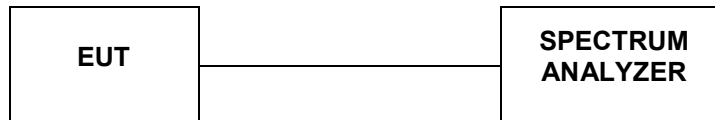


4.6. 6dB Bandwidth

TEST CONFIGURATION



TEST PROCEDURE

According to KDB789033 D02 General U-NII Test Procedures New Rules v02r01 for one of the following procedures may be used for section 15.407(e) specifies the minimum 6 dB emission bandwidth of at least 500 KHz for the band 5.715-5.85 GHz. The following procedure shall be used for measuring this bandwidth:

- Set RBW = 100 kHz.
- Set the video bandwidth (VBW) $\geq 3 \times$ RBW
- Detector = Peak.
- Trace mode = max hold.
- Sweep = auto couple.
- Allow the trace to stabilize
- 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.

Note: The automatic bandwidth measurement capability of a spectrum analyzer or EMI receiver may be employed if it implements the functionality described above.

LIMIT

For Section 15.407(e) specifies the minimum 6 dB emission bandwidth of at least 500 KHz for the band 5.715-5.85 GHz

TEST RESULTS

Temperature	23.6°C	Humidity	55.7%
Test Engineer	Oliver Ou	Configurations	IEEE 802.11a/n/ac

Antenna 0:

Type	Channel	6dB Bandwidth (MHz)	Limit (KHz)	Result
802.11a	149	16.400	>500	Pass
	157	16.400		
	165	16.360		
802.11nHT20	149	17.640	>500	Pass
	157	17.680		
	165	17.640		
802.11n40	151	36.160	>500	Pass
	159	36.400		
802.11ac20	149	17.600	>500	Pass
	157	17.640		
	165	17.400		
802.11ac40	151	36.400	>500	Pass
	159	36.400		
802.11ac80	155	75.680	>500	Pass

Antenna 1:

Type	Channel	6dB Bandwidth (MHz)	Limit (KHz)	Result
802.11a	149	16.400	>500	Pass
	157	16.400		
	165	16.360		
802.11nHT20	149	17.640	>500	Pass
	157	17.640		
	165	17.600		
802.11n40	151	36.480	>500	Pass
	159	36.480		
802.11ac20	149	17.640	>500	Pass
	157	17.640		
	165	17.640		
802.11ac40	151	36.320	>500	Pass
	159	36.480		
802.11ac80	155	75.520	>500	Pass

Antenna 0:

6dB Bandwidth

802.11a

802.11n HT20



CH149

CH149



CH157

CH157



CH165

CH165

6dB Bandwidth

802.11ac20



802.11n HT40



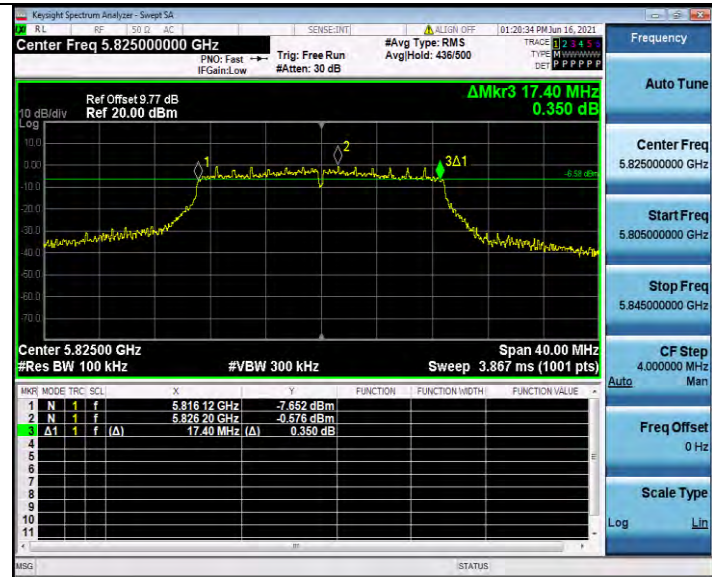
CH149



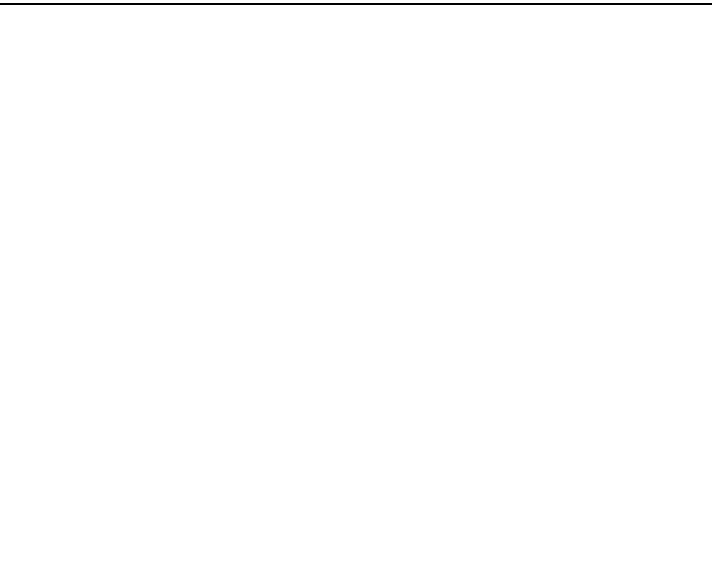
CH151



CH157



CH159



CH165



Antenna 1:

