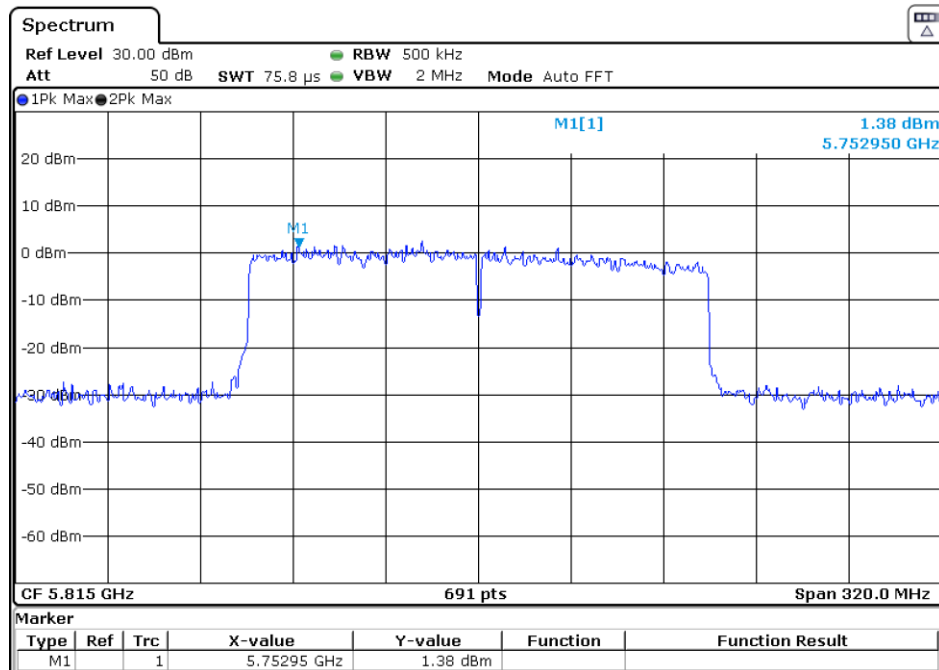


Report No.: AAEMT/EMC/221128-04-08

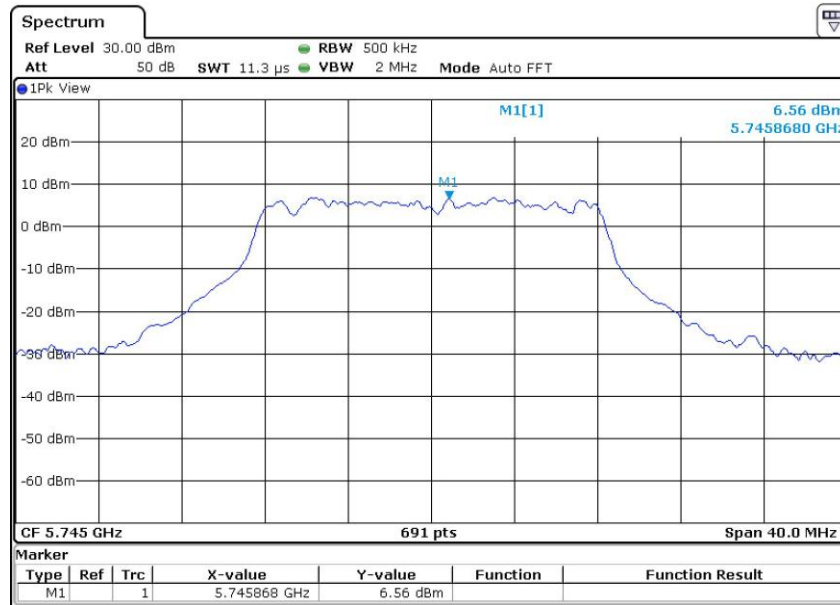
802.11ax160
Channel: 163



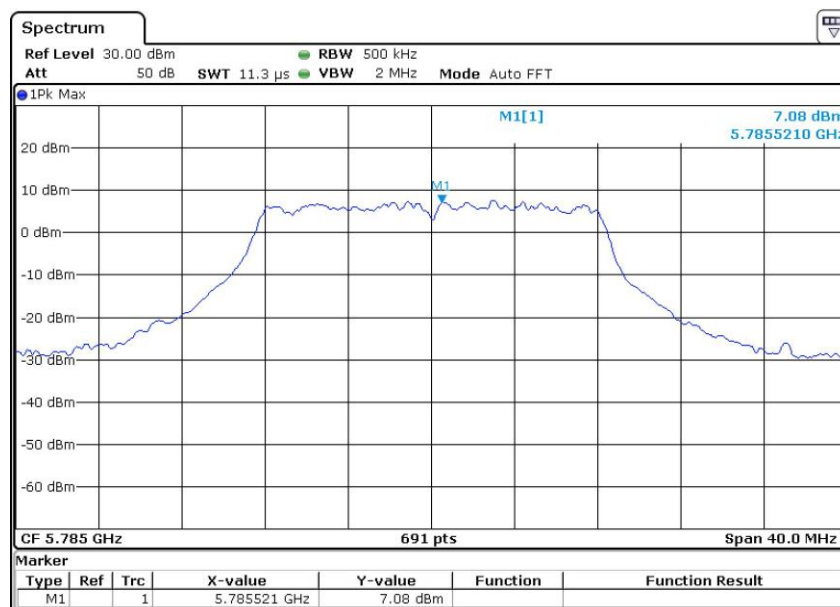
Report No.: AAEMT/EMC/221128-04-08

Test plots as followed: CHAIN 1

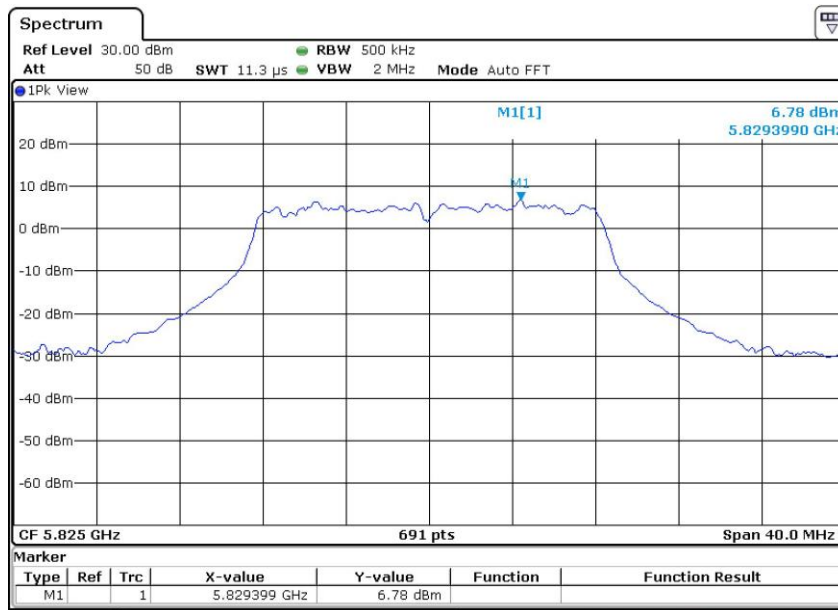
802.11a
Channel: 149



Channel: 157

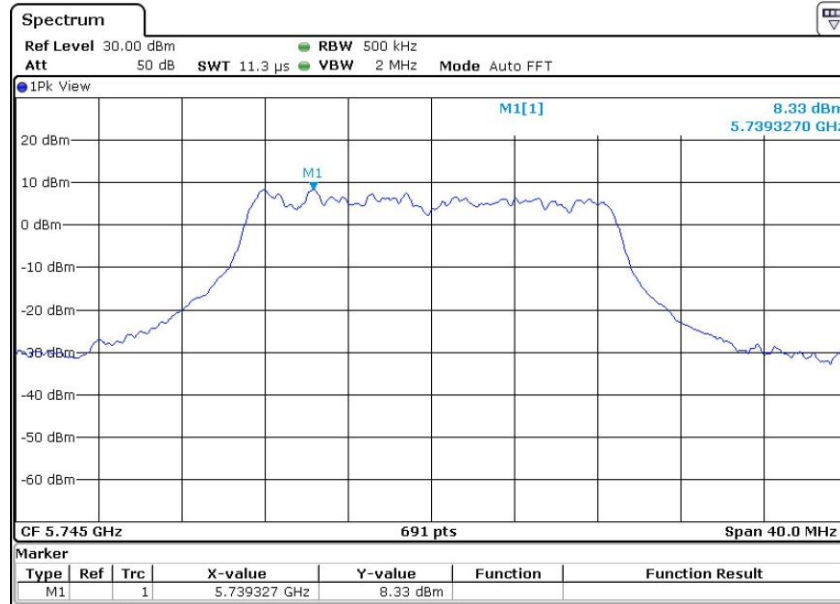


Channel: 165

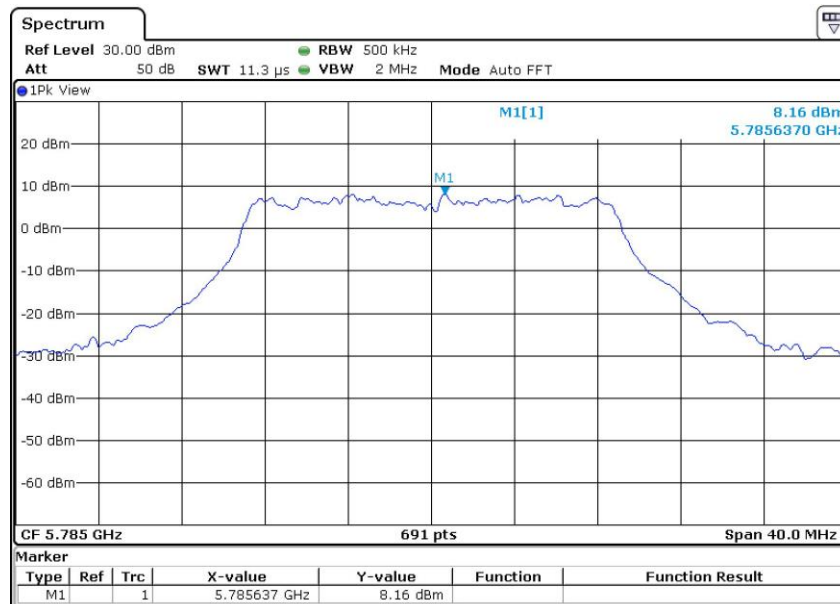


Report No.: AAEMT/EMC/221128-04-08

802.11n20
Channel: 149

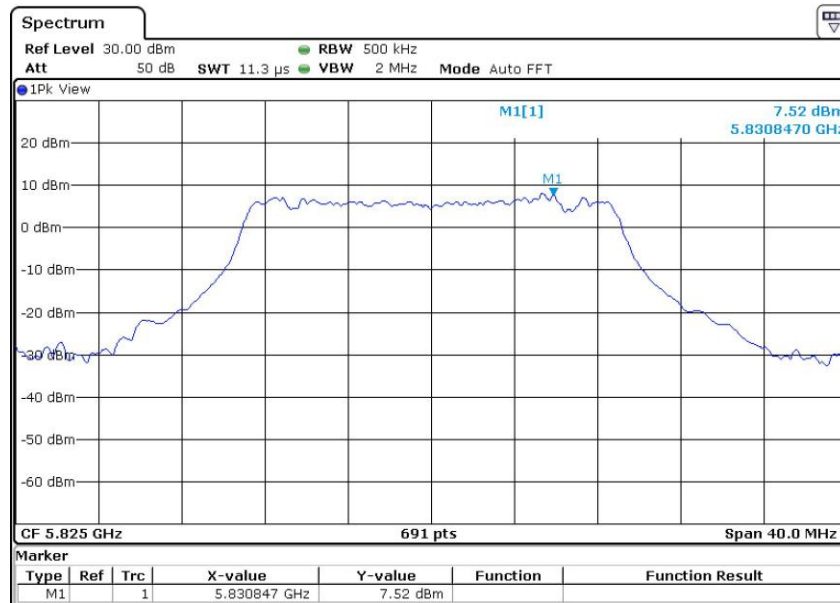


Channel: 157



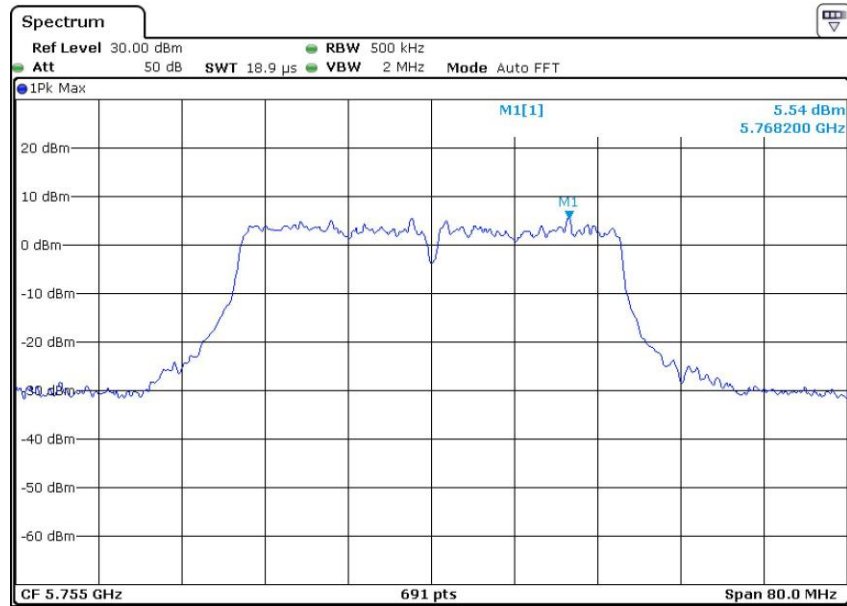
Report No.: AAEMT/EMC/221128-04-08

Channel: 165

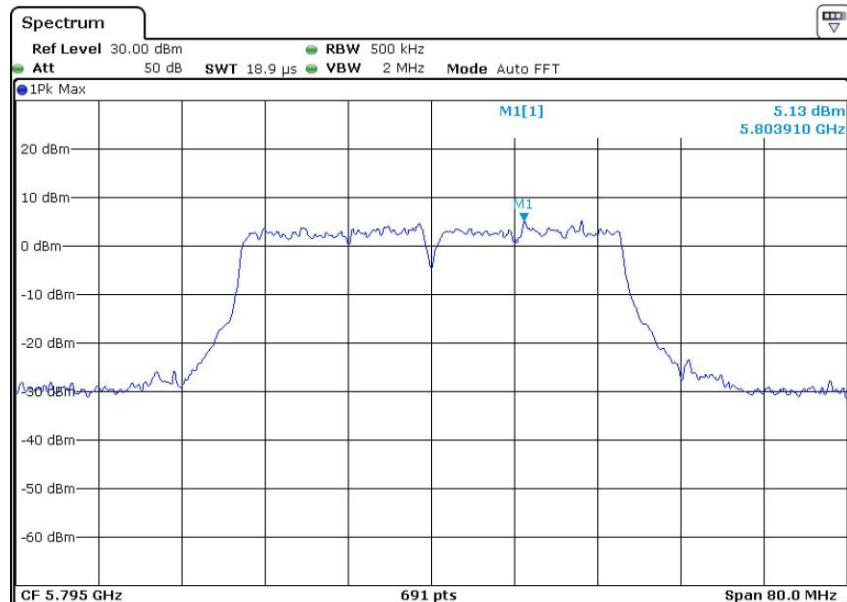


Report No.: AAEMT/EMC/221128-04-08

802.11n40
Channel: 151

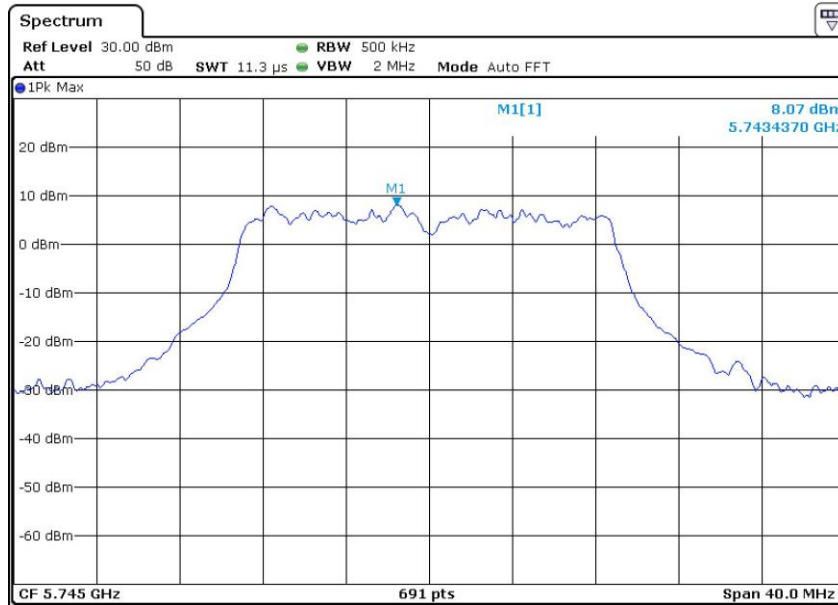


Channel: 159

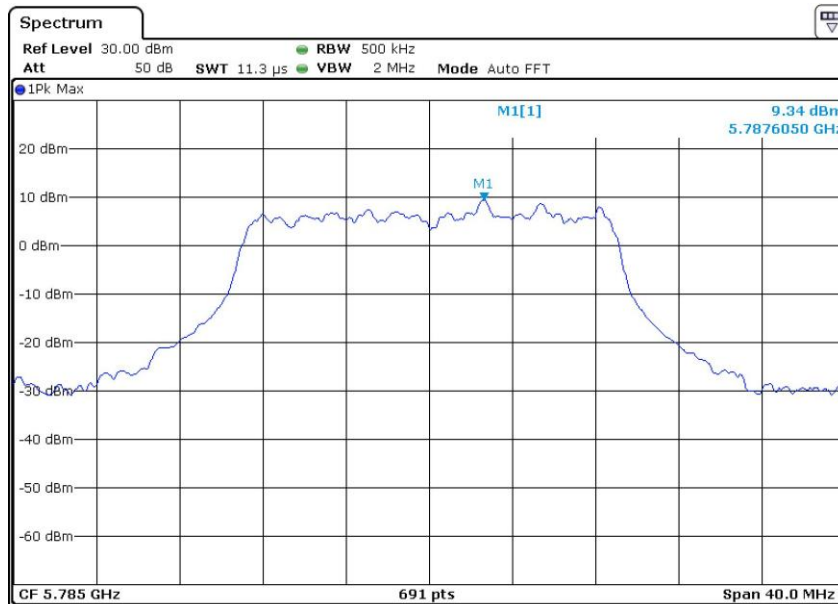


Report No.: AAEMT/EMC/221128-04-08

802.11ac20
Channel: 149

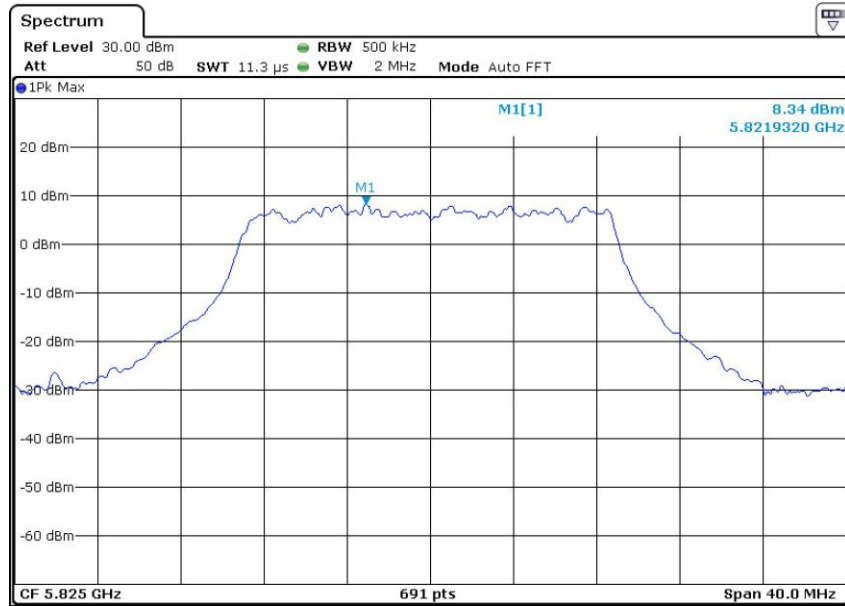


Channel: 157

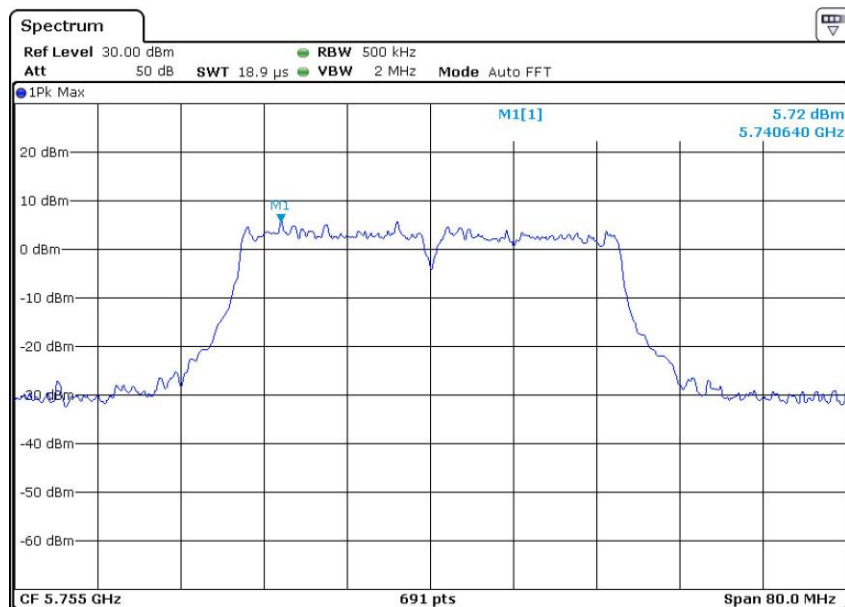


Report No.: AAEMT/EMC/221128-04-08

Channel: 165

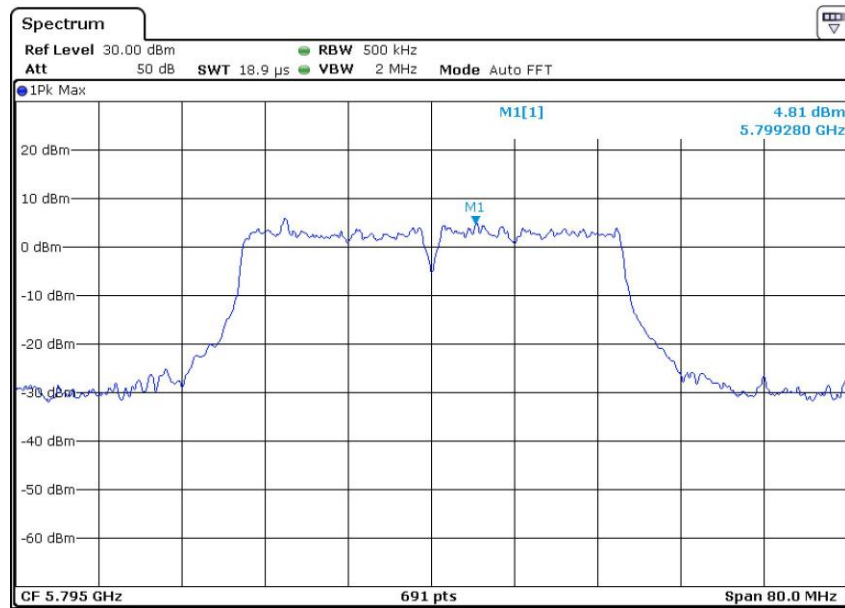


802.11ac40
Channel: 151



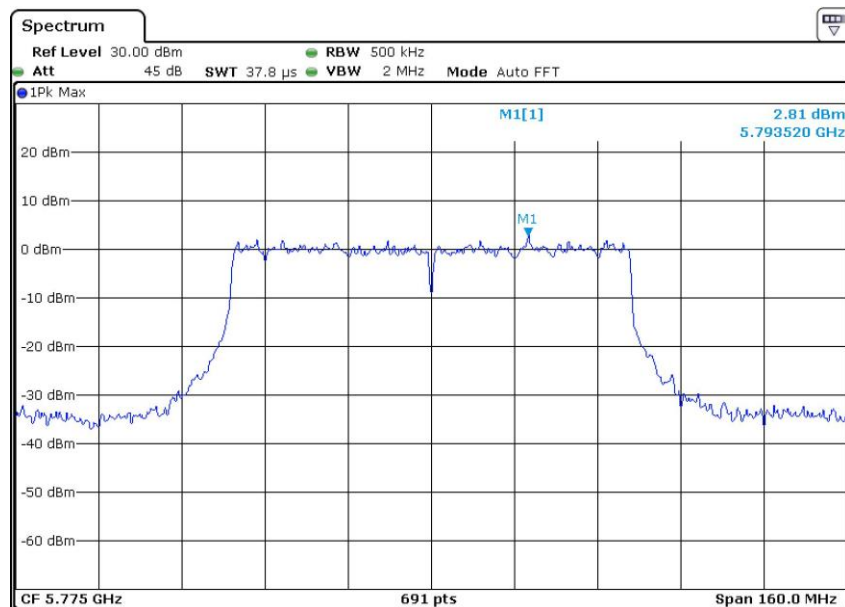
Report No.: AAEMT/EMC/221128-04-08

Channel: 159



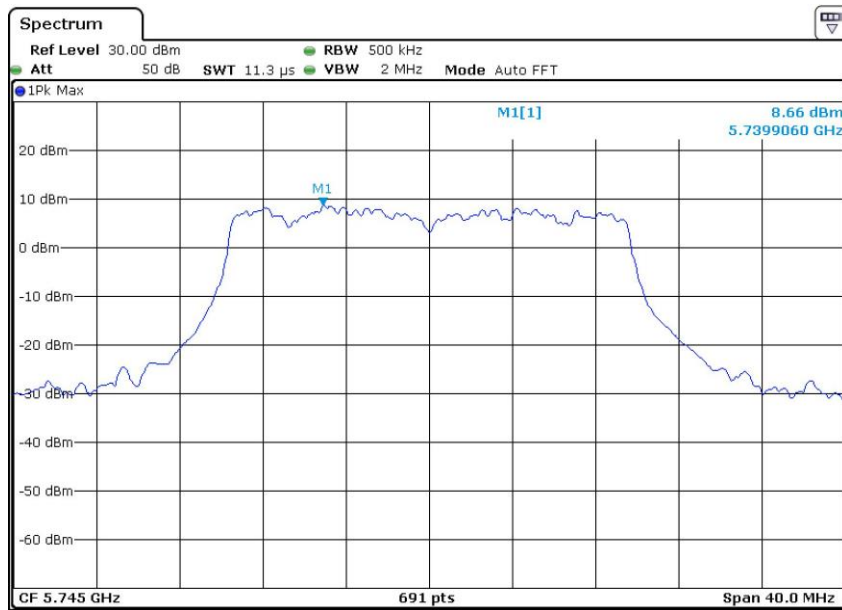
802.11ac80

Channel: 155

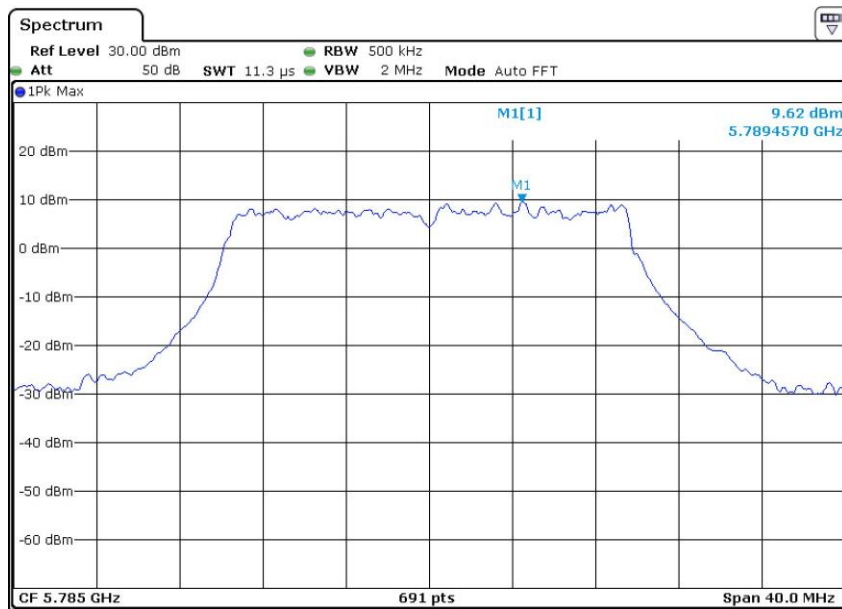


Report No.: AAEMT/EMC/221128-04-08

802.11ax20
Channel: 149

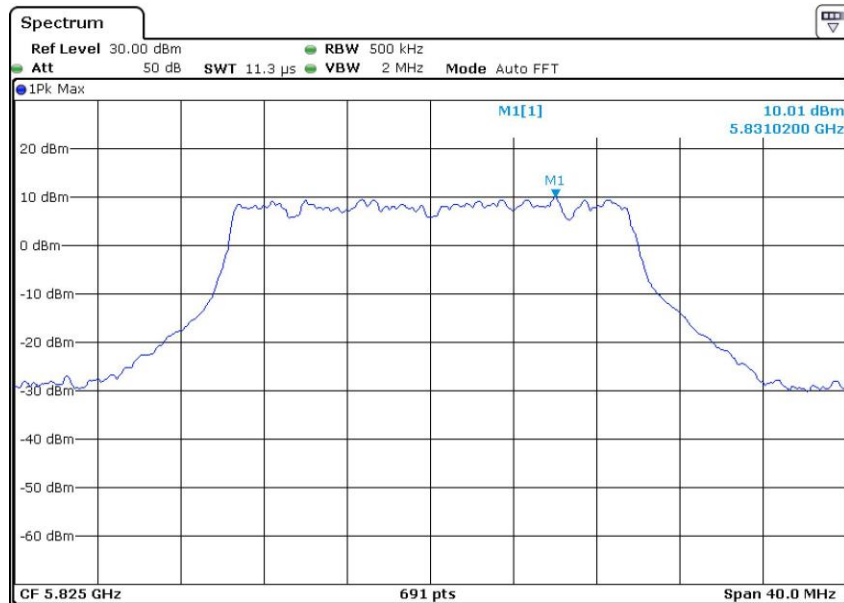


Channel: 157

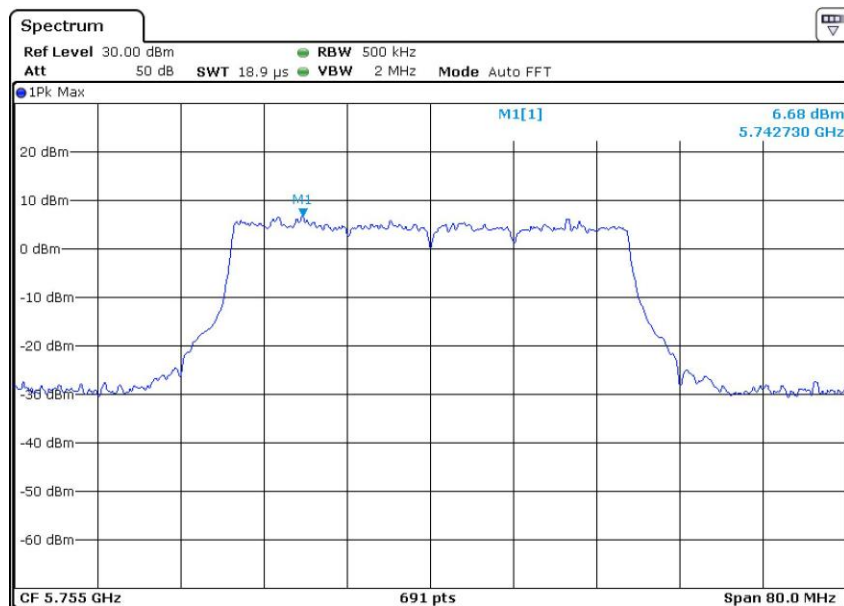


Report No.: AAEMT/EMC/221128-04-08

Channel: 165

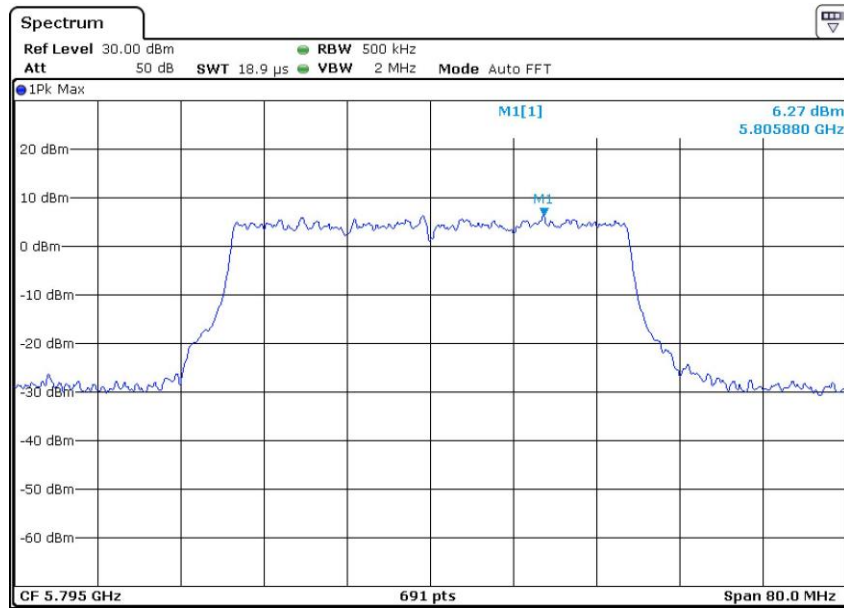


802.11ax40
 Channel: 151



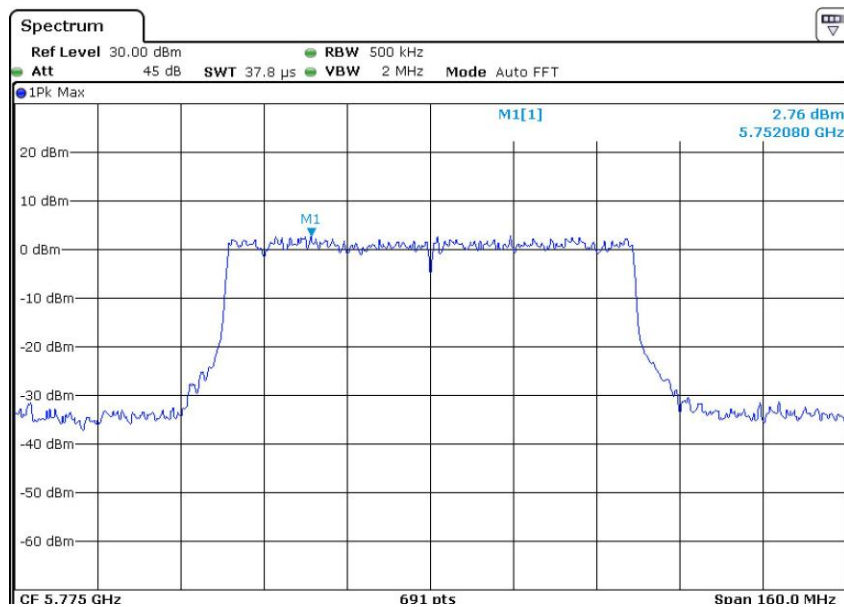
Report No.: AAEMT/EMC/221128-04-08

Channel: 159



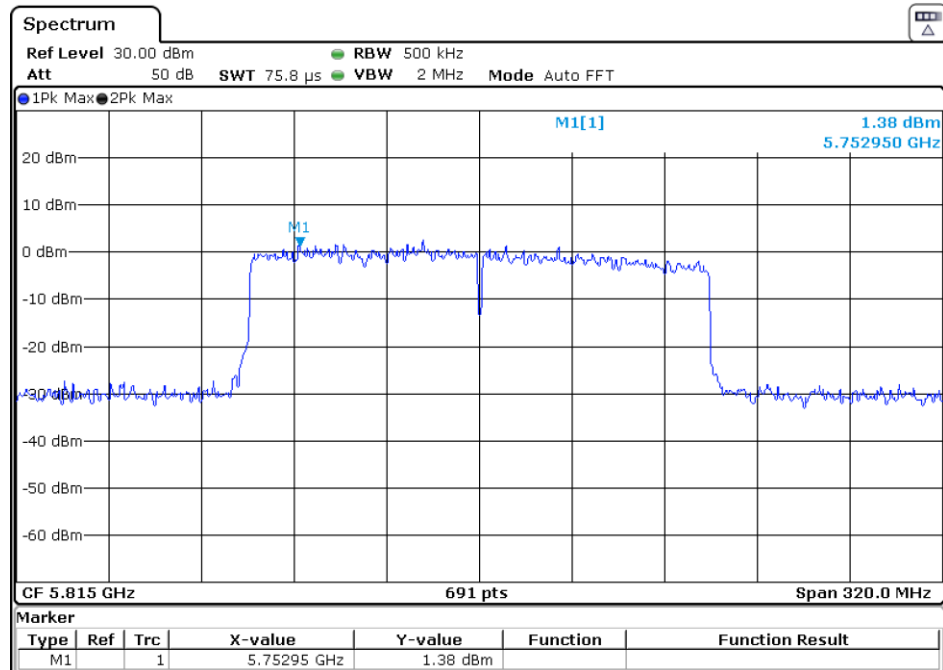
802.11ax80

Channel: 155



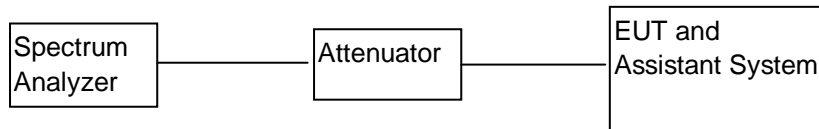
Report No.: AAEMT/EMC/221128-04-08

802.11ax160
Channel: 163



5. 26 dB & 99% Emission Bandwidth

5.1 BLOCK DIAGRAM OF TEST SETUP



5.2 APPLIED PROCEDURES / LIMIT

The maximum power spectral density is measured as a conducted emission by direct connection of a calibrated test instrument to the equipment under test. If the device cannot be connected directly, alternative techniques acceptable to the Commission may be used. Measurements in the 5.725-5.85 GHz band are made over a reference bandwidth of 500 kHz or the 26 dB emission bandwidth of the device, whichever is less. Measurements in the 5.15-5.25 GHz, 5.25-5.35 GHz, and the 5.47-5.725 GHz bands are made over a bandwidth of 1 MHz or the 26 dB emission bandwidth of the device, whichever is less. A narrower resolution bandwidth can be used, provided that the measured power is integrated over the full reference bandwidth.

