

## FCC Test Report

**Report No.:** RF150420C10F-1

**FCC ID:** MSQ7260H

**Test Model:** 7260HMW

**Notebook Model:** E403S, L403S, R416S

**Received Date:** Jan. 22, 2016

**Test Date:** Feb. 02 ~ Feb. 17, 2016

**Issued Date:** Feb. 18, 2016

**Applicant:** ASUSTeK COMPUTER INC.

**Address:** 4F, No. 150 Li-Te Rd., Peitou, Taipei, Taiwan

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

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

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



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



## Table of Contents

<b>Release Control Record</b> .....	<b>4</b>
<b>1 Certificate of Conformity</b> .....	<b>5</b>
<b>2 Summary of Test Results</b> .....	<b>6</b>
2.1 Measurement Uncertainty.....	6
2.2 Modification Record.....	6
<b>3 General Information</b> .....	<b>7</b>
3.1 General Description of EUT.....	7
3.2 Description of Test Modes.....	9
3.2.1 Test Mode Applicability and Tested Channel Detail.....	11
3.3 Duty Cycle of Test Signal.....	13
3.4 Description of Support Units.....	14
3.4.1 Configuration of System under Test.....	14
3.5 General Description of Applied Standards.....	14
<b>4 Test Types and Results</b> .....	<b>15</b>
4.1 Radiated Emission and Bandedge Measurement.....	15
4.1.1 Limits of Radiated Emission and Bandedge Measurement.....	15
4.1.2 Test Instruments.....	16
4.1.3 Test Procedures.....	17
4.1.4 Deviation from Test Standard.....	17
4.1.5 Test Set Up.....	18
4.1.6 EUT Operating Conditions.....	18
4.1.7 Test Results.....	19
4.2 Conducted Emission Measurement.....	74
4.2.1 Limits of Conducted Emission Measurement.....	74
4.2.2 Test Instruments.....	74
4.2.3 Test Procedures.....	75
4.2.4 Deviation from Test Standard.....	75
4.2.5 Test Setup.....	75
4.2.6 EUT Operating Conditions.....	75
4.2.7 Test Results.....	76
4.3 Transmit Power Measurement.....	78
4.3.1 Limits of Transmit Power Measurement.....	78
4.3.2 Test Setup.....	78
4.3.3 Test Instruments.....	78
4.3.4 Test Procedure.....	79
4.3.5 Deviation from Test Standard.....	79
4.3.6 EUT Operating Conditions.....	79
4.3.7 Test Result.....	80
4.4 Peak Power Spectral Density Measurement.....	93
4.4.1 Limits of Peak Power Spectral Density Measurement.....	93
4.4.2 Test Setup.....	93
4.4.3 Test Instruments.....	93
4.4.4 Test Procedures.....	94
4.4.5 Deviation from Test Standard.....	94
4.4.6 EUT Operating Conditions.....	94
4.4.7 Test Results.....	95
4.5 Frequency Stability.....	102
4.5.1 Limits of Frequency Stability Measurement.....	102
4.5.2 Test Setup.....	102
4.5.3 Test Instruments.....	102
4.5.4 Test Procedure.....	102
4.5.5 Deviation from Test Standard.....	102
4.5.6 EUT Operating Condition.....	102



4.5.7 Test Results .....	103
4.6 6dB Bandwidth Measurement.....	104
4.6.1 Limits of 6dB Bandwidth Measurement.....	104
4.6.2 Test Setup.....	104
4.6.3 Test Instruments .....	104
4.6.4 Test Procedure .....	104
4.6.5 Deviation from Test Standard .....	104
4.6.6 EUT Operating Condition .....	104
4.6.7 Test Results .....	105
<b>5 Pictures of Test Arrangements.....</b>	<b>107</b>
<b>Appendix – Information on the Testing Laboratories .....</b>	<b>108</b>



A D T

### Release Control Record

Issue No.	Description	Date Issued
RF150420C10F-1	Original release	Feb. 18, 2016

## 1 Certificate of Conformity

**Product:** Model 7260HMW Wireless Network Adapter

**Brand:** Intel

**Test Model:** 7260HMW

**Notebook Model:** E403S, L403S, R416S

**Sample Status:** Engineering sample

**Applicant:** ASUSTeK COMPUTER INC.

**Test Date:** Feb. 02 ~ Feb. 17, 2016

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

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

**Prepared by :**  , **Date:** Feb. 18, 2016  
Pettie Chen / Senior Specialist

**Approved by :**  , **Date:** Feb. 18, 2016  
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 -16.81dB at 0.46669MHz.
15.407(b)(1/2/3/4/6)	Radiated Emissions & Band Edge Measurement	Pass	Meet the requirement of limit. Minimum passing margin is -5.6dB at 11380.0MHz.
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) (±)
Conducted Emissions at mains ports	150kHz ~ 30MHz	2.44 dB
Radiated Emissions up to 1 GHz	30MHz ~ 200MHz	3.59 dB
	200MHz ~ 1000MHz	3.60 dB
Radiated Emissions above 1 GHz	1GHz ~ 18GHz	2.29 dB
	18GHz ~ 40GHz	2.29 dB

### 2.2 Modification Record

There were no modifications required for compliance.

### 3 General Information

#### 3.1 General Description of EUT

Product	Model 7260HMW Wireless Network Adapter
Brand	Intel
Test Model	7260HMW
Notebook Model	E403S, L403S, R416S
Status of EUT	Engineering sample
Power Supply Rating	3.3Vdc (host)
Modulation Type	256QAM, 64QAM, 16QAM, QPSK, BPSK
Modulation Technology	OFDM
Transfer Rate	802.11a: 54.0/ 48.0/ 36.0/ 24.0/ 18.0/ 12.0/ 9.0/ 6.0Mbps 802.11n: up to 300Mbps 802.11ac: up to 866.7Mbps
Operating Frequency	5180 ~ 5240MHz, 5260 ~ 5320MHz, 5500 ~ 5700MHz & 5745 ~ 5825MHz
Number of Channel	5180 ~ 5240MHz: 4 for 802.11a, 802.11n (HT20), 802.11ac (VHT20) 2 for 802.11n (HT40), 802.11ac (VHT40) 1 for 802.11ac (VHT80) 5260 ~ 5320MHz: 4 for 802.11a, 802.11n (HT20), 802.11ac (VHT20) 2 for 802.11n (HT40), 802.11ac (VHT40) 1 for 802.11ac (VHT80) 5500 ~ 5700MHz: 12 for 802.11a, 802.11n (HT20), 802.11ac (VHT20) 6 for 802.11n (HT40), 802.11ac (VHT40) 3 for 802.11ac (VHT80) 5745 ~ 5825MHz: 5 for 802.11a, 802.11n (HT20), 802.11ac (VHT20) 2 for 802.11n (HT40), 802.11ac (VHT40) 1 for 802.11ac (VHT80)
Output Power	5180 ~ 5240MHz: 7.027mW 5260 ~ 5320MHz: 7.056mW 5500 ~ 5700MHz: 7.009mW 5745 ~ 5825MHz: 6.972mW
Antenna Type	Refer to Note
Antenna Connector	Refer to Note
Accessory Device	Adapter
Data Cable Supplied	NA

Note:

1. This report is prepared for FCC class II permissive change. The differences compared with original report are adding an End-product (refer to note 2) and updating standard to the latest version. Therefore, all test items had been re-tested in this report.
2. The EUT is authorized for use in specific End-product. Please refer to below table for more details.

Product	Notebook PC	
Brand	Model	Difference
ASUS	E403S (Main test model)	All models are electrically identical, different model names are for marketing purpose.
	L403S	
	R416S	

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

Modulation Mode	TX Function
802.11a	1TX
802.11n (HT20)	2TX
802.11n (HT40)	2TX
802.11ac (VHT20)	2TX
802.11ac (VHT40)	2TX
802.11ac (VHT80)	2TX

\* The modulation and bandwidth are similar between 802.11n mode for HT20 / HT40 and 802.11ac mode for VHT20 / VHT40, and therefore investigated worst case to representative mode in test report. (Final test mode refer section 3.2.1)

4. The Notebook PC contains the following accessories.

Part	Vendor	Model	Specification
AC Adapter 1	PI	AD890326	Input: 100-240Vac, 50/60Hz, 0.8A Output: 19Vdc, 1.75A 2.35m power cable without core attached on adapter
AC Adapter 2	PI	AD891M21	Input: 100-240Vac, 50/60Hz, 0.8A Output: 19Vdc, 1.75A 2.4m power cable without core attached on adapter
AC Adapter 3	DELTA	ADP-33AW A	Input: 100-240Vac, 50-60Hz, 1A Output: 19Vdc, 1.75A 2.3m power cable without core attached on adapter
AC Adapter 4 (adaptor 1 change revision)	PI	AD890326	Input: 100-240Vac, 50/60Hz, 0.8A Output: 19Vdc, 1.75A 2.2m power cable without core attached on adapter
AC Adapter 5 (adaptor 3 change revision)	DELTA	ADP-33AW A (China) ADP-33AW B (Taiwan)	Input: 100-240Vac, 50-60Hz, 1A Output: 19Vdc, 1.75A 2.3m power cable without core attached on adapter
AC Adapter 6	LITEON	PA-1330-39	Input: 100-240Vac, 50/60Hz, 1.0A Output: 19Vdc, 1.75A 2.2m power cable without core attached on adapter
AC Adapter 7	PI	AD890M26	Input: 100-240Vac, 50/60Hz, 0.8A Output: 19Vdc, 1.75A 2.2m power cable without core attached on adapter
Battery	LG	LG- ICP 4059134L1 (C31N1431)	SMP, 11.4Vdc, 57Wh
	LG	LG- ICP 4059134L1 (C31N1431)	Dyna, 11.4Vdc, 57Wh

\* After pretesting, the adapter 5 and battery (SMP) were chosen for final test.

5. The antennas used in this EUT are listed as below table:

No.	Item	Type	Brand	P/N	Connector	Gain (dBi)		
						5.15~5.35 GHz	5.47~5.725 GHz	5.725~5.825 GHz
Ant. 1	Main ant.	PIFA	LUXSHARE-ICT	14008-01140100	I-PEX	-1.03	0.49	-0.84
	Aux ant.	PIFA	LUXSHARE-ICT	14008-01140100	I-PEX	-2.14	-2.35	-4.37
Ant. 2	Main ant.	PIFA	TONGDA	14008-01140000	I-PEX	-1.15	0.44	-0.86
	Aux ant.	PIFA	TONGDA	14008-01140000	I-PEX	-2.27	-2.45	-4.71

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

### 3.2 Description of Test Modes

#### FOR 5180 ~ 5240MHz:

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

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

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

Channel	Frequency	Channel	Frequency
38	5190 MHz	46	5230 MHz

1 channel is provided for 802.11ac (VHT80):

Channel	Frequency
42	5210 MHz

#### FOR 5260 ~ 5320MHz:

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

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

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

Channel	Frequency	Channel	Frequency
54	5270 MHz	62	5310 MHz

1 channel is provided for 802.11ac (VHT80):

Channel	Frequency
58	5290 MHz

**FOR 5500 ~ 5700MHz:**

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

Channel	Frequency	Channel	Frequency
100	5500 MHz	124	5620 MHz
104	5520 MHz	128	5640 MHz
108	5540 MHz	132	5660 MHz
112	5560 MHz	136	5680 MHz
116	5580 MHz	140	5700 MHz
120	5600 MHz	144	5720 MHz

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

Channel	Frequency	Channel	Frequency
102	5510 MHz	126	5630 MHz
110	5550 MHz	134	5670 MHz
118	5590 MHz	142	5710 MHz

3 channels are provided for 802.11ac (VHT80):

Channel	Frequency	Channel	Frequency
106	5530MHz	122	5610 MHz
138	5690MHz		

**FOR 5745 ~ 5825MHz:**

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

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

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

Channel	Frequency	Channel	Frequency
151	5755MHz	159	5795MHz

1 channel is provided for 802.11ac (VHT80):

Channel	Frequency
155	5775MHz

### 3.2.1 Test Mode Applicability and Tested Channel Detail

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

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

#### Radiated Emission Test (Above 1GHz):

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

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

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
-	802.11a	5180-5240	36 to 48	36, 40, 48	OFDM	BPSK	6.0
-	802.11n (HT20)		36 to 48	36, 40, 48	OFDM	BPSK	6.5
-	802.11n (HT40)		38 to 46	38, 46	OFDM	BPSK	13.5
-	802.11ac (VHT80)		42	42	OFDM	BPSK	29.3
-	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	BPSK	6.0
-	802.11n (HT20)		52 to 64	52, 60, 64	OFDM	BPSK	6.5
-	802.11n (HT40)		54 to 62	54, 62	OFDM	BPSK	13.5
-	802.11ac (VHT80)		58	58	OFDM	BPSK	29.3
-	802.11a	5500-5700	100 to 144	100, 116, 140, 144	OFDM	BPSK	6.0
-	802.11n (HT20)		100 to 144	100, 116, 140, 144	OFDM	BPSK	6.5
-	802.11n (HT40)		102 to 142	102, 110, 134, 142	OFDM	BPSK	13.5
-	802.11ac (VHT80)		106 to 138	106, 138	OFDM	BPSK	29.3
-	802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	BPSK	6.0
-	802.11n (HT20)		149 to 165	149, 157, 165	OFDM	BPSK	6.5
-	802.11n (HT40)		151 to 159	151, 159	OFDM	BPSK	13.5
-	802.11ac (VHT80)		155	155	OFDM	BPSK	29.3

#### Radiated Emission Test (Below 1GHz):

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

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

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
-	802.11n (HT20)	5180-5240	36 to 48	48	OFDM	BPSK	6.5
	802.11n (HT20)	5260-5320	52 to 64		OFDM	BPSK	6.5
	802.11n (HT20)	5500-5700	100 to 144		OFDM	BPSK	6.5
	802.11n (HT20)	5745-5825	149 to 165		OFDM	BPSK	6.5

**Power Line Conducted Emission Test:**

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

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
-	802.11n (HT20)	5180-5240	36 to 48	48	OFDM	BPSK	6.5
	802.11n (HT20)	5260-5320	52 to 64		OFDM	BPSK	6.5
	802.11n (HT20)	5500-5700	100 to 140		OFDM	BPSK	6.5
	802.11n (HT20)	5745-5825	149 to 165		OFDM	BPSK	6.5

**Antenna Port Conducted Measurement:**

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

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
-	802.11a	5180-5240	36 to 48	36, 40, 48	OFDM	BPSK	6.0
-	802.11n (HT20)		36 to 48	36, 40, 48	OFDM	BPSK	6.5
-	802.11n (HT40)		38 to 46	38, 46	OFDM	BPSK	13.5
-	802.11ac (VHT80)		42	42	OFDM	BPSK	29.3
-	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	BPSK	6.0
-	802.11n (HT20)		52 to 64	52, 60, 64	OFDM	BPSK	6.5
-	802.11n (HT40)		54 to 62	54, 62	OFDM	BPSK	13.5
-	802.11ac (VHT80)		58	58	OFDM	BPSK	29.3
-	802.11a	5500-5700	100 to 144	100, 116, 140, 144	OFDM	BPSK	6.0
-	802.11n (HT20)		100 to 144	100, 116, 140, 144	OFDM	BPSK	6.5
-	802.11n (HT40)		102 to 142	102, 110, 134, 142	OFDM	BPSK	13.5
-	802.11ac (VHT80)		106 to 138	106, 138	OFDM	BPSK	29.3
-	802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	BPSK	6.0
-	802.11n (HT20)		149 to 165	149, 157, 165	OFDM	BPSK	6.5
-	802.11n (HT40)		151 to 159	151, 159	OFDM	BPSK	13.5
-	802.11ac (VHT80)		155	155	OFDM	BPSK	29.3

**Test Condition:**

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE <sub>≥</sub> 1G	22deg. C, 66%RH	120Vac, 60Hz	Alan Wu
RE <sub>&lt;</sub> 1G	25deg. C, 65%RH	120Vac, 60Hz	Bayu Chen
PLC	25deg. C, 65%RH	120Vac, 60Hz	Bayu Chen
APCM	24deg. C, 64%RH	120Vac, 60Hz	Match Tsui

### 3.3 Duty Cycle of Test Signal

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

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

**802.11a\_1TX (Ant. 1\_Main Ant.):** Duty cycle = 2.043/2.075 = 0.985

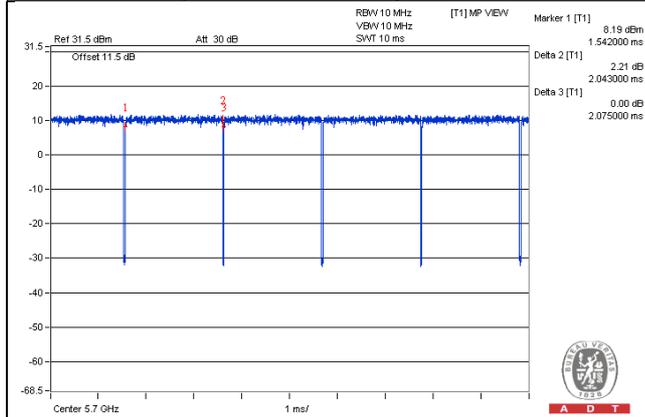
**802.11a\_1TX (Ant. 1\_Aux. Ant.):** Duty cycle = 2.047/2.077 = 0.986

**802.11n (HT20):** Duty cycle = 1.908/1.935 = 0.986

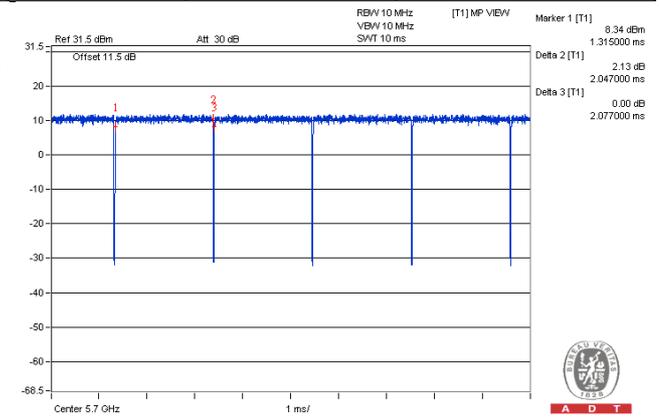
**802.11n (HT40):** Duty cycle = 0.933/0.971 = 0.961, Duty factor =  $10 * \log(1/0.961) = 0.17$

**802.11ac (VHT80):** Duty cycle = 0.254/0.29 = 0.876, Duty factor =  $10 * \log(1/0.876) = 0.58$

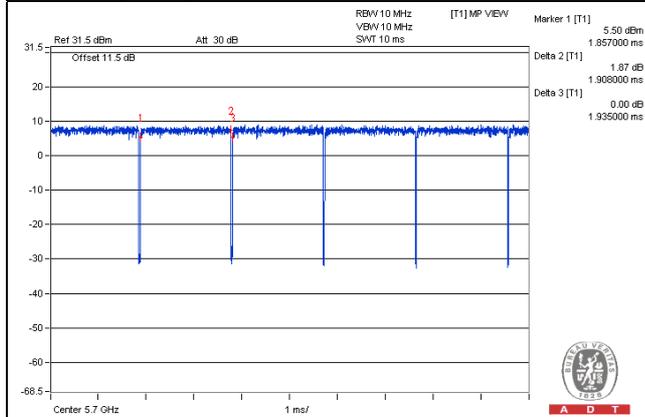
#### 802.11a\_1TX (Ant. 1\_Main Ant.)



