FCC Test Report (DFS Band)

Report No.:	RF170320E01C-1
FCC ID:	H8NTCG310
Test Model:	TCG310
Series Model:	TCG310, TCG310XXXXXX (X=0~9,A-Z,a-z,” -” ,” .” or blank for marketing)
Received Date:	Aug. 10, 2017
Test Date:	Aug. 17 to Sep. 06 , 2017
Issued Date:	Sep. 22, 2017
Applicant:	ASKEY COMPUTER CORP.
Address:	10F, NO.119, JIANKANG RD., ZHONGHE DIST., NEW TAIPEI CITY 23585, TAIWAN, R.O.C.
Issued By:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch Hsin Chu Laboratory
Lab Address:	E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan R.O.C.
Test Location (1):	E-2, No.1, Li Hsin 1st Road, Hsinchu Science Park, Hsinchu City 300, Taiwan R.O.C.
Test Location (2):	No. 49, Ln. 206, Wende Rd., Shangshan Tsuen, Chiung Lin Hsiang, Hsin Chu Hsien 307, Taiwan R.O.C.

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Release Control Record

Issue No.	Description	Date Issued
RF170320E01C-1	Original release.	Sep. 22, 2017

1 Certificate of Conformity

Product:	Cable Modem
Brand:	ASKEY
Test Model:	TCG310
Series Model:	TCG310, TCG310XXXXXX (X=0~9,A-Z,a-z,"-","."or blank for marketing)
Sample Status:	ENGINEERING SAMPLE
Applicant:	ASKEY COMPUTER CORP.
Test Date:	Aug. 17 to Sep. 06 , 2017
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. 22, 2017

Wendy Wu / Specialist

Approved by : _____ , **Date:** Sep. 22, 2017

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 -12.47dB at 0.38047MHz.
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 -0.1dB at 5351MHz.
15.407(a)(1/2/3)	Max Average Transmit Power	Pass	Meet the requirement of limit.
---	Occupied Bandwidth Measurement	-	Reference only.
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 i-pex(MHF) not a standard connector.

2.1 Measurement Uncertainty

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

Measurement	Frequency	Expanded Uncertainty (k=2) (±)
Conducted Emissions at mains ports	150kHz ~ 30MHz	1.84 dB
Radiated Emissions up to 1 GHz	30MHz ~ 1GHz	5.30 dB
Radiated Emissions above 1 GHz	1GHz ~ 6GHz	5.16 dB
	6GHz ~ 18GHz	4.91 dB
	18GHz ~ 40GHz	5.30 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT (DFS Band)

Product	Cable Modem
Brand	ASKEY
Test Model	TCG310
Series Model	TCG310, TCG310XXXXXX (X=0~9,A-Z,a-z," -"," ." or blank for marketing)
Status of EUT	ENGINEERING SAMPLE
Power Supply Rating	DC 12V from power adapter
Modulation Type	64QAM, 16QAM, QPSK, BPSK for OFDM 256QAM for OFDM in 11ac mode only
Modulation Technology	OFDM
Transfer Rate	802.11a: up to 54Mbps 802.11n: up to 600Mbps 802.11ac: up to 1733.3Mbps
Operating Frequency	5.26GHz ~ 5.32GHz, 5.50GHz ~ 5.72GHz
Number of Channel	802.11a, 802.11n (HT20), 802.11ac (VHT20): 16 802.11n (HT40), 802.11ac (VHT40): 8 802.11ac (VHT80): 4
Output Power	**5.26 ~ 5.32GHz:** **CDD Mode:**165.067mW **Beamforming Mode:** 83.595mW **5.50 ~ 5.72GHz:** **CDD Mode:**175.464mW **Beamforming Mode:** 78.349mW
Antenna Type	Refer to Note
Antenna Connector	Refer to Note
Accessory Device	Adapter x 1
Data Cable Supplied	NA

Note:

1. This report is prepared for FCC class II permissive change. The difference compared with the Report No.: RF170320E01B-1 as the following:
   - ◆ Add DFS band <5.26 ~ 5.32GHz, 5.5 ~ 5.72GHz>
2. According to above condition, all test items need to be performed. And all data weres verified to meet the requirements.
3. The EUT has below model names, which are identical to each other in all aspects except for the following:

Brand	Model No.	Different
ASKEY	TCG310	For Marketing request
	TCG310XXXXXX (X=0~9,A-Z,a-z," -"," ." or blank for marketing)	

From the above models, model: **TCG310** was selected as representative model for the test and its data was recorded in this report.

4. Simultaneously transmission condition.

Condition	Technology	
1	WLAN 2.4GHz	WLAN 5GHz
Note: The emission of the simultaneous operation has been evaluated and no non-compliance was found.		

5. The EUT must be supplied with a power adapter and following different models could be chosen as following table:

No	Brand Name	Model No.	Spec.
1	LEI	MU42-3120350-A1	Input: 100-240Vac, 50/60Hz, 1.5A Output: 12Vdc, 3.5A DC output cable: 1.5m, unshielded
2	Sunny	SYS1570-4212-W2	Input: 100-240Vac, 50-60Hz, 1.5A Output: 12Vdc, 3.5A DC output cable: 1.5m, unshielded
Note: From the above adapters, the worst radiated test was found in **Adapter 1**. Therefore only the test data of the modes were recorded in this report.			

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

Set 1							
Antenna No.	PCB Chain No.	Brand	Ant. Net Gain(dBi)	Frequency range (GHz)	Antenna Type	Connecter Type	Cable Length (mm)
1	2.4G-chain 3	HONGBO	3.57	2.4~2.4835	PCB	none	-
	5G-chain 0		3.48	5.15~5.35			
			3.35	5.47~5.725			
			2.79	5.725~5.85			
2	5G-chain 1		3.89	5.15~5.35	Dipole	i-pex(MHF)	95
			4.16	5.47~5.725			
			4.04	5.725~5.85			
3	2.4G-chain 1		3.99	2.4~2.4835	Dipole	i-pex(MHF)	75
	5G-chain 2		3.89	5.15~5.35			
			3.66	5.47~5.725			
			3.83	5.725~5.85			
4	2.4G-chain 0		3.26	2.4~2.4835	Dipole	i-pex(MHF)	295
	5G-chain 3		3.9	5.15~5.35			
			3.92	5.47~5.725			
			4.49	5.725~5.85			

Set 2							
Antenna No.	PCB Chain No.	Brand	Ant. Net Gain(dBi)	Frequency range (GHz)	Antenna Type	Connecter Type	Cable Length (mm)
1	2.4G-chain 3	TSKY	3.57	2.4~2.4835	PCB	none	-
	5G-chain 0		3.48	5.15~5.35			
			3.35	5.47~5.725			
			2.79	5.725~5.85			
2	5G-chain 1		2.93	5.15~5.35	PIFA	i-pex(MHF)	93
			2.69	5.47~5.725			
			2.76	5.725~5.85			
3	2.4G-chain 1		3.2	2.4~2.4835	PIFA	i-pex(MHF)	71
	5G-chain 2		3.48	5.15~5.35			
			3.23	5.47~5.725			
			3.34	5.725~5.85			
4	2.4G-chain 0		2.12	2.4~2.4835	Dipole	i-pex(MHF)	290
	5G-chain 3		2.61	5.15~5.35			
			2.36	5.47~5.725			
			2.52	5.725~5.85			
Set 3							
Antenna No.	PCB Chain No.	Brand	Ant. Net Gain(dBi)	Frequency range (GHz)	Antenna Type	Connecter Type	Cable Length (mm)
1	2.4G-chain 3	Master Wave	3.57	2.4~2.4835	PCB	none	-
	5G-chain 0		3.48	5.15~5.35			
			3.35	5.47~5.725			
			2.79	5.725~5.85			
2	5G-chain 1		5.96	5.15~5.35	Dipole	i-pex(MHF)	95
			7.51	5.47~5.725			
			7.39	5.725~5.85			
3	2.4G-chain 1		4.52	2.4~2.4835	Dipole	i-pex(MHF)	58
	5G-chain 2		4.9	5.15~5.35			
			3.95	5.47~5.725			
			3.38	5.725~5.85			
4	2.4G-chain 0		3.41	2.4~2.4835	Dipole	i-pex(MHF)	285
	5G-chain 3		4.23	5.15~5.35			
			4.57	5.47~5.725			
			3.76	5.725~5.85			

7. The EUT incorporates a MIMO function.

For 2.4GHz Band			
MODULATION MODE	**DATA RATE (MCS)**	**TX & RX CONFIGURATION**	
802.11b	1 ~ 11Mbps	1TX Fixed Chain 0	1RX Fixed Chain 0
802.11g	6 ~ 54Mbps	3TX	3RX
802.11n (HT20)	MCS 0~7	3TX	3RX
	MCS 8~15	3TX	3RX
	MCS 16~23	3TX	3RX
802.11n (HT40)	MCS 0~7	3TX	3RX
	MCS 8~15	3TX	3RX
	MCS 16~23	3TX	3RX
5GHz Band			
MODULATION MODE	**DATA RATE (MCS)**	**TX & RX CONFIGURATION**	
802.11a	6 ~ 54Mbps	4TX	4RX
802.11n (HT20)	MCS 0~7	4TX	4RX
	MCS 8~15	4TX	4RX
	MCS 16~23	4TX	4RX
	MCS 24~31	4TX	4RX
802.11n (HT40)	MCS 0~7	4TX	4RX
	MCS 8~15	4TX	4RX
	MCS 16~23	4TX	4RX
	MCS 24~31	4TX	4RX
802.11ac (VHT20)	MCS 0~8, Nss=1	4TX	4RX
	MCS 0~8, Nss=2	4TX	4RX
	MCS 0~9, Nss=3	4TX	4RX
	MCS 0~8, Nss=4	4TX	4RX
802.11ac (VHT40)	MCS 0~9, Nss=1	4TX	4RX
	MCS 0~9, Nss=2	4TX	4RX
	MCS 0~9, Nss=3	4TX	4RX
	MCS 0~9, Nss=4	4TX	4RX
802.11ac (VHT80)	MCS 0~9, Nss=1	4TX	4RX
	MCS 0~9, Nss=2	4TX	4RX
	MCS 0~9, Nss=3	4TX	4RX
	MCS 0~9, Nss=4	4TX	4RX

Note:
1. All of modulation mode support beamforming function except 802.11a/b/g modulation mode.
2. The EUT support Beamforming and CDD mode, therefore both mode were investigated and the worst case scenario was identified. The worst case data were presented in test report.
3. The modulation and bandwidth are similar for 802.11n mode for 20MHz (40MHz) and 802.11ac mode for 20MHz (40MHz), therefore investigated worst case to representative mode in test report. (Final test mode refer section 3.2.1)

8. 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 5260 ~ 5320MHz

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

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

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

Channel	Frequency	Channel	Frequency
54	5270 MHz	62	5310 MHz

1 channel is provided for 802.11ac (VHT80):

Channel	Frequency
58	5290 MHz

FOR 5500 ~ 5720MHz

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

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

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

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

3 channels are provided for 802.11ac (VHT80):

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

3.2.1 Test Mode Applicability and Tested Channel Detail

EUT Configure Mode	Applicable To				Description
	RE≥1G	RE<1G	PLC	APCM	
1	√	√	√	√	Antenna Set 3 with Adapter 1
2	√	√	-	-	Antenna Set 2 with Adapter 1
3	-	-	√	-	Antenna Set 3 with Adapter 2

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

CDD Mode						
Mode	FREQ. Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	BPSK	6
802.11ac (VHT20)		52 to 64	52, 60, 64	OFDM	BPSK	6.5
802.11ac (VHT40)		54 to 62	54, 62	OFDM	BPSK	13.5
802.11ac (VHT80)		58	58	OFDM	BPSK	29.3
802.11a	5500-5720	100 to 144	100, 116, 140, 144	OFDM	BPSK	6
802.11ac (VHT20)		100 to 144	100, 116, 140, 144	OFDM	BPSK	6.5
802.11ac (VHT40)		102 to 142	102, 110, 134, 142	OFDM	BPSK	13.5
802.11ac (VHT80)		106 to 138	106, 122, 138	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.

CDD Mode						
Mode	FREQ. Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Modulation Type	Data Rate (Mbps)
802.11ac (VHT80)	5260-5320 5500-5720	58 106 to 138	122	OFDM	BPSK	29.3

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.

CDD Mode						
Mode	**FREQ. Band (MHz)**	**Available Channel**	**Tested Channel**	**Modulation Technology**	**Modulation Type**	**Data Rate (Mbps)**
802.11ac (VHT80)	5260-5320 5500-5720	58 106 to 138	122	OFDM	BPSK	29.3

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.

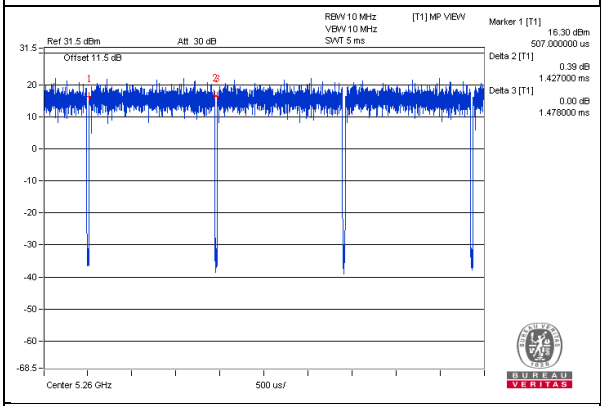
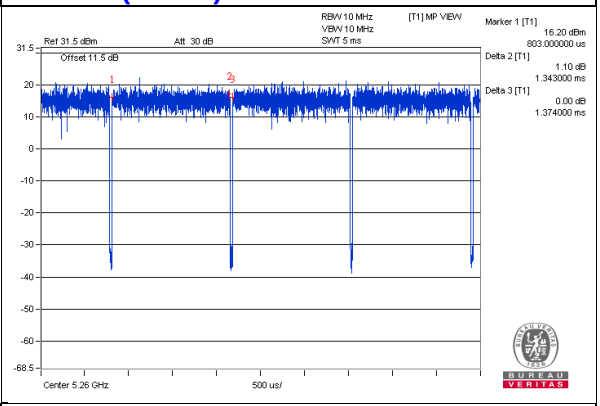
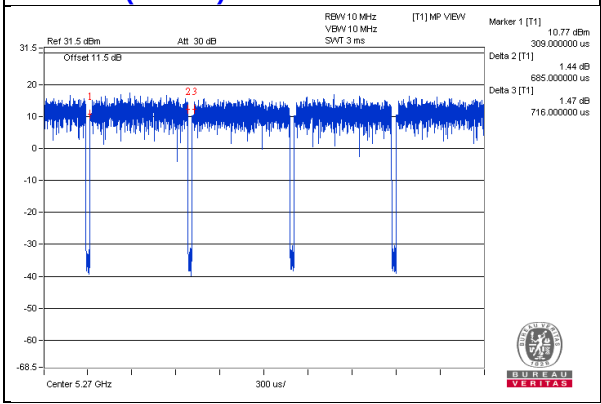
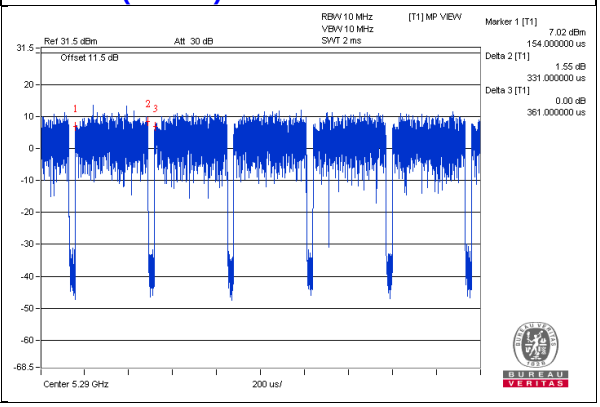
CDD Mode						
Mode	**FREQ. Band (MHz)**	**Available Channel**	**Tested Channel**	**Modulation Technology**	**Modulation Type**	**Data Rate (Mbps)**
802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	BPSK	6
802.11ac (VHT20)		52 to 64	52, 60, 64	OFDM	BPSK	6.5
802.11ac (VHT40)		54 to 62	54, 62	OFDM	BPSK	13.5
802.11ac (VHT80)		58	58	OFDM	BPSK	29.3
802.11a	5500-5720	100 to 144	100, 116, 140, 144	OFDM	BPSK	6
802.11ac (VHT20)		100 to 144	100, 116, 140, 144	OFDM	BPSK	6.5
802.11ac (VHT40)		102 to 142	102, 110, 134, 142	OFDM	BPSK	13.5
802.11ac (VHT80)		106 to 138	106, 122, 138	OFDM	BPSK	29.3
Beamforming Mode (Output power only)						
Mode	**FREQ. Band (MHz)**	**Available Channel**	**Tested Channel**	**Modulation Technology**	**Modulation Type**	**Data Rate (Mbps)**
802.11ac (VHT20)	5260-5320	52 to 64	52, 60, 64	OFDM	BPSK	6.5
802.11ac (VHT40)		54 to 62	54, 62	OFDM	BPSK	13.5
802.11ac (VHT80)		58	58	OFDM	BPSK	29.3
802.11ac (VHT20)	5500-5720	100 to 144	100, 116, 140, 144	OFDM	BPSK	6.5
802.11ac (VHT40)		102 to 142	102, 110, 134, 142	OFDM	BPSK	13.5
802.11ac (VHT80)		106 to 138	106, 122, 138	OFDM	BPSK	29.3

Test Condition:

Applicable To	Environmental Conditions	Input Power	Tested By
RE≥1G	24deg. C, 70%RH	120Vac, 60Hz	Andy Ho
RE<1G	23deg. C, 65%RH	120Vac, 60Hz	Jyunchun Lin
PLC	23deg. C, 66%RH	120Vac, 60Hz	Bear Lee
APCM	25deg. C, 60%RH	120Vac, 60Hz	Robert Cheng

3.3 Duty Cycle of Test Signal

If duty cycle of test signal is < 98%, duty factor shall be considered.
802.11a: Duty cycle = 1.427 ms/1.478 ms = 0.965, Duty factor = 10 * log(1/0.965) = 0.15
802.11ac (VHT20): Duty cycle = 1.343 ms/1.374 ms = 0.977, Duty factor = 10 * log(1/0.977) = 0.10
802.11ac (VHT40): Duty cycle = 0.685 ms/0.716 ms = 0.957, Duty factor = 10 * log(1/0.957) = 0.19
802.11ac (VHT80): Duty cycle = 0.331 ms/0.361 ms = 0.917, Duty factor = 10 * log(1/0.917) = 0.38

802.11a	802.11ac (VHT20)
	
802.11ac (VHT40)	**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.

For Conducted Emission Test:

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	CMTS	CASA system	C220	NA	NA	Supplied by client
B.	Laptop	DELL	E5430	HYV4VY1	FCC DoC	Provided by Lab
C.	HUB	ZyXEL	ES-116P	S060H02000215	FCC DoC	Provided by Lab
D.	USB Disk	Nmicro	16G	N/A	N/A	Supplied by client
E.	Telephone	DAISHO	DS-03	N/A	N/A	Provided by Lab
F.	Telephone	Romeo	TE-812	97280903	N/A	Provided by Lab

Note:

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

ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	DC Cable	1	1.5	No	0	Supplied by client
2.	Coaxial Cable	1	10	Yes	0	Provided by Lab
3.	RJ-45 Cable	1	10	No	0	Provided by Lab
4.	RJ-45 Cable	3	10	No	0	Provided by Lab
5.	RJ-11 Cable	1	1.8	No	0	Provided by Lab
6.	RJ-11 Cable	1	1.8	No	0	Provided by Lab

For Radiated Emission Test:

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Telephone	WONDER	WD-303	7C17KA 04011	N/A	Provided by Lab
B.	Laptop	HP	Pavilion 14-ab023TU	5CD5340WXZ	N/A	Provided by Lab
C.	USB 3.0 Disk	Nmicro	16G	N/A	N/A	Supplied by client

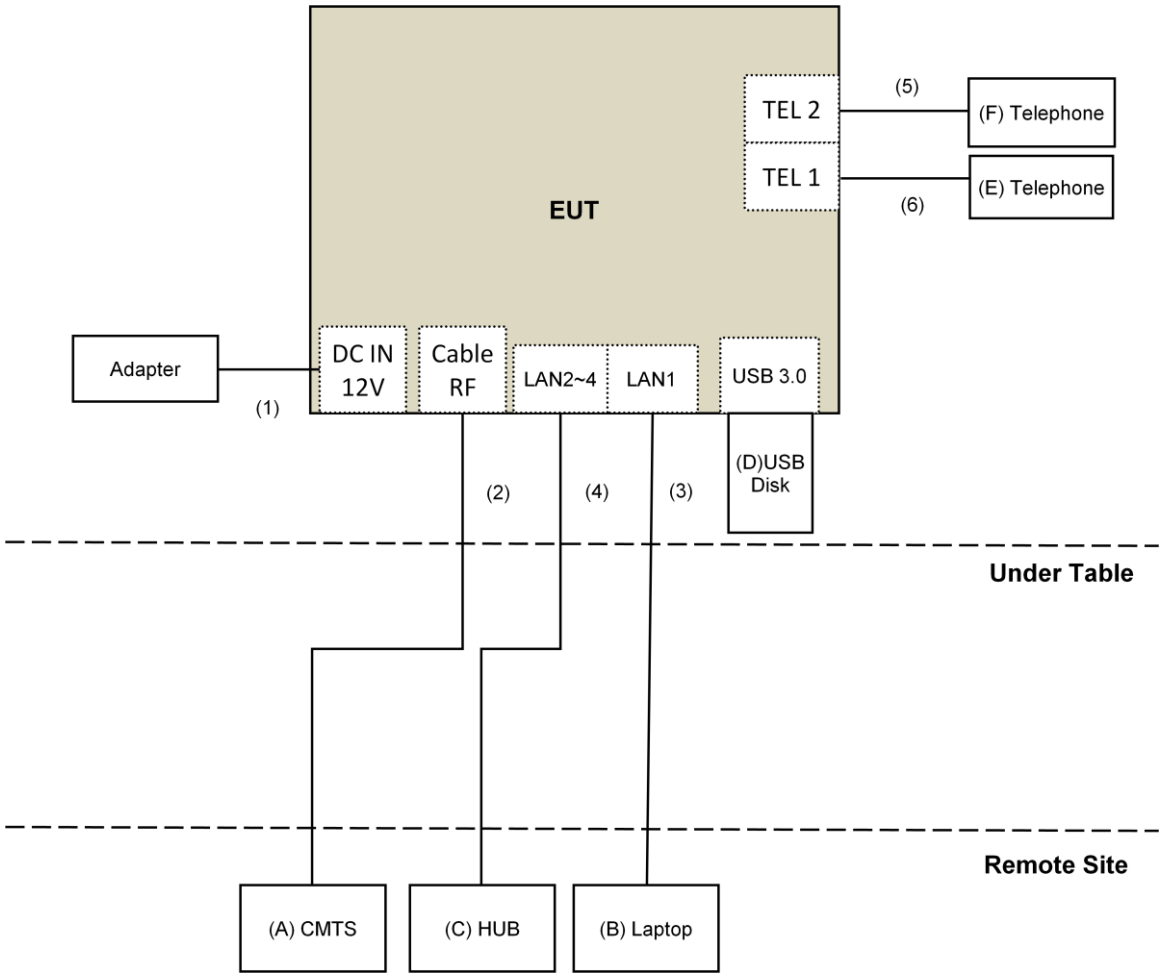
Note:

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

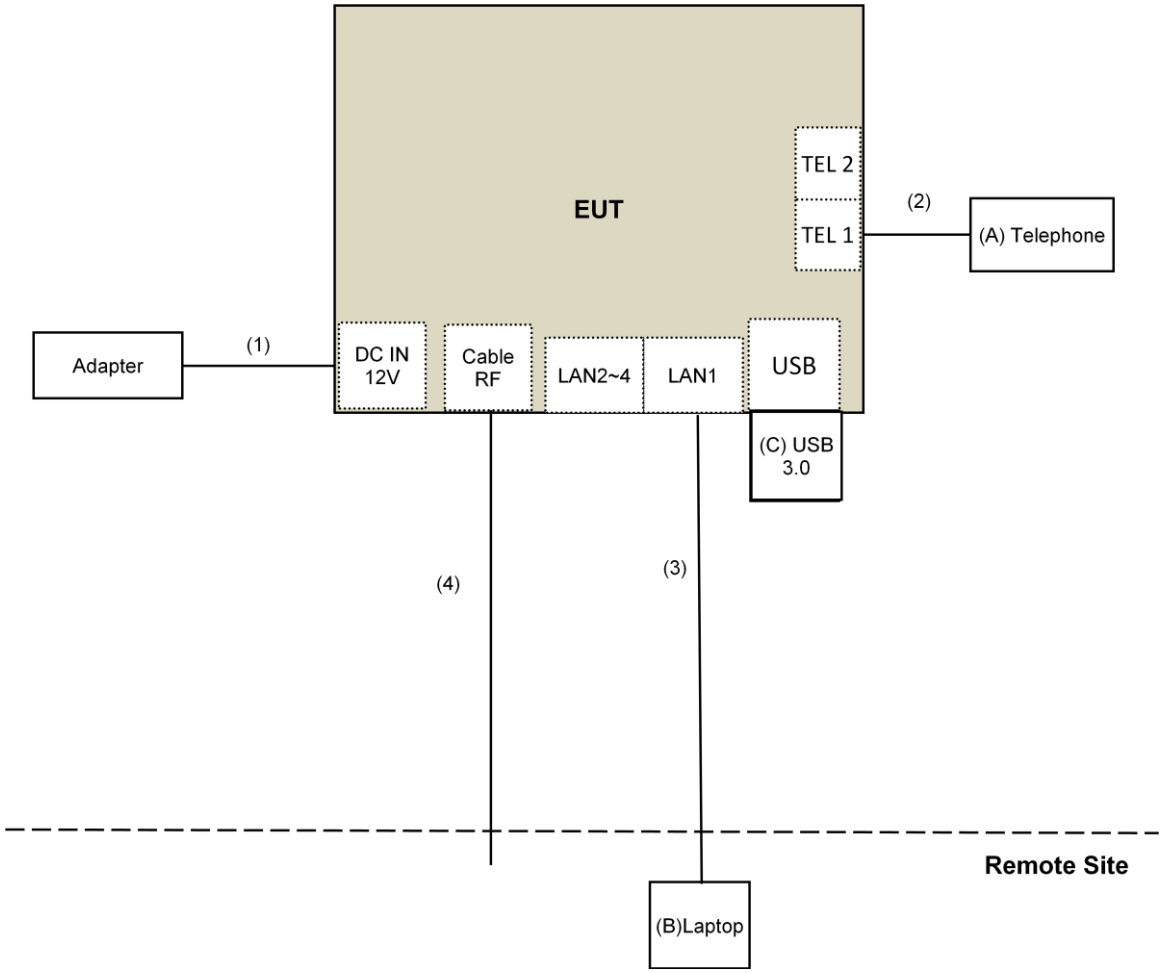
ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	DC Cable	1	1.5	No	0	Supplied by client
2.	RJ-11 Cable	1	1.8	No	0	Provided by Lab
3.	RJ-45 Cable	1	10	No	0	Provided by Lab
4.	Coaxial Cable	1	10	Yes	0	Provided by Lab

3.4.1 Configuration of System under Test

For Conducted Emission Test:



For Radiated Emission 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)
KDB 789033 D02 General UNII Test Procedure New Rules v01r04
KDB 662911 D01 Multiple Transmitter Output v02r01
ANSI C63.10-2013

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

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

4 Test Types and Results

4.1 Radiated Emission and Bandedge Measurement

4.1.1 Limits of Radiated Emission and Bandedge Measurement

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

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

<table>
<tr><td colspan="2">Applicable To</td><td colspan="2">Limit</td></tr>
<tr><td colspan="2" rowspan="2">789033 D02 General UNII Test Procedure New Rules v01r04</td><td colspan="2">Field Strength at 3m</td></tr>
<tr><td>PK:74 (dBμV/m)</td><td>AV:54 (dBμV/m)</td></tr>
<tr><td>Frequency Band</td><td colspan="2">Applicable To</td><td>EIRP Limit</td><td>Equivalent Field Strength at 3m</td></tr>
<tr><td>5150~5250 MHz</td><td colspan="2">15.407(b)(1)</td><td rowspan="3">PK:-27 (dBm/MHz)</td><td rowspan="3">PK:68.2(dBμV/m)</td></tr>
<tr><td>5250~5350 MHz</td><td colspan="2">15.407(b)(2)</td></tr>
<tr><td>5470~5725 MHz</td><td colspan="2">15.407(b)(3)</td></tr>
<tr><td rowspan="2">5725~5850 MHz</td><td>☒</td><td>15.407(b)(4)(i)</td><td>PK:-27 (dBm/MHz) *1
PK:10 (dBm/MHz) *2
PK:15.6 (dBm/MHz) *3
PK:27 (dBm/MHz) *4</td><td>PK: 68.2(dBμV/m) *1
PK:105.2 (dBμV/m) *2
PK: 110.8(dBμV/m) *3
PK:122.2 (dBμV/m) *4</td></tr>
<tr><td>☐</td><td>15.407(b)(4)(ii)</td><td colspan="2">Emission limits in section 15.247(d)</td></tr>
<tr><td colspan="5">*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.</td></tr>
</table>

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.	CALIBRATED DATE	CALIBRATED UNTIL
Test Receiver Keysight	N9038A	MY54450088	July 08, 2017	July 07, 2018
Pre-Amplifier(*) EMCI	EMC001340	980142	Jan. 20, 2016	Jan. 19, 2018
Loop Antenna(*) Electro-Metrics	EM-6879	264	Dec. 16, 2016	Dec. 15, 2018
RF Cable	NA	LOOPCAB-001 LOOPCAB-002	Jan. 17, 2017	Jan. 16, 2018
Pre-Amplifier Mini-Circuits	ZFL-1000VH2B	AMP-ZFL-01	Nov. 10, 2016	Nov. 09, 2017
Trilog Broadband Antenna SCHWARZBECK	VULB 9168	9168-406	Dec. 13, 2016	Dec. 12, 2017
RF Cable	8D	966-4-1 966-4-2 966-4-3	Apr. 01, 2017	Mar. 31, 2018
Fixed attenuator Mini-Circuits	UNAT-5+	PAD-3m-4-01	Oct. 05, 2016	Oct. 04, 2017
Horn_Antenna SCHWARZBECK	BBHA 9120D	9120D-783	Dec. 27, 2016	Dec. 26, 2017
Pre-Amplifier EMCI	EMC12630SE	980385	Feb. 02, 2017	Feb. 01, 2018
RF Cable	EMC104-SM-SM-1200 EMC104-SM-SM-2000 EMC104-SM-SM-5000	160923 150318 150321	Feb. 02, 2017 Mar. 29, 2017 Mar. 29, 2017	Feb. 01, 2018 Mar. 28, 2018 Mar. 28, 2018
Pre-Amplifier EMCI	EMC184045SE	980387	Feb. 02, 2017	Feb. 01, 2018
Horn_Antenna SCHWARZBECK	BBHA 9170	BBHA9170608	Dec. 15, 2016	Dec. 14, 2017
RF Cable	SUCOFLEX 102	36432/2 36433/2	Jan. 15, 2017	Jan. 14, 2018
Software	ADT_Radiated_V8.7.08	NA	NA	NA
Antenna Tower & Turn Table Max-Full	MF-7802	MF780208410	NA	NA
Boresight Antenna Fixture	FBA-01	FBA-SIP02	NA	NA
Spectrum Analyzer R&S	FSV40	100964	July 1, 2017	June 30, 2018
Power meter Anritsu	ML2495A	1014008	May 11, 2017	May 10, 2018
Power sensor Anritsu	MA2411B	0917122	May 11, 2017	May 10, 2018
AC Power Source Extech Electronics	6205	1440452	NA	NA
Temperature & Humidity Chamber Giant Force	GTH-150-40-SP-AR	MAA0812-008	Jan. 11, 2017	Jan. 10, 2018
Digital Multimeter FLUKE	87III	73680266	Nov. 10, 2016	Nov. 09, 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 calibration interval of the above test instruments is 24 months and the calibrations are traceable to NML/ROC and NIST/USA.
3. The test was performed in 966 Chamber No. 4.
4. The CANADA Site Registration No. is 20331-2
5. Loop antenna was used for all emissions below 30 MHz.
6. Tested Date: Aug. 17 to Sep. 06, 2017.

4.1.3 Test Procedure

For Radiated emission below 30MHz

a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter chamber room. 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. Both X and Y axes of the antenna are set to make the measurement.

d. For each suspected emission, the EUT was arranged to its worst case 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.

NOTE:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 9kHz at frequency below 30MHz.

For Radiated emission above 30MHz

a. The EUT was placed on the top of a rotating table 0.8 meters (for 30MHz ~ 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:

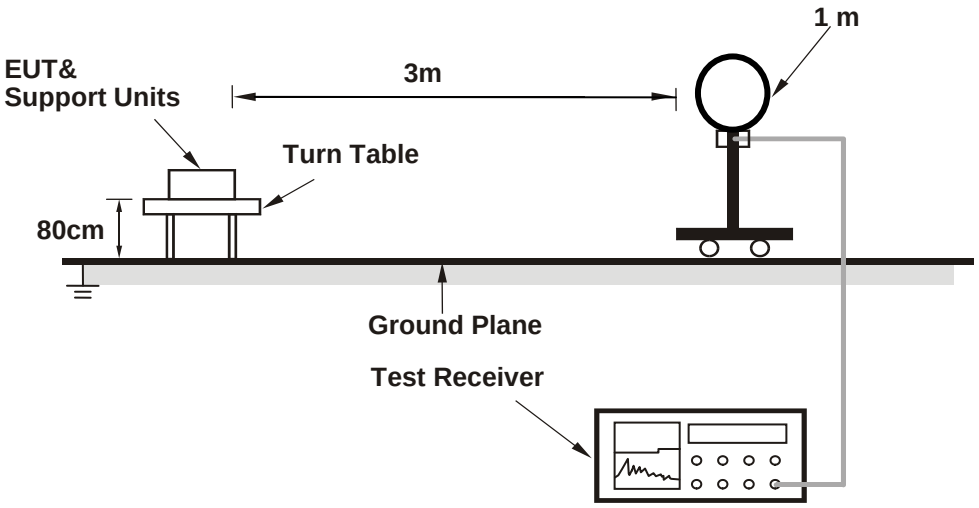
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is ≥ 1/T (Duty cycle < 98%) or 10Hz (Duty cycle ≥ 98%) for Average detection (AV) at frequency above 1GHz.
4. All modes of operation were investigated and the worst-case emissions are reported.

4.1.4 Deviation from Test Standard

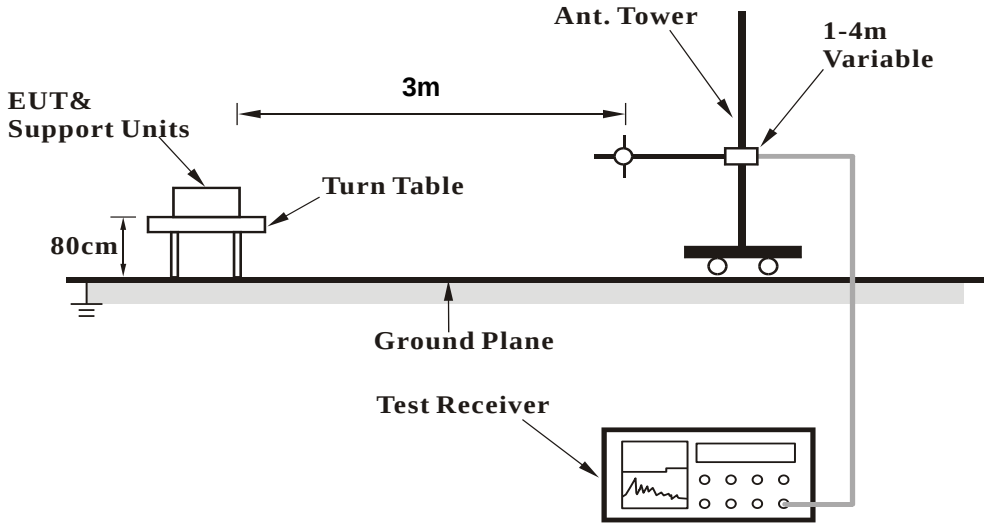
No deviation.

4.1.5 Test Setup

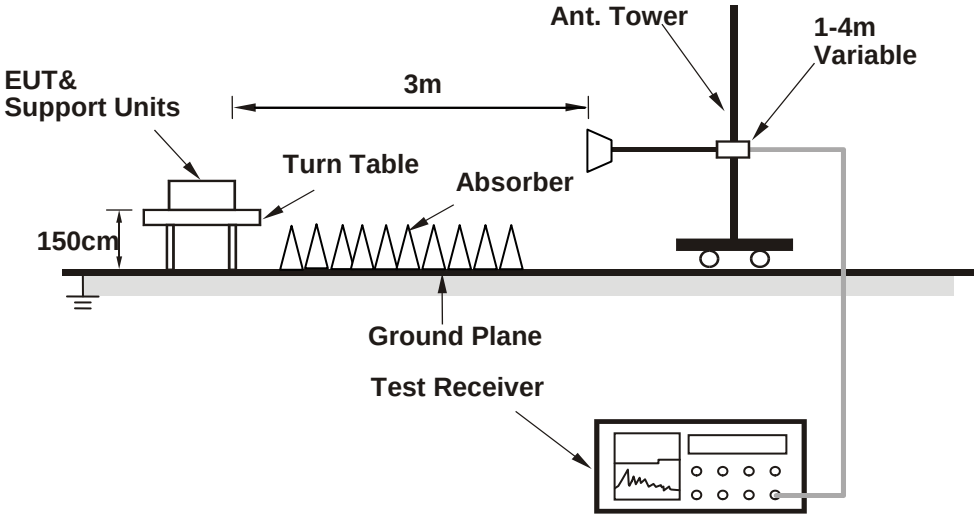
For Radiated emission below 30MHz



For Radiated emission 30MHz to 1GHz



For Radiated emission above 1GHz



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

4.1.6 EUT Operating Condition

a. Connected the EUT with the Laptop which is placed on remote site.
b. Contorlling software (HyperTerminal paste wl.txt command) has been activated to set the EUT on specific status.

4.1.7 Test Results (Mode 1)

Above 1GHz Data:

802.11a

CHANNEL	TX Channel 52	**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	5103.00	46.3 PK	74.0	-27.7	1.51 H	237	42.4	3.9
2	5103.00	36.5 AV	54.0	-17.5	1.51 H	237	32.6	3.9
3	*5260.00	107.9 PK			1.51 H	237	103.7	4.2
4	*5260.00	98.4 AV			1.51 H	237	94.2	4.2
5	5414.50	48.1 PK	74.0	-25.9	1.51 H	237	43.7	4.4
6	5414.50	38.2 AV	54.0	-15.8	1.51 H	237	33.8	4.4
7	#10520.00	54.9 PK	74.0	-19.1	1.34 H	20	41.1	13.8
8	#10520.00	43.0 AV	54.0	-11.0	1.34 H	20	29.2	13.8
9	15780.00	53.9 PK	74.0	-20.1	1.95 H	7	39.8	14.1
10	15780.00	37.7 AV	54.0	-16.3	1.95 H	7	23.6	14.1
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	5103.00	46.4 PK	74.0	-27.6	1.50 V	243	42.5	3.9
2	5103.00	36.4 AV	54.0	-17.6	1.50 V	243	32.5	3.9
3	*5260.00	108.0 PK			1.50 V	243	103.8	4.2
4	*5260.00	98.6 AV			1.50 V	243	94.4	4.2
5	5414.50	47.8 PK	74.0	-26.2	1.50 V	238	43.4	4.4
6	5414.50	38.3 AV	54.0	-15.7	1.50 V	238	33.9	4.4
7	#10520.00	49.0 PK	74.0	-25.0	1.74 V	48	35.2	13.8
8	#10520.00	37.4 AV	54.0	-16.6	1.74 V	48	23.6	13.8
9	15780.00	46.9 PK	74.0	-27.1	1.57 V	36	32.8	14.1
10	15780.00	34.7 AV	54.0	-19.3	1.57 V	36	20.6	14.1

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 60	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	*5300.00	108.9 PK			1.45 H	252	104.6	4.3
2	*5300.00	98.6 AV			1.45 H	252	94.3	4.3
3	5454.30	53.0 PK	74.0	-21.0	1.45 H	252	48.5	4.5
4	5454.30	38.4 AV	54.0	-15.6	1.45 H	252	33.9	4.5
5	10600.00	55.1 PK	74.0	-18.9	1.32 H	27	41.3	13.8
6	10600.00	43.5 AV	54.0	-10.5	1.32 H	27	29.7	13.8
7	15900.00	54.5 PK	74.0	-19.5	1.95 H	9	41.3	13.2
8	15900.00	38.1 AV	54.0	-15.9	1.95 H	9	24.9	13.2
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	*5300.00	109.6 PK			1.50 V	244	105.3	4.3
2	*5300.00	99.9 AV			1.50 V	244	95.6	4.3
3	5454.30	53.1 PK	74.0	-20.9	1.50 V	237	48.6	4.5
4	5454.30	38.8 AV	54.0	-15.2	1.50 V	237	34.3	4.5
5	10600.00	49.0 PK	74.0	-25.0	1.79 V	57	35.2	13.8
6	10600.00	37.3 AV	54.0	-16.7	1.79 V	57	23.5	13.8
7	15900.00	46.9 PK	74.0	-27.1	1.62 V	27	33.7	13.2
8	15900.00	34.6 AV	54.0	-19.4	1.62 V	27	21.4	13.2

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) – 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.

CHANNEL	TX Channel 64	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	*5320.00	110.1 PK			1.77 H	290	105.8	4.3
2	*5320.00	100.1 AV			1.77 H	290	95.8	4.3
3	5350.00	63.7 PK	74.0	-10.3	1.77 H	290	59.3	4.4
4	5350.00	47.1 AV	54.0	-6.9	1.77 H	290	42.7	4.4
5	10640.00	54.5 PK	74.0	-19.5	1.38 H	21	40.5	14.0
6	10640.00	43.2 AV	54.0	-10.8	1.38 H	21	29.2	14.0
7	15960.00	54.7 PK	74.0	-19.3	1.96 H	14	41.2	13.5
8	15960.00	38.4 AV	54.0	-15.6	1.96 H	14	24.9	13.5
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	*5320.00	107.5 PK			1.50 V	242	103.2	4.3
2	*5320.00	98.8 AV			1.50 V	242	94.5	4.3
3	5350.00	63.6 PK	74.0	-10.4	1.50 V	242	59.2	4.4
4	5350.00	45.5 AV	54.0	-8.5	1.50 V	242	41.1	4.4
5	10640.00	48.7 PK	74.0	-25.3	1.81 V	70	34.7	14.0
6	10640.00	37.0 AV	54.0	-17.0	1.81 V	70	23.0	14.0
7	15960.00	47.0 PK	74.0	-27.0	1.64 V	42	33.5	13.5
8	15960.00	34.7 AV	54.0	-19.3	1.64 V	42	21.2	13.5

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) – 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.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	63.2 PK	74.0	-10.8	1.50 H	319	58.7	4.5
2	#5470.00	46.9 AV	54.0	-7.1	1.50 H	319	42.4	4.5
3	*5500.00	109.6 PK			1.50 H	319	105.1	4.5
4	*5500.00	99.2 AV			1.50 H	319	94.7	4.5
5	#5742.20	53.2 PK	74.0	-20.8	1.50 H	310	48.2	5.0
6	#5742.20	44.1 AV	54.0	-9.9	1.50 H	310	39.1	5.0
7	11000.00	57.3 PK	74.0	-16.7	1.49 H	241	42.5	14.8
8	11000.00	44.6 AV	54.0	-9.4	1.49 H	241	29.8	14.8
9	#16500.00	60.1 PK	74.0	-13.9	1.49 H	295	44.5	15.6
10	#16500.00	47.6 AV	54.0	-6.4	1.49 H	295	32.0	15.6
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	#5470.00	57.4 PK	74.0	-16.6	1.50 V	242	52.9	4.5
2	#5470.00	43.5 AV	54.0	-10.5	1.50 V	242	39.0	4.5
3	*5500.00	107.2 PK			1.50 V	242	102.7	4.5
4	*5500.00	97.1 AV			1.50 V	242	92.6	4.5
5	#5742.20	50.7 PK	74.0	-23.3	1.50 V	242	45.7	5.0
6	#5742.20	41.5 AV	54.0	-12.5	1.50 V	242	36.5	5.0
7	11000.00	59.7 PK	74.0	-14.3	1.18 V	245	44.9	14.8
8	11000.00	46.5 AV	54.0	-7.5	1.18 V	245	31.7	14.8
9	#16500.00	53.6 PK	74.0	-20.4	2.39 V	302	38.0	15.6
10	#16500.00	42.8 AV	54.0	-11.2	2.39 V	302	27.2	15.6

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) – 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 116	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	5417.40	58.9 PK	74.0	-15.1	2.13 H	315	54.4	4.5
2	5417.40	49.4 AV	54.0	-4.6	2.13 H	315	44.9	4.5
3	*5580.00	109.5 PK			1.50 H	360	104.9	4.6
4	*5580.00	99.1 AV			1.50 H	360	94.5	4.6
5	#5744.00	58.7 PK	74.0	-15.3	3.78 H	313	53.7	5.0
6	#5744.00	49.8 AV	54.0	-4.2	3.78 H	313	44.8	5.0
7	11160.00	57.6 PK	74.0	-16.4	1.44 H	233	43.2	14.4
8	11160.00	44.9 AV	54.0	-9.1	1.44 H	233	30.5	14.4
9	#16740.00	59.6 PK	74.0	-14.4	1.52 H	296	43.1	16.5
10	#16740.00	47.1 AV	54.0	-6.9	1.52 H	296	30.6	16.5
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	5417.40	56.8 PK	74.0	-17.2	1.29 V	223	52.3	4.5
2	5417.40	47.0 AV	54.0	-7.0	1.29 V	223	42.5	4.5
3	*5580.00	108.3 PK			1.50 V	238	103.7	4.6
4	*5580.00	97.6 AV			1.50 V	238	93.0	4.6
5	#5744.00	57.8 PK	74.0	-16.2	2.83 V	240	52.8	5.0
6	#5744.00	48.5 AV	54.0	-5.5	2.83 V	240	43.5	5.0
7	11160.00	59.6 PK	74.0	-14.4	1.21 V	233	45.2	14.4
8	11160.00	46.2 AV	54.0	-7.8	1.21 V	233	31.8	14.4
9	#16740.00	53.9 PK	74.0	-20.1	2.34 V	291	37.4	16.5
10	#16740.00	42.9 AV	54.0	-11.1	2.34 V	291	26.4	16.5

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) – 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 140	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	*5700.00	109.1 PK			1.50 H	11	104.3	4.8
2	*5700.00	99.0 AV			1.50 H	11	94.2	4.8
3	#5725.00	65.9 PK	74.0	-8.1	1.50 H	11	61.0	4.9
4	#5725.00	48.4 AV	54.0	-5.6	1.50 H	11	43.5	4.9
5	#5861.50	57.3 PK	74.0	-16.7	1.50 H	320	52.1	5.2
6	#5861.50	48.9 AV	54.0	-5.1	1.50 H	320	43.7	5.2
7	11400.00	57.4 PK	74.0	-16.6	1.45 H	240	43.0	14.4
8	11400.00	44.9 AV	54.0	-9.1	1.45 H	240	30.5	14.4
9	#17100.00	60.1 PK	74.0	-13.9	1.49 H	287	41.6	18.5
10	#17100.00	47.8 AV	54.0	-6.2	1.49 H	287	29.3	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	*5700.00	108.1 PK			1.45 V	253	103.3	4.8
2	*5700.00	97.5 AV			1.45 V	253	92.7	4.8
3	#5725.00	64.6 PK	74.0	-9.4	1.45 V	253	59.7	4.9
4	#5725.00	47.1 AV	54.0	-6.9	1.45 V	253	42.2	4.9
5	#5861.50	56.0 PK	74.0	-18.0	1.45 V	253	50.8	5.2
6	#5861.50	47.6 AV	54.0	-6.4	1.45 V	253	42.4	5.2
7	11400.00	59.7 PK	74.0	-14.3	1.15 V	237	45.3	14.4
8	11400.00	46.4 AV	54.0	-7.6	1.15 V	237	32.0	14.4
9	#17100.00	54.3 PK	74.0	-19.7	2.30 V	304	35.8	18.5
10	#17100.00	43.3 AV	54.0	-10.7	2.30 V	304	24.8	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) – 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 144	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	5442.10	50.2 PK	74.0	-23.8	1.38 H	2	45.7	4.5
2	5442.10	37.6 AV	54.0	-16.4	1.38 H	2	33.1	4.5
3	*5720.00	109.1 PK			1.38 H	2	104.2	4.9
4	*5720.00	99.2 AV			1.38 H	2	94.3	4.9
5	#5885.80	60.1 PK	74.0	-13.9	1.24 H	353	54.9	5.2
6	#5885.80	50.7 AV	54.0	-3.3	1.24 H	353	45.5	5.2
7	11440.00	57.9 PK	74.0	-16.1	1.55 H	249	43.7	14.2
8	11440.00	44.8 AV	54.0	-9.2	1.55 H	249	30.6	14.2
9	#17160.00	59.8 PK	74.0	-14.2	1.46 H	314	41.5	18.3
10	#17160.00	47.5 AV	54.0	-6.5	1.46 H	314	29.2	18.3
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	5442.10	50.1 PK	74.0	-23.9	1.40 V	259	45.6	4.5
2	5442.10	37.5 AV	54.0	-16.5	1.40 V	259	33.0	4.5
3	*5720.00	107.8 PK			1.40 V	259	102.9	4.9
4	*5720.00	98.1 AV			1.40 V	259	93.2	4.9
5	#5885.80	59.6 PK	74.0	-14.4	1.40 V	259	54.4	5.2
6	#5885.80	48.9 AV	54.0	-5.1	1.40 V	259	43.7	5.2
7	11440.00	59.1 PK	74.0	-14.9	1.02 V	251	44.9	14.2
8	11440.00	46.0 AV	54.0	-8.0	1.02 V	251	31.8	14.2
9	#17160.00	54.0 PK	74.0	-20.0	2.30 V	296	35.7	18.3
10	#17160.00	42.9 AV	54.0	-11.1	2.30 V	296	24.6	18.3