5.3. 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 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%.

The following procedure shall be used for measuring (99 %) power bandwidth:

- Set center frequency to the nominal EUT channel center frequency.
- Set span = 1.5 times to 5.0 times the OBW.
- Set RBW = 1 % to 5 % of the OBW
- Set $VBW \geq 3 \cdot RBW$
- Video averaging is not permitted. Where practical, a sample detection and single sweep mode shall be used. Otherwise, peak detection and max hold mode (until the trace stabilizes) shall be used.
- Use the 99 % power bandwidth function of the instrument (if available).
- If the instrument does not have a 99 % power bandwidth function, the trace data points are recovered and directly summed in power units. The recovered amplitude data points, beginning at the lowest frequency, are placed in a running sum until 0.5 % of the total is reached; that frequency is recorded as the lower frequency. The process is repeated until 99.5 % of the total is reached; that frequency is recorded as the upper frequency. The 99% occupied bandwidth is the difference between these two

frequencies.

5.4. TEST RESULT: CHAIN 0

CH. No.	Frequency (MHz)	26dB Occupied Bandwidth (MHz)				99% Occupied Bandwidth (MHz)			
		802.11a	802.11n (HT20)	802.11ac (VHT20)	802.11ax (HE20)	802.11a	802.11n (HT20)	802.11ac (VHT20)	802.11ax (HE20)
36	5180.00	21.129	20.839	21.766	19.797	16.541	16.584	17.843	17.626
44	5220.00	21.013	20.203	21.939	20.087	16.541	16.497	17.756	17.626
48	5240.00	21.592	22.055	22.518	19.797	16.584	17.843	17.800	17.670
CH. No.	Frequency (MHz)	6dB Occupied Bandwidth (MHz)				99% Occupied Bandwidth (MHz)			
		802.11a	802.11n (HT20)	802.11ac (VHT20)	802.11ax (HE20)	802.11a	802.11n (HT20)	802.11ac (VHT20)	802.11ax (HE20)
149	5745.00	16.498	17.771	17.829	19.161	16.613	17.887	17.829	19.102
157	5785.00	16.498	17.771	17.829	19.161	16.555	17.887	17.713	19.044
165	5825.00	16.498	17.771	17.829	19.161	16.555	17.829	17.771	19.102

CH. No.	Frequency (MHz)	26dB Occupied Bandwidth (MHz)			99% Occupied Bandwidth (MHz)		
		802.11n (HT40)	802.11ac (VHT40)	802.11ax (HE40)	802.11n (HT40)	802.11ac (VHT40)	802.11ax (HE40)
38	5190.00	43.65	44.46	42.95	36.555	36.555	38.118
46	5230.00	43.99	43.88	42.95	36.555	36.555	38.031
CH. No.	Frequency (MHz)	6dB Occupied Bandwidth (MHz)			99% Occupied Bandwidth (MHz)		
		802.11n (HT40)	802.11ac (VHT40)	802.11ax (HE40)	802.11n (HT40)	802.11ac (VHT40)	802.11ax (HE40)