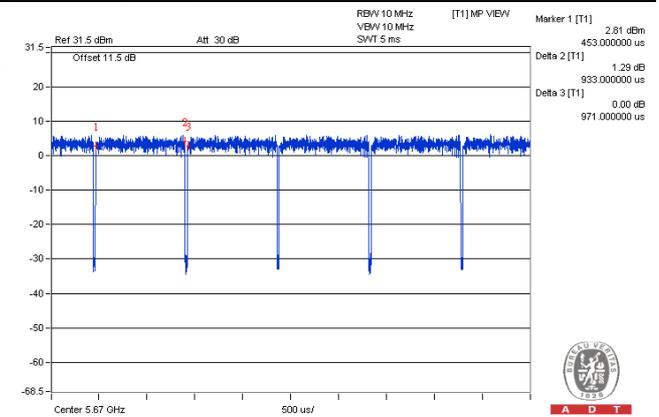
#### 802.11a\_1TX (Ant. 1\_Aux. Ant.)



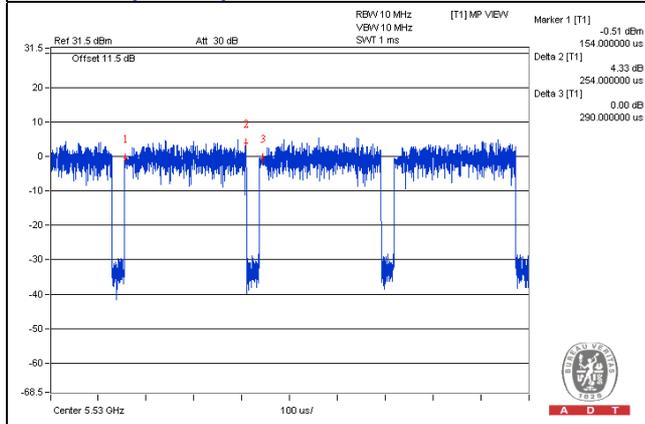
#### 802.11n (HT20)



#### 802.11n (HT40)



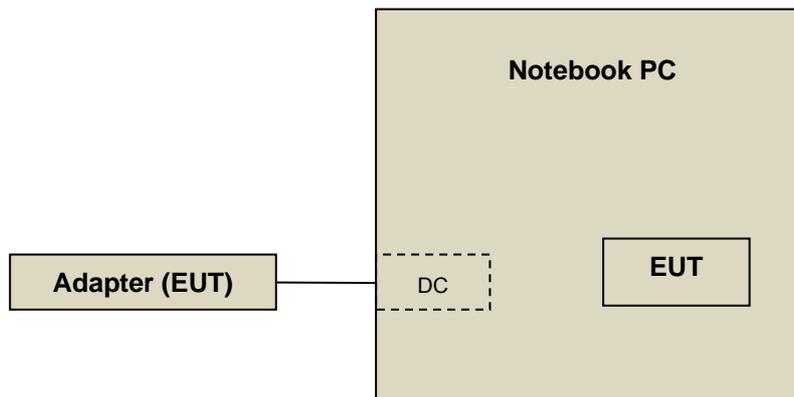
#### 802.11ac (VHT80)



### 3.4 Description of Support Units

The EUT has been tested as an independent unit together with other necessary accessories or support units.

#### 3.4.1 Configuration of System under Test



### 3.5 General Description of Applied Standards

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

#### **FCC Part 15, Subpart E (15.407)**

**789033 D02 General UNII Test Procedures New Rules v01r01**

**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 has been verified to comply with the requirements of FCC Part 15, Subpart B, Class B (DoC). The test report has been issued separately.

## 4 Test Types and Results

### 4.1 Radiated Emission and Bandedge Measurement

#### 4.1.1 Limits of Radiated Emission and Bandedge Measurement

Radiated emissions which fall in the restricted bands must comply with the radiated emission limits specified as below table. Other emissions shall be at least 20dB below the highest level of the desired power:

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

#### NOTE:

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

#### LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS

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

**NOTE:** <sup>\*1</sup> beyond 10MHz of the band edge <sup>\*2</sup> within 10 MHz of band edge

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

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



A D T

#### 4.1.2 Test Instruments

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	DATE OF CALIBRATION	DUE DATE OF CALIBRATION
Test Receiver ROHDE & SCHWARZ	ESCI	100424	Oct. 12, 2015	Oct. 11, 2016
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100040	Jul. 08, 2015	Jul. 07, 2016
BILOG Antenna SCHWARZBECK	VULB9168	9168-155	Jan. 07, 2016	Jan. 06, 2017
HORN Antenna SCHWARZBECK	BBHA 9120D	9120D-1170	Jan. 08, 2016	Jan. 07, 2017
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170241	Jan. 18, 2016	Jan. 17, 2017
Preamplifier Agilent	8449B	3008A01960	Aug. 09, 2015	Aug. 08, 2016
Preamplifier Agilent	8447D	2944A10631	Aug. 09, 2015	Aug. 08, 2016
RF signal cable HUBER+SUHNER	SUCOFLEX 104	Cable-CH4-02(295012+309220)	Aug. 09, 2015	Aug. 08, 2016
RF signal cable HUBER+SUHNER	SUCOFLEX 104	Cable-CH4-03(250724)	Aug. 09, 2015	Aug. 08, 2016
Software BV ADT	ADT_Radiated_V7.6.15.9.4	NA	NA	NA
Antenna Tower inn-co GmbH	MA 4000	010303	NA	NA
Antenna Tower Controller BV ADT	AT100	AT93021703	NA	NA
Turn Table BV ADT	TT100	TT93021703	NA	NA
Turn Table Controller BV ADT	SC100.	SC93021703	NA	NA
26GHz ~ 40GHz Amplifier	EM26400	815221	Oct. 18, 2015	Oct. 17, 2016
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 test was performed in HwaYa Chamber 4.

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 460141.

5. The IC Site Registration No. is IC7450F-4.

#### 4.1.3 Test Procedures

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

**Note:**

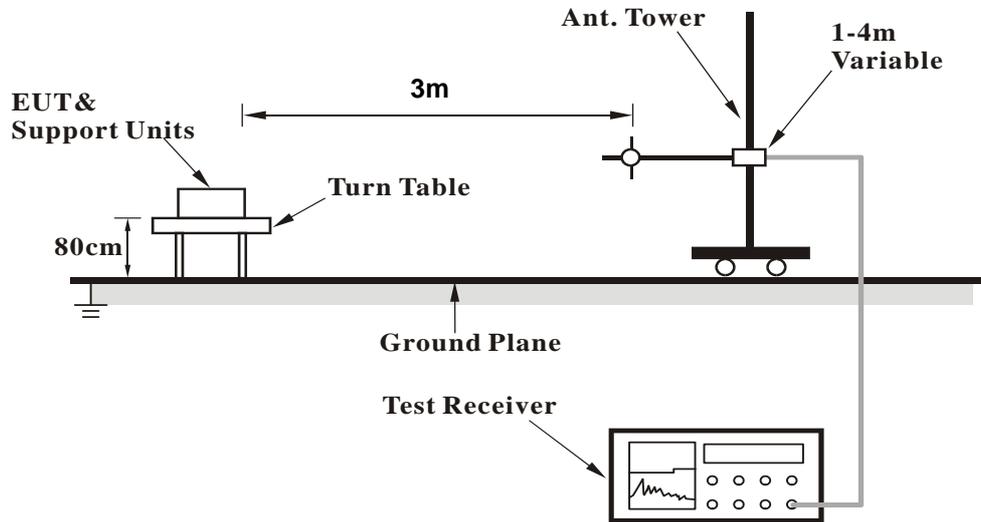
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.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

#### 4.1.4 Deviation from Test Standard

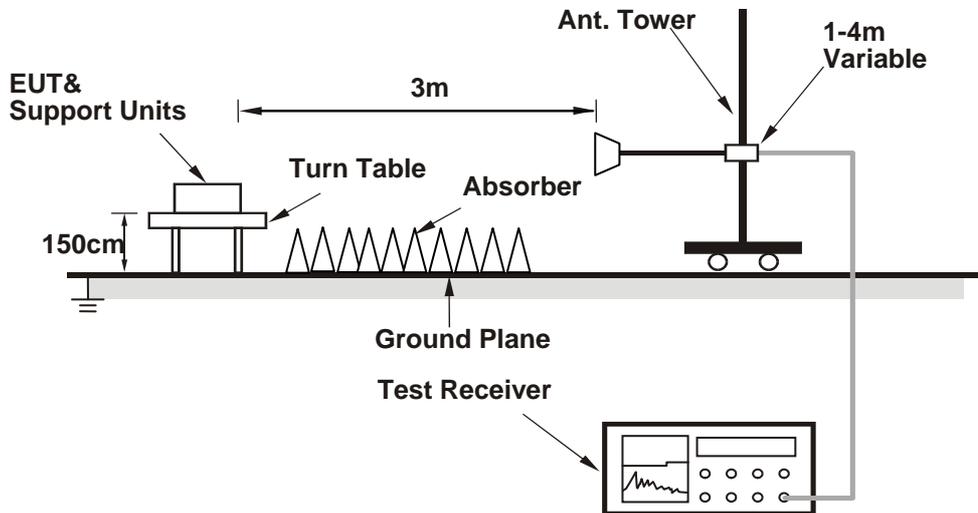
No deviation.

#### 4.1.5 Test Set Up

<Frequency Range 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

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

#### 4.1.7 Test Results

Above 1GHz data:

802.11a\_1TX (Ant. 1)

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

#### ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	58.0 PK	74.0	-16.0	1.29 H	282	52.50	5.50
2	5150.00	43.9 AV	54.0	-10.1	1.29 H	282	38.40	5.50
3	*5180.00	93.3 PK			1.20 H	287	53.80	39.50
4	*5180.00	83.1 AV			1.20 H	287	43.60	39.50
5	#10360.00	58.6 PK	74.0	-15.4	1.00 H	307	41.10	17.50
6	#10360.00	45.7 AV	54.0	-8.3	1.00 H	307	28.20	17.50

#### ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	58.2 PK	74.0	-15.8	1.00 V	83	52.70	5.50
2	5150.00	44.5 AV	54.0	-9.5	1.00 V	83	39.00	5.50
3	*5180.00	96.4 PK			1.00 V	81	56.90	39.50
4	*5180.00	85.7 AV			1.00 V	81	46.20	39.50
5	#10360.00	60.0 PK	74.0	-14.0	1.00 V	93	42.50	17.50
6	#10360.00	47.2 AV	54.0	-6.8	1.00 V	93	29.70	17.50

#### 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 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	94.0 PK			1.57 H	292	54.40	39.60
2	*5200.00	83.7 AV			1.57 H	292	44.10	39.60
3	#10400.00	59.0 PK	74.0	-15.0	1.00 H	300	41.00	18.00
4	#10400.00	46.2 AV	54.0	-7.8	1.00 H	300	28.20	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	*5200.00	96.6 PK			1.07 V	81	57.00	39.60
2	*5200.00	85.9 AV			1.07 V	81	46.30	39.60
3	#10400.00	60.5 PK	74.0	-13.5	1.00 V	97	42.50	18.00
4	#10400.00	47.7 AV	54.0	-6.3	1.00 V	97	29.70	18.00

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
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	94.3 PK			1.42 H	288	54.70	39.60
2	*5240.00	84.1 AV			1.42 H	288	44.50	39.60
3	5350.00	57.3 PK	74.0	-16.7	1.44 H	284	51.60	5.70
4	5350.00	44.3 AV	54.0	-9.7	1.44 H	284	38.60	5.70
5	#10480.00	58.7 PK	74.0	-15.3	1.00 H	308	40.70	18.00
6	#10480.00	45.9 AV	54.0	-8.1	1.00 H	308	27.90	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	97.2 PK			1.75 V	150	57.60	39.60
2	*5240.00	86.3 AV			1.75 V	150	46.70	39.60
3	5350.00	57.5 PK	74.0	-16.5	1.71 V	150	51.80	5.70
4	5350.00	44.5 AV	54.0	-9.5	1.71 V	150	38.80	5.70
5	#10480.00	60.3 PK	74.0	-13.7	1.00 V	91	42.30	18.00
6	#10480.00	47.3 AV	54.0	-6.7	1.00 V	91	29.30	18.00

**REMARKS:**

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

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

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	57.9 PK	74.0	-16.1	1.63 H	283	52.40	5.50
2	5150.00	44.1 AV	54.0	-9.9	1.63 H	283	38.60	5.50
3	*5260.00	93.0 PK			1.61 H	288	53.40	39.60
4	*5260.00	83.1 AV			1.61 H	288	43.50	39.60
5	#10520.00	58.7 PK	74.0	-15.3	1.00 H	300	40.60	18.10
6	#10520.00	45.8 AV	54.0	-8.2	1.00 H	300	27.70	18.10

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	58.1 PK	74.0	-15.9	1.00 V	292	52.60	5.50
2	5150.00	44.3 AV	54.0	-9.7	1.00 V	292	38.80	5.50
3	*5260.00	95.9 PK			1.00 V	296	56.30	39.60
4	*5260.00	86.3 AV			1.00 V	296	46.70	39.60
5	#10520.00	60.4 PK	74.0	-13.6	1.00 V	97	42.30	18.10
6	#10520.00	47.9 AV	54.0	-6.1	1.00 V	97	29.80	18.10

**REMARKS:**

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



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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	93.9 PK			1.48 H	284	54.30	39.60
2	*5300.00	83.0 AV			1.48 H	284	43.40	39.60
3	10600.00	58.7 PK	74.0	-15.3	1.00 H	302	40.30	18.40
4	10600.00	45.7 AV	54.0	-8.3	1.00 H	302	27.30	18.40

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	95.8 PK			1.00 V	165	56.20	39.60
2	*5300.00	85.8 AV			1.00 V	165	46.20	39.60
3	10600.00	60.3 PK	74.0	-13.7	1.00 V	90	41.90	18.40
4	10600.00	47.3 AV	54.0	-6.7	1.00 V	90	28.90	18.40

REMARKS:

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

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

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	92.1 PK			1.45 H	285	52.40	39.70
2	*5320.00	82.2 AV			1.45 H	285	42.50	39.70
3	5350.00	58.3 PK	74.0	-15.7	1.42 H	283	52.60	5.70
4	5350.00	44.6 AV	54.0	-9.4	1.42 H	283	38.90	5.70
5	10640.00	58.5 PK	74.0	-15.5	1.00 H	305	40.10	18.40
6	10640.00	45.4 AV	54.0	-8.6	1.00 H	305	27.00	18.40

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	95.5 PK			1.07 V	167	55.80	39.70
2	*5320.00	85.3 AV			1.07 V	167	45.60	39.70
3	5350.00	58.5 PK	74.0	-15.5	1.04 V	166	52.80	5.70
4	5350.00	45.1 AV	54.0	-8.9	1.04 V	166	39.40	5.70
5	10640.00	60.0 PK	74.0	-14.0	1.00 V	92	41.60	18.40
6	10640.00	47.1 AV	54.0	-6.9	1.00 V	92	28.70	18.40

**REMARKS:**

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



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

## ANTENNA POLARITY &amp; TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	58.1 PK	74.0	-15.9	1.54 H	289	52.30	5.80
2	5460.00	44.3 AV	54.0	-9.7	1.54 H	289	38.50	5.80
3	#5470.00	58.3 PK	74.0	-15.7	1.54 H	289	52.40	5.90
4	#5470.00	44.4 AV	54.0	-9.6	1.54 H	289	38.50	5.90
5	*5500.00	92.5 PK			1.58 H	281	52.60	39.90
6	*5500.00	82.1 AV			1.58 H	281	42.20	39.90
7	11000.00	58.1 PK	74.0	-15.9	1.00 H	305	39.20	18.90
8	11000.00	45.4 AV	54.0	-8.6	1.00 H	305	26.50	18.90

## ANTENNA POLARITY &amp; TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	58.5 PK	74.0	-15.5	1.30 V	200	52.70	5.80
2	5460.00	44.6 AV	54.0	-9.4	1.30 V	200	38.80	5.80
3	#5470.00	58.7 PK	74.0	-15.3	1.30 V	200	52.80	5.90
4	#5470.00	44.7 AV	54.0	-9.3	1.30 V	200	38.80	5.90
5	*5500.00	94.3 PK			1.37 V	205	54.40	39.90
6	*5500.00	83.7 AV			1.37 V	205	43.80	39.90
7	11000.00	59.8 PK	74.0	-14.2	1.10 V	90	40.90	18.90
8	11000.00	47.0 AV	54.0	-7.0	1.10 V	90	28.10	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 116	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5580.00	92.9 PK			1.67 H	280	53.00	39.90
2	*5580.00	82.8 AV			1.67 H	280	42.90	39.90
3	11160.00	58.3 PK	74.0	-15.7	1.00 H	304	39.10	19.20
4	11160.00	45.1 AV	54.0	-8.9	1.00 H	304	25.90	19.20

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5580.00	95.4 PK			1.13 V	229	55.50	39.90
2	*5580.00	85.8 AV			1.13 V	229	45.90	39.90
3	11160.00	60.0 PK	74.0	-14.0	1.00 V	98	40.80	19.20
4	11160.00	46.7 AV	54.0	-7.3	1.00 V	98	27.50	19.20

REMARKS:

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

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

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	92.4 PK			1.72 H	293	52.10	40.30
2	*5700.00	81.8 AV			1.72 H	293	41.50	40.30
3	#5725.00	61.7 PK	74.0	-12.3	1.78 H	294	55.40	6.30
4	#5725.00	46.4 AV	54.0	-7.6	1.78 H	294	40.10	6.30
5	11400.00	58.3 PK	74.0	-15.7	1.00 H	302	38.60	19.70
6	11400.00	45.3 AV	54.0	-8.7	1.00 H	302	25.60	19.70

**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	*5700.00	95.0 PK			1.19 V	204	54.70	40.30
2	*5700.00	84.9 AV			1.19 V	204	44.60	40.30
3	#5725.00	62.4 PK	74.0	-11.6	1.11 V	201	56.10	6.30
4	#5725.00	46.7 AV	54.0	-7.3	1.11 V	201	40.40	6.30
5	11400.00	59.7 PK	74.0	-14.3	1.00 V	90	40.00	19.70
6	11400.00	46.5 AV	54.0	-7.5	1.00 V	90	26.80	19.70

**REMARKS:**

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

CHANNEL	TX Channel 144	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	56.0 PK	74.0	-18.0	1.51 H	317	50.10	5.90
2	#5470.00	44.6 AV	54.0	-9.4	1.51 H	317	38.70	5.90
3	*5720.00	88.2 PK			1.47 H	314	47.80	40.40
4	*5720.00	78.1 AV			1.47 H	314	37.70	40.40
5	#5861.00	56.4 PK	74.0	-17.6	1.50 H	320	49.80	6.60
6	#5861.00	44.4 AV	54.0	-9.6	1.50 H	320	37.80	6.60
7	11440.00	59.4 PK	74.0	-14.6	1.47 H	41	39.80	19.60
8	11440.00	46.7 AV	54.0	-7.3	1.47 H	41	27.10	19.60

