FCC Test Report

Report No.:	RF160621C27V-1
FCC ID:	PY316200341
Test Model:	RBR50
Series Mode:	RBS50, SRR60, SRS60 (refer to item 3.1 for more details)
Received Date:	May 16, 2018
Test Date:	May 18 ~ May 23, 2018
Issued Date:	Jun. 04, 2018
Applicant:	NETGEAR, INC.
Address:	350 East Plumeria Drive San Jose, CA 95134
Issued By:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
Lab Address:	No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan (R.O.C.)
Test Location:	No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City 33383, TAIWAN (R.O.C.)

Testing Laboratory
2021

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Release Control Record

Issue No.	Description	Date Issued
RF160621C27V-1	Original release.	Jun. 04, 2018

1 Certificate of Conformity

Product:	Orbi Router (refer to item 3.1 for more details)
Brand:	NETGEAR
Test Model:	RBR50
Series Mode:	RBS50, SRR60, SRS60 (refer to item 3.1 for more details)
Sample Status:	Engineering sample
Applicant:	NETGEAR, INC.
Test Date:	May 18 ~ May 23, 2018
Standard:	47 CFR FCC Part 15, Subpart E (Section 15.407) ANSI C63.10:2013

This report is issued as a supplementary report of RF160621C27M-1 and RF160621C27L. This report shall be used combined together with its original report.

Prepared by :  , **Date:** Jun. 04, 2018

Polly Chien / Specialist

Approved by :  , **Date:** Jun. 04, 2018

Bruce Chen / Project Engineer

Note: Radiated emission and conducted emission items are performed for the addendum. Refer to original report for the other test data.

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 -12.52dB at 0.36161MHz.
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 5150.00MHz & 5350.00MHz.
15.407(a) (1/2/3)	Max Average Transmit Power	Pass	Refer to Note
15.407(a)(1/2/3)	Peak Power Spectral Density	Pass	Refer to Note
15.407(e)	6dB bandwidth	Pass	Refer to Note
15.407(g)	Frequency Stability	Pass	Refer to Note
15.203	Antenna Requirement	Pass	Antenna connector is I-PEX not a standard connector.

*For U-NII-3 band compliance with rule part 15.407(b)(4)(i), the OOBE test plots were recorded in Annex A.
Note: Radiated emission and conducted emission items are performed for the addendum. Refer to original report for the other test data.

2.1 Measurement Uncertainty

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

Measurement	Frequency	Expanded Uncertainty (k=2) (±)
Conducted Emissions at mains ports	150kHz ~ 30MHz	2.94 dB
Radiated Emissions up to 1 GHz	30MHz ~ 200MHz	3.59 dB
	200MHz ~1000MHz	3.60 dB
Radiated Emissions above 1 GHz	1GHz ~ 18GHz	2.29 dB
	18GHz ~ 40GHz	2.29 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	Orbi Router (Refer to note for more details)
Brand	NETGEAR
Test Model	RBR50
Series Model/Code Name	RBS50, SRR60, SRS60
Model Difference	Refer to note for more details
Sample Status	Engineering sample
Power Supply Rating	12Vdc from adapter
Modulation Type	256QAM, 64QAM, 16QAM, QPSK, BPSK
Modulation Technology	OFDM
Transfer Rate	802.11a: 54/48/36/24/18/12/9/6Mbps 802.11n: up to 600.0Mbps 802.11ac: up to 1733.0Mbps
Operating Frequency	5180 ~ 5240MHz, 5260 ~ 5320MHz, 5500 ~ 5700MHz, 5745 ~ 5825MHz
Number of Channel	5180 ~ 5240MHz: 4 for 802.11a, 802.11n (HT20), 802.11ac (VHT20) 2 for 802.11n (HT40), 802.11ac (VHT40) 1 for 802.11ac (VHT80) 5260~5320MHz: 802.11a, 802.11n (HT20), 802.11ac (VHT20): 4 802.11n (HT40), 802.11ac (VHT40): 2 802.11ac (VHT80): 1 5500~5700MHz: 802.11a, 802.11n (HT20), 802.11ac (VHT20): 11 802.11n (HT40), 802.11ac (VHT40): 5 802.11ac (VHT80): 2 5745 ~ 5825MHz: 5 for 802.11a, 802.11n (HT20), 802.11ac (VHT20) 2 for 802.11n (HT40), 802.11ac (VHT40) 1 for 802.11ac (VHT80)
Output Power	CDD Mode: 5180 ~ 5240MHz: 900.332mW 5260 ~ 5320MHz: 210.708mW 5500 ~ 5700MHz: 207.879mW 5745 ~ 5825MHz: 934.132mW Beamforming_NSS1 Mode: 5180 ~ 5240MHz: 820.722mW 5260 ~ 5320MHz: 209.728mW 5500 ~ 5700MHz: 128.856mW 5745 ~ 5825MHz: 619.725mW Beamforming_NSS 2 Mode: 5745 ~ 5825MHz: 894.270mW

Antenna Type	Refer to Note
Antenna Connector	Refer to Note
Accessory Device	Adapter
Data Cable Supplied	1.95m RJ45 non-shielded cable w/o core

Note:

1. This report is prepared for FCC class II permissive change.
2. This report is issued as a supplementary report to BV CPS report no.: RF160621C27M-1 and RF160621C27L. Please refer to the Operational Description for difference compared to the original report. After evaluation, receiver parameter and the RF portion of the EUT remain unchanged, therefore original conducted emission report data was kept. Radiated emission and AC power conducted emission items were retested in this report. Other test data was referenced from the original test report (Report No.: RF160621C27M-1).
3. DFS test are still compliance for FCC requirement.
4. All models are electrically identical except the firmware. Model: RBR50 is the representative for final test. (Updated names are marked in boldface.)

Brand	Model	Product Name	RF Module	Difference
NETGEAR	RBR50	Orbi Router	Module 1	software firmware: RBR50_V1.1.0.16 Master mode only **The housings SRR60 is different with RBR50, and SRR60 has no USB port.** **The housings of SRR60 is different with RBS50, and SRR60 has no USB port.**
	SRR60	**Orbi Pro Router**	Module 2	
	RBS50	Orbi Satellite	Module 1	software firmware: RBS50_V1.1.0.16 Master mode and Client mode for 5.50 ~ 5.70GHz and 5.745 ~ 5.825GHz band **The housings SRR60 is different with RBR50, and SRR60 has no USB port.** **The housings of SRR60 is different with RBS50, and SRR60 has no USB port.**
	SRS60	**Orbi Pro Satellite**	Module 2	
Note: All of the RF specifications (include antenna type and location) are identical except the differences stated. RF Module 1 support WLAN 2.4GHz band, 5.18 ~ 5.24GHz and 5.26 ~ 5.32GHz band functionally. RF Module 2 WLAN 5.50 ~ 5.70GHz and 5.745 ~ 5.825GHz band functionally.				

6. The EUT incorporates a MIMO function. Physically, the EUT provides 4 completed transmitters and 4 receivers.

Band	Modulation Mode	Beamforming Mode	TX Function
5GHz U-NII-1 & U-NII-2A Band	802.11a	Not Support	2TX
	802.11n (HT20)	Support (CDD / NSS=1)	2TX
	802.11n (HT40)	Support (CDD / NSS=1)	2TX
	802.11ac (VHT20)	Support (CDD / NSS=1)	2TX
	802.11ac (VHT40)	Support (CDD / NSS=1)	2TX
	802.11ac (VHT80)	Support (CDD / NSS=1)	2TX
5GHz U-NII-2C Band	802.11a	Not Support	4TX
	802.11n (HT20)	Support (CDD / NSS=1)	4TX
	802.11n (HT40)	Support (CDD / NSS=1)	4TX
	802.11ac (VHT20)	Support (CDD / NSS=1)	4TX
	802.11ac (VHT40)	Support (CDD / NSS=1)	4TX
	802.11ac (VHT80)	Support (CDD / NSS=1)	4TX
5GHz U-NII-3 Band	802.11a	Not Support	4TX
	802.11n (HT20)	Support (CDD / NSS=1 / NSS=2)	4TX
	802.11n (HT40)	Support (CDD / NSS=1 / NSS=2)	4TX
	802.11ac (VHT20)	Support (CDD / NSS=1 / NSS=2)	4TX
	802.11ac (VHT40)	Support (CDD / NSS=1 / NSS=2)	4TX
	802.11ac (VHT80)	Support (CDD / NSS=1 / NSS=2)	4TX

* 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)

* For 5GHz band 802.11n and 802.11ac, CDD mode is the worst case for final radiated emission and power line conducted emission tests after pretesting CDD mode and beamforming mode.

7. The following antennas were provided to the EUT.

Ant. Type	Dipole					
Connecter Type	I-PEX (WLAN)					
Directional Antenna Gain (dBi)						
Item	2.4G	5G Band 1	5G Band 2	5G Band 3	5G Band 4	
					Nss1	Nss2
-	2.61	4.18	4.18	7.43	7.43	4.86

8. The module 2 card has type C, type D and different gaskets on the following modes. Mode C was the worst case for final test.

Mode	Description
A	Type C on chain 1, 2, 3, and 4. Triangular gaskets on chain 1, 2, 3, and 4.
B	Type C on chain 1, 2, 3, and 4. Triangular gaskets on chain 1, 2, and 3. No gasket on chain 4.
C	Type C on chain 1, 2, 3, and 4. Rectangular gaskets on chain 1, 2, 3, and 4.
D	Type C on chain 1, 2, 3, and 4. Rectangular gaskets on chain 1, 2, and 3. No gasket on chain 4.
E	Type C on chain 1, 2, and 3. Type D on chain 4. Triangular gaskets on chain 1, 2, and 3. No gasket on chain 4.

9. The following filters are provided to this EUT.

RF Module Brand / Model	Filter	Position	Gasket	Remark
Module 1	1st (Filter 1)	TFL1 ,TFL2	With TFL1, TFL2 gasket	passive filter (pin to pin & Same design)
	2nd (Filter 2)	TFL1 ,TFL2	Without TFL1, TFL2 gasket	passive filter (pin to pin & Same design)
Module 2	1st (Filter 3)	BHPF1 ,BHPF2 BHPF3 ,BHPF4	With BHPF1, BHPF2, BHPF3, BHPF4 gasket	passive filter (pin to pin & Same design)
	2nd (Filter 4)	BHPF1 ,BHPF2 BHPF3 ,BHPF4	Without BHPF1, BHPF2, BHPF3, BHPF4 gasket	passive filter (pin to pin & Same design)

10. The EUT uses following adapters.

Adapter 1	
Brand	NETGEAR
Model	AD2080F20
PN	332-10883-01
Input Power	100-240Vdc, 50/60Hz 1.0A
Output Power	12Vdc, 3.5A
Power Line	1.8m power cable without core attached on adapter

Adapter 2	
Brand	NETGEAR
Model	2ABN042F NA
PN	332-10888-01
Input Power	100-240Vdc, 50/60Hz 1.3A
Output Power	12Vdc, 3.5A
Power Line	1.85m power cable without core attached on adapter

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

3.2 Description of Test Modes

For 5180 ~ 5240MHz:

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

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

2 channels are provided for 802.11n (HT40), 802.11ac (40MHz):

Channel	Frequency	Channel	Frequency
38	5190 MHz	46	5230 MHz

1 channel is provided for 802.11ac (VHT80):

Channel	Frequency
42	5210MHz

For 5260 ~ 5320MHz

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

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

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

Channel	Frequency	Channel	Frequency
54	5270 MHz	62	5310 MHz

1 channel is provided for 802.11ac (VHT80):

Channel	Frequency
58	5290 MHz

For 5500 ~ 5700MHz

11 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		

5 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		

2 channels are provided for 802.11ac (VHT80):

Channel	Frequency	Channel	Frequency
106	5530MHz	122	5610 MHz

For 5745 ~ 5825MHz:

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

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

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

Channel	Frequency	Channel	Frequency
151	5755MHz	159	5795MHz

1 channel is provided for 802.11ac (VHT80):

Channel	Frequency
155	5775MHz

3.2.1 Test Mode Applicability and Tested Channel Detail

EUT Configure Mode	Applicable to			Description
	RE≥1G	RE<1G	PLC	
A	√	√	√	EUT power from adapter 1
B	-	√	√	EUT power from adapter 2

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

Note:
1. The EUT was positioned on the Z-plane during testing.
2. "-"means no effect.

