

FCC Test Report

Report No.: RF181219C02D-2

FCC ID: 2ANBG-OR100

Regulatory Model: APOR100

Marketing Model: APOR100-B18, APOR100-X00, APOR100-C23, APOR100-C18

Received Date: Feb. 18, 2020

Test Date: Apr. 10 ~ May 15, 2020

Issued Date: Jun. 08, 2020

Applicant: KeyWest Networks, Inc.

Address: 3033 Oliver Dr, San Jose, CA - 95135 USA

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

Lab Address: No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan

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

FCC Registration / 788550 / TW0003
Designation Number:



This report is for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence, provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents. Unless specific mention, the uncertainty of measurement has been explicitly taken into account to declare the compliance or non-compliance to the specification.

Table of Contents

Release Control Record	4
1 Certificate of Conformity	5
2 Summary of Test Results	6
2.1 Measurement Uncertainty	6
2.2 Modification Record	6
3 General Information	7
3.1 General Description of EUT	7
3.2 Description of Test Modes	10
3.2.1 Test Mode Applicability and Tested Channel Detail	13
3.3 Duty Cycle of Test Signal	15
3.4 Description of Support Units	18
3.4.1 Configuration of System under Test	18
3.5 General Description of Applied Standards and References	19
4 Test Types and Results	20
4.1 Radiated Emission and Bandedge Measurement	20
4.1.1 Limits of Radiated Emission and Bandedge Measurement	20
4.1.2 Test Instruments	21
4.1.3 Test Procedures	22
4.1.4 Deviation from Test Standard	22
4.1.5 Test Setup	23
4.1.6 EUT Operating Conditions	24
4.1.7 Test Results	25
4.2 Conducted Emission Measurement	97
4.2.1 Limits of Conducted Emission Measurement	97
4.2.2 Test Instruments	97
4.2.3 Test Procedures	98
4.2.4 Deviation from Test Standard	98
4.2.5 Test Setup	98
4.2.6 EUT Operating Conditions	98
4.2.7 Test Results	99
4.3 Transmit Power Measurement	111
4.3.1 Limits of Transmit Power Measurement	111
4.3.2 Test Setup	111
4.3.3 Test Instruments	111
4.3.4 Test Procedure	112
4.3.5 Deviation from Test Standard	112
4.3.6 EUT Operating Conditions	112
4.3.7 Test Result	113
4.4 Occupied Bandwidth Measurement	131
4.4.1 Test Setup	131
4.4.2 Test Instruments	131
4.4.3 Test Procedure	131
4.4.4 Test Result	132
4.5 Peak Power Spectral Density Measurement	141
4.5.1 Limits of Peak Power Spectral Density Measurement	141
4.5.2 Test Setup	141
4.5.3 Test Instruments	141
4.5.4 Test Procedures	141
4.5.5 Deviation from Test Standard	141
4.5.6 EUT Operating Conditions	141
4.5.7 Test Results	142
4.6 Frequency Stability	151
4.6.1 Limits of Frequency Stability Measurement	151

4.6.2 Test Setup	151
4.6.3 Test Instruments	151
4.6.4 Test Procedure	151
4.6.5 Deviation from Test Standard	152
4.6.6 EUT Operating Condition	152
4.6.7 Test Results	152
5 Pictures of Test Arrangements	155
Annex A - Band Edge Measurement	156
Appendix – Information of the Testing Laboratories	180

Release Control Record

Issue No.	Description	Date Issued
RF181219C02D-2	Original release	Jun. 08, 2020

1 Certificate of Conformity

Product: Outdoor Wireless Radios

Brand: KeyWest Radios

Regulatory Model: APOR100

Marketing Model: APOR100-B18, APOR100-X00, APOR100-C23, APOR100-C18

Sample Status: Engineering sample

Applicant: KeyWest Networks, Inc.

Test Date: Apr. 10 ~ May 15, 2020

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:** Jun. 08, 2020
Celine Chou / Senior Specialist

Approved by : Bruce Chen , **Date:** Jun. 08, 2020
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 -4.96dB at 1.81800MHz.
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 -1.1dB at 31.47MHz.
15.407(a)(1/2/3)	Max Average Transmit Power	Pass	Meet the requirement of limit.
---	Occupied Bandwidth Measurement	-	Reference only.
15.407(a)(1/2/3)	Peak Power Spectral Density	Pass	Meet the requirement of limit.
15.407(g)	Frequency Stability	Pass	Meet the requirement of limit.
15.203	Antenna Requirement	Pass	Antenna connector are i-pex(MHF) and MMCX not a standard connector.

Note:

- For U-NII-2A, U-NII-2C band compliance with rule 15.407(b) of the band-edge items, the test plots were recorded in Annex A. Test Procedures refer to report 4.1.3.
- Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

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	2.79 dB
Radiated Emissions up to 1 GHz	9kHz ~ 30MHz	3.04 dB
	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	Outdoor Wireless Radios
Brand	KeyWest Radios
Regulatory Model	APOR100
Marketing Model	APOR100-B18, APOR100-X00, APOR100-C23, APOR100-C18
Model Difference	Refer to note for more details
Sample Status	Engineering sample
Power Supply Rating	48Vdc (PoE)
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	5250 ~ 5350MHz, 5470 ~ 5725MHz
Output Power	Test Mode A 5250 ~ 5350MHz: 15.089mW 5470 ~ 5725MHz: 14.678mW Test Mode B 5250 ~ 5350MHz: 99.219mW 5470 ~ 5725MHz: 99.055mW Test Mode C 5250 ~ 5350MHz: 4.806mW 5470 ~ 5725MHz: 4.906mW
Antenna Type	Refer to note
Antenna Connector	Refer to note
Accessory Device	PoE
Cable Supplied	NA

Note:

- This report is prepared for FCC class II permissive change. The difference compared with the original report (BV CPS report no.: RF181219C02-1) are listing as below. All test data had been re-tested.
 - Added one PoE.
 - Added two antennas.
 - Software enable 5.25GHz to 5.35GHz and 5.47GHz to 5.725GHz bands.
 - Added 5G Band 1, 4 channels via software changing.

2. All models are listed as below.

Brand	Regulatory Model	Marketing Model	Ant. (For 5GHz Band only)	Remark
KeyWest Radios	APOR100	APOR100-B18	18dBi (MA-WC56-DP17 Ant. with i-pex(MHF) connector) 2x2 V&H Polarized Sector antenna	For outdoor only
			17dBi (MT055S17VH/KYU Ant. with MMCX connector) 2x2 V&H Polarized Sector antenna	
		APOR100-X00	10dBi (APOR100-X00 Ant. with i-pex(MHF) connector) 2x2 V&H Polarized Omni antenna	For outdoor only
		APOR100-C23	23dBi (MA-WA56-DP23 Ant. with i-pex(MHF) connector) 2x2 V&H Polarized panel antenna	For P to P only
			22.5dBi (MT-465039/CVH/F Ant. with MMCX connector) 2x2 V&H Polarized panel antenna	
		APOR100-C18	18dBi (MT-485053-CVH-B_ICD_KW Ant. with i-pex(MHF) connector) 2x2 V&H Polarized panel antenna	For P to P only

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

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

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

4. The EUT is powered by the following PoE. (The new PoE is PoE 2)

PoE 1	
Brand	Powertron Electronics Corp.
Model	POE1024-480T1A050
Input Power	100-240Vac, 50-60Hz, 1.0A
Output Power	+48Vdc, 0.50A

PoE 2	
Brand	KEYWEST
Model	KW-P1024-48056K
Input Power	100-240Vac, 50-60Hz, 1.0A
Output Power	+48Vdc, 0.50A

5. The following antennas were provided to the EUT. (New antennas are marked in boldface.)

Ant. No.	Marketing Model	Antenna Type	Antenna Vender	Antenna PN	Antenna Gain		Connector
					4.9GHz	5GHz	
1	APOR100-B18	Sector antenna	MARS	MA-WC56-DP17	18dBi	18dBi	i-pex(MHF)
2	APOR100-X00	Omni antenna	MARS	MA-WO56-DP10	10dBi	10dBi	N Type Male
3	APOR100-C23	Panel antenna	MARS	MA-WA56-DP23	23dBi	23dBi	i-pex(MHF)
4	APOR100-C18	Panel antenna	MTI	MT-485053-CVH-B_I CD_KW	-	18dBi	i-pex(MHF)
5	APOR100-B18	Sector antenna	MTI	MT055S17VH/KYU	16dBi	17dBi	MMCX
6	APOR100-C23	Panel antenna	MTI	MT-465039/CVH/F	23dBi	23dBi	MMCX

* Ant. 3, 4, 6 were cross polarized antenna.

* For Marketing Model: APOR100-B18 can use Ant. 1 or Ant. 5, therefore Ant. 1 was chosen for final test.

* For Marketing Model: APOR100-X00 use Ant. 2 and chosen for final test.

* For Marketing Model: APOR100-C23 can use Ant. 3 or Ant. 6 and Marketing Model: APOR100-C18 use Ant. 6, therefore Marketing Model: APOR100-C23 with Ant. 3 was chosen for final test.

* The above Antenna information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications, the laboratory shall not be held responsible.

3.2 Description of Test Modes

For 5250 ~ 5350MHz:

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

Channel	Frequency	Channel	Frequency
52	5260 MHz	59	5295 MHz
53	5265 MHz	60	5300 MHz
54	5270 MHz	61	5305 MHz
55	5275 MHz	62	5310 MHz
56	5280 MHz	63	5315 MHz
57	5285 MHz	64	5320 MHz
58	5290 MHz		

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

Channel	Frequency	Channel	Frequency
54	5270 MHz	59	5295 MHz
55	5275 MHz	60	5300 MHz
56	5280 MHz	61	5305 MHz
57	5285 MHz	62	5310 MHz
58	5290 MHz		

1 channel is provided for 802.11ac (VHT80):

Channel	Frequency
58	5290MHz

For 5470 ~ 5725MHz:

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

Channel	Frequency	Channel	Frequency
100	5500 MHz	121	5605 MHz
101	5505 MHz	122	5610 MHz
102	5510 MHz	123	5615 MHz
103	5515 MHz	124	5620 MHz
104	5520 MHz	125	5625 MHz
105	5525 MHz	126	5630 MHz
106	5530 MHz	127	5635 MHz
107	5535 MHz	128	5640 MHz
108	5540 MHz	129	5645 MHz
109	5545 MHz	130	5650 MHz
110	5550 MHz	131	5655 MHz
111	5555 MHz	132	5660 MHz
112	5560 MHz	133	5665 MHz
113	5565 MHz	134	5670 MHz
114	5570 MHz	135	5675 MHz
115	5575 MHz	136	5680 MHz
116	5580 MHz	137	5685 MHz
117	5585 MHz	138	5690 MHz
118	5590 MHz	139	5695 MHz
119	5595 MHz	140	5700 MHz
120	5600 MHz		

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

Channel	Frequency	Channel	Frequency
102	5510 MHz	119	5595 MHz
103	5515 MHz	120	5600 MHz
104	5520 MHz	121	5605 MHz
105	5525 MHz	122	5610 MHz
106	5530 MHz	123	5615 MHz
107	5535 MHz	124	5620 MHz
108	5540 MHz	125	5625 MHz
109	5545 MHz	126	5630 MHz
110	5550 MHz	127	5635 MHz
111	5555 MHz	128	5640 MHz
112	5560 MHz	129	5645 MHz
113	5565 MHz	130	5650 MHz
114	5570 MHz	131	5655 MHz
115	5575 MHz	132	5660 MHz
116	5580 MHz	133	5665 MHz
117	5585 MHz	134	5670 MHz
118	5590 MHz		

17 channels are provided for 802.11ac (VHT80):

Channel	Frequency	Channel	Frequency
106	5530 MHz	115	5575 MHz
107	5535 MHz	116	5580 MHz
108	5540 MHz	117	5585 MHz
109	5545 MHz	118	5590 MHz
110	5550 MHz	119	5595 MHz
111	5555 MHz	120	5600 MHz
112	5560 MHz	121	5605 MHz
113	5565 MHz	122	5610 MHz
114	5570 MHz		

3.2.1 Test Mode Applicability and Tested Channel Detail

EUT Configure Mode	Applicable to				Description
	RE $\geq$ 1G	RE<1G	PLC	APCM	
A	√	√	√	√	Marketing Model: APOR100-B18 (MA-WC56-DP17 Ant. with i-px(MHF) connector), powered by PoE 2
B	√	√	√	√	Marketing Model: APOR100-X00 (APOR100-X00 Ant. with i-px(MHF) connector), powered by PoE 2
C	√	√	√	√	Marketing Model: APOR100-C23 (MA-WA56-DP23 Ant. with i-px(MHF) connector), powered by PoE 2
D	-	√	√	-	Marketing Model: APOR100-B18 (MA-WC56-DP17 Ant. with i-px(MHF) connector), powered by PoE 1
E	-	√	√	-	Marketing Model: APOR100-X00 (APOR100-X00 Ant. with i-px(MHF) connector), powered by PoE 1
F	-	√	√	-	Marketing Model: APOR100-C23 (MA-WA56-DP23 Ant. with i-px(MHF) connector), powered by PoE 1

Where RE $\geq$ 1G: Radiated Emission above 1GHz & Bandedge Measurement

PLC: Power Line Conducted Emission

RE<1G: Radiated Emission below 1GHz

APCM: Antenna Port Conducted Measurement

Note:

1. The EUT had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on **Z-plane**.
2. Radiated emission test (below 1GHz) and power line conducted emission test items chosen the worst maximum power.

Radiated Emission Test (Above 1GHz):

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

EUT Configure Mode	Mode	Frequency Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Data Rate (Mbps)
A, B, C	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	6.0
	802.11n (HT20)		52 to 64	52, 60, 64	OFDM	6.5
	802.11n (HT40)		54 to 62	54, 62	OFDM	13.5
	802.11ac (VHT80)		58	58	OFDM	29.3
A, B, C	802.11a	5500-5720	100 to 140	100, 116, 140	OFDM	6.0
	802.11n (HT20)		100 to 140	100, 116, 140	OFDM	6.5
	802.11n (HT40)		102 to 134	102, 110, 134	OFDM	13.5
	802.11ac (VHT80)		106 to 122	106, 122	OFDM	29.3

Radiated Emission Test (Below 1GHz):

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

EUT Configure Mode	Mode	Frequency Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Data Rate (Mbps)
A, B, D, E	802.11ac (VHT80)	5260-5320	58	58	OFDM	29.3
	802.11ac (VHT80)	5500-5720	106 to 134		OFDM	29.3
C, F	802.11n (HT40)	5260-5320	54 to 62	134	OFDM	13.5
	802.11n (HT40)	5500-5720	102 to 134		OFDM	13.5

Power Line Conducted Emission Test:

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

EUT Configure Mode	Mode	Frequency Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Data Rate (Mbps)
A, B, D, E	802.11ac (VHT80)	5260-5320	58	58	OFDM	29.3
	802.11ac (VHT80)	5500-5720	106 to 134		OFDM	29.3
C, F	802.11n (HT40)	5260-5320	54 to 62	134	OFDM	13.5
	802.11n (HT40)	5500-5720	102 to 134		OFDM	13.5

Antenna Port Conducted Measurement:

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

EUT Configure Mode	Mode	Frequency Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Data Rate (Mbps)
A, B, C	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	6.0
	802.11n (HT20)		52 to 64	52, 60, 64	OFDM	6.5
	802.11n (HT40)		54 to 62	54, 62	OFDM	13.5
	802.11ac (VHT80)		58	58	OFDM	29.3
A, B, C	802.11a	5500-5720	100 to 140	100, 116, 140	OFDM	6.0
	802.11n (HT20)		100 to 140	100, 116, 140	OFDM	6.5
	802.11n (HT40)		102 to 134	102, 110, 134	OFDM	13.5
	802.11ac (VHT80)		106 to 122	106, 122	OFDM	29.3

Test Condition:

Applicable to	Environmental Conditions	Input Power	Tested by
RE $\geq$ 1G	23 deg. C, 66% RH	120Vac, 60Hz	Adair Peng Titan Hsu
RE<1G	23 deg. C, 66% RH	120Vac, 60Hz	Adair Peng Titan Hsu
PLC	23 deg. C, 67% RH 23 deg. C, 66% RH	120Vac, 60Hz	Adair Peng Titan Hsu
APCM	25 deg. C, 60% RH	120Vac, 60Hz	Ivan Tseng

3.3 Duty Cycle of Test Signal

Test Mode A

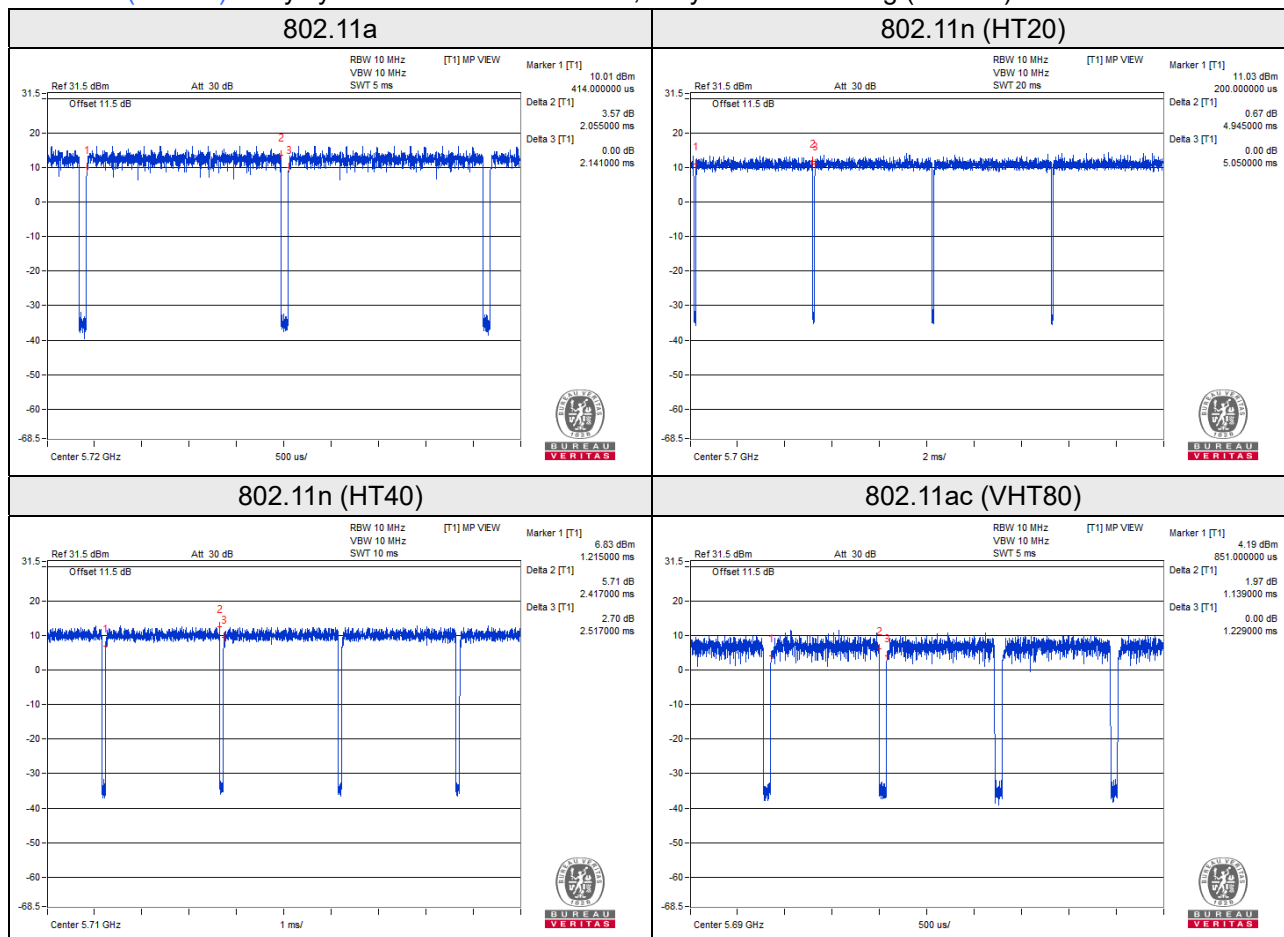
Duty cycle of test signal is < 98%, duty factor is required.

802.11a: Duty cycle = $2.055/2.141 = 0.960$, Duty factor = $10 * \log(1/0.960) = 0.18$

802.11n (HT20): Duty cycle = $4.945/5.050 = 0.979$, Duty factor = $10 * \log(1/0.979) = 0.09$

802.11n (HT40): Duty cycle = $2.417/2.517 = 0.960$, Duty factor = $10 * \log(1/0.960) = 0.18$

802.11ac (VHT80): Duty cycle = $1.139/1.229 = 0.927$, Duty factor = $10 * \log(1/0.927) = 0.33$



Test Mode B

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

802.11a: Duty cycle = $2.000/2.130 = 0.939$, Duty factor = $10 * \log(1/0.939) = 0.27$

802.11n (HT20): Duty cycle = $4.945/5.055 = 0.978$, Duty factor = $10 * \log(1/0.978) = 0.10$

802.11n (HT40): Duty cycle = $2.410/2.510 = 0.960$, Duty factor = $10 * \log(1/0.960) = 0.18$

802.11ac (VHT80): Duty cycle = $1.139/1.236 = 0.922$, Duty factor = $10 * \log(1/0.922) = 0.35$



Test Mode C

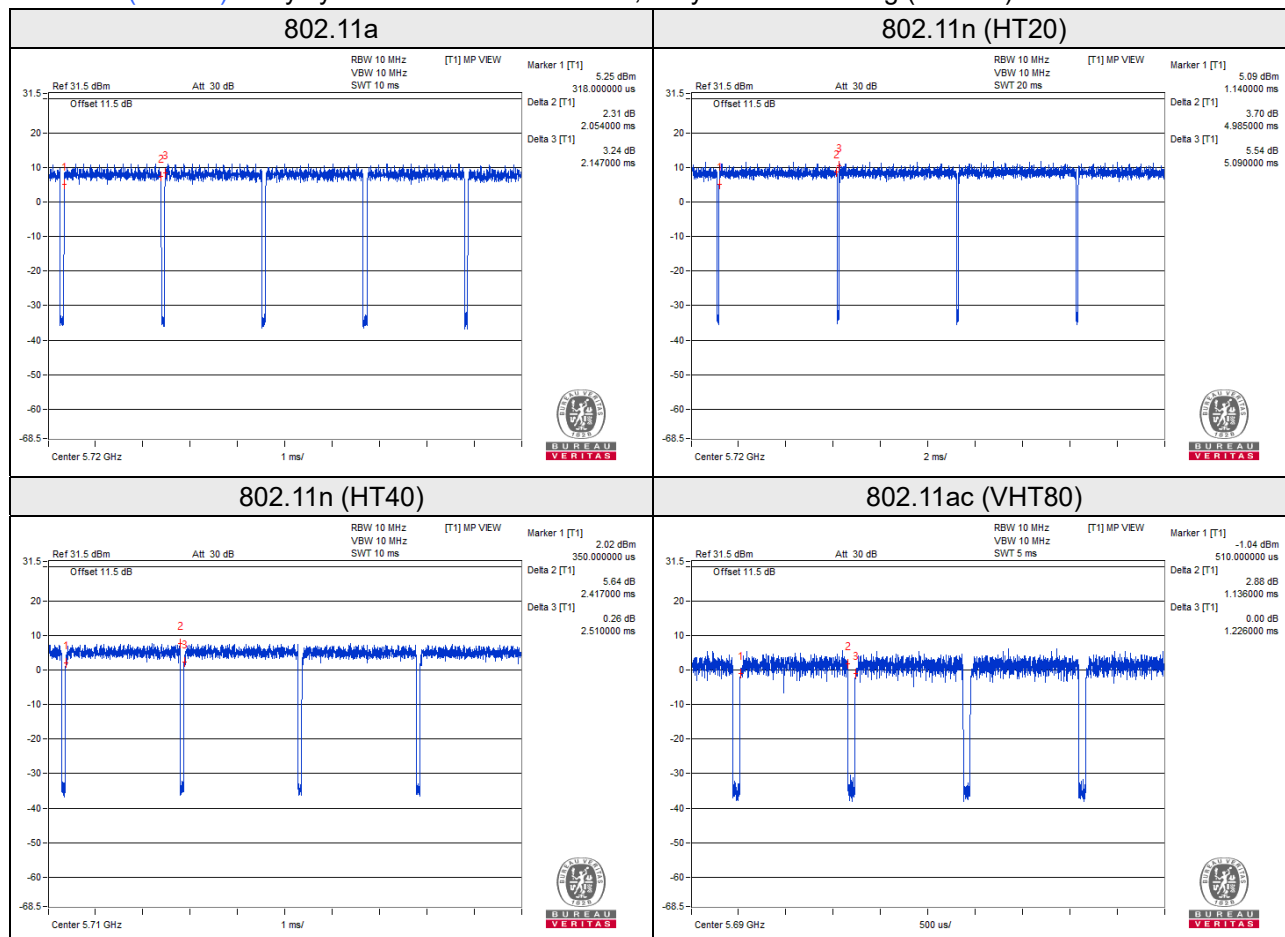
Duty cycle of test signal is < 98%, duty factor is required.

802.11a: Duty cycle = $2.054/2.147 = 0.957$, Duty factor = $10 * \log(1/0.957) = 0.19$

802.11n (HT20): Duty cycle = $4.985/5.090 = 0.979$, Duty factor = $10 * \log(1/0.979) = 0.09$

802.11n (HT40): Duty cycle = $2.417/2.510 = 0.963$, Duty factor = $10 * \log(1/0.963) = 0.16$

802.11ac (VHT80): Duty cycle = $1.136/1.226 = 0.927$, Duty factor = $10 * \log(1/0.927) = 0.33$



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	Lenovo	80Q7	PF0KUGU6	FCC DoC Approved	-

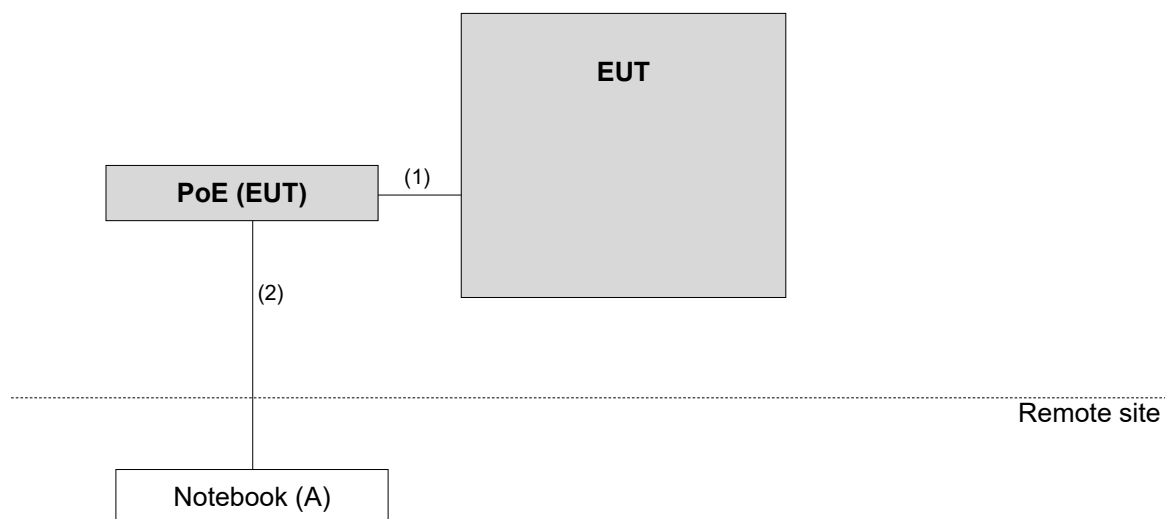
Note:

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

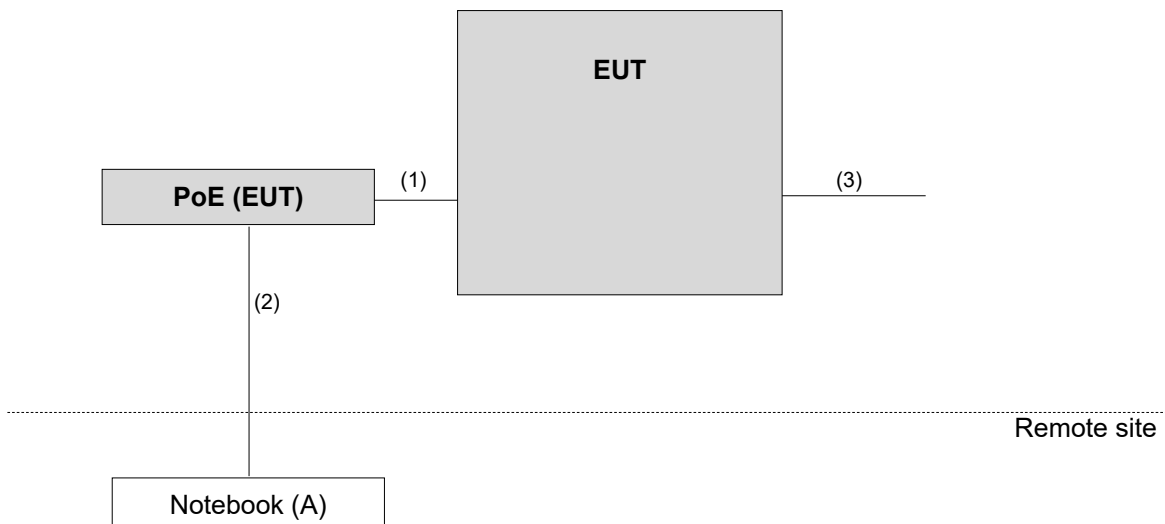
ID	Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	RJ45 Cable	1	1.5	N	0	-
2.	RJ45 Cable	1	6	N	0	-
3.	Ground Cable	1	1.81	N	0	Provided by client

3.4.1 Configuration of System under Test

For AC Power Conducted Emission



For Radiated Emissions



3.5 General Description of Applied Standards and References

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

Test standard:

FCC Part 15, Subpart E (15.407)

ANSI C63.10:2013

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

References Test Guidance:

KDB 789033 D02 General UNII Test Procedure New Rules v02r01

KDB 662911 D01 Multiple Transmitter Output v02r01

All test items have been performed as a reference to the above KDB test guidance.

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:

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

4.1.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Test Receiver ROHDE & SCHWARZ	ESR3	102579	Jun. 27, 2019	Jun. 26, 2020
BILOG Antenna SCHWARZBECK	VULB9168	9168-171	Nov. 11, 2019	Nov. 10, 2020
HORN Antenna SCHWARZBECK	9120D	209	Nov. 24, 2019	Nov. 23, 2020
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170241	Nov. 24, 2019	Nov. 23, 2020
Loop Antenna TESEQ	HLA 6121	45745	Jul. 01, 2019	Jun. 30, 2020
Preamplifier Agilent (Below 1GHz)	8447D	2944A10738	Aug. 20, 2019	Aug. 19, 2020
Preamplifier Agilent (Above 1GHz)	8449B	3008A02367	Feb. 18, 2020	Feb. 17, 2021
RF Coaxial Cable WOKEN With 5dB PAD	8D-FB	Cable-CH3-01	Aug. 20, 2019	Aug. 19, 2020
RF signal cable HUBER+SUHNER	SUCOFLEX 104	Cable-CH3-03 (223653/4)	Aug. 20, 2019	Aug. 19, 2020
RF signal cable HUBER+SUHNER& EMCI	SUCOFLEX 104&EMC104-SM-S M-8000	Cable-CH3-03 (309224+170907)	Aug. 20, 2019	Aug. 19, 2020
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
Boresight Antenna Fixture	FBA-01	FBA-SIP01	NA	NA
Pre-amplifier (18GHz-40GHz) EMC	EMC184045B	980175	Sep. 05, 2019	Sep. 04, 2020
USB Wideband Power Sensor KEYSIGHT	U2021XA	MY55050005/MY5519 0004/MY55190007/MY 55210005	Jul. 15, 2019	Jul. 14, 2020

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.

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:

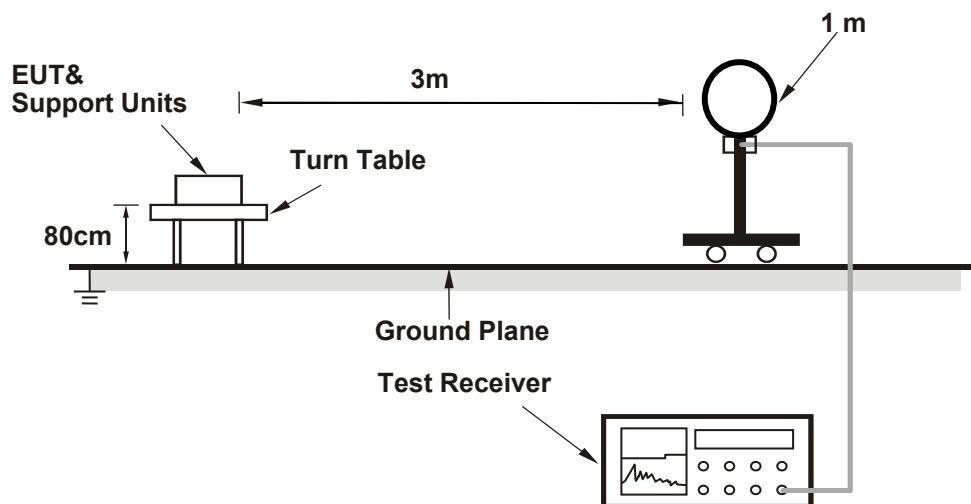
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is $\geq 1/T$ (Duty cycle < 98%) or 10Hz (Duty cycle $\geq 98\%$) for Average detection (AV) at frequency above 1GHz. (802.11a: RBW = 1MHz, VBW = 1kHz; 802.11n (HT20): RBW = 1MHz, VBW = 10Hz; 802.11n (HT40): RBW = 1MHz, VBW = 1kHz; 802.11ac (VHT80): RBW = 1MHz, VBW = 1kHz)
4. All modes of operation were investigated and the worst-case emissions are reported.

4.1.4 Deviation from Test Standard

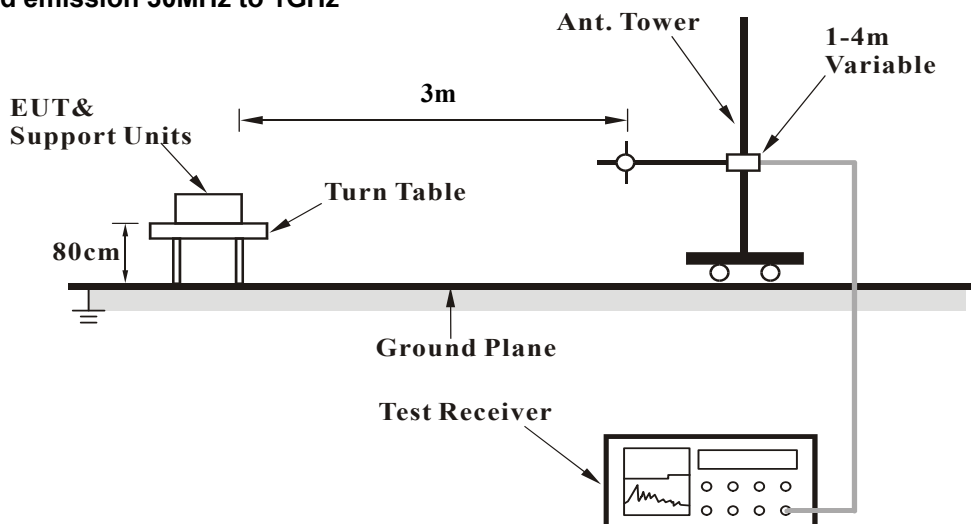
No deviation.