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	57.2 PK	74.0	-16.8	1.02 V	263	51.30	5.90
2	#5470.00	45.8 AV	54.0	-8.2	1.02 V	263	39.90	5.90
3	*5720.00	93.7 PK			1.00 V	262	53.30	40.40
4	*5720.00	83.7 AV			1.00 V	262	43.30	40.40
5	#5861.00	57.5 PK	74.0	-16.5	1.04 V	270	50.90	6.60
6	#5861.00	46.4 AV	54.0	-7.6	1.04 V	270	39.80	6.60
7	11440.00	61.2 PK	74.0	-12.8	1.05 V	96	41.60	19.60
8	11440.00	48.3 AV	54.0	-5.7	1.05 V	96	28.70	19.60

**REMARKS:**

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

CHANNEL	TX Channel 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	58.2 PK	74.0	-15.8	1.26 H	339	52.00	6.20
2	#5714.90	44.4 AV	54.0	-9.6	1.26 H	339	38.20	6.20
3	#5722.90	57.8 PK	78.2	-20.4	1.26 H	339	51.50	6.30
4	#5725.00	51.1 PK	78.2	-27.1	1.26 H	339	44.80	6.30
5	*5745.00	92.8 PK			1.28 H	340	52.40	40.40
6	*5745.00	82.3 AV			1.28 H	340	41.90	40.40
7	11490.00	57.6 PK	74.0	-16.4	1.00 H	303	38.30	19.30
8	11490.00	45.2 AV	54.0	-8.8	1.00 H	303	25.90	19.30

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5714.90	58.4 PK	74.0	-15.6	1.06 V	209	52.20	6.20
2	#5714.90	44.8 AV	54.0	-9.2	1.06 V	209	38.60	6.20
3	#5722.90	58.0 PK	78.2	-20.2	1.06 V	209	51.70	6.30
4	#5725.00	51.7 PK	78.2	-26.5	1.06 V	209	45.40	6.30
5	*5745.00	96.2 PK			1.05 V	206	55.80	40.40
6	*5745.00	86.0 AV			1.05 V	206	45.60	40.40
7	11490.00	59.3 PK	74.0	-14.7	1.00 V	95	40.00	19.30
8	11490.00	46.6 AV	54.0	-7.4	1.00 V	95	27.30	19.30

**REMARKS:**

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



CHANNEL	TX Channel 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	93.1 PK			1.59 H	186	52.60	40.50
2	*5785.00	83.0 AV			1.59 H	186	42.50	40.50
3	11570.00	57.8 PK	74.0	-16.2	1.00 H	302	38.80	19.00
4	11570.00	44.7 AV	54.0	-9.3	1.00 H	302	25.70	19.00

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5785.00	95.6 PK			1.01 V	81	55.10	40.50
2	*5785.00	86.1 AV			1.01 V	81	45.60	40.50
3	11570.00	59.7 PK	74.0	-14.3	1.00 V	99	40.70	19.00
4	11570.00	46.7 AV	54.0	-7.3	1.00 V	99	27.70	19.00

REMARKS:

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



CHANNEL	TX Channel 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	92.5 PK			1.26 H	339	51.90	40.60
2	*5825.00	82.5 AV			1.26 H	339	41.90	40.60
3	#5850.00	49.3 PK	78.2	-28.9	1.27 H	331	42.70	6.60
4	#5852.10	58.1 PK	78.2	-20.1	1.27 H	331	51.50	6.60
5	#5860.10	58.1 PK	74.0	-15.9	1.27 H	331	51.50	6.60
6	#5860.10	44.3 AV	54.0	-9.7	1.27 H	331	37.70	6.60
7	11650.00	58.0 PK	74.0	-16.0	1.00 H	308	39.50	18.50
8	11650.00	45.0 AV	54.0	-9.0	1.00 H	308	26.50	18.50

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5825.00	95.5 PK			1.17 V	173	54.90	40.60
2	*5825.00	85.3 AV			1.17 V	173	44.70	40.60
3	#5850.00	49.6 PK	78.2	-28.6	1.11 V	171	43.00	6.60
4	#5852.10	58.3 PK	78.2	-19.9	1.11 V	171	51.70	6.60
5	#5860.10	58.3 PK	74.0	-15.7	1.11 V	171	51.70	6.60
6	#5860.10	44.9 AV	54.0	-9.1	1.11 V	171	38.30	6.60
7	11650.00	59.4 PK	74.0	-14.6	1.00 V	92	40.90	18.50
8	11650.00	46.1 AV	54.0	-7.9	1.00 V	92	27.60	18.50

REMARKS:

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

**802.11a\_1TX (Ant. 2)**

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	58.7 PK	74.0	-15.3	1.23 H	274	53.20	5.50
2	5150.00	44.9 AV	54.0	-9.1	1.23 H	274	39.40	5.50
3	*5180.00	90.9 PK			1.27 H	270	51.40	39.50
4	*5180.00	80.8 AV			1.27 H	270	41.30	39.50
5	#10360.00	58.9 PK	74.0	-15.1	1.00 H	301	41.40	17.50
6	#10360.00	46.4 AV	54.0	-7.6	1.00 H	301	28.90	17.50

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	58.9 PK	74.0	-15.1	1.09 V	169	53.40	5.50
2	5150.00	45.2 AV	54.0	-8.8	1.09 V	169	39.70	5.50
3	*5180.00	99.4 PK			1.04 V	167	59.90	39.50
4	*5180.00	89.0 AV			1.04 V	167	49.50	39.50
5	#10360.00	60.3 PK	74.0	-13.7	1.00 V	98	42.80	17.50
6	#10360.00	47.4 AV	54.0	-6.6	1.00 V	98	29.90	17.50

**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 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	90.5 PK			1.00 H	224	50.90	39.60
2	*5200.00	80.7 AV			1.00 H	224	41.10	39.60
3	#10400.00	59.4 PK	74.0	-14.6	1.00 H	305	41.40	18.00
4	#10400.00	46.7 AV	54.0	-7.3	1.00 H	305	28.70	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	*5200.00	99.8 PK			1.03 V	170	60.20	39.60
2	*5200.00	89.2 AV			1.03 V	170	49.60	39.60
3	#10400.00	60.7 PK	74.0	-13.3	1.00 V	94	42.70	18.00
4	#10400.00	47.8 AV	54.0	-6.2	1.00 V	94	29.80	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 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	91.7 PK			1.33 H	269	52.10	39.60
2	*5240.00	81.5 AV			1.33 H	269	41.90	39.60
3	5350.00	58.3 PK	74.0	-15.7	1.38 H	266	52.60	5.70
4	5350.00	43.9 AV	54.0	-10.1	1.38 H	266	38.20	5.70
5	#10480.00	58.8 PK	74.0	-15.2	1.00 H	302	40.80	18.00
6	#10480.00	46.0 AV	54.0	-8.0	1.00 H	302	28.00	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	98.6 PK			1.10 V	168	59.00	39.60
2	*5240.00	88.3 AV			1.10 V	168	48.70	39.60
3	5350.00	58.5 PK	74.0	-15.5	1.06 V	163	52.80	5.70
4	5350.00	44.3 AV	54.0	-9.7	1.06 V	163	38.60	5.70
5	#10480.00	60.4 PK	74.0	-13.6	1.00 V	99	42.40	18.00
6	#10480.00	47.5 AV	54.0	-6.5	1.00 V	99	29.50	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 52	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	57.6 PK	74.0	-16.4	1.50 H	263	52.10	5.50
2	5150.00	42.8 AV	54.0	-11.2	1.50 H	263	37.30	5.50
3	*5260.00	91.3 PK			1.50 H	267	51.70	39.60
4	*5260.00	81.2 AV			1.50 H	267	41.60	39.60
5	#10520.00	59.0 PK	74.0	-15.0	1.00 H	303	40.90	18.10
6	#10520.00	46.3 AV	54.0	-7.7	1.00 H	303	28.20	18.10

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	57.9 PK	74.0	-16.1	1.05 V	163	52.40	5.50
2	5150.00	43.5 AV	54.0	-10.5	1.05 V	163	38.00	5.50
3	*5260.00	97.3 PK			1.10 V	168	57.70	39.60
4	*5260.00	87.4 AV			1.10 V	168	47.80	39.60
5	#10520.00	61.0 PK	74.0	-13.0	1.00 V	98	42.90	18.10
6	#10520.00	48.1 AV	54.0	-5.9	1.00 V	98	30.00	18.10

REMARKS:

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



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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	90.3 PK			1.32 H	266	50.70	39.60
2	*5300.00	79.9 AV			1.32 H	266	40.30	39.60
3	10600.00	59.0 PK	74.0	-15.0	1.00 H	308	40.60	18.40
4	10600.00	46.2 AV	54.0	-7.8	1.00 H	308	27.80	18.40

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	96.4 PK			1.01 V	169	56.80	39.60
2	*5300.00	86.5 AV			1.01 V	169	46.90	39.60
3	10600.00	60.4 PK	74.0	-13.6	1.04 V	90	42.00	18.40
4	10600.00	47.5 AV	54.0	-6.5	1.04 V	90	29.10	18.40

REMARKS:

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

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

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	90.7 PK			1.53 H	263	51.00	39.70
2	*5320.00	80.0 AV			1.53 H	263	40.30	39.70
3	5350.00	58.1 PK	74.0	-15.9	1.59 H	269	52.40	5.70
4	5350.00	44.1 AV	54.0	-9.9	1.59 H	269	38.40	5.70
5	10640.00	58.7 PK	74.0	-15.3	1.08 H	300	40.30	18.40
6	10640.00	46.0 AV	54.0	-8.0	1.08 H	300	27.60	18.40

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	96.6 PK			1.08 V	168	56.90	39.70
2	*5320.00	86.3 AV			1.08 V	168	46.60	39.70
3	5350.00	58.3 PK	74.0	-15.7	1.00 V	161	52.60	5.70
4	5350.00	44.4 AV	54.0	-9.6	1.00 V	161	38.70	5.70
5	10640.00	60.2 PK	74.0	-13.8	1.00 V	91	41.80	18.40
6	10640.00	47.2 AV	54.0	-6.8	1.00 V	91	28.80	18.40

**REMARKS:**

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



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

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	58.5 PK	74.0	-15.5	1.63 H	285	52.70	5.80
2	5460.00	45.2 AV	54.0	-8.8	1.63 H	285	39.40	5.80
3	#5470.00	59.2 PK	74.0	-14.8	1.63 H	285	53.30	5.90
4	#5470.00	46.3 AV	54.0	-7.7	1.63 H	285	40.40	5.90
5	*5500.00	91.3 PK			1.61 H	282	51.40	39.90
6	*5500.00	80.3 AV			1.61 H	282	40.40	39.90
7	11000.00	58.5 PK	74.0	-15.5	1.00 H	308	39.60	18.90
8	11000.00	45.7 AV	54.0	-8.3	1.00 H	308	26.80	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	5460.00	58.7 PK	74.0	-15.3	1.08 V	295	52.90	5.80
2	5460.00	45.5 AV	54.0	-8.5	1.08 V	295	39.70	5.80
3	#5470.00	59.3 PK	74.0	-14.7	1.08 V	295	53.40	5.90
4	#5470.00	46.6 AV	54.0	-7.4	1.08 V	295	40.70	5.90
5	*5500.00	95.6 PK			1.07 V	294	55.70	39.90
6	*5500.00	85.0 AV			1.07 V	294	45.10	39.90
7	11000.00	60.2 PK	74.0	-13.8	1.03 V	93	41.30	18.90
8	11000.00	47.5 AV	54.0	-6.5	1.03 V	93	28.60	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 116	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5580.00	90.6 PK			1.52 H	283	50.70	39.90
2	*5580.00	80.2 AV			1.52 H	283	40.30	39.90
3	11160.00	58.7 PK	74.0	-15.3	1.00 H	301	39.50	19.20
4	11160.00	45.5 AV	54.0	-8.5	1.00 H	301	26.30	19.20

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5580.00	96.4 PK			1.04 V	295	56.50	39.90
2	*5580.00	86.0 AV			1.04 V	295	46.10	39.90
3	11160.00	60.1 PK	74.0	-13.9	1.02 V	96	40.90	19.20
4	11160.00	47.1 AV	54.0	-6.9	1.02 V	96	27.90	19.20

REMARKS:

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

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

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	91.3 PK			1.79 H	303	51.00	40.30
2	*5700.00	81.1 AV			1.79 H	303	40.80	40.30
3	#5725.00	60.5 PK	74.0	-13.5	1.76 H	307	54.20	6.30
4	#5725.00	46.6 AV	54.0	-7.4	1.76 H	307	40.30	6.30
5	11400.00	58.4 PK	74.0	-15.6	1.00 H	303	38.70	19.70
6	11400.00	45.2 AV	54.0	-8.8	1.00 H	303	25.50	19.70

**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	*5700.00	96.3 PK			1.09 V	293	56.00	40.30
2	*5700.00	86.1 AV			1.09 V	293	45.80	40.30
3	#5725.00	60.9 PK	74.0	-13.1	1.07 V	294	54.60	6.30
4	#5725.00	46.9 AV	54.0	-7.1	1.07 V	294	40.60	6.30
5	11400.00	59.9 PK	74.0	-14.1	1.01 V	93	40.20	19.70
6	11400.00	46.9 AV	54.0	-7.1	1.01 V	93	27.20	19.70

**REMARKS:**

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



CHANNEL	TX Channel 144	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	54.9 PK	74.0	-19.1	1.60 H	317	49.00	5.90
2	#5470.00	44.0 AV	54.0	-10.0	1.60 H	317	38.10	5.90
3	*5720.00	88.6 PK			1.55 H	321	48.20	40.40
4	*5720.00	78.6 AV			1.55 H	321	38.20	40.40
5	#5861.00	55.1 PK	74.0	-18.9	1.50 H	317	48.50	6.60
6	#5861.00	45.3 AV	54.0	-8.7	1.50 H	317	38.70	6.60
7	11440.00	58.0 PK	74.0	-16.0	1.05 H	64	38.40	19.60
8	11440.00	46.8 AV	54.0	-7.2	1.05 H	64	27.20	19.60

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	55.8 PK	74.0	-18.2	1.10 V	271	49.90	5.90
2	#5470.00	44.4 AV	54.0	-9.6	1.10 V	271	38.50	5.90
3	*5720.00	93.9 PK			1.05 V	270	53.50	40.40
4	*5720.00	83.9 AV			1.05 V	270	43.50	40.40
5	#5861.00	57.2 PK	74.0	-16.8	1.00 V	255	50.60	6.60
6	#5861.00	46.4 AV	54.0	-7.6	1.00 V	255	39.80	6.60
7	11440.00	60.2 PK	74.0	-13.8	1.28 V	44	40.60	19.60
8	11440.00	47.7 AV	54.0	-6.3	1.28 V	44	28.10	19.60

**REMARKS:**

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

CHANNEL	TX Channel 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	58.7 PK	74.0	-15.3	1.77 H	304	52.50	6.20
2	#5714.90	45.2 AV	54.0	-8.8	1.77 H	304	39.00	6.20
3	#5722.90	59.1 PK	78.2	-19.1	1.77 H	304	52.80	6.30
4	#5725.00	51.5 PK	78.2	-26.7	1.77 H	304	45.20	6.30
5	*5745.00	90.3 PK			1.76 H	303	49.90	40.40
6	*5745.00	80.6 AV			1.76 H	303	40.20	40.40
7	11490.00	58.2 PK	74.0	-15.8	1.00 H	301	38.90	19.30
8	11490.00	45.6 AV	54.0	-8.4	1.00 H	301	26.30	19.30

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5714.90	58.9 PK	74.0	-15.1	1.14 V	158	52.70	6.20
2	#5714.90	45.5 AV	54.0	-8.5	1.14 V	158	39.30	6.20
3	#5722.90	59.2 PK	78.2	-19.0	1.14 V	158	52.90	6.30
4	#5725.00	51.9 PK	78.2	-26.3	1.14 V	158	45.60	6.30
5	*5745.00	96.6 PK			1.18 V	159	56.20	40.40
6	*5745.00	85.8 AV			1.18 V	159	45.40	40.40
7	11490.00	59.8 PK	74.0	-14.2	1.02 V	94	40.50	19.30
8	11490.00	47.2 AV	54.0	-6.8	1.02 V	94	27.90	19.30

**REMARKS:**

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

CHANNEL	TX Channel 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	90.3 PK			1.91 H	304	49.80	40.50
2	*5785.00	79.8 AV			1.91 H	304	39.30	40.50
3	11570.00	58.3 PK	74.0	-15.7	1.00 H	304	39.30	19.00
4	11570.00	45.2 AV	54.0	-8.8	1.00 H	304	26.20	19.00

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5785.00	96.1 PK			1.11 V	160	55.60	40.50
2	*5785.00	85.9 AV			1.11 V	160	45.40	40.50
3	11570.00	59.7 PK	74.0	-14.3	1.01 V	97	40.70	19.00
4	11570.00	46.9 AV	54.0	-7.1	1.01 V	97	27.90	19.00

**REMARKS:**

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



CHANNEL	TX Channel 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	91.0 PK			1.70 H	305	50.40	40.60
2	*5825.00	80.6 AV			1.70 H	305	40.00	40.60
3	#5850.00	49.8 PK	78.2	-28.4	1.74 H	302	43.20	6.60
4	#5852.10	60.2 PK	78.2	-18.0	1.74 H	302	53.60	6.60
5	#5860.10	59.2 PK	74.0	-14.8	1.74 H	302	52.60	6.60
6	#5860.10	46.1 AV	54.0	-7.9	1.74 H	302	39.50	6.60
7	11650.00	58.1 PK	74.0	-15.9	1.00 H	306	39.60	18.50
8	11650.00	45.0 AV	54.0	-9.0	1.00 H	306	26.50	18.50

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5825.00	96.0 PK			1.13 V	294	55.40	40.60
2	*5825.00	85.7 AV			1.13 V	294	45.10	40.60
3	#5850.00	50.1 PK	78.2	-28.1	1.12 V	297	43.50	6.60
4	#5852.10	60.4 PK	78.2	-17.8	1.12 V	297	53.80	6.60
5	#5860.10	59.4 PK	74.0	-14.6	1.12 V	297	52.80	6.60
6	#5860.10	46.5 AV	54.0	-7.5	1.12 V	297	39.90	6.60
7	11650.00	59.6 PK	74.0	-14.4	1.05 V	99	41.10	18.50
8	11650.00	46.8 AV	54.0	-7.2	1.05 V	99	28.30	18.50

**REMARKS:**

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

**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	58.7 PK	74.0	-15.3	1.73 H	75	53.20	5.50
2	5150.00	45.1 AV	54.0	-8.9	1.73 H	75	39.60	5.50
3	*5180.00	92.6 PK			1.78 H	72	53.10	39.50
4	*5180.00	81.5 AV			1.78 H	72	42.00	39.50
5	#10360.00	59.4 PK	74.0	-14.6	1.00 H	302	41.90	17.50
6	#10360.00	46.6 AV	54.0	-7.4	1.00 H	302	29.10	17.50

