

FCC Test Report

Report No.: RF150415E06-1

FCC ID: HEDSPAC750

Test Model: SP-AC750

Series Model: SP-N300

Received Date: Apr. 15, 2015

Test Date: Apr. 16 to 22, 2015

Issued Date: Apr. 29, 2015

Applicant: Accton Technology Corporation

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

Issue No.	Description	Date Issued
RF150415E06-1	Original release.	Apr. 29, 2015

1 Certificate of Conformity

Product: Cloud-Enabled Enterprise Access Point

Brand: IgniteNet

Test Model: SP-AC750

Series Model: SP-N300

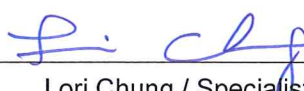
Sample Status: ENGINEERING SAMPLE

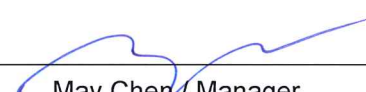
Applicant: Accton Technology Corporation

Test Date: Apr. 16 to 22, 2015

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

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

Prepared by : , **Date:** Apr. 29, 2015
Lori Chung / Specialist

Approved by : , **Date:** Apr. 29, 2015
May Chen / 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 -9.83dB at 0.25938MHz.
15.407(b)(1/2/3/4/6)	Radiated Emissions & Band Edge Measurement	PASS	Meet the requirement of limit. Minimum passing margin is -0.1dB at 5985.20MHz, 5150.00MHz, 5979.70MHz.
15.407(a)(1/2/3)	Max Average Transmit Power	PASS	Meet the requirement of limit.
15.407(a)(1/2/3)	Peak Power Spectral Density	PASS	Meet the requirement of limit.
15.407(e)	6dB bandwidth	PASS	Meet the requirement of limit. (U-NII-3 Band only)
15.407(g)	Frequency Stability	PASS	Meet the requirement of limit.
15.203	Antenna Requirement	PASS	Antenna connector is MMCX-plug not a standard connector.

NOTE: The EUT was operating in 2400 ~ 2483.5MHz, 5150~5250MHz and 5725~5.850MHz frequencies band. This report was recorded the RF parameters including 5 150~5250MHz and 5725~5850MHz. For the 2400 ~ 2483.5MHz RF parameters was recorded in another test report.

2.1 Measurement Uncertainty

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

Measurement	Frequency	Expended Uncertainty (k=2) (±)
Conducted Emissions at mains ports	150kHz ~ 30MHz	2.86 dB
Radiated Emissions up to 1 GHz	30MHz ~ 1GHz	5.37 dB
Radiated Emissions above 1 GHz	1GHz ~6GHz	3.72 dB
	6GHz ~ 18GHz	4.00 dB
	18GHz ~ 40GHz	4.11 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	Cloud-Enabled Enterprise Access Point
Brand	IgniteNet
Test Model	SP-AC750
Series Model	SP-N300
Status of EUT	ENGINEERING SAMPLE
Power Supply Rating	12Vdc from power adapter or 24Vdc from POE
Modulation Type	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM 256QAM for OFDM in 11ac mode
Modulation Technology	DSSS, OFDM
Transfer Rate	802.11b: up to 11Mbps 802.11a / g: up to 54Mbps 802.11n: up to 300Mbps 802.11ac: up to 433.3Mbps
Operating Frequency	For 15.407 5.18 ~ 5.24GHz, 5.745 ~ 5.825GHz
	For 15.247 2.412 ~ 2.462GHz
Number of Channel	For 15.407 9 for 802.11a, 802.11n (HT20), 802.11ac (VHT20) 4 for 802.11n (HT40), 802.11ac (VHT40) 2 for 802.11ac (VHT80)
	For 15.247 11 for 802.11b, 802.11g, 802.11n (HT20) 7 for 802.11n (HT40)
Output Power	For 15.407 802.11a: 269.153mW 802.11ac (VHT20): 272.898mW 802.11ac (VHT40): 411.15mW 802.11ac (VHT80): 96.828mW
	For 15.247 802.11b: 130.918mW 802.11g: 677.642mW 802.11n (HT20): 929.584mW 802.11n (HT40): 744.91mW
Antenna Type	Refer to Note
Antenna Connector	Refer to Note
Accessory Device	Adapter x 1, POE x 1
Data Cable Supplied	NA

Note:

- The EUT has below Model names, which are identical to each other in all aspects except for the following information:

Model Name	Difference
SP-AC750	2.4GHz + 5GHz
SP-N300	2.4GHz

From the above models, model: **SP-AC750** was selected as representative model for the test and its data was recorded in this report.

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

3. The antennas provided to the EUT, please refer to the following table:

2.4GHz Band						
Antenna No.	PCB Chain No.	Ant. Gain(dBi)	Frequency Range (GHz to GHz)	Ant. Type	Connector Type	Cable Length (mm)
1 (White)	Chain (0)	4.3	2.4~2.4835	PCB	i-pex(MHF)	130
2 (Gray)	Chain (1)	4.01	2.4~2.4835	PCB	i-pex(MHF)	90
**For 802.11bg mode will fix transmission on Chain (0).						
5GHz Band						
Antenna No.	Ant. Gain(dBi)	Frequency Range (GHz to GHz)	Ant. Type	Connector Type	Cable Length (mm)	
3 (Black)	5	5.15~5.85	PCB	MMCX-plug	115	

4. The EUT must be supplied with a power adapter or a POE as following table:

Power Adapter		
Brand	Model No.	Spec.
APD	WB-18D12FU	AC Input: 100-240V, 0.5A, 50-60Hz DC Output: 12V, 1.5A DC Output cable: Unshielded, 1.8m
POE		
Brand	Model No.	Spec.
LEI	NU24-F240100-I2	AC Input: 100-240V, 0.7A, 50/60Hz AC Input cable: Unshielded, 0.8m DC Output: 24V, 1A
For Radiated Emission test, the EUT was pre-tested with adapter and POE, the worst case was found in POE. Therefore only the test data of the POE was recorded in this report.		

5. The EUT incorporates a MIMO function.

2.4GHz Band			
MODULATION MODE	DATA RATE (MCS)	TX & RX CONFIGURATION	
802.11b	1 ~ 11Mbps	1TX (fix on chain 0)	2RX
802.11g	6 ~ 54Mbps	1TX (fix on chain 0)	2RX
802.11n (HT20)	MCS 0~7	1TX (fix on chain 0)	2RX
	MCS 8~15*	2TX	2RX
802.11n (HT40)	MCS 0~7	1TX (fix on chain 0)	2RX
	MCS 8~15*	2TX	2RX
5GHz Band			
MODULATION MODE	DATA RATE (MCS)	TX & RX CONFIGURATION	
802.11a	6 ~ 54Mbps	1TX	1RX
802.11n (HT20)	MCS 0~7	1TX	1RX
802.11n (HT40)	MCS 0~7	1TX	1RX
802.11ac (VHT20)	MCS 0~8, Nss=1	1TX	1RX
802.11ac (VHT40)	MCS 0~9, Nss=1	1TX	1RX
802.11ac (VHT80)	MCS 0~9, Nss=1	1TX	1RX

Remark: “*” means the device operate with two spatial stream (Nss = 2) with different data, and two signals are not correlated.

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

3.2 Description of Test Modes

For 5180 ~ 5240MHz

4 channels are provided for 802.11a, 802.11n (20MHz), 802.11ac (20MHz):

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

2 channels are provided for 802.11n (40MHz), 802.11ac (40MHz):

Channel	Frequency	Channel	Frequency
38	5190 MHz	46	5230 MHz

1 channel is provided for 802.11ac (80MHz):

Channel	Frequency
42	5210MHz

For 5745 ~ 5825MHz:

5 channels are provided for 802.11a, 802.11n (20MHz), 802.11ac (20MHz):

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

2 channels are provided for 802.11n (40MHz), 802.11ac (40MHz):

Channel	Frequency	Channel	Frequency
151	5755MHz	159	5795MHz

1 channel is provided for 802.11ac (80MHz):

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	
1	√	√	√	√	POE Mode
2	-	-	√	-	Adapter Mode

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

NOTE: 1. The EUT had been pre-tested on the positioned of each 2 axis. The worst case was found when positioned on Laying-flat type (for below 1GHz) and Wall-mount type (for above 1GHz).
2. "-" means no effect.

Radiated Emission Test (Above 1GHz):

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

MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11a	5180-5240	36 to 48	36, 40, 48	OFDM	BPSK	6
802.11ac (VHT20)		36 to 48	36, 40, 48	OFDM	BPSK	6.5
802.11ac (VHT40)		38 to 46	38, 46	OFDM	BPSK	13.5
802.11ac (VHT80)		42	42	OFDM	BPSK	29.3
802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	BPSK	6
802.11ac (VHT20)		149 to 165	149, 157, 165	OFDM	BPSK	6.5
802.11ac (VHT40)		151 to 159	151, 159	OFDM	BPSK	13.5
802.11ac (VHT80)		155	155	OFDM	BPSK	29.3

Radiated Emission Test (Below 1GHz):

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

MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11ac (VHT40)	5180-5240	38 to 46	46	OFDM	BPSK	13.5

Power Line Conducted Emission Test:

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

MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11ac (VHT40)	5180-5240	38 to 46	46	OFDM	BPSK	13.5

Antenna Port Conducted Measurement:

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

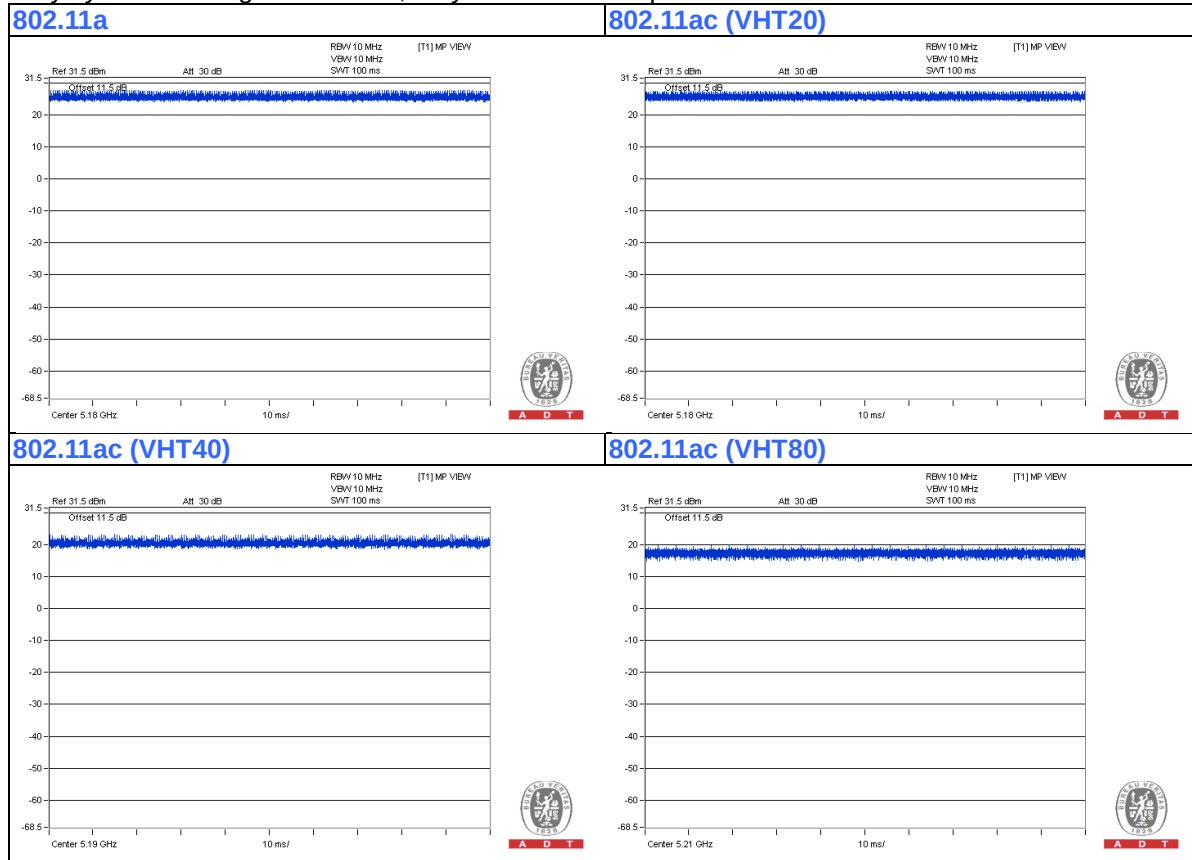
MODE	FREQ. BAND (MHz)	AVAILABLE CHANNEL	TESTED CHANNEL	MODULATION TECHNOLOGY	MODULATION TYPE	DATA RATE (Mbps)
802.11a	5180-5240	36 to 48	36, 40, 48	OFDM	BPSK	6
802.11ac (VHT20)		36 to 48	36, 40, 48	OFDM	BPSK	6.5
802.11ac (VHT40)		38 to 46	38, 46	OFDM	BPSK	13.5
802.11ac (VHT80)		42	42	OFDM	BPSK	29.3
802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	BPSK	6
802.11ac (VHT20)		149 to 165	149, 157, 165	OFDM	BPSK	6.5
802.11ac (VHT40)		151 to 159	151, 159	OFDM	BPSK	13.5
802.11ac (VHT80)		155	155	OFDM	BPSK	29.3

Test Condition:

APPLICABLE TO	ENVIRONMENTAL CONDITIONS	INPUT POWER	TESTED BY
RE≥1G	24deg. C, 67%RH	120Vac, 60Hz	Gary Cheng
RE<1G	24deg. C, 68%RH	120Vac, 60Hz	Robert Cheng
PLC	20deg. C, 70%RH	120Vac, 60Hz	Mike Hsieh
APCM	25deg. C, 60%RH	120Vac, 60Hz	Anderson Chen

3.3 Duty Cycle of Test Signal

Duty cycle of test signal is 100 %, duty factor is not required.



3.4 Description of Support Units

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

No.	Product	Brand	Model No.	Serial No.	FCC ID	Remark
A	iPod shuffle	Apple	MC749TA/A	CC4DMFKUDFDM	NA	Provided by Lab
B	NOTEBOOK COMPUTER	DELL	E6420	H62T3R1	FCC DoC	Provided by Lab
C	NOTEBOOK COMPUTER	DELL	E5430	4YV4VY1	FCC DoC	Provided by Lab
D	HUB	Linksys	SD208	NA	NA	Provided by Lab

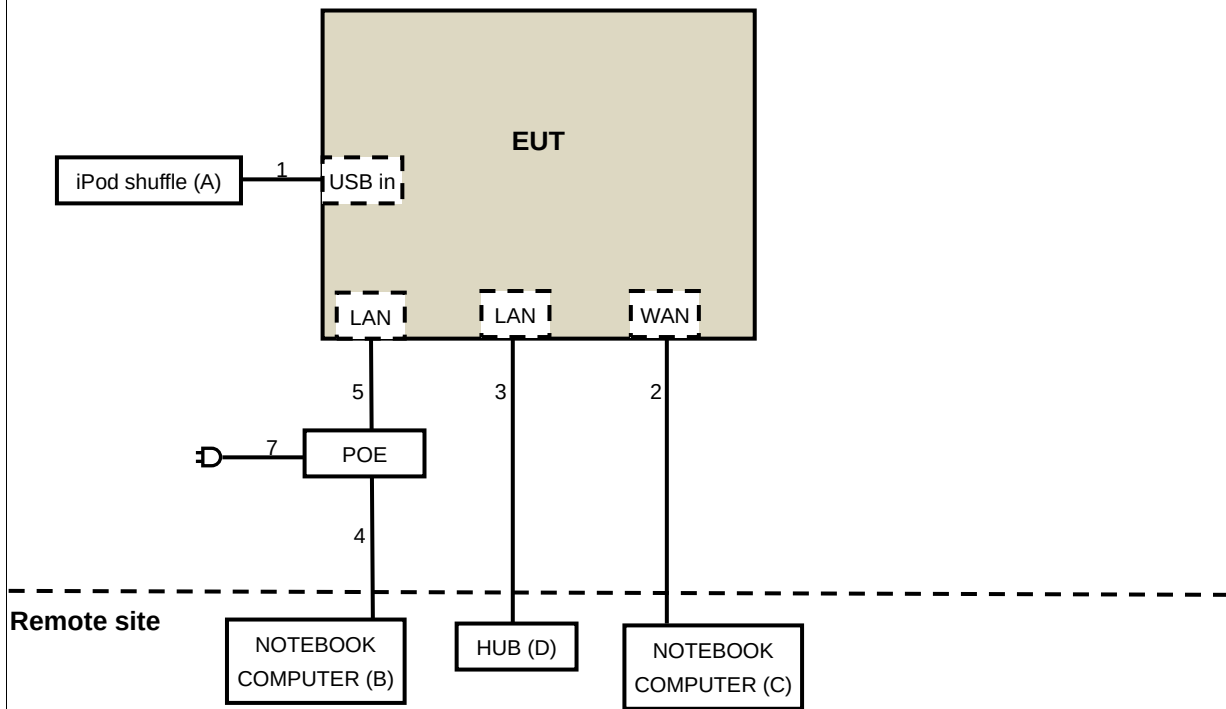
NOTE:

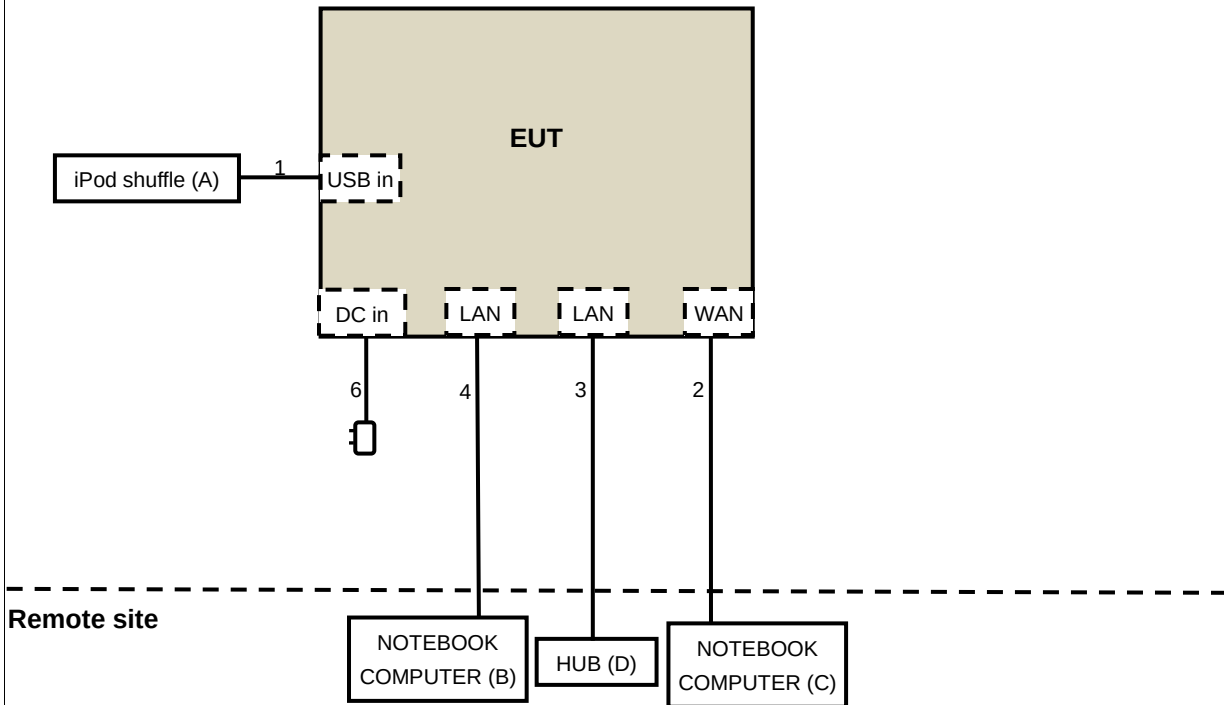
1. All power cords of the above support units are non-shielded (1.8 m).

No.	Cable	Qty.	Length (m)	Shielded (Yes/ No)	Cores (Number)	Remark
1	USB	1	0.1	Yes	0	Provided by Lab
2	RJ45	1	10	No	0	Provided by Lab
3	RJ45	1	10	No	0	Provided by Lab
4	RJ45	1	10	No	0	Provided by Lab
5	RJ45	1	3	No	0	Provided by Lab
6	DC	1	1.8	No	0	Supplied by Client
7	AC	1	0.8	No	0	Supplied by Client

3.4.1 Configuration of System under Test

POE Mode:



Adapter Mode:

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 v01

ANSI C63.10-2009

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

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

4 Test Types and Results

4.1 Radiated Emission and Bandedge Measurement

4.1.1 Limits of Radiated Emission and Bandedge Measurement

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

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

NOTE:

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

LIMITS OF UNWANTED EMISSION OUT OF THE RESTRICTED BANDS

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

NOTE: ^{*1} beyond 10MHz of the band edge ^{*2} within 10 MHz of band edge

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

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

4.1.2 Test Instruments

For Below 1GHz test:

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
MXE EMI Receiver Agilent	N9038A	MY51210105	July 21, 2014	July 20, 2015
Pre-Amplifier Mini-Circuits	ZFL-1000VH2 B	AMP-ZFL-03	Nov. 12, 2014	Nov. 11, 2015
Trilog Broadband Antenna SCHWARZBECK	VULB 9168	9168-360	Feb. 09, 2015	Feb. 08, 2016
RF Cable	NA	CHGCAB_001	Oct. 04, 2014	Oct. 03, 2015
Horn_Antenna AISI	AIH.8018	0000320091110	Aug. 27, 2014	Aug. 26, 2015
Pre-Amplifier Agilent	8449B	3008A02578	June 24, 2014	June 23, 2015
RF Cable	NA	131205 131216 131217 SNMY23684/4	Jan. 16, 2015	Jan. 15, 2016
Spectrum Analyzer R&S	FSV40	100964	July 05, 2014	July 04, 2015
Pre-Amplifier SPACEK LABS	SLKKa-48-6	9K16	Dec. 12, 2014	Dec. 11, 2015
Horn_Antenna SCHWARZBECK	BBHA 9170	9170-424	Aug. 26, 2014	Aug. 25, 2015
RF Cable	NA	329751/4 RF104-204	Dec. 11, 2014	Dec. 10, 2015
Antenna Tower & Turn Table CT	NA	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 horn antenna, preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
- 3 The test was performed in 966 Chamber No. G.
4. The FCC Site Registration No. is 966073.
- 5 The VCCI Site Registration No. is G-137.
- 6 The CANADA Site Registration No. is IC 7450H-2.
- 7 Tested Date: Apr. 16, 2015

