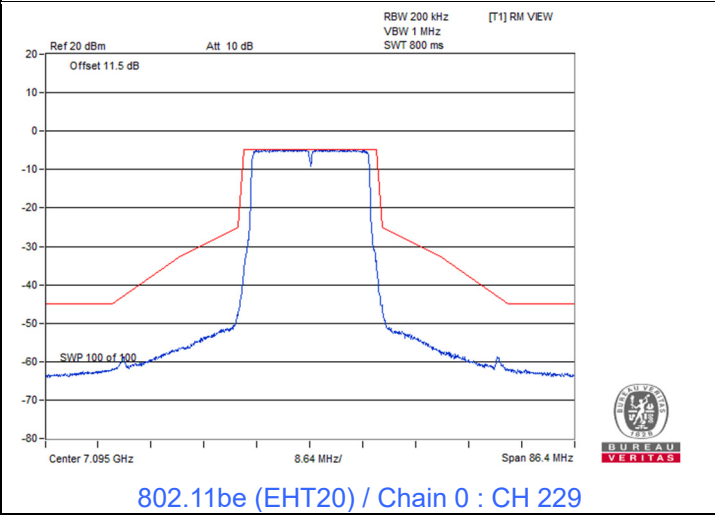
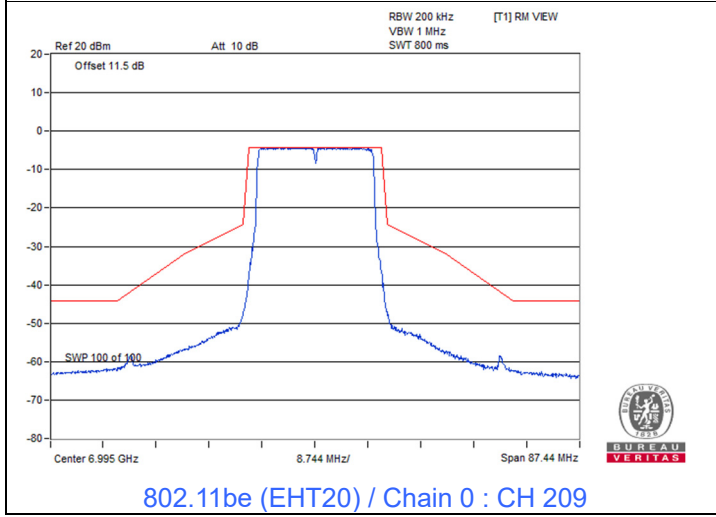
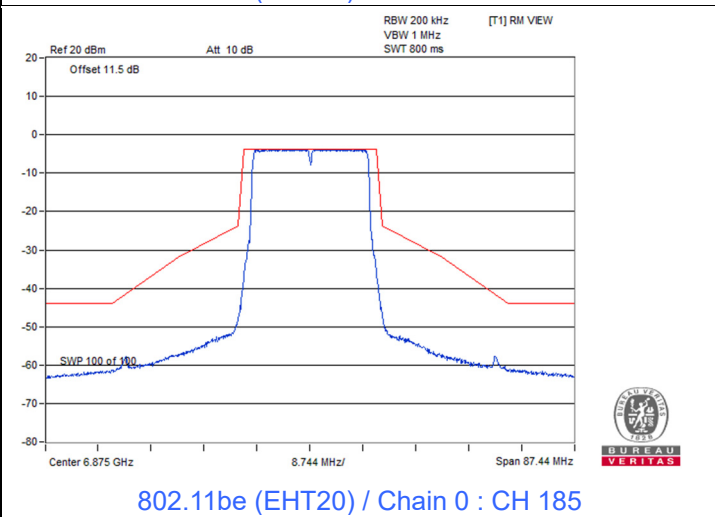
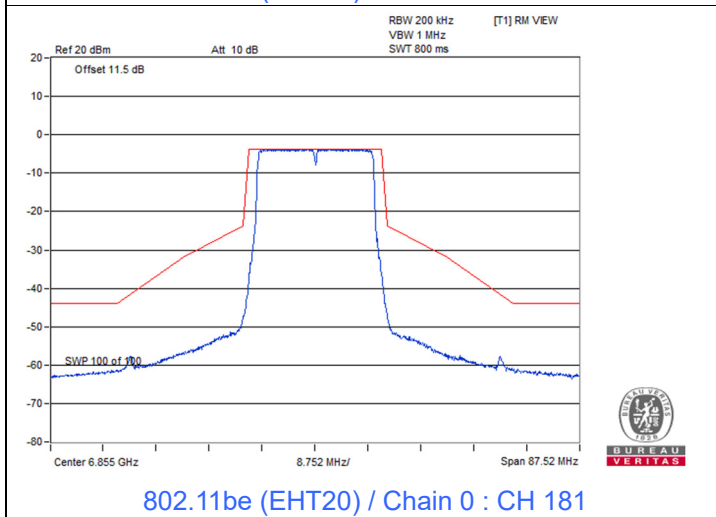
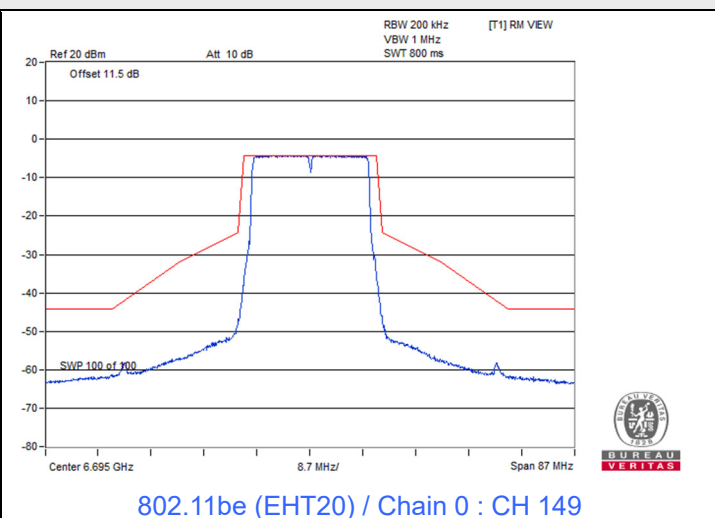
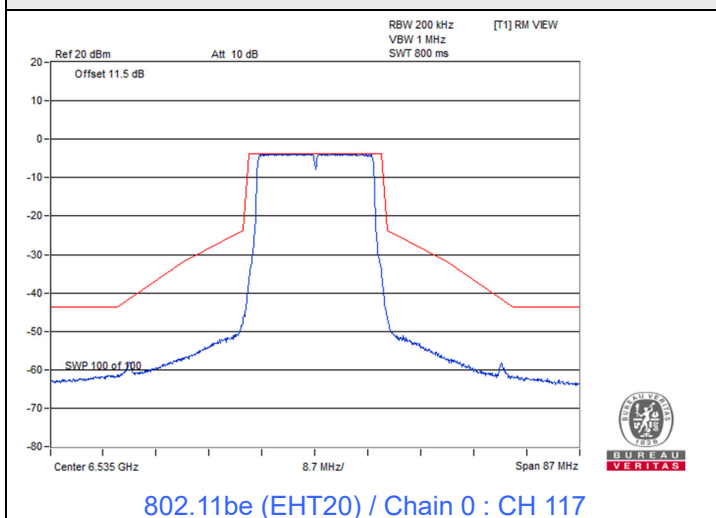
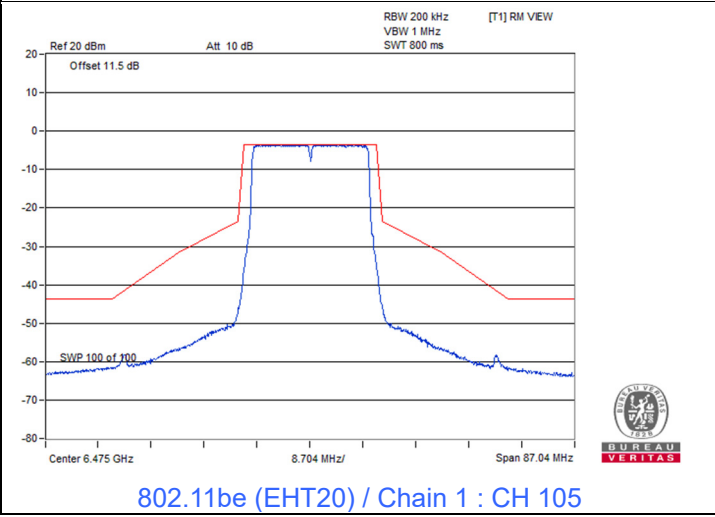
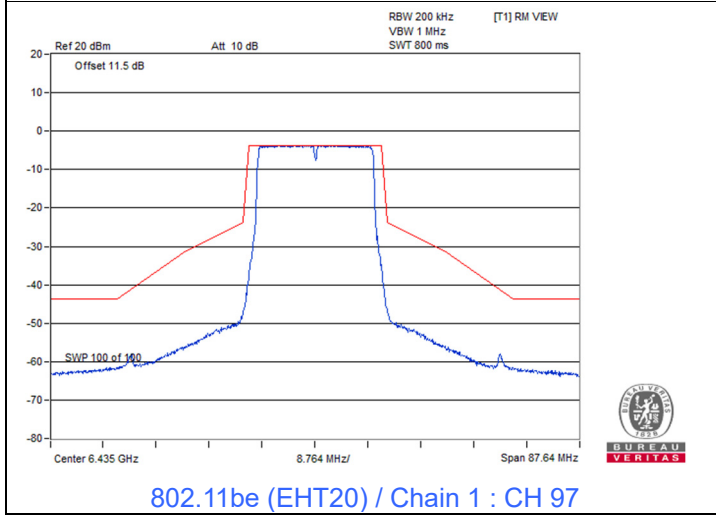
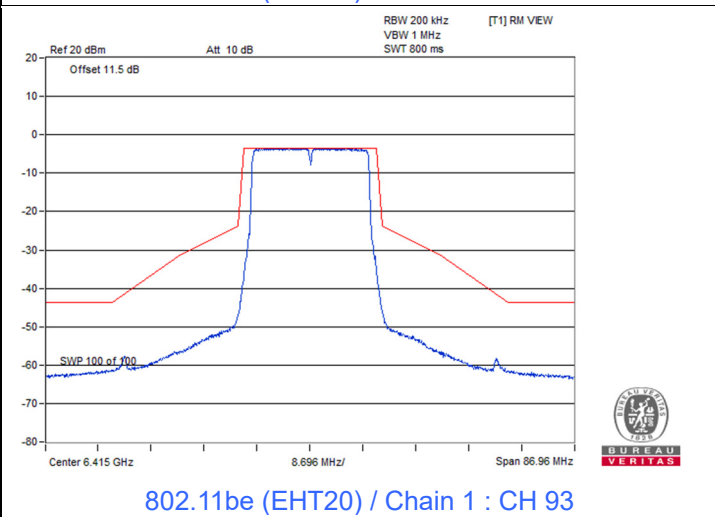
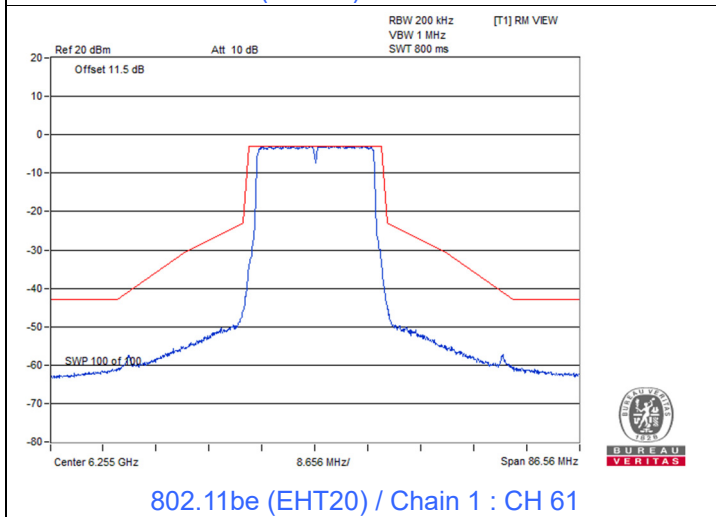
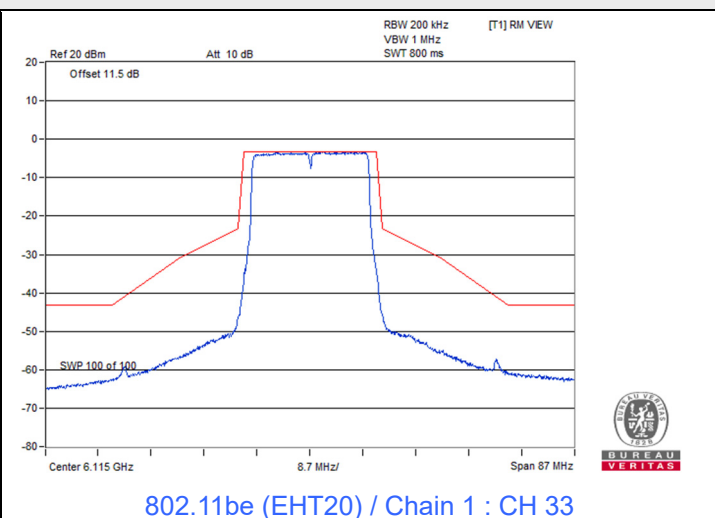
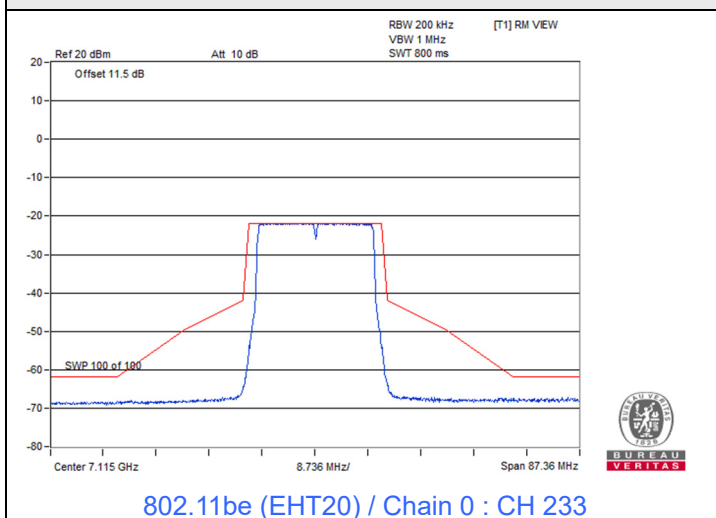


