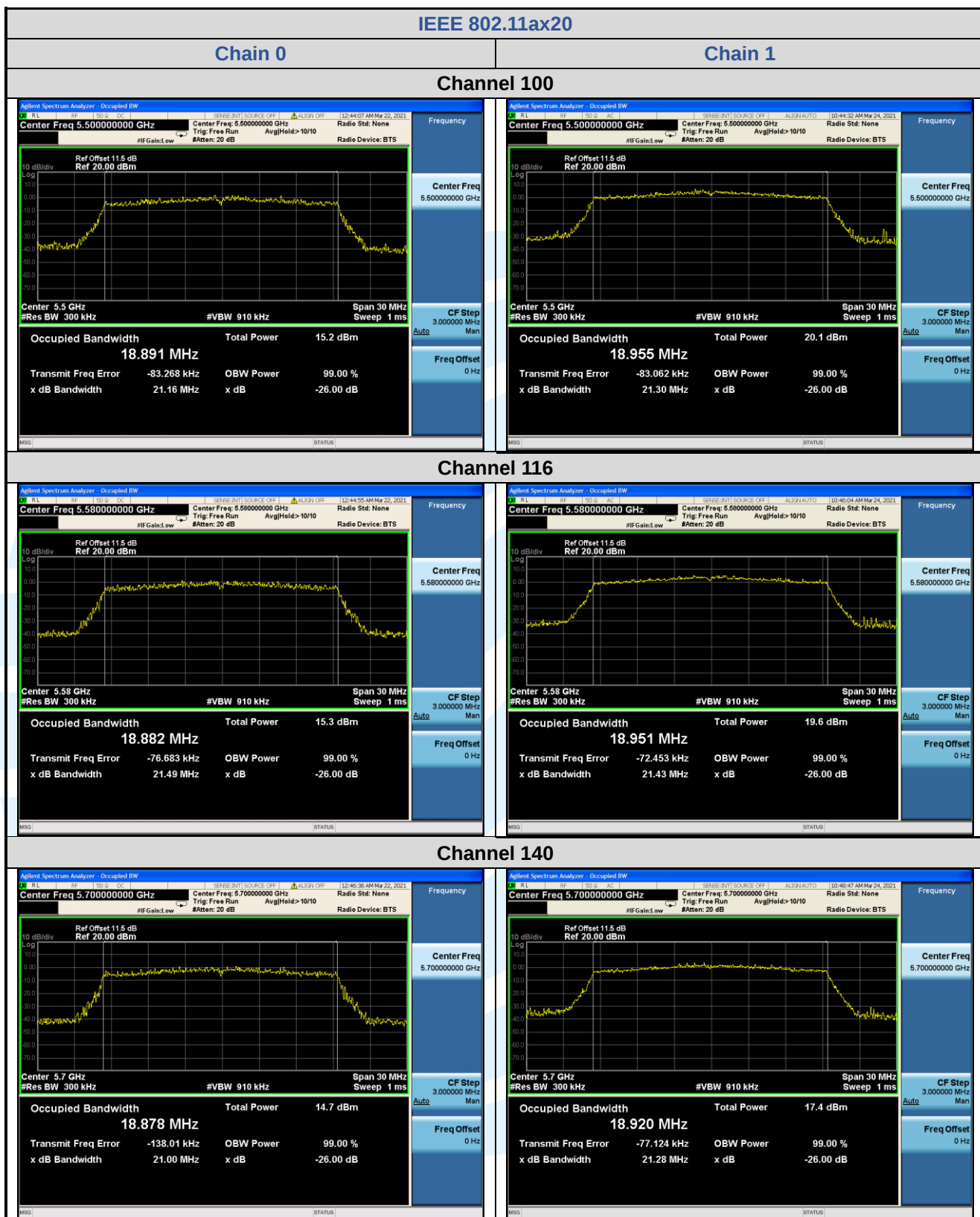
