

FCC Test Report

Report No.: RFBDTL-WTW-P21060470-1 R1

FCC ID: VUI-CFWM

Test Model: 84911790C

Received Date: Feb. 15, 2022

Test Date: Mar. 11 ~ Mar. 29, 2022

Issued Date: Nov. 22, 2022

Applicant: PEGATRON CORPORATION

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**FCC Registration /
Designation Number:** 788550 / TW0003



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Release Control Record

Issue No.	Description	Date Issued
RFBDTL-WTW-P21060470-1	Original release.	May 18, 2022
RFBDTL-WTW-P21060470-1 R1	Revised antenna gain	Nov. 22, 2022

1 Certificate of Conformity

Product: Customer Facing Wi-Fi Module (CFWM)

Brand: 

Test Model: 84911790C

Sample Status: DV


Applicant: PEGATRON CORPORATION

Test Date: Mar. 11 ~ Mar. 29, 2022

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

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

Prepared by :  , **Date:** Nov. 22, 2022
Polly Chien / Specialist

Approved by :  , **Date:** Nov. 22, 2022
Jeremy Lin / Project Engineer

2 Summary of Test Results

47 CFR FCC Part 15, Subpart E (Section 15.407)			
FCC Clause	Test Item	Result	Remarks
15.407(b)(9)	AC Power Conducted Emissions	NA	EUT is powered from DC
15.407(b) (1/2/3/4(i/ii)/9)	Radiated Emissions & Band Edge Measurement	Pass	Meet the requirement of limit. Minimum passing margin is -1.8dB at 11400.00MHz.
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	Antenna connector is Fakra not a standard connector.

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, U-NII-2A, U-NII-2C band compliance with rule 15.407(b) of the band-edge items, the test plots were recorded in Annex 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) (\pm)
Radiated Emissions up to 1 GHz	9kHz ~ 30MHz	3.04 dB
	30MHz ~ 200MHz	3.63 dB
	200MHz ~ 1000MHz	3.64 dB
Radiated Emissions above 1 GHz	1GHz ~ 18GHz	2.29 dB
	18GHz ~ 40GHz	2.29 dB

2.2 Modification Record

There were no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	Customer Facing Wi-Fi Module (CFWM)
Brand	
Test Model	84911790C
Sample Status	DV
Power Supply Rating	12Vdc
Modulation Type	256QAM, 64QAM, 16QAM, QPSK, BPSK for OFDM 1024QAM, 256QAM, 64QAM, 16QAM, QPSK, BPSK for OFDMA
Modulation Technology	OFDM, OFDMA
Transfer Rate	802.11a: 54/48/36/24/18/12/9/6Mbps 802.11n: up to 300Mbps 802.11ac: up to 866.7Mbps 802.11ax: up to 1201.0Mbps
Operating Frequency	5180 ~ 5320MHz, 5500 ~ 5720MHz, 5745 ~ 5825MHz
Number of Channel	5180 ~ 5320MHz: 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20): 8 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40): 4 802.11ac (VHT80), 802.11ax (HE80): 2 5500 ~ 5720MHz: 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20): 12 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40): 6 802.11ac (VHT80), 802.11ax (HE80): 3 5745 ~ 5825MHz: 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20): 5 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40): 2 802.11ac (VHT80), 802.11ax (HE80): 1
Output Power	5180 ~ 5240MHz: 22.820mW 5260 ~ 5320MHz: 26.004mW 5500 ~ 5720MHz: 26.769mW 5745 ~ 5825MHz: 22.906mW
Antenna Type	Refer to note
Antenna Connector	Refer to note
Accessory Device	NA
Cable Supplied	NA

Note:

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

Modulation Mode	TX Function
802.11a	2TX
802.11n (HT20)	2TX
802.11n (HT40)	2TX
802.11ac (VHT20)	2TX
802.11ac (VHT40)	2TX
802.11ac (VHT80)	2TX
802.11ax (HE20)	2TX
802.11ax (HE40)	2TX
802.11ax (HE80)	2TX

* The bandwidth and modulation are similar for HT20/HT40 on 802.11n mode and VHT20/VHT40 on 802.11ac mode and HE20/HE40 on 802.11ax mode. The bandwidth and modulation are similar for VHT80 on 802.11ac mode and HE80 on 802.11ax mode. Therefore the investigated worst case is the representative mode in test report. (Final test mode refer section 3.2.1)

2. The EUT with follow antennas gain is listed as table below.

Type	Dipole				
Connector	Fakra				
Model	84623918				
Frequency (GHz)	2.4~2.4835	5.15~5.25	5.25~5.35	5.47~5.725	5.725~5.85
Gain (dBi)	2.70	2.49	2.63	2.88	3.43

The EUT will install at outdoor area, the highest antenna gain from the horizon above 30 degrees as below, for more detail information please refer to antenna specification and user manual.

Antenna	Antenna gain
Dipole	2.11 dBi

*Detail antenna specification please refer to antenna photos/or drawings, including antenna dimensions.

3. The EUT contains certified LTE module (Brand: Quectel, Model: AG521R-NA (FCC ID: VUI-DAV001)).

3.2 Description of Test Modes

For 5180 ~ 5320MHz:

8 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20):

Channel	Frequency	Channel	Frequency
36	5180 MHz	44	5220 MHz
40	5200 MHz	48	5240 MHz
52	5260 MHz	60	5300 MHz
56	5280 MHz	64	5320 MHz

4 channels are provided for 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40):

Channel	Frequency	Channel	Frequency
38	5190 MHz	46	5230 MHz
54	5270 MHz	62	5310 MHz

2 channels are provided for 802.11ac (VHT80), 802.11ax (HE80):

Channel	Frequency	Channel	Frequency
42	5210MHz	58	5290MHz

For 5500 ~ 5720MHz:

12 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20):

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

6 channels are provided for 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40):

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

3 channels are provided for 802.11ac (VHT80), 802.11ax (HE80):

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

For 5745 ~ 5825MHz:

5 channels are provided for 802.11a, 802.11n (HT20), 802.11ac (VHT20), 802.11ax (HE20):

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

2 channels are provided for 802.11n (HT40), 802.11ac (VHT40), 802.11ax (HE40):

Channel	Frequency	Channel	Frequency
151	5755MHz	159	5795MHz

1 channel is provided for 802.11ac (VHT80), 802.11ax (HE80):

Channel	Frequency
155	5775MHz

3.2.1 Test Mode Applicability and Tested Channel Detail

EUT Configure Mode	Applicable to				Description
	RE≥1G	RE<1G	PLC	APCM	
-	√	√	Note 2	√	-

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

Note:

1. The EUT was positioned on the X-plane (antenna) during testing.
2. No need to concern of PLC due to the EUT is powered from DC.
3. For radiated emission (below 1GHz) test items chosen the worst maximum fundamental emission level channel.

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)
-	802.11a	5180-5250	36 to 48	36, 40, 48	OFDM	6.0
	802.11n (HT20)		36 to 48	36, 40, 48	OFDM	MCS0
	802.11n (HT40)		38 to 46	38, 46	OFDM	MCS0
	802.11ac (VHT80)		42	42	OFDM	MCS0
	802.11ax (HE20)		36 to 48	36, 40, 48	OFDMA	MCS0
	802.11ax (HE40)		38 to 46	38, 46	OFDMA	MCS0
	802.11ax (HE80)		42	42	OFDMA	MCS0
-	802.11a	5250-5320	52 to 64	52, 60, 64	OFDM	6.0
	802.11n (HT20)		52 to 64	52, 60, 64	OFDM	MCS0
	802.11n (HT40)		54 to 62	54, 62	OFDM	MCS0
	802.11ac (VHT80)		58	58	OFDM	MCS0
	802.11ax (HE20)		52 to 64	52, 60, 64	OFDMA	MCS0
	802.11ax (HE40)		54 to 62	54, 62	OFDMA	MCS0
	802.11ax (HE80)		58	58	OFDMA	MCS0
-	802.11a	5500-5720	100 to 144	100, 116, 140, 144	OFDM	6.0
	802.11n (HT20)		100 to 144	100, 116, 140, 144	OFDM	MCS0
	802.11n (HT40)		102 to 142	102, 110, 134, 142	OFDM	MCS0
	802.11ac (VHT80)		106 to 138	106, 122, 138	OFDM	MCS0
	802.11ax (HE20)		100 to 144	100, 116, 140, 144	OFDMA	MCS0
	802.11ax (HE40)		102 to 142	102, 110, 134, 142	OFDMA	MCS0
	802.11ax (HE80)		106 to 138	106, 122, 138	OFDMA	MCS0
-	802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	6.0
	802.11n (HT20)		149 to 165	149, 157, 165	OFDM	MCS0
	802.11n (HT40)		151 to 159	151, 159	OFDM	MCS0
	802.11ac (VHT80)		155	155	OFDM	MCS0
	802.11ax (HE20)		149 to 165	149, 157, 165	OFDMA	MCS0
	802.11ax (HE40)		151 to 159	151, 159	OFDMA	MCS0
	802.11ax (HE80)		155	155	OFDMA	MCS0

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)
-	802.11a	5180-5250	36 to 48	60	OFDM	6.0
	802.11a	5250-5320	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)
-	802.11a	5180-5250	36 to 48	36, 40, 48	OFDM	6.0
	802.11n (HT20)		36 to 48	36, 40, 48	OFDM	MCS0
	802.11n (HT40)		38 to 46	38, 46	OFDM	MCS0
	802.11ac (VHT80)		42	42	OFDM	MCS0
	802.11ax (HE20)		36 to 48	36, 40, 48	OFDMA	MCS0
	802.11ax (HE40)		38 to 46	38, 46	OFDMA	MCS0
	802.11ax (HE80)		42	42	OFDMA	MCS0
-	802.11a	5250-5320	52 to 64	52, 60, 64	OFDM	6.0
	802.11n (HT20)		52 to 64	52, 60, 64	OFDM	MCS0
	802.11n (HT40)		54 to 62	54, 62	OFDM	MCS0
	802.11ac (VHT80)		58	58	OFDM	MCS0
	802.11ax (HE20)		52 to 64	52, 60, 64	OFDMA	MCS0
	802.11ax (HE40)		54 to 62	54, 62	OFDMA	MCS0
	802.11ax (HE80)		58	58	OFDMA	MCS0
-	802.11a	5500-5720	100 to 144	100, 116, 140, 144	OFDM	6.0
	802.11n (HT20)		100 to 144	100, 116, 140, 144	OFDM	MCS0
	802.11n (HT40)		102 to 142	102, 110, 134, 142	OFDM	MCS0
	802.11ac (VHT80)		106 to 138	106, 122, 138	OFDM	MCS0
	802.11ax (HE20)		100 to 144	100, 116, 140, 144	OFDMA	MCS0
	802.11ax (HE40)		102 to 142	102, 110, 134, 142	OFDMA	MCS0
	802.11ax (HE80)		106 to 138	106, 122, 138	OFDMA	MCS0
-	802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	6.0
	802.11n (HT20)		149 to 165	149, 157, 165	OFDM	MCS0
	802.11n (HT40)		151 to 159	151, 159	OFDM	MCS0
	802.11ac (VHT80)		155	155	OFDM	MCS0
	802.11ax (HE20)		149 to 165	149, 157, 165	OFDMA	MCS0
	802.11ax (HE40)		151 to 159	151, 159	OFDMA	MCS0
	802.11ax (HE80)		155	155	OFDMA	MCS0

Test Condition:

Applicable to	Environmental Conditions	Input Power (System)	Tested by
RE \geq 1G	23 deg. C, 66% RH	12Vdc	Titan Hsu, Luis Lee
RE $<$ 1G	23 deg. C, 66% RH	12Vdc	Titan Hsu
APCM	25 deg. C, 60% RH	12Vdc	Chris Lin

3.3 Duty Cycle of Test Signal

Duty cycle of test signal is $\geq 98\%$, duty factor is not required.

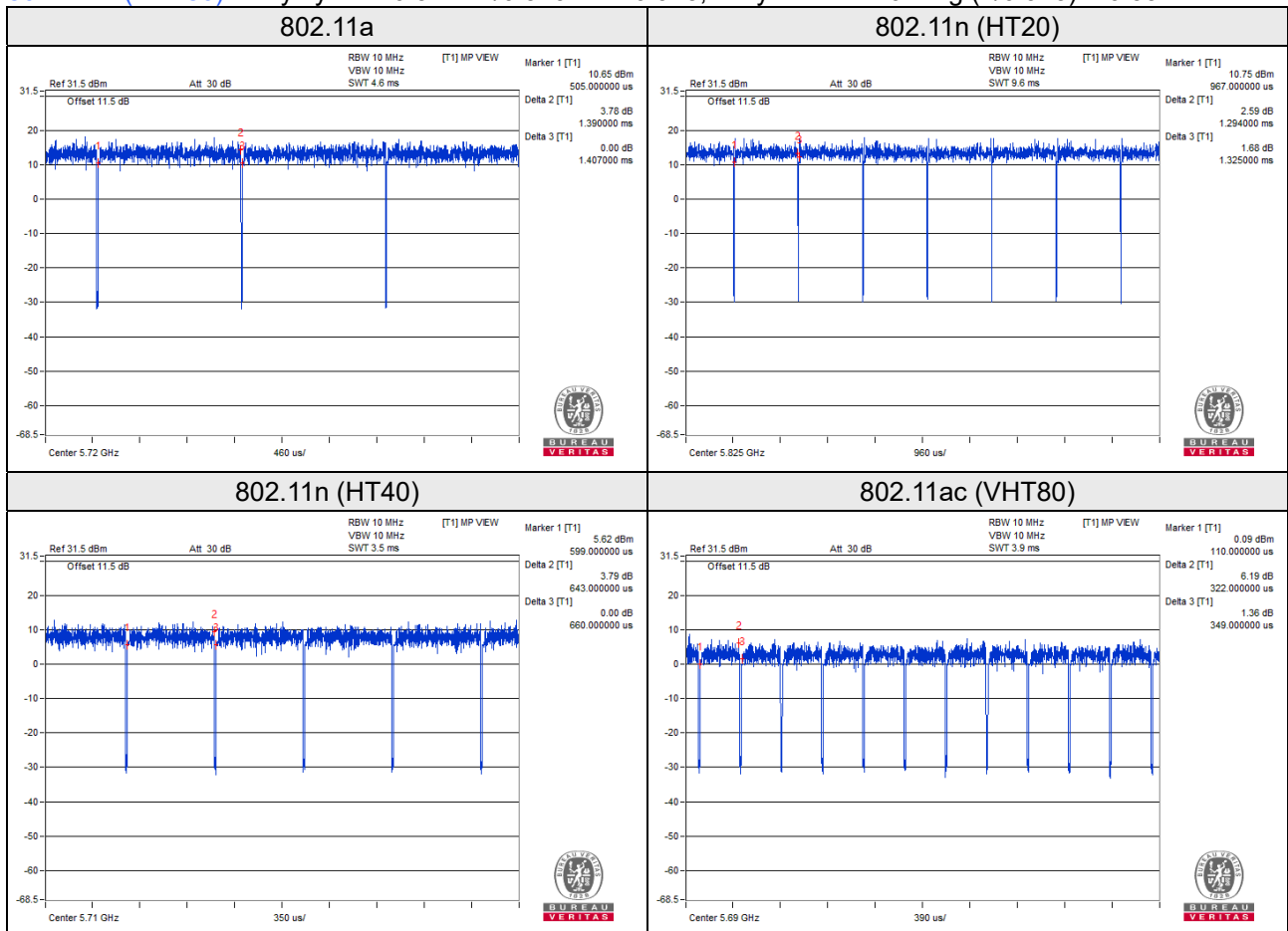
Duty cycle of test signal is $< 98\%$, duty factor is required.

802.11a: Duty cycle = 1.390ms/1.407ms = 0.988

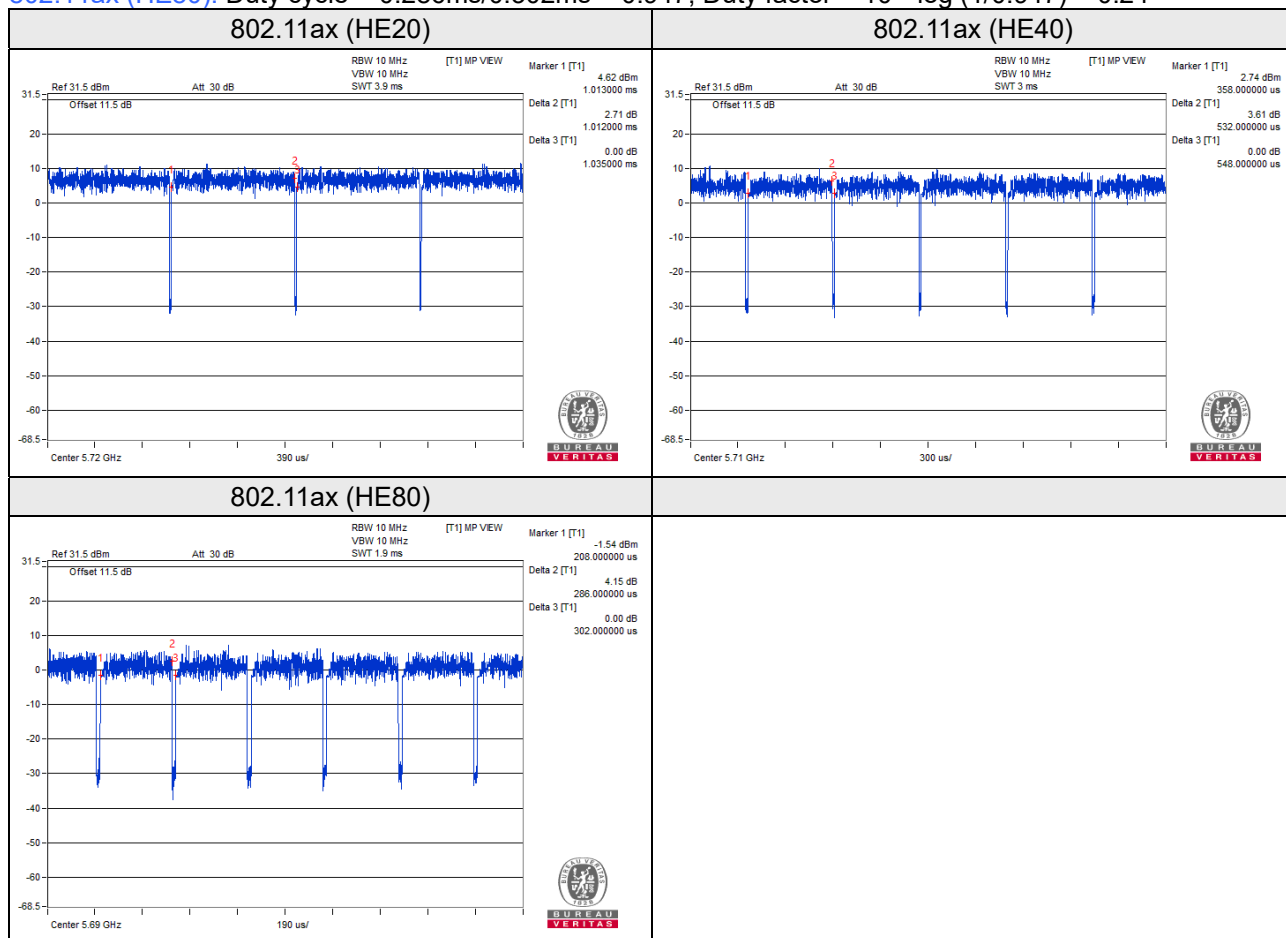
802.11n (HT20): Duty cycle = 1.294ms/1.325ms = 0.977, Duty factor = $10 * \log (1/0.977) = 0.10$

802.11n (HT40): Duty cycle = 0.643ms/0.660ms = 0.974, Duty factor = $10 * \log (1/0.974) = 0.11$

802.11ac (VHT80): Duty cycle = 0.322ms/0.349ms = 0.923, Duty factor = $10 * \log (1/0.923) = 0.35$



802.11ax (HE20): Duty cycle = 1.012ms/1.035ms = 0.978, Duty factor = $10 \cdot \log(1/0.978) = 0.10$
 802.11ax (HE40): Duty cycle = 0.532ms/0.548ms = 0.971, Duty factor = $10 \cdot \log(1/0.971) = 0.13$
 802.11ax (HE80): Duty cycle = 0.286ms/0.302ms = 0.947, Duty factor = $10 \cdot \log(1/0.947) = 0.24$



3.4 Description of Support Units

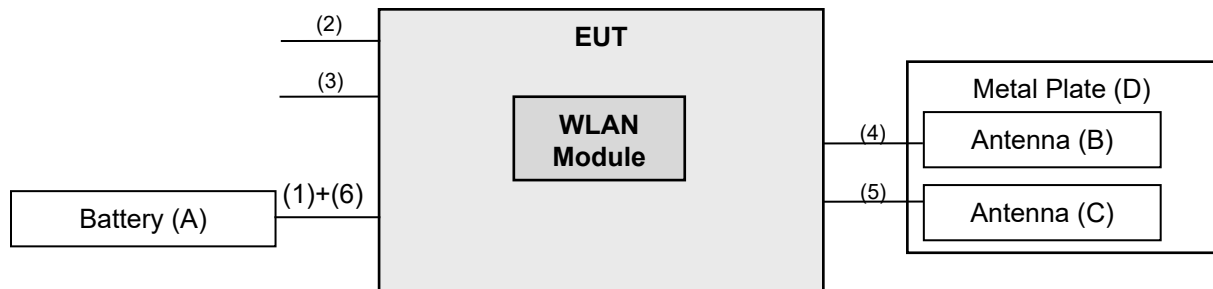
The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Battery	YUASA	75D23R-CMF II	NA	NA	-
B.	Antenna	TE	84623918	NA	NA	Provided by client
C.	Antenna	Continental	85004261	NA	NA	Provided by client
D.	Metal Plate	NA	NA	NA	NA	Provided by client

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.	Power cable	1	2	N	0	Provided by client 2M (With Power Supply 0.85M Cable, 0.3M Cable, 1.8M Cable)
2.	Combo B cable	1	5.2	N	0	Provided by client
3.	Combo A cable	1	5.2	N	0	Provided by client
4.	Rosenberger Harness CFWM WiFi	1	0.15	N	0	Provided by client
5.	Rosenberger Harness CFWM LTE	1	2.35	N	0	Provided by client
6.	Power cable	1	2	N	0	-

3.4.1 Configuration of System under Test



3.5 General Description of Applied Standards and References

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

Test standard:

FCC Part 15, Subpart E (15.407)

ANSI C63.10-2013

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

References Test Guidance:

KDB 789033 D02 General UNII Test Procedure New Rules v02r01

KDB 662911 D01 Multiple Transmitter Output v02r01

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

4 Test Types and Results

4.1 Radiated Emission and Bandedge Measurement

4.1.1 Limits of Radiated Emission and Bandedge Measurement

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

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

Note:

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

Limits of unwanted emission out of the restricted bands

Applicable To		Limit	
789033 D02 General UNII Test Procedure New Rules v02r01		Field Strength at 3m	
		PK: 74 (dBµV/m)	AV: 54 (dBµV/m)
Frequency Band	Applicable To	EIRP Limit	Equivalent Field Strength at 3m
5150~5250 MHz	15.407(b)(1)	PK: -27 (dBm/MHz)	PK: 68.2(dBµV/m)
5250~5350 MHz	15.407(b)(2)		
5470~5725 MHz	15.407(b)(3)		
5725~5850 MHz	15.407(b)(4)(i)	PK: -27 (dBm/MHz) ^{*1} PK: 10 (dBm/MHz) ^{*2} PK: 15.6 (dBm/MHz) ^{*3} PK: 27 (dBm/MHz) ^{*4}	PK: 68.2(dBµV/m) ^{*1} PK: 105.2 (dBµV/m) ^{*2} PK: 110.8(dBµV/m) ^{*3} PK: 122.2 (dBµV/m) ^{*4}
^{*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:

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

4.1.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Test Receiver ROHDE & SCHWARZ	ESCI	100424	Dec. 30, 2021	Dec. 29, 2022
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100040	Sep. 15, 2021	Sep. 14, 2022
BILOG Antenna SCHWARZBECK	VULB9168	9168-155	Nov. 01, 2021	Oct. 31, 2022
HORN Antenna SCHWARZBECK	BBHA 9120D	9120D-1170	Nov. 14, 2021	Nov. 13, 2022
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170241	Oct. 26, 2021	Oct. 35, 2022
Loop Antenna TESEQ	HLA 6121	45745	Jul. 21, 2021	Jul. 20, 2022
Preamplifier Agilent (Below 1GHz)	8447D	2944A10631	Jun. 05, 2021	Jun. 04, 2022
Preamplifier KEYSIGHT (Above 1GHz)	83017A	MY53270295	Jun. 05, 2021	Jun. 04, 2022
RF Coaxial Cable WOKEN With 5dB PAD	8D-FB	Cable-CH4-01	Jul. 24, 2021	Jul. 23, 2022
RF Coaxial Cable EMCI	EMC102-KM-KM-3000	150929	Jul. 24, 2021	Jul. 23, 2022
RF Coaxial Cable EMCI	EMC102-KM-KM-600	150928	Jul. 24, 2021	Jul. 23, 2022
RF signal cable HUBER+SUHNER	SUCOFLEX 104	MY 13380+295012/04	Jun. 05, 2021	Jun. 04, 2022
RF signal cable HUBER+SUHNER	SUCOFLEX 104	Cable-CH4-03 (250724)	Jun. 05, 2021	Jun. 04, 2022
Software BV ADT	ADT_Radiated_V7.6.15.9.5	NA	NA	NA
Antenna Tower inn-co GmbH	MA 4000	010303	NA	NA
Turn Table Controller BV ADT	SC100	SC93021702	NA	NA
Boresight Antenna Fixture	FBA-01	FBA-SIP01	NA	NA
Pre-amplifier (18GHz-40GHz) EMC	EMC184045B	980175	Sep. 04, 2021	Sep. 03, 2022
Peak Power Analyzer KEYSIGHT	8990B	MY51000485	Jan. 18, 2022	Jan. 17, 2023
Wideband Power Sensor KEYSIGHT	N1923A	MY58020002	Jan. 17, 2022	Jan. 16, 2023

- Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.
2. The test was performed in HwaYa Chamber 4.

4.1.3 Test Procedures

For Radiated emission below 30MHz

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

Note:

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

For Radiated emission above 30MHz

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

Note:

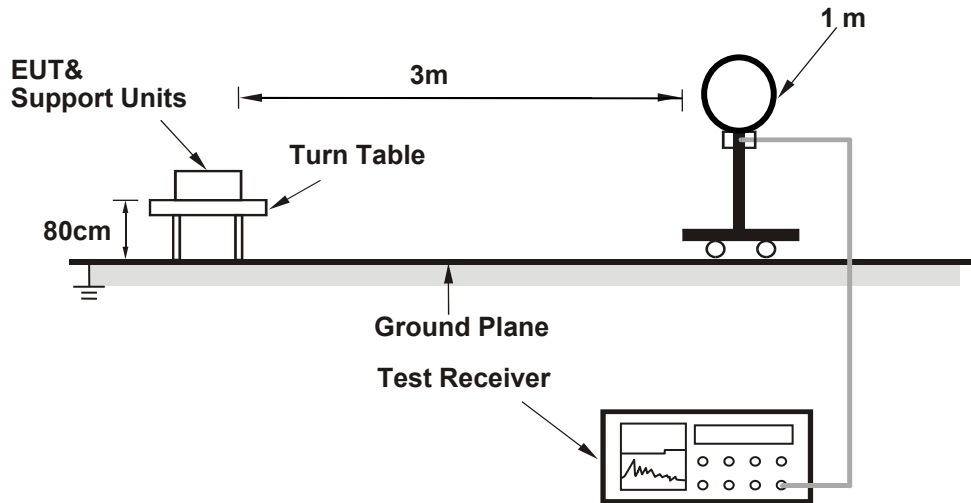
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
3. The resolution bandwidth of test receiver/spectrum analyzer is 1MHz and the video bandwidth is $\geq 1/T$ (Duty cycle < 98%) or 10Hz (Duty cycle $\geq 98\%$) for Average detection (AV) at frequency above 1GHz.
(802.11a: RBW = 1MHz, VBW = 10Hz; 802.11n (HT20): RBW = 1MHz, VBW = 3kHz; 802.11n (HT40)/802.11ac (VHT80): RBW = 1MHz, VBW = 10kHz; 802.11ax (HE20): RBW = 1MHz, VBW = 1kHz; 802.11ax (HE40): RBW = 1MHz, VBW = 3kHz; 802.11ax (HE80): RBW = 1MHz, VBW = 10kHz)
4. All modes of operation were investigated and the worst-case emissions are reported.

4.1.4 Deviation from Test Standard

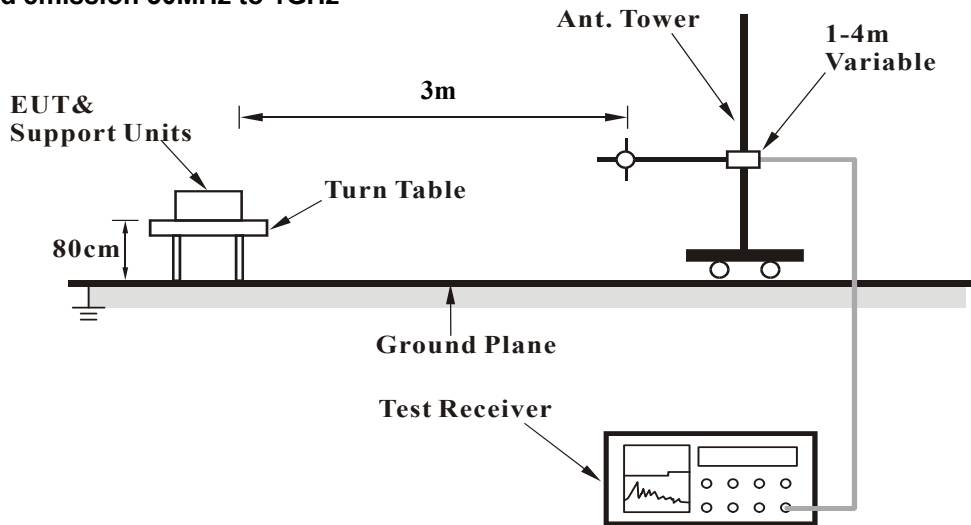
No deviation.

4.1.5 Test Setup

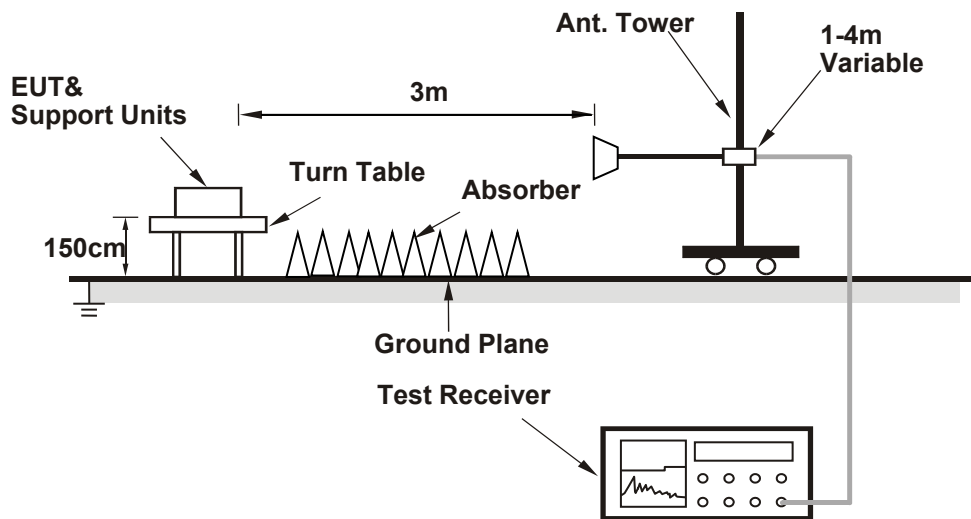
For Radiated emission below 30MHz



For Radiated emission 30MHz to 1GHz



For Radiated emission above 1GHz



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

4.1.6 EUT Operating Conditions

- a. The EUT under transmission condition continuously at specific channel frequency.

4.1.7 Test Results

Above 1GHz data:

RF Mode	TX 802.11a	Channel	CH 36 : 5180 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	59.6 PK	74.0	-14.4	1.46 H	225	46.7	12.9
2	5150.00	46.5 AV	54.0	-7.5	1.46 H	225	33.6	12.9
3	*5180.00	95.5 PK			1.46 H	225	53.1	42.4
4	*5180.00	86.0 AV			1.46 H	225	43.6	42.4
5	#10360.00	61.3 PK	68.2	-6.9	2.22 H	156	38.7	22.6

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	59.8 PK	74.0	-14.2	1.39 V	287	46.9	12.9
2	5150.00	46.6 AV	54.0	-7.4	1.39 V	287	33.7	12.9
3	*5180.00	105.9 PK			1.39 V	287	63.5	42.4
4	*5180.00	95.7 AV			1.39 V	287	53.3	42.4
5	#10360.00	61.6 PK	68.2	-6.6	3.11 V	192	39.0	22.6

Remarks:

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

RF Mode	TX 802.11a	Channel	CH 40 : 5200 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	96.3 PK			1.40 H	225	54.1	42.2
2	*5200.00	86.2 AV			1.40 H	225	44.0	42.2
3	#10400.00	61.0 PK	68.2	-7.2	2.26 H	158	38.2	22.8

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	105.9 PK			1.47 V	285	63.7	42.2
2	*5200.00	96.1 AV			1.47 V	285	53.9	42.2
3	#10400.00	62.0 PK	68.2	-6.2	3.13 V	195	39.2	22.8

Remarks:

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

RF Mode	TX 802.11a	Channel	CH 48 : 5240 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	95.7 PK			1.45 H	225	53.5	42.2
2	*5240.00	86.5 AV			1.45 H	225	44.3	42.2
3	5350.00	60.0 PK	74.0	-14.0	1.45 H	225	47.0	13.0
4	5350.00	48.2 AV	54.0	-5.8	1.45 H	225	35.2	13.0
5	#10480.00	61.1 PK	68.2	-7.1	2.26 H	163	38.3	22.8

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	105.8 PK			1.43 V	282	63.6	42.2
2	*5240.00	96.0 AV			1.43 V	282	53.8	42.2
3	5350.00	61.6 PK	74.0	-12.4	1.43 V	282	48.6	13.0
4	5350.00	48.3 AV	54.0	-5.7	1.43 V	282	35.3	13.0
5	#10480.00	61.9 PK	68.2	-6.3	3.13 V	193	39.1	22.8

Remarks:

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

RF Mode	TX 802.11a	Channel	CH 52 : 5260 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	59.7 PK	74.0	-14.3	1.14 H	223	46.8	12.9
2	5150.00	46.4 AV	54.0	-7.6	1.14 H	223	33.5	12.9
3	*5260.00	99.4 PK			1.14 H	223	57.1	42.3
4	*5260.00	89.1 AV			1.14 H	223	46.8	42.3
5	#10520.00	61.4 PK	68.2	-6.8	2.16 H	159	38.4	23.0

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	60.4 PK	74.0	-13.6	1.19 V	283	47.5	12.9
2	5150.00	47.0 AV	54.0	-7.0	1.19 V	283	34.1	12.9
3	*5260.00	108.8 PK			1.19 V	283	66.5	42.3
4	*5260.00	98.8 AV			1.19 V	283	56.5	42.3
5	#10520.00	62.0 PK	68.2	-6.2	3.12 V	189	39.0	23.0

Remarks:

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

RF Mode	TX 802.11a	Channel	CH 60 : 5300 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	101.2 PK			1.20 H	218	58.9	42.3
2	*5300.00	90.1 AV			1.20 H	218	47.8	42.3
3	10600.00	62.1 PK	74.0	-11.9	2.13 H	161	38.6	23.5
4	10600.00	50.2 AV	54.0	-3.8	2.13 H	161	26.7	23.5

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	110.5 PK			1.11 V	281	68.2	42.3
2	*5300.00	100.6 AV			1.11 V	281	58.3	42.3
3	10600.00	62.7 PK	74.0	-11.3	3.05 V	178	39.2	23.5
4	10600.00	50.5 AV	54.0	-3.5	3.05 V	178	27.0	23.5

Remarks:

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

RF Mode	TX 802.11a	Channel	CH 64 : 5320 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	98.4 PK			1.24 H	238	56.0	42.4
2	*5320.00	89.1 AV			1.24 H	238	46.7	42.4
3	5350.00	61.7 PK	74.0	-12.3	1.24 H	238	48.7	13.0
4	5350.00	49.5 AV	54.0	-4.5	1.24 H	238	36.5	13.0
5	10640.00	62.1 PK	74.0	-11.9	2.13 H	151	38.6	23.5
6	10640.00	50.0 AV	54.0	-4.0	2.13 H	151	26.5	23.5

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	108.6 PK			1.00 V	278	66.2	42.4
2	*5320.00	99.2 AV			1.00 V	278	56.8	42.4
3	5350.00	62.2 PK	74.0	-11.8	1.00 V	278	49.2	13.0
4	5350.00	49.7 AV	54.0	-4.3	1.00 V	278	36.7	13.0
5	10640.00	62.7 PK	74.0	-11.3	2.96 V	186	39.2	23.5
6	10640.00	50.9 AV	54.0	-3.1	2.96 V	186	27.4	23.5

Remarks:

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

RF Mode	TX 802.11a	Channel	CH 100 : 5500 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	59.9 PK	74.0	-14.1	1.21 H	219	46.7	13.2
2	5460.00	47.5 AV	54.0	-6.5	1.21 H	219	34.3	13.2
3	#5470.00	61.7 PK	68.2	-6.5	1.21 H	219	48.3	13.4
4	*5500.00	97.8 PK			1.21 H	219	54.9	42.9
5	*5500.00	87.9 AV			1.21 H	219	45.0	42.9
6	11000.00	62.8 PK	74.0	-11.2	2.11 H	156	38.5	24.3
7	11000.00	51.0 AV	54.0	-3.0	2.11 H	156	26.7	24.3

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	60.8 PK	74.0	-13.2	1.00 V	275	47.6	13.2
2	5460.00	48.0 AV	54.0	-6.0	1.00 V	275	34.8	13.2
3	#5470.00	62.3 PK	68.2	-5.9	1.00 V	275	48.9	13.4
4	*5500.00	107.6 PK			1.00 V	275	64.7	42.9
5	*5500.00	98.0 AV			1.00 V	275	55.1	42.9
6	11000.00	63.4 PK	74.0	-10.6	2.98 V	187	39.1	24.3
7	11000.00	51.6 AV	54.0	-2.4	2.98 V	187	27.3	24.3

Remarks:

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

RF Mode	TX 802.11a	Channel	CH 116 : 5580 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	98.8 PK			1.19 H	236	55.9	42.9
2	*5580.00	89.1 AV			1.19 H	236	46.2	42.9
3	11160.00	62.7 PK	74.0	-11.3	2.07 H	148	38.5	24.2
4	11160.00	50.6 AV	54.0	-3.4	2.07 H	148	26.4	24.2

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	109.0 PK			1.04 V	279	66.1	42.9
2	*5580.00	99.6 AV			1.04 V	279	56.7	42.9
3	11160.00	63.4 PK	74.0	-10.6	3.10 V	191	39.2	24.2
4	11160.00	51.4 AV	54.0	-2.6	3.10 V	191	27.2	24.2

Remarks:

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

RF Mode	TX 802.11a	Channel	CH 140 : 5700 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	96.4 PK			1.28 H	232	53.4	43.0
2	*5700.00	86.3 AV			1.28 H	232	43.3	43.0
3	#5725.00	62.7 PK	68.2	-5.5	1.28 H	232	49.2	13.5
4	11400.00	63.6 PK	74.0	-10.4	2.10 H	152	38.5	25.1
5	11400.00	51.5 AV	54.0	-2.5	2.10 H	152	26.4	25.1

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	106.3 PK			1.00 V	279	63.3	43.0
2	*5700.00	96.4 AV			1.00 V	279	53.4	43.0
3	#5725.00	65.5 PK	68.2	-2.7	1.00 V	279	52.0	13.5
4	11400.00	64.3 PK	74.0	-9.7	2.99 V	185	39.2	25.1
5	11400.00	52.2 AV	54.0	-1.8	2.99 V	185	27.1	25.1

Remarks:

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

RF Mode	TX 802.11a	Channel	CH 144 : 5720 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	61.0 PK	68.2	-7.2	1.04 H	162	47.6	13.4
2	*5720.00	94.2 PK			1.04 H	162	51.0	43.2
3	*5720.00	84.4 AV			1.04 H	162	41.2	43.2
4	#5850.00	62.2 PK	68.2	-6.0	1.04 H	162	48.1	14.1
5	11440.00	63.1 PK	74.0	-10.9	2.28 H	169	38.0	25.1
6	11440.00	51.2 AV	54.0	-2.8	2.28 H	169	26.1	25.1

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	61.7 PK	68.2	-6.5	1.05 V	282	48.3	13.4
2	*5720.00	106.8 PK			1.05 V	282	63.6	43.2
3	*5720.00	97.3 AV			1.05 V	282	54.1	43.2
4	#5850.00	63.7 PK	68.2	-4.5	1.05 V	282	49.6	14.1
5	11440.00	64.0 PK	74.0	-10.0	3.02 V	188	38.9	25.1
6	11440.00	51.6 AV	54.0	-2.4	3.02 V	188	26.5	25.1

Remarks:

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

RF Mode	TX 802.11a	Channel	CH 149 : 5745 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	#5606.00	60.0 PK	68.2	-8.2	1.05 H	222	46.7	13.3
2	*5745.00	93.5 PK			1.05 H	222	50.0	43.5
3	*5745.00	84.3 AV			1.05 H	222	40.8	43.5
4	#5950.00	60.9 PK	68.2	-7.3	1.05 H	222	46.7	14.2
5	11490.00	63.5 PK	74.0	-10.5	2.01 H	168	38.3	25.2
6	11490.00	51.4 AV	54.0	-2.6	2.01 H	168	26.2	25.2

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	#5646.00	60.0 PK	68.2	-8.2	1.01 V	279	46.7	13.3
2	*5745.00	106.4 PK			1.01 V	279	62.9	43.5
3	*5745.00	97.3 AV			1.01 V	279	53.8	43.5
4	#5952.80	60.6 PK	68.2	-7.6	1.01 V	279	46.4	14.2
5	11490.00	64.4 PK	74.0	-9.6	2.77 V	196	39.2	25.2
6	11490.00	51.8 AV	54.0	-2.2	2.77 V	196	26.6	25.2

Remarks:

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

RF Mode	TX 802.11a	Channel	CH 157 : 5785 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	#5640.80	59.8 PK	68.2	-8.4	1.00 H	220	46.4	13.4
2	*5785.00	93.3 PK			1.00 H	220	49.6	43.7
3	*5785.00	83.9 AV			1.00 H	220	40.2	43.7
4	#5928.80	60.4 PK	68.2	-7.8	1.00 H	220	46.3	14.1
5	11570.00	63.2 PK	74.0	-10.8	2.01 H	169	38.3	24.9
6	11570.00	51.0 AV	54.0	-3.0	2.01 H	169	26.1	24.9

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	#5627.60	59.8 PK	68.2	-8.4	1.01 V	287	46.4	13.4
2	*5785.00	105.8 PK			1.01 V	287	62.1	43.7
3	*5785.00	96.3 AV			1.01 V	287	52.6	43.7
4	#5974.00	60.6 PK	68.2	-7.6	1.01 V	287	46.4	14.2
5	11570.00	63.9 PK	74.0	-10.1	2.75 V	195	39.0	24.9
6	11570.00	51.4 AV	54.0	-2.6	2.75 V	195	26.5	24.9

Remarks:

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

RF Mode	TX 802.11a	Channel	CH 165 : 5825 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	#5643.20	60.0 PK	68.2	-8.2	1.22 H	222	46.6	13.4
2	*5825.00	92.9 PK			1.22 H	222	49.1	43.8
3	*5825.00	83.3 AV			1.22 H	222	39.5	43.8
4	#5972.80	60.8 PK	68.2	-7.4	1.22 H	222	46.6	14.2
5	11650.00	62.9 PK	74.0	-11.1	1.99 H	169	38.3	24.6
6	11650.00	50.7 AV	54.0	-3.3	1.99 H	169	26.1	24.6

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	#5617.60	59.8 PK	68.2	-8.4	1.00 V	276	46.4	13.4
2	*5825.00	106.8 PK			1.00 V	276	63.0	43.8
3	*5825.00	96.7 AV			1.00 V	276	52.9	43.8
4	#5938.80	60.4 PK	68.2	-7.8	1.00 V	276	46.3	14.1
5	11650.00	63.7 PK	74.0	-10.3	2.75 V	198	39.1	24.6
6	11650.00	51.3 AV	54.0	-2.7	2.75 V	198	26.7	24.6

Remarks:

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

RF Mode	TX 802.11n (HT20)	Channel	CH 36 : 5180 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	59.4 PK	74.0	-14.6	1.54 H	226	46.5	12.9
2	5150.00	46.3 AV	54.0	-7.7	1.54 H	226	33.4	12.9
3	*5180.00	94.9 PK			1.54 H	226	52.5	42.4
4	*5180.00	85.4 AV			1.54 H	226	43.0	42.4
5	#10360.00	60.8 PK	68.2	-7.4	2.26 H	161	38.2	22.6

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	59.7 PK	74.0	-14.3	1.38 V	285	46.8	12.9
2	5150.00	46.5 AV	54.0	-7.5	1.38 V	285	33.6	12.9
3	*5180.00	105.0 PK			1.38 V	285	62.6	42.4
4	*5180.00	94.9 AV			1.38 V	285	52.5	42.4
5	#10360.00	61.5 PK	68.2	-6.7	3.15 V	199	38.9	22.6

Remarks:

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

RF Mode	TX 802.11n (HT20)	Channel	CH 40 : 5200 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	94.7 PK			1.55 H	225	52.5	42.2
2	*5200.00	85.2 AV			1.55 H	225	43.0	42.2
3	#10400.00	60.9 PK	68.2	-7.3	2.26 H	159	38.1	22.8

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	105.0 PK			1.36 V	286	62.8	42.2
2	*5200.00	95.5 AV			1.36 V	286	53.3	42.2
3	#10400.00	61.8 PK	68.2	-6.4	3.05 V	195	39.0	22.8

Remarks:

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

RF Mode	TX 802.11n (HT20)	Channel	CH 48 : 5240 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	94.6 PK			1.43 H	224	52.4	42.2
2	*5240.00	85.2 AV			1.43 H	224	43.0	42.2
3	5350.00	61.2 PK	74.0	-12.8	1.43 H	224	48.2	13.0
4	5350.00	48.2 AV	54.0	-5.8	1.43 H	224	35.2	13.0
5	#10480.00	61.0 PK	68.2	-7.2	2.26 H	164	38.2	22.8

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	105.7 PK			1.36 V	284	63.5	42.2
2	*5240.00	96.1 AV			1.36 V	284	53.9	42.2
3	5350.00	60.8 PK	74.0	-13.2	1.36 V	284	47.8	13.0
4	5350.00	48.3 AV	54.0	-5.7	1.36 V	284	35.3	13.0
5	#10480.00	61.7 PK	68.2	-6.5	3.05 V	198	38.9	22.8

Remarks:

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

RF Mode	TX 802.11n (HT20)	Channel	CH 52 : 5260 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	59.7 PK	74.0	-14.3	1.16 H	225	46.8	12.9
2	5150.00	46.5 AV	54.0	-7.5	1.16 H	225	33.6	12.9
3	*5260.00	96.2 PK			1.16 H	225	53.9	42.3
4	*5260.00	86.4 AV			1.16 H	225	44.1	42.3
5	#10520.00	61.5 PK	68.2	-6.7	2.16 H	166	38.5	23.0

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	60.2 PK	74.0	-13.8	1.31 V	284	47.3	12.9
2	5150.00	47.1 AV	54.0	-6.9	1.31 V	284	34.2	12.9
3	*5260.00	107.0 PK			1.31 V	284	64.7	42.3
4	*5260.00	96.9 AV			1.31 V	284	54.6	42.3
5	#10520.00	62.2 PK	68.2	-6.0	3.09 V	185	39.2	23.0

Remarks:

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

RF Mode	TX 802.11n (HT20)	Channel	CH 60 : 5300 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	96.6 PK			1.19 H	218	54.3	42.3
2	*5300.00	87.3 AV			1.19 H	218	45.0	42.3
3	10600.00	62.1 PK	74.0	-11.9	2.10 H	153	38.6	23.5
4	10600.00	50.2 AV	54.0	-3.8	2.10 H	153	26.7	23.5

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	108.0 PK			1.34 V	281	65.7	42.3
2	*5300.00	98.1 AV			1.34 V	281	55.8	42.3
3	10600.00	62.5 PK	74.0	-11.5	3.10 V	184	39.0	23.5
4	10600.00	50.6 AV	54.0	-3.4	3.10 V	184	27.1	23.5

Remarks:

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

RF Mode	TX 802.11n (HT20)	Channel	CH 64 : 5320 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	96.6 PK			1.18 H	224	54.2	42.4
2	*5320.00	87.7 AV			1.18 H	224	45.3	42.4
3	5350.00	61.9 PK	74.0	-12.1	1.18 H	224	48.9	13.0
4	5350.00	49.2 AV	54.0	-4.8	1.18 H	224	36.2	13.0
5	10640.00	62.0 PK	74.0	-12.0	2.06 H	148	38.5	23.5
6	10640.00	50.2 AV	54.0	-3.8	2.06 H	148	26.7	23.5

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	108.0 PK			1.33 V	280	65.6	42.4
2	*5320.00	97.9 AV			1.33 V	280	55.5	42.4
3	5350.00	62.1 PK	74.0	-11.9	1.33 V	280	49.1	13.0
4	5350.00	49.7 AV	54.0	-4.3	1.33 V	280	36.7	13.0
5	10640.00	62.7 PK	74.0	-11.3	2.97 V	188	39.2	23.5
6	10640.00	50.8 AV	54.0	-3.2	2.97 V	188	27.3	23.5

Remarks:

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

RF Mode	TX 802.11n (HT20)	Channel	CH 100 : 5500 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	59.9 PK	74.0	-14.1	1.28 H	234	46.7	13.2
2	5460.00	47.5 AV	54.0	-6.5	1.28 H	234	34.3	13.2
3	#5470.00	61.8 PK	68.2	-6.4	1.28 H	234	48.4	13.4
4	*5500.00	97.1 PK			1.28 H	234	54.2	42.9
5	*5500.00	87.5 AV			1.28 H	234	44.6	42.9
6	11000.00	62.7 PK	74.0	-11.3	1.97 H	152	38.4	24.3
7	11000.00	50.6 AV	54.0	-3.4	1.97 H	152	26.3	24.3

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	60.7 PK	74.0	-13.3	1.12 V	273	47.5	13.2
2	5460.00	48.0 AV	54.0	-6.0	1.12 V	273	34.8	13.2
3	#5470.00	62.4 PK	68.2	-5.8	1.12 V	273	49.0	13.4
4	*5500.00	106.7 PK			1.12 V	273	63.8	42.9
5	*5500.00	97.6 AV			1.12 V	273	54.7	42.9
6	11000.00	63.2 PK	74.0	-10.8	3.11 V	194	38.9	24.3
7	11000.00	51.1 AV	54.0	-2.9	3.11 V	194	26.8	24.3

Remarks:

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

RF Mode	TX 802.11n (HT20)	Channel	CH 116 : 5580 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	98.5 PK			1.27 H	226	55.6	42.9
2	*5580.00	88.3 AV			1.27 H	226	45.4	42.9
3	11160.00	62.7 PK	74.0	-11.3	1.85 H	146	38.5	24.2
4	11160.00	50.3 AV	54.0	-3.7	1.85 H	146	26.1	24.2

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	108.1 PK			1.15 V	271	65.2	42.9
2	*5580.00	98.8 AV			1.15 V	271	55.9	42.9
3	11160.00	63.0 PK	74.0	-11.0	3.05 V	196	38.8	24.2
4	11160.00	50.9 AV	54.0	-3.1	3.05 V	196	26.7	24.2

Remarks:

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

RF Mode	TX 802.11n (HT20)	Channel	CH 140 : 5700 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	95.9 PK			1.24 H	227	52.9	43.0
2	*5700.00	85.7 AV			1.24 H	227	42.7	43.0
3	#5725.00	62.3 PK	68.2	-5.9	1.24 H	227	48.8	13.5
4	11140.00	62.7 PK	74.0	-11.3	1.79 H	158	38.5	24.2
5	11140.00	50.4 AV	54.0	-3.6	1.79 H	158	26.2	24.2

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	105.8 PK			1.32 V	280	62.8	43.0
2	*5700.00	95.6 AV			1.32 V	280	52.6	43.0
3	#5725.00	64.5 PK	68.2	-3.7	1.32 V	280	51.0	13.5
4	11400.00	64.0 PK	74.0	-10.0	3.09 V	187	38.9	25.1
5	11400.00	52.0 AV	54.0	-2.0	3.09 V	187	26.9	25.1

Remarks:

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

RF Mode	TX 802.11n (HT20)	Channel	CH 144 : 5720 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	61.0 PK	68.2	-7.2	1.05 H	163	47.6	13.4
2	*5720.00	96.4 PK			1.05 H	163	53.2	43.2
3	*5720.00	84.1 AV			1.05 H	163	40.9	43.2
4	#5850.00	62.0 PK	68.2	-6.2	1.05 H	163	47.9	14.1
5	11440.00	63.1 PK	74.0	-10.9	2.28 H	162	38.0	25.1
6	11440.00	51.1 AV	54.0	-2.9	2.28 H	162	26.0	25.1

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	61.5 PK	68.2	-6.7	1.05 V	294	48.1	13.4
2	*5720.00	106.9 PK			1.05 V	294	63.7	43.2
3	*5720.00	97.3 AV			1.05 V	294	54.1	43.2
4	#5850.00	63.3 PK	68.2	-4.9	1.05 V	294	49.2	14.1
5	11440.00	63.6 PK	74.0	-10.4	3.05 V	185	38.5	25.1
6	11440.00	51.7 AV	54.0	-2.3	3.05 V	185	26.6	25.1

Remarks:

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

RF Mode	TX 802.11n (HT20)	Channel	CH 149 : 5745 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	#5619.20	59.6 PK	68.2	-8.6	1.26 H	221	46.2	13.4
2	*5745.00	93.2 PK			1.26 H	221	49.7	43.5
3	*5745.00	83.8 AV			1.26 H	221	40.3	43.5
4	#5956.80	60.5 PK	68.2	-7.7	1.26 H	221	46.3	14.2
5	11490.00	63.5 PK	74.0	-10.5	2.02 H	164	38.3	25.2
6	11490.00	51.4 AV	54.0	-2.6	2.02 H	164	26.2	25.2

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	#5628.80	60.4 PK	68.2	-7.8	1.02 V	294	47.0	13.4
2	*5745.00	105.6 PK			1.02 V	294	62.1	43.5
3	*5745.00	96.3 AV			1.02 V	294	52.8	43.5
4	#5938.80	60.7 PK	68.2	-7.5	1.02 V	294	46.6	14.1
5	11490.00	64.3 PK	74.0	-9.7	2.76 V	194	39.1	25.2
6	11490.00	51.7 AV	54.0	-2.3	2.76 V	194	26.5	25.2

Remarks:

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

RF Mode	TX 802.11n (HT20)	Channel	CH 157 : 5785 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	#5631.60	58.3 PK	68.2	-9.9	1.00 H	220	44.9	13.4
2	*5785.00	93.4 PK			1.00 H	220	49.7	43.7
3	*5785.00	83.8 AV			1.00 H	220	40.1	43.7
4	#5958.40	60.4 PK	68.2	-7.8	1.00 H	220	46.2	14.2
5	11570.00	63.2 PK	74.0	-10.8	2.06 H	171	38.3	24.9
6	11570.00	51.0 AV	54.0	-3.0	2.06 H	171	26.1	24.9

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	#5643.60	59.6 PK	68.2	-8.6	1.00 V	286	46.2	13.4
2	*5785.00	105.4 PK			1.00 V	286	61.7	43.7
3	*5785.00	95.5 AV			1.00 V	286	51.8	43.7
4	#5947.60	60.8 PK	68.2	-7.4	1.00 V	286	46.6	14.2
5	11570.00	63.9 PK	74.0	-10.1	2.79 V	201	39.0	24.9
6	11570.00	51.4 AV	54.0	-2.6	2.79 V	201	26.5	24.9

Remarks:

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

RF Mode	TX 802.11n (HT20)	Channel	CH 165 : 5825 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	#5634.40	59.0 PK	68.2	-9.2	1.00 H	221	45.6	13.4
2	*5825.00	93.5 PK			1.00 H	221	49.7	43.8
3	*5825.00	83.6 AV			1.00 H	221	39.8	43.8
4	#5999.20	59.5 PK	68.2	-8.7	1.00 H	221	45.3	14.2
5	11650.00	63.1 PK	74.0	-10.9	2.08 H	169	38.5	24.6
6	11650.00	50.9 AV	54.0	-3.1	2.08 H	169	26.3	24.6

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	#5612.00	59.5 PK	68.2	-8.7	1.24 V	292	46.1	13.4
2	*5825.00	105.4 PK			1.00 V	284	61.6	43.8
3	*5825.00	95.3 AV			1.00 V	284	51.5	43.8
4	#5968.40	60.5 PK	68.2	-7.7	1.24 V	292	46.3	14.2
5	11650.00	63.7 PK	74.0	-10.3	2.81 V	199	39.1	24.6
6	11650.00	51.3 AV	54.0	-2.7	2.81 V	199	26.7	24.6

Remarks:

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

RF Mode	TX 802.11n (HT40)	Channel	CH 38 : 5190 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	59.4 PK	74.0	-14.6	1.45 H	225	46.5	12.9
2	5150.00	46.3 AV	54.0	-7.7	1.45 H	225	33.4	12.9
3	*5190.00	91.4 PK			1.45 H	225	49.1	42.3
4	*5190.00	81.6 AV			1.45 H	225	39.3	42.3
5	#10380.00	60.8 PK	68.2	-7.4	2.25 H	158	38.1	22.7

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	60.0 PK	74.0	-14.0	1.33 V	286	47.1	12.9
2	5150.00	46.8 AV	54.0	-7.2	1.33 V	286	33.9	12.9
3	*5190.00	101.9 PK			1.33 V	286	59.6	42.3
4	*5190.00	92.1 AV			1.33 V	286	49.8	42.3
5	#10380.00	61.2 PK	68.2	-7.0	3.02 V	195	38.5	22.7

Remarks:

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

RF Mode	TX 802.11n (HT40)	Channel	CH 46 : 5230 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	91.5 PK			1.43 H	225	49.3	42.2
2	*5230.00	81.9 AV			1.43 H	225	39.7	42.2
3	5350.00	60.5 PK	74.0	-13.5	1.43 H	225	47.5	13.0
4	5350.00	47.9 AV	54.0	-6.1	1.43 H	225	34.9	13.0
5	#10460.00	61.1 PK	68.2	-7.1	2.25 H	159	38.2	22.9

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	102.5 PK			1.34 V	283	60.3	42.2
2	*5230.00	92.6 AV			1.34 V	283	50.4	42.2
3	5350.00	61.0 PK	74.0	-13.0	1.34 V	283	48.0	13.0
4	5350.00	48.2 AV	54.0	-5.8	1.34 V	283	35.2	13.0
5	#10460.00	61.5 PK	68.2	-6.7	3.02 V	198	38.6	22.9

Remarks:

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

RF Mode	TX 802.11n (HT40)	Channel	CH 54 : 5270 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	59.7 PK	74.0	-14.3	1.18 H	229	46.8	12.9
2	5150.00	46.7 AV	54.0	-7.3	1.18 H	229	33.8	12.9
3	*5270.00	94.5 PK			1.18 H	229	52.2	42.3
4	*5270.00	84.3 AV			1.18 H	229	42.0	42.3
5	#10540.00	61.8 PK	68.2	-6.4	2.01 H	143	38.7	23.1

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	60.9 PK	74.0	-13.1	1.33 V	282	48.0	12.9
2	5150.00	47.4 AV	54.0	-6.6	1.33 V	282	34.5	12.9
3	*5270.00	104.7 PK			1.33 V	282	62.4	42.3
4	*5270.00	94.8 AV			1.33 V	282	52.5	42.3
5	#10540.00	62.1 PK	68.2	-6.1	3.10 V	179	39.0	23.1

Remarks:

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

RF Mode	TX 802.11n (HT40)	Channel	CH 62 : 5310 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	94.5 PK			1.21 H	237	52.1	42.4
2	*5310.00	84.5 AV			1.21 H	237	42.1	42.4
3	5350.00	61.8 PK	74.0	-12.2	1.21 H	237	48.8	13.0
4	5350.00	49.4 AV	54.0	-4.6	1.21 H	237	36.4	13.0
5	10620.00	61.9 PK	74.0	-12.1	2.23 H	152	38.5	23.4
6	10620.00	50.0 AV	54.0	-4.0	2.23 H	152	26.6	23.4

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	104.1 PK			1.33 V	282	61.7	42.4
2	*5310.00	94.3 AV			1.33 V	282	51.9	42.4
3	5350.00	64.4 PK	74.0	-9.6	1.33 V	282	51.4	13.0
4	5350.00	49.9 AV	54.0	-4.1	1.33 V	282	36.9	13.0
5	10620.00	62.4 PK	74.0	-11.6	2.99 V	186	39.0	23.4
6	10620.00	50.7 AV	54.0	-3.3	2.99 V	186	27.3	23.4

Remarks:

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

RF Mode	TX 802.11n (HT40)	Channel	CH 102 : 5510 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	59.9 PK	74.0	-14.1	1.22 H	217	46.7	13.2
2	5460.00	47.5 AV	54.0	-6.5	1.22 H	217	34.3	13.2
3	#5470.00	61.9 PK	68.2	-6.3	1.22 H	217	48.5	13.4
4	*5510.00	95.1 PK			1.22 H	217	52.2	42.9
5	*5510.00	84.8 AV			1.22 H	217	41.9	42.9
6	11020.00	62.7 PK	74.0	-11.3	1.97 H	155	38.5	24.2
7	11020.00	50.4 AV	54.0	-3.6	1.97 H	155	26.2	24.2

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	61.5 PK	74.0	-12.5	1.26 V	276	48.3	13.2
2	5460.00	48.6 AV	54.0	-5.4	1.26 V	276	35.4	13.2
3	#5470.00	64.0 PK	68.2	-4.2	1.26 V	276	50.6	13.4
4	*5510.00	104.7 PK			1.26 V	276	61.8	42.9
5	*5510.00	94.7 AV			1.26 V	276	51.8	42.9
6	11020.00	62.7 PK	74.0	-11.3	1.92 V	147	38.5	24.2
7	11020.00	50.6 AV	54.0	-3.4	1.92 V	147	26.4	24.2

Remarks:

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

RF Mode	TX 802.11n (HT40)	Channel	CH 110 : 5550 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	96.3 PK			1.20 H	247	53.4	42.9
2	*5550.00	86.0 AV			1.20 H	247	43.1	42.9
3	11100.00	62.6 PK	74.0	-11.4	1.83 H	151	38.4	24.2
4	11100.00	50.2 AV	54.0	-3.8	1.83 H	151	26.0	24.2

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	106.1 PK			1.28 V	279	63.2	42.9
2	*5550.00	96.0 AV			1.28 V	279	53.1	42.9
3	11100.00	62.9 PK	74.0	-11.1	1.87 V	141	38.7	24.2
4	11100.00	50.8 AV	54.0	-3.2	1.87 V	141	26.6	24.2

Remarks:

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

RF Mode	TX 802.11n (HT40)	Channel	CH 134 : 5670 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	93.8 PK			1.17 H	249	50.8	43.0
2	*5670.00	84.2 AV			1.17 H	249	41.2	43.0
3	#5725.00	62.3 PK	68.2	-5.9	1.17 H	249	48.8	13.5
4	11340.00	63.3 PK	74.0	-10.7	1.92 H	140	38.4	24.9
5	11340.00	51.0 AV	54.0	-3.0	1.92 H	140	26.1	24.9

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	104.2 PK			1.10 V	292	61.2	43.0
2	*5670.00	94.4 AV			1.10 V	292	51.4	43.0
3	#5725.00	63.8 PK	68.2	-4.4	1.10 V	292	50.3	13.5
4	11340.00	63.4 PK	74.0	-10.6	1.90 V	148	38.5	24.9
5	11340.00	51.6 AV	54.0	-2.4	1.90 V	148	26.7	24.9

Remarks:

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

RF Mode	TX 802.11n (HT40)	Channel	CH 142 : 5710 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	60.9 PK	68.2	-7.3	1.07 H	163	47.5	13.4
2	*5710.00	93.4 PK			1.07 H	163	50.3	43.1
3	*5710.00	80.7 AV			1.07 H	163	37.6	43.1
4	#5850.00	61.9 PK	68.2	-6.3	1.07 H	163	47.8	14.1
5	11420.00	63.2 PK	74.0	-10.8	2.26 H	163	38.0	25.2
6	11420.00	51.0 AV	54.0	-3.0	2.26 H	163	25.8	25.2

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	61.4 PK	68.2	-6.8	1.06 V	280	48.0	13.4
2	*5710.00	103.4 PK			1.06 V	280	60.3	43.1
3	*5710.00	93.8 AV			1.06 V	280	50.7	43.1
4	#5850.00	63.1 PK	68.2	-5.1	1.06 V	280	49.0	14.1
5	11420.00	63.7 PK	74.0	-10.3	3.09 V	182	38.5	25.2
6	11420.00	51.5 AV	54.0	-2.5	3.09 V	182	26.3	25.2

Remarks:

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

RF Mode	TX 802.11n (HT40)	Channel	CH 151 : 5755 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	#5637.20	59.3 PK	68.2	-8.9	1.04 H	221	45.9	13.4
2	*5755.00	89.9 PK			1.04 H	221	46.4	43.5
3	*5755.00	80.0 AV			1.04 H	221	36.5	43.5
4	#5976.00	59.7 PK	68.2	-8.5	1.04 H	221	45.5	14.2
5	11510.00	63.3 PK	74.0	-10.7	2.02 H	163	38.2	25.1
6	11510.00	51.2 AV	54.0	-2.8	2.02 H	163	26.1	25.1

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	#5612.00	59.5 PK	68.2	-8.7	1.24 V	292	46.1	13.4
2	*5755.00	102.7 PK			1.24 V	290	59.2	43.5
3	*5755.00	93.0 AV			1.24 V	290	49.5	43.5
4	#5968.40	60.5 PK	68.2	-7.7	1.24 V	292	46.3	14.2
5	11510.00	64.1 PK	74.0	-9.9	2.75 V	193	39.0	25.1
6	11510.00	51.5 AV	54.0	-2.5	2.75 V	193	26.4	25.1

Remarks:

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

RF Mode	TX 802.11n (HT40)	Channel	CH 159 : 5795 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	#5642.00	59.9 PK	68.2	-8.3	1.00 H	220	46.5	13.4
2	*5795.00	89.9 PK			1.00 H	220	46.1	43.8
3	*5795.00	79.7 AV			1.00 H	220	35.9	43.8
4	#5960.40	61.5 PK	68.2	-6.7	1.00 H	220	47.3	14.2
5	11590.00	62.8 PK	74.0	-11.2	2.08 H	169	38.1	24.7
6	11590.00	50.8 AV	54.0	-3.2	2.08 H	169	26.1	24.7

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	#5624.40	60.1 PK	68.2	-8.1	1.24 V	288	46.7	13.4
2	*5795.00	101.6 PK			1.24 V	288	57.8	43.8
3	*5795.00	91.9 AV			1.24 V	288	48.1	43.8
4	#5948.00	61.1 PK	68.2	-7.1	1.24 V	288	46.9	14.2
5	11590.00	63.7 PK	74.0	-10.3	2.78 V	198	39.0	24.7
6	11590.00	51.2 AV	54.0	-2.8	2.78 V	198	26.5	24.7

Remarks:

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

RF Mode	TX 802.11ac (VHT80)	Channel	CH 42 : 5210 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	59.5 PK	74.0	-14.5	1.44 H	224	46.6	12.9
2	5150.00	46.2 AV	54.0	-7.8	1.44 H	224	33.3	12.9
3	*5210.00	86.7 PK			1.44 H	224	44.5	42.2
4	*5210.00	76.2 AV			1.44 H	224	34.0	42.2
5	5350.00	60.0 PK	74.0	-14.0	1.44 H	224	47.0	13.0
6	5350.00	48.1 AV	54.0	-5.9	1.44 H	224	35.1	13.0
7	#10420.00	61.0 PK	68.2	-7.2	2.23 H	158	38.1	22.9

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	59.7 PK	74.0	-14.3	1.32 V	285	46.8	12.9
2	5150.00	46.9 AV	54.0	-7.1	1.32 V	285	34.0	12.9
3	*5210.00	96.4 PK			1.32 V	285	54.2	42.2
4	*5210.00	86.4 AV			1.32 V	285	44.2	42.2
5	5350.00	60.8 PK	74.0	-13.2	1.32 V	285	47.8	13.0
6	5350.00	48.3 AV	54.0	-5.7	1.32 V	285	35.3	13.0
7	#10420.00	61.3 PK	68.2	-6.9	3.05 V	194	38.4	22.9

Remarks:

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

RF Mode	TX 802.11ac (VHT80)	Channel	CH 58 : 5290 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	59.7 PK	74.0	-14.3	1.17 H	235	46.8	12.9
2	5150.00	46.6 AV	54.0	-7.4	1.17 H	235	33.7	12.9
3	*5290.00	91.1 PK			1.17 H	235	48.8	42.3
4	*5290.00	80.7 AV			1.17 H	235	38.4	42.3
5	5350.00	62.2 PK	74.0	-11.8	1.17 H	235	49.2	13.0
6	5350.00	49.2 AV	54.0	-4.8	1.17 H	235	36.2	13.0
7	#10580.00	62.1 PK	68.2	-6.1	2.03 H	147	38.7	23.4

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	60.4 PK	74.0	-13.6	1.33 V	281	47.5	12.9
2	5150.00	47.1 AV	54.0	-6.9	1.33 V	281	34.2	12.9
3	*5290.00	100.5 PK			1.33 V	281	58.2	42.3
4	*5290.00	90.3 AV			1.33 V	281	48.0	42.3
5	5350.00	64.5 PK	74.0	-9.5	1.33 V	281	51.5	13.0
6	5350.00	51.5 AV	54.0	-2.5	1.33 V	281	38.5	13.0
7	#10580.00	62.6 PK	68.2	-5.6	2.99 V	187	39.2	23.4

Remarks:

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

RF Mode	TX 802.11ac (VHT80)	Channel	CH 106 : 5530 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	59.9 PK	74.0	-14.1	1.27 H	259	46.7	13.2
2	5460.00	47.5 AV	54.0	-6.5	1.27 H	259	34.3	13.2
3	#5470.00	61.8 PK	68.2	-6.4	1.27 H	259	48.4	13.4
4	*5530.00	88.7 PK			1.27 H	259	45.8	42.9
5	*5530.00	78.1 AV			1.27 H	259	35.2	42.9
6	11060.00	62.7 PK	74.0	-11.3	1.96 H	144	38.5	24.2
7	11060.00	50.2 AV	54.0	-3.8	1.96 H	144	26.0	24.2

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	60.7 PK	74.0	-13.3	1.11 V	271	47.5	13.2
2	5460.00	48.0 AV	54.0	-6.0	1.11 V	271	34.8	13.2
3	#5470.00	62.6 PK	68.2	-5.6	1.11 V	271	49.2	13.4
4	*5530.00	98.3 PK			1.11 V	271	55.4	42.9
5	*5530.00	87.9 AV			1.11 V	271	45.0	42.9
6	11060.00	63.0 PK	74.0	-11.0	1.91 V	166	38.8	24.2
7	11060.00	50.9 AV	54.0	-3.1	1.91 V	166	26.7	24.2

Remarks:

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

RF Mode	TX 802.11ac (VHT80)	Channel	CH 122 : 5610 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	*5610.00	89.2 PK			1.24 H	247	46.2	43.0
2	*5610.00	78.3 AV			1.24 H	247	35.3	43.0
3	#5725.00	62.0 PK	68.2	-6.2	1.24 H	247	48.5	13.5
4	11220.00	62.7 PK	74.0	-11.3	1.96 H	135	38.4	24.3
5	11220.00	50.5 AV	54.0	-3.5	1.96 H	135	26.2	24.3

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	*5610.00	98.3 PK			1.11 V	277	55.3	43.0
2	*5610.00	87.9 AV			1.11 V	277	44.9	43.0
3	#5725.00	62.4 PK	68.2	-5.8	1.11 V	277	48.9	13.5
4	11220.00	63.1 PK	74.0	-10.9	1.86 V	158	38.8	24.3
5	11220.00	51.0 AV	54.0	-3.0	1.86 V	158	26.7	24.3

Remarks:

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

RF Mode	TX 802.11ac (VHT80)	Channel	CH 138 : 5690 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	60.7 PK	68.2	-7.5	1.00 H	162	47.3	13.4
2	*5690.00	89.2 PK			1.00 H	162	46.2	43.0
3	*5690.00	76.4 AV			1.00 H	162	33.4	43.0
4	#5850.00	61.7 PK	68.2	-6.5	1.00 H	162	47.6	14.1
5	11380.00	63.2 PK	74.0	-10.8	2.27 H	162	38.2	25.0
6	11380.00	51.0 AV	54.0	-3.0	2.27 H	162	26.0	25.0

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	61.5 PK	68.2	-6.7	1.16 V	269	48.1	13.4
2	*5690.00	98.4 PK			1.16 V	269	55.4	43.0
3	*5690.00	88.7 AV			1.16 V	269	45.7	43.0
4	#5850.00	63.1 PK	68.2	-5.1	1.16 V	269	49.0	14.1
5	11380.00	63.5 PK	74.0	-10.5	2.99 V	187	38.5	25.0
6	11380.00	51.0 AV	54.0	-3.0	2.99 V	187	26.0	25.0

Remarks:

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

RF Mode	TX 802.11ac (VHT80)	Channel	CH 155 : 5775 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	*5775.00	84.6 PK			1.04 H	220	41.0	43.6
2	*5775.00	74.5 AV			1.04 H	220	30.9	43.6
3	*5775.00	84.6 PK			1.04 H	220	41.0	43.6
4	*5775.00	74.5 AV			1.04 H	220	30.9	43.6
5	11550.00	63.0 PK	74.0	-11.0	2.05 H	172	38.0	25.0
6	11550.00	51.0 AV	54.0	-3.0	2.05 H	172	26.0	25.0
7	11550.00	63.0 PK	74.0	-11.0	2.05 H	172	38.0	25.0
8	11550.00	51.0 AV	54.0	-3.0	2.05 H	172	26.0	25.0

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	*5775.00	96.9 PK			1.01 V	289	53.3	43.6
2	*5775.00	87.0 AV			1.01 V	289	43.4	43.6
3	*5775.00	96.9 PK			1.01 V	289	53.3	43.6
4	*5775.00	87.0 AV			1.01 V	289	43.4	43.6
5	11550.00	63.3 PK	74.0	-10.7	2.75 V	195	38.3	25.0
6	11550.00	51.2 AV	54.0	-2.8	2.75 V	195	26.2	25.0
7	11550.00	63.3 PK	74.0	-10.7	2.75 V	195	38.3	25.0
8	11550.00	51.2 AV	54.0	-2.8	2.75 V	195	26.2	25.0

Remarks:

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

RF Mode	TX 802.11ax (HE20)	Channel	CH 36 : 5180 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	59.1 PK	74.0	-14.9	1.47 H	225	46.2	12.9
2	5150.00	46.2 AV	54.0	-7.8	1.47 H	225	33.3	12.9
3	*5180.00	93.5 PK			1.47 H	225	51.1	42.4
4	*5180.00	81.2 AV			1.47 H	225	38.8	42.4
5	#10360.00	60.8 PK	68.2	-7.4	2.25 H	164	38.2	22.6

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	59.9 PK	74.0	-14.1	1.27 V	288	47.0	12.9
2	5150.00	46.7 AV	54.0	-7.3	1.27 V	288	33.8	12.9
3	*5180.00	103.9 PK			1.27 V	288	61.5	42.4
4	*5180.00	91.1 AV			1.27 V	288	48.7	42.4
5	#10360.00	61.5 PK	68.2	-6.7	3.05 V	189	38.9	22.6

Remarks:

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

RF Mode	TX 802.11ax (HE20)	Channel	CH 40 : 5200 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	93.5 PK			1.41 H	226	51.3	42.2
2	*5200.00	80.7 AV			1.41 H	226	38.5	42.2
3	#10400.00	60.9 PK	68.2	-7.3	2.28 H	159	38.1	22.8

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	104.0 PK			1.36 V	287	61.8	42.2
2	*5200.00	91.1 AV			1.36 V	287	48.9	42.2
3	#10400.00	61.6 PK	68.2	-6.6	3.05 V	198	38.8	22.8

Remarks:

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

RF Mode	TX 802.11ax (HE20)	Channel	CH 48 : 5240 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	94.6 PK			1.42 H	224	52.4	42.2
2	*5240.00	81.1 AV			1.42 H	224	38.9	42.2
3	5350.00	60.0 PK	74.0	-14.0	1.42 H	224	47.0	13.0
4	5350.00	48.0 AV	54.0	-6.0	1.42 H	224	35.0	13.0
5	#10480.00	61.0 PK	68.2	-7.2	2.28 H	159	38.2	22.8

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	105.0 PK			1.33 V	284	62.8	42.2
2	*5240.00	92.3 AV			1.33 V	284	50.1	42.2
3	5350.00	61.7 PK	74.0	-12.3	1.33 V	284	48.7	13.0
4	5350.00	48.1 AV	54.0	-5.9	1.33 V	284	35.1	13.0
5	#10480.00	61.9 PK	68.2	-6.3	3.03 V	199	39.1	22.8

Remarks:

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

RF Mode	TX 802.11ax (HE20)	Channel	CH 52 : 5260 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	59.7 PK	74.0	-14.3	1.20 H	236	46.8	12.9
2	5150.00	46.7 AV	54.0	-7.3	1.20 H	236	33.8	12.9
3	*5260.00	97.4 PK			1.20 H	236	55.1	42.3
4	*5260.00	84.2 AV			1.20 H	236	41.9	42.3
5	#10520.00	61.4 PK	68.2	-6.8	2.11 H	153	38.4	23.0

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	60.5 PK	74.0	-13.5	1.33 V	282	47.6	12.9
2	5150.00	47.1 AV	54.0	-6.9	1.33 V	282	34.2	12.9
3	*5260.00	107.0 PK			1.33 V	282	64.7	42.3
4	*5260.00	94.1 AV			1.33 V	282	51.8	42.3
5	#10520.00	61.9 PK	68.2	-6.3	3.12 V	193	38.9	23.0

Remarks:

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

RF Mode	TX 802.11ax (HE20)	Channel	CH 60 : 5300 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	98.6 PK			1.23 H	241	56.3	42.3
2	*5300.00	85.4 AV			1.23 H	241	43.1	42.3
3	10600.00	61.7 PK	74.0	-12.3	1.98 H	147	38.2	23.5
4	10600.00	50.3 AV	54.0	-3.7	1.98 H	147	26.8	23.5

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	108.5 PK			1.34 V	280	66.2	42.3
2	*5300.00	95.6 AV			1.34 V	280	53.3	42.3
3	10600.00	62.3 PK	74.0	-11.7	3.08 V	190	38.8	23.5
4	10600.00	50.6 AV	54.0	-3.4	3.08 V	190	27.1	23.5

Remarks:

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

RF Mode	TX 802.11ax (HE20)	Channel	CH 64 : 5320 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	96.9 PK			1.24 H	238	54.5	42.4
2	*5320.00	84.7 AV			1.24 H	238	42.3	42.4
3	5350.00	61.8 PK	74.0	-12.2	1.24 H	238	48.8	13.0
4	5350.00	49.2 AV	54.0	-4.8	1.24 H	238	36.2	13.0
5	10640.00	62.1 PK	74.0	-11.9	2.08 H	152	38.6	23.5
6	10640.00	50.2 AV	54.0	-3.8	2.08 H	152	26.7	23.5

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	106.3 PK			1.34 V	279	63.9	42.4
2	*5320.00	94.1 AV			1.34 V	279	51.7	42.4
3	5350.00	63.7 PK	74.0	-10.3	1.34 V	279	50.7	13.0
4	5350.00	49.7 AV	54.0	-4.3	1.34 V	279	36.7	13.0
5	10640.00	62.3 PK	74.0	-11.7	3.19 V	188	38.8	23.5
6	10640.00	50.5 AV	54.0	-3.5	3.19 V	188	27.0	23.5

Remarks:

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

RF Mode	TX 802.11ax (HE20)	Channel	CH 100 : 5500 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	61.2 PK	74.0	-12.8	1.06 H	221	48.0	13.2
2	5460.00	47.7 AV	54.0	-6.3	1.06 H	221	34.5	13.2
3	#5470.00	61.6 PK	68.2	-6.6	1.06 H	221	48.2	13.4
4	*5500.00	92.2 PK			1.06 H	221	49.3	42.9
5	*5500.00	80.3 AV			1.06 H	221	37.4	42.9
6	11000.00	62.6 PK	74.0	-11.4	1.97 H	138	38.3	24.3
7	11000.00	50.4 AV	54.0	-3.6	1.97 H	138	26.1	24.3

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	61.7 PK	74.0	-12.3	1.02 V	280	48.5	13.2
2	5460.00	48.7 AV	54.0	-5.3	1.02 V	280	35.5	13.2
3	#5470.00	62.2 PK	68.2	-6.0	1.02 V	280	48.8	13.4
4	*5500.00	106.1 PK			1.02 V	280	63.2	42.9
5	*5500.00	93.9 AV			1.02 V	280	51.0	42.9
6	11000.00	63.5 PK	74.0	-10.5	2.85 V	182	39.2	24.3
7	11000.00	51.1 AV	54.0	-2.9	2.85 V	182	26.8	24.3

Remarks:

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

RF Mode	TX 802.11ax (HE20)	Channel	CH 116 : 5580 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	91.7 PK			1.13 H	220	48.8	42.9
2	*5580.00	79.4 AV			1.13 H	220	36.5	42.9
3	11160.00	63.6 PK	74.0	-10.4	2.02 H	139	39.4	24.2
4	11160.00	50.6 AV	54.0	-3.4	2.02 H	139	26.4	24.2

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	105.6 PK			1.03 V	289	62.7	42.9
2	*5580.00	93.2 AV			1.03 V	289	50.3	42.9
3	11160.00	63.3 PK	74.0	-10.7	2.88 V	189	39.1	24.2
4	11160.00	51.1 AV	54.0	-2.9	2.88 V	189	26.9	24.2

Remarks:

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

RF Mode	TX 802.11ax (HE20)	Channel	CH 140 : 5700 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	90.6 PK			1.13 H	224	47.6	43.0
2	*5700.00	78.1 AV			1.13 H	224	35.1	43.0
3	#5725.00	62.1 PK	68.2	-6.1	1.13 H	224	48.6	13.5
4	11400.00	63.4 PK	74.0	-10.6	1.89 H	142	38.3	25.1
5	11400.00	51.4 AV	54.0	-2.6	1.89 H	142	26.3	25.1

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	106.1 PK			1.00 V	290	63.1	43.0
2	*5700.00	93.7 AV			1.00 V	290	50.7	43.0
3	#5725.00	63.3 PK	68.2	-4.9	1.00 V	290	49.8	13.5
4	11400.00	64.1 PK	74.0	-9.9	2.85 V	187	39.0	25.1
5	11400.00	51.9 AV	54.0	-2.1	2.85 V	187	26.8	25.1

Remarks:

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

RF Mode	TX 802.11ax (HE20)	Channel	CH 144 : 5720 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	61.0 PK	68.2	-7.2	1.02 H	162	47.6	13.4
2	*5720.00	93.0 PK			1.02 H	162	49.8	43.2
3	*5720.00	81.2 AV			1.02 H	162	38.0	43.2
4	#5850.00	61.9 PK	68.2	-6.3	1.02 H	162	47.8	14.1
5	11440.00	63.3 PK	74.0	-10.7	2.28 H	163	38.2	25.1
6	11440.00	51.1 AV	54.0	-2.9	2.28 H	163	26.0	25.1

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	61.2 PK	68.2	-7.0	1.02 V	280	47.8	13.4
2	*5720.00	105.7 PK			1.02 V	280	62.5	43.2
3	*5720.00	93.5 AV			1.02 V	280	50.3	43.2
4	#5850.00	63.3 PK	68.2	-4.9	1.02 V	280	49.2	14.1
5	11440.00	63.9 PK	74.0	-10.1	3.11 V	186	38.8	25.1
6	11440.00	51.7 AV	54.0	-2.3	3.11 V	186	26.6	25.1

Remarks:

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

RF Mode	TX 802.11ax (HE20)	Channel	CH 149 : 5745 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	#5649.60	59.5 PK	68.2	-8.7	1.02 H	220	46.2	13.3
2	*5745.00	92.3 PK			1.02 H	220	48.8	43.5
3	*5745.00	79.7 AV			1.02 H	220	36.2	43.5
4	#5979.20	61.2 PK	68.2	-7.0	1.02 H	220	47.0	14.2
5	11490.00	63.5 PK	74.0	-10.5	2.05 H	168	38.3	25.2
6	11490.00	51.4 AV	54.0	-2.6	2.05 H	168	26.2	25.2

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	#5615.20	60.6 PK	68.2	-7.6	1.02 V	291	47.2	13.4
2	*5745.00	105.7 PK			1.02 V	291	62.2	43.5
3	*5745.00	93.3 AV			1.02 V	291	49.8	43.5
4	#5932.40	60.9 PK	68.2	-7.3	1.02 V	291	46.8	14.1
5	11490.00	64.2 PK	74.0	-9.8	2.75 V	195	39.0	25.2
6	11490.00	51.7 AV	54.0	-2.3	2.75 V	195	26.5	25.2

Remarks:

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

RF Mode	TX 802.11ax (HE20)	Channel	CH 157 : 5785 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	#5645.20	60.0 PK	68.2	-8.2	1.01 H	221	46.7	13.3
2	*5785.00	92.1 PK			1.01 H	221	48.4	43.7
3	*5785.00	80.1 AV			1.01 H	221	36.4	43.7
4	#5988.40	61.4 PK	68.2	-6.8	1.01 H	221	47.2	14.2
5	11570.00	63.4 PK	74.0	-10.6	2.05 H	164	38.5	24.9
6	11570.00	51.1 AV	54.0	-2.9	2.05 H	164	26.2	24.9

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	#5631.60	59.5 PK	68.2	-8.7	1.09 V	283	46.1	13.4
2	*5785.00	104.0 PK			1.09 V	284	60.3	43.7
3	*5785.00	91.5 AV			1.09 V	284	47.8	43.7
4	#5937.20	60.7 PK	68.2	-7.5	1.09 V	283	46.6	14.1
5	11490.00	64.3 PK	74.0	-9.7	2.77 V	199	39.1	25.2
6	11490.00	51.6 AV	54.0	-2.4	2.77 V	199	26.4	25.2

Remarks:

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

RF Mode	TX 802.11ax (HE20)	Channel	CH 165 : 5825 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	#5613.60	59.6 PK	68.2	-8.6	1.00 H	221	46.2	13.4
2	*5825.00	91.1 PK			1.00 H	221	47.3	43.8
3	*5825.00	79.1 AV			1.00 H	221	35.3	43.8
4	#5935.60	60.6 PK	68.2	-7.6	1.00 H	221	46.5	14.1
5	11650.00	62.9 PK	74.0	-11.1	2.05 H	168	38.3	24.6
6	11650.00	50.8 AV	54.0	-3.2	2.05 H	168	26.2	24.6

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	#5621.60	60.5 PK	68.2	-7.7	1.01 V	283	47.1	13.4
2	*5825.00	104.6 PK			1.01 V	283	60.8	43.8
3	*5825.00	91.9 AV			1.01 V	283	48.1	43.8
4	#5966.40	61.0 PK	68.2	-7.2	1.01 V	283	46.8	14.2
5	11650.00	63.7 PK	74.0	-10.3	2.81 V	199	39.1	24.6
6	11650.00	51.2 AV	54.0	-2.8	2.81 V	199	26.6	24.6

Remarks:

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

RF Mode	TX 802.11ax (HE40)	Channel	CH 38 : 5190 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	59.3 PK	74.0	-14.7	1.46 H	224	46.4	12.9
2	5150.00	46.3 AV	54.0	-7.7	1.46 H	224	33.4	12.9
3	*5190.00	92.0 PK			1.46 H	224	49.7	42.3
4	*5190.00	78.4 AV			1.46 H	224	36.1	42.3
5	#10380.00	60.9 PK	68.2	-7.3	2.25 H	162	38.2	22.7

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	59.8 PK	74.0	-14.2	1.33 V	286	46.9	12.9
2	5150.00	46.3 AV	54.0	-7.7	1.33 V	286	33.4	12.9
3	*5190.00	101.8 PK			1.33 V	286	59.5	42.3
4	*5190.00	88.9 AV			1.33 V	286	46.6	42.3
5	#10380.00	61.5 PK	68.2	-6.7	3.15 V	195	38.8	22.7

Remarks:

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

RF Mode	TX 802.11ax (HE40)	Channel	CH 46 : 5230 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	91.9 PK			1.46 H	224	49.7	42.2
2	*5230.00	78.9 AV			1.46 H	224	36.7	42.2
3	5350.00	61.0 PK	74.0	-13.0	1.46 H	224	48.0	13.0
4	5350.00	48.3 AV	54.0	-5.7	1.46 H	224	35.3	13.0
5	#10460.00	61.0 PK	68.2	-7.2	2.28 H	163	38.1	22.9

