Report No.: AAEMT/RF/230322-04-01

FCC RADIO TEST REPORT

Part 15 subpart E

FCC ID：2AZOI4XL1BTSD

Report Reference No. ..... :	AAEMT/RF/230322-04-01
Date of issue ..... :	2023-07-10
Testing Laboratory..... :	AA Electro Magnetic Test Laboratory Private Limited
Address ..... :	Plot No 174, Udyog Vihar - Phase 4, Sector 18, Gurgaon, Haryana, India
Applicant's name..... :	HFCL Limited
Address ..... :	Plot no. 38, Institutional Area, Sector 32,Gurgaon -122001
Manufacturer ..... :	HFCL Limited
	Plot no. 38, Institutional Area, Sector 32,Gurgaon -122001
Test specification:	
Test item description..... :	IO 5 GHz 1000 Mbps UBR with Integrated Antenna (17 dBi) with dying gasp
Trade Mark..... :	io by HFCL
Model/Type reference ..... :	ion4xl1_BTS_d
Ratings ..... :	**Input of PoE: 100-240VAC, 50/60Hz,** **Output of PoE/input of EUT: +48V (PoE),0.315A**

Prepared By: (+ signature) Ankur Kumar

Reviewed & Approved by: (+ signature)

Dr. Lenin Raja (Authorized Representative) (/ lenin83/)

Plot No.174, Udyog Vihar Phase 4, Sector -18, Gurgaon -122016, Haryana, India

Contact:0124-4235350, 4145343; e-mail: info @aaemtlabs.com; Website: www.aaemtlabs.com

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Report No.: AAEMT/RF/230322-04-01

TEST REPORT DECLARE

Applicant	:	HFCL Limited
Address	:	Plot no. 38, Institutional Area, Sector 32,Gurgaon -122001
Equipment under Test	:	IO 5 GHz 1000 Mbps UBR with Integrated Antenna (17 dBi) with dying gasp
Model No	:	ion4xl1_BTS_d
Trade Mark	:	io by HFCL
Manufacturer	:	HFCL Limited
Address	:	Plot no. 38, Institutional Area, Sector 32,Gurgaon -122001

Test Standard Used: FCC Part 15E 15.407

Test procedure used: ANSI C63.10-2013 and KDB 789033 D02 General UNII Test Procedures New Rules v02r01 .

We Declare:

The equipment described above is tested by AA Electro Magnetic Test Laboratory Private Limited and in the configuration tested the equipment complied with the standards specified above. The test results are contained in this test report and AA Electro Magnetic Test Laboratory Private Limited is assumed of full responsibility for the accuracy and completeness of these tests.

After test and evaluation, our opinion is that the equipment provided for test compliance with the requirement of the above FCC standards.

Report No:	AAEMT/RF/230322-04-01		
Date of Test:	Mar 22~June 08, 2023	**Date of Report**:	July. 10, 2023

Note: This report applies to above tested sample only. This report shall not be reproduced in parts without written approval of AA Electro Magnetic Test Laboratory Private Limited

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1. SUMMARY OF TEST RESULTS

The EUT have been tested according to the applicable standards as referenced below.		
FCC Part15 (15.407) , Subpart E		
Description of Test Item	**Standard**	**Results**
AC Power Line Conducted Emissions	FCC §15.207/ RSS-Gen	PASS
Spurious Radiated Emissions	FCC §15.209(a), 15.407(b)	PASS
26 dB and 99% Emission Bandwidth	FCC §15.407(a)	PASS
Maximum Conducted Output Power	FCC §407(a) (1)	PASS
Band Edges	FCC §2.1051, §15.407(b)	PASS
Power Spectral Density	FCC §15.407(a)(1)	PASS
Spurious Emissions at Antenna Terminals	FCC §2.1051, §15.407(b)	PASS
Antenna Requirement	FCC §15.203	PASS