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) – 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 52	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	5106.70	51.2 PK	74.0	-22.8	2.34 H	292	47.3	3.9
2	5106.70	41.0 AV	54.0	-13.0	2.34 H	292	37.1	3.9
3	*5260.00	111.0 PK			1.69 H	297	106.8	4.2
4	*5260.00	100.4 AV			1.69 H	297	96.2	4.2
5	5416.60	52.2 PK	74.0	-21.8	1.69 H	300	47.7	4.5
6	5416.60	41.5 AV	54.0	-12.5	1.69 H	300	37.0	4.5
7	#10520.00	53.6 PK	74.0	-20.4	1.51 H	25	39.8	13.8
8	#10520.00	41.8 AV	54.0	-12.2	1.51 H	25	28.0	13.8
9	15780.00	52.6 PK	74.0	-21.4	1.89 H	12	38.5	14.1
10	15780.00	36.1 AV	54.0	-17.9	1.89 H	12	22.0	14.1
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	5106.70	50.6 PK	74.0	-23.4	1.60 V	315	46.7	3.9
2	5106.70	40.3 AV	54.0	-13.7	1.60 V	315	36.4	3.9
3	*5260.00	109.8 PK			1.60 V	315	105.6	4.2
4	*5260.00	99.3 AV			1.60 V	315	95.1	4.2
5	5416.60	51.8 PK	74.0	-22.2	1.60 V	315	47.3	4.5
6	5416.60	40.4 AV	54.0	-13.6	1.60 V	315	35.9	4.5
7	#10520.00	48.8 PK	74.0	-25.2	1.72 V	58	35.0	13.8
8	#10520.00	36.0 AV	54.0	-18.0	1.72 V	58	22.2	13.8
9	15780.00	46.7 PK	74.0	-27.3	1.41 V	64	32.6	14.1
10	15780.00	34.2 AV	54.0	-19.8	1.41 V	64	20.1	14.1

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 60	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	47.6 PK	74.0	-26.4	1.73 H	300	43.6	4.0
2	5150.00	38.8 AV	54.0	-15.2	1.73 H	300	34.8	4.0
3	*5300.00	111.1 PK			1.73 H	300	106.8	4.3
4	*5300.00	100.5 AV			1.73 H	300	96.2	4.3
5	5456.40	55.0 PK	74.0	-19.0	1.73 H	300	50.5	4.5
6	5456.40	40.6 AV	54.0	-13.4	1.73 H	300	36.1	4.5
7	10600.00	53.5 PK	74.0	-20.5	1.47 H	19	39.7	13.8
8	10600.00	41.8 AV	54.0	-12.2	1.47 H	19	28.0	13.8
9	15900.00	52.5 PK	74.0	-21.5	1.89 H	1	39.3	13.2
10	15900.00	36.1 AV	54.0	-17.9	1.89 H	1	22.9	13.2
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	5150.00	46.5 PK	74.0	-27.5	1.66 V	331	42.5	4.0
2	5150.00	38.6 AV	54.0	-15.4	1.66 V	331	34.6	4.0
3	*5300.00	109.8 PK			1.66 V	331	105.5	4.3
4	*5300.00	99.3 AV			1.66 V	331	95.0	4.3
5	5456.40	54.0 PK	74.0	-20.0	1.66 V	331	49.5	4.5
6	5456.40	39.5 AV	54.0	-14.5	1.66 V	331	35.0	4.5
7	10600.00	48.6 PK	74.0	-25.4	1.71 V	72	34.8	13.8
8	10600.00	35.7 AV	54.0	-18.3	1.71 V	72	21.9	13.8
9	15900.00	47.1 PK	74.0	-26.9	1.36 V	55	33.9	13.2
10	15900.00	34.5 AV	54.0	-19.5	1.36 V	55	21.3	13.2

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) – 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.

CHANNEL	TX Channel 64	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	*5320.00	111.1 PK			1.70 H	306	106.8	4.3
2	*5320.00	99.8 AV			1.70 H	306	95.5	4.3
3	5351.40	67.6 PK	74.0	-6.4	1.70 H	306	63.2	4.4
4	5351.40	47.3 AV	54.0	-6.7	1.70 H	306	42.9	4.4
5	10640.00	52.9 PK	74.0	-21.1	1.44 H	9	38.9	14.0
6	10640.00	41.4 AV	54.0	-12.6	1.44 H	9	27.4	14.0
7	15960.00	52.9 PK	74.0	-21.1	1.93 H	7	39.4	13.5
8	15960.00	36.5 AV	54.0	-17.5	1.93 H	7	23.0	13.5
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	*5320.00	109.9 PK			1.68 V	346	105.6	4.3
2	*5320.00	98.6 AV			1.68 V	346	94.3	4.3
3	5351.40	67.4 PK	74.0	-6.6	1.68 V	346	63.0	4.4
4	5351.40	46.5 AV	54.0	-7.5	1.68 V	346	42.1	4.4
5	10640.00	48.5 PK	74.0	-25.5	1.70 V	65	34.5	14.0
6	10640.00	35.7 AV	54.0	-18.3	1.70 V	65	21.7	14.0
7	15960.00	47.2 PK	74.0	-26.8	1.41 V	40	33.7	13.5
8	15960.00	34.8 AV	54.0	-19.2	1.41 V	40	21.3	13.5

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) – 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.

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	67.0 PK	74.0	-7.0	1.57 H	306	62.5	4.5
2	#5470.00	47.0 AV	54.0	-7.0	1.57 H	306	42.5	4.5
3	*5500.00	110.4 PK			1.57 H	306	105.9	4.5
4	*5500.00	99.7 AV			1.57 H	306	95.2	4.5
5	#5735.80	56.5 PK	74.0	-17.5	1.57 H	306	51.5	5.0
6	#5735.80	46.7 AV	54.0	-7.3	1.57 H	306	41.7	5.0
7	11000.00	52.9 PK	74.0	-21.1	1.45 H	3	38.1	14.8
8	11000.00	41.7 AV	54.0	-12.3	1.45 H	3	26.9	14.8
9	#16500.00	53.1 PK	74.0	-20.9	1.88 H	8	37.5	15.6
10	#16500.00	37.0 AV	54.0	-17.0	1.88 H	8	21.4	15.6
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	#5470.00	64.9 PK	74.0	-9.1	1.65 V	349	60.4	4.5
2	#5470.00	45.0 AV	54.0	-9.0	1.65 V	349	40.5	4.5
3	*5500.00	108.0 PK			1.65 V	349	103.5	4.5
4	*5500.00	97.6 AV			1.65 V	349	93.1	4.5
5	#5735.80	54.4 PK	74.0	-19.6	1.65 V	349	49.4	5.0
6	#5735.80	44.6 AV	54.0	-9.4	1.65 V	349	39.6	5.0
7	11000.00	49.1 PK	74.0	-24.9	1.68 V	66	34.3	14.8
8	11000.00	36.2 AV	54.0	-17.8	1.68 V	66	21.4	14.8
9	#16500.00	47.4 PK	74.0	-26.6	1.41 V	51	31.8	15.6
10	#16500.00	35.1 AV	54.0	-18.9	1.41 V	51	19.5	15.6

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) – 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 116	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	5426.30	58.5 PK	74.0	-15.5	1.56 H	308	54.0	4.5
2	5426.30	48.8 AV	54.0	-5.2	1.56 H	308	44.3	4.5
3	*5580.00	111.8 PK			1.56 H	354	107.2	4.6
4	*5580.00	100.3 AV			1.56 H	354	95.7	4.6
5	#5738.30	58.7 PK	74.0	-15.3	1.49 H	360	53.7	5.0
6	#5738.30	48.7 AV	54.0	-5.3	1.49 H	360	43.7	5.0
7	11160.00	52.5 PK	74.0	-21.5	1.44 H	15	38.1	14.4
8	11160.00	41.5 AV	54.0	-12.5	1.44 H	15	27.1	14.4
9	#16740.00	52.3 PK	74.0	-21.7	1.83 H	16	35.8	16.5
10	#16740.00	36.5 AV	54.0	-17.5	1.83 H	16	20.0	16.5
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	5426.30	57.3 PK	74.0	-16.7	1.61 V	359	52.8	4.5
2	5426.30	47.6 AV	54.0	-6.4	1.61 V	359	43.1	4.5
3	*5580.00	109.4 PK			1.61 V	359	104.8	4.6
4	*5580.00	98.2 AV			1.61 V	359	93.6	4.6
5	#5738.30	57.5 PK	74.0	-16.5	1.61 V	359	52.5	5.0
6	#5738.30	47.4 AV	54.0	-6.6	1.61 V	359	42.4	5.0
7	11160.00	49.2 PK	74.0	-24.8	1.67 V	53	34.8	14.4
8	11160.00	36.2 AV	54.0	-17.8	1.67 V	53	21.8	14.4
9	#16740.00	47.3 PK	74.0	-26.7	1.42 V	42	30.8	16.5
10	#16740.00	35.1 AV	54.0	-18.9	1.42 V	42	18.6	16.5

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) – 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 140	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	*5700.00	111.7 PK			1.50 H	352	106.9	4.8
2	*5700.00	99.4 AV			1.50 H	352	94.6	4.8
3	#5726.50	66.9 PK	74.0	-7.1	1.50 H	352	62.0	4.9
4	#5726.50	48.4 AV	54.0	-5.6	1.50 H	352	43.5	4.9
5	#5862.80	59.5 PK	74.0	-14.5	1.12 H	350	54.3	5.2
6	#5862.80	49.8 AV	54.0	-4.2	1.12 H	350	44.6	5.2
7	11400.00	53.3 PK	74.0	-20.7	1.49 H	12	38.9	14.4
8	11400.00	42.1 AV	54.0	-11.9	1.49 H	12	27.7	14.4
9	#17100.00	53.0 PK	74.0	-21.0	1.87 H	10	34.5	18.5
10	#17100.00	37.1 AV	54.0	-16.9	1.87 H	10	18.6	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	*5700.00	109.3 PK			1.65 V	360	104.5	4.8
2	*5700.00	97.3 AV			1.65 V	360	92.5	4.8
3	#5726.50	65.3 PK	74.0	-8.7	1.65 V	360	60.4	4.9
4	#5726.50	47.0 AV	54.0	-7.0	1.65 V	360	42.1	4.9
5	#5862.80	58.2 PK	74.0	-15.8	1.65 V	360	53.0	5.2
6	#5862.80	48.4 AV	54.0	-5.6	1.65 V	360	43.2	5.2
7	11400.00	48.8 PK	74.0	-25.2	1.74 V	58	34.4	14.4
8	11400.00	36.2 AV	54.0	-17.8	1.74 V	58	21.8	14.4
9	#17100.00	47.5 PK	74.0	-26.5	1.43 V	47	29.0	18.5
10	#17100.00	35.2 AV	54.0	-18.8	1.43 V	47	16.7	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) – 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 144	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	#5470.00	48.2 PK	74.0	-25.8	1.50 H	352	43.7	4.5
2	#5470.00	38.2 AV	54.0	-15.8	1.50 H	352	33.7	4.5
3	*5720.00	110.4 PK			1.50 H	352	105.5	4.9
4	*5720.00	99.2 AV			1.50 H	352	94.3	4.9
5	#5850.00	60.8 PK	74.0	-13.2	1.12 H	357	55.7	5.1
6	#5850.00	50.0 AV	54.0	-4.0	1.12 H	357	44.9	5.1
7	11440.00	53.4 PK	74.0	-20.6	1.39 H	11	39.2	14.2
8	11440.00	42.1 AV	54.0	-11.9	1.39 H	11	27.9	14.2
9	#17160.00	52.9 PK	74.0	-21.1	1.90 H	5	34.6	18.3
10	#17160.00	36.7 AV	54.0	-17.3	1.90 H	5	18.4	18.3
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	#5470.00	47.0 PK	74.0	-27.0	1.64 V	360	42.5	4.5
2	#5470.00	37.0 AV	54.0	-17.0	1.64 V	360	32.5	4.5
3	*5720.00	108.3 PK			1.64 V	360	103.4	4.9
4	*5720.00	97.1 AV			1.64 V	360	92.2	4.9
5	#5850.00	59.6 PK	74.0	-14.4	1.64 V	360	54.5	5.1
6	#5850.00	48.8 AV	54.0	-5.2	1.64 V	360	43.7	5.1
7	11440.00	49.4 PK	74.0	-24.6	1.69 V	68	35.2	14.2
8	11440.00	36.7 AV	54.0	-17.3	1.69 V	68	22.5	14.2
9	#17160.00	47.1 PK	74.0	-26.9	1.46 V	64	28.8	18.3
10	#17160.00	35.0 AV	54.0	-19.0	1.46 V	64	16.7	18.3

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) – 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 54	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	5116.70	58.0 PK	74.0	-16.0	1.50 H	308	54.1	3.9
2	5116.70	48.5 AV	54.0	-5.5	1.50 H	308	44.6	3.9
3	*5270.00	109.3 PK			1.50 H	309	105.1	4.2
4	*5270.00	100.5 AV			1.50 H	309	96.3	4.2
5	5436.70	58.8 PK	74.0	-15.2	1.50 H	308	54.3	4.5
6	5436.70	49.6 AV	54.0	-4.4	1.50 H	308	45.1	4.5
7	#10540.00	54.6 PK	74.0	-19.4	1.44 H	41	40.9	13.7
8	#10540.00	42.4 AV	54.0	-11.6	1.44 H	41	28.7	13.7
9	15810.00	53.6 PK	74.0	-20.4	2.08 H	29	39.6	14.0
10	15810.00	37.2 AV	54.0	-16.8	2.08 H	29	23.2	14.0
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	5116.70	54.6 PK	74.0	-19.4	1.42 V	297	50.7	3.9
2	5116.70	45.1 AV	54.0	-8.9	1.42 V	297	41.2	3.9
3	*5270.00	106.0 PK			1.42 V	297	101.8	4.2
4	*5270.00	97.2 AV			1.42 V	297	93.0	4.2
5	5436.70	55.4 PK	74.0	-18.6	1.42 V	297	50.9	4.5
6	5436.70	46.2 AV	54.0	-7.8	1.42 V	297	41.7	4.5
7	#10540.00	50.2 PK	74.0	-23.8	1.80 V	76	36.5	13.7
8	#10540.00	38.4 AV	54.0	-15.6	1.80 V	76	24.7	13.7
9	15810.00	47.1 PK	74.0	-26.9	1.37 V	45	33.1	14.0
10	15810.00	34.9 AV	54.0	-19.1	1.37 V	45	20.9	14.0

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) – 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 62	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	5146.70	56.9 PK	74.0	-17.1	1.50 H	309	52.9	4.0
2	5146.70	47.7 AV	54.0	-6.3	1.50 H	309	43.7	4.0
3	*5310.00	111.6 PK			1.50 H	309	107.3	4.3
4	*5310.00	100.9 AV			1.50 H	309	96.6	4.3
5	5351.00	71.3 PK	74.0	-2.7	1.50 H	309	66.9	4.4
6	5351.00	52.8 AV	54.0	-1.2	1.50 H	309	48.4	4.4
7	10620.00	54.6 PK	74.0	-19.4	1.39 H	49	40.7	13.9
8	10620.00	42.6 AV	54.0	-11.4	1.39 H	49	28.7	13.9
9	15930.00	52.9 PK	74.0	-21.1	2.05 H	38	39.6	13.3
10	15930.00	36.8 AV	54.0	-17.2	2.05 H	38	23.5	13.3
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	5146.70	53.6 PK	74.0	-20.4	1.45 V	299	49.6	4.0
2	5146.70	44.4 AV	54.0	-9.6	1.45 V	299	40.4	4.0
3	*5310.00	108.3 PK			1.45 V	299	104.0	4.3
4	*5310.00	97.6 AV			1.45 V	299	93.3	4.3
5	5351.00	68.0 PK	74.0	-6.0	1.45 V	299	63.6	4.4
6	5351.00	49.5 AV	54.0	-4.5	1.45 V	299	45.1	4.4
7	10620.00	50.5 PK	74.0	-23.5	1.78 V	85	36.6	13.9
8	10620.00	38.6 AV	54.0	-15.4	1.78 V	85	24.7	13.9
9	15930.00	46.7 PK	74.0	-27.3	1.39 V	54	33.4	13.3
10	15930.00	34.4 AV	54.0	-19.6	1.39 V	54	21.1	13.3

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) – 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.

CHANNEL	TX Channel 102	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	#5470.00	67.4 PK	74.0	-6.6	1.50 H	321	62.9	4.5
2	#5470.00	52.6 AV	54.0	-1.4	1.50 H	321	48.1	4.5
3	*5510.00	110.2 PK			1.50 H	321	105.6	4.6
4	*5510.00	100.5 AV			1.50 H	321	95.9	4.6
5	11020.00	55.0 PK	74.0	-19.0	1.35 H	53	40.3	14.7
6	11020.00	42.8 AV	54.0	-11.2	1.35 H	53	28.1	14.7
7	#16530.00	52.5 PK	74.0	-21.5	2.01 H	51	36.7	15.8
8	#16530.00	36.5 AV	54.0	-17.5	2.01 H	51	20.7	15.8
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	#5470.00	64.1 PK	74.0	-9.9	1.45 V	300	59.6	4.5
2	#5470.00	49.3 AV	54.0	-4.7	1.45 V	300	44.8	4.5
3	*5510.00	106.9 PK			1.45 V	300	102.3	4.6
4	*5510.00	97.2 AV			1.45 V	300	92.6	4.6
5	11020.00	50.8 PK	74.0	-23.2	1.80 V	86	36.1	14.7
6	11020.00	39.0 AV	54.0	-15.0	1.80 V	86	24.3	14.7
7	#16530.00	46.7 PK	74.0	-27.3	1.43 V	40	30.9	15.8
8	#16530.00	34.4 AV	54.0	-19.6	1.43 V	40	18.6	15.8

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) – 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 110	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	5396.70	58.6 PK	74.0	-15.4	1.56 H	307	54.2	4.4
2	5396.70	49.9 AV	54.0	-4.1	1.56 H	307	45.5	4.4
3	*5550.00	110.1 PK			1.50 H	360	105.6	4.5
4	*5550.00	99.8 AV			1.50 H	360	95.3	4.5
5	#5726.20	56.0 PK	74.0	-18.0	1.56 H	307	51.1	4.9
6	#5726.20	48.2 AV	54.0	-5.8	1.56 H	307	43.3	4.9
7	11100.00	54.4 PK	74.0	-19.6	1.35 H	49	40.0	14.4
8	11100.00	42.5 AV	54.0	-11.5	1.35 H	49	28.1	14.4
9	#16650.00	51.8 PK	74.0	-22.2	2.07 H	48	35.4	16.4
10	#16650.00	36.1 AV	54.0	-17.9	2.07 H	48	19.7	16.4
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	5396.70	55.3 PK	74.0	-18.7	1.48 V	294	50.9	4.4
2	5396.70	46.6 AV	54.0	-7.4	1.48 V	294	42.2	4.4
3	*5550.00	106.8 PK			1.48 V	294	102.3	4.5
4	*5550.00	96.5 AV			1.48 V	294	92.0	4.5
5	#5726.20	52.7 PK	74.0	-21.3	1.48 V	294	47.8	4.9
6	#5726.20	44.9 AV	54.0	-9.1	1.48 V	294	40.0	4.9
7	11100.00	51.1 PK	74.0	-22.9	1.86 V	81	36.7	14.4
8	11100.00	39.4 AV	54.0	-14.6	1.86 V	81	25.0	14.4
9	#16650.00	46.5 PK	74.0	-27.5	1.44 V	48	30.1	16.4
10	#16650.00	34.2 AV	54.0	-19.8	1.44 V	48	17.8	16.4

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 134	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	*5670.00	110.9 PK			1.50 H	353	106.1	4.8
2	*5670.00	100.8 AV			1.50 H	353	96.0	4.8
3	#5725.00	65.7 PK	74.0	-8.3	1.50 H	353	60.8	4.9
4	#5725.00	51.2 AV	54.0	-2.8	1.50 H	353	46.3	4.9
5	11340.00	54.5 PK	74.0	-19.5	1.30 H	35	40.1	14.4
6	11340.00	42.5 AV	54.0	-11.5	1.30 H	35	28.1	14.4
7	#17010.00	52.1 PK	74.0	-21.9	2.04 H	56	33.9	18.2
8	#17010.00	36.2 AV	54.0	-17.8	2.04 H	56	18.0	18.2
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	*5670.00	107.6 PK			1.48 V	300	102.8	4.8
2	*5670.00	97.5 AV			1.48 V	300	92.7	4.8
3	#5725.00	62.4 PK	74.0	-11.6	1.48 V	300	57.5	4.9
4	#5725.00	47.9 AV	54.0	-6.1	1.48 V	300	43.0	4.9
5	11340.00	50.8 PK	74.0	-23.2	1.86 V	93	36.4	14.4
6	11340.00	39.1 AV	54.0	-14.9	1.86 V	93	24.7	14.4
7	#17010.00	47.0 PK	74.0	-27.0	1.49 V	54	28.8	18.2
8	#17010.00	34.5 AV	54.0	-19.5	1.49 V	54	16.3	18.2

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) – 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 142	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	5459.10	53.4 PK	74.0	-20.6	1.16 H	358	48.9	4.5
2	5459.10	43.6 AV	54.0	-10.4	1.16 H	358	39.1	4.5
3	*5710.00	110.8 PK			1.16 H	358	105.9	4.9
4	*5710.00	101.7 AV			1.16 H	358	96.8	4.9
5	#5850.00	60.6 PK	74.0	-13.4	1.16 H	358	55.5	5.1
6	#5850.00	50.9 AV	54.0	-3.1	1.16 H	358	45.8	5.1
7	11420.00	54.0 PK	74.0	-20.0	1.29 H	19	39.7	14.3
8	11420.00	42.1 AV	54.0	-11.9	1.29 H	19	27.8	14.3
9	#17130.00	51.8 PK	74.0	-22.2	2.05 H	62	33.3	18.5
10	#17130.00	36.2 AV	54.0	-17.8	2.05 H	62	17.7	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	5459.10	50.1 PK	74.0	-23.9	1.49 V	289	45.6	4.5
2	5459.10	40.3 AV	54.0	-13.7	1.49 V	289	35.8	4.5
3	*5710.00	107.5 PK			1.49 V	289	102.6	4.9
4	*5710.00	98.4 AV			1.49 V	289	93.5	4.9
5	#5850.00	57.3 PK	74.0	-16.7	1.49 V	289	52.2	5.1
6	#5850.00	47.6 AV	54.0	-6.4	1.49 V	289	42.5	5.1
7	11420.00	50.8 PK	74.0	-23.2	1.89 V	79	36.5	14.3
8	11420.00	39.0 AV	54.0	-15.0	1.89 V	79	24.7	14.3
9	#17130.00	47.0 PK	74.0	-27.0	1.51 V	62	28.5	18.5
10	#17130.00	34.6 AV	54.0	-19.4	1.51 V	62	16.1	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) – 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 58	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	5121.40	55.8 PK	74.0	-18.2	1.50 H	309	51.9	3.9
2	5121.40	46.2 AV	54.0	-7.8	1.50 H	309	42.3	3.9
3	*5290.00	106.2 PK			1.50 H	309	101.9	4.3
4	*5290.00	97.4 AV			1.50 H	309	93.1	4.3
5	5351.00	71.2 PK	74.0	-2.8	1.50 H	309	66.8	4.4
6	**5351.00**	**53.9 AV**	**54.0**	**-0.1**	**1.50 H**	**309**	**49.5**	**4.4**
7	#10580.00	56.0 PK	74.0	-18.0	1.45 H	24	42.1	13.9
8	#10580.00	43.3 AV	54.0	-10.7	1.45 H	24	29.4	13.9
9	15870.00	53.5 PK	74.0	-20.5	2.09 H	38	40.1	13.4
10	15870.00	36.9 AV	54.0	-17.1	2.09 H	38	23.5	13.4
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	5121.40	52.7 PK	74.0	-21.3	1.46 V	303	48.8	3.9
2	5121.40	43.1 AV	54.0	-10.9	1.46 V	303	39.2	3.9
3	*5290.00	103.1 PK			1.46 V	303	98.8	4.3
4	*5290.00	94.3 AV			1.46 V	303	90.0	4.3
5	5351.00	68.1 PK	74.0	-5.9	1.46 V	303	63.7	4.4
6	5351.00	50.8 AV	54.0	-3.2	1.46 V	303	46.4	4.4
7	#10580.00	50.4 PK	74.0	-23.6	1.78 V	58	36.5	13.9
8	#10580.00	37.9 AV	54.0	-16.1	1.78 V	58	24.0	13.9
9	15870.00	46.5 PK	74.0	-27.5	1.38 V	55	33.1	13.4
10	15870.00	34.8 AV	54.0	-19.2	1.38 V	55	21.4	13.4