Radiated Emission Test (Above 1GHz):

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

EUT Configure Mode	Mode	Frequency Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Data Rate (Mbps)
A	802.11a	5180-5240	36 to 48	36, 40, 48	OFDM	6.0
	802.11ac (VHT20)		36 to 48	36, 40, 48	OFDM	13.0
	802.11ac (VHT40)		38 to 46	38, 46	OFDM	27.0
	802.11ac (VHT80)		42	42	OFDM	58.5
A	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	6.0
	802.11ac (VHT20)		52 to 64	52, 60, 64	OFDM	13.0
	802.11ac (VHT40)		54 to 62	54, 62	OFDM	27.0
	802.11ac (VHT80)		58	58	OFDM	58.5
A	802.11a	5500-5700	100 to 140	100, 116, 140	OFDM	6.0
	802.11ac (VHT20)		100 to 140	100, 116, 140	OFDM	13.0
	802.11ac (VHT40)		102 to 134	102, 110, 134	OFDM	27.0
	802.11ac (VHT80)		106 to 122	106, 122	OFDM	58.5
A	802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	6.0
	802.11ac (VHT20)		149 to 165	149, 157, 165	OFDM	13.0
	802.11ac (VHT40)		151 to 159	151, 159	OFDM	27.0
	802.11ac (VHT80)		155	155	OFDM	58.5

Radiated Emission Test (Below 1GHz):

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

EUT Configure Mode	Mode	Frequency Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Data Rate (Mbps)
A, B	802.11a	5180-5240	36 to 48	40	OFDM	6.0
	802.11a	5260-5320	52 to 64		OFDM	6.0
A, B	802.11a	5500-5700	100 to 140	149	OFDM	6.0
	802.11a	5745-5825	149 to 165		OFDM	6.0

Power Line Conducted Emission Test:

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

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

EUT Configure Mode	Mode	Frequency Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Data Rate (Mbps)
A, B	802.11a	5180-5240	36 to 48	40	OFDM	6.0
	802.11a	5260-5320	52 to 64		OFDM	6.0
A, B	802.11a	5500-5700	100 to 140	149	OFDM	6.0
	802.11a	5745-5825	149 to 165		OFDM	6.0

Test Condition:

Applicable to	Environmental Conditions	Input Power	Tested by
RE≥1G	25 deg. C, 70% RH	120Vac, 60Hz	Noah Chang
RE<1G	25 deg. C, 70% RH	120Vac, 60Hz	Noah Chang
PLC	25 deg. C, 70% RH	120Vac, 60Hz	Matthew Yang

3.3 Description of Support Units

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

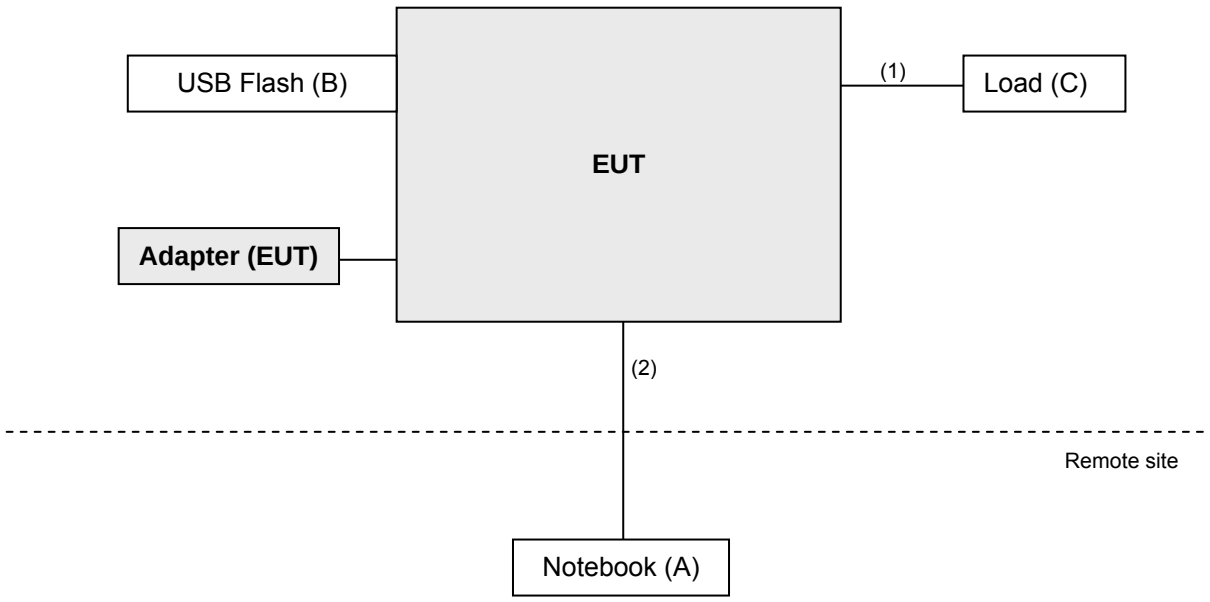
ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Notebook	DELL	E5410	6RP2YM1	FCC DoC Approved	-
B.	USB 3.0 Flash	HP	v250W	01	FCC DoC Approved	-
C.	Load	N/A	N/A	N/A	N/A	-

Note:

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

ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	RJ45	3	1.8	N	0	-
2.	RJ45	1	10	N	0	-

3.3.1 Configuration of System under Test



3.4 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 v02r01
KDB 662911 D01 Multiple Transmitter Output v02r01
ANSI C63.10:2013

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

4 Test Types and Results

4.1 Radiated Emission and Bandedge Measurement

4.1.1 Limits of Radiated Emission and Bandedge Measurement

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

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

NOTE:

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

Limits of unwanted emission out of the restricted bands

Applicable To			Limit	
789033 D02 General UNII Test Procedure New Rules v02r01			Field Strength at 3m	
			PK:74 (dBμV/m)	AV:54 (dBμV/m)
Frequency Band	Applicable To		EIRP Limit	Equivalent Field Strength at 3m
5150~5250 MHz	15.407(b)(1)		PK:-27 (dBm/MHz)	PK:68.2(dBμV/m)
5250~5350 MHz	15.407(b)(2)			
5470~5725 MHz	15.407(b)(3)			
5725~5850 MHz	☒	15.407(b)(4)(i)	PK:-27 (dBm/MHz) [*1] PK:10 (dBm/MHz) [*2] PK:15.6 (dBm/MHz) [*3] PK:27 (dBm/MHz) [*4]	PK: 68.2(dBμV/m) [*1] PK:105.2 (dBμV/m) [*2] PK: 110.8(dBμV/m) [*3] PK:122.2 (dBμV/m) [*4]
	☐	15.407(b)(4)(ii)	Emission limits in section 15.247(d)	

[*1] beyond 75 MHz or more above of the band edge.

[*2] below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above.

[*3] below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above.

[*4] from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.

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

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

4.1.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Test Receiver ROHDE & SCHWARZ	ESCI	100424	Oct. 17, 2017	Oct. 16, 2018
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100040	Aug. 18, 2017	Aug. 17, 2018
BILOG Antenna SCHWARZBECK	VULB9168	9168-155	Dec. 11, 2017	Dec. 10, 2018
HORN Antenna SCHWARZBECK	BBHA 9120D	9120D-1170	Dec. 13, 2017	Dec. 12, 2018
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170241	Dec. 01, 2017	Nov. 30, 2018
Loop Antenna EMCI	EM-6879	269	Aug. 11, 2017	Aug. 10, 2018
Preamplifier Agilent (Below 1GHz)	8447D	2944A10631	Aug. 08, 2017	Aug. 07, 2018
Preamplifier Agilent (Above 1GHz)	8449B	3008A01922	Sep. 15, 2017	Sep. 14, 2018
RF signal cable HUBER+SUHNER	SUCOFLEX 104	MY 13380+295012/04	Aug. 08, 2017	Aug. 07, 2018
RF signal cable HUBER+SUHNER	SUCOFLEX 104	Cable-CH4-03 (250724)	Aug. 08, 2017	Aug. 07, 2018
Software BV ADT	ADT_Radiated_ V7.6.15.9.4	NA	NA	NA
Antenna Tower inn-co GmbH	MA 4000	010303	NA	NA
Antenna Tower Controller BV ADT	AT100	AT93021703	NA	NA
Turn Table BV ADT	TT100	TT93021703	NA	NA
Turn Table Controller BV ADT	SC100	SC93021703	NA	NA
Boresight Antenna Fixture	FBA-01	FBA-SIP01	NA	NA
26GHz ~ 40GHz Amplifier Agilent	8449B	3008A1960	Aug. 08, 2017	Aug. 07, 2018

Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in HwaYa Chamber 4.
3. The FCC Designation Number is TW0003. The number will be varied with the Lab location and scope as attached.
4. The IC Site Registration No. is IC 7450F-4.

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. Parallel, perpendicular, and ground-parallel orientations 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:

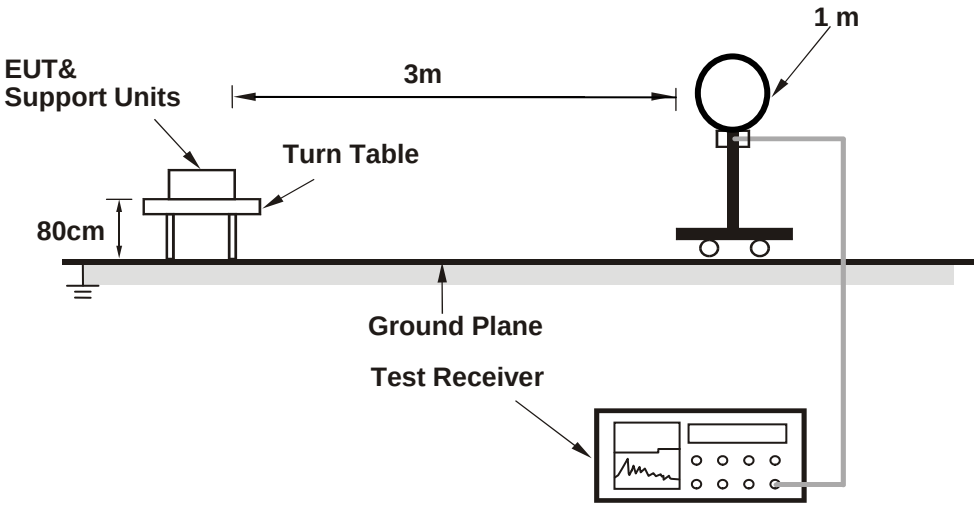
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
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

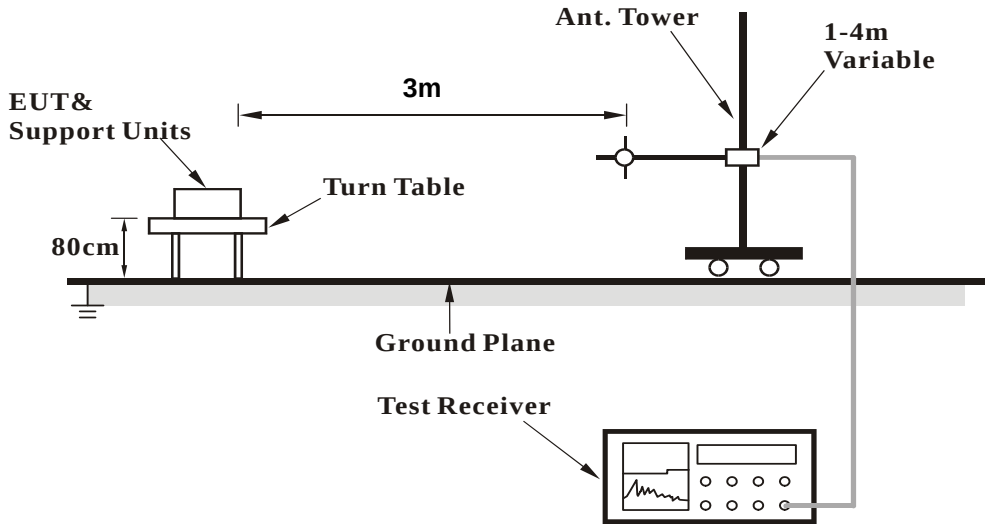
No deviation.