2. GENERAL TEST INFORMATION

2.1. DESCRIPTION OF EUT

EUT Name	:	IO 5 GHz 1000 Mbps UBR with Integrated Antenna (17 dBi) with dying gasp
Model Number	:	ion4xl1_BTS_d
Power supply	:	**Input of PoE: 100-240VAC, 50Hz,** **Output of PoE/input of EUT: +48V (PoE),0.315A**
Operation frequency	:	WiFi: 802.11a/n(HT20)/ac(VHT20)/ax(HE20): 5180MHz~5240MHz; 5745MHz~5825MHz 802.11n(HT40)/ac(VHT40)/ax(HE40): 5190MHz~5230MHz; 5755MHz~5795MHz 802.11ac(VHT80)/ax(HE80):5210MHz; 5775MHz
Modulation	:	802.11a/n: BPSK/QPSK/16QAM/64QAM 802.11ac/ax: BPSK/QPSK/16QAM/64QAM/256QAM/1024QAM
Data Rate	:	802.11a:6,9,12,18,24,36,48,54Mbps; 802.11ac(VHT20):MCS0-MCS9 802.11ac(VHT40/80):MCS0-MCS9 802.11n(HT20): MCS0 to MCS9; 802.11n(HT40):MCS0-MCS9; 802.11ax(HE20):MCS0-MCS11; 802.11ax(HE40/80):MCS0-MCS11
Antenna Type	:	17dBi Sector Antenna
Antenna gain	:	17dBi
H/W No.	:	C1
S/W No.	:	1.7.0.0
Battery	:	N/A
Date of Receipt	:	Mar. 22, 2023
Condition of Sample on receipt		**Good / Satisfactory / Fit for Testing**
Opinions and Interpretations:		See the specific Note / Annexure if any in the whole /full report.
Note:		1 .For a more detailed features description, please refer to the manufacturer's specifications or the User's Manual. 2. Antenna gain and antenna type provided by manufacturer.
Note:	:	**For 5GHz (Port J1 – Chain 1) is the worst case.**

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Channel List							
802.11a/n/ac/ax (20MHz)							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	40	5200	44	5220	48	5240
149	5745	153	5765	157	5785	161	5805
165	5825	--	--	--	--	--	--
802.11n/ac/ax (40MHz)							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
38	5190	46	5230	151	5755	159	5795
802.11ac/ax (80MHz)							
Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
42	5210	-	-	-	-	155	5775

2.2. ACCESSORIES OF EUT

Description of Accessories	Shielded Type	Ferrite Core	Length
PoE Injector	-	-	-

2.3. ASSISTANT EQUIPMENT USED FOR TEST

Description of Assistant equipment	Manufacturer	Model number or Type	EMC Compliance	SN
Laptop	DELL	Latitude 3490	-	5M2Z1W2
DC Power Supply	JUNKE	JK1504K	-	20181126-43

3. EQUIPMENT'S LIST FOR ALL TEST ITEMS

No	Test Equipment	Manufacturer	Model No	Serial No	Cal. Date	Cal.Due Date
1	Spectrum Analyzer	Rohde and Schwarz	FSP	101163	2022/02/08	2024/02/07
2	Loop antenna	DAZE Beijing	ZN30900C	18052	2021/09/15	2023/09/14
3	Hi power horn antenna	DAZE Beijing	ZN30700	18012	2021/09/15	2023/09/14
4	Horn antenna	DAZE Beijing	ZN30702	18006	2021/09/15	2023/09/14
5	Horn antenna	DAZE Beijing	ZN30703	18005	2021/09/15	2023/09/14
6	Pre amplifier	KELIANDA	LNA-0009295	-	2023/01/13	2024/01/13
7	Pre amplifier	KELIANDA	CF-00218	-	2023/01/13	2024/01/13
8	Biconical Antenna	DAZE Beijing	ZN30505C	17038	2021/09/15	2023/09/14
9	EMI-RECEIVER	Schwarzbeck	FCKL	1528194	2023/01/13	2024/01/13
10	LISN	Kyoritsu	KNW-407	8-1789-5	2023/01/13	2024/01/13
11	Network-LISN	SCHWAR ZBECK	NNBM8125	81251314	2023/01/13	2024/01/13
12	Network-LISN	SCHWAR ZBECK	NNBM8125	81251315	2023/01/13	2024/01/13
13	PULSE LIMITER	Rohde and Schwarz	ESH-Z3	100681	2023/01/13	2024/01/13
14	50Ω Coaxial Switch	DAIWA	1565157	-	2023/01/13	2024/01/13
15	50Ω Coaxial Switch	-	-	-	2023/01/13	2024/01/13
16	Wireless signal power meter	DARE!!	RPR3006W	RFSW19022	2023/01/13	2024/01/13
17	Signal Generator	KEYSIGHT	N5181A	512071	2023/01/13	2024/01/13

