

FCC Test Report

Report No.: RFBBQZ-WTW-P21091048-1

FCC ID: PY321300545

Test Model: RAXE300

Received Date: Jul. 01, 2021

Test Date: Aug. 05 ~ Nov. 11, 2021

Issued Date: Dec. 24, 2021

Applicant and Manufacturer: NETGEAR, INC.

Address: 350 East Plumeria Drive, San Jose, CA 95134, USA

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

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

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

**FCC Registration /
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Release Control Record

Issue No.	Description	Date Issued
RFBBQZ-WTW-P21091048-1	Original release	Dec. 24, 2021

1 Certificate of Conformity

Product: NIGHTHAWK AXE7800 Tri-Band WiFi 6E Router

Brand: NETGEAR

Test Model: RAXE300

Sample Status: Engineering sample

Applicant and Manufacturer: NETGEAR, INC.

Test Date: Aug. 05 ~ Nov. 11, 2021

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 :

Pettie Chen

Date:

Dec. 24, 2021

Pettie Chen / Senior Specialist

Approved by :

Jeremy Lin

Date:

Dec. 24, 2021

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)(6)	AC Power Conducted Emissions	Pass	Meet the requirement of limit. Minimum passing margin is -11.06dB at 0.40498MHz.
15.407(b)(1/2/3/4(i/ii)/6)	Radiated Emissions & Band Edge Measurement	Pass	Meet the requirement of limit. Minimum passing margin is -0.2dB at 5150.00, 5350.00, 5725.00MHz.
15.407(a)(1/2/3)	Max Average Transmit Power	Pass	Meet the requirement of limit.
---	Occupied Bandwidth Measurement	-	Reference only.
15.407(a)(1/2/3)	Peak Power Spectral Density	Pass	Meet the requirement of limit.
15.407(e)	6dB bandwidth	Pass	Meet the requirement of limit. (U-NII-3 Band only)
15.407(g)	Frequency Stability	Pass	Meet the requirement of limit.
15.203	Antenna Requirement	Pass	Antenna connector is i-pex not a standard connector.

Note:

1. For U-NII-3 band compliance with rule part 15.407(b)(4)(i), the OOB test plots were recorded in Annex A.
2. For U-NII-1 band compliance with rule 15.407(b) of the band-edge items, the test plots were recorded in Annex B. Test Procedures refer to report 4.1.3.
3. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

2.1 Measurement Uncertainty

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

Measurement	Frequency	Expanded Uncertainty (k=2) (±)
Conducted Emissions at mains ports	150kHz ~ 30MHz	2.79 dB
Radiated Emissions up to 1 GHz	9kHz ~ 30MHz	3.04 dB
	30MHz ~ 200MHz	3.63 dB
Radiated Emissions above 1 GHz	200MHz ~ 1000MHz	3.64 dB
	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	NIGHTHAWK AXE7800 Tri-Band WiFi 6E Router
Brand	NETGEAR
Test Model	RAXE300
Sample Status	Engineering sample
Power Supply Rating	12Vdc (adapter)
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 (HT20/40): up to 600Mbps 802.11ac (VHT20/40/80/160): up to 3466.8Mbps 802.11ax (HE20/40/80/160): up to 4803.9Mbps
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): 2 802.11ac (VHT160), 802.11ax (HE160): 1 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): 3 802.11ac (VHT160), 802.11ax (HE160): 1 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	CDD Mode: 5180 ~ 5240MHz: 847.100mW 5260 ~ 5320MHz: 216.912mW 5500 ~ 5720MHz: 213.383mW 5745 ~ 5825MHz: 852.899mW Beamforming Mode: 5180 ~ 5240MHz: 847.100mW 5260 ~ 5320MHz: 216.912mW 5500 ~ 5720MHz: 213.383mW 5745 ~ 5825MHz: 852.899mW
Antenna Type	Refer to Note
Antenna Connector	Refer to Note
Accessory Device	Adapter
Cable Supplied	1.95m non-shielded RJ45 cable without core

Note:

1. The EUT has three different sources, after pretest the main source was the worst case for final test.

Option	Source	difference
Option A	Main	USB IC and USB layout
Option B	2nd	
Option C	3rd	

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

Modulation Mode	CDD Mode	Beamforming Mode	TX Function
802.11a	Support	Not Support	4TX
802.11n (HT20)	Support	Support	4TX
802.11n (HT40)	Support	Support	4TX
802.11ac (VHT20)	Support	Support	4TX
802.11ac (VHT40)	Support	Support	4TX
802.11ac (VHT80)	Support	Support	4TX
802.11ac (VHT160)	Support	Support	4TX
802.11ax (HE20)	Support	Support	4TX
802.11ax (HE40)	Support	Support	4TX
802.11ax (HE80)	Support	Support	4TX
802.11ax (HE160)	Support	Support	4TX

* The bandwidth and modulation are similar for HT20/HT40 on 802.11n mode and VHT20/VHT40 on 802.11n mode and HE20/HE40 on 802.11ax mode. The bandwidth and modulation are similar for VHT80/VHT160 on 802.11ac mode and HE80/HE160 on 802.11ax mode. Therefore the investigated worst case is the representative mode in test report. (Final test mode refer section 3.2.1)

* For 802.11n/ax, CDD mode and Beamforming mode are presented in power output test item. For other test items, CDD mode is the worst case for final tests after pretesting.

3. The EUT uses following adapters.

Adapter 1	
Brand	Netgear
Model	AD2150F10
P/N	332-11494-02
Input Power	100-120Vac ~50/60Hz; 1A
Output Power	12Vdc, 35A
Power line	1.78m cable without core

Adapter 2	
Brand	Netgear
Model	ADS-45FI-12 12042EPCU-L
P/N	332-11526-02
Input Power	100~120 Vac; ~60 Hz; 1.5 A
Output Power	12Vdc, 3.5A
Power line	1.84m cable without core

4. The antenna information is listed as below.

Antenna Type	Dipole
Antenna Connector	i-pex
Antenna Gain	Directional Gain (dBi)
2400~2483.5MHz	4.11
5150~5250MHz	6.26
5250~5350MHz	6.20
5470~5725MHz	6.23
5725~5850MHz	6.27

* The detailed antenna information, please refer to the Operational Description-Antenna Specification report.

5. WLAN 2.4GHz & 5150-5850 MHz & WLAN 5955~7115 MHz technology can transmit at same time.

WLAN 2.4GHz & WLAN 5955~7115 MHz use same antenna.

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

1 channel is provided for 802.11ac (VHT160), 802.11ax (HE160):

Channel	Frequency
50	5250MHz

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		

1 channel is provided for 802.11ac (VHT160), 802.11ax (HE160):

Channel	Frequency
114	5570MHz

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 $\geq$ 1G	RE<1G	PLC	APCM	
A	√	√	√	√	Power from adapter 1
B	-	√	√	-	Power from adapter 2

Where RE $\geq$ 1G: Radiated Emission above 1GHz & Bandedge Measurement
 PLC: Power Line Conducted Emission

RE<1G: Radiated Emission below 1GHz
 APCM: Antenna Port Conducted Measurement

Note:

1. The EUT had been pre-tested on the positioned of each 3 axis. The worst case was found when positioned on **X-plane**.
2. "-": Means no effect.

Radiated Emission Test (Above 1GHz):

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

EUT Configure Mode	Mode	Frequency Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Data Rate (Mbps)
A	802.11a	5180-5240	36 to 48	36, 40, 48	OFDM	6.0
	802.11ax (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
A	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	6.0
	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
	802.11ax (HE160)		50	50	OFDMA	MCS0
A	802.11a	5500-5720	100 to 144	100, 116, 140, 144	OFDM	6.0
	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
	802.11ax (HE160)		114	114	OFDMA	MCS0
A	802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	6.0
	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)
A, B	802.11ax (HE20)	5180-5240	36 to 48	165	OFDMA	MCS0
		5260-5320	52 to 64			
		5500-5720	100 to 144			
		5745-5825	149 to 165			

Power Line Conducted Emission Test:

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

EUT Configure Mode	Mode	Frequency Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Data Rate (Mbps)
A, B	802.11ax (HE20)	5180-5240	36 to 48	165	OFDMA	MCS0
		5260-5320	52 to 64			
		5500-5720	100 to 144			
		5745-5825	149 to 165			

Antenna Port Conducted Measurement:

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

EUT Configure Mode	Mode	Frequency Band (MHz)	Available Channel	Tested Channel	Modulation Technology	Data Rate (Mbps)
A	802.11a	5180-5240	36 to 48	36, 40, 48	OFDM	6.0
	802.11ax (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
A	802.11a	5260-5320	52 to 64	52, 60, 64	OFDM	6.0
	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
	802.11ax (HE160)		50	50	OFDMA	MCS0
A	802.11a	5500-5720	100 to 144	100, 116, 140, 144	OFDM	6.0
	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
	802.11ax (HE160)		114	114	OFDMA	MCS0
A	802.11a	5745-5825	149 to 165	149, 157, 165	OFDM	6.0
	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	Tested by
RE $\geq$ 1G	23 deg. C, 66% RH 25 deg. C, 70% RH	120Vac, 60Hz	Titan Hsu
RE<1G	23 deg. C, 66% RH	120Vac, 60Hz	Titan Hsu
PLC	25 deg. C, 75% RH	120Vac, 60Hz	Greg Lin
APCM	25 deg. C, 60% RH	120Vac, 60Hz	Jisyong Wang

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.

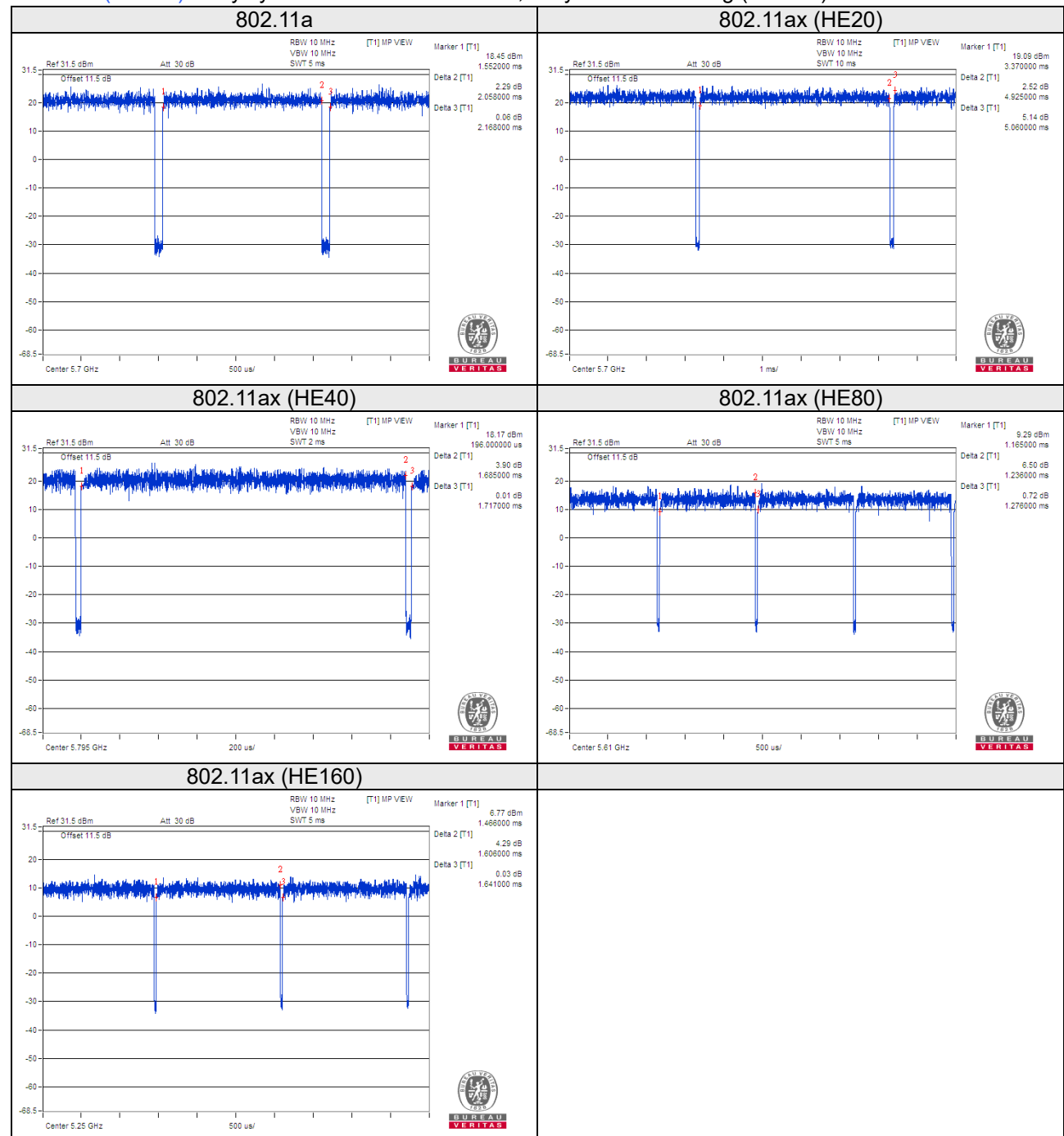
802.11a: Duty cycle = $2.058/2.168 = 0.949$, Duty factor = $10 * \log(1/0.949) = 0.23$

802.11ax (HE20): Duty cycle = $4.925/5.060 = 0.973$, Duty factor = $10 * \log(1/0.973) = 0.12$

802.11ax (HE40): Duty cycle = $1.685/1.717 = 0.981$

802.11ax (HE80): Duty cycle = $1.236/1.276 = 0.969$, Duty factor = $10 * \log(1/0.969) = 0.14$

802.11ax (HE160): Duty cycle = $1.606/1.641 = 0.979$, Duty factor = $10 * \log(1/0.979) = 0.09$



3.4 Description of Support Units

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

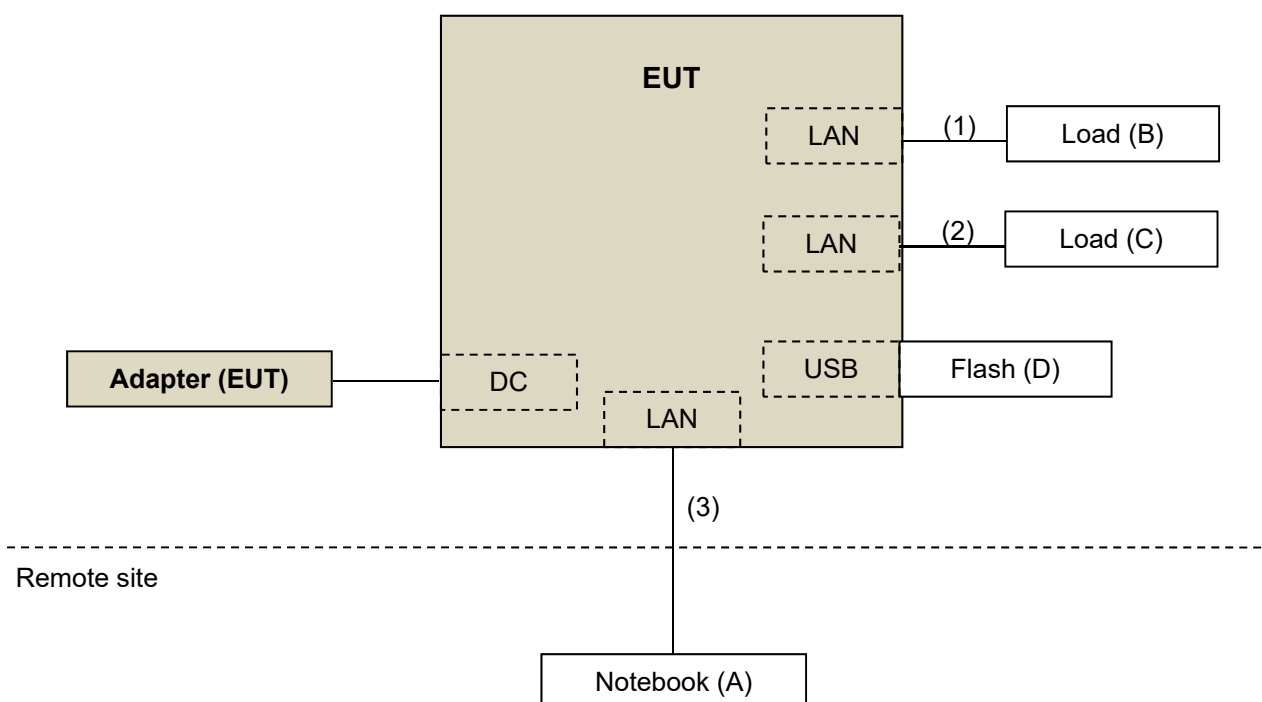
ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Notebook	DELL	E5410	1HC2XM1	FCC DoC Approved	-
B.	Load	NA	NA	NA	NA	-
C.	Load	NA	NA	NA	NA	-
D.	Flash	SanDisk	SDDDC3-032G	NA	NA	-

Note:

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

ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	LAN cable	4	1.5	N	0	RJ45, Cat5e
2.	LAN cable	1	1.5	N	0	RJ45, Cat5e
3.	LAN cable	1	6	N	0	RJ45, Cat5e

3.4.1 Configuration of System under Test



3.5 General Description of Applied Standards

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

Test standard:

FCC Part 15, Subpart E (15.407)

ANSI C63.10:2013

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

References Test Guidance:

KDB 789033 D02 General UNII Test Procedure New Rules v02r01

KDB 662911 D01 Multiple Transmitter Output v02r01

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

4 Test Types and Results

4.1 Radiated Emission and Bandedge Measurement

4.1.1 Limits of Radiated Emission and Bandedge Measurement

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

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

Note:

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

Limits of unwanted emission out of the restricted bands

Applicable To			Limit	
789033 D02 General UNII Test Procedure New Rules v02r01			Field Strength at 3m	
			PK: 74 (dBµV/m)	AV: 54 (dBµV/m)
Frequency Band	Applicable To		EIRP Limit	Equivalent Field Strength at 3m
5150~5250 MHz	15.407(b)(1)		PK: -27 (dBm/MHz)	PK: 68.2(dBµV/m)
5250~5350 MHz	15.407(b)(2)			
5470~5725 MHz	15.407(b)(3)			
5725~5850 MHz	☒	15.407(b)(4)(i)	PK: -27 (dBm/MHz) ^{*1} PK: 10 (dBm/MHz) ^{*2} PK: 15.6 (dBm/MHz) ^{*3} PK: 27 (dBm/MHz) ^{*4}	PK: 68.2(dBµV/m) ^{*1} PK: 105.2 (dBµV/m) ^{*2} PK: 110.8(dBµV/m) ^{*3} PK: 122.2 (dBµV/m) ^{*4}
	☐	15.407(b)(4)(ii)	Emission limits in section 15.247(d)	
^{*1} beyond 75 MHz or more above of the band edge.			^{*2} below the band edge increasing linearly to 10 dBm/MHz at 25 MHz above.	
^{*3} below the band edge increasing linearly to a level of 15.6 dBm/MHz at 5 MHz above.			^{*4} from 5 MHz above or below the band edge increasing linearly to a level of 27 dBm/MHz at the band edge.	

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

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

4.1.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Test Receiver ROHDE & SCHWARZ	ESCI	100424	Dec. 31, 2020	Dec. 30, 2021
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100040	Sep. 16, 2020 Sep. 15, 2021	Sep. 15, 2021 Sep. 14, 2022
BILOG Antenna SCHWARZBECK	VULB9168	9168-155	Nov. 03, 2020 Nov. 01, 2021	Nov. 02, 2021 Oct. 31, 2022
HORN Antenna SCHWARZBECK	BBHA 9120D	9120D-1170	Nov. 22, 2020	Nov. 21, 2021
HORN Antenna SCHWARZBECK	BBHA 9170	BBHA9170241	Nov. 22, 2020	Nov. 21, 2021
Loop Antenna TESEQ	HLA 6121	45745	Jul. 06, 2020 Jul. 21, 2021	Jul. 05, 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
Antenna Tower Controller BV ADT	AT100	AT93021703	NA	NA
Turn Table BV ADT	TT100	TT93021703	NA	NA
Turn Table Controller BV ADT	SC100	SC93021703	NA	NA
Boresight Antenna Fixture	FBA-01	FBA-SIP01	NA	NA
Pre-amplifier (18GHz-40GHz) EMC	EMC184045B	980175	Sep. 04, 2021	Sep. 03, 2022
Peak Power Analyzer KEYSIGHT	8990B	MY51000485	Jan. 19, 2021	Jan. 18, 2022
Wideband Power Sensor KEYSIGHT	N1923A	MY58020002	Jan. 11, 2021	Jan. 10, 2022

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:

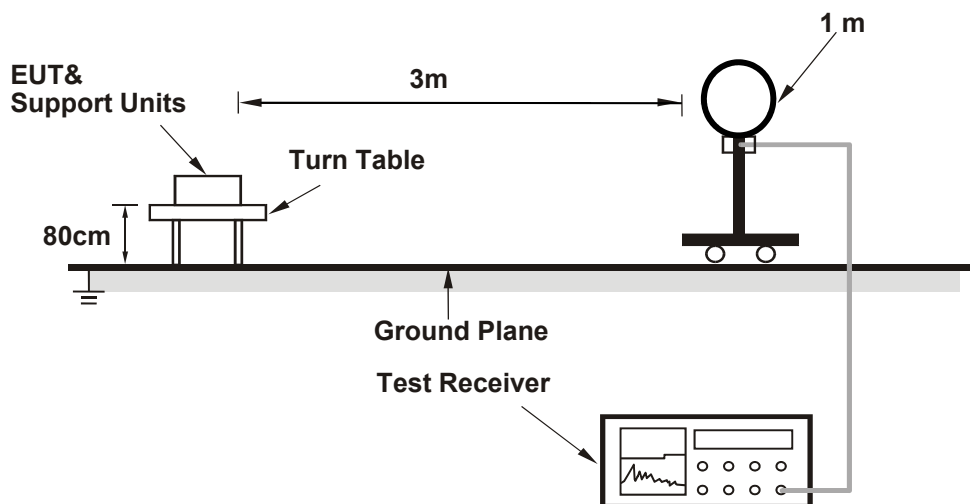
1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120kHz for Quasi-peak detection (QP) at frequency below 1GHz.
2. The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) at frequency above 1GHz.
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, 802.11ax (HE20), 802.11ax (HE80), 802.11ax (HE160): RBW = 1MHz, VBW = 1kHz, 802.11ax (HE40): RBW = 1MHz, VBW = 10Hz)
4. All modes of operation were investigated and the worst-case emissions are reported.

4.1.4 Deviation from Test Standard

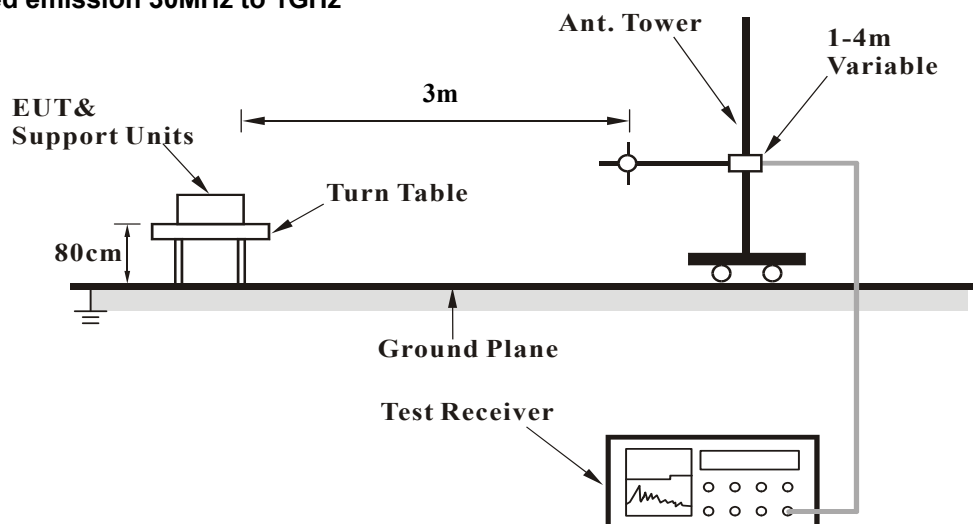
No deviation.

4.1.5 Test Setup

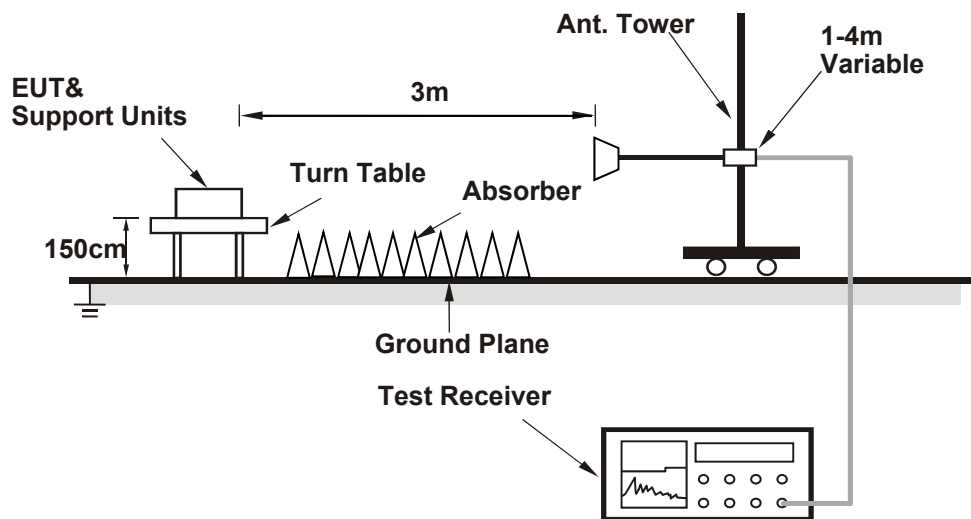
For Radiated emission below 30MHz



For Radiated emission 30MHz to 1GHz



For Radiated emission above 1GHz



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

4.1.6 EUT Operating Conditions

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

4.1.7 Test Results

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	65.0 PK	74.0	-9.0	1.76 H	254	52.0	13.0
2	5150.00	50.5 AV	54.0	-3.5	1.76 H	254	37.5	13.0
3	*5180.00	120.5 PK			1.76 H	254	78.0	42.5
4	*5180.00	111.3 AV			1.76 H	254	68.8	42.5
5	#10360.00	63.8 PK	68.2	-4.4	1.67 H	276	41.3	22.5
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	5150.00	61.4 PK	74.0	-12.6	2.10 V	8	48.4	13.0
2	5150.00	48.0 AV	54.0	-6.0	2.10 V	8	35.0	13.0
3	*5180.00	122.5 PK			2.10 V	8	80.0	42.5
4	*5180.00	112.8 AV			2.10 V	8	70.3	42.5
5	5373.60	64.2 PK	74.0	-9.8	2.10 V	8	51.0	13.2
6	5373.60	53.0 AV	54.0	-1.0	2.10 V	8	39.8	13.2
7	#10360.00	62.2 PK	68.2	-6.0	2.66 V	175	39.7	22.5

Remarks:

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

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	120.9 PK			1.66 H	254	78.5	42.4
2	*5200.00	111.1 AV			1.66 H	254	68.7	42.4
5	#10400.00	64.0 PK	68.2	-4.2	1.69 H	278	41.2	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	124.2 PK			2.10 V	7	81.8	42.4
2	*5200.00	115.1 AV			2.10 V	7	72.7	42.4
3	#10400.00	63.0 PK	68.2	-5.2	2.50 V	169	40.2	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	121.8 PK			1.76 H	246	79.4	42.4
2	*5240.00	111.3 AV			1.76 H	246	68.9	42.4
3	5440.00	62.3 PK	74.0	-11.7	1.76 H	246	49.0	13.3
4	5440.00	49.0 AV	54.0	-5.0	1.76 H	246	35.7	13.3
5	#10480.00	64.0 PK	68.2	-4.2	1.72 H	281	41.2	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	125.0 PK			2.20 V	6	82.6	42.4
2	*5240.00	115.7 AV			2.20 V	6	73.3	42.4
3	5440.00	62.6 PK	74.0	-11.4	2.20 V	6	49.3	13.3
4	5440.00	50.6 AV	54.0	-3.4	2.20 V	6	37.3	13.3
5	#10480.00	62.9 PK	68.2	-5.3	2.72 V	184	40.1	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	61.1 PK	74.0	-12.9	2.17 H	255	48.1	13.0
2	5150.00	47.6 AV	54.0	-6.4	2.17 H	255	34.6	13.0
3	*5260.00	116.9 PK			2.17 H	255	74.4	42.5
4	*5260.00	106.7 AV			2.17 H	255	64.2	42.5
5	#10520.00	63.5 PK	68.2	-4.7	1.72 H	293	40.6	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	63.6 PK	74.0	-10.4	2.10 V	18	50.6	13.0
2	5150.00	50.3 AV	54.0	-3.7	2.10 V	18	37.3	13.0
3	*5260.00	121.9 PK			2.10 V	18	79.4	42.5
4	*5260.00	111.5 AV			2.10 V	18	69.0	42.5
5	#10520.00	61.1 PK	68.2	-7.1	2.56 V	115	38.2	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 802.11a	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	118.0 PK			2.27 H	262	75.4	42.6
2	*5300.00	107.6 AV			2.27 H	262	65.0	42.6
3	10600.00	63.4 PK	74.0	-10.6	1.75 H	288	40.2	23.2
4	10600.00	49.3 AV	54.0	-4.7	1.75 H	288	26.1	23.2
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	*5300.00	123.2 PK			2.13 V	7	80.6	42.6
2	*5300.00	113.6 AV			2.13 V	7	71.0	42.6
3	10600.00	61.4 PK	74.0	-12.6	2.63 V	152	38.2	23.2
4	10600.00	49.6 AV	54.0	-4.4	2.63 V	152	26.4	23.2

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB).
3. 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	116.6 PK			2.30 H	262	73.9	42.7
2	*5320.00	107.1 AV			2.30 H	262	64.4	42.7
3	5350.00	61.9 PK	74.0	-12.1	2.30 H	262	48.8	13.1
4	5350.00	48.9 AV	54.0	-5.1	2.30 H	262	35.8	13.1
5	10640.00	63.9 PK	74.0	-10.1	1.77 H	286	40.5	23.4
6	10640.00	49.6 AV	54.0	-4.4	1.77 H	286	26.2	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	*5320.00	122.4 PK			1.99 V	6	79.7	42.7
2	*5320.00	112.6 AV			1.99 V	6	69.9	42.7
3	5350.00	64.7 PK	74.0	-9.3	1.99 V	6	51.6	13.1
4	5350.00	52.1 AV	54.0	-1.9	1.99 V	6	39.0	13.1
5	10640.00	60.9 PK	74.0	-13.1	2.27 V	169	37.5	23.4
6	10640.00	50.3 AV	54.0	-3.7	2.27 V	169	26.9	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 802.11a	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	62.5 PK	74.0	-11.5	1.76 H	235	49.0	13.5
2	5460.00	49.1 AV	54.0	-4.9	1.76 H	235	35.6	13.5
3	#5470.00	62.4 PK	68.2	-5.8	1.76 H	235	48.8	13.6
4	*5500.00	116.6 PK			1.76 H	235	73.4	43.2
5	*5500.00	106.2 AV			1.76 H	235	63.0	43.2
6	11000.00	64.6 PK	74.0	-9.4	1.75 H	301	40.3	24.3
7	11000.00	50.5 AV	54.0	-3.5	1.75 H	301	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	61.9 PK	74.0	-12.1	2.08 V	15	48.4	13.5
2	5460.00	50.2 AV	54.0	-3.8	2.08 V	15	36.7	13.5
3	#5470.00	64.1 PK	68.2	-4.1	2.08 V	15	50.5	13.6
4	*5500.00	121.0 PK			2.08 V	15	77.8	43.2
5	*5500.00	110.3 AV			2.08 V	15	67.1	43.2
6	11000.00	62.5 PK	74.0	-11.5	2.61 V	157	38.2	24.3
7	11000.00	50.7 AV	54.0	-3.3	2.61 V	157	26.4	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	117.1 PK			1.72 H	246	74.0	43.1
2	*5580.00	106.4 AV			1.72 H	246	63.3	43.1
3	11160.00	64.7 PK	74.0	-9.3	2.72 H	162	40.3	24.4
4	11160.00	51.6 AV	54.0	-2.4	2.72 H	162	27.2	24.4
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	*5580.00	123.0 PK			2.17 V	13	79.9	43.1
2	*5580.00	112.0 AV			2.17 V	13	68.9	43.1
3	11160.00	64.9 PK	74.0	-9.1	2.69 V	158	40.5	24.4
4	11160.00	51.5 AV	54.0	-2.5	2.69 V	158	27.1	24.4

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 802.11a	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	116.1 PK			1.87 H	248	72.7	43.4
2	*5700.00	106.8 AV			1.87 H	248	63.4	43.4
3	#5725.00	67.9 PK	68.2	-0.3	1.87 H	248	54.1	13.8
4	11400.00	65.2 PK	74.0	-8.8	2.75 H	169	40.0	25.2
5	11400.00	52.3 AV	54.0	-1.7	2.75 H	169	27.1	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	*5700.00	122.7 PK			1.61 V	7	79.3	43.4
2	*5700.00	109.6 AV			1.61 V	7	66.2	43.4
3	#5725.00	68.0 PK	68.2	-0.2	1.61 V	7	54.2	13.8
4	11400.00	65.5 PK	74.0	-8.5	2.58 V	164	40.3	25.2
5	11400.00	52.1 AV	54.0	-1.9	2.58 V	164	26.9	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 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	*5720.00	115.5 PK			1.79 H	247	72.0	43.5
2	*5720.00	106.0 AV			1.79 H	247	62.5	43.5
3	#5850.00	62.8 PK	68.2	-5.4	1.79 H	247	48.5	14.3
4	11440.00	65.3 PK	74.0	-8.7	2.69 H	165	40.2	25.1
5	11440.00	52.2 AV	54.0	-1.8	2.69 H	165	27.1	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	*5720.00	119.0 PK			2.26 V	12	75.5	43.5
2	*5720.00	108.7 AV			2.26 V	12	65.2	43.5
3	#5850.00	62.5 PK	68.2	-5.7	2.26 V	12	48.2	14.3
4	11440.00	66.2 PK	74.0	-7.8	2.73 V	165	41.1	25.1
5	11440.00	52.4 AV	54.0	-1.6	2.73 V	165	27.3	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 802.11a	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	#5628.80	62.3 PK	68.2	-5.9	1.72 H	246	48.6	13.7
2	*5745.00	121.1 PK			1.72 H	246	77.4	43.7
3	*5745.00	111.3 AV			1.72 H	246	67.6	43.7
4	#5964.00	62.1 PK	68.2	-6.1	1.72 H	246	47.6	14.5
5	11490.00	65.3 PK	74.0	-8.7	2.69 H	168	40.2	25.1
6	11490.00	52.8 AV	54.0	-1.2	2.69 H	168	27.7	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	#5648.00	64.7 PK	68.2	-3.5	2.10 V	11	51.1	13.6
2	*5745.00	124.5 PK			2.10 V	11	80.8	43.7
3	*5745.00	115.0 AV			2.10 V	11	71.3	43.7
4	#5946.00	63.7 PK	68.2	-4.5	2.10 V	11	49.2	14.5
5	11490.00	65.4 PK	74.0	-8.6	2.54 V	162	40.3	25.1
6	11490.00	53.1 AV	54.0	-0.9	2.54 V	162	28.0	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 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	#5606.80	61.9 PK	68.2	-6.3	1.72 H	247	48.3	13.6
2	*5785.00	121.2 PK			1.72 H	247	77.2	44.0
3	*5785.00	111.2 AV			1.72 H	247	67.2	44.0
4	#5995.20	61.6 PK	68.2	-6.6	1.72 H	247	47.1	14.5
5	11570.00	65.3 PK	74.0	-8.7	2.82 H	173	40.3	25.0
6	11570.00	52.5 AV	54.0	-1.5	2.82 H	173	27.5	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	#5629.20	65.2 PK	68.2	-3.0	1.83 V	9	51.5	13.7
2	*5785.00	124.4 PK			1.83 V	9	80.4	44.0
3	*5785.00	114.9 AV			1.83 V	9	70.9	44.0
4	#5928.80	64.8 PK	68.2	-3.4	1.83 V	9	50.4	14.4
5	11570.00	64.2 PK	74.0	-9.8	2.73 V	162	39.2	25.0
6	11570.00	52.9 AV	54.0	-1.1	2.73 V	162	27.9	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 802.11a	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	#5608.80	62.4 PK	68.2	-5.8	1.69 H	246	48.8	13.6
2	*5825.00	120.3 PK			1.69 H	246	76.3	44.0
3	*5825.00	110.3 AV			1.69 H	246	66.3	44.0
4	#5978.80	62.5 PK	68.2	-5.7	1.69 H	246	48.0	14.5
5	11650.00	64.9 PK	74.0	-9.1	2.82 H	171	40.2	24.7
6	11650.00	52.2 AV	54.0	-1.8	2.82 H	171	27.5	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	#5626.00	66.8 PK	68.2	-1.4	1.44 V	10	53.1	13.7
2	*5825.00	125.1 PK			1.44 V	10	81.1	44.0
3	*5825.00	115.7 AV			1.44 V	10	71.7	44.0
4	#5936.00	63.4 PK	68.2	-4.8	1.44 V	10	49.0	14.4
5	11650.00	64.9 PK	74.0	-9.1	2.43 V	188	40.2	24.7
6	11650.00	52.3 AV	54.0	-1.7	2.43 V	188	27.6	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 (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	64.8 PK	74.0	-9.2	1.62 H	245	51.8	13.0
2	5150.00	51.8 AV	54.0	-2.2	1.62 H	245	38.8	13.0
3	*5180.00	122.0 PK			1.62 H	245	79.5	42.5
4	*5180.00	109.9 AV			1.62 H	245	67.4	42.5
5	#10360.00	63.7 PK	68.2	-4.5	1.69 H	275	41.2	22.5
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	5150.00	62.1 PK	74.0	-11.9	2.14 V	2	49.1	13.0
2	5150.00	48.8 AV	54.0	-5.2	2.14 V	2	35.8	13.0
3	*5180.00	124.7 PK			2.14 V	2	82.2	42.5
4	*5180.00	113.5 AV			2.14 V	2	71.0	42.5
5	5374.10	63.9 PK	74.0	-10.1	2.14 V	2	50.7	13.2
6	5374.10	52.7 AV	54.0	-1.3	2.14 V	2	39.5	13.2
7	#10360.00	62.7 PK	68.2	-5.5	2.58 V	174	40.2	22.5

