TEST REPORT

CERTIFICATE OF CONFORMITY

Standard:	**47 CFR FCC Part 15, Subpart E (Section 15.407)**
Report No.:	RFBEDV-WTW-P23080241-2
FCC ID:	BEJNT-16T90SP
Product:	Notebook Computer
Brand:	LG or LG
Model No.:	16T90SP
Series Model:	16T90SP** ,16TD90SP**,16TG90SP**,16TB90SP** Remark "*" can be 0 to 9 or A to Z or dash or blank (Refer to item 3.1 for the more details)
Received Date:	2023/8/10
Test Date:	2023/10/3 ~ 2024/3/5
Issued Date:	2024/3/5
Applicant:	LG Electronics USA, Inc.
Address:	111 Sylvan Avenue North Bulding Englewood Cliffs New Jerssy United States
Issued By:	Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch Lin Kou Laboratories
Lab Address:	No. 47-2, 14th Ling, Chia Pau Vil., Lin Kou Dist., New Taipei City, Taiwan
Test Location (1):	No. 19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kewi Shan Dist., Taoyuan City 33383, Taiwan
Test Location (2):	No. 70, Wenming Rd., Guishan Dist., Taoyuan City 333, Taiwan
FCC Registration / Designation Number:	(1) 788550 / TW0003 (2) 281270 / TW0032

Approved by: Jeremy Lin , **Date:** 2024/3/5

Jeremy Lin / Project Engineer

This test report consists of 208 pages in total. It may be duplicated completely for legal use with the approval of the applicant. It should not be reproduced except in full, without the written approval of our laboratory. The test results in the report only apply to the tested sample. The test results in this report are traceable to the national or international standards.

Prepared by : Vera Huang / Specialist

Table of Contents

Release Control Record

Issue No.	Description	Date Issued
RFBEDV-WTW-P23080241-2	Original Release	2024/3/5

1 Certificate

Product:	Notebook Computer
Brand:	LG or LG
Test Model:	16T90SP
Series Model:	16T90SP** ,16TD90SP**,16TG90SP**,16TB90SP** Remark "*" can be 0 to 9 or A to Z or dash or blank (Refer to item 3.1 for the more details)
Sample Status:	DV Sample
Applicant:	LG Electronics USA, Inc.
Test Date:	2023/10/3 ~ 2024/3/5
Standard:	47 CFR FCC Part 15, Subpart E (Section 15.407)
Measurement procedure:	ANSI C63.10-2013 KDB 987594 D02 U-NII 6 GHz EMC Measurement v02r01 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)(8)	Maximum RF Output Power	Pass	Meet the requirement of limit.
15.407(a)(8)	Maximum Power Spectral Density	Pass	Meet the requirement of limit.
15.407(a)(10)	Emission Bandwidth	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 -13.09 dB at 0.75400 MHz
15.407(b)(9)	Unwanted Emissions below 1 GHz	Pass	Minimum passing margin is -5.9 dB at 30.97 MHz
15.407(b)(6) 15.407(b)(10)	Unwanted Emissions above 1 GHz	Pass	Minimum passing margin is -0.4 dB at 7125.00 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.
15.203	Antenna Requirement	Pass	Antenna connector is I-PEX not a standard connector.

Note: Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.

2.1 Measurement Uncertainty

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

Measurement	Specification	Expanded Uncertainty (k=2) (±)
Occupied Bandwidth	-	72 Hz
AC Power Conducted Emissions	9 kHz ~ 30 MHz	2.88 dB
Unwanted Emissions below 1 GHz	9 kHz ~ 30 MHz	3 dB
	30 MHz ~ 1 GHz	2.93 dB
Unwanted Emissions above 1 GHz	1 GHz ~ 18 GHz	1.76 dB
	18 GHz ~ 40 GHz	1.77 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	Notebook Computer
Brand	LG or LG
Test Model	16T90SP
Series Model	16T90SP** ,16TD90SP**,16TG90SP**,16TB90SP** Remark "*" can be 0 to 9 or A to Z or dash or blank
Model Difference	Refer to Note
Status of EUT	DV Sample
Power Supply Rating	15.52Vdc from battery 5.0Vdc or 9.0Vdc or 15.0Vdc or 20.0Vdc from adapter
Modulation Type	1024QAM, 64QAM, 16QAM, QPSK, BPSK
Modulation Technology	OFDMA
Transfer Rate	Up to 2401.9 Mbps
Operating Frequency	5.955 GHz ~ 6.415 GHz 6.435 GHz ~ 6.515 GHz 6.535 GHz ~ 6.855 GHz 6.875 GHz ~ 7.115 GHz
Number of Channel	802.11ax (HE20):59 802.11ax (HE40):29 802.11ax (HE80):14 802.11ax (HE160):7
Output Power	5.955 GHz ~ 6.415 GHz : EIRP: 40.701 mW (16.1 dBm) 6.435 GHz ~ 6.515 GHz : EIRP: 45.216 mW (16.55 dBm) 6.535 GHz ~ 6.855 GHz : EIRP: 46.565 mW (16.68 dBm) 6.875 GHz ~ 7.115 GHz : EIRP: 44.782 mW (16.51 dBm)
Equipment Class	6XD: 15E 6 GHz Low-power Indoor client

Note:

1. The model is listed as below.

Brand	Model Name	Remark
LG or LG	16T90SP	Main test model
	16T90SP**	"*" can be 0 to 9 or A to Z or dash or blank, for marketing purposes only
	16TD90SP**	
	16TG90SP**	
	16TB90SP**	

2. The EUT contains following accessory devices.

BT/WLAN Module	Brand	Intel
	Model	AX211D2W
Battery	Brand	LG or LG
	Model	LB3122MM
	Power Rating	15.52Vdc, Typical capacity: 4963mAh/77Wh, Rated Capacity: 4733mAh/73.46Wh
Active Stylus Pen	Brand	LGE
	Model	PEW7
AC Adapter	Brand	LG or LG
	Model	LP65WFC20P-NJ
	Part Number	N/A
	AC Input	100-240V~, 50-60Hz, 1.6A
	DC Output	(PDO) 5.0Vdc, 3.0A, 15.0W or 9.0Vdc, 3.0A, 27.0W or 15.0Vdc, 3.0A, 45.0W or 20.0Vdc, 3.25A, 65.0W (PPS) 5.0V-20.0Vdc, 3.25A, Max 65.0W
Type C to Type C cable	Brand	Luxshare
	Model	L1LUC022-CS-H
	Specification	1.95mm

3. The EUT support OFDMA and Partial RU mode, therefore partial RU combination were investigated and the worst case scenario was identified.
4. The above EUT information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or User's Manual.

3.2 Antenna Description of EUT

1. The antenna information is listed as below.

NB Mode					
Antenna Type	PIFA				
Connector Type	I-PEX				
Manufacturer	Parts Number	Antenna Gain (dBi)			
		5925-6425MHz	6425-6525MHz	6525-6875MHz	6875-7125MHz
AWAN	WLAN Main Antenna: AYF6Y-200008 (1415-0ADV000) WLAN Aux Antenna: AYF6Y-200008 (1415-0ADV000)	Main: 3.89 Aux.: 3.88	Main: 0.60 Aux.: 1.14	Main: 0.69 Aux.: 2.07	Main: 0.69 Aux.: 0.36
INPAQ	WLAN Main Antenna: 1415-0ADT000 (WA-F-LELE-04-003) WLAN Aux Antenna: 1415-0ADT000 (WA-F-LELE-04-003)	Main: 3.51 Aux.: 3.66	Main: 0.54 Aux.: 1.13	Main: 0.55 Aux.: 1.99	Main: 0.51 Aux.: 0.34

TB Mode					
Antenna Type	PIFA				
Connector Type	I-PEX				
Manufacturer	Parts Number	Antenna Gain (dBi)			
		5925-6425MHz	6425-6525MHz	6525-6875MHz	6875-7125MHz
AWAN	WLAN Main Antenna: AYF6Y-200008 (1415-0ADV000) WLAN Aux Antenna: AYF6Y-200008 (1415-0ADV000)	Main: 3.46 Aux.: 1.12	Main: 1.75 Aux.: 0.61	Main: 0.58 Aux.: 0.10	Main: 1.67 Aux.: 0.01
INPAQ	WLAN Main Antenna: 1415-0ADT000 (WA-F-LELE-04-003) WLAN Aux Antenna: 1415-0ADT000 (WA-F-LELE-04-003)	Main: 3.39 Aux.: 1.08	Main: 1.73 Aux.: 0.58	Main: 0.55 Aux.: -0.15	Main: 1.63 Aux.: -0.11

*The maximun gain were for the final tests. Chain 0 = Aux. antenna, Chain 1 = Main antenna.

* Detail antenna specification please refer to antenna datasheet and/or antenna measurement report.

2. The EUT incorporates a MIMO function:

6 GHz Band		
Modulation Mode	TX & RX Configuration	
802.11ax (HE20)	2TX	2RX
802.11ax (HE40)	2TX	2RX
802.11ax (HE80)	2TX	2RX
802.11ax (HE160)	2TX	2RX
802.11ax (RU26/52/106/242/484/996/996x2)	2TX	2RX

3.3 Channel List

U-NII-5:

24 channels are provided for 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 channels are 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 802.11ax (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 802.11ax (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 802.11ax (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:	EUT can be used in the following ways: X-axis/ Y-axis/ Z-axis for tablet mode and Laptop mode. Pre-scan these ways and find the worst case as a representative test condition.
Worst Case:	Laptop mode

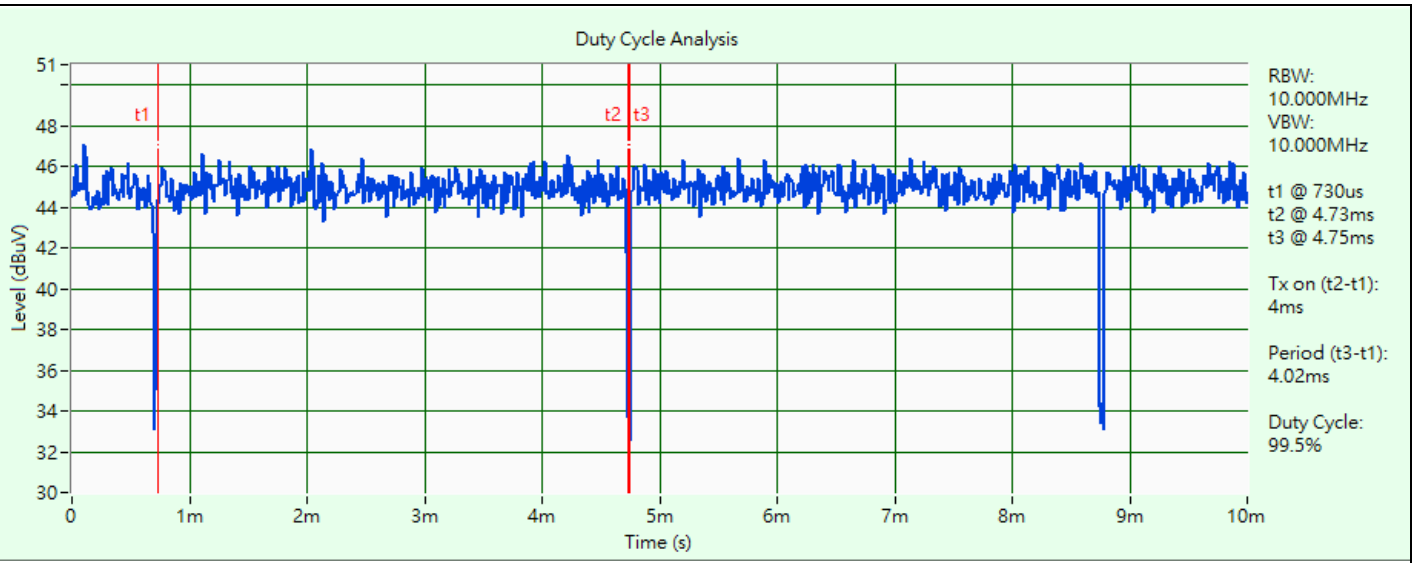
Following channel(s) was (were) selected for the final test as listed below:

Test Item	Mode	Tested Channel	Modulation	Data Rate Parameter
Maximum RF Output Power / Maximum Power Spectral Density	802.11ax (HE20) RU26	1, 45, 93, 97, 105, 113, 117, 149, 181, 185, 209, 233	BPSK	HE0
	802.11ax (HE20) RU52	1, 45, 93, 97, 105, 113, 117, 149, 181, 185, 209, 233	BPSK	HE0
	802.11ax (HE20) RU106	1, 45, 93, 97, 105, 113, 117, 149, 181, 185, 209, 233	BPSK	HE0
	802.11ax (HE20) Full RU	1, 45, 93, 97, 105, 113, 117, 149, 181, 185, 209, 233	BPSK	HE0
	802.11ax (HE40) RU242	3, 43, 91, 99, 107, 115, 123, 155, 179, 187, 211, 227	BPSK	HE0
	802.11ax (HE40) Full RU	3, 43, 91, 99, 107, 115, 123, 155, 179, 187, 211, 227	BPSK	HE0
	802.11ax (HE80) RU484	7, 39, 87, 103, 119, 151, 183, 199, 215	BPSK	HE0
	802.11ax (HE80) Full RU	7, 39, 87, 103, 119, 151, 183, 199, 215	BPSK	HE0
	802.11ax (HE160) RU996	15, 47, 111, 143	BPSK	HE0
	802.11ax (HE160) RU996S	47, 79, 175, 207	BPSK	HE0
	802.11ax (HE160) Full RU	15, 47, 79, 111, 143, 175, 207	BPSK	HE0
Emission Bandwidth	802.11ax (HE20) RU26	1, 45, 93, 97, 105, 113, 117, 149, 181, 185, 209, 233	BPSK	HE0
	802.11ax (HE20) RU52	1, 45, 93, 97, 105, 113, 117, 149, 181, 185, 209, 233	BPSK	HE0
	802.11ax (HE20) RU106	1, 45, 93, 97, 105, 113, 117, 149, 181, 185, 209, 233	BPSK	HE0
	802.11ax (HE20) Full RU	1, 45, 93, 97, 105, 113, 117, 149, 181, 185, 209, 233	BPSK	HE0
	802.11ax (HE40) Full RU	3, 43, 91, 99, 107, 115, 123, 155, 179, 187, 211, 227	BPSK	HE0
	802.11ax (HE80) Full RU	7, 39, 87, 103, 119, 151, 183, 199, 215	BPSK	HE0
	802.11ax (HE160) Full RU	15, 47, 79, 111, 143, 175, 207	BPSK	HE0

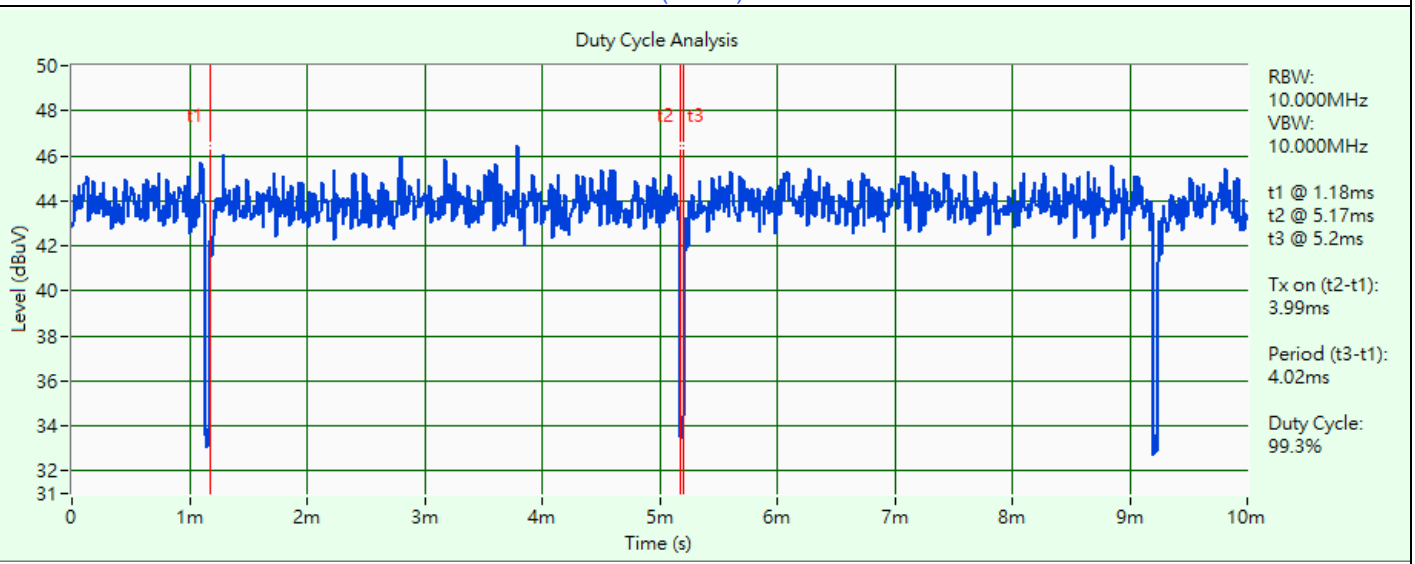
Test Item	Mode	Tested Channel	Modulation	Data Rate Parameter
In-Band Emission Mask	802.11ax (HE20) RU26	1, 45, 93, 97, 105, 113, 117, 149, 181, 185, 209, 233	BPSK	HE0
	802.11ax (HE20) RU52	1, 45, 93, 97, 105, 113, 117, 149, 181, 185, 209, 233	BPSK	HE0
	802.11ax (HE20) RU106	1, 45, 93, 97, 105, 113, 117, 149, 181, 185, 209, 233	BPSK	HE0
	802.11ax (HE20) Full RU	1, 45, 93, 97, 105, 113, 117, 149, 181, 185, 209, 233	BPSK	HE0
	802.11ax (HE40) Full RU	3, 43, 91, 99, 107, 115, 123, 155, 179, 187, 211, 227	BPSK	HE0
	802.11ax (HE80) Full RU	7, 39, 87, 103, 119, 151, 183, 199, 215	BPSK	HE0
	802.11ax (HE160) Full RU	15, 47, 79, 111, 143, 175, 207	BPSK	HE0
Occupied Bandwidth	802.11ax (HE20) Full RU	1, 45, 93, 97, 105, 113, 117, 149, 181, 185, 209, 233	BPSK	HE0
	802.11ax (HE40) Full RU	3, 43, 91, 99, 107, 115, 123, 155, 179, 187, 211, 227	BPSK	HE0
	802.11ax (HE80) Full RU	7, 39, 87, 103, 119, 151, 183, 199, 215	BPSK	HE0
	802.11ax (HE160) Full RU	15, 47, 79, 111, 143, 175, 207	BPSK	HE0
Frequency Stability	802.11ax (HE20) Full RU	1	unmodulated	HE0
Contention-based Protocol	802.11ax (HE20) Full RU	45, 105, 149, 209	BPSK	HE0
	802.11ax (HE160) Full RU	47, 111, 143, 207	BPSK	HE0
AC Power Conducted Emissions	802.11ax (HE160) Full RU	143	BPSK	HE0
Unwanted Emissions below 1 GHz	802.11ax (HE160) Full RU	143	BPSK	HE0
Unwanted Emissions above 1 GHz	802.11ax (HE20) Full RU	1, 45, 93, 97, 105, 113, 117, 149, 181, 185, 209, 233	BPSK	HE0
	802.11ax (HE40) Full RU	3, 43, 91, 99, 107, 115, 123, 155, 179, 187, 211, 227	BPSK	HE0
	802.11ax (HE80) Full RU	7, 39, 87, 103, 119, 151, 183, 199, 215	BPSK	HE0
	802.11ax (HE160) Full RU	15, 47, 79, 111, 143, 175, 207	BPSK	HE0
	802.11ax (HE20) RU26	1, 93, 97, 113, 117, 181, 185, 233	BPSK	HE0
	802.11ax (HE20) RU52	1, 93, 97, 113, 117, 181, 185, 233	BPSK	HE0
	802.11ax (HE20) RU106	1, 93, 97, 113, 117, 181, 185, 233	BPSK	HE0
	802.11ax (HE40) RU242	3, 91, 99, 107, 115, 123, 179, 187, 227	BPSK	HE0
	802.11ax (HE80) RU484	7, 87, 103, 119, 183, 199, 215	BPSK	HE0
	802.11ax (HE160) RU996	15, 111, 143	BPSK	HE0
	802.11ax (HE160) RU996S	79, 175, 207	BPSK	HE0

3.5 Duty Cycle of Test Signal

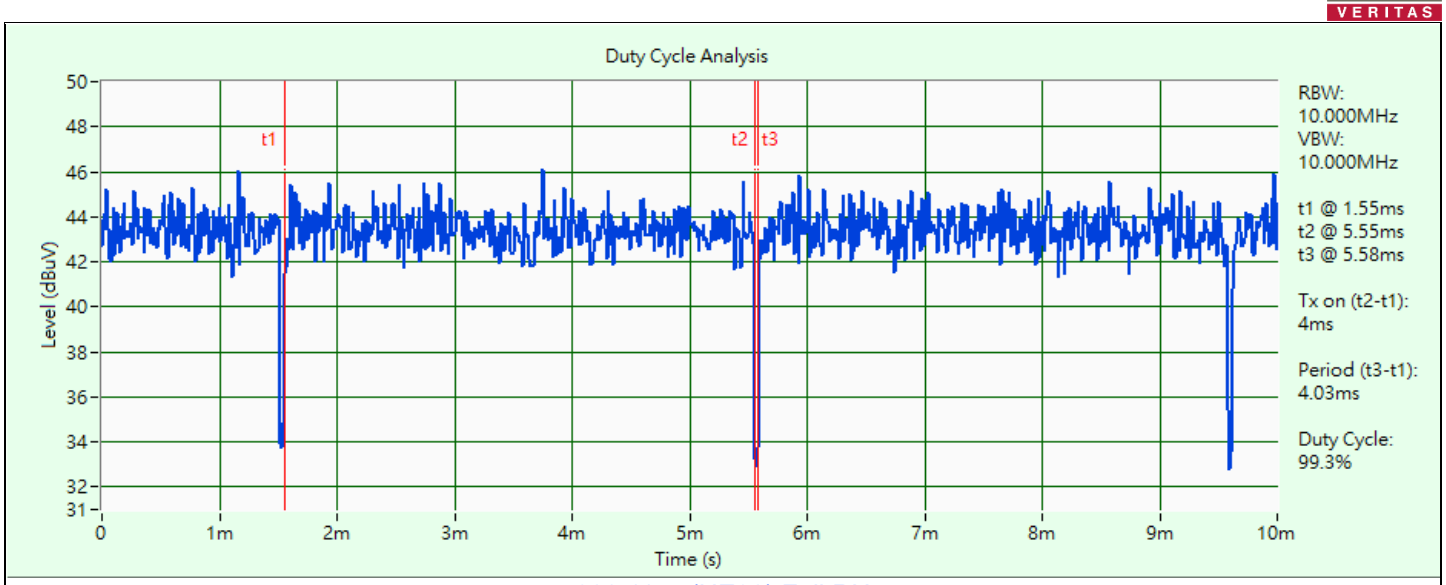
802.11ax (HE20) Full RU: Duty cycle = 4 ms / 4.02 ms x 100% = 99.5%
802.11ax (HE40) Full RU: Duty cycle = 3.99 ms / 4.02 ms x 100% = 99.3%
802.11ax (HE80) Full RU: Duty cycle = 4 ms / 4.03 ms x 100% = 99.3%
802.11ax (HE160) Full RU: Duty cycle = 2.31 ms / 2.346 ms x 100% = 98.5%



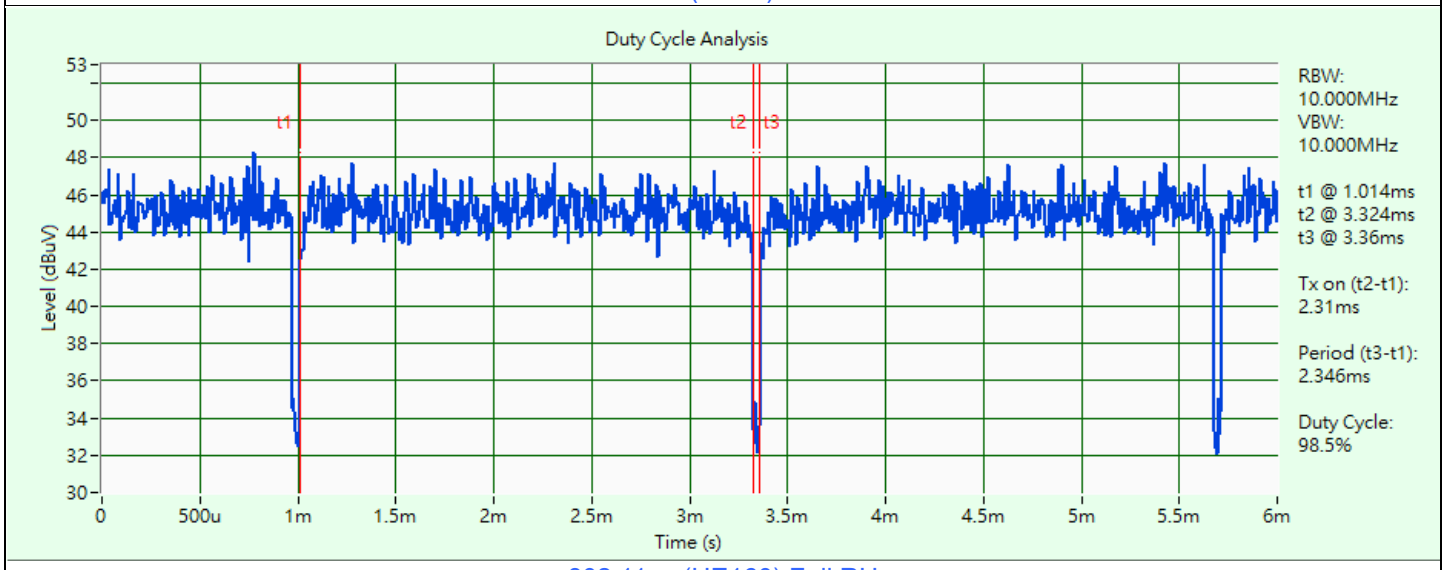
802.11ax (HE20) Full RU



802.11ax (HE40) Full RU



802.11ax (HE80) Full RU

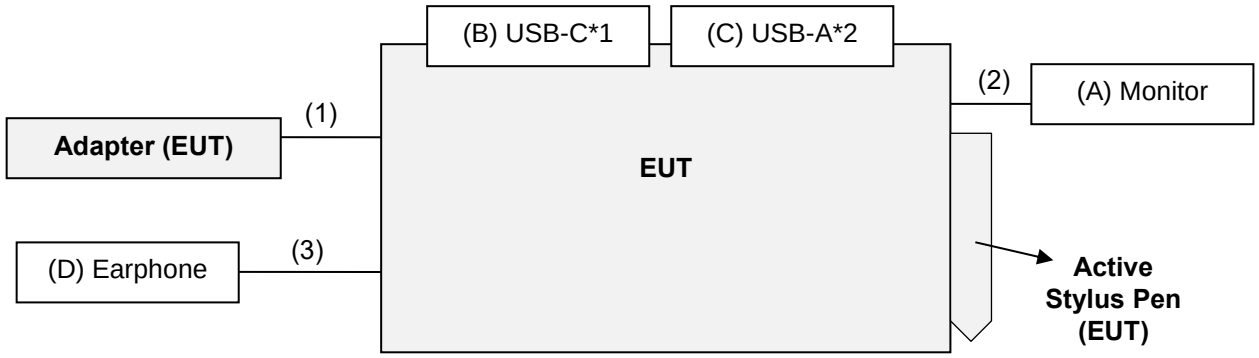


802.11ax (HE160) Full RU

3.6 Test Program Used and Operation Descriptions

Controlling software DRTU Version 04342.22.230.0 has been activated to set the EUT under transmission condition continuously at specific channel frequency.

3.7 Connection Diagram of EUT and Peripheral Devices



3.8 Configuration of Peripheral Devices and Cable Connections

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A.	Monitor	Dell	A14S2421HSXmTW	CN-01KWFW-WSL00-24C-711B	N/A	Provided by Lab
B.	USB-C*1	SanDisk	SDDDC3-032G	N/A	N/A	Provided by Lab
C.	USB-A*2	SanDisk	SDDDC3-032G	N/A	N/A	Provided by Lab
D.	Earphone	APPLE	MB77PFEB	N/A	N/A	Provided by Lab

No.	Cable Descriptions	Qty.	Length (m)	Shielded (Yes/ No)	Cores (Qty.)	Remark
1.	Type C to Type C cable	1	1.95	Yes	0	Accessory of EUT
2.	HDMI	1	1.8	Yes	0	Provided by Lab
3.	Earphone Cable	1	1.8	No	0	Provided by Lab

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 Maximum RF Output Power

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Peak Power Analyzer Keysight	8990B	MY51000485	2023/1/19	2024/1/18
Wideband Power Sensor Keysight	N1923A	MY58020002	2023/1/18	2024/1/17
		MY58140009	2023/1/18	2024/1/17

Notes:

1. The test was performed in Oven room.
2. Tested Date: 2023/10/22 ~ 2023/10/27

4.2 Maximum Power Spectral Density

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
PXA Signal Analyzer Keysight	N9030B	MY57140488	2023/3/6	2024/3/5
Signal & Spectrum Analyzer R&S	FSV3044	101504	2023/6/5	2024/6/4
Software BV	ADT_RF Test Software V7.6.5.4	N/A	N/A	N/A

Notes:

1. The test was performed in Oven room.
2. Tested Date: 2023/10/22 ~ 2023/10/27

4.3 Emission Bandwidth

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Signal & Spectrum Analyzer R&S	FSV3044	101504	2023/6/5	2024/6/4
Software BV	ADT_RF Test Software V7.6.5.4	N/A	N/A	N/A

Notes:

1. The test was performed in Oven room.
2. Tested Date: 2023/10/22 ~ 2023/10/27

4.4 In-Band Emission Mask

Refer to section 4.3 to get information of the instruments.

4.5 Occupied Bandwidth

Refer to section 4.3 to get information of the instruments.

4.6 Frequency Stability

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
AC Power Supply JIN YIH Technology	6905S	1720444	N/A	N/A
Digital Multimeter Fluke	87-III	70360742	2023/7/6	2024/7/5
Signal & Spectrum Analyzer R&S	FSV3044	101504	2023/6/5	2024/6/4
Software BV	ADT_RF Test Software V7.6.5.4	N/A	N/A	N/A
Temperature & Humidity Chamber Terchy	HRM-120RF	931022	2022/12/27	2023/12/26

Notes:

1. The test was performed in Oven room.
2. Tested Date: 2023/10/22

4.7 Contention-based Protocol

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
EXA Signal Analyzer Agilent	N9010A	MY52220207	2023/1/3	2024/1/2
			2023/12/28	2024/12/27
MXG Vector signal generator Agilent	N5182B	MY53050430	2022/11/29	2023/11/28
			2023/12/04	2024/12/03
MXG Vector Signal Generator Keysight	N5182BU	MY59360189	2022/11/29	2023/11/28
			2023/12/04	2024/12/03
Power Divider Woken	0120A02058001M	DCMD33WIK3	2023/5/5	2024/5/4
		DCMD33WIK7	2023/5/5	2024/5/4

Notes:

1. The test was performed in Adaptivity room.
2. Tested Date: 2023/10/16 ~ 2024/3/5

4.8 AC Power Conducted Emissions

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
50 ohm terminal resistance HUBER+SUHNER	E1-011315	13	2022/11/17	2023/11/16
50 ohm terminal resistance	E1-011280	05	2022/11/21	2023/11/20
	E1-011311	09	2022/11/17	2023/11/16
DC-LISN Schwarzbeck	NNBM 8126G	8126G-069	2022/11/9	2023/11/8
EMI Test Receiver R&S	ESR3	102783	2022/12/21	2023/12/20
Fixed Attenuator SGH	BNC10W10dB	PAD-COND2-01	2023/9/2	2024/9/1
LISN R&S	ESH2-Z5	100100	2023/3/7	2024/3/6
	ESH3-Z5	100312	2023/9/12	2024/9/11
RF Coaxial Cable Woken	5D-FB	Cable-cond2-01	2023/9/2	2024/9/1
Software BVADT	BVADT_Cond_ V7.3.7.4	N/A	N/A	N/A
V-LISN Schwarzbeck	NNBL 8226-2	8226-142	2023/8/31	2024/8/30

Notes:

1. The test was performed in HY - Conduction 2.
2. Tested Date: 2023/10/7

4.9 Unwanted Emissions below 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Antenna Tower Max-Full	MFT-151SS-0.5T	N/A	N/A	N/A
Bi_Log Antenna Schwarzbeck	VULB 9168	9168-1213	2022/10/20	2023/10/19
EMI Test Receiver R&S	ESR3	102782	2022/12/12	2023/12/11
Loop Antenna Electro-Metrics	EM-6879	269	2023/9/23	2024/9/22
Loop Antenna TESEQ	HLA 6121	45745	2023/8/8	2024/8/7
Preamplifier EMCI	EMC330N	980782	2023/1/16	2024/1/15
	EMC001340	980201	2023/9/27	2024/9/26
RF Coaxial Cable EMCI	5D-NM-BM	140903+140902	2023/1/7	2024/1/6
	EMCCFD400-NM-NM-500	201233	2023/1/16	2024/1/15
	EMCCFD400-NM-NM-3000	201235	2023/1/16	2024/1/15
	EMCCFD400-NM-NM-9000	201236(with PAD)	2023/1/16	2024/1/15
Signal & Spectrum Analyzer R&S	FSW43	101866	2023/1/10	2024/1/9
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	N/A	N/A	N/A
Turn Table Max-Full	MF-7802BS	N/A	N/A	N/A
Turn Table Controller Max-Full	MF-7802BS	MF780208674	N/A	N/A

Notes:

1. The test was performed in WM - 966 chamber 8.
2. Tested Date: 2023/10/5

4.10 Unwanted Emissions above 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Antenna Tower Max-Full	MFT-151SS-0.5T	N/A	N/A	N/A
EMI Test Receiver R&S	ESR3	102782	2022/12/12	2023/12/11
Horn Antenna RFSPIN	DRH18-E	210103A18E	2022/11/13	2023/11/12
Horn Antenna Schwarzbeck	BBHA 9170	9170-1049	2022/11/13	2023/11/12
Preamplifier EMCI	EMC118A45SE	980808	2022/12/29	2023/12/28
	EMC184045SE	980788	2023/1/16	2024/1/15
RF Coaxial Cable EMCI	EMC101G-KM-KM-2000	201254	2023/1/16	2024/1/15
	EMC101G-KM-KM-3000	201257	2023/1/16	2024/1/15
	EMC101G-KM-KM-5000	201260	2023/1/16	2024/1/15
	EMC104-SM-SM-1000	210102	2023/1/16	2024/1/15
	EMC104-SM-SM-3000	201231	2023/1/16	2024/1/15
	EMC104-SM-SM-9000	201243	2023/1/16	2024/1/15
Signal & Spectrum Analyzer R&S	FSW43	101866	2023/1/10	2024/1/9
Software BV ADT	ADT_Radiated_ V7.6.15.9.5	N/A	N/A	N/A
Turn Table Max-Full	MF-7802BS	N/A	N/A	N/A
Turn Table Controller Max-Full	MF-7802BS	MF780208674	N/A	N/A

Notes:

1. The test was performed in WM - 966 chamber 8.
2. Tested Date: 2023/10/3 ~ 2023/10/11

5 Limits of Test Items

5.1 Maximum RF Output Power

Operation Band	Equipment Class	Limit
		Maximum Average Power
U-NII-5 U-NII-6 U-NII-7 U-NII-8	6XD: 15E 6 GHz Low-power Indoor client	EIRP 24 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 Maximum Power Spectral Density

Operation Band	Equipment Class	Limit
		Maximum Power Density
U-NII-5 U-NII-6 U-NII-7 U-NII-8	6XD: 15E 6 GHz Low-power Indoor client	EIRP -1 dBm/MHz

5.3 Emission Bandwidth

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

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

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

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

Frequencies (MHz)	Field Strength (microvolts/meter)	Measurement Distance (meters)
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:

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

6 Test Arrangements

6.1 Maximum RF Output Power

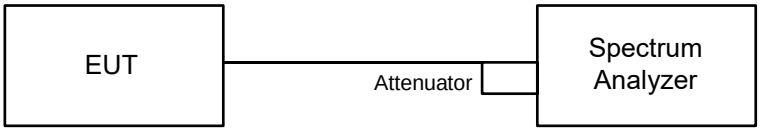
6.1.1 Test Setup

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 Maximum Power Spectral Density

6.2.1 Test Setup



6.2.2 Test Procedure

For specified measurement bandwidth 1 MHz:

Method SA-1

a. Set span to encompass the entire emission bandwidth (EBW) of the signal.
b. Set RBW = 1 MHz, Set VBW ≥ 3 MHz, Detector = RMS
c. Sweep points ≥ [2 × span / RBW]. (This gives bin-to-bin spacing ≤ 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. Record the max value

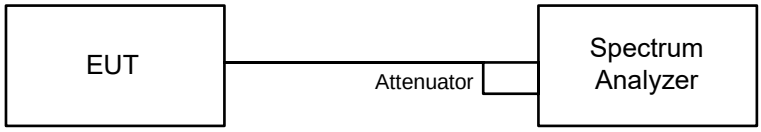
For specified measurement bandwidth 1 MHz:

Method SA-2

a. Set span to encompass the entire emission bandwidth (EBW) of the signal.
b. Set RBW = 1 MHz, Set VBW ≥ 3 MHz, Detector = RMS
c. Sweep points ≥ [2 × span / RBW]. (This gives bin-to-bin spacing ≤ 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/duty cycle).

6.3 Emission Bandwidth

6.3.1 Test Setup

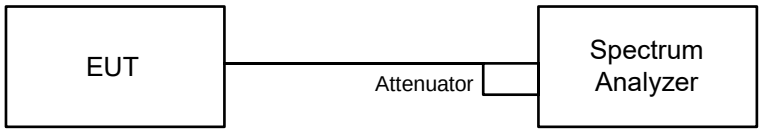


6.3.2 Test Procedure

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

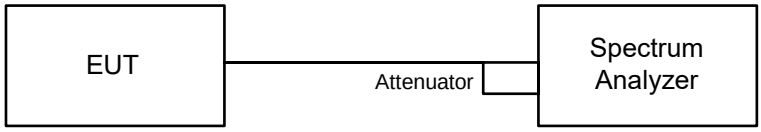


6.4.2 Test Procedure

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 ≥ [3 X RBW].
    d) Number of points in sweep ≥ [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.
a. 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.
a. Adjust the span to encompass the entire mask as necessary and clear trace.
b. Trace average at least 100 traces in power averaging (rms) mode.
c. 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

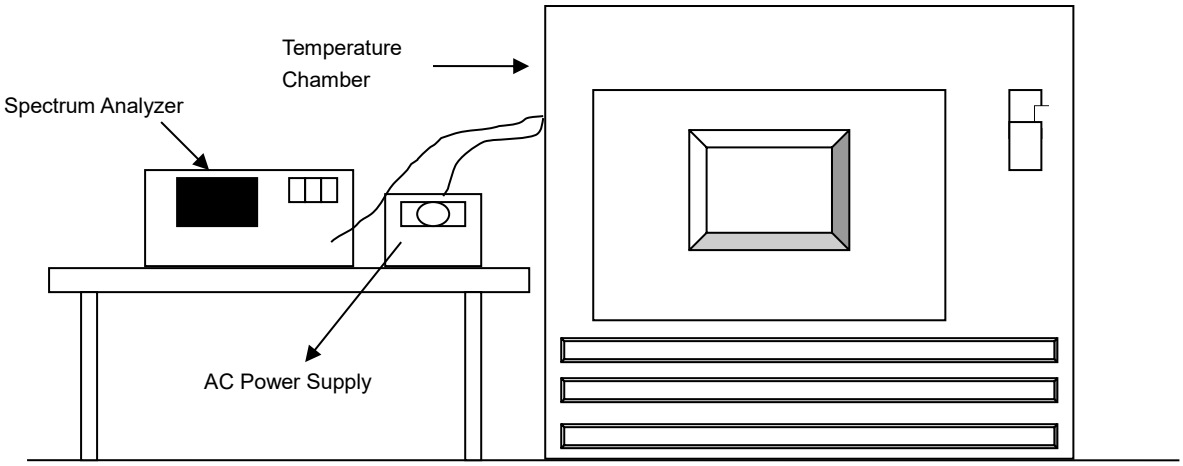


6.5.2 Test Procedure

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

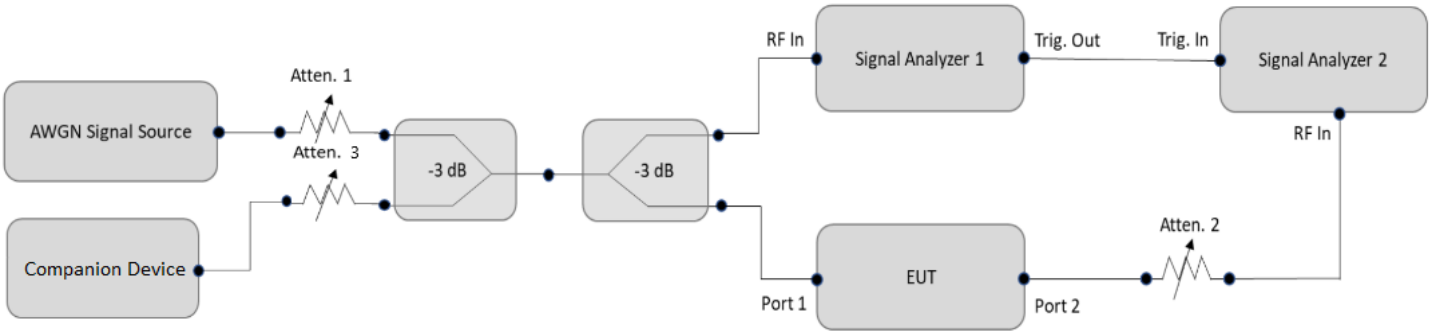


6.6.2 Test Procedure

a. The EUT was placed inside the environmental test chamber and powered by nominal AC voltage.
b. Turn the EUT on and couple its output to a spectrum analyzer.
c. Turn the EUT off and set the chamber to the highest temperature specified.
d. 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.
e. Repeat step (d) with the temperature chamber set to the next desired temperature until measurements down to the lowest specified temperature have been completed.
f. 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

a. 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.

b. 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).

c. Determine number of times detection threshold test as following table,

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

d. 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.

e. 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.

f. Transmit the AWGN signal (RF ON) and verify its characteristics on the signal analyzer 1.

