

FCC Test Report (WLAN)

Report No.: RF200616D06-3 R1

FCC ID: C3K1942

Test Model: 1942

Received Date: Apr. 13, 2020

Test Date: Aug. 7 to 13, 2020

Issued Date: Aug. 20, 2020

Applicant: MICROSOFT CORPORATION

Address: ONE MICROSOFT WAY REDMOND, WA 98052-6399

Issued By: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch
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**FCC Registration /
Designation Number:** 198487 / TW2021



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Release Control Record

Issue No.	Description	Date Issued
RF200616D06-3	Original release.	Jul. 10, 2020
RF200616D06-3 R1	Change the wireless module to 2T2R and re-test.	Aug. 20, 2020

1 Certificate of Conformity

Product: Media Dongle

Brand: MICROSOFT

Test Model: 1942

Sample Status: Engineering sample

Applicant: MICROSOFT CORPORATION

Test Date: Aug. 7 to 13, 2020

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

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

Prepared by :

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Date: Aug. 20, 2020

Annie Chang / Senior Specialist

Approved by :

Rex Lai

Date: Aug. 20, 2020

Rex Lai / Associate Technical Manager

2 Summary of Test Results

47 CFR FCC Part 15, Subpart E (Section 15.407)			
FCC Clause	Test Item	Result	Remarks
15.407(b)(6)	AC Power Conducted Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -12.48dB at 0.81016MHz.
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 -1.58dB at 5725.00MHz.
15.407(a)(1/2/3)	Max Average Transmit Power	Pass	Meet the requirement of limit.
---	Occupied Bandwidth Measurement	-	Reference only.
15.407(a)(1/2/3)	Peak Power Spectral Density	Pass	Meet the requirement of limit.
15.407(e)	6dB bandwidth	Pass	Meet the requirement of limit. (U-NII-3 Band only)
15.407(g)	Frequency Stability	Pass	Meet the requirement of limit.
15.203	Antenna Requirement	Pass	No antenna connector is used.

Note:

- For U-NII-3 band compliance with rule part 15.407(b)(4)(i), the OOB test plots were recorded in Annex A.
- For U-NII-1 band compliance with rule 15.407(b) of the band-edge items, the test plots were recorded in Annex B. 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 (Mode A)	150kHz ~ 30MHz	3.00 dB
Conducted Emissions at mains ports (Mode B)	150kHz ~ 30MHz	2.94 dB
Conducted Emissions	9kHz ~ 40GHz	2.63 dB
Radiated Emissions up to 1 GHz	9kHz ~ 30MHz	2.61 dB
	30MHz ~ 1GHz	5.43 dB
Radiated Emissions above 1 GHz	Above 1GHz	5.42 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	Media Dongle
Brand	MICROSOFT
Test Model	1942
Test software Version	rainbow2util
Status of EUT	Engineering sample
Power Supply Rating	Powered from the host monitor or display
Modulation Type	64QAM, 16QAM, QPSK, BPSK for OFDM 256QAM for OFDM in 11ac mode only.
Modulation Technology	OFDM
Transfer Rate	802.11a: 54/48/36/24/18/12/9/6Mbps 802.11n: up to 300Mbps 802.11ac: up to 400Mbps
Operating Frequency	5180~5240MHz, 5260~5320MHz, 5500~5720MHz, 5745~5825MHz
Number of Channel	5180~5240MHz: 802.11a, 802.11n (20MHz), 802.11ac (20MHz): 4 802.11n (40MHz), 802.11ac (40MHz): 2 5260~5320MHz: 802.11a, 802.11n (20MHz), 802.11ac (20MHz): 4 802.11n (40MHz), 802.11ac (40MHz): 2 5500~5720MHz: 802.11a, 802.11n (20MHz), 802.11ac (20MHz): 12 802.11n (40MHz), 802.11ac (40MHz): 6 5745~5825MHz: 802.11a, 802.11n (20MHz), 802.11ac (20MHz): 5 802.11n (40MHz), 802.11ac (40MHz): 2
Output Power	5180~5240MHz: 162.030mW 5260~5320MHz: 164.072mW 5500~5720MHz: 165.208mW 5745~5825MHz: 165.779mW
Antenna Type	5180~5240MHz: Chip antenna with 3.29dBi gain 5260~5320MHz: Chip antenna with 3.29dBi gain 5500~5720MHz: Chip antenna with 4.26dBi gain 5745~5825MHz: Chip antenna with 3.25dBi gain
Antenna Connector	N/A
Accessory Device	N/A
Data Cable Supplied	Shielded HDMI cable (0.1m), Shielded USB cable (0.3m) attached on EUT

Note:

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

2. The EUT provides 2 completed transmitters and 2 receivers.

Modulation Mode	TX FUNCTION	RX FUNCTION
802.11a	2TX	2RX
802.11n (20MHz)	2TX	2RX
802.11n (40MHz)	2TX	2RX
802.11ac (20MHz)	2TX	2RX
802.11ac (40MHz)	2TX	2RX

* The modulation and bandwidth are similar for 802.11n mode for 20MHz (40MHz) and 802.11ac mode for 20MHz (40MHz), therefore investigated worst case to representative mode in test report. (Final test mode refer section 3.2.1)

3. 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.

4. For Radiated Emissions test, following modes were pre-tested:

- ◆ EUT Powered from Adapter
- ◆ EUT Powered from Notebook

The worst emission level was found when the EUT was tested under **EUT Powered from Adapter** mode, therefore, only its test data was recorded in this report.

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

3.2 Description of Test Modes

5180~5240MHz:

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

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

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

Channel	Frequency	Channel	Frequency
38	5190 MHz	46	5230 MHz

5260~5320MHz:

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

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

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

Channel	Frequency	Channel	Frequency
54	5270 MHz	62	5310 MHz

5500~5720MHz:

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

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

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

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

5745~5825MHz:

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

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

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

Channel	Frequency	Channel	Frequency
151	5755MHz	159	5795MHz

3.2.1 Test Mode Applicability and Tested Channel Detail

EUT Configure Mode	Applicable To				Description
	RE $\geq$ 1G	RE<1G	PLC	APCM	
A	√	√	√	√	Powered from Adapter
B	-	-	√	-	Powered from Notebook

Where **RE $\geq$ 1G**: Radiated Emission above 1GHz

RE<1G: Radiated Emission below 1GHz

PLC: Power Line Conducted Emission

APCM: Antenna Port Conducted Measurement

NOTE: The EUT had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on **Z-plane**.

Radiated Emission Test (Above 1GHz):

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

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

EUT Configure Mode	Mode	Frequency Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Data Rate (Mbps)
A	802.11a	5180-5240	36 to 48	36, 40, 48	OFDM	6.0
	802.11ac (20MHz)		36 to 48	36, 40, 48	OFDM	6.5
	802.11ac (40MHz)		38 to 46	38, 46	OFDM	13.5
A	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	6.0
	802.11ac (20MHz)		52 to 64	52, 60, 64	OFDM	6.5
	802.11ac (40MHz)		54 to 62	54, 62	OFDM	13.5
A	802.11a	5500-5720	100 to 144	100, 116, 132, 140, 144	OFDM	6.0
	802.11ac (20MHz)		100 to 144	100, 116, 132, 140, 144	OFDM	6.5
	802.11ac (40MHz)		102 to 142	102, 110, 134, 142	OFDM	13.5
A	802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	6.0
	802.11ac (20MHz)		149 to 165	149, 157, 165	OFDM	6.5
	802.11ac (40MHz)		151 to 159	151, 159	OFDM	13.5

Radiated Emission Test (Below 1GHz):

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

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

EUT Configure Mode	Mode	Frequency Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Data Rate (Mbps)
A	802.11a	5180-5240	36 to 48	60	OFDM	6.0
A	802.11a	5260-5320	52 to 64		OFDM	6.0
A	802.11a	5500-5720	100 to 144		OFDM	6.0
A	802.11a	5745-5825	149 to 165		OFDM	6.0

Power Line Conducted Emission Test:

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

EUT Configure Mode	Mode	Frequency Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Data Rate (Mbps)
A & B	802.11a	5180-5240	36 to 48	60	OFDM	6.0
	802.11a	5260-5320	52 to 64		OFDM	6.0
	802.11a	5500-5720	100 to 144		OFDM	6.0
	802.11a	5745-5825	149 to 165		OFDM	6.0

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	802.11a	5180-5240	36 to 48	36, 40, 48	OFDM	6.0
	802.11ac (20MHz)		36 to 48	36, 40, 48	OFDM	6.5
	802.11ac (40MHz)		38 to 46	38, 46	OFDM	13.5
A	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	6.0
	802.11ac (20MHz)		52 to 64	52, 60, 64	OFDM	6.5
	802.11ac (40MHz)		54 to 62	54, 62	OFDM	13.5
A	802.11a	5500-5720	100 to 144	100, 116, 132, 140, 144	OFDM	6.0
	802.11ac (20MHz)		100 to 144	100, 116, 132, 140, 144	OFDM	6.5
	802.11ac (40MHz)		102 to 142	102, 110, 134, 142	OFDM	13.5
A	802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	6.0
	802.11ac (20MHz)		149 to 165	149, 157, 165	OFDM	6.5
	802.11ac (40MHz)		151 to 159	151, 159	OFDM	13.5

Test Condition:

Applicable To	EUT Configure Mode	Environmental Conditions	Input Power	Tested By
RE $\geq$ 1G	A	24deg. C, 63%RH	120Vac, 60Hz (Adapter)	Dalen Dai
RE<1G	A	22deg. C, 75%RH	120Vac, 60Hz (Adapter)	Ian Chang
PLC	A	25deg. C, 80%RH	120Vac, 60Hz (Adapter)	Pirar Hsieh
	B	25deg. C, 70%RH	120Vac, 60Hz (System)	Ken Lee
APCM	A	25deg. C, 76%RH	120Vac, 60Hz (Adapter)	Saxon Lee

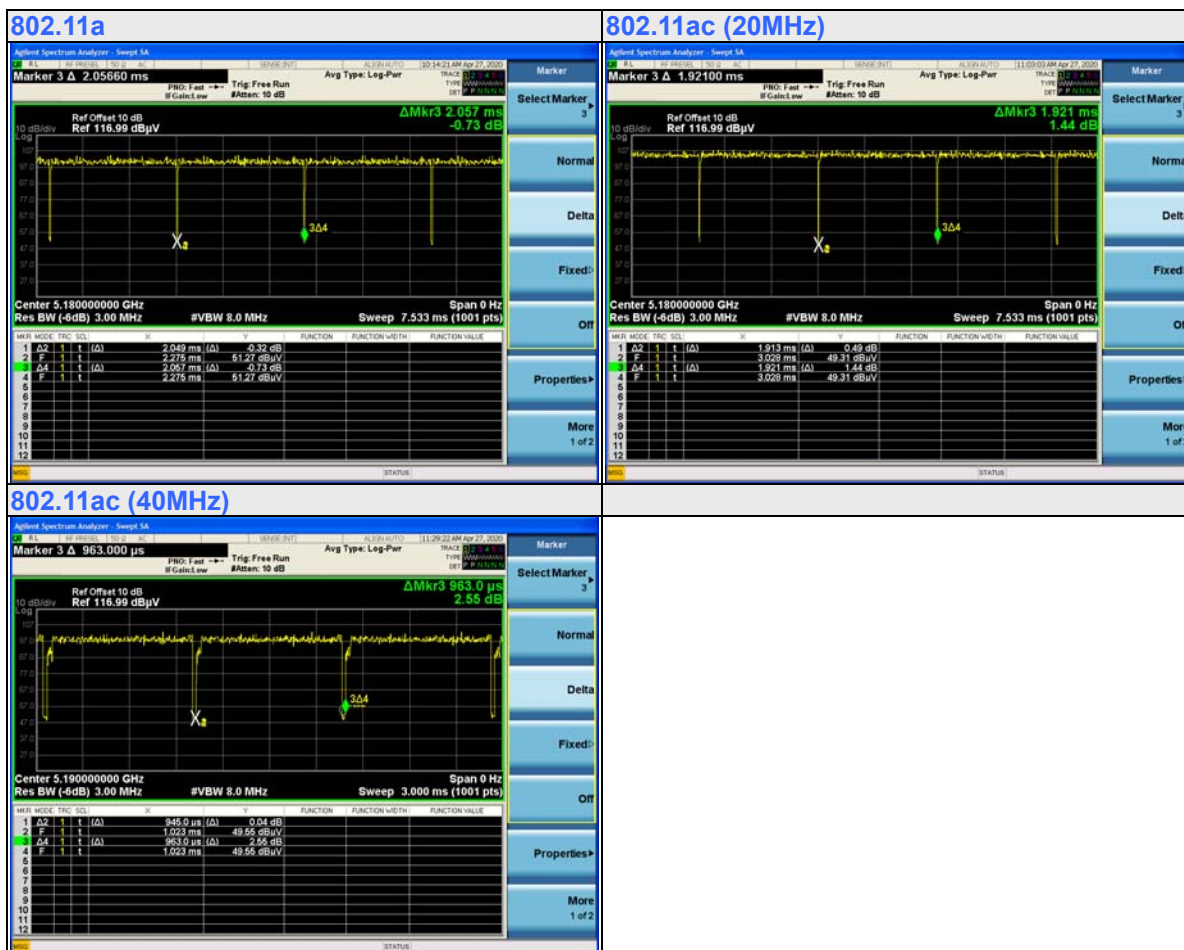
3.3 Duty Cycle of Test Signal

Duty cycle of test signal is > 98%, duty factor is not required.

802.11a: Duty cycle = $2.049/2.057 = 0.996$

802.11ac (20MHz): Duty cycle = $1.913/1.921 = 0.996$

802.11ac (40MHz): Duty cycle = $0.945/0.963 = 0.981$



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.

Mode A:

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Adapter	APPLE	A1385	N/A	N/A	Provided by Lab
B.	LCD Monitor	ASUS	MG28UQ	J1LMTF114786	N/A	Provided by Lab

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

ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	USB cable	1	0.3	Y	0	Supplied by client
2.	HDMI cable	1	0.1	Y	0	Supplied by client

Note: The core(s) is(are) originally attached to the cable(s).

Mode B:

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	LCD MONITOR	ASUS	MG28UQ	HCLMTF053714	N/A	Provided by Lab
B.	USB Mouse	Microsoft	1113	9170515153393	FCC DOC Approved	Provided by Lab
C.	AP	D-LINK	DIR-809	RZMF2G7002838	N/A	Provided by Lab
D.	Notebook PC	Microsoft	1866	065649593853	N/A	Provided by Lab
E.	Adapter of Notebook	Microsoft	1706	N/A	N/A	Provided by Lab
F.	USB adapter	igota	N/A	N/A	N/A	Provided by Lab

Note:

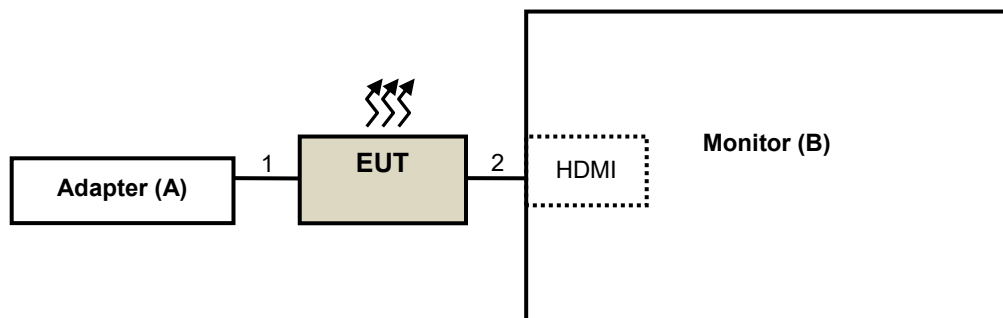
1. All power cords of the above support units are non-shielded (1.8m).
2. Item C acted as communication partners to transfer data.

ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	HDMI cable attached on EUT	1	0.1	Y	0	Supplied by client
2.	USB cable attached on EUT	1	0.3	Y	0	Supplied by client
3.	USB cable	1	1.8	Y	1	Provided by Lab
4.	AC cable	1	1.0	N	0	Provided by Lab
5.	DC cable	1	1.8	N	0	Provided by Lab

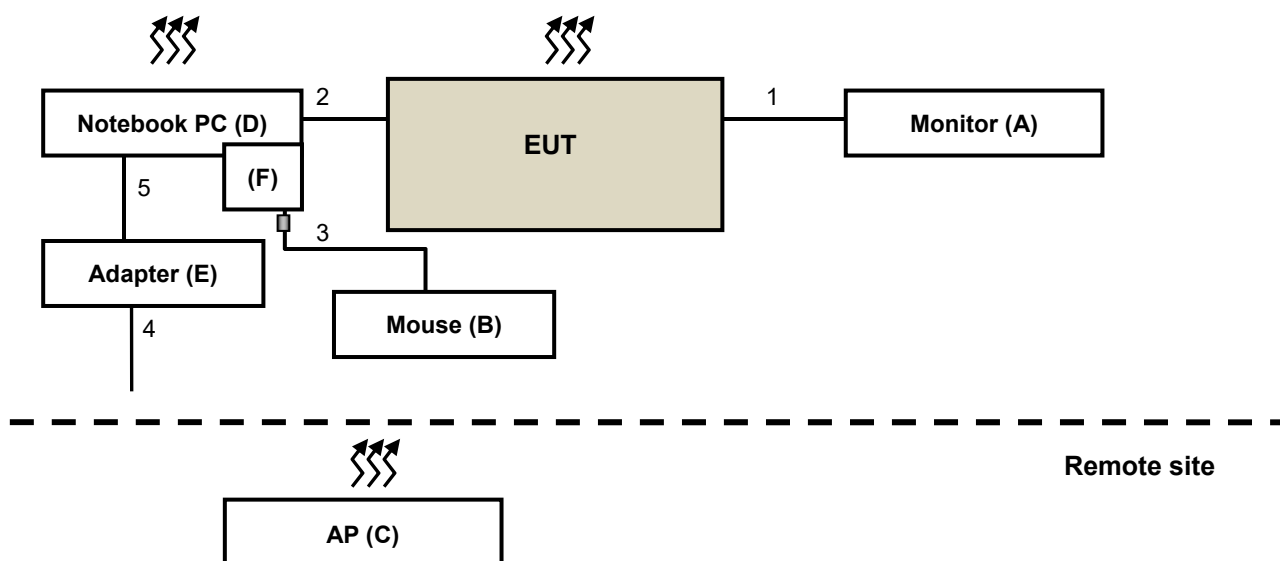
Note: The core(s) is(are) originally attached to the cable(s).

3.4.1 Configuration of System under Test

Mode A:



Mode B:



3.5 General Description of Applied Standard 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:

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

Limits of unwanted emission out of the restricted bands

Applicable To		Limit	
789033 D02 General UNII Test Procedure New Rules v02r01		Field Strength at 3m	
		PK:74 (dBuV/m)	AV:54 (dBuV/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(dBuV/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(dBuV/m) ^{*1} PK:105.2 (dBuV/m) ^{*2} PK: 110.8(dBuV/m) ^{*3} PK:122.2 (dBuV/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:

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

4.1.2 Test Instruments

DESCRIPTION & MANUFACTURER	MODEL NO.	SERIAL NO.	CALIBRATED DATE	CALIBRATED UNTIL
HP Preamplifier	8447D	2432A03504	Feb. 19, 2020	Feb. 18, 2021
HP Preamplifier	8449B	3008A01201	Feb. 20, 2020	Feb. 19, 2021
MITEQ Preamplifier	AMF-6F-260400-33-8P	892164	Feb. 19, 2020	Feb. 18, 2021
Agilent TEST RECEIVER	N9038A	MY51210129	Mar. 18, 2020	Mar. 17, 2021
Schwarzbeck Antenna	VULB 9168	139	Nov. 7, 2019	Nov. 6, 2020
Schwarzbeck Antenna	VHBA 9123	480	Jun. 3, 2019	Jun. 2, 2021
Schwarzbeck Horn Antenna	BBHA-9170	212	Nov. 24, 2019	Nov. 23, 2020
Schwarzbeck Horn Antenna	BBHA 9120-D1	D130	Nov. 24, 2019	Nov. 23, 2020
ADT. Turn Table	TT100	0306	NA	NA
ADT. Tower	AT100	0306	NA	NA
Software	Radiated_V7.6.15.9.5	NA	NA	NA
SUHNER RF cable With 4dB PAD	SF102	Cable-CH6-01	Jul. 9, 2020	Jul. 8, 2021
SUHNER RF cable With 3/4dB PAD	SF102	Cable-CH8-3.6m	Jul. 9, 2020	Jul. 8, 2021
KEYSIGHT MIMO Powermeasurement Test set	U2021XA	U2021XA-001	Jun. 16, 2020	Jun. 15, 2021
KEYSIGHT Spectrum Analyzer	N9030A	MY54490260	Jul. 22, 2020	Jul. 21, 2021
Loop Antenna EMCI	LPA600	270	Aug. 23, 2019	Aug. 22, 2021
EMCO Horn Antenna	3115	00028257	Nov. 24, 2019	Nov. 23, 2020
Highpass filter Wainwright Instruments	WHK 3.1/18G-10SS	SN 8	NA	NA
ROHDE & SCHWARZ Spectrum Analyzer	FSV40	101042	Sep. 23, 2019	Sep. 22, 2020
Anritsu Power Sensor	MA2411B	0738404	Apr. 13, 2020	Apr. 12, 2021
Anritsu Power Meter	ML2495A	0842014	Apr. 13, 2020	Apr. 12, 2021

- NOTE:** 1. The calibration interval of the above test instruments is 12/24 months. And the calibrations are traceable to NML/ROC and NIST/USA.
2. The horn antenna and HP preamplifier (model: 8449B) are used only for the measurement of emission frequency above 1GHz if tested.
3. The test was performed in Chamber No. 6.
4. Tested Date: Aug. 8 to 13, 2020

4.1.3 Test Procedure

For Radiated emission below 30MHz

- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter chamber room. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. Parallel, perpendicular, and ground-parallel orientations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to Quasi-Peak Detect Function and Specified Bandwidth with Maximum Hold Mode.

