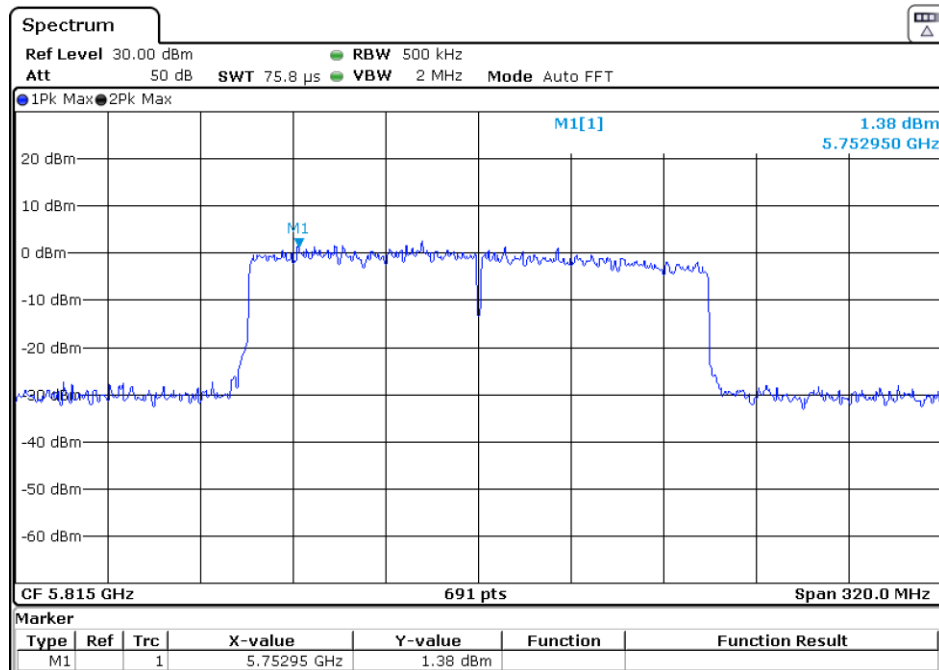


Report No.: AAEMT/EMC/221003-01-08

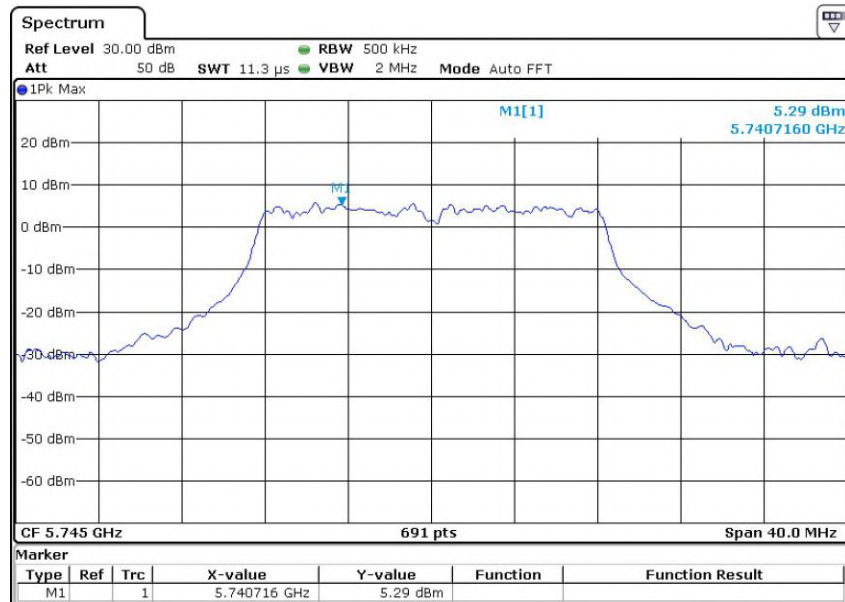
802.11ax160
Channel: 163



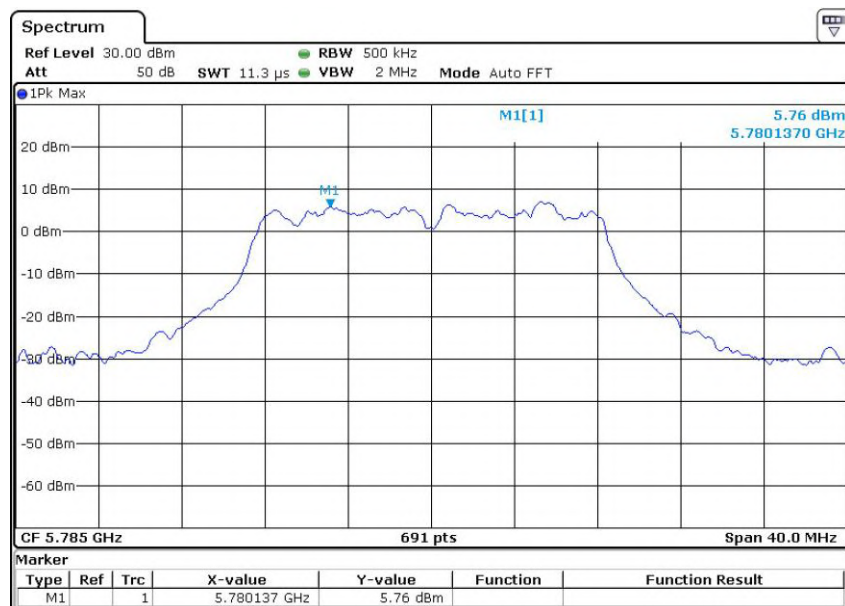
Report No.: AAEMT/EMC/221003-01-08

Test plots as followed: CHAIN 1

802.11a
Channel: 149

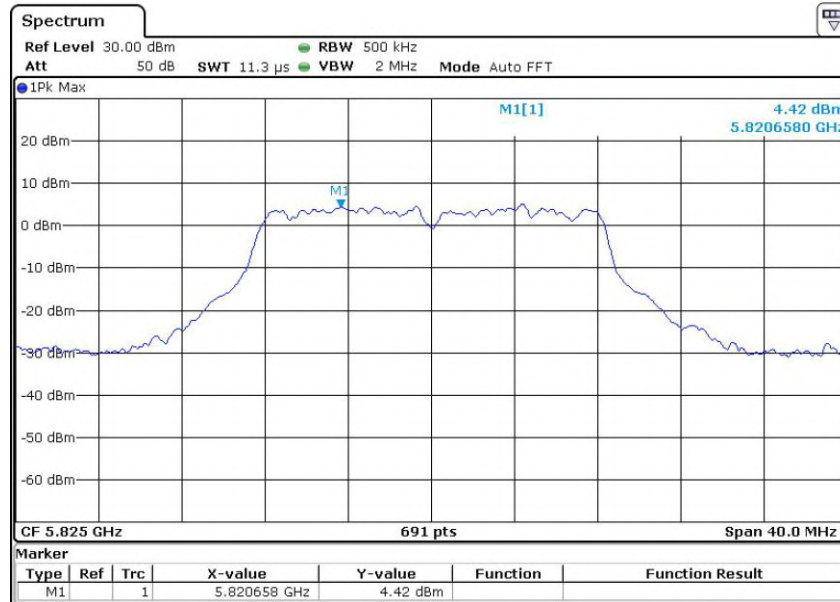


Channel: 157



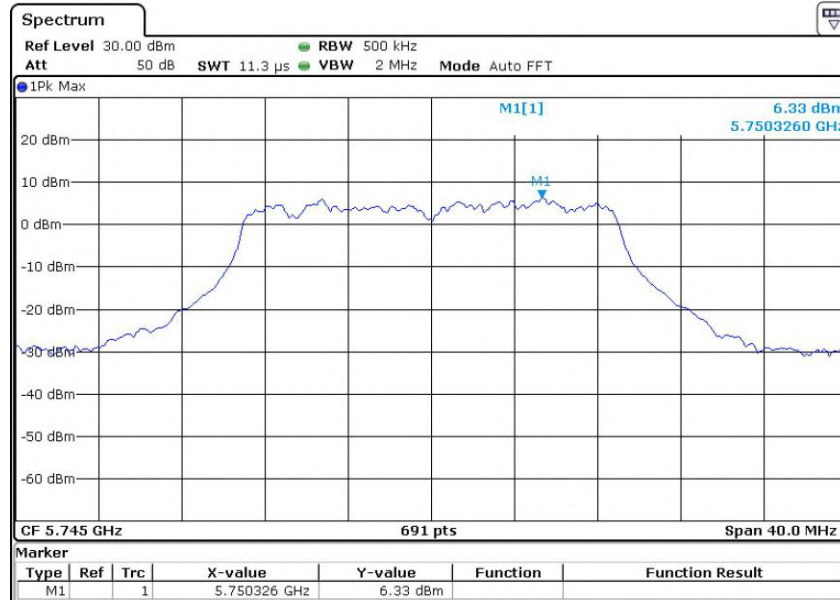
Report No.: AAEMT/EMC/221003-01-08

Channel: 165

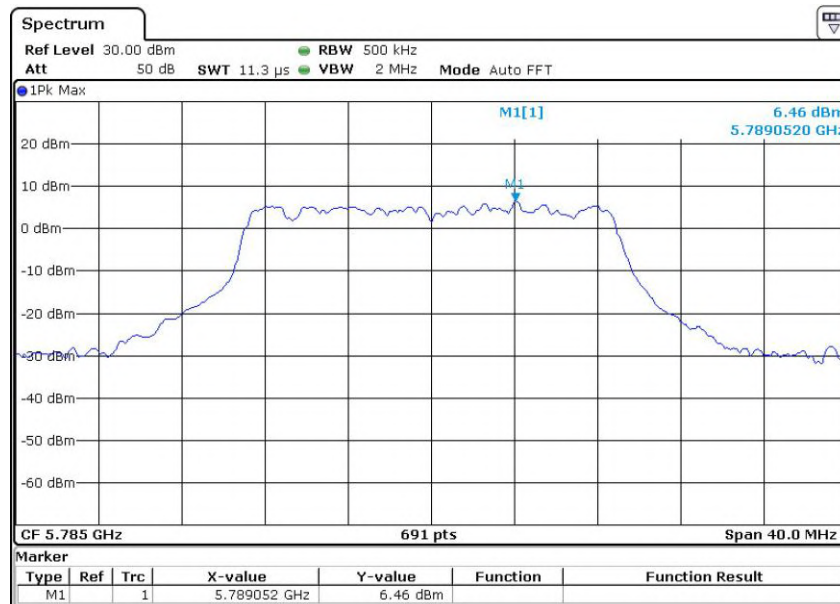


Report No.: AAEMT/EMC/221003-01-08

802.11n20
Channel: 149

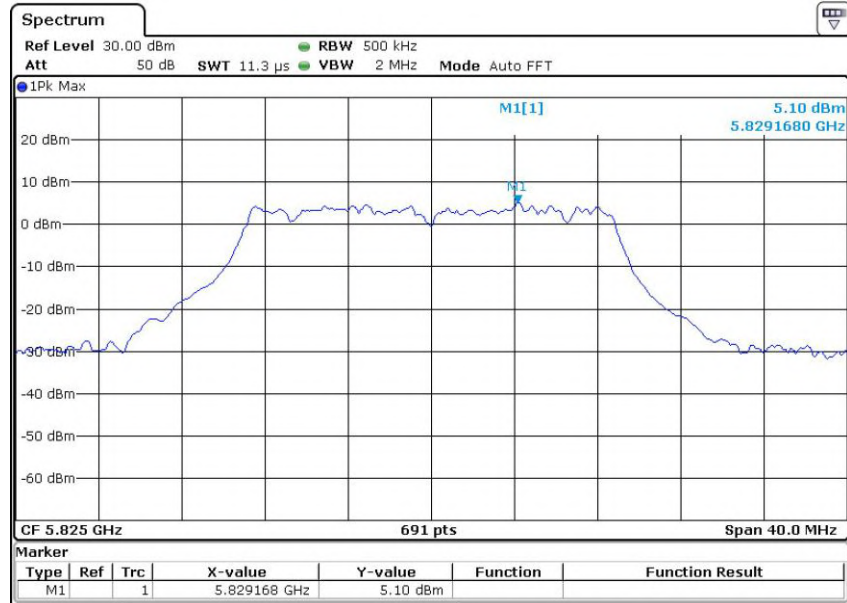


Channel: 157



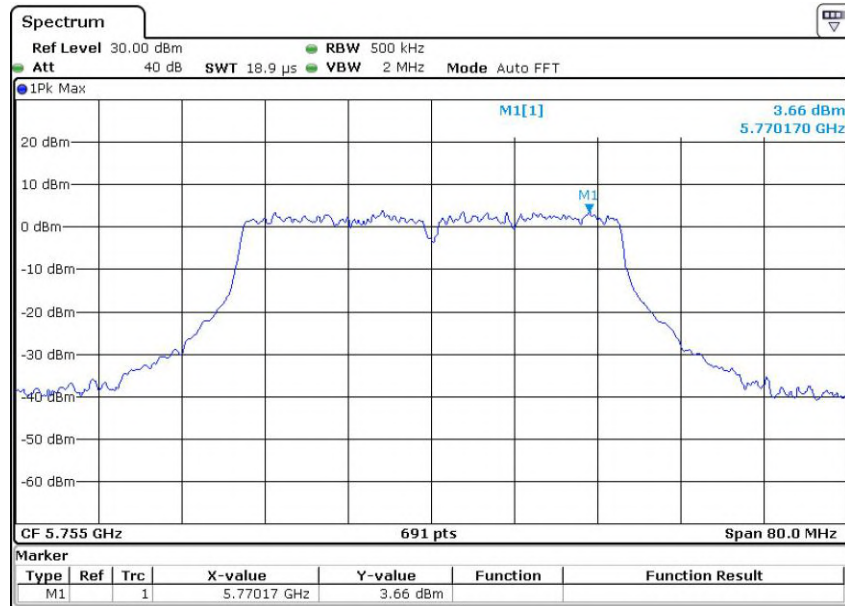
Report No.: AAEMT/EMC/221003-01-08

Channel: 165

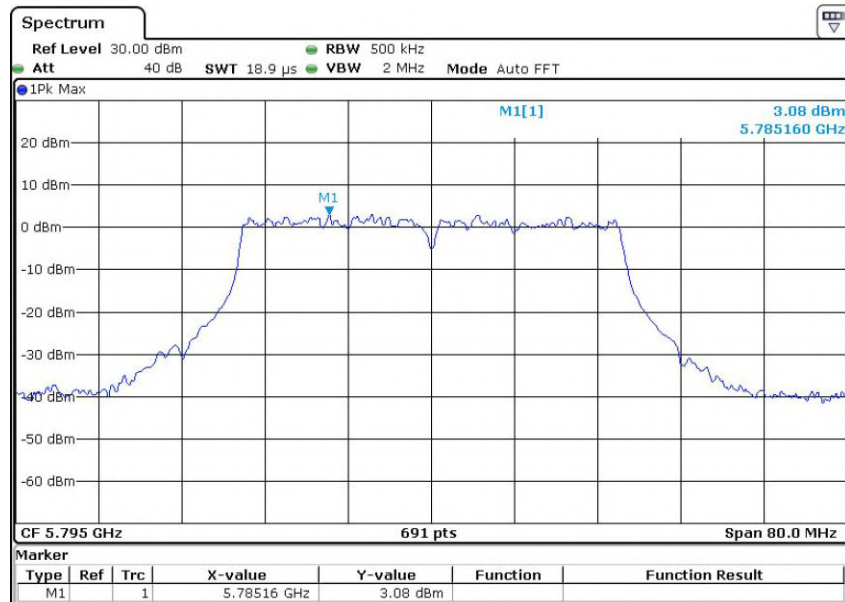


Report No.: AAEMT/EMC/221003-01-08

802.11n40
Channel: 151

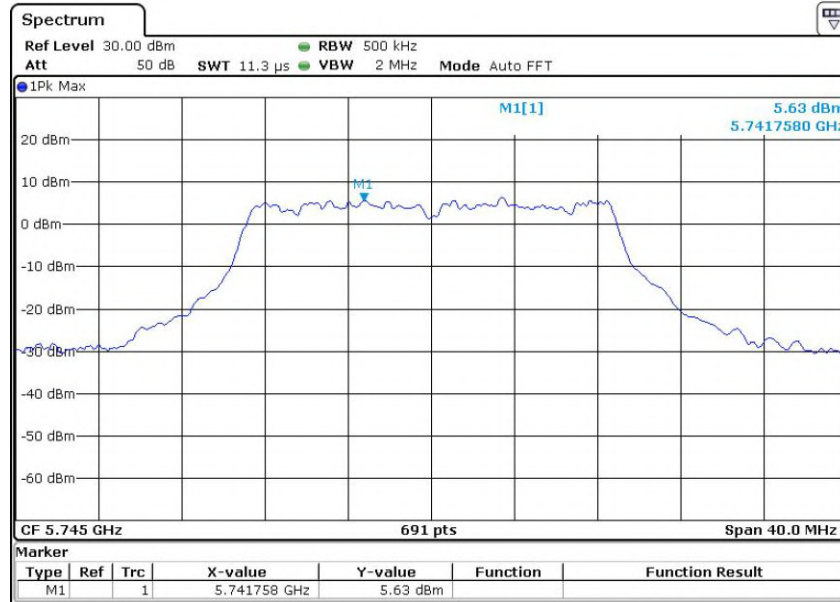


Channel: 159

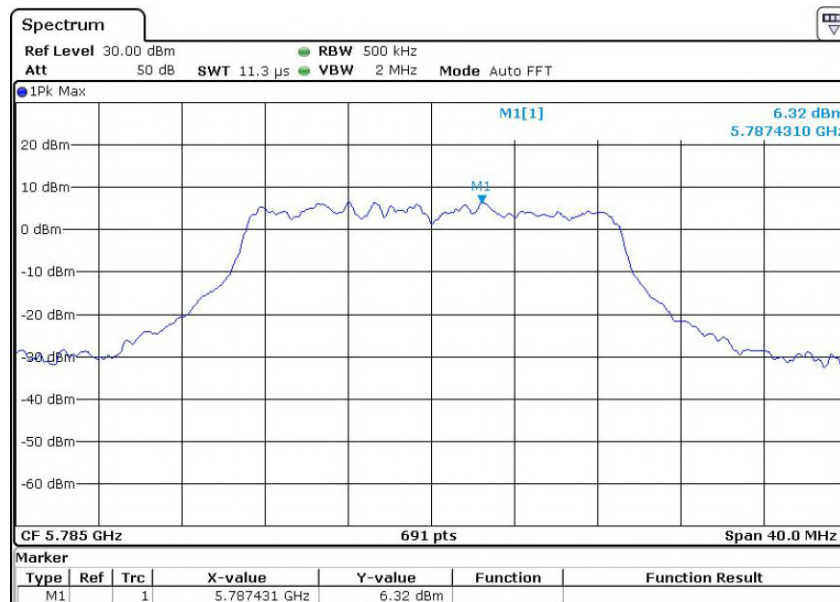


Report No.: AAEMT/EMC/221003-01-08

802.11ac20
Channel: 149

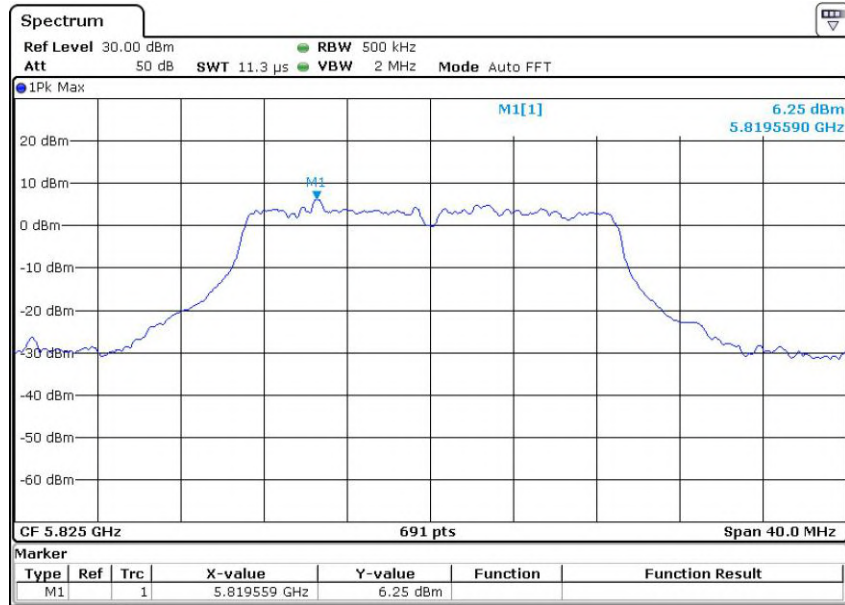


Channel: 157



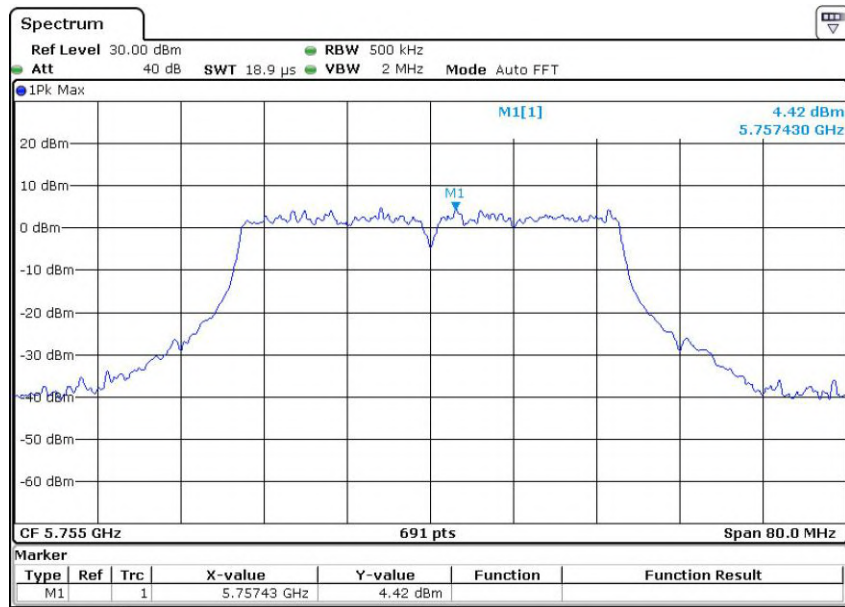
Report No.: AAEMT/EMC/221003-01-08

Channel: 165



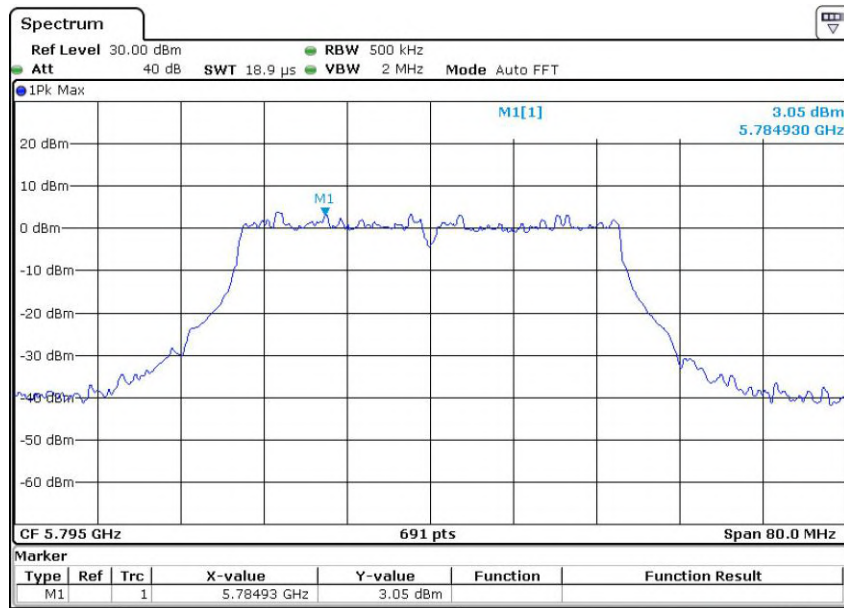
802.11ac40

Channel: 151



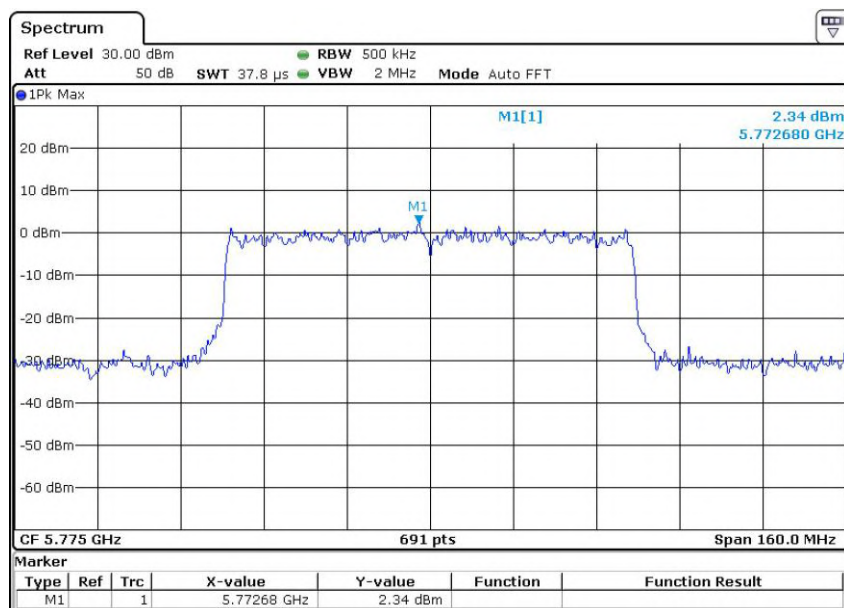
Report No.: AAEMT/EMC/221003-01-08

Channel: 159



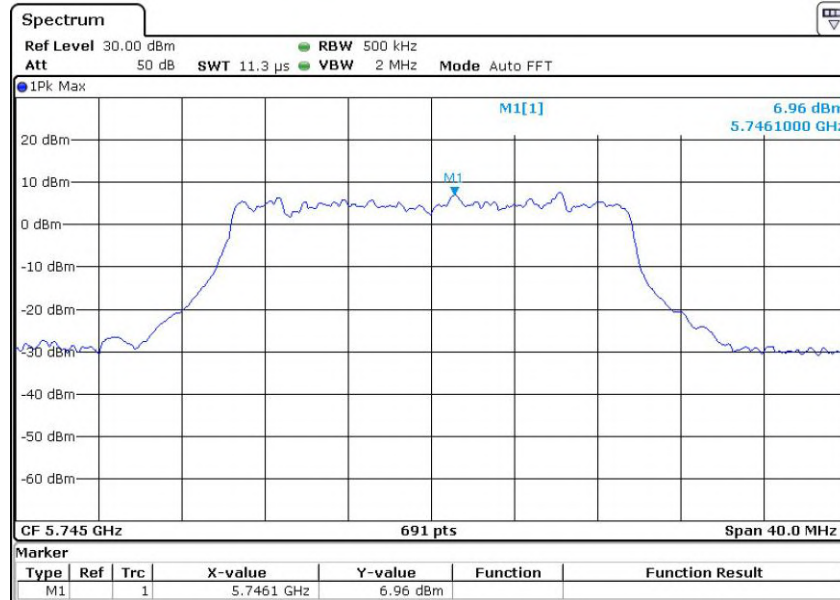
802.11ac80

Channel: 155

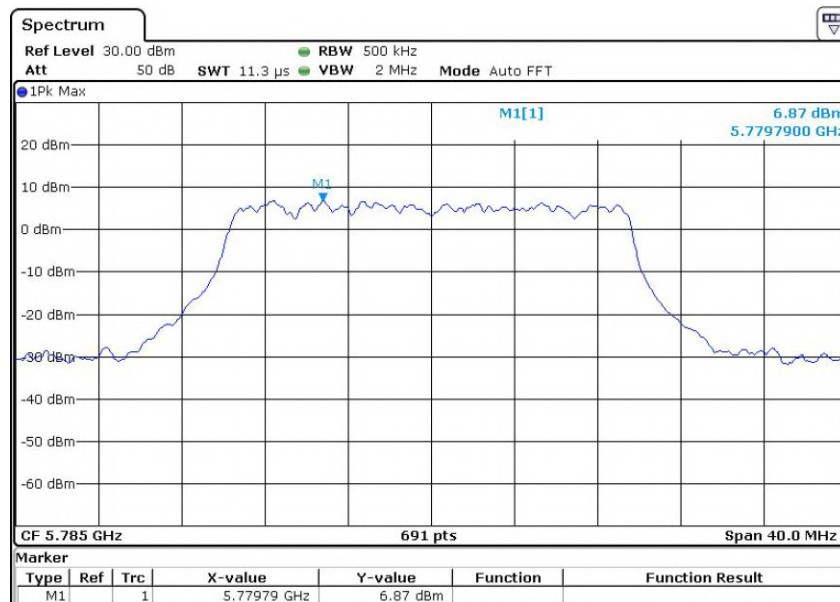


Report No.: AAEMT/EMC/221003-01-08

802.11ax20
Channel: 149

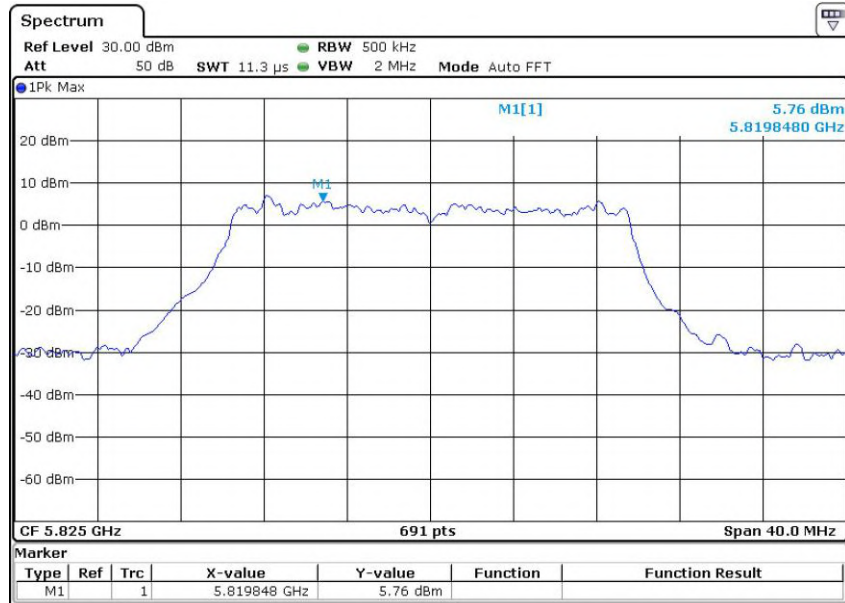


Channel: 157



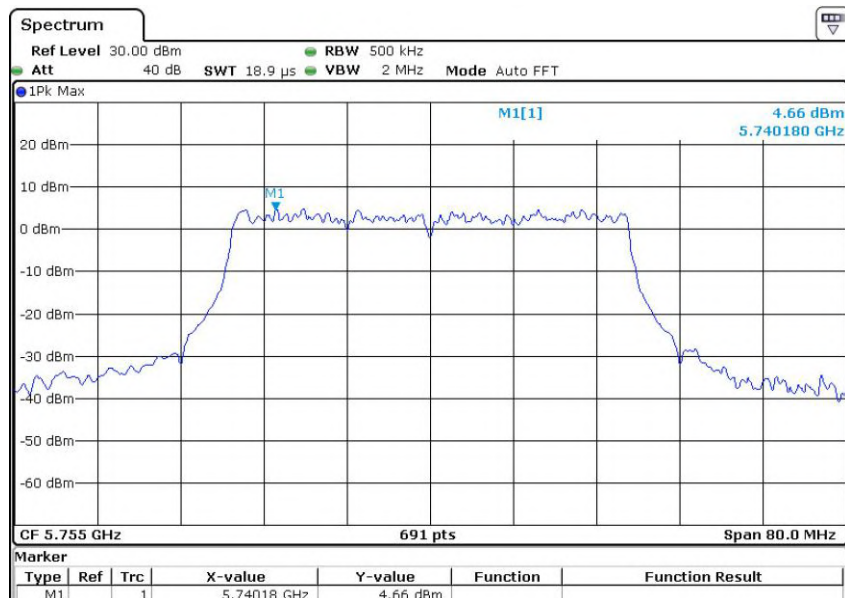
Report No.: AAEMT/EMC/221003-01-08

Channel: 165



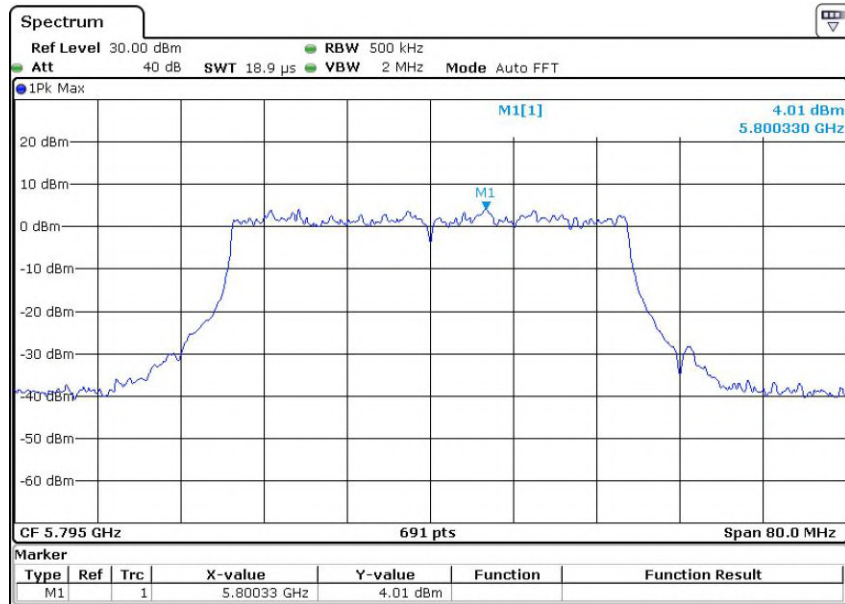
802.11ax40

Channel: 151



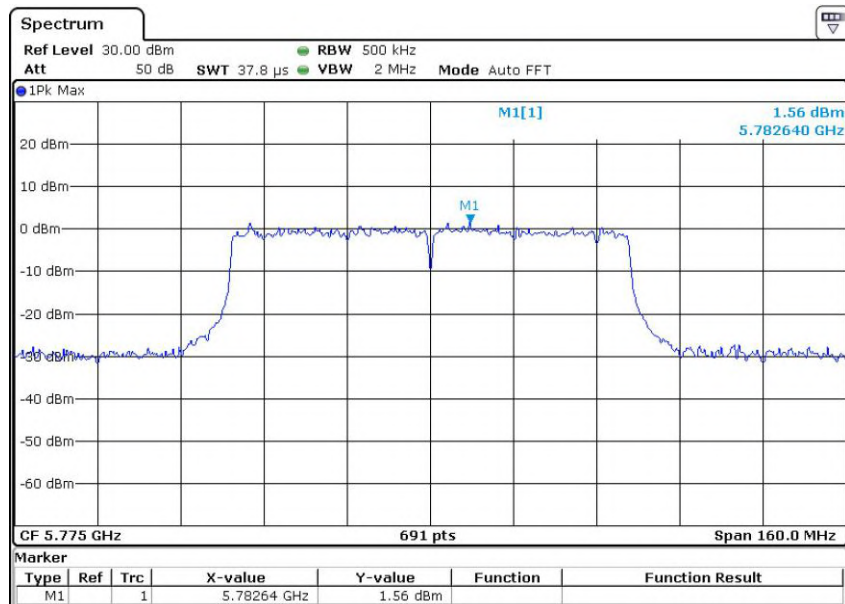
Report No.: AAEMT/EMC/221003-01-08

Channel: 159



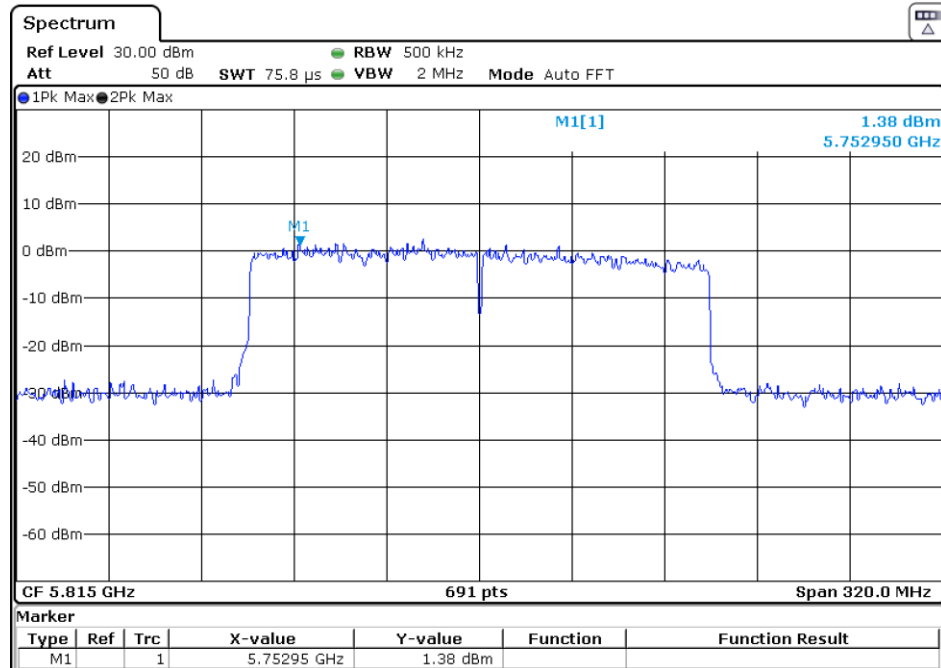
802.11ax80

Channel: 155



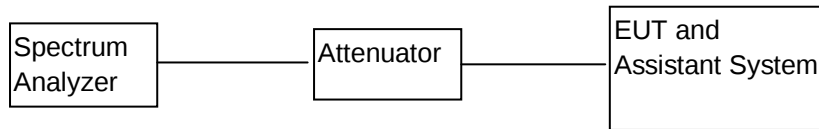
Report No.: AAEMT/EMC/221003-01-08

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	20.781	22.46	22.055	22.518	16.555	17.771	17.829	19.044