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	102.5 PK			1.37 V	285	60.3	42.2
2	*5230.00	89.5 AV			1.37 V	285	47.3	42.2
3	5350.00	60.8 PK	74.0	-13.2	1.37 V	285	47.8	13.0
4	5350.00	48.0 AV	54.0	-6.0	1.37 V	285	35.0	13.0
5	#10460.00	61.5 PK	68.2	-6.7	3.05 V	197	38.6	22.9

Remarks:

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

RF Mode	TX 802.11ax (HE40)	Channel	CH 54 : 5270 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	59.7 PK	74.0	-14.3	1.21 H	238	46.8	12.9
2	5150.00	46.8 AV	54.0	-7.2	1.21 H	238	33.9	12.9
3	*5270.00	93.7 PK			1.21 H	238	51.4	42.3
4	*5270.00	81.4 AV			1.21 H	238	39.1	42.3
5	#10540.00	61.6 PK	68.2	-6.6	2.17 H	148	38.5	23.1

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	60.5 PK	74.0	-13.5	1.33 V	282	47.6	12.9
2	5150.00	46.9 AV	54.0	-7.1	1.33 V	282	34.0	12.9
3	*5270.00	104.4 PK			1.33 V	282	62.1	42.3
4	*5270.00	91.3 AV			1.33 V	282	49.0	42.3
5	#10540.00	62.0 PK	68.2	-6.2	3.16 V	188	38.9	23.1

Remarks:

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

RF Mode	TX 802.11ax (HE40)	Channel	CH 62 : 5310 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	94.1 PK			1.20 H	234	51.7	42.4
2	*5310.00	81.4 AV			1.20 H	234	39.0	42.4
3	5350.00	61.8 PK	74.0	-12.2	1.20 H	234	48.8	13.0
4	5350.00	49.1 AV	54.0	-4.9	1.20 H	234	36.1	13.0
5	10620.00	62.1 PK	74.0	-11.9	2.11 H	139	38.7	23.4
6	10620.00	49.9 AV	54.0	-4.1	2.11 H	139	26.5	23.4

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	104.0 PK			1.34 V	280	61.6	42.4
2	*5310.00	91.4 AV			1.34 V	280	49.0	42.4
3	5350.00	62.1 PK	74.0	-11.9	1.34 V	280	49.1	13.0
4	5350.00	49.5 AV	54.0	-4.5	1.34 V	280	36.5	13.0
5	10620.00	62.4 PK	74.0	-11.6	3.11 V	185	39.0	23.4
6	10620.00	50.6 AV	54.0	-3.4	3.11 V	185	27.2	23.4

Remarks:

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

RF Mode	TX 802.11ax (HE40)	Channel	CH 102 : 5510 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	60.7 PK	74.0	-13.3	1.12 H	220	47.5	13.2
2	5460.00	47.6 AV	54.0	-6.4	1.12 H	220	34.4	13.2
3	#5470.00	61.5 PK	68.2	-6.7	1.12 H	220	48.1	13.4
4	*5510.00	90.1 PK			1.12 H	220	47.2	42.9
5	*5510.00	77.8 AV			1.12 H	220	34.9	42.9
6	11020.00	62.7 PK	74.0	-11.3	1.92 H	137	38.5	24.2
7	11020.00	50.5 AV	54.0	-3.5	1.92 H	137	26.3	24.2

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	60.7 PK	74.0	-13.3	1.06 V	277	47.5	13.2
2	5460.00	48.1 AV	54.0	-5.9	1.06 V	277	34.9	13.2
3	#5470.00	61.4 PK	68.2	-6.8	1.06 V	277	48.0	13.4
4	*5510.00	103.4 PK			1.06 V	277	60.5	42.9
5	*5510.00	90.6 AV			1.06 V	277	47.7	42.9
6	11020.00	62.8 PK	74.0	-11.2	2.88 V	189	38.6	24.2
7	11020.00	50.7 AV	54.0	-3.3	2.88 V	189	26.5	24.2

Remarks:

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

RF Mode	TX 802.11ax (HE40)	Channel	CH 110 : 5550 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	90.8 PK			1.11 H	226	47.9	42.9
2	*5550.00	76.9 AV			1.11 H	226	34.0	42.9
3	11100.00	62.7 PK	74.0	-11.3	1.99 H	138	38.5	24.2
4	11100.00	50.5 AV	54.0	-3.5	1.99 H	138	26.3	24.2

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	103.3 PK			1.01 V	280	60.4	42.9
2	*5550.00	90.2 AV			1.01 V	280	47.3	42.9
3	11100.00	62.7 PK	74.0	-11.3	2.87 V	189	38.5	24.2
4	11100.00	50.9 AV	54.0	-3.1	2.87 V	189	26.7	24.2

Remarks:

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

RF Mode	TX 802.11ax (HE40)	Channel	CH 134 : 5670 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	89.8 PK			1.02 H	224	46.8	43.0
2	*5670.00	77.1 AV			1.02 H	224	34.1	43.0
3	#5725.00	62.1 PK	68.2	-6.1	1.02 H	224	48.6	13.5
4	11340.00	63.4 PK	74.0	-10.6	2.02 H	159	38.5	24.9
5	11340.00	51.2 AV	54.0	-2.8	2.02 H	159	26.3	24.9

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	103.4 PK			1.03 V	279	60.4	43.0
2	*5670.00	89.9 AV			1.03 V	279	46.9	43.0
3	#5725.00	62.5 PK	68.2	-5.7	1.03 V	279	49.0	13.5
4	11340.00	63.4 PK	74.0	-10.6	2.86 V	185	38.5	24.9
5	11340.00	51.5 AV	54.0	-2.5	2.86 V	185	26.6	24.9

Remarks:

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

RF Mode	TX 802.11ax (HE40)	Channel	CH 142 : 5710 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	60.6 PK	68.2	-7.6	1.04 H	207	47.2	13.4
2	*5710.00	88.1 PK			1.04 H	207	45.0	43.1
3	*5710.00	75.2 AV			1.04 H	207	32.1	43.1
4	#5850.00	61.9 PK	68.2	-6.3	1.04 H	207	47.8	14.1
5	11420.00	63.4 PK	74.0	-10.6	3.05 H	195	38.2	25.2
6	11420.00	51.3 AV	54.0	-2.7	3.05 H	195	26.1	25.2

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	61.5 PK	68.2	-6.7	1.03 V	278	48.1	13.4
2	*5710.00	103.3 PK			1.03 V	278	60.2	43.1
3	*5710.00	90.5 AV			1.03 V	278	47.4	43.1
4	#5850.00	62.9 PK	68.2	-5.3	1.03 V	278	48.8	14.1
5	11420.00	64.2 PK	74.0	-9.8	3.05 V	190	39.0	25.2
6	11420.00	51.3 AV	54.0	-2.7	3.05 V	190	26.1	25.2

Remarks:

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

RF Mode	TX 802.11ax (HE40)	Channel	CH 151 : 5755 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	#5617.20	59.9 PK	68.2	-8.3	1.03 H	220	46.5	13.4
2	*5755.00	89.8 PK			1.03 H	220	46.3	43.5
3	*5755.00	77.1 AV			1.03 H	220	33.6	43.5
4	#5928.80	60.1 PK	68.2	-8.1	1.03 H	220	46.0	14.1
5	11510.00	63.4 PK	74.0	-10.6	2.04 H	169	38.3	25.1
6	11510.00	51.3 AV	54.0	-2.7	2.04 H	169	26.2	25.1

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	#5637.20	61.1 PK	68.2	-7.1	1.08 V	294	47.7	13.4
2	*5755.00	102.9 PK			1.08 V	294	59.4	43.5
3	*5755.00	89.9 AV			1.08 V	294	46.4	43.5
4	#5978.80	61.7 PK	68.2	-6.5	1.08 V	294	47.5	14.2
5	11510.00	63.8 PK	74.0	-10.2	2.78 V	192	38.7	25.1
6	11510.00	51.4 AV	54.0	-2.6	2.78 V	192	26.3	25.1

Remarks:

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

RF Mode	TX 802.11ax (HE40)	Channel	CH 159 : 5795 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	#5609.60	60.6 PK	68.2	-7.6	1.01 H	220	47.2	13.4
2	*5795.00	89.2 PK			1.01 H	220	45.4	43.8
3	*5795.00	76.9 AV			1.01 H	220	33.1	43.8
4	#5988.40	60.9 PK	68.2	-7.3	1.01 H	220	46.7	14.2
5	11590.00	63.1 PK	74.0	-10.9	2.05 H	165	38.4	24.7
6	11590.00	50.8 AV	54.0	-3.2	2.05 H	165	26.1	24.7

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	#5615.60	59.2 PK	68.2	-9.0	1.07 V	285	45.8	13.4
2	*5795.00	102.6 PK			1.07 V	285	58.8	43.8
3	*5795.00	90.3 AV			1.07 V	285	46.5	43.8
4	#5948.40	60.4 PK	68.2	-7.8	1.07 V	285	46.2	14.2
5	11590.00	63.4 PK	74.0	-10.6	2.78 V	194	38.7	24.7
6	11590.00	51.0 AV	54.0	-3.0	2.78 V	194	26.3	24.7

Remarks:

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

RF Mode	TX 802.11ax (HE80)	Channel	CH 42 : 5210 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	59.1 PK	74.0	-14.9	1.45 H	226	46.2	12.9
2	5150.00	46.2 AV	54.0	-7.8	1.45 H	226	33.3	12.9
3	*5210.00	88.4 PK			1.45 H	226	46.2	42.2
4	*5210.00	75.8 AV			1.45 H	226	33.6	42.2
5	5350.00	59.5 PK	74.0	-14.5	1.45 H	226	46.5	13.0
6	5350.00	47.8 AV	54.0	-6.2	1.45 H	226	34.8	13.0
7	#10360.00	61.6 PK	68.2	-6.6	2.28 H	162	39.0	22.6

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	59.5 PK	74.0	-14.5	1.33 V	284	46.6	12.9
2	5150.00	46.3 AV	54.0	-7.7	1.33 V	284	33.4	12.9
3	*5210.00	99.3 PK			1.33 V	284	57.1	42.2
4	*5210.00	86.4 AV			1.33 V	284	44.2	42.2
5	5350.00	61.4 PK	74.0	-12.6	1.33 V	284	48.4	13.0
6	5350.00	48.3 AV	54.0	-5.7	1.33 V	284	35.3	13.0
7	#10420.00	61.4 PK	68.2	-6.8	3.02 V	197	38.5	22.9

Remarks:

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

RF Mode	TX 802.11ax (HE80)	Channel	CH 58 : 5290 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	59.6 PK	74.0	-14.4	1.18 H	231	46.7	12.9
2	5150.00	46.7 AV	54.0	-7.3	1.18 H	231	33.8	12.9
3	*5290.00	90.9 PK			1.18 H	231	48.6	42.3
4	*5290.00	78.1 AV			1.18 H	231	35.8	42.3
5	5350.00	61.8 PK	74.0	-12.2	1.18 H	231	48.8	13.0
6	5350.00	49.4 AV	54.0	-4.6	1.18 H	231	36.4	13.0
7	#10580.00	62.1 PK	68.2	-6.1	2.10 H	142	38.7	23.4

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	60.5 PK	74.0	-13.5	1.32 V	280	47.6	12.9
2	5150.00	47.1 AV	54.0	-6.9	1.32 V	280	34.2	12.9
3	*5290.00	100.6 PK			1.32 V	280	58.3	42.3
4	*5290.00	87.6 AV			1.32 V	280	45.3	42.3
5	5350.00	62.3 PK	74.0	-11.7	1.32 V	280	49.3	13.0
6	5350.00	49.7 AV	54.0	-4.3	1.32 V	280	36.7	13.0
7	#10580.00	62.4 PK	68.2	-5.8	3.00 V	193	39.0	23.4

Remarks:

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

RF Mode	TX 802.11ax (HE80)	Channel	CH 106 : 5530 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	60.8 PK	74.0	-13.2	1.24 H	220	47.6	13.2
2	5460.00	47.8 AV	54.0	-6.2	1.24 H	220	34.6	13.2
3	#5470.00	61.5 PK	68.2	-6.7	1.24 H	220	48.1	13.4
4	*5530.00	88.0 PK			1.24 H	220	45.1	42.9
5	*5530.00	75.6 AV			1.24 H	220	32.7	42.9
6	#5725.00	62.0 PK	68.2	-6.2	1.24 H	220	48.5	13.5
7	11060.00	62.5 PK	74.0	-11.5	1.99 H	154	38.3	24.2
8	11060.00	50.3 AV	54.0	-3.7	1.99 H	154	26.1	24.2

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	61.3 PK	74.0	-12.7	1.03 V	289	48.1	13.2
2	5460.00	48.0 AV	54.0	-6.0	1.03 V	289	34.8	13.2
3	#5470.00	61.9 PK	68.2	-6.3	1.03 V	289	48.5	13.4
4	*5530.00	100.1 PK			1.03 V	289	57.2	42.9
5	*5530.00	87.6 AV			1.03 V	289	44.7	42.9
6	#5725.00	62.4 PK	68.2	-5.8	1.03 V	289	48.9	13.5
7	11060.00	62.7 PK	74.0	-11.3	2.87 V	191	38.5	24.2
8	11060.00	50.7 AV	54.0	-3.3	2.87 V	191	26.5	24.2

Remarks:

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

RF Mode	TX 802.11ax (HE80)	Channel	CH 122 : 5610 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	61.0 PK	74.0	-13.0	1.15 H	219	47.8	13.2
2	5460.00	47.9 AV	54.0	-6.1	1.15 H	219	34.7	13.2
3	#5470.00	61.4 PK	68.2	-6.8	1.15 H	219	48.0	13.4
4	*5610.00	87.2 PK			1.15 H	219	44.2	43.0
5	*5610.00	74.4 AV			1.15 H	219	31.4	43.0
6	#5725.00	61.7 PK	68.2	-6.5	1.15 H	219	48.2	13.5
7	11220.00	62.7 PK	74.0	-11.3	1.95 H	158	38.4	24.3
8	11220.00	50.5 AV	54.0	-3.5	1.95 H	158	26.2	24.3

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	60.8 PK	74.0	-13.2	1.04 V	278	47.6	13.2
2	5460.00	47.9 AV	54.0	-6.1	1.04 V	278	34.7	13.2
3	#5470.00	61.8 PK	68.2	-6.4	1.04 V	278	48.4	13.4
4	*5610.00	100.8 PK			1.04 V	278	57.8	43.0
5	*5610.00	87.5 AV			1.04 V	278	44.5	43.0
6	#5725.00	62.1 PK	68.2	-6.1	1.04 V	278	48.6	13.5
7	11220.00	62.9 PK	74.0	-11.1	2.87 V	188	38.6	24.3
8	11220.00	50.8 AV	54.0	-3.2	2.87 V	188	26.5	24.3

Remarks:

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

RF Mode	TX 802.11ax (HE80)	Channel	CH 138 : 5690 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	60.9 PK	68.2	-7.3	1.07 H	229	47.5	13.4
2	*5690.00	86.7 PK			1.07 H	229	43.7	43.0
3	*5690.00	72.6 AV			1.07 H	229	29.6	43.0
4	#5850.00	62.1 PK	68.2	-6.1	1.07 H	229	48.0	14.1
5	11380.00	63.1 PK	74.0	-10.9	2.25 H	158	38.1	25.0
6	11380.00	50.9 AV	54.0	-3.1	2.25 H	158	25.9	25.0

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	61.6 PK	68.2	-6.6	1.02 V	279	48.2	13.4
2	*5690.00	100.4 PK			1.02 V	279	57.4	43.0
3	*5690.00	87.9 AV			1.02 V	279	44.9	43.0
4	#5850.00	62.7 PK	68.2	-5.5	1.02 V	279	48.6	14.1
5	11380.00	63.3 PK	74.0	-10.7	3.11 V	192	38.3	25.0
6	11380.00	51.2 AV	54.0	-2.8	3.11 V	192	26.2	25.0

Remarks:

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

RF Mode	TX 802.11ax (HE80)	Channel	CH 155 : 5775 MHz
Frequency Range	1GHz ~ 40GHz	Detector Function	Peak (PK) 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	#5626.40	59.7 PK	68.2	-8.5	1.05 H	220	46.3	13.4
2	*5775.00	88.3 PK			1.05 H	220	44.7	43.6
3	*5775.00	74.4 AV			1.05 H	220	30.8	43.6
4	#5969.60	63.0 PK	68.2	-5.2	1.05 H	220	48.8	14.2
5	11550.00	63.2 PK	74.0	-10.8	2.03 H	166	38.2	25.0
6	11550.00	51.0 AV	54.0	-3.0	2.03 H	166	26.0	25.0

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	#5604.40	60.1 PK	68.2	-8.1	1.04 V	286	46.8	13.3
2	*5775.00	99.2 PK			1.04 V	286	55.6	43.6
3	*5775.00	86.7 AV			1.04 V	286	43.1	43.6
4	#5977.20	60.3 PK	68.2	-7.9	1.04 V	286	46.1	14.2
5	11550.00	63.3 PK	74.0	-10.7	2.72 V	189	38.3	25.0
6	11550.00	51.2 AV	54.0	-2.8	2.72 V	189	26.2	25.0

Remarks:

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

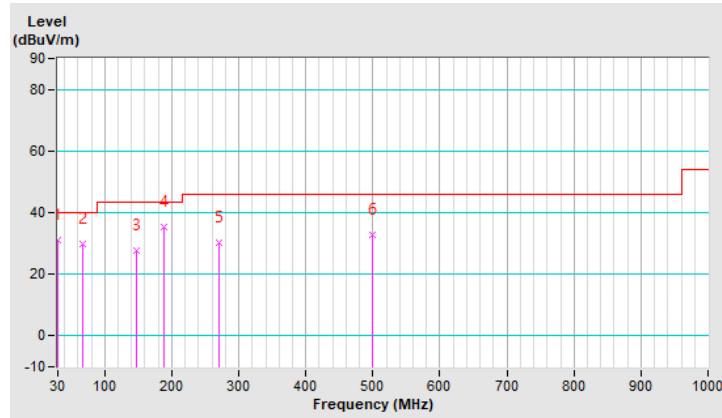
Below 1GHz Worst-Case Data:

RF Mode	TX 802.11a	Channel	CH 60 : 5300 MHz
Frequency Range	9kHz ~ 1GHz	Detector Function	Quasi-Peak (QP)

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	30.00	31.1 QP	40.0	-8.9	1.50 H	263	41.3	-10.2
2	66.86	29.9 QP	40.0	-10.1	1.00 H	175	39.9	-10.0
3	146.40	27.6 QP	43.5	-15.9	1.00 H	77	36.4	-8.8
4	189.08	35.3 QP	43.5	-8.2	1.50 H	96	46.5	-11.2
5	270.56	30.4 QP	46.0	-15.6	1.00 H	205	38.8	-8.4
6	499.48	32.6 QP	46.0	-13.4	1.00 H	160	36.5	-3.9

Remarks:

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

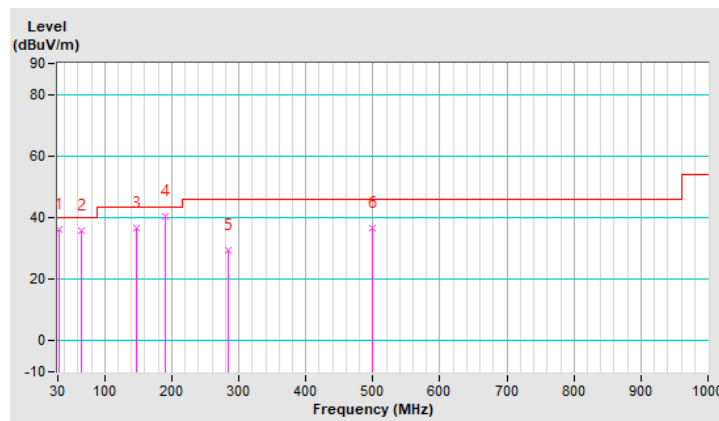


RF Mode	TX 802.11a	Channel	CH 60 : 5300 MHz
Frequency Range	9kHz ~ 1GHz	Detector Function	Quasi-Peak (QP)

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	31.94	36.3 QP	40.0	-3.7	1.01 V	192	46.6	-10.3
2	64.92	35.8 QP	40.0	-4.2	1.01 V	101	45.8	-10.0
3	146.40	36.5 QP	43.5	-7.0	1.01 V	123	45.3	-8.8
4	191.02	40.6 QP	43.5	-2.9	1.01 V	223	51.9	-11.3
5	284.14	29.2 QP	46.0	-16.8	1.01 V	218	37.1	-7.9
6	499.48	36.6 QP	46.0	-9.4	1.01 V	88	40.5	-3.9

Remarks:

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



4.2 Transmit Power Measurement

4.2.1 Limits of Transmit Power Measurement

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

*B is the 26 dB emission bandwidth in megahertz

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

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

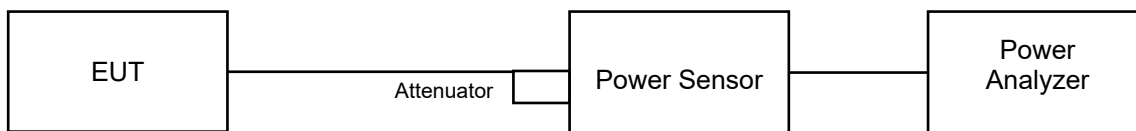
Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT} ;

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

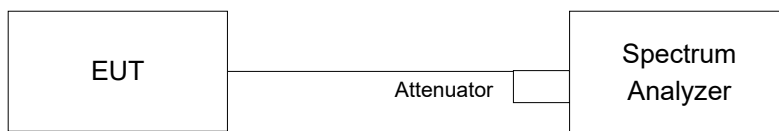
For power measurements on all other devices: Array Gain = $10 \log(N_{ANT}/N_{SS})$ dB.

4.2.2 Test Setup

For Power Output



For 26dB Bandwidth and power output of transmission above 5.725 GHz where the EBW crosses 5.725 GHz



4.2.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.2.4 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 transmission above 5.725 GHz where the EBW crosses 5.725 GHz

For channel aggregation (channel 138, 142, 144) measurement refer to KDB 789033 D02 General UNII Test Procedures New Rules v02r01 Section II E 2 b) method SA-1.

For 26dB Bandwidth

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

4.2.5 Deviation from Test Standard

No deviation.

4.2.6 EUT Operating Conditions

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

4.2.7 Test Result

Power Output:

For U-NII-1 Band (Outdoor Access Point)

802.11a

Chan.	Freq. (MHz)	Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Gain (dBi)	EIRP (dBm)	EIRP limit (dBm)	Pass / Fail
		Chain 0	Chain 1							
36	5180	11.31	9.33	22.091	13.44	30.00	2.11	15.55	21.00	Pass
40	5200	9.72	10.45	20.467	13.11	30.00	2.11	15.22	21.00	Pass
48	5240	10.82	9.72	21.454	13.32	30.00	2.11	15.43	21.00	Pass

Note:

1. Antenna gain = 2.11dBi.
2. The maximum peak gain is used in the above 30-degree eirp calculation. The calculation result above represents the worst case possible for all elevation angle.
3. EIRP = average power + antenna gain + array gain = (0 dB (i.e., no array gain) for $N_{ANT} \leq 4$).

802.11n (HT20)

Chan.	Freq. (MHz)	Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Gain (dBi)	EIRP (dBm)	EIRP limit (dBm)	Pass / Fail
		Chain 0	Chain 1							
36	5180	10.74	9.75	21.298	13.28	30.00	2.11	15.39	21.00	Pass
40	5200	10.74	10.37	22.747	13.57	30.00	2.11	15.68	21.00	Pass
48	5240	10.73	10.41	22.820	13.58	30.00	2.11	15.69	21.00	Pass

Note:

1. Antenna gain = 2.11dBi.
2. The maximum peak gain is used in the above 30-degree eirp calculation. The calculation result above represents the worst case possible for all elevation angle.
3. EIRP = average power + antenna gain + array gain = (0 dB (i.e., no array gain) for $N_{ANT} \leq 4$).

802.11n (HT40)

Chan.	Freq. (MHz)	Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Gain (dBi)	EIRP (dBm)	EIRP limit (dBm)	Pass / Fail
		Chain 0	Chain 1							
38	5190	9.12	9.65	17.392	12.40	30.00	2.11	14.51	21.00	Pass
46	5230	10.38	9.33	19.485	12.90	30.00	2.11	15.01	21.00	Pass

Note:

1. Antenna gain = 2.11dBi.
2. The maximum peak gain is used in the above 30-degree eirp calculation. The calculation result above represents the worst case possible for all elevation angle.
3. EIRP = average power + antenna gain + array gain = (0 dB (i.e., no array gain) for $N_{ANT} \leq 4$).

802.11ac (VHT80)

Chan.	Freq. (MHz)	Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Gain (dBi)	EIRP (dBm)	EIRP limit (dBm)	Pass / Fail
		Chain 0	Chain 1							
42	5210	7.44	7.06	10.628	10.26	30.00	2.11	12.37	21.00	Pass

Note:

1. Antenna gain = 2.11dBi.
2. The maximum peak gain is used in the above 30-degree eirp calculation. The calculation result above represents the worst case possible for all elevation angle.
3. EIRP = average power + antenna gain + array gain = (0 dB (i.e., no array gain) for $N_{ANT} \leq 4$).

802.11ax (HE20)

Chan.	Freq. (MHz)	Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Gain (dBi)	EIRP (dBm)	EIRP limit (dBm)	Pass / Fail
		Chain 0	Chain 1							
36	5180	5.34	6.88	8.295	9.19	30.00	2.11	11.30	21.00	Pass
40	5200	6.08	6.76	8.798	9.44	30.00	2.11	11.55	21.00	Pass
48	5240	7.47	6.15	9.706	9.87	30.00	2.11	11.98	21.00	Pass

Note:

1. Antenna gain = 2.11dBi.
2. The maximum peak gain is used in the above 30-degree eirp calculation. The calculation result above represents the worst case possible for all elevation angle.
3. EIRP = average power + antenna gain + array gain = (0 dB (i.e., no array gain) for $N_{ANT} \leq 4$).

802.11ax (HE40)

Chan.	Freq. (MHz)	Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Gain (dBi)	EIRP (dBm)	EIRP limit (dBm)	Pass / Fail
		Chain 0	Chain 1							
38	5190	6.17	7.01	9.163	9.62	30.00	2.11	11.73	21.00	Pass
46	5230	7.12	6.31	9.428	9.74	30.00	2.11	11.85	21.00	Pass

Note:

1. Antenna gain = 2.11dBi.
2. The maximum peak gain is used in the above 30-degree eirp calculation. The calculation result above represents the worst case possible for all elevation angle.
3. EIRP = average power + antenna gain + array gain = (0 dB (i.e., no array gain) for $N_{ANT} \leq 4$).

802.11ax (HE80)

Chan.	Freq. (MHz)	Conducted Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Gain (dBi)	EIRP (dBm)	EIRP limit (dBm)	Pass / Fail
		Chain 0	Chain 1							
42	5210	6.82	6.93	9.740	9.89	30.00	2.11	12.00	21.00	Pass

Note:

1. Antenna gain = 2.11dBi.
2. The maximum peak gain is used in the above 30-degree eirp calculation. The calculation result above represents the worst case possible for all elevation angle.
3. EIRP = average power + antenna gain + array gain = (0 dB (i.e., no array gain) for $N_{ANT} \leq 4$).

For U-NII-2A, U-NII-2C, U-NII-3 Band

802.11a

Chan.	Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
52	5260	11.31	9.36	22.151	13.45	24.00	Pass
60	5300	10.56	10.10	21.609	13.35	24.00	Pass
64	5320	10.75	10.42	22.900	13.60	24.00	Pass
100	5500	10.92	11.01	24.978	13.98	24.00	Pass
116	5580	10.23	11.45	24.508	13.89	24.00	Pass
140	5700	11.47	8.72	21.475	13.32	24.00	Pass
144	5720 (For U-NII-2C)	9.45	7.48	14.408	11.59	22.78	Pass
144	5720 (For U-NII-3)	3.48	1.16	3.535	5.48	30.00	Pass
149	5745	10.60	9.73	20.879	13.20	30.00	Pass
157	5785	11.12	8.14	19.458	12.89	30.00	Pass
165	5825	11.21	7.34	18.633	12.70	30.00	Pass

Note:

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

Chain 0

1. $11\text{dBm} + 10\log(20.04) = 24.01 > 24\text{dBm}$
2. $11\text{dBm} + 10\log(20.27) = 24.06 > 24\text{dBm}$
3. $11\text{dBm} + 10\log(20.57) = 24.13 > 24\text{dBm}$
4. $11\text{dBm} + 10\log(20.38) = 24.09 > 24\text{dBm}$
5. $11\text{dBm} + 10\log(20.27) = 24.06 > 24\text{dBm}$
6. $11\text{dBm} + 10\log(20.18) = 24.04 > 24\text{dBm}$
7. $11\text{dBm} + 10\log(5725.00 - 5709.79) = 22.82 < 24\text{dBm}$

Chain 1

1. $11\text{dBm} + 10\log(20.06) = 24.02 > 24\text{dBm}$
2. $11\text{dBm} + 10\log(20.43) = 24.10 > 24\text{dBm}$
3. $11\text{dBm} + 10\log(20.09) = 24.02 > 24\text{dBm}$
4. $11\text{dBm} + 10\log(20.05) = 24.02 > 24\text{dBm}$
5. $11\text{dBm} + 10\log(20.10) = 24.03 > 24\text{dBm}$
6. $11\text{dBm} + 10\log(20.16) = 24.04 > 24\text{dBm}$
7. $11\text{dBm} + 10\log(5725.00 - 5709.91) = 22.78 < 24\text{dBm}$

802.11n (HT20)

Chan.	Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
52	5260	11.76	9.70	24.329	13.86	24.00	Pass
60	5300	10.91	10.55	23.681	13.74	24.00	Pass
64	5320	11.18	11.10	26.004	14.15	24.00	Pass
100	5500	11.17	11.36	26.769	14.28	24.00	Pass
116	5580	10.54	11.72	26.183	14.18	24.00	Pass
140	5700	11.71	9.12	22.991	13.62	24.00	Pass
144	5720 (For U-NII-2C)	9.31	7.14	14.035	11.47	22.81	Pass
144	5720 (For U-NII-3)	3.90	1.34	3.908	5.92	30.00	Pass
149	5745	11.10	10.01	22.906	13.60	30.00	Pass
157	5785	11.86	8.21	21.968	13.42	30.00	Pass
165	5825	11.16	7.43	18.595	12.69	30.00	Pass

Note:

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

Chain 0

1. $11\text{dBm} + 10\log(20.37) = 24.08 > 24\text{dBm}$
2. $11\text{dBm} + 10\log(20.55) = 24.12 > 24\text{dBm}$
3. $11\text{dBm} + 10\log(20.64) = 24.14 > 24\text{dBm}$
4. $11\text{dBm} + 10\log(20.67) = 24.15 > 24\text{dBm}$
5. $11\text{dBm} + 10\log(20.81) = 24.18 > 24\text{dBm}$
6. $11\text{dBm} + 10\log(20.49) = 24.11 > 24\text{dBm}$
7. $11\text{dBm} + 10\log(5725.00 - 5709.80) = 22.81 < 24\text{dBm}$

Chain 1

1. $11\text{dBm} + 10\log(20.46) = 24.10 > 24\text{dBm}$
2. $11\text{dBm} + 10\log(20.62) = 24.14 > 24\text{dBm}$
3. $11\text{dBm} + 10\log(20.37) = 24.08 > 24\text{dBm}$
4. $11\text{dBm} + 10\log(20.68) = 24.15 > 24\text{dBm}$
5. $11\text{dBm} + 10\log(20.50) = 24.11 > 24\text{dBm}$
6. $11\text{dBm} + 10\log(20.44) = 24.10 > 24\text{dBm}$
7. $11\text{dBm} + 10\log(5725.00 - 5709.62) = 22.86 < 24\text{dBm}$

802.11n (HT40)

Chan.	Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
54	5270	10.36	8.91	18.645	12.71	24.00	Pass
62	5310	10.16	9.39	19.065	12.80	24.00	Pass
102	5510	10.52	10.48	22.441	13.51	24.00	Pass
110	5550	10.45	10.52	22.364	13.50	24.00	Pass
134	5670	10.58	7.98	17.709	12.48	24.00	Pass
142	5710 (For U-NII-2C)	8.23	6.73	11.663	10.67	24.00	Pass
142	5710 (For U-NII-3)	-1.34	-3.49	1.214	0.84	30.00	Pass
151	5755	10.26	8.61	17.878	12.52	30.00	Pass
159	5795	10.86	6.75	16.921	12.28	30.00	Pass

Note:

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

Chain 0

1. $11\text{dBm} + 10\log(44.27) = 27.46 > 24\text{dBm}$
2. $11\text{dBm} + 10\log(42.93) = 27.32 > 24\text{dBm}$
3. $11\text{dBm} + 10\log(44.77) = 27.50 > 24\text{dBm}$
4. $11\text{dBm} + 10\log(43.53) = 27.38 > 24\text{dBm}$
5. $11\text{dBm} + 10\log(42.56) = 27.29 > 24\text{dBm}$
6. $11\text{dBm} + 10\log(5725.00 - 5688.73) = 26.59 > 24\text{dBm}$

Chain 1

1. $11\text{dBm} + 10\log(41.43) = 27.17 > 24\text{dBm}$
2. $11\text{dBm} + 10\log(41.50) = 27.18 > 24\text{dBm}$
3. $11\text{dBm} + 10\log(41.60) = 27.19 > 24\text{dBm}$
4. $11\text{dBm} + 10\log(42.02) = 27.23 > 24\text{dBm}$
5. $11\text{dBm} + 10\log(41.68) = 27.19 > 24\text{dBm}$
6. $11\text{dBm} + 10\log(5725.00 - 5689.15) = 26.54 > 24\text{dBm}$

802.11ac (VHT80)

Chan.	Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
58	5290	7.69	7.36	11.320	10.54	24.00	Pass
106	5530	7.60	8.54	12.899	11.11	24.00	Pass
122	5610	7.75	7.68	11.818	10.73	24.00	Pass
138	5690 (For U-NII-2C)	6.72	5.10	8.600	9.34	24.00	Pass
138	5690 (For U-NII-3)	-6.58	-8.60	0.388	-4.11	30.00	Pass
155	5775	8.56	5.40	10.645	10.27	30.00	Pass

Note:

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

Chain 0

1. $11\text{dBm} + 10\log(82.84) = 30.18 > 24\text{dBm}$
2. $11\text{dBm} + 10\log(82.76) = 30.17 > 24\text{dBm}$
3. $11\text{dBm} + 10\log(82.72) = 30.17 > 24\text{dBm}$
4. $11\text{dBm} + 10\log(5725.00 - 5648.55) = 29.83 > 24\text{dBm}$

Chain 1

1. $11\text{dBm} + 10\log(82.40) = 30.15 > 24\text{dBm}$
2. $11\text{dBm} + 10\log(82.57) = 30.16 > 24\text{dBm}$
3. $11\text{dBm} + 10\log(82.37) = 30.15 > 24\text{dBm}$
4. $11\text{dBm} + 10\log(5725.00 - 5648.92) = 29.81 > 24\text{dBm}$

802.11ax (HE20)

Chan.	Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
52	5260	7.07	5.95	9.029	9.56	24.00	Pass
60	5300	6.33	6.18	8.445	9.27	24.00	Pass
64	5320	6.25	6.90	9.115	9.60	24.00	Pass
100	5500	6.68	6.95	9.610	9.83	24.00	Pass
116	5580	6.82	7.56	10.510	10.22	24.00	Pass
140	5700	7.36	5.35	8.873	9.48	24.00	Pass
144	5720 (For U-NII-2C)	3.16	4.82	5.220	7.18	22.86	Pass
144	5720 (For U-NII-3)	-2.33	-0.27	1.559	1.93	30.00	Pass
149	5745	7.04	5.90	8.949	9.52	30.00	Pass
157	5785	7.58	4.23	8.376	9.23	30.00	Pass
165	5825	7.28	3.50	7.584	8.80	30.00	Pass

Note:

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

Chain 0

1. $11\text{dBm} + 10\log(21.13) = 24.24 > 24\text{dBm}$
2. $11\text{dBm} + 10\log(20.75) = 24.17 > 24\text{dBm}$
3. $11\text{dBm} + 10\log(20.65) = 24.14 > 24\text{dBm}$
4. $11\text{dBm} + 10\log(20.82) = 24.18 > 24\text{dBm}$
5. $11\text{dBm} + 10\log(20.76) = 24.17 > 24\text{dBm}$
6. $11\text{dBm} + 10\log(20.86) = 24.19 > 24\text{dBm}$
7. $11\text{dBm} + 10\log(5725.00 - 5709.65) = 22.86 < 24\text{dBm}$

Chain 1

1. $11\text{dBm} + 10\log(20.76) = 24.17 > 24\text{dBm}$
2. $11\text{dBm} + 10\log(20.68) = 24.15 > 24\text{dBm}$
3. $11\text{dBm} + 10\log(20.76) = 24.17 > 24\text{dBm}$
4. $11\text{dBm} + 10\log(20.71) = 24.16 > 24\text{dBm}$
5. $11\text{dBm} + 10\log(20.72) = 24.16 > 24\text{dBm}$
6. $11\text{dBm} + 10\log(20.46) = 24.10 > 24\text{dBm}$
7. $11\text{dBm} + 10\log(5725.00 - 5709.63) = 22.86 < 24\text{dBm}$

802.11ax (HE40)

Chan.	Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
54	5270	7.05	5.35	8.495	9.29	24.00	Pass
62	5310	6.61	7.12	9.734	9.88	24.00	Pass
102	5510	7.24	7.42	10.817	10.34	24.00	Pass
110	5550	7.15	7.41	10.696	10.29	24.00	Pass
134	5670	7.68	4.93	8.973	9.53	24.00	Pass
142	5710 (For U-NII-2C)	5.33	4.47	6.398	8.06	24.00	Pass
142	5710 (For U-NII-3)	-3.87	-5.18	0.735	-1.34	30.00	Pass
151	5755	7.77	5.51	9.540	9.80	30.00	Pass
159	5795	7.93	3.99	8.715	9.40	30.00	Pass

Note:

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

Chain 0

1. $11\text{dBm} + 10\log(45.44) = 27.57 > 24\text{dBm}$
2. $11\text{dBm} + 10\log(46.00) = 27.62 > 24\text{dBm}$
3. $11\text{dBm} + 10\log(45.42) = 27.57 > 24\text{dBm}$
4. $11\text{dBm} + 10\log(45.46) = 27.57 > 24\text{dBm}$
5. $11\text{dBm} + 10\log(45.75) = 27.60 > 24\text{dBm}$
6. $11\text{dBm} + 10\log(5725.00 - 5689.14) = 26.54 > 24\text{dBm}$

Chain 1

1. $11\text{dBm} + 10\log(42.45) = 27.27 > 24\text{dBm}$
2. $11\text{dBm} + 10\log(42.08) = 27.24 > 24\text{dBm}$
3. $11\text{dBm} + 10\log(41.91) = 27.22 > 24\text{dBm}$
4. $11\text{dBm} + 10\log(42.18) = 27.25 > 24\text{dBm}$
5. $11\text{dBm} + 10\log(42.59) = 27.29 > 24\text{dBm}$
6. $11\text{dBm} + 10\log(5725.00 - 5689.03) = 26.55 > 24\text{dBm}$

802.11ax (HE80)

Chan.	Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1				
58	5290	7.01	6.82	9.832	9.93	24.00	Pass
106	5530	7.31	7.88	11.520	10.61	24.00	Pass
122	5610	7.01	7.48	10.621	10.26	24.00	Pass
138	5690 (For U-NII-2C)	5.83	4.47	6.998	8.45	24.00	Pass
138	5690 (For U-NII-3)	-6.62	-7.91	0.401	-3.97	30.00	Pass
155	5775	7.61	5.41	9.243	9.66	30.00	Pass

Note:

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

Chain 0

1. $11\text{dBm} + 10\log(81.63) = 30.11 > 24\text{dBm}$
2. $11\text{dBm} + 10\log(81.68) = 30.12 > 24\text{dBm}$
3. $11\text{dBm} + 10\log(81.75) = 30.12 > 24\text{dBm}$
4. $11\text{dBm} + 10\log(5725.00 - 5649.15) = 29.79 > 24\text{dBm}$

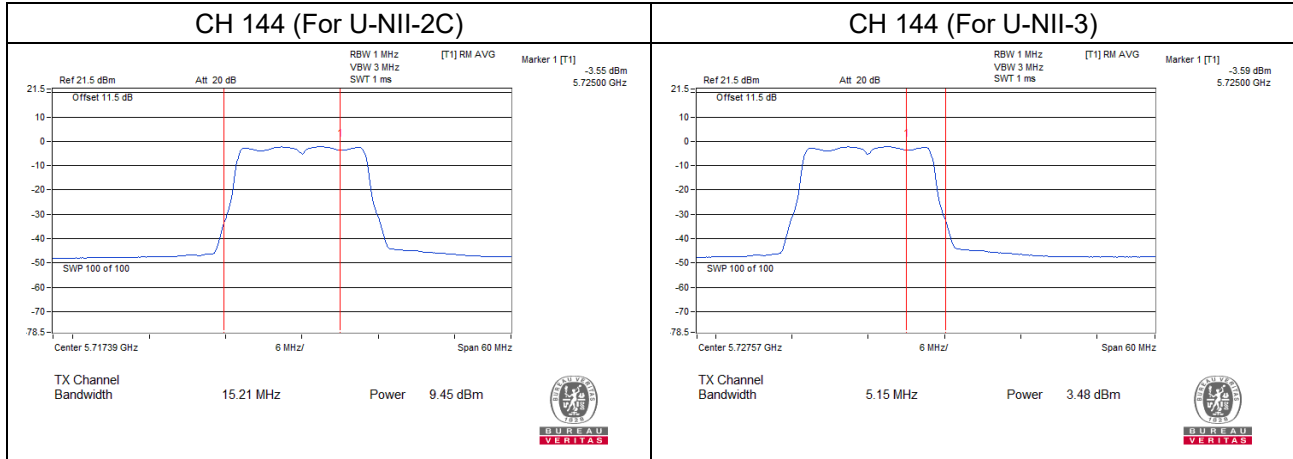
Chain 1

1. $11\text{dBm} + 10\log(81.63) = 30.11 > 24\text{dBm}$
2. $11\text{dBm} + 10\log(81.88) = 30.13 > 24\text{dBm}$
3. $11\text{dBm} + 10\log(81.86) = 30.13 > 24\text{dBm}$
4. $11\text{dBm} + 10\log(5725.00 - 5649.11) = 29.80 > 24\text{dBm}$

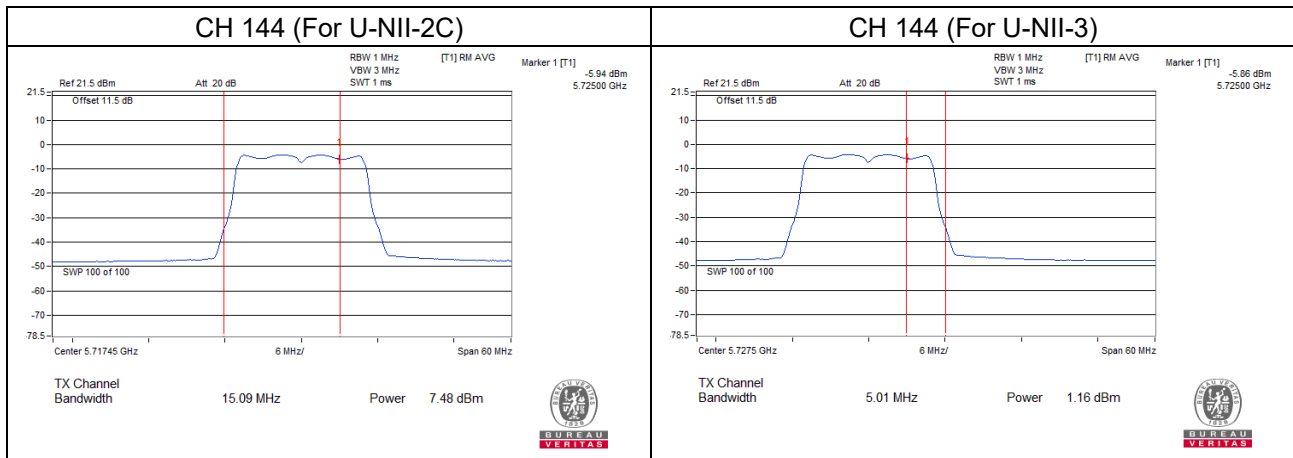
Straddle channel power plots:

802.11a

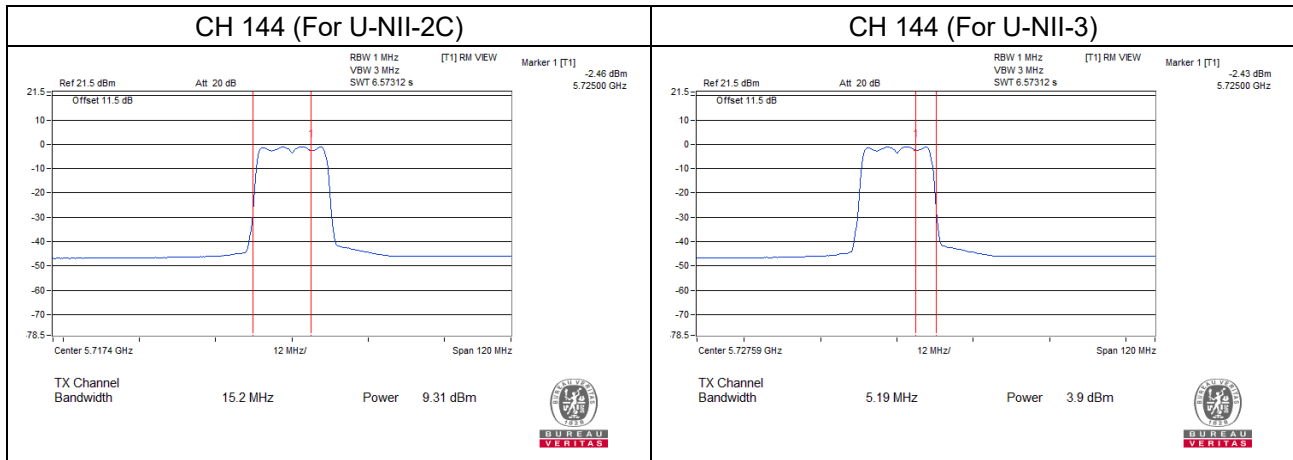
Chain 0



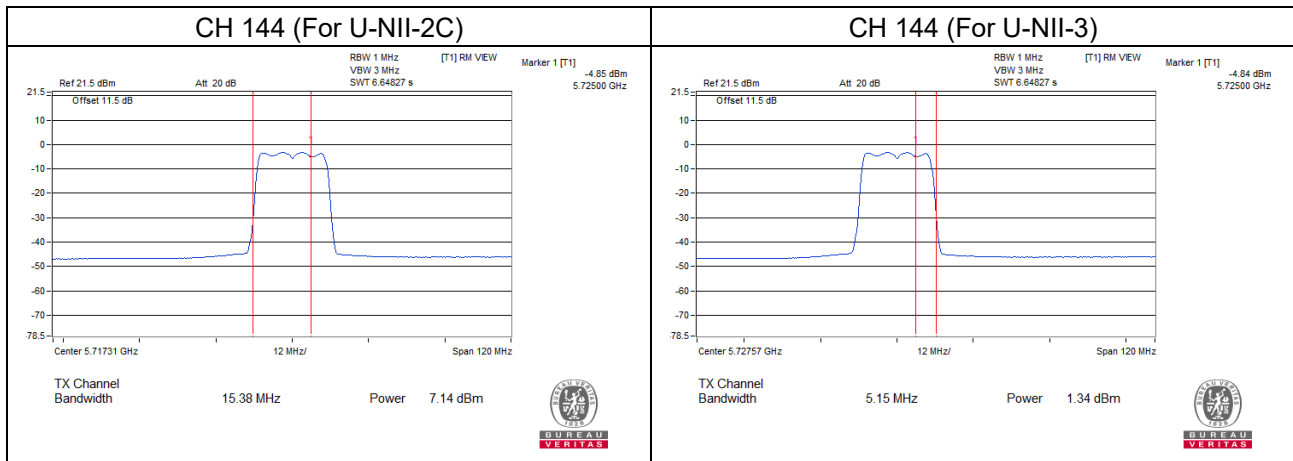
Chain 1



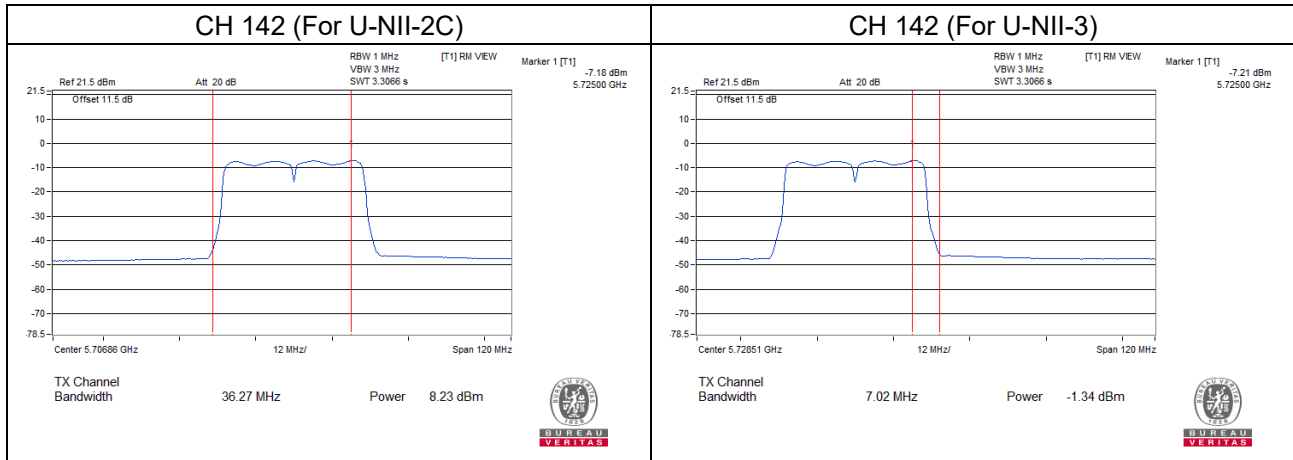
802.11n (HT20)
Chain 0



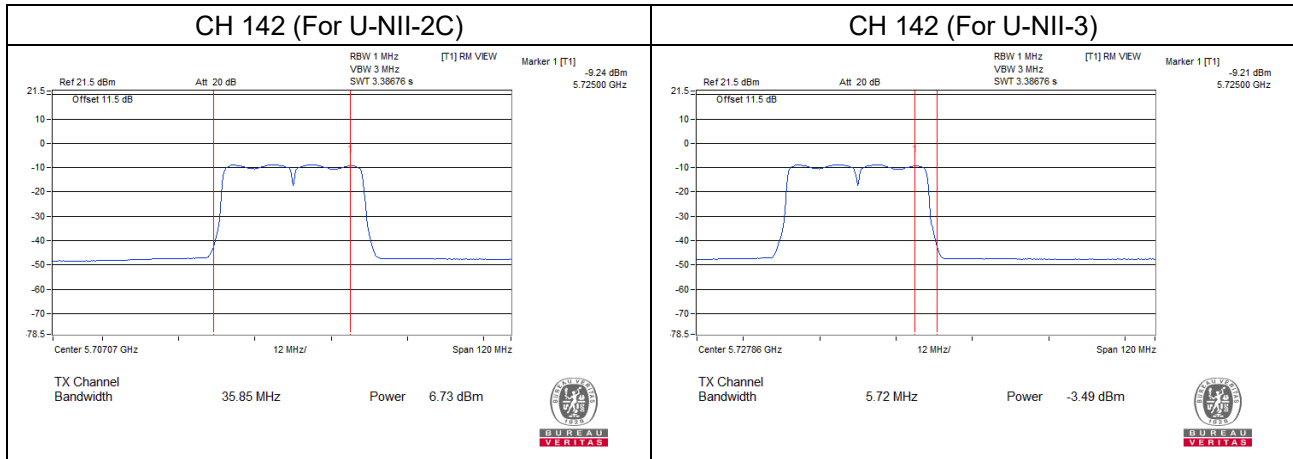
Chain 1



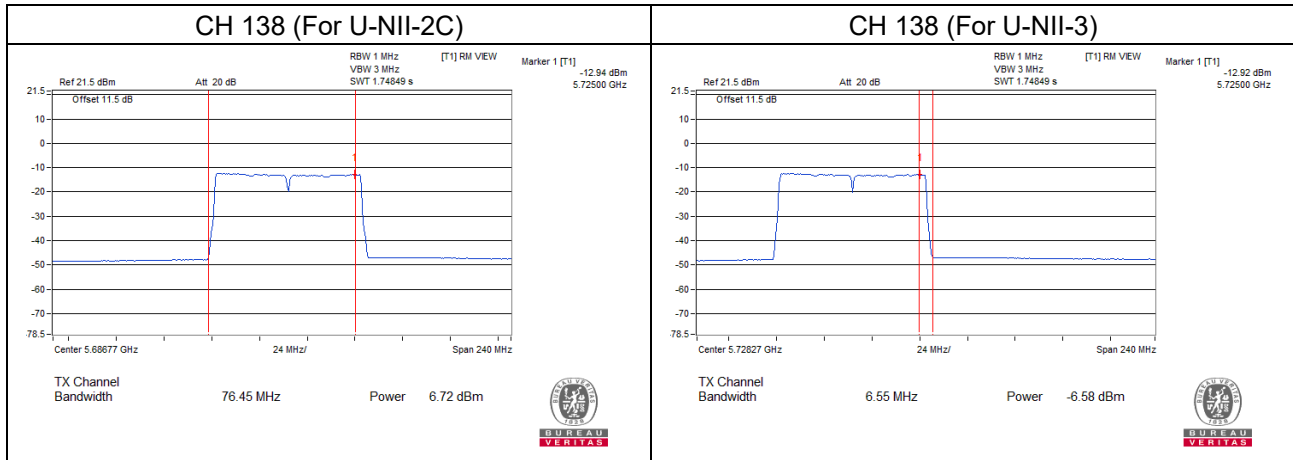
802.11n (HT40)
Chain 0



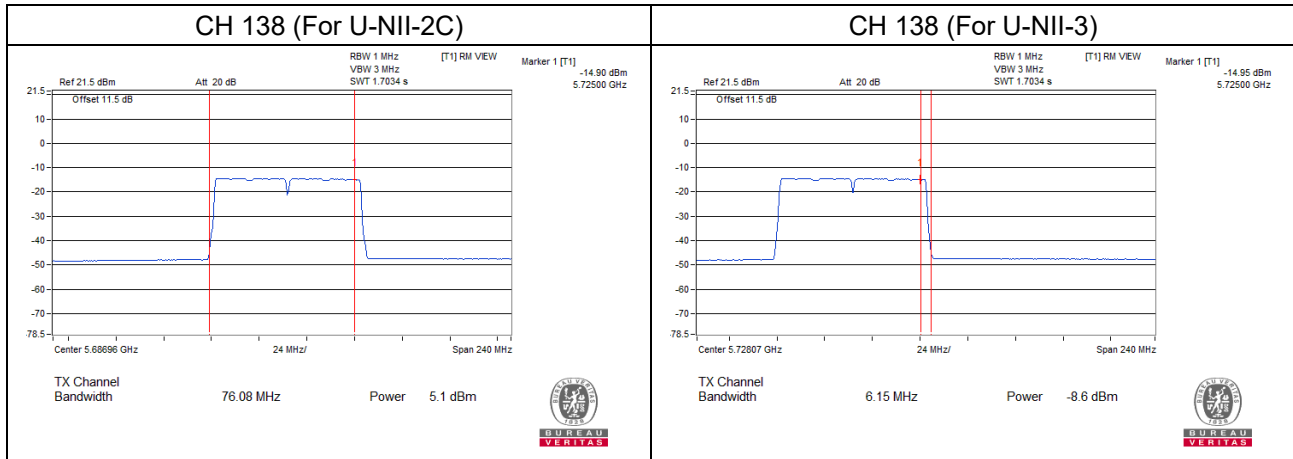
Chain 1



802.11ac (VHT80)
Chain 0

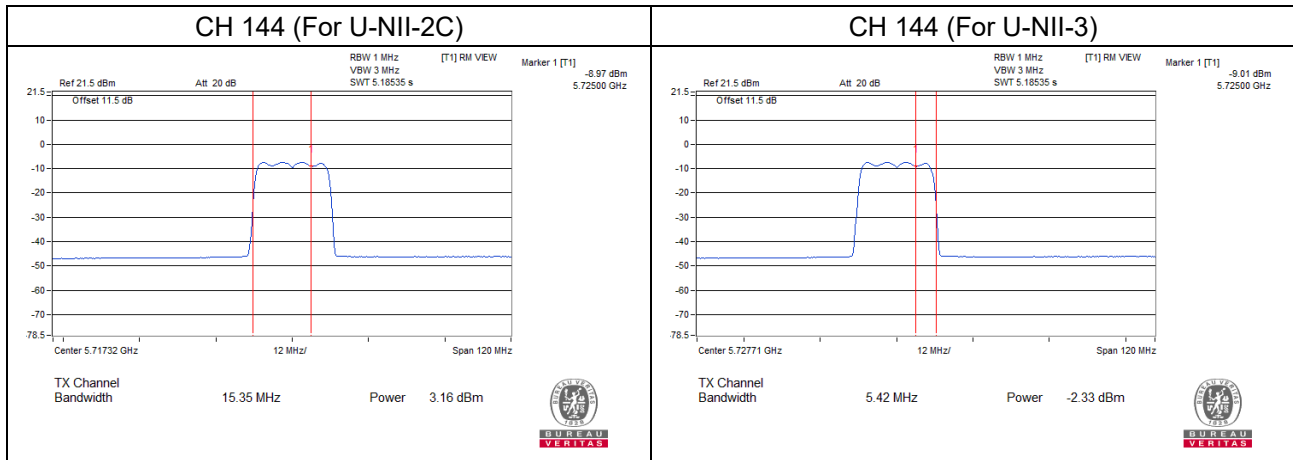


Chain 1

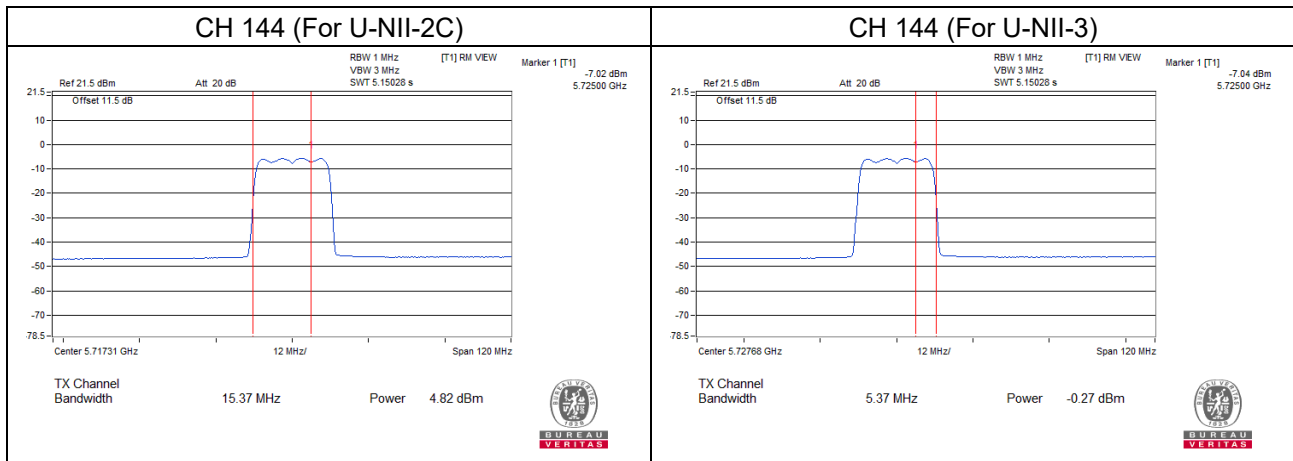


802.11ax (HE20)

Chain 0

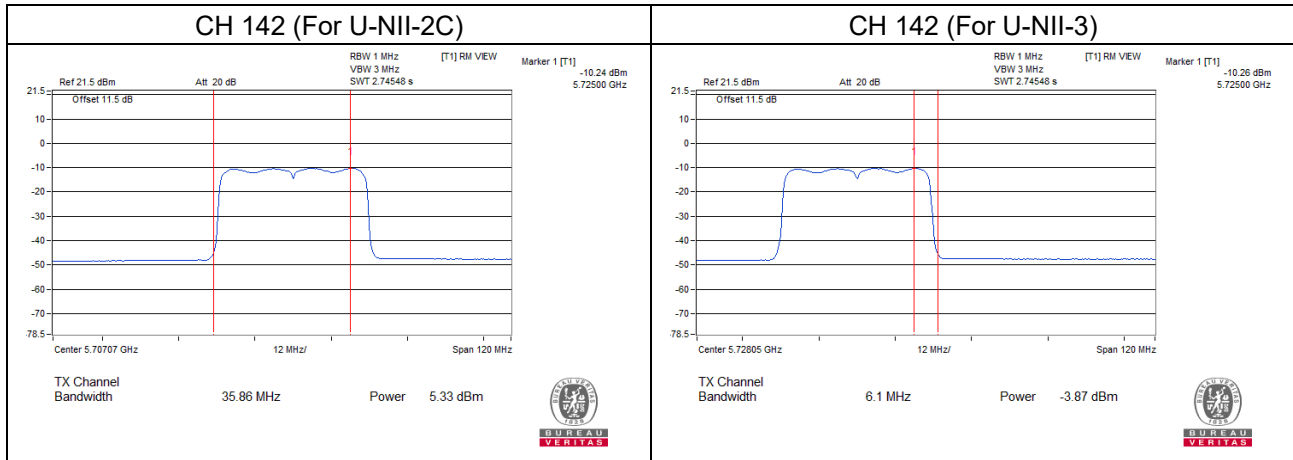


Chain 1

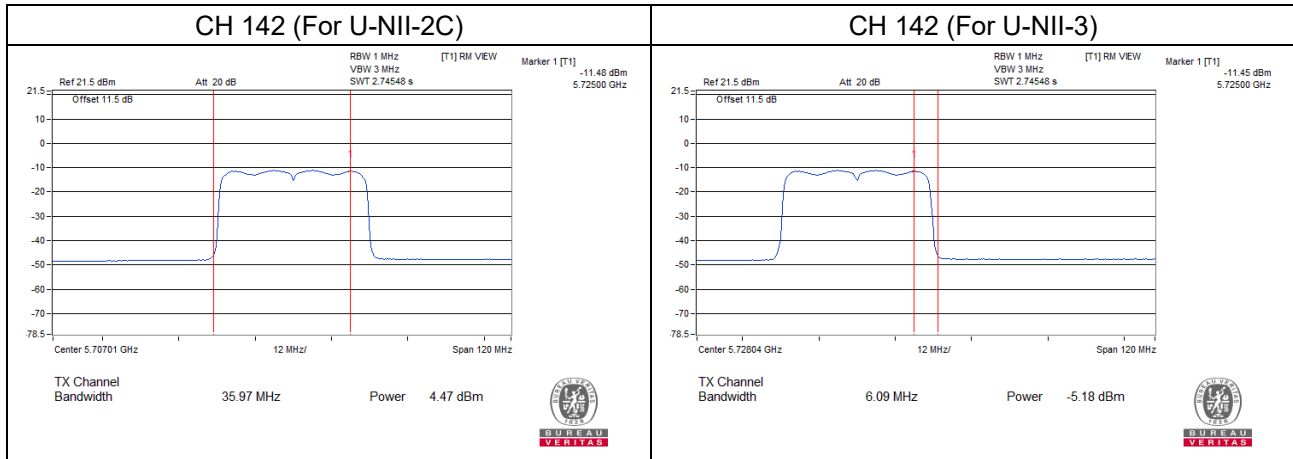


802.11ax (HE40)

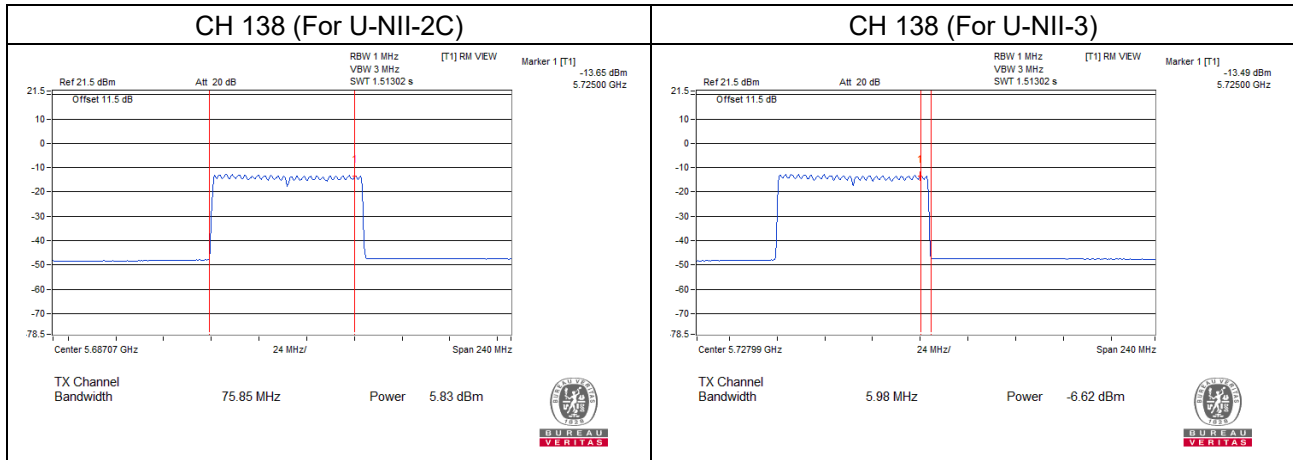
Chain 0



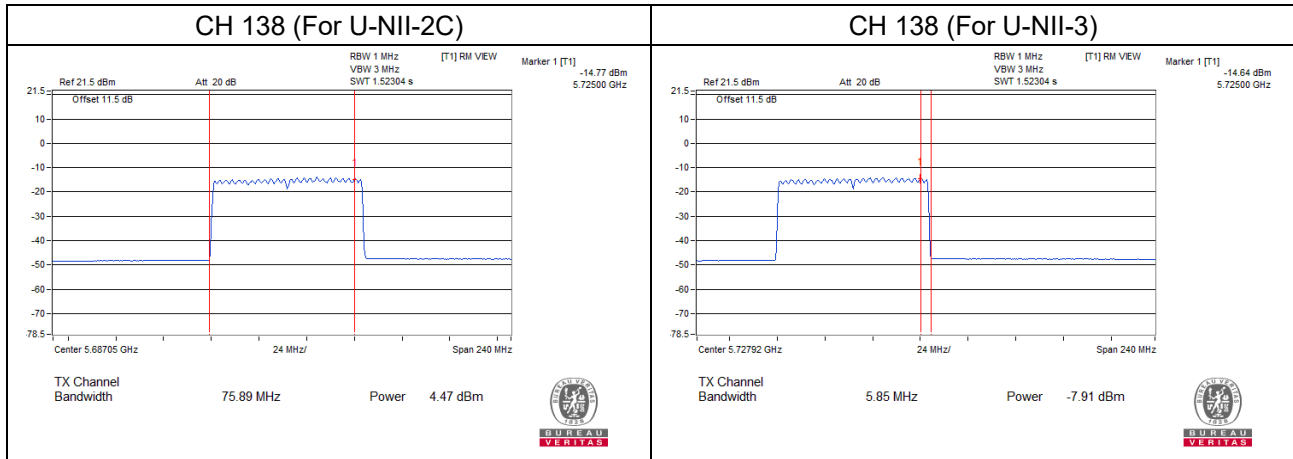
Chain 1



802.11ax (HE80)
Chain 0



Chain 1



26dB Bandwidth:

802.11a

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)	
		Chain 0	Chain 1
52	5260	20.04	20.06
60	5300	20.27	20.43
64	5320	20.57	20.09
100	5500	20.38	20.05
116	5580	20.27	20.10
140	5700	20.18	20.16
144	5720 (For U-NII-2C)	15.21	15.09

For CH144 (U-NII-2C Band): The 26dBc bandwidth below 5725MHz = 5725MHz - Marker 1

802.11n (HT20)

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)	
		Chain 0	Chain 1
52	5260	20.37	20.46
60	5300	20.55	20.62
64	5320	20.64	20.37
100	5500	20.67	20.68
116	5580	20.81	20.50
140	5700	20.49	20.44
144	5720 (For U-NII-2C)	15.20	15.38

For CH144 (U-NII-2C Band): The 26dBc bandwidth below 5725MHz = 5725MHz - Marker 1

802.11n (HT40)

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)	
		Chain 0	Chain 1
54	5270	44.27	41.43
62	5310	42.93	41.50
102	5510	44.77	41.60
110	5550	43.53	42.02
134	5670	42.56	41.68
142	5710 (For U-NII-2C)	36.27	35.85

For CH142 (U-NII-2C Band): The 26dBc bandwidth below 5725MHz = 5725MHz - Marker 1

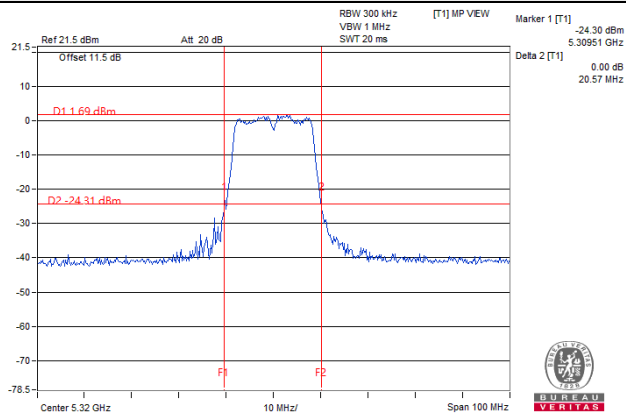
802.11ac (VHT80)

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)	
		Chain 0	Chain 1
58	5290	82.84	82.40
106	5530	82.76	82.57
122	5610	82.72	82.37
138	5690 (For U-NII-2C)	76.45	76.08

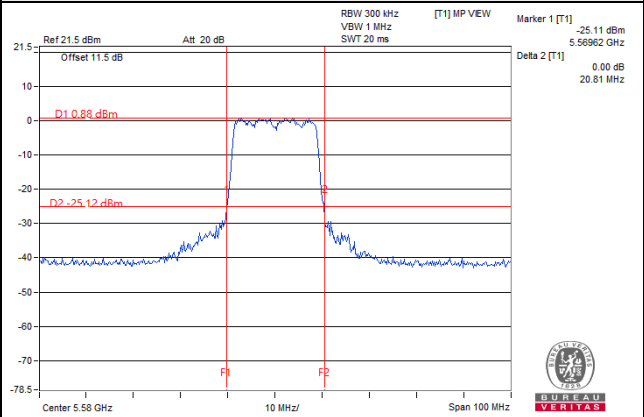
For CH138 (U-NII-2C Band): The 26dBc bandwidth below 5725MHz = 5725MHz - Marker 1

Spectrum Plot of Worst Value

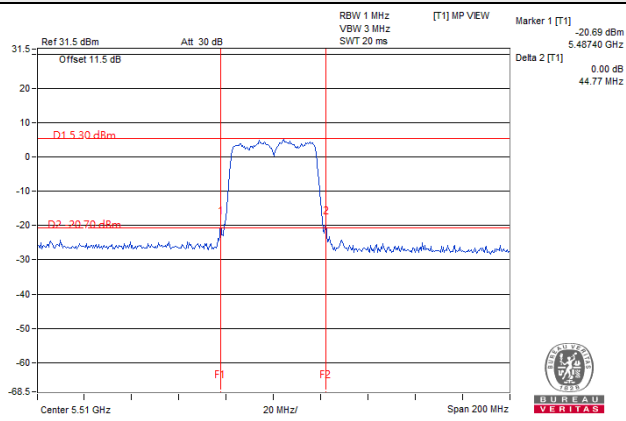
802.11a



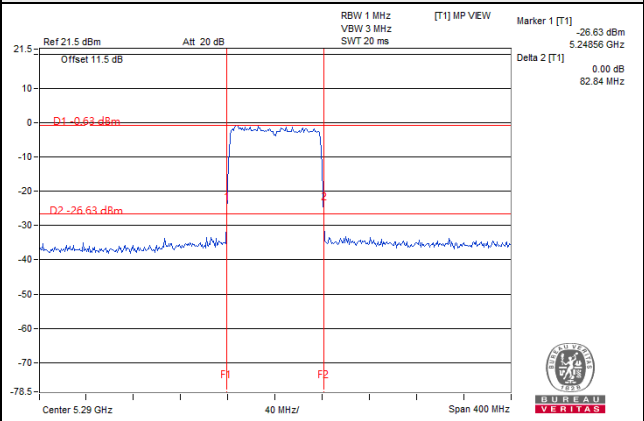
802.11n (HT20)



802.11n (HT40)



802.11ac (VHT80)



802.11ax (HE20)

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)	
		Chain 0	Chain 1
52	5260	21.13	20.76
60	5300	20.75	20.68
64	5320	20.65	20.76
100	5500	20.82	20.71
116	5580	20.76	20.72
140	5700	20.86	20.46
144	5720 (For U-NII-2C)	15.35	15.37

For CH144 (U-NII-2C Band): The 26dBc bandwidth below 5725MHz = 5725MHz - Marker 1

802.11ax (HE40)

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)	
		Chain 0	Chain 1
54	5270	45.44	42.45
62	5310	46.00	42.08
102	5510	45.42	41.91
110	5550	45.46	42.18
134	5670	45.75	42.59
142	5710 (For U-NII-2C)	35.86	35.97

For CH142 (U-NII-2C Band): The 26dBc bandwidth below 5725MHz = 5725MHz - Marker 1

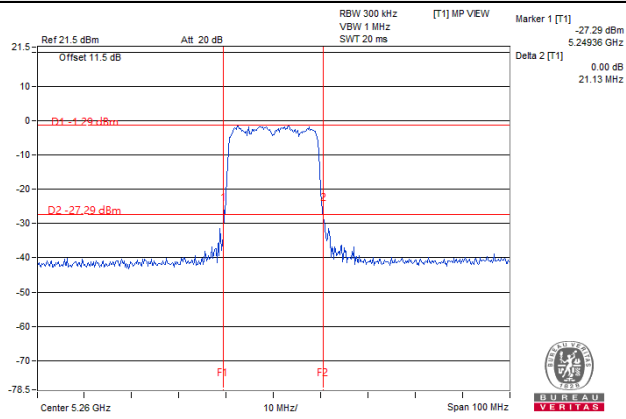
802.11ax (HE80)

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)	
		Chain 0	Chain 1
58	5290	81.63	81.63
106	5530	81.68	81.88
122	5610	81.75	81.86
138	5690 (For U-NII-2C)	75.85	75.89

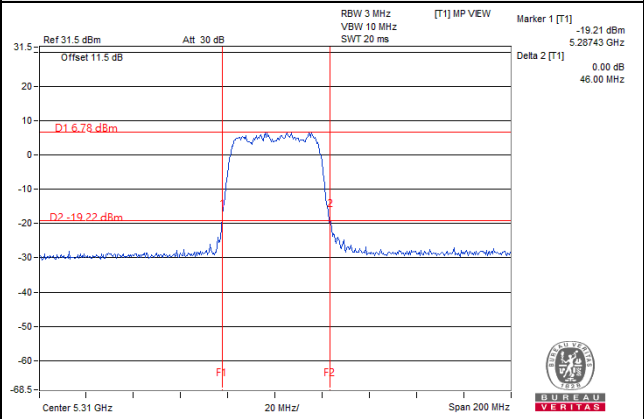
For CH138 (U-NII-2C Band): The 26dBc bandwidth below 5725MHz = 5725MHz - Marker 1

Spectrum Plot of Worst Value

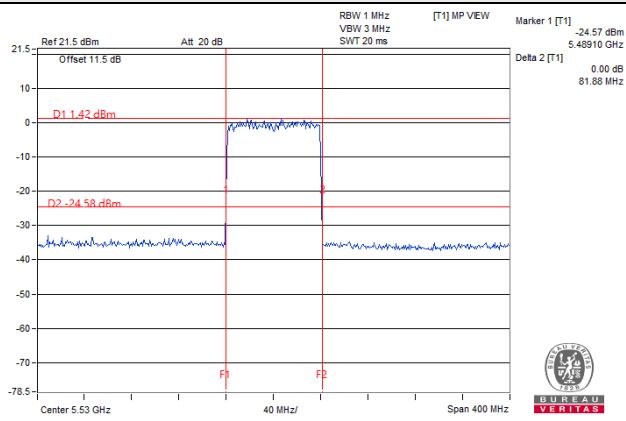
802.11ax (HE20)



802.11ax (HE40)



802.11ax (HE80)



EUT Average Power

802.11a

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	22.900	13.60
5470~5725	24.978	13.98

802.11n (HT20)

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	26.004	14.15
5470~5725	26.769	14.28

802.11n (HT40)

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	19.065	12.80
5470~5725	22.441	13.51

802.11ac (VHT80)

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	11.320	10.54
5470~5725	12.899	11.11

802.11ax (HE20)

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	9.115	9.60
5470~5725	10.510	10.22

802.11ax (HE40)

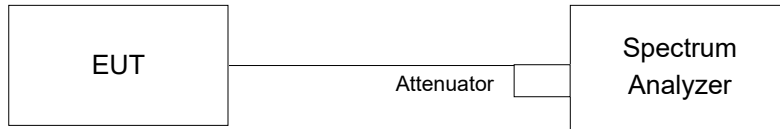
Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	9.734	9.88
5470~5725	10.817	10.34

802.11ax (HE80)

Frequency Band (MHz)	Max. Power	
	Output Power (mW)	Output Power (dBm)
5250~5350	9.832	9.93
5470~5725	11.520	10.61

4.3 Occupied Bandwidth Measurement

4.3.1 Test Setup



4.3.2 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.3.3 Test Procedure

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

4.3.4 Test Result

802.11a

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
36	5180	16.68	17.64
40	5200	16.80	16.68
48	5240	16.80	16.68
52	5260	16.68	16.68
60	5300	16.68	16.68
64	5320	16.80	16.68
100	5500	16.68	16.68
116	5580	16.80	16.68
140	5700	16.92	16.68
144	5720 (For U-NII-2C)	13.40	13.40
144	5720 (For U-NII-3)	3.40	3.28
149	5745	16.80	16.68
157	5785	16.80	16.68
165	5825	16.80	16.68

For CH144 (U-NII-2C Band): The Occupied bandwidth below 5725MHz = 5725MHz - Temp 1

For CH144 (U-NII-3 Band): The Occupied bandwidth above 5725MHz = Temp 2 - 5725MHz

802.11n (HT20)

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
36	5180	17.76	17.76
40	5200	17.76	17.76
48	5240	17.76	17.76
52	5260	17.64	17.76
60	5300	17.76	17.76
64	5320	17.76	17.64
100	5500	17.76	17.76
116	5580	17.64	17.76
140	5700	17.64	17.64
144	5720 (For U-NII-2C)	13.88	13.88
144	5720 (For U-NII-3)	3.88	3.76
149	5745	17.64	17.64
157	5785	17.64	17.64
165	5825	17.64	17.64

For CH144 (U-NII-2C Band): The Occupied bandwidth below 5725MHz = 5725MHz - Temp 1

For CH144 (U-NII-3 Band): The Occupied bandwidth above 5725MHz = Temp 2 - 5725MHz

802.11n (HT40)

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
38	5190	36.48	36.48
46	5230	36.36	36.48
54	5270	36.36	36.48
62	5310	36.48	36.48
102	5510	36.48	36.48
110	5550	36.48	36.48
134	5670	36.48	36.60
142	5710 (For U-NII-2C)	33.24	33.24
142	5710 (For U-NII-3)	3.24	3.24
151	5755	36.60	36.60
159	5795	36.36	36.48

For CH142 (U-NII-2C Band): The Occupied bandwidth below 5725MHz = 5725MHz - Temp 1

For CH142 (U-NII-3 Band): The Occupied bandwidth above 5725MHz = Temp 2 - 5725MHz

802.11ac (VHT80)

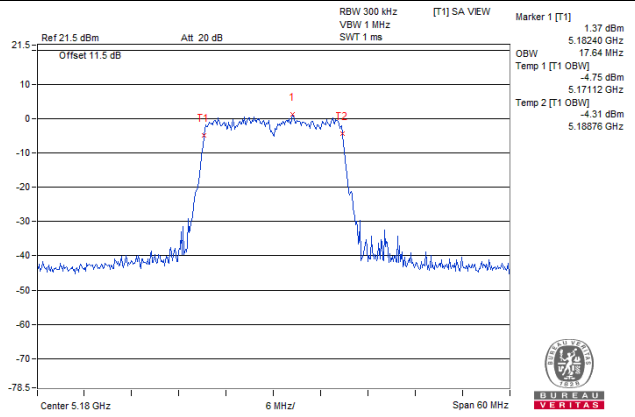
Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
42	5210	76.32	76.32
58	5290	76.56	76.32
106	5530	76.32	76.32
122	5610	76.56	76.56
138	5690 (For U-NII-2C)	73.40	73.40
138	5690 (For U-NII-3)	2.92	2.92
155	5775	76.32	76.32

For CH138 (U-NII-2C Band): The Occupied bandwidth below 5725MHz = 5725MHz - Temp 1

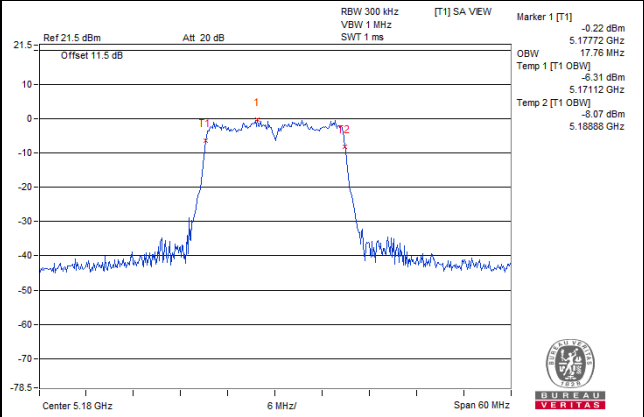
For CH138 (U-NII-3 Band): The Occupied bandwidth above 5725MHz = Temp 2 - 5725MHz

Spectrum Plot of Worst Value

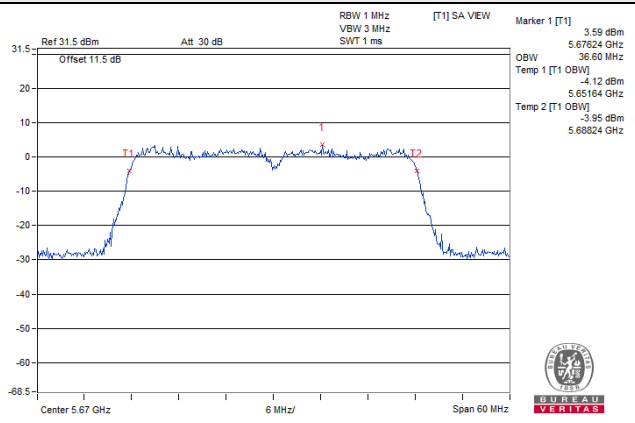
802.11a



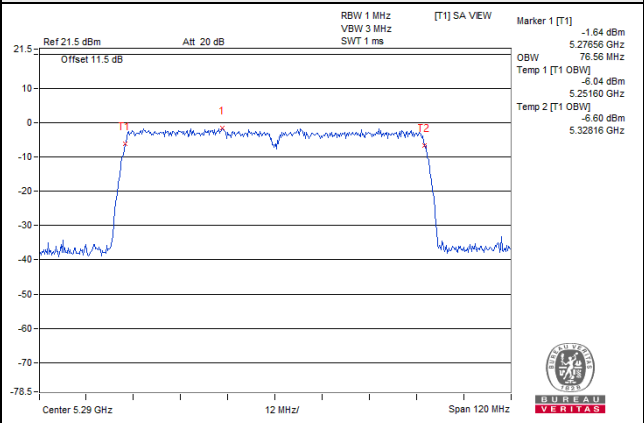
802.11n (HT20)



802.11n (HT40)

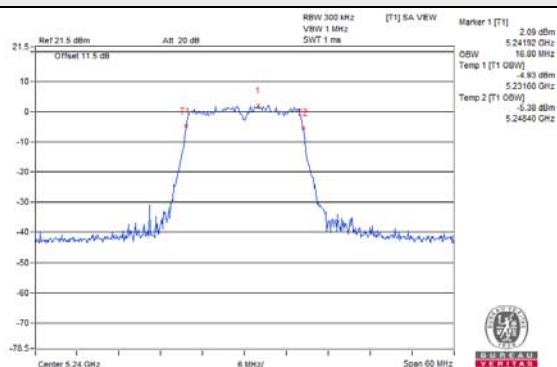


802.11ac (VHT80)