4.1.5 Test Setup

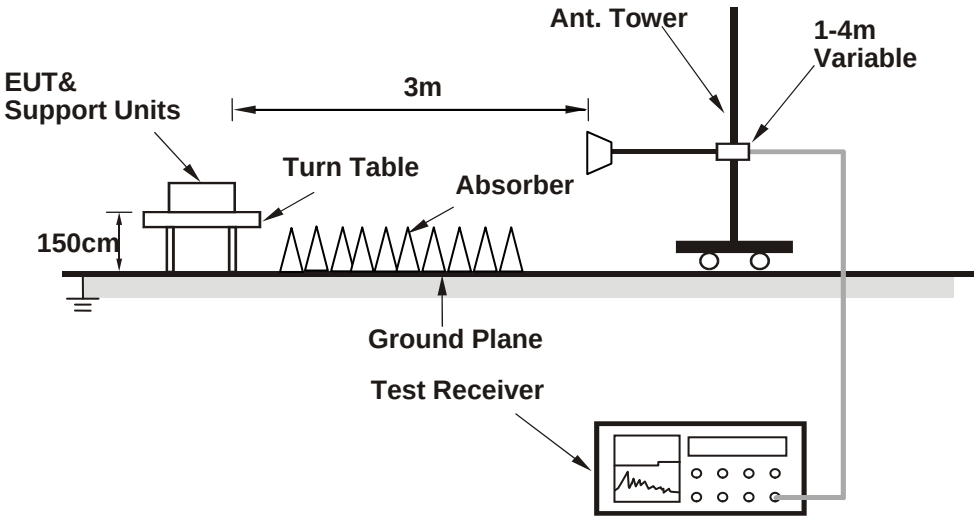
For Radiated emission below 30MHz



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 Conditions

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

4.1.7 Test Results

Above 1GHz Worst-Case Data:

802.11a

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	60.4 PK	74.0	-13.6	1.02 H	126	57.80	2.60
2	5150.00	45.6 AV	54.0	-8.4	1.02 H	126	43.00	2.60
3	*5180.00	105.9 PK			1.02 H	126	65.00	40.90
4	*5180.00	95.3 AV			1.02 H	126	54.40	40.90
5	#10360.00	59.4 PK	74.0	-14.6	2.09 H	326	44.60	14.80
6	#10360.00	45.7 AV	54.0	-8.3	2.09 H	326	30.90	14.80
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	68.7 PK	74.0	-5.3	1.11 V	170	66.10	2.60
2	5150.00	52.2 AV	54.0	-1.8	1.11 V	170	49.60	2.60
3	*5180.00	117.3 PK			1.11 V	170	76.40	40.90
4	*5180.00	107.5 AV			1.11 V	170	66.60	40.90
5	#10360.00	60.7 PK	74.0	-13.3	2.07 V	119	45.90	14.80
6	#10360.00	46.3 AV	54.0	-7.7	2.07 V	119	31.50	14.80

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	107.7 PK			1.01 H	289	66.80	40.90
2	*5200.00	98.2 AV			1.01 H	289	57.30	40.90
3	#10400.00	60.2 PK	74.0	-13.8	1.78 H	100	45.30	14.90
4	#10400.00	46.4 AV	54.0	-7.6	1.78 H	100	31.50	14.90
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	119.0 PK			1.17 V	197	78.10	40.90
2	*5200.00	109.0 AV			1.17 V	197	68.10	40.90
3	#10400.00	60.7 PK	74.0	-13.3	1.90 V	223	45.80	14.90
4	#10400.00	46.6 AV	54.0	-7.4	1.90 V	223	31.70	14.90

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	106.9 PK			1.02 H	135	66.20	40.70
2	*5240.00	96.7 AV			1.02 H	135	56.00	40.70
3	5350.00	56.5 PK	74.0	-17.5	1.02 H	135	53.70	2.80
4	5350.00	43.6 AV	54.0	-10.4	1.02 H	135	40.80	2.80
5	#10480.00	59.6 PK	74.0	-14.4	1.68 H	339	44.90	14.70
6	#10480.00	45.9 AV	54.0	-8.1	1.68 H	339	31.20	14.70
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	118.3 PK			1.20 V	197	77.60	40.70
2	*5240.00	108.3 AV			1.20 V	197	67.60	40.70
3	5350.00	56.8 PK	74.0	-17.2	1.20 V	197	54.00	2.80
4	5350.00	44.3 AV	54.0	-9.7	1.20 V	197	41.50	2.80
5	#10480.00	60.3 PK	74.0	-13.7	1.63 V	229	45.60	14.70
6	#10480.00	46.2 AV	54.0	-7.8	1.63 V	229	31.50	14.70

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – 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 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	5150.00	56.7 PK	74.0	-17.3	1.00 H	126	54.10	2.60
2	5150.00	43.7 AV	54.0	-10.3	1.00 H	126	41.10	2.60
3	*5260.00	104.7 PK			1.00 H	126	64.00	40.70
4	*5260.00	94.2 AV			1.00 H	126	53.50	40.70
5	#10520.00	59.3 PK	74.0	-14.7	1.99 H	21	44.50	14.80
6	#10520.00	45.8 AV	54.0	-8.2	1.99 H	21	31.00	14.80
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	56.3 PK	74.0	-17.7	1.03 V	13	53.70	2.60
2	5150.00	43.7 AV	54.0	-10.3	1.03 V	13	41.10	2.60
3	*5260.00	114.5 PK			1.03 V	13	73.80	40.70
4	*5260.00	104.0 AV			1.03 V	13	63.30	40.70
5	#10520.00	59.7 PK	74.0	-14.3	1.69 V	227	44.90	14.80
6	#10520.00	46.3 AV	54.0	-7.7	1.69 V	227	31.50	14.80

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – 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	105.4 PK			1.05 H	259	64.80	40.60
2	*5300.00	95.6 AV			1.05 H	259	55.00	40.60
3	10600.00	61.1 PK	74.0	-12.9	1.77 H	322	45.90	15.20
4	10600.00	46.7 AV	54.0	-7.3	1.77 H	322	31.50	15.20
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	116.1 PK			1.14 V	24	75.50	40.60
2	*5300.00	105.4 AV			1.14 V	24	64.80	40.60
3	10600.00	61.1 PK	74.0	-12.9	2.33 V	150	45.90	15.20
4	10600.00	46.7 AV	54.0	-7.3	2.33 V	150	31.50	15.20

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – 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 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	106.3 PK			1.04 H	258	65.60	40.70
2	*5320.00	95.3 AV			1.04 H	258	54.60	40.70
3	5350.00	56.7 PK	74.0	-17.3	1.04 H	258	53.90	2.80
4	5350.00	44.0 AV	54.0	-10.0	1.04 H	258	41.20	2.80
5	10640.00	60.3 PK	74.0	-13.7	2.25 H	302	44.90	15.40
6	10640.00	46.6 AV	54.0	-7.4	2.25 H	302	31.20	15.40
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	115.6 PK			1.14 V	22	74.90	40.70
2	*5320.00	105.3 AV			1.14 V	22	64.60	40.70
3	5350.00	65.2 PK	74.0	-8.8	1.14 V	22	62.40	2.80
4	5350.00	48.1 AV	54.0	-5.9	1.14 V	22	45.30	2.80
5	10640.00	61.0 PK	74.0	-13.0	2.11 V	187	45.60	15.40
6	10640.00	47.2 AV	54.0	-6.8	2.11 V	187	31.80	15.40

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – 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 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	5460.00	57.1 PK	74.0	-16.9	1.19 H	64	53.90	3.20
2	5460.00	43.9 AV	54.0	-10.1	1.19 H	64	40.70	3.20
3	#5470.00	57.2 PK	74.0	-16.8	1.19 H	64	54.00	3.20
4	#5470.00	44.0 AV	54.0	-10.0	1.19 H	64	40.80	3.20
5	*5500.00	104.3 PK			1.19 H	64	62.80	41.50
6	*5500.00	93.8 AV			1.19 H	64	52.30	41.50
7	11000.00	61.3 PK	74.0	-12.7	2.45 H	333	45.30	16.00
8	11000.00	47.9 AV	54.0	-6.1	2.45 H	333	31.90	16.00
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	57.4 PK	74.0	-16.6	1.58 V	95	54.20	3.20
2	5460.00	45.0 AV	54.0	-9.0	1.58 V	95	41.80	3.20
3	#5470.00	59.3 PK	74.0	-14.7	1.58 V	95	56.10	3.20
4	#5470.00	45.5 AV	54.0	-8.5	1.58 V	95	42.30	3.20
5	*5500.00	115.3 PK			1.58 V	95	73.80	41.50
6	*5500.00	105.1 AV			1.58 V	95	63.60	41.50
7	11000.00	62.5 PK	74.0	-11.5	2.51 V	144	46.50	16.00
8	11000.00	48.7 AV	54.0	-5.3	2.51 V	144	32.70	16.00

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – 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	*5580.00	103.7 PK			1.39 H	71	61.80	41.90
2	*5580.00	93.7 AV			1.39 H	71	51.80	41.90
3	11160.00	61.0 PK	74.0	-13.0	2.77 H	252	45.30	15.70
4	11160.00	47.5 AV	54.0	-6.5	2.77 H	252	31.80	15.70
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5580.00	114.2 PK			1.46 V	101	72.30	41.90
2	*5580.00	104.2 AV			1.46 V	101	62.30	41.90
3	11160.00	62.0 PK	74.0	-12.0	2.38 V	174	46.30	15.70
4	11160.00	48.1 AV	54.0	-5.9	2.38 V	174	32.40	15.70

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – 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 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	103.5 PK			1.34 H	89	61.40	42.10
2	*5700.00	93.4 AV			1.34 H	89	51.30	42.10
3	#5725.00	57.7 PK	74.0	-16.3	1.34 H	89	54.00	3.70
4	#5725.00	44.6 AV	54.0	-9.4	1.34 H	89	40.90	3.70
5	11400.00	61.1 PK	74.0	-12.9	3.33 H	102	45.10	16.00
6	11400.00	48.0 AV	54.0	-6.0	3.33 H	102	32.00	16.00
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	114.7 PK			1.44 V	160	72.60	42.10
2	*5700.00	104.2 AV			1.44 V	160	62.10	42.10
3	#5725.00	59.7 PK	74.0	-14.3	1.44 V	160	56.00	3.70
4	#5725.00	46.1 AV	54.0	-7.9	1.44 V	160	42.40	3.70
5	11400.00	62.2 PK	74.0	-11.8	2.36 V	319	46.20	16.00
6	11400.00	48.1 AV	54.0	-5.9	2.36 V	319	32.10	16.00

Remarks:

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

CHANNEL	TX Channel 149	DETECTOR FUNCTION	Peak (PK) 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	#5638.40	57.0 PK	68.2	-11.2	1.73 H	243	53.60	3.40
2	*5745.00	112.1 PK			1.73 H	243	69.90	42.20
3	*5745.00	101.2 AV			1.73 H	243	59.00	42.20
4	#5972.00	58.0 PK	68.2	-10.2	1.73 H	243	53.40	4.60
5	11490.00	60.4 PK	74.0	-13.6	2.99 H	150	44.20	16.20
6	11490.00	47.2 AV	54.0	-6.8	2.99 H	150	31.00	16.20
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5624.00	59.3 PK	68.2	-8.9	1.51 V	272	55.80	3.50
2	*5745.00	122.7 PK			1.51 V	272	80.50	42.20
3	*5745.00	112.1 AV			1.51 V	272	69.90	42.20
4	#5924.80	59.2 PK	68.3	-9.1	1.51 V	272	54.80	4.40
5	11490.00	60.5 PK	74.0	-13.5	2.53 V	322	44.30	16.20
6	11490.00	47.3 AV	54.0	-6.7	2.53 V	322	31.10	16.20

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5605.60	57.6 PK	68.2	-10.6	1.93 H	239	54.00	3.60
2	*5785.00	112.4 PK			1.93 H	239	70.00	42.40
3	*5785.00	101.6 AV			1.93 H	239	59.20	42.40
4	#5985.60	58.3 PK	68.2	-9.9	1.93 H	239	53.70	4.60
5	11570.00	60.1 PK	74.0	-13.9	2.88 H	150	44.10	16.00
6	11570.00	47.0 AV	54.0	-7.0	2.88 H	150	31.00	16.00
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5639.20	58.6 PK	68.2	-9.6	1.44 V	272	55.20	3.40
2	*5785.00	122.8 PK			1.44 V	272	80.40	42.40
3	*5785.00	112.9 AV			1.44 V	272	70.50	42.40
4	#5948.80	58.7 PK	68.2	-9.5	1.44 V	272	54.10	4.60
5	11570.00	60.5 PK	74.0	-13.5	3.32 V	56	44.50	16.00
6	11570.00	47.2 AV	54.0	-6.8	3.32 V	56	31.20	16.00

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5642.40	56.3 PK	68.2	-11.9	1.38 H	237	52.90	3.40
2	*5825.00	112.4 PK			1.38 H	237	69.60	42.80
3	*5825.00	101.7 AV			1.38 H	237	58.90	42.80
4	#5964.80	57.6 PK	68.2	-10.6	1.38 H	237	52.90	4.70
5	11650.00	59.6 PK	74.0	-14.4	1.22 H	355	44.20	15.40
6	11650.00	46.4 AV	54.0	-7.6	1.22 H	355	31.00	15.40
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5602.40	58.2 PK	68.2	-10.0	2.12 V	274	54.60	3.60
2	*5825.00	123.1 PK			2.12 V	274	80.30	42.80
3	*5825.00	112.9 AV			2.12 V	274	70.10	42.80
4	#5930.40	58.7 PK	68.2	-9.5	2.12 V	274	54.20	4.50
5	11650.00	59.7 PK	74.0	-14.3	1.18 V	302	44.30	15.40
6	11650.00	47.0 AV	54.0	-7.0	1.18 V	302	31.60	15.40

Remarks:

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

802.11n (HT20)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	61.2 PK	74.0	-12.8	1.03 H	126	58.60	2.60
2	5150.00	46.9 AV	54.0	-7.1	1.03 H	126	44.30	2.60
3	*5180.00	105.4 PK			1.03 H	126	64.50	40.90
4	*5180.00	95.1 AV			1.03 H	126	54.20	40.90
5	#10360.00	59.7 PK	74.0	-14.3	2.87 H	15	44.90	14.80
6	#10360.00	45.8 AV	54.0	-8.2	2.87 H	15	31.00	14.80
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	67.3 PK	74.0	-6.7	1.23 V	3	64.70	2.60
2	5150.00	52.1 AV	54.0	-1.9	1.23 V	3	49.50	2.60
3	*5180.00	117.1 PK			1.23 V	3	76.20	40.90
4	*5180.00	106.2 AV			1.23 V	3	65.30	40.90
5	#10360.00	60.5 PK	74.0	-13.5	2.11 V	174	45.70	14.80
6	#10360.00	46.0 AV	54.0	-8.0	2.11 V	174	31.20	14.80

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	107.8 PK			1.02 H	124	66.90	40.90
2	*5200.00	97.2 AV			1.02 H	124	56.30	40.90
3	#10400.00	59.5 PK	74.0	-14.5	2.22 H	266	44.60	14.90
4	#10400.00	45.9 AV	54.0	-8.1	2.22 H	266	31.00	14.90
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	118.8 PK			1.23 V	12	77.90	40.90
2	*5200.00	108.6 AV			1.23 V	12	67.70	40.90
3	#10400.00	60.5 PK	74.0	-13.5	2.10 V	307	45.60	14.90
4	#10400.00	46.3 AV	54.0	-7.7	2.10 V	307	31.40	14.90

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	107.4 PK			1.00 H	281	66.70	40.70
2	*5240.00	96.5 AV			1.00 H	281	55.80	40.70
3	5350.00	56.9 PK	74.0	-17.1	1.00 H	281	54.10	2.80
4	5350.00	44.0 AV	54.0	-10.0	1.00 H	281	41.20	2.80
5	#10480.00	59.3 PK	74.0	-14.7	2.66 H	302	44.60	14.70
6	#10480.00	45.9 AV	54.0	-8.1	2.66 H	302	31.20	14.70
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	118.4 PK			1.21 V	24	77.70	40.70
2	*5240.00	107.9 AV			1.21 V	24	67.20	40.70
3	5350.00	57.4 PK	74.0	-16.6	1.21 V	24	54.60	2.80
4	5350.00	44.3 AV	54.0	-9.7	1.21 V	24	41.50	2.80
5	#10480.00	60.0 PK	74.0	-14.0	2.94 V	118	45.30	14.70
6	#10480.00	46.2 AV	54.0	-7.8	2.94 V	118	31.50	14.70

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – 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 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	5150.00	56.1 PK	74.0	-17.9	1.18 H	246	53.50	2.60
2	5150.00	43.8 AV	54.0	-10.2	1.18 H	246	41.20	2.60
3	*5260.00	105.0 PK			1.18 H	246	64.30	40.70
4	*5260.00	94.2 AV			1.18 H	246	53.50	40.70
5	#10520.00	59.7 PK	74.0	-14.3	3.20 H	255	44.90	14.80
6	#10520.00	46.0 AV	54.0	-8.0	3.20 H	255	31.20	14.80
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	56.2 PK	74.0	-17.8	1.11 V	9	53.60	2.60
2	5150.00	43.9 AV	54.0	-10.1	1.11 V	9	41.30	2.60
3	*5260.00	115.0 PK			1.11 V	9	74.30	40.70
4	*5260.00	104.4 AV			1.11 V	9	63.70	40.70
5	#10520.00	60.2 PK	74.0	-13.8	2.64 V	172	45.40	14.80
6	#10520.00	46.9 AV	54.0	-7.1	2.64 V	172	32.10	14.80

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – 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	105.2 PK			1.19 H	255	64.60	40.60
2	*5300.00	95.1 AV			1.19 H	255	54.50	40.60
3	10600.00	59.8 PK	74.0	-14.2	2.24 H	120	44.60	15.20
4	10600.00	46.1 AV	54.0	-7.9	2.24 H	120	30.90	15.20
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	114.9 PK			1.17 V	359	74.30	40.60
2	*5300.00	104.5 AV			1.17 V	359	63.90	40.60
3	10600.00	60.8 PK	74.0	-13.2	2.95 V	143	45.60	15.20
4	10600.00	47.1 AV	54.0	-6.9	2.95 V	143	31.90	15.20

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – 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	105.1 PK			1.18 H	220	64.40	40.70
2	*5320.00	95.0 AV			1.18 H	220	54.30	40.70
3	5350.00	58.4 PK	74.0	-15.6	1.18 H	220	55.60	2.80
4	5350.00	45.0 AV	54.0	-9.0	1.18 H	220	42.20	2.80
5	10640.00	59.7 PK	74.0	-14.3	2.59 H	155	44.30	15.40
6	10640.00	46.6 AV	54.0	-7.4	2.59 H	155	31.20	15.40
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	115.1 PK			1.02 V	12	74.40	40.70
2	*5320.00	104.8 AV			1.02 V	12	64.10	40.70
3	5350.00	62.4 PK	74.0	-11.6	1.02 V	12	59.60	2.80
4	5350.00	47.0 AV	54.0	-7.0	1.02 V	12	44.20	2.80
5	10640.00	60.6 PK	74.0	-13.4	2.18 V	190	45.20	15.40
6	10640.00	47.3 AV	54.0	-6.7	2.18 V	190	31.90	15.40

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – 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 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	5460.00	57.4 PK	74.0	-16.6	1.21 H	64	54.20	3.20
2	5460.00	44.1 AV	54.0	-9.9	1.21 H	64	40.90	3.20
3	#5470.00	57.5 PK	74.0	-16.5	1.21 H	64	54.30	3.20
4	#5470.00	44.2 AV	54.0	-9.8	1.21 H	64	41.00	3.20
5	*5500.00	103.9 PK			1.21 H	64	62.40	41.50
6	*5500.00	93.4 AV			1.21 H	64	51.90	41.50
7	11000.00	61.1 PK	74.0	-12.9	1.55 H	232	45.10	16.00
8	11000.00	47.6 AV	54.0	-6.4	1.55 H	232	31.60	16.00
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	56.4 PK	74.0	-17.6	1.18 V	163	53.20	3.20
2	5460.00	44.4 AV	54.0	-9.6	1.18 V	163	41.20	3.20
3	#5470.00	58.3 PK	74.0	-15.7	1.18 V	163	55.10	3.20
4	#5470.00	44.7 AV	54.0	-9.3	1.18 V	163	41.50	3.20
5	*5500.00	114.3 PK			1.18 V	163	72.80	41.50
6	*5500.00	103.4 AV			1.18 V	163	61.90	41.50
7	11000.00	62.4 PK	74.0	-11.6	2.15 V	194	46.40	16.00
8	11000.00	48.3 AV	54.0	-5.7	2.15 V	194	32.30	16.00

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – 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	*5580.00	102.7 PK			1.35 H	88	60.80	41.90
2	*5580.00	92.2 AV			1.35 H	88	50.30	41.90
3	11160.00	60.2 PK	74.0	-13.8	2.81 H	203	44.50	15.70
4	11160.00	47.0 AV	54.0	-7.0	2.81 H	203	31.30	15.70
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5580.00	113.8 PK			1.23 V	155	71.90	41.90
2	*5580.00	103.0 AV			1.23 V	155	61.10	41.90
3	11160.00	61.8 PK	74.0	-12.2	2.67 V	143	46.10	15.70
4	11160.00	47.6 AV	54.0	-6.4	2.67 V	143	31.90	15.70

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – 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 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	104.6 PK			1.23 H	75	62.50	42.10
2	*5700.00	93.3 AV			1.23 H	75	51.20	42.10
3	#5725.00	58.0 PK	74.0	-16.0	1.23 H	75	54.30	3.70
4	#5725.00	45.0 AV	54.0	-9.0	1.23 H	75	41.30	3.70
5	11400.00	60.9 PK	74.0	-13.1	2.55 H	200	44.90	16.00
6	11400.00	47.2 AV	54.0	-6.8	2.55 H	200	31.20	16.00
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	115.4 PK			1.23 V	165	73.30	42.10
2	*5700.00	104.3 AV			1.23 V	165	62.20	42.10
3	#5725.00	58.3 PK	74.0	-15.7	1.23 V	165	54.60	3.70
4	#5725.00	46.0 AV	54.0	-8.0	1.23 V	165	42.30	3.70
5	11400.00	61.8 PK	74.0	-12.2	2.50 V	147	45.80	16.00
6	11400.00	47.9 AV	54.0	-6.1	2.50 V	147	31.90	16.00

Remarks:

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

CHANNEL	TX Channel 149	DETECTOR FUNCTION	Peak (PK) 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	#5612.80	58.2 PK	68.2	-10.0	1.46 H	244	54.70	3.50
2	*5745.00	111.2 PK			1.46 H	238	69.00	42.20
3	*5745.00	100.3 AV			1.46 H	238	58.10	42.20
4	#5964.80	58.3 PK	68.2	-9.9	1.46 H	244	53.60	4.70
5	11490.00	60.3 PK	74.0	-13.7	2.25 H	105	44.10	16.20
6	11490.00	47.2 AV	54.0	-6.8	2.25 H	105	31.00	16.20
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5627.20	59.9 PK	68.2	-8.3	2.09 V	270	56.40	3.50
2	*5745.00	122.0 PK			2.09 V	270	79.80	42.20
3	*5745.00	111.5 AV			2.09 V	270	69.30	42.20
4	#5968.00	59.0 PK	68.2	-9.2	2.09 V	270	54.40	4.60
5	11490.00	60.5 PK	74.0	-13.5	2.32 V	56	44.30	16.20
6	11490.00	47.4 AV	54.0	-6.6	2.32 V	56	31.20	16.20

Remarks:

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

CHANNEL	TX Channel 157	DETECTOR FUNCTION	Peak (PK) 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	#5632.00	57.4 PK	68.2	-10.8	1.76 H	238	53.90	3.50
2	*5785.00	111.4 PK			1.76 H	238	69.00	42.40
3	*5785.00	100.9 AV			1.76 H	238	58.50	42.40
4	#5988.00	58.3 PK	68.2	-9.9	1.76 H	238	53.60	4.70
5	11570.00	60.5 PK	74.0	-13.5	2.22 H	320	44.50	16.00
6	11570.00	46.5 AV	54.0	-7.5	2.22 H	320	30.50	16.00
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5613.60	57.9 PK	68.2	-10.3	2.10 V	267	54.40	3.50
2	*5785.00	122.1 PK			2.10 V	267	79.70	42.40
3	*5785.00	111.8 AV			2.10 V	267	69.40	42.40
4	#5970.40	58.8 PK	68.2	-9.4	2.10 V	267	54.20	4.60
5	11570.00	60.6 PK	74.0	-13.4	1.55 V	102	44.60	16.00
6	11570.00	46.6 AV	54.0	-7.4	1.55 V	102	30.60	16.00

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5621.60	57.3 PK	68.2	-10.9	1.80 H	242	53.80	3.50
2	*5825.00	111.5 PK			1.80 H	242	68.70	42.80
3	*5825.00	101.1 AV			1.80 H	242	58.30	42.80
4	#5985.60	58.6 PK	68.2	-9.6	1.80 H	242	54.00	4.60
5	11650.00	59.6 PK	74.0	-14.4	1.55 H	222	44.20	15.40
6	11650.00	45.9 AV	54.0	-8.1	1.55 H	222	30.50	15.40
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5624.00	57.3 PK	68.2	-10.9	2.12 V	264	53.80	3.50
2	*5825.00	122.5 PK			2.12 V	264	79.70	42.80
3	*5825.00	112.1 AV			2.12 V	264	69.30	42.80
4	#5949.60	58.5 PK	68.2	-9.7	2.12 V	264	53.90	4.60
5	11650.00	59.7 PK	74.0	-14.3	1.12 V	99	44.30	15.40
6	11650.00	45.8 AV	54.0	-8.2	1.12 V	99	30.40	15.40

Remarks:

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

802.11n (HT40)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	59.9 PK	74.0	-14.1	1.30 H	298	57.30	2.60
2	5150.00	46.6 AV	54.0	-7.4	1.30 H	298	44.00	2.60
3	*5190.00	100.8 PK			1.30 H	298	59.90	40.90
4	*5190.00	92.0 AV			1.30 H	298	51.10	40.90
5	#10380.00	59.7 PK	74.0	-14.3	2.66 H	155	44.90	14.80
6	#10380.00	45.8 AV	54.0	-8.2	2.66 H	155	31.00	14.80
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	70.1 PK	74.0	-3.9	1.32 V	23	67.50	2.60
2	5150.00	50.7 AV	54.0	-3.3	1.32 V	23	48.10	2.60
3	*5190.00	112.5 PK			1.32 V	23	71.60	40.90
4	*5190.00	102.2 AV			1.32 V	23	61.30	40.90
5	#10380.00	60.1 PK	74.0	-13.9	2.60 V	117	45.30	14.80
6	#10380.00	46.0 AV	54.0	-8.0	2.60 V	117	31.20	14.80