44	5220.00	20.434	22.981	21.534	22.229	16.555	17.945	17.887	19.102
48	5240.00	20.318	21.823	22.229	21.997	16.555	17.887	17.829	19.044
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	16.555	17.829	17.829	19.102
157	5785.00	16.498	17.829	17.887	19.161	16.555	17.771	17.829	19.044
165	5825.00	16.498	17.771	17.887	19.161	16.497	17.829	17.829	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	42.49	43.53	43.65	36.468	36.700	37.973
46	5230.00	43.99	42.14	42.37	36.468	36.584	37.973
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	36.58	36.58	38.32	36.468	36.353	37.973
159	5795.00	36.47	36.7	38.32	36.700	36.584	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	85.67	87.76	76.179	77.568
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	76.41	78.26	75.947	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

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	20.203	22.113	22.576	22.229	16.555	17.887	17.771	19.102
44	5220.00	20.376	21.476	21.418	22.46	16.555	17.829	17.771	19.102
48	5240.00	19.556	21.939	21.592	22.65	16.555	17.713	17.829	19.044
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	17.829	17.829	19.161	16.555	17.829	17.829	19.102
157	5785.00	16.498	17.829	17.771	19.103	16.555	17.771	17.771	19.102
165	5825.00	16.498	17.771	17.771	19.219	16.947	17.771	17.771	19.044

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	43.42	44.34	43.3	36.58	36.46	38.089
46	5230.00	43.07	44.69	42.14	36.58	36.70	37.97
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	36.58	36.58	38.32	36.58	36.468	38.089
159	5795.00	36.58	36.58	38.32	36.58	36.468	37.973

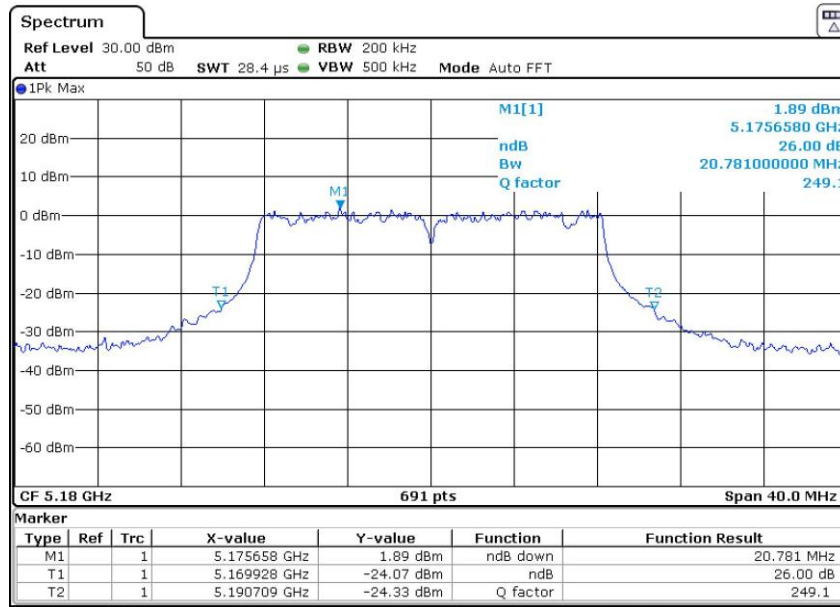
CH. No.	Frequency (MHz)	26dB Occupied Bandwidth (MHz)		99% Occupied Bandwidth (MHz)	
		802.11ac (VHT80)	802.11ax (HE80)	802.11ac (VHT80)	802.11ax (HE80)
42	5210.00	87.29	82.2	76.17	77.80
CH. No.	Frequency (MHz)	6dB Occupied Bandwidth (MHz)		99% Occupied Bandwidth (MHz)	
		802.11ac (VHT80)	802.11ax (HE80)	802.11ac (VHT80)	802.11ax (HE80)
155	5775.00	76.64	78.26	76.179	77.337

