

TEST REPORT

CERTIFICATE OF CONFORMITY

Standard: 47 CFR FCC Part 15, Subpart E (Section 15.407)
Report No.: RFBBUI-WTW-P23070201C-4
FCC ID: TX2-RTL8922AE
Product: 11be RTL8922AE Combo module
Brand: REALTEK
Model No.: RTL8922AE
Received Date: 2024/8/1
Test Date: 2024/8/22 ~ 2024/12/26
Issued Date: 2025/1/22

Applicant: Realtek Semiconductor Corp.
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FCC Registration / 723255 / TW2022
Designation Number:

Approved by: _____, **Date:** 2025/1/22
May Chen / Manager

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Prepared by : Phoenix Huang / Specialist

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Release Control Record

Issue No.	Description	Date Issued
RFBBUI-WTW-P23070201C-4	Original release.	2025/1/22

1 Certificate

Product: 11be RTL8922AE Combo module

Brand: REALTEK

Test Model: RTL8922AE

Sample Status: Engineering sample

Applicant: Realtek Semiconductor Corp.

Test Date: 2024/8/22 ~ 2024/12/26

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

Measurement ANSI C63.10-2013

procedure: KDB 987594 D02 U-NII 6 GHz EMC Measurement v03

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)(9)	Maximum RF Output Power	Pass	Meet the requirement of limit.
15.407(a)(9)	Maximum Power Spectral Density	Pass	Meet the requirement of limit.
15.407(a)(11)	Emission Bandwidth	Pass	Meet the requirement of limit.
---	Occupied Bandwidth	-	Reference only.
15.407(b)(9)	AC Power Conducted Emissions	Pass	Minimum passing margin is -12.35 dB at 0.49375 MHz
15.407(b)(9)	Unwanted Emissions below 1 GHz	Pass	Minimum passing margin is -5.3 dB at 144.40 MHz
15.407(b)(6) 15.407(b)(10)	Unwanted Emissions above 1 GHz	Pass	Minimum passing margin is -4.7 dB at 17955.00 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(d)(10)	Transmit power control (TPC) mechanism	Pass	Meet the requirement of limit.
15.203	Antenna Requirement	Pass	Antenna connector is IPEX, MHF4, MHF4L not a standard connector.

Notes:

- 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:

Parameter	Specification	Expanded Uncertainty (k=2) (±)
Maximum RF Output Power	-	1.1 dB
Maximum Power Spectral Density	-	1.3 dB
Emission Bandwidth	-	1050.00 Hz
In-Band Emission Mask	9 kHz ~ 40 GHz	2.6 dB
Occupied Bandwidth	-	1050.00 Hz
Contention-based Protocol	-	2.7 dB
AC Power Conducted Emissions	150 kHz ~ 30 MHz	1.9 dB
Unwanted Emissions below 1 GHz	9 kHz ~ 30 MHz	3.1 dB
	30 MHz ~ 1 GHz	5.1 dB
Unwanted Emissions above 1 GHz	1 GHz ~ 18 GHz	5.0 dB
	18 GHz ~ 40 GHz	5.3 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	11be RTL8922AE Combo module
Brand	REALTEK
Test Model	RTL8922AE
Status of EUT	Engineering sample
Power Supply Rating	3.3 Vdc from host equipment
Modulation Type	64QAM, 16QAM, QPSK, BPSK for OFDM 1024QAM for OFDMA in 11ax mode 4096QAM for OFDMA in 11be mode
Modulation Technology	OFDM, OFDMA
Transfer Rate	802.11a: up to 54 Mbps 802.11ax: up to 2401.9 Mbps 802.11be: up to 2882.4 Mbps
Operating Frequency	5.955 GHz ~ 6.415 GHz 6.535 GHz ~ 6.855 GHz
Number of Channel	802.11a, 802.11ax (HE20), 802.11be (EHT20): 41 802.11ax (HE40), 802.11be (EHT40): 20 802.11ax (HE80), 802.11be (EHT80): 9 802.11ax (HE160), 802.11be (EHT160): 4
Resource Unit (RU)	Single RU: 26-tone, 52-tone, 106-tone, 242-tone, 484-tone, 996-tone, 2 * 996-tone Multi-RU (Small RU): 52-tone + 26-tone, 106-tone + 26-tone Multi-RU (Large RU): 484-tone + 242-tone, 996-tone + 484-tone, 2 * 996-tone 996-tone + 484-tone + 242-tone
Output Power	5.955 GHz ~ 6.415 GHz: EIRP: 24.95 mW (13.97 dBm) 6.535 GHz ~ 6.855 GHz: EIRP: 25.071 mW (13.99 dBm)
Equipment Class	6VL: 15E 6 GHz Very low power devices

Note:

1. This is a supplementary report of FCC ID: TX2-RTL8922AE. The differences between them are as below information:
 ◆ Add 6VL equipment class.
2. According to above condition, all of test items need to be performed. And all data was verified to meet the requirements.
3. There are Bluetooth and WLAN (2.4 GHz & 5 GHz & 6 GHz) technology used for the EUT.

4. Simultaneously transmission combination.

1TX		
Combination	Technology	
	S0 (Chain 1)	S1 (Chain 0)
1	WLAN (5 GHz)_H	Bluetooth + WLAN (5 GHz)_L
2	WLAN (5 GHz)_L	Bluetooth + WLAN (5 GHz)_H
3	WLAN (5 GHz)_L	Bluetooth + WLAN (6 GHz)
4	WLAN (6 GHz)	Bluetooth + WLAN (5 GHz)_L
5	WLAN (6 GHz)	Bluetooth + WLAN (5 GHz)_H
6	WLAN (5 GHz)_H	Bluetooth + WLAN (6 GHz)
7	WLAN (2.4 GHz)	WLAN (5 GHz) Full
8	WLAN (2.4 GHz)	WLAN (6 GHz)
9	WLAN (5 GHz) Full	Bluetooth
10	WLAN (6 GHz)	Bluetooth
2TX		
1	WLAN (5 GHz)_L	WLAN (5 GHz)_L + Bluetooth
2	WLAN (5 GHz)_H	WLAN (5 GHz)_H + Bluetooth
3	WLAN (6 GHz)	WLAN (6 GHz) + Bluetooth

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

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

3.2 Antenna Description of EUT

1. The antenna information is listed as below.

Ant. Set	RF Port No.	Chain No.	Brand	Model	Antenna Net Gain (dBi)	Frequency Range (GHz)	Antenna Type	Connector Type	Cable Length (mm)
1	1/2	Chain0/1	REALTEK	RTK-ANT-0022	3.4	2.4~2.4835	PIFA	IPEX, MHF4	300
					5	5.15~5.895			
					5	5.925~7.125			
2	1/2	Chain0/1	ARISTOTLE	RFA-57-JP805-4B-300	-1.87	5.15~5.895	PIFA	IPEX, MHF4	300
					-1.88	5.925~7.125			
3	1/2	Chain0/1	HongBo	260-25096	3.11	2.4~2.4835	Monopole	MHF4L	300
					4.91	5.15~5.895			
					4.73	5.925~7.125			
4	1/2	Chain0/1	ARISTOTLE	RFA-27-C38H1-MHF4300	3	2.4~2.4835	Dipole	IPEX, MHF4	300
					5	5.15~5.895			
					5	5.925~7.125			

* 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 Configuration		CDD Mode	Beamforming Mode
802.11a	SISO	1TX Diversity	Not Support	Not Support
802.11ax (HE20)		1TX Diversity	Not Support	Not Support
802.11ax (HE40)		1TX Diversity	Not Support	Not Support
802.11ax (HE80)		1TX Diversity	Not Support	Not Support
802.11ax (HE160)		1TX Diversity	Not Support	Not Support
802.11be (EHT20)		1TX Diversity	Not Support	Not Support
802.11be (EHT40)		1TX Diversity	Not Support	Not Support
802.11be (EHT80)		1TX Diversity	Not Support	Not Support
802.11be (EHT160)		1TX Diversity	Not Support	Not Support
802.11ax (RU26/52/106/242/484/996/2*996)		1TX Diversity	Not Support	Not Support
802.11be (RU26/52/106/242/484/996/2*996 MRU52+26/106+26/ 484+242/996+484/996+484+242)		1TX Diversity	Not Support	Not Support
802.11a	MIMO	2TX	Support	Not Support
802.11ax (HE20)		2TX	Support NSS2*	Not Support
802.11ax (HE40)		2TX	Support NSS2*	Not Support
802.11ax (HE80)		2TX	Support NSS2*	Not Support
802.11ax (HE160)		2TX	Support NSS2*	Not Support
802.11be (EHT20)		2TX	Support NSS2*	Not Support
802.11be (EHT40)		2TX	Support NSS2*	Not Support
802.11be (EHT80)		2TX	Support NSS2*	Not Support
802.11be (EHT160)		2TX	Support NSS2*	Not Support
802.11ax (RU26/52/106/242/484/996/2*996)		2TX	Support NSS2*	Not Support
802.11be (RU26/52/106/242/484/996/2*996 MRU52+26/106+26/ 484+242/996+484/996+484+242)		2TX	Support NSS2*	Not Support

Note:

1. The modulation and bandwidth are similar for 802.11ax mode for 20 MHz (40 MHz, 80 MHz, 160 MHz) and 802.11be mode for 20 MHz (40 MHz, 80 MHz, 160 MHz) therefore the manufacturer will control the power for 802.11ax mode is same as the 802.11be mode or lower than it and investigated worst case to representative mode in test report.

2. *For 802.11ax and 802.11be, CDD mode only support NSS2.

3.3 Channel List

U-NII-5:

24 channels are provided for 802.11a, 802.11ax (HE20), 802.11be (EHT20):

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), 802.11be (EHT40):

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), 802.11be (EHT80):

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), 802.11be (EHT160):

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

U-NII-7:

17 channels are provided for 802.11a, 802.11ax (HE20), 802.11be (EHT20):

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), 802.11be (EHT40):

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

3 channels are provided for 802.11ax (HE80), 802.11be (EHT80):

Channel	Frequency	Channel	Frequency	Channel	Frequency
135	6625 MHz	151	6705 MHz	167	6785 MHz

1 channel is provided for 802.11ax (HE160), 802.11be (EHT160):

Channel	Frequency
143	6665 MHz

3.4 Test Mode Applicability and Tested Channel Detail

Pre-Scan:	1. RU/MRU configuration supported in all bandwidths has been pre-tested to determine the worst-case representative of the report. 2. Pre-Scan has been conducted to determine the worst-case mode from all possible combinations between available modulations, data rates.
Worst Case:	1. The worst case of RU/MRU configuration: 26-tone RU, 52-tone RU, 106-tone RU, 52+26-tone MRU and 106+26-tone MRU in 20 MHz bandwidth; 484+242-tone MRU in 80 MHz bandwidth; 996+484-tone MRU and 996+484+242-tone MRU in 160 MHz bandwidth.

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

Test Item	EUT Configure Mode	Mode	Equipment Class	Signal Mode	Tested Channel	Modulation	Data Rate Parameter	RU/MRU Index
Maximum RF Output Power	-	802.11a	Very low power	1TX / 2TX	1, 49, 93, 117, 149, 181	BPSK	6Mb/s	NA
		802.11be (EHT20)		1TX NSS1 / 2TX NSS2	1, 49, 93, 117, 149, 181	BPSK	MCS0	NA
		802.11be (EHT40)			3, 51, 91, 123, 147, 179	BPSK	MCS0	NA
		802.11be (EHT80)			7, 55, 87, 135, 151, 167	BPSK	MCS0	NA
		802.11be (EHT160)			15, 47, 79, 143	BPSK	MCS0	NA
		802.11be (EHT20) 26-tone RU			1, 49, 93, 117, 149, 181	BPSK	MCS0	0, 4, 8, 0, 4, 8
		802.11be (EHT20) 52-tone RU			1, 49, 93, 117, 149, 181	BPSK	MCS0	37, 38, 40, 37, 38, 40
		802.11be (EHT20) 106-tone RU			1, 49, 93, 117, 149, 181	BPSK	MCS0	53, 53, 54, 53, 53, 54
		802.11be (EHT20) 52+26-tone MRU			1, 93, 117, 181	BPSK	MCS0	1, 3, 1, 3
		802.11be (EHT20) 106+26-tone MRU			1, 93, 117, 181	BPSK	MCS0	1, 2, 1, 2
		802.11be (EHT80) 484+242-tone MRU			7, 87, 135, 167	BPSK	MCS0	3, 2, 2, 2
		802.11be (EHT160) 996+484-tone MRU			15, 79, 143	BPSK	MCS0	3, 2, 3
		802.11be (EHT160) 996+484+242-tone MRU			15, 79, 143	BPSK	MCS0	5, 4, 5

Test Item	EUT Configure Mode	Mode	Equipment Class	Signal Mode	Tested Channel	Modulation	Data Rate Parameter	RU/MRU Index
Maximum Power Spectral Density	-	802.11a	Very low power	1TX / 2TX	1, 49, 93, 117, 149, 181	BPSK	6Mb/s	NA
		802.11be (EHT20)		1TX NSS1 / 2TX NSS2	1, 49, 93, 117, 149, 181	BPSK	MCS0	NA
		802.11be (EHT40)			3, 51, 91, 123, 147, 179	BPSK	MCS0	NA
		802.11be (EHT80)			7, 55, 87, 135, 151, 167	BPSK	MCS0	NA
		802.11be (EHT160)			15, 47, 79, 143	BPSK	MCS0	NA
		802.11be (EHT20) 26-tone RU			1, 49, 93, 117, 149, 181	BPSK	MCS0	0, 4, 8, 0, 4, 8
		802.11be (EHT20) 52-tone RU			1, 49, 93, 117, 149, 181	BPSK	MCS0	37, 38, 40, 37, 38, 40
		802.11be (EHT20) 106-tone RU			1, 49, 93, 117, 149, 181	BPSK	MCS0	53, 53, 54, 53, 53, 54
		802.11be (EHT20) 52+26-tone MRU			1, 93, 117, 181	BPSK	MCS0	1, 3, 1, 3
		802.11be (EHT20) 106+26-tone MRU			1, 93, 117, 181	BPSK	MCS0	1, 2, 1, 2
		802.11be (EHT80) 484+242-tone MRU			7, 87, 135, 167	BPSK	MCS0	3, 2, 2, 2
		802.11be (EHT160) 996+484-tone MRU			15, 79, 143	BPSK	MCS0	3, 2, 3
		802.11be (EHT160) 996+484+242-tone MRU			15, 79, 143	BPSK	MCS0	5, 4, 5

Test Item	EUT Configure Mode	Mode	Equipment Class	Signal Mode	Tested Channel	Modulation	Data Rate Parameter	RU/MRU Index
Emission Bandwidth	-	802.11a	Very low power	1TX / 2TX	1, 49, 93, 117, 149, 181	BPSK	6Mb/s	NA
		802.11be (EHT20)		1TX NSS1 / 2TX NSS2	1, 49, 93, 117, 149, 181	BPSK	MCS0	NA
		802.11be (EHT40)			3, 51, 91, 123, 147, 179	BPSK	MCS0	NA
		802.11be (EHT80)			7, 55, 87, 135, 151, 167	BPSK	MCS0	NA
		802.11be (EHT160)			15, 47, 79, 143	BPSK	MCS0	NA
		802.11be (EHT20) 26-tone RU			1, 49, 93, 117, 149, 181	BPSK	MCS0	0, 4, 8, 0, 4, 8
		802.11be (EHT20) 52-tone RU			1, 49, 93, 117, 149, 181	BPSK	MCS0	37, 38, 40, 37, 38, 40
		802.11be (EHT20) 106-tone RU			1, 49, 93, 117, 149, 181	BPSK	MCS0	53, 53, 54, 53, 53, 54
		802.11be (EHT20) 52+26-tone MRU			1, 93, 117, 181	BPSK	MCS0	1, 3, 1, 3
		802.11be (EHT20) 106+26-tone MRU			1, 93, 117, 181	BPSK	MCS0	1, 2, 1, 2
		802.11be (EHT80) 484+242-tone MRU			7, 87, 135, 167	BPSK	MCS0	3, 2, 2, 2
		802.11be (EHT160) 996+484-tone MRU			15, 79, 143	BPSK	MCS0	3, 2, 3
		802.11be (EHT160) 996+484+242-tone MRU			15, 79, 143	BPSK	MCS0	5, 4, 5

Test Item	EUT Configure Mode	Mode	Equipment Class	Signal Mode	Tested Channel	Modulation	Data Rate Parameter	RU/MRU Index
In-Band Emission Mask	-	802.11a	Very low power	1TX / 2TX	1, 49, 93, 117, 149, 181	BPSK	6Mb/s	NA
		802.11be (EHT20)		1TX NSS1 / 2TX NSS2	1, 49, 93, 117, 149, 181	BPSK	MCS0	NA
		802.11be (EHT40)			3, 51, 91, 123, 147, 179	BPSK	MCS0	NA
		802.11be (EHT80)			7, 55, 87, 135, 151, 167	BPSK	MCS0	NA
		802.11be (EHT160)			15, 47, 79, 143	BPSK	MCS0	NA
		802.11be (EHT20) 26-tone RU			1, 49, 93, 117, 149, 181	BPSK	MCS0	0, 4, 8, 0, 4, 8
		802.11be (EHT20) 52-tone RU			1, 49, 93, 117, 149, 181	BPSK	MCS0	37, 38, 40, 37, 38, 40
		802.11be (EHT20) 106-tone RU			1, 49, 93, 117, 149, 181	BPSK	MCS0	53, 53, 54, 53, 53, 54
		802.11be (EHT20) 52+26-tone MRU			1, 93, 117, 181	BPSK	MCS0	1, 3, 1, 3
		802.11be (EHT20) 106+26-tone MRU			1, 93, 117, 181	BPSK	MCS0	1, 2, 1, 2
		802.11be (EHT80) 484+242-tone MRU			7, 87, 135, 167	BPSK	MCS0	2, 2, 2, 2
		802.11be (EHT160) 996+484-tone MRU			15, 79, 143	BPSK	MCS0	2, 2, 3
		802.11be (EHT160) 996+484+242-tone MRU			15, 79, 143	BPSK	MCS0	4, 4, 5

Test Item	EUT Configure Mode	Mode	Equipment Class	Signal Mode	Tested Channel	Modulation	Data Rate Parameter	RU/MRU Index
Occupied Bandwidth	-	802.11a	Very low power	1TX / 2TX	1, 49, 93, 117, 149, 181	BPSK	6Mb/s	NA
		802.11be (EHT20)		1TX NSS1 / 2TX NSS2	1, 49, 93, 117, 149, 181	BPSK	MCS0	NA
		802.11be (EHT40)			3, 51, 91, 123, 147, 179	BPSK	MCS0	NA
		802.11be (EHT80)			7, 55, 87, 135, 151, 167	BPSK	MCS0	NA
		802.11be (EHT160)			15, 47, 79, 143	BPSK	MCS0	NA
		802.11be (EHT20) 26-tone RU			1, 49, 93, 117, 149, 181	BPSK	MCS0	0, 4, 8, 0, 4, 8,
		802.11be (EHT20) 52-tone RU			1, 49, 93, 117, 149, 181	BPSK	MCS0	37, 38, 40, 37, 38, 40
		802.11be (EHT20) 106-tone RU			1, 49, 93, 117, 149, 181	BPSK	MCS0	53, 53, 54, 53, 53, 54
		802.11be (EHT20) 52+26-tone MRU			1, 93, 117, 181	BPSK	MCS0	1, 3, 1, 3
		802.11be (EHT20) 106+26-tone MRU			1, 93, 117, 181	BPSK	MCS0	1, 2, 1, 2
		802.11be (EHT80) 484+242-tone MRU			7, 87, 135, 167	BPSK	MCS0	3, 2, 2, 2
		802.11be (EHT160) 996+484-tone MRU			15, 79, 143	BPSK	MCS0	3, 2, 3
		802.11be (EHT160) 996+484+242-tone MRU			15, 79, 143	BPSK	MCS0	5, 4, 5
Contention- based Protocol	-	802.11be (EHT20)	Very low power	-	37, 133	BPSK	MCS0	NA
		802.11be (EHT160)			47, 143	BPSK	MCS0	NA
AC Power Conducted Emissions	A, B, C	802.11be (EHT80)	Very low power	2TX NSS2	167	BPSK	MCS0	NA
Unwanted Emissions below 1 GHz	A, B, C	802.11be (EHT80)	Very low power	2TX NSS2	167	BPSK	MCS0	NA

Test Item	EUT Configure Mode	Mode	Equipment Class	Signal Mode	Tested Channel	Modulation	Data Rate Parameter	RU/MRU Index
Unwanted Emissions above 1 GHz	A, B, C	802.11a	Very low power	1TX / 2TX	1, 49, 93, 117, 149, 181	BPSK	6Mb/s	NA
		802.11be (EHT20)		1TX NSS1 / 2TX NSS2	1, 49, 93, 117, 149, 181	BPSK	MCS0	NA
		802.11be (EHT40)			3, 51, 91, 123, 147, 179	BPSK	MCS0	NA
		802.11be (EHT80)			7, 55, 87, 135, 151, 167	BPSK	MCS0	NA
		802.11be (EHT160)			15, 47, 79, 143	BPSK	MCS0	NA
		802.11be (EHT20) 26-tone RU			1, 49, 93, 117, 149, 181	BPSK	MCS0	0, 4, 8, 0, 4, 8,
		802.11be (EHT20) 52-tone RU			1, 49, 93, 117, 149, 181	BPSK	MCS0	37, 38, 40, 37, 38, 40
		802.11be (EHT20) 106-tone RU			1, 49, 93, 117, 149, 181	BPSK	MCS0	53, 53, 54, 53, 53, 54
		802.11be (EHT20) 52+26-tone MRU			1, 93, 117, 181	BPSK	MCS0	1, 3, 1, 3
		802.11be (EHT20) 106+26-tone MRU			1, 93, 117, 181	BPSK	MCS0	1, 2, 1, 2
		802.11be (EHT80) 484+242-tone MRU			7, 87, 135, 167	BPSK	MCS0	3, 2, 2, 2
		802.11be (EHT160) 996+484-tone MRU			15, 79, 143	BPSK	MCS0	3, 2, 3
		802.11be (EHT160) 996+484+242-tone MRU			15, 79, 143	BPSK	MCS0	5, 4, 5
Transmit power control (TPC) mechanism	-	802.11be (EHT160)	Very low power	-	47, 143	-	-	-
EUT Configure Mode:	A	PIFA Antenna						
	B	Monopole Antenna						
	C	Dipole Antenna						

Note:

- This EUT does not support Channel puncturing or bandwidth reduction mechanisms.
- In the original report:
 - The antenna of types the worst case was pre-test and found when positioned on (X / Y / Z axis):
 - PIFA antenna: Y axis;
 - Monopole antenna: Y axis;
 - Dipole antenna: Z axis
 - For 1Tx diversity configuration the worst chain is: Chain 0 (S1)

3.5 Duty Cycle of Test Signal

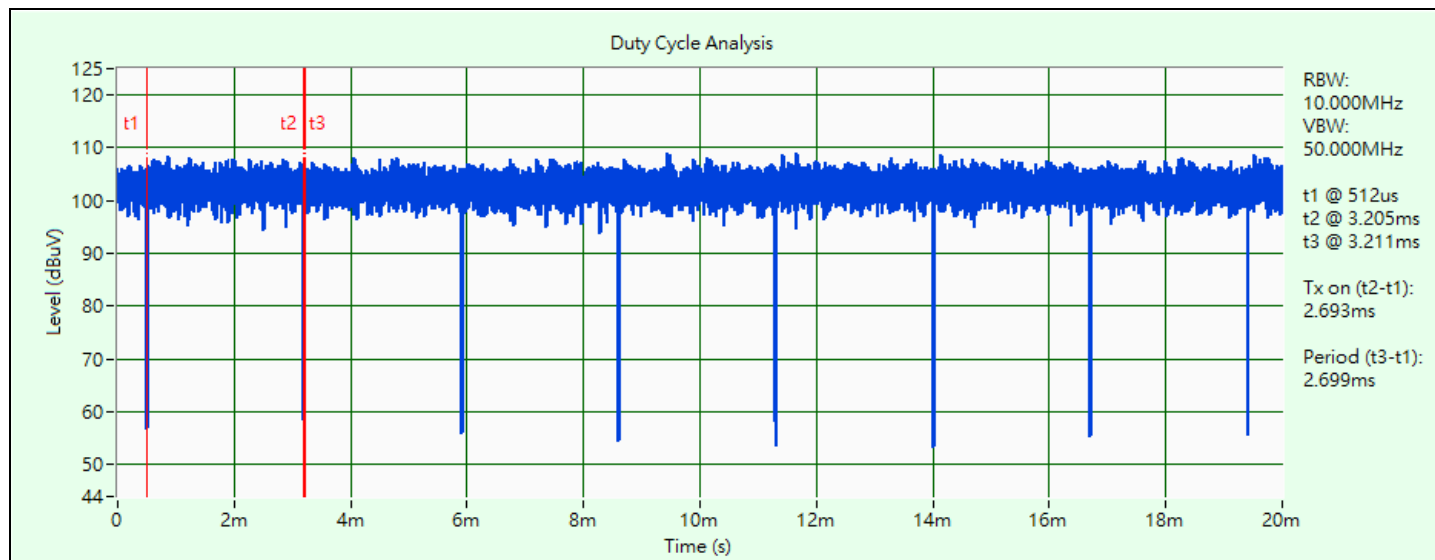
802.11a: Duty cycle = 2.693 ms / 2.699 ms x 100% = 99.8%

802.11be (EHT20): Duty cycle = 0.969 ms / 0.976 ms x 100% = 99.3%

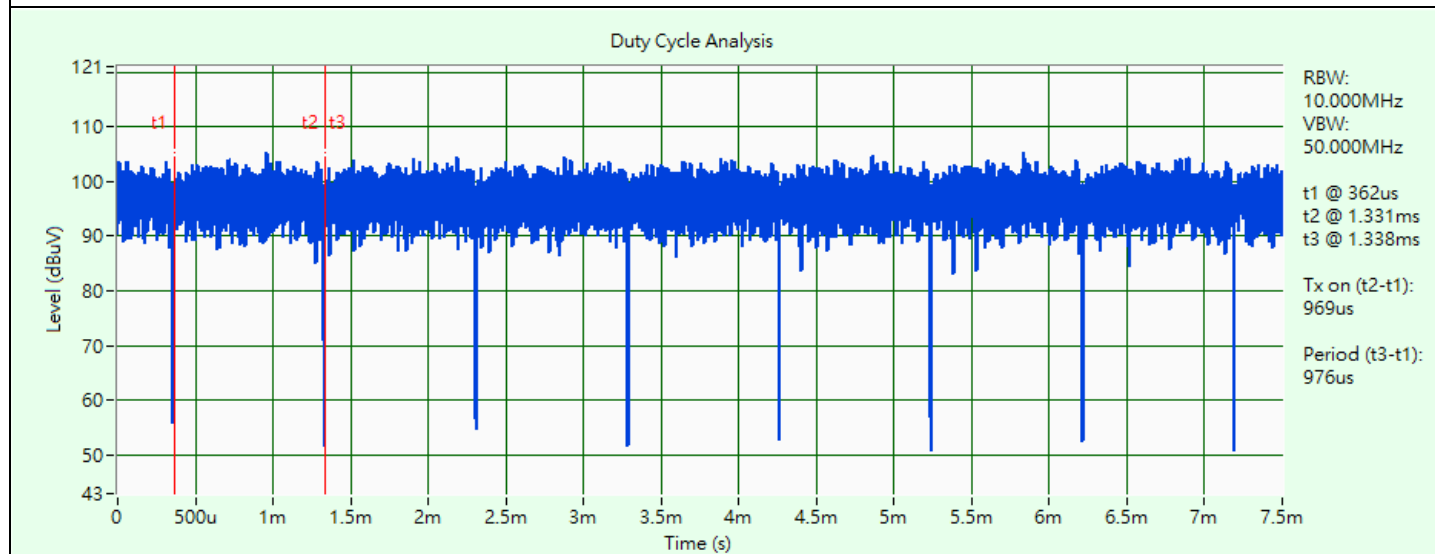
802.11be (EHT40): Duty cycle = 0.969 ms / 0.976 ms x 100% = 99.3%

802.11be (EHT80): Duty cycle = 1.008 ms / 1.016 ms x 100% = 99.2%

802.11be (EHT160): Duty cycle = 1.009 ms / 1.016 ms x 100% = 99.3%

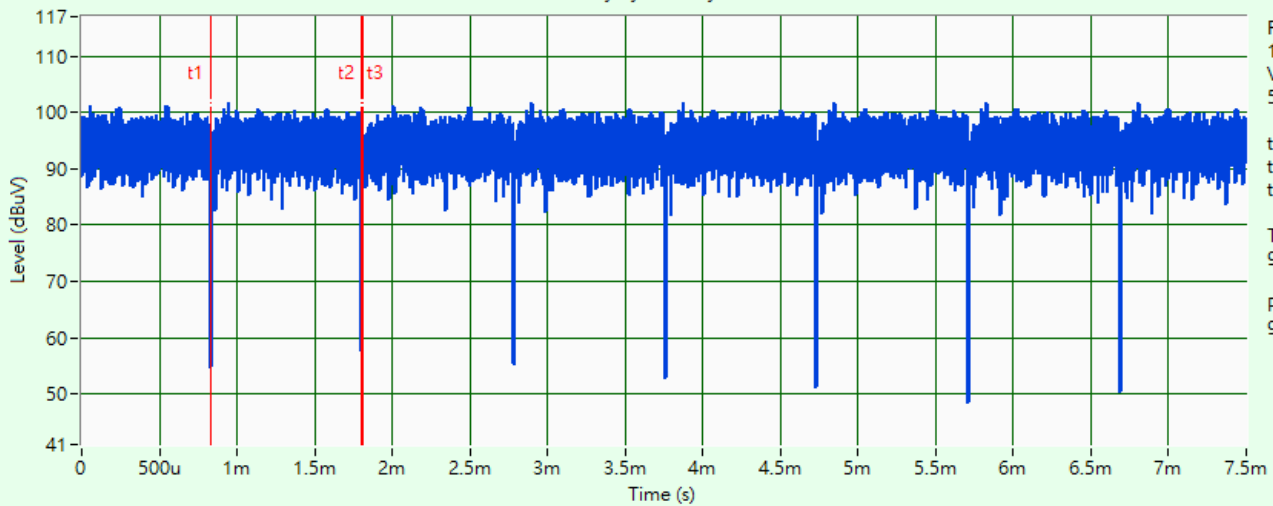


802.11a



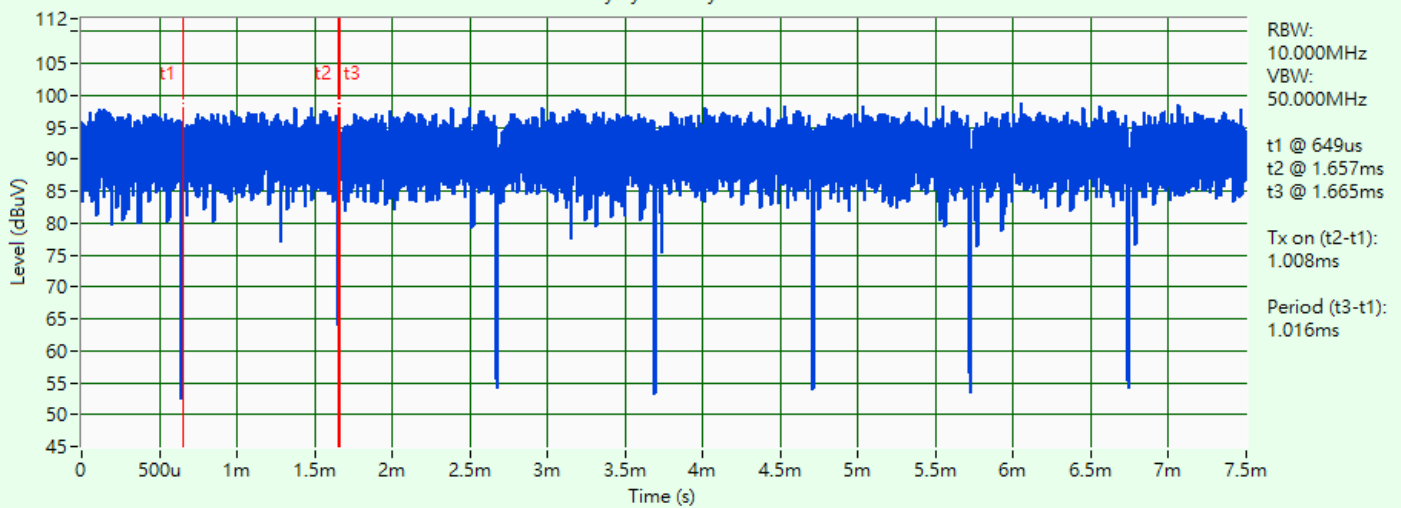
802.11be (EHT20)

Duty Cycle Analysis



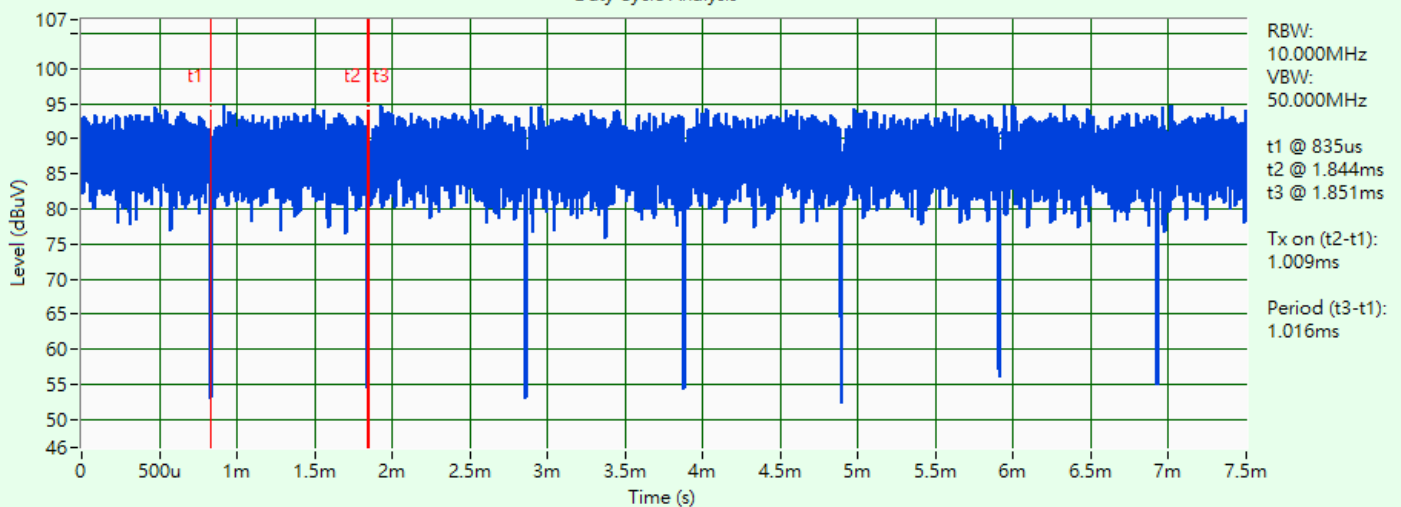
802.11be (EHT40)

Duty Cycle Analysis



802.11be (EHT80)

Duty Cycle Analysis



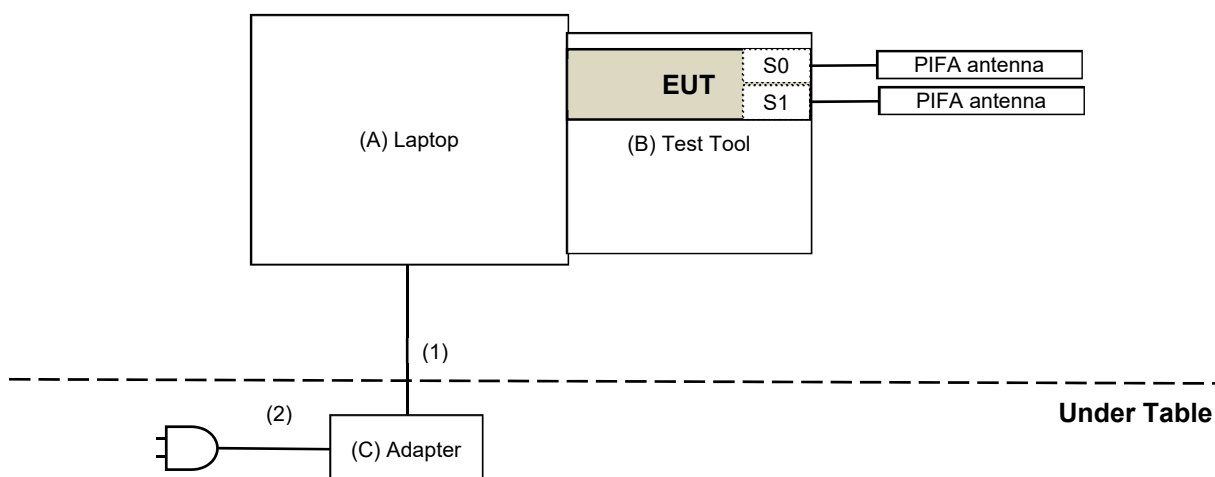
802.11be (EHT160)

3.6 Test Program Used and Operation Descriptions

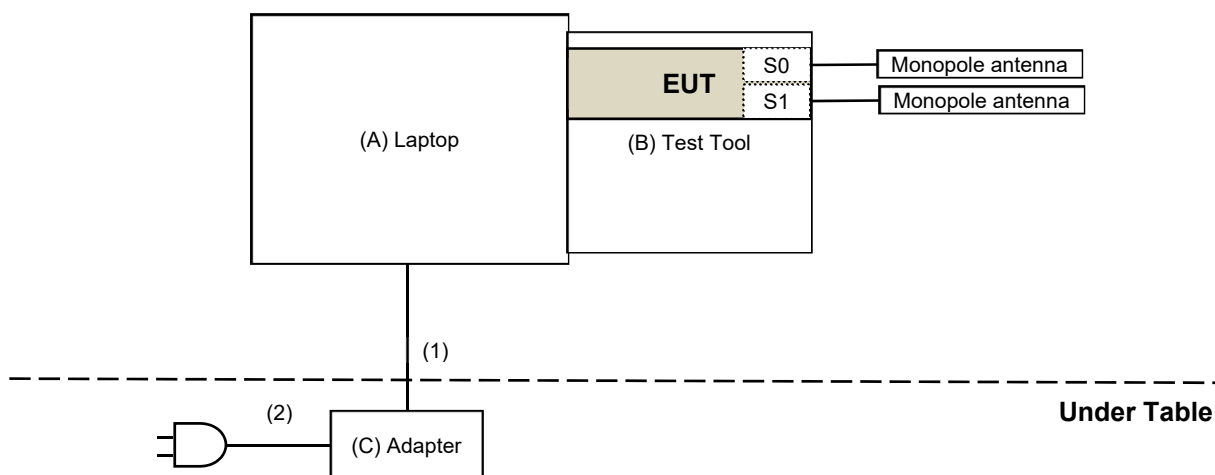
Controlling software (RTL8922A_PCIE_MP_Package_v2.0.39(153036)) has been activated to set the EUT under transmission condition continuously at specific channel frequency.

3.7 Connection Diagram of EUT and Peripheral Devices

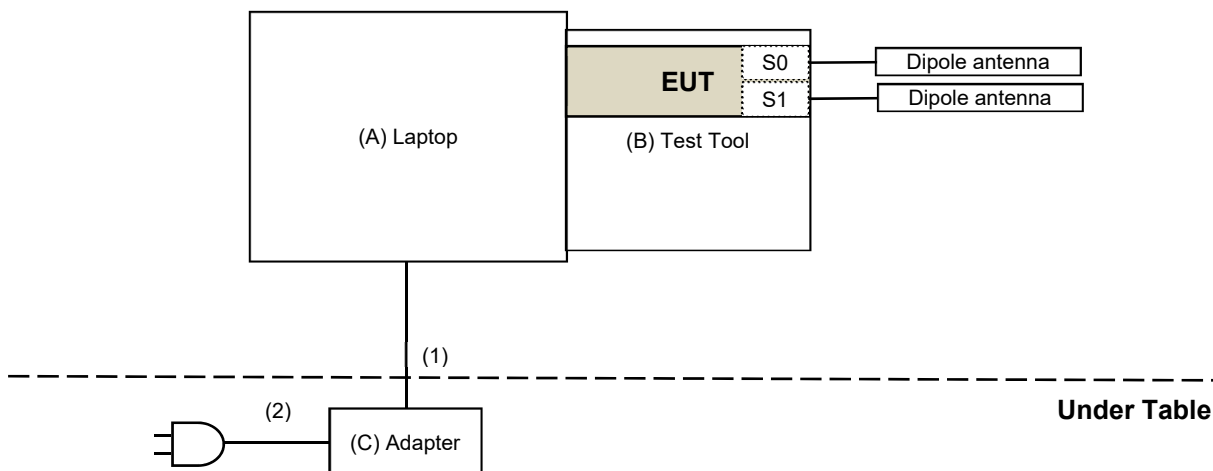
Mode A



Mode B:



Mode C:



3.8 Configuration of Peripheral Devices and Cable Connections

ID	Product	Brand	Model No.	Serial No.	FCC ID	Remarks
A	Laptop	Dell	E5420	FHNS4S1	N/A	Provided by Lab
B	Test Tool	Realtek	N/A	N/A	N/A	Supplied by applicant
C	Adapter	Dell	LA65NM130	N/A	N/A	Provided by Lab

ID	Cable Descriptions	Qty.	Length (m)	Shielding (Yes/No)	Cores (Qty.)	Remarks
1	DC Cable	1	1.8	No	0	Provided by Lab
2	AC Cable	1	1	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
Pulse Power Sensor Anritsu	MA2411B	1726434	2024/6/7	2025/6/6
RF Power Meter Anritsu	ML2495A	1529002	2024/6/7	2025/6/6

Notes:

1. The test was performed in Oven room 2.
2. Tested Date: 2024/8/22 ~ 2024/12/1

4.2 Maximum Power Spectral Density

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
MXA Signal Analyzer Keysight	N9020B	MY60112408	2024/3/7	2025/3/6
Software	ADT_RF Test Software V7.6.5.4	N/A	N/A	N/A

Notes:

1. The test was performed in Oven room 2.
2. Tested Date: 2024/8/22 ~ 2024/12/1

4.3 Emission Bandwidth

Refer to section 4.2 to get the tested date and information of the instruments.

4.4 In-Band Emission Mask

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
MXA Signal Analyzer Keysight	N9020B	MY60112408	2024/3/7	2025/3/6
Software	ADT_RF Test Software V7.6.5.4	N/A	N/A	N/A

Notes:

1. The test was performed in Oven room 2.
2. Tested Date: 2024/8/22 ~ 2024/8/26

4.5 Occupied Bandwidth

Refer to section 4.2 to get the tested date and information of the instruments.

4.6 Contention-based Protocol

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Frequency Extender Keysight	N5182BX07	MY59360198	2024/9/27	2025/9/26
MXG Vector Signal Generator Keysight	N5182B	MY53052647	2024/9/27	2025/9/26
Power Splitter/Combiner Mini-Circuits	ZFRSC-123-S+	F698501347_01	2023/12/12	2024/12/11
		F698501347_02	2023/12/12	2024/12/11
Signal & Spectrum Analyzer R&S	FSW8	101497	2024/5/21	2025/5/20
Signal Analyzer R&S	FSV40	101516	2024/1/29	2025/1/28

Notes:

1. The test was performed in Adaptivity room.
2. Tested Date: 2024/10/23

4.7 AC Power Conducted Emissions

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
50 ohm terminal resistance Telegartner	50 ohm	3	2024/11/1	2025/10/31
EMI Test Receiver R&S	ESCS 30	100375	2024/5/20	2025/5/19
Fixed Attenuator STI	STI02-2200-10	005	2024/2/19	2025/2/18
LISN R&S	ESH3-Z5	835239/001	2024/4/3	2025/4/2
		848773/004	2024/10/7	2025/10/6
RF Coaxial Cable JYEBAO	5D-FB	COCCAB-001	2024/2/19	2025/2/18
Software BVADT	BVADT_Cond_V7.3.7.4	N/A	N/A	N/A

Notes:

1. The test was performed in Conduction 1
2. Tested Date: 2024/11/8

4.8 Unwanted Emissions below 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Bi_Log Antenna Schwarzbeck	VULB 9168	9168-0942	2024/10/14	2025/10/13
Boresight Antenna Tower & Turn Table Max-Full	MF-7802BS	MF780208530	N/A	N/A
Fixed Attenuator Mini-Circuits	UNAT-5+	PAD-ATT5-01	2024/5/16	2025/5/15
Loop Antenna TESEQ	HLA 6121	63620	2024/10/17	2025/10/16
MXA Signal Analyzer Keysight	N9020B	MY60112410	2024/3/13	2025/3/12
MXE EMI Receiver Keysight	N9038A	MY59050100	2024/6/19	2025/6/18
Preamplifier EMCI	EMC330N	980852	2024/2/17	2025/2/16
	EMC001340	980142	2024/2/19	2025/2/18
RF Coaxial Cable JYEBAO	5D-FB	LOOPCAB-001	2024/2/19	2025/2/18
		LOOPCAB-002	2024/2/19	2025/2/18
RF Coaxial Cable PEWC	8D	966-6-1	2024/5/16	2025/5/15
		966-6-2	2024/5/16	2025/5/15
		966-6-3	2024/5/16	2025/5/15
Software	ADT_Radiated_V8.7.08	N/A	N/A	N/A

Notes:

1. The test was performed in 966 Chamber No. 6.
2. Tested Date: 2024/11/9

4.9 Unwanted Emissions above 1 GHz

Description Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
Boresight Antenna Tower & Turn Table Max-Full	MF-7802BS	MF780208530	N/A	N/A
Horn Antenna Schwarzbeck	BBHA 9120D	9120D-2035	2023/11/12 2024/11/10	2024/11/11 2025/11/9
	BBHA 9170	BBHA9170519	2023/11/12 2024/11/10	2024/11/11 2025/11/9
MXA Signal Analyzer Keysight	N9020B	MY60112410	2024/3/13	2025/3/12
MXE EMI Receiver Keysight	N9038A	MY59050100	2024/6/19	2025/6/18
Preamplifier EMCI	EMC12630SE	980385	2024/6/1	2025/5/31
	EMC184045SE	980387	2024/8/8	2025/8/7
RF Coaxial Cable EMCI	EMC104-SM-SM-1300	210205	2024/6/1	2025/5/31
	EMC104-SM-SM-2000	210203	2024/6/1	2025/5/31
	EMC104-SM-SM-8000	221015	2024/6/1	2025/5/31
Software	ADT_Radiated_V8.7.08	N/A	N/A	N/A

Notes:

1. The test was performed in 966 Chamber No. 6.
2. Tested Date: 2024/9/9 ~ 2024/12/19

4.10 Transmit power control (TPC) mechanism

Description & Manufacturer	Model No.	Serial No.	Calibrated Date	Calibrated Until
PXA Signal Analyzer Keysight	N9030A	MY55410176	2024/6/12	2025/6/11
Power Splitter/Combiner Mini-Circuits	ZN2PD-9G-S+	SF620001639-1	2024/3/19	2025/3/18
Programmable Step Attenuator SHX	GKTS1-9-110-8Y- HLU	GKTS1-9-110-8Y- HLU-02	2024/5/29	2025/5/28

Notes:

1. The test was performed in Oven room 2.
2. Tested Date: 2024/12/25 ~2024/12/26

5 Limits of Test Items

5.1 Maximum RF Output Power

Operation Band	Equipment Class	Limit
		Maximum Average Power
U-NII-5 U-NII-7	6VL: 15E 6 GHz VLP device	EIRP 14 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-7	6VL: 15E 6 GHz VLP device	EIRP -5 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) dB ^{*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 results are for reference only.

5.6 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.

5.7 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.

5.8 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).

