FCC Test Report

Report No.:	RF160720C36-1
FCC ID:	UDX-60051010
Test Model:	MR30H-HW
Received Date:	Jul. 11, 2016
Test Date:	Jul. 11 ~ Aug. 31, 2016
Issued Date:	Sep. 08, 2016
Applicant:	Cisco Systems, Inc.
Address:	170 West Tasman Drive, San Jose, CA 95134
Issued By:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
Lab Address:	No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan (R.O.C.)
Test Location:	No.19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City 33383, TAIWAN (R.O.C.)

Testing Laboratory
2021

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Release Control Record

Issue No.	Description	Date Issued
RF160720C36-1	Original release.	Sep. 08, 2016

1 Certificate of Conformity

Product:	Wireless 802.11 abgn/ac indoor AP
Brand:	Cisco
Test Model:	MR30H-HW
Sample Status:	Engineering sample
Applicant:	Cisco Systems, Inc.
Test Date:	Jul. 11 ~ Aug. 31, 2016
Standard:	47 CFR FCC Part 15, Subpart E (Section 15.407) ANSI C63.10:2013

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

Prepared by : _____ , **Date:** Sep. 08, 2016

Pettie Chen / Senior Specialist

Approved by : _____ , **Date:** Sep. 08, 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 -2.69dB at 0.55273MHz.
15.407(b) (1/2/3/4(i/ii)/6)	Radiated Emissions & Band Edge Measurement	Pass	Meet the requirement of limit. Minimum passing margin is -1.0dB at 5150.00MHz.
15.407(a) (1/2/3)	Max Average Transmit Power	Pass	Meet the requirement of limit.
15.407(a) (1/2/3)	Peak Power Spectral Density	Pass	Meet the requirement of limit.
15.407(e)	6dB bandwidth	Pass	Meet the requirement of limit. (U-NII-3 Band only)
15.407(g)	Frequency Stability	Pass	Meet the requirement of limit.
15.203	Antenna Requirement	Pass	Radio 2: Antenna connector is IPEX not a standard connector. Radio 3: No antenna connector is used.

*For U-NII-3 band compliance with rule part 15.407(b)(i), the OOBE test plots were recorded in Annex A.

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	3.86 dB
	200MHz ~1000MHz	3.87 dB
Radiated Emissions above 1 GHz	1GHz ~ 18GHz	2.29 dB
	18GHz ~ 40GHz	2.29 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	Wireless 802.11 abgn/ac indoor AP
Brand	Cisco
Test Model	MR30H-HW
Status of EUT	Engineering sample
Power Supply Rating	48Vdc (POE)
Modulation Type	256QAM, 64QAM, 16QAM, QPSK, BPSK
Modulation Technology	OFDM
Transfer Rate	802.11a: 54.0/ 48.0/ 36.0/ 24.0/ 18.0/ 12.0/ 9.0/ 6.0Mbps 802.11n: up to 300.0Mbps 802.11ac: up to 867Mbps
Operating Frequency	5180 ~ 5240MHz & 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) 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	Radio 2: CDD Mode 5180 ~ 5240MHz: 159.415mW 5745 ~ 5825MHz: 210.708mW Beamforming Mode 5180 ~ 5240MHz: 162.777mW 5745 ~ 5825MHz: 233.950mW Radio 3: CDD Mode 5180 ~ 5240MHz: 77.268mW 5745 ~ 5825MHz: 62.661mW
Antenna Type	Refer to note 2
Antenna Connector	Refer to note 2
Accessory Device	NA
Data Cable Supplied	NA

Note:

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

Modulation Mode	TX Function	Beamforming	Remark
802.11a	2TX	Not Support	Radio 2
802.11n (HT20)	2TX	Support	
802.11n (HT40)	2TX	Support	
802.11ac (VHT20)	2TX	Support	
802.11ac (VHT40)	2TX	Support	
802.11ac (VHT80)	2TX	Support	
802.11a	1TX	Not Support	Radio 3
802.11n (HT20)	1TX	Not Support	
802.11n (HT40)	1TX	Not Support	
802.11ac (VHT20)	1TX	Not Support	
802.11ac (VHT40)	1TX	Not Support	
802.11ac (VHT80)	1TX	Not Support	

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

* For 5GHz band, CDD mode is the worst case for final radiated emission (Frequency below 1GHz) and power line conducted emission tests after pretesting CDD mode and beamforming mode.

2. The EUT with follow antennas gain is listed as table below.

No.	Type	Connector	Gain(dBi)		Remark
			2.4GHz	5GHz	
1	PIFA	IPEX	3.99	4.84	2.4G for Radio 1 (WLAN) 5G for Radio 2 (WLAN)
2	PIFA	IPEX	3.42	4.87	
3	Chip	NA	2.27	5.18	Radio 3 (WLAN)
4	Chip	NA	2.66	-	Radio 4 (BT LE)

3. The EUT consumes power from the following POE. (Support unit only)

POE	
Brand	EnGenius
Model	EPE-48GR
Power Rating	48Vdc, 0.8A, 38.4W Max

Adapter for POE	
Brand	Powertron Electronics Corp.
Model	PA1040-480IB080
Input Power	100-240Vac, 50-60Hz, 1.5A
Output Power	48Vdc, 0.8A, 38.4W Max
Power Line	1.55m cable with one core attached on adapter

4. Spurious emission of the simultaneous operation (2.4GHz and 5GHz) has been evaluated and no non-compliance was found.

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

3.2 Description of Test Modes

FOR 5180 ~ 5240MHz

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

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

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

Channel	Frequency	Channel	Frequency
38	5190 MHz	46	5230 MHz

1 channel is provided for 802.11ac (VHT80):

Channel	Frequency
42	5210MHz

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

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

Radiated Emission Test (Above 1GHz):

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

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

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)	Remark
CDD Mode								
-	802.11a	5180-5240	36 to 48	36, 40, 48	OFDM	BPSK	6.0	Radio 2 (2TX)
			36 to 48	36, 40, 48	OFDM	BPSK	6.0	Radio 3 (1TX)
-	802.11n (HT20)		36 to 48	36, 40, 48	OFDM	BPSK	6.5	Radio 2 (2TX)
			36 to 48	36, 40, 48	OFDM	BPSK	6.5	Radio 3 (1TX)
-	802.11n (HT40)		38 to 46	38, 46	OFDM	BPSK	13.5	Radio 2 (2TX)
			38 to 46	38, 46	OFDM	BPSK	13.5	Radio 3 (1TX)
-	802.11ac (VHT80)		42	42	OFDM	BPSK	58.5	Radio 2 (2TX)
			42	42	OFDM	BPSK	29.3	Radio 3 (1TX)
-	802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	BPSK	6.0	Radio 2 (2TX)
			149 to 165	149, 157, 165	OFDM	BPSK	6.0	Radio 3 (1TX)
-	802.11n (HT20)		149 to 165	149, 157, 165	OFDM	BPSK	6.5	Radio 2 (2TX)
			149 to 165	149, 157, 165	OFDM	BPSK	6.5	Radio 3 (1TX)
-	802.11n (HT40)		151 to 159	151, 159	OFDM	BPSK	13.5	Radio 2 (2TX)
			151 to 159	151, 159	OFDM	BPSK	13.5	Radio 3 (1TX)
-	802.11ac (VHT80)		155	155	OFDM	BPSK	58.5	Radio 2 (2TX)
			155	155	OFDM	BPSK	29.3	Radio 3 (1TX)
Beamforming Mode								
-	802.11ac (VHT20)	5180-5240	36 to 48	36, 40, 48	OFDM	BPSK	6.5	Radio 2 (2TX)
-	802.11ac (VHT40)		38 to 46	38, 46	OFDM	BPSK	13.5	Radio 2 (2TX)
-	802.11ac (VHT80)		42	42	OFDM	BPSK	58.5	Radio 2 (2TX)
-	802.11ac (VHT20)	5745-5825	149 to 165	149, 157, 165	OFDM	BPSK	6.5	Radio 2 (2TX)
-	802.11ac (VHT40)		151 to 159	151, 159	OFDM	BPSK	13.5	Radio 2 (2TX)
-	802.11ac (VHT80)		155	155	OFDM	BPSK	58.5	Radio 2 (2TX)

Radiated Emission Test (Below 1GHz):

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

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

EUT CONFIGURE MODE	MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)	Remark
CDD Mode								
-	802.11a	5180-5320 5745-5825	36 to 64 149 to 165	36	OFDM	BPSK	6.0	Radio 2 (2TX)
-	802.11a	5180-5320 5745-5825	36 to 64 149 to 165	36	OFDM	BPSK	6.0	Radio 3 (1TX)

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)	Remark
CDD Mode								
-	802.11a	5180-5320 5745-5825	36 to 64 149 to 165	36	OFDM	BPSK	6.0	Radio 2 (2TX)
-	802.11a	5180-5320 5745-5825	36 to 64 149 to 165	36	OFDM	BPSK	6.0	Radio 3 (1TX)

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)	Remark
CDD Mode								
-	802.11a	5180-5240	36 to 48	36, 40, 48	OFDM	BPSK	6.0	Radio 2 (2TX)
			36 to 48	36, 40, 48	OFDM	BPSK	6.0	Radio 3 (1TX)
-	802.11n (HT20)		36 to 48	36, 40, 48	OFDM	BPSK	6.5	Radio 2 (2TX)
			36 to 48	36, 40, 48	OFDM	BPSK	6.5	Radio 3 (1TX)
-	802.11n (HT40)		38 to 46	38, 46	OFDM	BPSK	13.5	Radio 2 (2TX)
			38 to 46	38, 46	OFDM	BPSK	13.5	Radio 3 (1TX)
-	802.11ac (VHT80)		42	42	OFDM	BPSK	58.5	Radio 2 (2TX)
			42	42	OFDM	BPSK	29.3	Radio 3 (1TX)
-	802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	BPSK	6.0	Radio 2 (2TX)
			149 to 165	149, 157, 165	OFDM	BPSK	6.0	Radio 3 (1TX)
-	802.11n (HT20)		149 to 165	149, 157, 165	OFDM	BPSK	6.5	Radio 2 (2TX)
			149 to 165	149, 157, 165	OFDM	BPSK	6.5	Radio 3 (1TX)
-	802.11n (HT40)		151 to 159	151, 159	OFDM	BPSK	13.5	Radio 2 (2TX)
			151 to 159	151, 159	OFDM	BPSK	13.5	Radio 3 (1TX)
-	802.11ac (VHT80)		155	155	OFDM	BPSK	58.5	Radio 2 (2TX)
			155	155	OFDM	BPSK	29.3	Radio 3 (1TX)
Beamforming Mode								
-	802.11ac (VHT20)	5180-5240	36 to 48	36, 40, 48	OFDM	BPSK	6.5	Radio 2 (2TX)
-	802.11ac (VHT40)		38 to 46	38, 46	OFDM	BPSK	13.5	Radio 2 (2TX)
-	802.11ac (VHT80)		42	42	OFDM	BPSK	58.5	Radio 2 (2TX)
-	802.11ac (VHT20)	5745-5825	149 to 165	149, 157, 165	OFDM	BPSK	6.5	Radio 2 (2TX)
-	802.11ac (VHT40)		151 to 159	151, 159	OFDM	BPSK	13.5	Radio 2 (2TX)
-	802.11ac (VHT80)		155	155	OFDM	BPSK	58.5	Radio 2 (2TX)

Test Condition:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE≥1G	16 deg. C, 70% RH 18 deg. C, 70% RH	120Vac, 60Hz	James Yang
RE<1G	19 deg. C, 70% RH	120Vac, 60Hz	Jones Chang
PLC	20 deg. C, 71% RH	120Vac, 60Hz	Jones Chang
APCM	25 deg. C, 60% RH	120Vac, 60Hz	Frank Liu Ted Chang

3.3 Duty Cycle of Test Signal

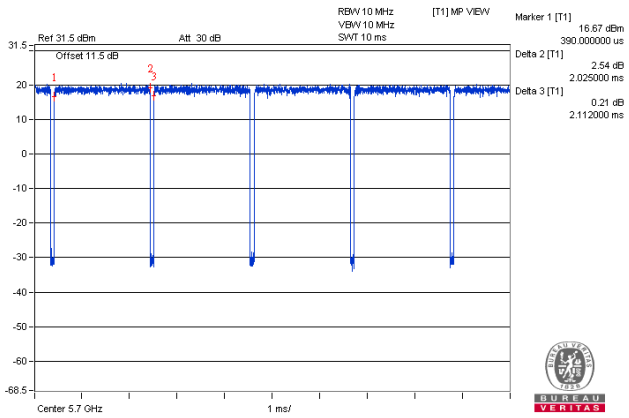
Radio 2

CDD Mode

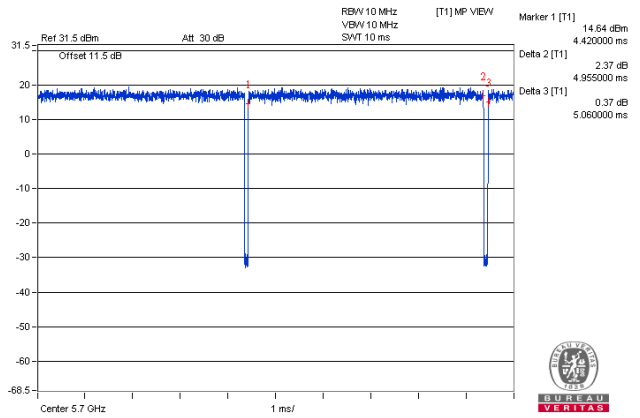
Duty cycle of test signal is < 98 %, duty factor is required

802.11a: Duty cycle = 2.025/2.112 =0.959, Duty factor = 10 * log(1/0.959) = 0.18
802.11n (HT20): Duty cycle = 4.955/5.060 =0.979, Duty factor = 10 * log(1/0.979) = 0.09
802.11n (HT40): Duty cycle = 2.408/2.505 =0.961, Duty factor = 10 * log(1/0.961) = 0.17
802.11ac (VHT80): Duty cycle = 1.132/1.227 =0.923, Duty factor = 10 * log(1/0.923) = 0.35

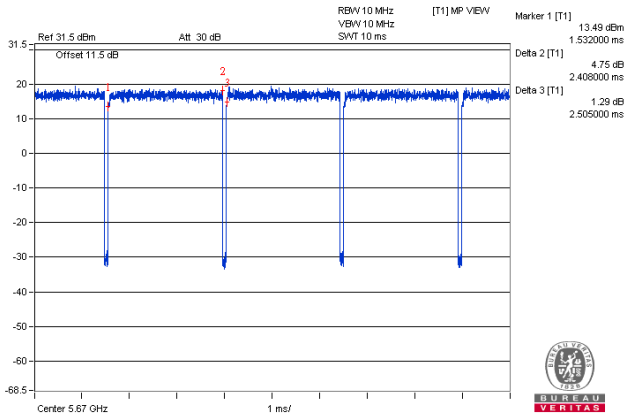
802.11a



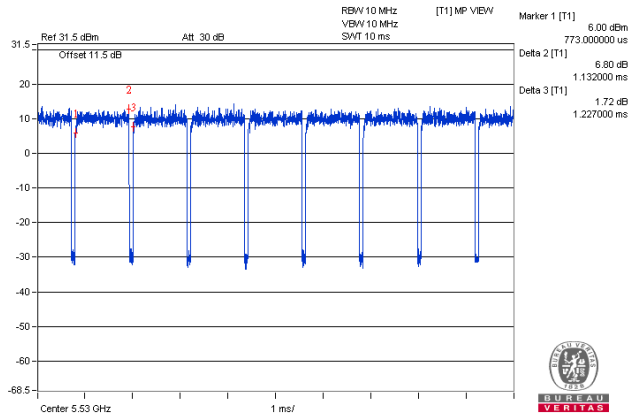
802.11n (HT20)



802.11n (HT40)



802.11ac (VHT80)

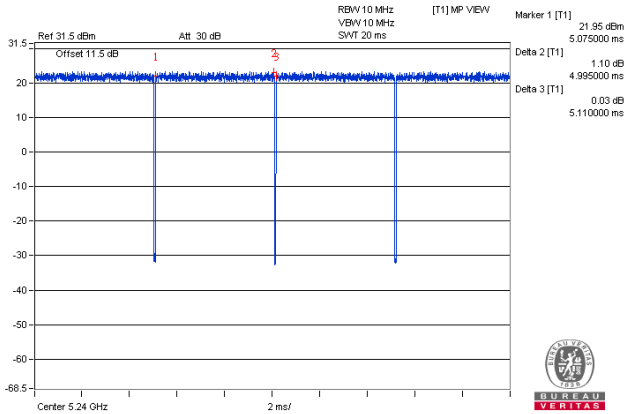


Beamforming Mode

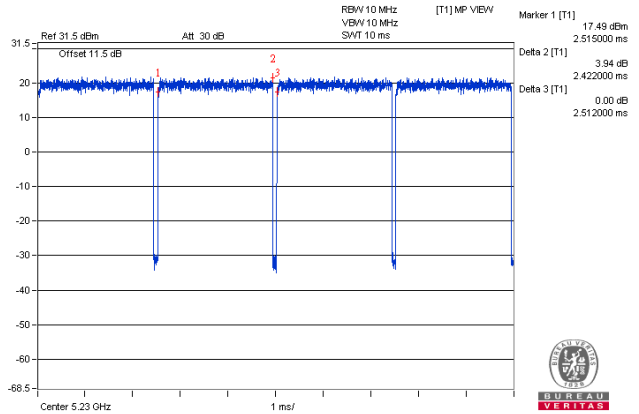
Duty cycle of test signal is < 98 %, duty factor is required

802.11ac (VHT20): Duty cycle = 4.99/5.11= 0.977, Duty factor = 10 * log(1/0.977) = 0.10
802.11ac (VHT40): Duty cycle = 2.422/2.512 = 0.964, Duty factor = 10 * log(1/0.964) = 0.16
802.11ac (VHT80): Duty cycle = 1.145/1.23 =0.931, Duty factor = 10 * log(1/0.931) = 0.31

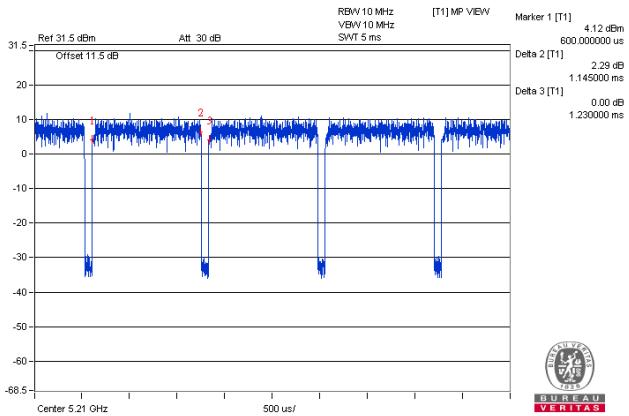
802.11ac (VHT20)



802.11ac (VHT40)



802.11ac (VHT80)



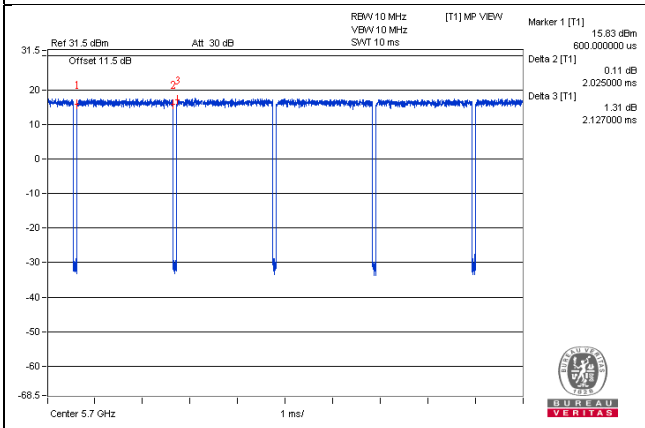
Radio 3

CDD Mode

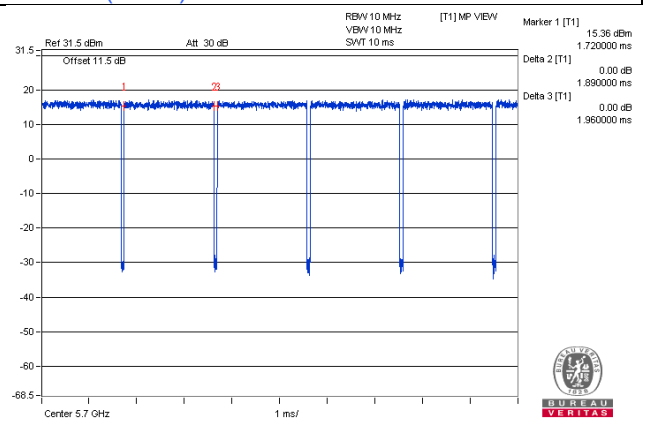
Duty cycle of test signal is < 98 %, duty factor is required

802.11a: Duty cycle = 2.025/2.127 = 0.952, Duty factor = 10 * log(1/0.952) = 0.21
802.11n (HT20): Duty cycle = 1.890/1.960 = 0.964, Duty factor = 10 * log(1/0.964) = 0.16
802.11n (HT40): Duty cycle = 0.917/1.007 = 0.911, Duty factor = 10 * log(1/0.911) = 0.41
802.11ac (VHT80): Duty cycle = 0.450/0.545 = 0.826, Duty factor = 10 * log(1/0.826) = 0.83

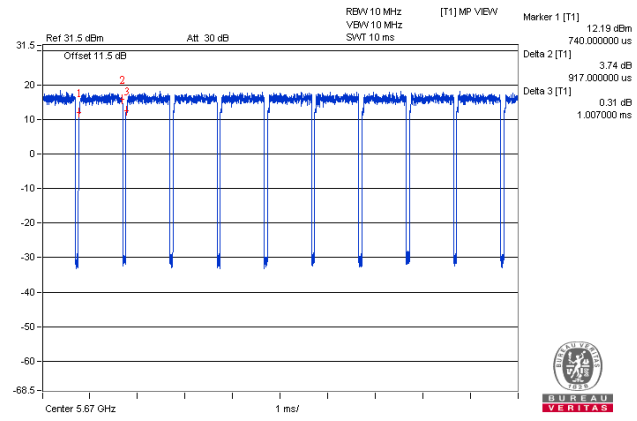
802.11a



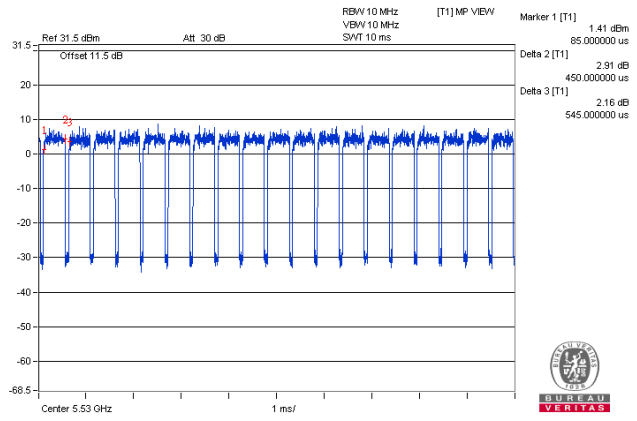
802.11n (HT20)



802.11n (HT40)



802.11ac (VHT80)



3.4 Description of Support Units

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

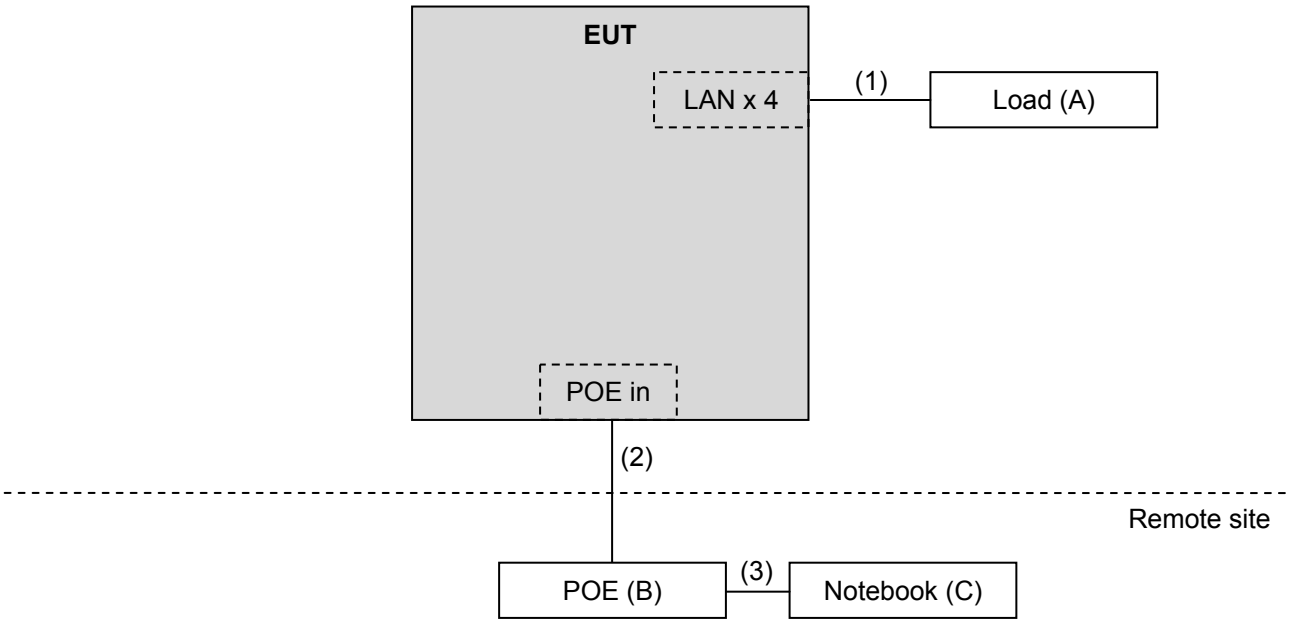
ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Load	N/A	N/A	N/A	N/A	-
B.	POE	EnGenius	EPE-48GR	N/A	N/A	Provided by client
C.	Notebook	DELL	Latitude E6420	HPFC5Q1	FCC DoC Approved	-

Note:

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

ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	RJ45, Cat5e	4	1.8	N	0	-
2.	RJ45, Cat5e	1	3	N	0	-
3.	RJ45, Cat5e	1	1.8	N	0	-