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

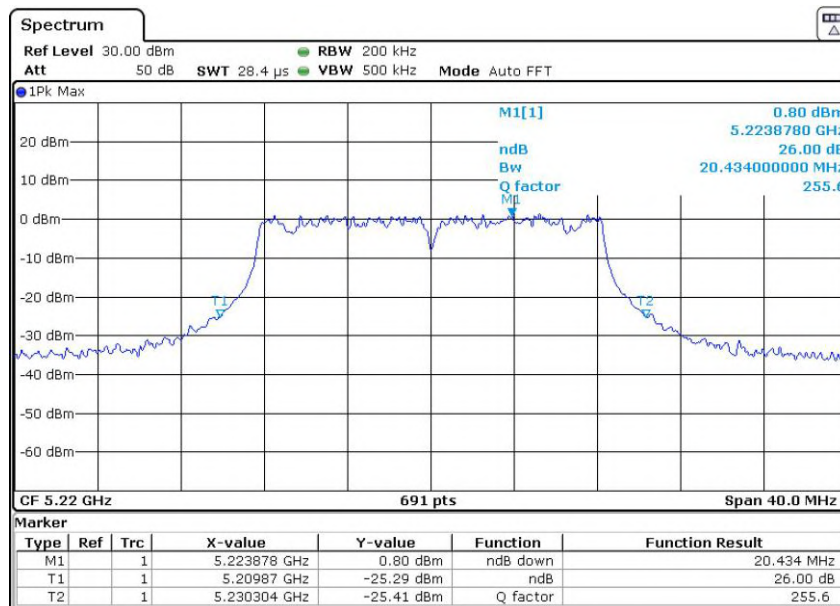
Report No.: AAEMT/EMC/221003-01-08

Test plots as followed: CHAIN 0

26dB BW 802.11a
Channel: 36

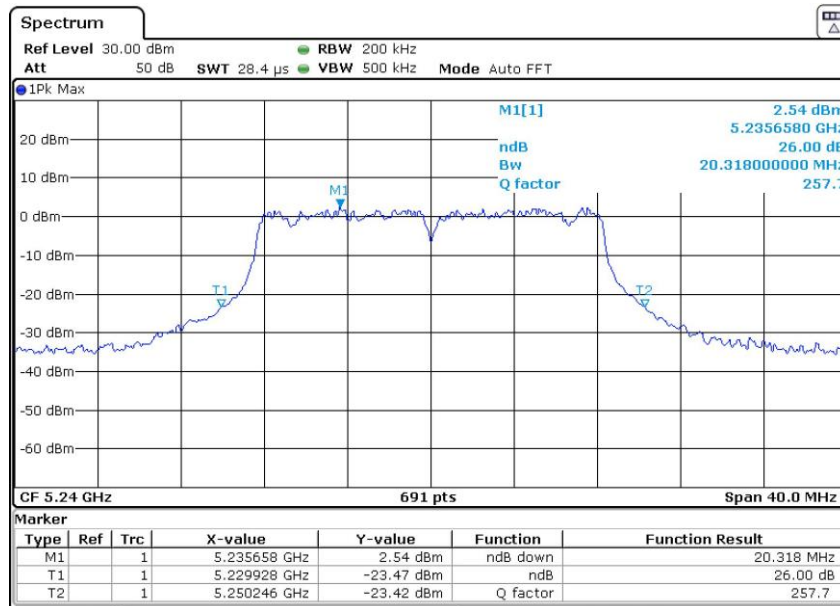


Channel: 44



Report No.: AAEMT/EMC/221003-01-08

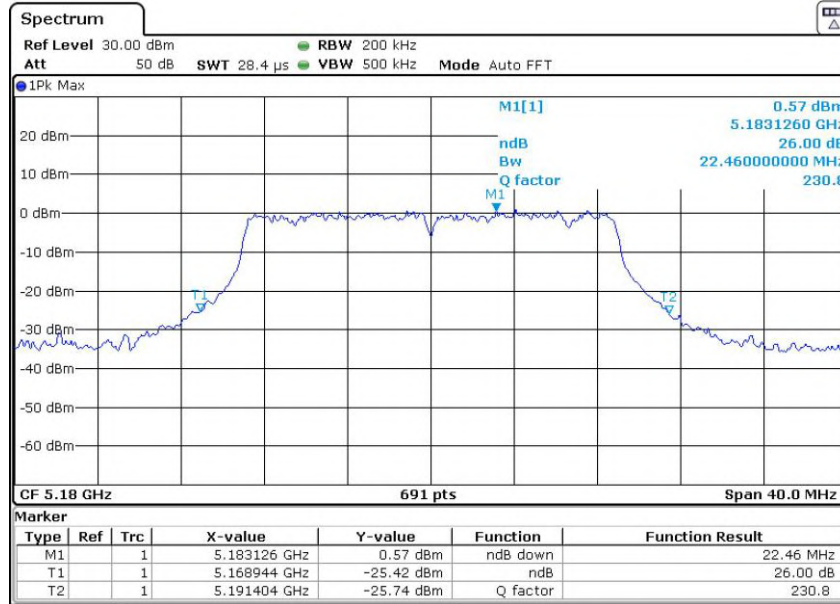
Channel: 48



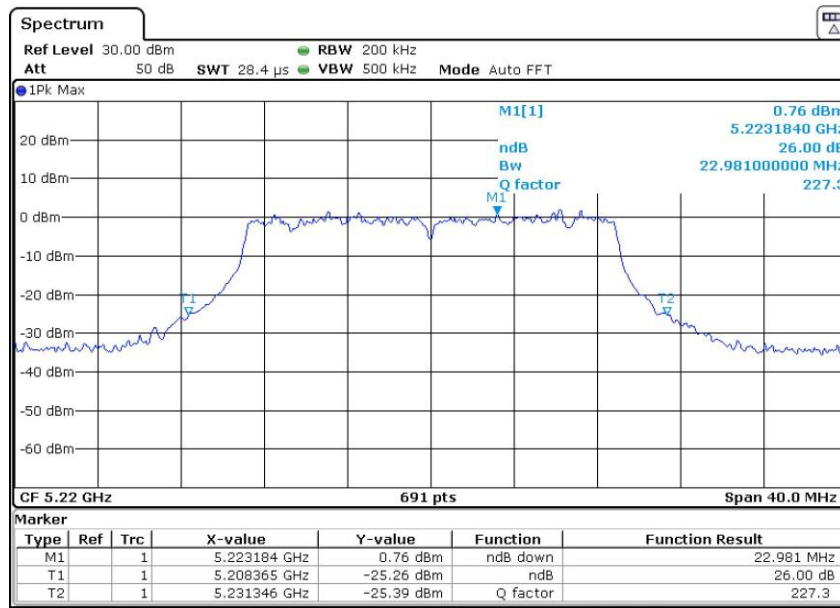
Report No.: AAEMT/EMC/221003-01-08

26dB BW 802.11n20

Channel: 36

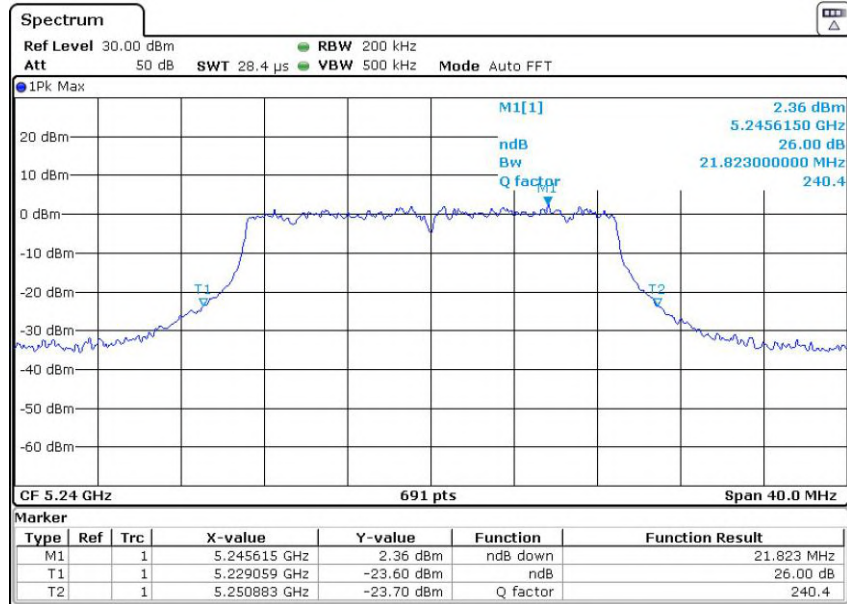


Channel: 44



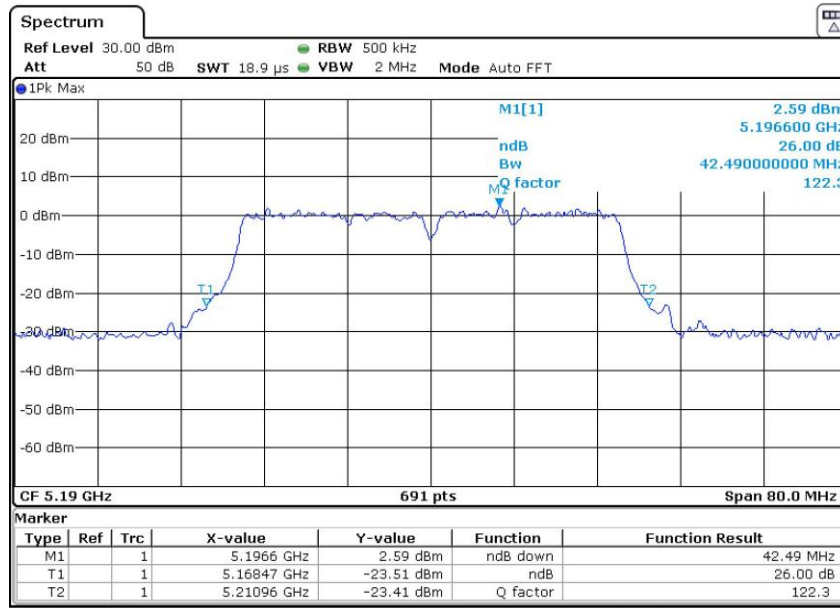
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Channel: 48

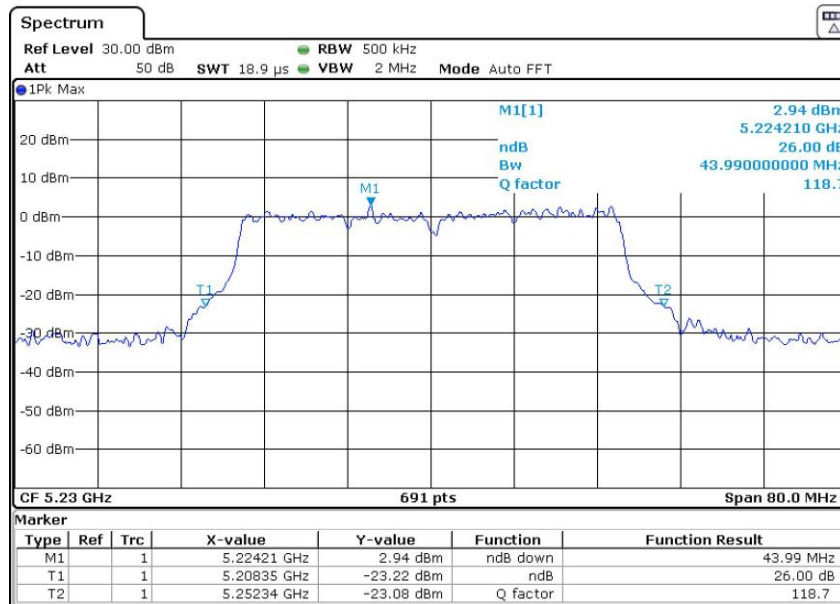


Report No.: AAEMT/EMC/221003-01-08

26dB BW 802.11n40
Channel: 38



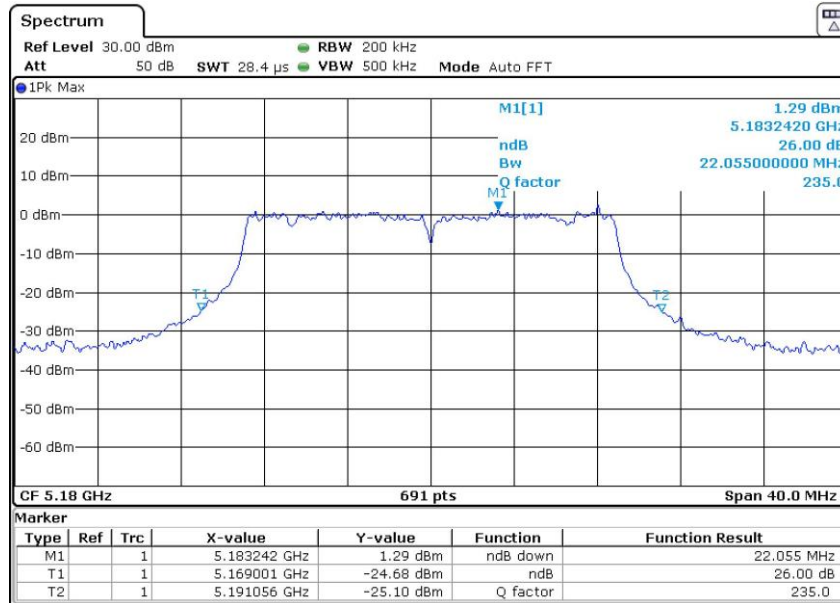
Channel: 46



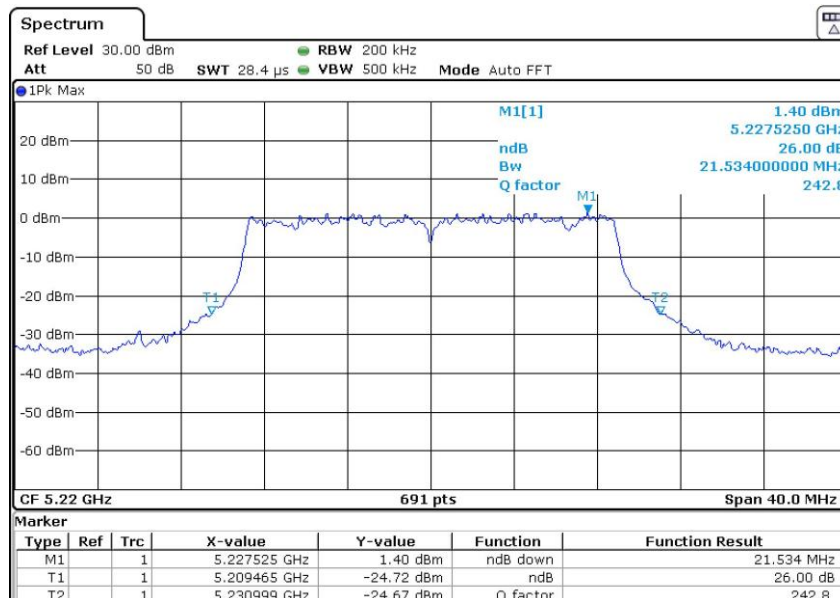
Report No.: AAEMT/EMC/221003-01-08

26dB BW 802.11ac20

Channel: 36

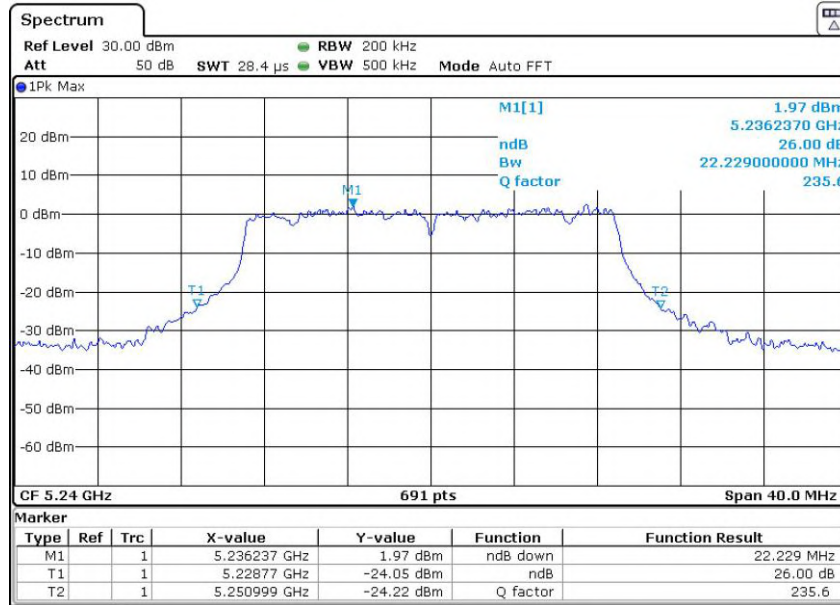


Channel: 44



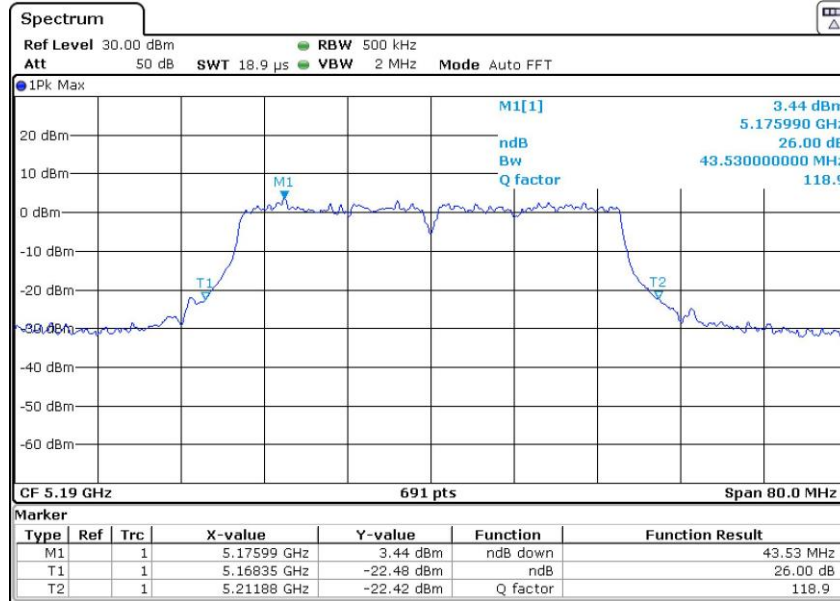
Report No.: AAEMT/EMC/221003-01-08

Channel: 48

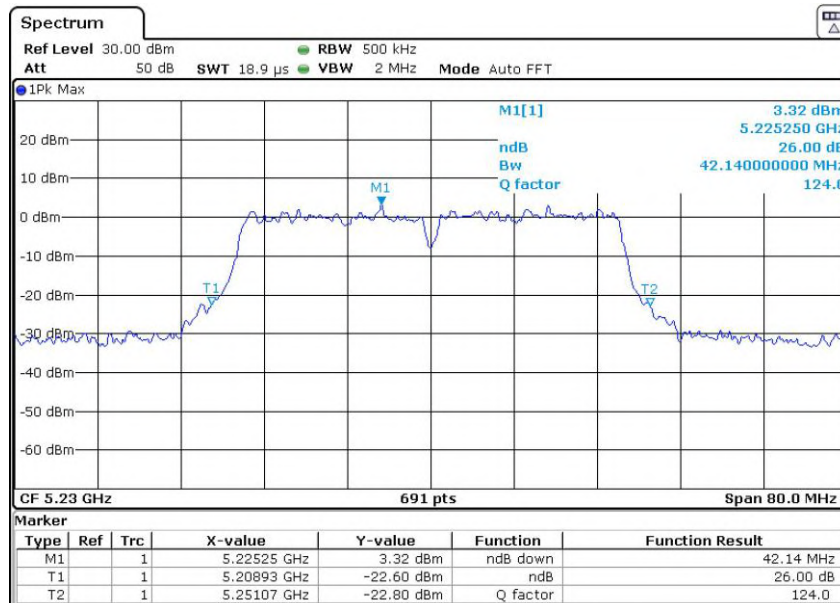


Report No.: AAEMT/EMC/221003-01-08

26dB BW 802.11ac40
Channel: 38



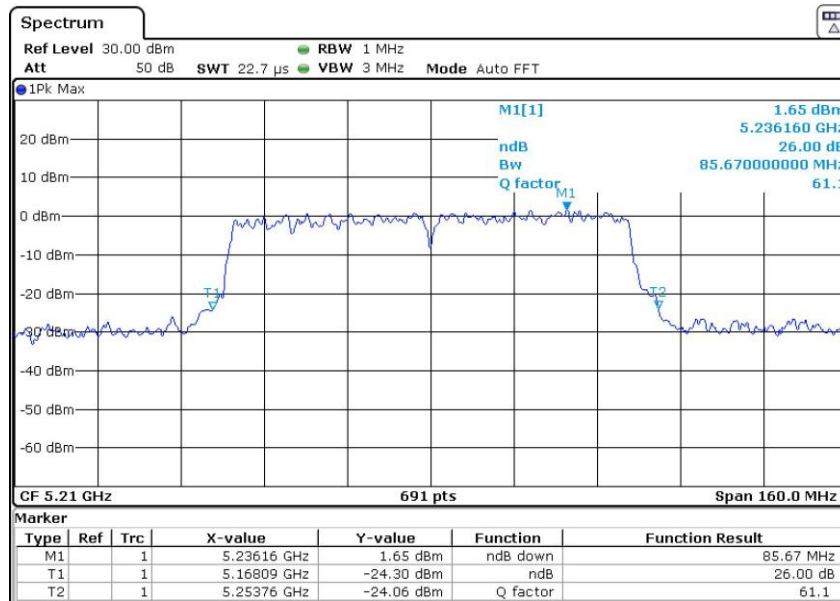
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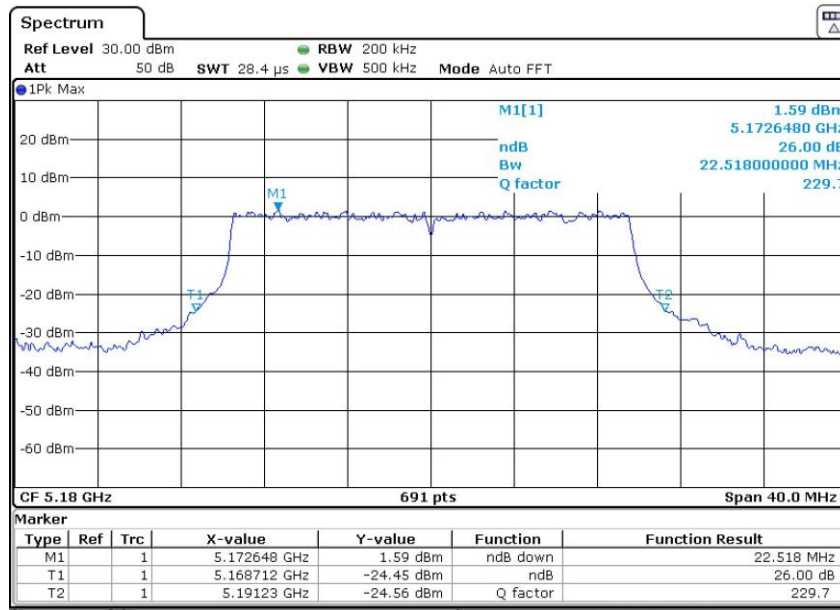
26dB BW 802.11ac80