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5230.00	103.6 PK			1.30 H	299	62.90	40.70
2	*5230.00	94.3 AV			1.30 H	299	53.60	40.70
3	5350.00	56.0 PK	74.0	-18.0	1.30 H	299	53.20	2.80
4	5350.00	43.4 AV	54.0	-10.6	1.30 H	299	40.60	2.80
5	#10460.00	59.9 PK	74.0	-14.1	2.66 H	150	45.10	14.80
6	#10460.00	46.8 AV	54.0	-7.2	2.66 H	150	32.00	14.80
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5230.00	115.1 PK			1.24 V	26	74.40	40.70
2	*5230.00	105.2 AV			1.24 V	26	64.50	40.70
3	5350.00	57.3 PK	74.0	-16.7	1.24 V	26	54.50	2.80
4	5350.00	44.1 AV	54.0	-9.9	1.24 V	26	41.30	2.80
5	#10460.00	59.9 PK	74.0	-14.1	2.24 V	182	45.10	14.80
6	#10460.00	46.5 AV	54.0	-7.5	2.24 V	182	31.70	14.80

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – 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 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	5150.00	57.0 PK	74.0	-17.0	1.17 H	259	54.40	2.60
2	5150.00	44.0 AV	54.0	-10.0	1.17 H	259	41.40	2.60
3	*5270.00	102.3 PK			1.17 H	259	61.70	40.60
4	*5270.00	93.0 AV			1.17 H	259	52.40	40.60
5	#10540.00	59.4 PK	74.0	-14.6	2.88 H	332	44.50	14.90
6	#10540.00	45.8 AV	54.0	-8.2	2.88 H	332	30.90	14.90
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	57.7 PK	74.0	-16.3	1.02 V	3	55.10	2.60
2	5150.00	43.4 AV	54.0	-10.6	1.02 V	3	40.80	2.60
3	*5270.00	112.2 PK			1.02 V	3	71.60	40.60
4	*5270.00	102.1 AV			1.02 V	3	61.50	40.60
5	#10540.00	59.8 PK	74.0	-14.2	2.46 V	109	44.90	14.90
6	#10540.00	46.7 AV	54.0	-7.3	2.46 V	109	31.80	14.90

Remarks:

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

CHANNEL	TX Channel 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	*5310.00	102.2 PK			1.16 H	261	61.60	40.60
2	*5310.00	92.8 AV			1.16 H	261	52.20	40.60
3	5350.00	61.9 PK	74.0	-12.1	1.16 H	261	59.10	2.80
4	5350.00	47.3 AV	54.0	-6.7	1.16 H	261	44.50	2.80
5	10620.00	60.2 PK	74.0	-13.8	1.45 H	159	44.90	15.30
6	10620.00	46.3 AV	54.0	-7.7	1.45 H	159	31.00	15.30
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5310.00	112.1 PK			1.12 V	15	71.50	40.60
2	*5310.00	101.9 AV			1.12 V	15	61.30	40.60
3	5350.00	70.6 PK	74.0	-3.4	1.12 V	15	67.80	2.80
4	**5350.00**	**53.9 AV**	**54.0**	**-0.1**	**1.12 V**	**15**	**51.10**	**2.80**
5	10620.00	60.6 PK	74.0	-13.4	1.30 V	228	45.30	15.30
6	10620.00	46.8 AV	54.0	-7.2	1.30 V	228	31.50	15.30

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – 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 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	5460.00	57.9 PK	74.0	-16.1	1.00 H	52	54.70	3.20
2	5460.00	44.5 AV	54.0	-9.5	1.00 H	52	41.30	3.20
3	#5470.00	58.1 PK	74.0	-15.9	1.00 H	52	54.90	3.20
4	#5470.00	44.6 AV	54.0	-9.4	1.00 H	52	41.40	3.20
5	*5510.00	103.6 PK			1.00 H	52	62.00	41.60
6	*5510.00	93.2 AV			1.00 H	52	51.60	41.60
7	11020.00	60.4 PK	74.0	-13.6	2.25 H	344	44.60	15.80
8	11020.00	47.0 AV	54.0	-7.0	2.25 H	344	31.20	15.80
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	58.2 PK	74.0	-15.8	1.34 V	89	55.00	3.20
2	5460.00	44.7 AV	54.0	-9.3	1.34 V	89	41.50	3.20
3	#5470.00	61.5 PK	74.0	-12.5	1.34 V	89	58.30	3.20
4	#5470.00	48.0 AV	54.0	-6.0	1.34 V	89	44.80	3.20
5	*5510.00	112.0 PK			1.34 V	89	70.40	41.60
6	*5510.00	102.4 AV			1.34 V	89	60.80	41.60
7	11020.00	61.5 PK	74.0	-12.5	2.39 V	340	45.70	15.80
8	11020.00	47.6 AV	54.0	-6.4	2.39 V	340	31.80	15.80

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – 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	*5550.00	103.0 PK			1.00 H	315	61.20	41.80
2	*5550.00	92.7 AV			1.00 H	315	50.90	41.80
3	11100.00	60.2 PK	74.0	-13.8	2.55 H	15	44.50	15.70
4	11100.00	47.2 AV	54.0	-6.8	2.55 H	15	31.50	15.70
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5550.00	113.0 PK			1.71 V	95	71.20	41.80
2	*5550.00	102.9 AV			1.71 V	95	61.10	41.80
3	11100.00	61.3 PK	74.0	-12.7	2.51 V	140	45.60	15.70
4	11100.00	47.4 AV	54.0	-6.6	2.51 V	140	31.70	15.70

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – 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	102.6 PK			1.00 H	313	60.80	41.80
2	*5670.00	92.8 AV			1.00 H	313	51.00	41.80
3	#5725.00	58.0 PK	74.0	-16.0	1.00 H	313	54.30	3.70
4	#5725.00	46.0 AV	54.0	-8.0	1.00 H	313	42.30	3.70
5	11340.00	60.6 PK	74.0	-13.4	3.44 H	201	44.60	16.00
6	11340.00	47.2 AV	54.0	-6.8	3.44 H	201	31.20	16.00
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5670.00	111.9 PK			1.66 V	162	70.10	41.80
2	*5670.00	101.8 AV			1.66 V	162	60.00	41.80
3	#5725.00	58.1 PK	74.0	-15.9	1.66 V	162	54.40	3.70
4	#5725.00	47.1 AV	54.0	-6.9	1.66 V	162	43.40	3.70
5	11340.00	61.8 PK	74.0	-12.2	2.34 V	187	45.80	16.00
6	11340.00	47.9 AV	54.0	-6.1	2.34 V	187	31.90	16.00

Remarks:

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

CHANNEL	TX Channel 151	DETECTOR FUNCTION	Peak (PK) 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	#5624.00	59.1 PK	68.2	-9.1	1.16 H	310	55.60	3.50
2	*5755.00	109.1 PK			1.16 H	310	66.80	42.30
3	*5755.00	98.9 AV			1.16 H	310	56.60	42.30
4	#5976.80	58.5 PK	68.2	-9.7	1.16 H	310	53.90	4.60
5	11510.00	60.5 PK	74.0	-13.5	3.00 H	15	44.50	16.00
6	11510.00	47.3 AV	54.0	-6.7	3.00 H	15	31.30	16.00
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5632.80	58.9 PK	68.2	-9.3	2.15 V	265	55.40	3.50
2	*5755.00	119.2 PK			2.15 V	265	76.90	42.30
3	*5755.00	109.3 AV			2.15 V	265	67.00	42.30
4	#5992.00	59.1 PK	68.2	-9.1	2.15 V	265	54.40	4.70
5	11510.00	60.8 PK	74.0	-13.2	1.10 V	332	44.80	16.00
6	11510.00	47.5 AV	54.0	-6.5	1.10 V	332	31.50	16.00

Remarks:

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

CHANNEL	TX Channel 159	DETECTOR FUNCTION	Peak (PK) 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	#5600.00	57.2 PK	68.2	-11.0	1.29 H	314	53.50	3.70
2	*5795.00	110.0 PK			1.29 H	314	67.50	42.50
3	*5795.00	99.7 AV			1.29 H	314	57.20	42.50
4	#5970.40	58.5 PK	68.2	-9.7	1.29 H	314	53.90	4.60
5	11590.00	60.3 PK	74.0	-13.7	2.55 H	25	44.50	15.80
6	11590.00	46.3 AV	54.0	-7.7	2.55 H	25	30.50	15.80
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5609.60	58.6 PK	68.2	-9.6	2.09 V	268	55.10	3.50
2	*5795.00	120.3 PK			2.09 V	268	77.80	42.50
3	*5795.00	110.3 AV			2.09 V	268	67.80	42.50
4	#5960.00	58.8 PK	68.2	-9.4	2.09 V	268	54.10	4.70
5	11590.00	60.5 PK	74.0	-13.5	1.53 V	86	44.70	15.80
6	11590.00	46.7 AV	54.0	-7.3	1.53 V	86	30.90	15.80

Remarks:

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

802.11ac (VHT80)

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	58.3 PK	74.0	-15.7	1.03 H	253	55.70	2.60
2	5150.00	45.9 AV	54.0	-8.1	1.03 H	253	43.30	2.60
3	*5210.00	98.2 PK			1.03 H	253	57.40	40.80
4	*5210.00	88.5 AV			1.03 H	253	47.70	40.80
5	5350.00	56.8 PK	74.0	-17.2	1.03 H	253	54.00	2.80
6	5350.00	43.9 AV	54.0	-10.1	1.03 H	253	41.10	2.80
7	#10420.00	58.9 PK	74.0	-15.1	2.11 H	100	44.10	14.80
8	#10420.00	45.7 AV	54.0	-8.3	2.11 H	100	30.90	14.80
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	68.0 PK	74.0	-6.0	1.00 V	236	65.40	2.60
2	**5150.00**	**53.9 AV**	**54.0**	**-0.1**	**1.00 V**	**236**	**51.30**	**2.60**
3	*5210.00	107.9 PK			1.00 V	236	67.10	40.80
4	*5210.00	98.8 AV			1.00 V	236	58.00	40.80
5	5350.00	58.6 PK	74.0	-15.4	1.00 V	236	55.80	2.80
6	5350.00	45.5 AV	54.0	-8.5	1.00 V	236	42.70	2.80
7	#10420.00	59.1 PK	74.0	-14.9	2.26 V	310	44.30	14.80
8	#10420.00	46.3 AV	54.0	-7.7	2.26 V	310	31.50	14.80

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – 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 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	5150.00	56.8 PK	74.0	-17.2	1.17 H	249	54.20	2.60
2	5150.00	43.8 AV	54.0	-10.2	1.17 H	249	41.20	2.60
3	*5290.00	98.5 PK			1.17 H	249	57.90	40.60
4	*5290.00	89.4 AV			1.17 H	249	48.80	40.60
5	5350.00	60.2 PK	74.0	-13.8	1.17 H	249	57.40	2.80
6	5350.00	46.8 AV	54.0	-7.2	1.17 H	249	44.00	2.80
7	#10580.00	59.7 PK	74.0	-14.3	3.22 H	155	44.60	15.10
8	#10580.00	46.4 AV	54.0	-7.6	3.22 H	155	31.30	15.10
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	60.0 PK	74.0	-14.0	1.22 V	357	57.40	2.60
2	5150.00	45.1 AV	54.0	-8.9	1.22 V	357	42.50	2.60
3	*5290.00	108.8 PK			1.22 V	357	68.20	40.60
4	*5290.00	98.7 AV			1.22 V	357	58.10	40.60
5	5350.00	67.6 PK	74.0	-6.4	1.22 V	357	64.80	2.80
6	5350.00	53.5 AV	54.0	-0.5	1.22 V	357	50.70	2.80
7	#10580.00	60.0 PK	74.0	-14.0	2.39 V	214	44.90	15.10
8	#10580.00	46.6 AV	54.0	-7.4	2.39 V	214	31.50	15.10

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – 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	5460.00	58.5 PK	74.0	-15.5	1.00 H	55	55.30	3.20
2	5460.00	45.3 AV	54.0	-8.7	1.00 H	55	42.10	3.20
3	#5470.00	59.2 PK	74.0	-14.8	1.00 H	55	56.00	3.20
4	#5470.00	45.6 AV	54.0	-8.4	1.00 H	55	42.40	3.20
5	*5530.00	98.9 PK			1.00 H	55	57.10	41.80
6	*5530.00	89.1 AV			1.00 H	55	47.30	41.80
7	#5725.00	58.1 PK	74.0	-15.9	1.00 H	55	54.40	3.70
8	#5725.00	44.7 AV	54.0	-9.3	1.00 H	55	41.00	3.70
9	11060.00	60.2 PK	74.0	-13.8	2.66 H	109	44.50	15.70
10	11060.00	47.2 AV	54.0	-6.8	2.66 H	109	31.50	15.70
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	58.2 PK	74.0	-15.8	1.00 V	153	55.00	3.20
2	5460.00	46.6 AV	54.0	-7.4	1.00 V	153	43.40	3.20
3	#5470.00	60.7 PK	74.0	-13.3	1.00 V	153	57.50	3.20
4	#5470.00	48.1 AV	54.0	-5.9	1.00 V	153	44.90	3.20
5	*5530.00	107.7 PK			1.00 V	153	65.90	41.80
6	*5530.00	98.6 AV			1.00 V	153	56.80	41.80
7	#5725.00	57.9 PK	74.0	-16.1	1.00 V	154	54.20	3.70
8	#5725.00	45.3 AV	54.0	-8.7	1.00 V	154	41.60	3.70
9	11060.00	60.6 PK	74.0	-13.4	1.55 V	226	44.90	15.70
10	11060.00	47.3 AV	54.0	-6.7	1.55 V	226	31.60	15.70