4.1.5 Test Setup

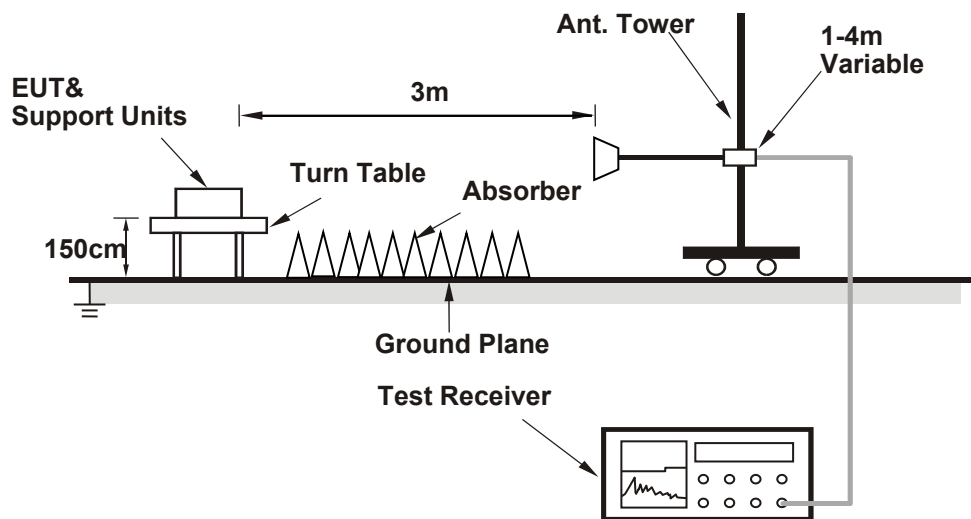
For Radiated emission below 30MHz



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

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

4.1.7 Test Results

Test Mode A

802.11a

CHANNEL	TX Channel 52	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5120.00	57.1 PK	74.0	-16.9	1.70 H	346	53.1	4.0
2	5120.00	44.3 AV	54.0	-9.7	1.70 H	346	40.3	4.0
3	5150.00	57.1 PK	74.0	-16.9	1.70 H	346	53.0	4.1
4	5150.00	44.3 AV	54.0	-9.7	1.70 H	346	40.2	4.1
5	*5260.00	114.3 PK			1.70 H	346	75.3	39.0
6	*5260.00	102.7 AV			1.70 H	346	63.7	39.0
7	#10520.00	59.8 PK	68.2	-8.4	1.79 H	299	41.5	18.3
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5136.00	57.3 PK	74.0	-16.7	1.67 V	352	53.3	4.0
2	5136.00	46.0 AV	54.0	-8.0	1.67 V	352	42.0	4.0
3	5150.00	57.3 PK	74.0	-16.7	1.67 V	352	53.2	4.1
4	5150.00	44.4 AV	54.0	-9.6	1.67 V	352	40.3	4.1
5	*5260.00	115.3 PK			1.67 V	352	76.3	39.0
6	*5260.00	104.7 AV			1.67 V	352	65.7	39.0
7	#10520.00	60.2 PK	68.2	-8.0	1.88 V	313	41.9	18.3

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB).
3. Margin value = Emission Level – Limit value.
4. The other emission levels were very low against the limit.
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	114.7 PK			1.75 H	341	75.6	39.1
2	*5300.00	104.4 AV			1.75 H	341	65.3	39.1
3	10600.00	60.4 PK	74.0	-13.6	1.82 H	298	41.5	18.9
4	10600.00	47.2 AV	54.0	-6.8	1.82 H	298	28.3	18.9
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	*5300.00	115.8 PK			1.70 V	346	76.7	39.1
2	*5300.00	105.5 AV			1.70 V	346	66.4	39.1
3	10600.00	60.9 PK	74.0	-13.1	1.89 V	319	42.0	18.9
4	10600.00	47.4 AV	54.0	-6.6	1.89 V	319	28.5	18.9

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. Margin value = Emission Level – Limit value.
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

CHANNEL	TX Channel 64	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	114.7 PK			1.65 H	349	75.5	39.2
2	*5320.00	103.2 AV			1.65 H	349	64.0	39.2
3	5350.00	57.4 PK	74.0	-16.6	1.65 H	349	53.3	4.1
4	5350.00	44.2 AV	54.0	-9.8	1.65 H	349	40.1	4.1
5	5376.00	57.6 PK	74.0	-16.4	1.65 H	349	53.4	4.2
6	5376.00	44.4 AV	54.0	-9.6	1.65 H	349	40.2	4.2
7	10640.00	60.5 PK	74.0	-13.5	1.85 H	293	41.9	18.6
8	10640.00	47.1 AV	54.0	-6.9	1.85 H	293	28.5	18.6
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	116.1 PK			1.71 V	348	76.9	39.2
2	*5320.00	105.4 AV			1.71 V	348	66.2	39.2
3	5350.00	60.2 PK	74.0	-13.8	1.71 V	348	56.1	4.1
4	5350.00	48.4 AV	54.0	-5.6	1.71 V	348	44.3	4.1
5	5376.00	62.0 PK	74.0	-12.0	1.71 V	348	57.8	4.2
6	5376.00	50.7 AV	54.0	-3.3	1.71 V	348	46.5	4.2
7	10640.00	60.6 PK	74.0	-13.4	1.91 V	303	42.0	18.6
8	10640.00	47.2 AV	54.0	-6.8	1.91 V	303	28.6	18.6

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	57.7 PK	74.0	-16.3	1.71 H	359	53.2	4.5
2	5460.00	46.4 AV	54.0	-7.6	1.71 H	359	41.9	4.5
3	#5470.00	59.2 PK	68.2	-9.0	1.71 H	359	54.7	4.5
4	*5500.00	115.5 PK			1.71 H	359	75.8	39.7
5	*5500.00	104.5 AV			1.71 H	359	64.8	39.7
6	11000.00	60.4 PK	74.0	-13.6	1.87 H	301	41.1	19.3
7	11000.00	47.7 AV	54.0	-6.3	1.87 H	301	28.4	19.3
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	58.3 PK	74.0	-15.7	1.70 V	344	53.8	4.5
2	5460.00	46.7 AV	54.0	-7.3	1.70 V	344	42.2	4.5
3	#5470.00	59.7 PK	68.2	-8.5	1.70 V	344	55.2	4.5
4	*5500.00	117.8 PK			1.70 V	344	78.1	39.7
5	*5500.00	106.9 AV			1.70 V	344	67.2	39.7
6	11000.00	60.6 PK	74.0	-13.4	1.97 V	317	41.3	19.3
7	11000.00	48.0 AV	54.0	-6.0	1.97 V	317	28.7	19.3

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB).
3. Margin value = Emission Level – Limit value.
4. The other emission levels were very low against the limit.
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	116.0 PK			1.69 H	357	76.3	39.7
2	*5580.00	104.4 AV			1.69 H	357	64.7	39.7
3	11160.00	60.2 PK	74.0	-13.8	1.82 H	301	41.6	18.6
4	11160.00	46.9 AV	54.0	-7.1	1.82 H	301	28.3	18.6
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5580.00	118.3 PK			1.67 V	341	78.6	39.7
2	*5580.00	106.7 AV			1.67 V	341	67.0	39.7
3	11160.00	60.5 PK	74.0	-13.5	1.86 V	293	41.9	18.6
4	11160.00	47.0 AV	54.0	-7.0	1.86 V	293	28.4	18.6

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	114.3 PK			1.71 H	357	74.5	39.8
2	*5700.00	103.1 AV			1.71 H	357	63.3	39.8
3	#5725.00	59.8 PK	68.2	-8.4	1.71 H	357	55.1	4.7
4	11400.00	59.9 PK	74.0	-14.1	1.88 H	317	41.4	18.5
5	11400.00	46.8 AV	54.0	-7.2	1.88 H	317	28.3	18.5
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	116.6 PK			1.67 V	345	76.8	39.8
2	*5700.00	105.5 AV			1.67 V	345	65.7	39.8
3	#5725.00	61.2 PK	68.2	-7.0	1.67 V	345	56.5	4.7
4	11400.00	60.1 PK	74.0	-13.9	1.91 V	303	41.6	18.5
5	11400.00	47.0 AV	54.0	-7.0	1.91 V	303	28.5	18.5

Remarks:

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

802.11n (HT20)

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	5120.00	56.3 PK	74.0	-17.7	1.66 H	350	52.3	4.0
2	5120.00	44.2 AV	54.0	-9.8	1.66 H	350	40.2	4.0
3	5150.00	56.3 PK	74.0	-17.7	1.66 H	350	52.2	4.1
4	5150.00	44.2 AV	54.0	-9.8	1.66 H	350	40.1	4.1
5	*5260.00	113.1 PK			1.66 H	350	74.1	39.0
6	*5260.00	101.3 AV			1.66 H	350	62.3	39.0
7	#10520.00	59.9 PK	68.2	-8.3	1.86 H	296	41.6	18.3
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5136.00	57.4 PK	74.0	-16.6	1.69 V	342	53.4	4.0
2	5136.00	45.6 AV	54.0	-8.4	1.69 V	342	41.6	4.0
3	5150.00	57.2 PK	74.0	-16.8	1.69 V	342	53.1	4.1
4	5150.00	44.3 AV	54.0	-9.7	1.69 V	342	40.2	4.1
5	*5260.00	115.4 PK			1.69 V	342	76.4	39.0
6	*5260.00	103.9 AV			1.69 V	342	64.9	39.0
7	#10520.00	60.3 PK	68.2	-7.9	1.91 V	308	42.0	18.3

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB).
3. Margin value = Emission Level – Limit value.
4. The other emission levels were very low against the limit.
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	113.8 PK			1.69 H	346	74.7	39.1
2	*5300.00	102.6 AV			1.69 H	346	63.5	39.1
3	10600.00	60.5 PK	74.0	-13.5	1.89 H	299	41.6	18.9
4	10600.00	47.4 AV	54.0	-6.6	1.89 H	299	28.5	18.9
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	*5300.00	116.3 PK			1.71 V	350	77.2	39.1
2	*5300.00	105.0 AV			1.71 V	350	65.9	39.1
3	10600.00	60.7 PK	74.0	-13.3	1.85 V	312	41.8	18.9
4	10600.00	47.5 AV	54.0	-6.5	1.85 V	312	28.6	18.9

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. Margin value = Emission Level – Limit value.
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

CHANNEL	TX Channel 64	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	114.3 PK			1.66 H	345	75.1	39.2
2	*5320.00	102.5 AV			1.66 H	345	63.3	39.2
3	5350.00	57.2 PK	74.0	-16.8	1.66 H	345	53.1	4.1
4	5350.00	43.7 AV	54.0	-10.3	1.66 H	345	39.6	4.1
5	5376.00	57.7 PK	74.0	-16.3	1.66 H	345	53.5	4.2
6	5376.00	44.1 AV	54.0	-9.9	1.66 H	345	39.9	4.2
7	10640.00	60.1 PK	74.0	-13.9	1.95 H	301	41.5	18.6
8	10640.00	46.9 AV	54.0	-7.1	1.95 H	301	28.3	18.6
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	116.4 PK			1.73 V	351	77.2	39.2
2	*5320.00	105.0 AV			1.73 V	351	65.8	39.2
3	5350.00	52.1 PK	74.0	-21.9	1.73 V	351	48.0	4.1
4	5350.00	48.7 AV	54.0	-5.3	1.73 V	351	44.6	4.1
5	5376.00	62.4 PK	74.0	-11.6	1.73 V	351	58.2	4.2
6	5376.00	50.7 AV	54.0	-3.3	1.73 V	351	46.5	4.2
7	10640.00	60.4 PK	74.0	-13.6	1.92 V	308	41.8	18.6
8	10640.00	47.1 AV	54.0	-6.9	1.92 V	308	28.5	18.6

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	58.6 PK	74.0	-15.4	1.68 H	355	54.1	4.5
2	5460.00	45.6 AV	54.0	-8.4	1.68 H	355	41.1	4.5
3	#5470.00	59.5 PK	68.2	-8.7	1.68 H	355	55.0	4.5
4	*5500.00	114.0 PK			1.68 H	355	74.3	39.7
5	*5500.00	102.8 AV			1.68 H	355	63.1	39.7
6	11000.00	60.8 PK	74.0	-13.2	1.97 H	299	41.5	19.3
7	11000.00	47.4 AV	54.0	-6.6	1.97 H	299	28.1	19.3
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	59.8 PK	74.0	-14.2	1.70 V	355	55.3	4.5
2	5460.00	46.7 AV	54.0	-7.3	1.70 V	355	42.2	4.5
3	#5470.00	60.6 PK	68.2	-7.6	1.70 V	355	56.1	4.5
4	*5500.00	116.5 PK			1.70 V	355	76.8	39.7
5	*5500.00	105.2 AV			1.70 V	355	65.5	39.7
6	11000.00	61.1 PK	74.0	-12.9	1.88 V	289	41.8	19.3
7	11000.00	47.6 AV	54.0	-6.4	1.88 V	289	28.3	19.3

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB).
3. Margin value = Emission Level – Limit value.
4. The other emission levels were very low against the limit.
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	114.3 PK			1.73 H	351	74.6	39.7
2	*5580.00	103.0 AV			1.73 H	351	63.3	39.7
3	11160.00	60.3 PK	74.0	-13.7	1.89 H	308	41.7	18.6
4	11160.00	47.1 AV	54.0	-6.9	1.89 H	308	28.5	18.6
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5580.00	116.7 PK			1.69 V	342	77.0	39.7
2	*5580.00	105.4 AV			1.69 V	342	65.7	39.7
3	11160.00	60.6 PK	74.0	-13.4	1.95 V	293	42.0	18.6
4	11160.00	47.3 AV	54.0	-6.7	1.95 V	293	28.7	18.6

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	114.2 PK			1.67 H	349	74.4	39.8
2	*5700.00	103.2 AV			1.67 H	349	63.4	39.8
3	#5725.00	58.9 PK	68.2	-9.3	1.67 H	349	54.2	4.7
4	11400.00	60.1 PK	74.0	-13.9	1.94 H	299	41.6	18.5
5	11400.00	47.0 AV	54.0	-7.0	1.94 H	299	28.5	18.5
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	116.6 PK			1.69 V	346	76.8	39.8
2	*5700.00	105.4 AV			1.69 V	346	65.6	39.8
3	#5725.00	60.2 PK	68.2	-8.0	1.69 V	346	55.5	4.7
4	11400.00	60.3 PK	74.0	-13.7	1.87 V	303	41.8	18.5
5	11400.00	47.2 AV	54.0	-6.8	1.87 V	303	28.7	18.5

Remarks:

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

802.11n (HT40)

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	5120.00	57.8 PK	74.0	-16.2	1.65 H	349	53.8	4.0
2	5120.00	46.9 AV	54.0	-7.1	1.65 H	349	42.9	4.0
3	5150.00	56.1 PK	74.0	-17.9	1.65 H	349	52.0	4.1
4	5150.00	44.9 AV	54.0	-9.1	1.65 H	349	40.8	4.1
5	*5270.00	110.1 PK			1.65 H	349	71.0	39.1
6	*5270.00	99.2 AV			1.65 H	349	60.1	39.1
7	#10540.00	60.0 PK	68.2	-8.2	1.94 H	302	41.5	18.5
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5136.00	59.7 PK	74.0	-14.3	1.71 V	352	55.7	4.0
2	5136.00	49.9 AV	54.0	-4.1	1.71 V	352	45.9	4.0
3	5150.00	56.7 PK	74.0	-17.3	1.71 V	352	52.6	4.1
4	5150.00	46.1 AV	54.0	-7.9	1.71 V	352	42.0	4.1
5	*5270.00	112.3 PK			1.71 V	352	73.2	39.1
6	*5270.00	101.5 AV			1.71 V	352	62.4	39.1
7	#10540.00	60.4 PK	68.2	-7.8	1.82 V	315	41.9	18.5

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB).
3. Margin value = Emission Level – Limit value.
4. The other emission levels were very low against the limit.
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	110.7 PK			1.68 H	350	71.5	39.2
2	*5310.00	99.8 AV			1.68 H	350	60.6	39.2
3	5350.00	59.6 PK	74.0	-14.4	1.68 H	350	55.5	4.1
4	5350.00	46.7 AV	54.0	-7.3	1.68 H	350	42.6	4.1
5	5376.00	60.2 PK	74.0	-13.8	1.68 H	350	56.0	4.2
6	5376.00	47.3 AV	54.0	-6.7	1.68 H	350	43.1	4.2
7	10620.00	60.1 PK	74.0	-13.9	1.88 H	297	41.3	18.8
8	10620.00	47.1 AV	54.0	-6.9	1.88 H	297	28.3	18.8
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5310.00	113.0 PK			1.70 V	352	73.8	39.2
2	*5310.00	102.5 AV			1.70 V	352	63.3	39.2
3	5350.00	62.9 PK	74.0	-11.1	1.70 V	352	58.8	4.1
4	5350.00	51.0 AV	54.0	-3.0	1.70 V	352	46.9	4.1
5	5376.00	63.4 PK	74.0	-10.6	1.70 V	352	59.2	4.2
6	5376.00	51.7 AV	54.0	-2.3	1.70 V	352	47.5	4.2
7	10620.00	60.3 PK	74.0	-13.7	1.90 V	300	41.5	18.8
8	10620.00	47.3 AV	54.0	-6.7	1.90 V	300	28.5	18.8

Remarks:

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

CHANNEL	TX Channel 102	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	59.5 PK	74.0	-14.5	1.66 H	357	55.0	4.5
2	5460.00	46.1 AV	54.0	-7.9	1.66 H	357	41.6	4.5
3	#5470.00	59.6 PK	68.2	-8.6	1.66 H	357	55.1	4.5
4	*5510.00	110.8 PK			1.66 H	357	71.1	39.7
5	*5510.00	100.9 AV			1.66 H	357	61.2	39.7
6	11020.00	60.6 PK	74.0	-13.4	1.91 H	301	41.5	19.1
7	11020.00	47.6 AV	54.0	-6.4	1.91 H	301	28.5	19.1
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	60.7 PK	74.0	-13.3	1.70 V	342	56.2	4.5
2	5460.00	47.5 AV	54.0	-6.5	1.70 V	342	43.0	4.5
3	#5470.00	60.9 PK	68.2	-7.3	1.70 V	342	56.4	4.5
4	*5510.00	113.0 PK			1.70 V	342	73.3	39.7
5	*5510.00	103.1 AV			1.70 V	342	63.4	39.7
6	11020.00	61.0 PK	74.0	-13.0	1.97 V	298	41.9	19.1
7	11020.00	47.9 AV	54.0	-6.1	1.97 V	298	28.8	19.1

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. Margin value = Emission Level – Limit value.
4. The other emission levels were very low against the limit.
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	111.8 PK			1.71 H	356	72.1	39.7
2	*5550.00	101.4 AV			1.71 H	356	61.7	39.7
3	11100.00	59.9 PK	74.0	-14.1	1.97 H	302	41.3	18.6
4	11100.00	46.9 AV	54.0	-7.1	1.97 H	302	28.3	18.6
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5550.00	114.0 PK			1.69 V	341	74.3	39.7
2	*5550.00	103.6 AV			1.69 V	341	63.9	39.7
3	11100.00	60.2 PK	74.0	-13.8	1.88 V	317	41.6	18.6
4	11100.00	47.1 AV	54.0	-6.9	1.88 V	317	28.5	18.6

Remarks:

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

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	111.1 PK			1.71 H	1	71.3	39.8
2	*5670.00	100.8 AV			1.71 H	1	61.0	39.8
3	#5725.00	57.8 PK	68.2	-10.4	1.71 H	1	53.1	4.7
4	11340.00	60.1 PK	74.0	-13.9	1.94 H	297	41.4	18.7
5	11340.00	47.0 AV	54.0	-7.0	1.94 H	297	28.3	18.7
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5670.00	113.1 PK			1.69 V	343	73.3	39.8
2	*5670.00	102.8 AV			1.69 V	343	63.0	39.8
3	#5725.00	59.4 PK	68.2	-8.8	1.69 V	343	54.7	4.7
4	11340.00	60.6 PK	74.0	-13.4	1.86 V	303	41.9	18.7
5	11340.00	47.3 AV	54.0	-6.7	1.86 V	303	28.6	18.7

Remarks:

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

802.11ac (VHT80)

CHANNEL	TX Channel 58	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5120.00	56.6 PK	74.0	-17.4	1.66 H	355	52.6	4.0
2	5120.00	44.2 AV	54.0	-9.8	1.66 H	355	40.2	4.0
3	5150.00	55.6 PK	74.0	-18.4	1.66 H	355	51.5	4.1
4	5150.00	43.4 AV	54.0	-10.6	1.66 H	355	39.3	4.1
5	*5290.00	106.7 PK			1.66 H	355	67.6	39.1
6	*5290.00	96.1 AV			1.66 H	355	57.0	39.1
7	5350.00	60.5 PK	74.0	-13.5	1.66 H	355	56.4	4.1
8	5350.00	47.9 AV	54.0	-6.1	1.66 H	355	43.8	4.1
9	#10580.00	60.4 PK	68.2	-7.8	1.86 H	293	41.6	18.8
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5136.00	59.7 PK	74.0	-14.3	1.69 V	353	55.7	4.0
2	5136.00	49.8 AV	54.0	-4.2	1.69 V	353	45.8	4.0
3	5150.00	57.6 PK	74.0	-16.4	1.69 V	353	53.5	4.1
4	5150.00	46.7 AV	54.0	-7.3	1.69 V	353	42.6	4.1
5	*5290.00	109.4 PK			1.69 V	353	70.3	39.1
6	*5290.00	99.0 AV			1.69 V	353	59.9	39.1
7	5350.00	64.1 PK	74.0	-9.9	1.69 V	353	60.0	4.1
8	5350.00	52.8 AV	54.0	-1.2	1.69 V	353	48.7	4.1
9	#10580.00	60.7 PK	68.2	-7.5	1.93 V	302	41.9	18.8

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB).
3. Margin value = Emission Level – Limit value.
4. The other emission levels were very low against the limit.
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	60.3 PK	74.0	-13.7	1.69 H	358	55.8	4.5
2	5460.00	47.6 AV	54.0	-6.4	1.69 H	358	43.1	4.5
3	#5470.00	60.7 PK	68.2	-7.5	1.69 H	358	56.2	4.5
4	*5530.00	108.0 PK			1.69 H	358	68.3	39.7
5	*5530.00	97.8 AV			1.69 H	358	58.1	39.7
6	#5725.00	58.8 PK	68.2	-9.4	1.69 H	358	54.1	4.7
7	11060.00	60.3 PK	74.0	-13.7	1.95 H	304	41.4	18.9
8	11060.00	47.0 AV	54.0	-7.0	1.95 H	304	28.1	18.9
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	62.2 PK	74.0	-11.8	1.70 V	346	57.7	4.5
2	5460.00	49.7 AV	54.0	-4.3	1.70 V	346	45.2	4.5
3	#5470.00	62.7 PK	68.2	-5.5	1.70 V	346	58.2	4.5
4	*5530.00	110.3 PK			1.70 V	346	70.6	39.7
5	*5530.00	100.2 AV			1.70 V	346	60.5	39.7
6	#5725.00	59.7 PK	68.2	-8.5	1.70 V	346	55.0	4.7
7	11060.00	60.5 PK	74.0	-13.5	1.88 V	289	41.6	18.9
8	11060.00	47.3 AV	54.0	-6.7	1.88 V	289	28.4	18.9

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. Margin value = Emission Level – Limit value.
4. The other emission levels were very low against the limit.
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	56.5 PK	74.0	-17.5	1.68 H	3	52.0	4.5
2	5460.00	43.6 AV	54.0	-10.4	1.68 H	3	39.1	4.5
3	#5470.00	57.5 PK	68.2	-10.7	1.68 H	3	53.0	4.5
4	*5610.00	108.6 PK			1.68 H	3	68.8	39.8
5	*5610.00	98.0 AV			1.68 H	3	58.2	39.8
6	#5725.00	59.4 PK	68.2	-8.8	1.68 H	3	54.7	4.7
7	11220.00	60.4 PK	74.0	-13.6	1.82 H	300	41.7	18.7
8	11220.00	47.1 AV	54.0	-6.9	1.82 H	300	28.4	18.7
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	56.7 PK	74.0	-17.3	1.68 V	342	52.2	4.5
2	5460.00	43.9 AV	54.0	-10.1	1.68 V	342	39.4	4.5
3	#5470.00	57.9 PK	68.2	-10.3	1.68 V	342	53.4	4.5
4	*5610.00	110.4 PK			1.68 V	342	70.6	39.8
5	*5610.00	100.3 AV			1.68 V	342	60.5	39.8
6	#5725.00	60.5 PK	68.2	-7.7	1.68 V	342	55.8	4.7
7	11220.00	60.7 PK	74.0	-13.3	1.94 V	297	42.0	18.7
8	11220.00	47.4 AV	54.0	-6.6	1.94 V	297	28.7	18.7

Remarks:

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

Test Mode B

802.11a

CHANNEL	TX Channel 52	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5137.00	56.4 PK	74.0	-17.6	1.75 H	267	52.4	4.0
2	5137.00	44.9 AV	54.0	-9.1	1.75 H	267	40.9	4.0
3	5150.00	56.8 PK	74.0	-17.2	1.75 H	267	52.7	4.1
4	5150.00	45.3 AV	54.0	-8.7	1.75 H	267	41.2	4.1
5	*5260.00	117.4 PK			1.75 H	267	78.4	39.0
6	*5260.00	105.7 AV			1.75 H	267	66.7	39.0
7	#10520.00	60.9 PK	68.2	-7.3	1.97 H	202	42.6	18.3
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5137.00	57.0 PK	74.0	-17.0	1.90 V	200	53.0	4.0
2	5137.00	46.5 AV	54.0	-7.5	1.90 V	200	42.5	4.0
3	5150.00	55.6 PK	74.0	-18.4	1.90 V	200	51.5	4.1
4	5150.00	44.1 AV	54.0	-9.9	1.90 V	200	40.0	4.1
5	*5260.00	114.1 PK			1.90 V	200	75.1	39.0
6	*5260.00	103.6 AV			1.90 V	200	64.6	39.0
7	#10520.00	60.5 PK	68.2	-7.7	3.00 V	152	42.2	18.3

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB).
3. Margin value = Emission Level – Limit value.
4. The other emission levels were very low against the limit.
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	117.8 PK			1.78 H	268	78.7	39.1
2	*5300.00	106.1 AV			1.78 H	268	67.0	39.1
3	10600.00	62.3 PK	74.0	-11.7	1.89 H	197	43.4	18.9
4	10600.00	48.4 AV	54.0	-5.6	1.89 H	197	29.5	18.9
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	*5300.00	114.8 PK			1.93 V	201	75.7	39.1
2	*5300.00	104.2 AV			1.93 V	201	65.1	39.1
3	10600.00	60.9 PK	74.0	-13.1	3.02 V	161	42.0	18.9
4	10600.00	47.9 AV	54.0	-6.1	3.02 V	161	29.0	18.9

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. Margin value = Emission Level – Limit value.
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

CHANNEL	TX Channel 64	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	117.9 PK			1.82 H	268	78.7	39.2
2	*5320.00	106.6 AV			1.82 H	268	67.4	39.2
3	5350.00	62.9 PK	74.0	-11.1	1.82 H	268	58.8	4.1
4	5350.00	48.7 AV	54.0	-5.3	1.82 H	268	44.6	4.1
5	10640.00	61.1 PK	74.0	-12.9	1.98 H	221	42.5	18.6
6	10640.00	48.1 AV	54.0	-5.9	1.98 H	221	29.5	18.6
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	115.6 PK			1.92 V	199	76.4	39.2
2	*5320.00	104.4 AV			1.92 V	199	65.2	39.2
3	5350.00	61.2 PK	74.0	-12.8	1.92 V	199	57.1	4.1
4	5350.00	47.4 AV	54.0	-6.6	1.92 V	199	43.3	4.1
5	10640.00	60.7 PK	74.0	-13.3	3.02 V	163	42.1	18.6
6	10640.00	47.7 AV	54.0	-6.3	3.02 V	163	29.1	18.6

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	59.4 PK	74.0	-14.6	1.85 H	278	54.9	4.5
2	5460.00	46.5 AV	54.0	-7.5	1.85 H	278	42.0	4.5
3	#5470.00	60.2 PK	68.2	-8.0	1.85 H	278	55.7	4.5
4	*5500.00	116.7 PK			1.85 H	278	77.0	39.7
5	*5500.00	105.2 AV			1.85 H	278	65.5	39.7
6	11000.00	60.8 PK	74.0	-13.2	2.14 H	222	41.5	19.3
7	11000.00	47.6 AV	54.0	-6.4	2.14 H	222	28.3	19.3
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	58.6 PK	74.0	-15.4	1.73 V	27	54.1	4.5
2	5460.00	45.3 AV	54.0	-8.7	1.73 V	27	40.8	4.5
3	#5470.00	59.2 PK	68.2	-9.0	1.73 V	27	54.7	4.5
4	*5500.00	115.2 PK			1.73 V	27	75.5	39.7
5	*5500.00	104.1 AV			1.73 V	27	64.4	39.7
6	11000.00	60.9 PK	74.0	-13.1	2.85 V	188	41.6	19.3
7	11000.00	47.5 AV	54.0	-6.5	2.85 V	188	28.2	19.3

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB).
3. Margin value = Emission Level – Limit value.
4. The other emission levels were very low against the limit.
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	114.7 PK			1.71 H	267	75.0	39.7
2	*5580.00	103.1 AV			1.71 H	267	63.4	39.7
3	11160.00	60.3 PK	74.0	-13.7	2.09 H	213	41.7	18.6
4	11160.00	46.8 AV	54.0	-7.2	2.09 H	213	28.2	18.6
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5580.00	113.7 PK			1.72 V	17	74.0	39.7
2	*5580.00	102.6 AV			1.72 V	17	62.9	39.7
3	11160.00	60.1 PK	74.0	-13.9	2.79 V	171	41.5	18.6
4	11160.00	46.6 AV	54.0	-7.4	2.79 V	171	28.0	18.6

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	116.0 PK			1.74 H	273	76.2	39.8
2	*5700.00	104.5 AV			1.74 H	273	64.7	39.8
3	#5725.00	62.0 PK	68.2	-6.2	1.74 H	273	57.3	4.7
4	11400.00	60.5 PK	74.0	-13.5	1.99 H	201	42.0	18.5
5	11400.00	47.1 AV	54.0	-6.9	1.99 H	201	28.6	18.5
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	115.3 PK			1.72 V	21	75.5	39.8
2	*5700.00	104.2 AV			1.72 V	21	64.4	39.8
3	#5725.00	61.2 PK	68.2	-7.0	4.00 V	1	56.5	4.7
4	11400.00	60.3 PK	74.0	-13.7	2.69 V	182	41.8	18.5
5	11400.00	46.9 AV	54.0	-7.1	2.69 V	182	28.4	18.5

Remarks:

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

802.11n (HT20)

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	5137.00	56.0 PK	74.0	-18.0	1.78 H	271	52.0	4.0
2	5137.00	43.8 AV	54.0	-10.2	1.78 H	271	39.8	4.0
3	5150.00	56.4 PK	74.0	-17.6	1.78 H	271	52.3	4.1
4	5150.00	44.0 AV	54.0	-10.0	1.78 H	271	39.9	4.1
5	*5260.00	116.5 PK			1.78 H	271	77.5	39.0
6	*5260.00	104.7 AV			1.78 H	271	65.7	39.0
7	#10520.00	60.3 PK	68.2	-7.9	1.96 H	197	42.0	18.3
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5137.00	56.3 PK	74.0	-17.7	1.78 V	10	52.3	4.0
2	5137.00	44.6 AV	54.0	-9.4	1.78 V	10	40.6	4.0
3	5150.00	56.2 PK	74.0	-17.8	1.78 V	10	52.1	4.1
4	5150.00	43.9 AV	54.0	-10.1	1.78 V	10	39.8	4.1
5	*5260.00	114.0 PK			1.78 V	10	75.0	39.0
6	*5260.00	102.8 AV			1.78 V	10	63.8	39.0
7	#10520.00	60.0 PK	68.2	-8.2	2.85 V	175	41.7	18.3

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB).
3. Margin value = Emission Level – Limit value.
4. The other emission levels were very low against the limit.
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	117.4 PK			1.78 H	265	78.3	39.1
2	*5300.00	105.8 AV			1.78 H	265	66.7	39.1
3	10600.00	61.7 PK	74.0	-12.3	2.03 H	201	42.8	18.9
4	10600.00	47.5 AV	54.0	-6.5	2.03 H	201	28.6	18.9
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	*5300.00	115.0 PK			1.75 V	19	75.9	39.1
2	*5300.00	103.5 AV			1.75 V	19	64.4	39.1
3	10600.00	62.0 PK	74.0	-12.0	2.91 V	181	43.1	18.9
4	10600.00	47.8 AV	54.0	-6.2	2.91 V	181	28.9	18.9

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. Margin value = Emission Level – Limit value.
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

CHANNEL	TX Channel 64	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	117.2 PK			1.74 H	289	78.0	39.2
2	*5320.00	104.8 AV			1.74 H	289	65.6	39.2
3	5350.00	62.7 PK	74.0	-11.3	1.74 H	289	58.6	4.1
4	5350.00	48.5 AV	54.0	-5.5	1.74 H	289	44.4	4.1
5	10640.00	60.2 PK	74.0	-13.8	2.91 H	169	41.6	18.6
6	10640.00	47.1 AV	54.0	-6.9	2.91 H	169	28.5	18.6
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	115.1 PK			1.78 V	17	75.9	39.2
2	*5320.00	103.6 AV			1.78 V	17	64.4	39.2
3	5350.00	62.5 PK	74.0	-11.5	1.78 V	17	58.4	4.1
4	5350.00	48.3 AV	54.0	-5.7	1.78 V	17	44.2	4.1
5	10640.00	60.4 PK	74.0	-13.6	2.88 V	179	41.8	18.6
6	10640.00	47.3 AV	54.0	-6.7	2.88 V	179	28.7	18.6

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	60.5 PK	74.0	-13.5	1.95 H	273	56.0	4.5
2	5460.00	45.0 AV	54.0	-9.0	1.95 H	273	40.5	4.5
3	#5470.00	61.2 PK	68.2	-7.0	1.95 H	273	56.7	4.5
4	*5500.00	116.5 PK			1.95 H	273	76.8	39.7
5	*5500.00	105.0 AV			1.95 H	273	65.3	39.7
6	11000.00	61.5 PK	74.0	-12.5	2.10 H	203	42.2	19.3
7	11000.00	47.9 AV	54.0	-6.1	2.10 H	203	28.6	19.3
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	59.3 PK	74.0	-14.7	1.80 V	22	54.8	4.5
2	5460.00	44.5 AV	54.0	-9.5	1.80 V	22	40.0	4.5
3	#5470.00	60.4 PK	68.2	-7.8	1.80 V	22	55.9	4.5
4	*5500.00	114.7 PK			1.80 V	22	75.0	39.7
5	*5500.00	103.1 AV			1.80 V	22	63.4	39.7
6	11000.00	61.3 PK	74.0	-12.7	2.73 V	183	42.0	19.3
7	11000.00	47.6 AV	54.0	-6.4	2.73 V	183	28.3	19.3

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB).
3. Margin value = Emission Level – Limit value.
4. The other emission levels were very low against the limit.
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	113.1 PK			1.71 H	271	73.4	39.7
2	*5580.00	101.7 AV			1.71 H	271	62.0	39.7
3	11160.00	60.1 PK	74.0	-13.9	1.98 H	200	41.5	18.6
4	11160.00	46.7 AV	54.0	-7.3	1.98 H	200	28.1	18.6
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5580.00	113.7 PK			1.77 V	21	74.0	39.7
2	*5580.00	102.7 AV			1.77 V	21	63.0	39.7
3	11160.00	60.5 PK	74.0	-13.5	2.69 V	174	41.9	18.6
4	11160.00	47.1 AV	54.0	-6.9	2.69 V	174	28.5	18.6

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	116.4 PK			1.71 H	276	76.6	39.8
2	*5700.00	104.2 AV			1.71 H	276	64.4	39.8
3	#5725.00	61.0 PK	68.2	-7.2	1.71 H	276	56.3	4.7
4	11400.00	60.6 PK	74.0	-13.4	2.08 H	209	42.1	18.5
5	11400.00	47.0 AV	54.0	-7.0	2.08 H	209	28.5	18.5
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	116.5 PK			1.77 V	23	76.7	39.8
2	*5700.00	104.6 AV			1.77 V	23	64.8	39.8
3	#5725.00	61.2 PK	68.2	-7.0	1.77 V	23	56.5	4.7
4	11400.00	60.9 PK	74.0	-13.1	2.80 V	182	42.4	18.5
5	11400.00	47.1 AV	54.0	-6.9	2.80 V	182	28.6	18.5

Remarks:

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

802.11n (HT40)

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	5137.00	46.3 PK	74.0	-27.7	1.75 H	267	42.3	4.0
2	5137.00	43.7 AV	54.0	-10.3	1.75 H	267	39.7	4.0
3	5150.00	46.6 PK	74.0	-27.4	1.75 H	267	42.5	4.1
4	5150.00	44.0 AV	54.0	-10.0	1.75 H	267	39.9	4.1
5	*5270.00	113.4 PK			1.75 H	267	74.3	39.1
6	*5270.00	102.7 AV			1.75 H	267	63.6	39.1
7	#10540.00	61.2 PK	68.2	-7.0	2.02 H	193	42.7	18.5
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5137.00	56.0 PK	74.0	-18.0	1.73 V	15	52.0	4.0
2	5137.00	45.2 AV	54.0	-8.8	1.73 V	15	41.2	4.0
3	5150.00	55.8 PK	74.0	-18.2	1.73 V	15	51.7	4.1
4	5150.00	44.8 AV	54.0	-9.2	1.73 V	15	40.7	4.1
5	*5270.00	110.2 PK			1.73 V	15	71.1	39.1
6	*5270.00	99.9 AV			1.73 V	15	60.8	39.1
7	#10540.00	60.7 PK	68.2	-7.5	2.76 V	192	42.2	18.5

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB).
3. Margin value = Emission Level – Limit value.
4. The other emission levels were very low against the limit.
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	113.4 PK			1.80 H	269	74.2	39.2
2	*5310.00	102.7 AV			1.80 H	269	63.5	39.2
3	5350.00	63.7 PK	74.0	-10.3	1.80 H	269	59.6	4.1
4	5350.00	51.7 AV	54.0	-2.3	1.80 H	269	47.6	4.1
5	10620.00	60.6 PK	74.0	-13.4	1.93 H	207	41.8	18.8
6	10620.00	47.0 AV	54.0	-7.0	1.93 H	207	28.2	18.8
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5310.00	111.7 PK			1.78 V	17	72.5	39.2
2	*5310.00	101.1 AV			1.78 V	17	61.9	39.2
3	5350.00	62.8 PK	74.0	-11.2	1.78 V	17	58.7	4.1
4	5350.00	49.1 AV	54.0	-4.9	1.78 V	17	45.0	4.1
5	10620.00	60.3 PK	74.0	-13.7	2.81 V	177	41.5	18.8
6	10620.00	46.8 AV	54.0	-7.2	2.81 V	177	28.0	18.8

Remarks:

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

CHANNEL	TX Channel 102	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	60.6 PK	74.0	-13.4	1.90 H	257	56.1	4.5
2	5460.00	47.6 AV	54.0	-6.4	1.90 H	257	43.1	4.5
3	#5470.00	63.5 PK	68.2	-4.7	1.90 H	257	59.0	4.5
4	*5510.00	113.2 PK			1.90 H	257	73.5	39.7
5	*5510.00	102.6 AV			1.90 H	257	62.9	39.7
6	11020.00	60.7 PK	74.0	-13.3	2.14 H	197	41.6	19.1
7	11020.00	47.5 AV	54.0	-6.5	2.14 H	197	28.4	19.1
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	59.7 PK	74.0	-14.3	1.73 V	19	55.2	4.5
2	5460.00	46.2 AV	54.0	-7.8	1.73 V	19	41.7	4.5
3	#5470.00	62.2 PK	68.2	-6.0	1.73 V	19	57.7	4.5
4	*5510.00	111.9 PK			1.73 V	19	72.2	39.7
5	*5510.00	101.4 AV			1.73 V	19	61.7	39.7
6	11020.00	60.6 PK	74.0	-13.4	2.79 V	181	41.5	19.1
7	11020.00	47.3 AV	54.0	-6.7	2.79 V	181	28.2	19.1

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. Margin value = Emission Level – Limit value.
4. The other emission levels were very low against the limit.
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	111.7 PK			1.94 H	264	72.0	39.7
2	*5550.00	101.5 AV			1.94 H	264	61.8	39.7
3	11100.00	60.7 PK	74.0	-13.3	1.89 H	197	42.1	18.6
4	11100.00	47.0 AV	54.0	-7.0	1.89 H	197	28.4	18.6
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5550.00	111.0 PK			1.74 V	19	71.3	39.7
2	*5550.00	100.5 AV			1.74 V	19	60.8	39.7
3	11100.00	60.6 PK	74.0	-13.4	2.82 V	177	42.0	18.6
4	11100.00	46.7 AV	54.0	-7.3	2.82 V	177	28.1	18.6

Remarks:

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

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	112.3 PK			1.69 H	267	72.5	39.8
2	*5670.00	102.0 AV			1.69 H	267	62.2	39.8
3	#5725.00	59.6 PK	68.2	-8.6	1.69 H	267	54.9	4.7
4	11340.00	60.9 PK	74.0	-13.1	1.93 H	204	42.2	18.7
5	11340.00	46.9 AV	54.0	-7.1	1.93 H	204	28.2	18.7
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5670.00	112.1 PK			1.75 V	22	72.3	39.8
2	*5670.00	102.2 AV			1.75 V	22	62.4	39.8
3	#5725.00	59.2 PK	68.2	-9.0	1.75 V	22	54.5	4.7
4	11340.00	60.7 PK	74.0	-13.3	2.70 V	182	42.0	18.7
5	11340.00	46.7 AV	54.0	-7.3	2.70 V	182	28.0	18.7

Remarks:

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

802.11ac (VHT80)

CHANNEL	TX Channel 58	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5137.00	57.6 PK	74.0	-16.4	1.77 H	268	53.6	4.0
2	5137.00	44.7 AV	54.0	-9.3	1.77 H	268	40.7	4.0
3	5150.00	58.2 PK	74.0	-15.8	1.77 H	268	54.1	4.1
4	5150.00	45.8 AV	54.0	-8.2	1.77 H	268	41.7	4.1
5	*5290.00	110.0 PK			1.77 H	268	70.9	39.1
6	*5290.00	99.4 AV			1.77 H	268	60.3	39.1
7	5350.00	65.1 PK	74.0	-8.9	1.77 H	268	61.0	4.1
8	5350.00	52.3 AV	54.0	-1.7	1.77 H	268	48.2	4.1
9	#10580.00	61.2 PK	68.2	-7.0	1.89 H	204	42.4	18.8
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5137.00	57.7 PK	74.0	-16.3	1.73 V	13	53.7	4.0
2	5137.00	45.3 AV	54.0	-8.7	1.73 V	13	41.3	4.0
3	5150.00	57.4 PK	74.0	-16.6	1.73 V	13	53.3	4.1
4	5150.00	44.5 AV	54.0	-9.5	1.73 V	13	40.4	4.1
5	*5290.00	107.9 PK			1.73 V	13	68.8	39.1
6	*5290.00	97.8 AV			1.73 V	13	58.7	39.1
7	5350.00	64.7 PK	74.0	-9.3	1.73 V	13	60.6	4.1
8	5350.00	50.7 AV	54.0	-3.3	1.73 V	13	46.6	4.1
9	#10580.00	60.9 PK	68.2	-7.3	2.79 V	180	42.1	18.8

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB).
3. Margin value = Emission Level – Limit value.
4. The other emission levels were very low against the limit.
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	62.0 PK	74.0	-12.0	1.92 H	275	57.5	4.5
2	5460.00	48.8 AV	54.0	-5.2	1.92 H	275	44.3	4.5
3	#5470.00	63.9 PK	68.2	-4.3	1.92 H	275	59.4	4.5
4	*5530.00	108.5 PK			1.92 H	275	68.8	39.7
5	*5530.00	98.2 AV			1.92 H	275	58.5	39.7
6	#5725.00	56.9 PK	68.2	-11.3	1.92 H	275	52.2	4.7
7	11060.00	61.1 PK	74.0	-12.9	1.95 H	205	42.2	18.9
8	11060.00	47.3 AV	54.0	-6.7	1.95 H	205	28.4	18.9
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	60.6 PK	74.0	-13.4	1.72 V	17	56.1	4.5
2	5460.00	47.6 AV	54.0	-6.4	1.72 V	17	43.1	4.5
3	#5470.00	62.7 PK	68.2	-5.5	1.72 V	17	58.2	4.5
4	*5530.00	107.5 PK			1.72 V	17	67.8	39.7
5	*5530.00	97.4 AV			1.72 V	17	57.7	39.7
6	#5725.00	55.6 PK	68.2	-12.6	1.72 V	17	50.9	4.7
7	11060.00	60.9 PK	74.0	-13.1	2.82 V	186	42.0	18.9
8	11060.00	47.1 AV	54.0	-6.9	2.82 V	186	28.2	18.9

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. Margin value = Emission Level – Limit value.
4. The other emission levels were very low against the limit.
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	57.5 PK	74.0	-16.5	1.70 H	266	53.0	4.5
2	5460.00	45.4 AV	54.0	-8.6	1.70 H	266	40.9	4.5
3	#5470.00	59.1 PK	68.2	-9.1	1.70 H	266	54.6	4.5
4	*5610.00	108.3 PK			1.70 H	266	68.5	39.8
5	*5610.00	96.9 AV			1.70 H	266	57.1	39.8
6	#5725.00	60.5 PK	68.2	-7.7	1.70 H	266	55.8	4.7
7	11220.00	61.0 PK	74.0	-13.0	1.94 H	189	42.3	18.7
8	11220.00	47.3 AV	54.0	-6.7	1.94 H	189	28.6	18.7
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	57.1 PK	74.0	-16.9	1.72 V	16	52.6	4.5
2	5460.00	45.1 AV	54.0	-8.9	1.72 V	16	40.6	4.5
3	#5470.00	58.7 PK	68.2	-9.5	1.72 V	16	54.2	4.5
4	*5610.00	108.2 PK			1.72 V	16	68.4	39.8
5	*5610.00	97.8 AV			1.72 V	16	58.0	39.8
6	#5725.00	61.9 PK	68.2	-6.3	1.72 V	16	57.2	4.7
7	11220.00	61.1 PK	74.0	-12.9	2.66 V	179	42.4	18.7
8	11220.00	47.4 AV	54.0	-6.6	2.66 V	179	28.7	18.7

Remarks:

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

Test Mode C

802.11a

CHANNEL	TX Channel 52	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4822.00	55.1 PK	74.0	-18.9	1.72 H	349	52.4	2.7
2	4822.00	43.5 AV	54.0	-10.5	1.72 H	349	40.8	2.7
3	5150.00	55.4 PK	74.0	-18.6	1.72 H	349	51.3	4.1
4	5150.00	44.5 AV	54.0	-9.5	1.72 H	349	40.4	4.1
5	*5260.00	115.5 PK			1.72 H	349	76.5	39.0
6	*5260.00	104.1 AV			1.72 H	349	65.1	39.0
7	#10520.00	59.3 PK	68.2	-8.9	3.12 H	211	41.0	18.3
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4992.00	56.4 PK	74.0	-17.6	1.70 V	350	52.7	3.7
2	4992.00	48.6 AV	54.0	-5.4	1.70 V	350	44.9	3.7
3	5150.00	55.6 PK	74.0	-18.4	1.70 V	350	51.5	4.1
4	5150.00	44.6 AV	54.0	-9.4	1.70 V	350	40.5	4.1
5	*5260.00	114.7 PK			1.70 V	350	75.7	39.0
6	*5260.00	104.2 AV			1.70 V	350	65.2	39.0
7	#10520.00	60.0 PK	68.2	-8.2	3.02 V	144	41.7	18.3