For Above 1GHz test:

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
MXE EMI Receiver Agilent	N9038A	MY50010156	Aug. 11, 2014	Aug. 10, 2015
Pre-Amplifier Mini-Circuits	ZFL-1000VH2 B	AMP-ZFL-04	Nov. 12, 2014	Nov. 11, 2015
Trilog Broadband Antenna SCHWARZBECK	VULB 9168	9168-361	Feb. 06, 2015	Feb. 05, 2016
RF Cable	NA	CHHCAB_001	Oct. 05, 2014	Oct. 04, 2015
Horn_Antenna AISI	AIH.8018	0000220091110	Aug. 26, 2014	Aug. 25, 2015
Pre-Amplifier Agilent	8449B	300801923	Oct. 28, 2014	Oct. 27, 2015
RF Cable	NA	131206 131213 131215 SNMY23685/4	Jan. 16, 2015	Jan. 15, 2016
Spectrum Analyzer R&S	FSV40	100964	July 05, 2014	July 04, 2015
Pre-Amplifier SPACEK LABS	SLKKa-48-6	9K16	Dec. 12, 2014	Dec. 11, 2015
Horn_Antenna SCHWARZBECK	BBHA 9170	9170-424	Aug. 26, 2014	Aug. 25, 2015
RF Cable	NA	329751/4 RF104-204	Dec. 11, 2014	Dec. 10, 2015
Software	ADT_Radiated _V8.7.07	NA	NA	NA
Antenna Tower & Turn Table CT	NA	NA	NA	NA
SPECTRUM ANALYZER R&S	FSP 40	100060	May 08, 2014	May 07, 2015
Power meter Anritsu	ML2495A	1014008	Apr. 30, 2014	Apr. 29, 2015
Power sensor Anritsu	MA2411B	0917122	Apr. 30, 2014	Apr. 29, 2015
Temperature & Humidity Chamber GIANTFORCE	GTH-150-40-S P-AR	MAA0812-008	Jan. 12, 2015	Jan. 11, 2016

Note:

1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The horn antenna, preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
- 3 The test was performed in 966 Chamber No. H.
4. The FCC Site Registration No. is 797305.
- 5 The CANADA Site Registration No. is IC 7450H-3.
- 6 Tested Date: Apr. 21, 2015

4.1.3 Test Procedure

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

Note:

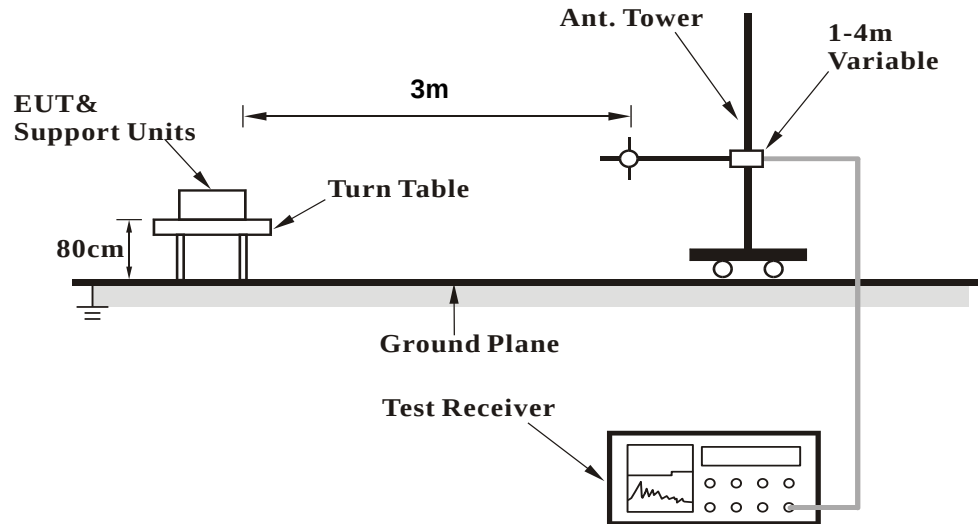
1. For emission measurements above 1 GHz, the EUT shall be placed at a height of 1.5 m above the ground at 3 meter chamber room for test
2. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
3. The resolution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

4.1.4 Deviation from Test Standard

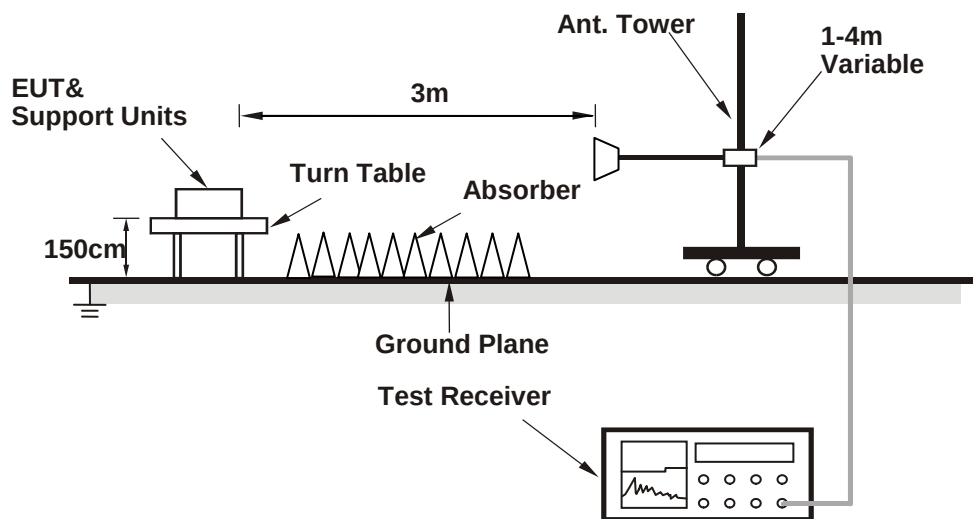
No deviation.

4.1.5 Test Setup

<Frequency Range below 1GHz>



<Frequency Range above 1GHz>



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

4.1.6 EUT Operating Condition

1. Connect the EUT with the support units B & C (NOTEBOOK COMPUTER) which is placed on remote site.
2. Controlling software (MP_TEST.exe (RTL819x 3.0)) has been activated to set the EUT on specific status.

4.1.7 Test Results

Above 1GHz Data:

802.11a

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	69.9 PK	74.0	-4.1	1.46 H	360	63.30	6.60
2	5150.00	53.4 AV	54.0	-0.6	1.46 H	360	46.80	6.60
3	*5180.00	111.9 PK			1.46 H	360	105.11	6.79
4	*5180.00	103.1 AV			1.46 H	360	96.31	6.79
5	5387.60	61.6 PK	74.0	-12.4	1.46 H	197	54.31	7.29
6	5387.60	50.8 AV	54.0	-3.2	1.46 H	197	43.51	7.29
7	#10360.00	66.2 PK	68.2	-2.0	1.68 H	114	52.34	13.86
8	15540.00	64.1 PK	74.0	-9.9	1.72 H	135	44.95	19.15
9	15540.00	51.3 AV	54.0	-2.7	1.72 H	135	32.15	19.15
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	64.7 PK	74.0	-9.3	1.71 V	122	58.10	6.60
2	5150.00	49.7 AV	54.0	-4.3	1.71 V	122	43.10	6.60
3	*5180.00	107.3 PK			1.71 V	122	100.51	6.79
4	*5180.00	97.9 AV			1.71 V	122	91.11	6.79
5	5387.60	57.3 PK	74.0	-16.7	1.71 V	122	50.01	7.29
6	5387.60	46.2 AV	54.0	-7.8	1.71 V	122	38.91	7.29
7	#10360.00	67.2 PK	68.2	-1.0	1.65 V	101	53.34	13.86
8	15540.00	65.3 PK	74.0	-8.7	1.62 V	232	46.15	19.15
9	15540.00	52.4 AV	54.0	-1.6	1.62 V	232	33.25	19.15

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) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	111.6 PK			1.71 H	344	104.70	6.90
2	*5200.00	103.0 AV			1.71 H	344	96.10	6.90
3	#10400.00	67.5 PK	68.2	-0.7	1.68 H	114	53.62	13.88
4	15600.00	63.9 PK	74.0	-10.1	1.68 H	115	45.25	18.65
5	15600.00	51.0 AV	54.0	-3.0	1.68 H	115	32.35	18.65
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	107.0 PK			1.69 V	82	100.10	6.90
2	*5200.00	97.5 AV			1.69 V	82	90.60	6.90
3	#10400.00	67.7 PK	68.2	-0.5	1.59 V	101	53.82	13.88
4	15600.00	64.3 PK	74.0	-9.7	1.52 V	245	45.65	18.65
5	15600.00	51.6 AV	54.0	-2.4	1.52 V	245	32.95	18.65

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) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	112.4 PK			1.72 H	360	105.44	6.96
2	*5240.00	103.6 AV			1.72 H	360	96.64	6.96
3	5446.70	62.2 PK	74.0	-11.8	1.72 H	197	54.80	7.40
4	5446.70	50.6 AV	54.0	-3.4	1.72 H	197	43.20	7.40
5	#10480.00	67.8 PK	68.2	-0.4	1.65 H	118	54.14	13.66
6	15720.00	63.9 PK	74.0	-10.1	1.71 H	135	44.72	19.18
7	15720.00	51.2 AV	54.0	-2.8	1.71 H	135	32.02	19.18
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	107.0 PK			1.67 V	134	100.04	6.96
2	*5240.00	98.0 AV			1.67 V	134	91.04	6.96
3	5446.70	57.4 PK	74.0	-16.6	1.68 V	125	50.00	7.40
4	5446.70	46.4 AV	54.0	-7.6	1.68 V	125	39.00	7.40
5	#10480.00	67.5 PK	68.2	-0.7	1.55 V	98	53.84	13.66
6	15720.00	65.6 PK	74.0	-8.4	1.53 V	224	46.42	19.18
7	15720.00	52.4 AV	54.0	-1.6	1.53 V	224	33.22	19.18