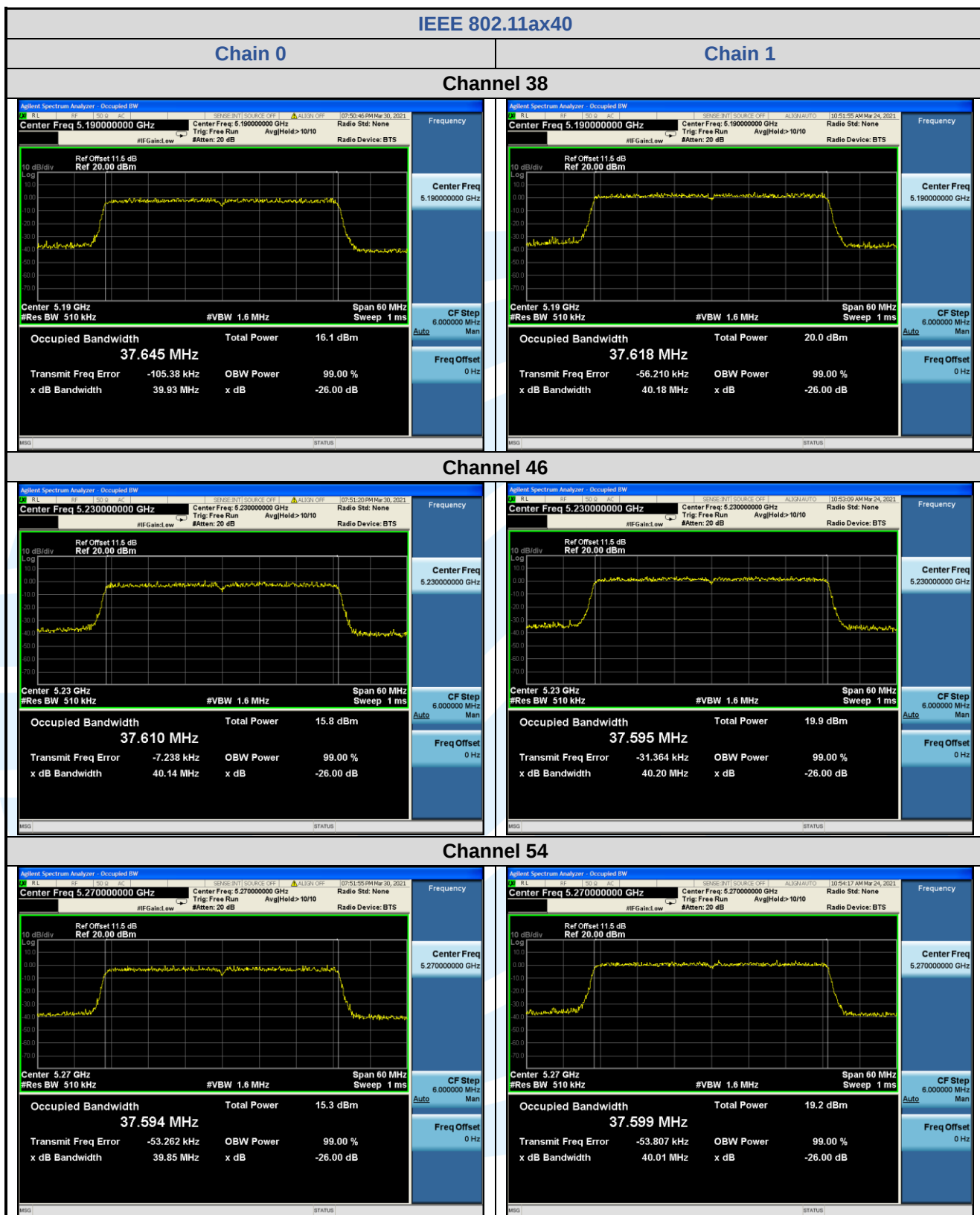
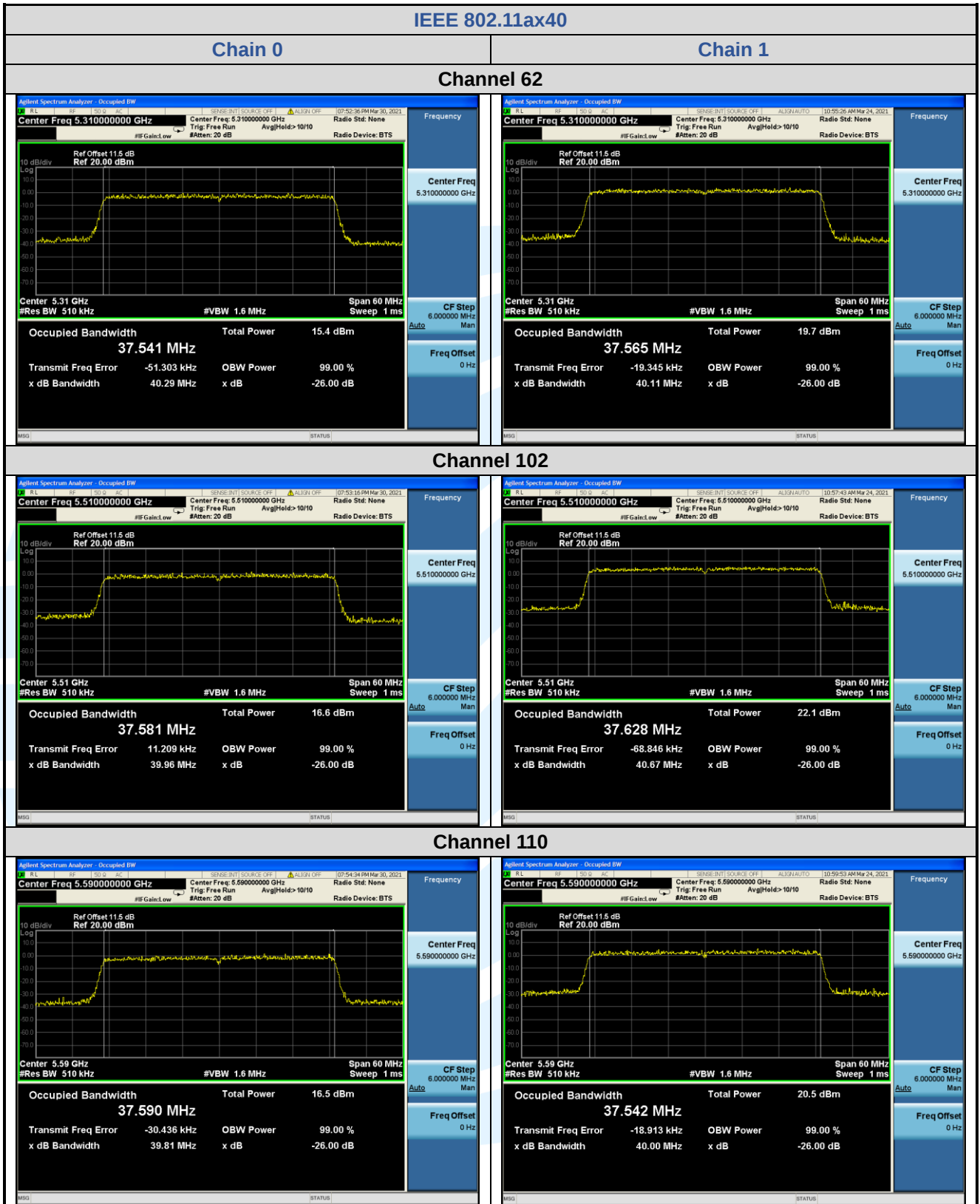