5.9 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:

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

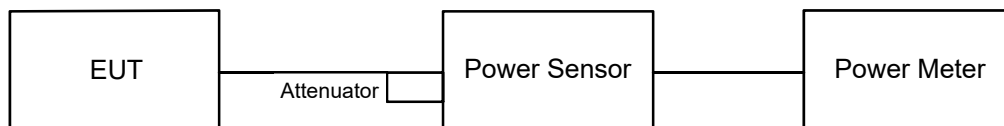
5.10 Transmit power control (TPC) mechanism

Very low power devices operating in the 5.925-6.425 and 6.525-6.875 GHz bands shall employ a transmit power control (TPC) mechanism. A very low power device is required to have the capability to operate at least 6 dB below the maximum EIRP power spectral density (PSD) value of -5 dBm/MHz.

6 Test Arrangements

6.1 Maximum RF Output Power

6.1.1 Test Setup

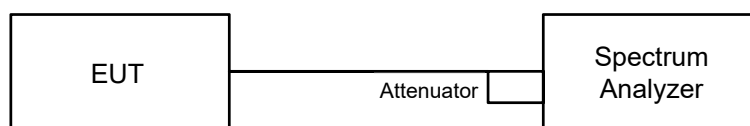


6.1.2 Test Procedure

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

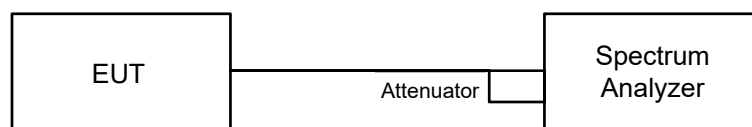
For specified measurement bandwidth 1 MHz:

Method SA-1

- Set span to encompass the entire emission bandwidth (EBW) of the signal.
- Set RBW = 1 MHz, Set VBW $\geq$ 3 MHz, Detector = RMS
- Sweep points $\geq [2 \times \text{span} / \text{RBW}]$. (This gives bin-to-bin spacing $\leq \text{RBW} / 2$, so that narrowband signals are not lost between frequency bins.)
- Sweep time = auto, trigger set to "free run".
- Trace average at least 100 traces in power averaging mode.
- Record the max value

6.3 Emission Bandwidth

6.3.1 Test Setup

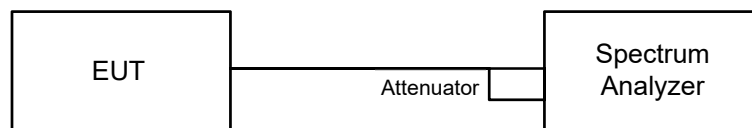


6.3.2 Test Procedure

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

6.4 In-Band Emission Mask

6.4.1 Test Setup

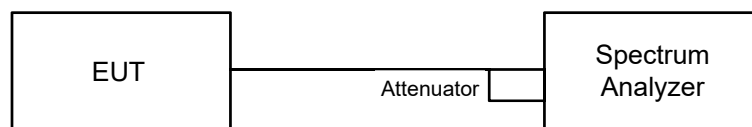


6.4.2 Test Procedure

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

6.5 Occupied Bandwidth

6.5.1 Test Setup

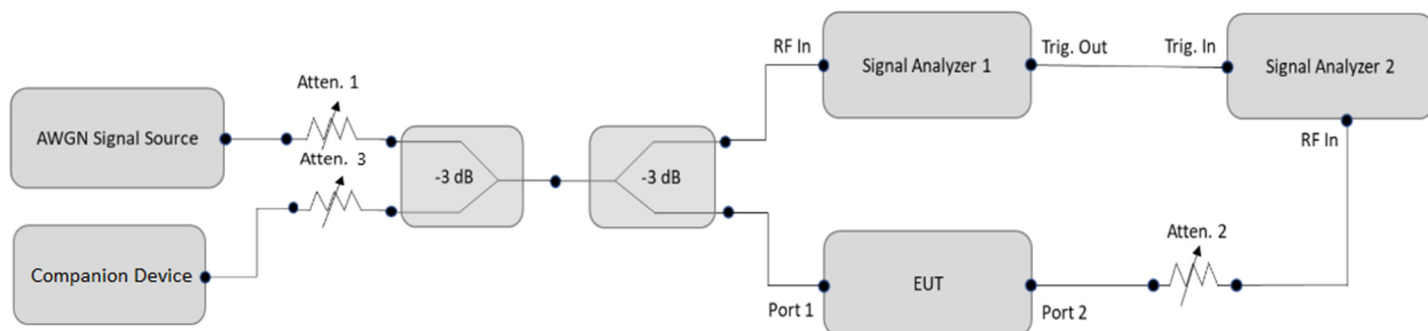


6.5.2 Test Procedure

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

6.6 Contention-based Protocol

6.6.1 Test Setup



6.6.2 Test Procedure

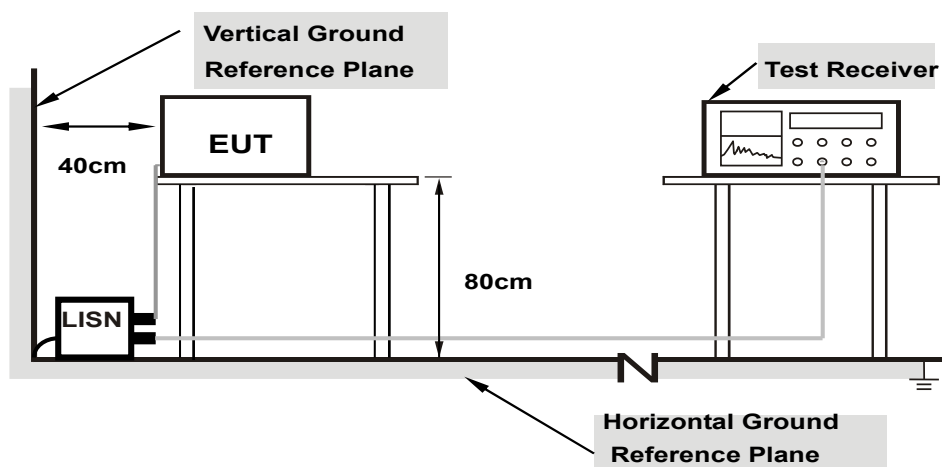
- Set the signal analyzer center frequency to the nominal EUT channel center frequency. The span range of the signal analyzer shall be between two times and five times the OBW of the EUT. Connect the output port of the EUT to the signal analyzer 2. Ensure that the attenuator 2 provides enough attenuation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

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

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

6.7 AC Power Conducted Emissions

6.7.1 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).

6.7.2 Test Procedure

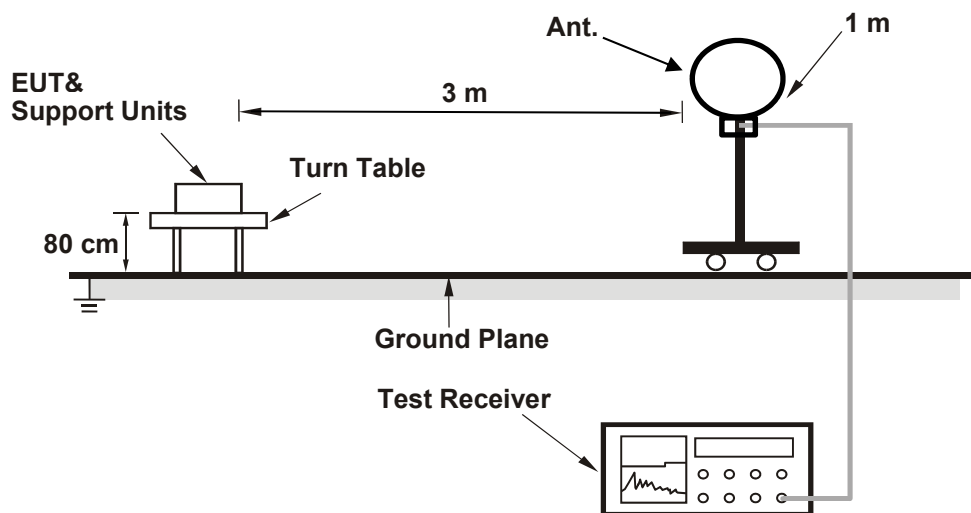
- The EUT was placed on a 0.8 meter to the top of table and placed 0.4 meters from the conducting wall of the shielded room with EUT being connected to the power mains through a line impedance stabilization network (LISN). Other support units were connected to the power mains through another LISN. The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

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

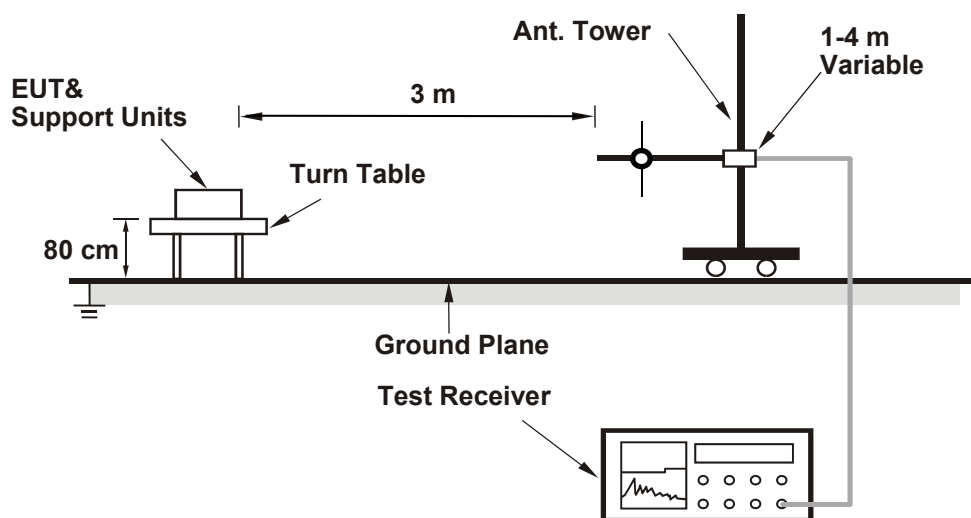
6.8 Unwanted Emissions below 1 GHz

6.8.1 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).

6.8.2 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

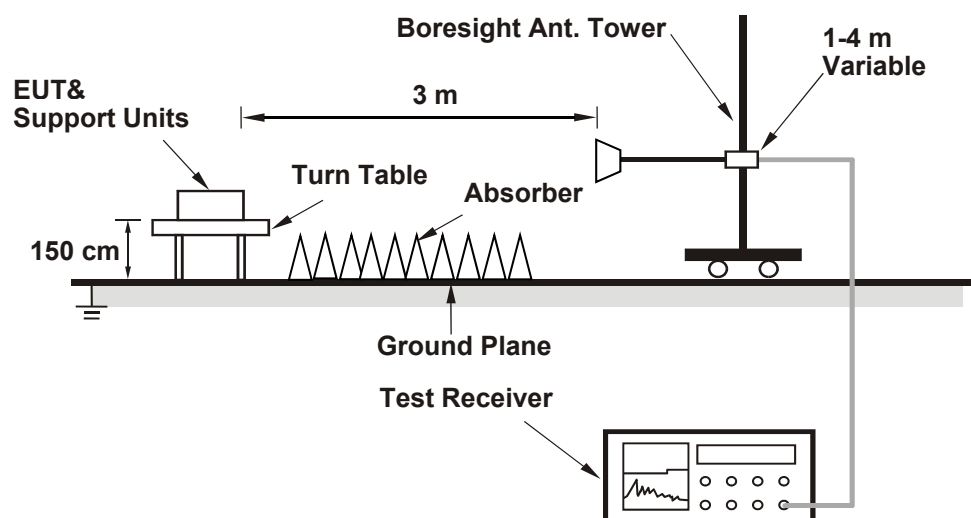
- a. The EUT was placed on the top of a rotating table 0.8 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the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

6.9 Unwanted Emissions above 1 GHz

6.9.1 Test Setup



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

6.9.2 Test Procedure

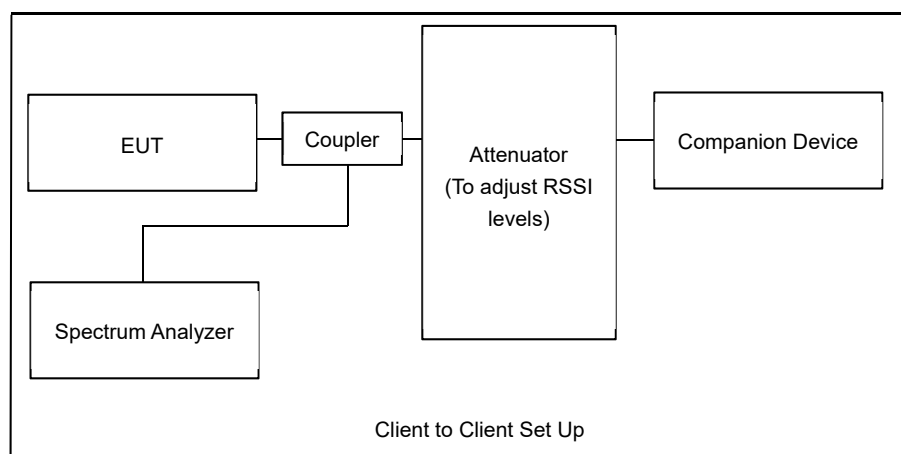
- The EUT was placed on the top of a rotating table 1.5 meters above the ground at 3 meter chamber room for test. The table was rotated 360 degrees to determine the position of the highest radiation.
- The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top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

Notes:

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

6.10 Transmit power control (TPC) mechanism

6.10.1 Test Setup



6.10.2 Test Procedure

- Establish a connection between the EUT and the companion device and enable peer-to-peer communication.
- Spectrum set span to encompass the entire emission bandwidth (EBW) of the signal. RBW = 1 MHz, Set VBW $\geq$ 3 MHz, Detector = RMS, Sweep time = auto. Trace average at least 100 traces in power averaging mode. Record the max value.
- Set the variable attenuator to 0 dB (simulate a noise-free spectral environment and high RSSI).
- Capture the PSD values (A) from the Spectrum analyzer.
- Increase the attenuation of the variable attenuator step to step (simulate a noisy spectral environment and low RSSI)
- Capture the PSD values (B) from the Spectrum analyzer.
- Compare the highest PSD from value (A) to the highest PSD on value (B) and determine the delta. For MIMO operations use the sum of the highest PSD from each individual antenna.

7 Test Results of Test Item

7.1 Maximum RF Output Power

Input Power:	3.3 Vdc	Environmental Conditions:	23°C, 63% RH	Tested By:	Louis Yang
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1TX

802.11a

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)	Antenna Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Test Result
1	5955	1.977	2.96	5.00	6.252	7.96	14	Pass
49	6195	1.932	2.86	5.00	6.11	7.86	14	Pass
93	6415	1.919	2.83	5.00	6.068	7.83	14	Pass
117	6535	1.959	2.92	5.00	6.195	7.92	14	Pass
149	6695	1.945	2.89	5.00	6.151	7.89	14	Pass
181	6855	2.109	3.24	5.00	6.669	8.24	14	Pass

Notes:

1. For U-NII-5, The antenna gain is 5 dBi.
2. For U-NII-7, The antenna gain is 5 dBi.

802.11be (EHT20)

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)	Antenna Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Test Result
1	5955	2.27	3.56	5.00	7.178	8.56	14	Pass
49	6195	2.193	3.41	5.00	6.935	8.41	14	Pass
93	6415	2.094	3.21	5.00	6.622	8.21	14	Pass
117	6535	2.173	3.37	5.00	6.872	8.37	14	Pass
149	6695	2.148	3.32	5.00	6.793	8.32	14	Pass
181	6855	2.355	3.72	5.00	7.447	8.72	14	Pass

Notes:

1. For U-NII-5, The antenna gain is 5 dBi.
2. For U-NII-7, The antenna gain is 5 dBi.

802.11be (EHT40)

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)	Antenna Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Test Result
3	5965	4.808	6.82	5.00	15.204	11.82	14	Pass
51	6205	4.295	6.33	5.00	13.582	11.33	14	Pass
91	6405	4.305	6.34	5.00	13.614	11.34	14	Pass
123	6565	4.436	6.47	5.00	14.028	11.47	14	Pass
147	6685	4.457	6.49	5.00	14.094	11.49	14	Pass
179	6845	4.786	6.80	5.00	15.135	11.8	14	Pass

Notes:

1. For U-NII-5, The antenna gain is 5 dBi.
2. For U-NII-7, The antenna gain is 5 dBi.

802.11be (EHT80)

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)	Antenna Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Test Result
7	5985	7.586	8.80	5.00	23.989	13.8	14	Pass
55	6225	7.674	8.85	5.00	24.267	13.85	14	Pass
87	6385	7.745	8.89	5.00	24.492	13.89	14	Pass
135	6625	7.516	8.76	5.00	23.768	13.76	14	Pass
151	6705	7.745	8.89	5.00	24.492	13.89	14	Pass
167	6785	7.834	8.94	5.00	24.773	13.94	14	Pass

Notes:

1. For U-NII-5, The antenna gain is 5 dBi.
2. For U-NII-7, The antenna gain is 5 dBi.

802.11be (EHT160)

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)	Antenna Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Test Result
15	6025	7.603	8.81	5.00	24.043	13.81	14	Pass
47	6185	7.889	8.97	5.00	24.947	13.97	14	Pass
79	6345	7.745	8.89	5.00	24.492	13.89	14	Pass
143	6665	7.889	8.97	5.00	24.947	13.97	14	Pass

Notes:

1. For U-NII-5, The antenna gain is 5 dBi.
2. For U-NII-7, The antenna gain is 5 dBi.

802.11be (EHT20) 26-tone RU

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)	Antenna Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Test Result
1	5955	0.2163	-6.65	5.00	0.684	-1.65	14	Pass
49	6195	0.2382	-6.23	5.00	0.7533	-1.23	14	Pass
93	6415	0.2323	-6.34	5.00	0.7346	-1.34	14	Pass
117	6535	0.2173	-6.63	5.00	0.6872	-1.63	14	Pass
149	6695	0.2366	-6.26	5.00	0.7482	-1.26	14	Pass
181	6855	0.2323	-6.34	5.00	0.7346	-1.34	14	Pass

Notes:

1. For U-NII-5, The antenna gain is 5 dBi.
2. For U-NII-7, The antenna gain is 5 dBi.

802.11be (EHT20) 52-tone RU

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)	Antenna Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Test Result
1	5955	0.4667	-3.31	5.00	1.476	1.69	14	Pass
49	6195	0.4315	-3.65	5.00	1.365	1.35	14	Pass
93	6415	0.4055	-3.92	5.00	1.282	1.08	14	Pass
117	6535	0.4732	-3.25	5.00	1.496	1.75	14	Pass
149	6695	0.4853	-3.14	5.00	1.535	1.86	14	Pass
181	6855	0.4385	-3.58	5.00	1.387	1.42	14	Pass

Notes:

1. For U-NII-5, The antenna gain is 5 dBi.
2. For U-NII-7, The antenna gain is 5 dBi.

802.11be (EHT20) 106-tone RU

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)	Antenna Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Test Result
1	5955	0.9638	-0.16	5.00	3.048	4.84	14	Pass
49	6195	0.9727	-0.12	5.00	3.076	4.88	14	Pass
93	6415	0.9183	-0.37	5.00	2.904	4.63	14	Pass
117	6535	0.9162	-0.38	5.00	2.897	4.62	14	Pass
149	6695	0.9354	-0.29	5.00	2.958	4.71	14	Pass
181	6855	0.9183	-0.37	5.00	2.904	4.63	14	Pass

Notes:

1. For U-NII-5, The antenna gain is 5 dBi.
2. For U-NII-7, The antenna gain is 5 dBi.

802.11be (EHT20) 52+26-tone MRU

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)	Antenna Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Test Result
1	5955	0.7211	-1.42	5.00	2.28	3.58	14	Pass
93	6415	0.743	-1.29	5.00	2.35	3.71	14	Pass
117	6535	0.6714	-1.73	5.00	2.123	3.27	14	Pass
181	6855	0.6998	-1.55	5.00	2.213	3.45	14	Pass

Notes:

1. For U-NII-5, The antenna gain is 5 dBi.
2. For U-NII-7, The antenna gain is 5 dBi.

802.11be (EHT20) 106+26-tone MRU

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)	Antenna Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Test Result
1	5955	1.279	1.07	5.00	4.045	6.07	14	Pass
93	6415	1.151	0.61	5.00	3.64	5.61	14	Pass
117	6535	1.117	0.48	5.00	3.532	5.48	14	Pass
181	6855	1.186	0.74	5.00	3.75	5.74	14	Pass

Notes:

1. For U-NII-5, The antenna gain is 5 dBi.
2. For U-NII-7, The antenna gain is 5 dBi.

802.11be (EHT80) 484+242-tone MRU

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)	Antenna Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Test Result
7	5985	6.653	8.23	5.00	21.039	13.23	14	Pass
87	6385	6.31	8.00	5.00	19.954	13	14	Pass
135	6625	6.138	7.88	5.00	19.41	12.88	14	Pass
167	6785	7.047	8.48	5.00	22.285	13.48	14	Pass

Notes:

1. For U-NII-5, The antenna gain is 5 dBi.
2. For U-NII-7, The antenna gain is 5 dBi.

802.11be (EHT160) 996+484-tone MRU

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)	Antenna Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Test Result
15	6025	7.87	8.96	5.00	24.887	13.96	14	Pass
79	6345	7.889	8.97	5.00	24.947	13.97	14	Pass
143	6665	7.925	8.99	5.00	25.061	13.99	14	Pass

Notes:

1. For U-NII-5, The antenna gain is 5 dBi.
2. For U-NII-7, The antenna gain is 5 dBi.

802.11be (EHT160) 996+484+242-tone MRU

Chan.	Chan. Freq. (MHz)	Average Power (mW)	Average Power (dBm)	Antenna Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Test Result
15	6025	7.889	8.97	5.00	24.947	13.97	14	Pass
79	6345	7.798	8.92	5.00	24.659	13.92	14	Pass
143	6665	7.907	8.98	5.00	25.004	13.98	14	Pass

Notes:

1. For U-NII-5, The antenna gain is 5 dBi.
2. For U-NII-7, The antenna gain is 5 dBi.

Input Power:	3.3 Vdc	Environmental Conditions:	23°C, 63% RH	Tested By:	Louis Yang
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2TX

802.11a

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Maximum Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Test Result
		Chain 0	Chain 1							
1	5955	-4.33	-4.00	0.7671	-1.15	5.00	2.426	3.85	14	Pass
49	6195	-4.36	-4.12	0.7537	-1.23	5.00	2.383	3.77	14	Pass
93	6415	-4.46	-4.52	0.7113	-1.48	5.00	2.249	3.52	14	Pass
117	6535	-4.43	-4.49	0.7162	-1.45	5.00	2.265	3.55	14	Pass
149	6695	-4.60	-4.43	0.7073	-1.50	5.00	2.237	3.5	14	Pass
181	6855	-4.10	-4.18	0.771	-1.13	5.00	2.438	3.87	14	Pass

Notes:

1. Directional gain is the maximum gain of antennas.
2. For U-NII-5, The maximum gain is 5 dBi.
3. For U-NII-7, The maximum gain is 5 dBi.

802.11be (EHT20)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Directional Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Test Result
		Chain 0	Chain 1							
1	5955	0.55	0.45	2.244	3.51	5.00	7.096	8.51	14	Pass
49	6195	0.38	0.20	2.139	3.30	5.00	6.764	8.3	14	Pass
93	6415	0.18	-0.10	2.0196	3.05	5.00	6.387	8.05	14	Pass
117	6535	0.47	0.24	2.171	3.37	5.00	6.865	8.37	14	Pass
149	6695	0.35	0.15	2.119	3.26	5.00	6.701	8.26	14	Pass
181	6855	0.38	0.48	2.208	3.44	5.00	6.982	8.44	14	Pass

Notes:

1. For U-NII-5, The directional gain is 5 dBi.
2. For U-NII-7, The directional gain is 5 dBi.

802.11be (EHT40)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Directional Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Test Result
		Chain 0	Chain 1							
3	5965	3.62	3.77	4.684	6.71	5.00	14.812	11.71	14	Pass
51	6205	3.72	3.60	4.646	6.67	5.00	14.692	11.67	14	Pass
91	6405	3.14	3.32	4.208	6.24	5.00	13.307	11.24	14	Pass
123	6565	3.28	3.39	4.311	6.35	5.00	13.633	11.35	14	Pass
147	6685	3.68	3.65	4.651	6.68	5.00	14.708	11.68	14	Pass
179	6845	3.62	3.79	4.695	6.72	5.00	14.847	11.72	14	Pass

Notes:

1. For U-NII-5, The directional gain is 5 dBi.
2. For U-NII-7, The directional gain is 5 dBi.

802.11be (EHT80)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Directional Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Test Result
		Chain 0	Chain 1							
7	5985	6.02	5.90	7.89	8.97	5.00	24.95	13.97	14	Pass
55	6225	5.94	5.78	7.711	8.87	5.00	24.384	13.87	14	Pass
87	6385	5.99	5.88	7.844	8.95	5.00	24.805	13.95	14	Pass
135	6625	5.87	5.66	7.545	8.78	5.00	23.859	13.78	14	Pass
151	6705	6.10	5.83	7.902	8.98	5.00	24.988	13.98	14	Pass
167	6785	6.09	5.87	7.928	8.99	5.00	25.071	13.99	14	Pass

Notes:

1. For U-NII-5, The directional gain is 5 dBi.
2. For U-NII-7, The directional gain is 5 dBi.

802.11be (EHT160)

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Directional Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Test Result
		Chain 0	Chain 1							
15	6025	6.04	5.87	7.882	8.97	5.00	24.925	13.97	14	Pass
47	6185	5.91	5.79	7.693	8.86	5.00	24.327	13.86	14	Pass
79	6345	5.97	5.79	7.747	8.89	5.00	24.498	13.89	14	Pass
143	6665	5.85	5.64	7.51	8.76	5.00	23.749	13.76	14	Pass

Notes:

1. For U-NII-5, The directional gain is 5 dBi.
2. For U-NII-7, The directional gain is 5 dBi.

802.11be (EHT20) 26-tone RU

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Directional Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Test Result
		Chain 0	Chain 1							
1	5955	-10.09	-10.16	0.19433	-7.11	5.00	0.6145	-2.11	14	Pass
49	6195	-9.75	-9.94	0.2073	-6.83	5.00	0.6555	-1.83	14	Pass
93	6415	-10.31	-10.44	0.18348	-7.36	5.00	0.5802	-2.36	14	Pass
117	6535	-10.27	-10.02	0.19351	-7.13	5.00	0.6119	-2.13	14	Pass
149	6695	-9.61	-10.23	0.20424	-6.90	5.00	0.6459	-1.9	14	Pass
181	6855	-9.68	-9.88	0.2104	-6.77	5.00	0.6653	-1.77	14	Pass

Notes:

1. For U-NII-5, The directional gain is 5 dBi.
2. For U-NII-7, The directional gain is 5 dBi.

802.11be (EHT20) 52-tone RU

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Directional Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Test Result
		Chain 0	Chain 1							
1	5955	-6.79	-6.54	0.4312	-3.65	5.00	1.364	1.35	14	Pass
49	6195	-6.43	-6.29	0.4625	-3.35	5.00	1.463	1.65	14	Pass
93	6415	-6.63	-6.64	0.434	-3.63	5.00	1.372	1.37	14	Pass
117	6535	-6.64	-6.39	0.4464	-3.50	5.00	1.412	1.5	14	Pass
149	6695	-6.36	-6.51	0.4546	-3.42	5.00	1.438	1.58	14	Pass
181	6855	-6.23	-6.39	0.4678	-3.30	5.00	1.479	1.7	14	Pass

Notes:

1. For U-NII-5, The directional gain is 5 dBi.
2. For U-NII-7, The directional gain is 5 dBi.

802.11be (EHT20) 106-tone RU

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Directional Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Test Result
		Chain 0	Chain 1							
1	5955	-3.13	-3.03	0.9841	-0.07	5.00	3.112	4.93	14	Pass
49	6195	-3.39	-3.65	0.8897	-0.51	5.00	2.813	4.49	14	Pass
93	6415	-3.41	-3.68	0.8846	-0.53	5.00	2.797	4.47	14	Pass
117	6535	-3.46	-3.82	0.8658	-0.63	5.00	2.738	4.37	14	Pass
149	6695	-3.73	-3.54	0.8662	-0.62	5.00	2.739	4.38	14	Pass
181	6855	-2.97	-3.12	0.9922	-0.03	5.00	3.138	4.97	14	Pass

Notes:

1. For U-NII-5, The directional gain is 5 dBi.
2. For U-NII-7, The directional gain is 5 dBi.

802.11be (EHT20) 52+26-tone MRU

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Directional Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Test Result
		Chain 0	Chain 1							
1	5955	-3.97	-4.14	0.7863	-1.04	5.00	2.486	3.96	14	Pass
93	6415	-4.42	-4.61	0.7073	-1.50	5.00	2.237	3.5	14	Pass
117	6535	-4.36	-4.76	0.7006	-1.55	5.00	2.215	3.45	14	Pass
181	6855	-4.12	-4.27	0.7614	-1.18	5.00	2.408	3.82	14	Pass

Notes:

1. For U-NII-5, The directional gain is 5 dBi.
2. For U-NII-7, The directional gain is 5 dBi.

802.11be (EHT20) 106+26-tone MRU

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Directional Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Test Result
		Chain 0	Chain 1							
1	5955	-1.87	-1.71	1.3247	1.22	5.00	4.189	6.22	14	Pass
93	6415	-2.62	-2.37	1.1264	0.52	5.00	3.562	5.52	14	Pass
117	6535	-2.20	-2.12	1.2163	0.85	5.00	3.846	5.85	14	Pass
181	6855	-2.01	-2.20	1.2321	0.91	5.00	3.896	5.91	14	Pass

Notes:

1. For U-NII-5, The directional gain is 5 dBi.
2. For U-NII-7, The directional gain is 5 dBi.

802.11be (EHT80) 484+242-tone MRU

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Directional Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Test Result
		Chain 0	Chain 1							
7	5985	5.20	5.23	6.646	8.23	5.00	21.016	13.23	14	Pass
87	6385	5.17	5.08	6.51	8.14	5.00	20.586	13.14	14	Pass
135	6625	5.09	4.85	6.283	7.98	5.00	19.869	12.98	14	Pass
167	6785	5.58	5.76	7.381	8.68	5.00	23.341	13.68	14	Pass

Notes:

1. For U-NII-5, The directional gain is 5 dBi.
2. For U-NII-7, The directional gain is 5 dBi.

802.11be (EHT160) 996+484-tone MRU

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Directional Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Test Result
		Chain 0	Chain 1							
15	6025	6.07	5.79	7.839	8.94	5.00	24.789	13.94	14	Pass
79	6345	5.98	5.63	7.619	8.82	5.00	24.093	13.82	14	Pass
143	6665	6.00	5.89	7.863	8.96	5.00	24.865	13.96	14	Pass

Notes:

1. For U-NII-5, The directional gain is 5 dBi.
2. For U-NII-7, The directional gain is 5 dBi.

802.11be (EHT160) 996+484+242-tone MRU

Chan.	Chan. Freq. (MHz)	Average Power (dBm)		Total Power (mW)	Total Power (dBm)	Directional Gain (dBi)	EIRP (mW)	EIRP (dBm)	EIRP Limit (dBm)	Test Result
		Chain 0	Chain 1							
15	6025	6.10	5.79	7.867	8.96	5.00	24.878	13.96	14	Pass
79	6345	5.95	5.84	7.773	8.91	5.00	24.58	13.91	14	Pass
143	6665	6.04	5.91	7.917	8.99	5.00	25.036	13.99	14	Pass

Notes:

1. For U-NII-5, The directional gain is 5 dBi.
2. For U-NII-7, The directional gain is 5 dBi.

7.2 Maximum Power Spectral Density

Input Power:	3.3 Vdc	Environmental Conditions:	23°C, 63% RH	Tested By:	Louis Yang
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1TX

802.11a

Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)	Antenna Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Test Result
1	5955	-10.34	5.00	-5.34	-5	Pass
49	6195	-10.09	5.00	-5.09	-5	Pass
93	6415	-10.13	5.00	-5.13	-5	Pass
117	6535	-10.04	5.00	-5.04	-5	Pass
149	6695	-10.16	5.00	-5.16	-5	Pass
181	6855	-10.17	5.00	-5.17	-5	Pass

Notes:

1. For U-NII-5, The antenna gain is 5 dBi.
2. For U-NII-7, The antenna gain is 5 dBi.

802.11be (EHT20)

Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)	Antenna Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Test Result
1	5955	-10.24	5.00	-5.24	-5	Pass
49	6195	-10.14	5.00	-5.14	-5	Pass
93	6415	-10.18	5.00	-5.18	-5	Pass
117	6535	-10.16	5.00	-5.16	-5	Pass
149	6695	-10.23	5.00	-5.23	-5	Pass
181	6855	-10.20	5.00	-5.2	-5	Pass

Notes:

1. For U-NII-5, The antenna gain is 5 dBi.
2. For U-NII-7, The antenna gain is 5 dBi.

802.11be (EHT40)

Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)	Antenna Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Test Result
3	5965	-10.23	5.00	-5.23	-5	Pass
51	6205	-10.36	5.00	-5.36	-5	Pass
91	6405	-10.34	5.00	-5.34	-5	Pass
123	6565	-10.14	5.00	-5.14	-5	Pass
147	6685	-10.24	5.00	-5.24	-5	Pass
179	6845	-10.19	5.00	-5.19	-5	Pass

Notes:

1. For U-NII-5, The antenna gain is 5 dBi.
2. For U-NII-7, The antenna gain is 5 dBi.

802.11be (EHT80)

Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)	Antenna Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Test Result
7	5985	-10.06	5.00	-5.06	-5	Pass
55	6225	-10.59	5.00	-5.59	-5	Pass
87	6385	-10.18	5.00	-5.18	-5	Pass
135	6625	-10.18	5.00	-5.18	-5	Pass
151	6705	-10.75	5.00	-5.75	-5	Pass
167	6785	-10.14	5.00	-5.14	-5	Pass

Notes:

1. For U-NII-5, The antenna gain is 5 dBi.
2. For U-NII-7, The antenna gain is 5 dBi.

802.11be (EHT160)

Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)	Antenna Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Test Result
15	6025	-10.10	5.00	-5.1	-5	Pass
47	6185	-10.38	5.00	-5.38	-5	Pass
79	6345	-10.17	5.00	-5.17	-5	Pass
143	6665	-10.16	5.00	-5.16	-5	Pass

Notes:

1. For U-NII-5, The antenna gain is 5 dBi.
2. For U-NII-7, The antenna gain is 5 dBi.

802.11be (EHT20) 26-tone RU

Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)	Antenna Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Test Result
1	5955	-10.14	5.00	-5.14	-5	Pass
49	6195	-10.14	5.00	-5.14	-5	Pass
93	6415	-10.11	5.00	-5.11	-5	Pass
117	6535	-10.15	5.00	-5.15	-5	Pass
149	6695	-10.25	5.00	-5.25	-5	Pass
181	6855	-10.10	5.00	-5.1	-5	Pass

Notes:

1. For U-NII-5, The antenna gain is 5 dBi.
2. For U-NII-7, The antenna gain is 5 dBi.

802.11be (EHT20) 52-tone RU

Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)	Antenna Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Test Result
1	5955	-10.30	5.00	-5.3	-5	Pass
49	6195	-10.41	5.00	-5.41	-5	Pass
93	6415	-10.38	5.00	-5.38	-5	Pass
117	6535	-10.17	5.00	-5.17	-5	Pass
149	6695	-10.18	5.00	-5.18	-5	Pass
181	6855	-10.19	5.00	-5.19	-5	Pass

Notes:

1. For U-NII-5, The antenna gain is 5 dBi.
2. For U-NII-7, The antenna gain is 5 dBi.

802.11be (EHT20) 106-tone RU

Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)	Antenna Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Test Result
1	5955	-10.28	5.00	-5.28	-5	Pass
49	6195	-10.39	5.00	-5.39	-5	Pass
93	6415	-10.23	5.00	-5.23	-5	Pass
117	6535	-10.30	5.00	-5.3	-5	Pass
149	6695	-10.23	5.00	-5.23	-5	Pass
181	6855	-10.28	5.00	-5.28	-5	Pass

Notes:

1. For U-NII-5, The antenna gain is 5 dBi.
2. For U-NII-7, The antenna gain is 5 dBi.

802.11be (EHT20) 52+26-tone MRU

Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)	Antenna Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Test Result
1	5955	-10.37	5.00	-5.37	-5	Pass
93	6415	-10.12	5.00	-5.12	-5	Pass
117	6535	-10.37	5.00	-5.37	-5	Pass
181	6855	-10.45	5.00	-5.45	-5	Pass

Notes:

1. For U-NII-5, The antenna gain is 5 dBi.
2. For U-NII-7, The antenna gain is 5 dBi.

802.11be (EHT20) 106+26-tone MRU

Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)	Antenna Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Test Result
1	5955	-10.31	5.00	-5.31	-5	Pass
93	6415	-10.38	5.00	-5.38	-5	Pass
117	6535	-10.42	5.00	-5.42	-5	Pass
181	6855	-10.36	5.00	-5.36	-5	Pass

Notes:

1. For U-NII-5, The antenna gain is 5 dBi.
2. For U-NII-7, The antenna gain is 5 dBi.

802.11be (EHT80) 484+242-tone MRU

Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)	Antenna Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Test Result
7	5985	-10.44	5.00	-5.44	-5	Pass
87	6385	-10.41	5.00	-5.41	-5	Pass
135	6625	-10.57	5.00	-5.57	-5	Pass
167	6785	-10.26	5.00	-5.26	-5	Pass

Notes:

1. For U-NII-5, The antenna gain is 5 dBi.
2. For U-NII-7, The antenna gain is 5 dBi.

802.11be (EHT160) 996+484-tone MRU

Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)	Antenna Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Test Result
15	6025	-10.84	5.00	-5.84	-5	Pass
79	6345	-11.47	5.00	-6.47	-5	Pass
143	6665	-11.81	5.00	-6.81	-5	Pass

Notes:

1. For U-NII-5, The antenna gain is 5 dBi.
2. For U-NII-7, The antenna gain is 5 dBi.

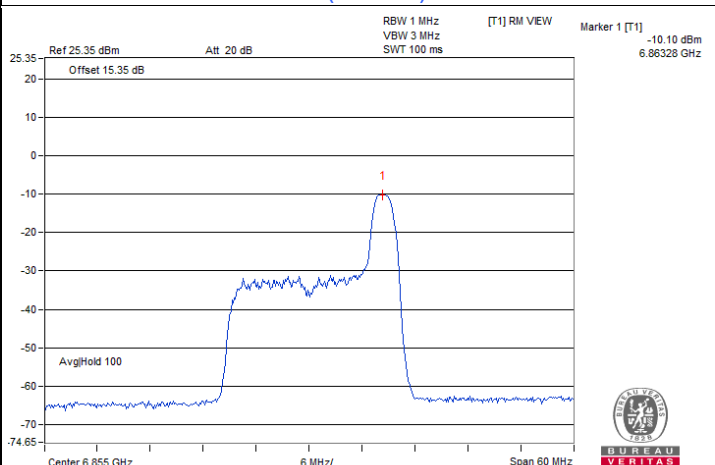
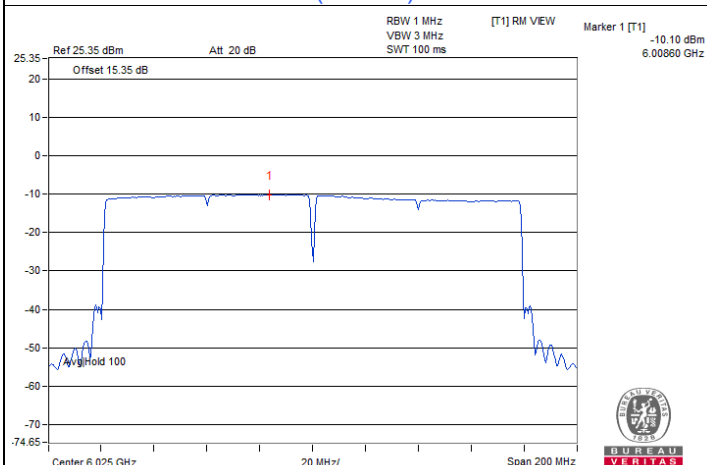
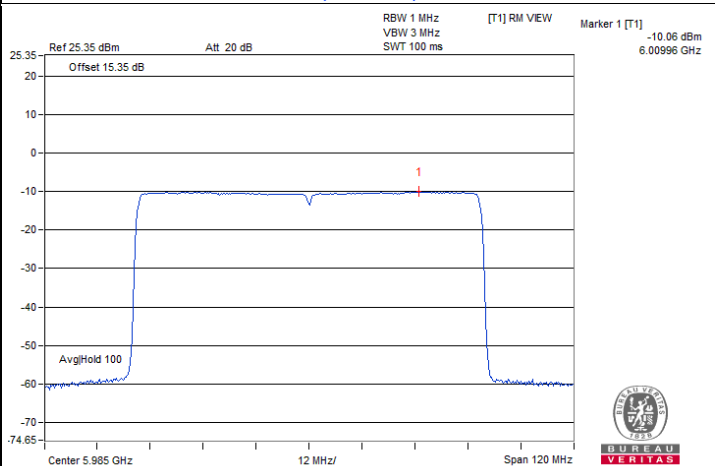
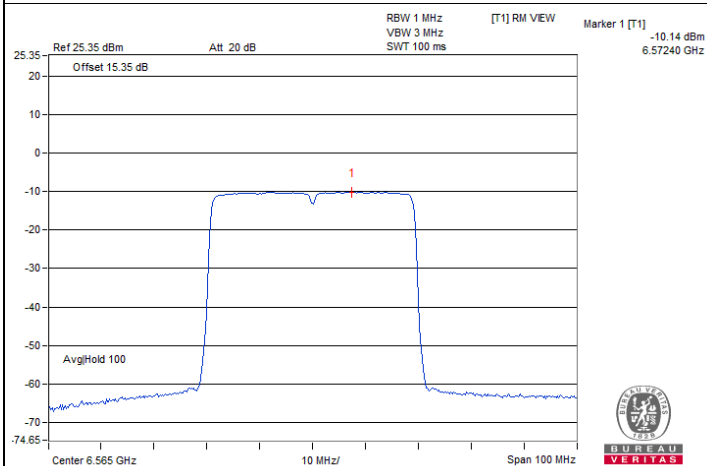
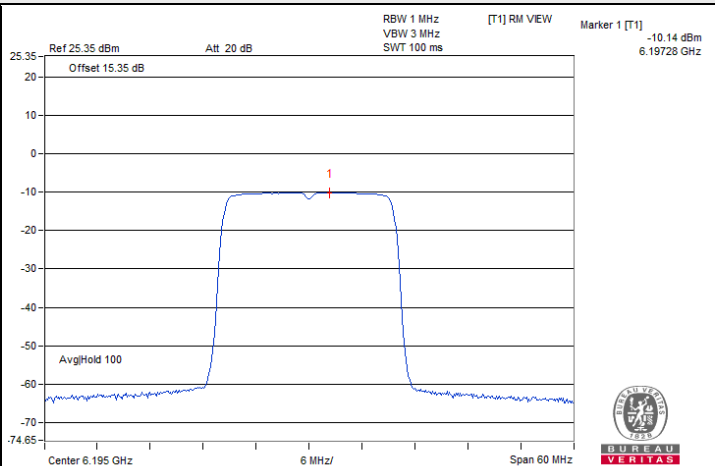
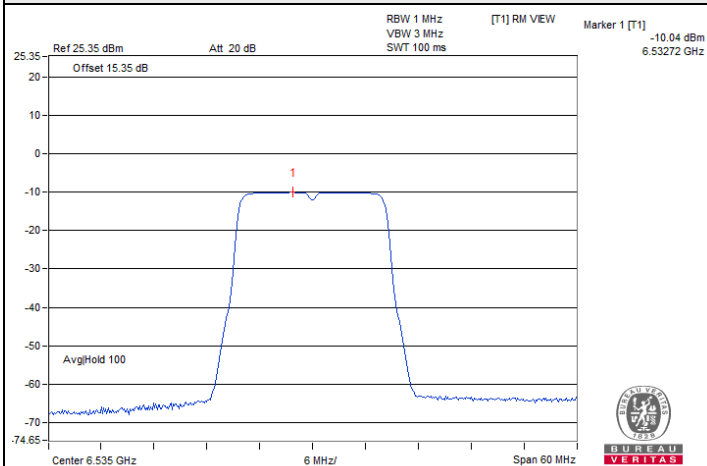
802.11be (EHT160) 996+484+242-tone MRU

Chan.	Chan. Freq. (MHz)	PSD (dBm/MHz)	Antenna Gain (dBi)	EIRP PSD (dBm/MHz)	EIRP PSD Limit (dBm/MHz)	Test Result
15	6025	-12.90	5.00	-7.9	-5	Pass
79	6345	-12.56	5.00	-7.56	-5	Pass
143	6665	-12.45	5.00	-7.45	-5	Pass

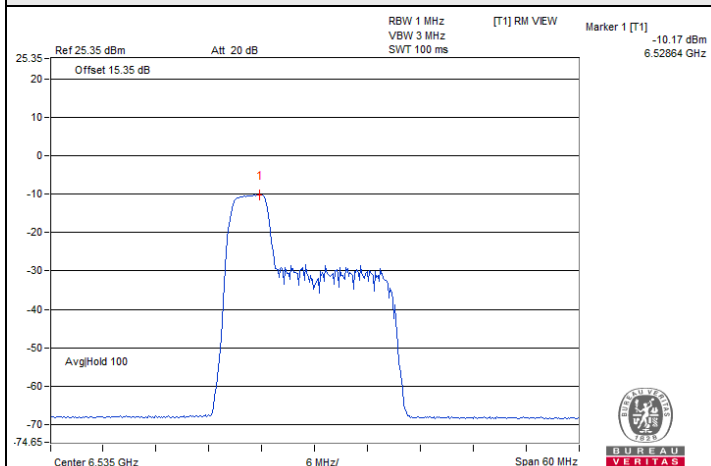
Notes:

1. For U-NII-5, The antenna gain is 5 dBi.
2. For U-NII-7, The antenna gain is 5 dBi.

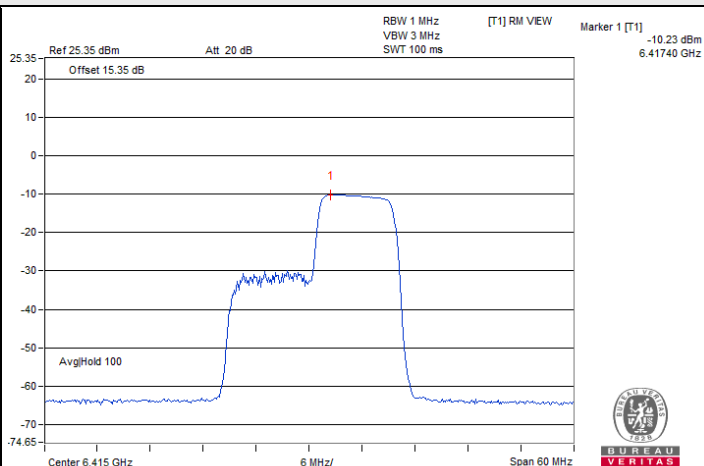
Spectrum Plot of Maximum Value



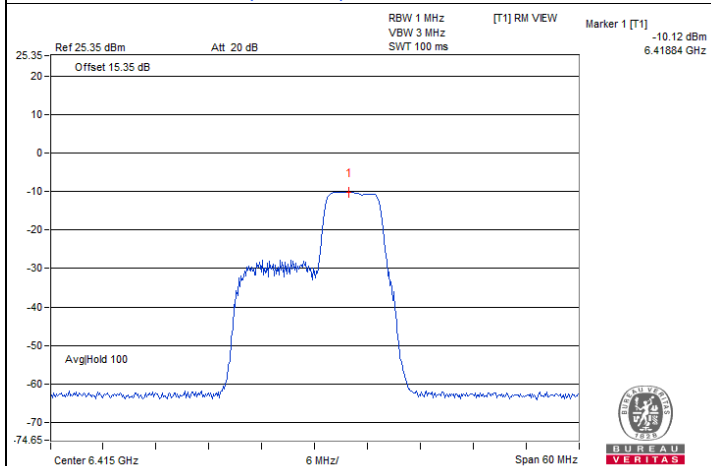
Spectrum Plot of Maximum Value



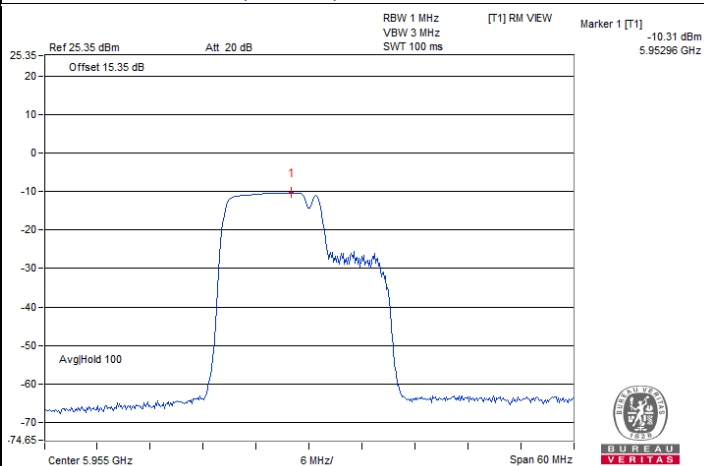
802.11be (EHT20) 52-tone RU : CH 117



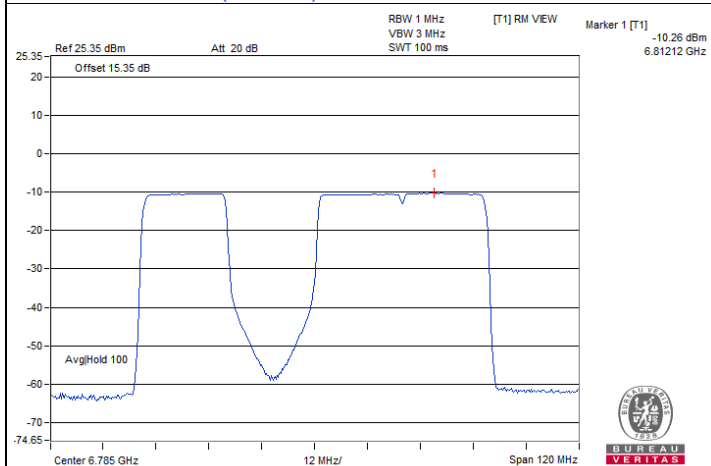
802.11be (EHT20) 106-tone RU : CH 93



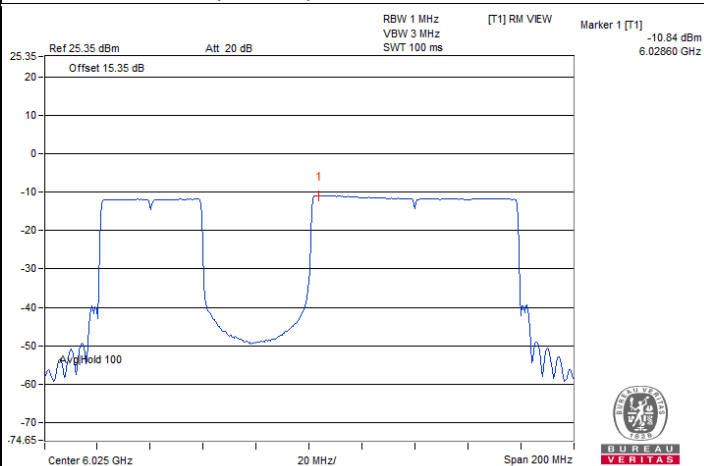
802.11be (EHT20) 52+26-tone MRU : CH 93



802.11be (EHT20) 106+26-tone MRU : CH 1

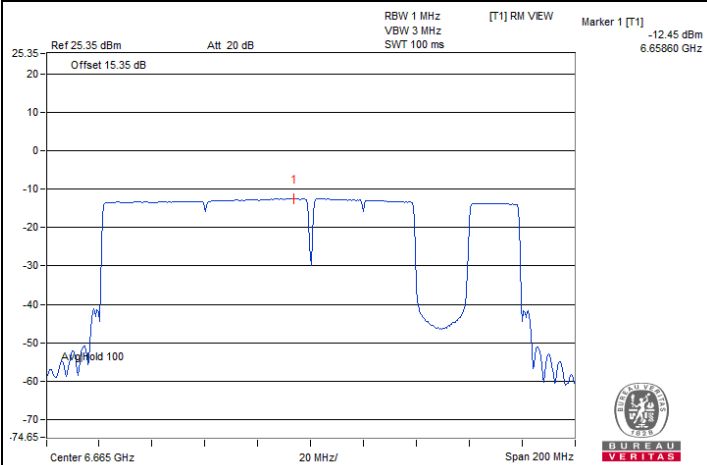


802.11be (EHT80) 484+242-tone MRU : CH 167



802.11be (EHT160) 996+484-tone MRU : CH 15

Spectrum Plot of Maximum Value



802.11be (EHT160) 996+484+242-tone MRU : CH 143

Input Power:	3.3 Vdc	Environmental Conditions:	23°C, 63% RH	Tested By:	Louis Yang
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2TX

802.11a

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	-16.43	-16.10	-13.25	8.01	-5.24	-5	Pass
49	6195	-16.13	-16.40	-13.25	8.01	-5.24	-5	Pass
93	6415	-15.97	-16.09	-13.02	8.01	-5.01	-5	Pass
117	6535	-16.14	-16.01	-13.06	8.01	-5.05	-5	Pass
149	6695	-16.19	-16.10	-13.13	8.01	-5.12	-5	Pass
181	6855	-15.92	-16.14	-13.02	8.01	-5.01	-5	Pass

Notes:

- Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
- Directional gain = gain of antenna element + 10 log (2 of TX antenna elements)
- For U-NII-5, The directional gain is 8.01 dBi.
- For U-NII-7, The directional gain is 8.01 dBi.