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – 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	5460.00	57.3 PK	74.0	-16.7	1.00 H	316	54.10	3.20
2	5460.00	43.7 AV	54.0	-10.3	1.00 H	316	40.50	3.20
3	#5470.00	57.4 PK	74.0	-16.6	1.00 H	316	54.20	3.20
4	#5470.00	44.0 AV	54.0	-10.0	1.00 H	316	40.80	3.20
5	*5610.00	99.0 PK			1.00 H	316	57.20	41.80
6	*5610.00	89.5 AV			1.00 H	316	47.70	41.80
7	#5725.00	59.1 PK	74.0	-14.9	1.00 H	316	55.40	3.70
8	#5725.00	45.0 AV	54.0	-9.0	1.00 H	316	41.30	3.70
9	11220.00	60.2 PK	74.0	-13.8	2.59 H	120	44.30	15.90
10	11220.00	47.4 AV	54.0	-6.6	2.59 H	120	31.50	15.90
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	57.6 PK	74.0	-16.4	1.43 V	156	54.40	3.20
2	5460.00	43.9 AV	54.0	-10.1	1.43 V	156	40.70	3.20
3	#5470.00	57.7 PK	74.0	-16.3	1.43 V	156	54.50	3.20
4	#5470.00	44.0 AV	54.0	-10.0	1.43 V	156	40.80	3.20
5	*5610.00	107.8 PK			1.43 V	156	66.00	41.80
6	*5610.00	98.0 AV			1.43 V	156	56.20	41.80
7	#5725.00	59.2 PK	74.0	-14.8	1.43 V	156	55.50	3.70
8	#5725.00	46.3 AV	54.0	-7.7	1.43 V	156	42.60	3.70
9	11220.00	60.4 PK	74.0	-13.6	1.25 V	190	44.50	15.90
10	11220.00	47.5 AV	54.0	-6.5	1.25 V	190	31.60	15.90

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5644.00	62.2 PK	68.2	-6.0	1.05 H	309	58.80	3.40
2	*5775.00	107.0 PK			1.05 H	309	64.60	42.40
3	*5775.00	97.3 AV			1.05 H	309	54.90	42.40
4	#5967.20	57.8 PK	68.2	-10.4	1.05 H	309	53.20	4.60
5	11550.00	60.0 PK	74.0	-14.0	2.55 H	155	44.00	16.00
6	11550.00	46.9 AV	54.0	-7.1	2.55 H	155	30.90	16.00
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5630.40	65.2 PK	68.2	-3.0	1.00 V	166	59.20	6.00
2	*5775.00	111.4 PK			1.00 V	166	69.00	42.40
3	*5775.00	101.9 AV			1.00 V	166	59.50	42.40
4	#5964.80	59.3 PK	68.2	-8.9	1.00 V	166	52.10	7.20
5	11550.00	60.5 PK	74.0	-13.5	2.22 V	322	44.50	16.00
6	11550.00	47.6 AV	54.0	-6.4	2.22 V	322	31.60	16.00

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – 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 Worst-Case Data: 802.11a

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

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	33.78	34.7 QP	40.0	-5.3	1.50 H	241	50.10	-15.40
2	179.31	31.3 QP	43.5	-12.2	1.00 H	265	46.10	-14.80
3	249.17	31.9 QP	46.0	-14.1	1.50 H	104	46.00	-14.10
4	365.59	31.9 QP	46.0	-14.1	1.00 H	303	42.80	-10.90
5	745.91	35.2 QP	46.0	-10.8	2.00 H	144	37.90	-2.70
6	932.19	36.3 QP	46.0	-9.7	1.00 H	148	35.80	0.50
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	105.58	33.2 QP	43.5	-10.3	2.00 V	196	50.80	-17.60
2	124.98	34.3 QP	43.5	-9.2	1.00 V	213	50.00	-15.70
3	249.17	28.2 QP	46.0	-17.8	2.00 V	251	42.30	-14.10
4	499.48	31.2 QP	46.0	-14.8	1.50 V	154	39.50	-8.30
5	745.91	39.4 QP	46.0	-6.6	1.00 V	12	42.10	-2.70
6	939.95	34.8 QP	46.0	-11.2	1.00 V	281	34.00	0.80

REMARKS:

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

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

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	53.18	27.2 QP	40.0	-12.8	2.00 H	41	41.20	-14.00
2	124.98	33.8 QP	43.5	-9.7	1.00 H	107	49.50	-15.70
3	249.17	32.5 QP	46.0	-13.5	1.00 H	78	46.60	-14.10
4	373.35	26.8 QP	46.0	-19.2	1.50 H	197	37.50	-10.70
5	742.03	36.7 QP	46.0	-9.3	2.00 H	154	39.60	-2.90
6	897.26	42.6 QP	46.0	-3.4	1.00 H	340	43.00	-0.40
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	124.98	32.7 QP	43.5	-10.8	1.50 V	247	48.40	-15.70
2	249.17	29.5 QP	46.0	-16.5	1.00 V	264	43.60	-14.10
3	365.59	28.2 QP	46.0	-17.8	2.00 V	346	39.10	-10.90
4	625.60	34.7 QP	46.0	-11.3	1.50 V	110	39.90	-5.20
5	712.92	38.3 QP	46.0	-7.7	1.00 V	171	42.20	-3.90
6	932.19	37.4 QP	46.0	-8.6	1.00 V	80	36.90	0.50

REMARKS:

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

CHANNEL	TX Channel 149	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz	TEST MODE	A

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	55.13	25.5 QP	40.0	-14.5	1.50 H	268	39.60	-14.10
2	249.17	31.1 QP	46.0	-14.9	2.00 H	107	45.20	-14.10
3	375.29	31.3 QP	46.0	-14.7	1.00 H	129	42.00	-10.70
4	612.02	31.1 QP	46.0	-14.9	1.00 H	226	36.60	-5.50
5	732.32	36.4 QP	46.0	-9.6	1.00 H	182	39.50	-3.10
6	932.19	36.3 QP	46.0	-9.7	1.00 H	303	35.80	0.50
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	55.13	38.9 QP	40.0	-1.1	1.50 V	283	53.00	-14.10
2	105.58	34.3 QP	43.5	-9.2	1.50 V	184	51.90	-17.60
3	584.85	30.6 QP	46.0	-15.4	1.00 V	316	37.10	-6.50
4	633.36	29.8 QP	46.0	-16.2	1.00 V	298	34.90	-5.10
5	712.92	38.9 QP	46.0	-7.1	1.50 V	7	42.80	-3.90
6	951.59	33.5 QP	46.0	-12.5	1.00 V	7	32.50	1.00

REMARKS:

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

CHANNEL	TX Channel 149	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz	TEST MODE	B

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	62.89	26.3 QP	40.0	-13.7	2.00 H	234	41.00	-14.70
2	179.31	27.4 QP	43.5	-16.1	1.00 H	268	42.20	-14.80
3	373.35	26.8 QP	46.0	-19.2	1.50 H	197	37.50	-10.70
4	511.12	25.2 QP	46.0	-20.8	1.00 H	202	33.40	-8.20
5	604.26	28.7 QP	46.0	-17.3	2.00 H	199	34.60	-5.90
6	897.26	42.6 QP	46.0	-3.4	1.00 H	340	43.00	-0.40
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	99.75	32.0 QP	43.5	-11.5	1.00 V	154	50.50	-18.50
2	177.37	27.1 QP	43.5	-16.4	1.00 V	19	41.60	-14.50
3	365.59	28.2 QP	46.0	-17.8	2.00 V	346	39.10	-10.90
4	625.60	34.7 QP	46.0	-11.3	1.50 V	110	39.90	-5.20
5	747.85	33.4 QP	46.0	-12.6	1.00 V	87	36.10	-2.70
6	932.19	37.4 QP	46.0	-8.6	1.00 V	80	36.90	0.50

REMARKS:

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

Tested date: May 18, 2018

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Test Receiver ROHDE & SCHWARZ	ESR3	102412	Feb. 08, 2018	Feb. 07, 2019
RF signal cable (with 10dB PAD) Woken	5D-FB	Cable-cond2-01	Sep. 08, 2017	Sep. 07, 2018
LISN ROHDE & SCHWARZ (EUT)	ESH2-Z5	100100	Feb. 05, 2018	Feb. 04, 2019
LISN ROHDE & SCHWARZ (Peripheral)	ESH3-Z5	100312	Aug. 02, 2017	Aug. 01, 2018
Software ADT	BV ADT_Cond_ V7.3.7.3	NA	NA	NA

Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in HwaYa Shielded Room 2.
3. The VCCI Site Registration No. is C-2047.

4.2.3 Test Procedure

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

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

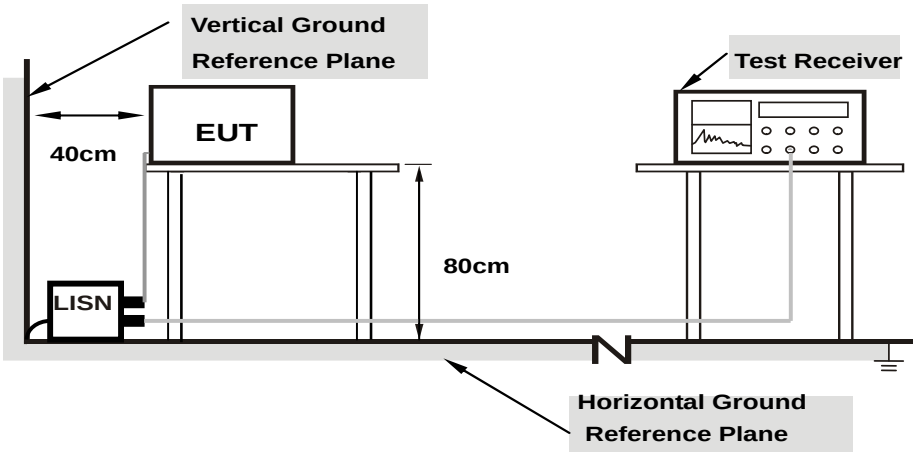
c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

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

4.2.4 Deviation from Test Standard

No deviation.

4.2.5 Test Setup



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

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

4.2.6 EUT Operating Conditions

Same as 4.1.6.

4.2.7 Test Results

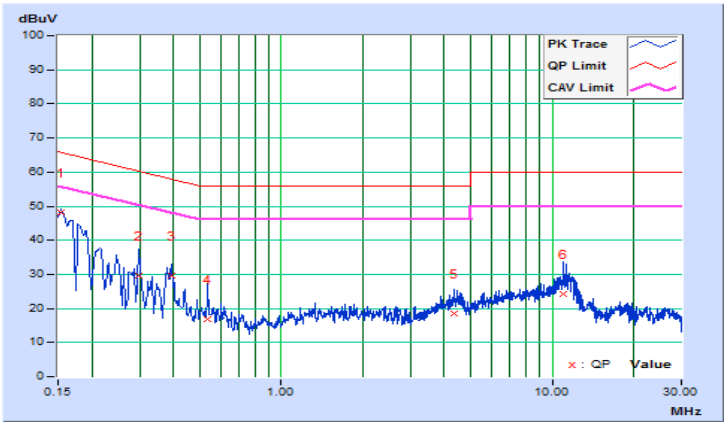
802.11a

Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)
CHANNEL	TX Channel 40	Test Mode	A

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15400	10.16	38.01	19.58	48.17	29.74	65.78	55.78	-17.61	-26.04
2	0.29800	10.18	19.40	5.41	29.58	15.59	60.30	50.30	-30.72	-34.71
3	0.39400	10.20	19.57	9.06	29.77	19.26	57.98	47.98	-28.21	-28.72
4	0.53404	10.20	6.57	1.00	16.77	11.20	56.00	46.00	-39.23	-34.80
5	4.33000	10.36	8.24	1.64	18.60	12.00	56.00	46.00	-37.40	-34.00
6	11.05400	10.71	13.42	7.67	24.13	18.38	60.00	50.00	-35.87	-31.62

REMARKS:

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

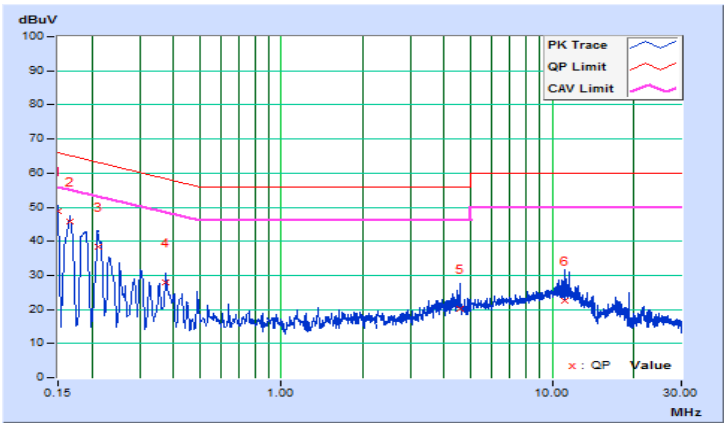


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
CHANNEL	TX Channel 40	Test Mode	A

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	10.14	38.83	22.27	48.97	32.41	66.00	56.00	-17.03	-23.59
2	0.16600	10.15	35.61	19.49	45.76	29.64	65.16	55.16	-19.40	-25.52
3	0.21015	10.17	28.34	11.85	38.51	22.02	63.20	53.20	-24.69	-31.18
4	0.37421	10.19	17.72	5.61	27.91	15.80	58.41	48.41	-30.50	-32.61
5	4.56200	10.37	9.91	0.73	20.28	11.10	56.00	46.00	-35.72	-34.90
6	11.09000	10.62	12.08	5.96	22.70	16.58	60.00	50.00	-37.30	-33.42

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.