Remarks:

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

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	123.4 PK			1.66 H	245	81.0	42.4
2	*5200.00	110.5 AV			1.66 H	245	68.1	42.4
3	#10400.00	63.9 PK	68.2	-4.3	1.65 H	272	41.1	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	125.7 PK			2.11 V	2	83.3	42.4
2	*5200.00	113.8 AV			2.11 V	2	71.4	42.4
3	#10400.00	63.4 PK	68.2	-4.8	2.75 V	162	40.6	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	123.5 PK			1.64 H	240	81.1	42.4
2	*5240.00	111.0 AV			1.64 H	240	68.6	42.4
3	5440.00	61.8 PK	74.0	-12.2	1.64 H	240	48.5	13.3
4	5440.00	48.8 AV	54.0	-5.2	1.64 H	240	35.5	13.3
5	#10480.00	64.0 PK	68.2	-4.2	1.69 H	271	41.2	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	127.4 PK			2.30 V	2	85.0	42.4
2	*5240.00	114.2 AV			2.30 V	2	71.8	42.4
3	5440.00	62.6 PK	74.0	-11.4	2.30 V	2	49.3	13.3
4	5440.00	50.3 AV	54.0	-3.7	2.30 V	2	37.0	13.3
5	#10480.00	63.3 PK	68.2	-4.9	2.57 V	158	40.5	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	60.4 PK	74.0	-13.6	2.39 H	260	47.4	13.0
2	5150.00	47.6 AV	54.0	-6.4	2.39 H	260	34.6	13.0
3	*5260.00	119.0 PK			2.39 H	260	76.5	42.5
4	*5260.00	106.1 AV			2.39 H	260	63.6	42.5
5	#10520.00	63.4 PK	68.2	-4.8	1.65 H	295	40.5	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	62.1 PK	74.0	-11.9	2.19 V	2	49.1	13.0
2	5150.00	49.3 AV	54.0	-4.7	2.19 V	2	36.3	13.0
3	*5260.00	123.1 PK			2.19 V	2	80.6	42.5
4	*5260.00	111.6 AV			2.19 V	2	69.1	42.5
5	#10520.00	60.8 PK	68.2	-7.4	2.61 V	112	37.9	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 (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	118.5 PK			2.58 H	261	75.9	42.6
2	*5300.00	105.9 AV			2.58 H	261	63.3	42.6
3	10600.00	63.5 PK	74.0	-10.5	1.75 H	299	40.3	23.2
4	10600.00	49.2 AV	54.0	-4.8	1.75 H	299	26.0	23.2
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	*5300.00	123.7 PK			1.97 V	1	81.1	42.6
2	*5300.00	111.8 AV			1.97 V	1	69.2	42.6
3	10600.00	61.0 PK	74.0	-13.0	2.36 V	177	37.8	23.2
4	10600.00	49.9 AV	54.0	-4.1	2.36 V	177	26.7	23.2

Remarks:

1. Emission Level(dBuV/m) = Raw Value(dBuV) + Correction Factor(dB/m).
2. Correction Factor(dB/m) = Antenna Factor(dB/m) + Cable Factor(dB) – Pre-Amplifier Factor(dB).
3. 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	118.3 PK			2.52 H	258	75.6	42.7
2	*5320.00	105.6 AV			2.52 H	258	62.9	42.7
3	5350.00	61.9 PK	74.0	-12.1	2.52 H	258	48.8	13.1
4	5350.00	48.9 AV	54.0	-5.1	2.52 H	258	35.8	13.1
5	10640.00	63.7 PK	74.0	-10.3	1.69 H	285	40.3	23.4
6	10640.00	49.7 AV	54.0	-4.3	1.69 H	285	26.3	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	*5320.00	122.3 PK			1.99 V	7	79.6	42.7
2	*5320.00	110.2 AV			1.99 V	7	67.5	42.7
3	5350.00	64.1 PK	74.0	-9.9	1.99 V	7	51.0	13.1
4	5350.00	52.1 AV	54.0	-1.9	1.99 V	7	39.0	13.1
5	10640.00	60.6 PK	74.0	-13.4	2.14 V	169	37.2	23.4
6	10640.00	50.2 AV	54.0	-3.8	2.14 V	169	26.8	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 (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	62.9 PK	74.0	-11.1	1.77 H	234	49.4	13.5
2	5460.00	49.2 AV	54.0	-4.8	1.77 H	234	35.7	13.5
3	#5470.00	62.1 PK	68.2	-6.1	1.77 H	234	48.5	13.6
4	*5500.00	117.3 PK			1.77 H	234	74.1	43.2
5	*5500.00	105.3 AV			1.77 H	234	62.1	43.2
6	11000.00	64.5 PK	74.0	-9.5	2.69 H	165	40.2	24.3
7	11000.00	51.4 AV	54.0	-2.6	2.69 H	165	27.1	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	63.6 PK	74.0	-10.4	1.93 V	9	50.1	13.5
2	5460.00	50.9 AV	54.0	-3.1	1.93 V	9	37.4	13.5
3	#5470.00	65.9 PK	68.2	-2.3	1.93 V	9	52.3	13.6
4	*5500.00	121.1 PK			1.93 V	9	77.9	43.2
5	*5500.00	108.0 AV			1.93 V	9	64.8	43.2
6	11000.00	64.5 PK	74.0	-9.5	2.71 V	163	40.2	24.3
7	11000.00	51.3 AV	54.0	-2.7	2.71 V	163	27.0	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	118.0 PK			1.71 H	235	74.9	43.1
2	*5580.00	106.2 AV			1.71 H	235	63.1	43.1
3	11160.00	64.6 PK	74.0	-9.4	2.75 H	169	40.2	24.4
4	11160.00	51.5 AV	54.0	-2.5	2.75 H	169	27.1	24.4
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	*5580.00	122.5 PK			2.01 V	8	79.4	43.1
2	*5580.00	109.8 AV			2.01 V	8	66.7	43.1
3	11160.00	62.3 PK	74.0	-11.7	2.71 V	153	37.9	24.4
4	11160.00	51.2 AV	54.0	-2.8	2.71 V	153	26.8	24.4

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 (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	118.4 PK			1.65 H	235	75.0	43.4
2	*5700.00	106.0 AV			1.65 H	235	62.6	43.4
3	#5725.00	66.8 PK	68.2	-1.4	1.65 H	235	53.0	13.8
4	11400.00	65.7 PK	74.0	-8.3	2.68 H	164	40.5	25.2
5	11400.00	52.3 AV	54.0	-1.7	2.68 H	164	27.1	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	*5700.00	122.1 PK			1.60 V	8	78.7	43.4
2	*5700.00	108.8 AV			1.60 V	8	65.4	43.4
3	#5725.00	67.9 PK	68.2	-0.3	1.60 V	8	54.1	13.8
4	11400.00	65.4 PK	74.0	-8.6	2.26 V	179	40.2	25.2
5	11400.00	51.9 AV	54.0	-2.1	2.26 V	179	26.7	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 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	*5720.00	117.2 PK			1.64 H	236	73.7	43.5
2	*5720.00	105.3 AV			1.64 H	236	61.8	43.5
3	#5850.00	62.9 PK	68.2	-5.3	1.64 H	236	48.6	14.3
4	11440.00	65.2 PK	74.0	-8.8	2.59 H	168	40.1	25.1
5	11440.00	51.9 AV	54.0	-2.1	2.59 H	168	26.8	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	*5720.00	119.7 PK			2.14 V	7	76.2	43.5
2	*5720.00	107.2 AV			2.14 V	7	63.7	43.5
3	#5850.00	61.8 PK	68.2	-6.4	2.14 V	7	47.5	14.3
4	11440.00	65.5 PK	74.0	-8.5	2.66 V	173	40.4	25.1
5	11440.00	52.0 AV	54.0	-2.0	2.66 V	173	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 802.11ax (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	#5646.00	63.3 PK	68.2	-4.9	1.72 H	246	49.7	13.6
2	*5745.00	121.5 PK			1.72 H	246	77.8	43.7
3	*5745.00	109.6 AV			1.72 H	246	65.9	43.7
4	#5964.80	62.9 PK	68.2	-5.3	1.72 H	246	48.4	14.5
5	11490.00	65.3 PK	74.0	-8.7	2.83 H	175	40.2	25.1
6	11490.00	52.5 AV	54.0	-1.5	2.83 H	175	27.4	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	#5612.80	64.7 PK	68.2	-3.5	1.53 V	6	51.1	13.6
2	*5745.00	127.4 PK			1.53 V	6	83.7	43.7
3	*5745.00	115.2 AV			1.53 V	6	71.5	43.7
4	#5956.00	64.1 PK	68.2	-4.1	1.53 V	6	49.6	14.5
5	11490.00	64.9 PK	74.0	-9.1	2.63 V	159	39.8	25.1
6	11490.00	52.6 AV	54.0	-1.4	2.63 V	159	27.5	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 802.11ax (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	#5642.00	61.9 PK	68.2	-6.3	1.88 H	238	48.2	13.7
2	*5785.00	123.4 PK			1.88 H	238	79.4	44.0
3	*5785.00	110.9 AV			1.88 H	238	66.9	44.0
4	#5945.20	62.9 PK	68.2	-5.3	1.88 H	238	48.4	14.5
5	11570.00	65.0 PK	74.0	-9.0	2.82 H	173	40.0	25.0
6	11570.00	52.3 AV	54.0	-1.7	2.82 H	173	27.3	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	#5600.80	65.9 PK	68.2	-2.3	1.50 V	5	52.3	13.6
2	*5785.00	129.1 PK			1.50 V	5	85.1	44.0
3	*5785.00	116.9 AV			1.50 V	5	72.9	44.0
4	#5935.20	64.4 PK	68.2	-3.8	1.50 V	5	50.0	14.4
5	11570.00	64.9 PK	74.0	-9.1	2.66 V	173	39.9	25.0
6	11570.00	52.1 AV	54.0	-1.9	2.66 V	173	27.1	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 (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	#5646.00	62.4 PK	68.2	-5.8	1.81 H	238	48.8	13.6
2	*5825.00	122.3 PK			1.81 H	238	78.3	44.0
3	*5825.00	110.1 AV			1.81 H	238	66.1	44.0
4	#5944.40	62.4 PK	68.2	-5.8	1.81 H	238	47.9	14.5
5	11650.00	64.9 PK	74.0	-9.1	2.79 H	169	40.2	24.7
6	11650.00	52.3 AV	54.0	-1.7	2.79 H	169	27.6	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	67.1 PK	68.2	-1.1	1.55 V	3	53.4	13.7
2	*5825.00	124.5 PK			1.55 V	3	80.5	44.0
3	*5825.00	115.6 AV			1.55 V	3	71.6	44.0
4	#5923.60	64.1 PK	69.2	-5.1	1.55 V	3	49.7	14.4
5	11650.00	64.6 PK	74.0	-9.4	2.66 V	173	39.9	24.7
6	11650.00	51.5 AV	54.0	-2.5	2.66 V	173	26.8	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 (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	69.3 PK	74.0	-4.7	1.61 H	244	56.3	13.0
2	5150.00	53.0 AV	54.0	-1.0	1.61 H	244	40.0	13.0
3	*5190.00	120.2 PK			1.61 H	244	77.7	42.5
4	*5190.00	107.8 AV			1.61 H	244	65.3	42.5
5	#10380.00	63.9 PK	68.2	-4.3	1.69 H	280	41.2	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	64.2 PK	74.0	-9.8	2.13 V	1	51.2	13.0
2	5150.00	50.5 AV	54.0	-3.5	2.13 V	1	37.5	13.0
3	*5190.00	122.6 PK			2.13 V	1	80.1	42.5
4	*5190.00	110.3 AV			2.13 V	1	67.8	42.5
5	5372.80	62.4 PK	74.0	-11.6	2.13 V	1	49.2	13.2
6	5372.80	51.6 AV	54.0	-2.4	2.13 V	1	38.4	13.2
7	#10380.00	63.1 PK	68.2	-5.1	2.65 V	184	40.4	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	120.3 PK			1.58 H	240	77.9	42.4
2	*5230.00	107.3 AV			1.58 H	240	64.9	42.4
3	5350.00	63.1 PK	74.0	-10.9	1.58 H	240	50.0	13.1
4	5350.00	48.6 AV	54.0	-5.4	1.58 H	240	35.5	13.1
5	#10460.00	64.2 PK	68.2	-4.0	1.65 H	282	41.3	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	123.9 PK			2.24 V	2	81.5	42.4
2	*5230.00	111.0 AV			2.24 V	2	68.6	42.4
3	5350.00	64.6 PK	74.0	-9.4	2.24 V	2	51.5	13.1
4	5350.00	50.7 AV	54.0	-3.3	2.24 V	2	37.6	13.1
5	#10460.00	63.3 PK	68.2	-4.9	2.73 V	164	40.4	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 802.11ax (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	60.7 PK	74.0	-13.3	2.50 H	252	47.7	13.0
2	5150.00	47.6 AV	54.0	-6.4	2.50 H	252	34.6	13.0
3	*5270.00	116.4 PK			2.50 H	252	73.9	42.5
4	*5270.00	103.4 AV			2.50 H	252	60.9	42.5
5	#10540.00	62.7 PK	68.2	-5.5	1.77 H	283	39.8	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	62.3 PK	74.0	-11.7	1.99 V	1	49.3	13.0
2	5150.00	49.4 AV	54.0	-4.6	1.99 V	1	36.4	13.0
3	*5270.00	121.3 PK			1.99 V	1	78.8	42.5
4	*5270.00	108.2 AV			1.99 V	1	65.7	42.5
5	#10540.00	60.9 PK	68.2	-7.3	2.55 V	127	38.0	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 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	115.7 PK			2.49 H	255	73.1	42.6
2	*5310.00	103.1 AV			2.49 H	255	60.5	42.6
3	5350.00	64.8 PK	74.0	-9.2	2.49 H	255	51.7	13.1
4	5350.00	51.4 AV	54.0	-2.6	2.49 H	255	38.3	13.1
5	10620.00	63.1 PK	74.0	-10.9	1.79 H	292	39.8	23.3
6	10620.00	49.2 AV	54.0	-4.8	1.79 H	292	25.9	23.3
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	*5310.00	121.1 PK			1.99 V	1	78.5	42.6
2	*5310.00	107.8 AV			1.99 V	1	65.2	42.6
3	5350.00	67.8 PK	74.0	-6.2	1.99 V	1	54.7	13.1
4	5350.00	53.8 AV	54.0	-0.2	1.99 V	1	40.7	13.1
5	10620.00	60.5 PK	74.0	-13.5	2.39 V	172	37.2	23.3
6	10620.00	50.1 AV	54.0	-3.9	2.39 V	172	26.8	23.3

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.

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	62.4 PK	74.0	-11.6	1.61 H	229	48.9	13.5
2	5460.00	49.0 AV	54.0	-5.0	1.61 H	229	35.5	13.5
3	#5470.00	62.6 PK	68.2	-5.6	1.61 H	229	49.0	13.6
4	*5510.00	115.0 PK			1.61 H	229	71.8	43.2
5	*5510.00	102.3 AV			1.61 H	229	59.1	43.2
6	11020.00	64.1 PK	74.0	-9.9	2.65 H	168	39.8	24.3
7	11020.00	51.1 AV	54.0	-2.9	2.65 H	168	26.8	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	63.6 PK	74.0	-10.4	1.66 V	9	50.1	13.5
2	5460.00	50.8 AV	54.0	-3.2	1.66 V	9	37.3	13.5
3	#5470.00	66.4 PK	68.2	-1.8	1.66 V	9	52.8	13.6
4	*5510.00	118.3 PK			1.66 V	9	75.1	43.2
5	*5510.00	105.0 AV			1.66 V	9	61.8	43.2
6	11020.00	64.5 PK	74.0	-9.5	2.63 V	185	40.2	24.3
7	11020.00	51.0 AV	54.0	-3.0	2.63 V	185	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 802.11ax (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	114.9 PK			1.60 H	234	71.8	43.1
2	*5550.00	102.6 AV			1.60 H	234	59.5	43.1
3	11100.00	64.4 PK	74.0	-9.6	2.68 H	168	40.1	24.3
4	11100.00	51.3 AV	54.0	-2.7	2.68 H	168	27.0	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	*5550.00	119.8 PK			1.70 V	358	76.7	43.1
2	*5550.00	106.0 AV			1.70 V	358	62.9	43.1
3	11100.00	64.5 PK	74.0	-9.5	2.63 V	169	40.2	24.3
4	11100.00	51.0 AV	54.0	-3.0	2.63 V	169	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 802.11ax (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	115.8 PK			1.65 H	235	72.5	43.3
2	*5670.00	103.4 AV			1.65 H	235	60.1	43.3
3	#5725.00	62.9 PK	68.2	-5.3	1.65 H	235	49.1	13.8
4	11340.00	65.1 PK	74.0	-8.9	2.68 H	168	40.2	24.9
5	11340.00	51.9 AV	54.0	-2.1	2.68 H	168	27.0	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	118.7 PK			1.81 V	7	75.4	43.3
2	*5670.00	105.8 AV			1.81 V	7	62.5	43.3
3	#5725.00	67.0 PK	68.2	-1.2	1.81 V	7	53.2	13.8
4	11340.00	65.1 PK	74.0	-8.9	2.63 V	166	40.2	24.9
5	11340.00	51.7 AV	54.0	-2.3	2.63 V	166	26.8	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	*5710.00	115.1 PK			1.64 H	236	71.7	43.4
2	*5710.00	103.0 AV			1.64 H	236	59.6	43.4
3	#5850.00	62.1 PK	68.2	-6.1	1.64 H	236	47.8	14.3
4	11420.00	65.2 PK	74.0	-8.8	2.79 H	169	40.0	25.2
5	11420.00	52.1 AV	54.0	-1.9	2.79 H	169	26.9	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	*5710.00	117.4 PK			2.14 V	6	74.0	43.4
2	*5710.00	103.9 AV			2.14 V	6	60.5	43.4
3	#5850.00	61.9 PK	68.2	-6.3	2.14 V	6	47.6	14.3
4	11420.00	65.6 PK	74.0	-8.4	2.55 V	164	40.4	25.2
5	11420.00	52.4 AV	54.0	-1.6	2.55 V	164	27.2	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	#5642.00	62.6 PK	68.2	-5.6	1.80 H	238	48.9	13.7
2	*5755.00	120.8 PK			1.80 H	238	77.0	43.8
3	*5755.00	107.3 AV			1.80 H	238	63.5	43.8
4	#5980.80	62.3 PK	68.2	-5.9	1.80 H	238	47.8	14.5
5	11510.00	65.2 PK	74.0	-8.8	2.82 H	172	40.2	25.0
6	11510.00	52.3 AV	54.0	-1.7	2.82 H	172	27.3	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	#5641.20	67.9 PK	68.2	-0.3	1.54 V	5	54.2	13.7
2	*5755.00	126.3 PK			1.54 V	5	82.5	43.8
3	*5755.00	113.8 AV			1.54 V	5	70.0	43.8
4	#5944.80	64.2 PK	68.2	-4.0	1.54 V	5	49.7	14.5
5	11510.00	65.2 PK	74.0	-8.8	2.61 V	177	40.2	25.0
6	11510.00	52.4 AV	54.0	-1.6	2.61 V	177	27.4	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 (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	#5640.00	63.3 PK	68.2	-4.9	1.89 H	238	49.6	13.7
2	*5795.00	120.1 PK			1.89 H	238	76.1	44.0
3	*5795.00	107.7 AV			1.89 H	238	63.7	44.0
4	#5960.40	61.8 PK	68.2	-6.4	1.89 H	238	47.3	14.5
5	11590.00	65.1 PK	74.0	-8.9	2.75 H	166	40.2	24.9
6	11590.00	52.4 AV	54.0	-1.6	2.75 H	166	27.5	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	#5602.80	67.8 PK	68.2	-0.4	1.54 V	5	54.2	13.6
2	*5795.00	127.0 PK			1.54 V	5	83.0	44.0
3	*5795.00	114.3 AV			1.54 V	5	70.3	44.0
4	#5940.40	64.2 PK	68.2	-4.0	1.54 V	5	49.7	14.5
5	11590.00	64.7 PK	74.0	-9.3	2.53 V	161	39.8	24.9
6	11590.00	51.9 AV	54.0	-2.1	2.53 V	161	27.0	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 (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	65.7 PK	74.0	-8.3	1.78 H	240	52.7	13.0
2	5150.00	53.3 AV	54.0	-0.7	1.78 H	240	40.3	13.0
3	*5210.00	116.7 PK			1.78 H	240	74.3	42.4
4	*5210.00	103.8 AV			1.78 H	240	61.4	42.4
5	5350.00	60.1 PK	74.0	-13.9	1.78 H	240	47.0	13.1
6	5350.00	49.7 AV	54.0	-4.3	1.78 H	240	36.6	13.1
7	#10420.00	63.6 PK	68.2	-4.6	1.65 H	274	40.7	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	64.2 PK	74.0	-9.8	2.11 V	2	51.2	13.0
2	5150.00	53.8 AV	54.0	-0.2	2.11 V	2	40.8	13.0
3	*5210.00	119.8 PK			2.11 V	2	77.4	42.4
4	*5210.00	106.9 AV			2.11 V	2	64.5	42.4
5	5350.00	63.8 PK	74.0	-10.2	2.11 V	2	50.7	13.1
6	5350.00	51.2 AV	54.0	-2.8	2.11 V	2	38.1	13.1
7	#10420.00	62.5 PK	68.2	-5.7	2.63 V	161	39.6	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 (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	61.1 PK	74.0	-12.9	2.50 H	252	48.1	13.0
2	5150.00	47.7 AV	54.0	-6.3	2.50 H	252	34.7	13.0
3	*5290.00	111.8 PK			2.50 H	252	69.2	42.6
4	*5290.00	99.0 AV			2.50 H	252	56.4	42.6
5	5350.00	62.5 PK	74.0	-11.5	2.50 H	252	49.4	13.1
6	5350.00	50.1 AV	54.0	-3.9	2.50 H	252	37.0	13.1
7	#10580.00	62.9 PK	68.2	-5.3	1.65 H	290	39.8	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	62.8 PK	74.0	-11.2	2.01 V	1	49.8	13.0
2	5150.00	49.3 AV	54.0	-4.7	2.01 V	1	36.3	13.0
3	*5290.00	115.7 PK			2.01 V	1	73.1	42.6
4	*5290.00	102.6 AV			2.01 V	1	60.0	42.6
5	5350.00	65.5 PK	74.0	-8.5	2.01 V	1	52.4	13.1
6	5350.00	53.7 AV	54.0	-0.3	2.01 V	1	40.6	13.1
7	#10580.00	60.9 PK	68.2	-7.3	2.53 V	169	37.8	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 (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	62.4 PK	74.0	-11.6	1.60 H	233	48.9	13.5
2	5460.00	48.9 AV	54.0	-5.1	1.60 H	233	35.4	13.5
3	#5470.00	62.7 PK	68.2	-5.5	1.60 H	233	49.1	13.6
4	*5530.00	111.2 PK			1.60 H	233	68.1	43.1
5	*5530.00	99.1 AV			1.60 H	233	56.0	43.1
6	11060.00	64.2 PK	74.0	-9.8	2.65 H	159	39.9	24.3
7	11060.00	51.1 AV	54.0	-2.9	2.65 H	159	26.8	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	62.6 PK	74.0	-11.4	1.89 V	8	49.1	13.5
2	5460.00	50.6 AV	54.0	-3.4	1.89 V	8	37.1	13.5
3	#5470.00	64.5 PK	68.2	-3.7	1.89 V	8	50.9	13.6
4	*5530.00	115.5 PK			1.89 V	8	72.4	43.1
5	*5530.00	102.6 AV			1.89 V	8	59.5	43.1
6	11060.00	64.4 PK	74.0	-9.6	2.63 V	182	40.1	24.3
7	11060.00	50.8 AV	54.0	-3.2	2.63 V	182	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 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	112.4 PK			1.64 H	235	69.2	43.2
2	*5610.00	100.0 AV			1.64 H	235	56.8	43.2
3	#5725.00	63.2 PK	68.2	-5.0	1.64 H	235	49.4	13.8
4	11220.00	64.5 PK	74.0	-9.5	2.77 H	168	40.1	24.4
5	11220.00	51.3 AV	54.0	-2.7	2.77 H	168	26.9	24.4
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	*5610.00	115.7 PK			2.00 V	8	72.5	43.2
2	*5610.00	103.0 AV			2.00 V	8	59.8	43.2
3	#5725.00	64.8 PK	68.2	-3.4	2.00 V	8	51.0	13.8
4	11220.00	64.9 PK	74.0	-9.1	2.64 V	162	40.5	24.4
5	11220.00	51.2 AV	54.0	-2.8	2.64 V	162	26.8	24.4

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 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	*5690.00	111.4 PK			1.63 H	235	68.1	43.3
2	*5690.00	99.7 AV			1.63 H	235	56.4	43.3
3	#5850.00	62.4 PK	68.2	-5.8	1.63 H	235	48.1	14.3
4	11380.00	65.1 PK	74.0	-8.9	2.70 H	163	40.0	25.1
5	11380.00	52.2 AV	54.0	-1.8	2.70 H	163	27.1	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	*5690.00	115.1 PK			1.58 V	6	71.8	43.3
2	*5690.00	102.9 AV			1.58 V	6	59.6	43.3
3	#5850.00	61.8 PK	68.2	-6.4	1.57 V	6	47.5	14.3
4	11380.00	65.5 PK	74.0	-8.5	2.63 V	158	40.4	25.1
5	11380.00	51.9 AV	54.0	-2.1	2.63 V	158	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 (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	#5623.60	63.0 PK	68.2	-5.2	1.80 H	237	49.3	13.7
2	*5775.00	115.4 PK			1.80 H	237	71.6	43.8
3	*5775.00	103.7 AV			1.80 H	237	59.9	43.8
4	#5997.60	61.7 PK	68.2	-6.5	1.80 H	237	47.2	14.5
5	11550.00	65.2 PK	74.0	-8.8	2.82 H	173	40.2	25.0
6	11550.00	52.3 AV	54.0	-1.7	2.82 H	173	27.3	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	#5632.40	66.5 PK	68.2	-1.7	1.94 V	11	52.8	13.7
2	*5775.00	117.4 PK			1.94 V	11	73.6	43.8
3	*5775.00	105.5 AV			1.94 V	11	61.7	43.8
4	#5926.40	63.6 PK	68.2	-4.6	1.94 V	11	49.2	14.4
5	11550.00	64.6 PK	74.0	-9.4	2.54 V	188	39.6	25.0
6	11550.00	51.9 AV	54.0	-2.1	2.54 V	188	26.9	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 (HE160)	Channel	CH 50 : 5250 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	62.4 PK	74.0	-11.6	1.62 H	229	49.4	13.0
2	5150.00	49.2 AV	54.0	-4.8	1.62 H	229	36.2	13.0
3	*5250.00	107.9 PK			1.62 H	229	65.5	42.4
4	*5250.00	96.0 AV			1.62 H	229	53.6	42.4
5	5350.00	65.5 PK	74.0	-8.5	1.62 H	229	52.4	13.1
6	5350.00	52.9 AV	54.0	-1.1	1.62 H	229	39.8	13.1
7	#10500.00	61.4 PK	68.2	-6.8	2.78 H	153	38.5	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	62.4 PK	74.0	-11.6	2.40 V	1	49.4	13.0
2	5150.00	49.3 AV	54.0	-4.7	2.40 V	1	36.3	13.0
3	*5250.00	112.0 PK			2.40 V	1	69.6	42.4
4	*5250.00	98.6 AV			2.40 V	1	56.2	42.4
5	5350.00	66.1 PK	74.0	-7.9	2.40 V	1	53.0	13.1
6	5350.00	53.8 AV	54.0	-0.2	2.40 V	1	40.7	13.1
7	#10500.00	60.8 PK	68.2	-7.4	2.64 V	173	37.9	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 (HE160)	Channel	CH 114 : 5570 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	63.4 PK	68.2	-4.8	1.69 H	235	49.8	13.6
2	*5570.00	109.8 PK			1.69 H	235	66.7	43.1
3	*5570.00	98.2 AV			1.69 H	235	55.1	43.1
4	#5725.00	63.7 PK	68.2	-4.5	1.69 H	235	49.9	13.8
5	11140.00	63.9 PK	74.0	-10.1	2.75 H	169	39.5	24.4
6	11140.00	51.2 AV	54.0	-2.8	2.75 H	169	26.8	24.4
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	#5470.00	63.4 PK	68.2	-4.8	2.17 V	8	49.8	13.6
2	*5570.00	113.6 PK			2.17 V	8	70.5	43.1
3	*5570.00	100.6 AV			2.17 V	8	57.5	43.1
4	#5725.00	63.2 PK	68.2	-5.0	2.17 V	8	49.4	13.8
5	11140.00	64.6 PK	74.0	-9.4	2.58 V	177	40.2	24.4
6	11140.00	51.5 AV	54.0	-2.5	2.58 V	177	27.1	24.4

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.

Below 1GHz Worst-Case Data:

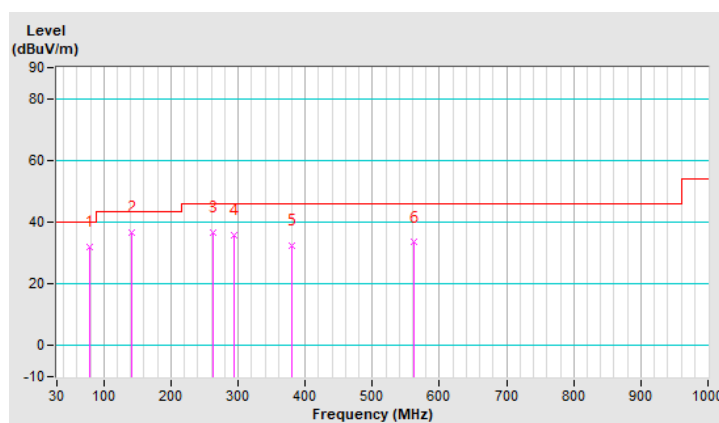
802.11ax (HE20)

CHANNEL	TX Channel 165	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz	TEST MODE	A

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	79.47	32.1 QP	40.0	-7.9	1.00 H	188	45.3	-13.2
2	140.58	36.7 QP	43.5	-6.8	1.00 H	188	46.1	-9.4
3	261.83	36.6 QP	46.0	-9.4	1.50 H	154	45.6	-9.0
4	294.81	35.9 QP	46.0	-10.1	1.50 H	152	43.8	-7.9
5	380.17	32.5 QP	46.0	-13.5	1.50 H	156	38.9	-6.4
6	561.56	33.4 QP	46.0	-12.6	1.50 H	154	36.7	-3.3

Remarks:

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

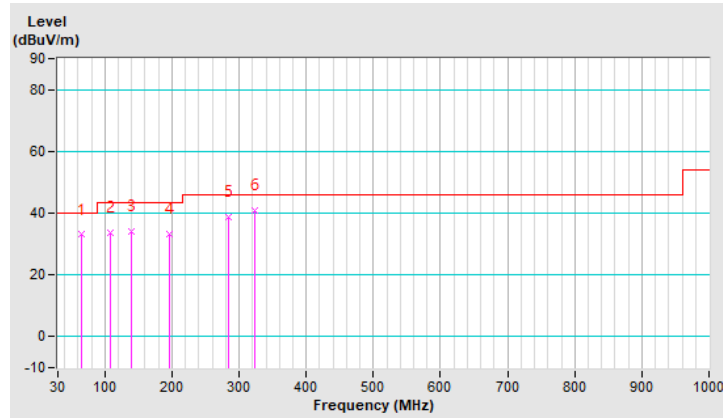


CHANNEL	TX Channel 165	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz	TEST MODE	A

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	64.92	33.0 QP	40.0	-7.0	1.00 V	146	43.2	-10.2
2	108.57	33.6 QP	43.5	-9.9	1.00 V	153	45.9	-12.3
3	138.64	33.9 QP	43.5	-9.6	1.00 V	157	43.4	-9.5
4	196.84	33.4 QP	43.5	-10.1	1.00 V	146	45.1	-11.7
5	285.11	38.8 QP	46.0	-7.2	1.00 V	154	46.9	-8.1
6	322.94	40.7 QP	46.0	-5.3	1.00 V	154	47.8	-7.1

Remarks:

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

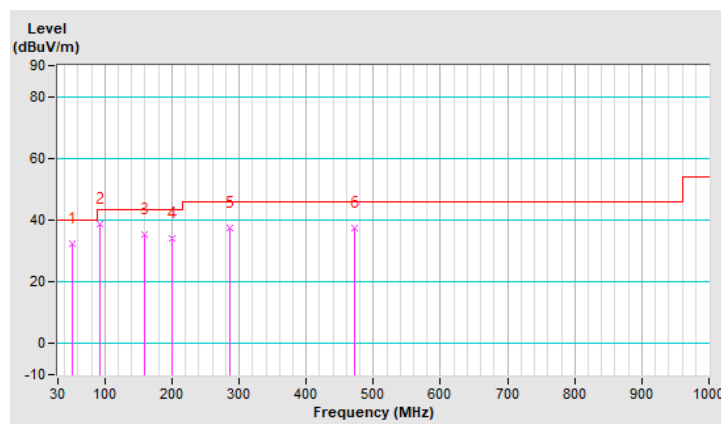


CHANNEL	TX Channel 165	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz	TEST MODE	B

ANTENNA POLARITY & TEST DISTANCE: HORIZONTAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	51.34	32.55 QP	40.00	-7.45	1.50 H	297	41.07	-8.52
2	92.08	38.60 QP	43.50	-4.90	1.50 H	297	52.83	-14.23
3	159.98	35.37 QP	43.50	-8.13	1.50 H	297	44.00	-8.63
4	200.72	33.92 QP	43.50	-9.58	1.50 H	238	45.61	-11.69
5	286.08	37.49 QP	46.00	-8.51	1.50 H	298	45.36	-7.87
6	472.32	37.27 QP	46.00	-8.73	1.50 H	1	41.74	-4.47

Remarks:

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

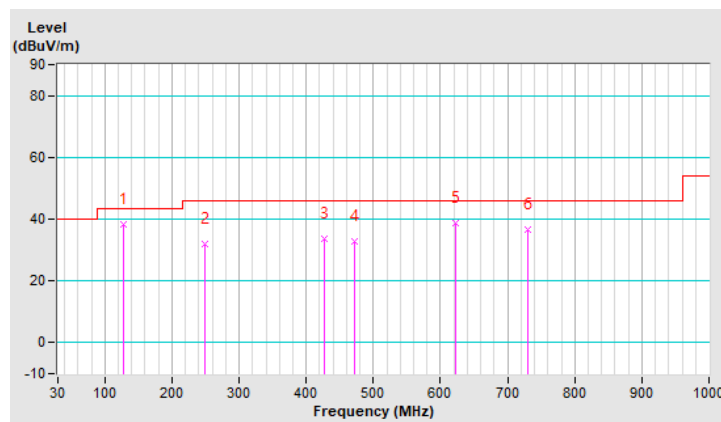


CHANNEL	TX Channel 165	DETECTOR FUNCTION	Quasi-Peak (QP)
FREQUENCY RANGE	9kHz ~ 1GHz	TEST MODE	B

ANTENNA POLARITY & TEST DISTANCE: VERTICAL AT 3 M								
NO.	FREQ. (MHz)	EMISSION LEVEL (dBuV/m)	LIMIT (dBuV/m)	MARGIN (dB)	ANTENNA HEIGHT (m)	TABLE ANGLE (Degree)	RAW VALUE (dBuV)	CORRECTION FACTOR (dB/m)
1	127.00	38.35 QP	43.50	-5.15	1.50 V	265	48.89	-10.54
2	249.22	32.13 QP	46.00	-13.87	1.50 V	287	41.58	-9.45
3	427.70	33.79 QP	46.00	-12.21	1.50 V	287	39.05	-5.26
4	472.32	32.80 QP	46.00	-13.20	1.50 V	284	37.27	-4.47
5	621.70	38.61 QP	46.00	-7.39	1.50 V	288	39.83	-1.22
6	730.34	36.81 QP	46.00	-9.19	1.50 V	5	36.13	0.68

Remarks:

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



4.2 Conducted Emission Measurement

4.2.1 Limits of Conducted Emission Measurement

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

Note: 1. The lower limit shall apply at the transition frequencies.