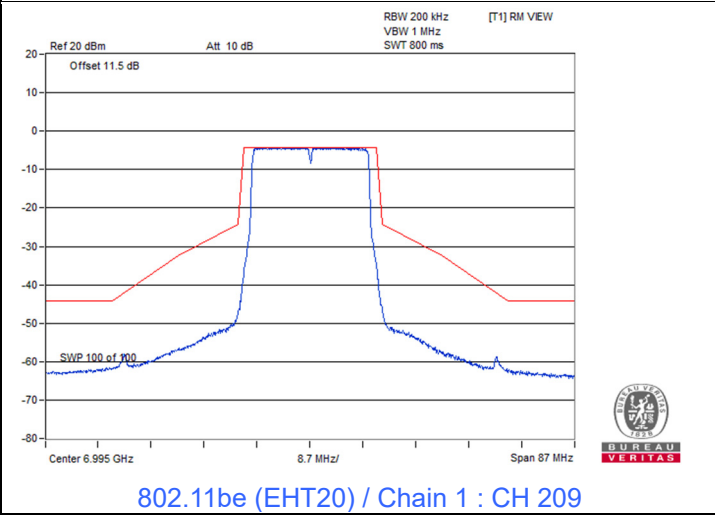
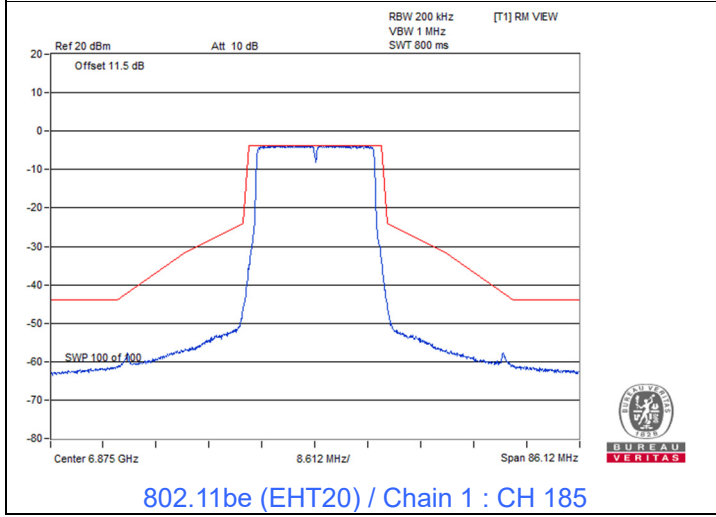
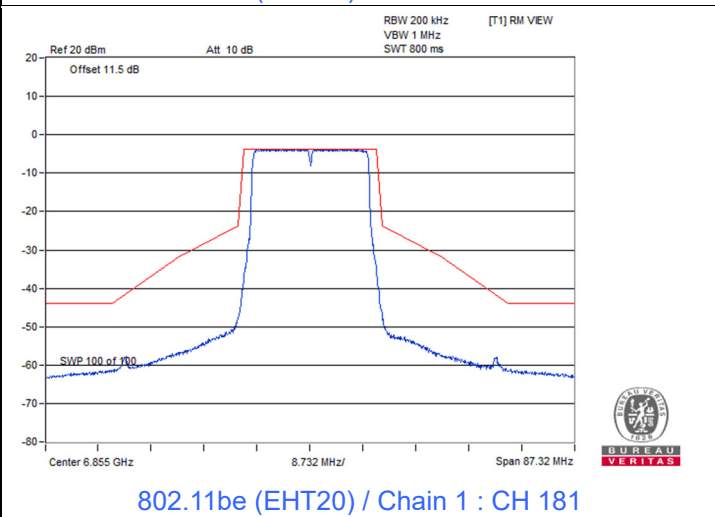
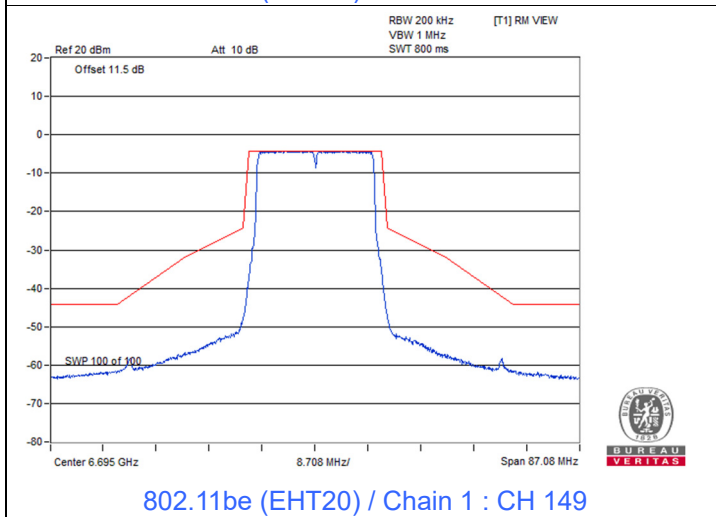
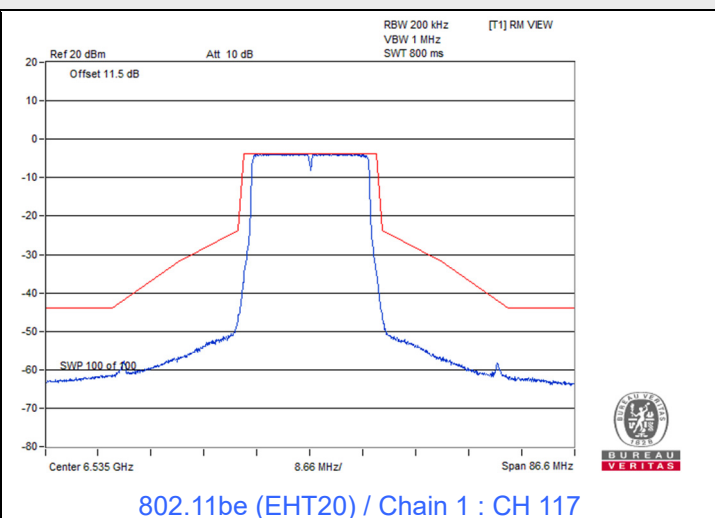
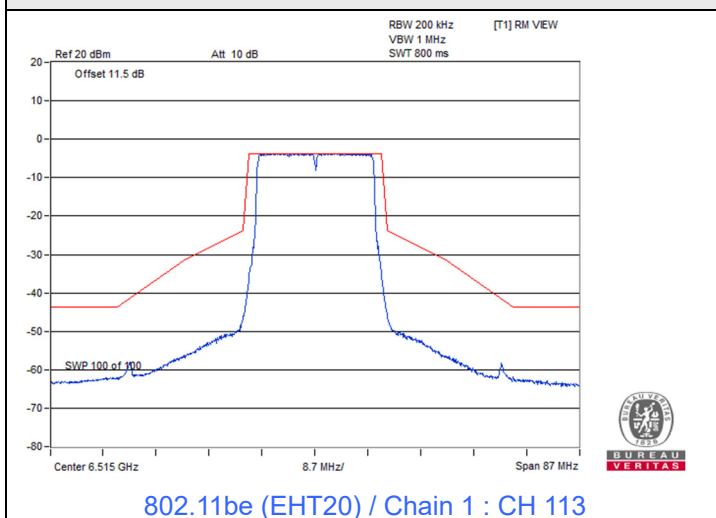
Spectrum Plot



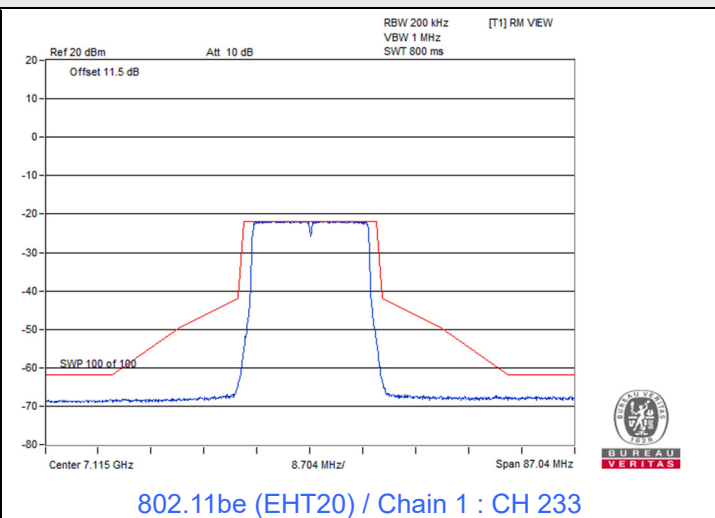
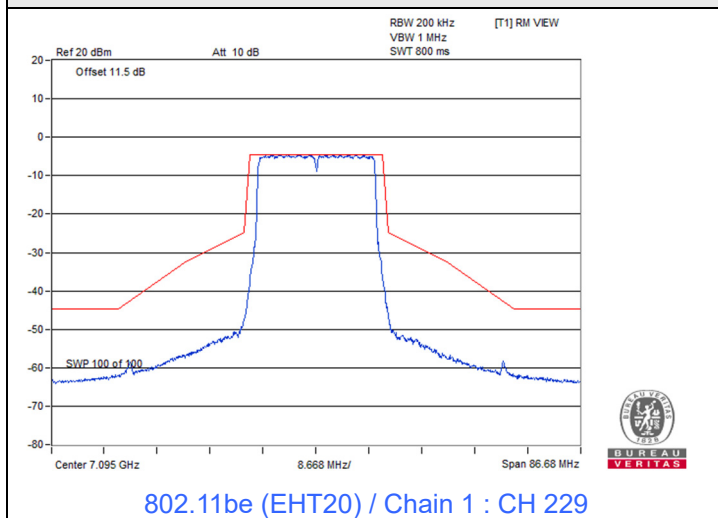
Spectrum Plot



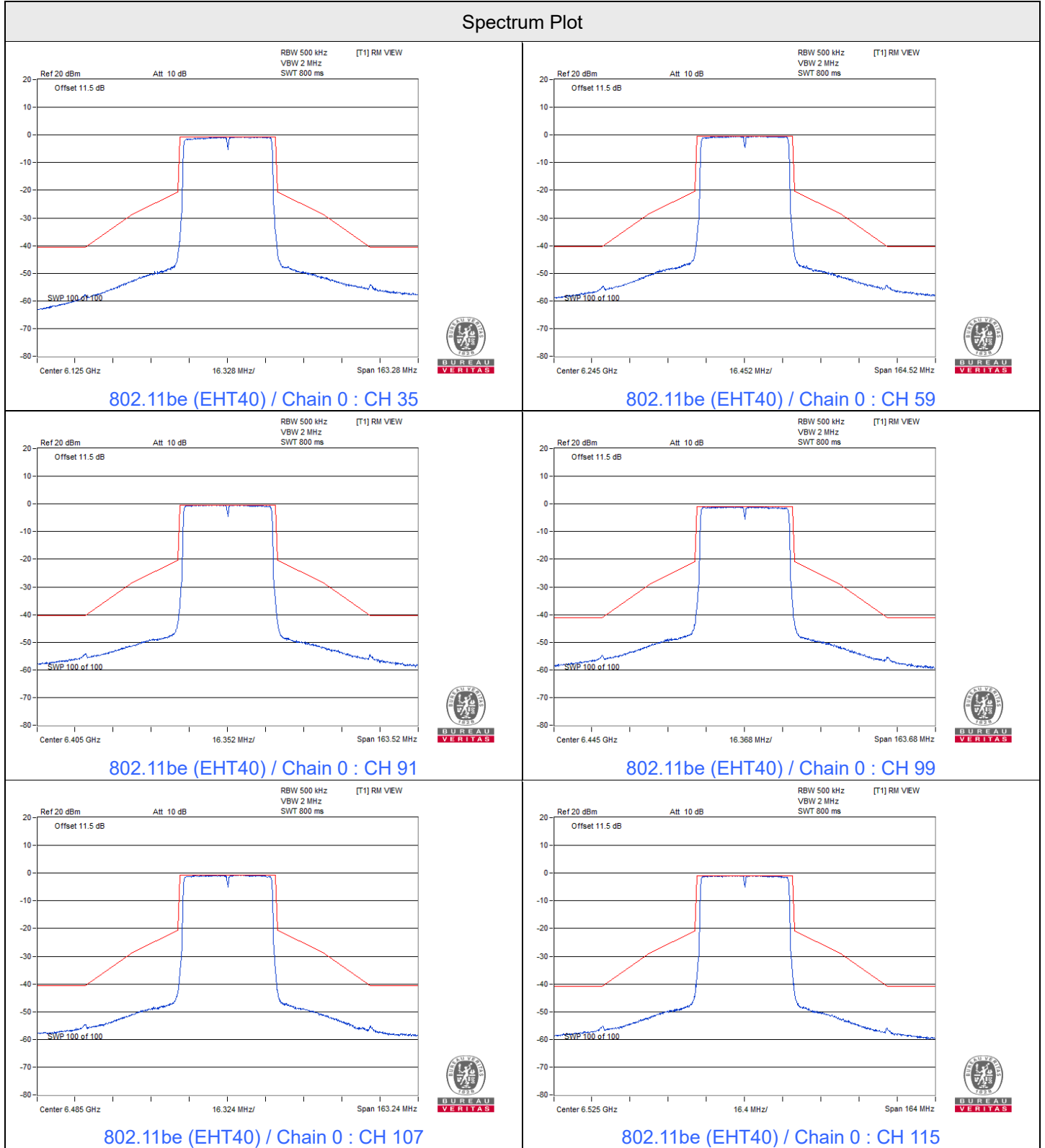
Spectrum Plot



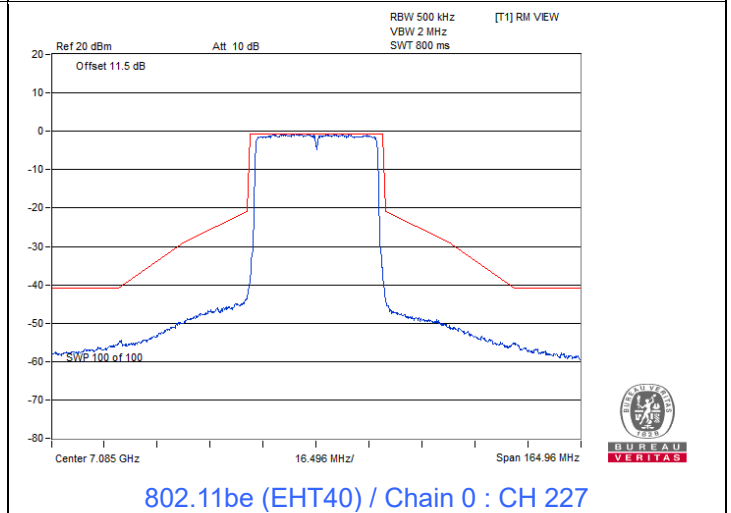
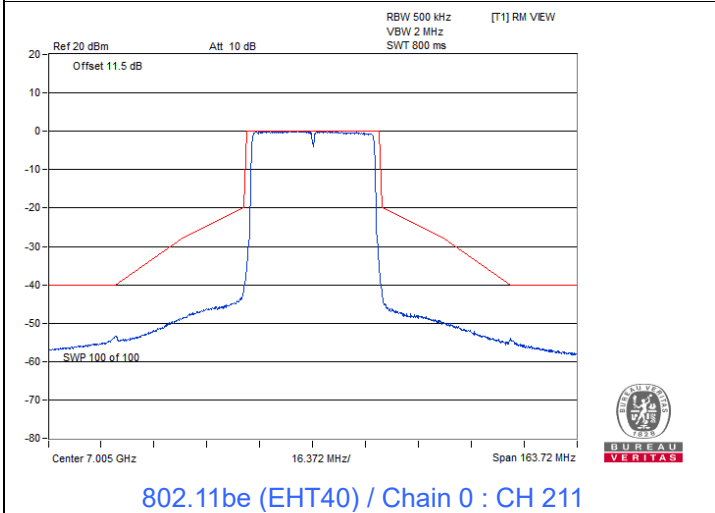
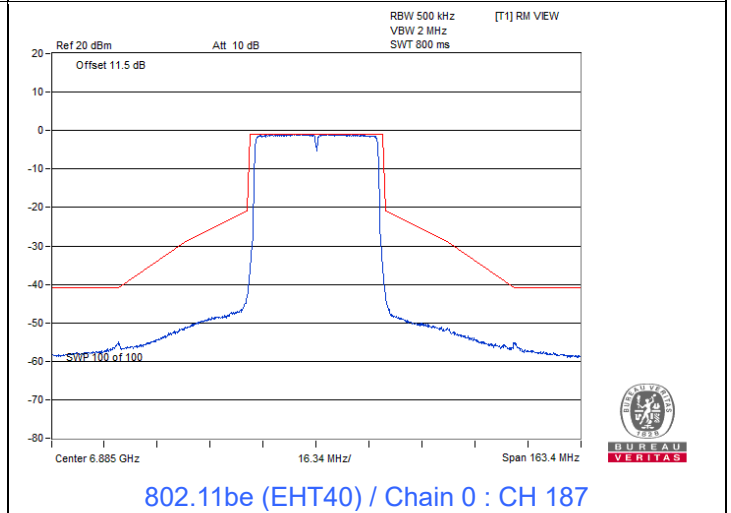
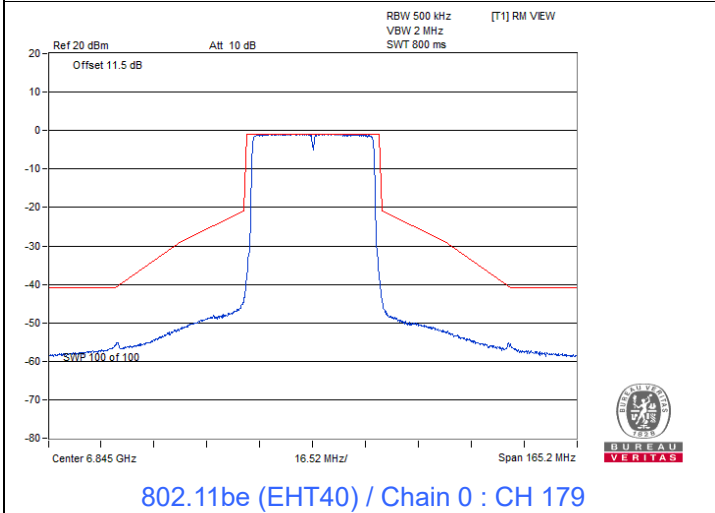
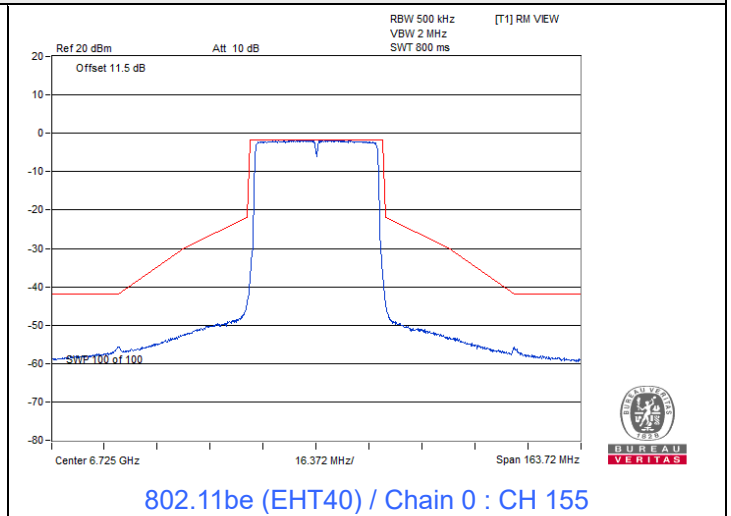
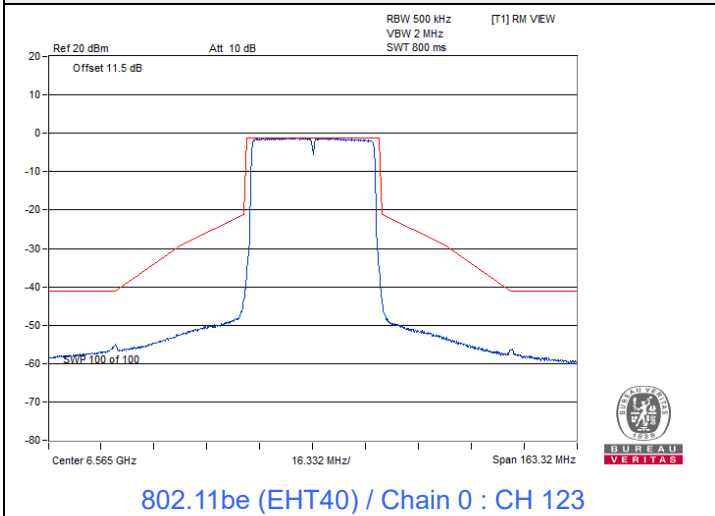
Spectrum Plot