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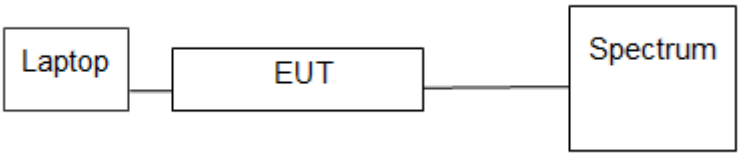
18	RF Vector Signal Generator	Keysight	N5182B	512094	2023/01/13	2024/01/13
19	Spectrum Analyzer	R&S	FSV-40N	101385	2023/01/13	2024/01/13
20	Radio Communication Tester	R&S	CMW 500	124589	2021/09/15	2023/09/14
21	Signal Generator	R&S	SMP02	837017/004 836593/005	2021/09/15	2023/09/14 2023/01/13
22	DC Power Supply	Guanker	JK15040K	TNC/ET/C/0	2023/01/13	2024/01/13
23	Pro. Temp & Humi. Chamber	MENTEK	MHP-150-1C	MAA081125	2023/01/13	2024/01/13
24	Attenuators	AGILENT	8494B	-	-	-
25	Attenuators	AGILENT	8495B	-	-	-

3.1. BLOCK DIAGRAM OF EUT CONFIGURATION FOR TEST



3.2. TEST ENVIRONMENT CONDITIONS

During the measurement the environmental conditions were within the listed ranges:

Temperature range:	21-25℃
Humidity range:	40-75%
Pressure range:	86-106kPa

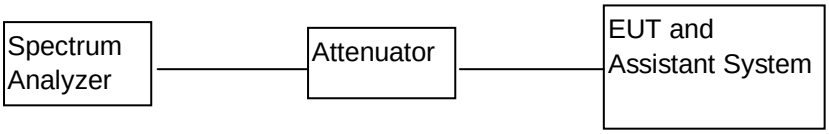
3.3. MEASUREMENT UNCERTAINTY

No.	Item	Uncertainty
1	Conducted Emission Test	2.70dB
2	Radiated Emission Test	3.09dB
3	RF power, conducted	2.46dB
4	RF power density, conducted	2.24dB
5	Spurious emissions, conducted	2.71dB
6	All emissions, radiated(<1G)	3.08dB
7	All emissions, radiated(>1G)	3.09dB

Note：This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

4. POWER SPECTRAL DENSITY TEST

4.1. BLOCK DIAGRAM OF TEST SETUP



4.2. APPLIED PROCEDURES / LIMIT

According to FCC §15.407(a)(3)

For the band 5.15-5.25 GHz,

(i) For an outdoor access point operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi. The maximum e.i.r.p. at any elevation angle above 30 degrees as measured from the horizon must not exceed 125 mW (21 dBm).

(ii) For an indoor access point operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

(iii) For fixed point-to-point access points operating in the band 5.15-5.25 GHz, the maximum power spectral density shall not exceed 17 dBm in any 1 megahertz band. Fixed point-to-point U-NII devices may employ antennas with directional gain up to 23 dBi without any corresponding reduction in the maximum conducted output power or maximum power spectral density. For fixed point-to-point transmitters that employ a directional antenna gain greater than 23 dBi, a 1 dB reduction in maximum conducted output power and maximum power spectral density is required for each 1 dB of antenna gain in excess of 23 dBi. Fixed, point-to-point operations exclude the use of point-to-multipoint systems, omni directional applications, and multiple collocated transmitters transmitting the same information. The operator of the U-NII device, or if the equipment is professionally installed, the installer, is responsible for ensuring that systems employing high gain directional antennas are used exclusively for fixed, point-to-point operations.

(iv) For mobile and portable client devices in the 5.15-5.25 GHz band, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

For the band 5.725-5.85 GHz

For the band 5.725-5.85 GHz, the maximum power spectral density shall not exceed 30 dBm in any 500-kHz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi..