2. The limit decreases in line with the logarithm of the frequency in the range of 0.15 to 0.50MHz.

4.2.2 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Test Receiver ROHDE & SCHWARZ	ESCI	100613	Dec. 04, 2020	Dec. 03, 2021
RF signal cable Woken	5D-FB	Cable-cond1-01	Jan. 16, 2021	Jan. 15, 2022
LISN ROHDE & SCHWARZ (EUT)	ENV216	101826	Feb. 25, 2021	Feb. 24, 2022
LISN ROHDE & SCHWARZ (Peripheral)	ESH3-Z5	100220	Dec. 01, 2020	Nov. 30, 2021
Software ADT	BV ADT_Cond_ V7.3.7.4	NA	NA	NA

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

2. The test was performed in HwaYa Shielded Room 1(Conduction 1).

3. The VCCI Site Registration No. is C-12040.

4.2.3 Test Procedures

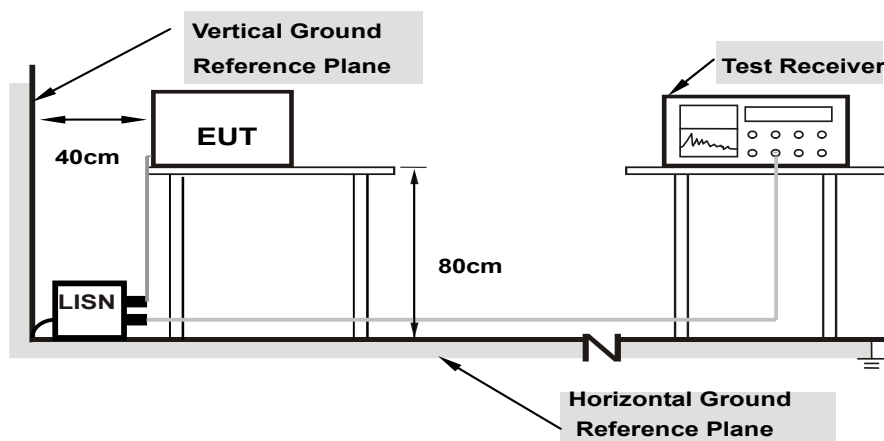
- The EUT was placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50uH of coupling impedance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

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

4.2.4 Deviation from Test Standard

No deviation.

4.2.5 Test Setup



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

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

4.2.6 EUT Operating Conditions

Same as 4.1.6.

4.2.7 Test Results

Worst-case data:

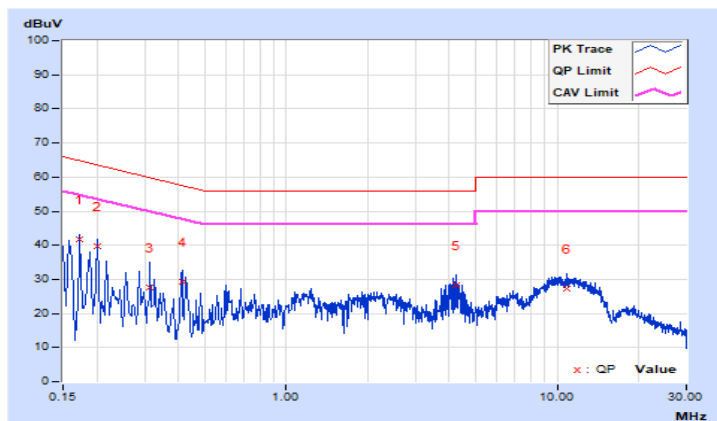
802.11ax (HE20)

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

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value		Emission Level		Limit		Margin	
			[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.17346	9.76	32.06	20.99	41.82	30.75	64.79	54.79	-22.97	-24.04
2	0.20083	9.77	29.93	16.13	39.70	25.90	63.58	53.58	-23.88	-27.68
3	0.31422	9.80	17.83	5.90	27.63	15.70	59.86	49.86	-32.23	-34.16
4	0.41197	9.83	19.40	11.62	29.23	21.45	57.61	47.61	-28.38	-26.16
5	4.23595	9.98	18.23	5.52	28.21	15.50	56.00	46.00	-27.79	-30.50
6	10.91032	10.06	17.14	11.26	27.20	21.32	60.00	50.00	-32.80	-28.68

Remarks:

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

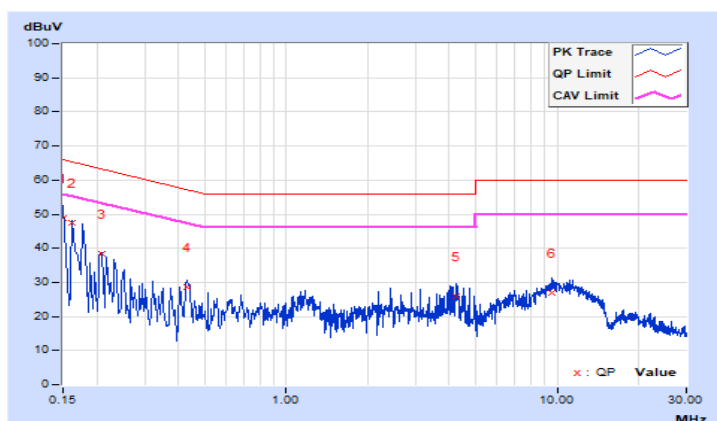


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
Test Mode	A		

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
	[MHz]		[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
		(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	9.80	39.12	21.75	48.92	31.55	66.00	56.00	-17.08	-24.45
2	0.16173	9.81	37.69	18.40	47.50	28.21	65.37	55.37	-17.87	-27.16
3	0.20783	9.83	28.64	11.89	38.47	21.72	63.29	53.29	-24.82	-31.57
4	0.43122	9.90	18.82	14.46	28.72	24.36	57.23	47.23	-28.51	-22.87
5	4.26332	10.04	16.02	4.99	26.06	15.03	56.00	46.00	-29.94	-30.97
6	9.60829	10.13	16.69	9.64	26.82	19.77	60.00	50.00	-33.18	-30.23

Remarks:

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

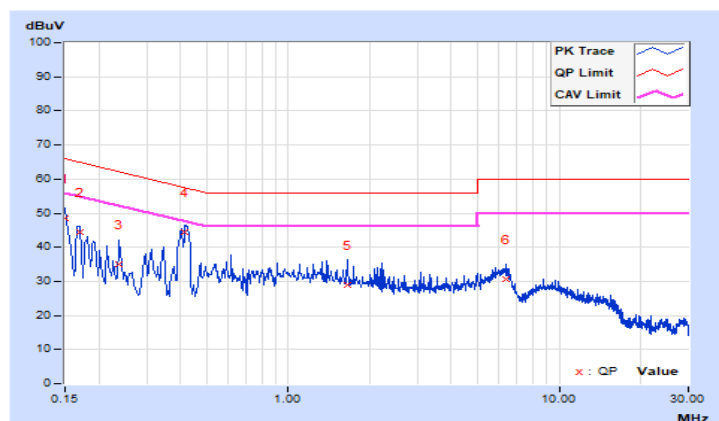


Phase	Line (L)	Detector Function	Quasi-Peak (QP) / Average (AV)
Test Mode	B		

No	Freq. [MHz]	Corr. Factor (dB)	Reading Value [dB (uV)]		Emission Level [dB (uV)]		Limit [dB (uV)]		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	9.75	38.84	22.36	48.59	32.11	66.00	56.00	-17.41	-23.89
2	0.17000	9.76	34.82	19.37	44.58	29.13	64.96	54.96	-20.38	-25.83
3	0.23800	9.78	25.32	15.90	35.10	25.68	62.17	52.17	-27.07	-26.49
4	0.41689	9.83	34.67	26.16	44.50	35.99	57.51	47.51	-13.01	-11.52
5	1.65400	9.93	18.98	13.04	28.91	22.97	56.00	46.00	-27.09	-23.03
6	6.36200	10.01	20.75	13.26	30.76	23.27	60.00	50.00	-29.24	-26.73

Remarks:

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

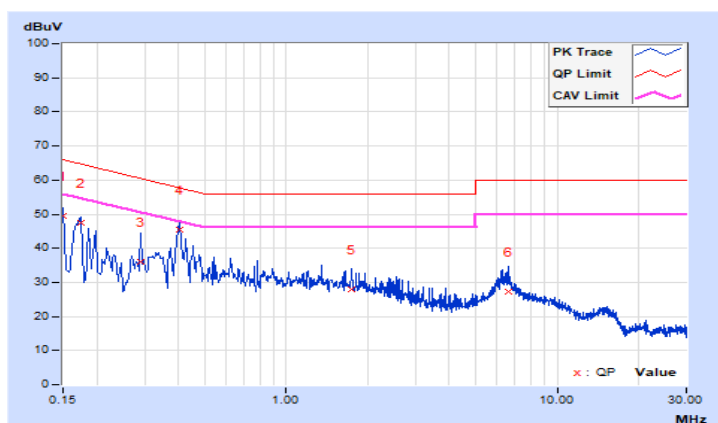


Phase	Neutral (N)	Detector Function	Quasi-Peak (QP) / Average (AV)
Test Mode	B		

No	Freq.	Corr. Factor	Reading Value		Emission Level		Limit		Margin	
	[MHz]		[dB (uV)]		[dB (uV)]		[dB (uV)]		(dB)	
		(dB)	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15000	9.80	39.70	22.89	49.50	32.69	66.00	56.00	-16.50	-23.31
2	0.17384	9.82	37.63	21.42	47.45	31.24	64.77	54.77	-17.32	-23.53
3	0.29000	9.86	26.32	19.88	36.18	29.74	60.52	50.52	-24.34	-20.78
4	0.40498	9.90	35.62	26.79	45.52	36.69	57.75	47.75	-12.23	-11.06
5	1.74600	9.98	17.86	11.34	27.84	21.32	56.00	46.00	-28.16	-24.68
6	6.61800	10.08	17.19	10.89	27.27	20.97	60.00	50.00	-32.73	-29.03

Remarks:

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



4.3 Transmit Power Measurement

4.3.1 Limits of Transmit Power Measurement

Operation Band	EUT Category		Limit
U-NII-1		Outdoor Access Point	1 Watt (30 dBm) (Max. e.i.r.p $\leq$ 125mW(21 dBm) at any elevation angle above 30 degrees as measured from the horizon)
		Fixed point-to-point Access Point	1 Watt (30 dBm)
	√	Indoor Access Point	1 Watt (30 dBm)
		Mobile and Portable client device	250mW (23.97 dBm)
U-NII-2A	√		250mW (23.97 dBm) or 11 dBm+10 log B*
U-NII-2C	√		250mW (23.97 dBm) or 11 dBm+10 log B*
U-NII-3	√		1 Watt (30 dBm)

*B is the 26 dB emission bandwidth in megahertz

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

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

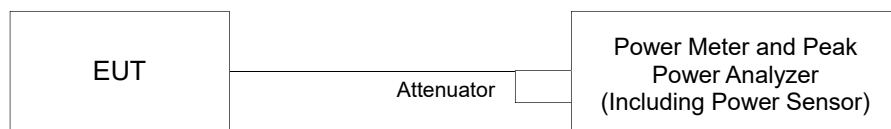
Array Gain = 0 dB (i.e., no array gain) for channel widths ≥ 40 MHz for any N_{ANT} ;

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

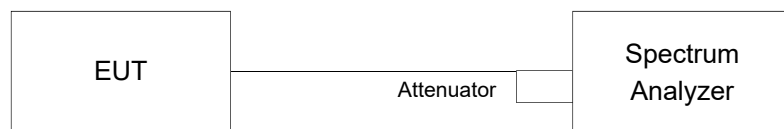
For power measurements on all other devices: Array Gain = $10 \log(N_{ANT}/N_{SS})$ dB.

4.3.2 Test Setup

For Power Output



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



4.3.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.3.4 Test Procedure

For Average Power Measurement

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

For 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%.

4.3.5 Deviation from Test Standard

No deviation.

4.3.6 EUT Operating Conditions

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

4.3.7 Test Result

CDD Mode

802.11a

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
36	5180	22.44	22.95	23.58	22.94	797.453	29.02	30.00	Pass
40	5200	22.78	23.26	23.45	23.08	826.052	29.17	30.00	Pass
48	5240	22.55	22.68	23.55	23.18	799.674	29.03	30.00	Pass
52	5260	17.10	17.12	17.68	17.12	212.946	23.28	23.97	Pass
60	5300	17.02	17.21	17.39	17.37	212.355	23.27	23.97	Pass
64	5320	17.13	17.21	17.35	17.28	212.025	23.26	23.97	Pass
100	5500	16.55	17.11	18.00	17.02	210.036	23.22	23.97	Pass
116	5580	16.82	17.15	17.75	17.16	211.530	23.25	23.97	Pass
140	5700	16.78	17.73	17.11	17.20	210.821	23.24	23.97	Pass
144	5720 (For U-NII-2C)	15.52	15.72	16.64	15.54	154.912	21.90	23.02	Pass
144	5720 (For U-NII-3)	9.51	9.50	10.72	9.68	38.938	15.90	30.00	Pass
149	5745	23.96	22.55	22.98	23.35	843.654	29.26	30.00	Pass
157	5785	23.92	22.56	22.38	23.59	828.447	29.18	30.00	Pass
165	5825	23.03	22.72	23.20	23.53	822.331	29.15	30.00	Pass

Note:

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

Chain 0

1. $11\text{dBm} + 10\log(21.80) = 24.38 > 23.97\text{dBm}$
2. $11\text{dBm} + 10\log(21.85) = 24.39 > 23.97\text{dBm}$
3. $11\text{dBm} + 10\log(25.55) = 25.07 > 23.97\text{dBm}$
4. $11\text{dBm} + 10\log(22.71) = 24.56 > 23.97\text{dBm}$
5. $11\text{dBm} + 10\log(21.72) = 24.36 > 23.97\text{dBm}$
6. $11\text{dBm} + 10\log(22.08) = 24.43 > 23.97\text{dBm}$
7. $11\text{dBm} + 10\log(5725.00 - 5709.00) = 23.04 < 23.97\text{dBm}$

Chain 1

1. $11\text{dBm} + 10\log(22.00) = 24.42 > 23.97\text{dBm}$
2. $11\text{dBm} + 10\log(21.84) = 24.39 > 23.97\text{dBm}$
3. $11\text{dBm} + 10\log(26.67) = 25.26 > 23.97\text{dBm}$
4. $11\text{dBm} + 10\log(23.84) = 24.77 > 23.97\text{dBm}$
5. $11\text{dBm} + 10\log(21.78) = 24.38 > 23.97\text{dBm}$
6. $11\text{dBm} + 10\log(21.87) = 24.39 > 23.97\text{dBm}$
7. $11\text{dBm} + 10\log(5725.00 - 5709.05) = 23.02 < 23.97\text{dBm}$

Chain 2

1. $11\text{dBm} + 10\log(22.12) = 24.44 > 23.97\text{dBm}$
2. $11\text{dBm} + 10\log(21.95) = 24.41 > 23.97\text{dBm}$
3. $11\text{dBm} + 10\log(28.17) = 25.49 > 23.97\text{dBm}$
4. $11\text{dBm} + 10\log(22.47) = 24.51 > 23.97\text{dBm}$
5. $11\text{dBm} + 10\log(21.85) = 24.39 > 23.97\text{dBm}$
6. $11\text{dBm} + 10\log(21.85) = 24.39 > 23.97\text{dBm}$
7. $11\text{dBm} + 10\log(5725.00 - 5709.05) = 23.02 < 23.97\text{dBm}$

Chain 3

1. $11\text{dBm} + 10\log(22.02) = 24.42 > 23.97\text{dBm}$
2. $11\text{dBm} + 10\log(21.88) = 24.40 > 23.97\text{dBm}$
3. $11\text{dBm} + 10\log(29.35) = 25.67 > 23.97\text{dBm}$
4. $11\text{dBm} + 10\log(22.49) = 24.51 > 23.97\text{dBm}$
5. $11\text{dBm} + 10\log(21.80) = 24.38 > 23.97\text{dBm}$
6. $11\text{dBm} + 10\log(21.97) = 24.41 > 23.97\text{dBm}$
7. $11\text{dBm} + 10\log(5725.00 - 5708.99) = 23.04 < 23.97\text{dBm}$

802.11ax (HE20)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
36	5180	22.55	22.98	23.31	23.17	800.277	29.03	30.00	Pass
40	5200	23.43	23.52	23.17	22.80	843.236	29.26	30.00	Pass
48	5240	22.75	23.38	23.25	23.61	847.100	29.28	30.00	Pass
52	5260	17.07	17.15	17.53	17.03	209.903	23.22	23.97	Pass
60	5300	17.36	17.42	17.17	17.14	213.538	23.29	23.97	Pass
64	5320	16.98	17.06	17.49	17.35	211.134	23.25	23.97	Pass
100	5500	16.68	17.05	17.82	17.28	211.248	23.25	23.97	Pass
116	5580	16.61	17.15	17.43	17.72	212.185	23.27	23.97	Pass
140	5700	16.80	17.80	17.13	17.29	213.340	23.29	23.97	Pass
144	5720 (For U-NII-2C)	15.31	16.01	16.96	15.78	161.369	22.08	23.01	Pass
144	5720 (For U-NII-3)	9.43	10.09	12.03	9.81	44.510	16.48	30.00	Pass
149	5745	23.61	22.91	22.85	23.42	837.587	29.23	30.00	Pass
157	5785	23.59	22.96	22.67	23.58	839.218	29.24	30.00	Pass
165	5825	23.05	23.02	23.06	23.95	852.899	29.31	30.00	Pass

Note:

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

Chain 0

1. $11\text{dBm} + 10\log(21.82) = 24.38 > 23.97\text{dBm}$
2. $11\text{dBm} + 10\log(21.87) = 24.39 > 23.97\text{dBm}$
3. $11\text{dBm} + 10\log(23.11) = 24.63 > 23.97\text{dBm}$
4. $11\text{dBm} + 10\log(25.46) = 25.05 > 23.97\text{dBm}$
5. $11\text{dBm} + 10\log(21.96) = 24.41 > 23.97\text{dBm}$
6. $11\text{dBm} + 10\log(21.90) = 24.40 > 23.97\text{dBm}$
7. $11\text{dBm} + 10\log(5725.00 - 5709.00) = 23.04 < 23.97\text{dBm}$

Chain 1

1. $11\text{dBm} + 10\log(21.89) = 24.40 > 23.97\text{dBm}$
2. $11\text{dBm} + 10\log(21.86) = 24.39 > 23.97\text{dBm}$
3. $11\text{dBm} + 10\log(22.40) = 24.50 > 23.97\text{dBm}$
4. $11\text{dBm} + 10\log(28.71) = 25.58 > 23.97\text{dBm}$
5. $11\text{dBm} + 10\log(21.99) = 24.42 > 23.97\text{dBm}$
6. $11\text{dBm} + 10\log(22.04) = 24.43 > 23.97\text{dBm}$
7. $11\text{dBm} + 10\log(5725.00 - 5709.10) = 23.01 < 23.97\text{dBm}$

Chain 2

1. $11\text{dBm} + 10\log(21.82) = 24.38 > 23.97\text{dBm}$
2. $11\text{dBm} + 10\log(21.90) = 24.40 > 23.97\text{dBm}$
3. $11\text{dBm} + 10\log(25.36) = 25.04 > 23.97\text{dBm}$
4. $11\text{dBm} + 10\log(23.31) = 24.67 > 23.97\text{dBm}$
5. $11\text{dBm} + 10\log(21.86) = 24.39 > 23.97\text{dBm}$
6. $11\text{dBm} + 10\log(21.74) = 24.37 > 23.97\text{dBm}$
7. $11\text{dBm} + 10\log(5725.00 - 5709.03) = 23.03 < 23.97\text{dBm}$

Chain 3

1. $11\text{dBm} + 10\log(21.75) = 24.37 > 23.97\text{dBm}$
2. $11\text{dBm} + 10\log(21.89) = 24.40 > 23.97\text{dBm}$
3. $11\text{dBm} + 10\log(22.73) = 24.56 > 23.97\text{dBm}$
4. $11\text{dBm} + 10\log(22.42) = 24.50 > 23.97\text{dBm}$
5. $11\text{dBm} + 10\log(21.87) = 24.39 > 23.97\text{dBm}$
6. $11\text{dBm} + 10\log(21.88) = 24.40 > 23.97\text{dBm}$
7. $11\text{dBm} + 10\log(5725.00 - 5709.10) = 23.01 < 23.97\text{dBm}$

802.11ax (HE40)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
38	5190	23.08	23.35	23.12	22.56	804.926	29.06	30.00	Pass
46	5230	22.76	23.42	23.32	23.16	830.382	29.19	30.00	Pass
54	5270	17.12	17.16	17.26	17.41	211.814	23.26	23.97	Pass
62	5310	16.74	17.29	17.16	17.51	209.149	23.20	23.97	Pass
102	5510	16.51	16.98	17.54	17.02	201.764	23.05	23.97	Pass
110	5550	16.96	17.14	17.63	17.09	210.531	23.23	23.97	Pass
134	5670	16.54	17.35	17.82	16.93	209.258	23.21	23.97	Pass
142	5710 (For U-NII-2C)	15.52	16.41	16.51	15.91	163.163	22.13	23.97	Pass
142	5710 (For U-NII-3)	9.40	10.23	10.46	9.73	39.768	16.00	30.00	Pass
151	5755	23.02	22.87	22.84	23.57	813.908	29.11	30.00	Pass
159	5795	23.08	22.91	22.86	23.55	818.331	29.13	30.00	Pass

Note:

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

Chain 0

1. $11\text{dBm} + 10\log(41.76) = 27.20 > 23.97\text{dBm}$
2. $11\text{dBm} + 10\log(42.81) = 27.31 > 23.97\text{dBm}$
3. $11\text{dBm} + 10\log(56.43) = 28.51 > 23.97\text{dBm}$
4. $11\text{dBm} + 10\log(41.67) = 27.19 > 23.97\text{dBm}$
5. $11\text{dBm} + 10\log(41.61) = 27.19 > 23.97\text{dBm}$
6. $11\text{dBm} + 10\log(5725.00 - 5689.16) = 26.54 > 23.97\text{dBm}$

Chain 1

1. $11\text{dBm} + 10\log(41.84) = 27.21 > 23.97\text{dBm}$
2. $11\text{dBm} + 10\log(52.32) = 28.18 > 23.97\text{dBm}$
3. $11\text{dBm} + 10\log(50.71) = 28.05 > 23.97\text{dBm}$
4. $11\text{dBm} + 10\log(41.91) = 27.22 > 23.97\text{dBm}$
5. $11\text{dBm} + 10\log(41.72) = 27.20 > 23.97\text{dBm}$
6. $11\text{dBm} + 10\log(5725.00 - 5689.15) = 26.54 > 23.97\text{dBm}$

Chain 2

1. $11\text{dBm} + 10\log(41.69) = 27.20 > 23.97\text{dBm}$
2. $11\text{dBm} + 10\log(44.20) = 27.45 > 23.97\text{dBm}$
3. $11\text{dBm} + 10\log(52.56) = 28.20 > 23.97\text{dBm}$
4. $11\text{dBm} + 10\log(41.86) = 27.21 > 23.97\text{dBm}$
5. $11\text{dBm} + 10\log(41.94) = 27.22 > 23.97\text{dBm}$
6. $11\text{dBm} + 10\log(5725.00 - 5689.11) = 26.54 > 23.97\text{dBm}$

Chain 3

1. $11\text{dBm} + 10\log(41.61) = 27.19 > 23.97\text{dBm}$
2. $11\text{dBm} + 10\log(43.42) = 27.37 > 23.97\text{dBm}$
3. $11\text{dBm} + 10\log(48.43) = 27.85 > 23.97\text{dBm}$
4. $11\text{dBm} + 10\log(41.69) = 27.20 > 23.97\text{dBm}$

5. $11\text{dBm} + 10\log(41.87) = 27.21 > 23.97\text{dBm}$
 6. $11\text{dBm} + 10\log(5725.00 - 5689.12) = 26.54 > 23.97\text{dBm}$

802.11ax (HE80)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
42	5210	22.68	22.97	23.36	23.04	801.649	29.04	30.00	Pass
58	5290	17.27	17.58	17.25	17.26	216.912	23.36	23.97	Pass
106	5530	17.03	17.18	17.83	16.99	213.383	23.29	23.97	Pass
122	5610	16.55	17.33	17.52	17.25	208.843	23.20	23.97	Pass
138	5690 (For U-NII-2C)	15.67	16.22	16.28	16.23	163.215	22.13	23.97	Pass
138	5690 (For U-NII-3)	9.01	10.29	10.26	10.39	40.209	16.04	30.00	Pass
155	5775	23.23	22.86	22.89	23.12	803.227	29.05	30.00	Pass

Note:

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

Chain 0

- $11\text{dBm} + 10\log(86.67) = 30.37 > 23.97\text{dBm}$
- $11\text{dBm} + 10\log(94.76) = 30.76 > 23.97\text{dBm}$
- $11\text{dBm} + 10\log(82.94) = 30.18 > 23.97\text{dBm}$
- $11\text{dBm} + 10\log(5725.00 - 5648.42) = 29.84 > 23.97\text{dBm}$

Chain 1

- $11\text{dBm} + 10\log(87.83) = 30.43 > 23.97\text{dBm}$
- $11\text{dBm} + 10\log(89.68) = 30.52 > 23.97\text{dBm}$
- $11\text{dBm} + 10\log(83.02) = 30.19 > 23.97\text{dBm}$
- $11\text{dBm} + 10\log(5725.00 - 5648.56) = 29.83 > 23.97\text{dBm}$

Chain 2

- $11\text{dBm} + 10\log(83.79) = 30.23 > 23.97\text{dBm}$
- $11\text{dBm} + 10\log(86.58) = 30.37 > 23.97\text{dBm}$
- $11\text{dBm} + 10\log(82.69) = 30.17 > 23.97\text{dBm}$
- $11\text{dBm} + 10\log(5725.00 - 5648.62) = 29.82 > 23.97\text{dBm}$

Chain 3

- $11\text{dBm} + 10\log(83.48) = 30.21 > 23.97\text{dBm}$
- $11\text{dBm} + 10\log(84.28) = 30.25 > 23.97\text{dBm}$
- $11\text{dBm} + 10\log(82.76) = 30.17 > 23.97\text{dBm}$
- $11\text{dBm} + 10\log(5725.00 - 5648.55) = 29.83 > 23.97\text{dBm}$

802.11ax (HE160)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
*50	5250 (For U-NII-1)	12.50	12.67	12.60	12.65	74.469	18.72	30.00	Pass
*50	5250 (For U-NII-2A)	12.76	12.93	12.94	12.94	79.568	19.01	23.97	Pass
114	5570	17.01	17.38	17.22	17.05	208.358	23.19	23.97	Pass

Note:

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

Chain 0

1. $11\text{dBm} + 10\log(83.81) = 30.23 > 23.97\text{dBm}$
2. $11\text{dBm} + 10\log(168.47) = 33.26 > 23.97\text{dBm}$

Chain 1

1. $11\text{dBm} + 10\log(83.45) = 30.21 > 23.97\text{dBm}$
2. $11\text{dBm} + 10\log(168.58) = 33.26 > 23.97\text{dBm}$

Chain 2

1. $11\text{dBm} + 10\log(83.25) = 30.20 > 23.97\text{dBm}$
2. $11\text{dBm} + 10\log(167.82) = 33.24 > 23.97\text{dBm}$

Chain 3

1. $11\text{dBm} + 10\log(83.43) = 30.21 > 23.97\text{dBm}$
2. $11\text{dBm} + 10\log(168.99) = 33.27 > 23.97\text{dBm}$

Beamforming Mode

802.11ax (HE20)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
36	5180	22.55	22.98	23.31	23.17	800.277	29.03	29.74	Pass
40	5200	23.43	23.52	23.17	22.80	843.236	29.26	29.74	Pass
48	5240	22.75	23.38	23.25	23.61	847.100	29.28	29.74	Pass
52	5260	17.07	17.15	17.53	17.03	209.903	23.22	23.77	Pass
60	5300	17.36	17.42	17.17	17.14	213.538	23.29	23.77	Pass
64	5320	16.98	17.06	17.49	17.35	211.134	23.25	23.77	Pass
100	5500	16.68	17.05	17.82	17.28	211.248	23.25	23.74	Pass
116	5580	16.61	17.15	17.43	17.72	212.185	23.27	23.74	Pass
140	5700	16.80	17.80	17.13	17.29	213.340	23.29	23.74	Pass
144	5720 (For U-NII-2C)	15.31	16.01	16.96	15.78	161.369	22.08	22.78	Pass
144	5720 (For U-NII-3)	9.43	10.09	12.03	9.81	44.510	16.48	29.73	Pass
149	5745	23.61	22.91	22.85	23.42	837.587	29.23	29.73	Pass
157	5785	23.59	22.96	22.67	23.58	839.218	29.24	29.73	Pass
165	5825	23.05	23.02	23.06	23.95	852.899	29.31	29.73	Pass

Note:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test, the duty factor was included in the total power.
- Directional gain = $10 \log[(10^{\text{Chain0}/20} + 10^{\text{Chain1}/20} + 10^{\text{Chain2}/20} + 10^{\text{Chain3}/20})^2 / 4]$
- For U-NII-1, The directional gain is 6.26 dBi > 6dBi, so the output power limit shall be reduced to 30-(6.26-6) = 29.74 dBm.
- For U-NII-2A, The directional gain is 6.2 dBi > 6dBi, so the output power limit shall be reduced to Determined Output Power Limit-(6.2-6).
- For U-NII-2C, The directional gain is 6.23 dBi > 6dBi, so the output power limit shall be reduced to Determined Output Power Limit-(6.23-6).
- For U-NII-3, The directional gain is 6.27 dBi > 6dBi, so the output power limit shall be reduced to 30-(6.27-6) = 29.73 dBm.

Note:

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

Chain 0

- 11dBm + 10log (21.82) = 24.38 > 23.97dBm
- 11dBm + 10log (21.87) = 24.39 > 23.97dBm
- 11dBm + 10log (23.11) = 24.63 > 23.97dBm
- 11dBm + 10log (25.46) = 25.05 > 23.97dBm
- 11dBm + 10log (21.96) = 24.41 > 23.97dBm
- 11dBm + 10log (21.90) = 24.40 > 23.97dBm
- 11dBm + 10log (5725.00 - 5709.00) = 23.04 < 23.97dBm

Chain 1

1. $11\text{dBm} + 10\log(21.89) = 24.40 > 23.97\text{dBm}$
2. $11\text{dBm} + 10\log(21.86) = 24.39 > 23.97\text{dBm}$
3. $11\text{dBm} + 10\log(22.40) = 24.50 > 23.97\text{dBm}$
4. $11\text{dBm} + 10\log(28.71) = 25.58 > 23.97\text{dBm}$
5. $11\text{dBm} + 10\log(21.99) = 24.42 > 23.97\text{dBm}$
6. $11\text{dBm} + 10\log(22.04) = 24.43 > 23.97\text{dBm}$
7. $11\text{dBm} + 10\log(5725.00 - 5709.10) = 23.01 < 23.97\text{dBm}$

Chain 2

1. $11\text{dBm} + 10\log(21.82) = 24.38 > 23.97\text{dBm}$
2. $11\text{dBm} + 10\log(21.90) = 24.40 > 23.97\text{dBm}$
3. $11\text{dBm} + 10\log(25.36) = 25.04 > 23.97\text{dBm}$
4. $11\text{dBm} + 10\log(23.31) = 24.67 > 23.97\text{dBm}$
5. $11\text{dBm} + 10\log(21.86) = 24.39 > 23.97\text{dBm}$
6. $11\text{dBm} + 10\log(21.74) = 24.37 > 23.97\text{dBm}$
7. $11\text{dBm} + 10\log(5725.00 - 5709.03) = 23.03 < 23.97\text{dBm}$

Chain 3

1. $11\text{dBm} + 10\log(21.75) = 24.37 > 23.97\text{dBm}$
2. $11\text{dBm} + 10\log(21.89) = 24.40 > 23.97\text{dBm}$
3. $11\text{dBm} + 10\log(22.73) = 24.56 > 23.97\text{dBm}$
4. $11\text{dBm} + 10\log(22.42) = 24.50 > 23.97\text{dBm}$
5. $11\text{dBm} + 10\log(21.87) = 24.39 > 23.97\text{dBm}$
6. $11\text{dBm} + 10\log(21.88) = 24.40 > 23.97\text{dBm}$
7. $11\text{dBm} + 10\log(5725.00 - 5709.10) = 23.01 < 23.97\text{dBm}$

802.11ax (HE40)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
38	5190	23.08	23.35	23.12	22.56	804.926	29.06	29.74	Pass
46	5230	22.76	23.42	23.32	23.16	830.382	29.19	29.74	Pass
54	5270	17.12	17.16	17.26	17.41	211.814	23.26	23.77	Pass
62	5310	16.74	17.29	17.16	17.51	209.149	23.20	23.77	Pass
102	5510	16.51	16.98	17.54	17.02	201.764	23.05	23.74	Pass
110	5550	16.96	17.14	17.63	17.09	210.531	23.23	23.74	Pass
134	5670	16.54	17.35	17.82	16.93	209.258	23.21	23.74	Pass
142	5710 (For U-NII-2C)	15.52	16.41	16.51	15.91	163.163	22.13	23.74	Pass
142	5710 (For U-NII-3)	9.40	10.23	10.46	9.73	39.768	16.00	29.73	Pass
151	5755	23.02	22.87	22.84	23.57	813.908	29.11	29.73	Pass
159	5795	23.08	22.91	22.86	23.55	818.331	29.13	29.73	Pass

Note:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test, the duty factor was included in the total power.
- Directional gain = $10 \log[(10^{\text{Chain0}/20} + 10^{\text{Chain1}/20} + 10^{\text{Chain2}/20} + 10^{\text{Chain3}/20})^2 / 4]$
- For U-NII-1, The directional gain is 6.26 dBi > 6dBi, so the output power limit shall be reduced to 30-(6.26-6) = 29.74 dBm.
- For U-NII-2A, The directional gain is 6.2 dBi > 6dBi, so the output power limit shall be reduced to Determined Output Power Limit-(6.2-6).
- For U-NII-2C, The directional gain is 6.23 dBi > 6dBi, so the output power limit shall be reduced to Determined Output Power Limit-(6.23-6).
- For U-NII-3, The directional gain is 6.27 dBi > 6dBi, so the output power limit shall be reduced to 30-(6.27-6) = 29.73 dBm.