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 106	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	#5469.40	70.1 PK	74.0	-3.9	2.49 H	354	65.6	4.5
2	#5469.40	53.6 AV	54.0	-0.4	2.49 H	354	49.1	4.5
3	*5530.00	106.5 PK			2.49 H	354	102.0	4.5
4	*5530.00	98.0 AV			2.49 H	354	93.5	4.5
5	#5725.00	56.0 PK	74.0	-18.0	2.49 H	354	51.1	4.9
6	#5725.00	47.4 AV	54.0	-6.6	2.49 H	354	42.5	4.9
7	11060.00	55.9 PK	74.0	-18.1	1.42 H	17	41.4	14.5
8	11060.00	43.1 AV	54.0	-10.9	1.42 H	17	28.6	14.5
9	#16590.00	53.4 PK	74.0	-20.6	2.09 H	32	36.8	16.6
10	#16590.00	36.7 AV	54.0	-17.3	2.09 H	32	20.1	16.6
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	#5469.40	67.0 PK	74.0	-7.0	1.44 V	300	62.5	4.5
2	#5469.40	50.5 AV	54.0	-3.5	1.44 V	300	46.0	4.5
3	*5530.00	103.4 PK			1.44 V	300	98.9	4.5
4	*5530.00	94.9 AV			1.44 V	300	90.4	4.5
5	#5725.00	52.9 PK	74.0	-21.1	1.44 V	300	48.0	4.9
6	#5725.00	44.3 AV	54.0	-9.7	1.44 V	300	39.4	4.9
7	11060.00	50.7 PK	74.0	-23.3	1.74 V	45	36.2	14.5
8	11060.00	38.4 AV	54.0	-15.6	1.74 V	45	23.9	14.5
9	#16590.00	46.7 PK	74.0	-27.3	1.36 V	49	30.1	16.6
10	#16590.00	35.2 AV	54.0	-18.8	1.36 V	49	18.6	16.6

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) – 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 122	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	58.6 PK	74.0	-15.4	2.32 H	350	54.1	4.5
2	#5470.00	48.6 AV	54.0	-5.4	2.32 H	350	44.1	4.5
3	*5610.00	107.5 PK			2.32 H	350	102.8	4.7
4	*5610.00	98.7 AV			2.32 H	350	94.0	4.7
5	#5734.30	64.1 PK	74.0	-9.9	2.32 H	350	59.1	5.0
6	#5734.30	51.0 AV	54.0	-3.0	2.32 H	350	46.0	5.0
7	11220.00	56.0 PK	74.0	-18.0	1.37 H	24	41.6	14.4
8	11220.00	43.1 AV	54.0	-10.9	1.37 H	24	28.7	14.4
9	#16830.00	53.5 PK	74.0	-20.5	2.13 H	22	36.5	17.0
10	#16830.00	36.6 AV	54.0	-17.4	2.13 H	22	19.6	17.0
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	#5470.00	55.5 PK	74.0	-18.5	1.45 V	308	51.0	4.5
2	#5470.00	45.5 AV	54.0	-8.5	1.45 V	308	41.0	4.5
3	*5610.00	104.4 PK			1.45 V	308	99.7	4.7
4	*5610.00	95.6 AV			1.45 V	308	90.9	4.7
5	#5734.30	61.0 PK	74.0	-13.0	1.45 V	308	56.0	5.0
6	#5734.30	47.9 AV	54.0	-6.1	1.45 V	308	42.9	5.0
7	11220.00	51.2 PK	74.0	-22.8	1.78 V	56	36.8	14.4
8	11220.00	38.8 AV	54.0	-15.2	1.78 V	56	24.4	14.4
9	#16830.00	47.2 PK	74.0	-26.8	1.36 V	40	30.2	17.0
10	#16830.00	35.5 AV	54.0	-18.5	1.36 V	40	18.5	17.0

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) – 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 138	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	#5470.00	52.4 PK	74.0	-21.6	1.50 H	1	47.9	4.5
2	#5470.00	43.2 AV	54.0	-10.8	1.50 H	1	38.7	4.5
3	*5690.00	107.0 PK			1.50 H	1	102.2	4.8
4	*5690.00	97.4 AV			1.50 H	1	92.6	4.8
5	#5858.50	62.8 PK	74.0	-11.2	1.50 H	1	57.6	5.2
6	#5858.50	50.2 AV	54.0	-3.8	1.50 H	1	45.0	5.2
7	11380.00	56.1 PK	74.0	-17.9	1.41 H	28	41.7	14.4
8	11380.00	43.0 AV	54.0	-11.0	1.41 H	28	28.6	14.4
9	#17070.00	53.5 PK	74.0	-20.5	2.13 H	18	35.2	18.3
10	#17070.00	36.9 AV	54.0	-17.1	2.13 H	18	18.6	18.3
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	#5470.00	49.3 PK	74.0	-24.7	1.43 V	305	44.8	4.5
2	#5470.00	40.1 AV	54.0	-13.9	1.43 V	305	35.6	4.5
3	*5690.00	103.9 PK			1.43 V	305	99.1	4.8
4	*5690.00	94.3 AV			1.43 V	305	89.5	4.8
5	#5858.50	59.7 PK	74.0	-14.3	1.43 V	305	54.5	5.2
6	#5858.50	47.1 AV	54.0	-6.9	1.43 V	305	41.9	5.2
7	11380.00	51.8 PK	74.0	-22.2	1.81 V	56	37.4	14.4
8	11380.00	39.2 AV	54.0	-14.8	1.81 V	56	24.8	14.4
9	#17070.00	47.4 PK	74.0	-26.6	1.35 V	48	29.1	18.3
10	#17070.00	35.8 AV	54.0	-18.2	1.35 V	48	17.5	18.3

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) – 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 (VHT80)

CHANNEL	TX Channel 122	**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	109.52	33.8 QP	43.5	-9.7	2.50 H	284	44.9	-11.1
2	216.02	35.7 QP	46.0	-10.3	1.00 H	291	47.2	-11.5
3	507.48	30.7 QP	46.0	-15.3	1.50 H	99	33.3	-2.6
4	729.61	41.1 QP	46.0	-4.9	1.50 H	355	39.7	1.4
5	745.98	35.7 QP	46.0	-10.3	1.50 H	355	33.6	2.1
6	912.58	31.7 QP	46.0	-14.3	1.50 H	316	27.5	4.2
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	109.37	39.1 QP	43.5	-4.4	1.00 V	360	50.2	-11.1
2	139.97	29.5 QP	43.5	-14.0	1.00 V	53	37.9	-8.4
3	216.02	29.4 QP	46.0	-16.6	1.00 V	164	40.9	-11.5
4	465.31	31.6 QP	46.0	-14.4	1.00 V	95	35.0	-3.4
5	644.35	33.6 QP	46.0	-12.4	1.00 V	16	33.5	0.1
6	931.83	33.4 QP	46.0	-12.6	1.00 V	115	28.9	4.5

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) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit.
4. Margin value = Emission Level – Limit value

4.1.8 Test Results (Mode 2)

Above 1GHz Data:

802.11a

CHANNEL	TX Channel 52	**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	5101.00	51.2 PK	74.0	-22.8	1.50 H	273	47.3	3.9
2	5101.00	41.6 AV	54.0	-12.4	1.50 H	273	37.7	3.9
3	*5260.00	109.2 PK			1.50 H	273	105.0	4.2
4	*5260.00	99.9 AV			1.50 H	273	95.7	4.2
5	#10520.00	53.4 PK	74.0	-20.6	2.18 H	312	39.6	13.8
6	#10520.00	42.1 AV	54.0	-11.9	2.18 H	312	28.3	13.8
7	15780.00	51.7 PK	74.0	-22.3	1.64 H	36	37.6	14.1
8	15780.00	39.7 AV	54.0	-14.3	1.64 H	36	25.6	14.1
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	5101.00	50.0 PK	74.0	-24.0	1.35 V	360	46.1	3.9
2	5101.00	39.3 AV	54.0	-14.7	1.35 V	360	35.4	3.9
3	*5260.00	107.2 PK			1.35 V	360	103.0	4.2
4	*5260.00	97.9 AV			1.35 V	360	93.7	4.2
5	#10520.00	50.6 PK	74.0	-23.4	1.55 V	296	36.8	13.8
6	#10520.00	38.2 AV	54.0	-15.8	1.55 V	296	24.4	13.8
7	15780.00	45.3 PK	74.0	-28.7	1.29 V	222	31.2	14.1
8	15780.00	33.0 AV	54.0	-21.0	1.29 V	222	18.9	14.1

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 60	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	5141.40	48.4 PK	74.0	-25.6	1.50 H	273	44.4	4.0
2	5141.40	40.9 AV	54.0	-13.1	1.50 H	273	36.9	4.0
3	*5300.00	109.9 PK			1.50 H	273	105.6	4.3
4	*5300.00	100.1 AV			1.50 H	273	95.8	4.3
5	5350.00	50.8 PK	74.0	-23.2	1.50 H	273	46.4	4.4
6	5350.00	39.4 AV	54.0	-14.6	1.50 H	273	35.0	4.4
7	10600.00	53.7 PK	74.0	-20.3	2.13 H	316	39.9	13.8
8	10600.00	42.4 AV	54.0	-11.6	2.13 H	316	28.6	13.8
9	15900.00	52.1 PK	74.0	-21.9	1.61 H	29	38.9	13.2
10	15900.00	39.8 AV	54.0	-14.2	1.61 H	29	26.6	13.2
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	5141.40	45.6 PK	74.0	-28.4	1.37 V	357	41.6	4.0
2	5141.40	38.8 AV	54.0	-15.2	1.37 V	357	34.8	4.0
3	*5300.00	107.9 PK			1.37 V	357	103.6	4.3
4	*5300.00	97.8 AV			1.37 V	357	93.5	4.3
5	5350.00	49.4 PK	74.0	-24.6	1.37 V	357	45.0	4.4
6	5350.00	38.2 AV	54.0	-15.8	1.37 V	357	33.8	4.4
7	10600.00	50.5 PK	74.0	-23.5	1.56 V	306	36.7	13.8
8	10600.00	38.2 AV	54.0	-15.8	1.56 V	306	24.4	13.8
9	15900.00	45.0 PK	74.0	-29.0	1.26 V	209	31.8	13.2
10	15900.00	32.7 AV	54.0	-21.3	1.26 V	209	19.5	13.2

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) – 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.

CHANNEL	TX Channel 64	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	*5320.00	110.8 PK			1.69 H	255	106.5	4.3
2	*5320.00	100.6 AV			1.69 H	255	96.3	4.3
3	5351.00	65.8 PK	74.0	-8.2	1.69 H	255	61.4	4.4
4	5351.00	46.4 AV	54.0	-7.6	1.69 H	255	42.0	4.4
5	10640.00	53.1 PK	74.0	-20.9	2.13 H	319	39.1	14.0
6	10640.00	41.9 AV	54.0	-12.1	2.13 H	319	27.9	14.0
7	15960.00	51.6 PK	74.0	-22.4	1.62 H	21	38.1	13.5
8	15960.00	39.4 AV	54.0	-14.6	1.62 H	21	25.9	13.5
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	*5320.00	108.5 PK			1.37 V	355	104.2	4.3
2	*5320.00	98.3 AV			1.37 V	355	94.0	4.3
3	5351.00	63.7 PK	74.0	-10.3	1.37 V	355	59.3	4.4
4	5351.00	44.1 AV	54.0	-9.9	1.37 V	355	39.7	4.4
5	10640.00	50.6 PK	74.0	-23.4	1.58 V	293	36.6	14.0
6	10640.00	38.0 AV	54.0	-16.0	1.58 V	293	24.0	14.0
7	15960.00	45.4 PK	74.0	-28.6	1.24 V	220	31.9	13.5
8	15960.00	33.2 AV	54.0	-20.8	1.24 V	220	19.7	13.5

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) – 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.

CHANNEL	TX Channel 100	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	#5346.90	58.4 PK	74.0	-15.6	1.83 H	292	54.0	4.4
2	#5346.90	49.5 AV	54.0	-4.5	1.83 H	292	45.1	4.4
3	#5470.00	62.9 PK	74.0	-11.1	1.63 H	275	58.4	4.5
4	#5470.00	46.1 AV	54.0	-7.9	1.63 H	275	41.6	4.5
5	*5500.00	108.8 PK			1.63 H	275	104.3	4.5
6	*5500.00	99.2 AV			1.63 H	275	94.7	4.5
7	11000.00	57.0 PK	74.0	-17.0	2.09 H	348	42.2	14.8
8	11000.00	45.9 AV	54.0	-8.1	2.09 H	348	31.1	14.8
9	#16500.00	62.5 PK	74.0	-11.5	1.13 H	37	46.9	15.6
10	#16500.00	49.7 AV	54.0	-4.3	1.13 H	37	34.1	15.6
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	#5346.90	56.3 PK	74.0	-17.7	1.33 V	342	51.9	4.4
2	#5346.90	47.2 AV	54.0	-6.8	1.33 V	342	42.8	4.4
3	#5470.00	61.0 PK	74.0	-13.0	1.33 V	342	56.5	4.5
4	#5470.00	43.8 AV	54.0	-10.2	1.33 V	342	39.3	4.5
5	*5500.00	106.8 PK			1.33 V	342	102.3	4.5
6	*5500.00	97.4 AV			1.33 V	342	92.9	4.5
7	11000.00	62.4 PK	74.0	-11.6	1.03 V	269	47.6	14.8
8	11000.00	50.5 AV	54.0	-3.5	1.03 V	269	35.7	14.8
9	#16500.00	53.0 PK	74.0	-21.0	1.45 V	252	37.4	15.6
10	#16500.00	41.6 AV	54.0	-12.4	1.45 V	252	26.0	15.6

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) – 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 116	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	5423.20	56.2 PK	74.0	-17.8	1.50 H	26	51.7	4.5
2	5423.20	47.5 AV	54.0	-6.5	1.50 H	26	43.0	4.5
3	*5580.00	110.3 PK			1.50 H	360	105.7	4.6
4	*5580.00	100.0 AV			1.50 H	360	95.4	4.6
5	#5744.50	58.5 PK	74.0	-15.5	1.50 H	360	53.5	5.0
6	#5744.50	49.2 AV	54.0	-4.8	1.50 H	360	44.2	5.0
7	11160.00	57.4 PK	74.0	-16.6	2.09 H	336	43.0	14.4
8	11160.00	46.0 AV	54.0	-8.0	2.09 H	336	31.6	14.4
9	#16740.00	62.8 PK	74.0	-11.2	1.18 H	36	46.3	16.5
10	#16740.00	49.8 AV	54.0	-4.2	1.18 H	36	33.3	16.5
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	5423.20	54.3 PK	74.0	-19.7	1.36 V	340	49.8	4.5
2	5423.20	45.2 AV	54.0	-8.8	1.36 V	340	40.7	4.5
3	*5580.00	108.3 PK			1.36 V	340	103.7	4.6
4	*5580.00	98.2 AV			1.36 V	340	93.6	4.6
5	#5744.50	56.4 PK	74.0	-17.6	1.36 V	340	51.4	5.0
6	#5744.50	47.0 AV	54.0	-7.0	1.36 V	340	42.0	5.0
7	11160.00	61.8 PK	74.0	-12.2	1.00 V	282	47.4	14.4
8	11160.00	50.1 AV	54.0	-3.9	1.00 V	282	35.7	14.4
9	#16740.00	52.8 PK	74.0	-21.2	1.42 V	254	36.3	16.5
10	#16740.00	41.4 AV	54.0	-12.6	1.42 V	254	24.9	16.5

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) – 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 140	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	*5700.00	110.7 PK			1.50 H	23	105.9	4.8
2	*5700.00	100.0 AV			1.50 H	23	95.2	4.8
3	#5725.00	67.7 PK	74.0	-6.3	1.50 H	23	62.8	4.9
4	#5725.00	48.9 AV	54.0	-5.1	1.50 H	23	44.0	4.9
5	#5856.20	59.3 PK	74.0	-14.7	2.04 H	54	54.1	5.2
6	#5856.20	49.6 AV	54.0	-4.4	2.04 H	54	44.4	5.2
7	11400.00	57.4 PK	74.0	-16.6	2.06 H	338	43.0	14.4
8	11400.00	46.0 AV	54.0	-8.0	2.06 H	338	31.6	14.4
9	#17100.00	62.9 PK	74.0	-11.1	1.15 H	28	44.4	18.5
10	#17100.00	49.9 AV	54.0	-4.1	1.15 H	28	31.4	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	*5700.00	108.8 PK			1.41 V	343	104.0	4.8
2	*5700.00	97.9 AV			1.41 V	343	93.1	4.8
3	#5725.00	65.6 PK	74.0	-8.4	1.41 V	343	60.7	4.9
4	#5725.00	46.6 AV	54.0	-7.4	1.41 V	343	41.7	4.9
5	#5856.20	57.2 PK	74.0	-16.8	1.41 V	343	52.0	5.2
6	#5856.20	47.3 AV	54.0	-6.7	1.41 V	343	42.1	5.2
7	11400.00	61.3 PK	74.0	-12.7	1.03 V	296	46.9	14.4
8	11400.00	49.9 AV	54.0	-4.1	1.03 V	296	35.5	14.4
9	#17100.00	53.2 PK	74.0	-20.8	1.44 V	248	34.7	18.5
10	#17100.00	41.9 AV	54.0	-12.1	1.44 V	248	23.4	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) – 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 144	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	47.0 PK	74.0	-27.0	1.44 H	23	42.5	4.5
2	#5470.00	38.6 AV	54.0	-15.4	1.44 H	23	34.1	4.5
3	*5720.00	110.0 PK			1.44 H	23	105.1	4.9
4	*5720.00	100.3 AV			1.44 H	23	95.4	4.9
5	#5875.60	59.6 PK	74.0	-14.4	2.10 H	51	54.4	5.2
6	#5875.60	50.0 AV	54.0	-4.0	2.10 H	51	44.8	5.2
7	11440.00	57.0 PK	74.0	-17.0	2.12 H	353	42.8	14.2
8	11440.00	45.6 AV	54.0	-8.4	2.12 H	353	31.4	14.2
9	#17160.00	62.4 PK	74.0	-11.6	1.09 H	29	44.1	18.3
10	#17160.00	49.5 AV	54.0	-4.5	1.09 H	29	31.2	18.3
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	#5470.00	44.9 PK	74.0	-29.1	1.37 V	341	40.4	4.5
2	#5470.00	37.2 AV	54.0	-16.8	1.37 V	341	32.7	4.5
3	*5720.00	108.4 PK			1.37 V	341	103.5	4.9
4	*5720.00	98.5 AV			1.37 V	341	93.6	4.9
5	#5875.60	57.3 PK	74.0	-16.7	1.37 V	341	52.1	5.2
6	#5875.60	47.7 AV	54.0	-6.3	1.37 V	341	42.5	5.2
7	11440.00	61.2 PK	74.0	-12.8	1.07 V	306	47.0	14.2
8	11440.00	49.6 AV	54.0	-4.4	1.07 V	306	35.4	14.2
9	#17160.00	53.1 PK	74.0	-20.9	1.39 V	248	34.8	18.3
10	#17160.00	41.8 AV	54.0	-12.2	1.39 V	248	23.5	18.3

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) – 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 52	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	5106.70	48.2 PK	74.0	-25.8	3.05 H	55	44.3	3.9
2	5106.70	39.0 AV	54.0	-15.0	3.05 H	55	35.1	3.9
3	*5260.00	109.2 PK			3.05 H	54	105.0	4.2
4	*5260.00	98.8 AV			3.05 H	54	94.6	4.2
5	5416.60	48.6 PK	74.0	-25.4	3.05 H	55	44.1	4.5
6	5416.60	39.6 AV	54.0	-14.4	3.05 H	55	35.1	4.5
7	#10520.00	53.3 PK	74.0	-20.7	2.21 H	312	39.5	13.8
8	#10520.00	42.3 AV	54.0	-11.7	2.21 H	312	28.5	13.8
9	15780.00	51.0 PK	74.0	-23.0	1.72 H	67	36.9	14.1
10	15780.00	38.7 AV	54.0	-15.3	1.72 H	67	24.6	14.1
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	5106.70	47.0 PK	74.0	-27.0	1.40 V	354	43.1	3.9
2	5106.70	37.4 AV	54.0	-16.6	1.40 V	354	33.5	3.9
3	*5260.00	107.1 PK			1.40 V	354	102.9	4.2
4	*5260.00	96.7 AV			1.40 V	354	92.5	4.2
5	5416.60	47.3 PK	74.0	-26.7	1.40 V	354	42.8	4.5
6	5416.60	38.3 AV	54.0	-15.7	1.40 V	354	33.8	4.5
7	#10520.00	49.8 PK	74.0	-24.2	1.54 V	262	36.0	13.8
8	#10520.00	37.8 AV	54.0	-16.2	1.54 V	262	24.0	13.8
9	15780.00	44.0 PK	74.0	-30.0	1.29 V	224	29.9	14.1
10	15780.00	32.2 AV	54.0	-21.8	1.29 V	224	18.1	14.1

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 60	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	5137.20	48.7 PK	74.0	-25.3	1.62 H	57	44.7	4.0
2	5137.20	37.9 AV	54.0	-16.1	1.62 H	57	33.9	4.0
3	*5300.00	109.3 PK			1.62 H	57	105.0	4.3
4	*5300.00	98.2 AV			1.62 H	57	93.9	4.3
5	5351.00	54.4 PK	74.0	-19.6	1.62 H	57	50.0	4.4
6	5351.00	39.7 AV	54.0	-14.3	1.62 H	57	35.3	4.4
7	10600.00	53.1 PK	74.0	-20.9	2.27 H	308	39.3	13.8
8	10600.00	42.4 AV	54.0	-11.6	2.27 H	308	28.6	13.8
9	15900.00	51.2 PK	74.0	-22.8	1.68 H	77	38.0	13.2
10	15900.00	38.9 AV	54.0	-15.1	1.68 H	77	25.7	13.2
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	5137.20	46.6 PK	74.0	-27.4	1.37 V	343	42.6	4.0
2	5137.20	37.4 AV	54.0	-16.6	1.37 V	343	33.4	4.0
3	*5300.00	107.2 PK			1.37 V	343	102.9	4.3
4	*5300.00	96.0 AV			1.37 V	343	91.7	4.3
5	5351.00	52.3 PK	74.0	-21.7	1.37 V	343	47.9	4.4
6	5351.00	37.5 AV	54.0	-16.5	1.37 V	343	33.1	4.4
7	10600.00	49.9 PK	74.0	-24.1	1.56 V	287	36.1	13.8
8	10600.00	38.1 AV	54.0	-15.9	1.56 V	287	24.3	13.8
9	15900.00	43.0 PK	74.0	-31.0	1.31 V	226	29.8	13.2
10	15900.00	31.4 AV	54.0	-22.6	1.31 V	226	18.2	13.2

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) – 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.