3.4.1 Configuration of System under Test



3.5 General Description of Applied Standard

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

FCC Part 15, Subpart E (15.407)
789033 D02 General UNII Test Procedure New Rules v01r03
662911 D01 Multiple Transmitter Output v02r01
ANSI C63.10-2013

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

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

4 Test Types and Results

4.1 Radiated Emission and Bandedge Measurement

4.1.1 Limits of Radiated Emission and Bandedge Measurement

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

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

NOTE:

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

LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS

Applicable To	Limit	
789033 D02 General UNII Test Procedure New Rules v01r03	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)(i)	PK:-27 (dBm/MHz) *1 PK:10 (dBm/MHz) *2 PK:15.6 (dBm/MHz) *3 PK:27 (dBm/MHz) *4	PK:68.2 (dBμV/m) *1 PK:105.2 (dBμV/m) *2 PK:110.8 (dBμV/m) *3 PK:122.2 (dBμV/m) *4
15.407(b)(4)(ii)	FIELD STRENGTH at 3m / § 15.247(d),	
	PK:74 (dBμV/m)	AV:54 (dBμV/m)

*1 beyond 75 MHz or more above of the band edge.
*2 below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above.
*3 below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above.
*4 from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

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

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

4.1.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Test Receiver ROHDE & SCHWARZ	ESIB7	100187	Apr. 18, 2016	Apr. 17, 2017
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100041	Sep. 02, 2015	Sep. 01, 2016
BILOG Antenna SCHWARZBECK	VULB9168	9168-171	Jan. 07, 2016	Jan. 06, 2017
HORN Antenna SCHWARZBECK	9120D	209	Jan. 20, 2016	Jan. 19, 2017
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170241	Jan. 18, 2016	Jan. 17, 2017
Preamplifier Agilent	8447D	2944A10738	Oct.18, 2015	Oct. 17, 2016
Preamplifier Agilent	8449B	3008A01964	Aug. 22, 2015	Aug. 21, 2016
			Aug. 22, 2016	Aug. 21, 2017
RF signal cable HUBER+SUHNER	SUCOFLEX 104	Cable-CH3-03 (214378)	Aug. 22, 2015	Aug. 21, 2016
			Aug. 22, 2016	Aug. 21, 2017
RF signal cable HUBER+SUHNER	SUCOFLEX 106	Cable-CH3-03 (309224+12738)	Aug. 22, 2015	Aug. 21, 2016
			Aug. 22, 2016	Aug. 21, 2017
Software BV ADT	ADT_Radiated_ V7.6.15.9.4	NA	NA	NA
Antenna Tower inn-co GmbH	MA 4000	013303	NA	NA
Antenna Tower Controller BV ADT	AT100	AT93021702	NA	NA
Turn Table BV ADT	TT100	TT93021702	NA	NA
Turn Table Controller BV ADT	SC100	SC93021702	NA	NA
26GHz ~ 40GHz Amplifier	EM26400	815221	Oct. 18, 2015	Oct. 17, 2016
High Speed Peak Power Meter	ML2495A	1232003	Oct. 07, 2015	Oct. 06, 2016
Power Sensor	MA2411B	1207333	Oct. 07, 2015	Oct. 06, 2016
WIT Standard Temperature And Humidity Chamber	TH-4S-C	W981030	Jun. 08, 2016	Jun. 07, 2017

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

4.1.3 Test Procedure

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

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

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

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

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

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

Note:

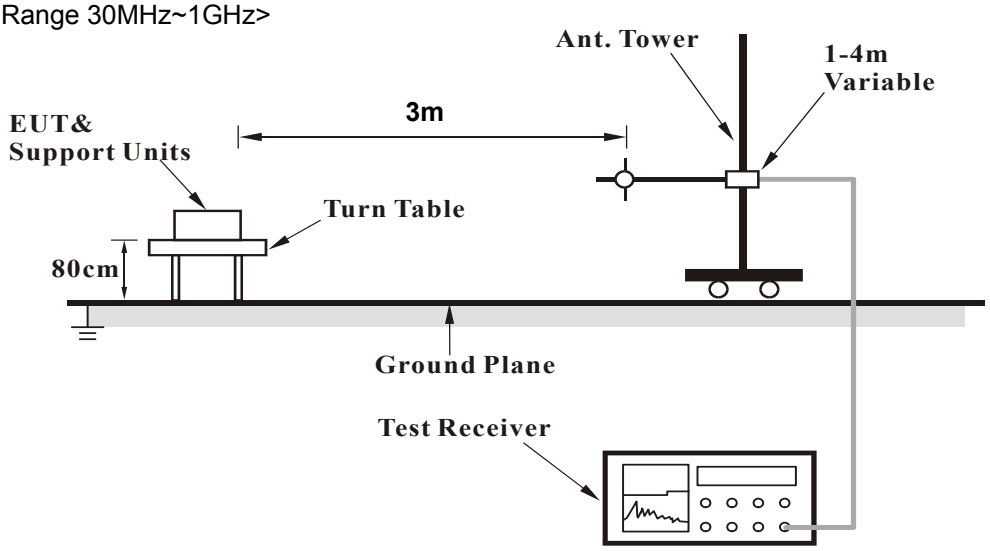
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.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

4.1.4 Deviation from Test Standard

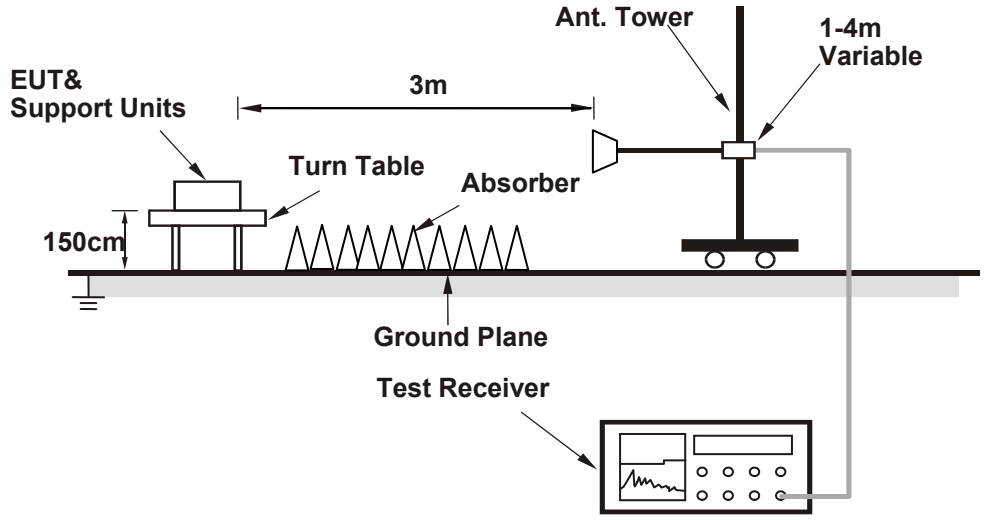
No deviation.

4.1.5 Test Setup

<Frequency Range 30MHz~1GHz>



<Frequency Range above 1GHz>



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

4.1.6 EUT Operating Conditions

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

4.1.7 Test Results

ABOVE 1GHz WORST-CASE DATA：

Radio 2

CDD Mode

802.11a

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	66.5 PK	74.0	-7.5	1.67 H	343	60.5	6.0
2	5150.00	52.4 AV	54.0	-1.6	1.67 H	343	46.4	6.0
3	*5180.00	114.7 PK			3.23 H	352	75.3	39.4
4	*5180.00	104.2 AV			3.23 H	352	64.8	39.4
5	#10360.00	59.4 PK	74.0	-14.6	1.94 H	284	41.6	17.8
6	#10360.00	47.1 AV	54.0	-6.9	1.94 H	284	29.3	17.8
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	66.4 PK	74.0	-7.6	1.81 V	282	60.4	6.0
2	5150.00	51.4 AV	54.0	-2.6	1.81 V	282	45.4	6.0
3	*5180.00	113.4 PK			1.70 V	300	74.0	39.4
4	*5180.00	103.3 AV			1.70 V	300	63.9	39.4
5	#10360.00	59.9 PK	74.0	-14.1	1.72 V	61	42.1	17.8
6	#10360.00	47.1 AV	54.0	-6.9	1.72 V	61	29.3	17.8

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	114.8 PK			1.68 H	324	75.3	39.5
2	*5200.00	104.5 AV			1.68 H	324	65.0	39.5
3	#10400.00	60.7 PK	74.0	-13.3	1.99 H	279	43.0	17.7
4	#10400.00	47.7 AV	54.0	-6.3	1.99 H	279	30.0	17.7
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	115.6 PK			1.97 V	348	76.1	39.5
2	*5200.00	105.0 AV			1.97 V	348	65.5	39.5
3	#10400.00	59.4 PK	74.0	-14.6	2.25 V	105	41.7	17.7
4	#10400.00	46.3 AV	54.0	-7.7	2.25 V	105	28.6	17.7

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	114.2 PK			1.61 H	327	74.6	39.6
2	*5240.00	104.0 AV			1.61 H	327	64.4	39.6
3	5350.00	59.2 PK	74.0	-14.8	2.21 H	183	52.7	6.5
4	5350.00	47.1 AV	54.0	-6.9	2.21 H	183	40.6	6.5
5	#10480.00	61.5 PK	74.0	-12.5	2.33 H	110	42.8	18.7
6	#10480.00	48.6 AV	54.0	-5.4	2.33 H	110	29.9	18.7
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	115.9 PK			2.03 V	289	76.3	39.6
2	*5240.00	105.6 AV			2.03 V	289	66.0	39.6
3	5350.00	59.6 PK	74.0	-14.4	1.84 V	28	53.1	6.5
4	5350.00	46.5 AV	54.0	-7.5	1.84 V	28	40.0	6.5
5	#10480.00	60.3 PK	74.0	-13.7	2.25 V	184	41.6	18.7
6	#10480.00	47.2 AV	54.0	-6.8	2.25 V	184	28.5	18.7

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) 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	#5601.60	57.6 PK	68.2	-10.6	2.20 H	352	50.5	7.1
2	*5745.00	114.8 PK			2.20 H	352	74.3	40.5
3	*5745.00	104.2 AV			2.20 H	352	63.7	40.5
4	#5959.20	58.3 PK	68.2	-9.9	2.20 H	352	50.6	7.7
5	11490.00	59.3 PK	74.0	-14.7	2.15 H	238	40.6	18.7
6	11490.00	45.7 AV	54.0	-8.3	2.15 H	238	27.0	18.7
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	#5636.00	57.3 PK	68.2	-10.9	1.78 V	303	50.2	7.1
2	*5745.00	116.2 PK			1.78 V	303	75.7	40.5
3	*5745.00	105.8 AV			1.78 V	303	65.3	40.5
4	#5937.60	57.8 PK	68.2	-10.4	1.78 V	303	50.1	7.7
5	11490.00	59.9 PK	74.0	-14.1	1.78 V	231	41.2	18.7
6	11490.00	47.2 AV	54.0	-6.8	1.78 V	231	28.5	18.7

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) 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	#5602.40	57.5 PK	68.2	-10.7	3.28 H	340	50.4	7.1
2	*5785.00	115.3 PK			3.28 H	340	74.7	40.6
3	*5785.00	104.6 AV			3.28 H	340	64.0	40.6
4	#5968.00	59.2 PK	68.2	-9.0	3.28 H	340	51.4	7.8
5	11570.00	60.5 PK	74.0	-13.5	2.05 H	183	41.8	18.7
6	11570.00	47.4 AV	54.0	-6.6	2.05 H	183	28.7	18.7
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	#5627.20	57.4 PK	68.2	-10.8	1.90 V	300	50.3	7.1
2	*5785.00	115.9 PK			1.90 V	300	75.3	40.6
3	*5785.00	105.3 AV			1.90 V	300	64.7	40.6
4	#5924.80	59.1 PK	68.3	-9.2	1.90 V	300	51.4	7.7
5	11570.00	60.6 PK	74.0	-13.4	1.55 V	231	41.9	18.7
6	11570.00	47.2 AV	54.0	-6.8	1.55 V	231	28.5	18.7

REMARKS:

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

CHANNEL	TX Channel 165	DETECTOR FUNCTION	Peak (PK) 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	#5628.00	57.8 PK	68.2	-10.4	2.80 H	278	50.7	7.1
2	*5825.00	115.6 PK			2.80 H	278	75.0	40.6
3	*5825.00	104.8 AV			2.80 H	278	64.2	40.6
4	#5981.60	58.5 PK	68.2	-9.7	2.80 H	278	50.6	7.9
5	11650.00	59.8 PK	74.0	-14.2	2.99 H	154	40.6	19.2
6	11650.00	47.4 AV	54.0	-6.6	2.99 H	154	28.2	19.2
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	#5624.00	57.1 PK	68.2	-11.1	1.86 V	298	50.0	7.1
2	*5825.00	115.0 PK			1.86 V	298	74.4	40.6
3	*5825.00	104.7 AV			1.86 V	298	64.1	40.6
4	#5963.20	58.8 PK	68.2	-9.4	1.86 V	298	51.0	7.8
5	11650.00	60.0 PK	74.0	-14.0	1.55 V	198	40.8	19.2
6	11650.00	47.4 AV	54.0	-6.6	1.55 V	198	28.2	19.2

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) 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	66.9 PK	74.0	-7.1	2.22 H	309	60.9	6.0
2	5150.00	52.4 AV	54.0	-1.6	2.22 H	309	46.4	6.0
3	*5180.00	113.8 PK			2.54 H	345	74.4	39.4
4	*5180.00	103.7 AV			2.54 H	345	64.3	39.4
5	#10360.00	60.4 PK	74.0	-13.6	2.00 H	277	42.6	17.8
6	#10360.00	47.3 AV	54.0	-6.7	2.00 H	277	29.5	17.8
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	67.2 PK	74.0	-6.8	1.09 V	317	61.2	6.0
2	5150.00	52.0 AV	54.0	-2.0	1.09 V	317	46.0	6.0
3	*5180.00	113.0 PK			1.21 V	339	73.6	39.4
4	*5180.00	102.8 AV			1.21 V	339	63.4	39.4
5	#10360.00	59.7 PK	74.0	-14.3	1.46 V	231	41.0	18.7
6	#10360.00	47.7 AV	54.0	-6.3	1.46 V	231	29.0	18.7

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	115.7 PK			2.38 H	344	76.2	39.5
2	*5200.00	105.4 AV			2.38 H	344	65.9	39.5
3	#10400.00	59.8 PK	74.0	-14.2	2.44 H	210	42.1	17.7
4	#10400.00	46.8 AV	54.0	-7.2	2.44 H	210	29.1	17.7
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	115.5 PK			1.45 V	294	76.0	39.5
2	*5200.00	104.4 AV			1.45 V	294	64.9	39.5
3	#10400.00	59.5 PK	74.0	-14.5	1.54 V	222	41.8	17.7
4	#10400.00	46.9 AV	54.0	-7.1	1.54 V	222	29.2	17.7

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	115.7 PK			2.39 H	348	76.1	39.6
2	*5240.00	105.0 AV			2.39 H	348	65.4	39.6
3	5350.00	58.9 PK	74.0	-15.1	1.80 H	19	52.4	6.5
4	5350.00	47.2 AV	54.0	-6.8	1.80 H	19	40.7	6.5
5	#10480.00	60.6 PK	74.0	-13.4	2.88 H	232	41.9	18.7
6	#10480.00	47.6 AV	54.0	-6.4	2.88 H	232	28.9	18.7
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	117.0 PK			1.73 V	294	77.4	39.6
2	*5240.00	105.7 AV			1.73 V	294	66.1	39.6
3	5350.00	58.2 PK	74.0	-15.8	1.45 V	166	51.7	6.5
4	5350.00	45.1 AV	54.0	-8.9	1.45 V	166	38.6	6.5
5	#10480.00	60.3 PK	74.0	-13.7	1.71 V	94	41.6	18.7
6	#10480.00	47.4 AV	54.0	-6.6	1.71 V	94	28.7	18.7

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) 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	#5608.00	59.8 PK	68.2	-8.4	3.06 H	280	52.7	7.1
2	*5745.00	116.4 PK			3.06 H	280	75.9	40.5
3	*5745.00	105.5 AV			3.06 H	280	65.0	40.5
4	#5973.60	60.3 PK	68.2	-7.9	3.06 H	280	52.4	7.9
5	11490.00	61.2 PK	74.0	-12.8	2.40 H	181	42.5	18.7
6	11490.00	47.2 AV	54.0	-6.8	2.40 H	181	28.5	18.7
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	#5644.80	56.9 PK	68.2	-11.3	1.76 V	303	49.8	7.1
2	*5745.00	116.6 PK			1.76 V	303	76.1	40.5
3	*5745.00	105.7 AV			1.76 V	303	65.2	40.5
4	#5935.20	58.9 PK	68.2	-9.3	1.76 V	303	51.2	7.7
5	11490.00	60.9 PK	74.0	-13.1	1.88 V	258	42.2	18.7
6	11490.00	46.9 AV	54.0	-7.1	1.88 V	258	28.2	18.7

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) 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	#5636.80	57.7 PK	68.2	-10.5	3.10 H	275	50.6	7.1
2	*5785.00	115.5 PK			3.10 H	275	74.9	40.6
3	*5785.00	105.1 AV			3.10 H	275	64.5	40.6
4	#5962.40	58.4 PK	68.2	-9.8	3.10 H	275	50.6	7.8
5	11570.00	60.1 PK	74.0	-13.9	2.47 H	203	41.4	18.7
6	11570.00	47.2 AV	54.0	-6.8	2.47 H	203	28.5	18.7
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	#5639.20	57.3 PK	68.2	-10.9	1.78 V	296	50.2	7.1
2	*5785.00	115.4 PK			1.78 V	296	74.8	40.6
3	*5785.00	104.8 AV			1.78 V	296	64.2	40.6
4	#5961.60	58.5 PK	68.2	-9.7	1.78 V	296	50.7	7.8
5	11570.00	60.2 PK	74.0	-13.8	1.55 V	142	41.5	18.7
6	11570.00	47.1 AV	54.0	-6.9	1.55 V	142	28.4	18.7

REMARKS:

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

CHANNEL	TX Channel 165	DETECTOR FUNCTION	Peak (PK) 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	#5631.20	57.2 PK	68.2	-11.0	3.02 H	270	50.1	7.1
2	*5825.00	114.9 PK			3.02 H	270	74.3	40.6
3	*5825.00	104.0 AV			3.02 H	270	63.4	40.6
4	#5974.40	58.6 PK	68.2	-9.6	3.02 H	270	50.7	7.9
5	11650.00	60.5 PK	74.0	-13.5	2.80 H	236	41.3	19.2
6	11650.00	47.4 AV	54.0	-6.6	2.80 H	236	28.2	19.2
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	#5644.00	57.8 PK	68.2	-10.4	1.83 V	303	50.7	7.1
2	*5825.00	115.0 PK			1.83 V	303	74.4	40.6
3	*5825.00	104.1 AV			1.83 V	303	63.5	40.6
4	#5936.80	58.4 PK	68.2	-9.8	1.83 V	303	50.7	7.7
5	11650.00	60.1 PK	74.0	-13.9	1.23 V	144	40.9	19.2
6	11650.00	47.6 AV	54.0	-6.4	1.23 V	144	28.4	19.2

REMARKS:

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

802.11n (HT40)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	67.7 PK	74.0	-6.3	2.37 H	337	61.7	6.0
2	5150.00	52.4 AV	54.0	-1.6	2.37 H	337	46.4	6.0
3	*5190.00	107.5 PK			3.25 H	349	68.1	39.4
4	*5190.00	98.0 AV			3.25 H	349	58.6	39.4
5	#10380.00	59.7 PK	74.0	-14.3	1.95 H	217	42.0	17.7
6	#10380.00	46.7 AV	54.0	-7.3	1.95 H	217	29.0	17.7
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	66.8 PK	74.0	-7.2	1.86 V	274	60.8	6.0
2	5150.00	51.4 AV	54.0	-2.6	1.86 V	274	45.4	6.0
3	*5190.00	107.1 PK			1.88 V	289	67.7	39.4
4	*5190.00	97.4 AV			1.88 V	289	58.0	39.4
5	#10380.00	59.4 PK	74.0	-14.6	1.63 V	182	41.7	17.7
6	#10380.00	46.7 AV	54.0	-7.3	1.63 V	182	29.0	17.7

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	67.3 PK	74.0	-6.7	2.25 H	345	61.3	6.0
2	5150.00	52.5 AV	54.0	-1.5	2.25 H	345	46.5	6.0
3	*5230.00	114.6 PK			3.02 H	354	75.0	39.6
4	*5230.00	104.6 AV			3.02 H	354	65.0	39.6
5	#10460.00	59.7 PK	74.0	-14.3	1.90 H	246	41.2	18.5
6	#10460.00	46.9 AV	54.0	-7.1	1.90 H	246	28.4	18.5
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	67.0 PK	74.0	-7.0	1.88 V	277	61.0	6.0
2	5150.00	51.5 AV	54.0	-2.5	1.88 V	277	45.5	6.0
3	*5230.00	113.7 PK			1.79 V	291	74.1	39.6
4	*5230.00	103.8 AV			1.79 V	291	64.2	39.6
5	#10460.00	60.5 PK	74.0	-13.5	1.66 V	171	42.0	18.5
6	#10460.00	47.1 AV	54.0	-6.9	1.66 V	171	28.6	18.5

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) 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	#5650.40	64.1 PK	68.5	-4.4	2.99 H	275	57.0	7.1
2	*5755.00	114.6 PK			2.99 H	275	74.0	40.6
3	*5755.00	104.3 AV			2.99 H	275	63.7	40.6
4	#5983.20	59.0 PK	68.2	-9.2	2.99 H	275	51.1	7.9
5	11510.00	59.7 PK	74.0	-14.3	2.66 H	268	41.0	18.7
6	11510.00	46.8 AV	54.0	-7.2	2.66 H	268	28.1	18.7
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	#5646.40	61.2 PK	68.2	-7.0	1.85 V	303	54.1	7.1
2	*5755.00	114.2 PK			1.85 V	303	73.6	40.6
3	*5755.00	103.7 AV			1.85 V	303	63.1	40.6
4	#5966.40	58.2 PK	68.2	-10.0	1.85 V	303	50.4	7.8
5	11510.00	60.5 PK	74.0	-13.5	1.65 V	300	41.8	18.7
6	11510.00	47.4 AV	54.0	-6.6	1.65 V	300	28.7	18.7

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) 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	#5640.80	57.5 PK	68.2	-10.7	2.56 H	299	50.4	7.1
2	*5795.00	114.1 PK			3.07 H	277	73.5	40.6
3	*5795.00	103.5 AV			3.07 H	277	62.9	40.6
4	#5962.40	58.4 PK	68.2	-9.8	2.56 H	299	50.6	7.8
5	11590.00	60.5 PK	74.0	-13.5	2.56 H	299	41.7	18.8
6	11590.00	47.4 AV	54.0	-6.6	2.56 H	299	28.6	18.8
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	#5640.80	57.7 PK	68.2	-10.5	1.80 V	310	50.6	7.1
2	*5795.00	113.1 PK			1.80 V	310	72.5	40.6
3	*5795.00	102.7 AV			1.80 V	310	62.1	40.6
4	#5988.80	59.1 PK	68.2	-9.1	1.80 V	310	51.2	7.9
5	11590.00	61.3 PK	74.0	-12.7	2.01 V	248	42.5	18.8
6	11590.00	47.2 AV	54.0	-6.8	2.01 V	248	28.4	18.8

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) 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	67.0 PK	74.0	-7.0	2.56 H	344	61.0	6.0
2	5150.00	52.7 AV	54.0	-1.3	2.56 H	344	46.7	6.0
3	*5210.00	104.4 PK			3.70 H	350	64.9	39.5
4	*5210.00	95.0 AV			3.70 H	350	55.5	39.5
5	5350.00	59.4 PK	74.0	-14.6	2.85 H	342	52.9	6.5
6	5350.00	45.6 AV	54.0	-8.4	2.85 H	342	39.1	6.5
7	#10420.00	60.0 PK	74.0	-14.0	2.09 H	212	42.1	17.9
8	#10420.00	47.0 AV	54.0	-7.0	2.09 H	212	29.1	17.9
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	65.4 PK	74.0	-8.6	1.87 V	278	59.4	6.0
2	5150.00	52.4 AV	54.0	-1.6	1.87 V	278	46.4	6.0
3	*5210.00	103.3 PK			1.85 V	293	63.8	39.5
4	*5210.00	93.4 AV			1.85 V	293	53.9	39.5
5	5350.00	58.8 PK	74.0	-15.2	1.88 V	265	52.3	6.5
6	5350.00	45.7 AV	54.0	-8.3	1.88 V	265	39.2	6.5
7	#10420.00	59.5 PK	74.0	-14.5	2.16 V	156	41.6	17.9
8	#10420.00	46.9 AV	54.0	-7.1	2.16 V	156	29.0	17.9

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 155	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	#5645.00	66.4 PK	74.0	-7.6	3.04 H	340	59.3	7.1
2	#5645.00	52.6 AV	54.0	-1.4	3.04 H	340	45.5	7.1
3	#5646.40	64.0 PK	68.2	-4.2	3.04 H	281	56.9	7.1
4	*5775.00	107.9 PK			3.04 H	281	67.3	40.6
5	*5775.00	98.0 AV			3.04 H	281	57.4	40.6
6	#5926.40	62.6 PK	68.2	-5.6	3.04 H	281	54.9	7.7
7	11550.00	60.1 PK	74.0	-13.9	2.93 H	250	41.5	18.6
8	11550.00	46.9 AV	54.0	-7.1	2.93 H	250	28.3	18.6
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	#5635.20	63.1 PK	68.2	-5.1	1.69 V	297	56.0	7.1
2	#5645.00	65.0 PK	74.0	-9.0	1.77 V	319	57.9	7.1
3	#5645.00	49.5 AV	54.0	-4.5	1.77 V	319	42.4	7.1
4	*5775.00	107.1 PK			1.69 V	297	66.5	40.6
5	*5775.00	97.2 AV			1.69 V	297	56.6	40.6
6	#5928.00	62.3 PK	68.2	-5.9	1.69 V	297	54.6	7.7
7	11550.00	59.2 PK	74.0	-14.8	2.14 V	301	40.6	18.6
8	11550.00	46.8 AV	54.0	-7.2	2.14 V	301	28.2	18.6

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.