NOTE:

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

For Radiated emission above 30MHz

- a. The EUT was placed on the top of a rotating table 0.8 meters (for 30MHz ~ 1GHz) / 1.5 meters (for above 1GHz) above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- c. The height of antenna is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading.
- e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.
- f. The test-receiver system was set to peak and average detects 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.

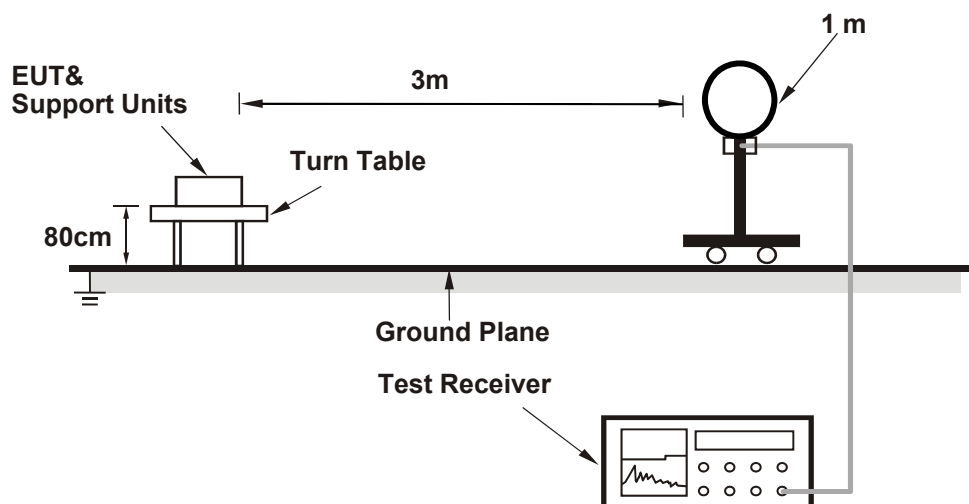
The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is $\geq 1/T$ (Duty cycle $< 98\%$) or 10Hz (Duty cycle $\geq 98\%$) for Average detection (AV) at frequency above 1GHz.
(802.11a: RBW = 1MHz, VBW = 10Hz; 802.11ac (20MHz): RBW = 1MHz, VBW = 10Hz;
802.11ac (40MHz): RBW = 1MHz, VBW = 10Hz)
3. All modes of operation were investigated and the worst-case emissions are reported.

4.1.4 Deviation from Test Standard

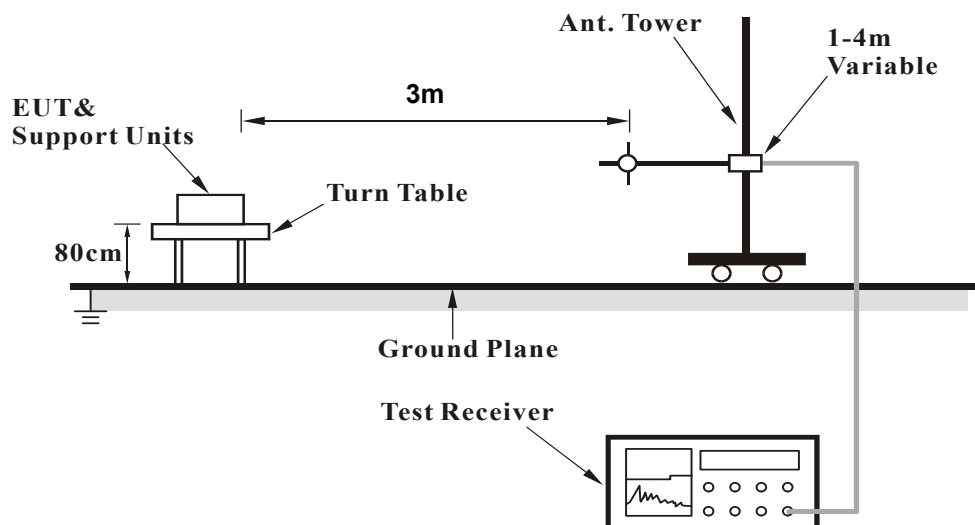
No deviation.

4.1.5 Test Setup

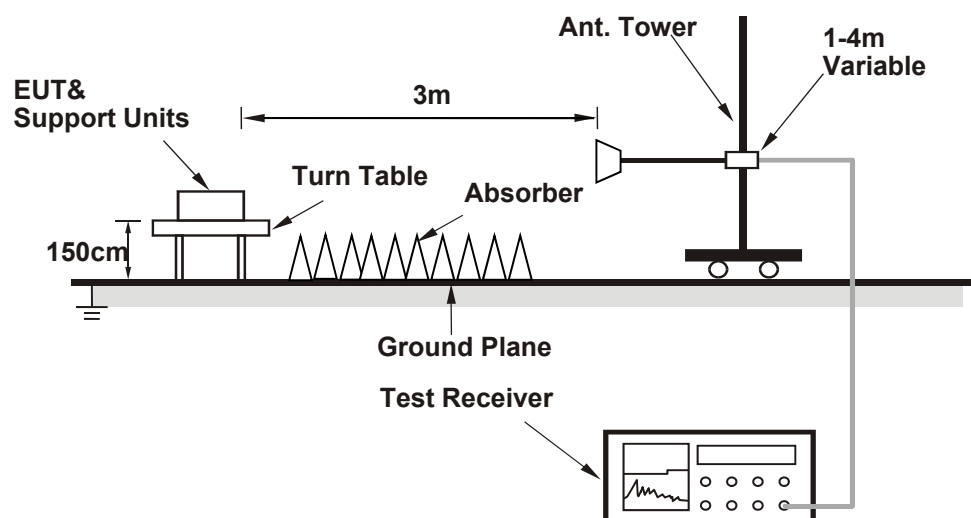
For Radiated emission below 30MHz



For Radiated emission 30MHz to 1GHz



For Radiated emission above 1GHz



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

4.1.6 EUT Operating Condition

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

4.1.7 Test Results

Mode A

Above 1GHz Data:

802.11a

Channel	TX Channel 36	Detector Function	Peak (PK)
Frequency Range	1GHz ~ 40GHz		Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	64.87 PK	74.00	-9.13	2.42 H	349	55.16	9.71
2	5150.00	49.57 AV	54.00	-4.43	2.42 H	349	39.86	9.71
3	*5180.00	111.37 PK			2.42 H	349	101.60	9.77
4	*5180.00	99.48 AV			2.42 H	349	89.71	9.77
5	#10360.00	56.75 PK	68.20	-11.45	1.84 H	261	40.65	16.10

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	65.50 PK	74.00	-8.50	1.59 V	87	55.79	9.71
2	5150.00	49.76 AV	54.00	-4.24	1.59 V	87	40.05	9.71
3	*5180.00	111.62 PK			1.59 V	87	101.85	9.77
4	*5180.00	100.48 AV			1.59 V	87	90.71	9.77
5	#10360.00	57.37 PK	68.20	-10.83	1.64 V	235	41.27	16.10

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. 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 40	Detector Function	Peak (PK)
Frequency Range	1GHz ~ 40GHz		Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5200.00	109.99 PK			2.51 H	352	100.19	9.80
2	*5200.00	98.06 AV			2.51 H	352	88.26	9.80
3	#10400.00	56.74 PK	68.20	-11.46	1.54 H	264	40.62	16.12
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5200.00	111.45 PK			1.91 V	95	101.65	9.80
2	*5200.00	99.41 AV			1.91 V	95	89.61	9.80
3	#10400.00	57.48 PK	68.20	-10.72	1.84 V	211	41.36	16.12

Remarks:

1. Emission Level(dBuV/m) = 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 48	Detector Function	Peak (PK)
Frequency Range	1GHz ~ 40GHz		Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5240.00	110.17 PK			2.47 H	341	100.16	10.01
2	*5240.00	98.10 AV			2.47 H	341	88.09	10.01
3	5350.00	62.14 PK	74.00	-11.86	2.47 H	341	51.46	10.68
4	5350.00	47.94 AV	54.00	-6.06	2.47 H	341	37.26	10.68
5	#10480.00	56.58 PK	68.20	-11.62	2.21 H	51	40.55	16.03
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5240.00	111.05 PK			1.91 V	104	101.04	10.01
2	*5240.00	98.72 AV			1.91 V	104	88.71	10.01
3	5350.00	63.06 PK	74.00	-10.94	1.91 V	104	52.38	10.68
4	5350.00	48.67 AV	54.00	-5.33	1.91 V	104	37.99	10.68
5	#10480.00	57.29 PK	68.20	-10.91	1.85 V	360	41.26	16.03

Remarks:

1. Emission Level(dBuV/m) = 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 52	Detector Function	Peak (PK)
Frequency Range	1GHz ~ 40GHz		Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	62.24 PK	74.00	-11.76	2.62 H	30	52.53	9.71
2	5150.00	48.48 AV	54.00	-5.52	2.62 H	30	38.77	9.71
3	*5260.00	110.25 PK			2.62 H	30	100.13	10.12
4	*5260.00	100.03 AV			2.62 H	30	89.91	10.12
5	#10520.00	56.48 PK	68.20	-11.72	1.81 H	270	40.51	15.97
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	62.78 PK	74.00	-11.22	1.37 V	182	53.07	9.71
2	5150.00	49.36 AV	54.00	-4.64	1.37 V	182	39.65	9.71
3	*5260.00	114.94 PK			1.37 V	182	104.82	10.12
4	*5260.00	102.65 AV			1.37 V	182	92.53	10.12
5	#10520.00	57.53 PK	68.20	-10.67	1.72 V	233	41.56	15.97

Remarks:

1. Emission Level(dBuV/m) = 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)
Frequency Range	1GHz ~ 40GHz		Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5300.00	110.89 PK			2.64 H	27	100.52	10.37
2	*5300.00	98.53 AV			2.64 H	27	88.16	10.37
3	10600.00	56.70 PK	74.00	-17.30	1.86 H	273	40.88	15.82
4	10600.00	45.76 AV	54.00	-8.24	1.86 H	273	29.94	15.82

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (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	115.31 PK			1.35 V	178	104.94	10.37
2	*5300.00	103.15 AV			1.35 V	178	92.78	10.37
3	10600.00	57.49 PK	74.00	-16.51	1.74 V	237	41.67	15.82
4	10600.00	47.34 AV	54.00	-6.66	1.74 V	237	31.52	15.82

Remarks:

1. Emission Level(dBuV/m) = 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)
Frequency Range	1GHz ~ 40GHz		Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (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	100.31 PK			2.61 H	32	89.82	10.49
2	*5320.00	98.06 AV			2.61 H	32	87.57	10.49
3	5350.00	67.42 PK	74.00	-6.58	2.61 H	32	56.74	10.68
4	5350.00	50.56 AV	54.00	-3.44	2.61 H	32	39.88	10.68
5	10640.00	56.61 PK	74.00	-17.39	1.83 H	275	40.58	16.03
6	10640.00	45.58 AV	54.00	-8.42	1.83 H	275	29.55	16.03
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (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	114.17 PK			1.38 V	181	103.68	10.49
2	*5320.00	102.08 AV			1.38 V	181	91.59	10.49
3	5350.00	70.71 PK	74.00	-3.29	1.38 V	181	60.03	10.68
4	5350.00	51.99 AV	54.00	-2.01	1.38 V	181	41.31	10.68
5	10640.00	57.13 PK	74.00	-16.87	1.76 V	234	41.10	16.03
6	10640.00	47.23 AV	54.00	-6.77	1.76 V	234	31.20	16.03

Remarks:

1. Emission Level(dBuV/m) = 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)
Frequency Range	1GHz ~ 40GHz		Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (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	61.67 PK	74.00	-12.33	2.61 H	30	50.30	11.37
2	5460.00	48.75 AV	54.00	-5.25	2.61 H	30	37.38	11.37
3	#5470.00	63.49 PK	68.20	-4.71	2.61 H	30	52.04	11.45
4	*5500.00	109.33 PK			2.61 H	30	97.67	11.66
5	*5500.00	97.02 AV			2.61 H	30	85.36	11.66
6	11000.00	56.18 PK	74.00	-17.82	1.87 H	274	39.40	16.78
7	11000.00	45.93 AV	54.00	-8.07	1.87 H	274	29.15	16.78
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (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	61.99 PK	74.00	-12.01	1.37 V	185	50.62	11.37
2	5460.00	49.33 AV	54.00	-4.67	1.37 V	185	37.96	11.37
3	#5470.00	66.47 PK	68.20	-1.73	1.37 V	185	55.02	11.45
4	*5500.00	113.85 PK			1.37 V	185	102.19	11.66
5	*5500.00	101.41 AV			1.37 V	185	89.75	11.66
6	11000.00	56.67 PK	74.00	-17.33	1.61 V	236	39.89	16.78
7	11000.00	46.19 AV	54.00	-7.81	1.61 V	236	29.41	16.78

Remarks:

1. Emission Level(dBuV/m) = 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)
Frequency Range	1GHz ~ 40GHz		Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5580.00	109.91 PK			2.64 H	28	99.00	10.91
2	*5580.00	97.46 AV			2.64 H	28	86.55	10.91
3	11160.00	56.33 PK	74.00	-17.67	1.85 H	271	38.65	17.68
4	11160.00	46.04 AV	54.00	-7.96	1.85 H	271	28.36	17.68

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (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	114.36 PK			1.39 V	182	103.45	10.91
2	*5580.00	102.04 AV			1.39 V	182	91.13	10.91
3	11160.00	56.89 PK	74.00	-17.11	1.64 V	233	39.21	17.68
4	11160.00	46.37 AV	54.00	-7.63	1.64 V	233	28.69	17.68

Remarks:

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

Channel	TX Channel 132	Detector Function	Peak (PK)
Frequency Range	1GHz ~ 40GHz		Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5660.00	110.21 PK			2.63 H	32	99.50	10.71
2	*5660.00	97.72 AV			2.63 H	32	87.01	10.71
3	11320.00	56.39 PK	74.00	-17.61	1.89 H	268	39.15	17.24
4	11320.00	46.10 AV	54.00	-7.90	1.89 H	268	28.86	17.24

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5660.00	114.51 PK			1.37 V	196	103.80	10.71
2	*5660.00	102.15 AV			1.37 V	196	91.44	10.71
3	11320.00	56.97 PK	74.00	-17.03	1.62 V	231	39.73	17.24
4	11320.00	46.52 AV	54.00	-7.48	1.62 V	231	29.28	17.24

Remarks:

1. Emission Level(dBuV/m) = 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)
Frequency Range	1GHz ~ 40GHz		Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (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	107.15 PK			2.65 H	35	96.50	10.65
2	*5700.00	95.13 AV			2.65 H	35	84.48	10.65
3	#5725.00	62.41 PK	68.20	-5.79	2.65 H	35	51.83	10.58
4	11400.00	56.03 PK	74.00	-17.97	1.89 H	271	38.17	17.86
5	11400.00	45.74 AV	54.00	-8.26	1.89 H	271	27.88	17.86
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5700.00	111.72 PK			1.38 V	188	101.07	10.65
2	*5700.00	99.28 AV			1.38 V	188	88.63	10.65
3	#5725.00	66.61 PK	68.20	-1.59	1.38 V	188	56.03	10.58
4	11400.00	56.24 PK	74.00	-17.76	1.59 V	230	38.38	17.86
5	11400.00	45.96 AV	54.00	-8.04	1.59 V	230	28.10	17.86

Remarks:

1. Emission Level(dBuV/m) = 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 144	Detector Function	Peak (PK)
Frequency Range	1GHz ~ 40GHz		Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5470.00	63.14 PK	68.20	-5.06	3.06 H	164	51.69	11.45
2	*5720.00	109.14 PK			3.06 H	164	98.54	10.60
3	*5720.00	98.97 AV			3.06 H	164	88.37	10.60
4	11440.00	59.54 PK	74.00	-14.46	1.63 H	274	41.48	18.06
5	11440.00	45.89 AV	54.00	-8.11	1.63 H	274	27.83	18.06
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5470.00	63.42 PK	68.20	-4.78	2.29 V	218	51.97	11.45
2	*5720.00	109.40 PK			2.29 V	218	98.80	10.60
3	*5720.00	99.43 AV			2.29 V	218	88.83	10.60
4	11440.00	60.29 PK	74.00	-13.71	1.81 V	37	42.23	18.06
5	11440.00	46.44 AV	54.00	-7.56	1.81 V	37	28.38	18.06

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. 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 149	Detector Function	Peak (PK)
Frequency Range	1GHz ~ 40GHz		Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5604.23	62.19 PK	68.20	-6.01	2.39 H	38	51.46	10.73
2	*5745.00	109.02 PK			2.39 H	38	98.49	10.53
3	*5745.00	97.22 AV			2.39 H	38	86.69	10.53
4	#5941.65	63.14 PK	68.20	-5.06	2.39 H	38	52.61	10.53
5	11490.00	57.63 PK	74.00	-16.37	1.91 H	174	39.33	18.30
6	11490.00	44.58 AV	54.00	-9.42	1.91 H	174	26.28	18.30
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5628.51	61.54 PK	68.20	-6.66	1.00 V	188	50.81	10.73
2	*5745.00	113.94 PK			1.00 V	188	103.41	10.53
3	*5745.00	101.97 AV			1.00 V	188	91.44	10.53
4	#5970.02	62.44 PK	68.20	-5.76	1.00 V	188	51.78	10.66
5	11490.00	58.52 PK	74.00	-15.48	1.21 V	241	40.22	18.30
6	11490.00	45.53 AV	54.00	-8.47	1.21 V	241	27.23	18.30

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. 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 157	Detector Function	Peak (PK)
Frequency Range	1GHz ~ 40GHz		Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5581.17	61.69 PK	68.20	-6.51	2.39 H	52	50.79	10.90
2	*5785.00	109.12 PK			2.39 H	52	98.67	10.45
3	*5785.00	96.44 AV			2.39 H	52	85.99	10.45
4	#5960.99	62.78 PK	68.20	-5.42	2.39 H	52	52.17	10.61
5	11570.00	57.84 PK	74.00	-16.16	1.89 H	254	39.31	18.53
6	11570.00	44.86 AV	54.00	-9.14	1.89 H	254	26.33	18.53
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5558.84	62.73 PK	68.20	-5.47	1.06 V	177	51.63	11.10
2	*5785.00	113.91 PK			1.06 V	177	103.46	10.45
3	*5785.00	101.78 AV			1.06 V	177	91.33	10.45
4	#5950.71	62.52 PK	68.20	-5.68	1.06 V	177	51.95	10.57
5	11570.00	58.81 PK	74.00	-15.19	1.94 V	220	40.28	18.53
6	11570.00	45.72 AV	54.00	-8.28	1.94 V	220	27.19	18.53

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. 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 165	Detector Function	Peak (PK)
Frequency Range	1GHz ~ 40GHz		Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5557.51	61.79 PK	68.20	-6.41	2.35 H	45	50.67	11.12
2	*5825.00	108.05 PK			2.35 H	45	97.64	10.41
3	*5825.00	95.85 AV			2.35 H	45	85.44	10.41
4	#5964.71	62.29 PK	68.20	-5.91	2.35 H	45	51.66	10.63
5	11650.00	57.84 PK	74.00	-16.16	2.10 H	145	39.54	18.30
6	11650.00	44.61 AV	54.00	-9.39	2.10 H	145	26.31	18.30

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5607.26	63.08 PK	68.20	-5.12	1.10 V	191	52.35	10.73
2	*5825.00	112.67 PK			1.10 V	191	102.26	10.41
3	*5825.00	101.02 AV			1.10 V	191	90.61	10.41
4	#5946.54	62.67 PK	68.20	-5.53	1.10 V	191	52.12	10.55
5	11650.00	58.55 PK	74.00	-15.45	1.32 V	269	40.25	18.30
6	11650.00	45.51 AV	54.00	-8.49	1.32 V	269	27.21	18.30

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. 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 (20MHz)

Channel	TX Channel 36	Detector Function	Peak (PK)
Frequency Range	1GHz ~ 40GHz		Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	69.12 PK	74.00	-4.88	2.46 H	352	59.41	9.71
2	5150.00	49.97 AV	54.00	-4.03	2.46 H	352	40.26	9.71
3	*5180.00	111.93 PK			2.46 H	352	102.16	9.77
4	*5180.00	97.93 AV			2.46 H	352	88.16	9.77
5	#10360.00	56.65 PK	68.20	-11.55	1.84 H	269	40.55	16.10

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	70.34 PK	74.00	-3.66	2.01 V	89	60.63	9.71
2	5150.00	51.23 AV	54.00	-2.77	2.01 V	89	41.52	9.71
3	*5180.00	113.53 PK			2.01 V	89	103.76	9.77
4	*5180.00	98.95 AV			2.01 V	89	89.18	9.77
5	#10360.00	57.62 PK	68.20	-10.58	1.84 V	214	41.52	16.10

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. 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 40	Detector Function	Peak (PK)
Frequency Range	1GHz ~ 40GHz		Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5200.00	110.96 PK			2.44 H	348	101.16	9.80
2	*5200.00	99.02 AV			2.44 H	348	89.22	9.80
3	#10400.00	56.67 PK	68.20	-11.53	2.14 H	154	40.55	16.12
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5200.00	112.64 PK			2.02 V	104	102.84	9.80
2	*5200.00	99.94 AV			2.02 V	104	90.14	9.80
3	#10400.00	57.67 PK	68.20	-10.53	1.85 V	235	41.55	16.12

Remarks:

1. Emission Level(dBuV/m) = 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 48	Detector Function	Peak (PK)
Frequency Range	1GHz ~ 40GHz		Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5240.00	110.53 PK			2.42 H	349	100.52	10.01
2	*5240.00	98.65 AV			2.42 H	349	88.64	10.01
3	5350.00	61.78 PK	74.00	-12.22	2.42 H	349	51.10	10.68
4	5350.00	47.97 AV	54.00	-6.03	2.42 H	349	37.29	10.68
5	#10480.00	56.87 PK	68.20	-11.33	1.52 H	321	40.84	16.03
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5240.00	111.99 PK			2.08 V	105	101.98	10.01
2	*5240.00	99.62 AV			2.08 V	105	89.61	10.01
3	5350.00	62.40 PK	74.00	-11.60	2.08 V	105	51.72	10.68
4	5350.00	48.54 AV	54.00	-5.46	2.08 V	105	37.86	10.68
5	#10480.00	58.01 PK	68.20	-10.19	1.95 V	268	41.98	16.03