151	5755.00	36.67	36.64	38.38	36.584	36.468	37.973
159	5795.00	36.61	36.53	38.27	36.468	36.700	37.973

CH. No.	Frequency (MHz)	26dB Occupied Bandwidth (MHz)		99% Occupied Bandwidth (MHz)	
		802.11ac (VHT80)	802.11ax (HE80)	802.11ac (VHT80)	802.11ax (HE80)
42	5210.00	87.76	87.76	77.452	77.452
CH. No.	Frequency (MHz)	6dB Occupied Bandwidth (MHz)		99% Occupied Bandwidth (MHz)	
		802.11ac (VHT80)	802.11ax (HE80)	802.11ac (VHT80)	802.11ax (HE80)
155	5775.00	76.47	78.09	76.410	77.568

CH. No.	Frequency (MHz)	6dB Occupied Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
		802.11ax (HE160)	802.11ax (HE160)
162	5815.00	155.13	156.87

TEST RESULT: CHAIN 1

CH. No.	Frequency (MHz)	26dB Occupied Bandwidth (MHz)				99% Occupied Bandwidth (MHz)			
		802.11a	802.11n (HT20)	802.11ac (VHT20)	802.11ax (HE20)	802.11a	802.11n (HT20)	802.11ac (VHT20)	802.11ax (HE20)
36	5180.00	20.434	21.939	22.344	22.576	16.541	17.756	17.800	19.146
44	5220.00	20.897	22.229	22.46	22.179	16.497	17.800	17.800	19.102
48	5240.00	20.666	21.939	22.518	22.46	16.541	17.800	17.843	19.059
CH. No.	Frequency (MHz)	6dB Occupied Bandwidth (MHz)				99% Occupied Bandwidth (MHz)			
		802.11a	802.11n (HT20)	802.11ac (VHT20)	802.11ax (HE20)	802.11a	802.11n (HT20)	802.11ac (VHT20)	802.11ax (HE20)
149	5745.00	16.556	17.829	17.829	19.219	16.555	17.829	17.829	19.102
157	5785.00	16.556	17.771	17.829	19.219	16.555	17.829	17.829	19.160
165	5825.00	16.556	17.829	17.829	19.219	16.497	17.771	17.713	19.160

CH. No.	Frequency (MHz)	26dB Occupied Bandwidth (MHz)			99% Occupied Bandwidth (MHz)		
		802.11n (HT40)	802.11ac (VHT40)	802.11ax (HE40)	802.11n (HT40)	802.11ac (VHT40)	802.11ax (HE40)
38	5190.00	41.33	43.30	44.57	36.295	36.468	38.031
46	5230.00	42.26	43.99	44.11	36.295	36.729	38.031
CH. No.	Frequency (MHz)	6dB Occupied Bandwidth (MHz)			99% Occupied Bandwidth (MHz)		
		802.11n (HT40)	802.11ac (VHT40)	802.11ax (HE40)	802.11n (HT40)	802.11ac (VHT40)	802.11ax (HE40)
151	5755.00	36.64	36.58	38.49	36.700	36.700	38.089
159	5795.00	36.58	36.53	38.15	36.700	36.700	37.973

CH. No.	Frequency (MHz)	26dB Occupied Bandwidth (MHz)		99% Occupied Bandwidth (MHz)	
		802.11ac (VHT80)	802.11ax (HE80)	802.11ac (VHT80)	802.11ax (HE80)
42	5210.00	87.29	84.28	76.063	77.45
CH. No.	Frequency (MHz)	6dB Occupied Bandwidth (MHz)		99% Occupied Bandwidth (MHz)	
		802.11ac (VHT80)	802.11ax (HE80)	802.11ac (VHT80)	802.11ax (HE80)
155	5775.00	76.47	77.86	76.410	77.800

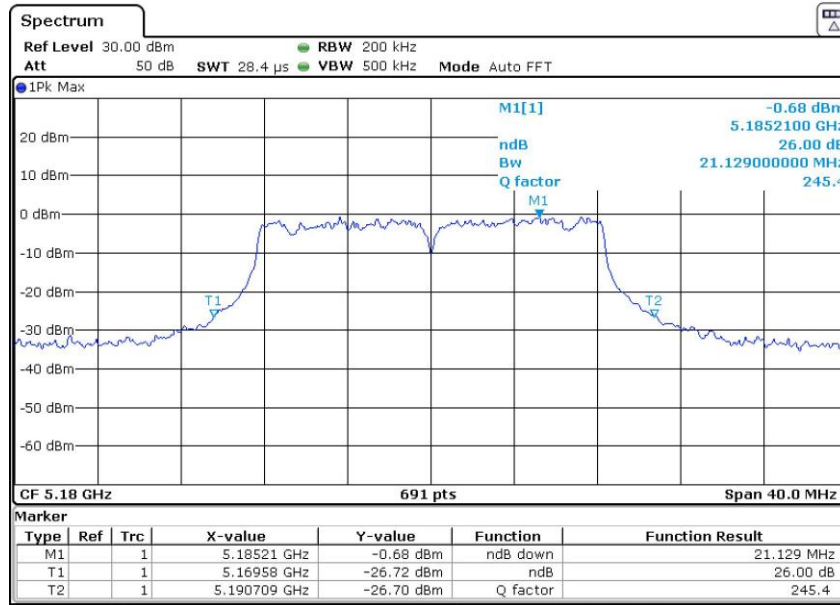
CH. No.	Frequency (MHz)	6dB Occupied Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
		802.11ax (HE160)	802.11ax (HE160)
162	5815.00	155.13	156.87