Beamforming Mode

802.11ac (VHT20)

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	63.6 PK	74.0	-10.4	1.61 H	327	57.6	6.0
2	5150.00	50.7 AV	54.0	-3.3	1.61 H	327	44.7	6.0
3	*5180.00	113.4 PK			1.96 H	334	74.0	39.4
4	*5180.00	102.5 AV			1.96 H	334	63.1	39.4
5	#10360.00	59.5 PK	74.0	-14.5	1.59 H	86	41.7	17.8
6	#10360.00	46.8 AV	54.0	-7.2	1.59 H	86	29.0	17.8
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	65.3 PK	74.0	-8.7	1.99 V	296	59.3	6.0
2	5150.00	50.6 AV	54.0	-3.4	1.99 V	296	44.6	6.0
3	*5180.00	115.7 PK			2.02 V	286	76.3	39.4
4	*5180.00	104.3 AV			2.02 V	286	64.9	39.4
5	#10360.00	59.9 PK	74.0	-14.1	2.63 V	186	42.1	17.8
6	#10360.00	46.4 AV	54.0	-7.6	2.63 V	186	28.6	17.8

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	117.9 PK			2.53 H	354	78.4	39.5
2	*5200.00	106.3 AV			2.53 H	354	66.8	39.5
3	#10400.00	59.3 PK	74.0	-14.7	1.88 H	211	41.6	17.7
4	#10400.00	46.3 AV	54.0	-7.7	1.88 H	211	28.6	17.7
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	117.6 PK			2.00 V	292	78.1	39.5
2	*5200.00	105.7 AV			2.00 V	292	66.2	39.5
3	#10400.00	59.6 PK	74.0	-14.4	1.73 V	263	41.9	17.7
4	#10400.00	46.0 AV	54.0	-8.0	1.73 V	263	28.3	17.7

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	118.6 PK			2.81 H	352	79.0	39.6
2	*5240.00	107.0 AV			2.81 H	352	67.4	39.6
3	5350.00	57.4 PK	74.0	-16.6	2.54 H	348	50.9	6.5
4	5350.00	44.7 AV	54.0	-9.3	2.54 H	348	38.2	6.5
5	#10480.00	59.7 PK	74.0	-14.3	3.41 H	158	41.0	18.7
6	#10480.00	46.9 AV	54.0	-7.1	3.41 H	158	28.2	18.7
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	118.8 PK			1.60 V	300	79.2	39.6
2	*5240.00	106.1 AV			1.60 V	300	66.5	39.6
3	5350.00	57.7 PK	74.0	-16.3	1.75 V	229	51.2	6.5
4	5350.00	44.7 AV	54.0	-9.3	1.75 V	229	38.2	6.5
5	#10480.00	59.8 PK	74.0	-14.2	1.16 V	344	41.1	18.7
6	#10480.00	46.9 AV	54.0	-7.1	1.16 V	344	28.2	18.7

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) 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	#5623.20	57.5 PK	68.2	-10.7	3.01 H	334	51.4	6.1
2	*5745.00	114.5 PK			3.01 H	334	74.5	40.0
3	*5745.00	103.4 AV			3.01 H	334	63.4	40.0
4	#5971.20	58.9 PK	68.2	-9.3	3.01 H	334	52.2	6.7
5	11490.00	62.0 PK	74.0	-12.0	2.52 H	237	42.7	19.3
6	11490.00	49.0 AV	54.0	-5.0	2.52 H	237	29.7	19.3
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	#5608.80	58.7 PK	68.2	-9.5	2.08 V	325	52.6	6.1
2	*5745.00	115.6 PK			2.08 V	325	75.6	40.0
3	*5745.00	104.9 AV			2.08 V	325	64.9	40.0
4	#5980.00	58.9 PK	68.2	-9.3	2.08 V	325	52.2	6.7
5	11490.00	61.1 PK	74.0	-12.9	1.89 V	256	41.8	19.3
6	11490.00	48.3 AV	54.0	-5.7	1.89 V	256	29.0	19.3

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) 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	#5620.80	58.4 PK	68.2	-9.8	3.08 H	331	52.3	6.1
2	*5785.00	114.2 PK			3.08 H	331	74.1	40.1
3	*5785.00	103.2 AV			3.08 H	331	63.1	40.1
4	#5964.00	59.1 PK	68.2	-9.1	3.08 H	331	52.4	6.7
5	11570.00	62.0 PK	74.0	-12.0	2.50 H	311	42.8	19.2
6	11570.00	49.0 AV	54.0	-5.0	2.50 H	311	29.8	19.2
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	#5624.00	58.0 PK	68.2	-10.2	1.94 V	300	51.9	6.1
2	*5785.00	114.4 PK			1.94 V	300	74.3	40.1
3	*5785.00	101.8 AV			1.94 V	300	61.7	40.1
4	#5965.60	59.0 PK	68.2	-9.2	1.94 V	300	52.3	6.7
5	11570.00	61.0 PK	74.0	-13.0	1.36 V	250	41.8	19.2
6	11570.00	48.1 AV	54.0	-5.9	1.36 V	250	28.9	19.2

REMARKS:

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

CHANNEL	TX Channel 165	DETECTOR FUNCTION	Peak (PK) 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	#5620.00	57.2 PK	68.2	-11.0	3.08 H	332	51.1	6.1
2	*5825.00	114.2 PK			3.08 H	332	74.1	40.1
3	*5825.00	102.5 AV			3.08 H	332	62.4	40.1
4	#5965.60	59.0 PK	68.2	-9.2	3.08 H	332	52.3	6.7
5	11650.00	61.6 PK	74.0	-12.4	1.97 H	56	42.3	19.3
6	11650.00	48.9 AV	54.0	-5.1	1.97 H	56	29.6	19.3
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	#5632.00	58.7 PK	68.2	-9.5	1.86 V	289	52.6	6.1
2	*5825.00	114.8 PK			1.86 V	289	74.7	40.1
3	*5825.00	102.1 AV			1.86 V	289	62.0	40.1
4	#5991.20	59.2 PK	68.2	-9.0	1.86 V	289	52.5	6.7
5	11650.00	61.2 PK	74.0	-12.8	1.30 V	245	41.9	19.3
6	11650.00	48.4 AV	54.0	-5.6	1.30 V	245	29.1	19.3

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	72.0 PK	74.0	-2.0	2.75 H	350	66.0	6.0
2	5150.00	50.6 AV	54.0	-3.4	2.75 H	350	44.6	6.0
3	*5190.00	106.3 PK			2.93 H	335	66.9	39.4
4	*5190.00	95.1 AV			2.93 H	335	55.7	39.4
5	#10380.00	59.3 PK	74.0	-14.7	2.56 H	287	41.6	17.7
6	#10380.00	46.5 AV	54.0	-7.5	2.56 H	287	28.8	17.7
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	72.5 PK	74.0	-1.5	1.42 V	322	66.5	6.0
2	5150.00	46.2 AV	54.0	-7.8	1.42 V	322	40.2	6.0
3	*5190.00	106.9 PK			1.00 V	313	67.5	39.4
4	*5190.00	95.3 AV			1.00 V	313	55.9	39.4
5	#10380.00	58.7 PK	74.0	-15.3	1.61 V	343	41.0	17.7
6	#10380.00	45.8 AV	54.0	-8.2	1.61 V	343	28.1	17.7

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	66.8 PK	74.0	-7.2	2.46 H	346	60.8	6.0
2	5150.00	49.9 AV	54.0	-4.1	2.46 H	346	43.9	6.0
3	*5230.00	116.1 PK			2.58 H	347	76.5	39.6
4	*5230.00	104.1 AV			2.58 H	347	64.5	39.6
5	#10460.00	59.3 PK	74.0	-14.7	2.85 H	336	40.8	18.5
6	#10460.00	46.4 AV	54.0	-7.6	2.85 H	336	27.9	18.5
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	66.6 PK	74.0	-7.4	2.03 V	286	60.6	6.0
2	5150.00	49.8 AV	54.0	-4.2	2.03 V	286	43.8	6.0
3	*5230.00	115.7 PK			1.89 V	293	76.1	39.6
4	*5230.00	104.2 AV			1.89 V	293	64.6	39.6
5	#10460.00	59.6 PK	74.0	-14.4	2.81 V	269	41.1	18.5
6	#10460.00	46.4 AV	54.0	-7.6	2.81 V	269	27.9	18.5

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) 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	#5631.20	52.3 PK	68.2	-15.9	3.05 H	292	45.2	7.1
2	*5755.00	113.2 PK			3.05 H	292	72.6	40.6
3	*5755.00	102.5 AV			3.05 H	292	61.9	40.6
4	#5976.80	52.1 PK	68.2	-16.1	3.05 H	292	44.2	7.9
5	11510.00	60.6 PK	74.0	-13.4	2.28 H	356	41.9	18.7
6	11510.00	47.6 AV	54.0	-6.4	2.28 H	356	28.9	18.7
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	#5646.40	52.6 PK	68.2	-15.6	1.82 V	332	45.5	7.1
2	*5755.00	115.3 PK			1.82 V	332	74.7	40.6
3	*5755.00	104.4 AV			1.82 V	334	63.8	40.6
4	#5960.80	52.3 PK	68.2	-15.9	1.82 V	332	44.6	7.7
5	11510.00	59.6 PK	74.0	-14.4	1.15 V	194	40.9	18.7
6	11510.00	46.5 AV	54.0	-7.5	1.15 V	194	27.8	18.7

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) 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	#5605.60	58.5 PK	68.2	-9.7	3.13 H	288	51.4	7.1
2	*5795.00	113.2 PK			3.13 H	288	72.6	40.6
3	*5795.00	101.6 AV			3.13 H	288	61.0	40.6
4	#5961.60	59.6 PK	68.2	-8.6	3.13 H	288	51.8	7.8
5	11590.00	60.4 PK	74.0	-13.6	1.77 H	290	41.6	18.8
6	11590.00	47.6 AV	54.0	-6.4	1.77 H	290	28.8	18.8
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	#5629.60	59.6 PK	68.2	-8.6	1.85 V	297	52.5	7.1
2	*5795.00	114.2 PK			1.85 V	297	73.6	40.6
3	*5795.00	102.5 AV			1.85 V	297	61.9	40.6
4	#5964.00	62.9 PK	68.2	-5.3	1.85 V	297	55.1	7.8
5	11590.00	59.8 PK	74.0	-14.2	1.35 V	211	41.0	18.8
6	11590.00	46.4 AV	54.0	-7.6	1.35 V	211	27.6	18.8

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	**5150.00**	**73.0 PK**	**74.0**	**-1.0**	**3.00 H**	**341**	**67.0**	**6.0**
2	5150.00	49.0 AV	54.0	-5.0	3.00 H	341	43.0	6.0
3	*5210.00	102.0 PK			2.88 H	357	62.5	39.5
4	*5210.00	91.5 AV			2.88 H	357	52.0	39.5
5	5350.00	58.5 PK	74.0	-15.5	2.76 H	328	52.0	6.5
6	5350.00	45.4 AV	54.0	-8.6	2.76 H	328	38.9	6.5
7	#10420.00	59.3 PK	74.0	-14.7	2.34 H	250	41.4	17.9
8	#10420.00	46.6 AV	54.0	-7.4	2.34 H	250	28.7	17.9
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	69.4 PK	74.0	-4.6	1.30 V	264	63.4	6.0
2	5150.00	47.4 AV	54.0	-6.6	1.30 V	264	41.4	6.0
3	*5210.00	102.3 PK			1.63 V	291	62.8	39.5
4	*5210.00	89.2 AV			1.63 V	291	49.7	39.5
5	5350.00	60.0 PK	74.0	-14.0	1.67 V	298	53.5	6.5
6	5350.00	45.8 AV	54.0	-8.2	1.67 V	298	39.3	6.5
7	#10420.00	58.9 PK	74.0	-15.1	1.80 V	188	41.0	17.9
8	#10420.00	45.5 AV	54.0	-8.5	1.80 V	188	27.6	17.9

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 155	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	#5636.00	66.6 PK	74.0	-7.4	2.60 H	345	59.5	7.1
2	#5650.00	72.6 PK	74.0	-1.4	3.30 H	343	65.5	7.1
3	#5650.00	51.5 AV	54.0	-2.5	3.30 H	343	44.4	7.1
4	*5775.00	108.0 PK			2.60 H	345	67.4	40.6
5	*5775.00	97.6 AV			2.60 H	345	57.0	40.6
6	#5925.00	69.8 PK	74.0	-4.2	3.30 H	343	62.1	7.7
7	#5925.00	50.8 AV	54.0	-3.2	3.30 H	343	43.1	7.7
8	#5932.80	68.5 PK	74.0	-5.5	2.60 H	345	60.8	7.7
9	11550.00	60.1 PK	74.0	-13.9	2.18 H	100	41.5	18.6
10	11550.00	47.1 AV	54.0	-6.9	2.18 H	100	28.5	18.6
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	#5633.60	62.5 PK	74.0	-11.5	1.63 V	289	55.4	7.1
2	#5640.00	70.8 PK	74.0	-3.2	1.67 V	292	63.7	7.1
3	#5640.00	49.8 AV	54.0	-4.2	1.67 V	292	42.7	7.1
4	*5775.00	107.6 PK			1.60 V	297	67.0	40.6
5	*5775.00	95.5 AV			1.60 V	297	54.9	40.6
6	#5925.00	69.9 PK	74.0	-4.1	1.52 V	286	62.2	7.7
7	#5925.00	49.7 AV	54.0	-4.3	1.52 V	286	42.0	7.7
8	#5941.60	64.3 PK	74.0	-9.7	1.63 V	289	56.6	7.7
9	11550.00	59.9 PK	74.0	-14.1	1.86 V	156	41.3	18.6
10	11550.00	46.5 AV	54.0	-7.5	1.86 V	156	27.9	18.6

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.

Radio 3

CDD Mode

802.11a

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	66.5 PK	74.0	-7.5	1.47 H	355	60.5	6.0
2	5150.00	52.7 AV	54.0	-1.3	1.47 H	355	46.7	6.0
3	*5180.00	108.3 PK			1.58 H	355	68.9	39.4
4	*5180.00	98.5 AV			1.58 H	355	59.1	39.4
5	#10360.00	62.6 PK	74.0	-11.4	2.50 H	250	44.8	17.8
6	#10360.00	49.9 AV	54.0	-4.1	2.50 H	250	32.1	17.8
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	67.4 PK	74.0	-6.6	1.50 V	321	61.4	6.0
2	5150.00	50.8 AV	54.0	-3.2	1.50 V	321	44.8	6.0
3	*5180.00	105.2 PK			2.48 V	84	65.8	39.4
4	*5180.00	94.9 AV			2.48 V	84	55.5	39.4
5	#10360.00	60.2 PK	74.0	-13.8	1.77 V	246	42.4	17.8
6	#10360.00	47.6 AV	54.0	-6.4	1.77 V	246	29.8	17.8

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	109.8 PK			3.65 H	355	70.3	39.5
2	*5200.00	99.4 AV			3.65 H	355	59.9	39.5
3	#10400.00	63.8 PK	74.0	-10.2	2.83 H	255	46.1	17.7
4	#10400.00	50.7 AV	54.0	-3.3	2.83 H	255	33.0	17.7
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	105.0 PK			1.86 V	256	65.5	39.5
2	*5200.00	95.1 AV			1.86 V	256	55.6	39.5
3	#10400.00	59.1 PK	74.0	-14.9	1.74 V	126	41.4	17.7
4	#10400.00	46.2 AV	54.0	-7.8	1.74 V	126	28.5	17.7

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	110.2 PK			1.67 H	355	70.6	39.6
2	*5240.00	99.8 AV			1.67 H	355	60.2	39.6
3	5400.00	58.4 PK	74.0	-15.6	1.51 H	352	51.7	6.7
4	5400.00	47.1 AV	54.0	-6.9	1.51 H	352	40.4	6.7
5	#10480.00	61.7 PK	74.0	-12.3	2.48 H	256	43.0	18.7
6	#10480.00	50.1 AV	54.0	-3.9	2.48 H	256	31.4	18.7
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	106.9 PK			2.53 V	84	67.3	39.6
2	*5240.00	96.6 AV			2.53 V	84	57.0	39.6
3	5400.00	57.5 PK	74.0	-16.5	1.86 V	102	50.8	6.7
4	5400.00	45.4 AV	54.0	-8.6	1.86 V	102	38.7	6.7
5	#10480.00	60.5 PK	74.0	-13.5	1.64 V	236	41.8	18.7
6	#10480.00	47.1 AV	54.0	-6.9	1.64 V	236	28.4	18.7

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) 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	#5633.60	57.8 PK	68.2	-10.4	2.37 H	328	50.7	7.1
2	*5745.00	111.8 PK			2.37 H	328	71.3	40.5
3	*5745.00	101.2 AV			2.37 H	328	60.7	40.5
4	#5945.60	58.3 PK	68.2	-9.9	2.37 H	328	50.6	7.7
5	11490.00	60.1 PK	74.0	-13.9	2.29 H	289	41.4	18.7
6	11490.00	47.5 AV	54.0	-6.5	2.29 H	289	28.8	18.7
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	#5645.60	57.1 PK	68.2	-11.1	2.38 V	277	50.0	7.1
2	*5745.00	108.5 PK			2.38 V	277	68.0	40.5
3	*5745.00	98.0 AV			2.38 V	277	57.5	40.5
4	#5948.80	58.1 PK	68.2	-10.1	2.38 V	277	50.4	7.7
5	11490.00	60.3 PK	74.0	-13.7	2.55 V	168	41.6	18.7
6	11490.00	48.0 AV	54.0	-6.0	2.55 V	168	29.3	18.7

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) 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	#5625.60	58.4 PK	68.2	-9.8	2.41 H	285	51.3	7.1
2	*5785.00	111.0 PK			2.41 H	327	70.4	40.6
3	*5785.00	101.0 AV			2.41 H	327	60.4	40.6
4	#5927.20	58.3 PK	68.2	-9.9	2.41 H	285	50.6	7.7
5	11570.00	63.3 PK	74.0	-10.7	2.93 H	55	44.6	18.7
6	11570.00	50.3 AV	54.0	-3.7	2.93 H	55	31.6	18.7
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	#5650.40	57.4 PK	68.5	-11.1	1.96 V	283	50.3	7.1
2	*5785.00	108.4 PK			1.96 V	283	67.8	40.6
3	*5785.00	98.1 AV			1.96 V	283	57.5	40.6
4	#5926.40	57.8 PK	68.2	-10.4	1.96 V	283	50.1	7.7
5	11570.00	63.6 PK	74.0	-10.4	1.95 V	350	44.9	18.7
6	11570.00	49.9 AV	54.0	-4.1	1.95 V	350	31.2	18.7

REMARKS:

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

CHANNEL	TX Channel 165	DETECTOR FUNCTION	Peak (PK) 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	#5621.60	58.0 PK	68.2	-10.2	2.42 H	328	50.9	7.1
2	*5825.00	111.0 PK			2.42 H	328	70.4	40.6
3	*5825.00	100.3 AV			2.42 H	328	59.7	40.6
4	#5963.20	58.6 PK	68.2	-9.6	2.42 H	328	50.8	7.8
5	11650.00	63.0 PK	74.0	-11.0	2.02 H	54	43.8	19.2
6	11650.00	50.5 AV	54.0	-3.5	2.02 H	54	31.3	19.2
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	#5612.00	57.4 PK	68.2	-10.8	1.84 V	285	50.3	7.1
2	*5825.00	108.3 PK			1.84 V	285	67.7	40.6
3	*5825.00	98.0 AV			1.84 V	285	57.4	40.6
4	#5963.20	59.0 PK	68.2	-9.2	1.84 V	285	51.2	7.8
5	11650.00	63.8 PK	74.0	-10.2	1.69 V	355	44.6	19.2
6	11650.00	50.2 AV	54.0	-3.8	1.69 V	355	31.0	19.2

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) 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	66.6 PK	74.0	-7.4	1.49 H	355	60.6	6.0
2	5150.00	52.4 AV	54.0	-1.6	1.49 H	355	46.4	6.0
3	*5180.00	107.4 PK			1.59 H	354	68.0	39.4
4	*5180.00	97.1 AV			1.59 H	354	57.7	39.4
5	#10360.00	61.0 PK	74.0	-13.0	2.50 H	309	43.2	17.8
6	#10360.00	48.8 AV	54.0	-5.2	2.50 H	309	31.0	17.8
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	65.1 PK	74.0	-8.9	2.44 V	84	59.1	6.0
2	5150.00	50.2 AV	54.0	-3.8	2.44 V	84	44.2	6.0
3	*5180.00	104.7 PK			2.16 V	76	65.3	39.4
4	*5180.00	94.4 AV			2.16 V	76	55.0	39.4
5	#10360.00	59.5 PK	74.0	-14.5	2.18 V	210	41.7	17.8
6	#10360.00	46.8 AV	54.0	-7.2	2.18 V	210	29.0	17.8

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	109.8 PK			1.51 H	352	70.3	39.5
2	*5200.00	99.4 AV			1.51 H	352	59.9	39.5
3	#10400.00	62.5 PK	74.0	-11.5	2.54 H	252	44.8	17.7
4	#10400.00	50.0 AV	54.0	-4.0	2.54 H	252	32.3	17.7
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	105.8 PK			2.02 V	83	66.3	39.5
2	*5200.00	95.6 AV			2.02 V	83	56.1	39.5
3	#10400.00	60.4 PK	74.0	-13.6	2.00 V	59	42.7	17.7
4	#10400.00	47.9 AV	54.0	-6.1	2.00 V	59	30.2	17.7

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	110.0 PK			1.56 H	354	70.4	39.6
2	*5240.00	99.5 AV			1.56 H	354	59.9	39.6
3	5400.00	60.1 PK	74.0	-13.9	2.20 H	356	53.4	6.7
4	5400.00	47.7 AV	54.0	-6.3	2.20 H	356	41.0	6.7
5	#10480.00	62.3 PK	74.0	-11.7	2.60 H	255	43.6	18.7
6	#10480.00	51.3 AV	54.0	-2.7	2.60 H	255	32.6	18.7
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	105.9 PK			2.21 V	85	66.3	39.6
2	*5240.00	95.7 AV			2.21 V	85	56.1	39.6
3	5400.00	57.9 PK	74.0	-16.1	1.81 V	147	51.2	6.7
4	5400.00	45.0 AV	54.0	-9.0	1.81 V	147	38.3	6.7
5	#10480.00	60.0 PK	74.0	-14.0	1.73 V	110	41.3	18.7
6	#10480.00	47.1 AV	54.0	-6.9	1.73 V	110	28.4	18.7

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) 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	#5642.40	57.2 PK	68.2	-11.0	2.42 H	332	50.1	7.1
2	*5745.00	111.3 PK			2.42 H	332	70.8	40.5
3	*5745.00	101.2 AV			2.42 H	332	60.7	40.5
4	#5962.40	58.0 PK	68.2	-10.2	2.42 H	332	50.2	7.8
5	11490.00	59.9 PK	74.0	-14.1	2.31 H	238	41.2	18.7
6	11490.00	47.1 AV	54.0	-6.9	2.31 H	238	28.4	18.7
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	#5624.00	57.0 PK	68.2	-11.2	1.83 V	282	49.9	7.1
2	*5745.00	108.6 PK			1.83 V	282	68.1	40.5
3	*5745.00	97.9 AV			1.83 V	282	57.4	40.5
4	#5942.40	58.4 PK	68.2	-9.8	1.83 V	282	50.7	7.7
5	11490.00	59.8 PK	74.0	-14.2	2.41 V	257	41.1	18.7
6	11490.00	47.2 AV	54.0	-6.8	2.41 V	257	28.5	18.7

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) 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	#5620.00	58.5 PK	68.2	-9.7	2.42 H	333	51.4	7.1
2	*5785.00	110.7 PK			2.42 H	333	70.1	40.6
3	*5785.00	100.7 AV			2.42 H	333	60.1	40.6
4	#5978.40	58.4 PK	68.2	-9.8	2.42 H	333	50.5	7.9
5	11570.00	64.4 PK	74.0	-9.6	2.24 H	3	45.7	18.7
6	11570.00	49.8 AV	54.0	-4.2	2.24 H	3	31.1	18.7
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	#5636.80	56.8 PK	68.2	-11.4	1.94 V	287	49.7	7.1
2	*5785.00	109.1 PK			1.94 V	287	68.5	40.6
3	*5785.00	98.1 AV			1.94 V	287	57.5	40.6
4	#5966.40	58.2 PK	68.2	-10.0	1.94 V	287	50.4	7.8
5	11570.00	63.9 PK	74.0	-10.1	1.83 V	352	45.2	18.7
6	11570.00	49.9 AV	54.0	-4.1	1.83 V	352	31.2	18.7

REMARKS:

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

CHANNEL	TX Channel 165	DETECTOR FUNCTION	Peak (PK) 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	#5633.60	58.1 PK	68.2	-10.1	2.39 H	330	51.0	7.1
2	*5825.00	110.4 PK			2.39 H	330	69.8	40.6
3	*5825.00	100.0 AV			2.39 H	330	59.4	40.6
4	#5984.80	58.4 PK	68.2	-9.8	2.39 H	330	50.5	7.9
5	11650.00	63.9 PK	74.0	-10.1	2.77 H	294	44.7	19.2
6	11650.00	49.8 AV	54.0	-4.2	2.77 H	294	30.6	19.2
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	#5613.60	57.1 PK	68.2	-11.1	2.18 V	287	50.0	7.1
2	*5825.00	107.9 PK			2.18 V	287	67.3	40.6
3	*5825.00	97.6 AV			2.18 V	287	57.0	40.6
4	#5928.00	58.2 PK	68.2	-10.0	2.18 V	287	50.5	7.7
5	11650.00	63.9 PK	74.0	-10.1	1.89 V	350	44.7	19.2
6	11650.00	49.8 AV	54.0	-4.2	1.89 V	350	30.6	19.2

REMARKS:

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

802.11n (HT40)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	65.6 PK	74.0	-8.4	1.50 H	353	59.6	6.0
2	5150.00	52.4 AV	54.0	-1.6	1.50 H	353	46.4	6.0
3	*5190.00	100.8 PK			1.52 H	356	61.4	39.4
4	*5190.00	90.6 AV			1.52 H	356	51.2	39.4
5	#10380.00	59.9 PK	74.0	-14.1	1.67 H	252	42.2	17.7
6	#10380.00	46.9 AV	54.0	-7.1	1.67 H	252	29.2	17.7
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	61.7 PK	74.0	-12.3	2.05 V	79	55.7	6.0
2	5150.00	48.6 AV	54.0	-5.4	2.05 V	79	42.6	6.0
3	*5190.00	95.7 PK			1.13 V	27	56.3	39.4
4	*5190.00	85.5 AV			1.13 V	27	46.1	39.4
5	#10380.00	59.0 PK	74.0	-15.0	1.52 V	208	41.3	17.7
6	#10380.00	46.5 AV	54.0	-7.5	1.52 V	208	28.8	17.7

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5230.00	106.7 PK			1.57 H	354	67.1	39.6
2	*5230.00	96.3 AV			1.57 H	354	56.7	39.6
3	5420.00	59.9 PK	74.0	-14.1	2.25 H	358	53.1	6.8
4	5420.00	47.6 AV	54.0	-6.4	2.25 H	358	40.8	6.8
5	#10460.00	61.1 PK	74.0	-12.9	3.12 H	251	42.6	18.5
6	#10460.00	48.0 AV	54.0	-6.0	3.12 H	251	29.5	18.5
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	104.0 PK			2.27 V	85	64.4	39.6
2	*5230.00	93.5 AV			2.27 V	85	53.9	39.6
3	5420.00	57.3 PK	74.0	-16.7	1.43 V	152	50.5	6.8
4	5420.00	45.1 AV	54.0	-8.9	1.43 V	152	38.3	6.8
5	#10460.00	60.1 PK	74.0	-13.9	1.68 V	237	41.6	18.5
6	#10460.00	47.0 AV	54.0	-7.0	1.68 V	237	28.5	18.5

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) 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	#5640.00	58.5 PK	68.2	-9.7	2.58 H	327	51.4	7.1
2	*5755.00	107.7 PK			2.58 H	327	67.1	40.6
3	*5755.00	97.4 AV			2.58 H	327	56.8	40.6
4	#5927.20	58.8 PK	68.2	-9.4	2.58 H	327	51.1	7.7
5	11510.00	59.6 PK	74.0	-14.4	2.10 H	286	40.9	18.7
6	11510.00	47.2 AV	54.0	-6.8	2.10 H	286	28.5	18.7
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	#5636.00	57.1 PK	68.2	-11.1	1.87 V	278	50.0	7.1
2	*5755.00	105.3 PK			1.87 V	278	64.7	40.6
3	*5755.00	95.2 AV			1.87 V	278	54.6	40.6
4	#5994.40	59.5 PK	68.2	-8.7	1.87 V	278	51.6	7.9
5	11510.00	60.0 PK	74.0	-14.0	2.28 V	260	41.3	18.7
6	11510.00	47.2 AV	54.0	-6.8	2.28 V	260	28.5	18.7

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) 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	#5643.20	57.0 PK	68.2	-11.2	2.70 H	328	49.9	7.1
2	*5795.00	107.6 PK			2.70 H	328	67.0	40.6
3	*5795.00	96.8 AV			2.70 H	328	56.2	40.6
4	#5928.80	58.0 PK	68.2	-10.2	2.70 H	328	50.3	7.7
5	11590.00	60.0 PK	74.0	-14.0	2.23 H	262	41.2	18.8
6	11590.00	48.1 AV	54.0	-5.9	2.23 H	262	29.3	18.8
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	#5620.80	57.2 PK	68.2	-11.0	2.46 V	274	50.1	7.1
2	*5795.00	104.5 PK			2.46 V	274	63.9	40.6
3	*5795.00	94.2 AV			2.46 V	274	53.6	40.6
4	#5966.40	58.1 PK	68.2	-10.1	2.46 V	274	50.3	7.8
5	11590.00	61.3 PK	74.0	-12.7	2.41 V	148	42.5	18.8
6	11590.00	48.0 AV	54.0	-6.0	2.41 V	148	29.2	18.8

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	66.8 PK	74.0	-7.2	1.73 H	353	60.8	6.0
2	5150.00	52.3 AV	54.0	-1.7	1.73 H	353	46.3	6.0
3	*5210.00	96.7 PK			1.73 H	358	57.2	39.5
4	*5210.00	85.7 AV			1.73 H	358	46.2	39.5
5	5350.00	59.5 PK	74.0	-14.5	1.75 H	348	53.0	6.5
6	5350.00	45.4 AV	54.0	-8.6	1.75 H	348	38.9	6.5
7	#10420.00	60.1 PK	74.0	-13.9	1.54 H	228	42.2	17.9
8	#10420.00	47.1 AV	54.0	-6.9	1.54 H	228	29.2	17.9
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	63.2 PK	74.0	-10.8	2.43 V	80	57.2	6.0
2	5150.00	49.5 AV	54.0	-4.5	2.43 V	80	43.5	6.0
3	*5210.00	92.5 PK			1.95 V	76	53.0	39.5
4	*5210.00	81.5 AV			1.95 V	76	42.0	39.5
5	5350.00	58.7 PK	74.0	-15.3	2.04 V	87	52.2	6.5
6	5350.00	45.5 AV	54.0	-8.5	2.04 V	87	39.0	6.5
7	#10420.00	59.8 PK	74.0	-14.2	1.83 V	153	41.9	17.9
8	#10420.00	46.7 AV	54.0	-7.3	1.83 V	153	28.8	17.9

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 155	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	#5640.80	63.5 PK	68.2	-4.7	2.40 H	328	56.4	7.1
2	#5649.00	66.5 PK	68.2	-1.7	2.59 H	328	59.4	7.1
3	*5775.00	105.4 PK			2.40 H	328	64.8	40.6
4	*5775.00	93.9 AV			2.40 H	328	53.3	40.6
5	#5928.80	59.3 PK	68.2	-8.9	2.40 H	328	51.6	7.7
6	11550.00	59.5 PK	74.0	-14.5	2.32 H	241	40.9	18.6
7	11550.00	47.8 AV	54.0	-6.2	2.32 H	241	29.2	18.6
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	#5649.00	63.8 PK	68.2	-4.4	2.29 V	275	56.7	7.1
2	#5649.60	63.3 PK	68.2	-4.9	2.29 V	275	56.2	7.1
3	*5775.00	103.4 PK			2.29 V	288	62.8	40.6
4	*5775.00	91.8 AV			2.29 V	288	51.2	40.6
5	#5932.80	58.2 PK	68.2	-10.0	2.29 V	275	50.5	7.7
6	11550.00	60.1 PK	74.0	-13.9	2.54 V	177	41.5	18.6
7	11550.00	47.2 AV	54.0	-6.8	2.54 V	177	28.6	18.6

REMARKS:

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

Below 1GHz Worst-Case Data:

Radio 2

802.11a

CHANNEL	TX Channel 36	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	57.12	31.4 QP	40.0	-8.6	2.00 H	210	46.0	-14.6
2	86.28	31.9 QP	40.0	-8.1	2.00 H	198	51.6	-19.7
3	160.17	34.5 QP	43.5	-9.0	2.00 H	139	48.3	-13.8
4	247.66	30.4 QP	46.0	-15.6	1.00 H	195	44.7	-14.3
5	302.10	39.4 QP	46.0	-6.6	1.00 H	2	51.6	-12.2
6	850.39	31.6 QP	46.0	-14.4	1.00 H	65	32.8	-1.2
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	29.90	32.8 QP	40.0	-7.2	1.00 V	159	49.0	-16.2
2	68.95	37.5 QP	40.0	-2.5	1.00 V	13	53.7	-16.2
3	140.72	30.2 QP	43.5	-13.3	1.49 V	212	44.7	-14.5
4	302.10	30.7 QP	46.0	-15.3	1.49 V	208	42.9	-12.2
5	521.81	26.7 QP	46.0	-19.3	1.00 V	14	34.5	-7.8
6	708.46	35.0 QP	46.0	-11.0	2.00 V	220	39.0	-4.0

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

Radio 3

802.11a

CHANNEL	TX Channel 36	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	57.12	31.3 QP	40.0	-8.7	2.00 H	9	45.9	-14.6
2	86.28	31.5 QP	40.0	-8.5	2.00 H	204	51.2	-19.7
3	160.17	33.4 QP	43.5	-10.1	1.49 H	107	47.2	-13.8
4	302.10	37.9 QP	46.0	-8.1	1.00 H	341	50.1	-12.2
5	354.60	26.1 QP	46.0	-19.9	1.00 H	114	37.3	-11.2
6	706.51	29.5 QP	46.0	-16.5	1.00 H	152	33.5	-4.0
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	30.00	32.6 QP	40.0	-7.4	1.00 V	335	48.8	-16.2
2	70.10	38.1 QP	40.0	-1.9	1.00 V	249	54.4	-16.3
3	142.67	29.6 QP	43.5	-13.9	1.00 V	152	43.9	-14.3
4	302.10	29.6 QP	46.0	-16.4	1.99 V	4	41.8	-12.2
5	523.75	25.3 QP	46.0	-20.7	1.00 V	6	33.1	-7.8
6	708.46	29.2 QP	46.0	-16.8	1.50 V	143	33.2	-4.0

REMARKS:

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

4.2 Conducted Emission Measurement

4.2.1 Limits of Conducted Emission Measurement

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

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

4.2.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Test Receiver ROHDE & SCHWARZ	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/AMN ROHDE & SCHWARZ (EUT)	ESH3-Z5	835239/001	Feb. 26, 2016	Feb. 25, 2017
LISN/AMN ROHDE & SCHWARZ (Peripheral)	ESH3-Z5	100311	Jul. 28, 2016	Jul. 27, 2017
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 Procedure

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

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

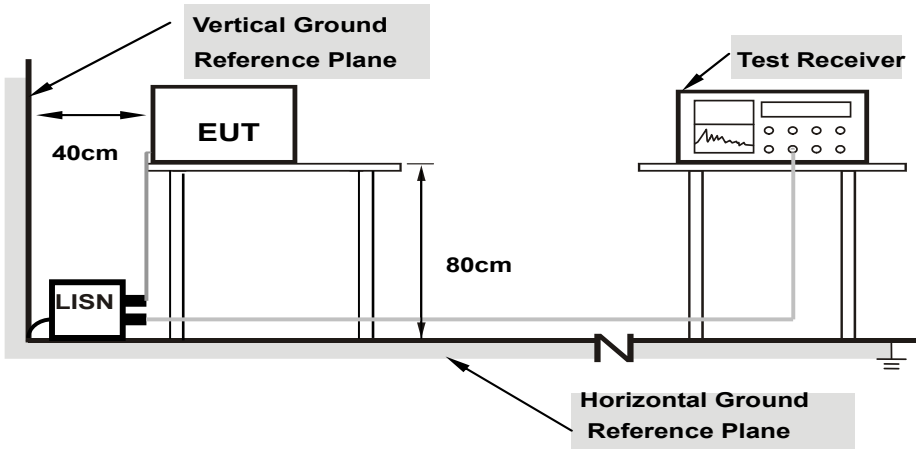
c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

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

4.2.4 Deviation from Test Standard

No deviation.

4.2.5 Test Setup



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

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

4.2.6 EUT Operating Conditions

Same as 4.1.6.

4.2.7 Test Results

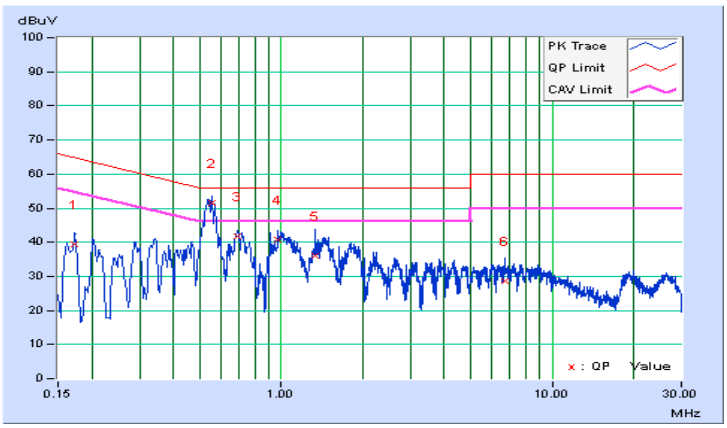
Radio 2

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

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.17328	10.08	29.25	20.61	39.33	30.69	64.80	54.80	-25.47	-24.11
2	0.55664	10.20	41.45	31.25	51.65	41.45	56.00	46.00	-4.35	-4.55
3	0.68958	10.23	31.38	21.10	41.61	31.33	56.00	46.00	-14.39	-14.67
4	0.97340	10.28	30.42	22.36	40.70	32.64	56.00	46.00	-15.30	-13.36
5	1.34255	10.32	25.77	16.98	36.09	27.30	56.00	46.00	-19.91	-18.70
6	6.69925	10.60	17.88	11.00	28.48	21.60	60.00	50.00	-31.52	-28.40

REMARKS:

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

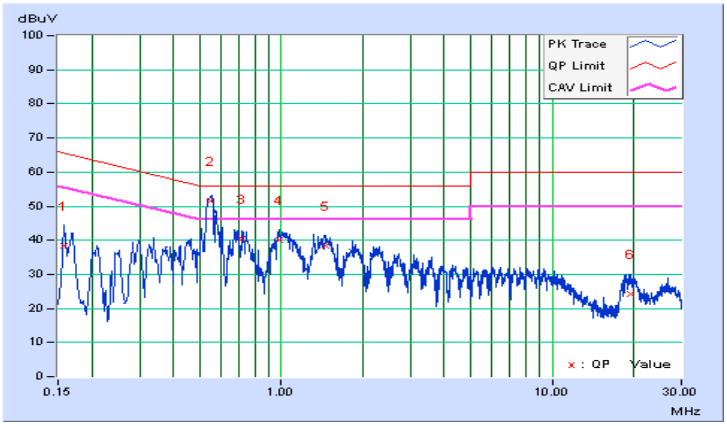


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15782	10.08	28.40	17.16	38.48	27.24	65.58	55.58	-27.10	-28.34
2	0.54518	10.25	41.35	31.21	51.60	41.46	56.00	46.00	-4.40	-4.54
3	0.71705	10.27	30.12	21.40	40.39	31.67	56.00	46.00	-15.61	-14.33
4	0.98674	10.29	29.79	20.00	40.08	30.29	56.00	46.00	-15.92	-15.71
5	1.46055	10.34	28.12	20.31	38.46	30.65	56.00	46.00	-17.54	-15.35
6	19.42630	11.53	12.82	4.74	24.35	16.27	60.00	50.00	-35.65	-33.73

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.



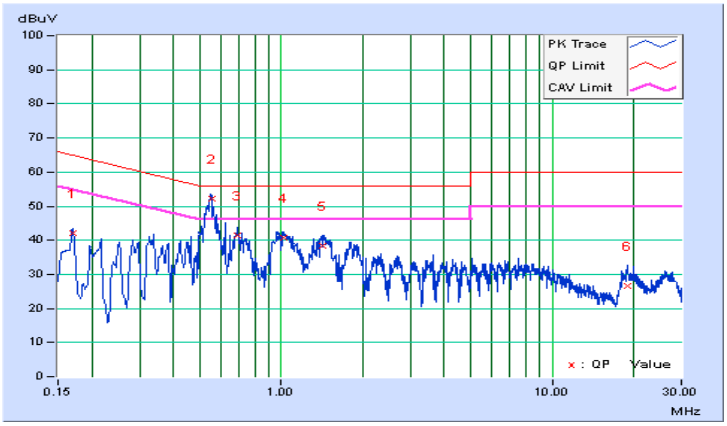
Radio 3

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

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16967	10.08	31.86	25.65	41.94	35.73	64.98	54.98	-23.04	-19.25
2	**0.55273**	**10.20**	**42.06**	**33.11**	**52.26**	**43.31**	**56.00**	**46.00**	**-3.74**	**-2.69**
3	0.68958	10.23	31.12	20.71	41.35	30.94	56.00	46.00	-14.65	-15.06
4	1.02337	10.29	30.60	21.77	40.89	32.06	56.00	46.00	-15.11	-13.94
5	1.42075	10.32	28.14	20.10	38.46	30.42	56.00	46.00	-17.54	-15.58
6	19.05094	11.35	15.33	7.92	26.68	19.27	60.00	50.00	-33.32	-30.73

REMARKS:

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

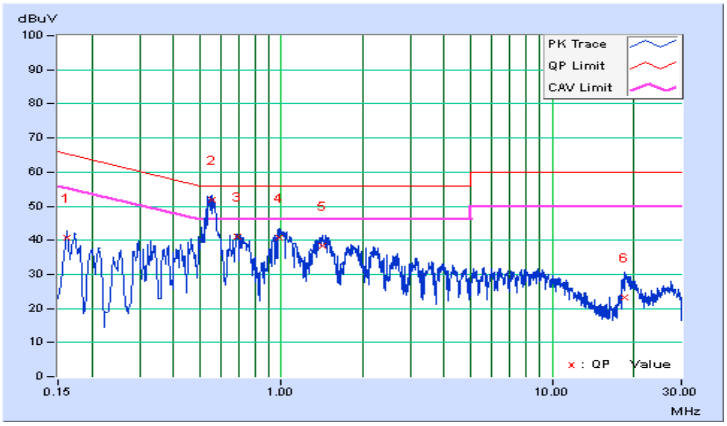


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)

No	Freq.	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16173	10.08	30.70	21.54	40.78	31.62	65.37	55.37	-24.59	-23.75
2	0.55241	10.25	41.76	32.84	52.01	43.09	56.00	46.00	-3.99	-2.91
3	0.68958	10.26	30.94	20.59	41.20	30.85	56.00	46.00	-14.80	-15.15
4	0.98674	10.29	30.30	20.70	40.59	30.99	56.00	46.00	-15.41	-15.01
5	1.42466	10.33	27.91	19.88	38.24	30.21	56.00	46.00	-17.76	-15.79
6	18.42143	11.46	11.80	3.24	23.26	14.70	60.00	50.00	-36.74	-35.30

REMARKS:

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



4.3 Transmit Power Measurement

4.3.1 Limits of Transmit Power Measurement

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

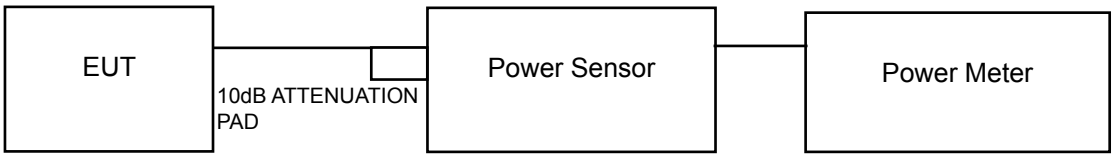
*B is the 26 dB emission bandwidth in megahertz

Per KDB 662911 Method of conducted output power measurement on IEEE 802.11 devices,
Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;
Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT};
Array Gain = 5 log(N_{ANT}/N_{SS}) dB or 3 dB, whichever is less for 20-MHz channel widths with $N_{ANT} \geq 5$.

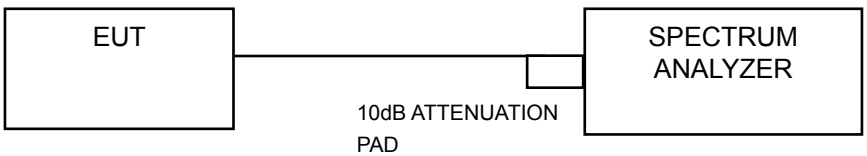
For power measurements on all other devices: Array Gain = 10 log(N_{ANT}/N_{SS}) dB.

4.3.2 Test Setup

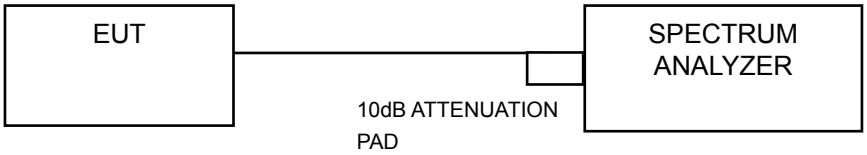
For Power Output Measurement
For 802.11a, 802.11n (HT20), 802.11n (HT40)



For 802.11ac (VHT80)



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 ≥ 3 MHz
5) Number of points in sweep ≥ 2 Span / RBW.
6) Sweep time ≤ (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.

For 26dB Bandwidth

1) Set RBW = approximately 1% of the emission bandwidth.
2) Set the VBW > RBW.
3) Detector = Peak.
4) Trace mode = max hold.
5) Measure the maximum width of the emission that is 26 dB down from the peak of the emission. Compare this with the RBW setting of the analyzer. Readjust RBW and repeat measurement as needed until the RBW/EBW ratio is approximately 1%.

For Occupied Bandwidth

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

4.3.5 Deviation from Test Standard

No deviation.

4.3.6 EUT Operating Conditions

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

4.3.7 Test Result

POWER OUTPUT:

Radio 2

CDD Mode

802.11a

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
36	5180	17.53	17.30	110.327	20.43	30	Pass
40	5200	19.02	19.01	**159.415**	22.03	30	Pass
48	5240	18.10	18.20	130.634	21.16	30	Pass
149	5745	19.56	19.54	180.315	22.56	30	Pass
157	5785	19.30	19.45	173.219	22.39	30	Pass
165	5825	19.11	19.00	160.903	22.07	30	Pass

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	17.61	17.65	115.887	20.64	30	Pass
40	5200	18.97	19.04	159.054	22.02	30	Pass
48	5240	18.10	18.00	127.661	21.06	30	Pass
149	5745	19.40	19.47	175.608	22.45	30	Pass
157	5785	19.29	19.34	170.819	22.33	30	Pass
165	5825	19.12	19.08	162.568	22.11	30	Pass

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	13.78	13.90	48.425	16.85	30	Pass
46	5230	18.83	18.92	154.367	21.89	30	Pass
151	5755	20.34	20.11	**210.708**	23.24	30	Pass
159	5795	20.27	20.06	207.805	23.18	30	Pass

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	13.00	13.43	41.982	16.23	30	Pass
155	5775	17.80	18.02	123.643	20.92	30	Pass

Beamforming Mode

802.11ac (VHT20)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
36	5180	17.44	17.30	109.166	20.38	28.13	Pass
40	5200	19.18	19.03	**162.777**	22.12	28.13	Pass
48	5240	18.06	17.87	125.208	20.98	28.13	Pass
149	5745	19.61	19.76	186.035	22.70	28.13	Pass
157	5785	19.61	19.52	180.947	22.58	28.13	Pass
165	5825	19.39	19.39	173.792	22.40	28.13	Pass

Note: Directional gain =10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2$/N] = 7.87dBi > 6dBi, so the power limit shall be reduced to 30-(7.87-6) = 28.13dBm.

802.11ac (VHT40)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
38	5190	11.60	11.55	28.743	14.59	28.13	Pass
46	5230	18.38	18.97	147.751	21.70	28.13	Pass
151	5755	20.59	20.77	**233.950**	23.69	28.13	Pass
159	5795	20.53	20.37	221.873	23.46	28.13	Pass

Note: Directional gain =10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2$/N] = 7.87dBi > 6dBi, so the power limit shall be reduced to 30-(7.87-6) = 28.13dBm.

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	10.41	10.60	22.472	13.52	28.13	Pass
155	5775	16.96	17.13	101.301	20.06	28.13	Pass

Note: Directional gain =10 log[$(10^{G1/20} + 10^{G2/20} + ... + 10^{GN/20})^2$/N] = 7.87dBi > 6dBi, so the power limit shall be reduced to 30-(7.87-6) = 28.13dBm.