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4.3. TEST PROCEDURE

(For devices operating in the bands 5.15-5.25 GHz, 5.25-5.35 GHz, and 5.47-5.725 GHz, the above procedures make use of 1 MHz RBW to satisfy directly the 1 MHz reference bandwidth specified in § 15.407(a)(5). For devices operating in the band 5.725-5.85 GHz, the rules specify a measurement bandwidth of 500 kHz. Many spectrum analyzers do not have 500 kHz RBW, thus a narrower RBW may need to be used. The rules permit the use of a RBWs less than 1 MHz, or 500 kHz, "provided that the measured power is integrated over the full reference bandwidth" to show the total power over the specified measurement bandwidth (i.e., 1 MHz, or 500 kHz). If measurements are performed using a reduced resolution bandwidth (< 1 MHz, or < 500 kHz) and integrated over 1 MHz, or 500 KHz bandwidth, the following adjustments to the procedures apply:

a) Set RBW ≥ 1/T, where T is defined in section II.B.l.a).

b) Set VBW ≥ 3 RBW.

c) If measurement bandwidth of Maximum PSD is specified in 500 kHz, add 10log(500kHz/RBW) to the measured result, whereas RBW (< 500 KHz) is the reduced resolution bandwidth of the spectrum analyzer set during measurement.

d) If measurement bandwidth of Maximum PSD is specified in 1 MHz, add 10log(1MHz/RBW) to the measured result, whereas RBW (< 1 MHz) is the reduced resolution bandwidth of spectrum analyzer set during measurement.

e) Care must be taken to ensure that the measurements are performed during a period of continuous transmission or are corrected upward for duty cycle.

Note: As a practical matter, it is recommended to use reduced RBW of 100 KHz for the sections 5.c) and 5.d) above, since RBW=100 KHZ is available on nearly all spectrum analyzers.

4.4. TEST RESULT:

CH. No.	Frequency	power density (dBm/MHz)	Limit (dBm/MHz)	Result
TX 802.11a Mode				
CH36	5180	5.39	6	Pass
CH44	5220	4.59	6	Pass
CH48	5240	5.65	6	Pass
TX 802.11n20 Mode				
CH36	5180	4.91	6	Pass
CH44	5220	3.99	6	Pass
CH48	5240	4.04	6	Pass
TX 802.11n40 Mode				
CH38	5190	1.00	6	Pass
CH46	5230	2.00	6	Pass
TX 802.11ac20 Mode				
CH36	5180	4.48	6	Pass
CH44	5220	3.25	6	Pass
CH48	5240	5.14	6	Pass
TX 802.11ac40 Mode				
CH38	5190	1.07	6	Pass
CH46	5230	0.97	6	Pass
TX 802.11ac80 Mode				
CH42	5210	0.39	6	Pass
TX 802.11ax20 Mode				
CH36	5180	4.48	6	Pass
CH44	5220	4.84	6	Pass
CH48	5240	4.04	6	Pass
TX 802.11ax40 Mode				
CH38	5190	1.00	6	Pass
CH46	5230	1.88	6	Pass
TX 802.11ax80 Mode				
CH42	5210	0.84	6	Pass

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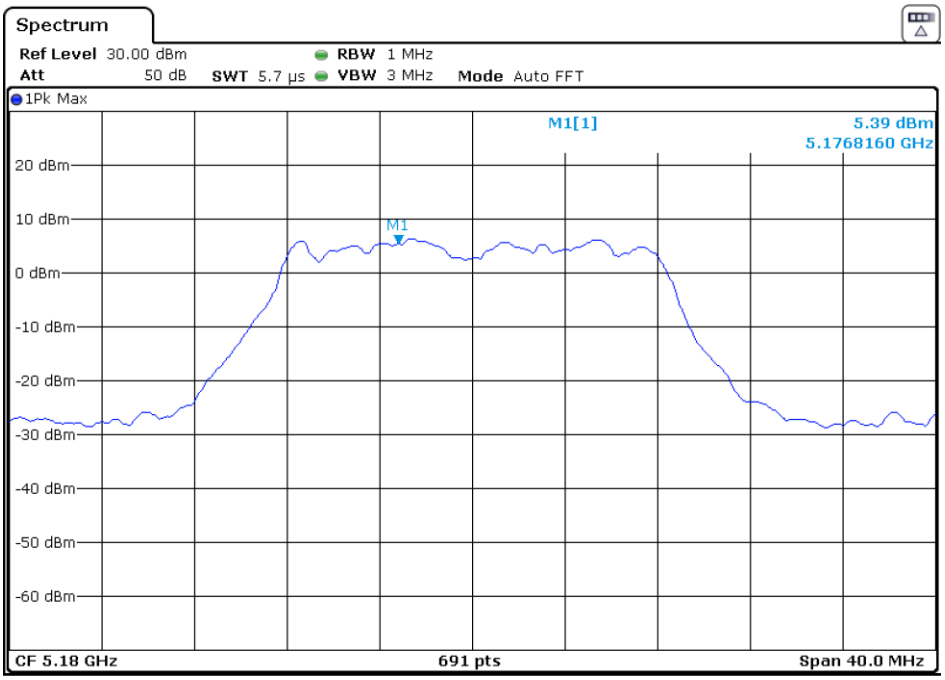
TEST RESULT