802.11be (EHT20)

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	-13.05	-13.15	-10.09	5.00	-5.09	-5	Pass
49	6195	-13.12	-13.11	-10.10	5.00	-5.1	-5	Pass
93	6415	-13.16	-13.16	-10.15	5.00	-5.15	-5	Pass
117	6535	-13.20	-13.07	-10.12	5.00	-5.12	-5	Pass
149	6695	-13.00	-13.18	-10.08	5.00	-5.08	-5	Pass
181	6855	-13.01	-13.04	-10.01	5.00	-5.01	-5	Pass

Notes:

- Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
- For U-NII-5, The directional gain is 5 dBi.
- For U-NII-7, The directional gain is 5 dBi.

802.11be (EHT40)

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	-13.42	-13.23	-10.31	5.00	-5.31	-5	Pass
51	6205	-13.43	-13.11	-10.26	5.00	-5.26	-5	Pass
91	6405	-13.44	-13.37	-10.39	5.00	-5.39	-5	Pass
123	6565	-13.17	-13.30	-10.22	5.00	-5.22	-5	Pass
147	6685	-13.10	-13.24	-10.16	5.00	-5.16	-5	Pass
179	6845	-13.28	-13.16	-10.21	5.00	-5.21	-5	Pass

Notes:

1. Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. For U-NII-5, The directional gain is 5 dBi.
3. For U-NII-7, The directional gain is 5 dBi.

802.11be (EHT80)

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	-13.46	-13.88	-10.65	5.00	-5.65	-5	Pass
55	6225	-13.24	-13.54	-10.38	5.00	-5.38	-5	Pass
87	6385	-13.49	-13.86	-10.66	5.00	-5.66	-5	Pass
135	6625	-13.43	-13.52	-10.46	5.00	-5.46	-5	Pass
151	6705	-12.87	-13.74	-10.27	5.00	-5.27	-5	Pass
167	6785	-12.97	-13.75	-10.33	5.00	-5.33	-5	Pass

Notes:

1. Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. For U-NII-5, The directional gain is 5 dBi.
3. For U-NII-7, The directional gain is 5 dBi.

802.11be (EHT160)

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	-16.96	-17.21	-14.07	5.00	-9.07	-5	Pass
47	6185	-16.49	-17.05	-13.75	5.00	-8.75	-5	Pass
79	6345	-16.65	-16.84	-13.73	5.00	-8.73	-5	Pass
143	6665	-16.42	-16.94	-13.66	5.00	-8.66	-5	Pass

Notes:

1. Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. For U-NII-5, The directional gain is 5 dBi.
3. For U-NII-7, The directional gain is 5 dBi.

802.11be (EHT20) 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	-13.25	-13.40	-10.31	5.00	-5.31	-5	Pass
49	6195	-13.25	-13.50	-10.36	5.00	-5.36	-5	Pass
93	6415	-13.37	-13.57	-10.46	5.00	-5.46	-5	Pass
117	6535	-13.26	-13.37	-10.30	5.00	-5.3	-5	Pass
149	6695	-13.62	-12.95	-10.26	5.00	-5.26	-5	Pass
181	6855	-12.95	-13.33	-10.13	5.00	-5.13	-5	Pass

Notes:

1. Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. For U-NII-5, The directional gain is 5 dBi.
3. For U-NII-7, The directional gain is 5 dBi.

802.11be (EHT20) 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	-13.23	-13.38	-10.29	5.00	-5.29	-5	Pass
49	6195	-13.14	-13.44	-10.28	5.00	-5.28	-5	Pass
93	6415	-13.39	-13.30	-10.33	5.00	-5.33	-5	Pass
117	6535	-13.47	-13.24	-10.34	5.00	-5.34	-5	Pass
149	6695	-13.15	-13.32	-10.22	5.00	-5.22	-5	Pass
181	6855	-13.14	-13.34	-10.23	5.00	-5.23	-5	Pass

Notes:

1. Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. For U-NII-5, The directional gain is 5 dBi.
3. For U-NII-7, The directional gain is 5 dBi.

802.11be (EHT20) 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	-13.28	-13.47	-10.36	5.00	-5.36	-5	Pass
49	6195	-13.22	-13.41	-10.30	5.00	-5.3	-5	Pass
93	6415	-13.19	-13.54	-10.35	5.00	-5.35	-5	Pass
117	6535	-13.37	-13.54	-10.44	5.00	-5.44	-5	Pass
149	6695	-13.32	-13.33	-10.31	5.00	-5.31	-5	Pass
181	6855	-13.14	-13.41	-10.26	5.00	-5.26	-5	Pass

Notes:

1. Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. For U-NII-5, The directional gain is 5 dBi.
3. For U-NII-7, The directional gain is 5 dBi.

802.11be (EHT20) 52+26-tone MRU

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	-13.20	-13.21	-10.19	5.00	-5.19	-5	Pass
93	6415	-13.21	-13.40	-10.29	5.00	-5.29	-5	Pass
117	6535	-13.32	-13.49	-10.39	5.00	-5.39	-5	Pass
181	6855	-13.45	-13.32	-10.37	5.00	-5.37	-5	Pass

Notes:

1. Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. For U-NII-5, The directional gain is 5 dBi.
3. For U-NII-7, The directional gain is 5 dBi.

802.11be (EHT20) 106+26-tone MRU

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	-13.24	-13.05	-10.13	5.00	-5.13	-5	Pass
93	6415	-13.37	-13.34	-10.34	5.00	-5.34	-5	Pass
117	6535	-13.39	-13.17	-10.27	5.00	-5.27	-5	Pass
181	6855	-13.32	-13.37	-10.33	5.00	-5.33	-5	Pass

Notes:

1. Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. For U-NII-5, The directional gain is 5 dBi.
3. For U-NII-7, The directional gain is 5 dBi.

802.11be (EHT80) 484+242-tone MRU

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	-13.59	-13.98	-10.77	5.00	-5.77	-5	Pass
87	6385	-13.85	-13.71	-10.77	5.00	-5.77	-5	Pass
135	6625	-13.35	-13.74	-10.53	5.00	-5.53	-5	Pass
167	6785	-13.40	-13.53	-10.45	5.00	-5.45	-5	Pass

Notes:

1. Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. For U-NII-5, The directional gain is 5 dBi.
3. For U-NII-7, The directional gain is 5 dBi.

802.11be (EHT160) 996+484-tone MRU

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	-13.10	-14.15	-10.58	5.00	-5.58	-5	Pass
79	6345	-15.26	-15.29	-12.26	5.00	-7.26	-5	Pass
143	6665	-13.72	-14.78	-11.21	5.00	-6.21	-5	Pass

Notes:

1. Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. For U-NII-5, The directional gain is 5 dBi.
3. For U-NII-7, The directional gain is 5 dBi.

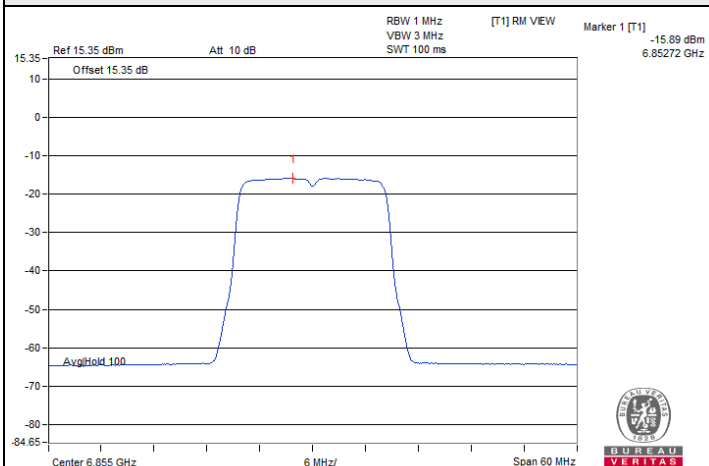
802.11be (EHT160) 996+484+242-tone MRU

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	-13.23	-13.53	-10.37	5.00	-5.37	-5	Pass
79	6345	-15.52	-15.17	-12.33	5.00	-7.33	-5	Pass
143	6665	-13.35	-13.39	-10.36	5.00	-5.36	-5	Pass

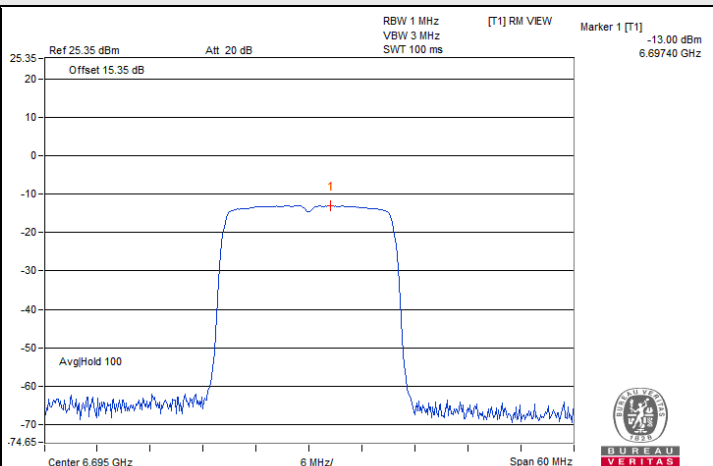
Notes:

1. Method E) 2) a) of power density measurement of KDB 662911 is using for calculating total power density. Total power density is summing entire spectra across corresponding frequency bins on the various outputs by computer.
2. For U-NII-5, The directional gain is 5 dBi.
3. For U-NII-7, The directional gain is 5 dBi.

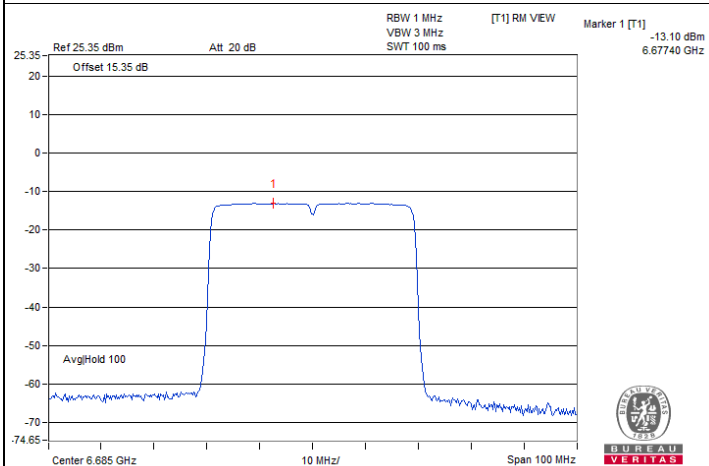
Spectrum Plot of Maximum Value



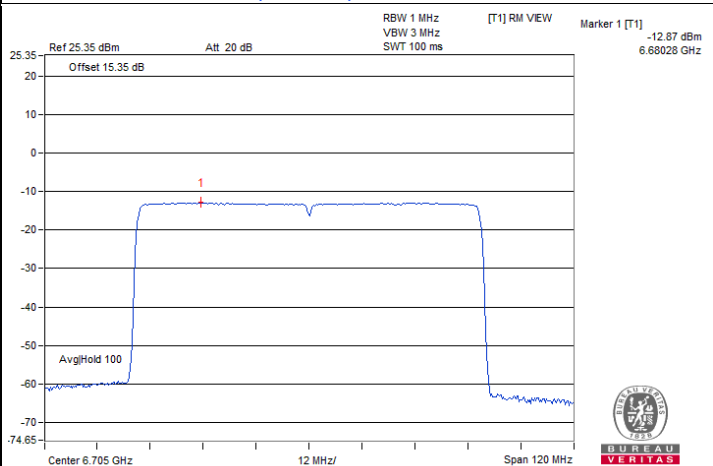
802.11a / Chain 0 : CH 181



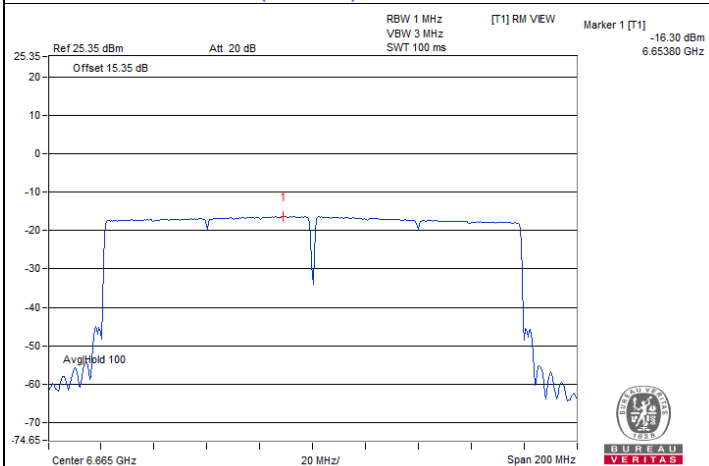
802.11be (EHT20) / Chain 0 : CH 149



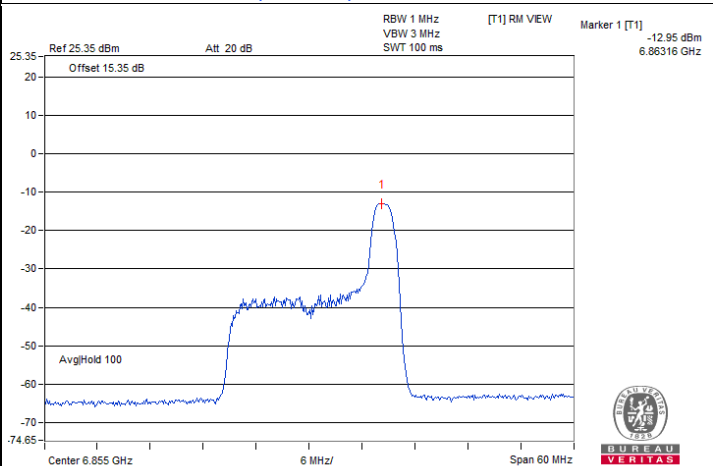
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802.11be (EHT80) / Chain 0 : CH 151

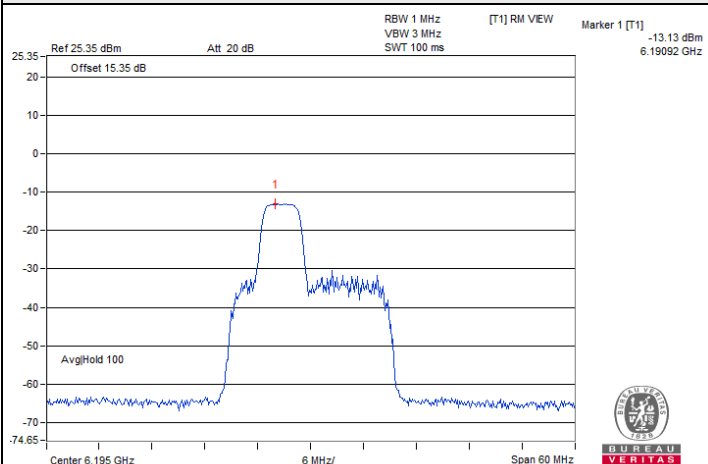


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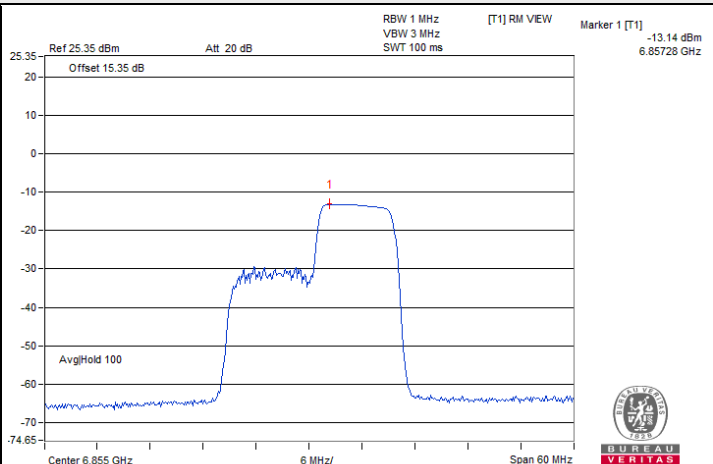


802.11be (EHT20) 26-tone RU / Chain 0 : CH 181

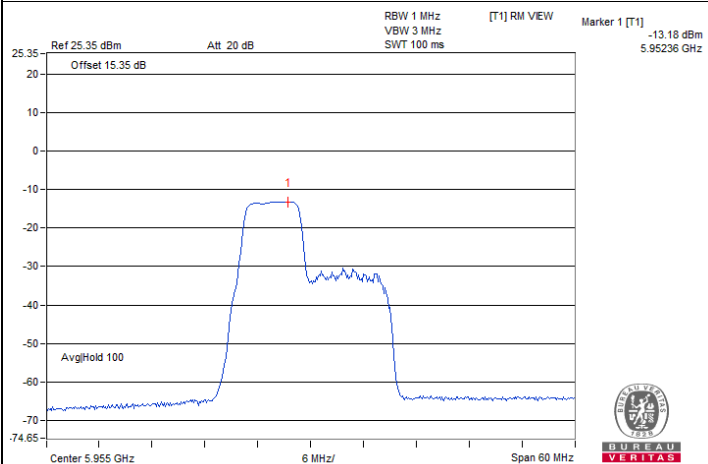
Spectrum Plot of Maximum Value



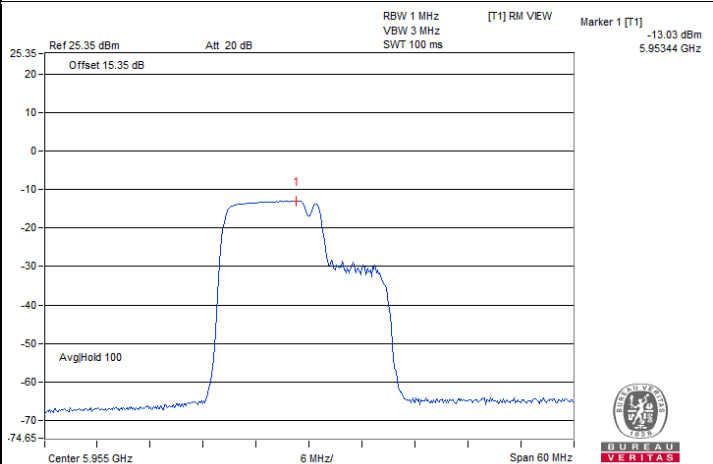
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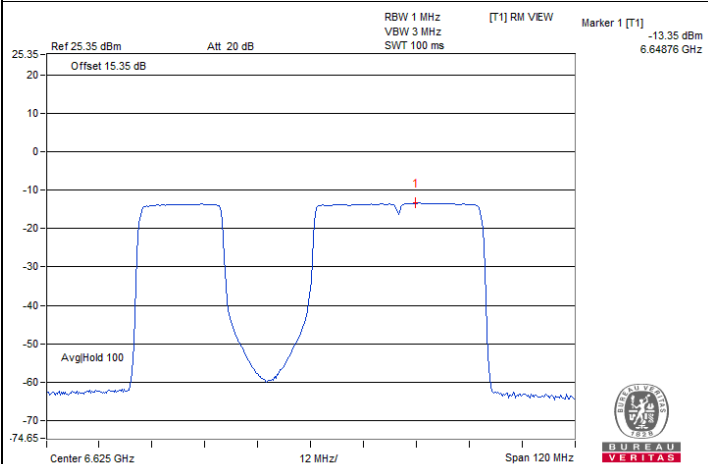
802.11be (EHT20) 106-tone RU / Chain 0 : CH 181



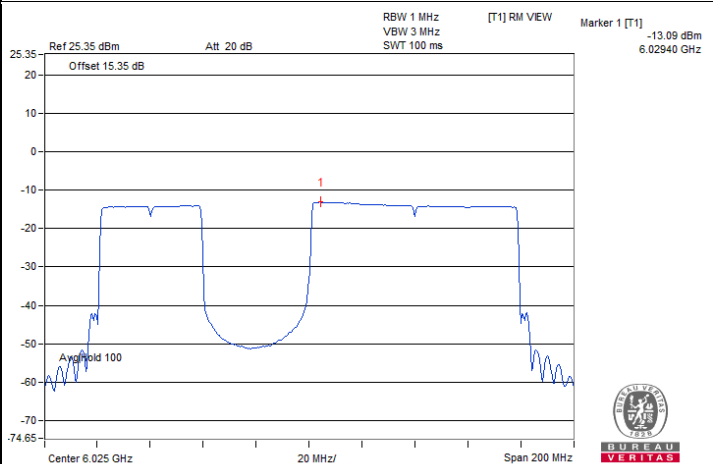
802.11be (EHT20) 52+26-tone MRU / Chain 0 : CH 1



802.11be (EHT20) 106+26-tone MRU / Chain 1 : CH 1

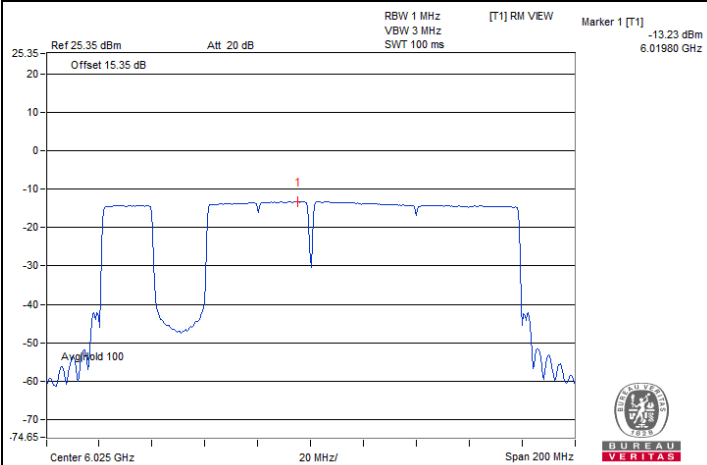


802.11be (EHT80) 484+242-tone MRU / Chain 0 : CH 135



802.11be (EHT160) 996+484-tone MRU / Chain 0 : CH 15

Spectrum Plot of Maximum Value



802.11be (EHT160) 996+484+242-tone MRU / Chain 0 : CH
15

7.3 Emission Bandwidth

Input Power:	3.3 Vdc	Environmental Conditions:	23°C, 63% RH	Tested By:	Louis Yang
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1TX

802.11a

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	Maximum Limit (MHz)	Test Result
1	5955	18.33	320	Pass
49	6195	18.39	320	Pass
93	6415	18.32	320	Pass
117	6535	18.46	320	Pass
149	6695	18.45	320	Pass
181	6855	18.37	320	Pass

802.11be (EHT20)

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	Maximum Limit (MHz)	Test Result
1	5955	20.55	320	Pass
49	6195	20.59	320	Pass
93	6415	20.66	320	Pass
117	6535	20.57	320	Pass
149	6695	20.57	320	Pass
181	6855	20.53	320	Pass

802.11be (EHT40)

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	Maximum Limit (MHz)	Test Result
3	5965	40.07	320	Pass
51	6205	40.17	320	Pass
91	6405	40.34	320	Pass
123	6565	40.26	320	Pass
147	6685	40.14	320	Pass
179	6845	40.07	320	Pass

802.11be (EHT80)

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	Maximum Limit (MHz)	Test Result
7	5985	80.41	320	Pass
55	6225	80.49	320	Pass
87	6385	80.38	320	Pass
135	6625	80.21	320	Pass
151	6705	80.26	320	Pass
167	6785	80.42	320	Pass

802.11be (EHT160)

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	Maximum Limit (MHz)	Test Result
15	6025	162.45	320	Pass
47	6185	162.26	320	Pass
79	6345	162.57	320	Pass
143	6665	162.39	320	Pass

802.11be (EHT20) 26-tone RU

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	Maximum Limit (MHz)	Test Result
1	5955	19.35	320	Pass
49	6195	18.13	320	Pass
93	6415	19.24	320	Pass
117	6535	19.43	320	Pass
149	6695	18.05	320	Pass
181	6855	19.37	320	Pass

802.11be (EHT20) 52-tone RU

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	Maximum Limit (MHz)	Test Result
1	5955	19.36	320	Pass
49	6195	18.21	320	Pass
93	6415	19.23	320	Pass
117	6535	19.29	320	Pass
149	6695	18.25	320	Pass
181	6855	19.26	320	Pass

802.11be (EHT20) 106-tone RU

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	Maximum Limit (MHz)	Test Result
1	5955	19.35	320	Pass
49	6195	19.57	320	Pass
93	6415	19.44	320	Pass
117	6535	19.31	320	Pass
149	6695	19.37	320	Pass
181	6855	19.6	320	Pass

802.11be (EHT20) 52+26-tone MRU

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	Maximum Limit (MHz)	Test Result
1	5955	18.39	320	Pass
93	6415	18.39	320	Pass
117	6535	18.3	320	Pass
181	6855	18.38	320	Pass

802.11be (EHT20) 106+26-tone MRU

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	Maximum Limit (MHz)	Test Result
1	5955	19.49	320	Pass
93	6415	19.44	320	Pass
117	6535	19.37	320	Pass
181	6855	19.7	320	Pass

802.11be (EHT80) 484+242-tone MRU

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	Maximum Limit (MHz)	Test Result
7	5985	80.61	320	Pass
87	6385	80.63	320	Pass
135	6625	80.59	320	Pass
167	6785	80.88	320	Pass

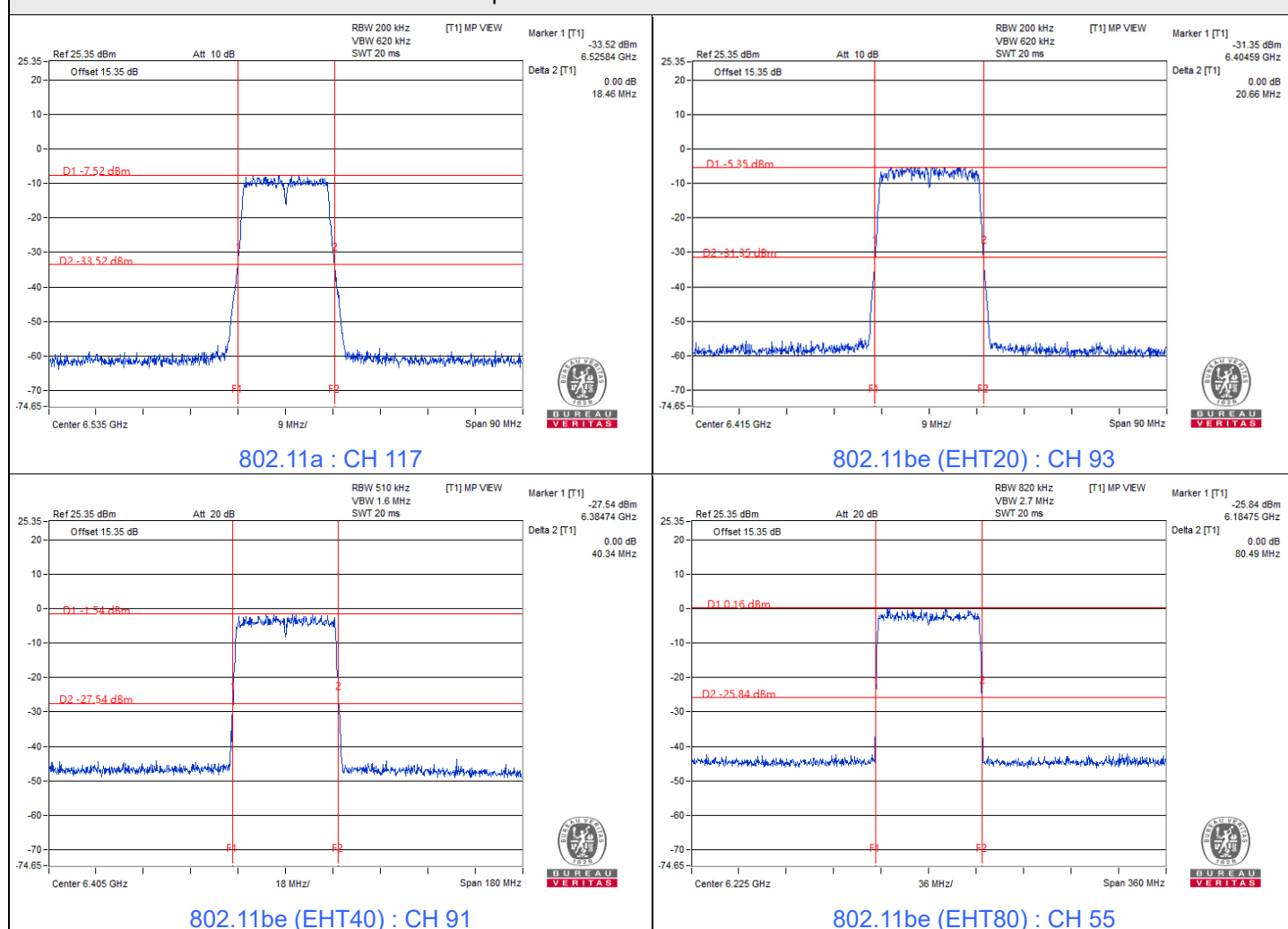
802.11be (EHT160) 996+484-tone MRU

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	Maximum Limit (MHz)	Test Result
15	6025	163.07	320	Pass
79	6345	162.74	320	Pass
143	6665	162.4	320	Pass

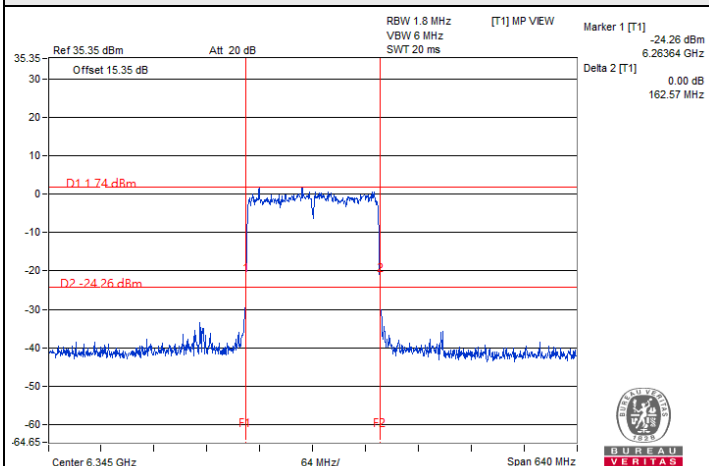
802.11be (EHT160) 996+484+242-tone MRU

Channel	Frequency (MHz)	26 dB Bandwidth (MHz)	Maximum Limit (MHz)	Test Result
15	6025	162.76	320	Pass
79	6345	163	320	Pass
143	6665	162.68	320	Pass

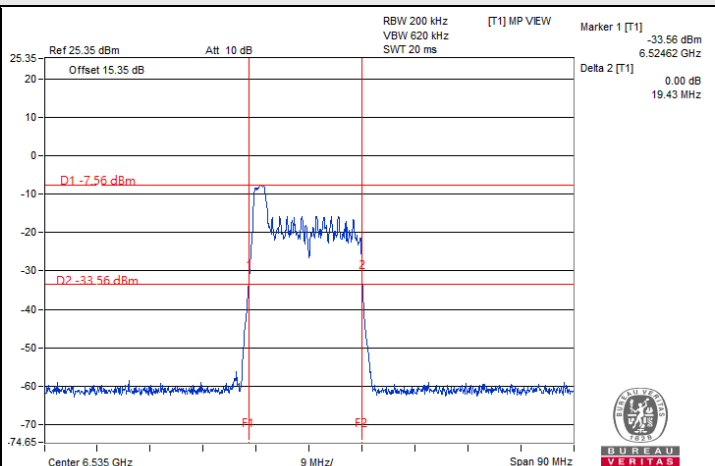
Spectrum Plot of Maximum Value



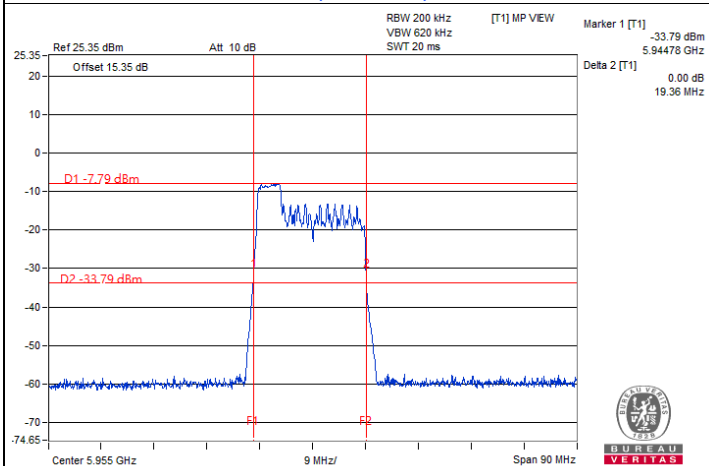
Spectrum Plot of Maximum Value



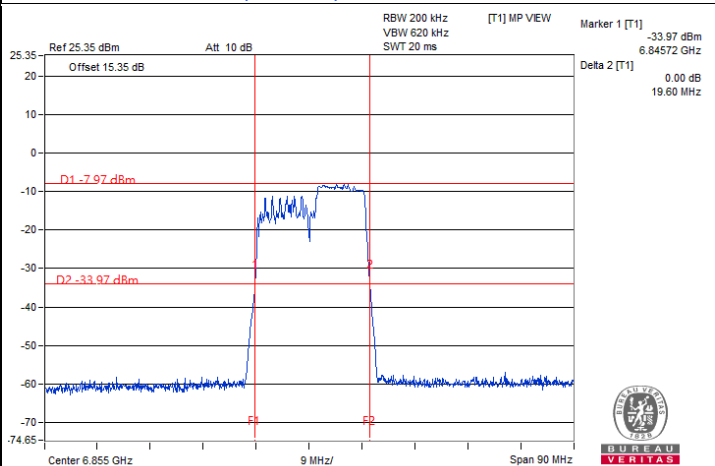
802.11be (EHT160) : CH 79



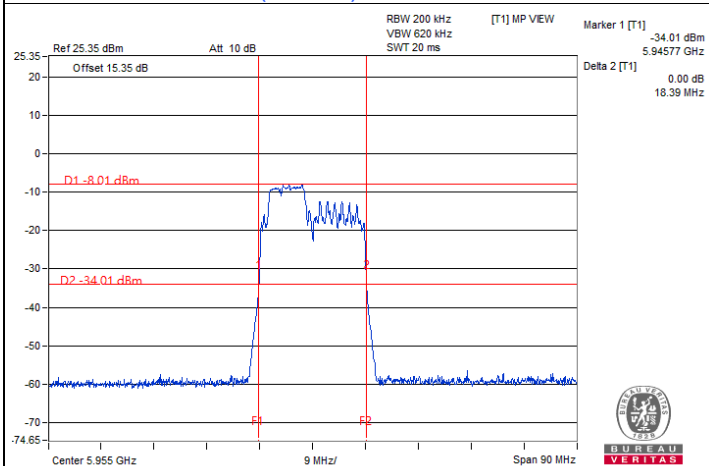
802.11be (EHT20) 26-tone RU : CH 117



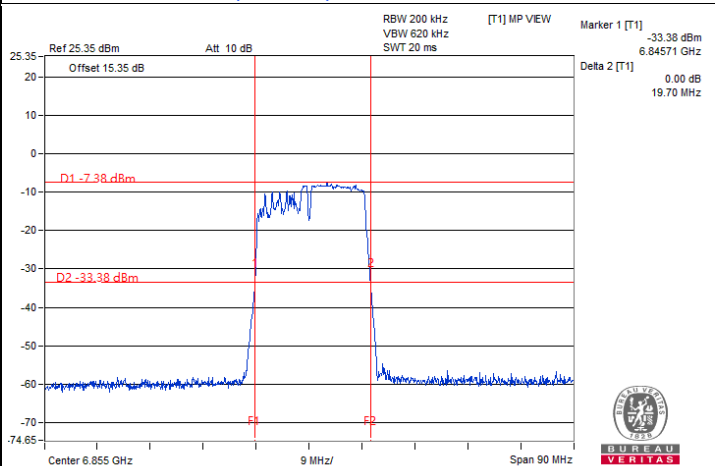
802.11be (EHT20) 52-tone RU : CH 1



802.11be (EHT20) 106-tone RU : CH 181

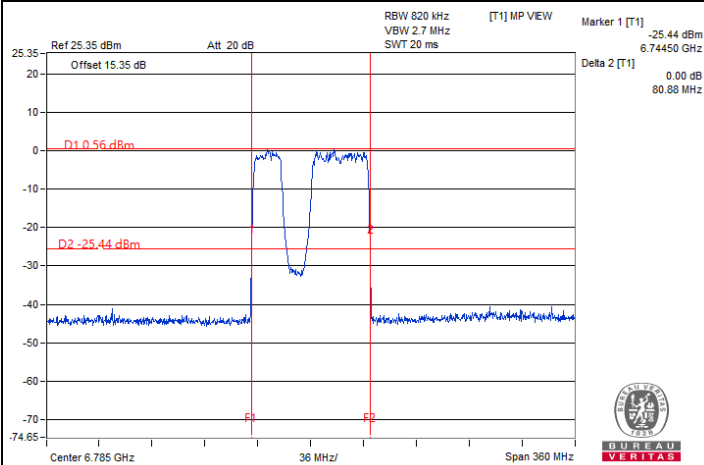


802.11be (EHT20) 52+26-tone MRU : CH 1

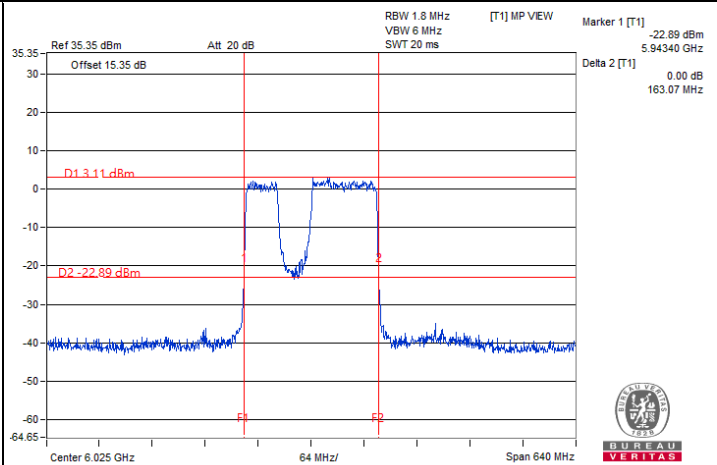


802.11be (EHT20) 106+26-tone MRU : CH 181

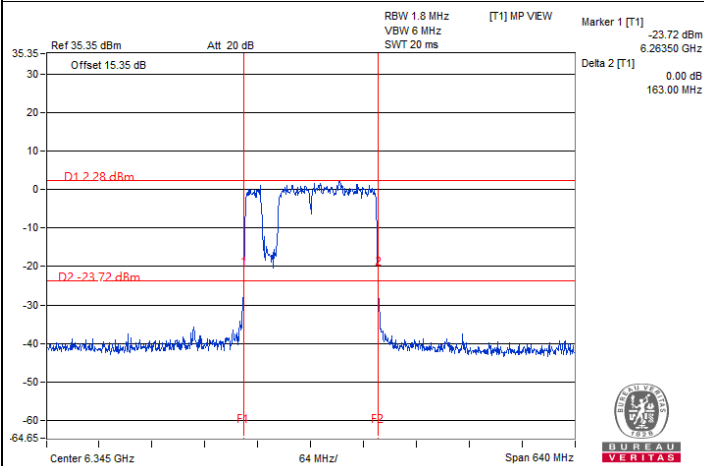
Spectrum Plot of Maximum Value



802.11be (EHT80) 484+242-tone MRU : CH 167



802.11be (EHT160) 996+484-tone MRU : CH 15



802.11be (EHT160) 996+484+242-tone MRU : CH 79

Input Power:	3.3 Vdc	Environmental Conditions:	23°C, 63% RH	Tested By:	Louis Yang
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2TX

802.11a

Channel	Frequency (MHz)	26dB Bandwidth (MHz)		Maximum Limit (MHz)	Test Result
		Chain 0	Chain 1		
1	5955	18.42	18.32	320	Pass
49	6195	18.43	18.27	320	Pass
93	6415	18.35	18.23	320	Pass
117	6535	18.27	18.23	320	Pass
149	6695	18.51	18.38	320	Pass
181	6855	18.38	18.25	320	Pass

802.11be (EHT20)

Channel	Frequency (MHz)	26dB Bandwidth (MHz)		Maximum Limit (MHz)	Test Result
		Chain 0	Chain 1		
1	5955	20.65	20.68	320	Pass
49	6195	20.56	20.53	320	Pass
93	6415	20.37	20.44	320	Pass
117	6535	20.49	20.49	320	Pass
149	6695	20.33	20.63	320	Pass
181	6855	20.23	20.47	320	Pass

802.11be (EHT40)

Channel	Frequency (MHz)	26dB Bandwidth (MHz)		Maximum Limit (MHz)	Test Result
		Chain 0	Chain 1		
3	5965	40.16	40.11	320	Pass
51	6205	40.24	40.27	320	Pass
91	6405	40.14	40.18	320	Pass
123	6565	40.27	39.98	320	Pass
147	6685	40.00	40.10	320	Pass
179	6845	39.87	40.26	320	Pass

802.11be (EHT80)

Channel	Frequency (MHz)	26dB Bandwidth (MHz)		Maximum Limit (MHz)	Test Result
		Chain 0	Chain 1		
7	5985	80.56	80.38	320	Pass
55	6225	80.35	80.37	320	Pass
87	6385	80.20	80.23	320	Pass
135	6625	80.38	80.28	320	Pass
151	6705	80.62	80.34	320	Pass
167	6785	80.32	80.33	320	Pass

802.11be (EHT160)

Channel	Frequency (MHz)	26dB Bandwidth (MHz)		Maximum Limit (MHz)	Test Result
		Chain 0	Chain 1		
15	6025	162.51	162.63	320	Pass
47	6185	162.64	163.01	320	Pass
79	6345	162.34	162.88	320	Pass
143	6665	162.68	162.90	320	Pass

802.11be (EHT20) 26-tone RU

Channel	Frequency (MHz)	26dB Bandwidth (MHz)		Maximum Limit (MHz)	Test Result
		Chain 0	Chain 1		
1	5955	19.25	19.25	320	Pass
49	6195	18.06	18.06	320	Pass
93	6415	19.21	19.42	320	Pass
117	6535	19.14	19.22	320	Pass
149	6695	18.03	18.05	320	Pass
181	6855	19.27	19.25	320	Pass