Report No.: AAEMT/EMC/221128-04-08

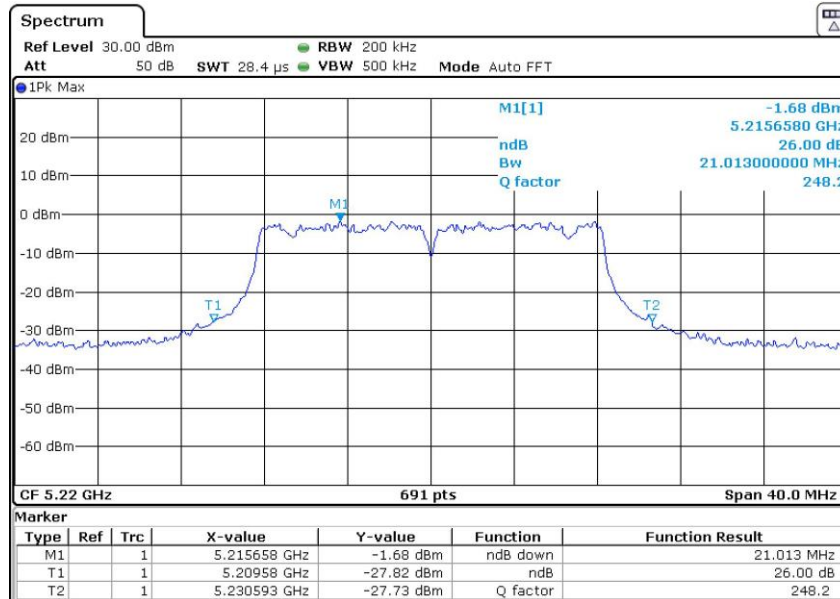
Test plots as followed: CHAIN 0

26dB BW 802.11a

Channel: 36

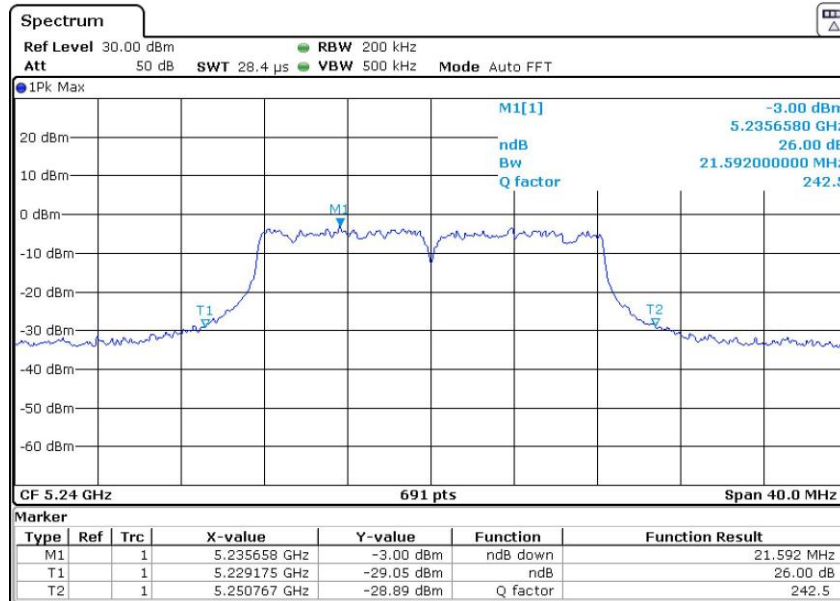


Channel: 44



Report No.: AAEMT/EMC/221128-04-08

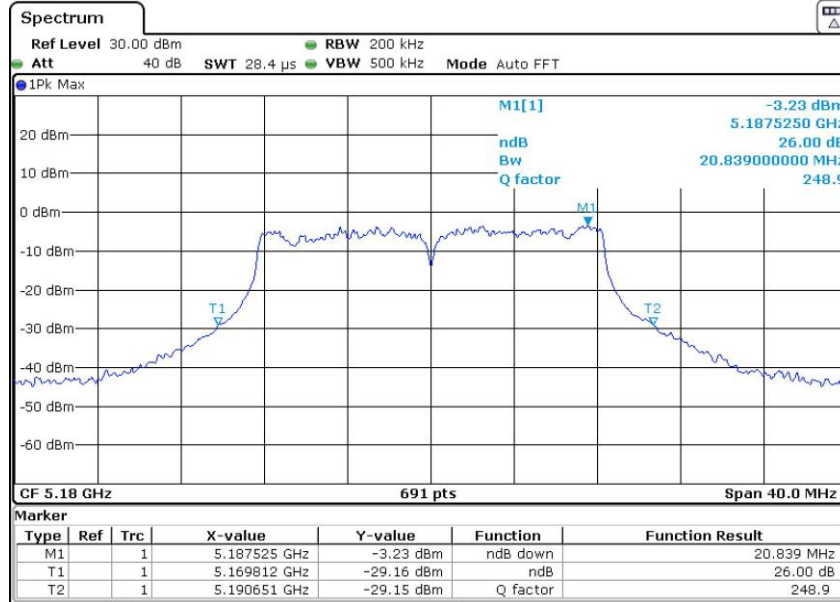
Channel: 48



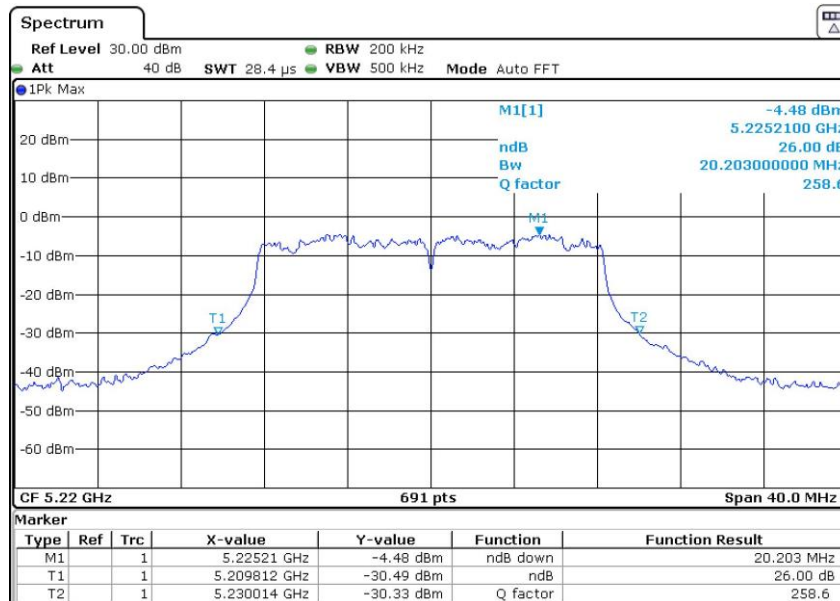
Report No.: AAEMT/EMC/221128-04-08

26dB BW 802.11n20

Channel: 36

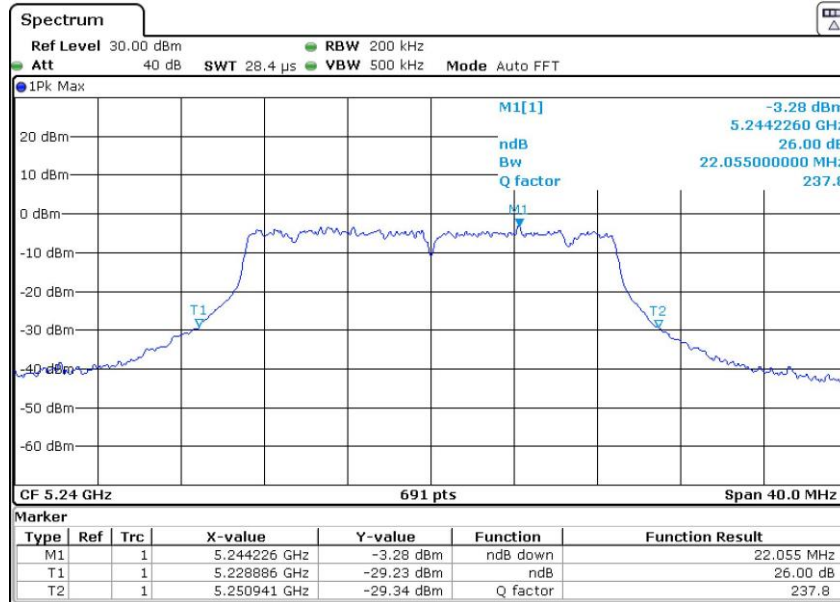


Channel: 44



Report No.: AAEMT/EMC/221128-04-08

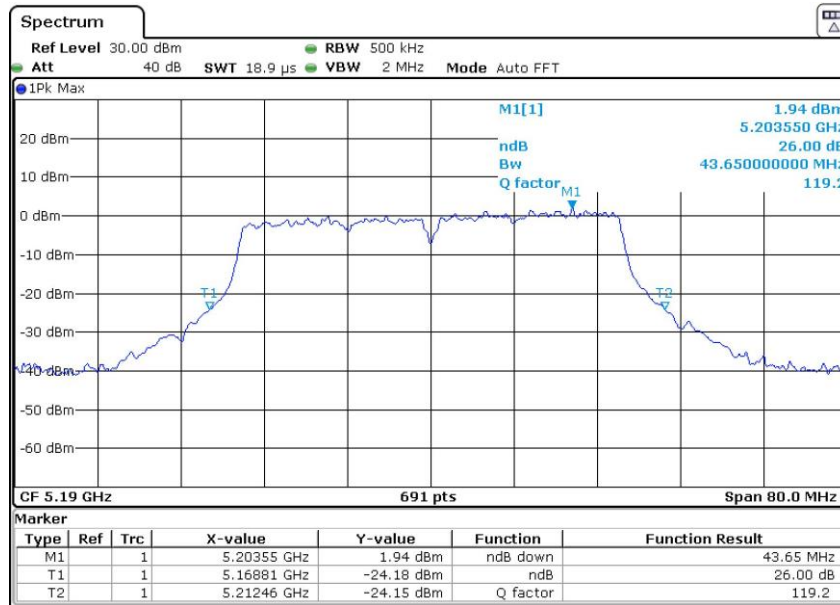
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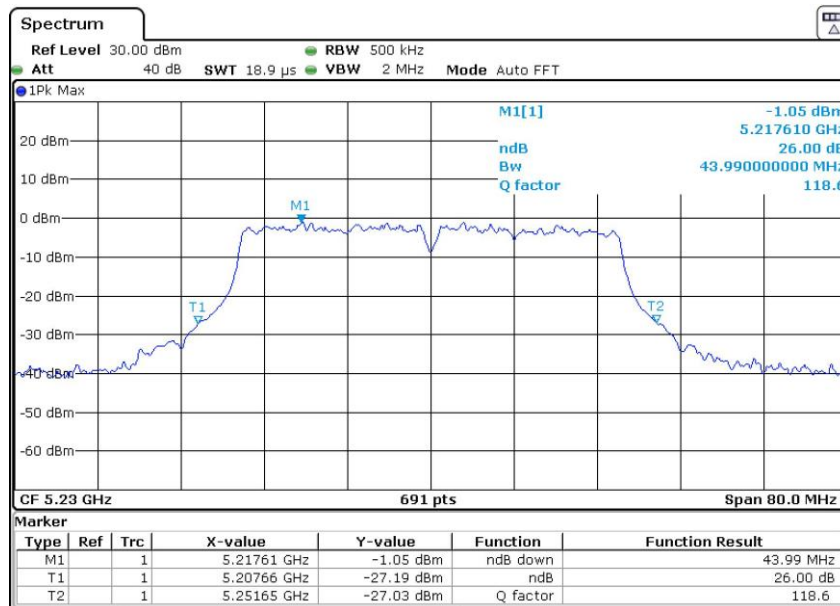
Report No.: AAEMT/EMC/221128-04-08

26dB BW 802.11n40

Channel: 38



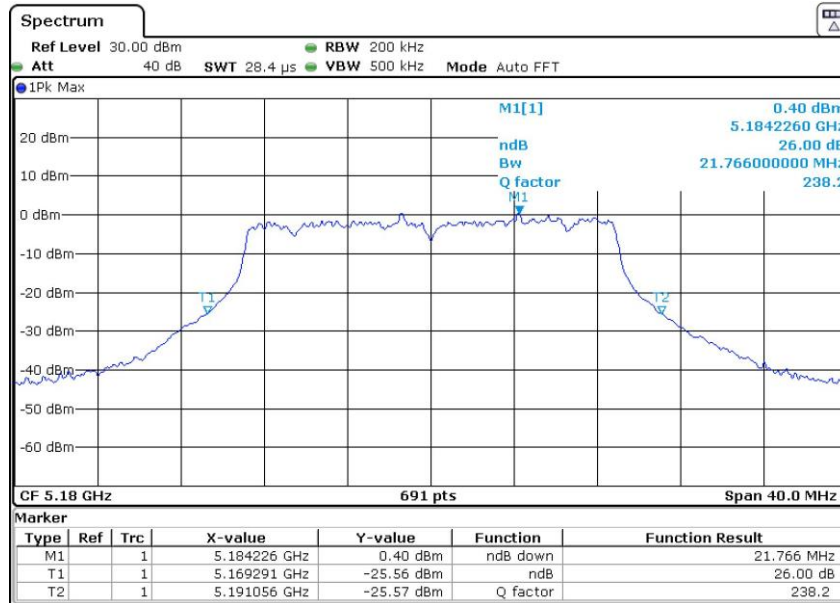
Channel: 46



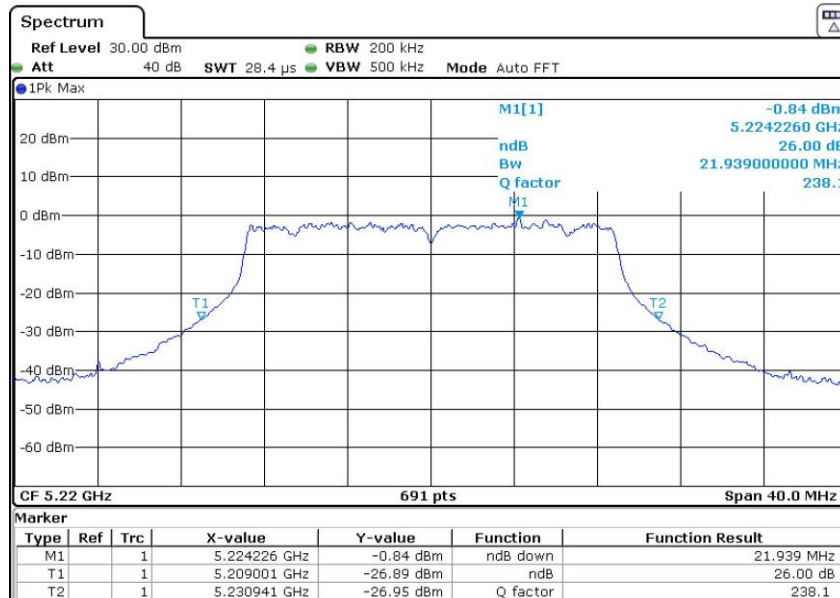
Report No.: AAEMT/EMC/221128-04-08

26dB BW 802.11ac20

Channel: 36

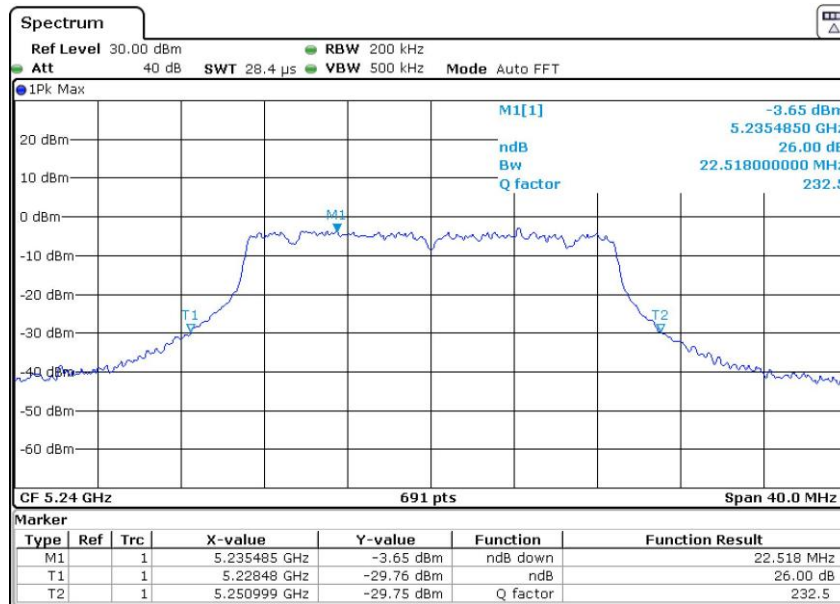


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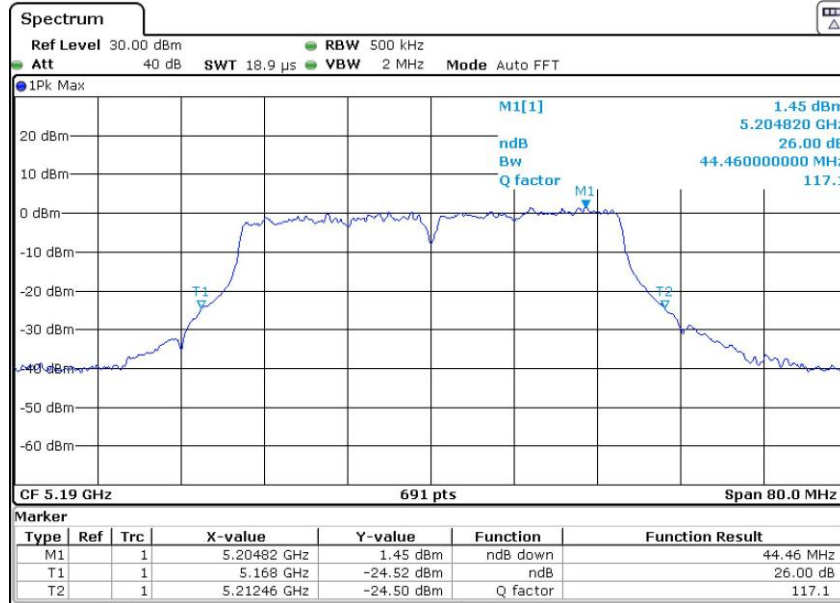
Channel: 48