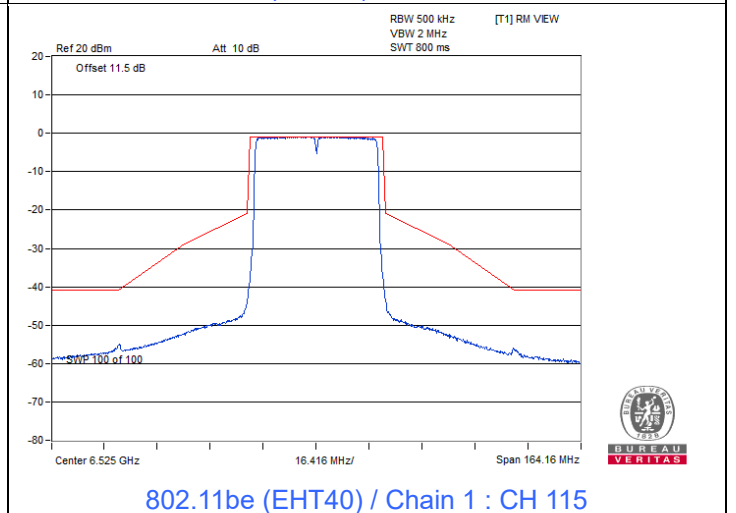
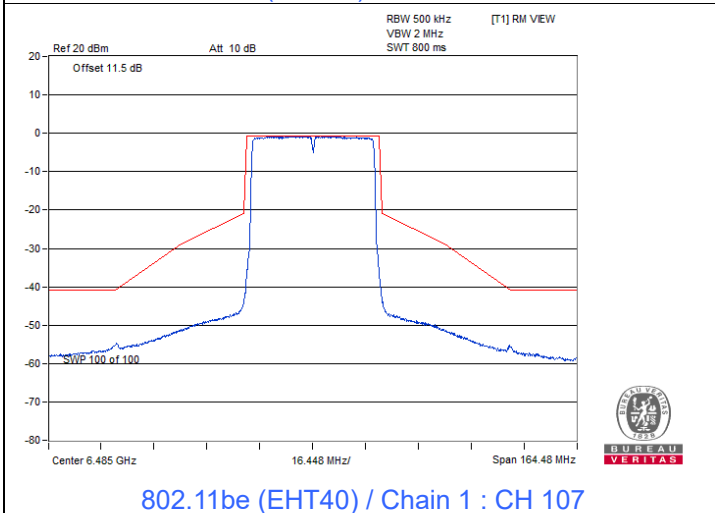
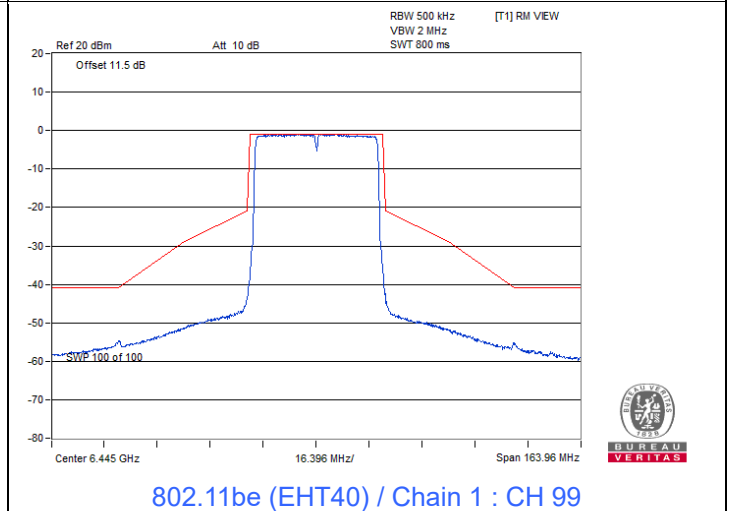
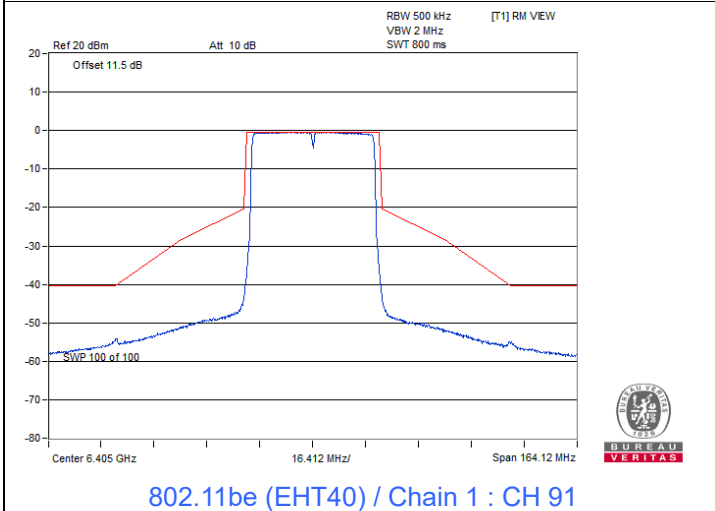
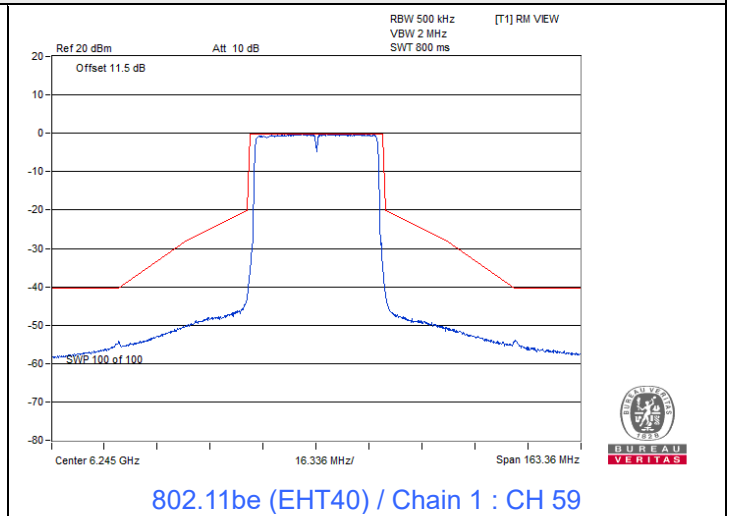
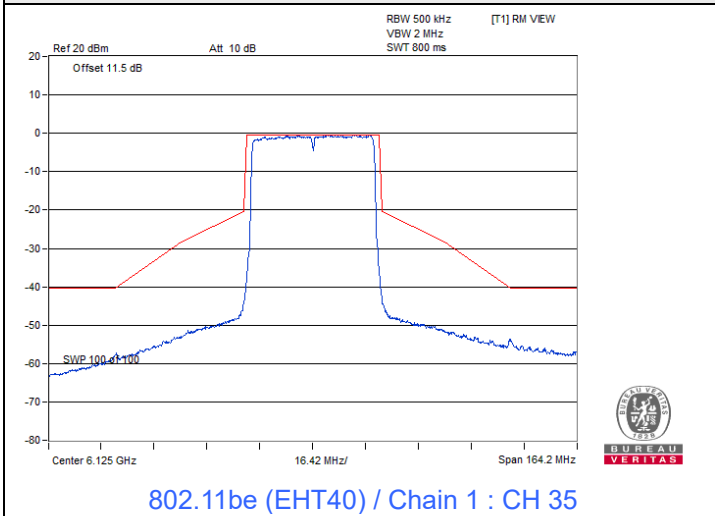
802.11be (EHT40)



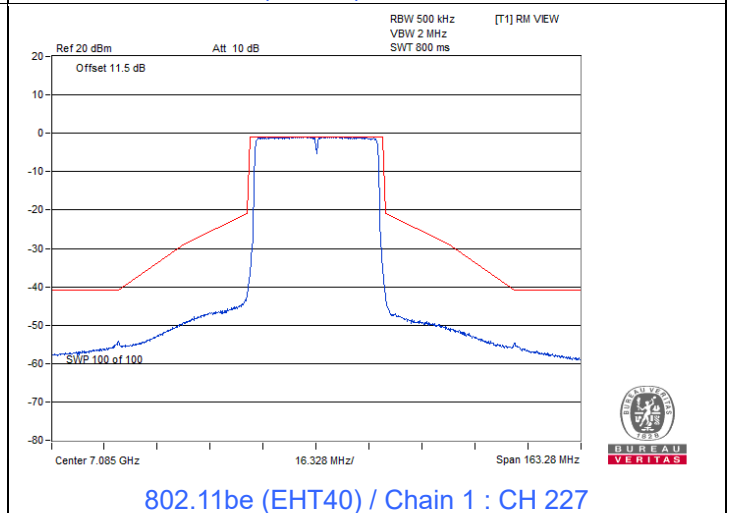
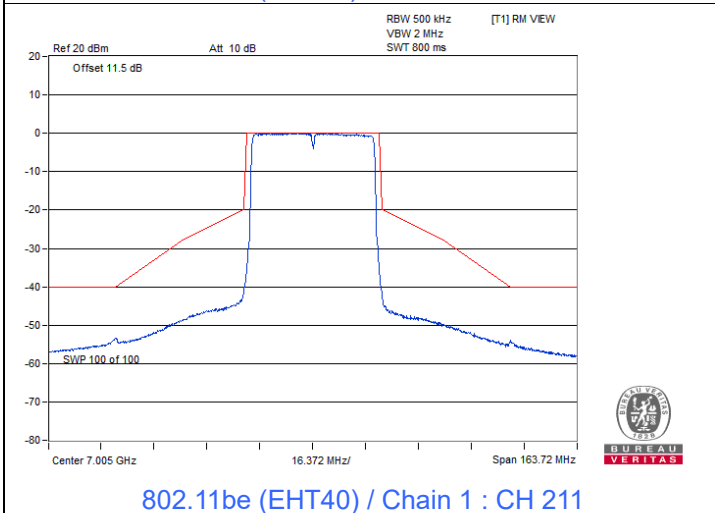
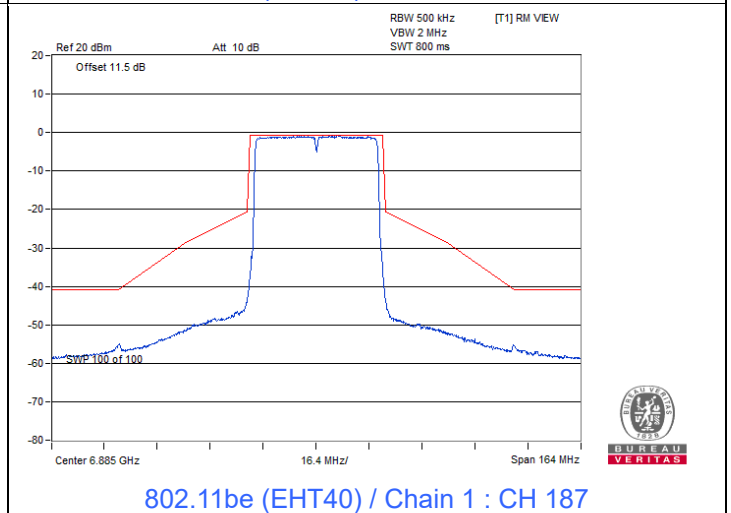
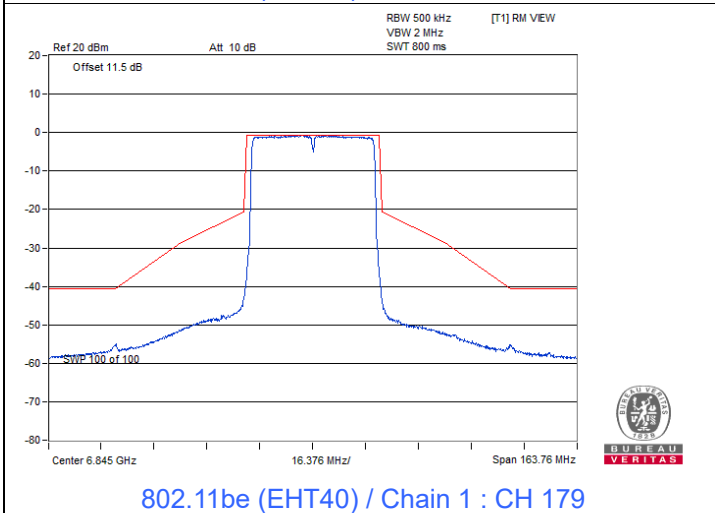
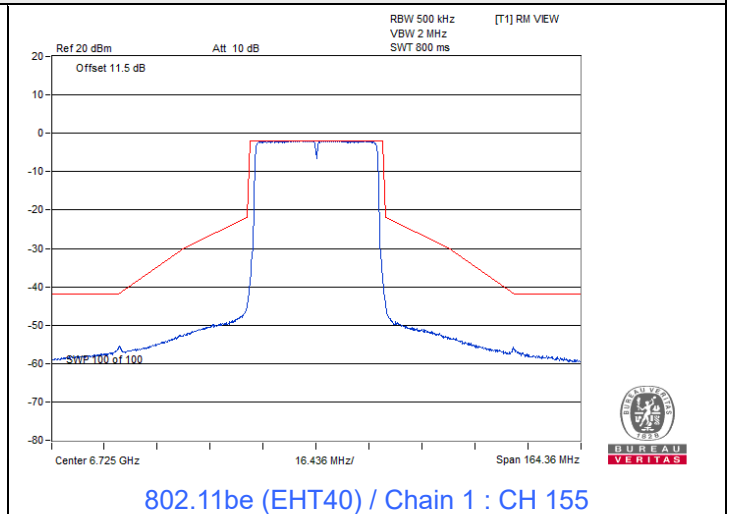
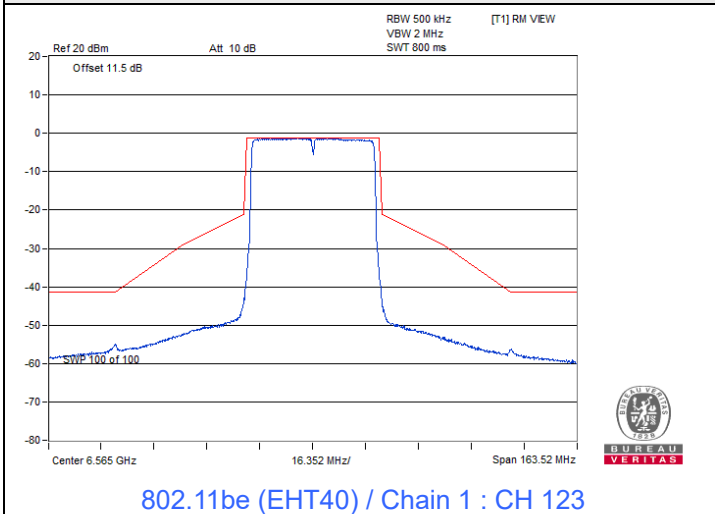
Spectrum Plot