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB).
3. Margin value = Emission Level – Limit value.
4. The other emission levels were very low against the limit.
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	115.2 PK			1.71 H	349	76.1	39.1
2	*5300.00	103.5 AV			1.71 H	349	64.4	39.1
3	10600.00	60.4 PK	74.0	-13.6	3.08 H	211	41.5	18.9
4	10600.00	48.0 AV	54.0	-6.0	3.08 H	211	29.1	18.9
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	*5300.00	115.0 PK			1.77 V	349	75.9	39.1
2	*5300.00	104.1 AV			1.77 V	349	65.0	39.1
3	10600.00	60.3 PK	74.0	-13.7	3.05 V	151	41.4	18.9
4	10600.00	47.9 AV	54.0	-6.1	3.05 V	151	29.0	18.9

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. Margin value = Emission Level – Limit value.
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

CHANNEL	TX Channel 64	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	114.5 PK			1.71 H	350	75.3	39.2
2	*5320.00	103.4 AV			1.71 H	350	64.2	39.2
3	5350.00	58.8 PK	74.0	-15.2	1.71 H	350	54.7	4.1
4	5350.00	46.0 AV	54.0	-8.0	1.71 H	350	41.9	4.1
5	10640.00	60.3 PK	74.0	-13.7	3.09 H	212	41.7	18.6
6	10640.00	47.6 AV	54.0	-6.4	3.09 H	212	29.0	18.6
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	115.0 PK			1.69 V	348	75.8	39.2
2	*5320.00	104.3 AV			1.69 V	348	65.1	39.2
3	5350.00	55.3 PK	74.0	-18.7	1.69 V	348	51.2	4.1
4	5350.00	44.5 AV	54.0	-9.5	1.69 V	348	40.4	4.1
5	5375.00	60.0 PK	74.0	-14.0	1.69 V	348	55.8	4.2
6	5375.00	48.8 AV	54.0	-5.2	1.69 V	348	44.6	4.2
7	10640.00	60.4 PK	74.0	-13.6	3.15 V	152	41.8	18.6
8	10640.00	47.7 AV	54.0	-6.3	3.15 V	152	29.1	18.6

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	59.3 PK	74.0	-14.7	1.69 H	351	54.8	4.5
2	5460.00	46.1 AV	54.0	-7.9	1.69 H	351	41.6	4.5
3	#5470.00	59.1 PK	68.2	-9.1	1.69 H	351	54.6	4.5
4	*5500.00	116.6 PK			1.69 H	351	76.9	39.7
5	*5500.00	105.1 AV			1.69 H	351	65.4	39.7
6	11000.00	61.1 PK	74.0	-12.9	3.21 H	233	41.8	19.3
7	11000.00	48.4 AV	54.0	-5.6	3.21 H	233	29.1	19.3
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5424.00	57.7 PK	74.0	-16.3	1.71 V	349	53.3	4.4
2	5424.00	46.6 AV	54.0	-7.4	1.71 V	349	42.2	4.4
3	5460.00	59.5 PK	74.0	-14.5	1.71 V	349	55.0	4.5
4	5460.00	46.0 AV	54.0	-8.0	1.71 V	349	41.5	4.5
5	#5470.00	61.2 PK	68.2	-7.0	1.71 V	349	56.7	4.5
6	*5500.00	116.8 PK			1.71 V	349	77.1	39.7
7	*5500.00	105.5 AV			1.71 V	349	65.8	39.7
8	11000.00	61.2 PK	74.0	-12.8	3.16 V	159	41.9	19.3
9	11000.00	48.4 AV	54.0	-5.6	3.16 V	159	29.1	19.3

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB).
3. Margin value = Emission Level – Limit value.
4. The other emission levels were very low against the limit.
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	116.8 PK			1.68 H	351	77.1	39.7
2	*5580.00	104.7 AV			1.68 H	351	65.0	39.7
3	11160.00	60.4 PK	74.0	-13.6	3.16 H	221	41.8	18.6
4	11160.00	47.7 AV	54.0	-6.3	3.16 H	221	29.1	18.6
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5580.00	117.3 PK			1.73 V	350	77.6	39.7
2	*5580.00	105.9 AV			1.73 V	350	66.2	39.7
3	11160.00	60.5 PK	74.0	-13.5	3.11 V	162	41.9	18.6
4	11160.00	47.6 AV	54.0	-6.4	3.11 V	162	29.0	18.6

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	116.9 PK			1.68 H	349	77.1	39.8
2	*5700.00	105.2 AV			1.68 H	349	65.4	39.8
3	#5725.00	60.8 PK	68.2	-7.4	1.68 H	349	56.1	4.7
4	11400.00	60.3 PK	74.0	-13.7	3.02 H	231	41.8	18.5
5	11400.00	47.6 AV	54.0	-6.4	3.02 H	231	29.1	18.5
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	117.9 PK			1.65 V	350	78.1	39.8
2	*5700.00	106.0 AV			1.65 V	350	66.2	39.8
3	#5725.00	65.1 PK	68.2	-3.1	1.65 V	350	60.4	4.7
4	11400.00	60.5 PK	74.0	-13.5	3.22 V	163	42.0	18.5
5	11400.00	47.6 AV	54.0	-6.4	3.22 V	163	29.1	18.5

Remarks:

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

802.11n (HT20)

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	4822.00	55.6 PK	74.0	-18.4	1.71 H	351	52.9	2.7
2	4822.00	43.6 AV	54.0	-10.4	1.71 H	351	40.9	2.7
3	5150.00	45.8 PK	74.0	-28.2	1.71 H	351	41.7	4.1
4	5150.00	33.2 AV	54.0	-20.8	1.71 H	351	29.1	4.1
5	*5260.00	115.0 PK			1.71 H	351	76.0	39.0
6	*5260.00	103.6 AV			1.71 H	351	64.6	39.0
7	#10520.00	60.1 PK	68.2	-8.1	3.19 H	220	41.8	18.3
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4992.00	56.0 PK	74.0	-18.0	1.74 V	348	52.3	3.7
2	4992.00	46.5 AV	54.0	-7.5	1.74 V	348	42.8	3.7
3	5150.00	55.6 PK	74.0	-18.4	1.74 V	348	51.5	4.1
4	5150.00	44.5 AV	54.0	-9.5	1.74 V	348	40.4	4.1
5	*5260.00	114.2 PK			1.74 V	348	75.2	39.0
6	*5260.00	103.3 AV			1.74 V	348	64.3	39.0
7	#10520.00	60.1 PK	68.2	-8.1	3.08 V	147	41.8	18.3

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB).
3. Margin value = Emission Level – Limit value.
4. The other emission levels were very low against the limit.
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	115.5 PK			1.73 H	350	76.4	39.1
2	*5300.00	103.4 AV			1.73 H	350	64.3	39.1
3	10600.00	60.4 PK	74.0	-13.6	3.16 H	214	41.5	18.9
4	10600.00	47.9 AV	54.0	-6.1	3.16 H	214	29.0	18.9
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	*5300.00	114.9 PK			1.73 V	350	75.8	39.1
2	*5300.00	103.9 AV			1.73 V	350	64.8	39.1
3	10600.00	60.5 PK	74.0	-13.5	3.12 V	156	41.6	18.9
4	10600.00	48.0 AV	54.0	-6.0	3.12 V	156	29.1	18.9

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. Margin value = Emission Level – Limit value.
4. The other emission levels were very low against the limit.
5. " * ": Fundamental frequency.

CHANNEL	TX Channel 64	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	114.5 PK			1.71 H	351	75.3	39.2
2	*5320.00	103.5 AV			1.71 H	351	64.3	39.2
3	5350.00	58.7 PK	74.0	-15.3	1.71 H	351	54.6	4.1
4	5350.00	46.3 AV	54.0	-7.7	1.71 H	351	42.2	4.1
5	10640.00	60.1 PK	74.0	-13.9	3.16 H	214	41.5	18.6
6	10640.00	47.6 AV	54.0	-6.4	3.16 H	214	29.0	18.6
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5320.00	115.3 PK			1.75 V	350	76.1	39.2
2	*5320.00	104.2 AV			1.75 V	350	65.0	39.2
3	5350.00	55.4 PK	74.0	-18.6	1.75 V	350	51.3	4.1
4	5350.00	43.3 AV	54.0	-10.7	1.75 V	350	39.2	4.1
5	5375.00	60.4 PK	74.0	-13.6	1.75 V	350	56.2	4.2
6	5375.00	48.8 AV	54.0	-5.2	1.75 V	350	44.6	4.2
7	10640.00	60.4 PK	74.0	-13.6	3.17 V	152	41.8	18.6
8	10640.00	47.7 AV	54.0	-6.3	3.17 V	152	29.1	18.6

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	59.4 PK	74.0	-14.6	1.66 H	350	54.9	4.5
2	5460.00	46.7 AV	54.0	-7.3	1.66 H	350	42.2	4.5
3	#5470.00	60.1 PK	68.2	-8.1	1.66 H	350	55.6	4.5
4	*5500.00	116.2 PK			1.66 H	350	76.5	39.7
5	*5500.00	104.9 AV			1.66 H	350	65.2	39.7
6	11000.00	61.1 PK	74.0	-12.9	3.13 H	225	41.8	19.3
7	11000.00	48.3 AV	54.0	-5.7	3.13 H	225	29.0	19.3
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5424.00	57.6 PK	74.0	-16.4	1.73 V	349	53.2	4.4
2	5424.00	46.7 AV	54.0	-7.3	1.73 V	349	42.3	4.4
3	5460.00	59.0 PK	74.0	-15.0	1.73 V	349	54.5	4.5
4	5460.00	46.1 AV	54.0	-7.9	1.73 V	349	41.6	4.5
5	#5470.00	60.8 PK	68.2	-7.4	1.73 V	349	56.3	4.5
6	*5500.00	116.0 PK			1.73 V	349	76.3	39.7
7	*5500.00	104.8 AV			1.73 V	349	65.1	39.7
8	11000.00	61.2 PK	74.0	-12.8	3.16 V	163	41.9	19.3
9	11000.00	48.3 AV	54.0	-5.7	3.16 V	163	29.0	19.3

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB).
3. Margin value = Emission Level – Limit value.
4. The other emission levels were very low against the limit.
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	115.8 PK			1.67 H	351	76.1	39.7
2	*5580.00	104.6 AV			1.67 H	351	64.9	39.7
3	11160.00	60.3 PK	74.0	-13.7	3.16 H	228	41.7	18.6
4	11160.00	47.7 AV	54.0	-6.3	3.16 H	228	29.1	18.6
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5580.00	116.6 PK			1.75 V	350	76.9	39.7
2	*5580.00	105.4 AV			1.75 V	350	65.7	39.7
3	11160.00	60.4 PK	74.0	-13.6	3.16 V	163	41.8	18.6
4	11160.00	47.6 AV	54.0	-6.4	3.16 V	163	29.0	18.6

Remarks:

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

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

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	116.5 PK			1.72 H	350	76.7	39.8
2	*5700.00	105.4 AV			1.72 H	350	65.6	39.8
3	#5725.00	61.3 PK	68.2	-6.9	1.72 H	350	56.6	4.7
4	11400.00	60.3 PK	74.0	-13.7	3.12 H	229	41.8	18.5
5	11400.00	47.6 AV	54.0	-6.4	3.12 H	229	29.1	18.5
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5700.00	117.4 PK			1.67 V	348	77.6	39.8
2	*5700.00	106.1 AV			1.67 V	348	66.3	39.8
3	#5725.00	63.7 PK	68.2	-4.5	1.67 V	348	59.0	4.7
4	11400.00	60.4 PK	74.0	-13.6	3.12 V	163	41.9	18.5
5	11400.00	47.5 AV	54.0	-6.5	3.12 V	163	29.0	18.5

Remarks:

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

802.11n (HT40)

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	4822.00	54.3 PK	74.0	-19.7	1.72 H	350	51.6	2.7
2	4822.00	43.6 AV	54.0	-10.4	1.72 H	350	40.9	2.7
3	5150.00	55.4 PK	74.0	-18.6	1.72 H	350	51.3	4.1
4	5150.00	43.3 AV	54.0	-10.7	1.72 H	350	39.2	4.1
5	*5270.00	112.1 PK			1.72 H	350	73.0	39.1
6	*5270.00	101.0 AV			1.72 H	350	61.9	39.1
7	#10540.00	60.1 PK	68.2	-8.1	3.19 H	220	41.6	18.5
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4992.00	56.2 PK	74.0	-17.8	1.70 V	350	52.5	3.7
2	4992.00	47.8 AV	54.0	-6.2	1.70 V	350	44.1	3.7
3	5150.00	55.6 PK	74.0	-18.4	1.70 V	350	51.5	4.1
4	5150.00	43.3 AV	54.0	-10.7	1.70 V	350	39.2	4.1
5	*5270.00	111.5 PK			1.70 V	350	72.4	39.1
6	*5270.00	101.1 AV			1.70 V	350	62.0	39.1
7	#10540.00	60.3 PK	68.2	-7.9	3.08 V	147	41.8	18.5

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB).
3. Margin value = Emission Level – Limit value.
4. The other emission levels were very low against the limit.
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	111.8 PK			1.71 H	351	72.6	39.2
2	*5310.00	101.0 AV			1.71 H	351	61.8	39.2
3	5350.00	59.8 PK	74.0	-14.2	1.71 H	351	55.7	4.1
4	5350.00	46.9 AV	54.0	-7.1	1.71 H	351	42.8	4.1
5	10620.00	60.5 PK	74.0	-13.5	3.15 H	219	41.7	18.8
6	10620.00	47.9 AV	54.0	-6.1	3.15 H	219	29.1	18.8
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5310.00	111.4 PK			1.67 V	348	72.2	39.2
2	*5310.00	101.4 AV			1.67 V	348	62.2	39.2
3	5350.00	55.5 PK	74.0	-18.5	1.67 V	348	51.4	4.1
4	5350.00	43.1 AV	54.0	-10.9	1.67 V	348	39.0	4.1
5	5375.00	60.3 PK	74.0	-13.7	1.67 V	348	56.1	4.2
6	5375.00	49.2 AV	54.0	-4.8	1.67 V	348	45.0	4.2
7	10620.00	60.4 PK	74.0	-13.6	3.11 V	155	41.6	18.8
8	10620.00	47.9 AV	54.0	-6.1	3.11 V	155	29.1	18.8

Remarks:

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

CHANNEL	TX Channel 102	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5460.00	60.8 PK	74.0	-13.2	1.71 H	350	56.3	4.5
2	5460.00	47.0 AV	54.0	-7.0	1.71 H	350	42.5	4.5
3	#5470.00	61.1 PK	68.2	-7.1	1.71 H	350	56.6	4.5
4	*5510.00	113.3 PK			1.71 H	350	73.6	39.7
5	*5510.00	101.9 AV			1.71 H	350	62.2	39.7
6	11020.00	60.9 PK	74.0	-13.1	3.19 H	231	41.8	19.1
7	11020.00	48.2 AV	54.0	-5.8	3.19 H	231	29.1	19.1
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	59.3 PK	74.0	-14.7	1.70 V	350	54.8	4.5
2	5460.00	46.7 AV	54.0	-7.3	1.70 V	350	42.2	4.5
3	#5470.00	59.7 PK	68.2	-8.5	1.70 V	350	55.2	4.5
4	*5510.00	112.7 PK			1.70 V	350	73.0	39.7
5	*5510.00	102.7 AV			1.70 V	350	63.0	39.7
6	11020.00	60.9 PK	74.0	-13.1	3.12 V	158	41.8	19.1
7	11020.00	48.2 AV	54.0	-5.8	3.12 V	158	29.1	19.1

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. Margin value = Emission Level – Limit value.
4. The other emission levels were very low against the limit.
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	112.6 PK			1.70 H	351	72.9	39.7
2	*5550.00	101.8 AV			1.70 H	351	62.1	39.7
3	11100.00	60.3 PK	74.0	-13.7	3.16 H	233	41.7	18.6
4	11100.00	47.6 AV	54.0	-6.4	3.16 H	233	29.0	18.6
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5550.00	113.0 PK			1.72 V	349	73.3	39.7
2	*5550.00	103.0 AV			1.72 V	349	63.3	39.7
3	11100.00	60.3 PK	74.0	-13.7	3.06 V	161	41.7	18.6
4	11100.00	47.6 AV	54.0	-6.4	3.06 V	161	29.0	18.6

Remarks:

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

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	113.5 PK			1.74 H	349	73.7	39.8
2	*5670.00	102.9 AV			1.74 H	349	63.1	39.8
3	#5725.00	60.0 PK	68.2	-8.2	1.74 H	349	55.3	4.7
4	11340.00	60.6 PK	74.0	-13.4	3.11 H	225	41.9	18.7
5	11340.00	47.8 AV	54.0	-6.2	3.11 H	225	29.1	18.7
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	*5670.00	114.3 PK			1.73 V	349	74.5	39.8
2	*5670.00	103.8 AV			1.73 V	349	64.0	39.8
3	#5725.00	61.1 PK	68.2	-7.1	1.73 V	349	56.4	4.7
4	11340.00	60.5 PK	74.0	-13.5	3.09 V	157	41.8	18.7
5	11340.00	47.7 AV	54.0	-6.3	3.09 V	157	29.0	18.7

Remarks:

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

802.11ac (VHT80)

CHANNEL	TX Channel 58	DETECTOR FUNCTION	Peak (PK) Average (AV)
FREQUENCY RANGE	1GHz ~ 40GHz		

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4823.00	54.6 PK	74.0	-19.4	1.75 H	350	51.9	2.7
2	4823.00	44.0 AV	54.0	-10.0	1.75 H	350	41.3	2.7
3	5150.00	57.6 PK	74.0	-16.4	1.75 H	350	53.5	4.1
4	5150.00	44.1 AV	54.0	-9.9	1.75 H	350	40.0	4.1
5	*5290.00	109.5 PK			1.75 H	350	70.4	39.1
6	*5290.00	97.8 AV			1.75 H	350	58.7	39.1
7	5350.00	61.7 PK	74.0	-12.3	1.75 H	350	57.6	4.1
8	5350.00	49.0 AV	54.0	-5.0	1.75 H	350	44.9	4.1
9	#10580.00	60.4 PK	68.2	-7.8	3.16 H	223	41.6	18.8
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	4992.00	55.7 PK	74.0	-18.3	1.72 V	350	52.0	3.7
2	4992.00	46.6 AV	54.0	-7.4	1.72 V	350	42.9	3.7
3	5150.00	55.4 PK	74.0	-18.6	1.72 V	350	51.3	4.1
4	5150.00	43.3 AV	54.0	-10.7	1.72 V	350	39.2	4.1
5	*5290.00	109.1 PK			1.72 V	350	70.0	39.1
6	*5290.00	98.2 AV			1.72 V	350	59.1	39.1
7	5350.00	59.1 PK	74.0	-14.9	1.72 V	350	55.0	4.1
8	5350.00	48.4 AV	54.0	-5.6	1.72 V	350	44.3	4.1
9	5375.00	62.3 PK	74.0	-11.7	1.72 V	350	58.1	4.2
10	5375.00	50.5 AV	54.0	-3.5	1.72 V	350	46.3	4.2
11	#10580.00	60.6 PK	68.2	-7.6	3.19 V	161	41.8	18.8

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB).
3. Margin value = Emission Level – Limit value.
4. The other emission levels were very low against the limit.
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	61.5 PK	74.0	-12.5	1.69 H	349	57.0	4.5
2	5460.00	48.7 AV	54.0	-5.3	1.69 H	349	44.2	4.5
3	#5470.00	62.1 PK	68.2	-6.1	1.69 H	349	57.6	4.5
4	*5530.00	109.5 PK			1.69 H	349	69.8	39.7
5	*5530.00	98.3 AV			1.69 H	349	58.6	39.7
6	#5725.00	61.6 PK	68.2	-6.6	1.69 H	349	56.9	4.7
7	11060.00	60.9 PK	74.0	-13.1	3.19 H	225	42.0	18.9
8	11060.00	48.0 AV	54.0	-6.0	3.19 H	225	29.1	18.9
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	61.5 PK	74.0	-12.5	1.70 V	349	57.0	4.5
2	5460.00	48.8 AV	54.0	-5.2	1.70 V	349	44.3	4.5
3	#5470.00	61.4 PK	68.2	-6.8	1.70 V	349	56.9	4.5
4	*5530.00	109.5 PK			1.70 V	349	69.8	39.7
5	*5530.00	99.4 AV			1.70 V	349	59.7	39.7
6	#5725.00	62.1 PK	68.2	-6.1	1.70 V	349	57.4	4.7
7	11060.00	60.7 PK	74.0	-13.3	3.06 V	159	41.8	18.9
8	11060.00	47.9 AV	54.0	-6.1	3.06 V	159	29.0	18.9

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. Margin value = Emission Level – Limit value.
4. The other emission levels were very low against the limit.
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	58.5 PK	74.0	-15.5	1.66 H	350	54.0	4.5
2	5460.00	45.5 AV	54.0	-8.5	1.66 H	350	41.0	4.5
3	#5470.00	59.2 PK	68.2	-9.0	1.66 H	350	54.7	4.5
4	*5610.00	109.9 PK			1.66 H	350	70.1	39.8
5	*5610.00	99.5 AV			1.66 H	350	59.7	39.8
6	#5725.00	63.3 PK	68.2	-4.9	1.66 H	350	58.6	4.7
7	11220.00	60.5 PK	74.0	-13.5	3.16 H	228	41.8	18.7
8	11220.00	47.8 AV	54.0	-6.2	3.16 H	228	29.1	18.7
ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	5424.00	57.9 PK	74.0	-16.1	1.68 V	349	53.5	4.4
2	5424.00	45.7 AV	54.0	-8.3	1.68 V	349	41.3	4.4
3	5460.00	58.2 PK	74.0	-15.8	1.68 V	349	53.7	4.5
4	5460.00	45.3 AV	54.0	-8.7	1.68 V	349	40.8	4.5
5	#5470.00	58.5 PK	68.2	-9.7	1.68 V	349	54.0	4.5
6	*5610.00	110.3 PK			1.68 V	349	70.5	39.8
7	*5610.00	100.4 AV			1.68 V	349	60.6	39.8
8	#5725.00	64.5 PK	68.2	-3.7	1.68 V	349	59.8	4.7
9	11220.00	60.6 PK	74.0	-13.4	3.06 V	152	41.9	18.7
10	11220.00	47.7 AV	54.0	-6.3	3.06 V	152	29.0	18.7

Remarks:

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

Below 1GHz Worst-Case Data:

Test Mode A

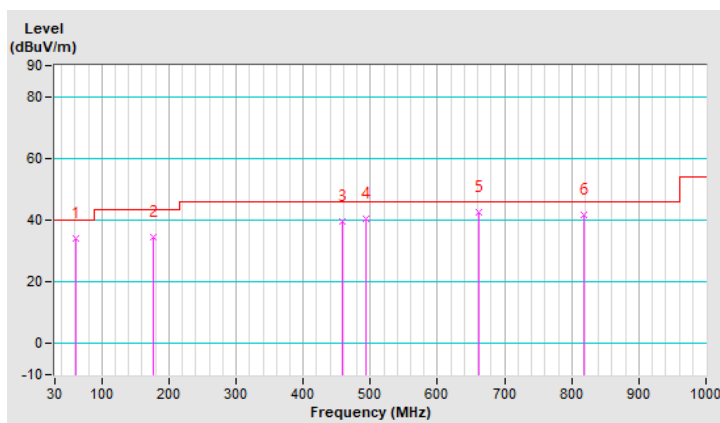
802.11ac (VHT80)

CHANNEL	TX Channel 58	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	60.93	34.2 QP	40.0	-5.8	1.00 H	16	43.6	-9.4
2	177.61	34.6 QP	43.5	-8.9	1.49 H	236	44.2	-9.6
3	457.36	39.7 QP	46.0	-6.3	1.99 H	233	42.2	-2.5
4	493.91	40.5 QP	46.0	-5.5	1.49 H	166	42.1	-1.6
5	661.20	42.6 QP	46.0	-3.4	1.00 H	103	41.1	1.5
6	818.65	41.5 QP	46.0	-4.5	1.00 H	125	38.2	3.3

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 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 20 dB below the permissible value to be report.

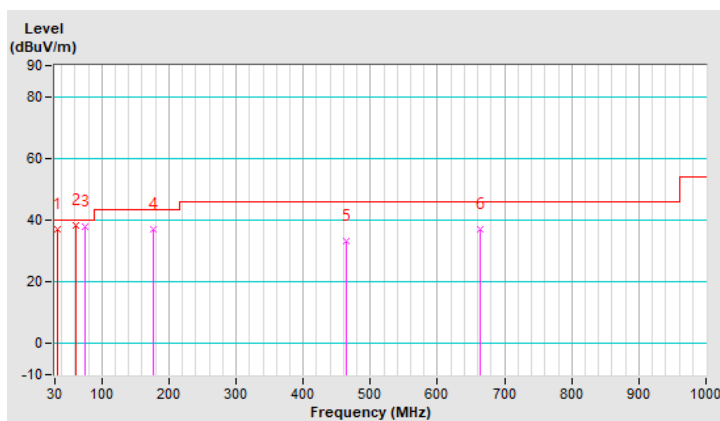


CHANNEL	TX Channel 58	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

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	33.91	37.0 QP	40.0	-3.0	1.50 V	159	47.3	-10.3
2	61.24	38.3 QP	40.0	-1.7	2.00 V	276	47.7	-9.4
3	74.99	37.7 QP	40.0	-2.3	1.50 V	130	49.6	-11.9
4	177.61	37.2 QP	43.5	-6.3	2.00 V	162	46.8	-9.6
5	464.39	33.2 QP	46.0	-12.8	1.00 V	173	35.4	-2.2
6	664.01	37.0 QP	46.0	-9.0	1.00 V	160	35.4	1.6

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 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 20 dB below the permissible value to be report.



Test Mode B

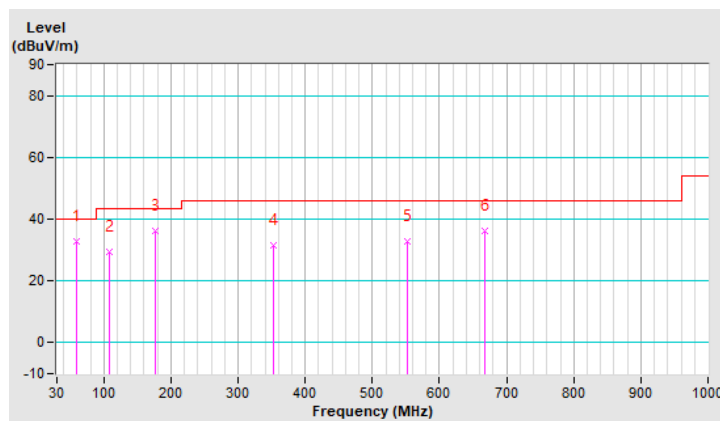
802.11ac (VHT80)

CHANNEL	TX Channel 58	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	59.52	32.8 QP	40.0	-7.2	1.00 H	30	42.0	-9.2
2	107.32	29.6 QP	43.5	-13.9	1.00 H	217	41.7	-12.1
3	177.61	36.1 QP	43.5	-7.4	1.50 H	112	45.7	-9.6
4	351.93	31.7 QP	46.0	-14.3	1.00 H	114	37.9	-6.2
5	552.96	32.9 QP	46.0	-13.1	2.00 H	24	33.3	-0.4
6	666.83	36.3 QP	46.0	-9.7	1.50 H	129	34.6	1.7

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 20 dB below the permissible value to be report.

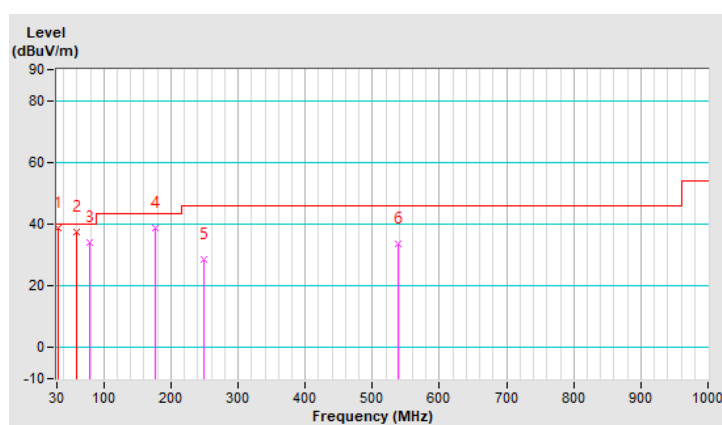


CHANNEL	TX Channel 58	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

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	31.47	38.9 QP	40.0	-1.1	1.00 V	207	49.5	-10.6
2	58.43	37.3 QP	40.0	-2.7	1.00 V	316	46.4	-9.1
3	79.20	34.2 QP	40.0	-5.8	2.00 V	86	47.2	-13.0
4	176.20	38.6 QP	43.5	-4.9	1.50 V	39	48.0	-9.4
5	249.30	28.7 QP	46.0	-17.3	2.00 V	96	38.2	-9.5
6	538.90	33.7 QP	46.0	-12.3	1.50 V	150	34.5	-0.8

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 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 20 dB below the permissible value to be report.



Test Mode C

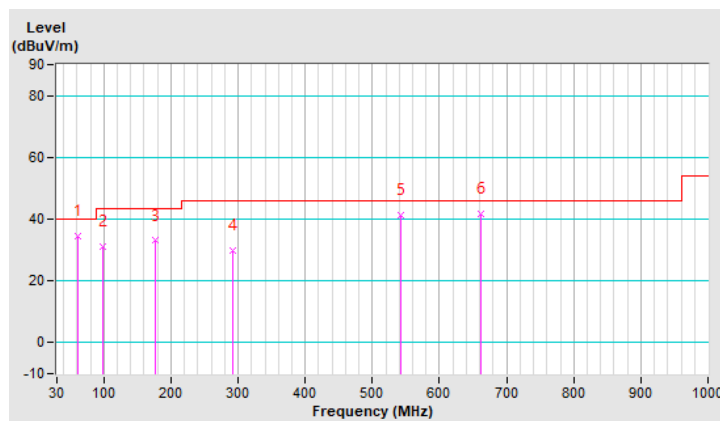
802.11n (HT40)

CHANNEL	TX Channel 134	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	60.93	34.7 QP	40.0	-5.3	1.49 H	5	44.1	-9.4
2	97.48	31.2 QP	43.5	-12.3	1.99 H	112	44.8	-13.6
3	177.61	33.0 QP	43.5	-10.5	1.49 H	5	42.6	-9.6
4	292.88	29.7 QP	46.0	-16.3	1.00 H	310	37.4	-7.7
5	541.71	41.4 QP	46.0	-4.6	1.49 H	236	42.1	-0.7
6	661.20	41.7 QP	46.0	-4.3	1.99 H	198	40.2	1.5

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 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 20 dB below the permissible value to be report.

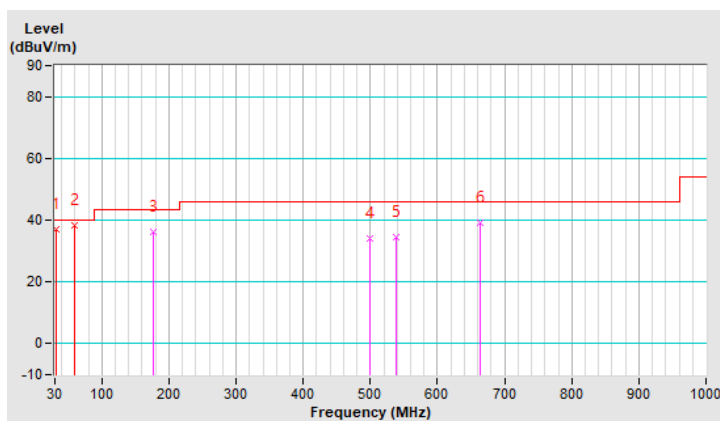


CHANNEL	TX Channel 134	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

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	31.47	37.1 QP	40.0	-2.9	1.50 V	213	47.7	-10.6
2	58.43	38.3 QP	40.0	-1.7	1.00 V	270	47.4	-9.1
3	177.61	36.2 QP	43.5	-7.3	1.99 V	178	45.8	-9.6
4	499.54	34.2 QP	46.0	-11.8	1.00 V	120	35.7	-1.5
5	538.90	34.5 QP	46.0	-11.5	1.00 V	163	35.3	-0.8
6	664.01	39.2 QP	46.0	-6.8	1.99 V	157	37.6	1.6

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 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 20 dB below the permissible value to be report.



Test Mode D

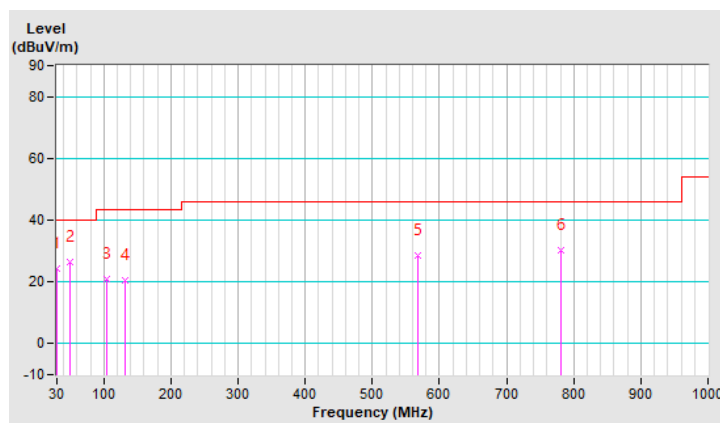
802.11ac (VHT80)

CHANNEL	TX Channel 58	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	30.00	24.5 QP	40.0	-15.5	1.00 H	55	34.9	-10.4
2	49.68	26.5 QP	40.0	-13.5	1.99 H	0	35.3	-8.8
3	104.51	21.0 QP	43.5	-22.5	1.50 H	195	33.4	-12.4
4	131.22	20.6 QP	43.5	-22.9	1.00 H	16	30.5	-9.9
5	567.01	28.6 QP	46.0	-17.4	1.00 H	16	28.5	0.1
6	780.70	30.1 QP	46.0	-15.9	1.50 H	328	27.0	3.1

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 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 20 dB below the permissible value to be report.

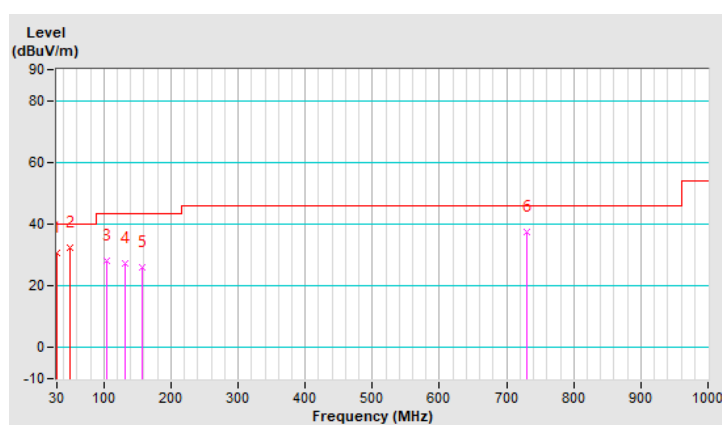


CHANNEL	TX Channel 58	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

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	30.57	30.5 QP	40.0	-9.5	1.50 V	15	41.2	-10.7
2	50.42	32.3 QP	40.0	-7.7	1.00 V	291	41.0	-8.7
3	104.51	28.3 QP	43.5	-15.2	1.50 V	182	40.7	-12.4
4	131.22	27.2 QP	43.5	-16.3	1.00 V	50	37.1	-9.9
5	157.93	26.1 QP	43.5	-17.4	1.00 V	84	34.6	-8.5
6	730.09	37.3 QP	46.0	-8.7	1.00 V	193	34.8	2.5

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 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 20 dB below the permissible value to be report.



Test Mode E

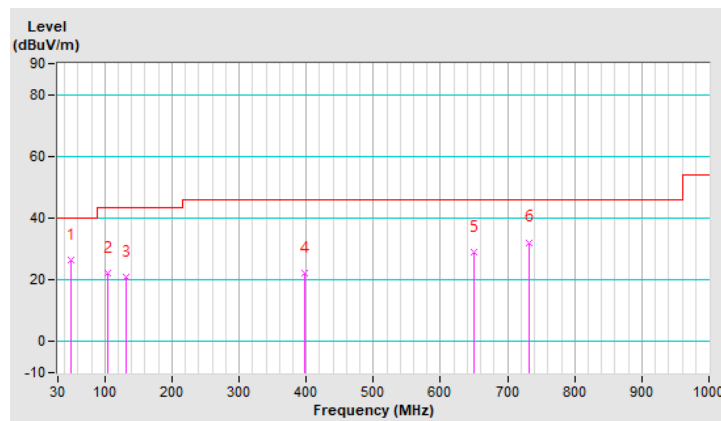
802.11ac (VHT80)

CHANNEL	TX Channel 58	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	49.68	26.3 QP	40.0	-13.7	1.49 H	252	35.1	-8.8
2	104.51	22.4 QP	43.5	-21.1	1.50 H	17	34.8	-12.4
3	131.22	20.9 QP	43.5	-22.6	1.49 H	10	30.8	-9.9
4	398.32	22.4 QP	46.0	-23.6	1.00 H	313	26.9	-4.5
5	649.96	28.9 QP	46.0	-17.1	1.49 H	3	27.4	1.5
6	731.49	32.2 QP	46.0	-13.8	1.00 H	327	29.6	2.6

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 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 20 dB below the permissible value to be report.

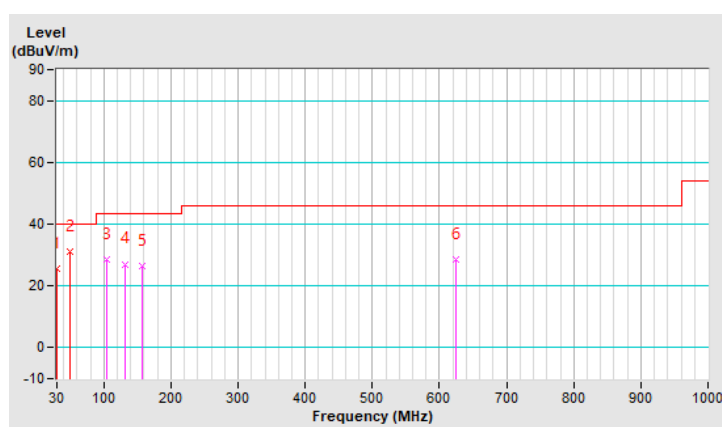


CHANNEL	TX Channel 58	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

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	30.62	25.7 QP	40.0	-14.3	1.50 V	15	36.4	-10.7
2	50.42	31.1 QP	40.0	-8.9	1.00 V	258	39.8	-8.7
3	104.51	28.4 QP	43.5	-15.1	1.50 V	15	40.8	-12.4
4	131.22	27.1 QP	43.5	-16.4	1.00 V	75	37.0	-9.9
5	157.93	26.5 QP	43.5	-17.0	1.00 V	114	35.0	-8.5
6	624.65	28.6 QP	46.0	-17.4	1.99 V	136	27.2	1.4

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 20 dB below the permissible value to be report.



Test Mode F

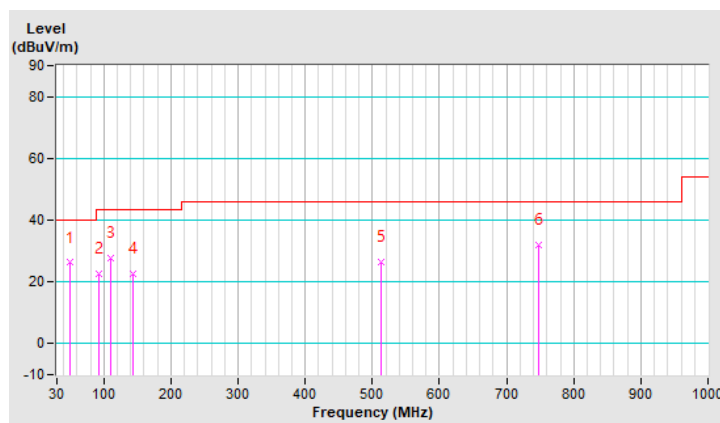
802.11n (HT40)

CHANNEL	TX Channel 134	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	49.68	26.2 QP	40.0	-13.8	1.49 H	16	35.0	-8.8
2	91.86	22.6 QP	43.5	-20.9	1.99 H	349	36.8	-14.2
3	110.13	27.8 QP	43.5	-15.7	1.00 H	38	39.6	-11.8
4	143.87	22.5 QP	43.5	-21.0	1.49 H	279	31.3	-8.8
5	512.19	26.3 QP	46.0	-19.7	1.99 H	9	27.3	-1.0
6	746.96	31.8 QP	46.0	-14.2	1.99 H	349	29.0	2.8

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 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 20 dB below the permissible value to be report.

