32.30	18.70
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	113.6 PK			2.05 V	354	73.10	40.50
2	*5825.00	102.8 AV			2.05 V	354	62.30	40.50
3	#5850.00	52.1 PK	78.2	-26.1	1.96 V	13	44.60	7.50
4	#5852.10	66.9 PK	78.2	-11.3	1.43 V	9	59.30	7.60
5	#5860.10	60.7 PK	74.0	-13.3	1.39 V	1	53.10	7.60
6	#5860.10	47.7 AV	54.0	-6.3	1.39 V	1	40.10	7.60
7	11650.00	63.2 PK	74.0	-10.8	1.00 V	16	44.50	18.70
8	11650.00	53.1 AV	54.0	-0.9	1.00 V	16	34.40	18.70

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 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	69.8 PK	74.0	-4.2	1.57 H	317	63.60	6.20
2	5150.00	52.6 AV	54.0	-1.4	1.57 H	317	46.40	6.20
3	*5190.00	110.7 PK			1.70 H	293	71.20	39.50
4	*5190.00	99.5 AV			1.70 H	293	60.00	39.50
5	#10380.00	56.6 PK	74.0	-17.4	1.15 H	221	39.60	17.00
6	#10380.00	44.6 AV	54.0	-9.4	1.15 H	221	27.60	17.00
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	59.8 PK	74.0	-14.2	1.00 V	53	53.60	6.20
2	5150.00	46.3 AV	54.0	-7.7	1.00 V	53	40.10	6.20
3	*5190.00	101.9 PK			1.00 V	55	62.40	39.50
4	*5190.00	90.8 AV			1.00 V	55	51.30	39.50
5	#10380.00	56.7 PK	74.0	-17.3	1.14 V	215	39.70	17.00
6	#10380.00	44.3 AV	54.0	-9.7	1.14 V	215	27.30	17.00

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	63.6 PK	74.0	-10.4	1.61 H	297	57.40	6.20
2	5150.00	50.3 AV	54.0	-3.7	1.61 H	297	44.10	6.20
3	*5230.00	116.8 PK			1.60 H	301	77.20	39.60
4	*5230.00	105.8 AV			1.60 H	301	66.20	39.60
5	#10460.00	57.7 PK	74.0	-16.3	1.08 H	51	39.90	17.80
6	#10460.00	45.3 AV	54.0	-8.7	1.08 H	51	27.50	17.80
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	59.5 PK	74.0	-14.5	1.24 V	339	53.30	6.20
2	5150.00	45.5 AV	54.0	-8.5	1.24 V	339	39.30	6.20
3	*5230.00	106.1 PK			1.13 V	308	66.50	39.60
4	*5230.00	95.7 AV			1.13 V	308	56.10	39.60
5	#10460.00	58.2 PK	74.0	-15.8	1.25 V	35	40.40	17.80
6	#10460.00	46.1 AV	54.0	-7.9	1.25 V	35	28.30	17.80

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5714.90	70.3 PK	74.0	-3.7	1.84 H	286	63.10	7.20
2	#5714.90	53.0 AV	54.0	-1.0	1.84 H	286	45.80	7.20
3	#5722.90	76.0 PK	78.2	-2.2	1.67 H	309	68.80	7.20
4	#5725.00	59.0 PK	78.2	-19.2	1.47 H	300	51.80	7.20
5	*5755.00	110.3 PK			1.74 H	49	69.80	40.50
6	*5755.00	100.3 AV			1.74 H	49	59.80	40.50
7	11510.00	56.9 PK	74.0	-17.1	1.22 H	84	38.70	18.20
8	11510.00	44.2 AV	54.0	-9.8	1.22 H	84	26.00	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	#5714.90	62.9 PK	74.0	-11.1	2.34 V	336	55.70	7.20
2	#5714.90	48.5 AV	54.0	-5.5	2.34 V	336	41.30	7.20
3	#5722.90	71.0 PK	78.2	-7.2	2.08 V	347	63.80	7.20
4	#5725.00	53.1 PK	78.2	-25.1	2.01 V	346	45.90	7.20
5	*5755.00	106.3 PK			2.14 V	349	65.80	40.50
6	*5755.00	96.6 AV			2.14 V	349	56.10	40.50
7	11510.00	59.1 PK	74.0	-14.9	1.22 V	84	40.90	18.20
8	11510.00	45.9 AV	54.0	-8.1	1.22 V	84	27.70	18.20

REMARKS:

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

CHANNEL	TX Channel 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	112.5 PK			1.53 H	55	72.00	40.50
2	*5795.00	104.0 AV			1.53 H	55	63.50	40.50
3	#5850.00	56.2 PK	78.2	-22.0	1.72 H	297	48.70	7.50
4	#5852.10	73.2 PK	78.2	-5.0	1.73 H	290	65.60	7.60
5	#5860.10	70.6 PK	74.0	-3.4	1.58 H	310	63.00	7.60
6	#5860.10	52.8 AV	54.0	-1.2	1.58 H	310	45.20	7.60
7	11590.00	59.2 PK	74.0	-14.8	1.16 H	7	40.90	18.30
8	11590.00	47.3 AV	54.0	-6.7	1.16 H	7	29.00	18.30
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5795.00	108.9 PK			1.98 V	26	68.40	40.50
2	*5795.00	99.8 AV			1.98 V	26	59.30	40.50
3	#5850.00	51.8 PK	78.2	-26.4	1.96 V	16	44.30	7.50
4	#5852.10	67.1 PK	78.2	-11.1	1.97 V	15	59.50	7.60
5	#5860.10	65.6 PK	74.0	-8.4	1.54 V	18	58.00	7.60
6	#5860.10	49.7 AV	54.0	-4.3	1.54 V	18	42.10	7.60
7	11590.00	63.4 PK	74.0	-10.6	1.45 V	3	45.10	18.30
8	11590.00	50.5 AV	54.0	-3.5	1.45 V	3	32.20	18.30

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
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.

Test Mode D

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	63.8 PK	74.0	-10.2	1.52 H	345	57.60	6.20
2	5150.00	47.8 AV	54.0	-6.2	1.52 H	345	41.60	6.20
3	*5180.00	99.8 PK			1.63 H	19	60.30	39.50
4	*5180.00	88.5 AV			1.63 H	19	49.00	39.50
5	#10360.00	58.9 PK	74.0	-15.1	1.16 H	271	41.90	17.00
6	#10360.00	46.0 AV	54.0	-8.0	1.16 H	271	29.00	17.00
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	71.5 PK	74.0	-2.5	1.19 V	0	65.30	6.20
2	5150.00	52.1 AV	54.0	-1.9	1.19 V	0	45.90	6.20
3	*5180.00	109.8 PK			1.11 V	359	70.30	39.50
4	*5180.00	99.3 AV			1.11 V	359	59.80	39.50
5	#10360.00	62.2 PK	74.0	-11.8	1.51 V	57	45.20	17.00
6	#10360.00	46.6 AV	54.0	-7.4	1.51 V	57	29.60	17.00

REMARKS:

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

CHANNEL	TX Channel 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	5150.00	56.5 PK	74.0	-17.5	1.18 H	265	50.30	6.20
2	5150.00	45.5 AV	54.0	-8.5	1.18 H	265	39.30	6.20
3	*5200.00	99.1 PK			1.01 H	265	59.50	39.60
4	*5200.00	88.9 AV			1.01 H	265	49.30	39.60
5	#10400.00	59.7 PK	74.0	-14.3	1.15 H	80	42.70	17.00
6	#10400.00	46.5 AV	54.0	-7.5	1.15 H	80	29.50	17.00
7	15600.00	63.5 PK	74.0	-10.5	1.47 H	52	44.60	18.90
8	15600.00	50.1 AV	54.0	-3.9	1.47 H	52	31.20	18.90
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	67.9 PK	74.0	-6.1	1.94 V	0	61.70	6.20
2	5150.00	49.2 AV	54.0	-4.8	1.94 V	0	43.00	6.20
3	*5200.00	113.2 PK			1.11 V	6	73.60	39.60
4	*5200.00	103.0 AV			1.11 V	6	63.40	39.60
5	#10400.00	69.1 PK	74.0	-4.9	1.04 V	53	52.10	17.00
6	#10400.00	46.8 AV	54.0	-7.2	1.04 V	53	29.80	17.00
7	15600.00	64.8 PK	74.0	-9.2	1.84 V	250	45.90	18.90
8	15600.00	52.1 AV	54.0	-1.9	1.84 V	250	33.20	18.90

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
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	102.7 PK			1.64 H	3	63.10	39.60
2	*5240.00	91.8 AV			1.64 H	3	52.20	39.60
3	5350.00	56.3 PK	74.0	-17.7	1.60 H	0	49.90	6.40
4	5350.00	45.2 AV	54.0	-8.8	1.60 H	0	38.80	6.40
5	#10480.00	59.5 PK	74.0	-14.5	1.16 H	249	41.50	18.00
6	#10480.00	46.5 AV	54.0	-7.5	1.16 H	249	28.50	18.00
7	15720.00	62.4 PK	74.0	-11.6	1.47 H	133	43.90	18.50
8	15720.00	49.9 AV	54.0	-4.1	1.47 H	133	31.40	18.50
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	113.4 PK			1.17 V	8	73.80	39.60
2	*5240.00	102.6 AV			1.17 V	8	63.00	39.60
3	5350.00	57.1 PK	74.0	-16.9	1.20 V	11	50.70	6.40
4	5350.00	46.0 AV	54.0	-8.0	1.20 V	11	39.60	6.40
5	#10480.00	71.6 PK	74.0	-2.4	1.21 V	264	53.60	18.00
6	#10480.00	47.9 AV	54.0	-6.1	1.21 V	264	29.90	18.00
7	15720.00	62.5 PK	74.0	-11.5	1.84 V	248	44.00	18.50
8	15720.00	49.3 AV	54.0	-4.7	1.84 V	248	30.80	18.50

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5714.90	61.5 PK	74.0	-12.5	1.51 H	48	54.30	7.20
2	#5714.90	46.7 AV	54.0	-7.3	1.51 H	48	39.50	7.20
3	#5722.90	67.2 PK	78.2	-11.0	1.40 H	54	60.00	7.20
4	#5725.00	54.8 PK	78.2	-23.4	1.46 H	49	47.60	7.20
5	*5745.00	101.7 PK			1.45 H	56	61.30	40.40
6	*5745.00	91.2 AV			1.45 H	56	50.80	40.40
7	11490.00	58.7 PK	74.0	-15.3	1.02 H	65	40.40	18.30
8	11490.00	46.7 AV	54.0	-7.3	1.02 H	65	28.40	18.30

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5714.90	70.2 PK	74.0	-3.8	1.77 V	3	63.00	7.20
2	#5714.90	52.1 AV	54.0	-1.9	1.77 V	3	44.90	7.20
3	#5722.90	77.5 PK	78.2	-0.7	1.93 V	0	70.30	7.20
4	#5725.00	62.6 PK	78.2	-15.6	1.90 V	0	55.40	7.20
5	*5745.00	110.6 PK			1.78 V	0	70.20	40.40
6	*5745.00	100.2 AV			1.78 V	0	59.80	40.40
7	11490.00	62.1 PK	74.0	-11.9	1.73 V	112	43.80	18.30
8	11490.00	48.7 AV	54.0	-5.3	1.73 V	112	30.40	18.30