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) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5715.00	65.4 PK	74.0	-8.6	2.66 H	350	57.48	7.92
2	#5715.00	49.8 AV	54.0	-4.2	2.66 H	350	41.88	7.92
3	#5725.00	77.8 PK	78.2	-0.4	2.66 H	350	69.86	7.94
4	*5745.00	112.1 PK			2.66 H	350	104.12	7.98
5	*5745.00	102.9 AV			2.66 H	350	94.92	7.98
6	11490.00	62.4 PK	74.0	-11.6	1.32 H	116	48.36	14.04
7	11490.00	50.2 AV	54.0	-3.8	1.32 H	116	36.16	14.04
8	#17235.00	60.2 PK	74.0	-13.8	1.77 H	126	36.46	23.74
9	#17235.00	48.9 AV	54.0	-5.1	1.77 H	126	25.16	23.74
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	#5715.00	56.3 PK	74.0	-17.7	1.63 V	163	48.38	7.92
2	#5715.00	46.2 AV	54.0	-7.8	1.63 V	163	38.28	7.92
3	#5725.00	71.1 PK	78.2	-7.1	1.70 V	177	63.16	7.94
4	*5745.00	104.2 PK			1.70 V	177	96.22	7.98
5	*5745.00	94.9 AV			1.70 V	177	86.92	7.98
6	11490.00	61.9 PK	74.0	-12.1	1.72 V	100	47.86	14.04
7	11490.00	50.0 AV	54.0	-4.0	1.72 V	100	35.96	14.04
8	#17235.00	59.2 PK	74.0	-14.8	1.64 V	218	35.46	23.74
9	#17235.00	48.7 AV	54.0	-5.3	1.64 V	218	24.96	23.74

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) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5715.00	61.4 PK	68.2	-6.8	2.64 H	353	53.48	7.92
2	#5725.00	66.5 PK	78.2	-11.7	2.64 H	353	58.56	7.94
3	*5785.00	114.1 PK			2.64 H	353	106.05	8.05
4	*5785.00	108.2 AV			2.64 H	353	100.15	8.05
5	#5850.00	65.8 PK	78.2	-12.4	2.64 H	353	57.76	8.04
6	#5860.00	63.3 PK	68.2	-4.9	2.64 H	353	55.27	8.03
7	#5985.20	68.1 PK	68.2	-0.1	2.45 H	9	59.91	8.19
8	#6031.00	68.0 PK	68.2	-0.2	2.45 H	9	59.75	8.25
9	11570.00	62.8 PK	74.0	-11.2	1.28 H	103	48.59	14.21
10	11570.00	50.6 AV	54.0	-3.4	1.28 H	103	36.39	14.21
11	#17355.00	60.1 PK	68.2	-8.1	1.81 H	136	35.95	24.15
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	#5715.00	61.9 PK	68.2	-6.3	1.64 V	167	53.98	7.92
2	#5725.00	49.6 PK	78.2	-28.6	1.66 V	170	41.66	7.94
3	*5785.00	106.2 PK			1.68 V	187	98.15	8.05
4	*5785.00	100.1 AV			1.68 V	187	92.05	8.05
5	#5850.00	56.2 PK	78.2	-22.0	1.65 V	160	48.16	8.04
6	#5860.00	62.5 PK	68.2	-5.7	1.67 V	152	54.47	8.03
7	#5985.20	61.9 PK	68.2	-6.3	1.66 V	166	53.71	8.19
8	#6031.00	61.7 PK	68.2	-6.5	1.61 V	162	53.45	8.25
9	11570.00	61.6 PK	74.0	-12.4	1.75 V	113	47.39	14.21
10	11570.00	49.9 AV	54.0	-4.1	1.75 V	113	35.69	14.21
11	#17355.00	58.6 PK	68.2	-9.6	1.55 V	200	34.45	24.15

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) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5825.00	112.4 PK			2.65 H	356	104.35	8.05
2	*5825.00	102.4 AV			2.65 H	356	94.35	8.05
3	#5850.00	77.4 PK	78.2	-0.8	2.65 H	356	69.36	8.04
4	#5860.00	66.8 PK	74.0	-7.2	2.65 H	356	58.77	8.03
5	#5860.00	51.2 AV	54.0	-2.8	2.65 H	356	43.17	8.03
6	11650.00	61.7 PK	74.0	-12.3	1.27 H	128	47.25	14.45
7	11650.00	49.7 AV	54.0	-4.3	1.27 H	128	35.25	14.45
8	#17475.00	59.5 PK	74.0	-14.5	1.65 H	125	35.28	24.22
9	#17475.00	48.3 AV	54.0	-5.7	1.65 H	125	24.08	24.22

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5825.00	104.2 PK			1.74 V	193	96.15	8.05
2	*5825.00	94.1 AV			1.74 V	193	86.05	8.05
3	#5850.00	71.3 PK	78.2	-6.9	1.72 V	168	63.26	8.04
4	#5860.00	56.6 PK	74.0	-17.4	1.68 V	163	48.57	8.03
5	#5860.00	46.3 AV	54.0	-7.7	1.68 V	163	38.27	8.03
6	11650.00	61.1 PK	74.0	-12.9	1.68 V	98	46.65	14.45
7	11650.00	49.3 AV	54.0	-4.7	1.68 V	98	34.85	14.45
8	#17475.00	58.6 PK	74.0	-15.4	1.56 V	215	34.38	24.22
9	#17475.00	48.4 AV	54.0	-5.6	1.56 V	215	24.18	24.22

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) – Pre-Amplifier 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 (VHT20)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	70.9 PK	74.0	-3.1	1.71 H	0	64.30	6.60
2	5150.00	53.9 AV	54.0	-0.1	1.71 H	0	47.30	6.60
3	*5180.00	111.9 PK			1.42 H	357	105.11	6.79
4	*5180.00	103.5 AV			1.42 H	357	96.71	6.79
5	5385.20	61.4 PK	74.0	-12.6	1.79 H	192	54.12	7.28
6	5385.20	50.2 AV	54.0	-3.8	1.79 H	192	42.92	7.28
7	#10360.00	65.6 PK	68.2	-2.6	1.60 H	114	51.74	13.86
8	15540.00	62.9 PK	74.0	-11.1	1.69 H	131	43.75	19.15
9	15540.00	50.6 AV	54.0	-3.4	1.69 H	131	31.45	19.15
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	64.4 PK	74.0	-9.6	1.73 V	116	57.80	6.60
2	5150.00	49.6 AV	54.0	-4.4	1.73 V	116	43.00	6.60
3	*5180.00	106.6 PK			1.65 V	107	99.81	6.79
4	*5180.00	97.8 AV			1.65 V	107	91.01	6.79
5	5385.20	56.7 PK	74.0	-17.3	1.76 V	129	49.42	7.28
6	5385.20	45.3 AV	54.0	-8.7	1.76 V	129	38.02	7.28
7	#10360.00	65.9 PK	68.2	-2.3	1.54 V	97	52.04	13.86
8	15540.00	65.9 PK	74.0	-8.1	1.62 V	241	46.75	19.15
9	15540.00	52.7 AV	54.0	-1.3	1.62 V	241	33.55	19.15

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	111.8 PK			1.46 H	360	104.90	6.90
2	*5200.00	102.8 AV			1.46 H	360	95.90	6.90
3	#10400.00	67.5 PK	68.2	-0.7	1.67 H	116	53.62	13.88
4	15600.00	64.1 PK	74.0	-9.9	1.74 H	140	45.45	18.65
5	15600.00	51.4 AV	54.0	-2.6	1.74 H	140	32.75	18.65
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	107.8 PK			1.75 V	109	100.90	6.90
2	*5200.00	98.3 AV			1.75 V	109	91.40	6.90
3	#10400.00	67.9 PK	68.2	-0.3	1.54 V	99	54.02	13.88
4	15600.00	64.9 PK	74.0	-9.1	1.66 V	228	46.25	18.65
5	15600.00	52.0 AV	54.0	-2.0	1.66 V	228	33.35	18.65

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) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M

NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	111.5 PK			1.48 H	339	104.54	6.96
2	*5240.00	102.6 AV			1.48 H	339	95.64	6.96
3	5350.00	61.9 PK	74.0	-12.1	1.72 H	205	54.72	7.18
4	5350.00	50.6 AV	54.0	-3.4	1.72 H	205	43.42	7.18
5	#10480.00	67.9 PK	68.2	-0.3	1.71 H	118	54.24	13.66
6	15720.00	64.2 PK	74.0	-9.8	1.69 H	134	45.02	19.18
7	15720.00	51.6 AV	54.0	-2.4	1.69 H	134	32.42	19.18

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	106.8 PK			1.63 V	115	99.84	6.96
2	*5240.00	97.6 AV			1.63 V	115	90.64	6.96
3	5350.00	57.2 PK	74.0	-16.8	1.70 V	130	50.02	7.18
4	5350.00	46.4 AV	54.0	-7.6	1.70 V	130	39.22	7.18
5	#10480.00	67.3 PK	68.2	-0.9	1.55 V	98	53.64	13.66
6	15720.00	65.0 PK	74.0	-9.0	1.63 V	218	45.82	19.18
7	15720.00	52.3 AV	54.0	-1.7	1.63 V	218	33.12	19.18

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) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5715.00	62.1 PK	74.0	-11.9	2.66 H	359	54.18	7.92
2	#5715.00	45.3 AV	54.0	-8.7	2.66 H	359	37.38	7.92
3	#5725.00	77.2 PK	78.2	-1.0	2.66 H	359	69.26	7.94
4	*5745.00	111.8 PK			2.66 H	359	103.82	7.98
5	*5745.00	102.8 AV			2.66 H	359	94.82	7.98
6	11490.00	62.6 PK	74.0	-11.4	1.26 H	91	48.56	14.04
7	11490.00	50.9 AV	54.0	-3.1	1.26 H	91	36.86	14.04
8	#17235.00	60.2 PK	74.0	-13.8	1.77 H	106	36.46	23.74
9	#17235.00	48.7 AV	54.0	-5.3	1.77 H	106	24.96	23.74
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	#5715.00	55.5 PK	74.0	-18.5	1.51 V	164	47.58	7.92
2	#5715.00	45.5 AV	54.0	-8.5	1.51 V	164	37.58	7.92
3	#5725.00	71.2 PK	78.2	-7.0	1.67 V	179	63.26	7.94
4	*5745.00	104.0 PK			1.72 V	167	96.02	7.98
5	*5745.00	94.8 AV			1.72 V	167	86.82	7.98
6	11490.00	62.1 PK	74.0	-11.9	1.65 V	64	48.06	14.04
7	11490.00	50.4 AV	54.0	-3.6	1.65 V	64	36.36	14.04
8	#17235.00	59.3 PK	74.0	-14.7	1.61 V	205	35.56	23.74
9	#17235.00	48.9 AV	54.0	-5.1	1.61 V	205	25.16	23.74

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) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5785.00	117.3 PK			2.52 H	360	109.25	8.05
2	*5785.00	108.4 AV			2.52 H	360	100.35	8.05
3	#5979.70	68.1 PK	68.2	-0.1	2.52 H	360	59.92	8.18
4	#6031.00	67.7 PK	68.2	-0.5	2.52 H	360	59.45	8.25
5	11570.00	62.8 PK	74.0	-11.2	1.34 H	92	48.59	14.21
6	11570.00	50.9 AV	54.0	-3.1	1.34 H	92	36.69	14.21
7	#17355.00	59.5 PK	68.2	-8.7	1.80 H	135	35.35	24.15
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5785.00	105.5 PK			1.72 V	176	97.45	8.05
2	*5785.00	99.9 AV			1.72 V	176	91.85	8.05
3	#5979.70	58.2 PK	68.2	-10.0	1.68 V	166	50.02	8.18
4	#6031.00	55.9 PK	68.2	-12.3	1.64 V	161	47.65	8.25
5	11570.00	61.3 PK	74.0	-12.7	1.69 V	107	47.09	14.21
6	11570.00	49.6 AV	54.0	-4.4	1.69 V	107	35.39	14.21
7	#17355.00	59.0 PK	68.2	-9.2	1.66 V	219	34.85	24.15