Channel: 42

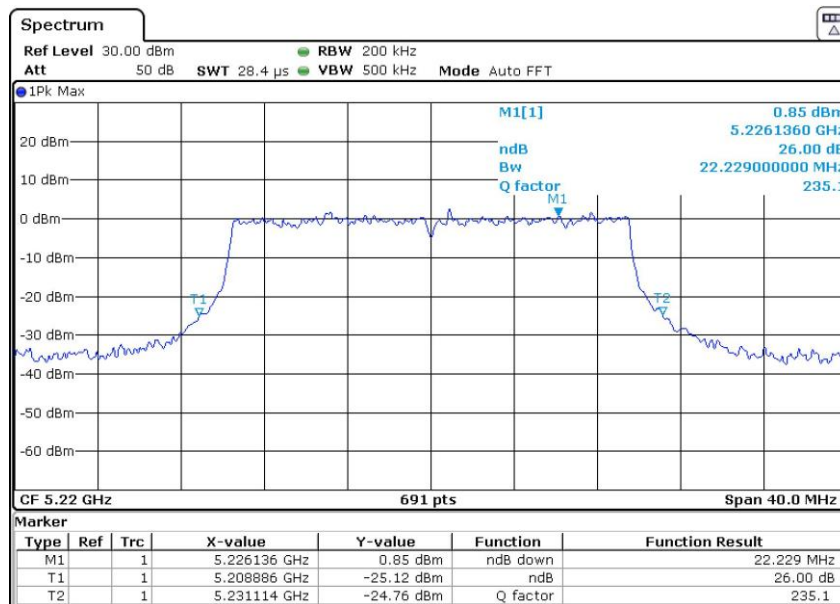


Report No.: AAEMT/EMC/221003-01-08

26dB BW 802.11ax20
Channel: 36

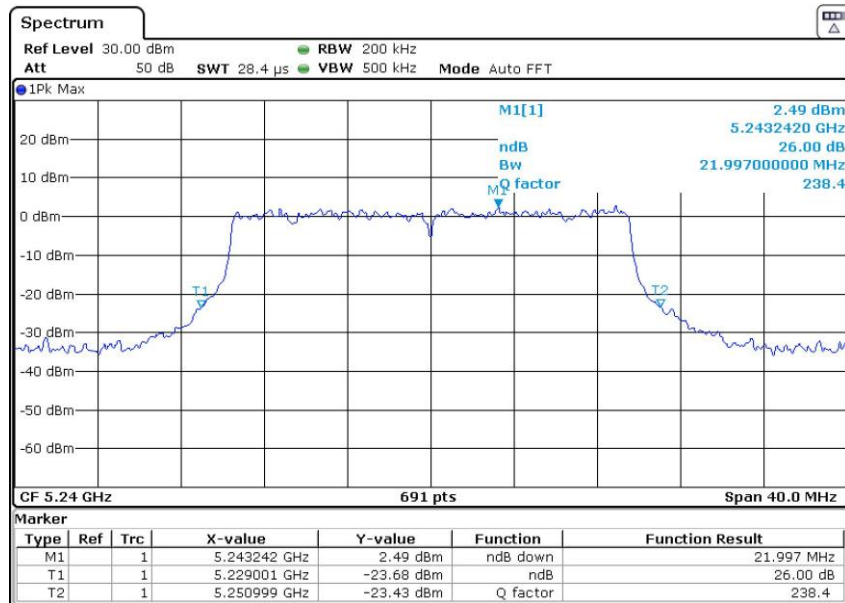


Channel: 44



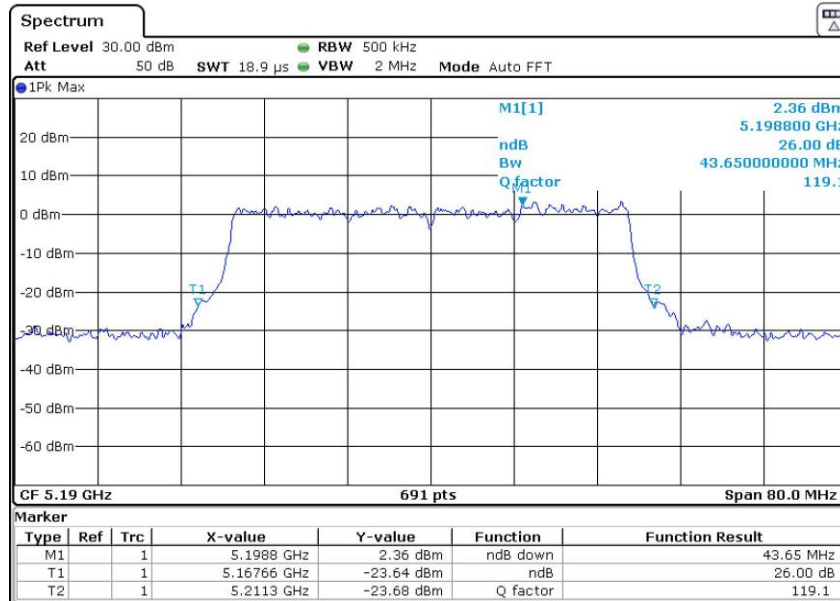
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Channel: 48

