

TEST REPORT

CERTIFICATE OF CONFORMITY

Standard: 47 CFR FCC Part 15, Subpart E (Section 15.407)

Report No.: RFBERD-WTW-P22090179-4

FCC ID: TVE-391CBE0291

Product: Secured Wireless Access Point

Brand: FORTINET

Test Model: FAP-U231G

Series Model: FortiAP U231Gxxxxxx, FAP-U231Gxxxxxx, FORTIAP-U231Gxxxxxx (Where "x" can be used as "A-Z", or "0-9", or "-", or blank for software changes or marketing purposes only)

Received Date: 2022/9/6

Test Date: 2022/11/16 ~ 2023/3/27

Issued Date: 2023/3/28

Applicant: Fortinet, Inc.

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

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FCC Registration /

Designation Number(1): 788550 / TW0003

FCC Registration /

Designation Number(2): 427177 / TW0011

Approved by: _____

Jeremy Lin

Date: _____

2023/3/28

Jeremy Lin / Project Engineer

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Prepared by : Pettie Chen / Senior Specialist

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Release Control Record

Issue No.	Description	Date Issued
RFBERD-WTW-P22090179-4	Original release.	2023/3/28

1 Certificate

Product: Secured Wireless Access Point

Brand: FORTINET

Test Model: FAP-U231G

Series Model: FortiAP U231Gxxxxxx, FAP-U231Gxxxxxx, FORTIAP-U231Gxxxxxx (Where "x" can be used as "A-Z", or "0-9", or "-", or blank for software changes or marketing purposes only)

Sample Status: Engineering sample

Applicant: Fortinet, Inc.

Test Date: 2022/11/16 ~ 2023/3/27

Standard: 47 CFR FCC Part 15, Subpart E (Section 15.407)

Measurement ANSI C63.10-2013

procedure:

KDB 987594 D02 U-NII 6 GHz EMC Measurement v01v01

KDB 789033 D02 General UNII Test Procedure New Rules v02r01

KDB 662911 D01 Multiple Transmitter Output v02r01

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.

2 Summary of Test Results

47 CFR FCC Part 15, Subpart E (Section 15.407)			
Clause	Test Item	Result	Remark
15.407(a)(5)	RF Output Power	Pass	Meet the requirement of limit.
15.407(a)(5)	Power Spectral Density	Pass	Meet the requirement of limit.
15.407(a)(10)	Occupied Bandwidth	Pass	Meet the requirement of limit.
15.407(b)(9)	AC Power Conducted Emissions	Pass	Minimum passing margin is -9.53 dB at 0.35400 MHz
15.407(b)(9)	Unwanted Emissions below 1 GHz	Pass	Minimum passing margin is -2.2 dB at 528.64 MHz
15.407(b)(6) 15.407(b)(10)	Unwanted Emissions above 1 GHz	Pass	Minimum passing margin is -1.0 dB at 13750.00 MHz
15.407(b)(7)	In-Band Emission Mask	Pass	Meet the requirement of limit.
15.407(d)(6)	Contention-based Protocol	Pass	Meet the requirement of limit.
15.407(g)	Frequency Stability	Pass	Meet the requirement of limit.
15.407(d)	Operational restrictions for 6 GHz U-NII devices	Pass	Declaration by applicant.
15.203	Antenna Requirement	Pass	Antenna connector is IPEX not a standard connector.
---	Emission Bandwidth	-	Reference only.

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	Specification	Expanded Uncertainty (k=2) (±)
Occupied Bandwidth	-	491.896 Hz
AC Power Conducted Emissions	9 kHz ~ 30 MHz	2.99 dB
Unwanted Emissions below 1 GHz	9 kHz ~ 30 MHz	2.44 dB
	30 MHz ~ 1 GHz	2.02 dB
Unwanted Emissions above 1 GHz	1 GHz ~ 18 GHz	1.01 dB
	18 GHz ~ 40 GHz	1.15 dB

The other instruments specified are routine verified to remain within the calibrated levels, no measurement uncertainty is required to be calculated.

2.2 Supplementary Information

There is not any deviation from the test standards for the test method, and no modifications required for compliance.

3 General Information

3.1 General Description of EUT

Product	Secured Wireless Access Point
Brand	FORTINET
Test Model	FAP-U231G
Series Model	FortiAP U231Gxxxxxx, FAP-U231Gxxxxxx, FORTIAP-U231Gxxxxxx (Where "x" can be used as "A-Z", or "0-9", or "-", or blank for software changes or marketing purposes only)
Status of EUT	Engineering sample
Power Supply Rating	12Vdc from adapter 56Vdc from POE
Modulation Type	256QAM, 64QAM, 16QAM, QPSK, BPSK for OFDM 1024QAM, 256QAM, 64QAM, 16QAM, QPSK, BPSK for OFDMA
Modulation Technology	OFDM, OFDMA
Transfer Rate	Up to 2401.9 Mbps
Operating Frequency	5.925 GHz ~ 6.425 GHz, 6.425 GHz ~ 6.525 GHz, 6.525 GHz ~ 6.875 GHz, 6.875 GHz ~ 7.125 GHz
Number of Channel	802.11a/ax (HE20): 59 802.11ax (HE40): 29 802.11ax (HE80): 14 802.11ax (HE160): 7
Output Power	CDD: 5.925 GHz ~ 6.425 GHz : EIRP: 257.632 mW (24.11 dBm) 6.425 GHz ~ 6.525 GHz : EIRP: 230.144 mW (23.62 dBm) 6.525 GHz ~ 6.875 GHz : EIRP: 243.781 mW (23.87 dBm) 6.875 GHz ~ 7.125 GHz : EIRP: 232.274 mW (23.66 dBm) Beamforming: 5.925 GHz ~ 6.425 GHz : EIRP: 242.103 mW (23.84 dBm) 6.425 GHz ~ 6.525 GHz : EIRP: 219.280 mW (23.41 dBm) 6.525 GHz ~ 6.875 GHz : EIRP: 242.103 mW (23.84 dBm) 6.875 GHz ~ 7.125 GHz : EIRP: 230.675 mW (23.63 dBm)
EUT Category	Indoor AP

Note:

1. The following models are provided to this EUT. The model FAP-U231G was chosen for final test.

Brand	Model	Description
FORTINET	FAP-U231G	Series model for marketing purpose
	FortiAP U231Gxxxxxx, FAP-U231Gxxxxxx, FORTIAP-U231Gxxxxxx (Where "x" can be used as "A-Z", or "0-9", or "-", or blank for software changes or marketing purposes only)	

2. The EUT consumes power from the following POE and adapter. (Support unit only)

POE (Support unit only)	
Brand	Engenius
Model	PNA90BGS-54
Input Power	100-240V ~1.5A, 50-60Hz
Output Power	56V, 1.7A

AC Adapter 1 (Support unit only)	
Brand	Asian Power Devices Inc.
Model	WA-30J12R
Input Power	100-240Vac ~50-60Hz, 0.9A Max
Output Power	12Vdc, 2.5A
DC Output Cable	1.48m non-shielded cable without core

AC Adapter 2 (Support unit only)	
Brand	Asian Power Devices Inc.
Model	WA-48A12R
Input Power	100-240Vac ~50-60Hz, 1.5A Max
Output Power	12Vdc, 4.0A
DC Output Cable	1.46m non-shielded cable without core

3. The simultaneous operation mode was determined by client.

No	Mode
1	2.4GHz radio (Radio 1) + 5GHz radio (Radio 2) + 2.4GHz radio (Radio 3) + BLE
2	2.4GHz radio (Radio 1) + 5GHz radio (Radio 2) + 2.4GHz radio (Radio 3) + Zigbee
3	2.4GHz radio (Radio 1) + 5GHz radio (Radio 2) + 5GHz radio (Radio 3) + BLE
4	2.4GHz radio (Radio 1) + 5GHz radio (Radio 2) + 5GHz radio (Radio 3) + Zigbee
5	2.4GHz radio (Radio 1) + 5GHz radio (Radio 2) + 6GHz radio (Radio 3) + BLE
6	2.4GHz radio (Radio 1) + 5GHz radio (Radio 2) + 6GHz radio (Radio 3) + Zigbee
7	5GHz radio (Radio 1) + 5GHz radio (Radio 2) + 2.4GHz radio (Radio 3) + BLE
8	5GHz radio (Radio 1) + 5GHz radio (Radio 2) + 2.4GHz radio (Radio 3) + Zigbee

* 5GHz radio (Radio 2) and 5GHz radio (Radio 3) cannot transmit in the same band at same time.

* Zigbee and BT technologies cannot transmit at same time.

* The emission of the simultaneous operation has been evaluated and no non-compliance was found.

3.2 Antenna Description of EUT

1. The antenna information is listed as below.

Antenna Type		PIFA			
Connector Type		IPEX			
Antenna NO.	RF Chain NO.	Brand	Model	Antenna Net Gain (dBi)	Frequency range
ANT7(6G1)	Radio 3 6G (Chain 0)	INPAQ	46-500534-01	5.31	5.925 ~ 6.425GHz
				5.51	6.425 ~ 6.525GHz
				5.71	6.525 ~ 6.875GHz
				5.67	6.875 ~ 7.125GHz
ANT8(6G2)	Radio 3 6G (Chain 1)	INPAQ	46-500534-01	5.89	5.925 ~ 6.425GHz
				5.07	6.425 ~ 6.525GHz
				5.79	6.525 ~ 6.875GHz
				5.75	6.875 ~ 7.125GHz

2. The EUT incorporates a MIMO function:

6 GHz Band		
Modulation Mode	TX & RX Configuration	
802.11a	2TX	2RX
802.11ax (HE20)	2TX	2RX
802.11ax (HE40)	2TX	2RX
802.11ax (HE80)	2TX	2RX
802.11ax (HE160)	2TX	2RX

Note:

1. All of modulation mode support beamforming function except 802.11a modulation mode.
2. The EUT support Beamforming and CDD mode, therefore both mode were investigated and the worst case scenario was identified. The worst case data were presented in test report.
3. Partial RU (resource units) and channel puncturing/bandwidth reduction configurations are not supported.

3.3 Channel List

U-NII-5:

24 channels are provided for 802.11a, 802.11ax (HE20):

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
1	5955 MHz	5	5975 MHz	9	5995 MHz	13	6015 MHz
17	6035 MHz	21	6055 MHz	25	6075 MHz	29	6095 MHz
33	6115 MHz	37	6135 MHz	41	6155 MHz	45	6175 MHz
49	6195 MHz	53	6215 MHz	57	6235 MHz	61	6255 MHz
65	6275 MHz	69	6295 MHz	73	6315 MHz	77	6335 MHz
81	6355 MHz	85	6375 MHz	89	6395 MHz	93	6415 MHz

12 channels are provided for 802.11ax (HE40):

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
3	5965 MHz	11	6005 MHz	19	6045 MHz	27	6085 MHz
35	6125 MHz	43	6165 MHz	51	6205 MHz	59	6245 MHz
67	6285 MHz	75	6325 MHz	83	6365 MHz	91	6405 MHz

6 channel is provided for 802.11ax (HE80):

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
7	5985 MHz	23	6065 MHz	39	6145 MHz	55	6225 MHz
71	6305 MHz	87	6385 MHz				

3 channels are provided for 802.11ax (HE160):

Channel	Frequency	Channel	Frequency	Channel	Frequency
15	6025 MHz	47	6185 MHz	79	6345 MHz

U-NII-6:

5 channels are provided for 802.11a, 802.11ax (HE20):

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
97	6435 MHz	101	6455 MHz	105	6475 MHz	109	6495 MHz
113	6515 MHz						

3 channels are provided for 802.11ax (HE40):

Channel	Frequency	Channel	Frequency	Channel	Frequency
99	6445 MHz	107	6485 MHz	*115	6525 MHz

1 channel is provided for 802.11ax (HE80):

Channel	Frequency
103	6465 MHz

1 channel is provided for 802.11ax (HE160):

Channel	Frequency
*111	6505 MHz

U-NII-7:

17 channels are provided for 802.11a, 802.11ax (HE20):

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
117	6535 MHz	121	6555 MHz	125	6575 MHz	129	6595 MHz
133	6615 MHz	137	6635 MHz	141	6655 MHz	145	6675 MHz
149	6695 MHz	153	6715 MHz	157	6735 MHz	161	6755 MHz
165	6775 MHz	169	6795 MHz	173	6815 MHz	177	6835 MHz
181	6855 MHz						

8 channels are provided for 802.11ax (HE40):

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
123	6565 MHz	131	6605 MHz	139	6645 MHz	147	6685 MHz
155	6725 MHz	163	6765 MHz	171	6805 MHz	179	6845 MHz

5 channels are provided for 802.11ax (HE80):

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
*119	6545 MHz	135	6625 MHz	151	6705 MHz	167	6785 MHz
*183	6865 MHz						

2 channels are provided for 802.11ax (HE160):

Channel	Frequency	Channel	Frequency
143	6665 MHz	175	*6825 MHz

U-NII-8:

13 channels are provided for 802.11a, 802.11ax (HE20):

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
185	6875 MHz	189	6895 MHz	193	6915 MHz	197	6935 MHz
201	6955 MHz	205	6975 MHz	209	6995 MHz	213	7015 MHz
217	7035 MHz	221	7055 MHz	225	7075 MHz	229	7095 MHz
233	7115 MHz						

6 channels are provided for 802.11ax (HE40):

Channel	Frequency	Channel	Frequency	Channel	Frequency	Channel	Frequency
187	6885 MHz	195	6925 MHz	203	6965 MHz	211	7005 MHz
219	7045 MHz	227	7085 MHz				

2 channels are provided for 802.11ax (HE80):

Channel	Frequency	Channel	Frequency
199	6945 MHz	215	7025 MHz

1 channel is provided for 802.11ax (HE160):

Channel	Frequency
207	6985 MHz

Note: * mean these are straddle channels.

3.4 Test Mode Applicability and Tested Channel Detail

Pre-Scan:	<ol style="list-style-type: none"> EUT can be used in the following ways: X-axis/ Y-axis/ Z-axis. Pre-scan these ways and find the worst case as a representative test condition. The EUT has 2 power modes: AC adapter/PoE. Pre-scan these modes and find the worst case as a representative test condition.
Worst Case:	<ol style="list-style-type: none"> X-axis/ Y-axis/ Z-axis Worst Condition: Y-axis Worst Condition: Adapter 1 & PoE

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

Test Item	EUT Configure Mode	Mode	Signal Mode	Tested Channel	Modulation	Data Rate Parameter
RF Output Power	A	802.11a	CDD	1, 45, 93, 97, 105, 113, 117, 149, 181, 185, 209, 233	BPSK	6Mb/s
		802.11ax (HE20)	CDD & Beamforming	1, 45, 93, 97, 105, 113, 117, 149, 181, 185, 209, 233	BPSK	MCS0
		802.11ax (HE40)	CDD & Beamforming	3, 43, 91, 99, 107, 115, 123, 155, 179, 187, 211, 227	BPSK	MCS0
		802.11ax (HE80)	CDD & Beamforming	7, 39, 87, 103, 119, 151, 183, 199, 215	BPSK	MCS0
		802.11ax (HE160)	CDD & Beamforming	15, 47, 79, 111, 143, 175, 207	BPSK	MCS0
Power Spectral Density / Emission Bandwidth / In-Band Emission Mask / Occupied Bandwidth	A	802.11a	CDD	1, 45, 93, 97, 105, 113, 117, 149, 181, 185, 209, 233	BPSK	6Mb/s
		802.11ax (HE20)	CDD	1, 45, 93, 97, 105, 113, 117, 149, 181, 185, 209, 233	BPSK	MCS0
		802.11ax (HE40)	CDD	3, 43, 91, 99, 107, 115, 123, 155, 179, 187, 211, 227	BPSK	MCS0
		802.11ax (HE80)	CDD	7, 39, 87, 103, 119, 151, 183, 199, 215	BPSK	MCS0
		802.11ax (HE160)	CDD	15, 47, 79, 111, 143, 175, 207	BPSK	MCS0
Frequency Stability	A	802.11ax (HE20)	CDD	1	un-modulation	-
Contention-based Protocol	A	802.11ax (HE20)	CDD	45, 105, 149, 209	BPSK	MCS0
		802.11ax (HE160)	CDD	47, 111, 143, 207	BPSK	MCS0

Test Item	EUT Configure Mode	Mode	Signal Mode	Tested Channel	Modulation	Data Rate Parameter
AC Power Conducted Emissions	A, B	802.11ax (HE160)	CDD	47	BPSK	MCS0
Unwanted Emissions below 1 GHz	A, B	802.11ax (HE160)	CDD	47	BPSK	MCS0
Unwanted Emissions above 1 GHz	A	802.11a	CDD	1, 45, 93, 97, 105, 113, 117, 149, 181, 185, 209, 233	BPSK	6Mb/s
		802.11ax (HE20)	CDD	1, 45, 93, 97, 105, 113, 117, 149, 181, 185, 209, 233	BPSK	MCS0
		802.11ax (HE40)	CDD	3, 43, 91, 99, 107, 115, 123, 155, 179, 187, 211, 227	BPSK	MCS0
		802.11ax (HE80)	CDD	7, 39, 87, 103, 119, 151, 183, 199, 215	BPSK	MCS0
		802.11ax (HE160)	CDD	15, 47, 79, 111, 143, 175, 207	BPSK	MCS0
EUT Configure Mode	Mode	Radio	Power			
	A	3	Powered by adapter 1			
	B	3	Powered by POE			

3.5 Duty Cycle of Test Signal

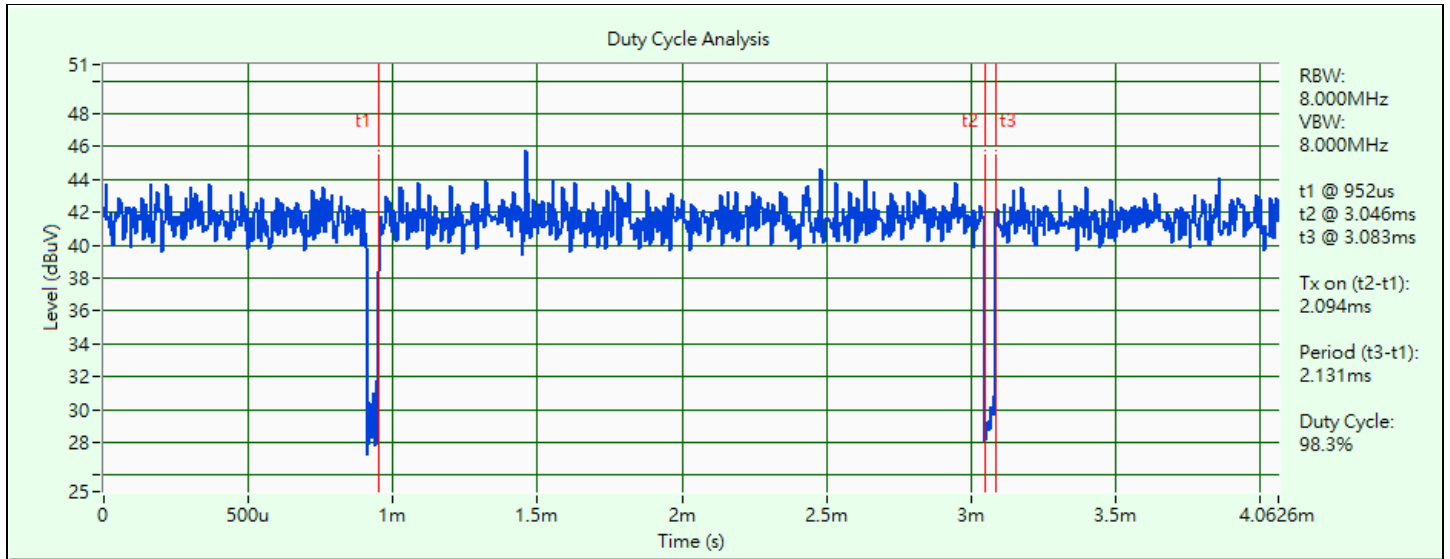
802.11a: Duty cycle = 2.094 ms / 2.131 ms x 100% = 98.3%

802.11ax (HE20): Duty cycle = 1.193 ms / 1.218 ms x 100% = 97.9%, duty factor = 10 * log (1/Duty cycle) = 0.09 dB

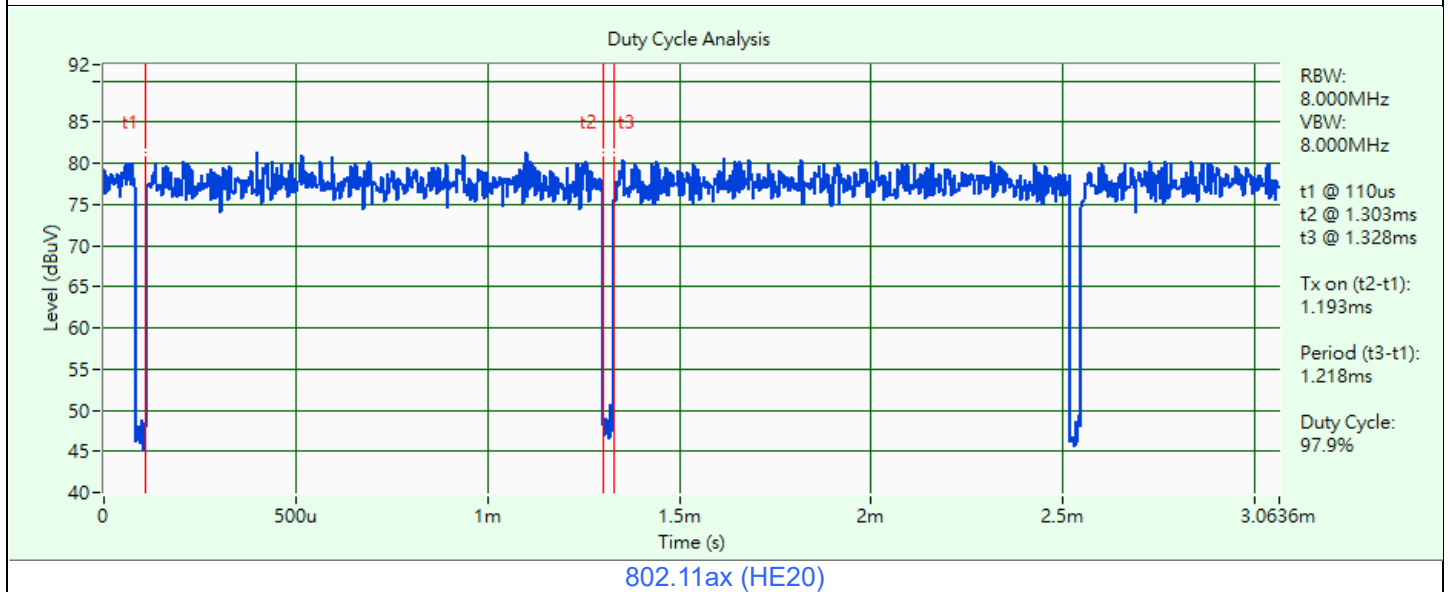
802.11ax (HE40): Duty cycle = 1.055 ms / 1.08 ms x 100% = 97.7%, duty factor = 10 * log (1/Duty cycle) = 0.10 dB

802.11ax (HE80): Duty cycle = 1.039 ms / 1.064 ms x 100% = 97.7%, duty factor = 10 * log (1/Duty cycle) = 0.10 dB

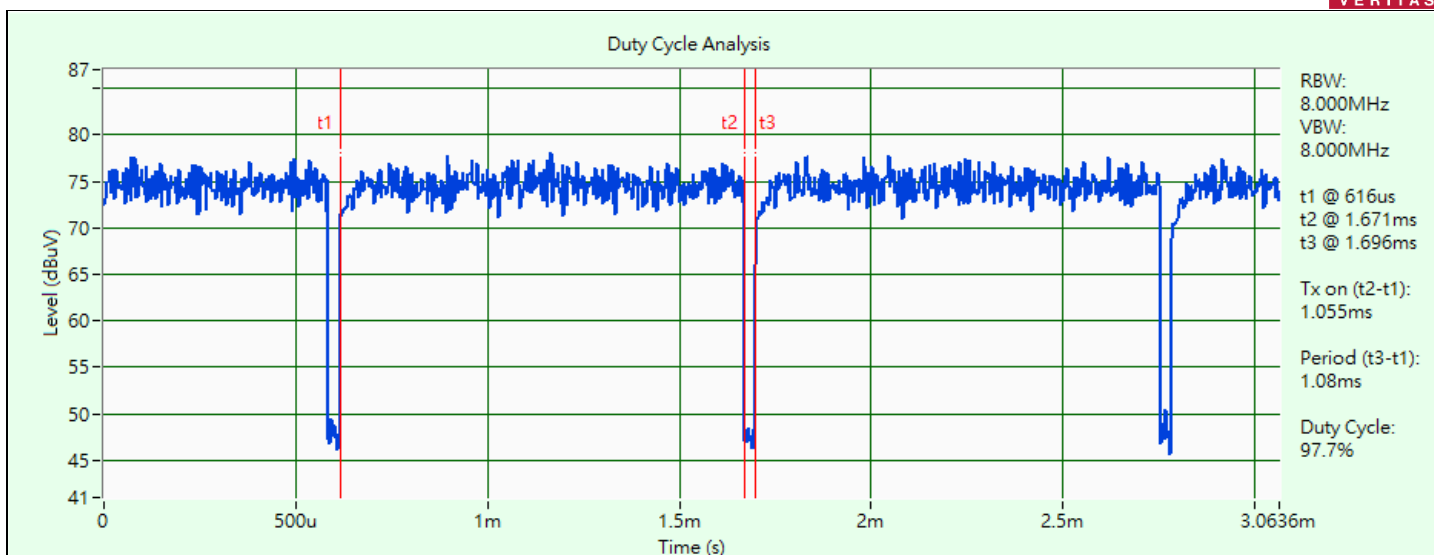
802.11ax (HE160): Duty cycle = 1.015 ms / 1.037 ms x 100% = 97.9%, duty factor = 10 * log (1/Duty cycle) = 0.09 dB



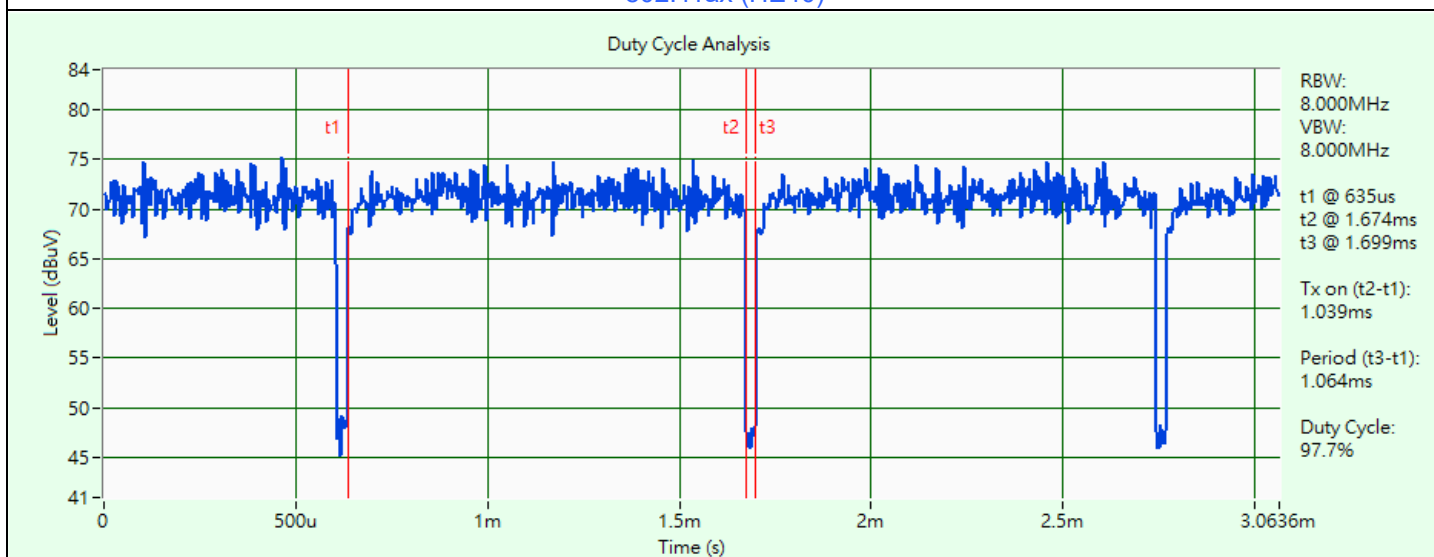
802.11a



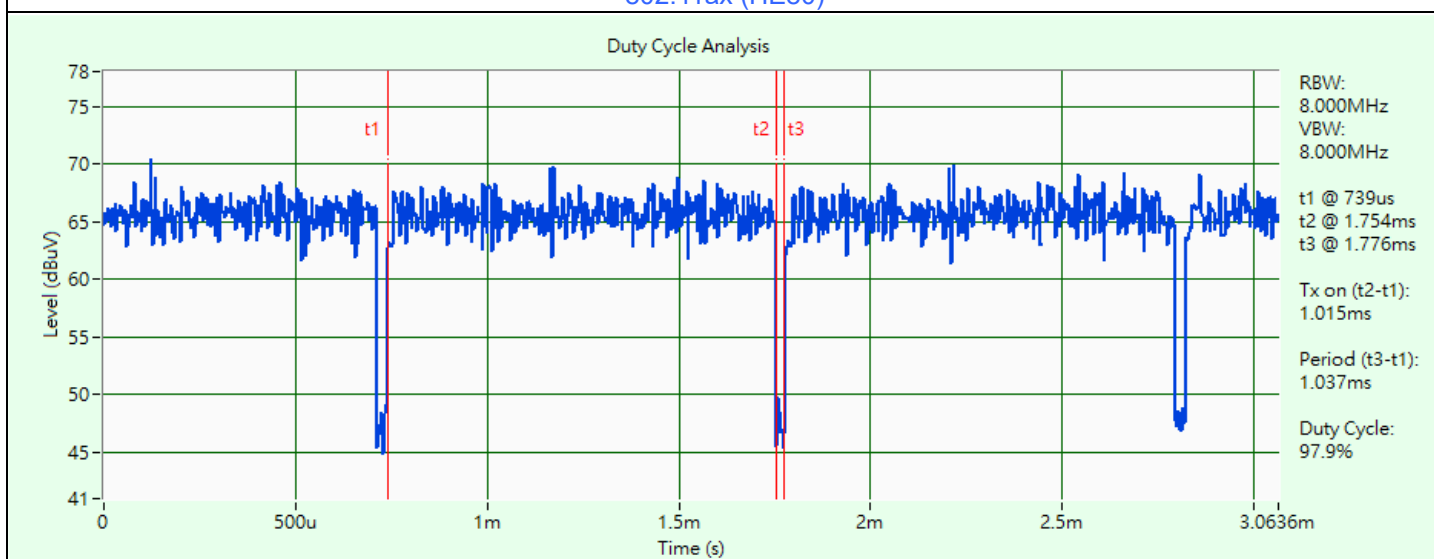
802.11ax (HE20)



802.11ax (HE40)



802.11ax (HE80)



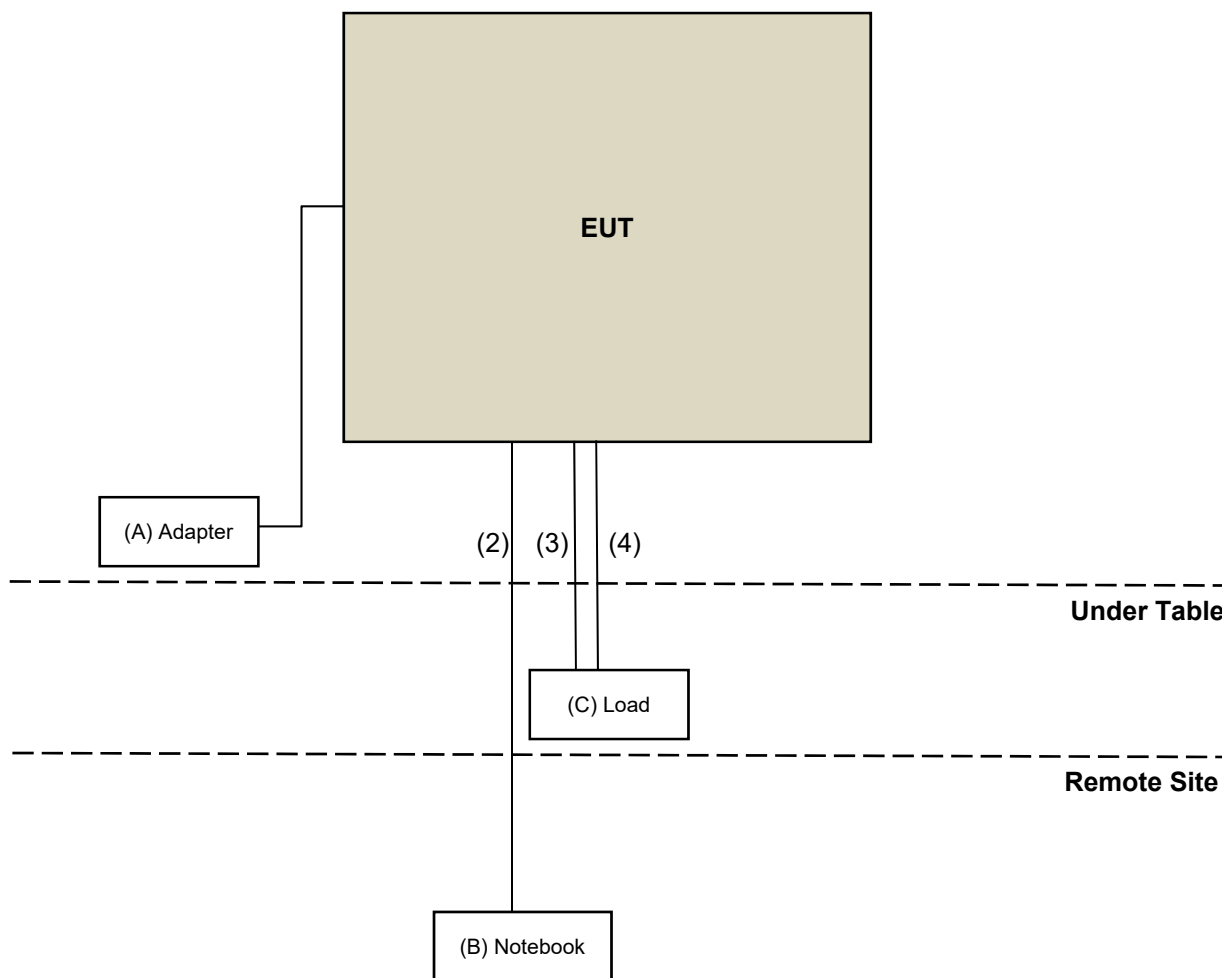
802.11ax (HE160)

3.6 Test Program Used and Operation Descriptions

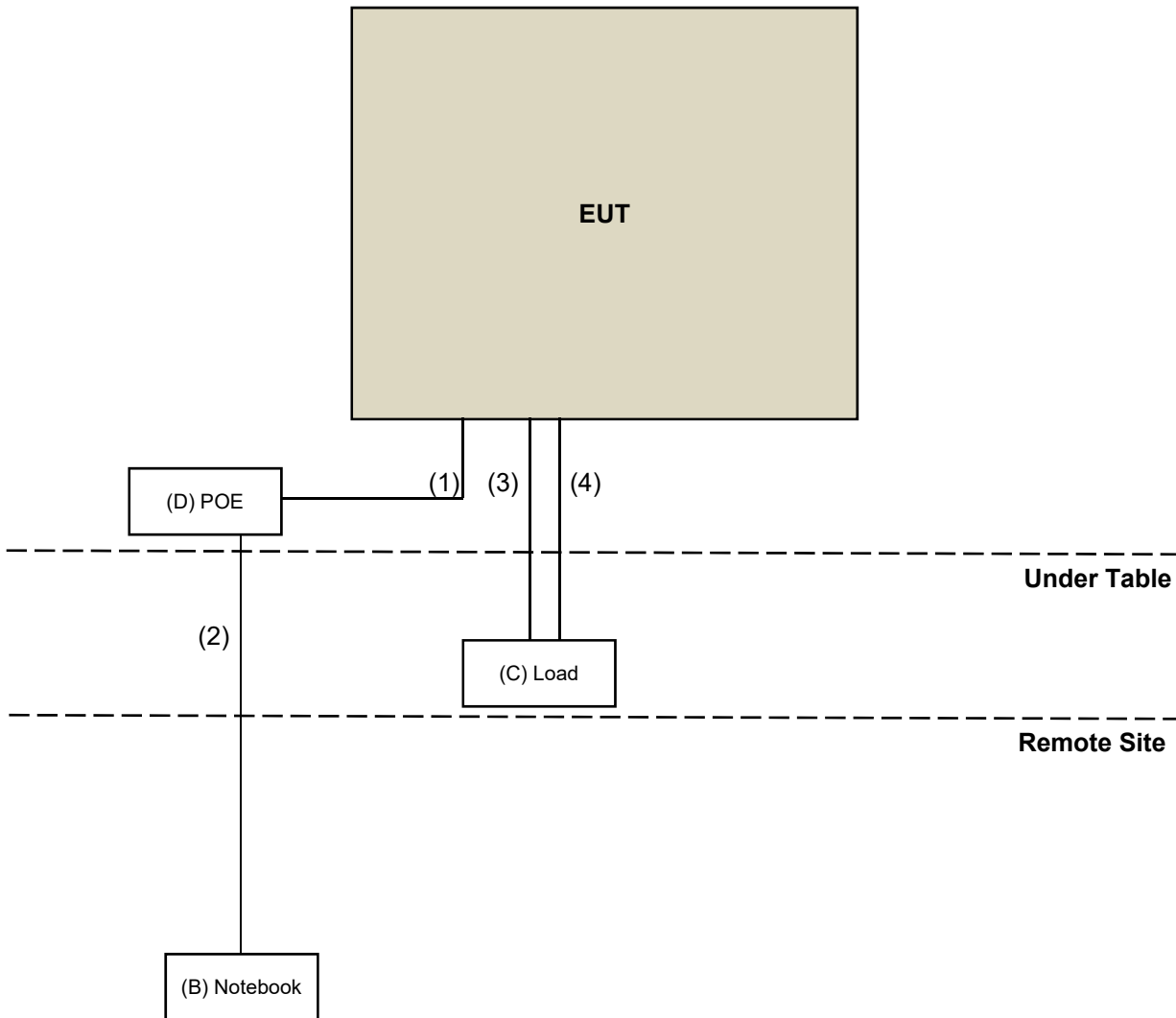
Controlling software (Access Manual Tool 3.2.1.5) has been activated to set the EUT under transmission condition continuously at specific channel frequency.

3.7 Connection Diagram of EUT and Peripheral Devices

Mode A



Mode B



3.8 Configuration of Peripheral Devices and Cable Connections

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Adapter	Asian Power Devices Inc.	WA-30J12R	NA	NA	Provided by client
B.	Notebook	Dell	E5430	BPJVKV1	FCC DoC Approved	-
C.	Load	NA	NA	NA	NA	-
D.	PoE	Engenius	PNA90BGS-54	NA	NA	Provided by client

ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1.	LAN cable	1	1.5	N	0	RJ45, Cat5e
2.	LAN cable	1	10	N	0	RJ45, Cat5e
3.	LAN cable	1	1.5	N	0	RJ45, Cat5e
4.	LAN cable	1	1.5	N	0	RJ45, Cat5e

4 Test Instruments

The calibration interval of the all test instruments are 12 months and the calibrations are traceable to NML/ROC and NIST/USA.

4.1 RF Output Power

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Wideband Power Sensor KEYSIGHT	N1923A	MY58020002	2022/1/17	2023/1/16
Peak Power Analyzer KEYSIGHT	8990B	MY51000485	2022/1/18	2023/1/17

Notes:

1. The test was performed in Oven room.
2. Tested Date: 2022/11/16 ~ 2022/11/20

4.2 Power Spectral Density

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Software BV	ADT_RF Test Software V6.6.5.4	N/A	N/A	N/A
Spectrum Analyzer R&S	FSV40	100979	2022/3/25	2023/3/24

Notes:

1. The test was performed in Oven room.
2. Tested Date: 2022/11/16 ~ 2022/11/20

4.3 Emission Bandwidth

Refer to section 4.2 to get information of the instruments.

4.4 In-Band Emission Mask

Refer to section 4.2 to get information of the instruments.

4.5 Occupied Bandwidth

Refer to section 4.2 to get information of the instruments.

4.6 Frequency Stability

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
AC Power Source ExTech	CFW-105	E000603	N/A	N/A
AC power supply JIN YIH Technology	6905S	1720444	N/A	N/A
Digital Multimeter Fluke	87-III	70360742	2022/6/23	2023/6/22
Software BV	ADT_RF Test Software V6.6.5.4	N/A	N/A	N/A
Spectrum Analyzer R&S	FSV40	100979	2022/3/25	2023/3/24
Temperature & Humidity Chamber TERCHY	HRM-120RF	931022	2022/1/3	2023/1/2

Notes:

1. The test was performed in Oven room.
2. Tested Date: 2022/11/16

4.7 Contention-based Protocol

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
PXA Signal Analyzer KEYSIGHT	N9030B	MY57140938	2022/3/15 2023/3/16	2023/3/14 2024/3/15
MXA Signal Analyzer KEYSIGHT	N9020B	MY60110513	2022/12/26	2023/12/25
MXG Vector signal generator Agilent	N5182B	MY53050430	2022/11/29	2023/11/28
Combiner / Splitter Mini-Circuits	ZN2PD-9G	ZN2PD-9G	2022/6/9	2023/6/8
N5182BU KEYSIGHT	N5182BU	MY59360189	2022/11/29	2023/11/28
Splitters/Combiners Mini-Circuits	ZN2PD-9G	N/A	2022/9/2	2024/9/1

Notes:

1. The test was performed in Oven room.
2. Tested Date: 2022/11/23 ~ 2022/11/24, 2023/3/27

4.8 AC Power Conducted Emissions

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
LISN R&S	ESH3-Z5	100311	2022/9/12	2023/9/11
LISN ROHDE & SCHWARZ	ENV216	101826	2022/3/14	2023/3/13
RF Coaxial Cable WOKEN	5D-FB	Cable-cond1-01	2022/1/15	2023/1/14
Software BVADT	BVADT_Cond_ V7.3.7.4	N/A	N/A	N/A
Test Receiver Rohde&Schwarz	ESCI	100613	2021/12/3	2022/12/2
V-LISN Schwarzbeck	NNBL 8226-2	8226-142	2022/8/31	2023/8/30

Notes:

1. The test was performed in HY - Conduction 1.
2. Tested Date: 2022/11/29

4.9 Unwanted Emissions below 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Antenna Tower Max-Full	UNAT_5+	PAD-CH6-01	N/A	N/A
Antenna Tower Controller Max-Full	MF-7802	N/A	N/A	N/A
Bi_Log Antenna Schwarzbeck	VULB9168	9168-616	2021/10/27	2022/10/26
Loop Antenna EMCI	EM-6879	269	2022/09/19	2023/09/18
Loop Antenna TESEQ	HLA 6121	45745	2022/07/27	2023/07/26
Pre-amplifier EMCI	EMC001340	980201	2022/09/23	2023/09/22
Preamplifier Agilent	310N	187226	2022/06/14	2023/06/13
RF Coaxial Cable EMCI	5D-NM-BM	140903+140902	2022/01/15	2023/01/14
RF Coaxial Cable ETS-Lindgren	EMC104-SM-SM-10000	Cable-CH1-01(RFC-SMS-100-SMS-120+RFC-SMS-100-SMS-4	2022/06/14	2023/06/13
	RFC-SMS-100-SMS-24-IN	Cable-CH1-02(RFC-SMS-100-SMS-24)	2022/06/14	2023/06/13
Software BV ADT	ADT_Radiated_V7.6.15.9.5	N/A	N/A	N/A
Test Receiver Agilent	N9038A	MY52260177	2022/09/19	2023/09/18
Turn Table Max-Full	TT-1510	N/A	N/A	N/A
Turn Table Controller Max-Full	MF-7802	N/A	N/A	N/A

Notes:

1. The test was performed in XD - 966 chamber 6.
2. Tested Date: 2022/10/20

4.10 Unwanted Emissions above 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Antenna Tower Max-Full	UNAT_5+	PAD-CH6-01	N/A	N/A
Antenna Tower Controller Max-Full	MF-7802	N/A	N/A	N/A
Boresight antenna tower fixture BV	BAF-02	8	N/A	N/A
Horn Antenna ETS-Lindgren	3117	00143293	2021/11/14	2022/11/13
Horn Antenna Schwarzbeck	BBHA 9170	BBHA9170241	2021/10/26	2022/10/25
Pre-Amplifier EMCI	EMC 184045	980116	2021/10/5 2022/10/1	2022/10/4 2023/9/30
Preamplifier Agilent	83017A	MY39501373	2022/6/14	2023/6/13
RF Coaxial Cable ETS-Lindgren	EMC104-SM-SM-10000	Cable-CH1-01(RFC-SMS-100-SMS-120+RFC-SMS-100-SMS-4	2022/6/14	2023/6/13
	RFC-SMS-100-SMS-24-IN	Cable-CH1-02(RFC-SMS-100-SMS-24)	2022/6/14	2023/6/13
RF Coaxial Cable HUBER+SUHNER	SUCOFLEX 104	CABLE-CH9-(250795/4)	2022/1/15	2023/1/14
RF Coaxial Cable HUBER+SUHNER&EMCI	SUCOFLEX 104& EMC104-SM-SM8000	CABLE-CH9-02 (248780+171006)	2022/1/15	2023/1/14
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	N/A	N/A	N/A
Test Receiver Agilent	N9038A	MY52260177	2022/9/19	2023/9/18
Turn Table Max-Full	TT-1510	N/A	N/A	N/A
Turn Table Controller Max-Full	MF-7802	N/A	N/A	N/A

Notes:

1. The test was performed in XD - 966 chamber 6.
2. Tested Date: 2022/10/4 ~ 2022/10/26

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Antenna Tower Max-Full	UNAT_5+	PAD-CH6-01	N/A	N/A
Antenna Tower Controller Max-Full	MF-7802	N/A	N/A	N/A
Bi_Log Antenna Schwarzbeck	VULB9168	9168-616	2022/10/26	2023/10/25
Loop Antenna EMCI	EM-6879	269	2022/09/19	2023/09/18
Loop Antenna TESEQ	HLA 6121	45745	2022/07/27	2023/07/26
Pre-amplifier EMCI	EMC001340	980201	2022/09/23	2023/09/22
Preamplifier Agilent	310N	187226	2022/06/14	2023/06/13
RF Coaxial Cable EMCI	5D-NM-BM	140903+140902	2023/01/7	2024/01/6
RF Coaxial Cable ETS-Lindgren	EMC104-SM-SM-10000	Cable-CH1-01(RFC-SMS-100-SMS-120+RFC-SMS-100-SMS-4	2022/06/14	2023/06/13
	RFC-SMS-100-SMS-24-IN	Cable-CH1-02(RFC-SMS-100-SMS-24)	2022/06/14	2023/06/13
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	N/A	N/A	N/A
Test Receiver Agilent	N9038A	MY52260177	2022/09/19	2023/09/18
Turn Table Max-Full	TT-1510	N/A	N/A	N/A
Turn Table Controller Max-Full	MF-7802	N/A	N/A	N/A

Notes:

1. The test was performed in XD - 966 chamber 6.
2. Tested Date: 2023/3/9

5 Limits of Test Items

5.1 RF Output Power

Operation Band	EUT Category	Limit
		Max Average Power
U-NII-5 U-NII-6 U-NII-7 U-NII-8	Indoor AP	EIRP 30 dBm

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.

5.2 Power Spectral Density

Operation Band	EUT Category	Limit
		Peak Power Density
U-NII-5 U-NII-6 U-NII-7 U-NII-8	Indoor AP	EIRP 5 dBm/MHz

5.3 Emission Bandwidth

The results are for reference only.

5.4 In-Band Emission Mask

Test Item	Frequencies (MHz)	(X) dBc* ¹
Emission Mask	At 1 MHz outside of channel edge	20
	At one channel bandwidth from the channel center* ²	28
	At one- and one-half times the channel bandwidth away from channel center* ³	40
	More than one- and one-half times the channel bandwidth	40

*¹ : The power spectral density must be suppressed by "x" dB

*² : At frequencies between one megahertz outside an unlicensed device's channel edge and one channel bandwidth from the center of the channel, the limits must be linearly interpolated between 20 dB and 28 dB suppression,

*³ : At frequencies between one and one- and one-half times an unlicensed device's channel bandwidth, the limits must be linearly interpolated between 28 dB and 40 dB suppression.

5.5 Occupied Bandwidth

The maximum transmitter channel bandwidth for U-NII devices in the 5.925-7.125 GHz band is 320 MHz.

5.6 Frequency Stability

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

5.7 Contention-based Protocol

Unlicensed indoor low-power devices must detect co-channel radio frequency power that is at least -62 dBm (The threshold is referenced to a 0 dBi antenna gain.) or lower. Additionally, indoor low-power devices must detect co-channel energy with 90% or greater certainty.

5.8 AC Power Conducted Emissions

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

Notes:

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 0.50 MHz.