Remarks:

1. Emission Level(dBuV/m) = 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 52	Detector Function	Peak (PK)
Frequency Range	1GHz ~ 40GHz		Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	62.19 PK	74.00	-11.81	2.67 H	33	52.48	9.71
2	5150.00	48.73 AV	54.00	-5.27	2.67 H	33	39.02	9.71
3	*5260.00	109.83 PK			2.67 H	33	99.71	10.12
4	*5260.00	97.64 AV			2.67 H	33	87.52	10.12
5	#10520.00	56.81 PK	68.20	-11.39	1.88 H	269	40.84	15.97

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	62.61 PK	74.00	-11.39	1.38 V	181	52.90	9.71
2	5150.00	49.46 AV	54.00	-4.54	1.38 V	181	39.75	9.71
3	*5260.00	114.13 PK			1.38 V	181	104.01	10.12
4	*5260.00	101.89 AV			1.38 V	181	91.77	10.12
5	#10520.00	57.44 PK	68.20	-10.76	1.70 V	231	41.47	15.97

Remarks:

1. Emission Level(dBuV/m) = 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)
Frequency Range	1GHz ~ 40GHz		Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5300.00	110.70 PK			2.63 H	31	100.33	10.37
2	*5300.00	98.41 AV			2.63 H	31	88.04	10.37
3	10600.00	56.38 PK	74.00	-17.62	1.84 H	275	40.56	15.82
4	10600.00	45.60 AV	54.00	-8.40	1.84 H	275	29.78	15.82

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (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	115.19 PK			1.39 V	179	104.82	10.37
2	*5300.00	102.87 AV			1.39 V	179	92.50	10.37
3	10600.00	57.27 PK	74.00	-16.73	1.73 V	236	41.45	15.82
4	10600.00	46.45 AV	54.00	-7.55	1.73 V	236	30.63	15.82

Remarks:

1. Emission Level(dBuV/m) = 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)
Frequency Range	1GHz ~ 40GHz		Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5320.00	109.45 PK			2.66 H	29	98.96	10.49
2	*5320.00	97.12 AV			2.66 H	29	86.63	10.49
3	5350.00	68.71 PK	74.00	-5.29	2.66 H	29	58.03	10.68
4	5350.00	50.32 AV	54.00	-3.68	2.66 H	29	39.64	10.68
5	10640.00	56.37 PK	74.00	-17.63	1.82 H	272	40.34	16.03
6	10640.00	45.48 AV	54.00	-8.52	1.82 H	272	29.45	16.03
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (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	114.08 PK			1.37 V	191	103.59	10.49
2	*5320.00	109.64 AV			1.37 V	191	99.15	10.49
3	5350.00	69.53 PK	74.00	-4.47	1.37 V	191	58.85	10.68
4	5350.00	51.71 AV	54.00	-2.29	1.37 V	191	41.03	10.68
5	10640.00	57.13 PK	74.00	-16.87	1.85 V	232	41.10	16.03
6	10640.00	46.28 AV	54.00	-7.72	1.85 V	232	30.25	16.03

Remarks:

1. Emission Level(dBuV/m) = 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)
Frequency Range	1GHz ~ 40GHz		Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (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	62.80 PK	74.00	-11.20	2.44 H	46	51.43	11.37
2	5460.00	49.46 AV	54.00	-4.54	2.44 H	46	38.09	11.37
3	#5470.00	62.92 PK	68.20	-5.28	2.44 H	46	51.47	11.45
4	*5500.00	107.12 PK			2.44 H	46	95.46	11.66
5	*5500.00	95.15 AV			2.44 H	46	83.49	11.66
6	11000.00	56.89 PK	74.00	-17.11	1.82 H	222	40.11	16.78
7	11000.00	43.15 AV	54.00	-10.85	1.82 H	222	26.37	16.78

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	63.32 PK	74.00	-10.68	1.49 V	98	51.95	11.37
2	5460.00	49.64 AV	54.00	-4.36	1.49 V	98	38.27	11.37
3	#5470.00	66.41 PK	68.20	-1.79	1.49 V	98	54.96	11.45
4	*5500.00	112.40 PK			1.49 V	98	100.74	11.66
5	*5500.00	100.50 AV			1.49 V	98	88.84	11.66
6	11000.00	58.04 PK	74.00	-15.96	1.65 V	254	41.26	16.78
7	11000.00	44.36 AV	54.00	-9.64	1.65 V	254	27.58	16.78

Remarks:

1. Emission Level(dBuV/m) = 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)
Frequency Range	1GHz ~ 40GHz		Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (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	108.55 PK			2.42 H	39	97.64	10.91
2	*5580.00	95.60 AV			2.42 H	39	84.69	10.91
3	11160.00	57.22 PK	74.00	-16.78	1.89 H	66	39.54	17.68
4	11160.00	43.73 AV	54.00	-10.27	1.89 H	66	26.05	17.68

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (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	113.16 PK			1.68 V	99	102.25	10.91
2	*5580.00	99.92 AV			1.68 V	99	89.01	10.91
3	11160.00	58.34 PK	74.00	-15.66	1.00 V	152	40.66	17.68
4	11160.00	44.92 AV	54.00	-9.08	1.00 V	152	27.24	17.68

Remarks:

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

Channel	TX Channel 132	Detector Function	Peak (PK)
Frequency Range	1GHz ~ 40GHz		Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5660.00	107.30 PK			2.47 H	49	96.59	10.71
2	*5660.00	95.42 AV			2.47 H	49	84.71	10.71
3	11320.00	57.46 PK	74.00	-16.54	1.95 H	267	40.22	17.24
4	11320.00	43.63 AV	54.00	-10.37	1.95 H	267	26.39	17.24

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5660.00	112.47 PK			1.66 V	101	101.76	10.71
2	*5660.00	100.47 AV			1.66 V	101	89.76	10.71
3	11320.00	57.46 PK	74.00	-16.54	1.62 V	231	40.22	17.24
4	11320.00	44.73 AV	54.00	-9.27	1.62 V	231	27.49	17.24

Remarks:

1. Emission Level(dBuV/m) = 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)
Frequency Range	1GHz ~ 40GHz		Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5700.00	106.11 PK			2.42 H	42	95.46	10.65
2	*5700.00	93.91 AV			2.42 H	42	83.26	10.65
3	#5725.00	61.74 PK	68.20	-6.46	2.42 H	42	51.16	10.58
4	11400.00	57.12 PK	74.00	-16.88	2.20 H	213	39.26	17.86
5	11400.00	44.38 AV	54.00	-9.62	2.20 H	213	26.52	17.86
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5700.00	111.35 PK			1.57 V	102	100.70	10.65
2	*5700.00	98.71 AV			1.57 V	102	88.06	10.65
3	#5725.00	66.62 PK	68.20	-1.58	1.57 V	102	56.04	10.58
4	11400.00	58.41 PK	74.00	-15.59	1.54 V	214	40.55	17.86
5	11400.00	44.92 AV	54.00	-9.08	1.54 V	214	27.06	17.86

Remarks:

1. Emission Level(dBuV/m) = 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 144	Detector Function	Peak (PK)
Frequency Range	1GHz ~ 40GHz		Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5470.00	62.87 PK	68.20	-5.33	2.99 H	158	51.42	11.45
2	*5720.00	108.59 PK			2.99 H	158	97.99	10.60
3	*5720.00	98.48 AV			2.99 H	158	87.88	10.60
4	11440.00	59.30 PK	74.00	-14.70	1.54 H	277	41.24	18.06
5	11440.00	45.74 AV	54.00	-8.26	1.54 H	277	27.68	18.06
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5470.00	63.29 PK	68.20	-4.91	2.27 V	214	51.84	11.45
2	*5720.00	109.18 PK			2.27 V	214	98.58	10.60
3	*5720.00	98.93 AV			2.27 V	214	88.33	10.60
4	11440.00	60.14 PK	74.00	-13.86	1.85 V	53	42.08	18.06
5	11440.00	46.19 AV	54.00	-7.81	1.85 V	53	28.13	18.06

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. 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 149	Detector Function	Peak (PK)
Frequency Range	1GHz ~ 40GHz		Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5597.26	61.81 PK	68.20	-6.39	2.32 H	32	51.06	10.75
2	*5745.00	108.99 PK			2.32 H	32	98.46	10.53
3	*5745.00	98.07 AV			2.32 H	32	87.54	10.53
4	#5957.32	62.71 PK	68.20	-5.49	2.32 H	32	52.12	10.59
5	11490.00	57.63 PK	74.00	-16.37	1.64 H	264	39.33	18.30
6	11490.00	44.63 AV	54.00	-9.37	1.64 H	264	26.33	18.30
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5617.39	61.80 PK	68.20	-6.40	1.12 V	182	51.07	10.73
2	*5745.00	114.17 PK			1.12 V	182	103.64	10.53
3	*5745.00	102.86 AV			1.12 V	182	92.33	10.53
4	#5949.85	62.84 PK	68.20	-5.36	1.12 V	182	52.28	10.56
5	11490.00	58.54 PK	74.00	-15.46	1.07 V	145	40.24	18.30
6	11490.00	45.78 AV	54.00	-8.22	1.07 V	145	27.48	18.30

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. 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 157	Detector Function	Peak (PK)
Frequency Range	1GHz ~ 40GHz		Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5616.31	61.42 PK	68.20	-6.78	2.41 H	39	50.69	10.73
2	*5785.00	108.42 PK			2.41 H	39	97.97	10.45
3	*5785.00	96.11 AV			2.41 H	39	85.66	10.45
4	#5989.60	62.06 PK	68.20	-6.14	2.41 H	39	51.31	10.75
5	11570.00	57.84 PK	74.00	-16.16	1.55 H	222	39.31	18.53
6	11570.00	44.66 AV	54.00	-9.34	1.55 H	222	26.13	18.53
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5639.53	62.65 PK	68.20	-5.55	1.05 V	185	51.92	10.73
2	*5785.00	114.07 PK			1.05 V	185	103.62	10.45
3	*5785.00	102.81 AV			1.05 V	185	92.36	10.45
4	#5967.63	62.21 PK	68.20	-5.99	1.05 V	185	51.56	10.65
5	11570.00	58.64 PK	74.00	-15.36	2.16 V	341	40.11	18.53
6	11570.00	45.80 AV	54.00	-8.20	2.16 V	341	27.27	18.53

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. 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 165	Detector Function	Peak (PK)
Frequency Range	1GHz ~ 40GHz		Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5605.98	61.12 PK	68.20	-7.08	2.44 H	31	50.38	10.74
2	*5825.00	104.04 PK			2.44 H	31	93.63	10.41
3	*5825.00	92.90 AV			2.44 H	31	82.49	10.41
4	#5984.04	62.16 PK	68.20	-6.04	2.44 H	31	51.44	10.72
5	11650.00	57.95 PK	74.00	-16.05	1.28 H	251	39.65	18.30
6	11650.00	44.42 AV	54.00	-9.58	1.28 H	251	26.12	18.30

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5577.68	62.33 PK	68.20	-5.87	1.31 V	184	51.40	10.93
2	*5825.00	108.87 PK			1.31 V	184	98.46	10.41
3	*5825.00	96.77 AV			1.31 V	184	86.36	10.41
4	#5998.72	63.06 PK	68.20	-5.14	1.31 V	184	52.26	10.80
5	11650.00	58.88 PK	74.00	-15.12	1.88 V	49	40.58	18.30
6	11650.00	45.68 AV	54.00	-8.32	1.88 V	49	27.38	18.30

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. 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 (40MHz)

Channel	TX Channel 38	Detector Function	Peak (PK)
Frequency Range	1GHz ~ 40GHz		Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	65.67 PK	74.00	-8.33	2.48 H	345	55.96	9.71
2	5150.00	49.94 AV	54.00	-4.06	2.48 H	345	40.23	9.71
3	*5190.00	106.05 PK			2.48 H	345	96.26	9.79
4	*5190.00	91.95 AV			2.48 H	345	82.16	9.79
5	#10380.00	56.29 PK	68.20	-11.91	2.14 H	215	40.18	16.11

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	66.72 PK	74.00	-7.28	1.84 V	103	57.01	9.71
2	5150.00	50.46 AV	54.00	-3.54	1.84 V	103	40.75	9.71
3	*5190.00	107.47 PK			1.84 V	103	97.68	9.79
4	*5190.00	92.78 AV			1.84 V	103	82.99	9.79
5	#10380.00	57.76 PK	68.20	-10.44	1.44 V	152	41.65	16.11

Remarks:

1. Emission Level(dBuV/m) = 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 46	Detector Function	Peak (PK)
Frequency Range	1GHz ~ 40GHz		Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5230.00	106.19 PK			2.46 H	349	96.23	9.96
2	*5230.00	91.05 AV			2.46 H	349	81.09	9.96
3	5350.00	61.90 PK	74.00	-12.10	2.46 H	349	51.22	10.68
4	5350.00	48.17 AV	54.00	-5.83	2.46 H	349	37.49	10.68
5	#10460.00	56.57 PK	68.20	-11.63	1.44 H	157	40.52	16.05
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*5230.00	107.69 PK			2.08 V	92	97.73	9.96
2	*5230.00	92.35 AV			2.08 V	92	82.39	9.96
3	5350.00	62.48 PK	74.00	-11.52	2.08 V	92	51.80	10.68
4	5350.00	48.74 AV	54.00	-5.26	2.08 V	92	38.06	10.68
5	#10460.00	57.21 PK	68.20	-10.99	1.59 V	34	41.16	16.05

Remarks:

1. Emission Level(dBuV/m) = 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 54	Detector Function	Peak (PK)
Frequency Range	1GHz ~ 40GHz		Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	61.51 PK	74.00	-12.49	2.66 H	31	51.80	9.71
2	5150.00	48.32 AV	54.00	-5.68	2.66 H	31	38.61	9.71
3	*5270.00	105.84 PK			2.66 H	31	95.66	10.18
4	*5270.00	93.08 AV			2.66 H	31	82.90	10.18
5	#10540.00	56.12 PK	68.20	-12.08	1.85 H	273	40.19	15.93
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5150.00	61.86 PK	74.00	-12.14	1.36 V	185	52.15	9.71
2	5150.00	48.67 AV	54.00	-5.33	1.36 V	185	38.96	9.71
3	*5270.00	110.31 PK			1.36 V	185	100.13	10.18
4	*5270.00	97.24 AV			1.36 V	185	87.06	10.18
5	#10540.00	56.70 PK	68.20	-11.50	1.67 V	227	40.77	15.93

Remarks:

1. Emission Level(dBuV/m) = 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)
Frequency Range	1GHz ~ 40GHz		Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (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	106.14 PK			2.63 H	34	95.70	10.44
2	*5310.00	93.51 AV			2.63 H	34	83.07	10.44
3	5350.00	67.72 PK	74.00	-6.28	2.63 H	34	57.04	10.68
4	5350.00	50.58 AV	54.00	-3.42	2.63 H	34	39.90	10.68
5	10620.00	56.06 PK	74.00	-17.94	1.84 H	277	40.14	15.92
6	10620.00	45.29 AV	54.00	-8.71	1.84 H	277	29.37	15.92

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (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	110.67 PK			1.38 V	197	100.23	10.44
2	*5310.00	98.15 AV			1.38 V	197	87.71	10.44
3	5350.00	71.45 PK	74.00	-2.55	1.38 V	197	60.77	10.68
4	5350.00	52.37 AV	54.00	-1.63	1.38 V	197	41.69	10.68
5	10620.00	56.58 PK	74.00	-17.42	1.62 V	230	40.66	15.92
6	10620.00	45.75 AV	54.00	-8.25	1.62 V	230	29.83	15.92

Remarks:

1. Emission Level(dBuV/m) = 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)
Frequency Range	1GHz ~ 40GHz		Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (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	62.80 PK	74.00	-11.20	2.49 H	40	51.43	11.37
2	5460.00	49.06 AV	54.00	-4.94	2.49 H	40	37.69	11.37
3	#5470.00	61.71 PK	68.20	-6.49	2.49 H	40	50.26	11.45
4	*5510.00	101.78 PK			2.49 H	40	90.22	11.56
5	*5510.00	89.19 AV			2.49 H	40	77.63	11.56
6	11020.00	56.23 PK	74.00	-17.77	1.59 H	354	39.33	16.90
7	11020.00	43.03 AV	54.00	-10.97	1.59 H	354	26.13	16.90

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	5460.00	63.88 PK	74.00	-10.12	1.51 V	185	52.51	11.37
2	5460.00	49.80 AV	54.00	-4.20	1.51 V	185	38.43	11.37
3	#5470.00	66.61 PK	68.20	-1.59	1.51 V	185	55.16	11.45
4	*5510.00	107.34 PK			1.51 V	185	95.78	11.56
5	*5510.00	93.85 AV			1.51 V	185	82.29	11.56
6	11020.00	57.01 PK	74.00	-16.99	1.12 V	124	40.11	16.90
7	11020.00	44.13 AV	54.00	-9.87	1.12 V	124	27.23	16.90

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. 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)
Frequency Range	1GHz ~ 40GHz		Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (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	105.70 PK			2.46 H	50	94.52	11.18
2	*5550.00	92.54 AV			2.46 H	50	81.36	11.18
3	11100.00	56.70 PK	74.00	-17.30	1.42 H	169	39.33	17.37
4	11100.00	43.51 AV	54.00	-10.49	1.42 H	169	26.14	17.37

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (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	111.16 PK			1.43 V	186	99.98	11.18
2	*5550.00	97.70 AV			1.43 V	186	86.52	11.18
3	11100.00	57.48 PK	74.00	-16.52	1.87 V	142	40.11	17.37
4	11100.00	44.60 AV	54.00	-9.40	1.87 V	142	27.23	17.37

Remarks:

1. Emission Level(dBuV/m) = 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)
Frequency Range	1GHz ~ 40GHz		Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (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	104.10 PK			2.41 H	51	93.41	10.69
2	*5670.00	90.91 AV			2.41 H	51	80.22	10.69
3	#5725.00	61.69 PK	68.20	-6.51	2.41 H	51	51.11	10.58
4	11340.00	56.66 PK	74.00	-17.34	1.95 H	356	39.26	17.40
5	11340.00	43.62 AV	54.00	-10.38	1.95 H	356	26.22	17.40
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (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	109.15 PK			1.54 V	187	98.42	10.73
2	*5670.00	96.56 AV			1.54 V	187	85.83	10.73
3	#5725.00	63.00 PK	68.20	-5.20	1.54 V	187	52.42	10.58
4	11340.00	57.51 PK	74.00	-16.49	1.46 V	231	40.11	17.40
5	11340.00	44.81 AV	54.00	-9.19	1.46 V	231	27.41	17.40

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m)
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB)
3. 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 142	Detector Function	Peak (PK)
Frequency Range	1GHz ~ 40GHz		Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5470.00	62.54 PK	68.20	-5.66	3.03 H	161	51.09	11.45
2	*5710.00	104.83 PK			3.03 H	161	94.21	10.62
3	*5710.00	93.97 AV			3.03 H	161	83.35	10.62
4	11420.00	59.45 PK	74.00	-14.55	1.59 H	273	41.49	17.96
5	11420.00	45.66 AV	54.00	-8.34	1.59 H	273	27.70	17.96
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5470.00	62.82 PK	68.20	-5.38	2.31 V	220	51.37	11.45
2	*5710.00	105.49 PK			2.31 V	220	94.87	10.62
3	*5710.00	94.57 AV			2.31 V	220	83.95	10.62
4	11420.00	59.97 PK	74.00	-14.03	1.88 V	62	42.01	17.96
5	11420.00	46.05 AV	54.00	-7.95	1.88 V	62	28.09	17.96

Remarks:

1. Emission Level(dBuV/m) = 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 151	Detector Function	Peak (PK)
Frequency Range	1GHz ~ 40GHz		Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5591.03	62.60 PK	68.20	-5.60	2.30 H	48	51.79	10.81
2	*5755.00	104.06 PK			2.30 H	48	93.56	10.50
3	*5755.00	93.16 AV			2.30 H	48	82.66	10.50
4	#5943.98	62.04 PK	68.20	-6.16	2.30 H	48	51.50	10.54
5	11510.00	57.61 PK	74.00	-16.39	1.26 H	201	39.24	18.37
6	11510.00	44.52 AV	54.00	-9.48	1.26 H	201	26.15	18.37

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5599.39	62.24 PK	68.20	-5.96	1.21 V	179	51.51	10.73
2	*5755.00	109.38 PK			1.21 V	179	98.88	10.50
3	*5755.00	98.19 AV			1.21 V	179	87.69	10.50
4	#5936.18	62.08 PK	68.20	-6.12	1.21 V	179	51.58	10.50
5	11510.00	59.18 PK	74.00	-14.82	1.66 V	300	40.81	18.37
6	11510.00	45.66 AV	54.00	-8.34	1.66 V	300	27.29	18.37

Remarks:

1. Emission Level(dBuV/m) = 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 159	Detector Function	Peak (PK)
Frequency Range	1GHz ~ 40GHz		Average (AV)

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5597.99	61.24 PK	68.20	-6.96	2.32 H	57	50.50	10.74
2	*5795.00	103.90 PK			2.32 H	57	93.46	10.44
3	*5795.00	93.09 AV			2.32 H	57	82.65	10.44
4	#5957.31	62.69 PK	68.20	-5.51	2.32 H	57	52.10	10.59
5	11590.00	57.82 PK	74.00	-16.18	1.87 H	101	39.24	18.58
6	11590.00	44.99 AV	54.00	-9.01	1.87 H	101	26.41	18.58
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5592.19	61.96 PK	68.20	-6.24	1.19 V	174	51.17	10.79
2	*5795.00	109.12 PK			1.19 V	174	98.68	10.44
3	*5795.00	97.13 AV			1.19 V	174	86.69	10.44
4	#5955.27	63.15 PK	68.20	-5.05	1.19 V	174	52.56	10.59
5	11590.00	58.83 PK	74.00	-15.17	2.02 V	295	40.25	18.58
6	11590.00	45.77 AV	54.00	-8.23	2.02 V	295	27.19	18.58

Remarks:

1. Emission Level(dBuV/m) = 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 Data:

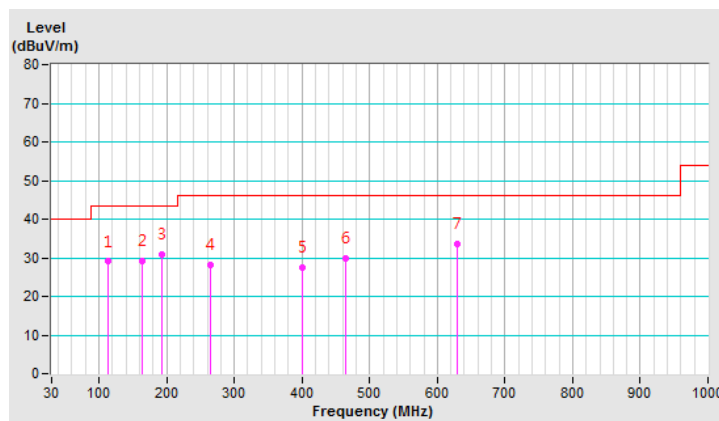
802.11a

Channel	TX Channel 60	Detector Function	Quasi-Peak (QP)
Frequency Range	9kHz ~ 1GHz		

Antenna Polarity & Test Distance : Horizontal at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	112.60	28.99 QP	43.50	-14.51	1.48 H	360	38.70	-9.71
2	163.13	29.21 QP	43.50	-14.29	1.94 H	360	35.67	-6.46
3	192.91	30.98 QP	43.50	-12.52	1.28 H	350	40.29	-9.31
4	264.93	28.21 QP	46.00	-17.79	1.64 H	131	34.34	-6.13
5	401.02	27.60 QP	46.00	-18.40	2.04 H	154	30.49	-2.89
6	464.07	29.84 QP	46.00	-16.16	1.27 H	200	30.81	-0.97
7	628.83	33.57 QP	46.00	-12.43	1.66 H	290	30.75	2.82

Remarks:

1. Emission Level(dBuV/m) = 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 of frequency range 30MHz~1000MHz.
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.