6dB Bandwidth

802.11a

802.11n HT20



CH149

CH149



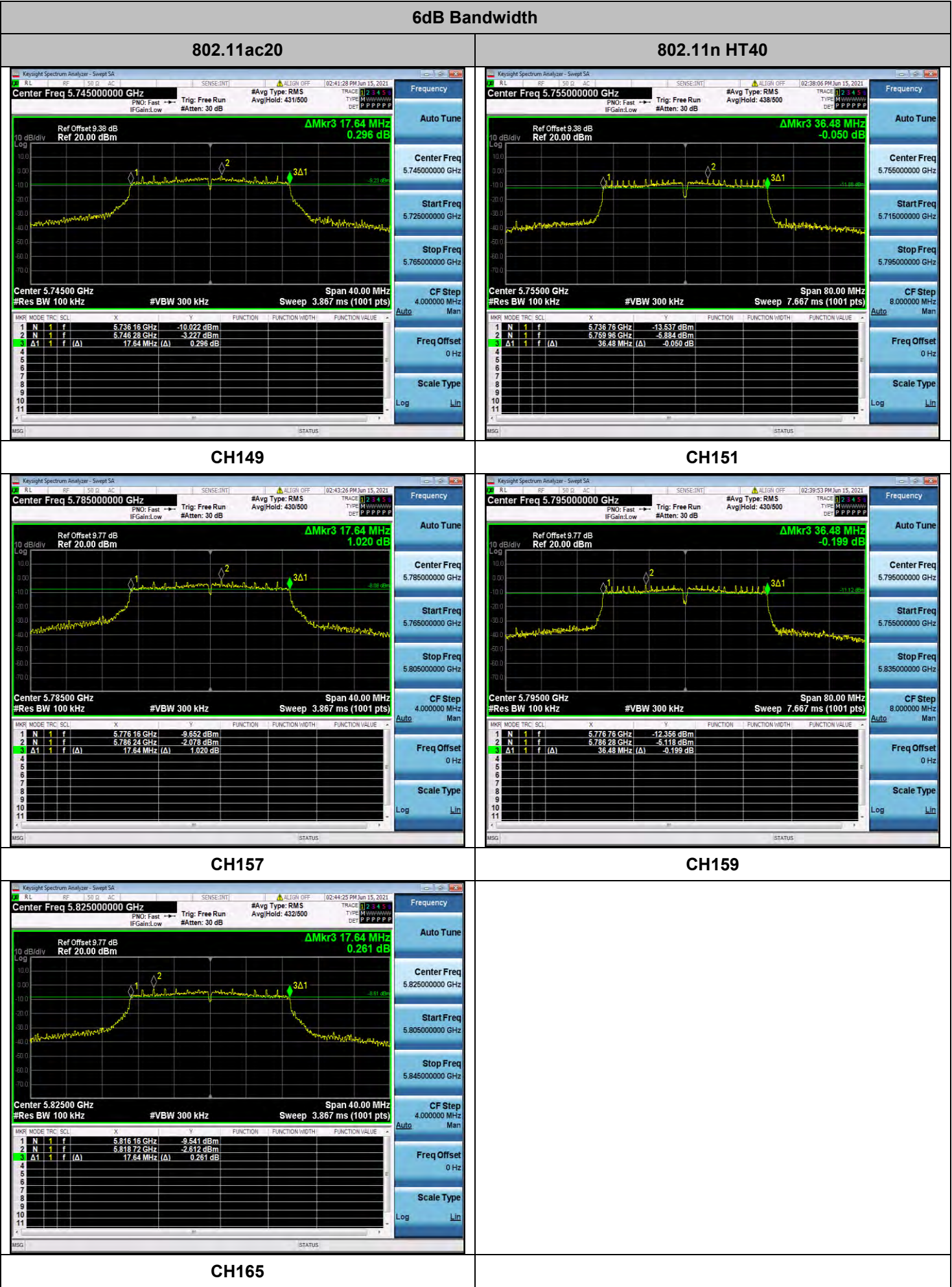
CH157

CH157



CH165

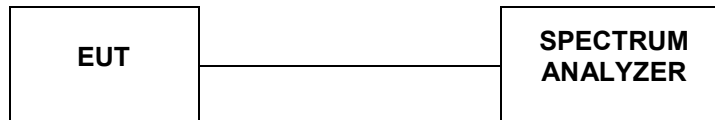
CH165





4.7. 26dBc Bandwidth

TEST CONFIGURATION



TEST PROCEDURE

According to KDB789033 D02 General U-NII Test Procedures New Rules v02r01 for one of the following procedures may be used for Emission Bandwidth (EBW) measurement:

- Set RBW = 220 kHz/430 kHz /820 kHz (approximately 1% of the emission bandwidth).
- Set the video bandwidth (VBW) = 3* RBW
- Detector = Peak.
- Trace mode = max hold.
- Sweep = auto couple.
- Allow the trace to stabilize
- Measure the maximum width of the emission that is 26 dB down from the maximum 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%.

Note: The automatic bandwidth measurement capability of a spectrum analyzer or EMI receiver may be employed if it implements the functionality described above.

LIMIT

No Limits for 26dBc Bandwidth

TEST RESULTS

Temperature	23.6°C	Humidity	55.7%
Test Engineer	Oliver Ou	Configurations	IEEE 802.11a/n/ac

Antenna 0:

Type	Channel	99%Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (KHz)	Result
802.11a	36	17.343	21.320	-	Pass
	40	17.299	21.360		
	48	17.362	21.280		
802.11nHT20	36	18.511	23.960	-	Pass
	40	18.449	21.520		
	48	18.554	24.000		
802.11n40	38	36.679	44.800	-	Pass
	46	36.632	39.920		
802.11ac20	36	18.395	21.600	-	Pass
	40	18.358	21.360		
	48	18.477	21.520		
802.11ac40	38	36.571	40.320	-	Pass
	46	36.573	40.240		
802.11ac80	42	75.647	87.520	-	Pass

Antenna 1:

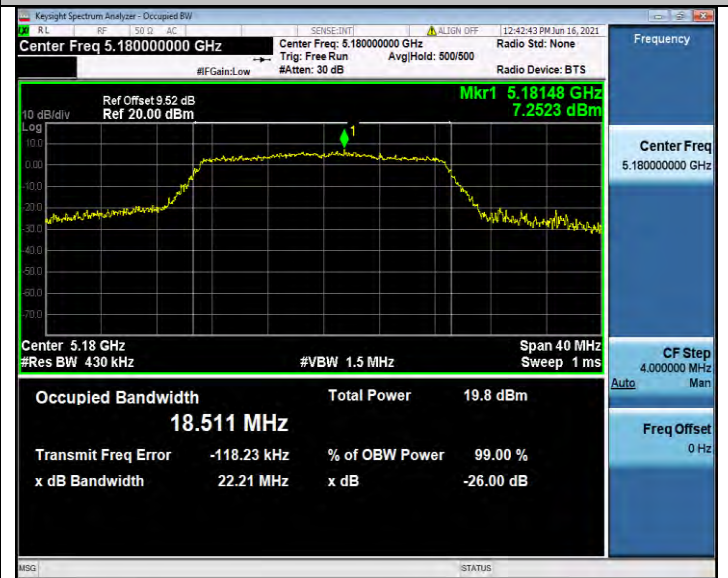
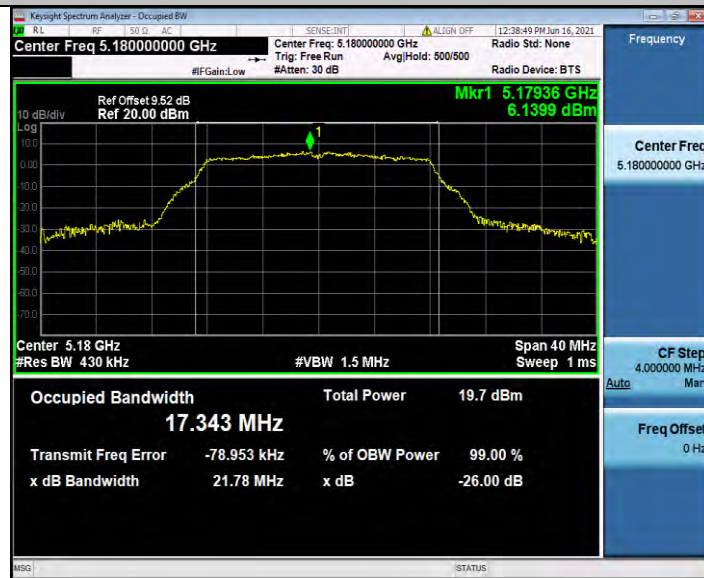
Type	Channel	99%Bandwidth (MHz)	26dB Bandwidth (MHz)	Limit (KHz)	Result
802.11a	36	17.293	21.240	-	Pass
	40	17.274	21.240		
	48	17.317	21.200		
802.11nHT20	36	18.478	21.840	-	Pass
	40	18.356	21.840		
	48	18.425	21.320		
802.11n40	38	36.679	39.920	-	Pass
	46	36.693	40.320		
802.11ac20	36	18.331	21.480	-	Pass
	40	18.398	21.400		
	48	18.388	21.720		
802.11ac40	38	36.674	40.960	-	Pass
	46	36.648	40.320		
802.11ac80	42	75.708	81.920	-	Pass

Antenna 0:

99%Bandwidth

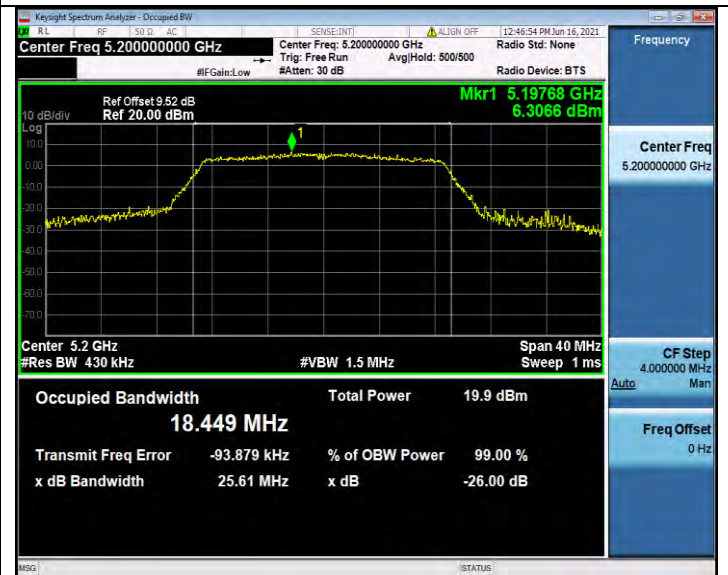
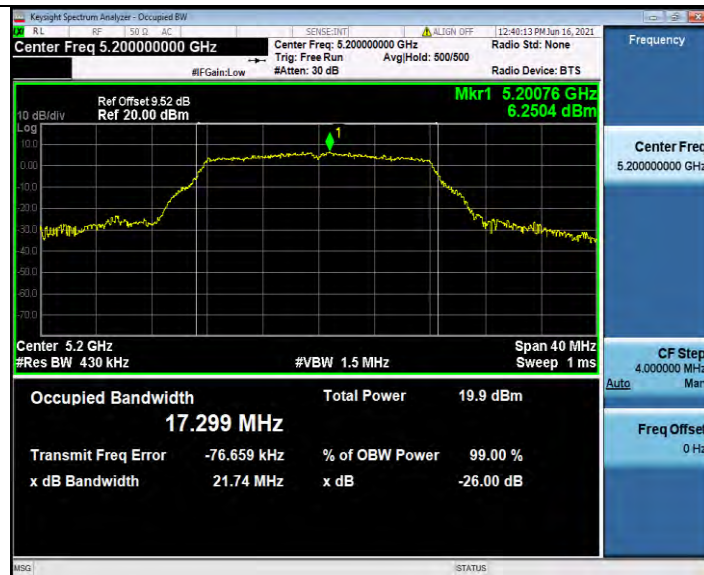
802.11a