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) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5825.00	111.3 PK			2.65 H	360	103.25	8.05
2	*5825.00	101.4 AV			2.65 H	360	93.35	8.05
3	#5850.00	77.3 PK	78.2	-0.9	2.65 H	360	69.26	8.04
4	#5860.00	67.2 PK	74.0	-6.8	2.65 H	360	59.17	8.03
5	#5860.00	50.5 AV	54.0	-3.5	2.65 H	360	42.47	8.03
6	11650.00	62.7 PK	74.0	-11.3	1.29 H	91	48.25	14.45
7	11650.00	50.4 AV	54.0	-3.6	1.29 H	91	35.95	14.45
8	#17475.00	59.6 PK	74.0	-14.4	1.82 H	136	35.38	24.22
9	#17475.00	49.0 AV	54.0	-5.0	1.82 H	136	24.78	24.22
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5825.00	104.4 PK			1.69 V	157	96.35	8.05
2	*5825.00	94.2 AV			1.69 V	157	86.15	8.05
3	#5850.00	70.4 PK	78.2	-7.8	1.67 V	175	62.36	8.04
4	#5860.00	56.7 PK	74.0	-17.3	1.69 V	170	48.67	8.03
5	#5860.00	46.4 AV	54.0	-7.6	1.69 V	170	38.37	8.03
6	11650.00	60.9 PK	74.0	-13.1	1.64 V	108	46.45	14.45
7	11650.00	49.3 AV	54.0	-4.7	1.64 V	108	34.85	14.45
8	#17475.00	59.4 PK	74.0	-14.6	1.65 V	217	35.18	24.22
9	#17475.00	49.1 AV	54.0	-4.9	1.65 V	217	24.88	24.22

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) – Pre-Amplifier 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 (VHT40)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	69.9 PK	74.0	-4.1	1.73 H	0	63.30	6.60
2	5150.00	53.6 AV	54.0	-0.4	1.73 H	0	47.00	6.60
3	*5190.00	107.2 PK			1.73 H	196	100.36	6.84
4	*5190.00	97.6 AV			1.73 H	196	90.76	6.84
5	#10380.00	63.2 PK	68.2	-5.0	1.76 H	118	49.33	13.87
6	15570.00	60.0 PK	74.0	-14.0	1.03 H	106	41.10	18.90
7	15570.00	47.5 AV	54.0	-6.5	1.03 H	106	28.60	18.90
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	64.2 PK	74.0	-9.8	1.71 V	125	57.60	6.60
2	5150.00	49.3 AV	54.0	-4.7	1.71 V	125	42.70	6.60
3	*5190.00	102.6 PK			1.75 V	104	95.76	6.84
4	*5190.00	93.1 AV			1.75 V	104	86.26	6.84
5	#10380.00	62.5 PK	68.2	-5.7	1.66 V	66	48.63	13.87
6	15570.00	59.3 PK	74.0	-14.7	1.59 V	245	40.40	18.90
7	15570.00	47.9 AV	54.0	-6.1	1.59 V	245	29.00	18.90

REMARKS:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	66.3 PK	74.0	-7.7	1.77 H	0	59.70	6.60
2	5150.00	53.6 AV	54.0	-0.4	1.77 H	0	47.00	6.60
3	*5230.00	114.3 PK			1.77 H	194	107.35	6.95
4	*5230.00	104.3 AV			1.77 H	194	97.35	6.95
5	5350.00	60.0 PK	74.0	-14.0	1.77 H	194	52.82	7.18
6	5350.00	48.9 AV	54.0	-5.1	1.77 H	194	41.72	7.18
7	#10460.00	64.1 PK	68.2	-4.1	1.75 H	120	50.39	13.71
8	15690.00	60.8 PK	74.0	-13.2	1.09 H	118	41.74	19.06
9	15690.00	48.2 AV	54.0	-5.8	1.09 H	118	29.14	19.06
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	62.1 PK	74.0	-11.9	1.73 V	112	55.50	6.60
2	5150.00	49.7 AV	54.0	-4.3	1.73 V	112	43.10	6.60
3	*5230.00	109.6 PK			1.65 V	134	102.65	6.95
4	*5230.00	99.6 AV			1.65 V	134	92.65	6.95
5	5350.00	57.4 PK	74.0	-16.6	1.59 V	123	50.22	7.18
6	5350.00	44.2 AV	54.0	-9.8	1.59 V	123	37.02	7.18
7	#10460.00	63.4 PK	68.2	-4.8	1.69 V	103	49.69	13.71
8	15690.00	60.4 PK	74.0	-13.6	1.57 V	219	41.34	19.06
9	15690.00	48.7 AV	54.0	-5.3	1.57 V	219	29.64	19.06

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) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5715.00	71.8 PK	74.0	-2.2	2.66 H	359	63.88	7.92
2	#5715.00	51.2 AV	54.0	-2.8	2.66 H	359	43.28	7.92
3	#5725.00	77.4 PK	78.2	-0.8	2.66 H	359	69.46	7.94
4	*5755.00	108.8 PK			2.66 H	359	100.81	7.99
5	*5755.00	99.3 AV			2.66 H	359	91.31	7.99
6	11510.00	60.6 PK	74.0	-13.4	1.70 H	108	46.58	14.02
7	11510.00	48.5 AV	54.0	-5.5	1.70 H	108	34.48	14.02
8	#17265.00	57.4 PK	74.0	-16.6	1.00 H	128	33.87	23.53
9	#17265.00	45.6 AV	54.0	-8.4	1.00 H	128	22.07	23.53
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	#5715.00	56.1 PK	74.0	-17.9	1.68 V	161	48.18	7.92
2	#5715.00	46.1 AV	54.0	-7.9	1.68 V	161	38.18	7.92
3	#5725.00	69.2 PK	78.2	-9.0	1.73 V	174	61.26	7.94
4	*5755.00	102.1 PK			1.73 V	168	94.11	7.99
5	*5755.00	92.1 AV			1.73 V	168	84.11	7.99
6	11510.00	60.1 PK	74.0	-13.9	1.52 V	227	46.08	14.02
7	11510.00	48.3 AV	54.0	-5.7	1.52 V	227	34.28	14.02
8	#17265.00	57.6 PK	74.0	-16.4	1.61 V	129	34.07	23.53
9	#17265.00	44.4 AV	54.0	-9.6	1.61 V	129	20.87	23.53

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) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5795.00	109.5 PK			2.64 H	360	101.43	8.07
2	*5795.00	100.3 AV			2.64 H	360	92.23	8.07
3	#5850.00	76.4 PK	78.2	-1.8	2.64 H	360	68.36	8.04
4	#5860.00	67.5 PK	74.0	-6.5	2.64 H	360	59.47	8.03
5	#5860.00	53.2 AV	54.0	-0.8	2.64 H	360	45.17	8.03
6	11590.00	60.5 PK	74.0	-13.5	1.73 H	118	46.21	14.29
7	11590.00	48.4 AV	54.0	-5.6	1.73 H	118	34.11	14.29
8	#17385.00	57.2 PK	74.0	-16.8	1.00 H	117	32.59	24.61
9	#17385.00	45.3 AV	54.0	-8.7	1.00 H	117	20.69	24.61
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5795.00	102.8 PK			1.70 V	192	94.73	8.07
2	*5795.00	93.6 AV			1.70 V	192	85.53	8.07
3	#5850.00	70.9 PK	78.2	-7.3	1.70 V	172	62.86	8.04
4	#5860.00	55.6 PK	74.0	-18.4	1.63 V	149	47.57	8.03
5	#5860.00	45.9 AV	54.0	-8.1	1.63 V	149	37.87	8.03
6	11590.00	59.8 PK	74.0	-14.2	1.47 V	208	45.51	14.29
7	11590.00	48.4 AV	54.0	-5.6	1.47 V	208	34.11	14.29
8	#17385.00	56.2 PK	74.0	-17.8	1.55 V	108	31.59	24.61
9	#17385.00	43.6 AV	54.0	-10.4	1.55 V	108	18.99	24.61

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) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

802.11ac (VHT80)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	65.4 PK	74.0	-8.6	1.67 H	0	58.80	6.60
2	5150.00	53.4 AV	54.0	-0.6	1.67 H	0	46.80	6.60
3	*5210.00	104.1 PK			1.67 H	193	97.19	6.91
4	*5210.00	95.1 AV			1.67 H	193	88.19	6.91
5	5350.00	57.4 PK	74.0	-16.6	1.67 H	193	50.22	7.18
6	5350.00	46.4 AV	54.0	-7.6	1.67 H	193	39.22	7.18
7	#10420.00	60.4 PK	68.2	-7.8	1.71 H	128	46.59	13.81
8	15630.00	57.1 PK	74.0	-16.9	1.03 H	116	38.31	18.79
9	15630.00	45.2 AV	54.0	-8.8	1.03 H	116	26.41	18.79
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	61.1 PK	74.0	-12.9	1.70 V	106	54.50	6.60
2	5150.00	48.9 AV	54.0	-5.1	1.70 V	106	42.30	6.60
3	*5210.00	99.8 PK			1.73 V	112	92.89	6.91
4	*5210.00	90.3 AV			1.73 V	112	83.39	6.91
5	5350.00	55.6 PK	74.0	-18.4	1.61 V	103	48.42	7.18
6	5350.00	42.7 AV	54.0	-11.3	1.61 V	103	35.52	7.18
7	#10420.00	59.6 PK	68.2	-8.6	1.60 V	90	45.79	13.81
8	15630.00	56.5 PK	74.0	-17.5	1.62 V	215	37.71	18.79
9	15630.00	46.6 AV	54.0	-7.4	1.62 V	215	27.81	18.79

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) – Pre-Amplifier 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)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5715.00	68.1 PK	74.0	-5.9	2.52 H	360	60.18	7.92
2	#5715.00	52.8 AV	54.0	-1.2	2.52 H	360	44.88	7.92
3	#5725.00	71.1 PK	78.2	-7.1	2.52 H	360	63.16	7.94
4	*5775.00	107.3 PK			2.52 H	360	99.27	8.03
5	*5775.00	97.4 AV			2.52 H	360	89.37	8.03
6	#5850.00	71.1 PK	78.2	-7.1	2.52 H	360	63.06	8.04
7	#5860.00	68.2 PK	74.0	-5.8	2.52 H	360	60.17	8.03
8	#5860.00	53.6 AV	54.0	-0.4	2.52 H	360	45.57	8.03
9	11550.00	58.2 PK	74.0	-15.8	1.72 H	112	44.05	14.15
10	11550.00	46.8 AV	54.0	-7.2	1.72 H	112	32.65	14.15
11	#17325.00	56.4 PK	74.0	-17.6	1.00 H	120	32.72	23.68
12	#17325.00	44.2 AV	54.0	-9.8	1.00 H	120	20.52	23.68

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	#5715.00	62.4 PK	74.0	-11.6	1.58 V	146	54.48	7.92
2	#5715.00	47.8 AV	54.0	-6.2	1.58 V	146	39.88	7.92
3	#5725.00	66.4 PK	78.2	-11.8	1.67 V	154	58.46	7.94
4	*5775.00	100.1 PK			1.68 V	175	92.07	8.03
5	*5775.00	90.1 AV			1.68 V	175	82.07	8.03
6	#5850.00	67.8 PK	78.2	-10.4	1.68 V	180	59.76	8.04
7	#5860.00	63.2 PK	74.0	-10.8	1.68 V	164	55.17	8.03
8	#5860.00	49.2 AV	54.0	-4.8	1.68 V	164	41.17	8.03
9	11550.00	57.1 PK	74.0	-16.9	1.41 V	200	42.95	14.15
10	11550.00	46.1 AV	54.0	-7.9	1.41 V	200	31.95	14.15
11	#17325.00	55.8 PK	74.0	-18.2	1.51 V	98	32.12	23.68
12	#17325.00	43.1 AV	54.0	-10.9	1.51 V	98	19.42	23.68

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) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value
5. " * ": Fundamental frequency.
6. " # ": The radiated frequency is out of the restricted band.