5.9 Unwanted Emissions below 1 GHz

Radiated emissions up to 1 GHz which fall in the restricted bands must comply with the radiated emission limits specified as below table. Other emissions shall be at least 30 dB below the highest level of the desired power:

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

Notes:

1. The lower limit shall apply at the transition frequencies.
2. Emission level (dBuV/m) = 20 log Emission level (uV/m).

5.10 Unwanted Emissions above 1 GHz

Radiated emissions above 1 GHz which fall in the restricted bands must comply with the radiated emission limits specified as below table. Other emissions shall be at least 30 dB below the highest level of the desired power:

Frequencies (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
Above 960	500	3

Notes:

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 1000 MHz, 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 20 dB under any condition of modulation.

Limits of unwanted emission out of the restricted bands

Frequencies (MHz)	EIRP Limit	Equivalent Field Strength at 3 m
5925 MHz > F > 7125 MHz	Peak: -7 (dBm/MHz)	88.2 (dBuV/m)
	Average: -27 (dBm/MHz)	68.2 (dBuV/m)

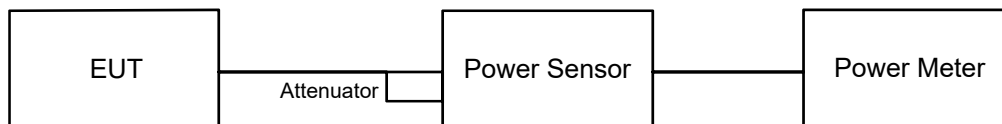
Note: The following formula is used to convert the equipment isotropic radiated power (eirp) to field strength:

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

6 Test Arrangements

6.1 RF Output Power

6.1.1 Test Setup

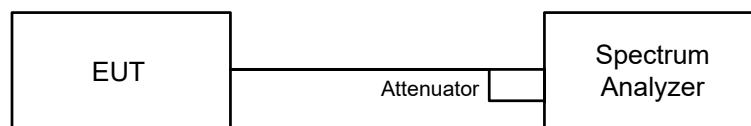


6.1.2 Test Procedure

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.

6.2 Power Spectral Density

6.2.1 Test Setup



6.2.2 Test Procedure

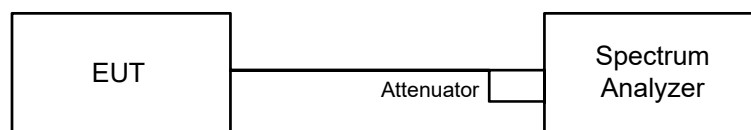
For specified measurement bandwidth 1 MHz:

Method SA-2

- a. Set span to encompass the entire emission bandwidth (EBW) of the signal.
- b. Set RBW = 1 MHz, Set VBW \geq 3 MHz, Detector = RMS
- c. Sweep points \geq $[2 \times \text{span} / \text{RBW}]$. (This gives bin-to-bin spacing \leq RBW / 2, so that narrowband signals are not lost between frequency bins.)
- d. Sweep time = auto, trigger set to "free run".
- e. Trace average at least 100 traces in power averaging mode.
- f. Use the peak search function on the instrument to find the peak of the spectrum and record its value.
- g. Record the max value and add $10 \log (1/\text{duty cycle})$.

6.3 Emission Bandwidth

6.3.1 Test Setup

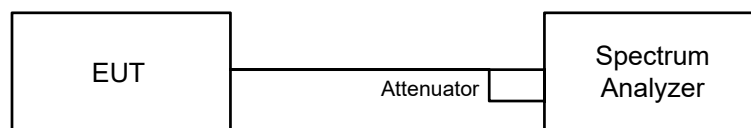


6.3.2 Test Procedure

- 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%.

6.4 In-Band Emission Mask

6.4.1 Test Setup

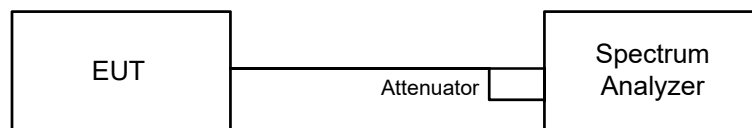


6.4.2 Test Procedure

- a. Connect output of the antenna port to a spectrum analyzer and adjust appropriate attenuation.
- b. Measure the 26 dB EBW using the test procedure 12.4.1 of ANSI C63.10-2013. (Determine the channel edge.)
- c. Measure the power spectral density (for emissions mask reference) using the following procedure:
 - a) Set the span to encompass the entire 26 dB EBW of the signal.
 - b) Set RBW = same RBW used for 26 dB EBW measurement.
 - c) Set VBW \geq [3 X RBW].
 - d) Number of points in sweep \geq [2 X span / RBW].
 - e) Sweep time = auto.
 - f) Detector = RMS (i.e., power averaging).
 - g) Trace average at least 100 traces in power averaging (rms) mode.
 - h) Use the peak search function on the instrument to find the peak of the spectrum.
- d. Using the measuring equipment limit line function, develop the emissions mask based on the following requirements. The emissions power spectral density must be reduced below the peak power spectral density (in dB) as follows:
 - a) Suppressed by 20 dB at 1 MHz outside of the channel edge. (The channel edge is defined as the 26-dB point on either side of the carrier center frequency.)
 - b) Suppressed by 28 dB at one channel bandwidth from the channel center.
 - c) Suppressed by 40 dB at one- and one-half times the channel bandwidth from the channel center.
- e. Adjust the span to encompass the entire mask as necessary and clear trace.
- f. Trace average at least 100 traces in power averaging (rms) mode.
- g. Adjust the reference level as necessary so that the crest of the channel touches the top of the emission mask

6.5 Occupied Bandwidth

6.5.1 Test Setup

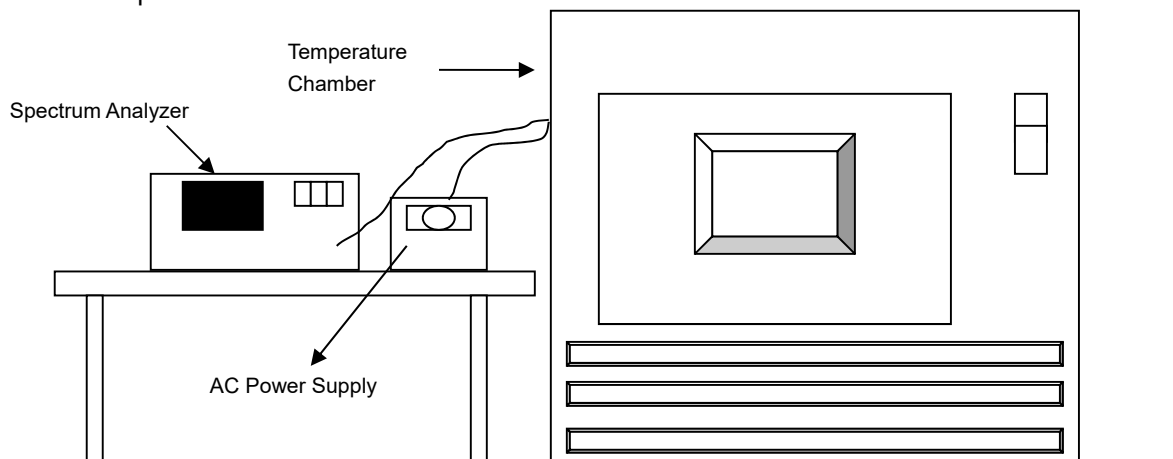


6.5.2 Test Procedure

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.

6.6 Frequency Stability

6.6.1 Test Setup

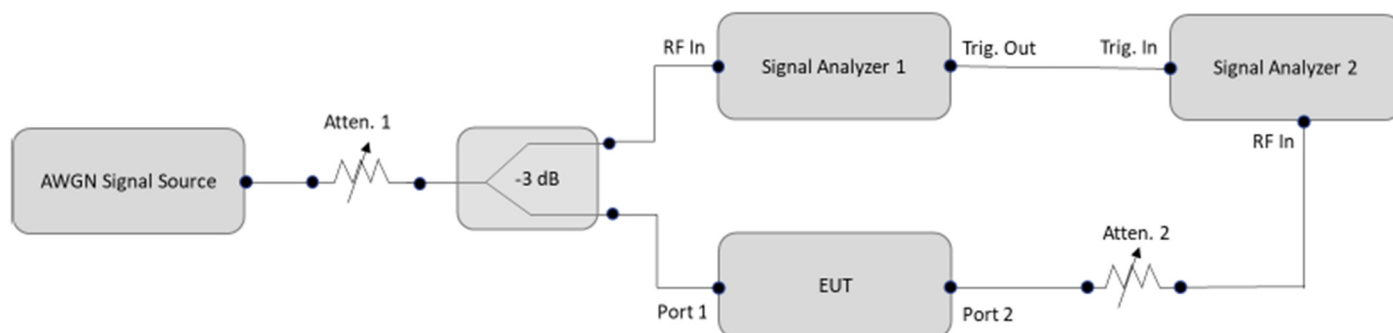


6.6.2 Test Procedure

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

6.7 Contention-based Protocol

6.7.1 Test Setup



6.7.2 Test Procedure

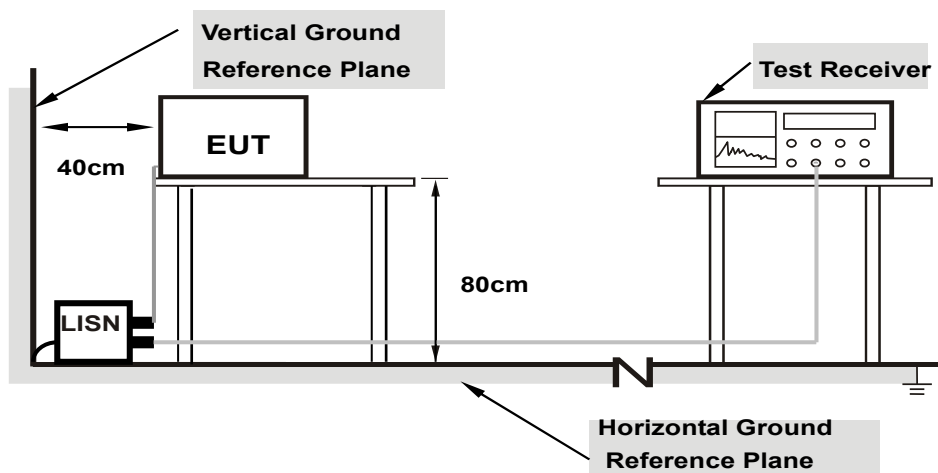
- Set the signal analyzer center frequency to the nominal EUT channel center frequency. The span range of the signal analyzer shall be between two times and five times the OBW of the EUT. Connect the output port of the EUT to the signal analyzer 2. Ensure that the attenuator 2 provides enough attenuation to not overload the signal analyzer 2 receiver.
- Monitoring the signal analyzer 2, verify the EUT is operating and transmitting with the parameters (set as following section 4.7.5 EUT operating condition).
- Determine number of times detection threshold test as following table,

If	Number of Tests	Placement of Incumbent Transmission
$BW_{EUT} \leq BW_{Inc}$	Once	Same as EUT transmission
$BW_{Inc} < BW_{EUT} \leq 2 \times BW_{Inc}$	Once	Contained within BW_{EUT}
$2 \times BW_{Inc} < BW_{EUT} \leq 4 \times BW_{Inc}$	Twice. (Incumbent transmission is contained within BW_{EUT})	Closely to the lower edge and upper edge of the EUT Channel
$BW_{EUT} > 4 \times BW_{Inc}$	Three times	Closely to the lower edge, in the middle and upper edge of the EUT Channel

- Using an AWGN signal source, generate (but do not transmit, i.e., RF OFF) a 10 MHz-wide AWGN signal. Use step c table to determine the center frequency of the 10 MHz AWGN signal relative to the EUT's channel bandwidth and center frequency.
- Set the AWGN signal power to an extremely low level (more than 20 dB below the -62 dBm threshold). Connect the AWGN signal source, via a 3-dB splitter, to the signal analyzer 1 and the EUT.
- Transmit the AWGN signal (RF ON) and verify its characteristics on the signal analyzer 1.
- Monitor the signal analyzer 2 to verify if the AWGN signal has been detected and the EUT has ceased transmission. If the EUT continues to transmit, then incrementally increase the AWGN signal power level until the EUT stops transmitting.
- (Including all losses in the RF paths) Determine and record the AWGN signal power level (at the EUT's antenna port) at which the EUT ceased transmission. Repeat the procedure at least 10 times to verify the EUT can detect an AWGN signal with 90% (or better) level of certainty.
- Refer to step c table to determine number of times the detection threshold testing needs to be repeated. If testing is required more than once, then go back to step d, choose a different center frequency for the AWGN signal and repeat the process.

6.8 AC Power Conducted Emissions

6.8.1 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).

6.8.2 Test Procedure

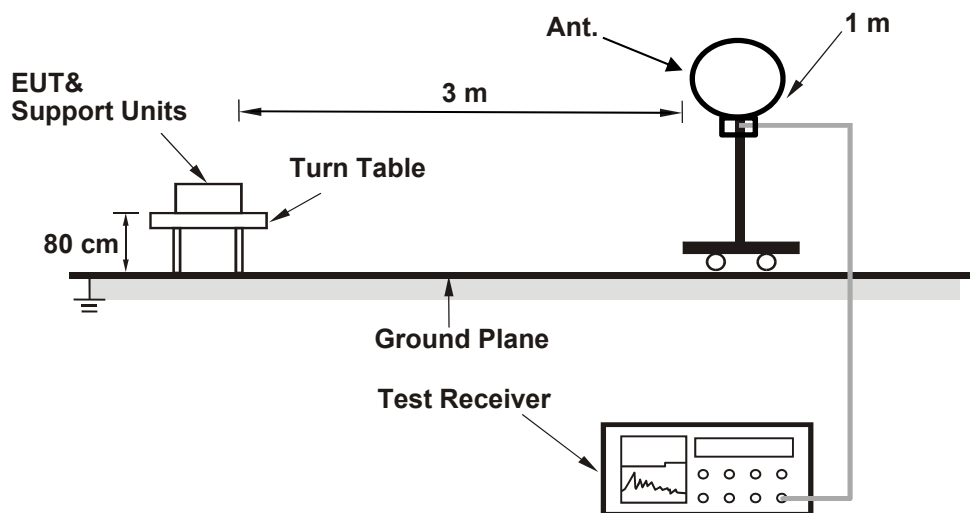
- The EUT was placed on a 0.8 meter to the top of table and placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The two LISNs provide 50 ohm/ 50 uH 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 150 kHz to 30 MHz was searched. Emission levels under (Limit – 20 dB) was not recorded.

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

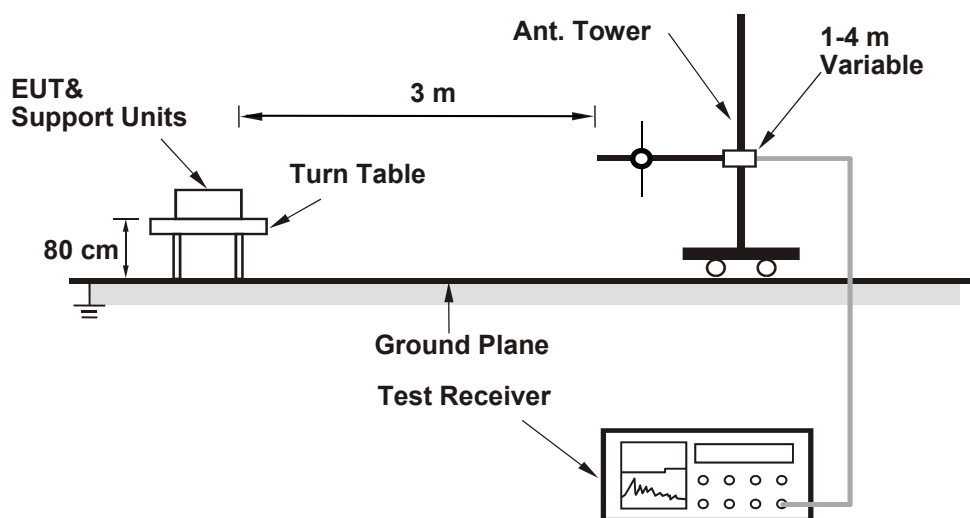
6.9 Unwanted Emissions below 1 GHz

6.9.1 Test Setup

For Radiated emission below 30 MHz



For Radiated emission above 30 MHz



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

6.9.2 Test Procedure

For Radiated emission below 30 MHz

- a. The EUT was placed on the top of a rotating table 0.8 meters 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. 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, except for the frequency band (9 kHz to 90 kHz and 110 kHz to 490 kHz) set to average detect function and peak detect function.

Notes:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 200 Hz at frequency below 150 kHz.
2. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 9 kHz or 10 kHz at frequency (150 kHz to 30 MHz).
3. All modes of operation were investigated and the worst-case emissions are reported.

For Radiated emission above 30 MHz

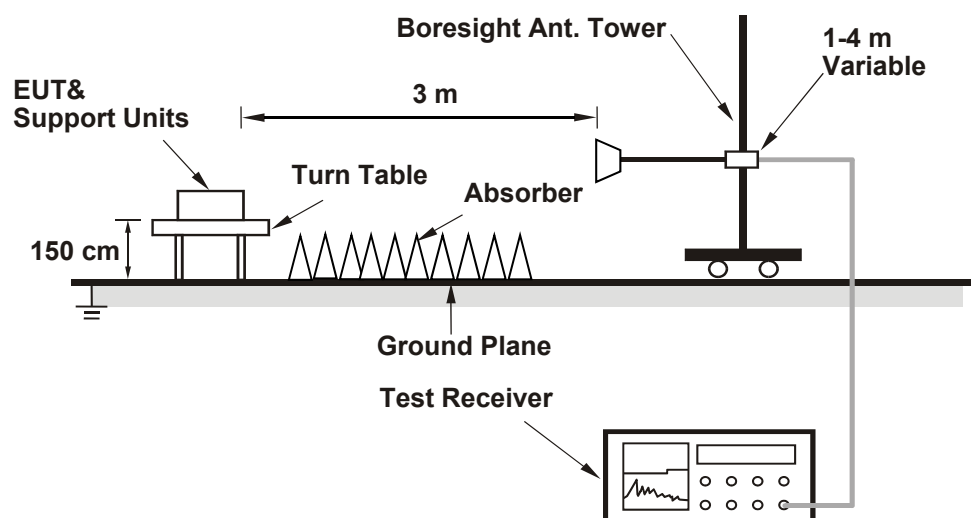
- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the 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.

Notes:

1. The resolution bandwidth and video bandwidth of test receiver/spectrum analyzer is 120 kHz for Quasi-peak detection (QP) at frequency below 1 GHz.
2. All modes of operation were investigated and the worst-case emissions are reported.

6.10 Unwanted Emissions above 1 GHz

6.10.1 Test Setup



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

6.10.2 Test Procedure

- The EUT was placed on the top of a rotating table 1.5 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower.
- 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.
- 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.
- The test-receiver system was set to peak and average detects function and specified bandwidth with maximum hold mode when the test frequency is above 1 GHz. If the peak reading value also meets average limit, measurement with the average detector is unnecessary.

Notes:

- The resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is 3 MHz for Peak detection (PK) and Average detection (AV) at frequency above 1 GHz.
- For fundamental and harmonic signal measurement, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is $\geq 1/T$ (Duty cycle $< 98\%$) or 10 Hz (Duty cycle $\geq 98\%$) for Average detection (AV) at frequency above 1 GHz.
- All modes of operation were investigated and the worst-case emissions are reported.
- For 802.11ax (HE20) CH233: Integration method
 - For peak emissions measurements:
 - Set RBW = 100 kHz
 - Detection = peak.
 - Max hold.
 - Perform band-power integration across the 1 MHz bandwidth in which the band-edge emission level is to be measured.
 - For average emissions measurements:
 - Set RBW = 100 kHz.
 - Perform band-power integration across the 1 MHz bandwidth in which the band-edge emission level is to be measured.

7 Test Results of Test Item

7.1 RF Output Power

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Jisyoung Wang
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802.11a

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Maximum Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Test Result
		Chain 0	Chain 1							
1	5955	6.65	6.82	9.432	9.75	5.89	36.644	15.64	30	Pass
45	6175	7.85	6.05	10.123	10.05	5.89	39.264	15.94	30	Pass
93	6415	6.45	6.42	8.801	9.45	5.89	34.198	15.34	30	Pass
97	6435	7.32	6.72	10.094	10.04	5.51	35.892	15.55	30	Pass
105	6475	7.56	5.62	9.349	9.71	5.51	33.266	15.22	30	Pass
113	6515	8.09	6.52	10.929	10.39	5.51	38.905	15.90	30	Pass
117	6535	7.52	6.12	9.742	9.89	5.79	36.983	15.68	30	Pass
149	6695	7.62	6.35	10.096	10.04	5.79	38.282	15.83	30	Pass
181	6855	6.32	6.07	8.331	9.21	5.79	31.623	15.00	30	Pass
185	6875	4.78	6.72	7.705	8.87	5.79	29.242	14.66	30	Pass
209	6995	6.72	4.34	7.415	8.70	5.75	27.861	14.45	30	Pass
233	7115	7.05	6.54	9.578	9.81	5.75	35.975	15.56	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. For U-NII-5, The maximum gain is 5.89 dBi
3. For U-NII-6, The maximum gain is 5.51 dBi
4. For U-NII-7, The maximum gain is 5.79 dBi
5. For U-NII-8, The maximum gain is 5.75 dBi

802.11ax (HE20)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Maximum Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Test Result
		Chain 0	Chain 1							
1	5955	7.02	6.86	9.888	9.95	5.89	38.371	15.84	30	Pass
45	6175	8.02	6.15	10.46	10.20	5.89	40.644	16.09	30	Pass
93	6415	6.75	6.77	9.485	9.77	5.89	36.813	15.66	30	Pass
97	6435	8.11	6.45	10.887	10.37	5.51	38.726	15.88	30	Pass
105	6475	7.56	5.54	9.283	9.68	5.51	33.037	15.19	30	Pass
113	6515	8.12	6.53	10.984	10.41	5.51	39.084	15.92	30	Pass
117	6535	7.15	5.52	8.753	9.42	5.79	33.189	15.21	30	Pass
149	6695	7.24	5.22	8.623	9.36	5.79	32.734	15.15	30	Pass
181	6855	6.95	7.02	9.99	10.00	5.79	37.931	15.79	30	Pass
185	6875	4.74	7.11	8.119	9.10	5.79	30.832	14.89	30	Pass
209	6995	7.57	5.32	9.119	9.60	5.75	34.277	15.35	30	Pass
233	7115	7.21	5.44	8.75	9.42	5.75	32.885	15.17	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. For U-NII-5, The maximum gain is 5.89 dBi
3. For U-NII-6, The maximum gain is 5.51 dBi
4. For U-NII-7, The maximum gain is 5.79 dBi
5. For U-NII-8, The maximum gain is 5.75 dBi

802.11ax (HE40)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Maximum Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Test Result
		Chain 0	Chain 1							
3	5965	9.32	9.95	18.436	12.66	5.89	71.614	18.55	30	Pass
43	6165	10.02	9.61	19.187	12.83	5.89	74.473	18.72	30	Pass
91	6405	9.44	9.62	17.952	12.54	5.89	69.663	18.43	30	Pass
99	6445	10.22	9.87	20.225	13.06	5.51	71.945	18.57	30	Pass
107	6485	10.12	9.75	19.721	12.95	5.51	70.146	18.46	30	Pass
115	6525	10.15	9.15	18.574	12.69	5.79	70.469	18.48	30	Pass
123	6565	9.23	9.45	17.186	12.35	5.79	65.163	18.14	30	Pass
155	6725	10.42	9.22	19.371	12.87	5.79	73.451	18.66	30	Pass
179	6845	9.55	8.67	16.378	12.14	5.79	62.087	17.93	30	Pass
187	6885	7.95	9.53	15.212	11.82	5.75	57.148	17.57	30	Pass
211	7005	10.02	8.12	16.533	12.18	5.75	62.087	17.93	30	Pass
227	7085	9.87	9.45	18.516	12.68	5.75	69.663	18.43	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. For U-NII-5, The maximum gain is 5.89 dBi
3. For U-NII-6, The maximum gain is 5.51 dBi
4. For U-NII-7, The maximum gain is 5.79 dBi
5. For U-NII-8, The maximum gain is 5.75 dBi

802.11ax (HE80)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Maximum Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Test Result
		Chain 0	Chain 1							
7	5985	12.72	12.22	35.379	15.49	5.89	137.404	21.38	30	Pass
39	6145	12.68	12.37	35.794	15.54	5.89	138.995	21.43	30	Pass
87	6385	12.11	12.53	34.162	15.34	5.89	132.739	21.23	30	Pass
103	6465	12.62	12.64	36.646	15.64	5.51	130.317	21.15	30	Pass
119	6545	12.45	12.18	34.099	15.33	5.79	129.42	21.12	30	Pass
151	6705	12.77	12.16	35.367	15.49	5.79	134.276	21.28	30	Pass
183	6865	12.56	12.02	33.952	15.31	5.79	128.825	21.1	30	Pass
199	6945	12.05	11.97	31.772	15.02	5.75	119.399	20.77	30	Pass
215	7025	12.15	11.92	31.966	15.05	5.75	120.226	20.8	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. For U-NII-5, The maximum gain is 5.89 dBi
3. For U-NII-6, The maximum gain is 5.51 dBi
4. For U-NII-7, The maximum gain is 5.79 dBi
5. For U-NII-8, The maximum gain is 5.75 dBi

802.11ax (HE160)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Maximum Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Test Result
		Chain 0	Chain 1							
15	6025	14.85	14.72	60.198	17.80	5.89	233.884	23.69	30	Pass
47	6185	15.25	15.16	66.306	18.22	5.89	257.632	24.11	30	Pass
79	6345	15.13	14.65	61.758	17.91	5.89	239.883	23.8	30	Pass
111	6505	15.14	15.06	64.721	18.11	5.51	230.144	23.62	30	Pass
143	6665	15.22	14.82	63.605	18.03	5.79	240.991	23.82	30	Pass
175	6825	15.27	14.85	64.2	18.08	5.79	243.781	23.87	30	Pass
207	6985	14.65	15.13	61.758	17.91	5.75	232.274	23.66	30	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. For U-NII-5, The maximum gain is 5.89 dBi
3. For U-NII-6, The maximum gain is 5.51 dBi
4. For U-NII-7, The maximum gain is 5.79 dBi
5. For U-NII-8, The maximum gain is 5.75 dBi

802.11ax (HE20) Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Directional Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Test Result
		Chain 0	Chain 1							
1	5955	4.02	3.86	4.956	6.95	8.62	36.058	15.57	30	Pass
45	6175	5.02	3.15	5.248	7.20	8.62	38.194	15.82	30	Pass
93	6415	3.75	3.77	4.754	6.77	8.62	34.594	15.39	30	Pass
97	6435	5.11	3.45	5.456	7.37	8.30	36.898	15.67	30	Pass
105	6475	4.56	2.54	4.652	6.68	8.30	31.477	14.98	30	Pass
113	6515	5.12	3.53	5.505	7.41	8.30	37.239	15.71	30	Pass
117	6535	4.15	2.52	4.387	6.42	8.76	32.961	15.18	30	Pass
149	6695	4.24	2.22	4.322	6.36	8.76	32.509	15.12	30	Pass
181	6855	3.95	4.02	5.007	7.00	8.76	37.670	15.76	30	Pass
185	6875	1.74	4.11	4.074	6.10	8.76	30.620	14.86	30	Pass
209	6995	4.57	2.32	4.570	6.60	8.72	34.041	15.32	30	Pass
233	7115	4.21	2.44	4.390	6.42	8.72	32.659	15.14	30	Pass

Notes:

1. Directional gain = $10 \log[(10^{\text{Chain0}/20} + 10^{\text{Chain1}/20})^2 / 2]$
2. For U-NII-5, The directional gain is 8.62 dBi
3. For U-NII-6, The directional gain is 8.3 dBi
4. For U-NII-7, The directional gain is 8.76 dBi
5. For U-NII-8, The directional gain is 8.72 dBi

802.11ax (HE40) Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Directional Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Test Result
		Chain 0	Chain 1							
3	5965	6.32	6.95	9.24	9.66	8.62	67.298	18.28	30	Pass
43	6165	7.02	6.61	9.616	9.83	8.62	69.984	18.45	30	Pass
91	6405	6.44	6.62	8.998	9.54	8.62	65.464	18.16	30	Pass
99	6445	7.22	6.87	10.136	10.06	8.30	68.549	18.36	30	Pass
107	6485	7.12	6.75	9.884	9.95	8.30	66.834	18.25	30	Pass
115	6525	7.15	6.15	9.309	9.69	8.76	69.984	18.45	30	Pass
123	6565	6.23	6.45	8.613	9.35	8.76	64.714	18.11	30	Pass
155	6725	7.42	6.22	9.709	9.87	8.76	72.946	18.63	30	Pass
179	6845	6.55	5.67	8.208	9.14	8.76	61.66	17.9	30	Pass
187	6885	4.95	6.53	7.624	8.82	8.72	56.754	17.54	30	Pass
211	7005	7.02	5.12	8.286	9.18	8.72	61.66	17.9	30	Pass
227	7085	6.87	6.45	9.28	9.68	8.72	69.183	18.4	30	Pass

Notes:

1. Directional gain = $10 \log[(10^{\text{Chain0}/20} + 10^{\text{Chain1}/20})^2 / 2]$
2. For U-NII-5, The directional gain is 8.62 dBi
3. For U-NII-6, The directional gain is 8.3 dBi
4. For U-NII-7, The directional gain is 8.76 dBi
5. For U-NII-8, The directional gain is 8.72 dBi

802.11ax (HE80) Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Directional Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Test Result
		Chain 0	Chain 1							
7	5985	9.72	9.22	17.732	12.49	8.62	129.122	21.11	30	Pass
39	6145	9.68	9.37	17.939	12.54	8.62	130.617	21.16	30	Pass
87	6385	9.11	9.53	17.121	12.34	8.62	124.738	20.96	30	Pass
103	6465	9.62	9.64	18.367	12.64	8.30	124.165	20.94	30	Pass
119	6545	9.45	9.18	17.09	12.33	8.76	128.529	21.09	30	Pass
151	6705	9.77	9.16	17.726	12.49	8.76	133.352	21.25	30	Pass
183	6865	9.56	9.02	17.016	12.31	8.76	127.938	21.07	30	Pass
199	6945	9.05	8.97	15.924	12.02	8.72	118.577	20.74	30	Pass
215	7025	9.15	8.92	16.021	12.05	8.72	119.399	20.77	30	Pass

Notes:

1. Directional gain = $10 \log[(10^{\text{Chain0}/20} + 10^{\text{Chain1}/20})^2 / 2]$
2. For U-NII-5, The directional gain is 8.62 dBi
3. For U-NII-6, The directional gain is 8.3 dBi
4. For U-NII-7, The directional gain is 8.76 dBi
5. For U-NII-8, The directional gain is 8.72 dBi

802.11ax (HE160) Beamforming

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Directional Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Test Result
		Chain 0	Chain 1							
15	6025	11.85	11.72	30.17	14.80	8.62	219.786	23.42	30	Pass
47	6185	12.25	12.16	33.232	15.22	8.62	242.103	23.84	30	Pass
79	6345	12.13	11.65	30.952	14.91	8.62	225.424	23.53	30	Pass
111	6505	12.14	12.06	32.438	15.11	8.30	219.28	23.41	30	Pass
143	6665	12.22	11.82	31.878	15.03	8.76	239.332	23.79	30	Pass
175	6825	12.27	11.85	32.176	15.08	8.76	242.103	23.84	30	Pass
207	6985	11.65	12.13	30.952	14.91	8.72	230.675	23.63	30	Pass

Notes:

1. Directional gain = $10 \log[(10^{\text{Chain0}/20} + 10^{\text{Chain1}/20})^2 / 2]$
2. For U-NII-5, The directional gain is 8.62 dBi
3. For U-NII-6, The directional gain is 8.3 dBi
4. For U-NII-7, The directional gain is 8.76 dBi
5. For U-NII-8, The directional gain is 8.72 dBi

7.2 Power Spectral Density

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Jisyong Wang
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802.11a

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)		Total PSD (dBm/MHz)	Directional Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1					
1	5955	-6.46	-7.33	-3.86	8.62	4.76	5	Pass
45	6175	-6.29	-7.52	-3.85	8.62	4.77	5	Pass
93	6415	-6.47	-7.19	-3.80	8.62	4.82	5	Pass
97	6435	-5.98	-7.06	-3.48	8.30	4.82	5	Pass
105	6475	-5.83	-7.11	-3.41	8.30	4.89	5	Pass
113	6515	-6.12	-6.72	-3.40	8.30	4.90	5	Pass
117	6535	-6.08	-7.78	-3.84	8.76	4.92	5	Pass
149	6695	-6.74	-7.02	-3.87	8.76	4.89	5	Pass
181	6855	-7.38	-6.98	-4.17	8.76	4.59	5	Pass
185	6875	-6.95	-6.72	-3.82	8.76	4.94	5	Pass
209	6995	-6.74	-6.91	-3.81	8.72	4.91	5	Pass
233	7115	-7.27	-7.21	-4.23	8.72	4.49	5	Pass

Notes:

- 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 = $10 \log[(10^{\text{Chain0}/20} + 10^{\text{Chain1}/20})^2 / 2]$
- For U-NII-5, The directional gain is 8.62 dBi
- For U-NII-6, The directional gain is 8.3 dBi
- For U-NII-7, The directional gain is 8.76 dBi
- For U-NII-8, The directional gain is 8.72 dBi

802.11ax (HE20)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)		Duty Factor (dB)	Total PSD (dBm/MHz)	Directional Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1						
1	5955	-5.97	-7.65	0.09	-3.63	8.62	4.99	5	Pass
45	6175	-6.78	-7.69	0.09	-4.11	8.62	4.51	5	Pass
93	6415	-6.73	-6.93	0.09	-3.73	8.62	4.89	5	Pass
97	6435	-5.56	-7.96	0.09	-3.50	8.30	4.8	5	Pass
105	6475	-5.90	-7.31	0.09	-3.45	8.30	4.85	5	Pass
113	6515	-6.07	-7.30	0.09	-3.54	8.30	4.76	5	Pass
117	6535	-6.56	-7.89	0.09	-4.07	8.76	4.69	5	Pass
149	6695	-6.71	-8.38	0.09	-4.36	8.76	4.4	5	Pass
181	6855	-7.58	-6.54	0.09	-3.93	8.76	4.83	5	Pass
185	6875	-7.58	-6.64	0.09	-3.98	8.76	4.78	5	Pass
209	6995	-6.19	-8.57	0.09	-4.12	8.72	4.6	5	Pass
233	7115	-6.97	-7.82	0.09	-4.27	8.72	4.45	5	Pass

Notes:

- 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 = $10 \log[(10^{\text{Chain0}/20} + 10^{\text{Chain1}/20})^2 / 2]$
- For U-NII-5, The directional gain is 8.62 dBi
- For U-NII-6, The directional gain is 8.3 dBi
- For U-NII-7, The directional gain is 8.76 dBi
- For U-NII-8, The directional gain is 8.72 dBi

802.11ax (HE40)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)		Duty Factor (dB)	Total PSD (dBm/MHz)	Directional Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1						
3	5965	-7.37	-6.98	0.1	-4.06	8.62	4.56	5	Pass
43	6165	-7.72	-6.24	0.1	-3.81	8.62	4.81	5	Pass
91	6405	-6.87	-7.02	0.1	-3.83	8.62	4.79	5	Pass
99	6445	-6.49	-6.75	0.1	-3.51	8.30	4.79	5	Pass
107	6485	-6.24	-6.95	0.1	-3.47	8.30	4.83	5	Pass
115	6525	-6.27	-7.99	0.1	-3.94	8.76	4.82	5	Pass
123	6565	-7.44	-7.16	0.1	-4.19	8.76	4.57	5	Pass
155	6725	-6.97	-7.65	0.1	-4.19	8.76	4.57	5	Pass
179	6845	-7.24	-7.26	0.1	-4.14	8.76	4.62	5	Pass
187	6885	-7.51	-6.88	0.1	-4.07	8.72	4.65	5	Pass
211	7005	-6.99	-6.98	0.1	-3.87	8.72	4.85	5	Pass
227	7085	-7.29	-6.83	0.1	-3.94	8.72	4.78	5	Pass

Notes:

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 = $10 \log[(10^{\text{Chain0}/20} + 10^{\text{Chain1}/20})^2 / 2]$
3. For U-NII-5, The directional gain is 8.62 dBi
4. For U-NII-6, The directional gain is 8.3 dBi
5. For U-NII-7, The directional gain is 8.76 dBi
6. For U-NII-8, The directional gain is 8.72 dBi

802.11ax (HE80)

Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)		Duty Factor (dB)	Total PSD (dBm/MHz)	Directional Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1						
7	5985	-6.65	-7.13	0.1	-3.77	8.62	4.85	5	Pass
39	6145	-6.65	-7.11	0.1	-3.76	8.62	4.86	5	Pass
87	6385	-7.18	-6.80	0.1	-3.88	8.62	4.74	5	Pass
103	6465	-6.53	-6.69	0.1	-3.50	8.30	4.8	5	Pass
119	6545	-6.95	-7.01	0.1	-3.87	8.76	4.89	5	Pass
151	6705	-6.79	-7.34	0.1	-3.95	8.76	4.81	5	Pass
183	6865	-6.76	-7.05	0.1	-3.79	8.76	4.97	5	Pass
199	6945	-7.06	-7.28	0.1	-4.06	8.72	4.66	5	Pass
215	7025	-7.06	-7.33	0.1	-4.08	8.72	4.64	5	Pass

Notes:

- 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 = $10 \log[(10^{\text{Chain0}/20} + 10^{\text{Chain1}/20})^2 / 2]$
- For U-NII-5, The directional gain is 8.62 dBi
- For U-NII-6, The directional gain is 8.3 dBi
- For U-NII-7, The directional gain is 8.76 dBi
- For U-NII-8, The directional gain is 8.72 dBi

802.11ax (HE160)

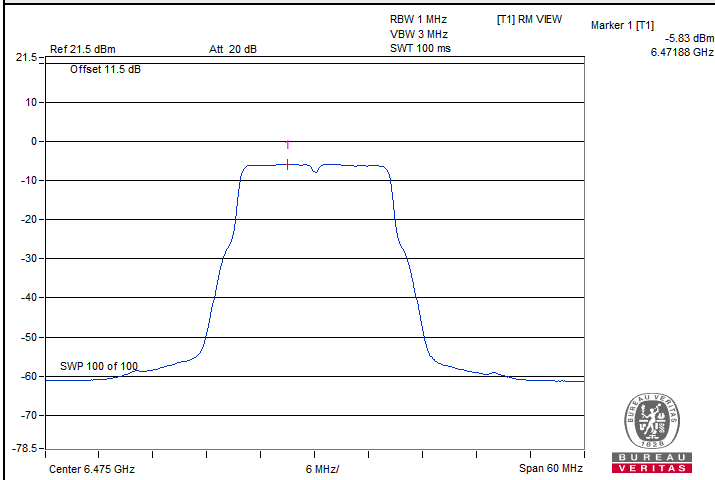
Chan.	Chan. Freq. (MHz)	PSD w/o Duty Factor (dBm/MHz)		Duty Factor (dB)	Total PSD (dBm/MHz)	Directional Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1						
15	6025	-7.19	-6.97	0.09	-3.98	8.62	4.64	5	Pass
47	6185	-6.75	-6.85	0.09	-3.70	8.62	4.92	5	Pass
79	6345	-6.53	-7.30	0.09	-3.80	8.62	4.82	5	Pass
111	6505	-6.84	-6.53	0.09	-3.58	8.30	4.72	5	Pass
143	6665	-6.99	-7.12	0.09	-3.95	8.76	4.81	5	Pass
175	6825	-6.80	-7.11	0.09	-3.85	8.76	4.91	5	Pass
207	6985	-7.16	-6.54	0.09	-3.74	8.72	4.98	5	Pass

Notes:

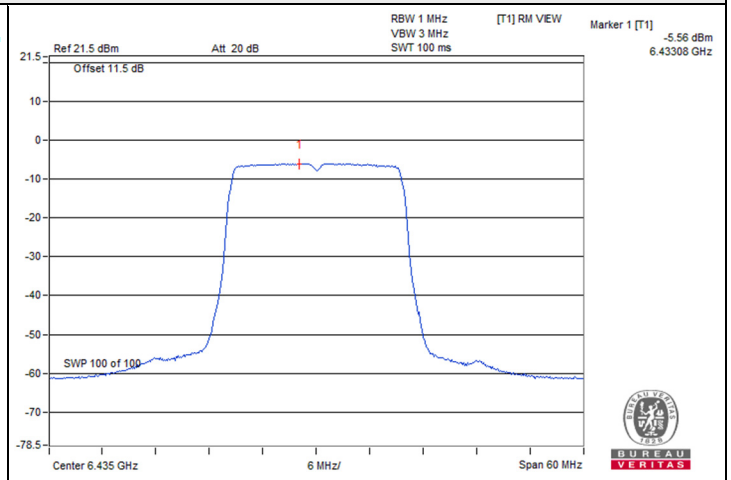
- Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
- Directional gain = $10 \log[(10^{\text{Chain0}/20} + 10^{\text{Chain1}/20})^2 / 2]$
- For U-NII-5, The directional gain is 8.62 dBi
- For U-NII-6, The directional gain is 8.3 dBi
- For U-NII-7, The directional gain is 8.76 dBi
- For U-NII-8, The directional gain is 8.72 dBi



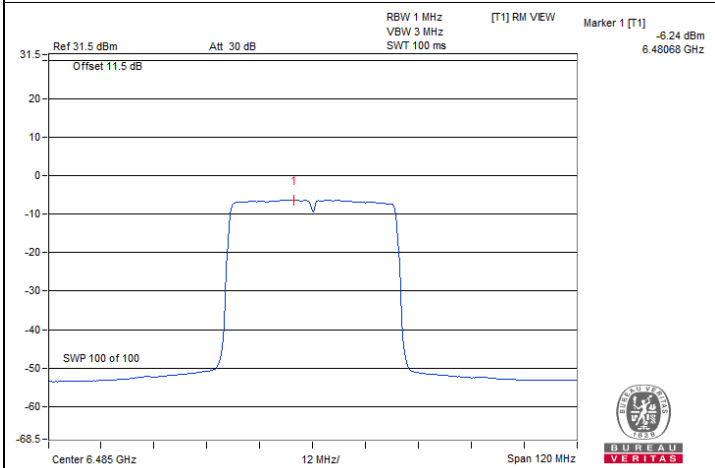
Spectrum Plot of Maximum Value



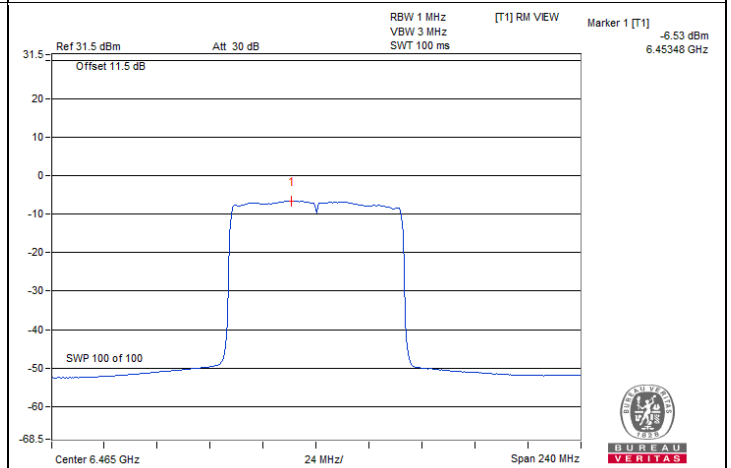
802.11a / Chain 0 : CH 105



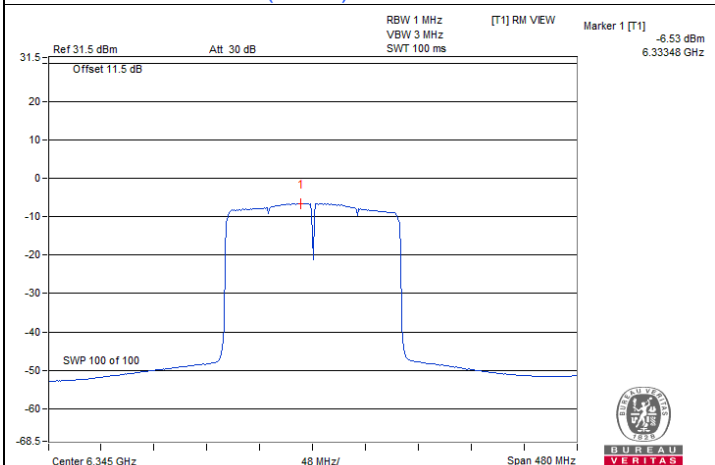
802.11ax (HE20) / Chain 0 : CH 97



802.11ax (HE40) / Chain 0 : CH 107



802.11ax (HE80) / Chain 0 : CH 103



802.11ax (HE160) / Chain 0 : CH 79

7.3 Emission Bandwidth

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Jisyong Wang
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802.11a

Channel	Frequency (MHz)	26dB Bandwidth (MHz)	
		Chain 0	Chain 1
1	5955	21.82	21.73
45	6175	22.62	21.72
93	6415	22.72	21.61
97	6435	21.69	21.81
105	6475	21.74	21.87
113	6515	22.61	21.82
117	6535	22.36	21.90
149	6695	21.88	21.88
181	6855	21.79	21.71
185	6875	21.79	21.59
209	6995	21.97	21.97
233	7115	23.24	21.69

802.11ax (HE20)

Channel	Frequency (MHz)	26dB Bandwidth (MHz)	
		Chain 0	Chain 1
1	5955	21.90	21.93
45	6175	22.01	21.72
93	6415	21.98	21.75
97	6435	21.83	21.77
105	6475	21.72	21.74
113	6515	21.92	21.68
117	6535	21.90	21.70
149	6695	21.93	21.85
181	6855	21.99	21.59
185	6875	21.90	21.71
209	6995	21.76	21.88
233	7115	21.94	21.81

802.11ax (HE40)

Channel	Frequency (MHz)	26dB Bandwidth (MHz)	
		Chain 0	Chain 1
3	5965	41.84	41.84
43	6165	41.54	41.84
91	6405	41.65	41.74
99	6445	41.77	41.80
107	6485	41.59	41.77
115	6525	41.59	41.89
123	6565	41.80	41.73
155	6725	41.83	41.76
179	6845	41.79	41.70
187	6885	41.72	41.46
211	7005	41.75	41.77
227	7085	41.80	41.55

802.11ax (HE80)

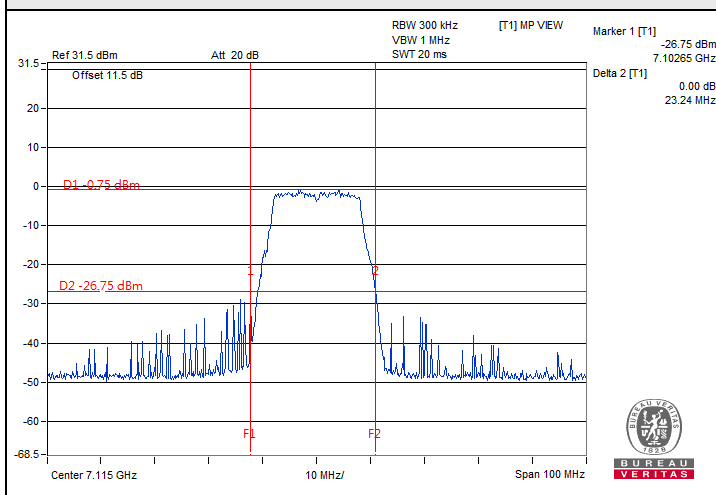
Channel	Frequency (MHz)	26dB Bandwidth (MHz)	
		Chain 0	Chain 1
7	5985	81.74	81.85
39	6145	81.97	81.61
87	6385	81.70	81.73
103	6465	81.60	81.79
119	6545	81.86	81.97
151	6705	81.66	81.47
183	6865	81.54	81.57
199	6945	82.18	81.53
215	7025	82.05	81.90

802.11ax (HE160)

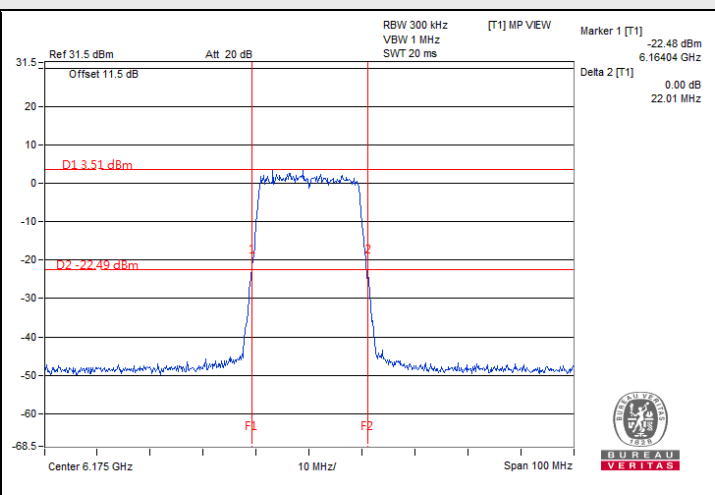
Channel	Frequency (MHz)	26dB Bandwidth (MHz)	
		Chain 0	Chain 1
15	6025	167.40	168.00
47	6185	168.53	169.33
79	6345	168.16	168.43
111	6505	168.46	168.26
143	6665	168.09	168.23
175	6825	169.06	168.70
207	6985	166.29	168.01