Note:

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

Chain 0

- 11dBm + 10log (41.76) = 27.20 > 23.97dBm
- 11dBm + 10log (42.81) = 27.31 > 23.97dBm
- 11dBm + 10log (56.43) = 28.51 > 23.97dBm
- 11dBm + 10log (41.67) = 27.19 > 23.97dBm
- 11dBm + 10log (41.61) = 27.19 > 23.97dBm
- 11dBm + 10log (5725.00 - 5689.16) = 26.54 > 23.97dBm

Chain 1

- 11dBm + 10log (41.84) = 27.21 > 23.97dBm
- 11dBm + 10log (52.32) = 28.18 > 23.97dBm
- 11dBm + 10log (50.71) = 28.05 > 23.97dBm
- 11dBm + 10log (41.91) = 27.22 > 23.97dBm
- 11dBm + 10log (41.72) = 27.20 > 23.97dBm
- 11dBm + 10log (5725.00 - 5689.15) = 26.54 > 23.97dBm

Chain 2

1. $11\text{dBm} + 10\log(41.69) = 27.20 > 23.97\text{dBm}$
2. $11\text{dBm} + 10\log(44.20) = 27.45 > 23.97\text{dBm}$
3. $11\text{dBm} + 10\log(52.56) = 28.20 > 23.97\text{dBm}$
4. $11\text{dBm} + 10\log(41.86) = 27.21 > 23.97\text{dBm}$
5. $11\text{dBm} + 10\log(41.94) = 27.22 > 23.97\text{dBm}$
6. $11\text{dBm} + 10\log(5725.00 - 5689.11) = 26.54 > 23.97\text{dBm}$

Chain 3

1. $11\text{dBm} + 10\log(41.61) = 27.19 > 23.97\text{dBm}$
2. $11\text{dBm} + 10\log(43.42) = 27.37 > 23.97\text{dBm}$
3. $11\text{dBm} + 10\log(48.43) = 27.85 > 23.97\text{dBm}$
4. $11\text{dBm} + 10\log(41.69) = 27.20 > 23.97\text{dBm}$
5. $11\text{dBm} + 10\log(41.87) = 27.21 > 23.97\text{dBm}$
6. $11\text{dBm} + 10\log(5725.00 - 5689.12) = 26.54 > 23.97\text{dBm}$

802.11ax (HE80)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
42	5210	22.68	22.97	23.36	23.04	801.649	29.04	29.74	Pass
58	5290	17.27	17.58	17.25	17.26	216.912	23.36	23.77	Pass
106	5530	17.03	17.18	17.83	16.99	213.383	23.29	23.74	Pass
122	5610	16.55	17.33	17.52	17.25	208.843	23.20	23.74	Pass
138	5690 (For U-NII-2C)	15.67	16.22	16.28	16.23	163.215	22.13	23.74	Pass
138	5690 (For U-NII-3)	9.01	10.29	10.26	10.39	40.209	16.04	29.73	Pass
155	5775	23.23	22.86	22.89	23.12	803.227	29.05	29.73	Pass

Note:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test, the duty factor was included in the total power.
- Directional gain = $10 \log[(10^{\text{Chain0}/20} + 10^{\text{Chain1}/20} + 10^{\text{Chain2}/20} + 10^{\text{Chain3}/20})^2 / 4]$
- For U-NII-1, The directional gain is 6.26 dBi > 6dBi, so the output power limit shall be reduced to 30-(6.26-6) = 29.74 dBm.
- For U-NII-2A, The directional gain is 6.2 dBi > 6dBi, so the output power limit shall be reduced to Determined Output Power Limit-(6.2-6).
- For U-NII-2C, The directional gain is 6.23 dBi > 6dBi, so the output power limit shall be reduced to Determined Output Power Limit-(6.23-6).
- For U-NII-3, The directional gain is 6.27 dBi > 6dBi, so the output power limit shall be reduced to 30-(6.27-6) = 29.73 dBm.

Note:

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

Chain 0

- 11dBm + 10log (86.67) = 30.37 > 23.97dBm
- 11dBm + 10log (94.76) = 30.76 > 23.97dBm
- 11dBm + 10log (82.94) = 30.18 > 23.97dBm
- 11dBm + 10log (5725.00 - 5648.42) = 29.84 > 23.97dBm

Chain 1

- 11dBm + 10log (87.83) = 30.43 > 23.97dBm
- 11dBm + 10log (89.68) = 30.52 > 23.97dBm
- 11dBm + 10log (83.02) = 30.19 > 23.97dBm
- 11dBm + 10log (5725.00 - 5648.56) = 29.83 > 23.97dBm

Chain 2

- 11dBm + 10log (83.79) = 30.23 > 23.97dBm
- 11dBm + 10log (86.58) = 30.37 > 23.97dBm
- 11dBm + 10log (82.69) = 30.17 > 23.97dBm
- 11dBm + 10log (5725.00 - 5648.62) = 29.82 > 23.97dBm

Chain 3

- 11dBm + 10log (83.48) = 30.21 > 23.97dBm
- 11dBm + 10log (84.28) = 30.25 > 23.97dBm
- 11dBm + 10log (82.76) = 30.17 > 23.97dBm
- 11dBm + 10log (5725.00 - 5648.55) = 29.83 > 23.97dBm

802.11ax (HE160)

Chan.	Freq. (MHz)	Maximum Conducted Power (dBm)				Total Power (mW)	Total Power (dBm)	Power Limit (dBm)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
*50	5250 (For U-NII-1)	12.50	12.67	12.60	12.65	74.469	18.72	29.74	Pass
*50	5250 (For U-NII-2A)	12.76	12.93	12.94	12.94	79.568	19.01	23.77	Pass
114	5570	17.01	17.38	17.22	17.05	208.358	23.19	23.74	Pass

Note:

- * : Test was performed in accordance with measurement follow FCC KDB 789033 UNII test procedure Method SA-2 and use spectrum analyzer test, the duty factor was included in the total power.
- Directional gain = $10 \log[(10^{\text{Chain0}/20} + 10^{\text{Chain1}/20} + 10^{\text{Chain2}/20} + 10^{\text{Chain3}/20})^2 / 4]$
- For U-NII-1, The directional gain is 6.26 dBi > 6dBi, so the output power limit shall be reduced to 30-(6.26-6) = 29.74 dBm.
- For U-NII-2A, The directional gain is 6.2 dBi > 6dBi, so the output power limit shall be reduced to Determined Output Power Limit-(6.2-6).
- For U-NII-2C, The directional gain is 6.23 dBi > 6dBi, so the output power limit shall be reduced to Determined Output Power Limit-(6.23-6).
- For U-NII-3, The directional gain is 6.27 dBi > 6dBi, so the output power limit shall be reduced to 30-(6.27-6) = 29.73 dBm.

Note:

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

Chain 0

- 11dBm + $10 \log(83.81) = 30.23 > 23.97 \text{ dBm}$
- 11dBm + $10 \log(168.47) = 33.26 > 23.97 \text{ dBm}$

Chain 1

- 11dBm + $10 \log(83.45) = 30.21 > 23.97 \text{ dBm}$
- 11dBm + $10 \log(168.58) = 33.26 > 23.97 \text{ dBm}$

Chain 2

- 11dBm + $10 \log(83.25) = 30.20 > 23.97 \text{ dBm}$
- 11dBm + $10 \log(167.82) = 33.24 > 23.97 \text{ dBm}$

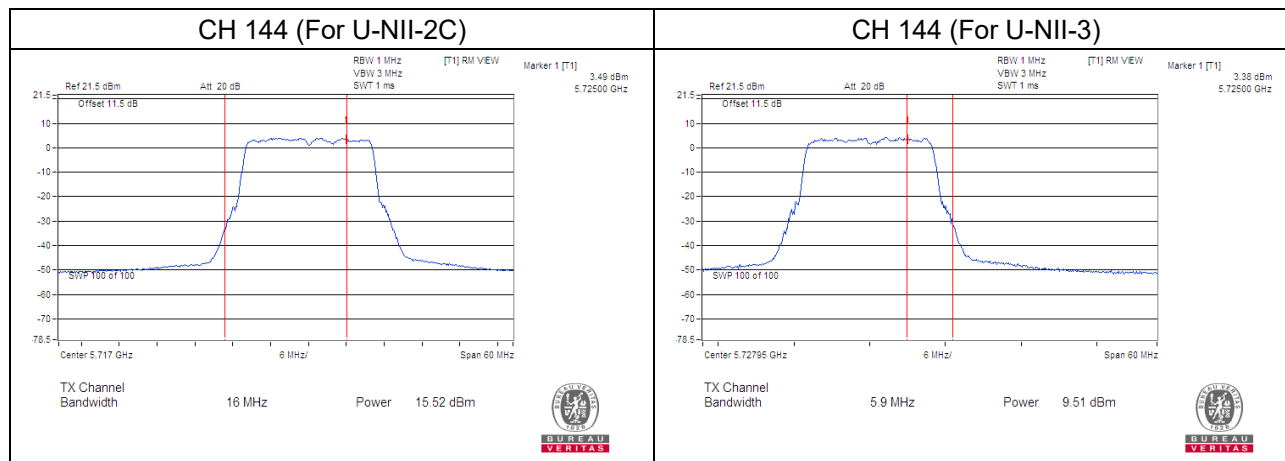
Chain 3

- 11dBm + $10 \log(83.43) = 30.21 > 23.97 \text{ dBm}$
- 11dBm + $10 \log(168.99) = 33.27 > 23.97 \text{ dBm}$

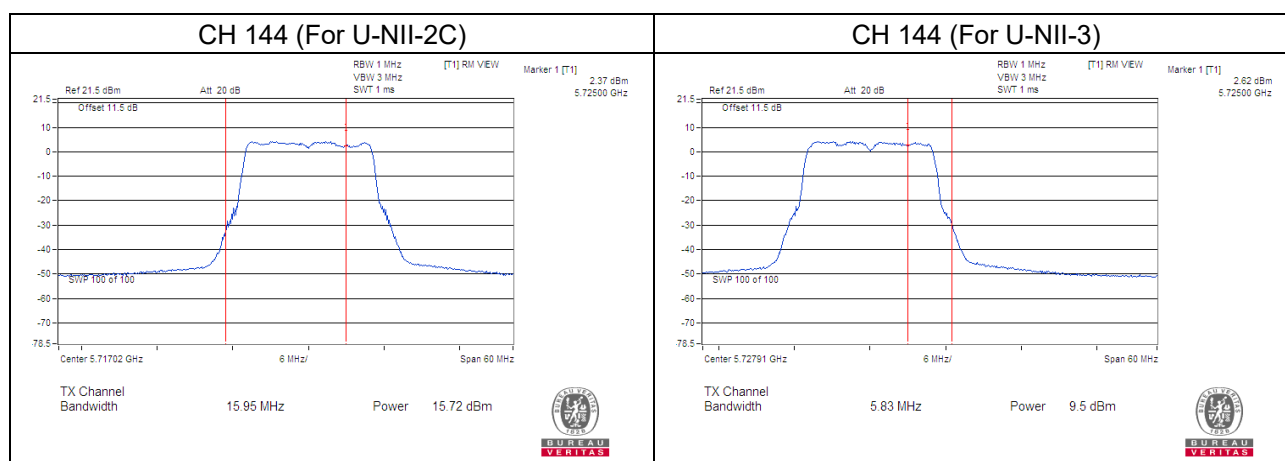
Straddle channel power plots:

802.11a

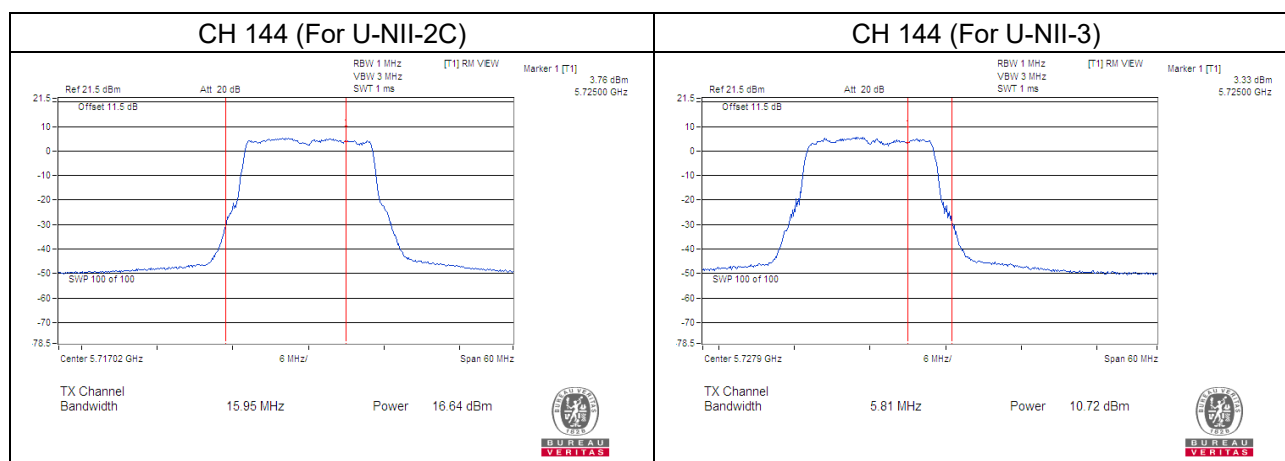
Chain 0



Chain 1

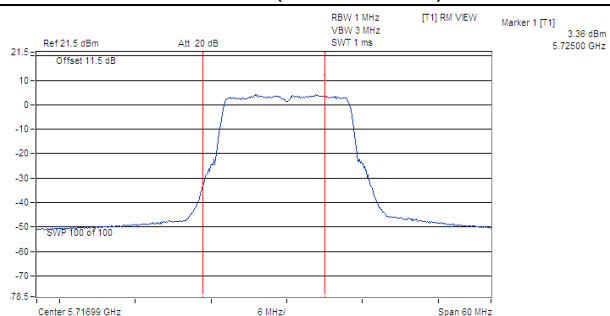


Chain 2

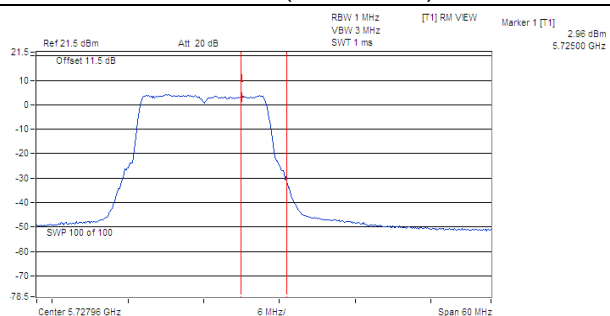


Chain 3

CH 144 (For U-NII-2C)

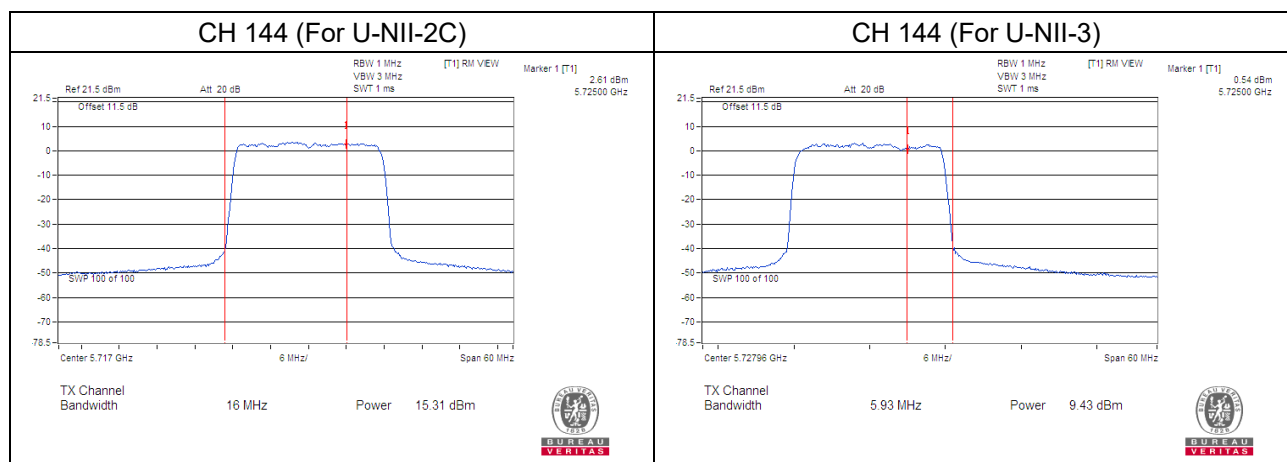


CH 144 (For U-NII-3)

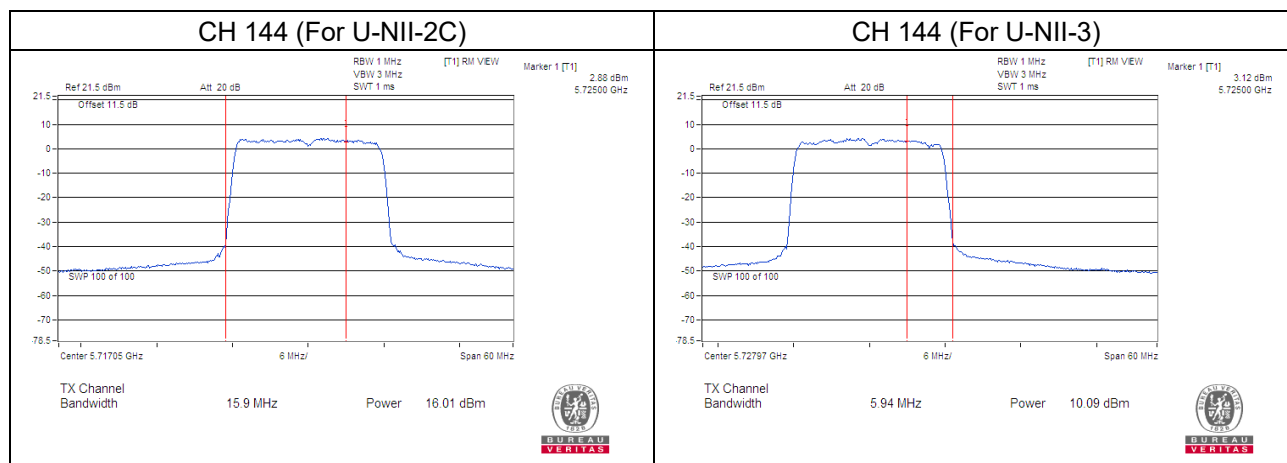


802.11ax (HE20)

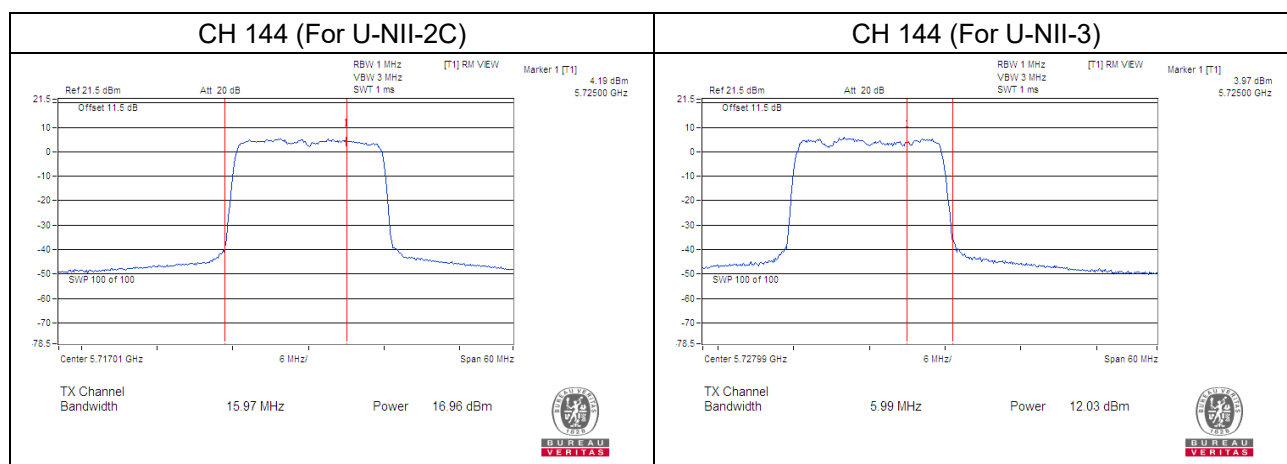
Chain 0



Chain 1

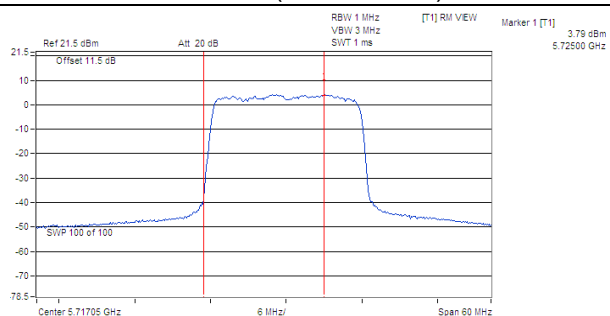


Chain 2



Chain 3

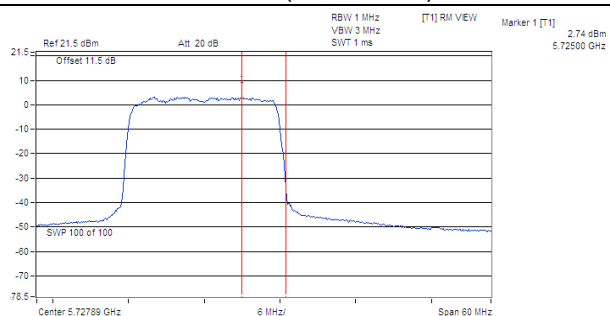
CH 144 (For U-NII-2C)



TX Channel
Bandwidth 15.9 MHz
Power 15.78 dBm



CH 144 (For U-NII-3)

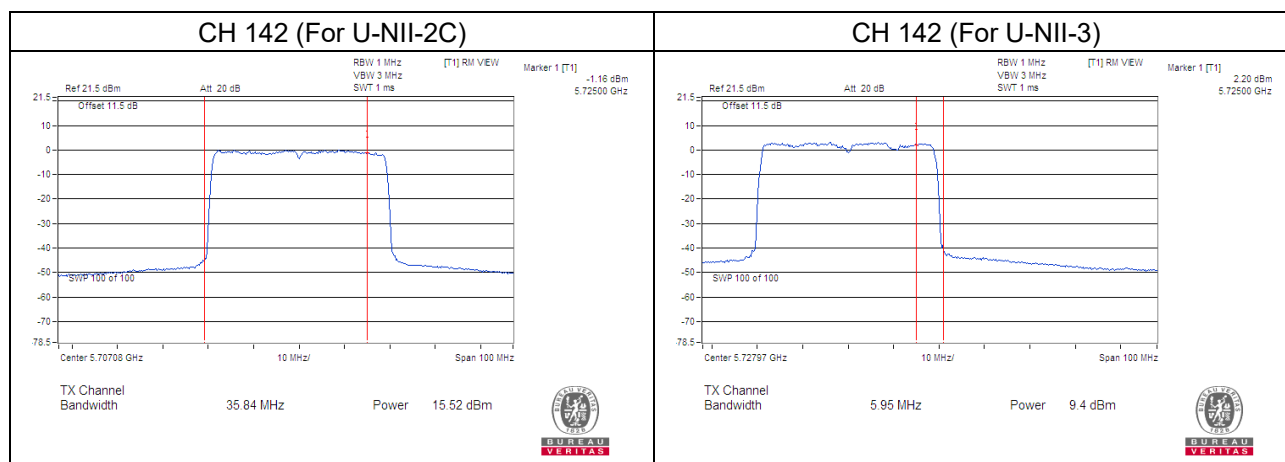


TX Channel
Bandwidth 5.78 MHz
Power 9.81 dBm

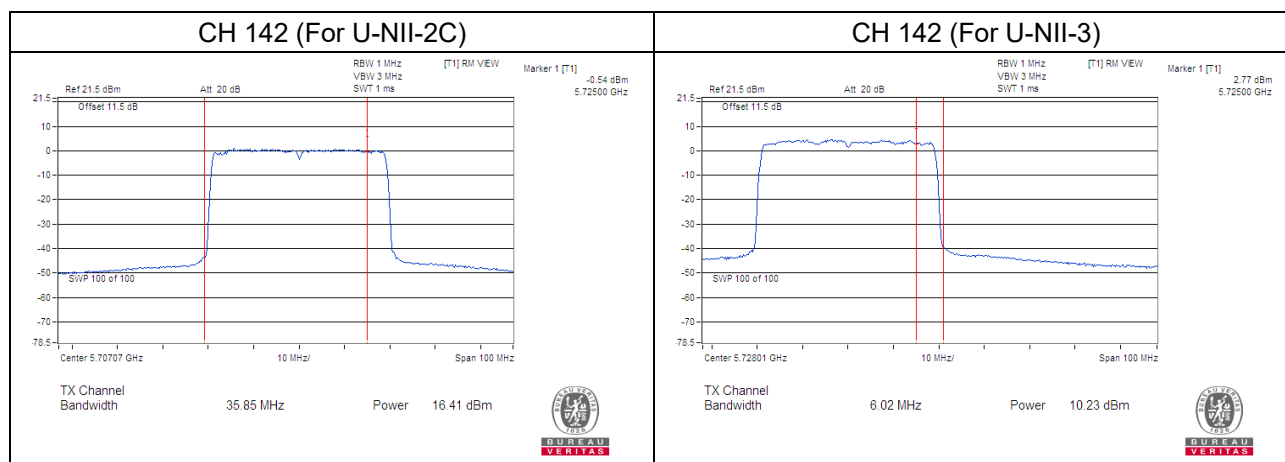


802.11ax (HE40)

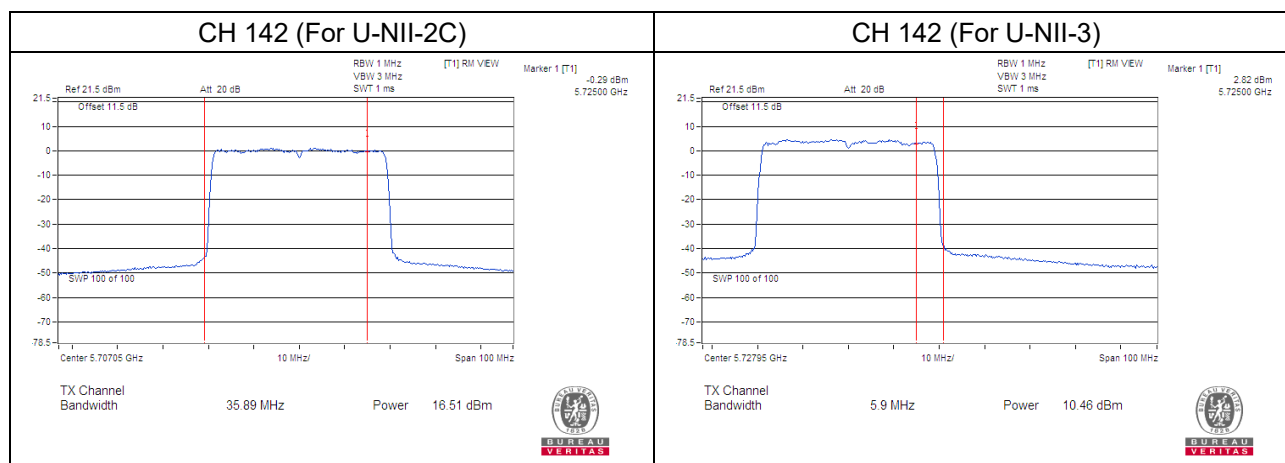
Chain 0



Chain 1

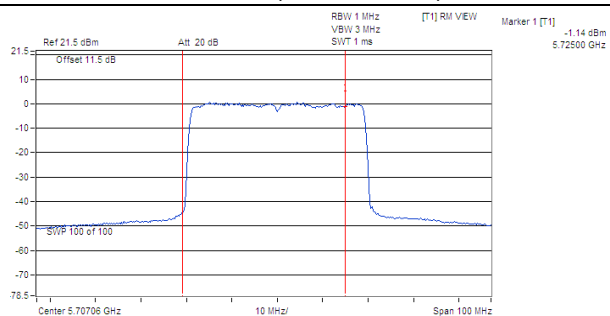


Chain 2



Chain 3

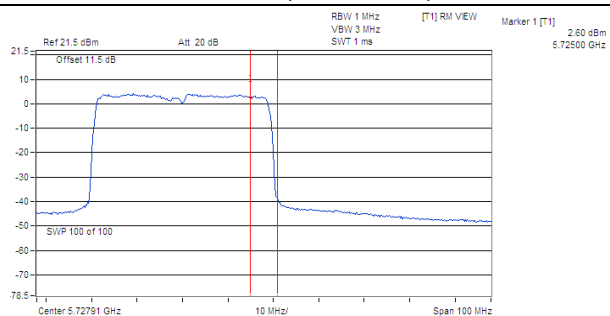
CH 142 (For U-NII-2C)



TX Channel Bandwidth 35.88 MHz Power 15.91 dBm



CH 142 (For U-NII-3)

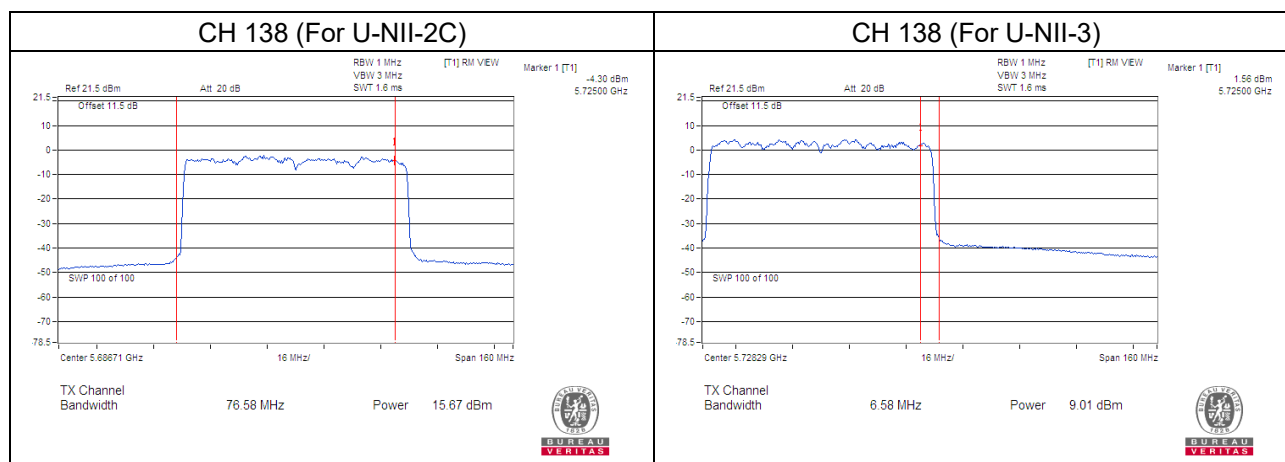


TX Channel Bandwidth 5.82 MHz Power 9.73 dBm

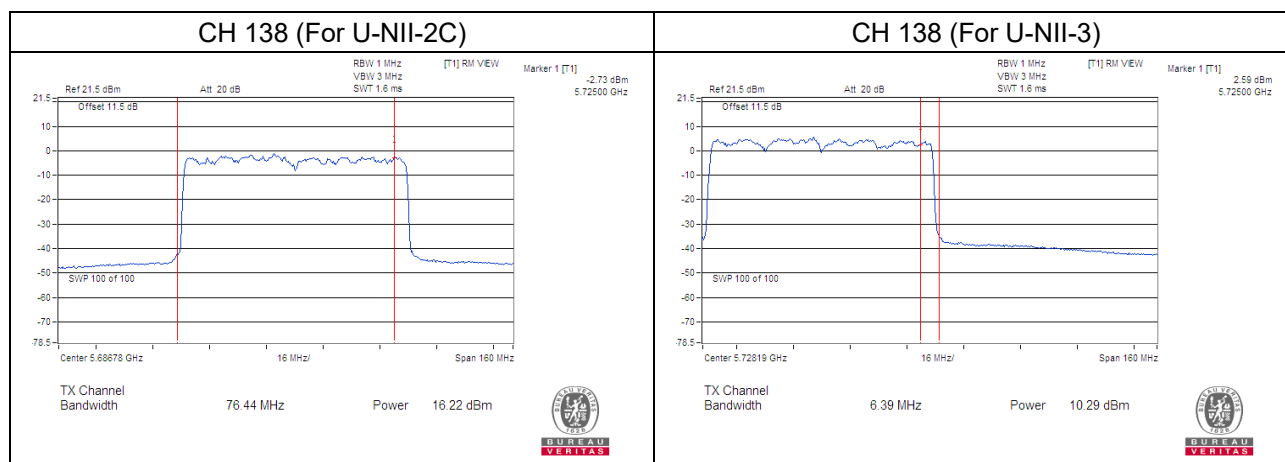


802.11ax (HE80)

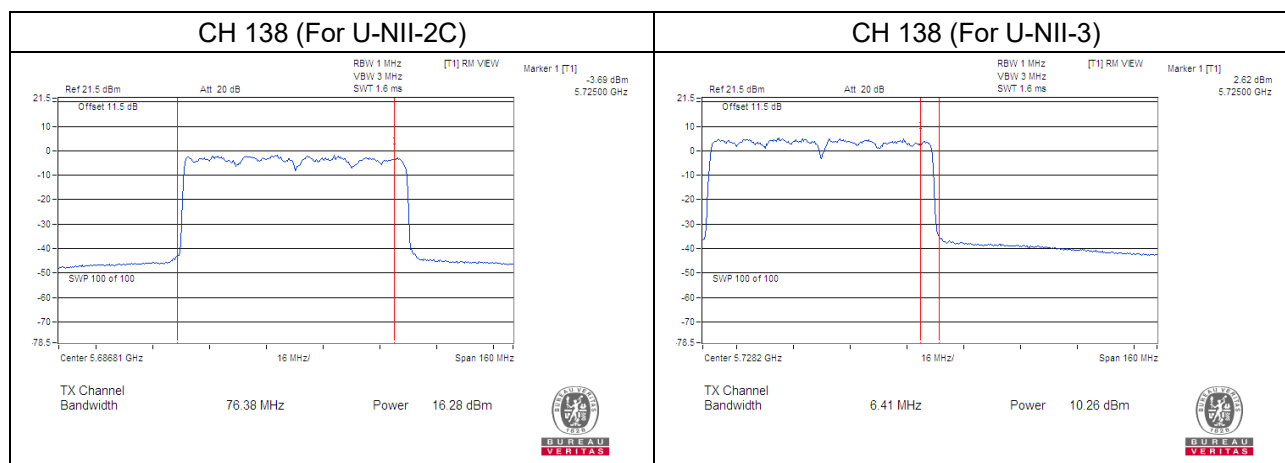
Chain 0



Chain 1

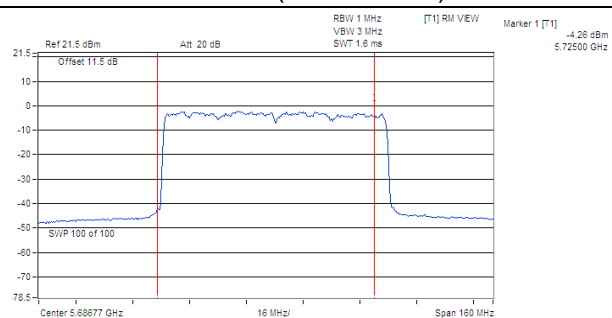


Chain 2

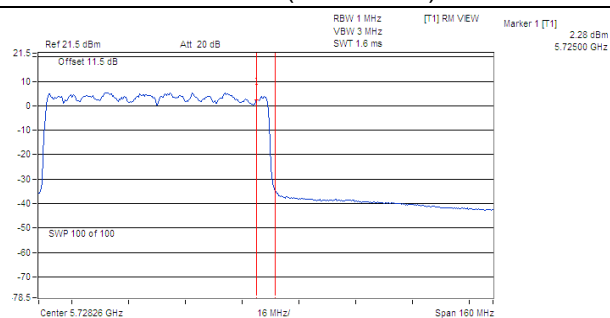


Chain 3

CH 138 (For U-NII-2C)