Spectrum Plot

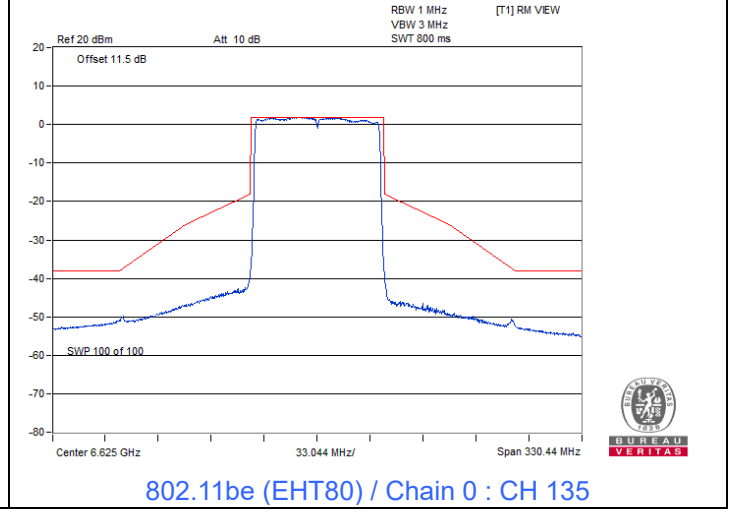
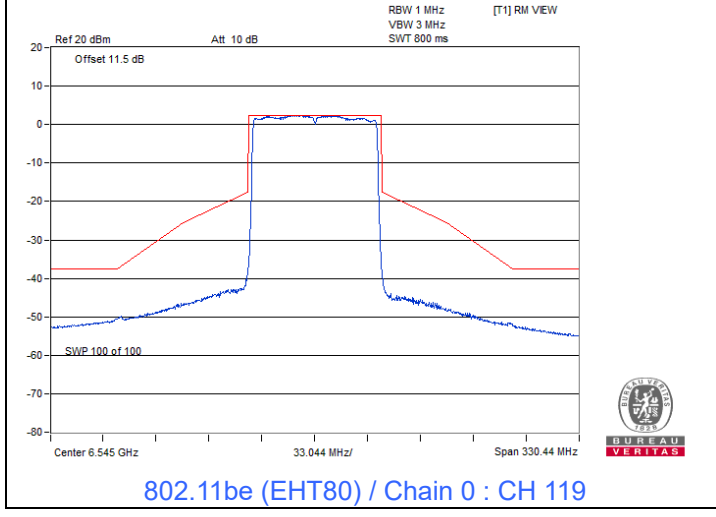
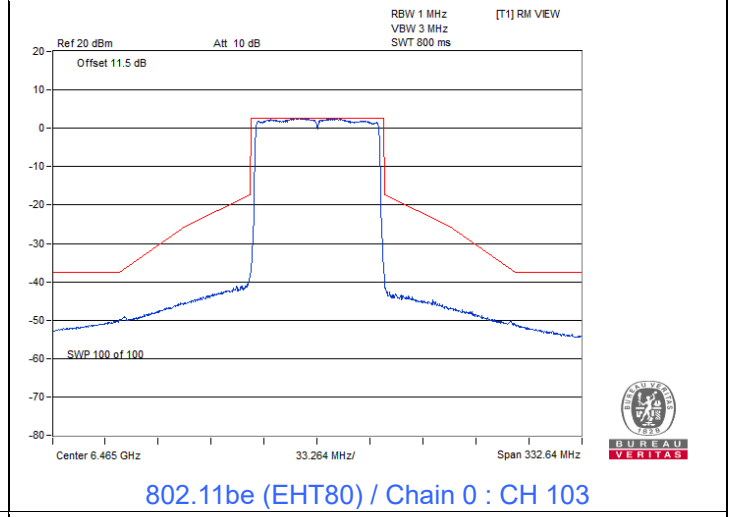
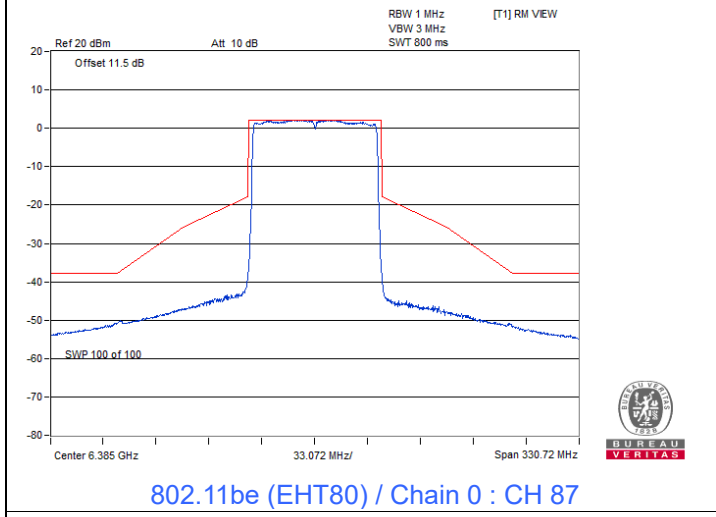
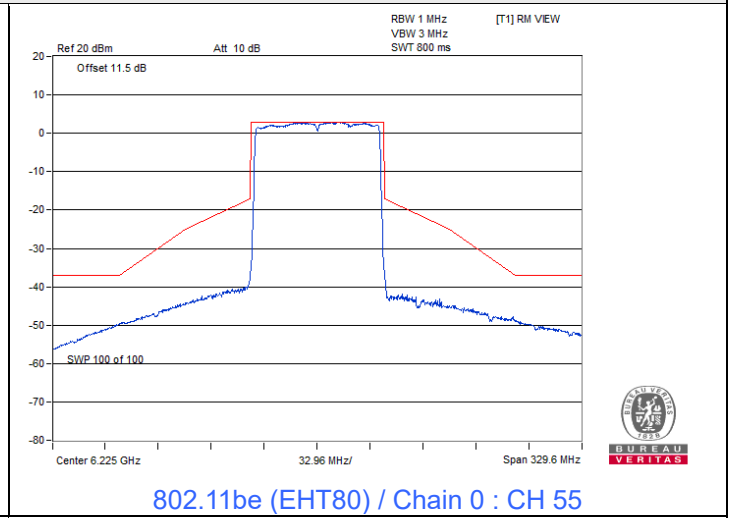
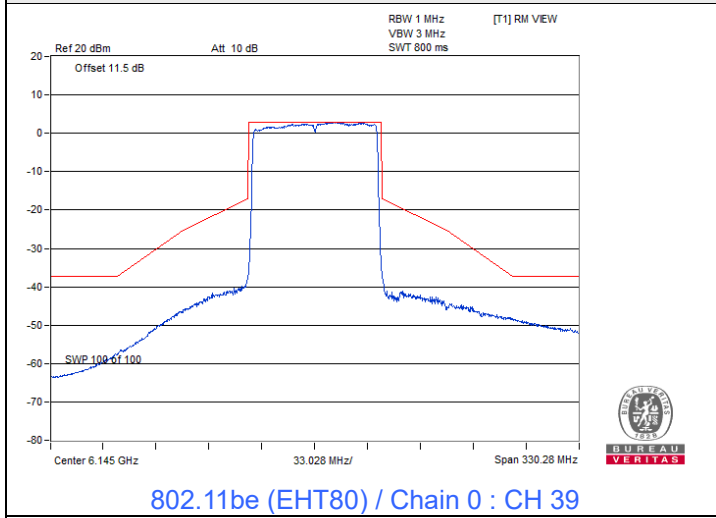


Spectrum Plot

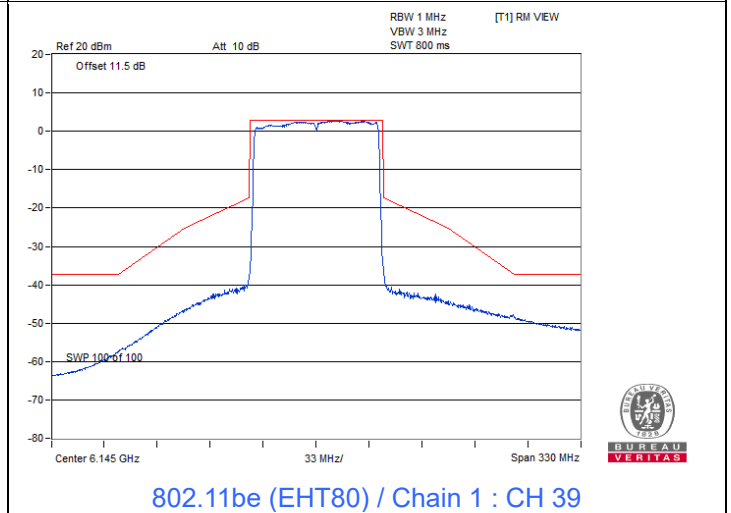
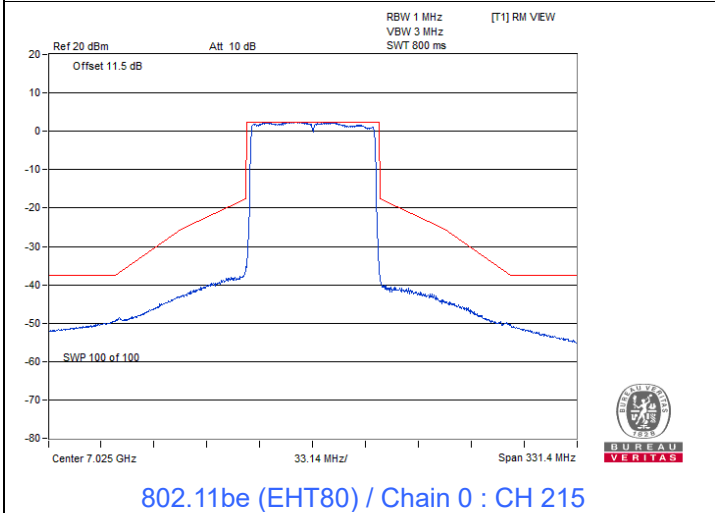
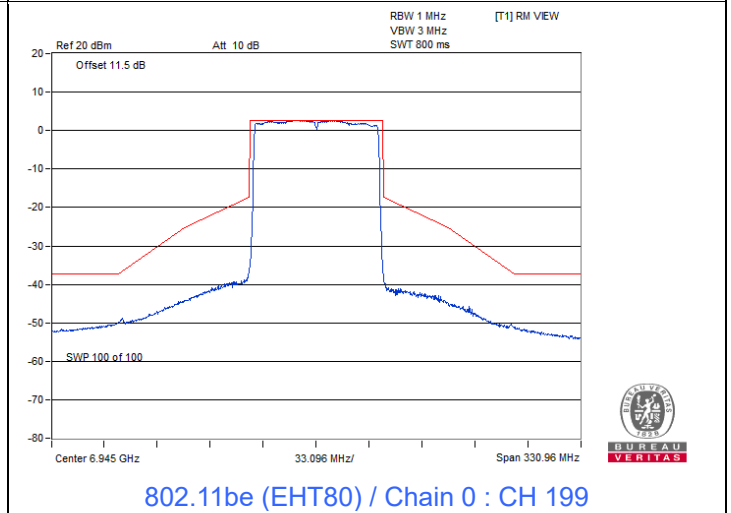
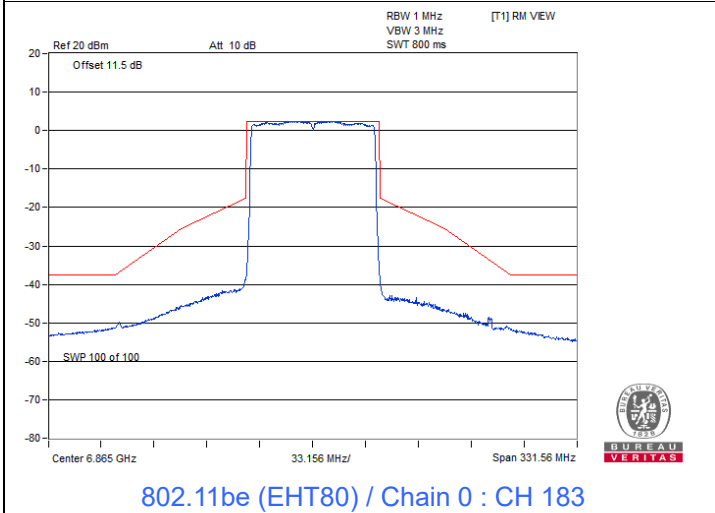
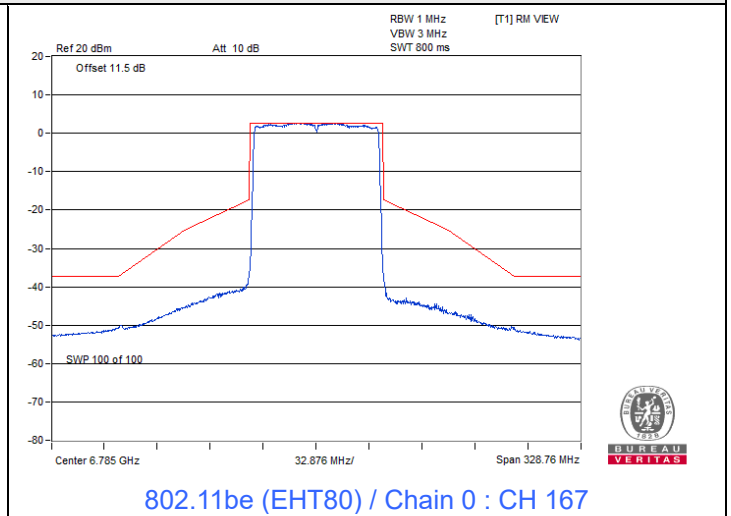
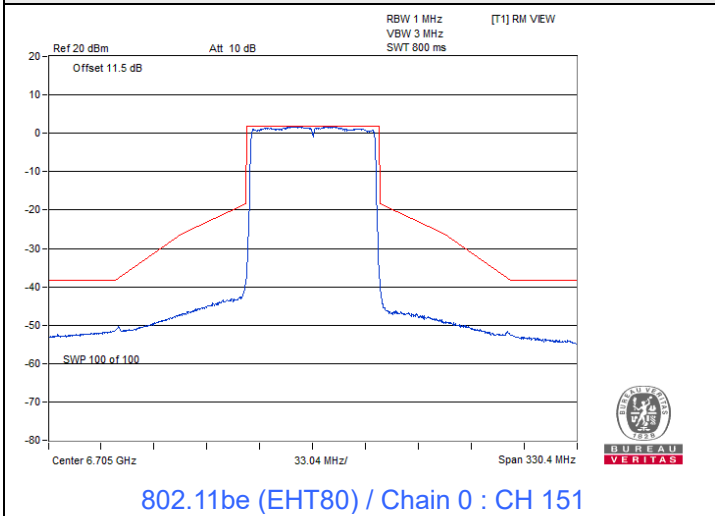


802.11be (EHT80)

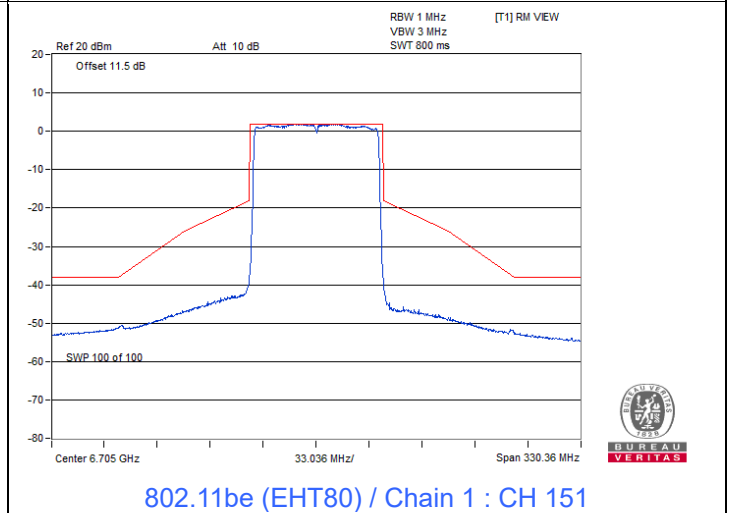
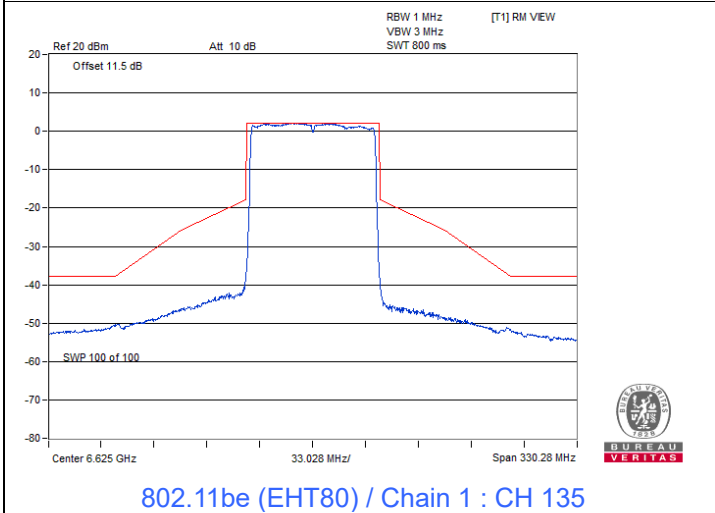
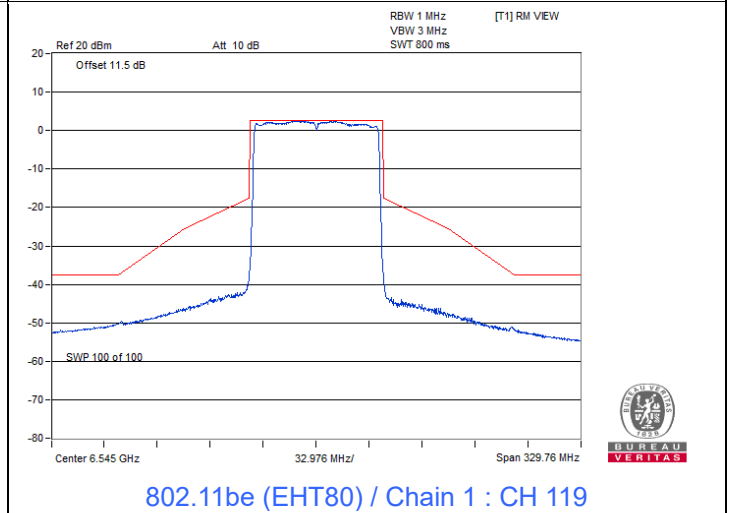
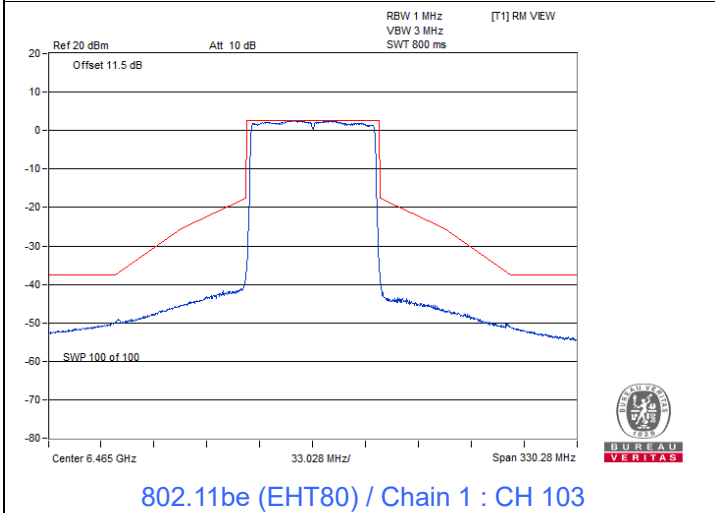
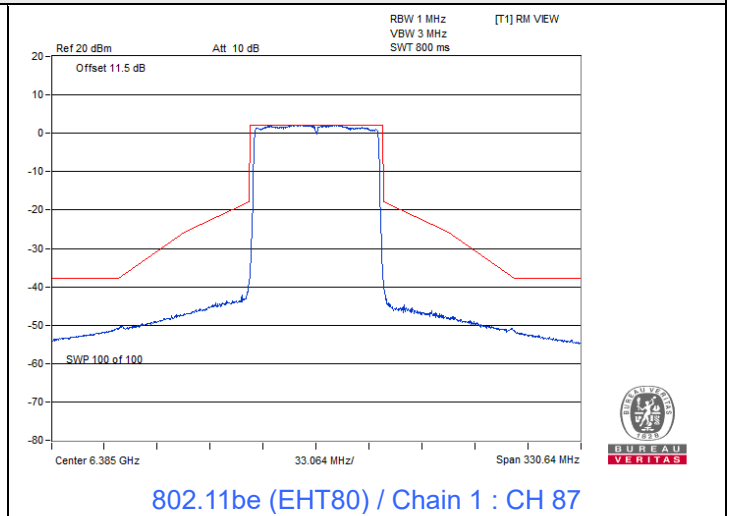
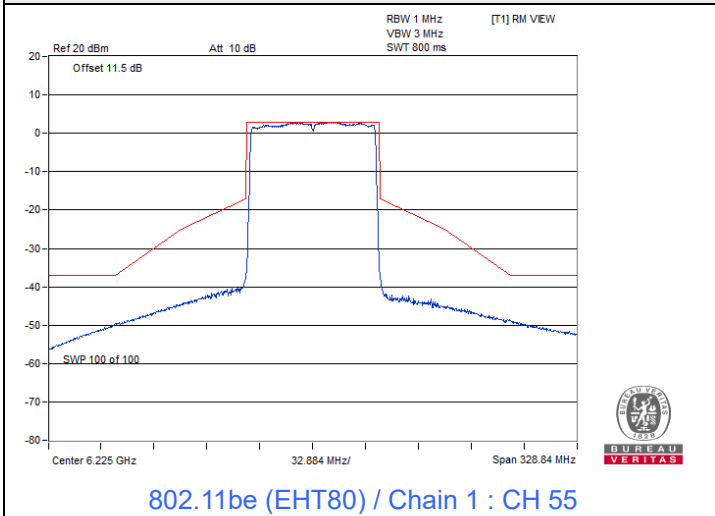
Spectrum Plot