Radio 3

CDD Mode

802.11a

Chan.	Freq. (MHz)	Maximum Conducted Power (mW)	Maximum Conducted Power (dBm)	Power Limit (dBm)	Pass / Fail
36	5180	49.888	16.98	30	Pass
40	5200	75.683	18.79	30	Pass
48	5240	**77.268**	18.88	30	Pass
149	5745	**62.661**	17.97	30	Pass
157	5785	58.345	17.66	30	Pass
165	5825	56.494	17.52	30	Pass

802.11n (HT20)

Chan.	Freq. (MHz)	Maximum Conducted Power (mW)	Maximum Conducted Power (dBm)	Power Limit (dBm)	Pass / Fail
36	5180	52.360	17.19	30	Pass
40	5200	76.736	18.85	30	Pass
48	5240	73.451	18.66	30	Pass
149	5745	61.518	17.89	30	Pass
157	5785	60.534	17.82	30	Pass
165	5825	56.234	17.50	30	Pass

802.11n (HT40)

Chan.	Freq. (MHz)	Maximum Conducted Power (mW)	Maximum Conducted Power (dBm)	Power Limit (dBm)	Pass / Fail
38	5190	16.982	12.30	30	Pass
46	5230	76.384	18.83	30	Pass
151	5755	58.345	17.66	30	Pass
159	5795	57.280	17.58	30	Pass

802.11ac (VHT80)

Chan.	Freq. (MHz)	Maximum Conducted Power (mW)	Maximum Conducted Power (dBm)	Power Limit (dBm)	Pass / Fail
42	5210	11.668	10.67	30	Pass
155	5775	50.699	17.05	30	Pass

26dB Bandwidth:

Radio 2

CDD Mode

802.11a

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
36	5180	32.90	35.68	Pass
40	5200	41.68	41.96	Pass
48	5240	35.26	36.26	Pass

802.11n (HT20)

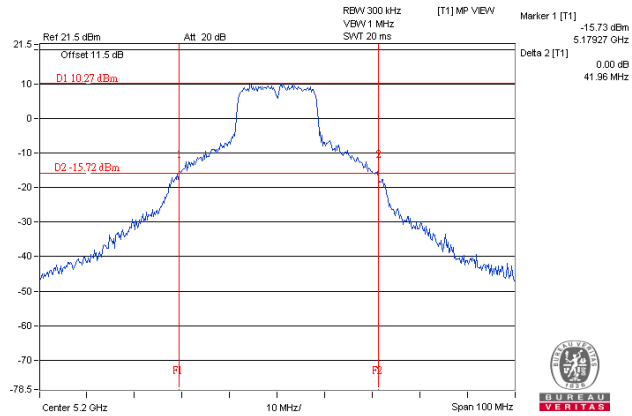
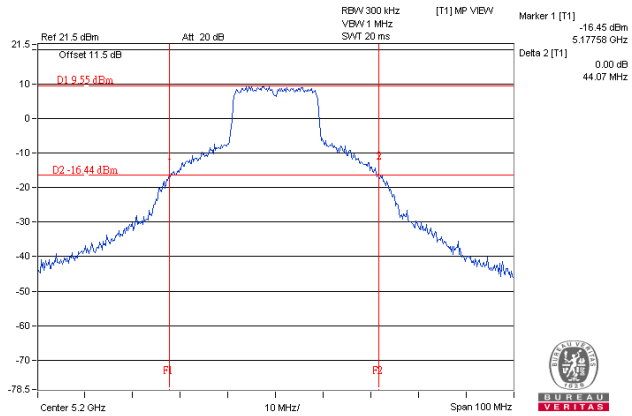
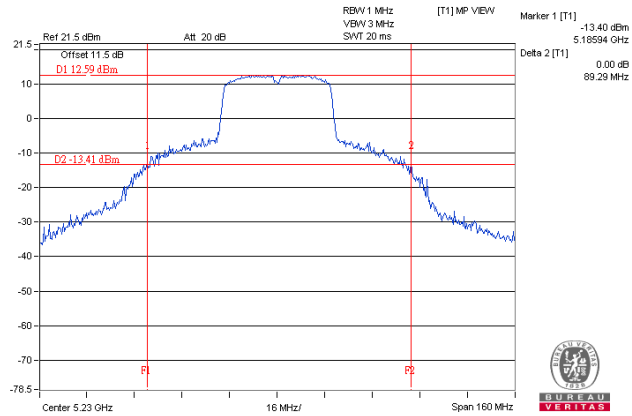
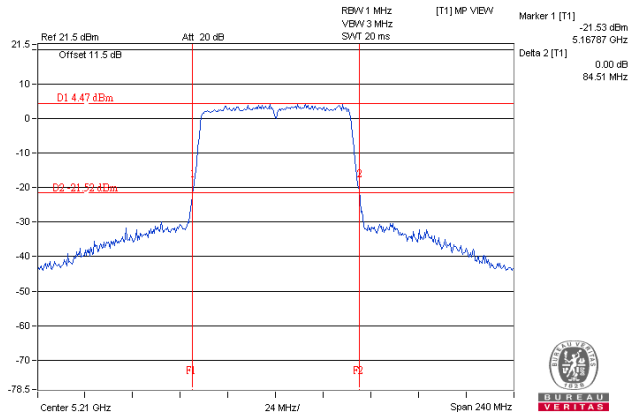
Channel	Frequency (MHz)	26dBc Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
36	5180	37.78	38.63	Pass
40	5200	43.11	44.07	Pass
48	5240	37.45	36.58	Pass

802.11n (HT40)

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
38	5190	40.54	40.87	Pass
46	5230	87.71	89.29	Pass

802.11ac (VHT80)

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
42	5210	84.51	83.89	Pass

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

Beamforming Mode

802.11ac (VHT20)

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
36	5180	34.75	32.77	Pass
40	5200	44.04	43.13	Pass
48	5240	42.80	43.28	Pass

802.11ac (VHT40)

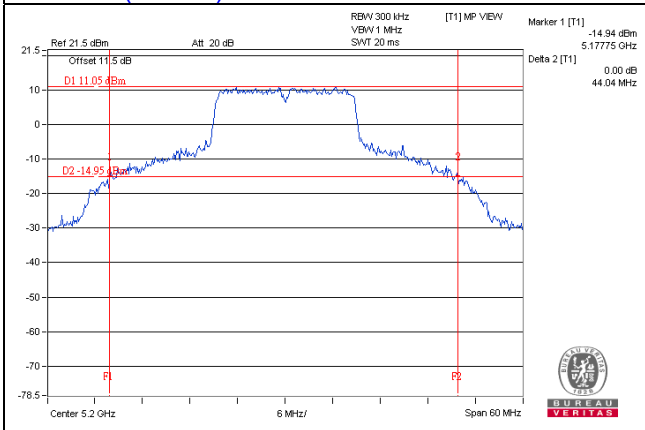
Channel	Frequency (MHz)	26dBc Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
38	5190	40.90	41.00	Pass
46	5230	89.33	89.97	Pass

802.11ac (VHT80)

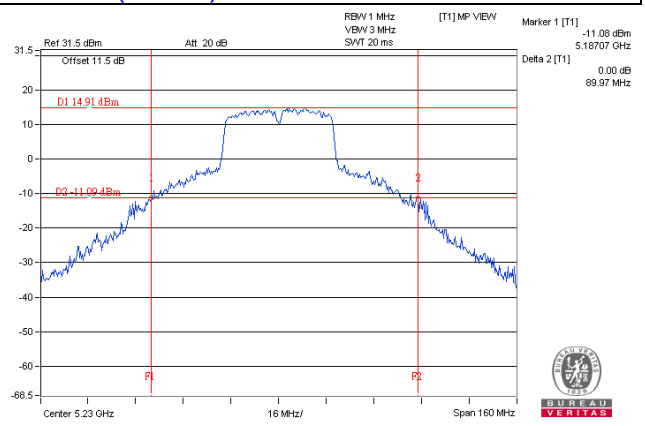
Channel	Frequency (MHz)	26dBc Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
42	5210	83.89	83.75	Pass

SPECTRUM PLOT OF WORST VALUE

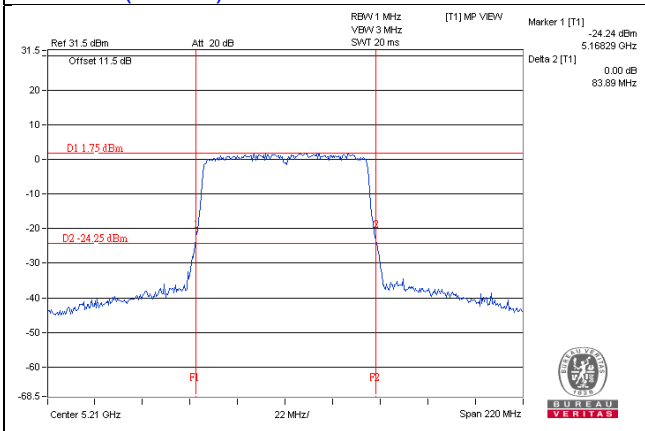
802.11ac (VHT20)



802.11ac (VHT40)



802.11ac (VHT80)



Radio 3

CDD Mode

802.11a

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)	Pass / Fail
36	5180	37.17	Pass
40	5200	43.51	Pass
48	5240	44.27	Pass

802.11n (HT20)

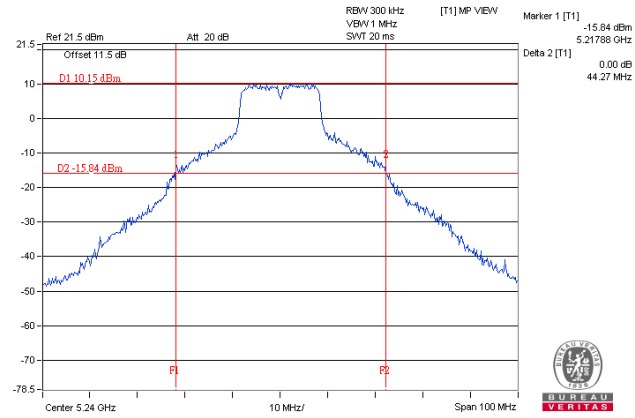
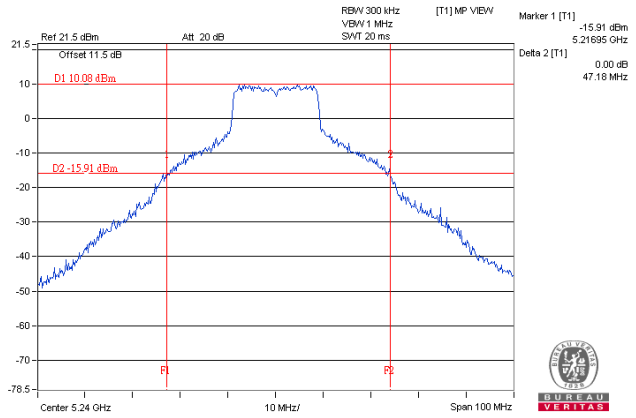
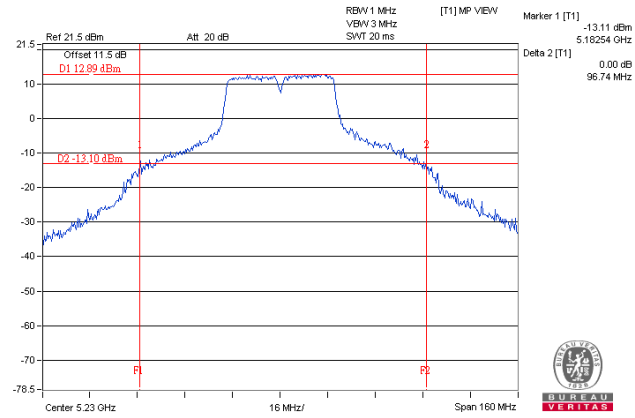
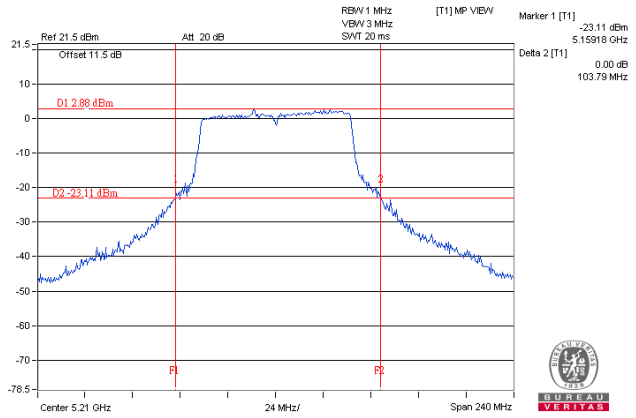
Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)	Pass / Fail
36	5180	39.47	Pass
40	5200	45.19	Pass
48	5240	47.18	Pass

802.11n (HT40)

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)	Pass / Fail
38	5190	54.17	Pass
46	5230	96.74	Pass

802.11ac (VHT80)

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)	Pass / Fail
42	5210	103.79	Pass

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

Occupied Bandwidth:

Radio 2

CDD Mode

802.11a

Channel	Channel Frequency (MHz)	Occupied Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
36	5180	17.04	17.40	Pass
40	5200	23.04	24.36	Pass
48	5240	17.73	18.34	Pass
149	5745	29.21	28.78	Pass
157	5785	29.76	28.44	Pass
165	5825	26.88	27.00	Pass

802.11n (HT20)

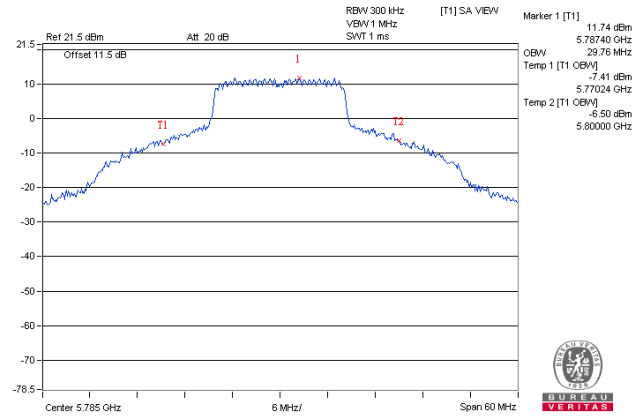
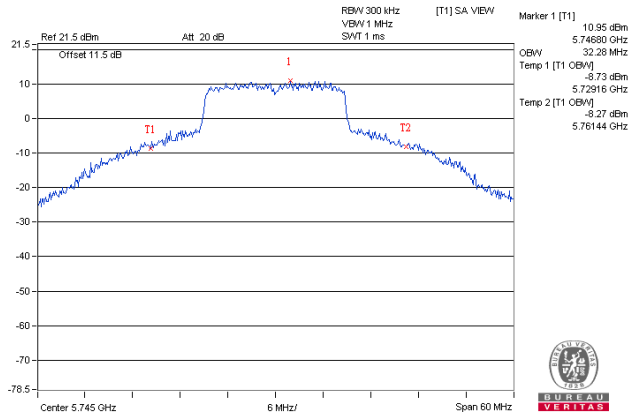
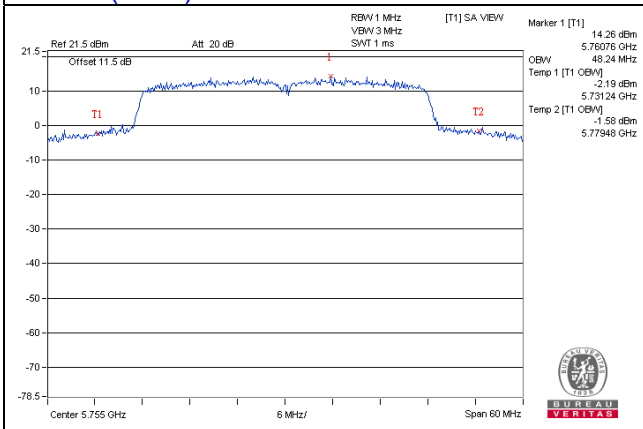
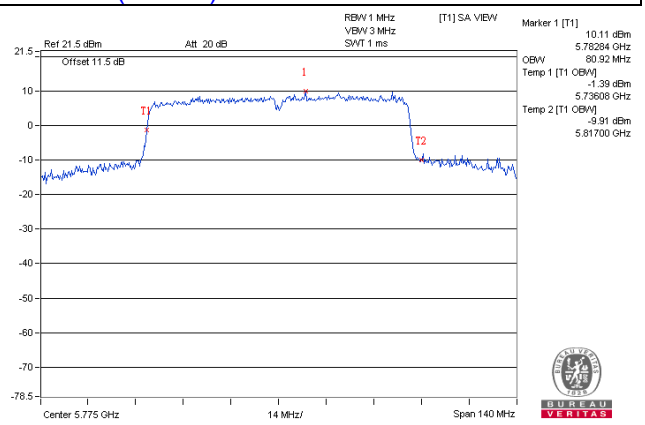
Channel	Channel Frequency (MHz)	Occupied Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
36	5180	18.60	19.44	Pass
40	5200	24.60	25.56	Pass
48	5240	18.48	18.60	Pass
149	5745	32.28	30.36	Pass
157	5785	31.08	30.36	Pass
165	5825	28.56	28.20	Pass

802.11n (HT40)

Channel	Channel Frequency (MHz)	Occupied Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
38	5190	36.24	36.24	Pass
46	5230	37.20	37.44	Pass
151	5755	47.28	48.24	Pass
159	5795	47.52	47.76	Pass

802.11ac (VHT80)

Channel	Channel Frequency (MHz)	Occupied Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
42	5210	75.88	75.88	Pass
155	5775	80.92	77.84	Pass

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

Beamforming Mode

802.11ac (VHT20)

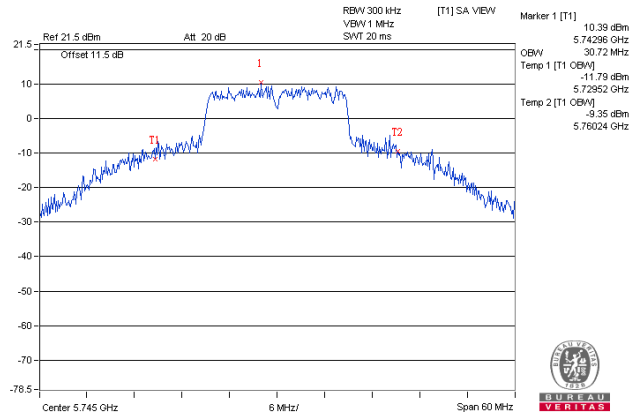
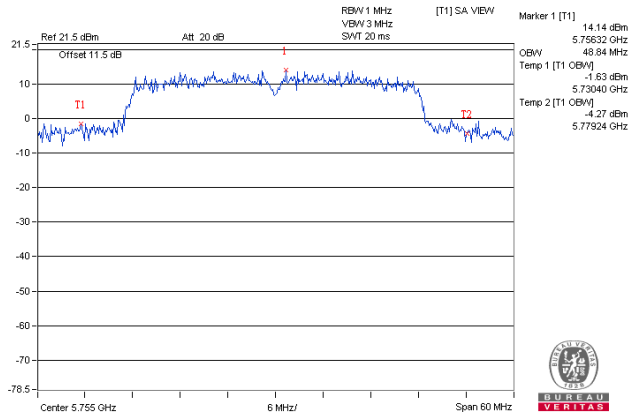
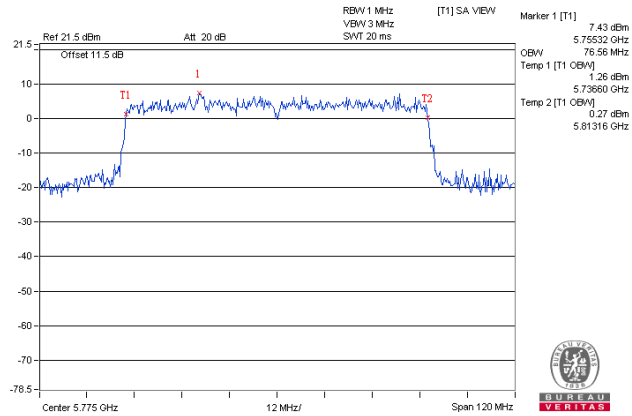
Channel	Channel Frequency (MHz)	Occupied Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
36	5180	18.12	18.12	Pass
40	5200	23.16	22.56	Pass
48	5240	19.08	18.36	Pass
149	5745	28.08	30.72	Pass
157	5785	28.92	29.64	Pass
165	5825	27.60	27.48	Pass

802.11ac (VHT40)

Channel	Channel Frequency (MHz)	Occupied Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
38	5190	36.24	36.24	Pass
46	5230	38.88	38.28	Pass
151	5755	48.84	46.80	Pass
159	5795	48.24	47.88	Pass

802.11ac (VHT80)

Channel	Channel Frequency (MHz)	Occupied Bandwidth (MHz)		Pass / Fail
		Chain 0	Chain 1	
42	5210	76.08	75.84	Pass
155	5775	76.56	76.56	Pass

SPECTRUM PLOT OF WORST VALUE	
802.11ac (VHT20)	802.11ac (VHT40)
	
802.11ac (VHT80)	
	

Radio 3

CDD Mode

802.11a

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)
36	5180	20.28
40	5200	25.44
48	5240	18.52
149	5745	29.47
157	5785	29.64
165	5825	29.76

802.11n (HT20)

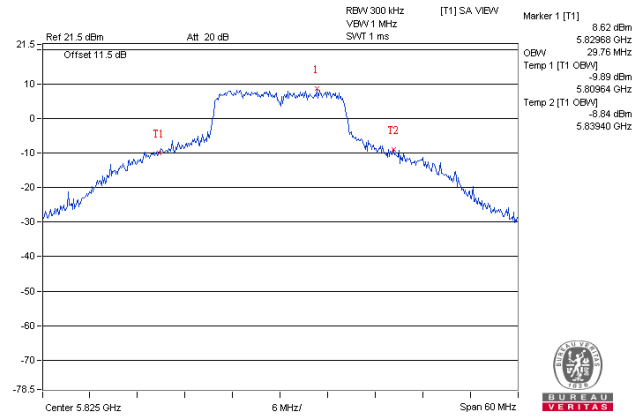
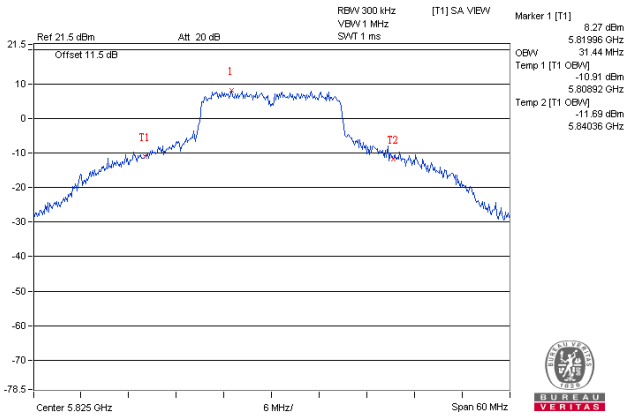
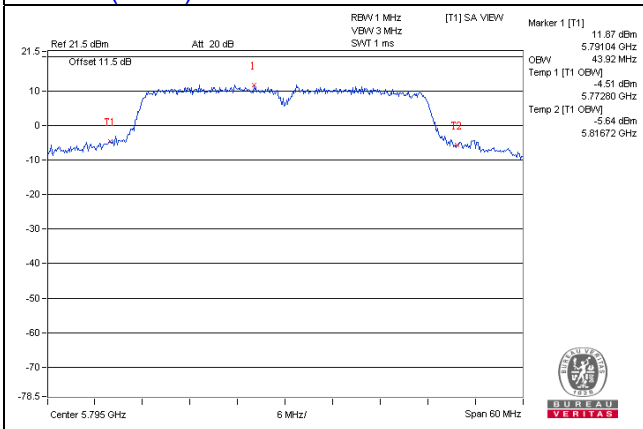
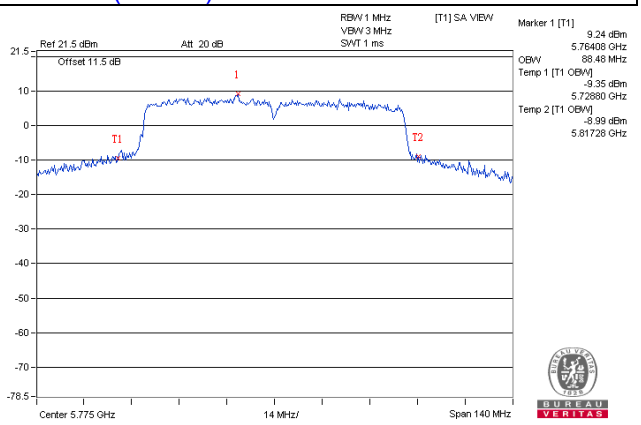
Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)
36	5180	21.24
40	5200	26.52
48	5240	19.39
149	5745	30.72
157	5785	31.08
165	5825	31.44

802.11n (HT40)

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)
38	5190	37.44
46	5230	38.17
151	5755	42.24
159	5795	43.92

802.11ac (VHT80)

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)
42	5210	76.44
155	5775	88.48

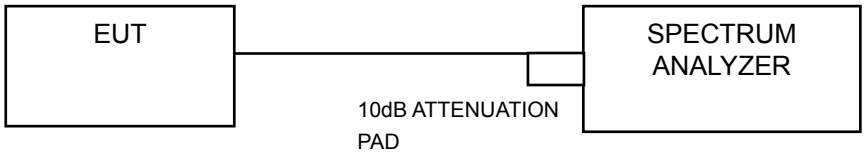
SPECTRUM PLOT OF WORST VALUE	
802.11a	802.11n (HT20)
	
802.11n (HT40)	802.11ac (VHT80)
	

4.4 Peak Power Spectral Density Measurement

4.4.1 Limits of Peak Power Spectral Density Measurement

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

4.4.2 Test Setup



4.4.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.4.4 Test Procedure

For U-NII-1 band:
Using method SA-2 alternative
1) Set span to encompass the entire emission bandwidth (EBW) of the signal.
2) Set RBW = 30 kHz, Set VBW ≥ 1 MHz, Detector = RMS
3) Set Channel power measure = 1MHz
4) Sweep time =20ms.
5) Perform a single sweep.
6) Record the max value and add 10 log (1/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 ≥ 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 = 10log(500 kHz/300kHz)
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/duty cycle)

4.4.5 Deviation from Test Standard

No deviation.

4.4.6 EUT Operating Condition

Same as Item 4.3.6.

