FCC Test Report

Report No.: RF180828C26A-1

FCC ID: RYK-WUBT236ACNBT

Test Model: WUBT-236ACN(BT) [M4W], WUBT-236ACN(BT) [PU]

Series Model: WUBT-236ACN(BT) [P4W], WUBT-236ACN(BT) [MU]

Received Date: Aug. 28, 2018

Test Date: Dec. 24, 2018 ~ Jan. 14, 2019

Issued Date: Oct. 14, 2019

Applicant: SparkLAN Communications, Inc.

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

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Test Location: No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City 33383, TAIWAN

FCC Registration / Designation Number: 788550 / TW0003

Testing Laboratory
2021

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This report should not be used by the client to claim product certification, approval, or endorsement by TAF or any government agencies.

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Release Control Record

Issue No.	Description	Date Issued
RF180828C26A-1	Original release	Oct. 14, 2019

1 Certificate of Conformity

Product: 802.11ac/a/b/g/n 2T2R Wi-Fi + Bluetooth 4.2 USB Module

Brand: SparkLAN

Test Model: WUBT-236ACN(BT) [M4W], WUBT-236ACN(BT) [PU]

Series Model: WUBT-236ACN(BT) [P4W], WUBT-236ACN(BT) [MU]

Sample Status: R&D sample

Applicant: SparkLAN Communications, Inc.

Test Date: Dec. 24, 2018 ~ Jan. 14, 2019

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

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

Prepared by : Celine Chou , **Date:** Oct. 14, 2019
Celine Chou / Senior Specialist

Approved by : Bruce Chen , **Date:** Oct. 14, 2019
Bruce Chen / Senior Project Engineer

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 -7.88dB at 0.41563MHz.
15.407(b) (1/2/3/4(i/ii)/6)	Radiated Emissions & Band Edge Measurement	Pass	Meet the requirement of limit. Minimum passing margin is -1.0dB at 5350.00MHz.
15.407(a)(1/2/3)	Max Average Transmit Power	Pass	Meet the requirement of limit.
---	Occupied Bandwidth Measurement	Pass	Meet the requirement of limit.
15.407(a)(1/2/3)	Peak Power Spectral Density	Pass	Meet the requirement of limit. (U-NII-3 Band only)
15.407(e)	6dB bandwidth	Pass	Meet the requirement of limit.
15.407(g)	Frequency Stability	Pass	Meet the requirement of limit.
15.203	Antenna Requirement	Pass	For Dipole antenna: Antenna connectors are IPEX MHF I at modular side & RP-SMA (M) at antenna side not standard connector.. For Printed antenna: No antenna connector is used.

Note:
1. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.
2. For U-NII-3 band compliance with rule part 15.407(b)(4)(i), the OOBE test plots were recorded in Annex A.

2.1 Measurement Uncertainty

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

Measurement	Frequency	Expanded Uncertainty (k=2) (±)
Conducted Emissions at mains ports	150kHz ~ 30MHz	2.94 dB
Radiated Emissions up to 1 GHz	30MHz ~ 200MHz	3.86 dB
	200MHz ~1000MHz	3.87 dB
Radiated Emissions above 1 GHz	1GHz ~ 18GHz	2.29 dB
	18GHz ~ 40GHz	2.29 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	802.11ac/a/b/g/n 2T2R Wi-Fi + Bluetooth 4.2 USB Module
Brand	SparkLAN
Test Model	WUBT-236ACN(BT) [M4W], WUBT-236ACN(BT) [PU]
Series Model	WUBT-236ACN(BT) [P4W], WUBT-236ACN(BT) [MU]
Model Difference	Refer to Note
Sample Status	R&D sample
Power Supply Rating	5Vdc (host)
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 300Mbps 802.11ac: up to 867Mbps
Operating Frequency	5180~5240MHz, 5260~5320MHz, 5500~5700MHz, 5745~5825MHz
Number of Channel	5180~5240MHz: 802.11a, 802.11n (HT20), 802.11ac (VHT20): 4 802.11n (HT40), 802.11ac (VHT40): 2 802.11ac (VHT80): 1 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: 802.11a, 802.11n (HT20), 802.11ac (VHT20): 5 802.11n (HT40), 802.11ac (VHT40): 2 802.11ac (VHT80): 1
Output Power	5180~5240MHz: 48.988mW 5260~5320MHz: 48.421mW 5500~5700MHz: 48.757mW 5745~5825MHz: 48.926mW
Antenna Type	Refer to Note
Antenna Connector	Refer to Note
Accessory Device	Antenna, 0.15m shielded antenna cable without core
Cable Supplied	NA

Note:

1. This report is prepared for FCC class I permissive change. The differences compared with the original report (BV CPS report no.: RF180828C26-1) are adding antennas. Due to the new antenna has the same type as the original antenna and the gain value is also small, we didn't re-test for this addendum and the original test data was kept in this report.
2. All models are listed as below.

Model name	Description
WUBT-236ACN(BT) [M4W]	802.11ac/a/b/g/n 2T2R Wi-Fi + BT USB Module(4-Pin Wafer + IPEX)
WUBT-236ACN(BT) [P4W]	802.11ac/a/b/g/n 2T2R Wi-Fi + BT USB Module(4-Pin Wafer + Printed Ant)
WUBT-236ACN(BT) [MU]	802.11ac/a/b/g/n 2T2R Wi-Fi + BT USB Module (USB Type A + IPEX)
WUBT-236ACN(BT) [PU]	802.11ac/a/b/g/n 2T2R Wi-Fi + BT USB Module (USB Type A + Printed Ant)

* Model: WUBT-236ACN(BT) [M4W], WUBT-236ACN(BT) [PU] are for the final tests.

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

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

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

* For 802.11a: The EUT support diversity function. Chain 0 is the worst for the final tests.

4. The EUT uses following antennas. (New antennas are marked in boldface.)

For EUT Model: WUBT-236ACN(BT) [M4W], WUBT-236ACN(BT) [MU]

No.	Transmitter Circuit	Brand	Model	Antenna Type	2.4G gain with cable loss (dBi)	5G gain with cable loss (dBi)	Connector Type
1	Chain(0) Chain(1)	Sparklan	AD-301N	Dipole	4.4	B1&2: 5.2 B3&4: 5.8	IPEX MHF I at modular side & RP-SMA (M) at antenna side
2	Chain(0) Chain(1)	Sparklan	AD-103AG	Dipole	2.02	B1&2: 1.93 B3&4: 2.03	
3	Chain(0) Chain(1)	Sparklan	AD-305N	Dipole	5.0	5.0	
4	Chain(0) Chain(1)	Sparklan	AD-303N	Dipole	3.0	3.0	
5	Chain(0) Chain(1)	Sparklan	AD-302N	Dipole	3.0	2.0	
6	**Chain(0) Chain(1)**	**CHLISIN**	**BTPA003212 25GC1A01**	**Dipole**	**3.72**	**4.90**	**IPEX**
7	**Chain(0) Chain(1)**	**CHLISIN**	**BTPA003212 25GC1A02**	**Dipole**	**4.90**	**4.90**	**IPEX**

For EUT Model: WUBT-236ACN(BT) [P4W], WUBT-236ACN(BT) [PU]

Antenna Type	Printed					
Antenna Connector	NA					
Gain (dBi)	Frequency (MHz)					
	2400	2450	2500	5150	5550	5825
Ant. 1	2.5	3.2	2.8	3.3	3.7	4.2
Ant. 2	3.2	2.9	2.7	3.1	3.5	4.0

*The 5.8dBi with 5GHz max. gain is chosen for final tests.

5. 2.4GHz & 5GHz technologies cannot transmit at same time. WLAN & BT technologies cannot transmit at same time

3.2 Description of Test Modes

5180~5240MHz:

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

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

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

Channel	Frequency	Channel	Frequency
38	5190 MHz	46	5230 MHz

1 channel is provided for 802.11ac (VHT80):

Channel	Frequency
42	5210 MHz

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

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	5530 MHz	122	5610 MHz

5745~5825MHz:

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

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

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

Channel	Frequency	Channel	Frequency
151	5755 MHz	159	5795 MHz

1 channel is provided for 802.11ac (VHT80):

Channel	Frequency
155	5775 MHz

3.2.1 Test Mode Applicability and Tested Channel Detail

EUT Configure Mode	Applicable to				Description
	RE≥1G	RE<1G	PLC	APCM	
A	√	√	√	√	EUT with Dipole antenna
B	√	√	√	-	EUT with Printed antenna

Where RE≥1G: Radiated Emission above 1GHz & Bandedge Measurement RE<1G: Radiated Emission below 1GHz

PLC: Power Line Conducted Emission APCM: Antenna Port Conducted Measurement

Note: The EUT had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on **X-plane (For Test Mode A), Z-plane (For Test Mode B)**.

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)	Remark
A, B	802.11a	5180-5240	36 to 48	36, 40, 48	OFDM	6.0	-
	802.11n (HT20)		36 to 48	36, 40, 48	OFDM	7.2	-
	802.11n (HT40)		38 to 46	38, 46	OFDM	15.0	-
	802.11ac (VHT80)		42	42	OFDM	65.0	-
	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	6.0	-
	802.11n (HT20)		52 to 64	52, 60, 64	OFDM	7.2	-
	802.11n (HT40)		54 to 62	54, 62	OFDM	15.0	-
	802.11ac (VHT80)		58	58	OFDM	65.0	-
	802.11a	5500-5700	100 to 140	100, 116, 140	OFDM	6.0	-
	802.11n (HT20)		100 to 140	100, 116, 140	OFDM	7.2	-
	802.11n (HT40)		102 to 134	102, 110, 134	OFDM	15.0	-
	802.11ac (VHT80)		106 to 122	106, 122	OFDM	65.0	-
	802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	6.0	-
	802.11n (HT20)		149 to 165	149, 157, 165	OFDM	7.2	-
	802.11n (HT40)		151 to 159	151, 159	OFDM	15.0	-
	802.11ac (VHT80)		155	155	OFDM	65.0	-

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)	Remark
A, B	802.11n (HT20)	5180-5240	36 to 48	100	OFDM	7.2	-
		5260-5320	52 to 64		OFDM	7.2	-
		5500-5700	100 to 140		OFDM	7.2	-
		5745-5825	149 to 165		OFDM	7.2	-

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)	Remark
A, B	802.11n (HT20)	5180-5240	36 to 48	100	OFDM	7.2	-
		5260-5320	52 to 64		OFDM	7.2	-
		5500-5700	100 to 140		OFDM	7.2	-
		5745-5825	149 to 165		OFDM	7.2	-

Antenna Port Conducted Measurement:

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

EUT Configure Mode	Mode	Frequency Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Data Rate (Mbps)	Remark
A	802.11a	5180-5240	36 to 48	36, 40, 48	OFDM	6.0	-
	802.11n (HT20)		36 to 48	36, 40, 48	OFDM	7.2	-
	802.11n (HT40)		38 to 46	38, 46	OFDM	15.0	-
	802.11ac (VHT80)		42	42	OFDM	65.0	-
	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	6.0	-
	802.11n (HT20)		52 to 64	52, 60, 64	OFDM	7.2	-
	802.11n (HT40)		54 to 62	54, 62	OFDM	15.0	-
	802.11ac (VHT80)		58	58	OFDM	65.0	-
	802.11a	5500-5700	100 to 140	100, 116, 140	OFDM	6.0	-
	802.11n (HT20)		100 to 140	100, 116, 140	OFDM	7.2	-
	802.11n (HT40)		102 to 134	102, 110, 134	OFDM	15.0	-
	802.11ac (VHT80)		106 to 122	106, 122	OFDM	65.0	-
	802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	6.0	-
	802.11n (HT20)		149 to 165	149, 157, 165	OFDM	7.2	-
	802.11n (HT40)		151 to 159	151, 159	OFDM	15.0	-
	802.11ac (VHT80)		155	155	OFDM	65.0	-

Test Condition:

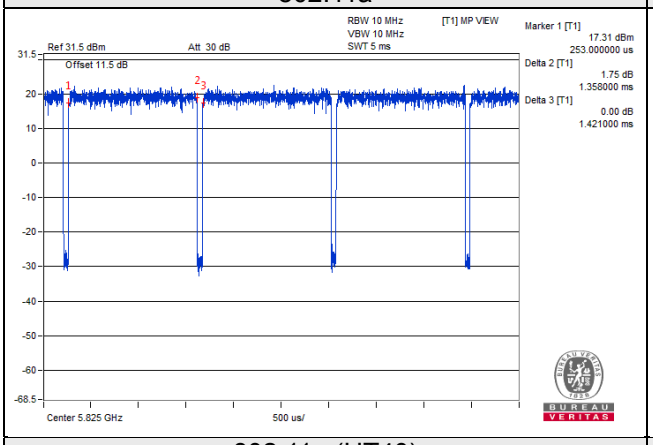
Applicable to	Environmental Conditions	Input Power (system)	Tested by
RE≥1G	22deg. C, 66%RH 23deg. C, 66%RH	120Vac, 60Hz	Adair Peng Willy Cheng
RE<1G	22deg. C, 66%RH	120Vac, 60Hz	Adair Peng
PLC	22deg. C, 66%RH 23deg. C, 66%RH	120Vac, 60Hz	Noah Chang Willy Cheng
APCM	25deg. C, 60%RH	120Vac, 60Hz	Alan Wu

3.3 Duty Cycle of Test Signal

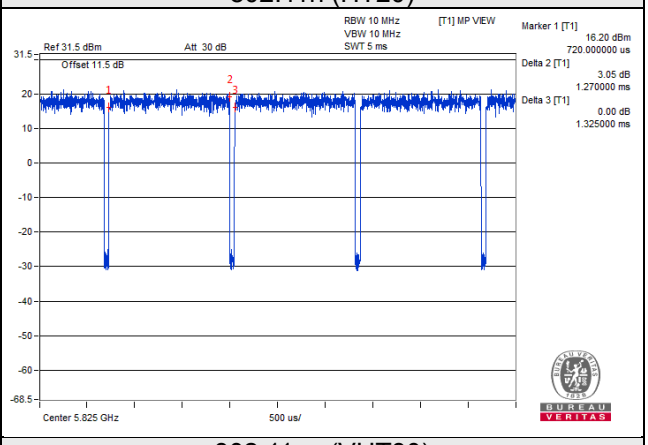
Duty cycle of test signal is ≥ 98%, duty factor is not required.
Duty cycle of test signal is < 98%, duty factor shall be considered.

802.11a: Duty cycle = 1.358/1.421 = 0.956, Duty factor = 10 * log(1/0.956) = 0.20
802.11n (HT20): Duty cycle = 1.270/1.325 = 0.958, Duty factor = 10 * log(1/0.958) = 0.18
802.11n (HT40): Duty cycle = 0.631/0.685 = 0.921, Duty factor = 10 * log(1/0.921) = 0.36
802.11ac (VHT80): Duty cycle = 0.316/0.370 = 0.854, Duty factor = 10 * log(1/0.854) = 0.69

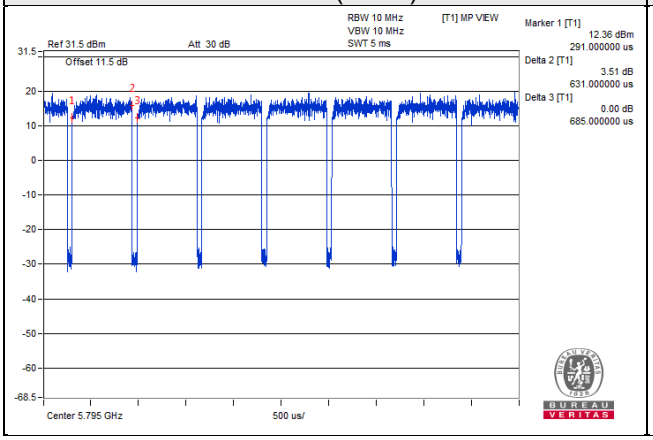
802.11a



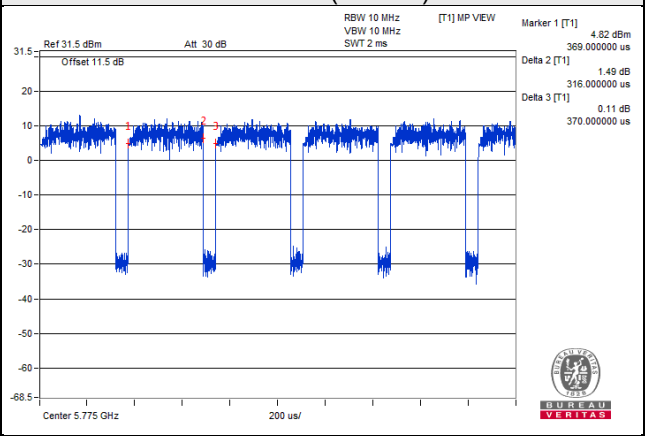
802.11n (HT20)



802.11n (HT40)



802.11ac (VHT80)



3.4 Description of Support Units

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

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Notebook	DELL	E5410	1HC2XM1	FCC DoC Approved	-
B.	Convertible Board	NA	NA	NA	NA	-

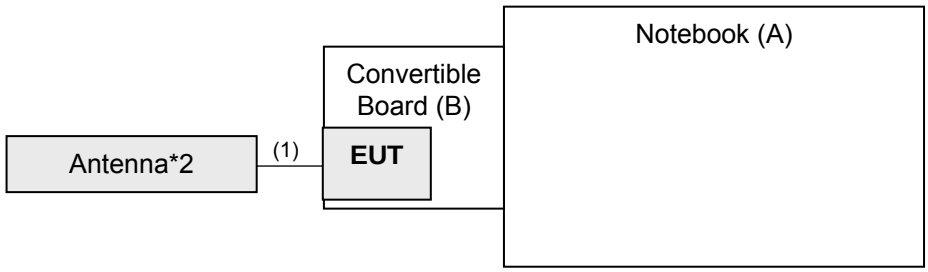
Note:

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

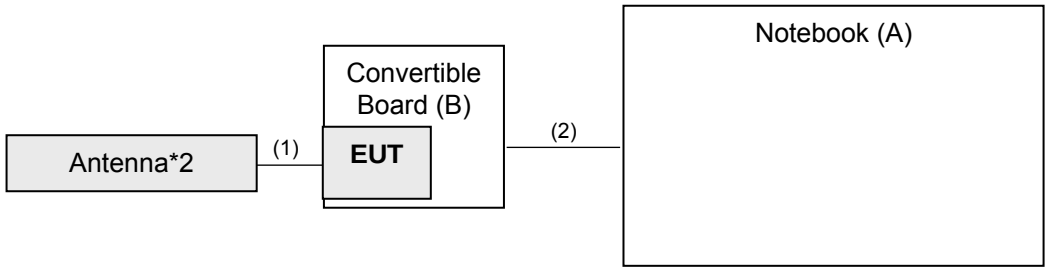
ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	Antenna cable	2	0.15	Y	0	Provided by manufacturer
2.	USB cable	1	1.0	Y	0	-

3.4.1 Configuration of System under Test

Test Mode A



Test Mode B



3.5 General Description of Applied Standards

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

FCC Part 15, Subpart E (15.407)
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	ESIB7	100187	May 29, 2018	May 28, 2019
BILOG Antenna SCHWARZBECK	VULB9168	9168-171	Nov. 22, 2018	Nov. 21, 2019
HORN Antenna SCHWARZBECK	9120D	209	Nov. 25, 2018	Nov. 24, 2019
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170241	Nov. 25, 2018	Nov. 24, 2019
Loop Antenna EMCI	EM-6879	269	Sep. 07, 2018	Sep. 06, 2019
Preamplifier Agilent (Below 1GHz)	8447D	2944A10738	Aug. 21, 2018	Aug. 20, 2019
Preamplifier Agilent (Above 1GHz)	8449B	3008A02465	Apr. 03, 2018	Apr. 02, 2019
RF signal cable HUBER+SUHNER	SUCOFLEX 104	Cable-CH3-03 (223653/4)	Aug. 21, 2018	Aug. 20, 2019
RF signal cable HUBER+SUHNER& EMCI	SUCOFLEX 104&EMC104-SM-S M-8000	Cable-CH3-03 (309224+170907)	Aug. 21, 2018	Aug. 20, 2019
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	NA	NA	NA
Antenna Tower inn-co GmbH	MA 4000	013303	NA	NA
Antenna Tower Controller BV ADT	AT100	AT93021702	NA	NA
Turn Table BV ADT	TT100	TT93021702	NA	NA
Turn Table Controller BV ADT	SC100	SC93021702	NA	NA
Pre-amplifier (18GHz-40GHz) EMC	EMC184045B	980175	Nov. 14, 2018	Nov. 13, 2019
Boresight Antenna Fixture	FBA-01	FBA-SIP01	NA	NA
USB Wideband Power Meter (Including Power Sensor) KEYSIGHT	U2021XA	MY55050005/MY5519 0004/MY55190007/MY 55210005	Jul. 17, 2018	Jul. 16, 2019

Note:
1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in HwaYa Chamber 3.
3. The horn antenna and preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
4. The FCC Designation Number is TW0003. The number will be varied with the Lab location and scope as attached.
5. The IC Site Registration No. is IC 7450F-3.

4.1.3 Test Procedures

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.

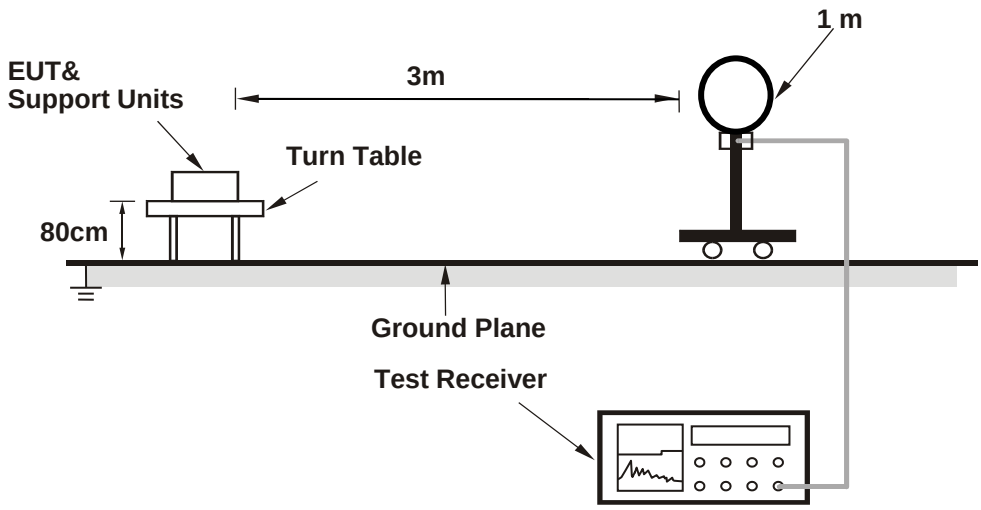
4. All modes of operation were investigated and the worst-case emissions are reported.