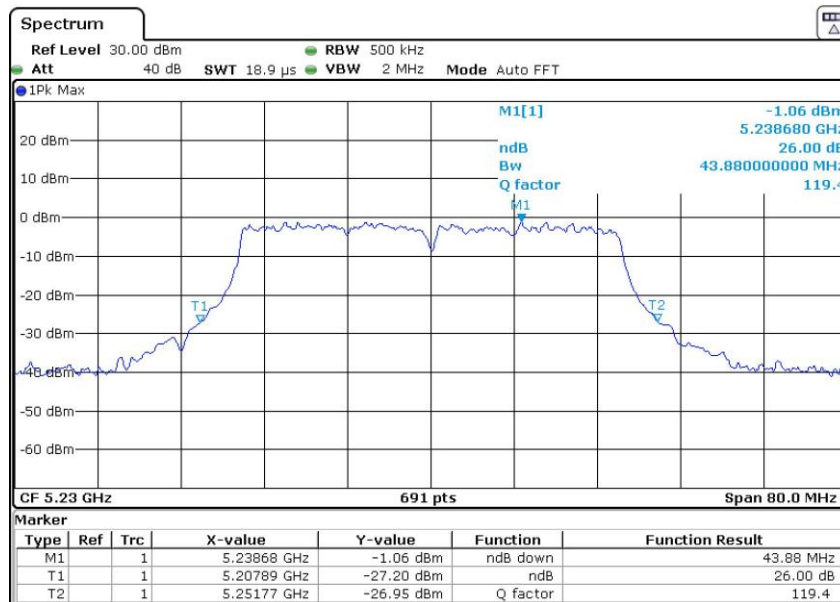
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26dB BW 802.11ac40

Channel: 38



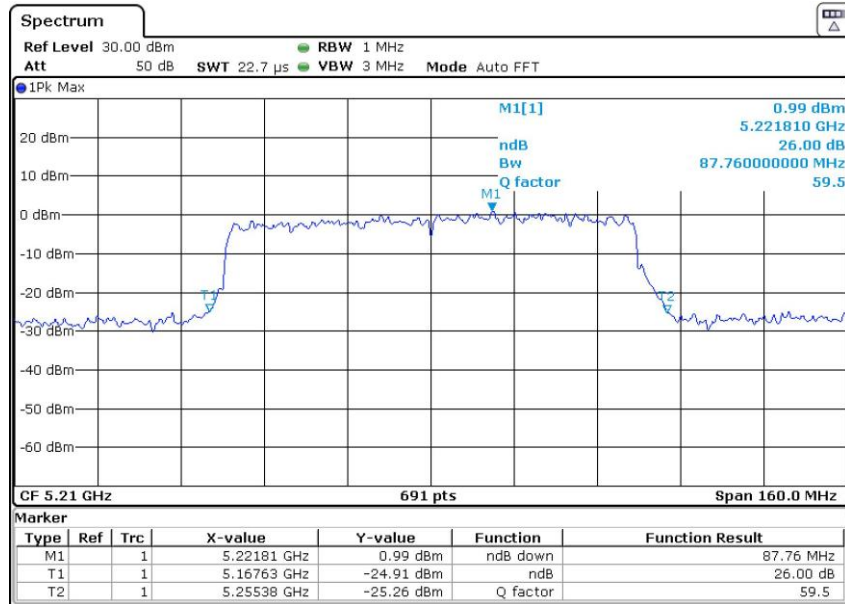
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Report No.: AAEMT/EMC/221128-04-08

26dB BW 802.11ac80

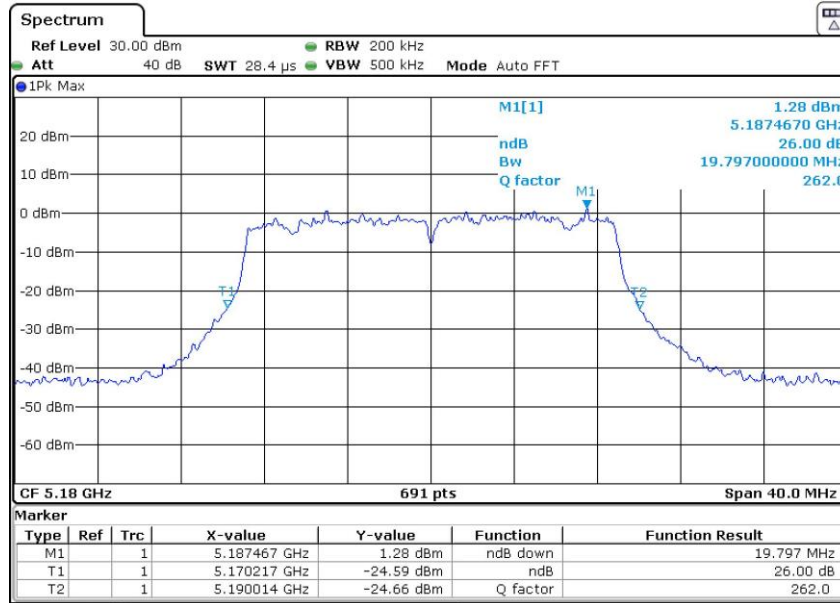
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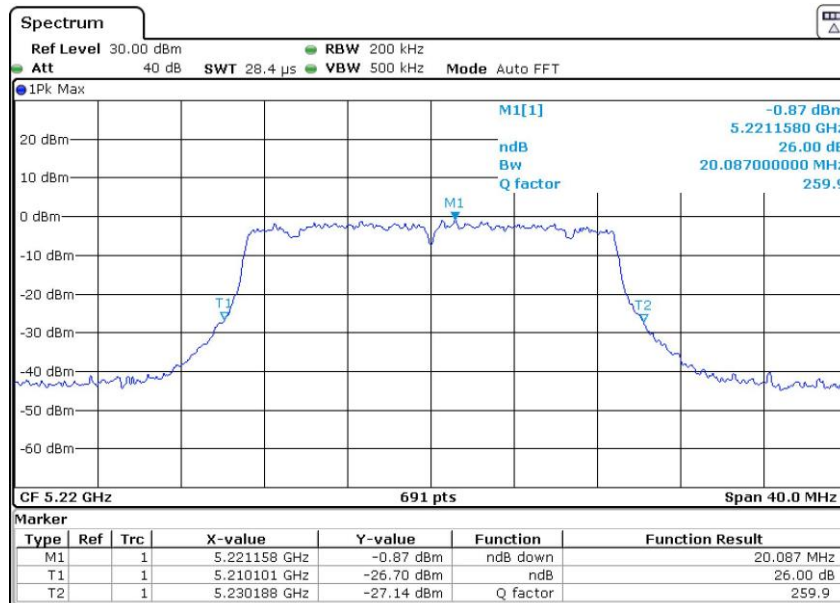
Report No.: AAEMT/EMC/221128-04-08

26dB BW 802.11ax20

Channel: 36

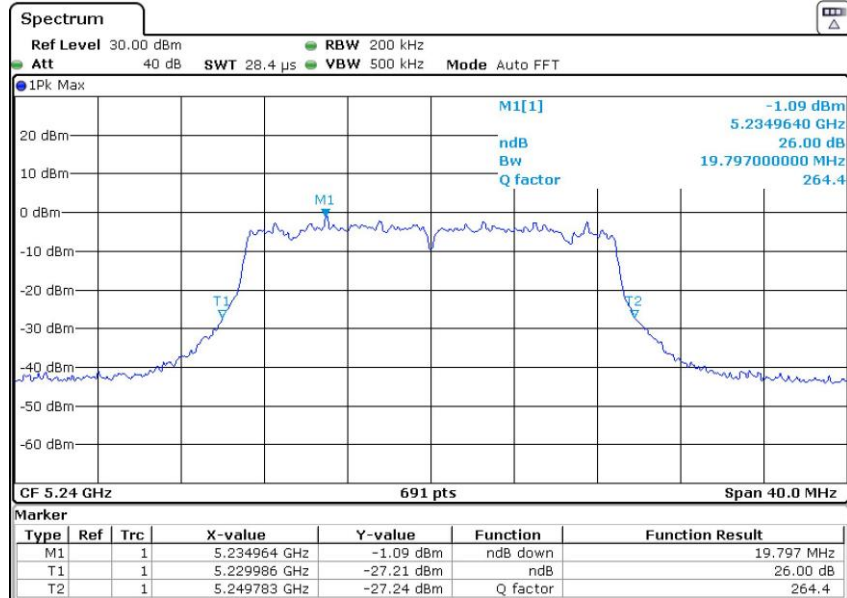


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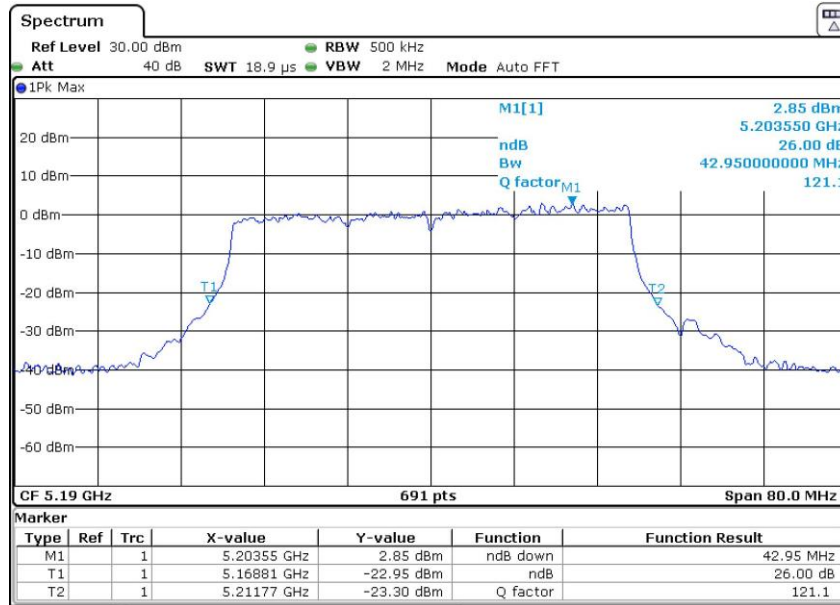
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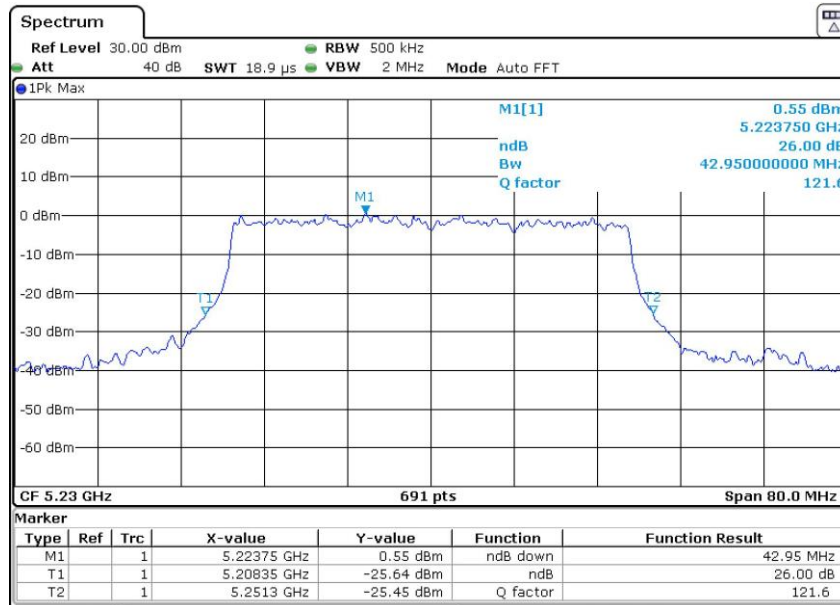
Report No.: AAEMT/EMC/221128-04-08

26dB BW 802.11ax40

Channel: 38

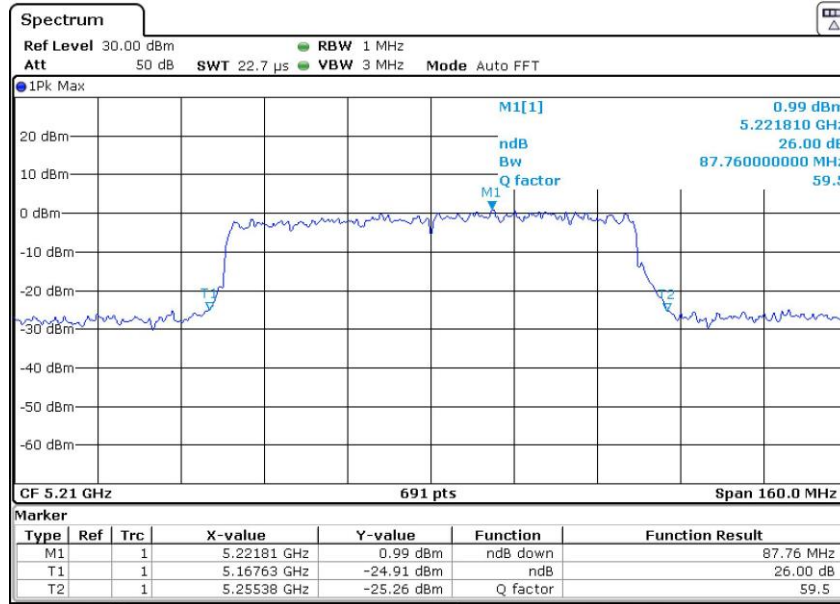


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Report No.: AAEMT/EMC/221128-04-08