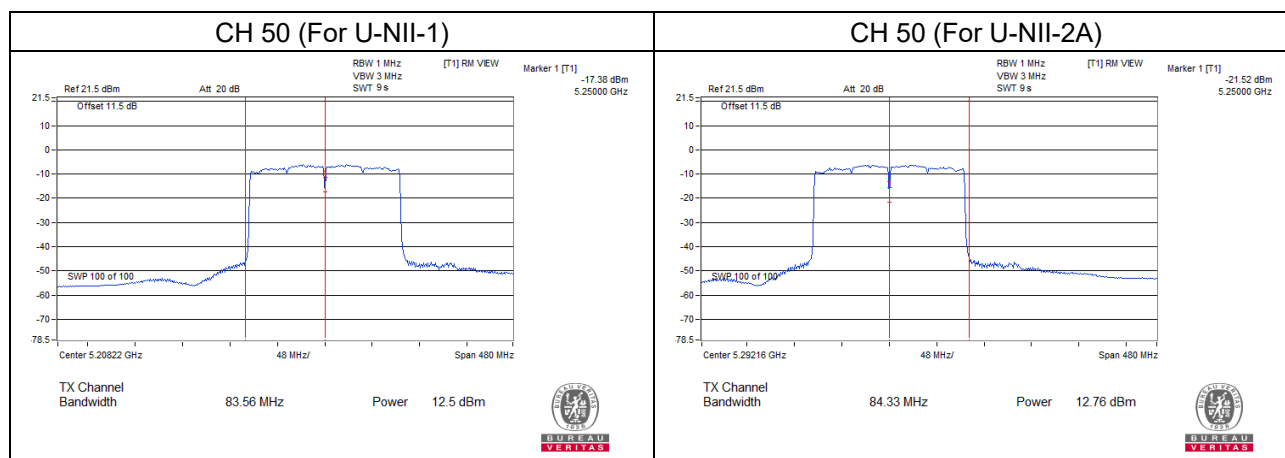


CH 138 (For U-NII-3)

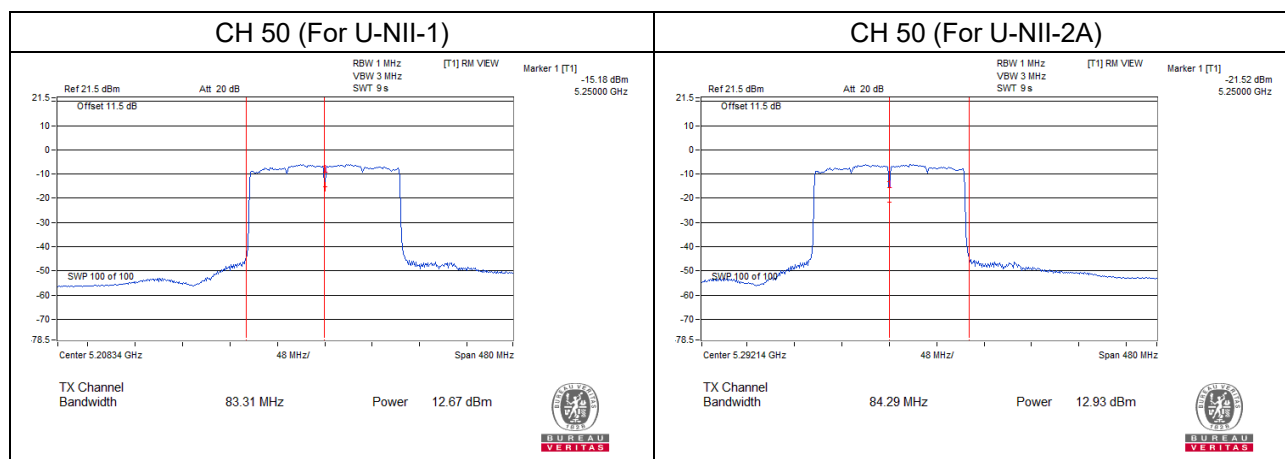


802.11ax (HE160)

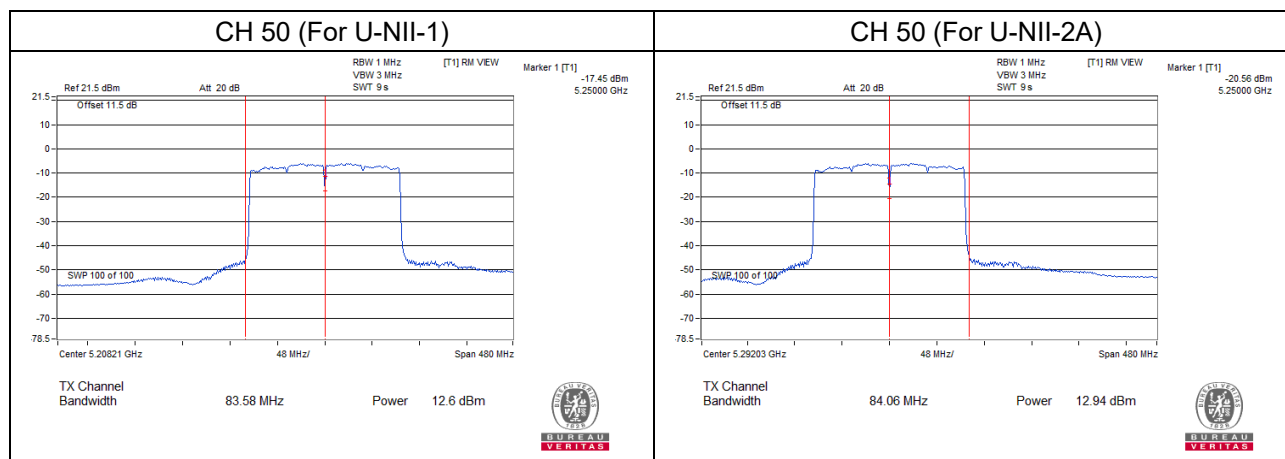
Chain 0



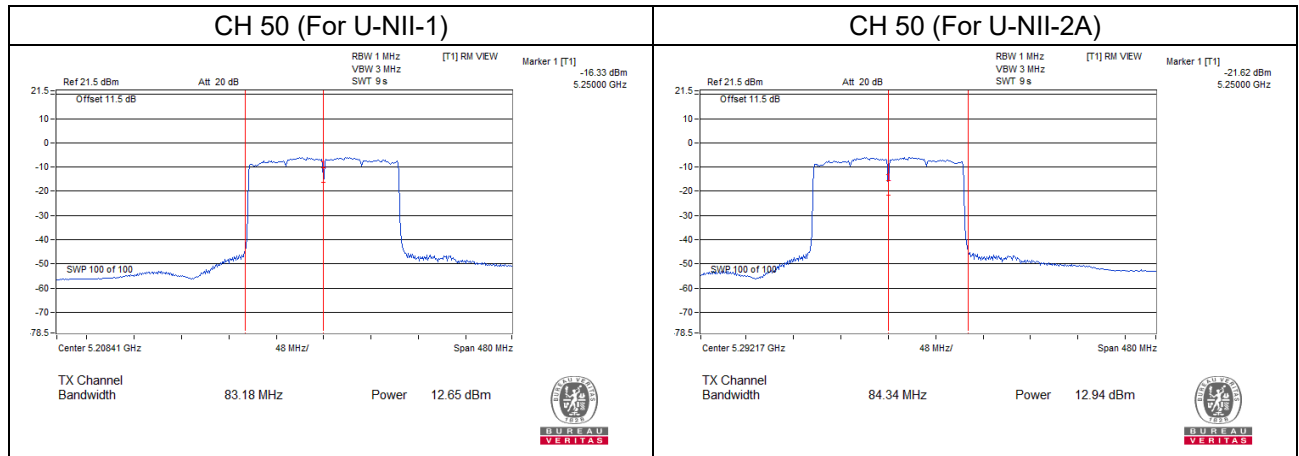
Chain 1



Chain 2



Chain 3



26dB Bandwidth:

802.11a

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
52	5260	21.80	22.00	22.12	22.02
60	5300	21.85	21.84	21.95	21.88
64	5320	25.55	26.67	28.17	29.35
100	5500	22.71	23.84	22.47	22.49
116	5580	21.72	21.78	21.85	21.80
140	5700	22.08	21.87	21.85	21.97
144	5720 (For U-NII-2C)	16.00	15.95	15.95	16.01

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

802.11ax (HE20)

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
52	5260	21.82	21.89	21.82	21.75
60	5300	21.87	21.86	21.90	21.89
64	5320	23.11	22.40	25.36	22.73
100	5500	25.46	28.71	23.31	22.42
116	5580	21.96	21.99	21.86	21.87
140	5700	21.90	22.04	21.74	21.88
144	5720 (For U-NII-2C)	16.00	15.90	15.97	15.90

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	Chain 2	Chain 3
54	5270	41.76	41.84	41.69	41.61
62	5310	42.81	52.32	44.20	43.42
102	5510	56.43	50.71	52.56	48.43
110	5550	41.67	41.91	41.86	41.69
134	5670	41.61	41.72	41.94	41.87
142	5710 (For U-NII-2C)	35.84	35.85	35.89	35.88

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	Chain 2	Chain 3
58	5290	86.67	87.83	83.79	83.48
106	5530	94.76	89.68	86.58	84.28
122	5610	82.94	83.02	82.69	82.76
138	5690 (For U-NII-2C)	76.58	76.44	76.38	76.45

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

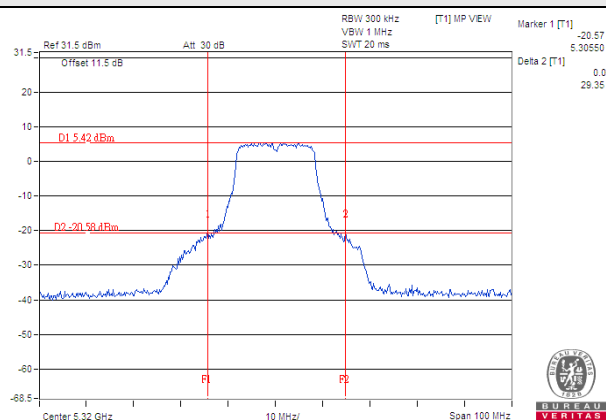
802.11ax (HE160)

Chan.	Freq. (MHz)	26dBc Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
*50	5250 (For U-NII-2A)	83.81	83.45	83.25	83.43
114	5570	168.47	168.58	167.82	168.99

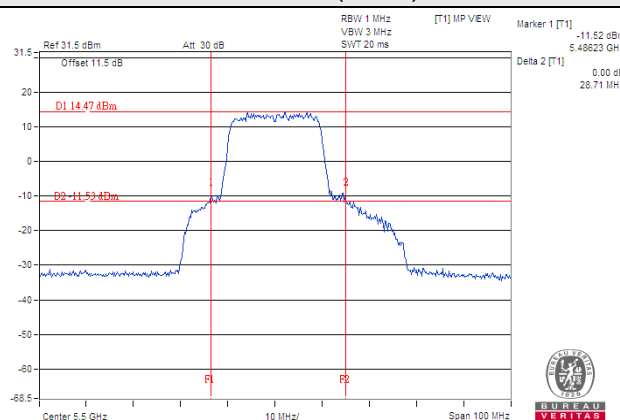
For CH50 (U-NII-2A Band): The 26dBc bandwidth above 5250MHz = Marker 1 + Delta 2 - 5250MHz

Spectrum Plot of Worst Value

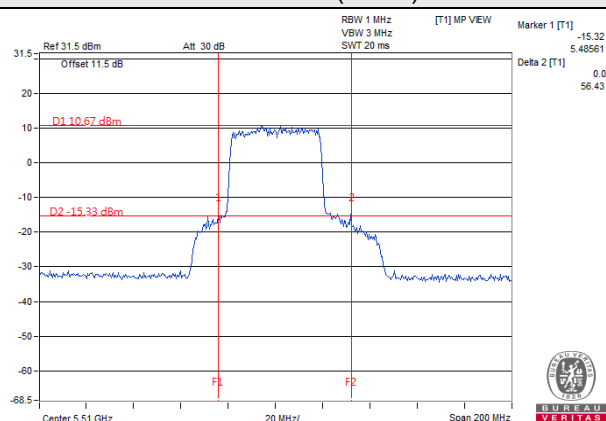
802.11a



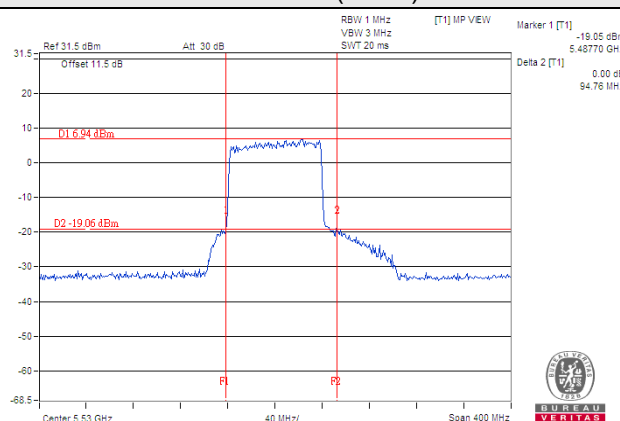
802.11ax (HE20)



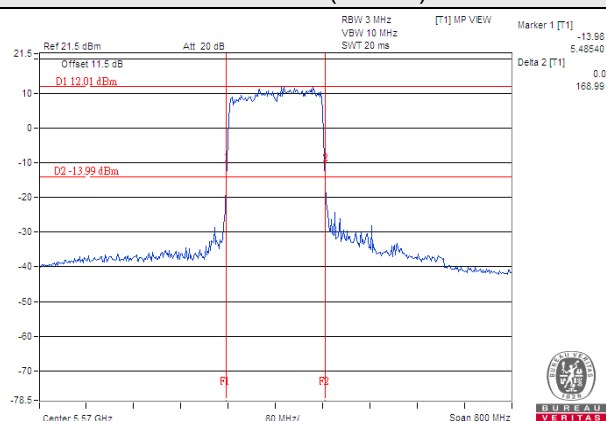
802.11ax (HE40)



802.11ax (HE80)



802.11ax (HE160)



EUT Average Power

CDD Mode

802.11a

Frequency Band (MHz)	Max. Power	
	Output Power (dBm)	Output Power (mW)
5250~5350	23.28	212.946
5470~5725	23.25	211.530

802.11ax (HE20)

Frequency Band (MHz)	Max. Power	
	Output Power (dBm)	Output Power (mW)
5250~5350	23.29	213.538
5470~5725	23.29	213.340

802.11ax (HE40)

Frequency Band (MHz)	Max. Power	
	Output Power (dBm)	Output Power (mW)
5250~5350	23.26	211.814
5470~5725	23.23	210.531

802.11ax (HE80)

Frequency Band (MHz)	Max. Power	
	Output Power (dBm)	Output Power (mW)
5250~5350	23.36	216.912
5470~5725	23.29	213.383

802.11ax (HE160)

Frequency Band (MHz)	Max. Power	
	Output Power (dBm)	Output Power (mW)
5250~5350	16.30	42.684
5470~5725	23.19	208.358

Beamforming Mode

802.11ax (HE20)

Frequency Band (MHz)	Max. Power	
	Output Power (dBm)	Output Power (mW)
5250~5350	23.29	213.538
5470~5725	23.29	213.340

802.11ax (HE40)

Frequency Band (MHz)	Max. Power	
	Output Power (dBm)	Output Power (mW)
5250~5350	23.26	211.814
5470~5725	23.23	210.531

802.11ax (HE80)

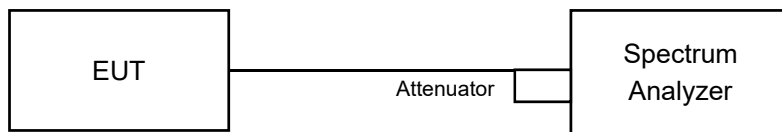
Frequency Band (MHz)	Max. Power	
	Output Power (dBm)	Output Power (mW)
5250~5350	23.36	216.912
5470~5725	23.29	213.383

802.11ax (HE160)

Frequency Band (MHz)	Max. Power	
	Output Power (dBm)	Output Power (mW)
5250~5350	16.30	42.684
5470~5725	23.19	208.358

4.4 Occupied Bandwidth Measurement

4.4.1 Test Setup



4.4.2 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.4.3 Test Procedure

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

4.4.4 Test Result

802.11a

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
36	5180	17.16	17.40	17.16	17.28
40	5200	17.16	17.16	17.16	17.04
48	5240	17.16	17.04	17.16	17.16
52	5260	17.04	17.04	17.04	17.04
60	5300	17.04	17.04	17.04	17.04
64	5320	17.40	17.52	17.40	17.52
100	5500	17.28	17.28	17.40	17.28
116	5580	17.04	17.04	17.04	17.04
140	5700	17.04	17.04	17.16	17.04
144	5720 (For U-NII-2C)	13.52	13.52	13.52	13.52
144	5720 (For U-NII-3)	3.52	3.52	3.52	3.52
149	5745	17.22	17.31	17.31	17.31
157	5785	17.16	17.28	17.16	17.28
165	5825	17.16	17.16	17.16	17.40

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

For CH144 (UNII-3 Band): The Occupied bandwidth above 5725MHz = Marker 1 + Delta 2 - 5725MHz

802.11ax (HE20)

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
36	5180	19.20	19.20	19.20	19.32
40	5200	19.08	19.20	19.20	19.20
48	5240	19.20	19.20	19.20	19.20
52	5260	19.20	19.20	19.20	19.20
60	5300	19.20	19.20	19.20	19.20
64	5320	19.20	19.32	19.32	19.32
100	5500	19.44	19.32	19.32	19.20
116	5580	19.20	19.20	19.20	19.20
140	5700	19.20	19.20	19.20	19.20
144	5720 (For U-NII-2C)	14.60	14.60	14.60	14.60
144	5720 (For U-NII-3)	4.60	4.60	4.48	4.60
149	5745	19.30	19.30	19.30	19.30
157	5785	19.20	19.20	19.20	19.20
165	5825	19.32	19.32	19.20	19.20

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

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

802.11ax (HE40)

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
38	5190	38.88	39.12	39.36	39.12
46	5230	37.92	37.92	38.16	38.16
54	5270	38.88	38.16	38.64	38.88
62	5310	38.16	39.12	38.16	38.16
102	5510	39.12	38.88	38.16	39.36
110	5550	38.16	37.92	37.92	37.92
134	5670	37.92	38.16	37.92	37.92
142	5710 (For U-NII-2C)	34.08	34.08	34.08	34.08
142	5710 (For U-NII-3)	3.96	3.96	3.96	4.08
151	5755	38.09	38.26	38.26	38.09
159	5795	38.16	38.16	38.16	38.16

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

For CH142 (UNII-3 Band): The Occupied bandwidth above 5725MHz = Marker 1 + Delta 2 - 5725MHz

802.11ax (HE80)

Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
42	5210	77.28	78.00	77.76	77.76
58	5290	78.00	78.00	78.24	78.00
106	5530	77.52	77.52	77.52	77.52
122	5610	77.76	77.76	78.00	78.00
138	5690 (For U-NII-2C)	73.88	73.64	73.88	73.88
138	5690 (For U-NII-3)	3.64	3.64	3.64	3.64
155	5775	77.39	77.21	77.21	77.39

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

For CH138 (UNII-3 Band): The Occupied bandwidth above 5725MHz = Marker 1 + Delta 2 - 5725MHz

802.11ax (HE160)

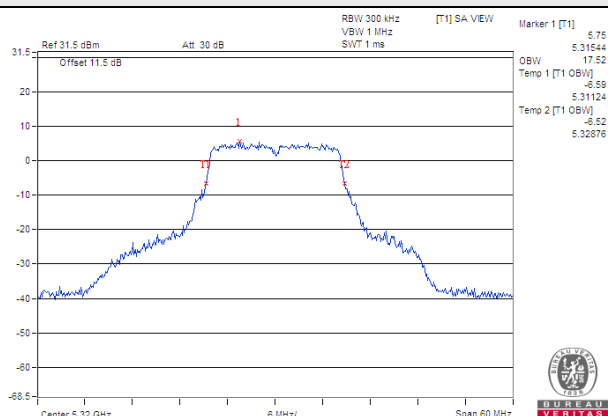
Chan.	Freq. (MHz)	Occupied Bandwidth (MHz)			
		Chain 0	Chain 1	Chain 2	Chain 3
*50	5250 (For U-NII-1)	78.72	78.72	78.72	78.72
*50	5250 (For U-NII-2A)	78.72	78.72	78.72	78.72
114	5570	157.44	157.44	157.44	156.48

For CH50 (U-NII-1 Band): The Occupied bandwidth below 5250MHz = 5250MHz - Marker 1

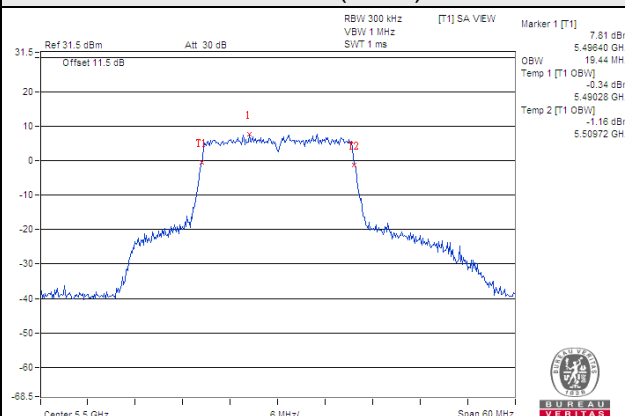
For CH50 (U-NII-2A Band): The Occupied bandwidth above 5250MHz = Marker 1 + Delta 2 - 5250MHz

Spectrum Plot of Worst Value

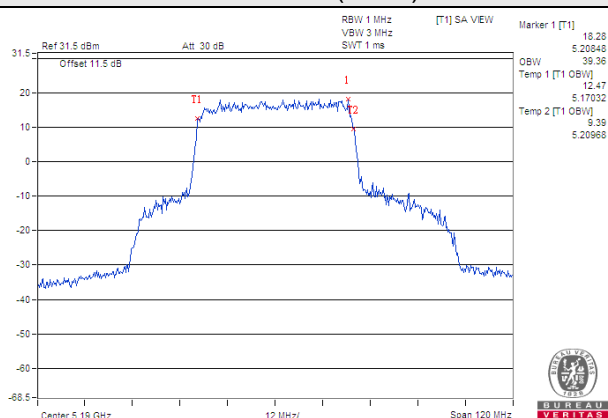
802.11a



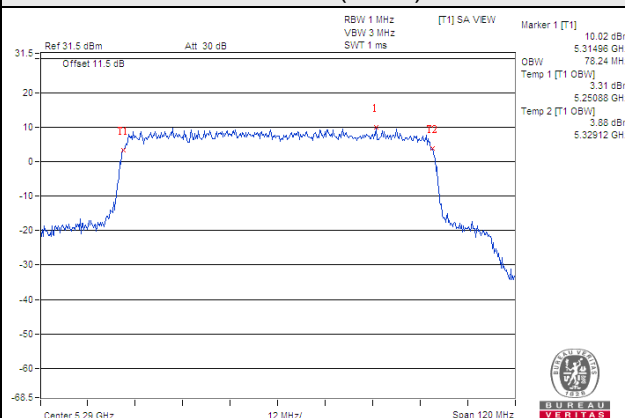
802.11ax (HE20)



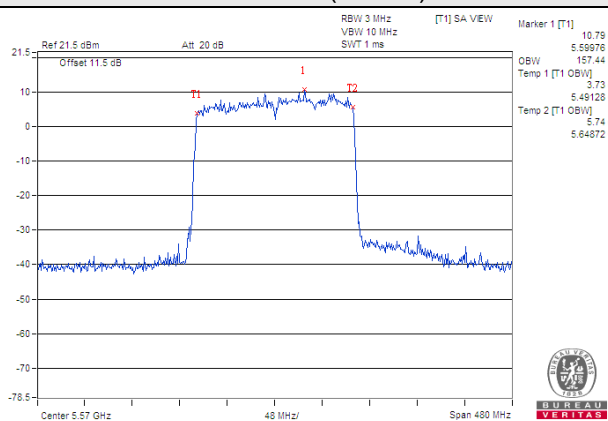
802.11ax (HE40)



802.11ax (HE80)

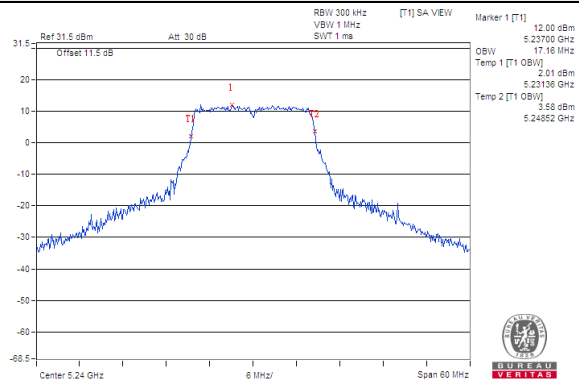


802.11ax (HE160)