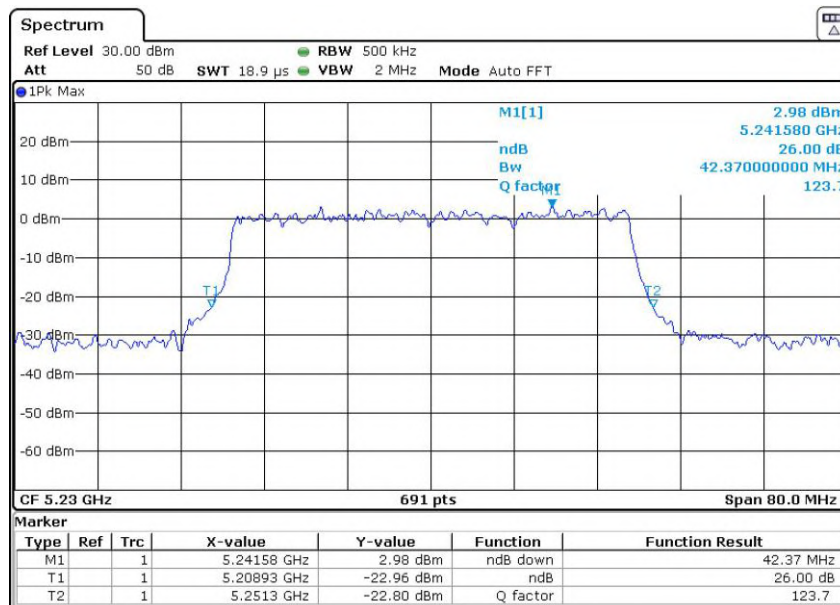


Report No.: AAEMT/EMC/221003-01-08

26dB BW 802.11ax40
Channel: 38



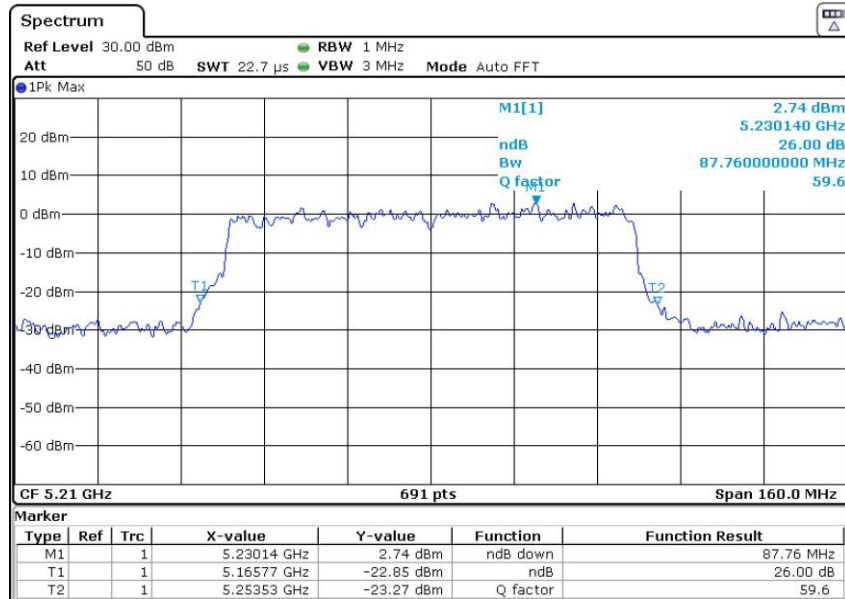
Channel: 46



Report No.: AAEMT/EMC/221003-01-08

26dB BW 802.11ax80

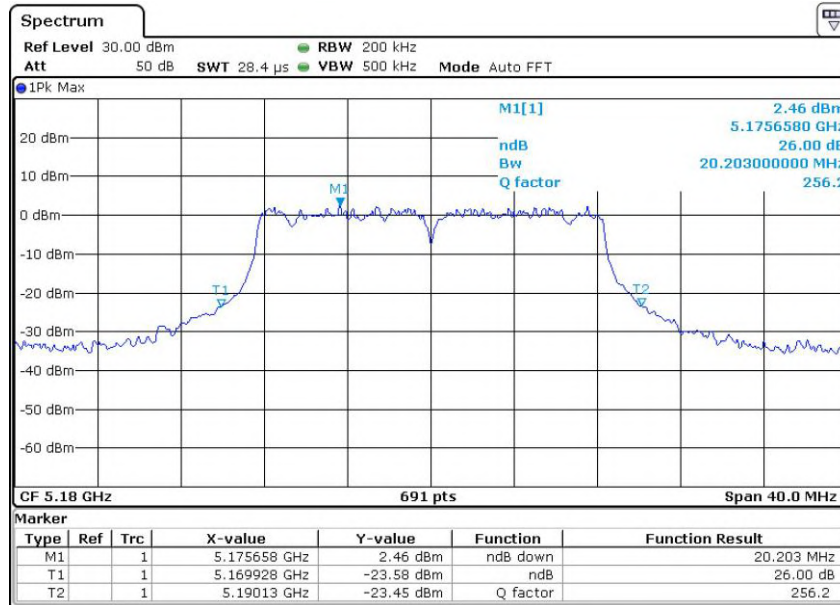
Channel: 42



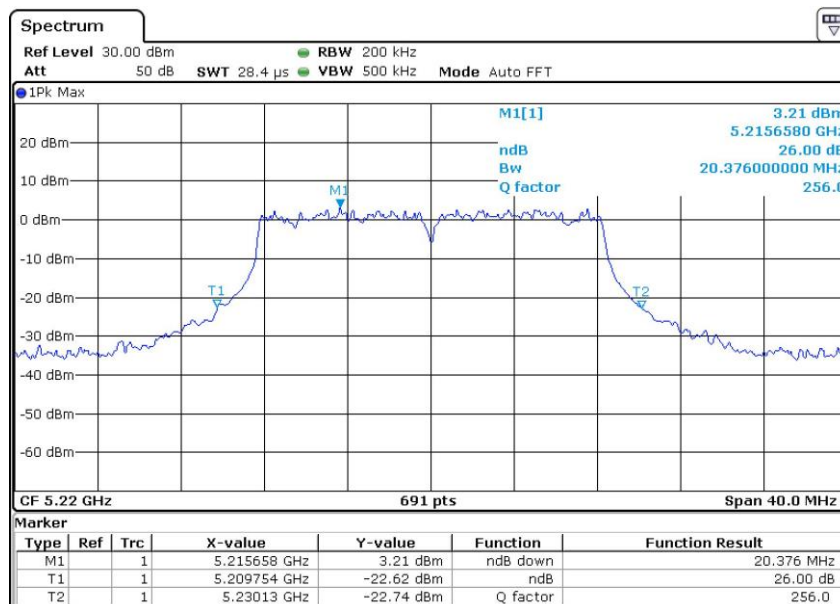
Report No.: AAEMT/EMC/221003-01-08

Test plots as followed: CHAIN 1

26dB BW 802.11a
Channel: 36

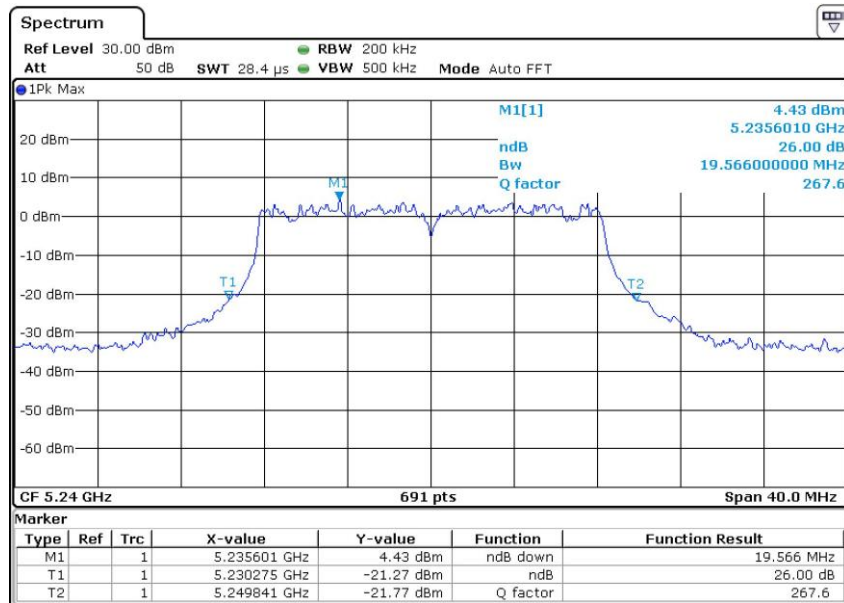


Channel: 44



Report No.: AAEMT/EMC/221003-01-08

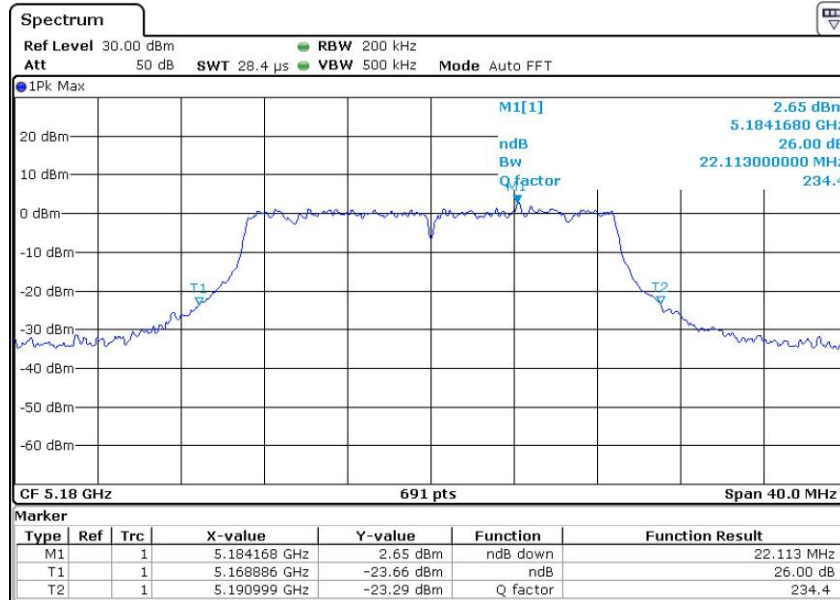
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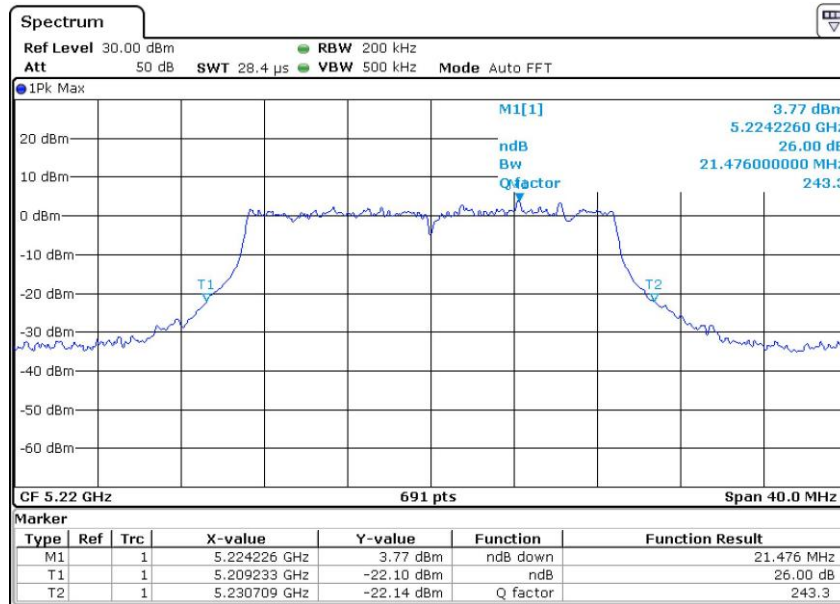
Report No.: AAEMT/EMC/221003-01-08