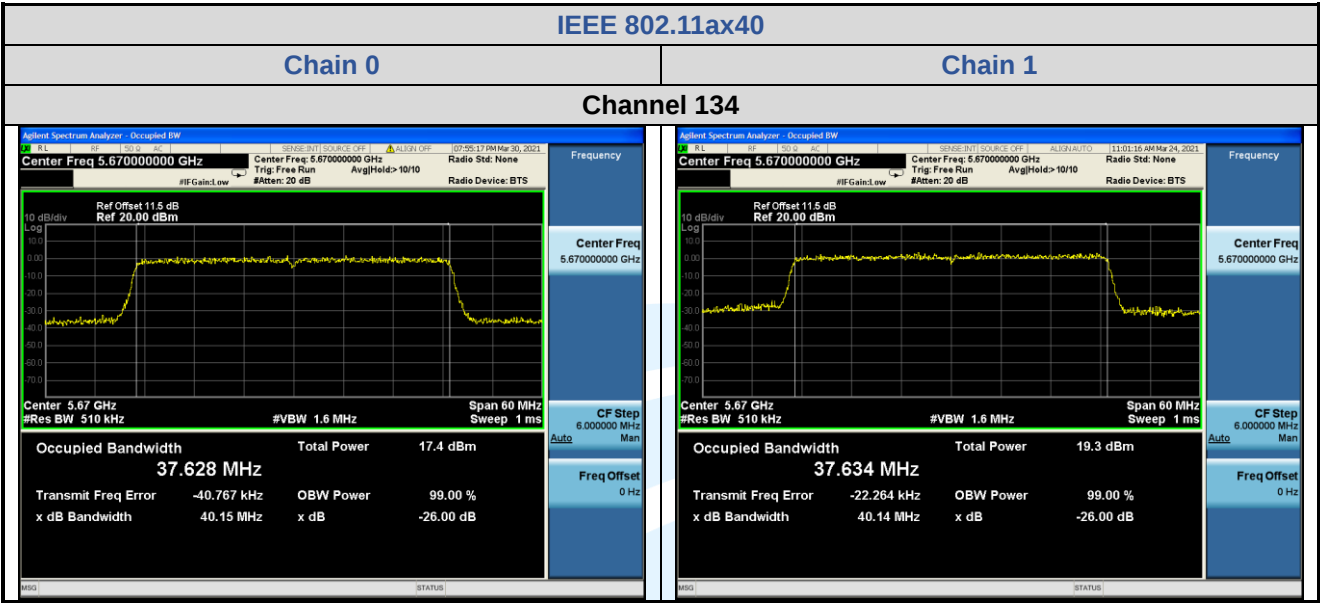