4.4.7 Test Results

Radio 2

For U-NII-1 Band

CDD Mode

802.11a

Chan.	Freq. (MHz)	PSD (dBm)		Total PSD w/o duty factor (dBm)	Duty factor	Total PSD with duty factor (dBm)	Max. Limit (dBm)	Pass / Fail
		Chain 0	Chain 1					
36	5180	3.53	3.27	6.41	0.18	6.59	15.13	Pass
40	5200	5.20	5.12	8.17	0.18	8.35	15.13	Pass
48	5240	4.30	4.63	7.48	0.18	7.66	15.13	Pass

NOTE:

1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \ldots + 10^{GN/20})^2/2$]= 7.87dBi > 6dBi, so the power density limit shall be reduced to 17-(7.87-6) = 15.13dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11n (HT20)

Chan.	Freq. (MHz)	PSD (dBm)		Total PSD w/o duty factor (dBm)	Duty factor	Total PSD with duty factor (dBm)	Max. Limit (dBm)	Pass / Fail
		Chain 0	Chain 1					
36	5180	3.93	3.50	6.73	0.09	6.82	15.13	Pass
40	5200	5.00	4.68	7.86	0.09	7.95	15.13	Pass
48	5240	4.07	4.24	7.17	0.09	7.26	15.13	Pass

NOTE:

1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \ldots + 10^{GN/20})^2/2$]= 7.87dBi > 6dBi, so the power density limit shall be reduced to 17-(7.87-6) = 15.13dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11n (HT40)

Chan.	Freq. (MHz)	PSD (dBm)		Total PSD w/o duty factor (dBm)	Duty factor	Total PSD with duty factor (dBm)	Max. Limit (dBm)	Pass / Fail
		Chain 0	Chain 1					
38	5190	-2.69	-3.45	-0.04	0.17	0.13	15.13	Pass
46	5230	1.67	2.17	4.94	0.17	5.11	15.13	Pass

NOTE:

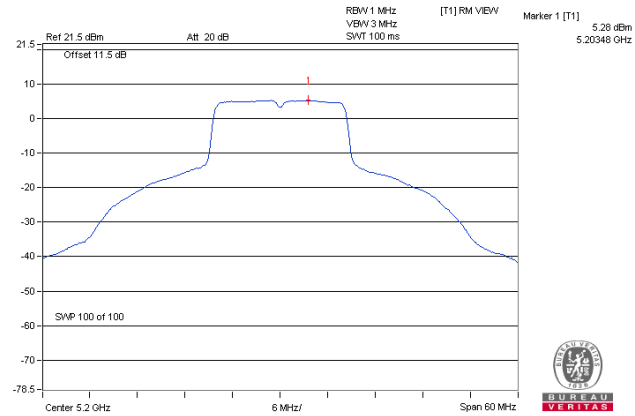
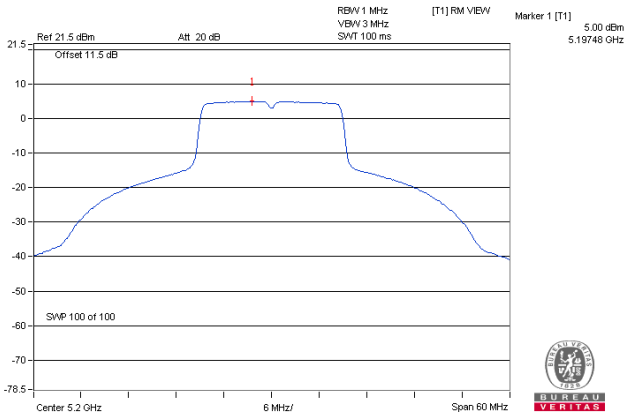
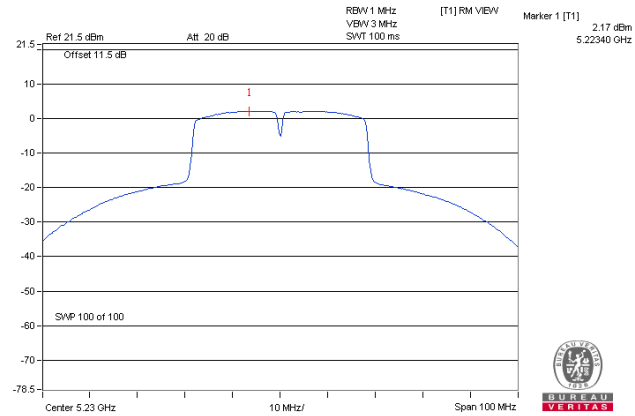
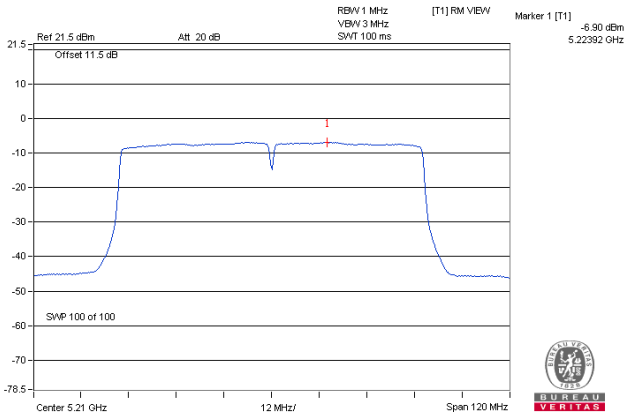
1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \ldots + 10^{GN/20})^2/2$]= 7.87dBi > 6dBi, so the power density limit shall be reduced to 17-(7.87-6) = 15.13dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11ac (VHT80)

Chan.	Freq. (MHz)	PSD (dBm)		Total PSD w/o duty factor (dBm)	Duty factor	Total PSD with duty factor (dBm)	Max. Limit (dBm)	Pass / Fail
		Chain 0	Chain 1					
42	5210	-6.91	-7.64	-4.25	0.35	-3.90	15.13	Pass

NOTE:

1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \ldots + 10^{GN/20})^2/2$]= 7.87dBi > 6dBi, so the power density limit shall be reduced to 17-(7.87-6) = 15.13dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

SPECTRUM PLOT OF WORST VALUE	
802.11a / CH 40 / Chain 0	802.11n (HT20) / CH 40 / Chain 0
	
802.11n (HT40) / CH 46 / Chain 1	802.11ac (VHT80) / CH 42 / Chain 0
	

Beamforming Mode

802.11ac (VHT20)

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					
36	5180	3.52	3.26	6.40	0.10	6.50	15.13	Pass
40	5200	5.42	5.03	8.24	0.10	8.34	15.13	Pass
48	5240	5.64	5.50	8.58	0.10	8.68	15.13	Pass

NOTE:

1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \ldots + 10^{GN/20})^2/2$]= 7.87dBi > 6dBi, so the power density limit shall be reduced to 17-(7.87-6) = 15.13dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11ac (VHT40)

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	-4.83	-4.98	-1.89	0.16	-1.73	15.13	Pass
46	5230	3.72	3.35	6.55	0.16	6.71	15.13	Pass

NOTE:

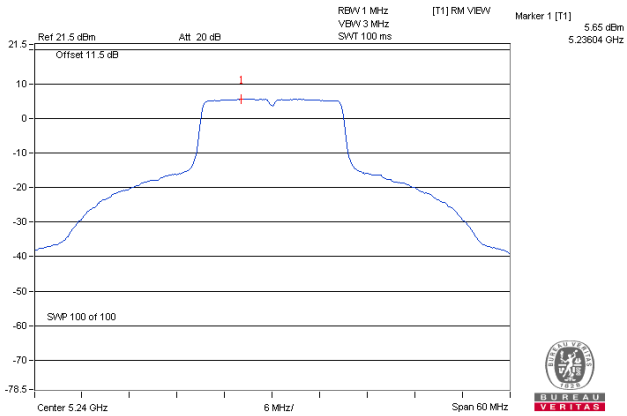
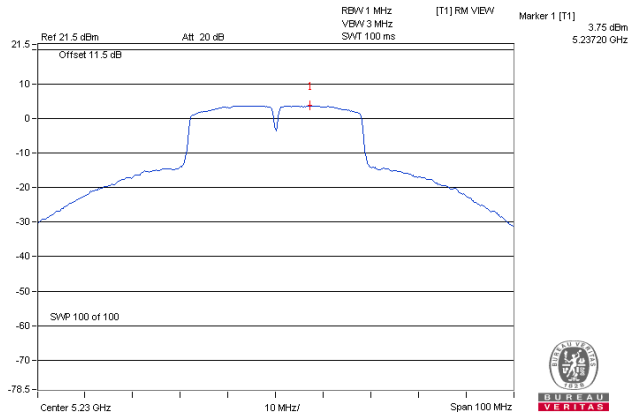
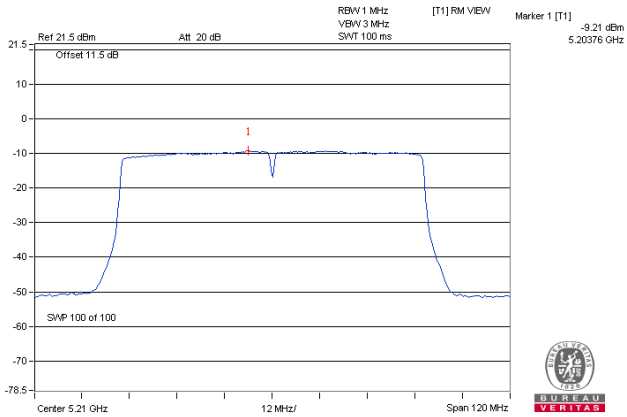
1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \ldots + 10^{GN/20})^2/2$]= 7.87dBi > 6dBi, so the power density limit shall be reduced to 17-(7.87-6) = 15.13dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11ac (VHT80)

Chan.	Freq. (MHz)	PSD (dBm)		Total PSD w/o duty factor (dBm)	Duty factor	Total PSD with duty factor (dBm)	Max. Limit (dBm)	Pass / Fail
		Chain 0	Chain 1					
42	5210	-9.36	-9.21	-6.27	0.31	-5.96	15.13	Pass

NOTE:

1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \ldots + 10^{GN/20})^2/2$]= 7.87dBi > 6dBi, so the power density limit shall be reduced to 17-(7.87-6) = 15.13dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

SPECTRUM PLOT OF WORST VALUE	
802.11ac (VHT20) / CH 48 / Chain 0	802.11ac (VHT40) / CH 46 / Chain 0
	
802.11ac (VHT80) / CH 42 / Chain 1	
	

For U-NII-3 Band

CDD Mode

802.11a

TX chain	Channel	Freq. (MHz)	PSD (dBm/300kHz)	PSD (dBm/500kHz)	10 log (N=2) dB	Duty factor	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	Pass /Fail
0	149	5745	-2.26	-0.04	3.01	0.18	3.15	28.13	Pass
	157	5785	-2.13	0.09	3.01	0.18	3.28	28.13	Pass
	165	5825	-2.47	-0.25	3.01	0.18	2.94	28.13	Pass
1	149	5745	-3.06	-0.84	3.01	0.18	2.35	28.13	Pass
	157	5785	-2.94	-0.72	3.01	0.18	2.47	28.13	Pass
	165	5825	-3.14	-0.92	3.01	0.18	2.27	28.13	Pass

NOTE:

1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \ldots + 10^{GN/20})^2/2$]= 7.87dBi > 6dBi, so the power density limit shall be reduced to 30-(7.87-6) = 28.13dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11n (HT20)

TX chain	Channel	Freq. (MHz)	PSD (dBm/300kHz)	PSD (dBm/500kHz)	10 log (N=2) dB	Duty factor	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	Pass /Fail
0	149	5745	-2.42	-0.20	3.01	0.09	2.90	28.13	Pass
	157	5785	-2.53	-0.31	3.01	0.09	2.79	28.13	Pass
	165	5825	-2.73	-0.51	3.01	0.09	2.59	28.13	Pass
1	149	5745	-3.12	-0.90	3.01	0.09	2.20	28.13	Pass
	157	5785	-3.17	-0.95	3.01	0.09	2.15	28.13	Pass
	165	5825	-3.39	-1.17	3.01	0.09	1.93	28.13	Pass

NOTE:

1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \ldots + 10^{GN/20})^2/2$]= 7.87dBi > 6dBi, so the power density limit shall be reduced to 30-(7.87-6) = 28.13dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11n (HT40)

TX chain	Channel	Freq. (MHz)	PSD (dBm/300kHz)	PSD (dBm/500kHz)	10 log (N=2) dB	Duty factor	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	Pass /Fail
0	151	5755	-5.03	-2.81	3.01	0.17	0.37	28.13	Pass
	159	5795	-5.10	-2.88	3.01	0.17	0.30	28.13	Pass
1	151	5755	-5.63	-3.41	3.01	0.17	-0.23	28.13	Pass
	159	5795	-5.42	-3.20	3.01	0.17	-0.02	28.13	Pass

NOTE:

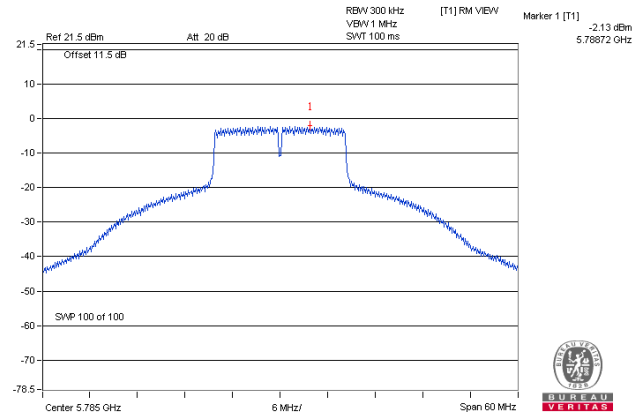
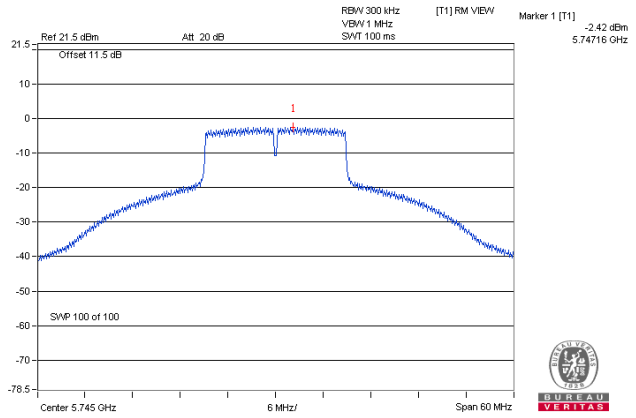
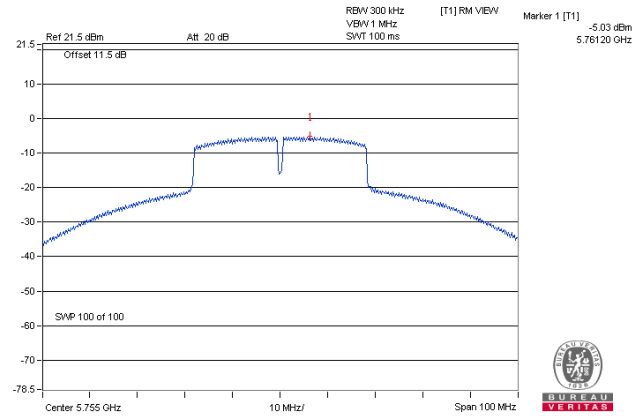
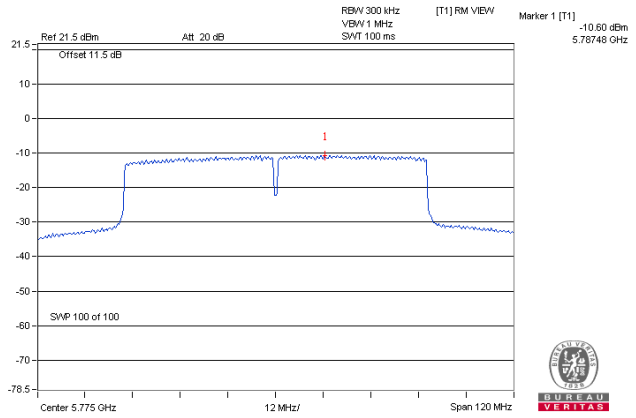
1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \ldots + 10^{GN/20})^2/2$]= 7.87dBi > 6dBi, so the power density limit shall be reduced to 30-(7.87-6) = 28.13dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11ac (VHT80)

TX chain	Channel	Freq. (MHz)	PSD (dBm/300kHz)	PSD (dBm/500kHz)	10 log (N=2) dB	Duty factor	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	Pass /Fail
0	155	5775	-10.60	-8.38	3.01	0.35	-5.02	28.13	Pass
1	155	5775	-11.46	-9.24	3.01	0.35	-5.88	28.13	Pass

NOTE:

1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \ldots + 10^{GN/20})^2/2$]= 7.87dBi > 6dBi, so the power density limit shall be reduced to 30-(7.87-6) = 28.13dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

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

Beamforming Mode

802.11ac (VHT20)

TX chain	Channel	Freq. (MHz)	PSD (dBm/300kHz)	PSD (dBm/500kHz)	10 log (N=2) dB	Duty factor	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	Pass /Fail
0	149	5745	-2.27	-0.05	3.01	0.10	3.06	28.13	Pass
	157	5785	-2.49	-0.27	3.01	0.10	2.84	28.13	Pass
	165	5825	-2.88	-0.66	3.01	0.10	2.45	28.13	Pass
1	149	5745	-2.51	-0.29	3.01	0.10	2.82	28.13	Pass
	157	5785	-2.84	-0.62	3.01	0.10	2.49	28.13	Pass
	165	5825	-3.29	-1.07	3.01	0.10	2.04	28.13	Pass

NOTE:
1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \ldots + 10^{GN/20})^2/2$]= 7.87dBi > 6dBi, so the power density limit shall be reduced to 30-(7.87-6) = 28.13dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11ac (VHT40)

TX chain	Channel	Freq. (MHz)	PSD (dBm/300kHz)	PSD (dBm/500kHz)	10 log (N=2) dB	Duty factor	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	Pass /Fail
0	151	5755	-4.77	-2.55	3.01	0.16	0.62	28.13	Pass
	159	5795	-4.84	-2.62	3.01	0.16	0.55	28.13	Pass
1	151	5755	-5.61	-3.39	3.01	0.16	-0.22	28.13	Pass
	159	5795	-5.70	-3.48	3.01	0.16	-0.31	28.13	Pass

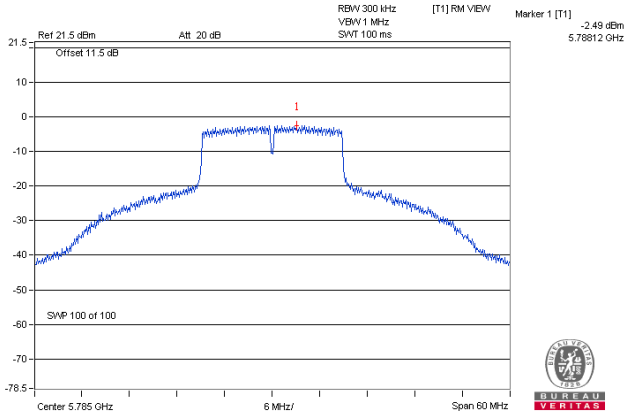
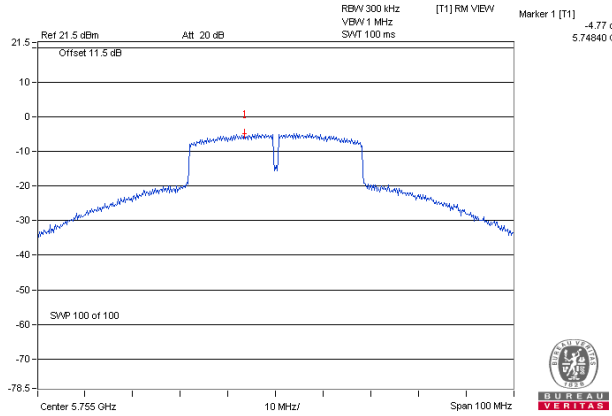
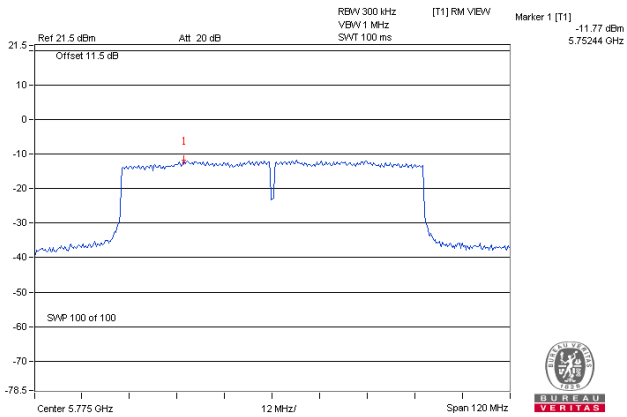
NOTE:
1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 10 log[$(10^{G1/20} + 10^{G2/20} + \ldots + 10^{GN/20})^2/2$]= 7.87dBi > 6dBi, so the power density limit shall be reduced to 30-(7.87-6) = 28.13dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11ac (VHT80)

TX chain	Channel	Freq. (MHz)	PSD (dBm/300kHz)	PSD (dBm/500kHz)	10 log (N=2) dB	Duty factor	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	Pass /Fail
0	155	5775	-11.77	-9.55	3.01	0.31	-6.23	28.13	Pass
1	155	5775	-11.88	-9.66	3.01	0.31	-6.34	28.13	Pass

NOTE:

1. Method 1 of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain = 10 log[($10^{G1/20} + 10^{G2/20} + \ldots + 10^{GN/20}$)^2/2]= 7.87dBi > 6dBi, so the power density limit shall be reduced to 30-(7.87-6) = 28.13dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

SPECTRUM PLOT OF WORST VALUE	
802.11ac (VHT20)	802.11ac (VHT40)
	
802.11ac (VHT80)	
	

Radio 3

For U-NII-1 Band

CDD Mode

802.11a

Chan.	Freq. (MHz)	PSD w/o duty factor (dBm)	Duty factor	PSD with duty factor (dBm)	Max. Limit (dBm)	Pass / Fail
36	5180	3.95	0.21	4.16	17.00	Pass
40	5200	5.36	0.21	5.57	17.00	Pass
48	5240	5.30	0.21	5.51	17.00	Pass

802.11n (HT20)

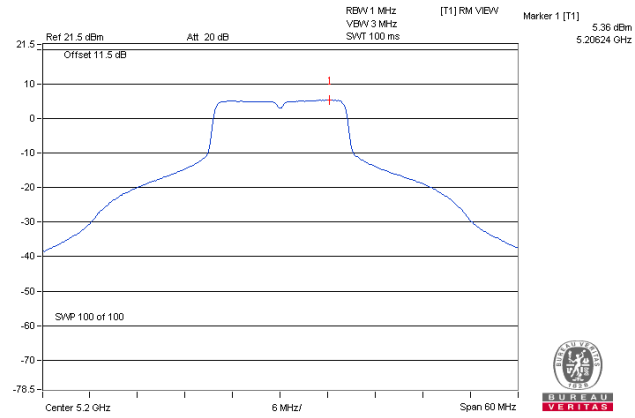
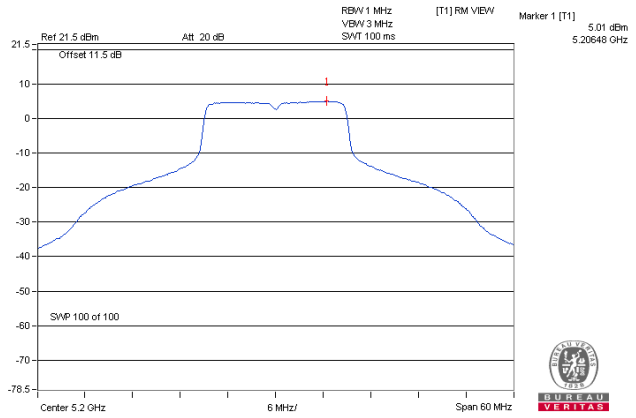
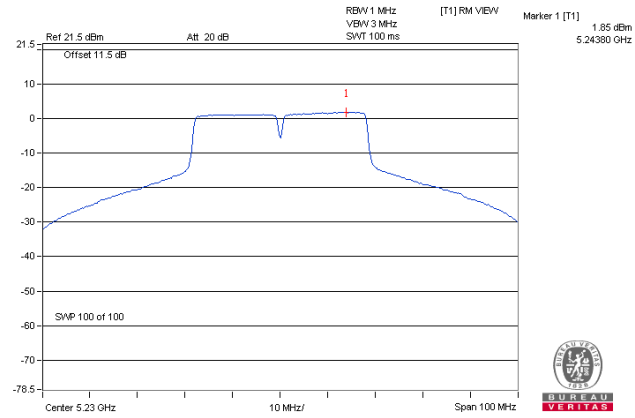
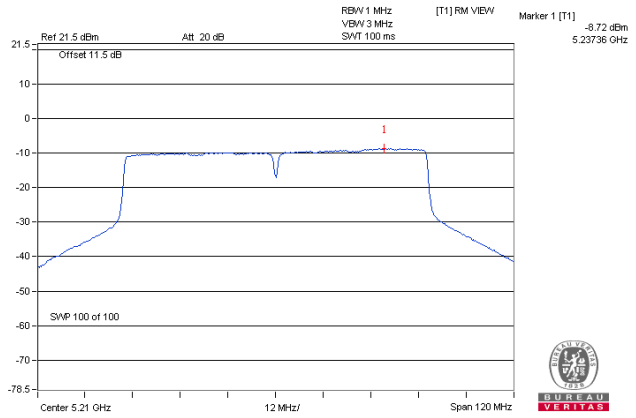
Chan.	Freq. (MHz)	PSD w/o duty factor (dBm)	Duty factor	PSD with duty factor (dBm)	Max. Limit (dBm)	Pass / Fail
36	5180	3.55	0.16	3.71	17.00	Pass
40	5200	5.01	0.16	5.17	17.00	Pass
48	5240	5.01	0.16	5.17	17.00	Pass

802.11n (HT40)

Chan.	Freq. (MHz)	PSD w/o duty factor (dBm)	Duty factor	PSD with duty factor (dBm)	Max. Limit (dBm)	Pass / Fail
38	5190	-4.19	0.41	-3.79	17.00	Pass
46	5230	1.85	0.41	2.25	17.00	Pass

802.11ac (VHT80)

Chan.	Freq. (MHz)	PSD w/o duty factor (dBm)	Duty factor	PSD with duty factor (dBm)	Max. Limit (dBm)	Pass / Fail
42	5210	-8.72	0.83	-7.89	17.00	Pass

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

For U-NII-3 Band

CDD Mode

802.11a

Chan.	Freq. (MHz)	PSD (dBm/300k Hz)	PSD (dBm/500k Hz)	Duty factor	Total PSD (dBm/500k Hz)	Limit (dBm/500k Hz)	Pass / Fail
149	5745	-4.12	-1.90	0.21	-1.69	30.00	Pass
157	5785	-4.29	-2.07	0.21	-1.86	30.00	Pass
165	5825	-4.37	-2.15	0.21	-1.94	30.00	Pass

802.11n (HT20)