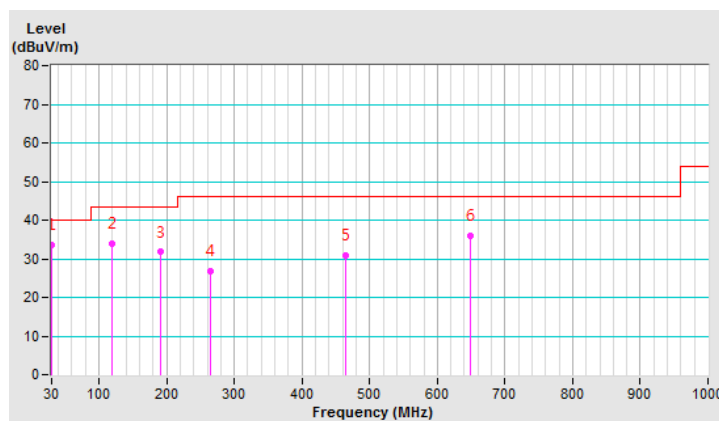


Channel	TX Channel 60	Detector Function	Quasi-Peak (QP)
Frequency Range	9kHz ~ 1GHz		

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	30.68	33.68 QP	40.00	-6.32	1.06 V	206	42.53	-8.85
2	119.00	33.99 QP	43.50	-9.51	1.34 V	230	43.20	-9.21
3	191.80	31.70 QP	43.50	-11.80	1.27 V	195	40.87	-9.17
4	264.50	26.73 QP	46.00	-19.27	1.54 V	73	32.89	-6.16
5	464.07	30.80 QP	46.00	-15.20	1.77 V	209	31.77	-0.97
6	649.68	35.94 QP	46.00	-10.06	1.87 V	309	33.08	2.86

Remarks:

1. Emission Level(dBuV/m) = 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 of frequency range 30MHz~1000MHz.
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

Mode A

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
ROHDE & SCHWARZ TEST RECEIVER	ESCS30	100276	Apr. 16, 2020	Apr. 15, 2021
SCHWARZBECK Artificial Mains Network (for EUT)	NSLK 8128	8128-244	Nov. 11, 2019	Nov. 10, 2020
LISN With Adapter (for EUT)	AD10	C05Ada-001	Nov. 11, 2019	Nov. 10, 2020
ROHDE & SCHWARZ Artificial Mains Network (for peripheral)	ESH3-Z5	100220	Nov. 18, 2019	Nov. 17, 2020
Software	Cond_V7.3.7.4	NA	NA	NA
RF cable (JYEBAO) With 10dB PAD	5D-FB	Cable-C05.01	Jan. 30, 2020	Jan. 29, 2021
LYNICS Terminator (For R&S LISN)	0900510	E1-01-305	Feb. 17, 2020	Feb. 16, 2021

- Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
 2. The test was performed in Shielded Room No. 5. (Conduction 5)
 3. The VCCI Site Registration No. C-11093.
 4. Tested Date: Aug. 7, 2020

Mode B

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
ROHDE & SCHWARZ TEST RECEIVER	ESR3	102413	Feb. 17, 2020	Feb. 16, 2021
ROHDE & SCHWARZ Artificial Mains Network (for EUT)	ESH2-Z5	100104	Dec. 13, 2019	Dec. 12, 2020
LISN With Adapter (for EUT)	AD10	C09Ada-001	Dec. 13, 2019	Dec. 12, 2020
ROHDE & SCHWARZ Artificial Mains Network (for peripherals)	ESH3-Z5	847265/023	Oct. 31, 2019	Oct. 30, 2020
SCHWARZBECK Artificial Mains Network (For EUT)	NNLK8129	8129229	May 14, 2020	May 13, 2021
SCHWARZBECK Artificial Mains Network (for EUT)	NNLK 8121	8121-808	Apr. 10, 2020	Apr. 9, 2021
Software	Cond_V7.3.7.4	NA	NA	NA
RF cable (JYEBAO) With 10dB PAD	5D-FB	Cable-C09.01	Aug. 15, 2019	Aug. 14, 2020
SUHNTER Terminator (For ROHDE & SCHWARZ LISN)	65BNC-5001	E1-010789	May 13, 2020	May 12, 2021

- Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
 2. The test was performed in Shielded Room No. 9. (Conduction 9)
 3. The VCCI Site Registration No. C-11312.
 4. Tested Date: Aug. 8, 2020

4.2.3 Test Procedure

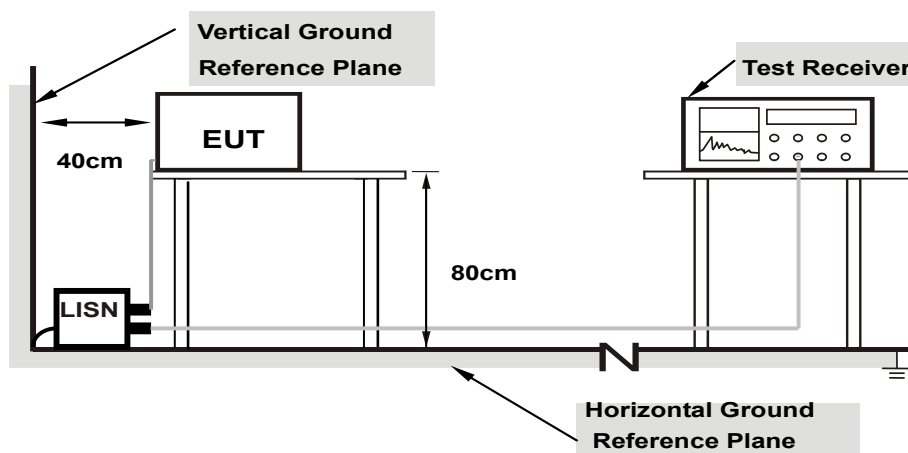
- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance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

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

4.2.4 Deviation from Test Standard

No deviation.

4.2.5 Test Setup



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

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

4.2.6 EUT Operating Condition

Connected the EUT to Adapter or Notebook.

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

4.2.7 Test Results

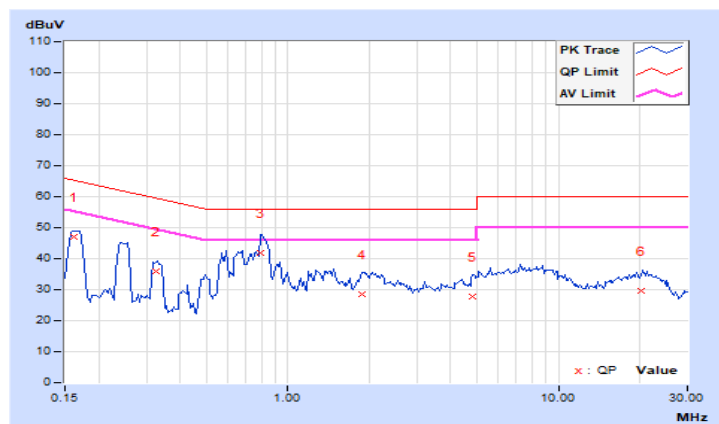
Mode A

Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)
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No	Freq. [MHz]	Corr.	Reading Value		Emission Level		Limit		Margin	
		Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
		(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16172	9.90	37.29	23.68	47.19	33.58	65.38	55.38	-18.19	-21.80
2	0.32578	9.91	26.15	11.61	36.06	21.52	59.56	49.56	-23.50	-28.04
3	0.79453	9.95	31.72	19.46	41.67	29.41	56.00	46.00	-14.33	-16.59
4	1.87891	10.01	18.54	9.94	28.55	19.95	56.00	46.00	-27.45	-26.05
5	4.82813	10.21	17.48	8.47	27.69	18.68	56.00	46.00	-28.31	-27.32
6	20.17578	11.09	18.42	10.34	29.51	21.43	60.00	50.00	-30.49	-28.57

REMARKS:

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

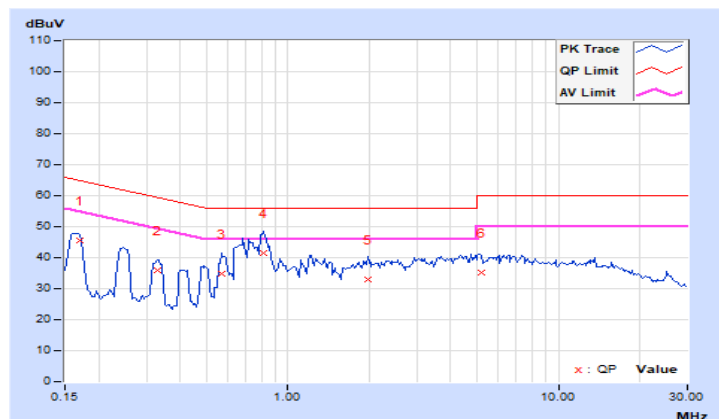


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
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No	Freq. [MHz]	Corr.	Reading Value		Emission Level		Limit		Margin	
		Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
		(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16953	9.92	35.81	21.63	45.73	31.55	64.98	54.98	-19.25	-23.43
2	0.32969	9.93	26.01	15.29	35.94	25.22	59.46	49.46	-23.52	-24.24
3	0.56797	9.95	24.89	12.56	34.84	22.51	56.00	46.00	-21.16	-23.49
4	0.81016	9.97	31.57	23.55	41.54	33.52	56.00	46.00	-14.46	-12.48
5	1.97266	10.05	23.08	15.54	33.13	25.59	56.00	46.00	-22.87	-20.41
6	5.18359	10.24	25.06	17.49	35.30	27.73	60.00	50.00	-24.70	-22.27

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.



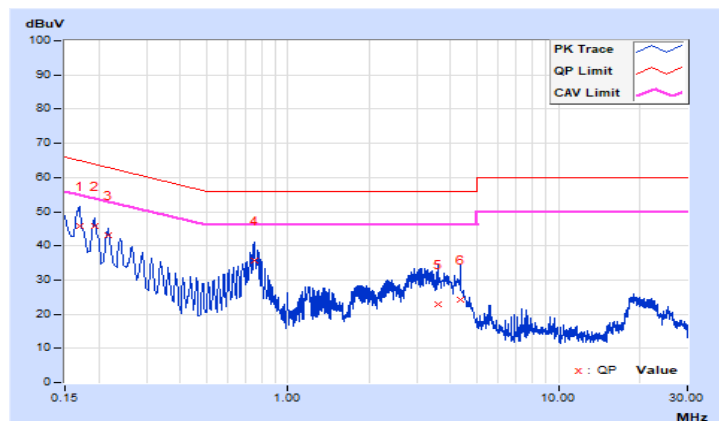
Mode B

Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)
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No	Freq. [MHz]	Corr.	Reading Value		Emission Level		Limit		Margin	
		Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
		(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16955	10.49	35.25	23.77	45.74	34.26	64.98	54.98	-19.24	-20.72
2	0.19301	10.50	35.32	22.18	45.82	32.68	63.91	53.91	-18.09	-21.23
3	0.21621	10.50	32.43	20.50	42.93	31.00	62.96	52.96	-20.03	-21.96
4	0.75024	10.52	25.18	16.10	35.70	26.62	56.00	46.00	-20.30	-19.38
5	3.57326	10.69	12.06	4.10	22.75	14.79	56.00	46.00	-33.25	-31.21
6	4.35526	10.74	13.49	2.51	24.23	13.25	56.00	46.00	-31.77	-32.75

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.

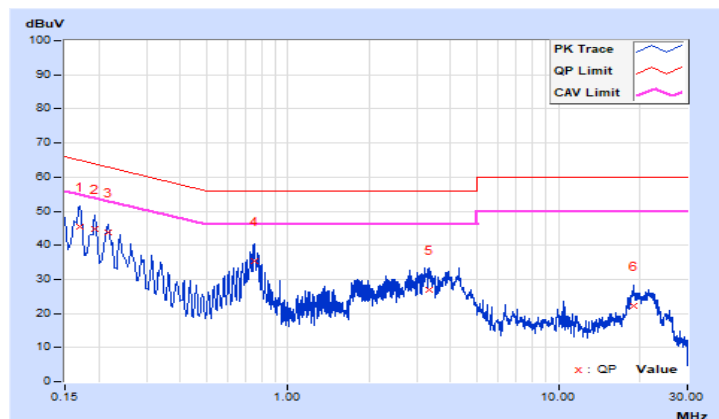


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
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No	Freq. [MHz]	Corr.	Reading Value		Emission Level		Limit		Margin	
		Factor	[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
		(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.16955	10.47	34.86	23.40	45.33	33.87	64.98	54.98	-19.65	-21.11
2	0.19301	10.49	34.13	21.62	44.62	32.11	63.91	53.91	-19.29	-21.80
3	0.21621	10.49	33.33	19.59	43.82	30.08	62.96	52.96	-19.14	-22.88
4	0.74989	10.51	24.91	15.07	35.42	25.58	56.00	46.00	-20.58	-20.42
5	3.31520	10.66	16.32	7.00	26.98	17.66	56.00	46.00	-29.02	-28.34
6	18.91089	11.31	10.78	2.46	22.09	13.77	60.00	50.00	-37.91	-36.23

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)
	√	Client device	250mW (24 dBm)
U-NII-2A		√	250mW (24 dBm) or 11 dBm+10 log B*
U-NII-2C		√	250mW (24 dBm) or 11 dBm+10 log B*
U-NII-3		√	1 Watt (30 dBm)

*B is the 26 dB emission bandwidth in megahertz

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

Array Gain = 0 dB (i.e., no array gain) for $N_{ANT} \leq 4$;

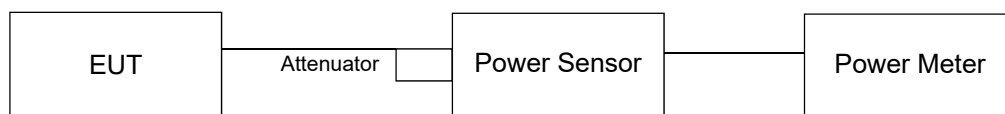
Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT} ;

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

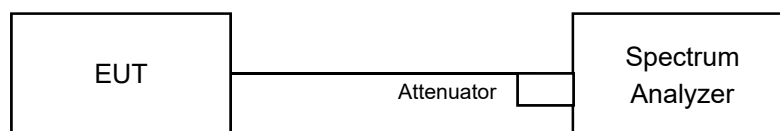
For power measurements on all other devices: Array Gain = $10 \log(N_{ANT}/N_{SS})$ dB.

4.3.2 Test Setup

For Power Output Measurement



For 26dB Occupied Bandwidth



4.3.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.3.4 Test Procedure

For Average Power Measurement

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 Occupied Bandwidth

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

4.3.5 Deviation from Test Standard

No deviation.

4.3.6 EUT Operating Condition

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

4.3.7 Test Result

Mode A

Power Output:

802.11a

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
36	5180	19.05	19.01	159.969	22.04	24.00	Pass
40	5200	19.02	19.13	161.645	22.09	24.00	Pass
48	5240	19.02	19.01	159.415	22.03	24.00	Pass
52	5260	19.13	19.14	163.881	22.15	24.00	Pass
60	5300	19.10	19.09	162.379	22.11	24.00	Pass
64	5320	19.11	19.02	161.269	22.08	24.00	Pass
100	5500	19.16	19.11	163.884	22.15	24.00	Pass
116	5580	19.19	19.12	164.643	22.17	24.00	Pass
132	5660	19.19	19.11	164.455	22.16	24.00	Pass
140	5700	17.41	17.29	108.661	20.36	23.88	Pass
144	5720 For U-NII-2C	15.82	16.24	80.267	19.05	23.67	Pass
144	5720 For U-NII-3	9.98	10.21	20.449	13.11	30.00	Pass
149	5745	19.16	19.19	165.399	22.19	30.00	Pass
157	5785	19.19	19.18	165.779	22.20	30.00	Pass
165	5825	19.08	19.06	161.448	22.08	30.00	Pass

NOTE:

For U-NII-2A, U-NII-2C Band:

Chain 0

1. $11\text{dBm} + 10\log(34.63) = 26.39\text{ dBm} > 24\text{dBm}$.
2. $11\text{dBm} + 10\log(35.21) = 26.47\text{ dBm} > 24\text{dBm}$.
3. $11\text{dBm} + 10\log(36.97) = 26.68\text{ dBm} > 24\text{dBm}$.
4. $11\text{dBm} + 10\log(34.59) = 26.39\text{ dBm} > 24\text{dBm}$.
5. $11\text{dBm} + 10\log(37.86) = 26.78\text{ dBm} > 24\text{dBm}$.
6. $11\text{dBm} + 10\log(35.58) = 26.51\text{ dBm} > 24\text{dBm}$.
7. $11\text{dBm} + 10\log(19.45) = 23.88\text{ dBm} < 24\text{dBm}$.
8. $11\text{dBm} + 10\log(5725.00 - 5706.47) = 23.67\text{ dBm} < 24\text{dBm}$.

Chain 1

1. $11\text{dBm} + 10\log(34.75) = 26.41\text{ dBm} > 24\text{dBm}$.
2. $11\text{dBm} + 10\log(34.91) = 26.43\text{ dBm} > 24\text{dBm}$.
3. $11\text{dBm} + 10\log(37.34) = 26.72\text{ dBm} > 24\text{dBm}$.
4. $11\text{dBm} + 10\log(34.61) = 26.39\text{ dBm} > 24\text{dBm}$.
5. $11\text{dBm} + 10\log(38.05) = 26.80\text{ dBm} > 24\text{dBm}$.
6. $11\text{dBm} + 10\log(35.51) = 26.50\text{ dBm} > 24\text{dBm}$.
7. $11\text{dBm} + 10\log(19.87) = 23.98\text{ dBm} < 24\text{dBm}$.
8. $11\text{dBm} + 10\log(5725.00 - 5706.47) = 23.67\text{ dBm} < 24\text{dBm}$.

For Reference only-Power meter value

The power value was measured by power meter with average sensor

Chan.	Freq. (MHz)	Conducted Power (mW)	Conducted Power (dBm)
144	5720	100.716	20.03

802.11ac (20MHz)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
36	5180	19.05	19.00	159.786	22.04	24.00	Pass
40	5200	19.05	19.09	161.449	22.08	24.00	Pass
48	5240	19.01	19.16	162.030	22.10	24.00	Pass
52	5260	19.16	19.12	164.072	22.15	24.00	Pass
60	5300	19.15	19.08	163.134	22.13	24.00	Pass
64	5320	19.05	19.10	161.636	22.09	24.00	Pass
100	5500	17.46	17.35	110.044	20.42	24.00	Pass
116	5580	19.16	19.18	165.208	22.18	24.00	Pass
132	5660	19.15	19.17	164.828	22.17	24.00	Pass
140	5700	17.77	17.69	118.59	20.74	24.00	Pass
144	5720 For U-NII-2C	15.74	15.58	73.638	18.67	23.54	Pass
144	5720 For U-NII-3	10.32	10.12	21.045	13.23	30.00	Pass
149	5745	19.18	19.19	165.779	22.20	30.00	Pass
157	5785	19.16	19.17	165.018	22.18	30.00	Pass
165	5825	19.17	19.15	164.828	22.17	30.00	Pass

NOTE:

For U-NII-2A, U-NII-2C Band:

Chain 0

1. $11\text{dBm} + 10\log(37.73) = 26.77\text{ dBm} > 24\text{dBm}$.
2. $11\text{dBm} + 10\log(40.25) = 27.05\text{ dBm} > 24\text{dBm}$.
3. $11\text{dBm} + 10\log(40.48) = 27.07\text{ dBm} > 24\text{dBm}$.
4. $11\text{dBm} + 10\log(20.84) = 24.19\text{ dBm} > 24\text{dBm}$.
5. $11\text{dBm} + 10\log(40.30) = 27.05\text{ dBm} > 24\text{dBm}$.
6. $11\text{dBm} + 10\log(40.03) = 27.02\text{ dBm} > 24\text{dBm}$.
7. $11\text{dBm} + 10\log(26.35) = 25.21\text{ dBm} > 24\text{dBm}$.
8. $11\text{dBm} + 10\log(5725.00 - 5707.03) = 24.22\text{ dBm} > 24\text{dBm}$.