4.1.4 Deviation from Test Standard

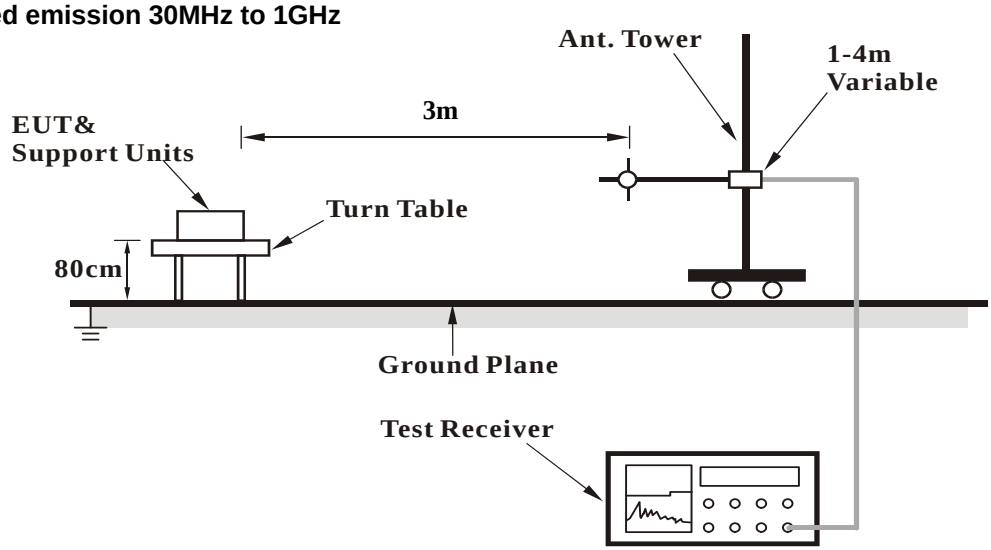
No deviation.

4.1.5 Test Setup

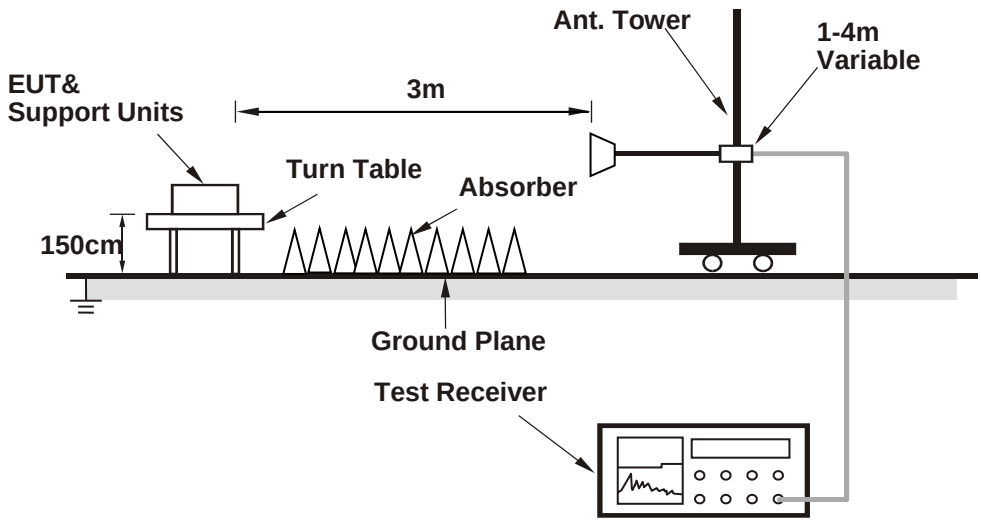
For Radiated emission below 30MHz



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

4.1.7 Test Results

Above 1GHz data:

Test Mode A

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	59.0 PK	74.0	-15.0	2.09 H	79	55.5	3.5
2	5150.00	43.1 AV	54.0	-10.9	2.09 H	79	39.6	3.5
3	*5180.00	95.2 PK			2.27 H	78	56.0	39.2
4	*5180.00	84.7 AV			2.27 H	78	45.5	39.2
5	#10360.00	57.1 PK	68.2	-11.1	2.19 H	157	41.7	15.4
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	59.9 PK	74.0	-14.1	1.75 V	217	56.4	3.5
2	5150.00	43.4 AV	54.0	-10.6	1.75 V	217	39.9	3.5
3	*5180.00	106.5 PK			1.60 V	218	67.3	39.2
4	*5180.00	96.1 AV			1.60 V	218	56.9	39.2
5	#10360.00	57.4 PK	68.2	-10.8	1.83 V	15	42.0	15.4

Remarks:

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

CHANNEL	TX Channel 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	95.1 PK			2.27 H	79	55.8	39.3
2	*5200.00	84.5 AV			2.27 H	79	45.2	39.3
3	#10400.00	56.8 PK	68.2	-11.4	2.33 H	163	41.2	15.6
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	106.5 PK			1.74 V	70	67.2	39.3
2	*5200.00	95.9 AV			1.74 V	70	56.6	39.3
3	#10400.00	57.1 PK	68.2	-11.1	1.91 V	23	41.5	15.6

Remarks:

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

CHANNEL	TX Channel 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	95.6 PK			2.30 H	77	56.5	39.1
2	*5240.00	85.0 AV			2.30 H	77	45.9	39.1
3	5350.00	55.7 PK	74.0	-18.3	2.13 H	80	52.0	3.7
4	5350.00	42.6 AV	54.0	-11.4	2.13 H	80	38.9	3.7
5	#10480.00	57.7 PK	68.2	-10.5	2.24 H	160	41.5	16.2
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	107.0 PK			1.81 V	71	67.9	39.1
2	*5240.00	96.5 AV			1.81 V	71	57.4	39.1
3	5350.00	56.7 PK	74.0	-17.3	1.72 V	75	53.0	3.7
4	5350.00	42.8 AV	54.0	-11.2	1.72 V	75	39.1	3.7
5	#10480.00	57.9 PK	68.2	-10.3	1.93 V	19	41.7	16.2

Remarks:

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

CHANNEL	TX Channel 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	59.8 PK	74.0	-14.2	1.21 H	109	47.2	12.6
2	5150.00	46.9 AV	54.0	-7.1	1.21 H	109	34.3	12.6
3	*5260.00	94.4 PK			1.29 H	102	53.3	41.1
4	*5260.00	84.3 AV			1.29 H	102	43.2	41.1
5	#10520.00	62.8 PK	68.2	-5.4	2.63 H	296	39.8	23.0
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	60.1 PK	74.0	-13.9	1.76 V	321	47.5	12.6
2	5150.00	47.2 AV	54.0	-6.8	1.76 V	321	34.6	12.6
3	*5260.00	105.4 PK			1.73 V	294	64.3	41.1
4	*5260.00	95.3 AV			1.73 V	294	54.2	41.1
5	#10520.00	63.2 PK	68.2	-5.0	2.41 V	215	40.2	23.0

Remarks:

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

CHANNEL	TX Channel 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	97.0 PK			1.22 H	100	55.9	41.1
2	*5300.00	86.5 AV			1.22 H	100	45.4	41.1
3	10600.00	63.1 PK	74.0	-10.9	3.02 H	316	39.9	23.2
4	10600.00	50.1 AV	54.0	-3.9	3.02 H	316	26.9	23.2
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	108.0 PK			1.81 V	314	66.9	41.1
2	*5300.00	97.5 AV			1.81 V	314	56.4	41.1
3	10600.00	63.5 PK	74.0	-10.5	2.52 V	233	40.3	23.2
4	10600.00	50.5 AV	54.0	-3.5	2.52 V	233	27.3	23.2

Remarks:

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

CHANNEL	TX Channel 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	97.6 PK			1.29 H	109	56.4	41.2
2	*5320.00	87.2 AV			1.29 H	109	46.0	41.2
3	5350.00	60.0 PK	74.0	-14.0	1.29 H	102	47.6	12.4
4	5350.00	47.1 AV	54.0	-6.9	1.29 H	102	34.7	12.4
5	10640.00	63.2 PK	74.0	-10.8	2.19 H	201	40.0	23.2
6	10640.00	50.1 AV	54.0	-3.9	2.19 H	201	26.9	23.2
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	108.6 PK			1.74 V	295	67.4	41.2
2	*5320.00	98.2 AV			1.74 V	295	57.0	41.2
3	5350.00	64.5 PK	74.0	-9.5	1.88 V	302	52.1	12.4
4	5350.00	50.2 AV	54.0	-3.8	1.88 V	302	37.8	12.4
5	10640.00	63.5 PK	74.0	-10.5	2.15 V	233	40.3	23.2
6	10640.00	50.6 AV	54.0	-3.4	2.15 V	233	27.4	23.2

Remarks:

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

CHANNEL	TX Channel 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	57.5 PK	74.0	-16.5	1.99 H	321	53.5	4.0
2	5460.00	43.2 AV	54.0	-10.8	1.99 H	321	39.2	4.0
3	#5470.00	57.2 PK	68.2	-11.0	1.93 H	309	53.2	4.0
4	*5500.00	93.9 PK			1.86 H	322	54.3	39.6
5	*5500.00	84.1 AV			1.86 H	322	44.5	39.6
6	11000.00	58.1 PK	74.0	-15.9	1.83 H	180	40.2	17.9
7	11000.00	44.1 AV	54.0	-9.9	1.83 H	180	26.2	17.9
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	57.6 PK	74.0	-16.4	1.91 V	261	53.6	4.0
2	5460.00	43.9 AV	54.0	-10.1	1.91 V	261	39.9	4.0
3	#5470.00	62.0 PK	68.2	-6.2	1.85 V	253	58.0	4.0
4	*5500.00	109.2 PK			1.74 V	253	69.6	39.6
5	*5500.00	98.8 AV			1.74 V	253	59.2	39.6
6	11000.00	58.6 PK	74.0	-15.4	2.17 V	188	40.7	17.9
7	11000.00	44.8 AV	54.0	-9.2	2.17 V	188	26.9	17.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – 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	95.1 PK			1.88 H	330	55.5	39.6
2	*5580.00	84.8 AV			1.88 H	330	45.2	39.6
3	11160.00	58.7 PK	74.0	-15.3	1.82 H	201	42.0	16.7
4	11160.00	44.8 AV	54.0	-9.2	1.82 H	201	28.1	16.7
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5580.00	109.8 PK			1.78 V	255	70.2	39.6
2	*5580.00	99.9 AV			1.78 V	255	60.3	39.6
3	11160.00	59.3 PK	74.0	-14.7	2.09 V	198	42.6	16.7
4	11160.00	45.5 AV	54.0	-8.5	2.09 V	198	28.8	16.7

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	93.6 PK			1.93 H	309	54.0	39.6
2	*5700.00	83.5 AV			1.93 H	309	43.9	39.6
3	#5725.00	56.2 PK	68.2	-12.0	2.01 H	313	52.1	4.1
4	11400.00	57.6 PK	74.0	-16.4	1.79 H	189	41.0	16.6
5	11400.00	43.9 AV	54.0	-10.1	1.79 H	189	27.3	16.6
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	108.1 PK			1.76 V	250	68.5	39.6
2	*5700.00	98.2 AV			1.76 V	250	58.6	39.6
3	#5725.00	61.6 PK	68.2	-6.6	1.86 V	255	57.5	4.1
4	11400.00	57.8 PK	74.0	-16.2	2.19 V	201	41.2	16.6
5	11400.00	44.5 AV	54.0	-9.5	2.19 V	201	27.9	16.6

Remarks:

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

CHANNEL	TX Channel 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	#5635.26	55.7 PK	68.2	-12.5	1.60 H	52	51.5	4.2
2	*5745.00	97.4 PK			1.60 H	52	57.6	39.8
3	*5745.00	86.8 AV			1.60 H	52	47.0	39.8
4	#5926.92	57.0 PK	68.2	-11.2	1.60 H	52	52.1	4.9
5	11490.00	57.5 PK	74.0	-16.5	1.91 H	293	40.7	16.8
6	11490.00	44.3 AV	54.0	-9.7	1.91 H	293	27.5	16.8
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5612.18	56.1 PK	68.2	-12.1	1.54 V	262	51.9	4.2
2	*5745.00	108.5 PK			1.54 V	262	68.7	39.8
3	*5745.00	97.7 AV			1.54 V	262	57.9	39.8
4	#5976.28	58.0 PK	68.2	-10.2	1.54 V	262	53.0	5.0
5	11490.00	56.0 PK	74.0	-18.0	2.52 V	322	39.2	16.8
6	11490.00	43.1 AV	54.0	-10.9	2.52 V	322	26.3	16.8

Remarks:

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

CHANNEL	TX Channel 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	#5635.26	54.9 PK	68.2	-13.3	1.57 H	60	50.7	4.2
2	*5785.00	99.7 PK			1.57 H	60	59.6	40.1
3	*5785.00	89.1 AV			1.57 H	60	49.0	40.1
4	#5972.44	57.0 PK	68.2	-11.2	1.57 H	60	52.0	5.0
5	11570.00	57.7 PK	74.0	-16.3	1.83 H	276	40.7	17.0
6	11570.00	44.4 AV	54.0	-9.6	1.83 H	276	27.4	17.0
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5646.79	55.6 PK	68.2	-12.6	1.59 V	262	51.3	4.3
2	*5785.00	107.9 PK			1.59 V	262	67.8	40.1
3	*5785.00	97.3 AV			1.59 V	262	57.2	40.1
4	#5969.87	57.4 PK	68.2	-10.8	1.59 V	262	52.5	4.9
5	11570.00	56.4 PK	74.0	-17.6	2.66 V	210	39.4	17.0
6	11570.00	43.4 AV	54.0	-10.6	2.66 V	210	26.4	17.0

Remarks:

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

CHANNEL	TX Channel 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	#5615.38	55.1 PK	68.2	-13.1	1.53 H	61	50.9	4.2
2	*5825.00	100.4 PK			1.53 H	61	60.1	40.3
3	*5825.00	89.8 AV			1.53 H	61	49.5	40.3
4	#5975.64	57.1 PK	68.2	-11.1	1.53 H	61	52.1	5.0
5	11650.00	57.1 PK	74.0	-16.9	1.91 H	271	40.5	16.6
6	11650.00	44.0 AV	54.0	-10.0	1.91 H	271	27.4	16.6
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5621.15	56.9 PK	68.2	-11.3	1.69 V	266	52.7	4.2
2	*5825.00	107.2 PK			1.69 V	266	66.9	40.3
3	*5825.00	97.2 AV			1.69 V	266	56.9	40.3
4	#5982.69	57.8 PK	68.2	-10.4	1.69 V	266	52.8	5.0
5	11650.00	55.6 PK	74.0	-18.4	3.23 V	55	39.0	16.6
6	11650.00	43.0 AV	54.0	-11.0	3.23 V	55	26.4	16.6

Remarks:

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

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	55.8 PK	74.0	-18.2	1.21 H	67	52.3	3.5
2	5150.00	41.3 AV	54.0	-12.7	1.21 H	67	37.8	3.5
3	*5180.00	93.9 PK			1.13 H	57	54.7	39.2
4	*5180.00	84.2 AV			1.13 H	57	45.0	39.2
5	#10360.00	56.6 PK	68.2	-11.6	1.87 H	163	41.2	15.4
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	59.5 PK	74.0	-14.5	1.75 V	238	56.0	3.5
2	5150.00	44.1 AV	54.0	-9.9	1.75 V	238	40.6	3.5
3	*5180.00	108.5 PK			1.56 V	217	69.3	39.2
4	*5180.00	99.2 AV			1.56 V	217	60.0	39.2
5	#10360.00	56.9 PK	68.2	-11.3	1.93 V	29	41.5	15.4

Remarks:

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

CHANNEL	TX Channel 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	94.3 PK			1.16 H	60	55.0	39.3
2	*5200.00	84.1 AV			1.16 H	60	44.8	39.3
3	#10400.00	56.7 PK	68.2	-11.5	1.91 H	160	41.1	15.6
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	108.7 PK			1.98 V	76	69.4	39.3
2	*5200.00	98.9 AV			1.98 V	76	59.6	39.3
3	#10400.00	57.0 PK	68.2	-11.2	1.89 V	23	41.4	15.6

Remarks:

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

CHANNEL	TX Channel 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	94.7 PK			1.16 H	55	55.6	39.1
2	*5240.00	85.1 AV			1.16 H	55	46.0	39.1
3	5350.00	54.7 PK	74.0	-19.3	1.26 H	62	51.0	3.7
4	5350.00	40.9 AV	54.0	-13.1	1.26 H	62	37.2	3.7
5	#10480.00	57.4 PK	68.2	-10.8	1.80 H	152	41.2	16.2
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	109.2 PK			2.03 V	77	70.1	39.1
2	*5240.00	99.8 AV			2.03 V	77	60.7	39.1
3	5350.00	55.9 PK	74.0	-18.1	1.91 V	86	52.2	3.7
4	5350.00	42.7 AV	54.0	-11.3	1.91 V	86	39.0	3.7
5	#10480.00	57.8 PK	68.2	-10.4	1.95 V	33	41.6	16.2

Remarks:

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

CHANNEL	TX Channel 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	60.5 PK	74.0	-13.5	1.22 H	100	47.9	12.6
2	5150.00	46.8 AV	54.0	-7.2	1.22 H	100	34.2	12.6
3	*5260.00	98.1 PK			1.29 H	102	57.0	41.1
4	*5260.00	88.2 AV			1.29 H	102	47.1	41.1
5	#10520.00	62.5 PK	68.2	-5.7	3.11 H	320	39.5	23.0
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	60.6 PK	74.0	-13.4	1.81 V	295	48.0	12.6
2	5150.00	47.3 AV	54.0	-6.7	1.81 V	295	34.7	12.6
3	*5260.00	113.1 PK			1.71 V	294	72.0	41.1
4	*5260.00	103.2 AV			1.71 V	294	62.1	41.1
5	#10520.00	63.1 PK	68.2	-5.1	2.19 V	25	40.1	23.0

Remarks:

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

CHANNEL	TX Channel 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	97.6 PK			1.23 H	103	56.5	41.1
2	*5300.00	87.9 AV			1.23 H	103	46.8	41.1
3	10600.00	62.7 PK	74.0	-11.3	2.30 H	201	39.5	23.2
4	10600.00	49.7 AV	54.0	-4.3	2.30 H	201	26.5	23.2
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	112.1 PK			1.69 V	299	71.0	41.1
2	*5300.00	102.6 AV			1.69 V	299	61.5	41.1
3	10600.00	63.0 PK	74.0	-11.0	2.66 V	211	39.8	23.2
4	10600.00	50.2 AV	54.0	-3.8	2.66 V	211	27.0	23.2

Remarks:

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

CHANNEL	TX Channel 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	97.3 PK			1.25 H	102	56.1	41.2
2	*5320.00	87.8 AV			1.25 H	102	46.6	41.2
3	5350.00	61.0 PK	74.0	-13.0	1.20 H	102	48.6	12.4
4	5350.00	46.9 AV	54.0	-7.1	1.20 H	102	34.5	12.4
5	10640.00	62.5 PK	74.0	-11.5	2.10 H	25	39.3	23.2
6	10640.00	49.7 AV	54.0	-4.3	2.10 H	25	26.5	23.2
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	112.3 PK			1.71 V	300	71.1	41.2
2	*5320.00	102.8 AV			1.71 V	300	61.6	41.2
3	5350.00	66.8 PK	74.0	-7.2	1.81 V	309	54.4	12.4
4	5350.00	52.9 AV	54.0	-1.1	1.81 V	309	40.5	12.4
5	10640.00	63.5 PK	74.0	-10.5	2.33 V	215	40.3	23.2
6	10640.00	50.7 AV	54.0	-3.3	2.33 V	215	27.5	23.2

Remarks:

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

CHANNEL	TX Channel 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	57.0 PK	74.0	-17.0	2.01 H	311	53.0	4.0
2	5460.00	43.2 AV	54.0	-10.8	2.01 H	311	39.2	4.0
3	#5470.00	57.5 PK	68.2	-10.7	1.93 H	320	53.5	4.0
4	*5500.00	99.1 PK			1.89 H	309	59.5	39.6
5	*5500.00	88.9 AV			1.89 H	309	49.3	39.6
6	11000.00	58.5 PK	74.0	-15.5	1.76 H	201	40.6	17.9
7	11000.00	44.7 AV	54.0	-9.3	1.76 H	201	26.8	17.9
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	59.1 PK	74.0	-14.9	1.77 V	257	55.1	4.0
2	5460.00	44.2 AV	54.0	-9.8	1.77 V	257	40.2	4.0
3	#5470.00	63.9 PK	68.2	-4.3	1.73 V	265	59.9	4.0
4	*5500.00	113.7 PK			1.68 V	262	74.1	39.6
5	*5500.00	103.6 AV			1.68 V	262	64.0	39.6
6	11000.00	58.8 PK	74.0	-15.2	2.23 V	200	40.9	17.9
7	11000.00	44.8 AV	54.0	-9.2	2.23 V	200	26.9	17.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – 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	98.7 PK			1.99 H	326	59.1	39.6
2	*5580.00	88.6 AV			1.99 H	326	49.0	39.6
3	11160.00	58.4 PK	74.0	-15.6	1.82 H	189	41.7	16.7
4	11160.00	44.3 AV	54.0	-9.7	1.82 H	189	27.6	16.7
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5580.00	113.4 PK			1.80 V	262	73.8	39.6
2	*5580.00	103.3 AV			1.80 V	262	63.7	39.6
3	11160.00	58.8 PK	74.0	-15.2	2.03 V	199	42.1	16.7
4	11160.00	44.7 AV	54.0	-9.3	2.03 V	199	28.0	16.7

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	97.5 PK			1.96 H	316	57.9	39.6
2	*5700.00	87.3 AV			1.96 H	316	47.7	39.6
3	#5725.00	56.3 PK	68.2	-11.9	1.83 H	320	52.2	4.1
4	11400.00	58.6 PK	74.0	-15.4	1.83 H	193	42.0	16.6
5	11400.00	44.7 AV	54.0	-9.3	1.83 H	193	28.1	16.6
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	112.1 PK			1.55 V	279	72.5	39.6
2	*5700.00	102.0 AV			1.55 V	279	62.4	39.6
3	#5725.00	62.9 PK	68.2	-5.3	1.79 V	297	58.8	4.1
4	11400.00	58.7 PK	74.0	-15.3	1.99 V	198	42.1	16.6
5	11400.00	44.6 AV	54.0	-9.4	1.99 V	198	28.0	16.6

Remarks:

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

CHANNEL	TX Channel 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	#5609.62	54.6 PK	68.2	-13.6	1.48 H	60	50.4	4.2
2	*5745.00	100.8 PK			1.48 H	60	61.0	39.8
3	*5745.00	91.3 AV			1.48 H	60	51.5	39.8
4	#5989.74	57.8 PK	68.2	-10.4	1.48 H	60	52.8	5.0
5	11490.00	57.5 PK	74.0	-16.5	1.57 H	301	40.7	16.8
6	11490.00	44.4 AV	54.0	-9.6	1.57 H	301	27.6	16.8
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5603.21	56.1 PK	68.2	-12.1	1.54 V	256	51.9	4.2
2	*5745.00	112.7 PK			1.54 V	256	72.9	39.8
3	*5745.00	102.6 AV			1.54 V	256	62.8	39.8
4	#5983.33	58.7 PK	68.2	-9.5	1.54 V	256	53.7	5.0
5	11490.00	56.6 PK	74.0	-17.4	3.25 V	125	39.8	16.8
6	11490.00	43.3 AV	54.0	-10.7	3.25 V	125	26.5	16.8

Remarks:

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

CHANNEL	TX Channel 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	#5624.36	55.6 PK	68.2	-12.6	1.54 H	60	51.4	4.2
2	*5785.00	100.7 PK			1.54 H	60	60.6	40.1
3	*5785.00	91.3 AV			1.54 H	60	51.2	40.1
4	#5969.87	57.7 PK	68.2	-10.5	1.54 H	60	52.8	4.9
5	11570.00	57.2 PK	74.0	-16.8	1.61 H	292	40.2	17.0
6	11570.00	44.1 AV	54.0	-9.9	1.61 H	292	27.1	17.0
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5612.18	56.3 PK	68.2	-11.9	1.75 V	257	52.1	4.2
2	*5785.00	111.9 PK			1.75 V	257	71.8	40.1
3	*5785.00	102.4 AV			1.75 V	257	62.3	40.1
4	#5933.33	58.0 PK	68.2	-10.2	1.75 V	257	53.1	4.9
5	11570.00	56.5 PK	74.0	-17.5	2.58 V	210	39.5	17.0
6	11570.00	43.5 AV	54.0	-10.5	2.58 V	210	26.5	17.0

Remarks:

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

CHANNEL	TX Channel 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	#5604.49	55.0 PK	68.2	-13.2	1.69 H	63	50.8	4.2
2	*5825.00	101.2 PK			1.69 H	63	60.9	40.3
3	*5825.00	91.7 AV			1.69 H	63	51.4	40.3
4	#5976.92	57.2 PK	68.2	-11.0	1.69 H	63	52.2	5.0
5	11650.00	56.6 PK	74.0	-17.4	1.70 H	285	40.0	16.6
6	11650.00	44.1 AV	54.0	-9.9	1.70 H	285	27.5	16.6
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5608.33	56.2 PK	68.2	-12.0	1.73 V	254	52.0	4.2
2	*5825.00	111.9 PK			1.73 V	254	71.6	40.3
3	*5825.00	102.2 AV			1.73 V	254	61.9	40.3
4	#5995.51	57.7 PK	68.2	-10.5	1.73 V	254	52.7	5.0
5	11650.00	55.5 PK	74.0	-18.5	3.02 V	85	38.9	16.6
6	11650.00	42.7 AV	54.0	-11.3	3.02 V	85	26.1	16.6

Remarks:

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

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	55.0 PK	74.0	-19.0	1.23 H	123	51.5	3.5
2	5150.00	41.7 AV	54.0	-12.3	1.23 H	123	38.2	3.5
3	*5190.00	90.7 PK			1.41 H	150	51.4	39.3
4	*5190.00	81.2 AV			1.41 H	150	41.9	39.3
5	#10380.00	56.7 PK	68.2	-11.5	1.63 H	199	41.2	15.5
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	63.5 PK	74.0	-10.5	1.94 V	81	60.0	3.5
2	5150.00	48.8 AV	54.0	-5.2	1.94 V	81	45.3	3.5
3	*5190.00	105.5 PK			2.09 V	78	66.2	39.3
4	*5190.00	95.2 AV			2.09 V	78	55.9	39.3
5	#10380.00	57.3 PK	68.2	-10.9	1.83 V	29	41.8	15.5

Remarks:

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

CHANNEL	TX Channel 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	92.0 PK			1.50 H	147	52.9	39.1
2	*5230.00	81.7 AV			1.50 H	147	42.6	39.1
3	5350.00	55.6 PK	74.0	-18.4	1.41 H	163	51.9	3.7
4	5350.00	42.3 AV	54.0	-11.7	1.41 H	163	38.6	3.7
5	#10460.00	56.7 PK	68.2	-11.5	1.72 H	186	40.7	16.0
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5230.00	106.1 PK			1.97 V	72	67.0	39.1
2	*5230.00	95.6 AV			1.97 V	72	56.5	39.1
3	5350.00	55.7 PK	74.0	-18.3	2.09 V	76	52.0	3.7
4	5350.00	42.6 AV	54.0	-11.4	2.09 V	76	38.9	3.7
5	#10460.00	57.1 PK	68.2	-11.1	1.99 V	23	41.1	16.0

Remarks:

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

CHANNEL	TX Channel 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	60.1 PK	74.0	-13.9	1.29 H	102	47.5	12.6
2	5150.00	47.0 AV	54.0	-7.0	1.29 H	102	34.4	12.6
3	*5270.00	93.7 PK			1.22 H	100	52.6	41.1
4	*5270.00	84.2 AV			1.22 H	100	43.1	41.1
5	#10540.00	61.8 PK	68.2	-6.4	2.15 H	233	38.9	22.9
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	60.3 PK	74.0	-13.7	1.89 V	312	47.7	12.6
2	5150.00	47.2 AV	54.0	-6.8	1.89 V	312	34.6	12.6
3	*5270.00	109.6 PK			1.71 V	303	68.5	41.1
4	*5270.00	99.2 AV			1.71 V	303	58.1	41.1
5	#10540.00	62.4 PK	68.2	-5.8	2.88 V	15	39.5	22.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – 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	87.7 PK			1.00 H	244	46.5	41.2
2	*5310.00	76.7 AV			1.00 H	244	35.5	41.2
3	5350.00	59.0 PK	74.0	-15.0	1.09 H	236	46.6	12.4
4	5350.00	46.6 AV	54.0	-7.4	1.09 H	236	34.2	12.4
5	10620.00	63.5 PK	74.0	-10.5	2.33 H	104	40.4	23.1
6	10620.00	50.2 AV	54.0	-3.8	2.33 H	104	27.1	23.1
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5310.00	105.6 PK			1.69 V	295	64.4	41.2
2	*5310.00	95.0 AV			1.69 V	295	53.8	41.2
3	5350.00	66.4 PK	74.0	-7.6	1.70 V	292	54.0	12.4
4	**5350.00**	**53.0 AV**	**54.0**	**-1.0**	**1.70 V**	**292**	**40.6**	**12.4**
5	10620.00	63.5 PK	74.0	-10.5	2.33 V	201	40.4	23.1
6	10620.00	50.4 AV	54.0	-3.6	2.33 V	201	27.3	23.1

Remarks:

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

CHANNEL	TX Channel 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	56.9 PK	74.0	-17.1	2.07 H	329	52.9	4.0
2	5460.00	44.1 AV	54.0	-9.9	2.07 H	329	40.1	4.0
3	#5470.00	57.9 PK	68.2	-10.3	1.95 H	319	53.9	4.0
4	*5510.00	92.9 PK			1.89 H	321	53.2	39.7
5	*5510.00	82.7 AV			1.89 H	321	43.0	39.7
6	11020.00	58.4 PK	74.0	-15.6	2.02 H	206	40.8	17.6
7	11020.00	44.4 AV	54.0	-9.6	2.02 H	206	26.8	17.6
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	59.9 PK	74.0	-14.1	1.69 V	255	55.9	4.0
2	5460.00	45.2 AV	54.0	-8.8	1.69 V	255	41.2	4.0
3	#5470.00	66.5 PK	68.2	-1.7	1.60 V	261	62.5	4.0
4	*5510.00	107.4 PK			1.85 V	262	67.7	39.7
5	*5510.00	96.6 AV			1.85 V	262	56.9	39.7
6	11020.00	58.7 PK	74.0	-15.3	2.22 V	209	41.1	17.6
7	11020.00	44.5 AV	54.0	-9.5	2.22 V	209	26.9	17.6

Remarks:

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

CHANNEL	TX Channel 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	96.0 PK			2.03 H	315	56.4	39.6
2	*5550.00	85.7 AV			2.03 H	315	46.1	39.6
3	11100.00	57.8 PK	74.0	-16.2	1.79 H	193	41.0	16.8
4	11100.00	44.1 AV	54.0	-9.9	1.79 H	193	27.3	16.8
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5550.00	110.6 PK			1.64 V	263	71.0	39.6
2	*5550.00	99.6 AV			1.64 V	263	60.0	39.6
3	11100.00	58.1 PK	74.0	-15.9	1.99 V	209	41.3	16.8
4	11100.00	44.3 AV	54.0	-9.7	1.99 V	209	27.5	16.8

Remarks:

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

CHANNEL	TX Channel 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	95.8 PK			1.86 H	320	56.0	39.8
2	*5670.00	85.4 AV			1.86 H	320	45.6	39.8
3	#5725.00	56.8 PK	68.2	-11.4	2.10 H	329	52.7	4.1
4	11340.00	59.9 PK	74.0	-14.1	1.94 H	201	43.1	16.8
5	11340.00	45.5 AV	54.0	-8.5	1.94 H	201	28.7	16.8
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5670.00	110.6 PK			1.61 V	246	70.8	39.8
2	*5670.00	99.7 AV			1.61 V	246	59.9	39.8
3	#5725.00	62.3 PK	68.2	-5.9	1.64 V	254	58.2	4.1
4	11340.00	60.3 PK	74.0	-13.7	2.11 V	209	43.5	16.8
5	11340.00	45.8 AV	54.0	-8.2	2.11 V	209	29.0	16.8

Remarks:

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

CHANNEL	TX Channel 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	#5641.67	55.1 PK	68.2	-13.1	1.46 H	61	50.8	4.3
2	*5755.00	98.6 PK			1.46 H	61	58.8	39.8
3	*5755.00	87.8 AV			1.46 H	61	48.0	39.8
4	#5997.44	57.3 PK	68.2	-10.9	1.46 H	61	52.3	5.0
5	11510.00	57.2 PK	74.0	-16.8	1.82 H	272	40.3	16.9
6	11510.00	44.4 AV	54.0	-9.6	1.82 H	272	27.5	16.9
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5606.41	56.8 PK	68.2	-11.4	1.77 V	253	52.6	4.2
2	*5755.00	108.8 PK			1.77 V	253	69.0	39.8
3	*5755.00	99.3 AV			1.77 V	253	59.5	39.8
4	#5991.67	58.1 PK	68.2	-10.1	1.77 V	253	53.1	5.0
5	11510.00	56.5 PK	74.0	-17.5	2.62 V	102	39.6	16.9
6	11510.00	43.8 AV	54.0	-10.2	2.62 V	102	26.9	16.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – 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	#5606.41	54.9 PK	68.2	-13.3	1.43 H	61	50.7	4.2
2	*5795.00	98.3 PK			1.43 H	61	58.2	40.1
3	*5795.00	88.5 AV			1.43 H	61	48.4	40.1
4	#5991.03	57.0 PK	68.2	-11.2	1.43 H	61	52.0	5.0
5	11590.00	57.2 PK	74.0	-16.8	1.79 H	289	40.2	17.0
6	11590.00	44.0 AV	54.0	-10.0	1.79 H	289	27.0	17.0
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5603.85	55.8 PK	68.2	-12.4	1.79 V	255	51.6	4.2
2	*5795.00	109.0 PK			1.79 V	255	68.9	40.1
3	*5795.00	98.4 AV			1.79 V	255	58.3	40.1
4	#5978.21	58.3 PK	68.2	-9.9	1.49 V	255	53.3	5.0
5	11590.00	56.3 PK	74.0	-17.7	2.99 V	150	39.3	17.0
6	11590.00	43.3 AV	54.0	-10.7	2.99 V	150	26.3	17.0

Remarks:

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

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	55.4 PK	74.0	-18.6	1.29 H	161	51.9	3.5
2	5150.00	42.4 AV	54.0	-11.6	1.29 H	161	38.9	3.5
3	*5210.00	87.7 PK			1.14 H	150	48.5	39.2
4	*5210.00	78.0 AV			1.14 H	150	38.8	39.2
5	5350.00	56.2 PK	74.0	-17.8	1.21 H	153	52.5	3.7
6	5350.00	43.1 AV	54.0	-10.9	1.21 H	153	39.4	3.7
7	#10420.00	56.5 PK	68.2	-11.7	2.33 H	149	40.8	15.7
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	61.2 PK	74.0	-12.8	1.90 V	80	57.7	3.5
2	5150.00	48.9 AV	54.0	-5.1	1.90 V	80	45.4	3.5
3	*5210.00	101.5 PK			2.07 V	75	62.3	39.2
4	*5210.00	92.2 AV			2.07 V	75	53.0	39.2
5	5350.00	56.4 PK	74.0	-17.6	1.99 V	79	52.7	3.7
6	5350.00	43.9 AV	54.0	-10.1	1.99 V	79	40.2	3.7
7	#10420.00	56.7 PK	68.2	-11.5	2.01 V	19	41.0	15.7

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – 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	60.3 PK	74.0	-13.7	1.12 H	229	47.7	12.6
2	5150.00	46.9 AV	54.0	-7.1	1.12 H	229	34.3	12.6
3	*5290.00	84.0 PK			1.00 H	243	42.9	41.1
4	*5290.00	72.6 AV			1.00 H	243	31.5	41.1
5	5350.00	60.2 PK	74.0	-13.8	1.02 H	241	47.8	12.4
6	5350.00	46.5 AV	54.0	-7.5	1.02 H	241	34.1	12.4
7	#10580.00	62.6 PK	68.2	-5.6	2.69 H	104	39.5	23.1
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	60.6 PK	74.0	-13.4	1.65 V	293	48.0	12.6
2	5150.00	47.1 AV	54.0	-6.9	1.65 V	293	34.5	12.6
3	*5290.00	100.8 PK			1.60 V	291	59.7	41.1
4	*5290.00	88.8 AV			1.60 V	291	47.7	41.1
5	5350.00	64.5 PK	74.0	-9.5	1.69 V	296	52.1	12.4
6	5350.00	52.9 AV	54.0	-1.1	1.69 V	296	40.5	12.4
7	#10580.00	63.4 PK	68.2	-4.8	2.59 V	322	40.3	23.1

Remarks:

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

CHANNEL	TX Channel 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	56.5 PK	74.0	-17.5	2.01 H	303	52.5	4.0
2	5460.00	44.0 AV	54.0	-10.0	2.01 H	303	40.0	4.0
3	#5470.00	58.0 PK	68.2	-10.2	1.99 H	313	54.0	4.0
4	*5530.00	89.8 PK			2.05 H	293	50.1	39.7
5	*5530.00	83.9 AV			2.05 H	293	44.2	39.7
6	#5725.00	56.2 PK	68.2	-12.0	2.08 H	293	52.1	4.1
7	11060.00	57.4 PK	74.0	-16.6	1.81 H	190	40.2	17.2
8	11060.00	44.9 AV	54.0	-9.1	1.81 H	190	27.7	17.2
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	65.1 PK	74.0	-8.9	1.72 V	258	61.1	4.0
2	5460.00	50.0 AV	54.0	-4.0	1.72 V	258	46.0	4.0
3	#5470.00	66.7 PK	68.2	-1.5	1.61 V	263	62.7	4.0
4	*5530.00	104.0 PK			1.88 V	261	64.3	39.7
5	*5530.00	94.2 AV			1.88 V	261	54.5	39.7
6	#5725.00	56.3 PK	68.2	-11.9	1.60 V	259	52.2	4.1
7	11060.00	57.8 PK	74.0	-16.2	2.20 V	209	40.6	17.2
8	11060.00	45.3 AV	54.0	-8.7	2.20 V	209	28.1	17.2

Remarks:

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

CHANNEL	TX Channel 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	57.0 PK	74.0	-17.0	2.09 H	299	53.0	4.0
2	5460.00	44.2 AV	54.0	-9.8	2.09 H	299	40.2	4.0
3	#5470.00	57.4 PK	68.2	-10.8	1.95 H	309	53.4	4.0
4	*5610.00	90.5 PK			2.00 H	290	50.7	39.8
5	*5610.00	80.0 AV			2.00 H	290	40.2	39.8
6	#5725.00	55.4 PK	68.2	-12.8	1.97 H	289	51.3	4.1
7	11220.00	58.8 PK	74.0	-15.2	1.73 H	183	42.0	16.8
8	11220.00	46.5 AV	54.0	-7.5	1.73 H	183	29.7	16.8
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	57.2 PK	74.0	-16.8	1.57 V	273	53.2	4.0
2	5460.00	44.6 AV	54.0	-9.4	1.57 V	273	40.6	4.0
3	#5470.00	58.2 PK	68.2	-10.0	1.58 V	269	54.2	4.0
4	*5610.00	105.0 PK			1.60 V	277	65.2	39.8
5	*5610.00	94.8 AV			1.60 V	277	55.0	39.8
6	#5725.00	56.2 PK	68.2	-12.0	1.69 V	283	52.1	4.1
7	11220.00	58.9 PK	74.0	-15.1	2.13 V	208	42.1	16.8
8	11220.00	47.0 AV	54.0	-7.0	2.13 V	208	30.2	16.8

Remarks:

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

CHANNEL	TX Channel 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	#5644.87	55.0 PK	68.2	-13.2	1.81 H	31	50.7	4.3
2	#5650.00	55.4 PK	68.2	-12.8	1.93 H	22	51.1	4.3
3	*5775.00	89.6 PK			1.81 H	31	49.6	40.0
4	*5775.00	81.1 AV			1.81 H	31	41.1	40.0
5	#5925.00	59.0 PK	68.2	-9.2	1.86 H	57	54.1	4.9
6	#5996.15	57.8 PK	68.2	-10.4	1.81 H	31	52.8	5.0
7	11550.00	59.4 PK	74.0	-14.6	1.78 H	266	42.4	17.0
8	11550.00	45.7 AV	54.0	-8.3	1.78 H	266	28.7	17.0
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5623.08	57.0 PK	68.2	-11.2	1.83 V	254	52.8	4.2
2	#5650.00	58.2 PK	68.2	-10.0	1.99 V	265	53.9	4.3
3	*5775.00	103.9 PK			1.83 V	254	63.9	40.0
4	*5775.00	92.4 AV			1.83 V	254	52.4	40.0
5	#5925.00	59.6 PK	68.2	-8.6	1.87 V	257	54.7	4.9
6	#5950.64	57.9 PK	68.2	-10.3	1.83 V	254	53.1	4.8
7	11550.00	56.9 PK	74.0	-17.1	2.15 V	300	39.9	17.0
8	11550.00	43.8 AV	54.0	-10.2	2.15 V	300	26.8	17.0

Remarks:

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

Test Mode B

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	60.8 PK	74.0	-13.2	3.62 H	175	56.9	3.9
2	5150.00	45.4 AV	54.0	-8.6	3.62 H	175	41.5	3.9
3	*5180.00	103.2 PK			3.80 H	175	63.7	39.5
4	*5180.00	93.2 AV			3.80 H	175	53.7	39.5
5	#10360.00	58.1 PK	68.2	-10.1	2.22 H	155	42.3	15.8
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	65.7 PK	74.0	-8.3	1.07 V	172	61.8	3.9
2	5150.00	48.4 AV	54.0	-5.6	1.07 V	172	44.5	3.9
3	*5180.00	104.8 PK			1.26 V	174	65.3	39.5
4	*5180.00	94.9 AV			1.26 V	174	55.4	39.5
5	#10360.00	58.7 PK	68.2	-9.5	2.36 V	247	42.9	15.8

Remarks:

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

CHANNEL	TX Channel 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	102.9 PK			3.67 H	166	63.4	39.5
2	*5200.00	92.4 AV			3.67 H	166	52.9	39.5
3	#10400.00	57.8 PK	68.2	-10.4	1.47 H	239	41.9	15.9
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	105.5 PK			1.05 V	170	66.0	39.5
2	*5200.00	95.1 AV			1.05 V	170	55.6	39.5
3	#10400.00	58.3 PK	68.2	-9.9	2.36 V	205	42.4	15.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – 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	104.2 PK			3.63 H	168	64.9	39.3
2	*5240.00	93.8 AV			3.63 H	168	54.5	39.3
3	5350.00	56.2 PK	74.0	-17.8	3.55 H	176	52.3	3.9
4	5350.00	43.5 AV	54.0	-10.5	3.55 H	176	39.6	3.9
5	#10480.00	59.4 PK	68.2	-8.8	1.63 H	251	42.6	16.8
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	106.1 PK			1.02 V	169	66.8	39.3
2	*5240.00	95.7 AV			1.02 V	169	56.4	39.3
3	5350.00	46.2 PK	74.0	-27.8	1.18 V	175	42.3	3.9
4	5350.00	42.9 AV	54.0	-11.1	1.18 V	175	39.0	3.9
5	#10480.00	59.2 PK	68.2	-9.0	2.64 V	203	42.4	16.8

Remarks:

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

CHANNEL	TX Channel 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	59.4 PK	74.0	-14.6	3.55 H	172	55.5	3.9
2	5150.00	43.8 AV	54.0	-10.2	3.55 H	172	39.9	3.9
3	*5260.00	105.0 PK			3.61 H	177	65.7	39.3
4	*5260.00	94.5 AV			3.61 H	177	55.2	39.3
5	#10520.00	59.1 PK	68.2	-9.1	1.96 H	256	42.2	16.9
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	45.9 PK	74.0	-28.1	1.32 V	171	42.0	3.9
2	5150.00	43.2 AV	54.0	-10.8	1.32 V	171	39.3	3.9
3	*5260.00	105.8 PK			1.03 V	169	66.5	39.3
4	*5260.00	95.5 AV			1.03 V	169	56.2	39.3
5	#10520.00	59.1 PK	68.2	-9.1	2.18 V	247	42.2	16.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – 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	104.6 PK			3.54 H	170	65.3	39.3
2	*5300.00	94.2 AV			3.54 H	170	54.9	39.3
3	10600.00	59.5 PK	74.0	-14.5	1.39 H	282	42.5	17.0
4	10600.00	45.9 AV	54.0	-8.1	1.39 H	282	28.9	17.0
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	105.9 PK			1.01 V	178	66.6	39.3
2	*5300.00	96.0 AV			1.01 V	178	56.7	39.3
3	10600.00	60.3 PK	74.0	-13.7	2.18 V	251	43.3	17.0
4	10600.00	46.6 AV	54.0	-7.4	2.18 V	251	29.6	17.0

Remarks:

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

CHANNEL	TX Channel 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	104.6 PK			3.73 H	172	65.3	39.3
2	*5320.00	94.2 AV			3.73 H	172	54.9	39.3
3	5350.00	62.8 PK	74.0	-11.2	3.54 H	188	58.9	3.9
4	5350.00	46.0 AV	54.0	-8.0	3.54 H	188	42.1	3.9
5	10640.00	59.7 PK	74.0	-14.3	1.72 H	231	42.7	17.0
6	10640.00	45.8 AV	54.0	-8.2	1.72 H	231	28.8	17.0
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	107.0 PK			1.04 V	166	67.7	39.3
2	*5320.00	96.4 AV			1.04 V	166	57.1	39.3
3	5350.00	64.1 PK	74.0	-9.9	1.01 V	167	60.2	3.9
4	5350.00	46.4 AV	54.0	-7.6	1.01 V	167	42.5	3.9
5	10640.00	59.4 PK	74.0	-14.6	2.16 V	223	42.4	17.0
6	10640.00	46.3 AV	54.0	-7.7	2.16 V	223	29.3	17.0

Remarks:

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

CHANNEL	TX Channel 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	54.7 PK	74.0	-19.3	3.19 H	155	50.6	4.1
2	5460.00	43.6 AV	54.0	-10.4	3.19 H	155	39.5	4.1
3	#5470.00	64.4 PK	68.2	-3.8	3.25 H	181	60.3	4.1
4	*5500.00	106.2 PK			3.32 H	176	66.4	39.8
5	*5500.00	95.7 AV			3.32 H	176	55.9	39.8
6	11000.00	60.5 PK	74.0	-13.5	2.33 H	269	42.1	18.4
7	11000.00	47.0 AV	54.0	-7.0	2.33 H	269	28.6	18.4
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	55.4 PK	74.0	-18.6	1.11 V	182	51.3	4.1
2	5460.00	43.1 AV	54.0	-10.9	1.11 V	182	39.0	4.1
3	#5470.00	63.6 PK	68.2	-4.6	1.08 V	170	59.5	4.1
4	*5500.00	105.9 PK			1.08 V	165	66.1	39.8
5	*5500.00	95.6 AV			1.08 V	165	55.8	39.8
6	11000.00	60.7 PK	74.0	-13.3	2.35 V	218	42.3	18.4
7	11000.00	46.4 AV	54.0	-7.6	2.35 V	218	28.0	18.4