CHANNEL	TX Channel 64	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	*5320.00	108.0 PK			1.62 H	295	103.7	4.3
2	*5320.00	97.4 AV			1.62 H	295	93.1	4.3
3	5350.00	60.7 PK	74.0	-13.3	1.62 H	295	56.3	4.4
4	5350.00	44.9 AV	54.0	-9.1	1.62 H	295	40.5	4.4
5	10640.00	52.7 PK	74.0	-21.3	2.19 H	316	38.7	14.0
6	10640.00	41.8 AV	54.0	-12.2	2.19 H	316	27.8	14.0
7	15960.00	51.0 PK	74.0	-23.0	1.72 H	83	37.5	13.5
8	15960.00	38.8 AV	54.0	-15.2	1.72 H	83	25.3	13.5
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	*5320.00	105.9 PK			1.32 V	347	101.6	4.3
2	*5320.00	95.3 AV			1.32 V	347	91.0	4.3
3	5350.00	58.5 PK	74.0	-15.5	1.32 V	347	54.1	4.4
4	5350.00	42.6 AV	54.0	-11.4	1.32 V	347	38.2	4.4
5	10640.00	49.9 PK	74.0	-24.1	1.57 V	269	35.9	14.0
6	10640.00	38.1 AV	54.0	-15.9	1.57 V	269	24.1	14.0
7	15960.00	43.7 PK	74.0	-30.3	1.25 V	204	30.2	13.5
8	15960.00	32.3 AV	54.0	-21.7	1.25 V	204	18.8	13.5

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) – 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.

CHANNEL	TX Channel 100	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	#5347.20	57.1 PK	74.0	-16.9	1.64 H	53	52.7	4.4
2	#5347.20	47.3 AV	54.0	-6.7	1.64 H	53	42.9	4.4
3	*5500.00	108.3 PK			1.50 H	55	103.8	4.5
4	*5500.00	96.9 AV			1.50 H	55	92.4	4.5
5	#5738.00	53.3 PK	74.0	-20.7	1.39 H	12	48.3	5.0
6	#5738.00	43.6 AV	54.0	-10.4	1.39 H	12	38.6	5.0
7	11000.00	53.0 PK	74.0	-21.0	2.30 H	324	38.2	14.8
8	11000.00	41.8 AV	54.0	-12.2	2.30 H	324	27.0	14.8
9	#16500.00	51.3 PK	74.0	-22.7	1.70 H	80	35.7	15.6
10	#16500.00	39.1 AV	54.0	-14.9	1.70 H	80	23.5	15.6
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	#5347.20	54.8 PK	74.0	-19.2	1.26 V	346	50.4	4.4
2	#5347.20	45.0 AV	54.0	-9.0	1.26 V	346	40.6	4.4
3	*5500.00	106.3 PK			1.26 V	346	101.8	4.5
4	*5500.00	94.8 AV			1.26 V	346	90.3	4.5
5	#5738.00	51.0 PK	74.0	-23.0	1.26 V	346	46.0	5.0
6	#5738.00	41.3 AV	54.0	-12.7	1.26 V	346	36.3	5.0
7	11000.00	50.4 PK	74.0	-23.6	1.59 V	267	35.6	14.8
8	11000.00	38.4 AV	54.0	-15.6	1.59 V	267	23.6	14.8
9	#16500.00	43.8 PK	74.0	-30.2	1.27 V	213	28.2	15.6
10	#16500.00	32.0 AV	54.0	-22.0	1.27 V	213	16.4	15.6

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) – 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 116	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	5417.20	57.5 PK	74.0	-16.5	1.50 H	56	53.0	4.5
2	5417.20	48.0 AV	54.0	-6.0	1.50 H	56	43.5	4.5
3	*5580.00	109.0 PK			1.50 H	60	104.4	4.6
4	*5580.00	97.8 AV			1.50 H	60	93.2	4.6
5	#5725.00	57.0 PK	74.0	-17.0	1.50 H	48	52.1	4.9
6	#5725.00	47.3 AV	54.0	-6.7	1.50 H	48	42.4	4.9
7	11160.00	52.9 PK	74.0	-21.1	2.23 H	311	38.5	14.4
8	11160.00	42.1 AV	54.0	-11.9	2.23 H	311	27.7	14.4
9	#16740.00	51.7 PK	74.0	-22.3	1.76 H	70	35.2	16.5
10	#16740.00	39.5 AV	54.0	-14.5	1.76 H	70	23.0	16.5
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	5417.20	55.2 PK	74.0	-18.8	1.27 V	332	50.7	4.5
2	5417.20	45.7 AV	54.0	-8.3	1.27 V	332	41.2	4.5
3	*5580.00	107.1 PK			1.27 V	332	102.5	4.6
4	*5580.00	95.7 AV			1.27 V	332	91.1	4.6
5	#5725.00	54.7 PK	74.0	-19.3	1.27 V	332	49.8	4.9
6	#5725.00	45.0 AV	54.0	-9.0	1.27 V	332	40.1	4.9
7	11160.00	50.0 PK	74.0	-24.0	1.56 V	261	35.6	14.4
8	11160.00	38.3 AV	54.0	-15.7	1.56 V	261	23.9	14.4
9	#16740.00	43.8 PK	74.0	-30.2	1.28 V	210	27.3	16.5
10	#16740.00	31.9 AV	54.0	-22.1	1.28 V	210	15.4	16.5

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) – 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 140	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	*5700.00	108.2 PK			1.72 H	43	103.4	4.8
2	*5700.00	97.7 AV			1.72 H	43	92.9	4.8
3	#5725.90	68.6 PK	74.0	-5.4	1.72 H	43	63.7	4.9
4	#5725.90	48.4 AV	54.0	-5.6	1.72 H	43	43.5	4.9
5	11400.00	52.8 PK	74.0	-21.2	2.21 H	329	38.4	14.4
6	11400.00	42.2 AV	54.0	-11.8	2.21 H	329	27.8	14.4
7	#17100.00	51.4 PK	74.0	-22.6	1.73 H	87	32.9	18.5
8	#17100.00	39.3 AV	54.0	-14.7	1.73 H	87	20.8	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	*5700.00	106.3 PK			1.27 V	337	101.5	4.8
2	*5700.00	95.6 AV			1.27 V	337	90.8	4.8
3	#5725.90	66.3 PK	74.0	-7.7	1.27 V	337	61.4	4.9
4	#5725.90	46.1 AV	54.0	-7.9	1.27 V	337	41.2	4.9
5	11400.00	49.8 PK	74.0	-24.2	1.48 V	279	35.4	14.4
6	11400.00	37.7 AV	54.0	-16.3	1.48 V	279	23.3	14.4
7	#17100.00	43.6 PK	74.0	-30.4	1.31 V	208	25.1	18.5
8	#17100.00	32.1 AV	54.0	-21.9	1.31 V	208	13.6	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) – 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 144	DETECTOR FUNCTION	Peak (PK)
FREQUENCY RANGE	1GHz ~ 40GHz		Average (AV)

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5470.00	47.4 PK	74.0	-26.6	2.21 H	51	42.9	4.5
2	#5470.00	37.5 AV	54.0	-16.5	2.21 H	51	33.0	4.5
3	*5720.00	109.6 PK			2.21 H	51	104.7	4.9
4	*5720.00	98.6 AV			2.21 H	51	93.7	4.9
5	#5875.10	58.0 PK	74.0	-16.0	2.21 H	282	52.8	5.2
6	#5875.10	47.9 AV	54.0	-6.1	2.21 H	282	42.7	5.2
7	11440.00	52.8 PK	74.0	-21.2	2.28 H	305	38.6	14.2
8	11440.00	41.6 AV	54.0	-12.4	2.28 H	305	27.4	14.2
9	#17160.00	51.4 PK	74.0	-22.6	1.73 H	63	33.1	18.3
10	#17160.00	39.3 AV	54.0	-14.7	1.73 H	63	21.0	18.3
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	#5470.00	45.2 PK	74.0	-28.8	1.23 V	331	40.7	4.5
2	#5470.00	35.2 AV	54.0	-18.8	1.23 V	331	30.7	4.5
3	*5720.00	107.5 PK			1.23 V	331	102.6	4.9
4	*5720.00	96.4 AV			1.23 V	331	91.5	4.9
5	#5875.10	55.8 PK	74.0	-18.2	1.23 V	331	50.6	5.2
6	#5875.10	45.6 AV	54.0	-8.4	1.23 V	331	40.4	5.2
7	11440.00	49.5 PK	74.0	-24.5	1.50 V	257	35.3	14.2
8	11440.00	37.7 AV	54.0	-16.3	1.50 V	257	23.5	14.2
9	#17160.00	43.7 PK	74.0	-30.3	1.22 V	228	25.4	18.3
10	#17160.00	32.2 AV	54.0	-21.8	1.22 V	228	13.9	18.3

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) – 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 54	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	5118.10	56.4 PK	74.0	-17.6	1.50 H	66	52.5	3.9
2	5118.10	47.8 AV	54.0	-6.2	1.50 H	66	43.9	3.9
3	*5270.00	109.4 PK			1.50 H	63	105.2	4.2
4	*5270.00	97.9 AV			1.50 H	63	93.7	4.2
5	5436.20	56.4 PK	74.0	-17.6	1.50 H	65	51.9	4.5
6	5436.20	47.3 AV	54.0	-6.7	1.50 H	65	42.8	4.5
7	#10540.00	52.3 PK	74.0	-21.7	2.21 H	319	38.6	13.7
8	#10540.00	41.5 AV	54.0	-12.5	2.21 H	319	27.8	13.7
9	15810.00	51.5 PK	74.0	-22.5	1.79 H	74	37.5	14.0
10	15810.00	39.2 AV	54.0	-14.8	1.79 H	74	25.2	14.0
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	5118.10	55.2 PK	74.0	-18.8	1.42 V	334	51.3	3.9
2	5118.10	46.6 AV	54.0	-7.4	1.42 V	334	42.7	3.9
3	*5270.00	108.1 PK			1.42 V	334	103.9	4.2
4	*5270.00	96.6 AV			1.42 V	334	92.4	4.2
5	5436.20	55.1 PK	74.0	-18.9	1.42 V	334	50.6	4.5
6	5436.20	46.1 AV	54.0	-7.9	1.42 V	334	41.6	4.5
7	#10540.00	50.5 PK	74.0	-23.5	1.55 V	263	36.8	13.7
8	#10540.00	38.3 AV	54.0	-15.7	1.55 V	263	24.6	13.7
9	15810.00	43.9 PK	74.0	-30.1	1.24 V	210	29.9	14.0
10	15810.00	32.3 AV	54.0	-21.7	1.24 V	210	18.3	14.0

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) – 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 62	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	5142.60	55.8 PK	74.0	-18.2	3.06 H	64	51.8	4.0
2	5142.60	48.2 AV	54.0	-5.8	3.06 H	64	44.2	4.0
3	*5310.00	108.1 PK			3.06 H	64	103.8	4.3
4	*5310.00	99.5 AV			3.06 H	64	95.2	4.3
5	5350.00	66.1 PK	74.0	-7.9	3.06 H	64	61.7	4.4
6	5350.00	47.0 AV	54.0	-7.0	3.06 H	64	42.6	4.4
7	10620.00	52.5 PK	74.0	-21.5	2.30 H	335	38.6	13.9
8	10620.00	41.6 AV	54.0	-12.4	2.30 H	335	27.7	13.9
9	15930.00	51.8 PK	74.0	-22.2	1.76 H	63	38.5	13.3
10	15930.00	39.6 AV	54.0	-14.4	1.76 H	63	26.3	13.3
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	5142.60	54.6 PK	74.0	-19.4	1.39 V	347	50.6	4.0
2	5142.60	47.0 AV	54.0	-7.0	1.39 V	347	43.0	4.0
3	*5310.00	106.9 PK			1.39 V	347	102.6	4.3
4	*5310.00	98.3 AV			1.39 V	347	94.0	4.3
5	5350.00	64.9 PK	74.0	-9.1	1.39 V	347	60.5	4.4
6	5350.00	45.8 AV	54.0	-8.2	1.39 V	347	41.4	4.4
7	10620.00	50.5 PK	74.0	-23.5	1.56 V	273	36.6	13.9
8	10620.00	38.4 AV	54.0	-15.6	1.56 V	273	24.5	13.9
9	15930.00	43.1 PK	74.0	-30.9	1.24 V	229	29.8	13.3
10	15930.00	31.5 AV	54.0	-22.5	1.24 V	229	18.2	13.3

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) – 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.

CHANNEL	TX Channel 102	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	#5470.00	67.9 PK	74.0	-6.1	1.50 H	64	63.4	4.5
2	#5470.00	51.7 AV	54.0	-2.3	1.50 H	64	47.2	4.5
3	*5510.00	108.4 PK			1.50 H	64	103.8	4.6
4	*5510.00	98.9 AV			1.50 H	64	94.3	4.6
5	#5740.80	52.9 PK	74.0	-21.1	1.50 H	64	47.9	5.0
6	#5740.80	43.8 AV	54.0	-10.2	1.50 H	64	38.8	5.0
7	11020.00	52.8 PK	74.0	-21.2	2.29 H	336	38.1	14.7
8	11020.00	41.9 AV	54.0	-12.1	2.29 H	336	27.2	14.7
9	#16530.00	51.0 PK	74.0	-23.0	1.75 H	62	35.2	15.8
10	#16530.00	38.9 AV	54.0	-15.1	1.75 H	62	23.1	15.8
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	#5470.00	66.7 PK	74.0	-7.3	1.41 V	336	62.2	4.5
2	#5470.00	50.5 AV	54.0	-3.5	1.41 V	336	46.0	4.5
3	*5510.00	107.2 PK			1.41 V	336	102.6	4.6
4	*5510.00	97.7 AV			1.41 V	336	93.1	4.6
5	#5740.80	51.7 PK	74.0	-22.3	1.41 V	336	46.7	5.0
6	#5740.80	42.6 AV	54.0	-11.4	1.41 V	336	37.6	5.0
7	11020.00	50.0 PK	74.0	-24.0	1.49 V	288	35.3	14.7
8	11020.00	38.2 AV	54.0	-15.8	1.49 V	288	23.5	14.7
9	#16530.00	43.2 PK	74.0	-30.8	1.25 V	205	27.4	15.8
10	#16530.00	31.8 AV	54.0	-22.2	1.25 V	205	16.0	15.8

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) – 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 110	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	5396.70	59.9 PK	74.0	-14.1	2.64 H	55	55.5	4.4
2	5396.70	48.8 AV	54.0	-5.2	2.64 H	55	44.4	4.4
3	*5550.00	107.7 PK			2.64 H	55	103.2	4.5
4	*5550.00	98.6 AV			2.64 H	55	94.1	4.5
5	#5726.30	54.4 PK	74.0	-19.6	2.64 H	42	49.5	4.9
6	#5726.30	47.0 AV	54.0	-7.0	2.64 H	42	42.1	4.9
7	11100.00	53.0 PK	74.0	-21.0	2.23 H	319	38.6	14.4
8	11100.00	41.8 AV	54.0	-12.2	2.23 H	319	27.4	14.4
9	#16650.00	51.4 PK	74.0	-22.6	1.75 H	81	35.0	16.4
10	#16650.00	39.4 AV	54.0	-14.6	1.75 H	81	23.0	16.4
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	5396.70	58.7 PK	74.0	-15.3	1.40 V	343	54.3	4.4
2	5396.70	47.6 AV	54.0	-6.4	1.40 V	343	43.2	4.4
3	*5550.00	106.5 PK			1.40 V	343	102.0	4.5
4	*5550.00	97.4 AV			1.40 V	343	92.9	4.5
5	#5726.30	53.2 PK	74.0	-20.8	1.40 V	343	48.3	4.9
6	#5726.30	45.8 AV	54.0	-8.2	1.40 V	343	40.9	4.9
7	11100.00	49.6 PK	74.0	-24.4	1.50 V	286	35.2	14.4
8	11100.00	37.6 AV	54.0	-16.4	1.50 V	286	23.2	14.4
9	#16650.00	42.9 PK	74.0	-31.1	1.20 V	223	26.5	16.4
10	#16650.00	31.4 AV	54.0	-22.6	1.20 V	223	15.0	16.4

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 134	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	*5670.00	110.1 PK			2.18 H	276	105.3	4.8
2	*5670.00	100.8 AV			2.18 H	276	96.0	4.8
3	#5725.00	65.6 PK	74.0	-8.4	2.18 H	276	60.7	4.9
4	#5725.00	52.2 AV	54.0	-1.8	2.18 H	276	47.3	4.9
5	11340.00	52.8 PK	74.0	-21.2	2.23 H	334	38.4	14.4
6	11340.00	41.9 AV	54.0	-12.1	2.23 H	334	27.5	14.4
7	#17010.00	51.6 PK	74.0	-22.4	1.73 H	60	33.4	18.2
8	#17010.00	39.5 AV	54.0	-14.5	1.73 H	60	21.3	18.2
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	*5670.00	108.9 PK			1.35 V	347	104.1	4.8
2	*5670.00	99.6 AV			1.35 V	347	94.8	4.8
3	#5725.00	64.4 PK	74.0	-9.6	1.35 V	347	59.5	4.9
4	#5725.00	51.0 AV	54.0	-3.0	1.35 V	347	46.1	4.9
5	11340.00	49.8 PK	74.0	-24.2	1.55 V	261	35.4	14.4
6	11340.00	37.7 AV	54.0	-16.3	1.55 V	261	23.3	14.4
7	#17010.00	43.8 PK	74.0	-30.2	1.23 V	200	25.6	18.2
8	#17010.00	32.3 AV	54.0	-21.7	1.23 V	200	14.1	18.2

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) – 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 142	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	#5461.80	53.2 PK	74.0	-20.8	1.50 H	63	48.7	4.5
2	#5461.80	44.9 AV	54.0	-9.1	1.50 H	63	40.4	4.5
3	*5710.00	109.2 PK			1.50 H	24	104.3	4.9
4	*5710.00	99.1 AV			1.50 H	24	94.2	4.9
5	#5861.80	57.1 PK	74.0	-16.9	1.50 H	50	51.9	5.2
6	#5861.80	48.8 AV	54.0	-5.2	1.50 H	50	43.6	5.2
7	11420.00	52.5 PK	74.0	-21.5	2.29 H	321	38.2	14.3
8	11420.00	41.5 AV	54.0	-12.5	2.29 H	321	27.2	14.3
9	#17130.00	50.9 PK	74.0	-23.1	1.77 H	64	32.4	18.5
10	#17130.00	38.8 AV	54.0	-15.2	1.77 H	64	20.3	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	#5461.80	52.0 PK	74.0	-22.0	1.30 V	347	47.5	4.5
2	#5461.80	43.7 AV	54.0	-10.3	1.30 V	347	39.2	4.5
3	*5710.00	108.0 PK			1.30 V	347	103.1	4.9
4	*5710.00	97.9 AV			1.30 V	347	93.0	4.9
5	#5861.80	55.9 PK	74.0	-18.1	1.30 V	347	50.7	5.2
6	#5861.80	47.6 AV	54.0	-6.4	1.30 V	347	42.4	5.2
7	11420.00	50.2 PK	74.0	-23.8	1.55 V	261	35.9	14.3
8	11420.00	38.5 AV	54.0	-15.5	1.55 V	261	24.2	14.3
9	#17130.00	43.4 PK	74.0	-30.6	1.32 V	213	24.9	18.5
10	#17130.00	31.7 AV	54.0	-22.3	1.32 V	213	13.2	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) – 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.

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CHANNEL	TX Channel 58	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	5142.70	52.9 PK	74.0	-21.1	1.50 H	61	48.9	4.0
2	5142.70	44.6 AV	54.0	-9.4	1.50 H	61	40.6	4.0
3	*5290.00	104.8 PK			1.50 H	61	100.5	4.3
4	*5290.00	95.4 AV			1.50 H	61	91.1	4.3
5	5352.70	68.4 PK	74.0	-5.6	1.50 H	61	64.0	4.4
6	5352.70	51.0 AV	54.0	-3.0	1.50 H	61	46.6	4.4
7	#10580.00	53.5 PK	74.0	-20.5	2.17 H	328	39.6	13.9
8	#10580.00	42.6 AV	54.0	-11.4	2.17 H	328	28.7	13.9
9	15870.00	51.4 PK	74.0	-22.6	1.71 H	69	38.0	13.4
10	15870.00	39.1 AV	54.0	-14.9	1.71 H	69	25.7	13.4
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	5142.70	51.6 PK	74.0	-22.4	1.47 V	348	47.6	4.0
2	5142.70	43.3 AV	54.0	-10.7	1.47 V	348	39.3	4.0
3	*5290.00	103.6 PK			1.47 V	348	99.3	4.3
4	*5290.00	94.2 AV			1.47 V	348	89.9	4.3
5	5352.70	67.1 PK	74.0	-6.9	1.47 V	348	62.7	4.4
6	5352.70	49.7 AV	54.0	-4.3	1.47 V	348	45.3	4.4
7	#10580.00	50.8 PK	74.0	-23.2	1.52 V	272	36.9	13.9
8	#10580.00	38.4 AV	54.0	-15.6	1.52 V	272	24.5	13.9
9	15870.00	43.4 PK	74.0	-30.6	1.26 V	206	30.0	13.4
10	15870.00	31.6 AV	54.0	-22.4	1.26 V	206	18.2	13.4

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 106	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	#5467.70	69.2 PK	74.0	-4.8	1.50 H	61	64.7	4.5
2	**#5467.70**	**53.8 AV**	**54.0**	**-0.2**	**1.50 H**	**61**	**49.3**	**4.5**
3	*5530.00	105.8 PK			1.50 H	61	101.3	4.5
4	*5530.00	95.7 AV			1.50 H	61	91.2	4.5
5	#5725.00	53.2 PK	74.0	-20.8	1.50 H	61	48.3	4.9
6	#5725.00	45.2 AV	54.0	-8.8	1.50 H	61	40.3	4.9
7	11060.00	53.4 PK	74.0	-20.6	2.20 H	334	38.9	14.5
8	11060.00	42.5 AV	54.0	-11.5	2.20 H	334	28.0	14.5
9	#16590.00	51.2 PK	74.0	-22.8	1.72 H	64	34.6	16.6
10	#16590.00	38.9 AV	54.0	-15.1	1.72 H	64	22.3	16.6
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	#5467.70	68.0 PK	74.0	-6.0	1.49 V	360	63.5	4.5
2	#5467.70	52.6 AV	54.0	-1.4	1.49 V	360	48.1	4.5
3	*5530.00	104.6 PK			1.49 V	360	100.1	4.5
4	*5530.00	94.5 AV			1.49 V	360	90.0	4.5
5	#5725.00	52.0 PK	74.0	-22.0	1.49 V	360	47.1	4.9
6	#5725.00	44.0 AV	54.0	-10.0	1.49 V	360	39.1	4.9
7	11060.00	50.2 PK	74.0	-23.8	1.56 V	280	35.7	14.5
8	11060.00	37.9 AV	54.0	-16.1	1.56 V	280	23.4	14.5
9	#16590.00	43.0 PK	74.0	-31.0	1.30 V	226	26.4	16.6
10	#16590.00	31.3 AV	54.0	-22.7	1.30 V	226	14.7	16.6

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) – 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 122	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	#5466.00	57.8 PK	74.0	-16.2	1.50 H	54	53.3	4.5
2	#5466.00	48.8 AV	54.0	-5.2	1.50 H	54	44.3	4.5
3	*5610.00	105.2 PK			1.50 H	54	100.5	4.7
4	*5610.00	96.4 AV			1.50 H	54	91.7	4.7
5	#5725.00	64.6 PK	74.0	-9.4	1.50 H	54	59.7	4.9
6	#5725.00	51.5 AV	54.0	-2.5	1.50 H	54	46.6	4.9
7	11220.00	53.2 PK	74.0	-20.8	2.14 H	323	38.8	14.4
8	11220.00	42.4 AV	54.0	-11.6	2.14 H	323	28.0	14.4
9	#16830.00	52.3 PK	74.0	-21.7	1.62 H	67	35.3	17.0
10	#16830.00	39.7 AV	54.0	-14.3	1.62 H	67	22.7	17.0
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	#5466.00	56.6 PK	74.0	-17.4	1.52 V	360	52.1	4.5
2	#5466.00	47.6 AV	54.0	-6.4	1.52 V	360	43.1	4.5
3	*5610.00	103.9 PK			1.52 V	360	99.2	4.7
4	*5610.00	95.1 AV			1.52 V	360	90.4	4.7
5	#5725.00	63.4 PK	74.0	-10.6	1.52 V	360	58.5	4.9
6	#5725.00	50.3 AV	54.0	-3.7	1.52 V	360	45.4	4.9
7	11220.00	50.7 PK	74.0	-23.3	1.61 V	273	36.3	14.4
8	11220.00	38.2 AV	54.0	-15.8	1.61 V	273	23.8	14.4
9	#16830.00	42.7 PK	74.0	-31.3	1.33 V	218	25.7	17.0
10	#16830.00	31.1 AV	54.0	-22.9	1.33 V	218	14.1	17.0