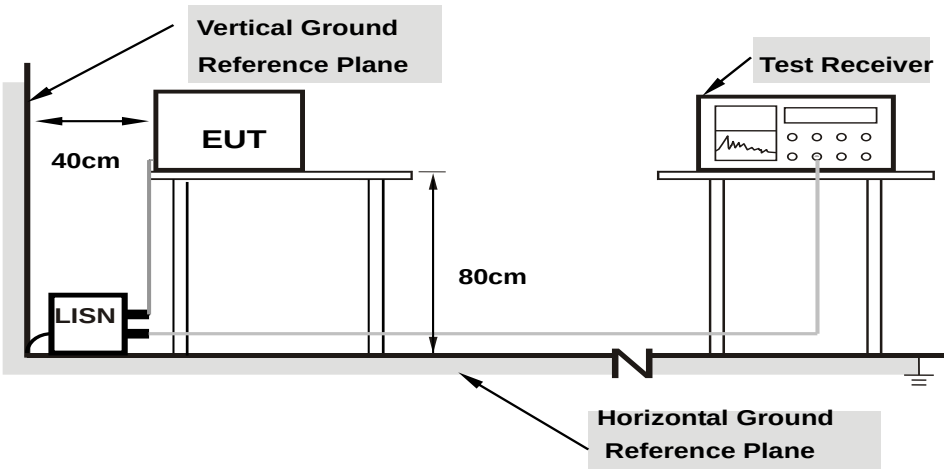
g. Monitor the signal analyzer 2 to verify if the AWGN signal has been detected and the EUT has ceased transmission. If the EUT continues to transmit, then incrementally increase the AWGN signal power level until the EUT stops transmitting.

h. (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.

i. 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

a. 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.

b. Both lines of the power mains connected to the EUT were checked for maximum conducted interference.

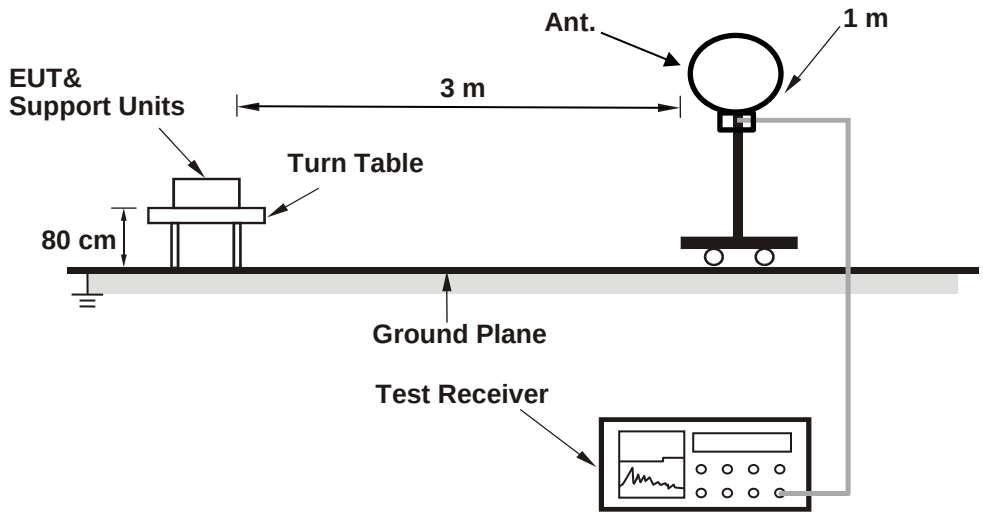
c. The frequency range from 150 kHz to 30 MHz was searched. Emission levels under (Limit – 20 dB) was not recorded.

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.

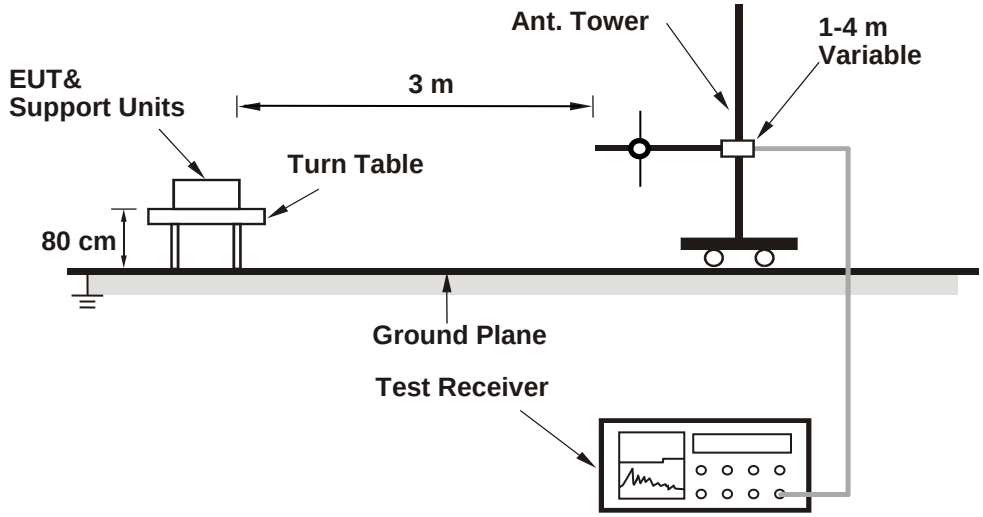
6.9 Unwanted Emissions below 1 GHz

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.

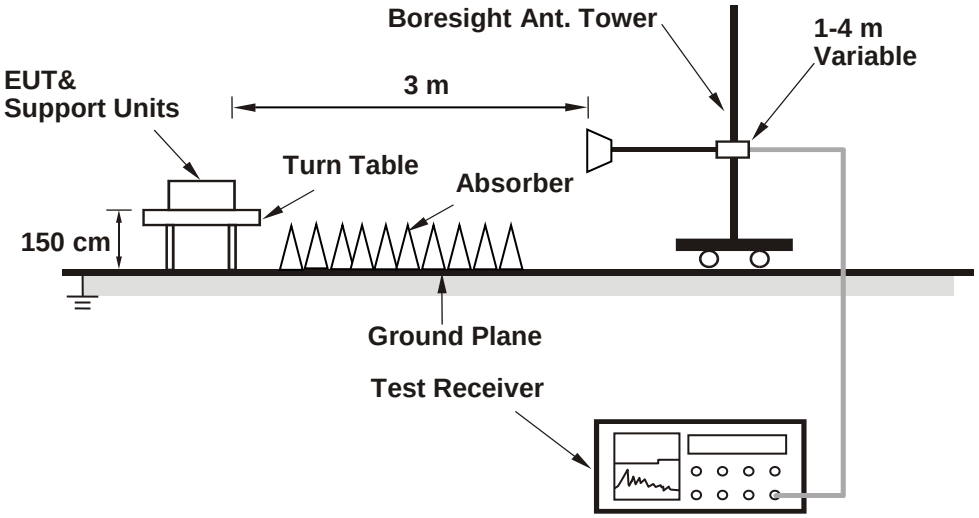
e. The test-receiver system was set to quasi-peak detect function and specified bandwidth with maximum hold mode when the test frequency is below 1 GHz.

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

a. 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.

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 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:

1. 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.
2. For fundamental and harmonic signal measurement, the resolution bandwidth of test receiver/spectrum analyzer is 1 MHz and the video bandwidth is ≥ 1/T (Duty cycle < 98%) or 10 Hz (Duty cycle ≥ 98%) for Average detection (AV) at frequency above 1 GHz.
3. All modes of operation were investigated and the worst-case emissions are reported.

7 Test Results of Test Item

7.1 Maximum RF Output Power

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Wayne Lin

802.11ax (HE20) 26-tone RU

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	-6.42	-7.03	0.4262	-3.70	3.89	1.044	0.19	24	Pass
45	6175	-5.73	-6.21	0.5066	-2.95	3.89	1.241	0.94	24	Pass
93	6415	-5.87	-6.38	0.489	-3.11	3.89	1.198	0.78	24	Pass
97	6435	-4.87	-5.39	0.6149	-2.11	1.75	0.92	-0.36	24	Pass
105	6475	-5.01	-5.56	0.5935	-2.27	1.75	0.888	-0.52	24	Pass
113	6515	-4.92	-5.41	0.6098	-2.15	1.75	0.9124	-0.4	24	Pass
117	6535	-3.54	-4.09	0.8325	-0.80	2.07	1.341	1.27	24	Pass
149	6695	-3.52	-4.06	0.8373	-0.77	2.07	1.349	1.3	24	Pass
181	6855	-3.49	-4.01	0.8449	-0.73	2.07	1.361	1.34	24	Pass
185	6875	-5.93	-6.46	0.4812	-3.18	2.07	0.775	-1.11	24	Pass
209	6995	-6.02	-6.53	0.4724	-3.26	1.67	0.6939	-1.59	24	Pass
233	7115	-8.92	-9.09	0.2515	-5.99	1.67	0.3694	-4.33	24	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. For U-NII-5, the maximum gain is 3.89 dBi.
3. For U-NII-6, the maximum gain is 1.75 dBi.
4. For U-NII-7, the maximum gain is 2.07 dBi.
5. For U-NII-8, the maximum gain is 1.67 dBi.

802.11ax (HE20) 52-tone RU

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	-3.12	-3.68	0.9161	-0.38	3.89	2.244	3.51	24	Pass
45	6175	-3.21	-3.48	0.9263	-0.33	3.89	2.269	3.56	24	Pass
93	6415	-3.26	-3.44	0.925	-0.34	3.89	2.265	3.55	24	Pass
97	6435	-1.53	-2.04	1.3282	1.23	1.75	1.987	2.98	24	Pass
105	6475	-1.73	-2.12	1.2852	1.09	1.75	1.923	2.84	24	Pass
113	6515	-1.64	-2.07	1.3064	1.16	1.75	1.955	2.91	24	Pass
117	6535	-0.87	-1.35	1.5513	1.91	2.07	2.499	3.98	24	Pass
149	6695	-0.82	-1.27	1.5744	1.97	2.07	2.536	4.04	24	Pass
181	6855	-0.79	-1.23	1.587	2.01	2.07	2.556	4.08	24	Pass
185	6875	-2.79	-3.23	1.0014	0.01	2.07	1.613	2.08	24	Pass
209	6995	-2.62	-3.12	1.0345	0.15	1.67	1.52	1.82	24	Pass
233	7115	-4.46	-5.03	0.6721	-1.73	1.67	0.9873	-0.06	24	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. For U-NII-5, the maximum gain is 3.89 dBi.
3. For U-NII-6, the maximum gain is 1.75 dBi.
4. For U-NII-7, the maximum gain is 2.07 dBi.
5. For U-NII-8, the maximum gain is 1.67 dBi.

802.11ax (HE20) 106-tone RU

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	-0.23	-0.75	1.7898	2.53	3.89	4.383	6.42	24	Pass
45	6175	0.33	0.18	2.121	3.27	3.89	5.194	7.16	24	Pass
93	6415	0.35	0.84	2.297	3.61	3.89	5.625	7.5	24	Pass
97	6435	3.01	2.45	3.758	5.75	1.75	5.623	7.5	24	Pass
105	6475	2.89	2.31	3.648	5.62	1.75	5.458	7.37	24	Pass
113	6515	2.97	2.37	3.707	5.69	1.75	5.547	7.44	24	Pass
117	6535	3.02	2.52	3.791	5.79	2.07	6.106	7.86	24	Pass
149	6695	2.97	2.39	3.715	5.70	2.07	5.984	7.77	24	Pass
181	6855	2.94	2.45	3.726	5.71	2.07	6.001	7.78	24	Pass
185	6875	2.10	1.73	3.111	4.93	2.07	5.011	7	24	Pass
209	6995	2.01	1.62	3.041	4.83	1.67	4.467	6.5	24	Pass
233	7115	-4.23	-4.68	0.718	-1.44	1.67	1.055	0.23	24	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. For U-NII-5, the maximum gain is 3.89 dBi.
3. For U-NII-6, the maximum gain is 1.75 dBi.
4. For U-NII-7, the maximum gain is 2.07 dBi.
5. For U-NII-8, the maximum gain is 1.67 dBi.

802.11ax (HE20) Full RU

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	1.34	1.21	2.683	4.29	3.89	6.571	8.18	24	Pass
45	6175	1.37	1.09	2.656	4.24	3.89	6.505	8.13	24	Pass
93	6415	1.26	0.98	2.59	4.13	3.89	6.343	8.02	24	Pass
97	6435	4.14	3.57	4.869	6.87	1.75	7.285	8.62	24	Pass
105	6475	4.01	3.42	4.716	6.74	1.75	7.056	8.49	24	Pass
113	6515	3.88	3.25	4.557	6.59	1.75	6.818	8.34	24	Pass
117	6535	3.70	3.35	4.507	6.54	2.07	7.259	8.61	24	Pass
149	6695	3.77	3.34	4.54	6.57	2.07	7.312	8.64	24	Pass
181	6855	3.72	3.28	4.483	6.52	2.07	7.221	8.59	24	Pass
185	6875	3.70	3.35	4.507	6.54	2.07	7.259	8.61	24	Pass
209	6995	3.62	3.24	4.41	6.44	1.67	6.478	8.11	24	Pass
233	7115	-1.23	-2.27	1.3463	1.29	1.67	1.978	2.96	24	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. For U-NII-5, the maximum gain is 3.89 dBi.
3. For U-NII-6, the maximum gain is 1.75 dBi.
4. For U-NII-7, the maximum gain is 2.07 dBi.
5. For U-NII-8, the maximum gain is 1.67 dBi.

802.11ax (HE40) 242-tone RU

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	3.06	2.85	3.951	5.97	3.89	9.676	9.86	24	Pass
43	6165	2.65	2.63	3.673	5.65	3.89	8.995	9.54	24	Pass
91	6405	2.85	2.45	3.685	5.66	3.89	9.025	9.55	24	Pass
99	6445	4.42	4.25	5.428	7.35	1.75	8.122	9.1	24	Pass
107	6485	4.40	4.11	5.331	7.27	1.75	7.976	9.02	24	Pass
115	6525	5.33	4.93	6.524	8.15	2.07	10.508	10.22	24	Pass
123	6565	5.41	5.09	6.704	8.26	2.07	10.798	10.33	24	Pass
155	6725	5.35	4.93	6.539	8.16	2.07	10.532	10.23	24	Pass
179	6845	5.21	4.99	6.474	8.11	2.07	10.427	10.18	24	Pass
187	6885	3.57	3.34	4.433	6.47	1.67	6.512	8.14	24	Pass
211	7005	3.58	3.32	4.428	6.46	1.67	6.504	8.13	24	Pass
227	7085	3.76	3.27	4.5	6.53	1.67	6.61	8.2	24	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. For U-NII-5, the maximum gain is 3.89 dBi.
3. For U-NII-6, the maximum gain is 1.75 dBi.
4. For U-NII-7, the maximum gain is 2.07 dBi.
5. For U-NII-8, the maximum gain is 1.67 dBi.

802.11ax (HE40) Full RU

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	4.08	3.93	5.03	7.02	3.89	12.319	10.91	24	Pass
43	6165	4.13	4.03	5.118	7.09	3.89	12.534	10.98	24	Pass
91	6405	4.29	3.97	5.18	7.14	3.89	12.686	11.03	24	Pass
99	6445	7.10	6.82	9.937	9.97	1.75	14.868	11.72	24	Pass
107	6485	7.05	6.79	9.845	9.93	1.75	14.73	11.68	24	Pass
115	6525	7.06	6.71	9.77	9.90	2.07	15.736	11.97	24	Pass
123	6565	7.10	6.68	9.784	9.91	2.07	15.759	11.98	24	Pass
155	6725	6.99	6.83	9.82	9.92	2.07	15.817	11.99	24	Pass
179	6845	6.97	6.86	9.83	9.93	2.07	15.833	12	24	Pass
187	6885	6.84	6.82	9.639	9.84	1.67	14.159	11.51	24	Pass
211	7005	6.99	6.81	9.798	9.91	1.67	14.393	11.58	24	Pass
227	7085	6.94	6.66	9.578	9.81	1.67	14.069	11.48	24	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. For U-NII-5, the maximum gain is 3.89 dBi.
3. For U-NII-6, the maximum gain is 1.75 dBi.
4. For U-NII-7, the maximum gain is 2.07 dBi.
5. For U-NII-8, the maximum gain is 1.67 dBi.

802.11ax (HE80) 484-tone RU

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	5.67	5.36	7.125	8.53	3.89	17.45	12.42	24	Pass
39	6145	5.79	5.32	7.197	8.57	3.89	17.626	12.46	24	Pass
87	6385	5.71	5.26	7.081	8.50	3.89	17.342	12.39	24	Pass
103	6465	8.27	7.87	12.838	11.08	1.75	19.209	12.84	24	Pass
119	6545	8.21	7.82	12.676	11.03	2.07	20.417	13.1	24	Pass
151	6705	8.16	7.75	12.503	10.97	2.07	20.138	13.04	24	Pass
183	6865	7.56	7.01	10.725	10.30	2.07	17.274	12.37	24	Pass
199	6945	7.49	6.97	10.588	10.25	1.67	15.553	11.92	24	Pass
215	7025	7.61	7.09	10.884	10.37	1.67	15.988	12.04	24	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. For U-NII-5, the maximum gain is 3.89 dBi.
3. For U-NII-6, the maximum gain is 1.75 dBi.
4. For U-NII-7, the maximum gain is 2.07 dBi.
5. For U-NII-8, the maximum gain is 1.67 dBi.

802.11ax (HE80) Full RU

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	6.38	6.51	8.822	9.46	3.89	21.606	13.35	24	Pass
39	6145	6.46	6.46	8.852	9.47	3.89	21.679	13.36	24	Pass
87	6385	6.43	6.38	8.741	9.42	3.89	21.407	13.31	24	Pass
103	6465	9.07	8.84	15.728	11.97	1.75	23.533	13.72	24	Pass
119	6545	9.13	9.02	16.165	12.09	2.07	26.036	14.16	24	Pass
151	6705	8.92	9.09	15.908	12.02	2.07	25.622	14.09	24	Pass
183	6865	8.99	8.97	15.814	11.99	2.07	25.471	14.06	24	Pass
199	6945	8.95	8.96	15.723	11.97	1.67	23.096	13.64	24	Pass
215	7025	9.14	9.10	16.332	12.13	1.67	23.991	13.8	24	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. For U-NII-5, the maximum gain is 3.89 dBi.
3. For U-NII-6, the maximum gain is 1.75 dBi.
4. For U-NII-7, the maximum gain is 2.07 dBi.
5. For U-NII-8, the maximum gain is 1.67 dBi.

802.11ax (HE160) 996-tone RU

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	7.55	7.47	11.273	10.52	3.89	27.608	14.41	24	Pass
47	6185	7.74	7.71	11.845	10.74	3.89	29.009	14.63	24	Pass
111	6505	10.25	10.31	21.332	13.29	1.75	31.918	15.04	24	Pass
143	6665	11.50	11.02	26.773	14.28	2.07	43.122	16.35	24	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. For U-NII-5, the maximum gain is 3.89 dBi.
3. For U-NII-6, the maximum gain is 1.75 dBi.
4. For U-NII-7, the maximum gain is 2.07 dBi.
5. For U-NII-8, the maximum gain is 1.67 dBi.

802.11ax (HE160) 996-tone RU RU996S

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							
47	6185	7.77	7.56	11.686	10.68	3.89	28.62	14.57	24	Pass
79	6345	7.84	7.61	11.849	10.74	3.89	29.019	14.63	24	Pass
175	6825	9.92	9.43	18.587	12.69	2.07	29.937	14.76	24	Pass
207	6985	9.97	9.59	19.03	12.79	1.67	27.954	14.46	24	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. For U-NII-5, the maximum gain is 3.89 dBi.
3. For U-NII-6, the maximum gain is 1.75 dBi.
4. For U-NII-7, the maximum gain is 2.07 dBi.
5. For U-NII-8, the maximum gain is 1.67 dBi.

802.11ax (HE160) Full RU

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	9.06	9.11	16.201	12.10	3.89	39.677	15.99	24	Pass
47	6185	9.18	9.21	16.616	12.21	3.89	40.694	16.1	24	Pass
79	6345	9.28	9.11	16.619	12.21	3.89	**40.701**	**16.1**	24	Pass
111	6505	11.94	11.64	30.22	14.80	1.75	**45.216**	**16.55**	24	Pass
143	6665	11.65	11.55	28.911	14.61	2.07	**46.565**	**16.68**	24	Pass
175	6825	11.54	11.49	28.349	14.53	2.07	45.66	16.6	24	Pass
207	6985	11.91	11.75	30.486	14.84	1.67	**44.782**	**16.51**	24	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. For U-NII-5, the maximum gain is 3.89 dBi.
3. For U-NII-6, the maximum gain is 1.75 dBi.
4. For U-NII-7, the maximum gain is 2.07 dBi.
5. For U-NII-8, the maximum gain is 1.67 dBi.

7.2 Maximum Power Spectral Density

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Wayne Lin

802.11ax (HE20) 26-tone RU

Chan.	Chan. Freq. (MHz)	PSD (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	-10.87	-11.40	-8.12	6.90	-1.22	-1	Pass
45	6175	-10.74	-11.52	-8.10	6.90	-1.2	-1	Pass
93	6415	-11.01	-11.42	-8.20	6.90	-1.3	-1	Pass
97	6435	-9.62	-9.91	-6.75	4.46	-2.29	-1	Pass
105	6475	-10.24	-10.69	-7.45	4.46	-2.99	-1	Pass
113	6515	-9.89	-10.42	-7.14	4.46	-2.68	-1	Pass
117	6535	-8.37	-8.88	-5.61	4.42	-1.19	-1	Pass
149	6695	-8.30	-8.93	-5.59	4.42	-1.17	-1	Pass
181	6855	-8.30	-8.85	-5.56	4.42	-1.14	-1	Pass
185	6875	-10.46	-10.76	-7.60	4.42	-3.18	-1	Pass
209	6995	-10.51	-10.85	-7.67	4.05	-3.62	-1	Pass
233	7115	-15.23	-15.72	-12.46	4.05	-8.41	-1	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[$(10^{Chain0/20} + 10^{Chain1/20})^2$ / 2]
3. For U-NII-5, The directional gain is 6.9 dBi.
4. For U-NII-6, The directional gain is 4.46 dBi.
5. For U-NII-7, The directional gain is 4.42 dBi.
6. For U-NII-8, The directional gain is 4.05 dBi.

802.11ax (HE20) 52-tone RU

Chan.	Chan. Freq. (MHz)	PSD (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	-10.71	-11.27	-7.97	6.90	-1.07	-1	Pass
45	6175	-10.81	-11.31	-8.04	6.90	-1.14	-1	Pass
93	6415	-10.82	-11.40	-8.09	6.90	-1.19	-1	Pass
97	6435	-9.91	-9.73	-6.81	4.46	-2.35	-1	Pass
105	6475	-10.03	-10.39	-7.20	4.46	-2.74	-1	Pass
113	6515	-9.75	-10.42	-7.06	4.46	-2.6	-1	Pass
117	6535	-8.65	-9.01	-5.82	4.42	-1.4	-1	Pass
149	6695	-8.79	-9.03	-5.90	4.42	-1.48	-1	Pass
181	6855	-8.55	-8.88	-5.70	4.42	-1.28	-1	Pass
185	6875	-10.43	-11.02	-7.70	4.42	-3.28	-1	Pass
209	6995	-9.80	-10.17	-6.97	4.05	-2.92	-1	Pass
233	7115	-12.58	-12.39	-9.47	4.05	-5.42	-1	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 = $10 \log[(10^{Chain0/20} + 10^{Chain1/20})^2 / 2]$
3. For U-NII-5, The directional gain is 6.9 dBi.
4. For U-NII-6, The directional gain is 4.46 dBi.
5. For U-NII-7, The directional gain is 4.42 dBi.
6. For U-NII-8, The directional gain is 4.05 dBi.

802.11ax (HE20) 106-tone RU

Chan.	Chan. Freq. (MHz)	PSD (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	-10.81	-11.35	-8.06	6.90	-1.16	-1	Pass
45	6175	-10.84	-11.31	-8.06	6.90	-1.16	-1	Pass
93	6415	-10.72	-11.33	-8.00	6.90	-1.1	-1	Pass
97	6435	-8.75	-8.56	-5.64	4.46	-1.18	-1	Pass
105	6475	-8.74	-8.96	-5.84	4.46	-1.38	-1	Pass
113	6515	-8.67	-8.83	-5.74	4.46	-1.28	-1	Pass
117	6535	-8.33	-8.79	-5.54	4.42	-1.12	-1	Pass
149	6695	-8.35	-8.81	-5.56	4.42	-1.14	-1	Pass
181	6855	-8.22	-8.71	-5.45	4.42	-1.03	-1	Pass
185	6875	-9.44	-9.74	-6.58	4.42	-2.16	-1	Pass
209	6995	-9.55	-9.85	-6.69	4.05	-2.64	-1	Pass
233	7115	-15.58	-15.39	-12.47	4.05	-8.42	-1	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 = $10 \log[(10^{Chain0/20} + 10^{Chain1/20})^2 / 2]$
3. For U-NII-5, The directional gain is 6.9 dBi.
4. For U-NII-6, The directional gain is 4.46 dBi.
5. For U-NII-7, The directional gain is 4.42 dBi.
6. For U-NII-8, The directional gain is 4.05 dBi.

802.11ax (HE20) Full RU

Chan.	Chan. Freq. (MHz)	PSD (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	-10.79	-11.13	-7.95	6.90	-1.05	-1	Pass
45	6175	-10.90	-11.29	-8.08	6.90	-1.18	-1	Pass
93	6415	-10.94	-11.36	-8.13	6.90	-1.23	-1	Pass
97	6435	-8.23	-8.75	-5.47	4.46	-1.01	-1	Pass
105	6475	-8.32	-8.80	-5.54	4.46	-1.08	-1	Pass
113	6515	-8.33	-8.82	-5.56	4.46	-1.1	-1	Pass
117	6535	-8.38	-8.87	-5.61	4.42	-1.19	-1	Pass
149	6695	-8.35	-8.76	-5.54	4.42	-1.12	-1	Pass
181	6855	-8.32	-8.74	-5.51	4.42	-1.09	-1	Pass
185	6875	-8.37	-8.76	-5.55	4.42	-1.13	-1	Pass
209	6995	-8.52	-8.77	-5.63	4.05	-1.58	-1	Pass
233	7115	-14.80	-15.61	-12.18	4.05	-8.13	-1	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 = $10 \log[(10^{Chain0/20} + 10^{Chain1/20})^2 / 2]$
3. For U-NII-5, The directional gain is 6.9 dBi.
4. For U-NII-6, The directional gain is 4.46 dBi.
5. For U-NII-7, The directional gain is 4.42 dBi.
6. For U-NII-8, The directional gain is 4.05 dBi.

802.11ax (HE40) 242-tone RU

Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)		Total PSD (dBm/MHz)	Directional Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1					
3	5965	-11.06	-10.95	-7.99	6.90	-1.09	-1	Pass
43	6165	-11.16	-10.95	-8.04	6.90	-1.14	-1	Pass
91	6405	-10.93	-11.24	-8.07	6.90	-1.17	-1	Pass
99	6445	-9.44	-9.56	-6.49	4.46	-2.03	-1	Pass
107	6485	-9.43	-9.09	-6.25	4.46	-1.79	-1	Pass
115	6525	-8.65	-8.58	-5.60	4.46	-1.14	-1	Pass
123	6565	-8.41	-8.52	-5.45	4.42	-1.03	-1	Pass
155	6725	-8.50	-8.85	-5.66	4.42	-1.24	-1	Pass
179	6845	-8.49	-8.76	-5.61	4.42	-1.19	-1	Pass
187	6885	-10.26	-10.39	-7.31	4.05	-3.26	-1	Pass
211	7005	-10.16	-10.39	-7.26	4.05	-3.21	-1	Pass
227	7085	-10.00	-10.50	-7.23	4.05	-3.18	-1	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 = $10 \log[(10^{Chain0/20} + 10^{Chain1/20})^2 / 2]$
3. For U-NII-5, The directional gain is 6.9 dBi.
4. For U-NII-6, The directional gain is 4.46 dBi.
5. For U-NII-7, The directional gain is 4.42 dBi.
6. For U-NII-8, The directional gain is 4.05 dBi.

802.11ax (HE40) Full RU

Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)		Total PSD (dBm/MHz)	Directional Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1					
3	5965	-11.23	-10.98	-8.09	6.90	-1.19	-1	Pass
43	6165	-10.94	-11.19	-8.05	6.90	-1.15	-1	Pass
91	6405	-10.86	-11.48	-8.15	6.90	-1.25	-1	Pass
99	6445	-8.36	-8.65	-5.49	4.46	-1.03	-1	Pass
107	6485	-8.36	-8.64	-5.49	4.46	-1.03	-1	Pass
115	6525	-8.40	-8.71	-5.54	4.46	-1.08	-1	Pass
123	6565	-8.24	-8.71	-5.46	4.42	-1.04	-1	Pass
155	6725	-8.31	-8.73	-5.50	4.42	-1.08	-1	Pass
179	6845	-8.39	-8.61	-5.49	4.42	-1.07	-1	Pass
187	6885	-8.27	-8.33	-5.29	4.05	-1.24	-1	Pass
211	7005	-8.15	-8.26	-5.19	4.05	-1.14	-1	Pass
227	7085	-8.33	-8.60	-5.45	4.05	-1.4	-1	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 = $10 \log[(10^{Chain0/20} + 10^{Chain1/20})^2 / 2]$
3. For U-NII-5, The directional gain is 6.9 dBi.
4. For U-NII-6, The directional gain is 4.46 dBi.
5. For U-NII-7, The directional gain is 4.42 dBi.
6. For U-NII-8, The directional gain is 4.05 dBi.

802.11ax (HE80) 484-tone RU

Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)		Total PSD (dBm/MHz)	Directional Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1					
7	5985	-11.05	-11.33	-8.18	6.90	-1.28	-1	Pass
39	6145	-10.71	-11.29	-7.98	6.90	-1.08	-1	Pass
87	6385	-10.86	-11.32	-8.07	6.90	-1.17	-1	Pass
103	6465	-9.65	-9.32	-6.47	4.46	-2.01	-1	Pass
119	6545	-8.94	-9.10	-6.01	4.42	-1.59	-1	Pass
151	6705	-9.78	-10.03	-6.89	4.42	-2.47	-1	Pass
183	6865	-9.83	-9.90	-6.85	4.42	-2.43	-1	Pass
199	6945	-10.42	-10.29	-7.34	4.05	-3.29	-1	Pass
215	7025	-10.44	-10.36	-7.39	4.05	-3.34	-1	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[$(10^{Chain0/20} + 10^{Chain1/20})^2$ / 2]
3. For U-NII-5, The directional gain is 6.9 dBi.
4. For U-NII-6, The directional gain is 4.46 dBi.
5. For U-NII-7, The directional gain is 4.42 dBi.
6. For U-NII-8, The directional gain is 4.05 dBi.

802.11ax (HE80) Full RU

Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)		Total PSD (dBm/MHz)	Directional Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1					
7	5985	-11.04	-10.99	-8.00	6.90	-1.1	-1	Pass
39	6145	-11.06	-11.18	-8.11	6.90	-1.21	-1	Pass
87	6385	-10.99	-11.19	-8.08	6.90	-1.18	-1	Pass
103	6465	-8.47	-8.64	-5.54	4.46	-1.08	-1	Pass
119	6545	-8.38	-8.61	-5.48	4.42	-1.06	-1	Pass
151	6705	-8.78	-8.39	-5.57	4.42	-1.15	-1	Pass
183	6865	-8.47	-8.50	-5.47	4.42	-1.05	-1	Pass
199	6945	-8.51	-8.38	-5.43	4.05	-1.38	-1	Pass
215	7025	-8.27	-8.42	-5.33	4.05	-1.28	-1	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 = $10 \log[(10^{Chain0/20} + 10^{Chain1/20})^2 / 2]$
3. For U-NII-5, The directional gain is 6.9 dBi.
4. For U-NII-6, The directional gain is 4.46 dBi.
5. For U-NII-7, The directional gain is 4.42 dBi.
6. For U-NII-8, The directional gain is 4.05 dBi.

802.11ax (HE160) 996-tone RU

Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)		Total PSD (dBm/MHz)	Directional Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1					
15	6025	-11.08	-11.08	-8.07	6.90	-1.17	-1	Pass
47	6185	-10.74	-11.10	-7.91	6.90	-1.01	-1	Pass
111	6505	-9.73	-9.32	-6.51	4.46	-2.05	-1	Pass
143	6665	-8.27	-8.73	-5.48	4.42	-1.06	-1	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 = $10 \log[(10^{Chain0/20} + 10^{Chain1/20})^2 / 2]$
3. For U-NII-5, The directional gain is 6.9 dBi.
4. For U-NII-6, The directional gain is 4.46 dBi.
5. For U-NII-7, The directional gain is 4.42 dBi.
6. For U-NII-8, The directional gain is 4.05 dBi.

802.11ax (HE160) 996-tone RU RU996S

Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)		Total PSD (dBm/MHz)	Directional Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1					
47	6185	-11.01	-11.31	-8.15	6.90	-1.25	-1	Pass
79	6345	-10.88	-11.31	-8.08	6.90	-1.18	-1	Pass
175	6825	-10.60	-10.37	-7.47	4.42	-3.05	-1	Pass
207	6985	-10.54	-10.31	-7.41	4.05	-3.36	-1	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[$(10^{Chain0/20} + 10^{Chain1/20})^2$ / 2]
3. For U-NII-5, The directional gain is 6.9 dBi.
4. For U-NII-6, The directional gain is 4.46 dBi.
5. For U-NII-7, The directional gain is 4.42 dBi.
6. For U-NII-8, The directional gain is 4.05 dBi.

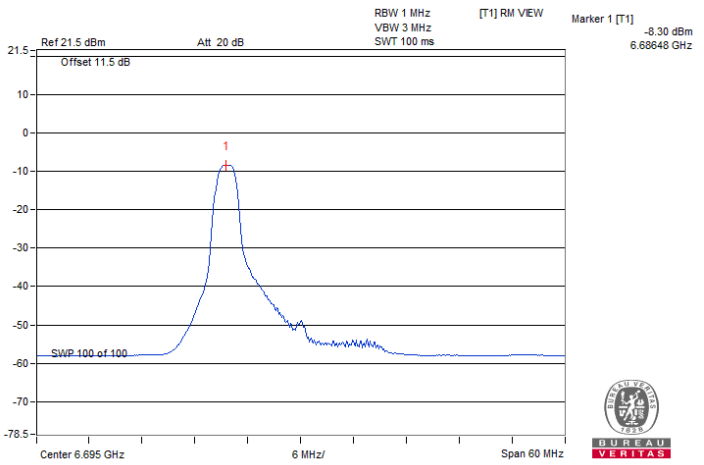
802.11ax (HE160) Full RU

Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)		Total PSD (dBm/MHz)	Directional Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Test Result
		Chain 0	Chain 1					
15	6025	-11.20	-11.10	-8.14	6.90	-1.24	-1	Pass
47	6185	-11.06	-11.01	-8.02	6.90	-1.12	-1	Pass
79	6345	-10.92	-11.10	-8.00	6.90	-1.1	-1	Pass
111	6505	-8.31	-8.65	-5.47	4.46	-1.01	-1	Pass
143	6665	-8.42	-8.61	-5.50	4.42	-1.08	-1	Pass
175	6825	-8.60	-8.67	-5.62	4.42	-1.2	-1	Pass
207	6985	-8.29	-8.58	-5.42	4.05	-1.37	-1	Pass

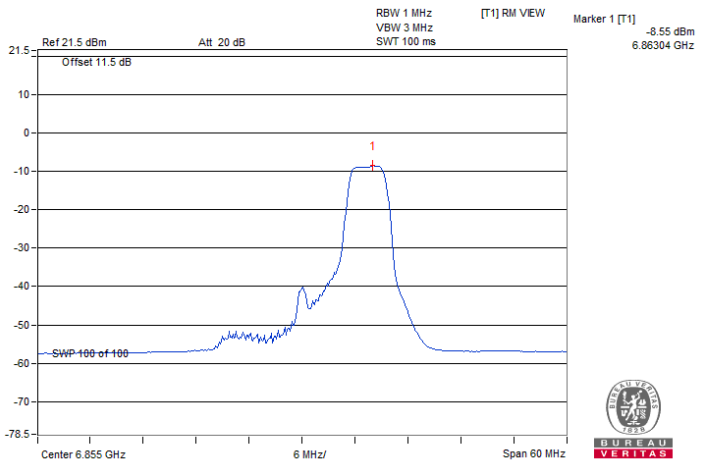
Notes:

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[$(10^{Chain0/20} + 10^{Chain1/20})^2$ / 2]
3. For U-NII-5, The directional gain is 6.9 dBi.
4. For U-NII-6, The directional gain is 4.46 dBi.
5. For U-NII-7, The directional gain is 4.42 dBi.
6. For U-NII-8, The directional gain is 4.05 dBi.