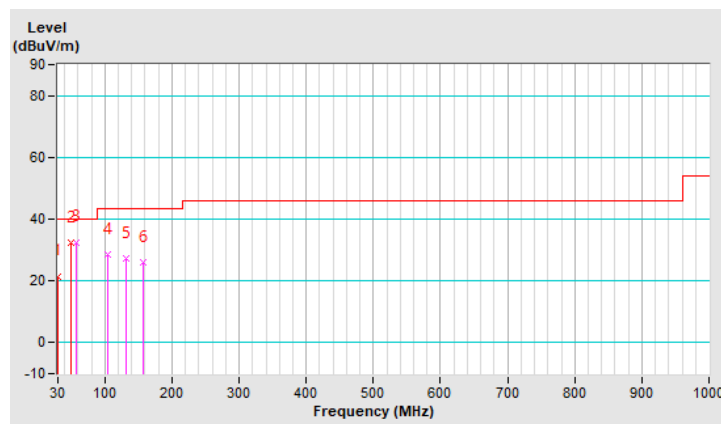


CHANNEL	TX Channel 134	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz		

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	30.67	21.6 QP	40.0	-18.4	1.50 V	0	32.4	-10.8
2	50.42	32.4 QP	40.0	-7.6	1.50 V	6	41.1	-8.7
3	56.71	32.6 QP	40.0	-7.4	1.00 V	95	41.7	-9.1
4	104.51	28.7 QP	43.5	-14.8	1.00 V	202	41.1	-12.4
5	131.22	27.2 QP	43.5	-16.3	1.00 V	11	37.1	-9.9
6	157.93	25.9 QP	43.5	-17.6	1.00 V	61	34.4	-8.5

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 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 20 dB 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	ESCI	100613	Dec. 11, 2019	Dec. 10, 2020
RF signal cable Woken	5D-FB	Cable-cond1-01	Sep. 05, 2019	Sep. 04, 2020
LISN ROHDE & SCHWARZ (EUT)	ENV216	101826	Feb. 20, 2020	Feb. 19, 2021
LISN ROHDE & SCHWARZ (Peripheral)	ESH3-Z5	100311	Aug. 22, 2019	Aug. 21, 2020
Software ADT	BV ADT_Conc_ 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-12040.

4.2.3 Test Procedures

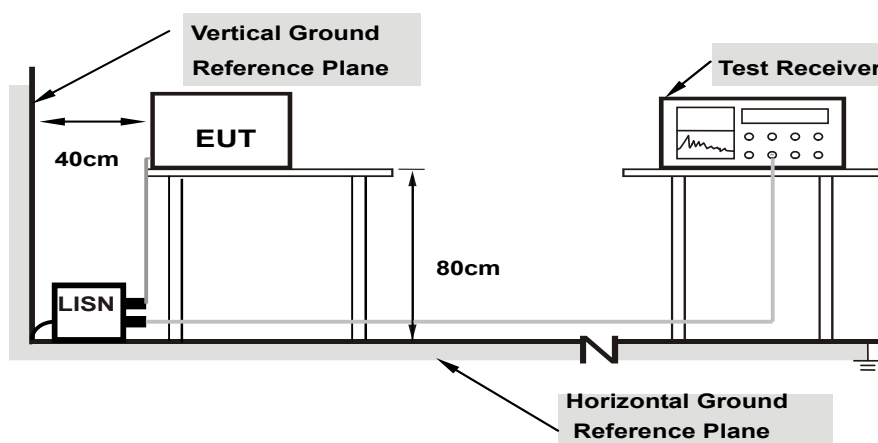
- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance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

Note: 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 4.1.6.

4.2.7 Test Results

Worst-case data:

Test Mode A

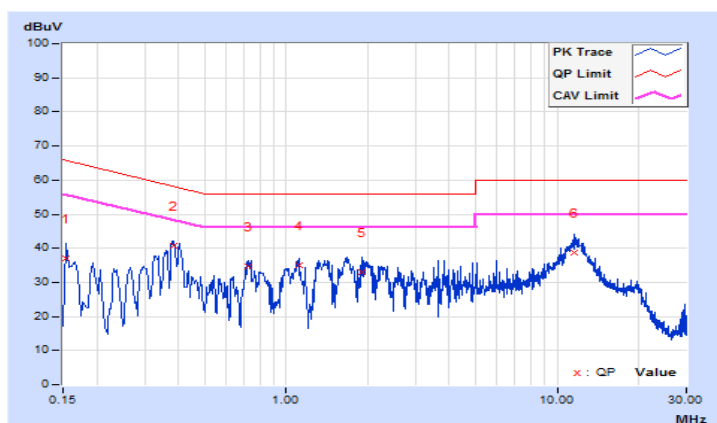
802.11ac (VHT80)

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

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15400	9.63	27.55	11.26	37.18	20.89	65.78	55.78	-28.60	-34.89
2	0.38200	9.65	31.21	18.24	40.86	27.89	58.24	48.24	-17.38	-20.35
3	0.72113	9.67	25.01	15.63	34.68	25.30	56.00	46.00	-21.32	-20.70
4	1.11000	9.69	25.22	16.42	34.91	26.11	56.00	46.00	-21.09	-19.89
5	1.89800	9.72	23.29	15.10	33.01	24.82	56.00	46.00	-22.99	-21.18
6	11.51400	9.88	28.70	22.04	38.58	31.92	60.00	50.00	-21.42	-18.08

Remarks:

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

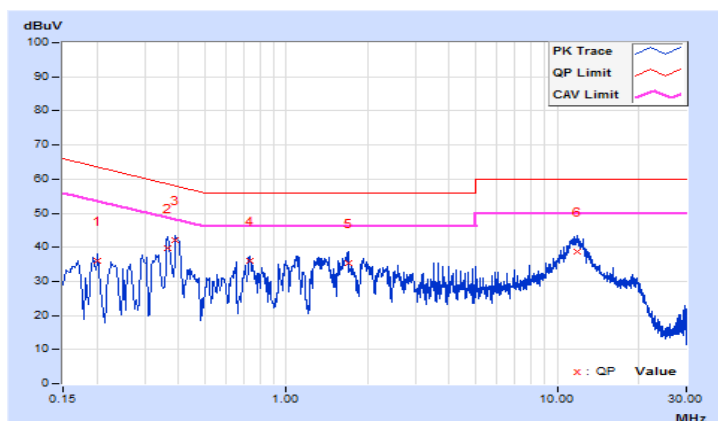


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
-------	-------------	-------------------	--------------------------------

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.20200	9.64	26.33	18.71	35.97	28.35	63.53	53.53	-27.56	-25.18
2	0.36544	9.66	30.09	24.57	39.75	34.23	58.60	48.60	-18.85	-14.37
3	0.39000	9.67	32.49	23.70	42.16	33.37	58.06	48.06	-15.90	-14.69
4	0.73000	9.69	26.36	18.44	36.05	28.13	56.00	46.00	-19.95	-17.87
5	1.69800	9.74	25.46	16.97	35.20	26.71	56.00	46.00	-20.80	-19.29
6	11.80200	9.94	28.89	22.31	38.83	32.25	60.00	50.00	-21.17	-17.75

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

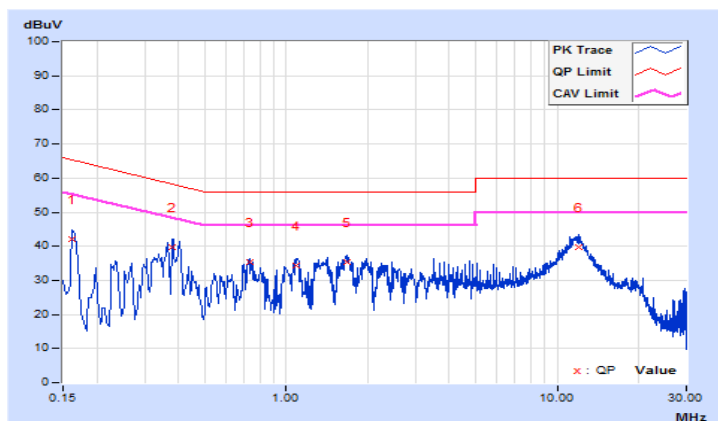
802.11ac (VHT80)

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

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16200	9.63	32.54	21.25	42.17	30.88	65.36	55.36	-23.19	-24.48
2	0.38117	9.65	30.14	14.96	39.79	24.61	58.25	48.25	-18.46	-23.64
3	0.73000	9.67	25.53	17.37	35.20	27.04	56.00	46.00	-20.80	-18.96
4	1.08198	9.68	24.77	16.93	34.45	26.61	56.00	46.00	-21.55	-19.39
5	1.68600	9.71	25.62	17.73	35.33	27.44	56.00	46.00	-20.67	-18.56
6	12.07000	9.88	29.71	23.76	39.59	33.64	60.00	50.00	-20.41	-16.36

Remarks:

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

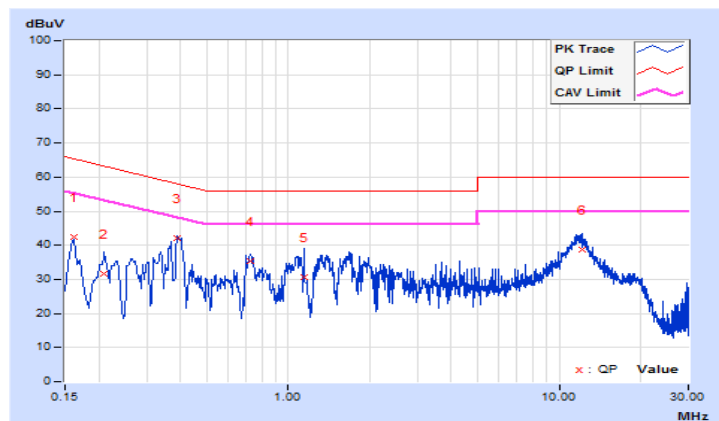


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
-------	-------------	-------------------	--------------------------------

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16148	9.66	32.80	20.98	42.46	30.64	65.39	55.39	-22.93	-24.75
2	0.21000	9.64	22.01	4.56	31.65	14.20	63.21	53.21	-31.56	-39.01
3	0.39000	9.67	32.45	23.54	42.12	33.21	58.06	48.06	-15.94	-14.85
4	0.72494	9.69	25.81	16.91	35.50	26.60	56.00	46.00	-20.50	-19.40
5	1.14200	9.71	20.81	11.10	30.52	20.81	56.00	46.00	-25.48	-25.19
6	12.09800	9.94	28.65	22.08	38.59	32.02	60.00	50.00	-21.41	-17.98

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 C

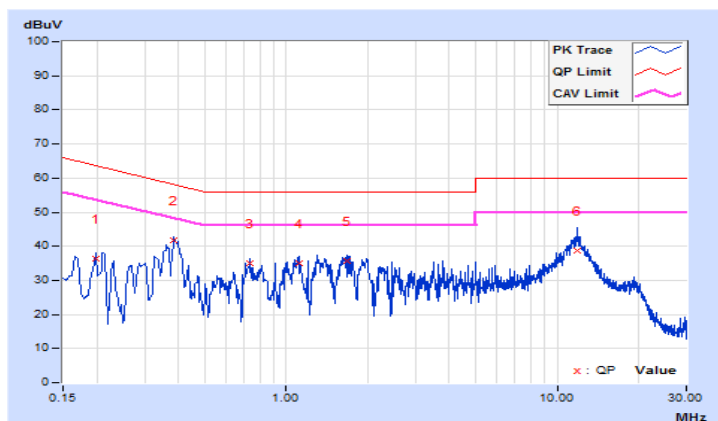
802.11n (HT40)

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

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.19800	9.62	26.64	19.81	36.26	29.43	63.69	53.69	-27.43	-24.26
2	0.38600	9.65	32.01	21.05	41.66	30.70	58.15	48.15	-16.49	-17.45
3	0.73400	9.67	25.41	17.28	35.08	26.95	56.00	46.00	-20.92	-19.05
4	1.11400	9.69	25.20	16.24	34.89	25.93	56.00	46.00	-21.11	-20.07
5	1.68200	9.71	26.10	18.72	35.81	28.43	56.00	46.00	-20.19	-17.57
6	11.80200	9.88	28.88	22.16	38.76	32.04	60.00	50.00	-21.24	-17.96

Remarks:

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

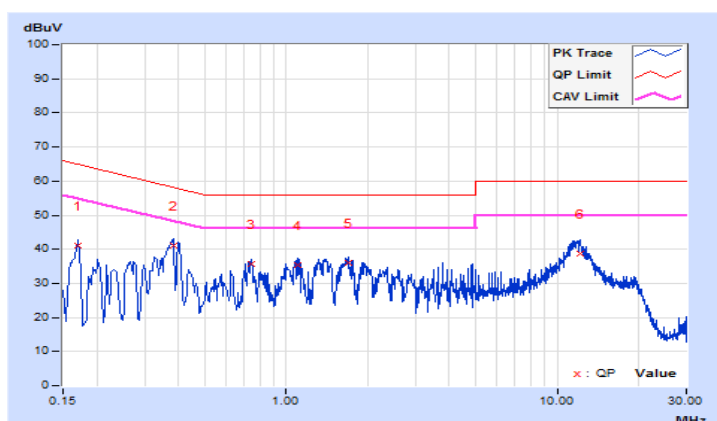


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
-------	-------------	-------------------	--------------------------------

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.17000	9.65	31.30	19.66	40.95	29.31	64.96	54.96	-24.01	-25.65
2	0.38200	9.67	31.57	18.16	41.24	27.83	58.24	48.24	-17.00	-20.41
3	0.74200	9.69	25.87	17.64	35.56	27.33	56.00	46.00	-20.44	-18.67
4	1.10600	9.71	25.67	16.97	35.38	26.68	56.00	46.00	-20.62	-19.32
5	1.69000	9.74	26.21	18.70	35.95	28.44	56.00	46.00	-20.05	-17.56
6	12.12200	9.94	28.65	22.08	38.59	32.02	60.00	50.00	-21.41	-17.98

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 D

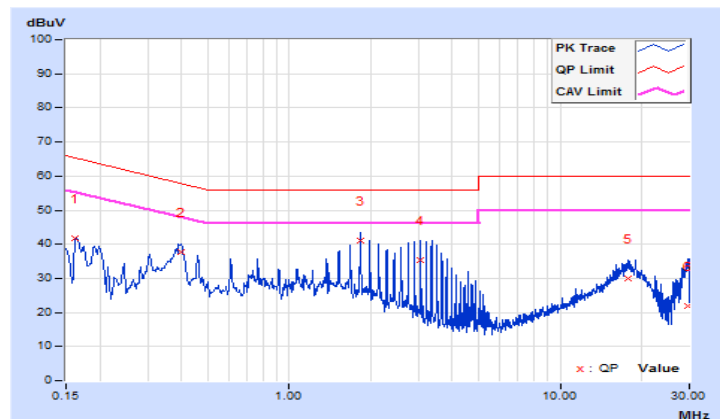
802.11ac (VHT80)

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

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16200	9.63	32.05	18.97	41.68	28.60	65.36	55.36	-23.68	-26.76
2	0.39654	9.65	28.19	19.24	37.84	28.89	57.93	47.93	-20.09	-19.04
3	1.83000	9.72	31.30	27.07	41.02	36.79	56.00	46.00	-14.98	-9.21
4	3.05000	9.76	25.66	21.00	35.42	30.76	56.00	46.00	-20.58	-15.24
5	17.83400	9.91	20.00	13.84	29.91	23.75	60.00	50.00	-30.09	-26.25
6	29.57800	9.89	11.93	5.30	21.82	15.19	60.00	50.00	-38.18	-34.81

Remarks:

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

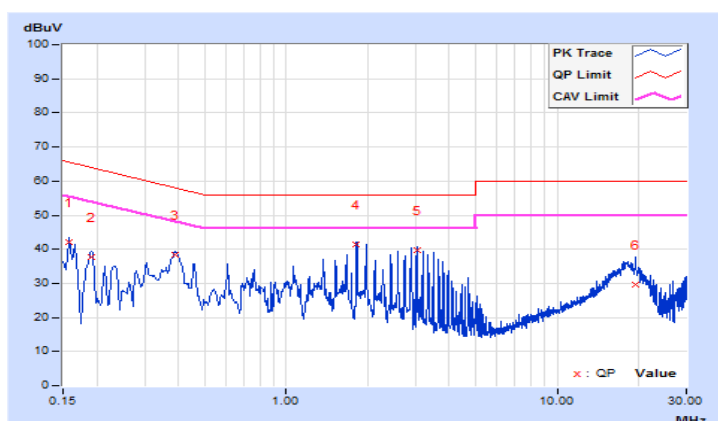


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
-------	-------------	-------------------	--------------------------------

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15800	9.66	32.37	20.13	42.03	29.79	65.57	55.57	-23.54	-25.78
2	0.19000	9.64	28.12	14.18	37.76	23.82	64.04	54.04	-26.28	-30.22
3	0.38929	9.67	28.70	19.94	38.37	29.61	58.08	48.08	-19.71	-18.47
4	1.81800	9.75	31.60	26.18	41.35	35.93	56.00	46.00	-14.65	-10.07
5	3.03800	9.79	30.01	25.82	39.80	35.61	56.00	46.00	-16.20	-10.39
6	19.45000	10.02	19.48	13.44	29.50	23.46	60.00	50.00	-30.50	-26.54

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 E

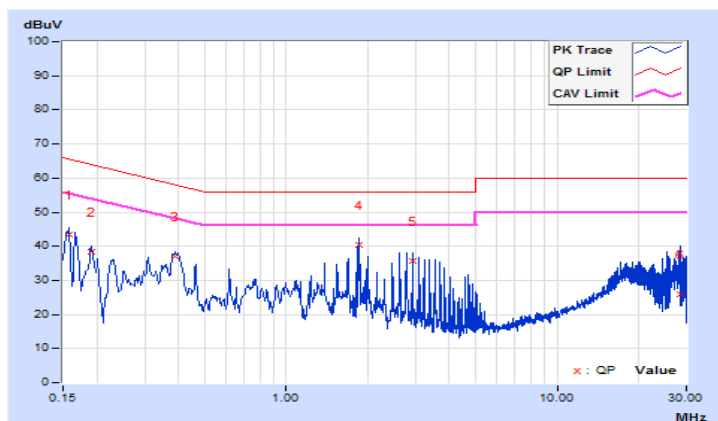
802.11ac (VHT80)

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

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15800	9.63	33.94	21.09	43.57	30.72	65.57	55.57	-22.00	-24.85
2	0.19000	9.62	28.86	14.85	38.48	24.47	64.04	54.04	-25.56	-29.57
3	0.39000	9.65	27.37	18.13	37.02	27.78	58.06	48.06	-21.04	-20.28
4	1.85000	9.72	30.81	30.20	40.53	39.92	56.00	46.00	-15.47	-6.08
5	2.92600	9.76	25.88	25.03	35.64	34.79	56.00	46.00	-20.36	-11.21
6	28.63000	9.90	16.02	4.81	25.92	14.71	60.00	50.00	-34.08	-35.29

Remarks:

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

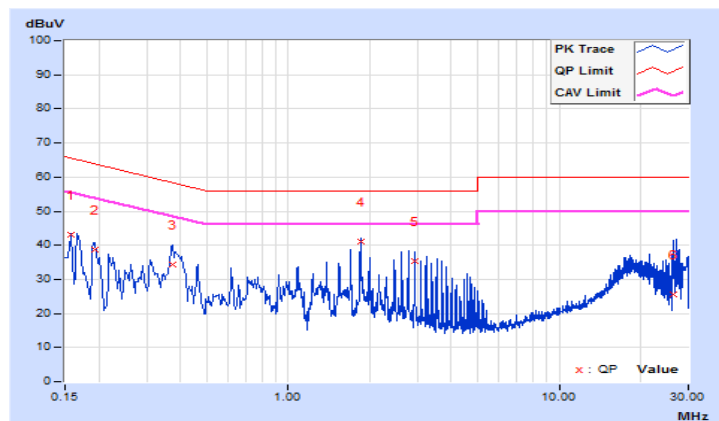


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
-------	-------------	-------------------	--------------------------------

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15800	9.66	33.30	20.86	42.96	30.52	65.57	55.57	-22.61	-25.05
2	0.19400	9.64	28.97	15.13	38.61	24.77	63.86	53.86	-25.25	-29.09
3	0.37322	9.67	24.70	16.26	34.37	25.93	58.43	48.43	-24.06	-22.50
4	1.85000	9.75	31.40	30.58	41.15	40.33	56.00	46.00	-14.85	-5.67
5	2.93000	9.79	25.59	23.09	35.38	32.88	56.00	46.00	-20.62	-13.12
6	26.35800	10.05	15.47	7.62	25.52	17.67	60.00	50.00	-34.48	-32.33

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 F

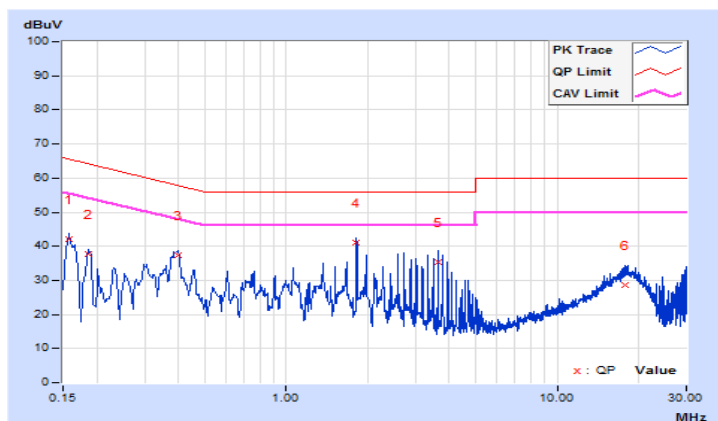
802.11n (HT40)

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

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15800	9.63	32.61	19.05	42.24	28.68	65.57	55.57	-23.33	-26.89
2	0.18600	9.62	27.93	12.05	37.55	21.67	64.21	54.21	-26.66	-32.54
3	0.39654	9.65	27.65	18.95	37.30	28.60	57.93	47.93	-20.63	-19.33
4	1.81800	9.72	31.44	31.32	41.16	41.04	56.00	46.00	-14.84	-4.96
5	3.63800	9.78	25.65	24.74	35.43	34.52	56.00	46.00	-20.57	-11.48
6	17.88200	9.91	18.72	12.45	28.63	22.36	60.00	50.00	-31.37	-27.64

Remarks:

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

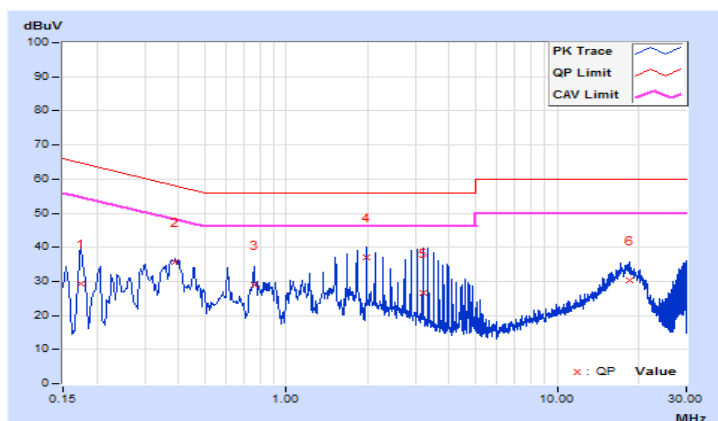


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
-------	-------------	-------------------	--------------------------------

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.17400	9.65	19.80	1.39	29.45	11.04	64.77	54.77	-35.32	-43.73
2	0.39000	9.67	26.12	19.41	35.79	29.08	58.06	48.06	-22.27	-18.98
3	0.76200	9.69	19.32	14.43	29.01	24.12	56.00	46.00	-26.99	-21.88
4	1.97400	9.76	27.30	26.70	37.06	36.46	56.00	46.00	-18.94	-9.54
5	3.19400	9.80	16.71	7.89	26.51	17.69	56.00	46.00	-29.49	-28.31
6	18.53800	10.02	20.14	13.64	30.16	23.66	60.00	50.00	-29.84	-26.34

Remarks:

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



4.3 Transmit Power Measurement

4.3.1 Limits of Transmit Power Measurement

Operation Band	EUT Category		Limit
U-NII-1		Outdoor Access Point	1 Watt (30 dBm) (Max. e.i.r.p $\leq$ 125mW(21 dBm) at any elevation angle above 30 degrees as measured from the horizon)
		Fixed point-to-point Access Point	1 Watt (30 dBm)
		Indoor Access Point	1 Watt (30 dBm)
		Mobile and Portable client device	250mW (24 dBm)
U-NII-2A	$\sqrt{\quad}$		250mW (24 dBm) or 11 dBm+10 log B*
U-NII-2C	$\sqrt{\quad}$		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 $N_{ANT} \leq 4$;

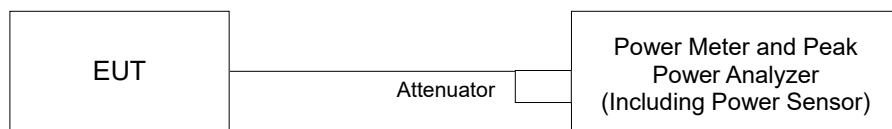
Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT} ;

Array Gain = $5 \log(N_{ANT}/N_{SS})$ dB or 3 dB, whichever is less for 20-MHz channel widths with $N_{ANT} \geq 5$.

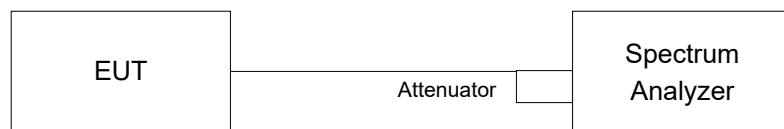
For power measurements on all other devices: Array Gain = $10 \log(N_{ANT}/N_{SS})$ dB.

4.3.2 Test Setup

For Power Output



For 26dB 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

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 and set the detector to average. Duty factor is not added to measured value.

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

Test Mode A

Power Output:

802.11a

Chan.	Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
52	5260	5.66	6.17	7.821	8.93	11.85	Pass
60	5300	6.08	5.23	7.389	8.69	11.80	Pass
64	5320	5.84	5.51	7.393	8.69	11.85	Pass
100	5500	5.42	4.60	6.367	8.04	11.84	Pass
116	5580	5.46	5.15	6.789	8.32	11.81	Pass
140	5700	5.93	5.30	7.306	8.64	11.81	Pass

Note:

1. 5260MHz and 5320MHz: Gain = 18dBi > 6dBi, so the power limit shall be reduced to 23.85 - (18 - 6) = 11.85dBi.
2. 5300MHz: Gain = 18dBi > 6dBi, so the power limit shall be reduced to 23.80 - (18 - 6) = 11.80dBi.
3. 5500MHz: Gain = 18dBi > 6dBi, so the power limit shall be reduced to 23.84 - (18 - 6) = 11.84dBi.
4. 5580MHz and 5700MHz: Gain = 18dBi > 6dBi, so the power limit shall be reduced to 23.81 - (18 - 6) = 11.81dBi.

Chain 0

1. 11dBm + 10log (19.54) = 23.90 < 24dBm
2. 11dBm + 10log (19.58) = 23.91 < 24dBm
3. 11dBm + 10log (19.50) = 23.90 < 24dBm
4. 11dBm + 10log (19.44) = 23.88 < 24dBm
5. 11dBm + 10log (19.14) = 23.81 < 24dBm
6. 11dBm + 10log (19.45) = 23.88 < 24dBm

Chain 1

1. 11dBm + 10log (19.31) = 23.85 < 24dBm
2. 11dBm + 10log (19.06) = 23.80 < 24dBm
3. 11dBm + 10log (19.29) = 23.85 < 24dBm
4. 11dBm + 10log (19.27) = 23.84 < 24dBm
5. 11dBm + 10log (19.13) = 23.81 < 24dBm
6. 11dBm + 10log (19.12) = 23.81 < 24dBm

802.11n (HT20)

Chan.	Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
52	5260	6.15	6.69	8.788	9.44	12.00	Pass
60	5300	6.39	6.04	8.373	9.23	12.00	Pass
64	5320	6.20	5.98	8.131	9.10	12.00	Pass
100	5500	6.39	5.58	7.969	9.01	12.00	Pass
116	5580	5.94	5.43	7.418	8.70	12.00	Pass
140	5700	6.41	5.61	8.014	9.04	12.00	Pass

Note:

1. 5260-5320MHz: Gain = 18dBi > 6dBi, so the power limit shall be reduced to 24 - (18 - 6) = 12.00dBi.
2. 5500-5700MHz: Gain = 18dBi > 6dBi, so the power limit shall be reduced to 24 - (18 - 6) = 12.00dBi.

Chain 0

1. 11dBm + 10log (20.48) = 24.11 > 24dBm
2. 11dBm + 10log (20.44) = 24.10 > 24dBm
3. 11dBm + 10log (20.44) = 24.10 > 24dBm
4. 11dBm + 10log (20.58) = 24.13 > 24dBm
5. 11dBm + 10log (20.39) = 24.09 > 24dBm
6. 11dBm + 10log (20.38) = 24.09 > 24dBm

Chain 1

1. 11dBm + 10log (20.28) = 24.07 > 24dBm
2. 11dBm + 10log (20.33) = 24.08 > 24dBm
3. 11dBm + 10log (20.35) = 24.08 > 24dBm
4. 11dBm + 10log (20.42) = 24.10 > 24dBm
5. 11dBm + 10log (20.57) = 24.13 > 24dBm
6. 11dBm + 10log (20.46) = 24.10 > 24dBm

802.11n (HT40)

Chan.	Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
54	5270	8.57	8.72	14.642	11.66	12.00	Pass
62	5310	8.88	8.66	15.072	11.78	12.00	Pass
102	5510	8.96	8.09	14.312	11.56	12.00	Pass
110	5550	8.98	8.11	14.378	11.58	12.00	Pass
134	5670	8.93	8.15	14.348	11.57	12.00	Pass

Note:

1. 5260-5320MHz: Gain = 18dBi > 6dBi, so the power limit shall be reduced to 24 - (18 - 6) = 12.00dBi.
2. 5500-5700MHz: Gain = 18dBi > 6dBi, so the power limit shall be reduced to 24 - (18 - 6) = 12.00dBi.

Chain 0

1. 11dBm + 10log (40.52) = 27.07 > 24dBm
2. 11dBm + 10log (40.53) = 27.07 > 24dBm
3. 11dBm + 10log (40.50) = 27.07 > 24dBm
4. 11dBm + 10log (40.47) = 27.07 > 24dBm
5. 11dBm + 10log (40.76) = 27.10 > 24dBm

Chain 1

1. 11dBm + 10log (40.62) = 27.08 > 24dBm
2. 11dBm + 10log (40.87) = 27.11 > 24dBm
3. 11dBm + 10log (40.84) = 27.11 > 24dBm
4. 11dBm + 10log (40.66) = 27.09 > 24dBm
5. 11dBm + 10log (40.75) = 27.10 > 24dBm

802.11ac (VHT80)

Chan.	Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
58	5290	8.88	8.67	15.089	11.79	12.00	Pass
106	5530	8.98	8.25	14.590	11.64	12.00	Pass
122	5610	8.96	8.33	14.678	11.67	12.00	Pass

Note:

1. 5260-5320MHz: Gain = 18dBi > 6dBi, so the power limit shall be reduced to 24 - (18 - 6) = 12.00dBi.
2. 5500-5700MHz: Gain = 18dBi > 6dBi, so the power limit shall be reduced to 24 - (18 - 6) = 12.00dBi.

Chain 0

1. 11dBm + 10log (83.67) = 30.22 > 24dBm
2. 11dBm + 10log (83.91) = 30.23 > 24dBm
3. 11dBm + 10log (83.87) = 30.23 > 24dBm

Chain 1

1. 11dBm + 10log (83.77) = 30.23 > 24dBm
2. 11dBm + 10log (83.93) = 30.23 > 24dBm
3. 11dBm + 10log (83.70) = 30.22 > 24dBm

26dB Bandwidth:

802.11a

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)	
		Chain 0	Chain 1
52	5260	19.54	19.31
60	5300	19.58	19.06
64	5320	19.50	19.29
100	5500	19.44	19.27
116	5580	19.14	19.13
140	5700	19.45	19.12

802.11n (HT20)

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)	
		Chain 0	Chain 1
52	5260	20.48	20.28
60	5300	20.44	20.33
64	5320	20.44	20.35
100	5500	20.58	20.42
116	5580	20.39	20.57
140	5700	20.38	20.46

802.11n (HT40)

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)	
		Chain 0	Chain 1
54	5270	40.52	40.62
62	5310	40.53	40.87
102	5510	40.50	40.84
110	5550	40.47	40.66
134	5670	40.76	40.75

802.11ac (VHT80)

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)	
		Chain 0	Chain 1
58	5290	83.67	83.77
106	5530	83.91	83.93
122	5610	83.87	83.70

EUT Average Power

802.11a

Frequency Band (MHz)	Max. Power	
	Output Power (dBm)	Output Power (mW)
5250~5350	8.93	7.821
5470~5725	8.64	7.306

802.11n (HT20)

Frequency Band (MHz)	Max. Power	
	Output Power (dBm)	Output Power (mW)
5250~5350	9.44	8.788
5470~5725	9.04	8.014

802.11n (HT40)

Frequency Band (MHz)	Max. Power	
	Output Power (dBm)	Output Power (mW)
5250~5350	11.78	15.072
5470~5725	11.58	14.378

802.11ac (VHT80)

Frequency Band (MHz)	Max. Power	
	Output Power (dBm)	Output Power (mW)
5250~5350	11.79	15.089
5470~5725	11.67	14.678

Test Mode B

Power Output:

802.11a

Chan.	Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
52	5260	13.25	13.23	42.173	16.25	19.82	Pass
60	5300	13.27	13.30	42.612	16.30	19.79	Pass
64	5320	13.28	13.19	42.126	16.25	19.81	Pass
100	5500	13.23	12.73	39.788	16.00	19.81	Pass
116	5580	13.82	12.57	42.171	16.25	19.88	Pass
140	5700	13.83	12.23	40.866	16.11	19.82	Pass

Note:

1. 5260MHz and 5700MHz: Gain = 10dBi > 6dBi, so the power limit shall be reduced to $23.82 - (10 - 6) = 19.82\text{dBi}$.
2. 5300MHz: Gain = 10dBi > 6dBi, so the power limit shall be reduced to $23.79 - (10 - 6) = 19.79\text{dBi}$.
3. 5320MHz and 5500MHz: Gain = 10dBi > 6dBi, so the power limit shall be reduced to $23.81 - (10 - 6) = 19.81\text{dBi}$.
4. 5580MHz: Gain = 10dBi > 6dBi, so the power limit shall be reduced to $23.88 - (10 - 6) = 19.88\text{dBi}$.

Chain 0

1. $11\text{dBm} + 10\log(19.62) = 23.92 < 24\text{dBm}$
2. $11\text{dBm} + 10\log(19.43) = 23.88 < 24\text{dBm}$
3. $11\text{dBm} + 10\log(19.59) = 23.92 < 24\text{dBm}$
4. $11\text{dBm} + 10\log(19.59) = 23.92 < 24\text{dBm}$
5. $11\text{dBm} + 10\log(19.51) = 23.90 < 24\text{dBm}$
6. $11\text{dBm} + 10\log(19.37) = 23.87 < 24\text{dBm}$

Chain 1

1. $11\text{dBm} + 10\log(19.15) = 23.82 < 24\text{dBm}$
2. $11\text{dBm} + 10\log(19.03) = 23.79 < 24\text{dBm}$
3. $11\text{dBm} + 10\log(19.12) = 23.81 < 24\text{dBm}$
4. $11\text{dBm} + 10\log(19.12) = 23.81 < 24\text{dBm}$
5. $11\text{dBm} + 10\log(19.43) = 23.88 < 24\text{dBm}$
6. $11\text{dBm} + 10\log(19.16) = 23.82 < 24\text{dBm}$

802.11n (HT20)

Chan.	Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
52	5260	13.72	13.81	47.594	16.78	20.00	Pass
60	5300	14.00	13.90	49.666	16.96	20.00	Pass
64	5320	13.92	13.94	49.435	16.94	20.00	Pass
100	5500	14.03	13.93	50.010	16.99	20.00	Pass
116	5580	14.26	13.13	47.227	16.74	20.00	Pass
140	5700	14.83	13.37	52.136	17.17	20.00	Pass

Note:

1. 5260-5320MHz: Gain = 10dBi > 6dBi, so the power limit shall be reduced to 24 - (10 - 6) = 20.00dBi.
2. 5500-5700MHz: Gain = 10dBi > 6dBi, so the power limit shall be reduced to 24 - (10 - 6) = 20.00dBi.

Chain 0

1. 11dBm + 10log (20.48) = 24.11 > 24dBm
2. 11dBm + 10log (20.60) = 24.13 > 24dBm
3. 11dBm + 10log (20.45) = 24.10 > 24dBm
4. 11dBm + 10log (20.55) = 24.12 > 24dBm
5. 11dBm + 10log (20.22) = 24.05 > 24dBm
6. 11dBm + 10log (20.43) = 24.10 > 24dBm

Chain 1

1. 11dBm + 10log (20.28) = 24.07 > 24dBm
2. 11dBm + 10log (20.31) = 24.07 > 24dBm
3. 11dBm + 10log (20.26) = 24.06 > 24dBm
4. 11dBm + 10log (20.43) = 24.10 > 24dBm
5. 11dBm + 10log (20.38) = 24.09 > 24dBm
6. 11dBm + 10log (20.48) = 24.11 > 24dBm

802.11n (HT40)

Chan.	Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
54	5270	16.56	16.54	90.371	19.56	20.00	Pass
62	5310	16.89	16.53	93.843	19.72	20.00	Pass
102	5510	16.99	16.51	94.775	19.77	20.00	Pass
110	5550	17.33	16.35	97.227	19.88	20.00	Pass
134	5670	17.55	16.25	99.055	19.96	20.00	Pass

Note:

1. 5260-5320MHz: Gain = 10dBi > 6dBi, so the power limit shall be reduced to 24 - (10 - 6) = 20.00dBi.
2. 5500-5700MHz: Gain = 10dBi > 6dBi, so the power limit shall be reduced to 24 - (10 - 6) = 20.00dBi.

Chain 0

1. 11dBm + 10log (40.65) = 27.09 > 24dBm
2. 11dBm + 10log (40.71) = 27.09 > 24dBm
3. 11dBm + 10log (40.65) = 27.09 > 24dBm
4. 11dBm + 10log (40.57) = 27.08 > 24dBm
5. 11dBm + 10log (40.62) = 27.08 > 24dBm

Chain 1

1. 11dBm + 10log (40.67) = 27.09 > 24dBm
2. 11dBm + 10log (40.93) = 27.12 > 24dBm
3. 11dBm + 10log (40.63) = 27.08 > 24dBm
4. 11dBm + 10log (40.79) = 27.10 > 24dBm
5. 11dBm + 10log (40.75) = 27.10 > 24dBm

802.11ac (VHT80)

Chan.	Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
58	5290	17.03	16.88	99.219	19.97	20.00	Pass
106	5530	16.98	16.22	91.768	19.63	20.00	Pass
122	5610	17.45	16.23	97.566	19.89	20.00	Pass

Note:

1. 5260-5320MHz: Gain = 10dBi > 6dBi, so the power limit shall be reduced to 24 - (10 - 6) = 20.00dBi.
2. 5500-5700MHz: Gain = 10dBi > 6dBi, so the power limit shall be reduced to 24 - (10 - 6) = 20.00dBi.