Remarks:

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

CHANNEL	TX Channel 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	105.7 PK			3.27 H	180	65.9	39.8
2	*5580.00	95.7 AV			3.27 H	180	55.9	39.8
3	11160.00	60.9 PK	74.0	-13.1	2.36 H	251	43.4	17.5
4	11160.00	47.1 AV	54.0	-6.9	2.36 H	251	29.6	17.5
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5580.00	106.4 PK			2.18 V	253	66.6	39.8
2	*5580.00	96.2 AV			2.18 V	253	56.4	39.8
3	11160.00	60.1 PK	74.0	-13.9	1.99 V	211	42.6	17.5
4	11160.00	46.9 AV	54.0	-7.1	1.99 V	211	29.4	17.5

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	103.9 PK			3.13 H	159	64.1	39.8
2	*5700.00	94.1 AV			3.13 H	159	54.3	39.8
3	#5725.00	66.6 PK	68.2	-1.6	3.14 H	167	62.2	4.4
4	11400.00	59.2 PK	74.0	-14.8	2.36 H	201	41.9	17.3
5	11400.00	45.7 AV	54.0	-8.3	2.36 H	201	28.4	17.3
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	104.9 PK			1.84 V	254	65.1	39.8
2	*5700.00	95.1 AV			1.84 V	254	55.3	39.8
3	#5725.00	66.7 PK	68.2	-1.5	2.08 V	255	62.3	4.4
4	11400.00	59.0 PK	74.0	-15.0	1.53 V	193	41.7	17.3
5	11400.00	44.6 AV	54.0	-9.4	1.53 V	193	27.3	17.3

Remarks:

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

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	#5610.90	54.9 PK	68.2	-13.3	3.37 H	178	50.6	4.3
2	*5745.00	105.1 PK			3.37 H	178	65.0	40.1
3	*5745.00	95.1 AV			3.37 H	178	55.0	40.1
4	#5977.56	56.9 PK	68.2	-11.3	3.37 H	178	51.8	5.1
5	11490.00	59.0 PK	74.0	-15.0	2.81 H	264	41.4	17.6
6	11490.00	45.6 AV	54.0	-8.4	2.81 H	264	28.0	17.6
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5621.15	54.0 PK	68.2	-14.2	2.23 V	309	49.7	4.3
2	*5745.00	104.6 PK			2.23 V	309	64.5	40.1
3	*5745.00	94.1 AV			2.23 V	309	54.0	40.1
4	#5967.31	57.5 PK	68.2	-10.7	2.23 V	309	52.5	5.0
5	11490.00	58.9 PK	74.0	-15.1	1.88 V	212	41.3	17.6
6	11490.00	45.2 AV	54.0	-8.8	1.88 V	212	27.6	17.6

Remarks:

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

CHANNEL	TX Channel 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	#5610.90	55.3 PK	68.2	-12.9	3.30 H	172	51.0	4.3
2	*5785.00	105.9 PK			3.30 H	172	65.6	40.3
3	*5785.00	95.5 AV			3.30 H	172	55.2	40.3
4	#5979.49	56.6 PK	68.2	-11.6	3.30 H	172	51.5	5.1
5	11570.00	59.1 PK	74.0	-14.9	2.48 H	215	41.6	17.5
6	11570.00	45.8 AV	54.0	-8.2	2.48 H	215	28.3	17.5
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5612.82	54.3 PK	68.2	-13.9	2.50 V	200	50.0	4.3
2	*5785.00	105.5 PK			2.50 V	200	65.2	40.3
3	*5785.00	95.6 AV			2.50 V	200	55.3	40.3
4	#5927.56	56.7 PK	68.2	-11.5	2.50 V	200	51.8	4.9
5	11570.00	59.5 PK	74.0	-14.5	1.95 V	143	42.0	17.5
6	11570.00	46.0 AV	54.0	-8.0	1.95 V	143	28.5	17.5

Remarks:

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

CHANNEL	TX Channel 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	#5605.13	53.9 PK	68.2	-14.3	2.98 H	176	49.6	4.3
2	*5825.00	107.0 PK			2.98 H	176	66.6	40.4
3	*5825.00	96.2 AV			2.98 H	176	55.8	40.4
4	#5955.77	57.5 PK	68.2	-10.7	2.98 H	176	52.6	4.9
5	11650.00	58.5 PK	74.0	-15.5	2.64 H	233	41.4	17.1
6	11650.00	45.1 AV	54.0	-8.9	2.64 H	233	28.0	17.1
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5606.41	54.1 PK	68.2	-14.1	2.90 V	221	49.8	4.3
2	*5825.00	106.5 PK			2.90 V	221	66.1	40.4
3	*5825.00	96.4 AV			2.90 V	221	56.0	40.4
4	#5975.00	57.5 PK	68.2	-10.7	2.90 V	221	52.4	5.1
5	11650.00	59.8 PK	74.0	-14.2	2.14 V	135	42.7	17.1
6	11650.00	46.3 AV	54.0	-7.7	2.14 V	135	29.2	17.1

Remarks:

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

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	62.3 PK	74.0	-11.7	3.69 H	173	58.4	3.9
2	5150.00	46.7 AV	54.0	-7.3	3.69 H	173	42.8	3.9
3	*5180.00	105.1 PK			3.73 H	166	65.6	39.5
4	*5180.00	95.4 AV			3.73 H	166	55.9	39.5
5	#10360.00	58.0 PK	68.2	-10.2	1.59 H	265	42.2	15.8
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	66.5 PK	74.0	-7.5	1.06 V	168	62.6	3.9
2	5150.00	48.5 AV	54.0	-5.5	1.06 V	168	44.6	3.9
3	*5180.00	110.4 PK			1.06 V	173	70.9	39.5
4	*5180.00	100.7 AV			1.06 V	173	61.2	39.5
5	#10360.00	60.4 PK	68.2	-7.8	2.40 V	207	44.6	15.8

Remarks:

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

CHANNEL	TX Channel 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	105.7 PK			3.94 H	165	66.2	39.5
2	*5200.00	95.8 AV			3.94 H	165	56.3	39.5
3	#10400.00	58.3 PK	68.2	-9.9	2.18 H	294	42.4	15.9
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5200.00	110.7 PK			1.07 V	168	71.2	39.5
2	*5200.00	101.0 AV			1.07 V	168	61.5	39.5
3	#10400.00	59.1 PK	68.2	-9.1	2.28 V	219	43.2	15.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – 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			3.64 H	160	67.6	39.3
2	*5240.00	97.0 AV			3.64 H	160	57.7	39.3
3	5350.00	56.4 PK	74.0	-17.6	3.49 H	162	52.5	3.9
4	5350.00	43.5 AV	54.0	-10.5	3.49 H	162	39.6	3.9
5	#10480.00	59.4 PK	68.2	-8.8	1.85 H	269	42.6	16.8
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5240.00	110.8 PK			1.04 V	168	71.5	39.3
2	*5240.00	100.8 AV			1.04 V	168	61.5	39.3
3	5350.00	56.4 PK	74.0	-17.6	1.08 V	175	52.5	3.9
4	5350.00	43.4 AV	54.0	-10.6	1.08 V	175	39.5	3.9
5	#10480.00	59.7 PK	68.2	-8.5	2.64 V	235	42.9	16.8

Remarks:

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

CHANNEL	TX Channel 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	57.1 PK	74.0	-16.9	3.58 H	172	53.2	3.9
2	5150.00	43.5 AV	54.0	-10.5	3.58 H	172	39.6	3.9
3	*5260.00	106.0 PK			3.61 H	170	66.7	39.3
4	*5260.00	96.1 AV			3.61 H	170	56.8	39.3
5	#10520.00	59.4 PK	68.2	-8.8	1.63 H	264	42.5	16.9
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	57.8 PK	74.0	-16.2	1.22 V	137	53.9	3.9
2	5150.00	43.5 AV	54.0	-10.5	1.22 V	137	39.6	3.9
3	*5260.00	110.3 PK			1.05 V	162	71.0	39.3
4	*5260.00	100.3 AV			1.05 V	162	61.0	39.3
5	#10520.00	59.7 PK	68.2	-8.5	2.05 V	217	42.8	16.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – 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	106.9 PK			3.54 H	159	67.6	39.3
2	*5300.00	97.4 AV			3.54 H	159	58.1	39.3
3	10600.00	59.8 PK	74.0	-14.2	1.78 H	259	42.8	17.0
4	10600.00	46.3 AV	54.0	-7.7	1.78 H	259	29.3	17.0
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5300.00	110.8 PK			1.02 V	161	71.5	39.3
2	*5300.00	100.7 AV			1.02 V	161	61.4	39.3
3	10600.00	60.0 PK	74.0	-14.0	2.76 V	231	43.0	17.0
4	10600.00	46.8 AV	54.0	-7.2	2.76 V	231	29.8	17.0

Remarks:

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

CHANNEL	TX Channel 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	106.9 PK			3.54 H	159	67.6	39.3
2	*5320.00	96.7 AV			3.54 H	159	57.4	39.3
3	5350.00	62.8 PK	74.0	-11.2	3.54 H	152	58.9	3.9
4	5350.00	48.1 AV	54.0	-5.9	3.54 H	152	44.2	3.9
5	10640.00	60.1 PK	74.0	-13.9	1.85 H	246	43.1	17.0
6	10640.00	46.4 AV	54.0	-7.6	1.85 H	246	29.4	17.0
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	109.9 PK			1.13 V	157	70.6	39.3
2	*5320.00	100.0 AV			1.13 V	157	60.7	39.3
3	5350.00	64.6 PK	74.0	-9.4	1.10 V	157	60.7	3.9
4	5350.00	47.9 AV	54.0	-6.1	1.10 V	157	44.0	3.9
5	10640.00	59.8 PK	74.0	-14.2	2.65 V	218	42.8	17.0
6	10640.00	46.3 AV	54.0	-7.7	2.65 V	218	29.3	17.0

Remarks:

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

CHANNEL	TX Channel 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	56.7 PK	74.0	-17.3	3.54 H	169	52.6	4.1
2	5460.00	43.5 AV	54.0	-10.5	3.54 H	169	39.4	4.1
3	#5470.00	66.7 PK	68.2	-1.5	3.77 H	182	62.6	4.1
4	*5500.00	109.9 PK			3.82 H	168	70.1	39.8
5	*5500.00	99.9 AV			3.82 H	168	60.1	39.8
6	11000.00	60.7 PK	74.0	-13.3	2.14 H	265	42.3	18.4
7	11000.00	47.3 AV	54.0	-6.7	2.14 H	265	28.9	18.4
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	56.7 PK	74.0	-17.3	1.32 V	185	52.6	4.1
2	5460.00	43.7 AV	54.0	-10.3	1.32 V	185	39.6	4.1
3	#5470.00	65.0 PK	68.2	-3.2	1.11 V	165	60.9	4.1
4	*5500.00	110.7 PK			1.12 V	162	70.9	39.8
5	*5500.00	100.9 AV			1.12 V	162	61.1	39.8
6	11000.00	60.3 PK	74.0	-13.7	1.89 V	231	41.9	18.4
7	11000.00	46.2 AV	54.0	-7.8	1.89 V	231	27.8	18.4

Remarks:

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

CHANNEL	TX Channel 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	109.1 PK			4.00 H	157	69.3	39.8
2	*5580.00	99.3 AV			4.00 H	157	59.5	39.8
3	11160.00	61.0 PK	74.0	-13.0	2.31 H	264	43.5	17.5
4	11160.00	47.1 AV	54.0	-6.9	2.31 H	264	29.6	17.5
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5580.00	109.3 PK			1.05 V	157	69.5	39.8
2	*5580.00	99.4 AV			1.05 V	157	59.6	39.8
3	11160.00	60.7 PK	74.0	-13.3	1.96 V	232	43.2	17.5
4	11160.00	46.4 AV	54.0	-7.6	1.96 V	232	28.9	17.5

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	106.7 PK			3.81 H	148	66.9	39.8
2	*5700.00	96.7 AV			3.81 H	148	56.9	39.8
3	#5725.00	63.3 PK	68.2	-4.9	3.55 H	180	58.9	4.4
4	11400.00	58.5 PK	74.0	-15.5	2.89 H	135	41.2	17.3
5	11400.00	45.6 AV	54.0	-8.4	2.89 H	135	28.3	17.3
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	105.0 PK			1.84 V	255	65.2	39.8
2	*5700.00	95.2 AV			1.84 V	255	55.4	39.8
3	#5725.00	65.0 PK	68.2	-3.2	2.15 V	253	60.6	4.4
4	11400.00	60.3 PK	74.0	-13.7	2.22 V	192	43.0	17.3
5	11400.00	44.8 AV	54.0	-9.2	2.22 V	192	27.5	17.3

Remarks:

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

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	#5612.18	53.3 PK	68.2	-14.9	3.71 H	185	49.0	4.3
2	*5745.00	108.8 PK			3.71 H	185	68.7	40.1
3	*5745.00	99.1 AV			3.71 H	185	59.0	40.1
4	#5943.59	57.2 PK	68.2	-11.0	3.71 H	185	52.3	4.9
5	11490.00	59.2 PK	74.0	-14.8	2.84 H	103	41.6	17.6
6	11490.00	45.8 AV	54.0	-8.2	2.84 H	103	28.2	17.6
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5637.18	54.8 PK	68.2	-13.4	2.35 V	195	50.6	4.2
2	*5745.00	107.8 PK			2.35 V	195	67.7	40.1
3	*5745.00	97.7 AV			2.35 V	195	57.6	40.1
4	#5939.10	57.4 PK	68.2	-10.8	2.35 V	195	52.5	4.9
5	11490.00	59.0 PK	74.0	-15.0	1.72 V	235	41.4	17.6
6	11490.00	45.1 AV	54.0	-8.9	1.72 V	235	27.5	17.6

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5625.00	54.0 PK	68.2	-14.2	3.74 H	164	49.8	4.2
2	*5785.00	109.3 PK			3.74 H	164	69.0	40.3
3	*5785.00	99.5 AV			3.74 H	164	59.2	40.3
4	#5934.62	58.0 PK	68.2	-10.2	3.74 H	164	53.1	4.9
5	11570.00	59.4 PK	74.0	-14.6	2.31 H	265	41.9	17.5
6	11570.00	45.8 AV	54.0	-8.2	2.31 H	265	28.3	17.5
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5608.97	55.1 PK	68.2	-13.1	2.24 V	192	50.8	4.3
2	*5785.00	107.7 PK			2.24 V	192	67.4	40.3
3	*5785.00	98.1 AV			2.24 V	192	57.8	40.3
4	#5986.54	57.0 PK	68.2	-11.2	2.24 V	192	51.9	5.1
5	11570.00	59.8 PK	74.0	-14.2	1.48 V	261	42.3	17.5
6	11570.00	46.0 AV	54.0	-8.0	1.48 V	261	28.5	17.5

Remarks:

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

CHANNEL	TX Channel 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	#5603.85	54.1 PK	68.2	-14.1	3.71 H	165	49.8	4.3
2	*5825.00	110.2 PK			3.71 H	165	69.8	40.4
3	*5825.00	100.3 AV			3.71 H	165	59.9	40.4
4	#5971.79	56.7 PK	68.2	-11.5	3.71 H	165	51.6	5.1
5	11650.00	59.9 PK	74.0	-14.1	2.84 H	232	42.8	17.1
6	11650.00	46.0 AV	54.0	-8.0	2.84 H	232	28.9	17.1
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5608.33	54.3 PK	68.2	-13.9	2.19 V	198	50.0	4.3
2	*5825.00	109.5 PK			2.19 V	198	69.1	40.4
3	*5825.00	99.5 AV			2.19 V	198	59.1	40.4
4	#5982.05	57.1 PK	68.2	-11.1	2.19 V	198	52.0	5.1
5	11650.00	59.8 PK	74.0	-14.2	1.46 V	244	42.7	17.1
6	11650.00	46.7 AV	54.0	-7.3	1.46 V	244	29.6	17.1

Remarks:

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

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	61.7 PK	74.0	-12.3	3.64 H	175	57.8	3.9
2	5150.00	48.1 AV	54.0	-5.9	3.64 H	175	44.2	3.9
3	*5190.00	100.2 PK			3.79 H	188	60.7	39.5
4	*5190.00	90.1 AV			3.79 H	188	50.6	39.5
5	#10380.00	58.4 PK	68.2	-9.8	1.92 H	184	42.5	15.9
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	66.4 PK	74.0	-7.6	1.05 V	174	62.5	3.9
2	5150.00	52.5 AV	54.0	-1.5	1.05 V	174	48.6	3.9
3	*5190.00	104.8 PK			1.04 V	171	65.3	39.5
4	*5190.00	95.8 AV			1.04 V	171	56.3	39.5
5	#10380.00	57.8 PK	68.2	-10.4	2.54 V	211	41.9	15.9

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – 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	101.6 PK			3.57 H	132	62.3	39.3
2	*5230.00	92.4 AV			3.57 H	132	53.1	39.3
3	5350.00	55.9 PK	74.0	-18.1	3.54 H	148	52.0	3.9
4	5350.00	43.8 AV	54.0	-10.2	3.54 H	148	39.9	3.9
5	#10460.00	59.1 PK	68.2	-9.1	1.96 H	174	42.5	16.6
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5230.00	107.4 PK			1.05 V	165	68.1	39.3
2	*5230.00	98.4 AV			1.05 V	165	59.1	39.3
3	5350.00	57.3 PK	74.0	-16.7	1.18 V	155	53.4	3.9
4	5350.00	44.2 AV	54.0	-9.8	1.18 V	155	40.3	3.9
5	#10460.00	58.6 PK	68.2	-9.6	2.62 V	205	42.0	16.6

Remarks:

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

CHANNEL	TX Channel 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	57.6 PK	74.0	-16.4	3.55 H	163	53.7	3.9
2	5150.00	44.1 AV	54.0	-9.9	3.55 H	163	40.2	3.9
3	*5270.00	104.1 PK			3.57 H	162	64.8	39.3
4	*5270.00	94.9 AV			3.57 H	162	55.6	39.3
5	#10540.00	59.3 PK	68.2	-8.9	1.66 H	151	42.3	17.0
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	56.1 PK	74.0	-17.9	1.11 V	172	52.2	3.9
2	5150.00	44.4 AV	54.0	-9.6	1.11 V	172	40.5	3.9
3	*5270.00	108.0 PK			1.07 V	165	68.7	39.3
4	*5270.00	98.9 AV			1.07 V	165	59.6	39.3
5	#10540.00	59.3 PK	68.2	-8.9	2.13 V	228	42.3	17.0

Remarks:

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

CHANNEL	TX Channel 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	99.6 PK			3.59 H	159	60.3	39.3
2	*5310.00	89.8 AV			3.59 H	159	50.5	39.3
3	5350.00	59.1 PK	74.0	-14.9	3.51 H	172	55.2	3.9
4	5350.00	47.0 AV	54.0	-7.0	3.51 H	172	43.1	3.9
5	10620.00	59.1 PK	74.0	-14.9	1.96 H	174	42.1	17.0
6	10620.00	47.1 AV	54.0	-6.9	1.96 H	174	30.1	17.0
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5310.00	102.5 PK			1.17 V	174	63.2	39.3
2	*5310.00	93.4 AV			1.17 V	174	54.1	39.3
3	5350.00	62.2 PK	74.0	-11.8	1.09 V	159	58.3	3.9
4	5350.00	49.0 AV	54.0	-5.0	1.09 V	159	45.1	3.9
5	10620.00	59.2 PK	74.0	-14.8	2.08 V	233	42.2	17.0
6	10620.00	46.8 AV	54.0	-7.2	2.08 V	233	29.8	17.0

Remarks:

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

CHANNEL	TX Channel 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	57.8 PK	74.0	-16.2	3.83 H	175	53.7	4.1
2	5460.00	45.6 AV	54.0	-8.4	3.83 H	175	41.5	4.1
3	#5470.00	61.0 PK	68.2	-7.2	3.92 H	170	56.9	4.1
4	*5510.00	103.7 PK			3.97 H	167	63.8	39.9
5	*5510.00	94.7 AV			3.97 H	167	54.8	39.9
6	11020.00	60.9 PK	74.0	-13.1	2.83 H	196	42.8	18.1
7	11020.00	48.6 AV	54.0	-5.4	2.83 H	196	30.5	18.1
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	58.0 PK	74.0	-16.0	1.44 V	196	53.9	4.1
2	5460.00	45.5 AV	54.0	-8.5	1.44 V	196	41.4	4.1
3	#5470.00	65.7 PK	68.2	-2.5	1.25 V	168	61.6	4.1
4	*5510.00	104.2 PK			1.00 V	170	64.3	39.9
5	*5510.00	94.8 AV			1.00 V	170	54.9	39.9
6	11020.00	60.9 PK	74.0	-13.1	2.56 V	158	42.8	18.1
7	11020.00	47.5 AV	54.0	-6.5	2.56 V	158	29.4	18.1

Remarks:

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

CHANNEL	TX Channel 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	107.3 PK			3.96 H	175	67.5	39.8
2	*5550.00	97.8 AV			3.96 H	175	58.0	39.8
3	11100.00	59.9 PK	74.0	-14.1	2.32 H	118	42.3	17.6
4	11100.00	47.4 AV	54.0	-6.6	2.32 H	118	29.8	17.6
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5550.00	106.8 PK			1.10 V	162	67.0	39.8
2	*5550.00	96.9 AV			1.10 V	162	57.1	39.8
3	11100.00	59.4 PK	74.0	-14.6	2.53 V	185	41.8	17.6
4	11100.00	49.1 AV	54.0	-4.9	2.53 V	185	31.5	17.6

Remarks:

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

CHANNEL	TX Channel 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	105.2 PK			3.76 H	167	65.4	39.8
2	*5670.00	96.0 AV			3.76 H	167	56.2	39.8
3	#5725.00	59.1 PK	68.2	-9.1	3.59 H	172	54.7	4.4
4	11340.00	58.9 PK	74.0	-15.1	2.56 H	137	41.5	17.4
5	11340.00	47.5 AV	54.0	-6.5	2.56 H	137	30.1	17.4
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5670.00	102.9 PK			1.00 V	227	63.1	39.8
2	*5670.00	93.7 AV			1.00 V	227	53.9	39.8
3	#5725.00	57.9 PK	68.2	-10.3	1.13 V	196	53.5	4.4
4	11340.00	59.8 PK	74.0	-14.2	2.61 V	158	42.4	17.4
5	11340.00	46.9 AV	54.0	-7.1	2.61 V	158	29.5	17.4

Remarks:

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

CHANNEL	TX Channel 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	#5639.74	53.9 PK	68.2	-14.3	3.72 H	184	49.7	4.2
2	*5755.00	106.0 PK			3.72 H	184	65.9	40.1
3	*5755.00	96.9 AV			3.72 H	184	56.8	40.1
4	#5985.26	57.4 PK	68.2	-10.8	3.72 H	184	52.3	5.1
5	11510.00	59.9 PK	74.0	-14.1	2.96 H	217	42.2	17.7
6	11510.00	46.6 AV	54.0	-7.4	2.96 H	217	28.9	17.7
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5621.15	54.7 PK	68.2	-13.5	2.50 V	196	50.4	4.3
2	*5755.00	104.5 PK			2.50 V	196	64.4	40.1
3	*5755.00	94.9 AV			2.50 V	196	54.8	40.1
4	#5976.28	56.6 PK	68.2	-11.6	2.50 V	196	51.5	5.1
5	11510.00	59.3 PK	74.0	-14.7	1.82 V	151	41.6	17.7
6	11510.00	46.6 AV	54.0	-7.4	1.82 V	151	28.9	17.7