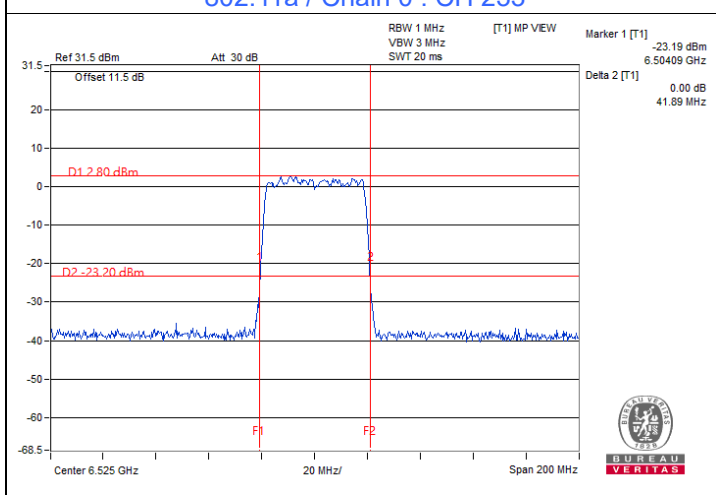
Spectrum Plot of Maximum Value



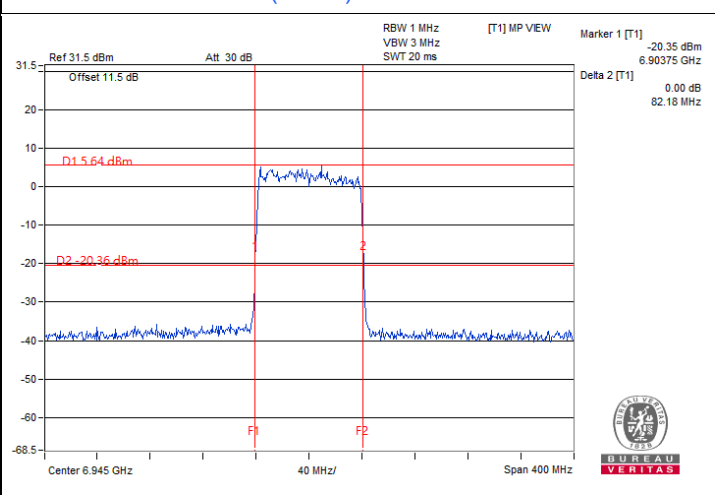
802.11a / Chain 0 : CH 233



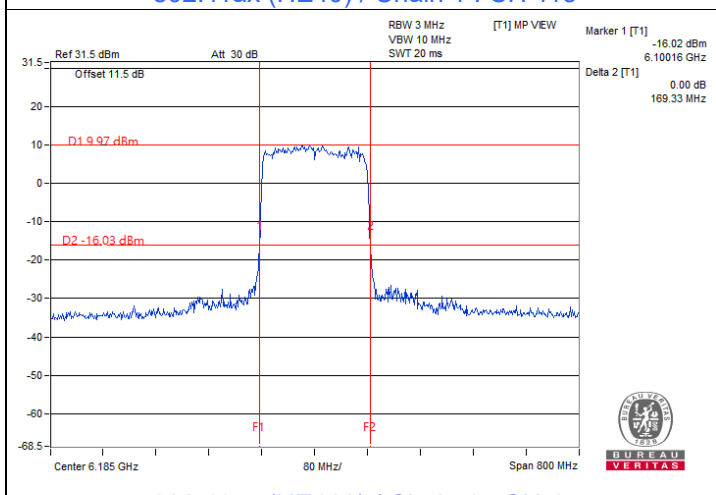
802.11ax (HE20) / Chain 0 : CH 45



802.11ax (HE40) / Chain 1 : CH 115



802.11ax (HE80) / Chain 0 : CH 199

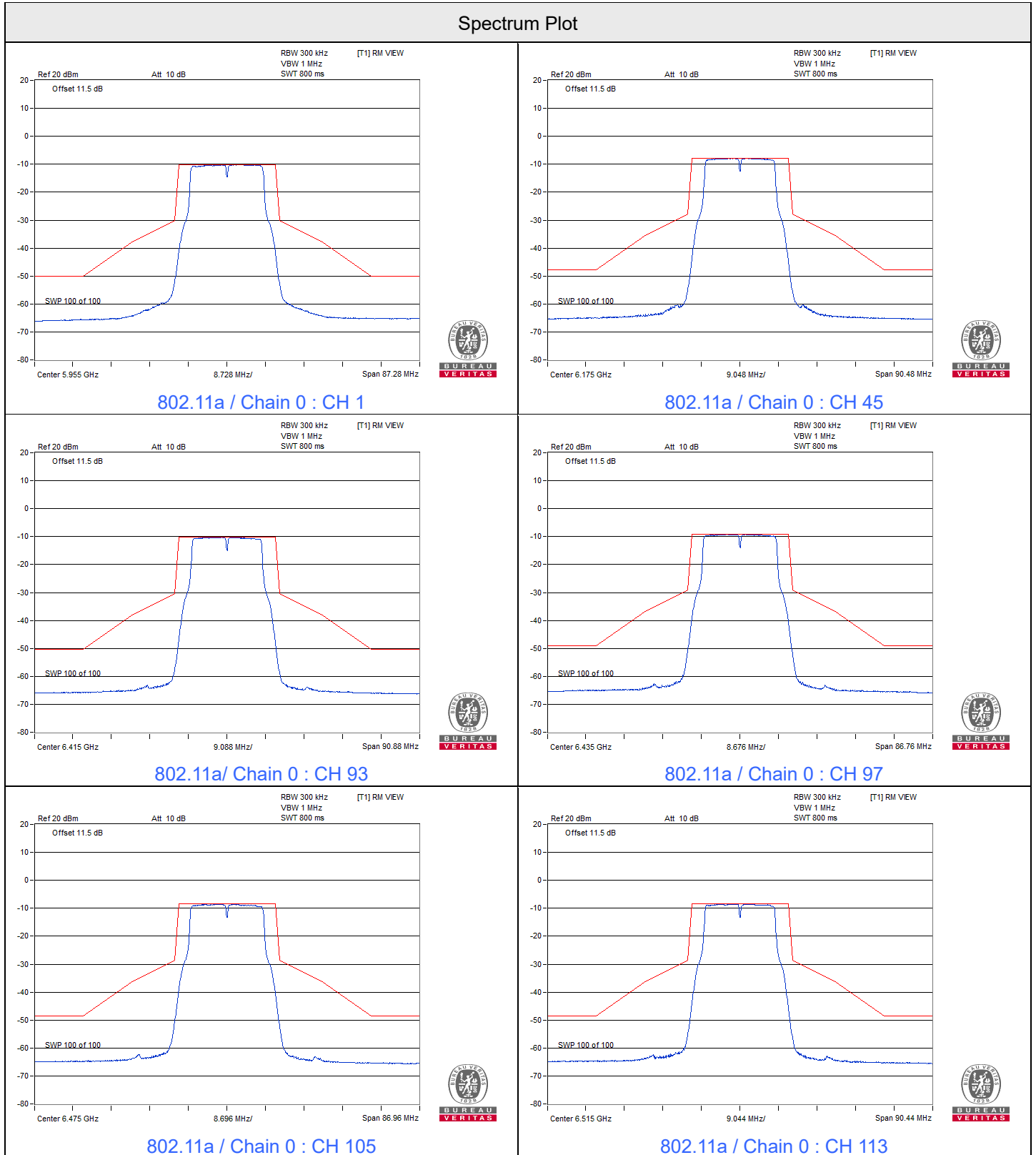


802.11ax (HE160) / Chain 1 : CH 47

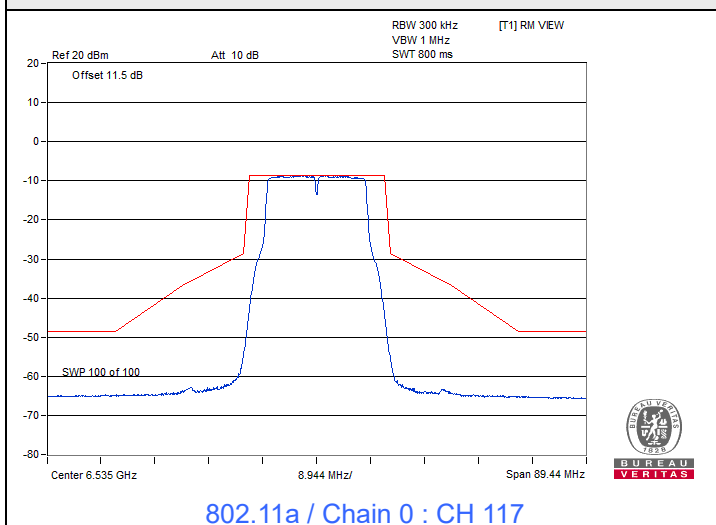
7.4 In-Band Emission Mask

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Jisyong Wang
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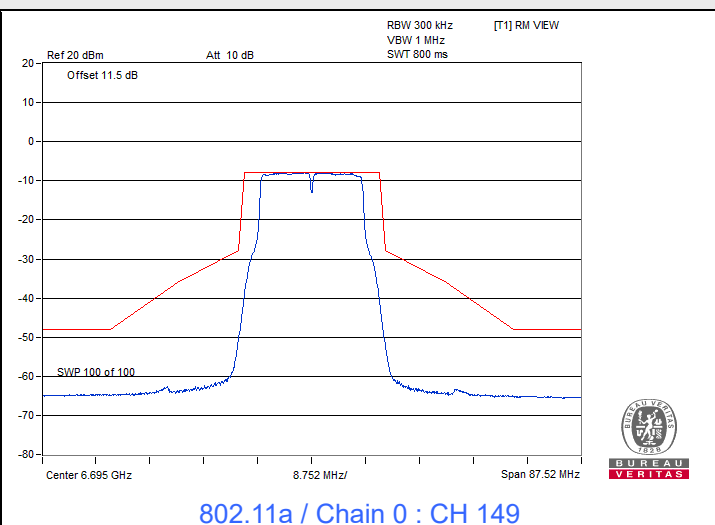
802.11a



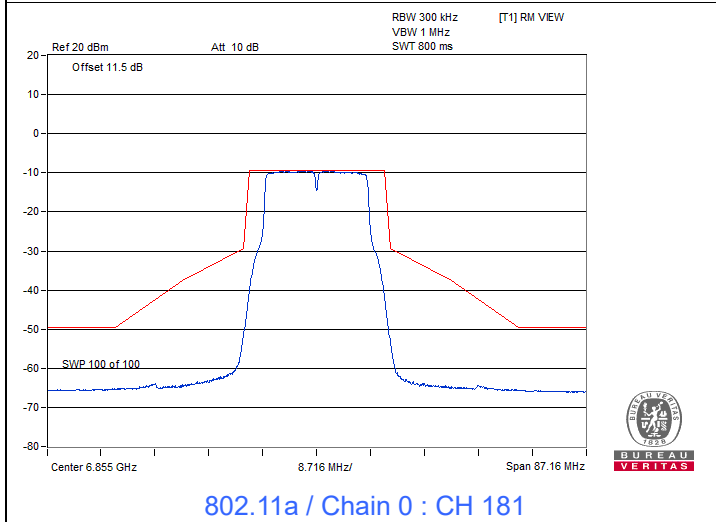
Spectrum Plot



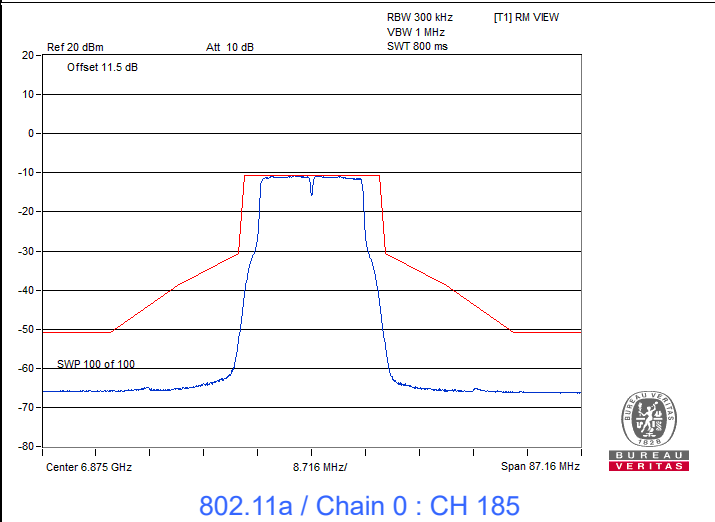
802.11a / Chain 0 : CH 117



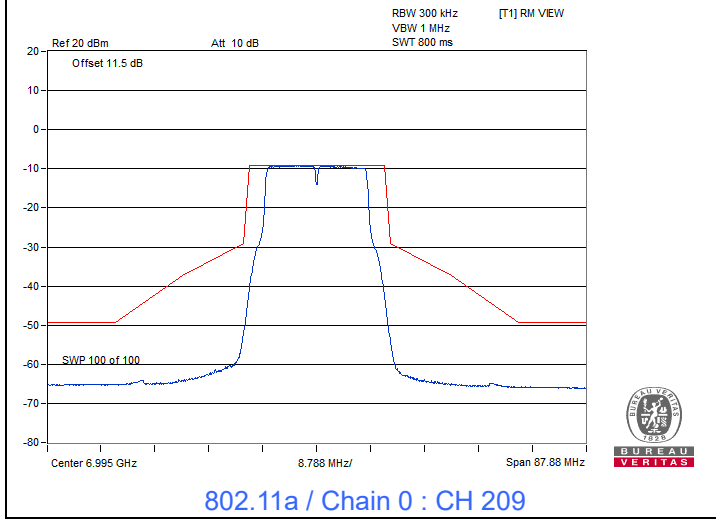
802.11a / Chain 0 : CH 149



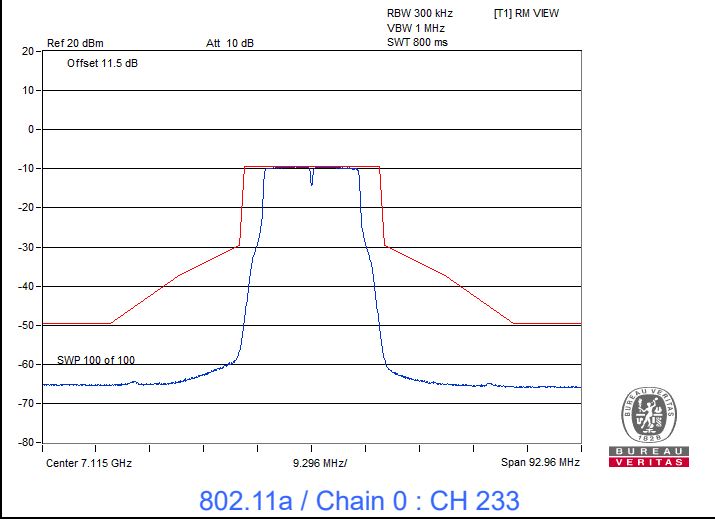
802.11a / Chain 0 : CH 181



802.11a / Chain 0 : CH 185



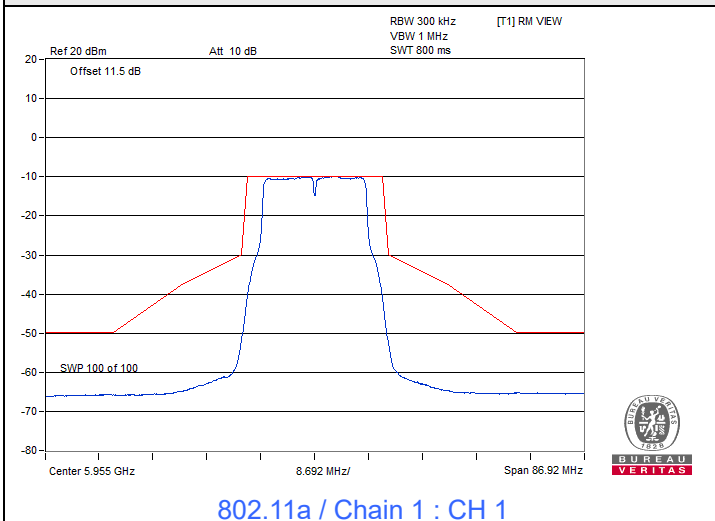
802.11a / Chain 0 : CH 209



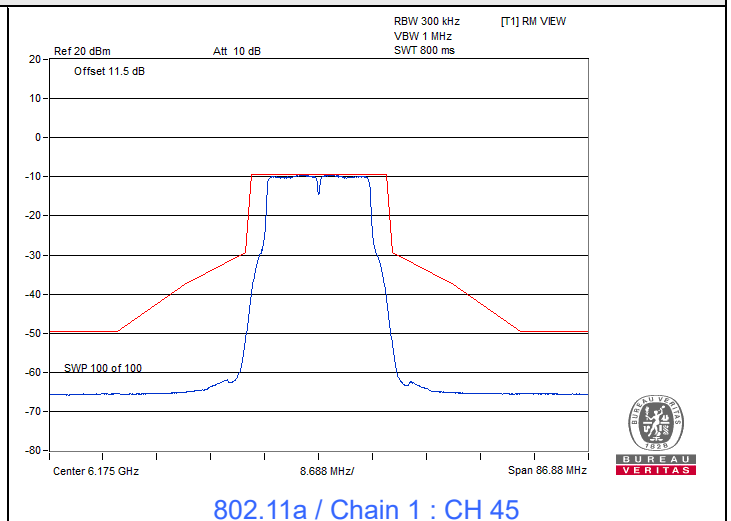
802.11a / Chain 0 : CH 233



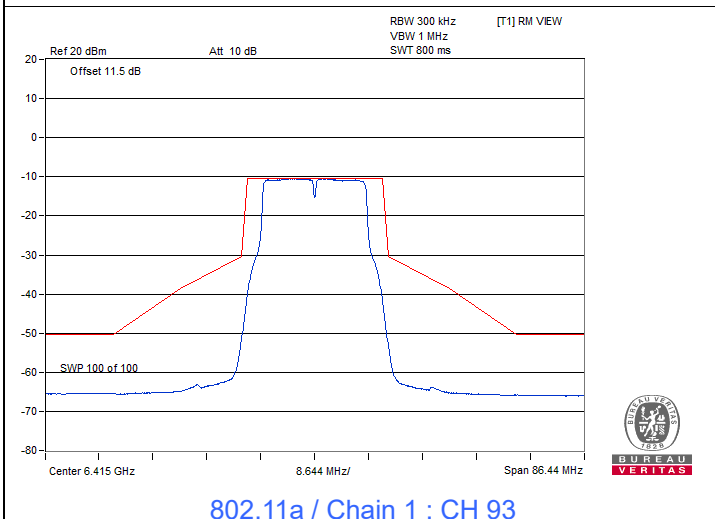
Spectrum Plot



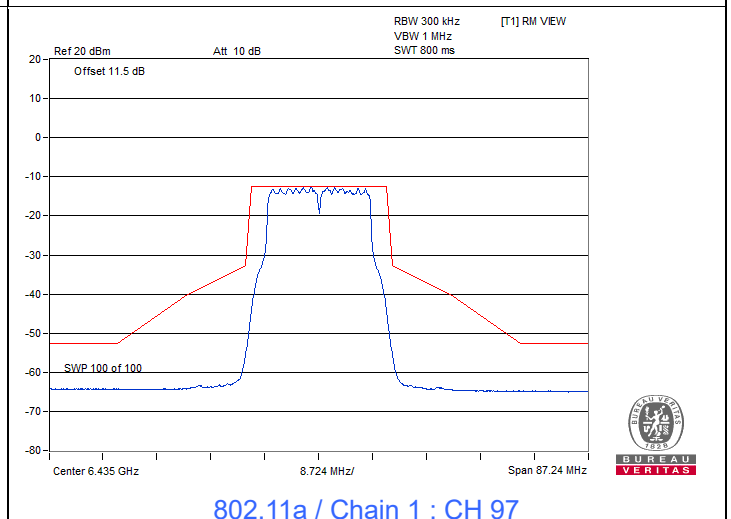
802.11a / Chain 1 : CH 1



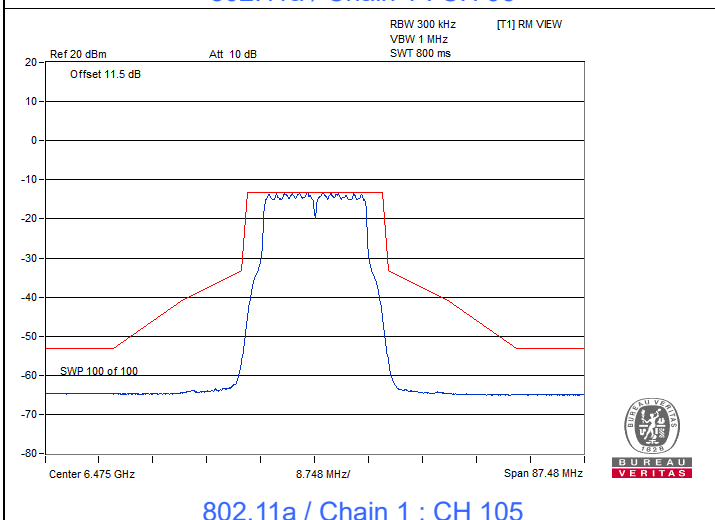
802.11a / Chain 1 : CH 45



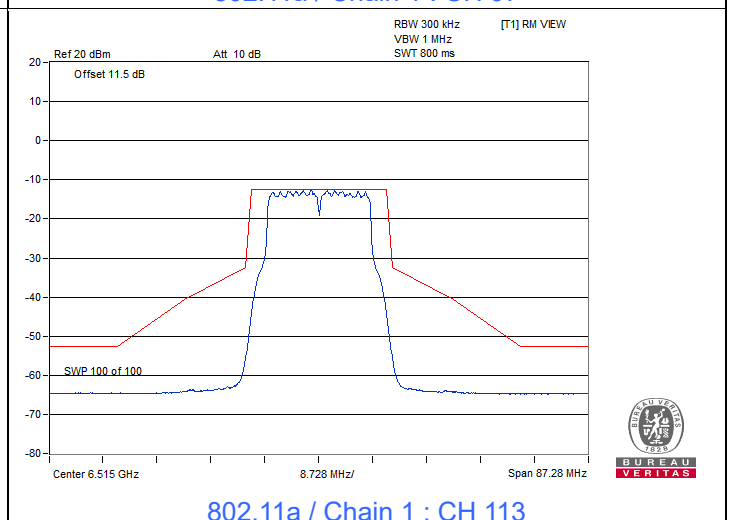
802.11a / Chain 1 : CH 93



802.11a / Chain 1 : CH 97

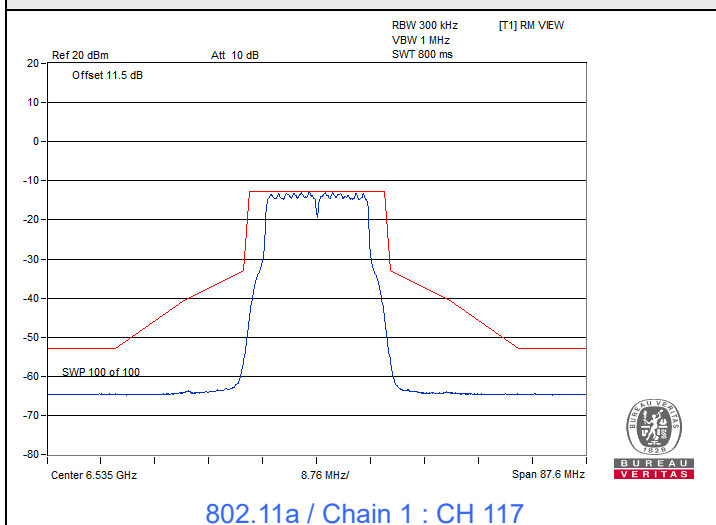


802.11a / Chain 1 : CH 105

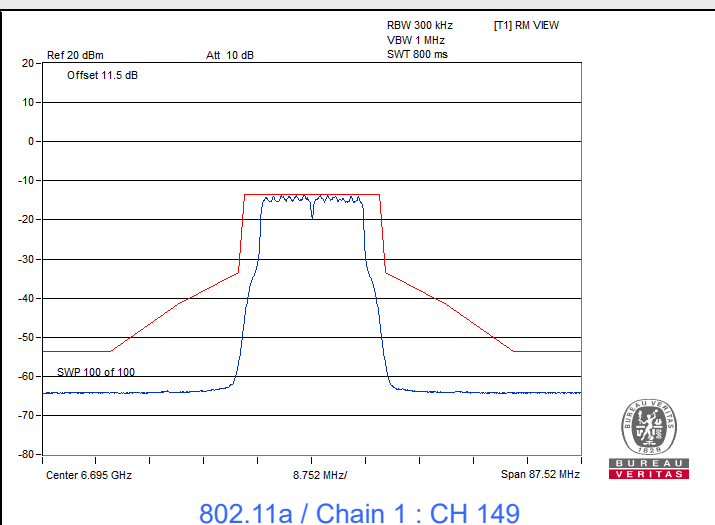


802.11a / Chain 1 : CH 113

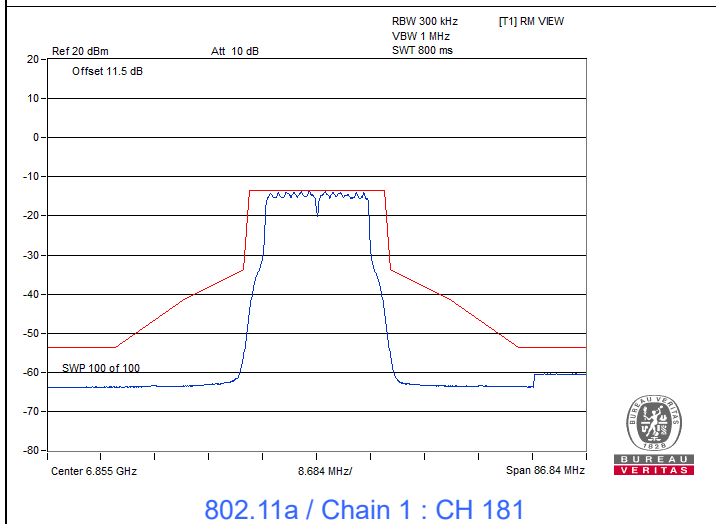
Spectrum Plot



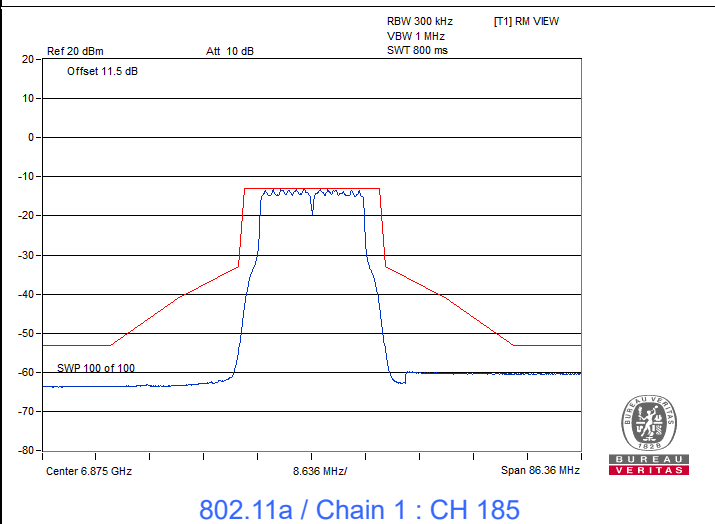
802.11a / Chain 1 : CH 117



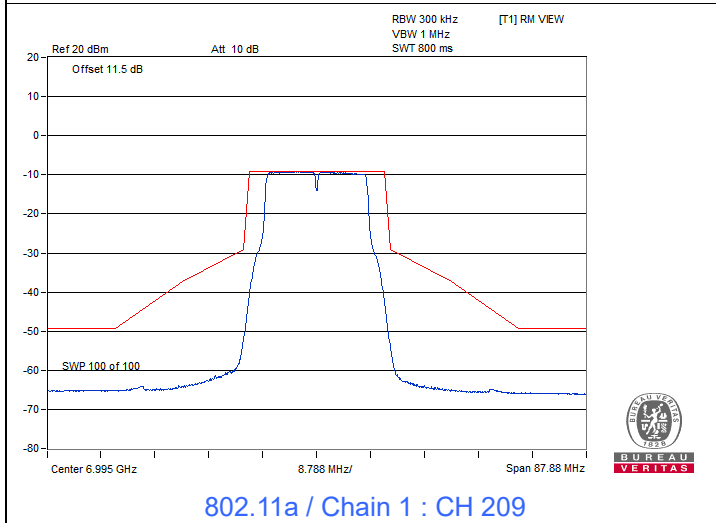
802.11a / Chain 1 : CH 149



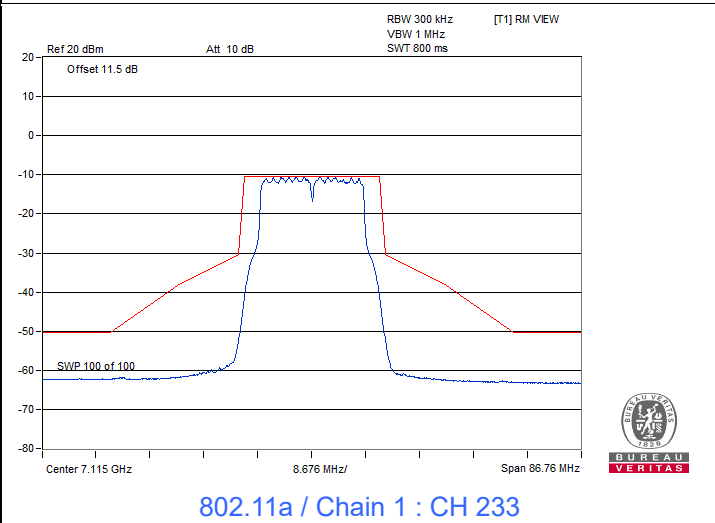
802.11a / Chain 1 : CH 181



802.11a / Chain 1 : CH 185

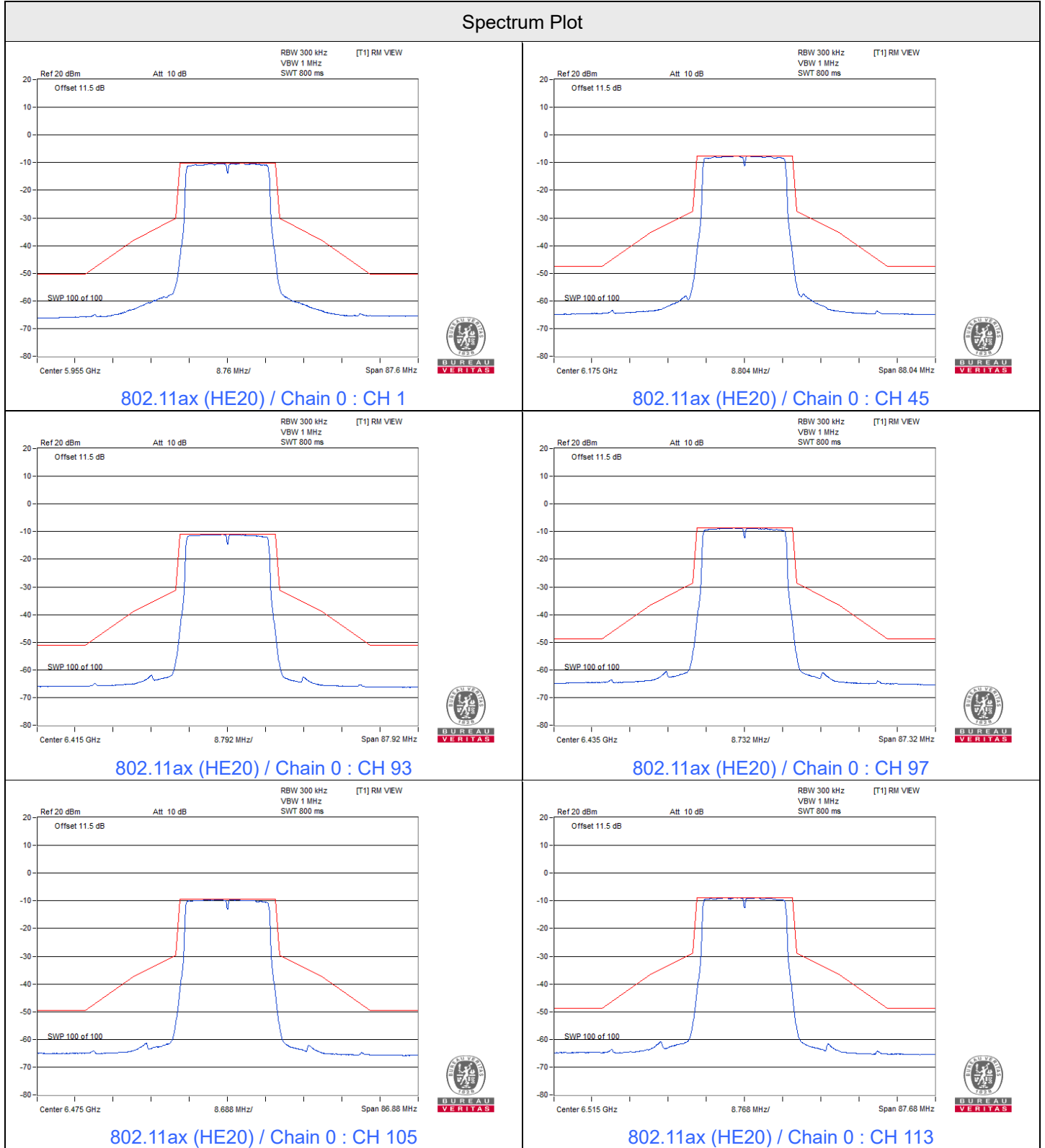


802.11a / Chain 1 : CH 209

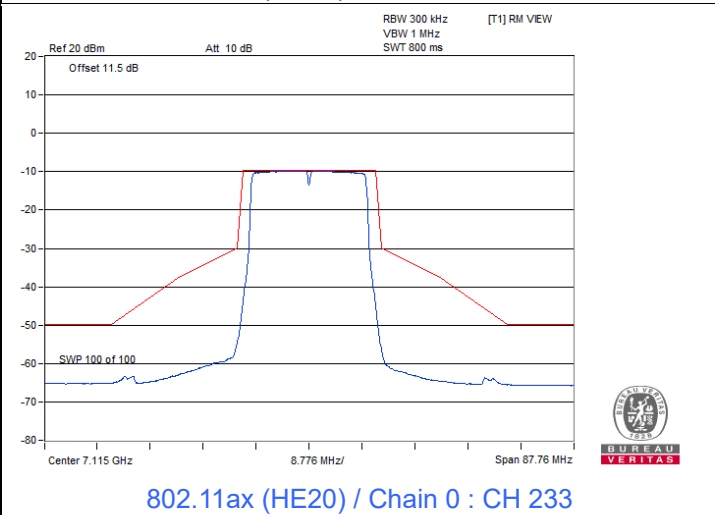
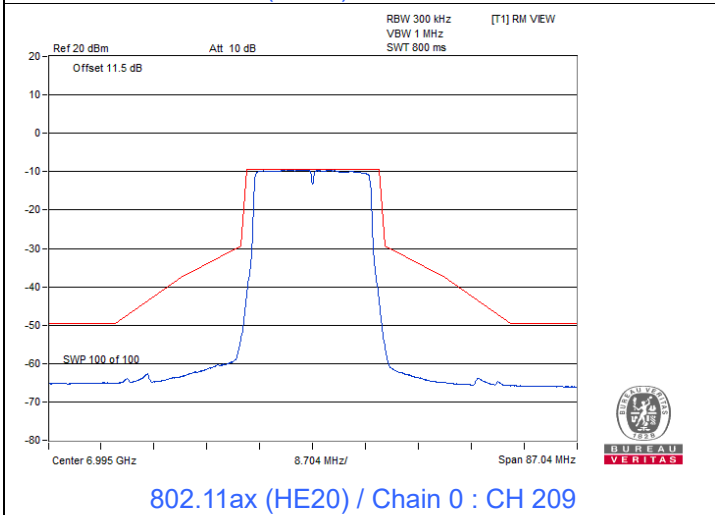
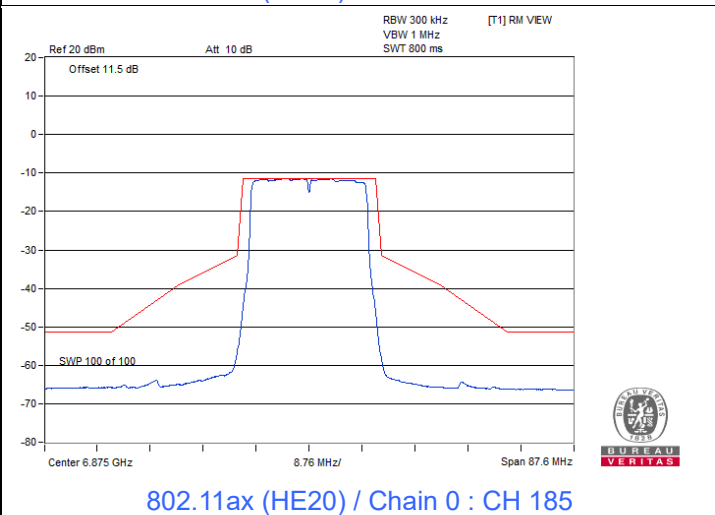
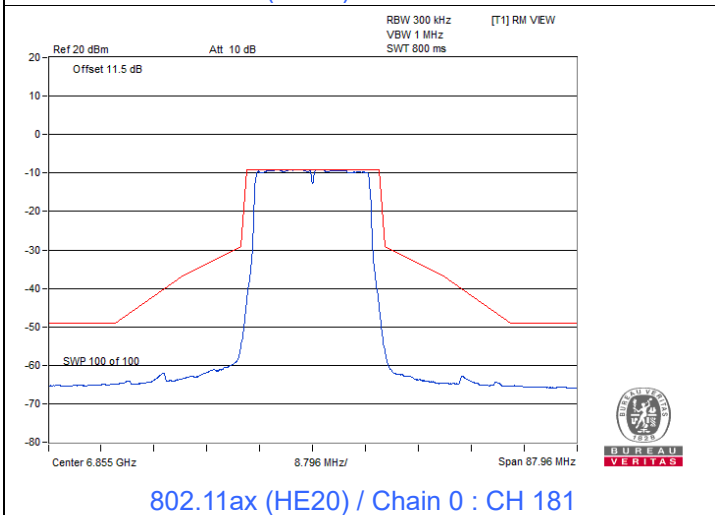
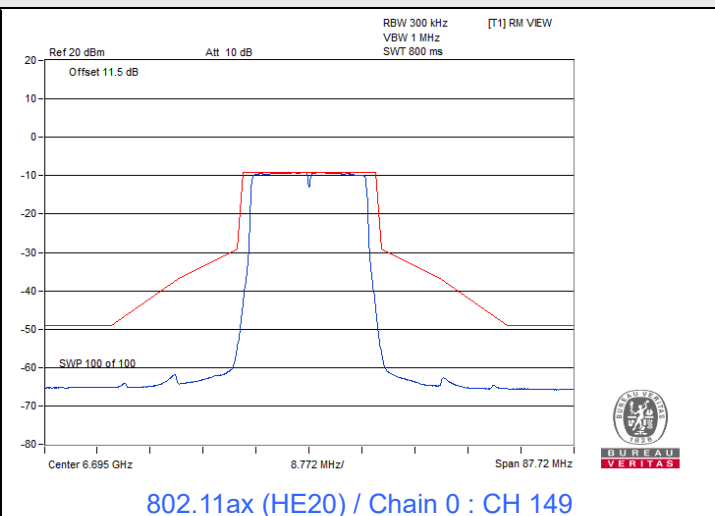
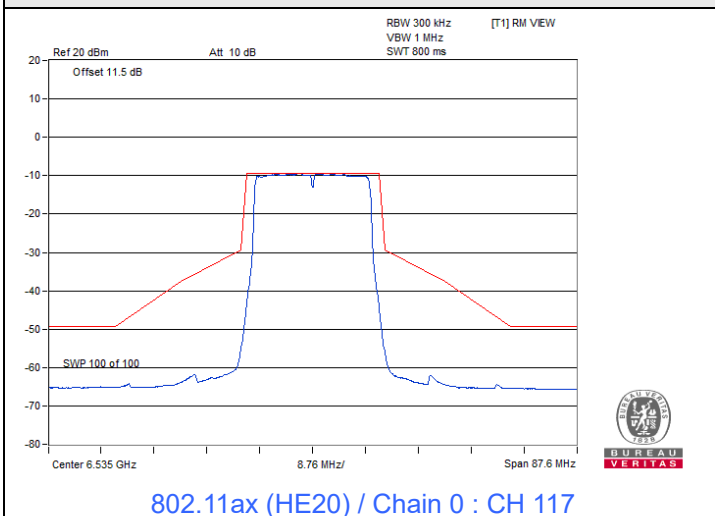


802.11a / Chain 1 : CH 233

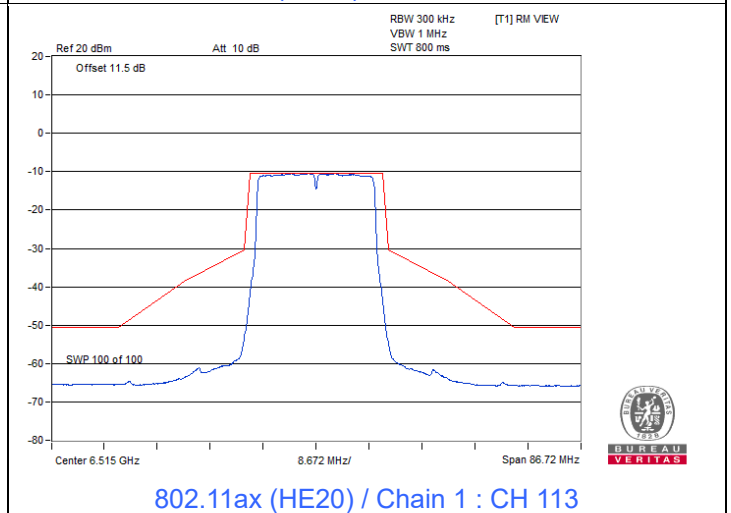
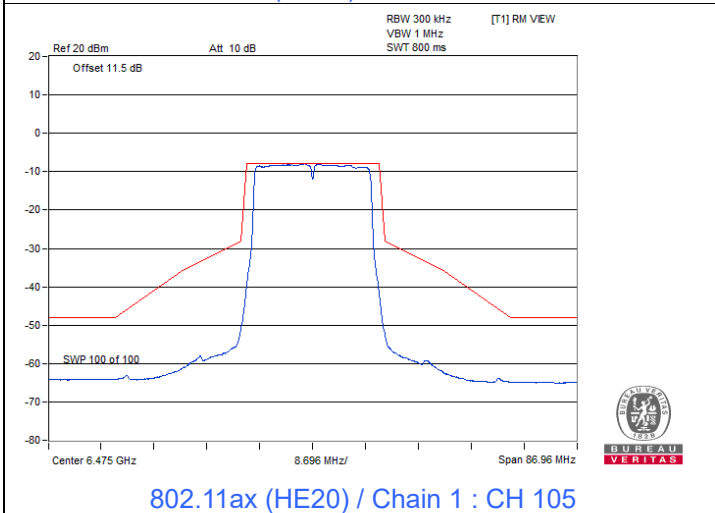
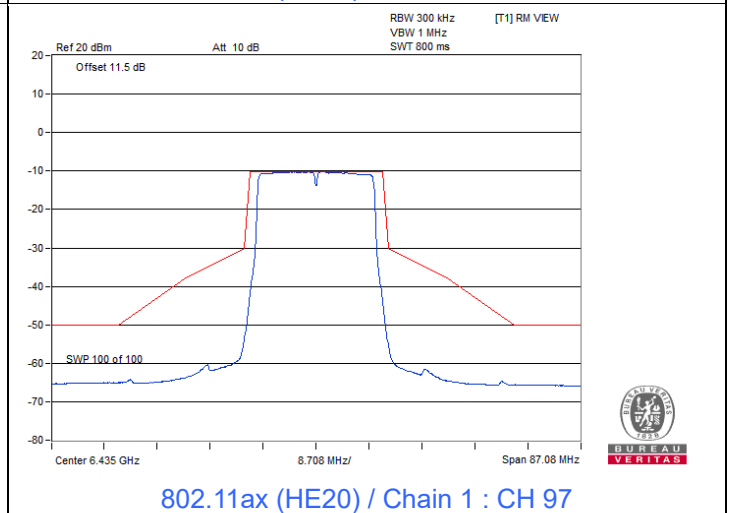
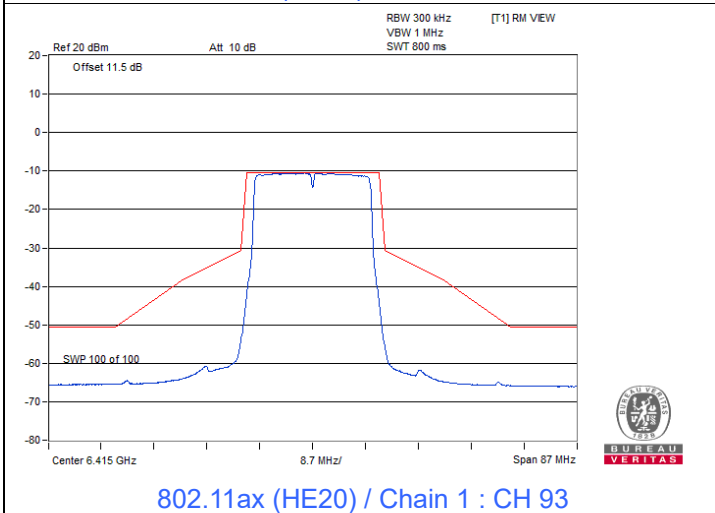
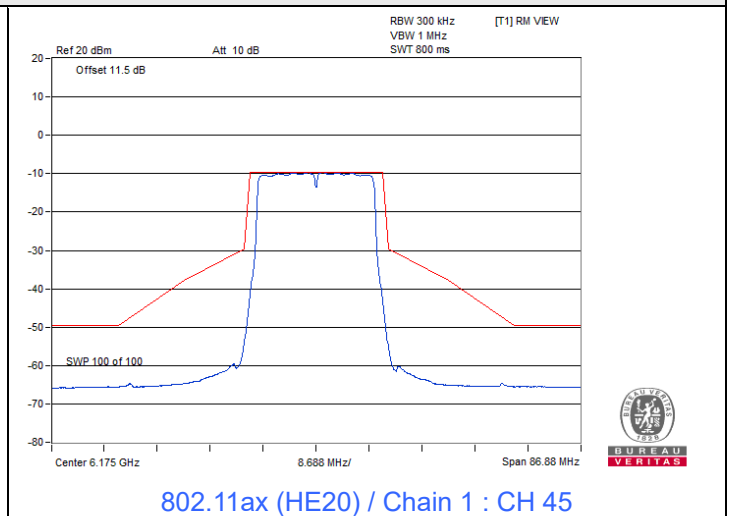
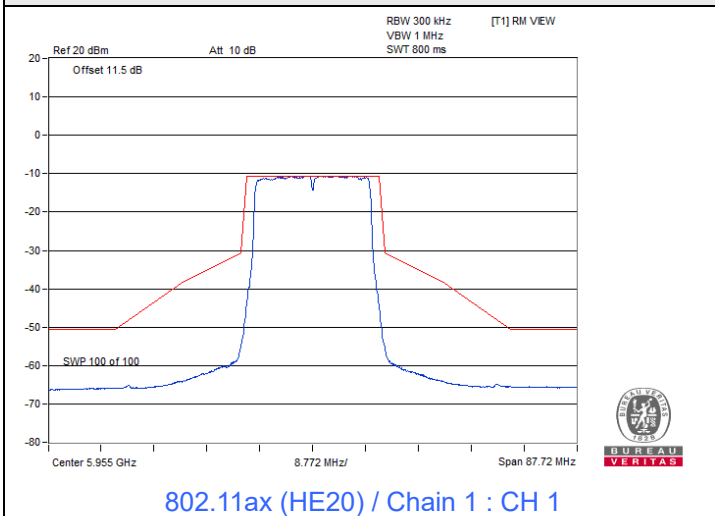
802.11ax (HE20)