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	58.9 PK	74.0	-15.1	1.09 V	294	53.40	5.50
2	5150.00	45.3 AV	54.0	-8.7	1.09 V	294	39.80	5.50
3	*5180.00	95.9 PK			1.07 V	294	56.40	39.50
4	*5180.00	85.0 AV			1.07 V	294	45.50	39.50
5	#10360.00	60.4 PK	74.0	-13.6	1.03 V	95	42.90	17.50
6	#10360.00	47.5 AV	54.0	-6.5	1.03 V	95	30.00	17.50

**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 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	93.4 PK			1.62 H	63	53.80	39.60
2	*5200.00	82.0 AV			1.62 H	63	42.40	39.60
3	#10400.00	59.7 PK	74.0	-14.3	1.00 H	308	41.70	18.00
4	#10400.00	47.2 AV	54.0	-6.8	1.00 H	308	29.20	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	*5200.00	95.4 PK			1.06 V	295	55.80	39.60
2	*5200.00	84.8 AV			1.06 V	295	45.20	39.60
3	#10400.00	60.9 PK	74.0	-13.1	1.00 V	90	42.90	18.00
4	#10400.00	48.0 AV	54.0	-6.0	1.00 V	90	30.00	18.00

REMARKS:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " \* ": Fundamental frequency.
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	93.4 PK			1.72 H	71	53.80	39.60
2	*5240.00	82.9 AV			1.72 H	71	43.30	39.60
3	5350.00	58.3 PK	74.0	-15.7	1.73 H	76	52.60	5.70
4	5350.00	44.1 AV	54.0	-9.9	1.73 H	76	38.40	5.70
5	#10480.00	59.7 PK	74.0	-14.3	1.00 H	309	41.70	18.00
6	#10480.00	47.1 AV	54.0	-6.9	1.00 H	309	29.10	18.00

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	97.4 PK			1.02 V	164	57.80	39.60
2	*5240.00	86.5 AV			1.02 V	164	46.90	39.60
3	5350.00	58.5 PK	74.0	-15.5	1.04 V	161	52.80	5.70
4	5350.00	44.7 AV	54.0	-9.3	1.04 V	161	39.00	5.70
5	#10480.00	60.5 PK	74.0	-13.5	1.05 V	93	42.50	18.00
6	#10480.00	47.5 AV	54.0	-6.5	1.05 V	93	29.50	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 52	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	57.5 PK	74.0	-16.5	1.68 H	66	52.00	5.50
2	5150.00	43.9 AV	54.0	-10.1	1.68 H	66	38.40	5.50
3	*5260.00	92.7 PK			1.70 H	70	53.10	39.60
4	*5260.00	81.9 AV			1.70 H	70	42.30	39.60
5	#10520.00	59.4 PK	74.0	-14.6	1.00 H	304	41.30	18.10
6	#10520.00	46.5 AV	54.0	-7.5	1.00 H	304	28.40	18.10

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	57.8 PK	74.0	-16.2	1.00 V	165	52.30	5.50
2	5150.00	44.5 AV	54.0	-9.5	1.00 V	165	39.00	5.50
3	*5260.00	97.0 PK			1.09 V	164	57.40	39.60
4	*5260.00	85.8 AV			1.09 V	164	46.20	39.60
5	#10520.00	60.7 PK	74.0	-13.3	1.05 V	95	42.60	18.10
6	#10520.00	47.3 AV	54.0	-6.7	1.05 V	95	29.20	18.10

**REMARKS:**

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



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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	92.1 PK			1.67 H	69	52.50	39.60
2	*5300.00	81.5 AV			1.67 H	69	41.90	39.60
3	10600.00	59.3 PK	74.0	-14.7	1.00 H	300	40.90	18.40
4	10600.00	46.4 AV	54.0	-7.6	1.00 H	300	28.00	18.40

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	95.5 PK			1.22 V	165	55.90	39.60
2	*5300.00	84.6 AV			1.22 V	165	45.00	39.60
3	10600.00	61.0 PK	74.0	-13.0	1.02 V	94	42.60	18.40
4	10600.00	47.6 AV	54.0	-6.4	1.02 V	94	29.20	18.40

REMARKS:

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

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

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	91.9 PK			1.58 H	82	52.20	39.70
2	*5320.00	81.2 AV			1.58 H	82	41.50	39.70
3	5350.00	58.0 PK	74.0	-16.0	1.54 H	82	52.30	5.70
4	5350.00	44.6 AV	54.0	-9.4	1.54 H	82	38.90	5.70
5	10640.00	59.1 PK	74.0	-14.9	1.00 H	306	40.70	18.40
6	10640.00	46.3 AV	54.0	-7.7	1.00 H	306	27.90	18.40

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	95.7 PK			1.08 V	164	56.00	39.70
2	*5320.00	84.8 AV			1.08 V	164	45.10	39.70
3	5350.00	58.2 PK	74.0	-15.8	1.01 V	162	52.50	5.70
4	5350.00	45.1 AV	54.0	-8.9	1.01 V	162	39.40	5.70
5	10640.00	60.7 PK	74.0	-13.3	1.01 V	93	42.30	18.40
6	10640.00	47.2 AV	54.0	-6.8	1.01 V	93	28.80	18.40

**REMARKS:**

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



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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	58.9 PK	74.0	-15.1	1.74 H	71	53.10	5.80
2	5460.00	44.5 AV	54.0	-9.5	1.74 H	71	38.70	5.80
3	#5470.00	59.3 PK	74.0	-14.7	1.74 H	71	53.40	5.90
4	#5470.00	44.9 AV	54.0	-9.1	1.74 H	71	39.00	5.90
5	*5500.00	91.0 PK			1.74 H	74	51.10	39.90
6	*5500.00	80.8 AV			1.74 H	74	40.90	39.90
7	11000.00	59.1 PK	74.0	-14.9	1.00 H	305	40.20	18.90
8	11000.00	45.8 AV	54.0	-8.2	1.00 H	305	26.90	18.90

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	59.0 PK	74.0	-15.0	1.41 V	169	53.20	5.80
2	5460.00	45.0 AV	54.0	-9.0	1.41 V	169	39.20	5.80
3	#5470.00	59.4 PK	74.0	-14.6	1.41 V	169	53.50	5.90
4	#5470.00	45.4 AV	54.0	-8.6	1.41 V	169	39.50	5.90
5	*5500.00	95.0 PK			1.48 V	169	55.10	39.90
6	*5500.00	84.6 AV			1.48 V	169	44.70	39.90
7	11000.00	60.1 PK	74.0	-13.9	1.00 V	98	41.20	18.90
8	11000.00	47.1 AV	54.0	-6.9	1.00 V	98	28.20	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 116	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

## ANTENNA POLARITY &amp; TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5580.00	92.0 PK			2.06 H	73	52.10	39.90
2	*5580.00	80.9 AV			2.06 H	73	41.00	39.90
3	11160.00	59.1 PK	74.0	-14.9	1.00 H	307	39.90	19.20
4	11160.00	45.9 AV	54.0	-8.1	1.00 H	307	26.70	19.20

## ANTENNA POLARITY &amp; TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5580.00	95.1 PK			1.38 V	167	55.20	39.90
2	*5580.00	84.8 AV			1.38 V	167	44.90	39.90
3	11160.00	60.3 PK	74.0	-13.7	1.02 V	90	41.10	19.20
4	11160.00	47.2 AV	54.0	-6.8	1.02 V	90	28.00	19.20

## REMARKS:

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



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

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	91.9 PK			1.89 H	68	51.60	40.30
2	*5700.00	80.3 AV			1.89 H	68	40.00	40.30
3	#5725.00	60.1 PK	74.0	-13.9	1.71 H	61	53.80	6.30
4	#5725.00	45.8 AV	54.0	-8.2	1.71 H	61	39.50	6.30
5	11400.00	59.0 PK	74.0	-15.0	1.00 H	302	39.30	19.70
6	11400.00	46.0 AV	54.0	-8.0	1.00 H	302	26.30	19.70

**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	*5700.00	95.5 PK			1.07 V	177	55.20	40.30
2	*5700.00	85.1 AV			1.07 V	177	44.80	40.30
3	#5725.00	60.2 PK	74.0	-13.8	1.08 V	170	53.90	6.30
4	#5725.00	46.2 AV	54.0	-7.8	1.08 V	170	39.90	6.30
5	11400.00	60.0 PK	74.0	-14.0	1.08 V	98	40.30	19.70
6	11400.00	46.9 AV	54.0	-7.1	1.08 V	98	27.20	19.70

**REMARKS:**

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

CHANNEL	TX Channel 144	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	54.9 PK	74.0	-19.1	1.05 H	170	49.00	5.90
2	#5470.00	43.4 AV	54.0	-10.6	1.05 H	170	37.50	5.90
3	*5720.00	84.2 PK			1.06 H	166	43.80	40.40
4	*5720.00	73.9 AV			1.06 H	166	33.50	40.40
5	#5861.00	56.1 PK	74.0	-17.9	1.10 H	171	49.50	6.60
6	#5861.00	45.2 AV	54.0	-8.8	1.10 H	171	38.60	6.60
7	11440.00	58.3 PK	74.0	-15.7	1.05 H	87	38.70	19.60
8	11440.00	46.8 AV	54.0	-7.2	1.05 H	87	27.20	19.60

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	56.5 PK	74.0	-17.5	1.10 V	26	50.60	5.90
2	#5470.00	45.8 AV	54.0	-8.2	1.10 V	26	39.90	5.90
3	*5720.00	91.5 PK			1.00 V	19	51.10	40.40
4	*5720.00	81.2 AV			1.00 V	19	40.80	40.40
5	#5861.00	57.2 PK	74.0	-16.8	1.05 V	23	50.60	6.60
6	#5861.00	45.6 AV	54.0	-8.4	1.05 V	23	39.00	6.60
7	11440.00	59.7 PK	74.0	-14.3	1.07 V	41	40.10	19.60
8	11440.00	48.0 AV	54.0	-6.0	1.07 V	41	28.40	19.60

**REMARKS:**

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

CHANNEL	TX Channel 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	58.4 PK	74.0	-15.6	1.00 H	348	52.20	6.20
2	#5714.90	44.9 AV	54.0	-9.1	1.00 H	348	38.70	6.20
3	#5722.90	58.5 PK	78.2	-19.7	1.00 H	348	52.20	6.30
4	#5725.00	51.1 PK	78.2	-27.1	1.00 H	348	44.80	6.30
5	*5745.00	90.9 PK			1.00 H	341	50.50	40.40
6	*5745.00	80.3 AV			1.00 H	341	39.90	40.40
7	11490.00	58.9 PK	74.0	-15.1	1.00 H	301	39.60	19.30
8	11490.00	45.8 AV	54.0	-8.2	1.00 H	301	26.50	19.30

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5714.90	58.6 PK	74.0	-15.4	1.19 V	173	52.40	6.20
2	#5714.90	45.2 AV	54.0	-8.8	1.19 V	173	39.00	6.20
3	#5722.90	58.7 PK	78.2	-19.5	1.19 V	173	52.40	6.30
4	#5725.00	51.2 PK	78.2	-27.0	1.19 V	173	44.90	6.30
5	*5745.00	95.0 PK			1.20 V	175	54.60	40.40
6	*5745.00	84.5 AV			1.20 V	175	44.10	40.40
7	11490.00	59.6 PK	74.0	-14.4	1.02 V	96	40.30	19.30
8	11490.00	46.6 AV	54.0	-7.4	1.02 V	96	27.30	19.30

**REMARKS:**

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



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

## ANTENNA POLARITY &amp; 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	92.3 PK			1.06 H	342	51.80	40.50
2	*5785.00	80.7 AV			1.06 H	342	40.20	40.50
3	11570.00	58.5 PK	74.0	-15.5	1.00 H	309	39.50	19.00
4	11570.00	45.7 AV	54.0	-8.3	1.00 H	309	26.70	19.00

## ANTENNA POLARITY &amp; 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	95.1 PK			1.19 V	174	54.60	40.50
2	*5785.00	84.4 AV			1.19 V	174	43.90	40.50
3	11570.00	60.0 PK	74.0	-14.0	1.07 V	99	41.00	19.00
4	11570.00	47.2 AV	54.0	-6.8	1.07 V	99	28.20	19.00

## REMARKS:

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



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	91.9 PK			1.06 H	341	51.30	40.60
2	*5825.00	80.5 AV			1.06 H	341	39.90	40.60
3	#5850.00	50.2 PK	78.2	-28.0	1.06 H	348	43.60	6.60
4	#5852.10	59.0 PK	78.2	-19.2	1.06 H	348	52.40	6.60
5	#5860.10	58.8 PK	74.0	-15.2	1.06 H	348	52.20	6.60
6	#5860.10	45.2 AV	54.0	-8.8	1.06 H	348	38.60	6.60
7	11650.00	58.4 PK	74.0	-15.6	1.00 H	304	39.90	18.50
8	11650.00	45.5 AV	54.0	-8.5	1.00 H	304	27.00	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	*5825.00	94.4 PK			1.19 V	175	53.80	40.60
2	*5825.00	84.1 AV			1.19 V	175	43.50	40.60
3	#5850.00	50.4 PK	78.2	-27.8	1.18 V	179	43.80	6.60
4	#5852.10	59.4 PK	78.2	-18.8	1.18 V	179	52.80	6.60
5	#5860.10	59.2 PK	74.0	-14.8	1.18 V	179	52.60	6.60
6	#5860.10	45.4 AV	54.0	-8.6	1.18 V	179	38.80	6.60
7	11650.00	59.8 PK	74.0	-14.2	1.01 V	97	41.30	18.50
8	11650.00	46.8 AV	54.0	-7.2	1.01 V	97	28.30	18.50

**REMARKS:**

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

**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	55.6 PK	74.0	-18.4	1.84 H	326	50.10	5.50
2	5150.00	45.2 AV	54.0	-8.8	1.84 H	326	39.70	5.50
3	*5190.00	87.5 PK			1.79 H	317	48.00	39.50
4	*5190.00	78.5 AV			1.79 H	317	39.00	39.50
5	#10380.00	57.8 PK	74.0	-16.2	1.47 H	74	40.00	17.80
6	#10380.00	45.2 AV	54.0	-8.8	1.47 H	74	27.40	17.80

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	59.1 PK	74.0	-14.9	1.26 V	178	53.60	5.50
2	5150.00	46.0 AV	54.0	-8.0	1.26 V	178	40.50	5.50
3	*5190.00	94.1 PK			1.11 V	168	54.60	39.50
4	*5190.00	84.3 AV			1.11 V	168	44.80	39.50
5	#10380.00	60.4 PK	74.0	-13.6	1.47 V	87	42.60	17.80
6	#10380.00	46.5 AV	54.0	-7.5	1.47 V	87	28.70	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 46	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5230.00	89.7 PK			1.28 H	316	50.10	39.60
2	*5230.00	79.5 AV			1.28 H	316	39.90	39.60
3	5350.00	55.7 PK	74.0	-18.3	1.32 H	326	50.00	5.70
4	5350.00	44.2 AV	54.0	-9.8	1.32 H	326	38.50	5.70
5	#10460.00	58.0 PK	74.0	-16.0	1.05 H	21	40.00	18.00
6	#10460.00	45.1 AV	54.0	-8.9	1.05 H	21	27.10	18.00

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5230.00	93.1 PK			1.03 V	166	53.50	39.60
2	*5230.00	83.6 AV			1.03 V	166	44.00	39.60
3	5350.00	57.0 PK	74.0	-17.0	1.10 V	172	51.30	5.70
4	5350.00	45.8 AV	54.0	-8.2	1.10 V	172	40.10	5.70
5	#10460.00	59.5 PK	74.0	-14.5	1.07 V	41	41.50	18.00
6	#10460.00	47.0 AV	54.0	-7.0	1.07 V	41	29.00	18.00

REMARKS:

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

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

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5270.00	85.4 PK			1.43 H	19	45.80	39.60
2	*5270.00	75.2 AV			1.43 H	19	35.60	39.60
3	5350.00	57.3 PK	74.0	-16.7	1.56 H	23	51.60	5.70
4	5350.00	44.1 AV	54.0	-9.9	1.56 H	23	38.40	5.70
5	#10540.00	58.1 PK	74.0	-15.9	1.32 H	69	40.00	18.10
6	#10540.00	45.2 AV	54.0	-8.8	1.32 H	69	27.10	18.10

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5270.00	89.1 PK			1.14 V	298	49.50	39.60
2	*5270.00	79.5 AV			1.14 V	298	39.90	39.60
3	5350.00	55.7 PK	74.0	-18.3	1.47 V	84	50.00	5.70
4	5350.00	44.4 AV	54.0	-9.6	1.47 V	84	38.70	5.70
5	#10540.00	59.7 PK	74.0	-14.3	1.06 V	31	41.60	18.10
6	#10540.00	46.5 AV	54.0	-7.5	1.06 V	31	28.40	18.10

**REMARKS:**

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

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

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5310.00	86.5 PK			1.47 H	317	46.90	39.60
2	*5310.00	77.1 AV			1.47 H	317	37.50	39.60
3	5350.00	46.3 PK	74.0	-27.7	1.54 H	326	40.60	5.70
4	5350.00	44.1 AV	54.0	-9.9	1.54 H	326	38.40	5.70
5	10620.00	58.5 PK	74.0	-15.5	1.36 H	14	40.20	18.30
6	10620.00	45.7 AV	54.0	-8.3	1.36 H	14	27.40	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	*5310.00	90.6 PK			1.15 V	167	51.00	39.60
2	*5310.00	81.1 AV			1.15 V	167	41.50	39.60
3	5350.00	57.4 PK	74.0	-16.6	1.26 V	174	51.70	5.70
4	5350.00	45.9 AV	54.0	-8.1	1.26 V	174	40.20	5.70
5	10620.00	59.8 PK	74.0	-14.2	1.36 V	88	41.50	18.30
6	10620.00	46.9 AV	54.0	-7.1	1.36 V	88	28.60	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.