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – 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	#5616.67	54.3 PK	68.2	-13.9	3.94 H	168	50.0	4.3
2	*5795.00	106.7 PK			3.94 H	168	66.3	40.4
3	*5795.00	97.9 AV			3.94 H	168	57.5	40.4
4	#5973.72	56.5 PK	68.2	-11.7	3.94 H	168	51.4	5.1
5	11590.00	60.0 PK	74.0	-14.0	2.48 H	139	42.5	17.5
6	11590.00	47.1 AV	54.0	-6.9	2.48 H	139	29.6	17.5
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5605.13	54.1 PK	68.2	-14.1	2.23 V	195	49.8	4.3
2	*5795.00	106.4 PK			2.23 V	195	66.0	40.4
3	*5795.00	97.3 AV			2.23 V	195	56.9	40.4
4	#5985.90	56.9 PK	68.2	-11.3	2.23 V	195	51.8	5.1
5	11590.00	59.3 PK	74.0	-14.7	2.69 V	143	41.8	17.5
6	11590.00	47.1 AV	54.0	-6.9	2.69 V	143	29.6	17.5

Remarks:

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

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CHANNEL	TX Channel 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	60.1 PK	74.0	-13.9	3.76 H	162	56.2	3.9
2	5150.00	47.8 AV	54.0	-6.2	3.76 H	162	43.9	3.9
3	*5210.00	96.5 PK			3.63 H	161	57.1	39.4
4	*5210.00	88.0 AV			3.63 H	161	48.6	39.4
5	5350.00	56.7 PK	74.0	-17.3	3.42 H	155	52.8	3.9
6	5350.00	43.8 AV	54.0	-10.2	3.42 H	155	39.9	3.9
7	#10420.00	58.0 PK	68.2	-10.2	1.74 H	138	41.8	16.2
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	65.4 PK	74.0	-8.6	1.06 V	171	61.5	3.9
2	5150.00	52.7 AV	54.0	-1.3	1.06 V	171	48.8	3.9
3	*5210.00	101.9 PK			1.10 V	165	62.5	39.4
4	*5210.00	92.1 AV			1.10 V	165	52.7	39.4
5	5350.00	56.2 PK	74.0	-17.8	1.03 V	182	52.3	3.9
6	5350.00	44.1 AV	54.0	-9.9	1.03 V	182	40.2	3.9
7	#10420.00	57.4 PK	68.2	-10.8	2.09 V	201	41.2	16.2

Remarks:

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

CHANNEL	TX Channel 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	56.2 PK	74.0	-17.8	3.54 H	177	52.3	3.9
2	5150.00	43.9 AV	54.0	-10.1	3.54 H	177	40.0	3.9
3	*5290.00	94.7 PK			3.79 H	177	55.4	39.3
4	*5290.00	86.0 AV			3.79 H	177	46.7	39.3
5	5350.00	60.4 PK	74.0	-13.6	3.72 H	179	56.5	3.9
6	5350.00	47.5 AV	54.0	-6.5	3.72 H	179	43.6	3.9
7	#10580.00	59.4 PK	68.2	-8.8	1.79 H	89	42.3	17.1
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5150.00	56.4 PK	74.0	-17.6	1.12 V	175	52.5	3.9
2	5150.00	44.3 AV	54.0	-9.7	1.12 V	175	40.4	3.9
3	*5290.00	98.7 PK			1.04 V	161	59.4	39.3
4	*5290.00	89.0 AV			1.04 V	161	49.7	39.3
5	5350.00	62.2 PK	74.0	-11.8	1.00 V	167	58.3	3.9
6	5350.00	49.1 AV	54.0	-4.9	1.00 V	167	45.2	3.9
7	#10580.00	60.0 PK	68.2	-8.2	2.65 V	231	42.9	17.1

Remarks:

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

CHANNEL	TX Channel 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	62.3 PK	74.0	-11.7	3.89 H	175	58.2	4.1
2	5460.00	49.4 AV	54.0	-4.6	3.89 H	175	45.3	4.1
3	#5470.00	62.7 PK	68.2	-5.5	3.85 H	170	58.6	4.1
4	*5530.00	99.6 PK			3.93 H	161	59.7	39.9
5	*5530.00	90.7 AV			3.93 H	161	50.8	39.9
6	#5725.00	55.7 PK	68.2	-12.5	3.69 H	155	51.3	4.4
7	11060.00	60.1 PK	74.0	-13.9	2.31 H	220	42.3	17.8
8	11060.00	48.1 AV	54.0	-5.9	2.31 H	220	30.3	17.8
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	63.0 PK	74.0	-11.0	1.22 V	185	58.9	4.1
2	5460.00	51.2 AV	54.0	-2.8	1.22 V	185	47.1	4.1
3	#5470.00	65.7 PK	68.2	-2.5	1.08 V	167	61.6	4.1
4	*5530.00	102.2 PK			1.09 V	152	62.3	39.9
5	*5530.00	92.3 AV			1.09 V	152	52.4	39.9
6	#5725.00	55.7 PK	68.2	-12.5	1.42 V	203	51.3	4.4
7	11060.00	60.5 PK	74.0	-13.5	2.62 V	154	42.7	17.8
8	11060.00	47.1 AV	54.0	-6.9	2.62 V	154	29.3	17.8

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – 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	54.6 PK	74.0	-19.4	3.54 H	182	50.5	4.1
2	5460.00	34.3 AV	54.0	-19.7	3.54 H	182	30.2	4.1
3	#5470.00	59.3 PK	68.2	-8.9	3.42 H	177	55.2	4.1
4	*5610.00	100.9 PK			3.67 H	174	61.0	39.9
5	*5610.00	91.6 AV			3.67 H	174	51.7	39.9
6	#5725.00	56.0 PK	68.2	-12.2	3.51 H	165	51.6	4.4
7	11220.00	60.7 PK	74.0	-13.3	2.01 H	263	43.1	17.6
8	11220.00	48.1 AV	54.0	-5.9	2.01 H	263	30.5	17.6
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	56.5 PK	74.0	-17.5	2.05 V	299	52.4	4.1
2	5460.00	44.0 AV	54.0	-10.0	2.05 V	299	39.9	4.1
3	#5470.00	57.0 PK	68.2	-11.2	2.18 V	313	52.9	4.1
4	*5610.00	98.0 PK			2.43 V	348	58.1	39.9
5	*5610.00	88.7 AV			2.43 V	348	48.8	39.9
6	#5725.00	55.3 PK	68.2	-12.9	1.98 V	311	50.9	4.4
7	11220.00	60.5 PK	74.0	-13.5	1.96 V	277	42.9	17.6
8	11220.00	47.7 AV	54.0	-6.3	1.96 V	277	30.1	17.6

Remarks:

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

CHANNEL	TX Channel 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	#5614.74	54.6 PK	68.2	-13.6	3.96 H	168	50.3	4.3
2	#5650.00	56.1 PK	68.2	-12.1	3.89 H	165	51.9	4.2
3	*5775.00	102.1 PK			3.96 H	168	61.8	40.3
4	*5775.00	93.1 AV			3.96 H	168	52.8	40.3
5	#5925.00	58.7 PK	68.2	-9.5	3.92 H	174	53.8	4.9
6	#5973.72	56.8 PK	68.2	-11.4	3.96 H	168	51.7	5.1
7	11550.00	59.9 PK	74.0	-14.1	2.51 H	223	42.3	17.6
8	11550.00	47.2 AV	54.0	-6.8	2.51 H	223	29.6	17.6
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	#5625.64	55.5 PK	68.2	-12.7	2.19 V	198	51.3	4.2
2	#5650.00	56.1 PK	68.2	-12.1	2.08 V	234	51.9	4.2
3	*5775.00	101.4 PK			2.19 V	198	61.1	40.3
4	*5775.00	92.0 AV			2.19 V	198	51.7	40.3
5	#5925.00	59.0 PK	68.2	-9.2	2.24 V	203	54.1	4.9
6	#5991.67	56.9 PK	68.2	-11.3	2.19 V	198	51.8	5.1
7	11550.00	59.2 PK	74.0	-14.8	1.41 V	265	41.6	17.6
8	11550.00	46.9 AV	54.0	-7.1	1.41 V	265	29.3	17.6

Remarks:

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

Below 1GHz worst-case data:

Test Mode A

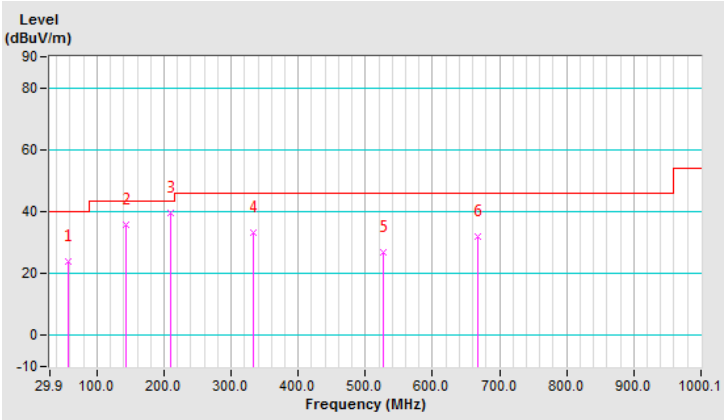
802.11n (HT20)

CHANNEL	TX Channel 100	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	56.33	23.8 QP	40.0	-16.2	1.50 H	111	33.8	-10.0
2	143.40	35.9 QP	43.5	-7.6	1.00 H	134	45.3	-9.4
3	210.26	39.5 QP	43.5	-4.0	1.50 H	333	50.5	-11.0
4	333.09	33.3 QP	46.0	-12.7	1.99 H	269	40.0	-6.7
5	525.88	27.0 QP	46.0	-19.0	1.00 H	199	30.2	-3.2
6	667.37	32.0 QP	46.0	-14.0	1.00 H	26	32.4	-0.4

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
4. Margin value = Emission Level – Limit value
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20dB below the permissible value to be report.

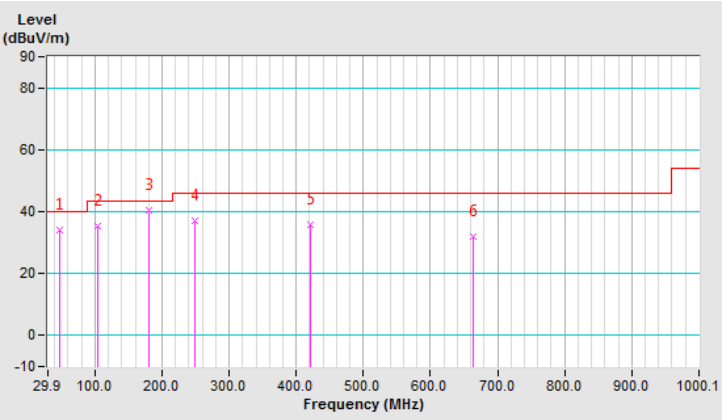


CHANNEL	TX Channel 100	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

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	47.00	34.2 QP	40.0	-5.8	1.50 V	246	44.0	-9.8
2	104.53	35.4 QP	43.5	-8.1	1.00 V	80	48.4	-13.0
3	180.72	40.4 QP	43.5	-3.1	1.00 V	50	50.7	-10.3
4	249.13	37.0 QP	46.0	-9.0	1.50 V	109	46.1	-9.1
5	420.16	35.6 QP	46.0	-10.4	1.00 V	251	40.5	-4.9
6	664.26	32.1 QP	46.0	-13.9	1.99 V	148	32.5	-0.4

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
4. Margin value = Emission Level – Limit value
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20dB below the permissible value to be report.



Test Mode B

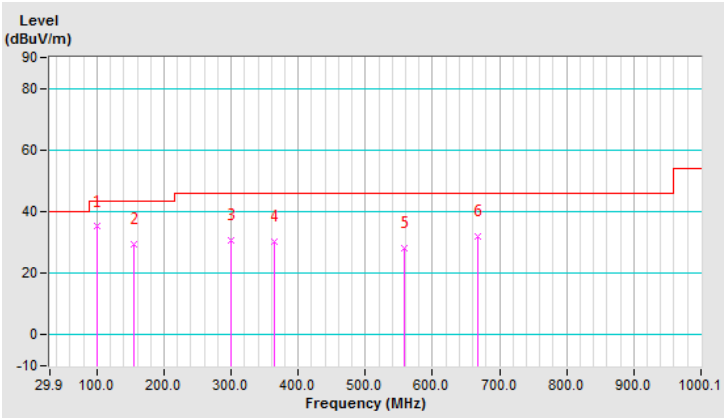
802.11n (HT20)

CHANNEL	TX Channel 100	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	99.87	35.1 QP	43.5	-8.4	2.00 H	119	48.7	-13.6
2	155.84	29.3 QP	43.5	-14.2	1.50 H	108	38.4	-9.1
3	298.88	30.8 QP	46.0	-15.2	1.50 H	163	38.3	-7.5
4	364.18	30.3 QP	46.0	-15.7	2.00 H	172	36.6	-6.3
5	558.53	28.2 QP	46.0	-17.8	1.50 H	29	30.8	-2.6
6	667.37	31.8 QP	46.0	-14.2	1.50 H	205	32.2	-0.4

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
4. Margin value = Emission Level – Limit value
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20dB below the permissible value to be report.

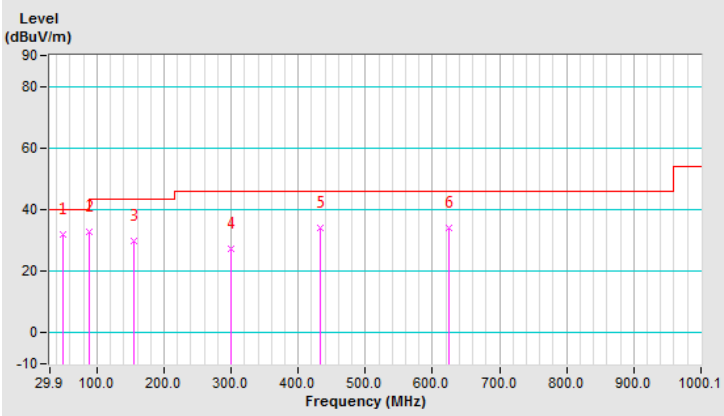


CHANNEL	TX Channel 100	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	48.56	32.1 QP	40.0	-7.9	1.50 V	18	41.8	-9.7
2	88.98	33.0 QP	43.5	-10.5	2.00 V	167	47.6	-14.6
3	155.84	29.8 QP	43.5	-13.7	1.00 V	333	38.9	-9.1
4	298.88	27.4 QP	46.0	-18.6	1.50 V	139	34.9	-7.5
5	432.60	33.9 QP	46.0	-12.1	1.00 V	137	38.4	-4.5
6	625.39	33.9 QP	46.0	-12.1	2.00 V	229	34.6	-0.7

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. The other emission levels were very low against the limit of frequency range 30MHz~1000MHz.
4. Margin value = Emission Level – Limit value
5. The emission levels were very low against the limit of frequency range 9kHz~30MHz: the amplitude of spurious emissions attenuated more than 20dB below the permissible value to be report.



4.2 Conducted Emission Measurement

4.2.1 Limits of Conducted Emission Measurement

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

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

4.2.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Test Receiver ROHDE & SCHWARZ	ESCS30	100291	Sep. 03, 2018	Sep. 02, 2019
RF signal cable (with 10dB PAD) Woken	5D-FB	Cable-cond1-01	Sep. 05, 2018	Sep. 04, 2019
LISN ROHDE & SCHWARZ (EUT)	ENV216	101826	Feb. 26, 2018	Feb. 25, 2019
LISN ROHDE & SCHWARZ (Peripheral)	ESH3-Z5	100311	Aug. 19, 2018	Aug. 18, 2019
Software ADT	BV ADT_Cond_ V7.3.7.4	NA	NA	NA

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

4.2.3 Test Procedures

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.

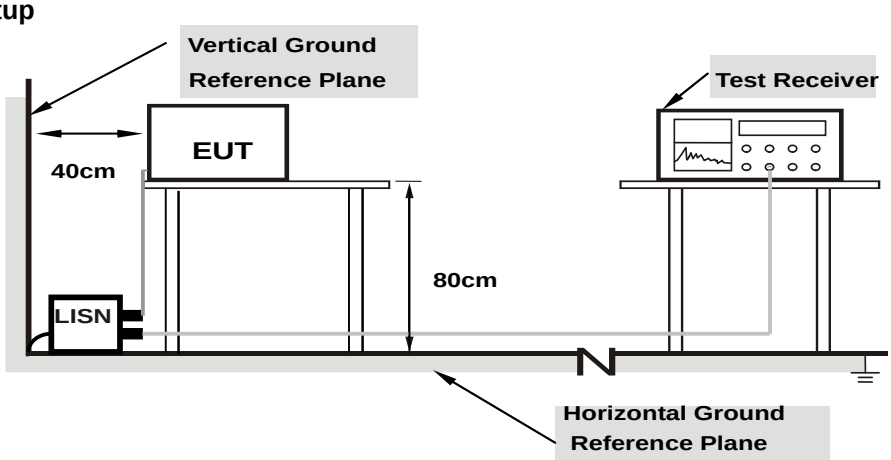
c. The frequency range from 150kHz to 30MHz was searched. Emission levels under (Limit - 20dB) was not recorded.

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.

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

4.2.6 EUT Operating Conditions

Same as item 4.1.6.

4.2.7 Test Results

Worst-case data:

Test Mode A

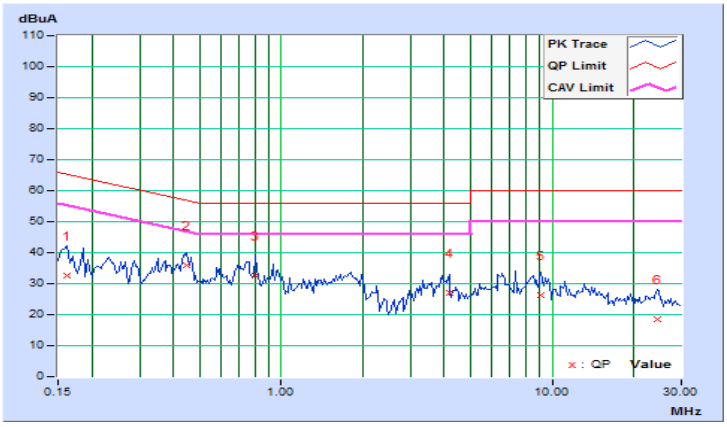
802.11n (HT20)

Channel	TX Channel 100	Detector Function	Quasi-Peak (QP) / Average (AV)
Phase	Line (L)		

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	0.16172	9.73	23.01	18.06	32.74	27.79	65.38	55.38	-32.64	-27.59
2	0.44688	9.74	26.29	19.96	36.03	29.70	56.93	46.93	-20.90	-17.23
3	0.80234	9.70	22.84	15.82	32.54	25.52	56.00	46.00	-23.46	-20.48
4	4.16016	9.79	17.11	10.42	26.90	20.21	56.00	46.00	-29.10	-25.79
5	9.14453	9.87	16.39	11.52	26.26	21.39	60.00	50.00	-33.74	-28.61
6	24.55859	9.96	8.52	4.58	18.48	14.54	60.00	50.00	-41.52	-35.46

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.

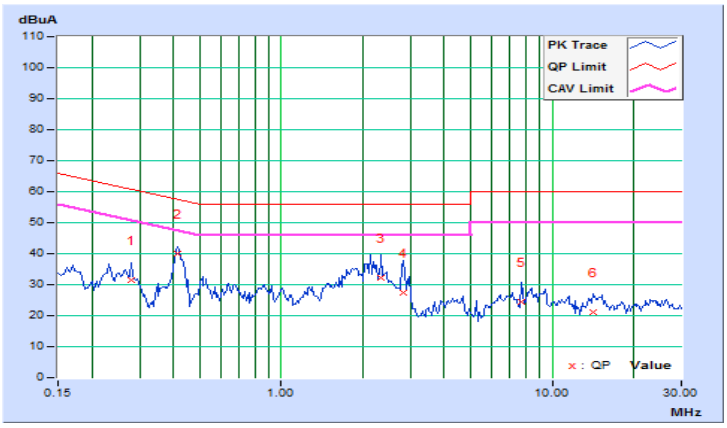


Channel	TX Channel 100	Detector Function	Quasi-Peak (QP) / Average (AV)
Phase	Neutral (N)		

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	0.27891	9.74	21.61	16.92	31.35	26.66	60.85	50.85	-29.50	-24.19
2	**0.41563**	**9.75**	**30.43**	**29.91**	**40.18**	**39.66**	**57.54**	**47.54**	**-17.36**	**-7.88**
3	2.32813	9.74	22.36	16.82	32.10	26.56	56.00	46.00	-23.90	-19.44
4	2.83594	9.76	17.58	10.77	27.34	20.53	56.00	46.00	-28.66	-25.47
5	7.70313	9.87	14.42	7.81	24.29	17.68	60.00	50.00	-35.71	-32.32
6	14.24219	9.99	11.15	6.07	21.14	16.06	60.00	50.00	-38.86	-33.94

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.



Test Mode B

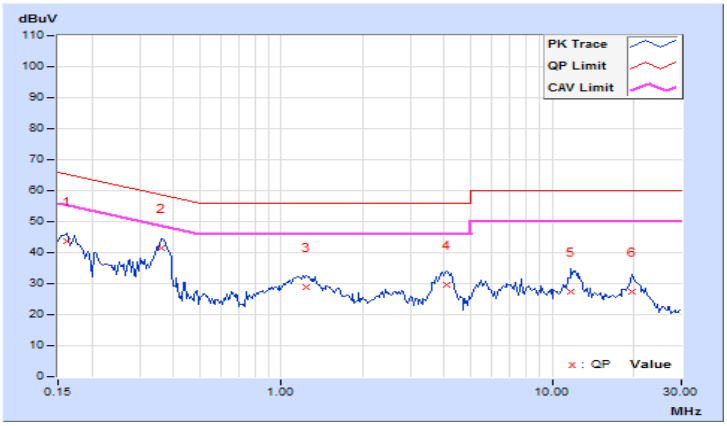
802.11n (HT20)

Channel	TX Channel 100	Detector Function	Quasi-Peak (QP) / Average (AV)
Phase	Line (L)		

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	0.16172	9.67	33.92	18.26	43.59	27.93	65.38	55.38	-21.79	-27.45
2	0.36094	9.66	31.91	23.81	41.57	33.47	58.71	48.71	-17.14	-15.24
3	1.24219	9.66	19.40	12.81	29.06	22.47	56.00	46.00	-26.94	-23.53
4	4.10156	9.73	19.72	10.63	29.45	20.36	56.00	46.00	-26.55	-25.64
5	11.75391	9.86	17.39	12.17	27.25	22.03	60.00	50.00	-32.75	-27.97
6	19.68359	9.91	17.40	13.50	27.31	23.41	60.00	50.00	-32.69	-26.59

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.