Below 1GHz Data:

802.11ac (VHT40)

CHANNEL	TX Channel 46	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	Below 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	58.89	34.0 QP	40.0	-6.0	1.42 H	307	47.51	-13.55
2	102.45	34.0 QP	43.5	-9.5	1.45 H	301	51.19	-17.21
3	143.76	36.8 QP	43.5	-6.7	1.75 H	304	49.93	-13.09
4	310.86	31.7 QP	46.0	-14.3	1.45 H	211	43.37	-11.69
5	437.67	33.7 QP	46.0	-12.3	1.64 H	301	41.73	-7.99
6	500.14	38.7 QP	46.0	-7.3	1.64 H	360	45.54	-6.83
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	48.12	35.1 QP	40.0	-4.9	1.24 V	68	48.13	-13.02
2	73.57	32.0 QP	40.0	-8.0	1.42 V	214	48.22	-16.24
3	87.85	36.6 QP	40.0	-3.4	1.24 V	144	55.40	-18.76
4	101.52	32.6 QP	43.5	-10.9	1.24 V	301	49.96	-17.35
5	500.14	34.5 QP	46.0	-11.5	1.24 V	304	41.37	-6.83
6	833.67	40.6 QP	46.0	-5.4	1.54 V	241	40.80	-0.16

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) – Pre-Amplifier 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.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver ROHDE & SCHWARZ	ESCS 30	100375	Apr. 29, 2014	Apr. 28, 2015
Line-Impedance Stabilization Network (for EUT) SCHWARZBECK	NSLK-8127	8127-522	Sep. 15, 2014	Sep. 14, 2015
Line-Impedance Stabilization Network (for Peripheral) ROHDE & SCHWARZ	ENV216	100071	Nov. 10, 2014	Nov. 09, 2015
RF Cable (JYEBAO)	5D-FB	COCCAB-001	Mar. 09, 2015	Mar. 08, 2016
50 ohms Terminator	N/A	EMC-03	Sep. 22, 2014	Sep. 21, 2015
50 ohms Terminator	N/A	EMC-02	Sep. 30, 2014	Sep. 29, 2015
Software ADT	BV ADT_Cond_V7.3.7. 3	NA	NA	NA

Note:

1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in Shielded Room No. C.
3. The VCCI Con C Registration No. is C-3611.
4. Tested Date: Apr. 22, 2015

4.2.3 Test Procedure

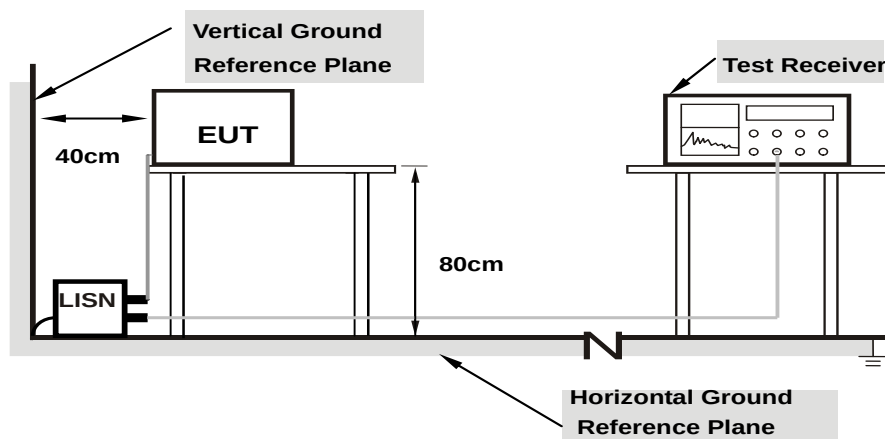
- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance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

NOTE: All modes of operation were investigated and the worst-case emissions are reported.

4.2.4 Deviation from Test Standard

No deviation.

4.2.5 Test Setup



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

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

4.2.6 EUT Operating Condition

Same as 4.1.6.

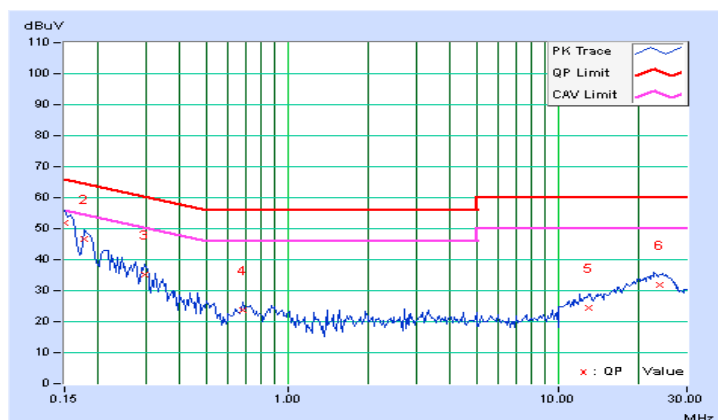
4.2.7 Test Results (Mode 1)

Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)
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No	Freq. [MHz]	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
		(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	0.08	51.91	37.88	51.99	37.96	66.00	56.00	-14.01	-18.04
2	0.17734	0.09	46.60	33.48	46.69	33.57	64.61	54.61	-17.92	-21.04
3	0.29844	0.09	35.18	28.98	35.27	29.07	60.29	50.29	-25.01	-21.21
4	0.68516	0.11	23.58	16.28	23.69	16.39	56.00	46.00	-32.31	-29.61
5	12.99609	0.52	23.80	19.11	24.32	19.63	60.00	50.00	-35.68	-30.37
6	23.73047	0.78	31.02	26.64	31.80	27.42	60.00	50.00	-28.20	-22.58

REMARKS:

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

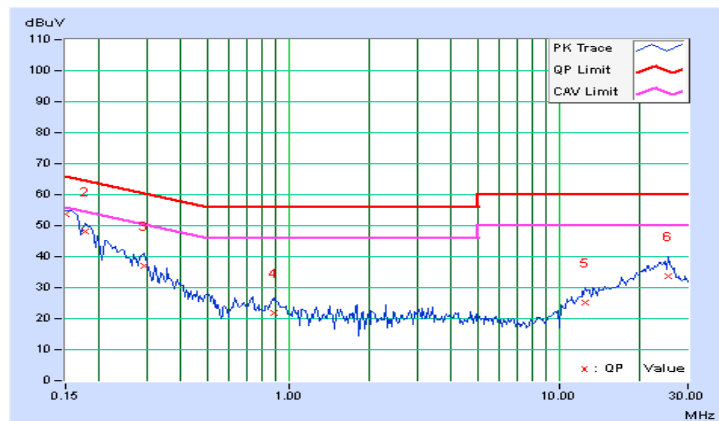


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
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No	Freq. [MHz]	Corr.	Reading Value		Emission Level		Limit		Margin	
		Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
		(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	0.08	53.45	39.70	53.53	39.78	66.00	56.00	-12.47	-16.22
2	0.17734	0.08	48.10	34.87	48.18	34.95	64.61	54.61	-16.43	-19.66
3	0.29453	0.09	36.92	28.68	37.01	28.77	60.40	50.40	-23.39	-21.63
4	0.88047	0.12	21.85	17.62	21.97	17.74	56.00	46.00	-34.03	-28.26
5	12.56641	0.53	24.67	19.94	25.20	20.47	60.00	50.00	-34.80	-29.53
6	25.35156	0.87	32.79	28.32	33.66	29.19	60.00	50.00	-26.34	-20.81

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.



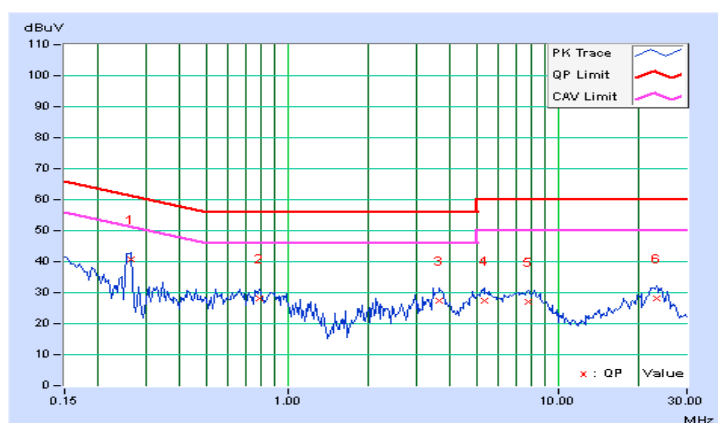
4.2.8 Test Results (Mode 2)

Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)
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No	Freq. [MHz]	Corr. Factor	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
		(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.26328	0.09	40.51	37.44	40.60	37.53	61.33	51.33	-20.72	-13.79
2	0.78672	0.12	28.00	19.67	28.12	19.79	56.00	46.00	-27.88	-26.21
3	3.66016	0.21	27.13	20.12	27.34	20.33	56.00	46.00	-28.66	-25.67
4	5.35156	0.27	27.15	21.96	27.42	22.23	60.00	50.00	-32.58	-27.77
5	7.73828	0.36	26.78	22.39	27.14	22.75	60.00	50.00	-32.86	-27.25
6	23.13281	0.77	27.56	21.63	28.33	22.40	60.00	50.00	-31.67	-27.60

REMARKS:

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

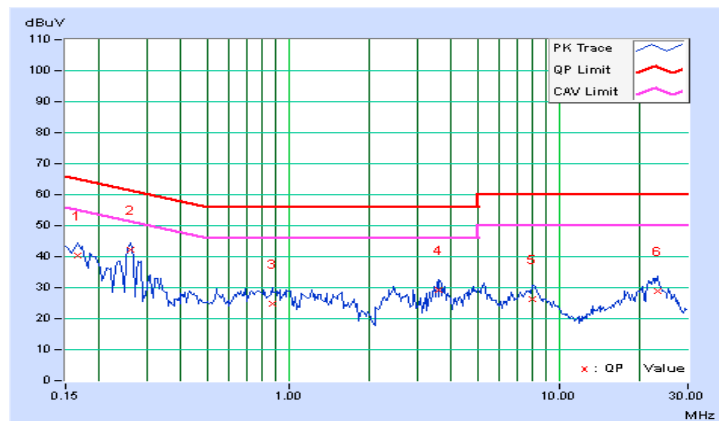


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
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No	Freq. [MHz]	Corr.	Reading Value		Emission Level		Limit		Margin	
		Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
		(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16562	0.08	40.47	32.10	40.55	32.18	65.18	55.18	-24.63	-23.00
2	0.25938	0.09	42.11	41.54	42.20	41.63	61.45	51.45	-19.26	-9.83
3	0.87266	0.12	24.52	19.21	24.64	19.33	56.00	46.00	-31.36	-26.67
4	3.60938	0.22	28.87	21.99	29.09	22.21	56.00	46.00	-26.91	-23.79
5	7.98438	0.38	25.92	21.55	26.30	21.93	60.00	50.00	-33.70	-28.07
6	23.25000	0.82	28.22	22.21	29.04	23.03	60.00	50.00	-30.96	-26.97

REMARKS:

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



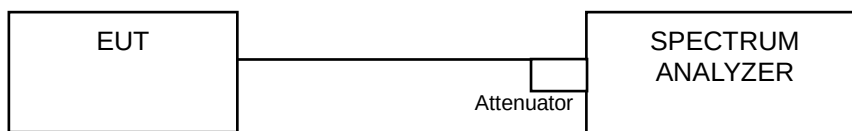
4.3 Transmit Power Measurement

4.3.1 Limits of Transmit Power Measurement

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

*B is the 26 dB emission bandwidth in megahertz

4.3.2 Test Setup



4.3.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.3.4 Test Procedure

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

4.3.5 Deviation from Test Standard

No deviation.

4.3.6 EUT Operating Condition

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

4.3.7 Test Result

POWER OUTPUT:

802.11a

Chan.	Chan. Freq. (MHz)	Average Power (dBm)	Average Power (mW)	Limit (dBm)	Pass / Fail
36	5180	195.434	22.91	30	Pass
40	5200	257.632	24.11	30	Pass
48	5240	247.742	23.94	30	Pass
149	5745	94.624	19.76	30	Pass
157	5785	269.153	24.30	30	Pass
165	5825	102.565	20.11	30	Pass

802.11ac (VHT20)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)	Average Power (mW)	Limit (dBm)	Pass / Fail
36	5180	236.048	23.73	30	Pass
40	5200	272.898	24.36	30	Pass
48	5240	249.459	23.97	30	Pass
149	5745	89.743	19.53	30	Pass
157	5785	272.898	24.36	30	Pass
165	5825	93.325	19.70	30	Pass

802.11ac (VHT40)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)	Average Power (mW)	Limit (dBm)	Pass / Fail
38	5190	127.938	21.07	30	Pass
46	5230	411.15	26.14	30	Pass
151	5755	63.387	18.02	30	Pass
159	5795	98.401	19.93	30	Pass

802.11ac (VHT80)

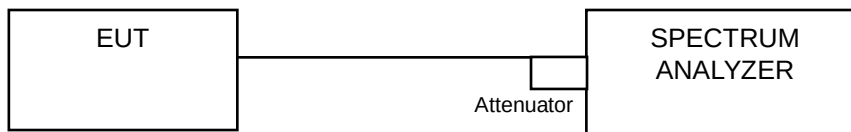
Chan.	Chan. Freq. (MHz)	Average Power (dBm)	Average Power (mW)	Limit (dBm)	Pass / Fail
42	5210	96.828	19.86	30	Pass
155	5775	68.234	18.34	30	Pass

4.4 Peak Power Spectral Density Measurement

4.4.1 Limits of Peak Power Spectral Density Measurement

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

4.4.2 Test Setup



4.4.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.4.4 Test Procedure

For U-NII-1 band:

Using method SA-1

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

For U-NII-3 band:

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

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

802.11a

Chan.	Chan. Freq. (MHz)	PSD (dBm)	MAX. Limit (dBm)	Pass / Fail
36	5180	9.27	17	Pass
40	5200	10.46	17	Pass
48	5240	9.95	17	Pass

802.11ac (VHT20)

Chan.	Chan. Freq. (MHz)	PSD (dBm)	MAX. Limit (dBm)	Pass / Fail
36	5180	9.45	17	Pass
40	5200	10.34	17	Pass
48	5240	9.91	17	Pass

802.11ac (VHT40)

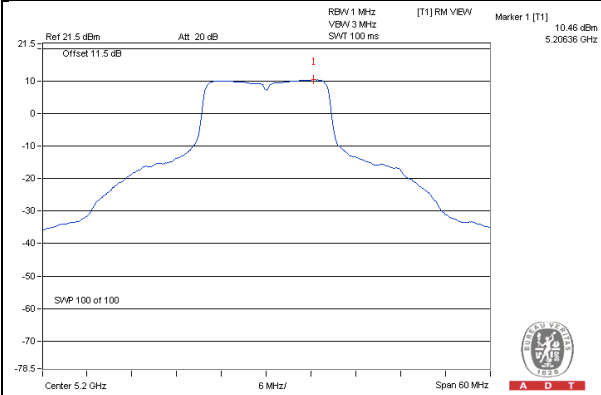
Chan.	Chan. Freq. (MHz)	PSD (dBm)	MAX. Limit (dBm)	Pass / Fail
38	5190	4.01	17	Pass
46	5230	8.61	17	Pass

802.11ac (VHT80)

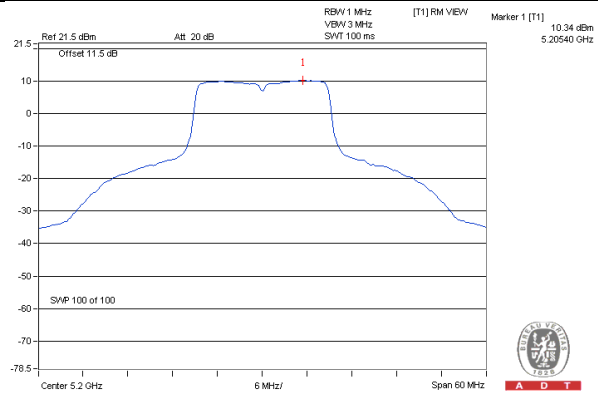
Chan.	Chan. Freq. (MHz)	PSD (dBm)	MAX. Limit (dBm)	Pass / Fail
42	5210	1.42	17	Pass

SPECTRUM PLOT OF WORST VALUE

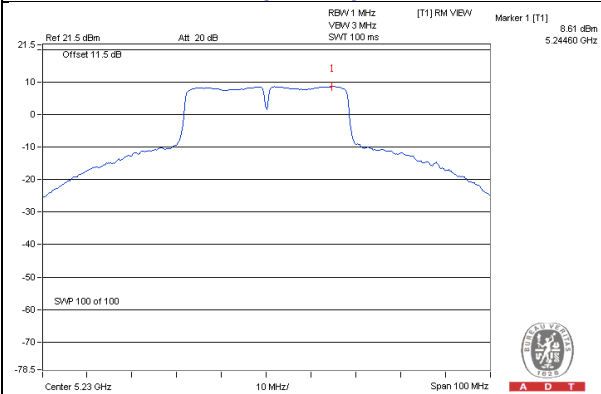
802.11a – CH 40



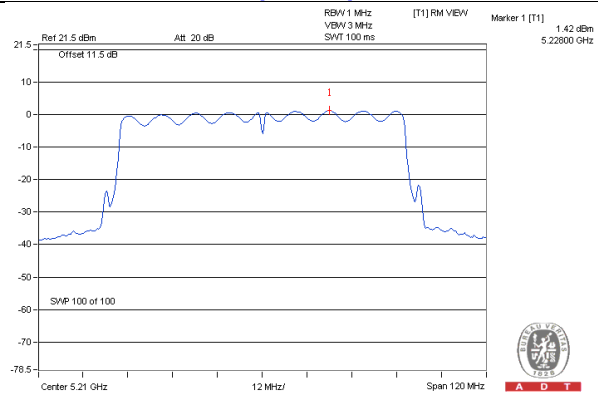
802.11ac (VHT20) – CH 40



802.11ac (VHT40) – CH 46



802.11ac (VHT80) – CH 42



For U-NII-3 Band

802.11a

Chan.	Chan. Freq. (MHz)	PSD		Limit (dBm/500kHz)	Pass /Fail
		(dBm/300kHz)	(dBm/500kHz)		
149	5745	-1.71	0.51	30	Pass
157	5785	2.68	4.90	30	Pass
165	5825	-0.89	1.33	30	Pass

802.11ac (VHT20)

Chan.	Chan. Freq. (MHz)	PSD		Limit (dBm/500kHz)	Pass /Fail
		(dBm/300kHz)	(dBm/500kHz)		
149	5745	-2.08	0.14	30	Pass
157	5785	2.38	4.60	30	Pass
165	5825	-1.99	0.23	30	Pass

802.11ac (VHT40)

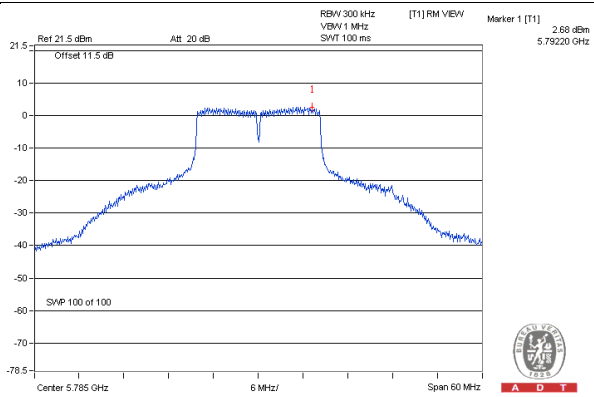
Chan.	Chan. Freq. (MHz)	PSD		Limit (dBm/500kHz)	Pass /Fail
		(dBm/300kHz)	(dBm/500kHz)		
151	5755	-5.93	-3.71	30	Pass
159	5795	-5.31	-3.09	30	Pass

802.11ac (VHT80)

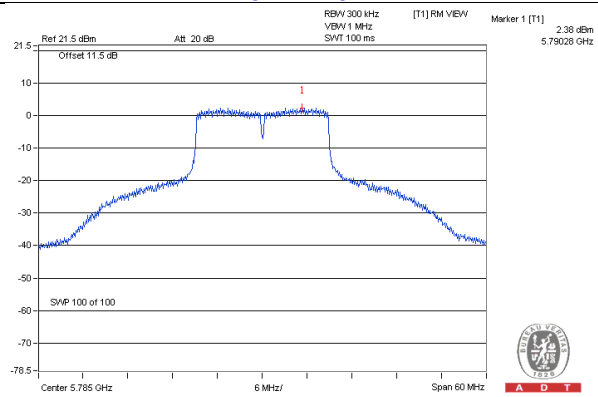
Chan.	Chan. Freq. (MHz)	PSD		Limit (dBm/500kHz)	Pass /Fail
		(dBm/300kHz)	(dBm/500kHz)		
155	5775	-8.97	-6.75	30	Pass