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) – 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 138	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	#5470.00	54.7 PK	74.0	-19.3	1.50 H	54	50.2	4.5
2	#5470.00	45.0 AV	54.0	-9.0	1.50 H	54	40.5	4.5
3	*5690.00	105.8 PK			1.50 H	54	101.0	4.8
4	*5690.00	96.5 AV			1.50 H	54	91.7	4.8
5	#5850.80	62.1 PK	74.0	-11.9	1.50 H	54	57.0	5.1
6	#5850.80	51.4 AV	54.0	-2.6	1.50 H	54	46.3	5.1
7	11380.00	53.1 PK	74.0	-20.9	2.15 H	310	38.7	14.4
8	11380.00	42.3 AV	54.0	-11.7	2.15 H	310	27.9	14.4
9	#17070.00	51.6 PK	74.0	-22.4	1.62 H	80	33.3	18.3
10	#17070.00	39.5 AV	54.0	-14.5	1.62 H	80	21.2	18.3
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	#5470.00	53.4 PK	74.0	-20.6	1.53 V	360	48.9	4.5
2	#5470.00	43.7 AV	54.0	-10.3	1.53 V	360	39.2	4.5
3	*5690.00	104.5 PK			1.53 V	360	99.7	4.8
4	*5690.00	95.2 AV			1.53 V	360	90.4	4.8
5	#5850.80	60.8 PK	74.0	-13.2	1.53 V	360	55.7	5.1
6	#5850.80	50.1 AV	54.0	-3.9	1.53 V	360	45.0	5.1
7	11380.00	50.2 PK	74.0	-23.8	1.55 V	262	35.8	14.4
8	11380.00	38.2 AV	54.0	-15.8	1.55 V	262	23.8	14.4
9	#17070.00	43.5 PK	74.0	-30.5	1.31 V	224	25.2	18.3
10	#17070.00	31.5 AV	54.0	-22.5	1.31 V	224	13.2	18.3

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) – 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:

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CHANNEL	TX Channel 122	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	30MHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	64.50	33.3 QP	40.0	-6.7	3.00 H	98	42.1	-8.8
2	107.45	28.2 QP	43.5	-15.3	3.00 H	264	39.5	-11.3
3	217.91	31.4 QP	46.0	-14.6	1.00 H	142	42.8	-11.4
4	465.70	30.6 QP	46.0	-15.4	1.50 H	69	34.0	-3.4
5	548.30	29.6 QP	46.0	-16.4	1.50 H	187	31.6	-2.0
6	687.10	31.4 QP	46.0	-14.6	1.50 H	67	30.7	0.7
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	45.61	34.3 QP	40.0	-5.7	1.00 V	10	42.4	-8.1
2	65.65	31.6 QP	40.0	-8.4	1.00 V	70	40.8	-9.2
3	90.52	35.1 QP	43.5	-8.4	1.50 V	267	49.2	-14.1
4	469.60	31.1 QP	46.0	-14.9	1.50 V	24	34.4	-3.3
5	663.51	32.6 QP	46.0	-13.4	2.00 V	190	32.2	0.4
6	923.05	33.4 QP	46.0	-12.6	1.00 V	121	29.0	4.4

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 R&S	ESCS 30	100287	Apr. 19, 2017	Apr. 18, 2018
Line-Impedance Stabilization Network (for EUT) SCHWARZBECK	ESH3-Z5	848773/004	Oct. 26, 2016	Oct. 25, 2017
Line-Impedance Stabilization Network (for Peripheral) R&S	ENV216	100071	Nov. 09, 2016	Nov. 08, 2017
RF Cable	5D-FB	COACAB-001	May 23, 2017	May 22, 2018
10 dB PAD Mini-Circuits	HAT-10+	CONATT-005	June 19, 2017	June 18, 2018
50 ohms Terminator	50	3	Oct. 26, 2016	Oct. 25, 2017
50 ohms Terminator	N/A	EMC-04	Nov. 02, 2016	Nov. 01, 2017
Software BVADT	BVADT_Cond_ V7.3.7.4	NA	NA	NA

Note:
1. The calibration interval of the above test instruments are 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in Shielded Room No. D.
3. The VCCI Con D Registration No. is C-20005.
4. Tested Date: Sep. 04, 2017.

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.

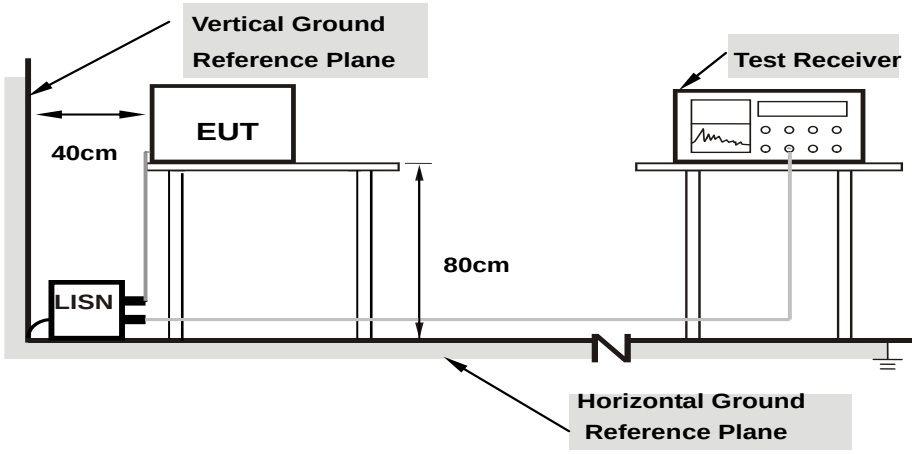
c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

NOTE: 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.

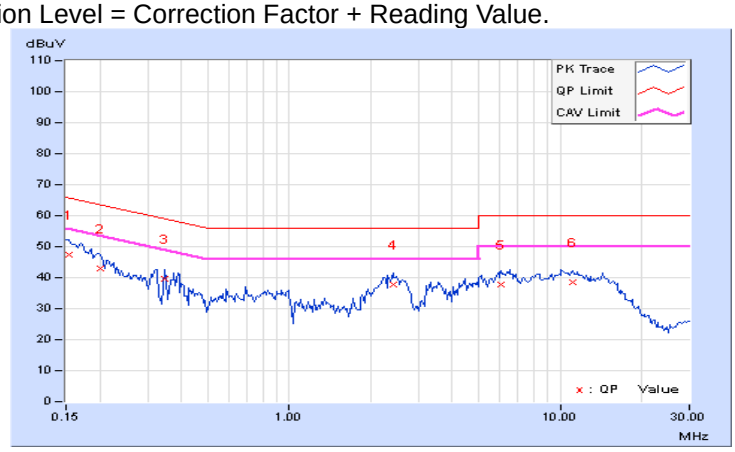
4.2.7 Test Results (Mode 1)

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

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	0.15391	10.14	37.27	24.67	47.41	34.81	65.79	55.79	-18.38	-20.98
2	0.20078	10.11	33.03	21.23	43.14	31.34	63.58	53.58	-20.44	-22.24
3	0.34531	10.16	29.50	25.00	39.66	35.16	59.07	49.07	-19.41	-13.91
4	2.41016	10.31	27.47	19.63	37.78	29.94	56.00	46.00	-18.22	-16.06
5	6.05469	10.47	27.16	21.54	37.63	32.01	60.00	50.00	-22.37	-17.99
6	11.15234	10.62	27.98	23.16	38.60	33.78	60.00	50.00	-21.40	-16.22

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.

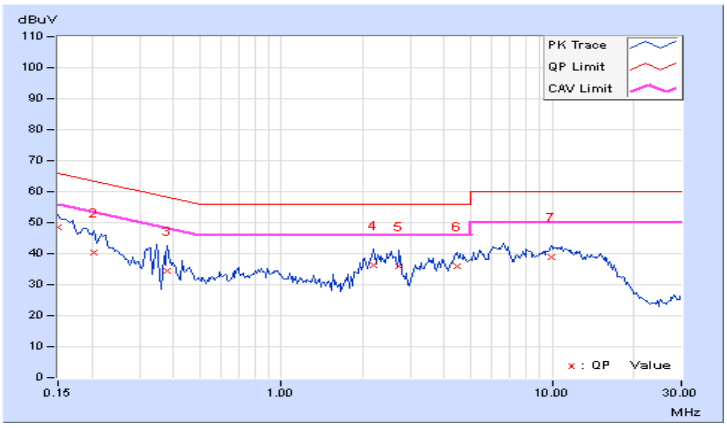


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)

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	0.15000	10.21	38.31	23.76	48.52	33.97	66.00	56.00	-17.48	-22.03
2	0.20469	10.18	30.33	18.16	40.51	28.34	63.42	53.42	-22.91	-25.08
3	0.38047	10.27	23.99	14.95	34.26	25.22	58.27	48.27	-24.01	-23.05
4	2.19531	10.43	25.73	19.71	36.16	30.14	56.00	46.00	-19.84	-15.86
5	2.73047	10.45	25.52	17.35	35.97	27.80	56.00	46.00	-20.03	-18.20
6	4.44531	10.50	25.43	19.87	35.93	30.37	56.00	46.00	-20.07	-15.63
7	9.92969	10.61	28.23	23.03	38.84	33.64	60.00	50.00	-21.16	-16.36

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.



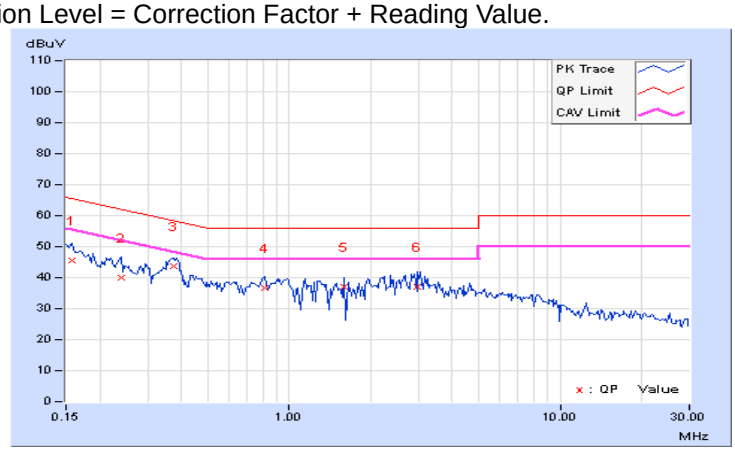
4.2.8 Test Results (Mode 3)

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	0.15781	10.14	35.39	26.23	45.53	36.37	65.58	55.58	-20.05	-19.21
2	0.23984	10.12	29.71	19.07	39.83	29.19	62.10	52.10	-22.27	-22.91
3	0.37266	10.17	33.43	24.47	43.60	34.64	58.44	48.44	-14.84	-13.80
4	0.81797	10.26	26.55	15.19	36.81	25.45	56.00	46.00	-19.19	-20.55
5	1.60156	10.28	26.68	17.13	36.96	27.41	56.00	46.00	-19.04	-18.59
6	2.96484	10.35	26.87	18.99	37.22	29.34	56.00	46.00	-18.78	-16.66

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.

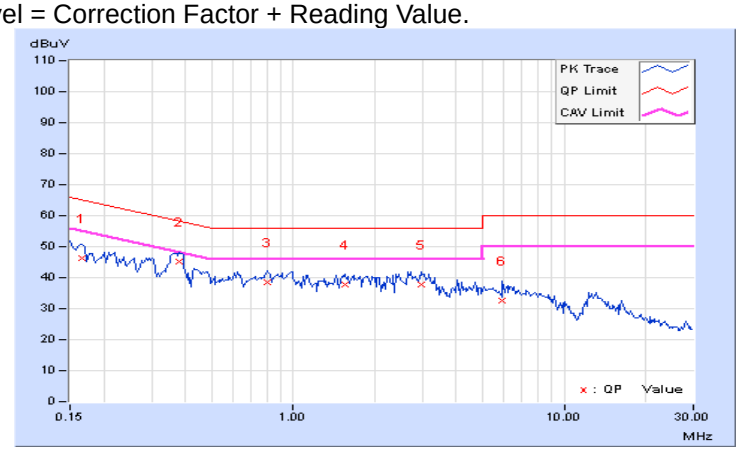


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)

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	0.16562	10.20	36.21	27.84	46.41	38.04	65.18	55.18	-18.77	-17.14
2	**0.38047**	**10.27**	**35.09**	**25.53**	**45.36**	**35.80**	**58.27**	**48.27**	**-12.91**	**-12.47**
3	0.80234	10.32	28.23	16.18	38.55	26.50	56.00	46.00	-17.45	-19.50
4	1.55078	10.38	27.52	17.83	37.90	28.21	56.00	46.00	-18.10	-17.79
5	2.95313	10.45	27.51	19.71	37.96	30.16	56.00	46.00	-18.04	-15.84
6	5.91016	10.53	21.99	15.31	32.52	25.84	60.00	50.00	-27.48	-24.16

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 Measurment

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,

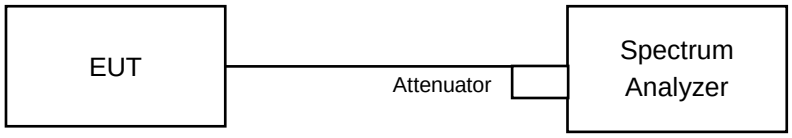
Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;
Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT};
Array Gain = 5 log(N_{ANT}/N_{SS}) dB or 3 dB, whichever is less for 20-MHz channel widths with $N_{ANT} \geq 5$.

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

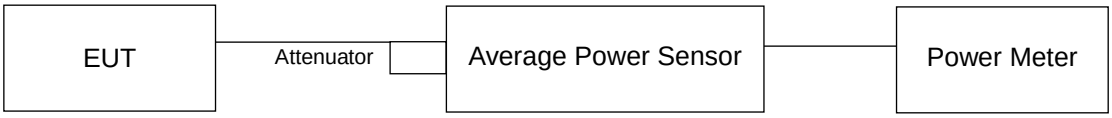
4.3.2 Test Setup

FOR POWER OUTPUT MEASUREMENT

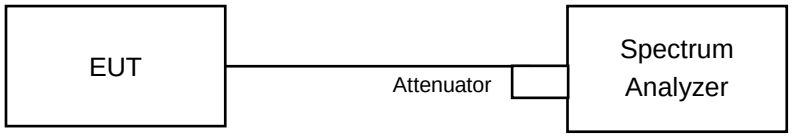
For channel straddling 5725MHz:



For other channels:



FOR 26dB 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 channel straddling 5725MHz:

Method SA-2

1. Set span to encompass the emission bandwidth (EBW) of the signal.
2. Set RBW =1MHz.
3. Set the VBW ≥ 3 x RBW.
4. Number of points in sweep ≥ 2 Span / RBW.
5. Sweep time = auto.
6. Detector = RMS.
7. Trace average at least 100 traces in power averaging mode
8. Compute power by integrating the spectrum across the 26 dB EBW of the signal.
9. Duty factor need added to measured value (duty cycle < 98 percent).

For other channels:

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 26dB OCCUPIED 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%.

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

CDD Mode

802.11a

Power Output:

Chan.	Chan. Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
52	5260	11.59	14.01	13.85	12.54	81.811	19.13	24.00	Pass
60	5300	11.79	13.95	13.96	12.54	82.768	19.18	24.00	Pass
64	5320	11.69	13.99	13.96	12.49	82.449	19.16	24.00	Pass
100	5500	11.58	13.46	13.61	11.96	75.235	18.76	22.49	Pass
116	5580	11.66	13.43	13.71	11.95	75.848	18.80	22.49	Pass
140	5700	12.73	13.24	13.91	10.62	75.975	18.81	22.49	Pass
*144 (UNII-2C Band)	5720	9.29	10.96	10.73	7.84	40.266	16.05	21.48	Pass
*144 (UNII-3 Band)	5720	3.15	4.95	4.57	1.78	9.904	9.96	28.61	Pass

Note: * Test was performed in accordance with Measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test.

1. UNII-2C: The Max. gain is 7.51dBi > 6dBi, therefore the limit needs to reduce, so the power limit shall be reduced to “Determined Conducted Limit-(7.51-6)”.
2. UNII-3: The Max. gain is 7.39dBi > 6dBi, therefore the limit needs to reduce, so the power limit shall be reduced to 30-(7.39-6) = 28.61dBm.

The Total Power for the straddle channel:

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)
144	5720	50.17	17
Note: The total power was calculated through formula and record the value for reference only.			

26dB BANDWIDTH:

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
52	5260	21.81	21.61	21.70	21.73
60	5300	21.69	21.79	21.75	21.66
64	5320	21.81	21.76	21.79	21.81
100	5500	21.65	21.63	21.69	21.69
116	5580	21.74	21.64	21.77	21.45
140	5700	21.87	21.70	21.70	21.79
144 (UNII-2C Band)	5720	15.90	15.93	15.92	15.84

Note: For U_NII-2A, U_NII-2C Band output power limitation is determined based on 26dBc bandwidt

Power Limit = 11dBm + 10logB < U_NII-2A, U_NII-2C >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
52	5260	21.61	24.34 > 24
60	5300	21.66	24.35 > 24
64	5320	21.76	24.37 > 24
100	5500	21.63	24.35 > 24
116	5580	21.45	24.31 > 24
140	5700	21.70	24.36 > 24
144 (UNII-2C Band)	5720	15.84	22.99 < 24

802.11ac (VHT20)

POWER OUTPUT:

Chan.	Chan. Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
52	5260	11.72	13.87	14.01	12.71	83.078	19.19	24.00	Pass
60	5300	11.51	13.81	13.76	12.42	79.428	19.00	24.00	Pass
64	5320	11.58	13.82	13.89	12.70	81.599	19.12	24.00	Pass
100	5500	11.69	13.62	13.70	11.93	76.809	18.85	22.49	Pass
116	5580	11.62	13.35	13.81	11.92	75.752	18.79	22.49	Pass
140	5700	12.78	13.28	13.96	10.34	75.951	18.81	22.49	Pass
*144 (UNII-2C Band)	5720	8.79	11.07	10.75	7.64	38.933	15.90	21.49	Pass
*144 (UNII-3 Band)	5720	3.18	5.01	5.05	2.14	10.319	10.14	28.61	Pass

Note: * Test was performed in accordance with Measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test.

1. UNII-2C: The Max. gain is 7.51dBi > 6dBi, therefore the limit needs to reduce, so the power limit shall be reduced to “Determined Conducted Limit-(7.51-6)”.
2. UNII-3: The Max. gain is 7.39dBi > 6dBi, therefore the limit needs to reduce, so the power limit shall be reduced to 30-(7.39-6) = 28.61dBm.

The Total Power for the straddle channel:

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)
144	5720	49.252	16.92
Note: The total power was calculated through formula and record the value for reference only.			

26dB BANDWIDTH:

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
52	5260	21.65	21.99	21.88	21.71
60	5300	21.79	21.79	21.94	21.90
64	5320	21.96	22.01	21.82	21.86
100	5500	22.14	21.76	21.84	21.93
116	5580	21.92	21.96	21.86	21.90
140	5700	21.90	21.70	21.84	21.77
144 (UNII-2C Band)	5720	15.98	15.86	15.91	15.91

Note: For U-NII-2A, U-NII-2C Band output power limitation is determined based on 26dBc bandwidth

Power Limit = 11dBm + 10logB < U_NII-2A, U_NII-2C >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
52	5260	21.65	24.35 > 24
60	5300	21.79	24.38 > 24
64	5320	21.82	24.38 > 24
100	5500	21.76	24.37 > 24
116	5580	21.86	24.39 > 24
140	5700	21.70	24.36 > 24
144 (UNII-2C Band)	5720	15.86	23 < 24

802.11ac (VHT40)

POWER OUTPUT:

Chan.	Chan. Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
54	5270	15.17	16.51	16.93	15.23	160.316	22.05	24.00	Pass
62	5310	15.41	16.55	16.93	15.54	165.067	22.18	24.00	Pass
102	5510	14.72	17.01	16.84	14.65	157.362	21.97	22.49	Pass
110	5550	14.86	17.13	16.68	14.35	156.048	21.93	22.49	Pass
134	5670	14.98	16.44	16.94	13.82	149.062	21.73	22.49	Pass
*142 (UNII-2C Band)	5710	12.55	14.15	14.22	11.54	88.503	19.47	22.49	Pass
*142 (UNII-3 Band)	5710	2.39	4.00	3.91	1.38	8.446	9.27	28.61	Pass

Note: * Test was performed in accordance with Measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test.

1. UNII-2C: The Max. gain is 7.51dBi > 6dBi, therefore the limit needs to reduce, so the power limit shall be reduced to “Determined Conducted Limit-(7.51-6)”.
2. UNII-3: The Max. gain is 7.39dBi > 6dBi, therefore the limit needs to reduce, so the power limit shall be reduced to 30-(7.39-6) = 28.61dBm.

The Total Power for the straddle channel:

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)
142	5710	96.949	19.87
Note: The total power was calculated through formula and record the value for reference only.			

26dB BANDWIDTH:

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
54	5270	56.70	41.59	41.59	41.37
62	5310	60.50	41.52	41.67	41.63
102	5510	66.68	54.96	52.08	41.26
110	5550	66.63	55.37	52.06	41.19
134	5670	63.75	60.77	50.38	41.48
142 (UNII-2C Band)	5710	46.70	38.82	35.97	35.83

Note: For U_NII-2A, U_NII-2C Band output power limitation is determined based on 26dBc bandwidtl

Power Limit = 11dBm + 10logB < U_NII-2A, U_NII-2C >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
54	5270	41.37	27.16 > 24
62	5310	41.52	27.18 > 24
102	5510	41.26	27.15 > 24
110	5550	41.19	27.14 > 24
134	5670	41.48	27.17 > 24
142 (UNII-2C Band)	5710	35.83	26.54 > 24

802.11ac (VHT80)

POWER OUTPUT:

Chan.	Chan. Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
58	5290	14.57	17.06	16.10	14.20	146.499	21.66	24.00	Pass
106	5530	14.55	16.63	16.66	14.30	147.796	21.70	22.49	Pass
122	5610	15.55	17.20	17.40	15.07	175.464	22.44	22.49	Pass
*138 (UNII-2C Band)	5690	12.46	14.34	14.15	11.76	93.558	19.71	22.49	Pass
*138 (UNII-3 Band)	5690	-0.79	1.02	0.54	-1.51	4.2939	6.33	28.61	Pass

Note: * Test was performed in accordance with Measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test.

1. UNII-2C: The Max. gain is 7.51dBi > 6dBi, therefore the limit needs to reduce, so the power limit shall be reduced to “Determined Conducted Limit-(7.51-6)”.
2. UNII-3: The Max. gain is 7.39dBi > 6dBi, therefore the limit needs to reduce, so the power limit shall be reduced to 30-(7.39-6) = 28.61dBm.