802.11n HT20



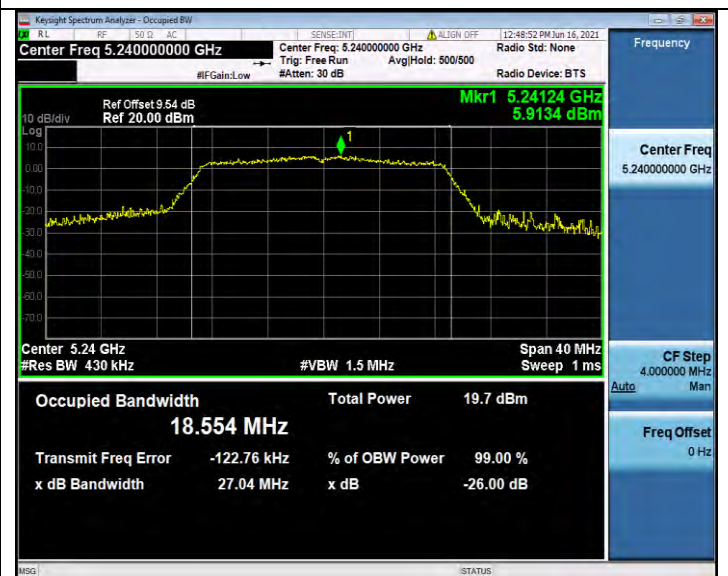
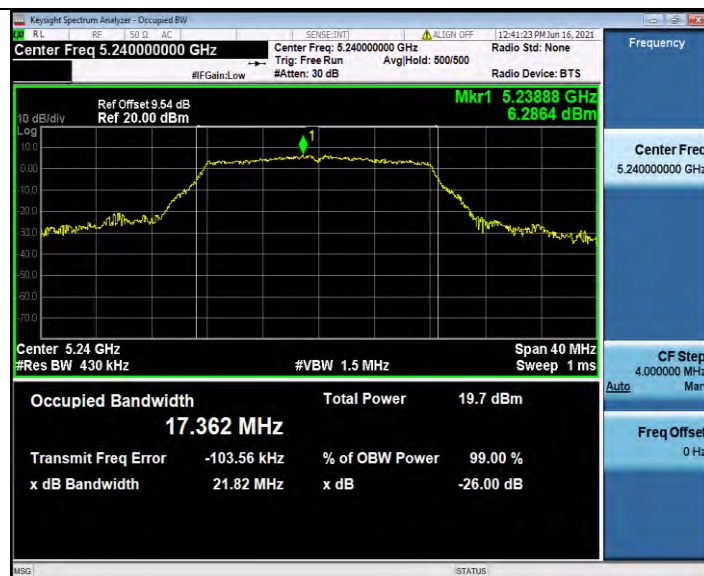
CH36