SPECTRUM PLOT OF WORST VALUE

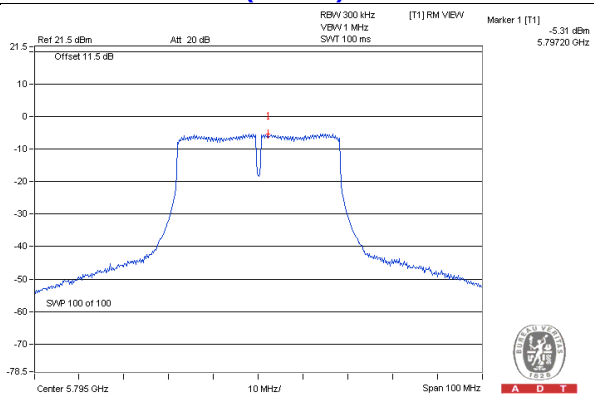
802.11a – CH 157



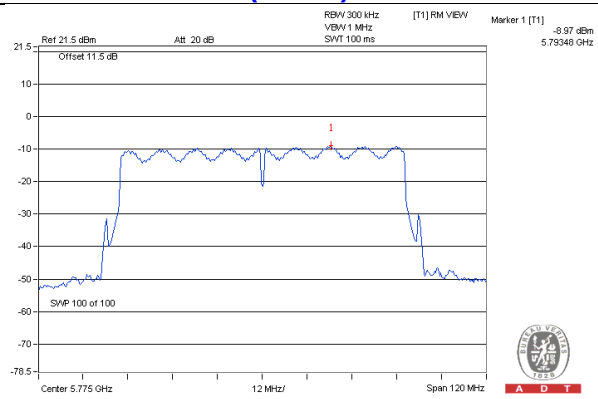
802.11ac (VHT20) – CH 157



802.11ac (VHT40) – CH 159



802.11ac (VHT80) – CH 155

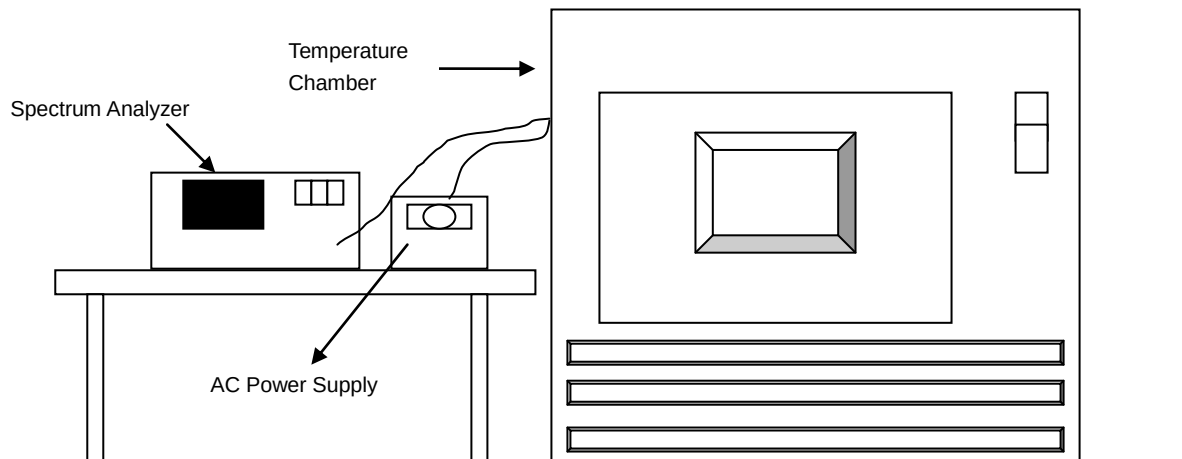


4.5 Frequency Stability Measurement

4.5.1 Limits of Frequency Stability Measurement

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

4.5.2 Test Setup



4.5.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.5.4 Test Procedure

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

4.5.5 Deviation from Test Standard

No deviation.

4.5.6 EUT Operating Condition

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

4.5.7 Test Results

FREQUENCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5180MHz									
TEMP. (°C)	POWER SUPPLY (Vac)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)
50	120	5180.0132	0.00025	5180.0117	0.00023	5180.012	0.00023	5180.0122	0.00024
40	120	5180.0181	0.00035	5180.0181	0.00035	5180.0199	0.00038	5180.0191	0.00037
30	120	5180.0092	0.00018	5180.011	0.00021	5180.0114	0.00022	5180.0098	0.00019
20	120	5180.0189	0.00036	5180.0179	0.00035	5180.0156	0.00030	5180.0195	0.00038
10	120	5179.9791	-0.00040	5179.984	-0.00031	5179.9833	-0.00032	5179.9833	-0.00032
0	120	5179.9785	-0.00042	5179.9795	-0.00040	5179.9751	-0.00048	5179.9761	-0.00046
-10	120	5180.0189	0.00036	5180.0205	0.00040	5180.0236	0.00046	5180.0228	0.00044
-20	120	5180.0112	0.00022	5180.0116	0.00022	5180.009	0.00017	5180.0136	0.00026
-30	120	5180.0168	0.00032	5180.0165	0.00032	5180.0158	0.00031	5180.0159	0.00031

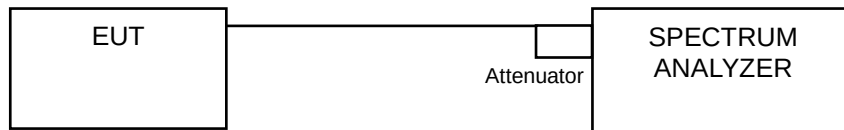
FREQUENCY STABILITY VERSUS TEMP.									
OPERATING FREQUENCY: 5180MHz									
TEMP. (°C)	POWER SUPPLY (Vac)	0 MINUTE		2 MINUTE		5 MINUTE		10 MINUTE	
		Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)	Measured Frequency (MHz)	Frequency Drift (%)
20	138	5180.0191	0.00037	5180.0171	0.00033	5180.016	0.00031	5180.0195	0.00038
	120	5180.0189	0.00036	5180.0179	0.00035	5180.0156	0.00030	5180.0195	0.00038
	102	5180.0196	0.00038	5180.0187	0.00036	5180.0153	0.00030	5180.0191	0.00037

4.6 6dB Bandwidth Measurement

4.6.1 Limits of 6dB Bandwidth Measurement

The minimum of 6dB Bandwidth Measurement is 0.5MHz.

4.6.2 Test Setup



4.6.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.6.4 Test Procedure

MEASUREMENT PROCEDURE REF

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

4.6.5 Deviation from Test Standard

No deviation.

4.6.6 EUT Operating Condition

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

4.6.7 Test Results

802.11a

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
149	5745	16.62	0.5	Pass
157	5785	16.53	0.5	Pass
165	5825	16.62	0.5	Pass

802.11ac (VHT20)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
149	5745	17.82	0.5	Pass
157	5785	17.84	0.5	Pass
165	5825	17.80	0.5	Pass

802.11ac (VHT40)

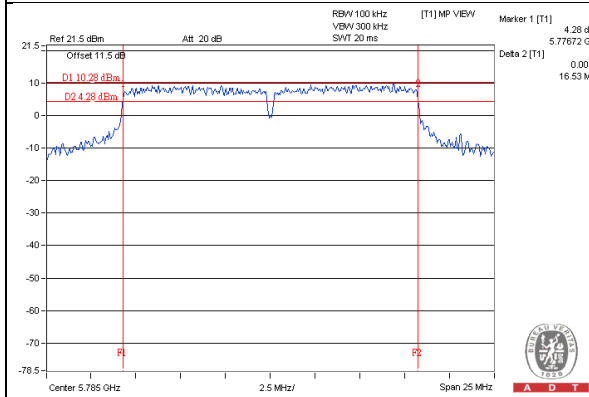
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
151	5755	36.62	0.5	Pass
159	5795	36.60	0.5	Pass

802.11ac (VHT80)

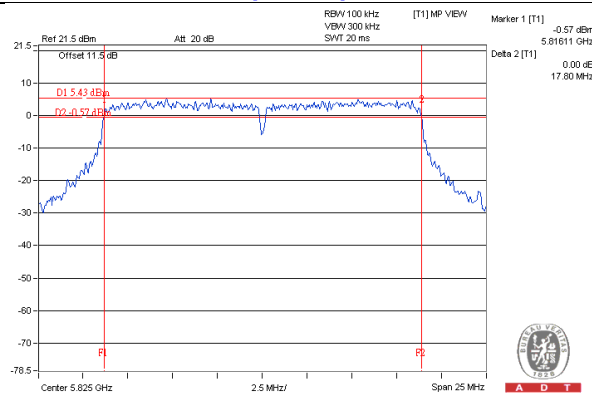
Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
155	5775	76.65	0.5	Pass

SPECTRUM PLOT OF WORST VALUE

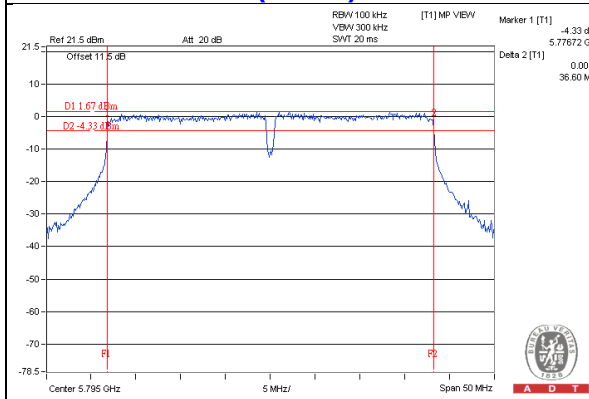
802.11a – CH 157



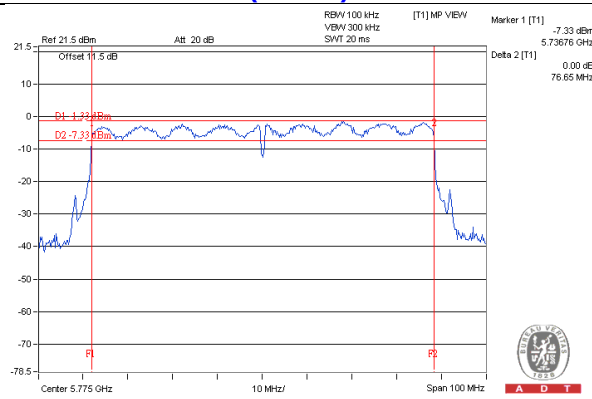
802.11ac (VHT20) – CH 165



802.11ac (VHT40) – CH 159



802.11ac (VHT80) – CH 155



5 Pictures of Test Arrangements

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

Appendix – Information on the Testing Laboratories

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

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

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Fax: 886-2-26051924

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Email: service.adt@tw.bureauveritas.com

Web Site: www.bureauveritas-adt.com

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

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