The Total Power for the straddle channel:

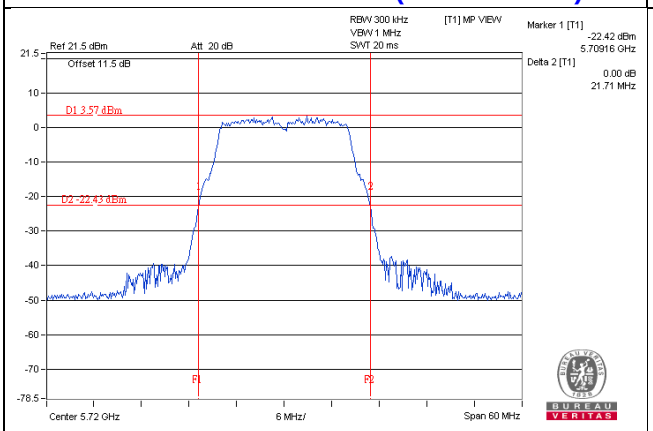
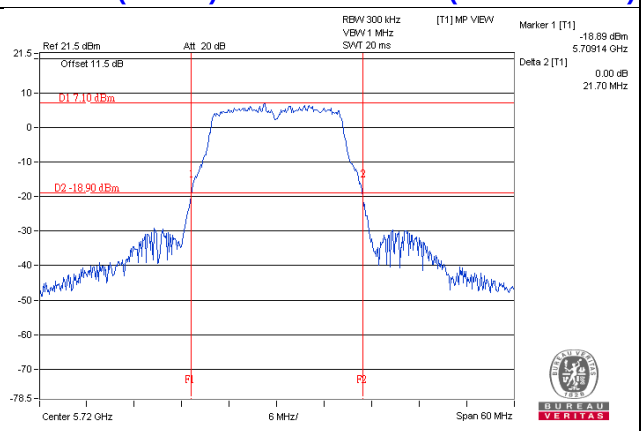
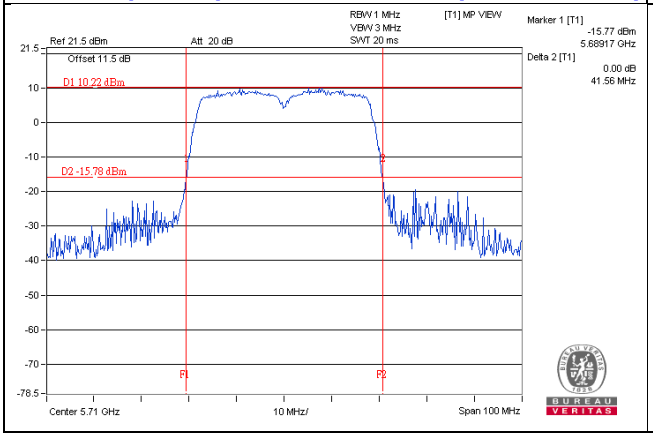
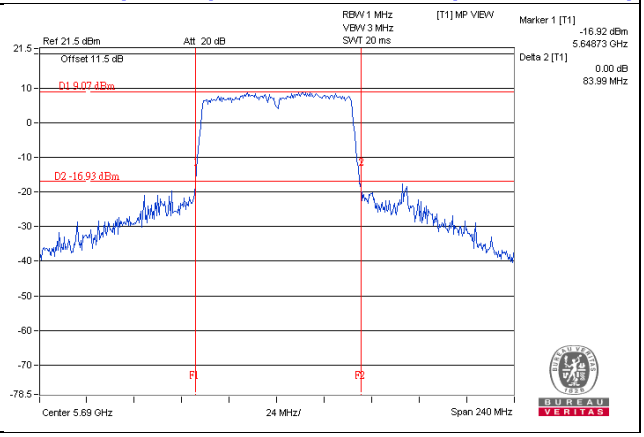
Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)
138	5690	97.8519	19.91
Note: The total power was calculated through formula and record the value for reference only.			

26dB BANDWIDTH:

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
58	5290	82.63	82.93	82.64	82.44
106	5530	83.80	82.69	82.70	82.40
122	5610	85.77	82.64	83.19	82.48
138 (UNII-2C Band)	5690	77.65	76.27	76.44	76.42

Note: For U_NII-2A, U_NII-2C Band output power limitation is determined based on 26dBc bandwidt

Power Limit = 11dBm + 10logB < U_NII-2A, U_NII-2C >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
58	5290	82.44	30.16 > 24
106	5530	82.40	30.15 > 24
122	5610	82.48	30.16 > 24
138 (UNII-2C Band)	5690	76.27	29.82 > 24

Spectrum Plot of Worst Value	
802.11a / Chain 3 - CH144 (UNII-2C Band)	**802.11ac (VHT20) / Chain 1 - CH144 (UNII-2C Band)**
	
802.11ac (VHT40) / Chain 3 - CH142 (UNII-2C Band)	**802.11ac (VHT80) / Chain 1 - CH138 (UNII-2C Band)**
	

NOTE:

For CH144 (UNII-2C Band) = 5725MHz - Marker 1
For CH142 (UNII-2C Band) = 5725MHz - Marker 1
For CH138 (UNII-2C Band) = 5725MHz - Marker 1

Beamforming Mode

802.11ac (VHT20)

POWER OUTPUT:

Chan.	Chan. Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
52	5260	11.72	13.87	14.01	12.71	83.078	19.19	19.29	Pass
60	5300	11.51	13.81	13.76	12.42	79.428	19.00	19.29	Pass
64	5320	11.58	13.82	13.89	12.70	81.599	19.12	19.29	Pass
100	5500	11.69	13.62	13.70	11.93	76.809	18.85	18.98	Pass
116	5580	11.62	13.35	13.81	11.92	75.752	18.79	18.98	Pass
140	5700	12.78	13.28	13.96	10.34	75.951	18.81	18.98	Pass
*144 (UNII-2C Band)	5720	8.79	11.07	10.75	7.64	38.933	15.90	17.98	Pass
*144 (UNII-3 Band)	5720	3.18	5.01	5.05	2.14	10.319	10.14	25.45	Pass

Note: 1. * Test was performed in accordance with Measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test.

2. For UNII-2A: Directional gain = 10 log[($10^{G0/20}$ + $10^{G1/20}$ + $10^{G2/20}$ + $10^{G3/20}$)^2 / 4] = 10.71dBi > 6dBi , so the power limit shall be reduced to 24-(10.71-6) = 19.29dBm.

3. For UNII-2C: Directional gain = 10 log[($10^{G0/20}$ + $10^{G1/20}$ + $10^{G2/20}$ + $10^{G3/20}$)^2 / 4] = 11.02dBi > 6dBi , so the power limit shall be reduced to 24-(11.02-6) = 18.98dBm.

4. For UNII-3: Directional gain = 10 log[($10^{G0/20}$ + $10^{G1/20}$ + $10^{G2/20}$ + $10^{G3/20}$)^2 / 4] = 10.55dBi > 6dBi , so the power limit shall be reduced to 30-(10.55-6) = 25.45dBm.

The Total Power for the straddle channel:

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)
144	5720	49.252	16.92
Note: The total power was calculated through formula and record the value for reference only.			

26dB BANDWIDTH:

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
52	5260	21.65	21.99	21.88	21.71
60	5300	21.79	21.79	21.94	21.90
64	5320	21.96	22.01	21.82	21.86
100	5500	22.14	21.76	21.84	21.93
116	5580	21.92	21.96	21.86	21.90
140	5700	21.90	21.70	21.84	21.77
144 (UNII-2C Band)	5720	15.98	15.86	15.91	15.91

Note: For U-NII-2A, U-NII-2C Band output power limitation is determined based on 26dBc bandwidth

Power Limit = 11dBm + 10logB < U_NII-2A, U_NII-2C >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
52	5260	21.65	24.35 > 24
60	5300	21.79	24.38 > 24
64	5320	21.82	24.38 > 24
100	5500	21.76	24.37 > 24
116	5580	21.86	24.39 > 24
140	5700	21.70	24.36 > 24
144 (UNII-2C Band)	5720	15.86	23 < 24

802.11ac (VHT40)

POWER OUTPUT:

Chan.	Chan. Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
54	5270	12.21	13.63	14.02	12.32	81.997	19.14	19.29	Pass
62	5310	12.44	13.62	13.96	12.51	83.266	19.20	19.29	Pass
102	5510	11.68	13.96	13.78	11.72	78.349	18.94	18.98	Pass
110	5550	11.84	14.02	13.59	11.34	76.981	18.86	18.98	Pass
134	5670	12.05	13.42	13.89	11.02	75.149	18.76	18.98	Pass
*142 (UNII-2C Band)	5710	9.79	10.91	11.08	8.49	43.634	16.40	18.98	Pass
*142 (UNII-3 Band)	5710	-0.31	0.80	0.93	-1.63	4.243	6.28	25.45	Pass

Note: 1. * Test was performed in accordance with Measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test.

2. For UNII-2A: Directional gain = 10 log[($10^{G0/20}$ + $10^{G1/20}$ + $10^{G2/20}$ + $10^{G3/20}$)^2 / 4] = 10.71dBi > 6dBi , so the power limit shall be reduced to 24-(10.71-6) = 19.29dBm.

3. For UNII-2C: Directional gain = 10 log[($10^{G0/20}$ + $10^{G1/20}$ + $10^{G2/20}$ + $10^{G3/20}$)^2 / 4] = 11.02dBi > 6dBi , so the power limit shall be reduced to 24-(11.02-6) = 18.98dBm.

4. For UNII-3: Directional gain = 10 log[($10^{G0/20}$ + $10^{G1/20}$ + $10^{G2/20}$ + $10^{G3/20}$)^2 / 4] = 10.55dBi > 6dBi , so the power limit shall be reduced to 30-(10.55-6) = 25.45dBm.

The Total Power for the straddle channel:

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)
142	5710	47.877	16.8
Note: The total power was calculated through formula and record the value for reference only.			

26dB BANDWIDTH:

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
54	5270	56.70	41.59	41.59	41.37
62	5310	60.50	41.52	41.67	41.63
102	5510	66.68	54.96	52.08	41.26
110	5550	66.63	55.37	52.06	41.19
134	5670	63.75	60.77	50.38	41.48
142 (UNII-2C Band)	5710	46.70	38.82	35.97	35.83

Note: For U_NII-2A, U_NII-2C Band output power limitation is determined based on 26dBc bandwidtl

Power Limit = 11dBm + 10logB < U_NII-2A, U_NII-2C >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
54	5270	41.37	27.16 > 24
62	5310	41.52	27.18 > 24
102	5510	41.26	27.15 > 24
110	5550	41.19	27.14 > 24
134	5670	41.48	27.17 > 24
142 (UNII-2C Band)	5710	35.83	26.54 > 24

802.11ac (VHT80)

POWER OUTPUT:

Chan.	Chan. Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
58	5290	12.11	14.65	13.61	11.82	83.595	19.22	19.29	Pass
106	5530	11.74	13.84	13.82	11.54	77.493	18.89	18.98	Pass
122	5610	11.94	13.64	13.85	11.51	77.176	18.87	18.98	Pass
*138 (UNII-2C Band)	5690	9.43	10.62	11.22	8.77	44.805	16.51	18.98	Pass
*138 (UNII-3 Band)	5690	-3.87	-2.77	-2.10	-4.45	2.0876	3.20	25.45	Pass

Note: 1. * Test was performed in accordance with Measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test.

2. For UNII-2A: Directional gain = 10 log[$(10^{G0/20} + 10^{G1/20} + 10^{G2/20} + 10^{G3/20})^2$ / 4] = 10.71dBi > 6dBi , so the power limit shall be reduced to 24-(10.71-6) = 19.29dBm.

3. For UNII-2C: Directional gain = 10 log[$(10^{G0/20} + 10^{G1/20} + 10^{G2/20} + 10^{G3/20})^2$ / 4] = 11.02dBi > 6dBi , so the power limit shall be reduced to 24-(11.02-6) = 18.98dBm.

4. For UNII-3: Directional gain = 10 log[$(10^{G0/20} + 10^{G1/20} + 10^{G2/20} + 10^{G3/20})^2$ / 4] = 10.55dBi > 6dBi , so the power limit shall be reduced to 30-(10.55-6) = 25.45dBm.

The Total Power for the straddle channel:

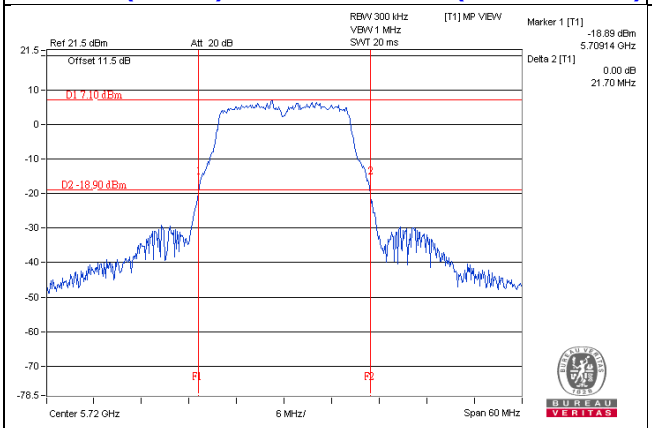
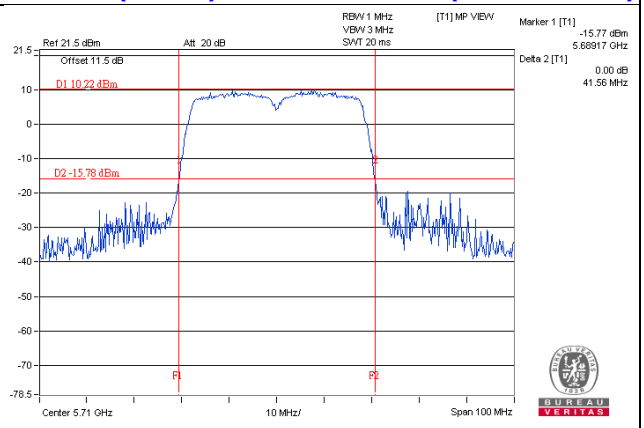
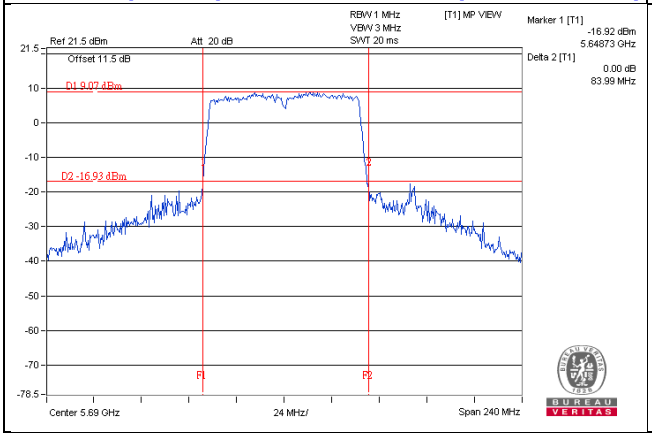
Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)
138	5690	46.8926	16.71
Note: The total power was calculated through formula and record the value for reference only.			

26dB BANDWIDTH:

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
58	5290	82.63	82.93	82.64	82.44
106	5530	83.80	82.69	82.70	82.40
122	5610	85.77	82.64	83.19	82.48
138 (UNII-2C Band)	5690	77.65	76.27	76.44	76.42

Note: For U_NII-2A, U_NII-2C Band output power limitation is determined based on 26dBc bandwidt

Power Limit = 11dBm + 10logB < U_NII-2A, U_NII-2C >			
Channel Number	Freq.(MHz)	Min. B(MHz)	Determined Conducted Limit (dBm)
58	5290	82.44	30.16 > 24
106	5530	82.40	30.15 > 24
122	5610	82.48	30.16 > 24
138 (UNII-2C Band)	5690	76.27	29.82 > 24

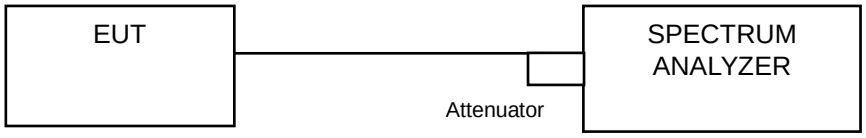
Spectrum Plot of Worst Value	
802.11ac (VHT20) / Chain 1 - CH144 (UNII-2C Band)	**802.11ac (VHT40) / Chain 3 - CH142 (UNII-2C Band)**
	
802.11ac (VHT80) / Chain 1 - CH138 (UNII-2C Band)	
	

NOTE:

For CH144 (UNII-2C Band) = 5725MHz - Marker 1
For CH142 (UNII-2C Band) = 5725MHz - Marker 1
For CH138 (UNII-2C Band) = 5725MHz - Marker 1

4.4 Occupied Bandwidth Measurement

4.4.1 Test Setup



4.4.2 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.4.3 Test Procedure

The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with resolution bandwidth in the range of 1% to 5% of the anticipated emission bandwidth, and a video bandwidth at least 3x the resolution bandwidth and set the detector to SAMPLE. 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.

4.4.4 Test Results

802.11a

Channel	Channel Frequency (MHz)	Occupied Bandwidth (MHz)			
		CHAIN 0	CHAIN 1	CHAIN 2	CHAIN 3
52	5260	17.04	16.92	17.16	16.92
60	5300	17.04	16.92	16.92	16.92
64	5320	17.04	17.04	17.04	17.04
100	5500	17.04	16.92	16.92	16.92
116	5580	16.92	17.04	16.92	17.04
140	5700	17.16	17.04	16.92	16.92
144 (UNII-2C Band)	5720	13.52	13.52	13.52	13.52
144 (UNII-3 Band)	5720	3.40	3.40	3.28	3.40

802.11ac (VHT20)

Channel	Channel Frequency (MHz)	Occupied Bandwidth (MHz)			
		CHAIN 0	CHAIN 1	CHAIN 2	CHAIN 3
52	5260	17.88	18.24	18.00	18.12
60	5300	18.00	18.00	18.12	18.12
64	5320	18.12	18.00	18.00	18.12
100	5500	18.00	18.00	18.00	18.12
116	5580	18.00	18.00	18.00	18.12
140	5700	18.12	17.76	18.00	18.12
144 (UNII-2C Band)	5720	14.12	13.64	14.00	14.12
144 (UNII-3 Band)	5720	4.00	3.40	3.88	4.00

802.11ac (VHT40)

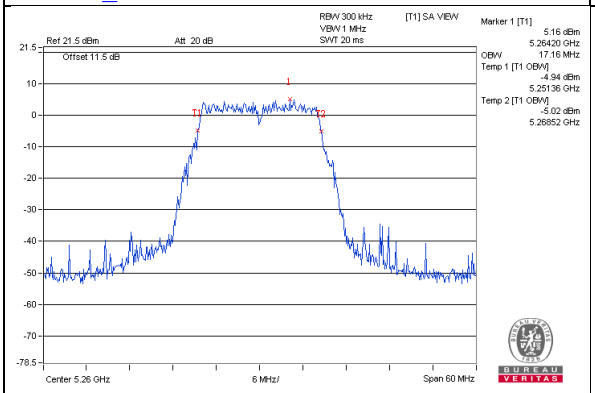
Channel	Channel Frequency (MHz)	Occupied Bandwidth (MHz)			
		CHAIN 0	CHAIN 1	CHAIN 2	CHAIN 3
54	5270	36.72	36.72	36.72	36.48
62	5310	36.72	36.72	36.72	36.72
102	5510	36.72	36.72	36.72	36.72
110	5550	36.72	36.72	36.48	36.72
134	5670	36.72	36.48	36.72	36.72
142 (UNII-2C Band)	5710	33.40	33.40	33.40	33.60
142 (UNII-3 Band)	5710	3.20	3.20	3.40	3.20

802.11ac (VHT80)

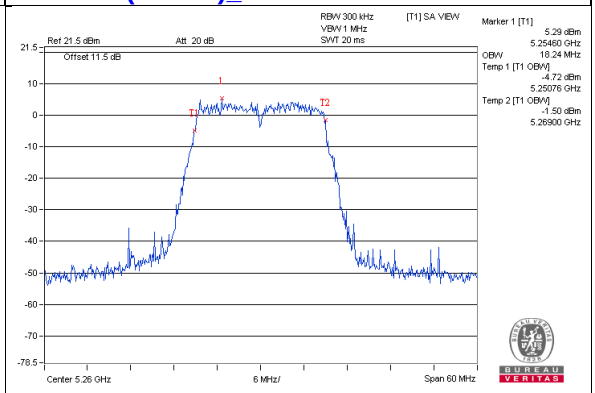
Channel	Channel Frequency (MHz)	Occupied Bandwidth (MHz)			
		CHAIN 0	CHAIN 1	CHAIN 2	CHAIN 3
58	5290	76.32	76.32	76.32	75.84
106	5530	75.84	75.84	76.32	76.32
122	5610	76.32	75.84	76.32	76.32
138 (UNII-2C Band)	5690	73.40	72.92	73.40	72.92
138 (UNII-3 Band)	5690	2.92	2.44	2.44	2.44

Spectrum Plot of Worst Value

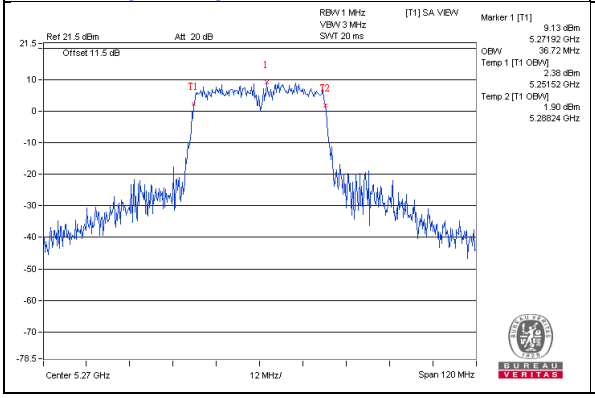
802.11a_Chain2 / CH52



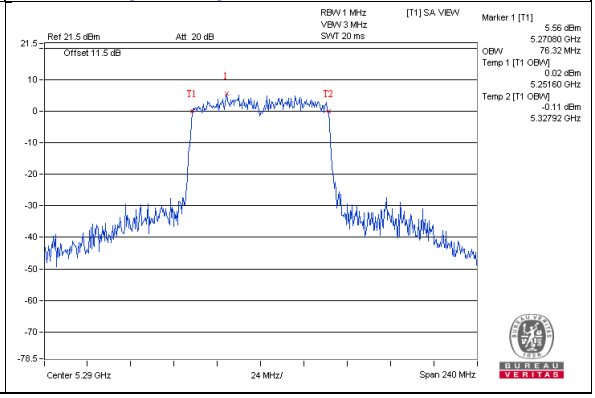
802.11ac (VHT20)_Chain1 / CH52



802.11ac (VHT40)_Chain0 / CH54



802.11ac (VHT80)_Chain0 / CH58

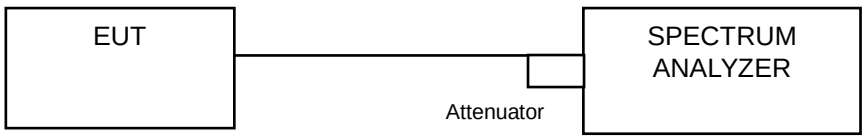


4.5 Peak Power Spectral Density Measurement

4.5.1 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

4.5.2 Test Setup



4.5.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.5.4 Test Procedure

For U_NII-2A, U_NII-2C band:

Using method SA-2

1. Set span to encompass the entire emission bandwidth (EBW) of the signal.
2. Set RBW = 1 MHz, Set VBW ≥ 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 and add 10 log (1/duty cycle)

For U_NII-3:

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).

4.5.5 Deviation from Test Standard

No deviation.

4.5.6 EUT Operating Condition

Same as Item 4.3.6.

4.5.7 Test Results

For UNII-2A, UNII-2C:

802.11a

Chan.	Chan. Freq. (MHz)	PSD W/O Duty Factor (dBm/MHz)				Duty Factor (dB)	Total PSD With Duty Factor (dBm/MHz)	MAX. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
52	5260	-1.87	0.89	0.55	-0.64	0.15	6.04	6.29	Pass
60	5300	-1.80	0.91	0.71	-0.70	0.15	6.09	6.29	Pass
64	5320	-1.31	0.95	0.69	-0.58	0.15	6.21	6.29	Pass
100	5500	-1.35	0.91	0.64	-1.63	0.15	5.96	5.98	Pass
116	5580	-1.45	0.85	0.81	-1.70	0.15	5.97	5.98	Pass
140	5700	-0.84	0.70	0.47	-2.04	0.15	5.88	5.98	Pass
144 (UNII-2C Band)	5720	-0.80	0.81	0.58	-2.19	0.15	5.93	5.98	Pass

Note: 1. Method a) 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. For UNII-2A: Directional gain = 10 log[$(10^{G0/20} + 10^{G1/20} + 10^{G2/20} + 10^{G3/20})^2$ / 4] = 10.71dBi > 6dBi, so the power density limit shall be reduced to 11-(10.71-6) = 6.29dBm.

3. For UNII-2C: Directional gain = 10 log[$(10^{G0/20} + 10^{G1/20} + 10^{G2/20} + 10^{G3/20})^2$ / 4] = 11.02dBi > 6dBi, so the power density limit shall be reduced to 11-(11.02-6) = 5.98dBm.

4. Refer to section 3.3 for duty cycle spectrum plot.

802.11ac (VHT20)

Chan.	Chan. Freq. (MHz)	PSD W/O Duty Factor (dBm/MHz)				Duty Factor (dB)	Total PSD With Duty Factor (dBm/MHz)	MAX. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
52	5260	-1.25	0.46	0.33	-0.56	0.10	5.92	6.29	Pass
60	5300	-1.20	0.38	0.35	-0.51	0.10	5.92	6.29	Pass
64	5320	-1.05	0.69	0.44	-0.63	0.10	6.04	6.29	Pass
100	5500	-1.96	1.13	0.61	-1.39	0.10	5.91	5.98	Pass
116	5580	-1.74	0.80	0.57	-1.23	0.10	5.86	5.98	Pass
140	5700	-0.35	0.84	0.48	-2.78	0.10	5.87	5.98	Pass
144 (UNII-2C Band)	5720	-0.44	0.78	0.54	-2.52	0.10	5.89	5.98	Pass

Note: 1. Method a) 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. For UNII-2A: Directional gain = 10 log[$(10^{G0/20} + 10^{G1/20} + 10^{G2/20} + 10^{G3/20})^2$ / 4] = 10.71dBi > 6dBi, so the power density limit shall be reduced to 11-(10.71-6) = 6.29dBm.
3. For UNII-2C: Directional gain = 10 log[$(10^{G0/20} + 10^{G1/20} + 10^{G2/20} + 10^{G3/20})^2$ / 4] = 11.02dBi > 6dBi, so the power density limit shall be reduced to 11-(11.02-6) = 5.98dBm.
4. Refer to section 3.3 for duty cycle spectrum plot.