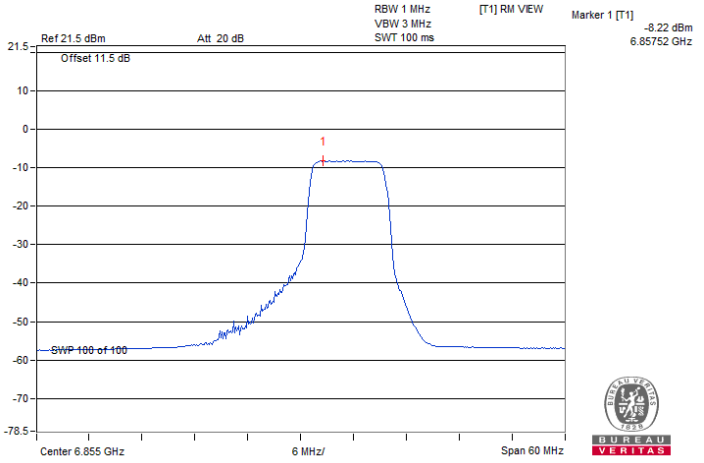
Spectrum Plot of Maximum Value



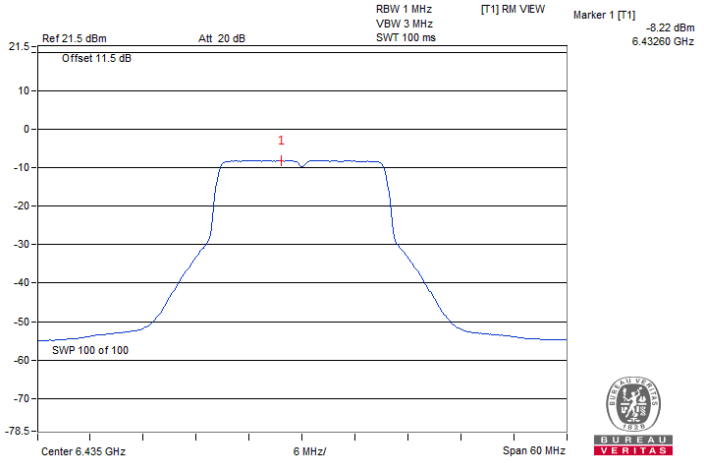
802.11ax (HE20) 26-tone RU / Chain 0 : CH 149@0



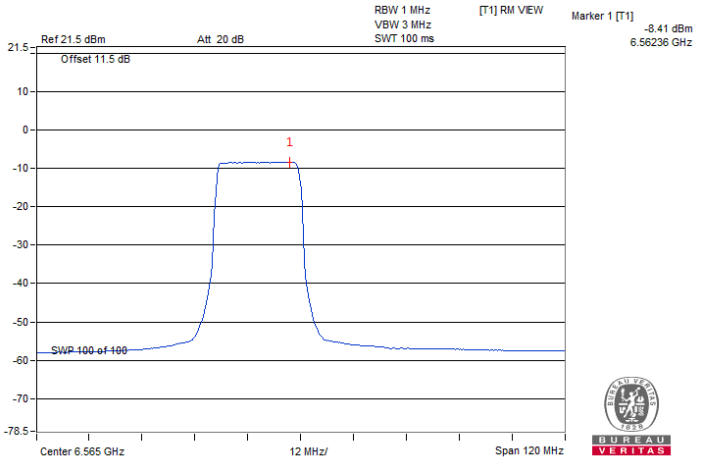
802.11ax (HE20) 52-tone RU / Chain 0 : CH 181@40



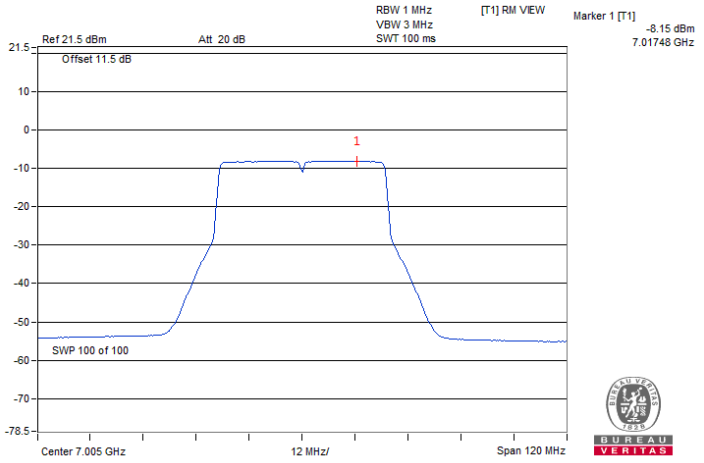
802.11ax (HE20) 106-tone RU / Chain 0 : CH 181@54



802.11ax (HE20) Full RU / Chain 0 : CH 97

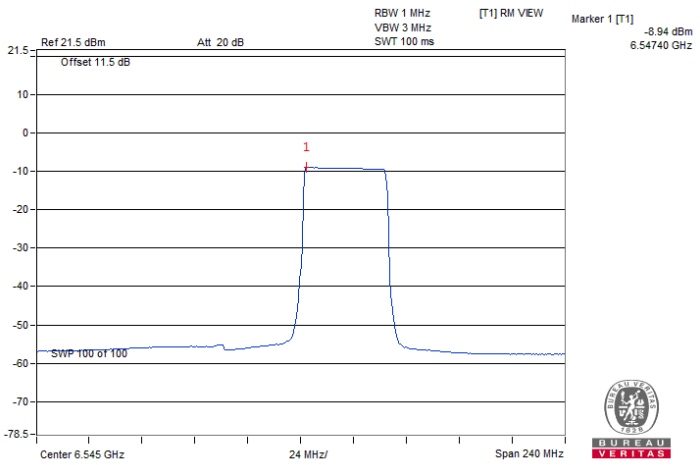


802.11ax (HE40) 242-tone RU / Chain 0 : CH 123@61

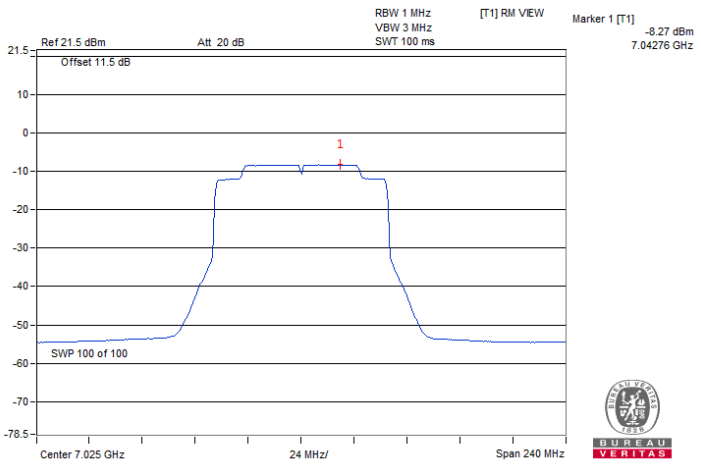


802.11ax (HE40) Full RU / Chain 0 : CH 211

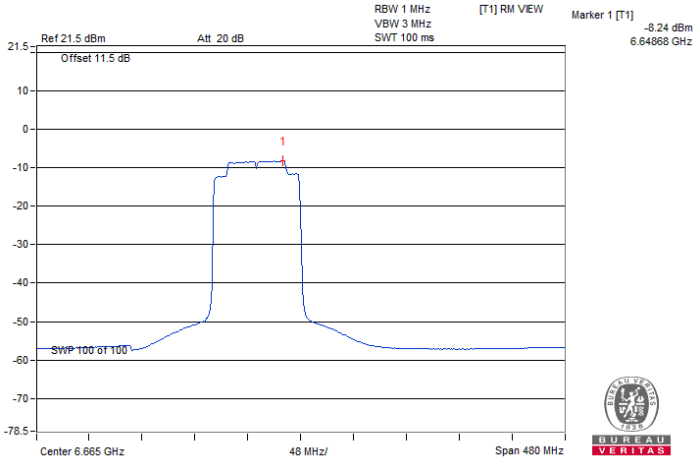
Spectrum Plot of Maximum Value



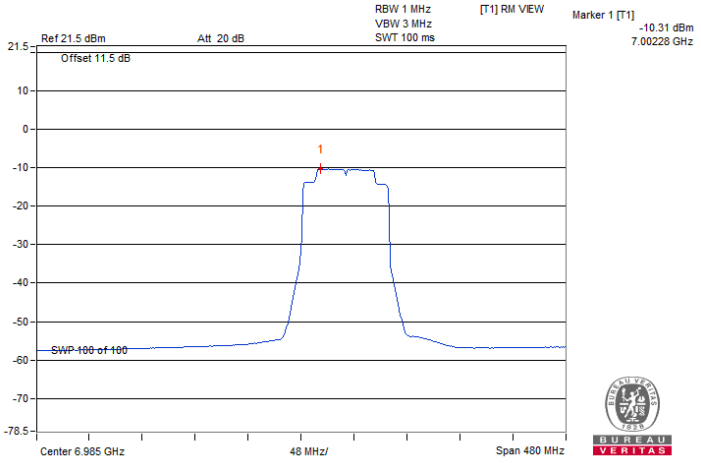
802.11ax (HE80) 484-tone RU / Chain 0 : CH 119@66



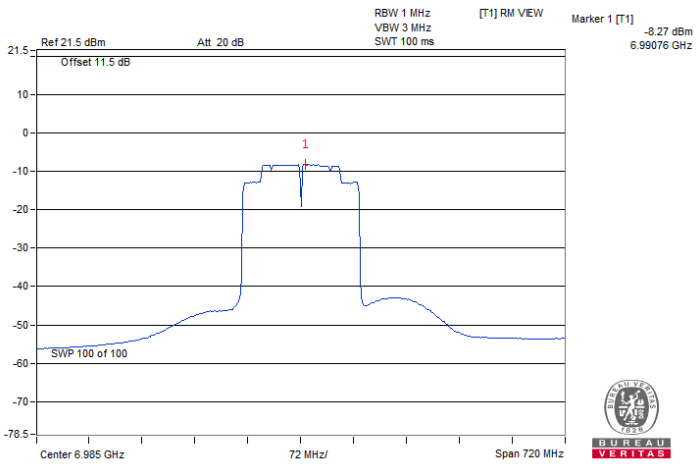
802.11ax (HE80) Full RU / Chain 0 : CH 215



802.11ax (HE160) 996-tone RU / Chain 0 : CH 143@67



802.11ax (HE160) 996-tone RU RU996S / Chain 1 : CH 207@S67



802.11ax (HE160) Full RU / Chain 0 : CH 207

7.3 Emission Bandwidth

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Wayne Lin / Vincent Chen

802.11ax (HE20) 26-tone RU

Channel	Frequency (MHz)	26dB Bandwidth (MHz)		Maximum Limit (MHz)	Test Result
		Chain 0	Chain 1		
1	5955	20.46	20.21	320	Pass
45	6175	20.20	20.16	320	Pass
93	6415	20.92	20.96	320	Pass
97	6435	20.42	20.52	320	Pass
105	6475	20.36	20.45	320	Pass
113	6515	20.80	21.12	320	Pass
117	6535	20.60	20.33	320	Pass
149	6695	20.32	20.59	320	Pass
181	6855	21.19	20.81	320	Pass
185	6875	20.31	20.21	320	Pass
209	6995	20.57	20.40	320	Pass
233	7115	20.76	20.89	320	Pass

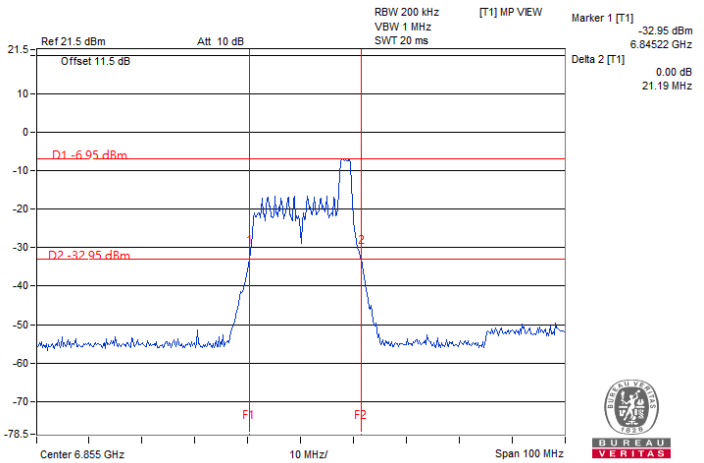
802.11ax (HE20) 52-tone RU

Channel	Frequency (MHz)	26dB Bandwidth (MHz)		Maximum Limit (MHz)	Test Result
		Chain 0	Chain 1		
1	5955	20.79	20.56	320	Pass
45	6175	20.58	20.61	320	Pass
93	6415	21.44	21.31	320	Pass
97	6435	20.61	20.51	320	Pass
105	6475	20.60	20.61	320	Pass
113	6515	21.34	21.42	320	Pass
117	6535	20.48	20.54	320	Pass
149	6695	20.60	20.61	320	Pass
181	6855	21.35	21.34	320	Pass
185	6875	20.70	20.71	320	Pass
209	6995	20.87	21.00	320	Pass
233	7115	21.05	21.35	320	Pass

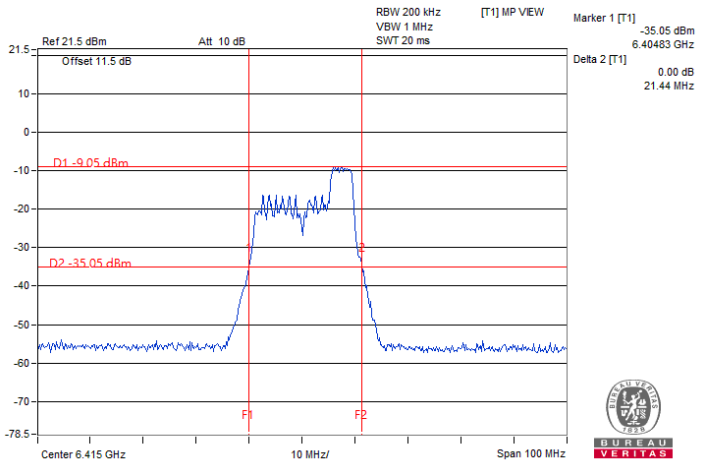
802.11ax (HE20) 106-tone RU

Channel	Frequency (MHz)	26dB Bandwidth (MHz)		Maximum Limit (MHz)	Test Result
		Chain 0	Chain 1		
1	5955	20.62	20.77	320	Pass
45	6175	20.87	20.90	320	Pass
93	6415	21.69	21.73	320	Pass
97	6435	20.76	22.63	320	Pass
105	6475	20.86	23.18	320	Pass
113	6515	21.64	22.79	320	Pass
117	6535	20.89	21.05	320	Pass
149	6695	20.91	20.58	320	Pass
181	6855	21.73	21.66	320	Pass
185	6875	23.03	22.78	320	Pass
209	6995	23.83	24.06	320	Pass
233	7115	21.61	21.70	320	Pass

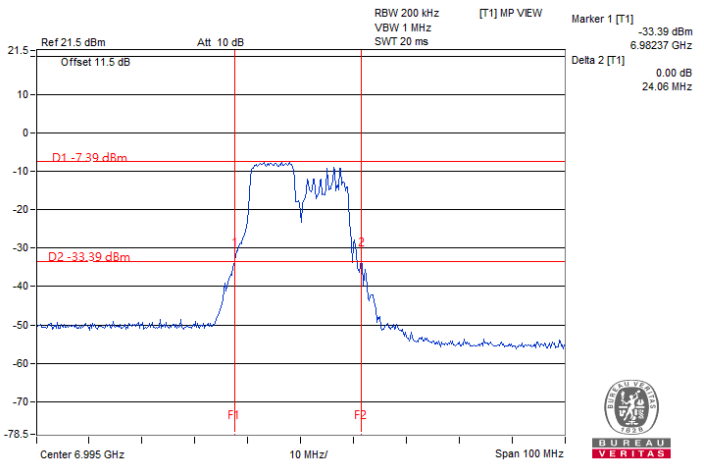
Spectrum Plot of Maximum Value



802.11ax (HE20) 26-tone RU / Chain 0 : CH 181@8



802.11ax (HE20) 52-tone RU / Chain 0 : CH 93@40



802.11ax (HE20) 106-tone RU / Chain 1 : CH 209@53

802.11ax (HE20) Full RU

Channel	Frequency (MHz)	26dB Bandwidth (MHz)		Maximum Limit (MHz)	Test Result
		Chain 0	Chain 1		
1	5955	24.85	25.46	320	Pass
45	6175	24.37	25.18	320	Pass
93	6415	25.00	25.43	320	Pass
97	6435	24.70	24.56	320	Pass
105	6475	25.23	25.06	320	Pass
113	6515	24.67	24.60	320	Pass
117	6535	24.90	25.14	320	Pass
149	6695	25.68	25.17	320	Pass
181	6855	25.02	25.17	320	Pass
185	6875	24.73	24.80	320	Pass
209	6995	25.11	25.56	320	Pass
233	7115	26.36	25.86	320	Pass

802.11ax (HE40) Full RU

Channel	Frequency (MHz)	26dB Bandwidth (MHz)		Maximum Limit (MHz)	Test Result
		Chain 0	Chain 1		
3	5965	45.09	44.55	320	Pass
43	6165	45.16	45.59	320	Pass
91	6405	45.30	45.00	320	Pass
99	6445	45.28	45.21	320	Pass
107	6485	45.69	45.75	320	Pass
115	6525	45.90	45.34	320	Pass
123	6565	45.39	45.53	320	Pass
155	6725	45.41	45.62	320	Pass
179	6845	45.42	45.67	320	Pass
187	6885	46.29	46.29	320	Pass
211	7005	46.30	45.57	320	Pass
227	7085	45.56	45.75	320	Pass

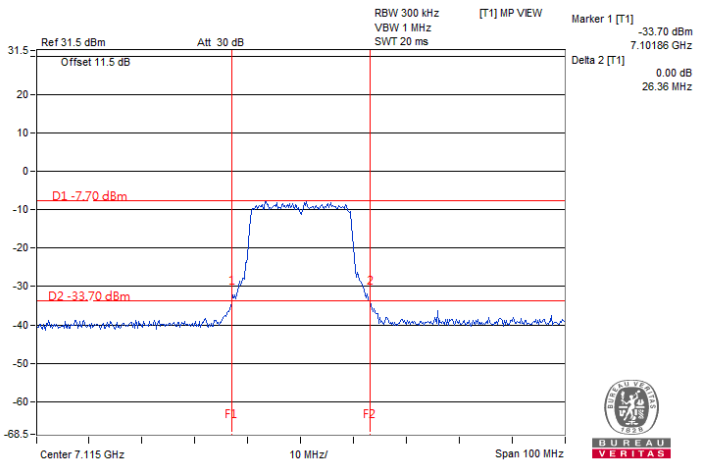
802.11ax (HE80) Full RU

Channel	Frequency (MHz)	26dB Bandwidth (MHz)		Maximum Limit (MHz)	Test Result
		Chain 0	Chain 1		
7	5985	83.96	83.13	320	Pass
39	6145	82.91	85.44	320	Pass
87	6385	84.59	84.43	320	Pass
103	6465	82.92	84.00	320	Pass
119	6545	83.75	84.68	320	Pass
151	6705	84.17	84.30	320	Pass
183	6865	84.57	84.06	320	Pass
199	6945	85.51	85.24	320	Pass
215	7025	84.56	84.30	320	Pass

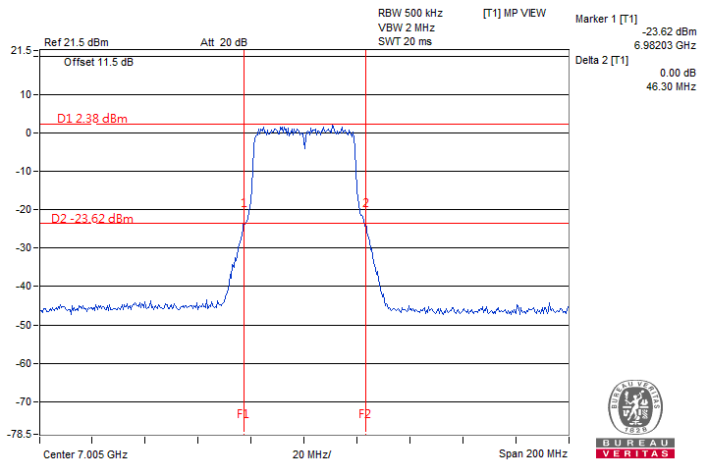
802.11ax (HE160) Full RU

Channel	Frequency (MHz)	26dB Bandwidth (MHz)		Maximum Limit (MHz)	Test Result
		Chain 0	Chain 1		
15	6025	164.64	164.89	320	Pass
47	6185	165.81	166.59	320	Pass
79	6345	163.87	164.95	320	Pass
111	6505	165.55	165.10	320	Pass
143	6665	165.33	166.66	320	Pass
175	6825	165.75	165.86	320	Pass
207	6985	165.17	165.54	320	Pass

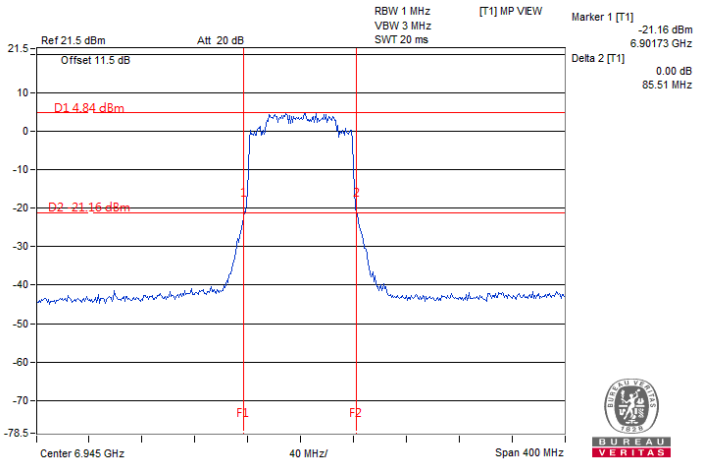
Spectrum Plot of Maximum Value



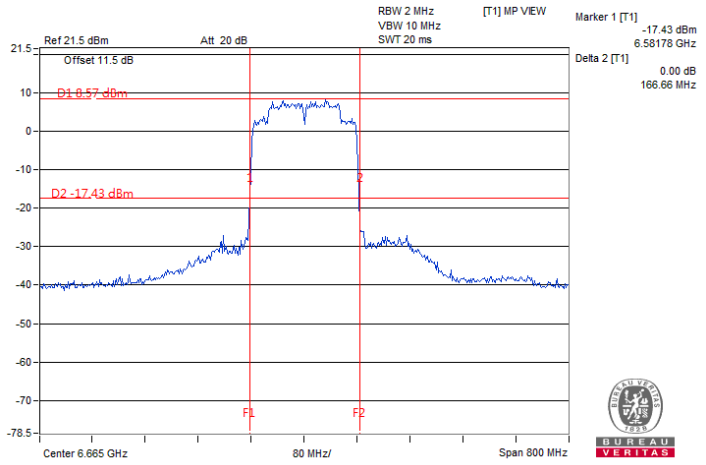
802.11ax (HE20) Full RU / Chain 0 : CH 233



802.11ax (HE40) Full RU / Chain 0 : CH 211



802.11ax (HE80) Full RU / Chain 0 : CH 199

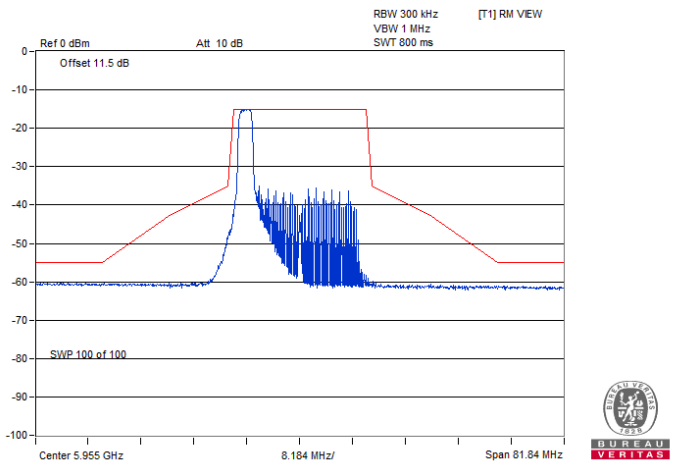
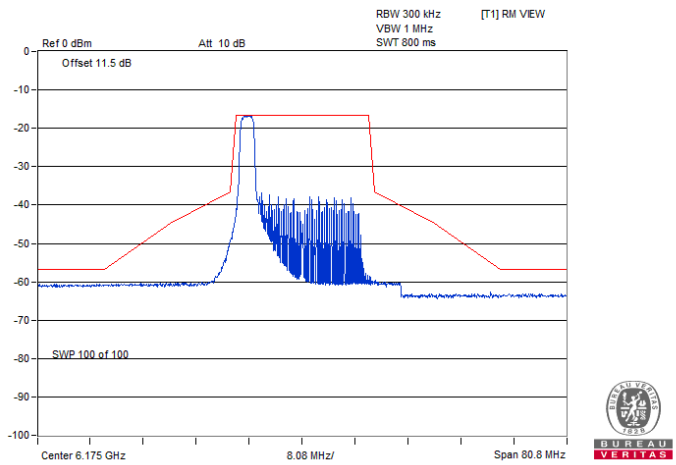
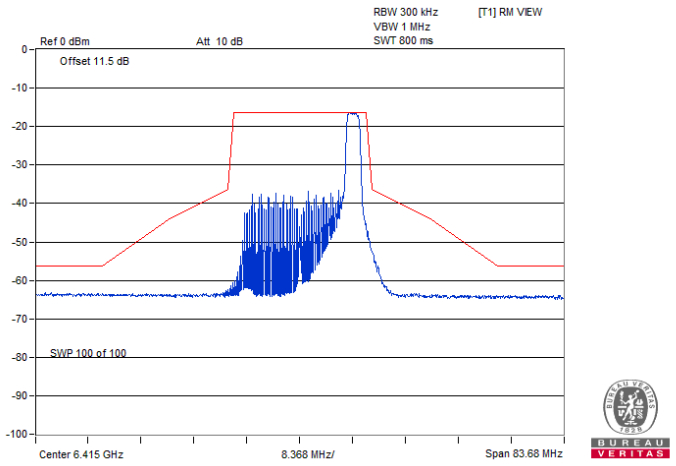
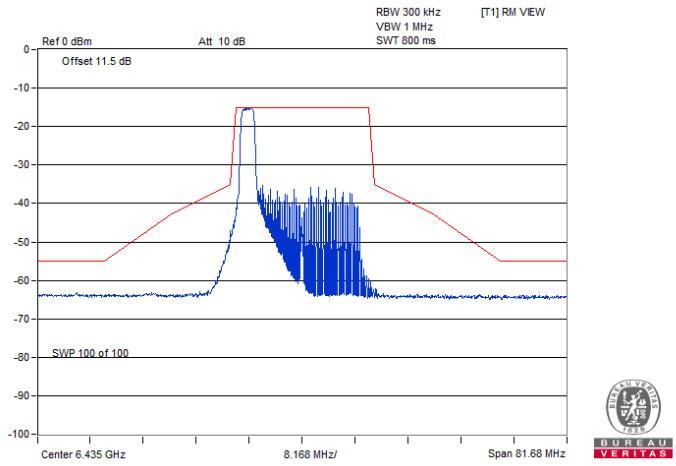
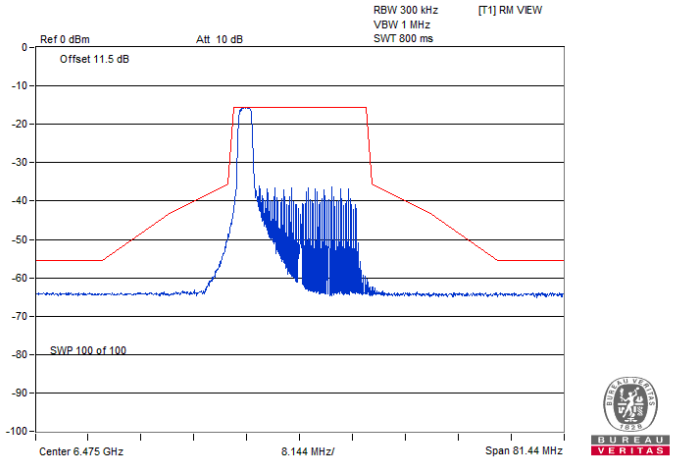
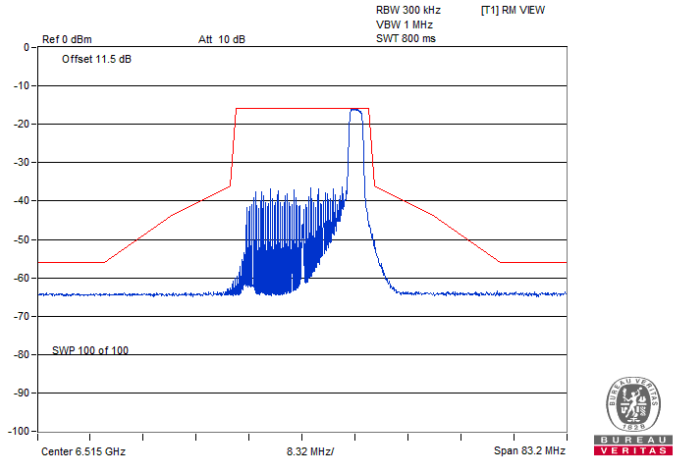


802.11ax (HE160) Full RU / Chain 1 : CH 143

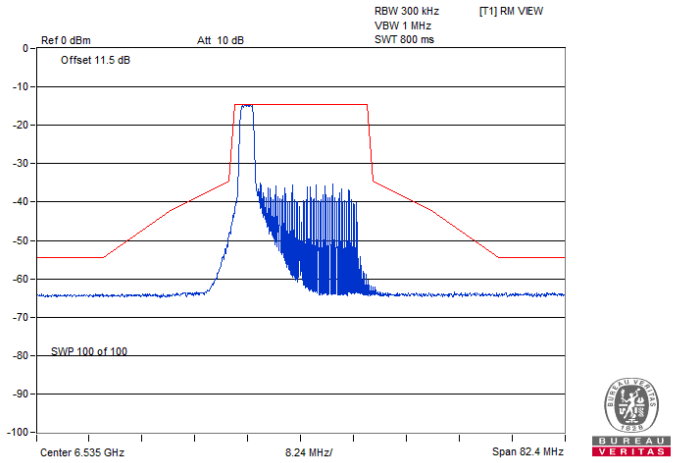
7.4 In-Band Emission Mask

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Wayne Lin / Vincent Chen

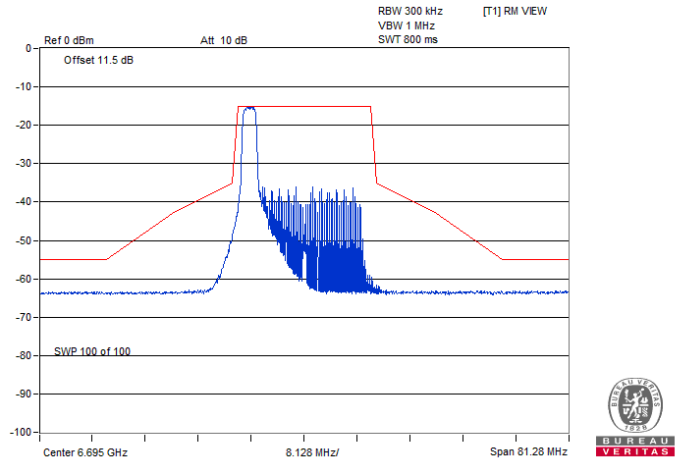
802.11ax (HE20) 26-tone RU

Spectrum Plot	
	
802.11ax (HE20) 26-tone RU / Chain 0 : CH 1@0	802.11ax (HE20) 26-tone RU / Chain 0 : CH 45@0
	
802.11ax (HE20) 26-tone RU / Chain 0 : CH 93@8	802.11ax (HE20) 26-tone RU / Chain 0 : CH 97@0
	
802.11ax (HE20) 26-tone RU / Chain 0 : CH 105@0	802.11ax (HE20) 26-tone RU / Chain 0 : CH 113@8

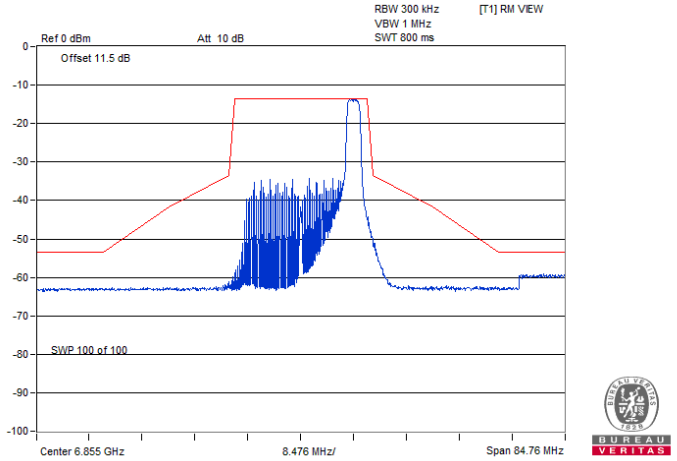
Spectrum Plot



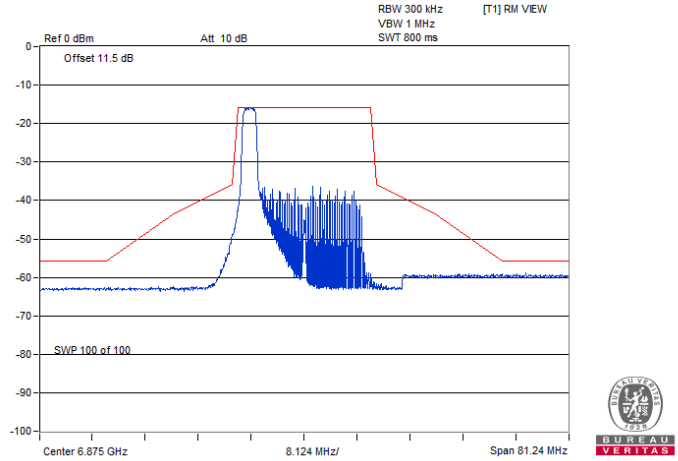
802.11ax (HE20) 26-tone RU / Chain 0 : CH 117@0



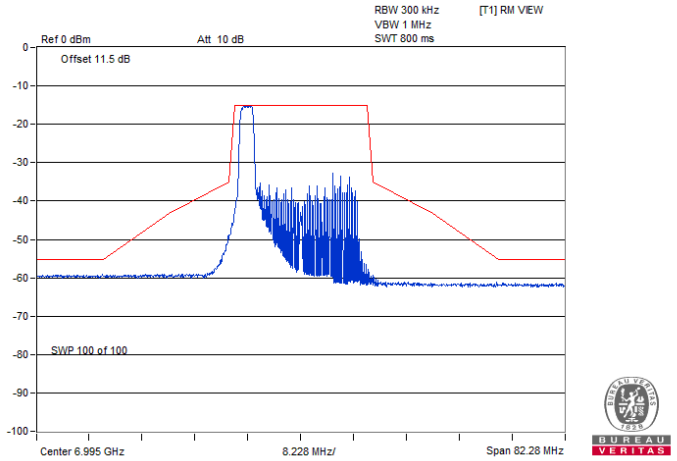
802.11ax (HE20) 26-tone RU / Chain 0 : CH 149@0



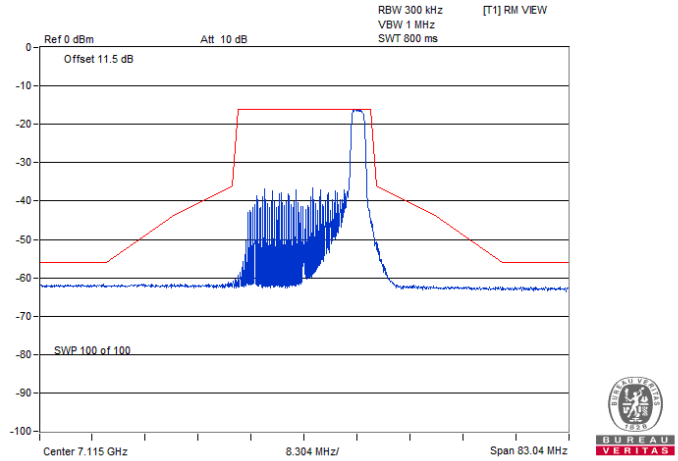
802.11ax (HE20) 26-tone RU / Chain 0 : CH 181@8



802.11ax (HE20) 26-tone RU / Chain 0 : CH 185@0

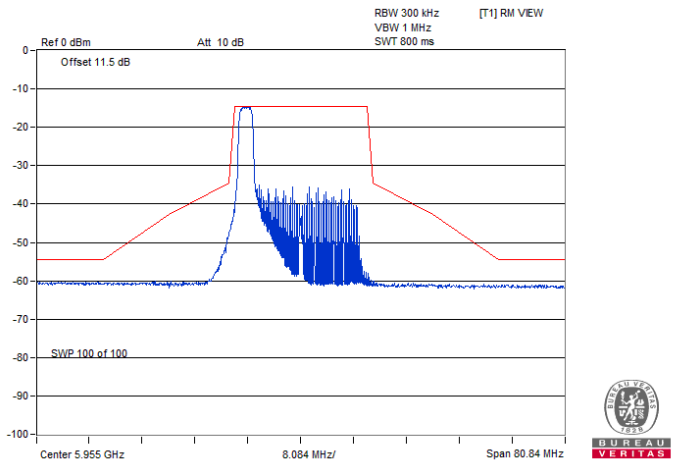


802.11ax (HE20) 26-tone RU / Chain 0 : CH 209@0

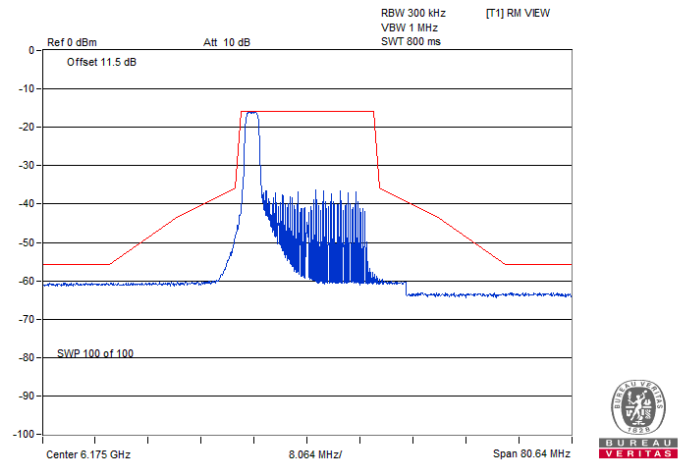


802.11ax (HE20) 26-tone RU / Chain 0 : CH 233@8

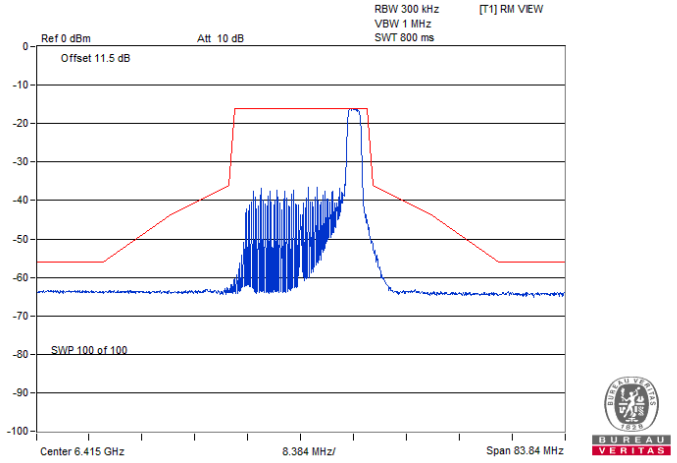
Spectrum Plot



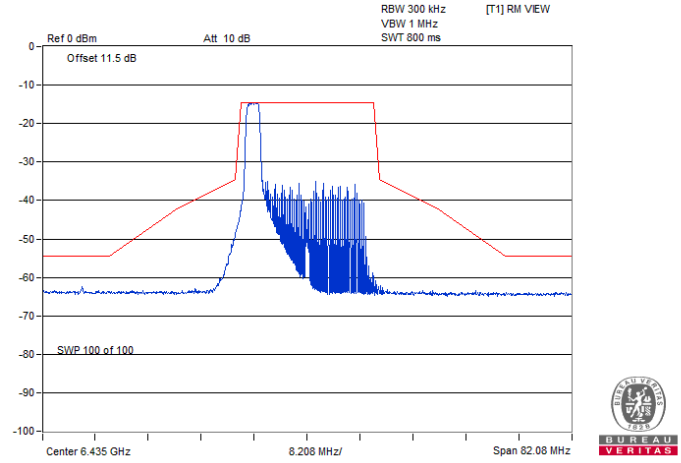
802.11ax (HE20) 26-tone RU / Chain 1 : CH 1@0



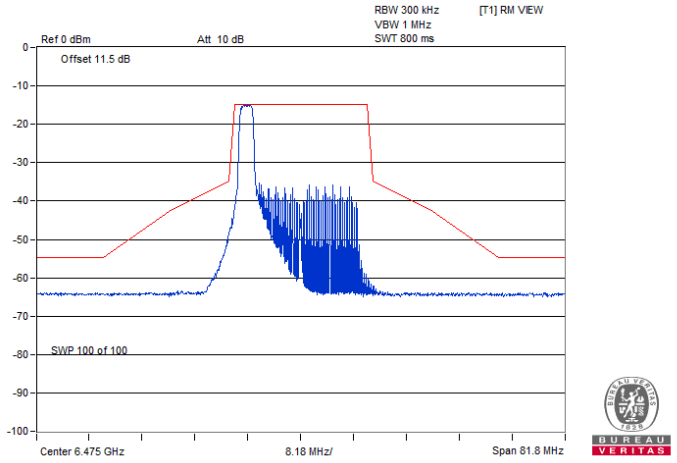
802.11ax (HE20) 26-tone RU / Chain 1 : CH 45@0