26dB BW 802.11n20

Channel: 36

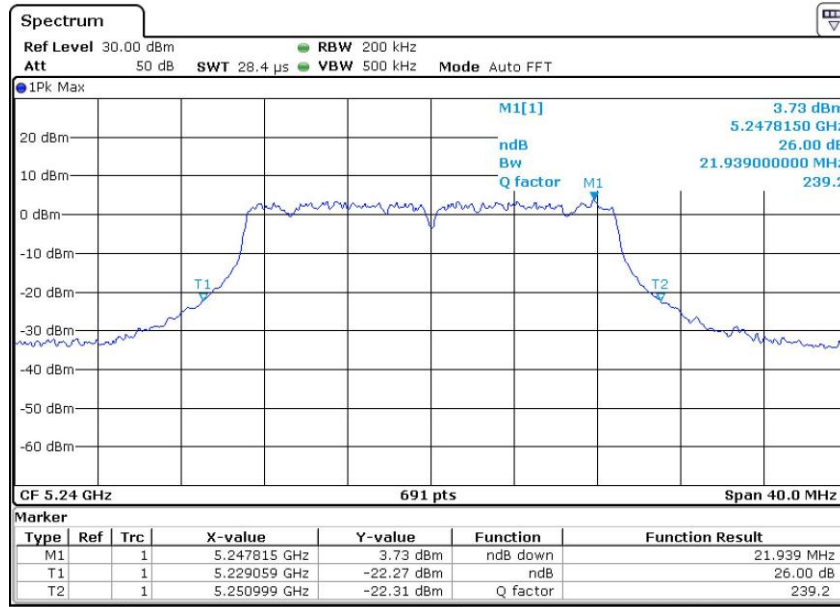


Channel: 44



Report No.: AAEMT/EMC/221003-01-08

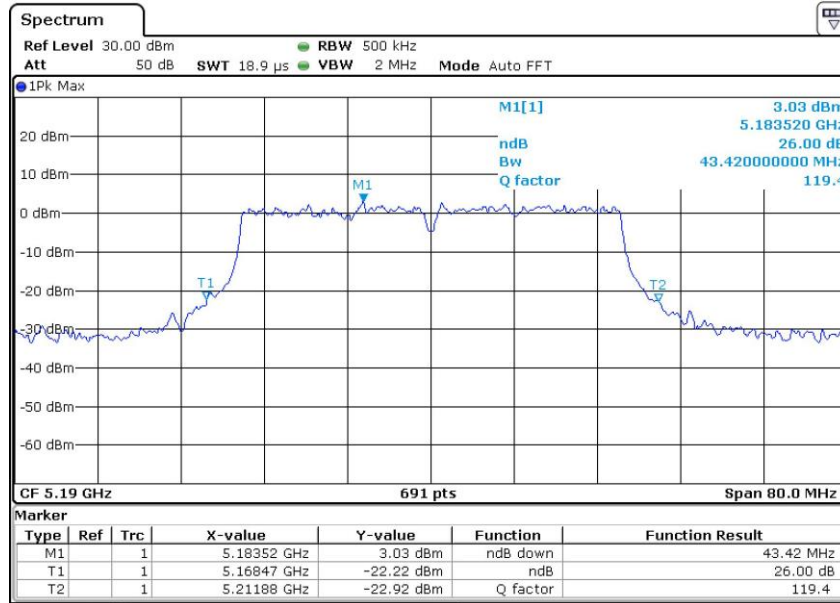
Channel: 48



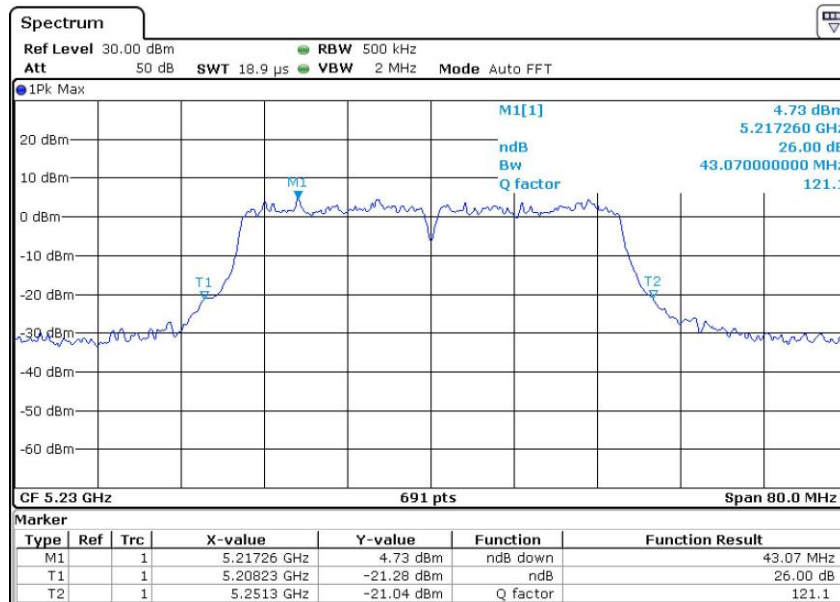
Report No.: AAEMT/EMC/221003-01-08

26dB BW 802.11n40

Channel: 38



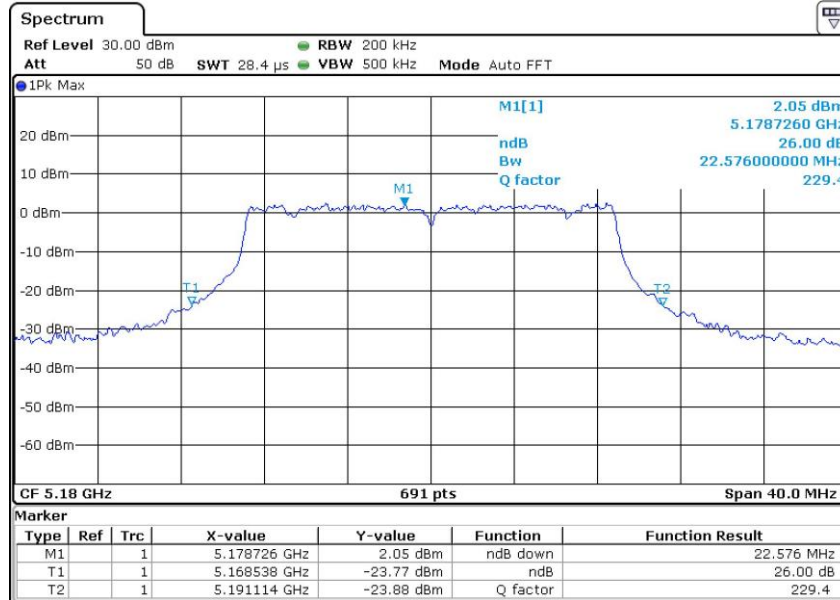
Channel: 46



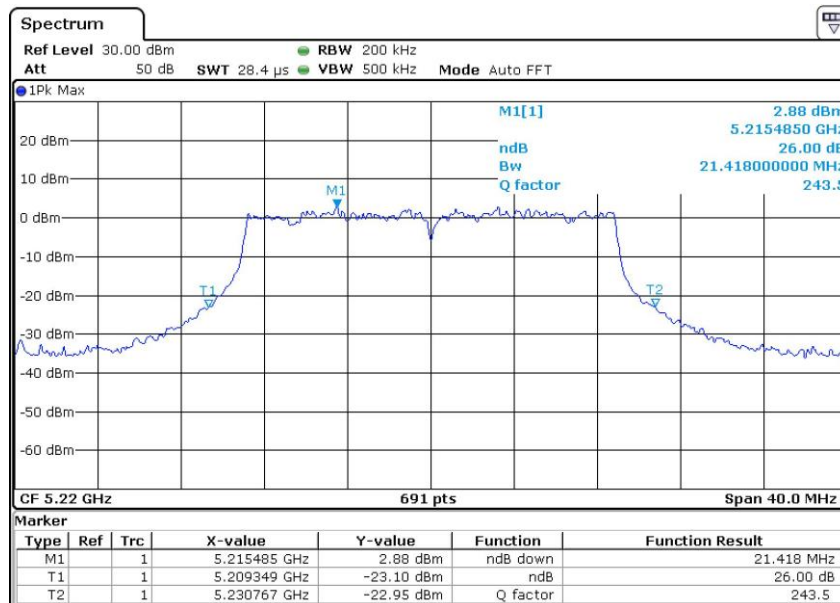
Report No.: AAEMT/EMC/221003-01-08

26dB BW 802.11ac20

Channel: 36

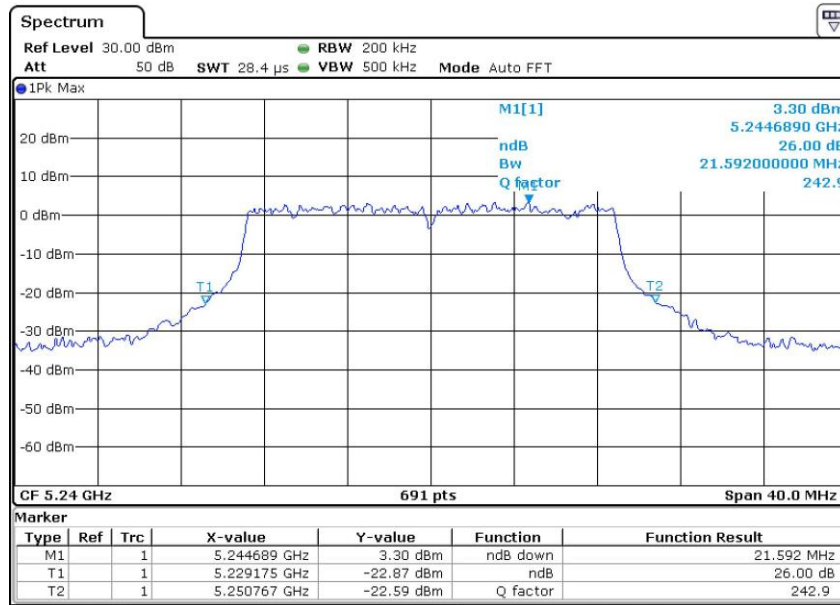


Channel: 44



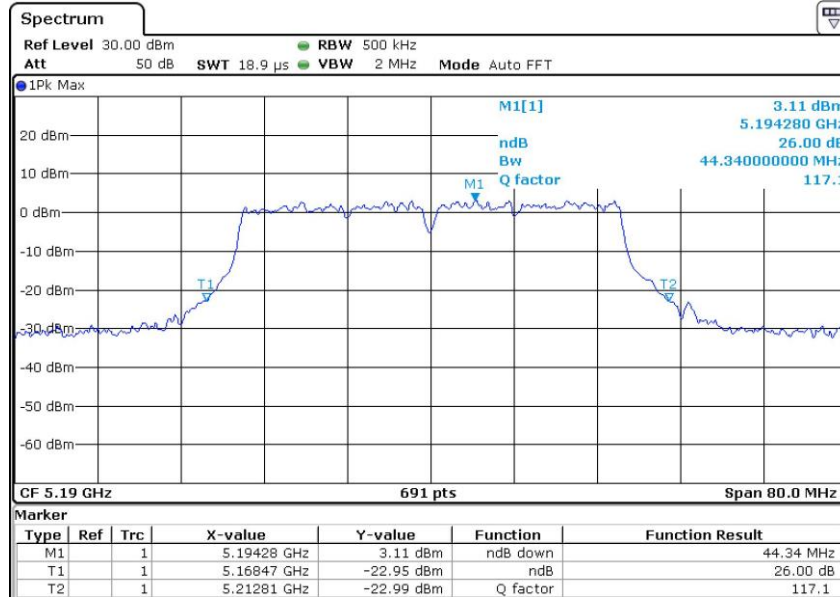
Report No.: AAEMT/EMC/221003-01-08

Channel: 48

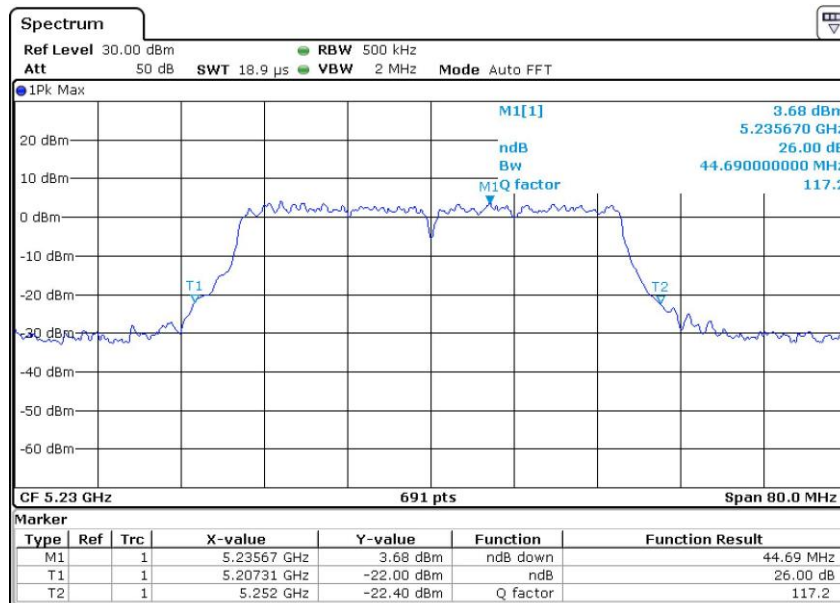


26dB BW 802.11ac40

Channel: 38



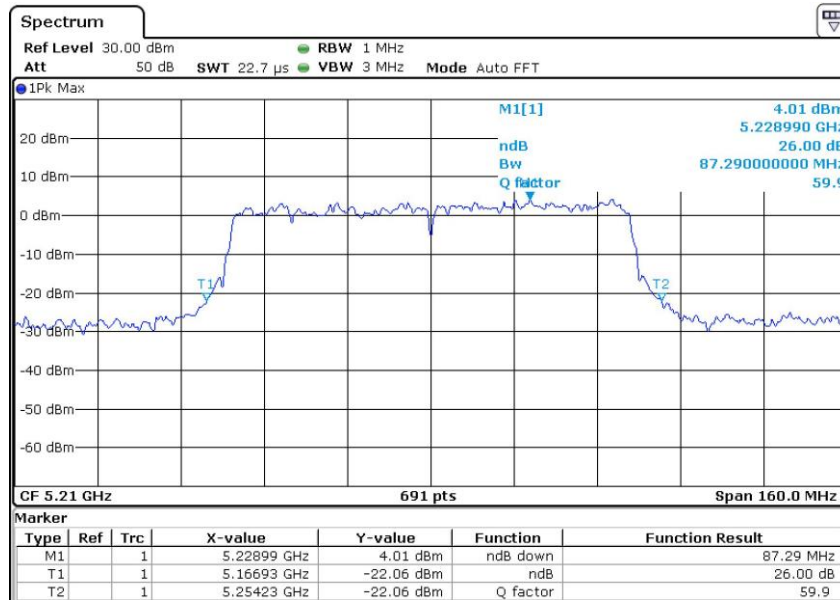
Channel: 46



Report No.: AAEMT/EMC/221003-01-08

26dB BW 802.11ac80

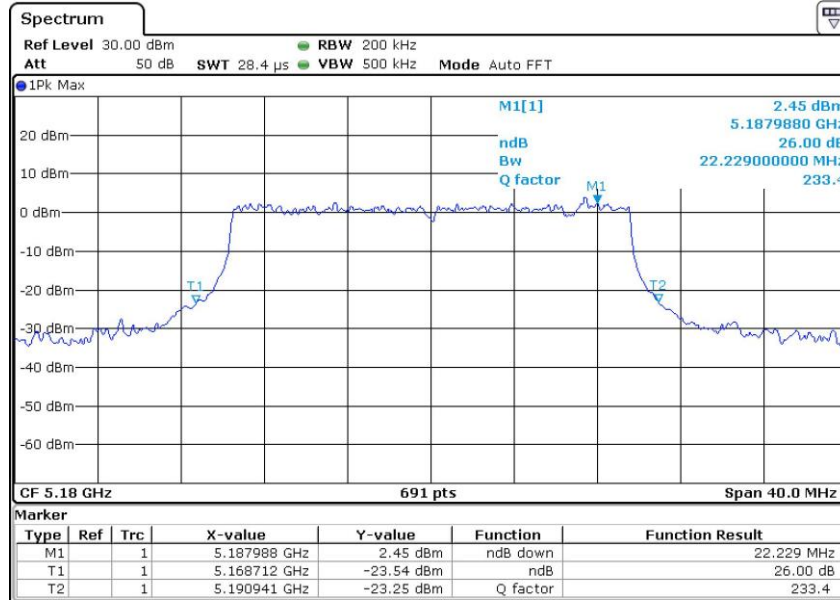