802.11ac (VHT40)

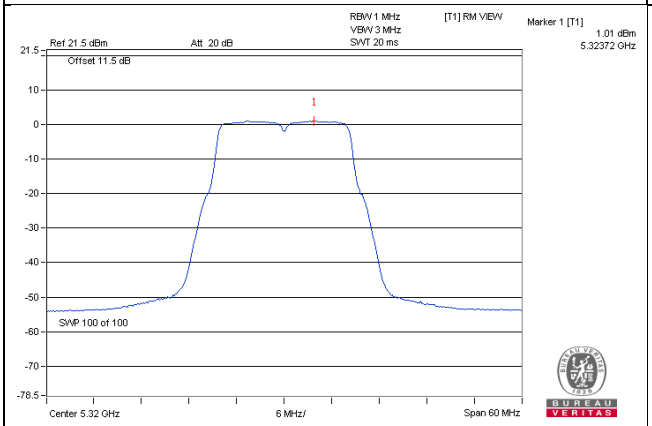
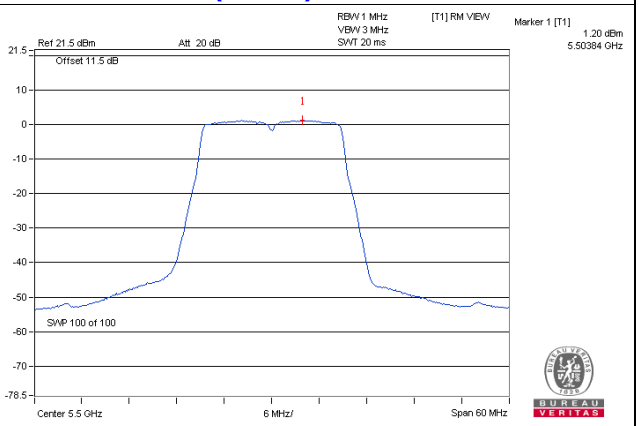
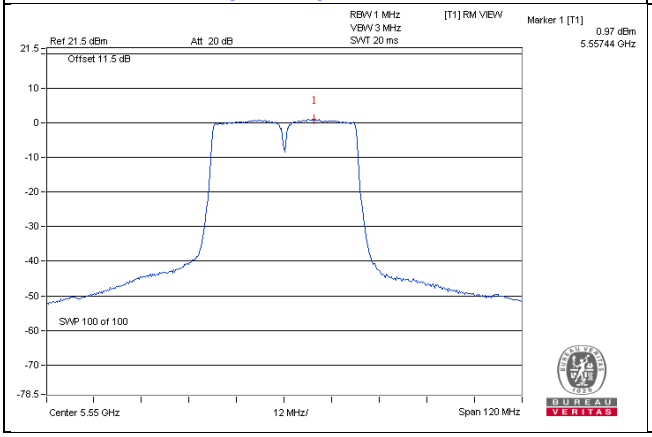
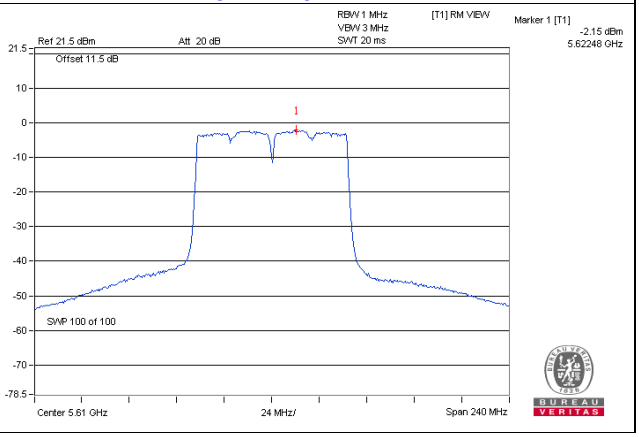
Chan.	Chan. Freq. (MHz)	PSD W/O Duty Factor (dBm/MHz)				Duty Factor (dB)	Total PSD With Duty Factor (dBm/MHz)	MAX. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
54	5270	-1.39	0.43	0.38	-0.85	0.19	5.93	6.29	Pass
62	5310	-1.29	0.23	0.35	-0.68	0.19	5.92	6.29	Pass
102	5510	-1.22	0.70	0.50	-1.63	0.19	5.92	5.98	Pass
110	5550	-1.60	0.96	0.33	-1.62	0.19	5.88	5.98	Pass
134	5670	-1.30	0.18	0.30	-2.39	0.19	5.55	5.98	Pass
142 (UNII-2C Band)	5710	-1.20	0.40	0.16	-2.16	0.19	5.63	5.98	Pass

Note: 1. Method a) 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. For UNII-2A: Directional gain = 10 log[$(10^{G0/20} + 10^{G1/20} + 10^{G2/20} + 10^{G3/20})^2$ / 4] = 10.71dBi > 6dBi, so the power density limit shall be reduced to 11-(10.71-6) = 6.29dBm.
3. For UNII-2C: Directional gain = 10 log[$(10^{G0/20} + 10^{G1/20} + 10^{G2/20} + 10^{G3/20})^2$ / 4] = 11.02dBi > 6dBi, so the power density limit shall be reduced to 11-(11.02-6) = 5.98dBm.
4. Refer to section 3.3 for duty cycle spectrum plot.

802.11ac (VHT80)

Chan.	Chan. Freq. (MHz)	PSD W/O Duty Factor (dBm/MHz)				Duty Factor (dB)	Total PSD With Duty Factor (dBm/MHz)	MAX. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
58	5290	-4.58	-2.39	-3.60	-5.49	0.38	2.54	6.29	Pass
106	5530	-4.51	-2.38	-3.01	-5.05	0.38	2.79	5.98	Pass
122	5610	-3.92	-2.15	-2.48	-4.33	0.38	3.27	5.98	Pass
138 (UNII-2C Band)	5690	-4.38	-2.51	-2.88	-5.20	0.38	2.79	5.98	Pass

Note: 1. Method a) 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. For UNII-2A: Directional gain = 10 log[$(10^{G0/20} + 10^{G1/20} + 10^{G2/20} + 10^{G3/20})^2$ / 4] = 10.71dBi > 6dBi, so the power density limit shall be reduced to 11-(10.71-6) = 6.29dBm.
3. For UNII-2C: Directional gain = 10 log[$(10^{G0/20} + 10^{G1/20} + 10^{G2/20} + 10^{G3/20})^2$ / 4] = 11.02dBi > 6dBi, so the power density limit shall be reduced to 11-(11.02-6) = 5.98dBm.
4. Refer to section 3.3 for duty cycle spectrum plot.

Spectrum Plot of Worst Value	
802.11a_Chain 1 / CH64	**802.11ac (VHT20)_Chain 1 / CH100**
	
802.11ac (VHT40)_Chain 1 / CH110	**802.11ac (VHT80)_Chain 1 / CH122**
	

For U-NII-3:

802.11a

TX chain	Chan.	Chan. Freq. (MHz)	PSD W/O Duty Factor		10 log (N=4) dB	Duty Factor (dB)	Total PSD With Duty Factor (dBm/500kHz)	Limit (dBm/500kHz)	Pass /Fail
			(dBm/300kHz)	(dBm/500kHz)					
0	144 (UNII-3 Band)	5720	-8.93	-6.71	6.02	0.15	-0.54	25.45	Pass
1	144 (UNII-3 Band)	5720	-7.16	-4.94	6.02	0.15	1.23	25.45	Pass
2	144 (UNII-3 Band)	5720	-7.46	-5.24	6.02	0.15	0.93	25.45	Pass
3	144 (UNII-3 Band)	5720	-10.36	-8.14	6.02	0.15	-1.97	25.45	Pass

Note: 1. Directional gain = 10 log[$(10^{G0/20} + 10^{G1/20} + 10^{G2/20} + 10^{G3/20})^2$ / 4] = 10.55dBi > 6dBi , so the power density limit shall be reduced to 30-(10.55-6) =25.45dBm.

2. Refer to section 3.3 for duty cycle spectrum plot.

802.11ac (VHT20)

TX chain	Chan.	Chan. Freq. (MHz)	PSD W/O Duty Factor		10 log (N=4) dB	Duty Factor (dB)	Total PSD With Duty Factor (dBm/500kHz)	Limit (dBm/500kHz)	Pass /Fail
			(dBm/300kHz)	(dBm/500kHz)					
0	144 (UNII-3 Band)	5720	-8.47	-6.25	6.02	0.10	-0.13	25.45	Pass
1	144 (UNII-3 Band)	5720	-7.16	-4.94	6.02	0.10	1.18	25.45	Pass
2	144 (UNII-3 Band)	5720	-7.61	-5.39	6.02	0.10	0.73	25.45	Pass
3	144 (UNII-3 Band)	5720	-10.70	-8.48	6.02	0.10	-2.36	25.45	Pass

Note: 1. Directional gain = 10 log[$(10^{G0/20} + 10^{G1/20} + 10^{G2/20} + 10^{G3/20})^2$ / 4] = 10.55dBi > 6dBi , so the power density limit shall be reduced to 30-(10.55-6) =25.45dBm.

2. Refer to section 3.3 for duty cycle spectrum plot.

802.11ac (VHT40)

TX chain	Chan.	Chan. Freq. (MHz)	PSD W/O Duty Factor		10 log (N=4) dB	Duty Factor (dB)	Total PSD With Duty Factor (dBm/500kHz)	Limit (dBm/500kHz)	Pass /Fail
			(dBm/300kHz)	(dBm/500kHz)					
0	142 (UNII-3 Band)	5710	-9.68	-7.46	6.02	0.19	-1.25	25.45	Pass
1	142 (UNII-3 Band)	5710	-8.21	-5.99	6.02	0.19	0.22	25.45	Pass
2	142 (UNII-3 Band)	5710	-8.22	-6.00	6.02	0.19	0.21	25.45	Pass
3	142 (UNII-3 Band)	5710	-10.81	-8.59	6.02	0.19	-2.38	25.45	Pass

Note: 1. Directional gain = 10 log[$(10^{G0/20} + 10^{G1/20} + 10^{G2/20} + 10^{G3/20})^2$ / 4] = 10.55dBi > 6dBi , so the power density limit shall be reduced to 30-(10.55-6) =25.45dBm.

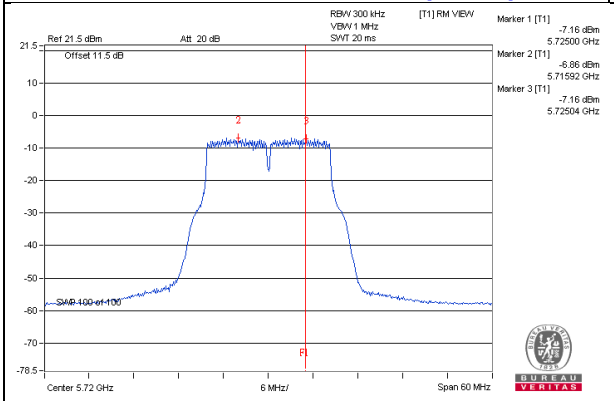
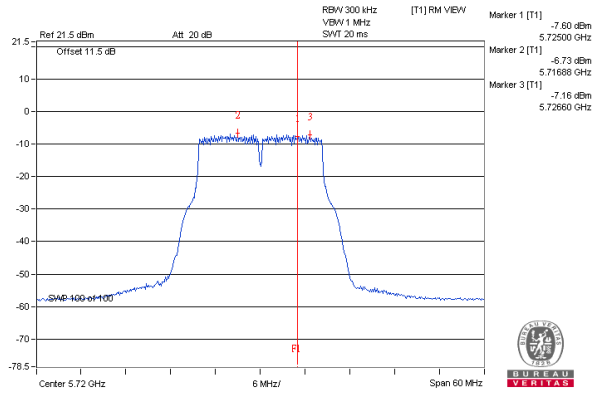
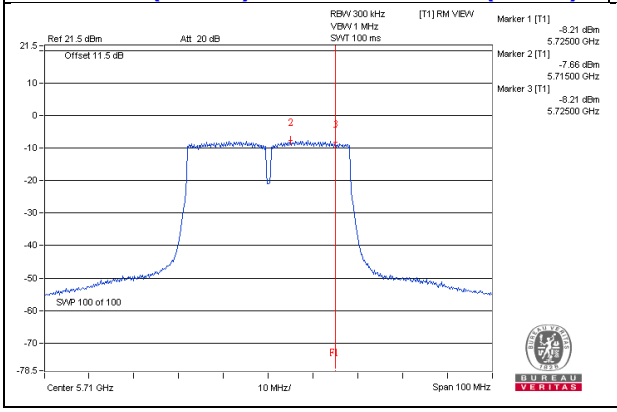
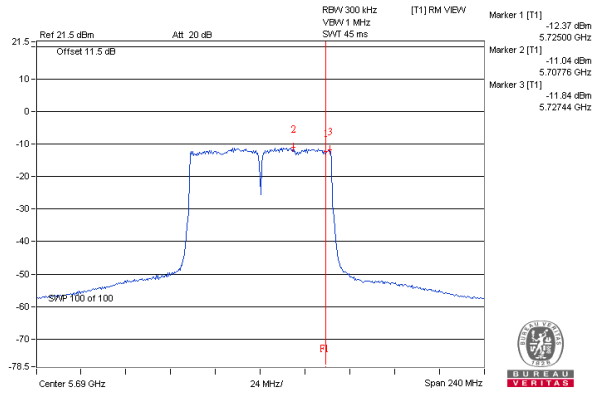
2. Refer to section 3.3 for duty cycle spectrum plot.

802.11ac (VHT80)

TX chain	Chan.	Chan. Freq. (MHz)	PSD W/O Duty Factor		10 log (N=4) dB	Duty Factor (dB)	Total PSD With Duty Factor (dBm/500kHz)	Limit (dBm/500kHz)	Pass /Fail
			(dBm/300kHz)	(dBm/500kHz)					
0	138 (UNII-3 Band)	5690	-13.56	-11.34	6.02	0.38	-4.94	25.45	Pass
1	138 (UNII-3 Band)	5690	-11.84	-9.62	6.02	0.38	-3.22	25.45	Pass
2	138 (UNII-3 Band)	5690	-12.25	-10.03	6.02	0.38	-3.63	25.45	Pass
3	138 (UNII-3 Band)	5690	-14.33	-12.11	6.02	0.38	-5.71	25.45	Pass

Note: 1. Directional gain = 10 log[$(10^{G0/20} + 10^{G1/20} + 10^{G2/20} + 10^{G3/20})^2$ / 4] = 10.55dBi > 6dBi , so the power density limit shall be reduced to 30-(10.55-6) =25.45dBm.

2. Refer to section 3.3 for duty cycle spectrum plot.

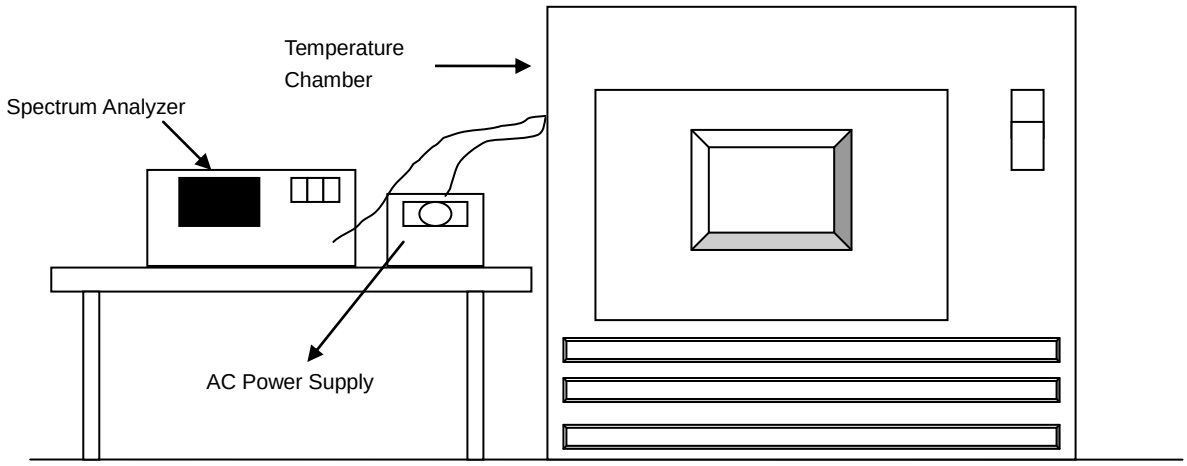
Spectrum Plot of Worst Value	
802.11a – Chain 1: CH 144(UNII-3)	**802.11ac (VHT20) – Chain 1: CH 144(UNII-3)**
	
802.11ac (VHT40) – Chain 1: CH 142(UNII-3)	**802.11ac (VHT80) – Chain 1: CH 138(UNII-3)**
	

4.6 Frequency Stability Measurement

4.6.1 Limits of Frequency Stability Measurement

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

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. 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.
.

4.6.5 Deviation from Test Standard

No deviation.

4.6.6 EUT Operating Condition

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

4.6.7 Test Results

Frequency Stability Versus Temp.									
Operating Frequency: 5260 MHz									
TEMP. (℃)	Power Supply (Vac)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail
50	120	5259.9946	PASS	5259.9934	PASS	5259.9961	PASS	5259.995	PASS
40	120	5259.9839	PASS	5259.9798	PASS	5259.9842	PASS	5259.9842	PASS
30	120	5260.0092	PASS	5260.005	PASS	5260.0056	PASS	5260.0093	PASS
20	120	5259.9734	PASS	5259.9748	PASS	5259.9767	PASS	5259.9763	PASS
10	120	5260.0121	PASS	5260.0146	PASS	5260.0141	PASS	5260.0138	PASS
0	120	5260.0174	PASS	5260.017	PASS	5260.0175	PASS	5260.0176	PASS
-10	120	5259.998	PASS	5260	PASS	5259.9999	PASS	5259.9994	PASS
-20	120	5260.0209	PASS	5260.0207	PASS	5260.0202	PASS	5260.0218	PASS
-30	120	5259.9986	PASS	5259.999	PASS	5259.9994	PASS	5259.9969	PASS

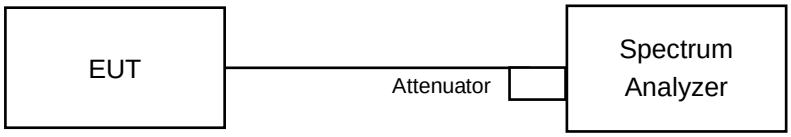
Frequency Stability Versus Voltage									
Operating Frequency: 5260 MHz									
TEMP. (℃)	Power Supply (Vac)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail
20	138	5259.9728	PASS	5259.9755	PASS	5259.9765	PASS	5259.9757	PASS
	120	5259.9734	PASS	5259.9748	PASS	5259.9767	PASS	5259.9763	PASS
	102	5259.9729	PASS	5259.9755	PASS	5259.9776	PASS	5259.9768	PASS

4.7 6dB Bandwidth Measurment

4.7.1 Limits of 6dB Bandwidth Measurement

The minimum of 6dB Bandwidth Measurement is 0.5MHz.

4.7.2 Test Setup



4.7.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.7.4 Test Procedure

MEASUREMENT PROCEDURE REF

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

4.7.5 Deviation from Test Standard

No deviation.

4.7.6 EUT Operating Condition

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

4.7.7 Test Results

802.11a

Channel	Frequency (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
144 (UNII-3 Band)	5720	3.17	3.17	3.17	3.17	0.5	Pass

802.11ac (VHT20)

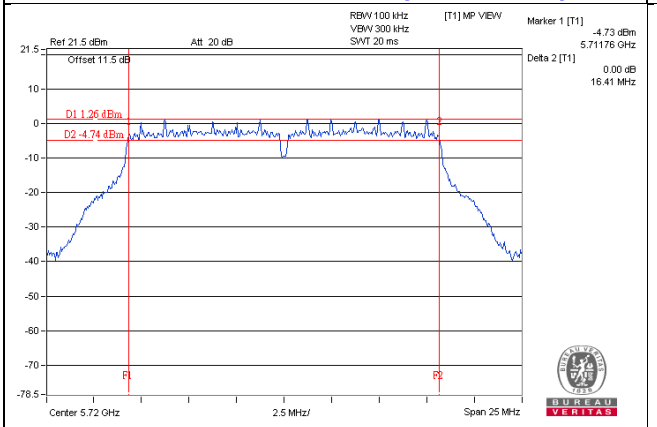
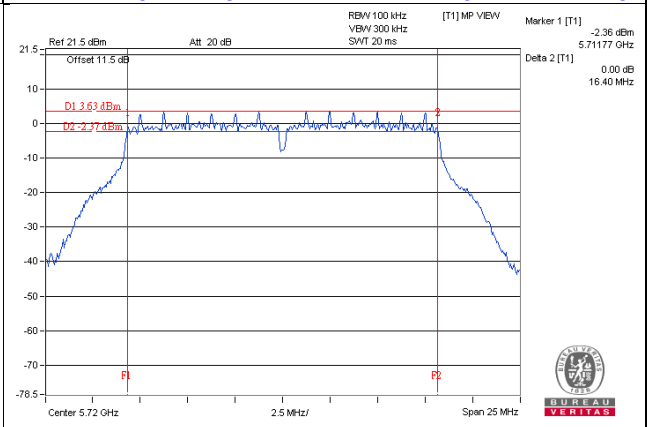
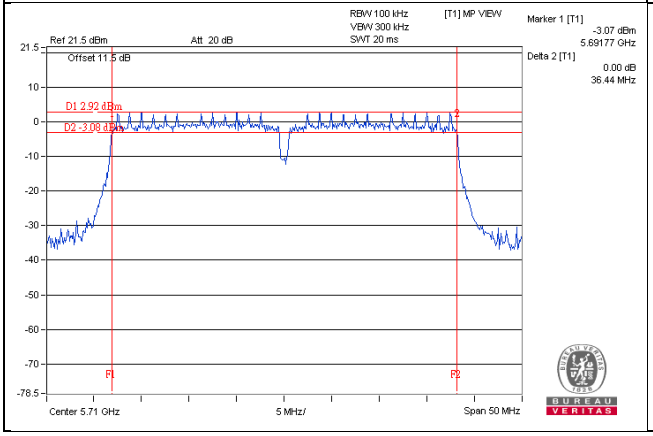
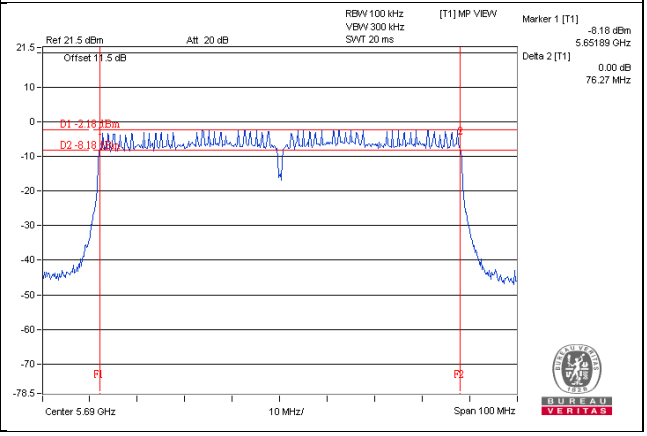
Channel	Frequency (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
144 (UNII-3 Band)	5720	3.79	3.17	3.80	3.79	0.5	Pass

802.11ac (VHT40)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
142 (UNII-3 Band)	5710	3.23	3.23	3.21	3.22	0.5	Pass

802.11ac (VHT80)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
138 (UNII-3 Band)	5690	3.21	3.25	3.18	3.16	0.5	Pass

Spectrum Plot of Worst Value	
802.11a_Chain 0 / CH144 (UNII-3 Band)	**802.11ac (VHT20)_Chain 1 / CH144 (UNII-3 Band)**
	
802.11ac (VHT40)_Chain 2 / CH142 (UNII-3 Band)	**802.11ac (VHT80)_Chain 3 / CH138 (UNII-3 Band)**
	

Note: The 6dB bandwidth above 5725MHz = Marker 1 + Delta 2 - 5725MHz

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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Hsin Chu EMC/RF/Telecom Lab
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The address and road map of all our labs can be found in our web site also.

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