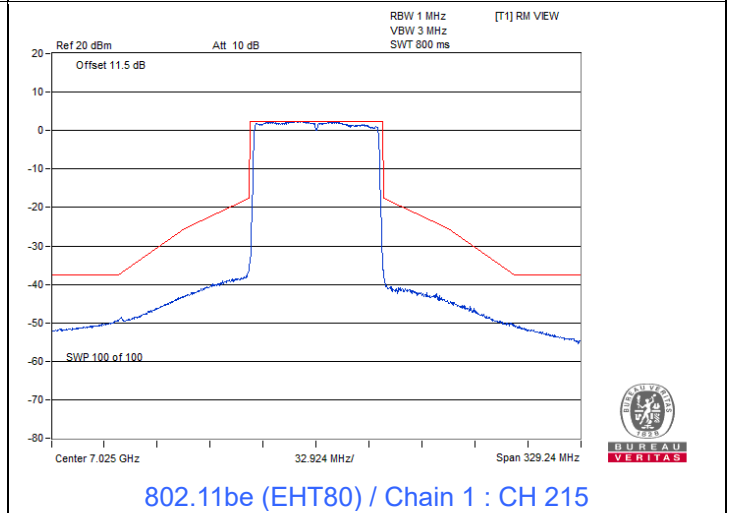
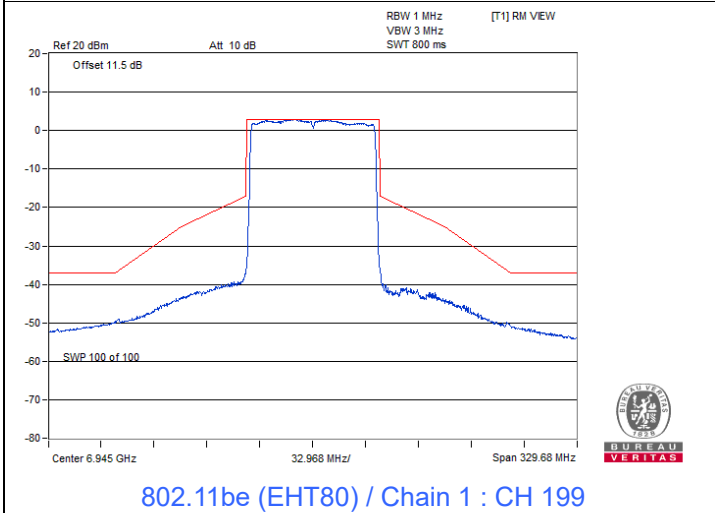
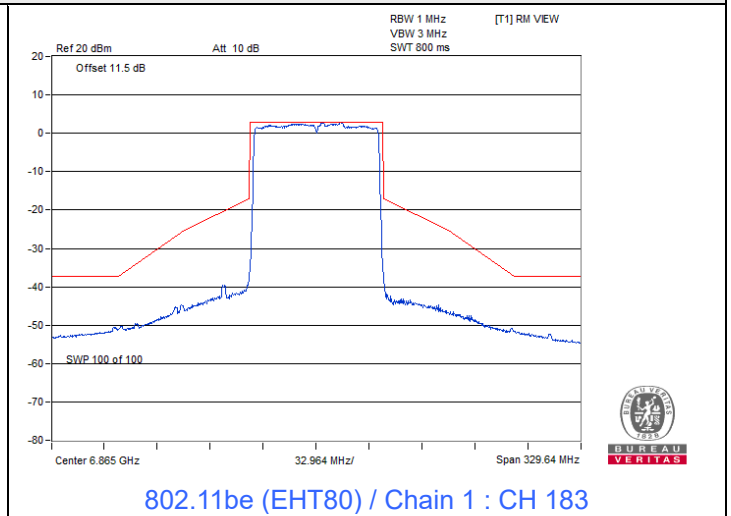
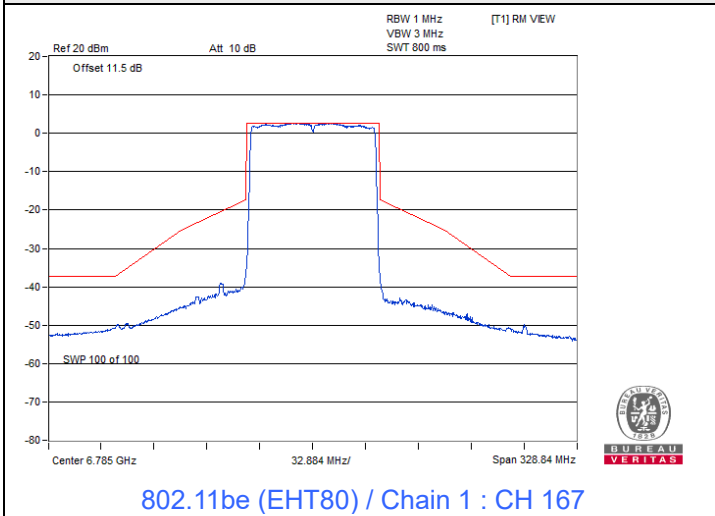
Spectrum Plot



Spectrum Plot

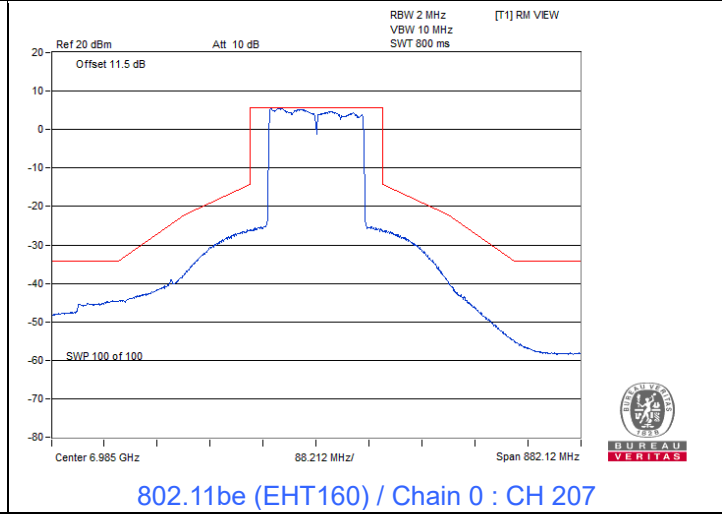
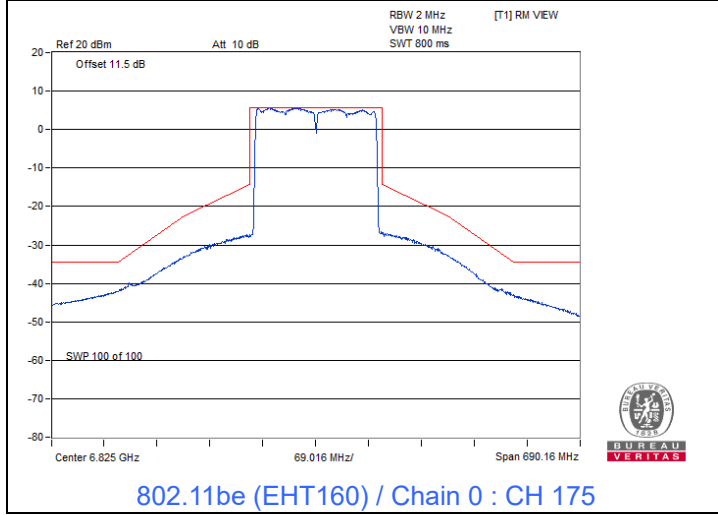
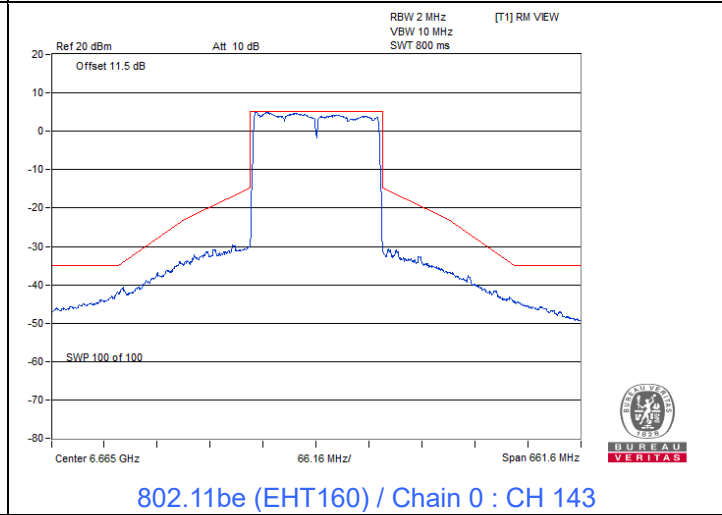
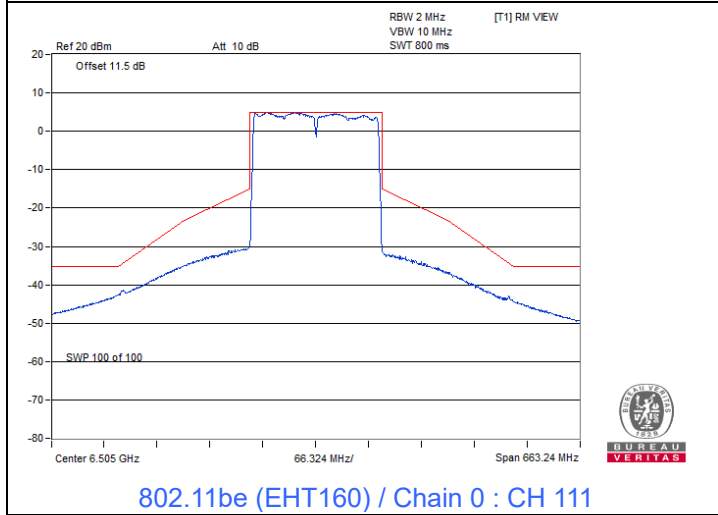
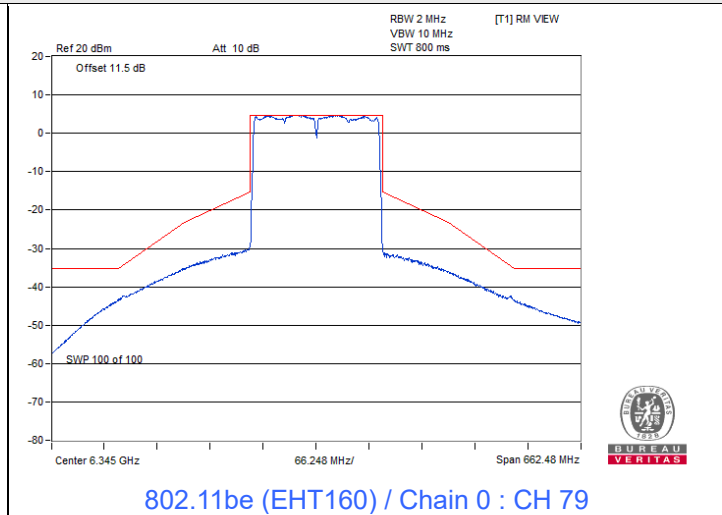
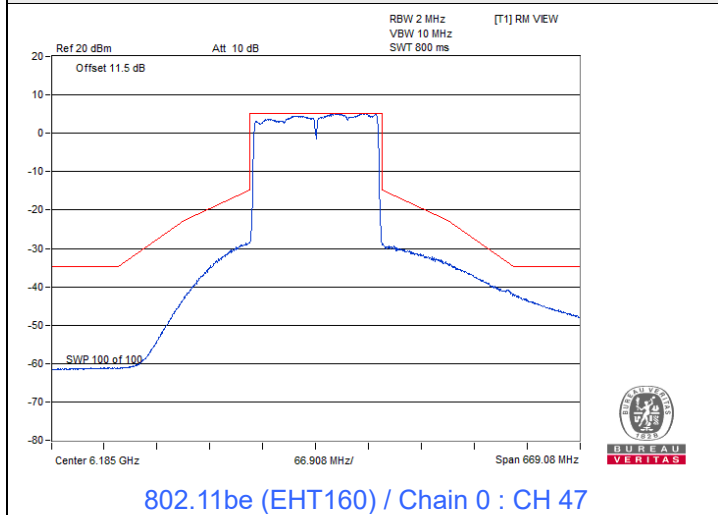