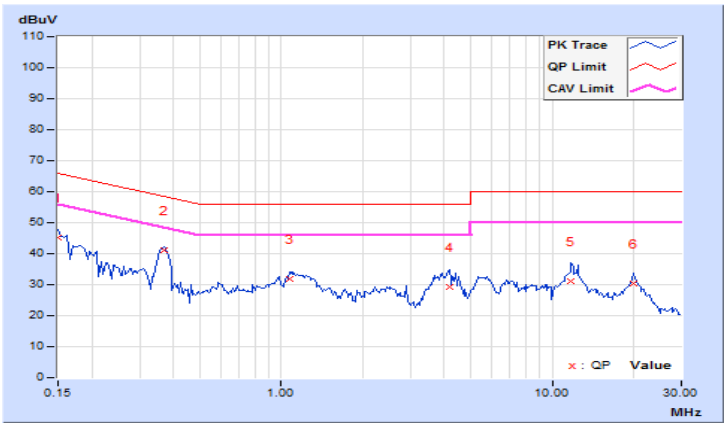


Channel	TX Channel 100	Detector Function	Quasi-Peak (QP) / Average (AV)
Phase	Neutral (N)		

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	9.68	35.38	21.69	45.06	31.37	66.00	56.00	-20.94	-24.63
2	0.36875	9.67	31.43	24.84	41.10	34.51	58.53	48.53	-17.43	-14.02
3	1.07422	9.65	22.32	15.91	31.97	25.56	56.00	46.00	-24.03	-20.44
4	4.16797	9.73	19.71	11.93	29.44	21.66	56.00	46.00	-26.56	-24.34
5	11.78906	9.89	21.38	14.14	31.27	24.03	60.00	50.00	-28.73	-25.97
6	19.87891	10.01	20.54	14.50	30.55	24.51	60.00	50.00	-29.45	-25.49

Remarks:

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



4.3 Transmit Power Measurement

4.3.1 Limits of Transmit Power Measurement

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

*B is the 26 dB emission bandwidth in megahertz

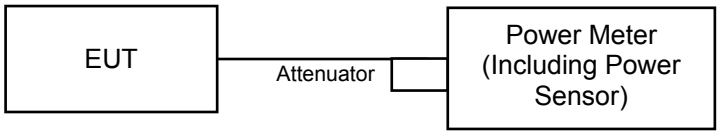
Per KDB 662911 Method of conducted output power measurement on IEEE 802.11 devices,

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

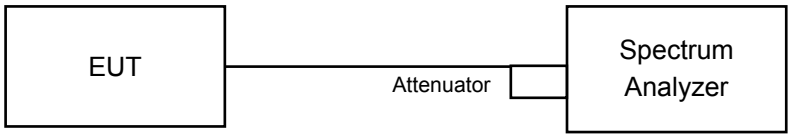
For power measurements on all other devices: Array Gain = 10 log(N_{ANT}/N_{SS}) dB.

4.3.2 Test Setup

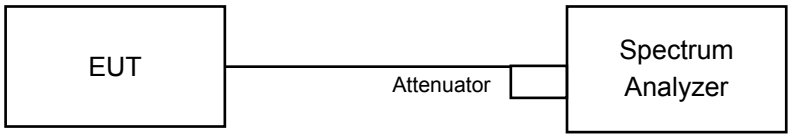
For Power Output
802.11a, 802.11n (HT20), 802.11n (HT40)



802.11ac (VHT80)



For Bandwidth



4.3.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.3.4 Test Procedure

For Average Power Measurement

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

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

For 802.11ac (VHT80)

a. Set span to encompass the entire 26 dB EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal.
b. Set sweep trigger to “free run”.
c. Set RBW = 1 MHz
d. Set VBW ≥ 3 MHz
e. Number of points in sweep ≥ 2 Span / RBW
f. Sweep time ≤ (number of points in sweep) * T
g. Using emission bandwidth to determine the frequency span for integration the channel bandwidth.
h. Detector = RMS
i. Trace mode = max hold
j. Allow max hold to run for at least 60 seconds, or longer as needed to allow the trace to stabilize.
k. Compute power by integrating the spectrum across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the signal using the instrument’s band power measurement function with band limits set equal to the EBW (or occupied bandwidth) band edges. If the instrument does not have a band power function, sum the spectrum levels (in power units) at 1 MHz intervals extending across the EBW (or, alternatively, the entire 99% occupied bandwidth) of the spectrum.

For 26dB Bandwidth

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

4.3.5 Deviation from Test Standard

No deviation.

4.3.6 EUT Operating Conditions

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

4.3.7 Test Result

Power Output:

802.11a

Chan.	Freq. (MHz)	Maximum Conducted Power (mW)	Maximum Conducted Power (dBm)	Power Limit (dBm)	Pass / Fail
36	5180	31.261	14.95	24.00	Pass
40	5200	30.269	14.81	24.00	Pass
48	5240	31.117	14.93	24.00	Pass
52	5260	30.974	14.91	24.00	Pass
60	5300	31.046	14.92	24.00	Pass
64	5320	31.046	14.92	24.00	Pass
100	5500	30.061	14.78	24.00	Pass
116	5580	30.620	14.86	24.00	Pass
140	5700	30.761	14.88	24.00	Pass
149	5745	28.774	14.59	30.00	Pass
157	5785	28.249	14.51	30.00	Pass
165	5825	30.832	14.89	30.00	Pass

Note: Max. Gain = 5.8dBi < 6dBi, so the limit no need to be reduced.

For 5260~5320MHz, 5500~5700MHz

1. 11dBm + 10log (21.59) = 24.34 > 24dBm
2. 11dBm + 10log (21.53) = 24.33 > 24dBm
3. 11dBm + 10log (21.44) = 24.31 > 24dBm
4. 11dBm + 10log (20.70) = 24.15 > 24dBm
5. 11dBm + 10log (20.69) = 24.15 > 24dBm
6. 11dBm + 10log (20.67) = 24.15 > 24dBm

802.11n (HT20)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
36	5180	13.42	13.79	45.912	16.62	24.00	Pass
40	5200	13.76	13.89	48.259	16.84	24.00	Pass
48	5240	13.96	13.82	**48.988**	16.90	24.00	Pass
52	5260	13.85	13.73	47.871	16.80	24.00	Pass
60	5300	13.89	13.74	48.150	16.83	24.00	Pass
64	5320	13.77	13.78	47.701	16.79	24.00	Pass
100	5500	13.89	13.85	**48.757**	16.88	24.00	Pass
116	5580	13.90	13.82	48.646	16.87	24.00	Pass
140	5700	13.45	13.83	46.286	16.65	24.00	Pass
149	5745	13.82	13.91	48.703	16.88	30.00	Pass
157	5785	13.86	13.91	**48.926**	16.90	30.00	Pass
165	5825	13.66	13.84	47.437	16.76	30.00	Pass

Note: Max. Gain = 5.8dBi < 6dBi, so the limit no need to be reduced.

For 5260~5320MHz, 5500~5700MHz

Chain 0

1. 11dBm + 10log (21.52) = 24.32 > 24dBm
2. 11dBm + 10log (21.61) = 24.34 > 24dBm
3. 11dBm + 10log (21.51) = 24.32 > 24dBm
4. 11dBm + 10log (21.54) = 24.33 > 24dBm
5. 11dBm + 10log (21.55) = 24.33 > 24dBm
6. 11dBm + 10log (21.36) = 24.29 > 24dBm

Chain 1

1. 11dBm + 10log (21.55) = 24.33 > 24dBm
2. 11dBm + 10log (21.51) = 24.32 > 24dBm
3. 11dBm + 10log (21.42) = 24.30 > 24dBm
4. 11dBm + 10log (21.93) = 24.41 > 24dBm
5. 11dBm + 10log (21.53) = 24.33 > 24dBm
6. 11dBm + 10log (21.79) = 24.38 > 24dBm

802.11n (HT40)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
38	5190	11.96	11.52	29.895	14.76	24.00	Pass
46	5230	13.82	13.88	48.533	16.86	24.00	Pass
54	5270	13.86	13.82	**48.421**	16.85	24.00	Pass
62	5310	10.02	10.13	20.350	13.09	24.00	Pass
102	5510	10.89	11.22	25.517	14.07	24.00	Pass
110	5550	13.87	13.87	48.756	16.88	24.00	Pass
134	5670	13.77	13.93	48.540	16.86	24.00	Pass
151	5755	13.51	13.68	45.774	16.61	30.00	Pass
159	5795	13.57	13.72	46.301	16.66	30.00	Pass

Note: Max. Gain = 5.8dBi < 6dBi, so the limit no need to be reduced.

For 5260~5320MHz, 5500~5700MHz

Chain 0

1. 11dBm + 10log (45.37) = 27.56 > 24dBm
2. 11dBm + 10log (45.50) = 27.58 > 24dBm
3. 11dBm + 10log (44.94) = 27.52 > 24dBm
4. 11dBm + 10log (45.42) = 27.57 > 24dBm
5. 11dBm + 10log (45.46) = 27.57 > 24dBm

Chain 1

1. 11dBm + 10log (45.71) = 27.60 > 24dBm
2. 11dBm + 10log (45.26) = 27.55 > 24dBm
3. 11dBm + 10log (45.47) = 27.57 > 24dBm
4. 11dBm + 10log (45.16) = 27.54 > 24dBm
5. 11dBm + 10log (45.19) = 27.55 > 24dBm

802.11ac (VHT80)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
42	5210	9.13	9.04	16.202	12.10	24.00	Pass
58	5290	7.27	7.01	10.356	10.15	24.00	Pass
106	5530	10.61	10.33	22.297	13.48	24.00	Pass
122	5610	10.63	10.75	23.446	13.70	24.00	Pass
155	5775	10.87	10.94	24.635	13.92	30.00	Pass

Note: Max. Gain = 5.8dBi < 6dBi, so the limit no need to be reduced.

For 5260~5320MHz, 5500~5700MHz

Chain 0

1. 11dBm + 10log (83.64) = 30.22 > 24dBm
2. 11dBm + 10log (83.48) = 30.21 > 24dBm
3. 11dBm + 10log (83.80) = 30.23 > 24dBm

Chain 1

1. 11dBm + 10log (83.82) = 30.23 > 24dBm
2. 11dBm + 10log (83.59) = 30.22 > 24dBm
3. 11dBm + 10log (83.61) = 30.22 > 24dBm

26dB Bandwidth:

802.11a

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)
36	5180	21.30
40	5200	21.55
48	5240	21.78
52	5260	21.59
60	5300	21.53
64	5320	21.44
100	5500	20.70
116	5580	20.69
140	5700	20.67

802.11n (HT20)

Channel	Frequency (MHz)	26dBc Bandwidth (MHz)	
		Chain 0	Chain 1
36	5180	21.71	21.68
40	5200	21.69	21.46
48	5240	21.72	21.53
52	5260	21.52	21.55
60	5300	21.61	21.51
64	5320	21.51	21.42
100	5500	21.54	21.93
116	5580	21.55	21.53
140	5700	21.36	21.79

802.11n (HT40)

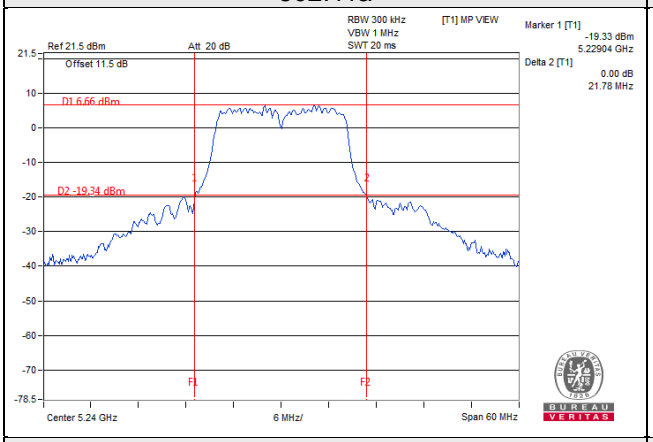
Channel	Frequency (MHz)	26dBc Bandwidth (MHz)	
		Chain 0	Chain 1
38	5190	45.14	45.40
46	5230	49.66	45.22
54	5270	45.37	45.71
62	5310	45.50	45.26
102	5510	44.94	45.47
110	5550	45.42	45.16
134	5670	45.46	45.19

802.11ac (VHT80)

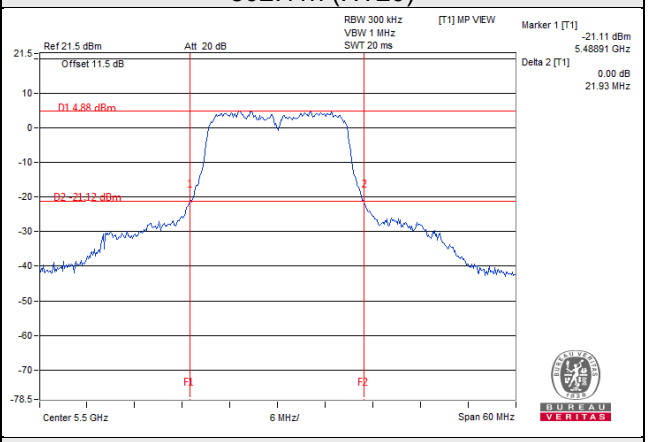
Channel	Frequency (MHz)	26dBc Bandwidth (MHz)	
		Chain 0	Chain 1
42	5210	83.70	83.86
58	5290	83.64	83.82
106	5530	83.48	83.59
122	5610	83.80	83.61

Spectrum Plot of Worst Value

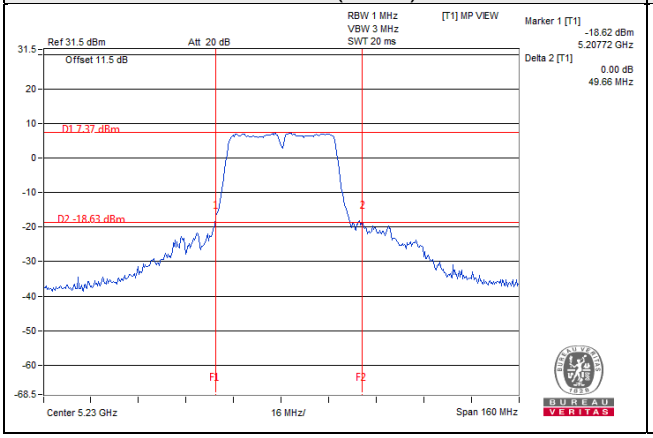
802.11a



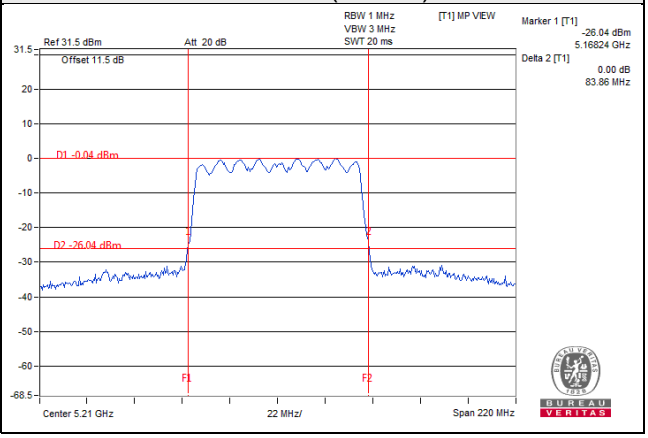
802.11n (HT20)



802.11n (HT40)



802.11ac (VHT80)



EUT Maximum Conducted Power

802.11a

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	31.046	14.92
5470~5725	30.761	14.88

Note: The UUT can adjust a transmitter's output power based on the signal level present at the receiver. TPC is auto controlled by software.

802.11n (HT20)

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	48.150	16.83
5470~5725	48.757	16.88

Note: The UUT can adjust a transmitter's output power based on the signal level present at the receiver. TPC is auto controlled by software.

802.11n (HT40)

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	48.421	16.85
5470~5725	48.756	16.88

Note: The UUT can adjust a transmitter's output power based on the signal level present at the receiver. TPC is auto controlled by software.

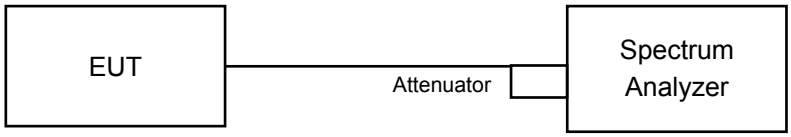
802.11ac (VHT80)

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	10.356	10.15
5470~5725	23.446	13.70

Note: The UUT can adjust a transmitter's output power based on the signal level present at the receiver. TPC is auto controlled by software.

4.4 Occupied Bandwidth Measurement

4.4.1 Test Setup



4.4.2 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.4.3 Test Procedure

The transmitter output was connected to the spectrum analyzer through an attenuator. The bandwidth of the fundamental frequency was measured by spectrum analyzer with resolution bandwidth in the range of 1% to 5% of the anticipated emission bandwidth, and a video bandwidth at least 3x the resolution bandwidth and set the detector to sampling. The width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5 %of the total mean power of a given emission.

4.4.4 Test Result

802.11a

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)
36	5180	16.92
40	5200	16.68
48	5240	16.92
52	5260	16.80
60	5300	16.68
64	5320	16.68
100	5500	16.68
116	5580	16.80
140	5700	16.68
149	5745	16.80
157	5785	16.80
165	5825	16.80

802.11n (HT20)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
36	5180	17.76	17.76
40	5200	17.76	17.88
48	5240	17.76	17.76
52	5260	17.76	17.76
60	5300	17.76	17.88
64	5320	17.64	17.88
100	5500	17.76	17.76
116	5580	17.64	17.76
140	5700	17.64	17.88
149	5745	17.76	17.76
157	5785	17.76	17.88
165	5825	17.64	17.88

802.11n (HT40)

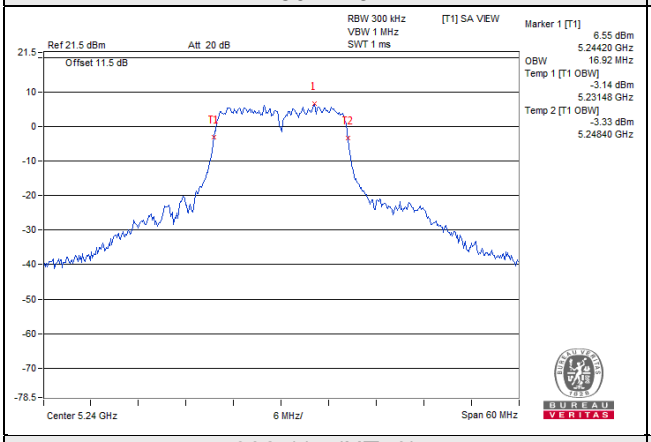
Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
38	5190	36.96	37.08
46	5230	37.20	37.20
54	5270	37.20	37.20
62	5310	37.20	37.20
102	5510	37.08	37.20
110	5550	37.20	37.20
134	5670	37.32	37.20
151	5755	37.20	37.20
159	5795	37.20	37.20

802.11ac (VHT80)

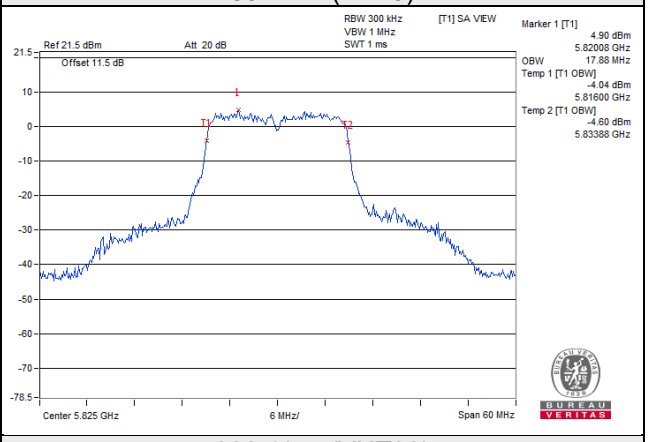
Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
42	5210	75.60	76.32
58	5290	75.60	75.60
106	5530	75.60	75.60
122	5610	75.60	75.60
155	5775	75.60	75.84

Spectrum Plot of Worst Value

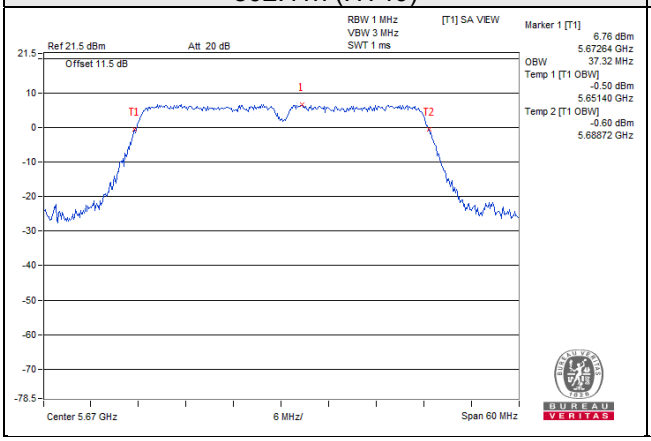
802.11a



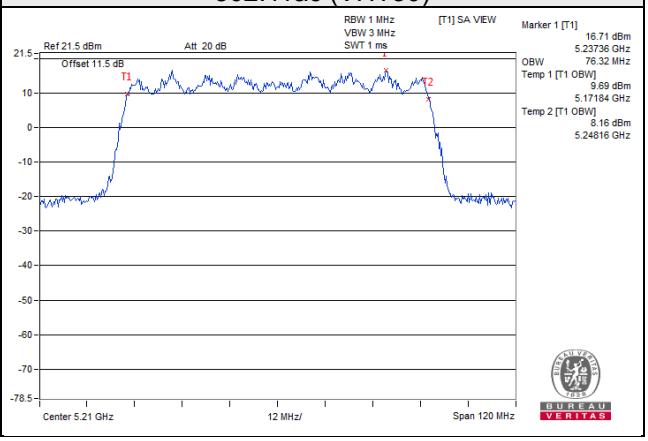
802.11n (HT20)



802.11n (HT40)



802.11ac (VHT80)

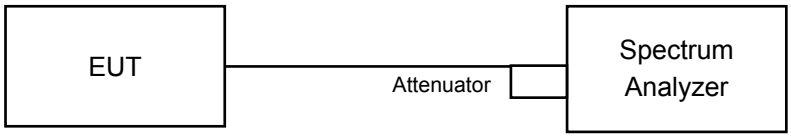


4.5 Peak Power Spectral Density Measurement

4.5.1 Limits of Peak Power Spectral Density Measurement

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

4.5.2 Test Setup



4.5.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.5.4 Test Procedures

For U-NII-1, U-NII-2A, U-NII-2C band
Duty cycle of test signal is ≥ 98%
Using method SA-1
1) Set span to encompass the entire emission bandwidth (EBW) of the signal.
2) Set RBW = 1MHz, Set VBW ≥ 3 MHz, Detector = RMS.
3) Set Channel power measure = 1MHz.
4) Sweep time = auto, trigger set to “free run”.
5) Trace average at least 100 traces in power averaging mode.
6) Record the max value.

Duty cycle of test signal is < 98%
Using method SA-2
1) Set span to encompass the entire emission bandwidth (EBW) of the signal.
2) Set RBW = 1MHz, Set VBW ≥ 3 MHz, Detector = RMS.
3) Set Channel power measure = 1MHz.
4) Sweep time = auto, trigger set to “free run”.
5) Trace average at least 100 traces in power averaging mode.
6) Record the max value and add 10 log (1/duty cycle).