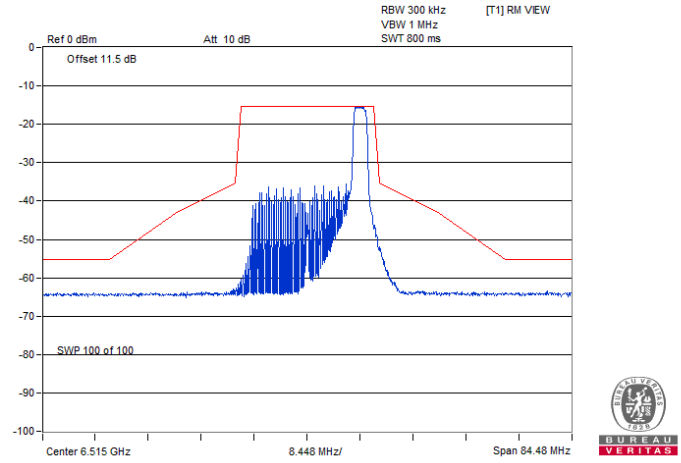
802.11ax (HE20) 26-tone RU / Chain 1 : CH 93@8



802.11ax (HE20) 26-tone RU / Chain 1 : CH 97@0

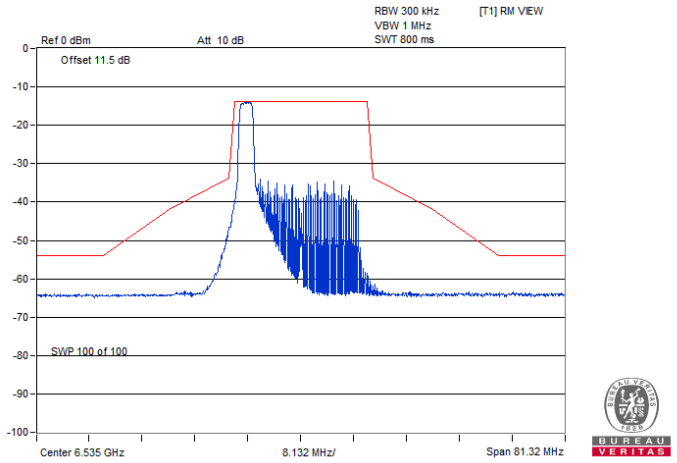


802.11ax (HE20) 26-tone RU / Chain 1 : CH 105@0

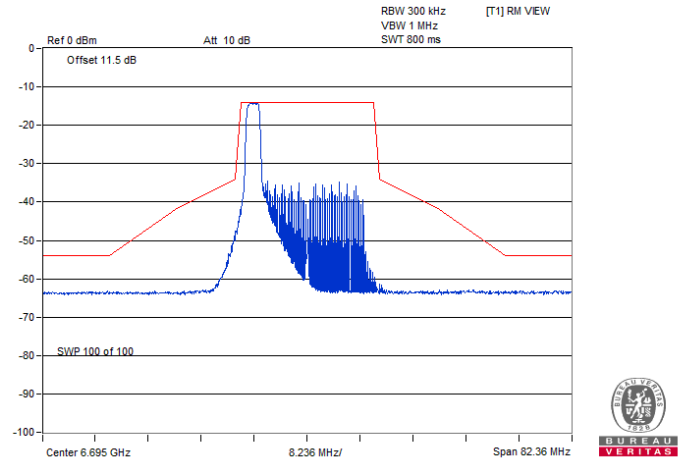


802.11ax (HE20) 26-tone RU / Chain 1 : CH 113@8

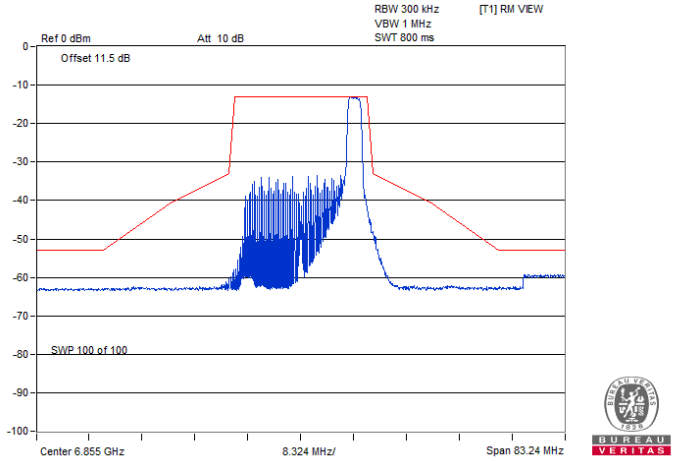
Spectrum Plot



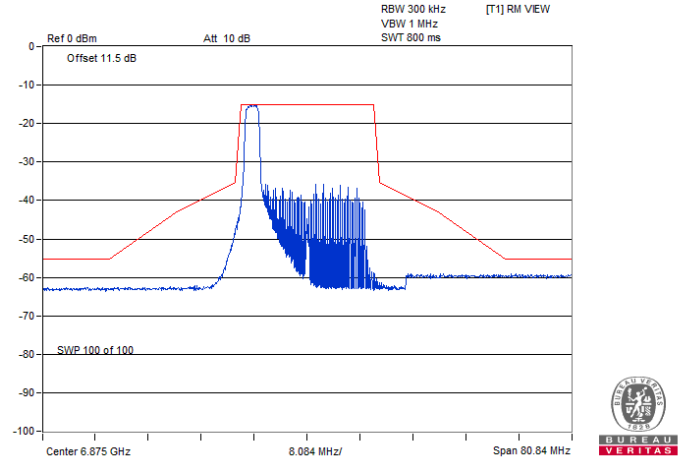
802.11ax (HE20) 26-tone RU / Chain 1 : CH 117@0



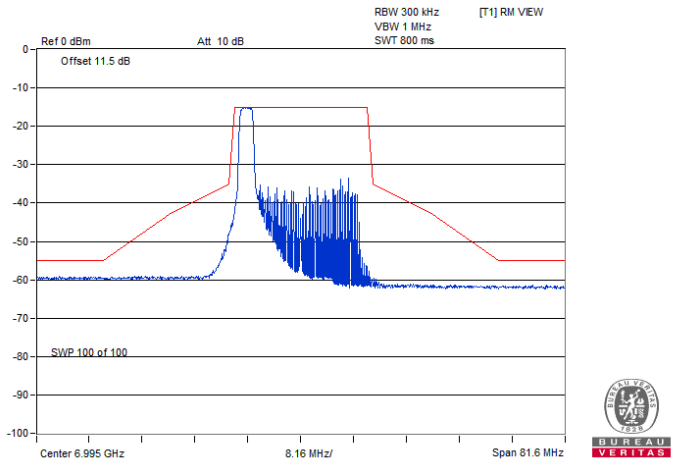
802.11ax (HE20) 26-tone RU / Chain 1 : CH 149@0



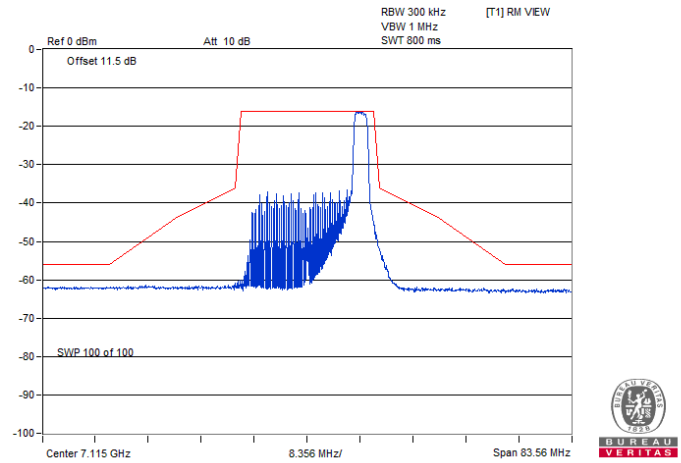
802.11ax (HE20) 26-tone RU / Chain 1 : CH 181@8



802.11ax (HE20) 26-tone RU / Chain 1 : CH 185@0

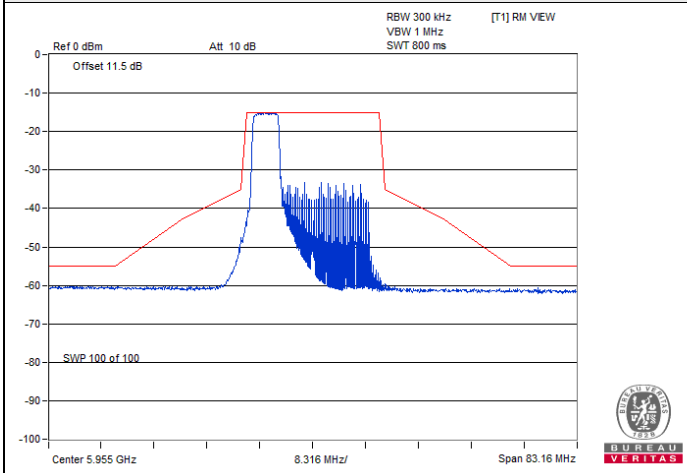
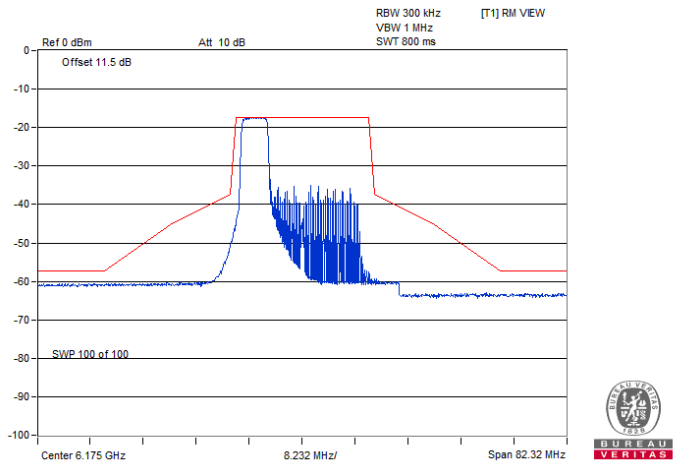
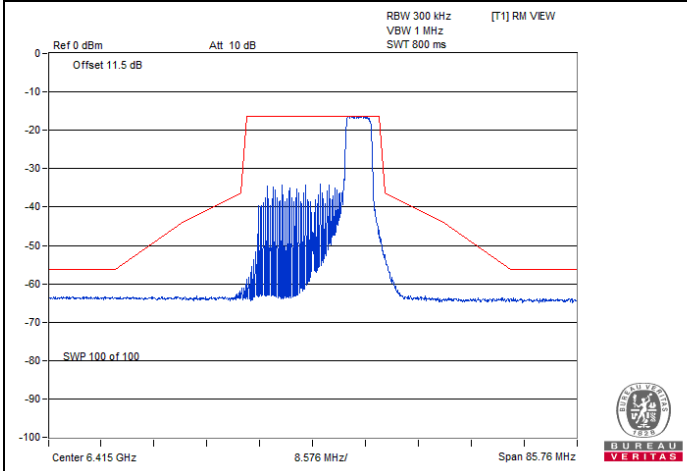
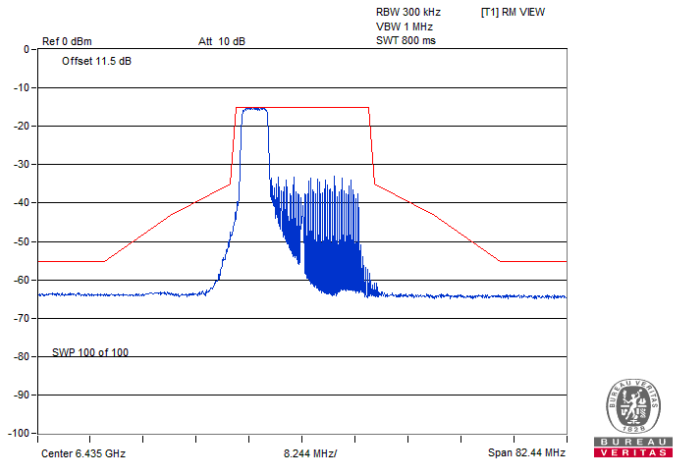
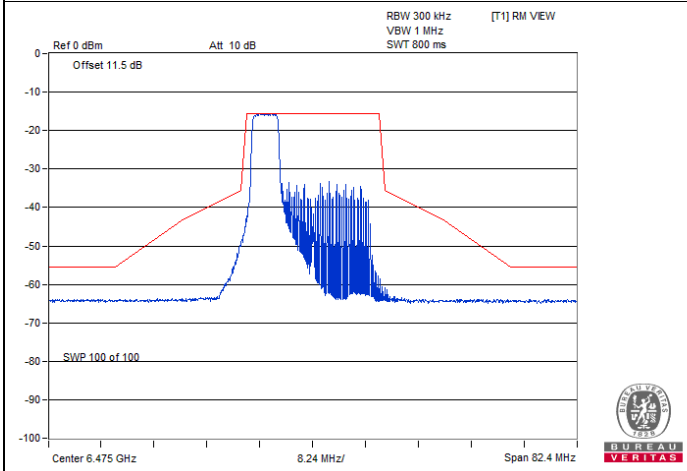
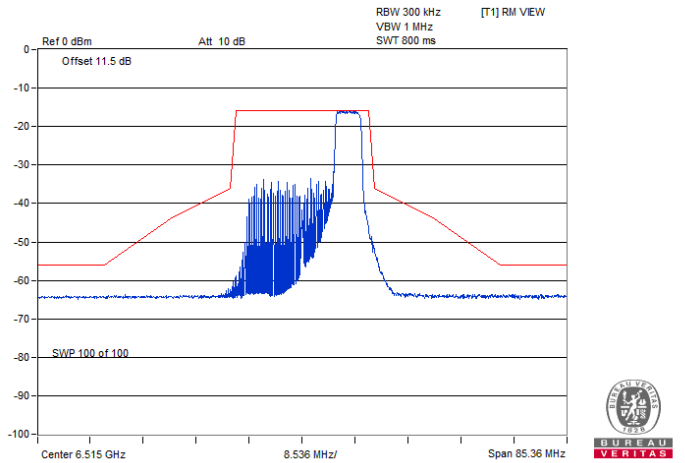


802.11ax (HE20) 26-tone RU / Chain 1 : CH 209@0

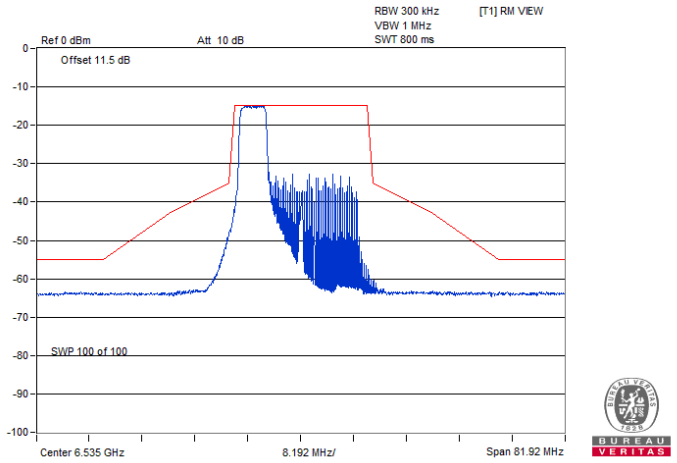


802.11ax (HE20) 26-tone RU / Chain 1 : CH 233@8

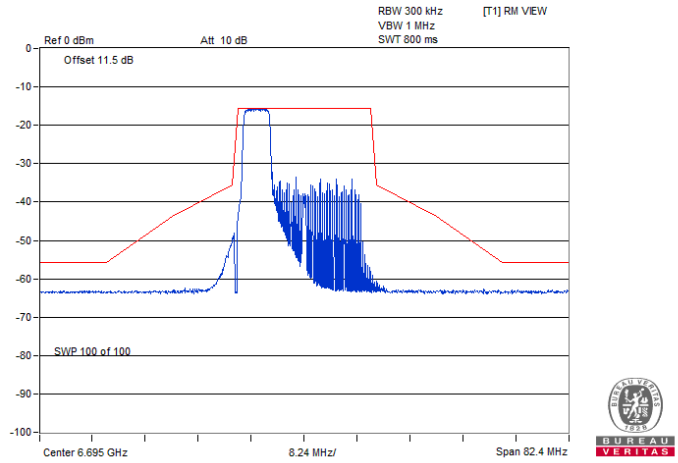
802.11ax (HE20) 52-tone RU

Spectrum Plot	
	
802.11ax (HE20) 52-tone RU / Chain 0 : CH 1@37	802.11ax (HE20) 52-tone RU / Chain 0 : CH 45@37
	
802.11ax (HE20) 52-tone RU / Chain 0 : CH 93@40	802.11ax (HE20) 52-tone RU / Chain 0 : CH 97@37
	
802.11ax (HE20) 52-tone RU / Chain 0 : CH 105@37	802.11ax (HE20) 52-tone RU / Chain 0 : CH 113@40

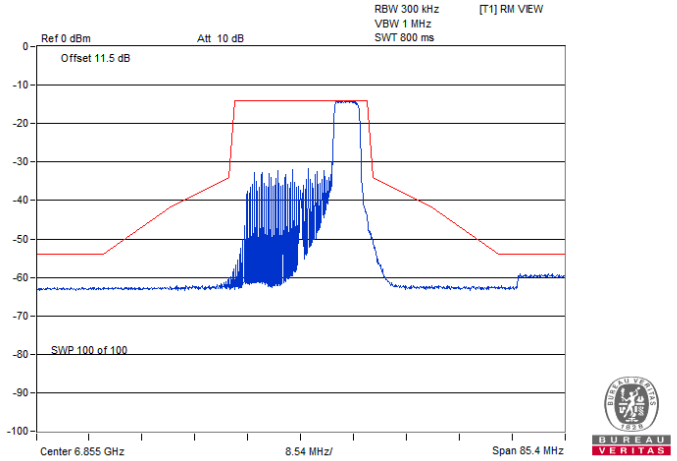
Spectrum Plot



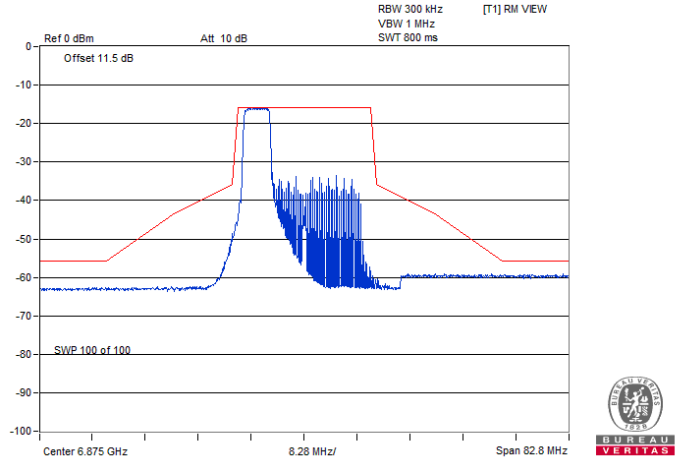
802.11ax (HE20) 52-tone RU / Chain 0 : CH 117@37



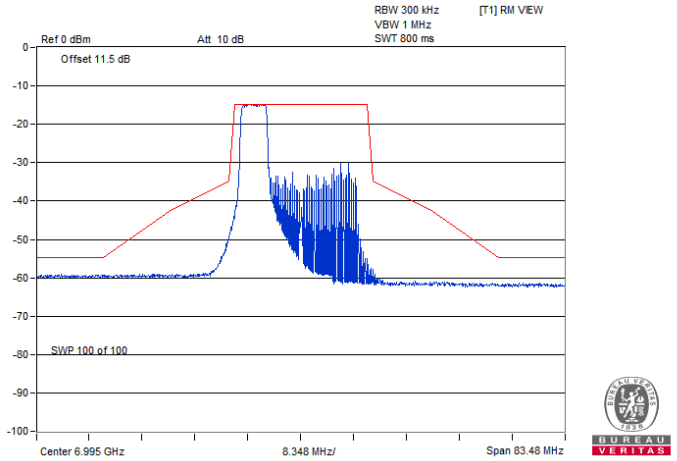
802.11ax (HE20) 52-tone RU / Chain 0 : CH 149@37



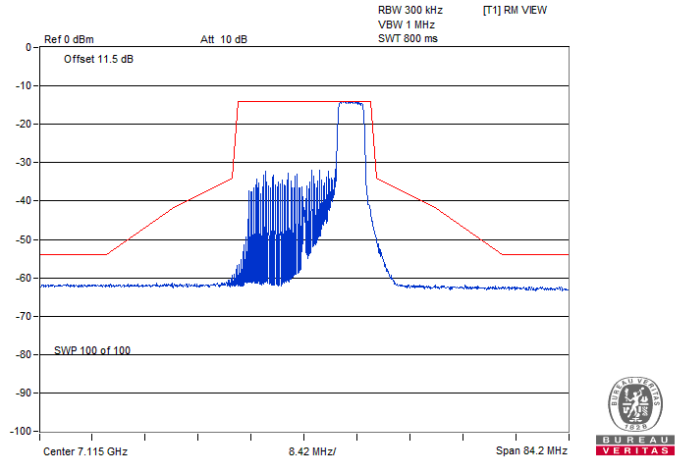
802.11ax (HE20) 52-tone RU / Chain 0 : CH 181@40



802.11ax (HE20) 52-tone RU / Chain 0 : CH 185@37

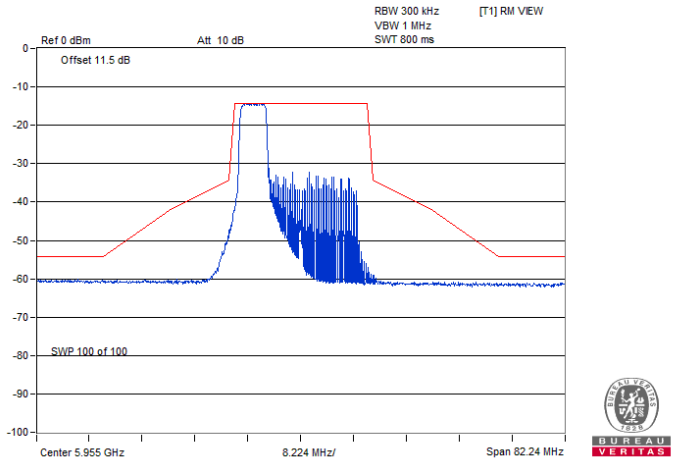


802.11ax (HE20) 52-tone RU / Chain 0 : CH 209@37

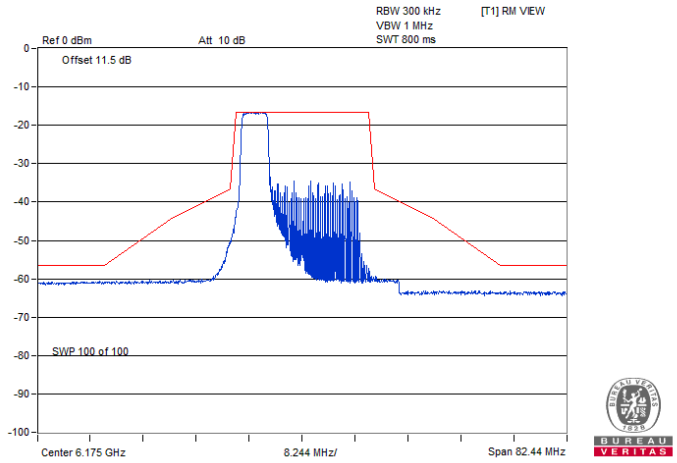


802.11ax (HE20) 52-tone RU / Chain 0 : CH 233@40

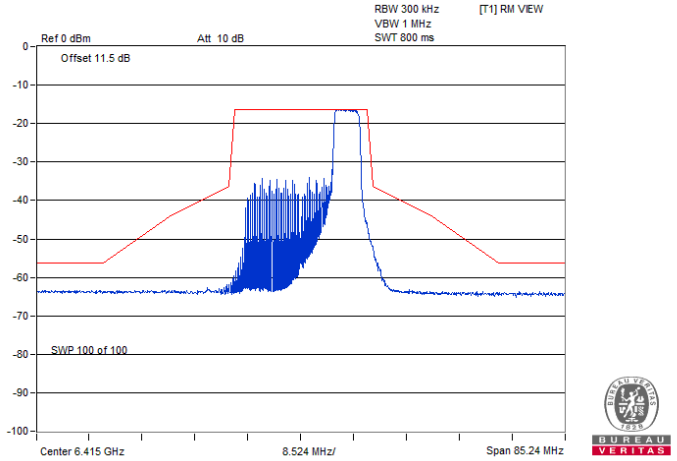
Spectrum Plot



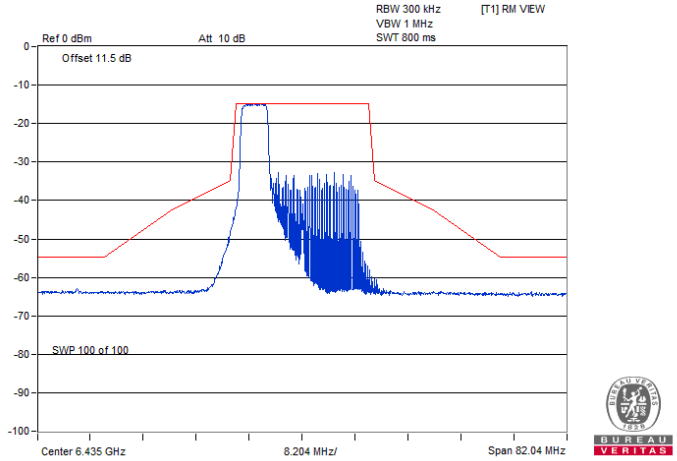
802.11ax (HE20) 52-tone RU / Chain 1 : CH 1@37



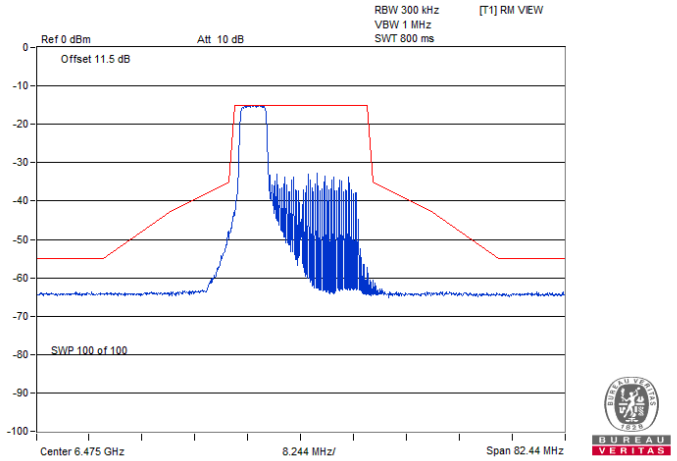
802.11ax (HE20) 52-tone RU / Chain 1 : CH 45@37



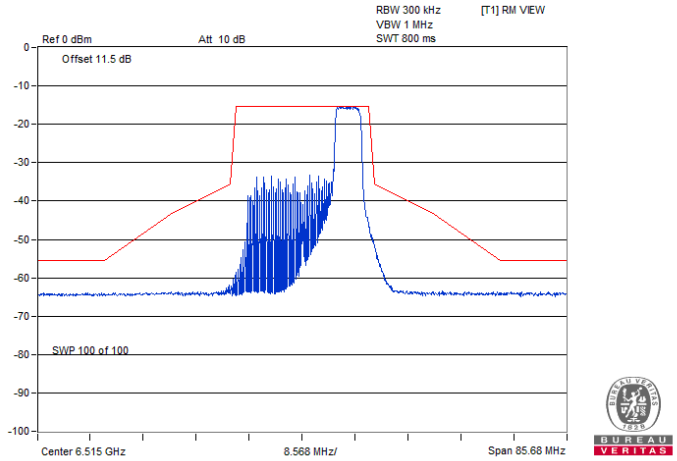
802.11ax (HE20) 52-tone RU / Chain 1 : CH 93@40



802.11ax (HE20) 52-tone RU / Chain 1 : CH 97@37

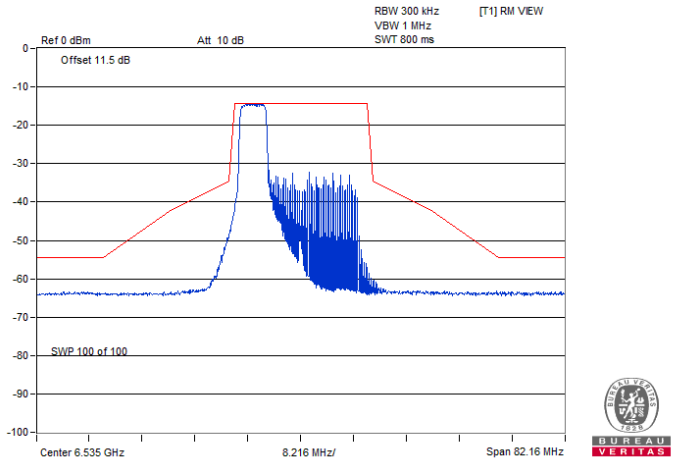


802.11ax (HE20) 52-tone RU / Chain 1 : CH 105@37

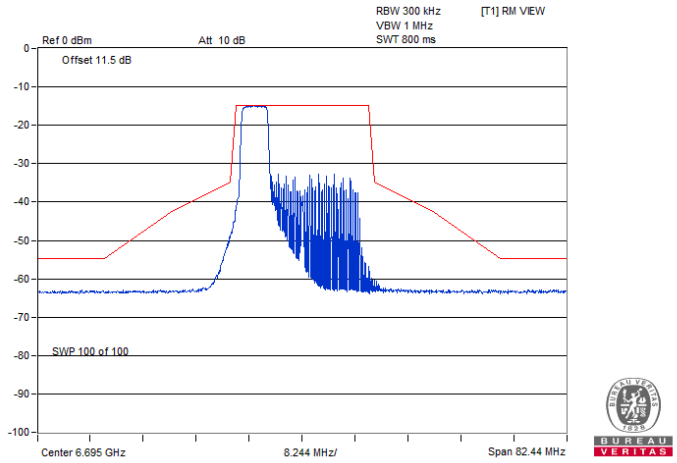


802.11ax (HE20) 52-tone RU / Chain 1 : CH 113@40

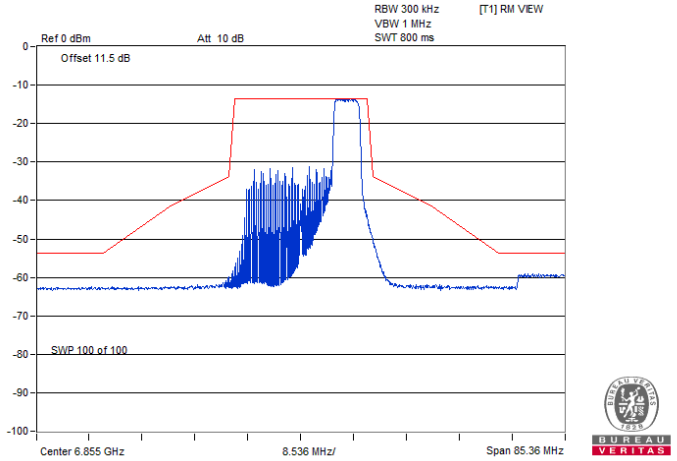
Spectrum Plot



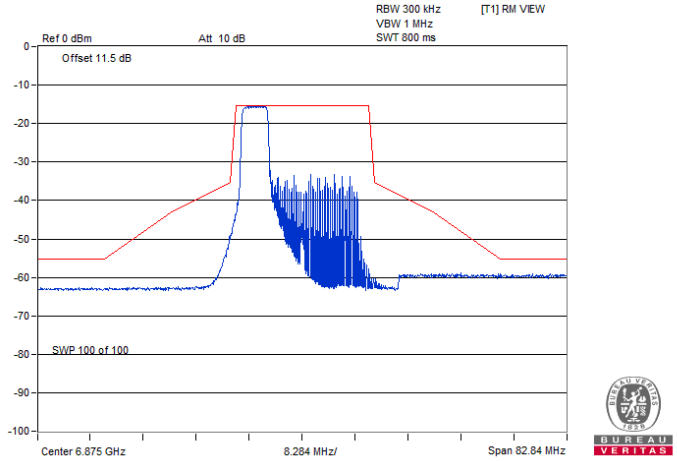
802.11ax (HE20) 52-tone RU / Chain 1 : CH 117@37



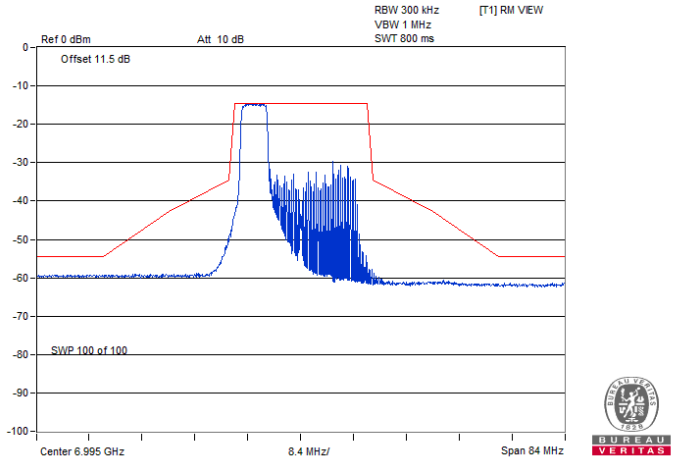
802.11ax (HE20) 52-tone RU / Chain 1 : CH 149@37



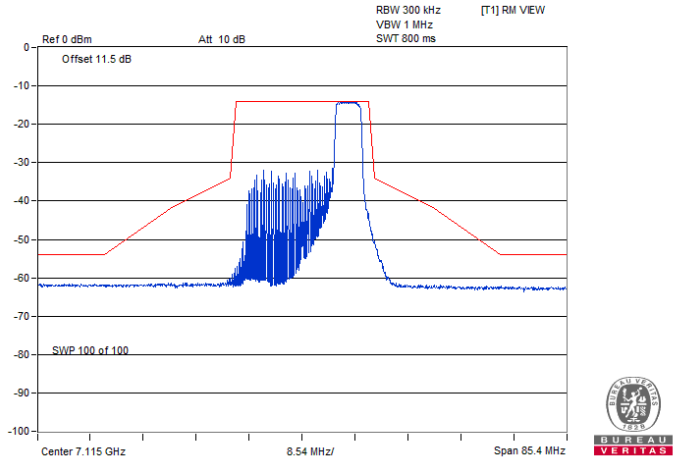
802.11ax (HE20) 52-tone RU / Chain 1 : CH 181@40



802.11ax (HE20) 52-tone RU / Chain 1 : CH 185@37

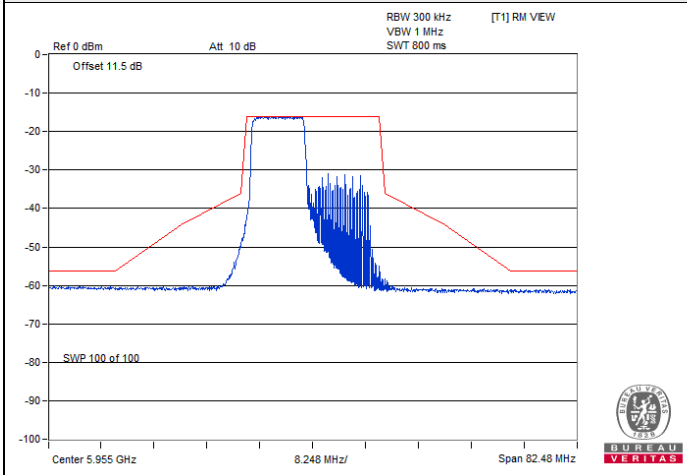
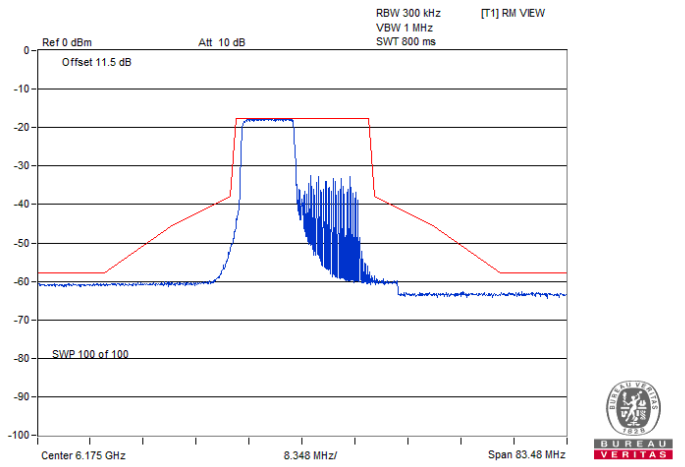
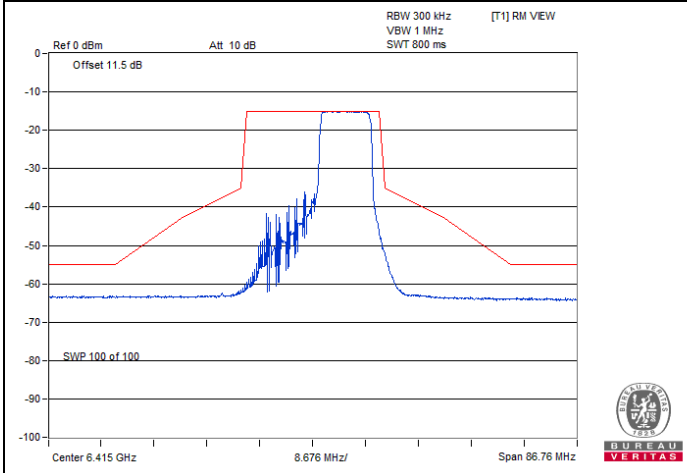
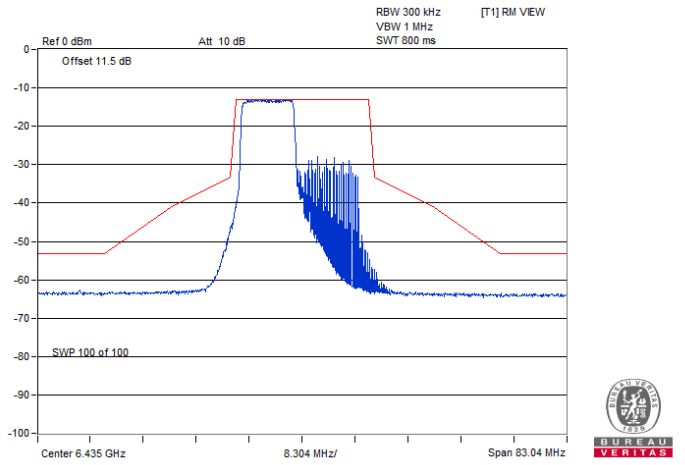
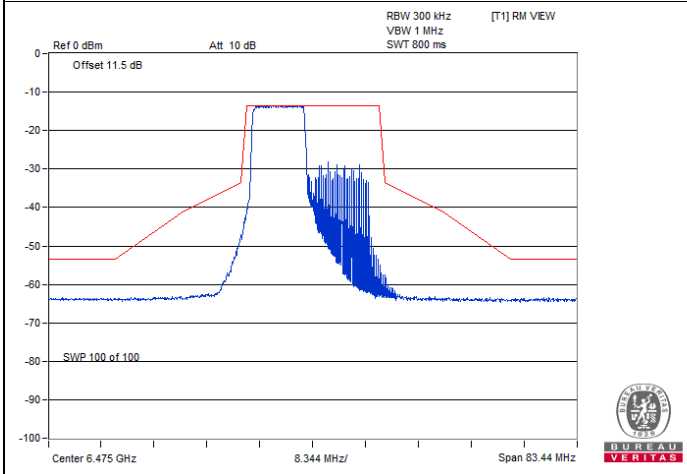
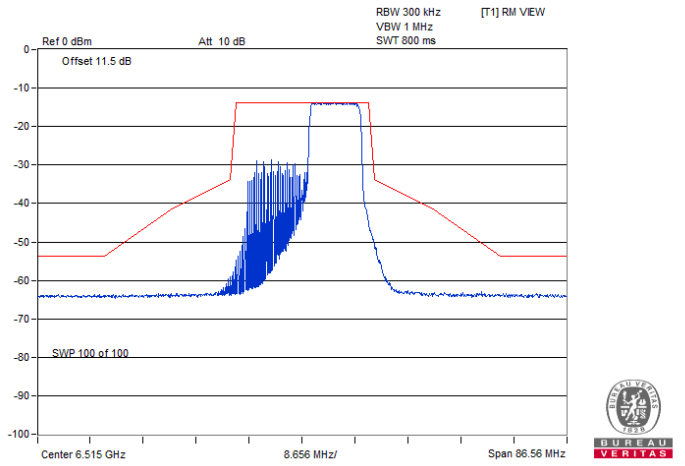