Spectrum Plot

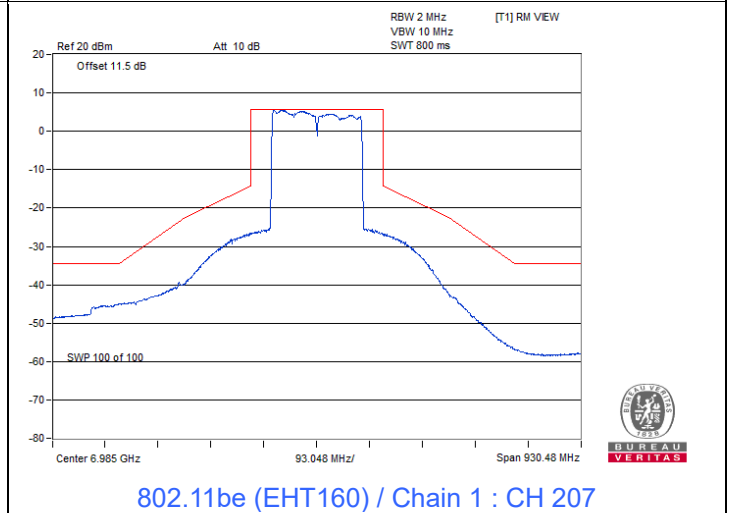
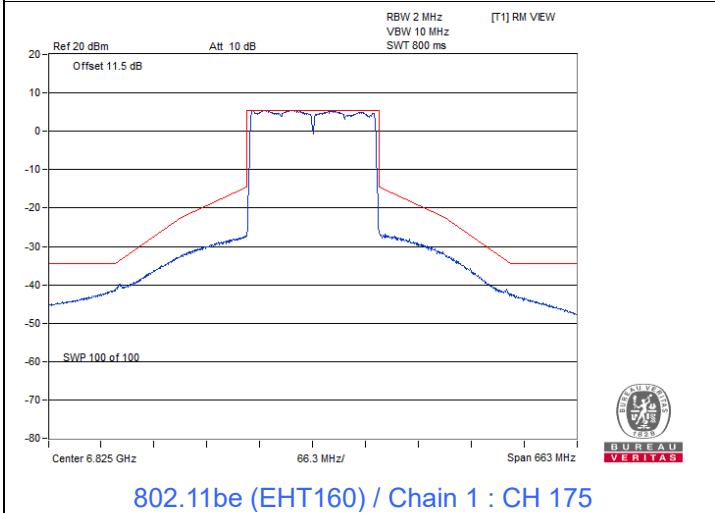
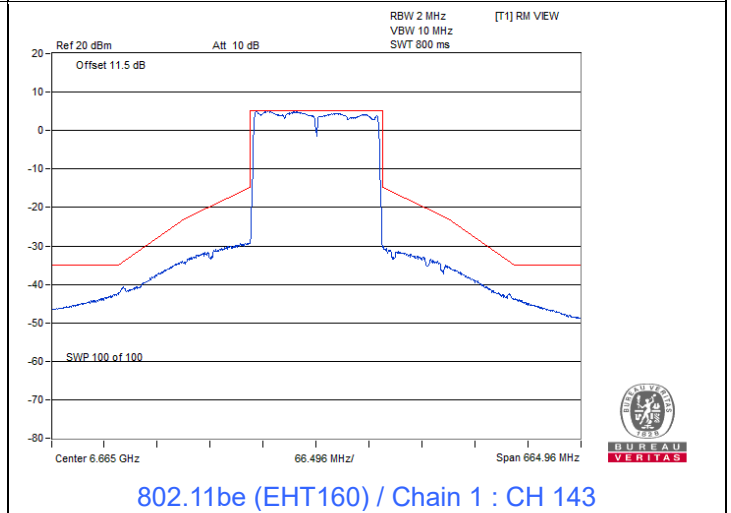
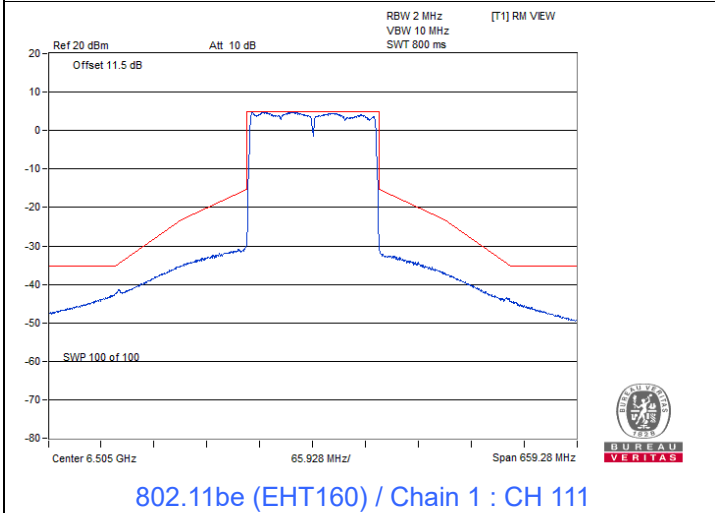
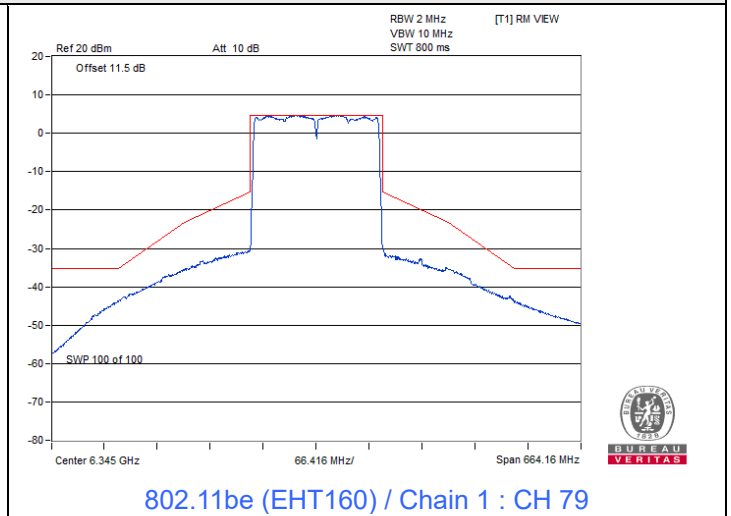
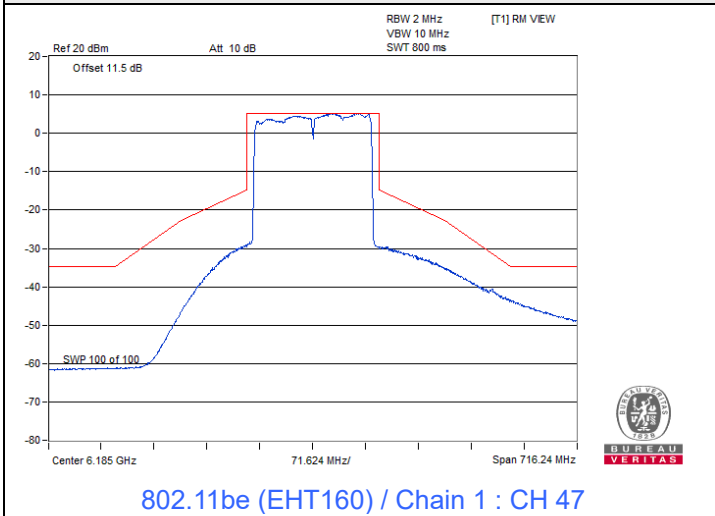


802.11be (EHT160)

Spectrum Plot

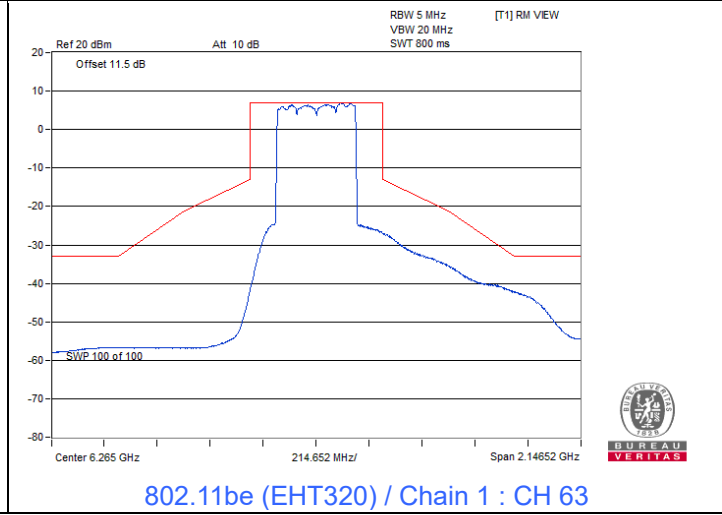
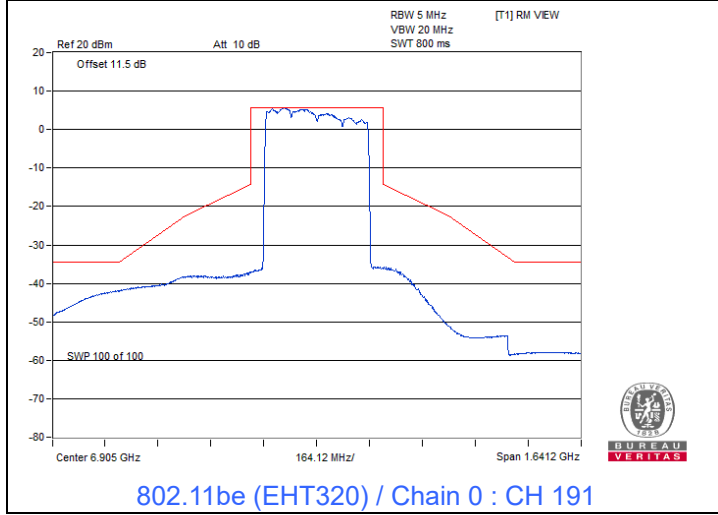
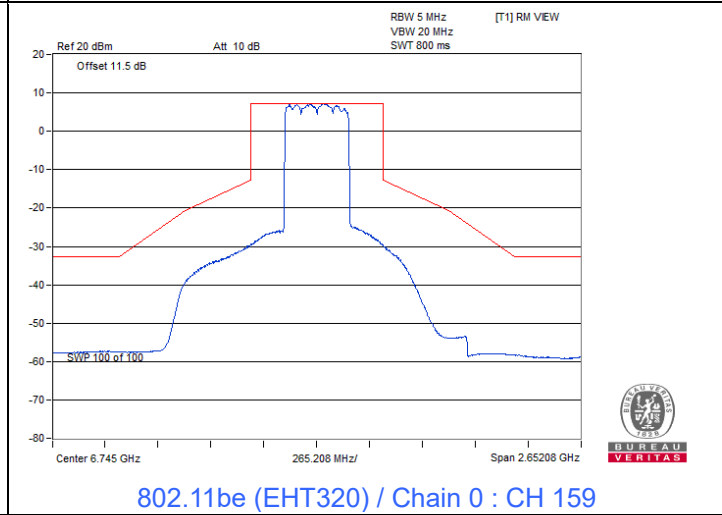
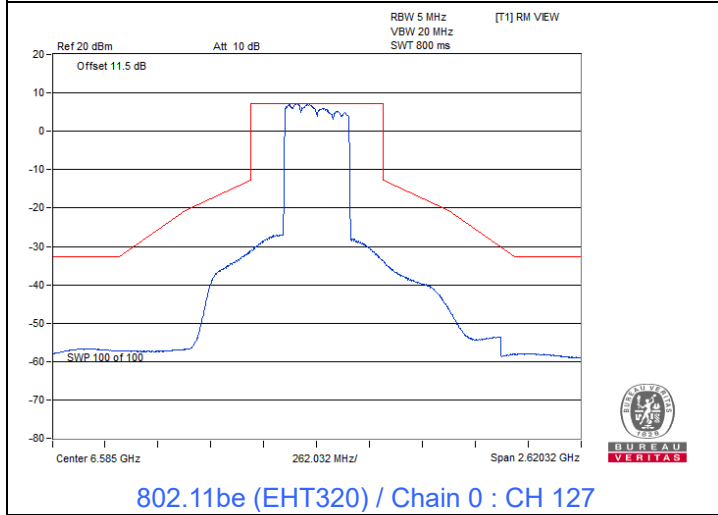
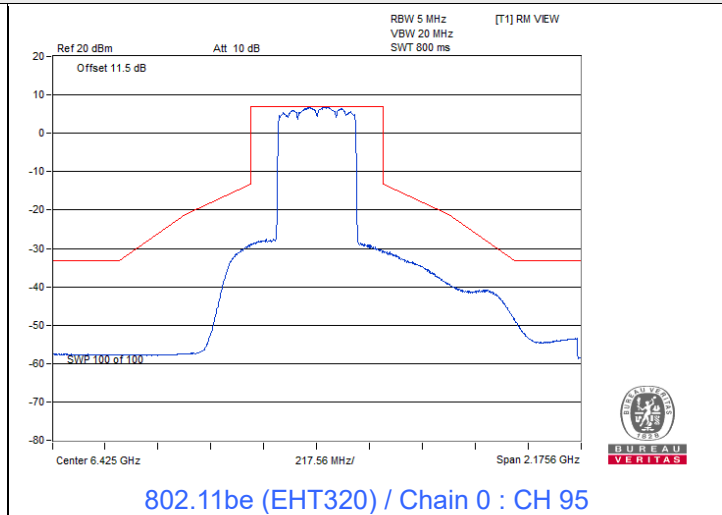
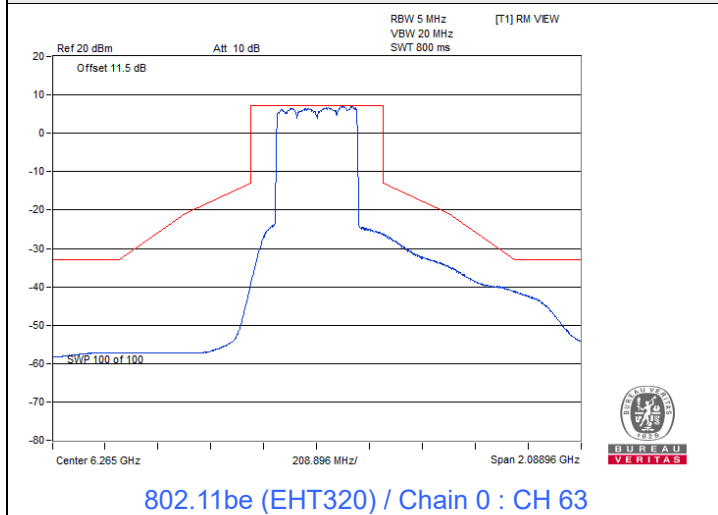


Spectrum Plot

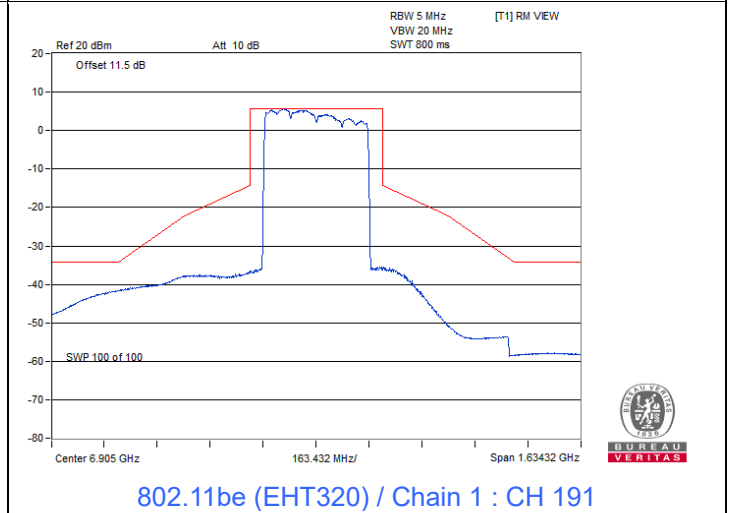
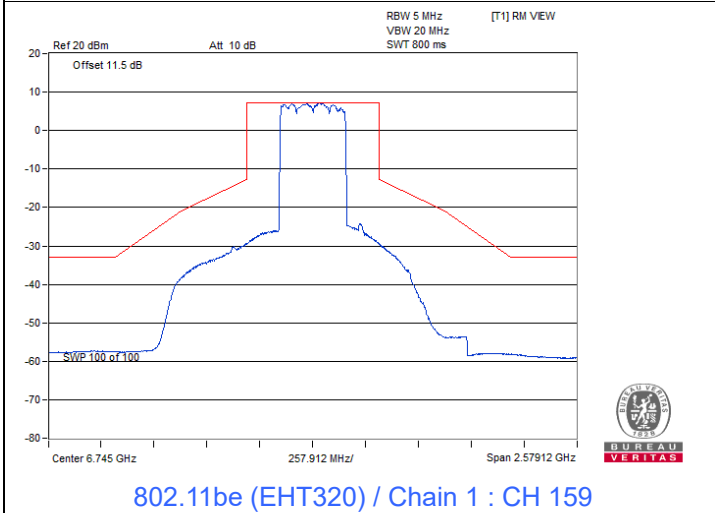
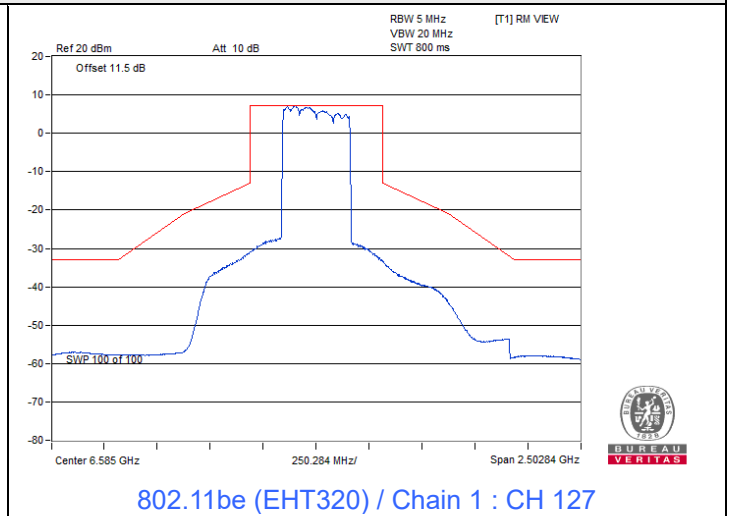
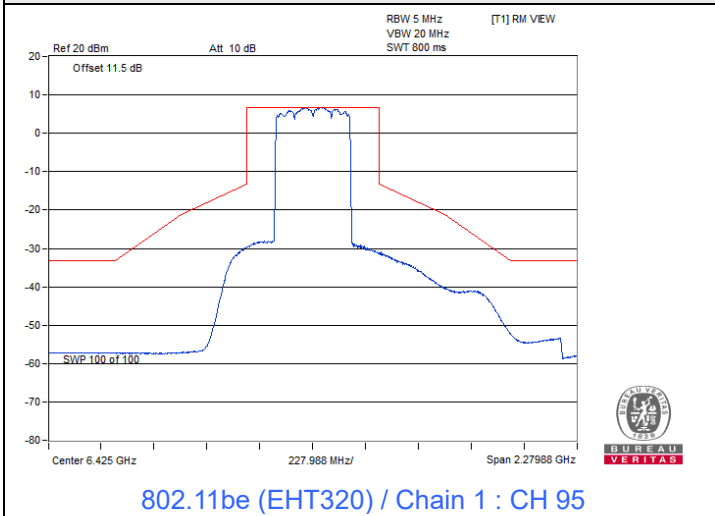


802.11be (EHT320)

Spectrum Plot



Spectrum Plot



7.5 Occupied Bandwidth

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Jisyong Wang
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NSS1

802.11a

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)		Maximum Limit (MHz)	Test Result
		Chain 0	Chain 1		
33	6115	17.10	17.16	320	Pass
61	6255	17.16	17.16	320	Pass
93	6415	17.10	17.16	320	Pass
97	6435	17.10	17.16	320	Pass
105	6475	17.16	17.16	320	Pass
113	6515	17.10	17.16	320	Pass
117	6535	17.10	17.10	320	Pass
149	6695	17.16	17.16	320	Pass
181	6855	17.16	17.10	320	Pass
185	6875	17.10	17.10	320	Pass
209	6995	17.10	17.10	320	Pass
229	7095	17.22	17.10	320	Pass
233	7115	17.10	17.22	320	Pass