CH. No.	Frequency	Limit (dBm/500KHz)	Limit (dBm/500KHz)	Result
TX 802.11a Mode				
CH 149	5745	7.30	19	Pass
CH 157	5785	5.17	19	Pass
CH 165	5825	5.61	19	Pass
TX 802.11n20 Mode				
CH 149	5745	6.60	19	Pass
CH 157	5785	5.56	19	Pass
CH 165	5825	6.15	19	Pass
TX 802.11n40 Mode				
CH151	5755	3.85	19	Pass
CH159	5795	2.19	19	Pass
TX 802.11ac20 Mode				
CH 149	5745	6.34	19	Pass
CH 157	5785	4.84	19	Pass
CH 165	5825	5.05	19	Pass
TX 802.11ac40 Mode				
CH151	5755	4.06	19	Pass
CH159	5795	1.91	19	Pass
TX 802.11ac80 Mode				
CH155	5775	0.12	19	Pass
TX 802.11ax20 Mode				
CH 149	5745	7.96	19	Pass
CH 157	5785	6.55	19	Pass
CH 165	5825	6.35	19	Pass
TX 802.11ax40 Mode				
CH151	5755	4.13	19	Pass
CH159	5795	3.36	19	Pass
TX 802.11ax80 Mode				
CH155	5775	1.33	19	Pass

Test plots as followed

802.11a

Channel: 36



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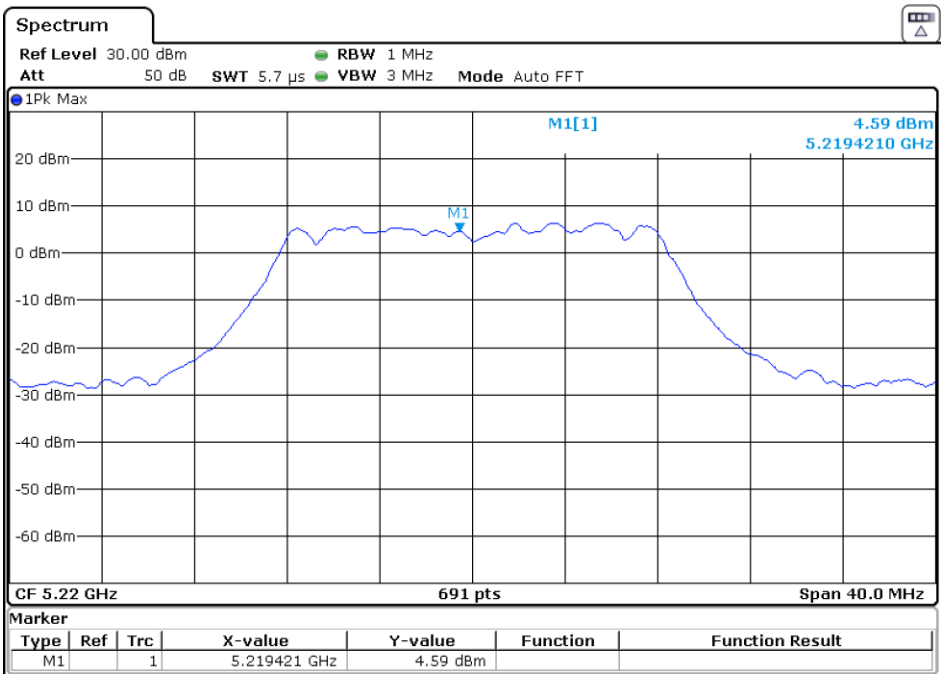