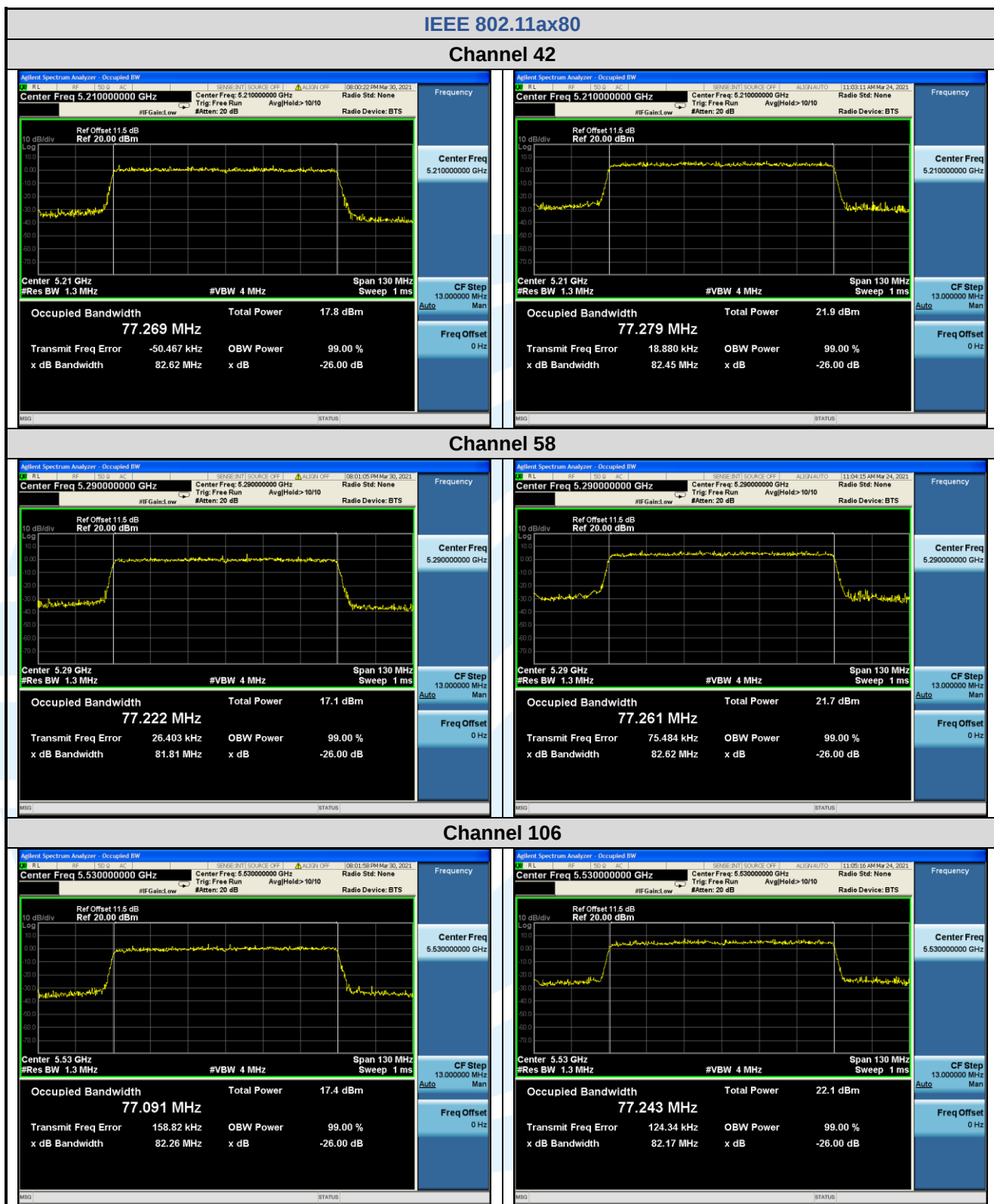






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UTTR-RF-RSS247-V1.1



5.46 DB BANDWIDTH & OCCUPIED BANDWIDTH

Test Requirement: FCC 47 CFR Part 15 Subpart E Section 15.407 (e)
RSS-247 Issue 2 Section 6.2.4.1

Test Method: KDB 789033 D02 v02r01 Section C.2

Limit: Within the 5.725-5.85 GHz band, the minimum 6 dB bandwidth of U-NII devices shall be at least 500 kHz.

Test Procedure:

The output from the transmitter was connected to an attenuator and then to the input of the RF Spectrum Analyzer.

Spectrum analyzer according to the following Settings:

6dB Bandwidth

- a) Set RBW = 100 kHz.
- b) Set the video bandwidth (VBW) $\geq 3 * \text{RBW}$.
- c) Detector = Peak.
- d) Trace mode = max hold.
- e) Sweep = auto couple.
- f) Allow the trace to stabilize.
- g) Measure the maximum width of the emission that is constrained by the frequencies associated with the two outermost amplitude points (upper and lower frequencies) that are attenuated by 6 dB relative to the maximum level measured in the fundamental emission.

Occupied Bandwidth

- a) Set RBW = 1% to 5% of the occupied bandwidth
- b) Set the video bandwidth (VBW) $\geq 3 \times \text{RBW}$.
- c) Detector = Peak.
- d) Trace mode = max hold.
- e) Sweep = auto couple.
- f) Allow the trace to stabilize.

Note: The cable loss and attenuator loss were offset into measure device as an amplitude offset.

Test Setup: Refer to section 4.5.3 for details.