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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	55.8 PK	74.0	-18.2	1.77 H	24	50.00	5.80
2	5460.00	44.2 AV	54.0	-9.8	1.77 H	24	38.40	5.80
3	#5470.00	57.1 PK	74.0	-16.9	1.74 H	21	51.20	5.90
4	#5470.00	45.8 AV	54.0	-8.2	1.74 H	21	39.90	5.90
5	*5510.00	84.8 PK			1.82 H	17	44.90	39.90
6	*5510.00	74.3 AV			1.82 H	17	34.40	39.90
7	11020.00	59.1 PK	74.0	-14.9	1.23 H	64	40.10	19.00
8	11020.00	46.9 AV	54.0	-7.1	1.23 H	64	27.90	19.00

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	55.6 PK	74.0	-18.4	1.38 V	342	49.80	5.80
2	5460.00	45.7 AV	54.0	-8.3	1.38 V	342	39.90	5.80
3	#5470.00	56.3 PK	74.0	-17.7	1.39 V	340	50.40	5.90
4	#5470.00	46.5 AV	54.0	-7.5	1.39 V	340	40.60	5.90
5	*5510.00	88.2 PK			1.34 V	355	48.30	39.90
6	*5510.00	79.9 AV			1.34 V	355	40.00	39.90
7	11020.00	60.6 PK	74.0	-13.4	1.07 V	41	41.60	19.00
8	11020.00	47.7 AV	54.0	-6.3	1.07 V	41	28.70	19.00

REMARKS:

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



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

## ANTENNA POLARITY &amp; TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5550.00	88.6 PK			1.72 H	315	48.60	40.00
2	*5550.00	78.3 AV			1.72 H	315	38.30	40.00
3	11100.00	59.6 PK	74.0	-14.4	1.47 H	41	40.00	19.60
4	11100.00	47.0 AV	54.0	-7.0	1.47 H	41	27.40	19.60

## ANTENNA POLARITY &amp; TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5550.00	89.8 PK			1.21 V	312	49.80	40.00
2	*5550.00	79.5 AV			1.21 V	312	39.50	40.00
3	11100.00	61.1 PK	74.0	-12.9	1.07 V	41	41.50	19.60
4	11100.00	48.0 AV	54.0	-6.0	1.07 V	41	28.40	19.60

## REMARKS:

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

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

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5670.00	83.1 PK			1.48 H	6	42.90	40.20
2	*5670.00	74.7 AV			1.48 H	6	34.50	40.20
3	#5725.00	46.3 PK	74.0	-27.7	1.28 H	28	40.00	6.30
4	#5725.00	44.3 AV	54.0	-9.7	1.28 H	28	38.00	6.30
5	11340.00	59.8 PK	74.0	-14.2	1.52 H	63	40.10	19.70
6	11340.00	46.8 AV	54.0	-7.2	1.52 H	63	27.10	19.70

**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	*5670.00	89.7 PK			1.22 V	200	49.50	40.20
2	*5670.00	80.3 AV			1.22 V	200	40.10	40.20
3	#5725.00	57.9 PK	74.0	-16.1	1.29 V	210	51.60	6.30
4	#5725.00	46.9 AV	54.0	-7.1	1.29 V	210	40.60	6.30
5	11340.00	61.5 PK	74.0	-12.5	1.23 V	69	41.80	19.70
6	11340.00	48.3 AV	54.0	-5.7	1.23 V	69	28.60	19.70

**REMARKS:**

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

CHANNEL	TX Channel 142	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	54.6 PK	74.0	-19.4	1.40 H	169	48.70	5.90
2	#5470.00	43.3 AV	54.0	-10.7	1.40 H	169	37.40	5.90
3	*5710.00	84.5 PK			1.32 H	166	44.20	40.30
4	*5710.00	73.8 AV			1.32 H	166	33.50	40.30
5	#5861.00	55.2 PK	74.0	-18.8	1.35 H	170	48.60	6.60
6	#5861.00	44.0 AV	54.0	-10.0	1.35 H	170	37.40	6.60
7	11420.00	59.5 PK	74.0	-14.5	1.47 H	41	39.80	19.70
8	11420.00	47.1 AV	54.0	-6.9	1.47 H	41	27.40	19.70

**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	#5470.00	55.8 PK	74.0	-18.2	1.14 V	350	49.90	5.90
2	#5470.00	44.6 AV	54.0	-9.4	1.14 V	350	38.70	5.90
3	*5710.00	90.0 PK			1.13 V	352	49.70	40.30
4	*5710.00	78.9 AV			1.13 V	352	38.60	40.30
5	#5861.00	56.8 PK	74.0	-17.2	1.15 V	360	50.20	6.60
6	#5861.00	45.6 AV	54.0	-8.4	1.15 V	360	39.00	6.60
7	11420.00	60.2 PK	74.0	-13.8	1.00 V	74	40.50	19.70
8	11420.00	48.2 AV	54.0	-5.8	1.00 V	74	28.50	19.70

**REMARKS:**

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

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

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5714.00	57.5 PK	74.0	-16.5	1.70 H	320	51.30	6.20
2	#5714.00	46.4 AV	54.0	-7.6	1.70 H	320	40.20	6.20
3	#5722.00	58.9 PK	78.2	-19.3	1.54 H	326	52.60	6.30
4	#5725.00	56.4 PK	78.2	-21.8	1.62 H	304	50.10	6.30
5	*5755.00	84.8 PK			1.77 H	343	44.30	40.50
6	*5755.00	75.1 AV			1.77 H	343	34.60	40.50
7	11510.00	59.1 PK	74.0	-14.9	1.26 H	31	40.00	19.10
8	11510.00	46.3 AV	54.0	-7.7	1.26 H	31	27.20	19.10

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5714.00	58.1 PK	74.0	-15.9	1.10 V	30	51.90	6.20
2	#5714.00	46.1 AV	54.0	-7.9	1.10 V	30	39.90	6.20
3	#5722.00	57.0 PK	78.2	-21.2	1.28 V	64	50.70	6.30
4	#5725.00	57.6 PK	78.2	-20.6	1.05 V	64	51.30	6.30
5	*5755.00	90.2 PK			1.07 V	26	49.70	40.50
6	*5755.00	80.3 AV			1.07 V	26	39.80	40.50
7	11510.00	60.6 PK	74.0	-13.4	1.23 V	64	41.50	19.10
8	11510.00	47.7 AV	54.0	-6.3	1.23 V	64	28.60	19.10

**REMARKS:**

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " \* ": Fundamental frequency.
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	84.4 PK			1.52 H	342	43.90	40.50
2	*5795.00	74.5 AV			1.52 H	342	34.00	40.50
3	#5850.00	56.6 PK	78.2	-21.6	1.62 H	351	50.00	6.60
4	#5853.00	57.0 PK	78.2	-21.2	1.42 H	330	50.40	6.60
5	#5861.00	56.6 PK	74.0	-17.4	1.61 H	351	50.00	6.60
6	#5861.00	45.3 AV	54.0	-8.7	1.61 H	351	38.70	6.60
7	11590.00	60.2 PK	74.0	-13.8	1.23 H	64	41.50	18.70
8	11590.00	46.1 AV	54.0	-7.9	1.23 H	64	27.40	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	*5795.00	90.4 PK			2.82 V	185	49.90	40.50
2	*5795.00	79.8 AV			2.82 V	185	39.30	40.50
3	#5850.00	56.7 PK	78.2	-21.5	2.51 V	178	50.10	6.60
4	#5853.00	57.8 PK	78.2	-20.4	2.41 V	175	51.20	6.60
5	#5861.00	58.2 PK	74.0	-15.8	2.80 V	196	51.60	6.60
6	#5861.00	46.5 AV	54.0	-7.5	2.80 V	196	39.90	6.60
7	11590.00	59.9 PK	74.0	-14.1	1.26 V	30	41.20	18.70
8	11590.00	47.1 AV	54.0	-6.9	1.26 V	30	28.40	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.

802.11ac (VHT80)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	56.1 PK	74.0	-17.9	1.52 H	298	50.60	5.50
2	5150.00	43.9 AV	54.0	-10.1	1.52 H	298	38.40	5.50
3	*5210.00	85.9 PK			1.83 H	316	46.30	39.60
4	*5210.00	74.0 AV			1.83 H	316	34.40	39.60
5	#10420.00	58.0 PK	74.0	-16.0	1.47 H	41	40.00	18.00
6	#10420.00	45.1 AV	54.0	-8.9	1.47 H	41	27.10	18.00

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	57.1 PK	74.0	-16.9	1.15 V	171	51.60	5.50
2	5150.00	46.4 AV	54.0	-7.6	1.15 V	171	40.90	5.50
3	*5210.00	91.0 PK			1.03 V	165	51.40	39.60
4	*5210.00	78.8 AV			1.03 V	165	39.20	39.60
5	#10420.00	59.6 PK	74.0	-14.4	1.25 V	74	41.60	18.00
6	#10420.00	46.6 AV	54.0	-7.4	1.25 V	74	28.60	18.00

REMARKS:

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



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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5290.00	81.7 PK			1.00 H	317	42.10	39.60
2	*5290.00	69.9 AV			1.00 H	317	30.30	39.60
3	5350.00	56.3 PK	74.0	-17.7	1.14 H	318	50.60	5.70
4	5350.00	44.4 AV	54.0	-9.6	1.14 H	318	38.70	5.70
5	#10580.00	58.4 PK	74.0	-15.6	1.26 H	354	40.10	18.30
6	#10580.00	45.6 AV	54.0	-8.4	1.26 H	354	27.30	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	*5290.00	90.2 PK			1.16 V	165	50.60	39.60
2	*5290.00	77.6 AV			1.16 V	165	38.00	39.60
3	5350.00	57.3 PK	74.0	-16.7	1.26 V	170	51.60	5.70
4	5350.00	46.3 AV	54.0	-7.7	1.26 V	170	40.60	5.70
5	#10580.00	59.9 PK	74.0	-14.1	1.24 V	74	41.60	18.30
6	#10580.00	47.0 AV	54.0	-7.0	1.24 V	74	28.70	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 106	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	55.6 PK	74.0	-18.4	1.55 H	206	49.80	5.80
2	5460.00	44.5 AV	54.0	-9.5	1.55 H	206	38.70	5.80
3	#5470.00	55.9 PK	74.0	-18.1	1.47 H	52	50.00	5.90
4	#5470.00	44.4 AV	54.0	-9.6	1.47 H	52	38.50	5.90
5	*5530.00	82.4 PK			1.70 H	315	42.50	39.90
6	*5530.00	70.6 AV			1.70 H	315	30.70	39.90
7	11060.00	59.2 PK	74.0	-14.8	1.23 H	65	40.00	19.20
8	11060.00	46.3 AV	54.0	-7.7	1.23 H	65	27.10	19.20

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	55.8 PK	74.0	-18.2	1.47 V	84	50.00	5.80
2	5460.00	45.5 AV	54.0	-8.5	1.47 V	84	39.70	5.80
3	#5470.00	57.5 PK	74.0	-16.5	1.26 V	3	51.60	5.90
4	#5470.00	46.1 AV	54.0	-7.9	1.26 V	3	40.20	5.90
5	*5530.00	83.3 PK			1.19 V	220	43.40	39.90
6	*5530.00	72.5 AV			1.19 V	220	32.60	39.90
7	11060.00	59.8 PK	74.0	-14.2	1.27 V	41	40.60	19.20
8	11060.00	47.3 AV	54.0	-6.7	1.27 V	41	28.10	19.20

**REMARKS:**

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

CHANNEL	TX Channel 138	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	54.9 PK	74.0	-19.1	1.40 H	170	49.00	5.90
2	#5470.00	43.4 AV	54.0	-10.6	1.40 H	170	37.50	5.90
3	*5690.00	82.2 PK			1.37 H	166	41.90	40.30
4	*5690.00	70.7 AV			1.37 H	166	30.40	40.30
5	#5861.00	55.3 PK	74.0	-18.7	1.32 H	153	48.70	6.60
6	#5861.00	44.4 AV	54.0	-9.6	1.32 H	153	37.80	6.60
7	11380.00	59.7 PK	74.0	-14.3	1.55 H	123	40.00	19.70
8	11380.00	46.8 AV	54.0	-7.2	1.55 H	123	27.10	19.70

**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	#5470.00	56.6 PK	74.0	-17.4	1.15 V	360	50.70	5.90
2	#5470.00	44.9 AV	54.0	-9.1	1.15 V	360	39.00	5.90
3	*5690.00	88.2 PK			1.13 V	354	47.90	40.30
4	*5690.00	76.8 AV			1.13 V	354	36.50	40.30
5	#5861.00	57.5 PK	74.0	-16.5	1.15 V	350	50.90	6.60
6	#5861.00	46.4 AV	54.0	-7.6	1.15 V	350	39.80	6.60
7	11380.00	61.2 PK	74.0	-12.8	1.07 V	41	41.50	19.70
<b>8</b>	<b>11380.00</b>	<b>48.4 AV</b>	<b>54.0</b>	<b>-5.6</b>	<b>1.07 V</b>	<b>41</b>	<b>28.70</b>	<b>19.70</b>

**REMARKS:**

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

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

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5714.00	57.5 PK	74.0	-16.5	1.35 H	350	51.30	6.20
2	#5714.00	45.2 AV	54.0	-8.8	1.35 H	350	39.00	6.20
3	#5722.00	56.7 PK	78.2	-21.5	1.39 H	330	50.40	6.30
4	#5725.00	57.3 PK	78.2	-20.9	1.36 H	330	51.00	6.30
5	*5775.00	82.5 PK			1.32 H	342	42.00	40.50
6	*5775.00	71.1 AV			1.32 H	342	30.60	40.50
7	11550.00	60.6 PK	74.0	-13.4	1.04 H	74	41.60	19.00
8	11550.00	47.4 AV	54.0	-6.6	1.04 H	74	28.40	19.00

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5714.00	57.8 PK	74.0	-16.2	1.10 V	185	51.60	6.20
2	#5714.00	46.3 AV	54.0	-7.7	1.10 V	185	40.10	6.20
3	#5722.00	57.3 PK	78.2	-20.9	1.16 V	205	51.00	6.30
4	#5725.00	56.4 PK	78.2	-21.8	1.17 V	41	50.10	6.30
5	*5775.00	89.1 PK			1.00 V	178	48.60	40.50
6	*5775.00	75.6 AV			1.00 V	178	35.10	40.50
7	11550.00	60.2 PK	74.0	-13.8	1.26 V	35	41.20	19.00
8	11550.00	47.1 AV	54.0	-6.9	1.26 V	35	28.10	19.00

**REMARKS:**

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

Below 1GHz worst-case data:

802.11n (HT20)

CHANNEL	TX Channel 48	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

**ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	30.00	25.9 QP	40.0	-14.1	1.49 H	37	41.50	-15.60
2	142.52	24.4 QP	43.5	-19.1	1.99 H	114	38.80	-14.40
3	198.78	29.8 QP	43.5	-13.7	1.00 H	235	46.50	-16.70
4	532.46	29.0 QP	46.0	-17.0	1.49 H	6	37.00	-8.00
5	600.36	34.2 QP	46.0	-11.8	1.49 H	4	40.50	-6.30
6	712.88	34.2 QP	46.0	-11.8	1.24 H	229	38.80	-4.60

**ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M**

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	37.76	31.1 QP	40.0	-8.9	1.25 V	37	46.00	-14.90
2	57.16	26.8 QP	40.0	-13.2	1.00 V	201	41.30	-14.50
3	198.78	25.3 QP	43.5	-18.2	1.00 V	257	42.00	-16.70
4	388.90	27.5 QP	46.0	-18.5	1.25 V	357	38.10	-10.60
5	600.36	33.2 QP	46.0	-12.8	1.00 V	62	39.50	-6.30
6	730.34	31.7 QP	46.0	-14.3	1.25 V	6	35.60	-3.90

**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

## 4.2 Conducted Emission Measurement

### 4.2.1 Limits of Conducted Emission Measurement

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

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

### 4.2.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Date Of Calibration	Due Date Of Calibration
Test Receiver ROHDE & SCHWARZ	ESCI	100613	Nov. 16, 2015	Nov. 15, 2016
RF signal cable (with 10dB PAD) Woken	5D-FB	Cable-cond1-01	Dec. 26, 2015	Dec. 25, 2016
LISN ROHDE & SCHWARZ (EUT)	ESH3-Z5	835239/001	Feb. 26, 2015	Feb. 25, 2016
LISN ROHDE & SCHWARZ (Peripheral)	ESH3-Z5	100311	Jul. 24, 2015	Jul. 23, 2016
Software ADT	BV ADT_Cond_ V7.3.7.3	NA	NA	NA

- Note:** 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.  
 2. The test was performed in HwaYa Shielded Room 1.  
 3. The VCCI Site Registration No. is C-2040.

### 4.2.3 Test Procedures

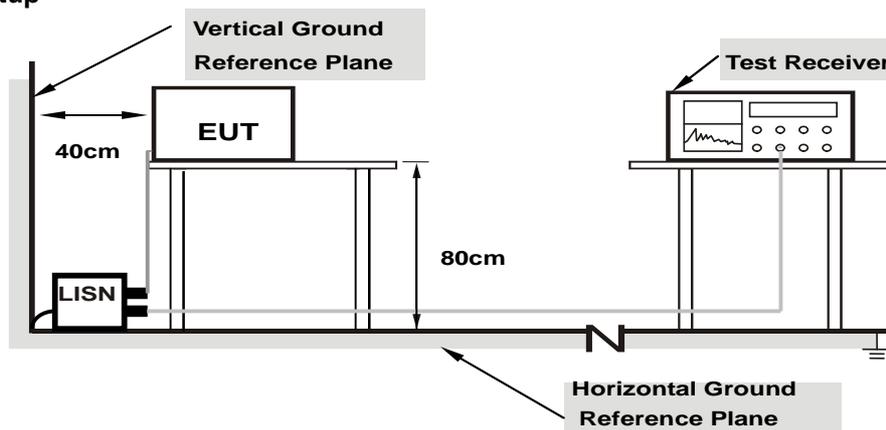
- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance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

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

### 4.2.4 Deviation from Test Standard

No deviation.

### 4.2.5 Test Setup



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

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

### 4.2.6 EUT Operating Conditions

Same as 4.1.6.