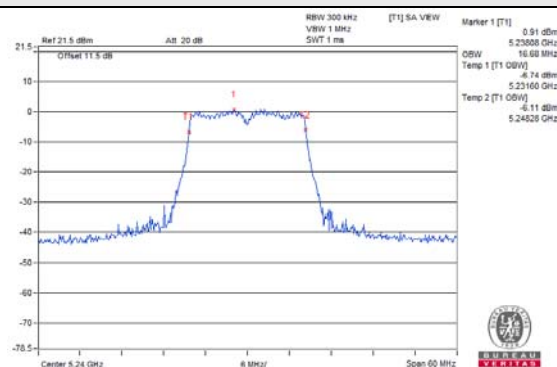


Spectrum Plot for near By DFS Band

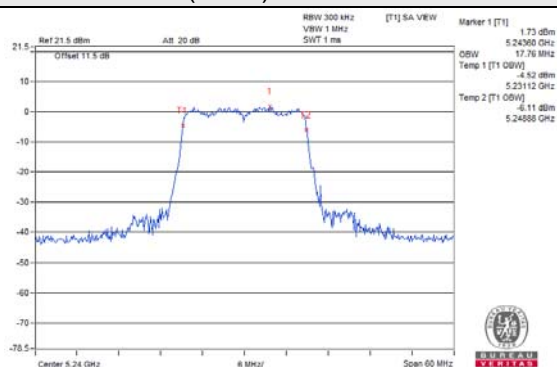
802.11a / Chain 0 / CH 48



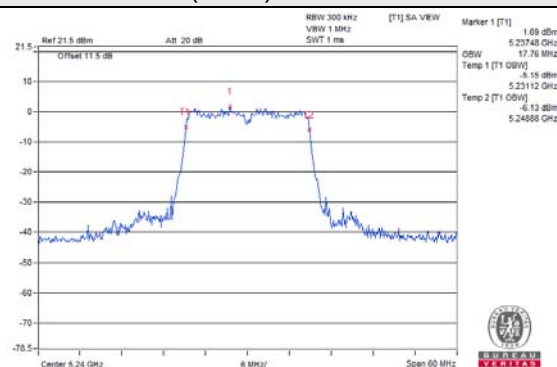
802.11a / Chain 1 / CH 48



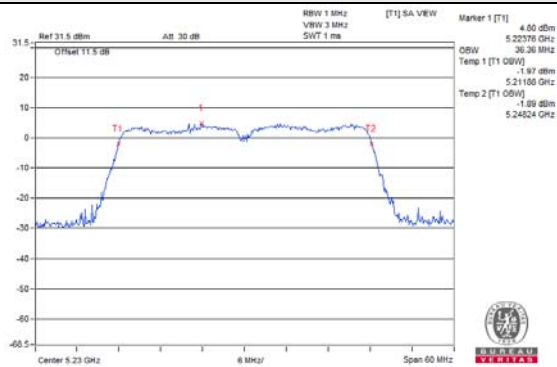
802.11n (HT20) / Chain 0 / CH 48



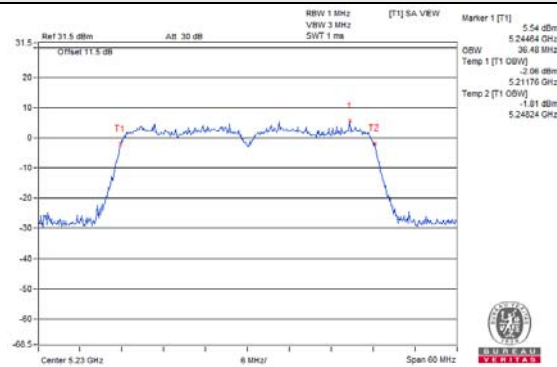
802.11n (HT20) / Chain 1 / CH 48



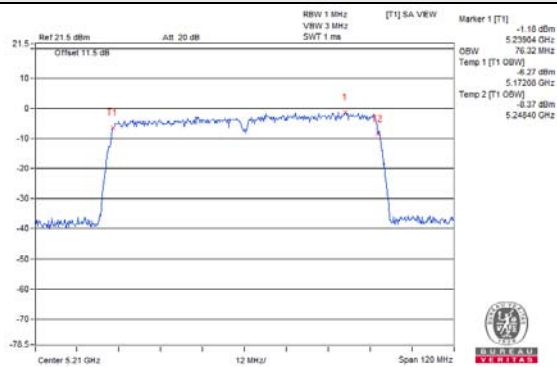
802.11n (HT40) / Chain 0 / CH 46



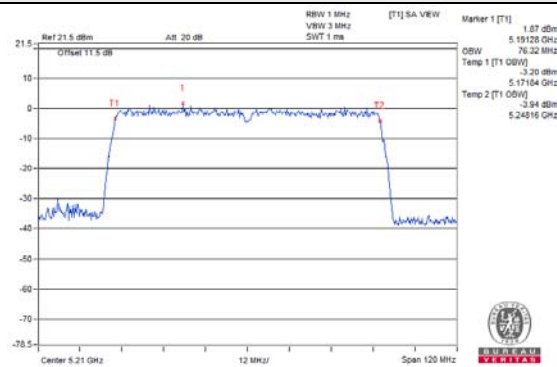
802.11n (HT40) / Chain 1 / CH 46



802.11ac (VHT80) / Chain 0 / CH 42

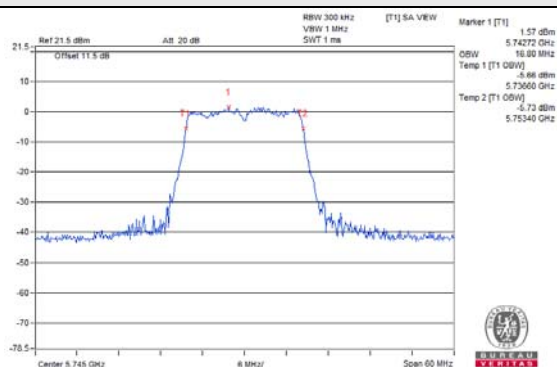


802.11ac (VHT80) / Chain 1 / CH 42

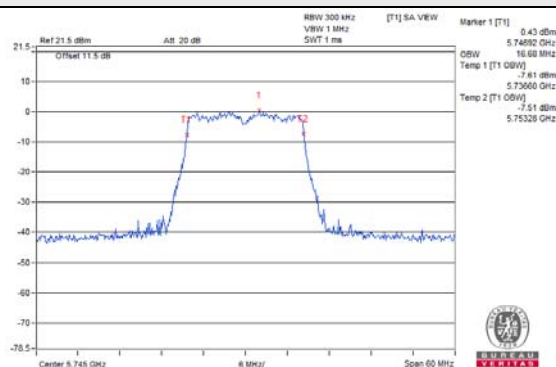


Spectrum Plot for near By DFS Band

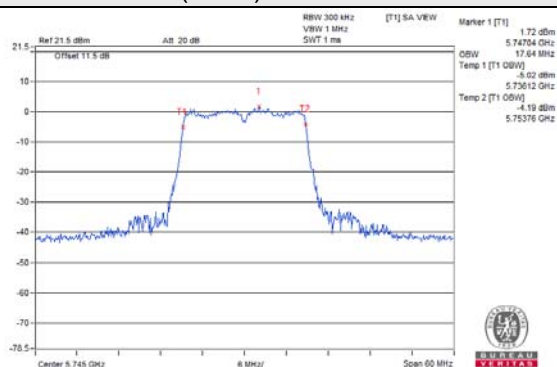
802.11a / Chain 0 / CH 149



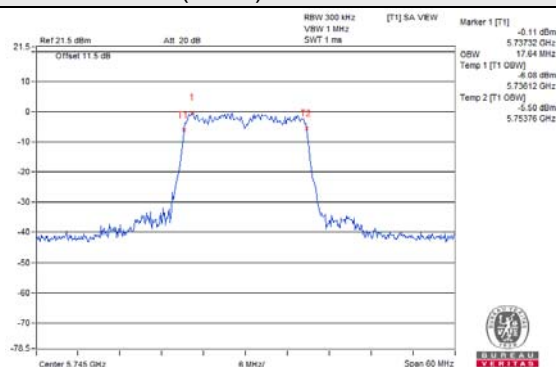
802.11a / Chain 1 / CH 149



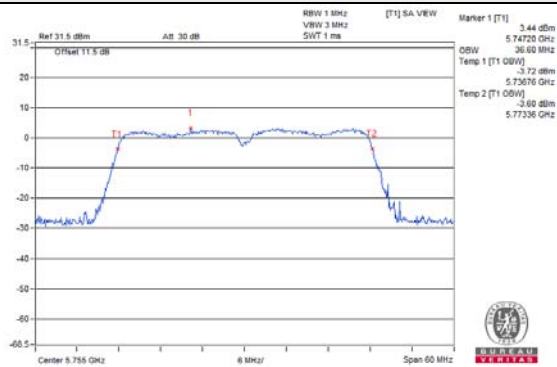
802.11n (HT20) / Chain 0 / CH 149



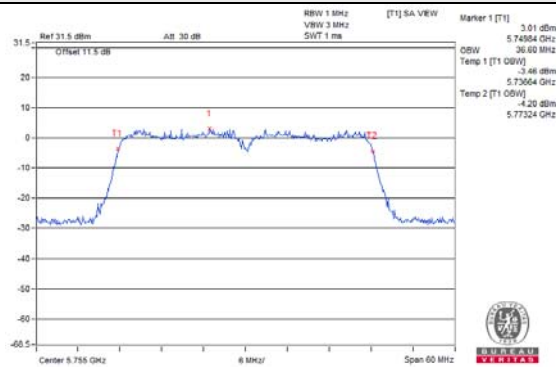
802.11n (HT20) / Chain 1 / CH 149



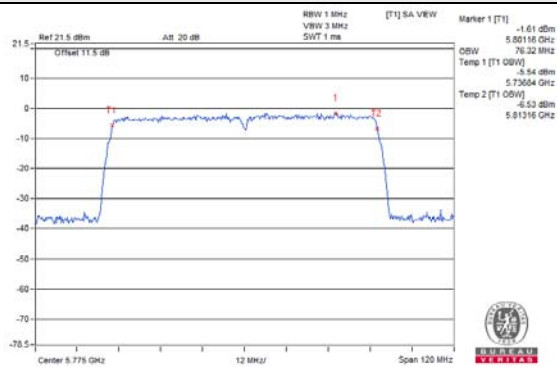
802.11n (HT40) / Chain 0 / CH 151



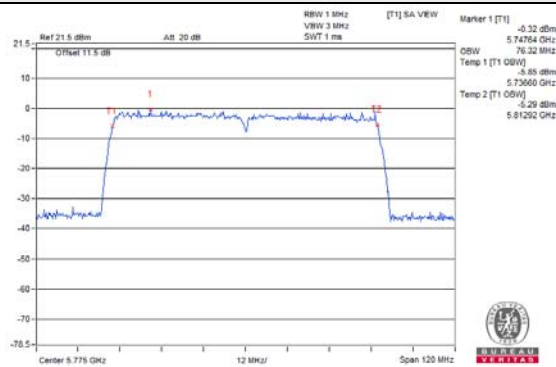
802.11n (HT40) / Chain 1 / CH 151



802.11ac (VHT80) / Chain 0 / CH 155



802.11ac (VHT80) / Chain 1 / CH 155



802.11ax (HE20)

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
36	5180	18.84	18.84
40	5200	18.84	18.84
48	5240	18.84	18.84
52	5260	18.84	18.84
60	5300	18.84	18.84
64	5320	18.84	18.84
100	5500	18.84	18.84
116	5580	18.84	18.84
140	5700	18.84	18.84
144	5720 (For U-NII-2C)	14.48	14.48
144	5720 (For U-NII-3)	4.36	4.36
149	5745	18.84	18.84
157	5785	18.84	18.84
165	5825	18.84	18.84

For CH144 (U-NII-2C Band): The Occupied bandwidth below 5725MHz = 5725MHz - Temp 1

For CH144 (U-NII-3 Band): The Occupied bandwidth above 5725MHz = Temp 2 - 5725MHz

802.11ax (HE40)

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
38	5190	37.80	37.80
46	5230	37.68	37.92
54	5270	37.80	37.92
62	5310	37.92	37.92
102	5510	37.92	37.92
110	5550	37.80	37.80
134	5670	37.92	37.92
142	5710 (For U-NII-2C)	33.96	33.96
142	5710 (For U-NII-3)	3.96	3.96
151	5755	37.80	37.92
159	5795	37.80	38.04

For CH142 (U-NII-2C Band): The Occupied bandwidth below 5725MHz = 5725MHz - Temp 1

For CH142 (U-NII-3 Band): The Occupied bandwidth above 5725MHz = Temp 2 - 5725MHz

802.11ax (HE80)

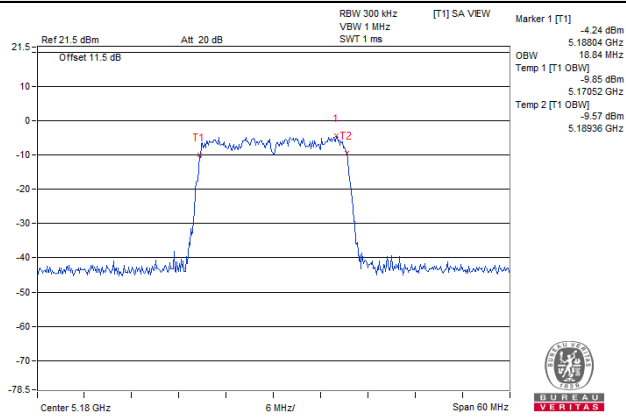
Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
42	5210	77.76	77.76
58	5290	77.76	77.76
106	5530	77.76	77.76
122	5610	77.76	77.52
138	5690 (For U-NII-2C)	73.88	73.88
138	5690 (For U-NII-3)	3.88	3.88
155	5775	77.76	78.00

For CH138 (U-NII-2C Band): The Occupied bandwidth below 5725MHz = 5725MHz - Temp 1

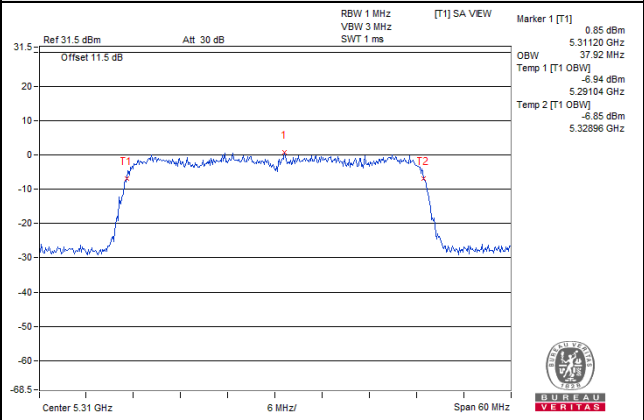
For CH138 (U-NII-3 Band): The Occupied bandwidth above 5725MHz = Temp 2 - 5725MHz

Spectrum Plot of Worst Value

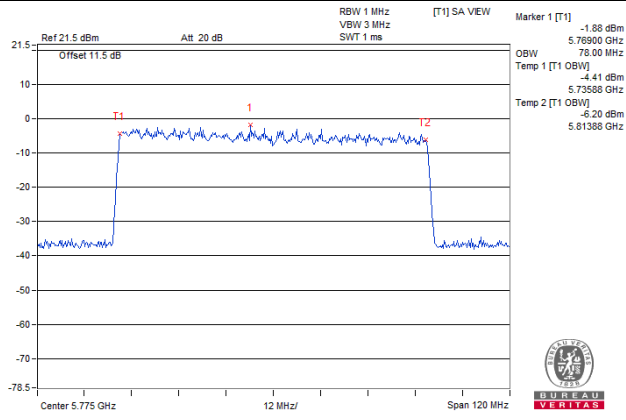
802.11ax (HE20)



802.11ax (HE40)

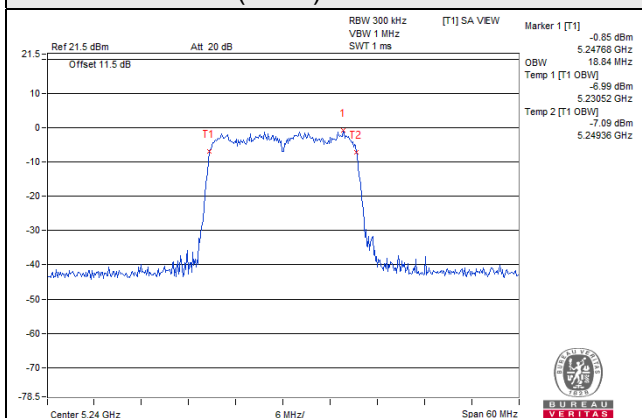


802.11ax (HE80)

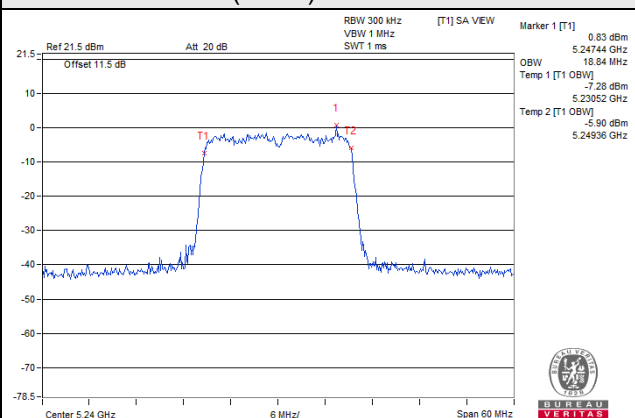


Spectrum Plot for near By DFS Band

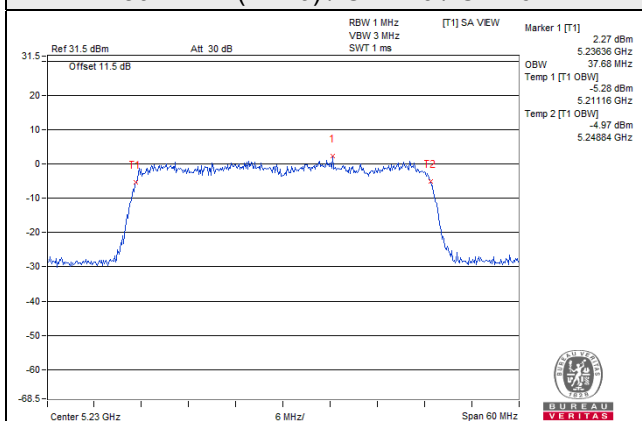
802.11ax (HE20) / Chain 0 / CH 48



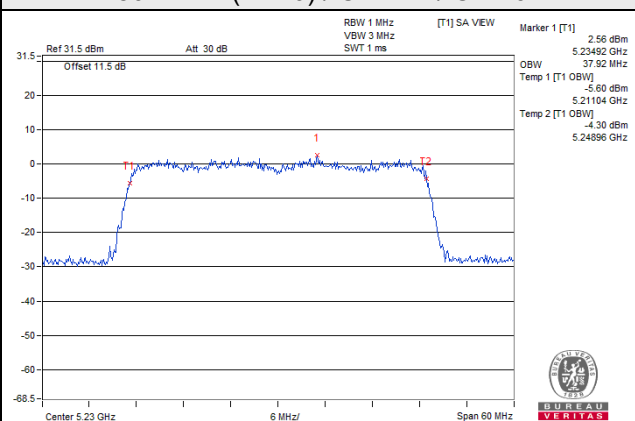
802.11ax (HE20) / Chain 1 / CH 48



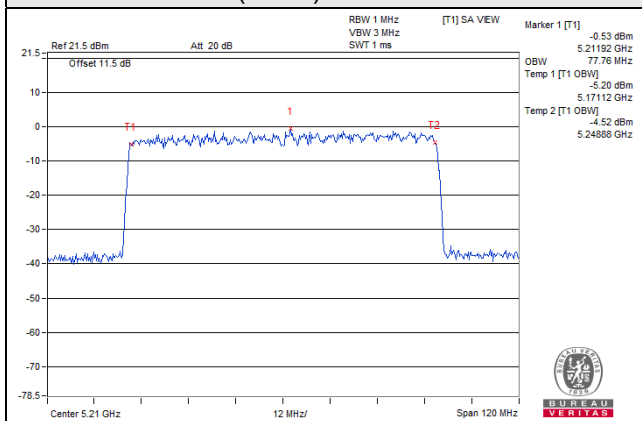
802.11ax (HE40) / Chain 0 / CH 46



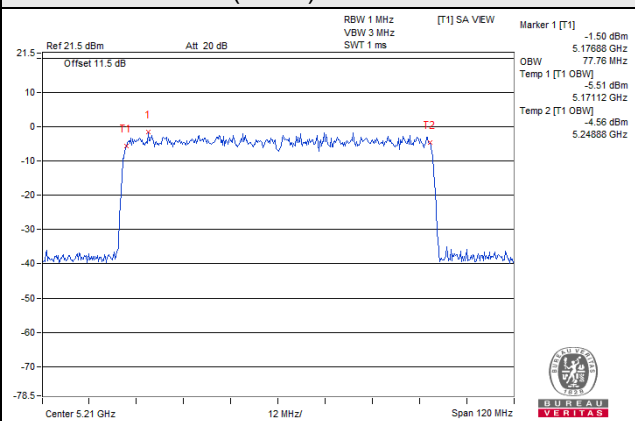
802.11ax (HE40) / Chain 1 / CH 46



802.11ax (HE80) / Chain 0 / CH 42

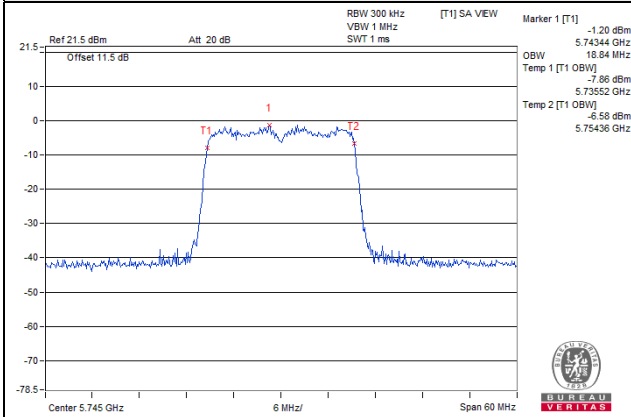


802.11ax (HE80) / Chain 1 / CH 42

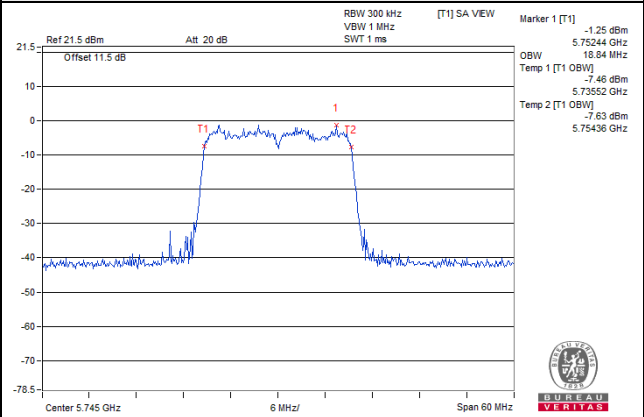


Spectrum Plot for near By DFS Band

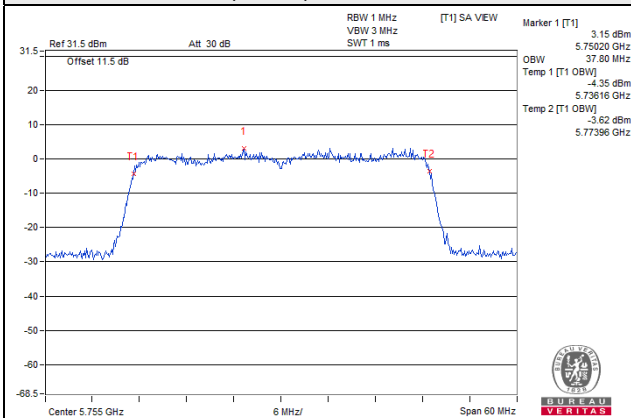
802.11ax (HE20) / Chain 0 / CH 149



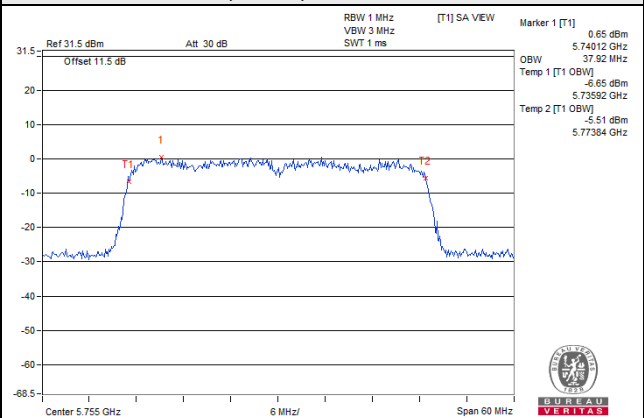
802.11ax (HE20) / Chain 1 / CH 149



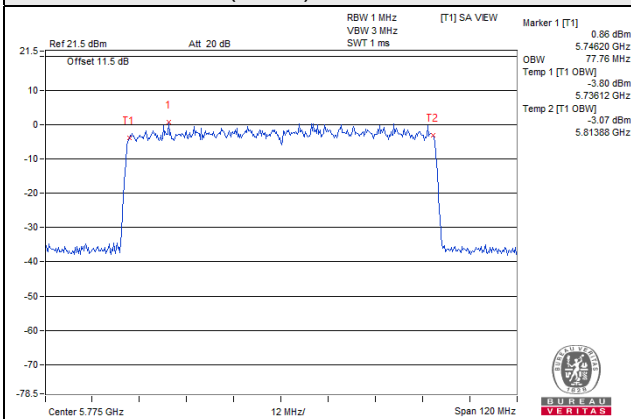
802.11ax (HE40) / Chain 0 / CH 151



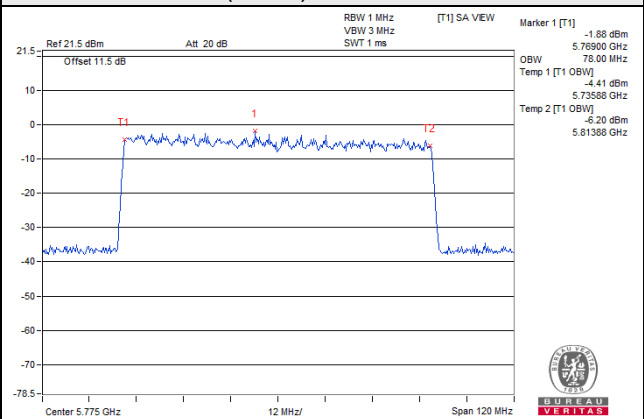
802.11ax (HE40) / Chain 1 / CH 151



802.11ax (HE80) / Chain 0 / CH 155



802.11ax (HE80) / Chain 1 / CH 155

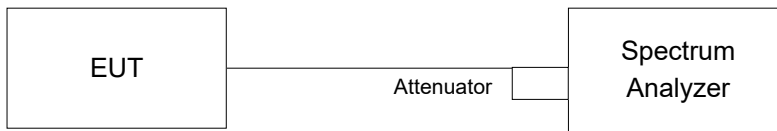


4.4 Peak Power Spectral Density Measurement

4.4.1 Limits of Peak Power Spectral Density Measurement

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

4.4.2 Test Setup



4.4.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.4.4 Test Procedures

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

Duty cycle of test signal is $\geq 98\%$

Using method SA-1

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

Duty cycle of test signal is $< 98\%$

Using method SA-2

- 1) Set span to encompass the entire emission bandwidth (EBW) of the signal.
- 2) Set RBW = 1MHz, Set VBW ≥ 3 MHz, Detector = RMS.
- 3) Set Channel power measure = 1MHz.
- 4) Sweep time = auto, trigger set to "free run".
- 5) Trace average at least 100 traces in power averaging mode.
- 6) Record the max value and add $10 \log (1/\text{duty cycle})$.

For U-NII-3 band

Duty cycle $\geq 98\%$

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

Duty cycle $< 98\%$

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

4.4.5 Deviation from Test Standard

No deviation.

4.4.6 EUT Operating Conditions

Same as 4.3.6.

4.4.7 Test Results

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

802.11a

Chan.	Freq. (MHz)	PSD (dBm/MHz)		Total PSD (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1			
36	5180	-1.56	-3.31	0.66	17.00	Pass
40	5200	-3.42	-2.56	0.04	17.00	Pass
48	5240	-2.08	-3.34	0.35	17.00	Pass
52	5260	-1.72	-3.76	0.39	11.00	Pass
60	5300	-2.40	-2.84	0.40	11.00	Pass
64	5320	-2.23	-2.51	0.64	11.00	Pass
100	5500	-2.08	-1.94	1.00	11.00	Pass
116	5580	-2.67	-1.47	0.98	11.00	Pass
140	5700	-1.53	-4.21	0.34	11.00	Pass
144	5720 (For U-NII-2C)	-1.51	-3.45	0.64	11.00	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.
- 5180-5250MHz: Directional gain = 2.49dBi + 10log(2)=5.50dBi < 6dBi, so the power density limit not need to reduce.
- 5250-5320MHz: Directional gain = 2.63dBi + 10log(2)=5.64dBi < 6dBi, so the power density limit not need to reduce.
- 5500-5720MHz: Directional gain = 2.88dBi + 10log(2)=5.89dBi < 6dBi, so the power density limit not need to reduce.

802.11n (HT20)

Chan.	Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)		Duty Factor (dB)	Total PSD with Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1				
36	5180	-2.28	-3.26	0.10	0.37	17.00	Pass
40	5200	-2.26	-2.73	0.10	0.62	17.00	Pass
48	5240	-2.28	-2.47	0.10	0.74	17.00	Pass
52	5260	-1.24	-3.29	0.10	0.97	11.00	Pass
60	5300	-2.00	-2.44	0.10	0.90	11.00	Pass
64	5320	-1.78	-1.86	0.10	1.29	11.00	Pass
100	5500	-1.81	-1.68	0.10	1.37	11.00	Pass
116	5580	-2.37	-1.23	0.10	1.35	11.00	Pass
140	5700	-1.15	-3.85	0.10	0.82	11.00	Pass
144	5720 (For U-NII-2C)	-1.69	-3.57	0.10	0.58	11.00	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.
- 5180-5250MHz: Directional gain = 2.49dBi + 10log(2)=5.50dBi < 6dBi, so the power density limit not need to reduce.
- 5250-5320MHz: Directional gain = 2.63dBi + 10log(2)=5.64dBi < 6dBi, so the power density limit not need to reduce.
- 5500-5720MHz: Directional gain = 2.88dBi + 10log(2)=5.89dBi < 6dBi, so the power density limit not need to reduce.
- Refer to section 3.3 for duty cycle spectrum plot.

802.11n (HT40)

Chan.	Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)		Duty Factor (dB)	Total PSD with Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1				
38	5190	-6.87	-6.34	0.11	-3.48	17.00	Pass
46	5230	-5.21	-6.68	0.11	-2.76	17.00	Pass
54	5270	-5.48	-7.30	0.11	-3.18	11.00	Pass
62	5310	-5.79	-6.54	0.11	-3.03	11.00	Pass
102	5510	-5.52	-5.52	0.11	-2.40	11.00	Pass
110	5550	-5.79	-5.45	0.11	-2.50	11.00	Pass
134	5670	-5.48	-8.05	0.11	-3.46	11.00	Pass
142	5710 (For U-NII-2C)	-6.24	-7.67	0.11	-3.78	11.00	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.
- 5180-5250MHz: Directional gain = 2.49dBi + 10log(2)=5.50dBi < 6dBi, so the power density limit not need to reduce.
- 5250-5320MHz: Directional gain = 2.63dBi + 10log(2)=5.64dBi < 6dBi, so the power density limit not need to reduce.
- 5500-5720MHz: Directional gain = 2.88dBi + 10log(2)=5.89dBi < 6dBi, so the power density limit not need to reduce.
- Refer to section 3.3 for duty cycle spectrum plot.

802.11ac (VHT80)

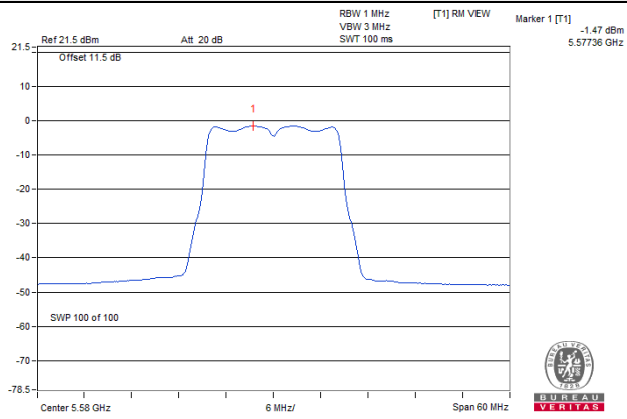
Chan.	Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)		Duty Factor (dB)	Total PSD with Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1				
42	5210	-11.27	-12.33	0.35	-8.41	17.00	Pass
58	5290	-12.19	-11.54	0.35	-8.49	11.00	Pass
106	5530	-11.53	-10.71	0.35	-7.74	11.00	Pass
122	5610	-11.37	-12.35	0.35	-8.47	11.00	Pass
138	5690 (For U-NII-2C)	-10.76	-12.55	0.35	-8.20	11.00	Pass

Note:

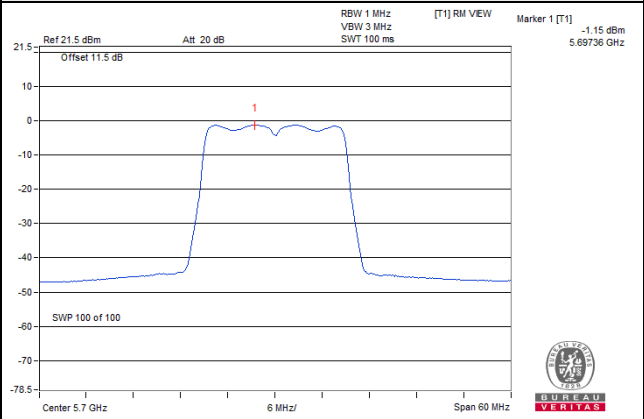
- Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
- 5180-5250MHz: Directional gain = 2.49dBi + 10log(2)=5.50dBi < 6dBi, so the power density limit not need to reduce.
- 5250-5320MHz: Directional gain = 2.63dBi + 10log(2)=5.64dBi < 6dBi, so the power density limit not need to reduce.
- 5500-5720MHz: Directional gain = 2.88dBi + 10log(2)=5.89dBi < 6dBi, so the power density limit not need to reduce.
- Refer to section 3.3 for duty cycle spectrum plot.

Spectrum Plot of Worst Value

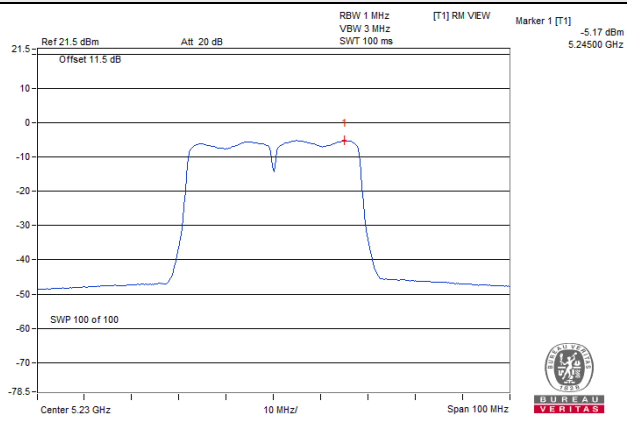
802.11a / Chain 1 / CH 116



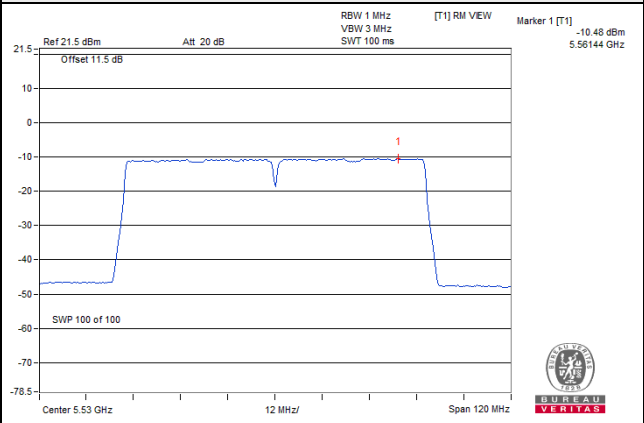
802.11n (HT20) / Chain 0 / CH 140



802.11n (HT40) / Chain 0 / CH 46



802.11ac (VHT80) / Chain 1 / CH 106



802.11ax (HE20)

Chan.	Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)		Duty Factor (dB)	Total PSD with Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1				
36	5180	-7.61	-6.12	0.10	-3.69	17.00	Pass
40	5200	-6.91	-6.17	0.10	-3.41	17.00	Pass
48	5240	-5.50	-6.85	0.10	-3.01	17.00	Pass
52	5260	-5.81	-7.05	0.10	-3.28	11.00	Pass
60	5300	-6.79	-6.77	0.10	-3.67	11.00	Pass
64	5320	-6.74	-6.08	0.10	-3.29	11.00	Pass
100	5500	-6.22	-6.01	0.10	-3.00	11.00	Pass
116	5580	-6.13	-5.43	0.10	-2.66	11.00	Pass
140	5700	-5.60	-7.65	0.10	-3.39	11.00	Pass
144	5720 (For U-NII-2C)	-5.82	-7.24	0.10	-3.36	11.00	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.
- 5180-5250MHz: Directional gain = $2.49\text{dBi} + 10\log(2) = 5.50\text{dBi} < 6\text{dBi}$, so the power density limit not need to reduce.
- 5250-5320MHz: Directional gain = $2.63\text{dBi} + 10\log(2) = 5.64\text{dBi} < 6\text{dBi}$, so the power density limit not need to reduce.
- 5500-5720MHz: Directional gain = $2.88\text{dBi} + 10\log(2) = 5.89\text{dBi} < 6\text{dBi}$, so the power density limit not need to reduce.
- Refer to section 3.3 for duty cycle spectrum plot.

802.11ax (HE40)

Chan.	Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)		Duty Factor (dB)	Total PSD with Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1				
38	5190	-9.98	-8.99	0.13	-6.32	17.00	Pass
46	5230	-8.84	-9.70	0.13	-6.11	17.00	Pass
54	5270	-8.89	-10.78	0.13	-6.59	11.00	Pass
62	5310	-9.38	-8.79	0.13	-5.93	11.00	Pass
102	5510	-8.91	-8.55	0.13	-5.59	11.00	Pass
110	5550	-8.87	-8.51	0.13	-5.55	11.00	Pass
134	5670	-8.25	-11.02	0.13	-6.28	11.00	Pass
142	5710 (For U-NII-2C)	-8.98	-10.52	0.13	-6.54	11.00	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.
- 5180-5250MHz: Directional gain = 2.49dBi + 10log(2)=5.50dBi < 6dBi, so the power density limit not need to reduce.
- 5250-5320MHz: Directional gain = 2.63dBi + 10log(2)=5.64dBi < 6dBi, so the power density limit not need to reduce.
- 5500-5720MHz: Directional gain = 2.88dBi + 10log(2)=5.89dBi < 6dBi, so the power density limit not need to reduce.
- Refer to section 3.3 for duty cycle spectrum plot.

802.11ax (HE80)

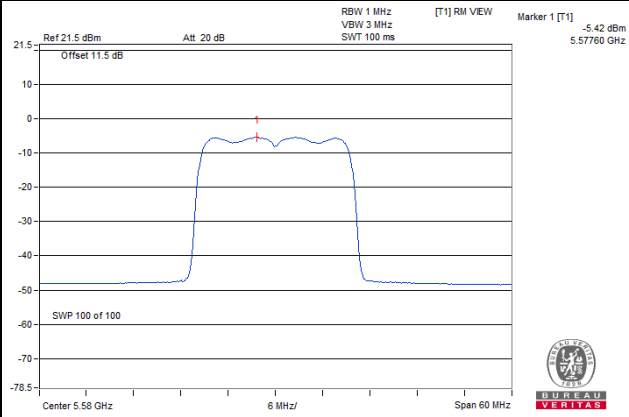
Chan.	Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)		Duty Factor (dB)	Total PSD with Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1				
42	5210	-12.23	-12.29	0.24	-9.01	17.00	Pass
58	5290	-11.96	-12.07	0.24	-8.76	11.00	Pass
106	5530	-11.59	-11.51	0.24	-8.30	11.00	Pass
122	5610	-11.15	-12.74	0.24	-8.62	11.00	Pass
138	5690 (For U-NII-2C)	-11.47	-15.02	0.24	-9.64	11.00	Pass

Note:

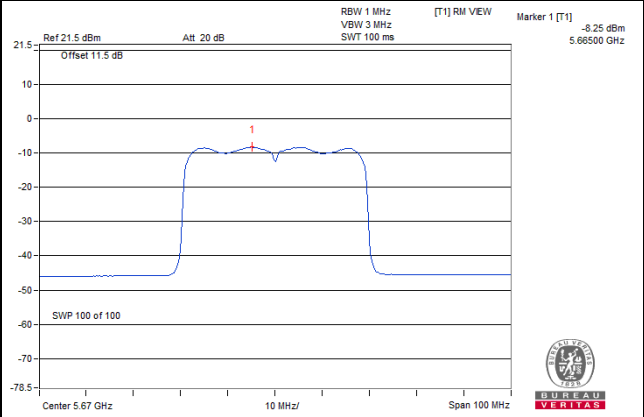
- Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
- 5180-5250MHz: Directional gain = 2.49dBi + 10log(2)=5.50dBi < 6dBi, so the power density limit not need to reduce.
- 5250-5320MHz: Directional gain = 2.63dBi + 10log(2)=5.64dBi < 6dBi, so the power density limit not need to reduce.
- 5500-5720MHz: Directional gain = 2.88dBi + 10log(2)=5.89dBi < 6dBi, so the power density limit not need to reduce.
- Refer to section 3.3 for duty cycle spectrum plot.

Spectrum Plot of Worst Value

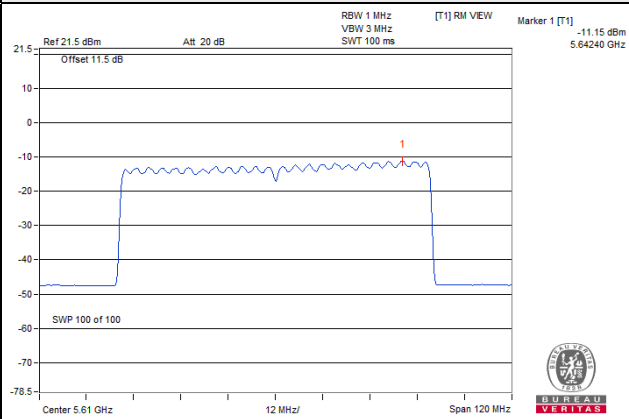
802.11ax (HE20) / Chain 1 / CH 116



802.11ax (HE40) / Chain 0 / CH 134



802.11ax (HE80) / Chain 0 / CH 122



For U-NII-3 band:

802.11a

TX chain	Chan.	Freq. (MHz)	PSD		10 log (N=2) dB	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	Pass / Fail
			(dBm/300kHz)	(dBm/500kHz)				
0	144	5720 (For U-NII-3)	-10.79	-8.57	3.01	-5.56	29.56	Pass
	149	5745	-10.95	-8.73	3.01	-5.72	29.56	Pass
	157	5785	-10.12	-7.90	3.01	-4.89	29.56	Pass
	165	5825	-10.16	-7.94	3.01	-4.93	29.56	Pass
1	144	5720 (For U-NII-3)	-12.43	-10.21	3.01	-7.20	29.56	Pass
	149	5745	-11.33	-9.11	3.01	-6.10	29.56	Pass
	157	5785	-13.50	-11.28	3.01	-8.27	29.56	Pass
	165	5825	-14.12	-11.90	3.01	-8.89	29.56	Pass

Note:

- Method E) 2) c) of power density measurement of KDB 662911 is using for calculating total power density, Measure value and add 10 log (N_{ANT}) dB.
- Directional gain = 3.43dBi + 10log(2)=6.44dBi > so the power density limit shall be reduced to 30-(6.44-6) = 29.56 dBm/500kHz.

802.11n (HT20)

TX chain	Chan.	Freq. (MHz)	PSD W/O Duty Factor		10 log (N=2) dB	Duty Factor (dB)	Total PSD With Duty Factor (dBm/500kHz)	Limit (dBm/500kHz)	Pass / Fail
			(dBm/300kHz)	(dBm/500kHz)					
0	144	5720 (For U-NII-3)	-10.94	-8.72	3.01	0.10	-5.61	29.56	Pass
	149	5745	-11.25	-9.03	3.01	0.10	-5.92	29.56	Pass
	157	5785	-11.00	-8.78	3.01	0.10	-5.67	29.56	Pass
	165	5825	-10.91	-8.69	3.01	0.10	-5.58	29.56	Pass
1	144	5720 (For U-NII-3)	-13.47	-11.25	3.01	0.10	-8.14	29.56	Pass
	149	5745	-12.25	-10.03	3.01	0.10	-6.92	29.56	Pass
	157	5785	-14.58	-12.36	3.01	0.10	-9.25	29.56	Pass
	165	5825	-14.57	-12.35	3.01	0.10	-9.24	29.56	Pass

Note:

- Method E) 2) c) of power density measurement of KDB 662911 is using for calculating total power density, Measure value and add 10 log (N_{ANT}) dB.
- Directional gain = 3.43dBi + 10log(2)=6.44dBi > so the power density limit shall be reduced to 30-(6.44-6) = 29.56 dBm/500kHz.
- Refer to section 3.3 for duty cycle spectrum plot.

802.11n (HT40)

TX chain	Chan.	Freq. (MHz)	PSD W/O Duty Factor		10 log (N=2) dB	Duty Factor (dB)	Total PSD With Duty Factor (dBm/500kHz)	Limit (dBm/500kHz)	Pass / Fail
			(dBm/300kHz)	(dBm/500kHz)					
0	142	5710 (For U-NII-3)	-15.57	-13.35	3.01	0.11	-10.23	29.56	Pass
	151	5755	-14.91	-12.69	3.01	0.11	-9.57	29.56	Pass
	159	5795	-14.48	-12.26	3.01	0.11	-9.14	29.56	Pass
1	142	5710 (For U-NII-3)	-17.69	-15.47	3.01	0.11	-12.35	29.56	Pass
	151	5755	-16.66	-14.44	3.01	0.11	-11.32	29.56	Pass
	159	5795	-18.43	-16.21	3.01	0.11	-13.09	29.56	Pass

Note:

- Method E) 2) c) of power density measurement of KDB 662911 is using for calculating total power density, Measure value and add $10 \log(N_{ANT})$ dB.
- Directional gain = $3.43\text{dBi} + 10\log(2) = 6.44\text{dBi}$ > so the power density limit shall be reduced to $30 - (6.44 - 6) = 29.56$ dBm/500kHz.
- Refer to section 3.3 for duty cycle spectrum plot.

802.11ac (VHT80)

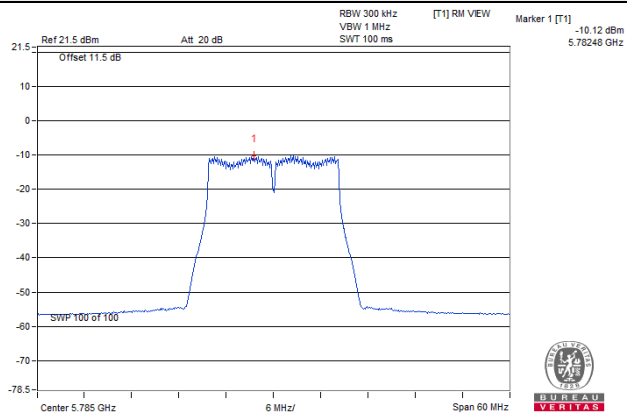
TX chain	Chan.	Freq. (MHz)	PSD W/O Duty Factor		10 log (N=2) dB	Duty Factor (dB)	Total PSD With Duty Factor (dBm/500kHz)	Limit (dBm/500kHz)	Pass / Fail
			(dBm/300kHz)	(dBm/500kHz)					
0	138	5690 (For U-NII-3)	-21.37	-19.15	3.01	0.35	-15.79	29.56	Pass
	155	5775	-20.44	-18.22	3.01	0.35	-14.86	29.56	Pass
1	138	5690 (For U-NII-3)	-23.32	-21.10	3.01	0.35	-17.74	29.56	Pass
	155	5775	-23.22	-21.00	3.01	0.35	-17.64	29.56	Pass

Note:

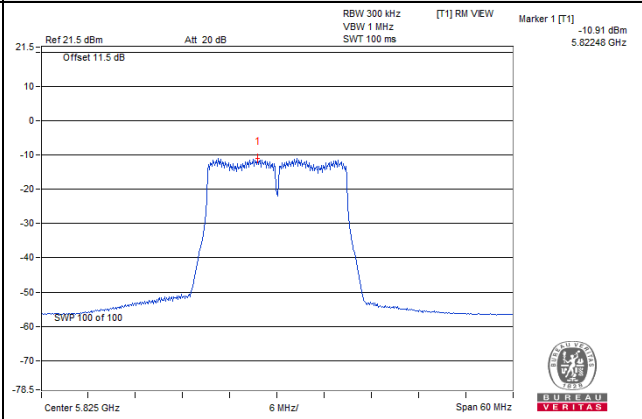
- Method E) 2) c) of power density measurement of KDB 662911 is using for calculating total power density, Measure value and add $10 \log(N_{ANT})$ dB.
- Directional gain = $3.43\text{dBi} + 10\log(2) = 6.44\text{dBi}$ > so the power density limit shall be reduced to $30 - (6.44 - 6) = 29.56$ dBm/500kHz.
- Refer to section 3.3 for duty cycle spectrum plot.