Chain 0

1. 11dBm + 10log (83.79) = 30.23 > 24dBm
2. 11dBm + 10log (84.09) = 30.24 > 24dBm
3. 11dBm + 10log (83.83) = 30.23 > 24dBm

Chain 1

1. 11dBm + 10log (83.78) = 30.23 > 24dBm
2. 11dBm + 10log (83.97) = 30.24 > 24dBm
3. 11dBm + 10log (83.78) = 30.23 > 24dBm

26dB Bandwidth:

802.11a

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)	
		Chain 0	Chain 1
52	5260	19.62	19.15
60	5300	19.43	19.03
64	5320	19.59	19.12
100	5500	19.59	19.12
116	5580	19.51	19.43
140	5700	19.37	19.16

802.11n (HT20)

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)	
		Chain 0	Chain 1
52	5260	20.48	20.28
60	5300	20.60	20.31
64	5320	20.45	20.26
100	5500	20.55	20.43
116	5580	20.22	20.38
140	5700	20.43	20.48

802.11n (HT40)

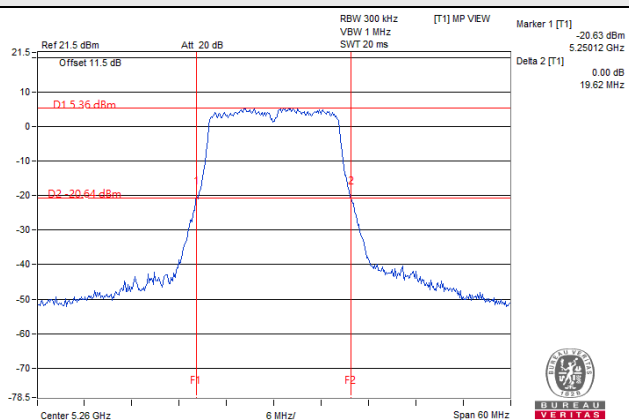
Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)	
		Chain 0	Chain 1
54	5270	40.65	40.67
62	5310	40.71	40.93
102	5510	40.65	40.63
110	5550	40.57	40.79
134	5670	40.62	40.75

802.11ac (VHT80)

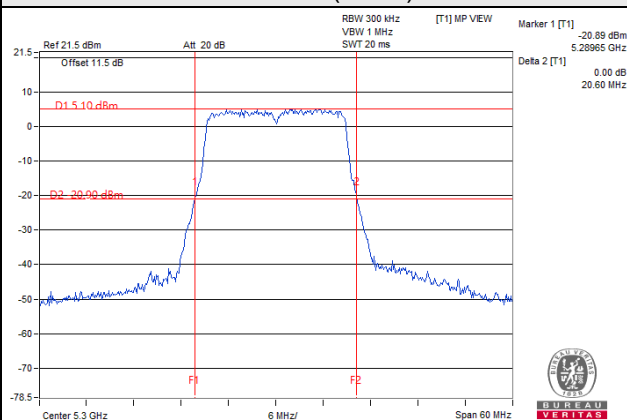
Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)	
		Chain 0	Chain 1
58	5290	83.79	83.78
106	5530	84.09	83.97
122	5610	83.83	83.78

Spectrum Plot of Worst Value

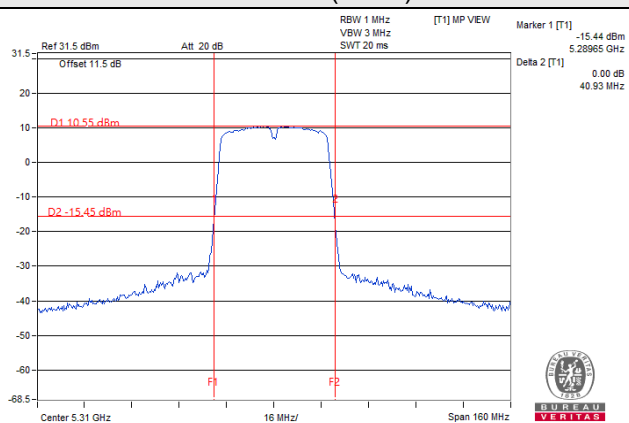
802.11a



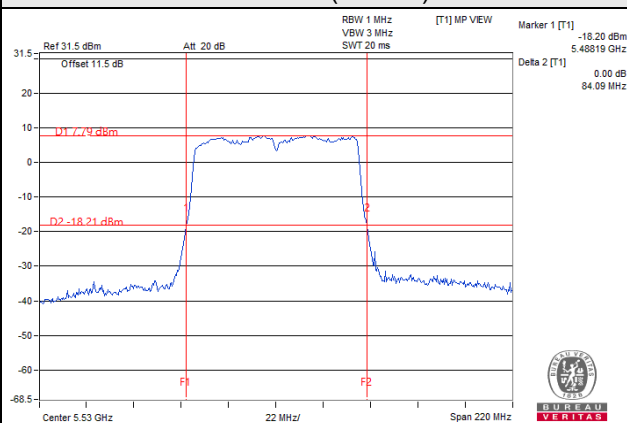
802.11n (HT20)



802.11n (HT40)



802.11ac (VHT80)



EUT Average Power

802.11a

Frequency Band (MHz)	Max. Power	
	Output Power (dBm)	Output Power (mW)
5250~5350	16.30	42.612
5470~5725	16.25	42.171

802.11n (HT20)

Frequency Band (MHz)	Max. Power	
	Output Power (dBm)	Output Power (mW)
5250~5350	16.96	49.666
5470~5725	17.17	52.136

802.11n (HT40)

Frequency Band (MHz)	Max. Power	
	Output Power (dBm)	Output Power (mW)
5250~5350	19.72	93.843
5470~5725	19.96	99.055

802.11ac (VHT80)

Frequency Band (MHz)	Max. Power	
	Output Power (dBm)	Output Power (mW)
5250~5350	19.97	99.219
5470~5725	19.89	97.566

Test Mode C

Power Output:

802.11a

Chan.	Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
52	5260	3.25	4.22	4.756	6.77	6.85	Pass
60	5300	2.72	3.72	4.226	6.26	6.85	Pass
64	5320	3.28	3.96	4.617	6.64	6.86	Pass
100	5500	3.86	3.52	4.681	6.70	6.86	Pass
116	5580	3.29	2.18	3.785	5.78	6.86	Pass
140	5700	3.14	2.00	3.646	5.62	6.86	Pass

Note:

- 5260MHz and 5300MHz: Gain = 23dBi > 6dBi, so the power limit shall be reduced to $23.85 - (23 - 6) = 6.85\text{dBi}$.
- 5320MHz: Gain = 23dBi > 6dBi, so the power limit shall be reduced to $23.86 - (23 - 6) = 6.86\text{dBi}$.
- 5500-5700MHz: Gain = 23dBi > 6dBi, so the power limit shall be reduced to $23.86 - (23 - 6) = 6.86\text{dBi}$.

Chain 0

- $11\text{dBm} + 10\log(19.51) = 23.90 < 24\text{dBm}$
- $11\text{dBm} + 10\log(19.54) = 23.90 < 24\text{dBm}$
- $11\text{dBm} + 10\log(19.63) = 23.92 < 24\text{dBm}$
- $11\text{dBm} + 10\log(19.66) = 23.93 < 24\text{dBm}$
- $11\text{dBm} + 10\log(19.54) = 23.90 < 24\text{dBm}$
- $11\text{dBm} + 10\log(19.54) = 23.90 < 24\text{dBm}$

Chain 1

- $11\text{dBm} + 10\log(19.28) = 23.85 < 24\text{dBm}$
- $11\text{dBm} + 10\log(19.30) = 23.85 < 24\text{dBm}$
- $11\text{dBm} + 10\log(19.32) = 23.86 < 24\text{dBm}$
- $11\text{dBm} + 10\log(19.36) = 23.86 < 24\text{dBm}$
- $11\text{dBm} + 10\log(19.32) = 23.86 < 24\text{dBm}$
- $11\text{dBm} + 10\log(19.33) = 23.86 < 24\text{dBm}$

802.11n (HT20)

Chan.	Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
52	5260	3.04	4.28	4.693	6.71	7.00	Pass
60	5300	2.62	3.82	4.238	6.27	7.00	Pass
64	5320	3.18	3.95	4.563	6.59	7.00	Pass
100	5500	3.75	3.42	4.569	6.60	7.00	Pass
116	5580	4.25	3.12	4.712	6.73	7.00	Pass
140	5700	4.12	2.93	4.546	6.58	7.00	Pass

Note:

1. 5260-5320MHz: Gain = 23dBi > 6dBi, so the power limit shall be reduced to 24 - (23 - 6) = 7.00dBi.
2. 5500-5700MHz: Gain = 23dBi > 6dBi, so the power limit shall be reduced to 24 - (23 - 6) = 7.00dBi.

Chain 0

1. 11dBm + 10log (20.48) = 24.11 > 24dBm
2. 11dBm + 10log (20.56) = 24.13 > 24dBm
3. 11dBm + 10log (20.51) = 24.11 > 24dBm
4. 11dBm + 10log (20.47) = 24.11 > 24dBm
5. 11dBm + 10log (20.48) = 24.11 > 24dBm
6. 11dBm + 10log (20.25) = 24.06 > 24dBm

Chain 1

1. 11dBm + 10log (20.42) = 24.10 > 24dBm
2. 11dBm + 10log (20.35) = 24.08 > 24dBm
3. 11dBm + 10log (20.48) = 24.11 > 24dBm
4. 11dBm + 10log (20.51) = 24.11 > 24dBm
5. 11dBm + 10log (20.54) = 24.12 > 24dBm
6. 11dBm + 10log (20.49) = 24.11 > 24dBm

802.11n (HT40)

Chan.	Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
54	5270	3.34	4.23	4.806	6.82	7.00	Pass
62	5310	2.89	3.73	4.306	6.34	7.00	Pass
102	5510	4.09	3.48	4.793	6.81	7.00	Pass
110	5550	3.67	2.61	4.152	6.18	7.00	Pass
134	5670	4.52	3.17	4.906	6.91	7.00	Pass

Note:

1. 5260-5320MHz: Gain = 23dBi > 6dBi, so the power limit shall be reduced to 24 - (23 - 6) = 7.00dBi.
2. 5500-5700MHz: Gain = 23dBi > 6dBi, so the power limit shall be reduced to 24 - (23 - 6) = 7.00dBi.

Chain 0

1. 11dBm + 10log (40.69) = 27.09 > 24dBm
2. 11dBm + 10log (40.66) = 27.09 > 24dBm
3. 11dBm + 10log (40.47) = 27.07 > 24dBm
4. 11dBm + 10log (40.66) = 27.09 > 24dBm
5. 11dBm + 10log (40.75) = 27.10 > 24dBm

Chain 1

1. 11dBm + 10log (40.64) = 27.08 > 24dBm
2. 11dBm + 10log (40.69) = 27.09 > 24dBm
3. 11dBm + 10log (40.88) = 27.11 > 24dBm
4. 11dBm + 10log (40.79) = 27.10 > 24dBm
5. 11dBm + 10log (40.74) = 27.10 > 24dBm

802.11ac (VHT80)

Chan.	Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
58	5290	2.51	3.47	4.006	6.03	7.00	Pass
106	5530	3.61	2.82	4.210	6.24	7.00	Pass
122	5610	3.95	2.55	4.282	6.32	7.00	Pass

Note:

1. 5260-5320MHz: Gain = 23dBi > 6dBi, so the power limit shall be reduced to 24 - (23 - 6) = 7.00dBi.
2. 5500-5700MHz: Gain = 23dBi > 6dBi, so the power limit shall be reduced to 24 - (23 - 6) = 7.00dBi.

Chain 0

1. 11dBm + 10log (83.65) = 30.22 > 24dBm
2. 11dBm + 10log (83.76) = 30.23 > 24dBm
3. 11dBm + 10log (83.71) = 30.22 > 24dBm

Chain 1

1. 11dBm + 10log (83.82) = 30.23 > 24dBm
2. 11dBm + 10log (83.81) = 30.23 > 24dBm
3. 11dBm + 10log (83.72) = 30.22 > 24dBm

26dB Bandwidth:

802.11a

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)	
		Chain 0	Chain 1
52	5260	19.51	19.28
60	5300	19.54	19.30
64	5320	19.63	19.32
100	5500	19.66	19.36
116	5580	19.54	19.32
140	5700	19.54	19.33

802.11n (HT20)

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)	
		Chain 0	Chain 1
52	5260	20.48	20.42
60	5300	20.56	20.35
64	5320	20.51	20.48
100	5500	20.47	20.51
116	5580	20.48	20.54
140	5700	20.25	20.49

802.11n (HT40)

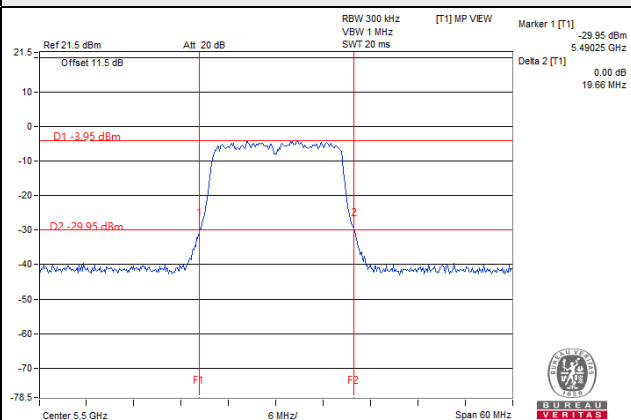
Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)	
		Chain 0	Chain 1
54	5270	40.69	40.64
62	5310	40.66	40.69
102	5510	40.47	40.88
110	5550	40.66	40.79
134	5670	40.75	40.74

802.11ac (VHT80)

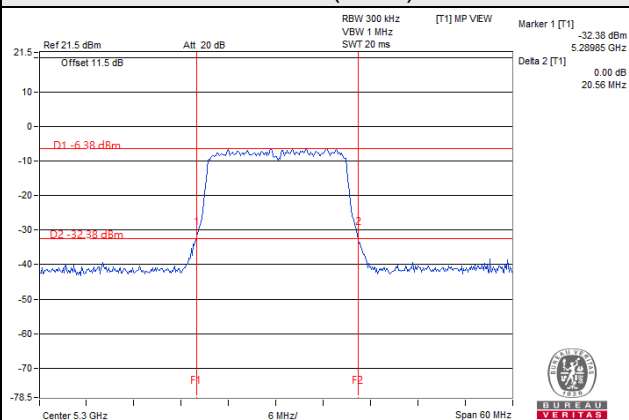
Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)	
		Chain 0	Chain 1
58	5290	83.65	83.82
106	5530	83.76	83.81
122	5610	83.71	83.72

Spectrum Plot of Worst Value

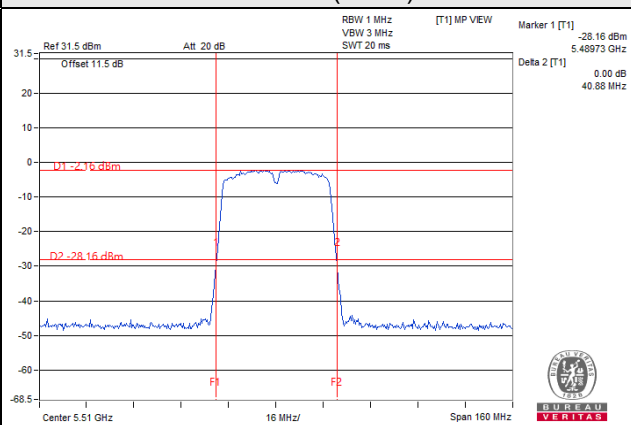
802.11a



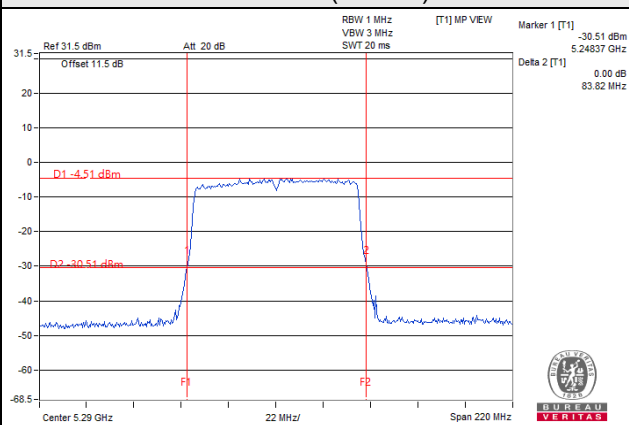
802.11n (HT20)



802.11n (HT40)



802.11ac (VHT80)



EUT Average Power

802.11a

Frequency Band (MHz)	Max. Power	
	Output Power (dBm)	Output Power (mW)
5250~5350	6.77	4.756
5470~5725	6.70	4.681

802.11n (HT20)

Frequency Band (MHz)	Max. Power	
	Output Power (dBm)	Output Power (mW)
5250~5350	6.71	4.693
5470~5725	6.73	4.712

802.11n (HT40)

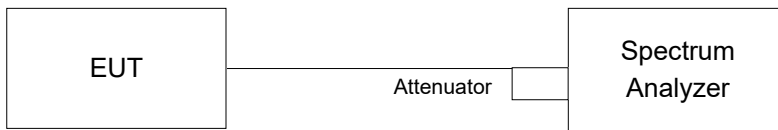
Frequency Band (MHz)	Max. Power	
	Output Power (dBm)	Output Power (mW)
5250~5350	6.82	4.806
5470~5725	6.91	4.906

802.11ac (VHT80)

Frequency Band (MHz)	Max. Power	
	Output Power (dBm)	Output Power (mW)
5250~5350	6.03	4.006
5470~5725	6.32	4.282

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

Test Mode A

802.11a

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
52	5260	16.44	16.44
60	5300	16.44	16.44
64	5320	16.44	16.44
100	5500	16.44	16.44
116	5580	16.44	16.44
140	5700	16.44	16.44

802.11n (HT20)

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
52	5260	17.64	17.64
60	5300	17.64	17.64
64	5320	17.64	17.64
100	5500	17.76	17.64
116	5580	17.64	17.64
140	5700	17.64	17.64

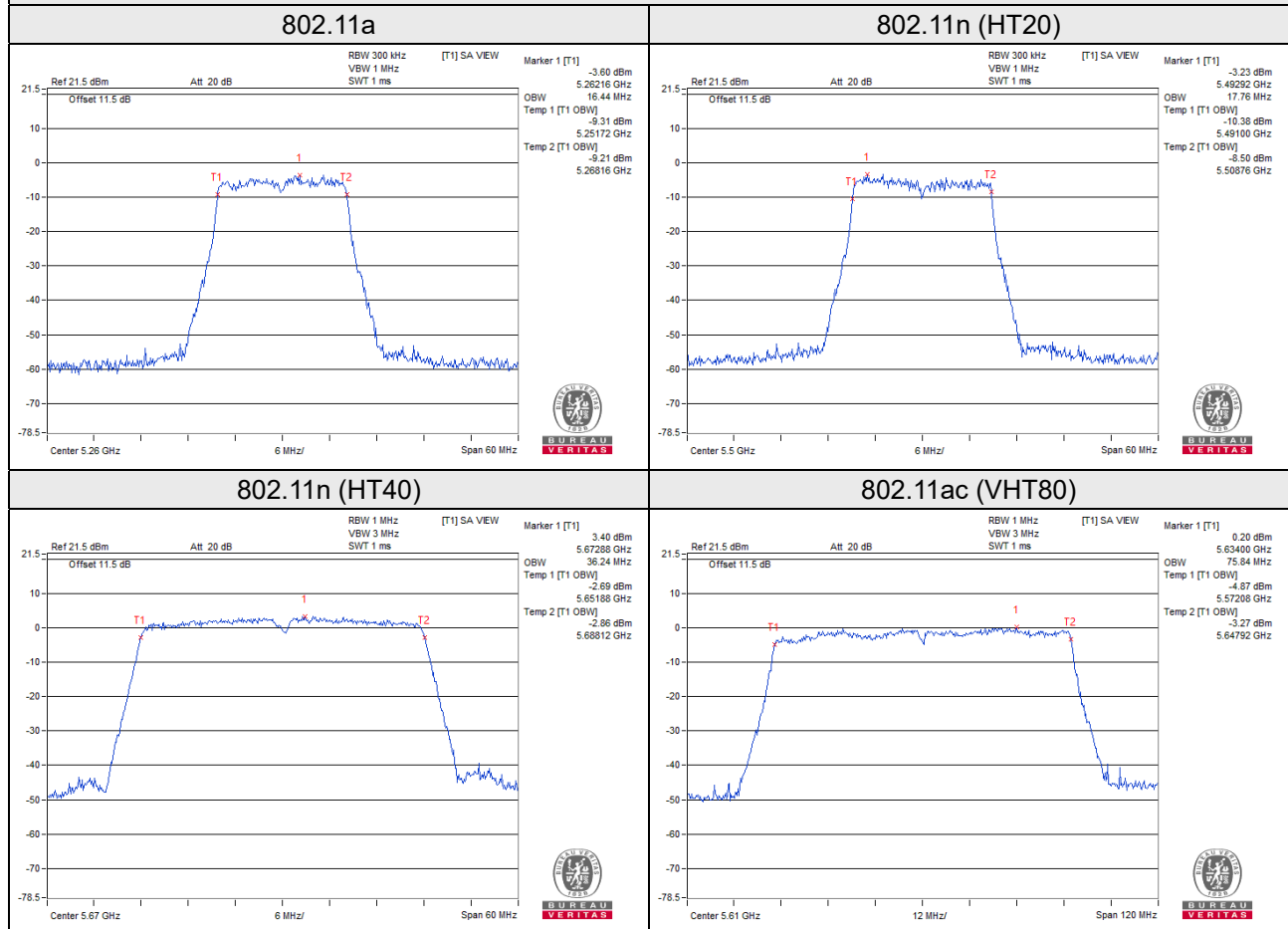
802.11n (HT40)

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
54	5270	36.00	36.12
62	5310	36.00	36.12
102	5510	36.00	36.00
110	5550	36.00	36.00
134	5670	36.24	36.00

802.11ac (VHT80)

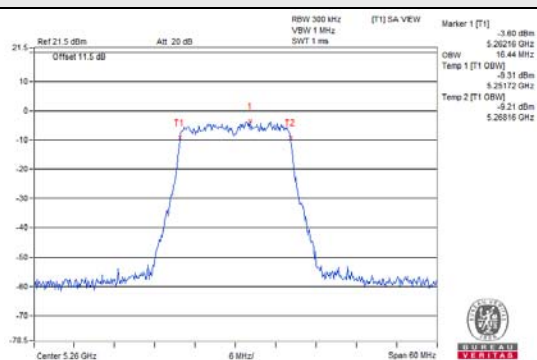
Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
58	5290	75.84	75.84
106	5530	75.84	75.84
122	5610	75.84	75.84

Spectrum Plot of Worst Value

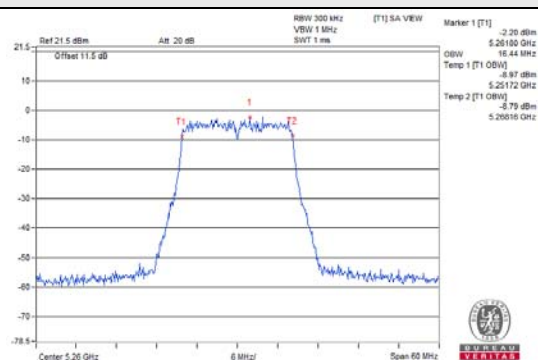


802.11a CH 52

Chain 0

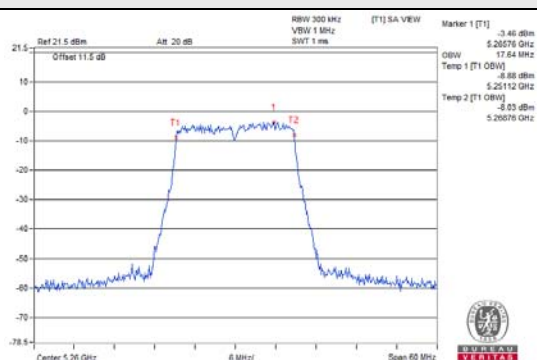


Chain 1

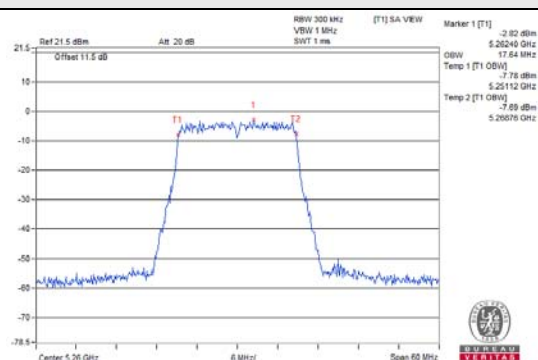


802.11n (HT20) CH 52

Chain 0

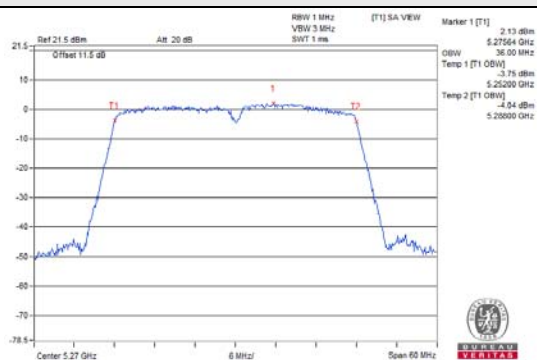


Chain 1

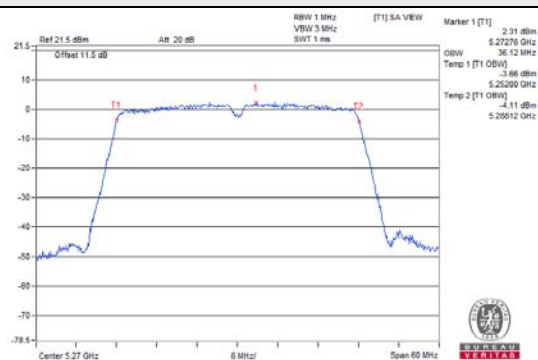


802.11n (HT40) CH 54

Chain 0

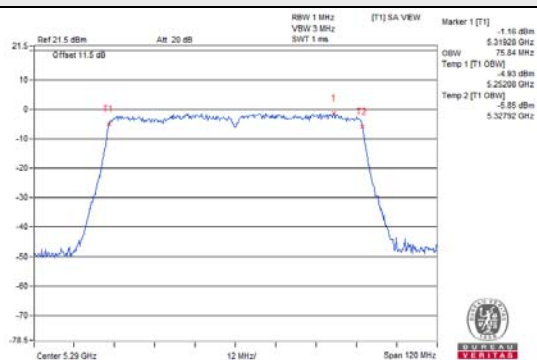


Chain 1

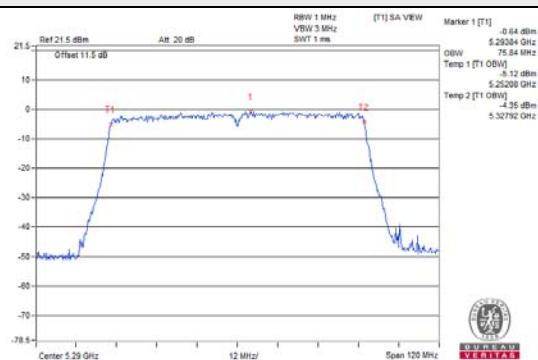


802.11ac (VHT80) CH 58

Chain 0



Chain 1



Test Mode B

802.11a

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
52	5260	16.44	16.44
60	5300	16.44	16.44
64	5320	16.44	16.44
100	5500	16.44	16.44
116	5580	16.44	16.44
140	5700	16.44	16.44

802.11n (HT20)

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
52	5260	17.64	17.64
60	5300	17.64	17.64
64	5320	17.64	17.64
100	5500	17.64	17.64
116	5580	17.64	17.64
140	5700	17.64	17.64

802.11n (HT40)

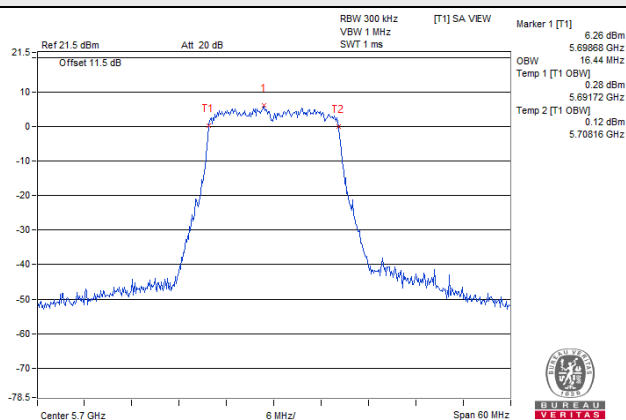
Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
54	5270	36.12	36.12
62	5310	36.00	36.00
102	5510	36.00	36.00
110	5550	36.12	36.00
134	5670	36.00	36.00

802.11ac (VHT80)

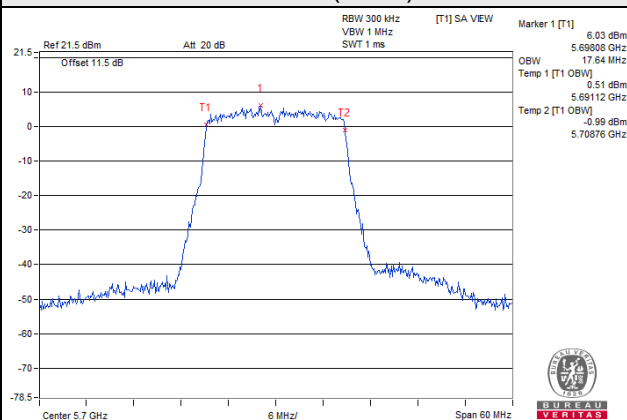
Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
58	5290	75.84	75.84
106	5530	75.84	75.84
122	5610	75.84	75.84

Spectrum Plot of Worst Value

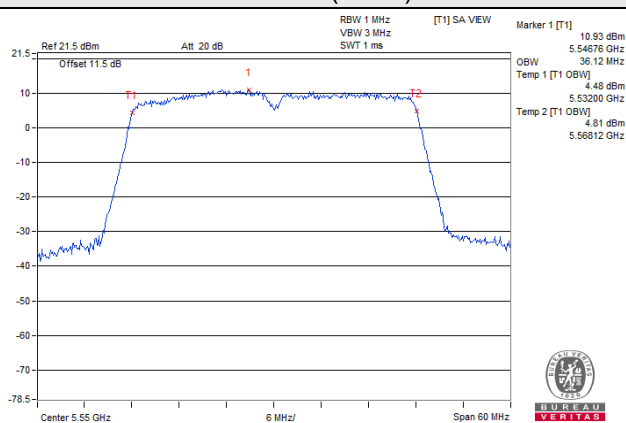
802.11a



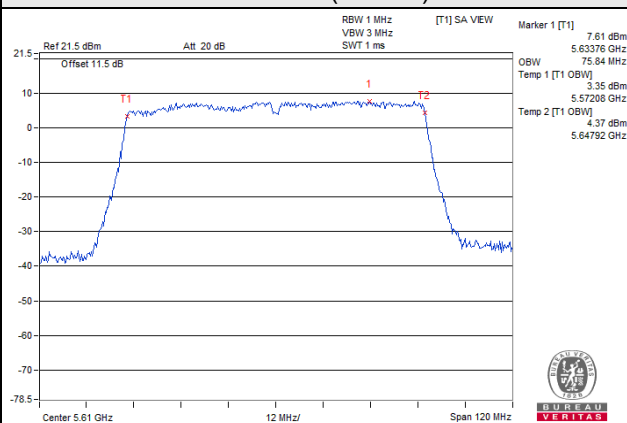
802.11n (HT20)



802.11n (HT40)

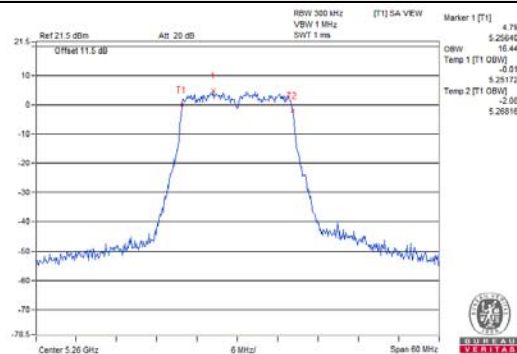


802.11ac (VHT80)

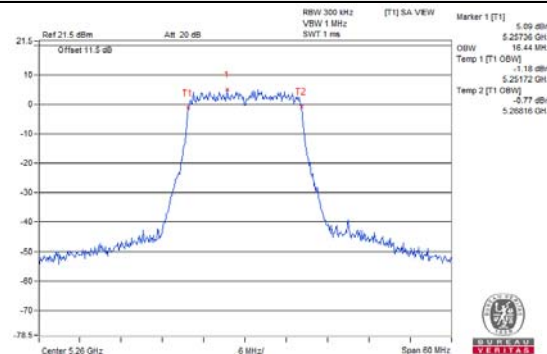


802.11a CH 52

Chain 0

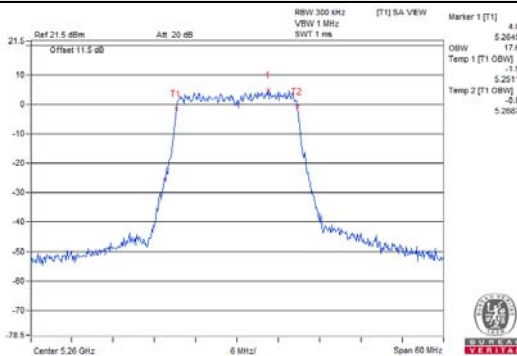


Chain 1

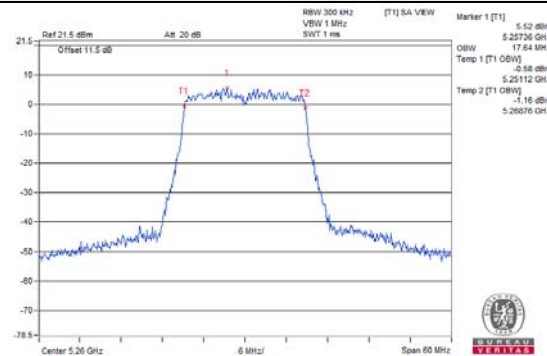


802.11n (HT20) CH 52

Chain 0

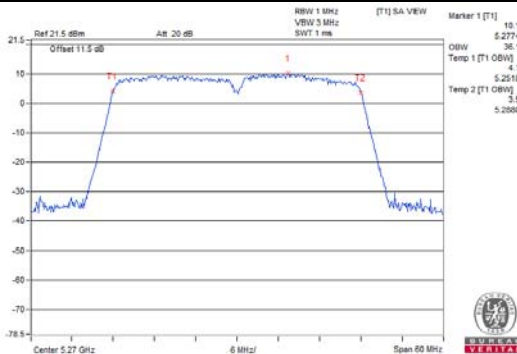


Chain 1

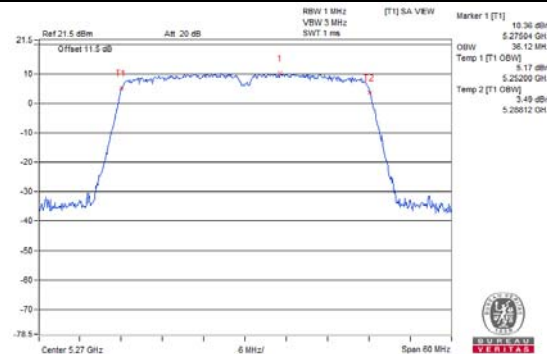


802.11n (HT40) CH 54

Chain 0

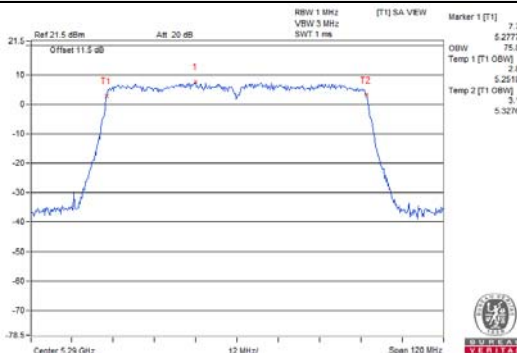


Chain 1

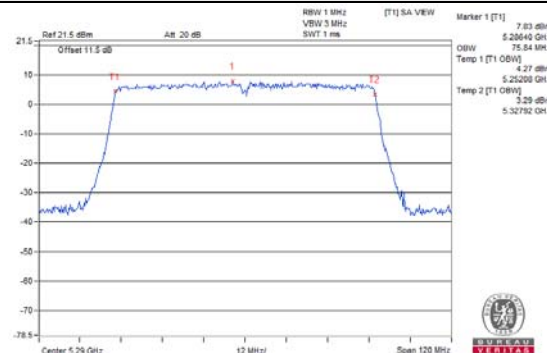


802.11ac (VHT80) CH 58

Chain 0



Chain 1



Test Mode C

802.11a

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
52	5260	16.56	16.44
60	5300	16.56	16.44
64	5320	16.56	16.44
100	5500	16.56	16.56
116	5580	16.56	16.56
140	5700	16.44	16.44

802.11n (HT20)

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
52	5260	17.76	17.64
60	5300	17.76	17.64
64	5320	17.64	17.64
100	5500	17.64	17.64
116	5580	17.64	17.64
140	5700	17.64	17.64

802.11n (HT40)

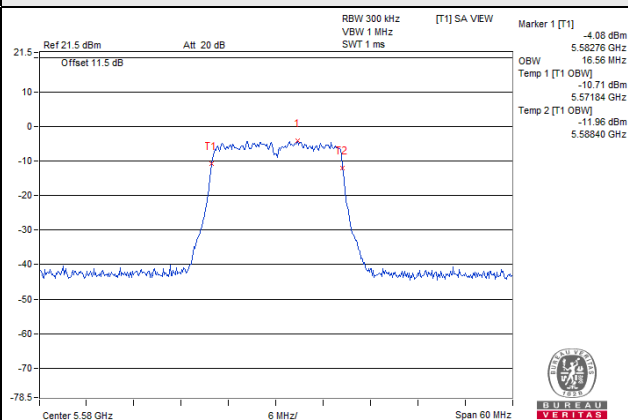
Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
54	5270	36.12	36.12
62	5310	36.00	36.12
102	5510	36.00	36.12
110	5550	36.00	36.12
134	5670	36.00	36.00

802.11ac (VHT80)

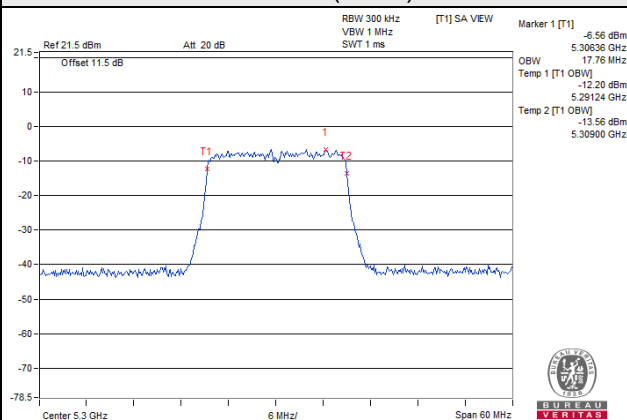
Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
58	5290	75.84	75.84
106	5530	75.84	75.84
122	5610	75.84	75.84

Spectrum Plot of Worst Value

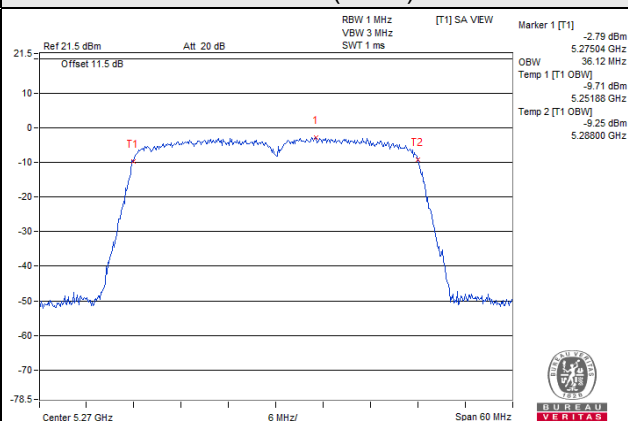
802.11a



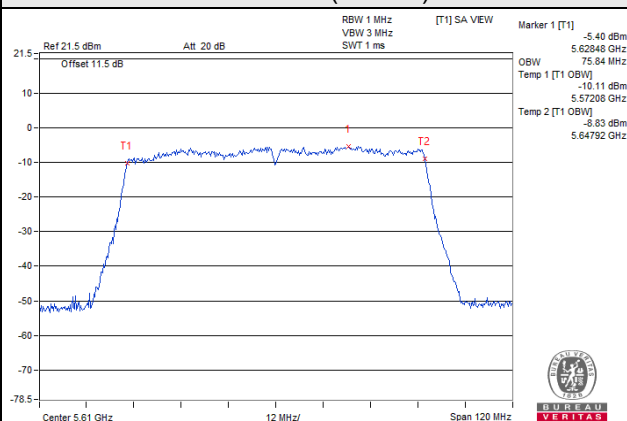
802.11n (HT20)



802.11n (HT40)

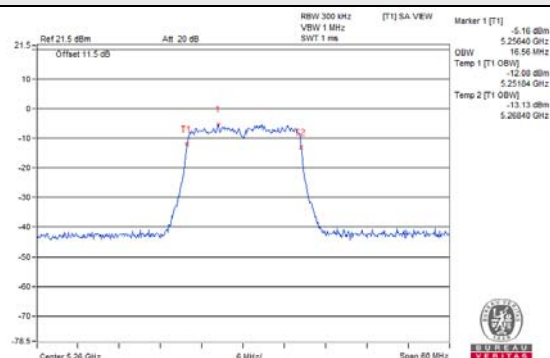


802.11ac (VHT80)

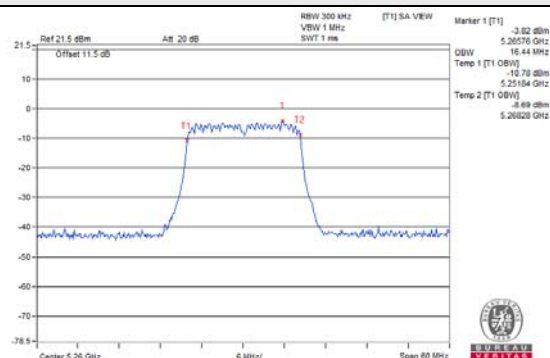


802.11a CH 52

Chain 0

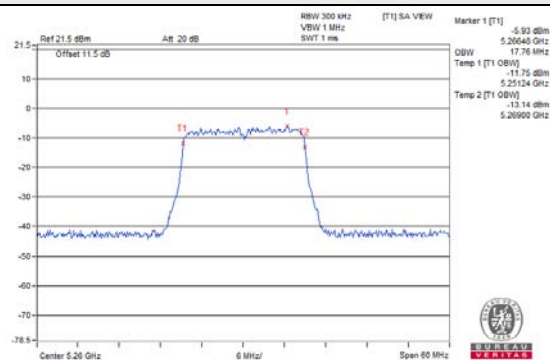


Chain 1

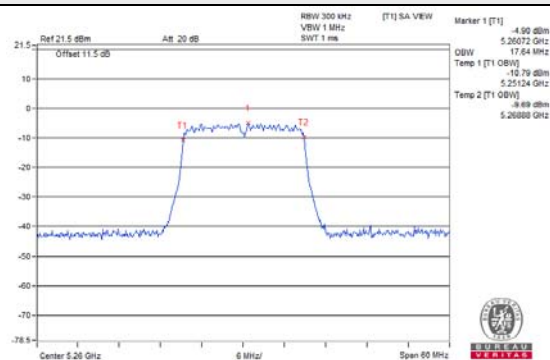


802.11n (HT20) CH 52

Chain 0

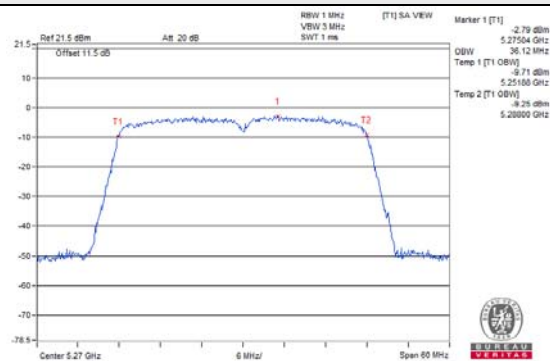


Chain 1

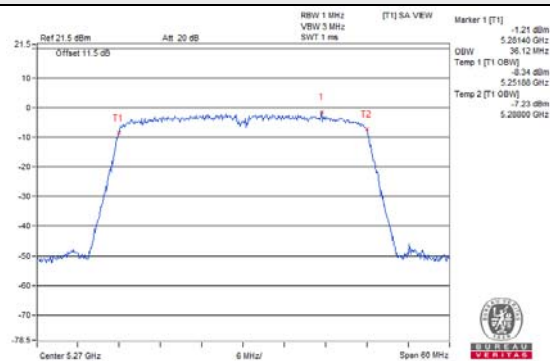


802.11n (HT40) CH 54

Chain 0

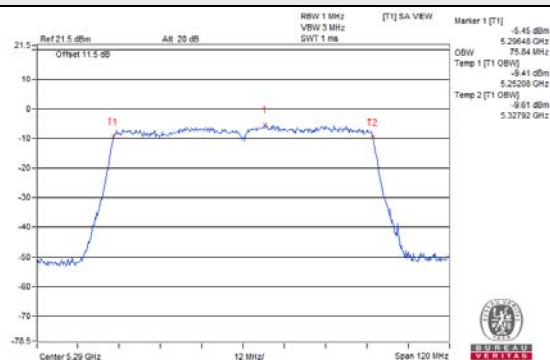


Chain 1

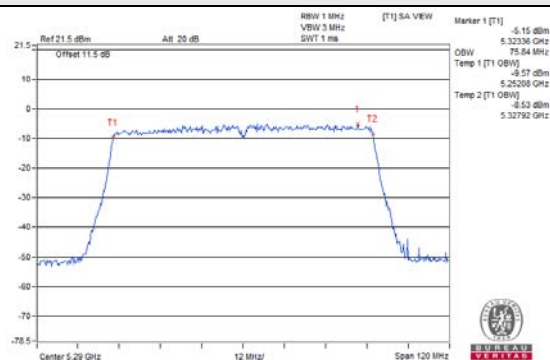


802.11ac (VHT80) CH 58

Chain 0



Chain 1

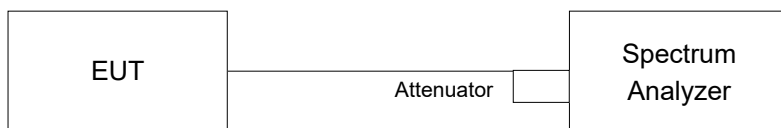


4.5 Peak Power Spectral Density Measurement

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

Using method SA-2

- Set span to encompass the entire emission bandwidth (EBW) of the signal.
- Set RBW = 1MHz, Set VBW $\geq$ 3 MHz, Detector = RMS
- Set Channel power measure = 1MHz
- Sweep time = auto, trigger set to "free run".
- Trace average at least 100 traces in power averaging mode.
- 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 4.3.6.