CH36



CH40

CH40

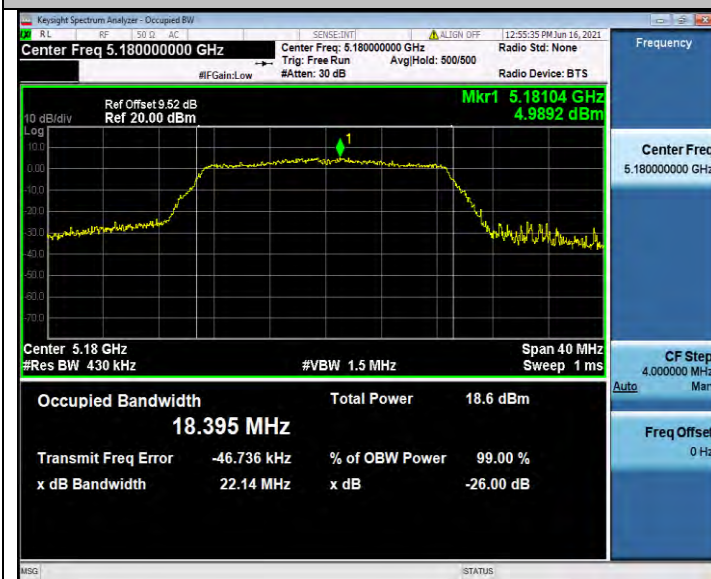


CH48

CH48

99%Bandwidth

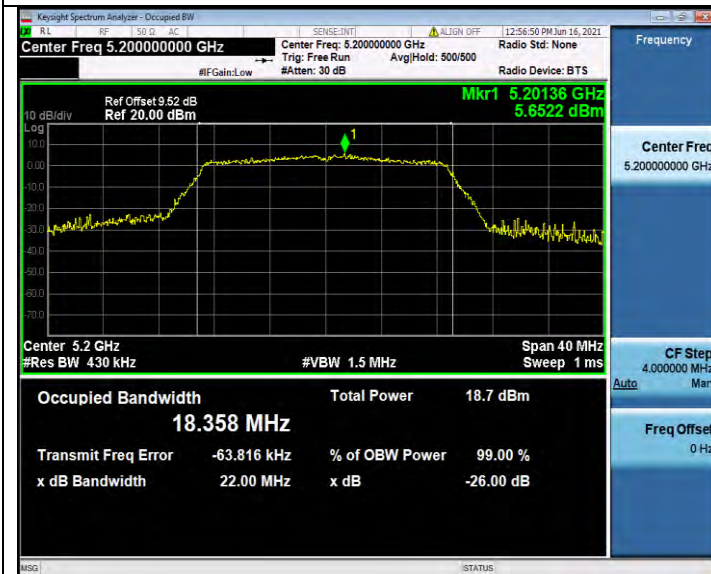
802.11ac20



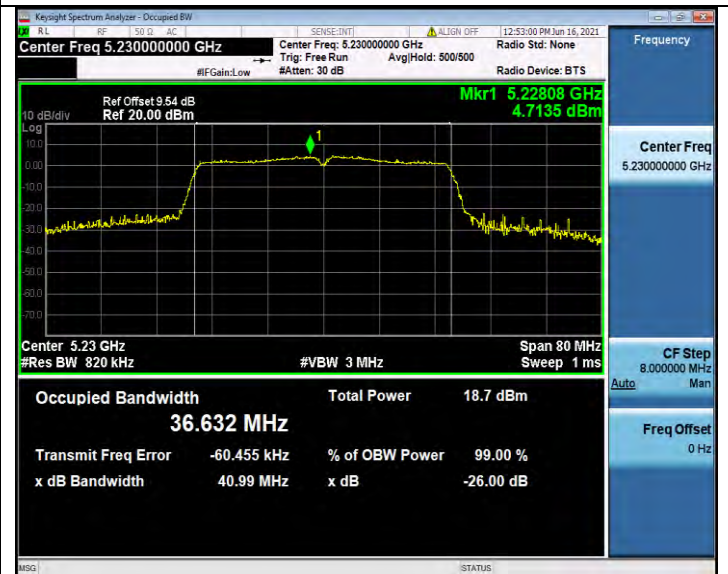
802.11n HT40



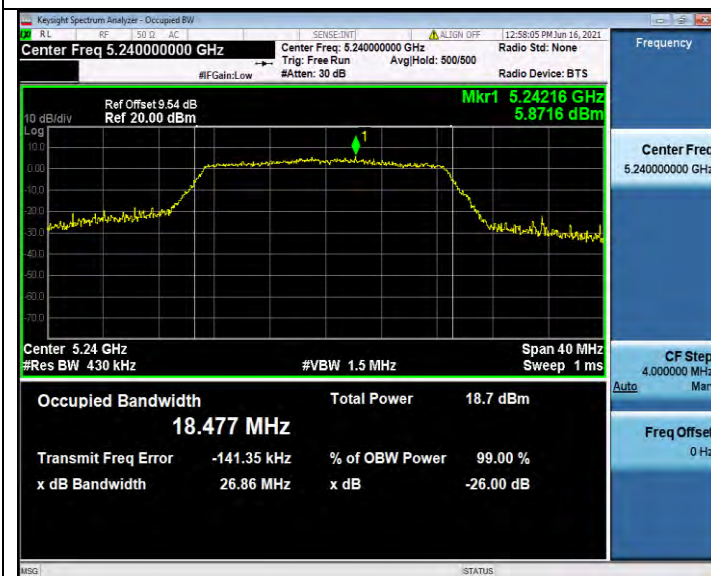
CH36



CH38



CH40



CH46



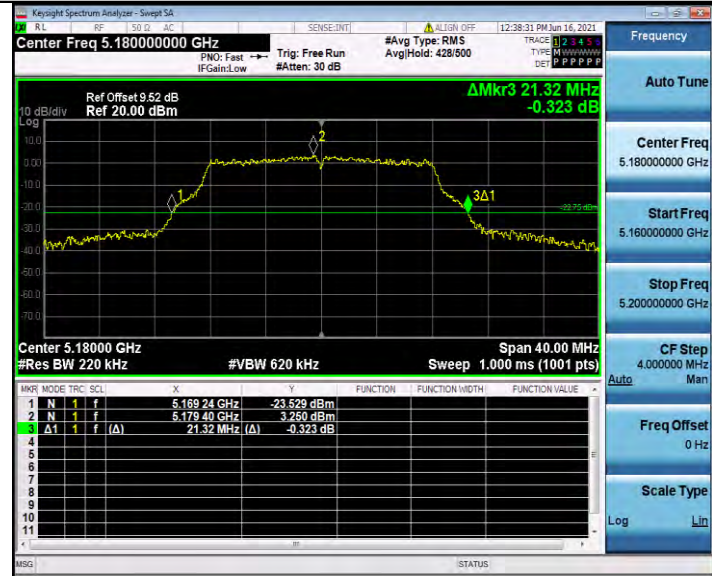
CH48



26dB Bandwidth

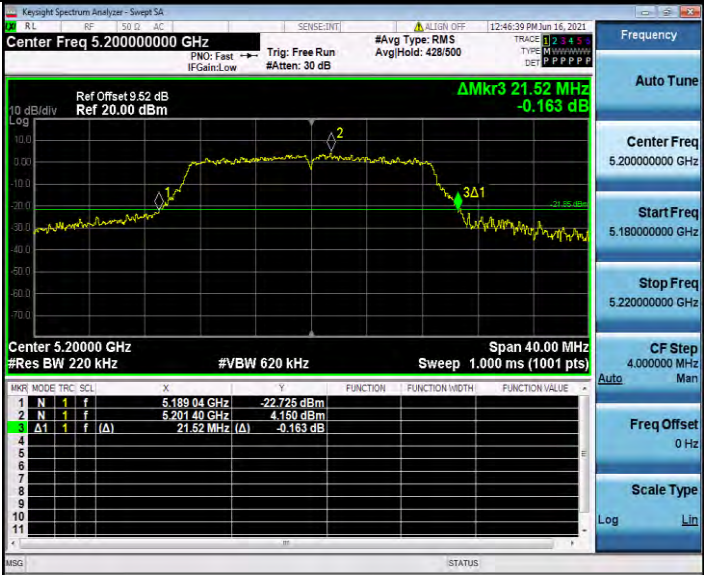
802.11a

802.11n HT20



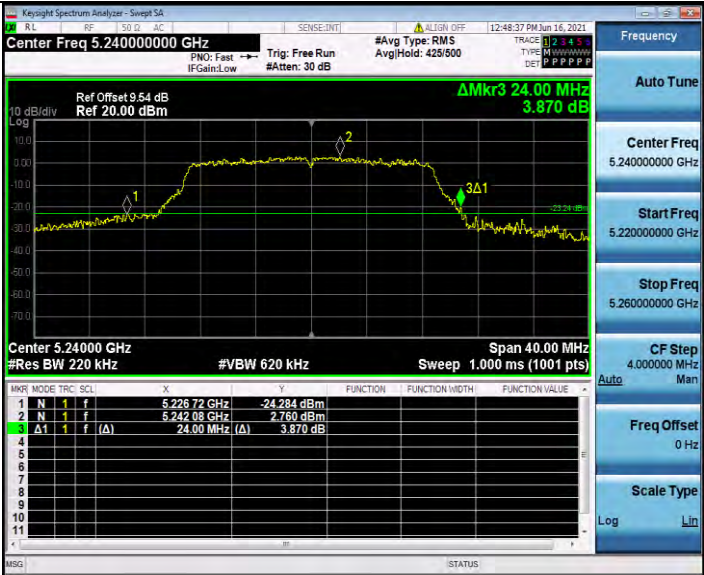
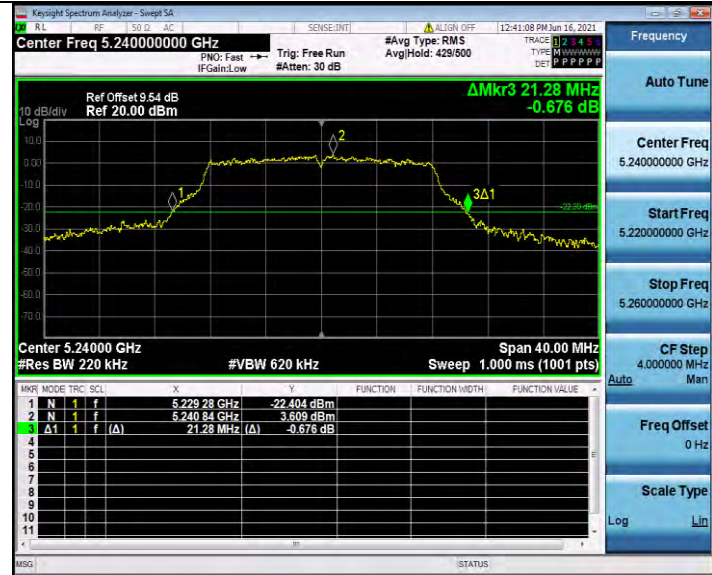
CH36