802.11ax (HE20) 52-tone RU / Chain 1 : CH 209@37

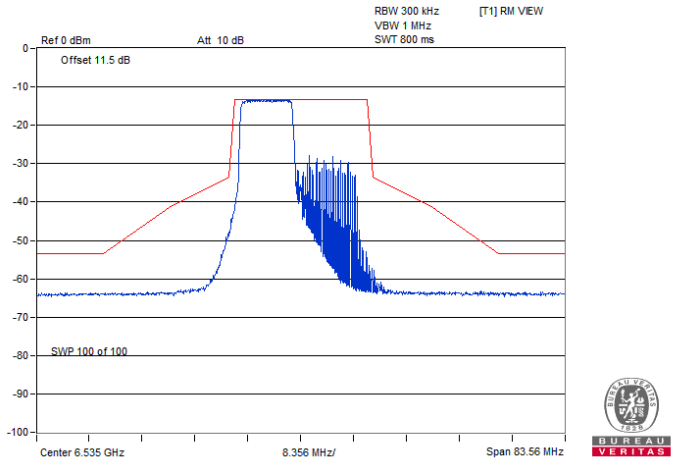


802.11ax (HE20) 52-tone RU / Chain 1 : CH 233@40

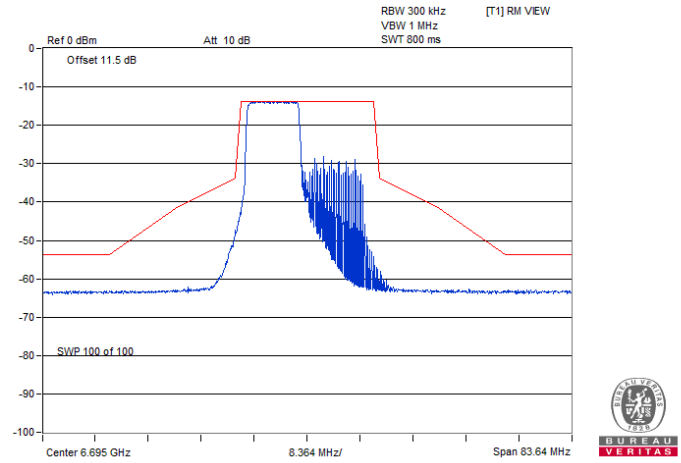
802.11ax (HE20) 106-tone RU

Spectrum Plot	
	
802.11ax (HE20) 106-tone RU / Chain 0 : CH 1@53	802.11ax (HE20) 106-tone RU / Chain 0 : CH 45@53
	
802.11ax (HE20) 106-tone RU / Chain 0 : CH 93@54	802.11ax (HE20) 106-tone RU / Chain 0 : CH 97@53
	
802.11ax (HE20) 106-tone RU / Chain 0 : CH 105@53	802.11ax (HE20) 106-tone RU / Chain 0 : CH 113@54

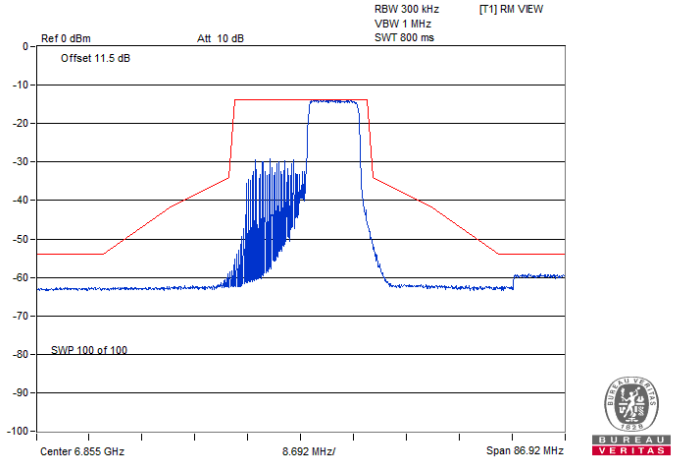
Spectrum Plot



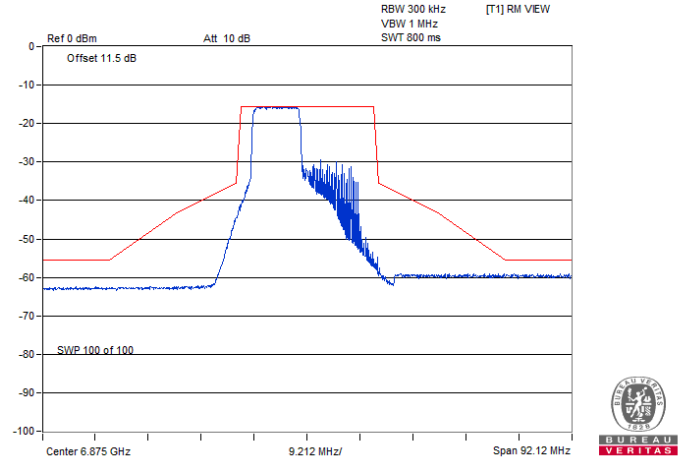
802.11ax (HE20) 106-tone RU / Chain 0 : CH 117@53



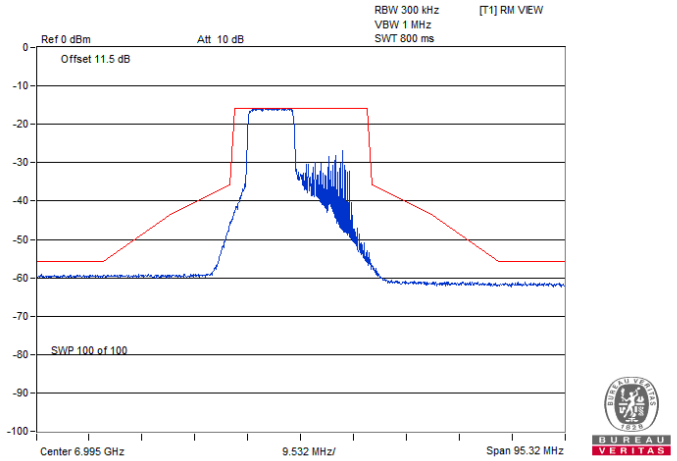
802.11ax (HE20) 106-tone RU / Chain 0 : CH 149@53



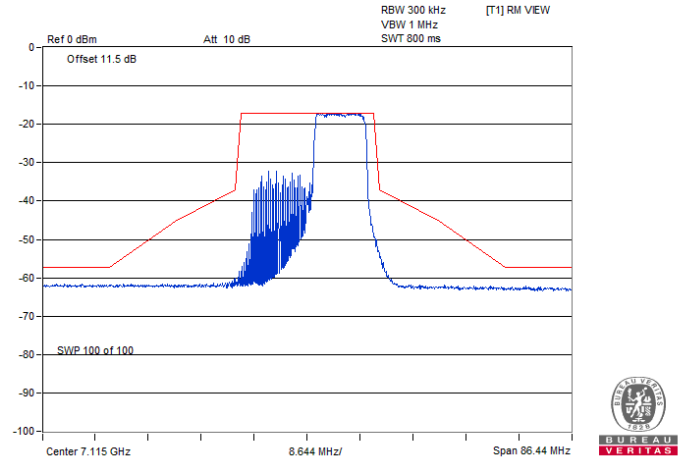
802.11ax (HE20) 106-tone RU / Chain 0 : CH 181@54



802.11ax (HE20) 106-tone RU / Chain 0 : CH 185@53

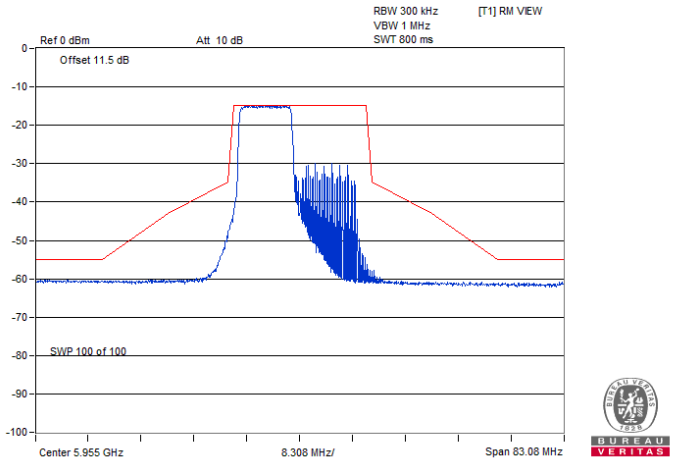


802.11ax (HE20) 106-tone RU / Chain 0 : CH 209@53

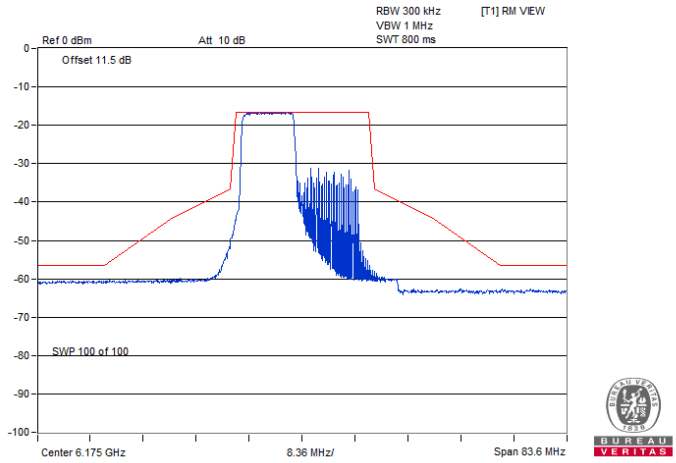


802.11ax (HE20) 106-tone RU / Chain 0 : CH 233@54

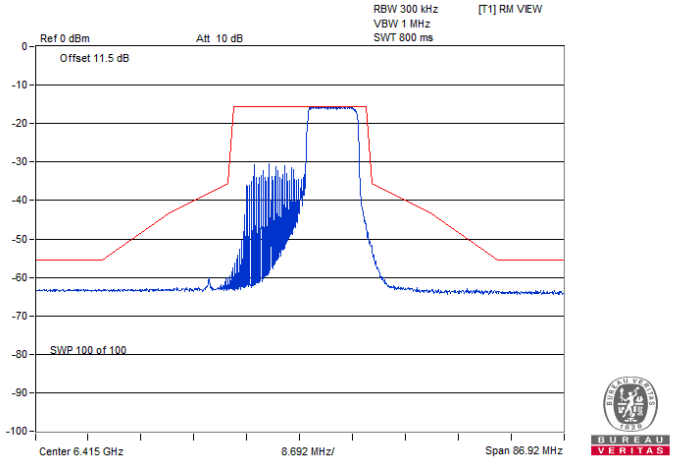
Spectrum Plot



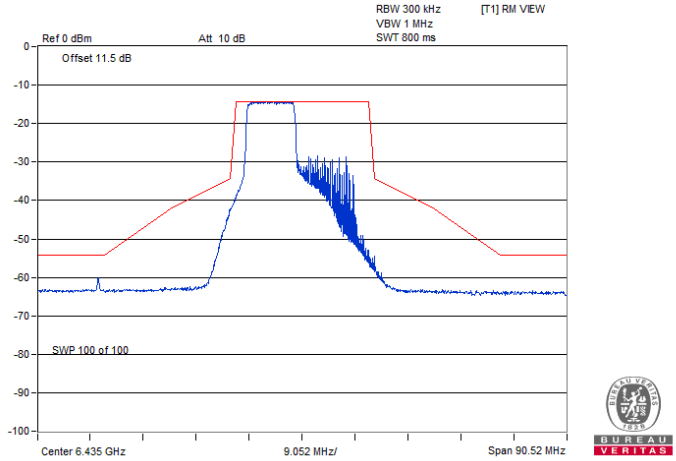
802.11ax (HE20) 106-tone RU / Chain 1 : CH 1@53



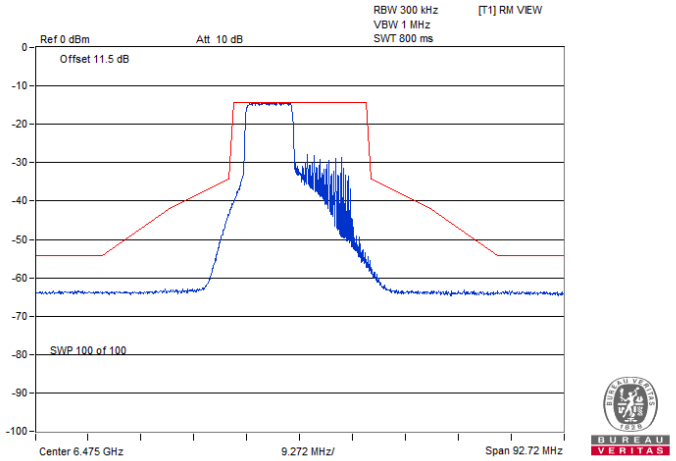
802.11ax (HE20) 106-tone RU / Chain 1 : CH 45@53



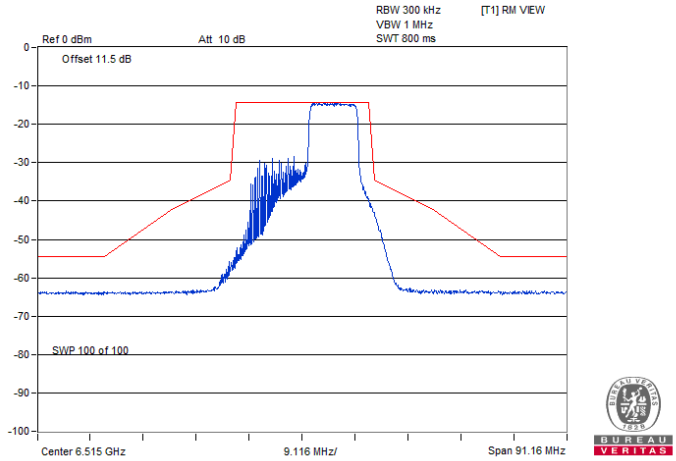
802.11ax (HE20) 106-tone RU / Chain 1 : CH 93@54



802.11ax (HE20) 106-tone RU / Chain 1 : CH 97@53

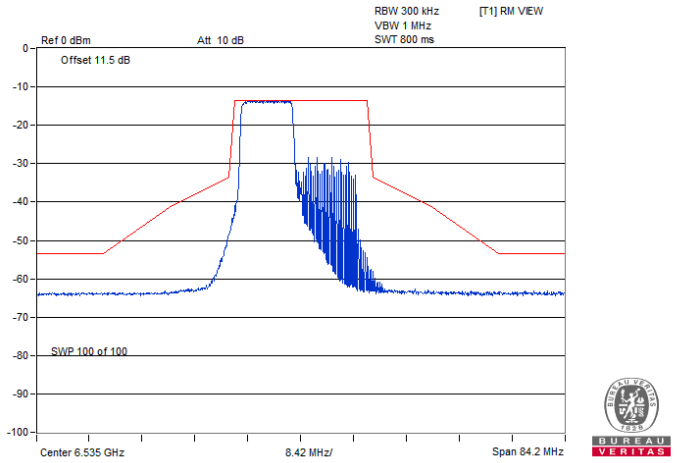


802.11ax (HE20) 106-tone RU / Chain 1 : CH 105@53

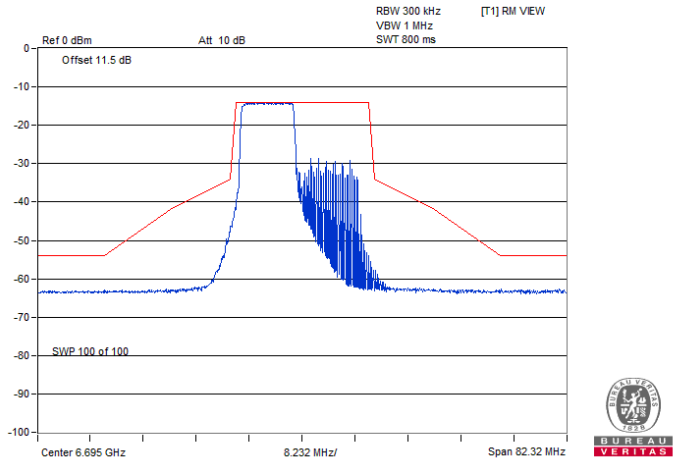


802.11ax (HE20) 106-tone RU / Chain 1 : CH 113@54

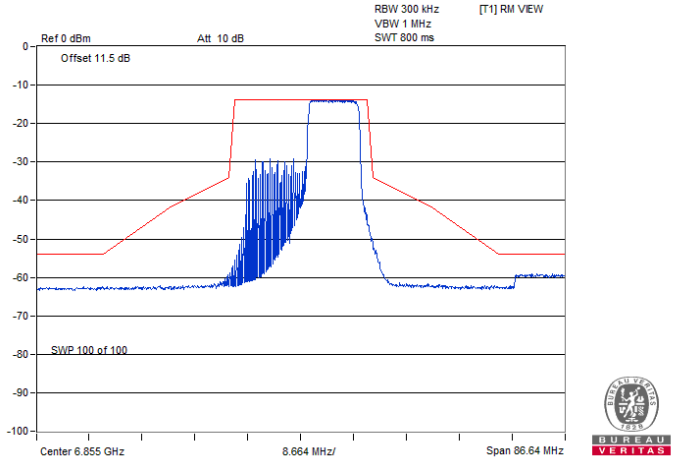
Spectrum Plot



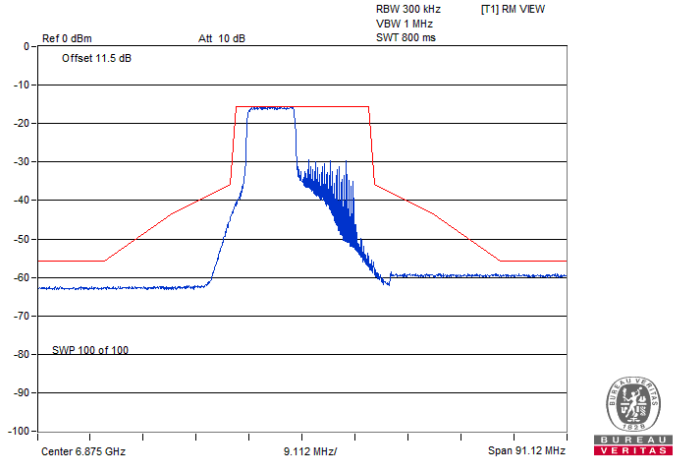
802.11ax (HE20) 106-tone RU / Chain 1 : CH 117@53



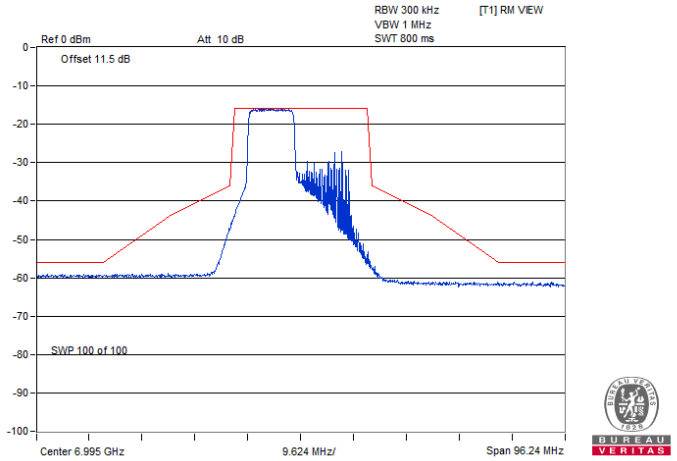
802.11ax (HE20) 106-tone RU / Chain 1 : CH 149@53



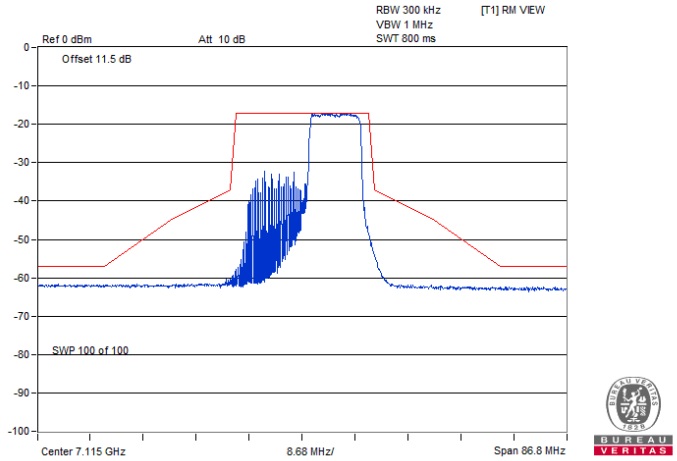
802.11ax (HE20) 106-tone RU / Chain 1 : CH 181@54



802.11ax (HE20) 106-tone RU / Chain 1 : CH 185@53

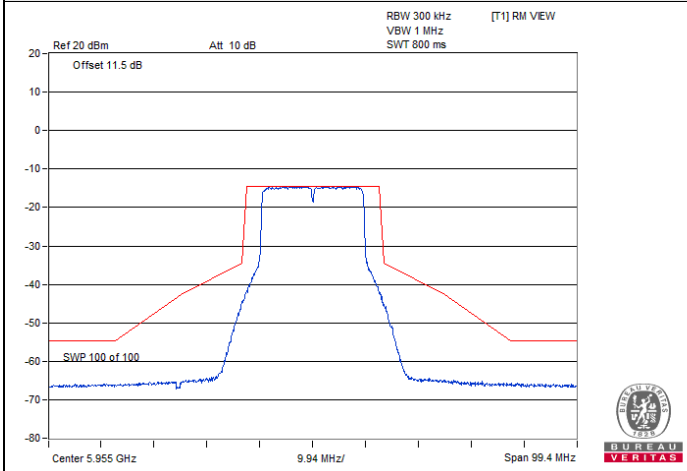
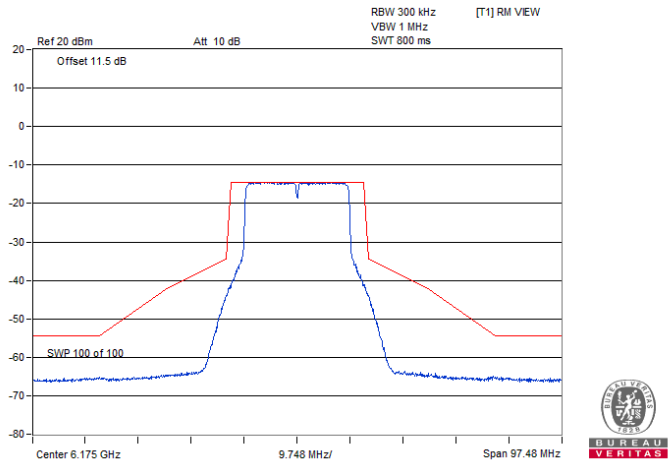
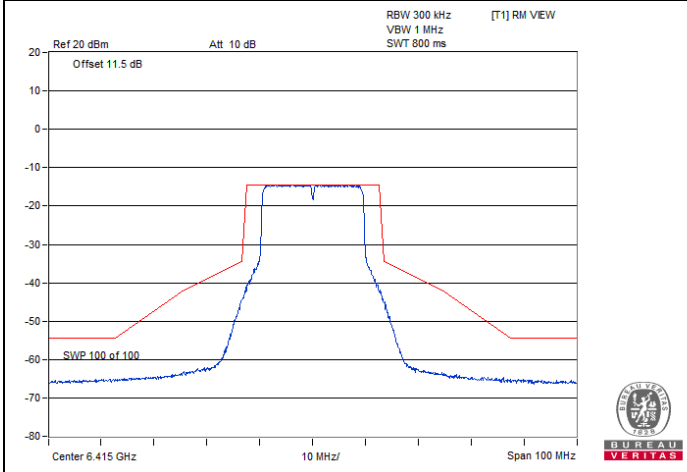
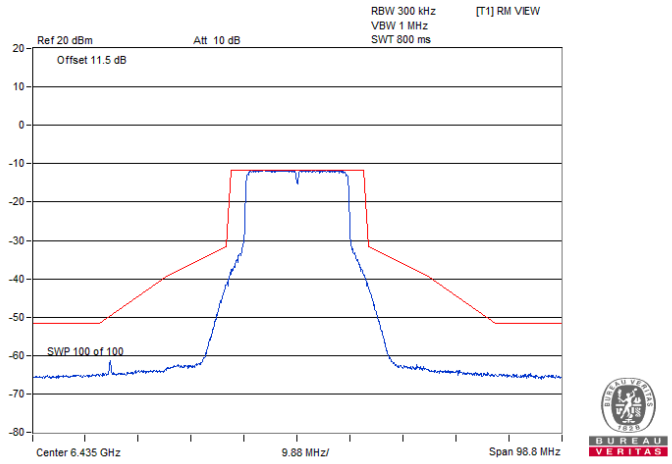
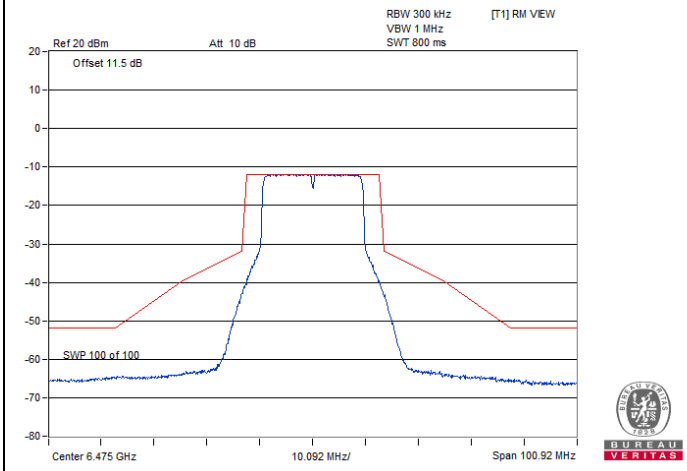
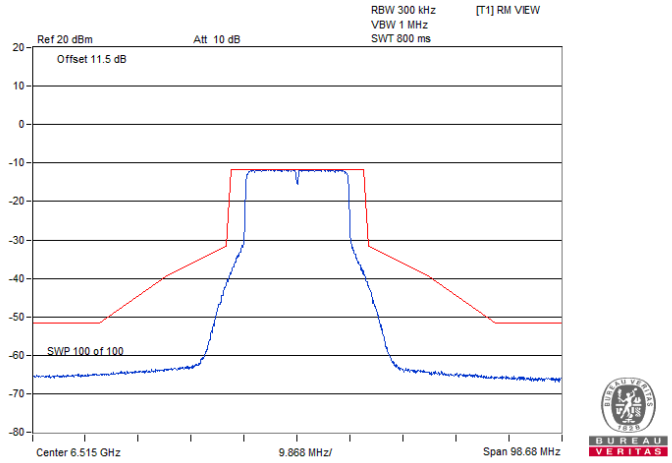


802.11ax (HE20) 106-tone RU / Chain 1 : CH 209@53

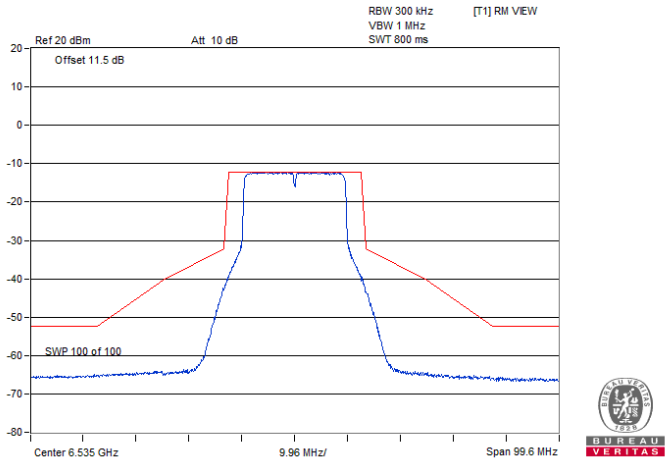


802.11ax (HE20) 106-tone RU / Chain 1 : CH 233@54

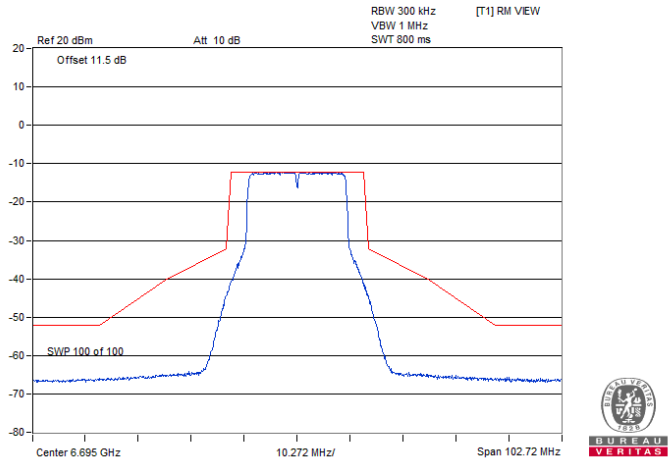
802.11ax (HE20) Full RU

Spectrum Plot	
	
802.11ax (HE20) Full RU / Chain 0 : CH 1	802.11ax (HE20) Full RU / Chain 0 : CH 45
	
802.11ax (HE20) Full RU / Chain 0 : CH 93	802.11ax (HE20) Full RU / Chain 0 : CH 97
	
802.11ax (HE20) Full RU / Chain 0 : CH 105	802.11ax (HE20) Full RU / Chain 0 : CH 113

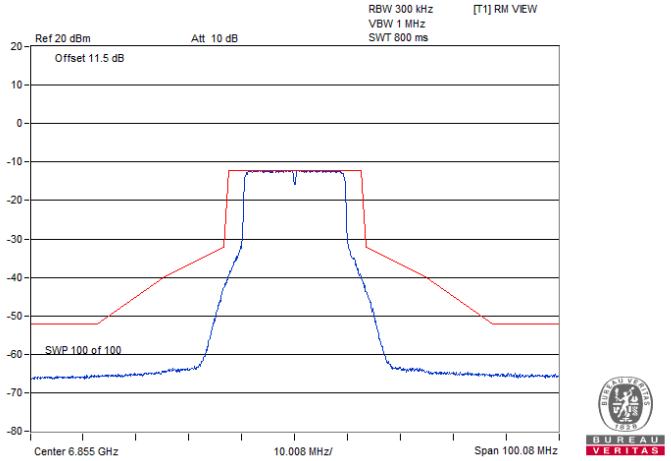
Spectrum Plot



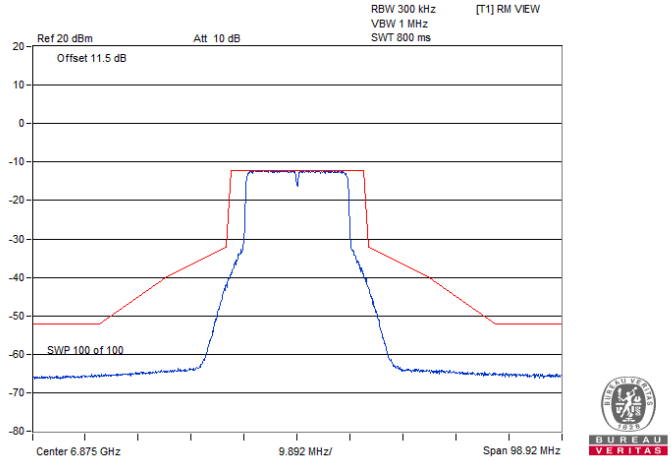
802.11ax (HE20) Full RU / Chain 0 : CH 117



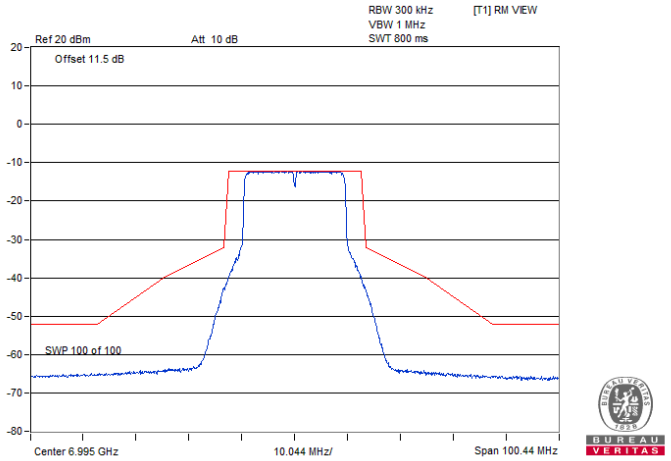
802.11ax (HE20) Full RU / Chain 0 : CH 149



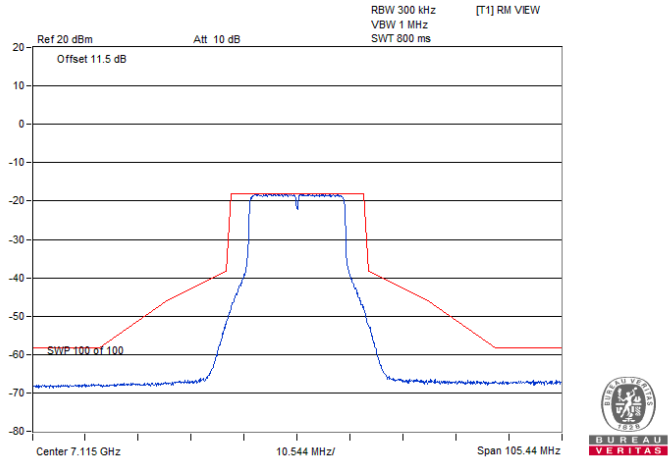
802.11ax (HE20) Full RU / Chain 0 : CH 181



802.11ax (HE20) Full RU / Chain 0 : CH 185

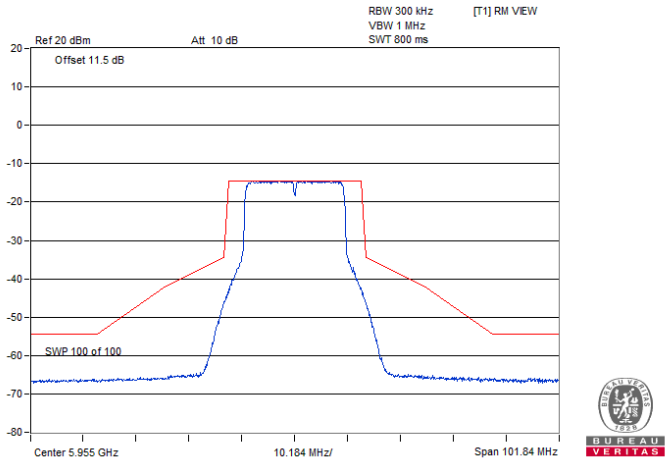


802.11ax (HE20) Full RU / Chain 0 : CH 209

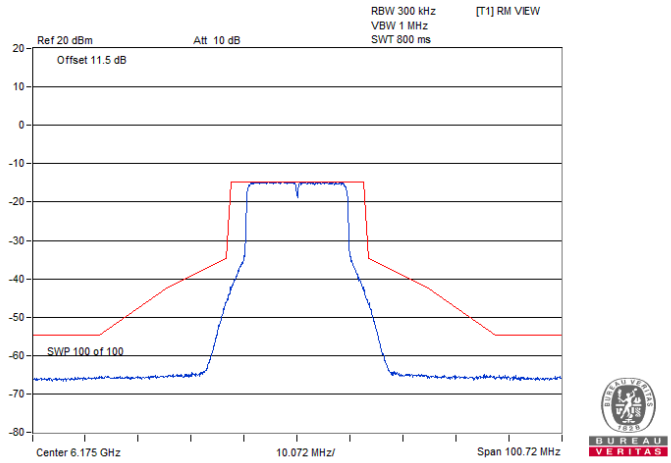


802.11ax (HE20) Full RU / Chain 0 : CH 233

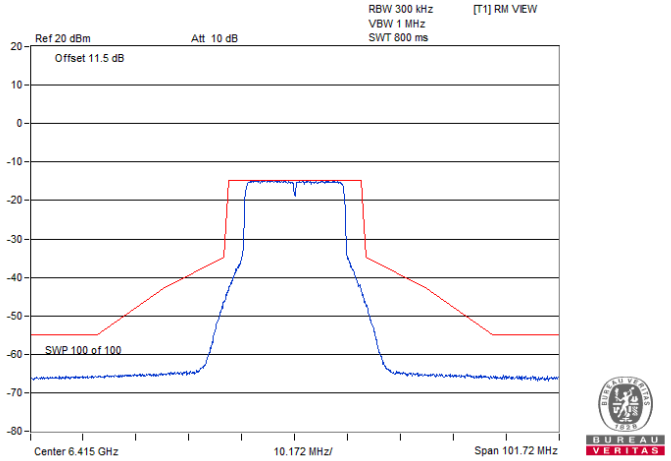
Spectrum Plot



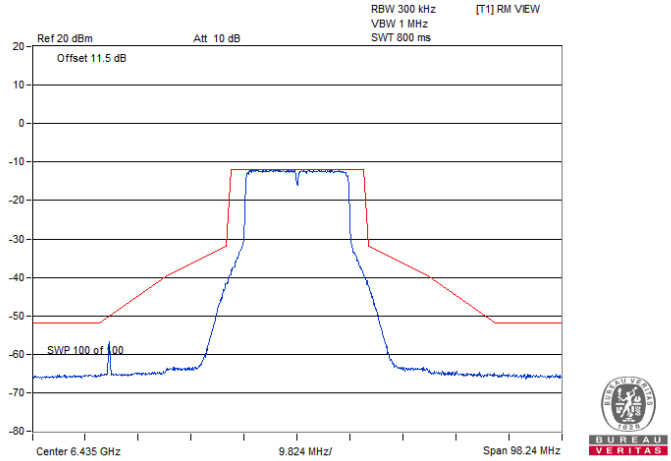
802.11ax (HE20) Full RU / Chain 1 : CH 1



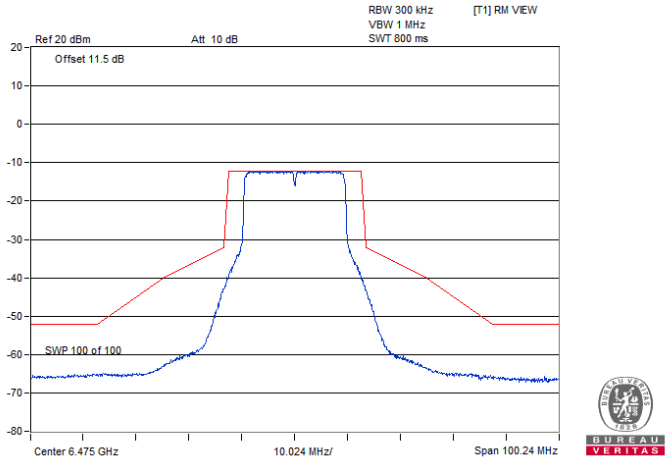
802.11ax (HE20) Full RU / Chain 1 : CH 45



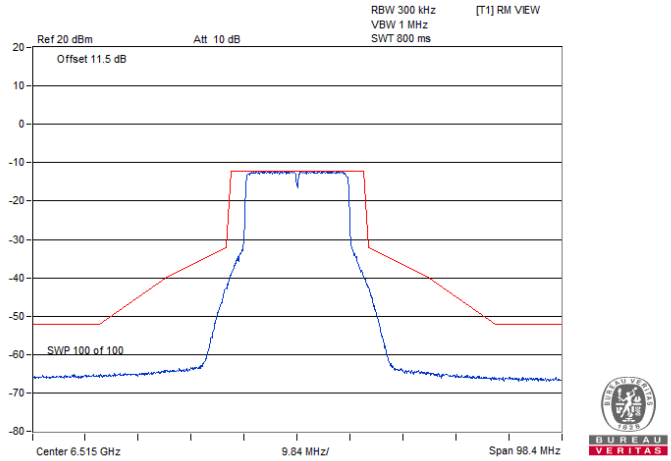
802.11ax (HE20) Full RU / Chain 1 : CH 93