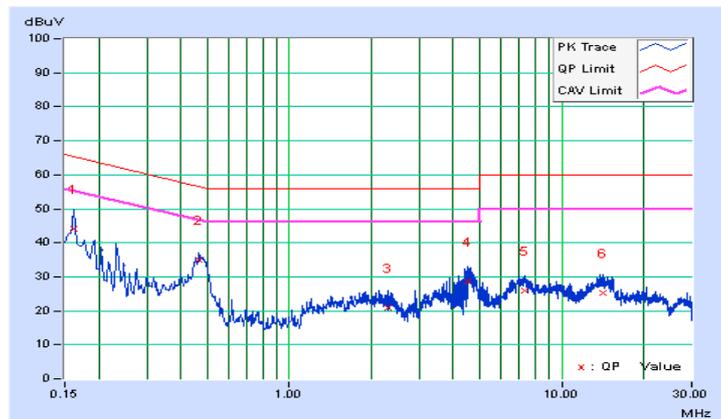
### 4.2.7 Test Results

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

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
			1	0.16173	10.04	34.20	23.81	44.24	33.85	65.37
2	<b>0.46669</b>	<b>10.15</b>	<b>24.77</b>	<b>19.61</b>	<b>34.92</b>	<b>29.76</b>	<b>56.57</b>	<b>46.57</b>	<b>-21.65</b>	<b>-16.81</b>
3	2.30050	10.29	10.70	3.64	20.99	13.93	56.00	46.00	-35.01	-32.07
4	4.54484	10.46	18.07	7.91	28.53	18.37	56.00	46.00	-27.47	-27.63
5	7.30139	10.59	15.29	9.96	25.88	20.55	60.00	50.00	-34.12	-29.45
6	14.22209	10.89	14.36	8.76	25.25	19.65	60.00	50.00	-34.75	-30.35

#### 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.

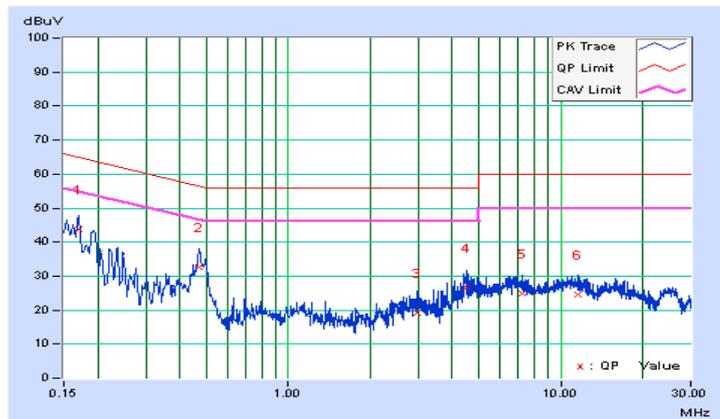


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
-------	-------------	-------------------	--------------------------------

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	0.16955	10.02	33.73	22.07	43.75	32.09	64.98
2	0.47039	10.16	22.45	17.37	32.61	27.53	56.51	46.51	-23.90	-18.98
3	2.95738	10.36	9.00	3.26	19.36	13.62	56.00	46.00	-36.64	-32.38
4	4.53702	10.46	16.27	6.95	26.73	17.41	56.00	46.00	-29.27	-28.59
5	7.19191	10.54	14.41	8.66	24.95	19.20	60.00	50.00	-35.05	-30.80
6	11.59066	10.66	13.80	8.21	24.46	18.87	60.00	50.00	-35.54	-31.13

**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  $N_{ANT} \leq 4$ ;

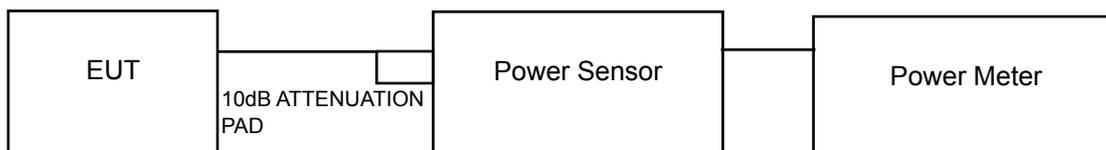
Array Gain = 0 dB (i.e., no array gain) for channel widths  $\geq 40$  MHz for any  $N_{ANT}$ ;

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

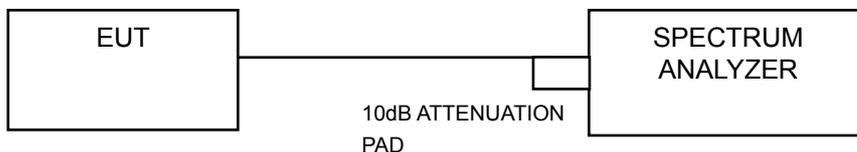
For power measurements on all other devices: Array Gain =  $10 \log(N_{ANT}/N_{SS})$  dB.

#### 4.3.2 Test Setup

For Power Output Measurement



For 26dB and Occupied Bandwidth



#### 4.3.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

#### 4.3.4 Test Procedure

##### FOR AVERAGE POWER MEASUREMENT

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

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

###### For 802.11ac (VHT80)

- 1) Set span to encompass the entire 26 dB EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal.
- 2) Set sweep trigger to "free run".
- 3) Set RBW = 1 MHz.
- 4) Set VBW  $\geq$  3 MHz
- 5) Number of points in sweep  $\geq$  2 Span / RBW.
- 6) Sweep time  $\leq$  (number of points in sweep) \* T
- 7) Using emission bandwidth to determine the frequency span for integration the channel bandwidth.
- 8) Detector = RMS.
- 9) Trace mode = max hold.
- 10) Allow max hold to run for at least 60 seconds, or longer as needed to allow the trace to stabilize.

#### 4.3.5 Deviation from Test Standard

No deviation.

#### 4.3.6 EUT Operating Conditions

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

#### 4.3.7 Test Result

#### POWER OUTPUT:

802.11a

1TX (Ant. 1\_Main Ant.)

Chan.	Freq. (MHz)	Maximum Conducted Power (mW)	Maximum Conducted Power (dBm)	Power Limit (dBm)	Pass / Fail
36	5180	6.383	8.05	24.00	Pass
40	5200	6.714	8.27	24.00	Pass
48	5240	7.015	8.46	24.00	Pass
52	5260	6.714	8.27	24.00	Pass
60	5300	6.918	8.40	24.00	Pass
64	5320	6.516	8.14	24.00	Pass
100	5500	6.531	8.15	24.00	Pass
116	5580	6.668	8.24	24.00	Pass
140	5700	6.776	8.31	24.00	Pass
144	5720 For U-NII-2C	2.793	4.46	23.41	Pass
144	5720 For U-NII-3	0.708	-1.50	30.00	Pass
149	5745	6.442	8.09	30.00	Pass
157	5785	6.546	8.16	30.00	Pass
165	5825	6.353	8.03	30.00	Pass

#### NOTE:

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

1.  $11\text{dBm} + 10\log(24.60) = 24.91\text{ dBm} > 24\text{dBm}$ .
2.  $11\text{dBm} + 10\log(24.54) = 24.90\text{ dBm} > 24\text{dBm}$ .
3.  $11\text{dBm} + 10\log(24.20) = 24.84\text{ dBm} > 24\text{dBm}$ .
4.  $11\text{dBm} + 10\log(24.69) = 24.93\text{ dBm} > 24\text{dBm}$ .
5.  $11\text{dBm} + 10\log(24.53) = 24.90\text{ dBm} > 24\text{dBm}$ .
6.  $11\text{dBm} + 10\log(23.87) = 24.78\text{ dBm} > 24\text{dBm}$ .
7.  $11\text{dBm} + 10\log(5725.00 - 5707.56) = 23.41\text{ dBm} < 24\text{dBm}$ .

**1TX (Ant. 1\_Aux. Ant.)**

Chan.	Freq. (MHz)	Maximum Conducted Power (mW)	Maximum Conducted Power (dBm)	Power Limit (dBm)	Pass / Fail
36	5180	6.457	8.10	24.00	Pass
40	5200	6.998	8.45	24.00	Pass
48	5240	6.486	8.12	24.00	Pass
52	5260	6.855	8.36	24.00	Pass
60	5300	6.792	8.32	24.00	Pass
64	5320	6.339	8.02	24.00	Pass
100	5500	6.823	8.34	24.00	Pass
116	5580	6.442	8.09	24.00	Pass
140	5700	6.761	8.30	24.00	Pass
144	5720 For U-NII-2C	3.133	4.96	23.43	Pass
144	5720 For U-NII-3	0.7568	-1.21	30.00	Pass
149	5745	6.637	8.22	30.00	Pass
157	5785	6.607	8.20	30.00	Pass
165	5825	6.871	8.37	30.00	Pass

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

1.  $11\text{dBm} + 10\log(24.71) = 24.93\text{ dBm} > 24\text{dBm}$ .
2.  $11\text{dBm} + 10\log(25.35) = 25.04\text{ dBm} > 24\text{dBm}$ .
3.  $11\text{dBm} + 10\log(24.22) = 24.84\text{ dBm} > 24\text{dBm}$ .
4.  $11\text{dBm} + 10\log(24.78) = 24.94\text{ dBm} > 24\text{dBm}$ .
5.  $11\text{dBm} + 10\log(24.71) = 24.93\text{ dBm} > 24\text{dBm}$ .
6.  $11\text{dBm} + 10\log(23.97) = 24.80\text{ dBm} > 24\text{dBm}$ .
7.  $11\text{dBm} + 10\log(5725.00 - 5707.49) = 23.43\text{ dBm} < 24\text{dBm}$ .

**802.11n (HT20)**

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
36	5180	5.31	5.08	6.617	8.21	24.00	Pass
40	5200	5.60	5.31	<b>7.027</b>	8.47	24.00	Pass
48	5240	5.41	5.26	6.832	8.35	24.00	Pass
52	5260	5.45	5.50	<b>7.056</b>	8.49	24.00	Pass
60	5300	5.08	5.10	6.457	8.10	24.00	Pass
64	5320	4.95	5.25	6.476	8.11	24.00	Pass
100	5500	5.43	5.45	6.999	8.45	24.00	Pass
116	5580	4.59	5.61	6.516	8.14	24.00	Pass
140	5700	5.03	5.60	6.815	8.33	24.00	Pass
144	5720 For U-NII-2C	0.33	0.86	2.298	3.61	23.54	Pass
144	5720 For U-NII-3	-5.15	-4.86	0.6321	-1.99	30.00	Pass
149	5745	5.01	5.80	<b>6.972</b>	8.43	30.00	Pass
157	5785	4.82	5.16	6.315	8.00	30.00	Pass
165	5825	4.80	5.75	6.778	8.31	30.00	Pass

**NOTE:**
**For U-NII-2A, U-NII-2C Band:**
**Chain 0**

1.  $11\text{dBm} + 10\log(25.03) = 24.98\text{ dBm} > 24\text{dBm}$ .
2.  $11\text{dBm} + 10\log(24.95) = 24.97\text{ dBm} > 24\text{dBm}$ .
3.  $11\text{dBm} + 10\log(24.80) = 24.94\text{ dBm} > 24\text{dBm}$ .
4.  $11\text{dBm} + 10\log(25.97) = 25.14\text{ dBm} > 24\text{dBm}$ .
5.  $11\text{dBm} + 10\log(25.50) = 25.07\text{ dBm} > 24\text{dBm}$ .
6.  $11\text{dBm} + 10\log(24.69) = 24.93\text{ dBm} > 24\text{dBm}$ .
7.  $11\text{dBm} + 10\log(5725.00 - 5707.01) = 23.55\text{ dBm} < 24\text{dBm}$ .

**Chain 1**

1.  $11\text{dBm} + 10\log(25.44) = 25.06\text{ dBm} > 24\text{dBm}$ .
2.  $11\text{dBm} + 10\log(25.27) = 25.03\text{ dBm} > 24\text{dBm}$ .
3.  $11\text{dBm} + 10\log(24.60) = 24.91\text{ dBm} > 24\text{dBm}$ .
4.  $11\text{dBm} + 10\log(25.11) = 25.00\text{ dBm} > 24\text{dBm}$ .
5.  $11\text{dBm} + 10\log(26.13) = 25.17\text{ dBm} > 24\text{dBm}$ .
6.  $11\text{dBm} + 10\log(25.35) = 25.04\text{ dBm} > 24\text{dBm}$ .
7.  $11\text{dBm} + 10\log(5725.00 - 5707.03) = 23.54\text{ dBm} < 24\text{dBm}$ .

**802.11n (HT40)**

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
38	5190	5.36	5.54	7.017	8.46	24.00	Pass
46	5230	5.28	4.98	6.521	8.14	24.00	Pass
54	5270	5.18	5.04	6.488	8.12	24.00	Pass
62	5310	5.25	4.87	6.419	8.07	24.00	Pass
102	5510	4.80	5.28	6.393	8.06	24.00	Pass
110	5550	5.20	5.68	<b>7.009</b>	8.46	24.00	Pass
134	5670	5.26	5.27	6.722	8.27	24.00	Pass
142	5710 For U-NII-2C	1.74	0.94	2.846	4.54	24.00	Pass
142	5710 For U-NII-3	-10.73	-12.47	0.1468	-8.33	30.00	Pass
151	5755	4.71	5.38	6.409	8.07	30.00	Pass
159	5795	4.70	5.41	6.427	8.08	30.00	Pass

**NOTE:**
**For U-NII-2A, U-NII-2C Band:**
**Chain 0**

1.  $11\text{dBm} + 10\log(43.81) = 27.42\text{ dBm} > 24\text{dBm}$ .
2.  $11\text{dBm} + 10\log(42.84) = 27.32\text{ dBm} > 24\text{dBm}$ .
3.  $11\text{dBm} + 10\log(44.04) = 27.44\text{ dBm} > 24\text{dBm}$ .
4.  $11\text{dBm} + 10\log(44.47) = 27.48\text{ dBm} > 24\text{dBm}$ .
5.  $11\text{dBm} + 10\log(44.61) = 27.49\text{ dBm} > 24\text{dBm}$ .
6.  $11\text{dBm} + 10\log(5725.00 - 5687.86) = 26.70\text{ dBm} > 24\text{dBm}$ .

**Chain 1**

1.  $11\text{dBm} + 10\log(44.30) = 27.46\text{ dBm} > 24\text{dBm}$ .
2.  $11\text{dBm} + 10\log(43.56) = 27.39\text{ dBm} > 24\text{dBm}$ .
3.  $11\text{dBm} + 10\log(43.23) = 27.36\text{ dBm} > 24\text{dBm}$ .
4.  $11\text{dBm} + 10\log(43.31) = 27.37\text{ dBm} > 24\text{dBm}$ .
5.  $11\text{dBm} + 10\log(44.23) = 27.46\text{ dBm} > 24\text{dBm}$ .
6.  $11\text{dBm} + 10\log(5725.00 - 5687.51) = 26.74\text{ dBm} > 24\text{dBm}$ .

**802.11ac (VHT80)**

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
42	5210	4.97	5.56	6.738	8.29	24.00	Pass
58	5290	5.53	5.32	6.977	8.44	24.00	Pass
106	5530	5.37	5.21	6.762	8.30	24.00	Pass
138	5690 For U-NII-2C	-0.12	-0.04	2.2414	3.51	24.00	Pass
138	5690 For U-NII-3	-16.56	-16.33	0.0518	-12.86	30.00	Pass
155	5775	4.93	5.19	6.416	8.07	30.00	Pass

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

Chain 0

1.  $11\text{dBm} + 10\log(81.39) = 30.11\text{ dBm} > 24\text{dBm}$ .
2.  $11\text{dBm} + 10\log(81.10) = 30.09\text{ dBm} > 24\text{dBm}$ .
3.  $11\text{dBm} + 10\log(5725.00 - 5649.13) = 29.80\text{ dBm} > 24\text{dBm}$ .

Chain 1

1.  $11\text{dBm} + 10\log(80.75) = 30.07\text{ dBm} > 24\text{dBm}$ .
2.  $11\text{dBm} + 10\log(81.09) = 30.09\text{ dBm} > 24\text{dBm}$ .
3.  $11\text{dBm} + 10\log(5725.00 - 5649.25) = 29.79\text{ dBm} > 24\text{dBm}$ .

**26dB BANDWIDTH:**
**802.11a**
**1TX (Ant. 1\_Main Ant.)**

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)
36	5180	24.99
40	5200	24.93
48	5240	24.41
52	5260	24.60
60	5300	24.54
64	5320	24.20
100	5500	24.69
116	5580	24.53
140	5700	23.87
144	5720	17.44

**1TX (Ant. 1\_Aux. Ant.)**

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)
36	5180	25.36
40	5200	25.16
48	5240	25.13
52	5260	24.71
60	5300	25.35
64	5320	24.22
100	5500	24.78
116	5580	24.71
140	5700	23.97
144	5720	17.51

**802.11n (HT20)**

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)	
		Chain 0	Chain 1
36	5180	25.67	25.43
40	5200	25.99	25.56
48	5240	25.86	25.70
52	5260	25.03	25.44
60	5300	24.95	25.27
64	5320	24.80	24.60
100	5500	25.97	25.11
116	5580	25.50	26.13
140	5700	24.69	25.35
144	5720	17.99	17.97

**802.11n (HT40)**

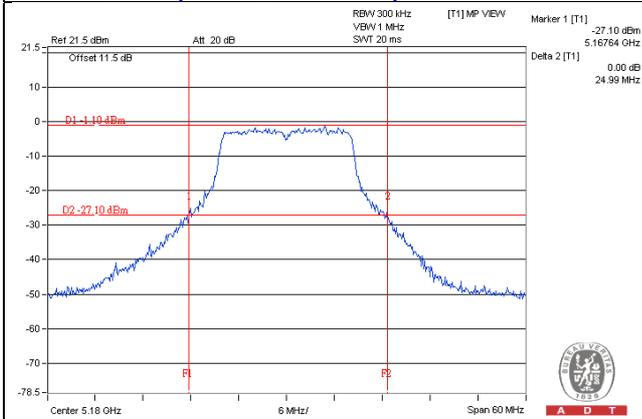
Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)	
		Chain 0	Chain 1
38	5190	43.07	44.23
46	5230	42.89	43.00
54	5270	43.81	44.30
62	5310	42.84	43.56
102	5510	44.04	43.23
110	5550	44.47	43.31
134	5670	44.61	44.23
142	5710	37.14	37.49

**802.11ac (VHT80)**

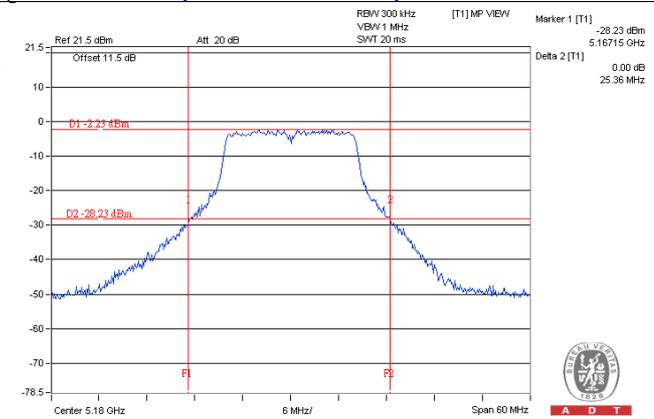
Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)	
		Chain 0	Chain 1
42	5210	81.54	80.76
58	5290	81.39	80.75
106	5530	81.10	81.09
138	5690	75.87	75.75

### Spectrum Plot of Worst Value

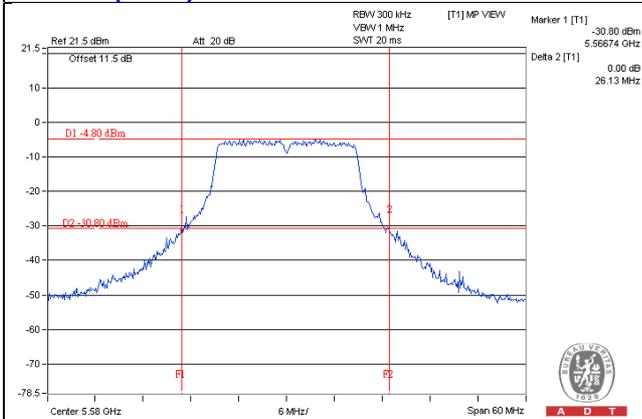
**802.11a\_1TX (Ant. 1\_Main Ant.)**



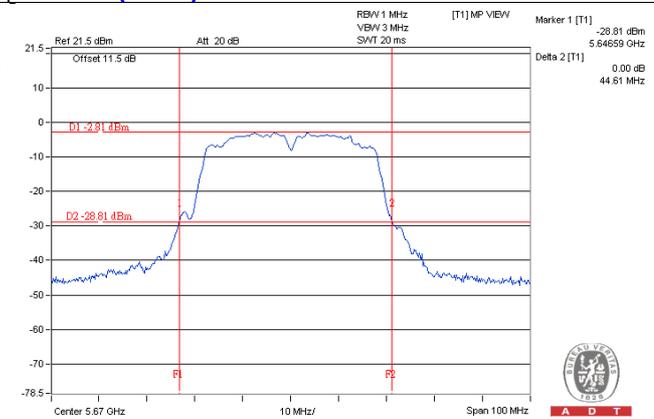
**802.11a\_1TX (Ant. 1\_Aux. Ant.)**



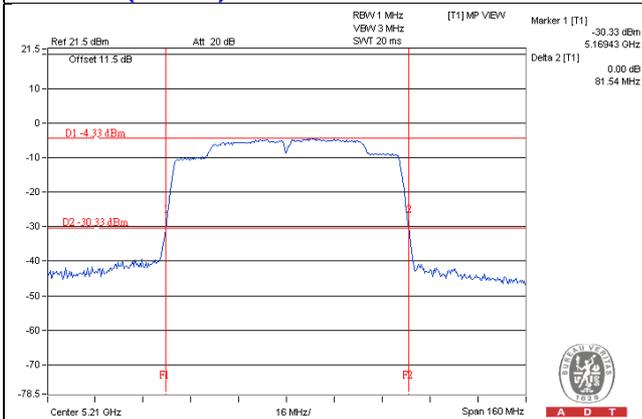
**802.11n (HT20)**



**802.11n (HT40)**



**802.11ac (VHT80)**



**OCCUPIED BANDWIDTH:**
**802.11a**
**1TX (Ant. 1\_Main Ant.)**

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)
36	5180	16.92
40	5200	16.92
48	5240	16.92
52	5260	16.92
60	5300	16.92
64	5320	16.92
100	5500	16.92
116	5580	16.92
140	5700	16.92
144	5720 For U-NII-2C	13.28
144	5720 For U-NII-3	3.16
149	5745	16.96
157	5785	17.04
165	5825	16.92