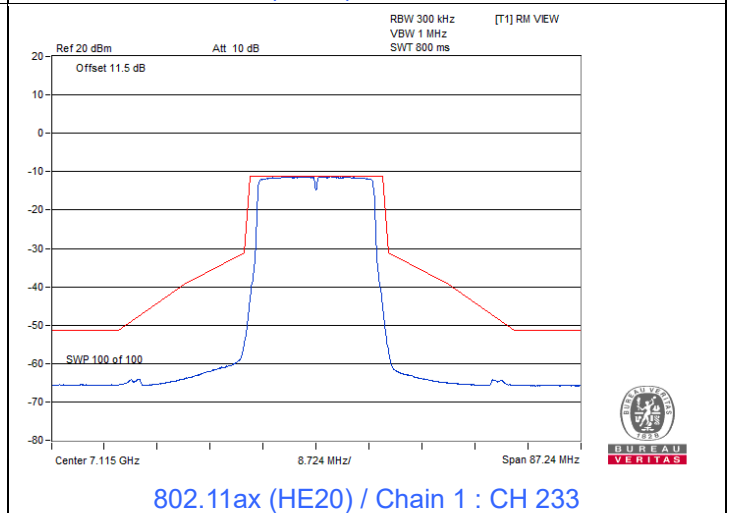
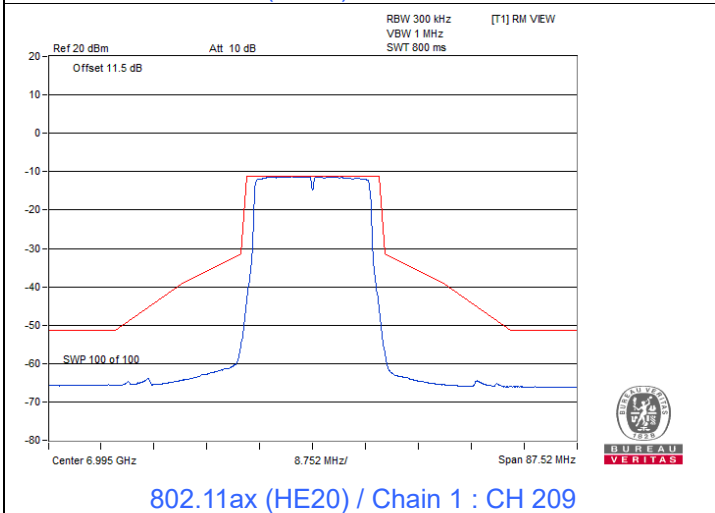
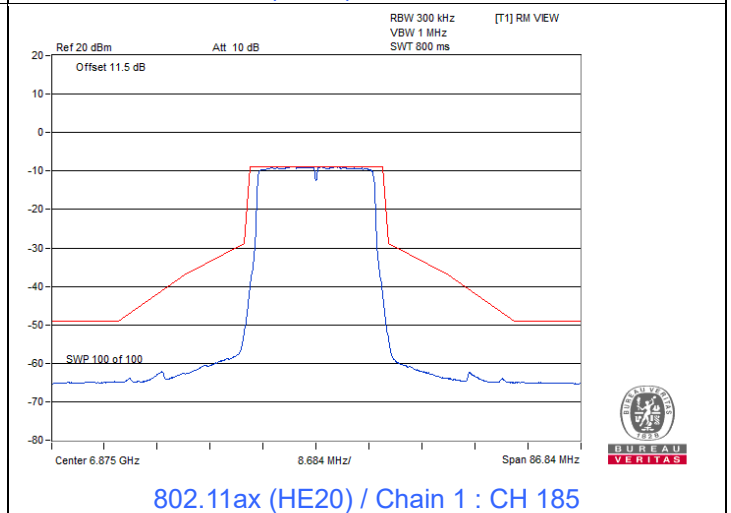
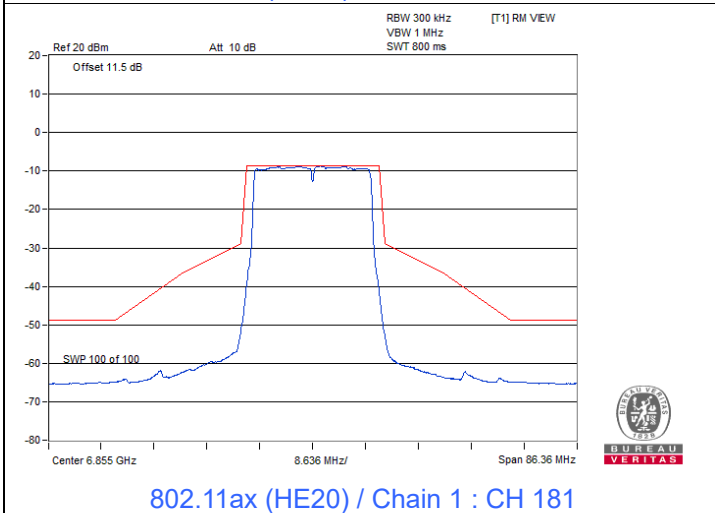
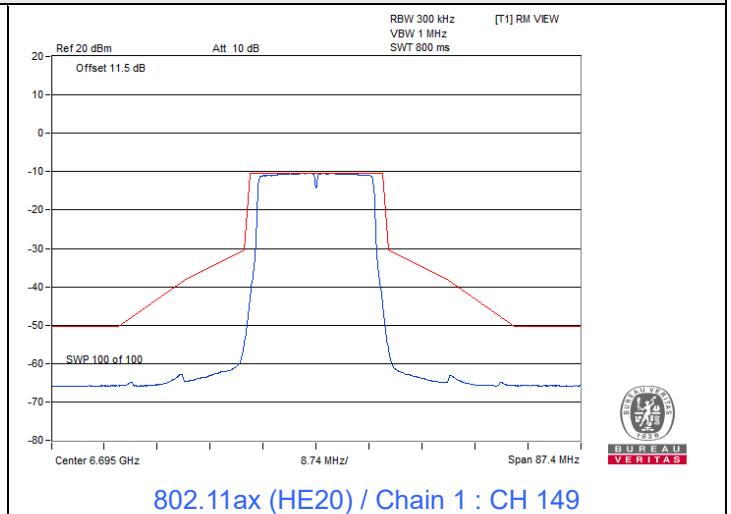
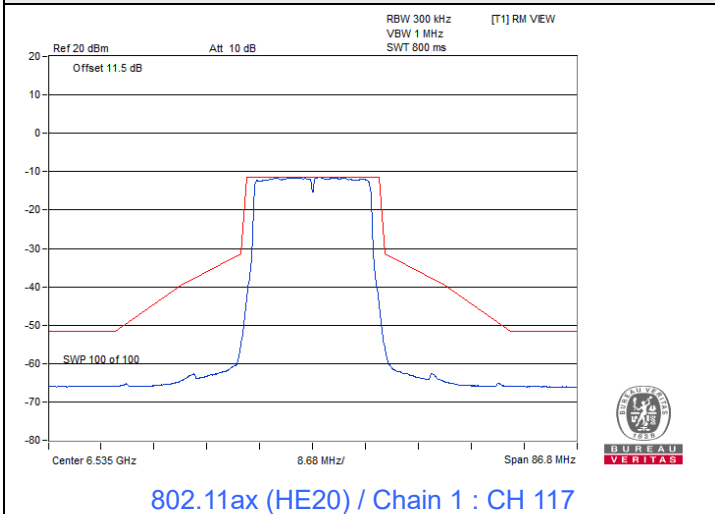
Spectrum Plot



Spectrum Plot



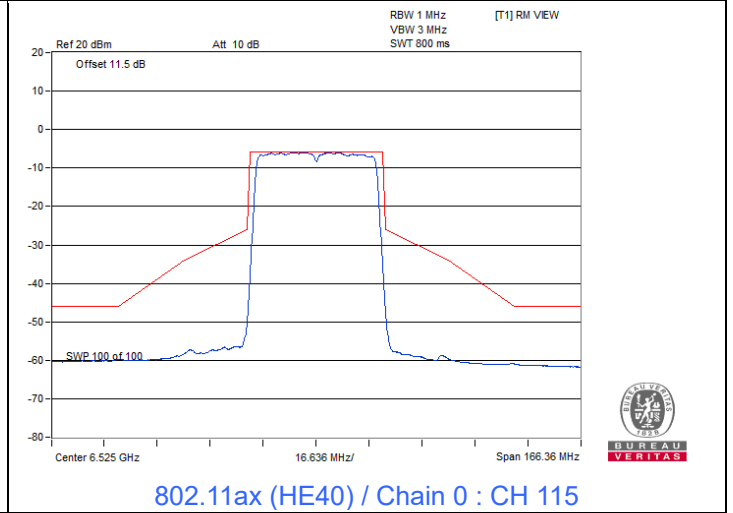
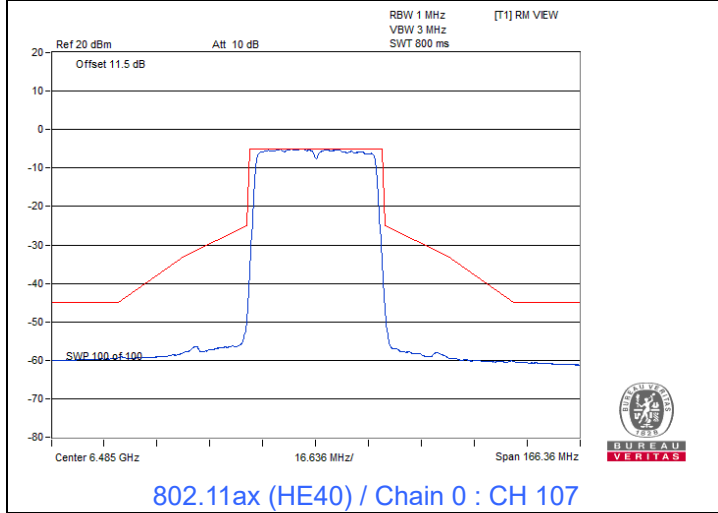
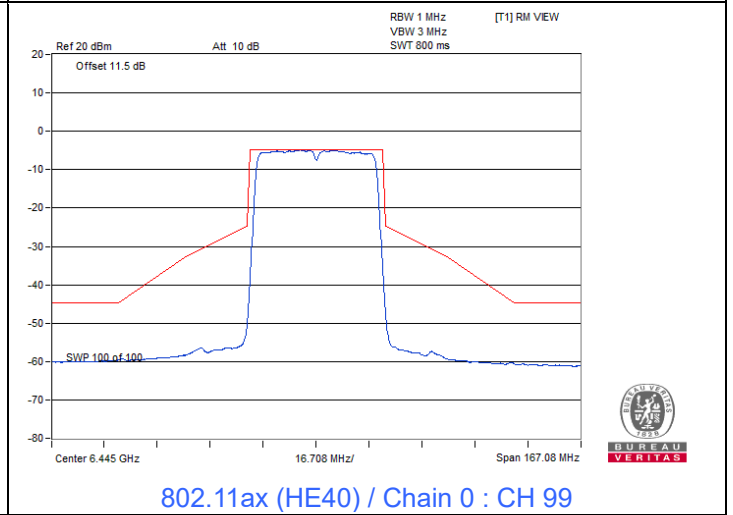
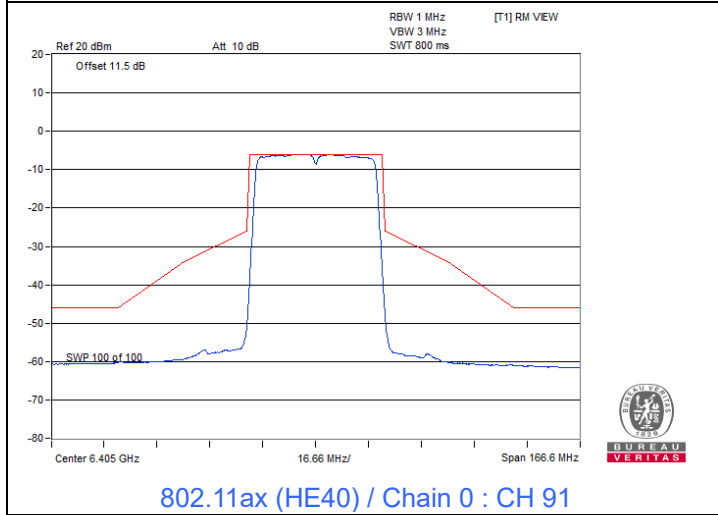
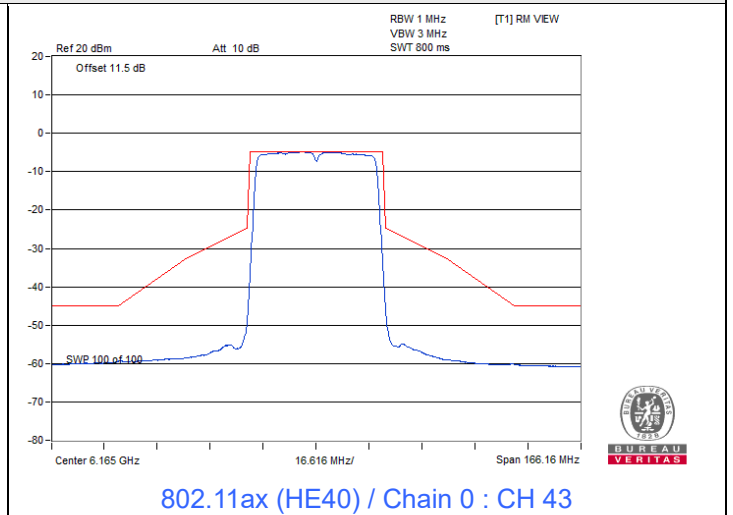
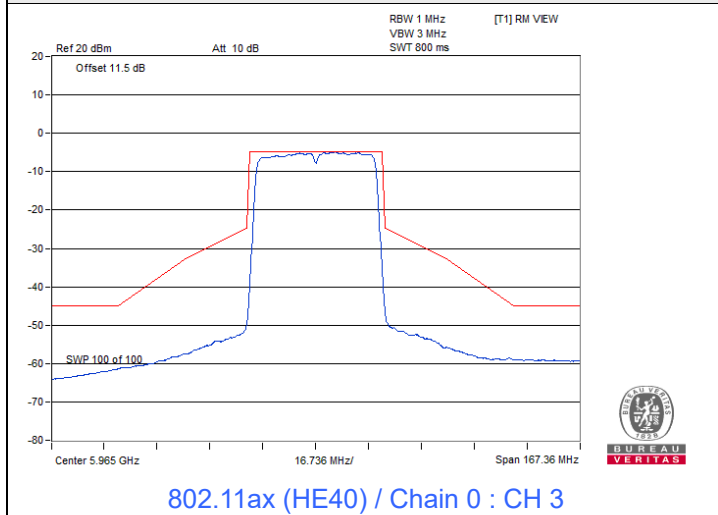
Spectrum Plot



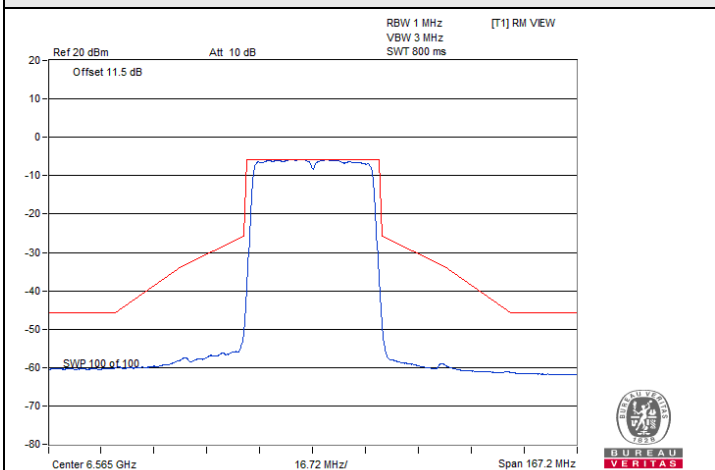


802.11ax (HE40)

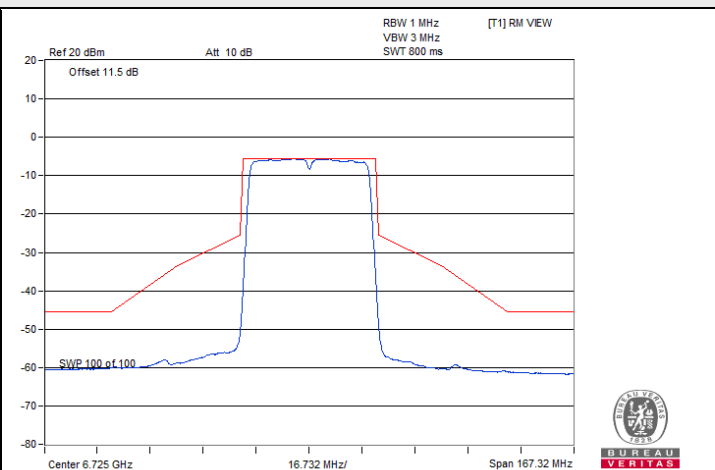
Spectrum Plot



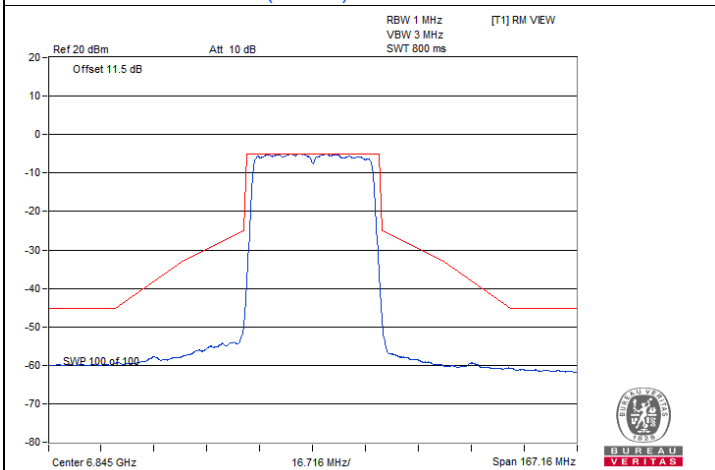
Spectrum Plot



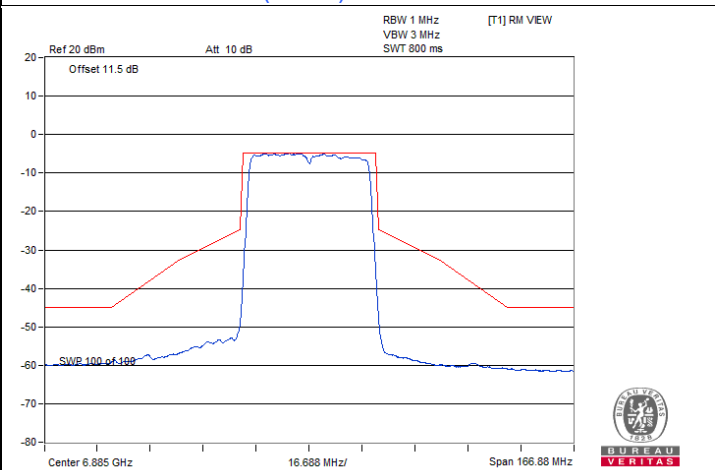
802.11ax (HE40) / Chain 0 : CH 123



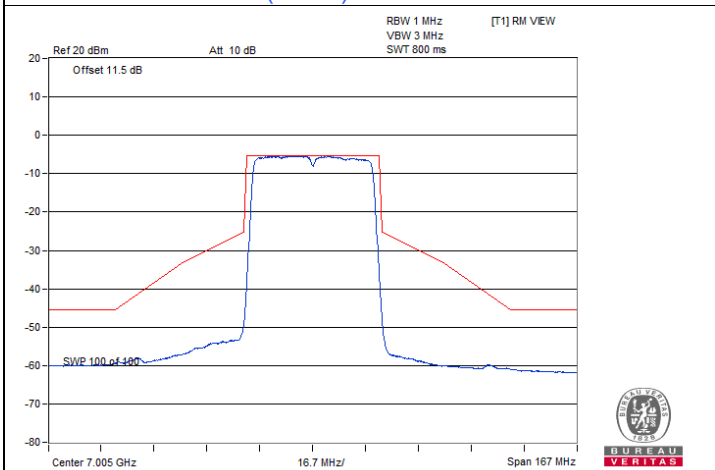
802.11ax (HE40) / Chain 0 : CH 155



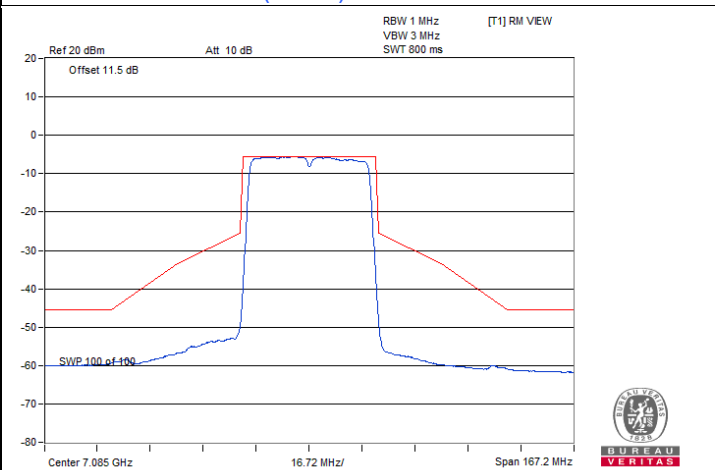
802.11ax (HE40) / Chain 0 : CH 179



802.11ax (HE40) / Chain 0 : CH 187

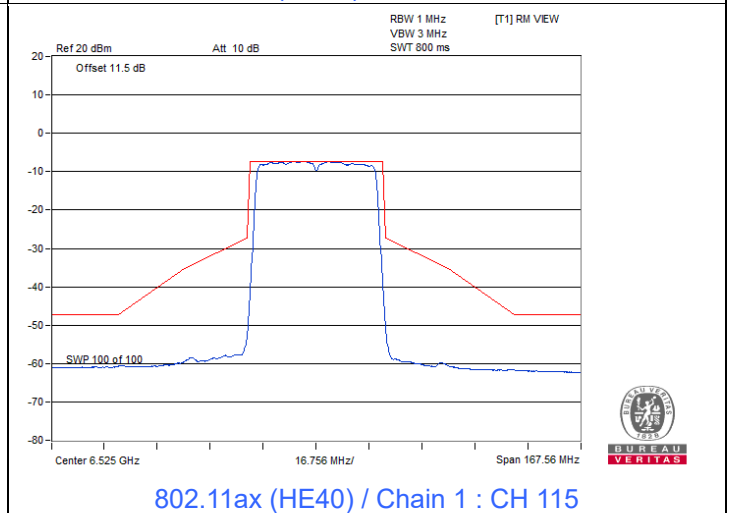
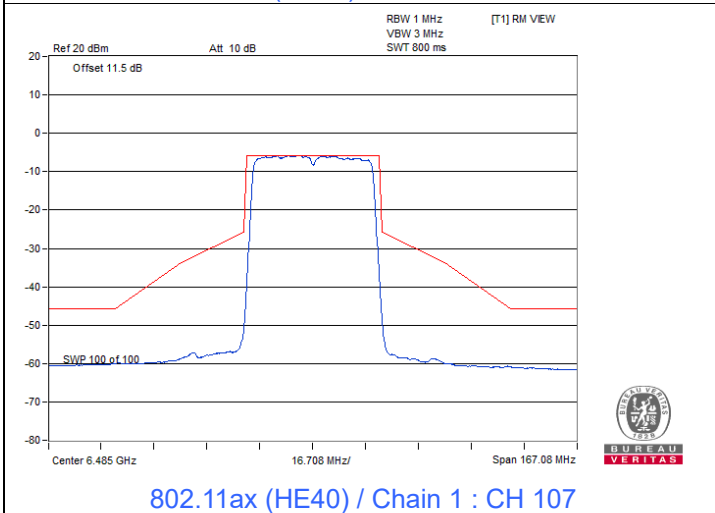
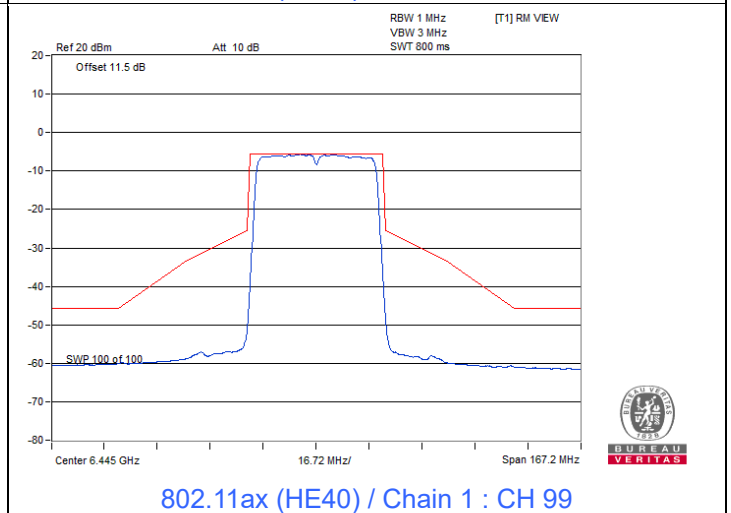
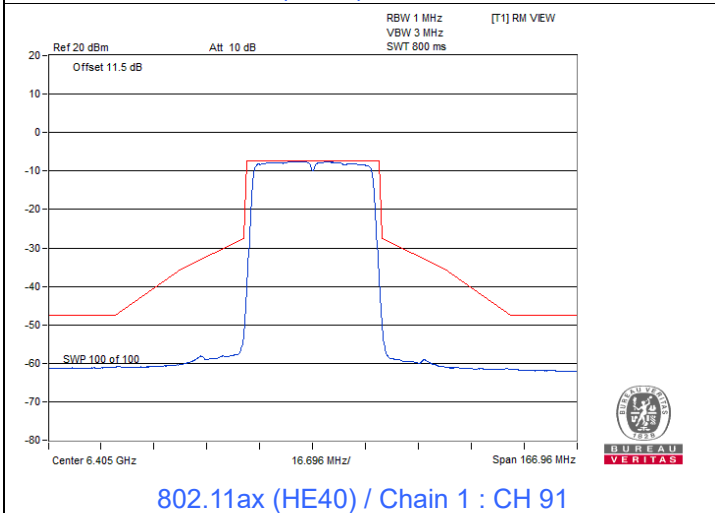
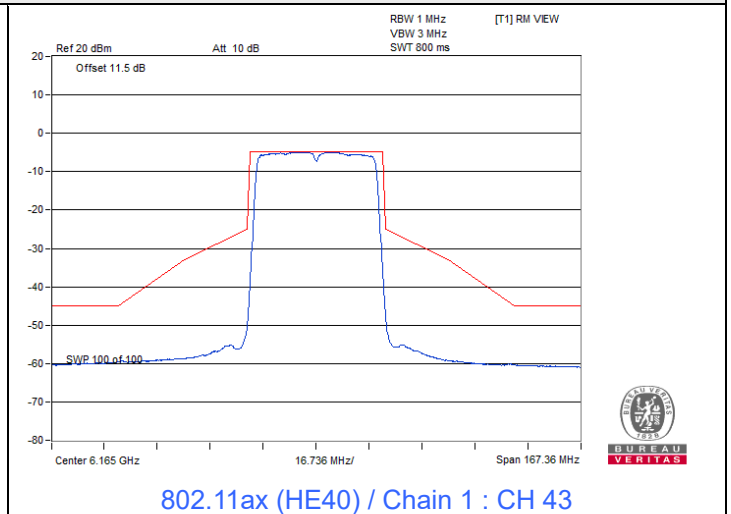
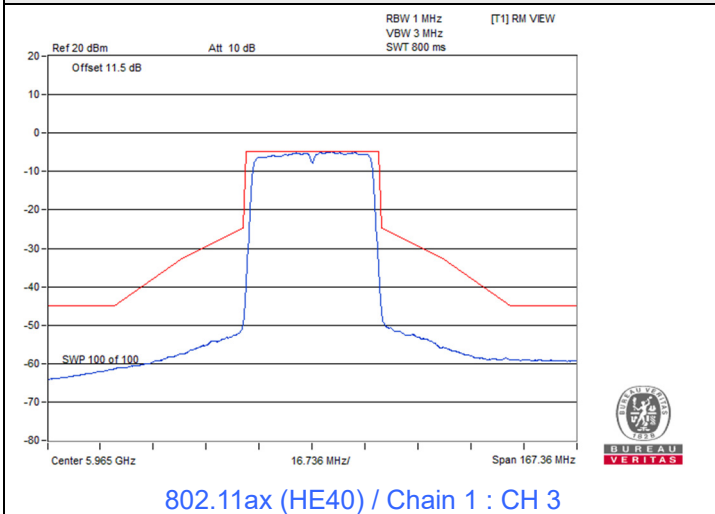


802.11ax (HE40) / Chain 0 : CH 211

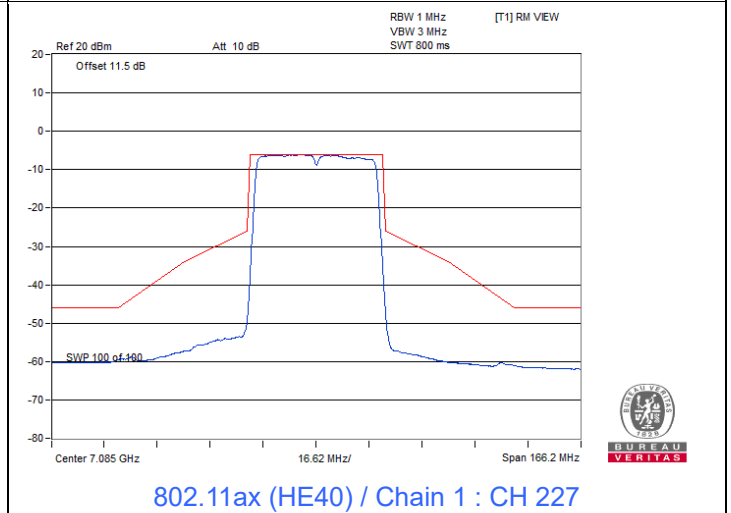
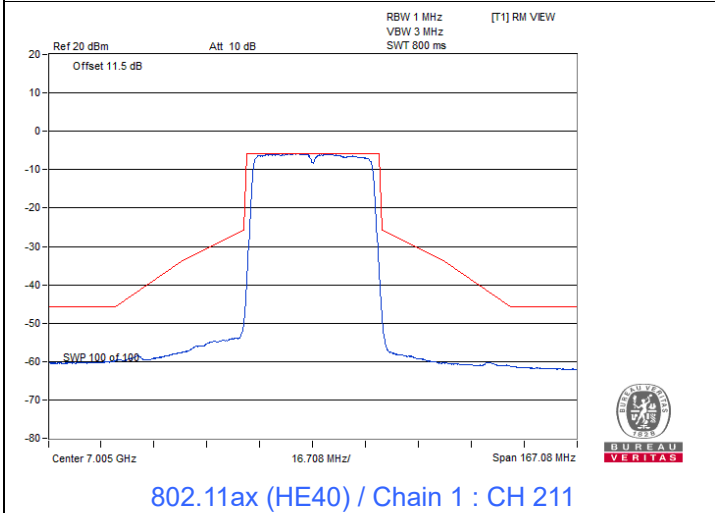
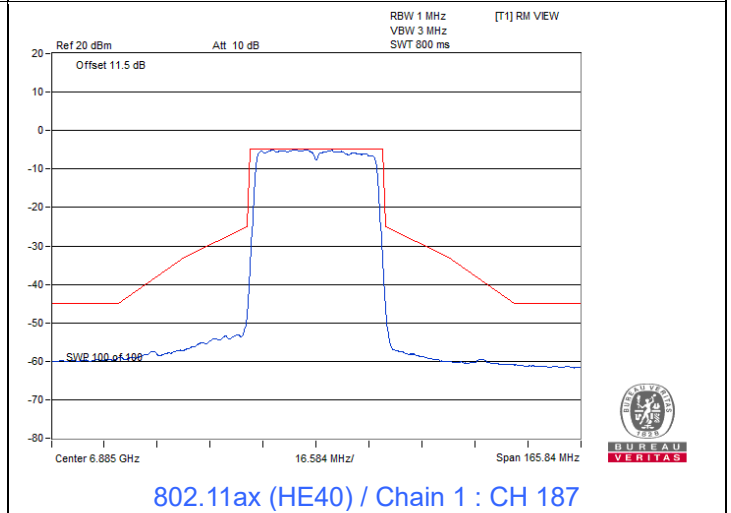
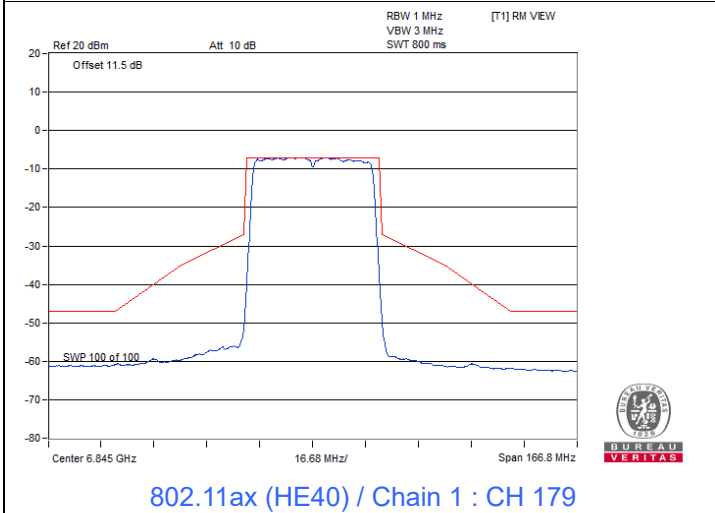
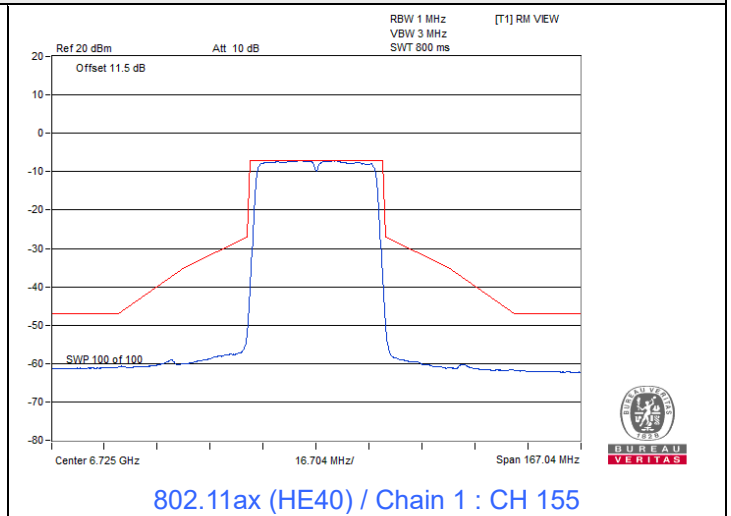
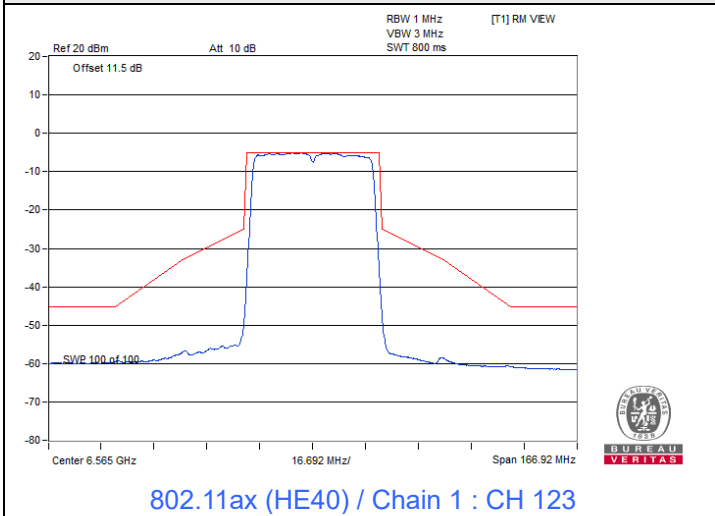


802.11ax (HE40) / Chain 0 : CH 227

Spectrum Plot

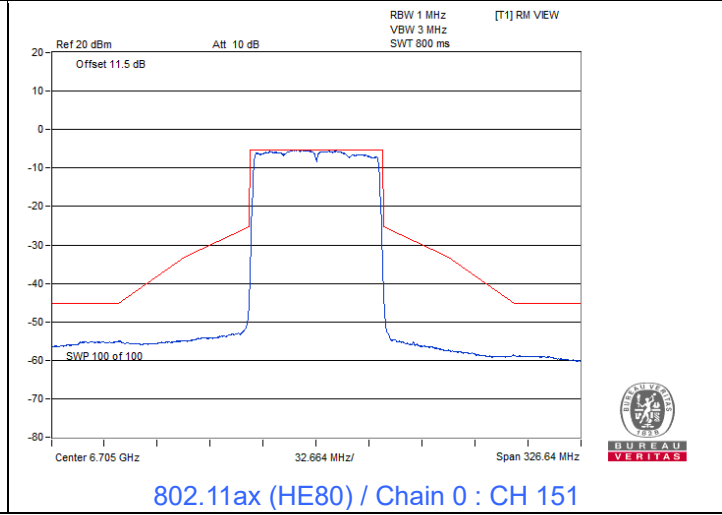
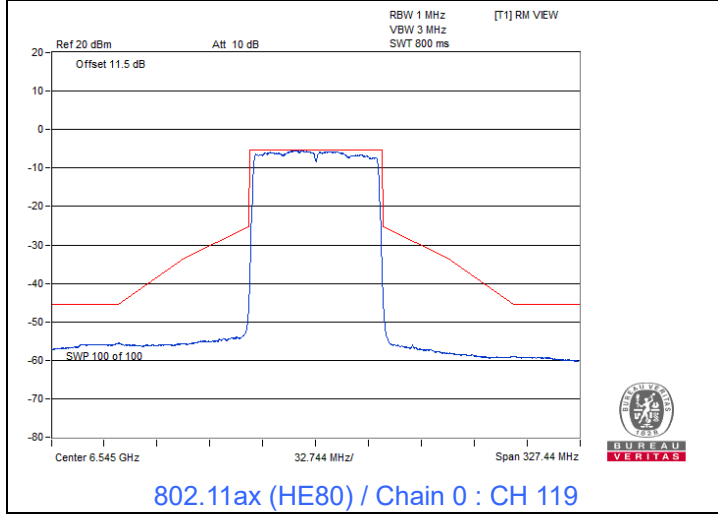
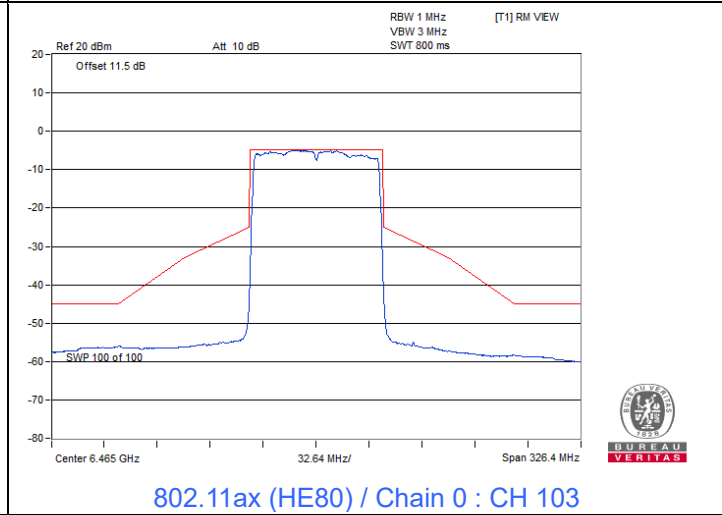
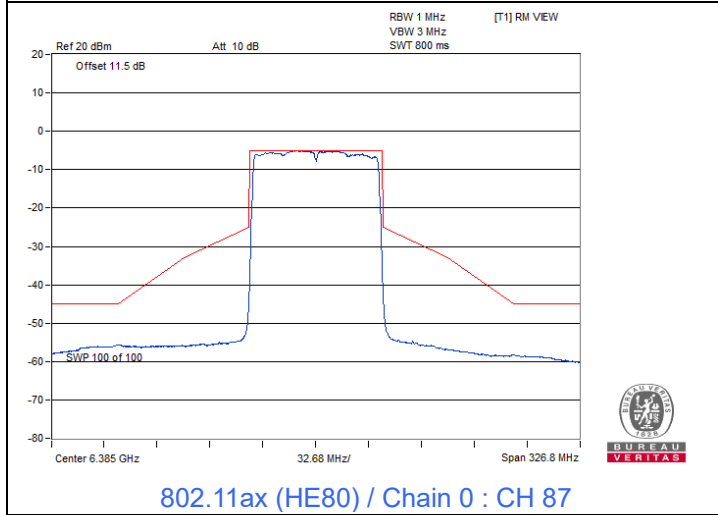
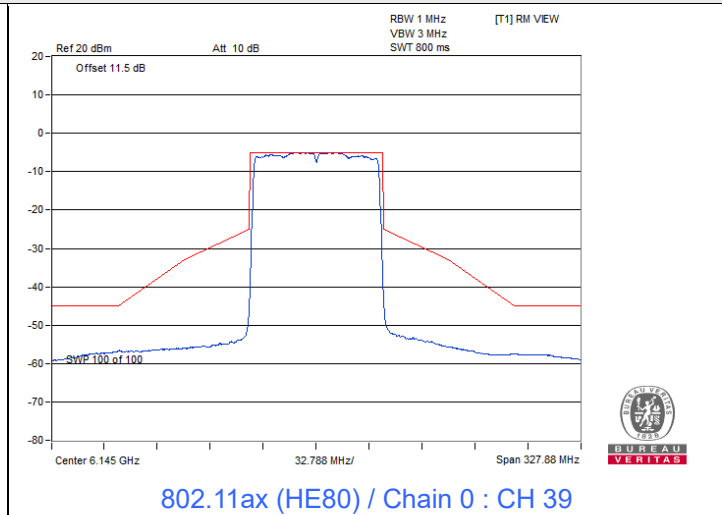
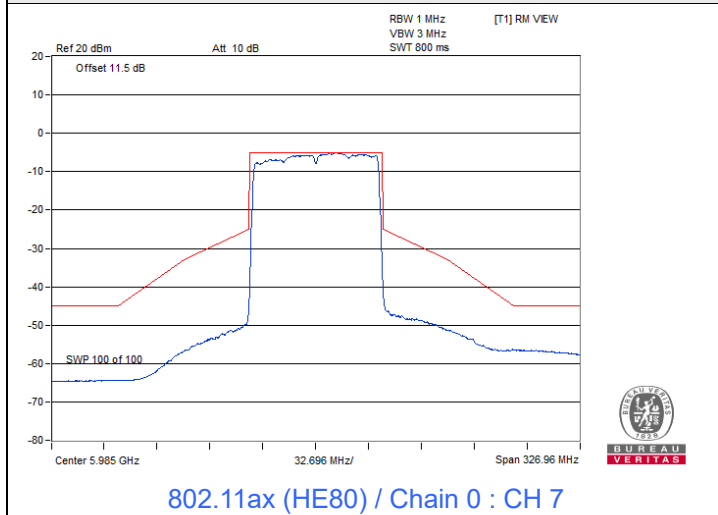


Spectrum Plot

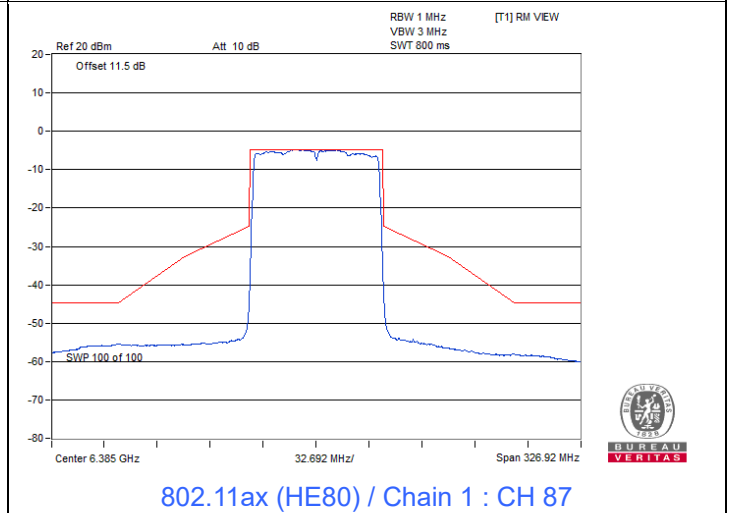
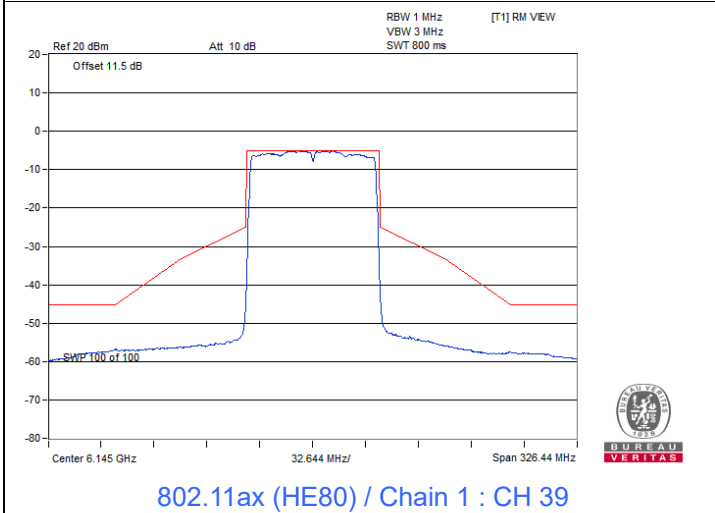
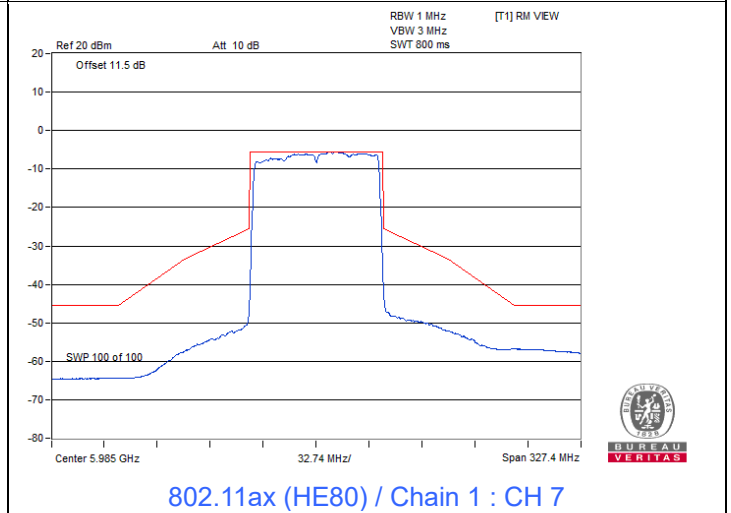
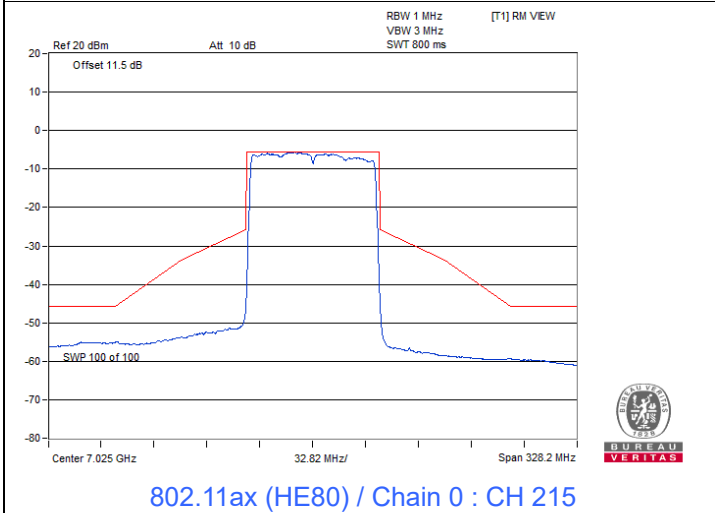
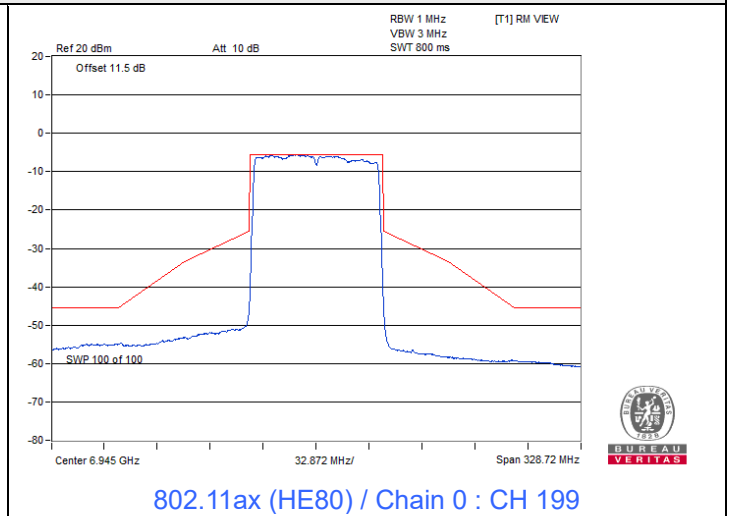
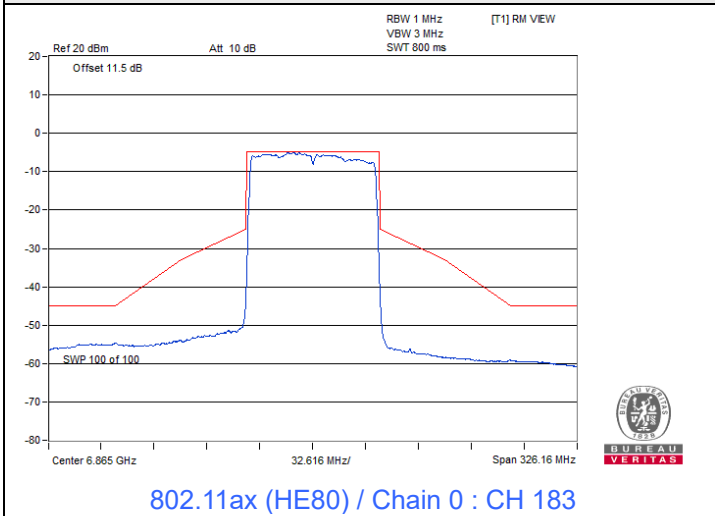


802.11ax (HE80)