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
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	102.6 PK			1.21 H	53	62.10	40.50
2	*5785.00	92.1 AV			1.21 H	53	51.60	40.50
3	11570.00	60.2 PK	74.0	-13.8	1.21 H	250	42.00	18.20
4	11570.00	47.3 AV	54.0	-6.7	1.21 H	250	29.10	18.20
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5785.00	111.4 PK			1.68 V	356	70.90	40.50
2	*5785.00	101.0 AV			1.68 V	356	60.50	40.50
3	11570.00	68.1 PK	74.0	-5.9	1.16 V	268	49.90	18.20
4	11570.00	51.3 AV	54.0	-2.7	1.16 V	268	33.10	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 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	101.6 PK			1.32 H	54	61.10	40.50
2	*5825.00	91.6 AV			1.32 H	54	51.10	40.50
3	#5850.00	58.2 PK	78.2	-20.0	1.17 H	58	50.70	7.50
4	#5853.00	68.2 PK	78.2	-10.0	1.17 H	58	60.60	7.60
5	#5861.00	57.8 PK	74.0	-16.2	1.20 H	306	50.20	7.60
6	#5861.00	47.0 AV	54.0	-7.0	1.20 H	306	39.40	7.60
7	11650.00	60.9 PK	74.0	-13.1	1.43 H	132	42.20	18.70
8	11650.00	47.9 AV	54.0	-6.1	1.43 H	132	29.20	18.70
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	109.9 PK			1.67 V	4	69.40	40.50
2	*5825.00	100.2 AV			1.67 V	4	59.70	40.50
3	#5850.00	63.6 PK	78.2	-14.6	1.60 V	358	56.10	7.50
4	#5853.00	76.6 PK	78.2	-1.6	1.60 V	358	69.00	7.60
5	#5861.00	58.9 PK	74.0	-15.1	1.70 V	13	51.30	7.60
6	#5861.00	47.6 AV	54.0	-6.4	1.70 V	13	40.00	7.60
7	11650.00	61.4 PK	74.0	-12.6	1.46 V	333	42.70	18.70
8	11650.00	48.3 AV	54.0	-5.7	1.46 V	333	29.60	18.70

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	58.3 PK	74.0	-15.7	1.76 H	48	52.10	6.20
2	5150.00	46.7 AV	54.0	-7.3	1.76 H	48	40.50	6.20
3	*5180.00	100.2 PK			2.00 H	0	60.70	39.50
4	*5180.00	89.8 AV			2.00 H	0	50.30	39.50
5	#10360.00	59.4 PK	74.0	-14.6	1.26 H	288	42.40	17.00
6	#10360.00	46.2 AV	54.0	-7.8	1.26 H	288	29.20	17.00
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	71.5 PK	74.0	-2.5	1.27 V	0	65.30	6.20
2	5150.00	52.1 AV	54.0	-1.9	1.27 V	0	45.90	6.20
3	*5180.00	109.2 PK			1.19 V	0	69.70	39.50
4	*5180.00	98.5 AV			1.19 V	0	59.00	39.50
5	#10360.00	59.9 PK	74.0	-14.1	1.48 V	47	42.90	17.00
6	#10360.00	47.0 AV	54.0	-7.0	1.48 V	47	30.00	17.00

REMARKS:

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

CHANNEL	TX Channel 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	99.3 PK			1.00 H	274	59.70	39.60
2	*5200.00	89.0 AV			1.00 H	274	49.40	39.60
3	#10400.00	59.2 PK	74.0	-14.8	1.17 H	19	42.20	17.00
4	#10400.00	46.0 AV	54.0	-8.0	1.17 H	19	29.00	17.00
5	15600.00	63.3 PK	74.0	-10.7	1.59 H	60	44.40	18.90
6	15600.00	50.0 AV	54.0	-4.0	1.59 H	60	31.10	18.90
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	111.5 PK			1.26 V	356	71.90	39.60
2	*5200.00	101.3 AV			1.26 V	356	61.70	39.60
3	#10400.00	71.7 PK	74.0	-2.3	1.27 V	267	54.70	17.00
4	#10400.00	47.5 AV	54.0	-6.5	1.27 V	267	30.50	17.00
5	15600.00	62.9 PK	74.0	-11.1	1.80 V	221	44.00	18.90
6	15600.00	50.4 AV	54.0	-3.6	1.80 V	221	31.50	18.90

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
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	103.8 PK			1.97 H	4	64.20	39.60
2	*5240.00	93.2 AV			1.97 H	4	53.60	39.60
3	5350.00	58.5 PK	74.0	-15.5	1.64 H	0	52.10	6.40
4	5350.00	46.2 AV	54.0	-7.8	1.64 H	0	39.80	6.40
5	#10480.00	59.4 PK	74.0	-14.6	1.22 H	234	41.40	18.00
6	#10480.00	46.2 AV	54.0	-7.8	1.22 H	234	28.20	18.00
7	15720.00	62.1 PK	74.0	-11.9	1.43 H	123	43.60	18.50
8	15720.00	49.4 AV	54.0	-4.6	1.43 H	123	30.90	18.50
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	113.0 PK			1.54 V	9	73.40	39.60
2	*5240.00	102.2 AV			1.54 V	9	62.60	39.60
3	5350.00	56.9 PK	74.0	-17.1	1.50 V	23	50.50	6.40
4	5350.00	45.5 AV	54.0	-8.5	1.50 V	23	39.10	6.40
5	#10480.00	70.8 PK	74.0	-3.2	1.21 V	255	52.80	18.00
6	#10480.00	46.9 AV	54.0	-7.1	1.21 V	255	28.90	18.00
7	15720.00	62.6 PK	74.0	-11.4	1.47 V	356	44.10	18.50
8	15720.00	50.0 AV	54.0	-4.0	1.47 V	356	31.50	18.50

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5714.90	62.0 PK	74.0	-12.0	1.39 H	51	54.80	7.20
2	#5714.90	46.7 AV	54.0	-7.3	1.39 H	51	39.50	7.20
3	#5722.90	70.9 PK	78.2	-7.3	1.47 H	52	63.70	7.20
4	#5725.00	56.0 PK	78.2	-22.2	1.46 H	52	48.80	7.20
5	*5745.00	100.5 PK			1.32 H	60	60.10	40.40
6	*5745.00	90.1 AV			1.32 H	60	49.70	40.40
7	11490.00	59.2 PK	74.0	-14.8	1.19 H	31	40.90	18.30
8	11490.00	46.5 AV	54.0	-7.5	1.19 H	31	28.20	18.30
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5714.90	67.1 PK	74.0	-6.9	1.77 V	2	59.90	7.20
2	#5714.90	51.1 AV	54.0	-2.9	1.77 V	2	43.90	7.20
3	#5722.90	77.9 PK	78.2	-0.3	1.86 V	0	70.70	7.20
4	#5725.00	62.1 PK	78.2	-16.1	1.78 V	10	54.90	7.20
5	*5745.00	109.7 PK			1.77 V	2	69.30	40.40
6	*5745.00	98.7 AV			1.77 V	2	58.30	40.40
7	11490.00	59.9 PK	74.0	-14.1	1.48 V	30	41.60	18.30
8	11490.00	47.1 AV	54.0	-6.9	1.48 V	30	28.80	18.30

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
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	100.7 PK			1.58 H	0	60.20	40.50
2	*5785.00	90.5 AV			1.58 H	0	50.00	40.50
3	11570.00	60.1 PK	74.0	-13.9	1.16 H	260	41.90	18.20
4	11570.00	47.1 AV	54.0	-6.9	1.16 H	260	28.90	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	*5785.00	111.9 PK			1.69 V	359	71.40	40.50
2	*5785.00	101.2 AV			1.69 V	359	60.70	40.50
3	11570.00	67.1 PK	74.0	-6.9	1.24 V	275	48.90	18.20
4	11570.00	50.0 AV	54.0	-4.0	1.24 V	275	31.80	18.20

REMARKS:

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

CHANNEL	TX Channel 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	102.1 PK			1.31 H	52	61.60	40.50
2	*5825.00	91.4 AV			1.31 H	52	50.90	40.50
3	#5850.00	59.1 PK	78.2	-19.1	1.36 H	60	51.60	7.50
4	#5853.00	69.2 PK	78.2	-9.0	1.36 H	60	61.60	7.60
5	#5861.00	64.7 PK	74.0	-9.3	1.28 H	49	57.10	7.60
6	#5861.00	46.9 AV	54.0	-7.1	1.28 H	49	39.30	7.60
7	11650.00	60.3 PK	74.0	-13.7	1.61 H	150	41.60	18.70
8	11650.00	47.4 AV	54.0	-6.6	1.61 H	150	28.70	18.70
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	109.8 PK			1.77 V	6	69.30	40.50
2	*5825.00	100.0 AV			1.77 V	6	59.50	40.50
3	#5850.00	62.8 PK	78.2	-15.4	1.70 V	1	55.30	7.50
4	#5853.00	76.0 PK	78.2	-2.2	1.70 V	1	68.40	7.60
5	#5861.00	72.5 PK	74.0	-1.5	1.74 V	2	64.90	7.60
6	#5861.00	48.2 AV	54.0	-5.8	1.74 V	2	40.60	7.60
7	11650.00	61.3 PK	74.0	-12.7	1.50 V	312	42.60	18.70
8	11650.00	48.1 AV	54.0	-5.9	1.50 V	312	29.40	18.70

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 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	60.9 PK	74.0	-13.1	1.50 H	339	54.70	6.20
2	5150.00	46.8 AV	54.0	-7.2	1.50 H	339	40.60	6.20
3	*5190.00	90.0 PK			1.80 H	330	50.50	39.50
4	*5190.00	79.8 AV			1.80 H	330	40.30	39.50
5	#10380.00	58.5 PK	74.0	-15.5	1.36 H	274	41.50	17.00
6	#10380.00	45.6 AV	54.0	-8.4	1.36 H	274	28.60	17.00
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	69.1 PK	74.0	-4.9	1.12 V	3	62.90	6.20
2	5150.00	52.1 AV	54.0	-1.9	1.12 V	3	45.90	6.20
3	*5190.00	98.7 PK			1.12 V	7	59.20	39.50
4	*5190.00	88.8 AV			1.12 V	7	49.30	39.50
5	#10380.00	59.0 PK	74.0	-15.0	1.53 V	55	42.00	17.00
6	#10380.00	46.2 AV	54.0	-7.8	1.53 V	55	29.20	17.00

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	58.9 PK	74.0	-15.1	1.84 H	349	52.70	6.20
2	5150.00	46.2 AV	54.0	-7.8	1.84 H	349	40.00	6.20
3	*5230.00	98.5 PK			1.96 H	0	58.90	39.60
4	*5230.00	88.9 AV			1.96 H	0	49.30	39.60
5	5350.00	56.4 PK	74.0	-17.6	1.69 H	322	50.00	6.40
6	5350.00	45.9 AV	54.0	-8.1	1.69 H	322	39.50	6.40
7	#10460.00	59.6 PK	74.0	-14.4	1.30 H	244	41.80	17.80
8	#10460.00	46.9 AV	54.0	-7.1	1.30 H	244	29.10	17.80
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	68.7 PK	74.0	-5.3	1.17 V	313	62.50	6.20
2	5150.00	52.7 AV	54.0	-1.3	1.17 V	313	46.50	6.20
3	*5230.00	108.7 PK			1.16 V	346	69.10	39.60
4	*5230.00	98.4 AV			1.16 V	346	58.80	39.60
5	5350.00	56.8 PK	74.0	-17.2	1.19 V	19	50.40	6.40
6	5350.00	45.7 AV	54.0	-8.3	1.19 V	19	39.30	6.40
7	#10460.00	60.8 PK	74.0	-13.2	1.36 V	261	43.00	17.80
8	#10460.00	47.8 AV	54.0	-6.2	1.36 V	261	30.00	17.80