CH36



CH40

CH40



CH48

CH48

26dB Bandwidth

802.11ac20



802.11n HT40



CH36



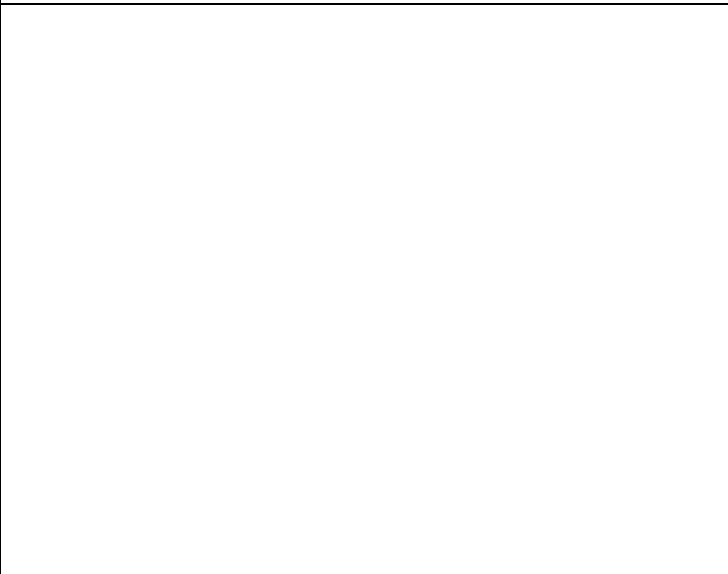
CH38



CH40



CH46



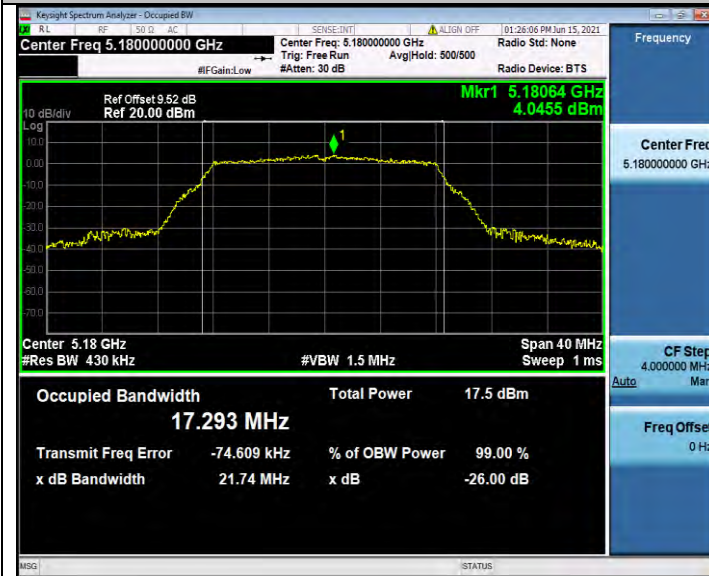
CH48



Antenna 1:

99%Bandwidth

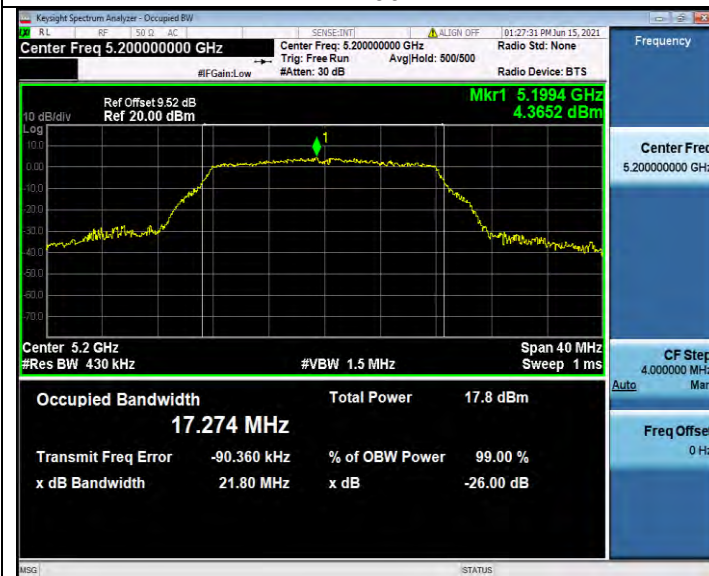
802.11a



802.11n HT20



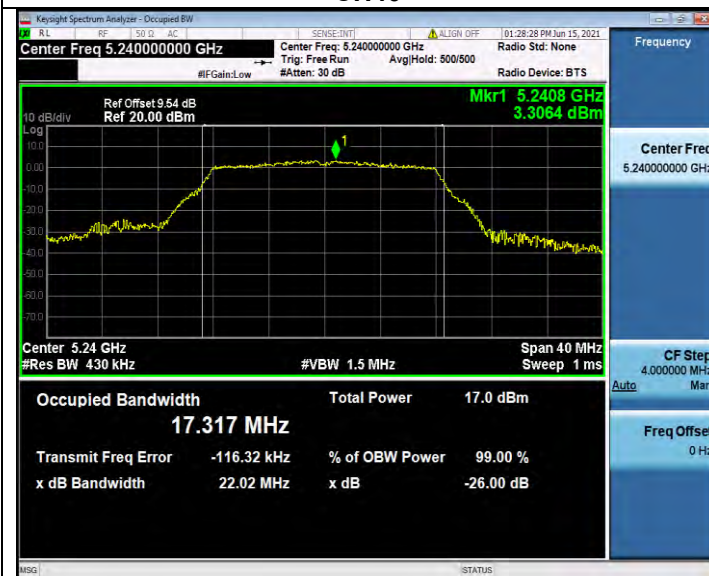
CH36



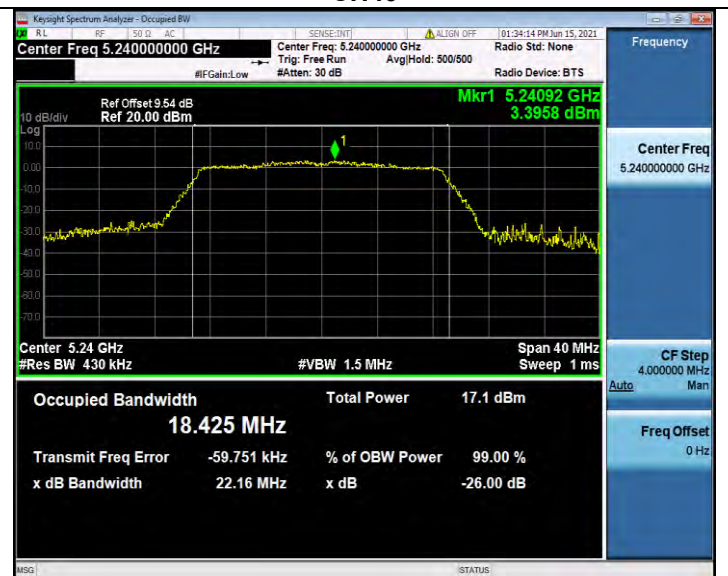
CH36



CH40



CH40

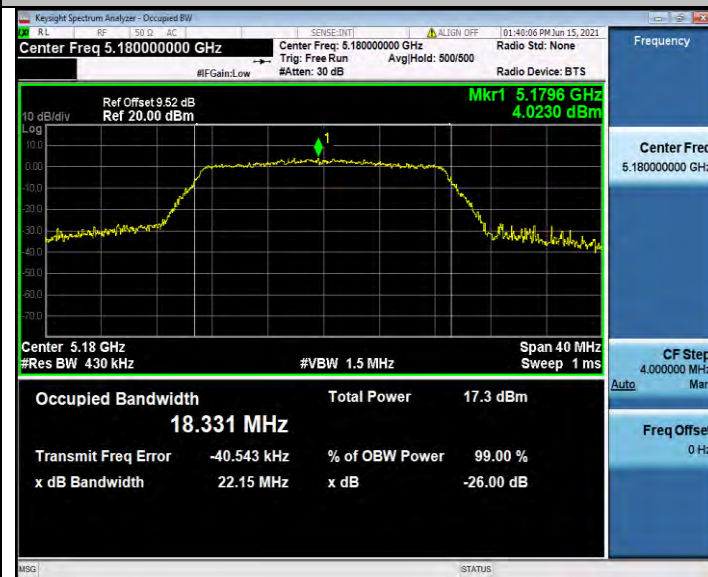


CH48

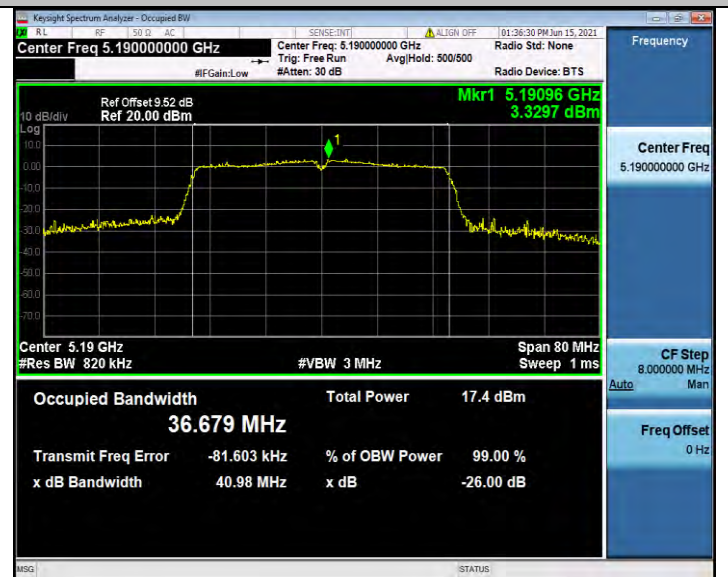
CH48

99%Bandwidth