Instruments Used: Refer to section 3 for details

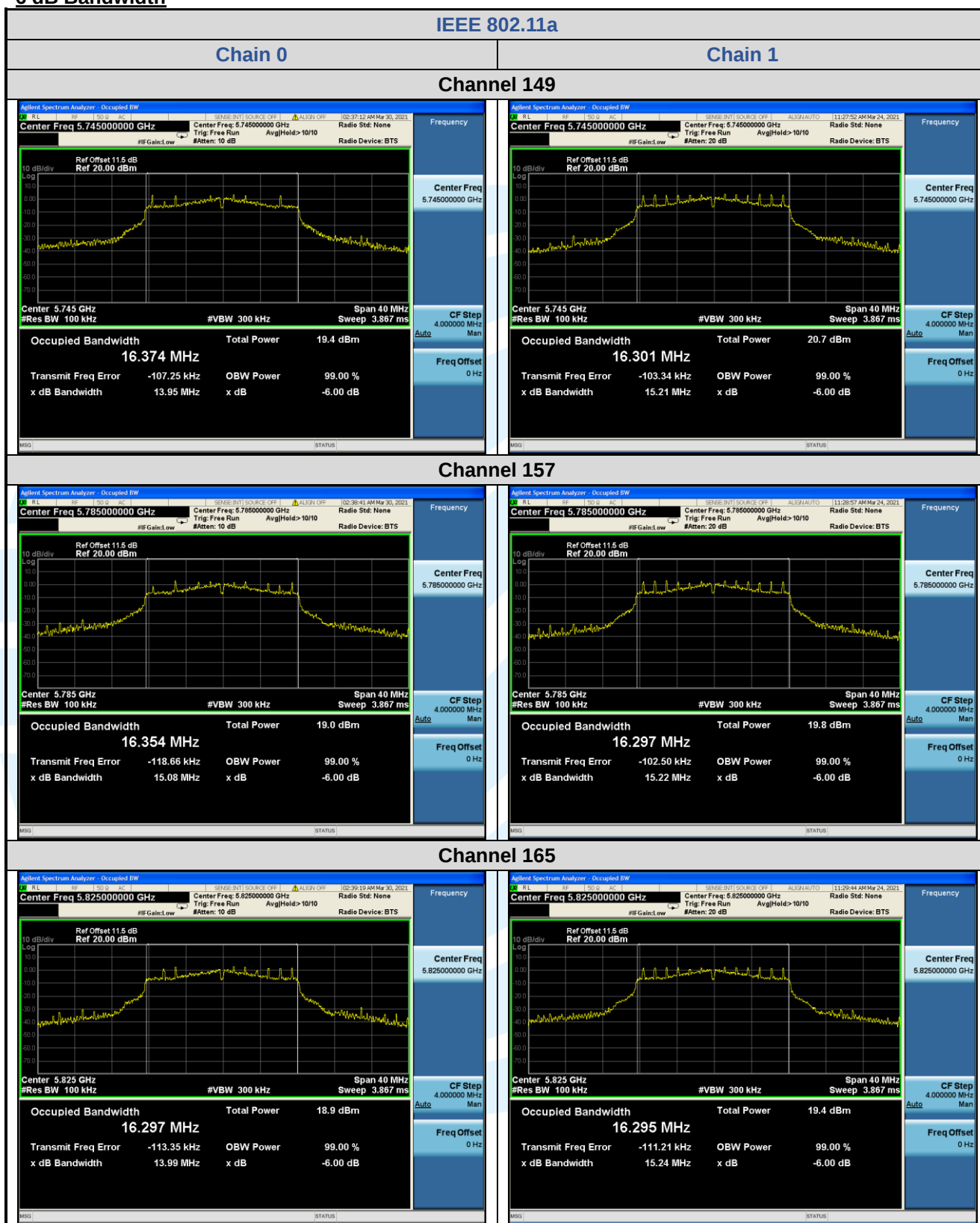
Test Mode: Transmitter mode

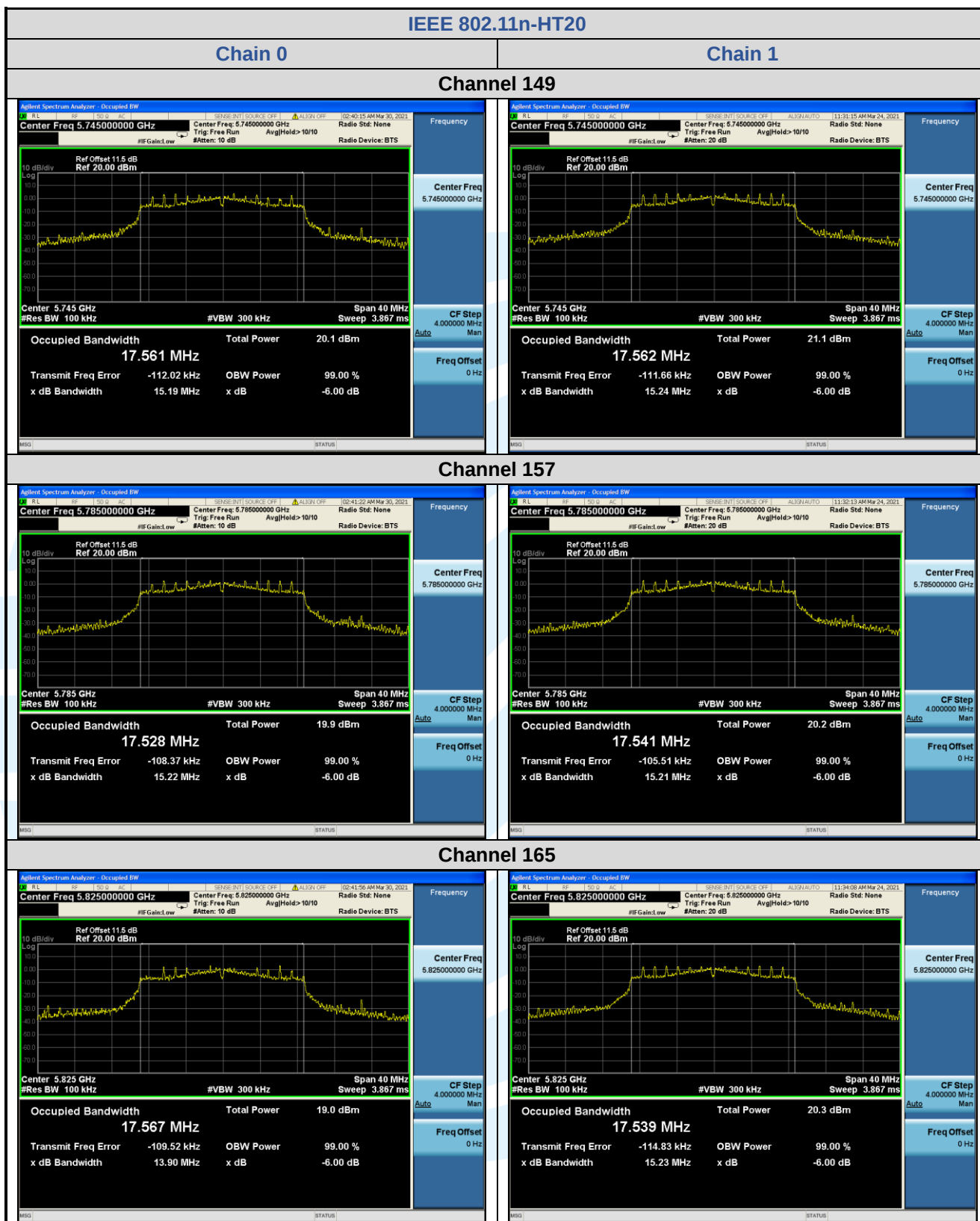
Test Results: Pass

Test Data:

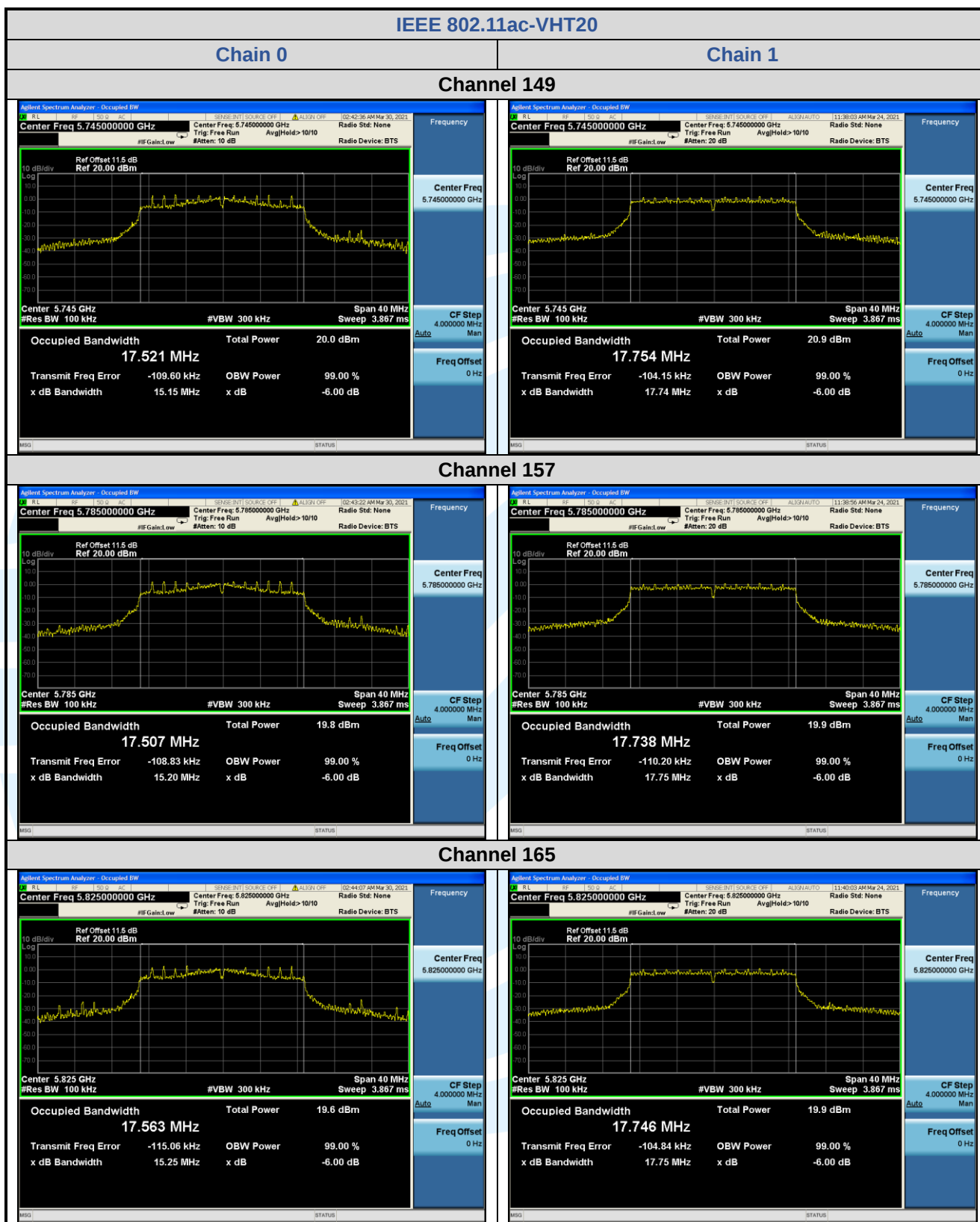
Mode	Channel/ Frequency (MHz)	6 dB Bandwidth (MHz)		99% Bandwidth (MHz)		6 dB Bandwidth Limit	Pass / Fail
		Chain 0	Chain 1	Chain 0	Chain 1		
IEEE 802.11a	149 (5745)	13.95	15.21	16.374	16.301	> 500 kHz	Pass
	157 (5785)	15.08	15.22	16.354	16.297	> 500 kHz	Pass
	165 (5825)	13.99	15.24	16.297	16.295	> 500 kHz	Pass
IEEE 802.11n-HT20	149 (5745)	15.19	15.24	17.561	17.562	> 500 kHz	Pass
	157 (5785)	15.22	15.21	17.528	17.541	> 500 kHz	Pass
	165 (5825)	13.90	15.23	17.567	17.539	> 500 kHz	Pass
IEEE 802.11n-HT40	151 (5755)	35.25	36.53	35.803	36.329	> 500 kHz	Pass
	159 (5795)	33.99	36.50	35.776	36.304	> 500 kHz	Pass
IEEE 802.11ac-VHT20	149 (5745)	15.15	17.74	17.521	17.754	> 500 kHz	Pass
	157 (5785)	15.20	17.75	17.507	17.738	> 500 kHz	Pass
	165 (5825)	15.25	17.75	17.563	17.746	> 500 kHz	Pass
IEEE 802.11ac-VHT40	151 (5755)	35.24	35.26	35.830	35.845	> 500 kHz	Pass
	159 (5795)	35.25	35.26	35.861	35.769	> 500 kHz	Pass
IEEE 802.11ac-VHT80	155 (5775)	75.29	75.40	75.133	75.161	> 500 kHz	Pass
IEEE 802.11ax20	149 (5745)	16.93	18.78	18.874	18.879	> 500 kHz	Pass
	157 (5785)	18.54	18.81	18.889	18.866	> 500 kHz	Pass
	165 (5825)	18.48	18.78	18.896	18.873	> 500 kHz	Pass
IEEE 802.11ax40	151 (5755)	37.47	37.61	37.553	37.503	> 500 kHz	Pass
	159 (5795)	37.69	37.15	37.497	37.446	> 500 kHz	Pass
IEEE 802.11ax80	155 (5775)	77.54	77.46	76.994	76.984	> 500 kHz	Pass