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
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	56.7 PK	74.0	-17.3	1.36 H	289	49.50	7.20
2	#5714.00	46.0 AV	54.0	-8.0	1.36 H	289	38.80	7.20
3	#5722.00	61.5 PK	78.2	-16.7	1.36 H	0	54.30	7.20
4	#5725.00	52.5 PK	78.2	-25.7	1.36 H	0	45.30	7.20
5	*5755.00	89.3 PK			1.54 H	1	48.80	40.50
6	*5755.00	79.4 AV			1.54 H	1	38.90	40.50
7	11510.00	59.2 PK	74.0	-14.8	1.19 H	176	41.00	18.20
8	11510.00	46.4 AV	54.0	-7.6	1.19 H	176	28.20	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	#5714.00	72.0 PK	74.0	-2.0	1.69 V	1	64.80	7.20
2	#5714.00	52.8 AV	54.0	-1.2	1.69 V	1	45.60	7.20
3	#5722.00	73.4 PK	78.2	-4.8	1.70 V	10	66.20	7.20
4	#5725.00	61.5 PK	78.2	-16.7	1.70 V	10	54.30	7.20
5	*5755.00	101.0 PK			1.54 V	4	60.50	40.50
6	*5755.00	90.1 AV			1.54 V	4	49.60	40.50
7	11510.00	59.7 PK	74.0	-14.3	1.33 V	303	41.50	18.20
8	11510.00	46.6 AV	54.0	-7.4	1.33 V	303	28.40	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 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	96.8 PK			1.58 H	357	56.30	40.50
2	*5795.00	85.9 AV			1.58 H	357	45.40	40.50
3	#5850.00	58.2 PK	78.2	-20.0	1.66 H	1	50.70	7.50
4	#5853.00	71.9 PK	78.2	-6.3	1.66 H	1	64.30	7.60
5	#5861.00	57.6 PK	74.0	-16.4	1.64 H	0	50.00	7.60
6	#5861.00	46.5 AV	54.0	-7.5	1.64 H	0	38.90	7.60
7	11590.00	59.8 PK	74.0	-14.2	1.13 H	311	41.50	18.30
8	11590.00	46.9 AV	54.0	-7.1	1.13 H	311	28.60	18.30
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5795.00	107.2 PK			1.68 V	10	66.70	40.50
2	*5795.00	95.6 AV			1.68 V	10	55.10	40.50
3	#5850.00	58.0 PK	78.2	-20.2	1.68 V	10	50.50	7.50
4	#5852.00	73.1 PK	78.2	-5.1	1.68 V	10	65.50	7.60
5	#5861.00	70.9 PK	74.0	-3.1	1.74 V	0	63.30	7.60
6	#5861.00	50.6 AV	54.0	-3.4	1.74 V	0	43.00	7.60
7	11590.00	60.8 PK	74.0	-13.2	1.54 V	277	42.50	18.30
8	11590.00	47.6 AV	54.0	-6.4	1.54 V	277	29.30	18.30

REMARKS:

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

Below 1GHz Worst-Case Data: 802.11a

Test Mode A

CHANNEL	TX Channel 40	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	57.12	29.4 QP	40.0	-10.6	2.00 H	253	44.20	-14.80
2	125.17	26.6 QP	43.5	-16.9	2.00 H	253	42.50	-15.90
3	374.04	29.0 QP	46.0	-17.0	1.01 H	207	40.00	-11.00
4	500.42	27.7 QP	46.0	-18.3	1.51 H	193	36.00	-8.30
5	624.85	37.5 QP	46.0	-8.5	1.51 H	7	42.90	-5.40
6	875.67	33.0 QP	46.0	-13.0	1.01 H	203	33.90	-0.90
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	39.62	36.2 QP	40.0	-3.8	1.00 V	308	51.40	-15.20
2	59.06	35.2 QP	40.0	-4.8	1.00 V	356	50.00	-14.80
3	125.17	27.3 QP	43.5	-16.2	1.00 V	186	43.20	-15.90
4	374.04	31.7 QP	46.0	-14.3	1.00 V	184	42.70	-11.00
5	624.85	37.6 QP	46.0	-8.4	1.00 V	238	43.00	-5.40
6	875.67	34.3 QP	46.0	-11.7	1.00 V	44	35.20	-0.90

REMARKS:

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

Test Mode B

CHANNEL	TX Channel 40	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 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	37.68	30.6 QP	40.0	-9.4	1.99 H	58	46.00	-15.40
2	57.12	29.4 QP	40.0	-10.6	1.99 H	306	44.20	-14.80
3	125.17	33.7 QP	43.5	-9.8	1.49 H	253	49.60	-15.90
4	177.67	28.5 QP	43.5	-15.0	1.99 H	261	43.60	-15.10
5	374.04	29.4 QP	46.0	-16.6	1.00 H	86	40.40	-11.00
6	624.85	37.2 QP	46.0	-8.8	1.00 H	145	42.60	-5.40
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	38.58	38.0 QP	40.0	-2.0	1.00 V	151	53.30	-15.30
2	47.40	37.3 QP	40.0	-2.7	1.01 V	16	51.90	-14.60
3	125.17	33.6 QP	43.5	-9.9	1.01 V	198	49.50	-15.90
4	374.04	30.1 QP	46.0	-15.9	1.01 V	184	41.10	-11.00
5	624.85	36.2 QP	46.0	-9.8	1.01 V	243	41.60	-5.40
6	875.67	33.9 QP	46.0	-12.1	1.01 V	16	34.80	-0.90

REMARKS:

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

Test Mode C

CHANNEL	TX Channel 40	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	57.12	30.5 QP	40.0	-9.5	1.99 H	54	45.30	-14.80
2	78.51	26.7 QP	40.0	-13.3	1.99 H	228	45.30	-18.60
3	125.17	26.7 QP	43.5	-16.8	1.99 H	265	42.60	-15.90
4	374.04	29.3 QP	46.0	-16.7	1.00 H	216	40.30	-11.00
5	624.85	38.1 QP	46.0	-7.9	1.49 H	7	43.50	-5.40
6	875.67	33.4 QP	46.0	-12.6	1.00 H	192	34.30	-0.90
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	39.62	35.9 QP	40.0	-4.1	1.00 V	11	51.10	-15.20
2	59.06	36.5 QP	40.0	-3.5	1.00 V	1	51.30	-14.80
3	125.17	27.5 QP	43.5	-16.0	1.00 V	171	43.40	-15.90
4	374.04	30.7 QP	46.0	-15.3	1.00 V	190	41.70	-11.00
5	624.85	36.5 QP	46.0	-9.5	1.00 V	231	41.90	-5.40
6	875.67	34.0 QP	46.0	-12.0	1.00 V	44	34.90	-0.90

REMARKS:

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

Test Mode D

CHANNEL	TX Channel 40	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	57.12	30.0 QP	40.0	-10.0	2.00 H	97	44.80	-14.80
2	84.34	27.7 QP	40.0	-12.3	2.00 H	269	47.10	-19.40
3	125.17	33.6 QP	43.5	-9.9	1.51 H	102	49.50	-15.90
4	216.55	30.6 QP	46.0	-15.4	1.00 H	130	47.20	-16.60
5	374.04	29.7 QP	46.0	-16.3	1.00 H	147	40.70	-11.00
6	624.85	37.1 QP	46.0	-8.9	1.00 H	150	42.50	-5.40
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	37.68	37.3 QP	40.0	-2.7	1.00 V	348	52.70	-15.40
2	47.40	36.4 QP	40.0	-3.6	1.00 V	6	51.00	-14.60
3	125.17	33.0 QP	43.5	-10.5	1.00 V	208	48.90	-15.90
4	214.61	27.3 QP	43.5	-16.2	1.50 V	184	44.00	-16.70
5	374.04	32.0 QP	46.0	-14.0	1.00 V	206	43.00	-11.00
6	624.85	36.8 QP	46.0	-9.2	1.00 V	247	42.20	-5.40

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

4.2 Conducted Emission Measurement

4.2.1 Limits of Conducted Emission Measurement

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

Note: 1. The lower limit shall apply at the transition frequencies.

2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

4.2.2 Test Instruments

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

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

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

3. The VCCI Site Registration No. is C-2047.

4.2.3 Test Procedure

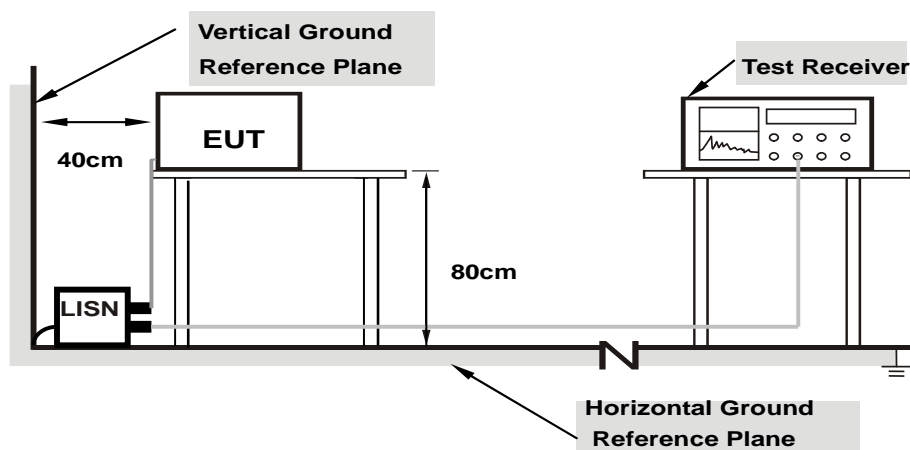
- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance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

2.Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

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

4.2.6 EUT Operating Conditions

Same as 4.1.6.

4.2.7 Test Results

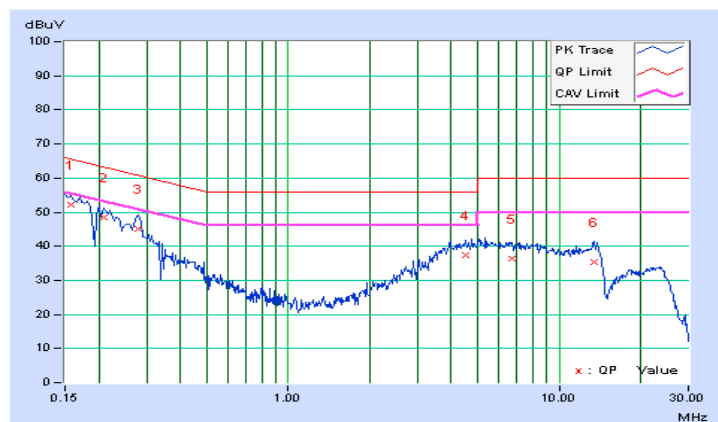
Test Mode A

Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)
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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	0.15782	9.85	42.34	26.52	52.19	36.37	65.58	55.58	-13.38	-19.20
2	0.20865	9.93	38.50	24.26	48.43	34.19	63.26	53.26	-14.83	-19.07
3	0.27903	9.92	35.30	24.15	45.22	34.07	60.84	50.84	-15.63	-16.78
4	4.53464	10.22	27.21	18.07	37.43	28.29	56.00	46.00	-18.57	-17.71
5	6.70860	10.35	25.85	16.70	36.20	27.05	60.00	50.00	-23.80	-22.95
6	13.51591	10.76	24.61	16.13	35.37	26.89	60.00	50.00	-24.63	-23.11

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.