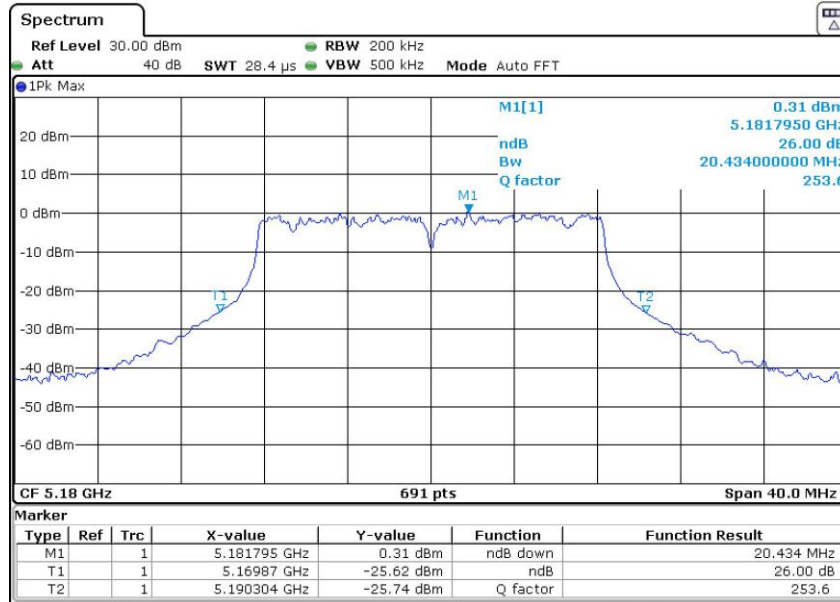
26dB BW 802.11ax80
Channel: 42



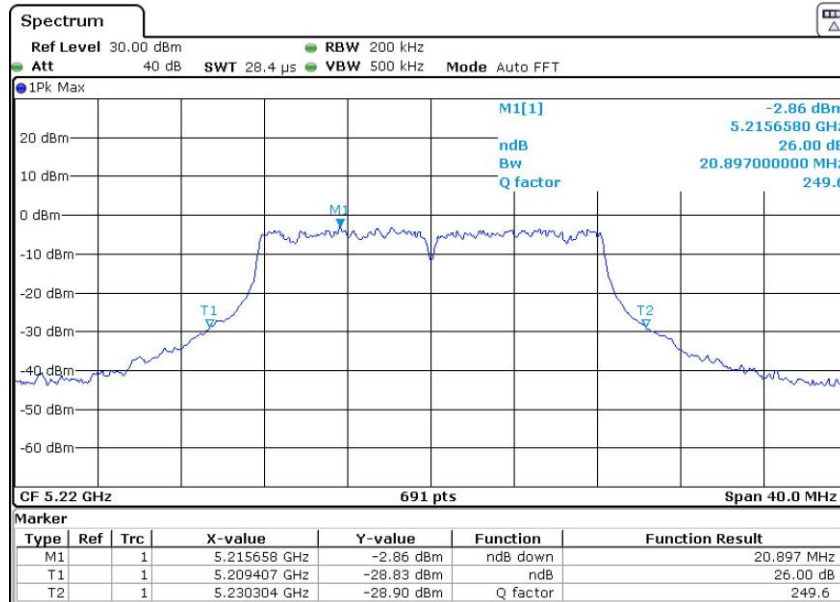
Test plots as followed: CHAIN 1

26dB BW 802.11a

Channel: 36

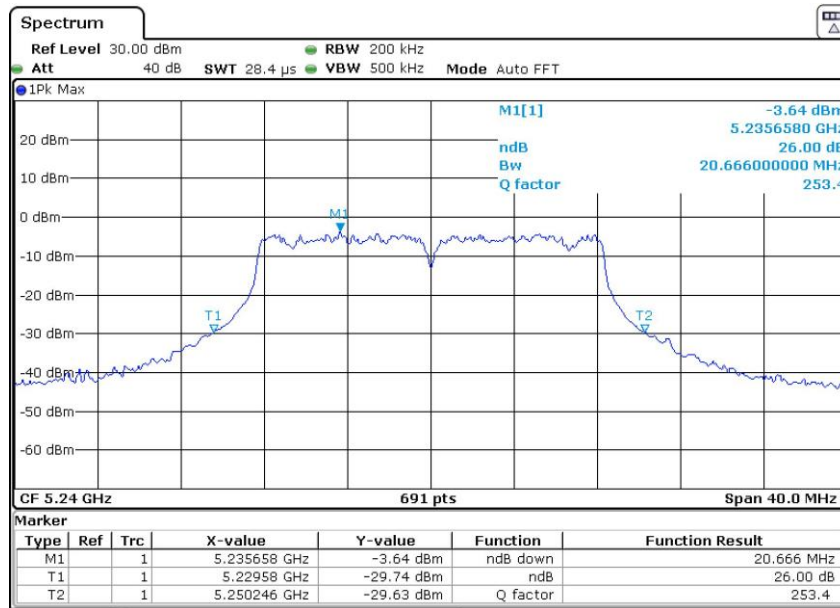


Channel: 44



Report No.: AAEMT/EMC/221128-04-08

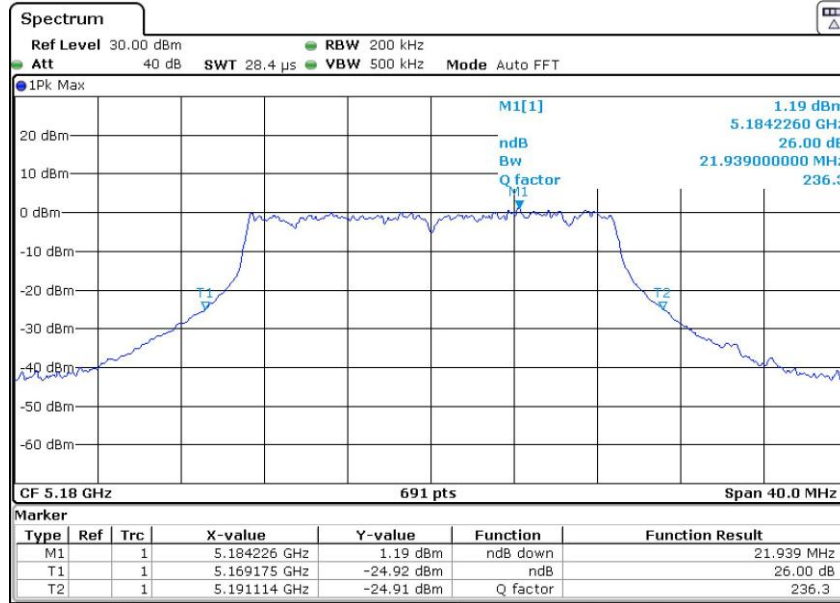
Channel: 48



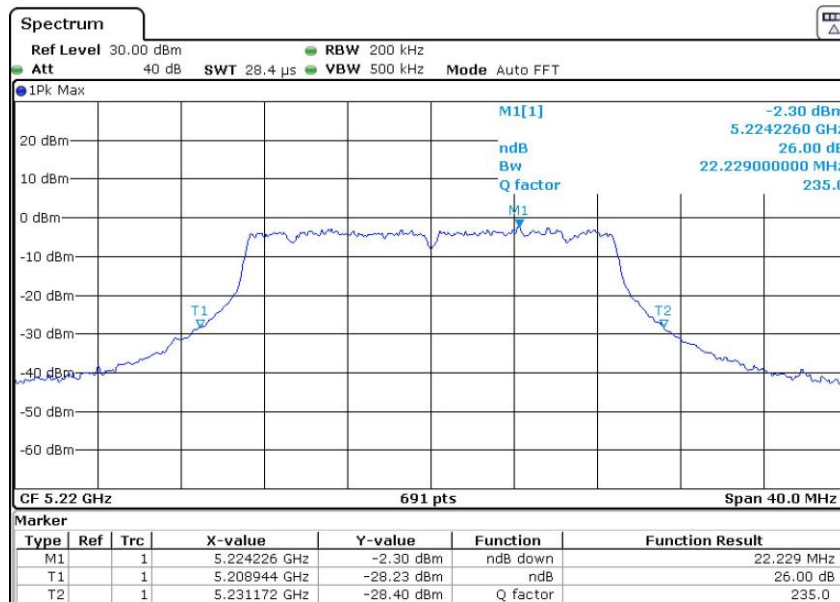
Report No.: AAEMT/EMC/221128-04-08

26dB BW 802.11n20

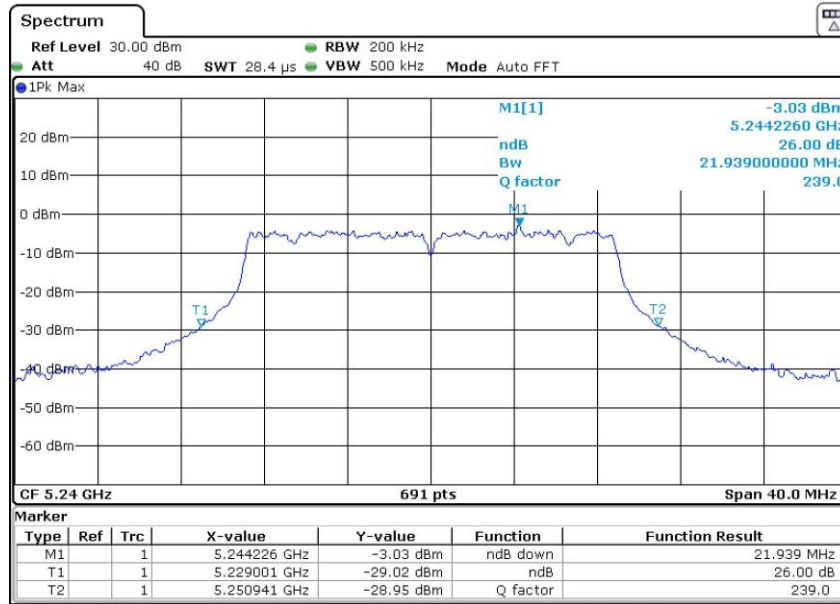
Channel: 36



Channel: 44



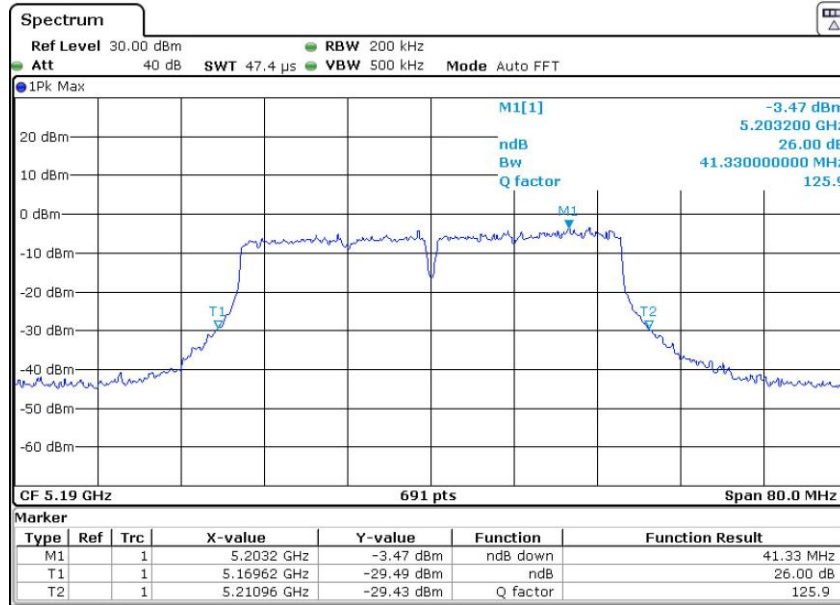
Channel: 48



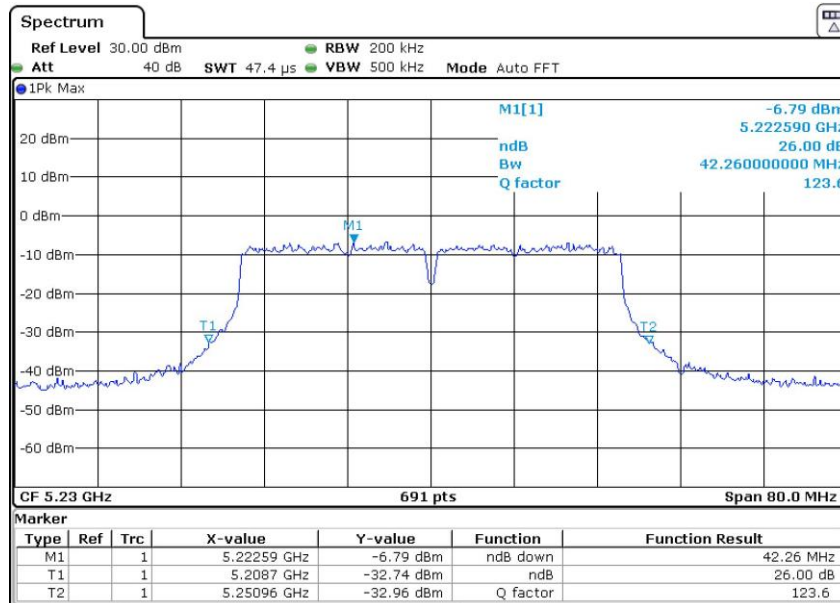
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26dB BW 802.11n40

Channel: 38



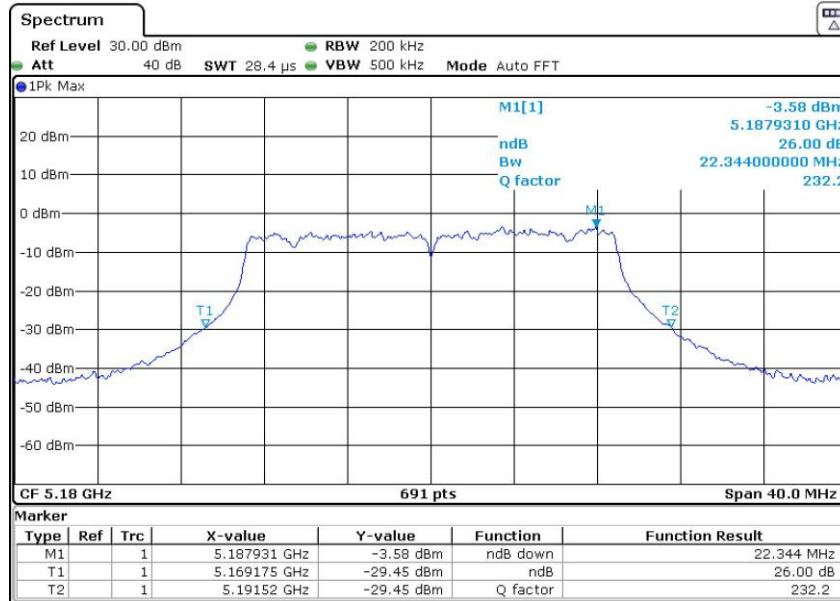
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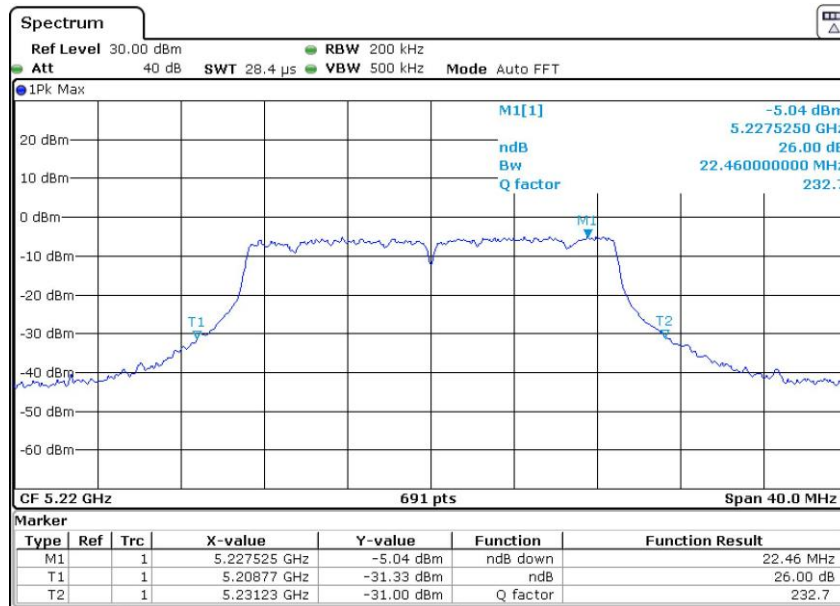
Report No.: AAEMT/EMC/221128-04-08