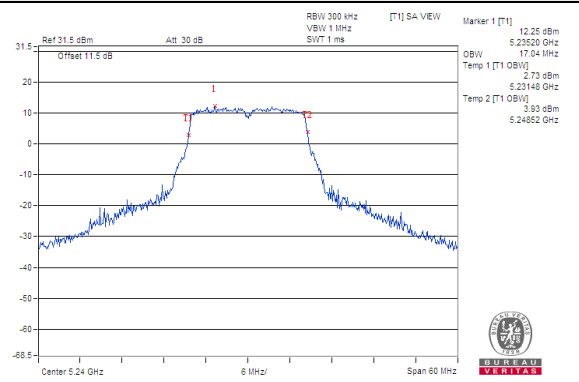


Spectrum Plot for near By DFS Band

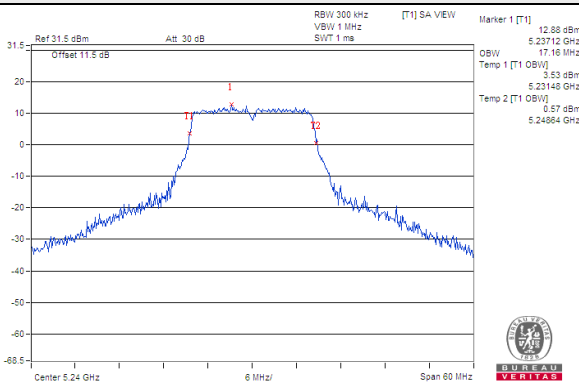
802.11a / Chain 0 / CH 48



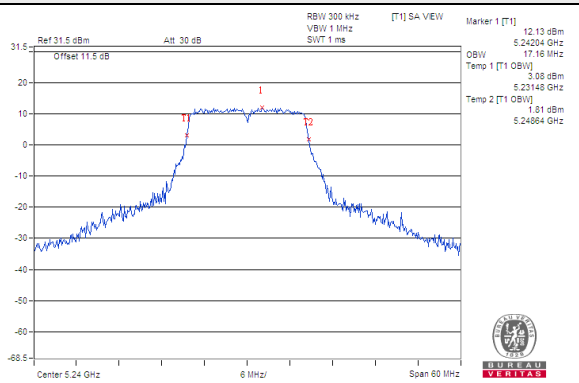
802.11a / Chain 1 / CH 48



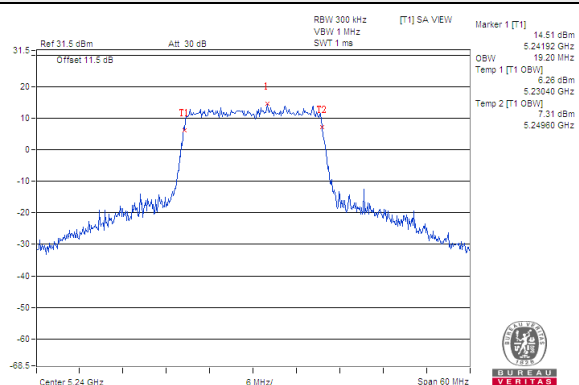
802.11a / Chain 2 / CH 48



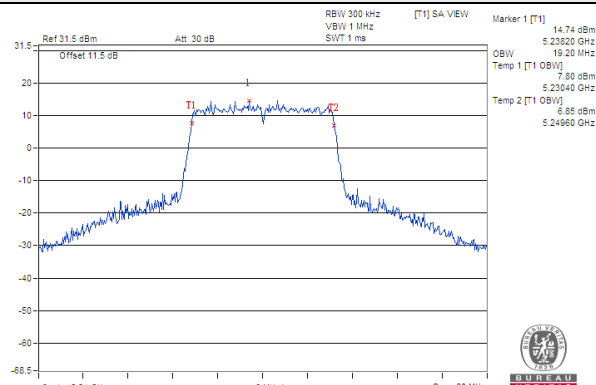
802.11a / Chain 3 / CH 48



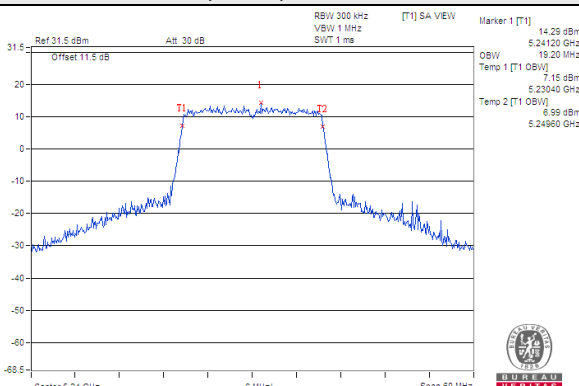
802.11ax (HE20) / Chain 0 / CH 48



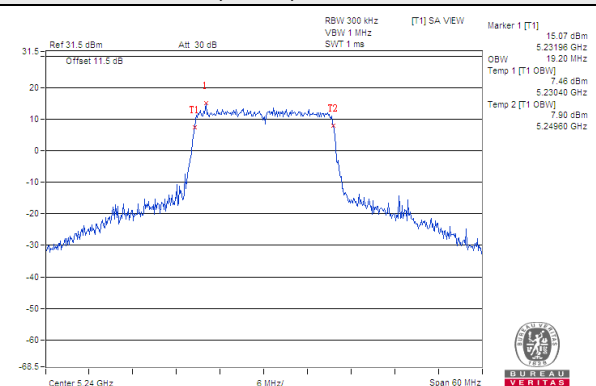
802.11ax (HE20) / Chain 1 / CH 48



802.11ax (HE20) / Chain 2 / CH 48

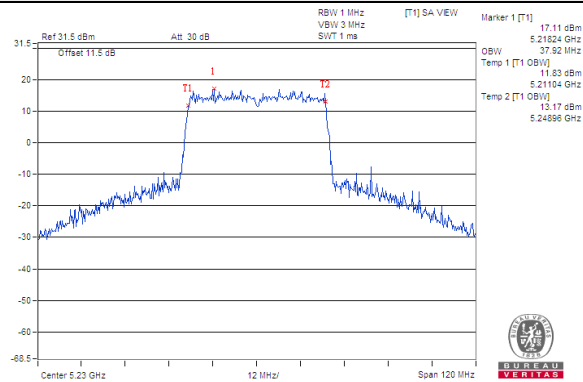


802.11ax (HE20) / Chain 3 / CH 48

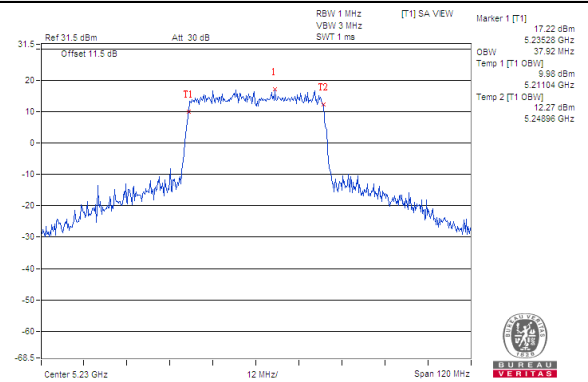


Spectrum Plot for near By DFS Band

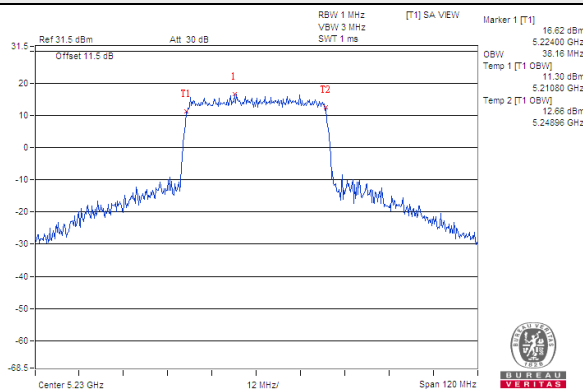
802.11ax (HE40) / Chain 0 / CH 46



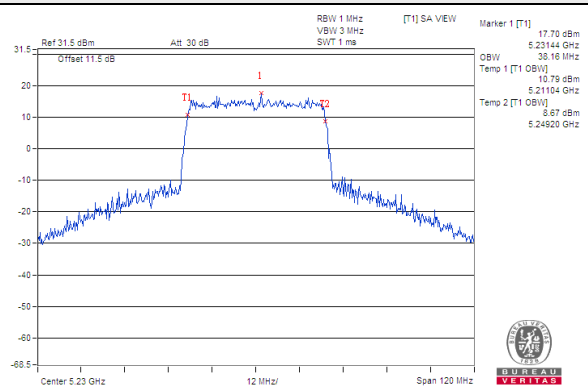
802.11ax (HE40) / Chain 1 / CH 46



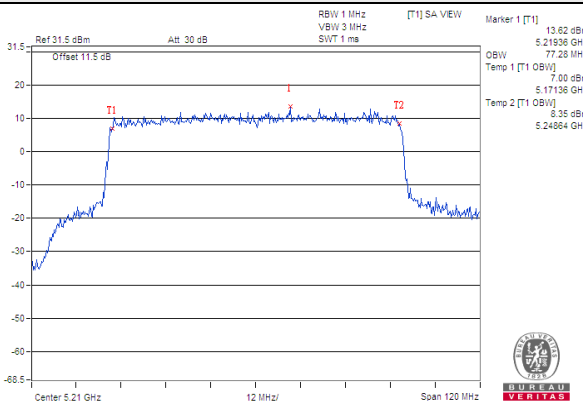
802.11ax (HE40) / Chain 2 / CH 46



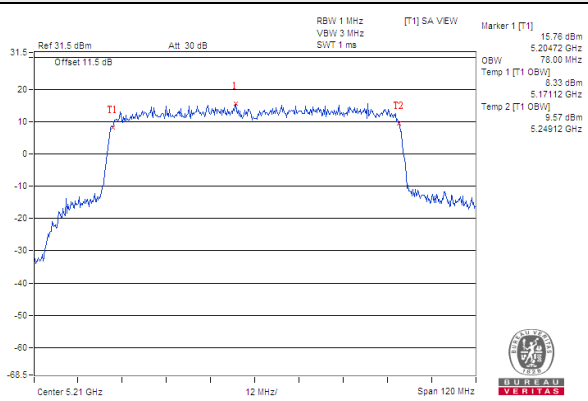
802.11ax (HE40) / Chain 3 / CH 46



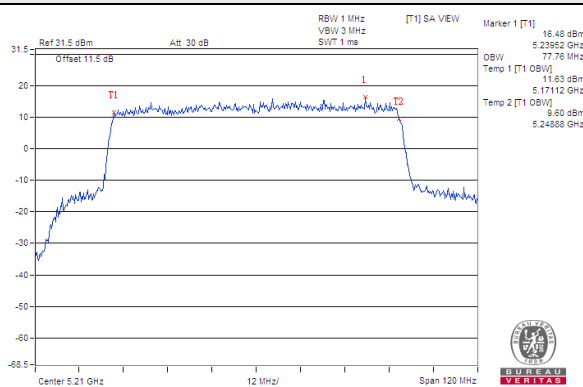
802.11ax (HE80) / Chain 0 / CH 42



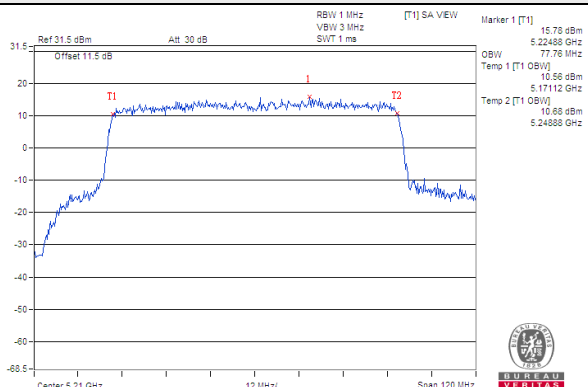
802.11ax (HE80) / Chain 1 / CH 42



802.11ax (HE80) / Chain 2 / CH 42

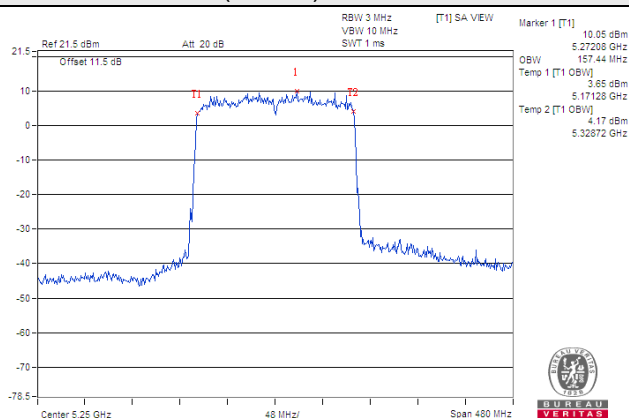


802.11ax (HE80) / Chain 3 / CH 42

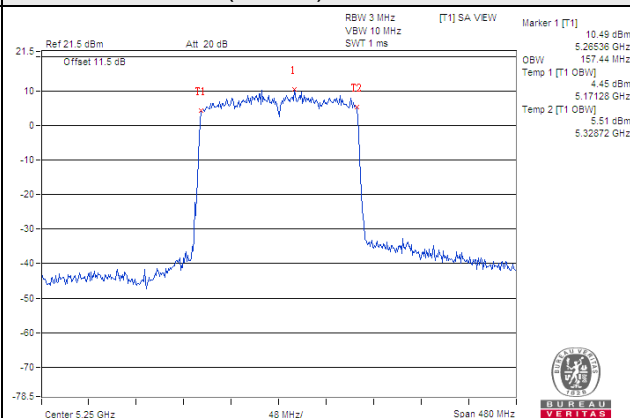


Spectrum Plot for near By DFS Band

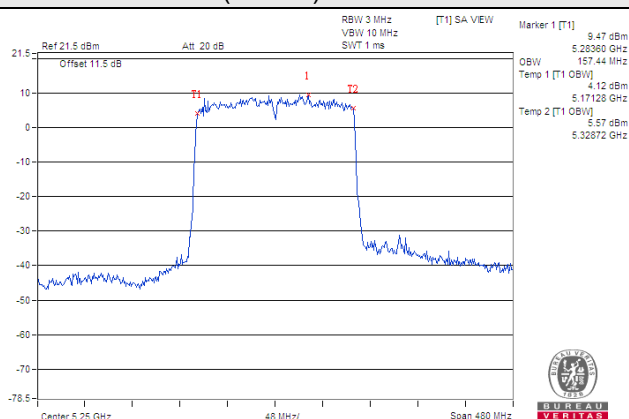
802.11ax (HE160) / Chain 0 / CH 50



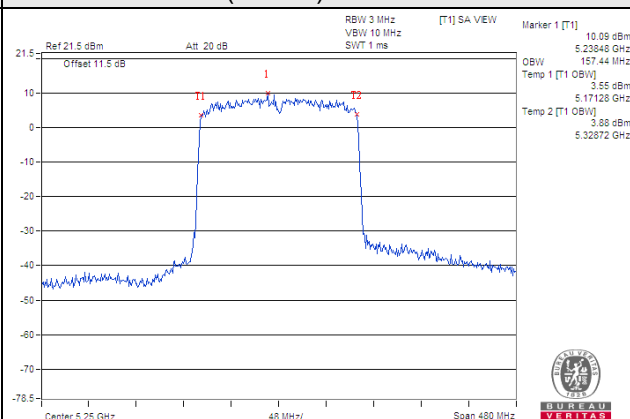
802.11ax (HE160) / Chain 1 / CH 50



802.11ax (HE160) / Chain 2 / CH 50

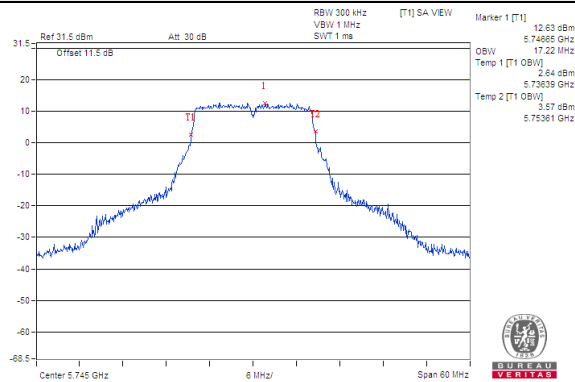


802.11ax (HE160) / Chain 3 / CH 50

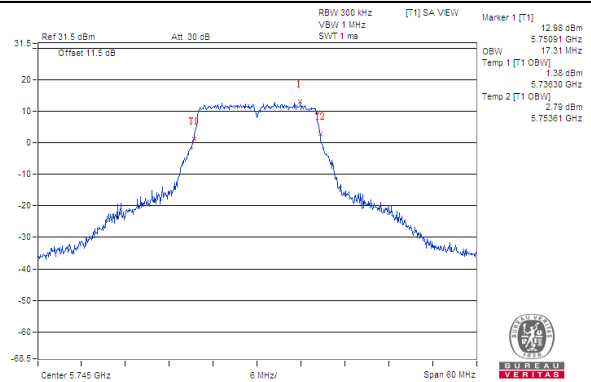


Spectrum Plot for near By DFS Band

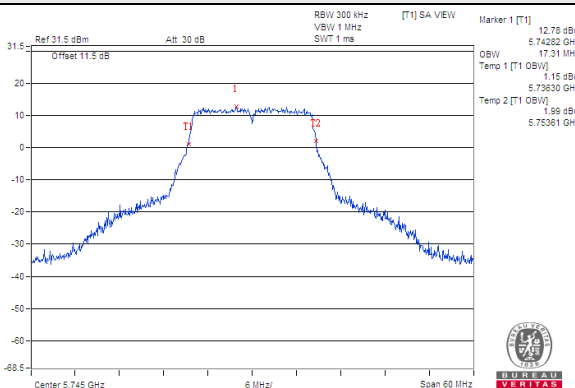
802.11a / Chain 0 / CH 149



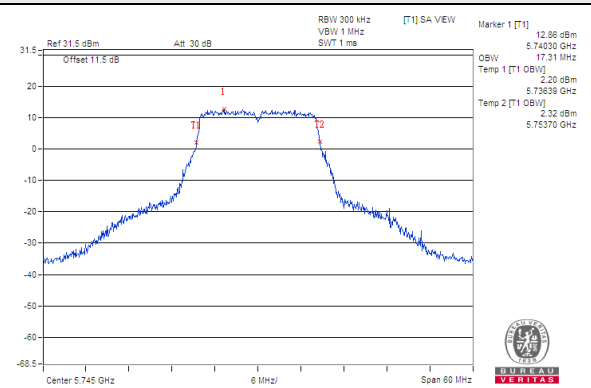
802.11a / Chain 1 / CH 149



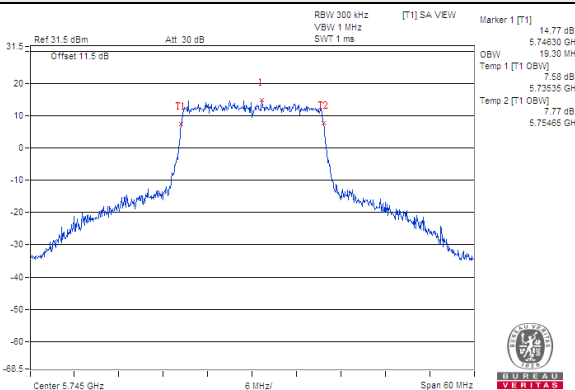
802.11a / Chain 2 / CH 149



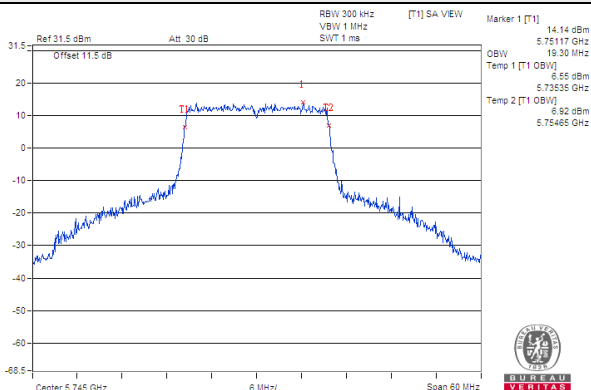
802.11a / Chain 3 / CH 149



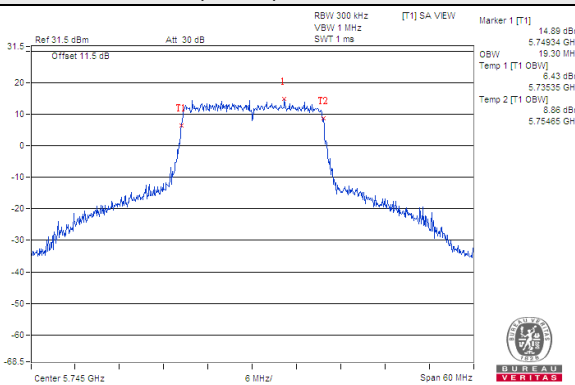
802.11ax (HE20) / Chain 0 / CH 149



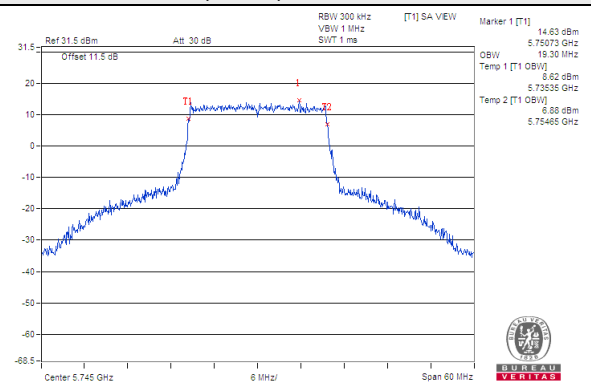
802.11ax (HE20) / Chain 1 / CH 149



802.11ax (HE20) / Chain 2 / CH 149

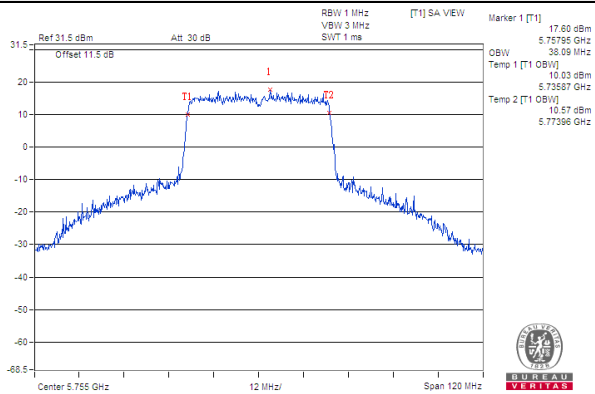


802.11ax (HE20) / Chain 3 / CH 149

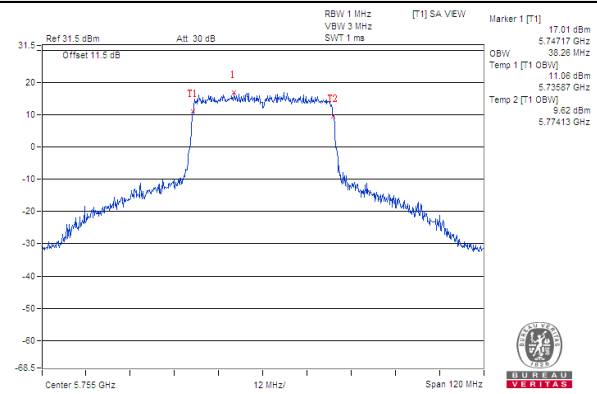


Spectrum Plot for near By DFS Band

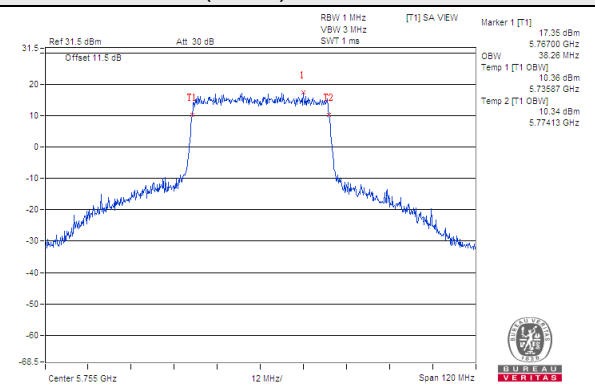
802.11ax (HE40) / Chain 0 / CH 151



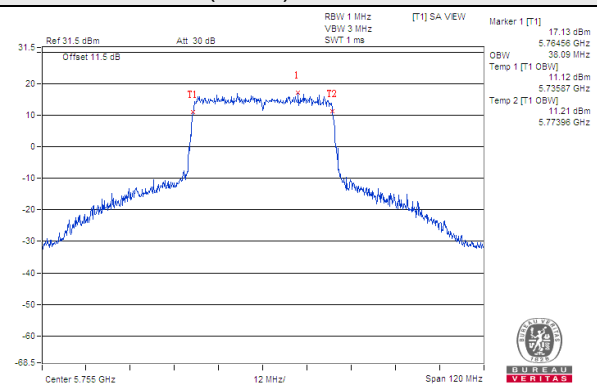
802.11ax (HE40) / Chain 1 / CH 151



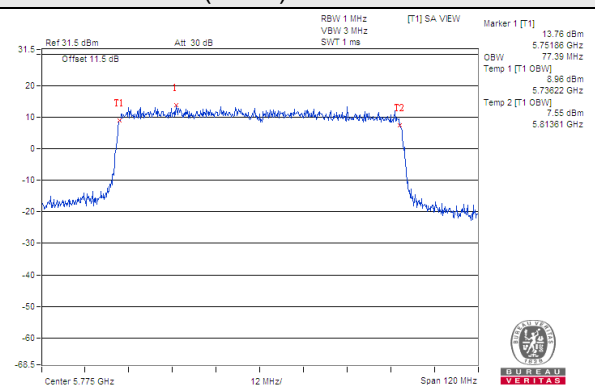
802.11ax (HE40) / Chain 2 / CH 151



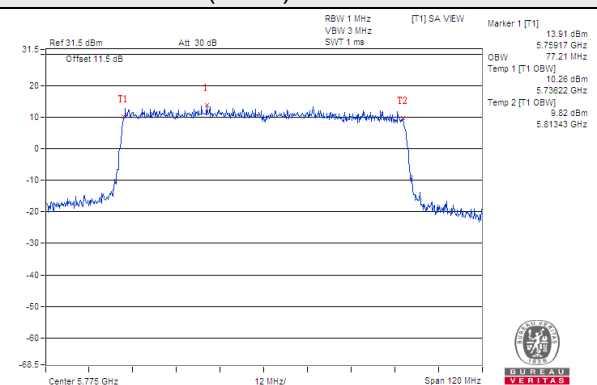
802.11ax (HE40) / Chain 3 / CH 151



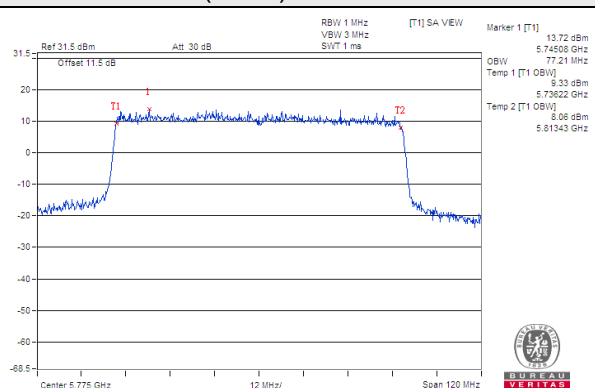
802.11ax (HE80) / Chain 0 / CH 155



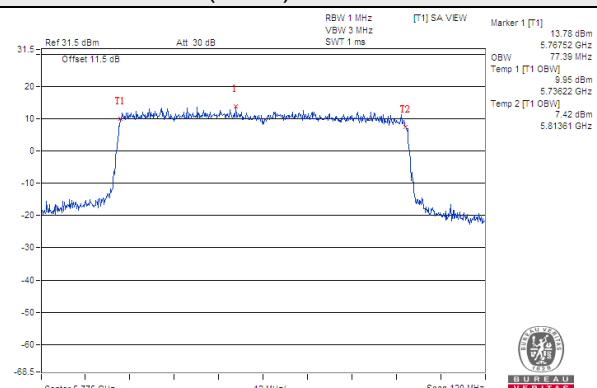
802.11ax (HE80) / Chain 1 / CH 155



802.11ax (HE80) / Chain 2 / CH 155



802.11ax (HE80) / Chain 3 / CH 155

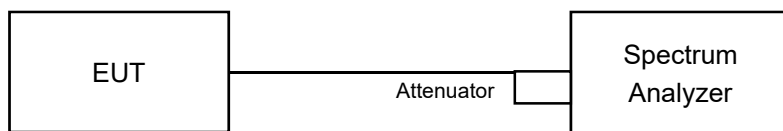


4.5 Peak Power Spectral Density Measurement

4.5.1 Limits of Peak Power Spectral Density Measurement

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

4.5.2 Test Setup



4.5.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.5.4 Test Procedures

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

Using method SA-1

- Set span to encompass the entire emission bandwidth (EBW) of the signal.
- Set RBW = 30 kHz, Set VBW ≥ 1 MHz, Detector = RMS
- Set Channel power measure = 1MHz
- Sweep time = auto, trigger set to “free run”.
- Trace average at least 100 traces in power averaging mode.
- Record the max value

Using method SA-2

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

For U-NII-3 band:

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

4.5.5 Deviation from Test Standard

No deviation.

4.5.6 EUT Operating Conditions

Same as 4.3.6.

4.5.7 Test Results

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

802.11a

Chan.	Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)				Duty Factor (dB)	Total PSD with Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
36	5180	9.24	9.31	10.43	9.51	0.23	15.90	16.74	Pass
40	5200	9.59	10.19	9.84	9.75	0.23	16.09	16.74	Pass
48	5240	9.29	9.33	10.46	10.00	0.23	16.04	16.74	Pass
52	5260	4.04	4.09	4.18	3.86	0.23	10.29	10.80	Pass
60	5300	3.87	4.04	4.24	4.19	0.23	10.33	10.80	Pass
64	5320	3.90	3.95	3.97	4.02	0.23	10.21	10.80	Pass
100	5500	2.97	3.81	4.37	3.80	0.23	10.01	10.77	Pass
116	5580	3.69	3.79	4.55	3.91	0.23	10.24	10.77	Pass
140	5700	3.43	4.33	3.76	4.09	0.23	10.16	10.77	Pass
144	5720 (For U-NII- 2C)	2.70	3.10	4.62	3.09	0.23	9.69	10.77	Pass

Note:

1. Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain is declared by client.
3. For U-NII-1, The directional gain is 6.26 dBi > 6dBi, so the power density limit shall be reduced to 17-(6.26-6) = 16.74dBm/MHz.
4. For U-NII-2A, The directional gain is 6.2 dBi > 6dBi, so the power density limit shall be reduced to 11-(6.2-6) = 10.80dBm/MHz.
5. For U-NII-2C, The directional gain is 6.23 dBi > 6dBi, so the power density limit shall be reduced to 11-(6.23-6) = 10.77dBm/MHz.
6. Refer to section 3.3 for duty cycle spectrum plot.

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	Chain 2	Chain 3				
36	5180	9.01	9.91	10.10	9.96	0.12	15.90	16.74	Pass
40	5200	10.34	10.27	9.99	9.44	0.12	16.16	16.74	Pass
48	5240	9.57	9.90	10.54	10.13	0.12	16.19	16.74	Pass
52	5260	3.76	3.75	4.32	3.81	0.12	10.05	10.80	Pass
60	5300	3.94	3.98	4.05	4.02	0.12	10.14	10.80	Pass
64	5320	3.60	4.02	4.02	4.11	0.12	10.08	10.80	Pass
100	5500	3.37	3.90	4.51	3.97	0.12	10.09	10.77	Pass
116	5580	3.29	3.98	4.09	4.70	0.12	10.18	10.77	Pass
140	5700	3.68	4.34	3.97	4.05	0.12	10.15	10.77	Pass
144	5720 (For U-NII- 2C)	2.84	3.79	4.40	3.40	0.12	9.78	10.77	Pass

Note:

1. Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain is declared by client.
3. For U-NII-1, The directional gain is 6.26 dBi > 6dBi, so the power density limit shall be reduced to 17-(6.26-6) = 16.74dBm/MHz.
4. For U-NII-2A, The directional gain is 6.2 dBi > 6dBi, so the power density limit shall be reduced to 11-(6.2-6) = 10.80dBm/MHz.
5. For U-NII-2C, The directional gain is 6.23 dBi > 6dBi, so the power density limit shall be reduced to 11-(6.23-6) = 10.77dBm/MHz.
6. Refer to section 3.3 for duty cycle spectrum plot.

802.11ax (HE40)

Chan.	Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)				Total PSD (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3			
38	5190	7.01	7.28	6.78	6.44	12.91	16.74	Pass
46	5230	6.29	7.37	7.24	7.13	13.05	16.74	Pass
54	5270	0.85	0.84	1.11	1.32	7.06	10.80	Pass
62	5310	0.58	1.02	1.14	1.29	7.04	10.80	Pass
102	5510	0.24	0.50	0.41	0.36	6.40	10.77	Pass
110	5550	0.59	0.61	1.03	0.87	6.80	10.77	Pass
134	5670	0.30	0.80	0.70	0.73	6.66	10.77	Pass
142	5710 (For U-NII-2C)	-0.28	0.66	0.84	0.77	6.54	10.77	Pass

Note:

- Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
- Directional gain is declared by client.
- For U-NII-1, The directional gain is 6.26 dBi > 6dBi, so the power density limit shall be reduced to 17-(6.26-6) = 16.74dBm/MHz.
- For U-NII-2A, The directional gain is 6.2 dBi > 6dBi, so the power density limit shall be reduced to 11-(6.2-6) = 10.80dBm/MHz.
- For U-NII-2C, The directional gain is 6.23 dBi > 6dBi, so the power density limit shall be reduced to 11-(6.23-6) = 10.77dBm/MHz.

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	Chain 2	Chain 3				
42	5210	3.50	3.58	4.16	3.75	0.14	9.91	16.74	Pass
58	5290	-2.01	-1.97	-2.03	-2.03	0.14	4.15	10.80	Pass
106	5530	-2.62	-2.05	-1.75	-2.19	0.14	4.02	10.77	Pass
122	5610	-2.67	-1.71	-1.71	-1.73	0.14	4.22	10.77	Pass
138	5690 (For U-NII- 2C)	-3.10	-2.24	-2.22	-2.09	0.14	3.76	10.77	Pass

Note:

1. Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. Directional gain is declared by client.
3. For U-NII-1, The directional gain is 6.26 dBi > 6dBi, so the power density limit shall be reduced to 17-(6.26-6) = 16.74dBm/MHz.
4. For U-NII-2A, The directional gain is 6.2 dBi > 6dBi, so the power density limit shall be reduced to 11-(6.2-6) = 10.80dBm/MHz.
5. For U-NII-2C, The directional gain is 6.23 dBi > 6dBi, so the power density limit shall be reduced to 11-(6.23-6) = 10.77dBm/MHz.
6. Refer to section 3.3 for duty cycle spectrum plot.

802.11ax (HE160)

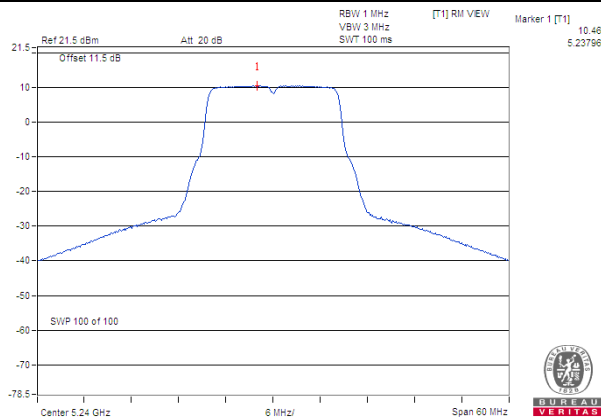
Chan.	Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)				Duty Factor (dB)	Total PSD with Duty Factor (dBm/MHz)	Max. Limit (dBm/MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3				
50 (U-NII-1)	5250	-5.75	-4.62	-4.78	-5.51	0.09	0.98	16.74	Pass
50 (U-NII-2A)	5250	-5.68	-4.53	-4.63	-5.30	0.09	1.10	10.80	Pass
114	5570	-4.76	-4.73	-4.87	-5.85	0.09	1.09	10.77	Pass

Note:

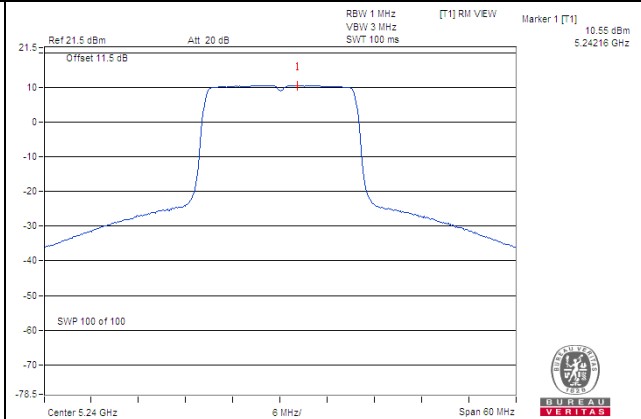
- Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
- Directional gain is declared by client.
- For U-NII-1, The directional gain is 6.26 dBi > 6dBi, so the power density limit shall be reduced to 17-(6.26-6) = 16.74dBm/MHz.
- For U-NII-2A, The directional gain is 6.2 dBi > 6dBi, so the power density limit shall be reduced to 11-(6.2-6) = 10.80dBm/MHz.
- For U-NII-2C, The directional gain is 6.23 dBi > 6dBi, so the power density limit shall be reduced to 11-(6.23-6) = 10.77dBm/MHz.
- Refer to section 3.3 for duty cycle spectrum plot.

Spectrum Plot of Worst Value

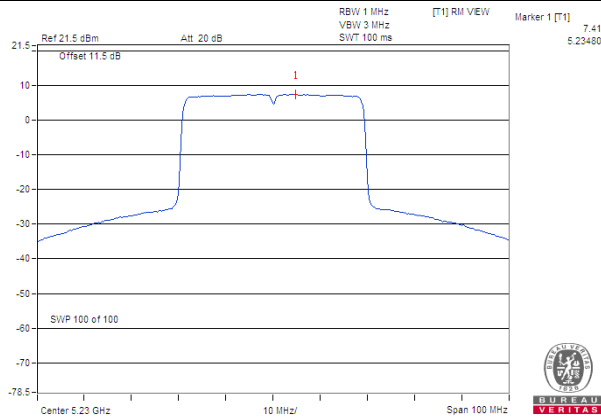
802.11a / Chain 2 / CH 48



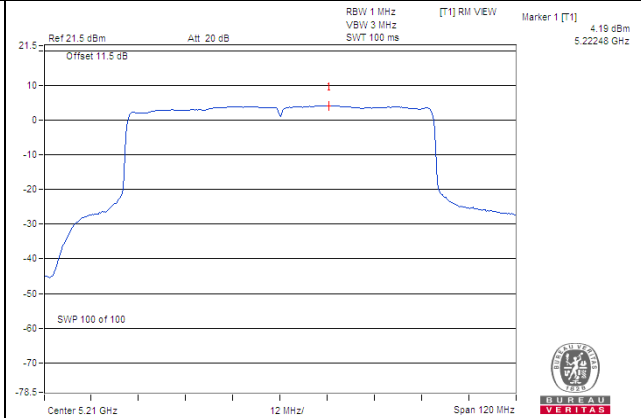
802.11ax (HE20) / Chain 2 / CH 48



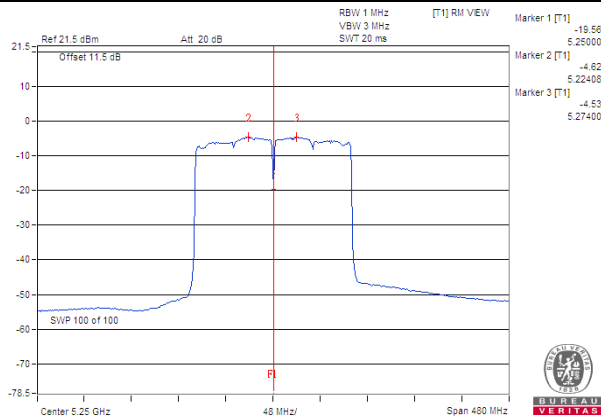
802.11ax (HE40) / Chain 1 / CH 46



802.11ax (HE80) / Chain 2 / CH 42



802.11ax (HE160) / Chain 1 / CH 50 (U-NII-2A)



For U-NII-3 band:

802.11a

TX chain	Chan.	Freq. (MHz)	PSD w/o Duty Factor		10 log (N=4) 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)	-6.04	-3.82	6.02	0.23	2.43	29.73	Pass
	149	5745	-0.33	1.89	6.02	0.23	8.14	29.73	Pass
	157	5785	0.39	2.61	6.02	0.23	8.86	29.73	Pass
	165	5825	-0.47	1.75	6.02	0.23	8.00	29.73	Pass
1	144	5720 (For U-NII-3)	-5.92	-3.70	6.02	0.23	2.55	29.73	Pass
	149	5745	-0.18	2.04	6.02	0.23	8.29	29.73	Pass
	157	5785	0.24	2.46	6.02	0.23	8.71	29.73	Pass
	165	5825	-0.61	1.61	6.02	0.23	7.86	29.73	Pass
2	144	5720 (For U-NII-3)	-5.81	-3.59	6.02	0.23	2.66	29.73	Pass
	149	5745	0.05	2.27	6.02	0.23	8.52	29.73	Pass
	157	5785	0.38	2.60	6.02	0.23	8.85	29.73	Pass
	165	5825	-0.37	1.85	6.02	0.23	8.10	29.73	Pass
3	144	5720 (For U-NII-3)	-5.87	-3.65	6.02	0.23	2.60	29.73	Pass
	149	5745	0.11	2.33	6.02	0.23	8.58	29.73	Pass
	157	5785	0.39	2.61	6.02	0.23	8.86	29.73	Pass
	165	5825	-0.30	1.92	6.02	0.23	8.17	29.73	Pass

Note:

1. Method E) 2) c) of power density measurement of KDB 662911 is using for calculating total power density, Measure and add 10 log (N_{ANT}) dB.
2. Directional gain is declared by client.
3. For U-NII-3, The directional gain is 6.27 dBi > 6dBi, so the power density limit shall be reduced to 30-(6.27-6) = 29.73 dBm/500kHz.
4. Refer to section 3.3 for duty cycle spectrum plot.

802.11ax (HE20)

TX chain	Chan.	Freq. (MHz)	PSD w/o Duty Factor		10 log (N=4) 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)	-7.04	-4.82	6.02	0.12	1.32	29.73	Pass
	149	5745	-1.15	1.07	6.02	0.12	7.21	29.73	Pass
	157	5785	-0.73	1.49	6.02	0.12	7.63	29.73	Pass
	165	5825	-1.56	0.66	6.02	0.12	6.80	29.73	Pass
1	144	5720 (For U-NII-3)	-7.08	-4.86	6.02	0.12	1.28	29.73	Pass
	149	5745	-1.20	1.02	6.02	0.12	7.16	29.73	Pass
	157	5785	-0.57	1.65	6.02	0.12	7.79	29.73	Pass
	165	5825	-1.42	0.80	6.02	0.12	6.94	29.73	Pass
2	144	5720 (For U-NII-3)	-6.88	-4.66	6.02	0.12	1.48	29.73	Pass
	149	5745	-1.14	1.08	6.02	0.12	7.22	29.73	Pass
	157	5785	-0.62	1.60	6.02	0.12	7.74	29.73	Pass
	165	5825	-1.45	0.77	6.02	0.12	6.91	29.73	Pass
3	144	5720 (For U-NII-3)	-6.92	-4.70	6.02	0.12	1.44	29.73	Pass
	149	5745	-1.14	1.08	6.02	0.12	7.22	29.73	Pass
	157	5785	-0.62	1.60	6.02	0.12	7.74	29.73	Pass
	165	5825	-1.58	0.64	6.02	0.12	6.78	29.73	Pass

Note:

1. Method E) 2) c) of power density measurement of KDB 662911 is using for calculating total power density, Measure and add 10 log (N_{ANT}) dB.
2. Directional gain is declared by client.
3. For U-NII-3, The directional gain is 6.27 dBi > 6dBi, so the power density limit shall be reduced to 30-(6.27-6) = 29.73 dBm/500kHz.
4. 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=4) dB	Total PSD (dBm/500kHz)	Limit (dBm/500kHz)	Pass / Fail
			(dBm/300kHz)	(dBm/500kHz)				
0	142	5710 (For U-NII-3)	-10.07	-7.85	6.02	-1.83	29.73	Pass
	151	5755	-4.26	-2.04	6.02	3.98	29.73	Pass
	159	5795	-3.82	-1.60	6.02	4.42	29.73	Pass
1	142	5710 (For U-NII-3)	-10.07	-7.85	6.02	-1.83	29.73	Pass
	151	5755	-4.39	-2.17	6.02	3.85	29.73	Pass
	159	5795	-4.03	-1.81	6.02	4.21	29.73	Pass
2	142	5710 (For U-NII-3)	-10.08	-7.86	6.02	-1.84	29.73	Pass
	151	5755	-4.31	-2.09	6.02	3.93	29.73	Pass
	159	5795	-4.03	-1.81	6.02	4.21	29.73	Pass
3	142	5710 (For U-NII-3)	-10.14	-7.92	6.02	-1.90	29.73	Pass
	151	5755	-4.41	-2.19	6.02	3.83	29.73	Pass
	159	5795	-3.86	-1.64	6.02	4.38	29.73	Pass

Note:

1. Method E) 2) c) of power density measurement of KDB 662911 is using for calculating total power density, Measure and add $10 \log (N_{ANT})$ dB.
2. Directional gain is declared by client.
3. For U-NII-3, The directional gain is 6.27 dBi > 6dBi, so the power density limit shall be reduced to 30-(6.27-6) = 29.73 dBm/500kHz.