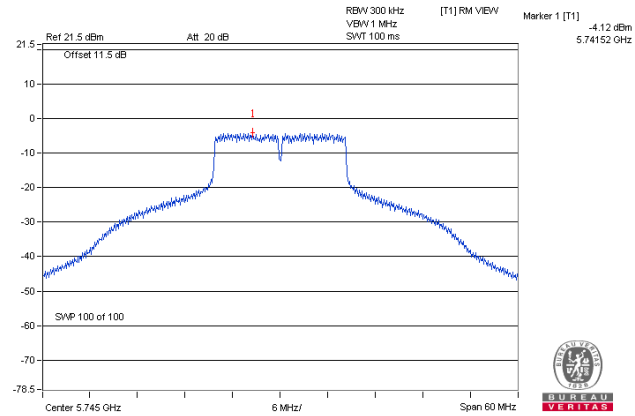
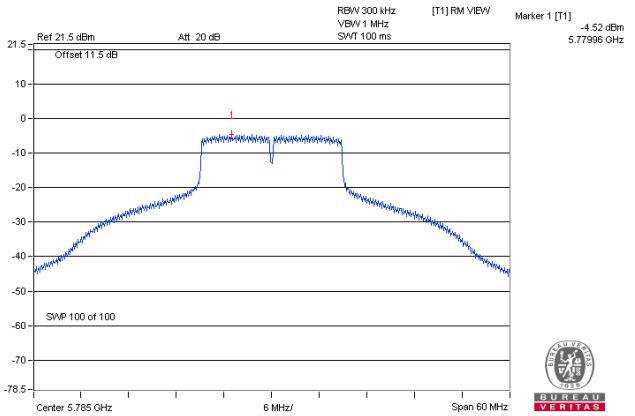
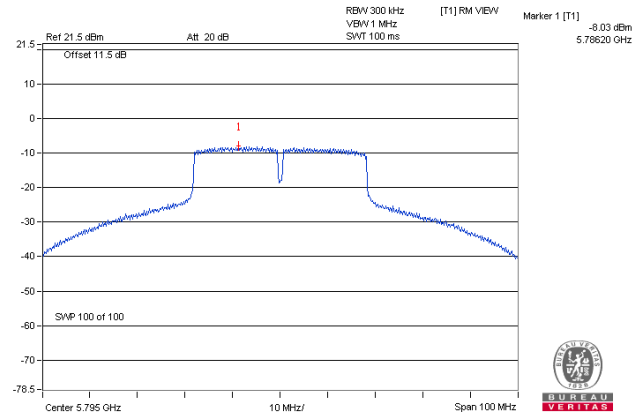
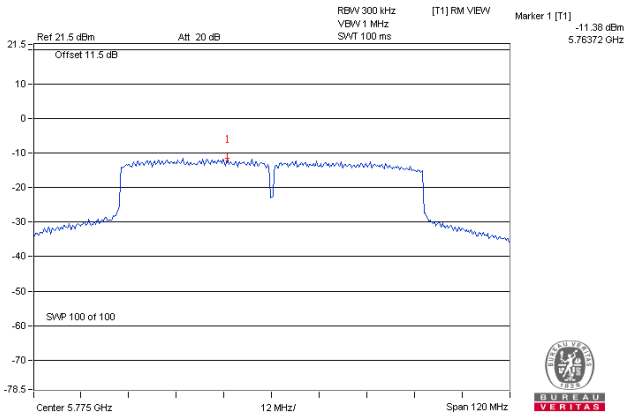
Chan.	Freq. (MHz)	PSD (dBm/300k Hz)	PSD (dBm/500k Hz)	Duty factor	Total PSD (dBm/500k Hz)	Limit (dBm/500k Hz)	Pass / Fail
149	5745	-5.39	-3.17	0.16	-3.01	30.00	Pass
157	5785	-4.52	-2.30	0.16	-2.14	30.00	Pass
165	5825	-4.84	-2.62	0.16	-2.46	30.00	Pass

802.11n (HT40)

Chan.	Freq. (MHz)	PSD (dBm/300k Hz)	PSD (dBm/500k Hz)	Duty factor	Total PSD (dBm/500k Hz)	Limit (dBm/500k Hz)	Pass / Fail
151	5755	-8.21	-5.99	0.41	-5.58	30.00	Pass
159	5795	-8.03	-5.81	0.41	-5.40	30.00	Pass

802.11ac (VHT80)

Chan.	Freq. (MHz)	PSD (dBm/300k Hz)	PSD (dBm/500k Hz)	Duty factor	Total PSD (dBm/500k Hz)	Limit (dBm/500k Hz)	Pass / Fail
155	5775	-11.38	-9.16	0.83	-8.33	30.00	Pass

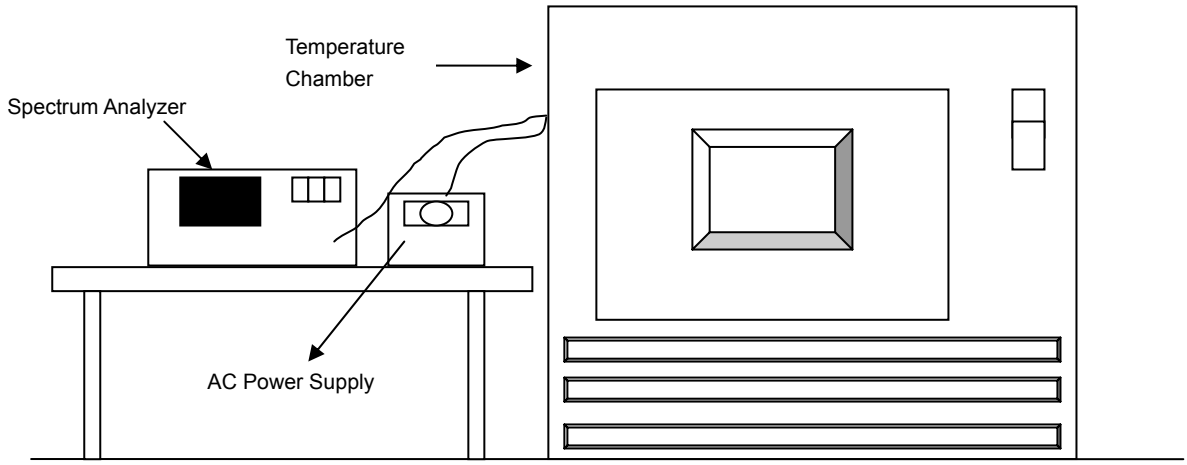
SPECTRUM PLOT OF WORST VALUE	
802.11a	802.11n (HT20)
	
802.11n (HT40)	802.11ac (VHT80)
	

4.5 Frequency Stability

4.5.1 Limits of Frequency Stability Measurement

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

4.5.2 Test Setup



4.5.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.5.4 Test Procedure

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

4.5.5 Deviation from Test Standard

No deviation.

4.5.6 EUT Operating Condition

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

4.5.7 Test Results

Radio 2

CDD Mode

802.11a

FREQUENCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5180MHz									
TEMP. (℃)	POWER SUPPLY (Vac)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)
50	120	5179.9823	-0.00034	5179.9835	-0.00032	5179.9805	-0.00038	5179.9812	-0.00036
40	120	5180.0156	0.00030	5180.0158	0.00031	5180.0129	0.00025	5180.0129	0.00025
30	120	5179.9945	-0.00011	5179.9965	-0.00007	5179.9982	-0.00003	5179.9963	-0.00007
20	120	5179.9873	-0.00025	5179.9922	-0.00015	5179.9914	-0.00017	5179.9905	-0.00018
10	120	5180.0162	0.00031	5180.0160	0.00031	5180.0149	0.00029	5180.0169	0.00033
0	120	5180.0214	0.00041	5180.0197	0.00038	5180.0194	0.00037	5180.0207	0.00040
-10	120	5179.9930	-0.00014	5179.9942	-0.00011	5179.9955	-0.00009	5179.9936	-0.00012
-20	120	5180.0046	0.00009	5180.0036	0.00007	5180.0033	0.00006	5180.0007	0.00001
-30	120	5179.9952	-0.00009	5179.9959	-0.00008	5179.9969	-0.00006	5179.9932	-0.00013

FREQUENCY STABILITY VERSUS VOLTAGE									
OPERATING FREQUENCY: 5180MHz									
TEMP. (℃)	POWER SUPPLY (Vac)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)
20	138	5179.9878	-0.00024	5179.9923	-0.00015	5179.9921	-0.00015	5179.9905	-0.00018
	120	5179.9873	-0.00025	5179.9922	-0.00015	5179.9914	-0.00017	5179.9905	-0.00018
	102	5179.9880	-0.00023	5179.9915	-0.00016	5179.9916	-0.00016	5179.9899	-0.00019

Beamforming Mode
802.11ac (VHT20)

FREQUENCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5180MHz									
TEMP. (℃)	POWER SUPPLY (Vac)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)
50	120	5180.0207	0.00040	5180.0250	0.00048	5180.0235	0.00045	5180.0230	0.00044
40	120	5180.0135	0.00026	5180.0114	0.00022	5180.0133	0.00026	5180.0100	0.00019
30	120	5180.0216	0.00042	5180.0242	0.00047	5180.0250	0.00048	5180.0239	0.00046
20	120	5179.9759	-0.00047	5179.9740	-0.00050	5179.9762	-0.00046	5179.9772	-0.00044
10	120	5180.0028	0.00005	5180.0041	0.00008	5180.0043	0.00008	5180.0055	0.00011
0	120	5179.9784	-0.00042	5179.9810	-0.00037	5179.9815	-0.00036	5179.9812	-0.00036
-10	120	5180.0037	0.00007	5180.0048	0.00009	5180.0018	0.00003	5180.0003	0.00001
-20	120	5179.9948	-0.00010	5179.9916	-0.00016	5179.9960	-0.00008	5179.9957	-0.00008
-30	120	5179.9894	-0.00020	5179.9876	-0.00024	5179.9867	-0.00026	5179.9865	-0.00026

FREQUENCY STABILITY VERSUS VOLTAGE									
OPERATING FREQUENCY: 5180MHz									
TEMP. (℃)	POWER SUPPLY (Vac)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)
20	138	5179.9767	-0.00045	5179.9731	-0.00052	5179.9756	-0.00047	5179.9780	-0.00042
	120	5179.9759	-0.00047	5179.9740	-0.00050	5179.9762	-0.00046	5179.9772	-0.00044
	102	5179.9756	-0.00047	5179.9736	-0.00051	5179.9772	-0.00044	5179.9766	-0.00045

Radio 3

CDD Mode

802.11a

FREQUENCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5180MHz									
TEMP. (℃)	POWER SUPPLY (Vac)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)
50	120	5180.0175	0.00034	5180.0166	0.00032	5180.0159	0.00031	5180.0161	0.00031
40	120	5180.0023	0.00004	5179.9998	0.00000	5180.0010	0.00002	5180.0003	0.00001
30	120	5180.0013	0.00003	5179.9994	-0.00001	5179.9986	-0.00003	5180.0005	0.00001
20	120	5179.9840	-0.00031	5179.9860	-0.00027	5179.9848	-0.00029	5179.9863	-0.00026
10	120	5180.0126	0.00024	5180.0132	0.00025	5180.0108	0.00021	5180.0128	0.00025
0	120	5180.0092	0.00018	5180.0067	0.00013	5180.0101	0.00019	5180.0069	0.00013
-10	120	5179.9818	-0.00035	5179.9828	-0.00033	5179.9806	-0.00037	5179.9801	-0.00038
-20	120	5179.9770	-0.00044	5179.9803	-0.00038	5179.9787	-0.00041	5179.9761	-0.00046
-30	120	5180.0010	0.00002	5180.0033	0.00006	5180.0009	0.00002	5180.0032	0.00006

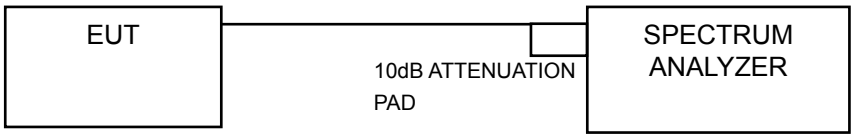
FREQUENCY STABILITY VERSUS VOLTAGE									
OPERATING FREQUENCY: 5180MHz									
TEMP. (℃)	POWER SUPPLY (Vac)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)
20	138	5179.9832	-0.00032	5179.9858	-0.00027	5179.9849	-0.00029	5179.9858	-0.00027
	120	5179.9840	-0.00031	5179.9860	-0.00027	5179.9848	-0.00029	5179.9863	-0.00026
	102	5179.9832	-0.00032	5179.9863	-0.00026	5179.9856	-0.00028	5179.9868	-0.00025

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

a. Set resolution bandwidth (RBW) = 100kHz
b. Set the video bandwidth (VBW) ≥ 3 x RBW, Detector = Peak.
c. Trace mode = max hold.
d. Sweep = auto couple.
e. 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

Radio 2

CDD Mode

802.11a

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
149	5745	16.36	16.35	0.5	Pass
157	5785	16.39	16.37	0.5	Pass
165	5825	16.40	16.37	0.5	Pass

802.11n (HT20)

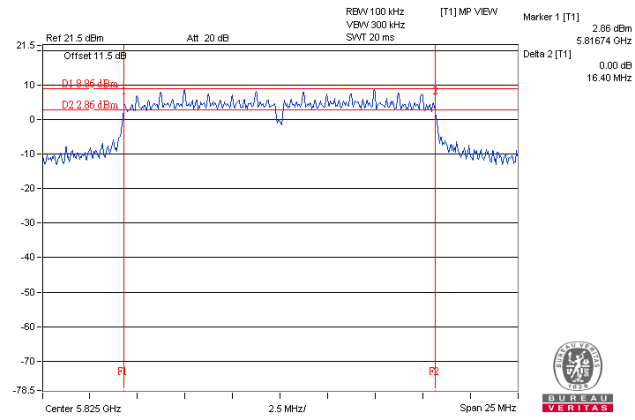
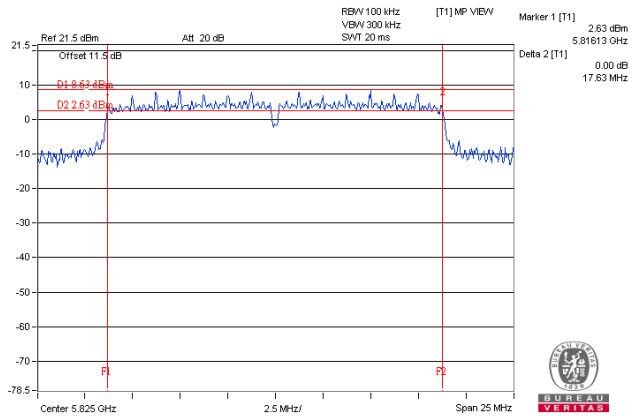
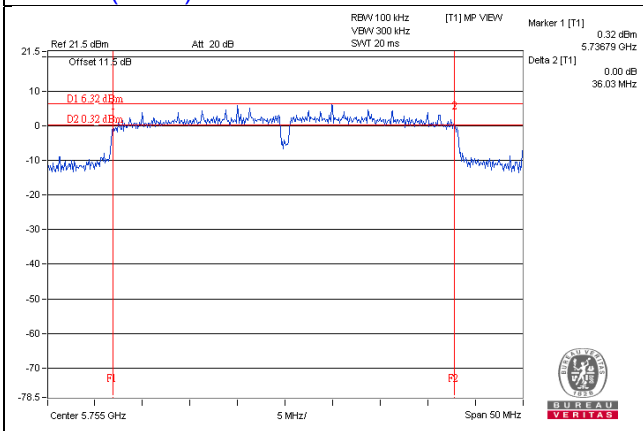
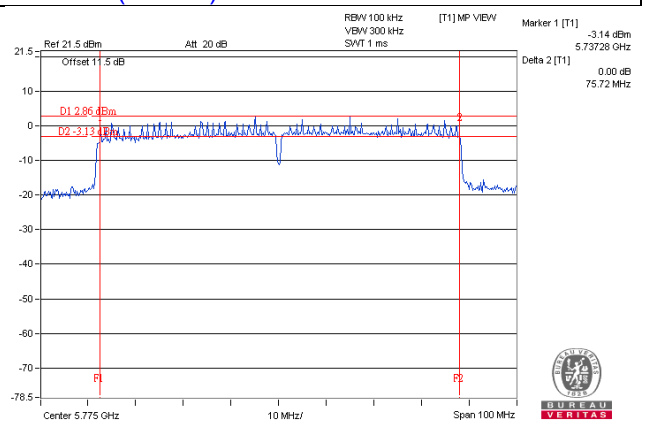
Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
149	5745	17.62	17.58	0.5	Pass
157	5785	17.59	17.61	0.5	Pass
165	5825	17.63	17.63	0.5	Pass

802.11n (HT40)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
151	5755	35.19	36.03	0.5	Pass
159	5795	35.08	35.15	0.5	Pass

802.11ac (VHT80)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
155	5775	75.72	75.57	0.5	Pass

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

Beamforming Mode

802.11ac (VHT20)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
149	5745	17.22	17.59	0.5	Pass
157	5785	17.61	17.57	0.5	Pass
165	5825	17.57	17.65	0.5	Pass

802.11ac (VHT40)

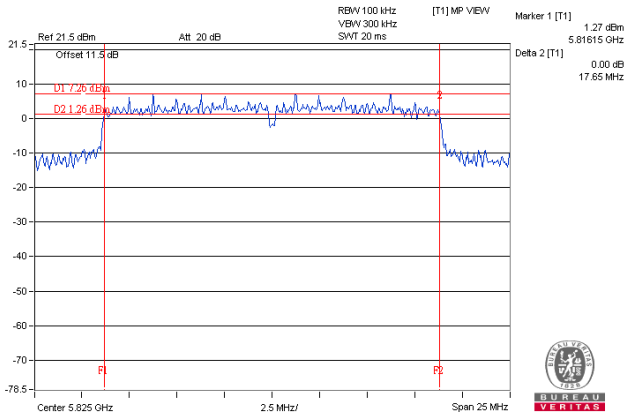
Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
151	5755	35.43	35.15	0.5	Pass
159	5795	35.36	35.20	0.5	Pass

802.11ac (VHT80)

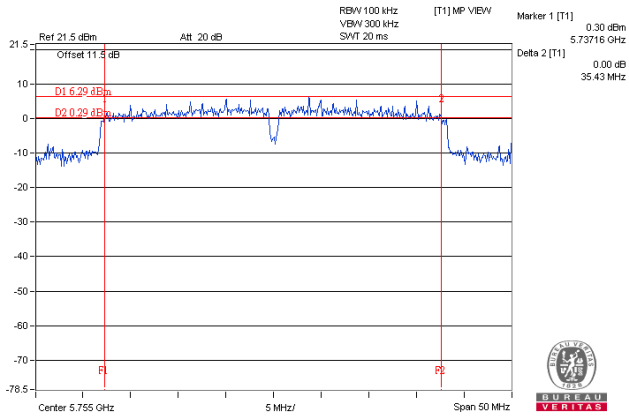
Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
155	5775	75.60	75.58	0.5	Pass

SPECTRUM PLOT OF WORST VALUE

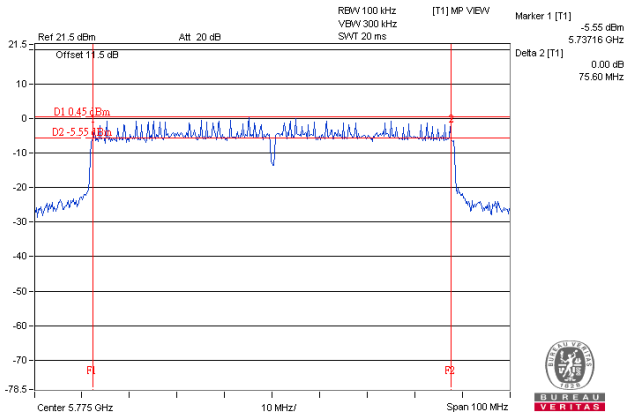
802.11ac (VHT20)



802.11ac (VHT40)



802.11ac (VHT80)



Radio 3

CDD Mode

802.11a

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
149	5745	16.35	0.5	Pass
157	5785	16.36	0.5	Pass
165	5825	16.40	0.5	Pass

802.11n (HT20)

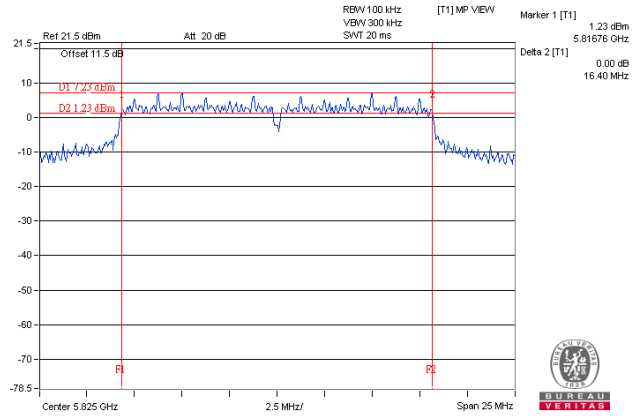
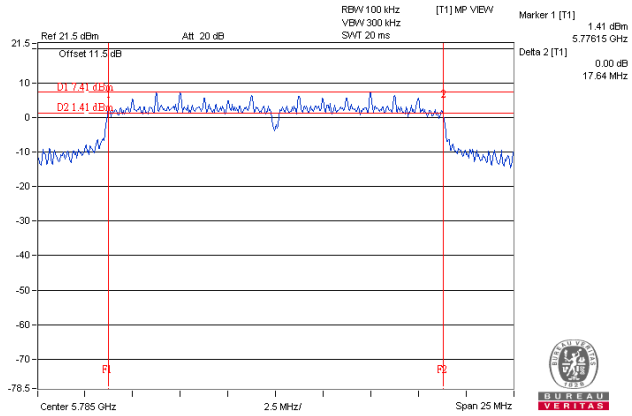
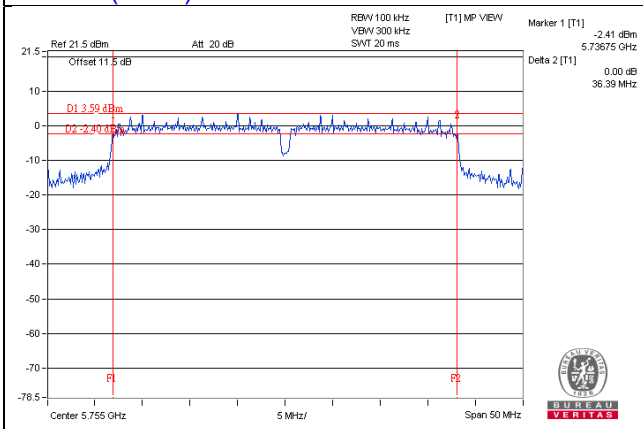
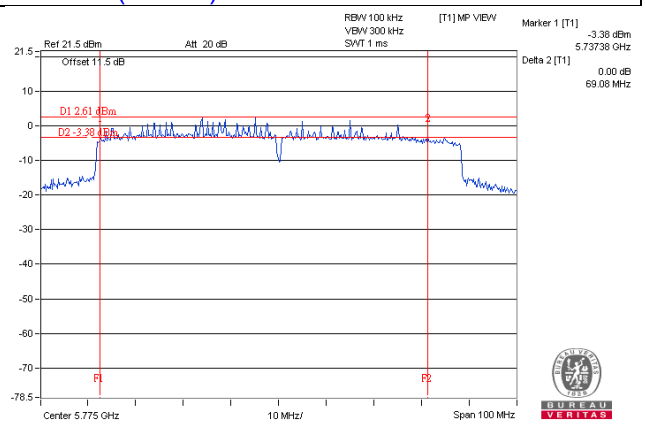
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
149	5745	17.22	0.5	Pass
157	5785	17.64	0.5	Pass
165	5825	17.61	0.5	Pass

802.11n (HT40)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
151	5755	36.39	0.5	Pass
159	5795	35.90	0.5	Pass

802.11ac (VHT80)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
155	5775	69.08	0.5	Pass

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

5 Pictures of Test Arrangements

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

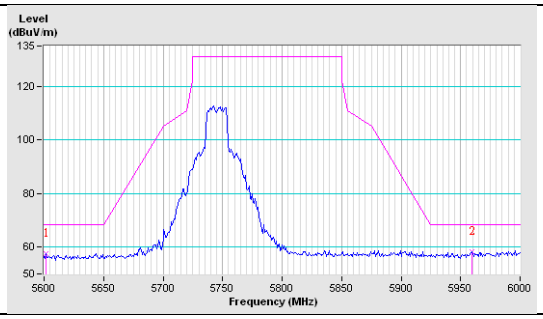
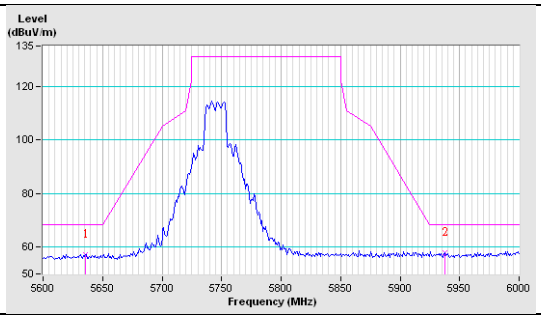
Annex A- Radiated Out of Band Emission (OOBE) Measurement (For U-NII-3 band)

Radio 2

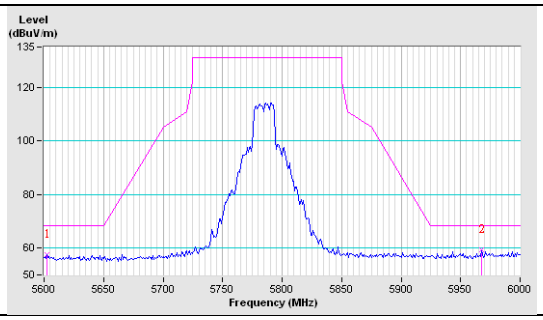
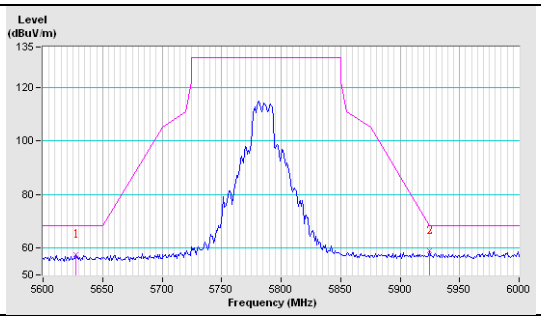
CDD Mode

802.11a

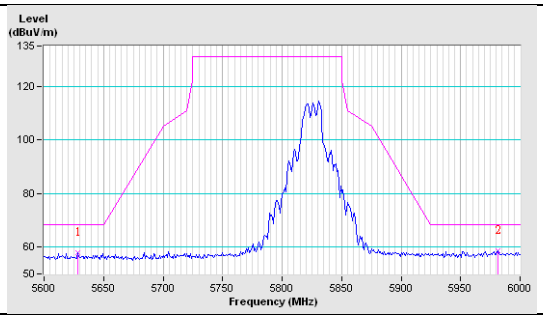
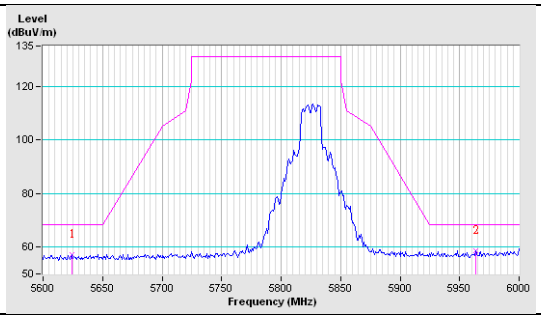
CH149