802.11be (EHT20) 52-tone RU

Channel	Frequency (MHz)	26dB Bandwidth (MHz)		Maximum Limit (MHz)	Test Result
		Chain 0	Chain 1		
1	5955	19.30	19.41	320	Pass
49	6195	18.12	18.22	320	Pass
93	6415	19.20	19.54	320	Pass
117	6535	19.32	19.37	320	Pass
149	6695	18.20	18.25	320	Pass
181	6855	19.29	19.35	320	Pass

802.11be (EHT20) 106-tone RU

Channel	Frequency (MHz)	26dB Bandwidth (MHz)		Maximum Limit (MHz)	Test Result
		Chain 0	Chain 1		
1	5955	19.38	19.38	320	Pass
49	6195	19.32	19.52	320	Pass
93	6415	19.39	19.48	320	Pass
117	6535	19.44	19.37	320	Pass
149	6695	19.42	19.47	320	Pass
181	6855	19.39	19.58	320	Pass

802.11be (EHT20) 52+26-tone MRU

Channel	Frequency (MHz)	26dB Bandwidth (MHz)		Maximum Limit (MHz)	Test Result
		Chain 0	Chain 1		
1	5955	18.28	18.21	320	Pass
93	6415	18.31	18.26	320	Pass
117	6535	18.28	18.32	320	Pass
181	6855	18.37	18.26	320	Pass

802.11be (EHT20) 106+26-tone MRU

Channel	Frequency (MHz)	26dB Bandwidth (MHz)		Maximum Limit (MHz)	Test Result
		Chain 0	Chain 1		
1	5955	19.41	19.33	320	Pass
93	6415	19.41	19.32	320	Pass
117	6535	19.46	19.35	320	Pass
181	6855	19.50	19.33	320	Pass

802.11be (EHT80) 484+242-tone MRU

Channel	Frequency (MHz)	26dB Bandwidth (MHz)		Maximum Limit (MHz)	Test Result
		Chain 0	Chain 1		
7	5985	80.58	80.70	320	Pass
87	6385	80.63	80.50	320	Pass
135	6625	80.48	80.69	320	Pass
167	6785	80.53	80.36	320	Pass

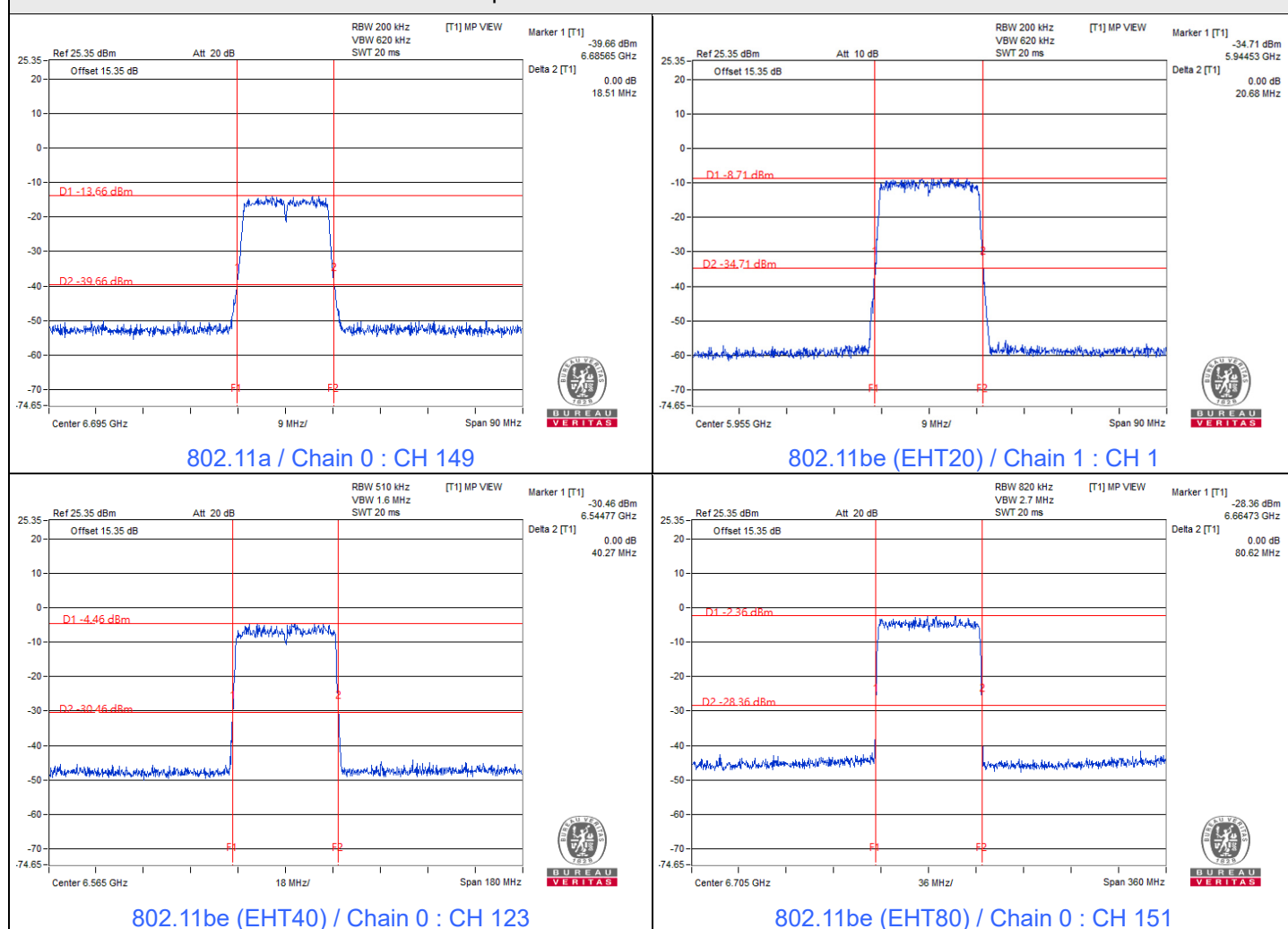
802.11be (EHT160) 996+484-tone MRU

Channel	Frequency (MHz)	26dB Bandwidth (MHz)		Maximum Limit (MHz)	Test Result
		Chain 0	Chain 1		
15	6025	163.03	162.72	320	Pass
79	6345	163.05	162.88	320	Pass
143	6665	162.65	162.66	320	Pass

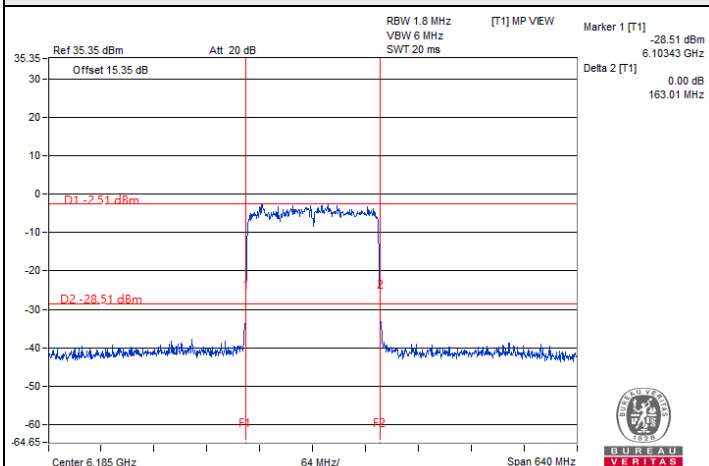
802.11be (EHT160) 996+484+242-tone MRU

Channel	Frequency (MHz)	26dB Bandwidth (MHz)		Maximum Limit (MHz)	Test Result
		Chain 0	Chain 1		
15	6025	162.48	163.01	320	Pass
79	6345	162.55	162.23	320	Pass
143	6665	163.27	162.72	320	Pass

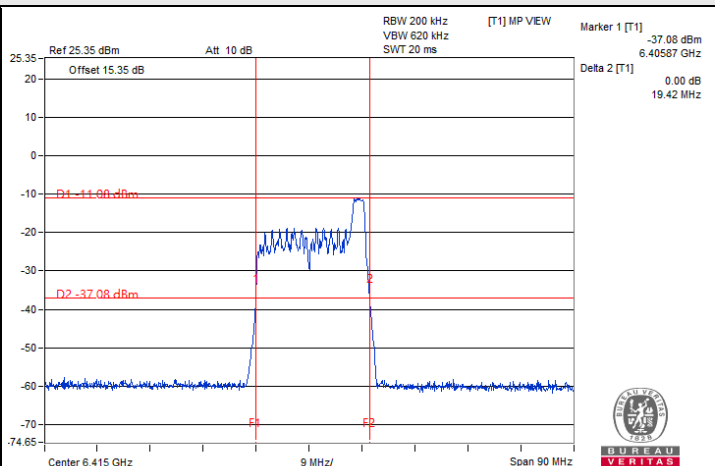
Spectrum Plot of Maximum Value



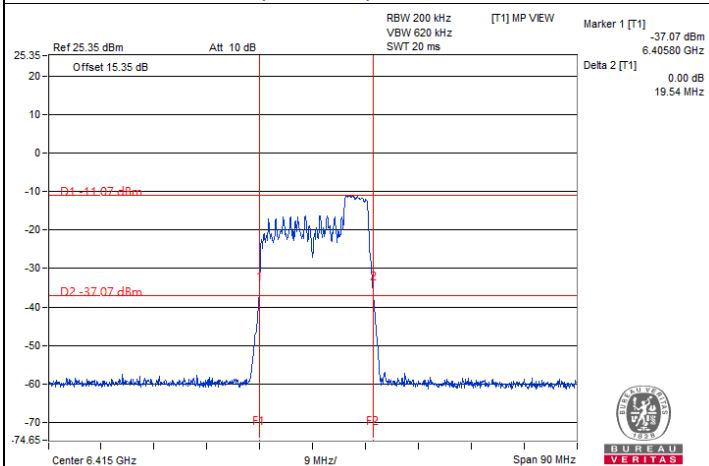
Spectrum Plot of Maximum Value



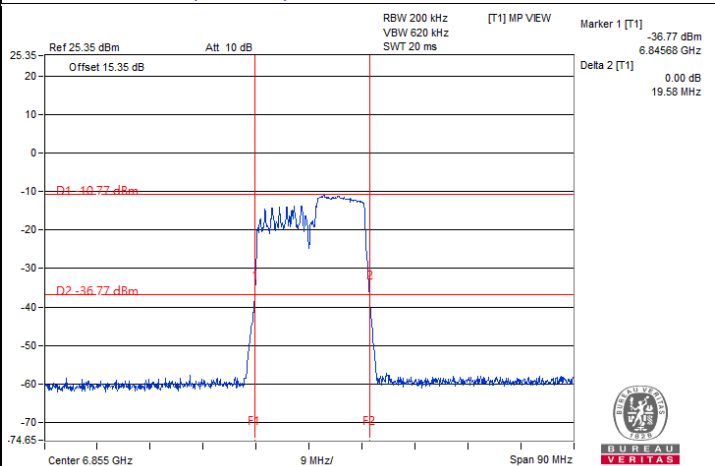
802.11be (EHT160) / Chain 1 : CH 47



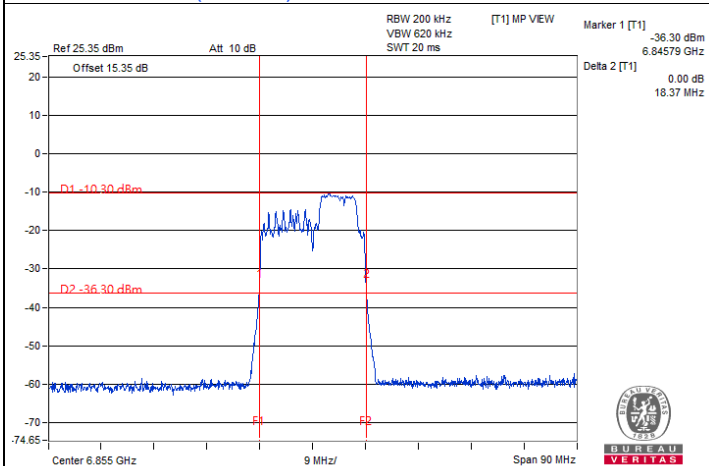
802.11be (EHT20) 26-tone RU / Chain 1 : CH 93



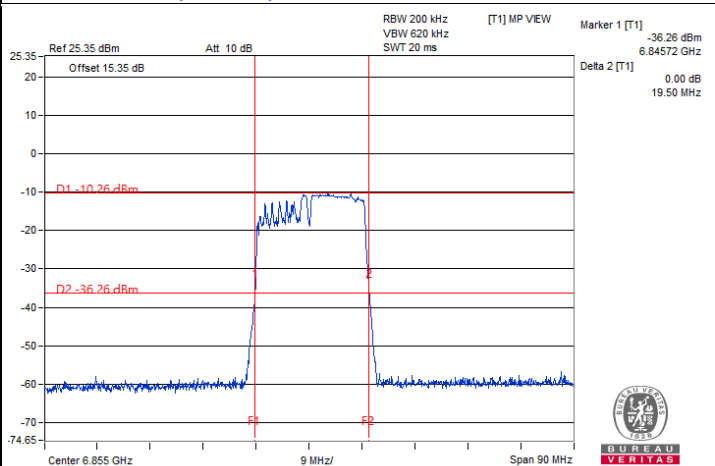
802.11be (EHT20) 52-tone RU / Chain 1 : CH 93



802.11be (EHT20) 106-tone RU / Chain 1 : CH 181

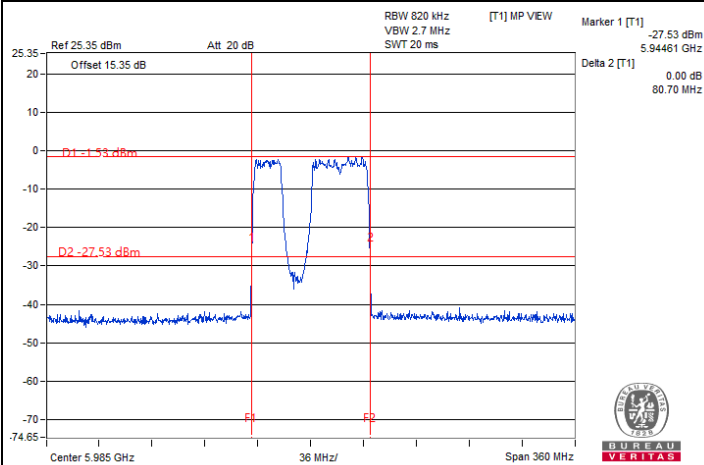


802.11be (EHT20) 52+26-tone MRU / Chain 0 : CH 181

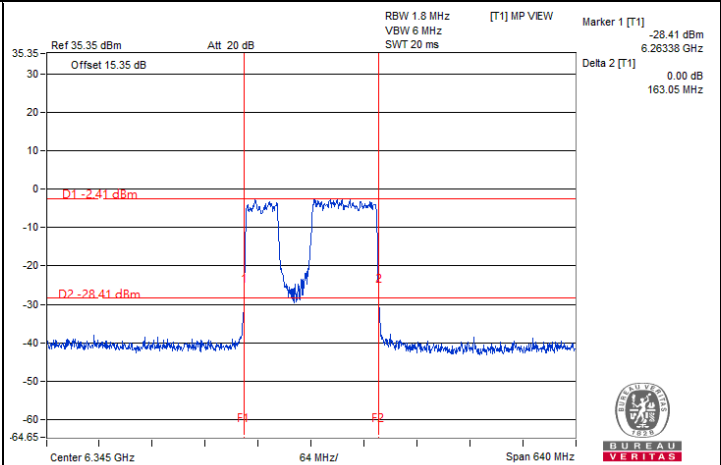


802.11be (EHT20) 106+26-tone MRU / Chain 0 : CH 181

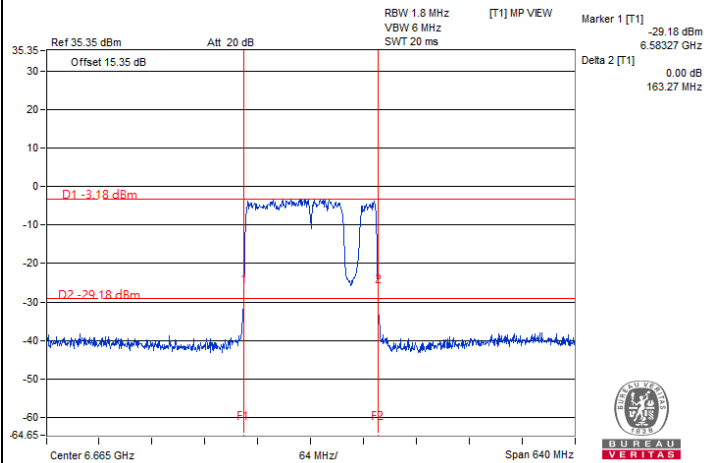
Spectrum Plot of Maximum Value



802.11be (EHT80) 484+242-tone MRU / Chain 1 : CH 7



802.11be (EHT160) 996+484-tone MRU / Chain 0 : CH 79



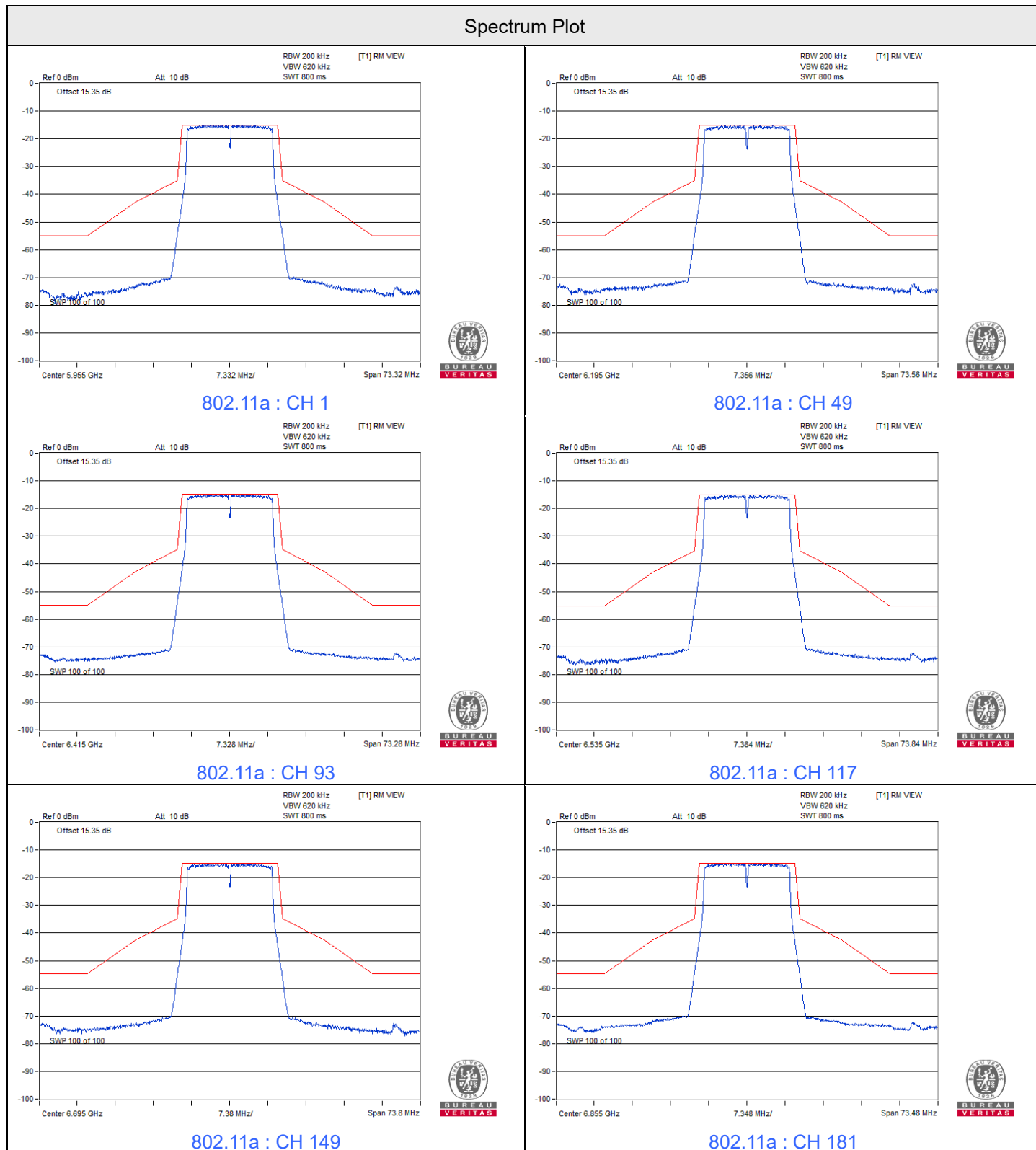
802.11be (EHT160) 996+484+242-tone MRU / Chain 0 : CH 143

7.4 In-Band Emission Mask

Input Power:	3.3 Vdc	Environmental Conditions:	23°C, 63% RH	Tested By:	Louis Yang
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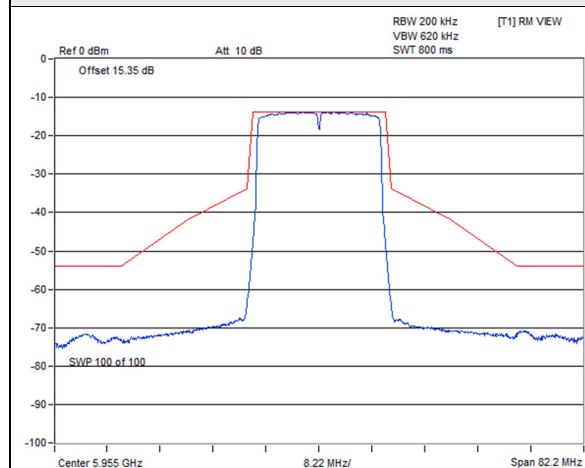
1TX

802.11a

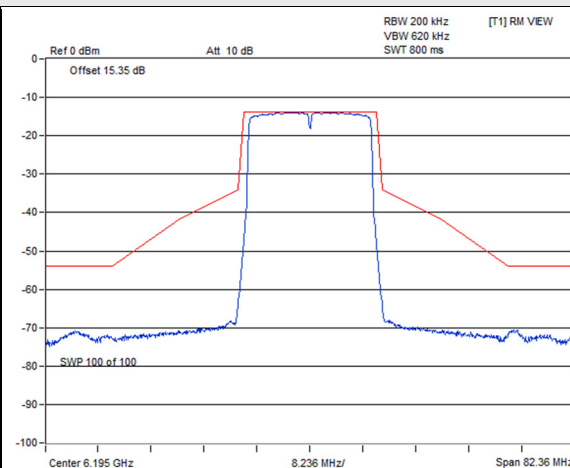


802.11be (EHT20)

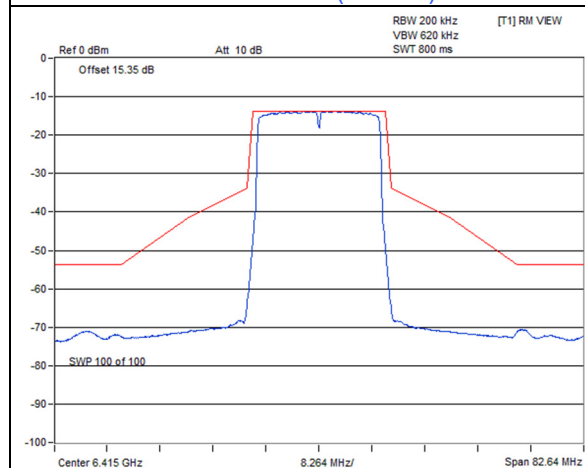
Spectrum Plot



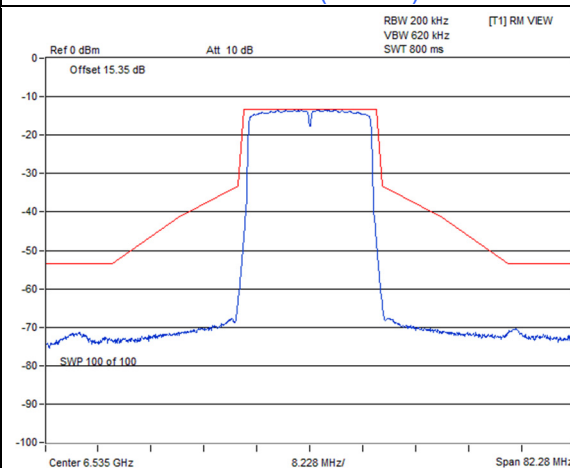
802.11be (EHT20) : CH 1



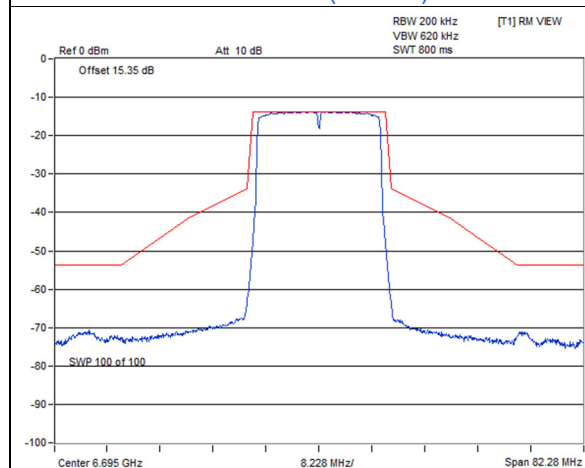
802.11be (EHT20) : CH 49



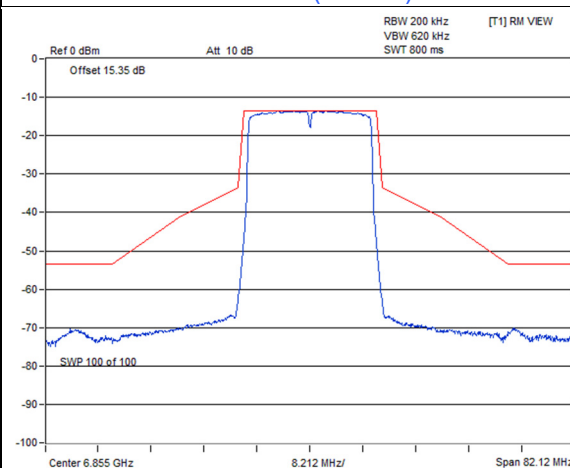
802.11be (EHT20) : CH 93



802.11be (EHT20) : CH 117



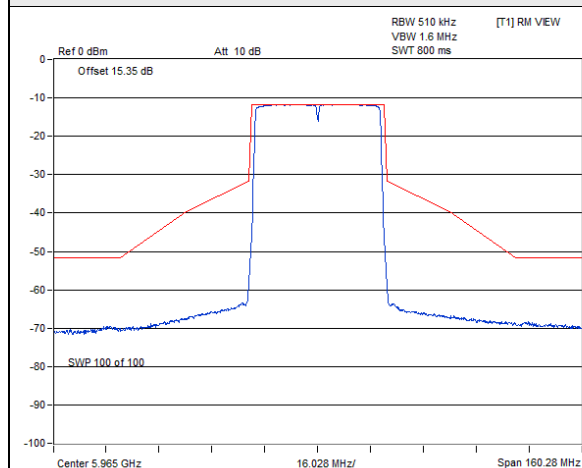
802.11be (EHT20) : CH 149



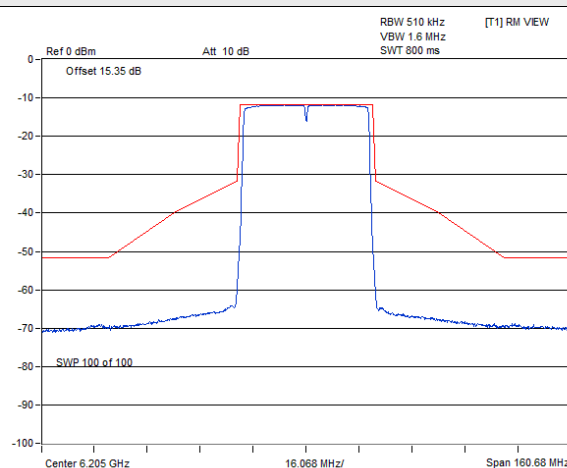
802.11be (EHT20) : CH 181

802.11be (EHT40)

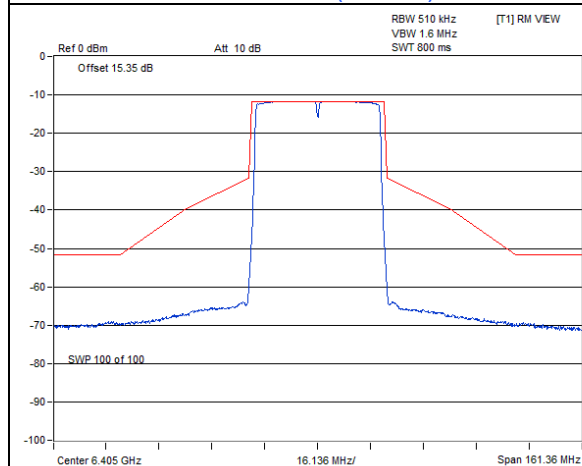
Spectrum Plot



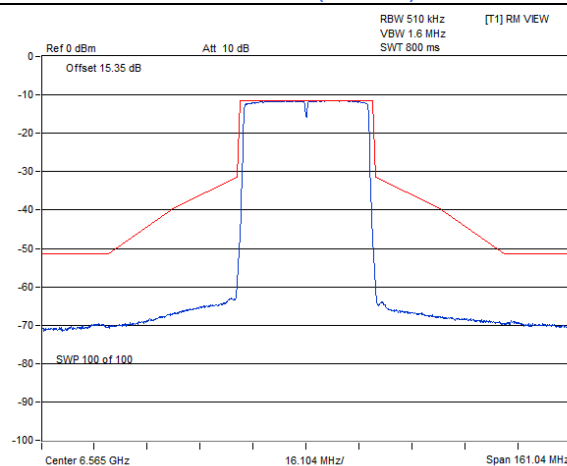
802.11be (EHT40) : CH 3



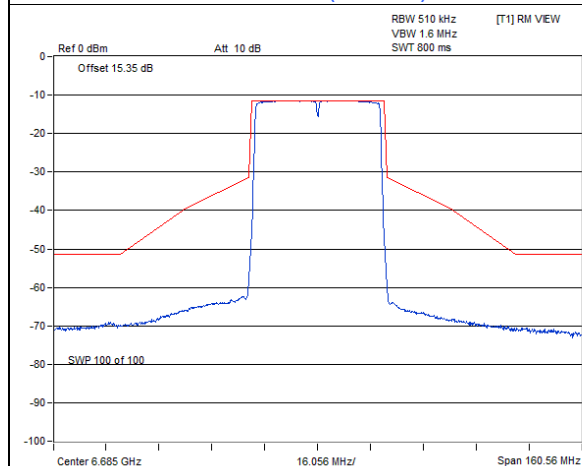
802.11be (EHT40) : CH 51



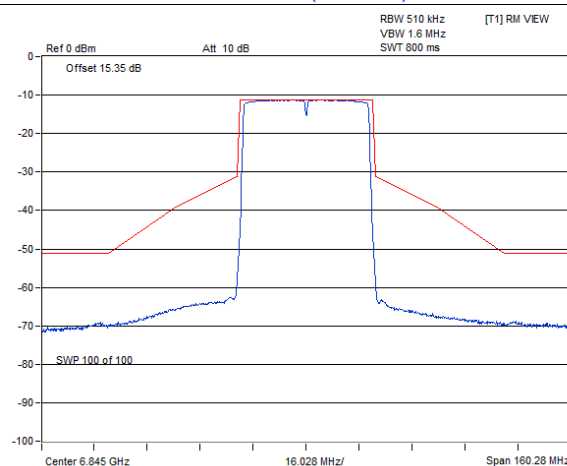
802.11be (EHT40) : CH 91



802.11be (EHT40) : CH 123



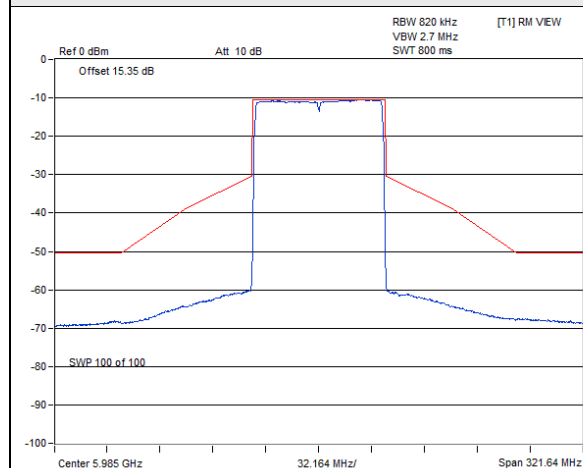
802.11be (EHT40) : CH 147



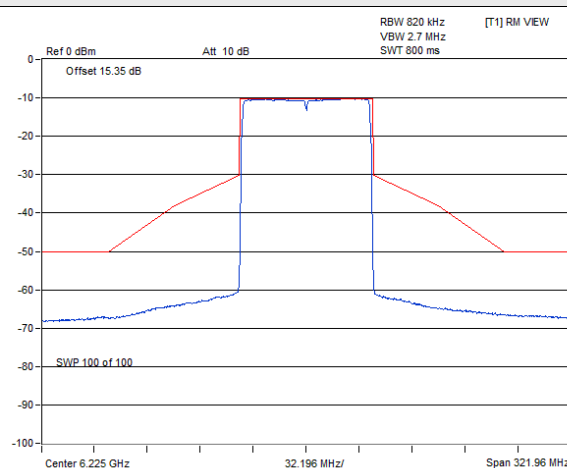
802.11be (EHT40) : CH 179

802.11be (EHT80)

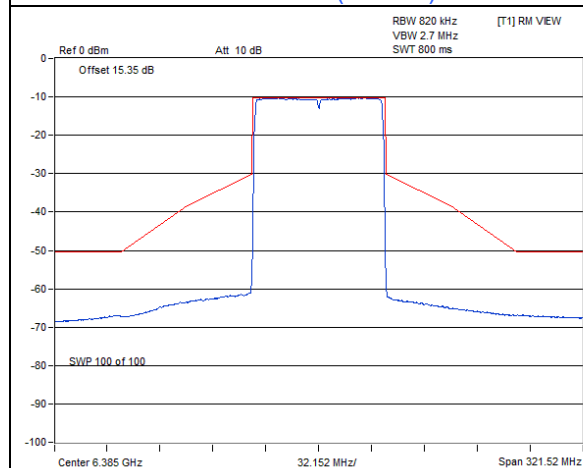
Spectrum Plot



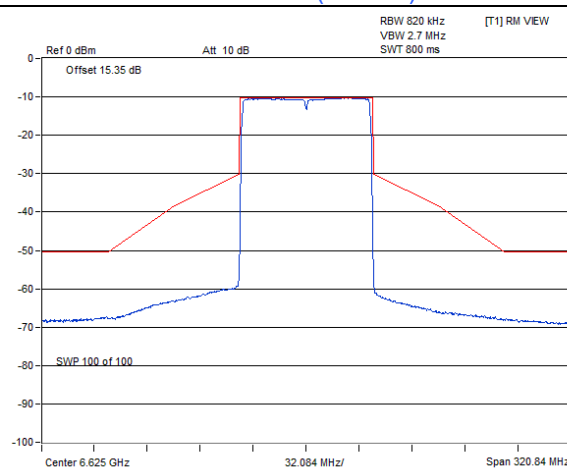
802.11be (EHT80) : CH 7



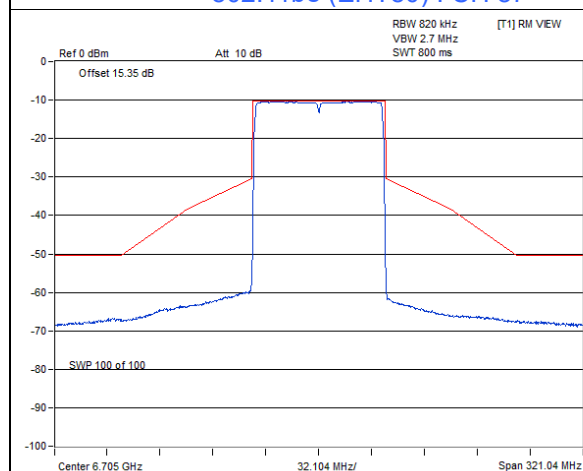
802.11be (EHT80) : CH 55



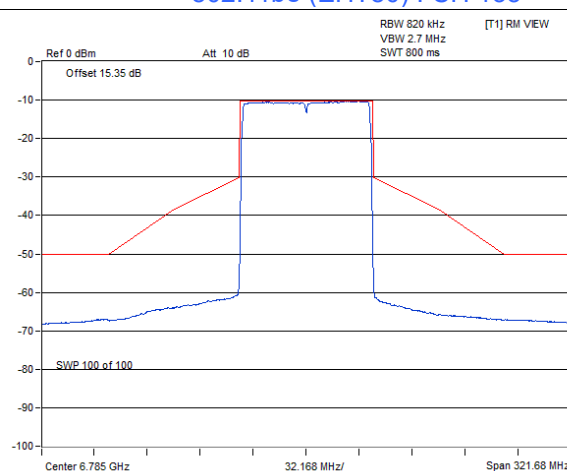
802.11be (EHT80) : CH 87



802.11be (EHT80) : CH 135



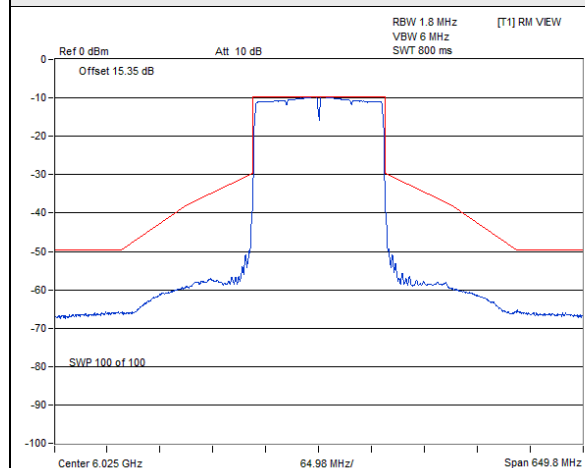
802.11be (EHT80) : CH 151



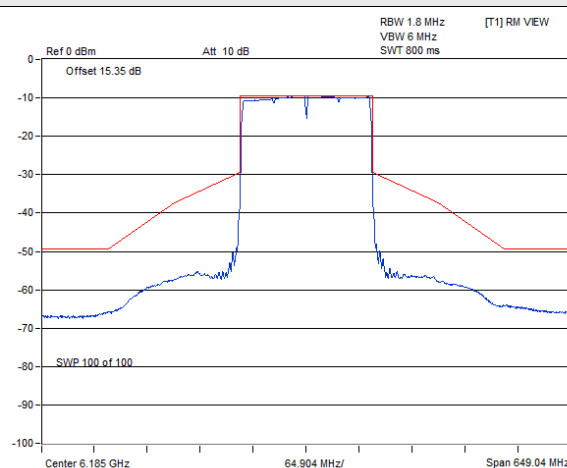
802.11be (EHT80) : CH 167

802.11be (EHT160)