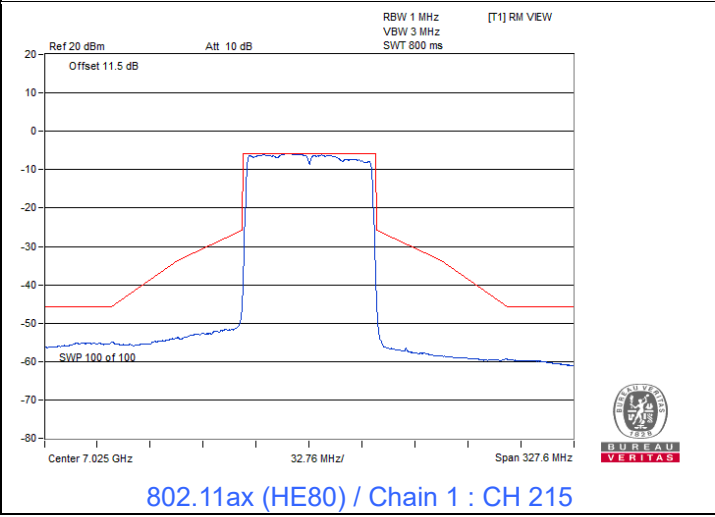
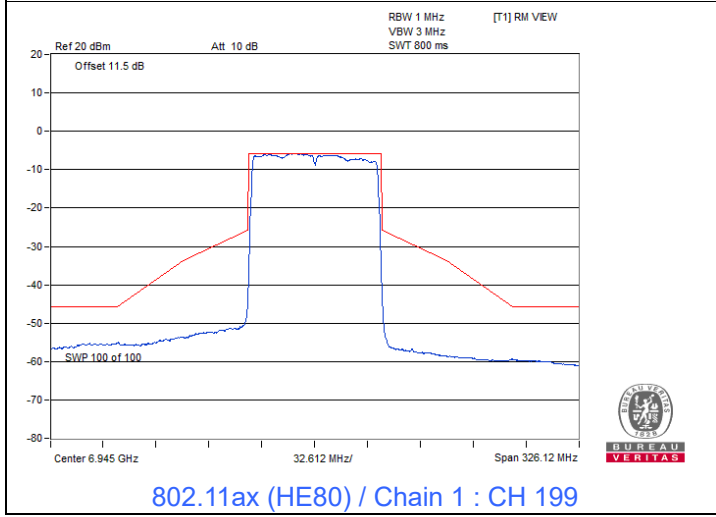
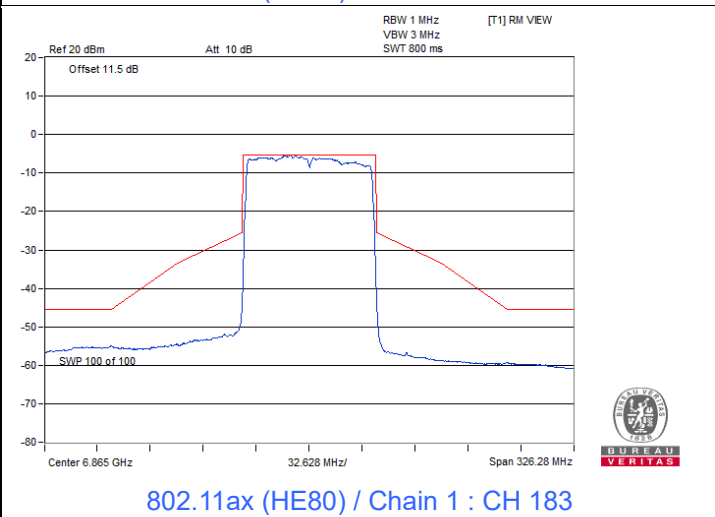
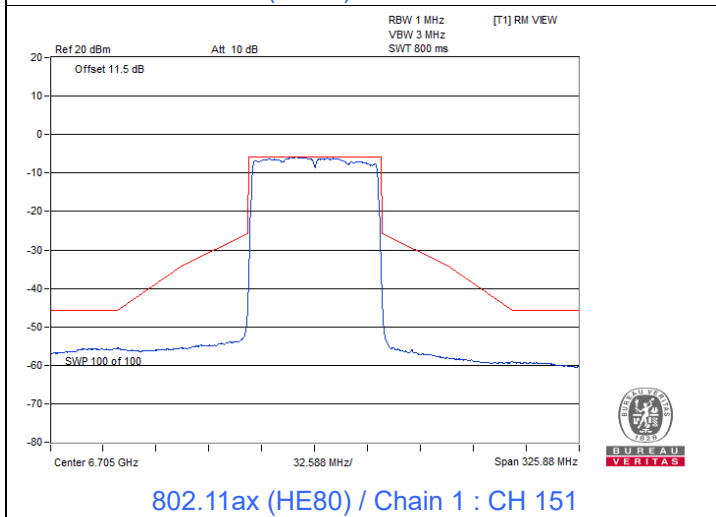
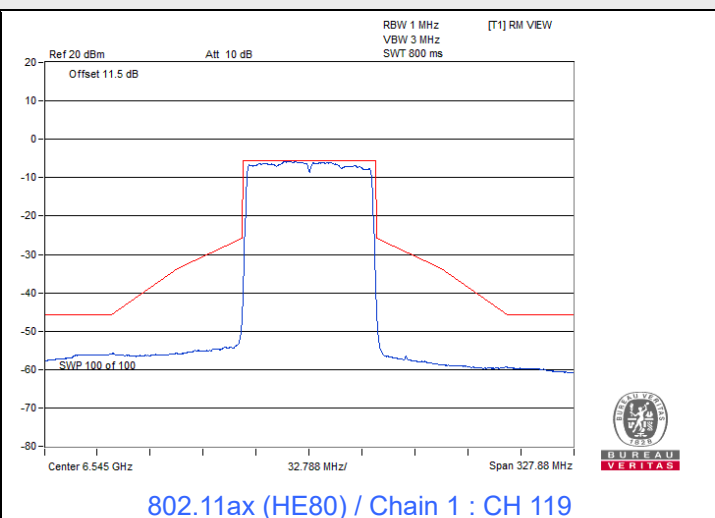
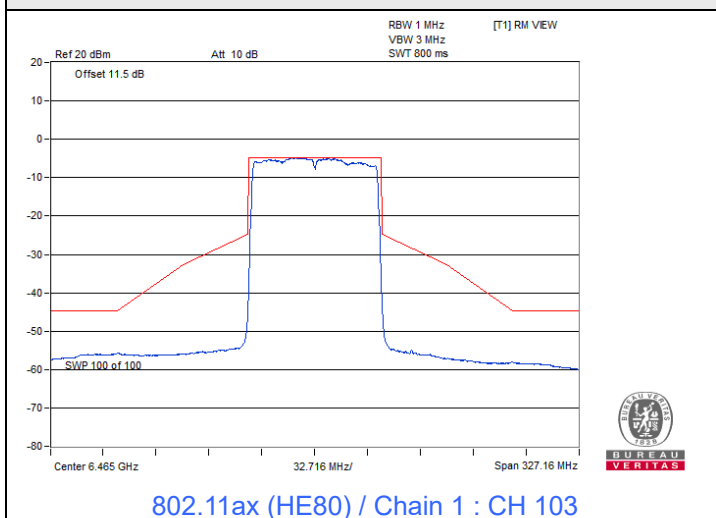
Spectrum Plot



Spectrum Plot

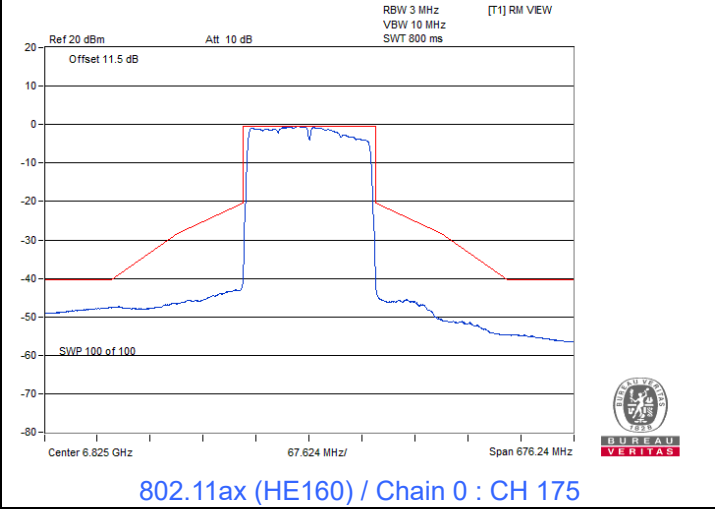
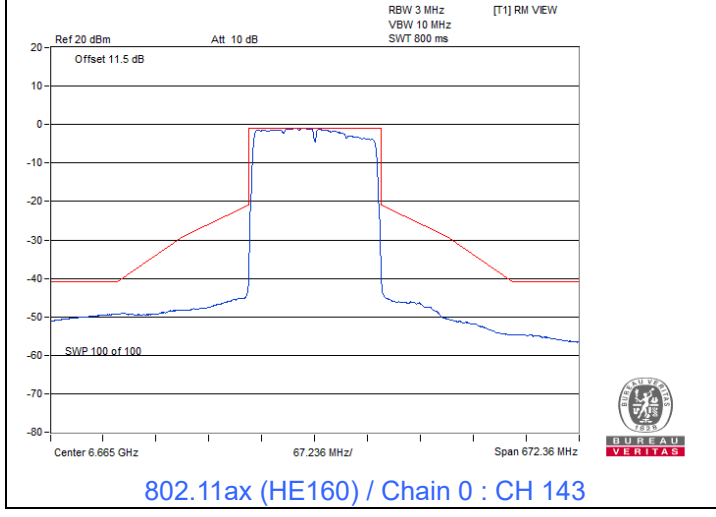
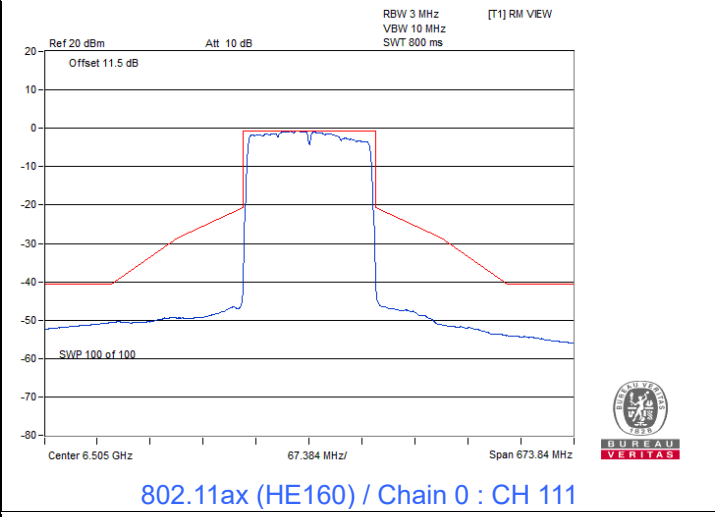
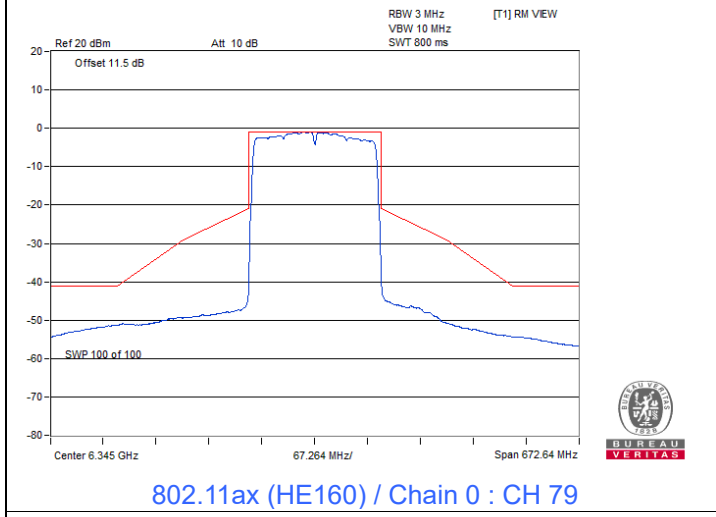
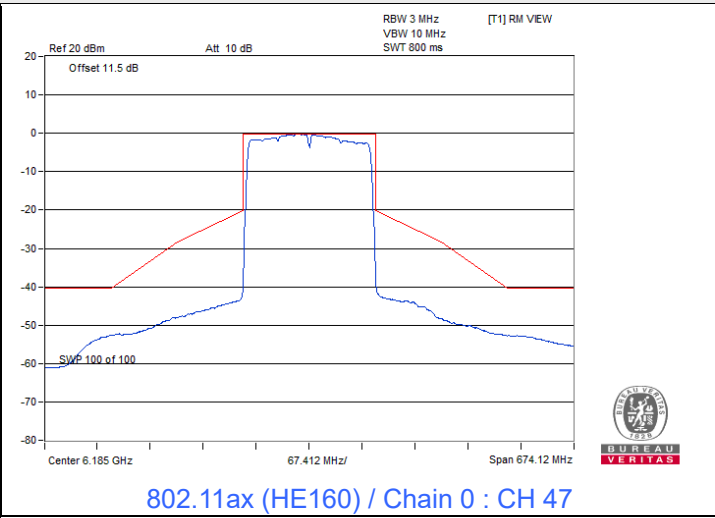
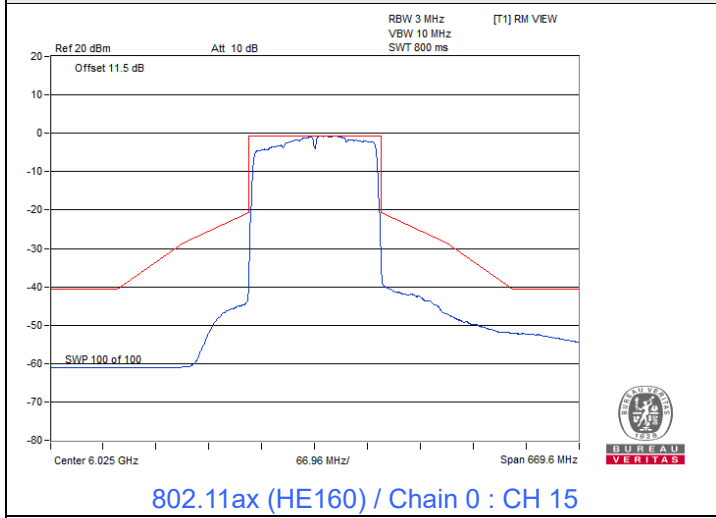


Spectrum Plot

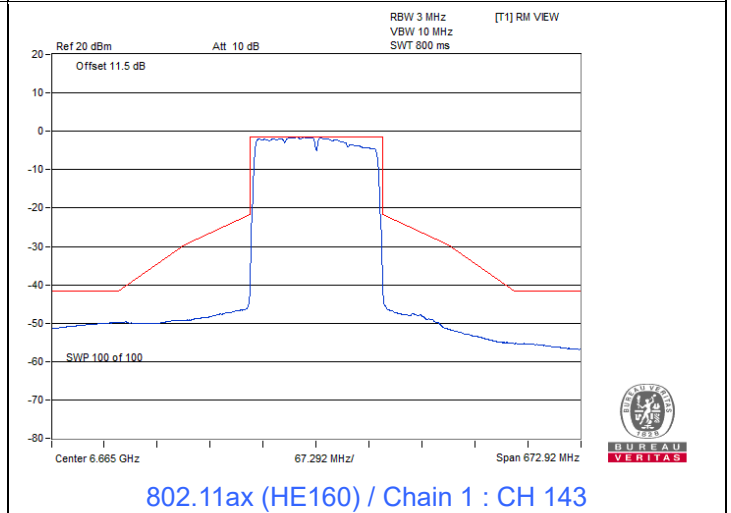
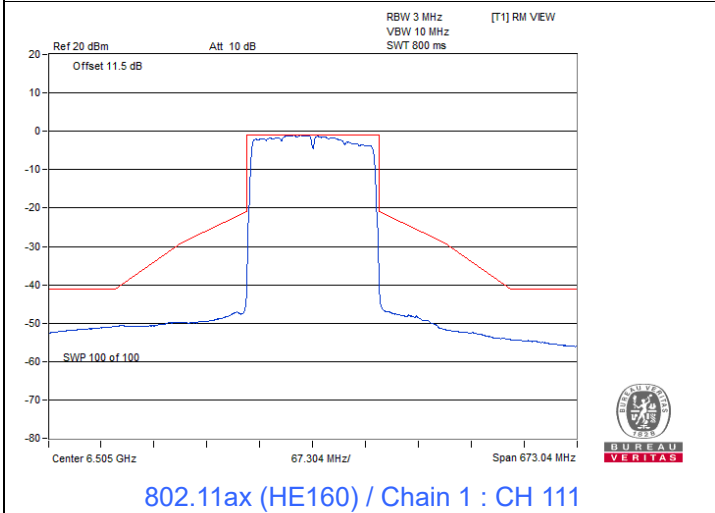
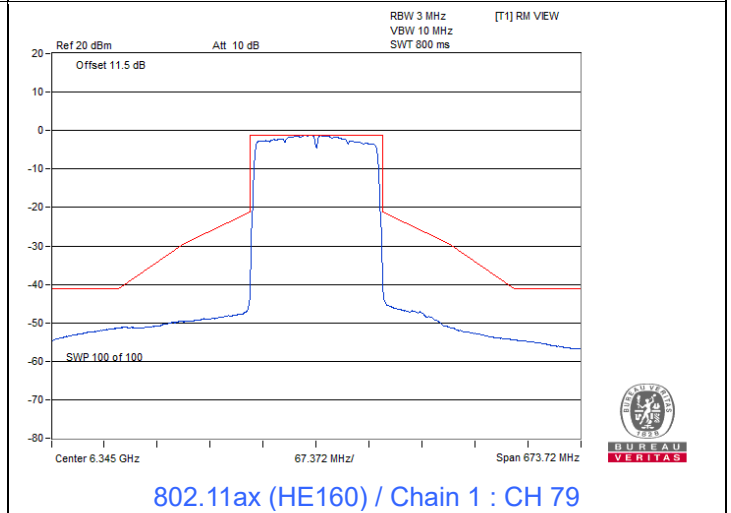
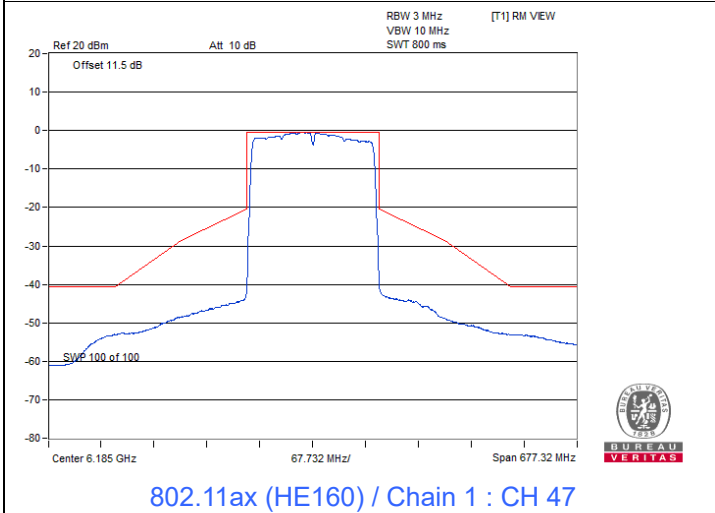
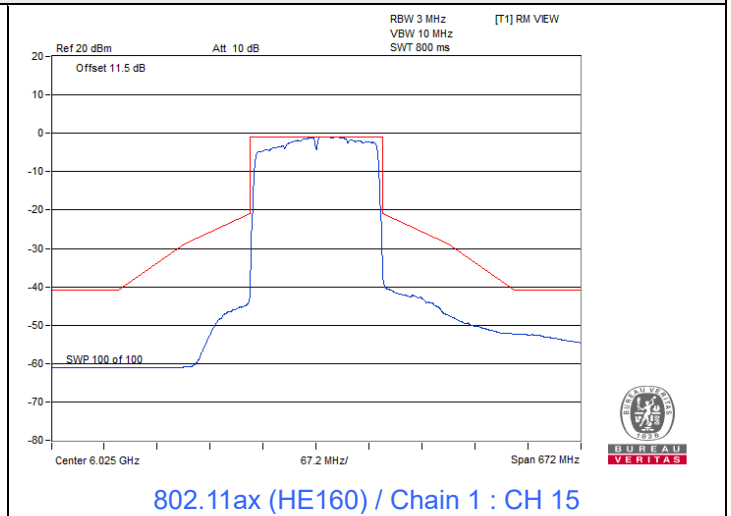
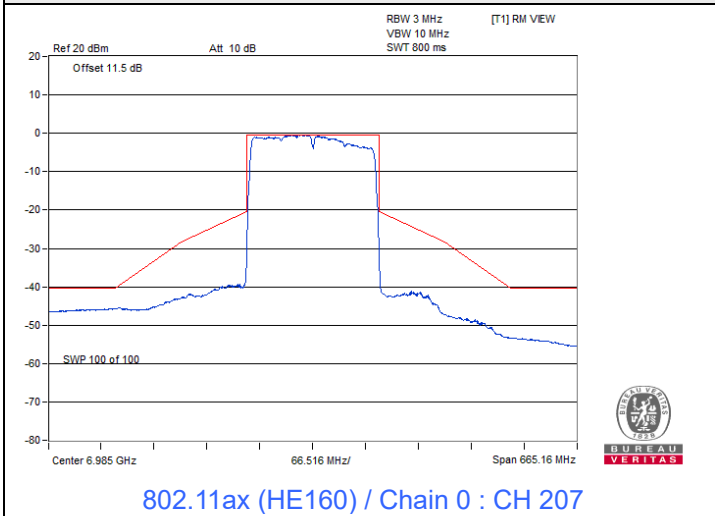


802.11ax (HE160)

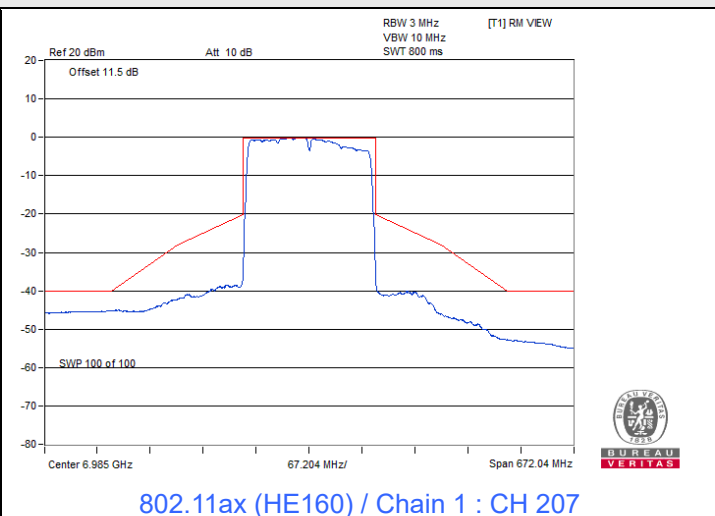
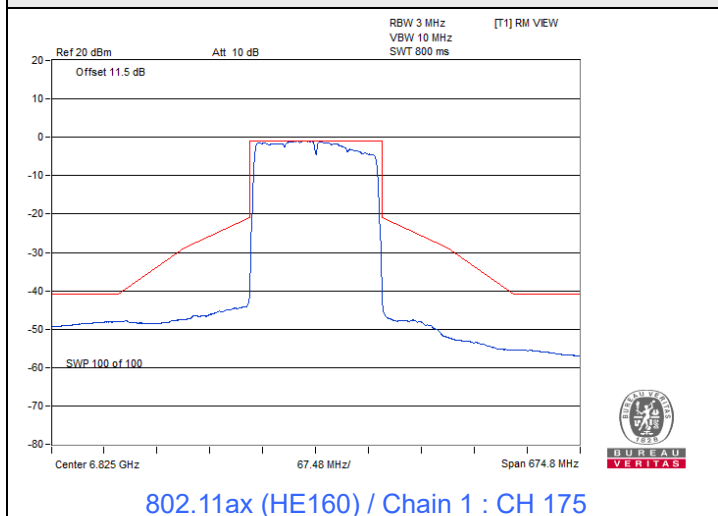
Spectrum Plot



Spectrum Plot



Spectrum Plot



7.5 Occupied Bandwidth

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Jisyong Wang
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802.11a

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)		Maximum Limit (MHz)	Test Result
		Chain 0	Chain 1		
1	5955	17.12	17.02	320	Pass
45	6175	17.02	16.83	320	Pass
93	6415	17.02	16.93	320	Pass
97	6435	16.83	17.48	320	Pass
105	6475	17.02	17.40	320	Pass
113	6515	17.02	17.40	320	Pass
117	6535	16.93	17.40	320	Pass
149	6695	17.02	17.64	320	Pass
181	6855	16.93	17.76	320	Pass
185	6875	17.02	17.83	320	Pass
209	6995	16.93	16.93	320	Pass
233	7115	17.02	17.31	320	Pass

802.11ax (HE20)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)		Maximum Limit (MHz)	Test Result
		Chain 0	Chain 1		
1	5955	19.04	19.14	320	Pass
45	6175	19.04	19.14	320	Pass
93	6415	19.04	19.04	320	Pass
97	6435	19.04	19.13	320	Pass
105	6475	19.04	19.14	320	Pass
113	6515	19.04	19.04	320	Pass
117	6535	19.23	19.04	320	Pass
149	6695	19.04	19.04	320	Pass
181	6855	19.13	19.04	320	Pass
185	6875	19.04	19.04	320	Pass
209	6995	19.04	19.13	320	Pass
233	7115	19.04	19.04	320	Pass

802.11ax (HE40)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)		Maximum Limit (MHz)	Test Result
		Chain 0	Chain 1		
3	5965	37.89	37.89	320	Pass
43	6165	37.89	37.89	320	Pass
91	6405	37.89	38.08	320	Pass
99	6445	37.89	37.70	320	Pass
107	6485	37.89	37.70	320	Pass
115	6525	37.89	37.89	320	Pass
123	6565	37.89	37.70	320	Pass
155	6725	37.70	37.89	320	Pass
179	6845	37.89	37.89	320	Pass
187	6885	38.08	37.89	320	Pass
211	7005	37.89	37.89	320	Pass
227	7085	37.89	37.89	320	Pass

802.11ax (HE80)

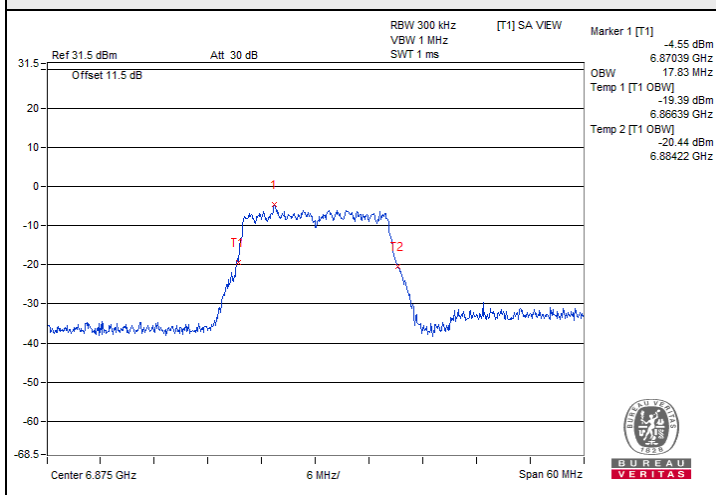
Channel	Frequency (MHz)	Occupied Bandwidth (MHz)		Maximum Limit (MHz)	Test Result
		Chain 0	Chain 1		
7	5985	76.92	77.31	320	Pass
39	6145	76.93	76.92	320	Pass
87	6385	76.92	76.92	320	Pass
103	6465	76.54	76.93	320	Pass
119	6545	76.92	77.31	320	Pass
151	6705	76.54	76.93	320	Pass
183	6865	77.31	77.31	320	Pass
199	6945	76.93	77.31	320	Pass
215	7025	77.31	76.92	320	Pass

802.11ax (HE160)

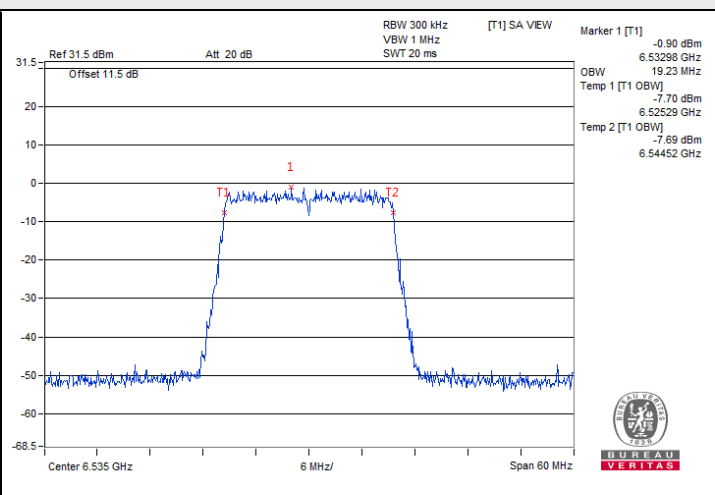
Channel	Frequency (MHz)	Occupied Bandwidth (MHz)		Maximum Limit (MHz)	Test Result
		Chain 0	Chain 1		
15	6025	155.38	155.38	320	Pass
47	6185	156.15	156.15	320	Pass
79	6345	155.38	156.15	320	Pass
111	6505	156.15	156.15	320	Pass
143	6665	155.38	155.38	320	Pass
175	6825	156.15	156.15	320	Pass
207	6985	155.38	155.38	320	Pass



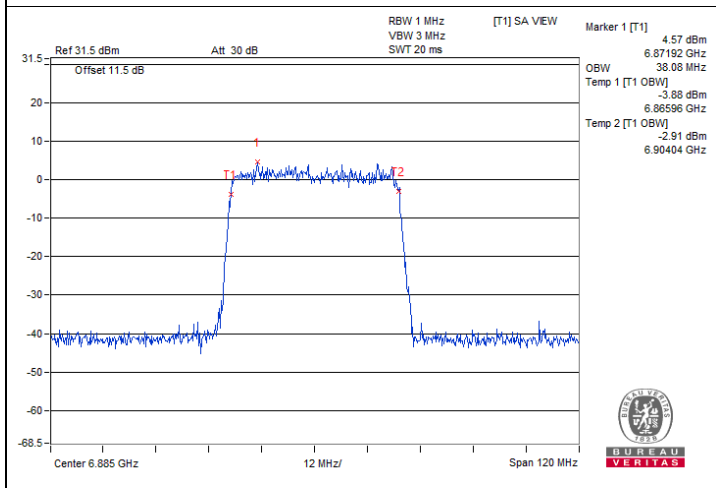
Spectrum Plot of Maximum Value



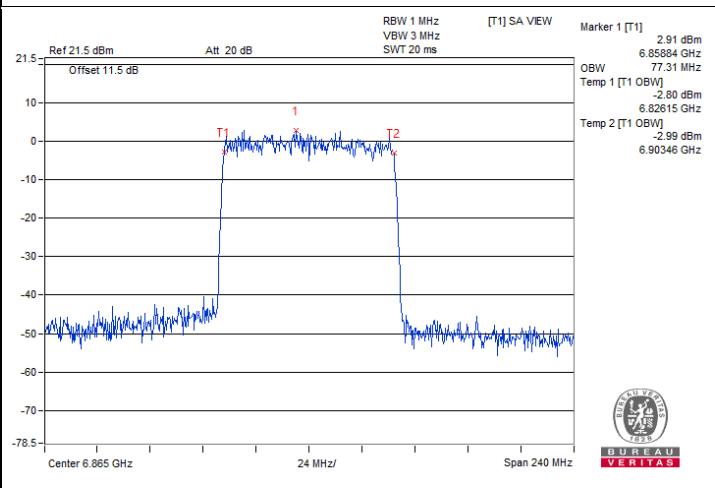
802.11a / Chain 1 : CH 185



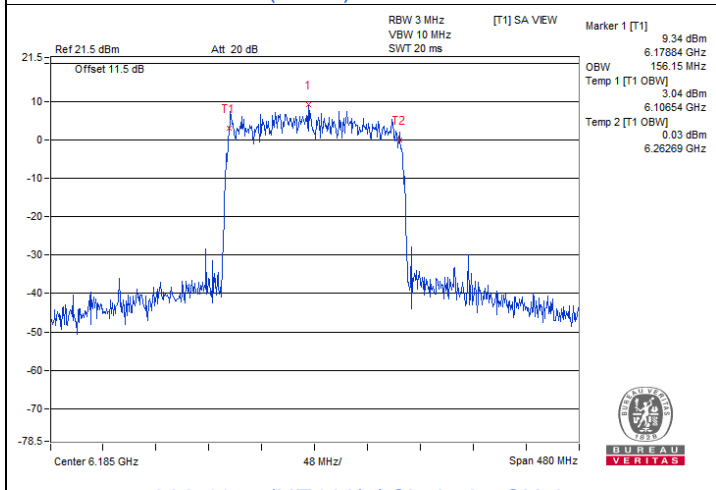
802.11ax (HE20) / Chain 0 : CH 117



802.11ax (HE40) / Chain 0 : CH 187



802.11ax (HE80) / Chain 0 : CH 183



802.11ax (HE160) / Chain 0 : CH 47

7.6 Frequency Stability

802.11ax (HE20)

Frequency Stability Versus Temperature									
Operating Frequency: 5955 MHz									
Temp. (°C)	Power Supply (Vac)	0 Minute		2 Minutes		5 Minutes		10 Minutes	
		Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result
50	120	5954.9925	Pass	5954.9912	Pass	5954.9935	Pass	5954.9924	Pass
40	120	5954.9767	Pass	5954.9779	Pass	5954.9759	Pass	5954.9759	Pass
30	120	5954.9718	Pass	5954.969	Pass	5954.9716	Pass	5954.973	Pass
20	120	5955.0045	Pass	5955.0065	Pass	5955.0049	Pass	5955.0053	Pass
10	120	5955.0238	Pass	5955.0235	Pass	5955.0228	Pass	5955.0249	Pass
0	120	5955.0153	Pass	5955.0179	Pass	5955.0147	Pass	5955.0154	Pass

Frequency Stability Versus Voltage									
Operating Frequency: 5955 MHz									
Temp. (°C)	Power Supply (Vac)	0 Minute		2 Minutes		5 Minutes		10 Minutes	
		Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result
20	138	5954.9956	Pass	5954.9959	Pass	5954.9976	Pass	5954.9941	Pass
	120	5955.0045	Pass	5955.0065	Pass	5955.0049	Pass	5955.0053	Pass
	102	5954.9956	Pass	5954.9967	Pass	5954.9961	Pass	5954.9935	Pass

7.7 Contention-based Protocol

For U-NII-5 band

Contention Based Protocol Measurement										
Operation Mode	Channel Bandwidth (MHz)	Channel Number	Channel Freq. (MHz)	Injected Signal (AWGN)		Antenna Gain (dBi)	Path Loss (dB) (Note 2)	Adjusted Power (dBm)	Detection Limit	EUT TX Status
				Freq. (MHz)	Power (dBm)					
802.11ax	20	45	6175	6175	-58	4.48	0	-62.48	-62	OFF
					-59	4.48	0	-63.48	-62	Minimal
					-78	4.48	0	-82.48	-62	ON
	160	47	6185	6110	-58	4.48	0	-62.48	-62	OFF
					-59	4.48	0	-63.48	-62	Minimal
					-78	4.48	0	-82.48	-62	ON
				6185	-58	4.48	0	-62.48	-62	OFF
					-59	4.48	0	-63.48	-62	Minimal
					-78	4.48	0	-82.48	-62	ON
				6260	-58	4.48	0	-62.48	-62	OFF
					-59	4.48	0	-63.48	-62	Minimal
					-78	4.48	0	-82.48	-62	ON

Note:

- Adjusted Power (dBm) = Injected Signal (AWGN) Power (dBm) - Antenna Gain (dBi) + Path Loss (dB)
- After investigation (consider antenna gain and path loss), the one representative port (chain 0) was measured and presented in the report

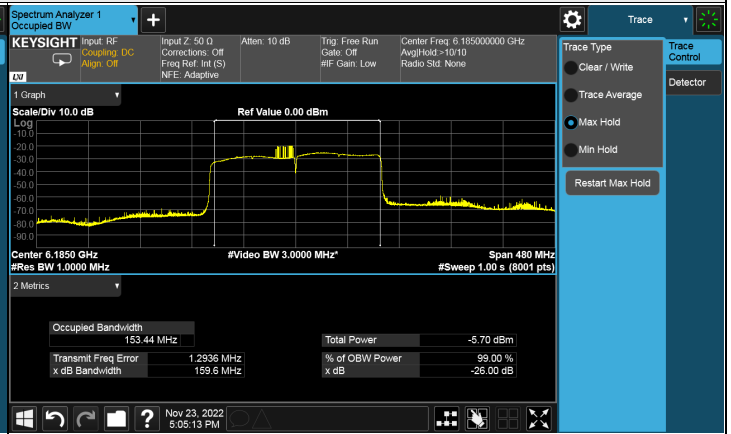
Contention Based Protocol Detection Probability															
Operation Mode	Channel Bandwidth (MHz)	AWGN Signal Freq. (MHz)	#01	#02	#03	#04	#05	#06	#07	#08	#09	#10	Detection Probability	Detection Limit	Test Result
802.11ax	20	6175	v	x	v	v	v	v	v	v	v	v	90%	90%	Pass
	160	6110	v	v	v	v	x	v	v	v	v	v	90%	90%	Pass
		6185	v	v	v	v	v	v	v	x	v	v	90%	90%	Pass
		6260	v	v	v	x	v	v	v	v	v	v	90%	90%	Pass



Plots of EUT Tx waveform

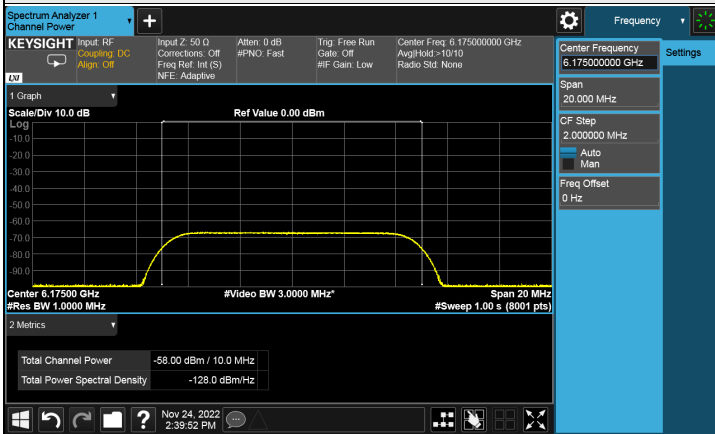


802.11ax (HE20) / CH 45

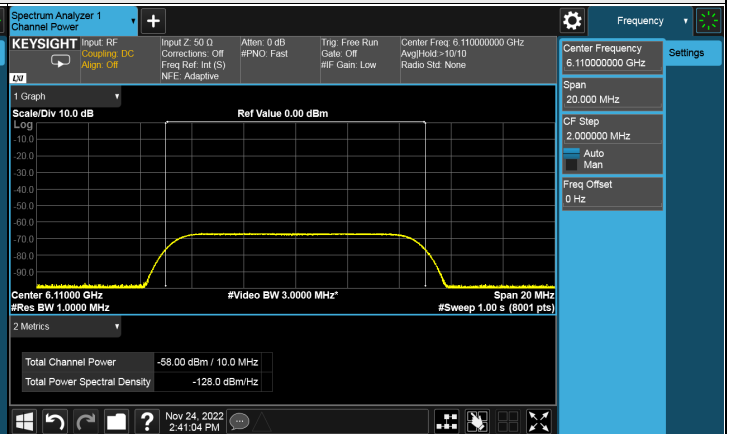


802.11ax (HE160) / CH 47

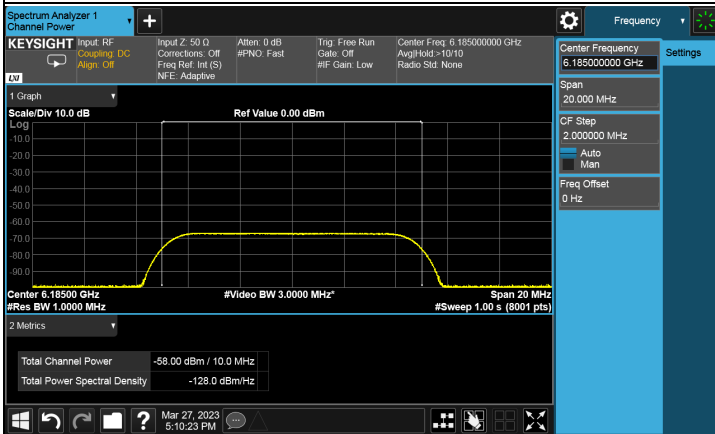
Plots of Incumbent signal(AWGN) Level



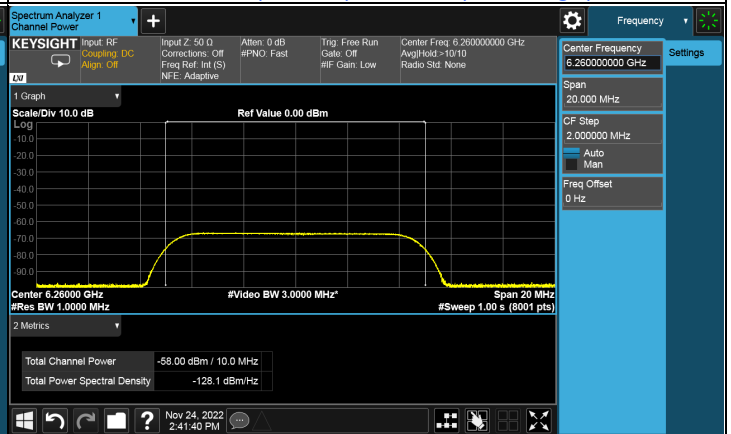
802.11ax (HE20) / CH 45



802.11ax (HE160) / CH 47 (Low Edge)



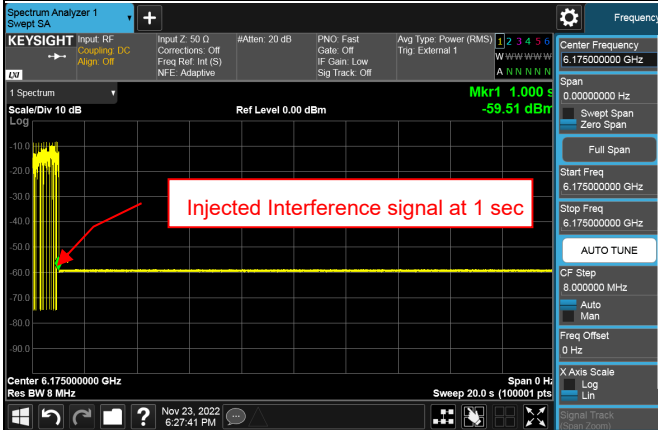
802.11ax (HE160) / CH 47 (Middle)



802.11ax (HE160) / CH 47 (High Edge)

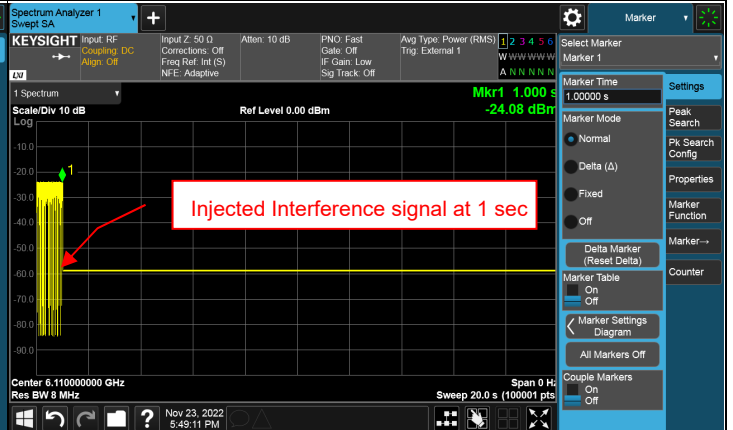


Plots of Incumbent signal(AWGN) Level



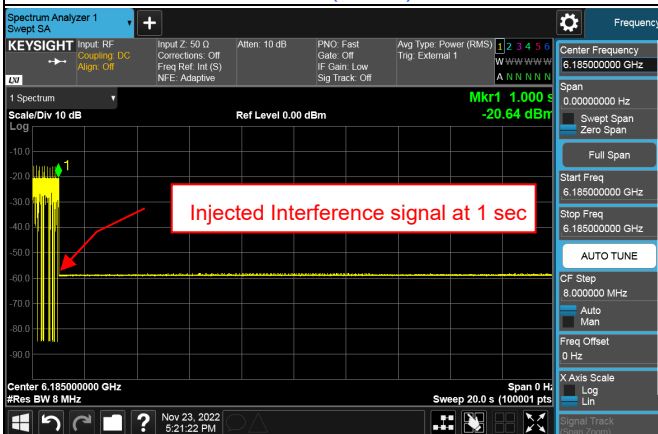
Injected Interference signal at 1 sec

802.11ax (HE20) / CH 45



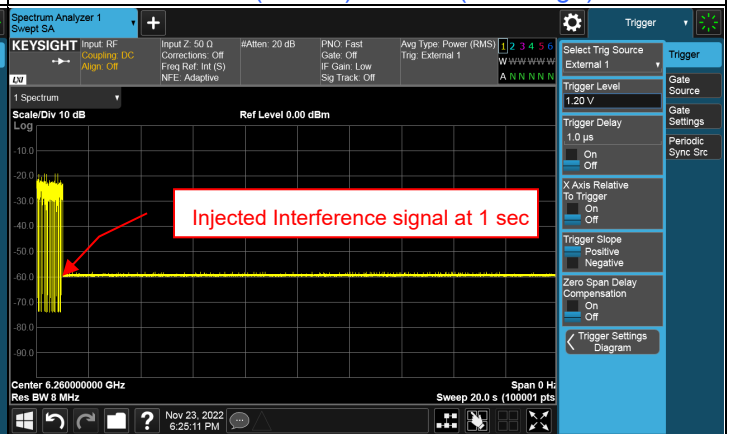
Injected Interference signal at 1 sec

802.11ax (HE160) / CH 47 (Low Edge)



Injected Interference signal at 1 sec

802.11ax (HE160) / CH 47 (Middle)



Injected Interference signal at 1 sec

802.11ax (HE160) / CH 47 (High Edge)

For U-NII-6 band

Contention Based Protocol Measurement										
Operation Mode	Channel Bandwidth (MHz)	Channel Number	Channel Freq. (MHz)	Injected Signal (AWGN)		Antenna Gain (dBi)	Path Loss (dB) (Note 2)	Adjusted Power (dBm)	Detection Limit	EUT TX Status
				Freq. (MHz)	Power (dBm)					
802.11ax	20	105	6475	6475	-57	5.04	0	-62.04	-62	OFF
					-58	5.04	0	-63.04	-62	Minimal
					-77	5.04	0	-82.04	-62	ON
	160	111	6505	6430	-57	5.04	0	-62.04	-62	OFF
					-58	5.04	0	-63.04	-62	Minimal
					-77	5.04	0	-82.04	-62	ON
				6505	-57	5.04	0	-62.04	-62	OFF
					-58	5.04	0	-63.04	-62	Minimal
					-77	5.04	0	-82.04	-62	ON
				6580	-57	5.04	0	-62.04	-62	OFF
					-58	5.04	0	-63.04	-62	Minimal
					-77	5.04	0	-82.04	-62	ON

Note:

- Adjusted Power (dBm) = Injected Signal (AWGN) Power (dBm) - Antenna Gain (dBi) + Path Loss (dB)
- After investigation (consider antenna gain and path loss), the one representative port (chain 1) was measured and presented in the report

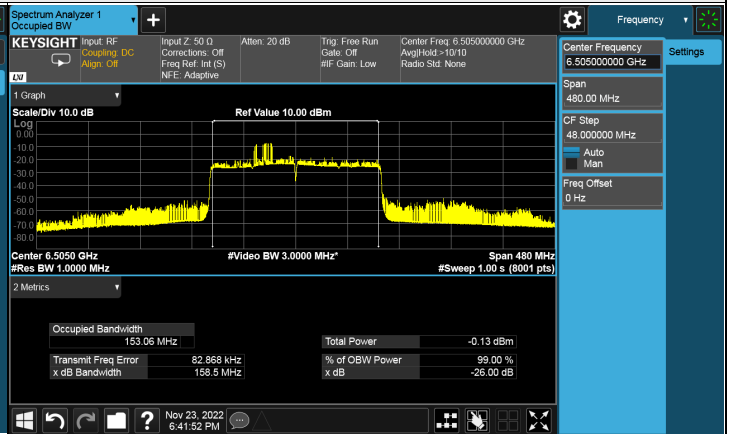
Contention Based Protocol Detection Probability																
Operation Mode	Channel Bandwidth (MHz)	AWGN Signal Freq. (MHz)	#01	#02	#03	#04	#05	#06	#07	#08	#09	#10	Detection Probability	Detection Limit	Test Result	
802.11ax	20	6475	x	v	v	v	v	v	v	v	v	v	90%	90%	Pass	
	160	6430	v	v	v	v	v	v	v	v	v	x	90%	90%	Pass	
		6505	v	x	v	v	v	v	v	v	v	v	v	90%	90%	Pass
		6580	v	v	v	v	v	x	v	v	v	v	v	90%	90%	Pass