802.11be (EHT20)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)		Maximum Limit (MHz)	Test Result
		Chain 0	Chain 1		
33	6115	19.14	19.14	320	Pass
61	6255	19.14	19.26	320	Pass
93	6415	19.20	19.14	320	Pass
97	6435	19.14	19.20	320	Pass
105	6475	19.14	19.20	320	Pass
113	6515	19.14	19.14	320	Pass
117	6535	19.20	19.14	320	Pass
149	6695	19.14	19.20	320	Pass
181	6855	19.14	19.26	320	Pass
185	6875	19.20	19.14	320	Pass
209	6995	19.14	19.14	320	Pass
229	7095	19.14	19.14	320	Pass
233	7115	19.14	19.14	320	Pass

802.11be (EHT40)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)		Maximum Limit (MHz)	Test Result
		Chain 0	Chain 1		
35	6125	38.04	38.16	320	Pass
59	6245	38.04	38.04	320	Pass
91	6405	37.92	38.04	320	Pass
99	6445	38.16	38.04	320	Pass
107	6485	37.92	38.16	320	Pass
115	6525	37.92	37.92	320	Pass
123	6565	37.20	38.16	320	Pass
155	6725	38.16	38.16	320	Pass
179	6845	38.04	38.04	320	Pass
187	6885	38.04	38.04	320	Pass
211	7005	38.04	37.92	320	Pass
227	7085	38.04	38.04	320	Pass

802.11be (EHT80)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)		Maximum Limit (MHz)	Test Result
		Chain 0	Chain 1		
39	6145	77.28	77.28	320	Pass
55	6225	77.28	77.28	320	Pass
87	6385	77.28	77.28	320	Pass
103	6465	77.52	77.28	320	Pass
119	6545	77.28	77.28	320	Pass
135	6625	77.28	77.28	320	Pass
151	6705	77.28	77.28	320	Pass
167	6785	77.28	77.28	320	Pass
183	6865	77.28	77.28	320	Pass
199	6945	77.28	77.28	320	Pass
215	7025	77.28	77.28	320	Pass

802.11be (EHT160)

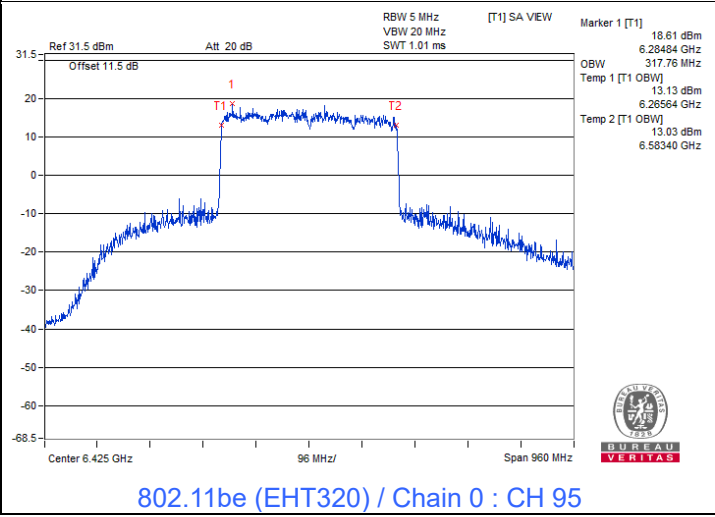
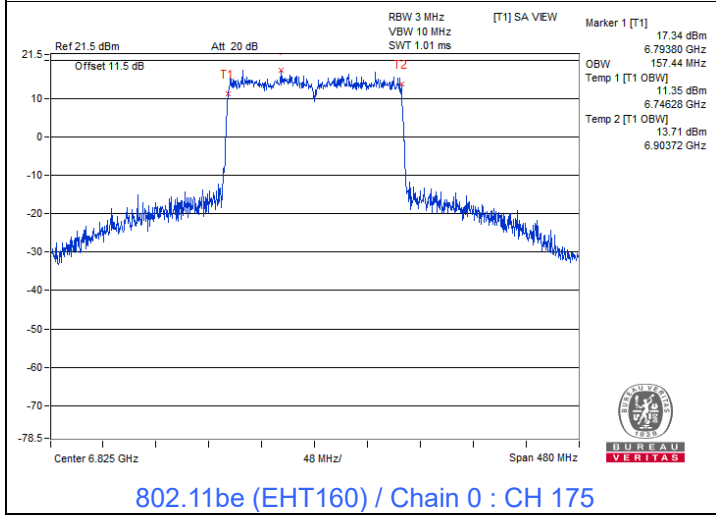
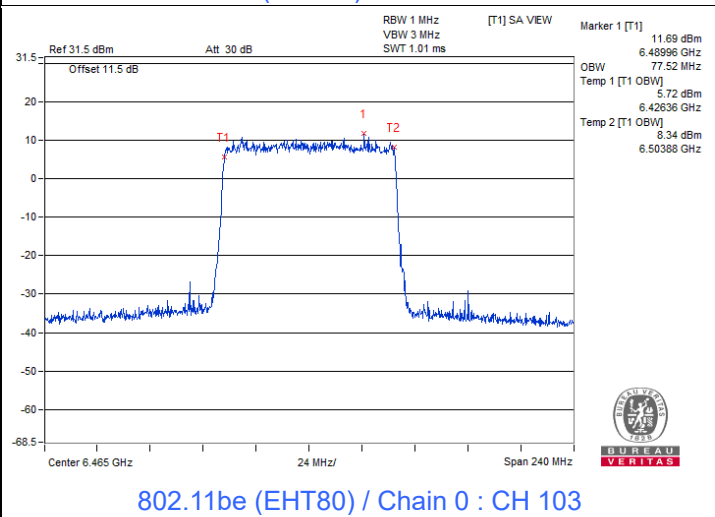
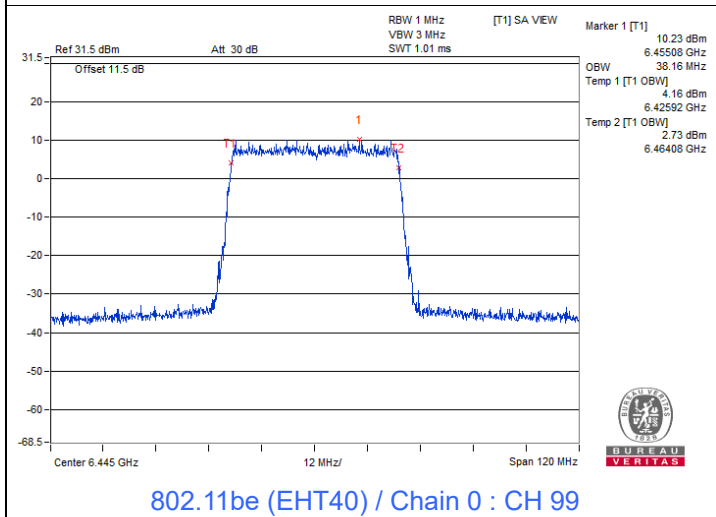
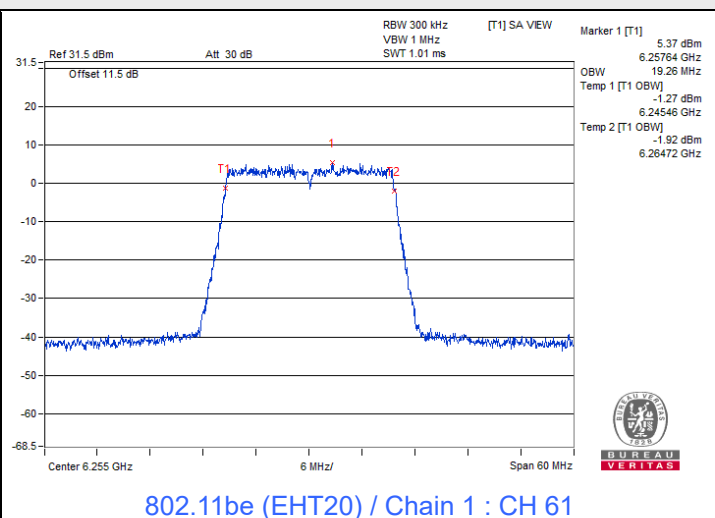
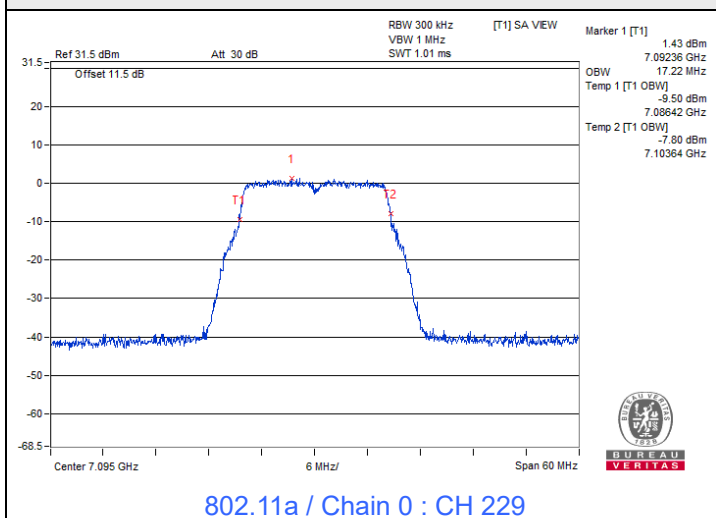
Channel	Frequency (MHz)	Occupied Bandwidth (MHz)		Maximum Limit (MHz)	Test Result
		Chain 0	Chain 1		
47	6185	156.96	156.96	320	Pass
79	6345	156.48	156.96	320	Pass
111	6505	156.96	156.96	320	Pass
143	6665	156.96	156.96	320	Pass
175	6825	157.44	156.96	320	Pass
207	6985	156.96	156.96	320	Pass

802.11be (EHT320)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)		Maximum Limit (MHz)	Test Result
		Chain 0	Chain 1		
63	6265	315.84	315.84	320	Pass
95	6425	317.76	316.80	320	Pass
127	6585	317.76	316.80	320	Pass
159	6745	317.76	317.76	320	Pass
191	6905	315.84	314.88	320	Pass



Spectrum Plot of Maximum Value



Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Jisyong Wang
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NSS2

802.11be (EHT20)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)		Maximum Limit (MHz)	Test Result
		Chain 0	Chain 1		
33	6115	19.20	19.20	320	Pass
61	6255	19.20	19.14	320	Pass
93	6415	19.14	19.20	320	Pass
97	6435	19.20	19.14	320	Pass
105	6475	19.14	19.20	320	Pass
113	6515	19.14	19.14	320	Pass
117	6535	19.14	19.14	320	Pass
149	6695	19.14	19.14	320	Pass
181	6855	19.20	19.26	320	Pass
185	6875	19.14	19.14	320	Pass
209	6995	19.14	19.14	320	Pass
229	7095	19.14	19.20	320	Pass
233	7115	19.20	19.08	320	Pass

802.11be (EHT40)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)		Maximum Limit (MHz)	Test Result
		Chain 0	Chain 1		
35	6125	38.04	38.04	320	Pass
59	6245	38.04	38.04	320	Pass
91	6405	38.04	38.04	320	Pass
99	6445	38.04	38.16	320	Pass
107	6485	38.04	38.04	320	Pass
115	6525	38.04	38.16	320	Pass
123	6565	37.92	37.92	320	Pass
155	6725	37.92	37.92	320	Pass
179	6845	38.04	37.92	320	Pass
187	6885	38.16	38.04	320	Pass
211	7005	38.04	38.04	320	Pass
227	7085	37.92	37.92	320	Pass

802.11be (EHT80)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)		Maximum Limit (MHz)	Test Result
		Chain 0	Chain 1		
39	6145	77.28	77.52	320	Pass
55	6225	77.52	77.28	320	Pass
87	6385	77.28	77.28	320	Pass
103	6465	77.28	77.52	320	Pass
119	6545	77.28	77.28	320	Pass
135	6625	77.28	77.28	320	Pass
151	6705	77.28	77.28	320	Pass
167	6785	77.28	77.52	320	Pass
183	6865	77.28	77.28	320	Pass
199	6945	77.28	77.28	320	Pass
215	7025	77.28	77.52	320	Pass

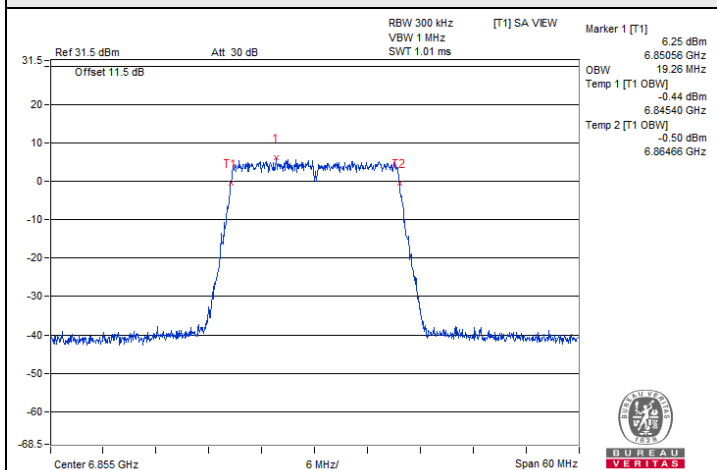
802.11be (EHT160)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)		Maximum Limit (MHz)	Test Result
		Chain 0	Chain 1		
47	6185	156.96	156.96	320	Pass
79	6345	156.96	156.96	320	Pass
111	6505	156.96	156.96	320	Pass
143	6665	156.96	156.96	320	Pass
175	6825	156.96	156.96	320	Pass
207	6985	157.92	157.92	320	Pass

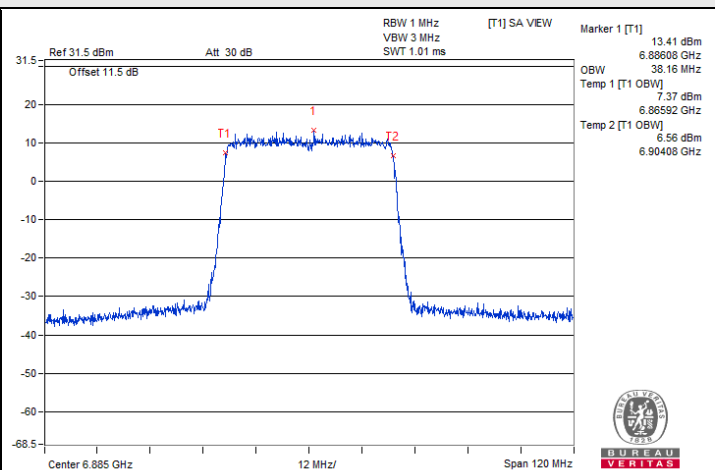
802.11be (EHT320)

Channel	Frequency (MHz)	Occupied Bandwidth (MHz)		Maximum Limit (MHz)	Test Result
		Chain 0	Chain 1		
63	6265	315.84	316.80	320	Pass
95	6425	317.76	317.76	320	Pass
127	6585	318.72	317.76	320	Pass
159	6745	319.68	319.68	320	Pass
191	6905	314.88	315.84	320	Pass