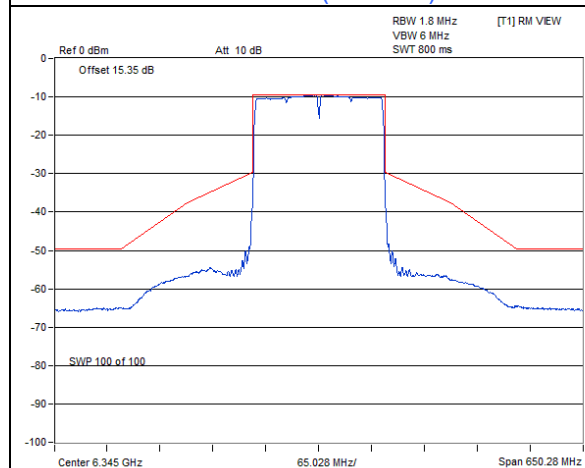
Spectrum Plot



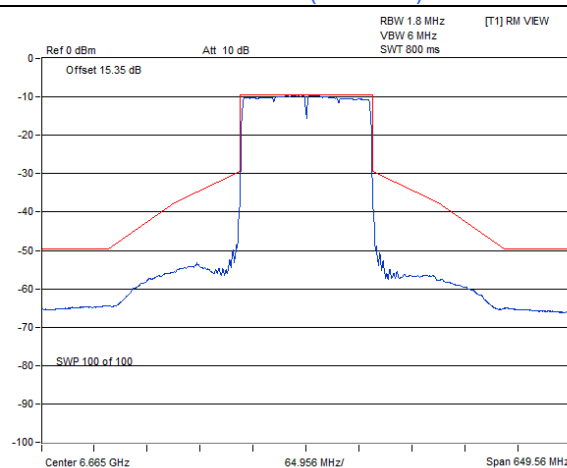
802.11be (EHT160) : CH 15



802.11be (EHT160) : CH 47



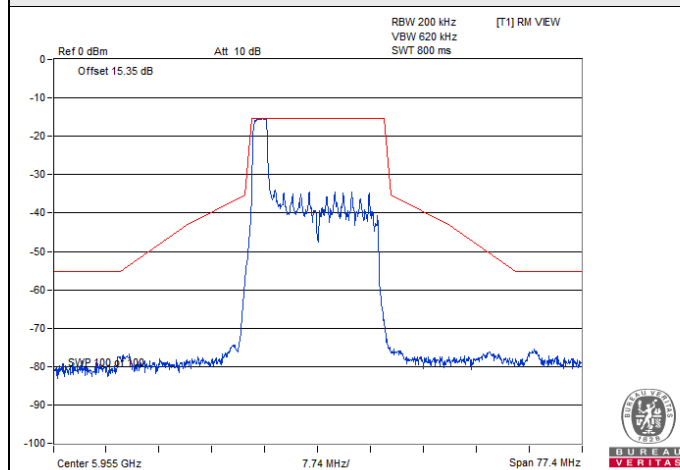
802.11be (EHT160) : CH 79



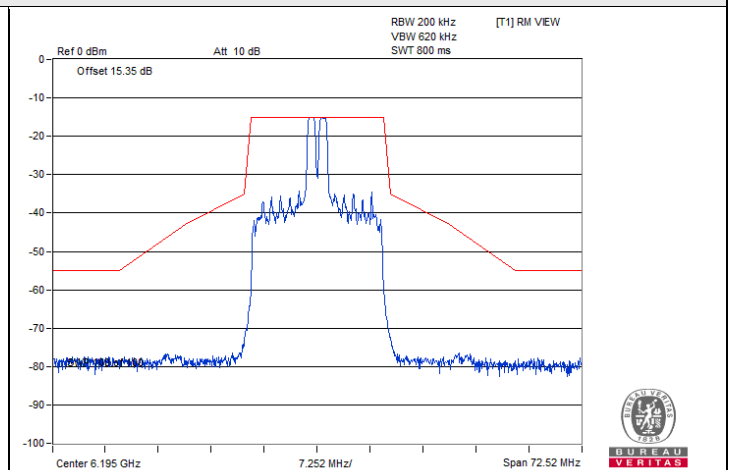
802.11be (EHT160) : CH 143

802.11be (EHT20) 26-tone RU

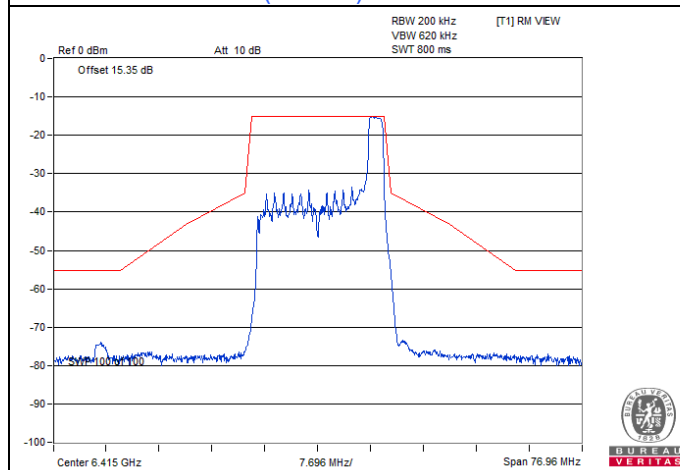
Spectrum Plot



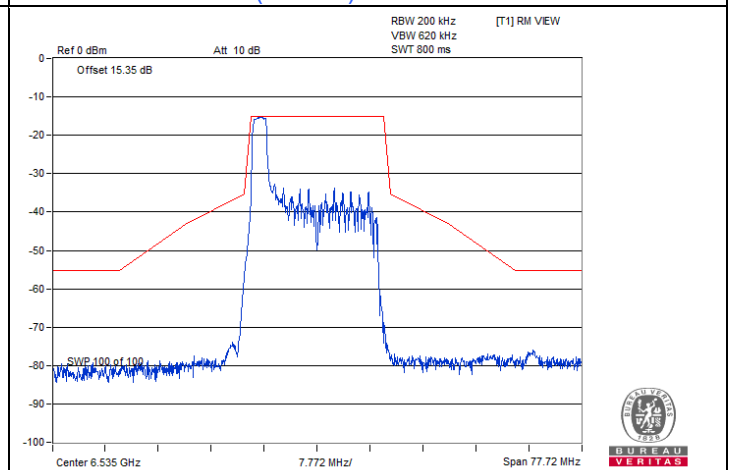
802.11be (EHT20) 26-tone RU : CH 1



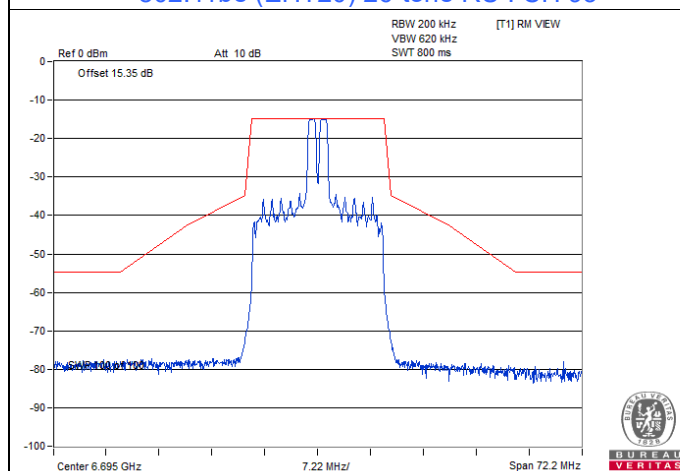
802.11be (EHT20) 26-tone RU : CH 49



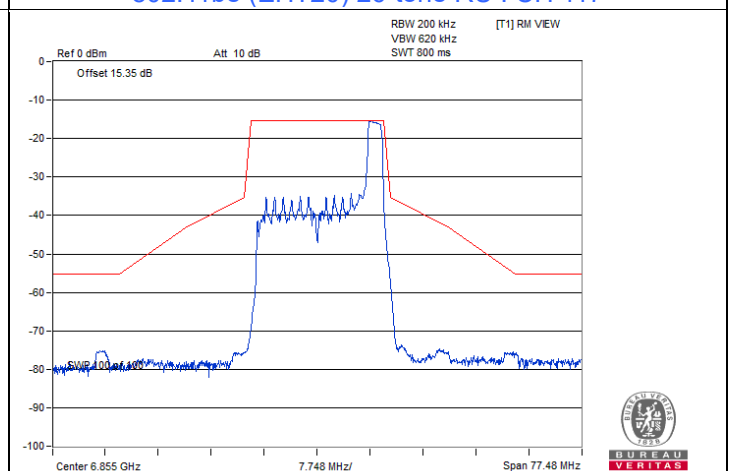
802.11be (EHT20) 26-tone RU : CH 93



802.11be (EHT20) 26-tone RU : CH 117



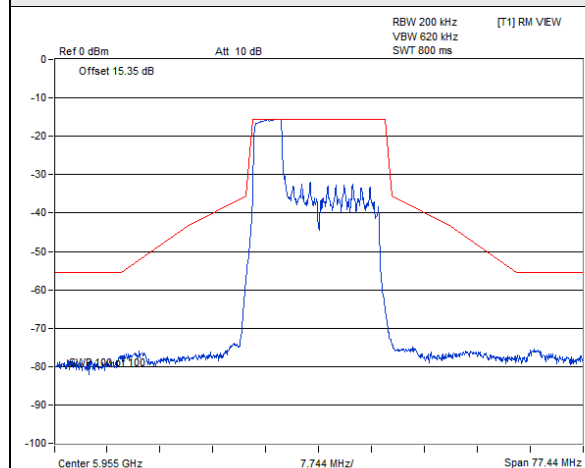
802.11be (EHT20) 26-tone RU : CH 149



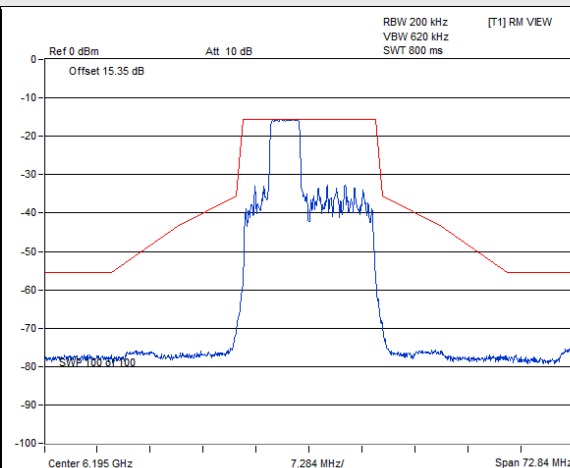
802.11be (EHT20) 26-tone RU : CH 181

802.11be (EHT20) 52-tone RU

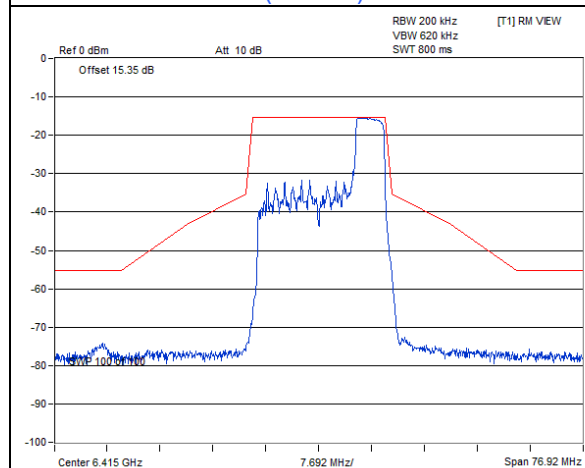
Spectrum Plot



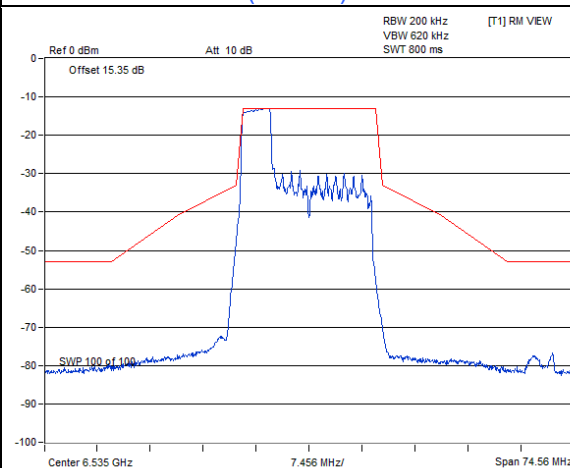
802.11be (EHT20) 52-tone RU : CH 1



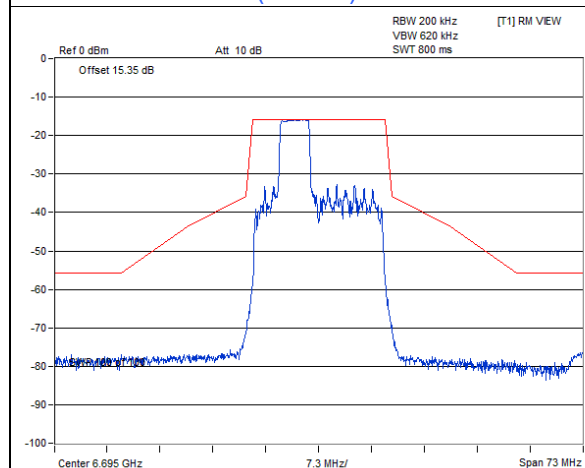
802.11be (EHT20) 52-tone RU : CH 49



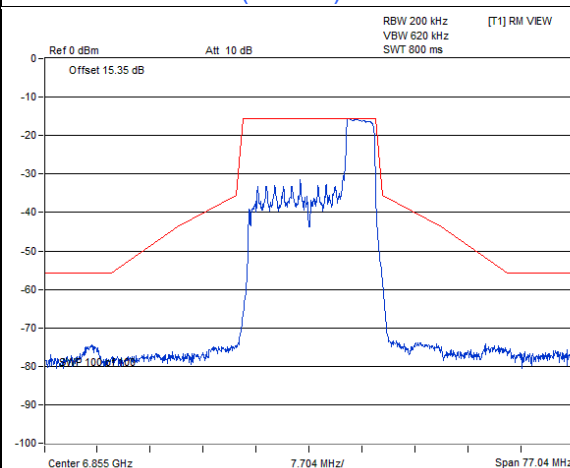
802.11be (EHT20) 52-tone RU : CH 93



802.11be (EHT20) 52-tone RU : CH 117



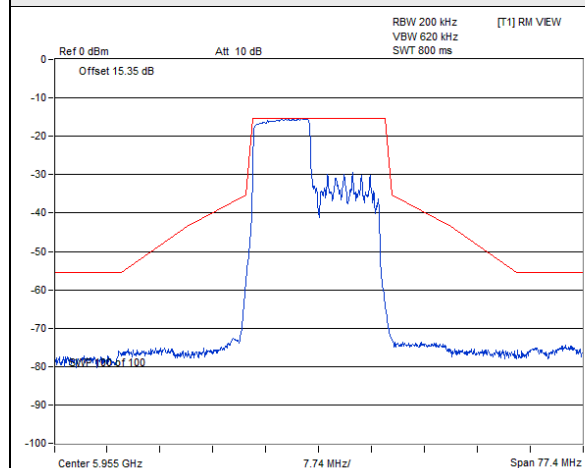
802.11be (EHT20) 52-tone RU : CH 149



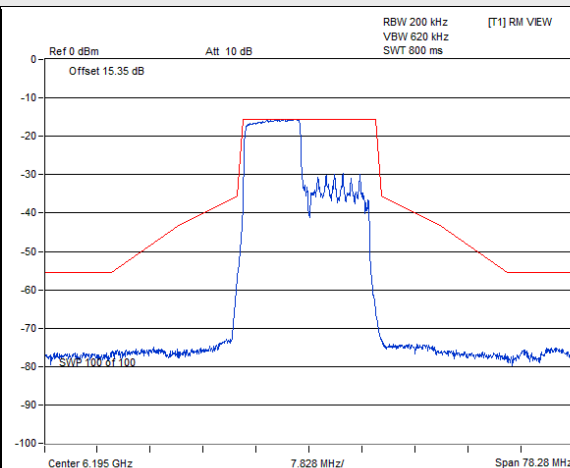
802.11be (EHT20) 52-tone RU : CH 181

802.11be (EHT20) 106-tone RU

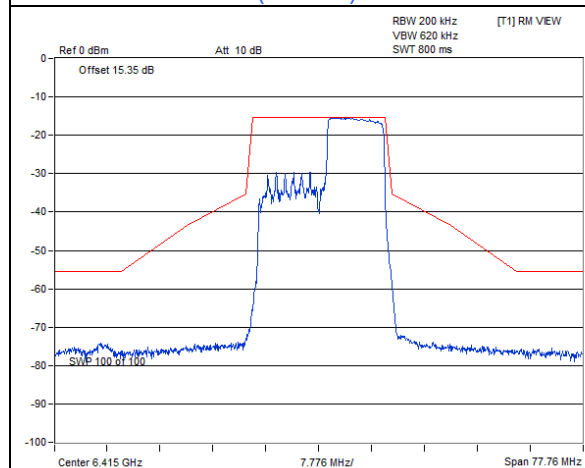
Spectrum Plot



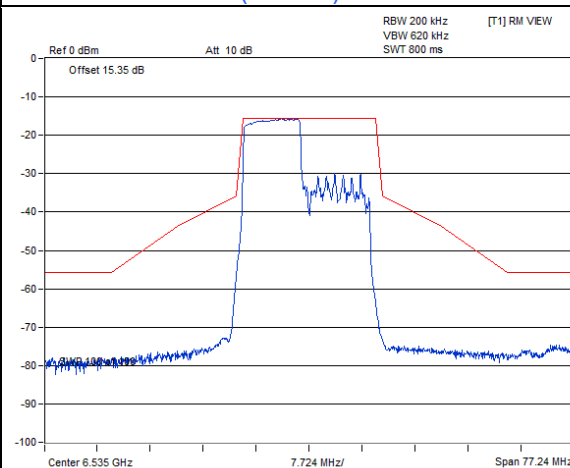
802.11be (EHT20) 106-tone RU : CH 1



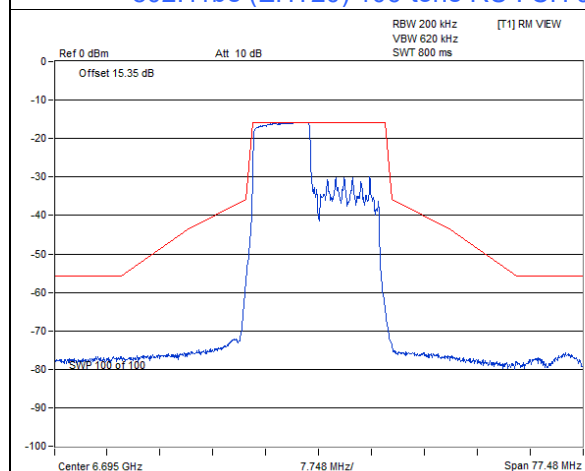
802.11be (EHT20) 106-tone RU : CH 49



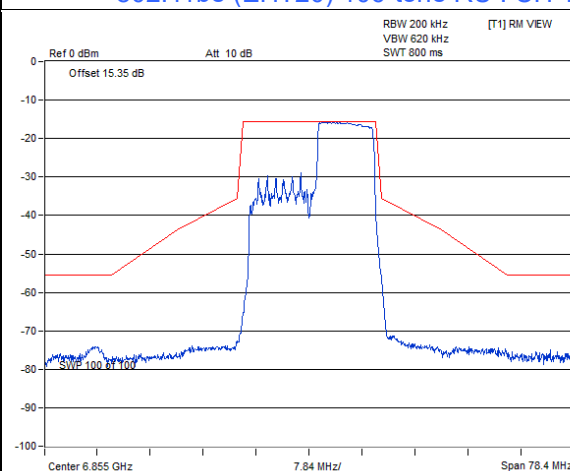
802.11be (EHT20) 106-tone RU : CH 93



802.11be (EHT20) 106-tone RU : CH 117



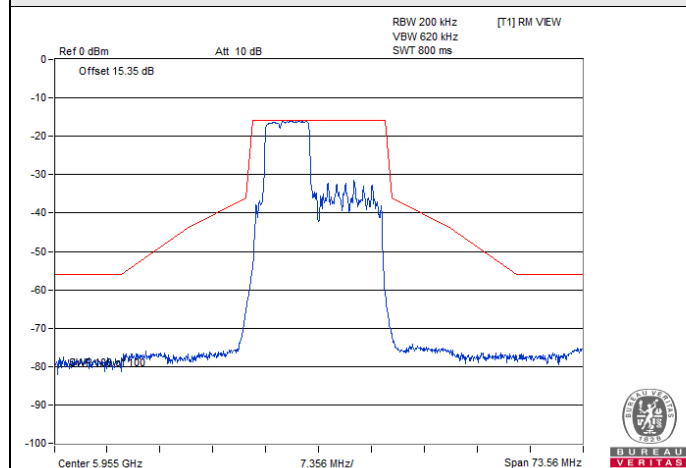
802.11be (EHT20) 106-tone RU : CH 149



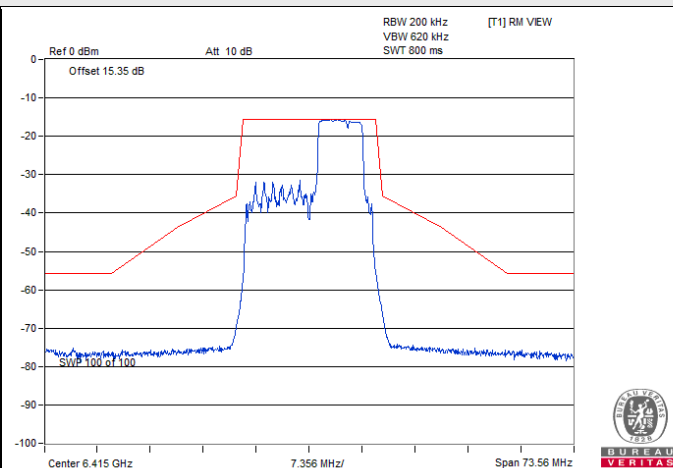
802.11be (EHT20) 106-tone RU : CH 181

802.11be (EHT20) 52+26-tone MRU

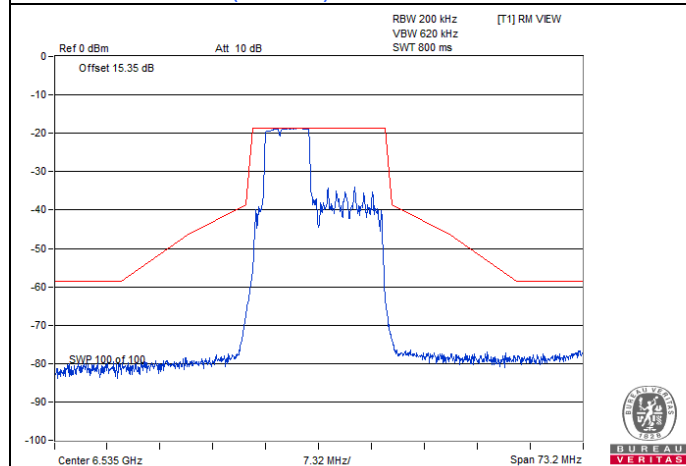
Spectrum Plot



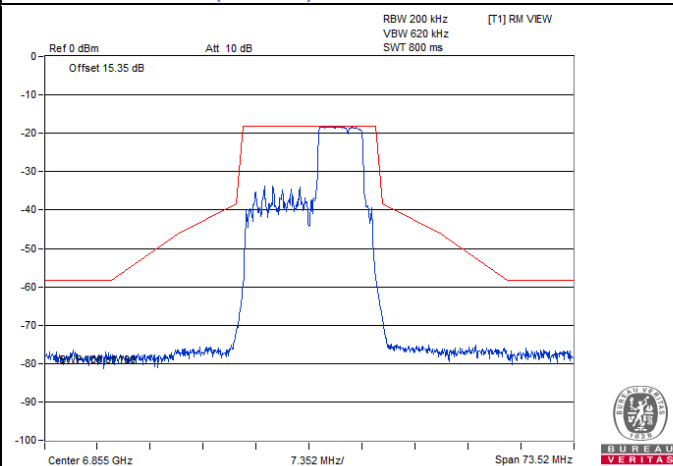
802.11be (EHT20) 52+26-tone MRU : CH 1



802.11be (EHT20) 52+26-tone MRU : CH 93



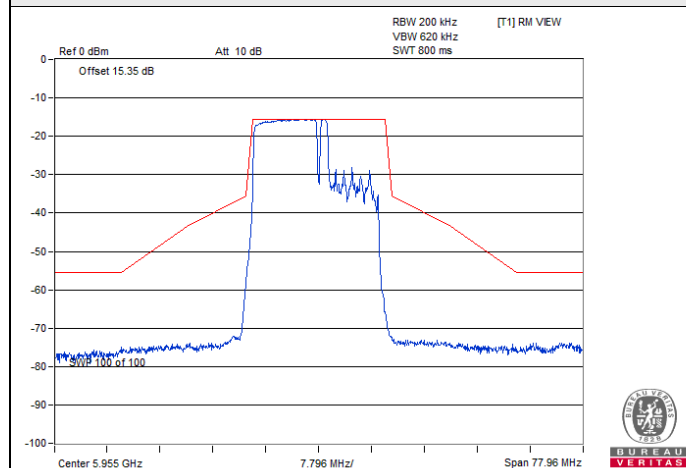
802.11be (EHT20) 52+26-tone MRU : CH 117



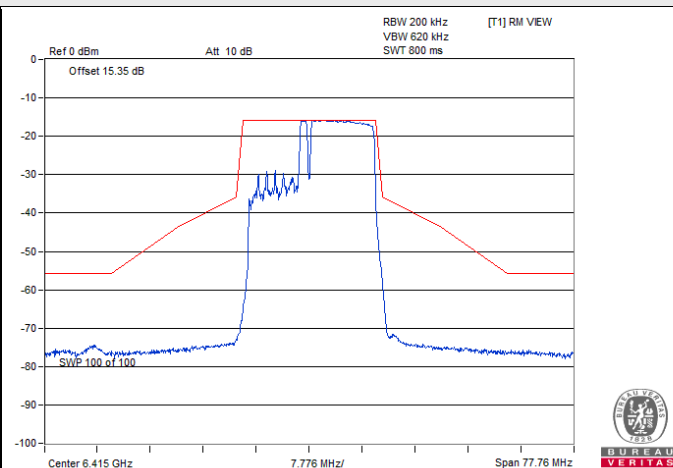
802.11be (EHT20) 52+26-tone MRU : CH 181

802.11be (EHT20) 106+26-tone MRU

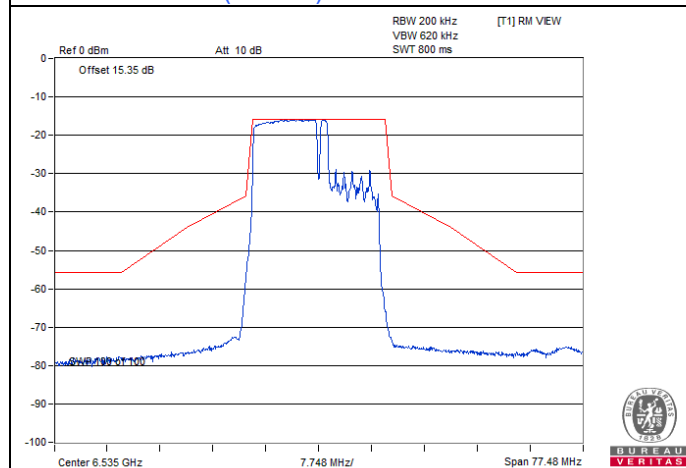
Spectrum Plot



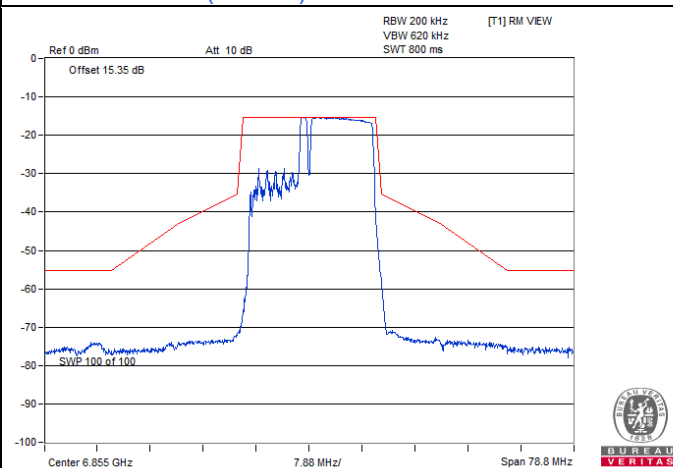
802.11be (EHT20) 106+26-tone MRU : CH 1



802.11be (EHT20) 106+26-tone MRU : CH 93



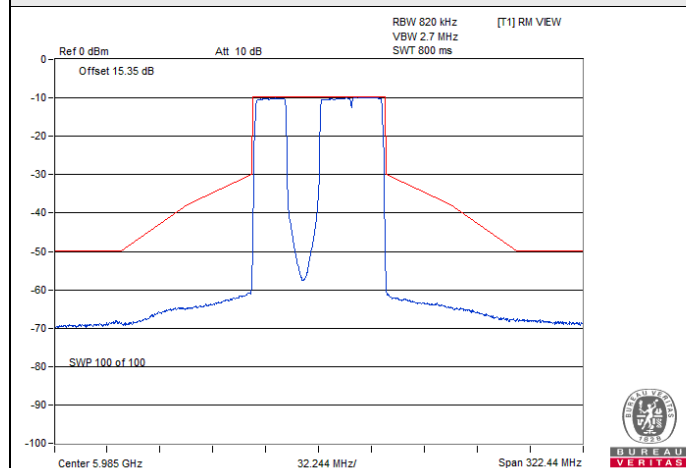
802.11be (EHT20) 106+26-tone MRU : CH 117



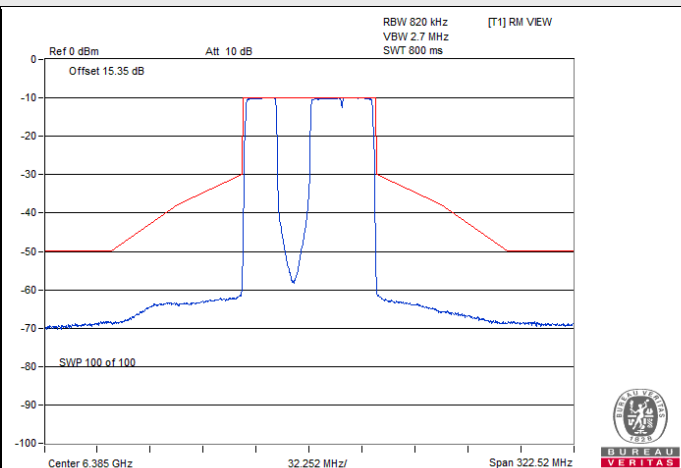
802.11be (EHT20) 106+26-tone MRU : CH 181

802.11be (EHT80) 484+242-tone MRU

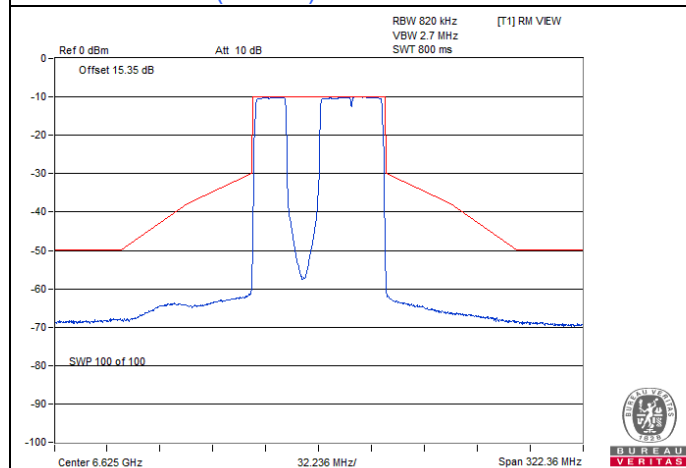
Spectrum Plot



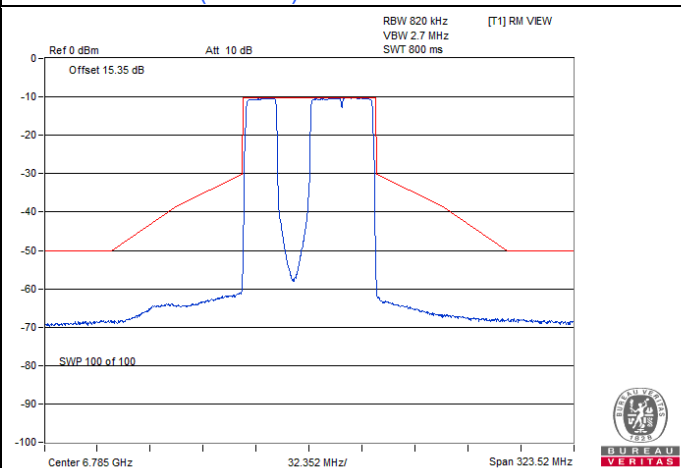
802.11be (EHT80) 484+242-tone MRU : CH 7



802.11be (EHT80) 484+242-tone MRU : CH 87



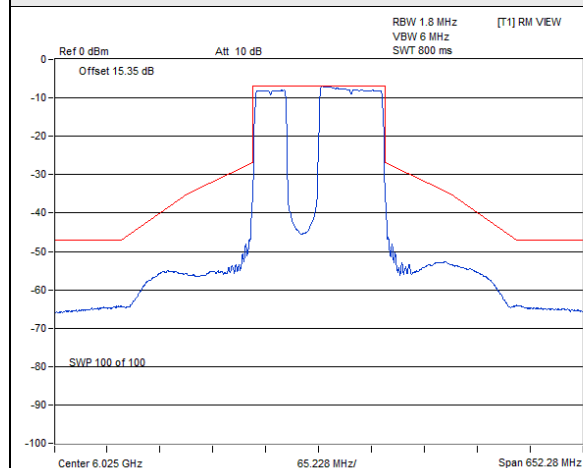
802.11be (EHT80) 484+242-tone MRU : CH 135



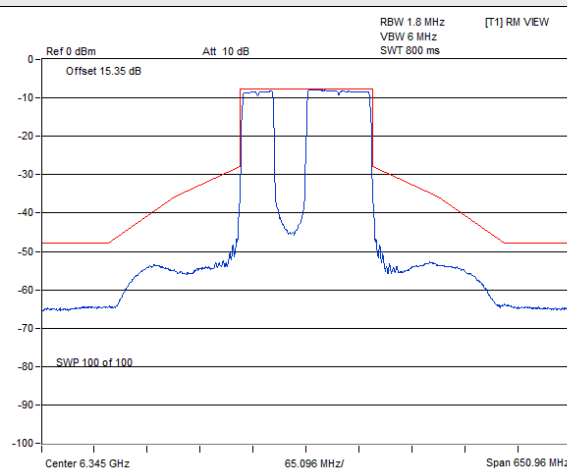
802.11be (EHT80) 484+242-tone MRU : CH 167

802.11be (EHT160) 996+484-tone MRU

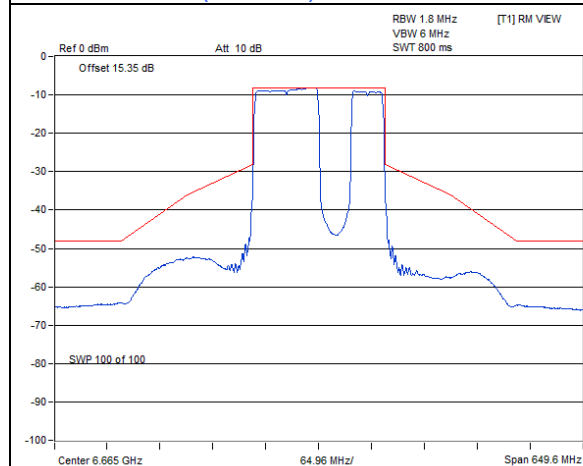
Spectrum Plot



802.11be (EHT160) 996+484-tone MRU : CH 15



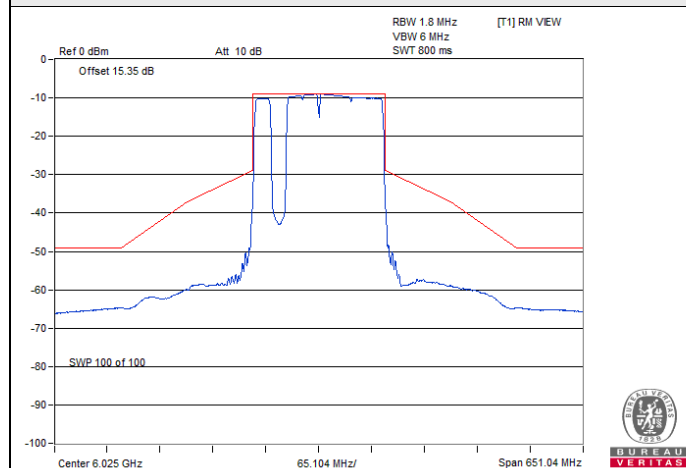
802.11be (EHT160) 996+484-tone MRU : CH 79



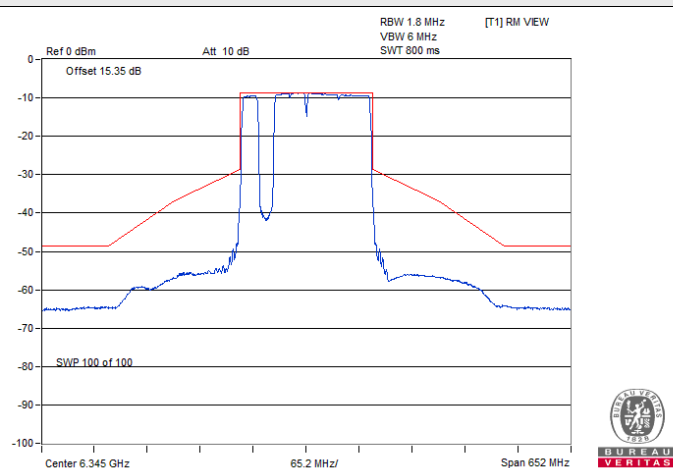
802.11be (EHT160) 996+484-tone MRU : CH 143

802.11be (EHT160) 996+484+242-tone MRU

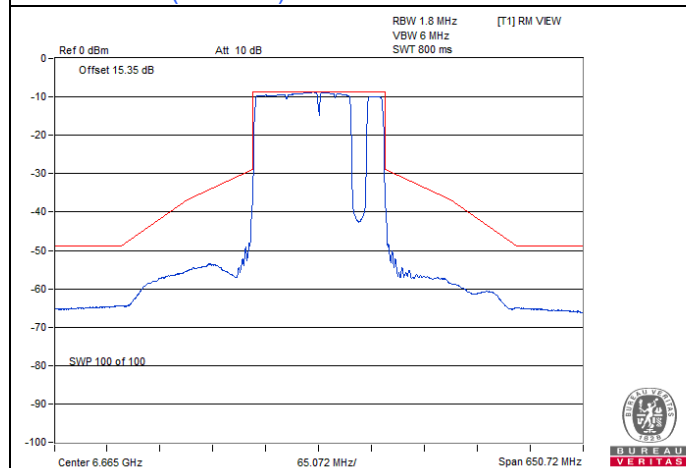
Spectrum Plot



802.11be (EHT160) 996+484+242-tone MRU : CH 15



802.11be (EHT160) 996+484+242-tone MRU : CH 79

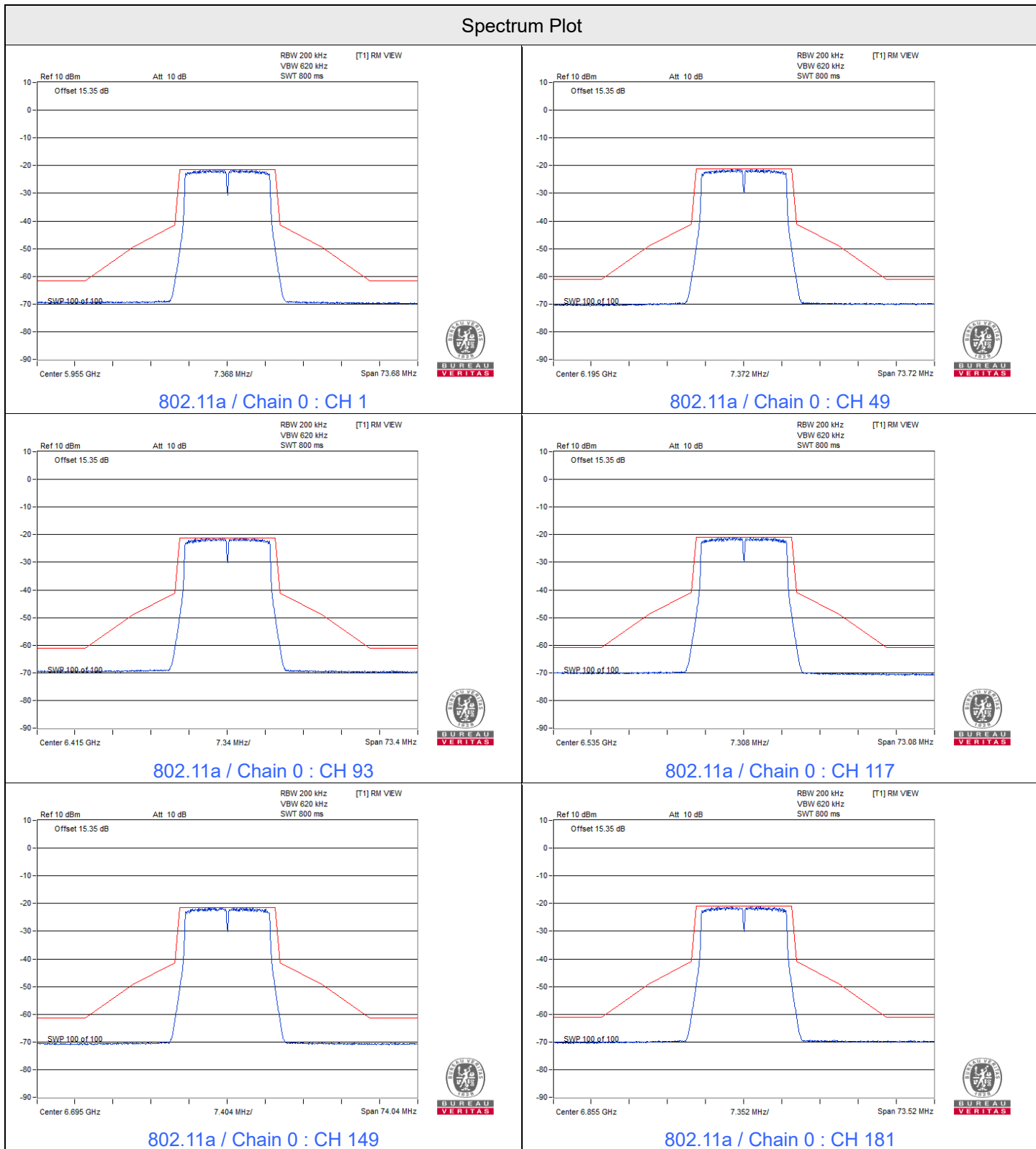


802.11be (EHT160) 996+484+242-tone MRU : CH 143

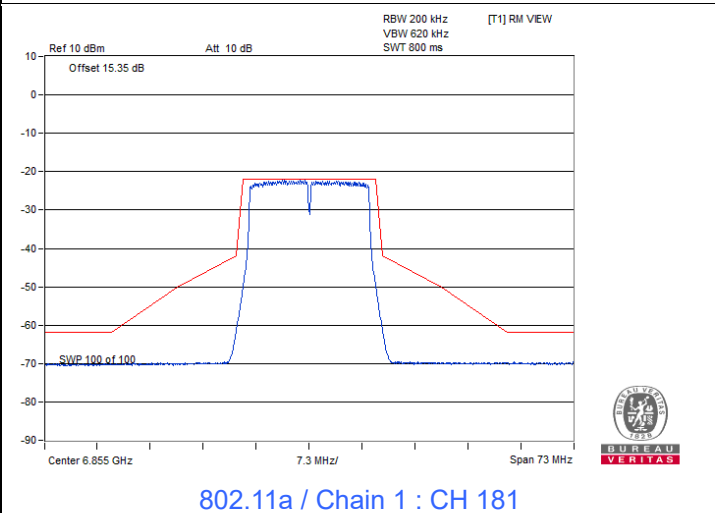
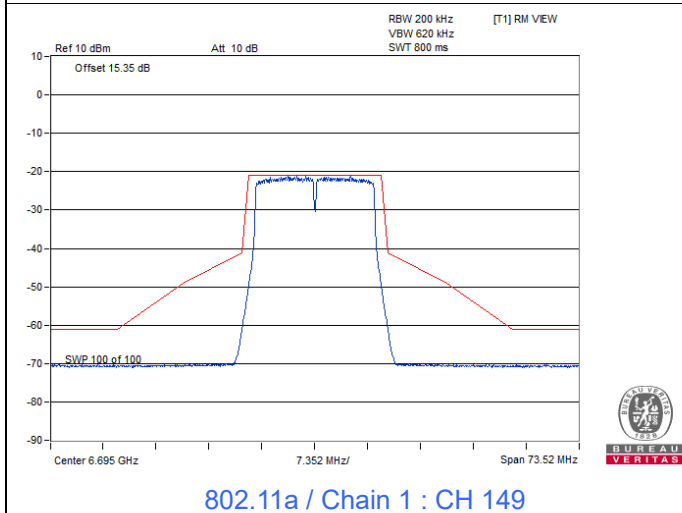
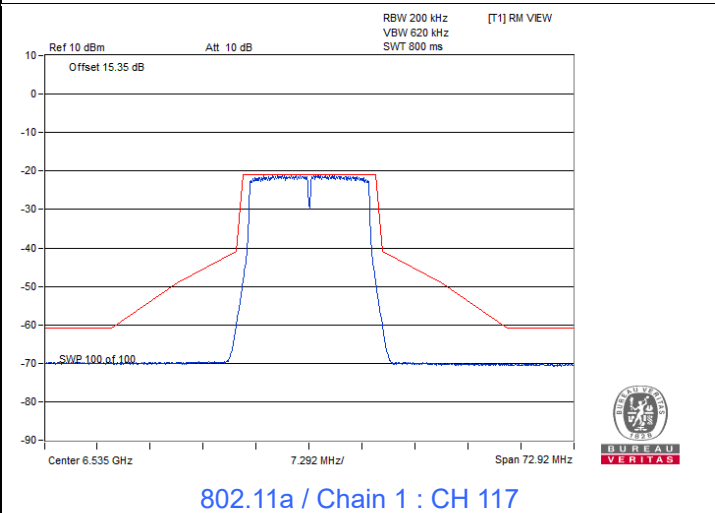
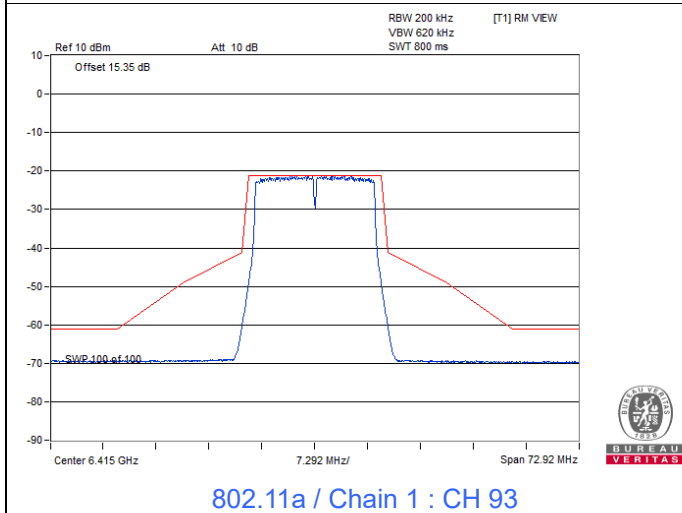
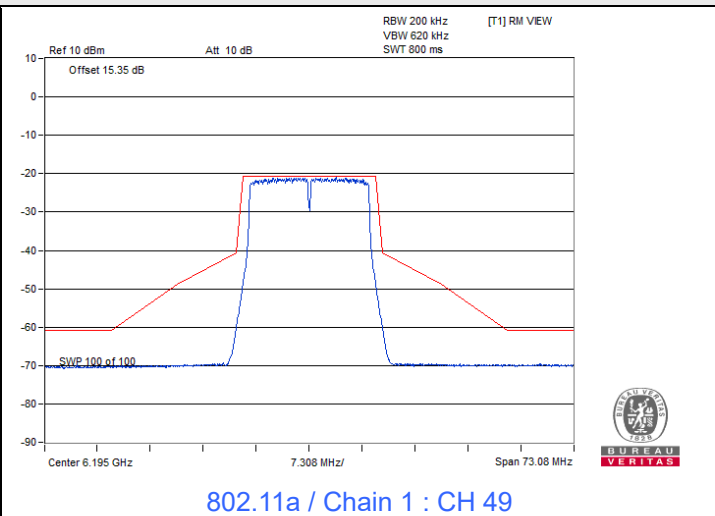
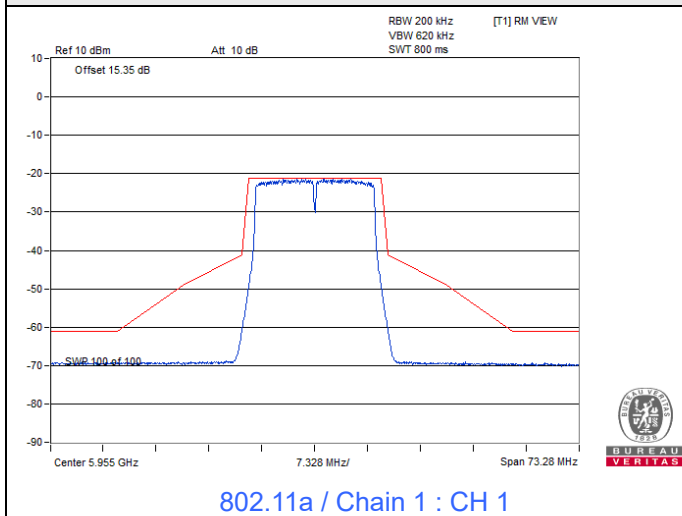
Input Power:	3.3 Vdc	Environmental Conditions:	23°C, 63% RH	Tested By:	Louis Yang
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2TX

802.11a

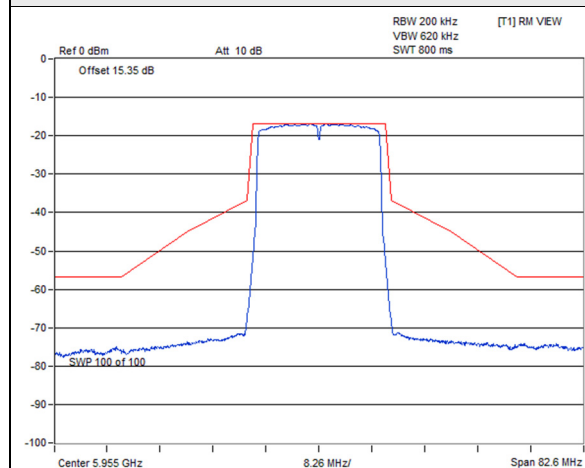


Spectrum Plot

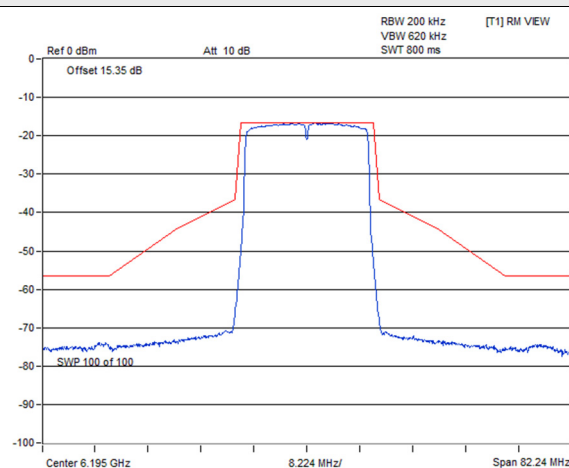


802.11be (EHT20)