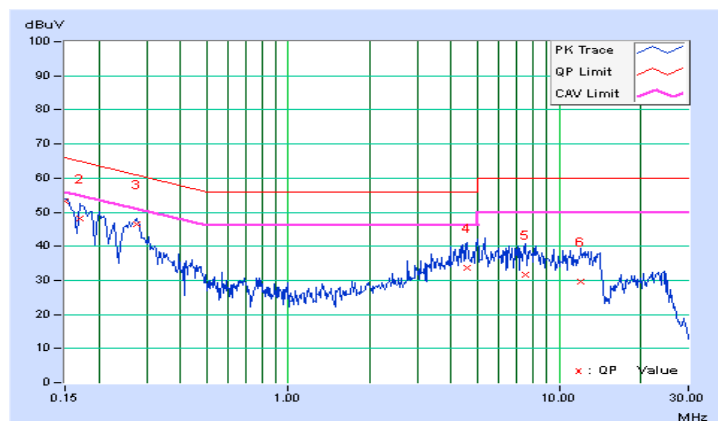


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	9.89	43.42	29.06	53.31	38.95	66.00	56.00	-12.69	-17.05
2	0.16955	9.94	38.27	20.16	48.21	30.10	64.98	54.98	-16.77	-24.88
3	0.27512	10.01	36.30	26.08	46.31	36.09	60.96	50.96	-14.65	-14.87
4	4.58938	10.36	23.18	14.93	33.54	25.29	56.00	46.00	-22.46	-20.71
5	7.51406	10.48	21.20	12.19	31.68	22.67	60.00	50.00	-28.32	-27.33
6	12.01447	10.68	19.01	9.97	29.69	20.65	60.00	50.00	-30.31	-29.35

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.



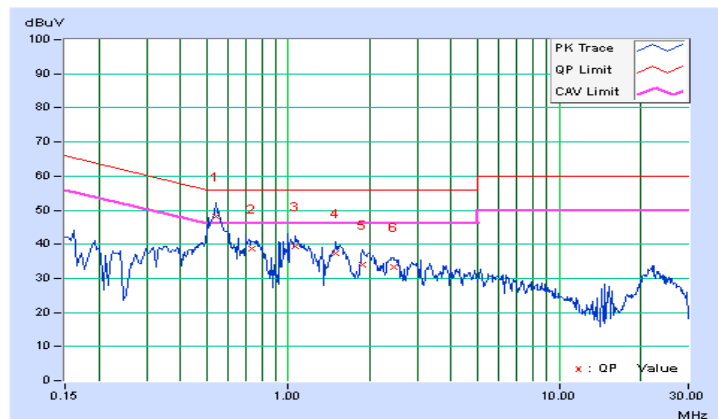
Test Mode B

Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)
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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	0.54100	9.93	38.08	26.94	48.01	36.87	56.00	46.00	-7.99	-9.13
2	0.73259	9.97	28.75	17.01	38.72	26.98	56.00	46.00	-17.28	-19.02
3	1.06647	10.03	29.34	18.89	39.37	28.92	56.00	46.00	-16.63	-17.08
4	1.49266	10.06	27.27	19.12	37.33	29.18	56.00	46.00	-18.67	-16.82
5	1.88757	10.09	23.80	16.07	33.89	26.16	56.00	46.00	-22.11	-19.84
6	2.44279	10.12	23.27	16.62	33.39	26.74	56.00	46.00	-22.61	-19.26

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.

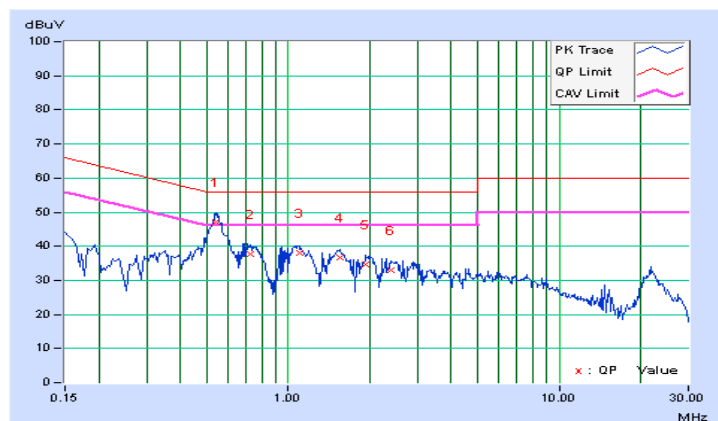


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.54100	10.00	37.14	26.19	47.14	36.19	56.00	46.00	-8.86	-9.81
2	0.72086	10.01	27.66	16.08	37.67	26.09	56.00	46.00	-18.33	-19.91
3	1.10166	10.04	28.10	18.97	38.14	29.01	56.00	46.00	-17.86	-16.99
4	1.54740	10.06	26.77	18.65	36.83	28.71	56.00	46.00	-19.17	-17.29
5	1.93840	10.09	24.62	17.41	34.71	27.50	56.00	46.00	-21.29	-18.50
6	2.38023	10.14	22.71	16.24	32.85	26.38	56.00	46.00	-23.15	-19.62

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.



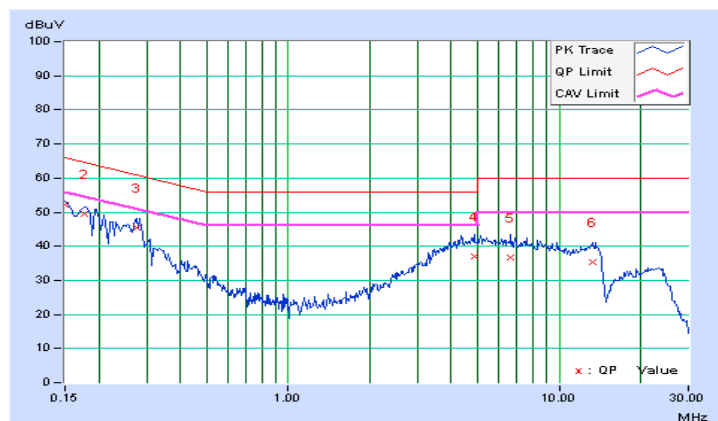
Test Mode C

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	0.15000	9.84	42.27	28.57	52.11	38.41	66.00	56.00	-13.89	-17.59
2	0.17737	9.89	39.44	27.15	49.33	37.04	64.61	54.61	-15.28	-17.57
3	0.27512	9.92	35.50	25.62	45.42	35.54	60.96	50.96	-15.54	-15.42
4	4.87872	10.24	26.91	17.82	37.15	28.06	56.00	46.00	-18.85	-17.94
5	6.65386	10.34	26.29	17.04	36.63	27.38	60.00	50.00	-23.37	-22.62
6	13.23048	10.74	24.62	15.77	35.36	26.51	60.00	50.00	-24.64	-23.49

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.

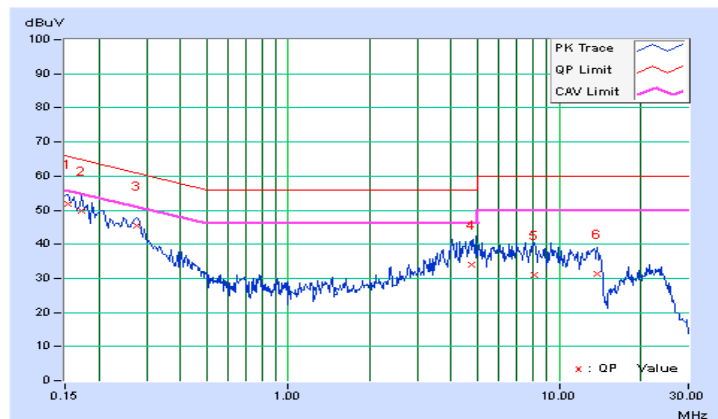


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
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No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15391	9.90	41.94	29.06	51.84	38.96	65.79	55.79	-13.95	-16.83
2	0.17346	9.96	39.71	25.22	49.67	35.18	64.79	54.79	-15.13	-19.62
3	0.27512	10.01	35.34	26.02	45.35	36.03	60.96	50.96	-15.61	-14.93
4	4.72623	10.36	23.64	15.08	34.00	25.44	56.00	46.00	-22.00	-20.56
5	8.06928	10.51	20.52	11.28	31.03	21.79	60.00	50.00	-28.97	-28.21
6	13.83262	10.77	20.58	11.67	31.35	22.44	60.00	50.00	-28.65	-27.56

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.



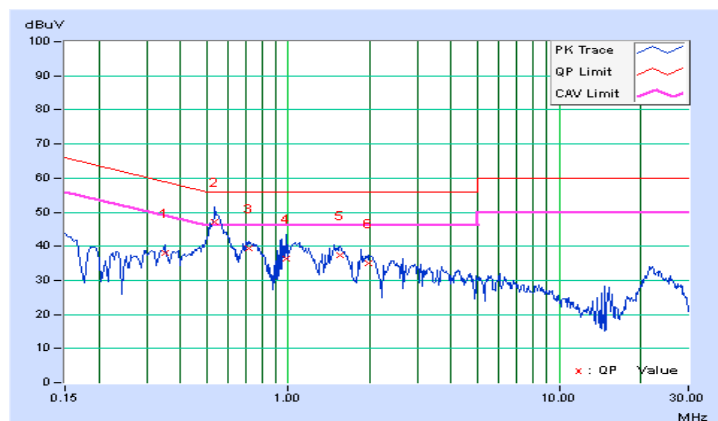
Test Mode D

Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)
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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	0.34941	9.91	28.14	19.81	38.05	29.72	58.98	48.98	-20.93	-19.26
2	0.53709	9.93	37.35	24.97	47.28	34.90	56.00	46.00	-8.72	-11.10
3	0.71304	9.97	29.27	21.01	39.24	30.98	56.00	46.00	-16.76	-15.02
4	0.98674	10.03	26.32	16.51	36.35	26.54	56.00	46.00	-19.65	-19.46
5	1.55522	10.07	27.22	18.80	37.29	28.87	56.00	46.00	-18.71	-17.13
6	1.98532	10.10	24.94	17.56	35.04	27.66	56.00	46.00	-20.96	-18.34

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.