Chain 1

1. $11\text{dBm} + 10\log(37.59) = 26.75\text{ dBm} > 24\text{dBm}$.
2. $11\text{dBm} + 10\log(40.20) = 27.04\text{ dBm} > 24\text{dBm}$.
3. $11\text{dBm} + 10\log(40.42) = 27.07\text{ dBm} > 24\text{dBm}$.
4. $11\text{dBm} + 10\log(20.91) = 24.20\text{ dBm} > 24\text{dBm}$.
5. $11\text{dBm} + 10\log(40.49) = 27.07\text{ dBm} > 24\text{dBm}$.
6. $11\text{dBm} + 10\log(39.88) = 27.01\text{ dBm} > 24\text{dBm}$.
7. $11\text{dBm} + 10\log(26.43) = 25.22\text{ dBm} > 24\text{dBm}$.
8. $11\text{dBm} + 10\log(5725.00 - 5707.04) = 23.54\text{ dBm} < 24\text{dBm}$.

For Reference only-Power meter value

The power value was measured by power meter with average sensor

Chan.	Freq. (MHz)	Conducted Power (mW)	Conducted Power (dBm)
144	5720	94.683	19.76

802.11ac (40MHz)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
38	5190	17.25	17.25	106.176	20.26	24.00	Pass
46	5230	18.08	18.02	127.656	21.06	24.00	Pass
54	5270	18.14	18.16	130.627	21.16	24.00	Pass
62	5310	18.12	18.14	130.026	21.14	24.00	Pass
102	5510	16.20	16.16	82.992	19.19	24.00	Pass
110	5550	18.18	18.12	130.629	21.16	24.00	Pass
134	5670	18.19	18.08	130.186	21.15	24.00	Pass
142	5710 For U-NII-2C	14.96	15.30	65.217	18.14	24.00	Pass
142	5710 For U-NII-3	3.15	4.32	4.769	6.78	30.00	Pass
151	5755	18.05	18.02	127.213	21.05	30.00	Pass
159	5795	18.10	18.08	128.834	21.10	30.00	Pass

NOTE:

For U-NII-2A, U-NII-2C Band:

Chain 0

1. $11\text{dBm} + 10\log(73.15) = 29.64\text{ dBm} > 24\text{dBm}$.
2. $11\text{dBm} + 10\log(71.51) = 29.54\text{ dBm} > 24\text{dBm}$.
3. $11\text{dBm} + 10\log(42.39) = 27.27\text{ dBm} > 24\text{dBm}$.
4. $11\text{dBm} + 10\log(71.86) = 29.56\text{ dBm} > 24\text{dBm}$.
5. $11\text{dBm} + 10\log(71.90) = 29.57\text{ dBm} > 24\text{dBm}$.
6. $11\text{dBm} + 10\log(5725.00 - 5675.81) = 27.92\text{ dBm} > 24\text{dBm}$.

Chain 1

1. $11\text{dBm} + 10\log(73.24) = 29.65\text{ dBm} > 24\text{dBm}$.
2. $11\text{dBm} + 10\log(72.42) = 29.60\text{ dBm} > 24\text{dBm}$.
3. $11\text{dBm} + 10\log(42.31) = 27.26\text{ dBm} > 24\text{dBm}$.
4. $11\text{dBm} + 10\log(72.31) = 29.59\text{ dBm} > 24\text{dBm}$.
5. $11\text{dBm} + 10\log(69.54) = 29.42\text{ dBm} > 24\text{dBm}$.
6. $11\text{dBm} + 10\log(5725.00 - 5675.82) = 27.92\text{ dBm} > 24\text{dBm}$.

For Reference only-Power meter value

The power value was measured by power meter with average sensor

Chan.	Freq. (MHz)	Conducted Power (mW)	Conducted Power (dBm)
142	5710	69.986	18.45

Mode A

26dB Bandwidth:

802.11a

Channel	Channel Frequency (MHz)	26dBc Bandwidth (MHz)	
		Chain 0	Chain 1
52	5260	34.63	34.75
60	5300	35.21	34.91
64	5320	36.97	37.34
100	5500	34.59	34.61
116	5580	37.86	38.05
132	5660	35.58	35.51
140	5700	19.45	19.87
144	5720 For U-NII-2C	18.53	18.53
144	5720 For U-NII-3	8.07	8.10

802.11ac (20MHz)

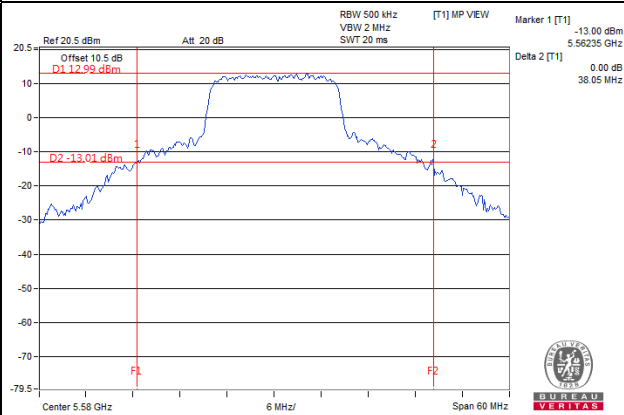
Channel	Channel Frequency (MHz)	26dBc Bandwidth (MHz)	
		Chain 0	Chain 1
52	5260	37.73	37.59
60	5300	40.25	40.20
64	5320	40.48	40.42
100	5500	20.84	20.91
116	5580	40.30	40.49
132	5660	40.03	39.88
140	5700	26.35	26.43
144	5720 For U-NII-2C	17.97	17.96
144	5720 For U-NII-3	8.43	8.33

802.11ac (40MHz)

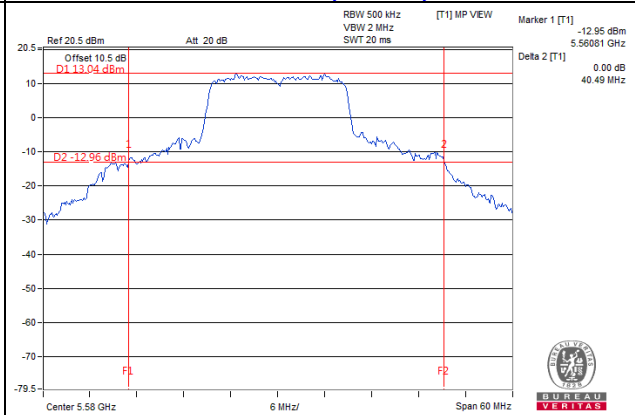
Channel	Channel Frequency (MHz)	26dBc Bandwidth (MHz)	
		Chain 0	Chain 1
54	5270	73.15	73.24
62	5310	71.51	72.42
102	5510	42.39	42.31
110	5550	71.86	72.31
134	5670	71.90	69.54
142	5710 For U-NII-2C	49.19	49.18
142	5710 For U-NII-3	13.39	13.43

Spectrum Plot of Worst Value

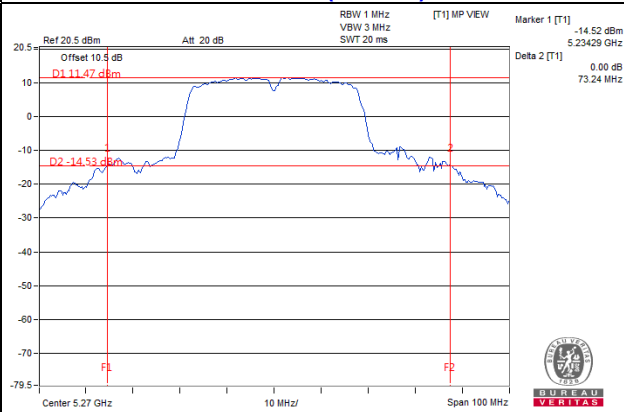
802.11a



802.11ac (20MHz)

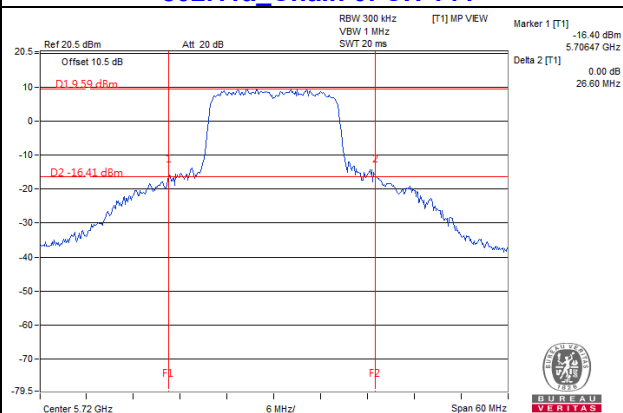


802.11ac (40MHz)

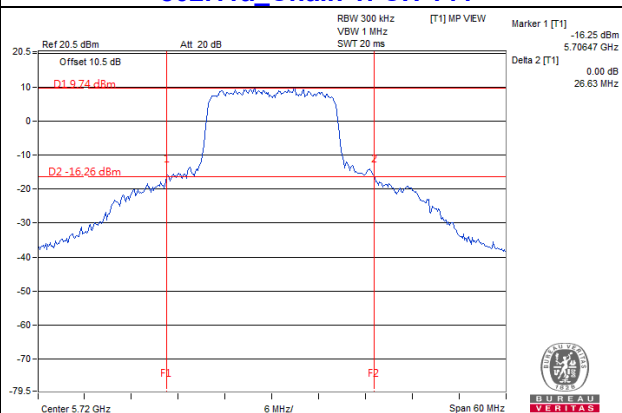


Spectrum Plot of Straddle Channels

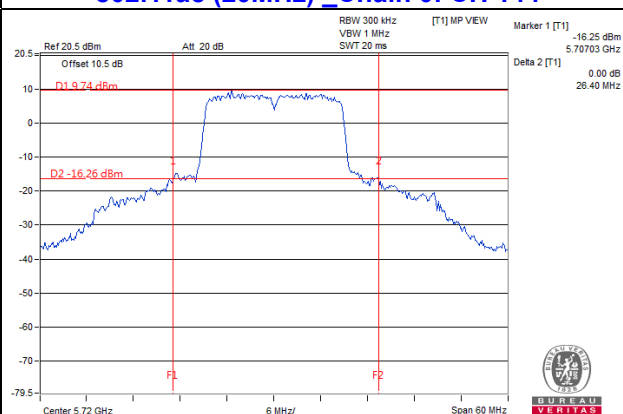
802.11a_Chain 0: CH 144



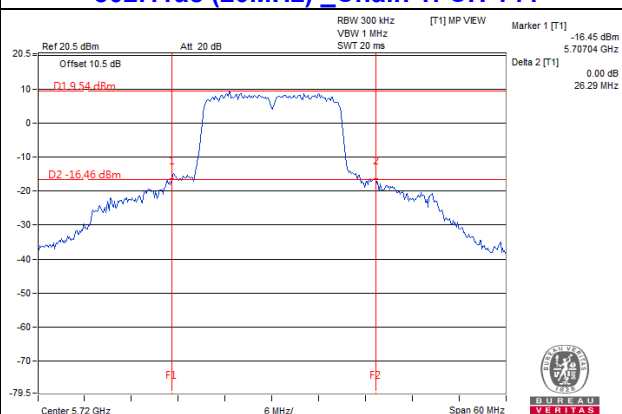
802.11a_Chain 1: CH 144



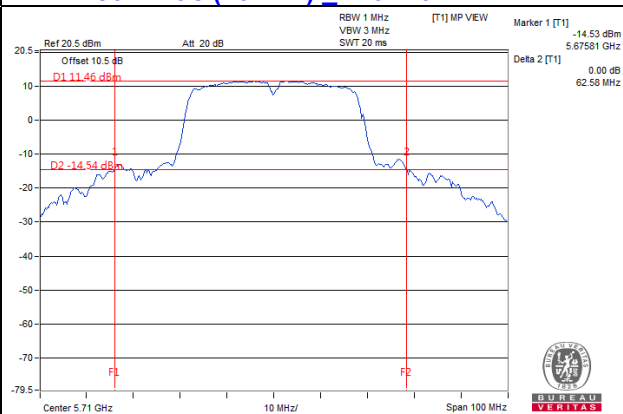
802.11ac (20MHz)_Chain 0: CH 144



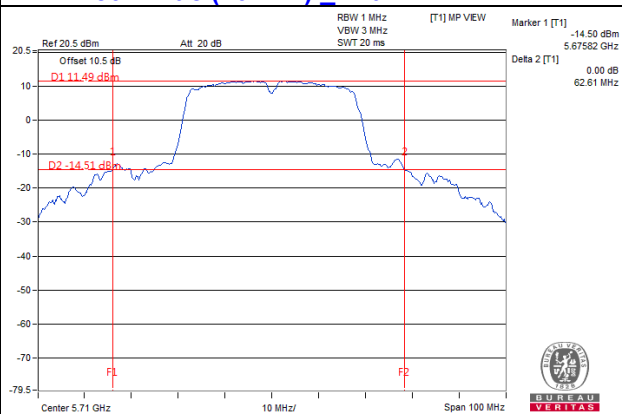
802.11ac (20MHz)_Chain 1: CH 144



802.11ac (40MHz)_Chain 0: CH 142

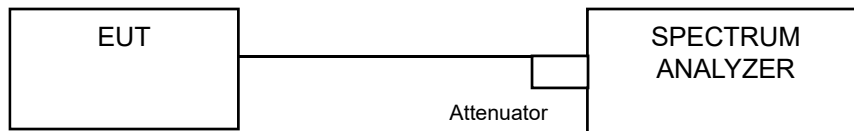


802.11ac (40MHz)_Chain 1: CH 142



4.4 Occupied Bandwidth Measurement

4.4.1 Test Setup



4.4.2 Test Instruments

Refer to section 4.3.3 to get information of above instrument.

4.4.3 Test Procedure

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

4.4.4 Test Results

Mode A

802.11a

Channel	Channel Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
36	5180	17.64	17.40
40	5200	16.92	16.92
48	5240	17.16	17.04
52	5260	16.92	16.92
60	5300	17.04	17.16
64	5320	17.28	17.28
100	5500	16.80	16.80
116	5580	17.64	17.88
132	5660	17.04	17.04
140	5700	16.44	16.44
144	5720 For U-NII-2C	13.28	13.28
144	5720 For U-NII-3	3.28	3.28

802.11ac (20MHz)

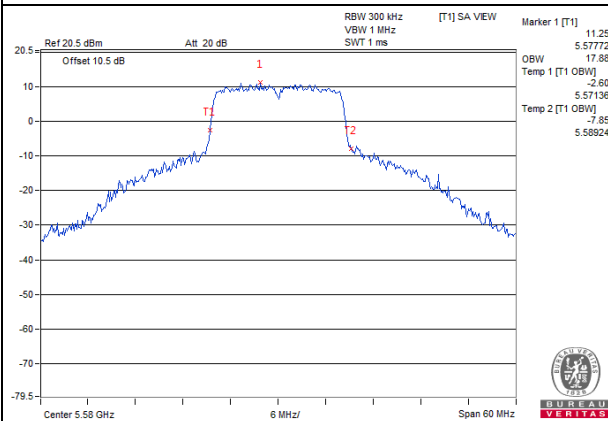
Channel	Channel Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
36	5180	18.36	18.24
40	5200	18.24	18.24
48	5240	19.08	19.08
52	5260	18.36	18.24
60	5300	18.72	18.96
64	5320	19.20	19.20
100	5500	17.64	17.64
116	5580	19.08	19.56
132	5660	18.36	18.36
140	5700	17.76	17.76
144	5720 For U-NII-2C	13.88	13.88
144	5720 For U-NII-3	3.76	3.76

802.11ac (40MHz)

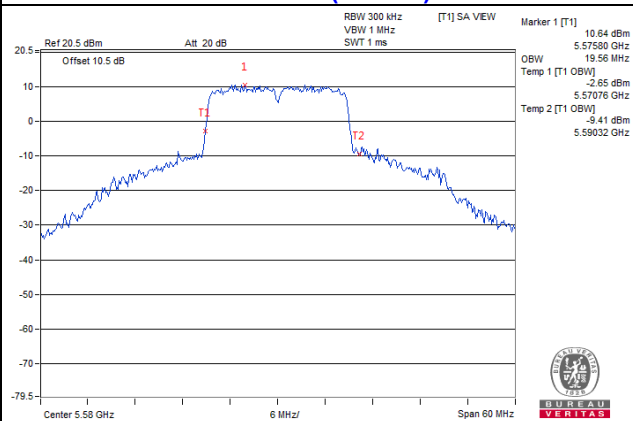
Channel	Channel Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
38	5190	36.60	36.60
46	5230	37.00	37.00
54	5270	36.80	36.80
62	5310	36.60	36.40
102	5510	36.40	36.40
110	5550	37.00	36.80
134	5670	36.80	36.80
142	5710 For U-NII-2C	33.48	33.72
142	5710 For U-NII-3	3.48	3.24

Spectrum Plot of Worst Value

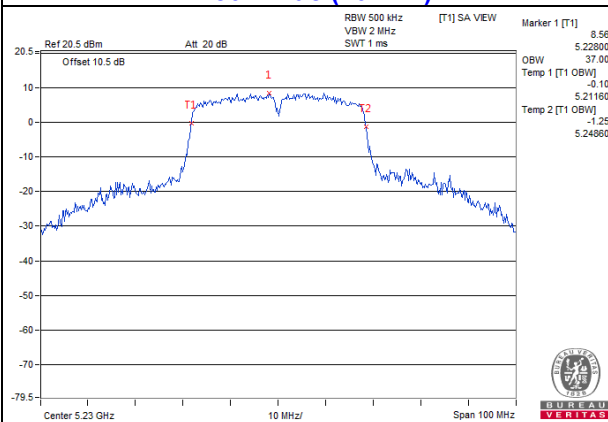
802.11a



802.11ac (20MHz)



802.11ac (40MHz)

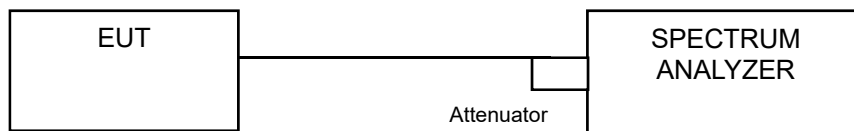


4.5 Peak Power Spectral Density Measurement

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	
	√	Client device	11dBm/ MHz
U-NII-2A	√		11dBm/ MHz
U-NII-2C	√		11dBm/ MHz
U-NII-3	√		30dBm/ 500kHz

4.5.2 Test Setup



4.5.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.5.4 Test Procedure

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

Using method SA-1

- 1) Set span to encompass the entire emission bandwidth (EBW) of the signal.
- 2) Set RBW = 1 MHz, Set VBW ≥ 3 MHz, Detector = RMS
- 3) Sweep time = auto, trigger set to “free run”.
- 4) Trace average at least 100 traces in power averaging mode.

For U-NII-3 band:

- 1) Set span to encompass the entire emission bandwidth (EBW) of the signal.
- 2) Set RBW = 500 kHz, Set VBW ≥ 3 RBW, Detector = RMS
- 3) Sweep time = auto, trigger set to “free run”.
- 4) Trace average at least 100 traces in power averaging mode.
- 5) Record the max value and add 10 log (1/duty cycle)

4.5.5 Deviation from Test Standard

No deviation.

4.5.6 EUT Operating Condition

Same as Item 4.3.6.

4.5.7 Test Results

Mode A

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

802.11a

Chan.	Freq. (MHz)	PSD (dBm/MHz)		Total PSD (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1			
36	5180	6.30	5.97	9.15	10.70	Pass
40	5200	5.71	5.83	8.78	10.70	Pass
48	5240	6.09	5.91	9.01	10.70	Pass
52	5260	5.73	5.66	8.71	10.70	Pass
60	5300	5.68	5.73	8.72	10.70	Pass
64	5320	5.72	5.64	8.69	10.70	Pass
100	5500	5.61	5.44	8.54	9.73	Pass
116	5580	6.07	6.24	9.17	9.73	Pass
132	5660	6.19	6.01	9.11	9.73	Pass
140	5700	3.51	3.60	6.57	9.73	Pass
144	5720 For U-NII- 2C	5.10	5.09	8.11	9.73	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.
- Directional gain (**5180~5240MHz & 5260~5320MHz**) = $3.29\text{dBi} + 10\log(2) = 6.3\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $11-(6.3-6) = 10.70\text{dBm}$.
Directional gain (**5500~5720MHz**) = $4.26\text{dBi} + 10\log(2) = 7.27\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $11-(7.27-6) = 9.73\text{dBm}$.

802.11ac (20MHz)

Chan.	Freq. (MHz)	PSD (dBm/MHz)		Total PSD (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1			
36	5180	5.96	5.75	8.87	10.70	Pass
40	5200	5.78	5.94	8.87	10.70	Pass
48	5240	6.21	6.12	9.18	10.70	Pass
52	5260	5.93	5.78	8.87	10.70	Pass
60	5300	5.86	5.97	8.93	10.70	Pass
64	5320	6.10	5.87	9.00	10.70	Pass
100	5500	3.34	3.25	6.31	9.73	Pass
116	5580	5.92	6.34	9.15	9.73	Pass
132	5660	6.20	6.03	9.13	9.73	Pass
140	5700	4.76	4.62	7.70	9.73	Pass
144	5720 For U-NII- 2C	4.72	4.60	7.67	9.73	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.
- Directional gain (**5180~5240MHz & 5260~5320MHz**) = $3.29\text{dBi} + 10\log(2) = 6.3\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $11-(6.3-6) = 10.70\text{dBm}$.
Directional gain (**5500~5720MHz**) = $4.26\text{dBi} + 10\log(2) = 7.27\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $11-(7.27-6) = 9.73\text{dBm}$.