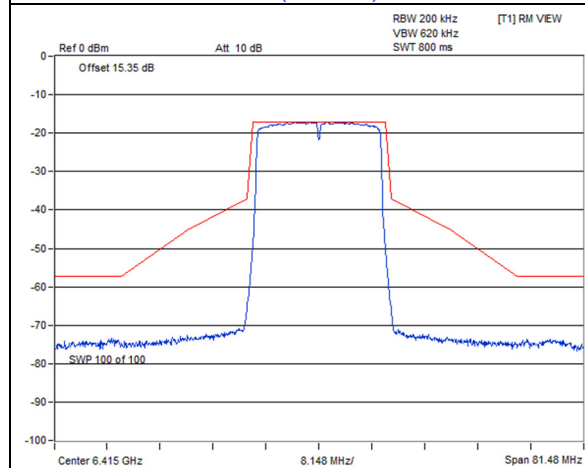
Spectrum Plot



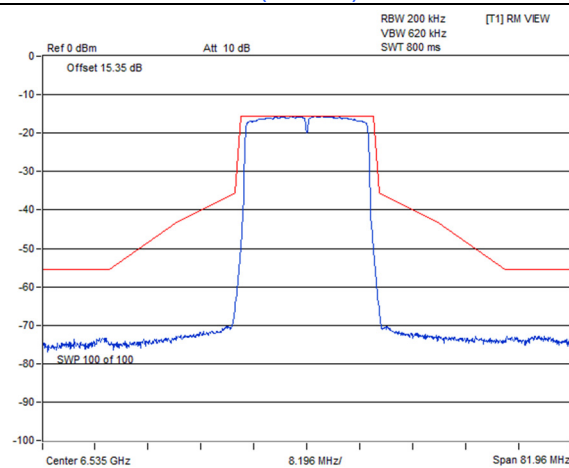
802.11be (EHT20) / Chain 0 : CH 1



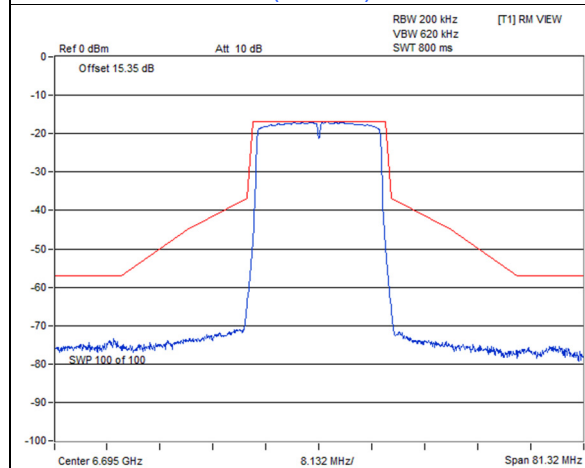
802.11be (EHT20) / Chain 0 : CH 49



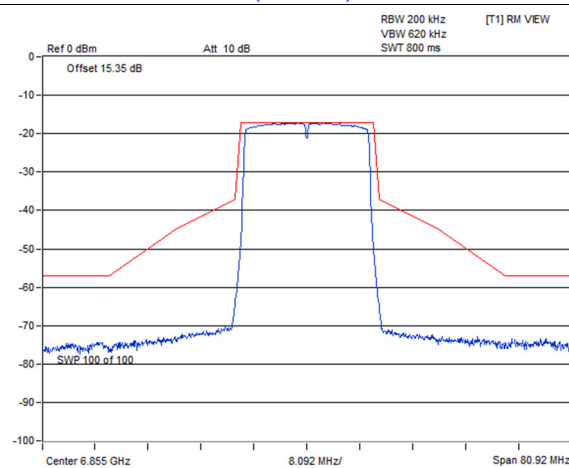
802.11be (EHT20) / Chain 0 : CH 93



802.11be (EHT20) / Chain 0 : CH 117

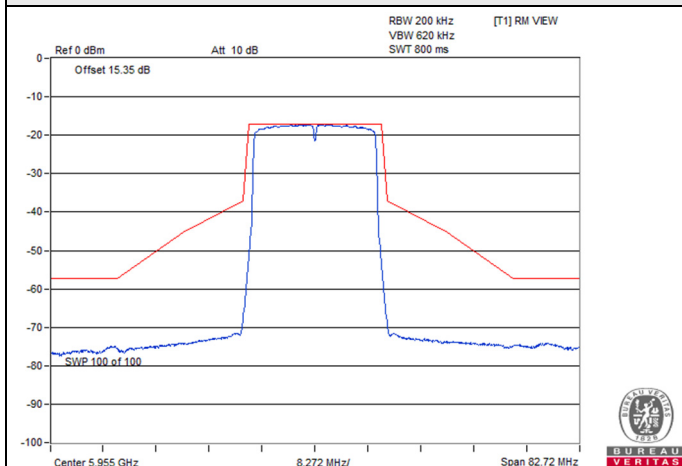


802.11be (EHT20) / Chain 0 : CH 149

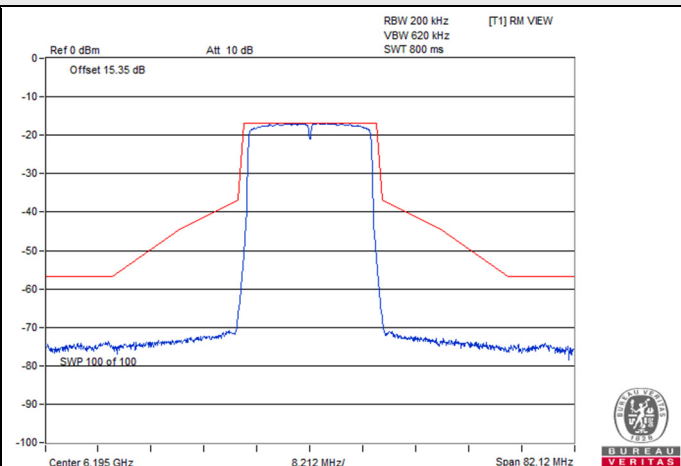


802.11be (EHT20) / Chain 0 : CH 181

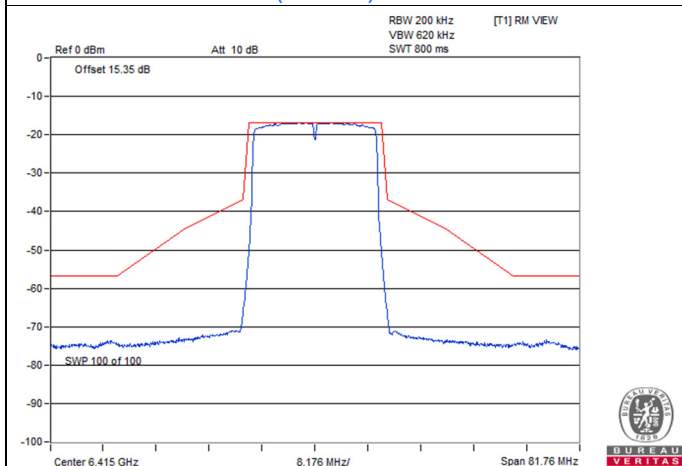
Spectrum Plot



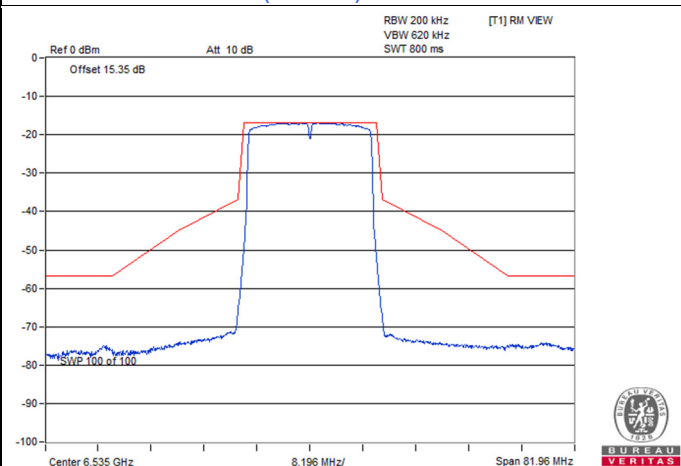
802.11be (EHT20) / Chain 1 : CH 1



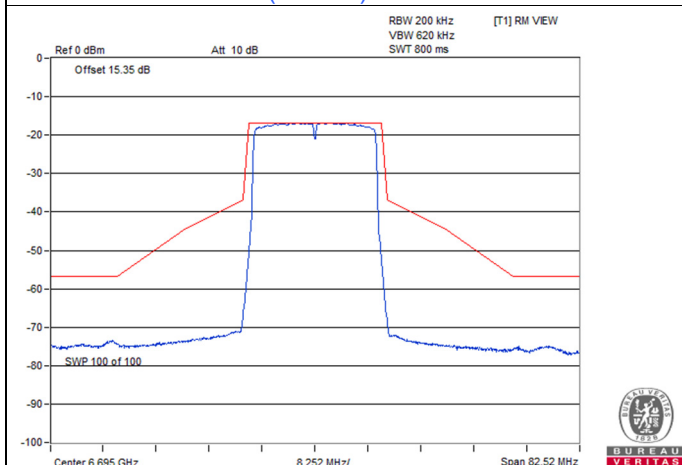
802.11be (EHT20) / Chain 1 : CH 49



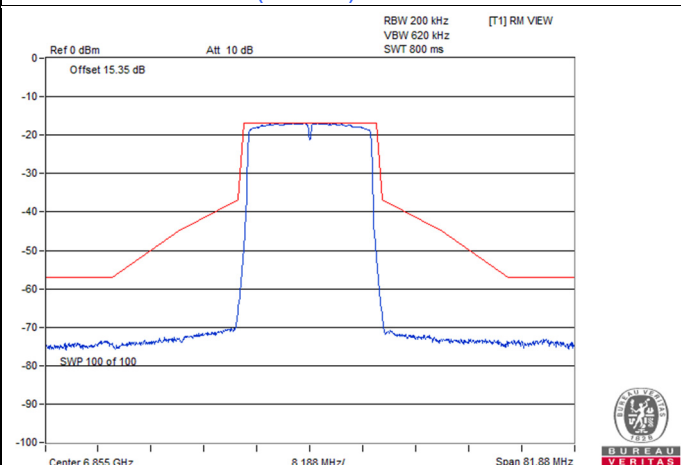
802.11be (EHT20) / Chain 1 : CH 93



802.11be (EHT20) / Chain 1 : CH 117



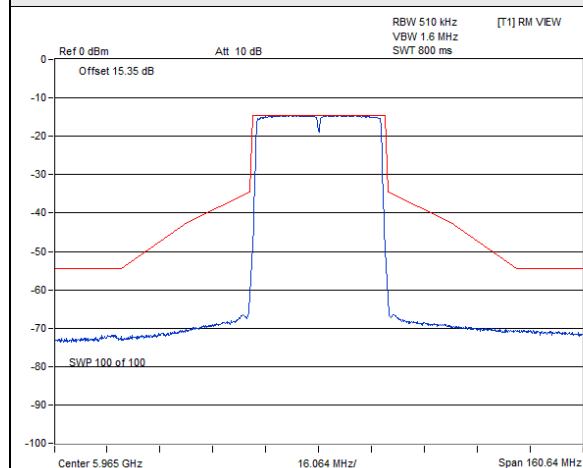
802.11be (EHT20) / Chain 1 : CH 149



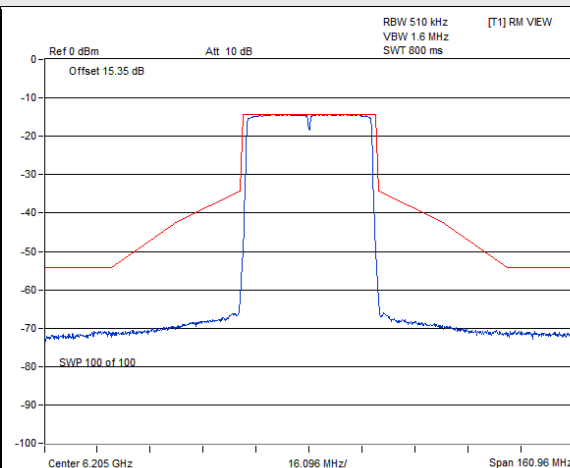
802.11be (EHT20) / Chain 1 : CH 181

802.11be (EHT40)

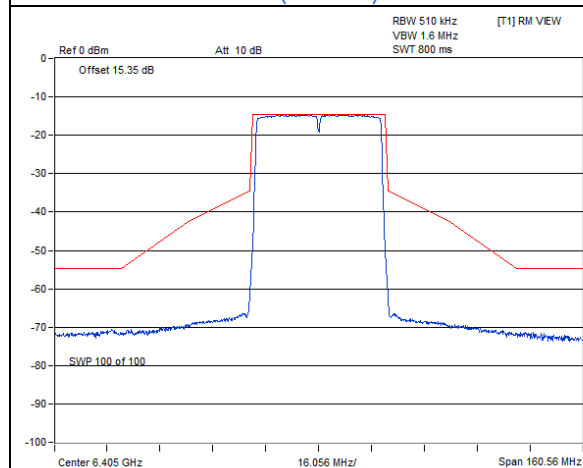
Spectrum Plot



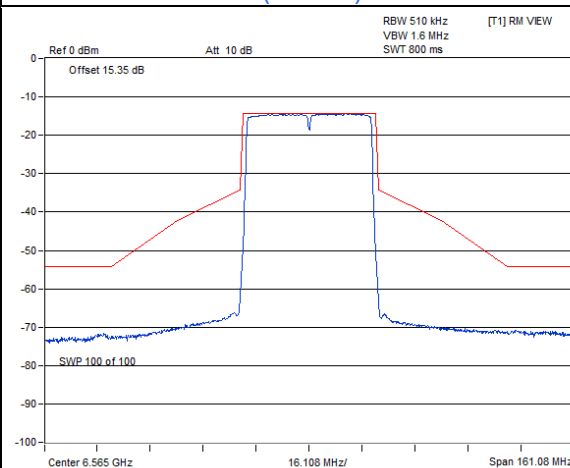
802.11be (EHT40) / Chain 0 : CH 3



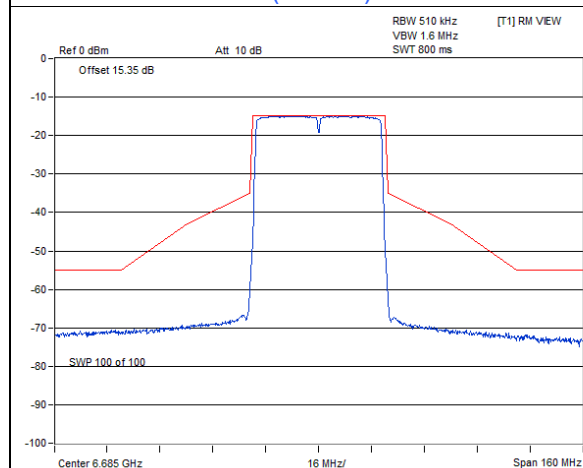
802.11be (EHT40) / Chain 0 : CH 51



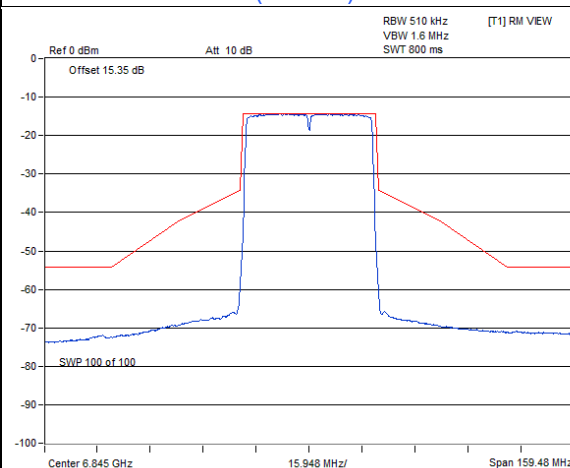
802.11be (EHT40) / Chain 0 : CH 91



802.11be (EHT40) / Chain 0 : CH 123

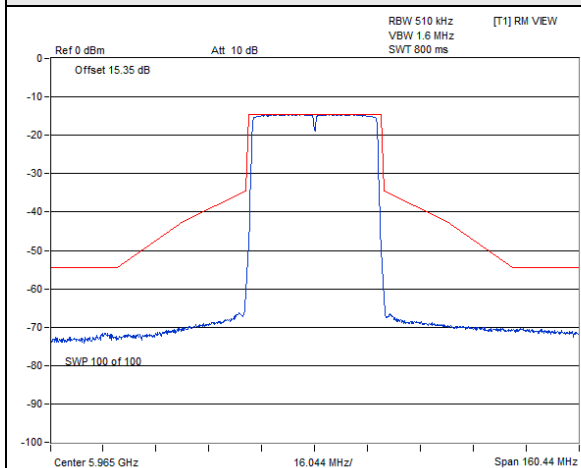


802.11be (EHT40) / Chain 0 : CH 147

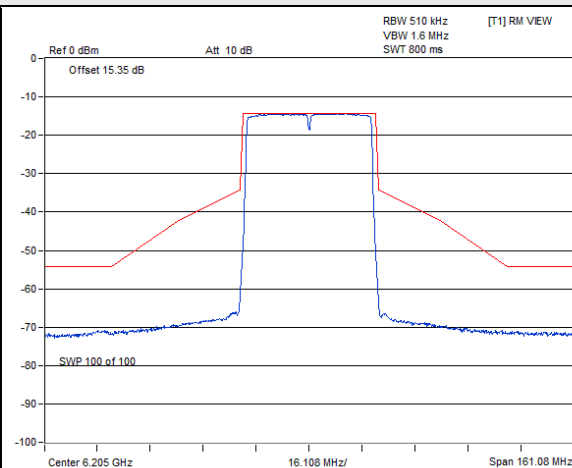


802.11be (EHT40) / Chain 0 : CH 179

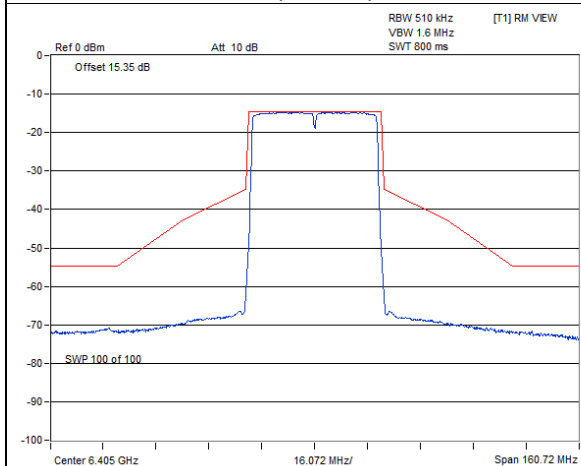
Spectrum Plot



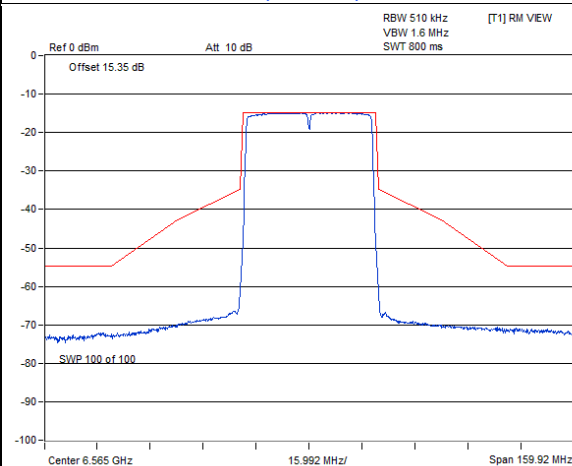
802.11be (EHT40) / Chain 1 : CH 3



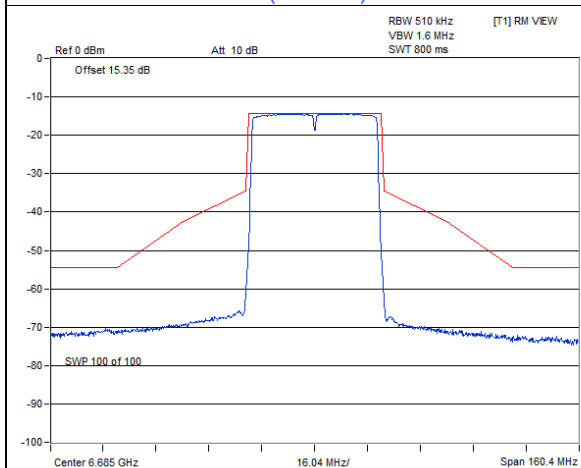
802.11be (EHT40) / Chain 1 : CH 51



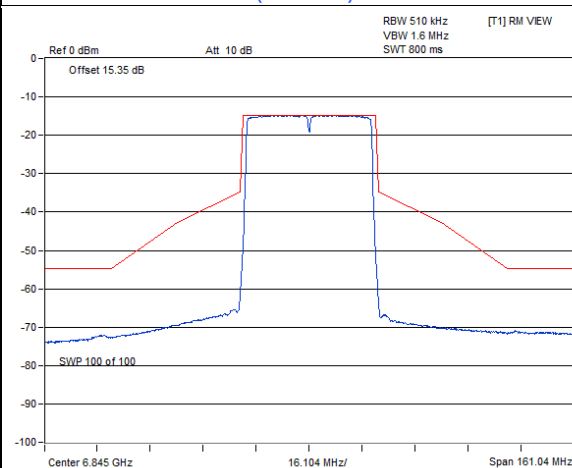
802.11be (EHT40) / Chain 1 : CH 91



802.11be (EHT40) / Chain 1 : CH 123



802.11be (EHT40) / Chain 1 : CH 147

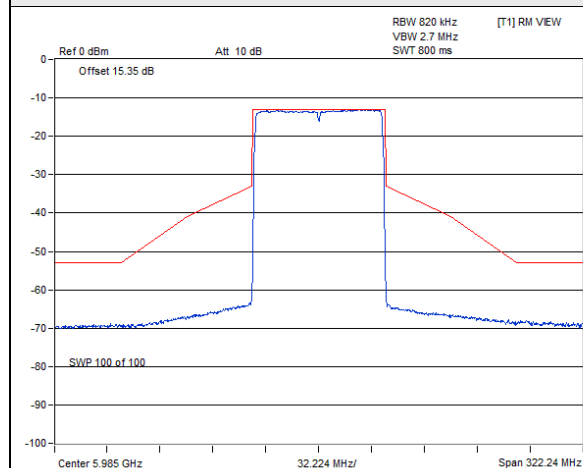


802.11be (EHT40) / Chain 1 : CH 179

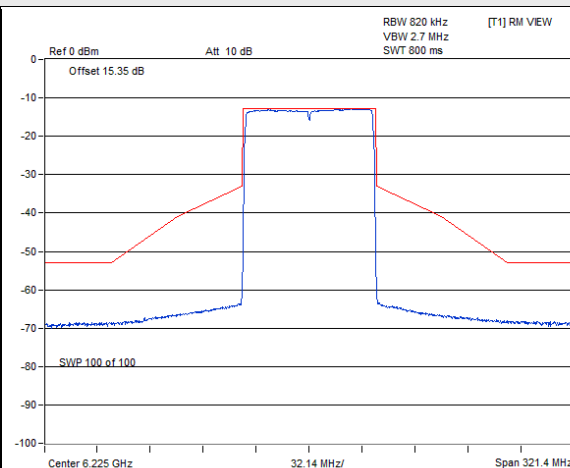


802.11be (EHT80)

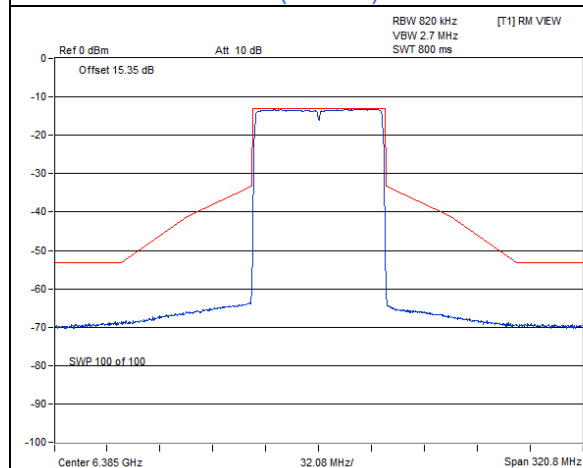
Spectrum Plot



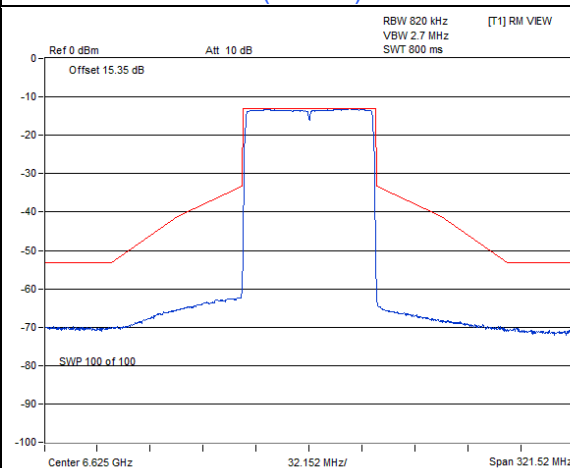
802.11be (EHT80) / Chain 0 : CH 7



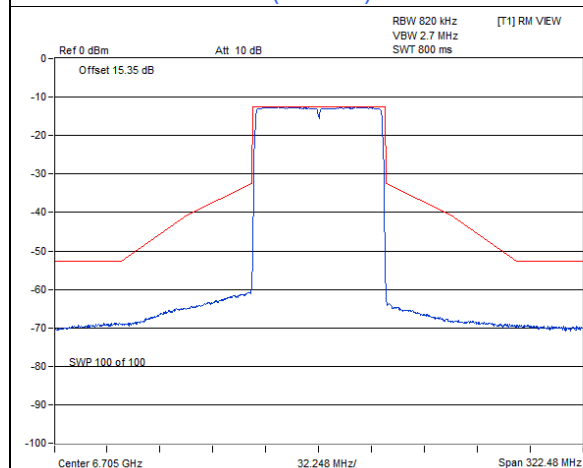
802.11be (EHT80) / Chain 0 : CH 55



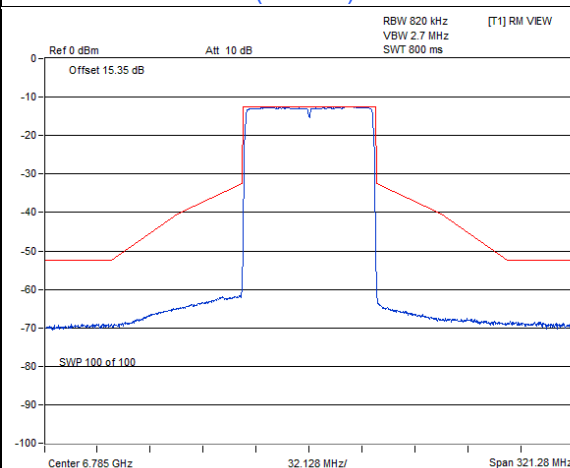
802.11be (EHT80) / Chain 0 : CH 87



802.11be (EHT80) / Chain 0 : CH 135

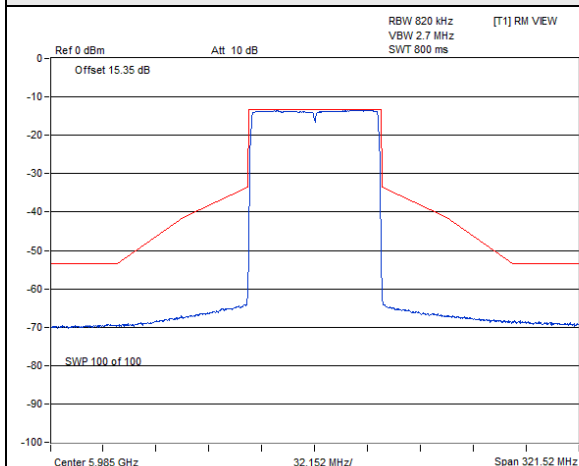


802.11be (EHT80) / Chain 0 : CH 151

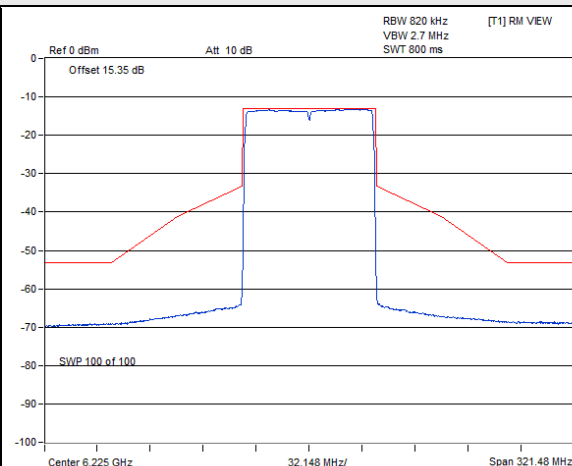


802.11be (EHT80) / Chain 0 : CH 167

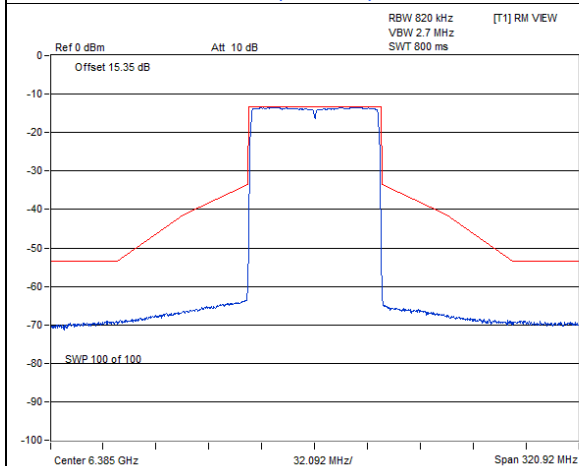
Spectrum Plot



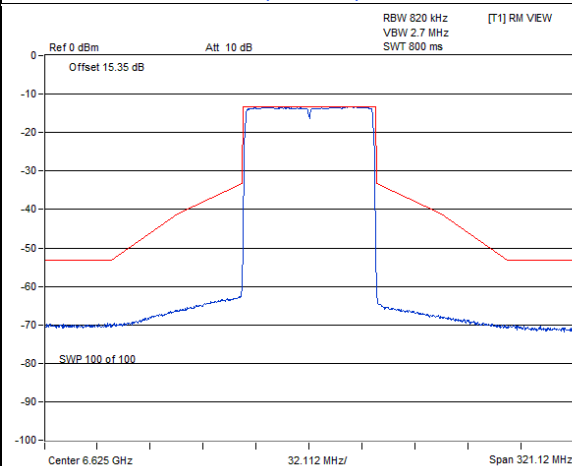
802.11be (EHT80) / Chain 1 : CH 7



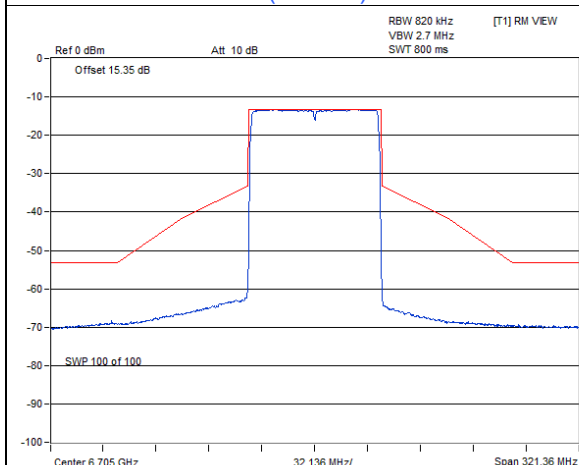
802.11be (EHT80) / Chain 1 : CH 55



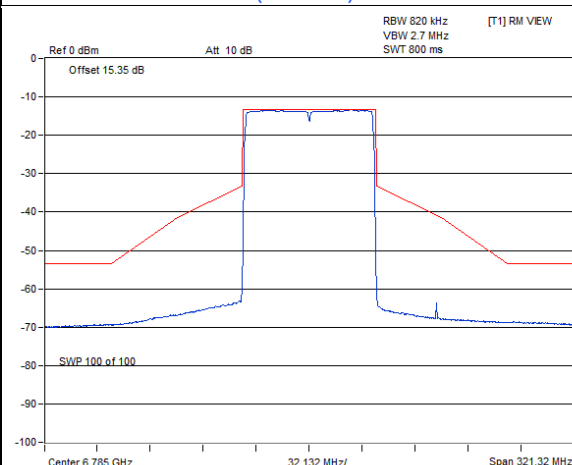
802.11be (EHT80) / Chain 1 : CH 87



802.11be (EHT80) / Chain 1 : CH 135



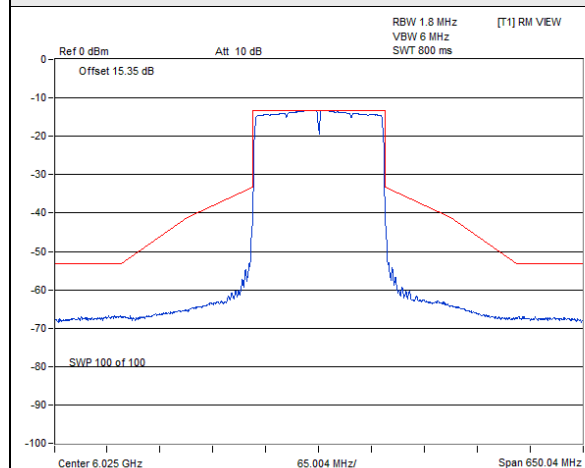
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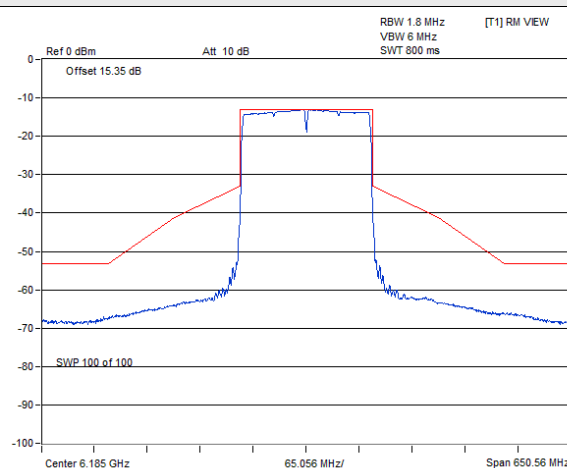
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802.11be (EHT160)

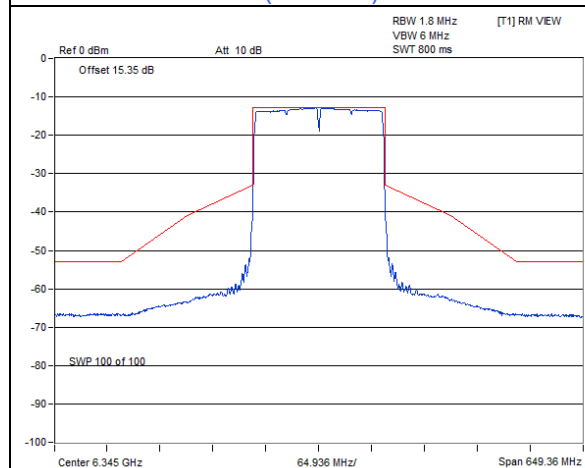
Spectrum Plot



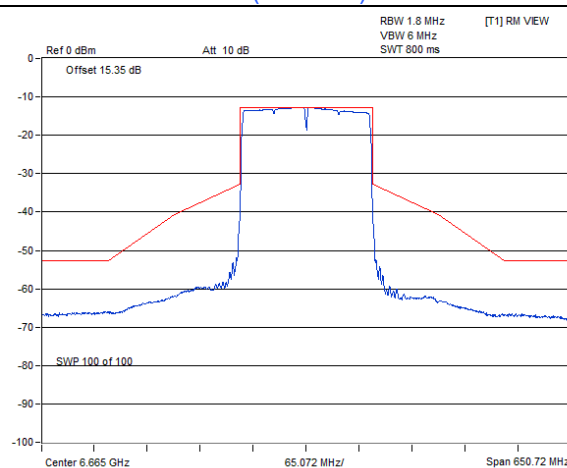
802.11be (EHT160) / Chain 0 : CH 15



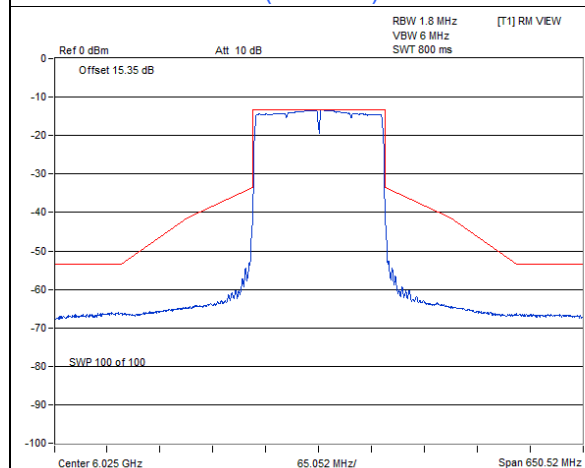
802.11be (EHT160) / Chain 0 : CH 47



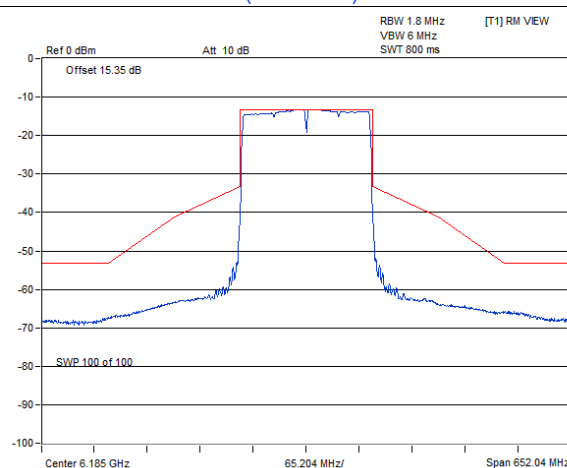
802.11be (EHT160) / Chain 0 : CH 79



802.11be (EHT160) / Chain 0 : CH 143

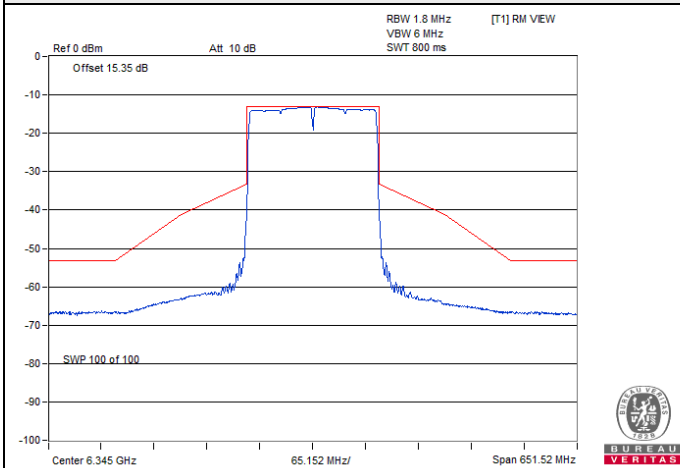


802.11be (EHT160) / Chain 1 : CH 15

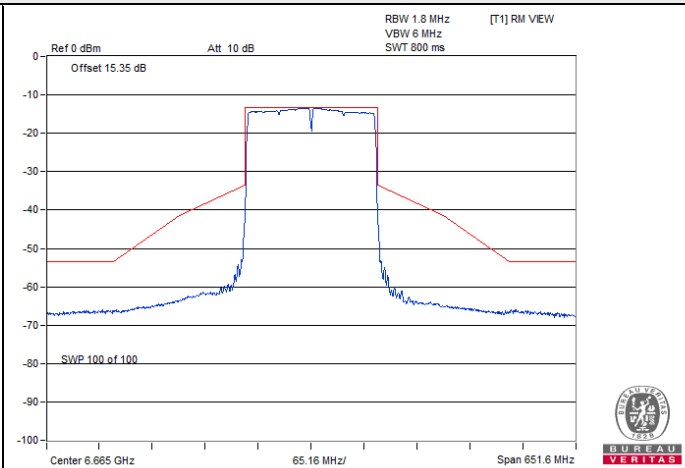


802.11be (EHT160) / Chain 1 : CH 47

Spectrum Plot



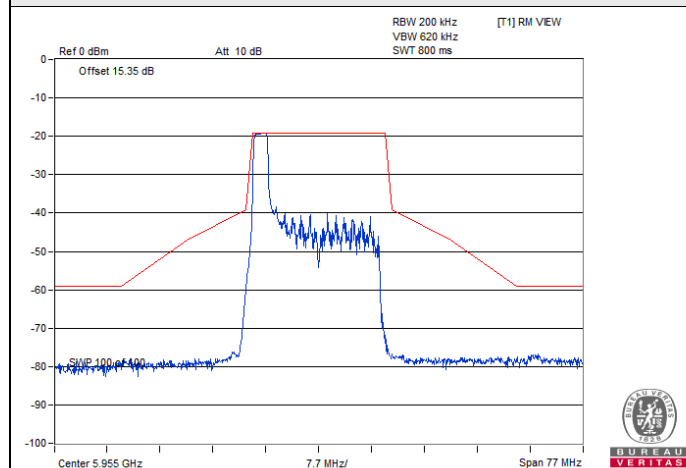
802.11be (EHT160) / Chain 1 : CH 79



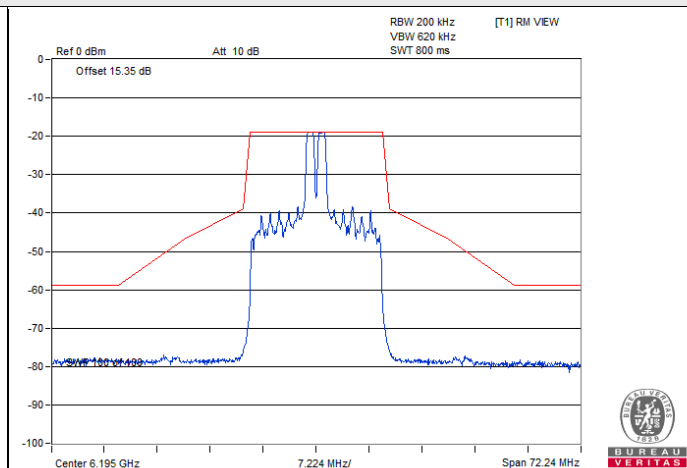
802.11be (EHT160) / Chain 1 : CH 143

802.11be (EHT20) 26-tone RU

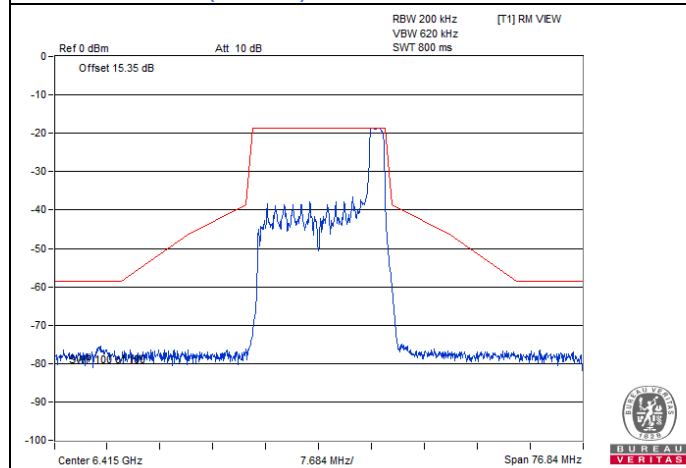
Spectrum Plot



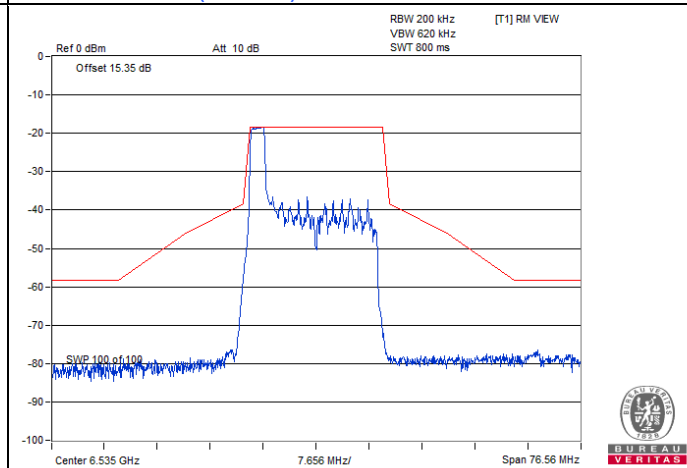
802.11be (EHT20) 26-tone RU / Chain 0 : CH 1



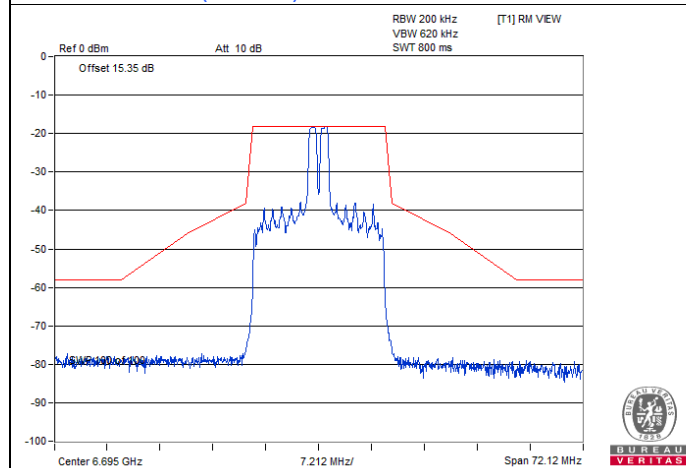
802.11be (EHT20) 26-tone RU / Chain 0 : CH 49



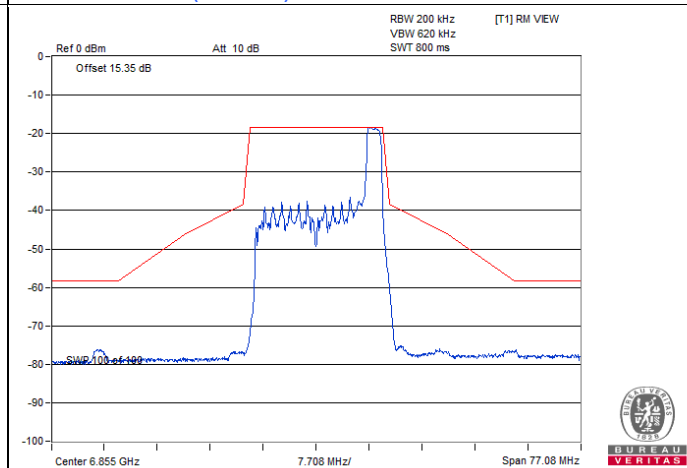
802.11be (EHT20) 26-tone RU / Chain 0 : CH 93



802.11be (EHT20) 26-tone RU / Chain 0 : CH 117

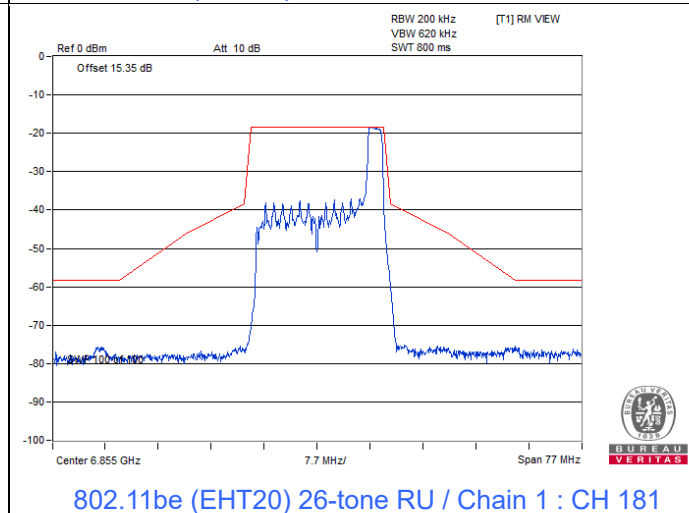
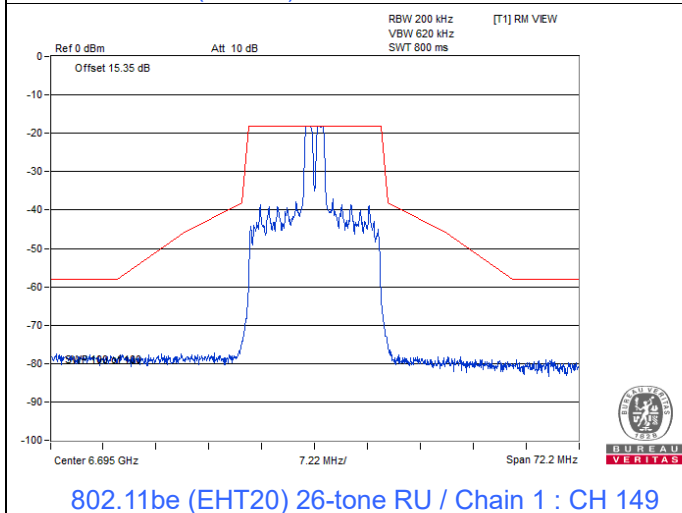
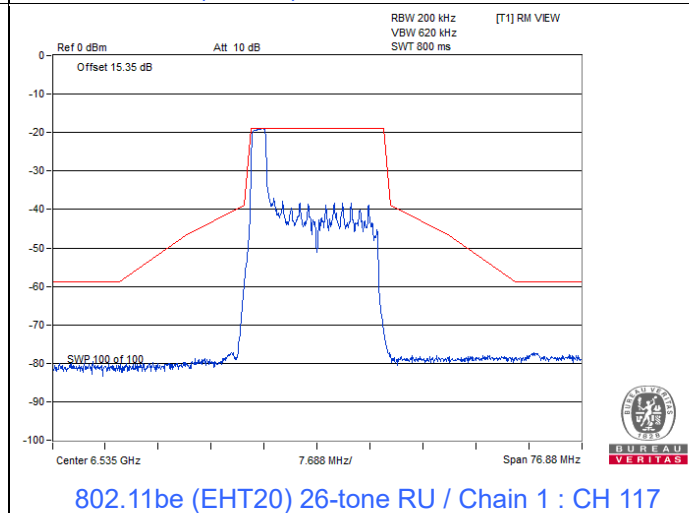
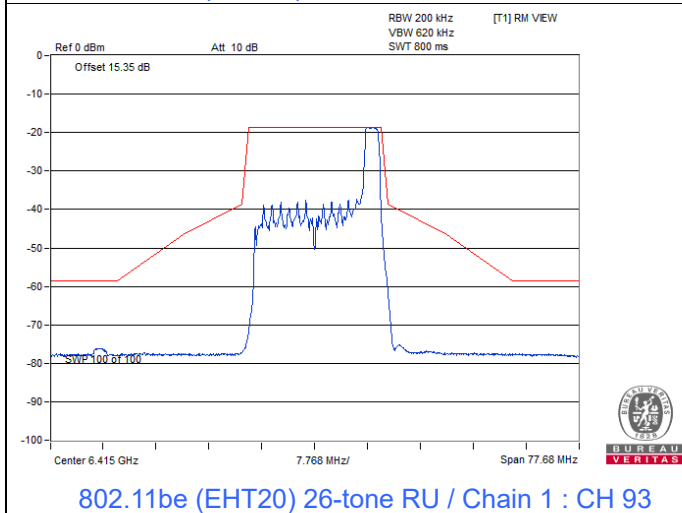
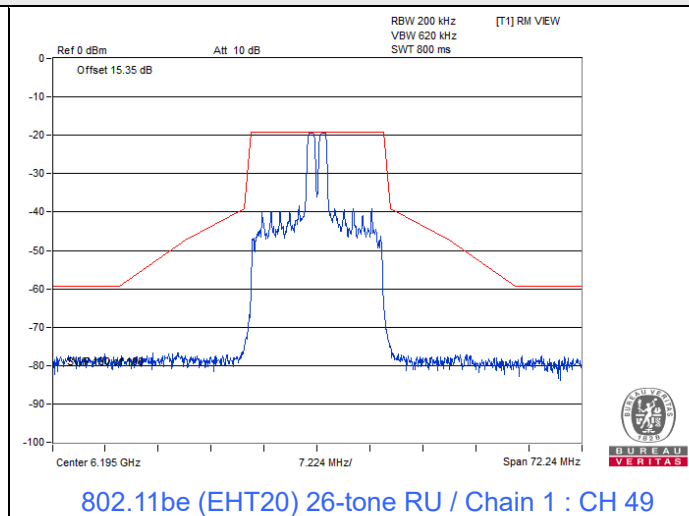
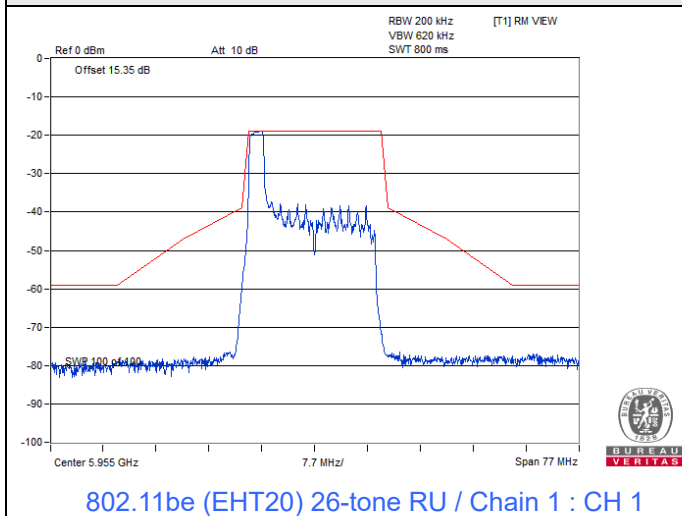