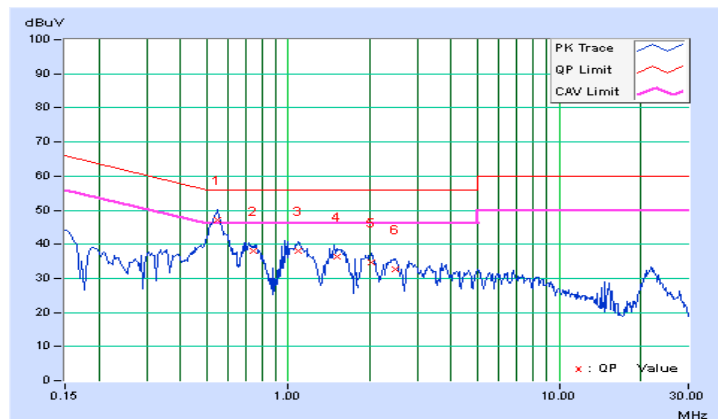


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
-------	-------------	-------------------	--------------------------------

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	0.54882	10.00	37.30	28.23	47.30	38.23	56.00	46.00	-8.70	-7.77
2	0.74041	10.01	27.96	20.10	37.97	30.11	56.00	46.00	-18.03	-15.89
3	1.08211	10.03	28.05	18.99	38.08	29.02	56.00	46.00	-17.92	-16.98
4	1.51612	10.06	26.17	17.96	36.23	28.02	56.00	46.00	-19.77	-17.98
5	2.03615	10.09	24.50	17.45	34.59	27.54	56.00	46.00	-21.41	-18.46
6	2.50144	10.15	22.59	15.85	32.74	26.00	56.00	46.00	-23.26	-20.00

REMARKS:

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



4.3 Transmit Power Measurement

4.3.1 Limits of Transmit Power Measurement

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

*B is the 26 dB emission bandwidth in megahertz

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

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

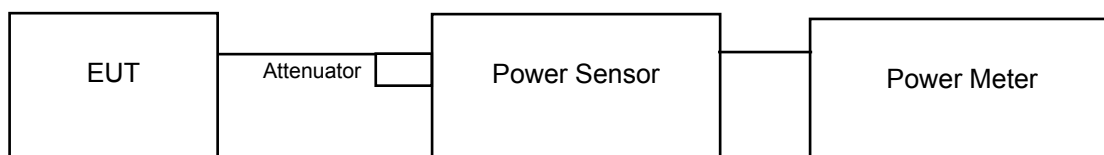
Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT} ;

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

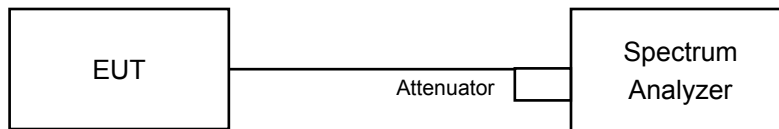
For power measurements on all other devices: Array Gain = 10 log(N_{ANT}/N_{SS}) dB.

4.3.2 Test Setup

For Power Output Measurement



For 26dB and Occupied Bandwidth



4.3.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.3.4 Test Procedure

For Average Power Measurement

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

For Occupied Bandwidth

The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with 300 kHz RBW and 1MHz VBW. The width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5 % of the total mean power of a given emission.

4.3.5 Deviation 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

Test Mode B

Power Output:

802.11a

Channel	Frequency (MHz)	Maximum Conducted Power (dBm)		Maximum Total Power (mW)	Maximum Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
36	5180	18.96	18.33	146.782	21.67	30	Pass
40	5200	21.01	20.64	242.061	23.84	30	Pass
48	5240	21.14	20.30	237.169	23.75	30	Pass
149	5745	19.50	17.68	147.739	21.69	30	Pass
157	5785	20.16	18.43	173.416	22.39	30	Pass
165	5825	19.63	17.81	152.228	21.82	30	Pass

802.11n (HT20)

Channel	Frequency (MHz)	Maximum Conducted Power (dBm)		Maximum Total Power (mW)	Maximum Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
36	5180	18.04	17.69	122.429	20.88	30	Pass
40	5200	20.79	20.46	231.123	23.64	30	Pass
48	5240	20.91	20.35	231.703	23.65	30	Pass
149	5745	18.71	17.23	127.147	21.04	30	Pass
157	5785	20.35	18.61	181.004	22.58	30	Pass
165	5825	19.39	18.19	152.813	21.84	30	Pass

802.11n (HT40)

Channel	Frequency (MHz)	Maximum Conducted Power (dBm)		Maximum Total Power (mW)	Maximum Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
38	5190	14.94	13.70	54.631	17.37	30	Pass
46	5230	20.93	20.64	239.758	23.80	30	Pass
151	5755	16.86	15.37	82.964	19.19	30	Pass
159	5795	20.38	18.94	187.487	22.73	30	Pass

26dB Bandwidth:

802.11a

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
36	5180	25.72	22.83	Pass
40	5200	35.92	29.32	Pass
48	5240	35.69	28.24	Pass

802.11n (HT20)

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
36	5180	25.16	24.22	Pass
40	5200	38.38	29.79	Pass
48	5240	34.99	29.08	Pass

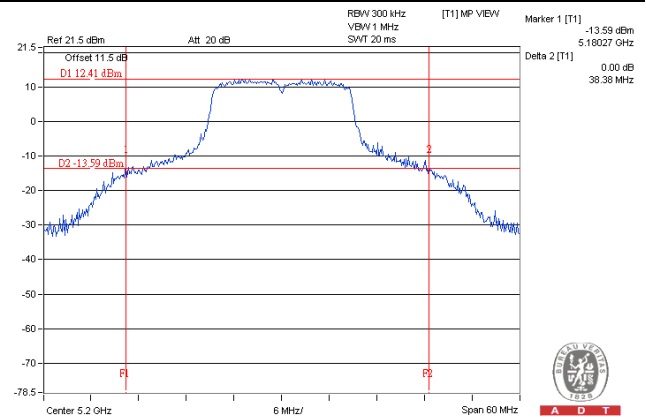
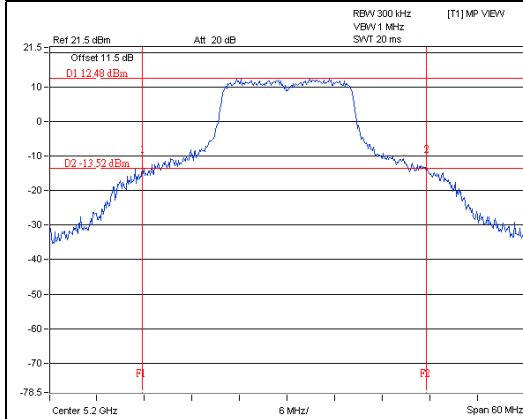
802.11n (HT40)

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
38	5190	50.93	48.16	Pass
46	5230	84.59	74.76	Pass

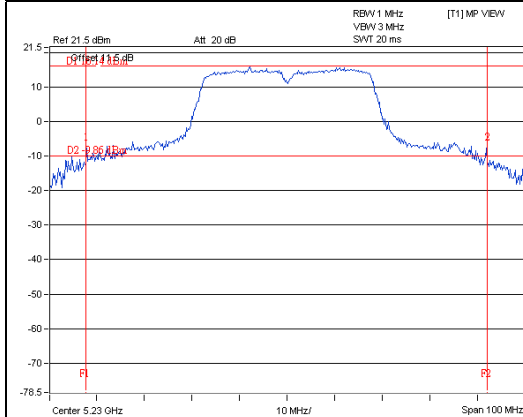
Spectrum Plot of Worst Value

802.11a

802.11n (HT20)



802.11n (HT40)



Occupied Bandwidth:

802.11a

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
36	5180	17.04	16.80
40	5200	17.76	17.04
48	5240	17.76	17.04
149	5745	17.22	16.87
157	5785	17.04	16.92
165	5825	16.92	16.68

802.11n (HT20)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
36	5180	18.00	17.88
40	5200	18.48	18.00
48	5240	18.60	18.00
149	5745	18.24	17.88
157	5785	18.00	18.00
165	5825	18.24	17.88

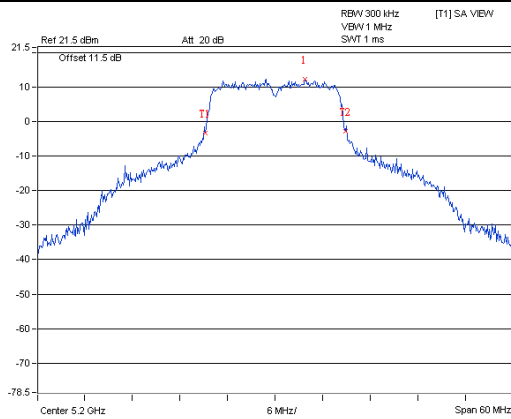
802.11n (HT40)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
38	5190	37.44	37.20
46	5230	38.04	37.44
151	5755	37.56	37.32
159	5795	37.44	37.32

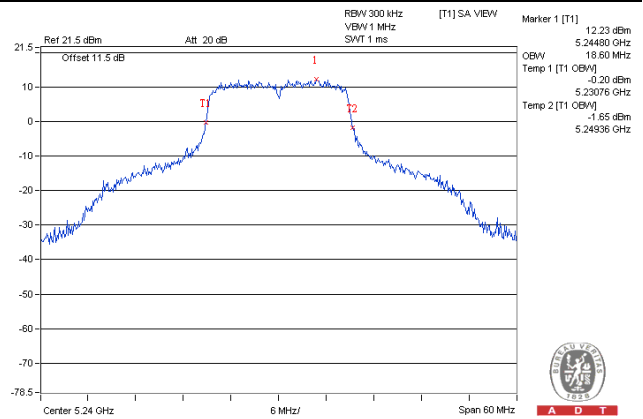
Spectrum Plot of Worst Value

802.11a

802.11n (HT20)

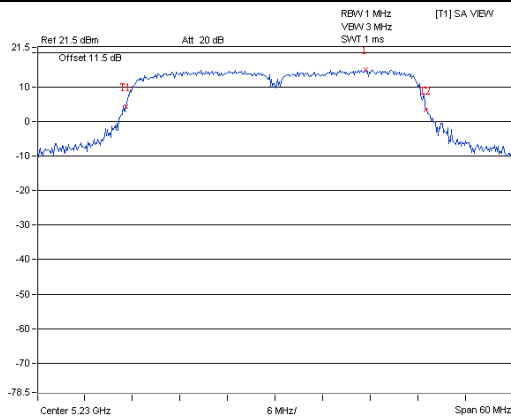


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802.11n (HT40)



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Test Mode D

Power Output:

802.11a

Channel	Frequency (MHz)	Maximum Total Power (mW)	Maximum Total Power (dBm)	Power Limit (dBm)	Pass / Fail
36	5180	38.194	15.82	30	Pass
40	5200	84.528	19.27	30	Pass
48	5240	84.528	16.14	30	Pass
149	5745	23.281	13.67	30	Pass
157	5785	43.652	16.40	30	Pass
165	5825	31.477	14.98	30	Pass

802.11n (HT20)

Channel	Frequency (MHz)	Maximum Total Power (mW)	Maximum Total Power (dBm)	Power Limit (dBm)	Pass / Fail
36	5180	35.563	15.51	30	Pass
40	5200	84.333	19.26	30	Pass
48	5240	85.114	15.82	30	Pass
149	5745	19.588	12.92	30	Pass
157	5785	44.361	16.47	30	Pass
165	5825	30.69	14.87	30	Pass

802.11n (HT40)

Channel	Frequency (MHz)	Maximum Total Power (mW)	Maximum Total Power (dBm)	Power Limit (dBm)	Pass / Fail
38	5190	7.962	9.01	30	Pass
46	5230	59.704	17.76	30	Pass
151	5755	5.623	7.50	30	Pass
159	5795	40.926	16.12	30	Pass

26dB Bandwidth:

802.11a

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)	Pass / Fail
36	5180	36.07	Pass
40	5200	42.93	Pass
48	5240	37.74	Pass

802.11n (HT20)

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)	Pass / Fail
36	5180	38.13	Pass
40	5200	48.89	Pass
48	5240	38.46	Pass

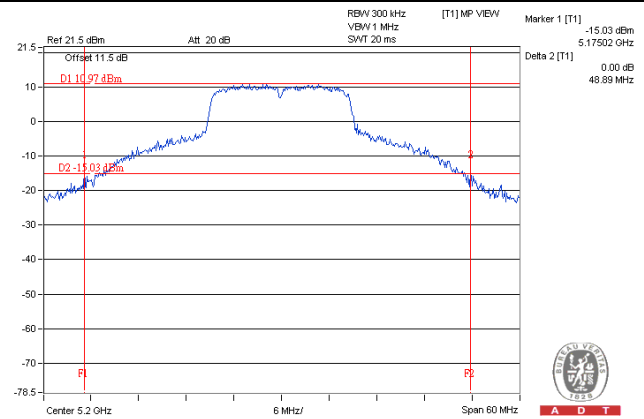
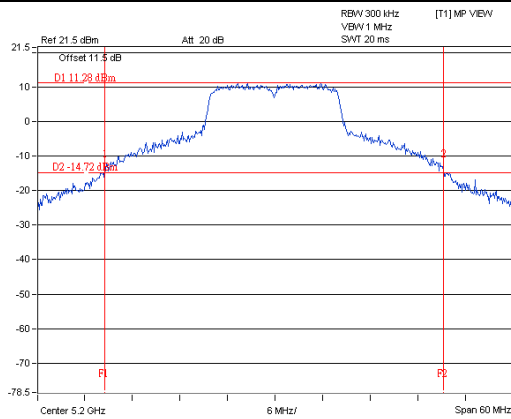
802.11n (HT40)

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)	Pass / Fail
38	5190	62.52	Pass
46	5230	93.87	Pass

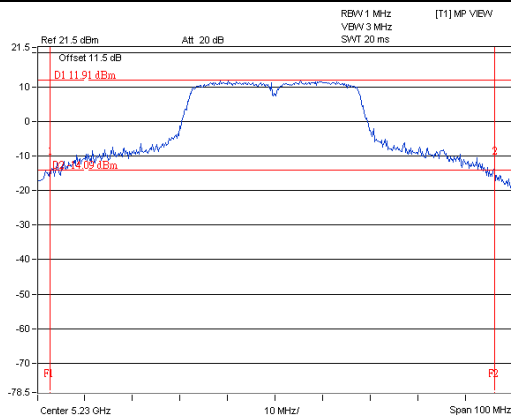
Spectrum Plot of Worst Value

802.11a

802.11n (HT20)



802.11n (HT40)



Occupied Bandwidth:

802.11a

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)
36	5180	17.88
40	5200	28.56
48	5240	19.32
149	5745	17.39
157	5785	21.60
165	5825	19.08

802.11n (HT20)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)
36	5180	19.32
40	5200	29.52
48	5240	19.68
149	5745	18.12
157	5785	21.36
165	5825	20.52

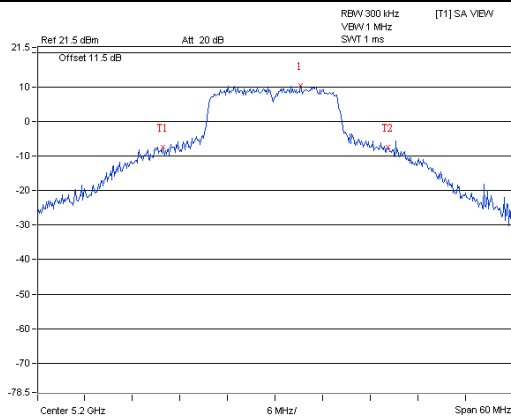
802.11n (HT40)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)
38	5190	37.32
46	5230	38.76
151	5755	37.44
159	5795	38.88

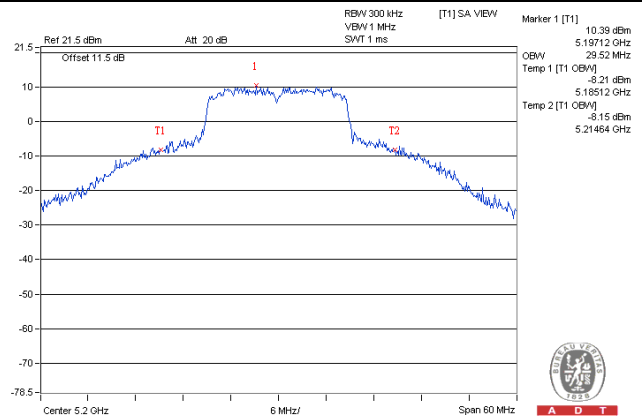
Spectrum Plot of Worst Value

802.11a

802.11n (HT20)

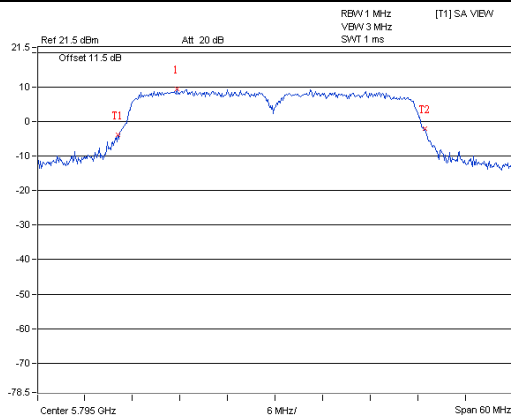


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802.11n (HT40)



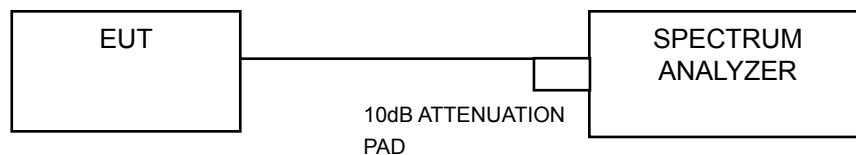
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4.4 Peak Power Spectral Density Measurement

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 Procedure

For U-NII-1 band:

Using method SA-1

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

For U-NII-3 band:

- a. Set span to encompass the entire emission bandwidth (EBW) of the signal.
- b. Set RBW = 300 kHz, Set VBW \geq 3 RBW, Detector = RMS
- c. Sweep time = auto, trigger set to "free run".
- d. Trace average at least 100 traces in power averaging mode.
- e. Record the max value and add $10 \log (1/\text{duty cycle})$.
- f. 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 $\text{BWCF} = 10 \log (500 \text{ kHz}/300 \text{ kHz})$.

4.4.5 Deviation from Test Standard

No deviation.

4.4.6 EUT Operating Condition

Same as Item 4.3.6.

4.4.7 Test Results

Test Mode B

For U-NII-1 Band

802.11a

Chan.	Freq. (MHz)	PSD (dBm)		Total PSD (dBm)	Max. Limit (dBm)	Pass / Fail
		Chain 0	Chain 1			
36	5180	6.03	5.08	8.59	15.99	Pass
40	5200	8.20	7.11	10.70	15.99	Pass
48	5240	7.77	6.71	10.28	15.99	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 = $4\text{dBi} + 10\log(2) = 7.01\text{dBi} > 6\text{dBi}$, so the limit shall be reduced to $17 - (7.01 - 6) = 15.99\text{dBm}$.

802.11n (HT20)

Chan.	Freq. (MHz)	PSD (dBm)		Total PSD (dBm)	Max. Limit (dBm)	Pass / Fail
		Chain 0	Chain 1			
36	5180	4.76	3.88	7.35	15.99	Pass
40	5200	7.80	6.51	10.21	15.99	Pass
48	5240	7.87	6.73	10.35	15.99	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 = $4\text{dBi} + 10\log(2) = 7.01\text{dBi} > 6\text{dBi}$, so the limit shall be reduced to $17 - (7.01 - 6) = 15.99\text{dBm}$.

802.11n (HT40)

Chan.	Freq. (MHz)	PSD (dBm)		Total PSD (dBm)	Max. Limit (dBm)	Pass / Fail
		Chain 0	Chain 1			
38	5190	-1.60	-3.20	1.08	15.99	Pass
46	5230	5.29	3.94	8.08	15.99	Pass

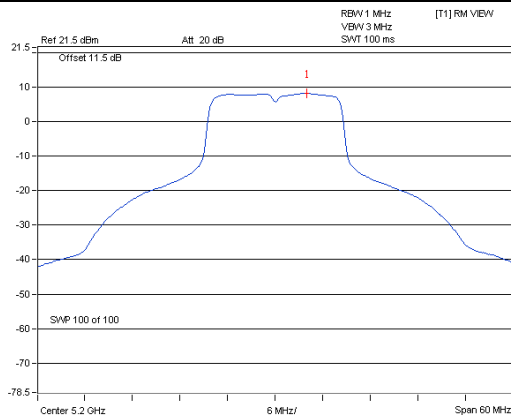
Note:

- 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 = $4\text{dBi} + 10\log(2) = 7.01\text{dBi} > 6\text{dBi}$, so the limit shall be reduced to $17 - (7.01 - 6) = 15.99\text{dBm}$.

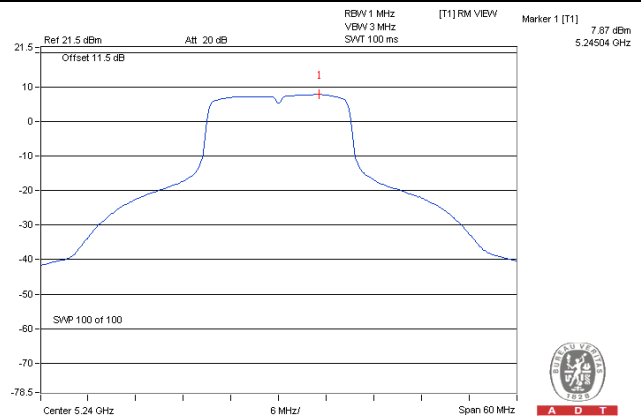
Spectrum Plot of Worst Value

802.11a / Chain 0 / Ch 40

802.11n (HT20) / Chain 0 / Ch 48

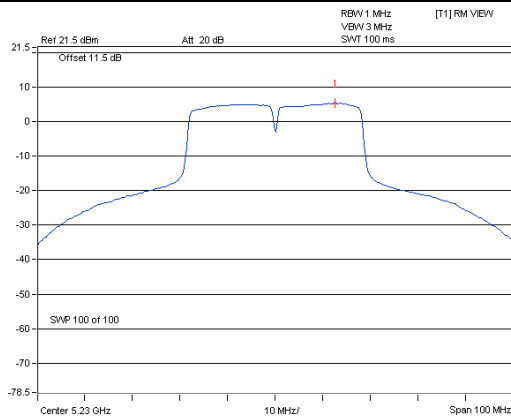


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802.11n (HT40) / Chain 0 / Ch 46



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	-1.65	0.57	3.01	3.58	26.99	Pass
	157	5785	-1.35	0.87	3.01	3.88	26.99	Pass
	165	5825	-1.83	0.39	3.01	3.40	26.99	Pass
1	149	5745	-4.22	-2.00	3.01	1.01	26.99	Pass
	157	5785	-3.04	-0.82	3.01	2.19	26.99	Pass
	165	5825	-3.43	-1.21	3.01	1.80	26.99	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 = 6dBi + 10log(2) = 9.01dBi > 6dBi, so the limit shall be reduced to 30-(9.01-6) = 26.99dBm.