802.11ac (40MHz)

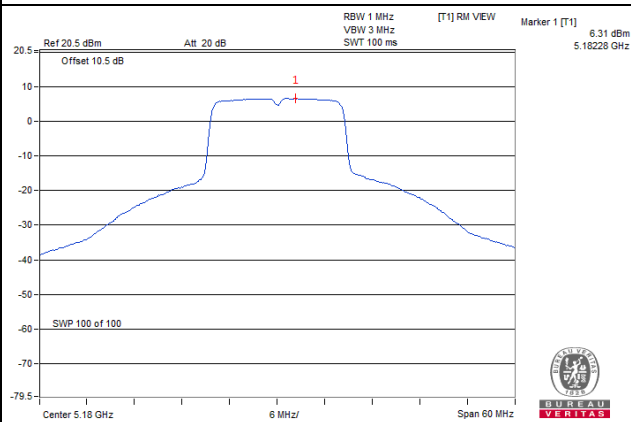
Chan.	Freq. (MHz)	PSD (dBm/MHz)		Total PSD (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1			
38	5190	1.64	1.61	4.64	10.70	Pass
46	5230	2.50	2.62	5.57	10.70	Pass
54	5270	2.42	2.20	5.32	10.70	Pass
62	5310	2.25	2.41	5.34	10.70	Pass
102	5510	-0.29	-0.48	2.63	9.73	Pass
110	5550	2.52	2.64	5.59	9.73	Pass
134	5670	2.24	2.26	5.26	9.73	Pass
142	5710 For U-NII- 2C	1.72	1.70	4.72	9.73	Pass

Note:

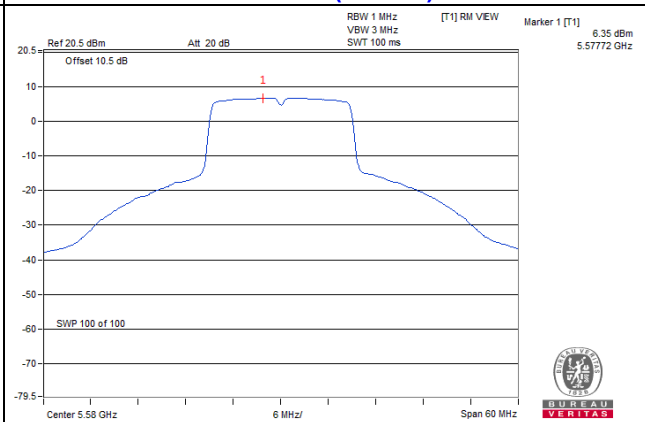
- Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
- Directional gain (**5180~5240MHz & 5260~5320MHz**) = $3.29\text{dBi} + 10\log(2) = 6.3\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $11-(6.3-6) = 10.70\text{dBm}$.
Directional gain (**5500~5720MHz**) = $4.26\text{dBi} + 10\log(2) = 7.27\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $11-(7.27-6) = 9.73\text{dBm}$.

Spectrum Plot of Worst Value

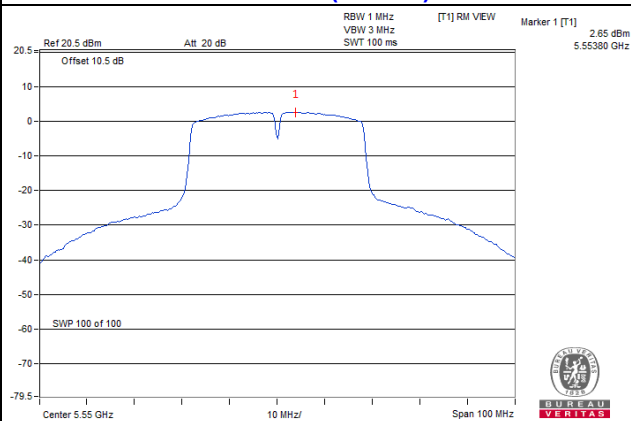
802.11a



802.11ac (20MHz)



802.11ac (40MHz)



For U-NII-3:
802.11a

TX chain	Channel	Freq. (MHz)	PSD (dBm/500kHz)	10 log (N=2) dB	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	Pass /Fail
0	144	5720 For U-NII-3	-3.89	3.01	-0.88	29.74	Pass
	149	5745	-2.13	3.01	0.88	29.74	Pass
	157	5785	-2.01	3.01	1.00	29.74	Pass
	165	5825	-2.25	3.01	0.76	29.74	Pass
1	144	5720 For U-NII-3	-3.91	3.01	-0.90	29.74	Pass
	149	5745	-2.45	3.01	0.56	29.74	Pass
	157	5785	-2.48	3.01	0.53	29.74	Pass
	165	5825	-2.34	3.01	0.67	29.74	Pass

Note: Directional gain = $3.25\text{dBi} + 10\log(2) = 6.26\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $30-(6.26-6) = 29.74\text{dBm}$.

802.11ac (20MHz)

TX chain	Channel	Freq. (MHz)	PSD (dBm/500kHz)	10 log (N=2) dB	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	Pass /Fail
0	144	5720 For U-NII-3	-4.45	3.01	-1.44	29.74	Pass
	149	5745	-5.16	3.01	-2.15	29.74	Pass
	157	5785	-2.29	3.01	0.72	29.74	Pass
	165	5825	-2.35	3.01	0.66	29.74	Pass
1	144	5720 For U-NII-3	-4.46	3.01	-1.45	29.74	Pass
	149	5745	-5.46	3.01	-2.45	29.74	Pass
	157	5785	-2.41	3.01	0.60	29.74	Pass
	165	5825	-2.31	3.01	0.70	29.74	Pass

Note: Directional gain = $3.25\text{dBi} + 10\log(2) = 6.26\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $30-(6.26-6) = 29.74\text{dBm}$.

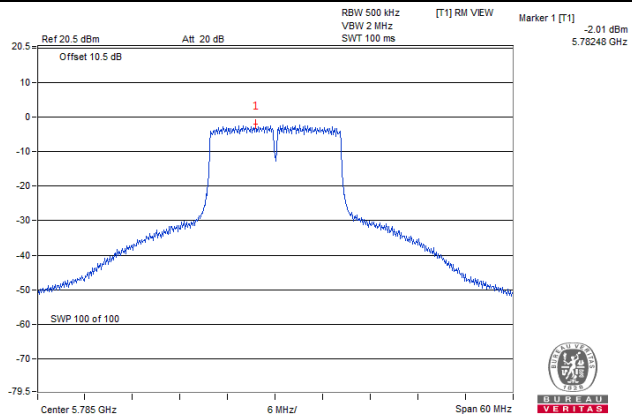
802.11ac (40MHz)

TX chain	Channel	Freq. (MHz)	PSD (dBm/500kHz)	10 log (N=2) dB	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	Pass /Fail
0	142	5710 For U-NII-3	-9.00	3.01	-5.99	29.74	Pass
	151	5755	-6.12	3.01	-3.11	29.74	Pass
	159	5795	-6.18	3.01	-3.17	29.74	Pass
1	142	5710 For U-NII-3	-9.02	3.01	-6.01	29.74	Pass
	151	5755	-6.35	3.01	-3.34	29.74	Pass
	159	5795	-6.36	3.01	-3.35	29.74	Pass

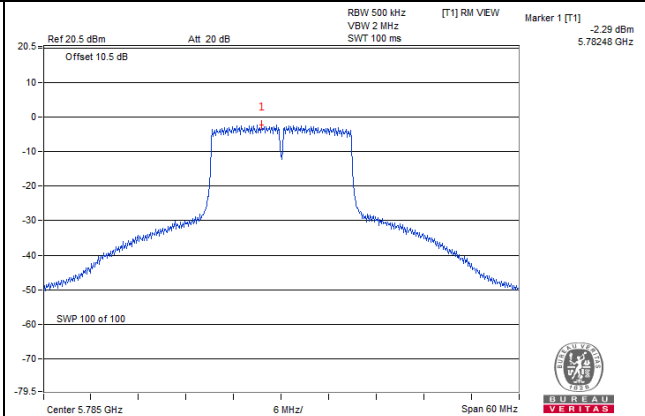
Note: Directional gain = $3.25\text{dBi} + 10\log(2) = 6.26\text{dBi} > 6\text{dBi}$, so the power density limit shall be reduced to $30-(6.26-6) = 29.74\text{dBm}$.

Spectrum Plot of Worst Value

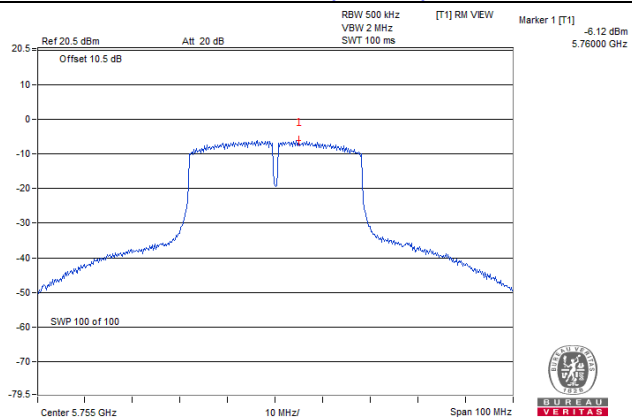
802.11a



802.11ac (20MHz)



802.11ac (40MHz)

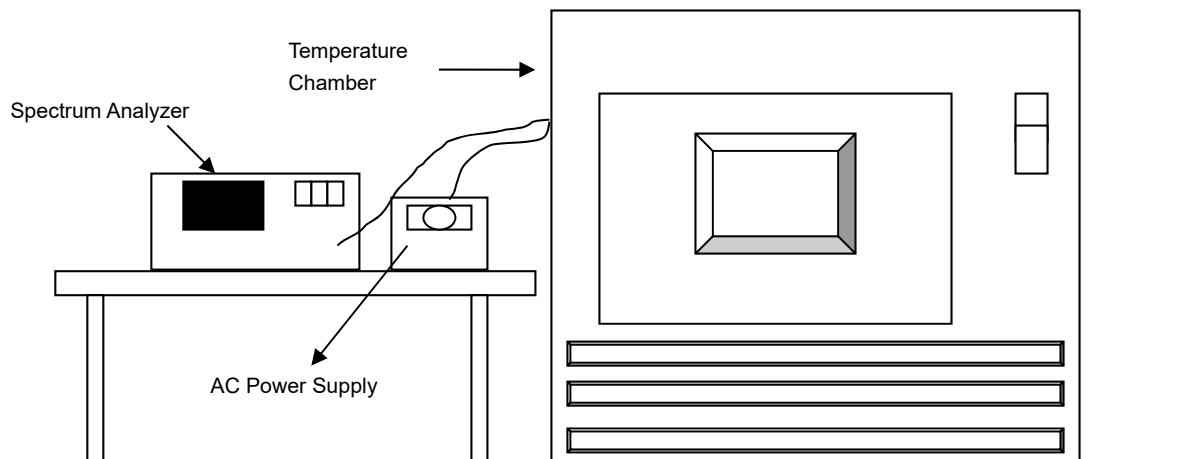


4.6 Frequency Stability Measurement

4.6.1 Limits of Frequency Stability Measurement

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

4.6.2 Test Setup



4.6.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.6.4 Test Procedure

- 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 the temperature chamber set to the next desired temperature until measurements down to the lowest specified temperature have been completed..
- 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

Mode A

Frequency Stability Versus Temp.									
Operating Frequency: 5180 MHz									
TEMP. (°C)	Power Supply (Vac)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail
50	120	5179.9768	Pass	5179.9787	Pass	5179.9783	Pass	5179.9805	Pass
40	120	5179.9945	Pass	5179.9939	Pass	5179.995	Pass	5179.9957	Pass
30	120	5180.0221	Pass	5180.0229	Pass	5180.0214	Pass	5180.0215	Pass
20	120	5180.0266	Pass	5180.0229	Pass	5180.0234	Pass	5180.0225	Pass
10	120	5180.0013	Pass	5179.9984	Pass	5179.9971	Pass	5180.0013	Pass
0	120	5180.0086	Pass	5180.0126	Pass	5180.0093	Pass	5180.0106	Pass
-10	120	5179.9917	Pass	5179.993	Pass	5179.9932	Pass	5179.9945	Pass
-20	120	5180.0197	Pass	5180.0186	Pass	5180.0165	Pass	5180.018	Pass
-30	120	5179.9988	Pass	5179.9973	Pass	5179.9986	Pass	5180.0001	Pass

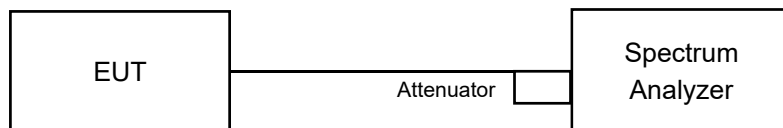
Frequency Stability Versus Voltage									
Operating Frequency: 5180 MHz									
TEMP. (°C)	Power Supply (Vac)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail	Measured Frequency (MHz)	Pass/Fail
20	138	5180.0262	Pass	5180.0222	Pass	5180.0235	Pass	5180.0224	Pass
	120	5180.0266	Pass	5180.0229	Pass	5180.0234	Pass	5180.0225	Pass
	102	5180.0271	Pass	5180.0222	Pass	5180.0242	Pass	5180.0223	Pass

4.7 6dB Bandwidth Measurement

4.7.1 Limits of 6dB Bandwidth Measurement

The minimum of 6dB Bandwidth Measurement is 0.5MHz.

4.7.2 Test Setup



4.7.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.7.4 Test Procedure

MEASUREMENT PROCEDURE REF

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

4.7.5 Deviation from Test Standard

No deviation.

4.7.6 EUT Operating Condition

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

4.7.7 Test Results

Mode A

802.11a

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
144	5720 For U-NII-3	3.16	3.17	0.5	Pass
149	5745	16.36	16.36	0.5	Pass
157	5785	16.35	16.36	0.5	Pass
165	5825	16.35	16.36	0.5	Pass

802.11ac (20MHz)

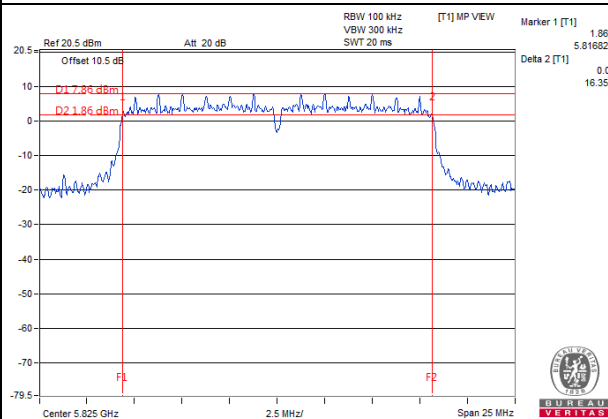
Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
144	5720 For U-NII-3	3.80	3.80	0.5	Pass
149	5745	17.59	17.60	0.5	Pass
157	5785	17.59	17.59	0.5	Pass
165	5825	17.59	17.59	0.5	Pass

802.11ac (40MHz)

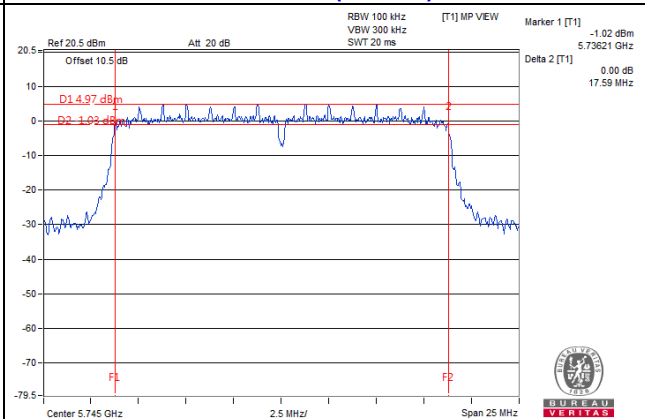
Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
142	5710 For U-NII-3	2.66	2.65	0.5	Pass
151	5755	35.25	35.26	0.5	Pass
159	5795	35.19	35.26	0.5	Pass

Spectrum Plot of Worst Value

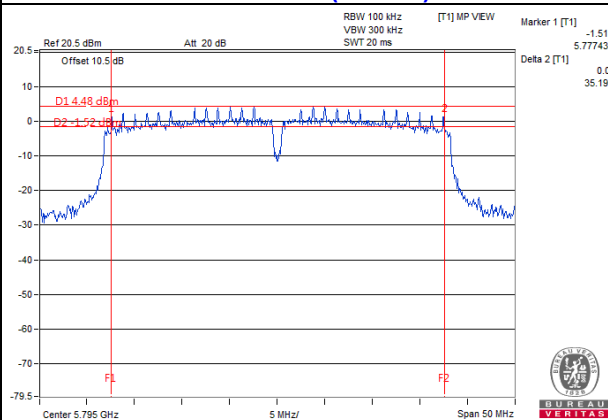
802.11a



802.11ac (20MHz)



802.11ac (40MHz)



5 Pictures of Test Arrangements

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

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

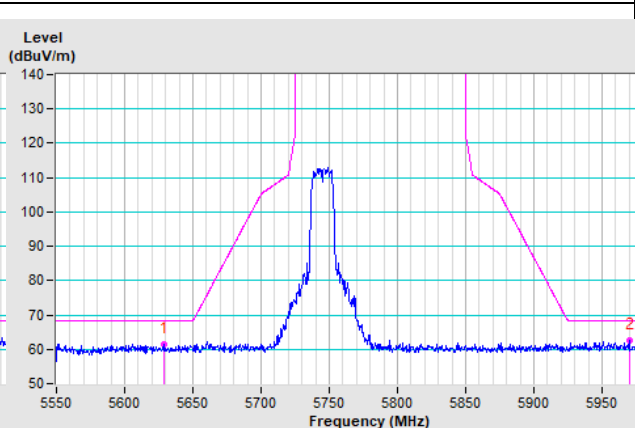
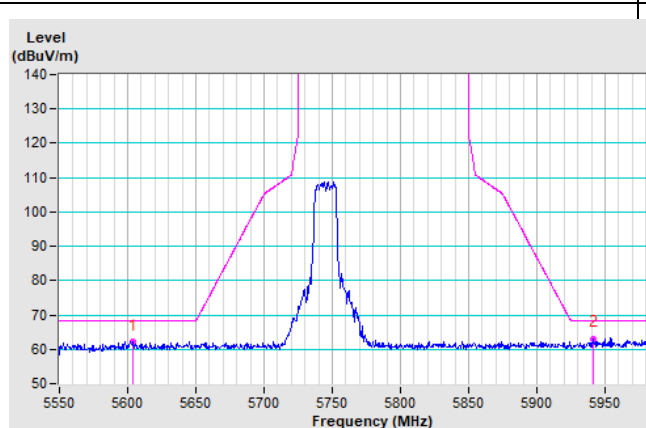
Mode A

802.11a

CH 149 5745 MHZ

HORIZONTAL

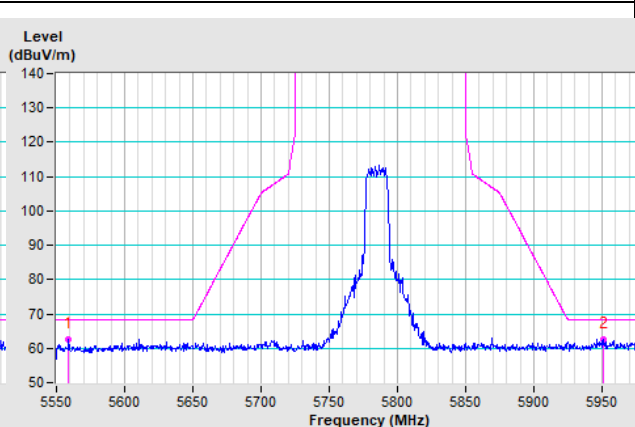
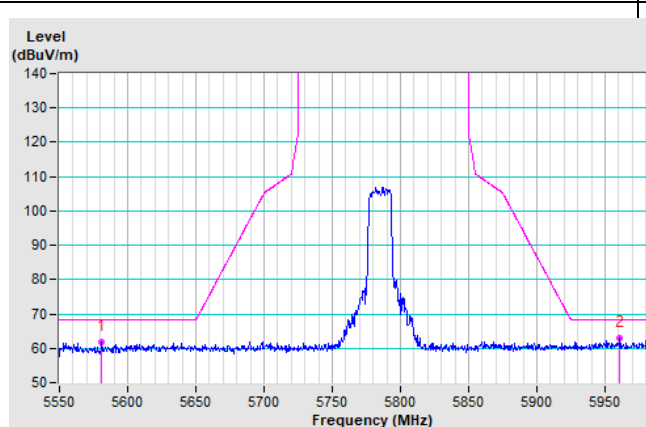
VERTICAL



CH 157 5785 MHZ

HORIZONTAL

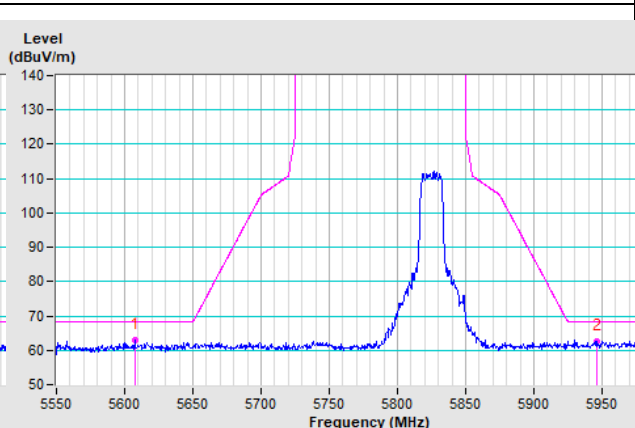
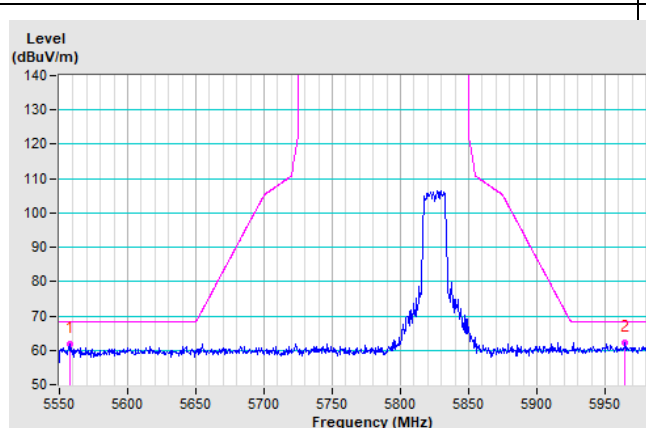
VERTICAL