802.11be (EHT20) 26-tone RU / Chain 0 : CH 149



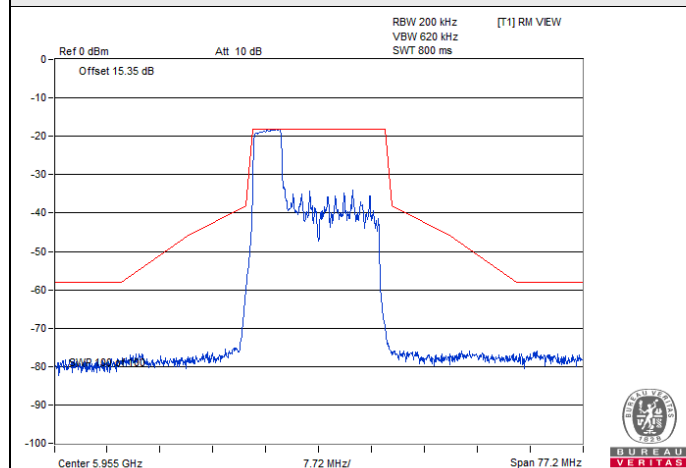
802.11be (EHT20) 26-tone RU / Chain 0 : CH 181

Spectrum Plot

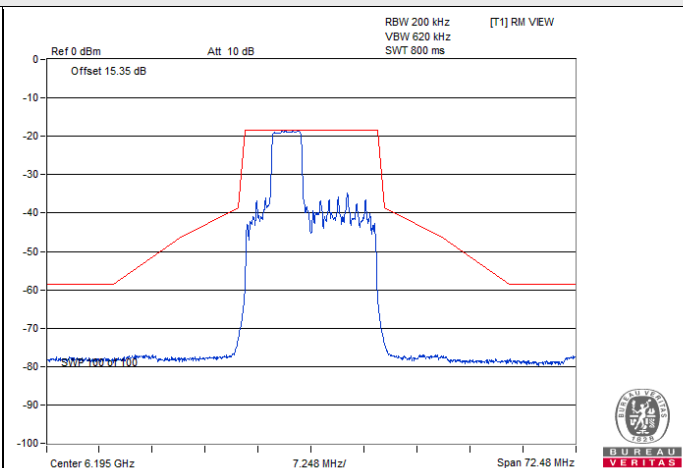


802.11be (EHT20) 52-tone RU

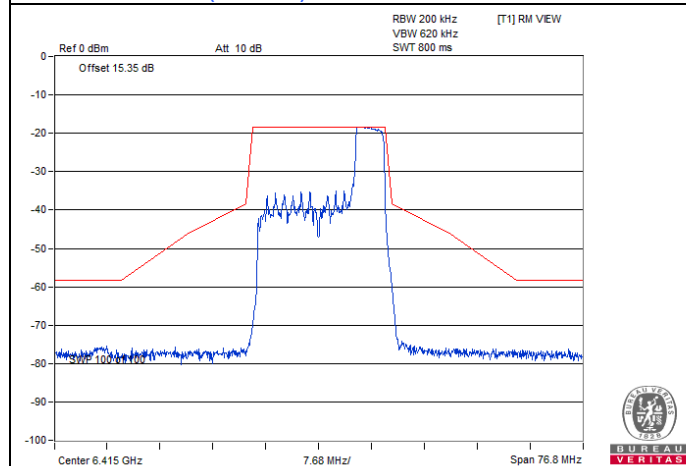
Spectrum Plot



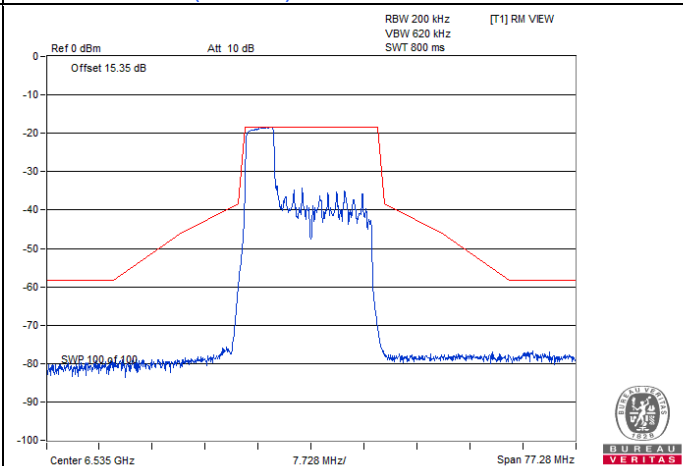
802.11be (EHT20) 52-tone RU / Chain 0 : CH 1



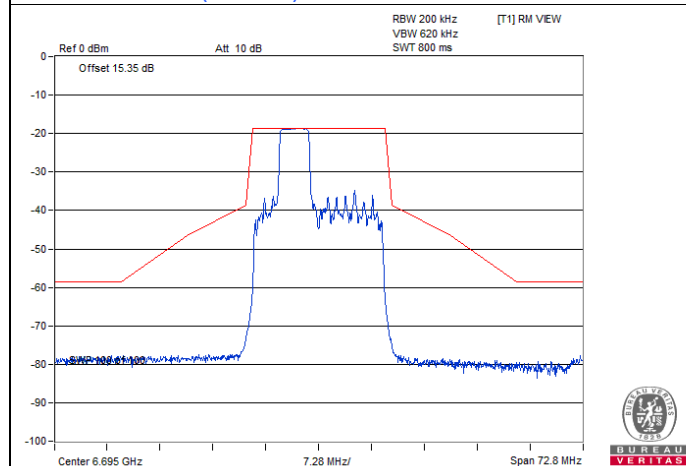
802.11be (EHT20) 52-tone RU / Chain 0 : CH 49



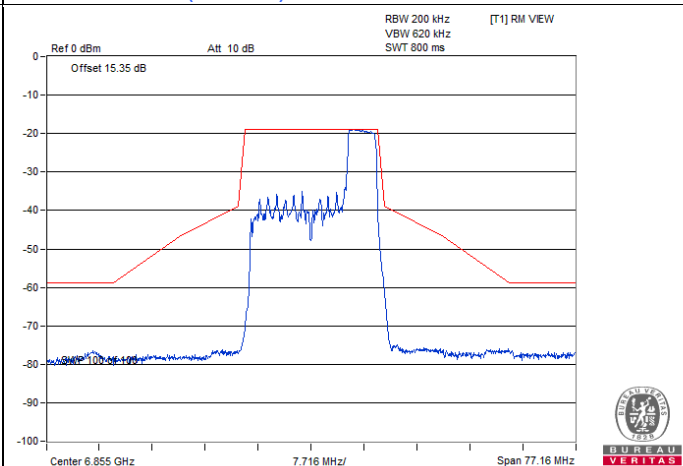
802.11be (EHT20) 52-tone RU / Chain 0 : CH 93



802.11be (EHT20) 52-tone RU / Chain 0 : CH 117

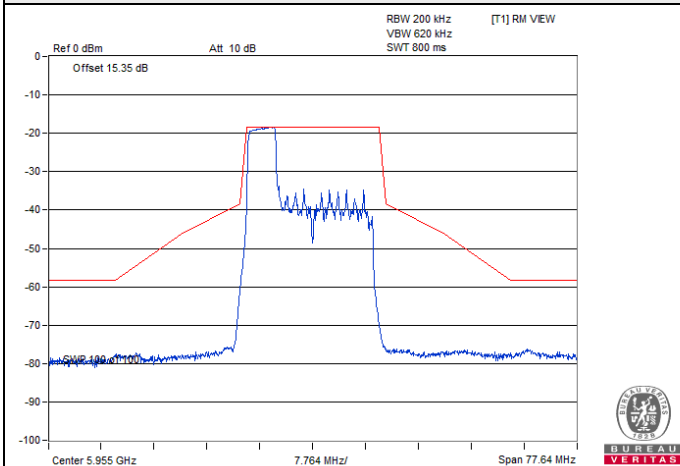


802.11be (EHT20) 52-tone RU / Chain 0 : CH 149

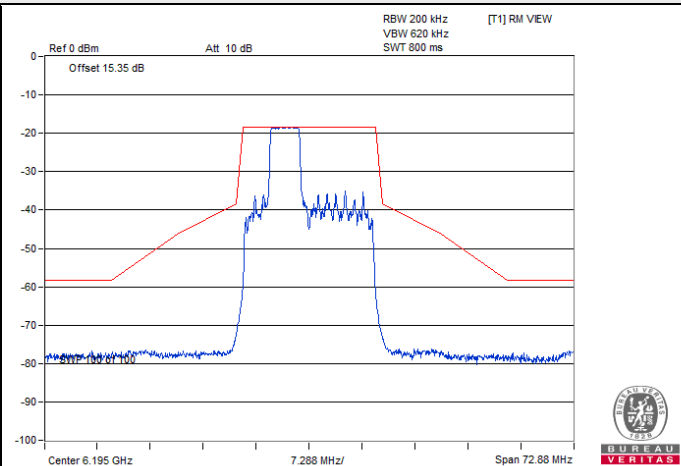


802.11be (EHT20) 52-tone RU / Chain 0 : CH 181

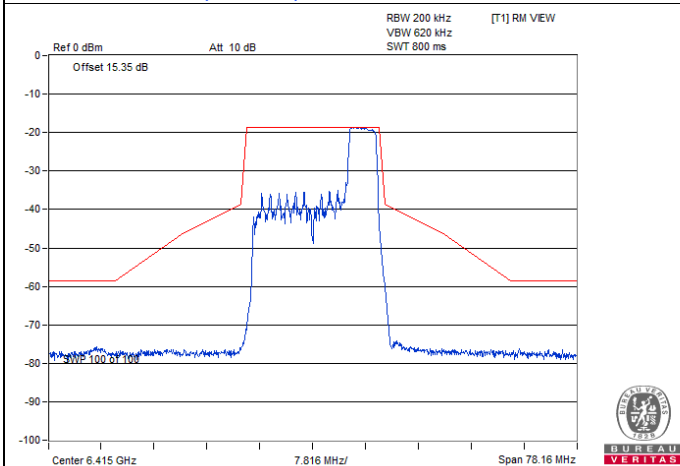
Spectrum Plot



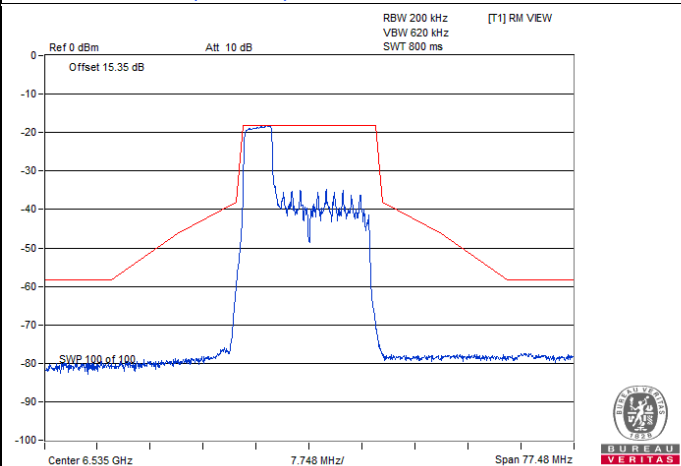
802.11be (EHT20) 52-tone RU / Chain 1 : CH 1



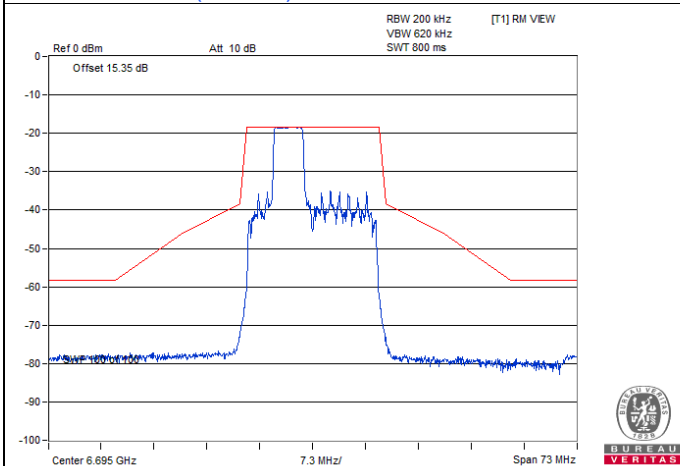
802.11be (EHT20) 52-tone RU / Chain 1 : CH 49



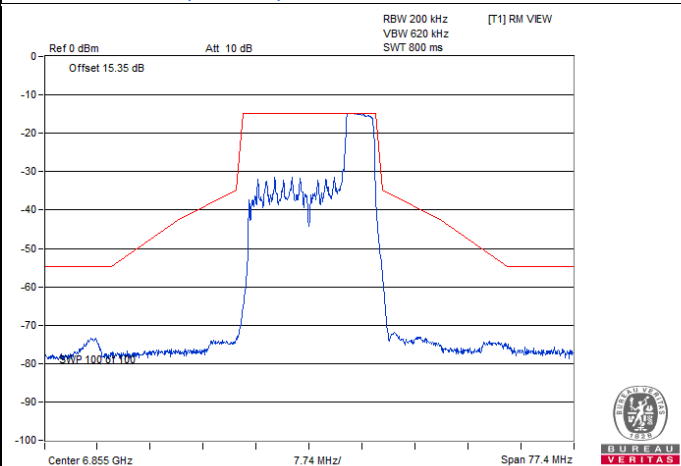
802.11be (EHT20) 52-tone RU / Chain 1 : CH 93



802.11be (EHT20) 52-tone RU / Chain 1 : CH 117



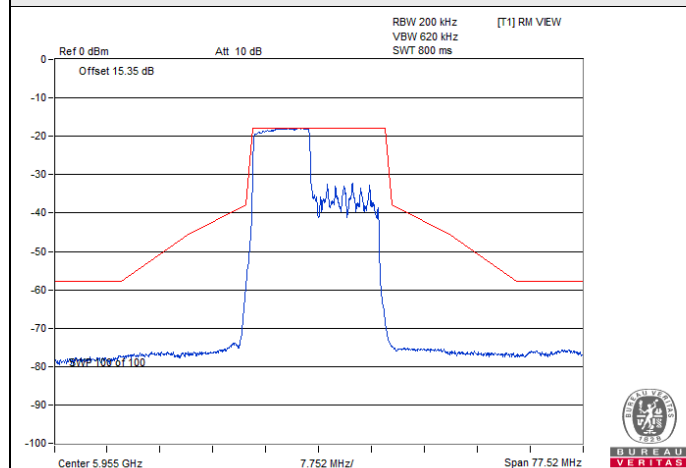
802.11be (EHT20) 52-tone RU / Chain 1 : CH 149



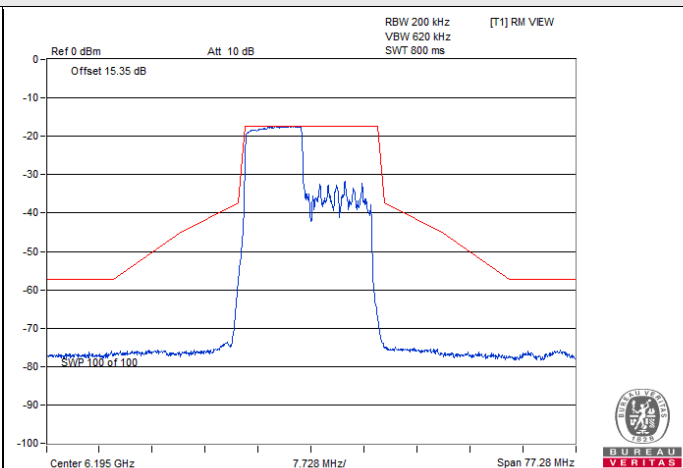
802.11be (EHT20) 52-tone RU / Chain 1 : CH 181

802.11be (EHT20) 106-tone RU

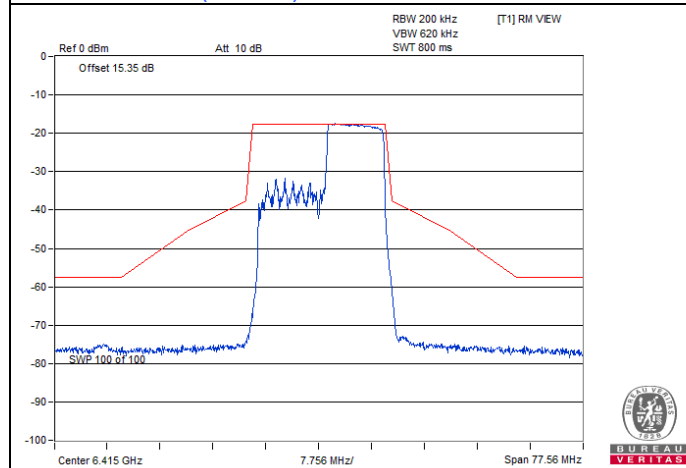
Spectrum Plot



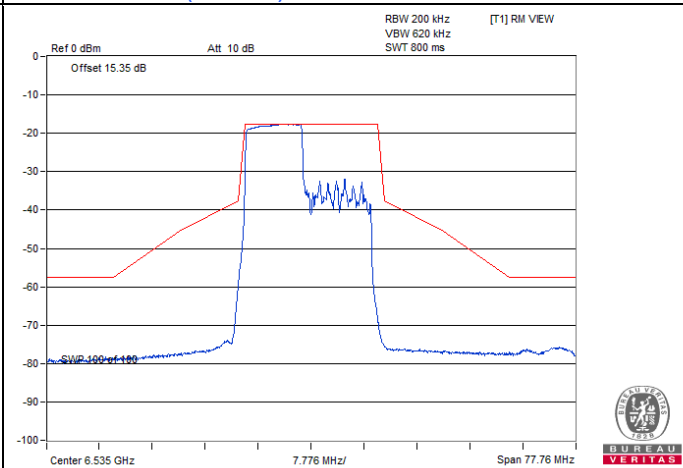
802.11be (EHT20) 106-tone RU / Chain 0 : CH 1



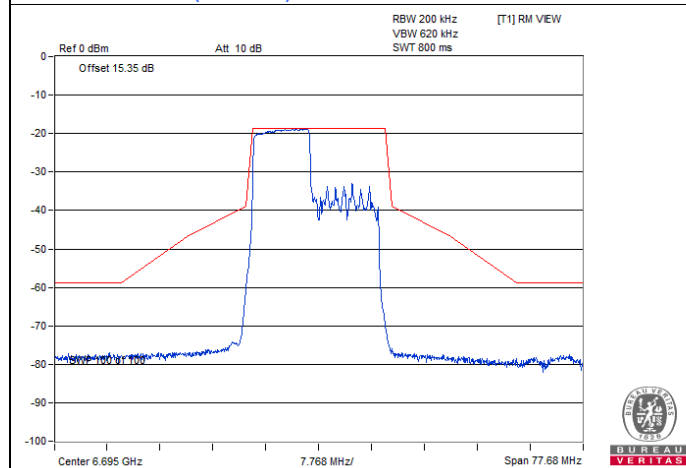
802.11be (EHT20) 106-tone RU / Chain 0 : CH 49



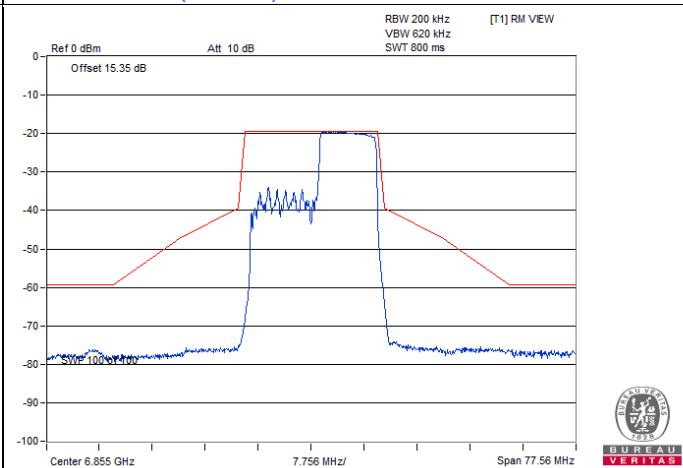
802.11be (EHT20) 106-tone RU / Chain 0 : CH 93



802.11be (EHT20) 106-tone RU / Chain 0 : CH 117

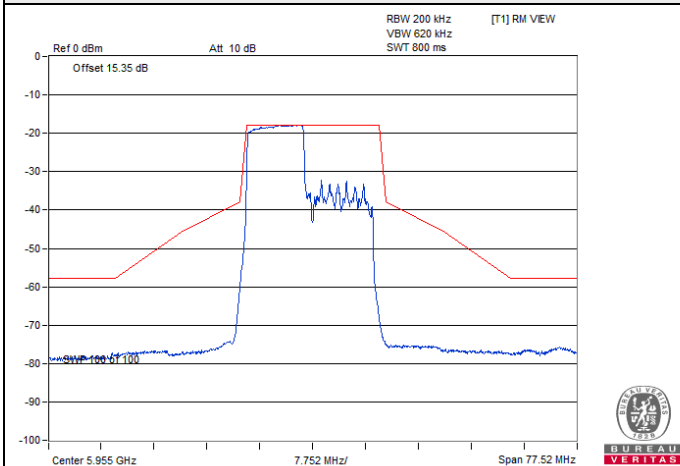


802.11be (EHT20) 106-tone RU / Chain 0 : CH 149

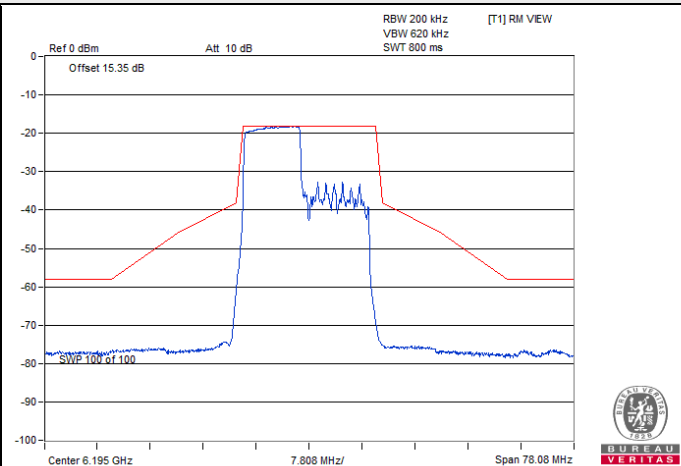


802.11be (EHT20) 106-tone RU / Chain 0 : CH 181

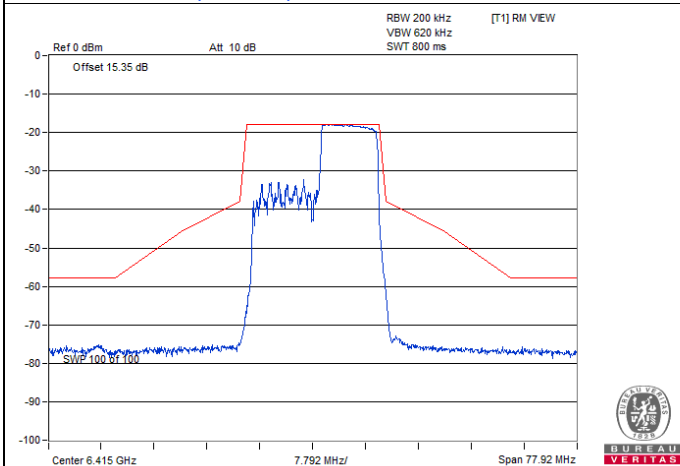
Spectrum Plot



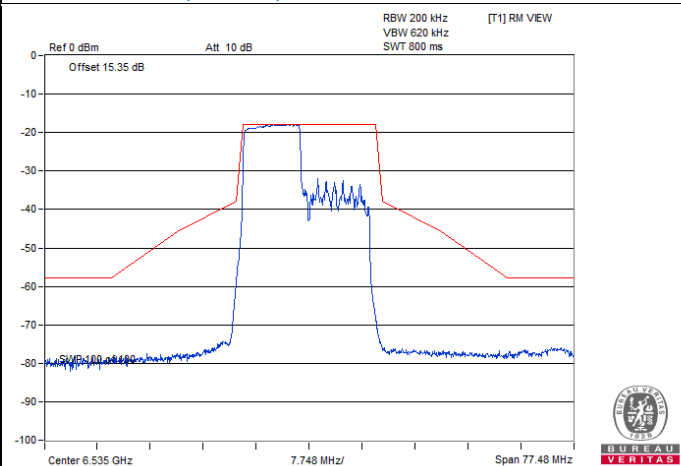
802.11be (EHT20) 106-tone RU / Chain 1 : CH 1



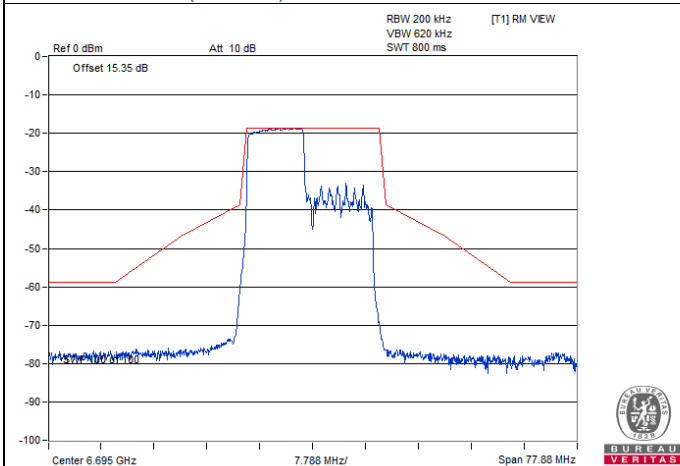
802.11be (EHT20) 106-tone RU / Chain 1 : CH 49



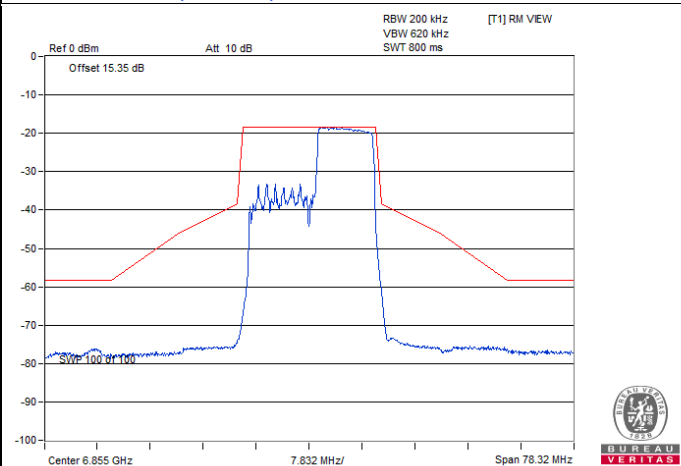
802.11be (EHT20) 106-tone RU / Chain 1 : CH 93



802.11be (EHT20) 106-tone RU / Chain 1 : CH 117



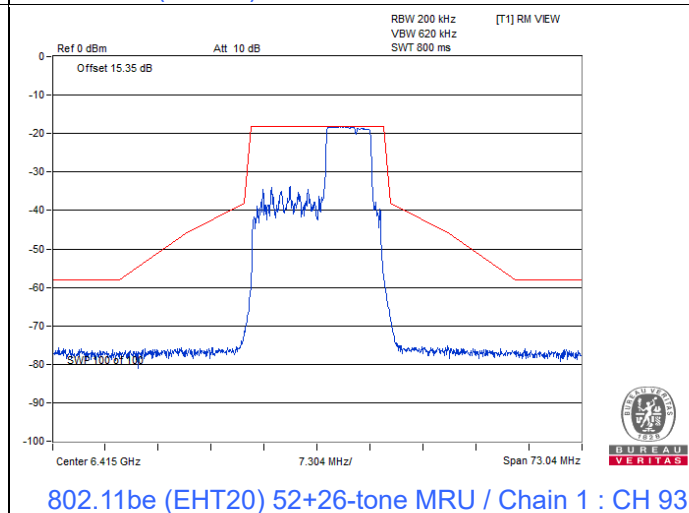
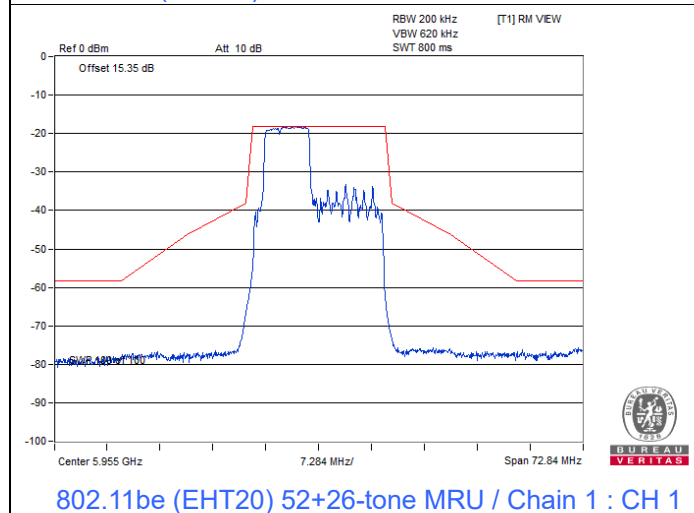
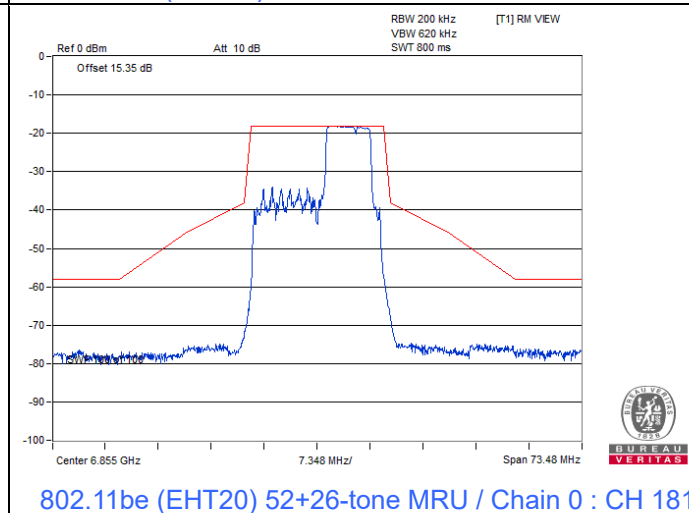
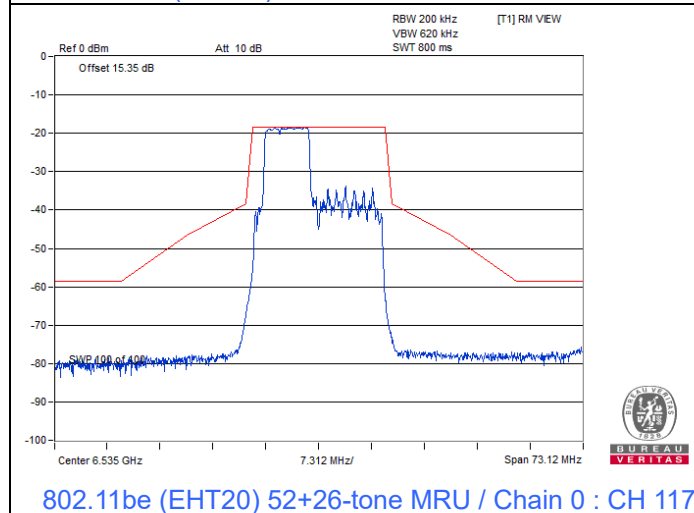
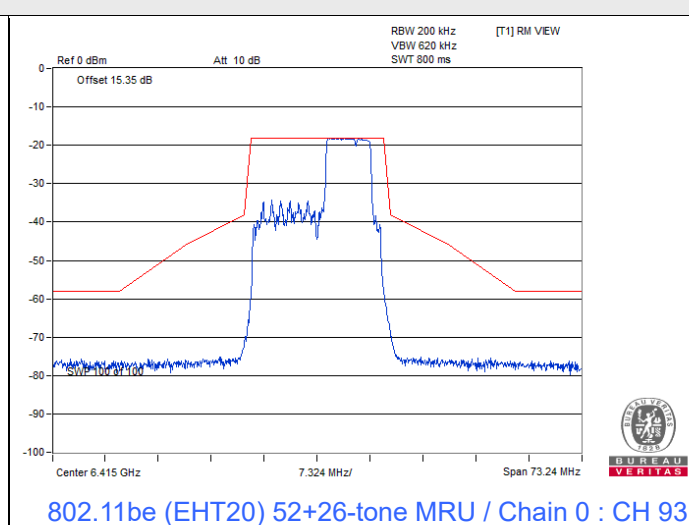
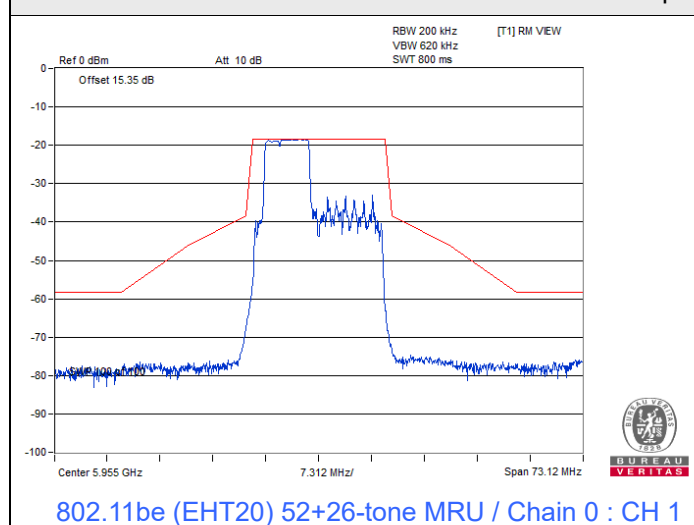
802.11be (EHT20) 106-tone RU / Chain 1 : CH 149



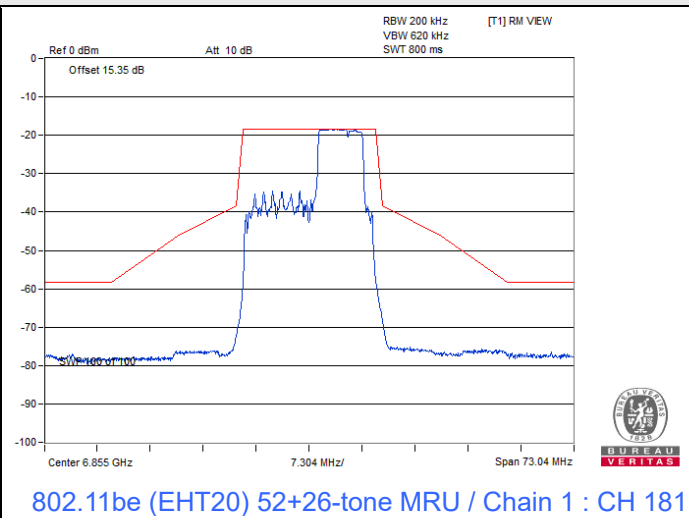
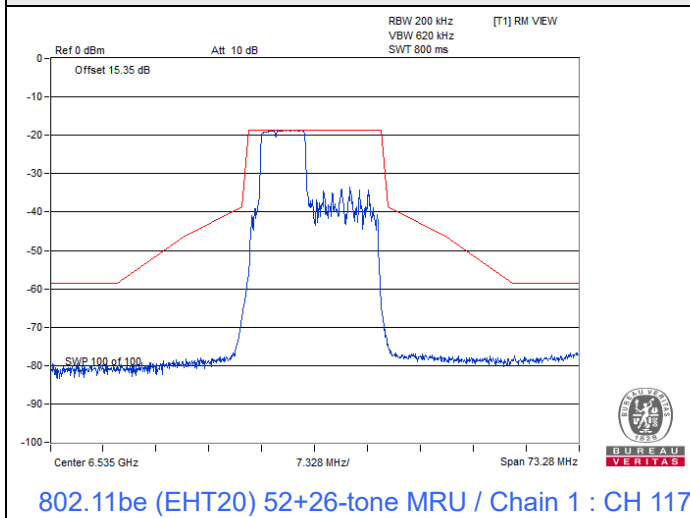
802.11be (EHT20) 106-tone RU / Chain 1 : CH 181

802.11be (EHT20) 52+26-tone MRU

Spectrum Plot

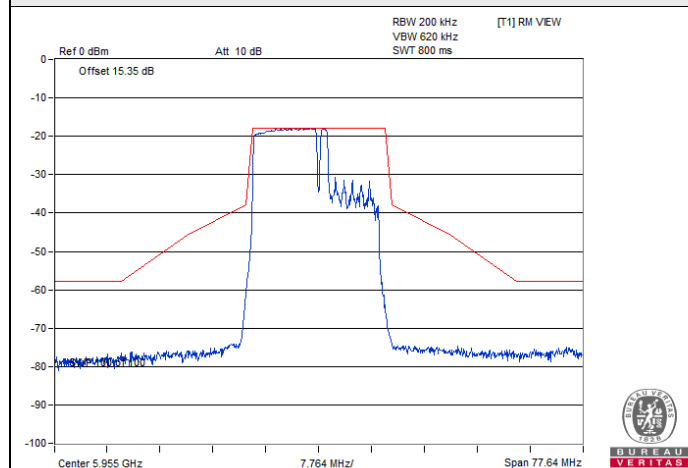


Spectrum Plot

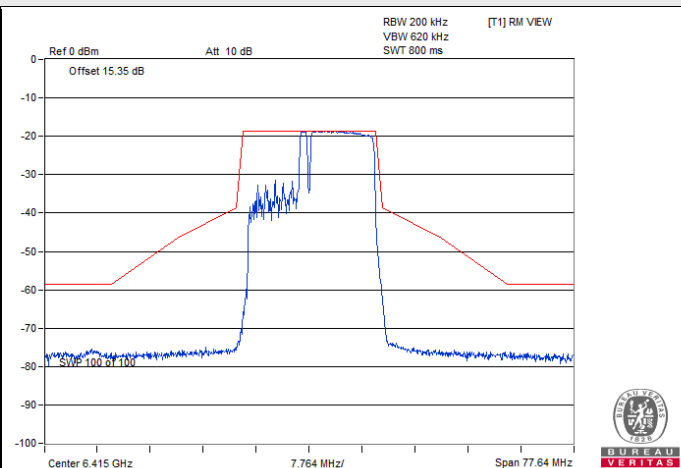


802.11be (EHT20) 106+26-tone MRU

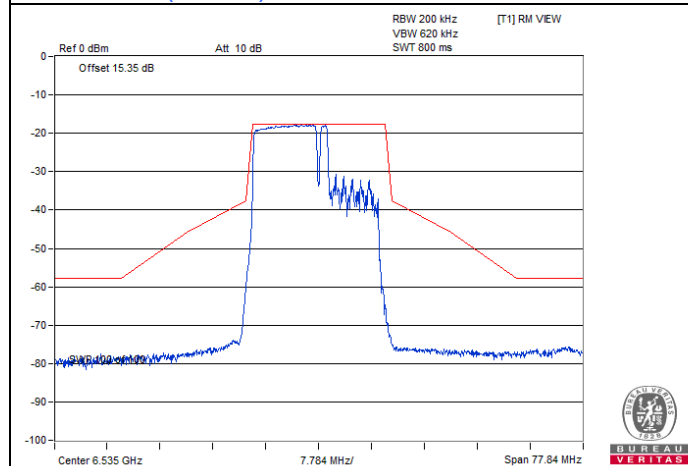
Spectrum Plot



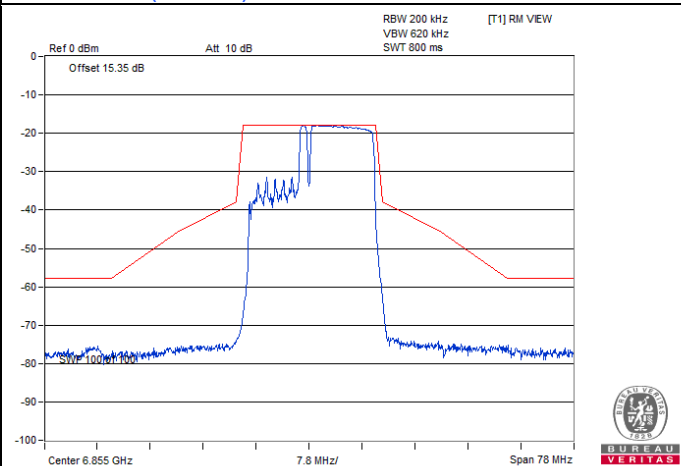
802.11be (EHT20) 106+26-tone MRU / Chain 0 : CH 1



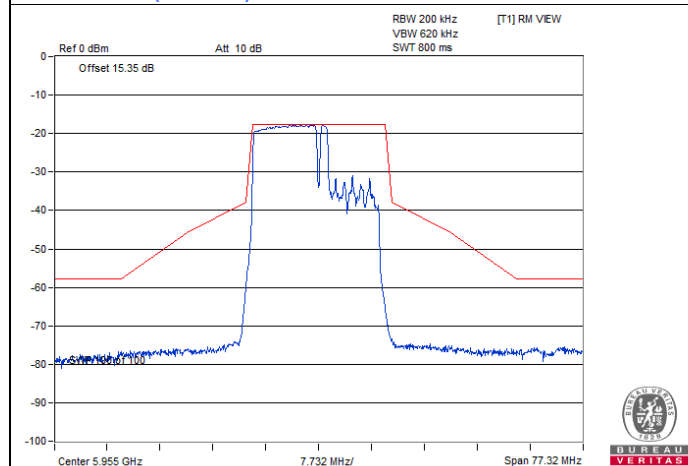
802.11be (EHT20) 106+26-tone MRU / Chain 0 : CH 93



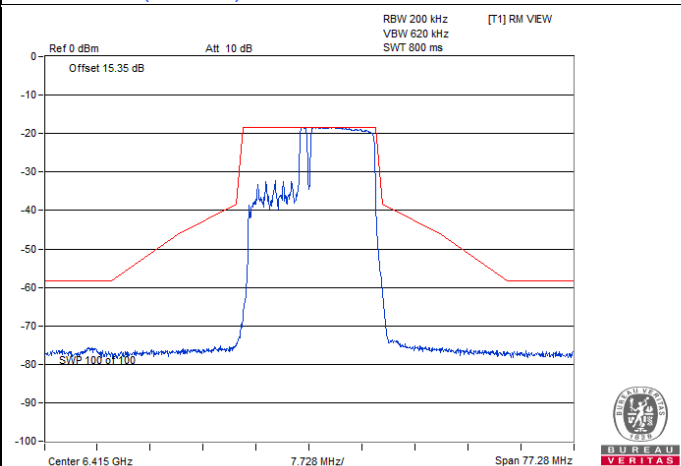
802.11be (EHT20) 106+26-tone MRU / Chain 0 : CH 117



802.11be (EHT20) 106+26-tone MRU / Chain 0 : CH 181

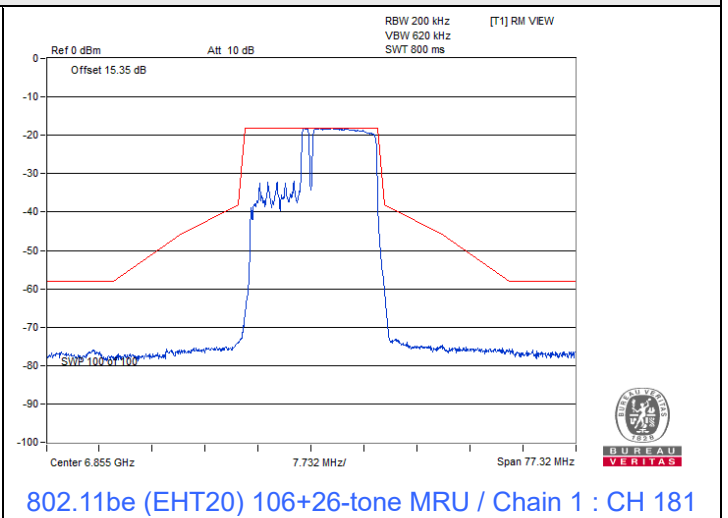
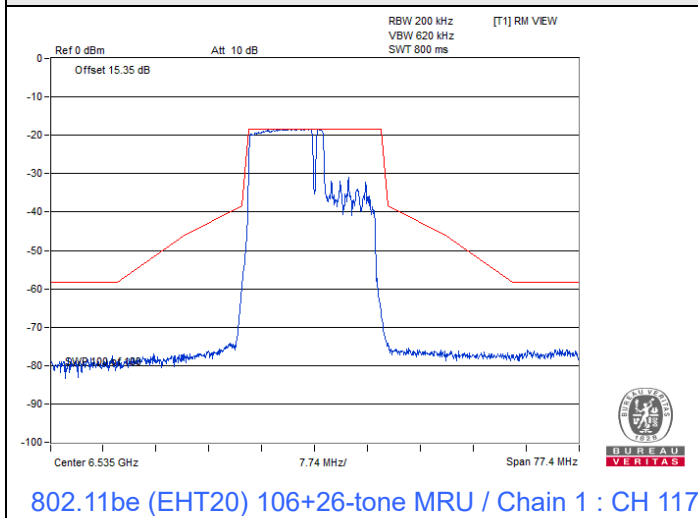


802.11be (EHT20) 106+26-tone MRU / Chain 1 : CH 1



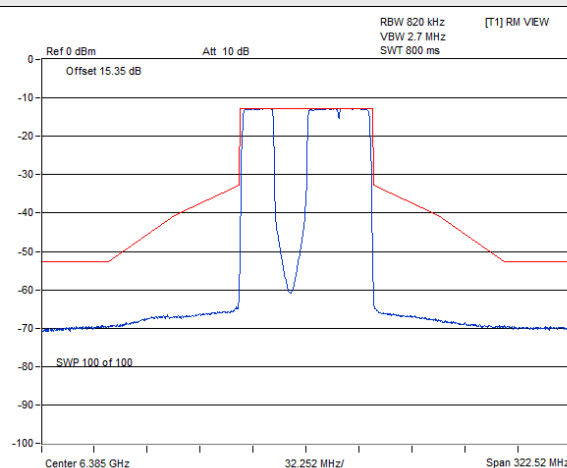
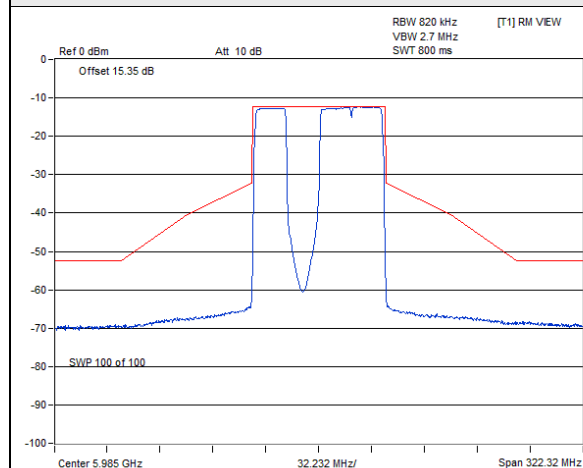
802.11be (EHT20) 106+26-tone MRU / Chain 1 : CH 93