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	-3.91	-1.69	3.01	1.32	26.99	Pass
	157	5785	-1.91	0.31	3.01	3.32	26.99	Pass
	165	5825	-2.23	-0.01	3.01	3.00	26.99	Pass
1	149	5745	-5.06	-2.84	3.01	0.17	26.99	Pass
	157	5785	-3.07	-0.85	3.01	2.16	26.99	Pass
	165	5825	-3.60	-1.38	3.01	1.63	26.99	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 = 6dBi + 10log(2) = 9.01dBi > 6dBi, so the limit shall be reduced to 30-(9.01-6) = 26.99dBm.

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	-7.65	-5.43	3.01	-2.02	26.99	Pass
	159	5795	-4.25	-2.03	3.01	1.38	26.99	Pass
1	151	5755	-9.80	-7.58	3.01	-4.17	26.99	Pass
	159	5795	-6.59	-4.37	3.01	-0.96	26.99	Pass

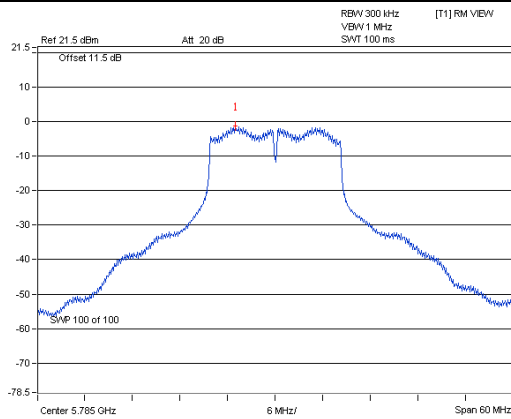
Note:

- 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 = 6.92dBi + 10log(2) = 9.93dBi > 6dBi, so the limit shall be reduced to 30-(9.93-6) = 26.07dBm.

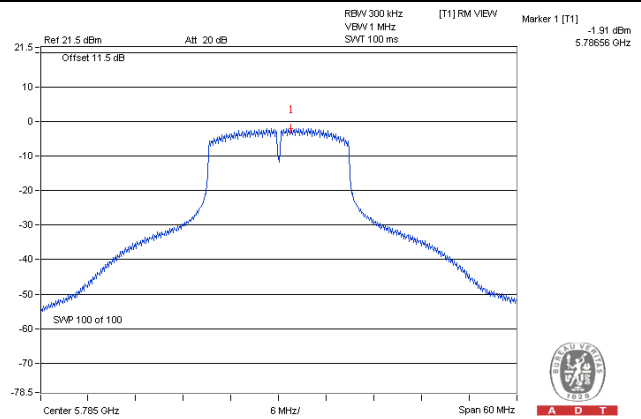
Spectrum Plot of Worst Value

802.11a

802.11n (HT20)

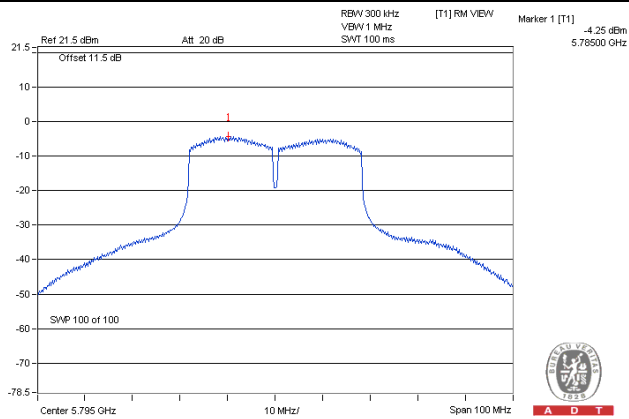


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802.11n (HT40)



A D T

Test Mode D

For U-NII-1 Band

802.11a

Chan.	Freq. (MHz)	PSD w/o duty factor (dBm)	Duty Factor	PSD with duty factor (dBm)	Max. Limit (dBm)	Pass / Fail
36	5180	2.75	0.15	2.90	17	Pass
40	5200	6.03	0.15	6.18	17	Pass
48	5240	3.45	0.15	3.60	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 = 2dBi < 6dBi, so the limit no need to reduced.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11n (HT20)

Chan.	Freq. (MHz)	PSD w/o duty factor (dBm)	Duty Factor	PSD with duty factor (dBm)	Max. Limit (dBm)	Pass / Fail
36	5180	2.98	0.10	3.08	17	Pass
40	5200	5.87	0.10	5.97	17	Pass
48	5240	2.98	0.10	3.08	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 = 2dBi < 6dBi, so the limit no need to reduced.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11n (HT40)

Chan.	Freq. (MHz)	PSD w/o duty factor (dBm)	Duty Factor	PSD with duty factor (dBm)	Max. Limit (dBm)	Pass / Fail
38	5190	-7.25	0.39	-6.86	17	Pass
46	5230	1.13	0.39	1.52	17	Pass

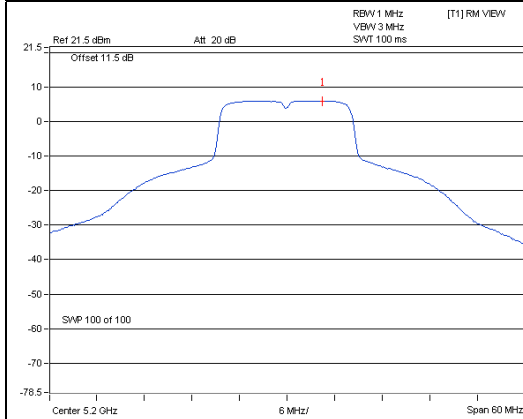
Note:

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 = 2dBi < 6dBi, so the limit no need to reduced.
3. Refer to section 3.3 for duty cycle spectrum plot.

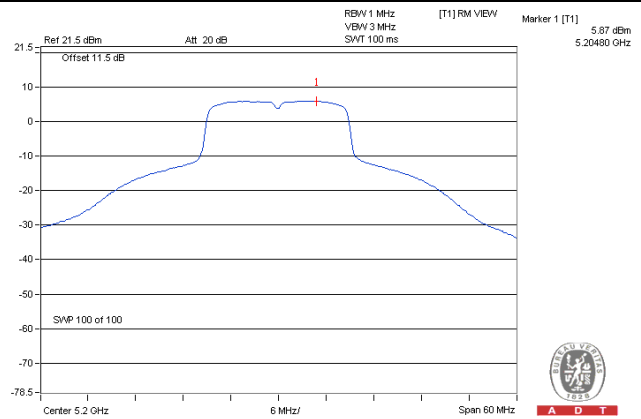
Spectrum Plot of Worst Value

802.11a

802.11n (HT20)

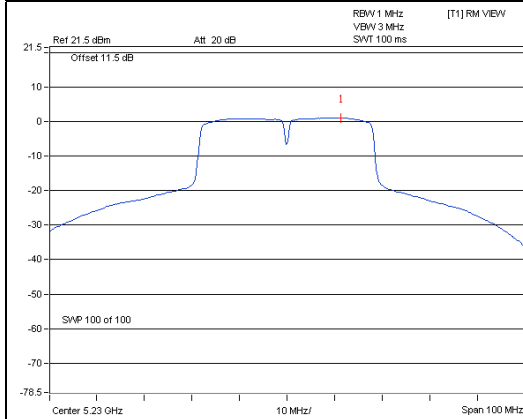


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A D T

802.11n (HT40)



A D T

For U-NII-3 Band

802.11a

Channel	Freq. (MHz)	PSD (dBm/300kHz)	PSD (dBm/500kHz)	Duty Factor	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	Pass / Fail
149	5745	-8.42	-6.20	0.15	-6.05	30	Pass
157	5785	-6.38	-4.16	0.15	-4.01	30	Pass
165	5825	-7.25	-5.03	0.15	-4.88	30	Pass

Note:

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

802.11n (HT20)

Channel	Freq. (MHz)	PSD (dBm/300kHz)	PSD (dBm/500kHz)	Duty Factor	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	Pass / Fail
149	5745	-9.69	-7.47	0.10	-7.37	30	Pass
157	5785	-6.54	-4.32	0.10	-4.22	30	Pass
165	5825	-7.32	-5.10	0.10	-5.00	30	Pass

Note:

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

802.11n (HT40)

Channel	Freq. (MHz)	PSD (dBm/300kHz)	PSD (dBm/500kHz)	Duty Factor	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	Pass / Fail
151	5755	-17.22	-15.00	0.39	-14.61	30	Pass
159	5795	-9.99	-7.77	0.39	-7.38	30	Pass

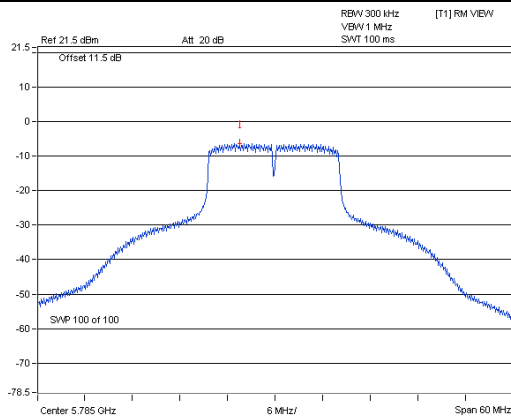
Note:

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

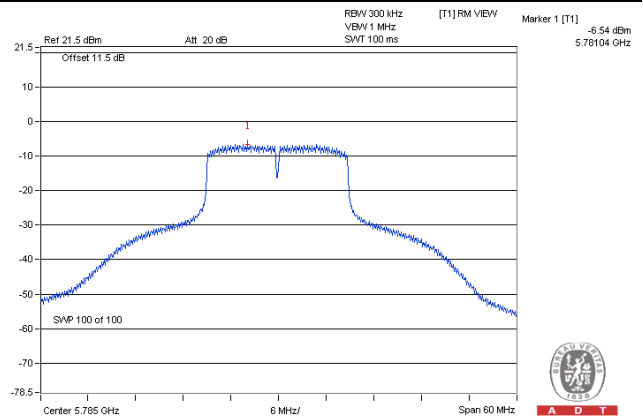
Spectrum Plot of Worst Value

802.11a

802.11n (HT20)

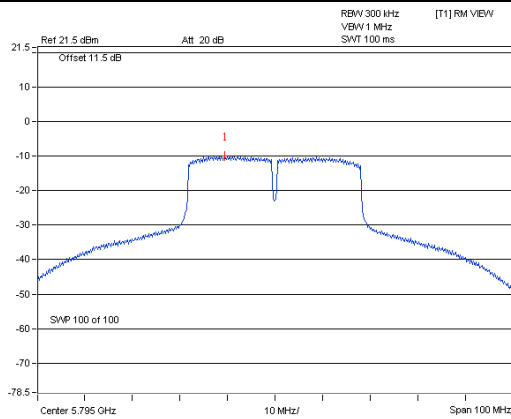


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802.11n (HT40)