Spectrum Plot of Worst Value

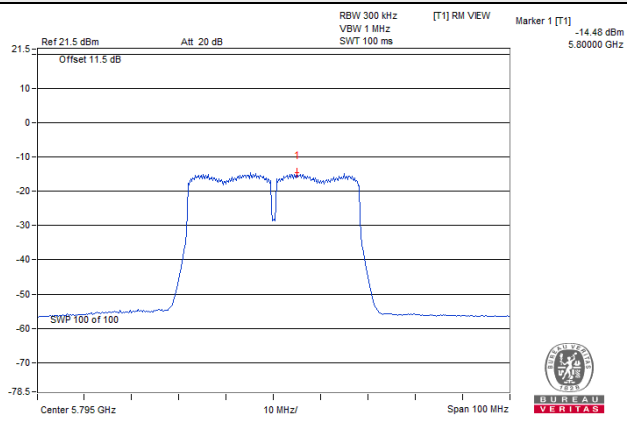
802.11a



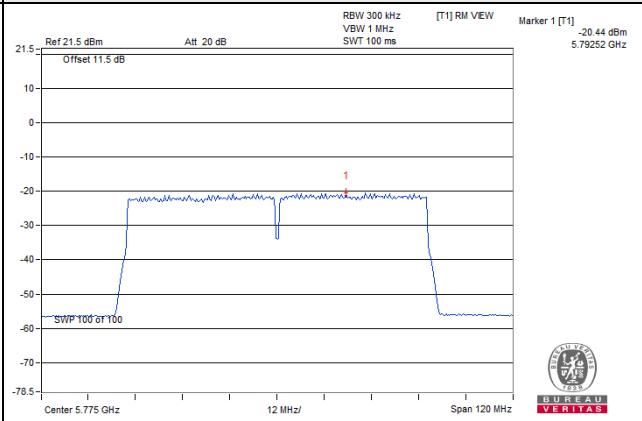
802.11n (HT20)



802.11n (HT40)



802.11ac (VHT80)



802.11ax (HE20)

TX chain	Chan.	Freq. (MHz)	PSD W/O Duty Factor		10 log (N=2) dB	Duty Factor (dB)	Total PSD With Duty Factor (dBm/500kHz)	Limit (dBm/500kHz)	Pass / Fail
			(dBm/300kHz)	(dBm/500kHz)					
2	144	5720 (For U-NII-3)	-18.21	-15.99	3.01	0.10	-12.88	29.56	Pass
	149	5745	-16.24	-14.02	3.01	0.10	-10.91	29.56	Pass
	157	5785	-16.23	-14.01	3.01	0.10	-10.90	29.56	Pass
	165	5825	-16.27	-14.05	3.01	0.10	-10.94	29.56	Pass
3	144	5720 (For U-NII-3)	-16.16	-13.94	3.01	0.10	-10.83	29.56	Pass
	149	5745	-17.12	-14.90	3.01	0.10	-11.79	29.56	Pass
	157	5785	-19.28	-17.06	3.01	0.10	-13.95	29.56	Pass
	165	5825	-20.22	-18.00	3.01	0.10	-14.89	29.56	Pass

Note:

- Method E) 2) c) of power density measurement of KDB 662911 is using for calculating total power density, Measure value and add $10 \log (N_{ANT})$ dB.
- Directional gain = $3.43\text{dBi} + 10\log(2)=6.44\text{dBi}$ > so the power density limit shall be reduced to $30-(6.44-6) = 29.56$ dBm/500kHz.
- Refer to section 3.3 for duty cycle spectrum plot.

802.11ax (HE40)

TX chain	Chan.	Freq. (MHz)	PSD W/O Duty Factor		10 log (N=2) dB	Duty Factor (dB)	Total PSD With Duty Factor (dBm/500kHz)	Limit (dBm/500kHz)	Pass / Fail
			(dBm/300kHz)	(dBm/500kHz)					
2	142	5710 (For U-NII-3)	-19.13	-16.91	3.01	0.13	-13.77	29.56	Pass
	151	5755	-17.44	-15.22	3.01	0.13	-12.08	29.56	Pass
	159	5795	-17.43	-15.21	3.01	0.13	-12.07	29.56	Pass
3	142	5710 (For U-NII-3)	-20.33	-18.11	3.01	0.13	-14.97	29.56	Pass
	151	5755	-19.74	-17.52	3.01	0.13	-14.38	29.56	Pass
	159	5795	-21.15	-18.93	3.01	0.13	-15.79	29.56	Pass

Note:

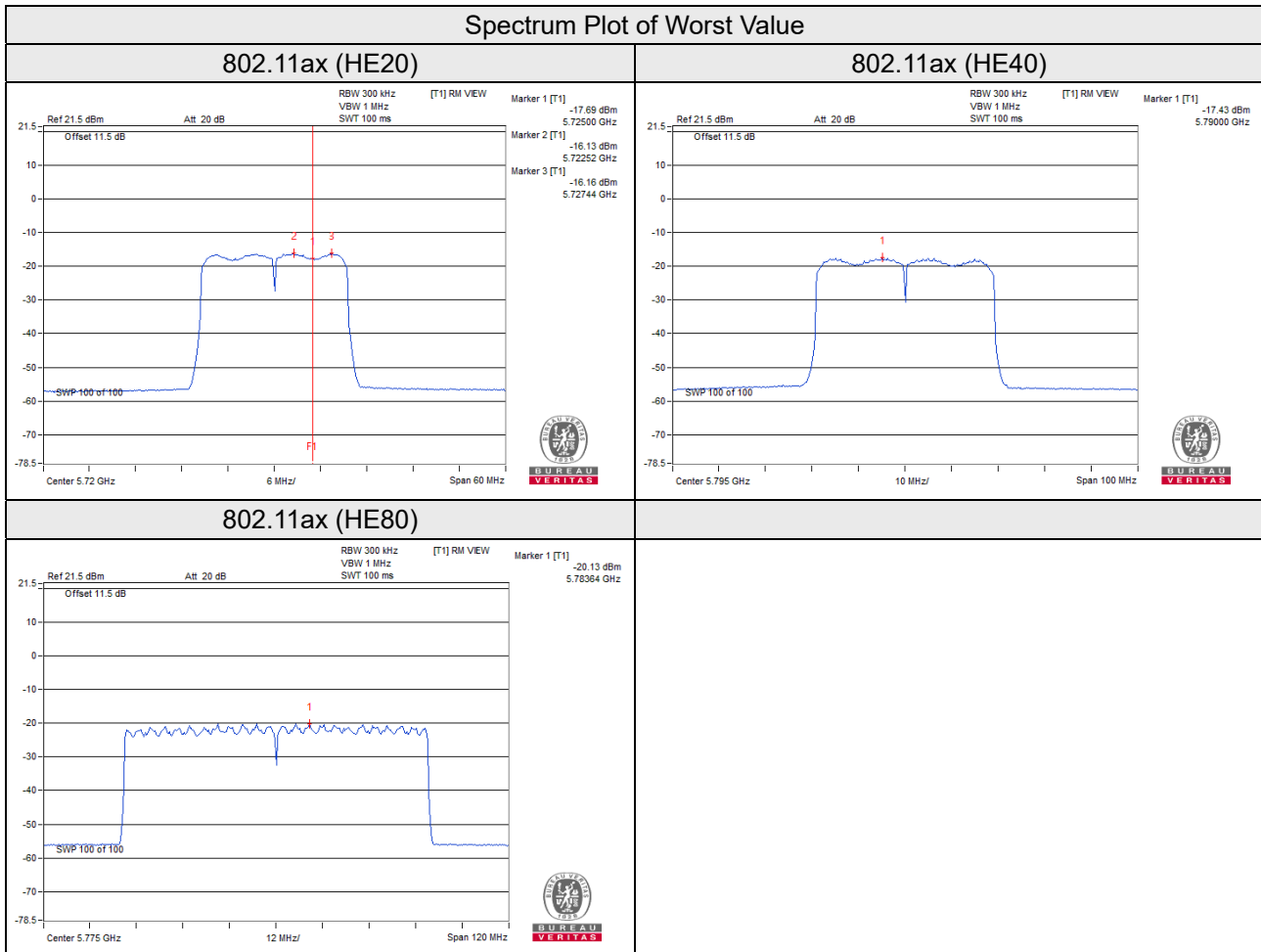
- Method E) 2) c) of power density measurement of KDB 662911 is using for calculating total power density, Measure value and add $10 \log (N_{ANT})$ dB.
- Directional gain = $3.43\text{dBi} + 10\log(2)=6.44\text{dBi}$ > so the power density limit shall be reduced to $30-(6.44-6) = 29.56$ dBm/500kHz.
- Refer to section 3.3 for duty cycle spectrum plot.

802.11ax (HE80)

TX chain	Chan.	Freq. (MHz)	PSD W/O Duty Factor		10 log (N=2) dB	Duty Factor (dB)	Total PSD With Duty Factor (dBm/500kHz)	Limit (dBm/500kHz)	Pass / Fail
			(dBm/300kHz)	(dBm/500kHz)					
2	138	5690 (For U-NII-3)	-22.08	-19.86	3.01	0.24	-16.61	29.56	Pass
	155	5775	-20.13	-17.91	3.01	0.24	-14.66	29.56	Pass
3	138	5690 (For U-NII-3)	-23.35	-21.13	3.01	0.24	-17.88	29.56	Pass
	155	5775	-22.13	-19.91	3.01	0.24	-16.66	29.56	Pass

Note:

- Method E) 2) c) of power density measurement of KDB 662911 is using for calculating total power density, Measure value and add 10 log (N_{ANT}) dB.
- Directional gain = 3.43dBi + 10log(2)=6.44dBi > so the power density limit shall be reduced to 30-(6.44-6) = 29.56 dBm/500kHz.
- Refer to section 3.3 for duty cycle spectrum plot.

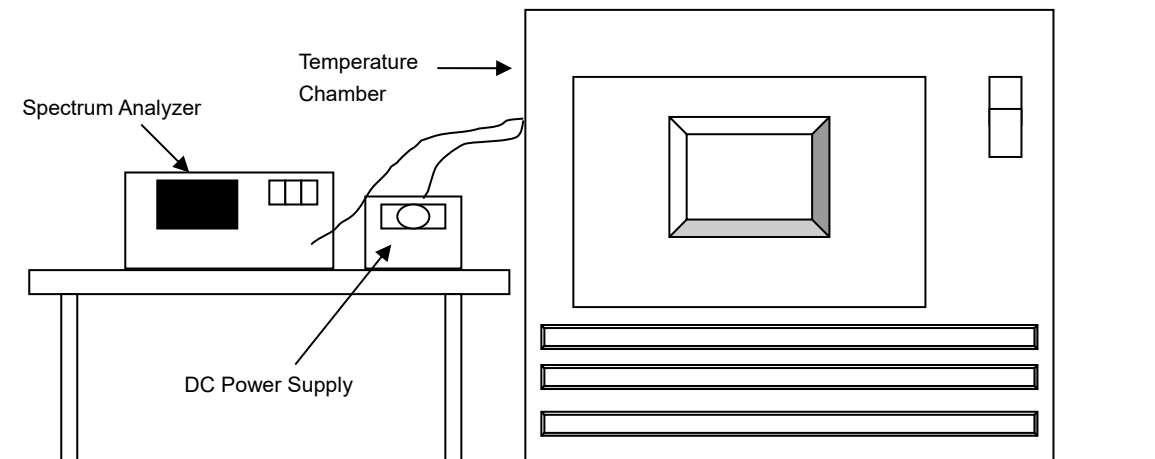


4.5 Frequency Stability

4.5.1 Limits of Frequency Stability Measurement

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

4.5.2 Test Setup



4.5.3 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100269	Jun. 07, 2021	Jun. 06, 2022
Standard Temperature And Humidity Chamber TERCHY	MHU-225AU	920842	Jun. 15, 2021	Jun. 14, 2022
Three-phase coupling / decoupling network TESEQ	CDN 3063	4006	Mar. 08, 2022	Mar. 07, 2023
DC Power Supply Topward	6306A	727263	NA	NA

Note: 1. The calibration interval of the above test instruments is 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

2. Tested date: Mar. 29, 2022

4.5.4 Test Procedure

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

4.5.5 Deviation from Test Standard

No deviation.

4.5.6 EUT Operating Condition

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

4.5.7 Test Results

Frequency Stability Versus Temp.									
Operating Frequency: 5180MHz									
Temp. (°C)	Power Supply (Vdc)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result
85	12	5179.9754	Pass	5179.9793	Pass	5179.9765	Pass	5179.9772	Pass
80	12	5179.9967	Pass	5179.9961	Pass	5179.9964	Pass	5179.9950	Pass
70	12	5179.9950	Pass	5179.9991	Pass	5179.9977	Pass	5179.9955	Pass
60	12	5180.0114	Pass	5180.0115	Pass	5180.0102	Pass	5180.0139	Pass
50	12	5179.9954	Pass	5179.9965	Pass	5179.9996	Pass	5179.9949	Pass
40	12	5179.9787	Pass	5179.9821	Pass	5179.9825	Pass	5179.9801	Pass
30	12	5180.0142	Pass	5180.0163	Pass	5180.0129	Pass	5180.0151	Pass
20	12	5179.9881	Pass	5179.9843	Pass	5179.9881	Pass	5179.9869	Pass
10	12	5179.9857	Pass	5179.9847	Pass	5179.9888	Pass	5179.9867	Pass
0	12	5180.0130	Pass	5180.0101	Pass	5180.0132	Pass	5180.0097	Pass
-10	12	5179.9740	Pass	5179.9769	Pass	5179.9749	Pass	5179.9776	Pass
-20	12	5180.0036	Pass	5180.0053	Pass	5180.0055	Pass	5180.0016	Pass
-30	12	5179.9782	Pass	5179.9788	Pass	5179.9790	Pass	5179.9758	Pass
-40	12	5179.9952	Pass	5179.9919	Pass	5179.9917	Pass	5179.9961	Pass

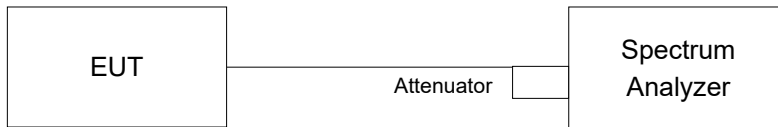
Frequency Stability Versus Voltage									
Operating Frequency: 5180MHz									
Temp. (°C)	Power Supply (Vdc)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result
20	13.8	5179.9839	Pass	5179.9858	Pass	5179.9853	Pass	5179.9820	Pass
	12	5179.9881	Pass	5179.9843	Pass	5179.9881	Pass	5179.9869	Pass
	10.2	5179.9854	Pass	5179.9841	Pass	5179.9836	Pass	5179.9850	Pass

4.6 6dB Bandwidth Measurement

4.6.1 Limits of 6dB Bandwidth Measurement

The minimum of 6dB Bandwidth Measurement is 0.5MHz.

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

- 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

4.6.5 Deviation from Test Standard

No deviation.

4.6.6 EUT Operating Condition

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

4.6.7 Test Results

802.11a

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
144	5720 (For U-NII-3)	3.21	3.21	0.50	Pass
149	5745	16.41	16.44	0.50	Pass
157	5785	16.39	16.44	0.50	Pass
165	5825	16.42	16.43	0.50	Pass

For CH144 (U-NII-3 Band): The 6dB bandwidth above 5725MHz = Marker 1 + Delta 2 - 5725MHz

802.11n (HT20)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
144	5720 (For U-NII-3)	3.76	3.76	0.50	Pass
149	5745	17.36	17.60	0.50	Pass
157	5785	17.35	17.63	0.50	Pass
165	5825	17.38	17.62	0.50	Pass

For CH144 (U-NII-3 Band): The 6dB bandwidth above 5725MHz = Marker 1 + Delta 2 - 5725MHz

802.11n (HT40)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
142	5710 (For U-NII-3)	2.92	2.68	0.50	Pass
151	5755	35.62	35.52	0.50	Pass
159	5795	35.77	35.60	0.50	Pass

For CH142 (U-NII-3 Band): The 6dB bandwidth above 5725MHz = Marker 1 + Delta 2 - 5725MHz

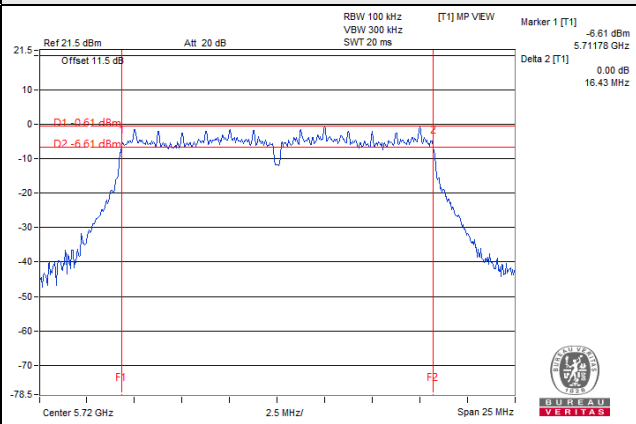
802.11ac (VHT80)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
138	5690 (For U-NII-3)	3.28	3.26	0.50	Pass
155	5775	76.50	76.51	0.50	Pass

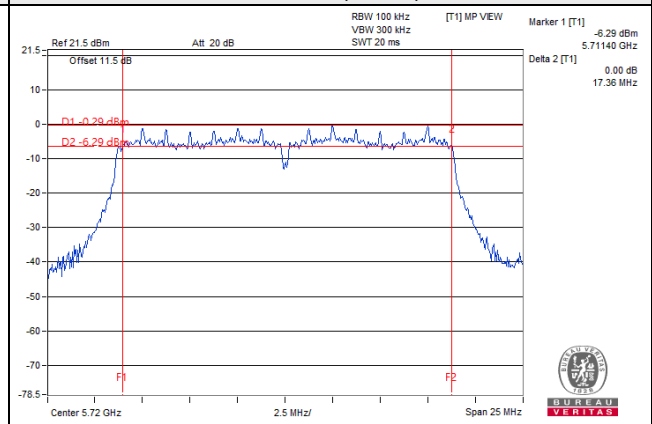
For CH138 (U-NII-3 Band): The 6dB bandwidth above 5725MHz = Marker 1 + Delta 2 - 5725MHz

Spectrum Plot of Worst Value

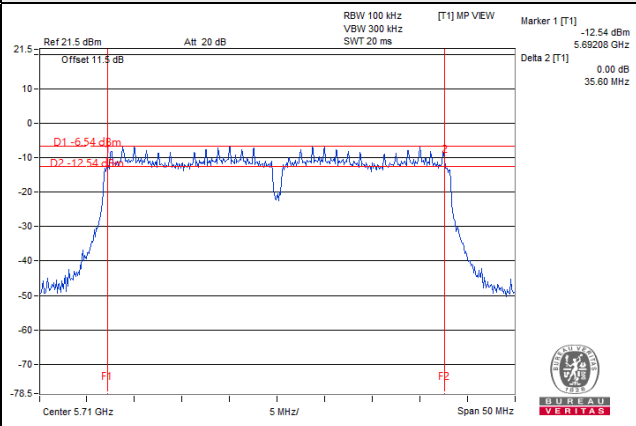
802.11a



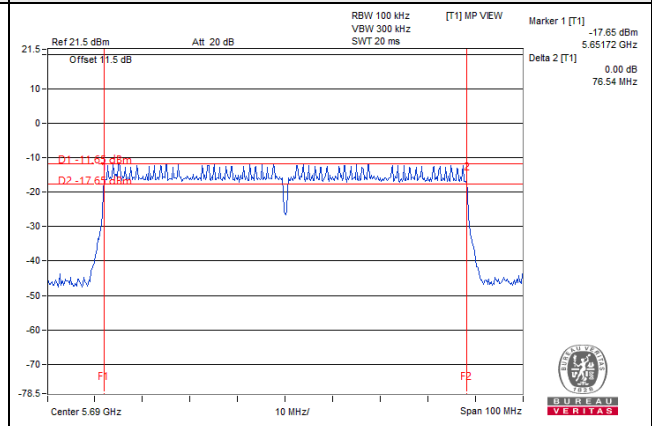
802.11n (HT20)



802.11n (HT40)



802.11ac (VHT80)



802.11ax (HE20)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
144	5720 (For U-NII-3)	4.10	4.22	0.50	Pass
149	5745	18.51	18.54	0.50	Pass
157	5785	18.40	18.33	0.50	Pass
165	5825	18.49	18.42	0.50	Pass

For CH144 (U-NII-3 Band): The 6dB bandwidth above 5725MHz = Marker 1 + Delta 2 - 5725MHz

802.11ax (HE40)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
142	5710 (For U-NII-3)	3.62	3.04	0.50	Pass
151	5755	37.37	36.15	0.50	Pass
159	5795	37.05	36.84	0.50	Pass

For CH142 (U-NII-3 Band): The 6dB bandwidth above 5725MHz = Marker 1 + Delta 2 - 5725MHz

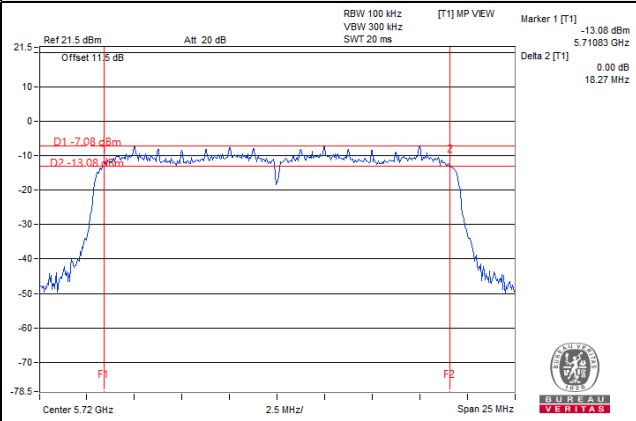
802.11ax (HE80)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)		Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1		
138	5690 (For U-NII-3)	4.10	4.06	0.50	Pass
155	5775	78.14	78.09	0.50	Pass

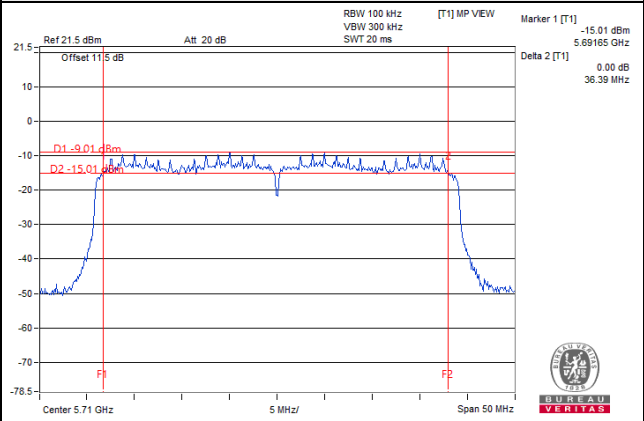
For CH138 (U-NII-3 Band): The 6dB bandwidth above 5725MHz = Marker 1 + Delta 2 - 5725MHz

Spectrum Plot of Worst Value

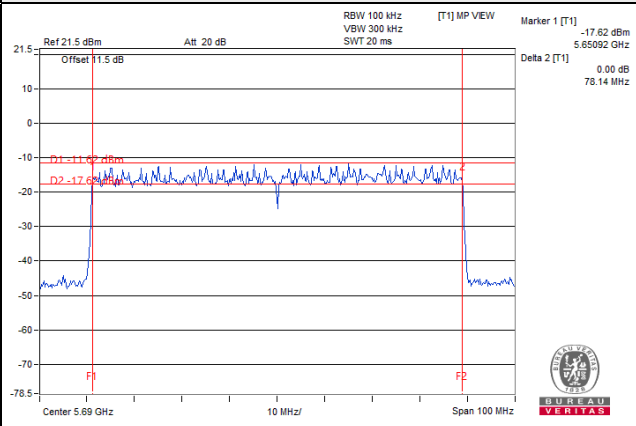
802.11ax (HE20)



802.11ax (HE40)



802.11ax (HE80)

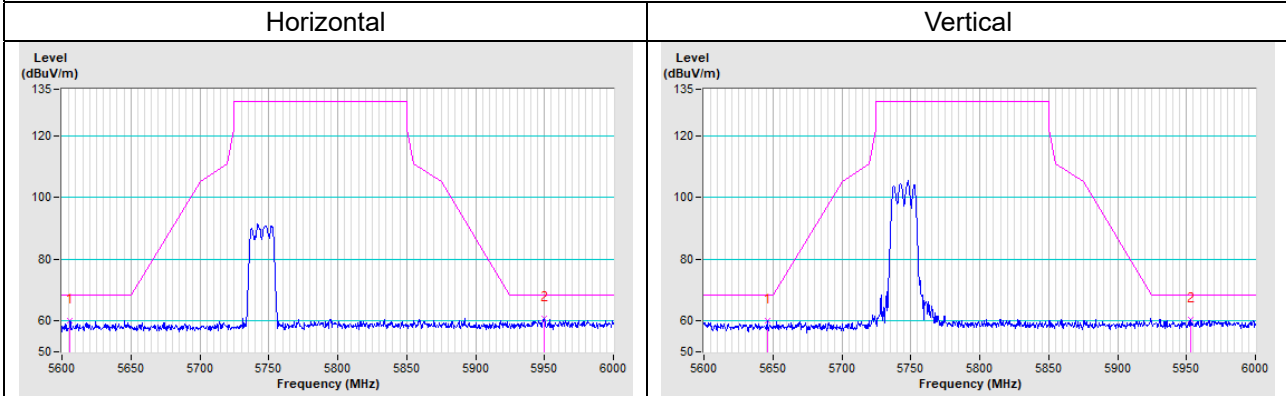


5 Pictures of Test Arrangements

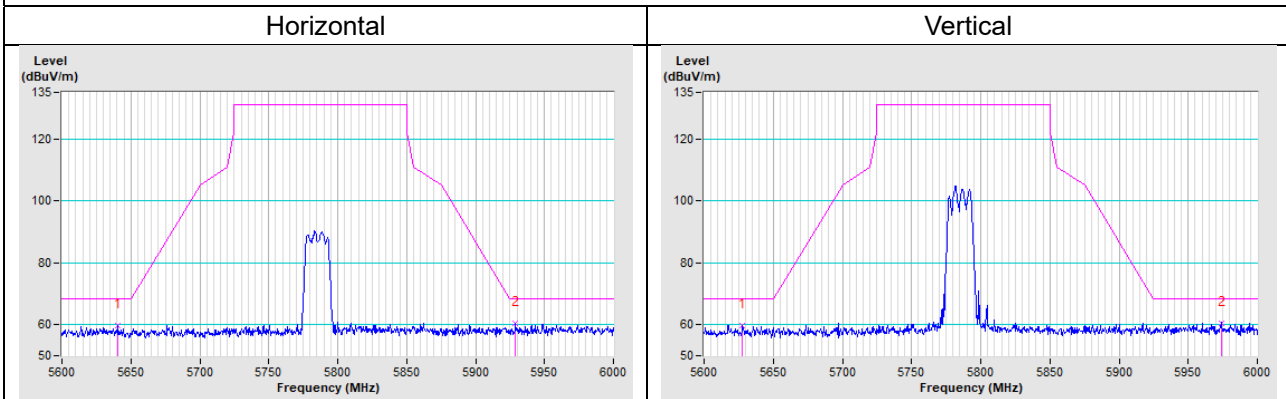
Please refer to the attached file (Test Setup Photo).

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

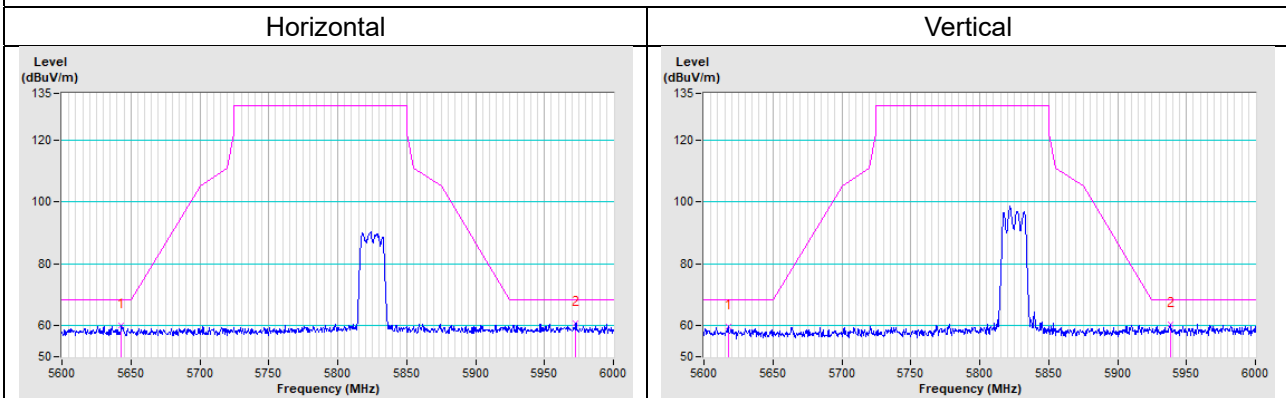
802.11a CH 149 : 5745 MHz



802.11a CH 157 : 5785 MHz



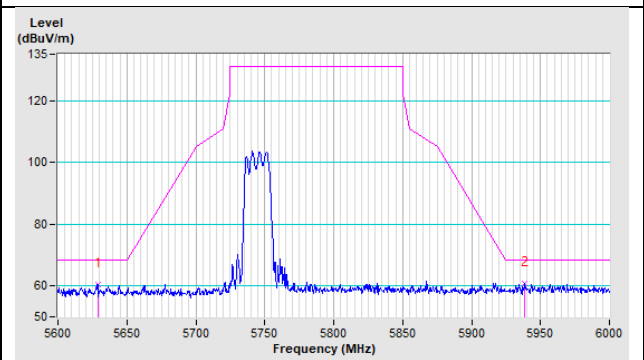
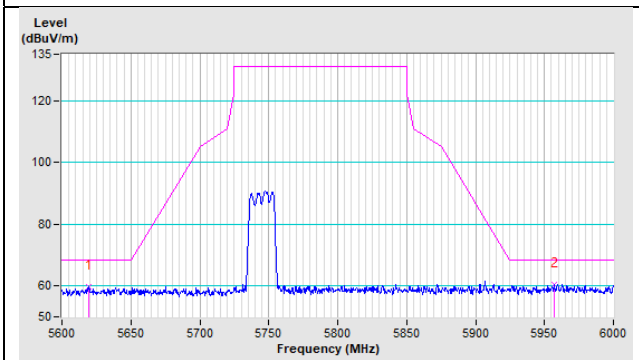
802.11a CH 165 : 5825 MHz



802.11n (HT20) CH 149 : 5745 MHz

Horizontal

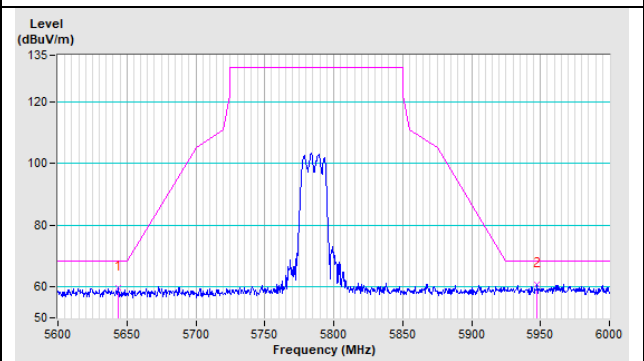
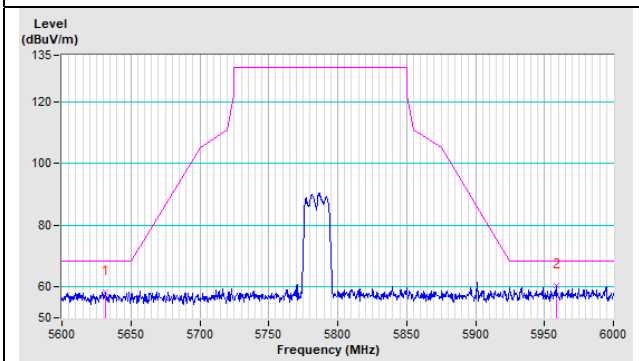
Vertical



802.11n (HT20) CH 157 : 5785 MHz

Horizontal

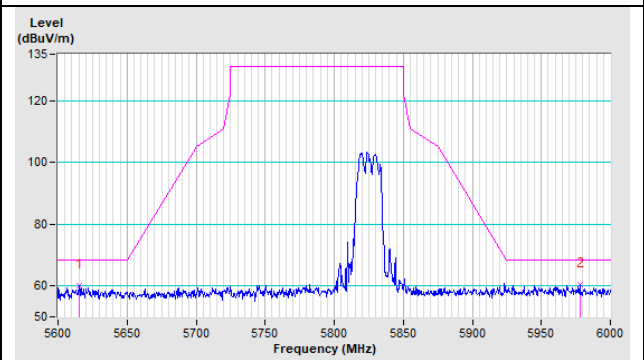
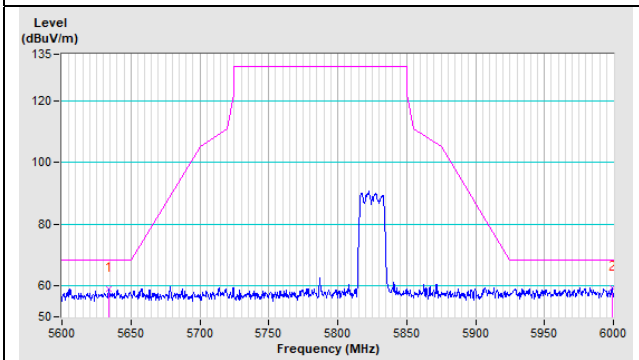
Vertical