Horizontal	Vertical
	

CH157

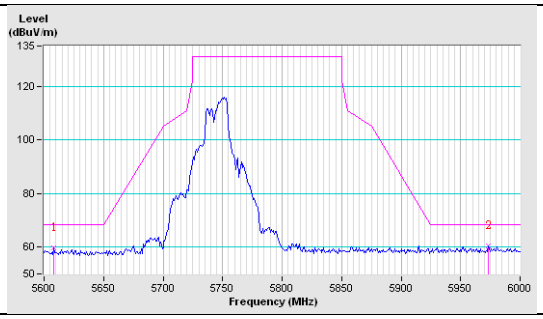
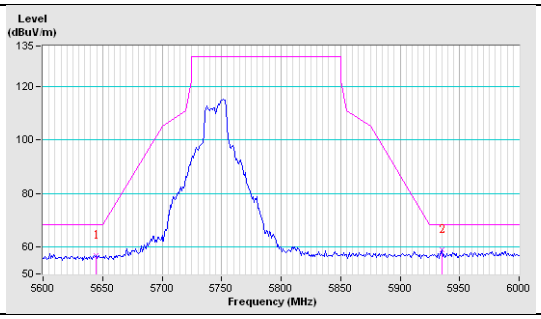
Horizontal	Vertical
	

CH165

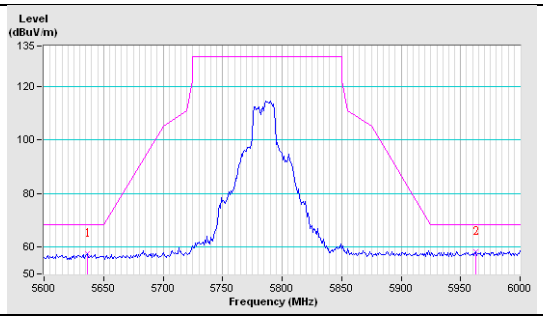
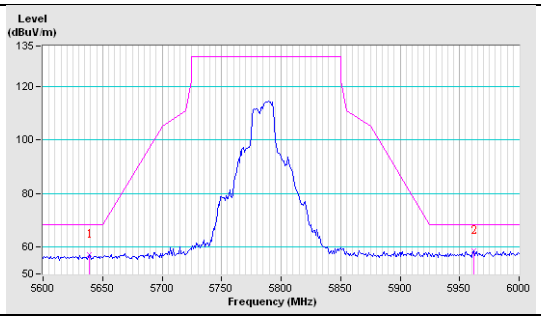
Horizontal	Vertical
	

802.11n (HT20)

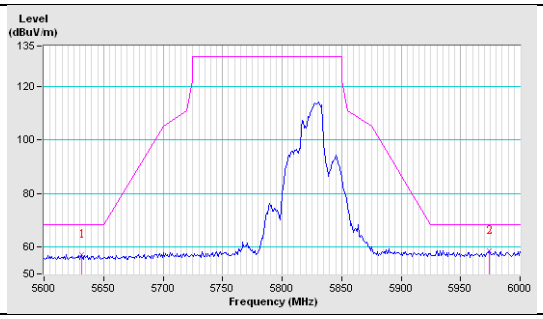
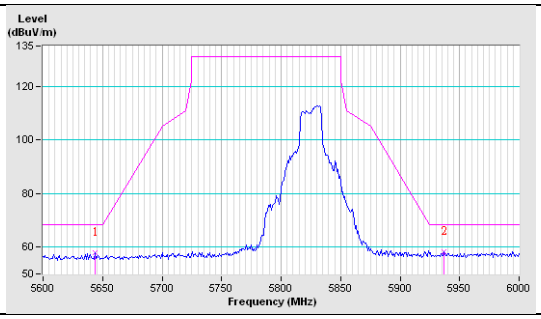
CH149

Horizontal	Vertical
	

CH157

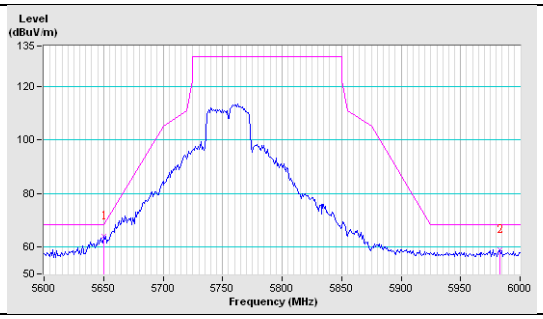
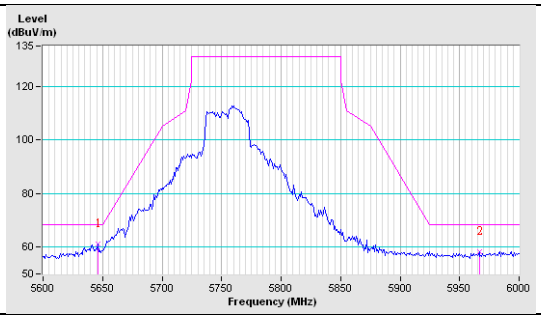
Horizontal	Vertical
	

CH165

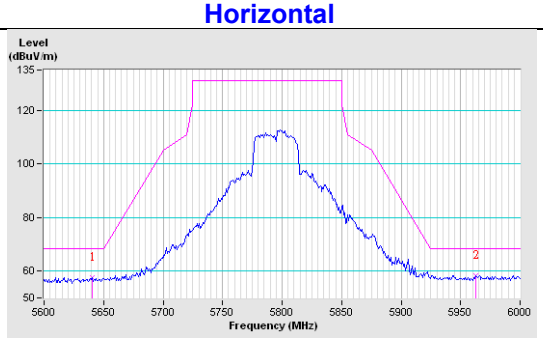
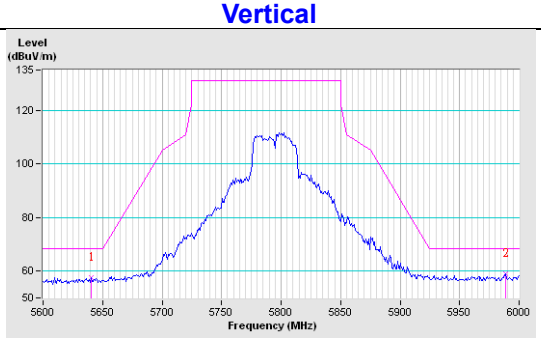
Horizontal	Vertical
	

802.11n (HT40)

CH151

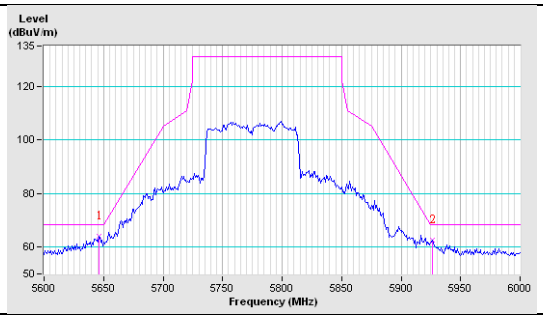
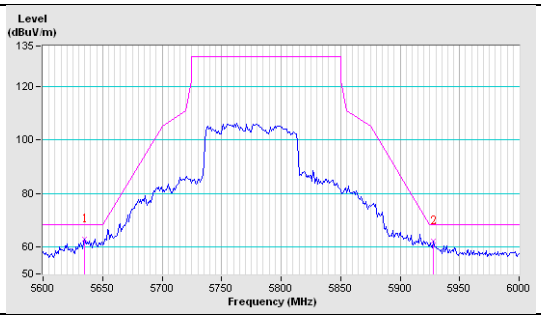
Horizontal	Vertical
	

CH159

Horizontal	Vertical
	

802.11ac (VHT80)

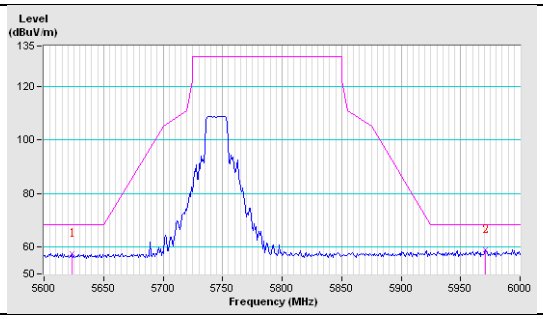
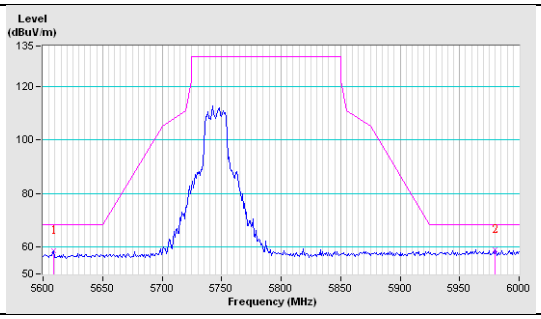
CH155

Horizontal	Vertical
	

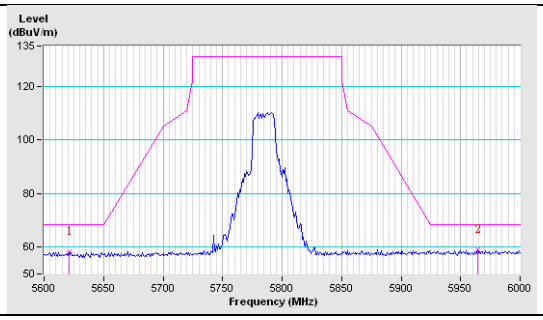
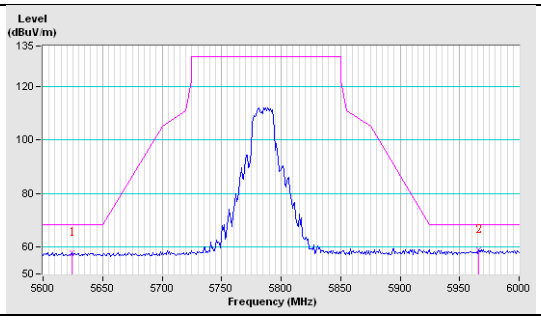
Beamforming Mode

802.11ac (VHT20)

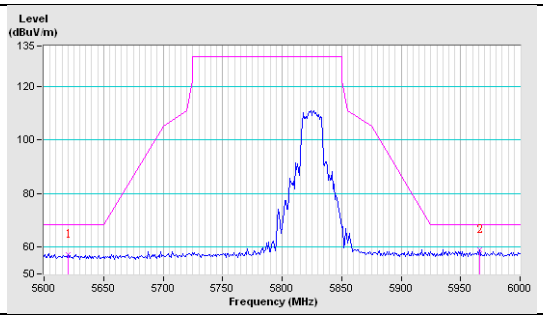
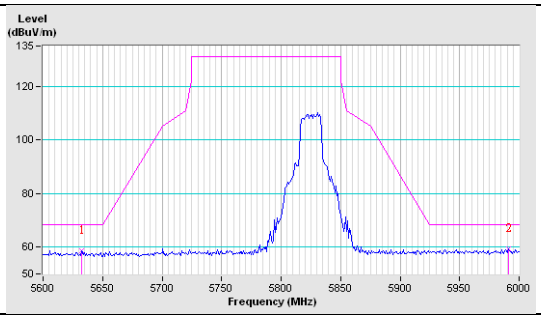
CH149

Horizontal	Vertical
	

CH157

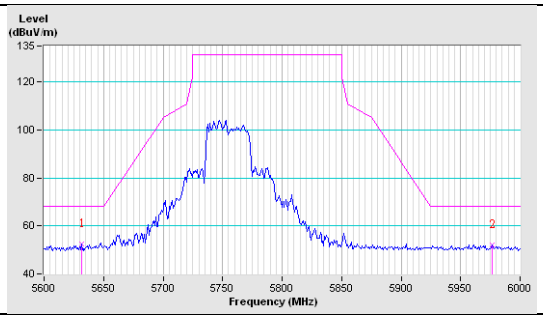
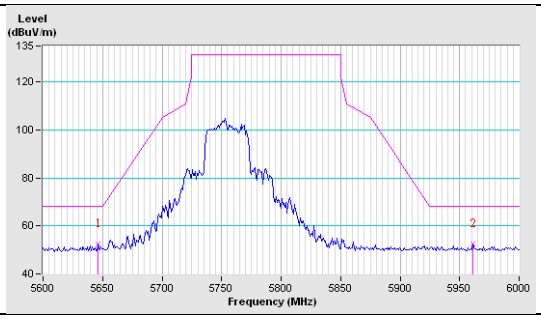
Horizontal	Vertical
	

CH165

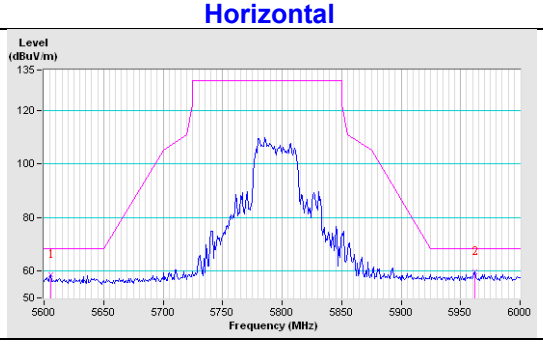
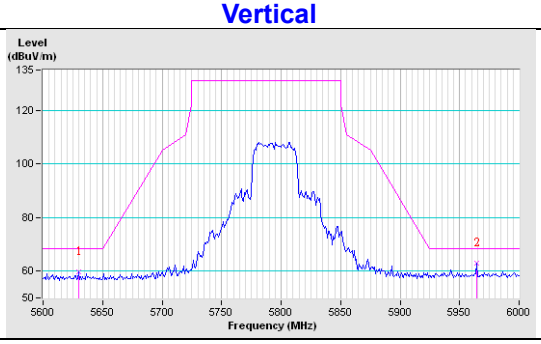
Horizontal	Vertical
	

802.11ac (VHT40)

CH151

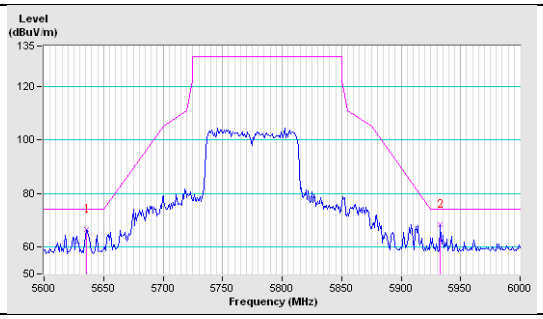
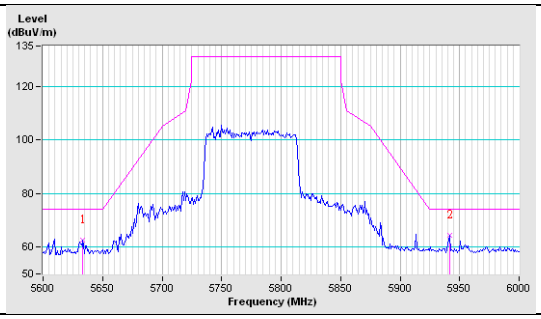
Horizontal	Vertical
	

CH159

Horizontal	Vertical
	

802.11ac (VHT80)

CH155

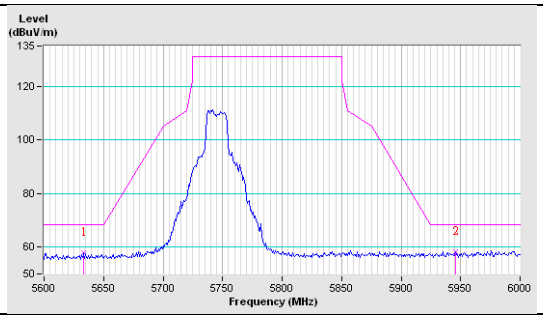
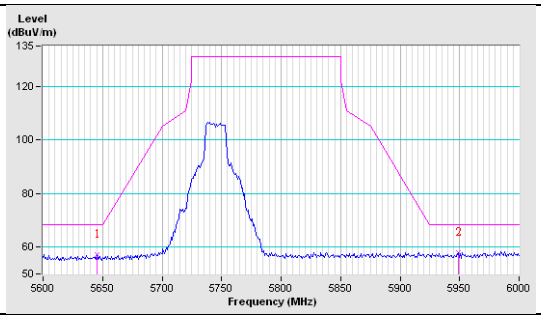
Horizontal	Vertical
	

Radio 3

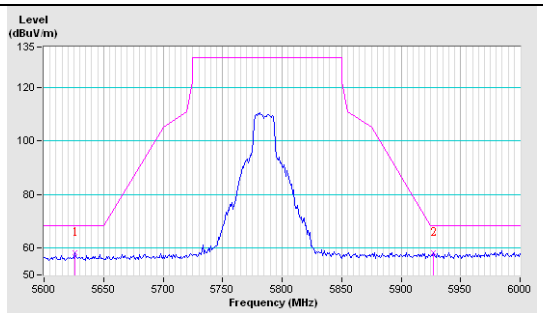
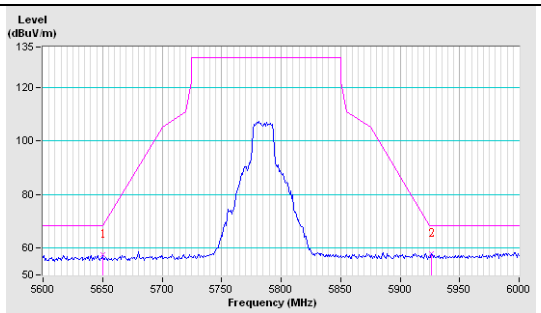
CDD Mode

802.11a

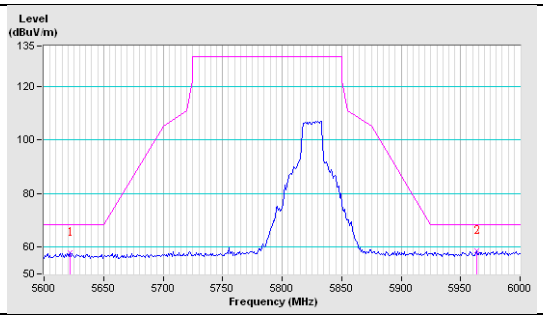
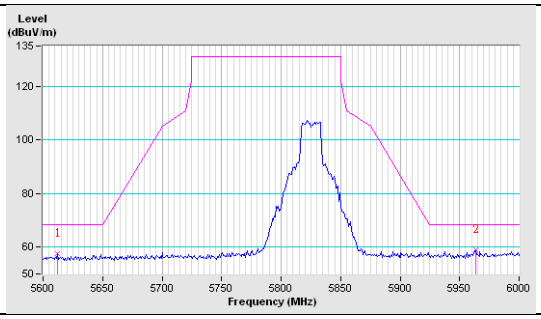
CH149

Horizontal	Vertical
	

CH157

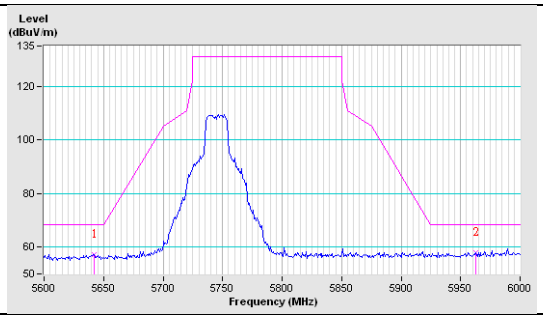
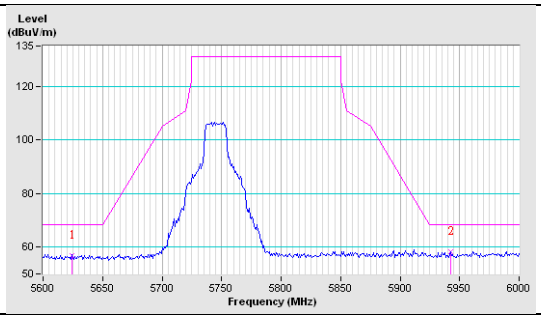
Horizontal	Vertical
	

CH165

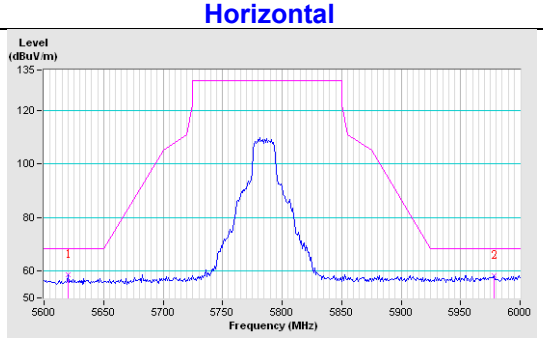
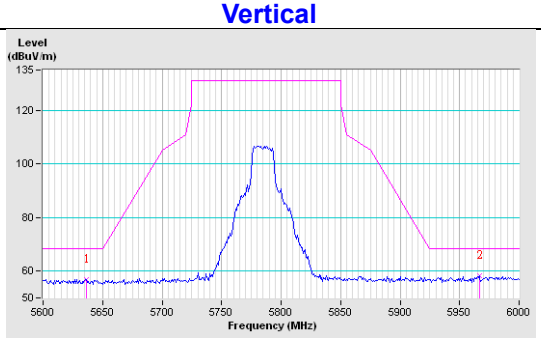
Horizontal	Vertical
	

802.11n (HT20)

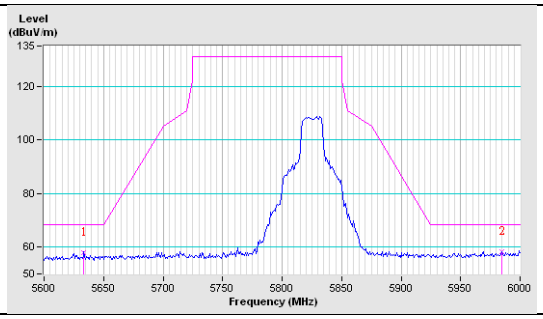
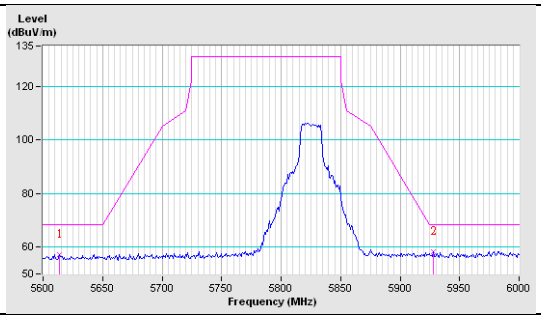
CH149

Horizontal	Vertical
	

CH157

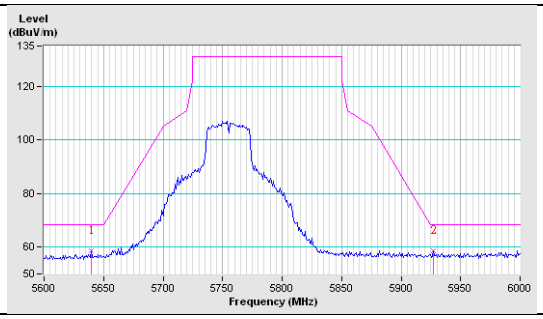
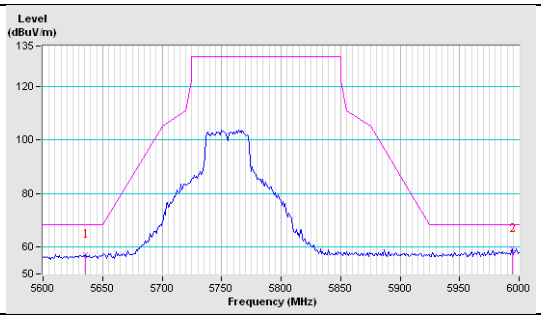
Horizontal	Vertical
	

CH165

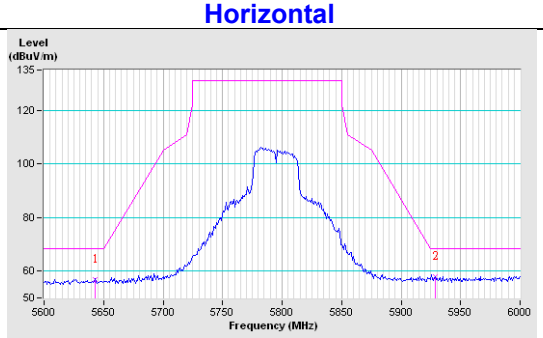
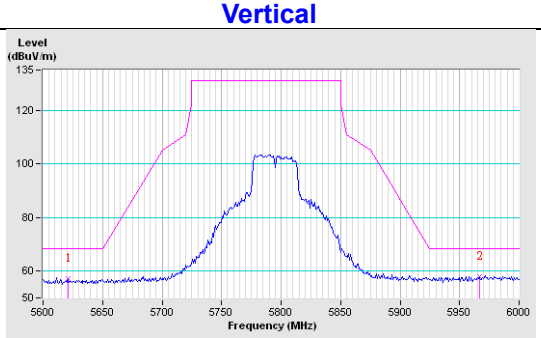
Horizontal	Vertical
	

802.11n (HT40)

CH151

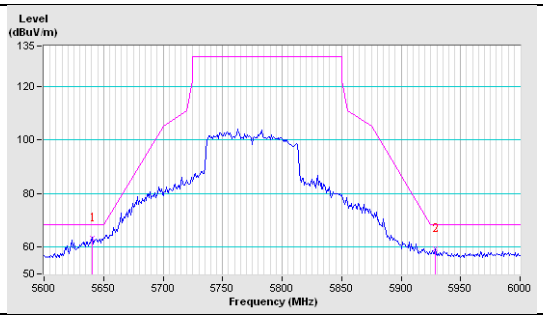
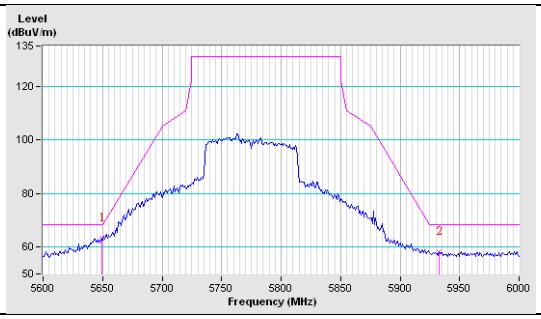
Horizontal	Vertical
	

CH159

Horizontal	Vertical
	

802.11ac (VHT80)

CH155

Horizontal	Vertical
	

Appendix – Information on the Testing Laboratories

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

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

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Web Site: www.bureauveritas-adt.com

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

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