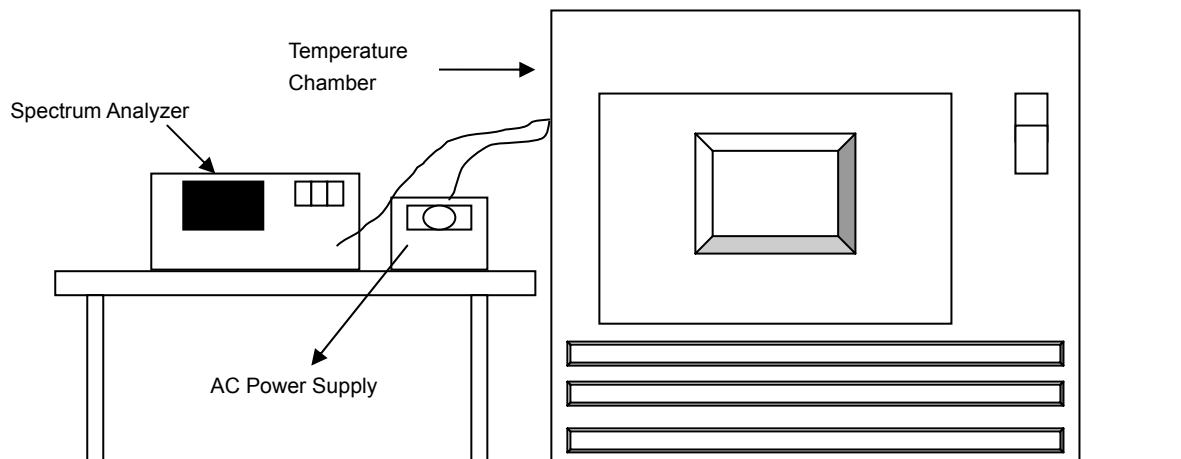
A D T

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

Test Mode B

Frequency Stability Versus Temp.									
Operating Frequency: 5180MHz									
Temp. (°C)	Power Supply (Vac)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)
50	120	5179.9893	-0.00021	5179.9892	-0.00021	5179.9903	-0.00019	5179.9897	-0.00020
40	120	5180.0172	0.00033	5180.0158	0.00031	5180.0162	0.00031	5180.0166	0.00032
30	120	5180.0036	0.00007	5180.0035	0.00007	5180.0023	0.00004	5180.0026	0.00005
20	120	5179.9746	-0.00049	5179.9771	-0.00044	5179.9731	-0.00052	5179.9727	-0.00053
10	120	5179.9983	-0.00003	5179.998	-0.00004	5179.9967	-0.00006	5179.9961	-0.00008
0	120	5180.0047	0.00009	5180.0067	0.00013	5180.0034	0.00007	5180.0063	0.00012
-10	120	5180.0017	0.00003	5179.9981	-0.00004	5179.998	-0.00004	5180.0016	0.00003
-20	120	5180	0.00000	5179.9955	-0.00009	5179.9986	-0.00003	5179.9985	-0.00003
-30	120	5179.9913	-0.00017	5179.992	-0.00015	5179.9929	-0.00014	5179.9917	-0.00016

Frequency Stability Versus Temp.									
Operating Frequency: 5180MHz									
Temp. (°C)	Power Supply (Vac)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)
20	138	5179.9739	-0.00050	5179.9779	-0.00043	5179.973	-0.00052	5179.9729	-0.00052
	120	5179.9746	-0.00049	5179.9771	-0.00044	5179.9731	-0.00052	5179.9727	-0.00053
	102	5179.9752	-0.00048	5179.9774	-0.00044	5179.9726	-0.00053	5179.9725	-0.00053

Test Mode D

Frequency Stability Versus Temp.									
Operating Frequency: 5180MHz									
Temp. (°C)	Power Supply (Vac)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)
50	120	5179.9975	-0.00005	5180.0007	0.00001	5180.0011	0.00002	5179.9968	-0.00006
40	120	5180.0213	0.00041	5180.0201	0.00039	5180.0242	0.00047	5180.0232	0.00045
30	120	5179.9909	-0.00018	5179.9874	-0.00024	5179.9908	-0.00018	5179.9902	-0.00019
20	120	5180.0087	0.00017	5180.0088	0.00017	5180.0065	0.00013	5180.0085	0.00016
10	120	5180.0109	0.00021	5180.0088	0.00017	5180.0099	0.00019	5180.008	0.00015
0	120	5179.9808	-0.00037	5179.9837	-0.00031	5179.9796	-0.00039	5179.9806	-0.00037
-10	120	5180.0225	0.00043	5180.0255	0.00049	5180.0227	0.00044	5180.0261	0.00050
-20	120	5180.0068	0.00013	5180.0068	0.00013	5180.005	0.00010	5180.0054	0.00010
-30	120	5179.9817	-0.00035	5179.983	-0.00033	5179.9808	-0.00037	5179.9835	-0.00032

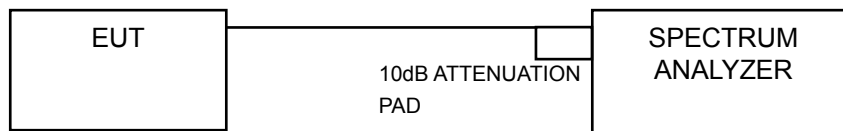
Frequency Stability Versus Temp.									
Operating Frequency: 5180MHz									
Temp. (°C)	Power Supply (Vac)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)
20	138	5180.0094	0.00018	5180.0085	0.00016	5180.0071	0.00014	5180.0082	0.00016
	120	5180.0087	0.00017	5180.0088	0.00017	5180.0065	0.00013	5180.0085	0.00016
	102	5180.0095	0.00018	5180.0089	0.00017	5180.0059	0.00011	5180.0089	0.00017

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

- 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

Test Mode B

802.11a

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
149	5745	16.04	15.50	0.5	Pass
157	5785	15.15	15.41	0.5	Pass
165	5825	15.17	15.19	0.5	Pass

802.11n (HT20)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
149	5745	16.04	15.75	0.5	Pass
157	5785	15.17	15.75	0.5	Pass
165	5825	16.03	15.40	0.5	Pass

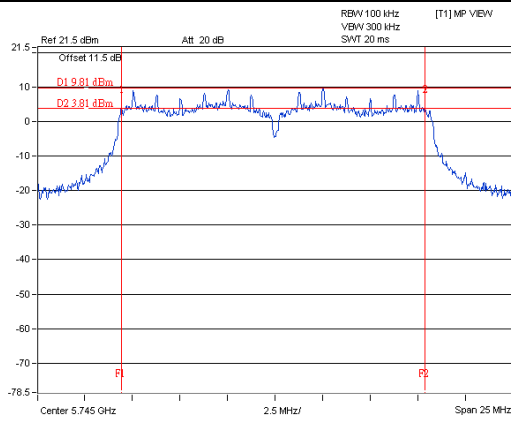
802.11n (HT40)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
151	5755	35.46	35.62	0.5	Pass
159	5795	35.32	35.53	0.5	Pass

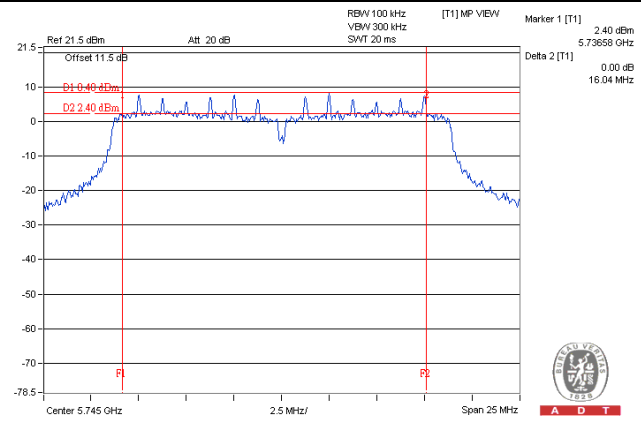
Spectrum Plot of Worst Value

802.11a

802.11n (HT20)

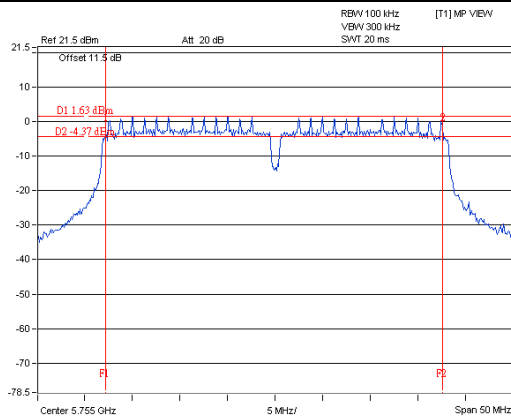


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802.11n (HT40)



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Test Mode D

802.11a

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
149	5745	16.32	0.5	Pass
157	5785	16.33	0.5	Pass
165	5825	16.06	0.5	Pass

802.11n (HT20)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
149	5745	16.98	0.5	Pass
157	5785	16.12	0.5	Pass
165	5825	17.33	0.5	Pass

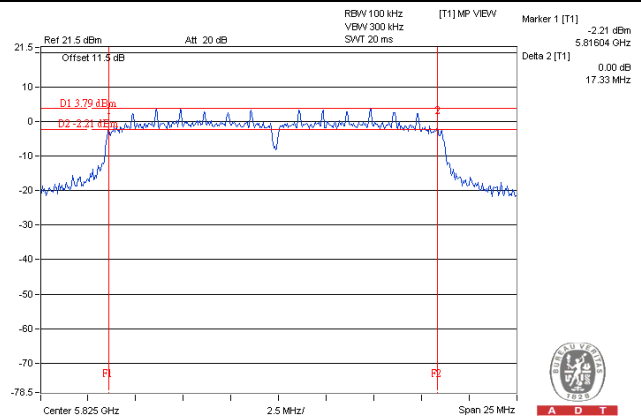
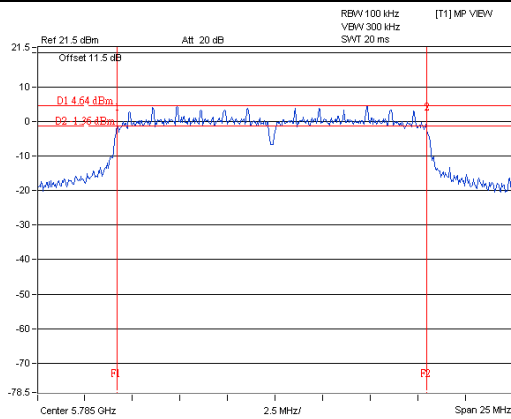
802.11n (HT40)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
151	5755	35.87	0.5	Pass
159	5795	36.09	0.5	Pass

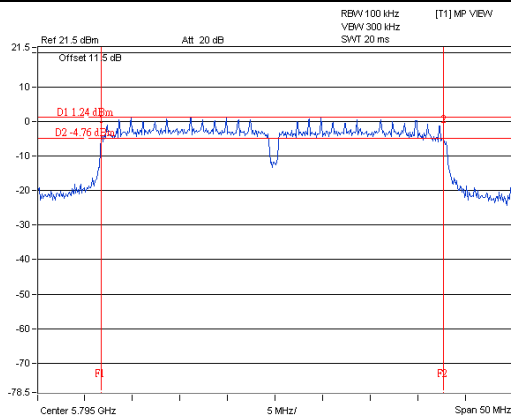
Spectrum Plot of Worst Value

802.11a

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

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Web Site: www.bureauveritas-adt.com

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

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