**1TX (Ant. 1\_Aux. Ant.)**

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)
36	5180	17.04
40	5200	16.92
48	5240	16.92
52	5260	16.92
60	5300	16.92
64	5320	16.92
100	5500	16.92
116	5580	16.92
140	5700	16.92
144	5720 For U-NII-2C	13.40
144	5720 For U-NII-3	3.16
149	5745	16.96
157	5785	16.92
165	5825	16.92

**802.11n (HT20)**

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
36	5180	18.12	18.24
40	5200	18.12	18.12
48	5240	18.12	18.00
52	5260	18.12	18.12
60	5300	18.12	18.12
64	5320	18.12	18.12
100	5500	18.12	18.12
116	5580	18.12	18.12
140	5700	18.12	18.12
144	5720 For U-NII-2C	13.88	13.88
144	5720 For U-NII-3	3.76	3.88
149	5745	18.12	18.12
157	5785	18.12	18.12
165	5825	18.12	18.12

**802.11n (HT40)**

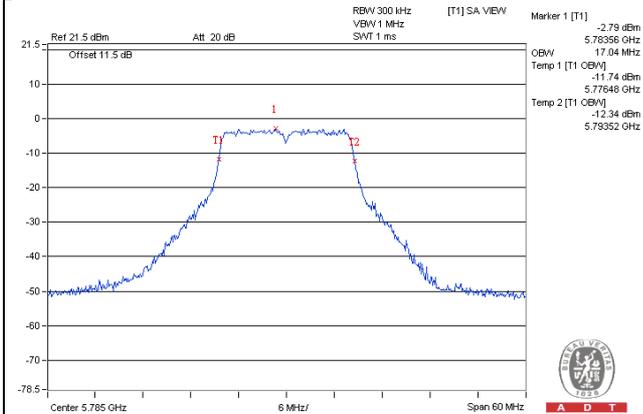
Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
38	5190	36.24	36.24
46	5230	36.12	36.24
54	5270	36.24	36.24
62	5310	36.24	36.24
102	5510	36.24	36.12
110	5550	36.24	36.12
134	5670	36.12	36.12
142	5710 For U-NII-2C	33.12	33.12
142	5710 For U-NII-3	3.00	3.00
151	5755	36.12	36.12
159	5795	36.24	36.12

**802.11ac (VHT80)**

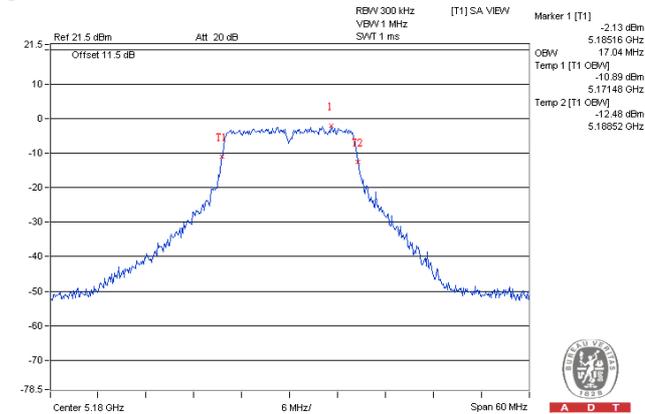
Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
42	5210	74.76	75.04
58	5290	75.04	75.04
106	5530	74.76	74.76
138	5690 For U-NII-2C	72.68	72.44
138	5690 For U-NII-3	2.20	2.20
155	5775	74.76	74.76

Spectrum Plot of Worst Value

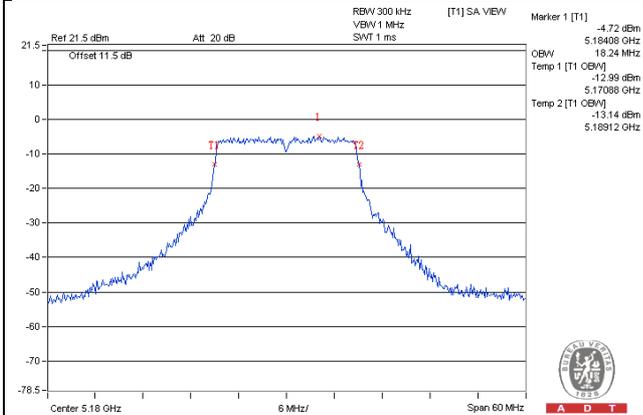
802.11a\_1TX (Ant. 1\_Main Ant.)



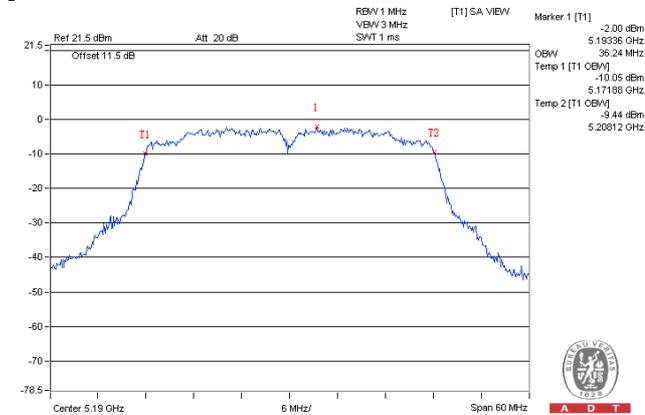
802.11a\_1TX (Ant. 1\_Aux. Ant.)



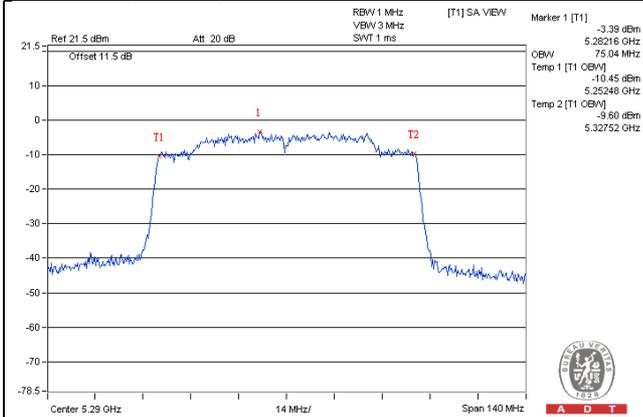
802.11n (HT20)



802.11n (HT40)



802.11ac (VHT80)



**EUT MAXIMUM CONDUCTED POWER**
**802.11a**
**1TX (Ant. 1\_Main Ant.)**

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	6.918	8.40
5470~5725	6.776	8.31

**1TX (Ant. 1\_Aux. Ant.)**

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	6.855	8.36
5470~5725	6.823	8.34

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

**802.11n (HT20)**

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	7.056	8.49
5470~5725	6.999	8.45

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

**802.11n (HT40)**

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	6.488	8.12
5470~5725	7.009	8.46

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

**802.11ac (VHT80)**

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	6.977	8.44
5470~5725	6.762	8.30

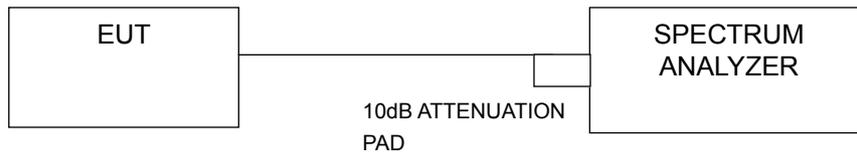
**NOTE:** Manufacturer provides Transmit Power Control description to meet this requirement.

#### 4.4 Peak Power Spectral Density Measurement

##### 4.4.1 Limits of Peak Power Spectral Density Measurement

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

##### 4.4.2 Test Setup



##### 4.4.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

#### 4.4.4 Test Procedures

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

###### Without duty cycle (Using method SA-1):

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

###### With duty cycle (Using method SA-2):

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

##### For U-NII-3 band:

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

#### 4.4.5 Deviation from Test Standard

No deviation.

#### 4.4.6 EUT Operating Conditions

Same as Item 4.3.6.

#### 4.4.7 Test Results

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

#### 802.11a

#### 1TX (Ant. 1\_Main Ant.)

Chan.	Freq. (MHz)	PSD (dBm)	Max. Limit (dBm)	Pass / Fail
36	5180	-6.79	11.00	Pass
40	5200	-7.02	11.00	Pass
48	5240	-6.30	11.00	Pass
52	5260	-6.10	11.00	Pass
60	5300	-6.47	11.00	Pass
64	5320	-5.84	11.00	Pass
100	5500	-6.72	11.00	Pass
116	5580	-6.28	11.00	Pass
140	5700	-5.83	11.00	Pass
144	5720 For U-NII-2C	-7.67	11.00	Pass

#### 1TX (Ant. 1\_Aux. Ant.)

Chan.	Freq. (MHz)	PSD (dBm)	Max. Limit (dBm)	Pass / Fail
36	5180	-7.18	11.00	Pass
40	5200	-6.62	11.00	Pass
48	5240	-7.27	11.00	Pass
52	5260	-7.31	11.00	Pass
60	5300	-7.21	11.00	Pass
64	5320	-7.06	11.00	Pass
100	5500	-6.34	11.00	Pass
116	5580	-6.47	11.00	Pass
140	5700	-6.64	11.00	Pass
144	5720 For U-NII-2C	-7.89	11.00	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.

**802.11n (HT20)**

Chan.	Freq. (MHz)	PSD (dBm)		Total PSD (dBm)	Max. Limit (dBm)	Pass / Fail
		Chain 0	Chain 1			
36	5180	-9.82	-10.84	-7.29	11.00	Pass
40	5200	-9.62	-9.81	-6.70	11.00	Pass
48	5240	-9.33	-11.22	-7.16	11.00	Pass
52	5260	-9.47	-11.25	-7.26	11.00	Pass
60	5300	-9.99	-11.57	-7.70	11.00	Pass
64	5320	-9.40	-12.09	-7.53	11.00	Pass
100	5500	-9.81	-11.90	-7.72	11.00	Pass
116	5580	-9.59	-9.74	-6.65	11.00	Pass
140	5700	-9.43	-10.57	-6.95	11.00	Pass
144	5720 For U-NII-2C	-12.94	-12.29	-9.59	11.00	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.
- For U-NII 1 Band: Directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/2] = 1.44\text{dBi} < 6\text{dBi}$ , so the power density limit no need to reduce.  
 For U-NII 2A Band: Directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/2] = 1.44\text{dBi} < 6\text{dBi}$ , so the power density limit no need to reduce.  
 For U-NII 2C Band: Directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/2] = 2.20\text{dBi} < 6\text{dBi}$ , so the power density limit no need to reduce.

**802.11n (HT40)**

Chan.	Freq. (MHz)	PSD (dBm)		Total PSD w/o duty factor (dBm)	Duty factor	Total PSD with duty factor (dBm)	Max. Limit (dBm)	Pass / Fail
		Chain 0	Chain 1					
38	5190	-12.90	-12.87	-9.87	0.17	-9.70	11.00	Pass
46	5230	-12.22	-12.78	-9.48	0.17	-9.31	11.00	Pass
54	5270	-13.76	-14.00	-10.87	0.17	-10.70	11.00	Pass
62	5310	-12.21	-12.37	-9.28	0.17	-9.11	11.00	Pass
102	5510	-12.51	-11.37	-8.89	0.17	-8.72	11.00	Pass
110	5550	-13.48	-11.47	-9.35	0.17	-9.18	11.00	Pass
134	5670	-13.70	-12.88	-10.26	0.17	-10.09	11.00	Pass
142	5710 For U-NII-2C	-13.65	-14.91	-11.22	0.17	-11.05	11.00	Pass

Note:

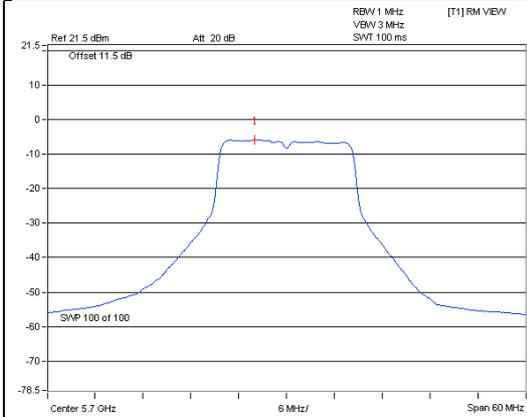
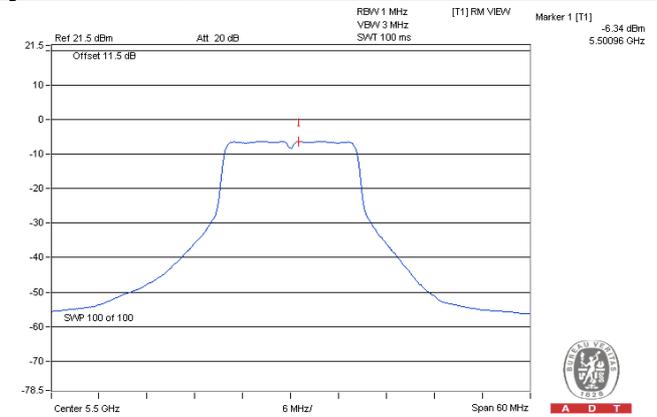
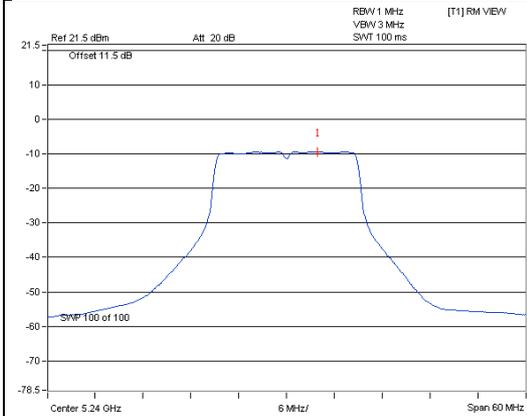
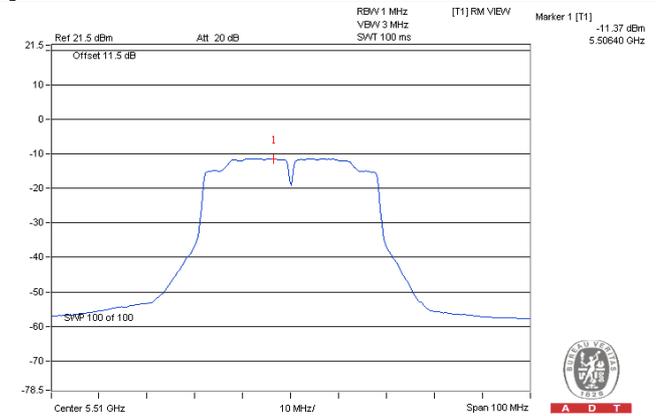
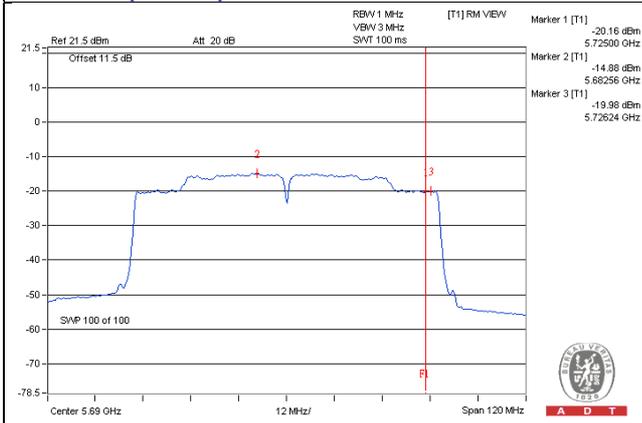
- Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
- For U-NII 1 Band: Directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/2] = 1.44\text{dBi} < 6\text{dBi}$ , so the power density limit no need to reduce.  
 For U-NII 2A Band: Directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/2] = 1.44\text{dBi} < 6\text{dBi}$ , so the power density limit no need to reduce.  
 For U-NII 2C Band: Directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/2] = 2.20\text{dBi} < 6\text{dBi}$ , so the power density limit no need to reduce.
- Refer to section 3.3 for duty cycle spectrum plot.

**802.11ac (VHT80)**

Chan.	Freq. (MHz)	PSD (dBm)		Total PSD w/o duty factor (dBm)	Duty factor	Total PSD with duty factor (dBm)	Max. Limit (dBm)	Pass / Fail
		Chain 0	Chain 1					
42	5210	-15.07	-15.34	-12.20	0.58	-11.62	11.00	Pass
58	5290	-15.21	-15.14	-12.17	0.58	-11.59	11.00	Pass
106	5530	-15.87	-16.51	-13.18	0.58	-12.60	11.00	Pass
138	5690 For U-NII-2C	-16.54	-14.88	-12.63	0.58	-12.05	11.00	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.
- For U-NII 1 Band: Directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/2] = 1.44\text{dBi} < 6\text{dBi}$ , so the power density limit no need to reduce.  
 For U-NII 2A Band: Directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/2] = 1.44\text{dBi} < 6\text{dBi}$ , so the power density limit no need to reduce.  
 For U-NII 2C Band: Directional gain =  $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/2] = 2.20\text{dBi} < 6\text{dBi}$ , so the power density limit no need to reduce.
- Refer to section 3.3 for duty cycle spectrum plot.

**Spectrum Plot of Worst Value**
**802.11a\_1TX (Ant. 1\_Main Ant.) / Ch 64**

**802.11a\_1TX (Ant. 1\_Aux. Ant.) / Ch 100**

**802.11n (HT20) / Ch 48 / Chain 0**

**802.11n (HT40) / Ch 102 / Chain 1**

**802.11ac (VHT80) / Ch 138 / Chain 1**


## For U-NII-3 Band

### 802.11a

#### 1TX (Ant. 1\_Main Ant.)

Chan.	Freq. (MHz)	PSD (dBm/300kHz)	PSD (dBm/500kHz)	Limit (dBm/500kHz)	Pass / Fail
144	5720 For U-NII-3	-15.42	-13.20	30.00	Pass
149	5745	-15.88	-13.66	30.00	Pass
157	5785	-15.66	-13.44	30.00	Pass
165	5825	-15.43	-13.21	30.00	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.