Channel: 42



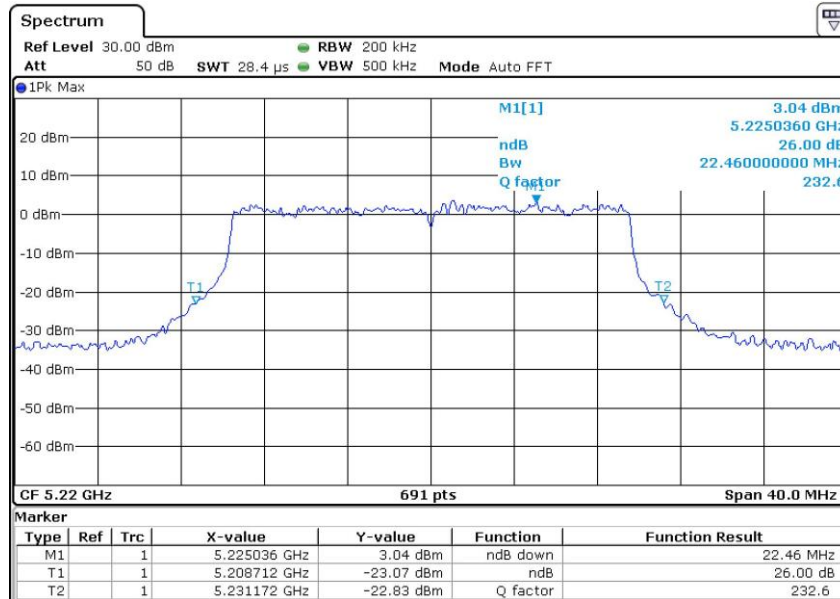
Report No.: AAEMT/EMC/221003-01-08

26dB BW 802.11ax20

Channel: 36

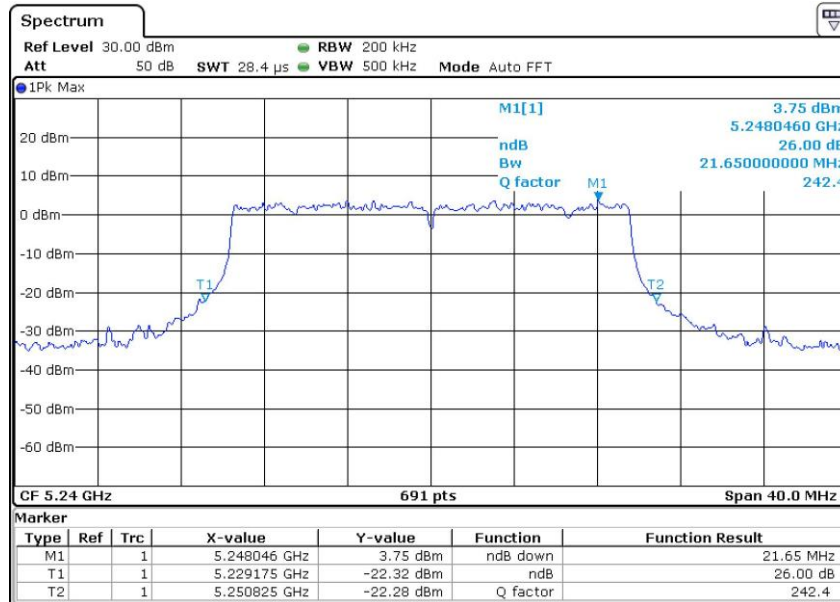


Channel: 44



Report No.: AAEMT/EMC/221003-01-08

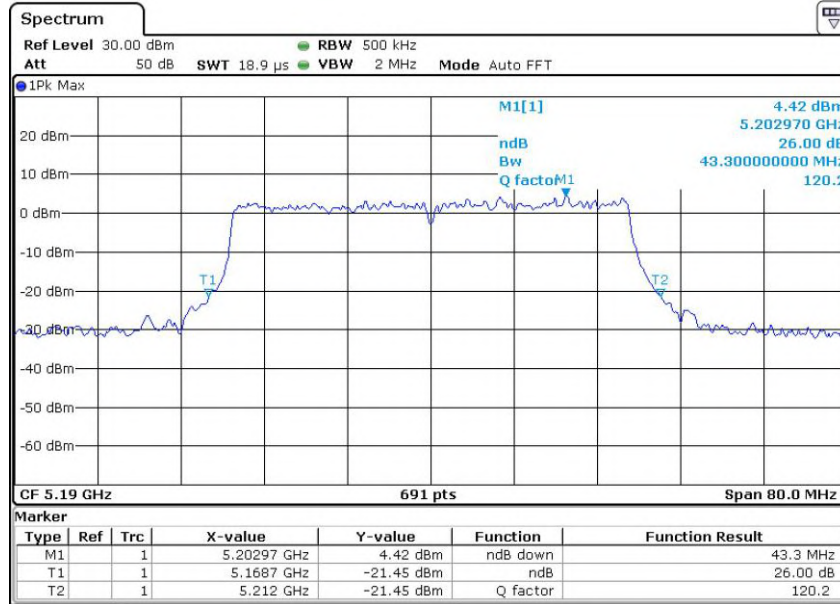
Channel: 48



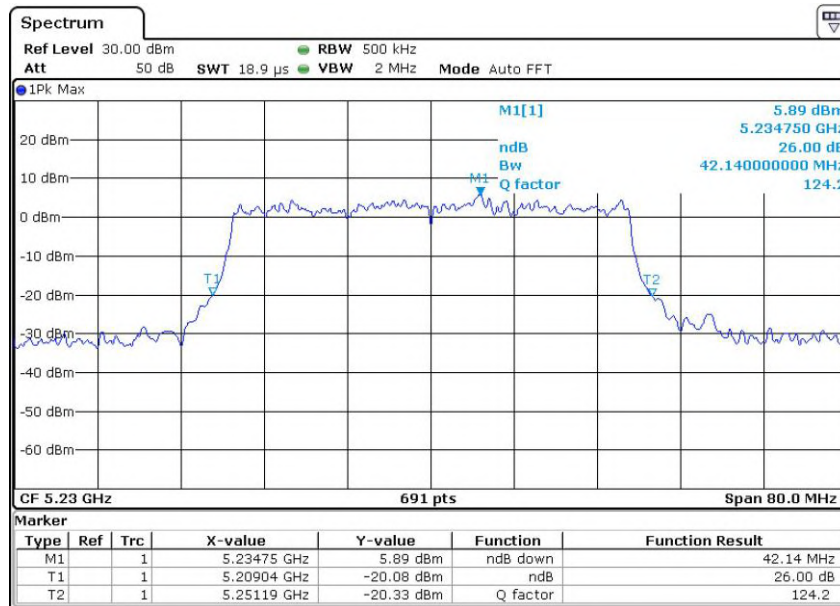
Report No.: AAEMT/EMC/221003-01-08

26dB BW 802.11ax40

Channel: 38



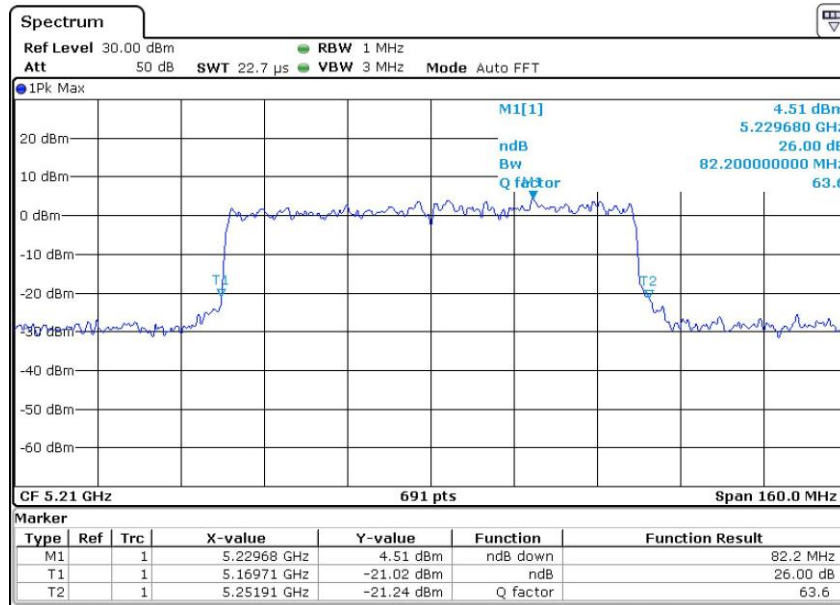
Channel: 46



Report No.: AAEMT/EMC/221003-01-08

26dB BW 802.11ax80

Channel: 42

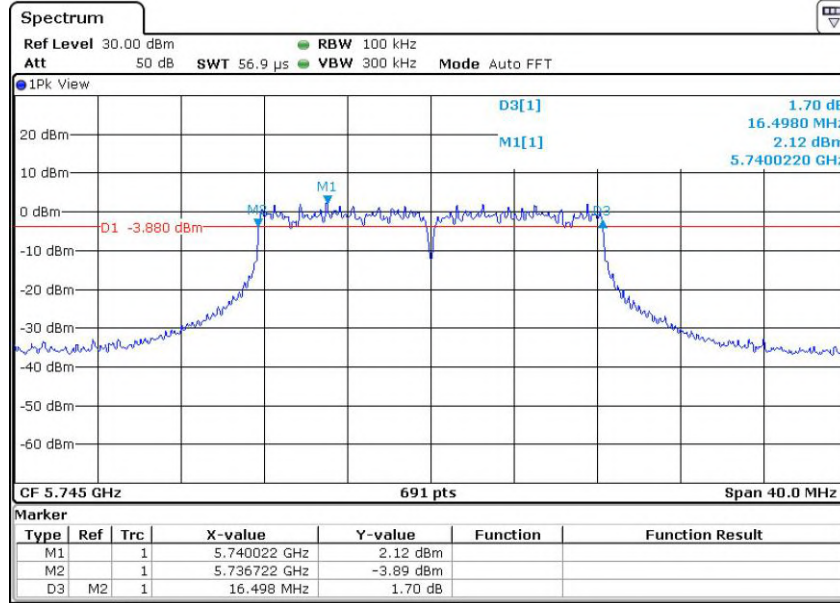


Report No.: AAEMT/EMC/221003-01-08

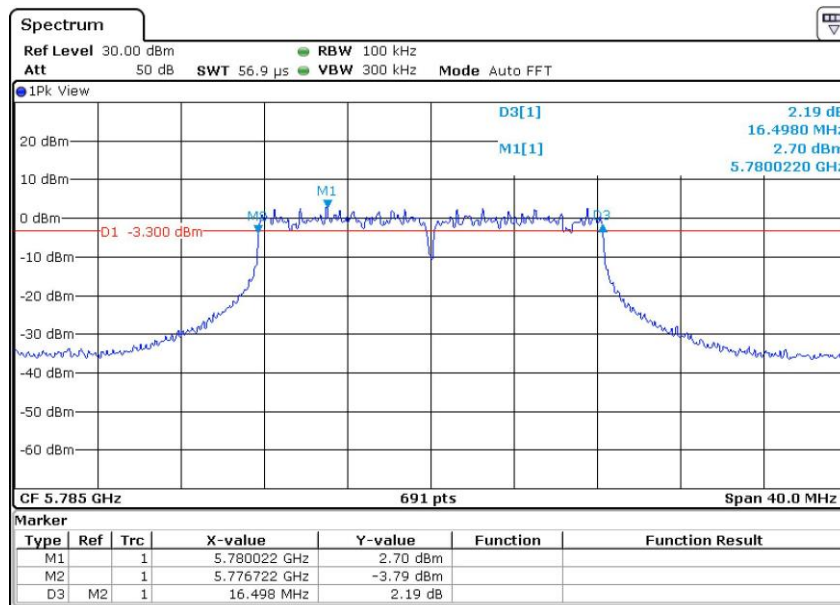
Test plots as followed: CHAIN 0

6dB BW 802.11a

Channel: 149

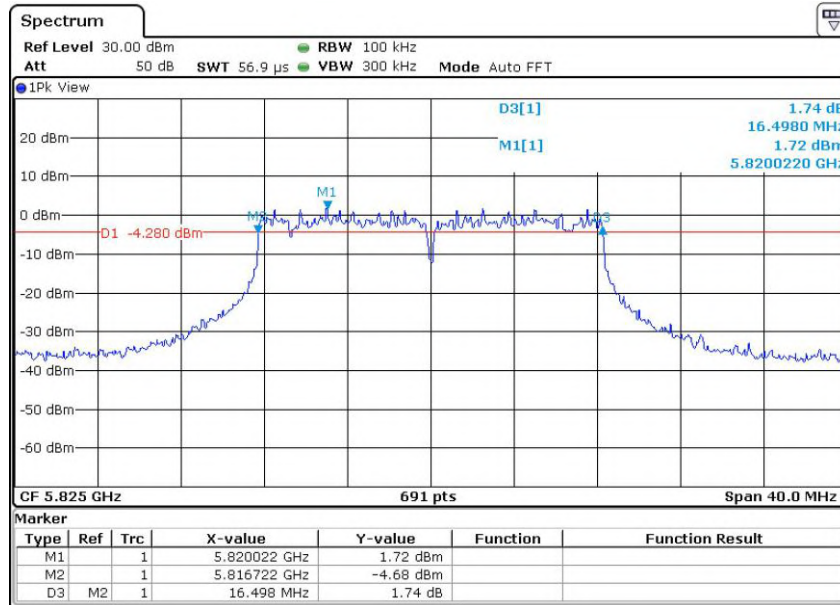


Channel: 157



Report No.: AAEMT/EMC/221003-01-08