4.5.7 Test Results

Test Mode A

802.11a

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				
52	5260	-7.60	-7.71	0.18	-4.46	-4.01	Pass
60	5300	-7.44	-7.47	0.18	-4.26	-4.01	Pass
64	5320	-7.22	-7.57	0.18	-4.20	-4.01	Pass
100	5500	-7.38	-8.08	0.18	-4.53	-4.01	Pass
116	5580	-7.14	-8.54	0.18	-4.59	-4.01	Pass
140	5700	-6.66	-8.13	0.18	-4.14	-4.01	Pass

Note:

- Method E) 2) 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.
- 5260-5320MHz: Directional gain = $18\text{dBi} + 10\log(2) = 21.01\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $11 - (21.01 - 6) = -4.01\text{dBi}$.
- 5500-5700MHz: Directional gain = $18\text{dBi} + 10\log(2) = 21.01\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $11 - (21.01 - 6) = -4.01\text{dBi}$.
- 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				
52	5260	-7.52	-7.44	0.09	-4.38	-4.01	Pass
60	5300	-7.36	-7.05	0.09	-4.10	-4.01	Pass
64	5320	-7.14	-7.20	0.09	-4.07	-4.01	Pass
100	5500	-7.29	-7.59	0.09	-4.34	-4.01	Pass
116	5580	-6.73	-8.28	0.09	-4.34	-4.01	Pass
140	5700	-6.33	-8.10	0.09	-4.03	-4.01	Pass

Note:

- Method E) 2) 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.
- 5260-5320MHz: Directional gain = $18\text{dBi} + 10\log(2) = 21.01\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $11 - (21.01 - 6) = -4.01\text{dBi}$.
- 5500-5700MHz: Directional gain = $18\text{dBi} + 10\log(2) = 21.01\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $11 - (21.01 - 6) = -4.01\text{dBi}$.
- 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				
54	5270	-7.77	-7.75	0.18	-4.57	-4.01	Pass
62	5310	-7.20	-7.43	0.18	-4.12	-4.01	Pass
102	5510	-6.94	-7.67	0.18	-4.10	-4.01	Pass
110	5550	-6.57	-8.05	0.18	-4.06	-4.01	Pass
134	5670	-6.70	-7.79	0.18	-4.02	-4.01	Pass

Note:

1. Method E) 2) 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. 5260-5320MHz: Directional gain = 18dBi + 10log(2) = 21.01dBi > 6dBi, so the power density limit shall be reduced to 11 - (21.01 - 6) = -4.01dBi.
3. 5500-5700MHz: Directional gain = 18dBi + 10log(2) = 21.01dBi > 6dBi, so the power density limit shall be reduced to 11 - (21.01 - 6) = -4.01dBi.
4. Refer to section 3.3 for duty cycle spectrum plot.

802.11ac (VHT80)

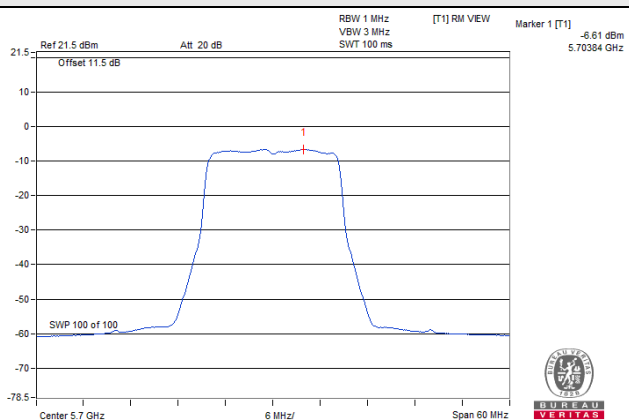
Chan.	Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)		Duty Factor (dB)	Total PSD with Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1				
58	5290	-11.23	-11.40	0.33	-7.97	-4.01	Pass
106	5530	-10.43	-11.29	0.33	-7.50	-4.01	Pass
122	5610	-10.09	-11.46	0.33	-7.38	-4.01	Pass

Note:

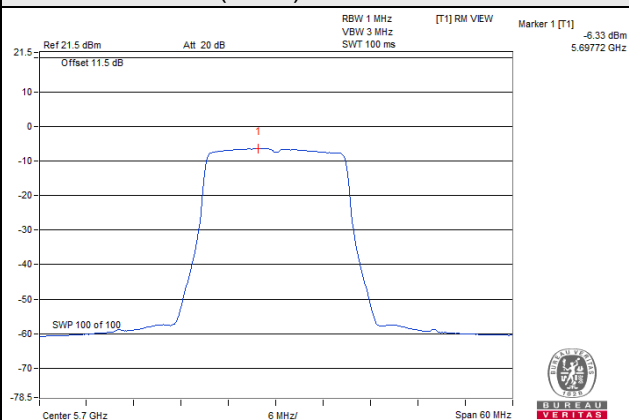
1. Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. 5260-5320MHz: Directional gain = 18dBi + 10log(2) = 21.01dBi > 6dBi, so the power density limit shall be reduced to 11 - (21.01 - 6) = -4.01dBi.
3. 5500-5700MHz: Directional gain = 18dBi + 10log(2) = 21.01dBi > 6dBi, so the power density limit shall be reduced to 11 - (21.01 - 6) = -4.01dBi.
4. Refer to section 3.3 for duty cycle spectrum plot.

Spectrum Plot of Worst Value

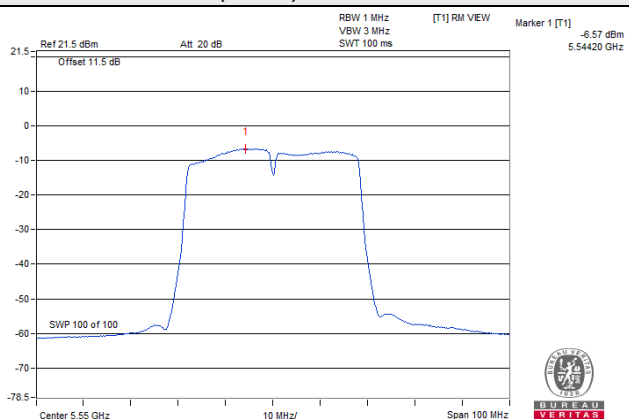
802.11a / Chain 0 / CH 140



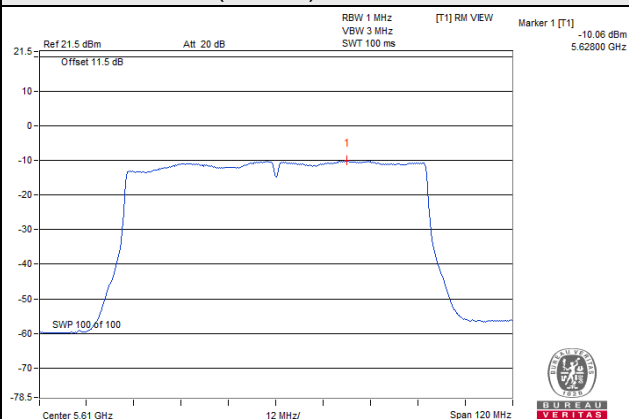
802.11n (HT20) / Chain 0 / CH 140



802.11n (HT40) / Chain 0 / CH 110



802.11ac (VHT80) / Chain 0 / CH 122



Test Mode B

802.11a

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				
52	5260	0.49	0.18	0.27	3.62	3.99	Pass
60	5300	0.62	0.33	0.27	3.76	3.99	Pass
64	5320	0.76	0.29	0.27	3.81	3.99	Pass
100	5500	1.02	0.30	0.27	3.96	3.99	Pass
116	5580	0.99	-0.58	0.27	3.56	3.99	Pass
140	5700	1.40	-0.18	0.27	3.96	3.99	Pass

Note:

1. Method E) 2) 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. 5260-5320MHz: Directional gain = $10\text{dBi} + 10\log(2) = 13.01\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $11 - (13.01 - 6) = 3.99\text{dBi}$.
3. 5500-5700MHz: Directional gain = $10\text{dBi} + 10\log(2) = 13.01\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $11 - (13.01 - 6) = 3.99\text{dBi}$.
4. 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				
52	5260	0.47	0.57	0.10	3.63	3.99	Pass
60	5300	0.60	0.71	0.10	3.77	3.99	Pass
64	5320	0.83	0.71	0.10	3.88	3.99	Pass
100	5500	0.86	0.27	0.10	3.69	3.99	Pass
116	5580	1.34	-0.38	0.10	3.67	3.99	Pass
140	5700	1.32	-0.17	0.10	3.75	3.99	Pass

Note:

1. Method E) 2) 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. 5260-5320MHz: Directional gain = $10\text{dBi} + 10\log(2) = 13.01\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $11 - (13.01 - 6) = 3.99\text{dBi}$.
3. 5500-5700MHz: Directional gain = $10\text{dBi} + 10\log(2) = 13.01\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $11 - (13.01 - 6) = 3.99\text{dBi}$.
4. 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				
54	5270	0.08	0.24	0.18	3.35	3.99	Pass
62	5310	0.46	0.21	0.18	3.53	3.99	Pass
102	5510	0.71	0.30	0.18	3.70	3.99	Pass
110	5550	0.84	0.27	0.18	3.75	3.99	Pass
134	5670	1.01	0.48	0.18	3.94	3.99	Pass

Note:

1. Method E) 2) 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. 5260-5320MHz: Directional gain = 10dBi + 10log(2) = 13.01dBi > 6dBi, so the power density limit shall be reduced to 11 - (13.01 - 6) = 3.99dBi.
3. 5500-5700MHz: Directional gain = 10dBi + 10log(2) = 13.01dBi > 6dBi, so the power density limit shall be reduced to 11 - (13.01 - 6) = 3.99dBi.
4. Refer to section 3.3 for duty cycle spectrum plot.

802.11ac (VHT80)

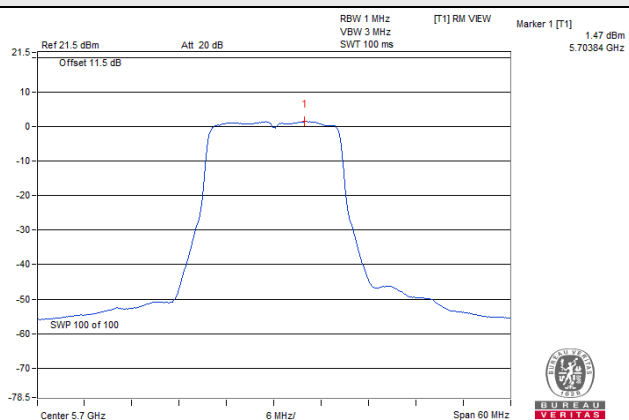
Chan.	Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)		Duty Factor (dB)	Total PSD with Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1				
58	5290	-2.89	-3.06	0.35	0.39	3.99	Pass
106	5530	-2.90	-3.17	0.35	0.33	3.99	Pass
122	5610	-2.43	-3.45	0.35	0.45	3.99	Pass

Note:

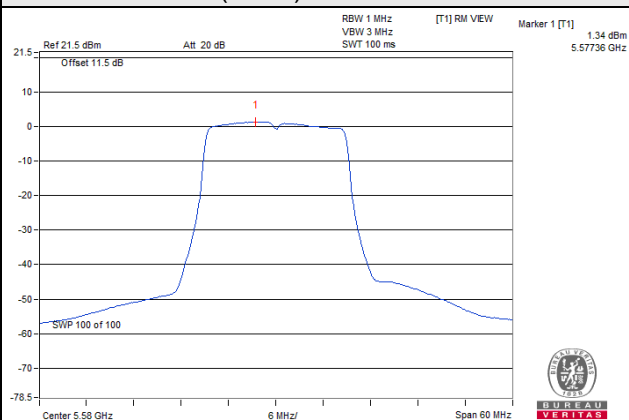
1. Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. 5260-5320MHz: Directional gain = 10dBi + 10log(2) = 13.01dBi > 6dBi, so the power density limit shall be reduced to 11 - (13.01 - 6) = 3.99dBi.
3. 5500-5700MHz: Directional gain = 10dBi + 10log(2) = 13.01dBi > 6dBi, so the power density limit shall be reduced to 11 - (13.01 - 6) = 3.99dBi.
4. Refer to section 3.3 for duty cycle spectrum plot.

Spectrum Plot of Worst Value

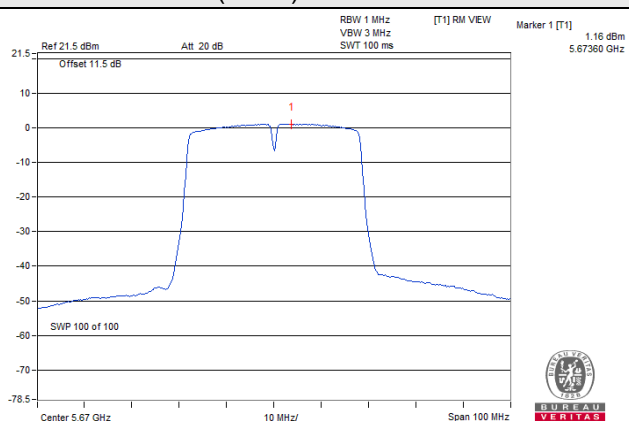
802.11a / Chain 0 / CH 140



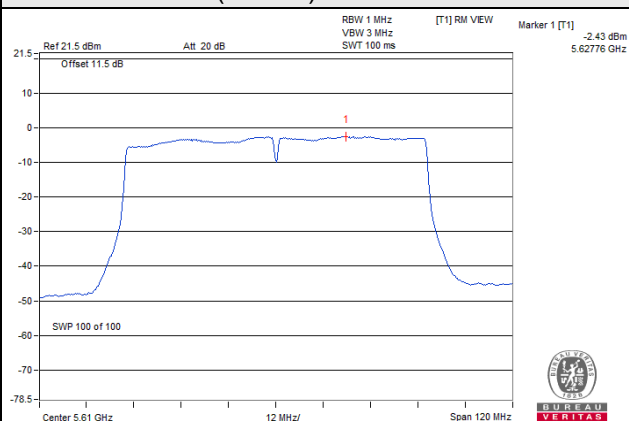
802.11n (HT20) / Chain 0 / CH 116



802.11n (HT40) / Chain 0 / CH 134



802.11ac (VHT80) / Chain 0 / CH 122



Test Mode C

802.11a

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				
52	5260	-9.57	-9.12	0.19	-6.14	-6.00	Pass
60	5300	-10.14	-9.67	0.19	-6.70	-6.00	Pass
64	5320	-9.66	-9.44	0.19	-6.35	-6.00	Pass
100	5500	-8.62	-9.95	0.19	-6.03	-6.00	Pass
116	5580	-9.10	-10.87	0.19	-6.70	-6.00	Pass
140	5700	-8.68	-10.60	0.19	-6.33	-6.00	Pass

Note:

1. The transmit signals are completely uncorrelated.
2. 5260-5320MHz: Directional gain = $23\text{dBi} + 10\log(2/2) = 23\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $11 - (23 - 6) = -6.00\text{dBi}$.
3. 5500-5720MHz: Directional gain = $23\text{dBi} + 10\log(2/2) = 23\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $11 - (23 - 6) = -6.00\text{dBi}$.
4. 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				
52	5260	-10.27	-9.19	0.09	-6.60	-6.00	Pass
60	5300	-10.86	-9.70	0.09	-7.14	-6.00	Pass
64	5320	-10.41	-9.41	0.09	-6.78	-6.00	Pass
100	5500	-9.19	-10.46	0.09	-6.68	-6.00	Pass
116	5580	-8.96	-10.66	0.09	-6.63	-6.00	Pass
140	5700	-8.79	-10.91	0.09	-6.62	-6.00	Pass

Note:

1. The transmit signals are completely uncorrelated.
2. 5260-5320MHz: Directional gain = $23\text{dBi} + 10\log(2/2) = 23\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $11 - (23 - 6) = -6.00\text{dBi}$.
3. 5500-5720MHz: Directional gain = $23\text{dBi} + 10\log(2/2) = 23\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $11 - (23 - 6) = -6.00\text{dBi}$.
4. 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				
54	5270	-12.89	-12.58	0.16	-9.56	-6.00	Pass
62	5310	-13.11	-13.00	0.16	-9.88	-6.00	Pass
102	5510	-12.11	-12.83	0.16	-9.28	-6.00	Pass
110	5550	-11.86	-13.04	0.16	-9.24	-6.00	Pass
134	5670	-11.76	-13.09	0.16	-9.20	-6.00	Pass

Note:

1. The transmit signals are completely uncorrelated.
2. 5260-5320MHz: Directional gain = $23\text{dBi} + 10\log(2/2) = 23\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $11 - (23 - 6) = -6.00\text{dBi}$.
3. 5500-5720MHz: Directional gain = $23\text{dBi} + 10\log(2/2) = 23\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $11 - (23 - 6) = -6.00\text{dBi}$.
4. Refer to section 3.3 for duty cycle spectrum plot.

802.11ac (VHT80)

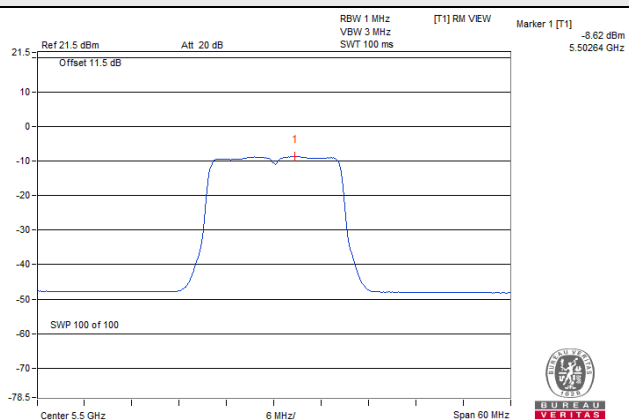
Chan.	Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)		Duty Factor (dB)	Total PSD with Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1				
58	5290	-15.66	-15.63	0.33	-12.30	-6.00	Pass
106	5530	-15.48	-16.35	0.33	-12.55	-6.00	Pass
122	5610	-15.40	-16.66	0.33	-12.64	-6.00	Pass

Note:

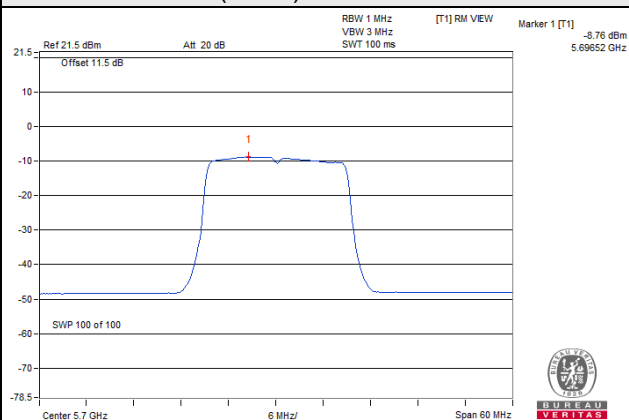
1. The transmit signals are completely uncorrelated.
2. 5260-5320MHz: Directional gain = $23\text{dBi} + 10\log(2/2) = 23\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $11 - (23 - 6) = -6.00\text{dBi}$.
3. 5500-5720MHz: Directional gain = $23\text{dBi} + 10\log(2/2) = 23\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $11 - (23 - 6) = -6.00\text{dBi}$.
4. Refer to section 3.3 for duty cycle spectrum plot.

Spectrum Plot of Worst Value

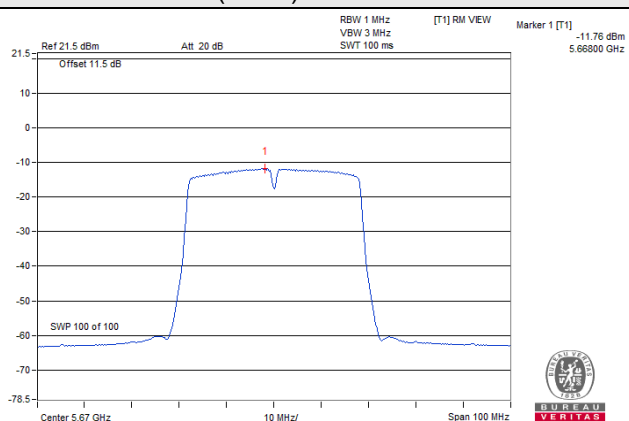
802.11a / Chain 0 / CH 100



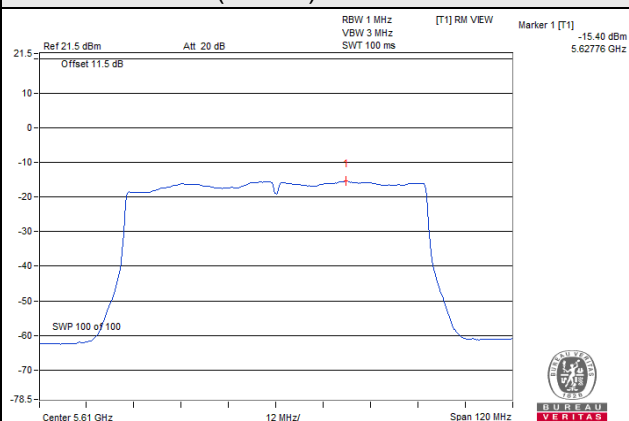
802.11n (HT20) / Chain 0 / CH 140



802.11n (HT40) / Chain 0 / CH 134



802.11ac (VHT80) / Chain 0 / CH 122

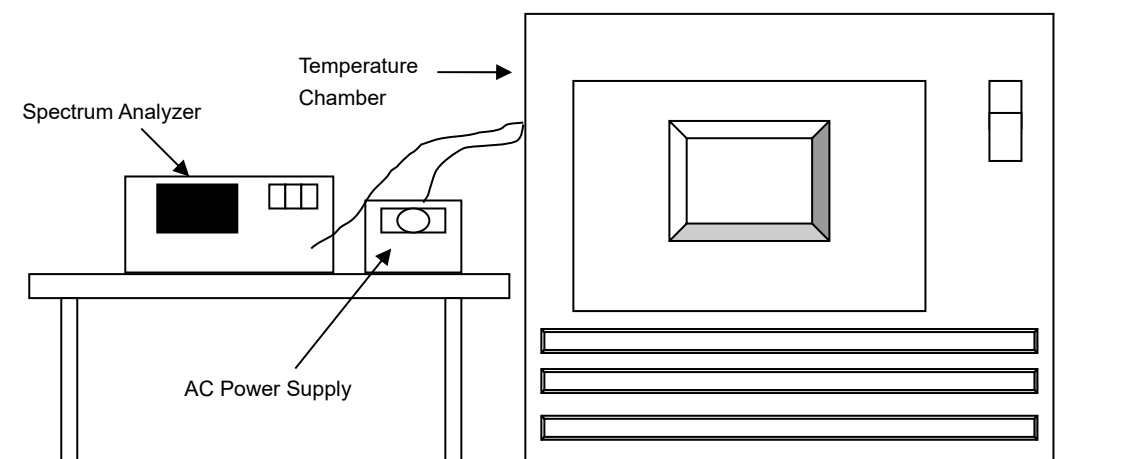


4.6 Frequency Stability

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	100040	Sep. 23, 2019	Sep. 22, 2020
WIT Standard Temperature And Humidity Chamber	TH-4S-C	W981030	Jun. 03, 2019	Jun. 02, 2020
Digital Multimeter Fluke	87-III	70360742	Jun. 28, 2019	Jun. 27, 2020
AC Power Supply Extech	CFW-105	E000603	NA	NA
DC Power Supply TOPWARD	6306A	727263	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.

4.6.4 Test Procedure

- The EUT was placed inside the environmental test chamber and powered by nominal AC voltage.
- Turn the EUT on and couple its output to a spectrum analyzer.
- Turn the EUT off and set the chamber to the highest temperature specified.
- Allow sufficient time (approximately 30 min) for the temperature of the chamber to stabilize, turn the EUT on and measure the operating frequency after 2, 5, and 10 minutes.
- Repeat step d with every 10 degrees reduction until the lowest temperature achieved.
- 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

Test Mode A

Frequency Stability Versus Temp.									
Operating Frequency: 5260MHz									
Temp. (°C)	Power Supply (Vac)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result
65	120	5259.9862	Pass	5259.9894	Pass	5259.9857	Pass	5259.9883	Pass
60	120	5259.9772	Pass	5259.9764	Pass	5259.9762	Pass	5259.9732	Pass
50	120	5259.9874	Pass	5259.9879	Pass	5259.9837	Pass	5259.9839	Pass
40	120	5260.0025	Pass	5260.0038	Pass	5260.0036	Pass	5260.006	Pass
30	120	5259.9809	Pass	5259.9796	Pass	5259.9815	Pass	5259.9798	Pass
20	120	5260.0172	Pass	5260.0181	Pass	5260.015	Pass	5260.0143	Pass
10	120	5260.0033	Pass	5260.0027	Pass	5260.0042	Pass	5260.0016	Pass
0	120	5259.9772	Pass	5259.9787	Pass	5259.9761	Pass	5259.9803	Pass
-10	120	5259.9813	Pass	5259.9834	Pass	5259.9805	Pass	5259.9831	Pass
-20	120	5260.0012	Pass	5260.0009	Pass	5260.0009	Pass	5260.0034	Pass

Frequency Stability Versus Voltage									
Operating Frequency: 5260MHz									
Temp. (°C)	Power Supply (Vac)	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	138	5260.0168	Pass	5260.0184	Pass	5260.0148	Pass	5260.0143	Pass
	120	5260.0172	Pass	5260.0181	Pass	5260.015	Pass	5260.0143	Pass
	102	5260.0168	Pass	5260.0178	Pass	5260.0141	Pass	5260.0151	Pass

Test Mode B

Frequency Stability Versus Temp.									
Operating Frequency: 5260MHz									
Temp. (°C)	Power Supply (Vac)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result
65	120	5259.9771	Pass	5259.9785	Pass	5259.9782	Pass	5259.9768	Pass
60	120	5259.9968	Pass	5259.9956	Pass	5259.9924	Pass	5259.9963	Pass
50	120	5260.0268	Pass	5260.0249	Pass	5260.0263	Pass	5260.0259	Pass
40	120	5259.9766	Pass	5259.976	Pass	5259.977	Pass	5259.9737	Pass
30	120	5260.0144	Pass	5260.0172	Pass	5260.0154	Pass	5260.0147	Pass
20	120	5259.9828	Pass	5259.9823	Pass	5259.984	Pass	5259.9829	Pass
10	120	5260.0164	Pass	5260.0158	Pass	5260.0152	Pass	5260.0143	Pass
0	120	5260.0108	Pass	5260.01	Pass	5260.0099	Pass	5260.0101	Pass
-10	120	5260	Pass	5259.9983	Pass	5259.9994	Pass	5260.0009	Pass
-20	120	5259.9858	Pass	5259.9848	Pass	5259.9875	Pass	5259.9852	Pass

Frequency Stability Versus Voltage									
Operating Frequency: 5260MHz									
Temp. (°C)	Power Supply (Vac)	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	138	5259.983	Pass	5259.9814	Pass	5259.9844	Pass	5259.9832	Pass
	120	5259.9828	Pass	5259.9823	Pass	5259.984	Pass	5259.9829	Pass
	102	5259.9831	Pass	5259.9833	Pass	5259.985	Pass	5259.9819	Pass

Test Mode C

Frequency Stability Versus Temp.									
Operating Frequency: 5270MHz									
Temp. (°C)	Power Supply (Vac)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result
65	120	5269.9829	Pass	5269.9815	Pass	5269.9825	Pass	5269.9819	Pass
60	120	5269.982	Pass	5269.9817	Pass	5269.9806	Pass	5269.9793	Pass
50	120	5270.0176	Pass	5270.0186	Pass	5270.0174	Pass	5270.0219	Pass
40	120	5269.9849	Pass	5269.9841	Pass	5269.988	Pass	5269.9851	Pass
30	120	5270.0076	Pass	5270.01	Pass	5270.0079	Pass	5270.0078	Pass
20	120	5269.9797	Pass	5269.9801	Pass	5269.979	Pass	5269.9768	Pass
10	120	5269.9724	Pass	5269.9744	Pass	5269.9722	Pass	5269.9731	Pass
0	120	5270.0034	Pass	5270.0044	Pass	5270.0011	Pass	5270.0037	Pass
-10	120	5269.9796	Pass	5269.978	Pass	5269.9771	Pass	5269.9792	Pass
-20	120	5270.0184	Pass	5270.022	Pass	5270.0212	Pass	5270.0198	Pass

Frequency Stability Versus Voltage									
Operating Frequency: 5270MHz									
Temp. (°C)	Power Supply (Vac)	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	138	5269.9797	Pass	5269.981	Pass	5269.9789	Pass	5269.9776	Pass
	120	5269.9797	Pass	5269.9801	Pass	5269.979	Pass	5269.9768	Pass
	102	5269.9797	Pass	5269.9792	Pass	5269.9789	Pass	5269.976	Pass

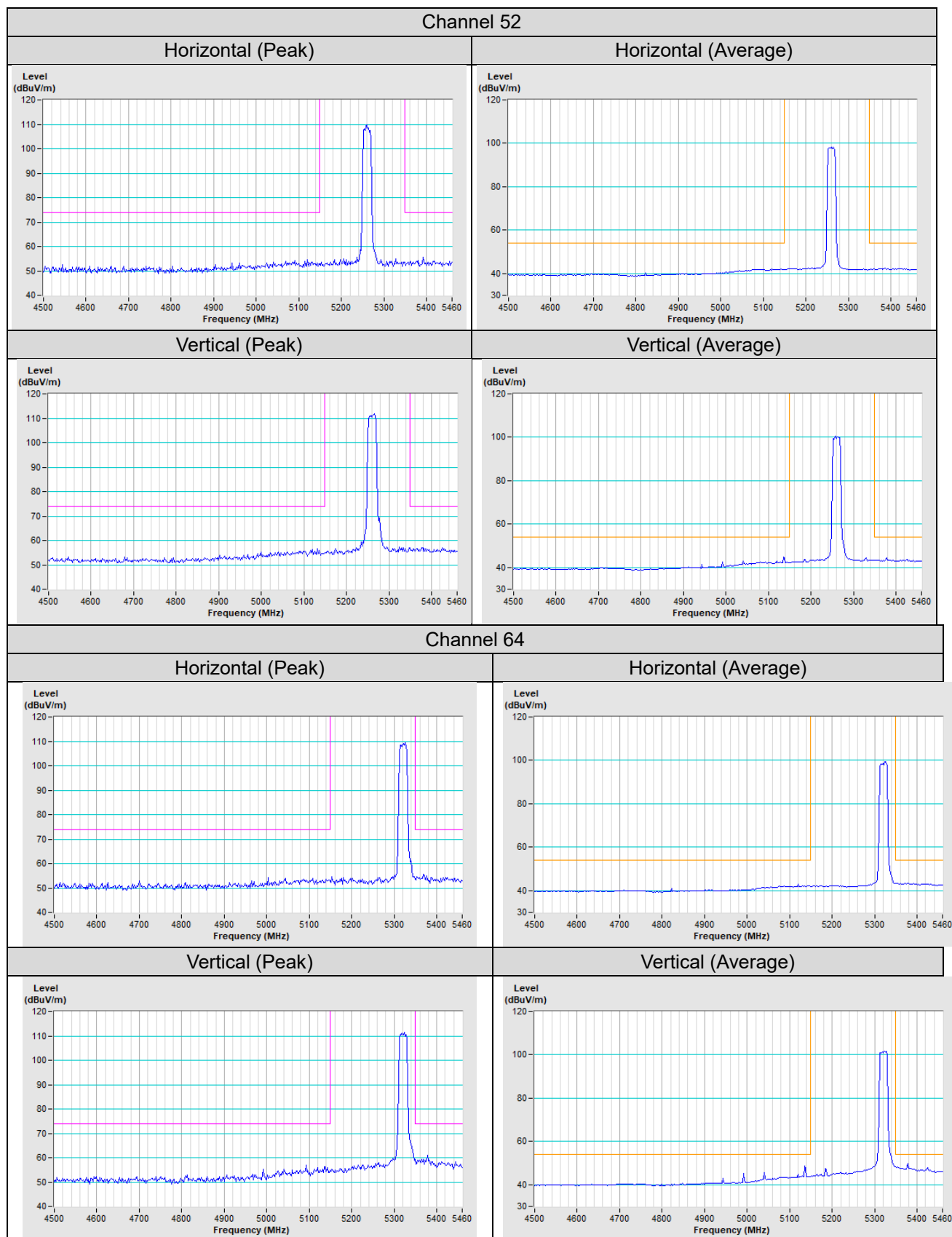
5 Pictures of Test Arrangements

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

Annex A - Band Edge Measurement

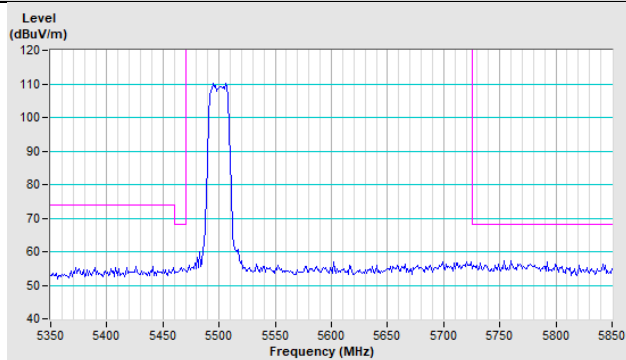
Test Mode A

802.11a

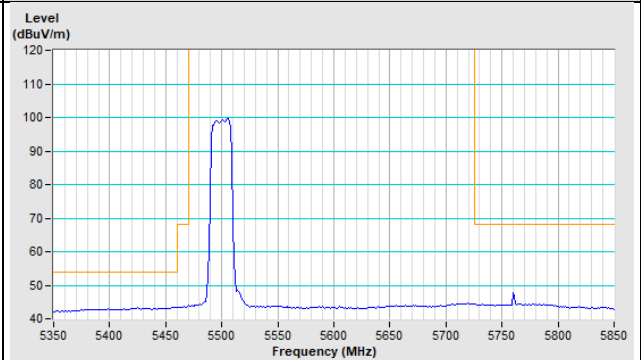


Channel 100

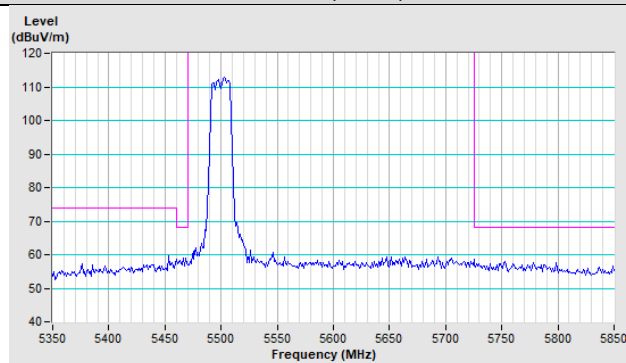
Horizontal (Peak)



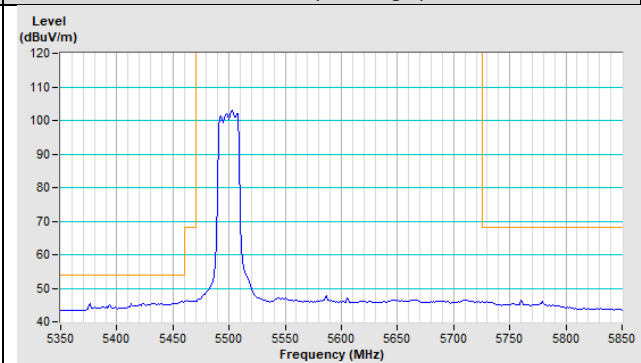
Horizontal (Average)



Vertical (Peak)

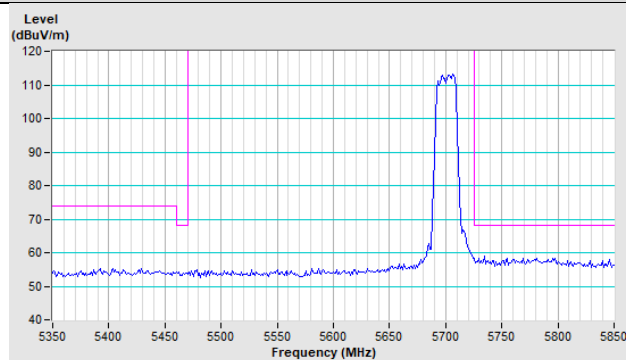


Vertical (Average)

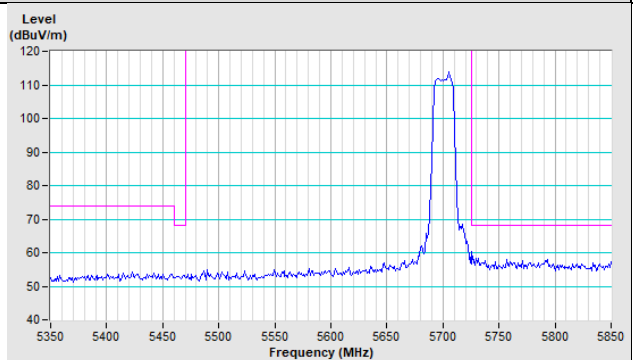


Channel 140

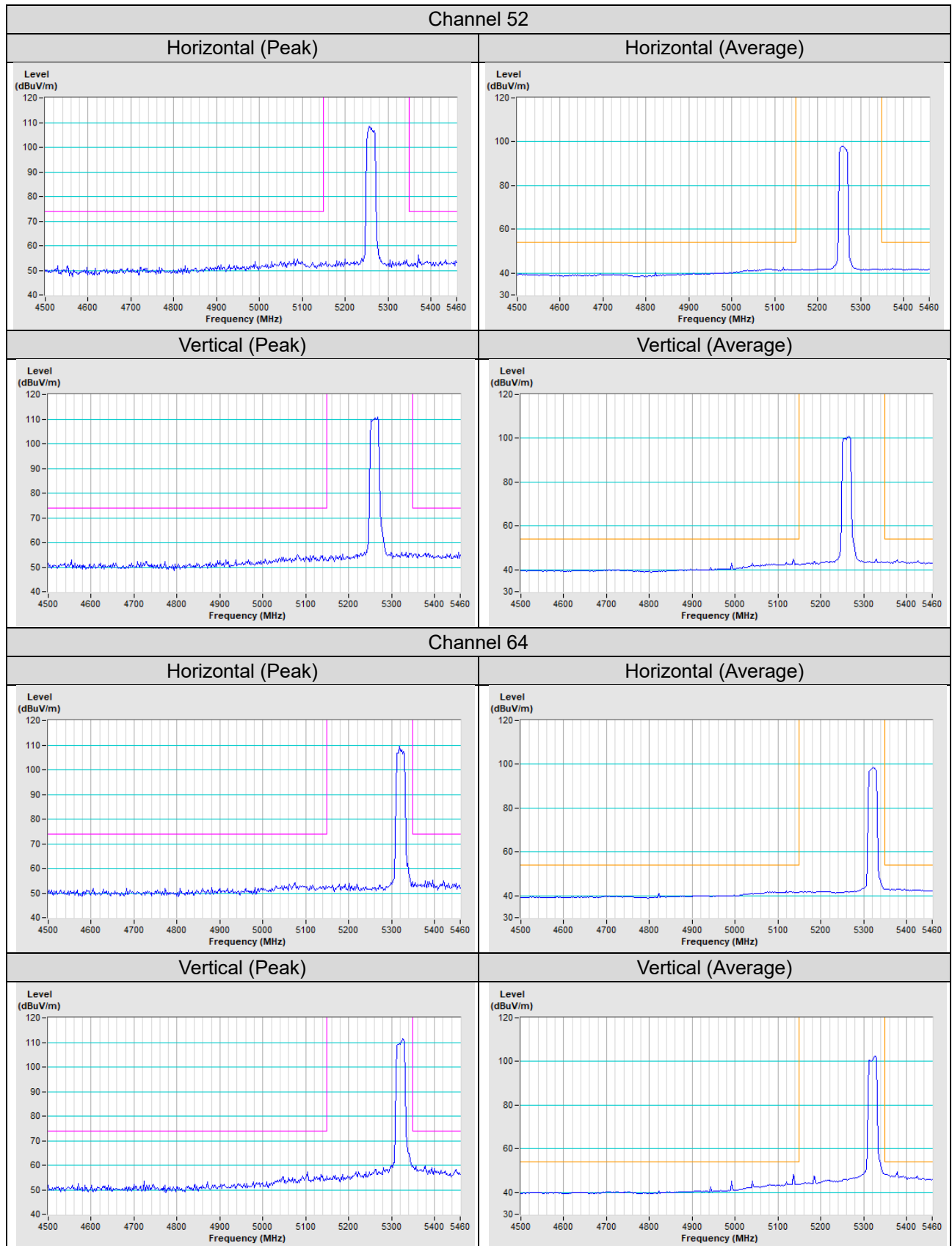
Horizontal (Peak)