802.11ax (HE80)

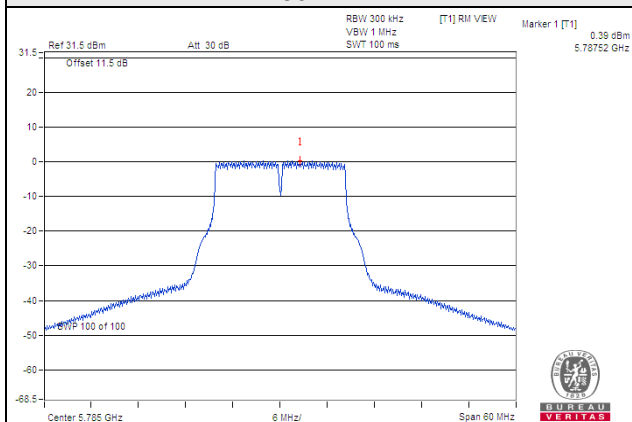
TX chain	Chan.	Freq. (MHz)	PSD w/o Duty Factor		10 log (N=4) dB	Duty Factor (dB)	Total PSD with Duty Factor (dBm/500kHz)	Limit (dBm/500kHz)	Pass / Fail
			(dBm/300kHz)	(dBm/500kHz)					
0	138	5690 (For U-NII-3)	-13.41	-11.19	6.02	0.14	-5.03	29.73	Pass
	155	5775	-8.07	-5.85	6.02	0.14	0.31	29.73	Pass
1	138	5690 (For U-NII-3)	-13.50	-11.28	6.02	0.14	-5.12	29.73	Pass
	155	5775	-8.11	-5.89	6.02	0.14	0.27	29.73	Pass
2	138	5690 (For U-NII-3)	-13.45	-11.23	6.02	0.14	-5.07	29.73	Pass
	155	5775	-8.07	-5.85	6.02	0.14	0.31	29.73	Pass
3	138	5690 (For U-NII-3)	-13.29	-11.07	6.02	0.14	-4.91	29.73	Pass
	155	5775	-8.07	-5.85	6.02	0.14	0.31	29.73	Pass

Note:

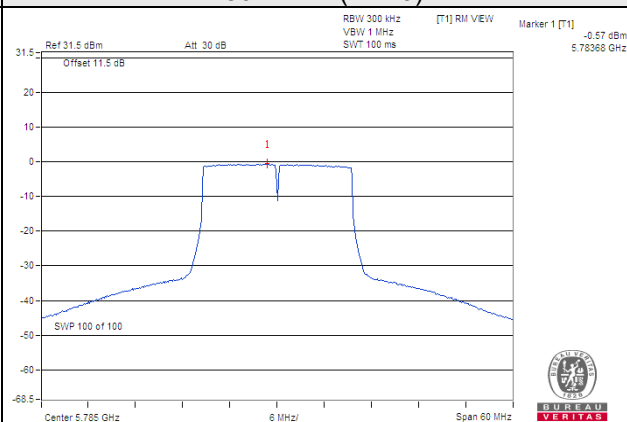
1. Method E) 2) c) of power density measurement of KDB 662911 is using for calculating total power density, Measure and add 10 log (N_{ANT}) dB.
2. Directional gain is declared by client.
3. For U-NII-3, The directional gain is 6.27 dBi > 6dBi, so the power density limit shall be reduced to 30-(6.27-6) = 29.73 dBm/500kHz.
4. Refer to section 3.3 for duty cycle spectrum plot.

Spectrum Plot of Worst Value

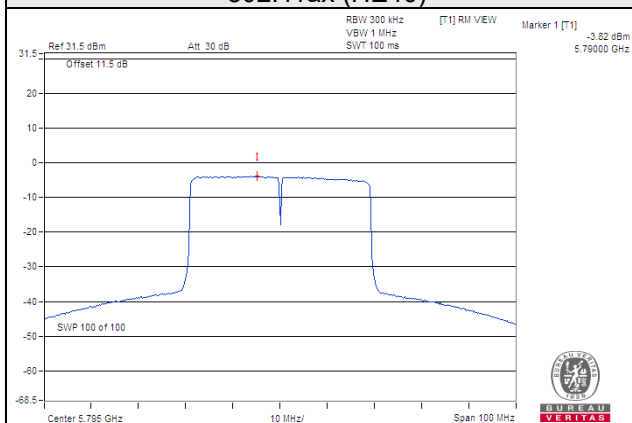
802.11a



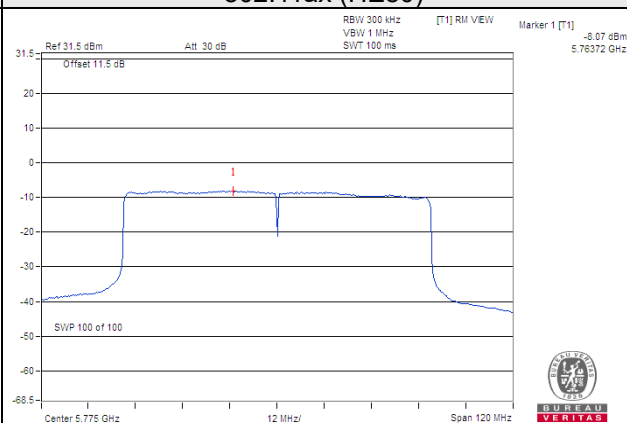
802.11ax (HE20)



802.11ax (HE40)



802.11ax (HE80)

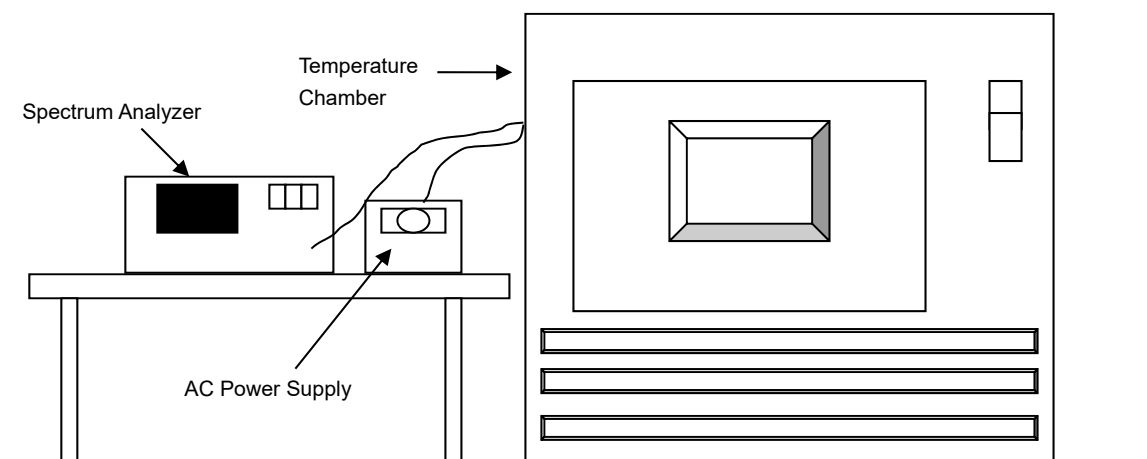


4.6 Frequency Stability

4.6.1 Limits of Frequency Stability Measurement

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

4.6.2 Test Setup



4.6.3 Test Instruments

Description & Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Due
Spectrum Analyzer ROHDE & SCHWARZ	FSP40	100040	Sep. 15, 2021	Sep. 14, 2022
WIT Standard Temperature And Humidity Chamber	TH-4S-C	W981030	Jun. 01, 2021	May 31, 2022
Digital Multimeter Fluke	87-III	70360742	Jun. 24, 2021	Jun. 23, 2022
AC Power Supply Extech	CFW-105	E000603	NA	NA

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

4.6.4 Test Procedure

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

4.6.5 Deviation from Test Standard

No deviation.

4.6.6 EUT Operating Condition

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

4.6.7 Test Results

Frequency Stability Versus Temp.									
Operating Frequency: 5180MHz									
Temp. (°C)	Power Supply (Vac)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result
40	120	5180.0210	Pass	5180.0233	Pass	5180.0229	Pass	5180.0233	Pass
30	120	5179.9739	Pass	5179.9772	Pass	5179.9776	Pass	5179.9765	Pass
20	120	5179.9997	Pass	5179.9973	Pass	5180.0004	Pass	5179.9992	Pass
10	120	5179.9760	Pass	5179.9763	Pass	5179.9787	Pass	5179.9794	Pass
0	120	5179.9962	Pass	5179.9949	Pass	5179.9929	Pass	5179.9947	Pass

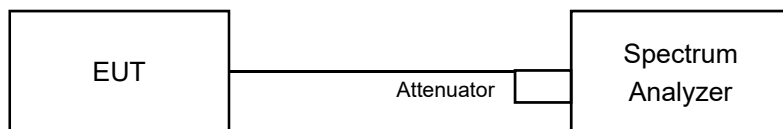
Frequency Stability Versus Voltage									
Operating Frequency: 5180MHz									
Temp. (°C)	Power Supply (Vac)	0 Minute		2 Minute		5 Minute		10 Minute	
		Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result	Measured Frequency (MHz)	Result
20	138	5180.0106	Pass	5180.0094	Pass	5180.0099	Pass	5180.0074	Pass
	120	5179.9997	Pass	5179.9973	Pass	5180.0004	Pass	5179.9992	Pass
	102	5180.0000	Pass	5180.0006	Pass	5179.9969	Pass	5179.9991	Pass

4.7 6dB Bandwidth Measurement

4.7.1 Limits of 6dB Bandwidth Measurement

The minimum of 6dB Bandwidth Measurement is 0.5MHz.

4.7.2 Test Setup



4.7.3 Test Instruments

Refer to section 4.1.2 to get information of above instrument.

4.7.4 Test Procedure

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

4.7.5 Deviation from Test Standard

No deviation.

4.7.6 EUT Operating Condition

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

4.7.7 Test Results

802.11a

Channel	Frequency (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
144	5720 (For U-NII-3)	3.23	3.23	3.23	3.23	0.5	Pass
149	5745	16.40	16.39	16.40	16.40	0.5	Pass
157	5785	16.44	16.43	16.44	16.45	0.5	Pass
165	5825	16.45	16.42	16.42	16.45	0.5	Pass

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

802.11ax (HE20)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
144	5720 (For U-NII-3)	4.55	4.60	4.54	4.57	0.5	Pass
149	5745	19.06	19.00	19.01	19.02	0.5	Pass
157	5785	19.13	19.07	19.10	19.12	0.5	Pass
165	5825	19.15	19.07	19.08	19.07	0.5	Pass

For CH144 (UNII-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	Chain 2	Chain 3		
142	5710 (For U-NII-3)	3.95	4.01	4.05	3.97	0.5	Pass
151	5755	37.95	37.93	37.89	37.91	0.5	Pass
159	5795	37.93	37.97	37.92	37.95	0.5	Pass

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

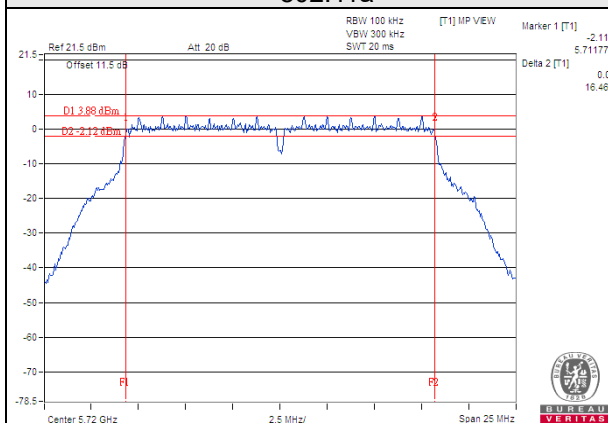
802.11ax (HE80)

Channel	Frequency (MHz)	6dB Bandwidth (MHz)				Minimum Limit (MHz)	Pass / Fail
		Chain 0	Chain 1	Chain 2	Chain 3		
138	5690 (For U-NII-3)	4.07	4.05	4.07	4.04	0.5	Pass
155	5775	77.25	77.82	77.45	77.33	0.5	Pass

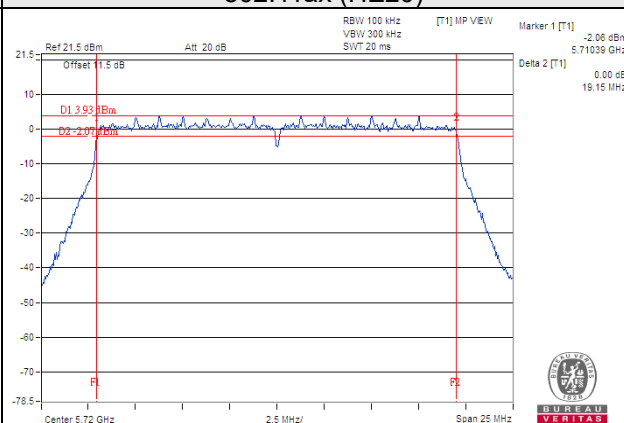
For CH138 (UNII-3 Band): The 6dB bandwidth above 5725MHz = Marker 1 + Delta 2 - 5725MHz

Spectrum Plot of Worst Value

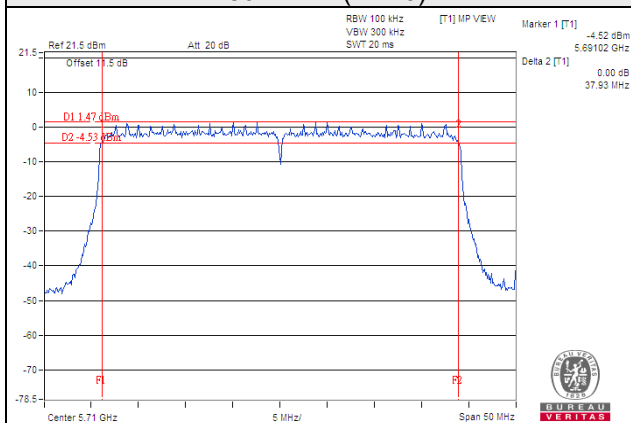
802.11a



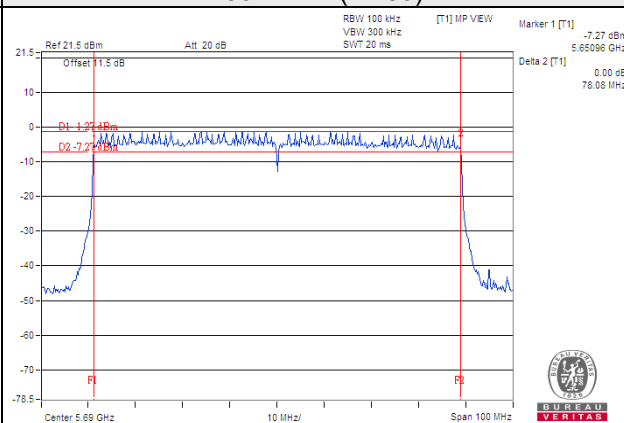
802.11ax (HE20)



802.11ax (HE40)



802.11ax (HE80)

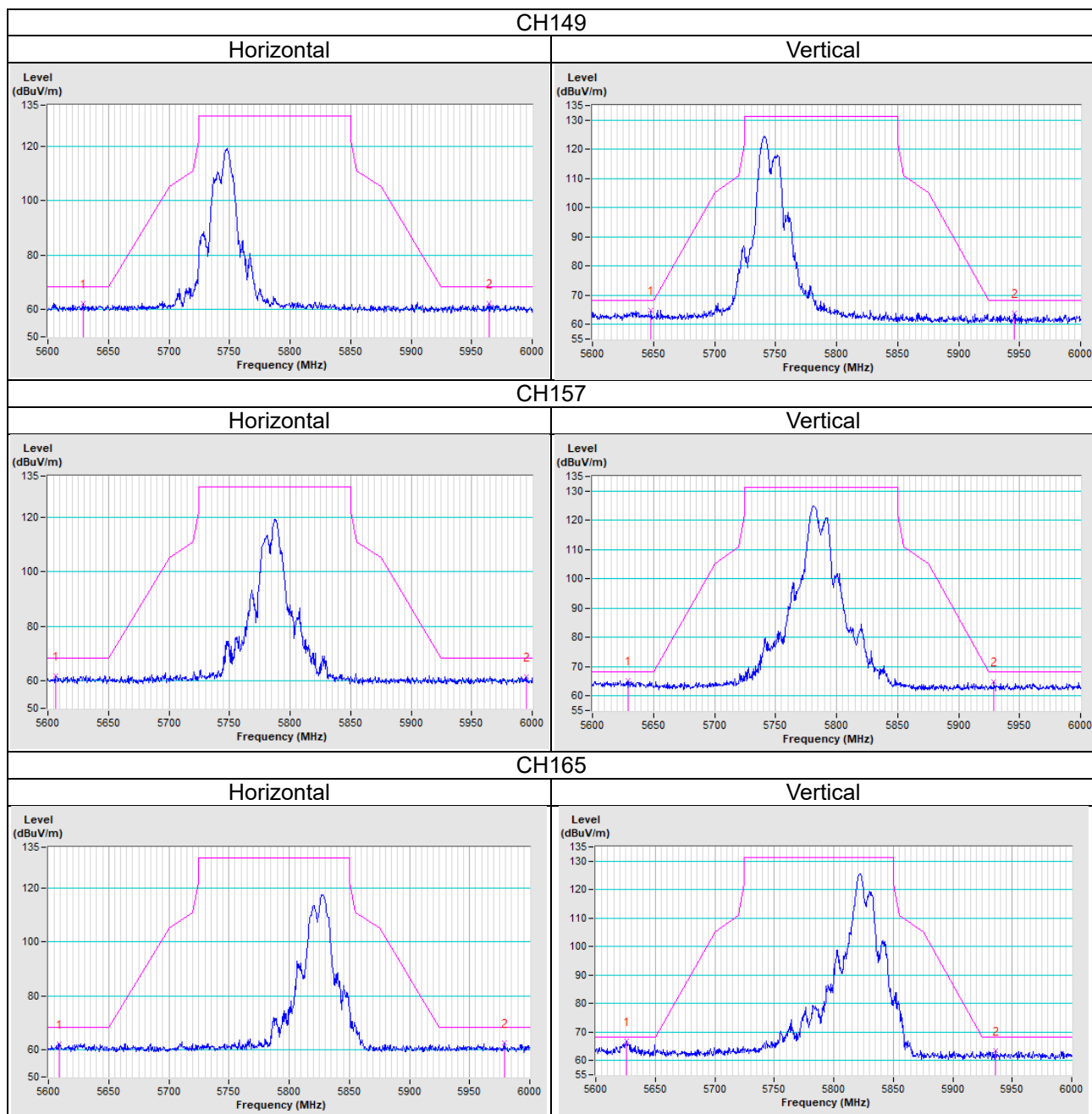


5 Pictures of Test Arrangements

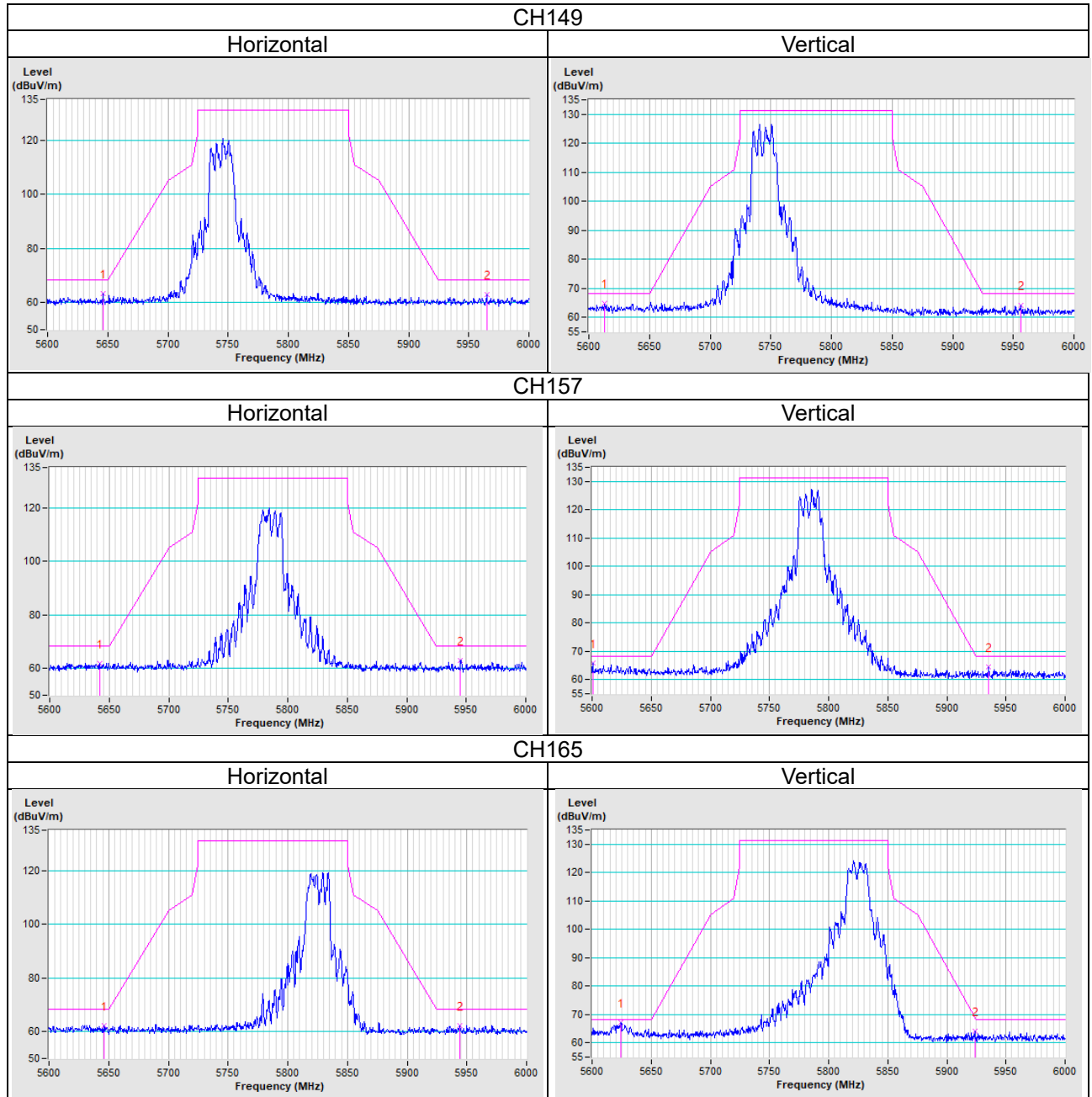
Please refer to the attached file (Test Setup Photo).

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

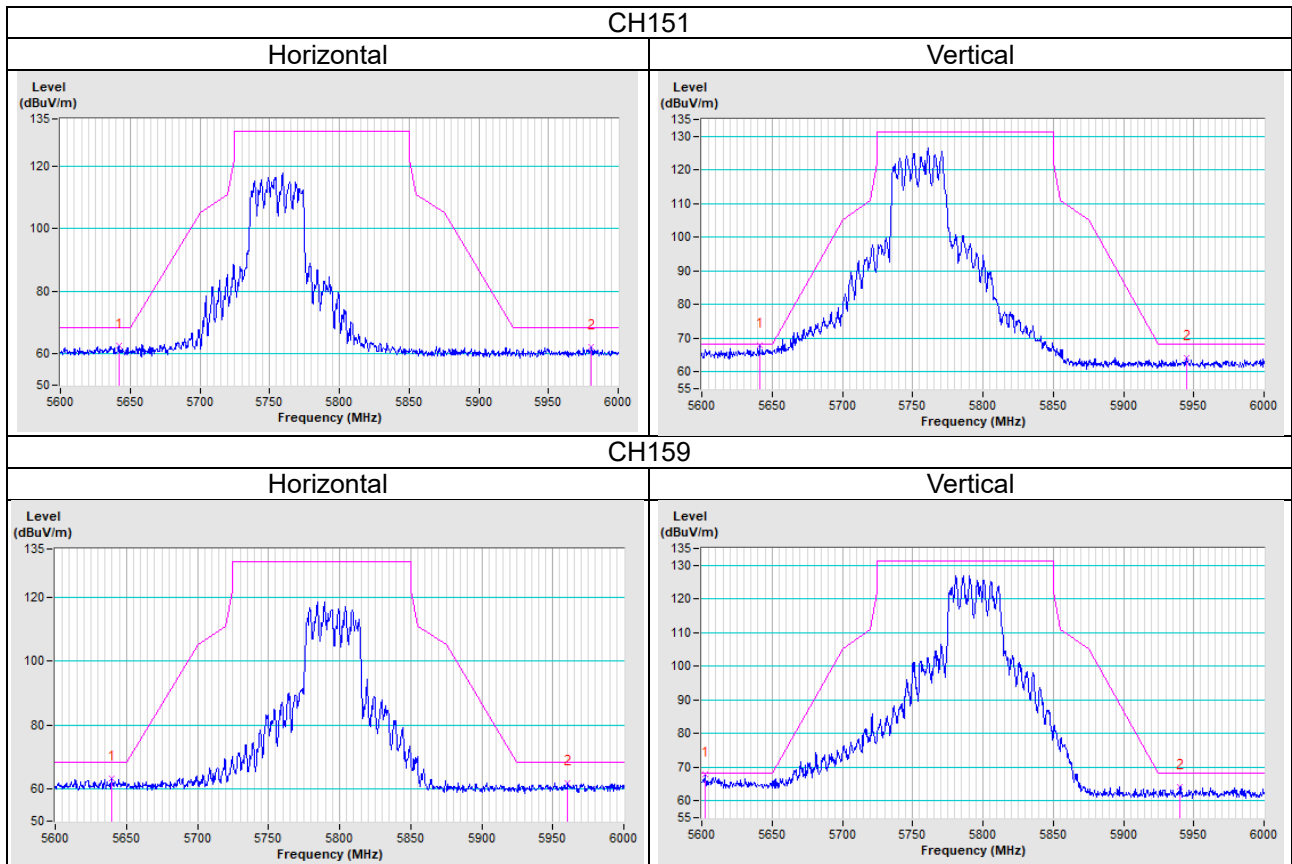
802.11a



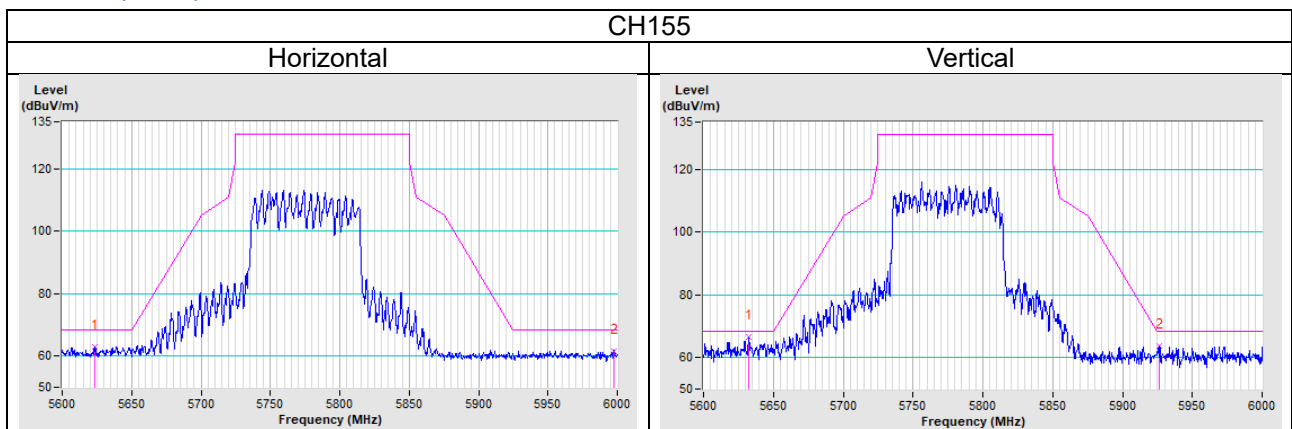
802.11ax (HE20)



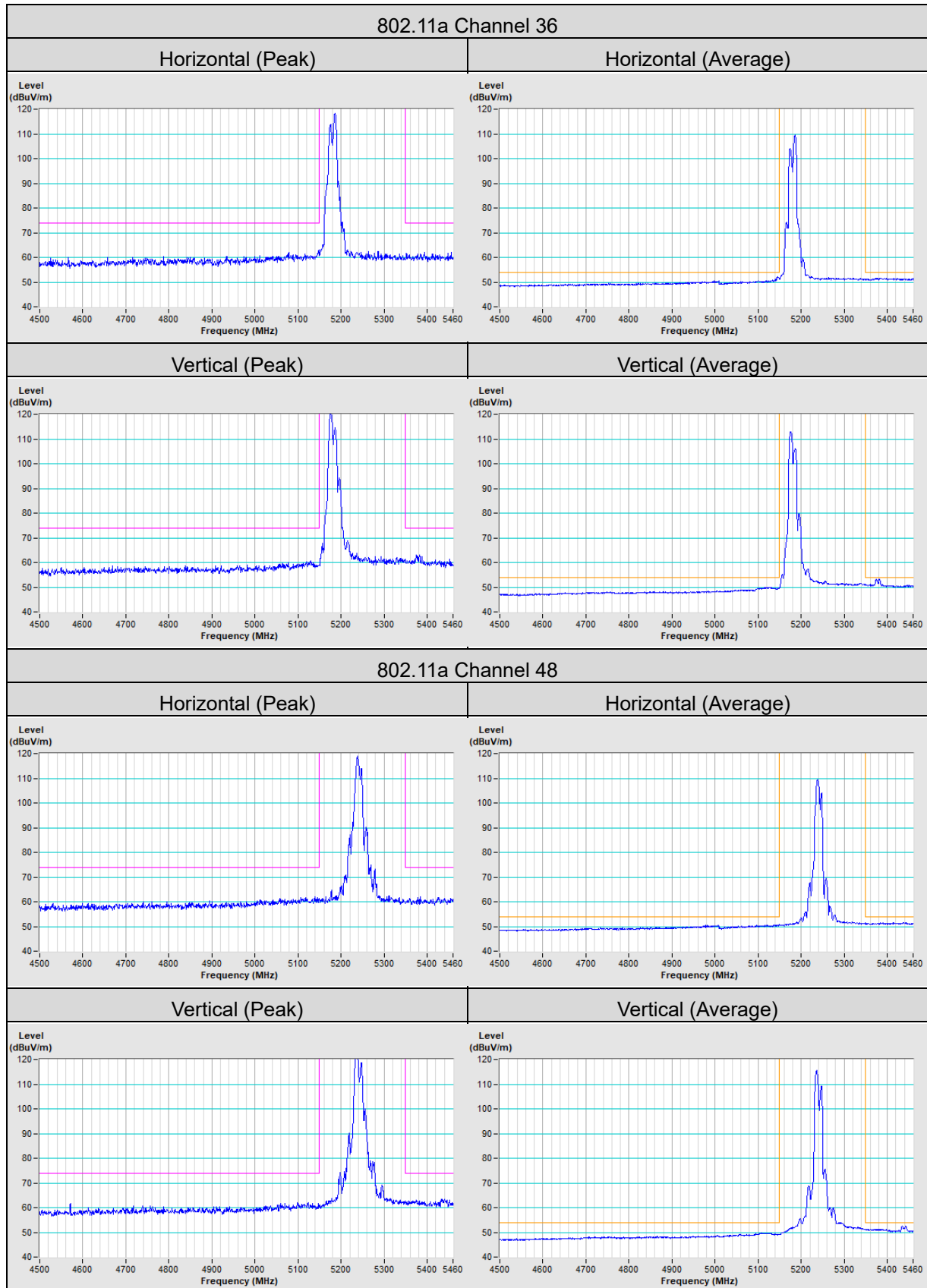
802.11ax (HE40)

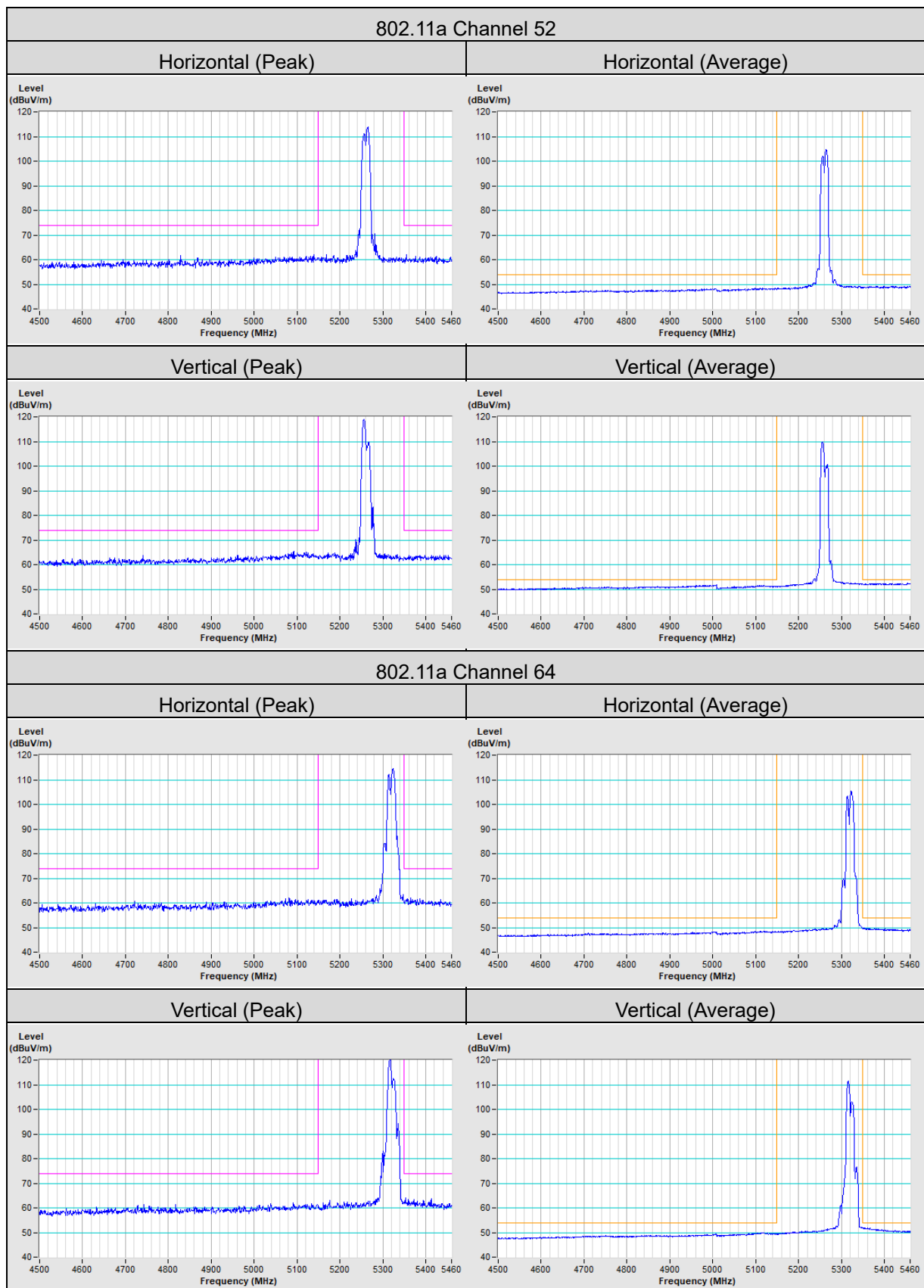


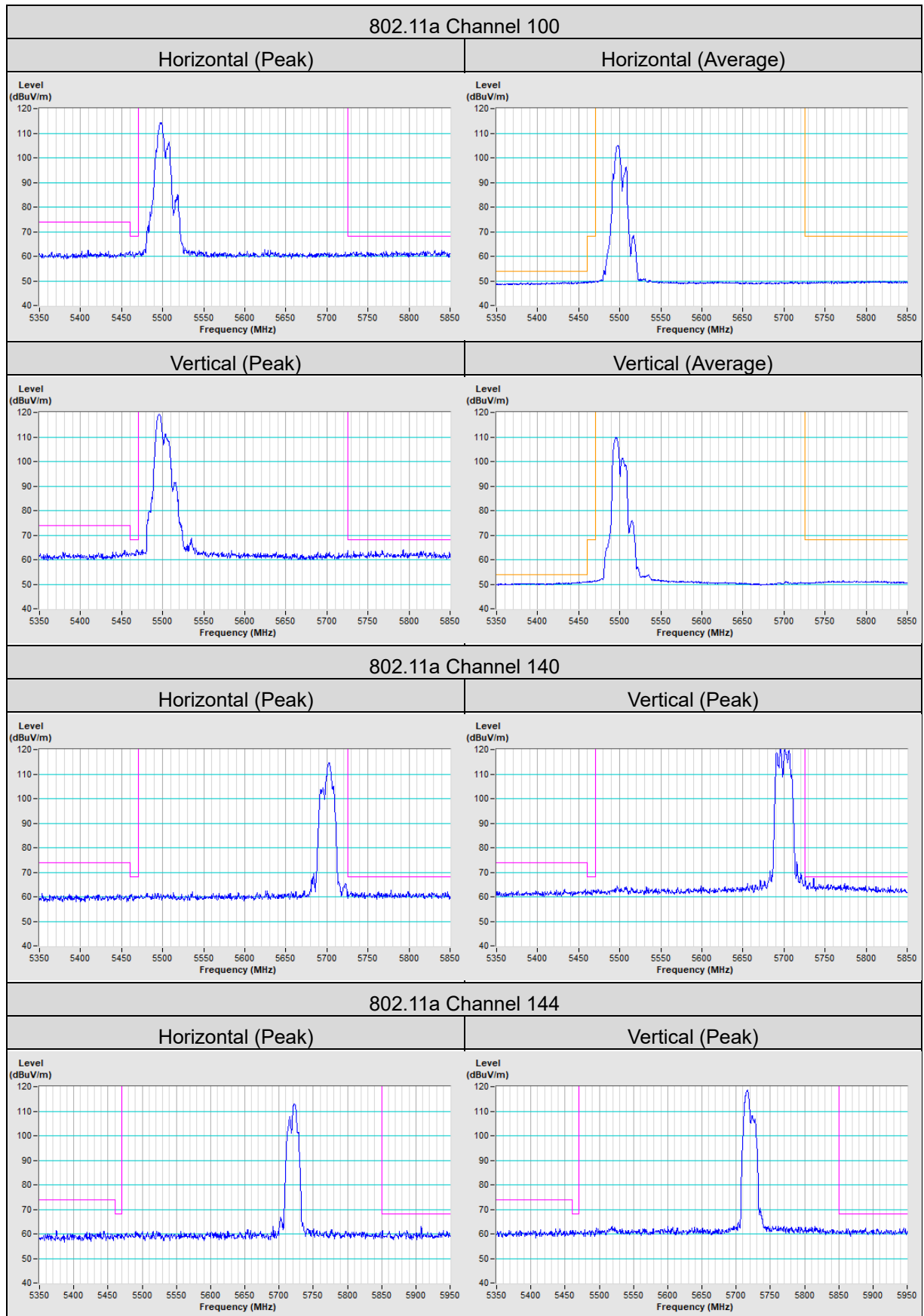
802.11ax (HE80)