For U-NII-3 band
Duty cycle ≥ 98%
1) Set span to encompass the entire emission bandwidth (EBW) of the signal.
2) Set RBW = 300 kHz, Set VBW ≥ 1 MHz, Detector = RMS.
3) Use the peak marker function to determine the maximum power level in any 300 kHz band segment within the fundamental EBW.
4) Scale the observed power level to an equivalent value in 500 kHz by adjusting (reducing) the measured 1) power by a bandwidth correction factor (BWCF) where BWCF = 10log(500 kHz / 300 kHz).
5) Sweep time = auto, trigger set to “free run”.
6) Trace average at least 100 traces in power averaging mode.
7) Record the max value.

Duty cycle <98%
1) Set span to encompass the entire emission bandwidth (EBW) of the signal.
2) Set RBW = 300 kHz, Set VBW ≥ 1 MHz, Detector = RMS
3) Use the peak marker function to determine the maximum power level in any 300 kHz band segment within the fundamental EBW.
4) Scale the observed power level to an equivalent value in 500 kHz by adjusting (reducing) the measured power by a bandwidth correction factor (BWCF) where BWCF = 10log(500 kHz/300kHz)
5) Sweep time = auto, trigger set to “free run”.
6) Trace average at least 100 traces in power averaging mode.
7) Record the max value and add 10 log (1/duty cycle)

4.5.5 Deviation from Test Standard

No deviation.

4.5.6 EUT Operating Conditions

Same as item 4.3.6.

4.5.7 Test Results

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

802.11a

Chan.	Freq. (MHz)	PSD W/O Duty Factor (dBm/MHz)	Duty Factor (dB)	PSD With Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
36	5180	2.39	0.20	2.59	11	Pass
40	5200	2.19	0.20	2.39	11	Pass
48	5240	2.40	0.20	2.60	11	Pass
52	5260	2.44	0.20	2.64	11	Pass
60	5300	2.23	0.20	2.43	11	Pass
64	5320	2.08	0.20	2.28	11	Pass
100	5500	1.96	0.20	2.16	11	Pass
116	5580	1.97	0.20	2.17	11	Pass
140	5700	1.84	0.20	2.04	11	Pass

Note:
1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Max. Gain = 5.8dBi < 6dBi, so the limit no need to be reduced.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11n (HT20)

Chan.	Freq. (MHz)	PSD W/O Duty Factor (dBm/MHz)		Duty Factor (dB)	Total PSD With Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1				
36	5180	1.06	0.98	0.18	4.21	8.19	Pass
40	5200	1.09	1.16	0.18	4.32	8.19	Pass
48	5240	1.36	1.31	0.18	4.53	8.19	Pass
52	5260	1.02	0.80	0.18	4.10	8.19	Pass
60	5300	0.80	0.79	0.18	3.99	8.19	Pass
64	5320	0.75	0.65	0.18	3.89	8.19	Pass
100	5500	1.10	1.36	0.18	4.42	8.19	Pass
116	5580	0.75	0.95	0.18	4.04	8.19	Pass
140	5700	0.95	1.08	0.18	4.21	8.19	Pass

Note:
1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Max. Directional Gain = 5.8dBi + 10log(2) = 8.81dBi > 6dBi, so the limit shall be reduced to 11-(8.81-6) = 8.19dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11n (HT40)

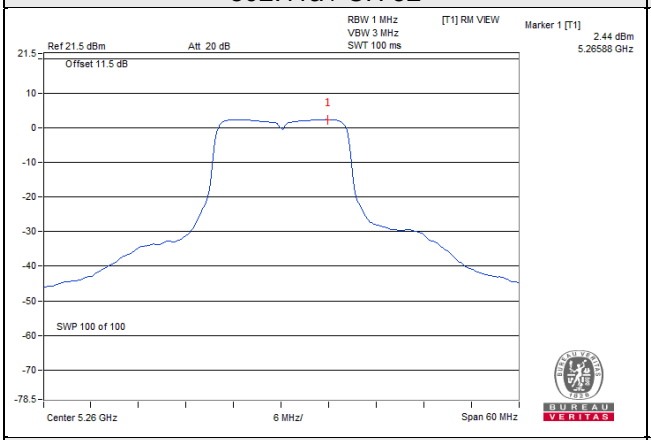
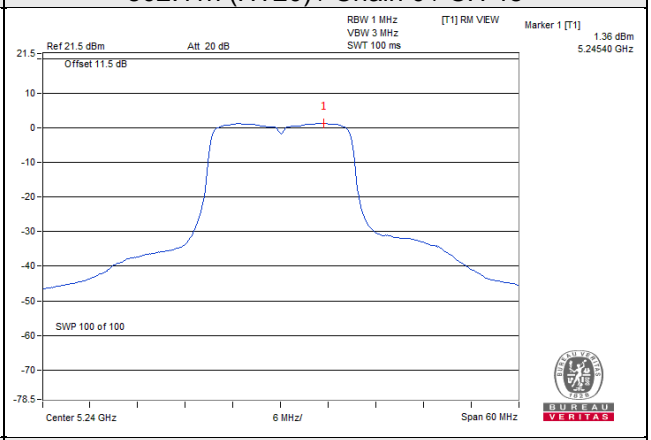
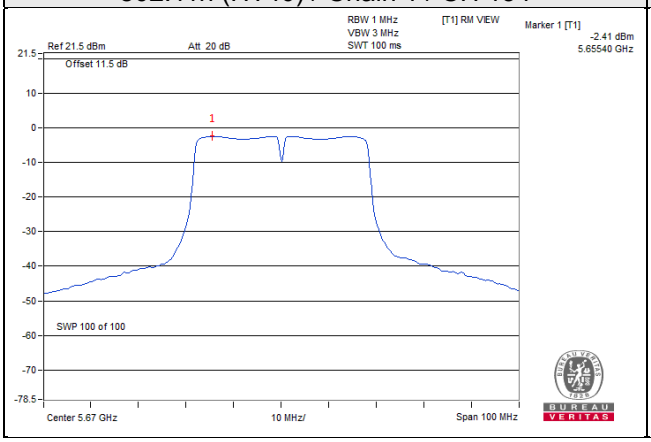
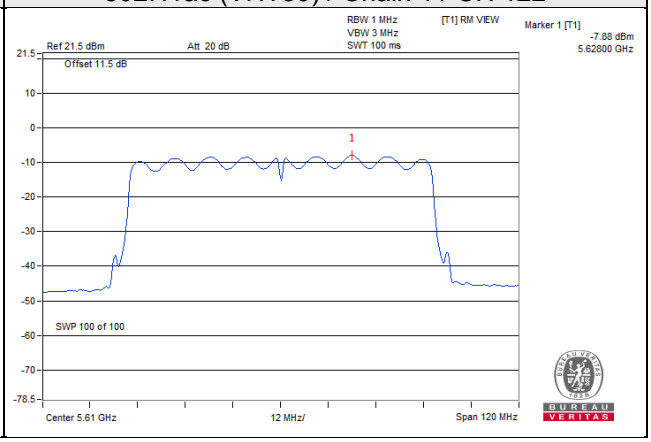
Chan.	Freq. (MHz)	PSD W/O Duty Factor (dBm/MHz)		Duty Factor (dB)	Total PSD With Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1				
38	5190	-4.21	-4.48	0.36	-0.97	8.19	Pass
46	5230	-2.52	-2.80	0.36	0.71	8.19	Pass
54	5270	-2.71	-2.51	0.36	0.76	8.19	Pass
62	5310	-6.99	-6.92	0.36	-3.58	8.19	Pass
102	5510	-6.30	-5.51	0.36	-2.52	8.19	Pass
110	5550	-2.55	-2.58	0.36	0.81	8.19	Pass
134	5670	-3.00	-2.44	0.36	0.66	8.19	Pass

Note:
1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Max. Directional Gain = 5.8dBi + 10log(2) = 8.81dBi > 6dBi, so the limit shall be reduced to 11-(8.81-6) = 8.19dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11ac (VHT80)

Chan.	Freq. (MHz)	PSD W/O Duty Factor (dBm/MHz)		Duty Factor (dB)	Total PSD With Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1				
42	5210	-9.10	-9.72	0.69	-5.70	8.19	Pass
58	5290	-11.60	-12.10	0.69	-8.14	8.19	Pass
106	5530	-8.76	-9.48	0.69	-5.41	8.19	Pass
122	5610	-8.06	-7.88	0.69	-4.27	8.19	Pass

Note:
1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Max. Directional Gain = 5.8dBi + 10log(2) = 8.81dBi > 6dBi, so the limit shall be reduced to 11-(8.81-6) = 8.19dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

Spectrum Plot of Worst Value	
802.11a / CH 52	802.11n (HT20) / Chain 0 / CH 48
	
802.11n (HT40) / Chain 1 / CH 134	802.11ac (VHT80) / Chain 1 / CH 122
	

For U-NII-3 band

802.11a

Chan.	Freq. (MHz)	PSD W/O Duty Factor		Duty Factor (dB)	Total PSD With Duty Factor (dBm/500kHz)	Limit (dBm/500kHz)	Pass / Fail
		(dBm/300kHz)	(dBm/500kHz)				
149	5745	-6.38	-4.16	0.20	-3.96	30	Pass
157	5785	-6.47	-4.25	0.20	-4.05	30	Pass
165	5825	-6.09	-3.87	0.20	-3.67	30	Pass

Note:
1. Method a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Max. Gain = 5.8dBi < 6dBi, so the limit no need to be reduced.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11n (HT20)

TX chain	Chan.	Freq. (MHz)	PSD W/O Duty Factor		10 log (N=2) dB	Duty Factor (dB)	Total PSD With Duty Factor (dBm/500kHz)	Limit (dBm/500kHz)	Pass / Fail
			(dBm/300kHz)	(dBm/500kHz)					
0	149	5745	-7.31	-5.09	3.01	0.18	-1.90	27.19	Pass
	157	5785	-7.26	-5.04	3.01	0.18	-1.85	27.19	Pass
	165	5825	-7.46	-5.24	3.01	0.18	-2.05	27.19	Pass
1	149	5745	-7.62	-5.40	3.01	0.18	-2.21	27.19	Pass
	157	5785	-7.63	-5.41	3.01	0.18	-2.22	27.19	Pass
	165	5825	-7.75	-5.53	3.01	0.18	-2.34	27.19	Pass

Note:
1. Method c) of power density measurement of KDB 662911 is using for Measure and add 10 log(N_{ANT}) dB.
2. Max. Directional Gain = 5.8dBi + 10log(2) = 8.81dBi > 6dBi, so the limit shall be reduced to 30-(8.81-6) = 27.19dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11n (HT40)

TX chain	Chan.	Freq. (MHz)	PSD W/O Duty Factor		10 log (N=2) dB	Duty Factor (dB)	Total PSD With Duty Factor (dBm/500kHz)	Limit (dBm/500kHz)	Pass / Fail
			(dBm/300kHz)	(dBm/500kHz)					
0	151	5755	-11.06	-8.84	3.01	0.36	-5.47	27.19	Pass
	159	5795	-11.21	-8.99	3.01	0.36	-5.62	27.19	Pass
1	151	5755	-10.93	-8.71	3.01	0.36	-5.34	27.19	Pass
	159	5795	-11.08	-8.86	3.01	0.36	-5.49	27.19	Pass

Note:
1. Method c) of power density measurement of KDB 662911 is using for Measure and add 10 log(N_{ANT}) dB.
2. Max. Directional Gain = 5.8dBi + 10log(2) = 8.81dBi > 6dBi, so the limit shall be reduced to 30-(8.81-6) = 27.19dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

802.11ac (VHT80)

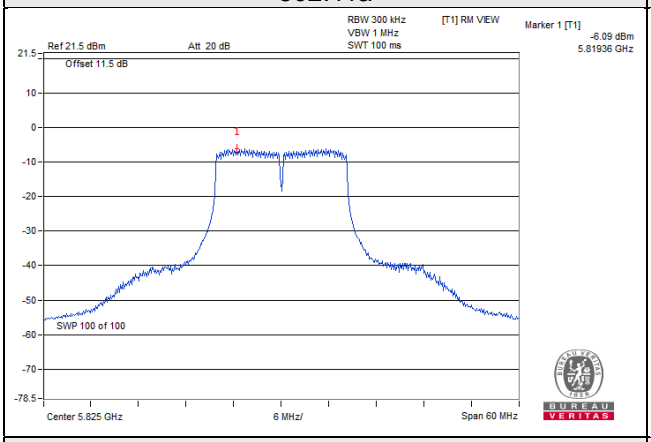
TX chain	Chan.	Freq. (MHz)	PSD W/O Duty Factor		10 log (N=2) dB	Duty Factor (dB)	Total PSD With Duty Factor (dBm/500kHz)	Limit (dBm/500kHz)	Pass / Fail
			(dBm/300kHz)	(dBm/500kHz)					
0	155	5775	-16.69	-14.47	3.01	0.69	-10.77	27.19	Pass
1	155	5775	-16.76	-14.54	3.01	0.69	-10.84	27.19	Pass

Note:

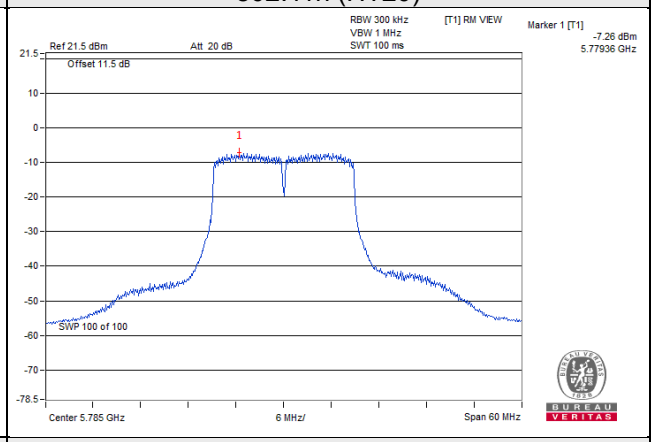
1. Method c) of power density measurement of KDB 662911 is using for Measure and add 10 log(N_{ANT}) dB.
2. Max. Directional Gain = 5.8dBi + 10log(2) = 8.81dBi > 6dBi, so the limit shall be reduced to 30-(8.81-6) = 27.19dBm.
3. Refer to section 3.3 for duty cycle spectrum plot.

Spectrum Plot of Worst Value

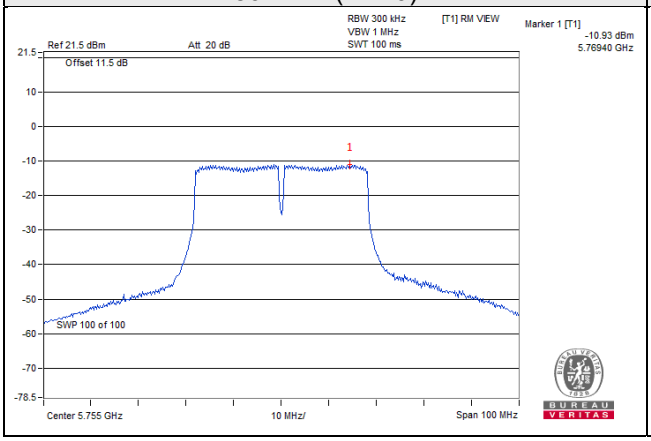
802.11a



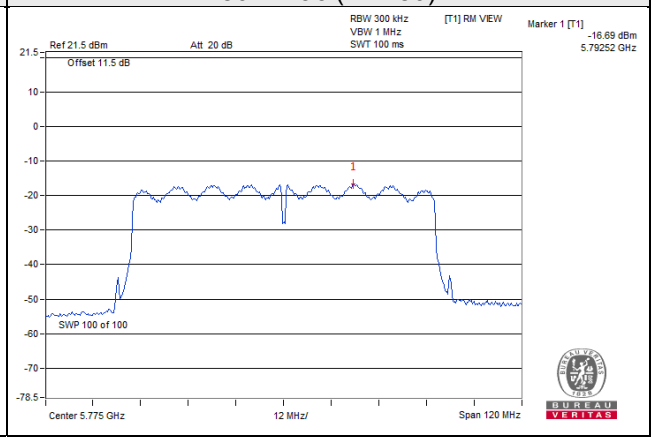
802.11n (HT20)



802.11n (HT40)



802.11ac (VHT80)

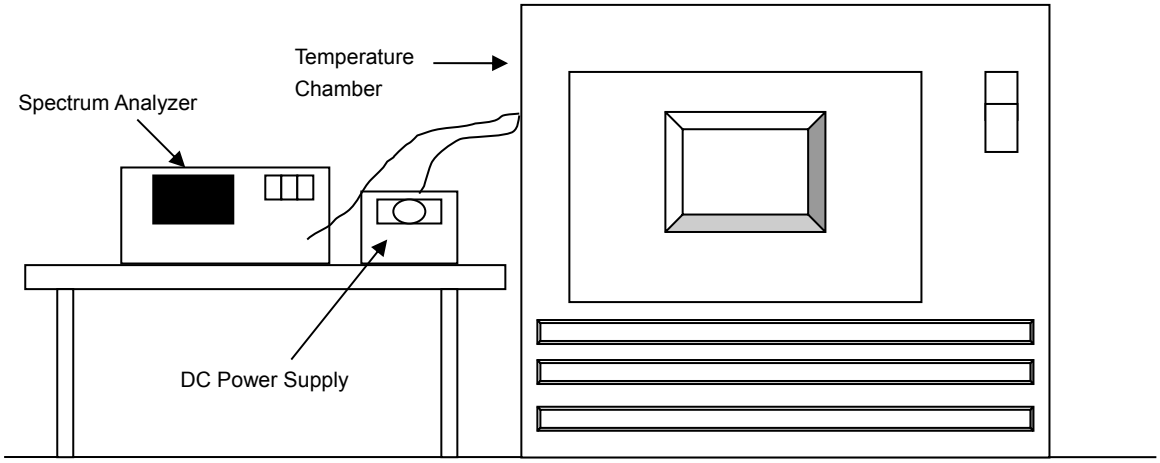


4.6 Frequency Stability

4.6.1 Limits of Frequency Stability Measurement

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

4.6.2 Test Setup



4.6.3 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100039	Jun. 11, 2018	Jun. 10, 2019
WIT Standard Temperature And Humidity Chamber	TH-4S-C	W981030	Jun. 04, 2018	Jun. 03, 2019
Digital Multimeter Fluke	87-III	70360742	Jun. 29, 2018	Jun. 28, 2019
DC Power Supply Topward	6603D	700637	NA	NA

4.6.4 Test Procedure

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

4.6.5 Deviation from Test Standard

No deviation.

4.6.6 EUT Operating Condition

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

4.6.7 Test Results

Frequency Stability Versus Temp.									
Operating Frequency: 5180MHz									
Temp. (℃)	Power Supply (Vdc)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result
70	5	5179.9774	PASS	5179.9785	PASS	5179.9780	PASS	5179.9747	PASS
60	5	5180.0150	PASS	5180.0131	PASS	5180.0149	PASS	5180.0107	PASS
50	5	5180.0229	PASS	5180.0222	PASS	5180.0215	PASS	5180.0226	PASS
40	5	5180.0158	PASS	5180.0157	PASS	5180.0153	PASS	5180.0153	PASS
30	5	5179.9972	PASS	5179.9961	PASS	5179.9999	PASS	5179.9958	PASS
20	5	5179.9793	PASS	5179.9817	PASS	5179.9829	PASS	5179.9794	PASS
10	5	5179.9903	PASS	5179.9936	PASS	5179.9935	PASS	5179.9913	PASS
0	5	5180.0061	PASS	5180.0069	PASS	5180.0021	PASS	5180.0050	PASS
-10	5	5179.9870	PASS	5179.9892	PASS	5179.9881	PASS	5179.9889	PASS
-20	5	5179.9940	PASS	5179.9923	PASS	5179.9949	PASS	5179.9944	PASS

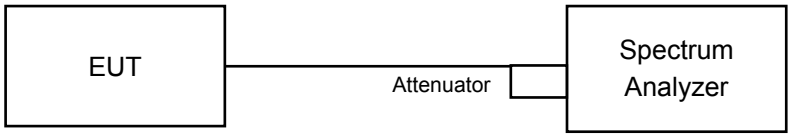
Frequency Stability Versus Voltage									
Operating Frequency: 5180MHz									
Temp. (℃)	Power Supply (Vdc)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result
20	5.75	5179.9803	PASS	5179.9821	PASS	5179.9820	PASS	5179.9786	PASS
	5	5179.9793	PASS	5179.9817	PASS	5179.9829	PASS	5179.9794	PASS
	4.25	5179.9796	PASS	5179.9811	PASS	5179.9831	PASS	5179.9790	PASS

4.7 6dB Bandwidth Measurement

4.7.1 Limits of 6dB Bandwidth Measurement

The minimum of 6dB Bandwidth Measurement is 0.5MHz.

4.7.2 Test Setup



4.7.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.7.4 Test Procedure

Measurement Procedure REF

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

4.7.5 Deviation from Test Standard

No deviation.