CH 165 5825 MHZ

HORIZONTAL

VERTICAL

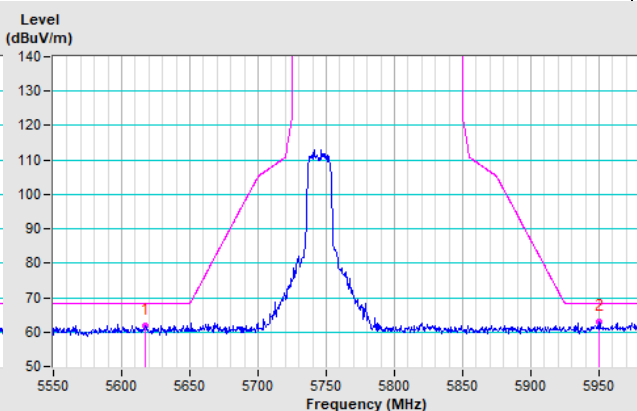
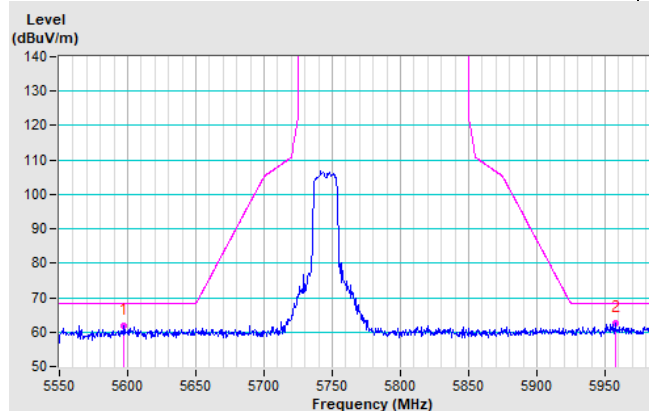


802.11ac (20MHz)

CH 149 5745 MHZ

HORIZONTAL

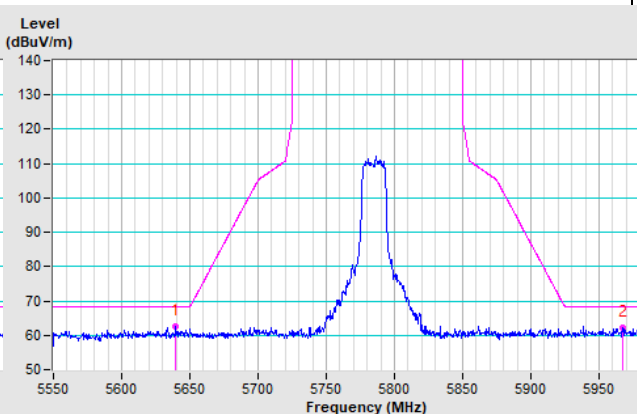
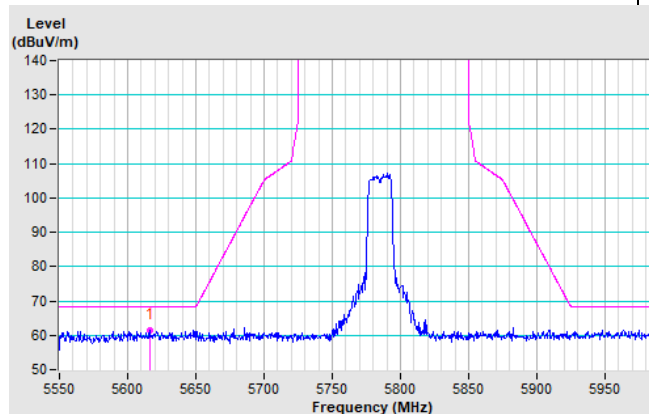
VERTICAL



CH 157 5785 MHZ

HORIZONTAL

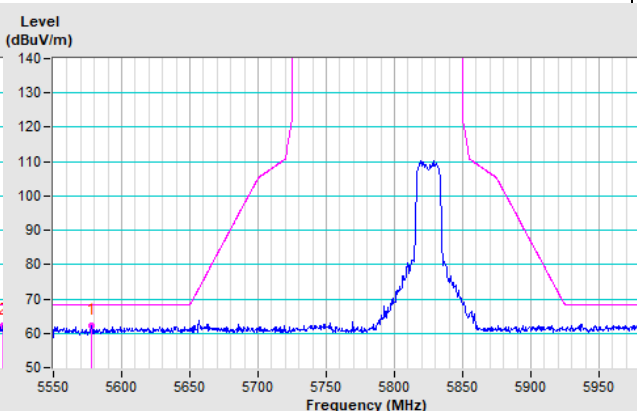
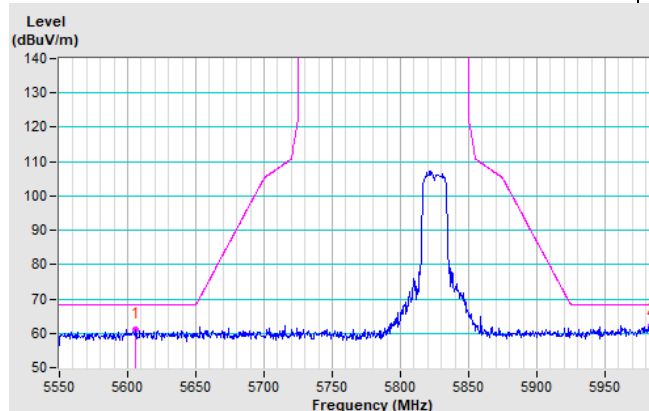
VERTICAL



CH 165 5825 MHZ

HORIZONTAL

VERTICAL

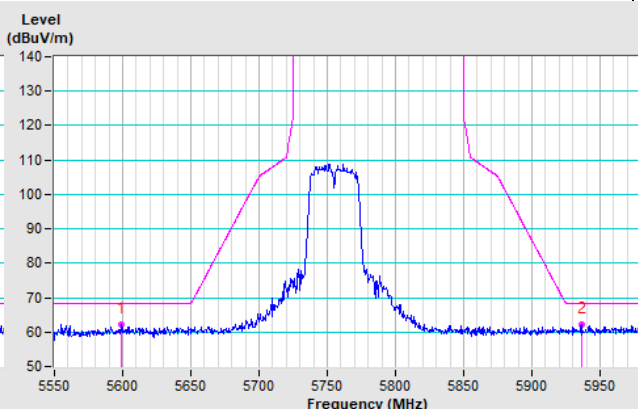
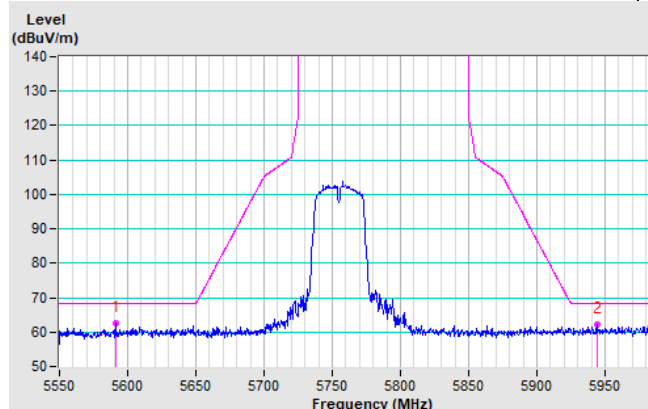


802.11ac (40MHz)

CH 151 5755 MHZ

HORIZONTAL

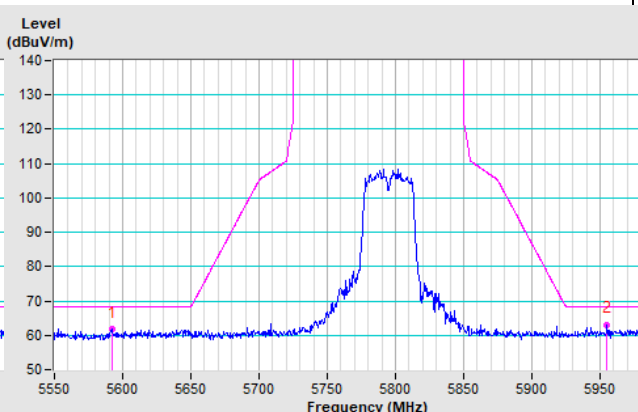
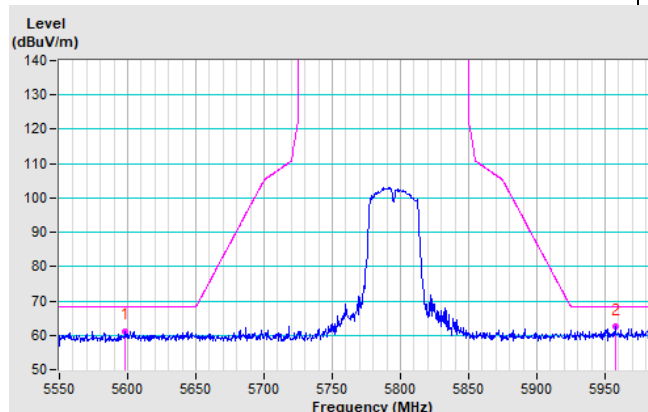
VERTICAL