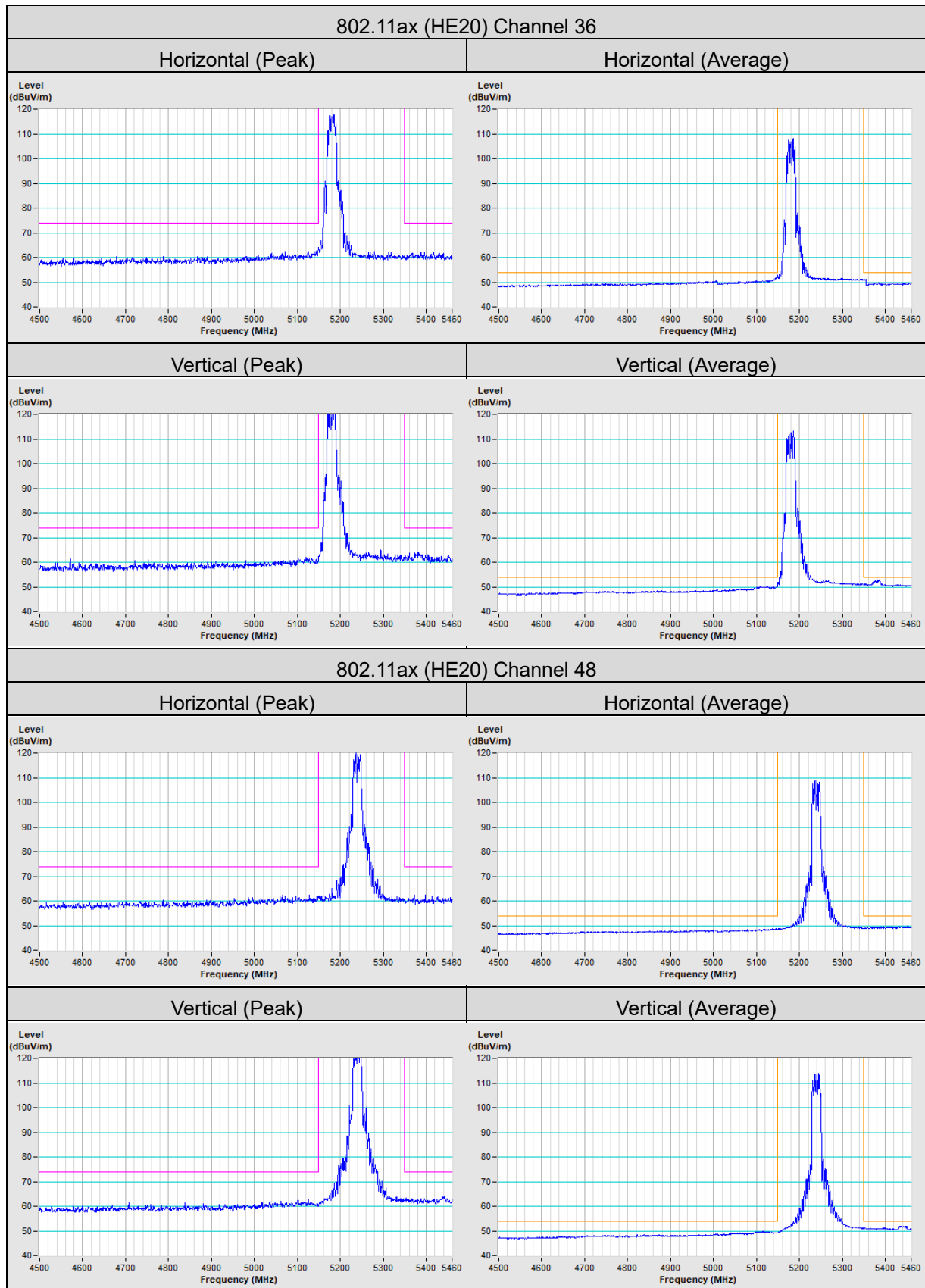


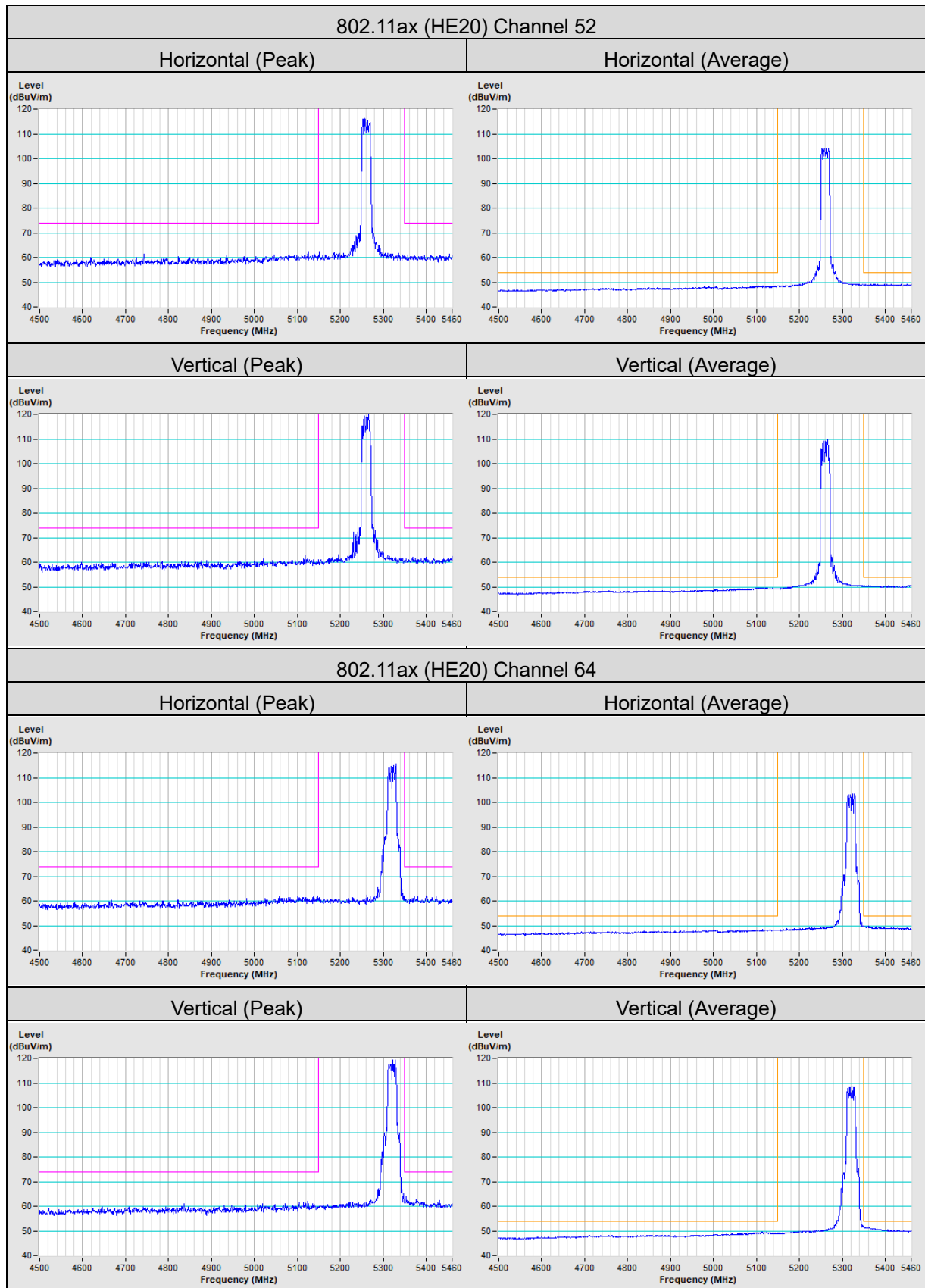
Annex B- Band Edge Measurement

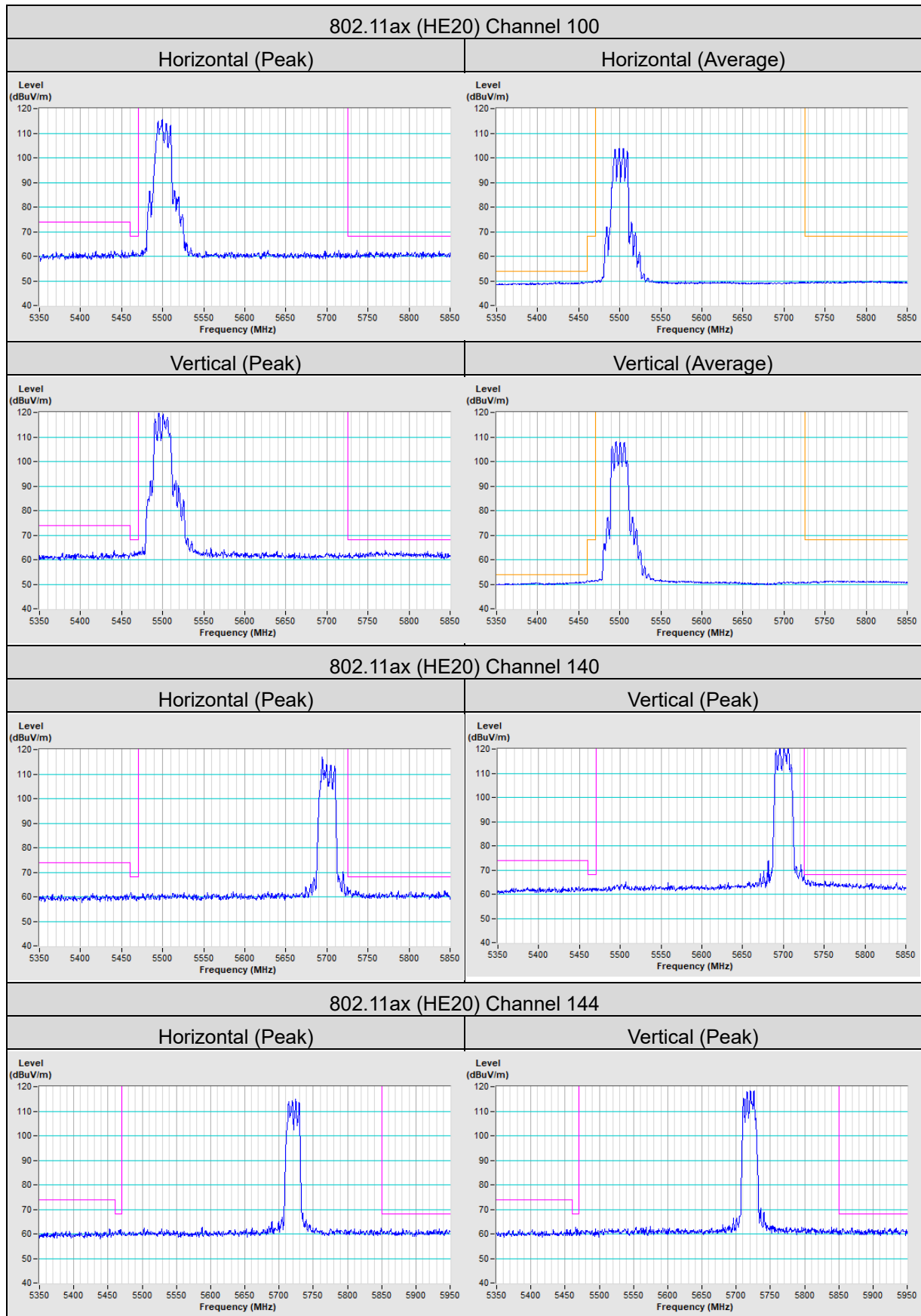


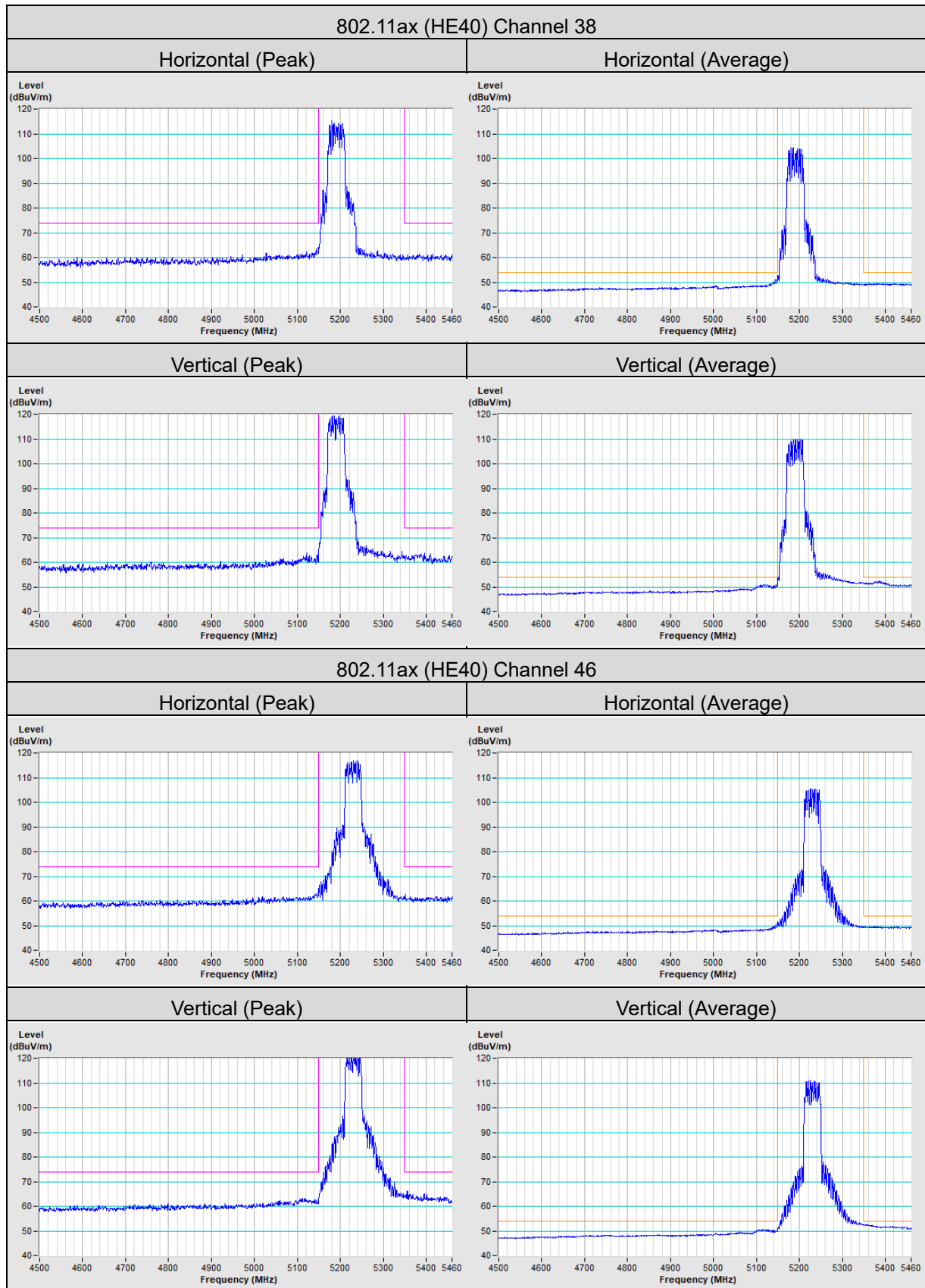


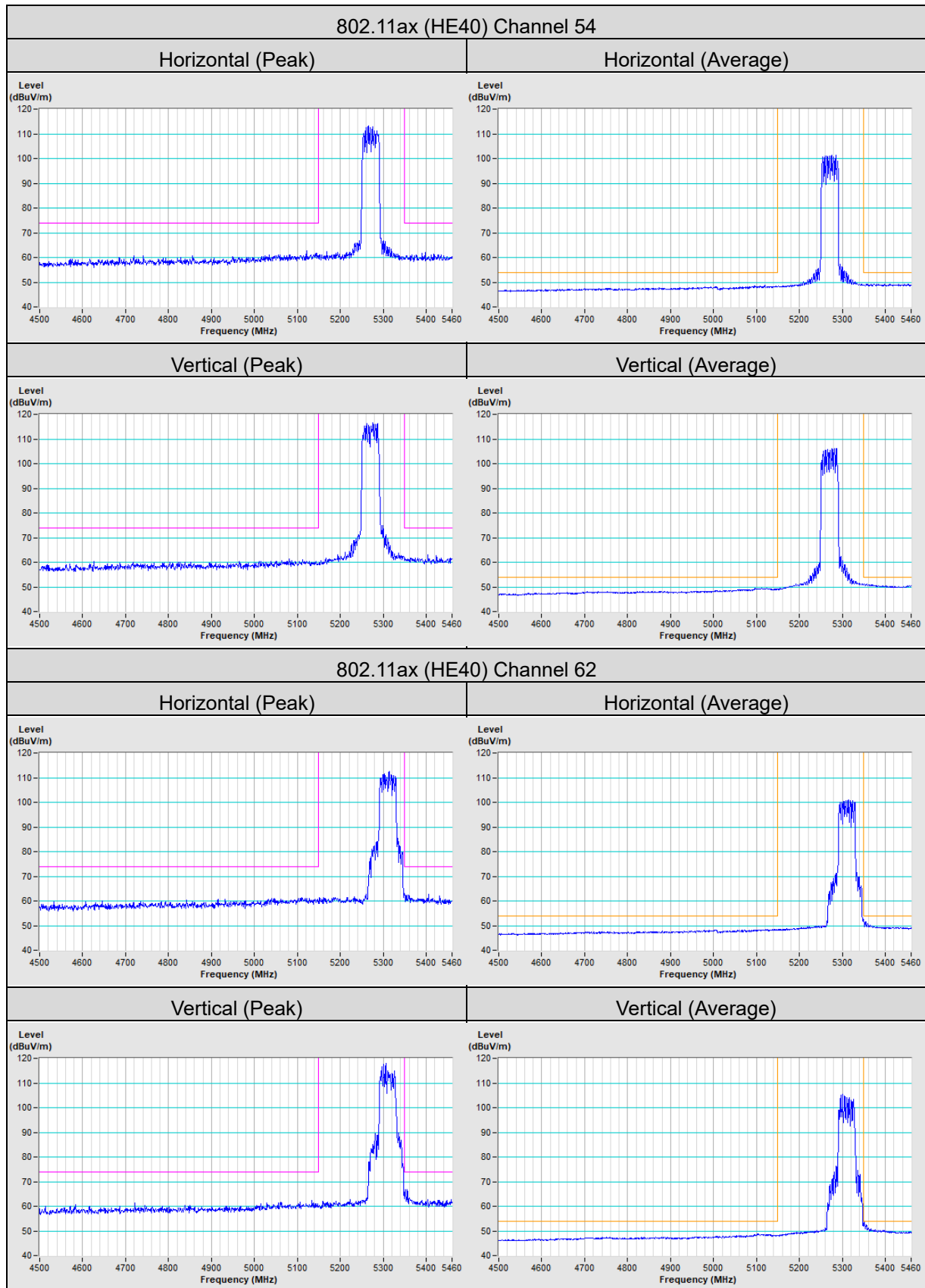


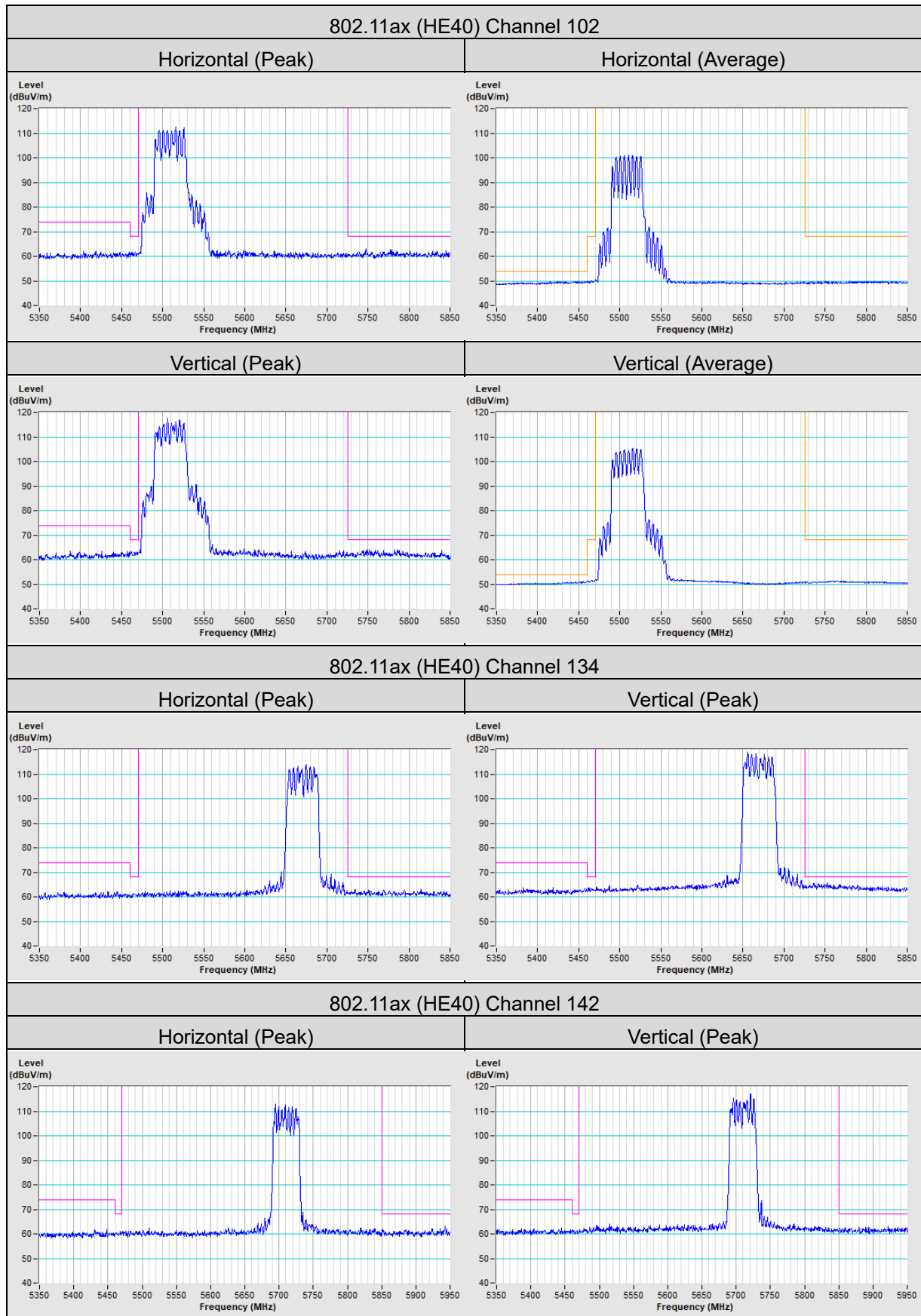


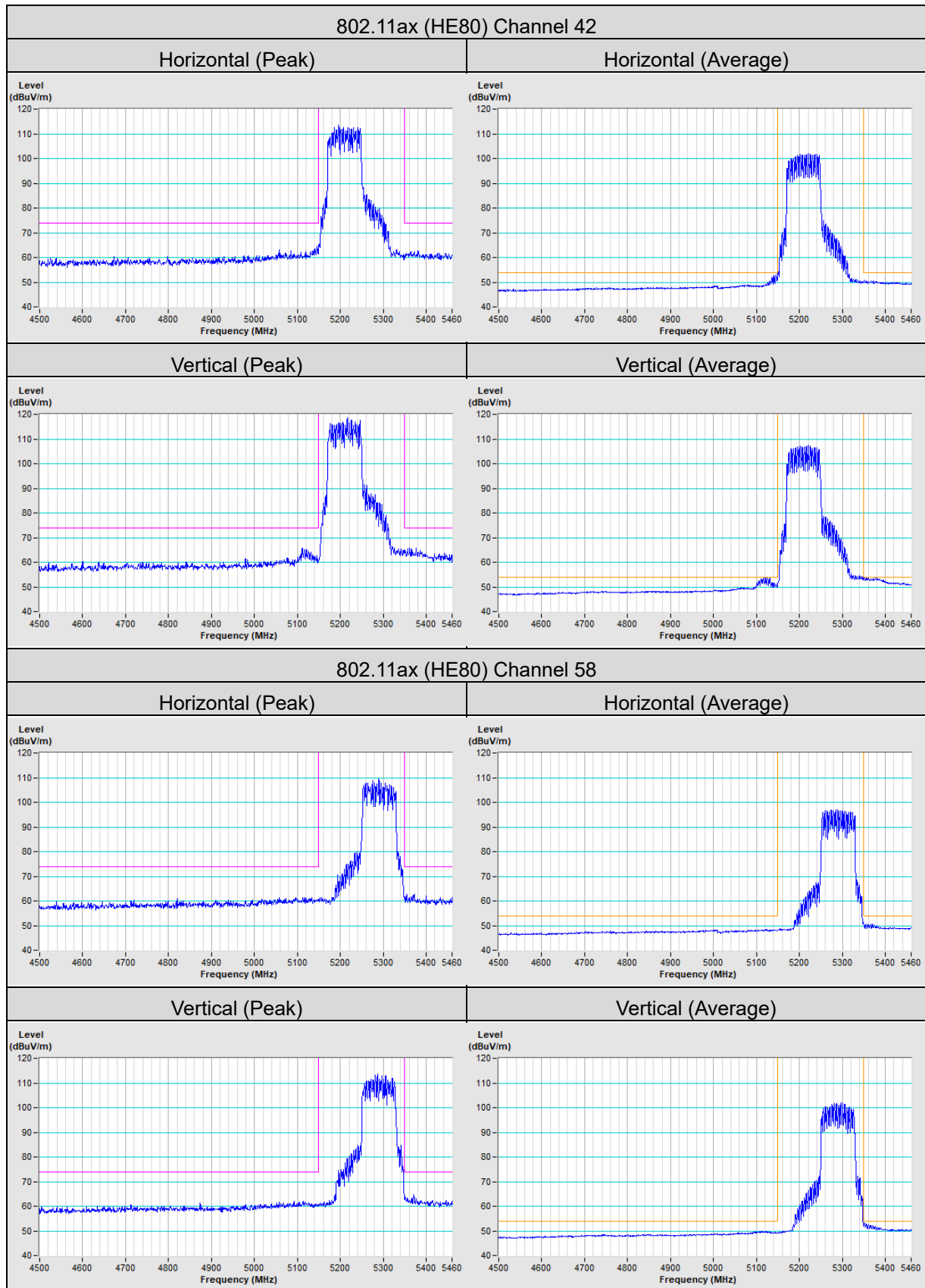


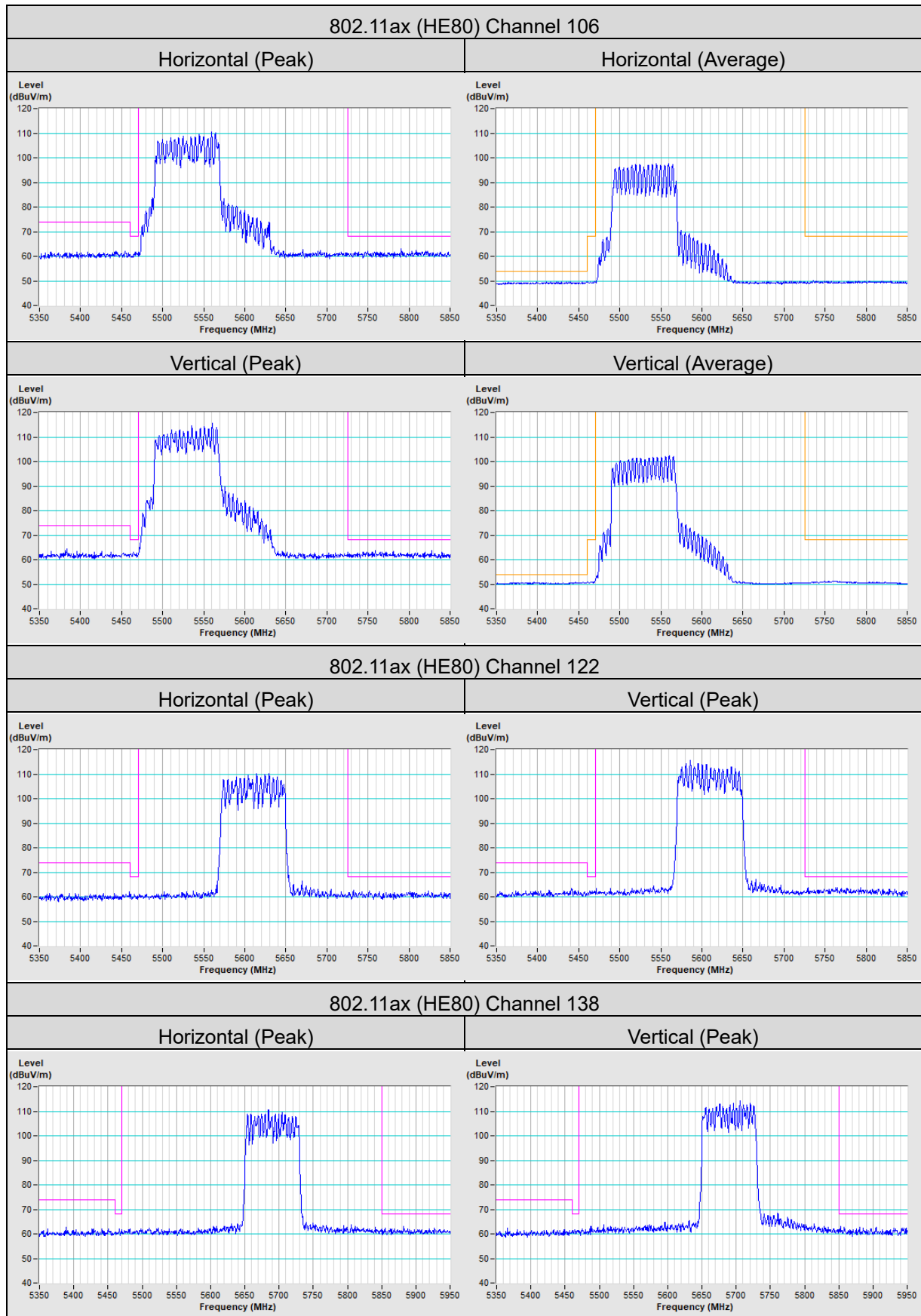


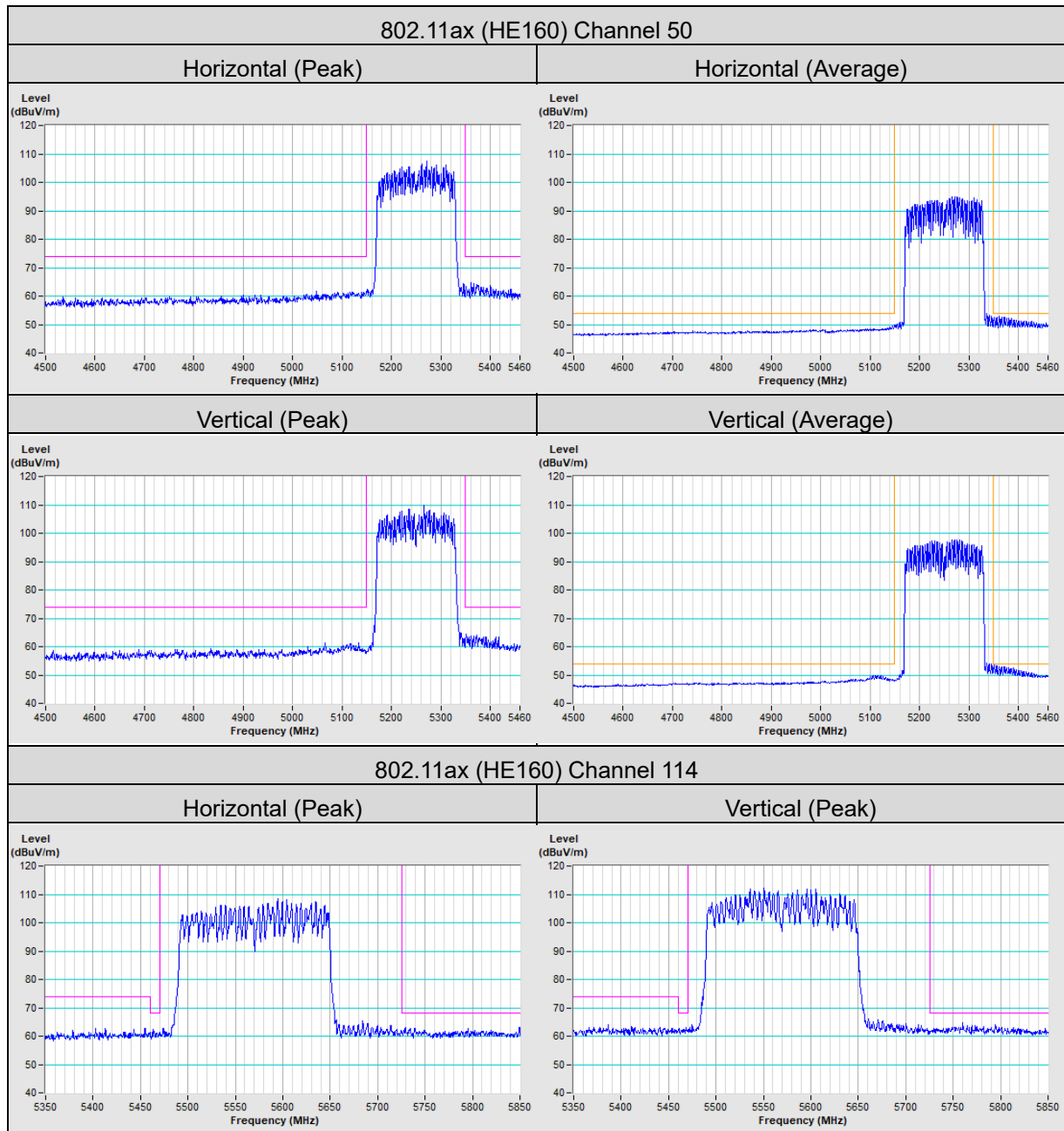












Appendix – Information of the Testing Laboratories

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

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

Linko EMC/RF Lab

Tel: 886-2-26052180

Fax: 886-2-26051924

Hsin Chu EMC/RF/Telecom Lab

Tel: 886-3-6668565

Fax: 886-3-6668323

Hwa Ya EMC/RF/Safety Lab

Tel: 886-3-3183232

Fax: 886-3-3270892

Email: service.adt@tw.bureauveritas.com

Web Site: www.bureauveritas-adt.com

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

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