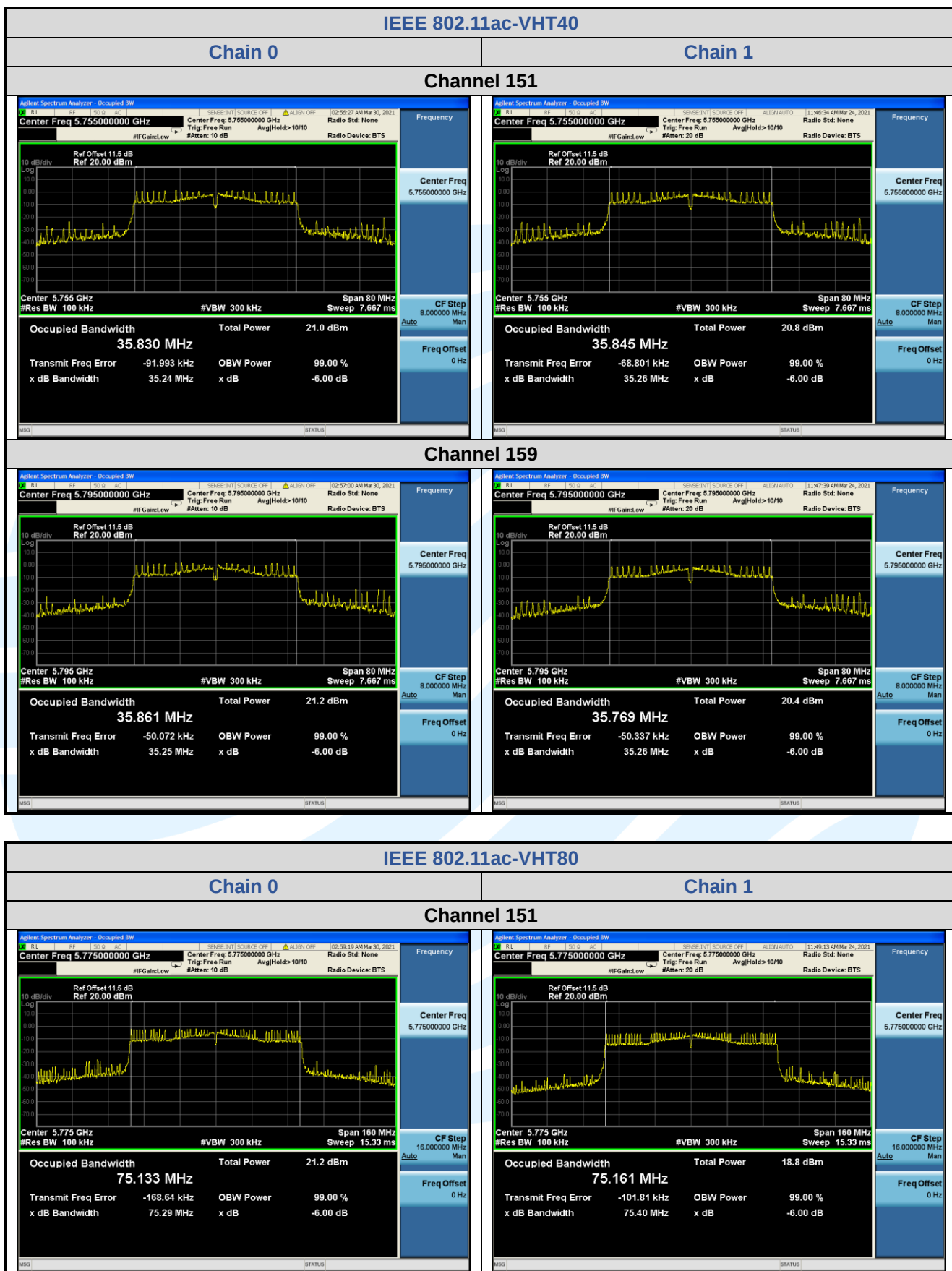
The test plots as follows:
6 dB Bandwidth