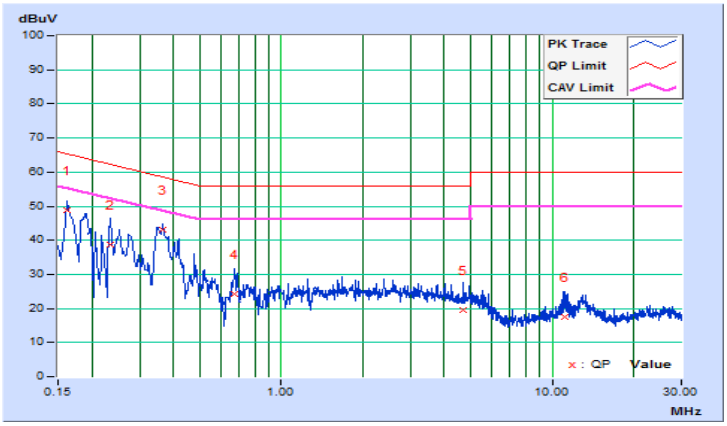


Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)
CHANNEL	TX Channel 40	Test Mode	B

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16200	10.16	38.81	23.02	48.97	33.18	65.36	55.36	-16.39	-22.18
2	0.23400	10.16	28.47	12.40	38.63	22.56	62.31	52.31	-23.68	-29.75
3	0.36600	10.20	32.83	24.30	43.03	34.50	58.59	48.59	-15.56	-14.09
4	0.66985	10.19	14.18	4.80	24.37	14.99	56.00	46.00	-31.63	-31.01
5	4.69800	10.38	9.15	3.07	19.53	13.45	56.00	46.00	-36.47	-32.55
6	11.17000	10.72	6.67	0.47	17.39	11.19	60.00	50.00	-42.61	-38.81

REMARKS:

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

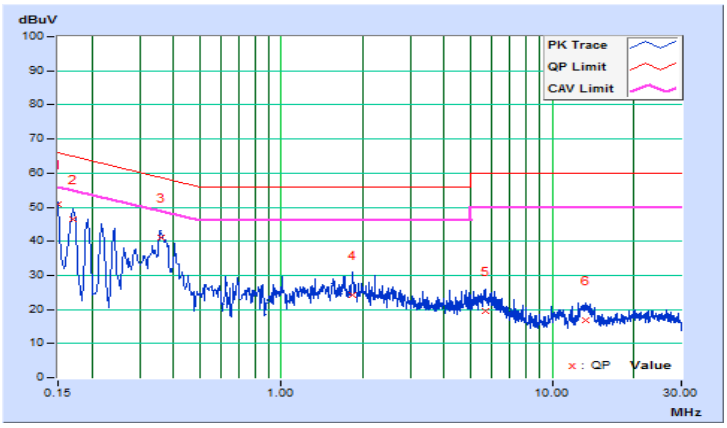


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
CHANNEL	TX Channel 40	Test Mode	B

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	10.14	40.86	24.15	51.00	34.29	66.00	56.00	-15.00	-21.71
2	0.17000	10.15	36.16	21.33	46.31	31.48	64.96	54.96	-18.65	-23.48
3	0.35876	10.19	30.83	22.74	41.02	32.93	58.76	48.76	-17.74	-15.83
4	1.83800	10.22	13.95	5.20	24.17	15.42	56.00	46.00	-31.83	-30.58
5	5.68600	10.41	9.24	2.44	19.65	12.85	60.00	50.00	-40.35	-37.15
6	13.25370	10.72	6.00	0.39	16.72	11.11	60.00	50.00	-43.28	-38.89

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.

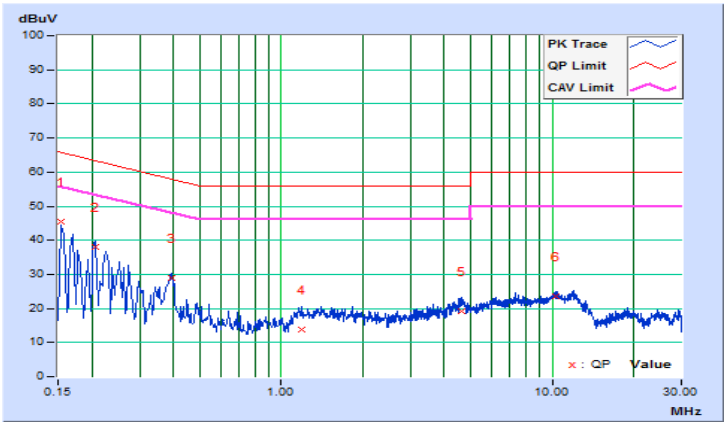


Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)
CHANNEL	TX Channel 149	Test Mode	A

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	0.15400	10.16	35.46	15.97	45.62	26.13	65.78	55.78	-20.16	-29.65
2	0.20577	10.16	27.95	10.12	38.11	20.28	63.37	53.37	-25.26	-33.09
3	0.39342	10.20	18.79	11.28	28.99	21.48	57.99	47.99	-29.00	-26.51
4	1.19000	10.19	3.46	0.18	13.65	10.37	56.00	46.00	-42.35	-35.63
5	4.66200	10.38	8.84	2.37	19.22	12.75	56.00	46.00	-36.78	-33.25
6	10.38200	10.67	12.91	7.01	23.58	17.68	60.00	50.00	-36.42	-32.32

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.

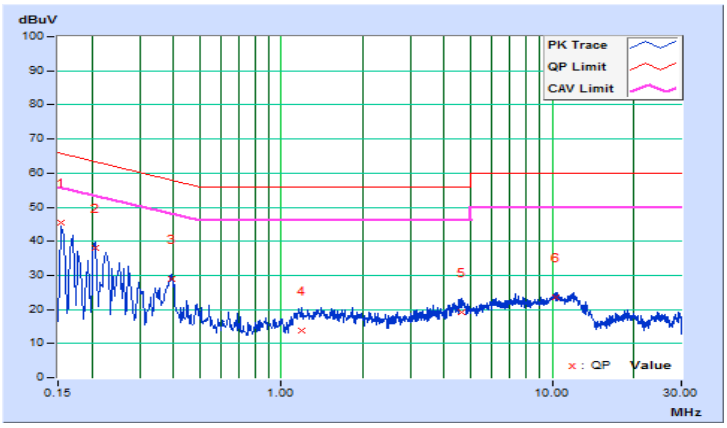


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
CHANNEL	TX Channel 149	Test Mode	A

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15400	10.15	35.46	15.97	45.61	26.12	65.78	55.78	-20.17	-29.66
2	0.20577	10.16	27.95	10.12	38.11	20.28	63.37	53.37	-25.26	-33.09
3	0.39342	10.19	18.79	11.28	28.98	21.47	57.99	47.99	-29.01	-26.52
4	1.19000	10.21	3.46	0.18	13.67	10.39	56.00	46.00	-42.33	-35.61
5	4.66200	10.37	8.84	2.37	19.21	12.74	56.00	46.00	-36.79	-33.26
6	10.38200	10.59	12.91	7.01	23.50	17.60	60.00	50.00	-36.50	-32.40

REMARKS:

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

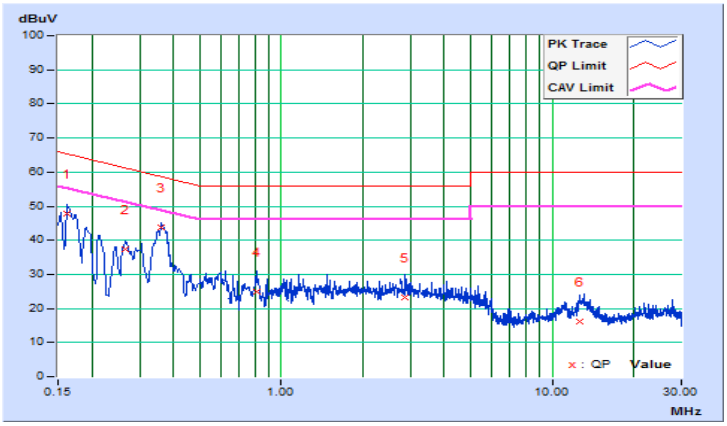


Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)
CHANNEL	TX Channel 149	Test Mode	B

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	0.16200	10.16	37.66	21.92	47.82	32.08	65.36	55.36	-17.54	-23.28
2	0.26569	10.17	27.11	18.02	37.28	28.19	61.25	51.25	-23.97	-23.06
3	**0.36161**	**10.20**	**33.58**	**25.97**	**43.78**	**36.17**	**58.69**	**48.69**	**-14.91**	**-12.52**
4	0.81000	10.18	14.66	4.62	24.84	14.80	56.00	46.00	-31.16	-31.20
5	2.87400	10.29	12.83	5.52	23.12	15.81	56.00	46.00	-32.88	-30.19
6	12.64200	10.81	5.35	1.19	16.16	12.00	60.00	50.00	-43.84	-38.00

REMARKS:

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

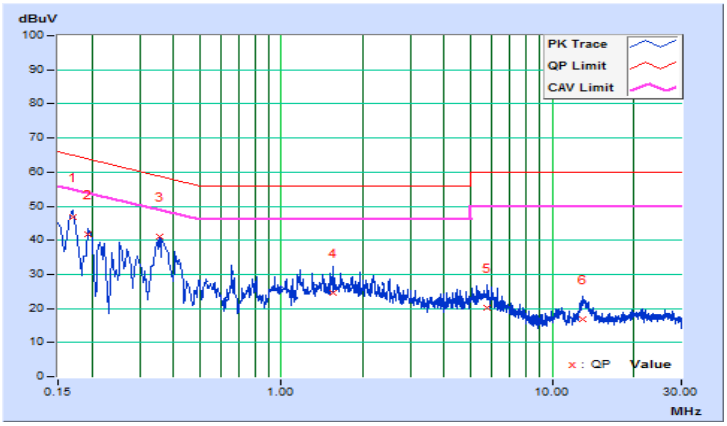


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
CHANNEL	TX Channel 149	Test Mode	B

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
	[MHz]	(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16977	10.15	36.61	22.82	46.76	32.97	64.97	54.97	-18.21	-22.00
2	0.19418	10.16	31.66	15.27	41.82	25.43	63.86	53.86	-22.04	-28.43
3	0.35400	10.19	30.88	22.73	41.07	32.92	58.87	48.87	-17.80	-15.95
4	1.54600	10.21	14.45	6.11	24.66	16.32	56.00	46.00	-31.34	-29.68
5	5.76200	10.41	9.78	2.81	20.19	13.22	60.00	50.00	-39.81	-36.78
6	13.03800	10.71	6.00	-0.30	16.71	10.41	60.00	50.00	-43.29	-39.59

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.