26dB BW 802.11ac20

Channel: 36

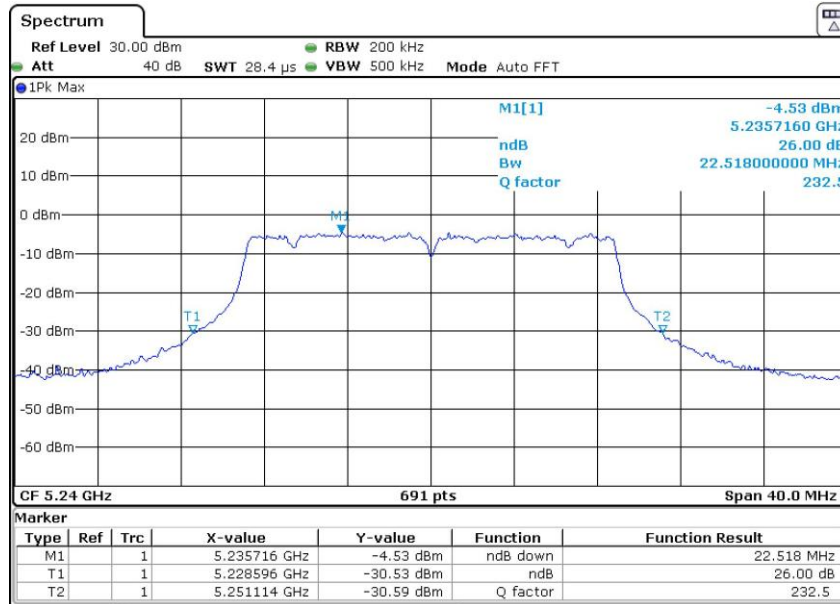


Channel: 44



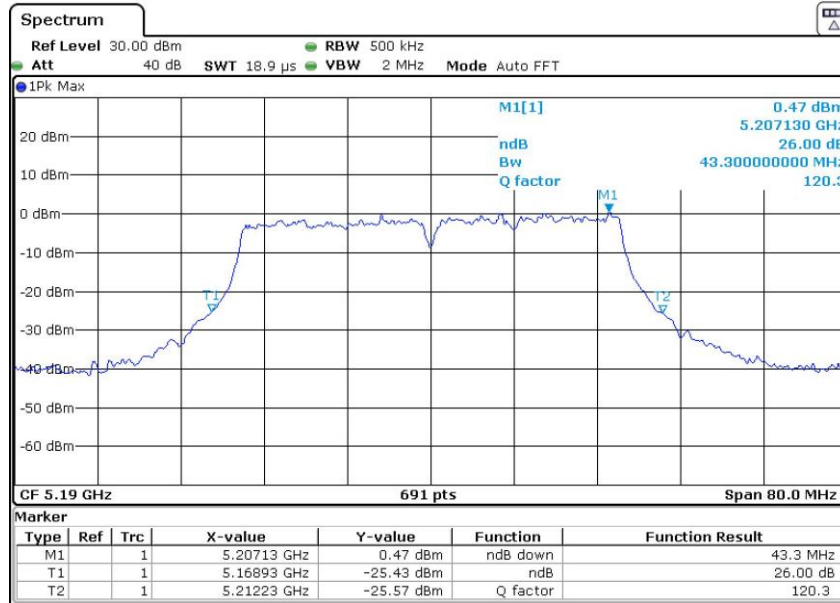
Report No.: AAEMT/EMC/221128-04-08

Channel: 48

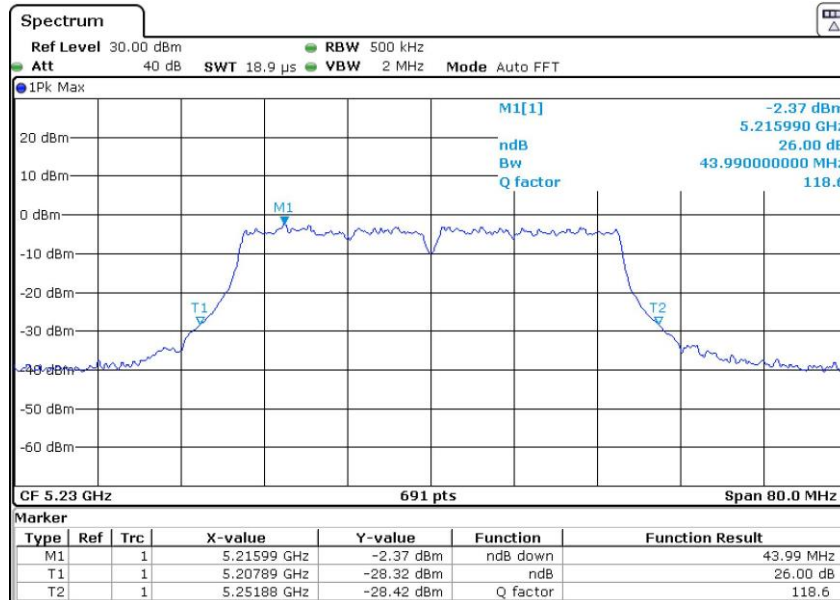


Report No.: AAEMT/EMC/221128-04-08

26dB BW 802.11ac40
Channel: 38



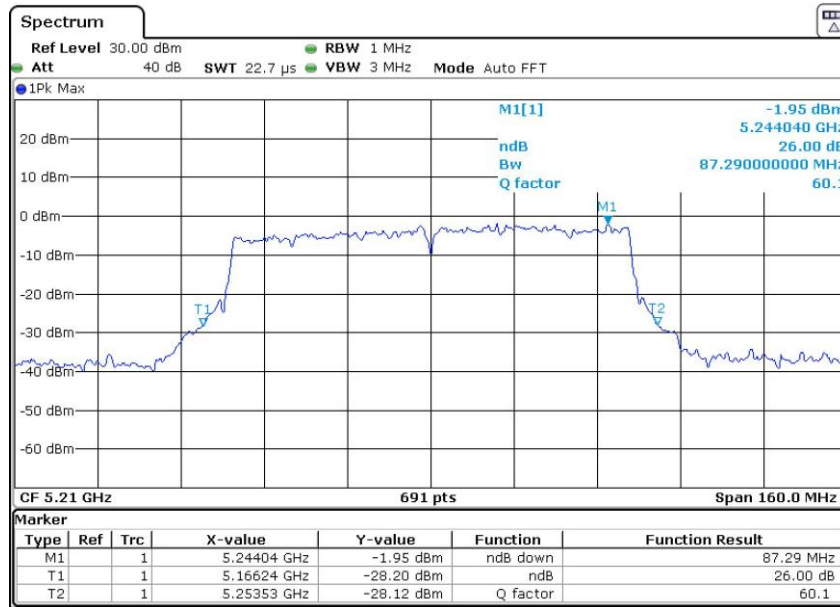
Channel: 46



Report No.: AAEMT/EMC/221128-04-08

26dB BW 802.11ac80

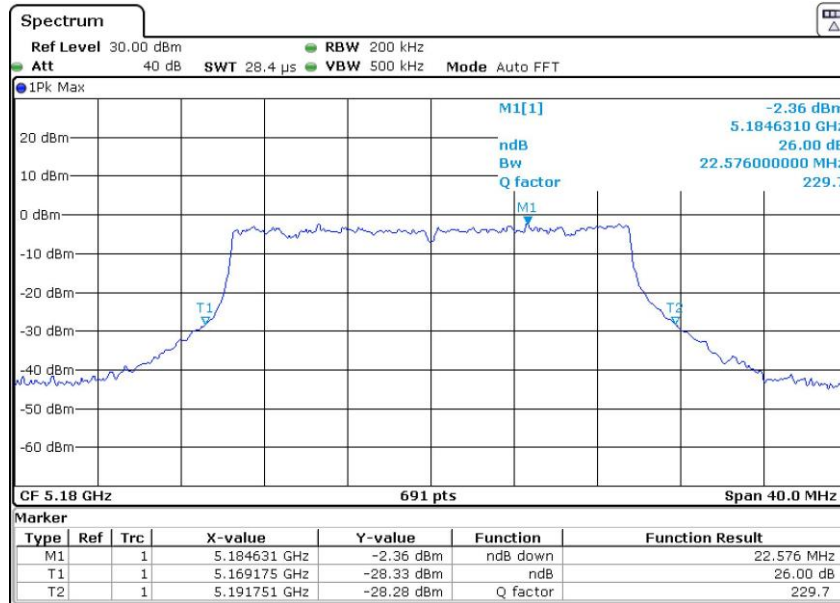
Channel: 42



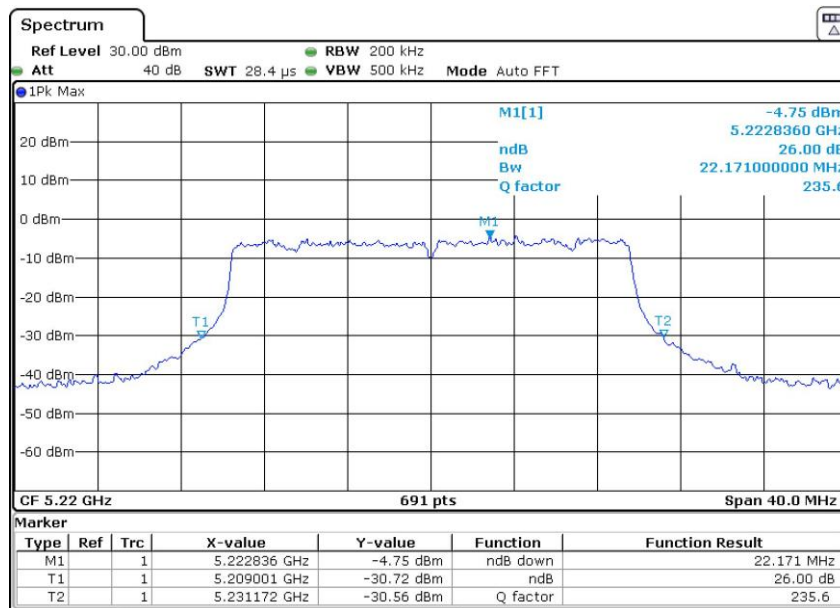
Report No.: AAEMT/EMC/221128-04-08

26dB BW 802.11ax20

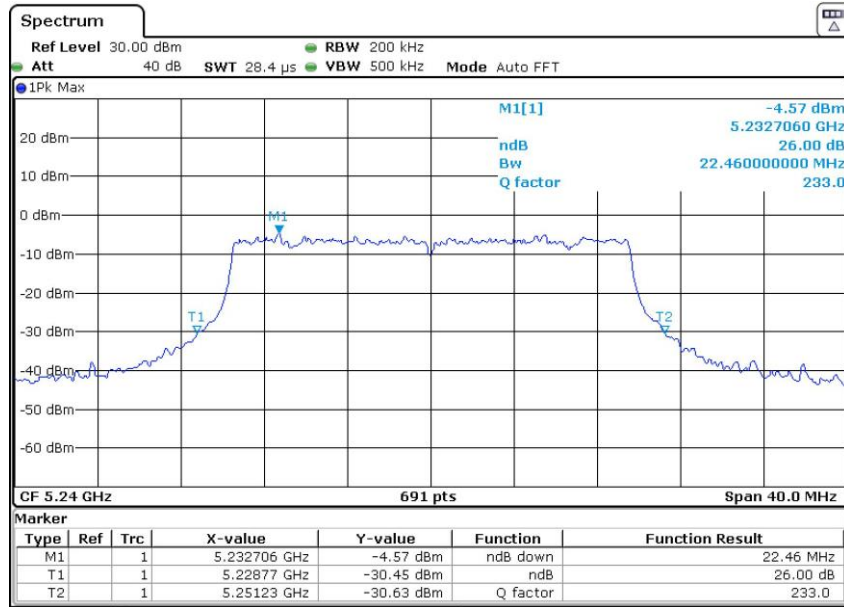
Channel: 36



Channel: 44



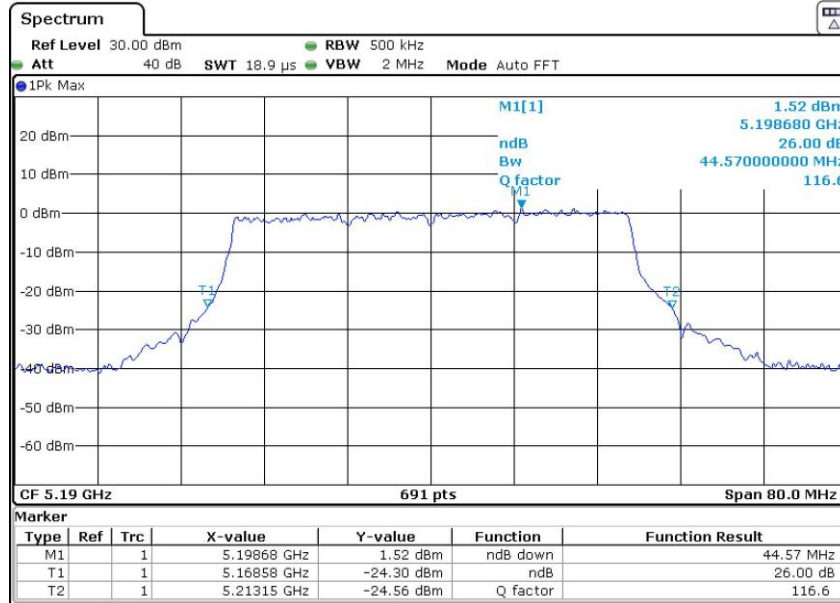
Channel: 48



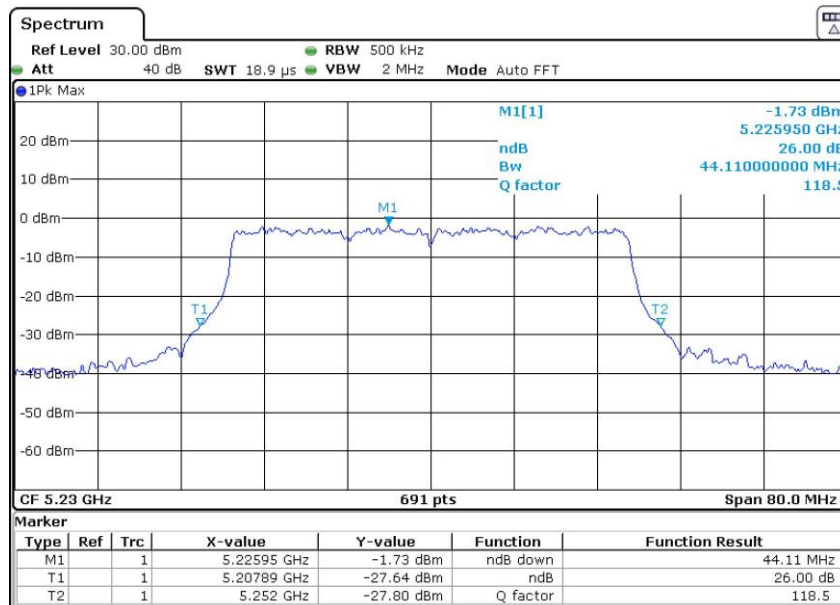
Report No.: AAEMT/EMC/221128-04-08

26dB BW 802.11ax40

Channel: 38



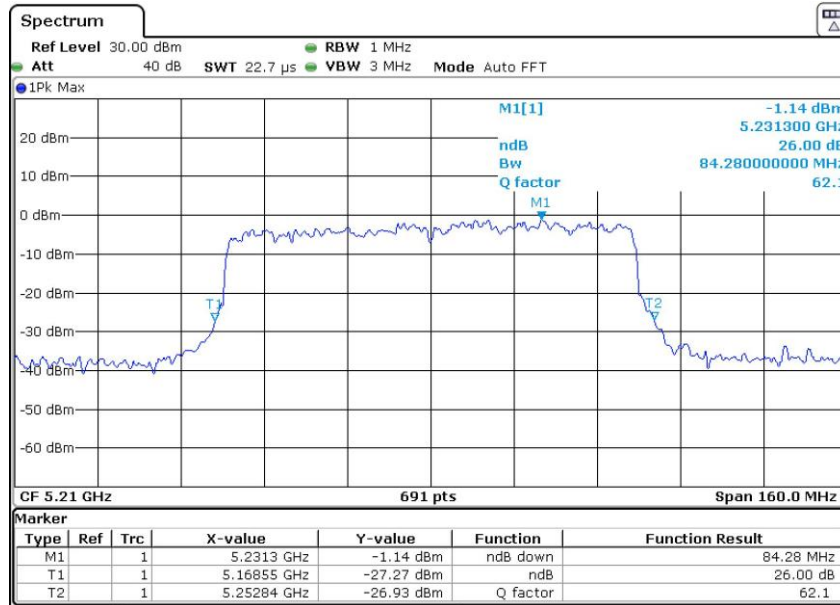
Channel: 46



Report No.: AAEMT/EMC/221128-04-08

26dB BW 802.11ax80

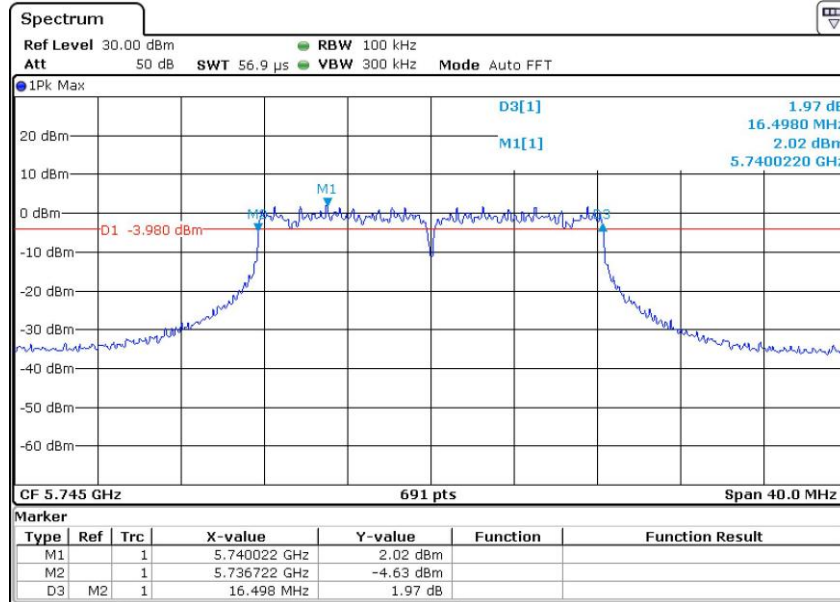
Channel: 42