4.7.6 EUT Operating Condition

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

4.7.7 Test Results

802.11a

Channel	Frequency (MHz)	6dB Bandwidth (MHz)	Minimum Limit (MHz)	Pass / Fail
149	5745	16.51	0.5	Pass
157	5785	16.53	0.5	Pass
165	5825	16.58	0.5	Pass

802.11n (HT20)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
149	5745	17.66	17.68	0.5	Pass
157	5785	17.65	17.65	0.5	Pass
165	5825	17.67	17.69	0.5	Pass

802.11n (HT40)

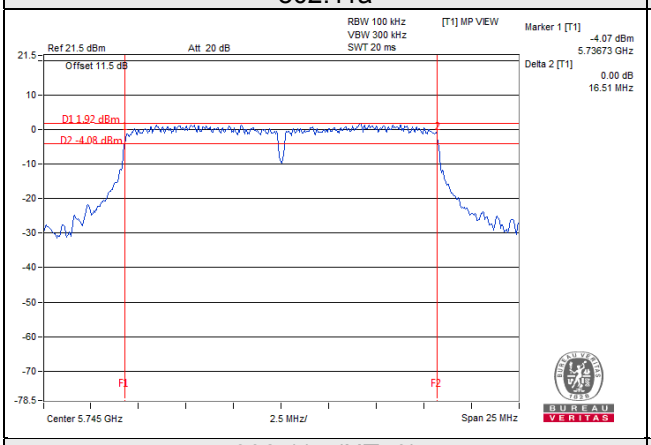
Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
151	5755	36.61	36.61	0.5	Pass
159	5795	36.59	36.58	0.5	Pass

802.11ac (VHT80)

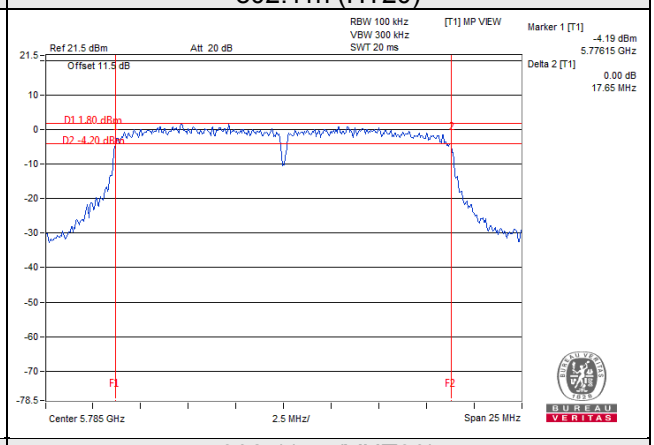
Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
155	5775	76.46	76.50	0.5	Pass

Spectrum Plot of Worst Value

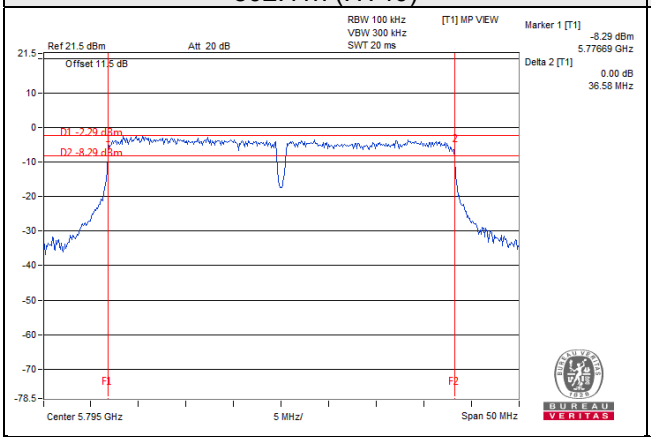
802.11a



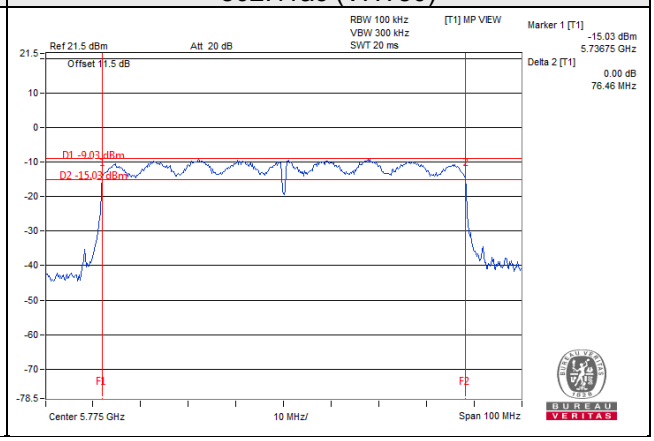
802.11n (HT20)



802.11n (HT40)



802.11ac (VHT80)



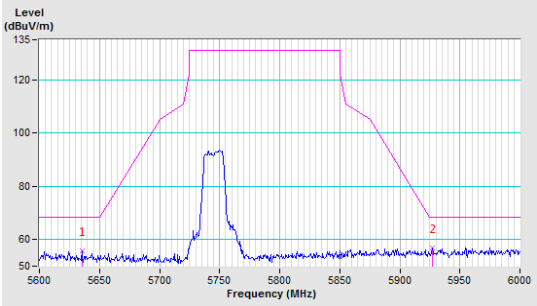
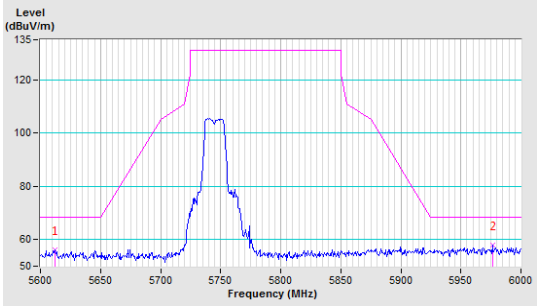
5 Pictures of Test Arrangements

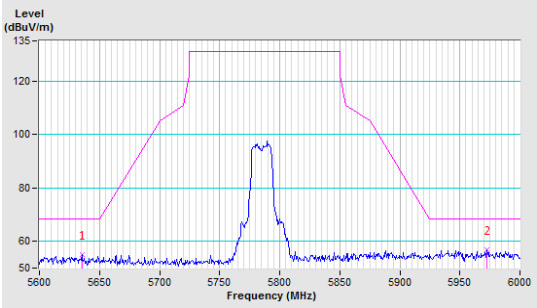
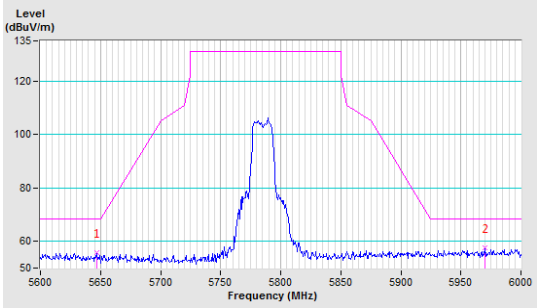
Please refer to the attached file (Test Setup Photo).

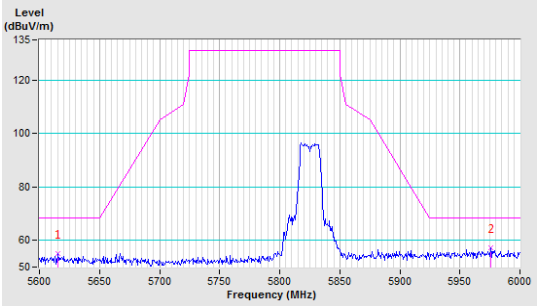
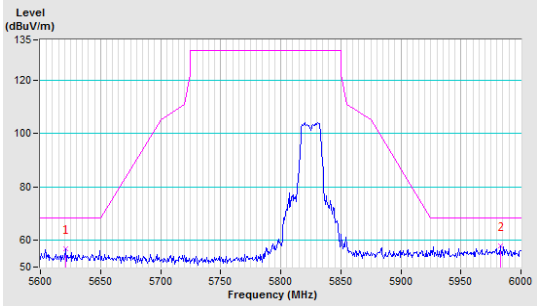
Annex A- Radiated Out of Band Emission (OOBE) Measurement (For U-NII-3 band)

Test Mode A

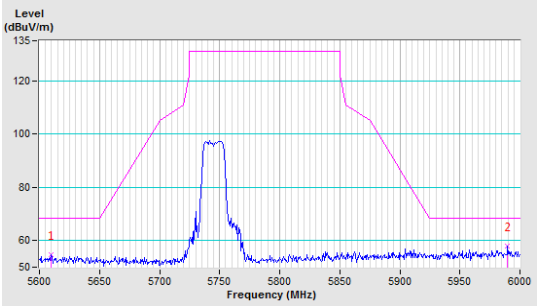
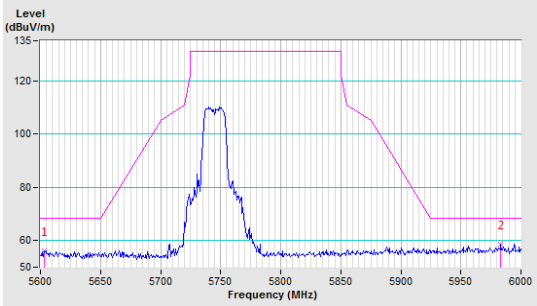
802.11a

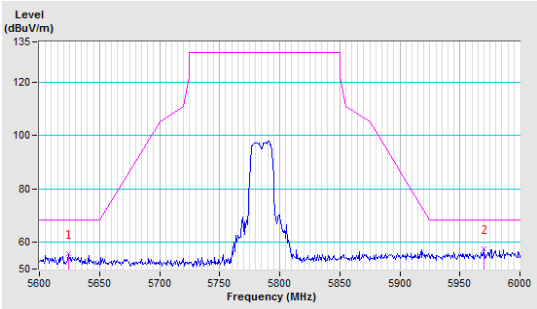
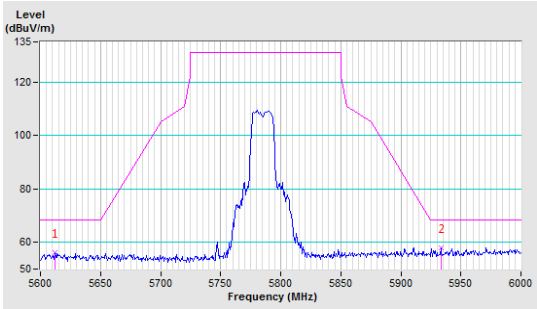
CH149	
Horizontal	Vertical
	

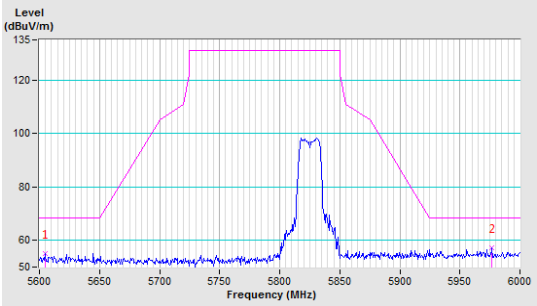
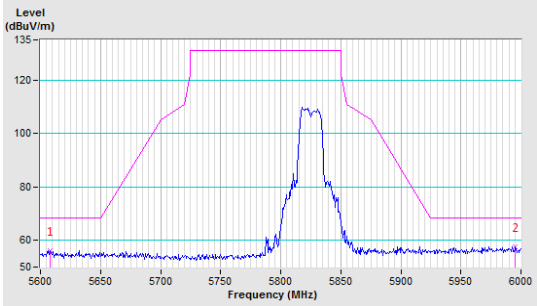
CH157	
Horizontal	Vertical
	

CH165	
Horizontal	Vertical
	

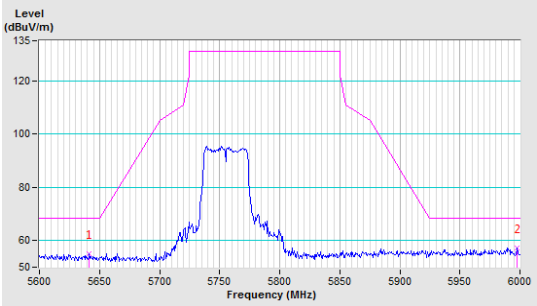
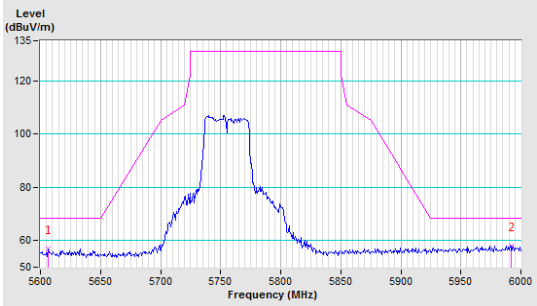
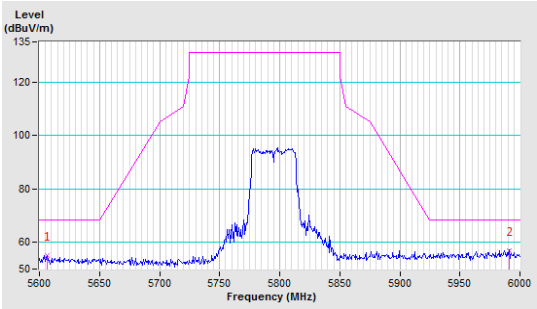
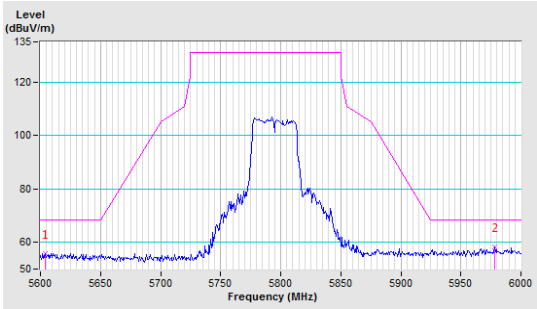
802.11n (HT20)

CH149	
Horizontal	Vertical
	

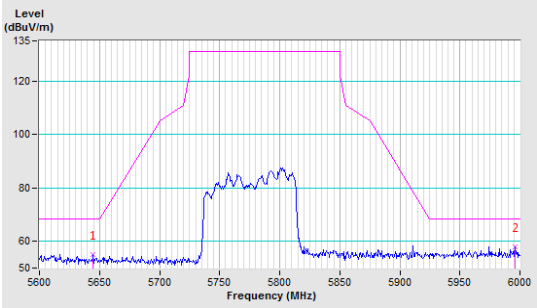
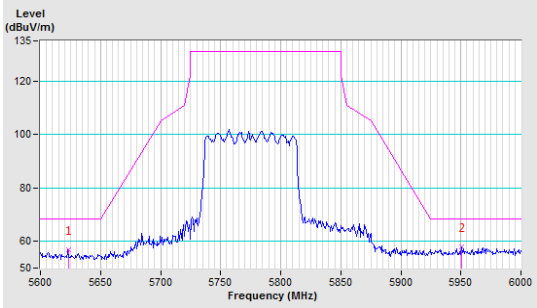
CH157	
Horizontal	Vertical
	

CH165	
Horizontal	Vertical
	

802.11n (HT40)

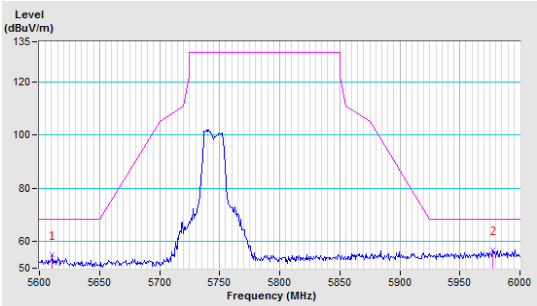
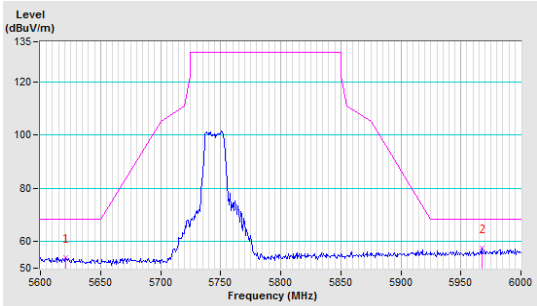
CH151	
Horizontal	Vertical
	
CH159	
Horizontal	Vertical
	

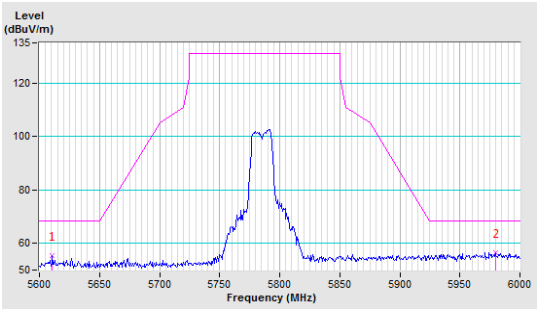
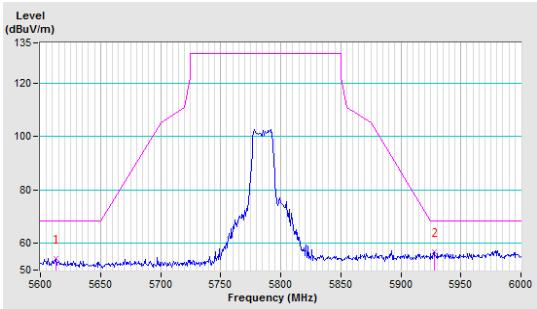
802.11ac (VHT80)

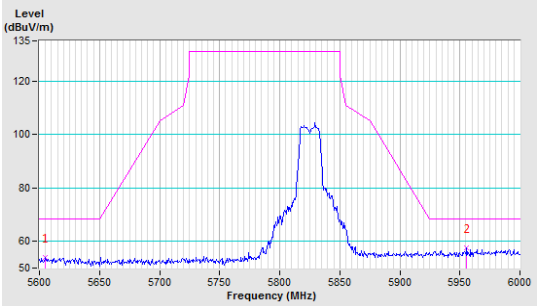
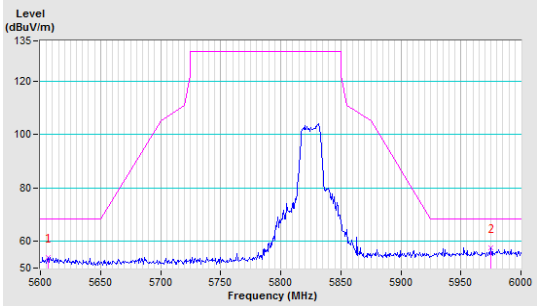
CH155	
Horizontal	Vertical
	

Test Mode B

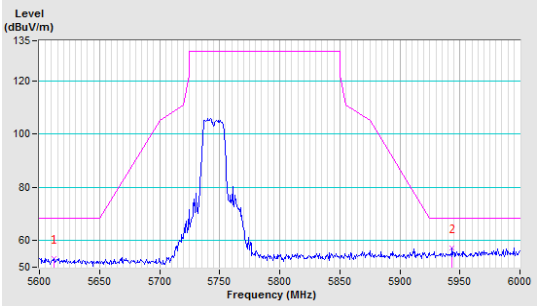
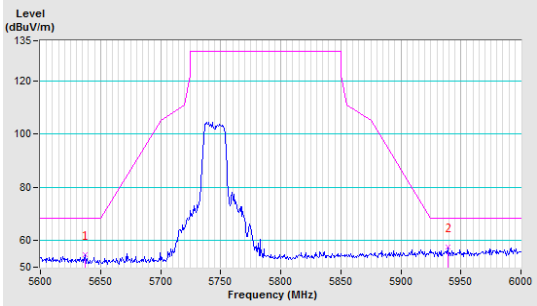
802.11a

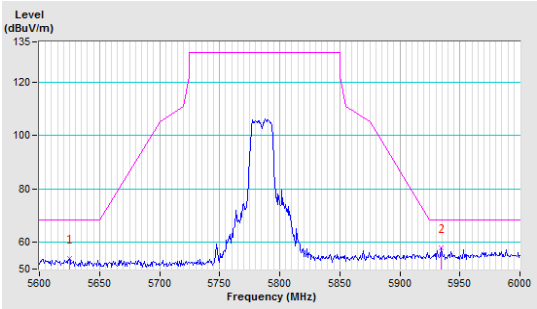
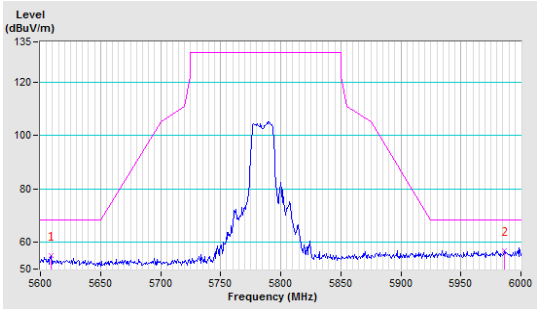
CH149	
Horizontal	Vertical
	

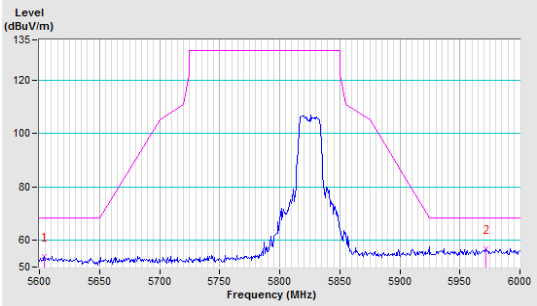
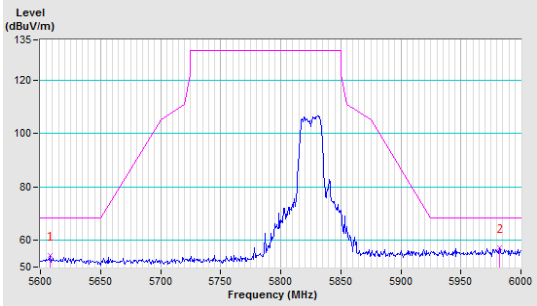
CH157	
Horizontal	Vertical
	

CH165	
Horizontal	Vertical
	

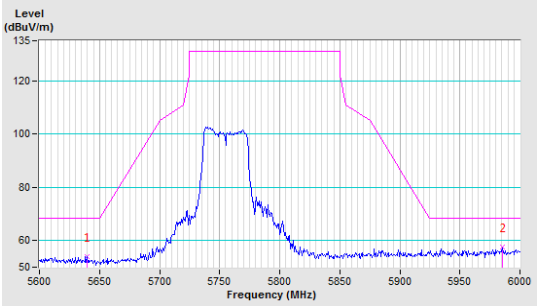
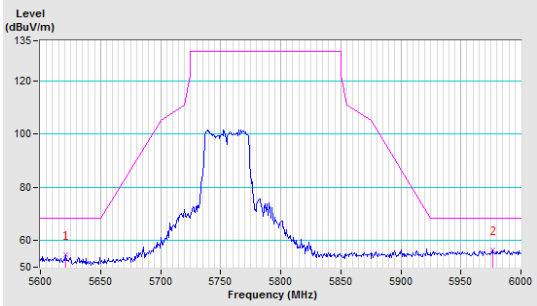
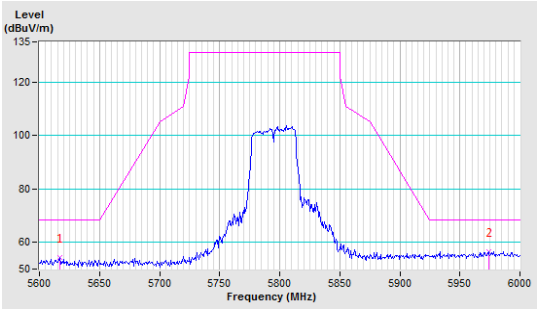
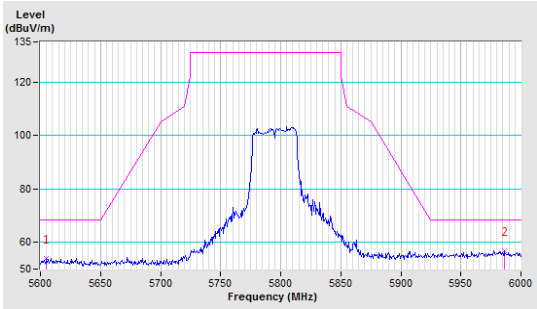
802.11n (HT20)

CH149	
Horizontal	Vertical
	

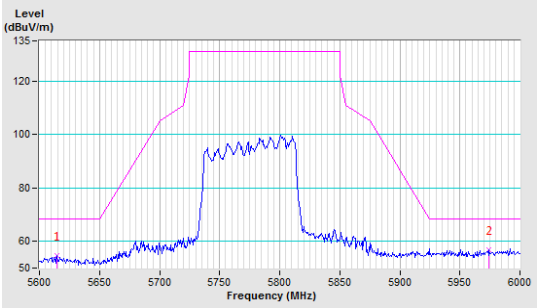
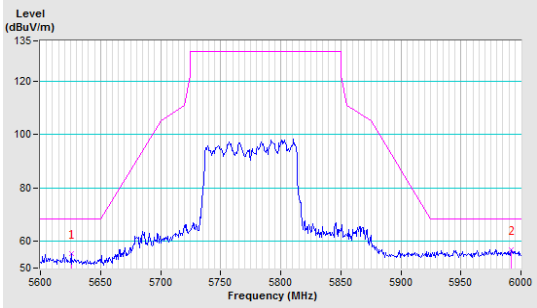
CH157	
Horizontal	Vertical
	

CH165	
Horizontal	Vertical
	

802.11n (HT40)

CH151	
Horizontal	Vertical
	
CH159	
Horizontal	Vertical
	

802.11ac (VHT80)

CH155	
Horizontal	Vertical
	

Appendix – Information of 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.

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

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Email: service.adt@tw.bureauveritas.com
Web Site: www.bureauveritas-adt.com

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

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