802.11ax (HE20) Full RU / Chain 1 : CH 97

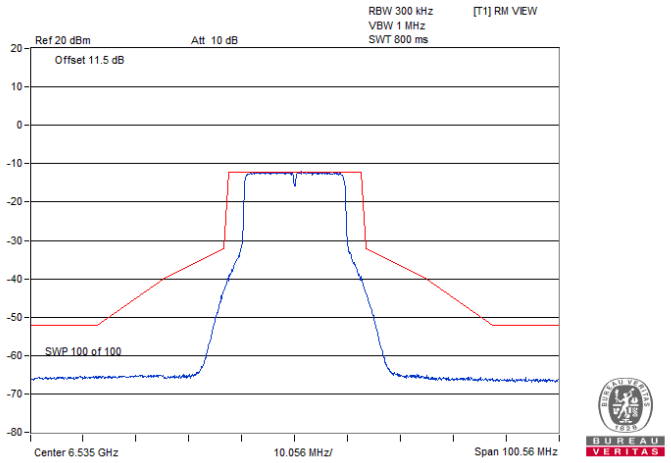


802.11ax (HE20) Full RU / Chain 1 : CH 105

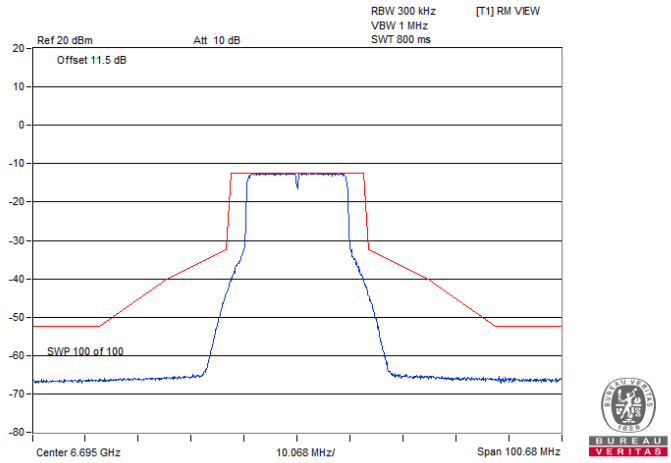


802.11ax (HE20) Full RU / Chain 1 : CH 113

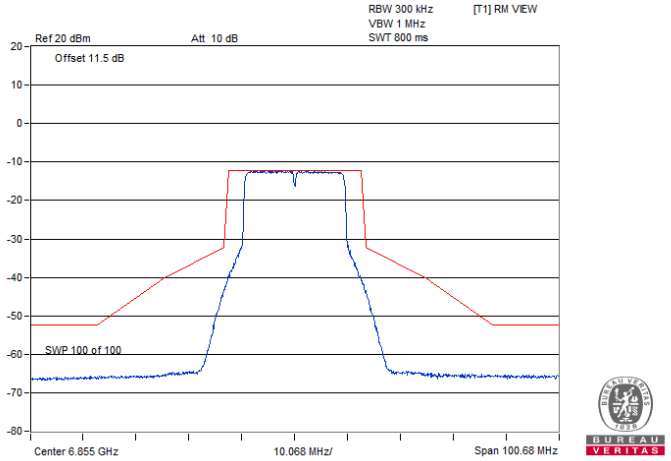
Spectrum Plot



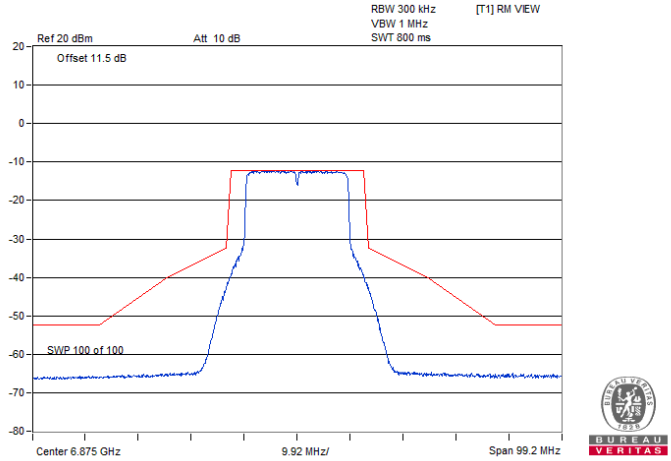
802.11ax (HE20) Full RU / Chain 1 : CH 117



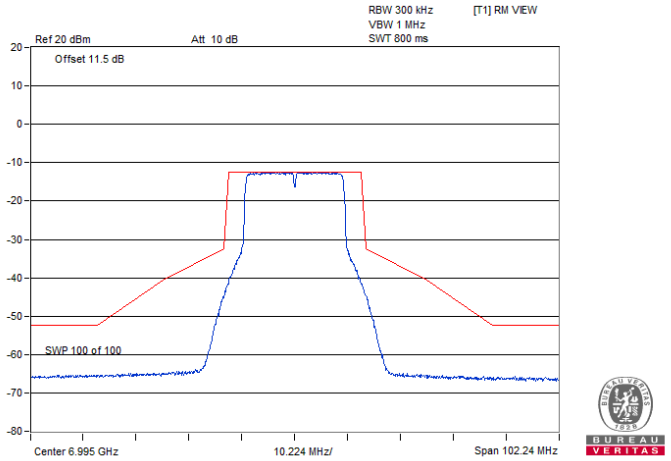
802.11ax (HE20) Full RU / Chain 1 : CH 149



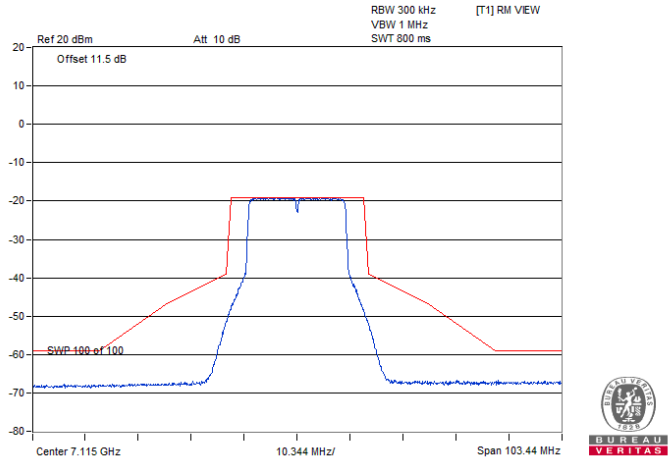
802.11ax (HE20) Full RU / Chain 1 : CH 181



802.11ax (HE20) Full RU / Chain 1 : CH 185

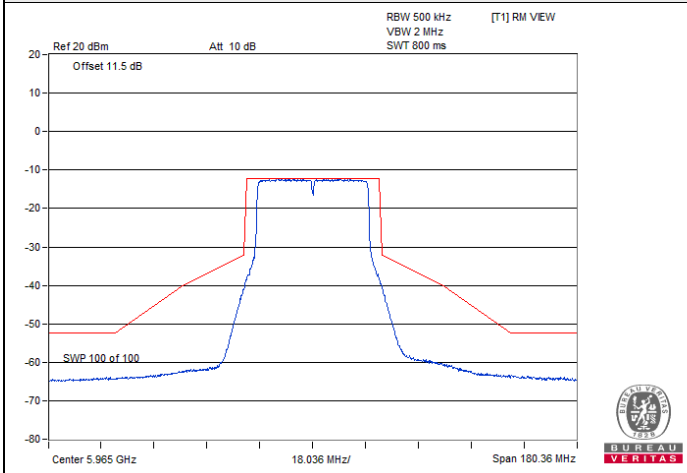
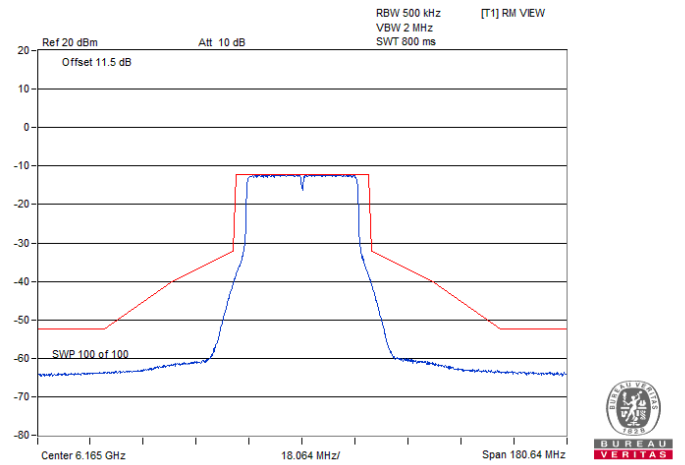
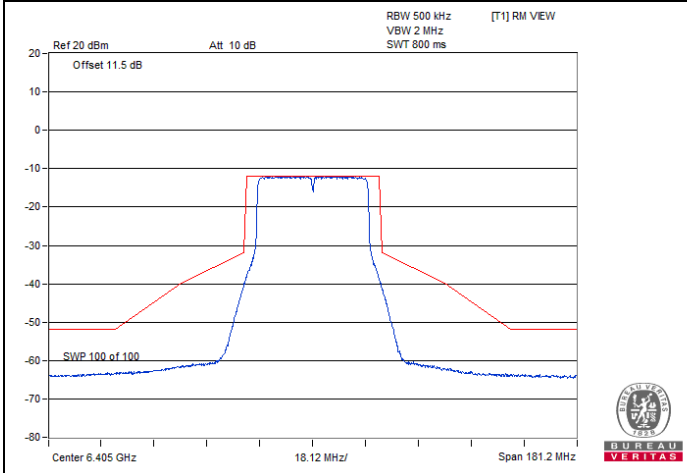
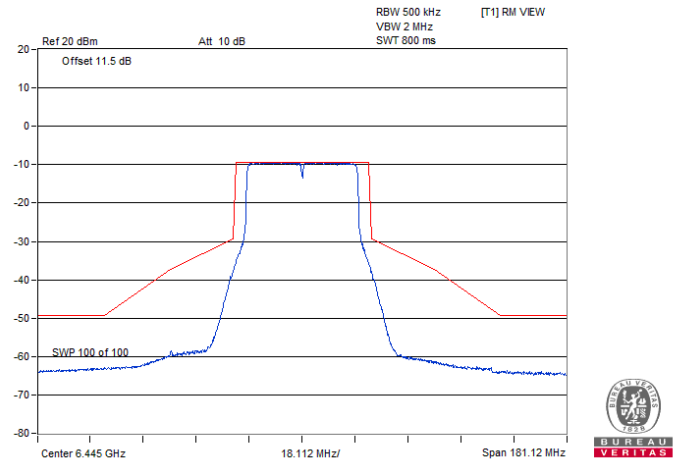
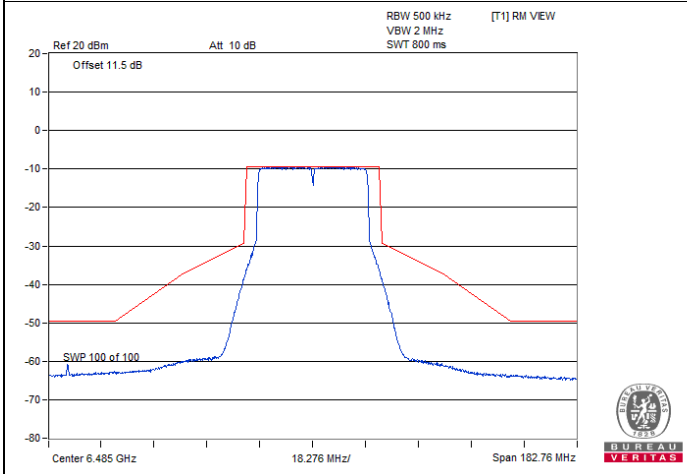
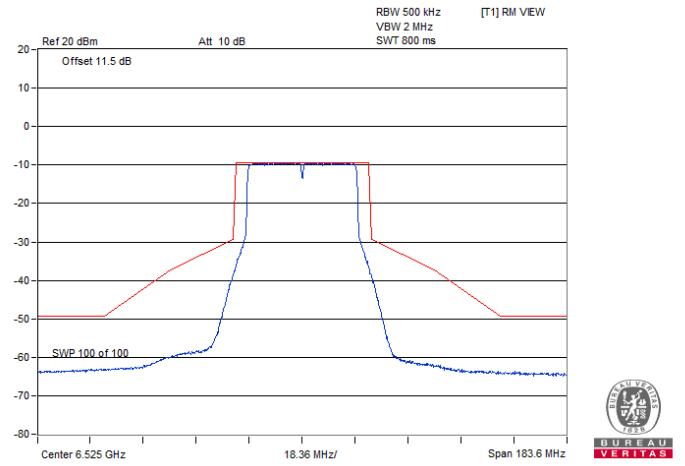


802.11ax (HE20) Full RU / Chain 1 : CH 209

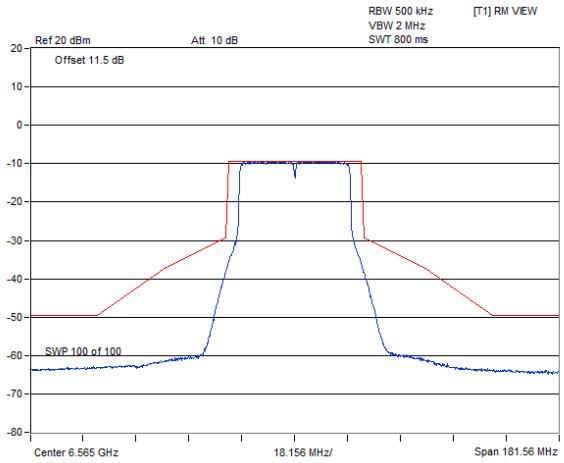


802.11ax (HE20) Full RU / Chain 1 : CH 233

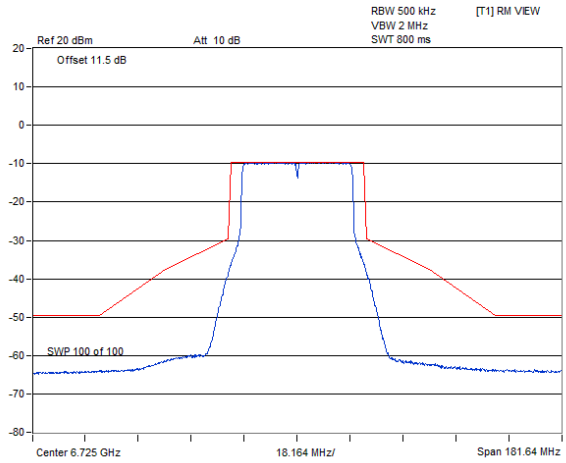
802.11ax (HE40) Full RU

Spectrum Plot	
	
802.11ax (HE40) Full RU / Chain 0 : CH 3	802.11ax (HE40) Full RU / Chain 0 : CH 43
	
802.11ax (HE40) Full RU / Chain 0 : CH 91	802.11ax (HE40) Full RU / Chain 0 : CH 99
	
802.11ax (HE40) Full RU / Chain 0 : CH 107	802.11ax (HE40) Full RU / Chain 0 : CH 115

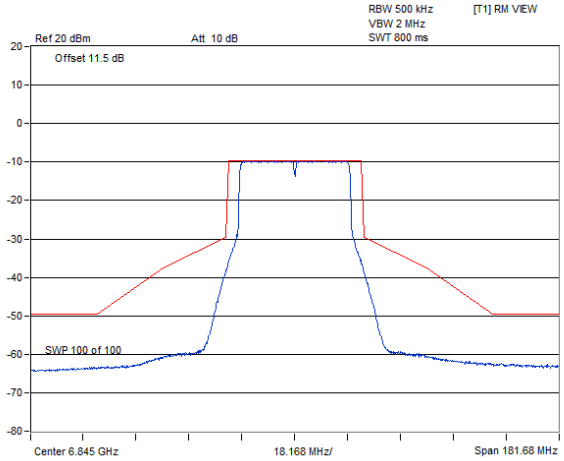
Spectrum Plot



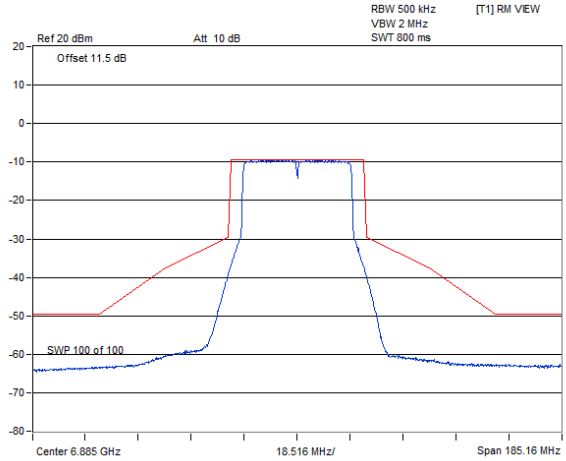
802.11ax (HE40) Full RU / Chain 0 : CH 123



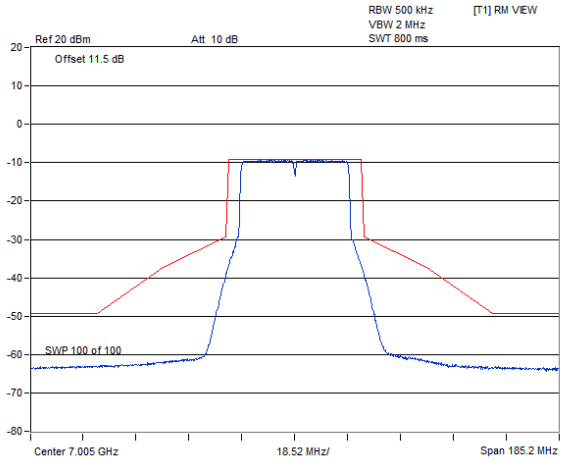
802.11ax (HE40) Full RU / Chain 0 : CH 155



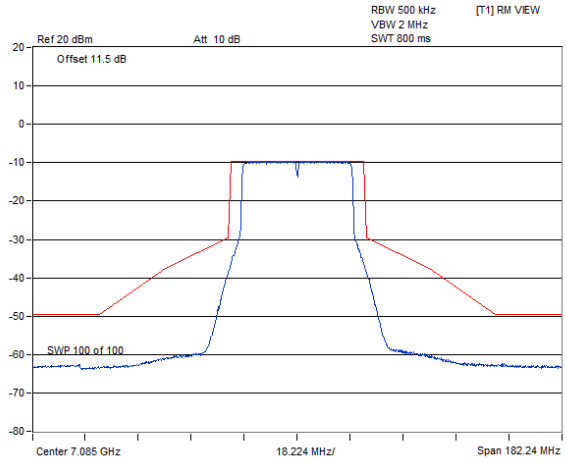
802.11ax (HE40) Full RU / Chain 0 : CH 179



802.11ax (HE40) Full RU / Chain 0 : CH 187

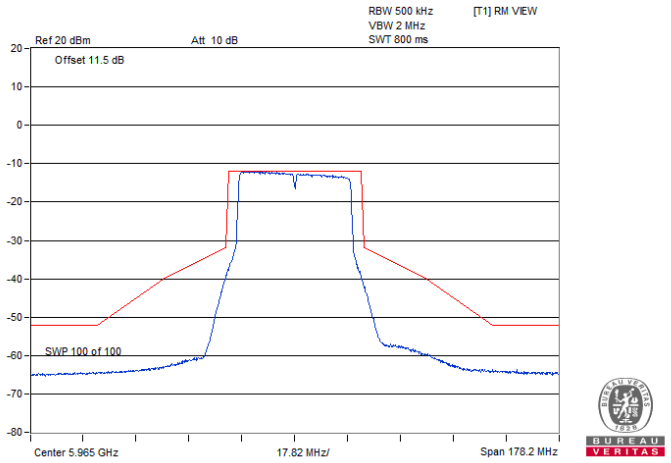


802.11ax (HE40) Full RU / Chain 0 : CH 211

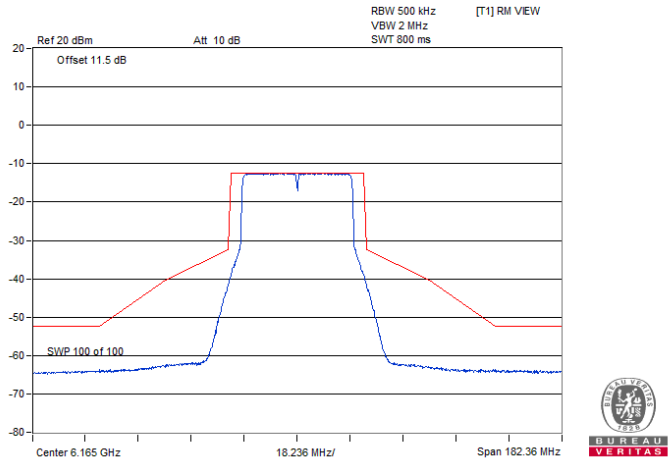


802.11ax (HE40) Full RU / Chain 0 : CH 227

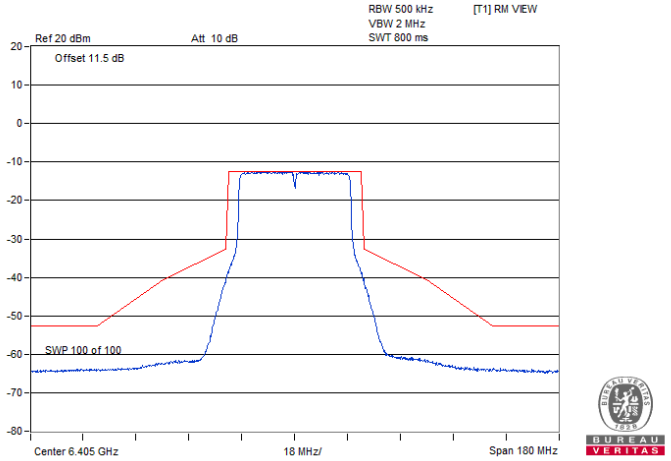
Spectrum Plot



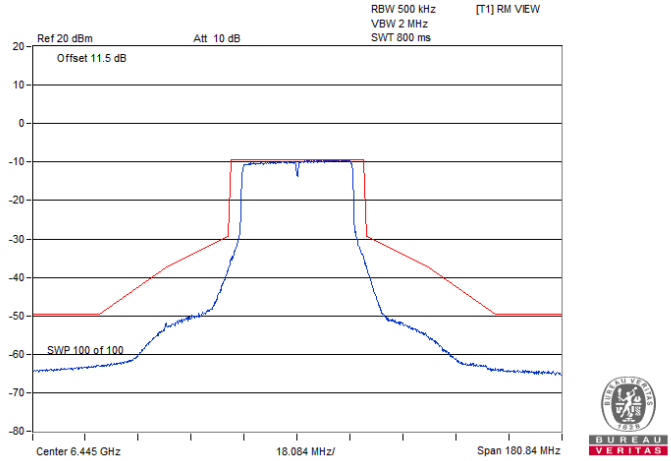
802.11ax (HE40) Full RU / Chain 1 : CH 3



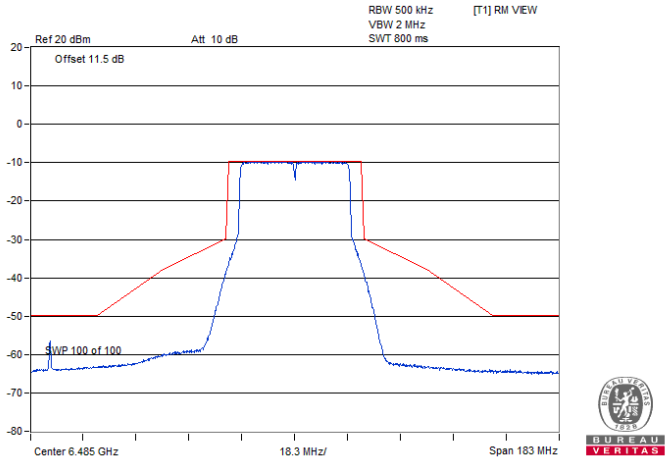
802.11ax (HE40) Full RU / Chain 1 : CH 43



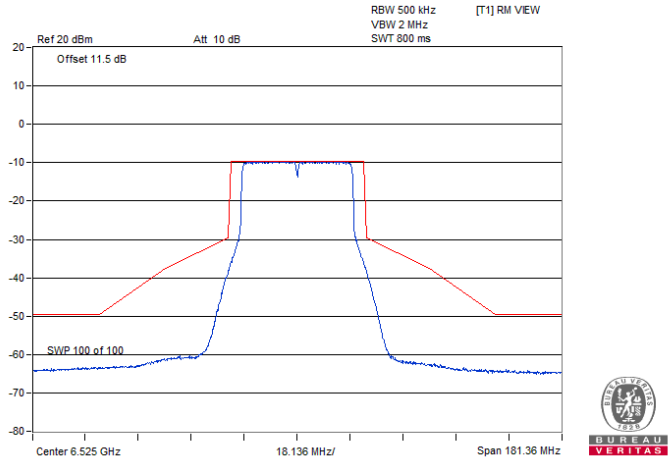
802.11ax (HE40) Full RU / Chain 1 : CH 91



802.11ax (HE40) Full RU / Chain 1 : CH 99

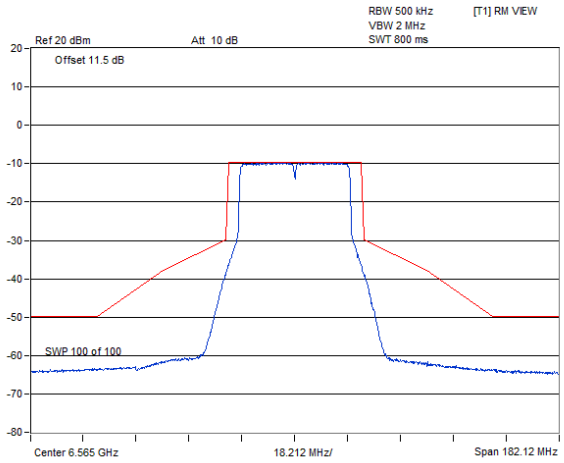


802.11ax (HE40) Full RU / Chain 1 : CH 107

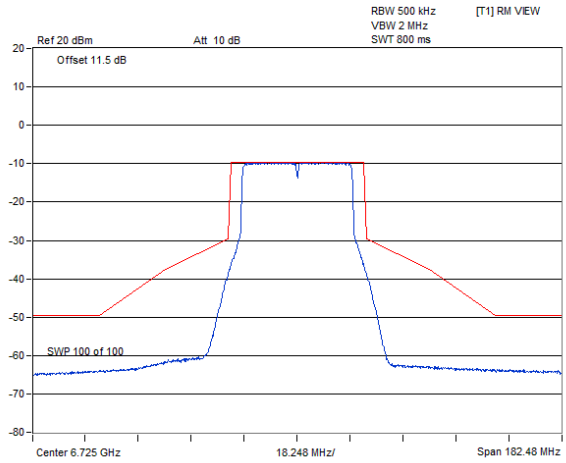


802.11ax (HE40) Full RU / Chain 1 : CH 115

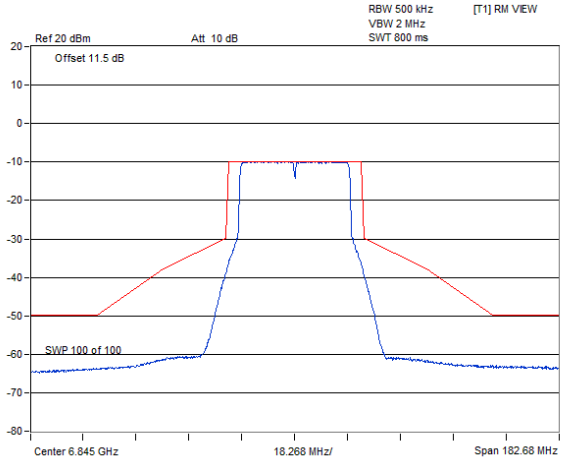
Spectrum Plot



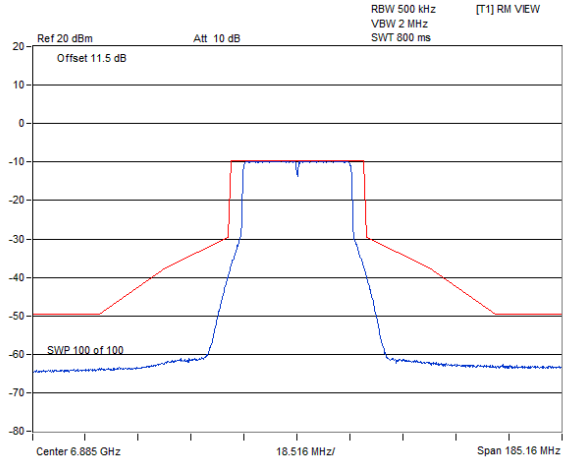
802.11ax (HE40) Full RU / Chain 1 : CH 123



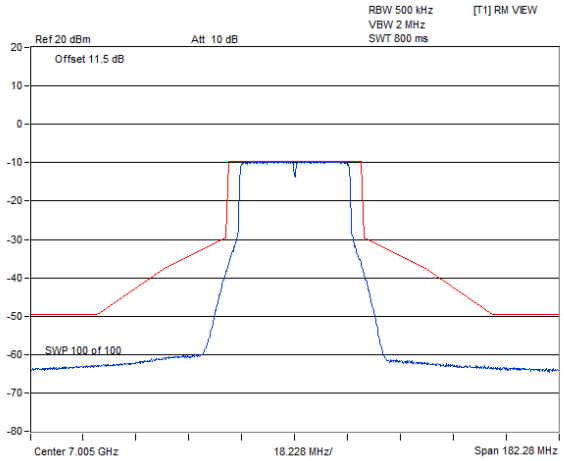
802.11ax (HE40) Full RU / Chain 1 : CH 155



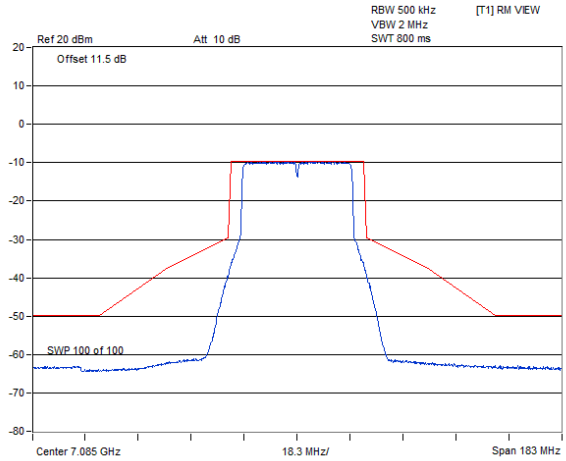
802.11ax (HE40) Full RU / Chain 1 : CH 179



802.11ax (HE40) Full RU / Chain 1 : CH 187

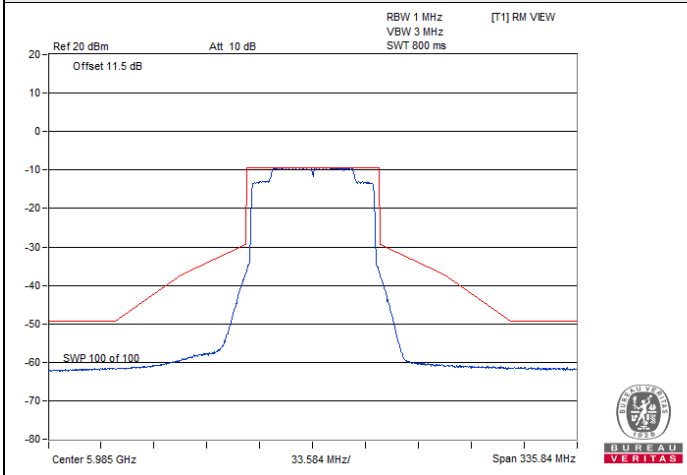
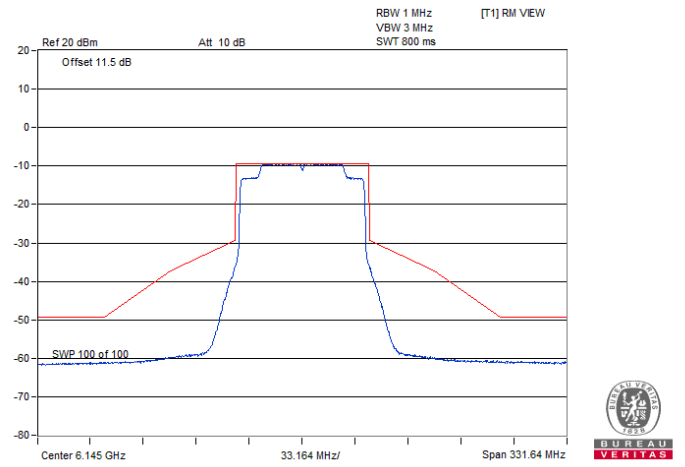
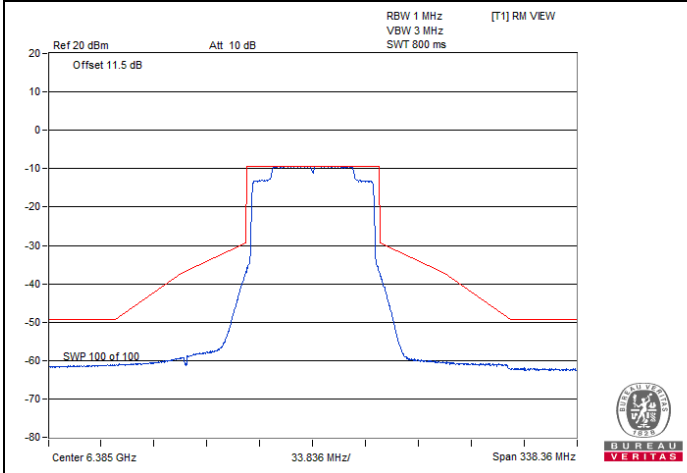
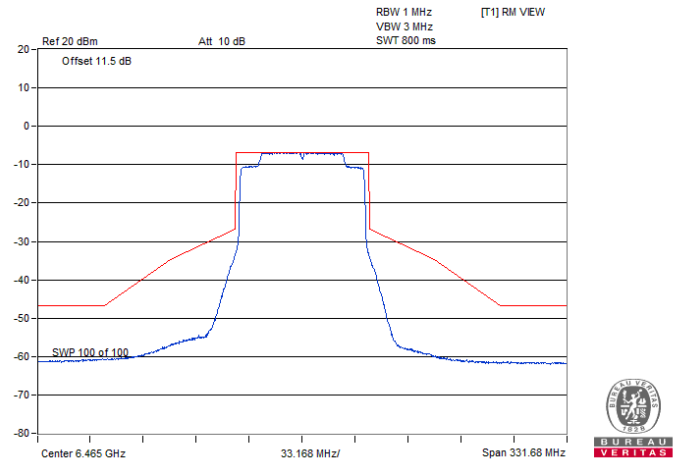
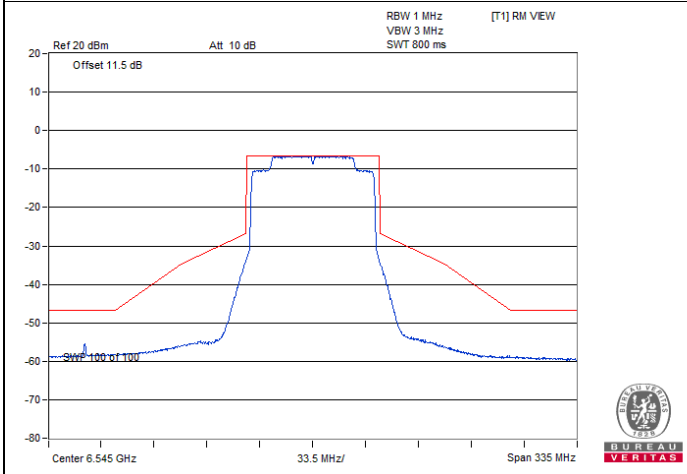
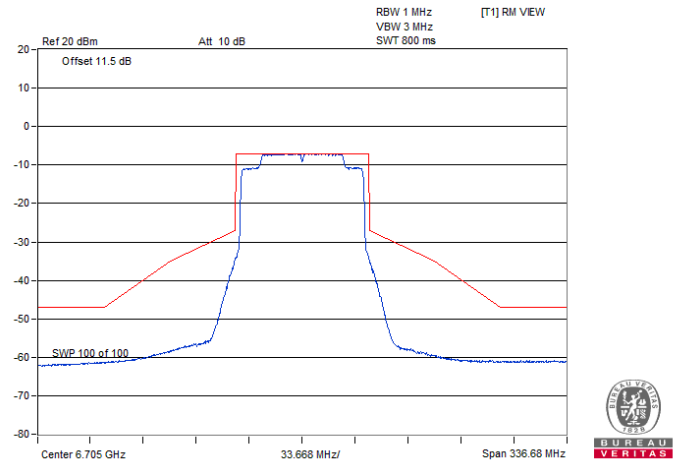


802.11ax (HE40) Full RU / Chain 1 : CH 211

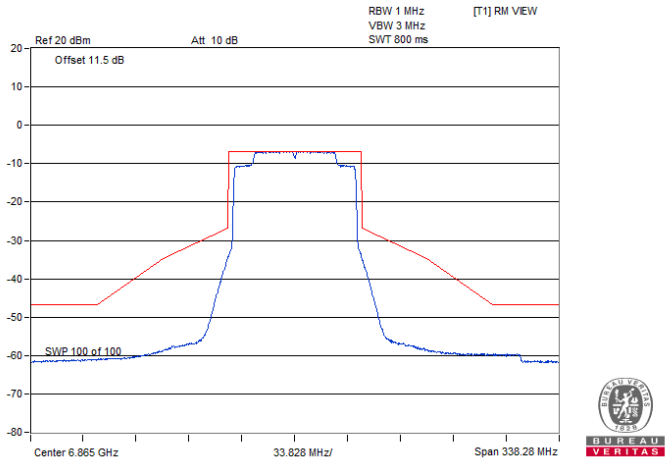


802.11ax (HE40) Full RU / Chain 1 : CH 227

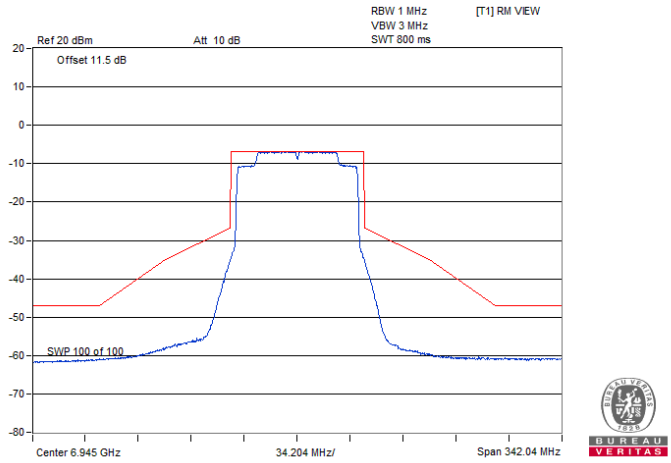
802.11ax (HE80) Full RU

Spectrum Plot	
	
802.11ax (HE80) Full RU / Chain 0 : CH 7	802.11ax (HE80) Full RU / Chain 0 : CH 39
	
802.11ax (HE80) Full RU / Chain 0 : CH 87	802.11ax (HE80) Full RU / Chain 0 : CH 103
	
802.11ax (HE80) Full RU / Chain 0 : CH 119	802.11ax (HE80) Full RU / Chain 0 : CH 151