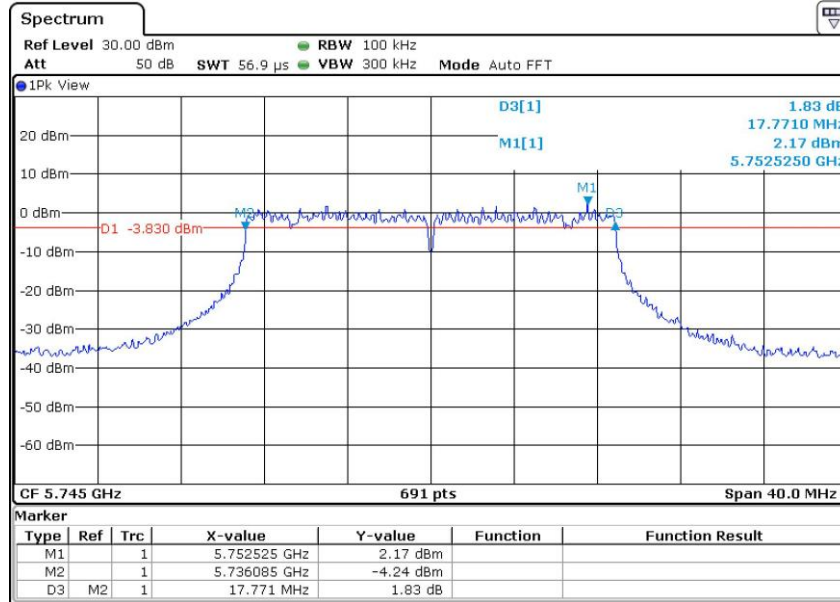
Channel: 165



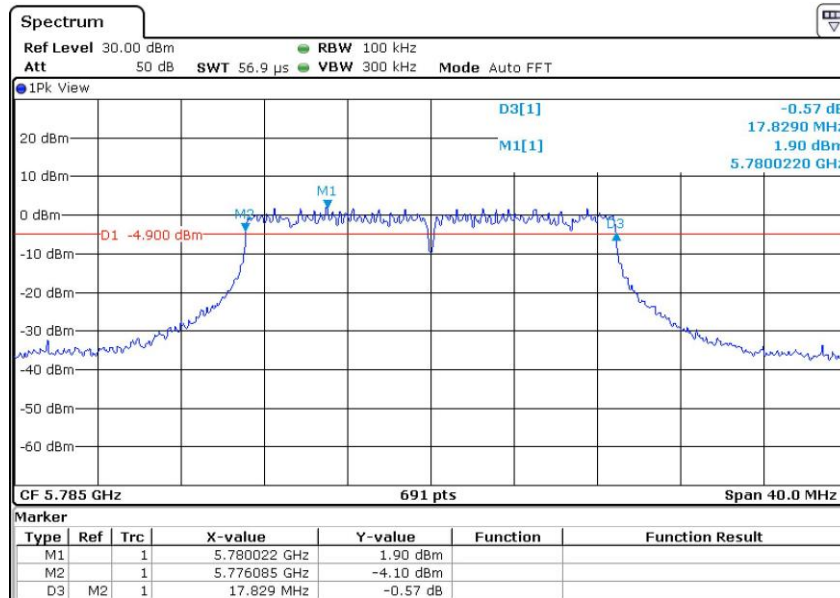
Report No.: AAEMT/EMC/221003-01-08

6dB BW 802.11n20

Channel: 149

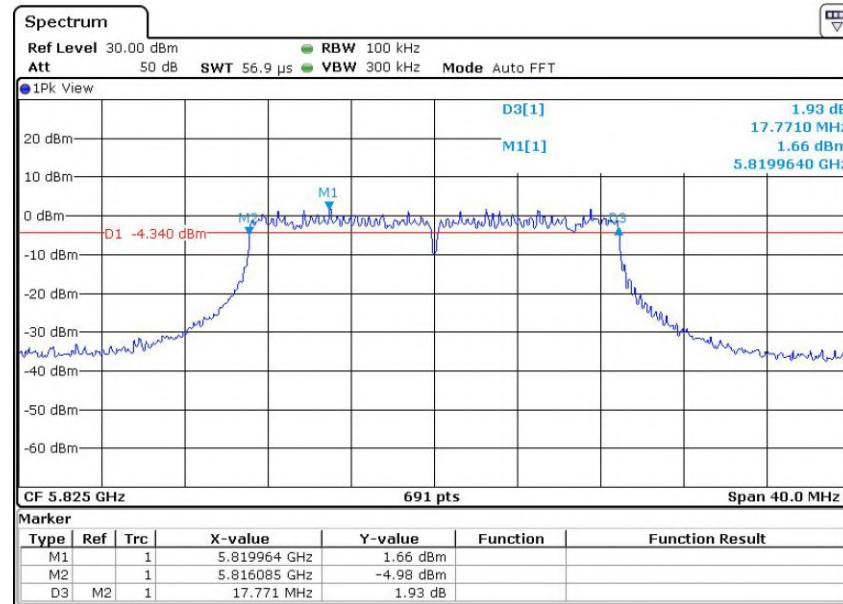


Channel: 157



Report No.: AAEMT/EMC/221003-01-08

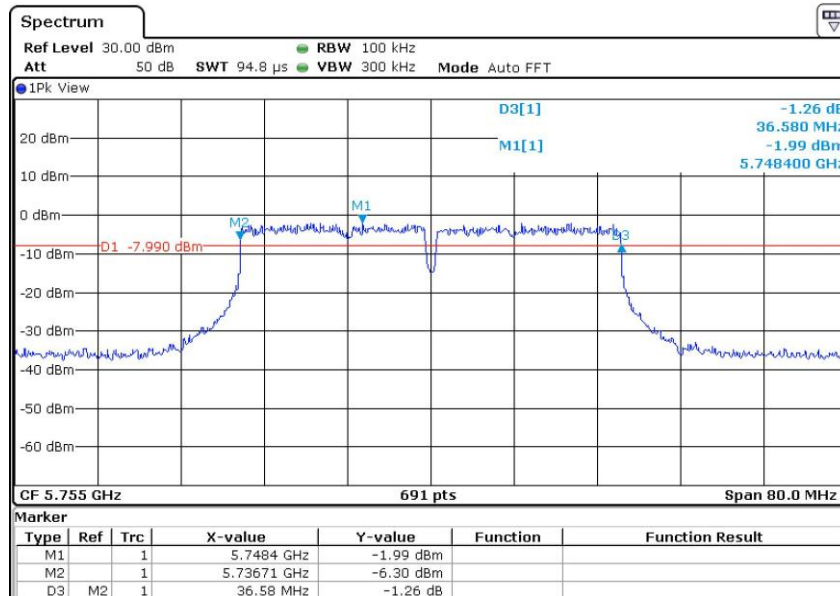
Channel: 165



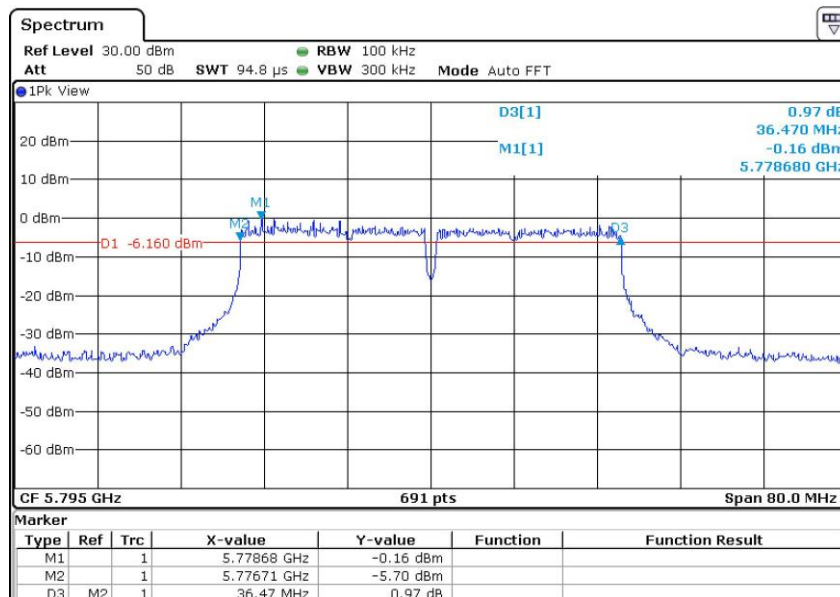
Report No.: AAEMT/EMC/221003-01-08

6dB BW 802.11n40

Channel: 151



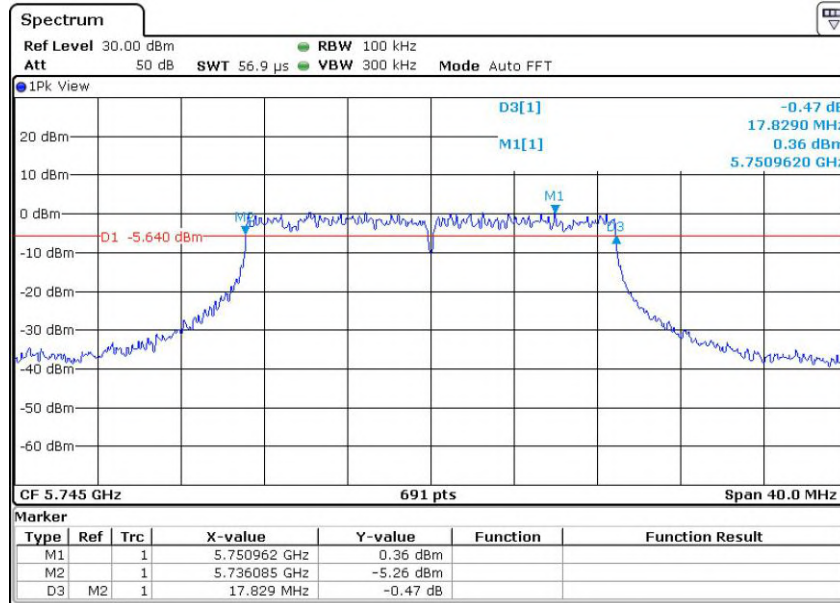
Channel: 159



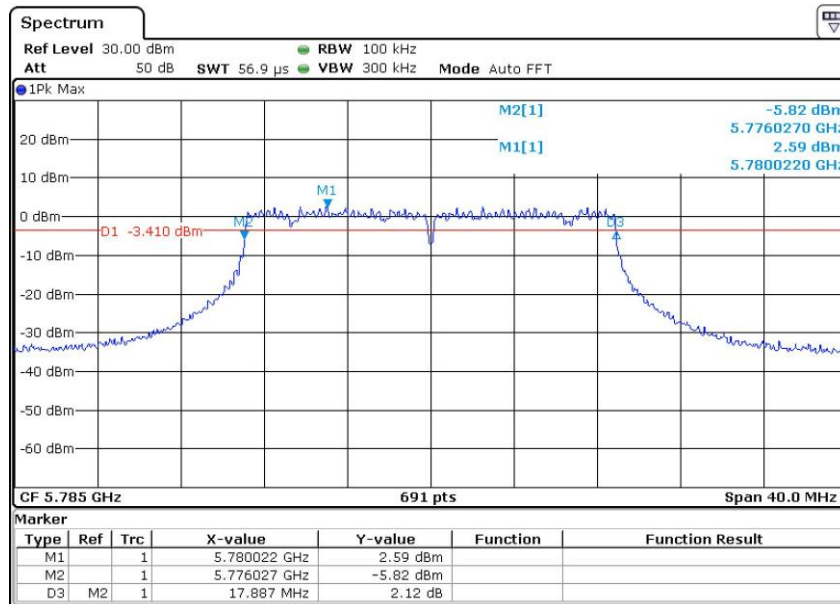
Report No.: AAEMT/EMC/221003-01-08

6dB BW 802.11ac20

Channel: 149

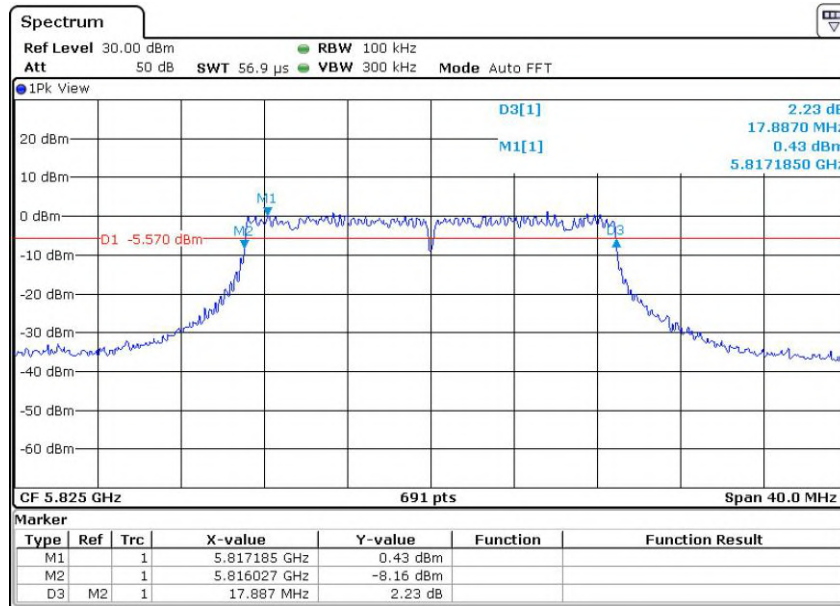


Channel: 157



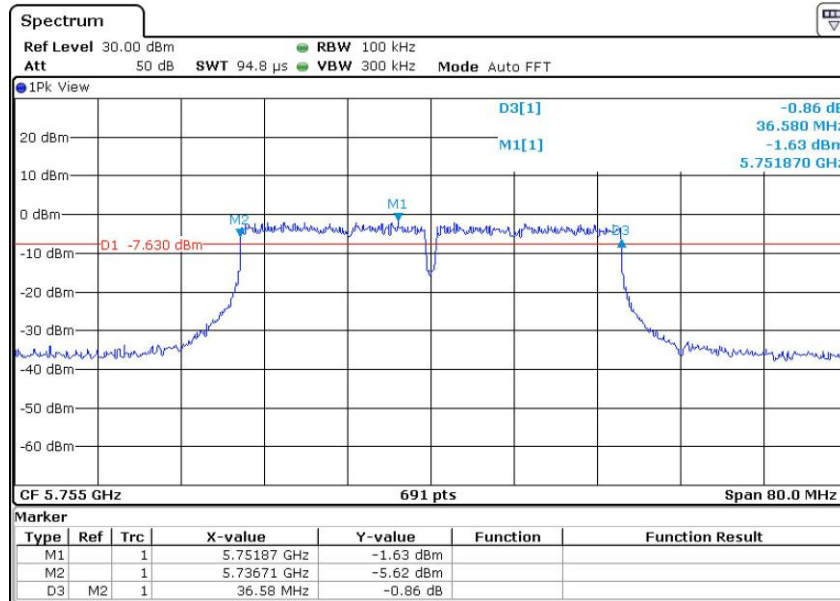
Report No.: AAEMT/EMC/221003-01-08

Channel: 165



Report No.: AAEMT/EMC/221003-01-08

6dB BW 802.11ac40
Channel: 151



Channel: 159