Plots of EUT Tx waveform

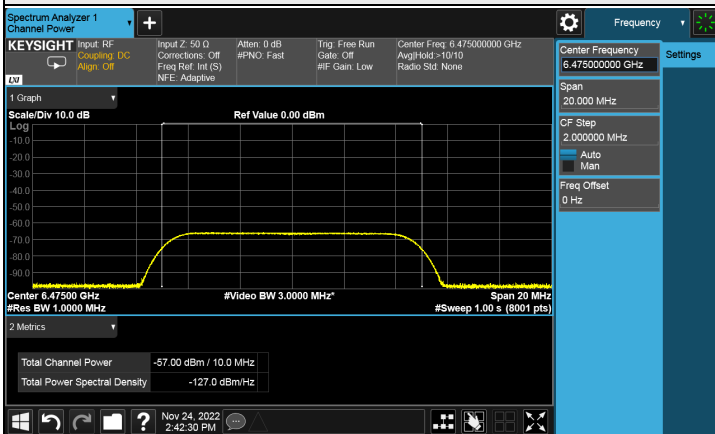


802.11ax (HE20) / CH 105

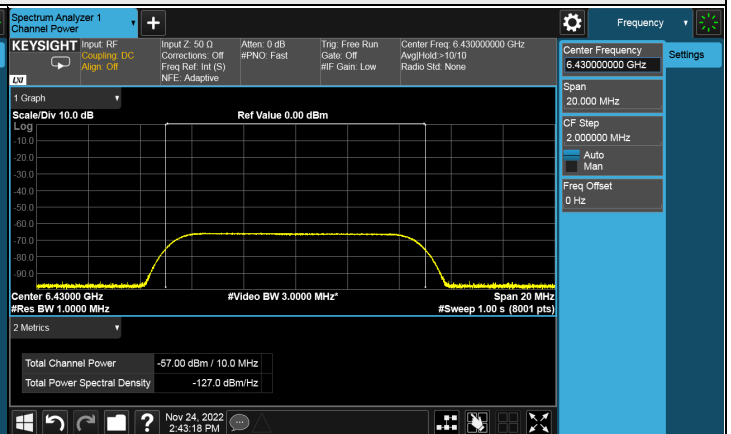


802.11ax (HE160) / CH 111

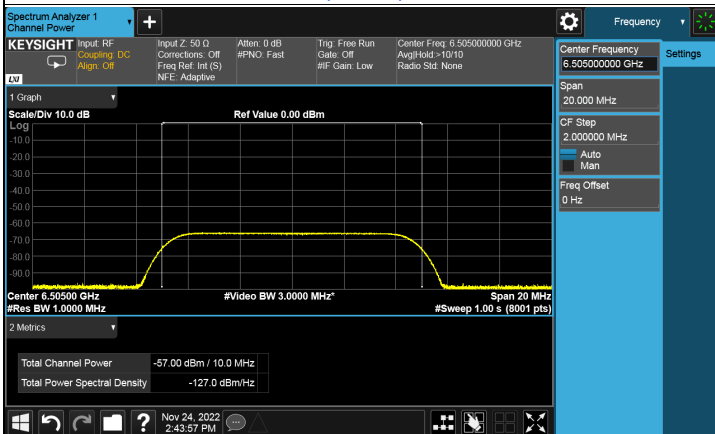
Plots of Incumbent signal(AWGN) Level



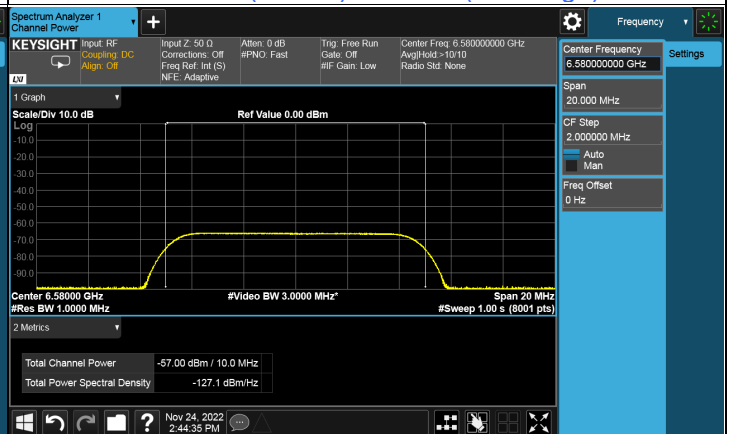
802.11ax (HE20) / CH 105



802.11ax (HE160) / CH 111 (Low Edge)



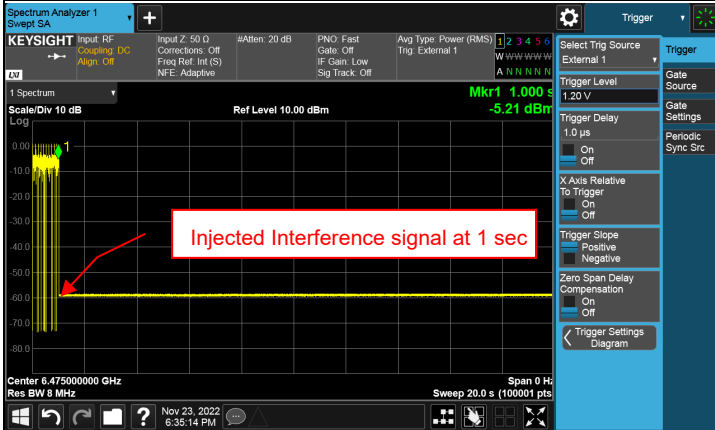
802.11ax (HE160) / CH 111 (Middle)



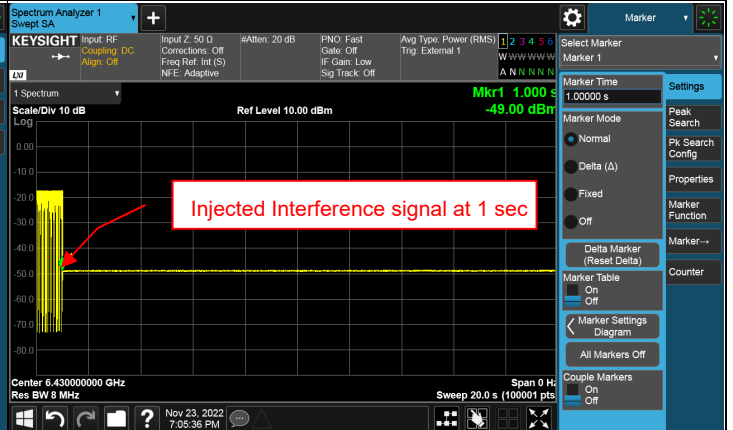
802.11ax (HE160) / CH 111 (High Edge)



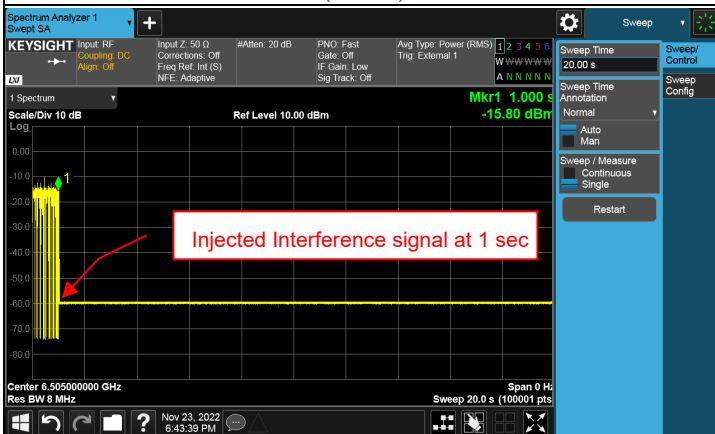
Plots of Incumbent signal(AWGN) Level



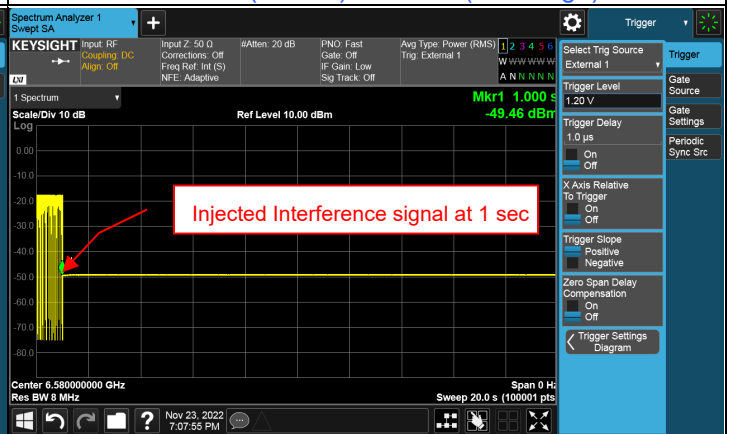
802.11ax (HE20) / CH 105



802.11ax (HE160) / CH 111 (Low Edge)



802.11ax (HE160) / CH 111 (Middle)



802.11ax (HE160) / CH 111 (High Edge)

For U-NII-7 band

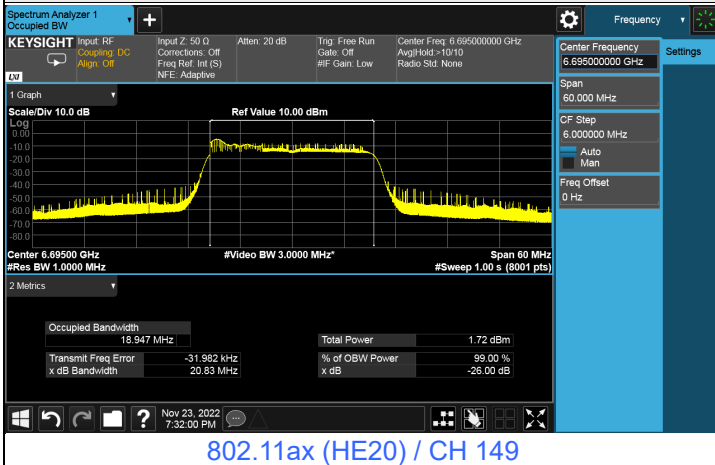
Contention Based Protocol Measurement										
Operation Mode	Channel Bandwidth (MHz)	Channel Number	Channel Freq. (MHz)	Injected Signal (AWGN)		Antenna Gain (dBi)	Path Loss (dB) (Note 2)	Adjusted Power (dBm)	Detection Limit	EUT TX Status
				Freq. (MHz)	Power (dBm)					
802.11ax	20	149	6695	6695	-57	5.02	0	-62.02	-62	OFF
					-58	5.02	0	-63.02	-62	Minimal
					-77	5.02	0	-82.02	-62	ON
	160	143	6665	6590	-57	5.02	0	-62.02	-62	OFF
					-58	5.02	0	-63.02	-62	Minimal
					-77	5.02	0	-82.02	-62	ON
				6665	-57	5.02	0	-62.02	-62	OFF
					-58	5.02	0	-63.02	-62	Minimal
					-77	5.02	0	-82.02	-62	ON
				6740	-57	5.02	0	-62.02	-62	OFF
					-58	5.02	0	-63.02	-62	Minimal
					-77	5.02	0	-82.02	-62	ON

Note:

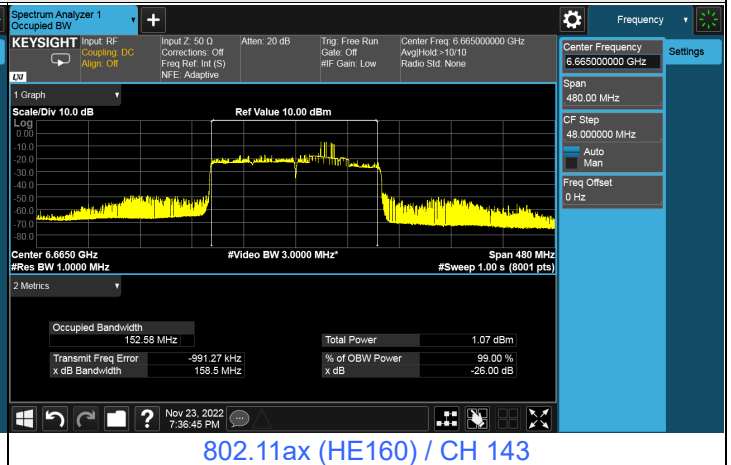
- Adjusted Power (dBm) = Injected Signal (AWGN) Power (dBm) - Antenna Gain (dBi) + Path Loss (dB)
- After investigation (consider antenna gain and path loss), the one representative port (chain 0) was measured and presented in the report

Contention Based Protocol Detection Probability															
Operation Mode	Channel Bandwidth (MHz)	AWGN Signal Freq. (MHz)	#01	#02	#03	#04	#05	#06	#07	#08	#09	#10	Detection Probability	Detection Limit	Test Result
802.11ax	20	6695	v	v	x	v	v	v	v	v	v	v	90%	90%	Pass
	160	6590	v	v	v	v	x	v	v	v	v	v	90%	90%	Pass
		6665	v	v	v	v	v	v	x	v	v	v	90%	90%	Pass
		6740	v	v	x	v	v	v	v	v	v	v	v	90%	90%

Plots of EUT Tx waveform

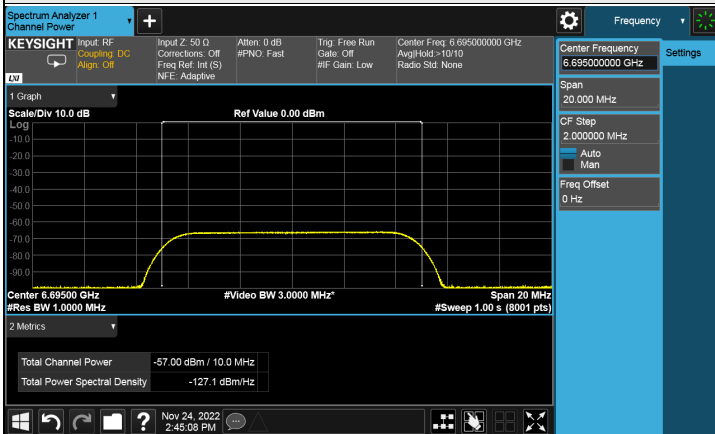


802.11ax (HE20) / CH 149

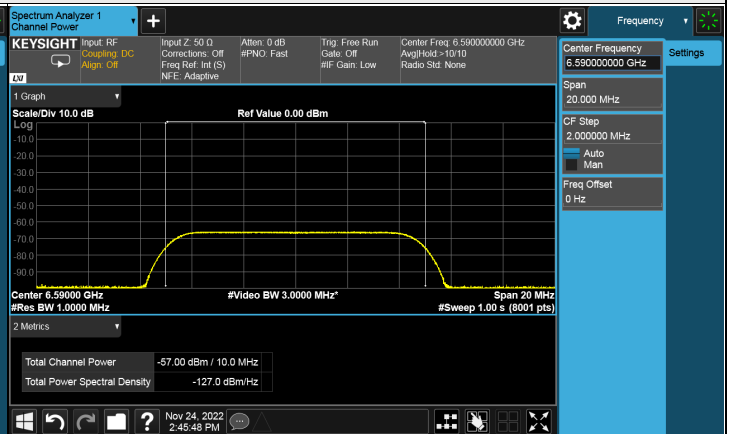


802.11ax (HE160) / CH 143

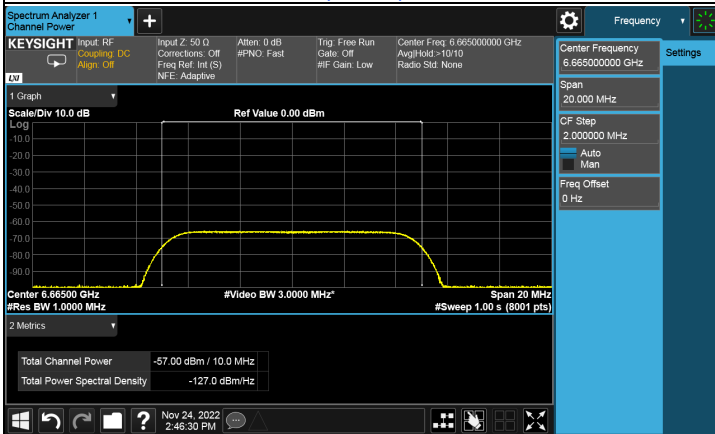
Plots of Incumbent signal(AWGN) Level



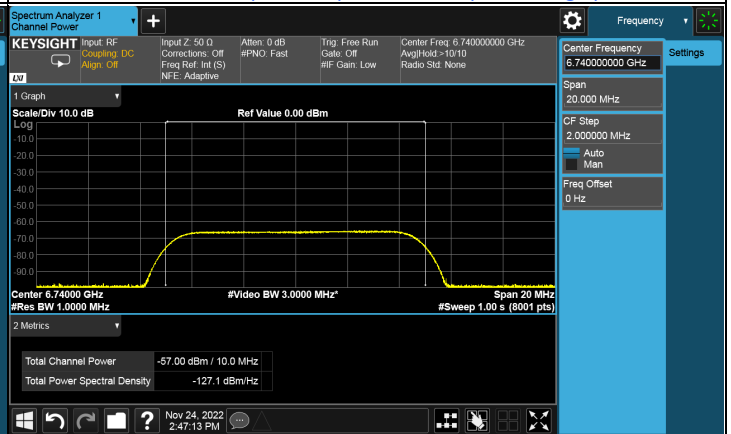
802.11ax (HE20) / CH 149



802.11ax (HE160) / CH 143 (Low Edge)



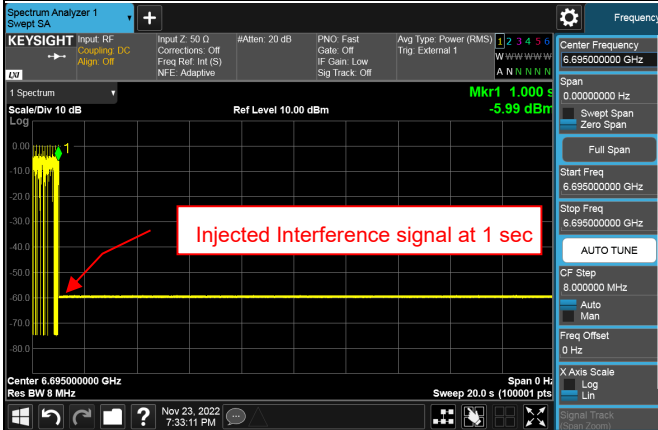
802.11ax (HE160) / CH 143 (Middle)



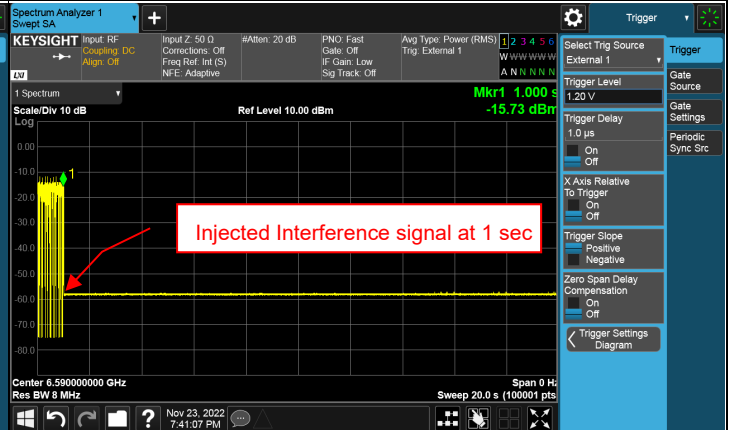
802.11ax (HE160) / CH 143 (High Edge)



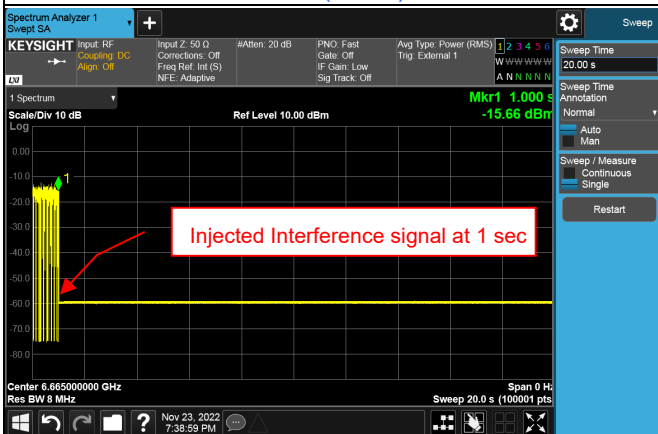
Plots of Incumbent signal(AWGN) Level



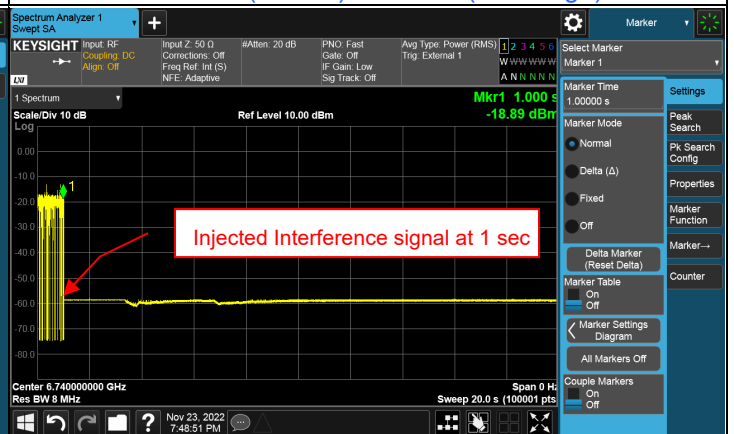
802.11ax (HE20) / CH 149



802.11ax (HE160) / CH 143 (Low Edge)



802.11ax (HE160) / CH 143 (Middle)



802.11ax (HE160) / CH 143 (High Edge)

For U-NII-8 band

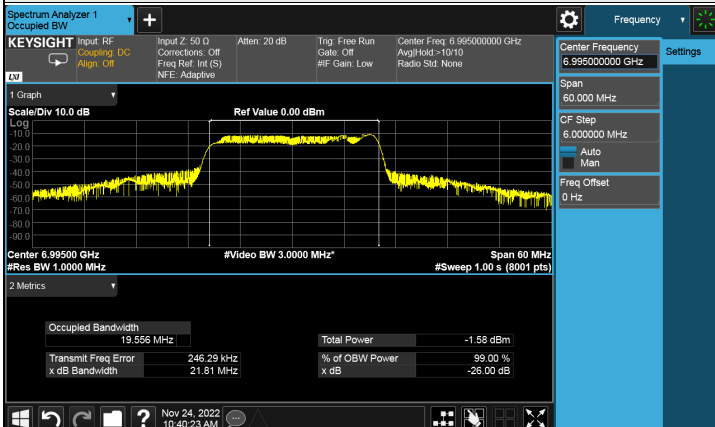
Contention Based Protocol Measurement										
Operation Mode	Channel Bandwidth (MHz)	Channel Number	Channel Freq. (MHz)	Injected Signal (AWGN)		Antenna Gain (dBi)	Path Loss (dB) (Note 2)	Adjusted Power (dBm)	Detection Limit	EUT TX Status
				Freq. (MHz)	Power (dBm)					
802.11ax	20	209	6995	6995	-57	5.04	0	-62.04	-62	OFF
					-58	5.04	0	-63.04	-62	Minimal
					-77	5.04	0	-82.04	-62	ON
	160	207	6985	6910	-57	5.04	0	-62.04	-62	OFF
					-58	5.04	0	-63.04	-62	Minimal
					-77	5.04	0	-82.04	-62	ON
				6985	-57	5.04	0	-62.04	-62	OFF
					-58	5.04	0	-63.04	-62	Minimal
					-77	5.04	0	-82.04	-62	ON
				7060	-57	5.04	0	-62.04	-62	OFF
					-58	5.04	0	-63.04	-62	Minimal
					-77	5.04	0	-82.04	-62	ON

Note:

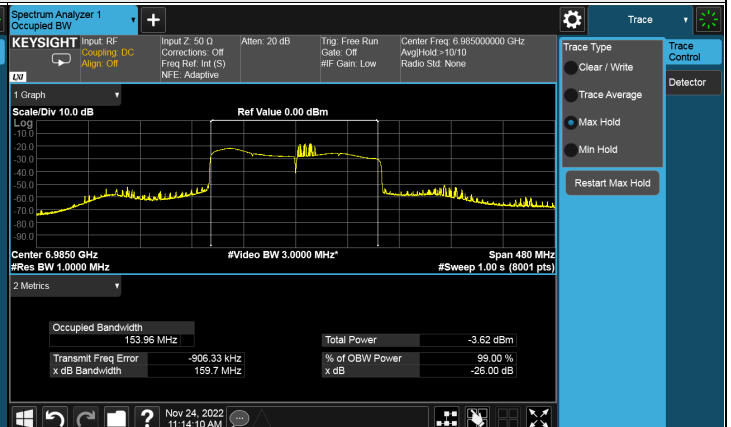
- Adjusted Power (dBm) = Injected Signal (AWGN) Power (dBm) - Antenna Gain (dBi) + Path Loss (dB)
- After investigation (consider antenna gain and path loss), the one representative port (chain 1) was measured and presented in the report

Contention Based Protocol Detection Probability															
Operation Mode	Channel Bandwidth (MHz)	AWGN Signal Freq. (MHz)	#01	#02	#03	#04	#05	#06	#07	#08	#09	#10	Detection Probability	Detection Limit	Test Result
802.11ax	20	6995	v	v	v	x	v	v	v	v	v	v	90%	90%	Pass
	160	6910	v	v	v	v	v	v	v	x	v	v	90%	90%	Pass
		6985	v	v	v	v	x	v	v	v	v	v	90%	90%	Pass
		7060	v	v	x	v	v	v	v	v	v	v	90%	90%	Pass

Plots of EUT Tx waveform

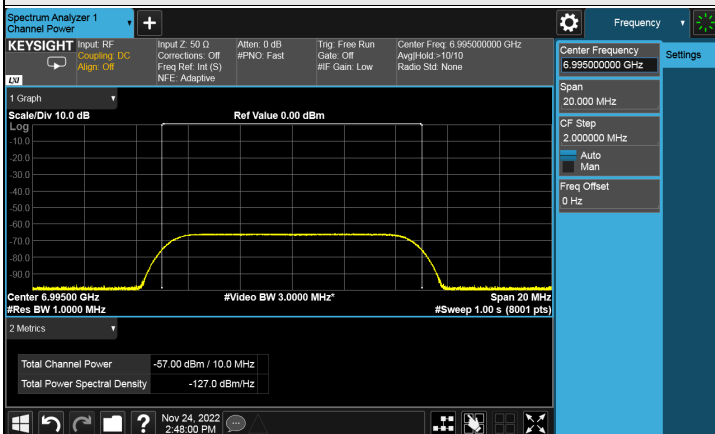


802.11ax (HE20) / CH 209

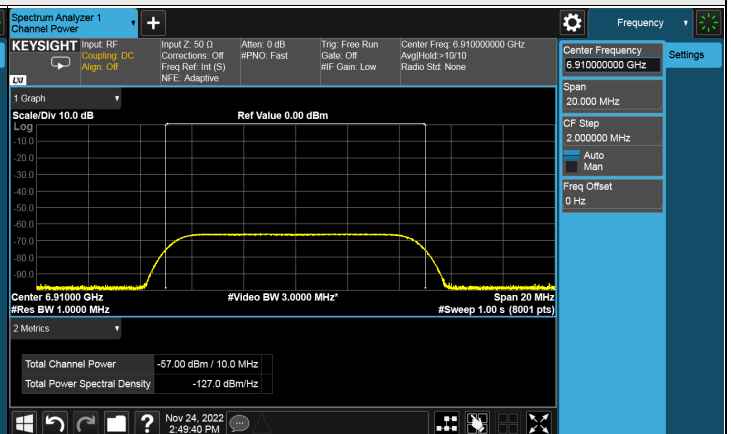


802.11ax (HE160) / CH 207

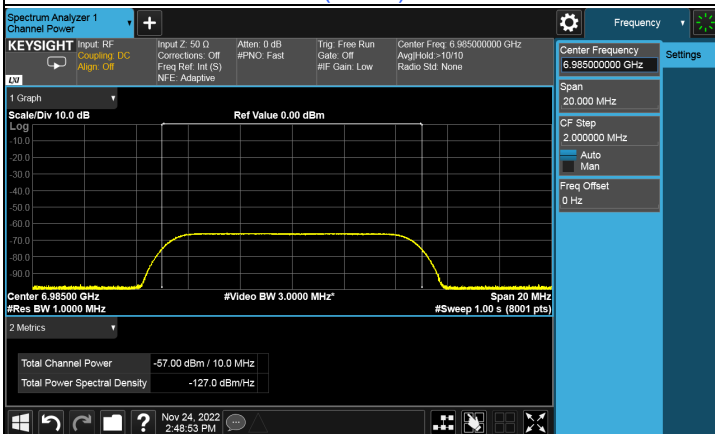
Plots of Incumbent signal(AWGN) Level



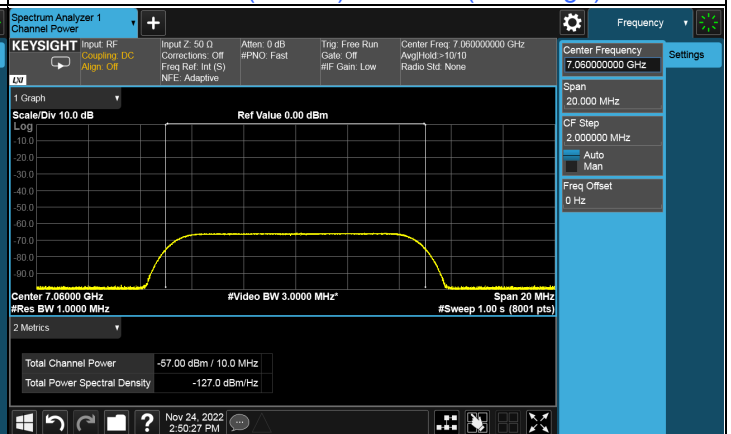
802.11ax (HE20) / CH 209



802.11ax (HE160) / CH 207 (Low Edge)



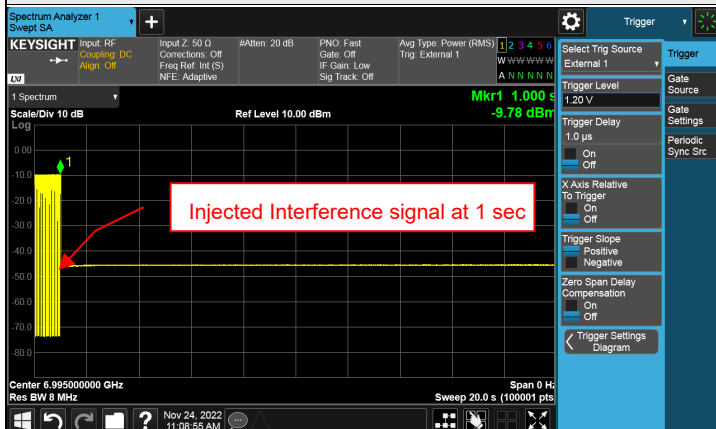
802.11ax (HE160) / CH 207 (Middle)



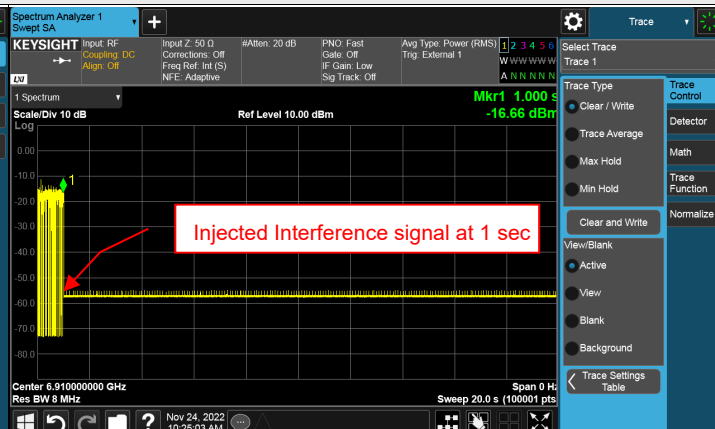
802.11ax (HE160) / CH 207 (High Edge)



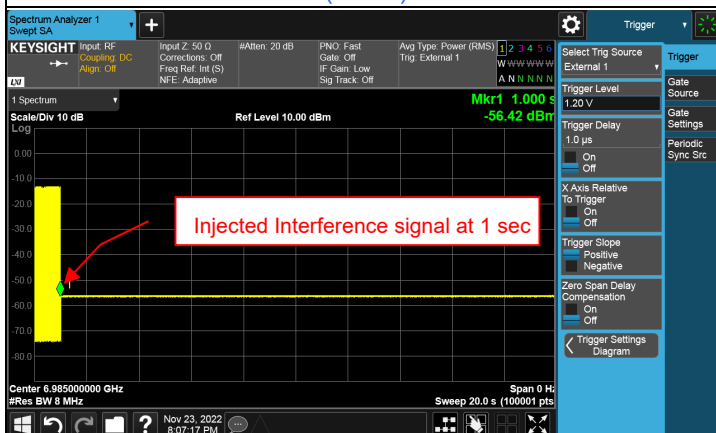
Plots of Incumbent signal(AWGN) Level



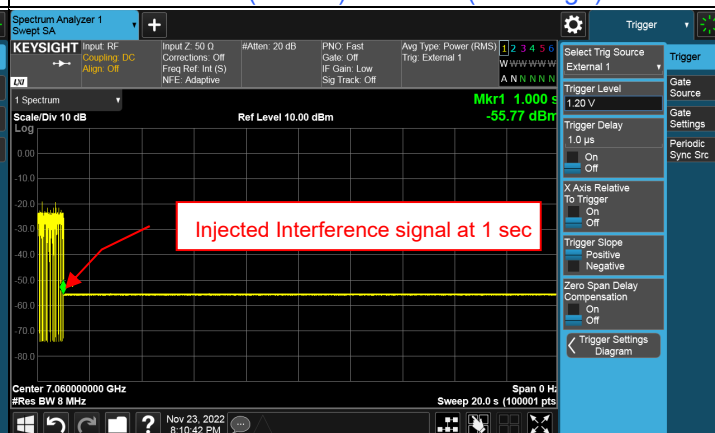
802.11ax (HE20) / CH 209



802.11ax (HE160) / CH 207 (Low Edge)



802.11ax (HE160) / CH 207 (Middle)



802.11ax (HE160) / CH 207 (High Edge)

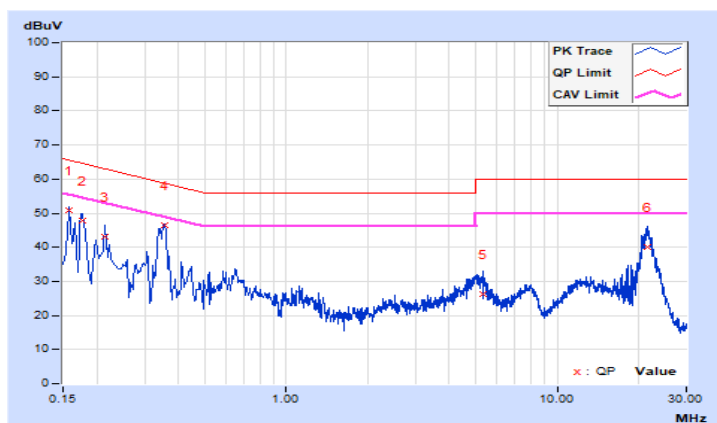
7.8 AC Power Conducted Emissions

RF Mode	802.11ax (HE160)	Channel	CH 47 : 6185 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu	Test Mode	A

Phase Of Power : Line (L)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15800	10.19	40.55	26.55	50.74	36.74	65.57	55.57	-14.83	-18.83
2	0.17800	10.21	37.50	24.31	47.71	34.52	64.58	54.58	-16.87	-20.06
3	0.21400	10.22	32.89	18.61	43.11	28.83	63.05	53.05	-19.94	-24.22
4	0.35400	10.24	36.08	29.10	46.32	39.34	58.87	48.87	-12.55	-9.53
5	5.31800	10.43	15.87	6.51	26.30	16.94	60.00	50.00	-33.70	-33.06
6	21.64200	10.60	29.63	20.95	40.23	31.55	60.00	50.00	-19.77	-18.45

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

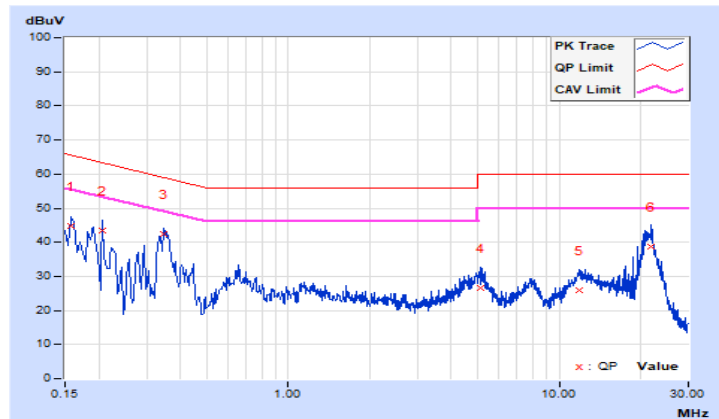


RF Mode	802.11ax (HE160)	Channel	CH 47 : 6185 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu	Test Mode	A

Phase Of Power : Neutral (N)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15800	10.18	34.69	26.32	44.87	36.50	65.57	55.57	-20.70	-19.07
2	0.20600	10.21	33.18	20.86	43.39	31.07	63.37	53.37	-19.98	-22.30
3	0.34600	10.24	32.32	21.83	42.56	32.07	59.06	49.06	-16.50	-16.99
4	5.14200	10.46	15.98	6.82	26.44	17.28	60.00	50.00	-33.56	-32.72
5	11.81800	10.58	15.49	8.43	26.07	19.01	60.00	50.00	-33.93	-30.99
6	21.90200	10.74	28.03	20.03	38.77	30.77	60.00	50.00	-21.23	-19.23

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



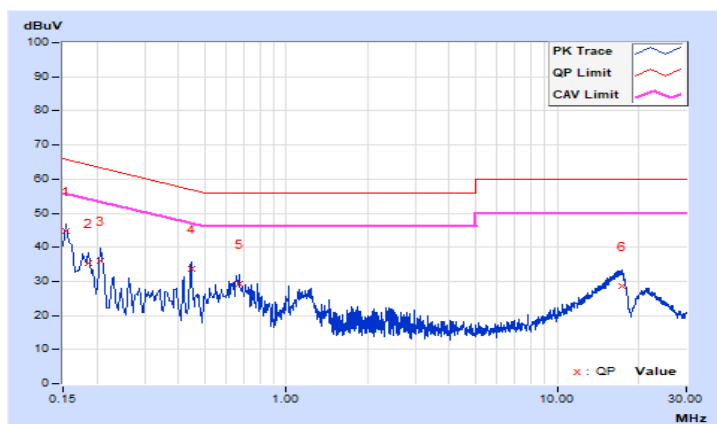
RF Mode	802.11ax (HE160)	Channel	CH 47 : 6185 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu	Test Mode	B

Phase Of Power : Line (L)

No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15400	10.12	34.59	26.31	44.71	36.43	65.78	55.78	-21.07	-19.35
2	0.18600	10.13	25.22	20.47	35.35	30.60	64.21	54.21	-28.86	-23.61
3	0.20600	10.14	25.86	15.21	36.00	25.35	63.37	53.37	-27.37	-28.02
4	0.44600	10.16	23.38	21.82	33.54	31.98	56.95	46.95	-23.41	-14.97
5	0.67000	10.17	19.16	11.13	29.33	21.30	56.00	46.00	-26.67	-24.70
6	17.39400	10.38	18.13	12.66	28.51	23.04	60.00	50.00	-31.49	-26.96

Remarks:

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

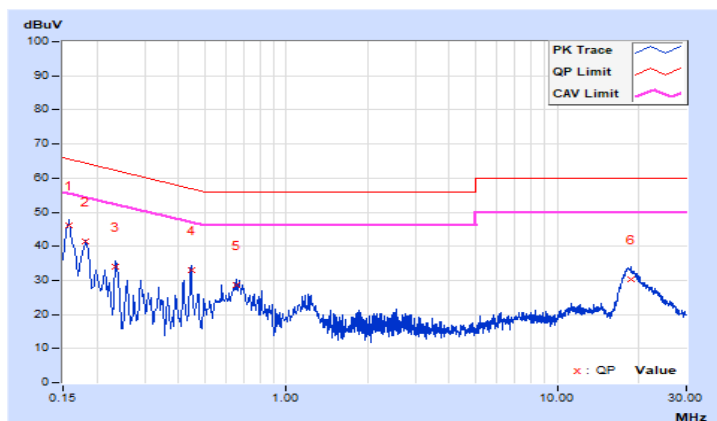


RF Mode	802.11ax (HE160)	Channel	CH 47 : 6185 MHz
Frequency Range	150 kHz ~ 30 MHz	Detector Function & Resolution Bandwidth	Quasi-Peak (QP) / Average (AV), 9 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	23°C, 66% RH
Tested By	Titan Hsu	Test Mode	B

Phase Of Power : Neutral (N)										
No	Frequency (MHz)	Correction Factor (dB)	Reading Value (dBuV)		Emission Level (dBuV)		Limit (dBuV)		Margin (dB)	
			Q.P.	AV.	Q.P.	AV.	Q.P.	AV.	Q.P.	AV.
1	0.15800	10.13	35.98	27.81	46.11	37.94	65.57	55.57	-19.46	-17.63
2	0.18200	10.14	31.21	23.52	41.35	33.66	64.39	54.39	-23.04	-20.73
3	0.23400	10.15	23.94	12.87	34.09	23.02	62.31	52.31	-28.22	-29.29
4	0.44600	10.17	22.97	21.11	33.14	31.28	56.95	46.95	-23.81	-15.67
5	0.65800	10.18	18.31	11.82	28.49	22.00	56.00	46.00	-27.51	-24.00
6	18.71000	10.54	19.92	15.31	30.46	25.85	60.00	50.00	-29.54	-24.15

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



7.9 Unwanted Emissions below 1 GHz

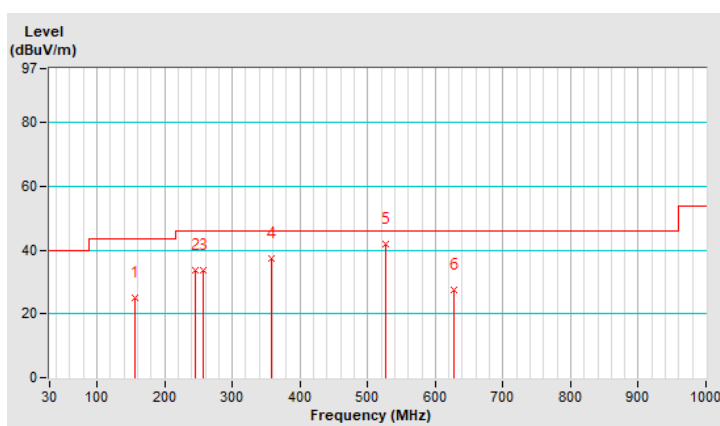
RF Mode	802.11ax (HE160)	Channel	CH 47 : 6185 MHz
Frequency Range	9 kHz ~ 1 GHz	Detector Function & Bandwidth	(QP) RB = 120kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 59% RH
Tested By	Karl Lee	Test Mode	A

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	156.80	25.2 QP	43.5	-18.3	1.98 H	226	37.7	-12.5
2	245.70	33.6 QP	46.0	-12.4	1.80 H	308	47.6	-14.0
3	256.80	33.6 QP	46.0	-12.4	1.26 H	215	47.3	-13.7
4	358.20	37.5 QP	46.0	-8.5	1.31 H	257	48.2	-10.7
5	526.40	42.1 QP	46.0	-3.9	1.89 H	136	49.2	-7.1
6	627.70	27.5 QP	46.0	-18.5	1.06 H	194	32.4	-4.9

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 of frequency range 30 MHz ~ 1 GHz.
5. The emission levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

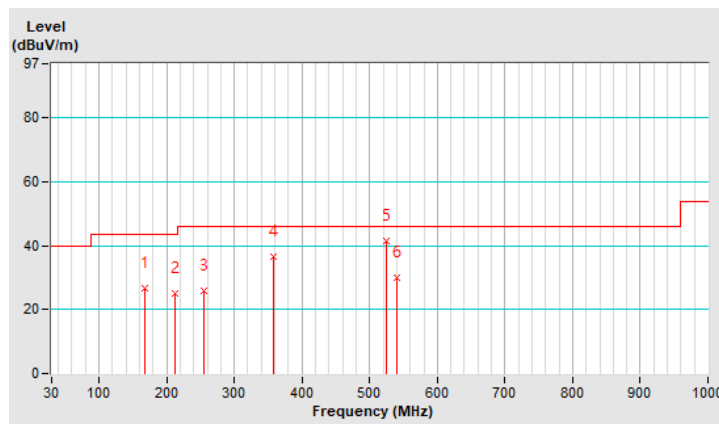


RF Mode	802.11ax (HE160)	Channel	CH 47 : 6185 MHz
Frequency Range	9 kHz ~ 1 GHz	Detector Function & Bandwidth	(QP) RB = 120kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 59% RH
Tested By	Karl Lee	Test Mode	A

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	167.60	26.7 QP	43.5	-16.8	2.04 V	162	39.6	-12.9
2	212.30	24.9 QP	43.5	-18.6	1.75 V	28	40.7	-15.8
3	254.30	25.8 QP	46.0	-20.2	1.26 V	259	39.7	-13.9
4	357.40	36.4 QP	46.0	-9.6	2.30 V	145	47.2	-10.8
5	524.70	41.7 QP	46.0	-4.3	1.36 V	298	48.8	-7.1
6	539.60	30.2 QP	46.0	-15.8	2.89 V	107	37.0	-6.8

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 of frequency range 30 MHz ~ 1 GHz.
5. The emission levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.



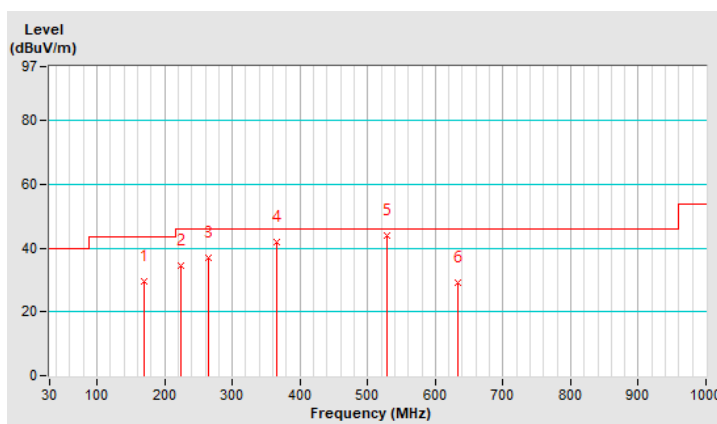
RF Mode	802.11ax (HE160)	Channel	CH 47 : 6185 MHz
Frequency Range	9 kHz ~ 1 GHz	Detector Function & Bandwidth	(QP) RB = 120kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 59% RH
Tested By	Karl Lee	Test Mode	B

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	169.45	29.6 QP	43.5	-13.9	1.45 H	108	42.6	-13.0
2	224.70	34.5 QP	46.0	-11.5	1.64 H	321	50.3	-15.8
3	264.80	36.8 QP	46.0	-9.2	2.18 H	226	50.2	-13.4
4	364.90	42.1 QP	46.0	-3.9	1.47 H	195	52.6	-10.5
5	528.64	43.8 QP	46.0	-2.2	1.91 H	104	50.9	-7.1
6	632.74	29.2 QP	46.0	-16.8	2.32 H	81	34.1	-4.9

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 of frequency range 30 MHz ~ 1 GHz.
5. The emission levels were very low against the limit of frequency range 9 kHz ~ 30 MHz: the amplitude of spurious emissions attenuated more than 20 dB below the permissible value to be report.

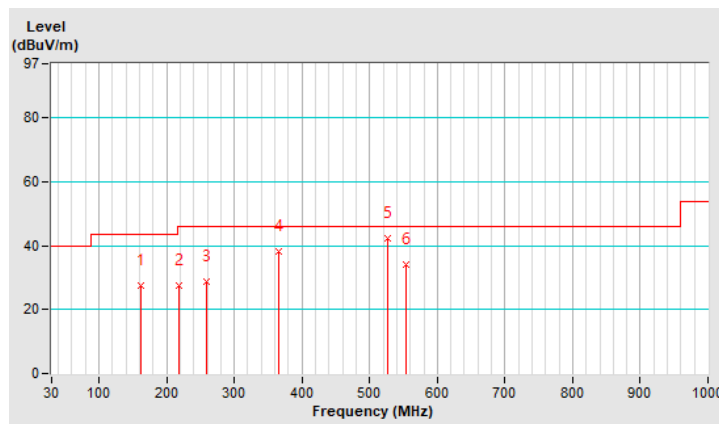


RF Mode	802.11ax (HE160)	Channel	CH 47 : 6185 MHz
Frequency Range	9 kHz ~ 1 GHz	Detector Function & Bandwidth	(QP) RB = 120kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 59% RH
Tested By	Karl Lee	Test Mode	B

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	161.40	27.6 QP	43.5	-15.9	1.62 V	304	40.2	-12.6
2	218.70	27.7 QP	46.0	-18.3	1.39 V	296	43.4	-15.7
3	259.40	28.9 QP	46.0	-17.1	1.08 V	245	42.5	-13.6
4	364.80	38.2 QP	46.0	-7.8	1.26 V	194	48.7	-10.5
5	527.50	42.3 QP	46.0	-3.7	1.85 V	171	49.4	-7.1
6	553.80	34.3 QP	46.0	-11.7	1.68 V	74	40.9	-6.6

Remarks:

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



7.10 Unwanted Emissions above 1 GHz

RF Mode	802.11a	Channel	CH 1 : 5955 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 59% RH
Tested By	Karl Lee		

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	#5925.00	56.5 PK	88.2	-31.7	1.45 H	10	43.3	13.2
2	#5925.00	47.2 AV	68.2	-21.0	1.45 H	10	34.0	13.2
3	*5955.00	107.2 PK			1.45 H	10	63.2	44.0
4	*5955.00	99.6 AV			1.45 H	10	55.6	44.0
5	11910.00	59.6 PK	74.0	-14.4	1.75 H	119	40.4	19.2
6	11910.00	49.5 AV	54.0	-4.5	1.75 H	119	30.3	19.2

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	#5925.00	56.3 PK	88.2	-31.9	1.02 V	30	43.1	13.2
2	#5925.00	46.6 AV	68.2	-21.6	1.02 V	30	33.4	13.2
3	*5955.00	104.2 PK			1.02 V	30	60.2	44.0
4	*5955.00	96.5 AV			1.02 V	30	52.5	44.0
5	11910.00	59.5 PK	74.0	-14.5	1.75 V	119	40.3	19.2
6	11910.00	49.6 AV	54.0	-4.4	1.75 V	119	30.4	19.2

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, the limit was restricted at the RF Output Power.