Vertical (Peak)

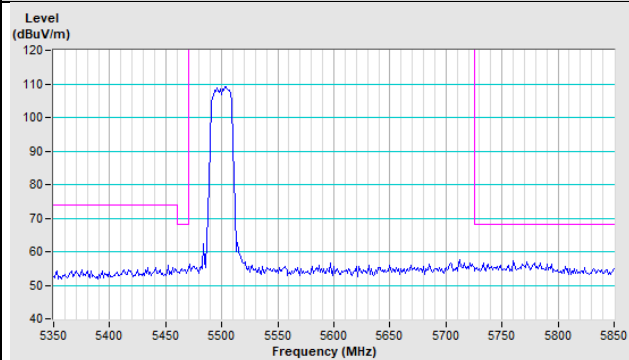


802.11n (HT20)

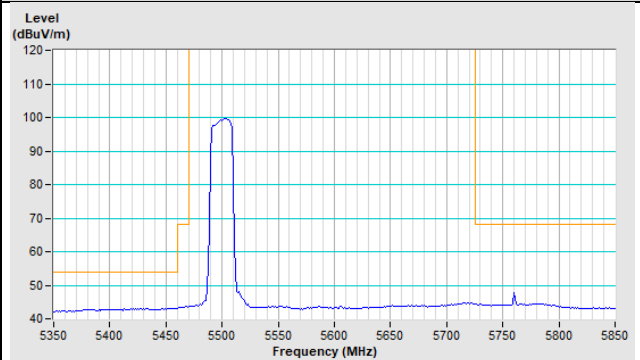


Channel 100

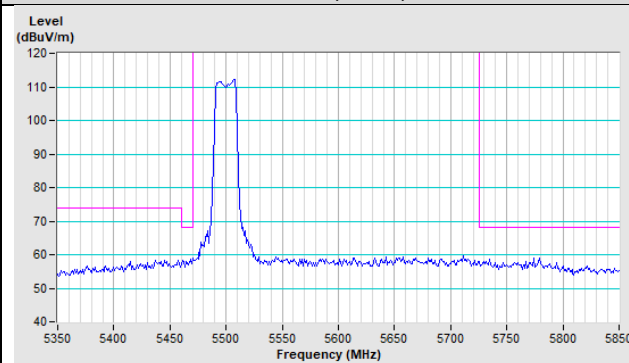
Horizontal (Peak)



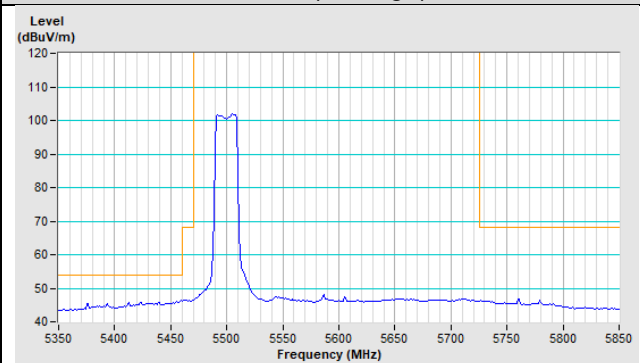
Horizontal (Average)



Vertical (Peak)

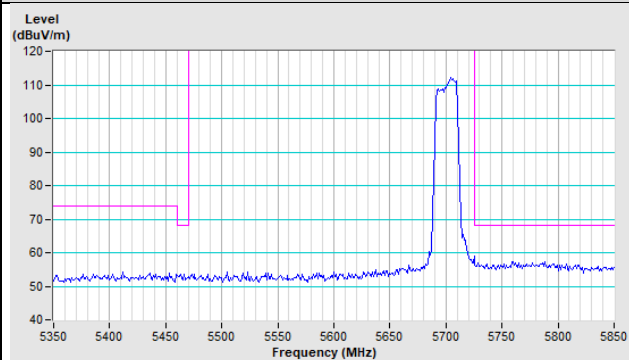


Vertical (Average)

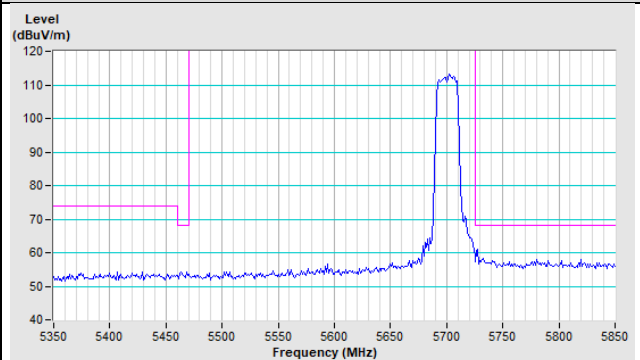


Channel 140

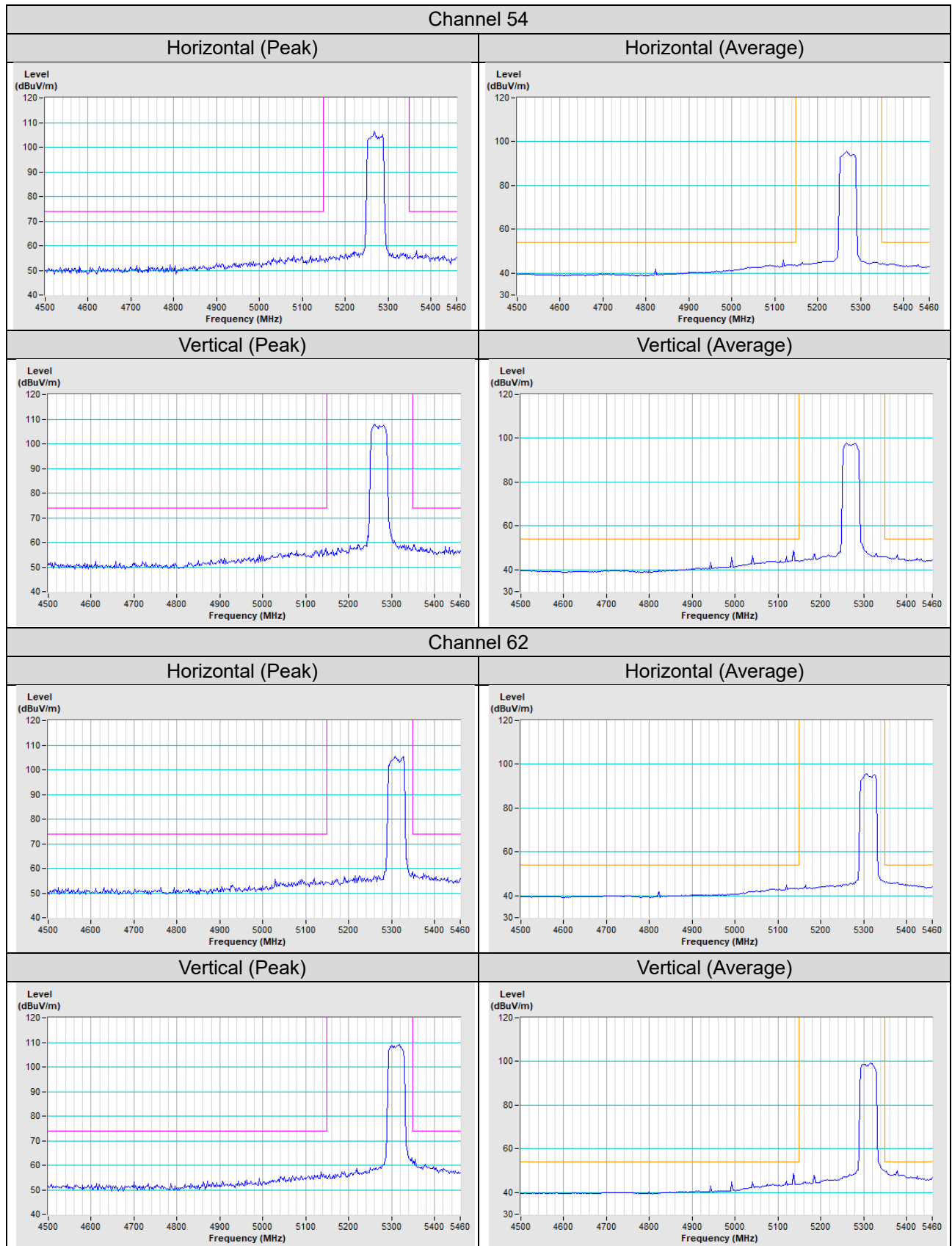
Horizontal (Peak)



Vertical (Peak)

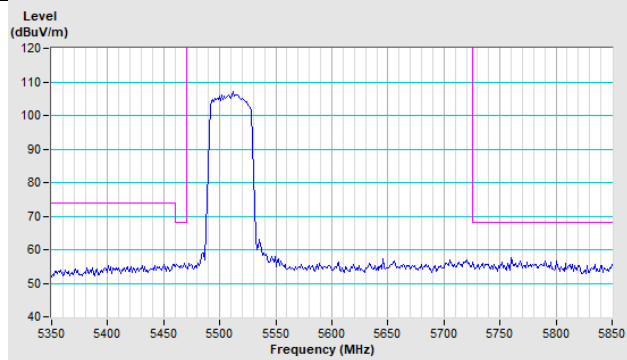


802.11n (HT40)

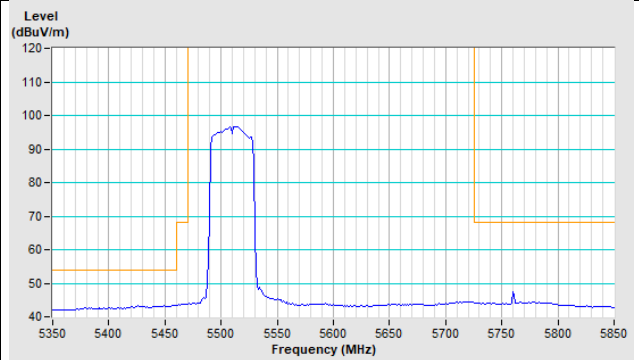


Channel 102

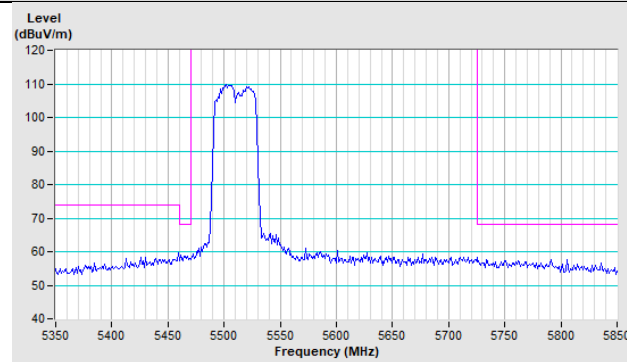
Horizontal (Peak)



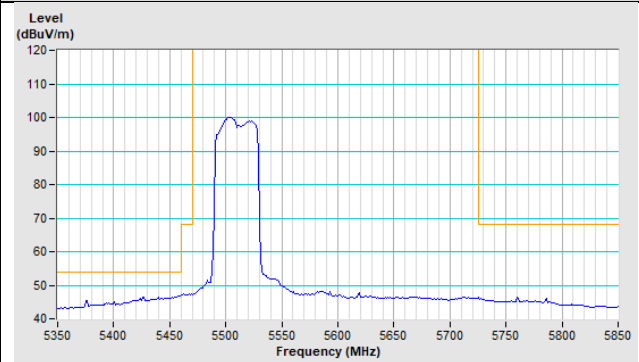
Horizontal (Average)



Vertical (Peak)

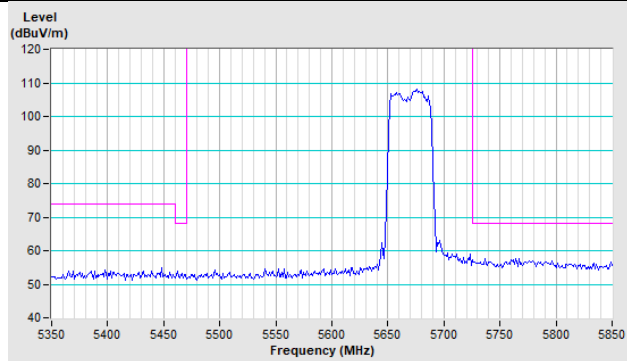


Vertical (Average)

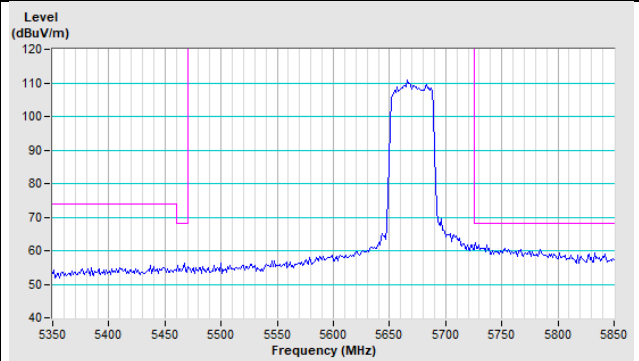


Channel 134

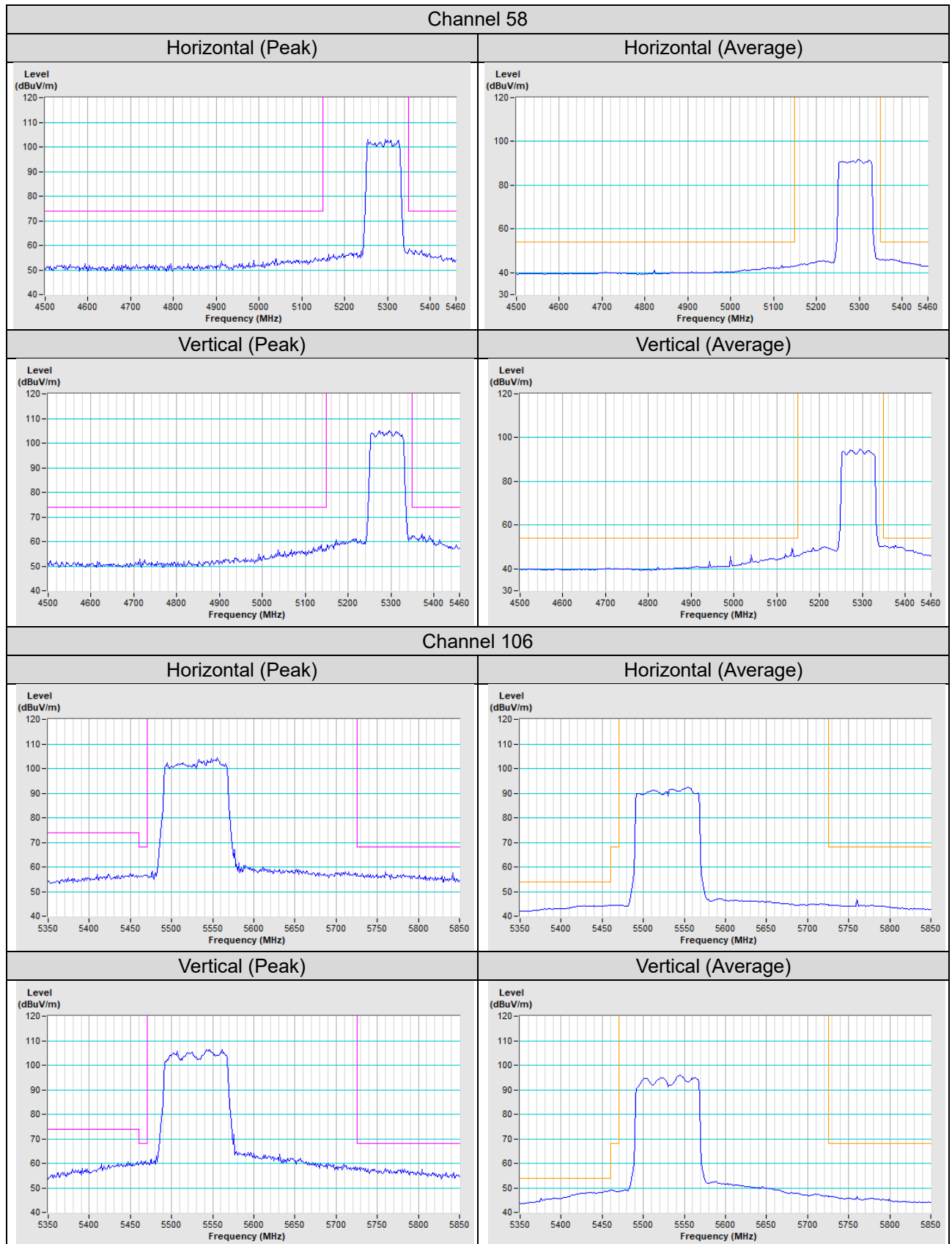
Horizontal (Peak)



Vertical (Peak)

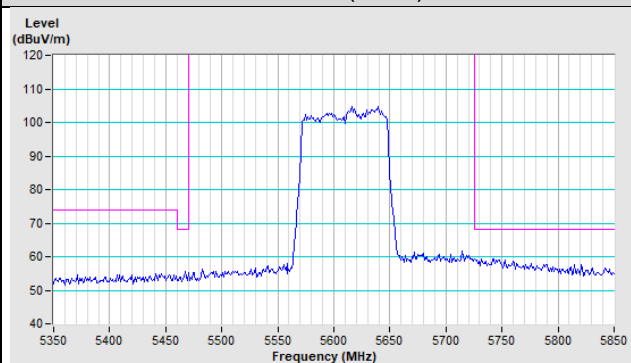


802.11ac (VHT80)

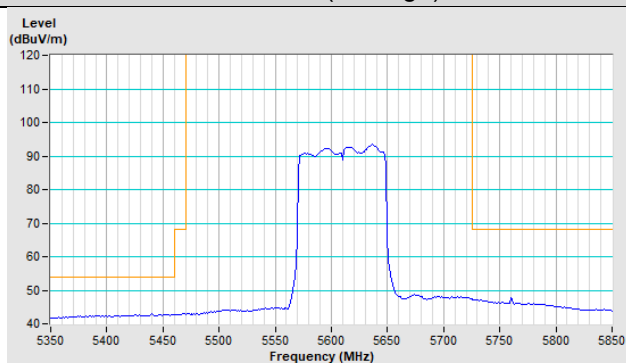


Channel 122

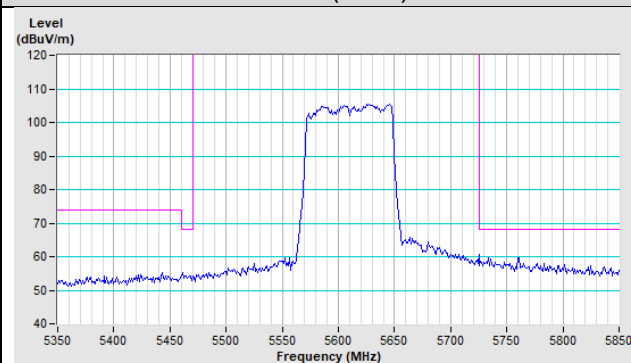
Horizontal (Peak)



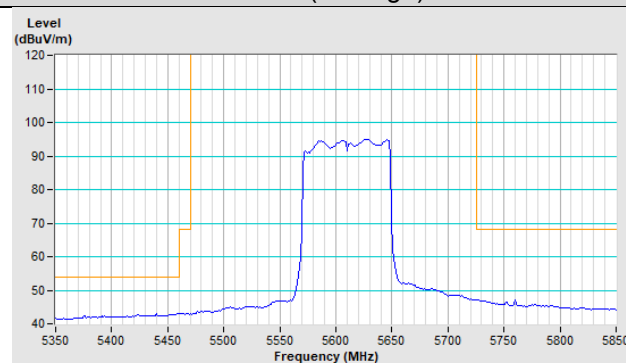
Horizontal (Average)



Vertical (Peak)

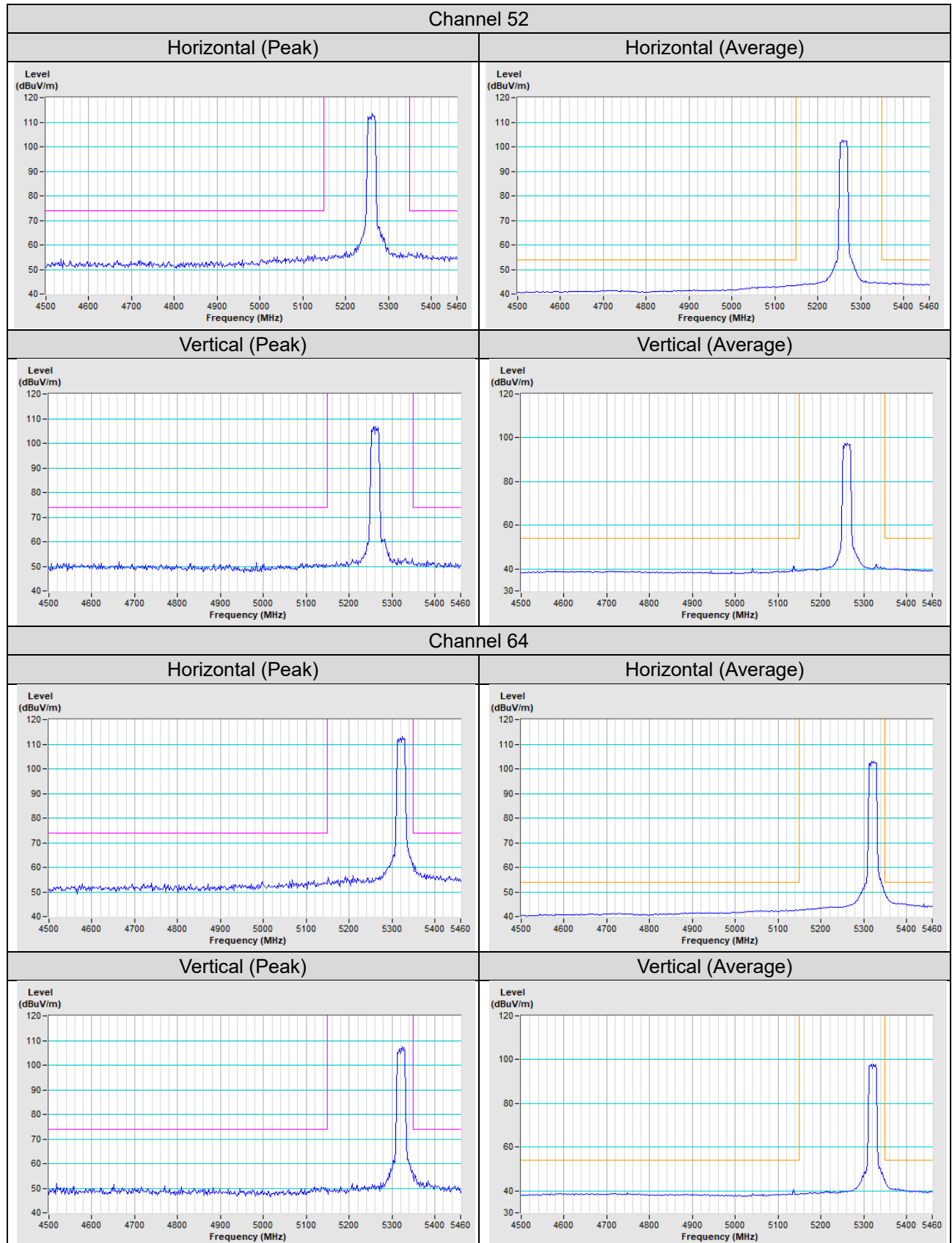


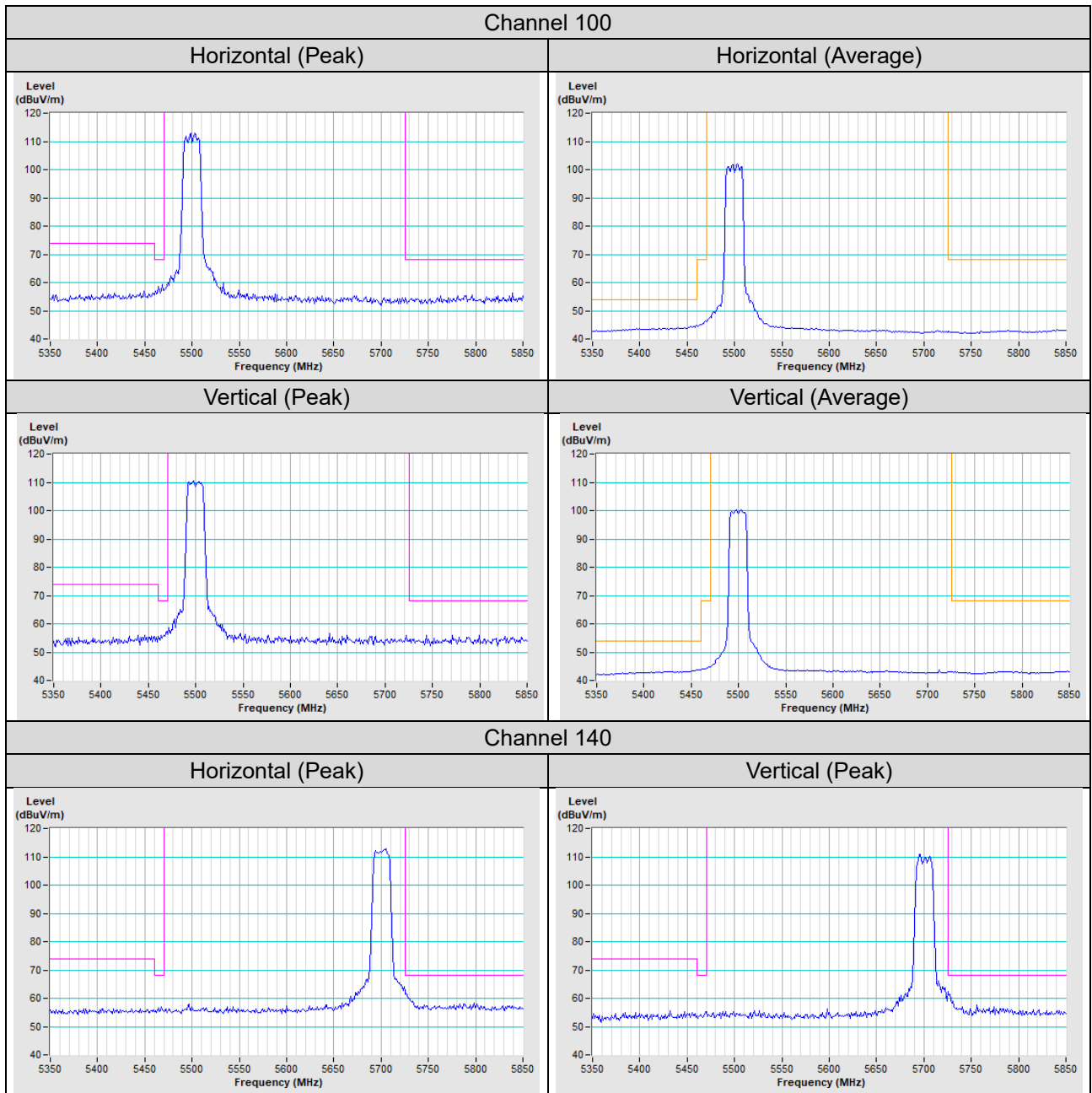
Vertical (Average)



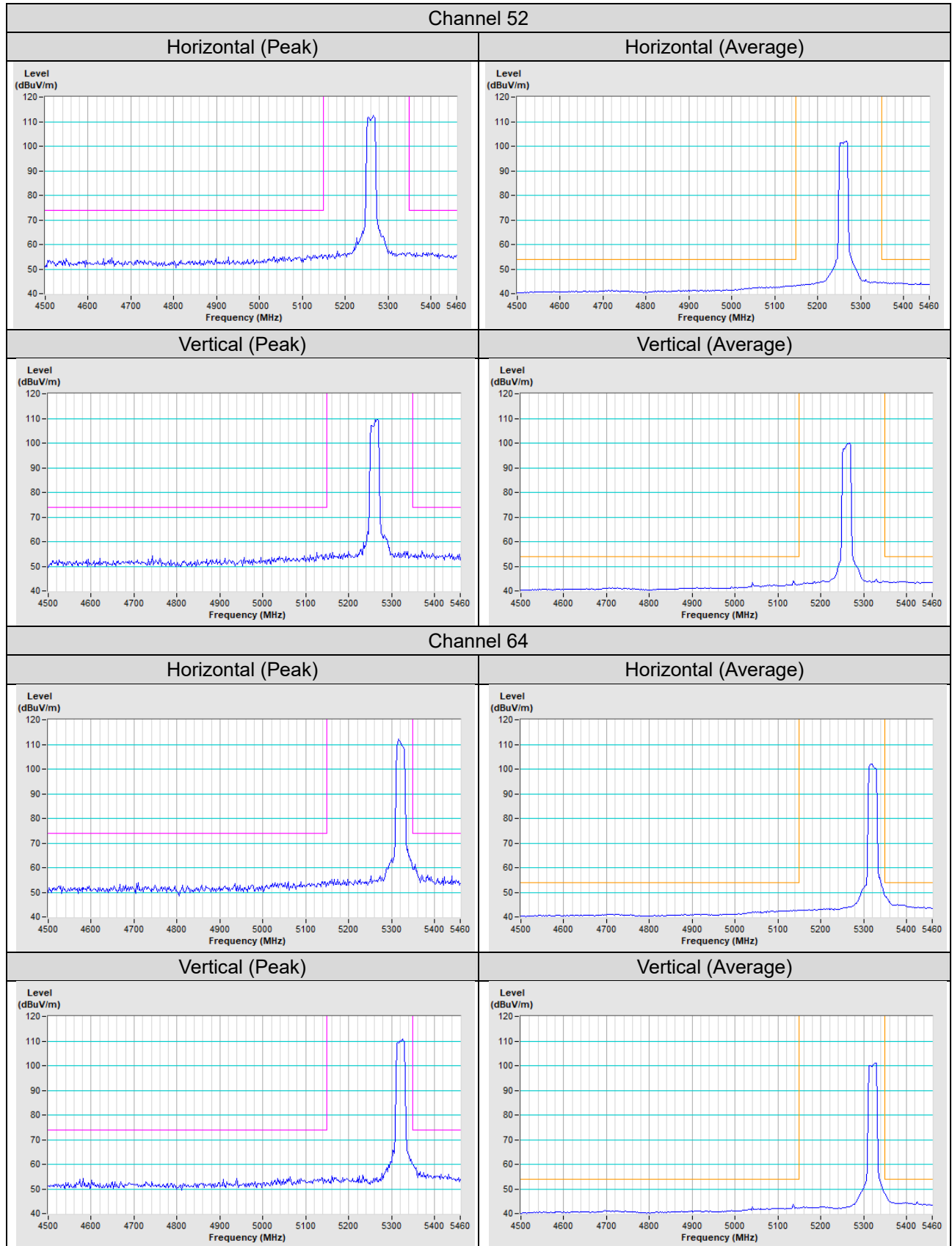
Test Mode B

802.11a



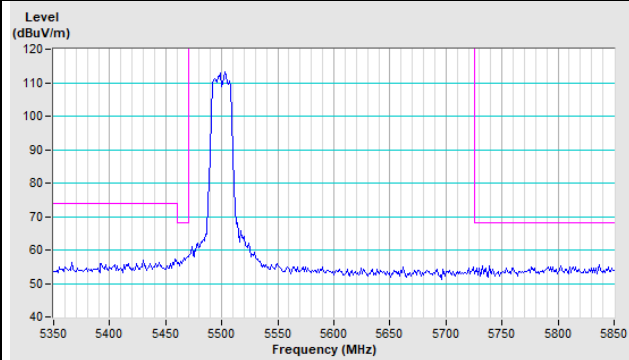


802.11n (HT20)

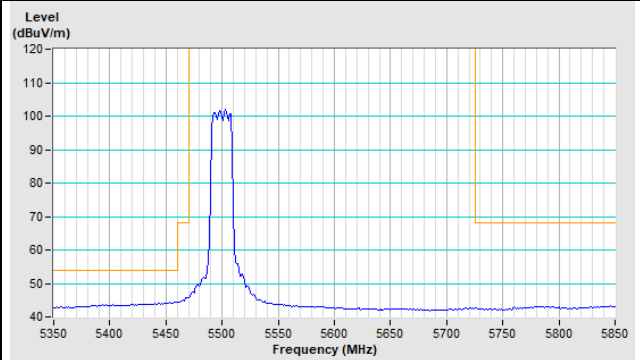


Channel 100

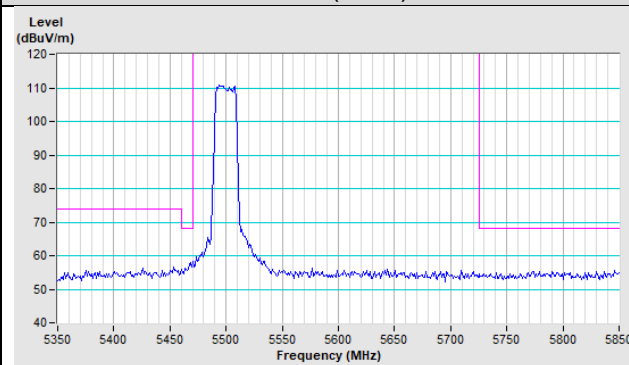
Horizontal (Peak)



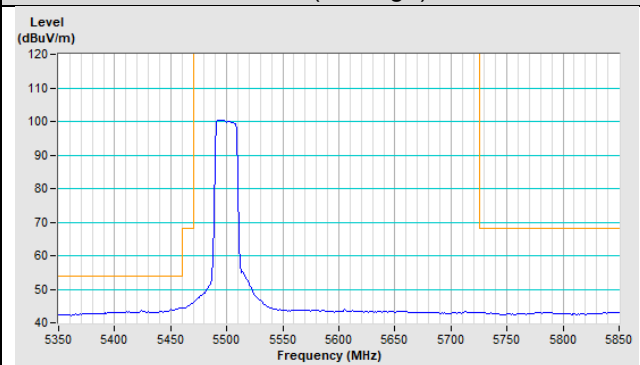
Horizontal (Average)



Vertical (Peak)

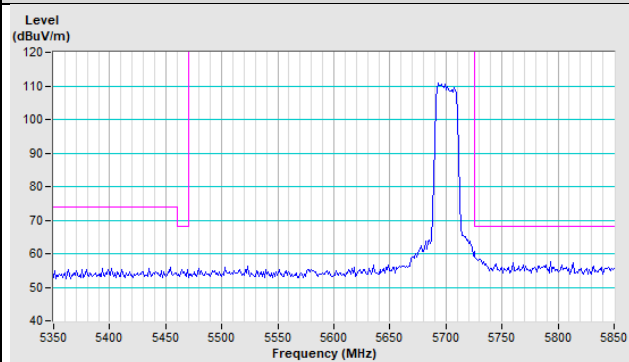


Vertical (Average)

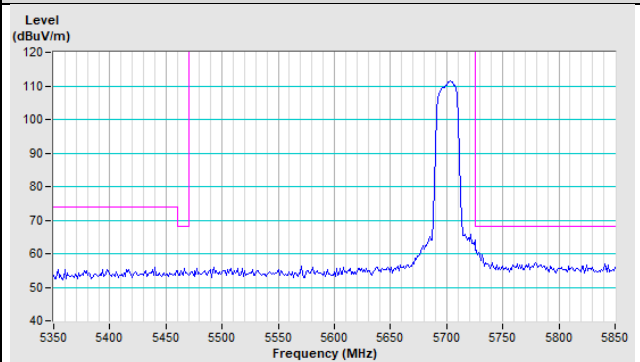


Channel 140

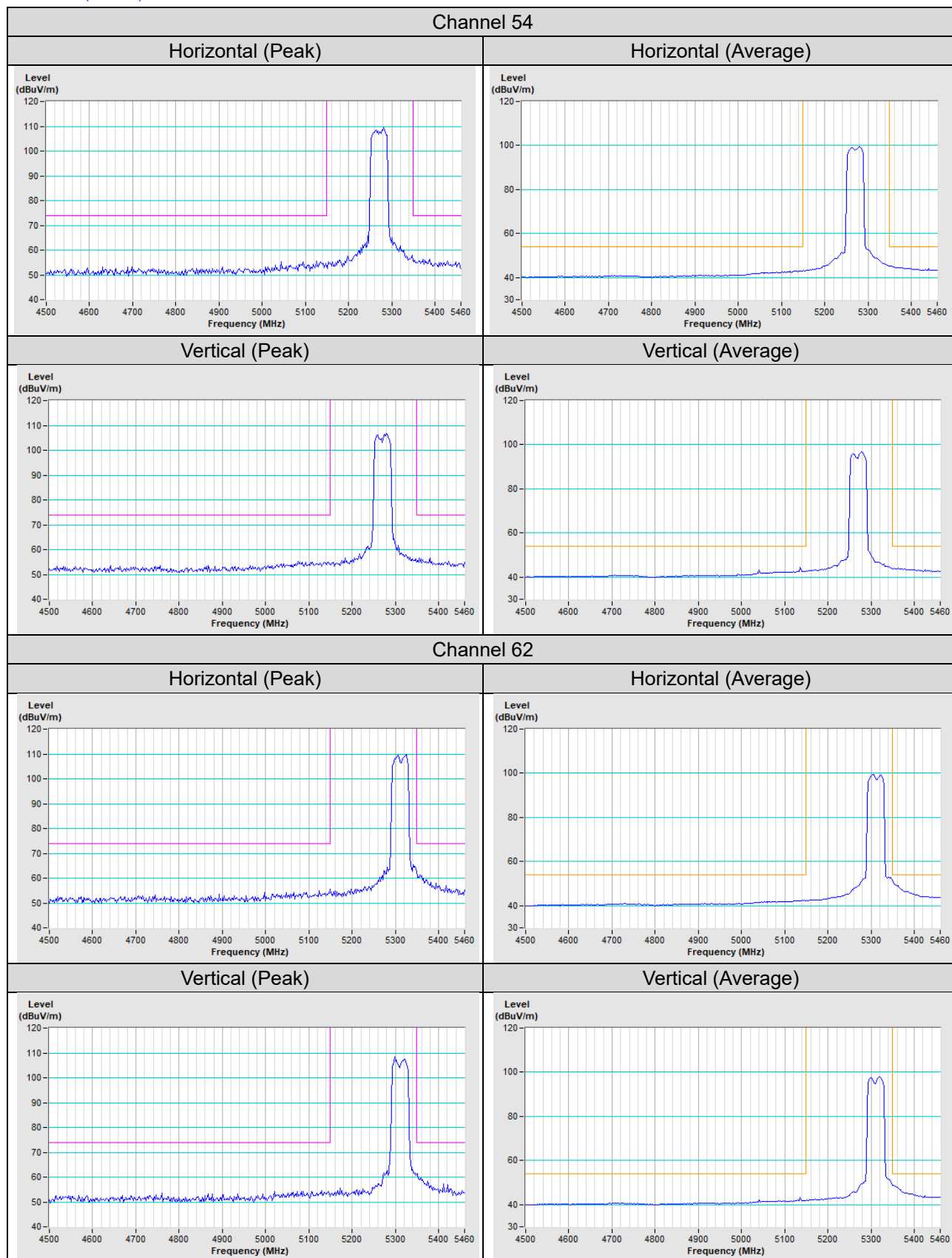
Horizontal (Peak)



Vertical (Peak)

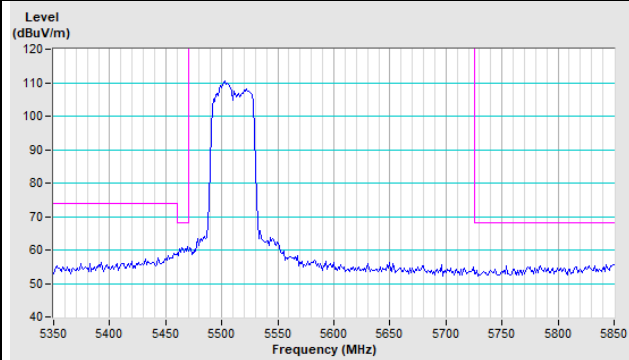


802.11n (HT40)