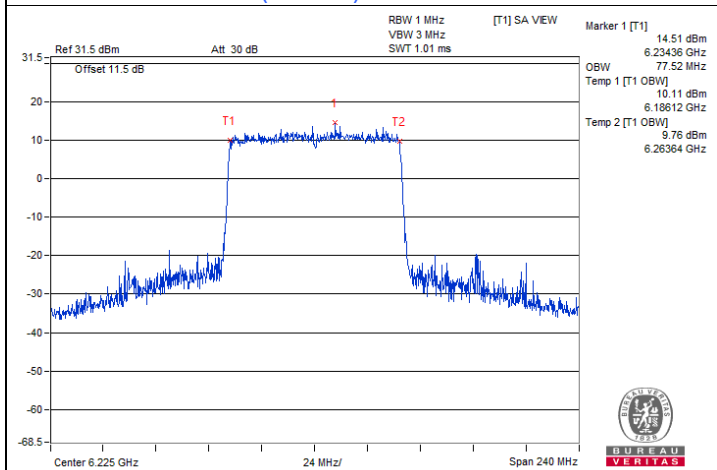
Spectrum Plot of Maximum Value



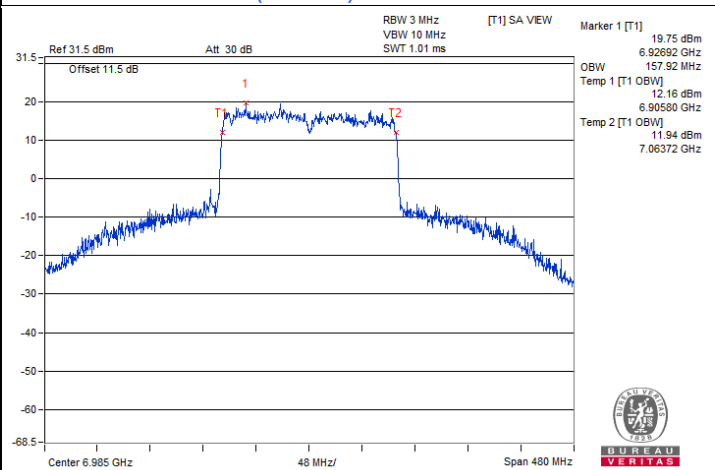
802.11be (EHT20) / Chain 1 : CH 181



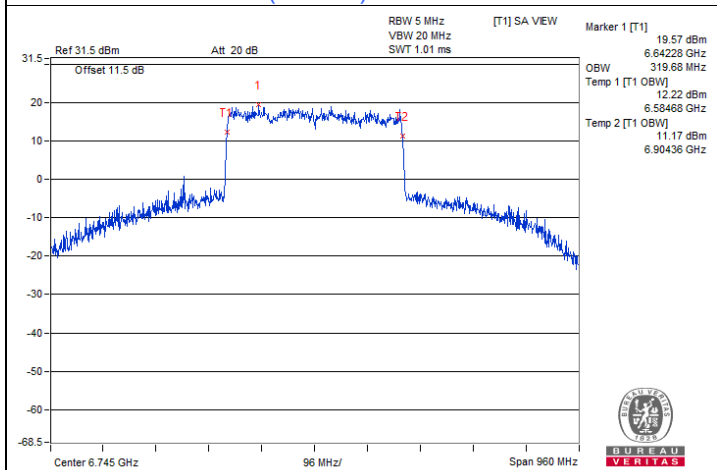
802.11be (EHT40) / Chain 0 : CH 187



802.11be (EHT80) / Chain 0 : CH 55



802.11be (EHT160) / Chain 0 : CH 207



802.11be (EHT320) / Chain 0 : CH 159

7.6 Frequency Stability

Input Power:	120 Vac, 60 Hz	Environmental Conditions:	25°C, 60% RH	Tested By:	Jisyong Wang
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Frequency Stability Versus Temperature									
Operating Frequency: 6115 MHz									
Temp. (°C)	Power Supply (Vac)	0 Minute		2 Minutes		5 Minutes		10 Minutes	
		Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result
40	120	6115.0327	Pass	6115.033	Pass	6115.0293	Pass	6115.0282	Pass
30	120	6115.0284	Pass	6115.0296	Pass	6115.0276	Pass	6115.0276	Pass
20	120	6115.0234	Pass	6115.0217	Pass	6115.0243	Pass	6115.0197	Pass
10	120	6114.9893	Pass	6114.9852	Pass	6114.9897	Pass	6114.9841	Pass
0	120	6115.003	Pass	6115.0043	Pass	6115.0036	Pass	6115.0058	Pass

Frequency Stability Versus Voltage									
Operating Frequency: 6115 MHz									
Temp. (°C)	Power Supply (Vac)	0 Minute		2 Minutes		5 Minutes		10 Minutes	
		Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result	Measured Frequency (MHz)	Test Result
20	138	6115.0271	Pass	6115.0297	Pass	6115.0264	Pass	6115.0271	Pass
	120	6115.0234	Pass	6115.0217	Pass	6115.0243	Pass	6115.0197	Pass
	102	6115.0126	Pass	6115.013	Pass	6115.0147	Pass	6115.0112	Pass

7.7 Contention-based Protocol

Environmental Conditions:	25°C, 60% RH	Tested By:	Stan Shih
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Companion Device Information			
Product	Brand	Model No.	Software/Firmware Version
NIGHTHAWK BE9300 WiFi 7 Router	NETGEAR	RS300	V1.0.0.7 Broadcom BCA: 17.10 RC369.21 w/0: Nov 27 2023 11:39:07 version 17.10.369.21 (r833275 WLTEST) (I)

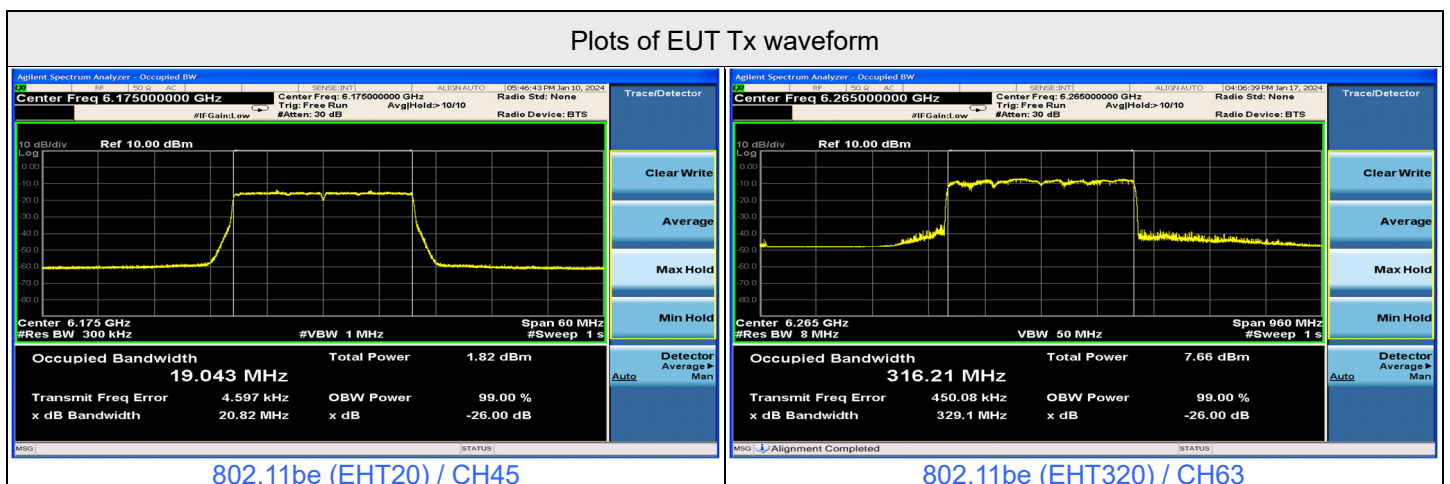


Contention Based Protocol Measurement										
Operation Mode	Channel Bandwidth (MHz)	Channel Number	Channel Freq. (MHz)	Injected Signal (AWGN)		Antenna Gain (dBi)	Path Loss (dB) (Note 3)	Adjusted Power (dBm)	Detection Limit	EUT TX Status
				Freq. (MHz)	Power (dBm)					
802.11be	20	45	6175	6175	-68	3.52	0	-71.52	-62	OFF
					-71	3.52	0	-74.52	-62	Minimal
					-78.48	3.52	0	-82	-62	ON
	320	63	6265	6110	-70	3.52	0	-73.52	-62	OFF
					-72	3.52	0	-75.52	-62	Minimal
					-78.48	3.52	0	-82	-62	ON
	6420	63	6265	6420	-66	3.52	0	-69.52	-62	OFF
					-69	3.52	0	-72.52	-62	Minimal
					-78.48	3.52	0	-82	-62	ON
					-70	3.52	0	-73.52	-62	OFF
					-72	3.52	0	-75.52	-62	Minimal
					-78.48	3.52	0	-82	-62	ON

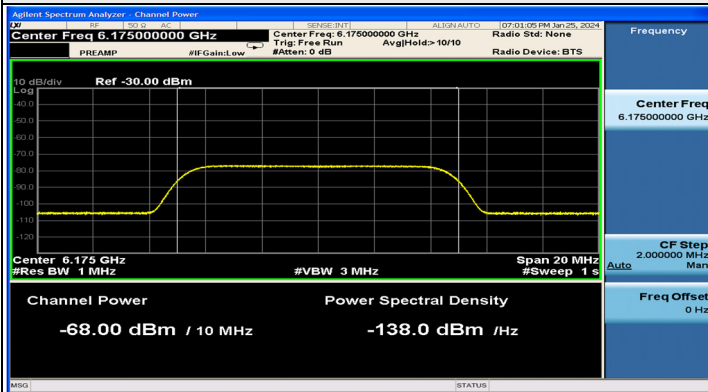
Notes:

1. After investigation (consider antenna gain and path loss), the one representative port (Chain 1) was measured and presented in the report.
2. Adjusted Power (dBm) = Injected Signal (AWGN) Power (dBm) - Antenna Gain (dBi) + Path Loss (dB)
3. Antenna gain values include all the applicable path losses.
4. The EUT device modulation technique OFDMA does not support partial RUs (resource units) and channel puncturing/bandwidth reduction mechanisms.

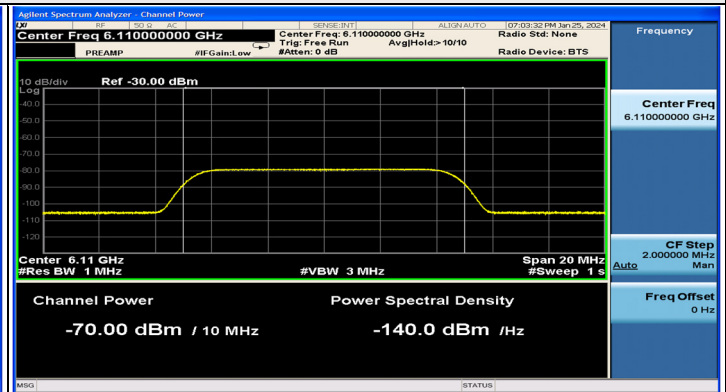
Contention Based Protocol Detection Probability															
Operation Mode	Channel Bandwidth (MHz)	AWGN Signal Freq. (MHz)	#01	#02	#03	#04	#05	#06	#07	#08	#09	#10	Detection Probability	Detection Limit	Test Result
			802.11be	20	6175	v	v	v	v	v	v	v			
802.11be	320	6110	v	v	v	v	v	v	v	v	v	v	100%	90%	Pass
		6265	v	v	v	v	v	v	v	v	v	v	100%	90%	Pass
		6420	v	v	v	v	v	v	v	v	v	v	v	100%	90%



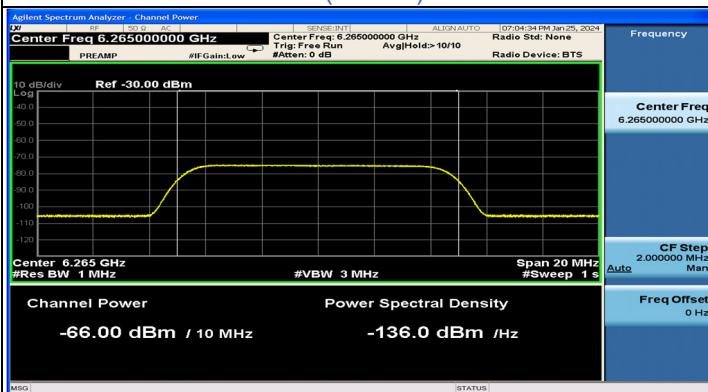
Plots of Injected signal (AWGN) level



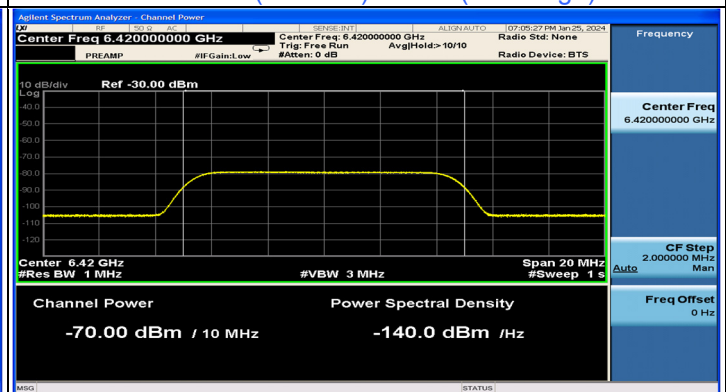
802.11be (EHT20) / CH45



802.11be (EHT320) / CH63(Low Edge)

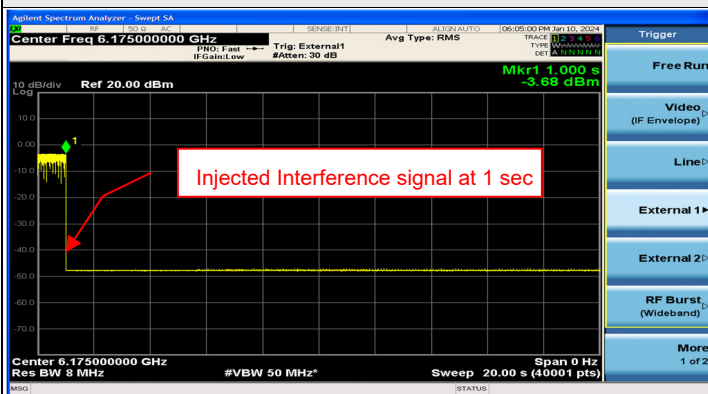


802.11be (EHT320) / CH63(Middle)

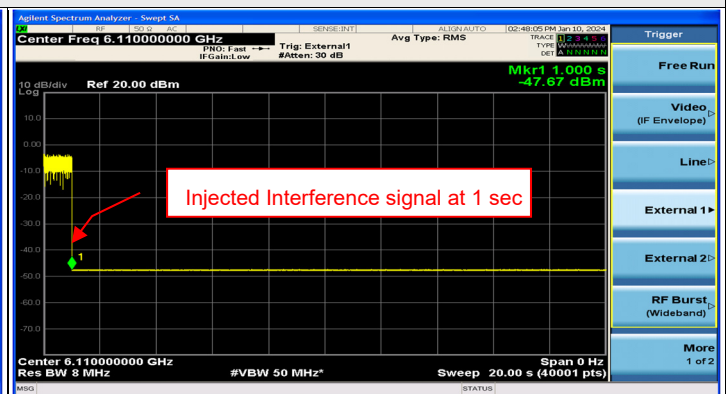


802.11be (EHT320) / CH63(High Edge)

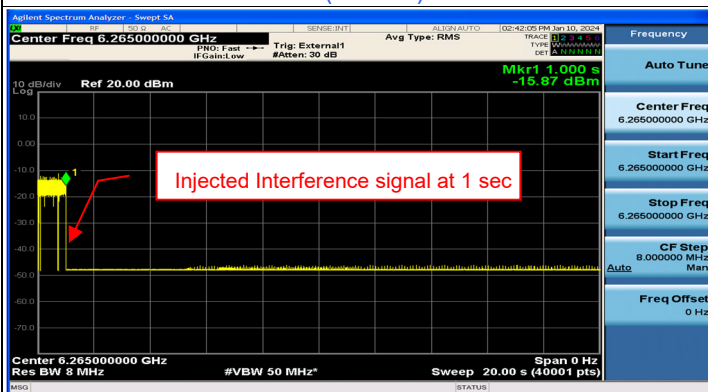
Plots of EUT ceased transmission in the time domain



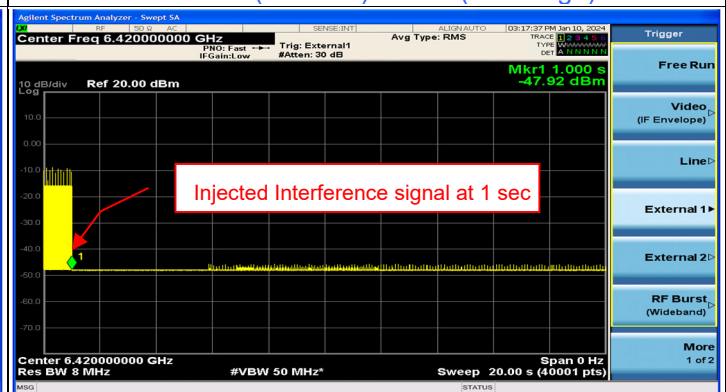
802.11be (EHT20) / CH45



802.11be (EHT320) / CH63(Low Edge)



802.11be (EHT320) / CH63(Middle)



802.11be (EHT320) / CH63(High Edge)



Contention Based Protocol Measurement										
Operation Mode	Channel Bandwidth (MHz)	Channel Number	Channel Freq. (MHz)	Injected Signal (AWGN)		Antenna Gain (dBi)	Path Loss (dB) (Note 3)	Adjusted Power (dBm)	Detection Limit	EUT TX Status
				Freq. (MHz)	Power (dBm)					
802.11be	20	105	6475	6475	-68	3.52	0	-71.52	-62	OFF
					-72	3.52	0	-75.52	-62	Minimal
					-78.48	3.52	0	-82	-62	ON
				6270	-65	3.52	0	-68.52	-62	OFF
					-68	3.52	0	-71.52	-62	Minimal
					-78.48	3.52	0	-82	-62	ON
	320	95	6425	6425	-65	3.52	0	-68.52	-62	OFF
					-72	3.52	0	-75.52	-62	Minimal
					-78.48	3.52	0	-82	-62	ON
				6580	-64	3.52	0	-67.52	-62	OFF
					-68	3.52	0	-71.52	-62	Minimal
					-78.48	3.52	0	-82	-62	ON

Notes:

1. After investigation (consider antenna gain and path loss), the one representative port (Chain 1) was measured and presented in the report.
2. Adjusted Power (dBm) = Injected Signal (AWGN) Power (dBm) - Antenna Gain (dBi) + Path Loss (dB)
3. Antenna gain values include all the applicable path losses.
4. The EUT device modulation technique OFDMA does not support partial RUs (resource units) and channel puncturing/bandwidth reduction mechanisms.

Contention Based Protocol Detection Probability															
Operation Mode	Channel Bandwidth (MHz)	AWGN Signal Freq. (MHz)	#01	#02	#03	#04	#05	#06	#07	#08	#09	#10	Detection Probability	Detection Limit	Test Result
802.11be	20	6475	v	v	v	v	v	v	v	v	v	v	100%	90%	Pass
	320	6270	v	v	v	v	v	v	v	v	v	v	100%	90%	Pass
		6425	v	v	v	v	v	v	v	v	v	v	100%	90%	Pass
		6580	v	v	v	v	v	v	v	v	v	v	100%	90%	Pass