RF Mode	802.11a	Channel	CH 45 : 6175 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 59% RH
Tested By	Karl Lee		

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	*6175.00	107.0 PK			1.31 H	5	62.1	44.9
2	*6175.00	99.3 AV			1.31 H	5	54.4	44.9
3	12350.00	59.7 PK	74.0	-14.3	1.75 H	142	40.2	19.5
4	12350.00	50.1 AV	54.0	-3.9	1.75 H	142	30.6	19.5

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	*6175.00	105.0 PK			1.24 V	11	60.1	44.9
2	*6175.00	97.2 AV			1.24 V	11	52.3	44.9
3	12350.00	58.9 PK	74.0	-15.1	1.74 V	201	39.4	19.5
4	12350.00	49.4 AV	54.0	-4.6	1.74 V	201	29.9	19.5

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, the limit was restricted at the RF Output Power.



RF Mode	802.11a	Channel	CH 93 : 6415 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 59% RH
Tested By	Karl Lee		

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	*6415.00	107.0 PK			1.31 H	6	61.8	45.2
2	*6415.00	99.3 AV			1.31 H	6	54.1	45.2
3	#12830.00	60.3 PK	88.2	-27.9	2.11 H	145	40.2	20.1
4	#12830.00	50.7 AV	68.2	-17.5	2.11 H	145	30.6	20.1

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	*6415.00	105.0 PK			1.19 V	0	59.8	45.2
2	*6415.00	98.2 AV			1.19 V	0	53.0	45.2
3	#12830.00	59.3 PK	88.2	-28.9	2.57 V	113	39.2	20.1
4	#12830.00	49.7 AV	68.2	-18.5	2.57 V	113	29.6	20.1

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, the limit was restricted at the RF Output Power.



RF Mode	802.11a	Channel	CH 97 : 6435 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 59% RH
Tested By	Karl Lee		

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	*6435.00	102.3 PK			1.25 H	10	57.1	45.2
2	*6435.00	94.5 AV			1.25 H	10	49.3	45.2
3	#12870.00	60.7 PK	88.2	-27.5	1.10 H	206	40.6	20.1
4	#12870.00	51.3 AV	68.2	-16.9	1.10 H	206	31.2	20.1

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	*6435.00	99.8 PK			1.00 V	2	54.6	45.2
2	*6435.00	92.3 AV			1.00 V	2	47.1	45.2
3	#12870.00	61.0 PK	88.2	-27.2	1.92 V	124	40.9	20.1
4	#12870.00	51.3 AV	68.2	-16.9	1.92 V	124	31.2	20.1

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, the limit was restricted at the RF Output Power.



RF Mode	802.11a	Channel	CH 105 : 6475 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 59% RH
Tested By	Karl Lee		

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	*6475.00	102.0 PK			1.25 H	9	56.7	45.3
2	*6475.00	94.4 AV			1.25 H	9	49.1	45.3
3	#12950.00	60.9 PK	88.2	-27.3	1.21 H	94	40.4	20.5
4	#12950.00	51.3 AV	68.2	-16.9	1.21 H	94	30.8	20.5

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	*6475.00	99.0 PK			1.00 V	2	53.7	45.3
2	*6475.00	91.5 AV			1.00 V	2	46.2	45.3
3	#12950.00	61.0 PK	88.2	-27.2	1.44 V	106	40.5	20.5
4	#12950.00	51.4 AV	68.2	-16.8	1.44 V	106	30.9	20.5

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, the limit was restricted at the RF Output Power.

RF Mode	802.11a	Channel	CH 113 : 6515 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 59% RH
Tested By	Karl Lee		

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	*6515.00	102.5 PK			1.26 H	11	57.1	45.4
2	*6515.00	94.8 AV			1.26 H	11	49.4	45.4
3	#13030.00	61.8 PK	88.2	-26.4	1.56 H	179	41.1	20.7
4	#13030.00	52.3 AV	68.2	-15.9	1.56 H	179	31.6	20.7

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	*6515.00	100.7 PK			1.03 V	4	55.3	45.4
2	*6515.00	93.0 AV			1.03 V	4	47.6	45.4
3	#13030.00	61.5 PK	88.2	-26.7	1.91 V	243	40.8	20.7
4	#13030.00	52.0 AV	68.2	-16.2	1.91 V	243	31.3	20.7

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, the limit was restricted at the RF Output Power.



RF Mode	802.11a	Channel	CH 117 : 6535 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 59% RH
Tested By	Karl Lee		

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	*6535.00	102.3 PK			1.25 H	10	57.0	45.3
2	*6535.00	94.6 AV			1.25 H	10	49.3	45.3
3	#13070.00	61.2 PK	88.2	-27.0	1.42 H	26	40.7	20.5
4	#13070.00	51.6 AV	68.2	-16.6	1.42 H	26	31.1	20.5

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	*6535.00	99.4 PK			1.00 V	2	54.1	45.3
2	*6535.00	91.8 AV			1.00 V	2	46.5	45.3
3	#13070.00	61.8 PK	88.2	-26.4	1.32 V	229	41.3	20.5
4	#13070.00	52.3 AV	68.2	-15.9	1.32 V	229	31.8	20.5

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, the limit was restricted at the RF Output Power.



RF Mode	802.11a	Channel	CH 149 : 6695 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 59% RH
Tested By	Karl Lee		

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	*6695.00	104.1 PK			1.71 H	10	58.6	45.5
2	*6695.00	96.4 AV			1.71 H	10	50.9	45.5
3	13390.00	61.1 PK	74.0	-12.9	1.26 H	175	40.5	20.6
4	13390.00	51.5 AV	54.0	-2.5	1.26 H	175	30.9	20.6

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6695.00	99.7 PK			1.37 V	16	54.2	45.5
2	*6695.00	92.2 AV			1.37 V	16	46.7	45.5
3	13390.00	60.9 PK	74.0	-13.1	2.22 V	194	40.3	20.6
4	13390.00	51.2 AV	54.0	-2.8	2.22 V	194	30.6	20.6

Remarks:

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



RF Mode	802.11a	Channel	CH 181 : 6855 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 59% RH
Tested By	Karl Lee		

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	*6855.00	103.7 PK			1.61 H	5	57.9	45.8
2	*6855.00	96.1 AV			1.61 H	5	50.3	45.8
3	#13710.00	60.2 PK	88.2	-28.0	2.03 H	42	39.7	20.5
4	#13710.00	50.6 AV	68.2	-17.6	2.03 H	42	30.1	20.5

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	*6855.00	101.0 PK			1.67 V	16	55.2	45.8
2	*6855.00	93.4 AV			1.67 V	16	47.6	45.8
3	#13710.00	62.5 PK	88.2	-25.7	2.26 V	108	42.0	20.5
4	#13710.00	53.0 AV	68.2	-15.2	2.26 V	108	32.5	20.5

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, the limit was restricted at the RF Output Power.



RF Mode	802.11a	Channel	CH 185 : 6875 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 59% RH
Tested By	Karl Lee		

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	*6875.00	101.6 PK			1.62 H	39	56.1	45.5
2	*6875.00	94.0 AV			1.62 H	39	48.5	45.5
3	#13750.00	62.9 PK	88.2	-25.3	1.61 H	182	42.4	20.5
4	#13750.00	53.3 AV	68.2	-14.9	1.61 H	182	32.8	20.5

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	*6875.00	99.7 PK			1.06 V	356	54.2	45.5
2	*6875.00	92.2 AV			1.06 V	356	46.7	45.5
3	#13750.00	62.9 PK	88.2	-25.3	1.59 V	223	42.4	20.5
4	#13750.00	53.3 AV	68.2	-14.9	1.59 V	223	32.8	20.5

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, the limit was restricted at the RF Output Power.



RF Mode	802.11a	Channel	CH 209 : 6995 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 59% RH
Tested By	Karl Lee		

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	*6995.00	101.0 PK			1.62 H	39	55.3	45.7
2	*6995.00	93.4 AV			1.62 H	39	47.7	45.7
3	#13990.00	62.8 PK	88.2	-25.4	1.82 H	155	42.4	20.4
4	#13990.00	53.2 AV	68.2	-15.0	1.82 H	155	32.8	20.4

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	*6995.00	96.6 PK			1.06 V	356	50.9	45.7
2	*6995.00	89.0 AV			1.06 V	356	43.3	45.7
3	#13990.00	62.0 PK	88.2	-26.2	1.21 V	198	41.6	20.4
4	#13990.00	52.4 AV	68.2	-15.8	1.21 V	198	32.0	20.4

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, the limit was restricted at the RF Output Power.



RF Mode	802.11a	Channel	CH 233 : 7115 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 59% RH
Tested By	Karl Lee		

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	*7115.00	100.2 PK			2.17 H	78	54.2	46.0
2	*7115.00	92.2 AV			2.17 H	78	46.2	46.0
3	#7125.00	54.3 PK	88.2	-33.9	2.17 H	78	40.0	14.3
4	#7125.00	53.8 AV	68.2	-14.4	2.17 H	78	39.5	14.3
5	#14230.00	58.9 PK	88.2	-29.3	1.15 H	24	38.1	20.8
6	#14230.00	49.2 AV	68.2	-19.0	1.15 H	24	28.4	20.8

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	*7115.00	95.2 PK			1.10 V	5	49.2	46.0
2	*7115.00	87.6 AV			1.10 V	5	41.6	46.0
3	#7125.00	51.1 PK	88.2	-37.1	1.10 V	5	36.8	14.3
4	#7125.00	50.7 AV	68.2	-17.5	1.10 V	5	36.4	14.3
5	#14230.00	58.9 PK	88.2	-29.3	1.36 V	209	38.1	20.8
6	#14230.00	49.0 AV	68.2	-19.2	1.36 V	209	28.2	20.8

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, the limit was restricted at the RF Output Power.

RF Mode	802.11ax (HE20)	Channel	CH 1 : 5955 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 59% RH
Tested By	Karl Lee		

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	#5925.00	55.3 PK	88.2	-32.9	1.38 H	17	42.1	13.2
2	#5925.00	48.6 AV	68.2	-19.6	1.38 H	17	35.4	13.2
3	*5955.00	108.0 PK			1.43 H	5	64.0	44.0
4	*5955.00	99.1 AV			1.43 H	5	55.1	44.0
5	11910.00	59.7 PK	74.0	-14.3	1.62 H	255	40.5	19.2
6	11910.00	49.9 AV	54.0	-4.1	1.62 H	255	30.7	19.2

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	#5925.00	55.5 PK	88.2	-32.7	1.00 V	34	42.3	13.2
2	#5925.00	48.2 AV	68.2	-20.0	1.00 V	34	35.0	13.2
3	*5955.00	105.5 PK			1.00 V	27	61.5	44.0
4	*5955.00	96.4 AV			1.00 V	27	52.4	44.0
5	11910.00	59.4 PK	74.0	-14.6	1.56 V	131	40.2	19.2
6	11910.00	49.7 AV	54.0	-4.3	1.56 V	131	30.5	19.2

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, the limit was restricted at the RF Output Power.

RF Mode	802.11ax (HE20)	Channel	CH 45 : 6175 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 59% RH
Tested By	Karl Lee		

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	#5925.00	56.5 PK	88.2	-31.7	1.34 H	8	43.3	13.2
2	#5925.00	49.1 AV	68.2	-19.1	1.34 H	8	35.9	13.2
3	*6175.00	106.5 PK			1.31 H	5	61.6	44.9
4	*6175.00	98.1 AV			1.31 H	5	53.2	44.9
5	#7125.00	58.0 PK	88.2	-30.2	1.12 H	6	43.7	14.3
6	#7125.00	49.7 AV	68.2	-18.5	1.12 H	6	35.4	14.3
7	12350.00	59.9 PK	74.0	-14.1	1.87 H	161	40.4	19.5
8	12350.00	50.4 AV	54.0	-3.6	1.87 H	161	30.9	19.5

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	#5925.00	55.7 PK	88.2	-32.5	1.25 V	11	42.5	13.2
2	#5925.00	48.4 AV	68.2	-19.8	1.25 V	11	35.2	13.2
3	*6175.00	104.8 PK			1.24 V	11	59.9	44.9
4	*6175.00	95.4 AV			1.24 V	11	50.5	44.9
5	#7125.00	58.2 PK	88.2	-30.0	1.24 V	11	43.9	14.3
6	#7125.00	49.8 AV	68.2	-18.4	1.24 V	11	35.5	14.3
7	12350.00	59.3 PK	74.0	-14.7	1.65 V	227	39.8	19.5
8	12350.00	49.9 AV	54.0	-4.1	1.65 V	227	30.4	19.5

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, the limit was restricted at the RF Output Power.

RF Mode	802.11ax (HE20)	Channel	CH 93 : 6415 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 59% RH
Tested By	Karl Lee		

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	*6415.00	106.8 PK			1.31 H	6	61.6	45.2
2	*6415.00	99.1 AV			1.31 H	6	53.9	45.2
3	#7125.00	58.1 PK	88.2	-30.1	1.31 H	6	43.8	14.3
4	#7125.00	49.7 AV	68.2	-18.5	1.31 H	6	35.4	14.3
5	#12830.00	59.7 PK	88.2	-28.5	2.06 H	174	39.6	20.1
6	#12830.00	50.0 AV	68.2	-18.2	2.06 H	174	29.9	20.1

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	*6415.00	104.8 PK			1.19 V	0	59.6	45.2
2	*6415.00	96.4 AV			1.19 V	0	51.2	45.2
3	#7125.00	57.4 PK	88.2	-30.8	1.19 V	0	43.1	14.3
4	#7125.00	49.9 AV	68.2	-18.3	1.19 V	0	35.6	14.3
5	#12830.00	60.2 PK	88.2	-28.0	1.32 V	108	40.1	20.1
6	#12830.00	50.6 AV	68.2	-17.6	1.32 V	108	30.5	20.1

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, the limit was restricted at the RF Output Power.



RF Mode	802.11ax (HE20)	Channel	CH 97 : 6435 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 59% RH
Tested By	Karl Lee		

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	*6435.00	102.0 PK			1.25 H	10	56.8	45.2
2	*6435.00	94.1 AV			1.25 H	10	48.9	45.2
3	#12870.00	62.0 PK	88.2	-26.2	1.04 H	201	41.9	20.1
4	#12870.00	51.4 AV	68.2	-16.8	1.04 H	201	31.3	20.1

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	*6435.00	99.5 PK			1.00 V	2	54.3	45.2
2	*6435.00	92.0 AV			1.00 V	2	46.8	45.2
3	#12870.00	60.7 PK	88.2	-27.5	1.78 V	144	40.6	20.1
4	#12870.00	50.6 AV	68.2	-17.6	1.78 V	144	30.5	20.1

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, the limit was restricted at the RF Output Power.



RF Mode	802.11ax (HE20)	Channel	CH 105 : 6475 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 59% RH
Tested By	Karl Lee		

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	*6475.00	101.6 PK			1.25 H	9	56.3	45.3
2	*6475.00	93.7 AV			1.25 H	9	48.4	45.3
3	#12950.00	61.7 PK	88.2	-26.5	1.07 H	359	41.2	20.5
4	#12950.00	51.0 AV	68.2	-17.2	1.07 H	359	30.5	20.5

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	*6475.00	98.8 PK			1.00 V	2	53.5	45.3
2	*6475.00	91.3 AV			1.00 V	2	46.0	45.3
3	#12950.00	60.7 PK	88.2	-27.5	1.21 V	111	40.2	20.5
4	#12950.00	50.4 AV	68.2	-17.8	1.21 V	111	29.9	20.5

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, the limit was restricted at the RF Output Power.



RF Mode	802.11ax (HE20)	Channel	CH 113 : 6515 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 59% RH
Tested By	Karl Lee		

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	*6515.00	102.1 PK			1.26 H	11	56.7	45.4
2	*6515.00	94.2 AV			1.26 H	11	48.8	45.4
3	#13030.00	60.6 PK	88.2	-27.6	1.32 H	117	39.9	20.7
4	#13030.00	50.5 AV	68.2	-17.7	1.32 H	117	29.8	20.7

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	*6515.00	100.5 PK			1.03 V	4	55.1	45.4
2	*6515.00	92.6 AV			1.03 V	4	47.2	45.4
3	#13030.00	61.4 PK	88.2	-26.8	1.06 V	357	40.7	20.7
4	#13030.00	51.2 AV	68.2	-17.0	1.06 V	357	30.5	20.7

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, the limit was restricted at the RF Output Power.



RF Mode	802.11ax (HE20)	Channel	CH 117 : 6535 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 59% RH
Tested By	Karl Lee		

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	*6535.00	101.9 PK			1.25 H	10	56.6	45.3
2	*6535.00	94.4 AV			1.25 H	10	49.1	45.3
3	#13070.00	60.7 PK	88.2	-27.5	1.21 H	356	40.2	20.5
4	#13070.00	51.4 AV	68.2	-16.8	1.21 H	356	30.9	20.5

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	*6535.00	99.0 PK			1.00 V	2	53.7	45.3
2	*6535.00	91.2 AV			1.00 V	2	45.9	45.3
3	#13070.00	60.6 PK	88.2	-27.6	1.24 V	333	40.1	20.5
4	#13070.00	51.6 AV	68.2	-16.6	1.24 V	333	31.1	20.5

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, the limit was restricted at the RF Output Power.

RF Mode	802.11ax (HE20)	Channel	CH 149 : 6695 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 59% RH
Tested By	Karl Lee		

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	*6695.00	103.8 PK			1.71 H	10	58.3	45.5
2	*6695.00	94.1 AV			1.71 H	10	48.6	45.5
3	13390.00	60.9 PK	74.0	-13.1	1.42 H	224	40.3	20.6
4	13390.00	51.3 AV	54.0	-2.7	1.42 H	224	30.7	20.6

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6695.00	99.3 PK			1.37 V	16	53.8	45.5
2	*6695.00	90.5 AV			1.37 V	16	45.0	45.5
3	13390.00	60.3 PK	74.0	-13.7	2.91 V	173	39.7	20.6
4	13390.00	50.9 AV	54.0	-3.1	2.91 V	173	30.3	20.6

Remarks:

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



RF Mode	802.11ax (HE20)	Channel	CH 181 : 6855 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 59% RH
Tested By	Karl Lee		

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	*6855.00	103.3 PK			1.61 H	5	57.5	45.8
2	*6855.00	93.9 AV			1.61 H	5	48.1	45.8
3	#13710.00	59.9 PK	88.2	-28.3	2.71 H	154	39.4	20.5
4	#13710.00	50.6 AV	68.2	-17.6	2.71 H	154	30.1	20.5

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	*6855.00	100.7 PK			1.67 V	16	54.9	45.8
2	*6855.00	91.2 AV			1.67 V	16	45.4	45.8
3	#13710.00	61.2 PK	88.2	-27.0	1.34 V	254	40.7	20.5
4	#13710.00	51.8 AV	68.2	-16.4	1.34 V	254	31.3	20.5

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, the limit was restricted at the RF Output Power.



RF Mode	802.11ax (HE20)	Channel	CH 185 : 6875 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 59% RH
Tested By	Karl Lee		

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	*6875.00	101.2 PK			1.62 H	39	55.4	45.8
2	*6875.00	93.7 AV			1.62 H	39	47.9	45.8
3	#13750.00	63.3 PK	68.2	-4.9	1.32 H	206	42.8	20.5
4	#13750.00	53.0 AV	54.0	-1.0	1.32 H	206	32.5	20.5

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	*6875.00	99.5 PK			1.06 V	356	53.7	45.8
2	*6875.00	91.9 AV			1.06 V	356	46.1	45.8
3	#13750.00	63.4 PK	88.2	-24.8	1.32 V	357	42.9	20.5
4	#13750.00	53.3 AV	68.2	-14.9	1.32 V	357	32.8	20.5

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, the limit was restricted at the RF Output Power.



RF Mode	802.11ax (HE20)	Channel	CH 209 : 6995 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 59% RH
Tested By	Karl Lee		

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	*6995.00	100.5 PK			1.62 H	39	54.8	45.7
2	*6995.00	91.4 AV			1.62 H	39	45.7	45.7
3	#13990.00	62.1 PK	88.2	-26.1	1.02 H	126	41.7	20.4
4	#13990.00	52.8 AV	68.2	-15.4	1.02 H	126	32.4	20.4

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	*6995.00	96.3 PK			1.06 V	356	50.6	45.7
2	*6995.00	87.4 AV			1.06 V	356	41.7	45.7
3	#13990.00	61.8 PK	88.2	-26.4	1.14 V	174	41.4	20.4
4	#13990.00	52.4 AV	68.2	-15.8	1.14 V	174	32.0	20.4

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, the limit was restricted at the RF Output Power.

RF Mode	802.11ax (HE20)	Channel	CH 233 : 7115 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 59% RH
Tested By	Karl Lee		

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	*7115.00	99.2 PK			1.60 H	39	53.2	46.0
2	*7115.00	90.8 AV			1.60 H	39	44.8	46.0
3	#7125.00	57.1 PK	88.2	-31.1	1.62 H	90	42.8	14.3
4	#7125.00	57.0 AV	68.2	-11.2	1.62 H	90	42.7	14.3
5	#14230.00	62.2 PK	88.2	-26.0	1.24 H	208	41.4	20.8
6	#14230.00	53.0 AV	68.2	-15.2	1.24 H	208	32.2	20.8

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	*7115.00	96.2 PK			1.13 V	5	50.2	46.0
2	*7115.00	87.6 AV			1.13 V	5	41.6	46.0
3	#7125.00	55.1 PK	88.2	-33.1	1.03 V	68	40.8	14.3
4	#7125.00	54.4 AV	68.2	-13.8	1.03 V	68	40.1	14.3
5	#14230.00	62.7 PK	88.2	-25.5	1.12 V	217	41.9	20.8
6	#14230.00	52.9 AV	68.2	-15.3	1.12 V	217	32.1	20.8

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, the limit was restricted at the RF Output Power.



RF Mode	802.11ax (HE40)	Channel	CH 3 : 5965 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 59% RH
Tested By	Karl Lee		

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	#5925.00	55.9 PK	88.2	-32.3	1.25 H	9	42.7	13.2
2	#5925.00	48.2 AV	68.2	-20.0	1.25 H	9	35.0	13.2
3	*5965.00	106.2 PK			1.29 H	6	62.2	44.0
4	*5965.00	98.2 AV			1.29 H	6	54.2	44.0
5	#7125.00	57.5 PK	88.2	-30.7	1.29 H	6	43.2	14.3
6	#7125.00	49.9 AV	68.2	-18.3	1.29 H	6	35.6	14.3
7	11930.00	59.5 PK	74.0	-14.5	2.38 H	178	40.5	19.0
8	11930.00	50.1 AV	54.0	-3.9	2.38 H	178	31.1	19.0

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	#5925.00	55.0 PK	88.2	-33.2	1.00 V	2	41.8	13.2
2	#5925.00	48.5 AV	68.2	-19.7	1.00 V	2	35.3	13.2
3	*5965.00	105.0 PK			1.00 V	2	61.0	44.0
4	*5965.00	96.2 AV			1.00 V	2	52.2	44.0
5	#7125.00	57.2 PK	88.2	-31.0	1.06 V	10	42.9	14.3
6	#7125.00	49.8 AV	68.2	-18.4	1.06 V	10	35.5	14.3
7	11930.00	58.3 PK	74.0	-15.7	1.41 V	93	39.3	19.0
8	11930.00	48.8 AV	54.0	-5.2	1.41 V	93	29.8	19.0

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, the limit was restricted at the RF Output Power.



RF Mode	802.11ax (HE40)	Channel	CH 43 : 6165 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 59% RH
Tested By	Karl Lee		

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	*6165.00	99.8 PK			1.25 H	10	54.9	44.9
2	*6165.00	92.2 AV			1.25 H	10	47.3	44.9
3	12330.00	60.3 PK	74.0	-13.7	1.07 H	175	40.7	19.6
4	12330.00	50.2 AV	54.0	-3.8	1.07 H	175	30.6	19.6

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6165.00	99.1 PK			1.01 V	5	54.2	44.9
2	*6165.00	91.2 AV			1.01 V	5	46.3	44.9
3	12330.00	60.6 PK	74.0	-13.4	1.75 V	222	41.0	19.6
4	12330.00	50.5 AV	54.0	-3.5	1.75 V	222	30.9	19.6

Remarks:

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



RF Mode	802.11ax (HE40)	Channel	CH 91 : 6405 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 59% RH
Tested By	Karl Lee		

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	*6405.00	101.5 PK			1.25 H	10	56.3	45.2
2	*6405.00	93.7 AV			1.25 H	10	48.5	45.2
3	#12810.00	60.3 PK	88.2	-27.9	1.75 H	333	40.2	20.1
4	#12810.00	50.3 AV	68.2	-17.9	1.75 H	333	30.2	20.1

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	*6405.00	100.1 PK			1.01 V	2	54.9	45.2
2	*6405.00	92.4 AV			1.01 V	2	47.2	45.2
3	#12810.00	60.3 PK	88.2	-27.9	1.12 V	201	40.2	20.1
4	#12810.00	50.4 AV	68.2	-17.8	1.12 V	201	30.3	20.1

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, the limit was restricted at the RF Output Power.



RF Mode	802.11ax (HE40)	Channel	CH 99 : 6445 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 59% RH
Tested By	Karl Lee		

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	*6445.00	101.6 PK			1.25 H	9	56.3	45.3
2	*6445.00	93.7 AV			1.25 H	9	48.4	45.3
3	#12890.00	60.3 PK	88.2	-27.9	1.34 H	201	40.2	20.1
4	#12890.00	50.2 AV	68.2	-18.0	1.34 H	201	30.1	20.1

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	*6445.00	98.8 PK			1.00 V	2	53.5	45.3
2	*6445.00	91.0 AV			1.00 V	2	45.7	45.3
3	#12890.00	61.4 PK	88.2	-26.8	1.04 V	3	41.3	20.1
4	#12890.00	50.9 AV	68.2	-17.3	1.04 V	3	30.8	20.1

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, the limit was restricted at the RF Output Power.



RF Mode	802.11ax (HE40)	Channel	CH 107 : 6485 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 59% RH
Tested By	Karl Lee		

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	*6485.00	101.7 PK			1.25 H	9	56.4	45.3
2	*6485.00	94.0 AV			1.25 H	9	48.7	45.3
3	#12970.00	60.7 PK	88.2	-27.5	1.34 H	210	40.1	20.6
4	#12970.00	50.4 AV	68.2	-17.8	1.34 H	210	29.8	20.6

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6485.00	99.8 PK			1.00 V	2	54.5	45.3
2	*6485.00	92.1 AV			1.00 V	2	46.8	45.3
3	#12970.00	60.5 PK	88.2	-27.7	1.14 V	120	39.9	20.6
4	#12970.00	50.7 AV	68.2	-17.5	1.14 V	120	30.1	20.6

Remarks:

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



RF Mode	802.11ax (HE40)	Channel	CH 115 : 6525 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 59% RH
Tested By	Karl Lee		

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	*6525.00	101.4 PK			1.25 H	9	56.1	45.3
2	*6525.00	93.9 AV			1.25 H	9	48.6	45.3
3	#13050.00	60.8 PK	88.2	-27.4	1.11 H	358	40.1	20.7
4	#13050.00	51.2 AV	68.2	-17.0	1.11 H	358	30.5	20.7

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	*6525.00	99.5 PK			1.04 V	3	54.2	45.3
2	*6525.00	93.7 AV			1.04 V	3	48.4	45.3
3	#13050.00	60.6 PK	88.2	-27.6	1.35 V	1	39.9	20.7
4	#13050.00	50.5 AV	68.2	-17.7	1.35 V	1	29.8	20.7

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, the limit was restricted at the RF Output Power.



RF Mode	802.11ax (HE40)	Channel	CH 123 : 6565 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 59% RH
Tested By	Karl Lee		

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	*6565.00	103.5 PK			1.58 H	0	58.2	45.3
2	*6565.00	96.4 AV			1.58 H	0	51.1	45.3
3	#13130.00	59.9 PK	88.2	-28.3	1.52 H	82	39.4	20.5
4	#13130.00	50.4 AV	68.2	-17.8	1.52 H	82	29.9	20.5

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	*6565.00	96.9 PK			1.00 V	18	51.6	45.3
2	*6565.00	90.1 AV			1.00 V	18	44.8	45.3
3	#13130.00	60.2 PK	88.2	-28.0	1.30 V	254	39.7	20.5
4	#13130.00	50.8 AV	68.2	-17.4	1.30 V	254	30.3	20.5

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, the limit was restricted at the RF Output Power.



RF Mode	802.11ax (HE40)	Channel	CH 155 : 6725 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 59% RH
Tested By	Karl Lee		

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	*6725.00	103.0 PK			1.76 H	13	57.5	45.5
2	*6725.00	95.7 AV			1.76 H	13	50.2	45.5
3	#13450.00	60.1 PK	88.2	-28.1	2.46 H	152	39.5	20.6
4	#13450.00	50.8 AV	68.2	-17.4	2.46 H	152	30.2	20.6

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6725.00	98.3 PK			1.34 V	21	52.8	45.5
2	*6725.00	91.6 AV			1.34 V	21	46.1	45.5
3	#13450.00	59.3 PK	88.2	-28.9	1.24 V	271	38.7	20.6
4	#13450.00	49.9 AV	68.2	-18.3	1.24 V	271	29.3	20.6

Remarks:

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



RF Mode	802.11ax (HE40)	Channel	CH 179 : 6845 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 59% RH
Tested By	Karl Lee		

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	*6845.00	101.9 PK			1.68 H	26	56.2	45.7
2	*6845.00	94.6 AV			1.68 H	26	48.9	45.7
3	#13690.00	60.0 PK	88.2	-28.2	2.01 H	168	39.4	20.6
4	#13690.00	50.8 AV	68.2	-17.4	2.01 H	168	30.2	20.6

Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6845.00	97.2 PK			1.59 V	13	51.5	45.7
2	*6845.00	90.9 AV			1.59 V	13	45.2	45.7
3	#13690.00	59.7 PK	88.2	-28.5	2.04 V	335	39.1	20.6
4	#13690.00	50.2 AV	68.2	-18.0	2.04 V	335	29.6	20.6

Remarks:

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



RF Mode	802.11ax (HE40)	Channel	CH 187 : 6885 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 59% RH
Tested By	Karl Lee		

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	*6885.00	100.1 PK			1.62 H	39	54.3	45.8
2	*6885.00	91.6 AV			1.62 H	39	45.8	45.8
3	#13770.00	62.2 PK	88.2	-26.0	1.04 H	204	41.8	20.4
4	#13770.00	52.6 AV	68.2	-15.6	1.04 H	204	32.2	20.4

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	*6885.00	97.4 PK			1.06 V	356	51.6	45.8
2	*6885.00	88.3 AV			1.06 V	356	42.5	45.8
3	#13770.00	61.9 PK	88.2	-26.3	1.36 V	336	41.5	20.4
4	#13770.00	52.0 AV	68.2	-16.2	1.36 V	336	31.6	20.4

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, the limit was restricted at the RF Output Power.



RF Mode	802.11ax (HE40)	Channel	CH 211 : 7005 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 59% RH
Tested By	Karl Lee		

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	*7005.00	99.2 PK			1.62 H	39	53.5	45.7
2	*7005.00	90.7 AV			1.62 H	39	45.0	45.7
3	#14010.00	62.0 PK	88.2	-26.2	1.00 H	226	41.6	20.4
4	#14010.00	52.3 AV	68.2	-15.9	1.00 H	226	31.9	20.4

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	*7005.00	96.5 PK			1.03 V	5	50.8	45.7
2	*7005.00	87.7 AV			1.03 V	5	42.0	45.7
3	#14010.00	62.4 PK	88.2	-25.8	1.07 V	2	42.0	20.4
4	#14010.00	52.2 AV	68.2	-16.0	1.07 V	2	31.8	20.4

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, the limit was restricted at the RF Output Power.

RF Mode	802.11ax (HE40)	Channel	CH 227 : 7085 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 59% RH
Tested By	Karl Lee		

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	*7085.00	99.0 PK			1.62 H	39	53.0	46.0
2	*7085.00	90.4 AV			1.62 H	39	44.4	46.0
3	#7125.00	57.5 PK	88.2	-30.7	1.62 H	39	43.2	14.3
4	#7125.00	47.6 AV	68.2	-20.6	1.62 H	39	33.3	14.3
5	#14170.00	63.3 PK	88.2	-24.9	1.75 H	8	42.7	20.6
6	#14170.00	53.4 AV	68.2	-14.8	1.75 H	8	32.8	20.6
Antenna Polarity & Test Distance : Vertical at 3 m								
No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*7085.00	96.3 PK			1.03 V	3	50.3	46.0
2	*7085.00	87.4 AV			1.03 V	3	41.4	46.0
3	#7125.00	57.2 PK	88.2	-31.0	1.03 V	3	42.9	14.3
4	#7125.00	47.6 AV	68.2	-20.6	1.03 V	3	33.3	14.3
5	#14170.00	63.1 PK	88.2	-25.1	1.45 V	195	42.5	20.6
6	#14170.00	52.7 AV	68.2	-15.5	1.45 V	195	32.1	20.6

Remarks:

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



RF Mode	802.11ax (HE80)	Channel	CH 7 : 5985 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 59% RH
Tested By	Karl Lee		

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	#5925.00	57.8 PK	88.2	-30.4	1.22 H	9	44.6	13.2
2	#5925.00	52.0 AV	68.2	-16.2	1.22 H	9	38.8	13.2
3	*5985.00	107.2 PK			1.31 H	6	63.1	44.1
4	*5985.00	99.8 AV			1.31 H	6	55.7	44.1
5	#7125.00	57.9 PK	88.2	-30.3	1.31 H	19	43.6	14.3
6	#7125.00	49.8 AV	68.2	-18.4	1.31 H	19	35.5	14.3
7	11970.00	59.1 PK	74.0	-14.9	1.28 H	325	40.1	19.0
8	11970.00	49.7 AV	54.0	-4.3	1.28 H	325	30.7	19.0

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	#5925.00	53.8 PK	88.2	-34.4	1.01 V	14	40.6	13.2
2	#5925.00	48.7 AV	68.2	-19.5	1.01 V	14	35.5	13.2
3	*5985.00	104.8 PK			1.00 V	2	60.7	44.1
4	*5985.00	97.2 AV			1.00 V	2	53.1	44.1
5	#7125.00	57.5 PK	88.2	-30.7	1.03 V	7	43.2	14.3
6	#7125.00	49.7 AV	68.2	-18.5	1.03 V	7	35.4	14.3
7	11970.00	58.8 PK	74.0	-15.2	2.60 V	24	39.8	19.0
8	11970.00	49.3 AV	54.0	-4.7	2.60 V	24	30.3	19.0

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, the limit was restricted at the RF Output Power.



RF Mode	802.11ax (HE80)	Channel	CH 39 : 6145 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 59% RH
Tested By	Karl Lee		

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	#5925.00	55.0 PK	88.2	-33.2	1.52 H	66	41.8	13.2
2	#5925.00	47.7 AV	68.2	-20.5	1.52 H	66	34.5	13.2
3	*6145.00	104.2 PK			1.50 H	49	59.4	44.8
4	*6145.00	97.7 AV			1.50 H	49	52.9	44.8
5	#7125.00	57.6 PK	88.2	-30.6	1.42 H	72	43.3	14.3
6	#7125.00	49.8 AV	68.2	-18.4	1.42 H	72	35.5	14.3
7	12290.00	59.8 PK	74.0	-14.2	1.72 H	161	40.2	19.6
8	12290.00	50.2 AV	54.0	-3.8	1.72 H	161	30.6	19.6

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5925.00	54.1 PK	88.2	-34.1	1.21 V	16	40.9	13.2
2	#5925.00	47.7 AV	68.2	-20.5	1.21 V	16	34.5	13.2
3	*6145.00	100.5 PK			1.24 V	0	55.7	44.8
4	*6145.00	95.2 AV			1.24 V	0	50.4	44.8
5	#7125.00	58.7 PK	88.2	-29.5	1.24 V	2	44.4	14.3
6	#7125.00	49.9 AV	68.2	-18.3	1.24 V	2	35.6	14.3
7	12290.00	59.1 PK	74.0	-14.9	2.57 V	121	39.5	19.6
8	12290.00	49.6 AV	54.0	-4.4	2.57 V	121	30.0	19.6

Remarks:

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



RF Mode	802.11ax (HE80)	Channel	CH 87 : 6385 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 59% RH
Tested By	Karl Lee		

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	#5925.00	54.8 PK	88.2	-33.4	1.48 H	47	41.6	13.2
2	#5925.00	47.6 AV	68.2	-20.6	1.48 H	47	34.4	13.2
3	*6385.00	103.5 PK			1.48 H	54	58.4	45.1
4	*6385.00	97.9 AV			1.48 H	54	52.8	45.1
5	#7125.00	58.7 PK	88.2	-29.5	1.42 H	54	44.4	14.3
6	#7125.00	49.8 AV	68.2	-18.4	1.42 H	54	35.5	14.3
7	#12770.00	59.4 PK	88.2	-28.8	2.59 H	132	39.2	20.2
8	#12770.00	49.9 AV	68.2	-18.3	2.59 H	132	29.7	20.2

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	#5925.00	54.3 PK	88.2	-33.9	1.04 V	0	41.1	13.2
2	#5925.00	47.6 AV	68.2	-20.6	1.04 V	0	34.4	13.2
3	*6385.00	103.0 PK			1.00 V	0	57.9	45.1
4	*6385.00	95.2 AV			1.00 V	0	50.1	45.1
5	#7125.00	57.0 PK	88.2	-31.2	1.00 V	5	42.7	14.3
6	#7125.00	49.7 AV	68.2	-18.5	1.00 V	5	35.4	14.3
7	#12770.00	59.7 PK	88.2	-28.5	2.14 V	68	39.5	20.2
8	#12770.00	50.0 AV	68.2	-18.2	2.14 V	68	29.8	20.2

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, the limit was restricted at the RF Output Power.



RF Mode	802.11ax (HE80)	Channel	CH 103 : 6465 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 59% RH
Tested By	Karl Lee		

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	*6465.00	101.2 PK			1.25 H	9	55.9	45.3
2	*6465.00	93.6 AV			1.25 H	9	48.3	45.3
3	#12930.00	60.3 PK	88.2	-27.9	1.54 H	151	39.9	20.4
4	#12930.00	50.7 AV	68.2	-17.5	1.54 H	151	30.3	20.4
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	*6465.00	99.5 PK			1.02 V	5	54.2	45.3
2	*6465.00	91.3 AV			1.02 V	5	46.0	45.3
3	#12930.00	61.3 PK	88.2	-26.9	1.03 V	357	40.9	20.4
4	#12930.00	51.0 AV	68.2	-17.2	1.03 V	357	30.6	20.4

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, the limit was restricted at the RF Output Power.



RF Mode	802.11ax (HE80)	Channel	CH 119 : 6545 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 59% RH
Tested By	Karl Lee		

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	*6545.00	101.8 PK			1.27 H	10	56.5	45.3
2	*6545.00	94.0 AV			1.27 H	10	48.7	45.3
3	#13090.00	60.5 PK	88.2	-27.7	1.02 H	1	40.1	20.4
4	#13090.00	50.4 AV	68.2	-17.8	1.02 H	1	30.0	20.4

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	*6545.00	100.1 PK			1.01 V	5	54.8	45.3
2	*6545.00	92.3 AV			1.01 V	5	47.0	45.3
3	#13090.00	60.8 PK	88.2	-27.4	1.37 V	356	40.4	20.4
4	#13090.00	50.9 AV	68.2	-17.3	1.37 V	356	30.5	20.4

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, the limit was restricted at the RF Output Power.



RF Mode	802.11ax (HE80)	Channel	CH 151 : 6705 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 59% RH
Tested By	Karl Lee		

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	*6705.00	102.7 PK			1.64 H	2	57.2	45.5
2	*6705.00	95.6 AV			1.64 H	2	50.1	45.5
3	#13410.00	60.0 PK	88.2	-28.2	2.18 H	131	39.5	20.5
4	#13410.00	50.6 AV	68.2	-17.6	2.18 H	131	30.1	20.5

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	*6705.00	98.6 PK			1.34 V	17	53.1	45.5
2	*6705.00	91.6 AV			1.34 V	17	46.1	45.5
3	#13410.00	59.2 PK	88.2	-29.0	1.35 V	279	38.7	20.5
4	#13410.00	49.8 AV	68.2	-18.4	1.35 V	279	29.3	20.5

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, the limit was restricted at the RF Output Power.



RF Mode	802.11ax (HE80)	Channel	CH 183 : 6865 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 59% RH
Tested By	Karl Lee		

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	*6865.00	101.4 PK			1.69 H	3	55.6	45.8
2	*6865.00	94.4 AV			1.69 H	3	48.6	45.8
3	#13730.00	59.3 PK	88.2	-28.9	1.89 H	224	38.7	20.6
4	#13730.00	49.9 AV	68.2	-18.3	1.89 H	224	29.3	20.6

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	*6865.00	97.3 PK			1.68 V	17	51.5	45.8
2	*6865.00	91.4 AV			1.68 V	17	45.6	45.8
3	#13730.00	59.9 PK	88.2	-28.3	1.14 V	210	39.3	20.6
4	#13730.00	50.5 AV	68.2	-17.7	1.14 V	210	29.9	20.6

Remarks:

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



RF Mode	802.11ax (HE80)	Channel	CH 199 : 6945 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 59% RH
Tested By	Karl Lee		

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	*6945.00	100.5 PK			1.62 H	39	54.7	45.8
2	*6945.00	91.6 AV			1.62 H	39	45.8	45.8
3	#13890.00	62.1 PK	88.2	-26.1	1.07 H	4	41.4	20.7
4	#13890.00	52.2 AV	68.2	-16.0	1.07 H	4	31.5	20.7

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	*6945.00	96.2 PK			1.00 V	2	50.4	45.8
2	*6945.00	87.6 AV			1.00 V	2	41.8	45.8
3	#13890.00	61.8 PK	88.2	-26.4	1.35 V	77	41.1	20.7
4	#13890.00	51.8 AV	68.2	-16.4	1.35 V	77	31.1	20.7

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, the limit was restricted at the RF Output Power.



RF Mode	802.11ax (HE80)	Channel	CH 215 : 7025 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 59% RH
Tested By	Karl Lee		

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	*7025.00	99.2 PK			1.62 H	39	53.4	45.8
2	*7025.00	90.4 AV			1.62 H	39	44.6	45.8
3	#7125.00	59.4 PK	88.2	-28.8	1.62 H	39	45.1	14.3
4	#7125.00	49.4 AV	68.2	-18.8	1.62 H	39	35.1	14.3
5	#14050.00	63.3 PK	88.2	-24.9	1.12 H	141	43.0	20.3
6	#14050.00	52.7 AV	68.2	-15.5	1.12 H	141	32.4	20.3

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	*7025.00	95.9 PK			1.03 V	3	50.1	45.8
2	*7025.00	86.9 AV			1.03 V	3	41.1	45.8
3	#7125.00	58.4 PK	88.2	-29.8	1.03 V	3	44.1	14.3
4	#7125.00	48.0 AV	68.2	-20.2	1.03 V	3	33.7	14.3
5	#14050.00	62.7 PK	88.2	-25.5	1.16 V	3	42.4	20.3
6	#14050.00	52.8 AV	68.2	-15.4	1.16 V	3	32.5	20.3

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, the limit was restricted at the RF Output Power.



RF Mode	802.11ax (HE160)	Channel	CH 15 : 6025 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 59% RH
Tested By	Karl Lee		

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	#5925.00	61.5 PK	88.2	-26.7	1.85 H	60	48.3	13.2
2	#5925.00	53.8 AV	68.2	-14.4	1.85 H	60	40.6	13.2
3	*6025.00	103.6 PK			1.84 H	54	59.3	44.3
4	*6025.00	98.1 AV			1.84 H	54	53.8	44.3
5	#7125.00	58.2 PK	88.2	-30.0	1.82 H	67	43.9	14.3
6	#7125.00	49.9 AV	68.2	-18.3	1.82 H	67	35.6	14.3
7	12050.00	58.7 PK	74.0	-15.3	2.14 H	331	39.4	19.3
8	12050.00	49.2 AV	54.0	-4.8	2.14 H	331	29.9	19.3

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	#5925.00	57.3 PK	88.2	-30.9	1.09 V	2	44.1	13.2
2	#5925.00	51.0 AV	68.2	-17.2	1.09 V	2	37.8	13.2
3	*6025.00	101.2 PK			1.00 V	0	56.9	44.3
4	*6025.00	94.9 AV			1.00 V	0	50.6	44.3
5	#7125.00	57.7 PK	88.2	-30.5	1.05 V	26	43.4	14.3
6	#7125.00	49.9 AV	68.2	-18.3	1.05 V	26	35.6	14.3
7	12050.00	58.6 PK	74.0	-15.4	1.62 V	287	39.3	19.3
8	12050.00	49.0 AV	54.0	-5.0	1.62 V	287	29.7	19.3

Remarks:

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

RF Mode	802.11ax (HE160)	Channel	CH 47 : 6185 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 59% RH
Tested By	Karl Lee		

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	#5925.00	56.1 PK	88.2	-32.1	1.25 H	54	42.9	13.2
2	#5925.00	48.3 AV	68.2	-19.9	1.25 H	54	35.1	13.2
3	*6185.00	103.4 PK			1.25 H	10	58.5	44.9
4	*6185.00	97.0 AV			1.25 H	10	52.1	44.9
5	12370.00	60.3 PK	74.0	-13.7	1.04 H	110	40.8	19.5
6	12370.00	50.4 AV	54.0	-3.6	1.04 H	110	30.9	19.5

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	#5925.00	54.2 PK	88.2	-34.0	1.01 V	3	41.0	13.2
2	#5925.00	48.0 AV	68.2	-20.2	1.01 V	3	34.8	13.2
3	*6185.00	99.4 PK			1.01 V	3	54.5	44.9
4	*6185.00	93.2 AV			1.01 V	3	48.3	44.9
5	12370.00	60.5 PK	74.0	-13.5	1.00 V	357	41.0	19.5
6	12370.00	50.4 AV	54.0	-3.6	1.00 V	357	30.9	19.5

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, the limit was restricted at the RF Output Power.



RF Mode	802.11ax (HE160)	Channel	CH 79 : 6345 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 59% RH
Tested By	Karl Lee		

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	*6345.00	105.0 PK			1.25 H	10	60.1	44.9
2	*6345.00	98.4 AV			1.25 H	10	53.5	44.9
3	12690.00	60.4 PK	74.0	-13.6	1.07 H	355	40.1	20.3
4	12690.00	50.2 AV	54.0	-3.8	1.07 H	355	29.9	20.3

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	*6345.00	101.5 PK			1.01 V	4	56.6	44.9
2	*6345.00	94.7 AV			1.01 V	4	49.8	44.9
3	12690.00	60.6 PK	74.0	-13.4	1.22 V	357	40.3	20.3
4	12690.00	50.6 AV	54.0	-3.4	1.22 V	357	30.3	20.3

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, the limit was restricted at the RF Output Power.



RF Mode	802.11ax (HE160)	Channel	CH 111 : 6505 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 59% RH
Tested By	Karl Lee		

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	*6505.00	100.7 PK			1.26 H	8	55.3	45.4
2	*6505.00	93.0 AV			1.26 H	8	47.6	45.4
3	#13010.00	61.2 PK	88.2	-27.0	1.02 H	207	40.5	20.7
4	#13010.00	51.1 AV	68.2	-17.1	1.02 H	207	30.4	20.7

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	*6505.00	99.1 PK			1.02 V	2	53.7	45.4
2	*6505.00	91.1 AV			1.02 V	2	45.7	45.4
3	#13010.00	61.6 PK	88.2	-26.6	1.01 V	357	40.9	20.7
4	#13010.00	51.6 AV	68.2	-16.6	1.01 V	357	30.9	20.7

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, the limit was restricted at the RF Output Power.