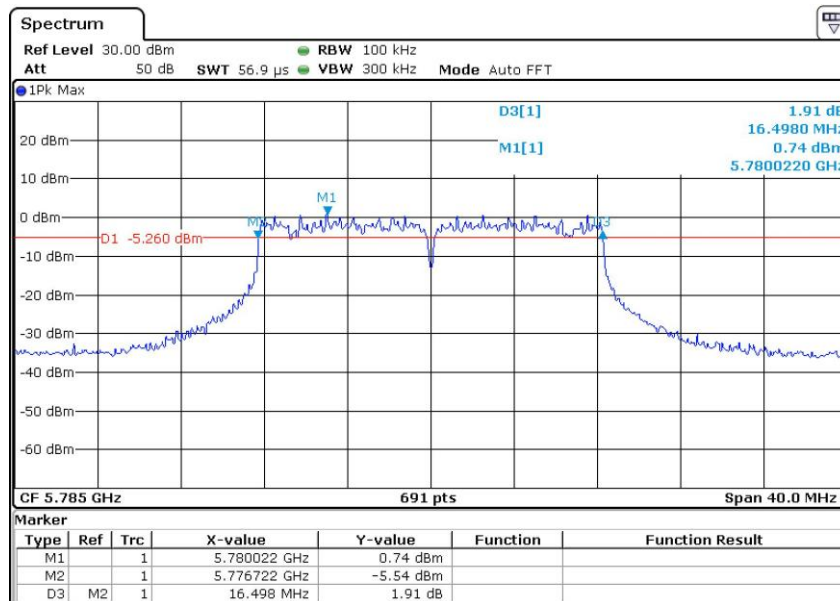
Test plots as followed: CHAIN 0

6dB BW 802.11a

Channel: 149

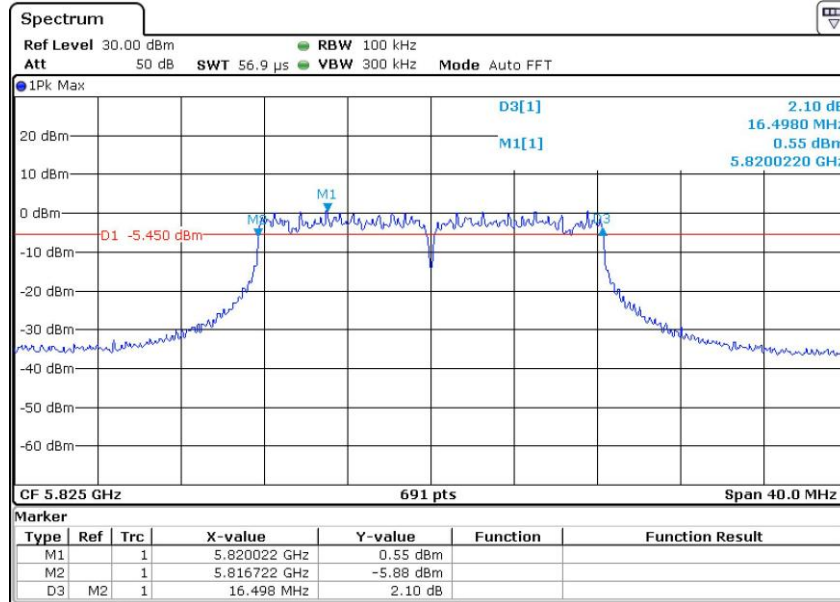


Channel: 157



Report No.: AAEMT/EMC/221128-04-08

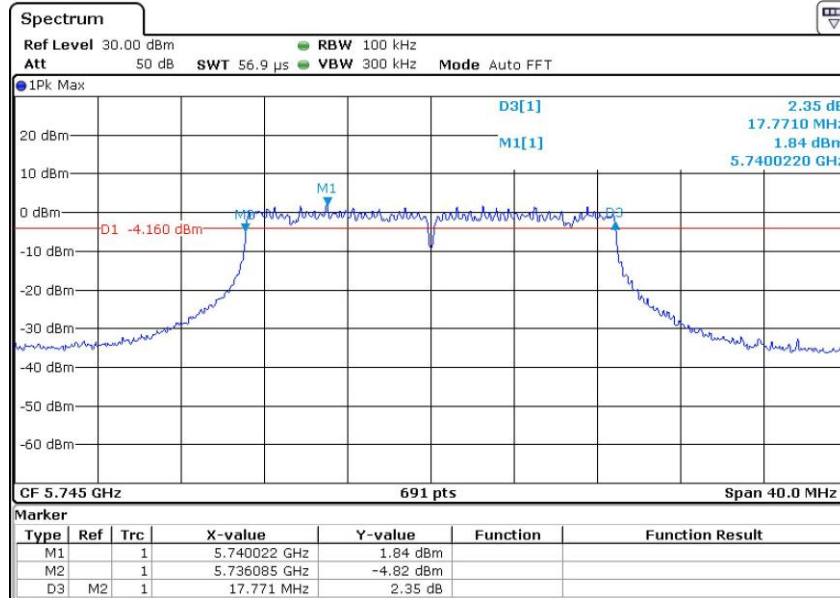
Channel: 165



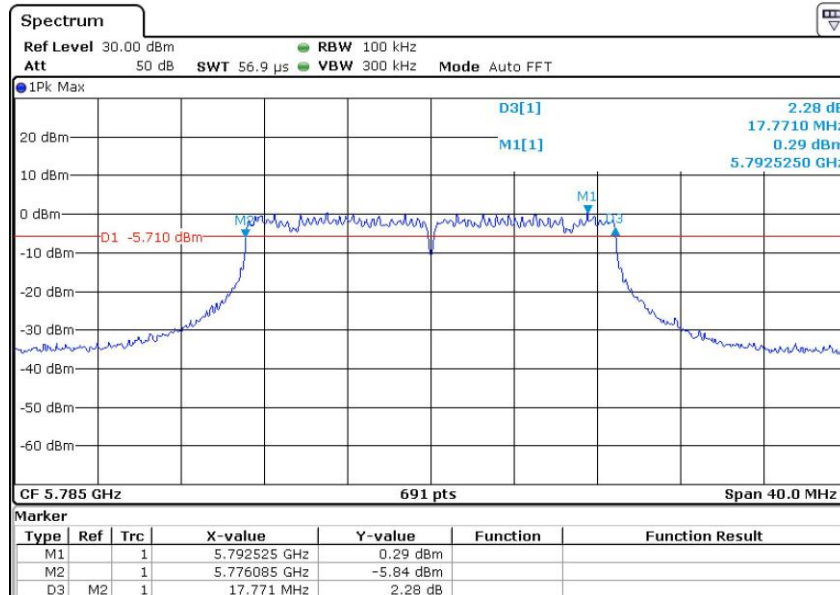
Report No.: AAEMT/EMC/221128-04-08

6dB BW 802.11n20

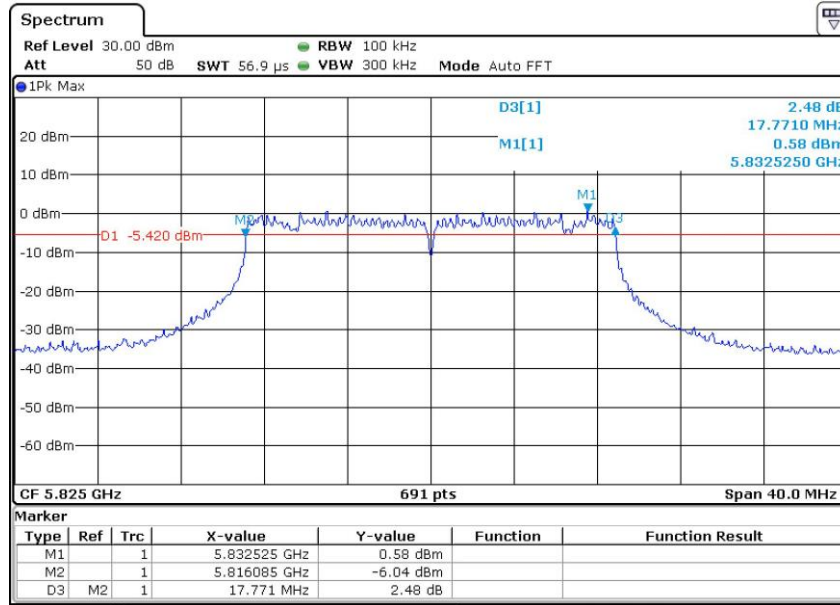
Channel: 149



Channel: 157



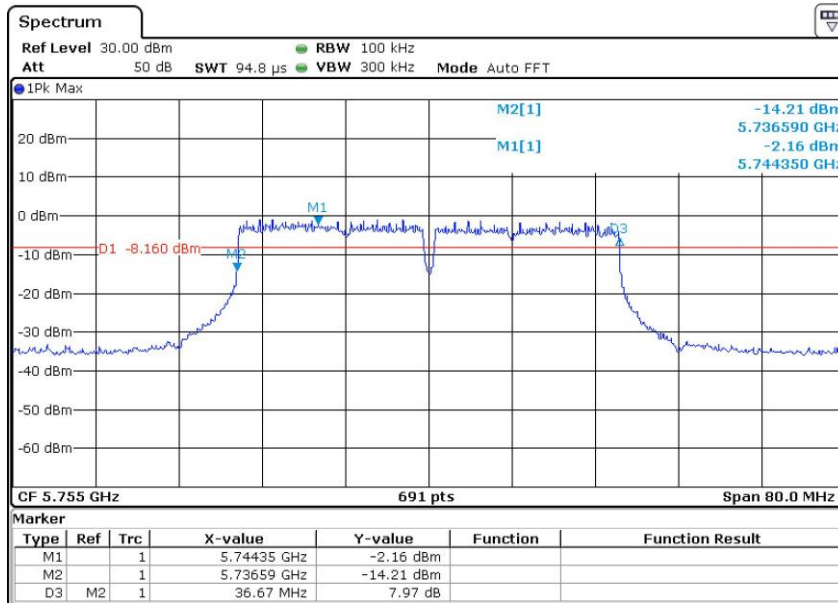
Channel: 165



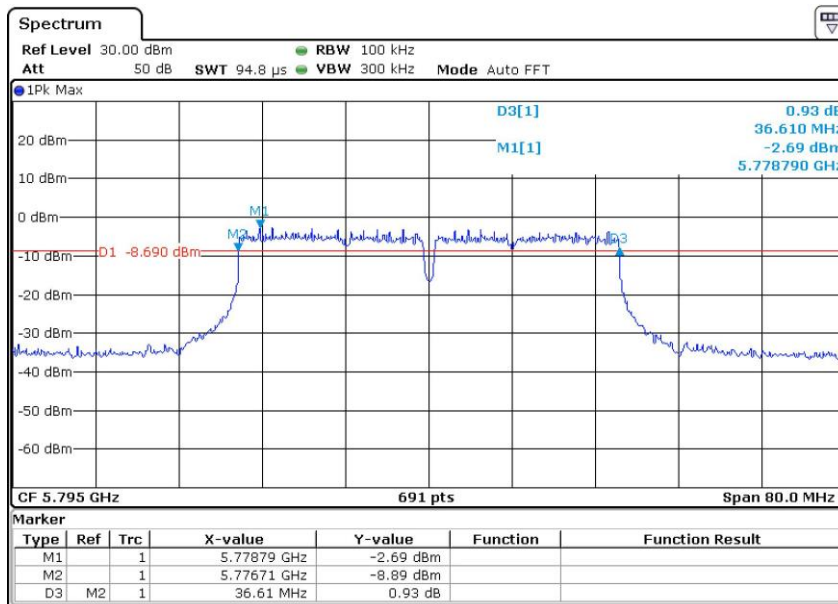
Report No.: AAEMT/EMC/221128-04-08

6dB BW 802.11n40

Channel: 151



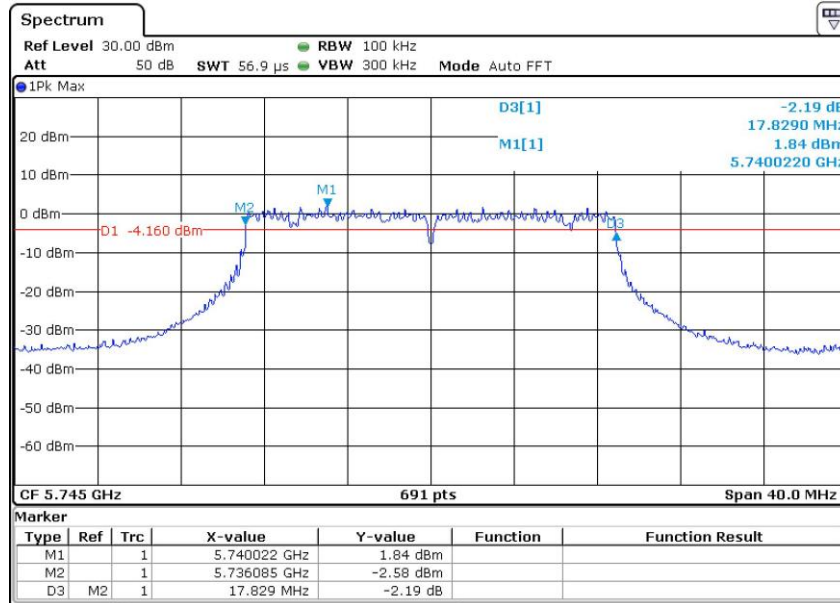
Channel: 159



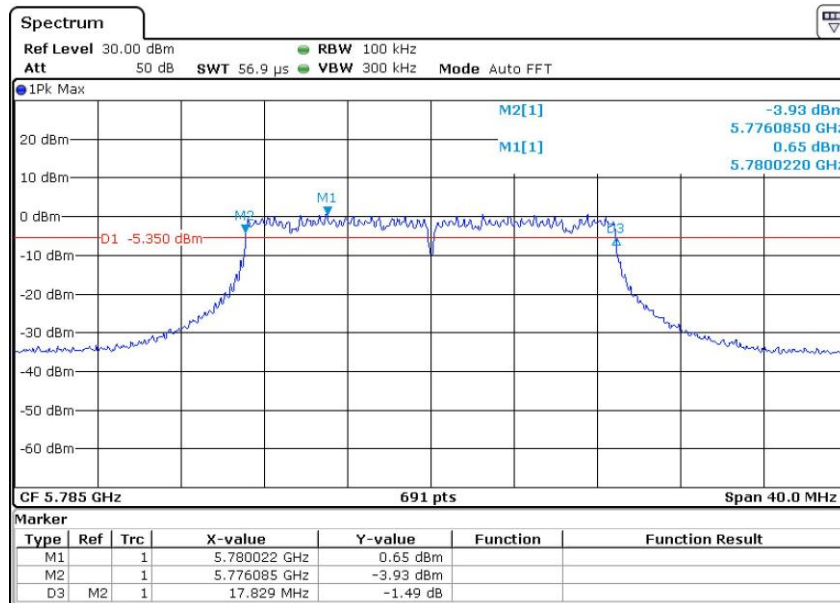
Report No.: AAEMT/EMC/221128-04-08

6dB BW 802.11ac20

Channel: 149

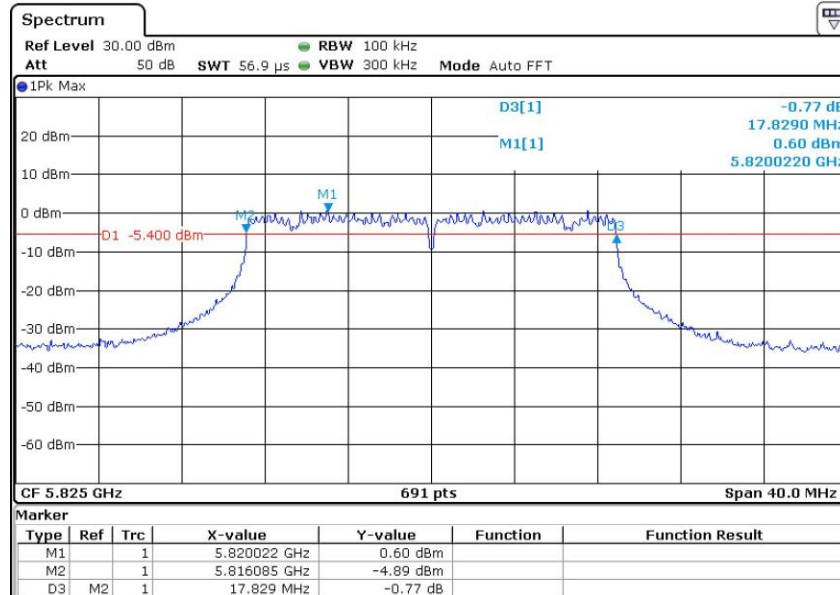


Channel: 157



Report No.: AAEMT/EMC/221128-04-08

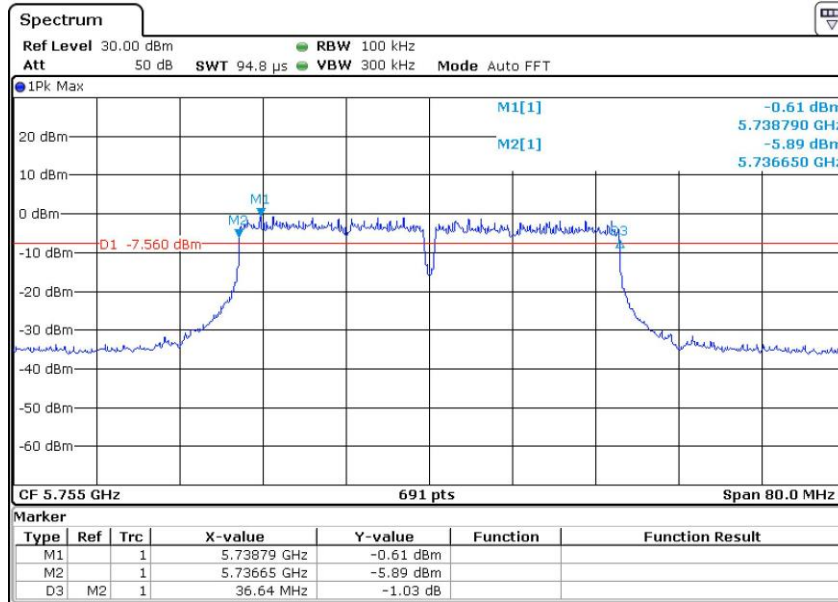
Channel: 165



Report No.: AAEMT/EMC/221128-04-08

6dB BW 802.11ac40

Channel: 151



Channel: 159