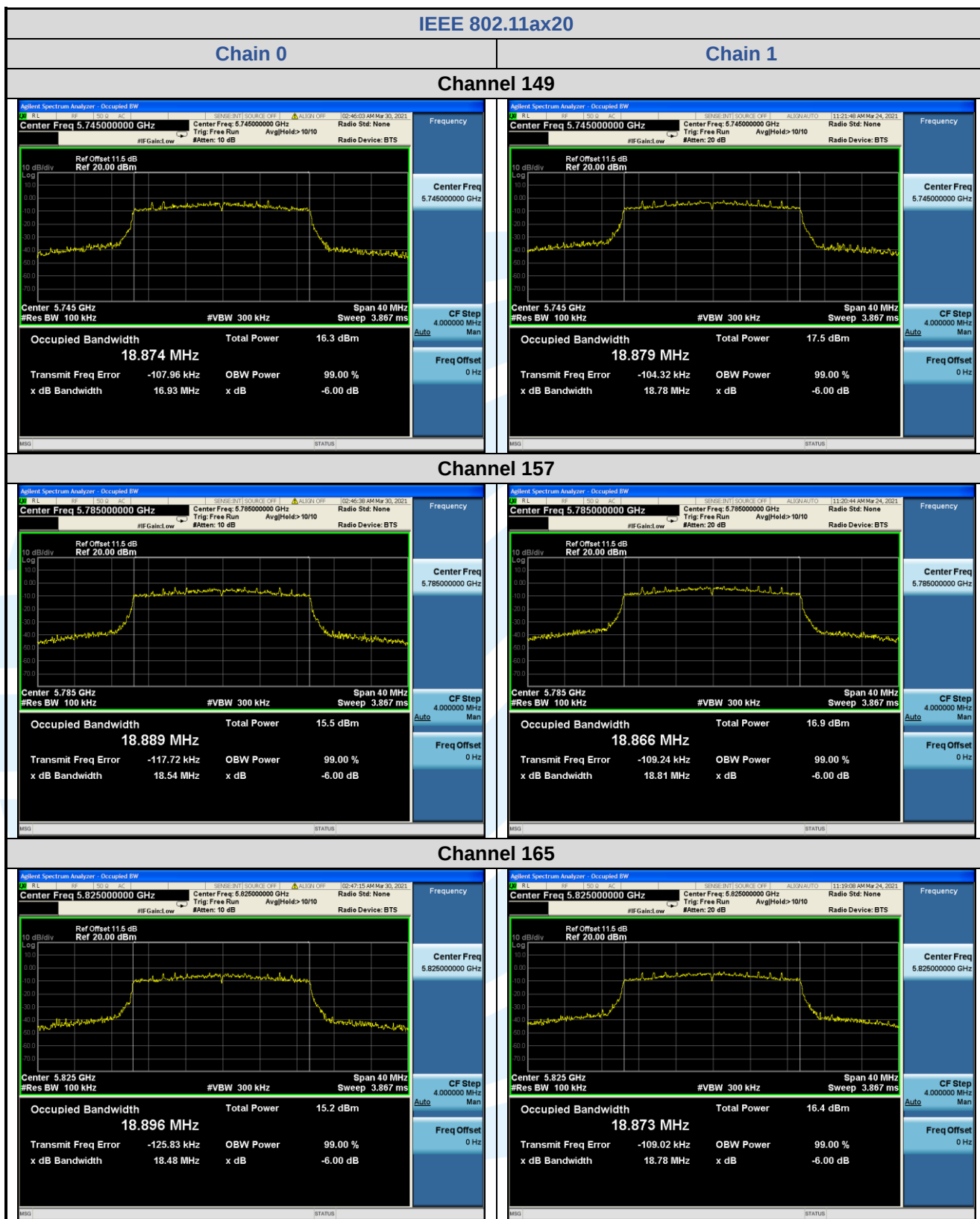


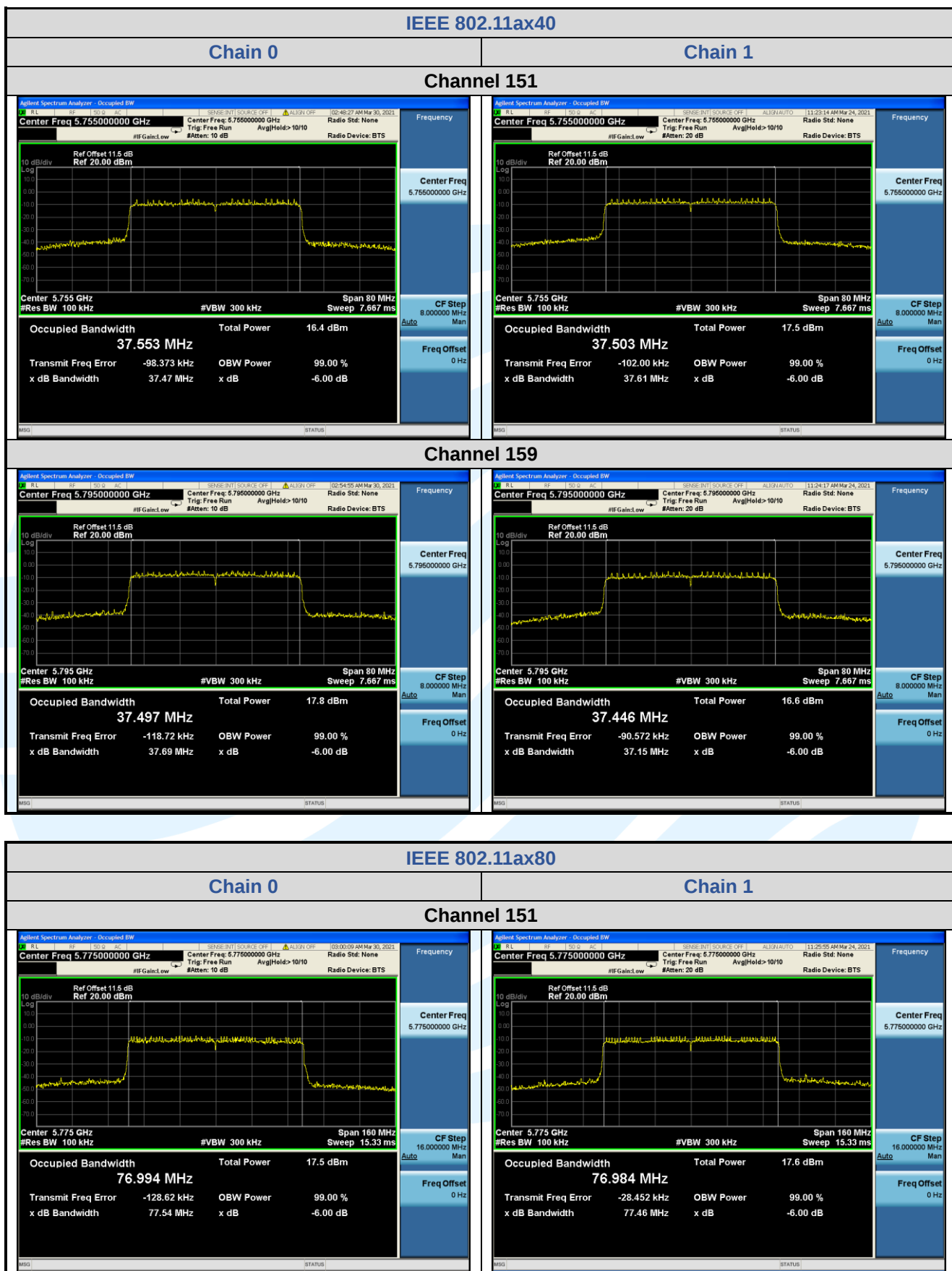












Occupied Bandwidth