Spectrum Plot



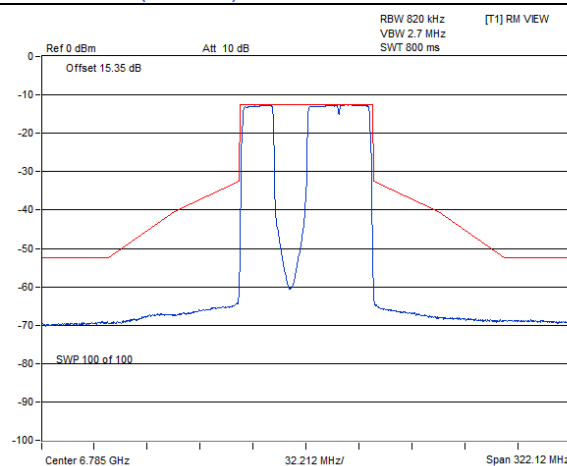
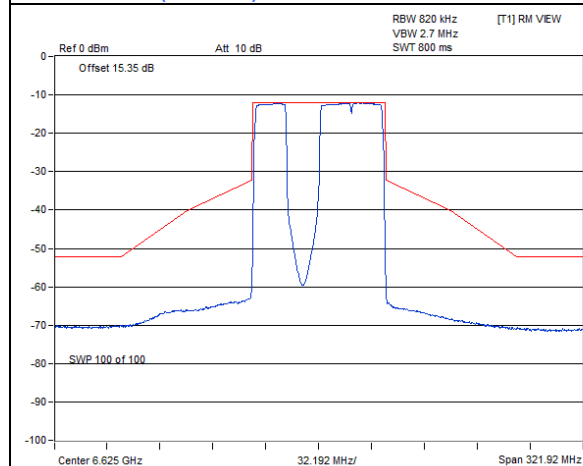
802.11be (EHT80) 484+242-tone MRU

Spectrum Plot



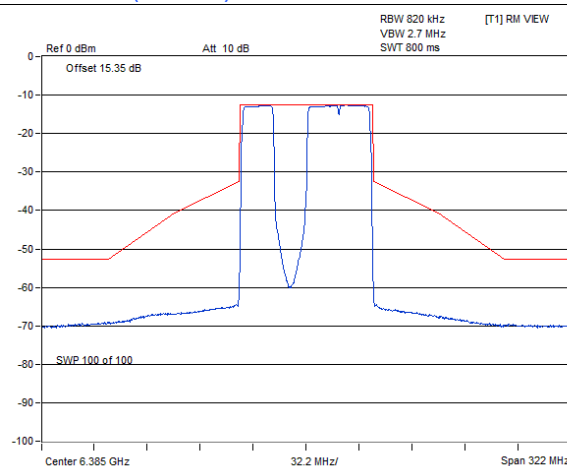
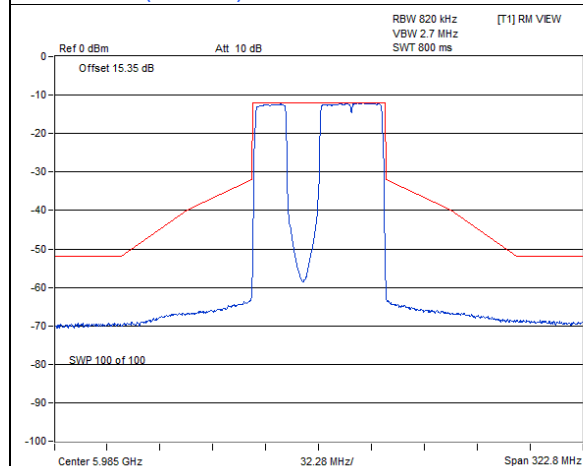
802.11be (EHT80) 484+242-tone MRU / Chain 0 : CH 7

802.11be (EHT80) 484+242-tone MRU / Chain 0 : CH 7



802.11be (EHT80) 484+242-tone MRU / Chain 0 : CH 135

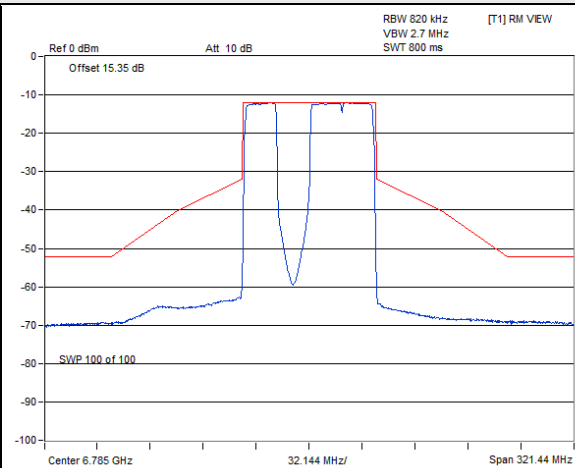
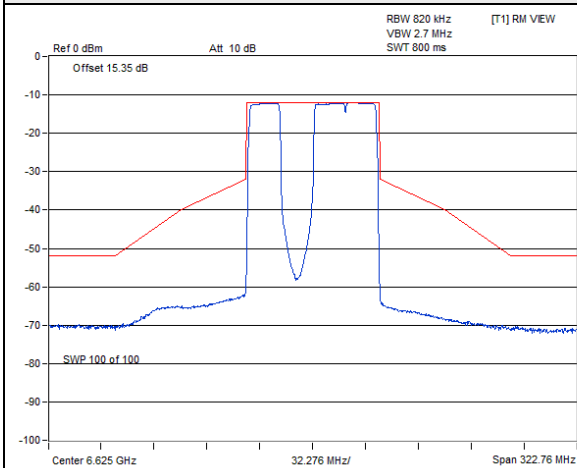
802.11be (EHT80) 484+242-tone MRU / Chain 0 : CH 167



802.11be (EHT80) 484+242-tone MRU / Chain 1 : CH 7

802.11be (EHT80) 484+242-tone MRU / Chain 1 : CH 7

Spectrum Plot

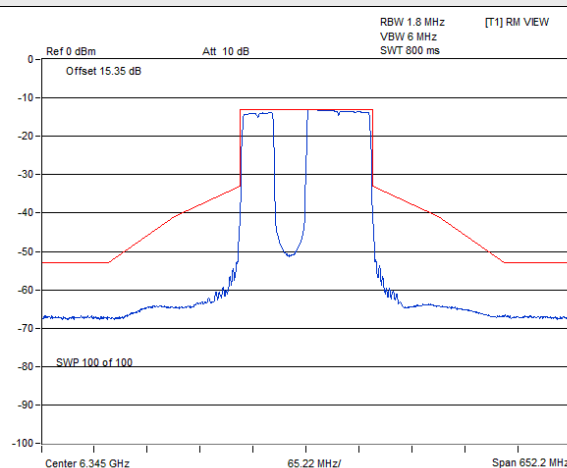
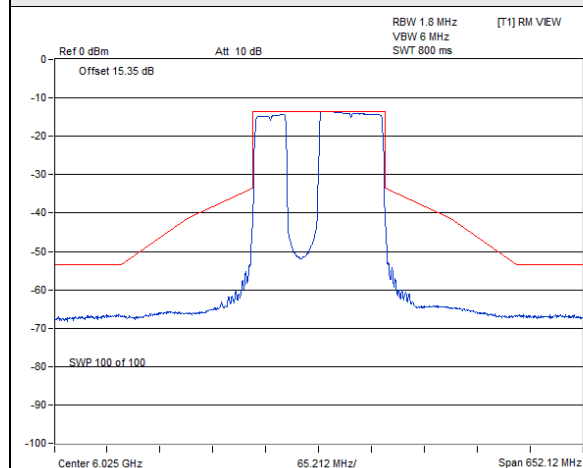


802.11be (EHT80) 484+242-tone MRU / Chain 1 : CH 135

802.11be (EHT80) 484+242-tone MRU / Chain 1 : CH 167

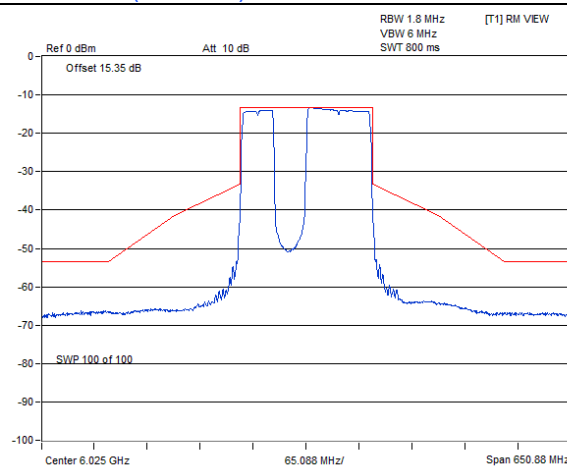
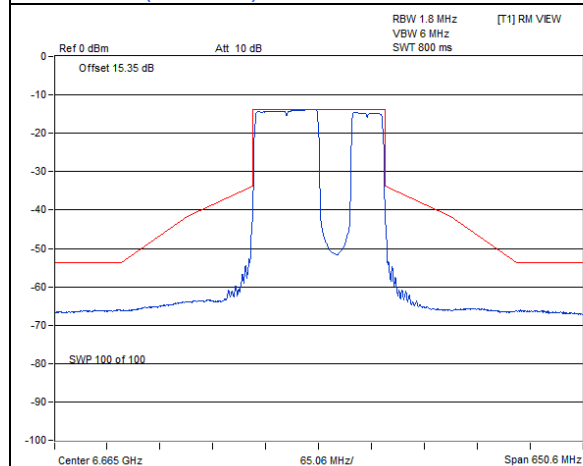
802.11be (EHT160) 996+484-tone MRU

Spectrum Plot



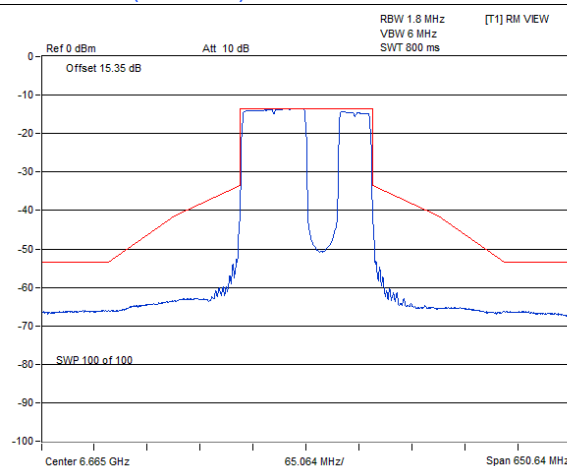
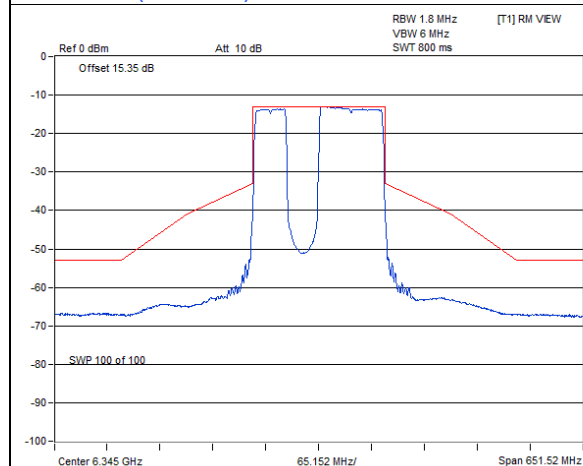
802.11be (EHT160) 996+484-tone MRU / Chain 0 : CH 15

802.11be (EHT160) 996+484-tone MRU / Chain 0 : CH 79



802.11be (EHT160) 996+484-tone MRU / Chain 0 : CH 143

802.11be (EHT160) 996+484-tone MRU / Chain 1 : CH 15

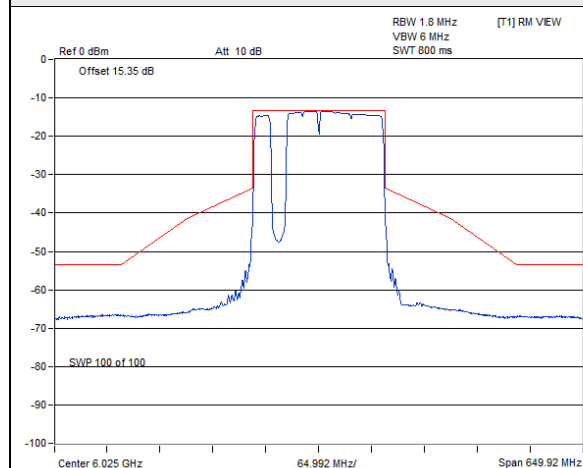


802.11be (EHT160) 996+484-tone MRU / Chain 1 : CH 79

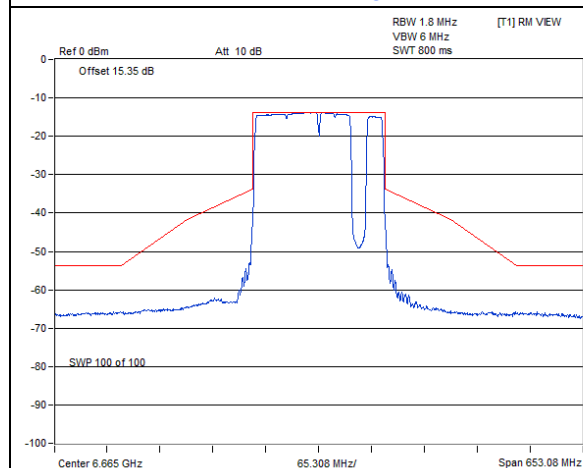
802.11be (EHT160) 996+484-tone MRU / Chain 1 : CH 143

802.11be (EHT160) 996+484+242-tone MRU

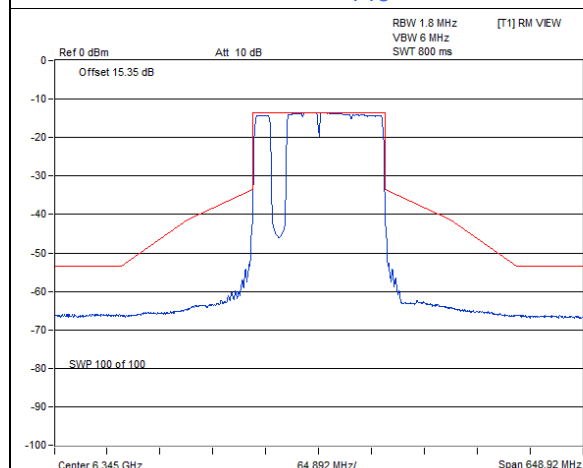
Spectrum Plot



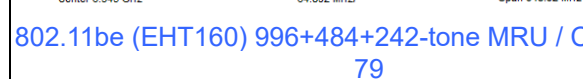
802.11be (EHT160) 996+484+242-tone MRU / Chain 0 : CH 15 802.11be (EHT160) 996+484+242-tone MRU / Chain 0 : CH 79



802.11be (EHT160) 996+484+242-tone MRU / Chain 0 : CH 143 802.11be (EHT160) 996+484+242-tone MRU / Chain 1 : CH 15



802.11be (EHT160) 996+484+242-tone MRU / Chain 1 : CH 79 802.11be (EHT160) 996+484+242-tone MRU / Chain 1 : CH 143



7.5 Occupied Bandwidth

Input Power:	3.3 Vdc	Environmental Conditions:	23°C, 63% RH	Tested By:	Louis Yang
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1TX

802.11a

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)
1	5955	16.38
49	6195	16.38
93	6415	16.38
117	6535	16.38
149	6695	16.38
181	6855	16.38

802.11be (EHT20)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)
1	5955	18.9
49	6195	18.96
93	6415	18.96
117	6535	18.9
149	6695	18.96
181	6855	18.9

802.11be (EHT40)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)
3	5965	37.92
51	6205	38.04
91	6405	38.04
123	6565	38.04
147	6685	38.04
179	6845	38.04

802.11be (EHT80)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)
7	5985	77.28
55	6225	77.04
87	6385	77.04
135	6625	77.04
151	6705	77.28
167	6785	77.28

802.11be (EHT160)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)
15	6025	156.96
47	6185	156.96
79	6345	156.96
143	6665	156.96

802.11be (EHT20) 26-tone RU

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)
1	5955	18.24
49	6195	16.92
93	6415	18
117	6535	18.24
149	6695	16.74
181	6855	18

802.11be (EHT20) 52-tone RU

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)
1	5955	18.18
49	6195	16.92
93	6415	17.94
117	6535	18
149	6695	16.98
181	6855	18

802.11be (EHT20) 106-tone RU

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)
1	5955	18.06
49	6195	18
93	6415	18.06
117	6535	17.88
149	6695	18
181	6855	18

802.11be (EHT20) 52+26-tone MRU

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)
1	5955	16.8
93	6415	16.92
117	6535	16.98
181	6855	16.86

802.11be (EHT20) 106+26-tone MRU

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)
1	5955	18.06
93	6415	17.88
117	6535	18.06
181	6855	17.88

802.11be (EHT80) 484+242-tone MRU

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)
7	5985	77.28
87	6385	77.28
135	6625	77.52
167	6785	77.52

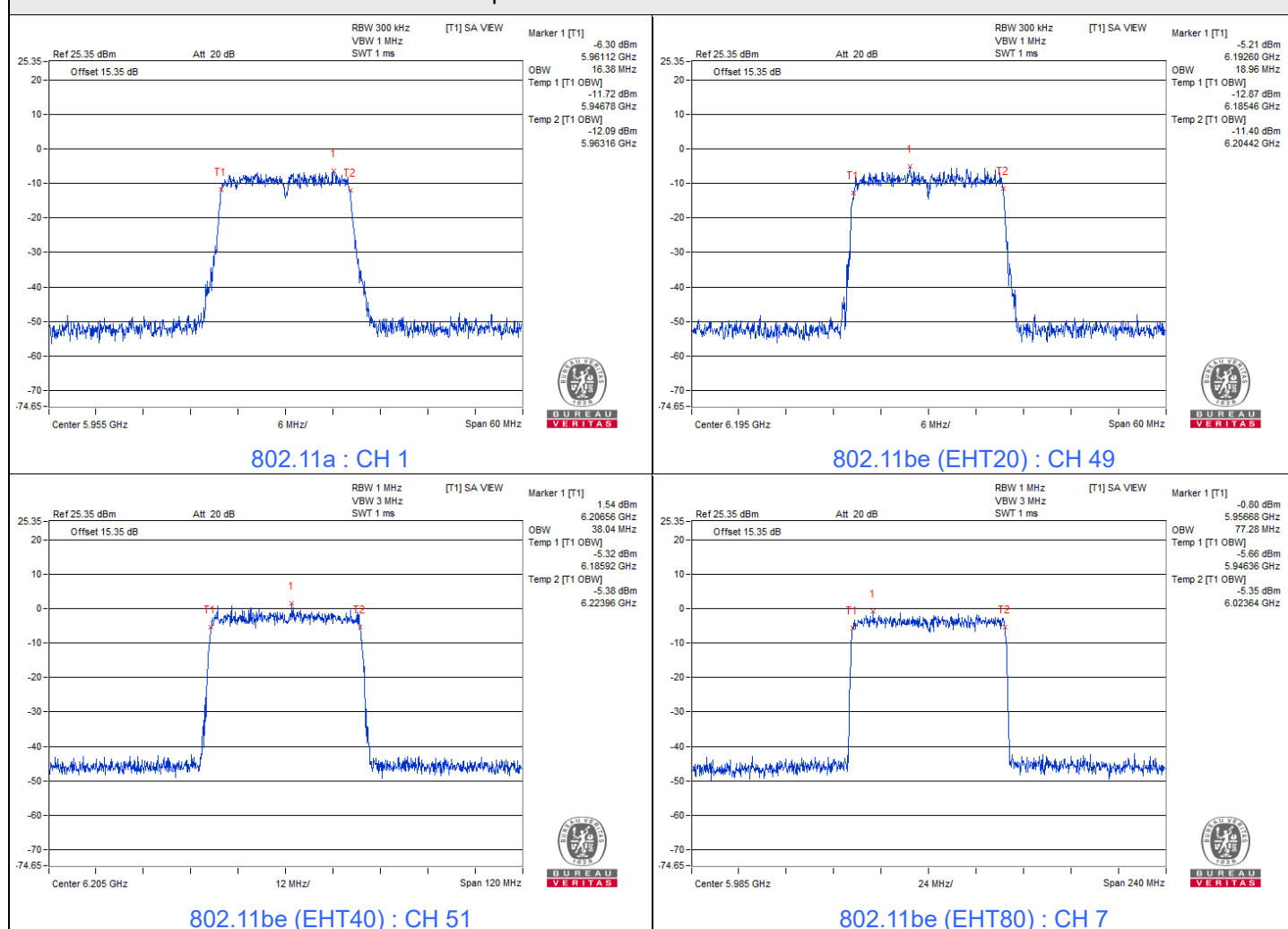
802.11be (EHT160) 996+484-tone MRU

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)
15	6025	157.92
79	6345	157.92
143	6665	157.44

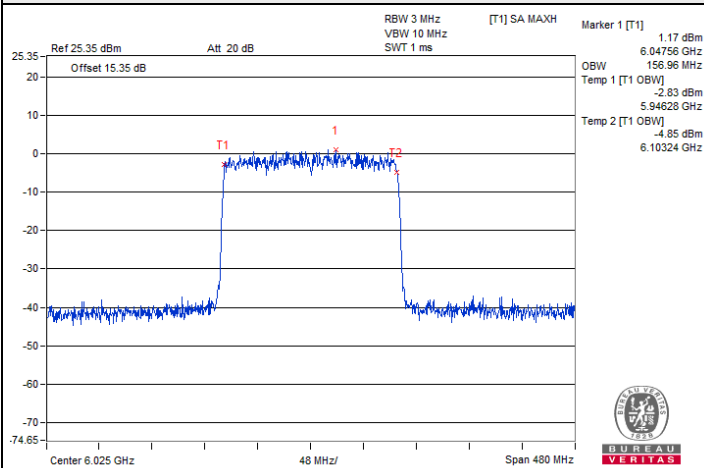
802.11be (EHT160) 996+484+242-tone MRU

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)
15	6025	156.96
79	6345	157.44
143	6665	157.44

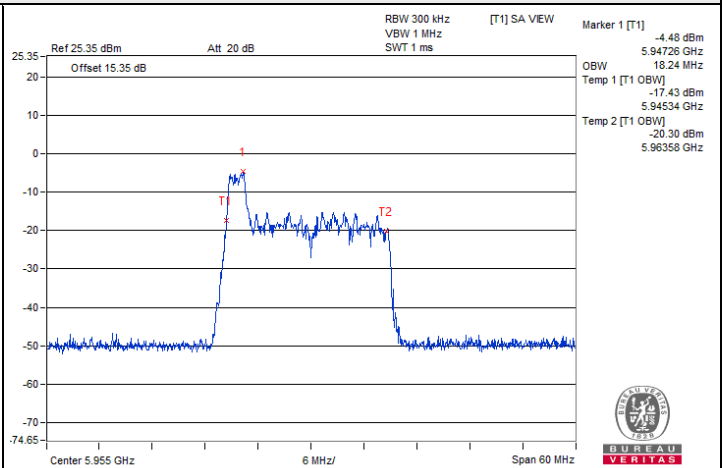
Spectrum Plot of Maximum Value



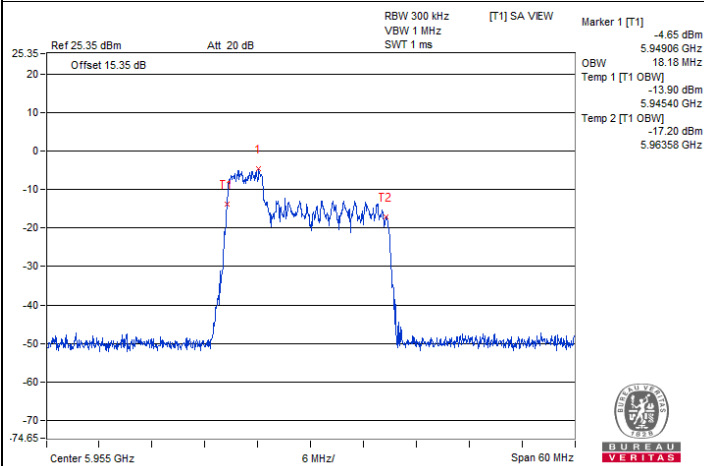
Spectrum Plot of Maximum Value



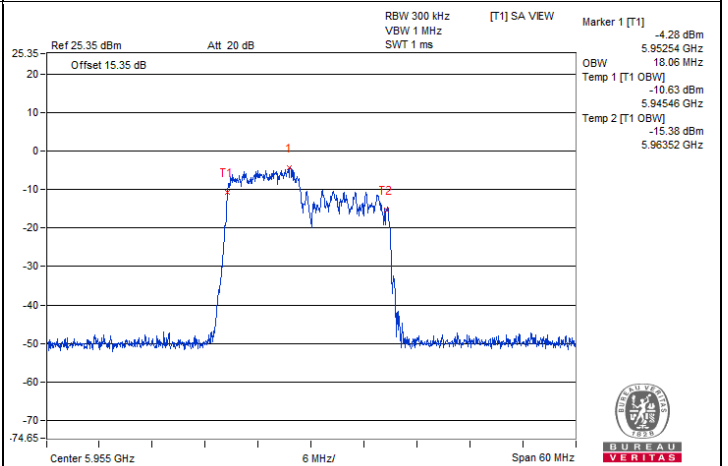
802.11be (EHT160) : CH 15



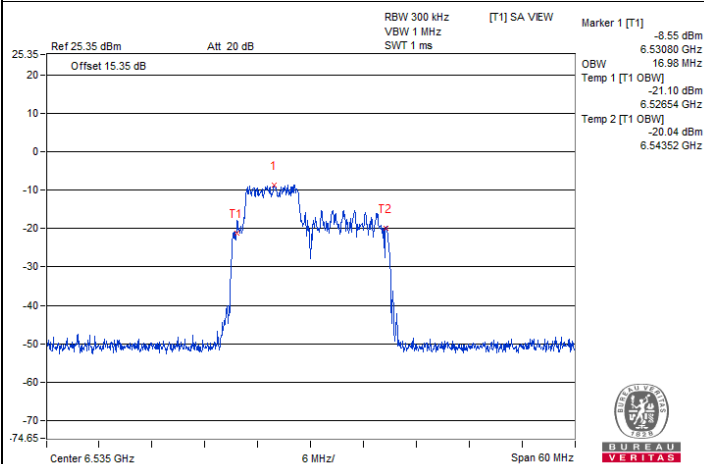
802.11be (EHT20) 26-tone RU : CH 1



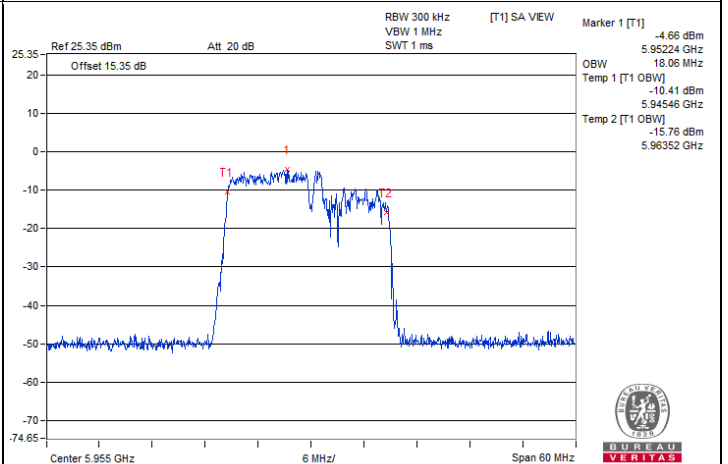
802.11be (EHT20) 52-tone RU : CH 1



802.11be (EHT20) 106-tone RU : CH 1

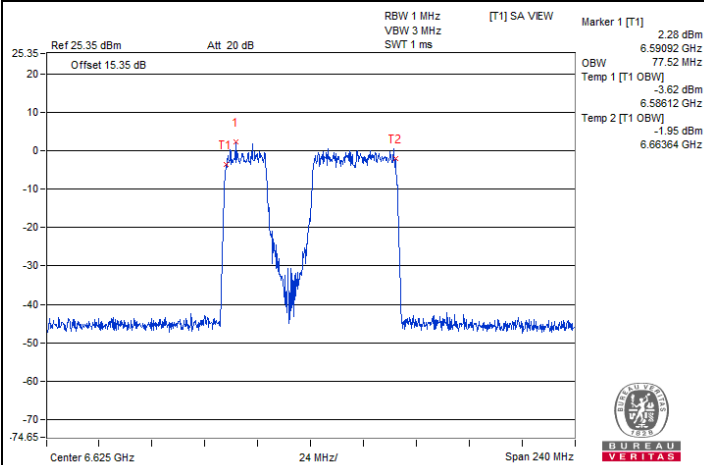


802.11be (EHT20) 52+26-tone MRU : CH 117

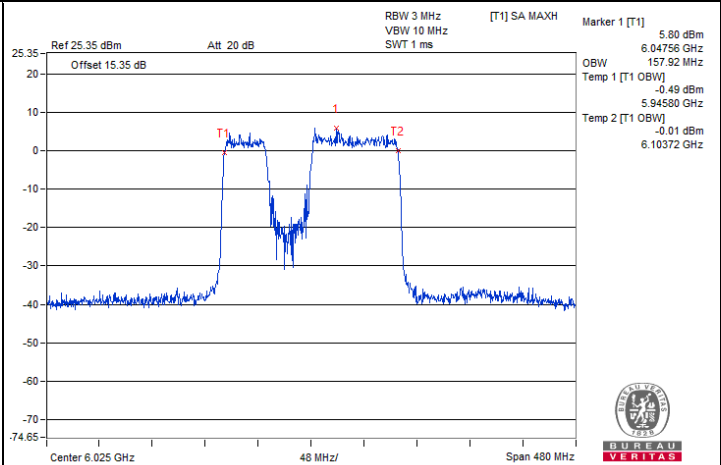


802.11be (EHT20) 106+26-tone MRU : CH 1

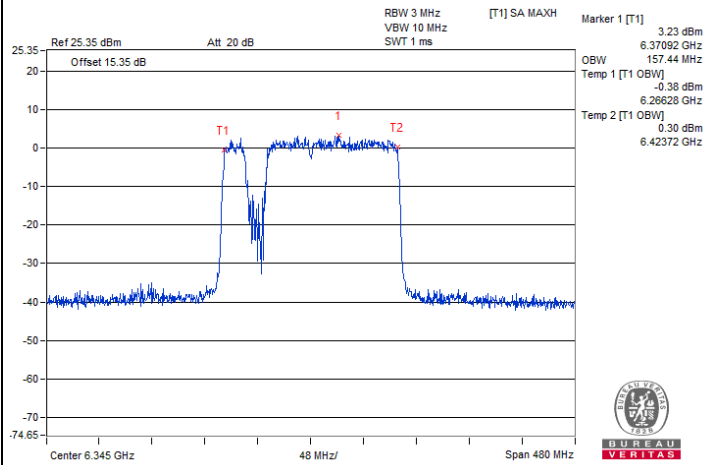
Spectrum Plot of Maximum Value



802.11be (EHT80) 484+242-tone MRU : CH 135



802.11be (EHT160) 996+484-tone MRU : CH 15



802.11be (EHT160) 996+484+242-tone MRU : CH 79

Input Power:	3.3 Vdc	Environmental Conditions:	23°C, 63% RH	Tested By:	Louis Yang
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2TX

802.11a

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
1	5955	16.44	16.44
49	6195	16.44	16.38
93	6415	16.44	16.38
117	6535	16.38	16.44
149	6695	16.38	16.44
181	6855	16.38	16.38

802.11be (EHT20)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
1	5955	18.90	18.90
49	6195	18.90	18.90
93	6415	18.96	18.96
117	6535	18.96	18.90
149	6695	18.96	18.96
181	6855	18.84	18.90

802.11be (EHT40)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
3	5965	37.92	37.92
51	6205	38.04	38.04
91	6405	37.92	37.80
123	6565	38.04	37.92
147	6685	38.16	38.04
179	6845	38.04	38.04

802.11be (EHT80)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
7	5985	77.04	77.04
55	6225	77.28	77.28
87	6385	77.28	77.04
135	6625	77.28	77.28
151	6705	77.04	77.04
167	6785	77.28	77.28

802.11be (EHT160)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
15	6025	156.96	157.44
47	6185	156.48	156.96
79	6345	156.96	157.44
143	6665	156.96	156.48

802.11be (EHT20) 26-tone RU

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
1	5955	18.24	18.30
49	6195	16.92	17.16
93	6415	18.12	18.24
117	6535	18.18	18.18
149	6695	16.80	16.68
181	6855	18.12	18.18

802.11be (EHT20) 52-tone RU

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
1	5955	18.12	18.12
49	6195	16.68	16.92
93	6415	17.88	18.00
117	6535	18.12	18.00
149	6695	16.98	16.80
181	6855	17.94	18.06

802.11be (EHT20) 106-tone RU

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
1	5955	18.18	18.06
49	6195	18.06	18.12
93	6415	17.94	17.76
117	6535	18.00	18.06
149	6695	18.06	18.06
181	6855	18.06	18.06

802.11be (EHT20) 52+26-tone MRU

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
1	5955	16.98	16.98
93	6415	16.92	16.98
117	6535	16.74	16.86
181	6855	17.04	17.10

802.11be (EHT20) 106+26-tone MRU

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
1	5955	18.06	17.94
93	6415	17.76	17.94
117	6535	18.12	18.06
181	6855	17.88	18.00

802.11be (EHT80) 484+242-tone MRU

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
7	5985	77.52	77.52
87	6385	77.28	77.52
135	6625	77.28	77.76
167	6785	77.52	77.52

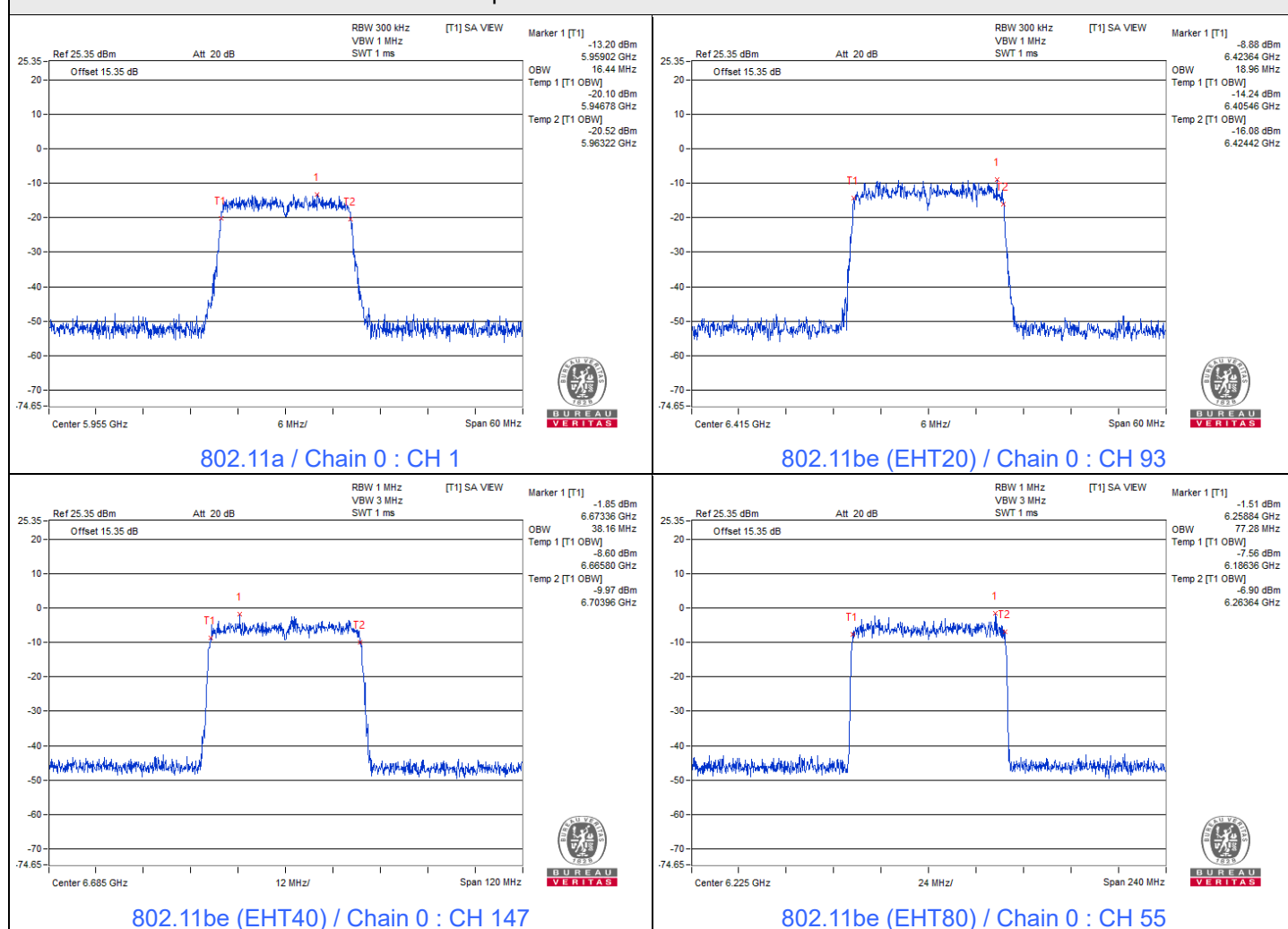
802.11be (EHT160) 996+484-tone MRU

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
15	6025	157.92	156.96
79	6345	158.40	157.92
143	6665	157.92	157.92

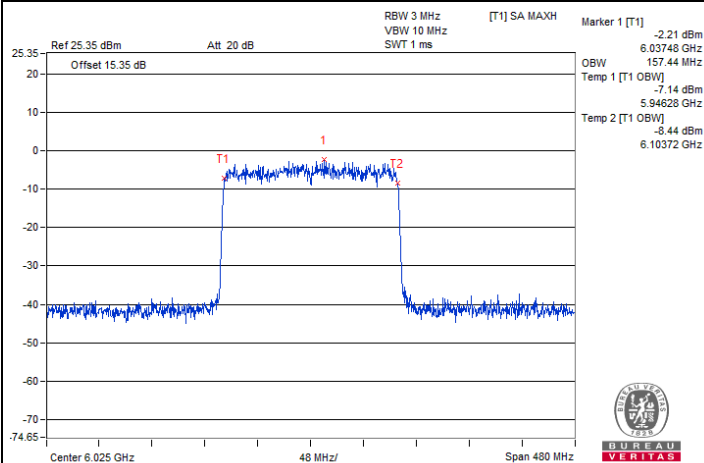
802.11be (EHT160) 996+484+242-tone MRU

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)	
		Chain 0	Chain 1
15	6025	156.96	157.44
79	6345	157.44	157.44
143	6665	157.44	157.44

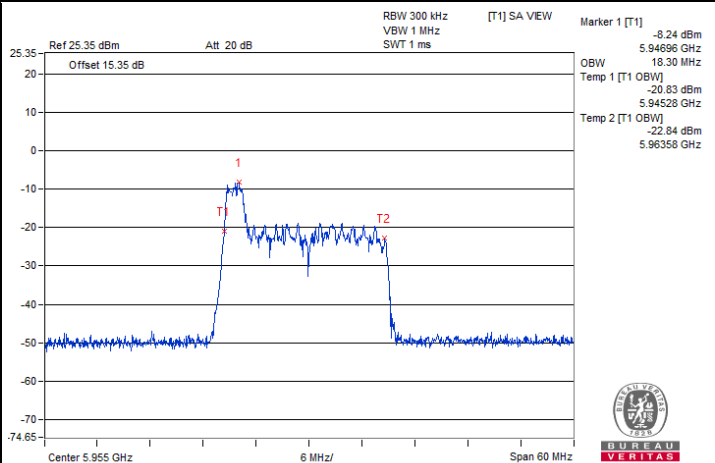
Spectrum Plot of Maximum Value



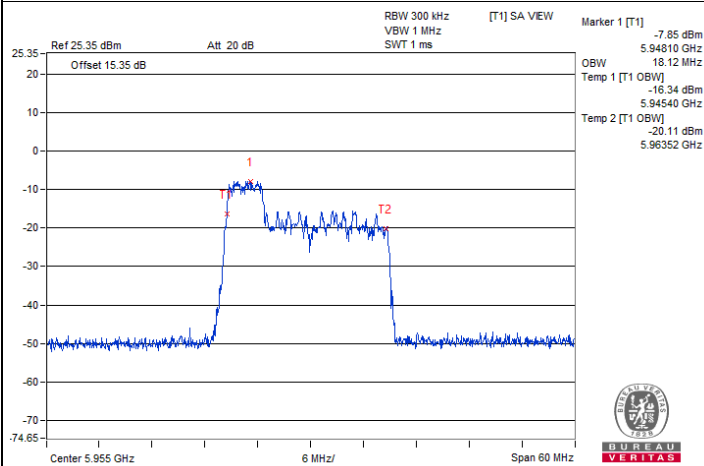
Spectrum Plot of Maximum Value



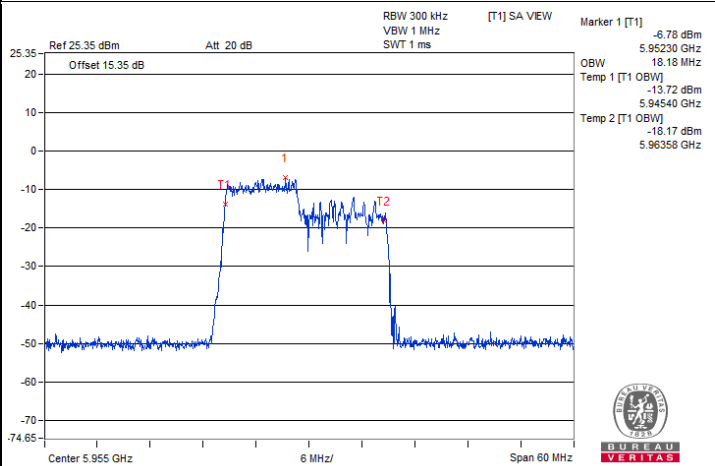
802.11be (EHT160) / Chain 1 : CH 15



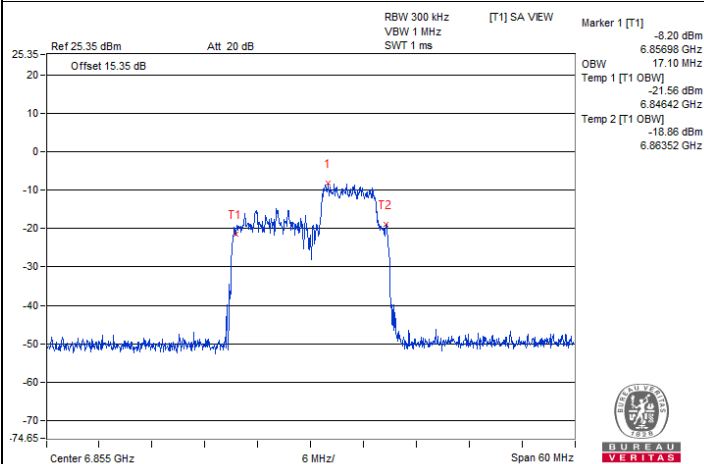
802.11be (EHT20) 26-tone RU / Chain 1 : CH 1



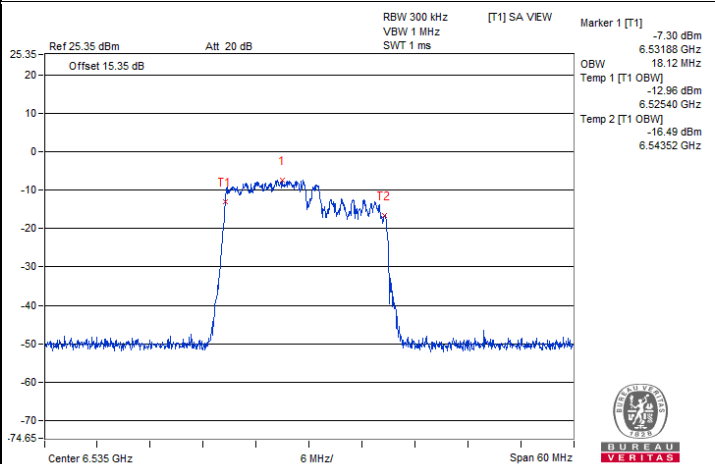
802.11be (EHT20) 52-tone RU / Chain 0 : CH 1



802.11be (EHT20) 106-tone RU / Chain 0 : CH 1

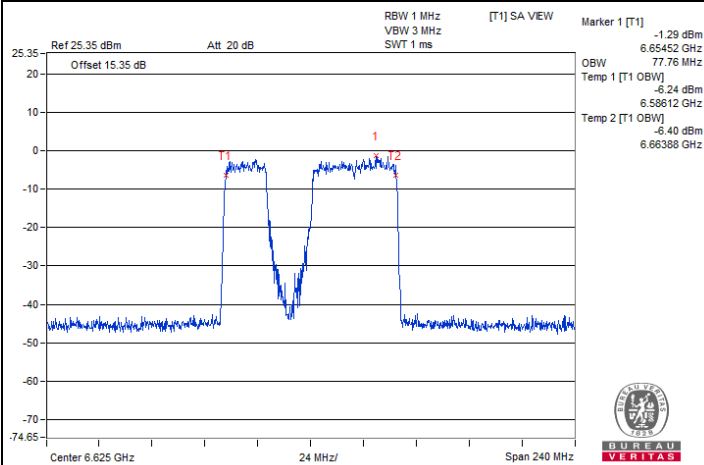


802.11be (EHT20) 52+26-tone MRU / Chain 1 : CH 181

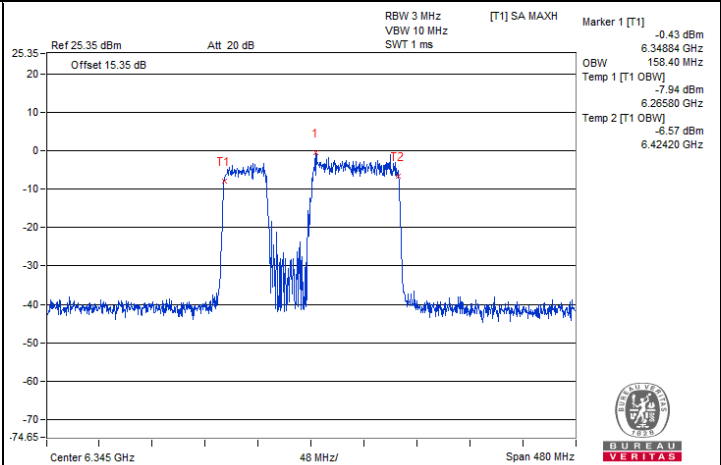


802.11be (EHT20) 106+26-tone MRU / Chain 0 : CH 117

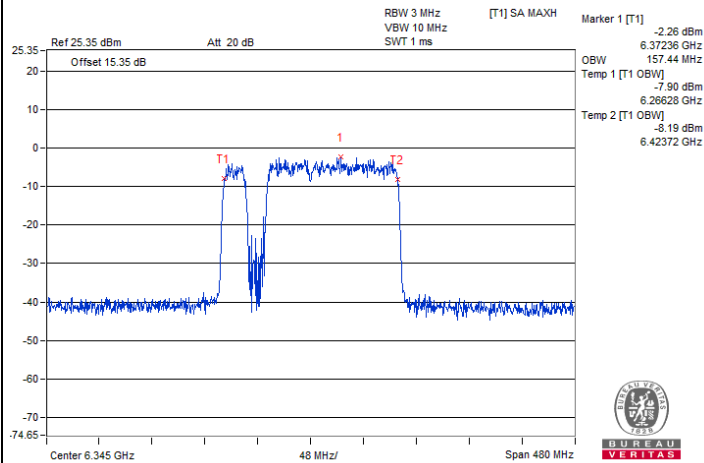
Spectrum Plot of Maximum Value



802.11be (EHT80) 484+242-tone MRU / Chain 1 : CH 135



802.11be (EHT160) 996+484-tone MRU / Chain 0 : CH 79



802.11be (EHT160) 996+484+242-tone MRU / Chain 0 : CH 79

7.6 Contention-based Protocol

Input Power:	3.3 Vdc	Environmental Conditions:	25°C, 60% RH	Tested By:	Cherry Chuo
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Companion Device Information			
Product	Brand	Model No.	Software/Firmware Version
11be RTL8922AE Combo module	REALTEK	RTL8922AE	6102.24.107.0