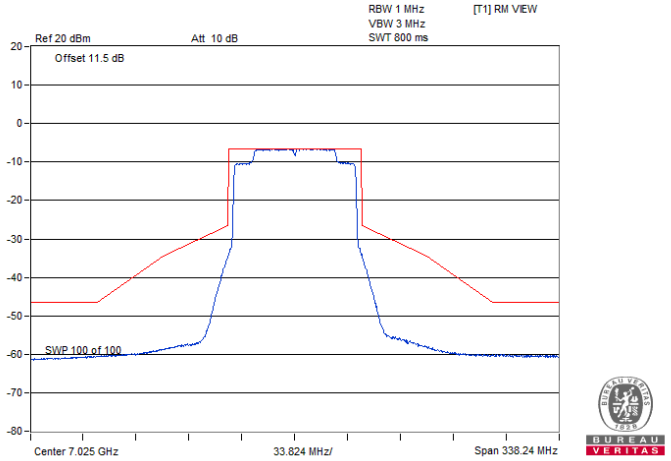
Spectrum Plot



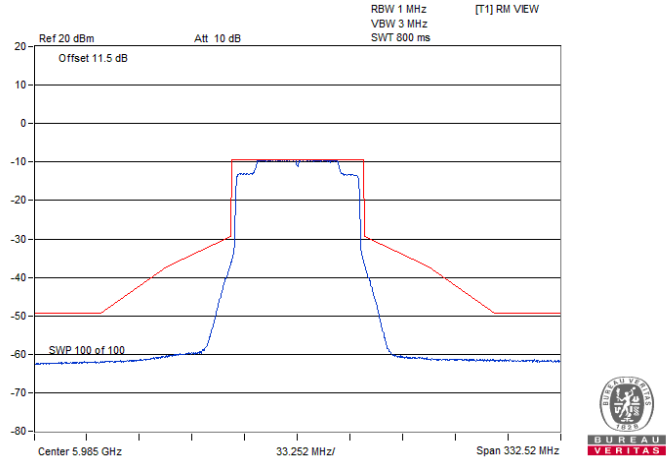
802.11ax (HE80) Full RU / Chain 0 : CH 183



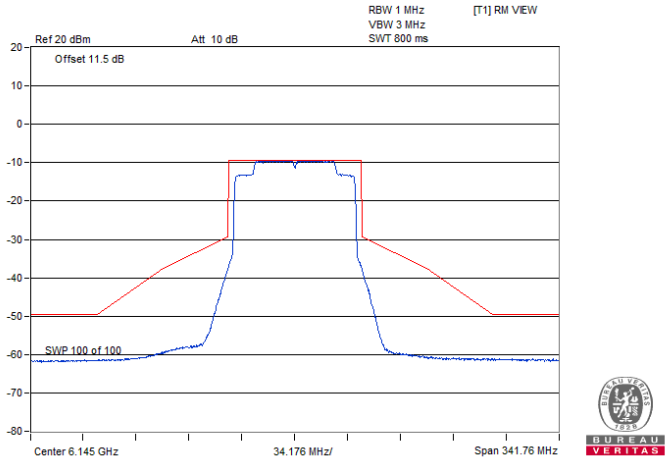
802.11ax (HE80) Full RU / Chain 0 : CH 199



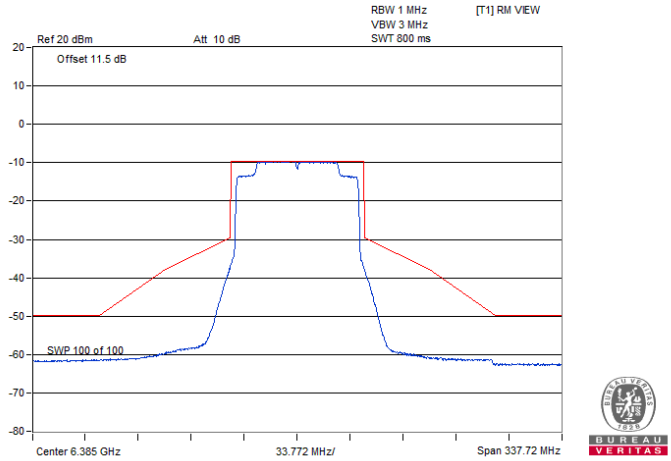
802.11ax (HE80) Full RU / Chain 0 : CH 215



802.11ax (HE80) Full RU / Chain 1 : CH 7

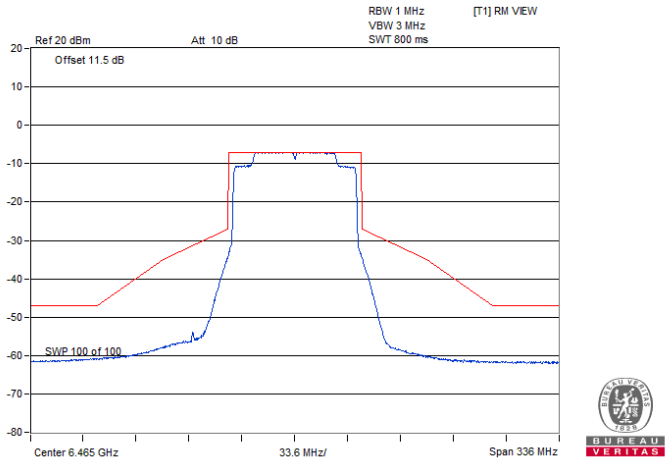


802.11ax (HE80) Full RU / Chain 1 : CH 39

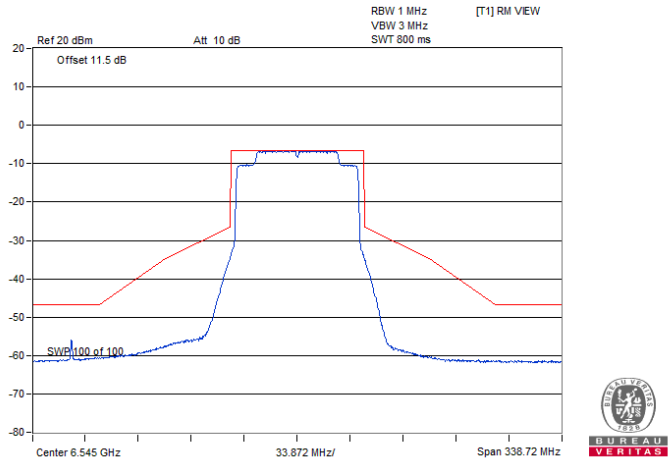


802.11ax (HE80) Full RU / Chain 1 : CH 87

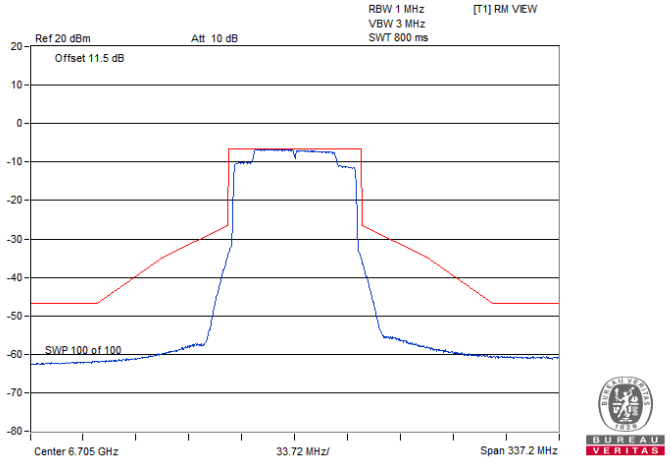
Spectrum Plot



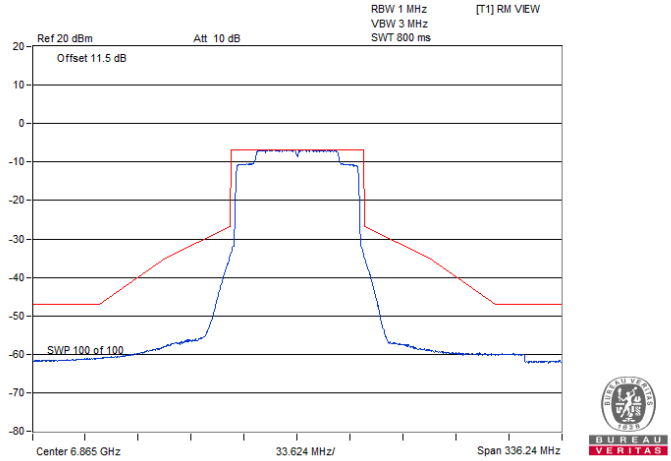
802.11ax (HE80) Full RU / Chain 1 : CH 103



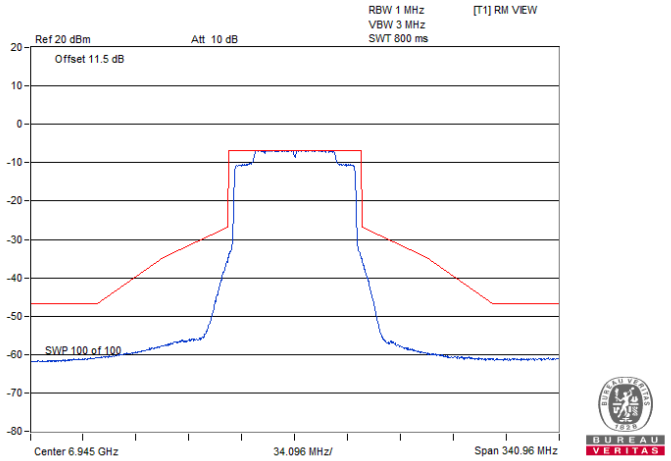
802.11ax (HE80) Full RU / Chain 1 : CH 119



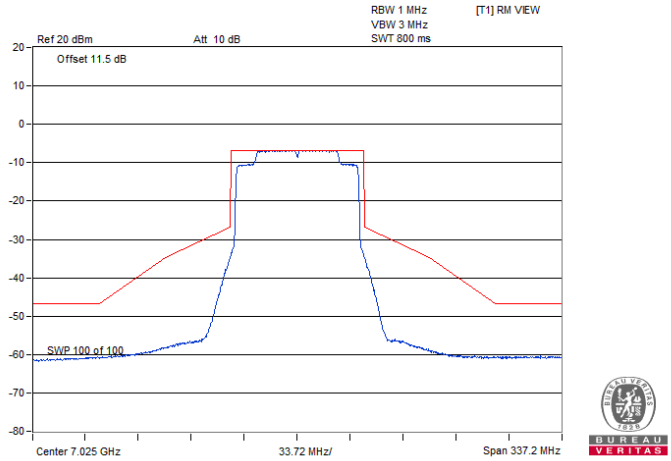
802.11ax (HE80) Full RU / Chain 1 : CH 151



802.11ax (HE80) Full RU / Chain 1 : CH 183

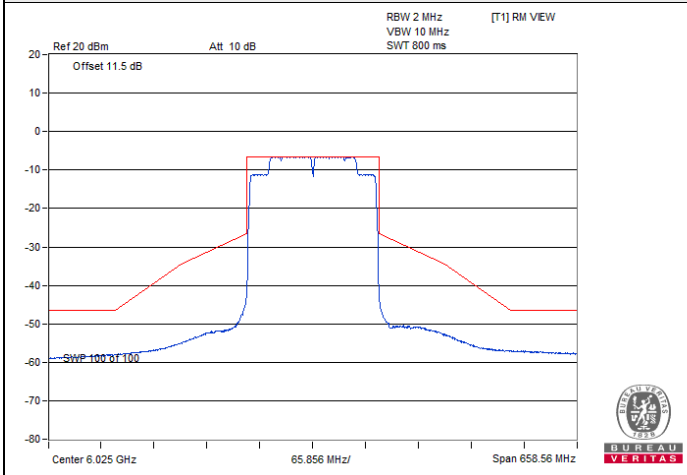
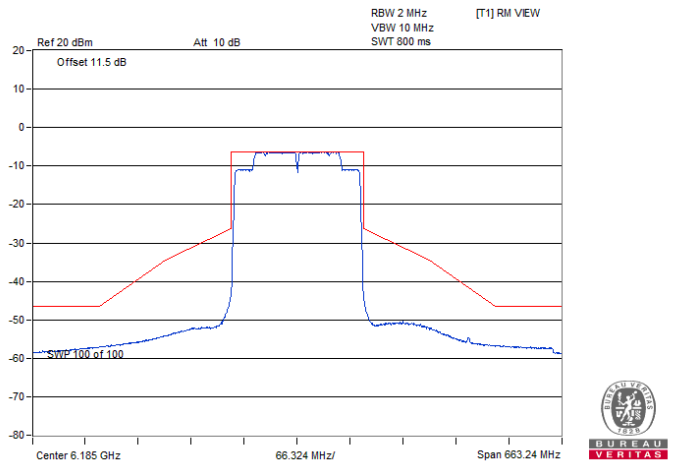
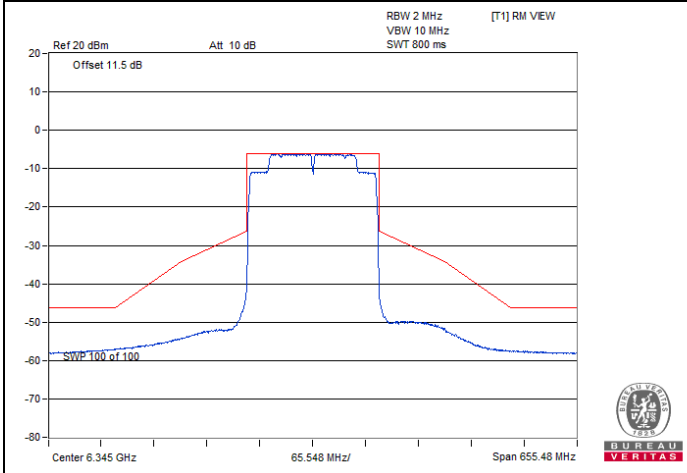
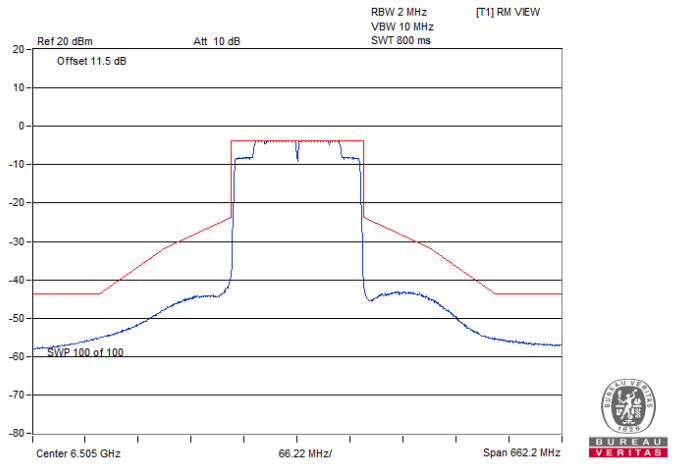
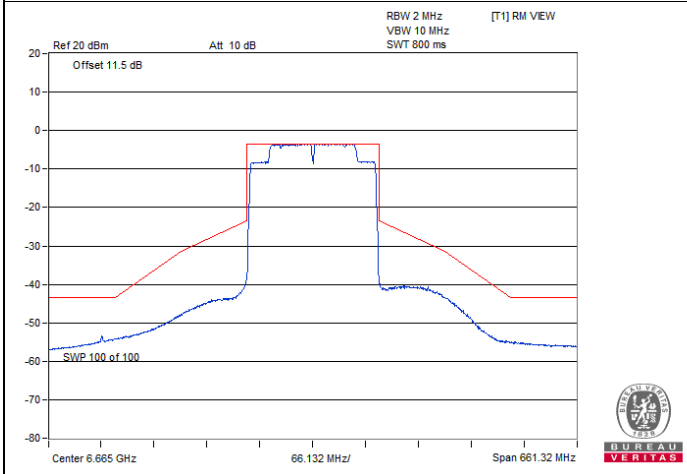
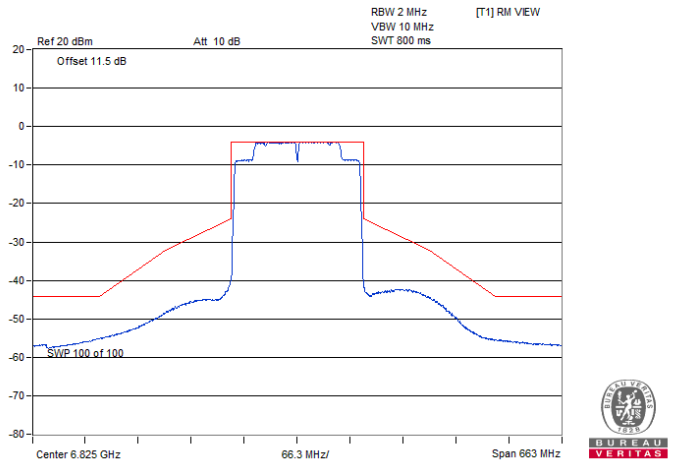


802.11ax (HE80) Full RU / Chain 1 : CH 199

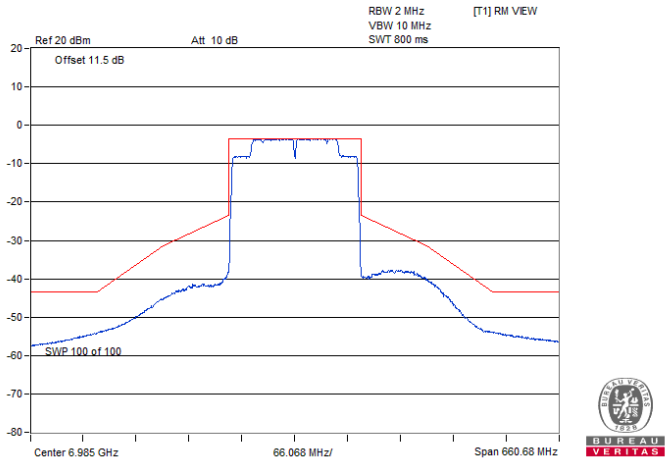


802.11ax (HE80) Full RU / Chain 1 : CH 215

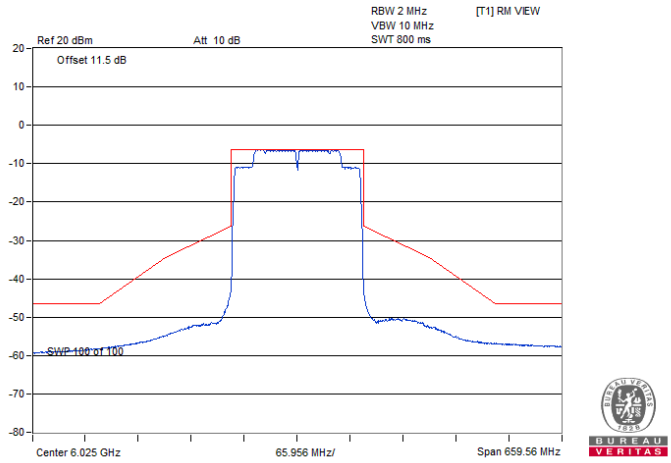
802.11ax (HE160) Full RU

Spectrum Plot	
	
802.11ax (HE160) Full RU / Chain 0 : CH 15	802.11ax (HE160) Full RU / Chain 0 : CH 47
	
802.11ax (HE160) Full RU / Chain 0 : CH 79	802.11ax (HE160) Full RU / Chain 0 : CH 111
	
802.11ax (HE160) Full RU / Chain 0 : CH 143	802.11ax (HE160) Full RU / Chain 0 : CH 175

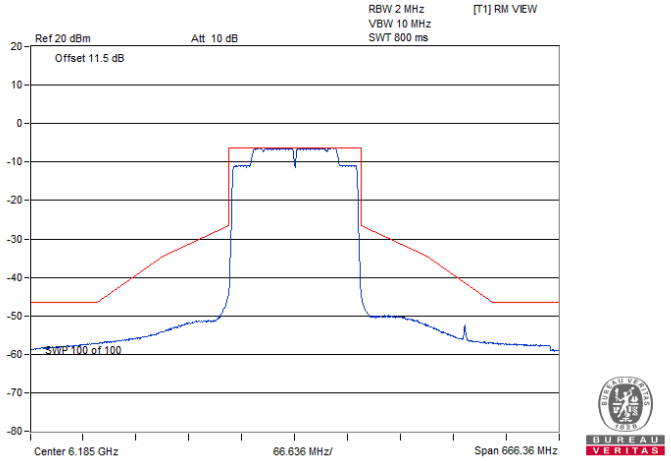
Spectrum Plot



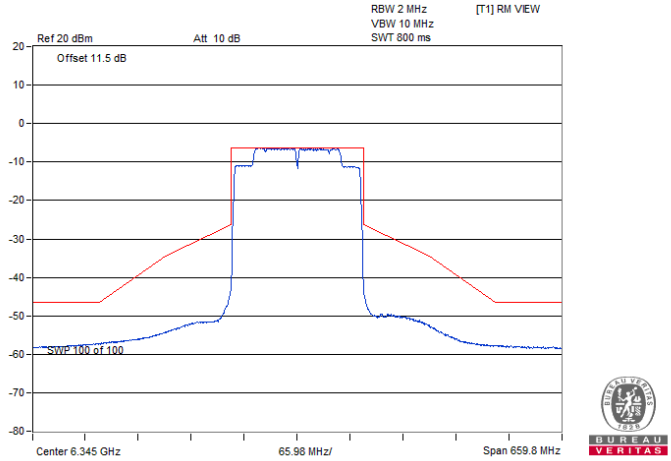
802.11ax (HE160) Full RU / Chain 0 : CH 207



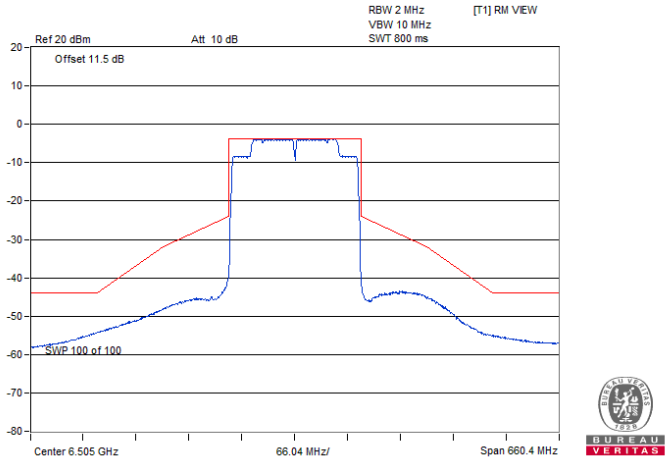
802.11ax (HE160) Full RU / Chain 1 : CH 15



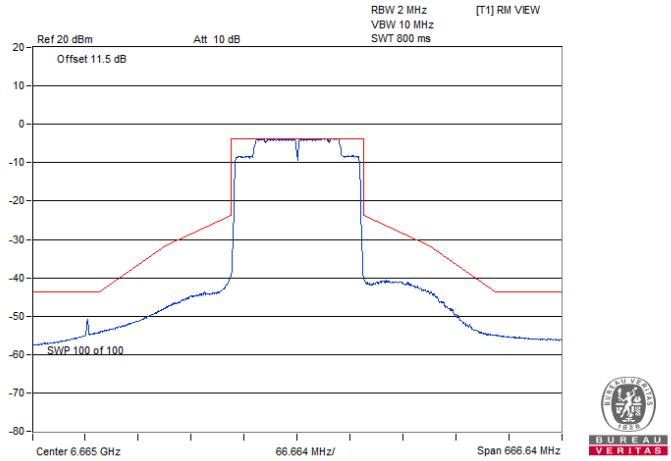
802.11ax (HE160) Full RU / Chain 1 : CH 47



802.11ax (HE160) Full RU / Chain 1 : CH 79

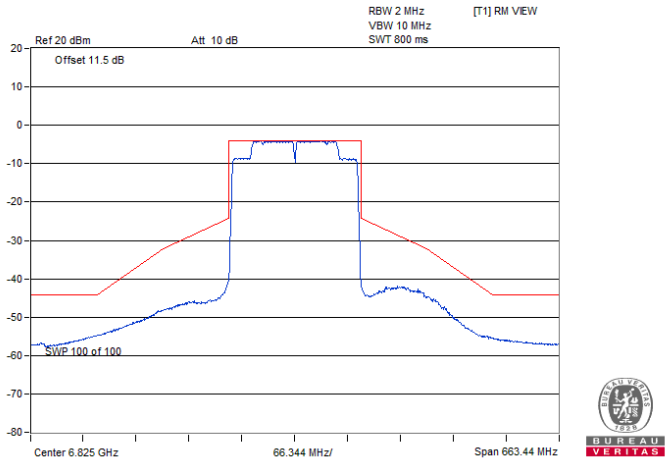


802.11ax (HE160) Full RU / Chain 1 : CH 111

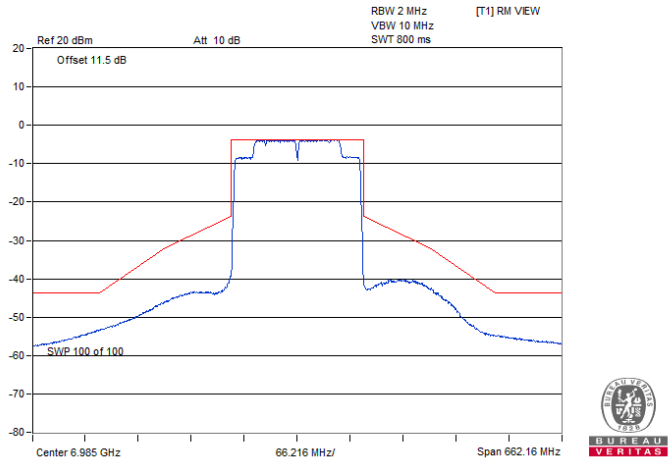


802.11ax (HE160) Full RU / Chain 1 : CH 143

Spectrum Plot



802.11ax (HE160) Full RU / Chain 1 : CH 175



802.11ax (HE160) Full RU / Chain 1 : CH 207

7.5 Occupied Bandwidth

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Wayne Lin

802.11ax (HE20) Full RU

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)		Maximum Limit (MHz)
		Chain 0	Chain 1	
1	5955	19.20	19.14	320
45	6175	19.14	19.20	320
93	6415	19.14	19.20	320
97	6435	19.14	19.14	320
105	6475	19.20	19.14	320
113	6515	19.20	19.14	320
117	6535	19.14	19.14	320
149	6695	19.20	19.08	320
181	6855	19.08	19.20	320
185	6875	19.20	19.08	320
209	6995	19.08	19.20	320
233	7115	19.32	19.32	320

802.11ax (HE40) Full RU

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)		Maximum Limit (MHz)
		Chain 0	Chain 1	
3	5965	38.28	38.28	320
43	6165	38.16	38.16	320
91	6405	38.40	38.28	320
99	6445	38.28	38.16	320
107	6485	38.28	38.16	320
115	6525	38.16	38.28	320
123	6565	38.16	38.40	320
155	6725	38.16	38.16	320
179	6845	38.16	38.16	320
187	6885	38.16	38.16	320
211	7005	38.16	38.16	320
227	7085	38.16	38.16	320

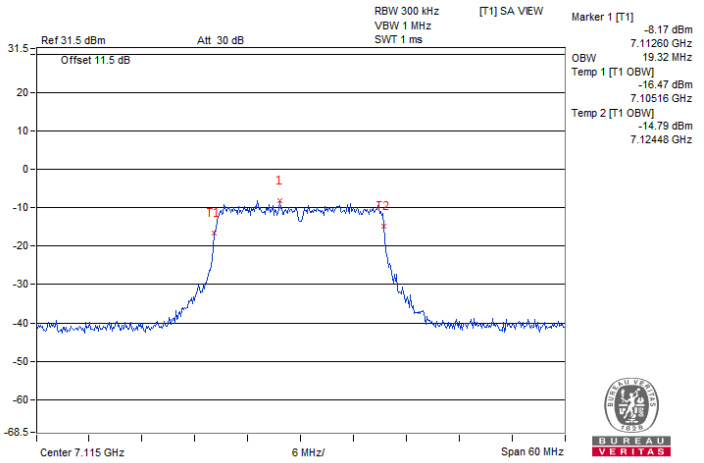
802.11ax (HE80) Full RU

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)		Maximum Limit (MHz)
		Chain 0	Chain 1	
7	5985	76.56	77.04	320
39	6145	76.80	76.80	320
87	6385	76.80	76.56	320
103	6465	76.80	76.80	320
119	6545	76.80	76.80	320
151	6705	76.32	76.80	320
183	6865	77.28	77.28	320
199	6945	77.28	76.32	320
215	7025	76.32	77.28	320

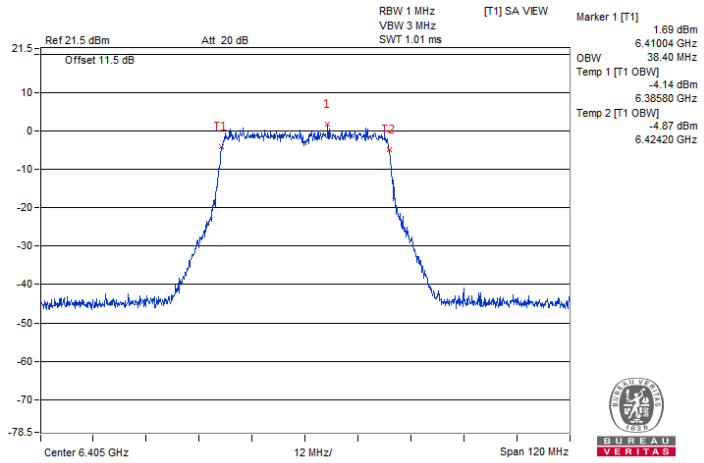
802.11ax (HE160) Full RU

Channel	Frequency (MHz)	99% Occupied Bandwidth (MHz)		Maximum Limit (MHz)
		Chain 0	Chain 1	
15	6025	154.56	155.04	320
47	6185	155.52	154.56	320
79	6345	154.56	154.56	320
111	6505	154.56	154.56	320
143	6665	154.56	154.56	320
175	6825	154.56	155.52	320
207	6985	155.52	155.04	320

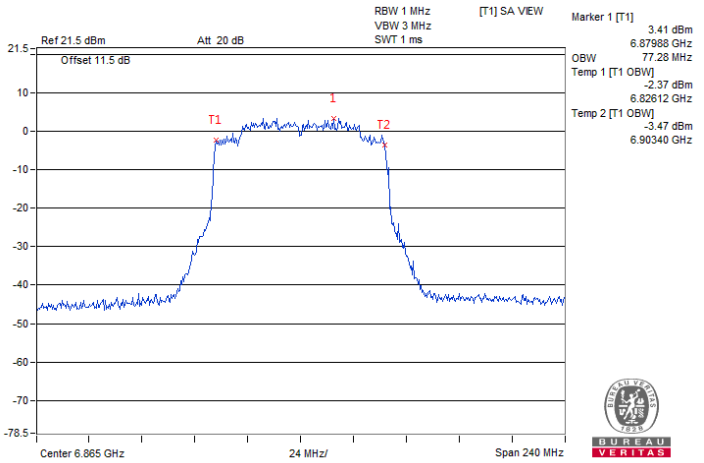
Spectrum Plot of Maximum Value



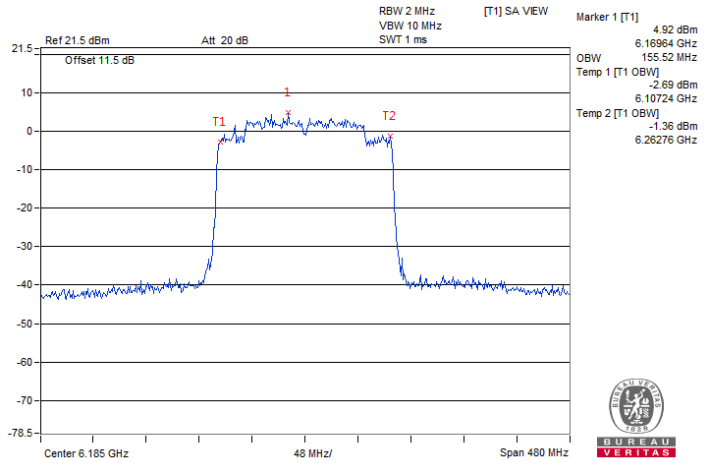
802.11ax (HE20) Full RU / Chain 0 : CH 233



802.11ax (HE40) Full RU / Chain 0 : CH 91



802.11ax (HE80) Full RU / Chain 0 : CH 183



802.11ax (HE160) Full RU / Chain 0 : CH 47

7.6 Frequency Stability

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Wayne Lin

Frequency Stability Versus Temperature									
Operating Frequency: 5955 MHz									
Temp. (℃)	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
35	120	5954.9767	Pass	5954.9814	Pass	5954.9778	Pass	5954.9767	Pass
30	120	5955.0206	Pass	5955.0218	Pass	5955.0198	Pass	5955.0198	Pass
20	120	5955.0157	Pass	5955.0129	Pass	5955.0154	Pass	5955.0169	Pass
10	120	5955.0287	Pass	5955.0307	Pass	5955.0291	Pass	5955.0295	Pass
0	120	5954.9826	Pass	5954.9882	Pass	5954.9875	Pass	5954.9837	Pass

Frequency Stability Versus Voltage									
Operating Frequency: 5955 MHz									
Temp. (℃)	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	5955.0081	Pass	5955.0046	Pass	5955.0074	Pass	5955.0081	Pass
	120	5955.0157	Pass	5955.0129	Pass	5955.0154	Pass	5955.0169	Pass
	102	5955.0178	Pass	5955.0181	Pass	5955.0139	Pass	5955.0163	Pass

7.7 Contention-based Protocol

Environmental Conditions:	25°C, 60% RH	Tested By:	Stan Shih

Companion Device Information			
Product	Brand	Model No.	Software/Firmware Version
Wireless Router	ASUS	GT-AXE11000	3.0.0.4.386_42489

For U-NII-5

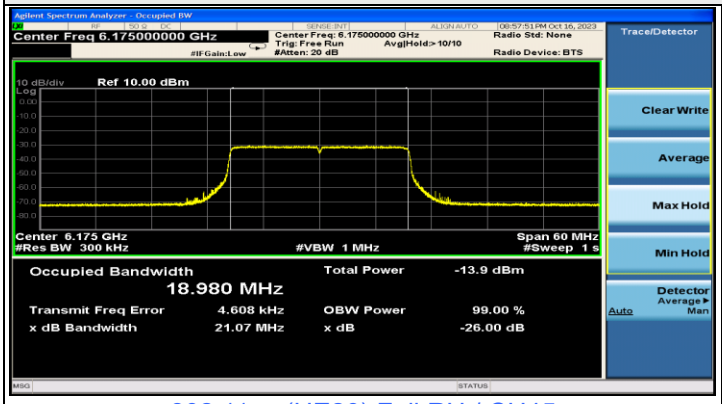
Contention Based Protocol Measurement										
Operation Mode	Channel Bandwidth (MHz)	Channel Number	Channel Freq. (MHz)	Injected Signal (AWGN)		Antenna Gain (dBi)	Path Loss (dB) (Note 3)	Adjusted Power (dBm)	Detection Limit	EUT TX Status
				Freq. (MHz)	Power (dBm)					
802.11ax	20	45	6175	6175	-66	-0.15	0	-65.85	-62	OFF
					-71	-0.15	0	-70.85	-62	Minimal
					-82.15	-0.15	0	-82	-62	ON
	160	47	6185	6110	-62.2	-0.15	0	-62.05	-62	OFF
					-74	-0.15	0	-73.85	-62	Minimal
					-82.15	-0.15	0	-82	-62	ON
				6185	-62.2	-0.15	0	-62.05	-62	OFF
					-69	-0.15	0	-68.85	-62	Minimal
					-82.15	-0.15	0	-82	-62	ON
				6260	-62.2	-0.15	0	-62.05	-62	OFF
					-74	-0.15	0	-73.85	-62	Minimal
					-82.15	-0.15	0	-82	-62	ON

Notes:

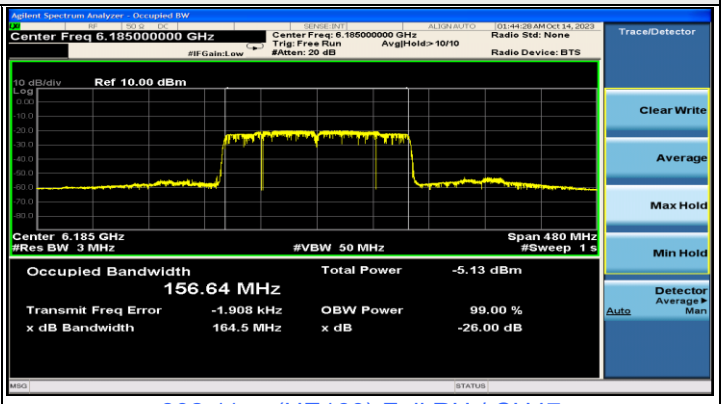
1. After investigation (consider antenna gain and path loss) , the one representative port (Chain 0) was measured and presented in the report.
2. Adjusted Power (dBm) = Injected Signal (AWGN) Power (dBm) - Antenna Gain (dBi) + Path Loss (dB)
3. Antenna gain values include all the applicable path losses.
4. Channel puncturing and bandwidth reduction are not supported.