#### 1TX (Ant. 1\_Aux. Ant.)

Chan.	Freq. (MHz)	PSD (dBm/300kHz)	PSD (dBm/500kHz)	Limit (dBm/500kHz)	Pass / Fail
144	5720 For U-NII-3	-16.99	-14.77	30.00	Pass
149	5745	-15.68	-13.46	30.00	Pass
157	5785	-15.44	-13.22	30.00	Pass
165	5825	-14.99	-12.77	30.00	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.

### 802.11n (HT20)

TX chain	Chan.	Freq. (MHz)	PSD (dBm/300 kHz)	PSD (dBm/500 kHz)	10 log (N=2) dB	Total PSD (dBm/500 kHz)	Limit (dBm/500 kHz)	Pass / Fail
0	144	5720 For U-NII-3	-20.85	-18.63	3.01	-15.62	30.00	Pass
	149	5745	-19.44	-17.22	3.01	-14.21	30.00	Pass
	157	5785	-18.75	-16.53	3.01	-13.52	30.00	Pass
	165	5825	-20.09	-17.87	3.01	-14.86	30.00	Pass
1	144	5720 For U-NII-3	-21.10	-18.88	3.01	-15.87	30.00	Pass
	149	5745	-18.08	-15.86	3.01	-12.85	30.00	Pass
	157	5785	-18.90	-16.68	3.01	-13.67	30.00	Pass
	165	5825	-18.17	-15.95	3.01	-12.94	30.00	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 =  $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/2] = 0.58 \text{dBi} < 6 \text{dBi}$ , so the power density limit no need to reduce.

**802.11n (HT40)**

TX chain	Chan.	Freq. (MHz)	PSD (dBm/300 kHz)	PSD (dBm/500 kHz)	10 log (N=2) dB	Duty factor	Total PSD (dBm/500 kHz)	Limit (dBm/500 kHz)	Pass / Fail
0	142	5710 For U-NII-3	-26.00	-23.78	3.01	0.17	-20.60	30.00	Pass
	151	5755	-21.65	-19.43	3.01	0.17	-16.25	30.00	Pass
	159	5795	-22.75	-20.53	3.01	0.17	-17.35	30.00	Pass
1	142	5710 For U-NII-3	-26.97	-24.75	3.01	0.17	-21.57	30.00	Pass
	151	5755	-21.11	-18.89	3.01	0.17	-15.71	30.00	Pass
	159	5795	-20.45	-18.23	3.01	0.17	-15.05	30.00	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 =  $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/2] = 0.58\text{dBi} < 6\text{dBi}$ , so the power density limit no need to reduce.
- Refer to section 3.3 for duty cycle spectrum plot.

**802.11ac (VHT80)**

TX chain	Chan.	Freq. (MHz)	PSD (dBm/300 kHz)	PSD (dBm/500 kHz)	10 log (N=2) dB	Duty factor	Total PSD (dBm/500 kHz)	Limit (dBm/500 kHz)	Pass / Fail
0	138	5690 For U-NII-3	-30.35	-28.13	3.01	0.58	-24.54	30.00	Pass
	155	5775	-24.62	-22.40	3.01	0.58	-18.81	30.00	Pass
1	138	5690 For U-NII-3	-28.55	-26.33	3.01	0.58	-22.74	30.00	Pass
	155	5775	-24.25	-22.03	3.01	0.58	-18.44	30.00	Pass

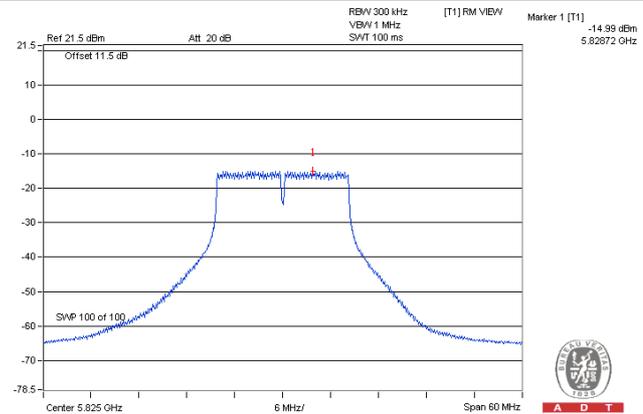
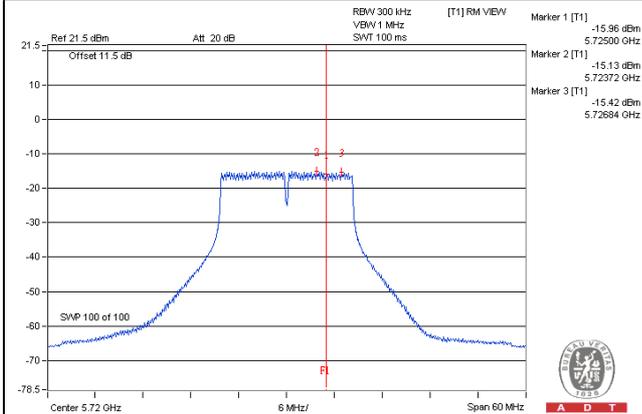
Note:

- 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 =  $10 \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2/2] = 0.58\text{dBi} < 6\text{dBi}$ , so the power density limit no need to reduce.
- Refer to section 3.3 for duty cycle spectrum plot.

Spectrum Plot of Worst Value

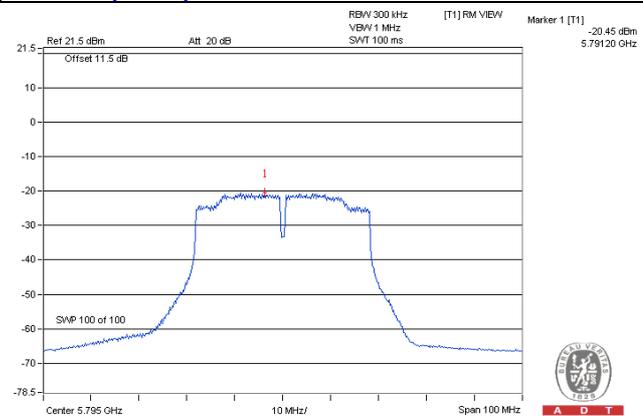
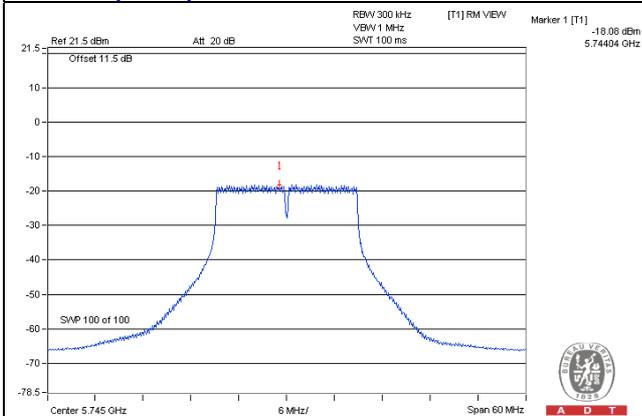
802.11a\_1TX (Ant. 1\_Main Ant.)

802.11a\_1TX (Ant. 1\_Aux. Ant.)

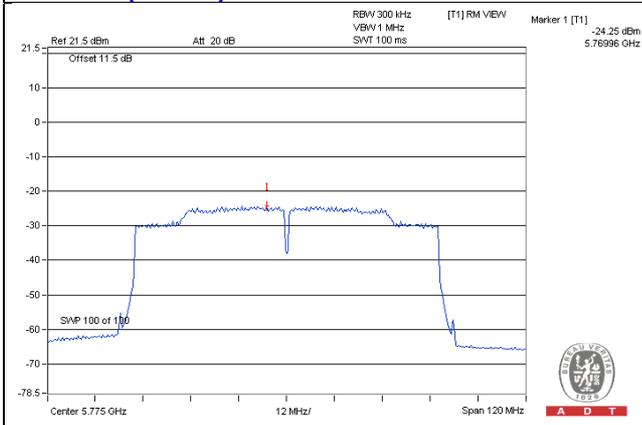


802.11n (HT20)

802.11n (HT40)



802.11ac (VHT80)

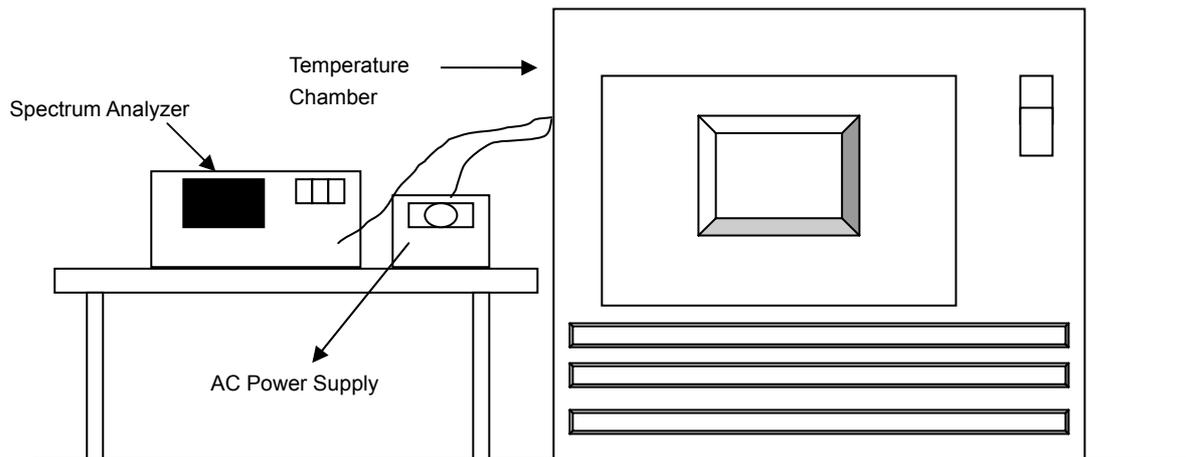


## 4.5 Frequency Stability

### 4.5.1 Limits of Frequency Stability Measurement

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

### 4.5.2 Test Setup



### 4.5.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

### 4.5.4 Test Procedure

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

### 4.5.5 Deviation from Test Standard

No deviation.

### 4.5.6 EUT Operating Condition

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

#### 4.5.7 Test Results

Frequency Stability Versus Temp.									
Operating Frequency: 5700MHz									
Temp. (°C)	Power Supply (Vac)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Frequency Drift (%)						
50	120	5700.0051	0.00009	5700.0048	0.00008	5700.008	0.00014	5700.0067	0.00012
40	120	5700.0257	0.00045	5700.0252	0.00044	5700.0244	0.00043	5700.0276	0.00048
30	120	5699.9783	-0.00038	5699.9792	-0.00036	5699.9782	-0.00038	5699.9766	-0.00041
20	120	5699.9811	-0.00033	5699.9804	-0.00034	5699.9783	-0.00038	5699.9770	-0.00040
10	120	5699.9987	-0.00002	5699.9995	-0.00001	5700.0025	0.00004	5700.0038	0.00007
0	120	5700.0209	0.00037	5700.0172	0.00030	5700.0169	0.00030	5700.0173	0.00030
-10	120	5699.9958	-0.00007	5699.9971	-0.00005	5699.9975	-0.00004	5699.9960	-0.00007
-20	120	5700.0050	0.00009	5700.0015	0.00003	5700.0002	0.00000	5700.0022	0.00004
-30	120	5699.9849	-0.00026	5699.9828	-0.00030	5699.9830	-0.00030	5699.9817	-0.00032

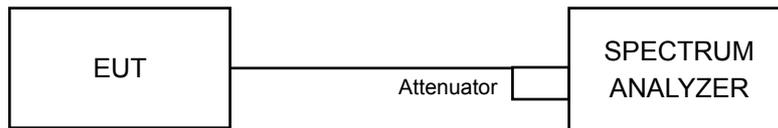
Frequency Stability Versus Temp.									
Operating Frequency: 5700MHz									
Temp. (°C)	Power Supply (Vac)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Frequency Drift (%)						
20	138	5699.9803	-0.00035	5699.9806	-0.00034	5699.9774	-0.00040	5699.9774	-0.00040
	120	5699.9811	-0.00033	5699.9804	-0.00034	5699.9783	-0.00038	5699.9770	-0.00040
	102	5699.9813	-0.00033	5699.9803	-0.00035	5699.9783	-0.00038	5699.9772	-0.00040

## 4.6 6dB Bandwidth Measurement

### 4.6.1 Limits of 6dB Bandwidth Measurement

The minimum of 6dB Bandwidth Measurement is 0.5MHz.

### 4.6.2 Test Setup



### 4.6.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

### 4.6.4 Test Procedure

#### MEASUREMENT PROCEDURE REF

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

### 4.6.5 Deviation from Test Standard

No deviation.

### 4.6.6 EUT Operating Condition

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

#### 4.6.7 Test Results

##### 802.11a

##### 1TX (Ant. 1\_Main Ant.)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
144	5720 For U-NII-3	3.18	0.5	Pass
149	5745	16.39	0.5	Pass
157	5785	16.40	0.5	Pass
165	5825	16.40	0.5	Pass

##### 1TX (Ant. 1\_Aux. Ant.)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
144	5720 For U-NII-3	3.18	0.5	Pass
149	5745	16.38	0.5	Pass
157	5785	16.41	0.5	Pass
165	5825	16.41	0.5	Pass

##### 802.11n (HT20)

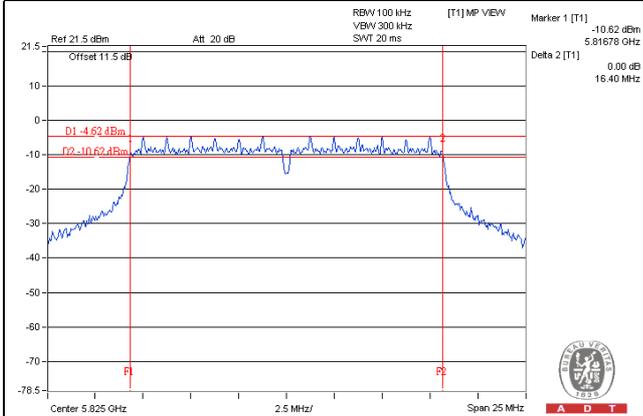
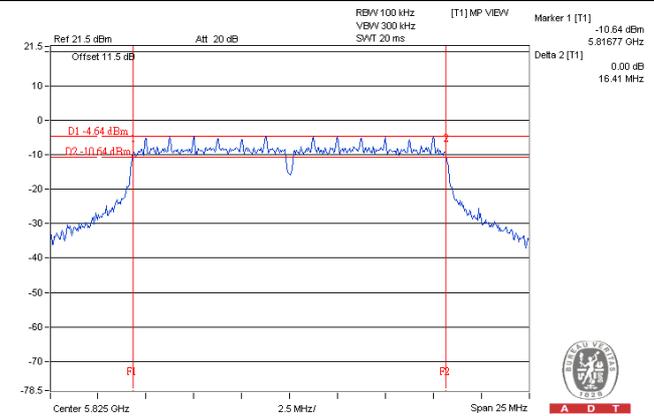
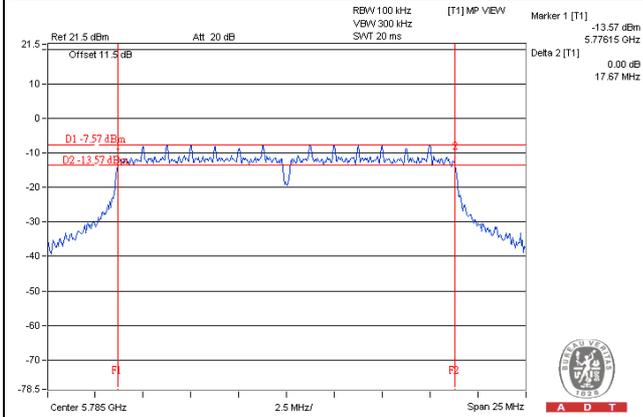
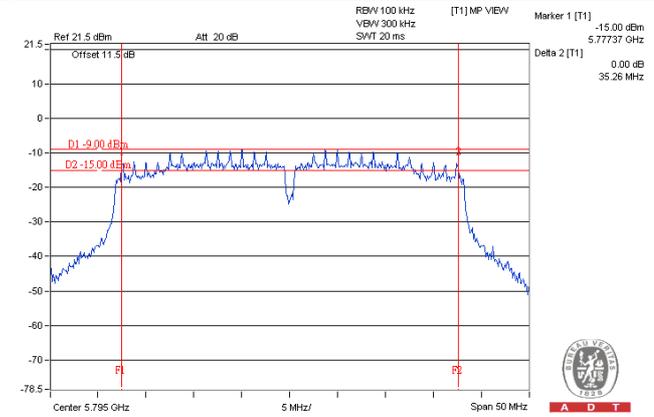
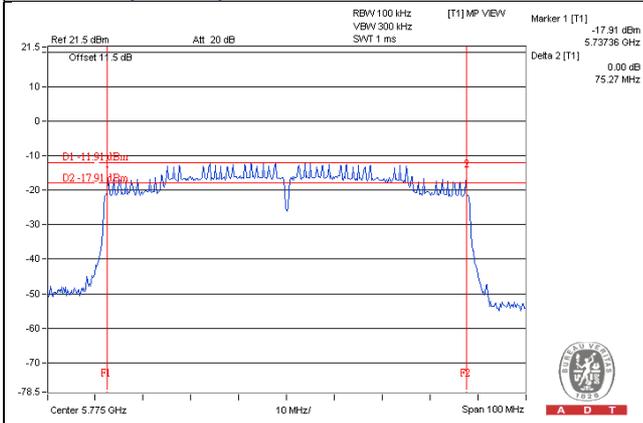
Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
144	5720 For U-NII-3	3.77	3.55	0.5	Pass
149	5745	17.66	17.65	0.5	Pass
157	5785	17.66	17.67	0.5	Pass
165	5825	17.00	17.66	0.5	Pass

##### 802.11n (HT40)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
142	5710 For U-NII-3	2.54	2.62	0.5	Pass
151	5755	35.12	35.24	0.5	Pass
159	5795	35.26	35.26	0.5	Pass

##### 802.11ac (VHT80)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
138	5690 For U-NII-3	0.77	2.60	0.5	Pass
155	5775	71.67	75.27	0.5	Pass

**Spectrum Plot of Worst Value****802.11a\_1TX (Ant. 1\_Main Ant.)****802.11a\_1TX (Ant. 1\_Aux. Ant.)****802.11n (HT20)****802.11n (HT40)****802.11ac (VHT80)**

## 5 Pictures of Test Arrangements

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

## Appendix – Information on the Testing Laboratories

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

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

### **Linko EMC/RF Lab**

Tel: 886-2-26052180

Fax: 886-2-26051924

### **Hsin Chu EMC/RF/Telecom Lab**

Tel: 886-3-6668565

Fax: 886-3-6668323

### **Hwa Ya EMC/RF/Safety**

Tel: 886-3-3183232

Fax: 886-3-3270892

**Email:** [service.adt@tw.bureauveritas.com](mailto:service.adt@tw.bureauveritas.com)

**Web Site:** [www.bureauveritas-adt.com](http://www.bureauveritas-adt.com)

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

--- END ---