802.11n (HT20) CH 165 : 5825 MHz

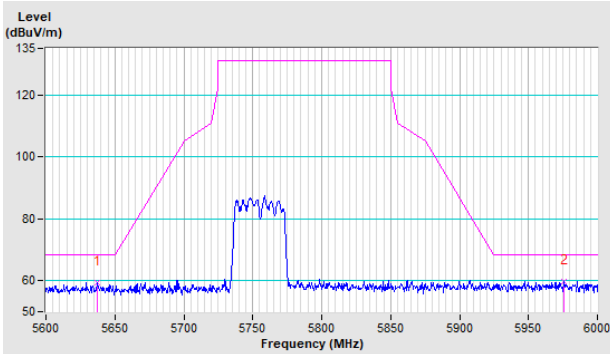
Horizontal

Vertical

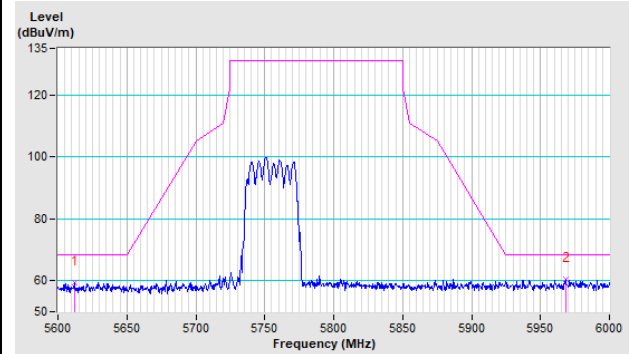


802.11n (HT40) CH 151 : 5755 MHz

Horizontal

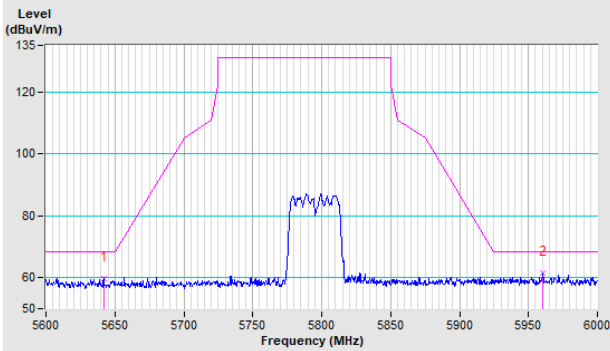


Vertical

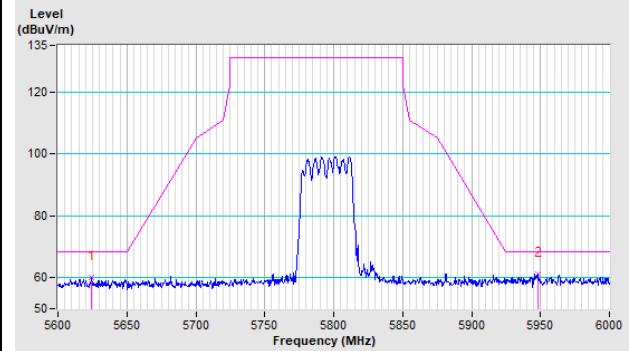


802.11n (HT40) CH 159 : 5795 MHz

Horizontal

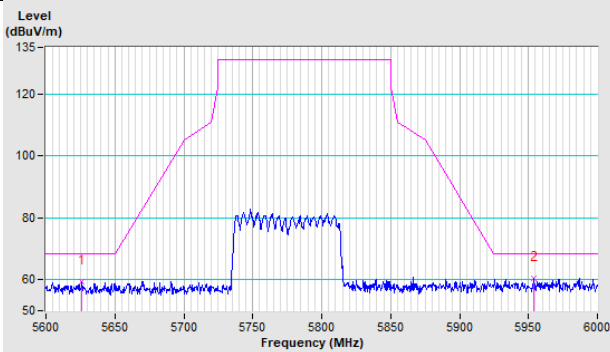


Vertical

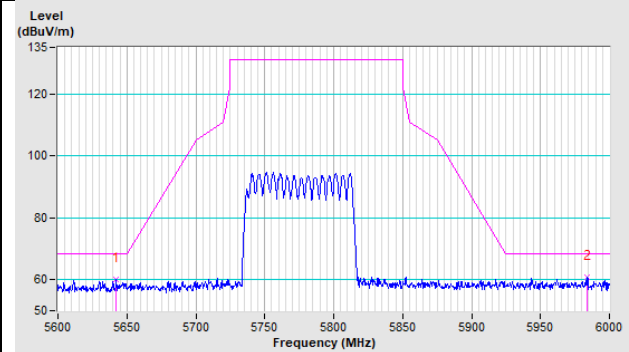


802.11ac (VHT80) CH 155 : 5775 MHz

Horizontal

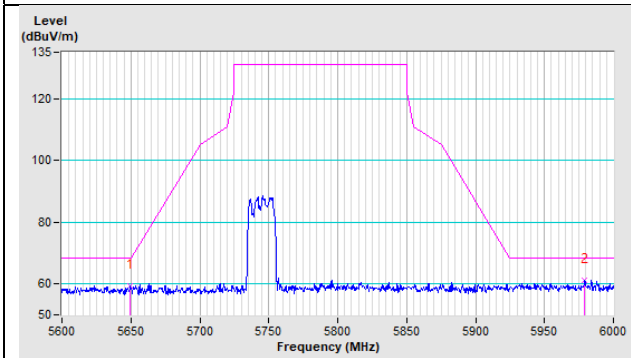


Vertical

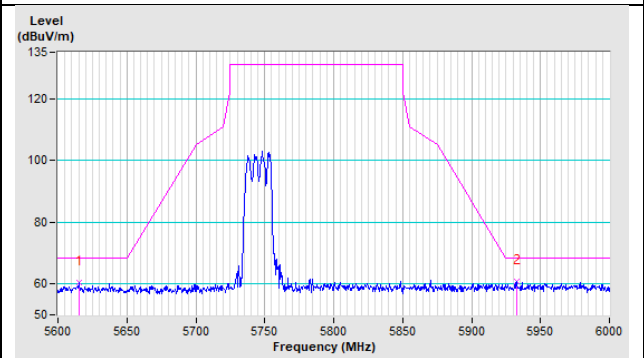


802.11ax (HE20) CH 149 : 5745 MHz

Horizontal

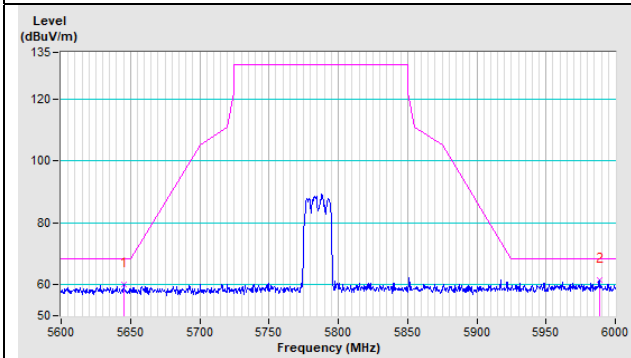


Vertical

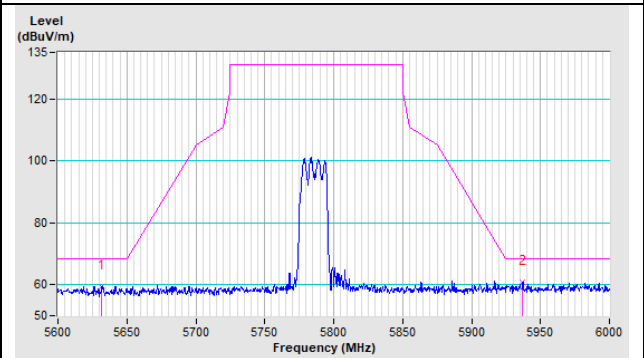


802.11ax (HE20) CH 157 : 5785 MHz

Horizontal

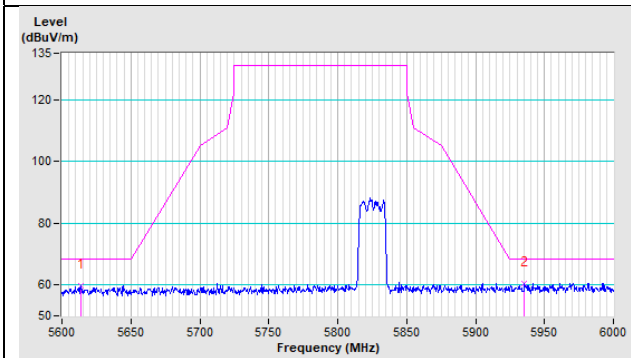


Vertical

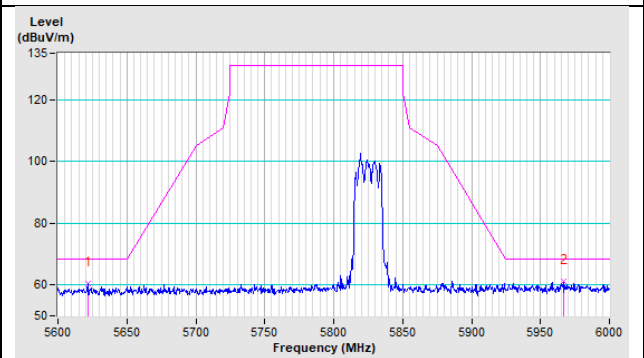


802.11ax (HE20) CH 165 : 5825 MHz

Horizontal

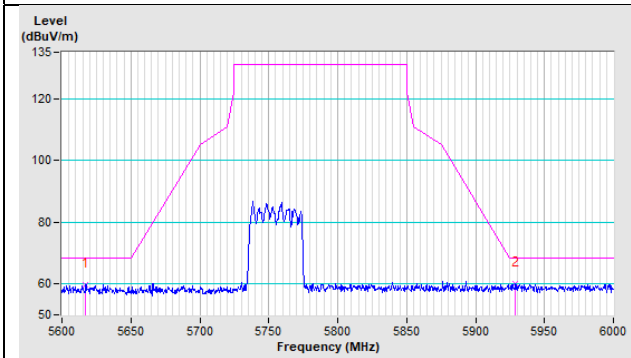


Vertical

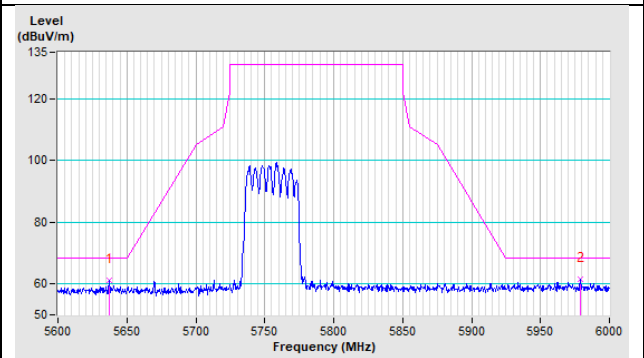


802.11ax (HE40) CH 151 : 5755 MHz

Horizontal

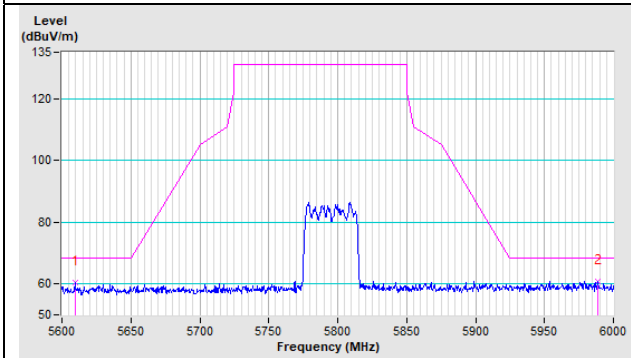


Vertical

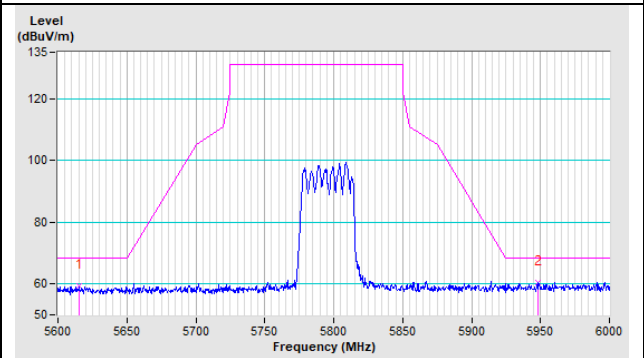


802.11ax (HE40) CH 159 : 5795 MHz

Horizontal

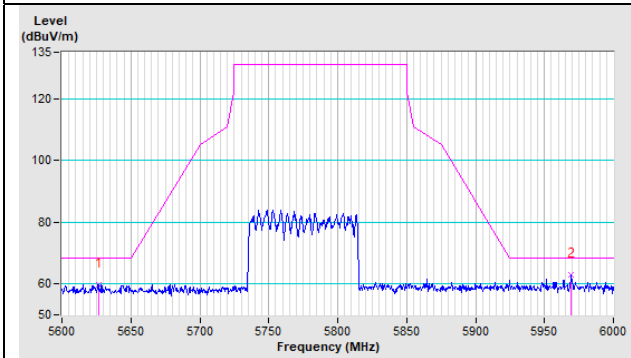


Vertical

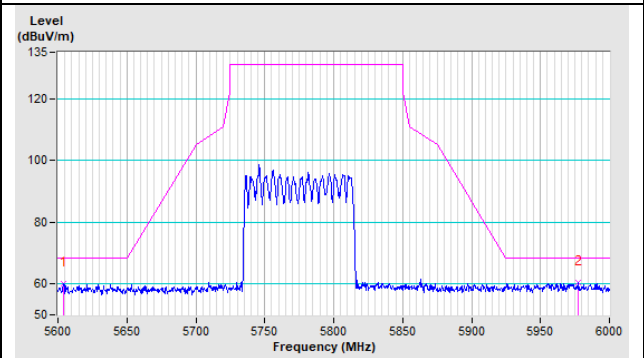


802.11ax (HE80) CH 155 : 5775 MHz

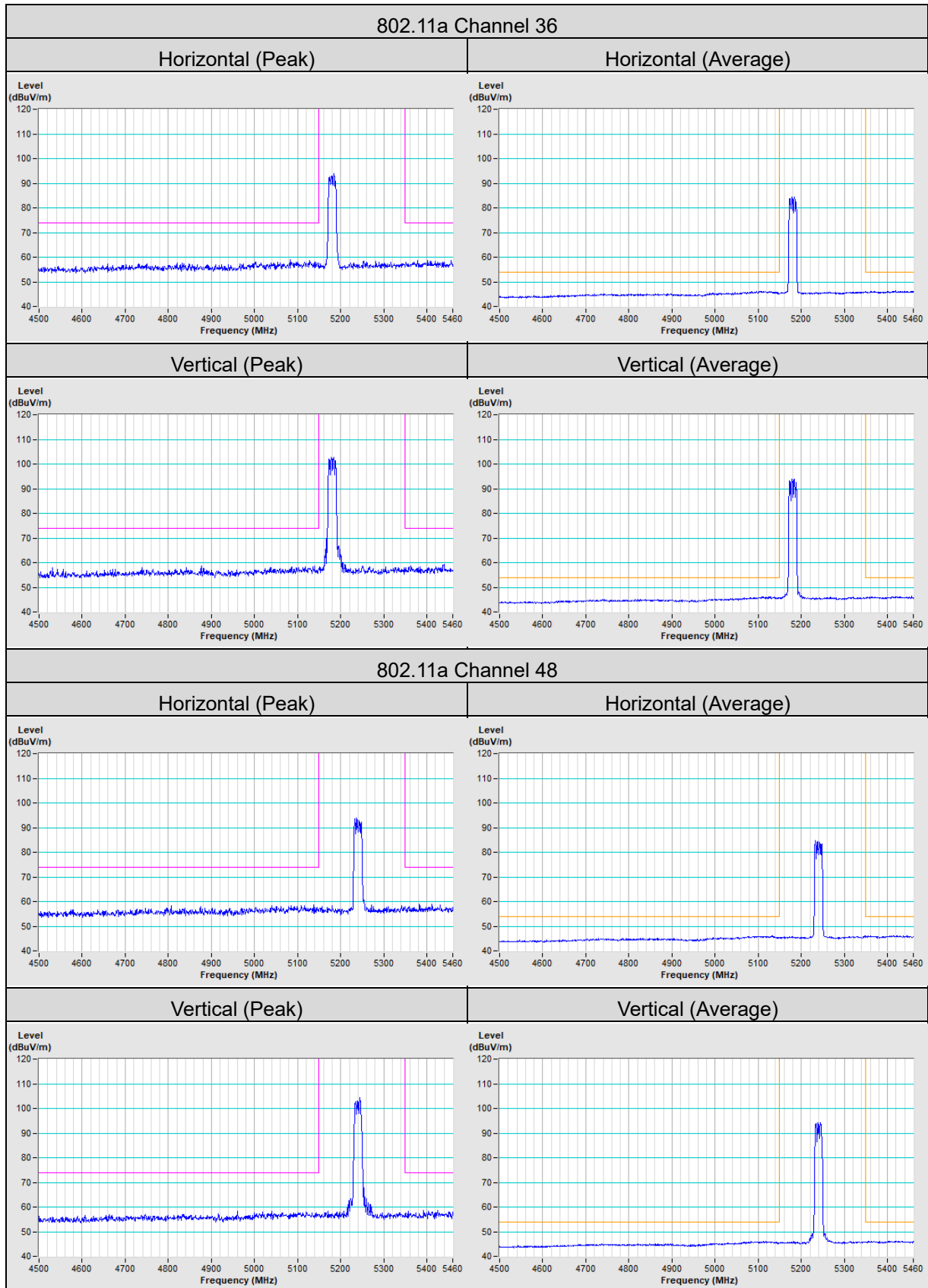
Horizontal

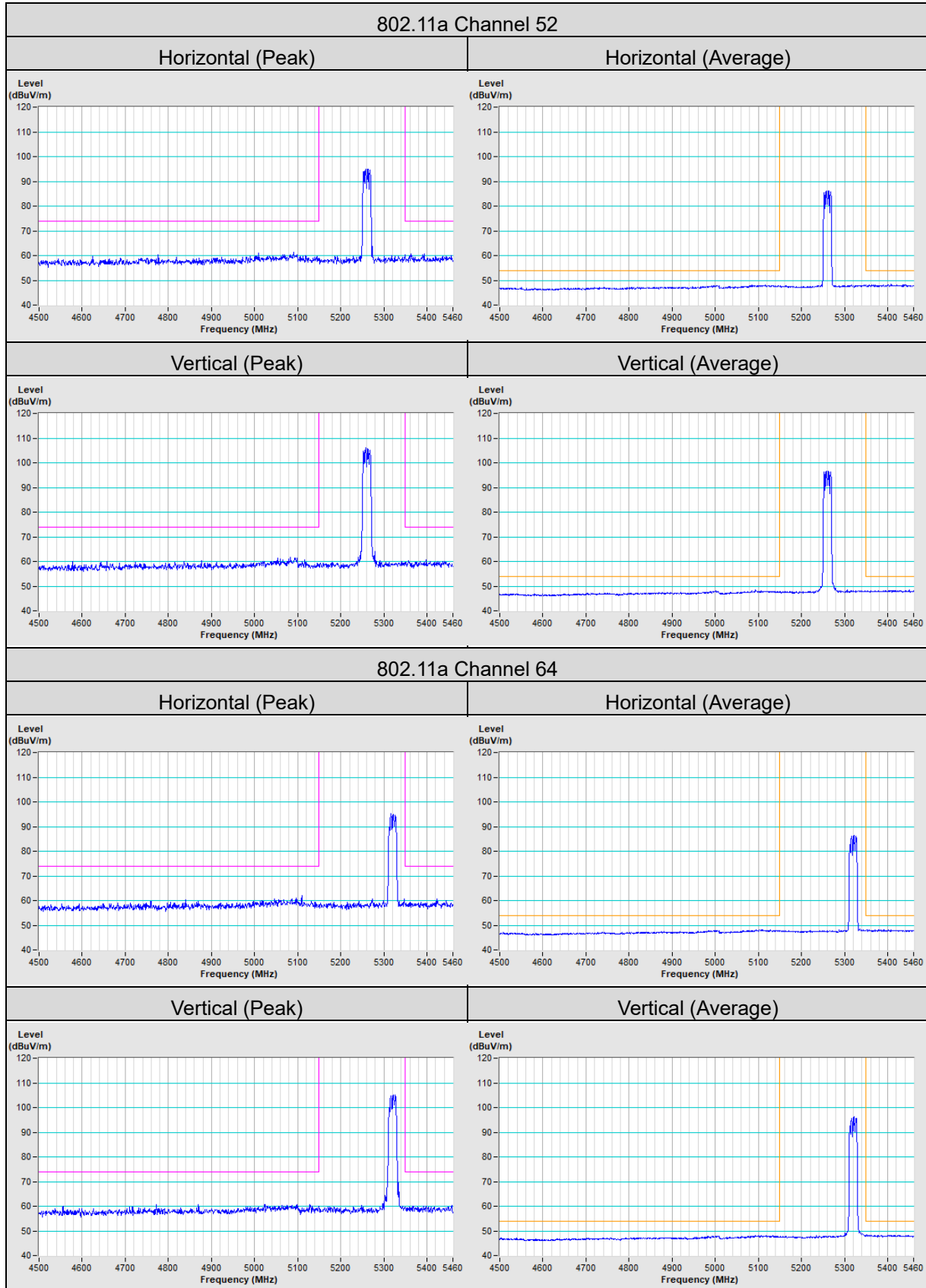


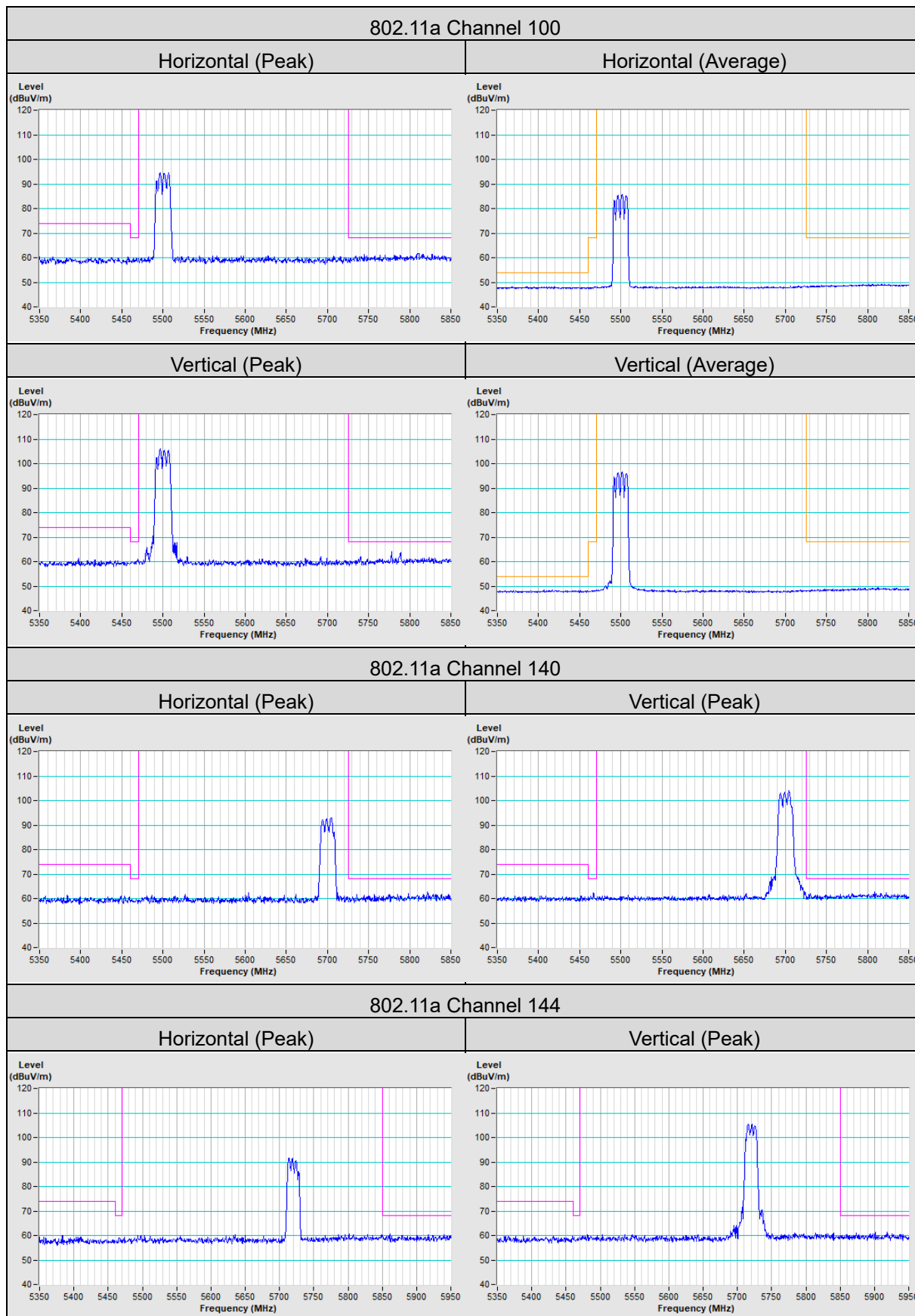
Vertical

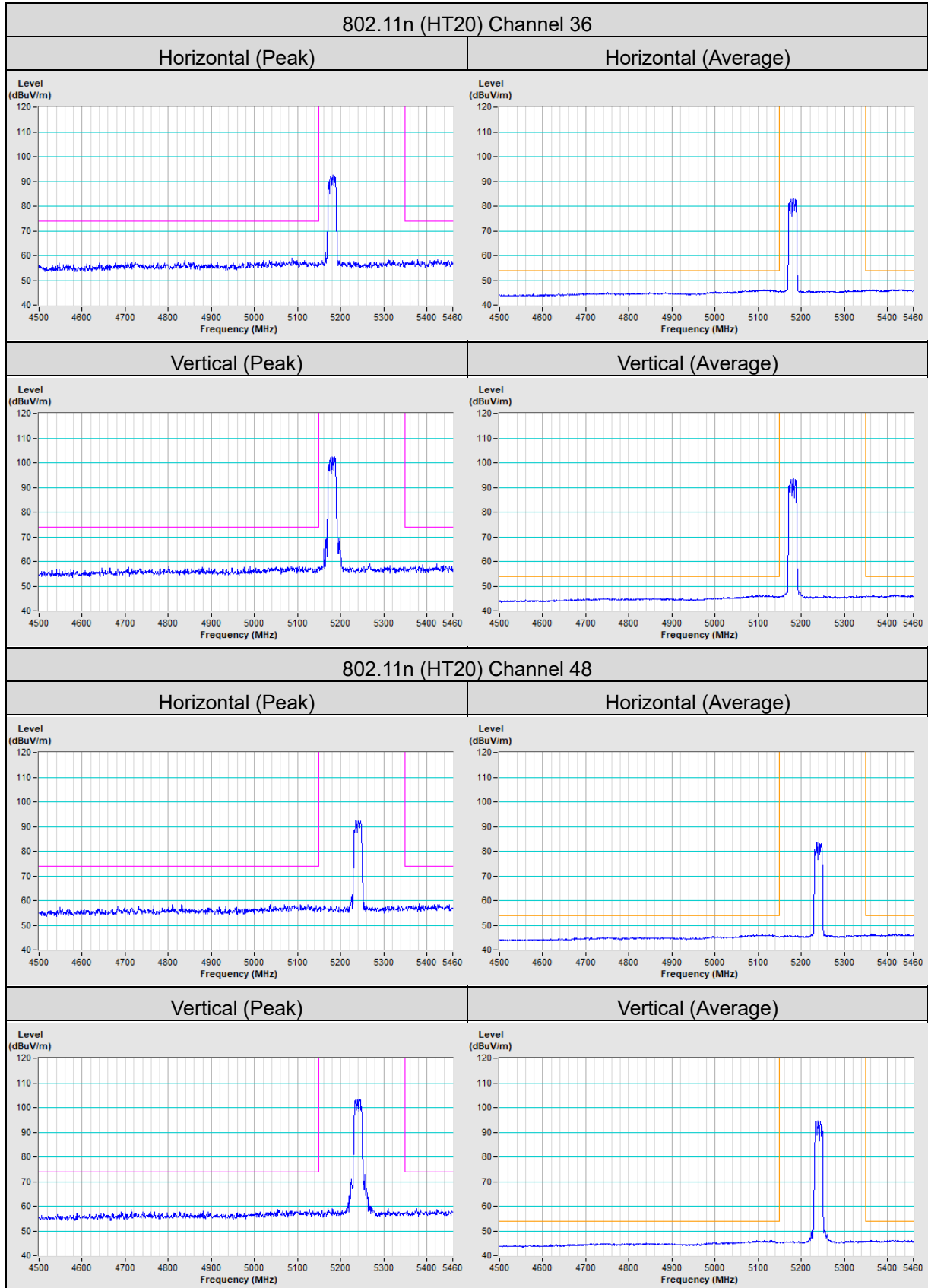


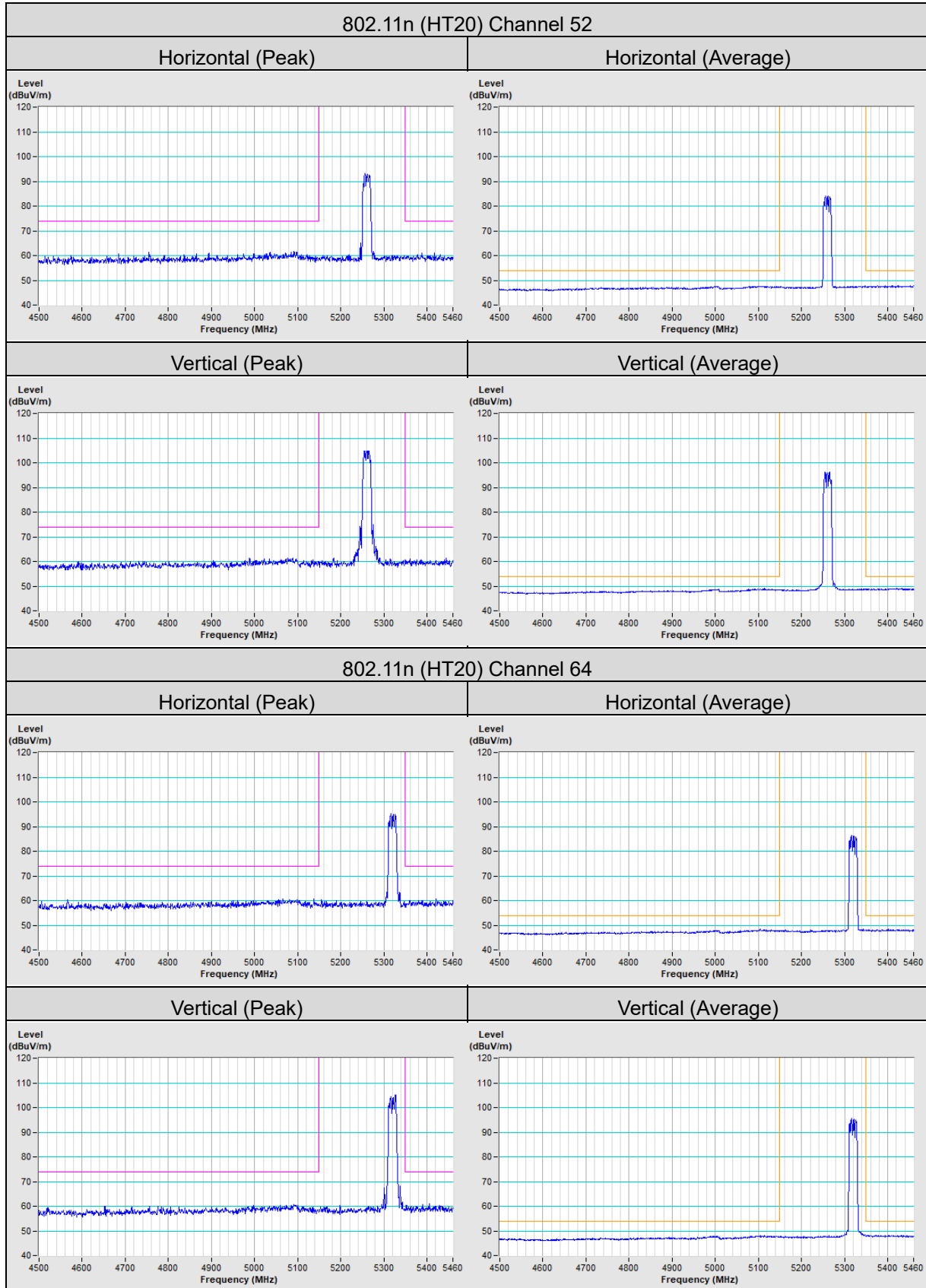
Annex B - Band Edge Measurement



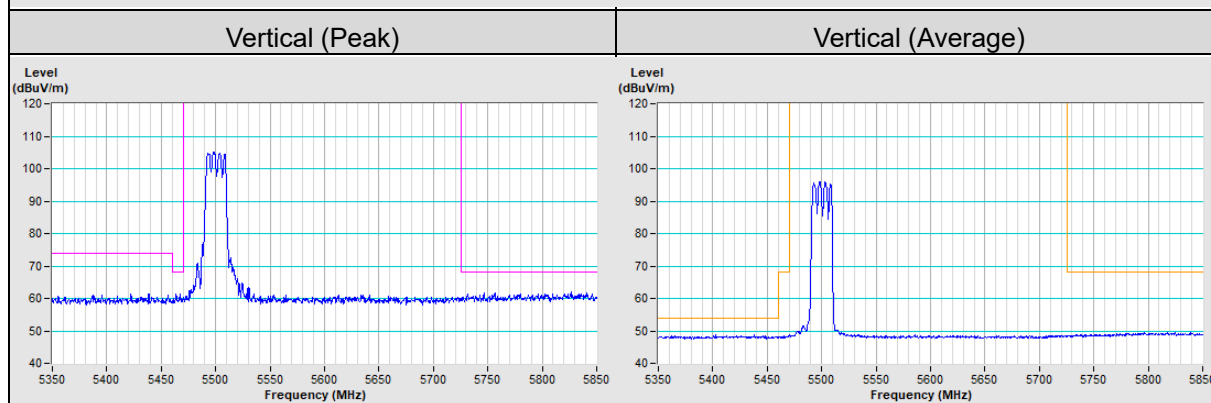
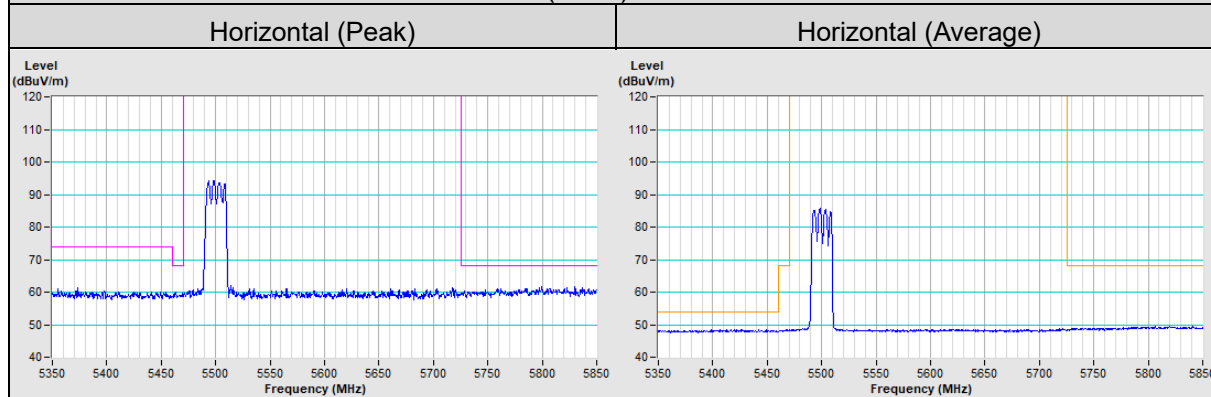