CH 159 5795 MHZ

HORIZONTAL

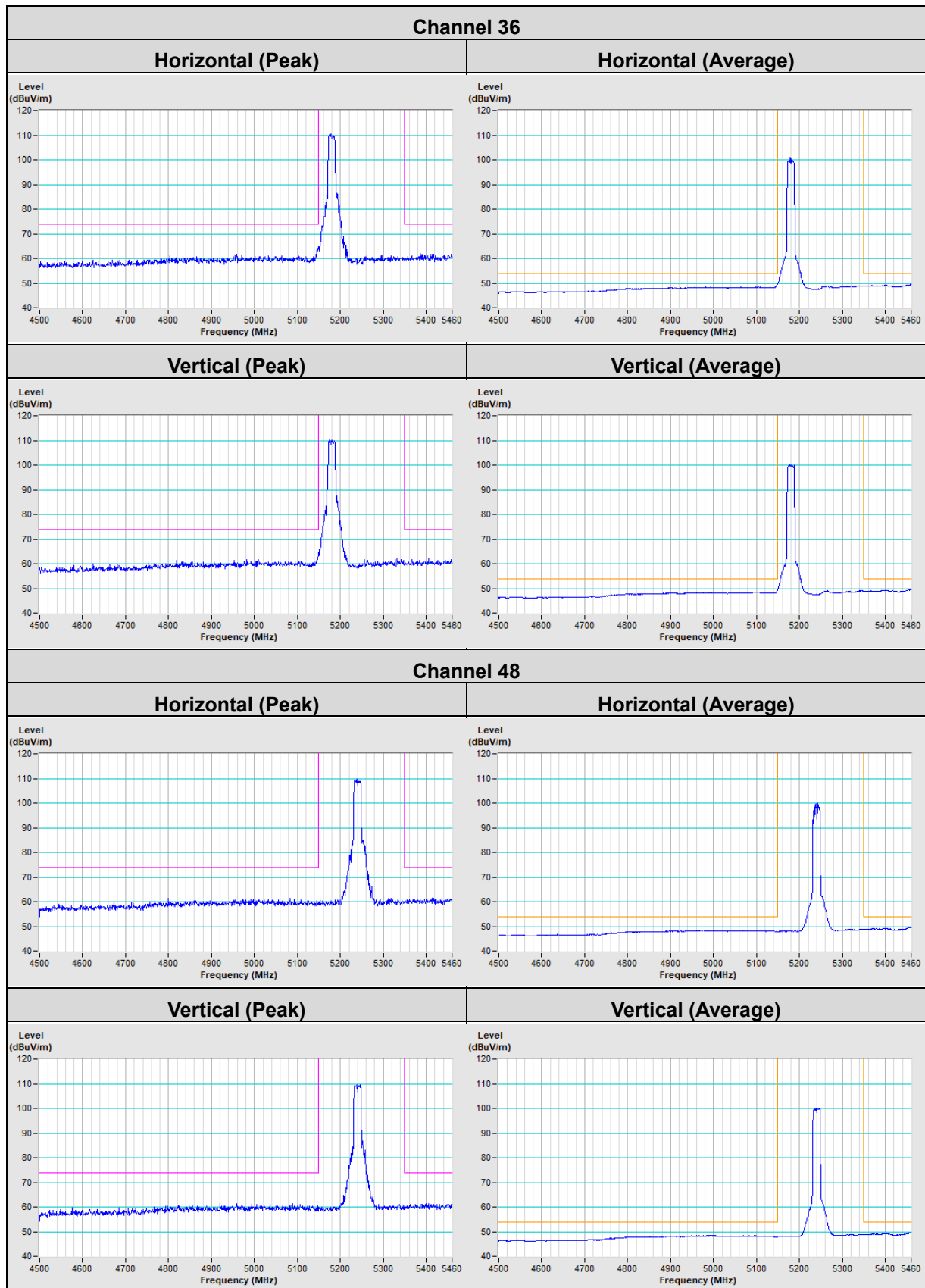
VERTICAL

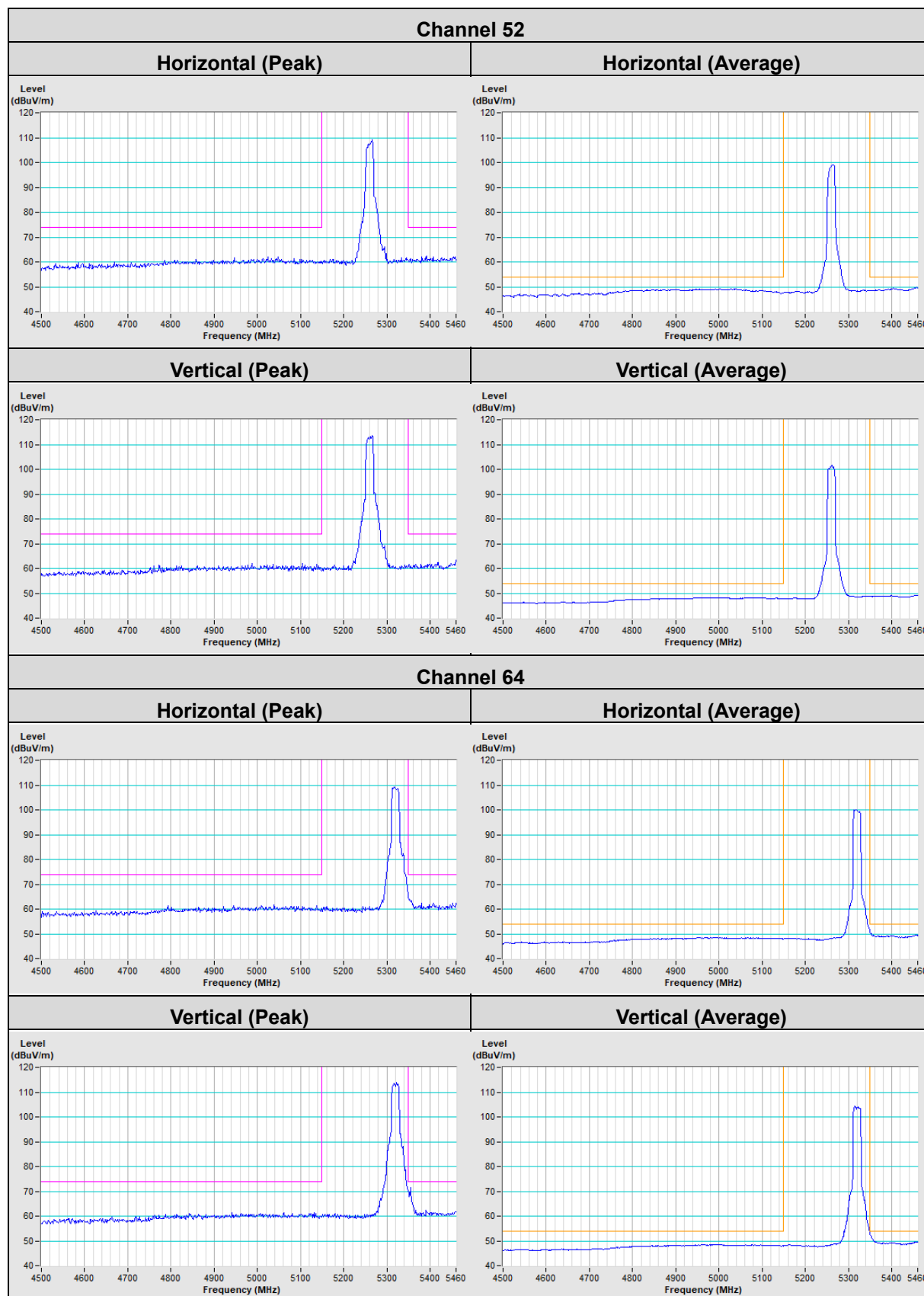


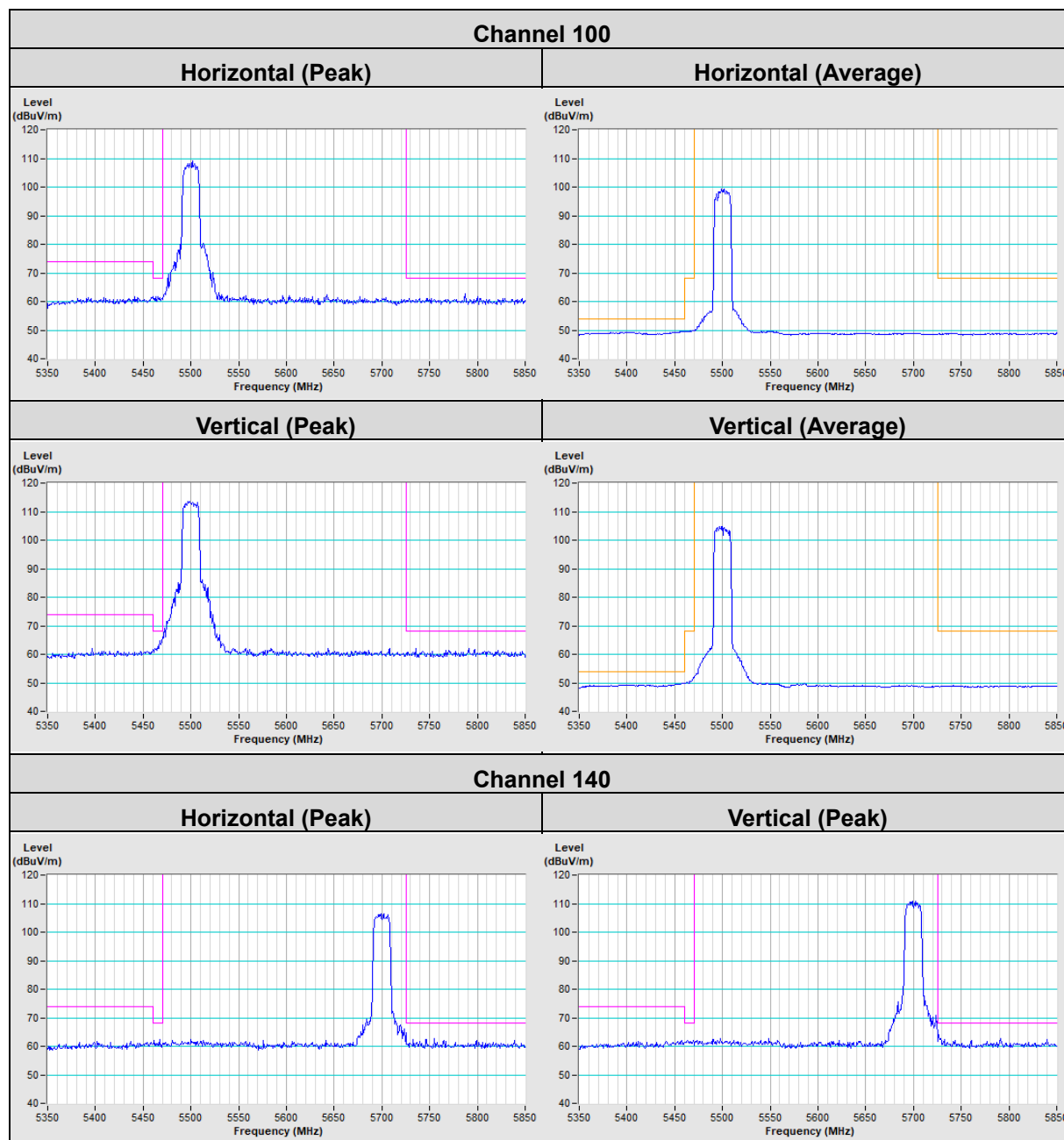
Annex B- Band Edge Measurement

Mode A

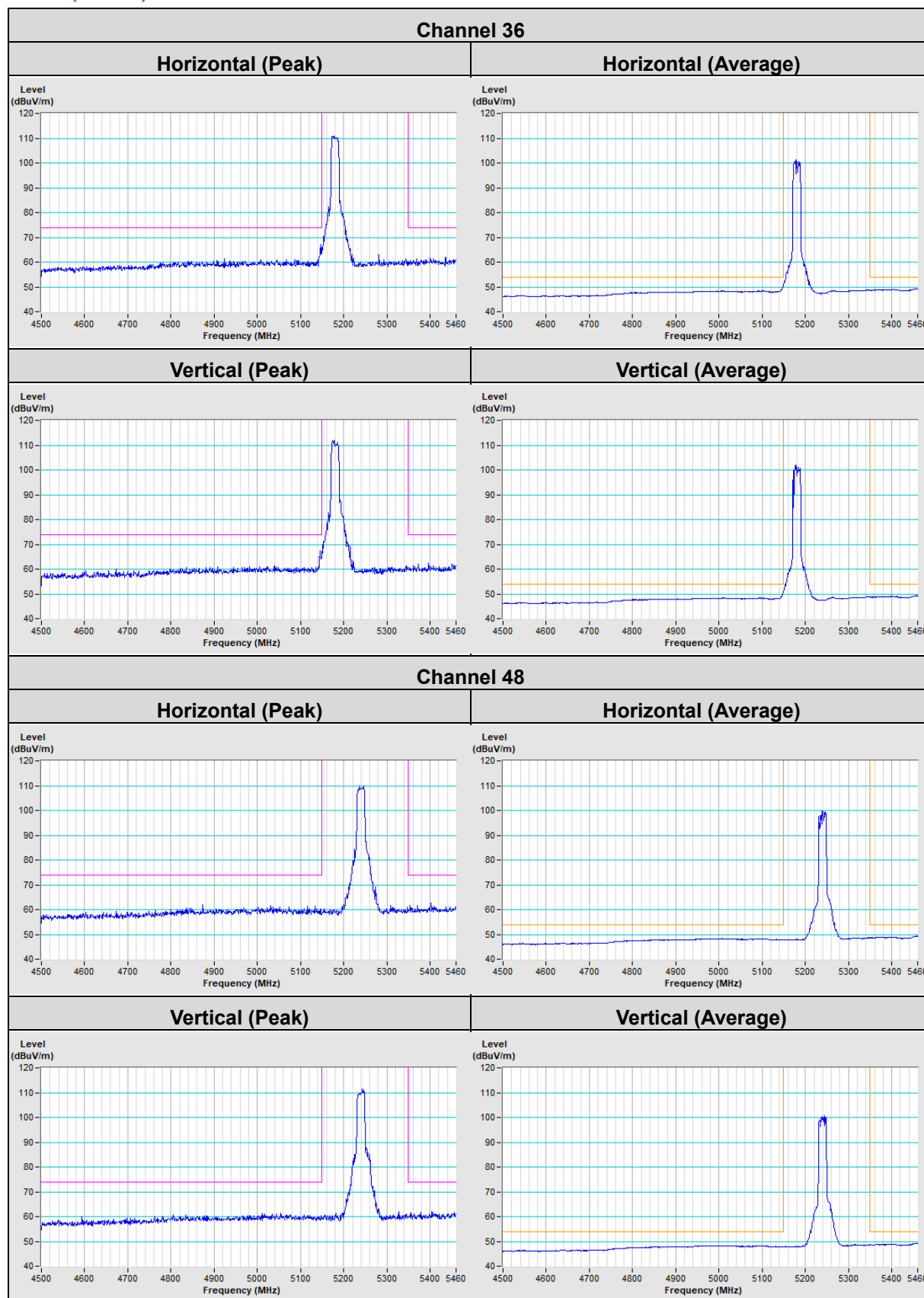
802.11a

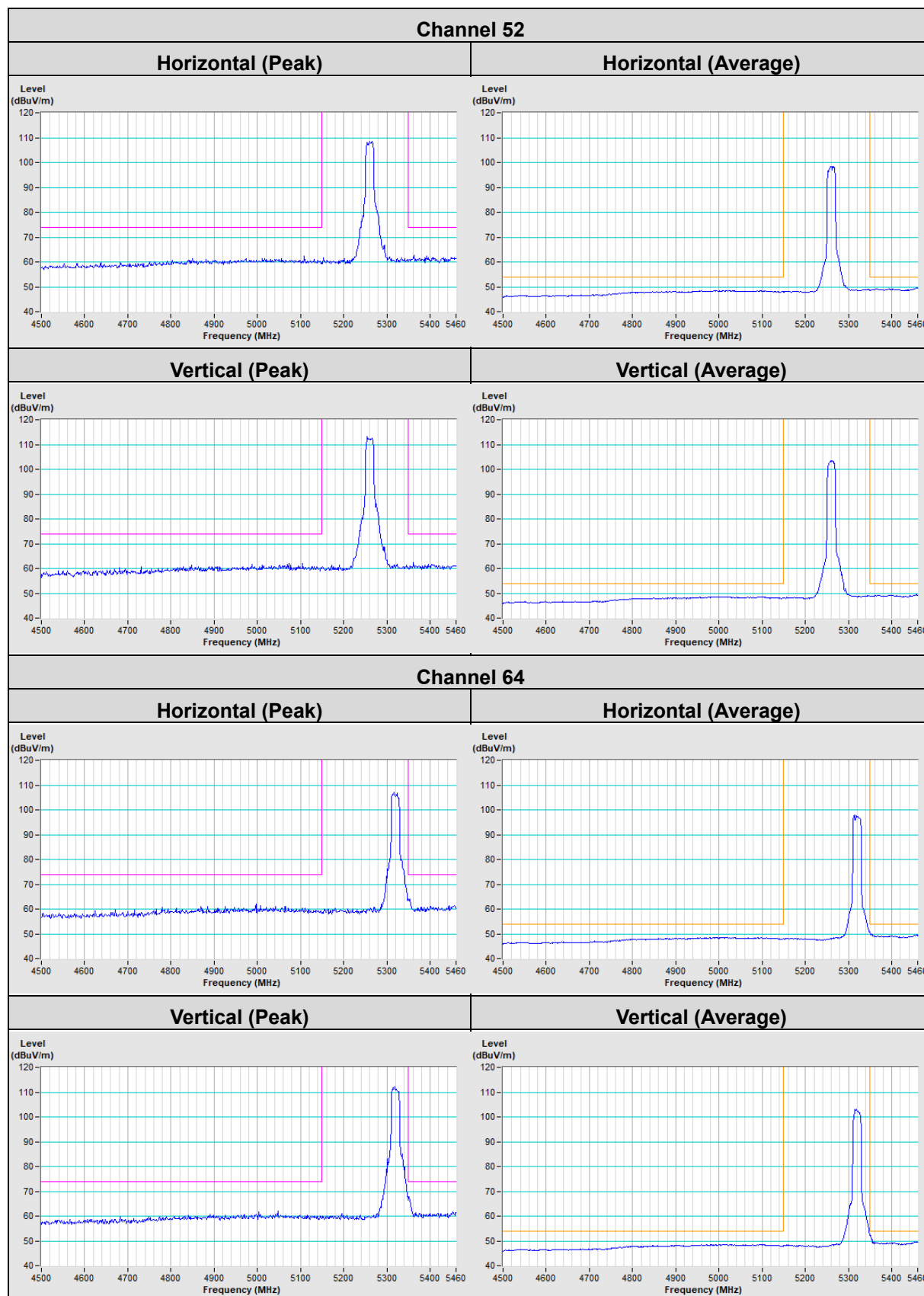


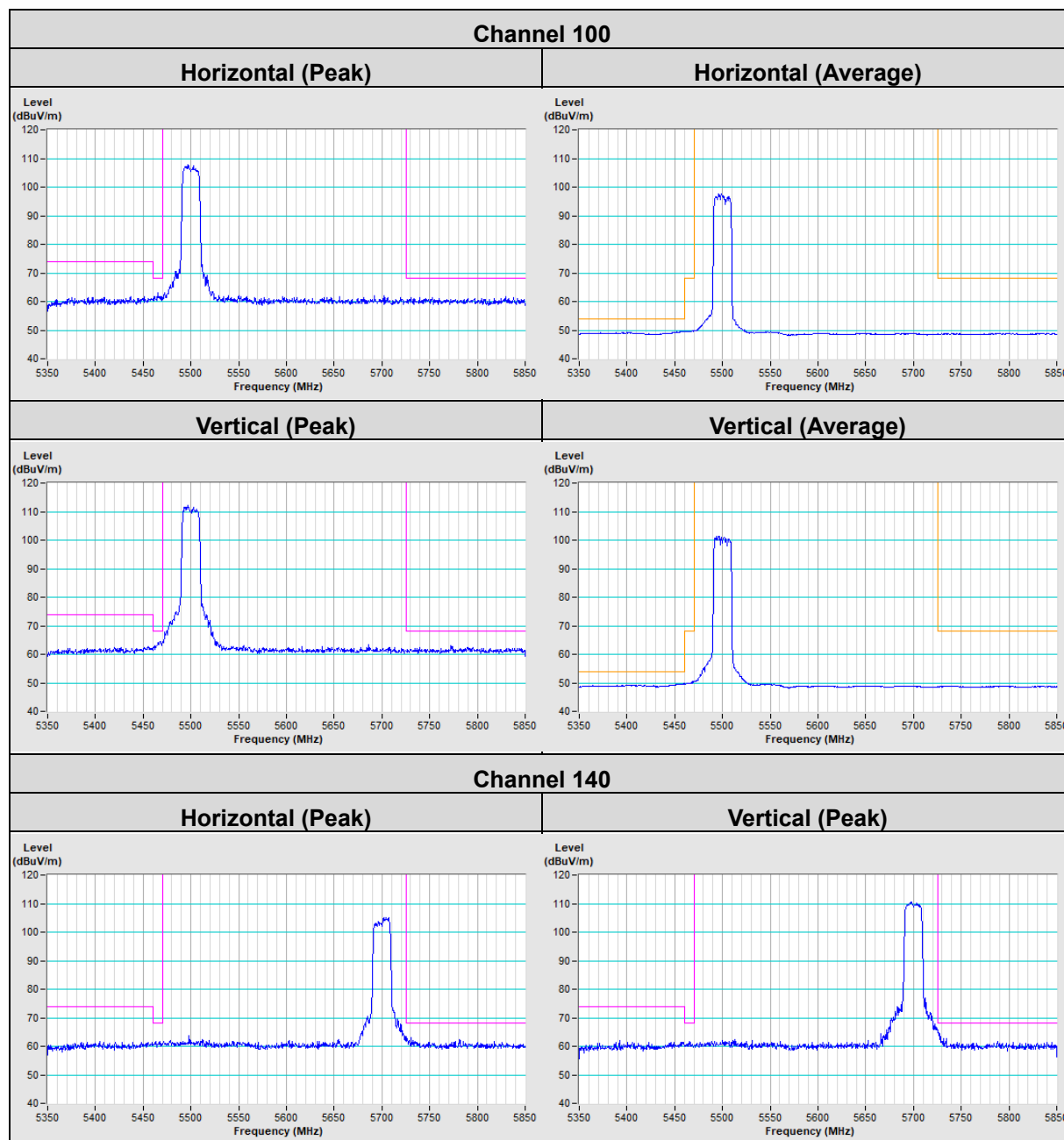




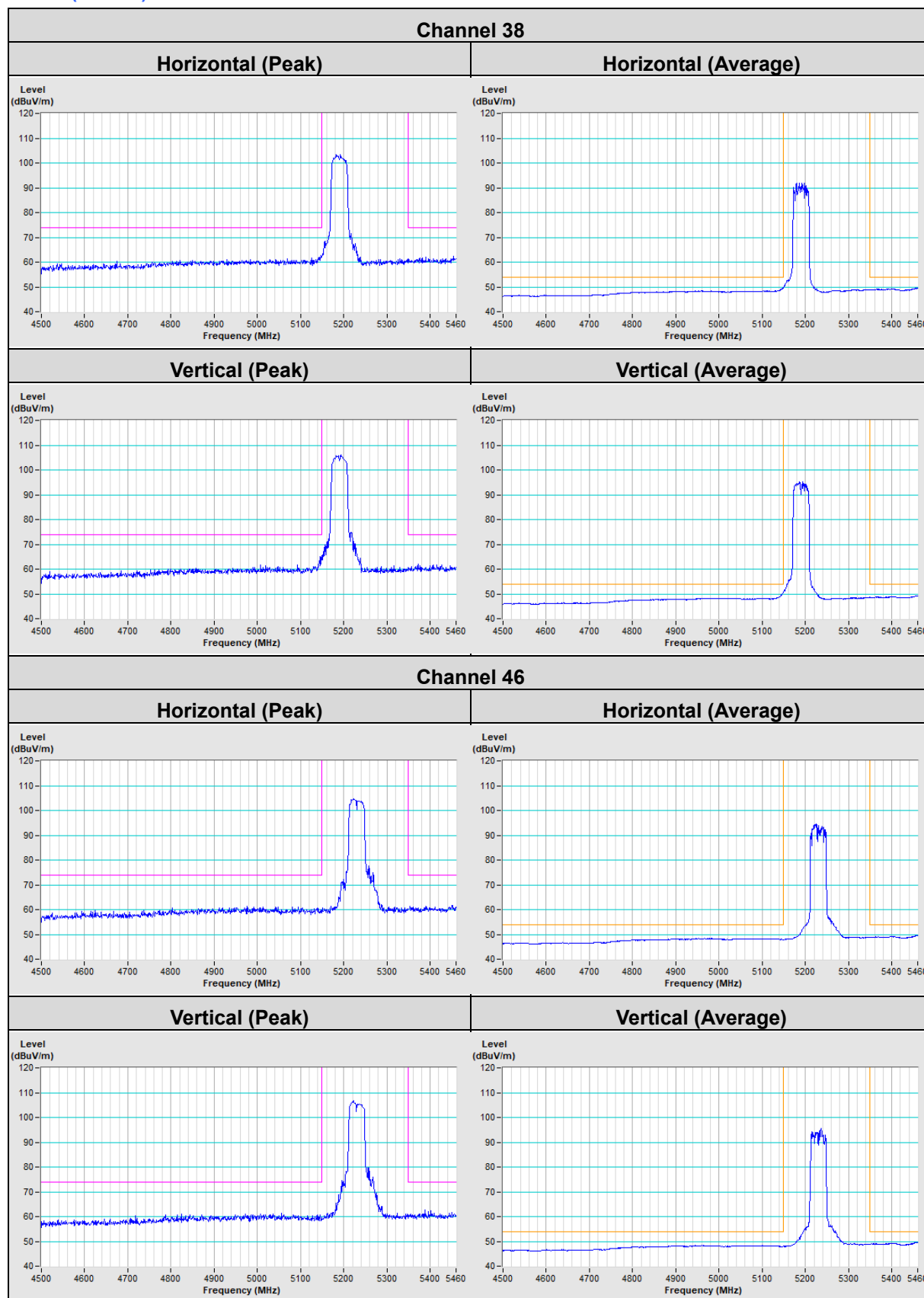
802.11ac (20MHz)

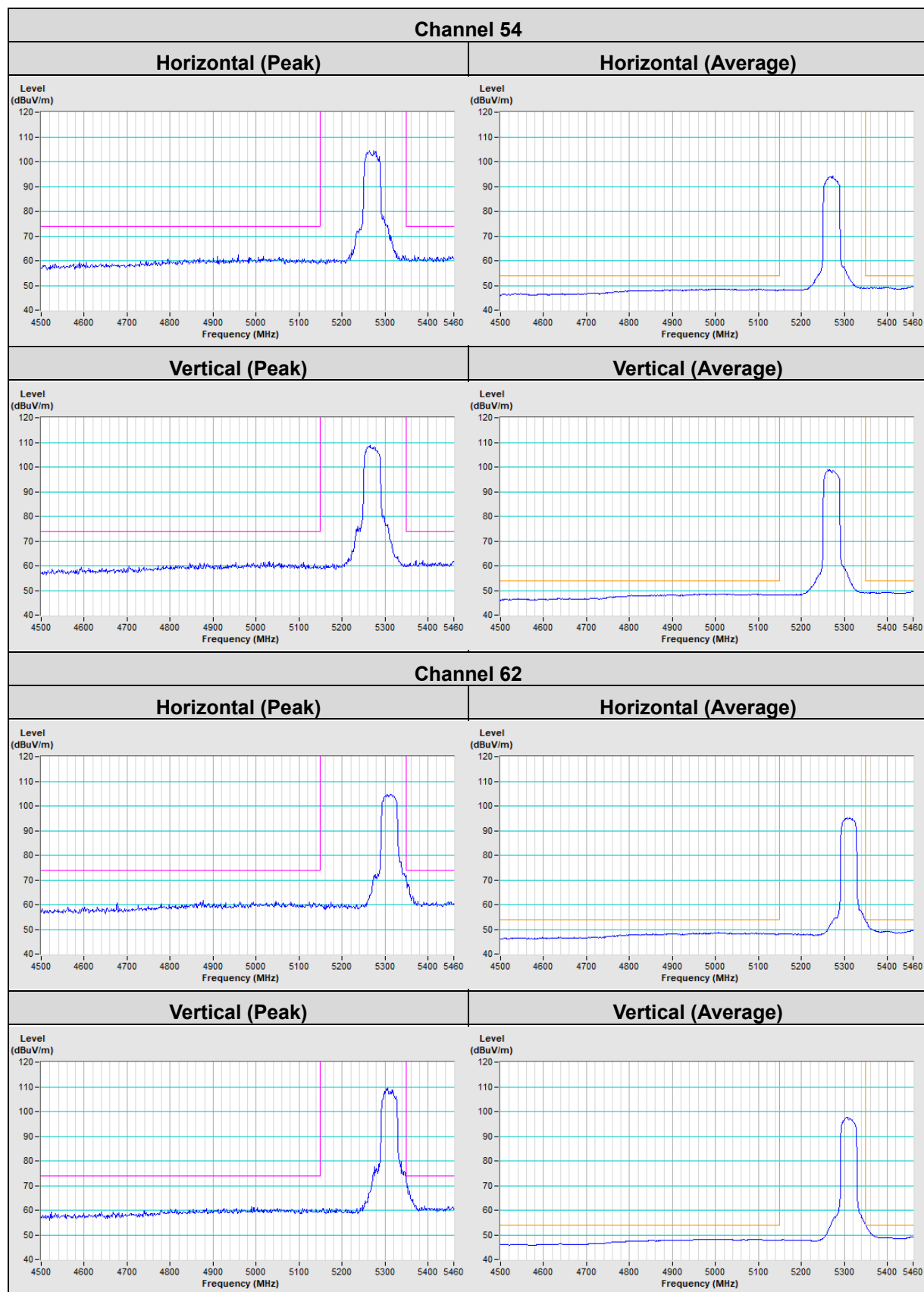


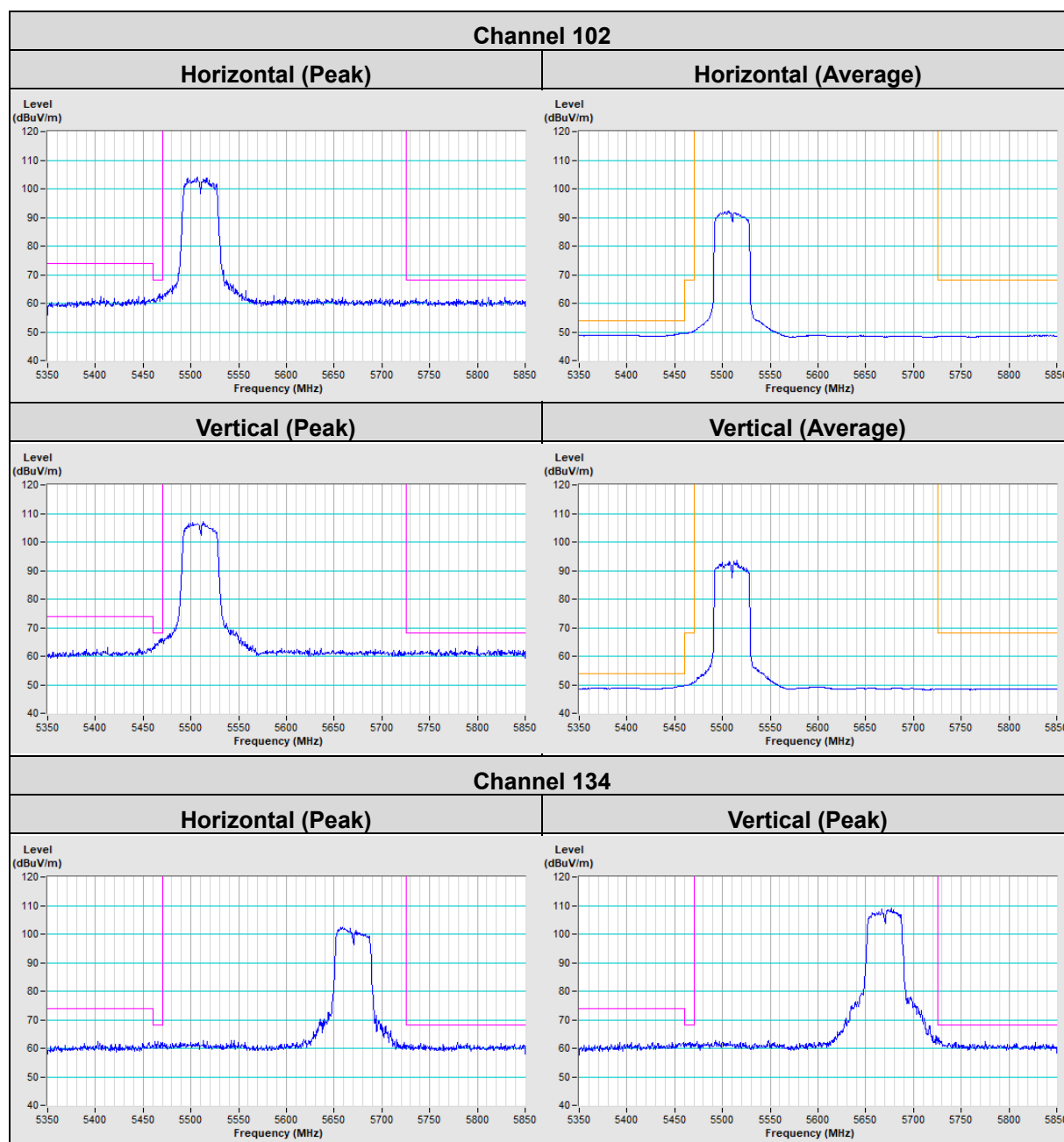




802.11ac (40MHz)







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 according to ISO/IEC 17025.

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

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Email: service.adt@tw.bureauveritas.com

Web Site: www.bureauveritas-adt.com

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

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