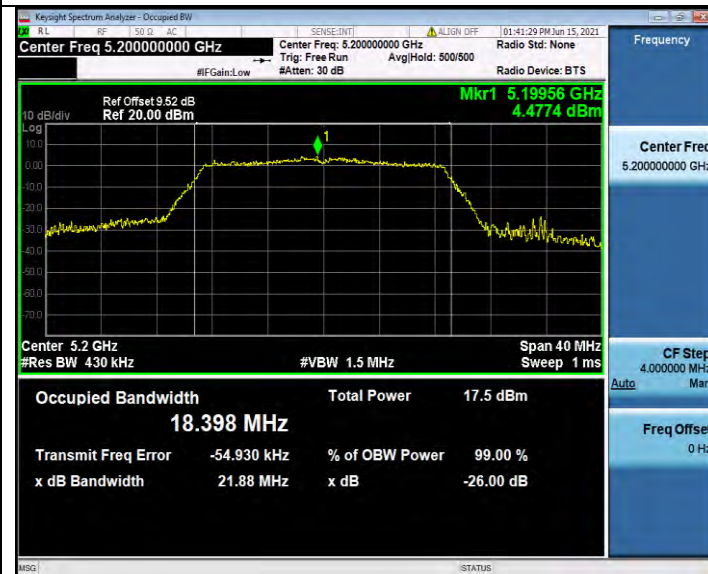
802.11ac20



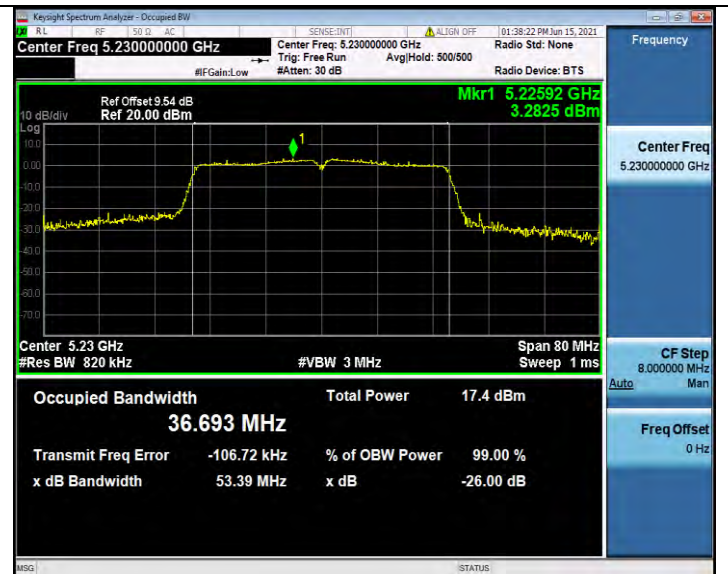
802.11n HT40



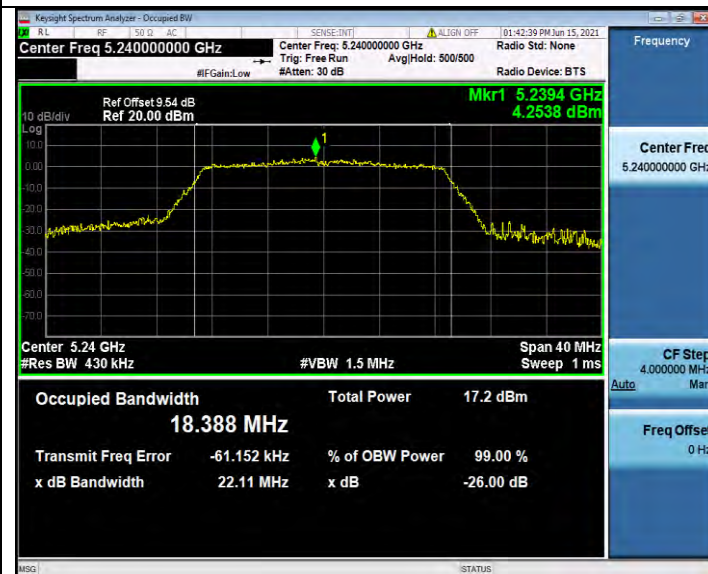
CH36



CH38



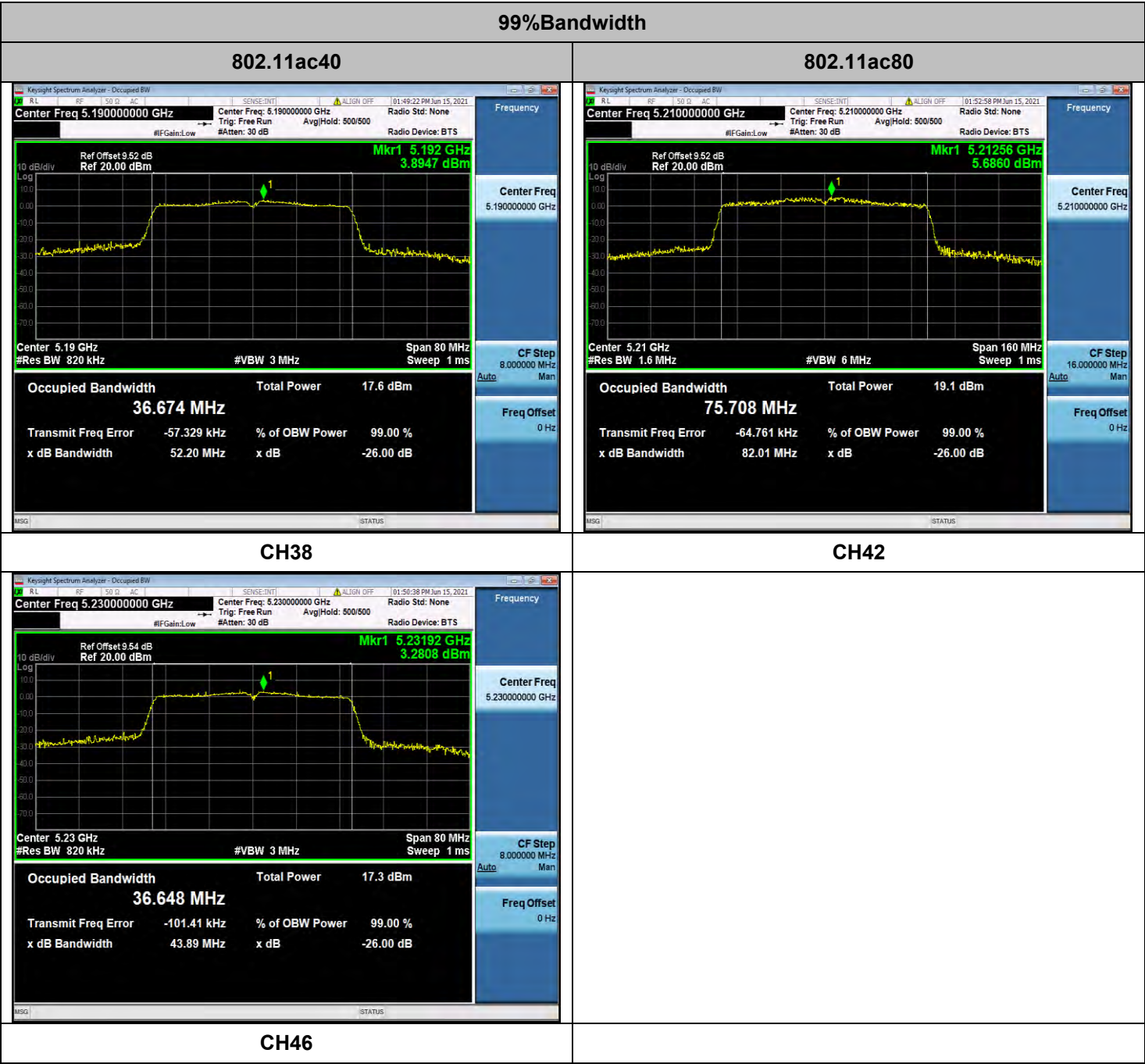
CH40



CH46



CH48



26dB Bandwidth

802.11a



802.11n HT20



CH36



CH36



CH40



CH40



CH48

CH48