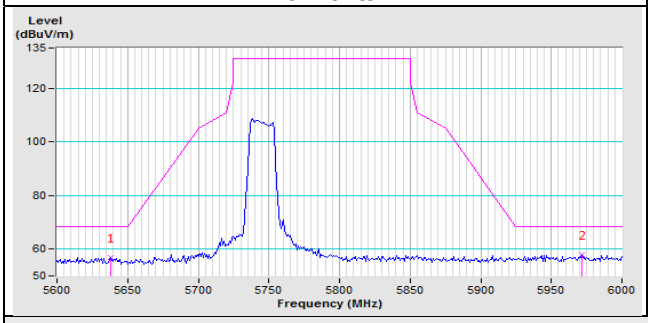
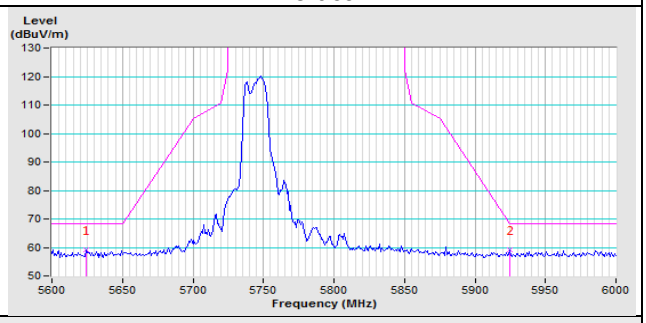
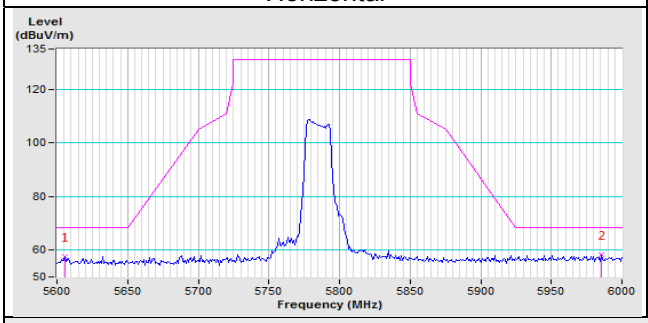
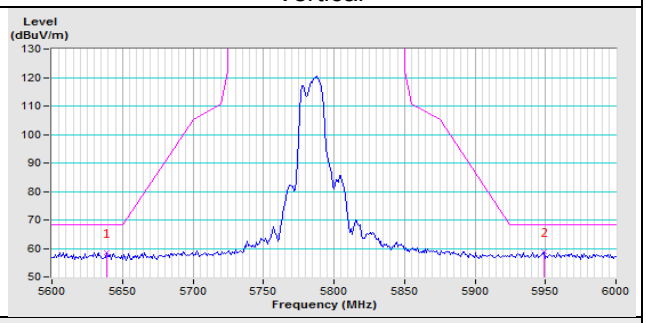
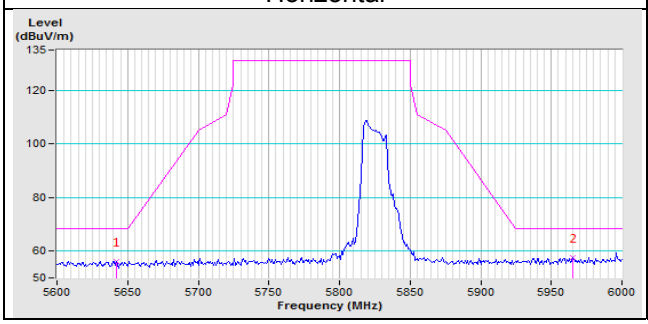
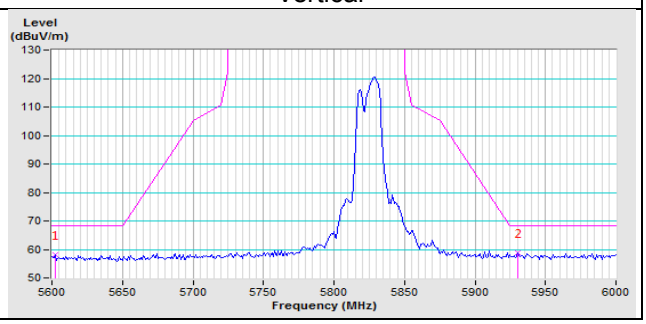


5 Pictures of Test Arrangements

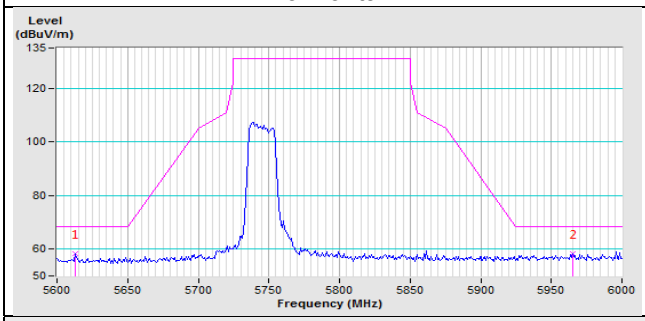
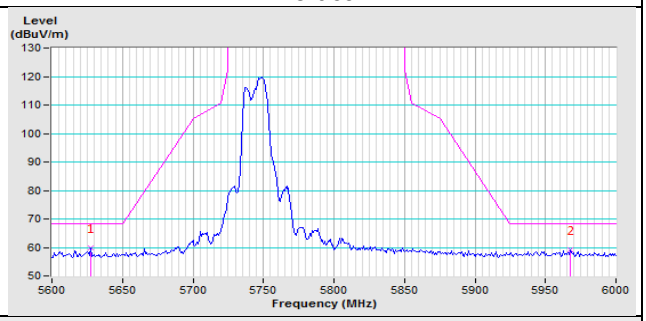
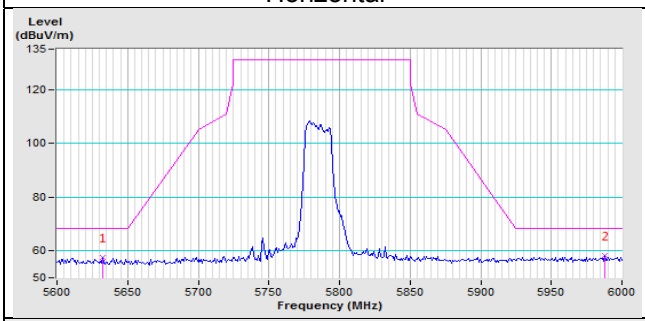
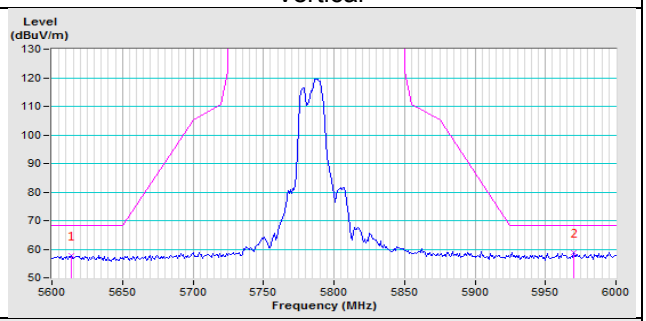
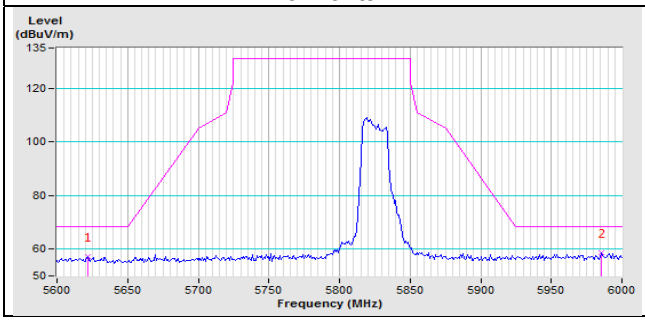
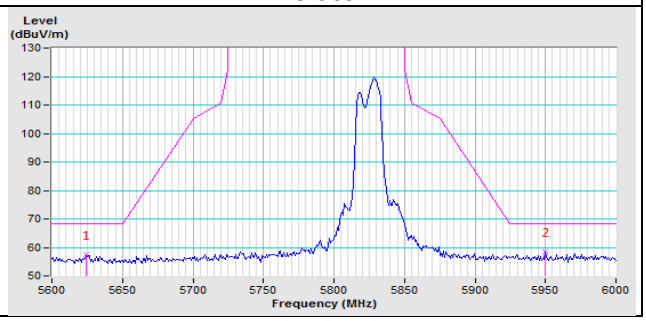
Please refer to the attached file (Test Setup Photo).

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

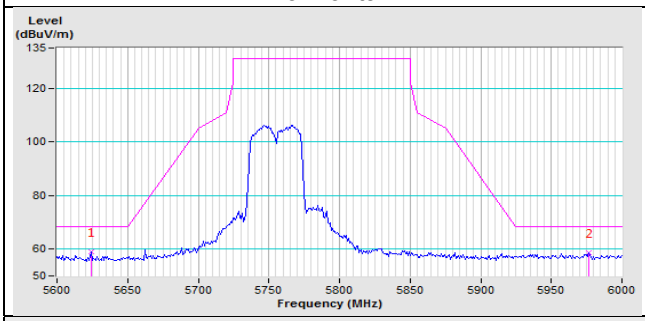
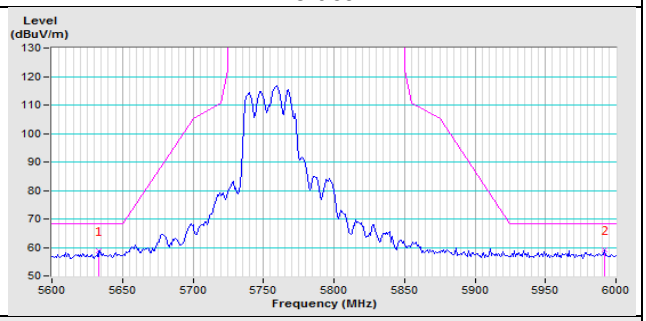
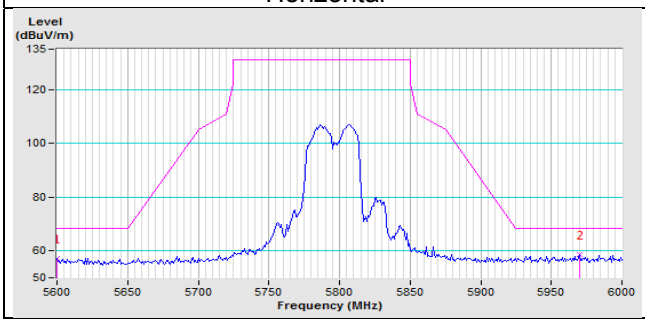
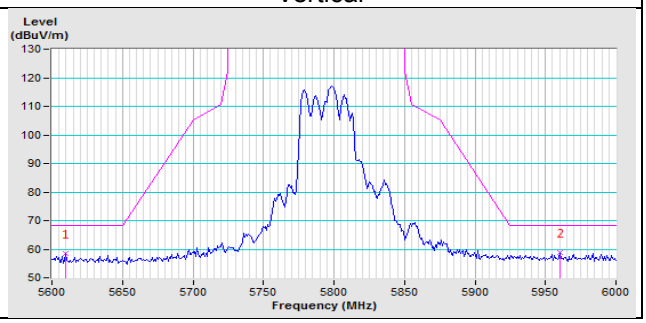
802.11a

CH149	
Horizontal	Vertical
	
CH157	
Horizontal	Vertical
	
CH165	
Horizontal	Vertical
	

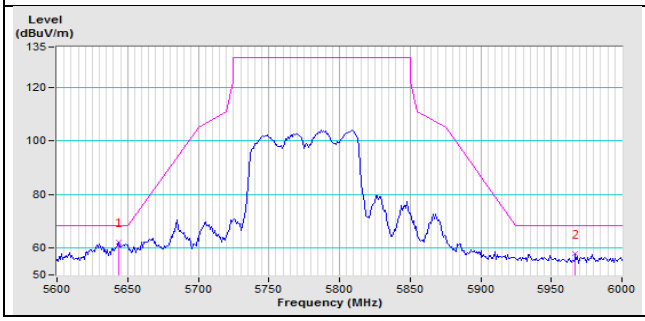
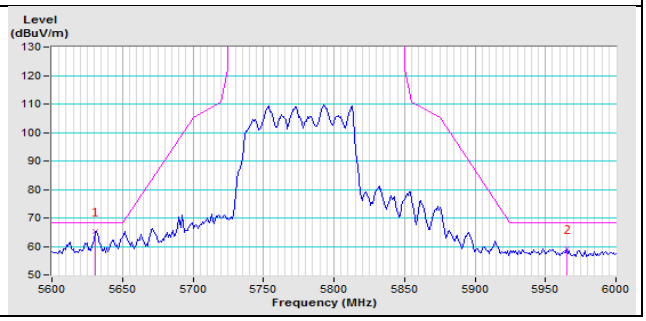
802.11ac (VHT20)

CH149	
Horizontal	Vertical
	
CH157	
Horizontal	Vertical
	
CH165	
Horizontal	Vertical
	

802.11ac (VHT40)

CH151	
Horizontal	Vertical
	
CH159	
Horizontal	Vertical
	

802.11ac (VHT80)

CH155	
Horizontal	Vertical
	

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 FCC recognized accredited test firms and accredited and approved according to ISO/IEC 17025.

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Web Site: www.bureauveritas-adt.com

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

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