RF Mode	802.11ax (HE160)	Channel	CH 143 : 6665 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 59% RH
Tested By	Karl Lee		

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	*6665.00	103.8 PK			1.84 H	57	58.5	45.3
2	*6665.00	96.6 AV			1.84 H	57	51.3	45.3
3	13330.00	58.8 PK	74.0	-15.2	2.58 H	112	38.3	20.5
4	13330.00	49.2 AV	54.0	-4.8	2.58 H	112	28.7	20.5

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	*6665.00	98.0 PK			1.00 V	17	52.7	45.3
2	*6665.00	90.8 AV			1.00 V	17	45.5	45.3
3	13330.00	59.3 PK	74.0	-14.7	1.37 V	243	38.8	20.5
4	13330.00	50.1 AV	54.0	-3.9	1.37 V	243	29.6	20.5

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, the limit was restricted at the RF Output Power.



RF Mode	802.11ax (HE160)	Channel	CH 175 : 6825 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 59% RH
Tested By	Karl Lee		

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	#5950.00	54.7 PK	88.2	-33.5	1.82 H	29	41.5	13.2
2	#5950.00	47.6 AV	68.2	-20.6	1.82 H	29	34.4	13.2
3	*6825.00	101.1 PK			1.84 H	44	55.5	45.6
4	*6825.00	94.7 AV			1.84 H	44	49.1	45.6
5	#7125.00	57.4 PK	88.2	-30.8	1.75 H	36	43.1	14.3
6	#7125.00	49.2 AV	68.2	-19.0	1.75 H	36	34.9	14.3
7	#13650.00	59.1 PK	88.2	-29.1	2.26 H	131	38.5	20.6
8	#13650.00	49.5 AV	68.2	-18.7	2.26 H	131	28.9	20.6

Antenna Polarity & Test Distance : Vertical at 3 m

No	Frequency (MHz)	Emission Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Antenna Height (m)	Table Angle (Degree)	Raw Value (dBuV)	Correction Factor (dB/m)
1	#5950.00	55.0 PK	88.2	-33.2	1.62 V	22	41.8	13.2
2	#5950.00	47.8 AV	68.2	-20.4	1.62 V	22	34.6	13.2
3	*6825.00	97.0 PK			1.62 V	17	51.4	45.6
4	*6825.00	90.4 AV			1.62 V	17	44.8	45.6
5	#7125.00	57.0 PK	88.2	-31.2	1.67 V	31	42.7	14.3
6	#7125.00	48.9 AV	68.2	-19.3	1.67 V	31	34.6	14.3
7	#13650.00	59.2 PK	88.2	-29.0	1.28 V	99	38.6	20.6
8	#13650.00	49.8 AV	68.2	-18.4	1.28 V	99	29.2	20.6

Remarks:

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



RF Mode	802.11ax (HE160)	Channel	CH 207 : 6985 MHz
Frequency Range	1 GHz ~ 40 GHz	Detector Function & Bandwidth	(PK) RB = 1 MHz, VB = 3 MHz (AV) RB = 1 MHz, VB = 1 kHz
Input Power	120 Vac, 60 Hz	Environmental Conditions	25°C, 59% RH
Tested By	Karl Lee		

Antenna Polarity & Test Distance : Horizontal at 3 m

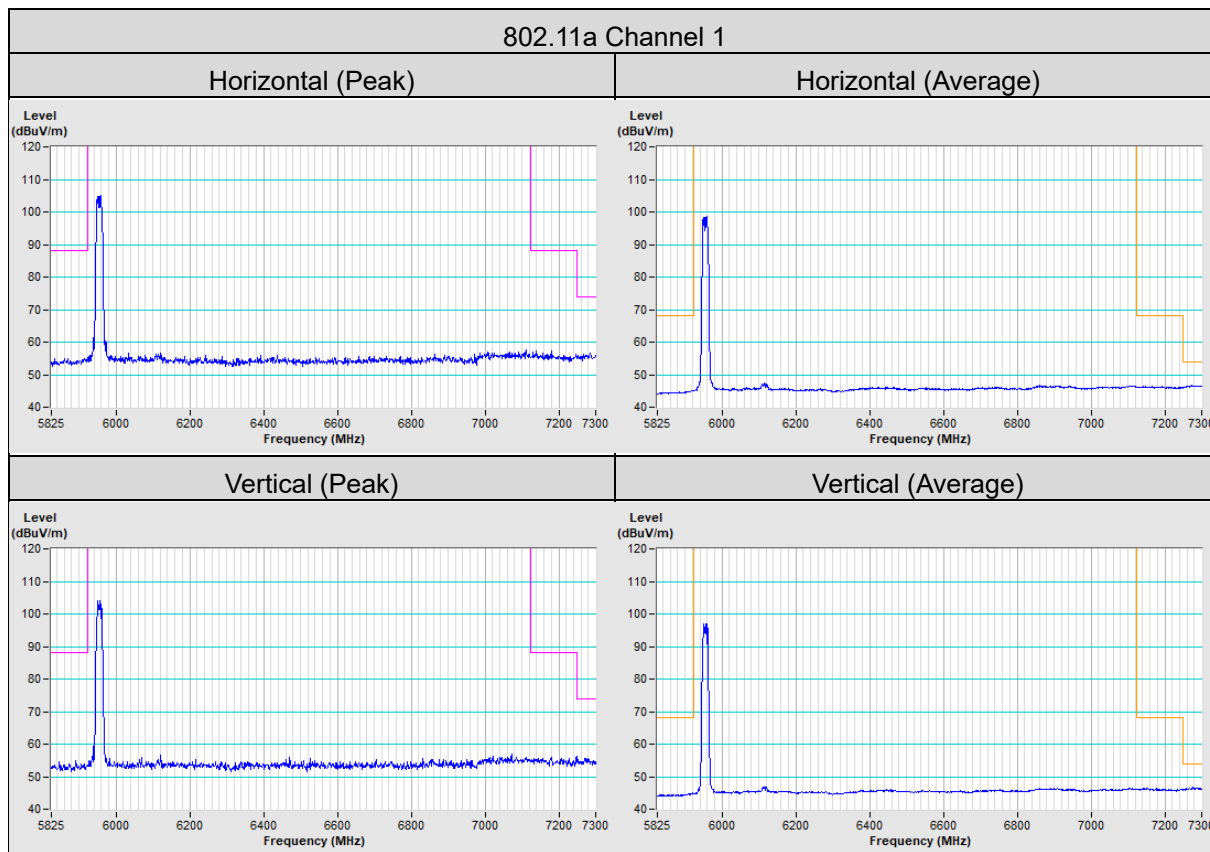
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1	*6985.00	102.4 PK			1.36 H	6	56.7	45.7
2	*6985.00	93.7 AV			1.36 H	6	48.0	45.7
3	#7125.00	71.7 PK	88.2	-16.5	1.36 H	6	57.4	14.3
4	#7125.00	57.6 AV	68.2	-10.6	1.36 H	6	43.3	14.3
5	#13970.00	63.3 PK	88.2	-24.9	1.17 H	45	42.8	20.5
6	#13970.00	53.4 AV	68.2	-14.8	1.17 H	45	32.9	20.5

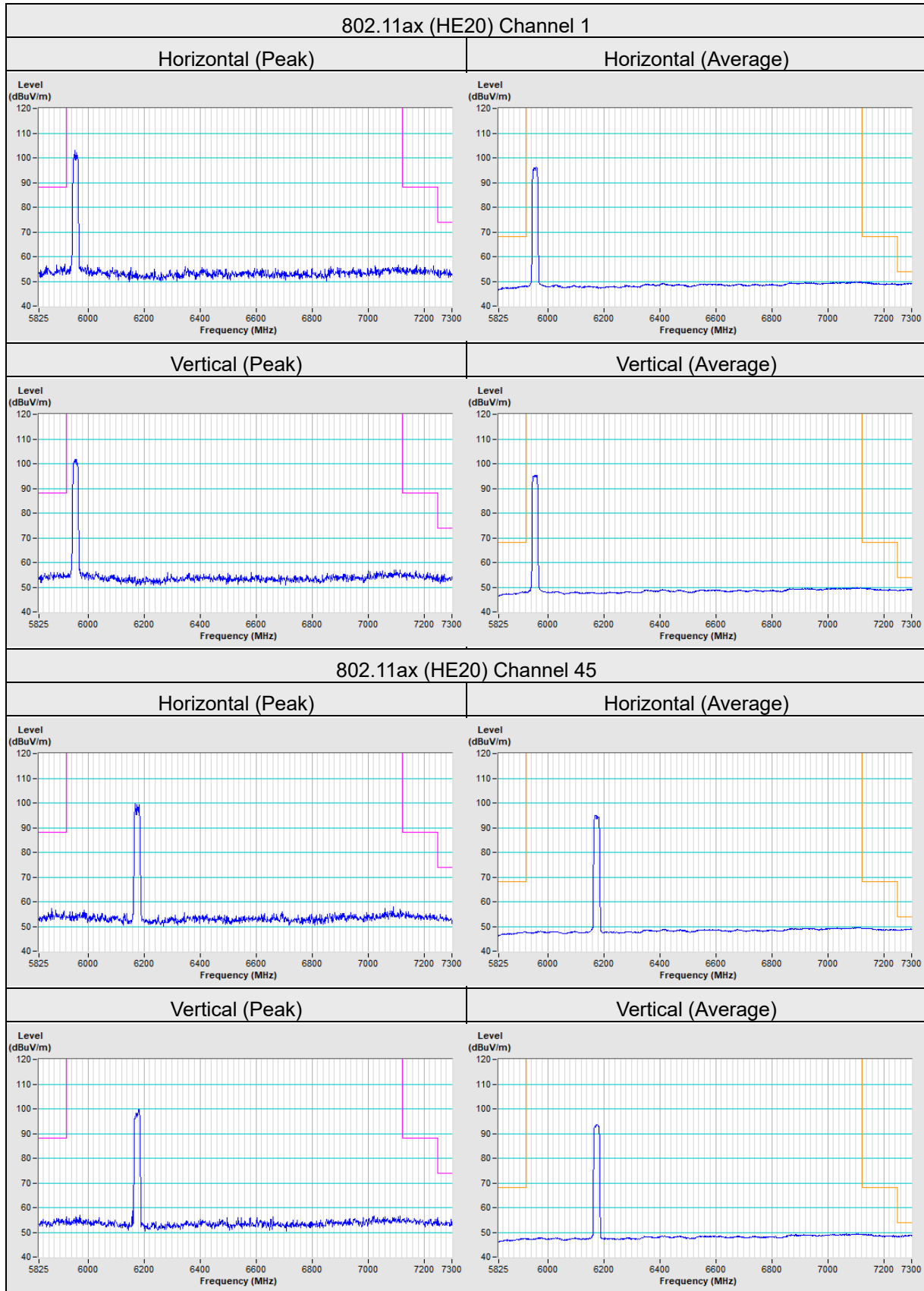
Antenna Polarity & Test Distance : Vertical at 3 m

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	*6985.00	99.4 PK			1.00 V	2	53.7	45.7
2	*6985.00	90.5 AV			1.00 V	2	44.8	45.7
3	#7125.00	71.2 PK	88.2	-17.0	1.00 V	2	56.9	14.3
4	#7125.00	55.2 AV	68.2	-13.0	1.00 V	2	40.9	14.3
5	#13970.00	62.7 PK	88.2	-25.5	1.00 V	99	42.2	20.5
6	#13970.00	53.0 AV	68.2	-15.2	1.00 V	99	32.5	20.5

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, the limit was restricted at the RF Output Power.

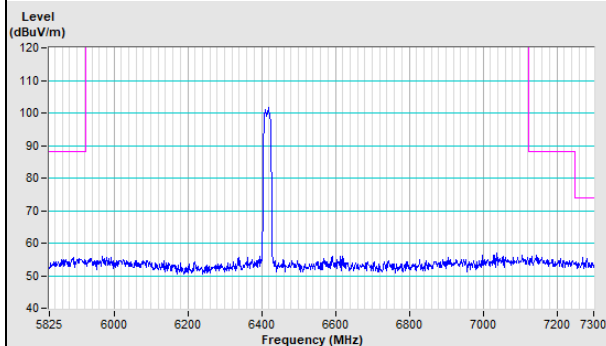




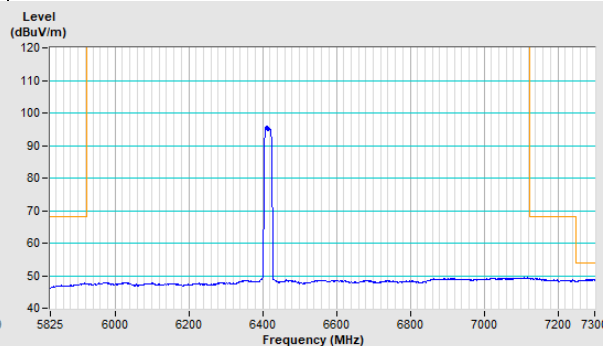


802.11ax (HE20) Channel 93

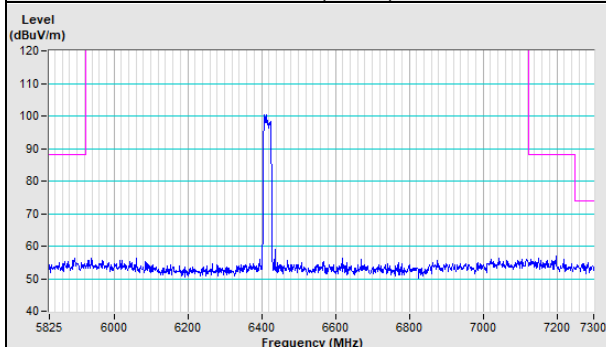
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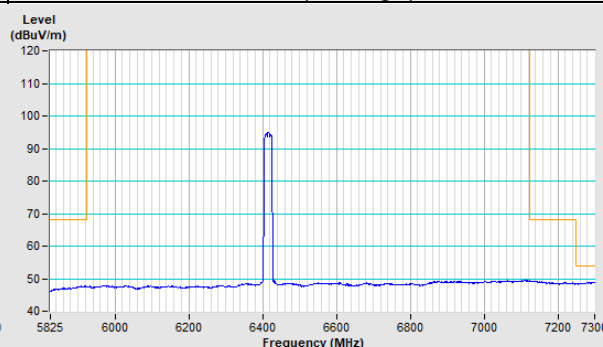
Horizontal (Average)



Vertical (Peak)

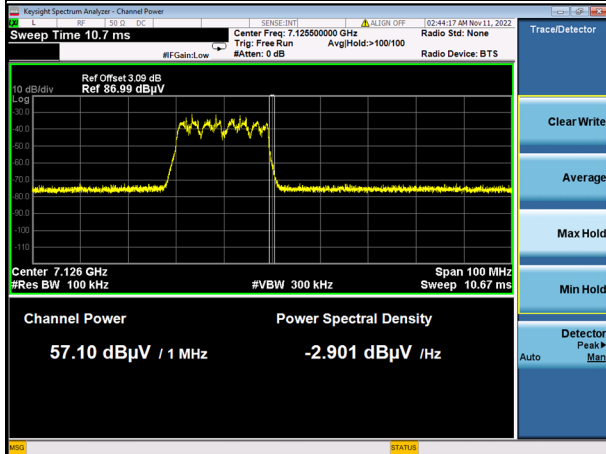


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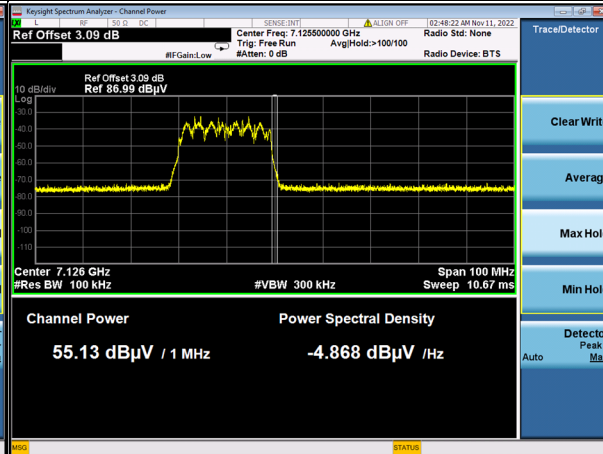


802.11ax (HE20) Channel 233

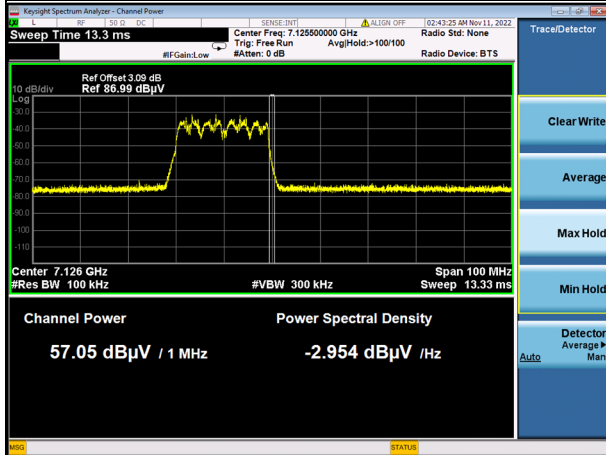
Horizontal (Peak)



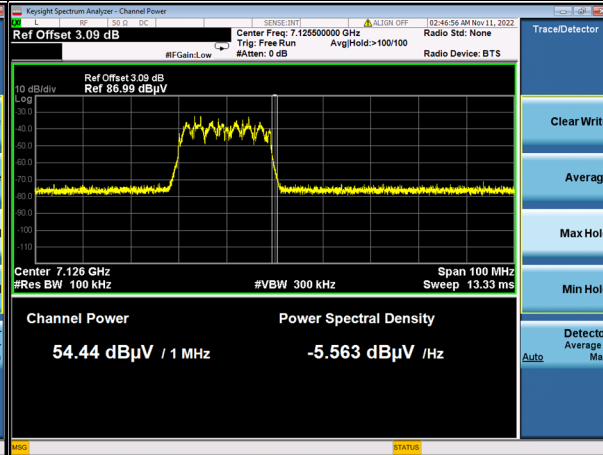
Horizontal (Average)



Vertical (Peak)

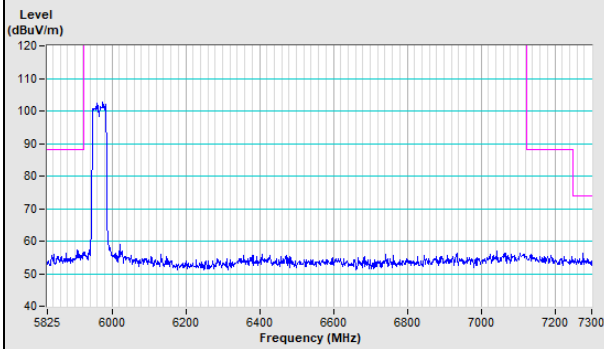


Vertical (Average)

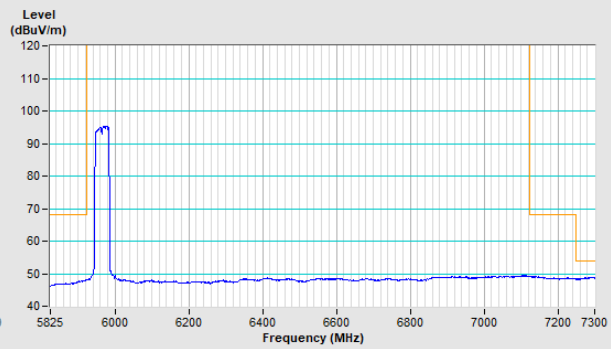


802.11ax (HE40) Channel 3

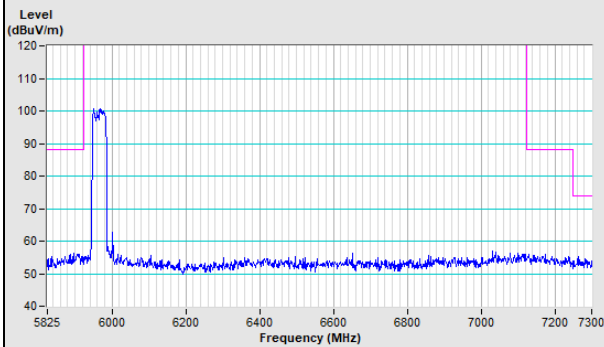
Horizontal (Peak)



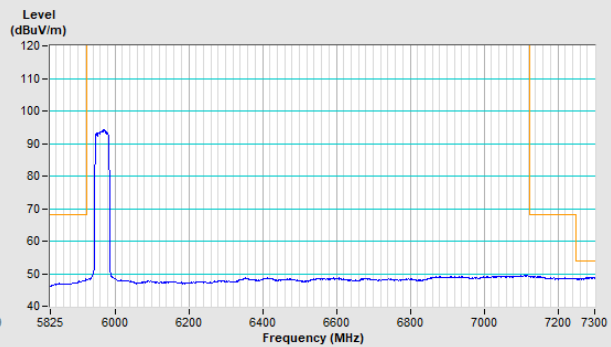
Horizontal (Average)



Vertical (Peak)

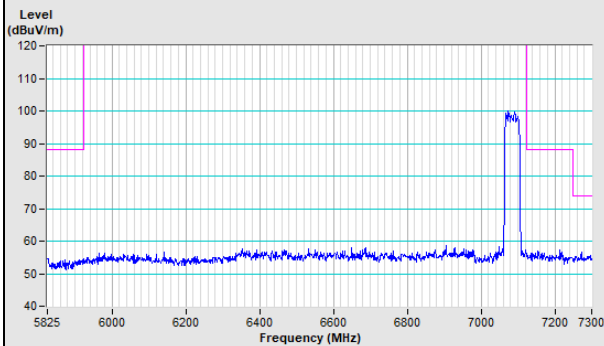


Vertical (Average)

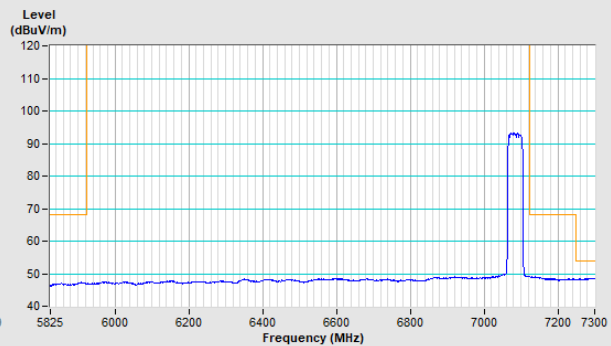


802.11ax (HE40) Channel 227

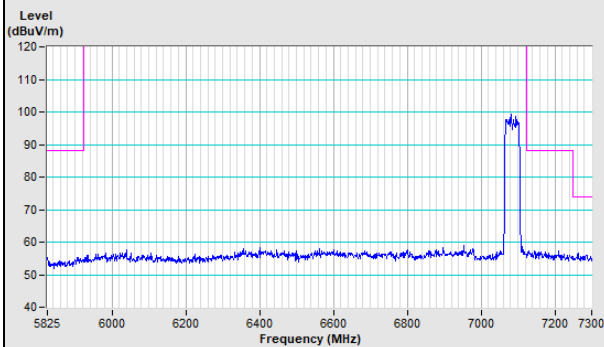
Horizontal (Peak)



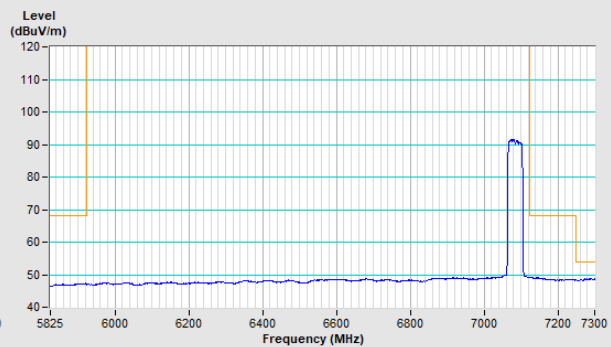
Horizontal (Average)



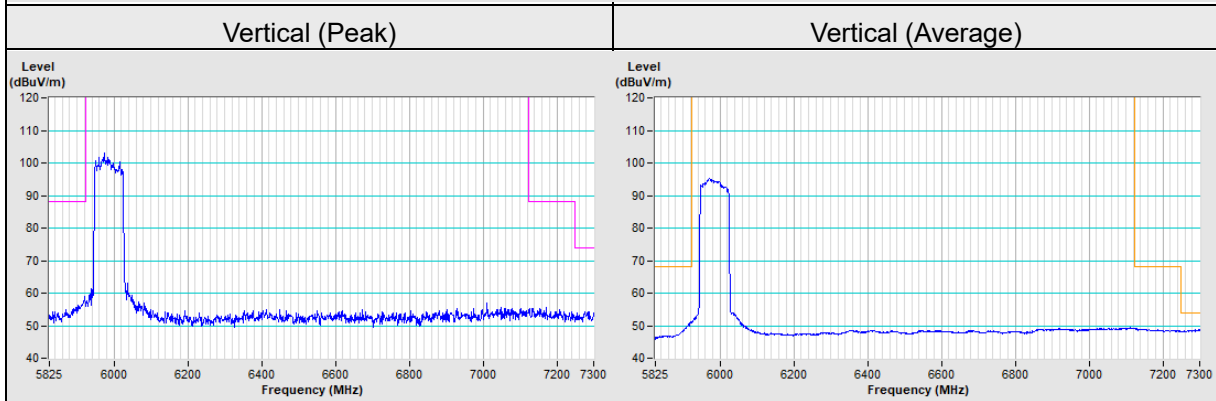
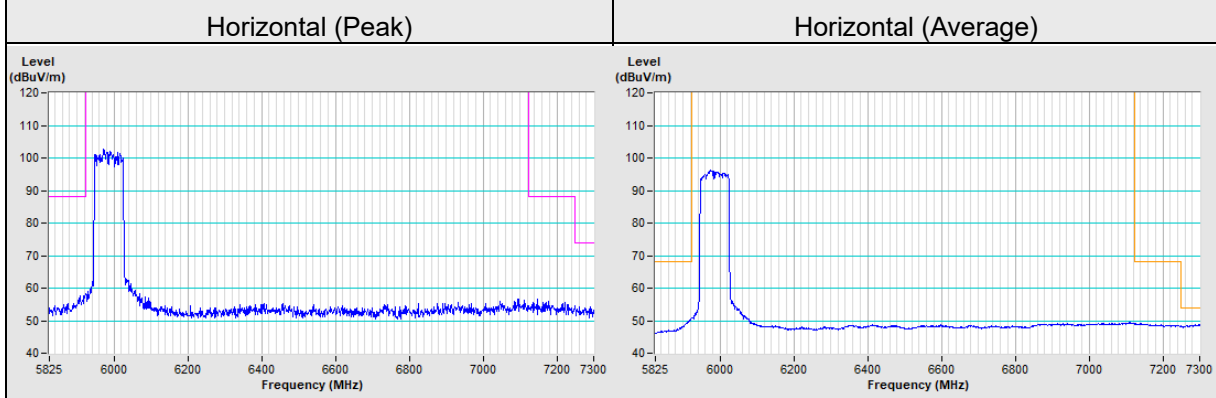
Vertical (Peak)



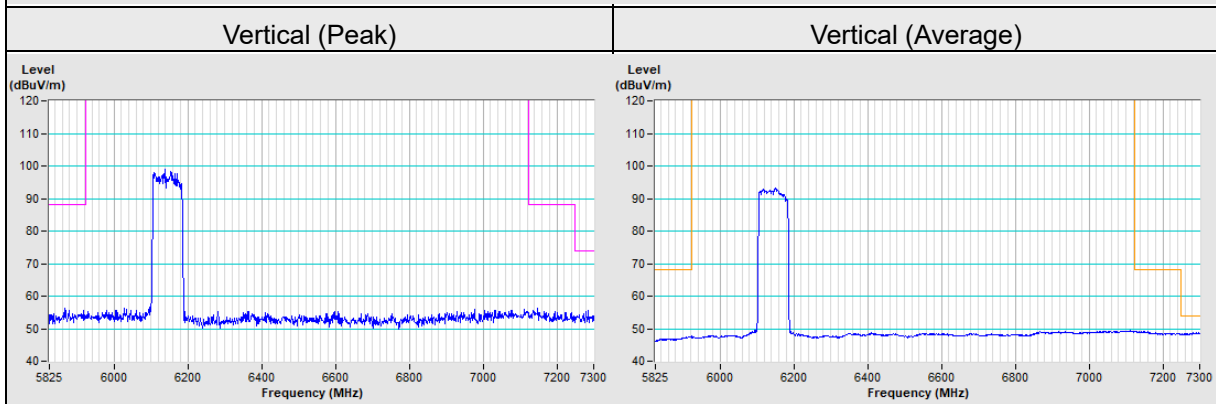
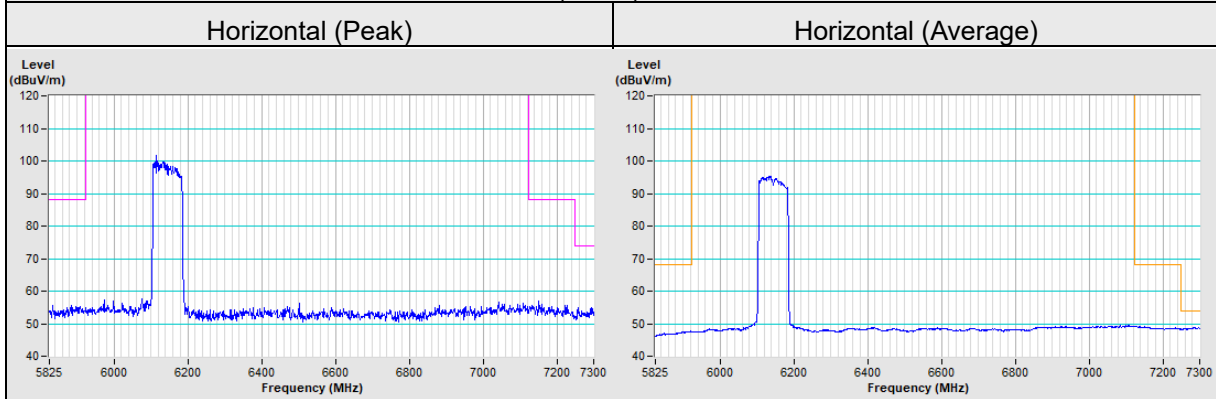
Vertical (Average)



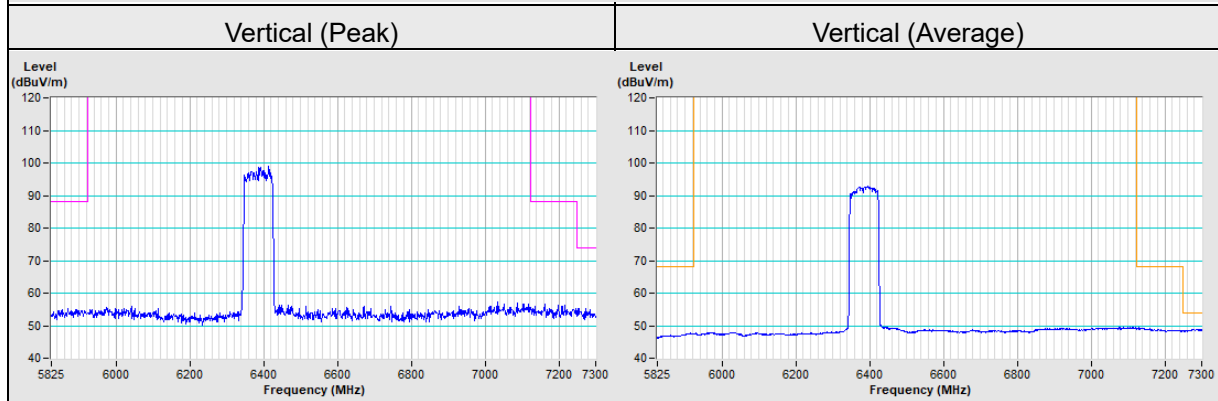
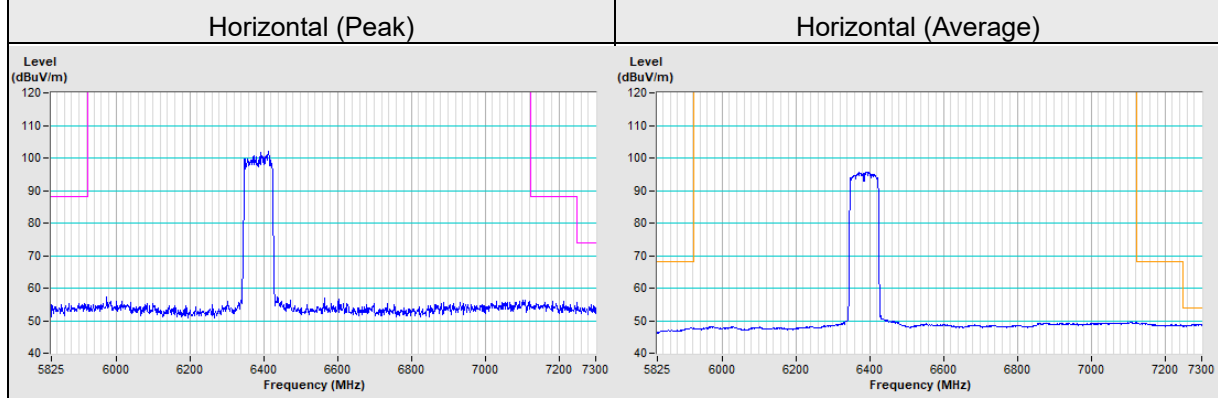
802.11ax (HE80) Channel 7



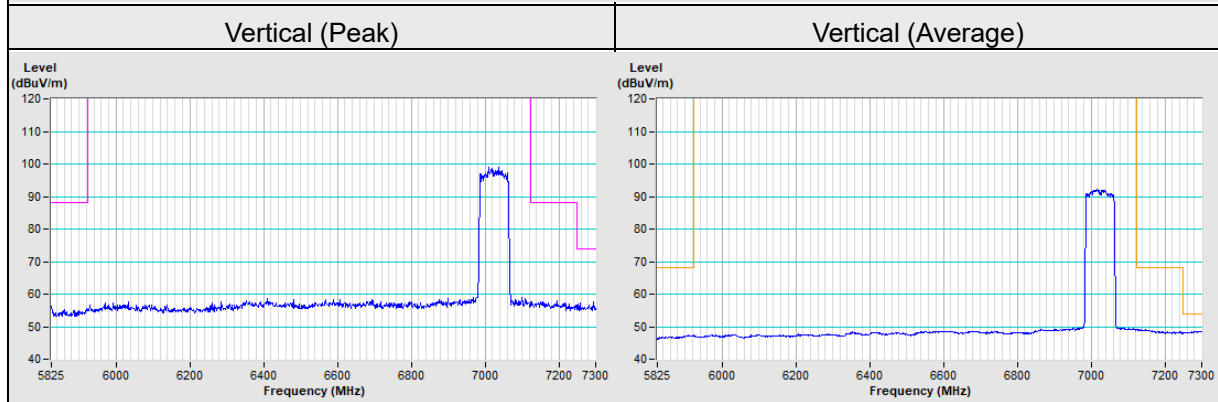
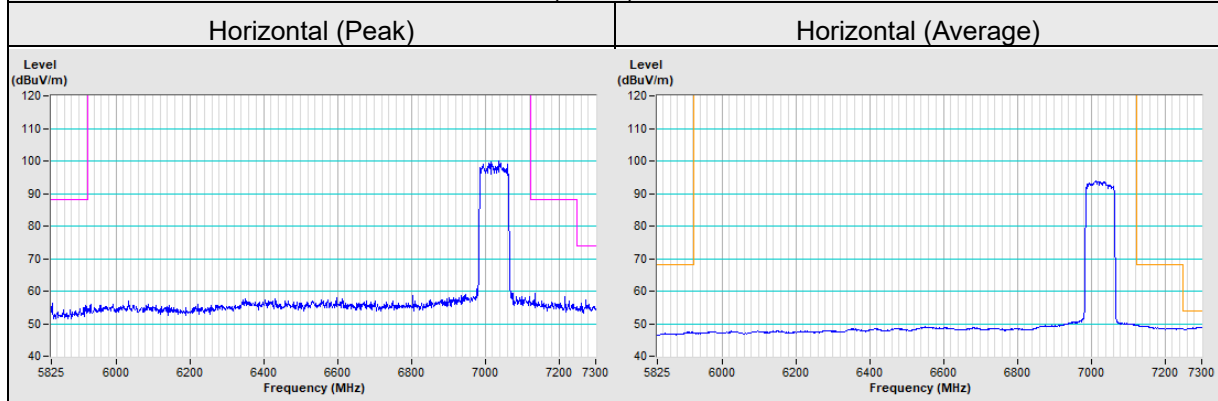
802.11ax (HE80) Channel 39



802.11ax (HE80) Channel 87

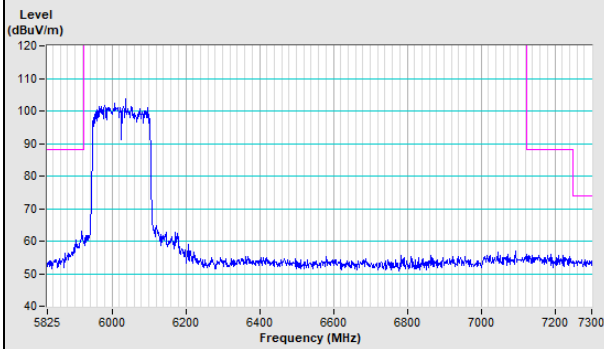


802.11ax (HE80) Channel 215

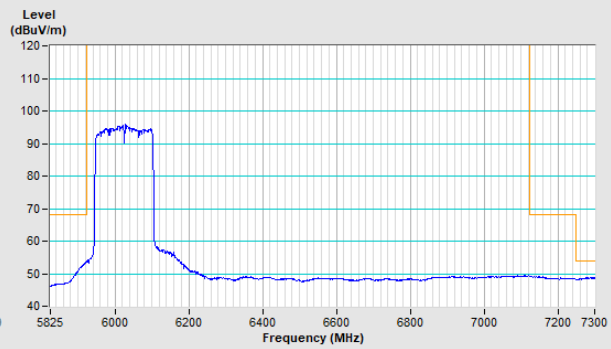


802.11ax (HE160) Channel 15

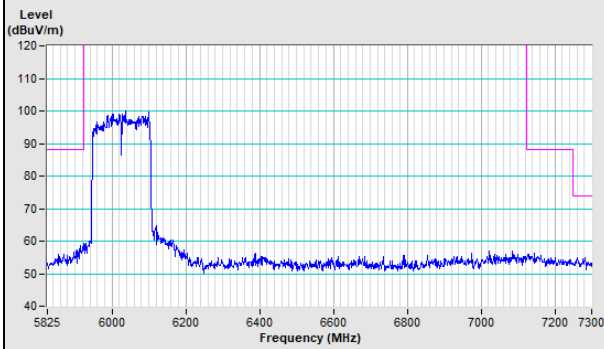
Horizontal (Peak)



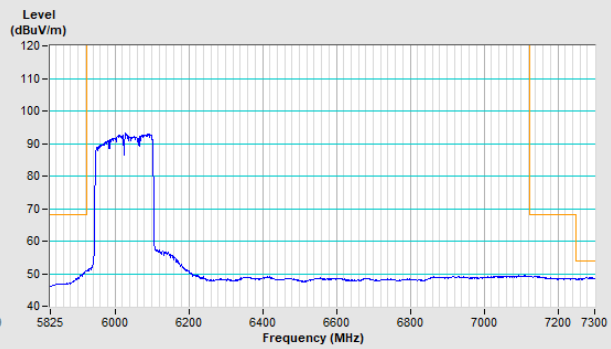
Horizontal (Average)



Vertical (Peak)

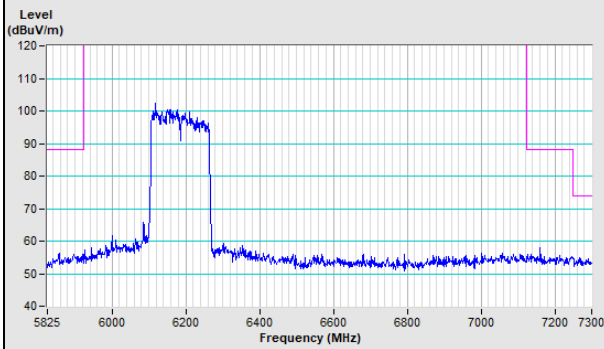


Vertical (Average)

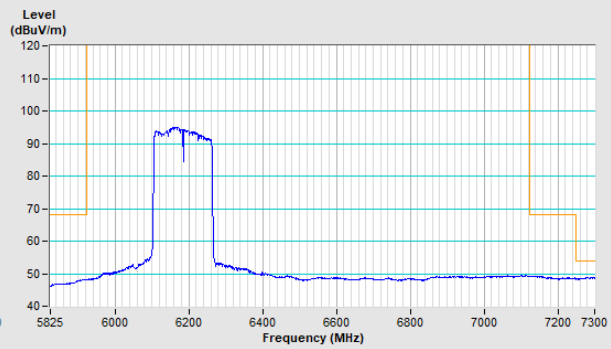


802.11ax (HE160) Channel 47

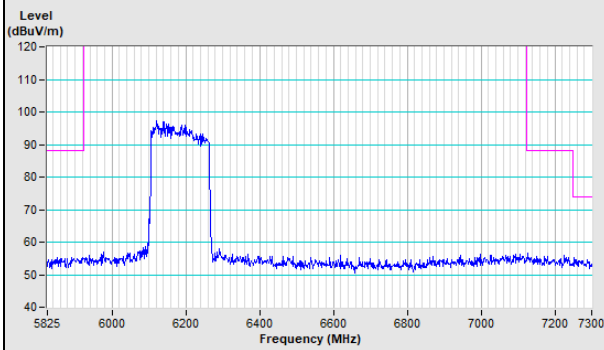
Horizontal (Peak)



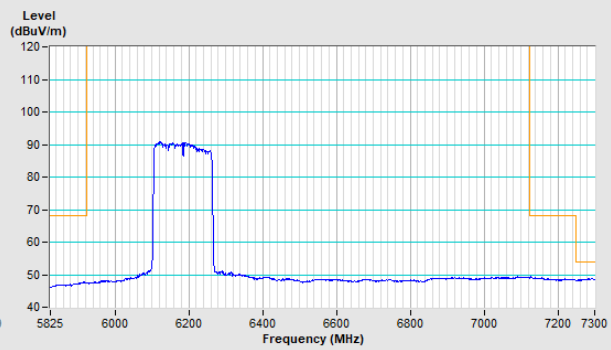
Horizontal (Average)



Vertical (Peak)

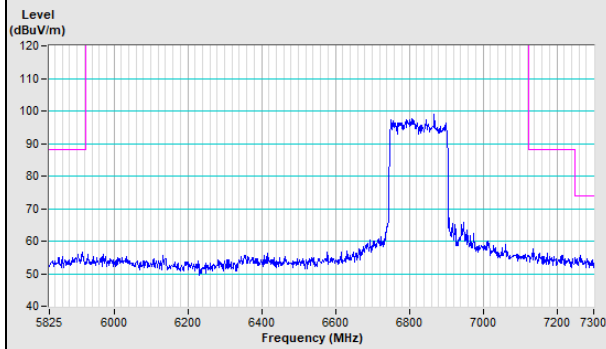


Vertical (Average)

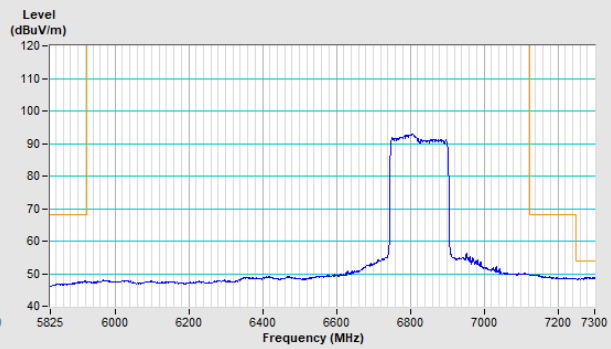


802.11ax (HE160) Channel 175

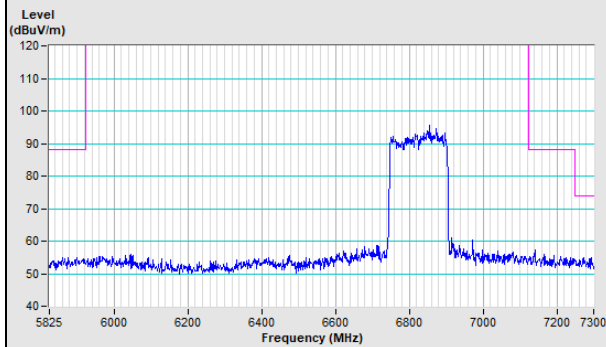
Horizontal (Peak)



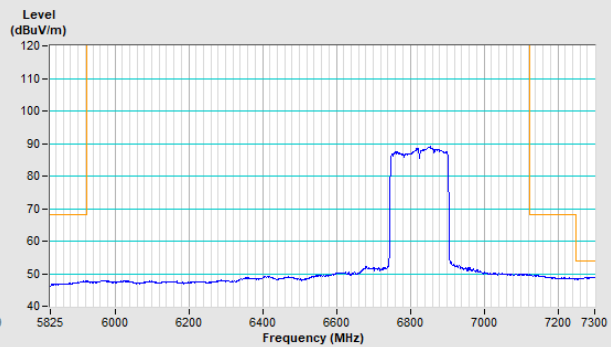
Horizontal (Average)



Vertical (Peak)

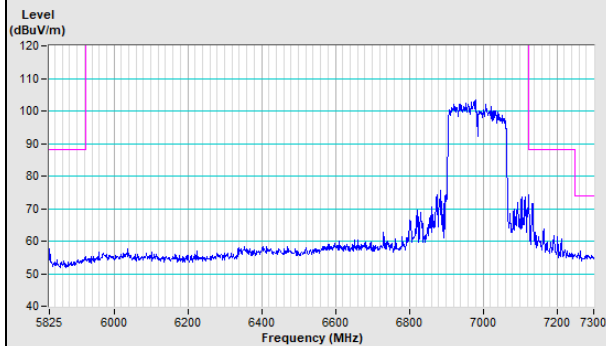


Vertical (Average)

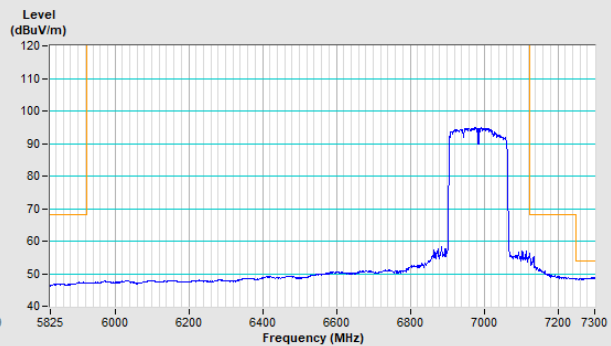


802.11ax (HE160) Channel 207

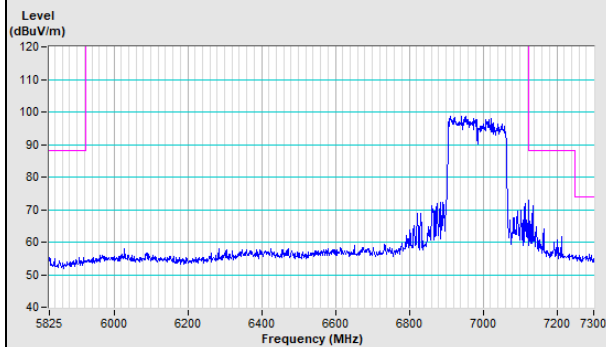
Horizontal (Peak)



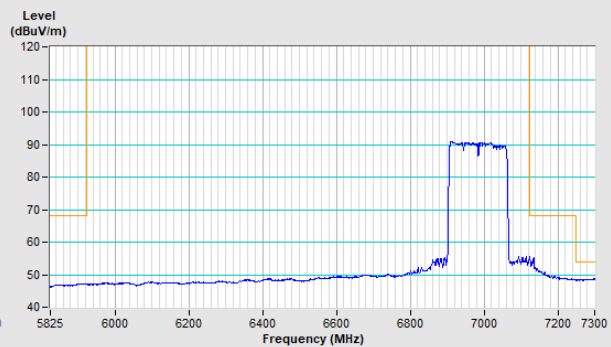
Horizontal (Average)



Vertical (Peak)



Vertical (Average)



8 Operational Restrictions for 6 GHz U-NII Devices

- (1) Operation of indoor access points in the 5.925-7.125 GHz band is prohibited on oil platforms, cars, trains, boats, and aircraft, except that indoor access points are permitted to operate in the 5.925-6.425 GHz bands in large aircraft while flying above 10,000 feet.
- (2) Operation of transmitters in the 5.925-7.125 GHz band is prohibited for control of or communications with unmanned aircraft systems.
- (3) Transmitters operating under indoor access points are limited to indoor locations.
- (4) In the 5.925-7.125 GHz band, indoor access points must bear the following statement in a conspicuous location on the device and in the user's manual: FCC regulations restrict operation of this device to indoor use only. The operation of this device is prohibited on oil platforms, cars, trains, boats, and aircraft, except that operation of this device is permitted in large aircraft while flying above 10,000 feet.
- (5) In the 5.925-7.125 GHz band, Access points may connect to other access points or subordinate devices.
- (6) Indoor access points, operating in the 5.925-7.125 GHz band must employ a contention-based protocol.

Device is a Indoor AP, all restrictions are meet the §15.407 (d) requirements. Please refer to the Attestation letter exhibit supplied within this application.

9 Pictures of Test Arrangements

Please refer to the attached file (Test Setup Photo)

10 Information of the Testing Laboratories

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

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

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

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