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	v	v	v	v	v	v	v	v	v	100%	90%	Pass
	160	6110	v	v	v	v	v	v	v	v	v	v	100%	90%	Pass
		6185	v	v	v	v	v	v	v	v	v	v	100%	90%	Pass
		6260	v	v	v	v	v	v	v	v	v	v	100%	90%	Pass

Plots of EUT Tx waveform

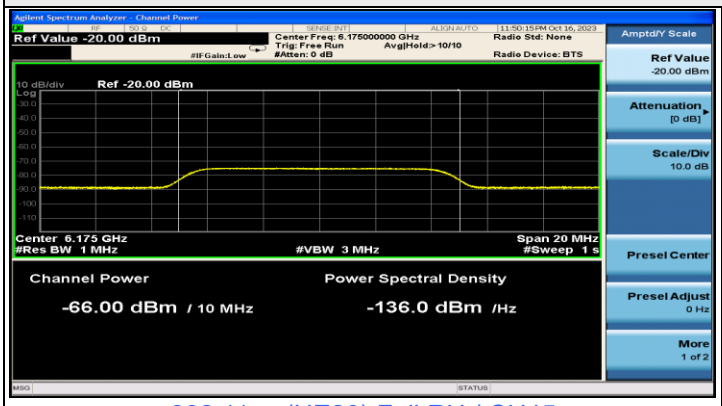


802.11ax (HE20) Full RU / CH45

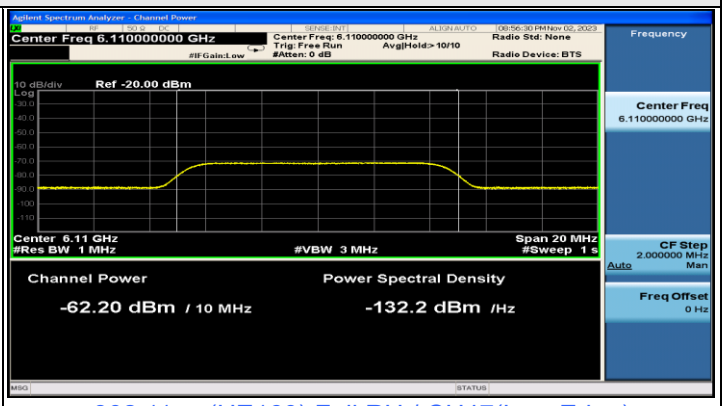


802.11ax (HE160) Full RU / CH47

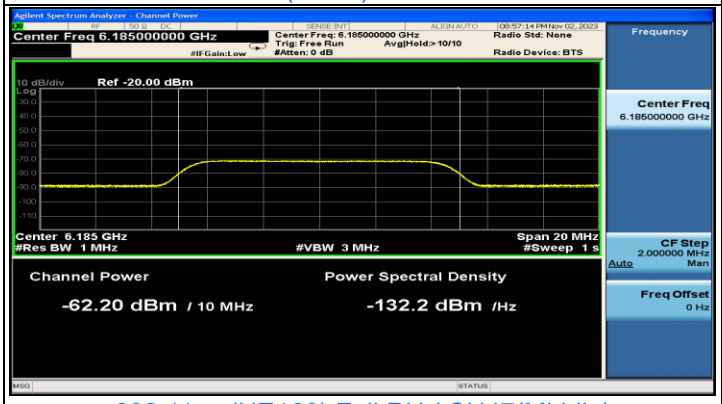
Plots of Injected signal (AWGN) level



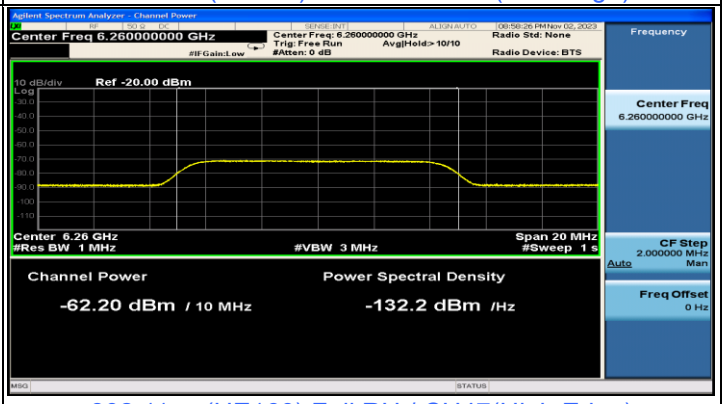
802.11ax (HE20) Full RU / CH45



802.11ax (HE160) Full RU / CH47(Low Edge)

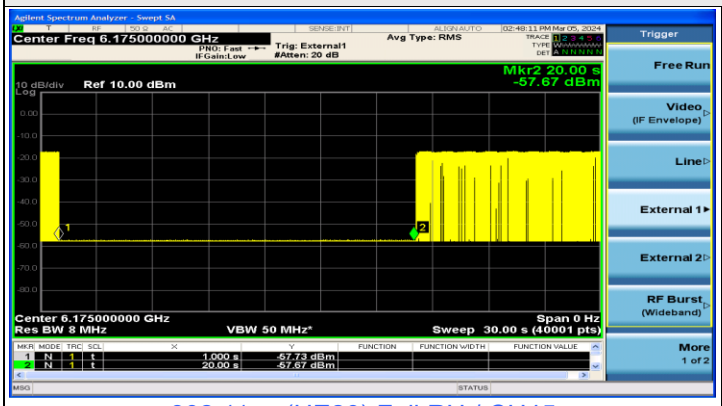


802.11ax (HE160) Full RU / CH47(Middle)

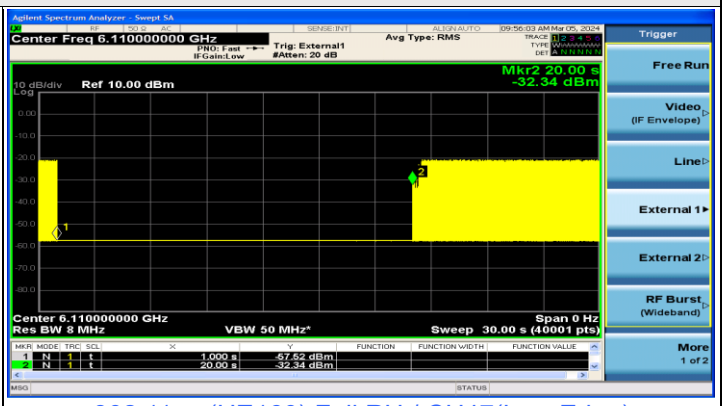


802.11ax (HE160) Full RU / CH47(High Edge)

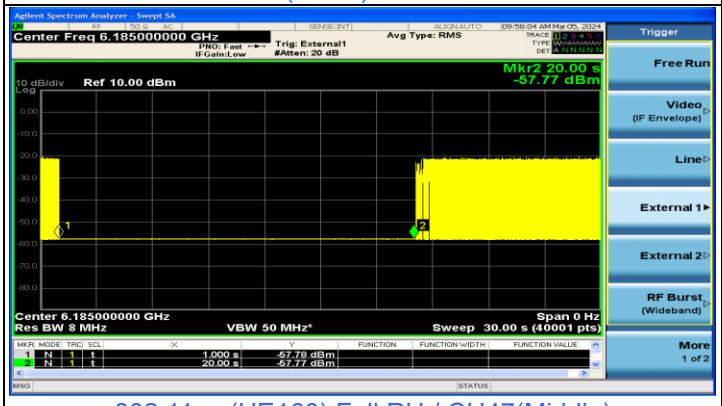
Plots of EUT ceased transmission in the time domain



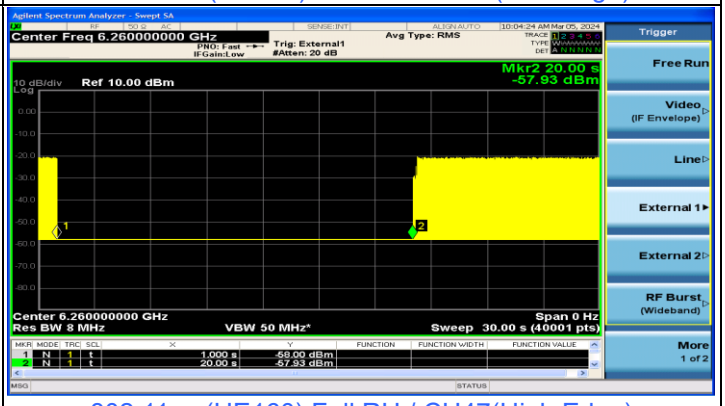
802.11ax (HE20) Full RU / CH45



802.11ax (HE160) Full RU / CH47(Low Edge)



802.11ax (HE160) Full RU / CH47(Middle)



802.11ax (HE160) Full RU / CH47(High Edge)

For U-NII-6

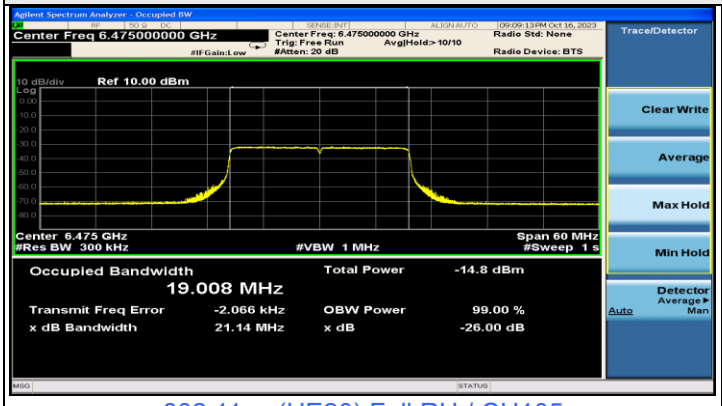
Contention Based Protocol Measurement										
Operation Mode	Channel Bandwidth (MHz)	Channel Number	Channel Freq. (MHz)	Injected Signal (AWGN)		Antenna Gain (dBi)	Path Loss (dB) (Note 3)	Adjusted Power (dBm)	Detection Limit	EUT TX Status
				Freq. (MHz)	Power (dBm)					
802.11ax	20	105	6475	6475	-65	-0.15	0	-64.85	-62	OFF
					-71	-0.15	0	-70.85	-62	Minimal
					-82.15	-0.15	0	-82	-62	ON
	160	111	6505	6430	-66	-0.15	0	-65.85	-62	OFF
					-74	-0.15	0	-73.85	-62	Minimal
					-82.15	-0.15	0	-82	-62	ON
				6505	-62.2	-0.15	0	-62.05	-62	OFF
					-70	-0.15	0	-69.85	-62	Minimal
					-82.15	-0.15	0	-82	-62	ON
				6580	-63	-0.15	0	-62.85	-62	OFF
					-67	-0.15	0	-66.85	-62	Minimal
					-82.15	-0.15	0	-82	-62	ON

Notes:

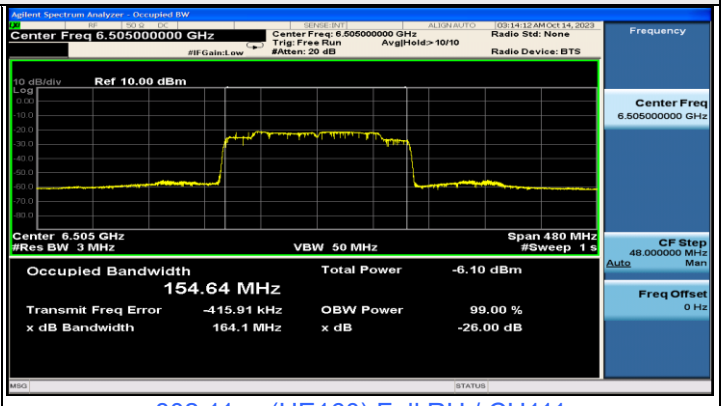
1. After investigation (consider antenna gain and path loss) , the one representative port (Chain 0) was measured and presented in the report.
2. Adjusted Power (dBm) = Injected Signal (AWGN) Power (dBm) - Antenna Gain (dBi) + Path Loss (dB)
3. Antenna gain values include all the applicable path losses.
4. Channel puncturing and bandwidth reduction are not supported.

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	v	v	v	v	v	v	v	v	v	v	100%	90%	Pass
	160	6430	v	v	v	v	v	v	v	v	v	v	100%	90%	Pass
		6505	v	v	v	v	v	v	v	v	v	v	100%	90%	Pass
		6580	v	v	v	v	v	v	v	v	v	v	100%	90%	Pass

Plots of EUT Tx waveform

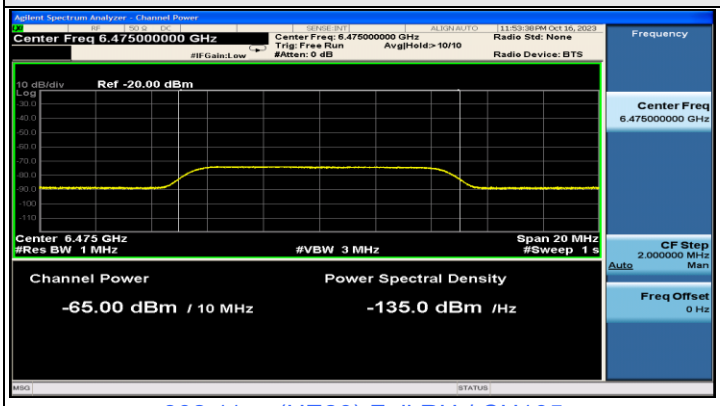


802.11ax (HE20) Full RU / CH105

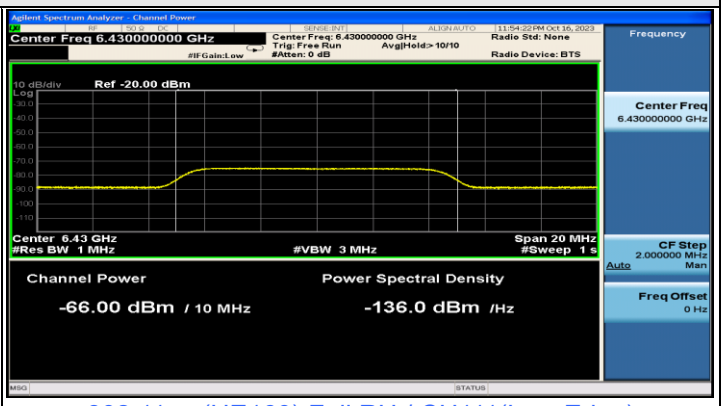


802.11ax (HE160) Full RU / CH111

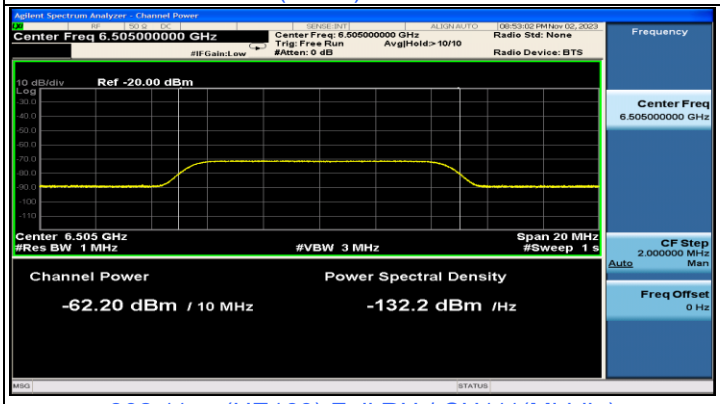
Plots of Injected signal (AWGN) level



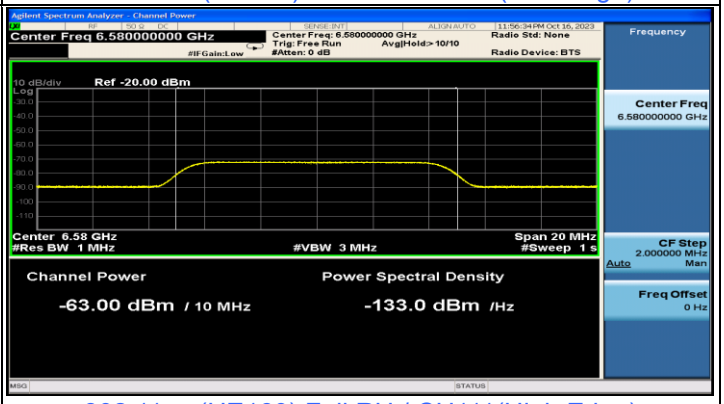
802.11ax (HE20) Full RU / CH105



802.11ax (HE160) Full RU / CH111(Low Edge)

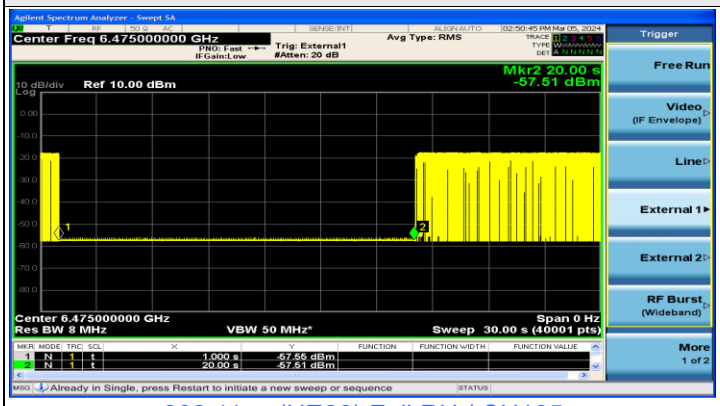


802.11ax (HE160) Full RU / CH111(Middle)

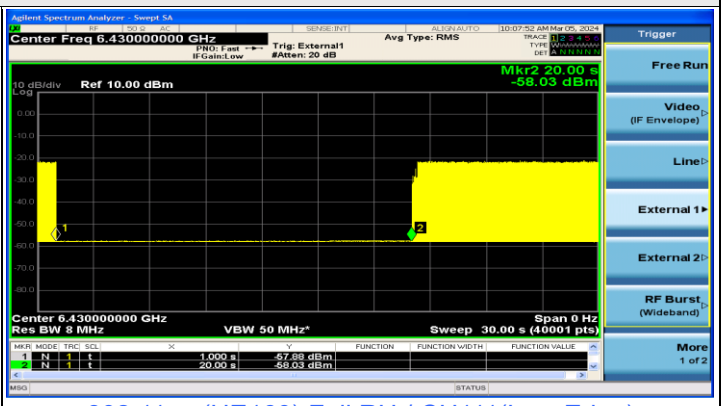


802.11ax (HE160) Full RU / CH111(High Edge)

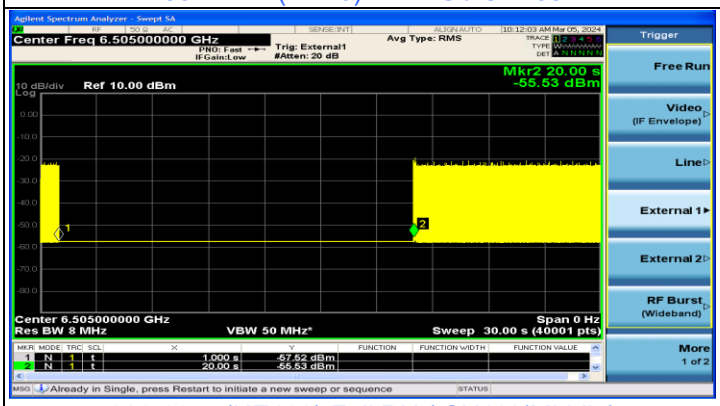
Plots of EUT ceased transmission in the time domain



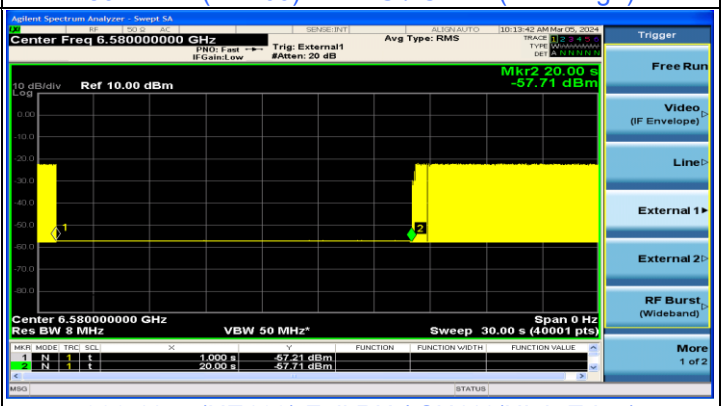
802.11ax (HE20) Full RU / CH105



802.11ax (HE160) Full RU / CH111(Low Edge)



802.11ax (HE160) Full RU / CH111(Middle)



802.11ax (HE160) Full RU / CH111(High Edge)

For U-NII-7

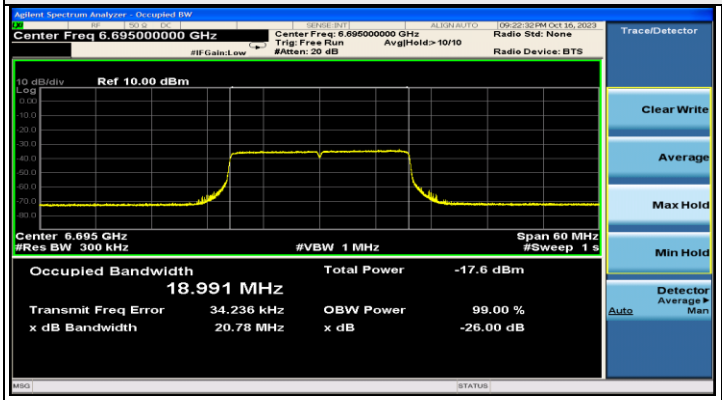
Contention Based Protocol Measurement										
Operation Mode	Channel Bandwidth (MHz)	Channel Number	Channel Freq. (MHz)	Injected Signal (AWGN)		Antenna Gain (dBi)	Path Loss (dB) (Note 3)	Adjusted Power (dBm)	Detection Limit	EUT TX Status
				Freq. (MHz)	Power (dBm)					
802.11ax	20	149	6695	6695	-68	-0.15	0	-67.85	-62	OFF
					-73	-0.15	0	-72.85	-62	Minimal
					-82.15	-0.15	0	-82	-62	ON
	160	143	6665	6590	-67	-0.15	0	-66.85	-62	OFF
					-69	-0.15	0	-68.85	-62	Minimal
					-82.15	-0.15	0	-82	-62	ON
				6665	-68	-0.15	0	-67.85	-62	OFF
					-71	-0.15	0	-70.85	-62	Minimal
					-82.15	-0.15	0	-82	-62	ON
				6740	-68	-0.15	0	-67.85	-62	OFF
					-73	-0.15	0	-72.85	-62	Minimal
					-82.15	-0.15	0	-82	-62	ON

Notes:

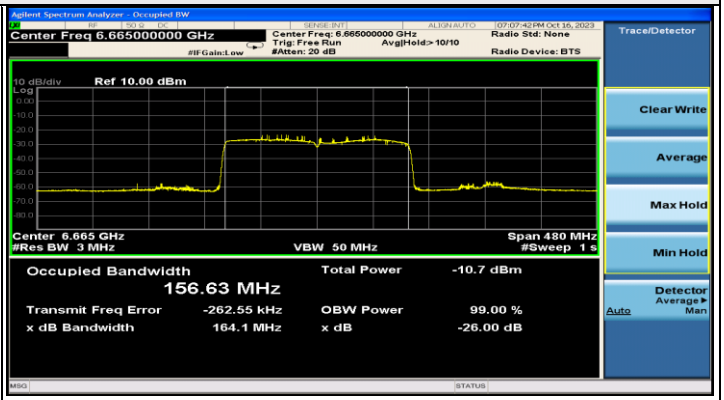
1. After investigation (consider antenna gain and path loss) , the one representative port (Chain 0) was measured and presented in the report.
2. Adjusted Power (dBm) = Injected Signal (AWGN) Power (dBm) - Antenna Gain (dBi) + Path Loss (dB)
3. Antenna gain values include all the applicable path losses.
4. Channel puncturing and bandwidth reduction are not supported.

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	v	v	v	v	v	v	v	v	100%	90%	Pass
	160	6590	v	v	v	v	v	v	v	v	v	v	100%	90%	Pass
		6665	v	v	v	v	v	v	v	v	v	v	100%	90%	Pass
		6740	v	v	v	v	v	v	v	v	v	v	100%	90%	Pass

Plots of EUT Tx waveform

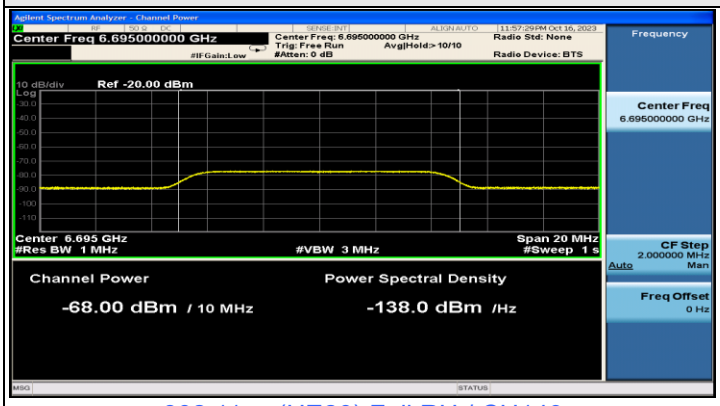


802.11ax (HE20) Full RU / CH149

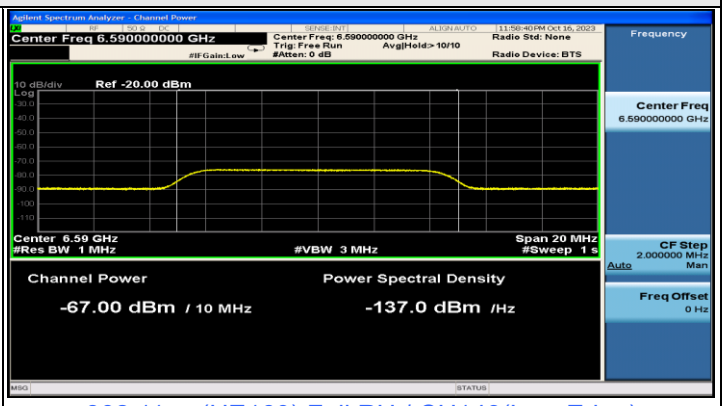


802.11ax (HE160) Full RU / CH143

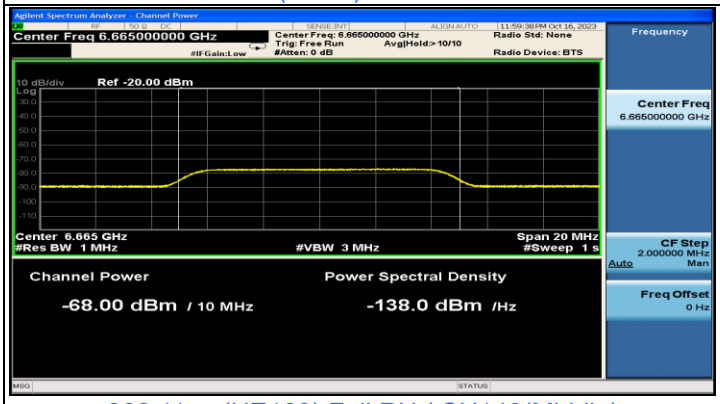
Plots of Injected signal (AWGN) level



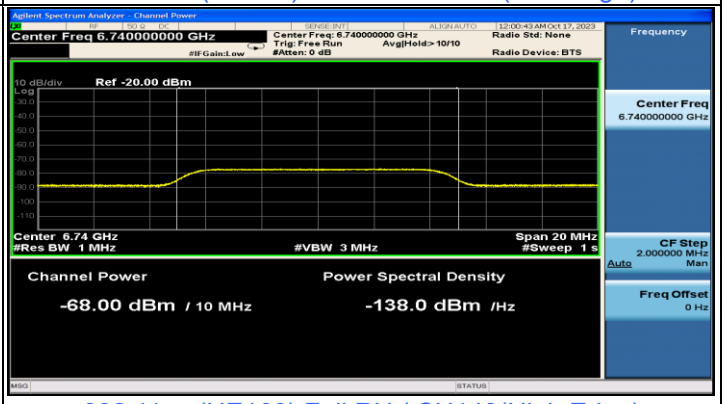
802.11ax (HE20) Full RU / CH149



802.11ax (HE160) Full RU / CH143(Low Edge)

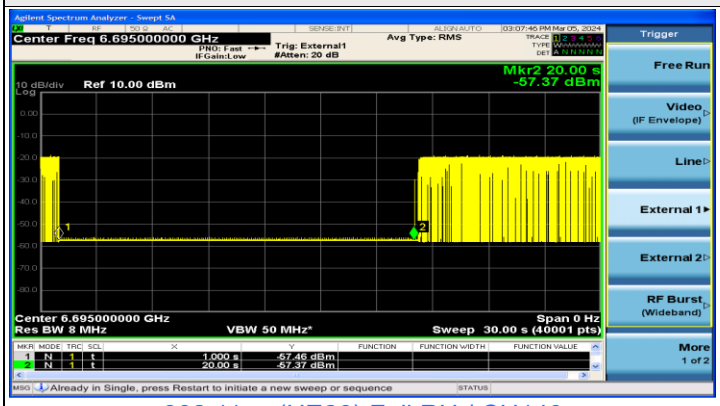


802.11ax (HE160) Full RU / CH143(Middle)

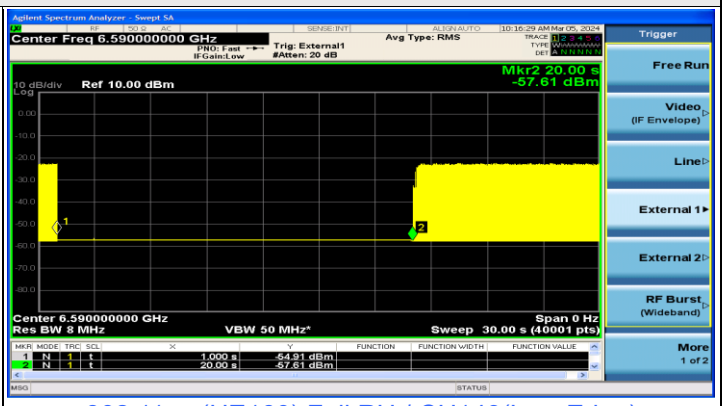


802.11ax (HE160) Full RU / CH143(High Edge)

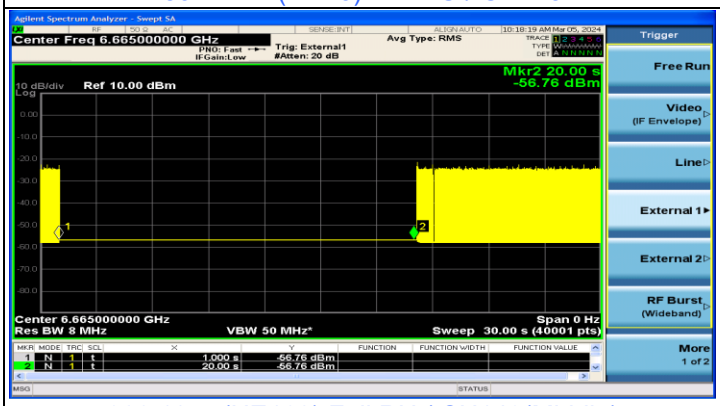
Plots of EUT ceased transmission in the time domain



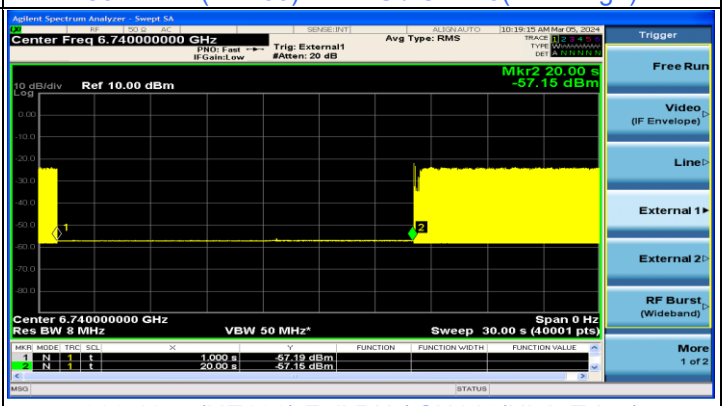
802.11ax (HE20) Full RU / CH149



802.11ax (HE160) Full RU / CH143(Low Edge)



802.11ax (HE160) Full RU / CH143(Middle)



802.11ax (HE160) Full RU / CH143(High Edge)

For U-NII-8

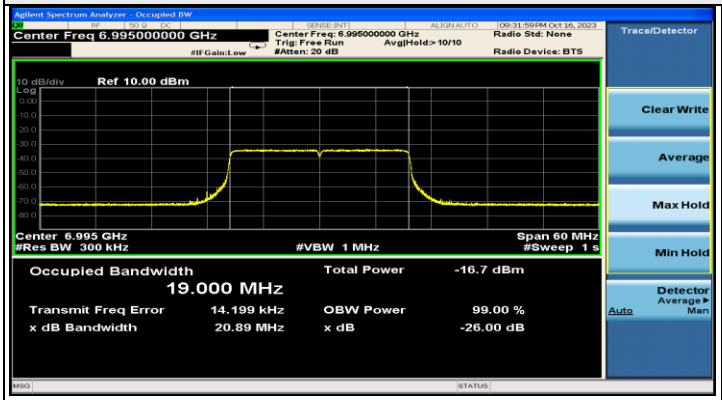
Contention Based Protocol Measurement										
Operation Mode	Channel Bandwidth (MHz)	Channel Number	Channel Freq. (MHz)	Injected Signal (AWGN)		Antenna Gain (dBi)	Path Loss (dB) (Note 3)	Adjusted Power (dBm)	Detection Limit	EUT TX Status
				Freq. (MHz)	Power (dBm)					
802.11ax	20	209	6995	6995	-66	-0.15	0	-65.85	-62	OFF
					-72	-0.15	0	-71.85	-62	Minimal
					-82.15	-0.15	0	-82	-62	ON
	160	207	6985	6910	-63	-0.15	0	-62.85	-62	OFF
					-69	-0.15	0	-68.85	-62	Minimal
					-82.15	-0.15	0	-82	-62	ON
				6985	-63	-0.15	0	-62.85	-62	OFF
					-71	-0.15	0	-70.85	-62	Minimal
					-82.15	-0.15	0	-82	-62	ON
				7060	-63	-0.15	0	-62.85	-62	OFF
					-74	-0.15	0	-73.85	-62	Minimal
					-82.15	-0.15	0	-82	-62	ON

Notes:

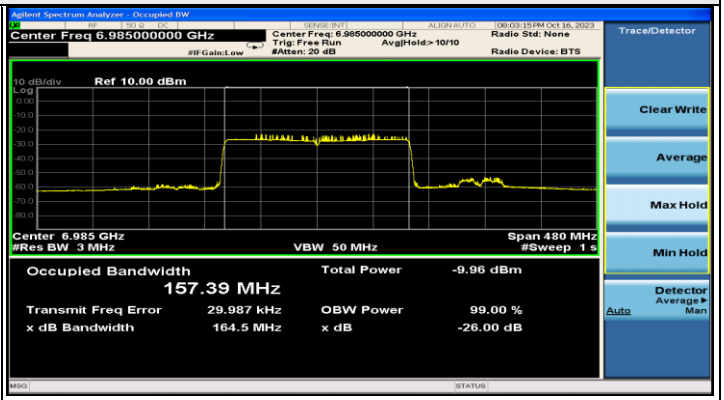
1. After investigation (consider antenna gain and path loss) , the one representative port (Chain 0) was measured and presented in the report.
2. Adjusted Power (dBm) = Injected Signal (AWGN) Power (dBm) - Antenna Gain (dBi) + Path Loss (dB)
3. Antenna gain values include all the applicable path losses.
4. Channel puncturing and bandwidth reduction are not supported.

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	v	v	v	v	v	v	v	100%	90%	Pass
	160	6910	v	v	x	v	v	v	v	v	v	v	90%	90%	Pass
		6985	v	v	v	v	v	v	v	v	v	v	100%	90%	Pass
		7060	v	v	v	v	v	v	v	v	v	v	100%	90%	Pass

Plots of EUT Tx waveform

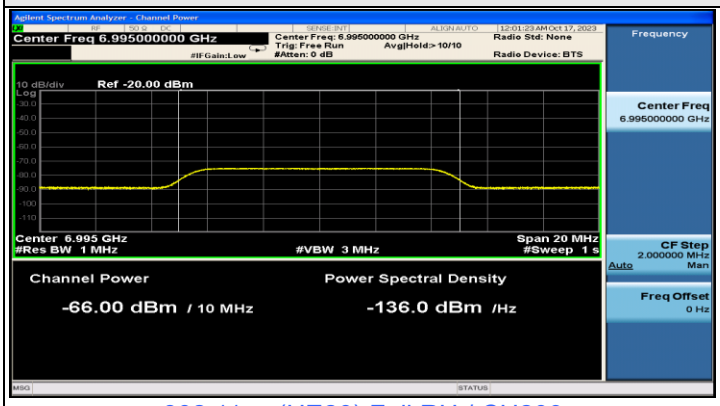


802.11ax (HE20) Full RU / CH209

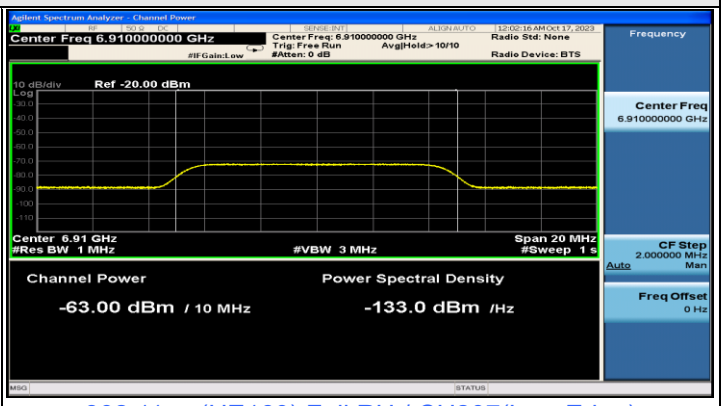


802.11ax (HE160) Full RU / CH207

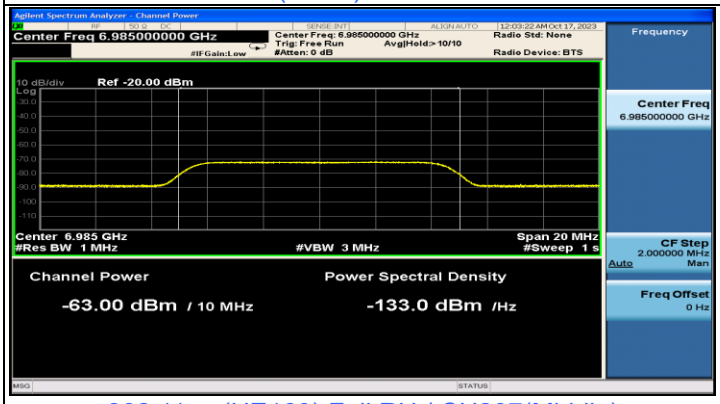
Plots of Injected signal (AWGN) level



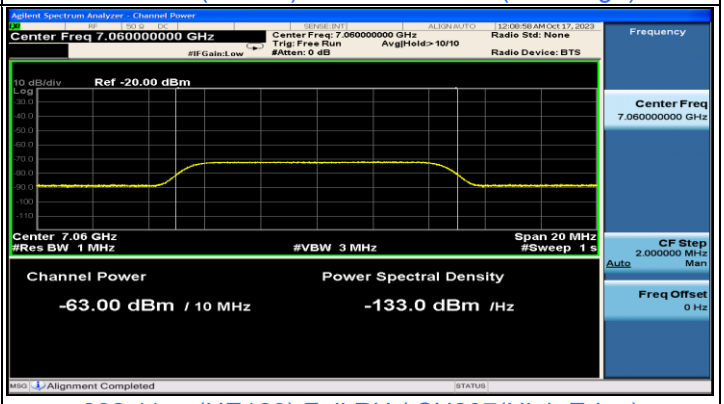
802.11ax (HE20) Full RU / CH209



802.11ax (HE160) Full RU / CH207(Low Edge)

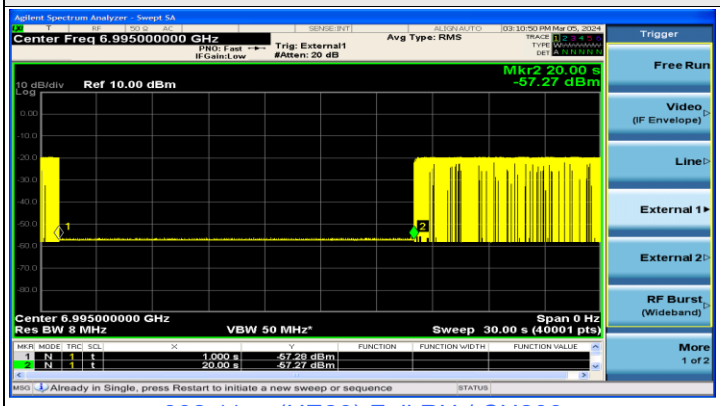


802.11ax (HE160) Full RU / CH207(Middle)

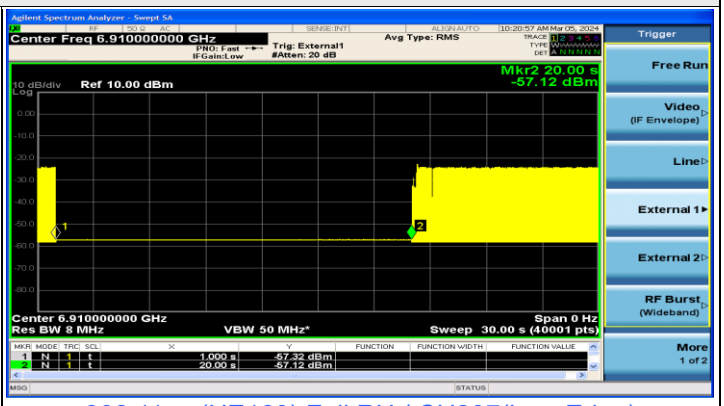


802.11ax (HE160) Full RU / CH207(High Edge)

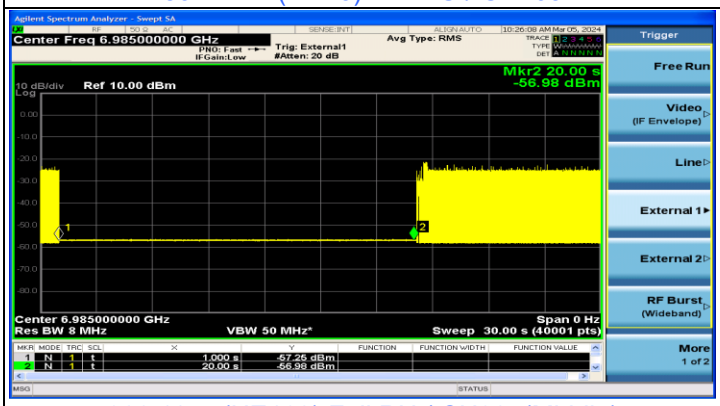
Plots of EUT ceased transmission in the time domain



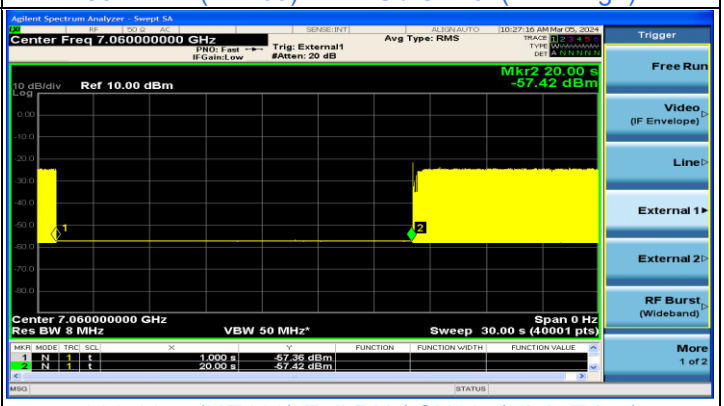
802.11ax (HE20) Full RU / CH209



802.11ax (HE160) Full RU / CH207(Low Edge)



802.11ax (HE160) Full RU / CH207(Middle)



802.11ax (HE160) Full RU / CH207(High Edge)