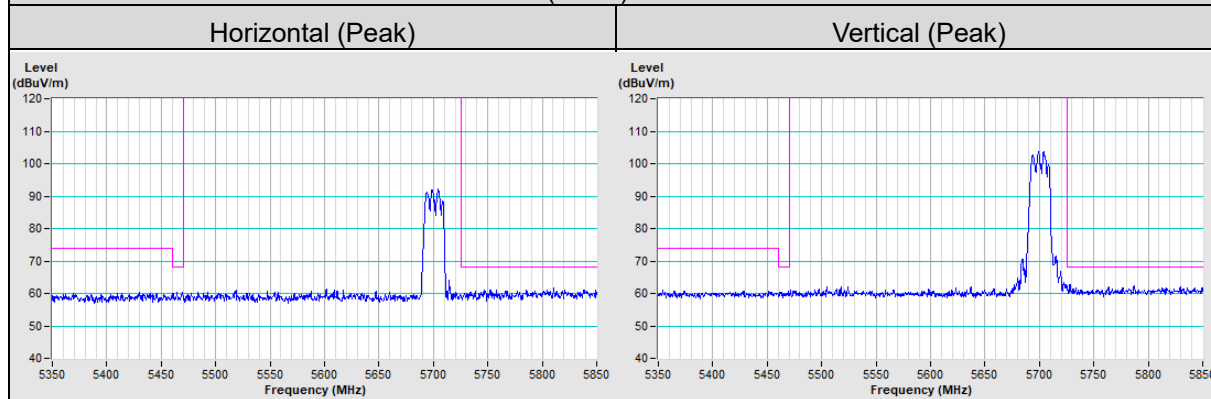




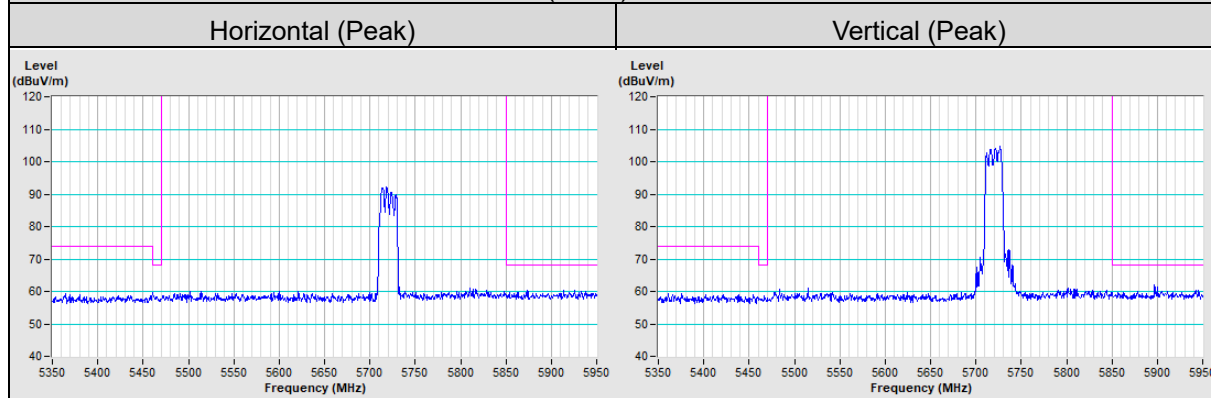
802.11n (HT20) Channel 100

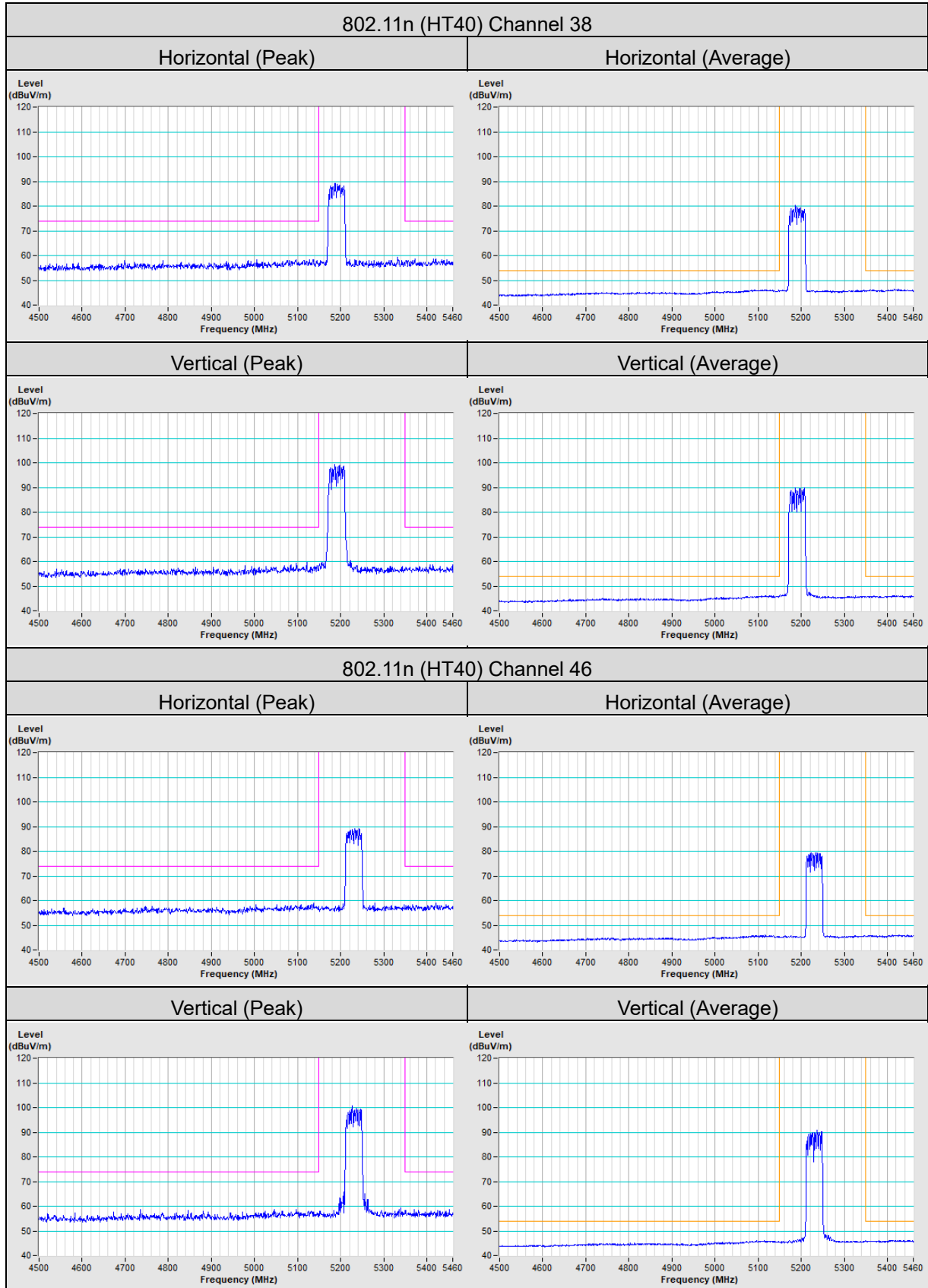


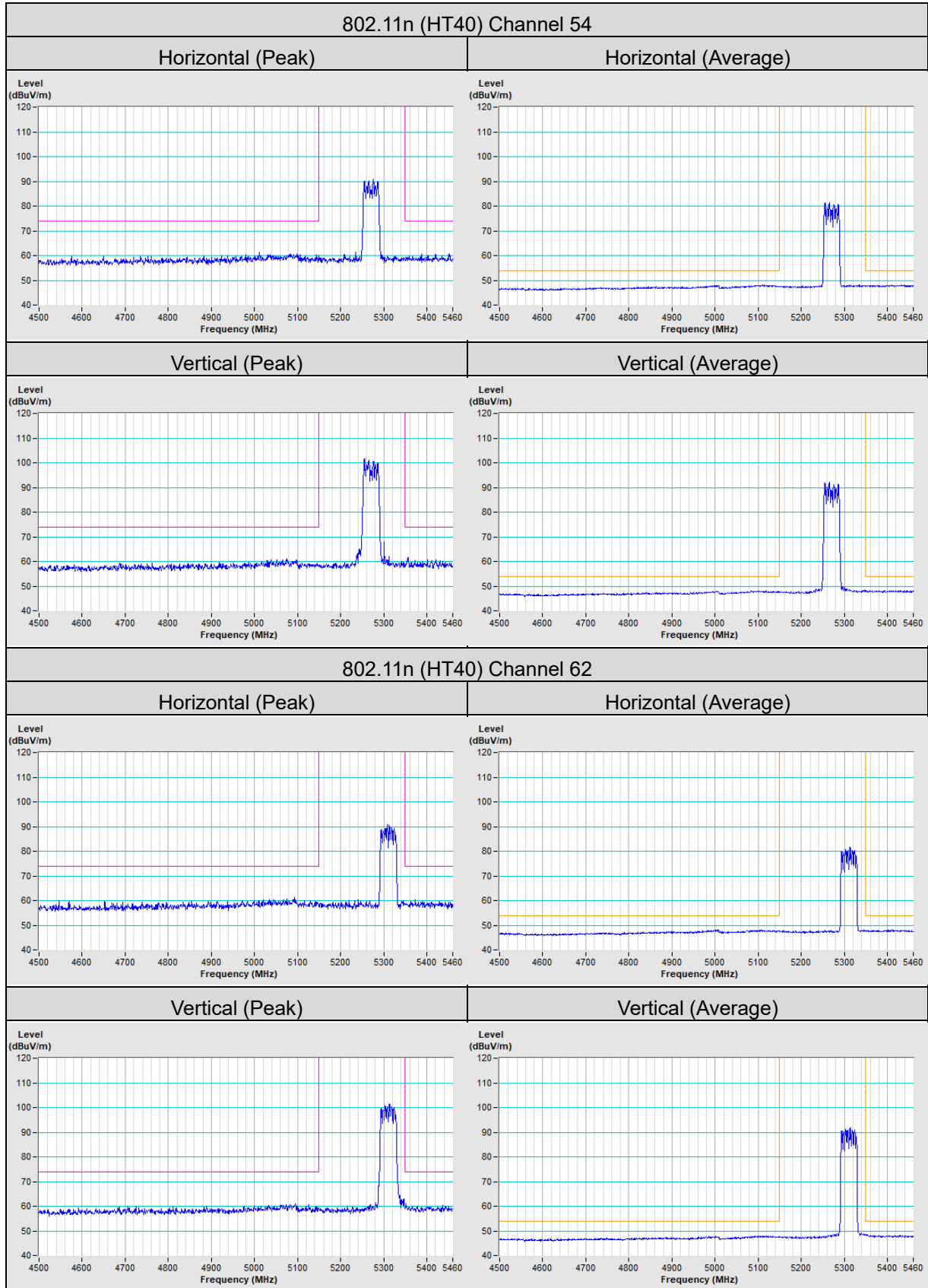
802.11n (HT20) Channel 140



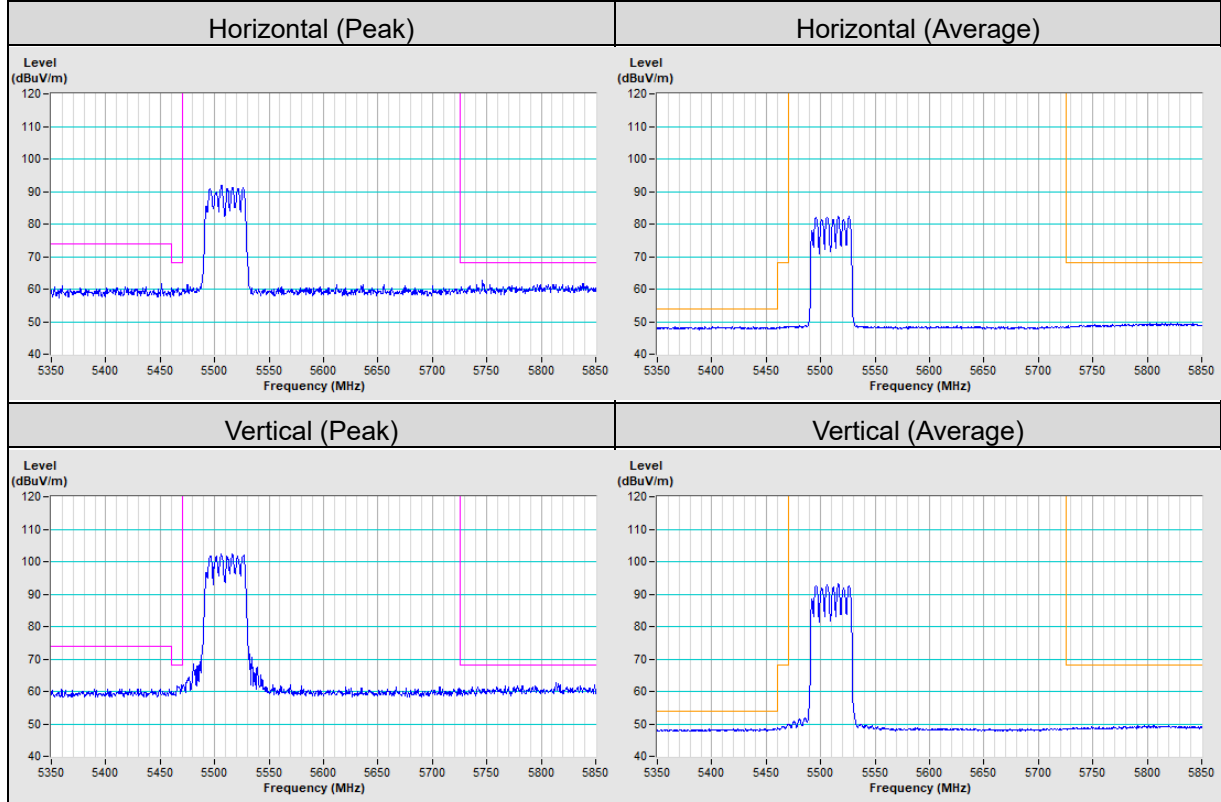
802.11n (HT20) Channel 144



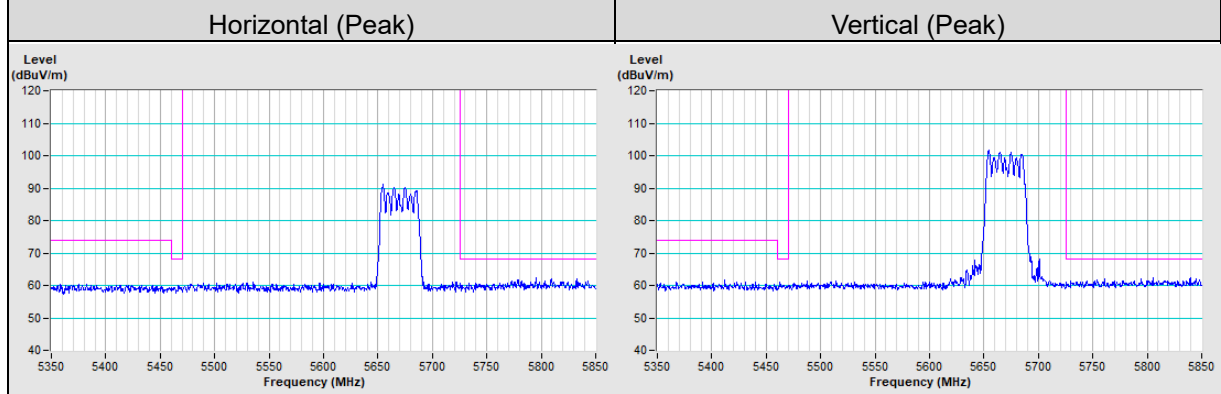




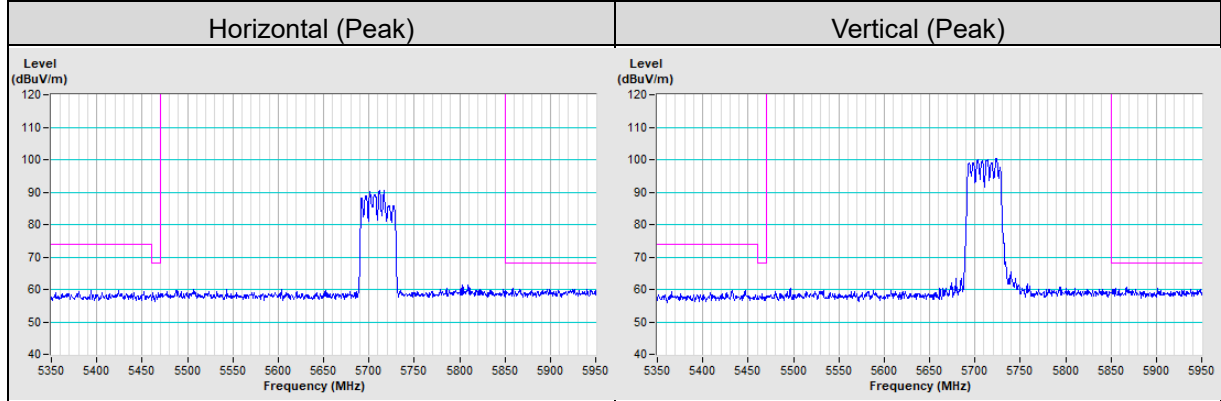
802.11n (HT40) Channel 102

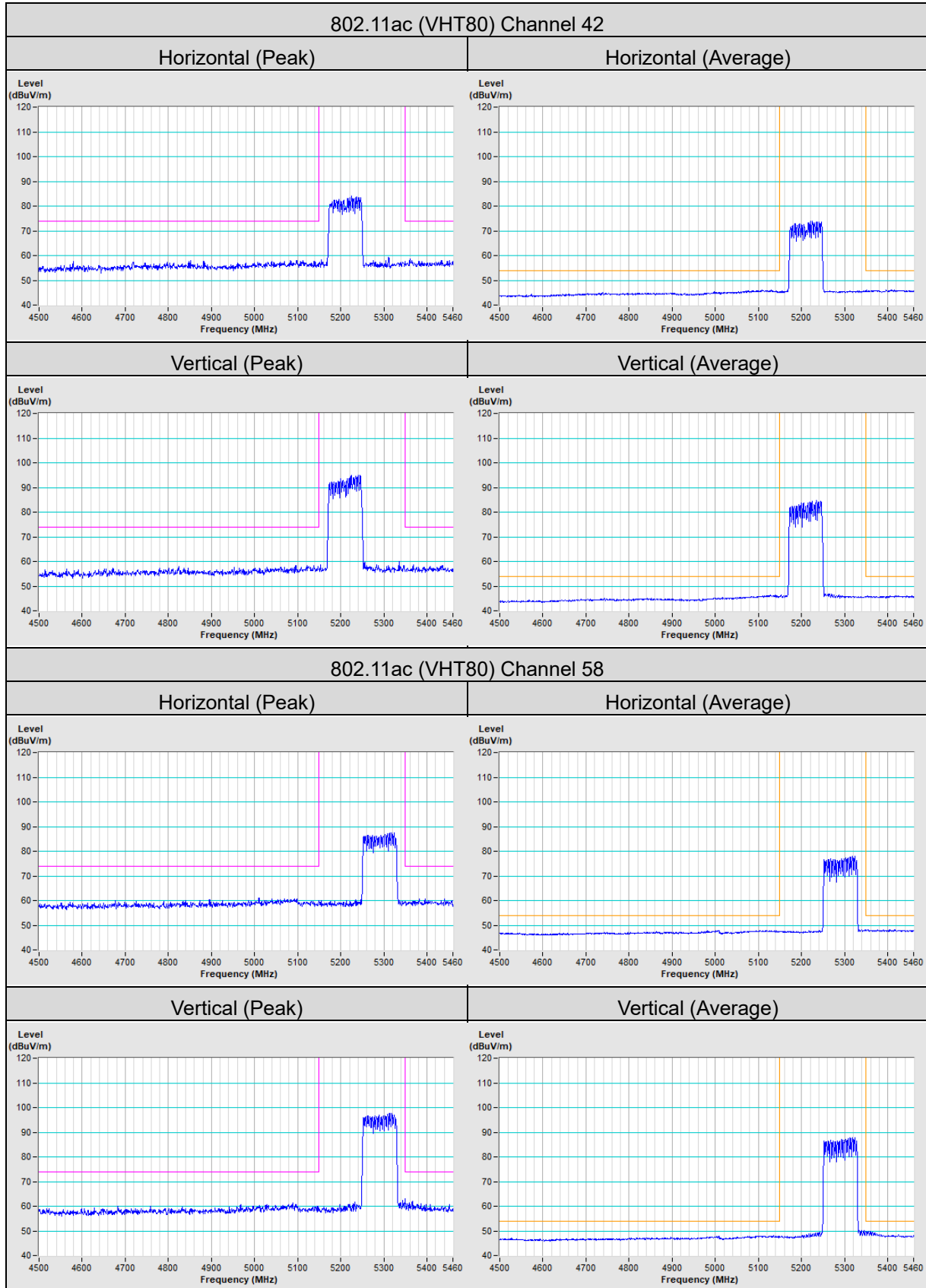


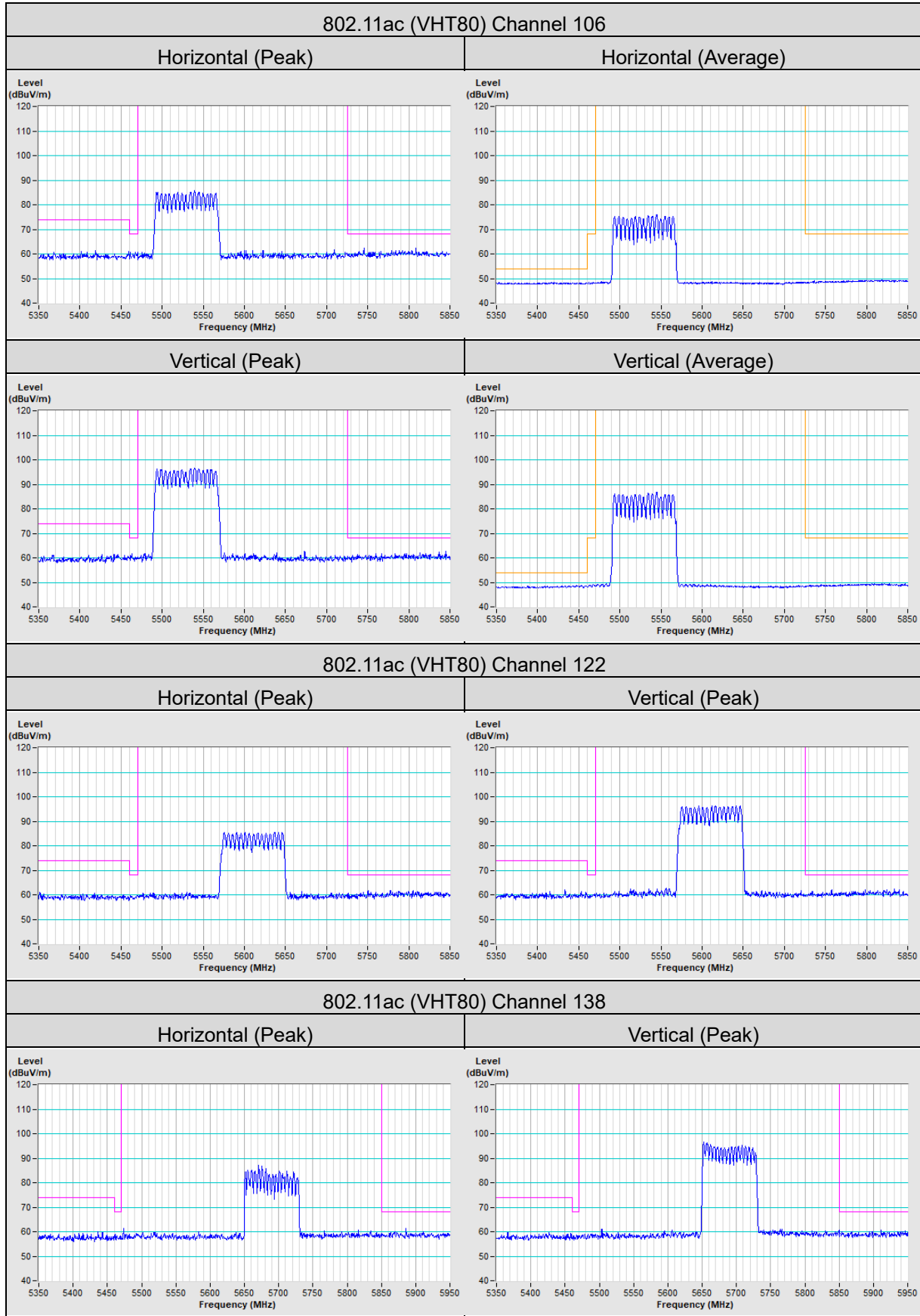
802.11n (HT40) Channel 134

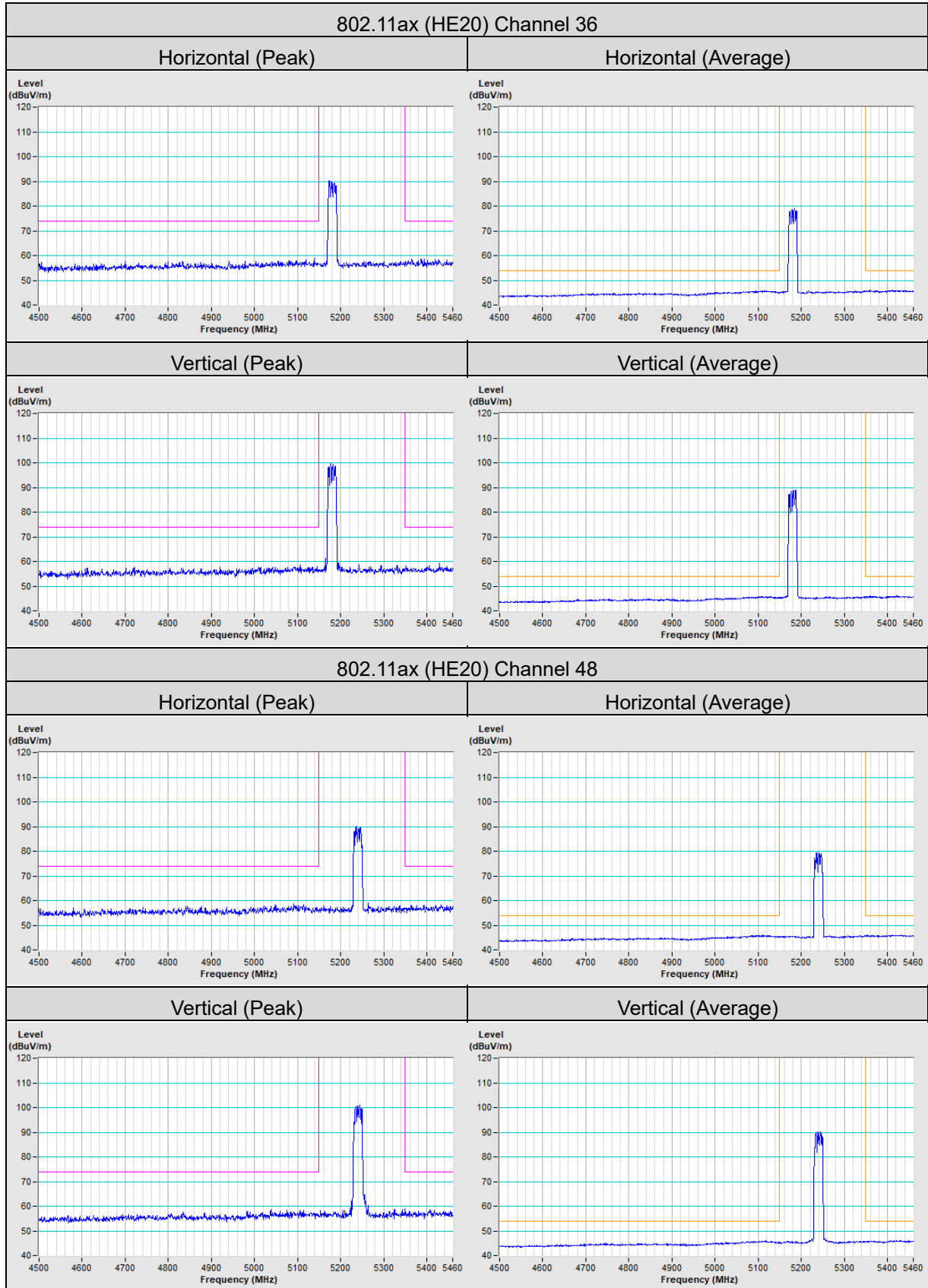


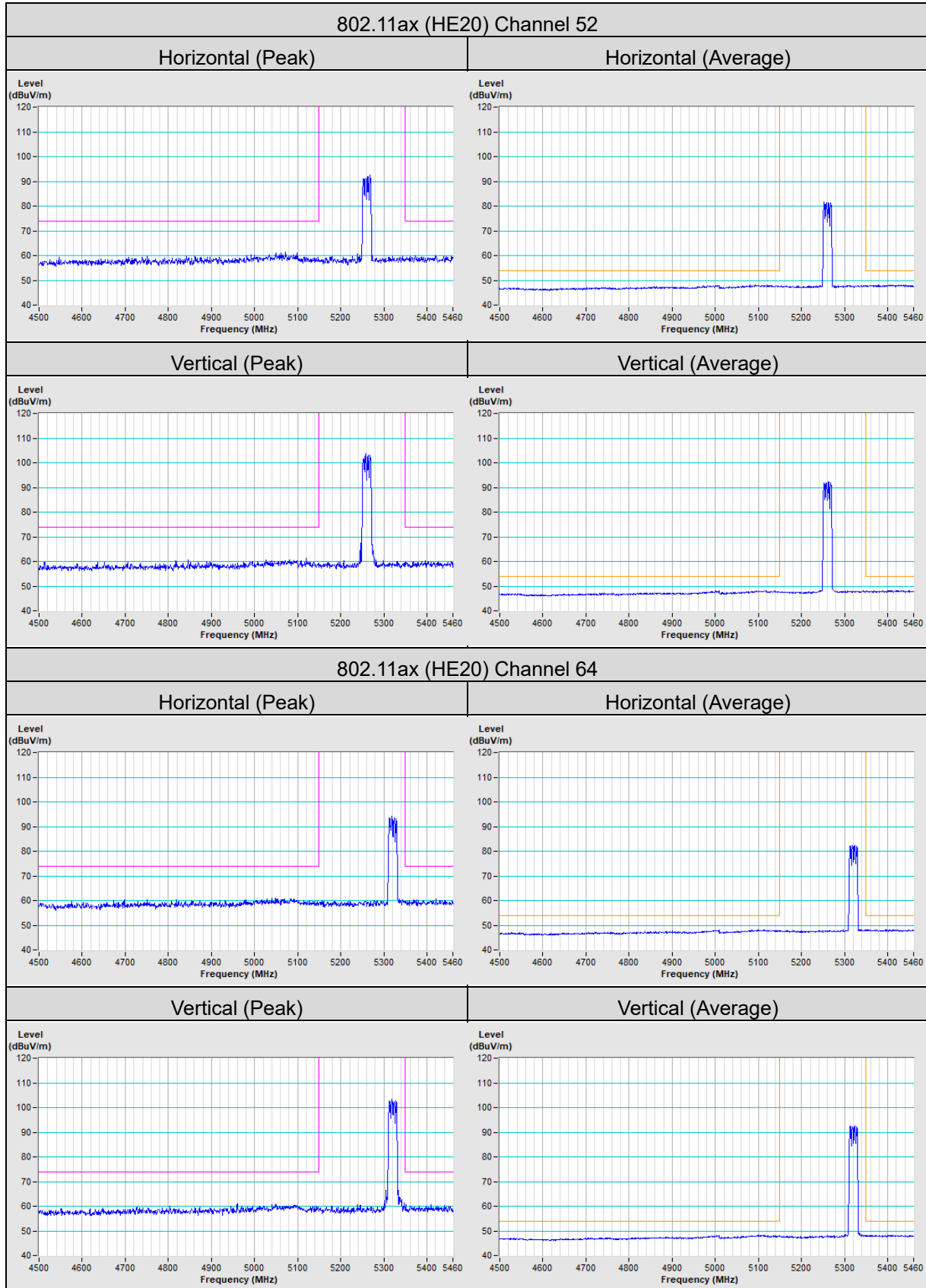
802.11n (HT40) Channel 142



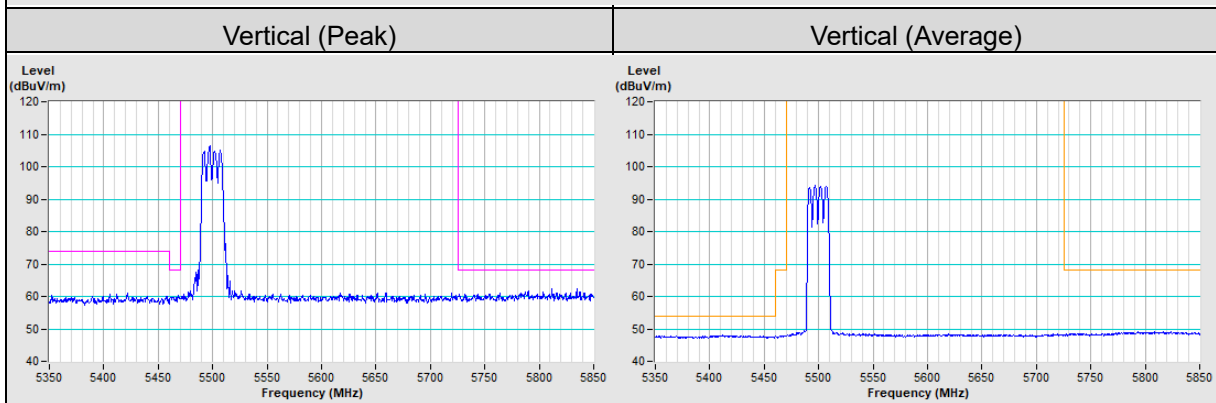
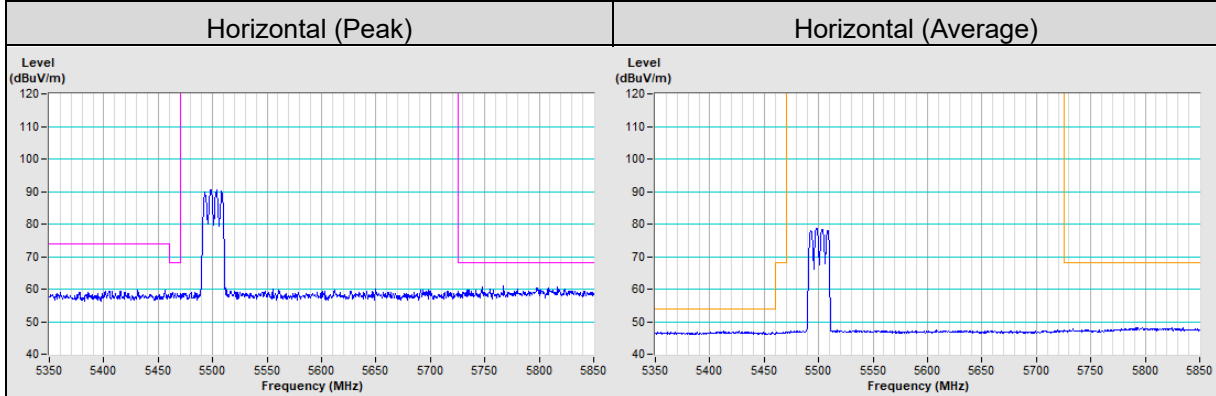




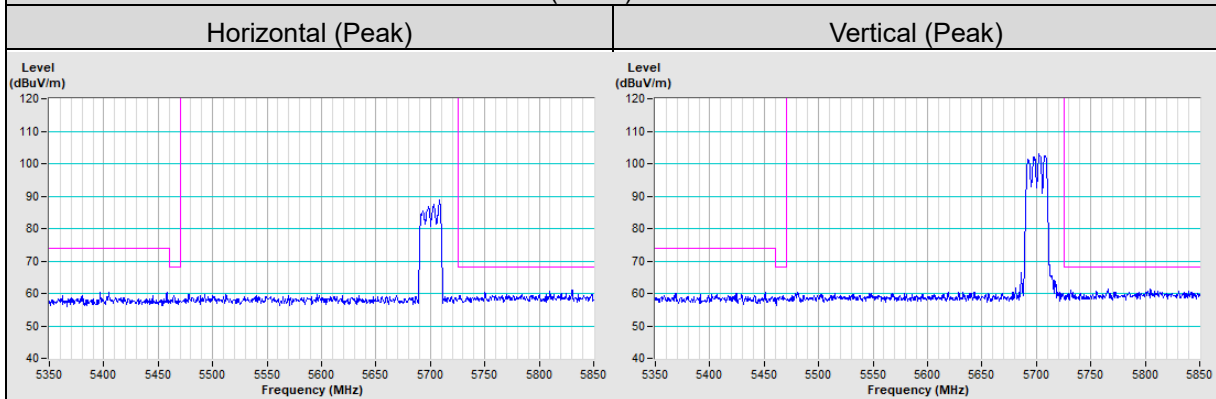




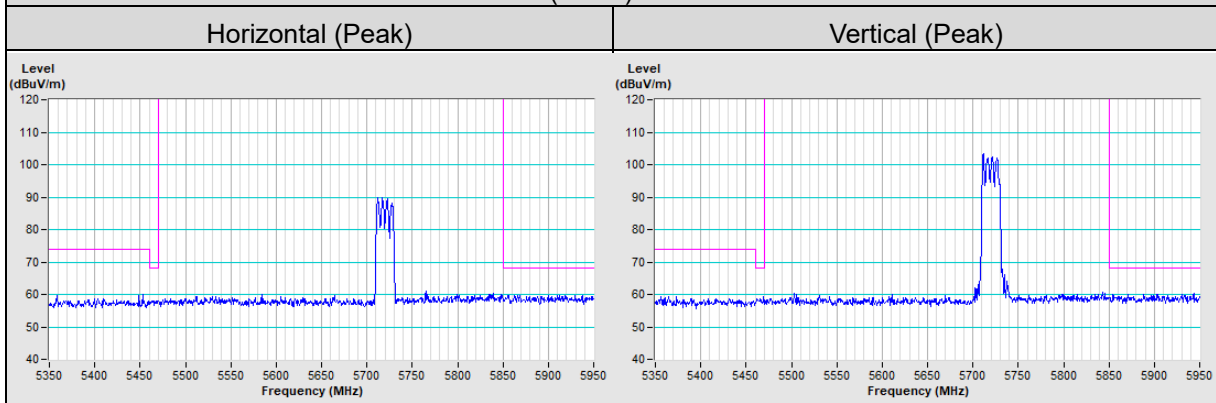
802.11ax (HE20) Channel 100

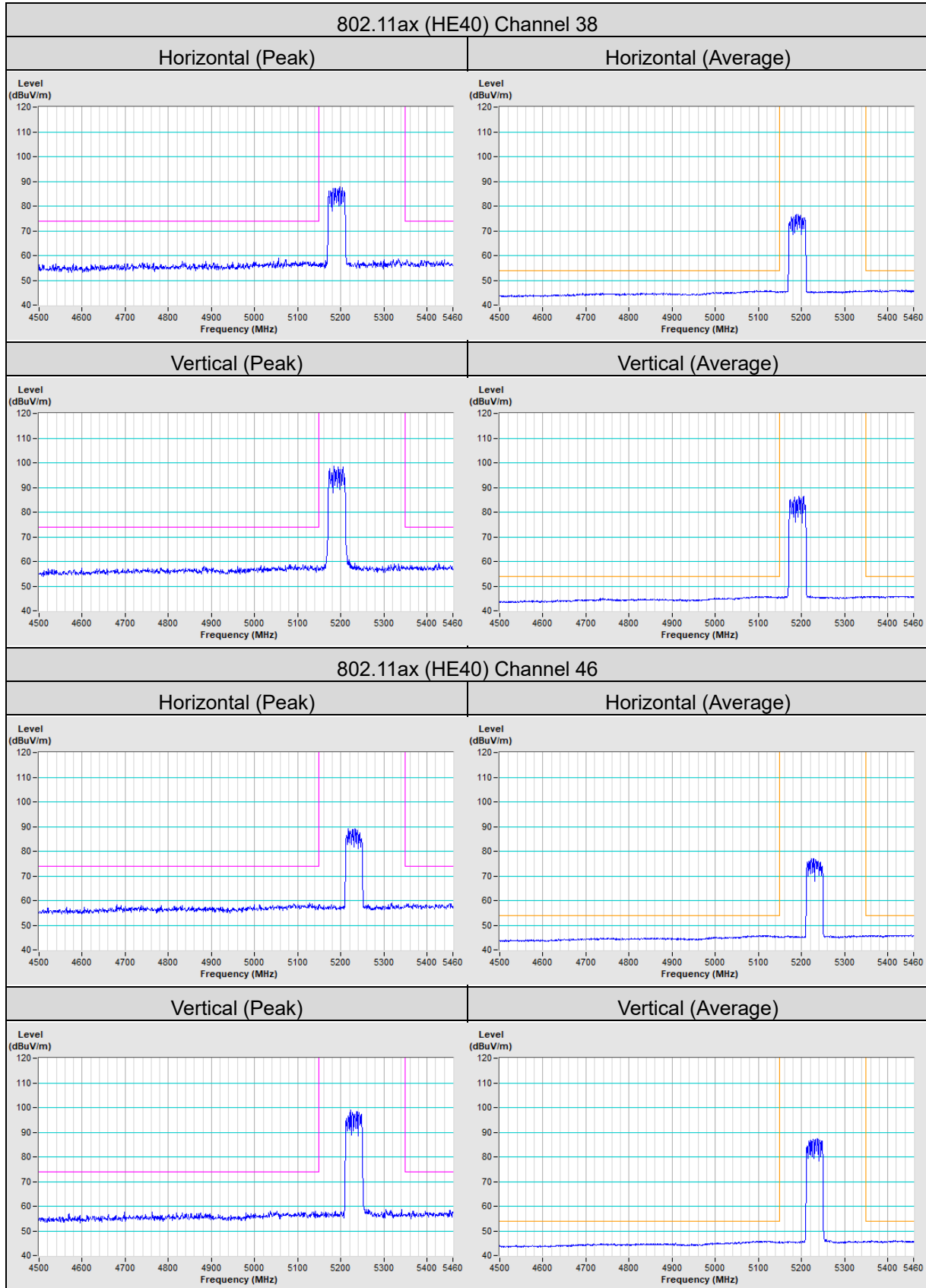


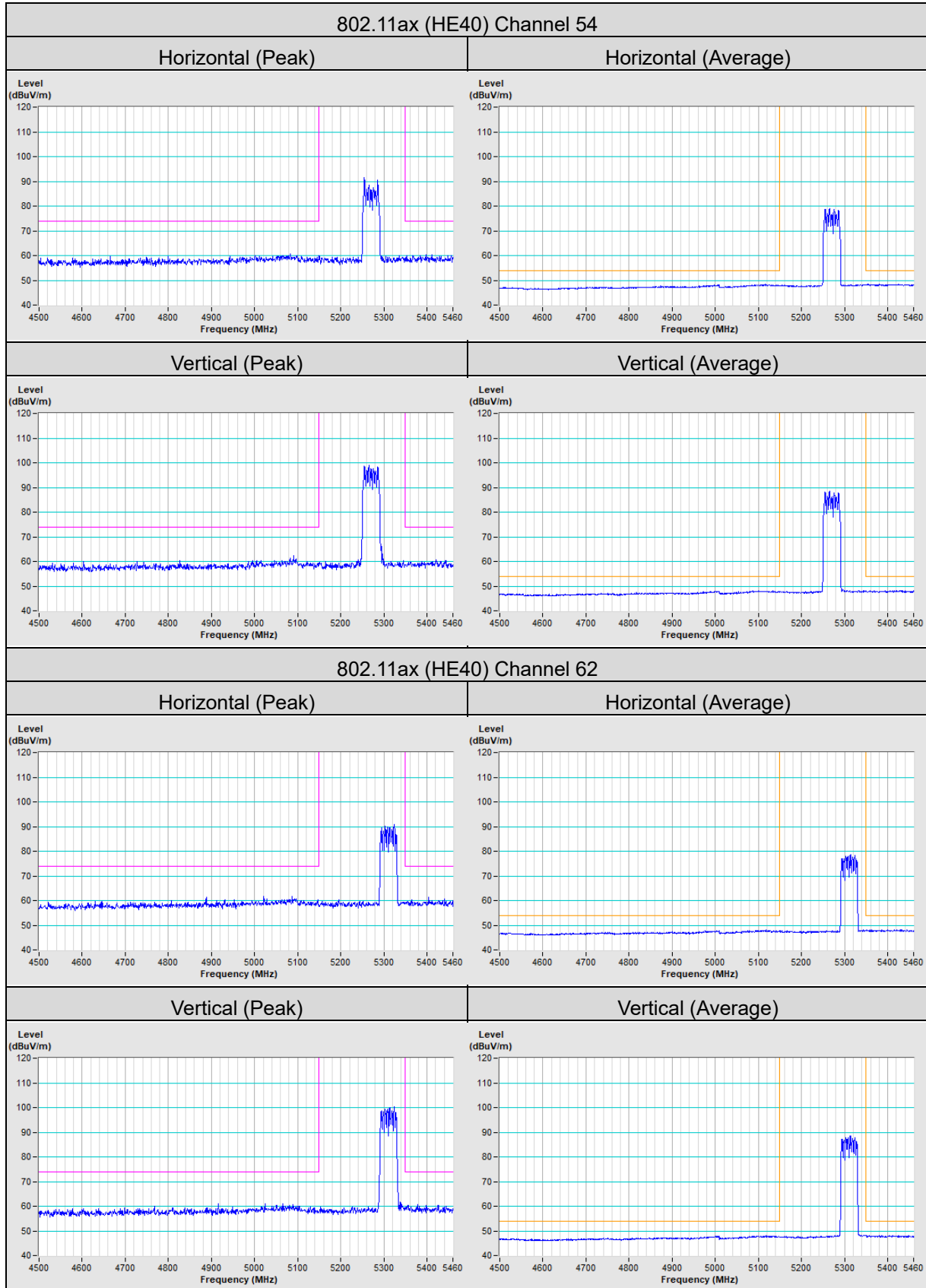
802.11ax (HE20) Channel 140



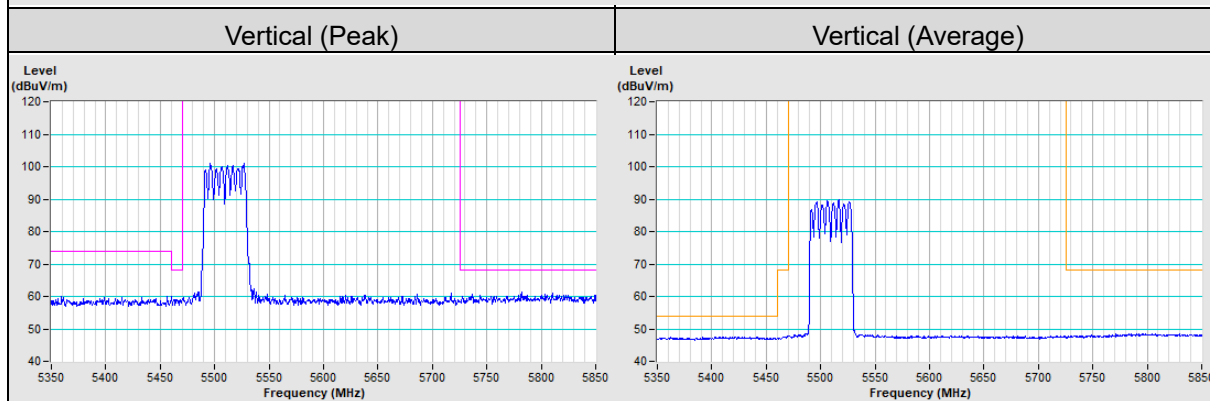
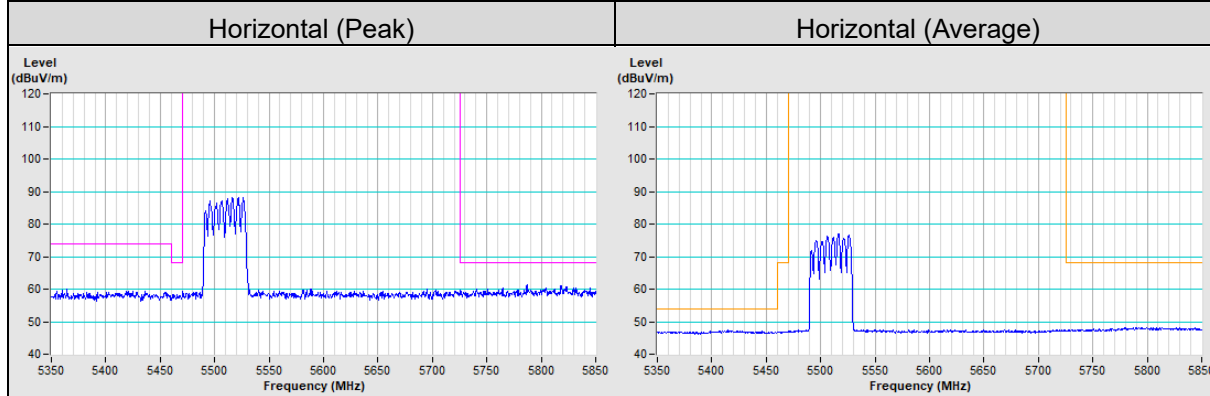
802.11ax (HE20) Channel 144



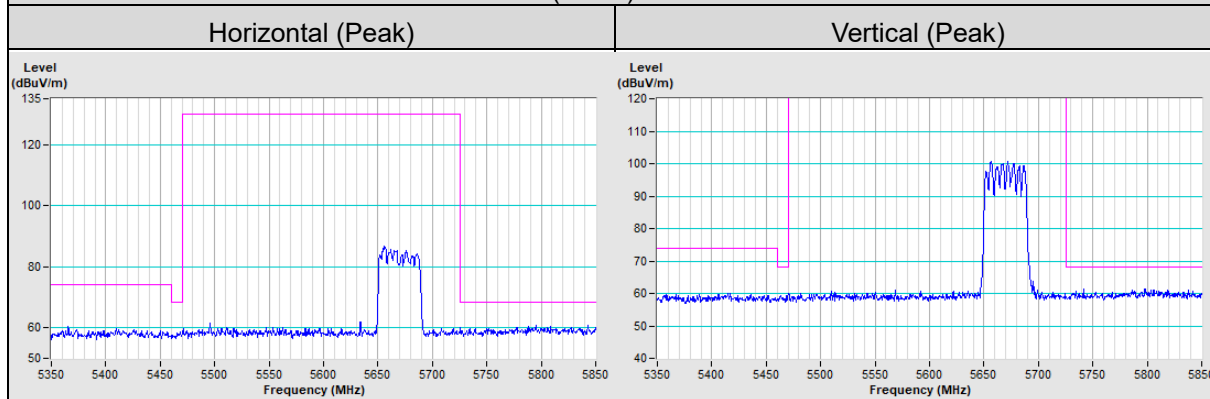




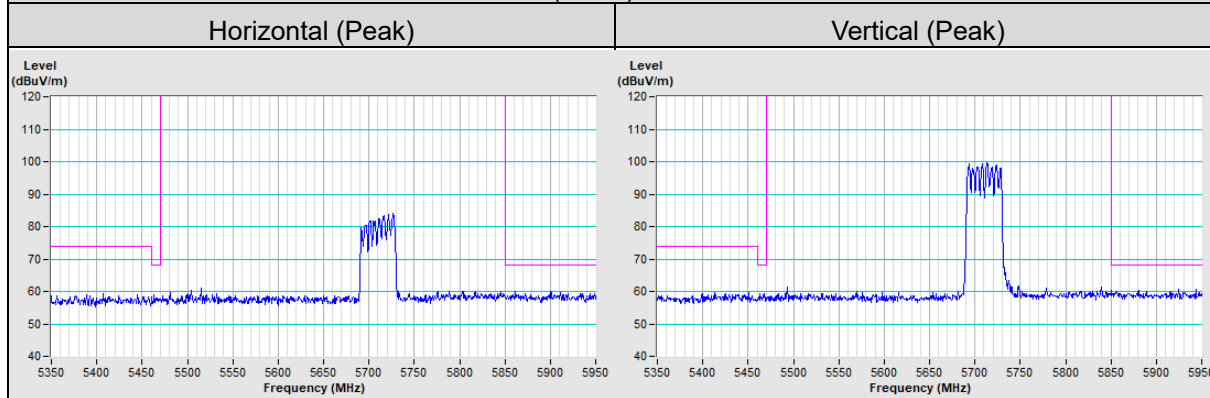
802.11ax (HE40) Channel 102



802.11ax (HE40) Channel 134

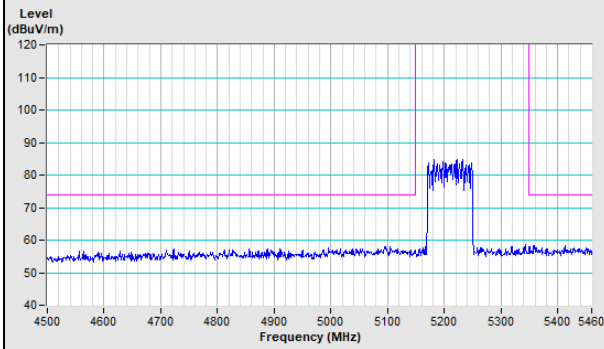


802.11ax (HE40) Channel 142

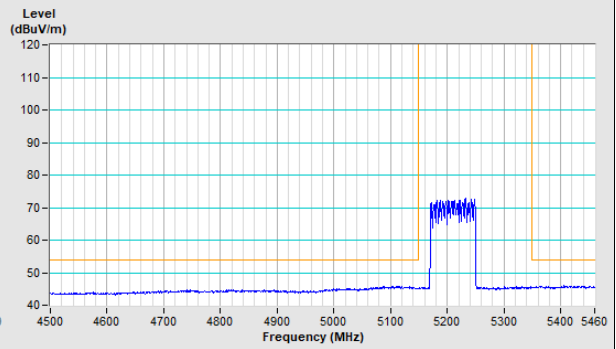


802.11ax (HE80) Channel 42

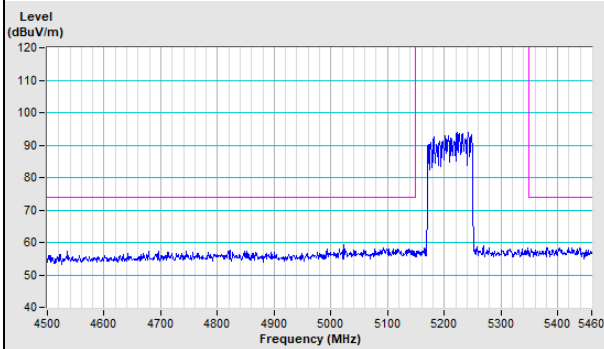
Horizontal (Peak)



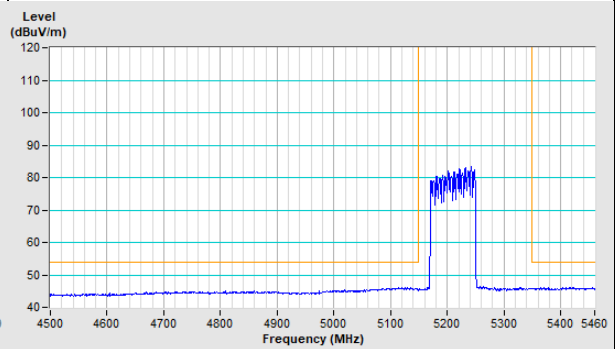
Horizontal (Average)



Vertical (Peak)

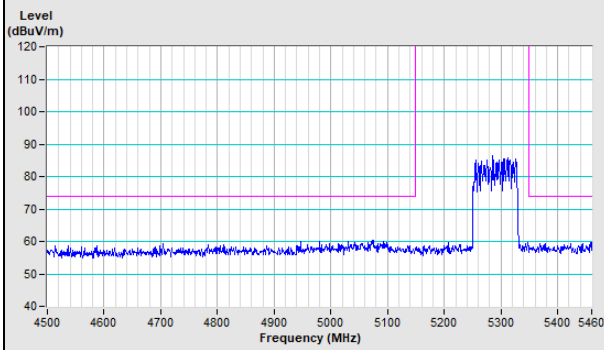


Vertical (Average)

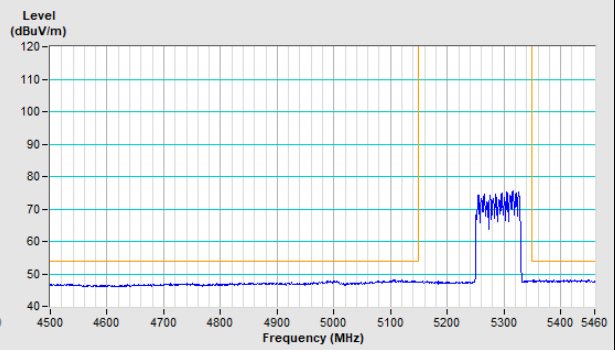


802.11ax (HE80) Channel 58

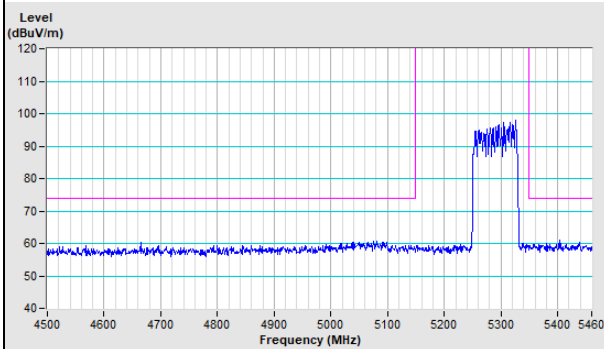
Horizontal (Peak)



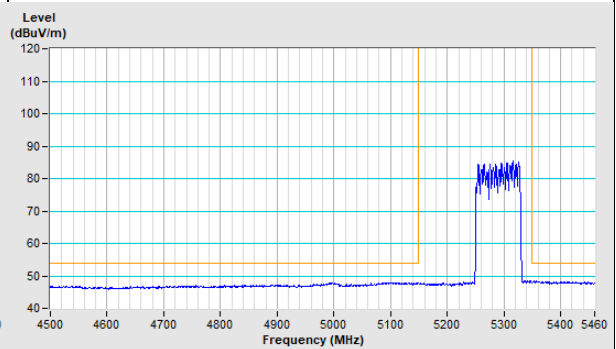
Horizontal (Average)

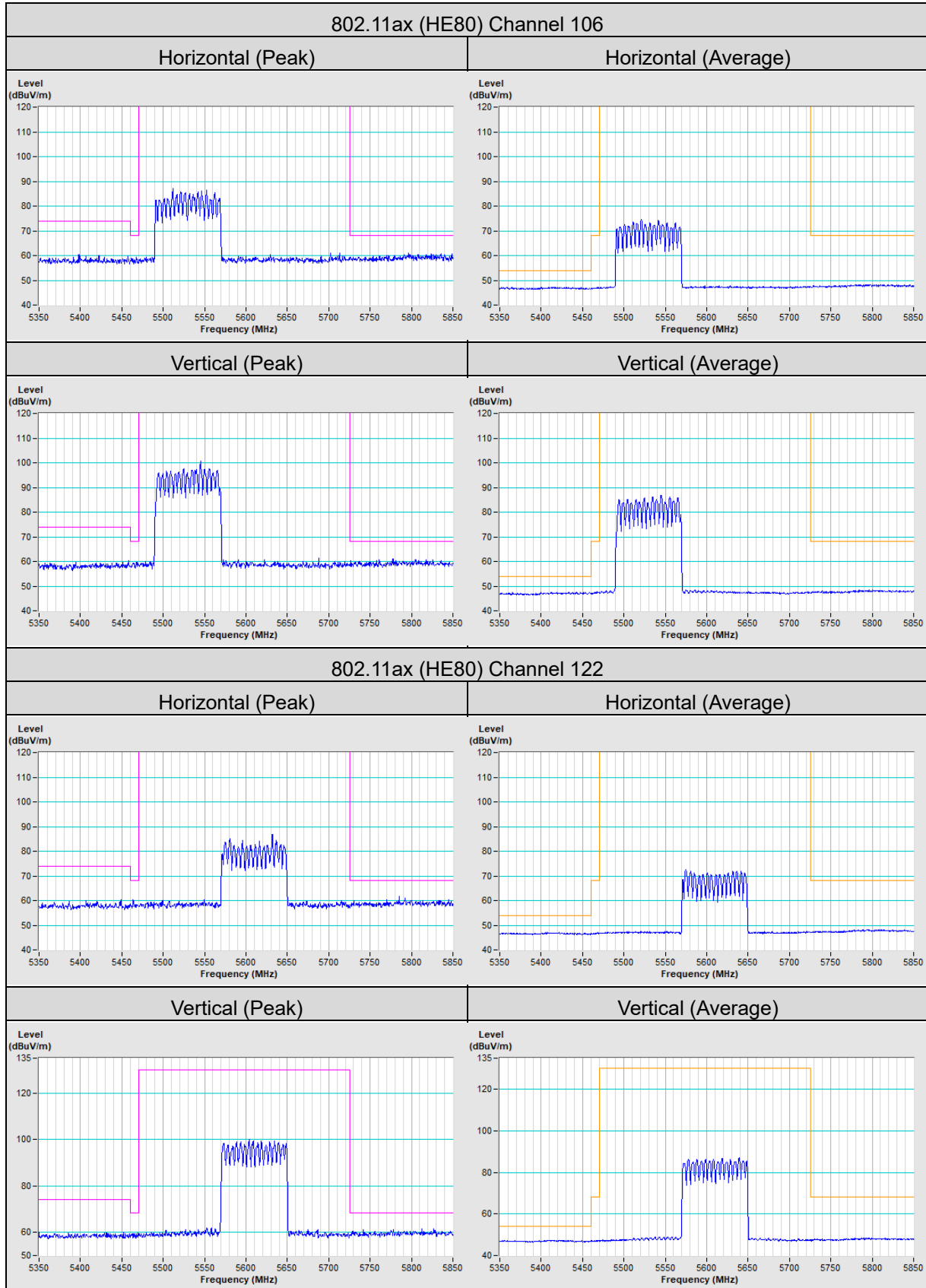


Vertical (Peak)



Vertical (Average)

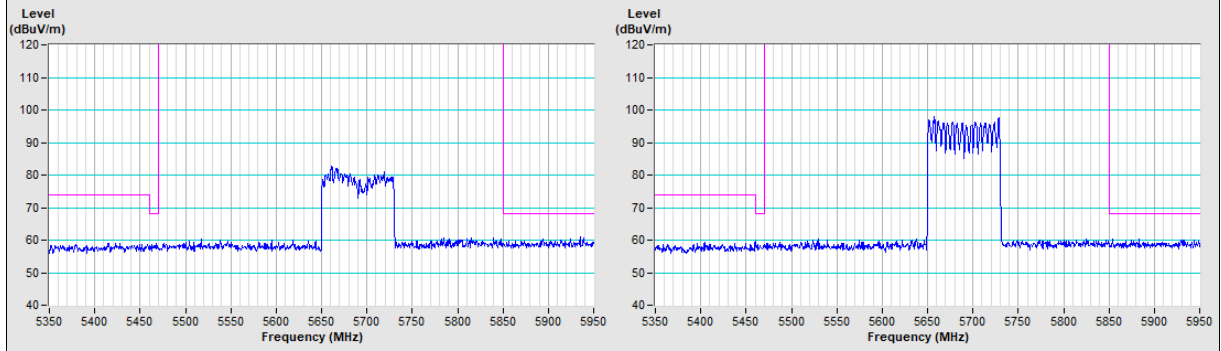




802.11ax (HE80) Channel 138

Horizontal (Peak)

Vertical (Peak)



Appendix – Information of the Testing Laboratories

We, Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch, were founded in 1988 to provide our best service in EMC, Radio, Telecom and Safety consultation. Our laboratories are FCC recognized accredited test firms and accredited and approved according to ISO/IEC 17025.

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Web Site: www.bureauveritas-adt.com

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

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