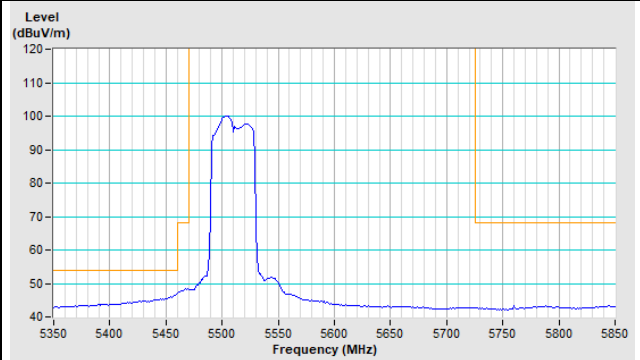


Channel 102

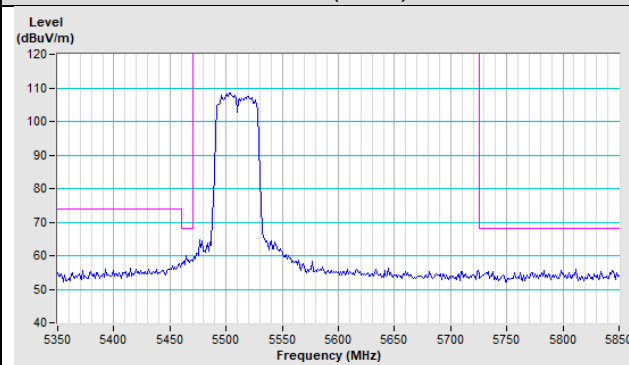
Horizontal (Peak)



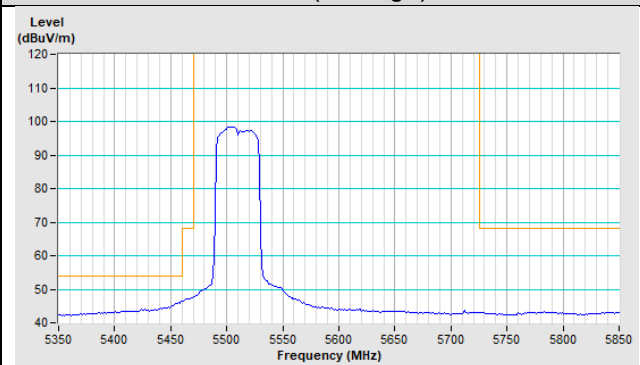
Horizontal (Average)



Vertical (Peak)

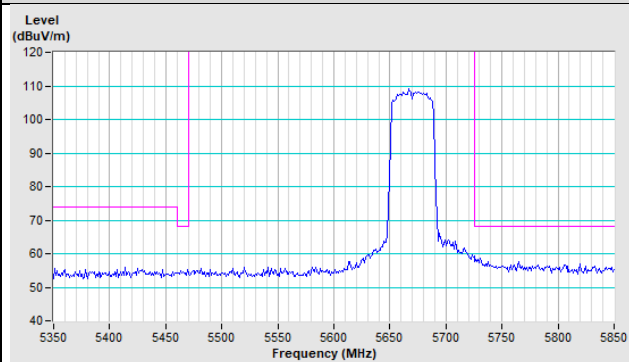


Vertical (Average)

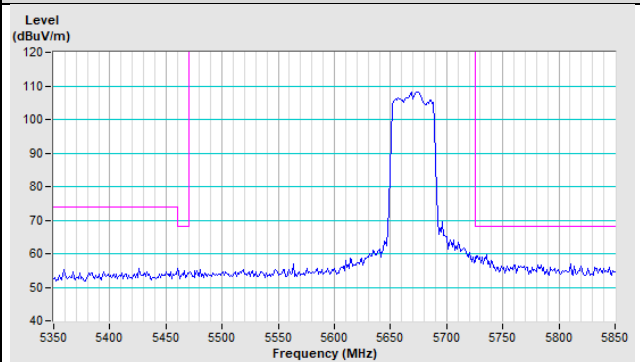


Channel 134

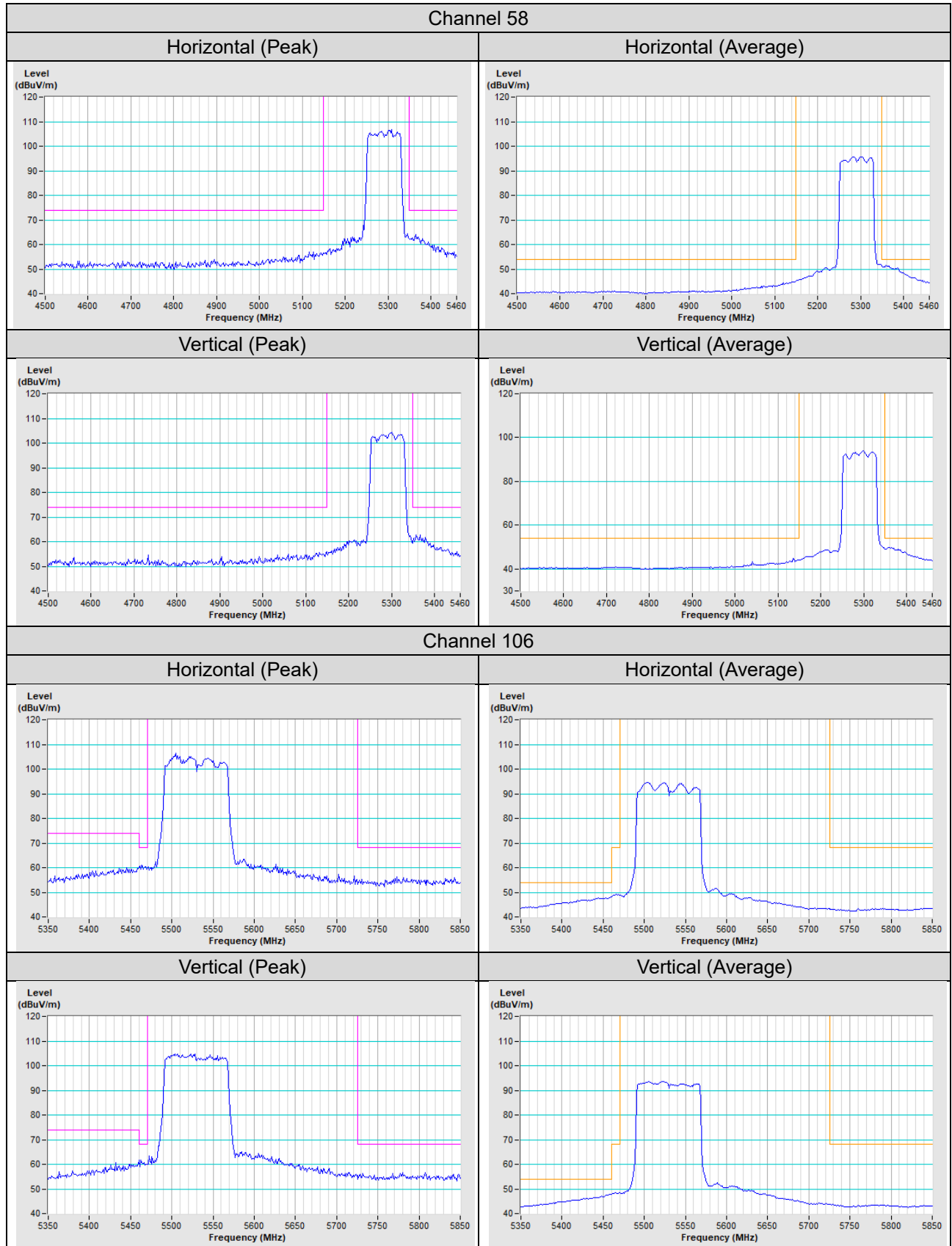
Horizontal (Peak)



Vertical (Peak)

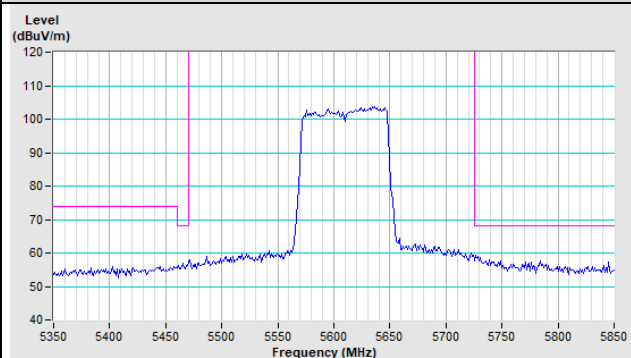


802.11ac (VHT80)

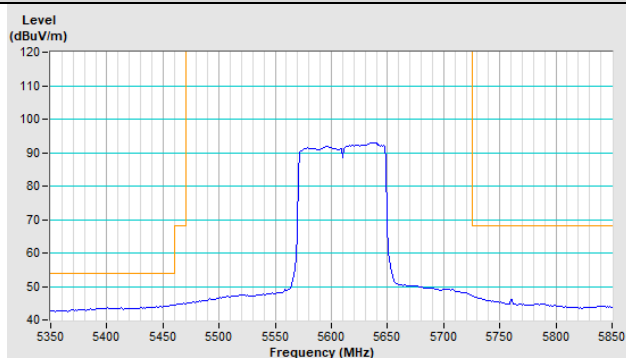


Channel 122

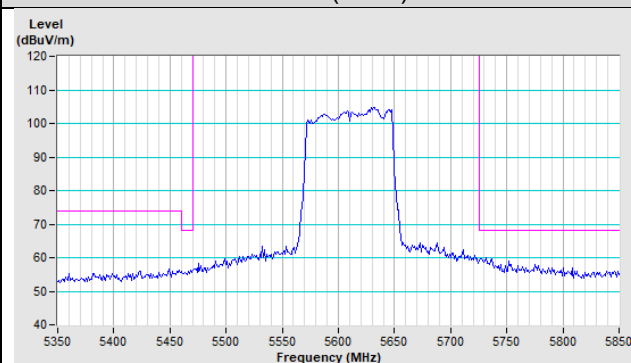
Horizontal (Peak)



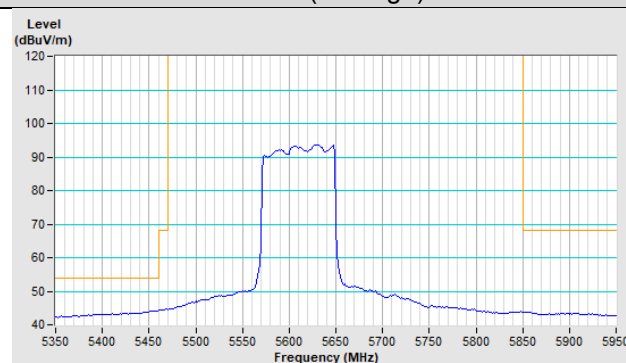
Horizontal (Average)



Vertical (Peak)

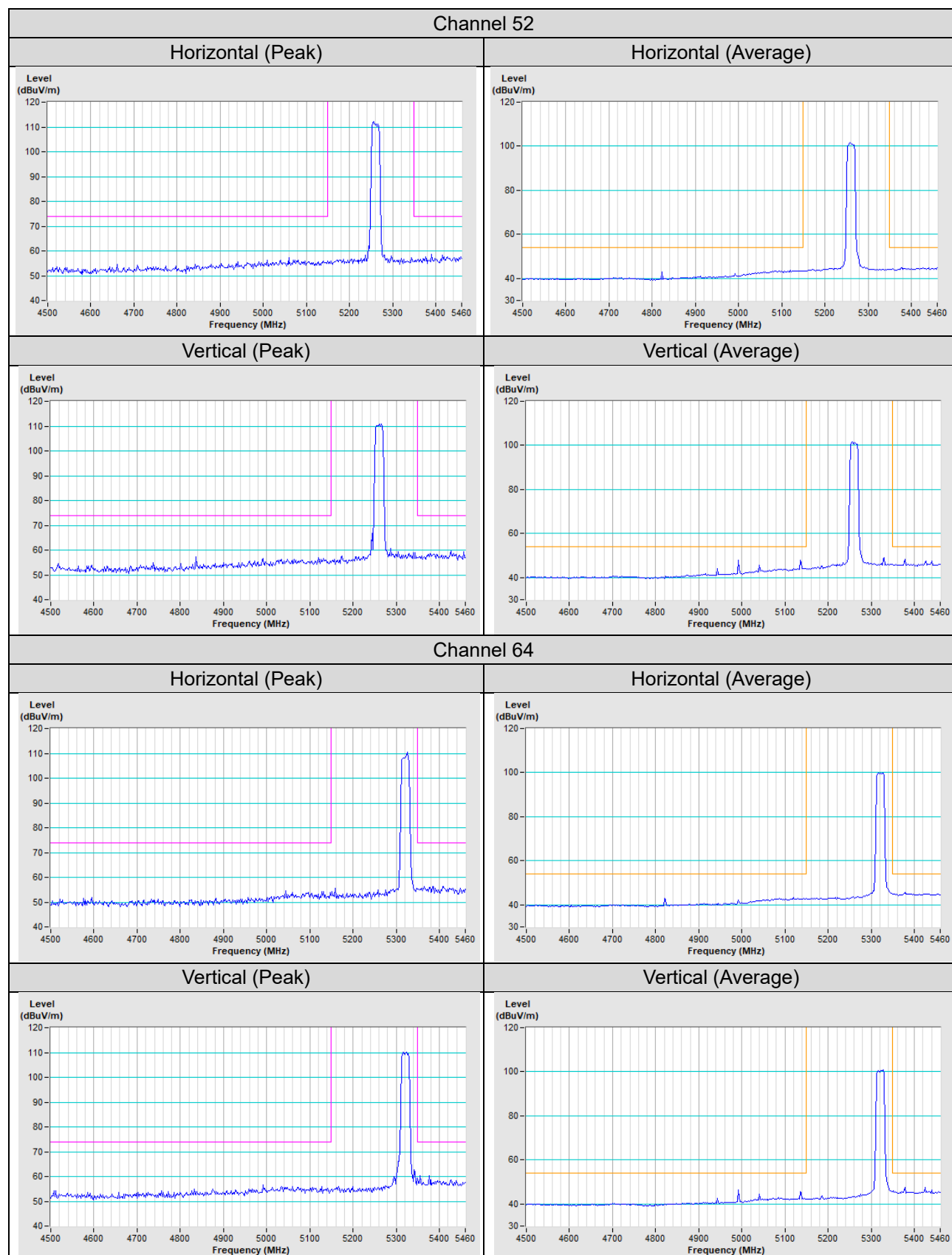


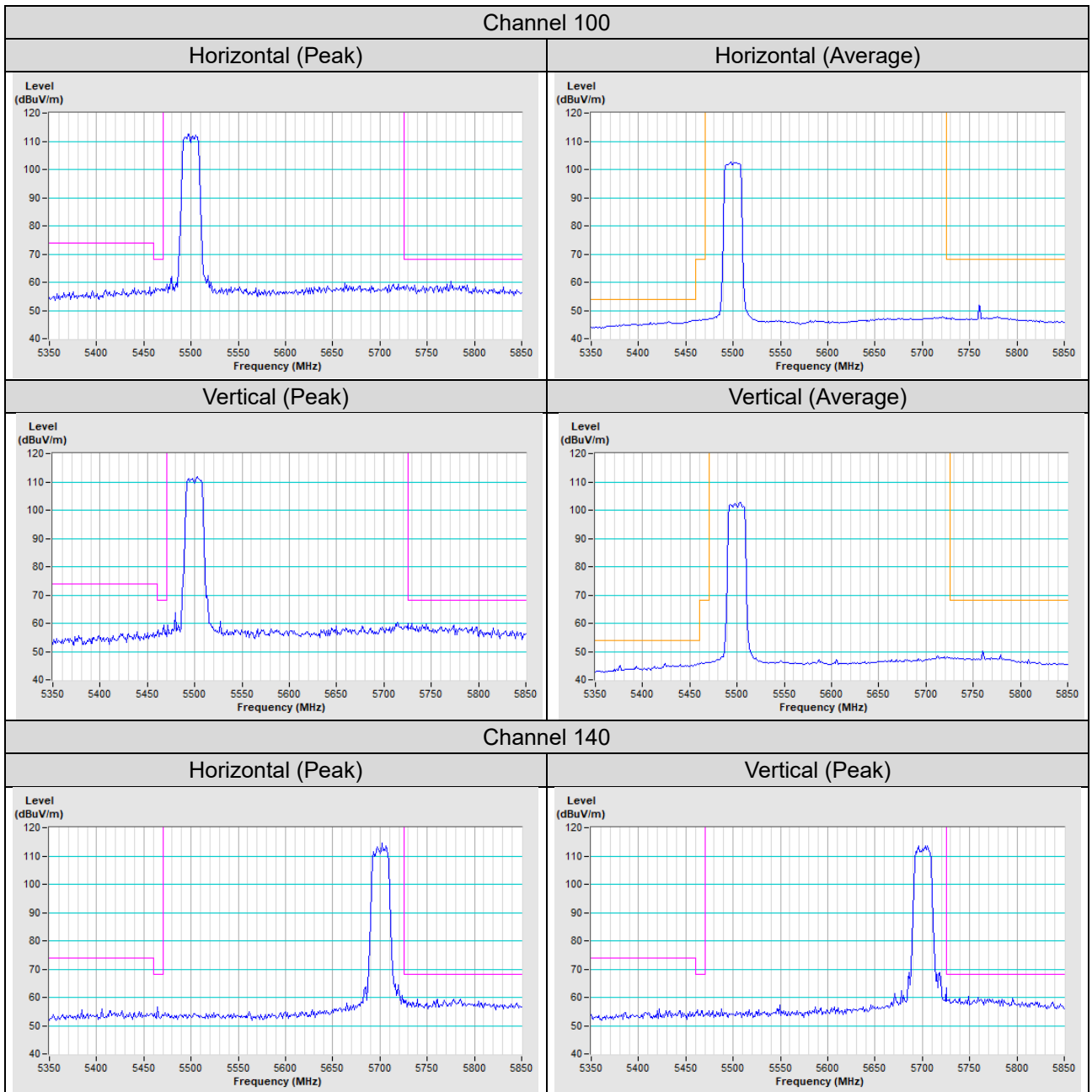
Vertical (Average)



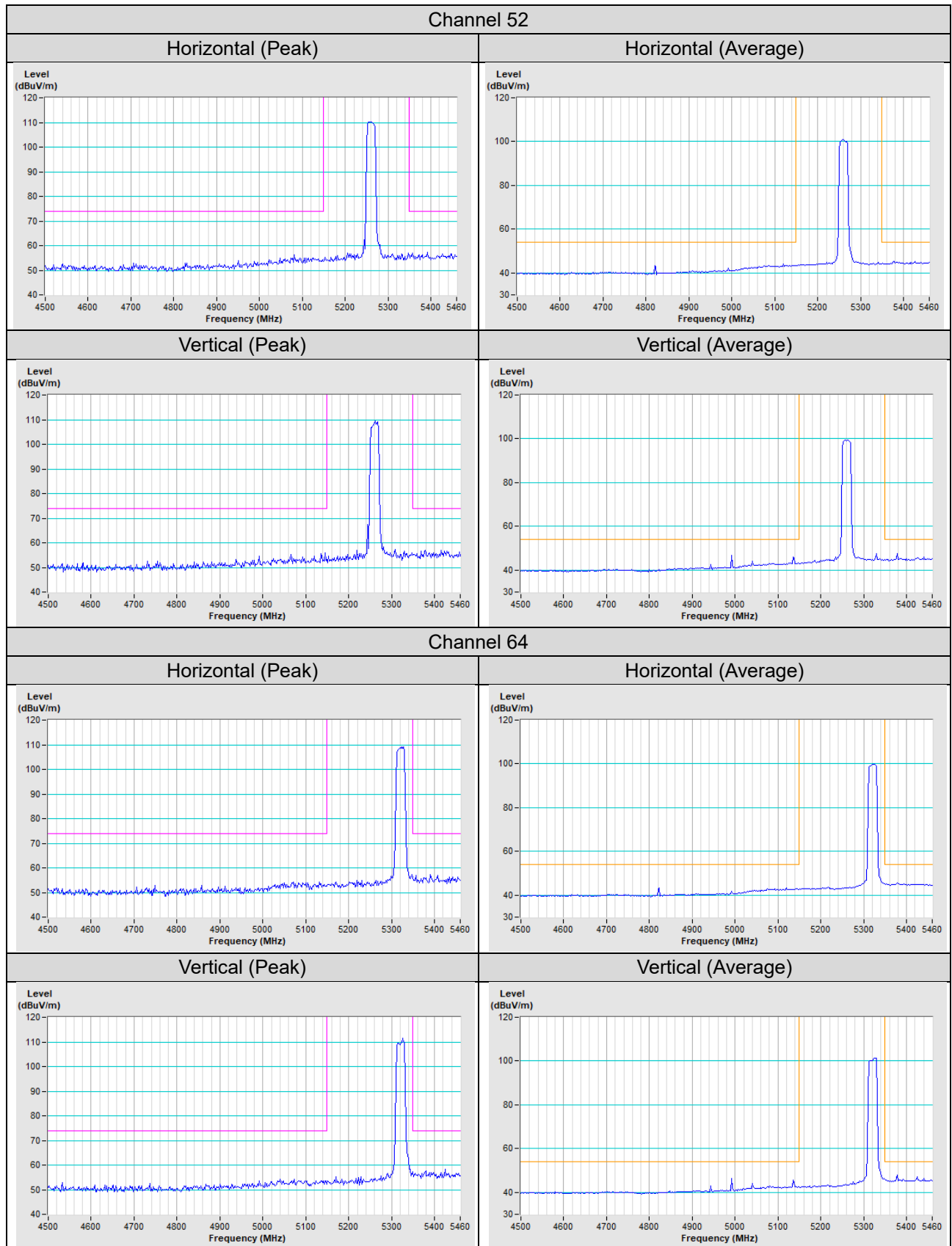
Test Mode C

802.11a



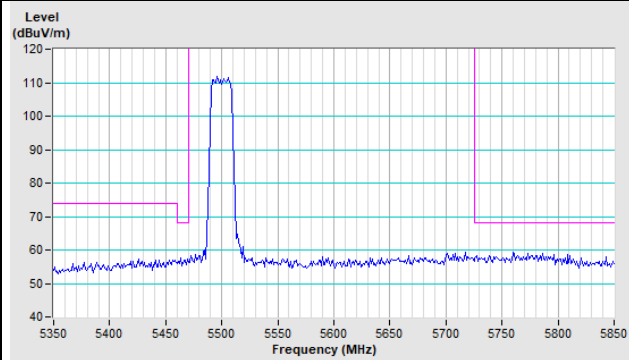


802.11n (HT20)

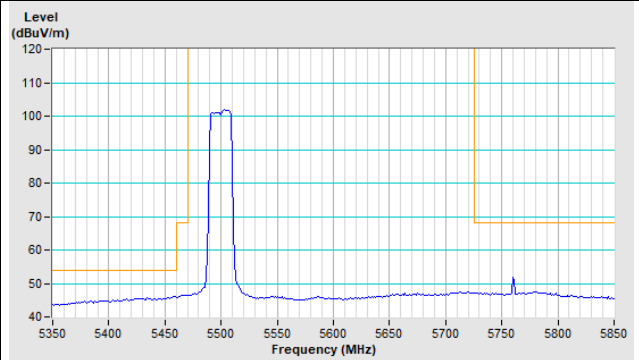


Channel 100

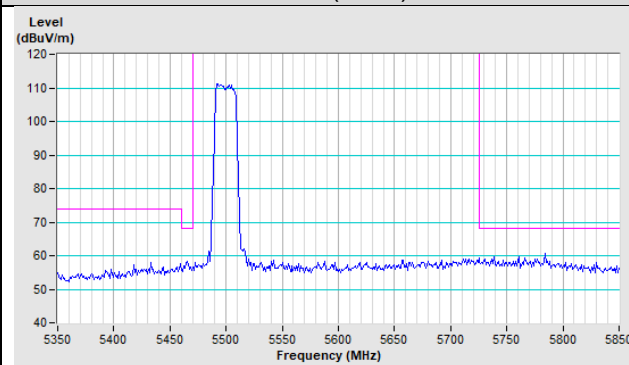
Horizontal (Peak)



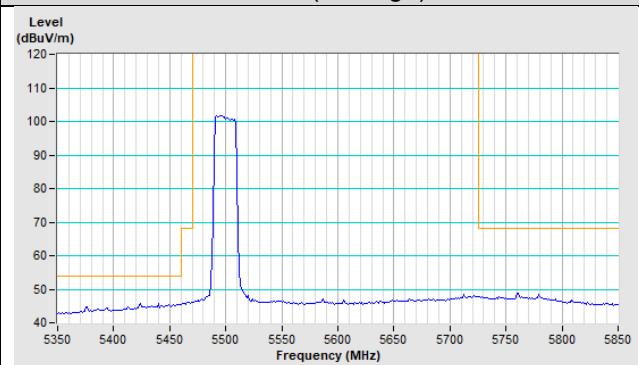
Horizontal (Average)



Vertical (Peak)

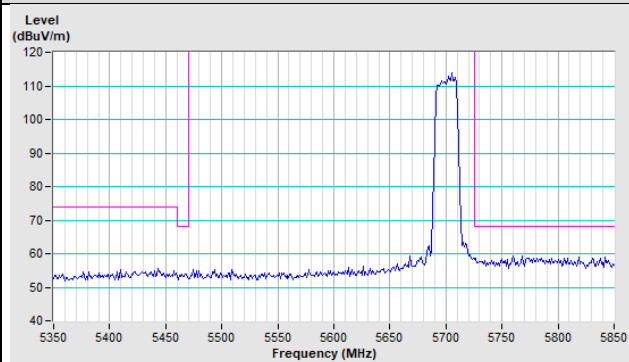


Vertical (Average)

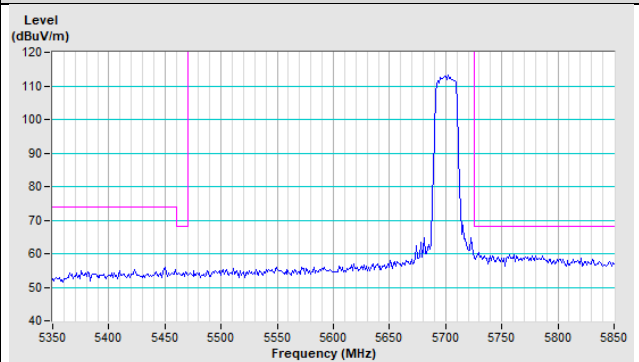


Channel 140

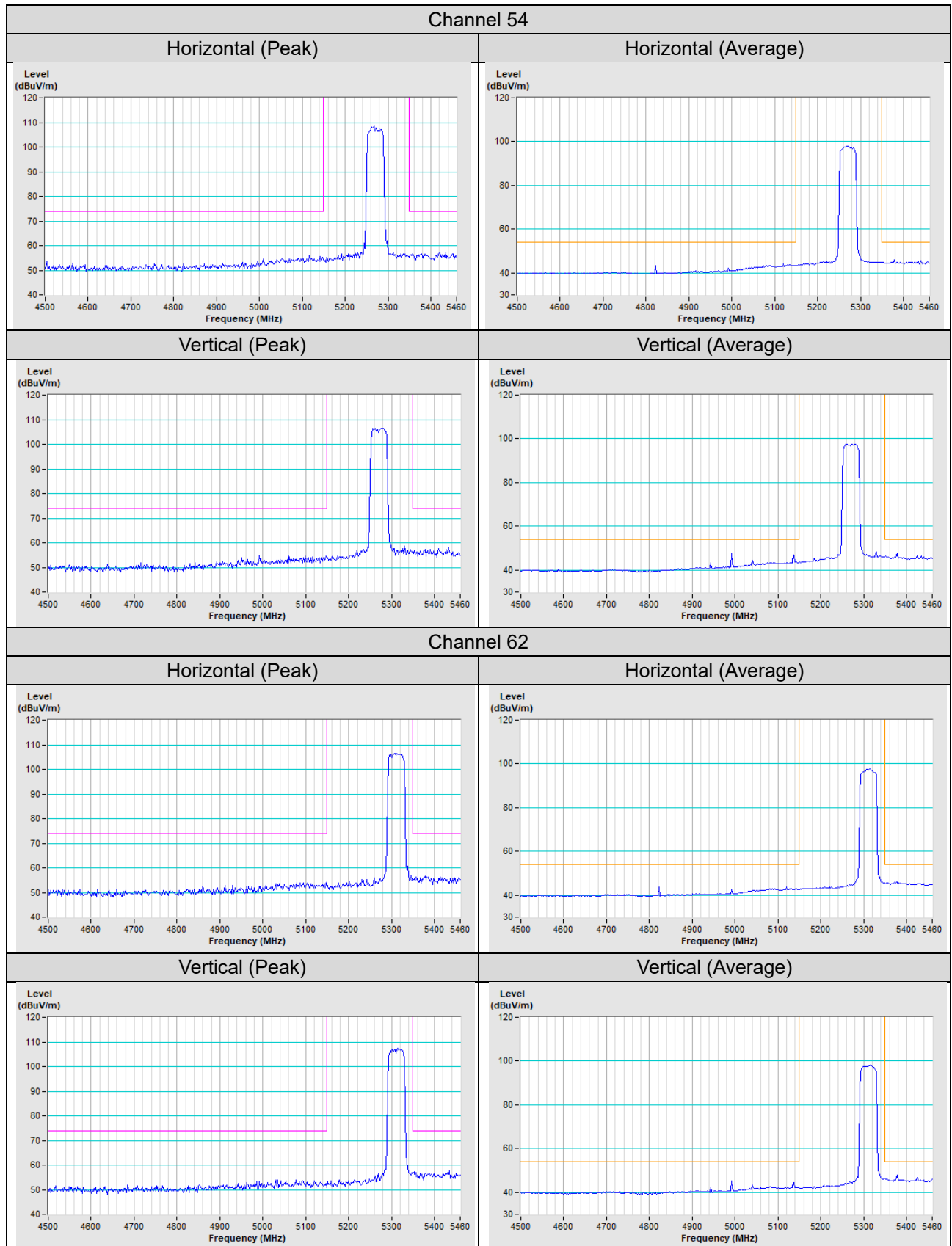
Horizontal (Peak)



Vertical (Peak)

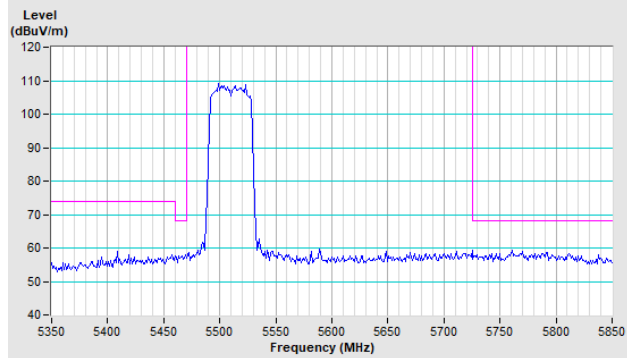


802.11n (HT40)

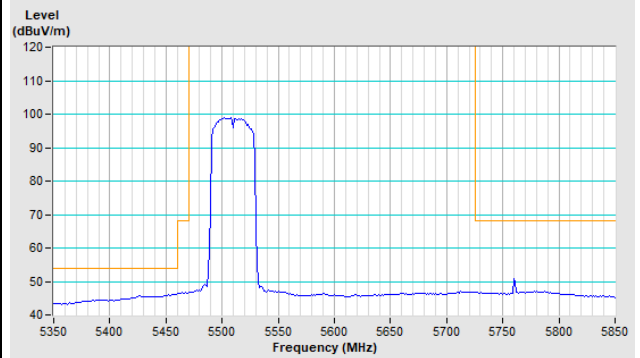


Channel 102

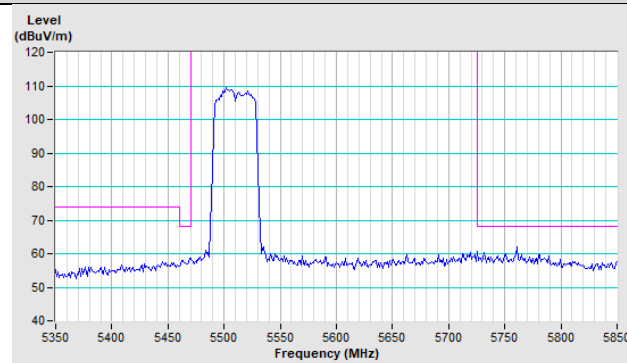
Horizontal (Peak)



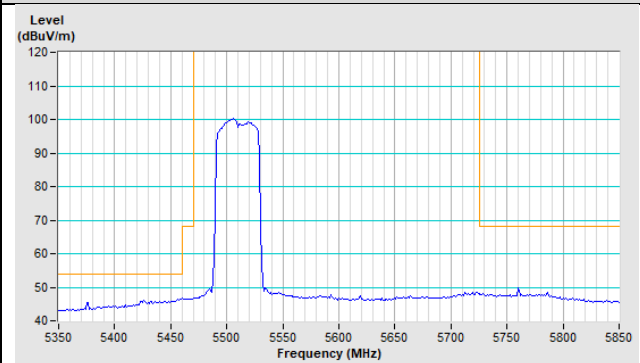
Horizontal (Average)



Vertical (Peak)

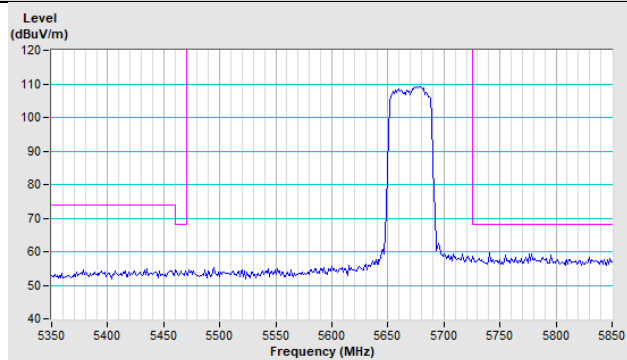


Vertical (Average)

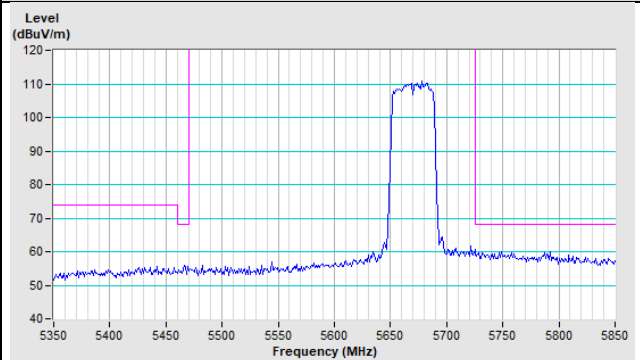


Channel 134

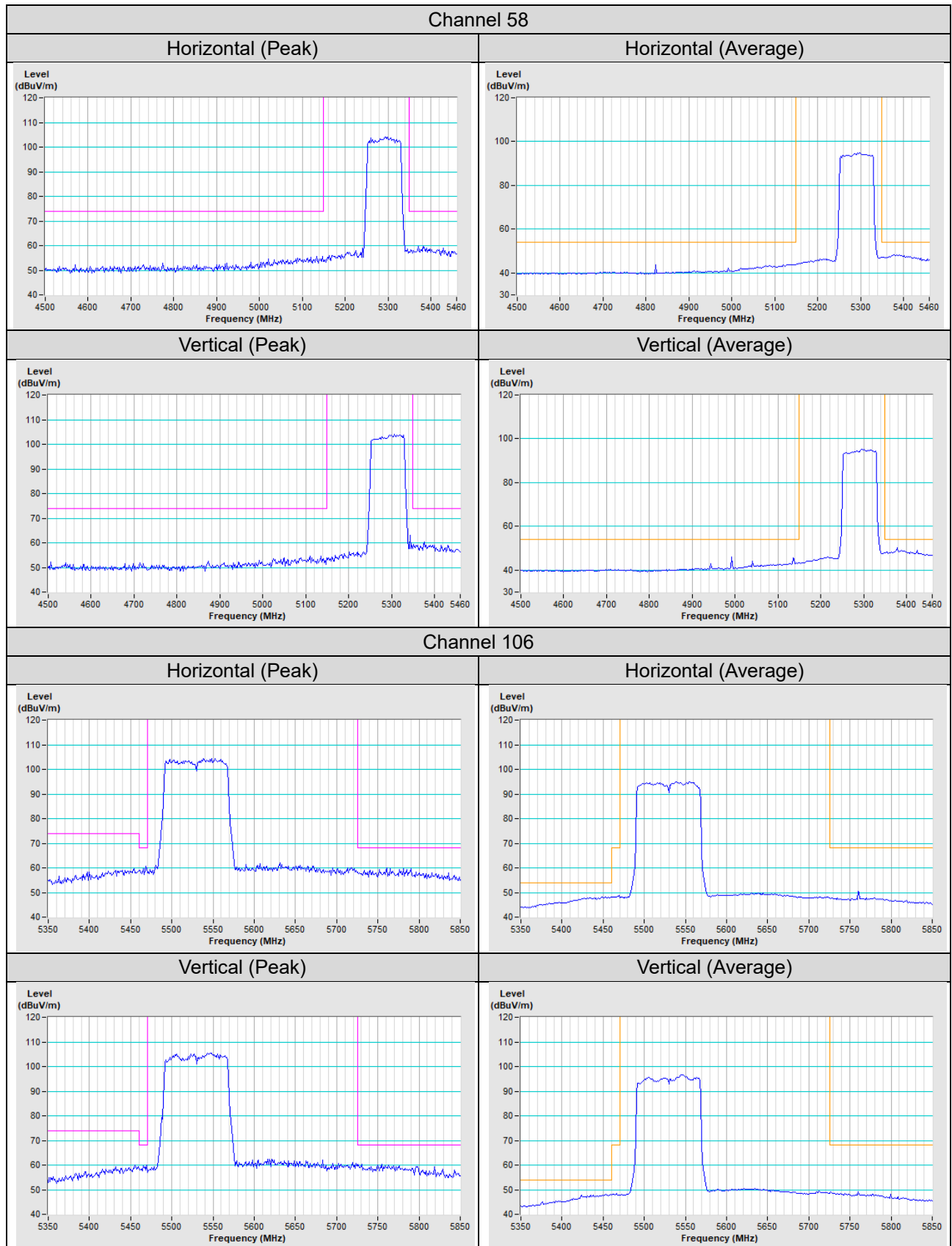
Horizontal (Peak)



Vertical (Peak)

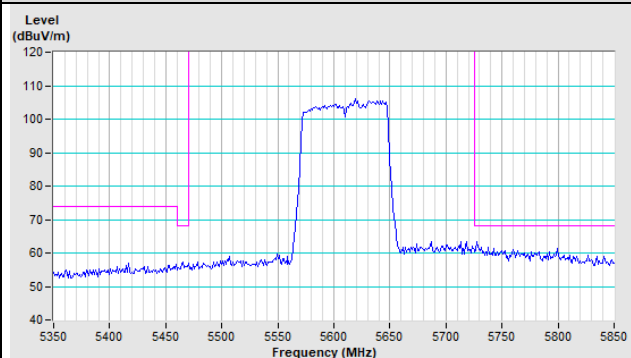


802.11ac (VHT80)

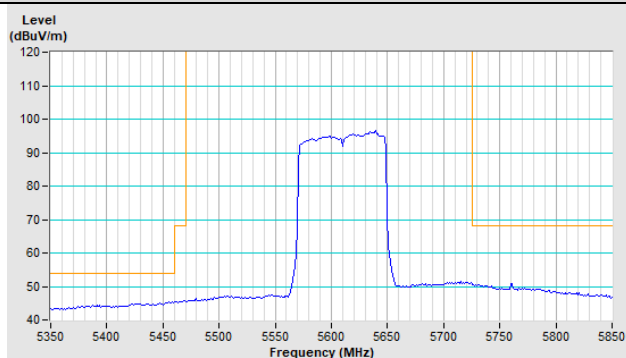


Channel 122

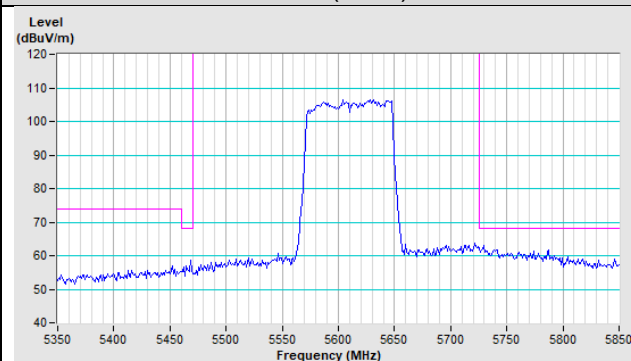
Horizontal (Peak)



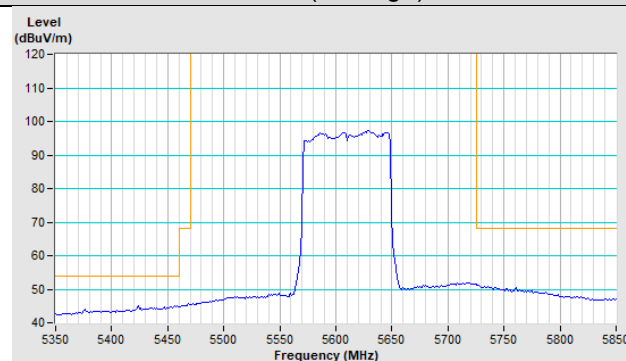
Horizontal (Average)



Vertical (Peak)



Vertical (Average)



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:

Lin Kou EMC/RF Lab

Tel: 886-2-26052180

Fax: 886-2-26051924

Hsin Chu EMC/RF/Telecom Lab

Tel: 886-3-6668565

Fax: 886-3-6668323

Hwa Ya EMC/RF/Safety

Tel: 886-3-3183232

Fax: 886-3-3270892

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.

--- END ---