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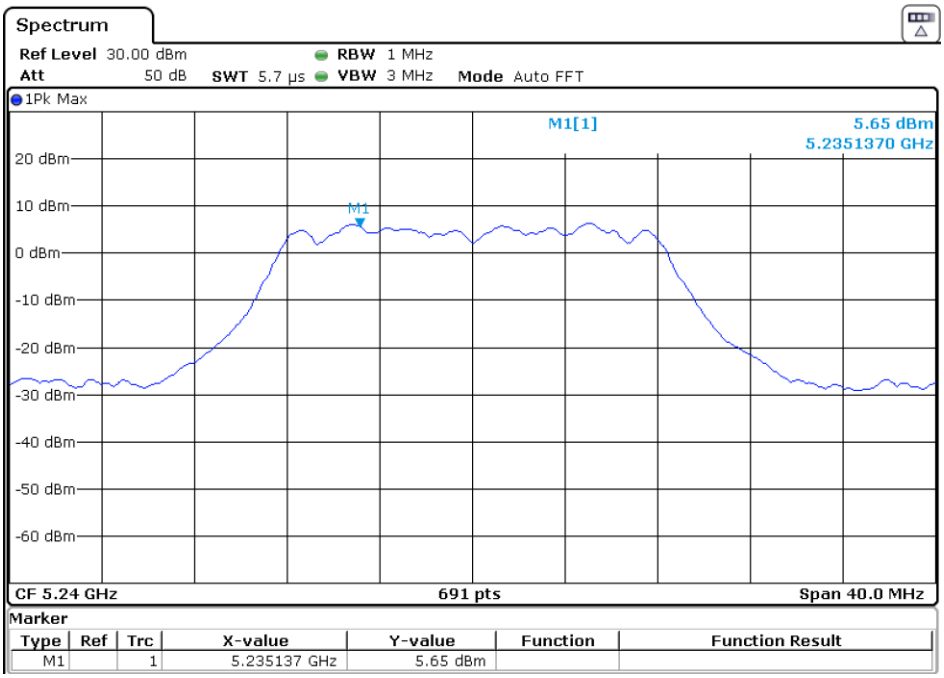
Channel: 48



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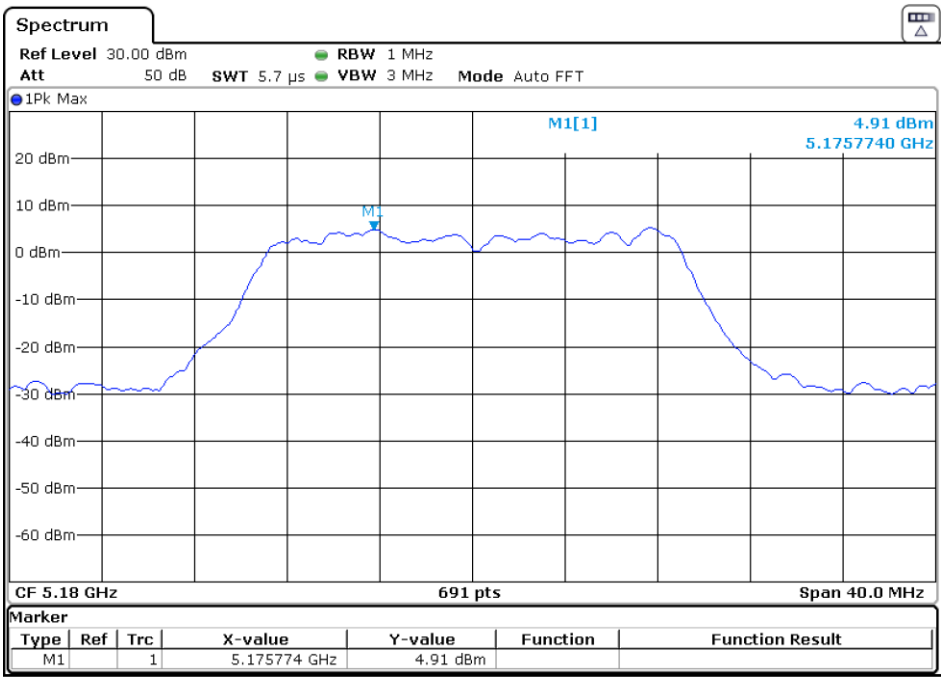
802.11n20

Channel: 36



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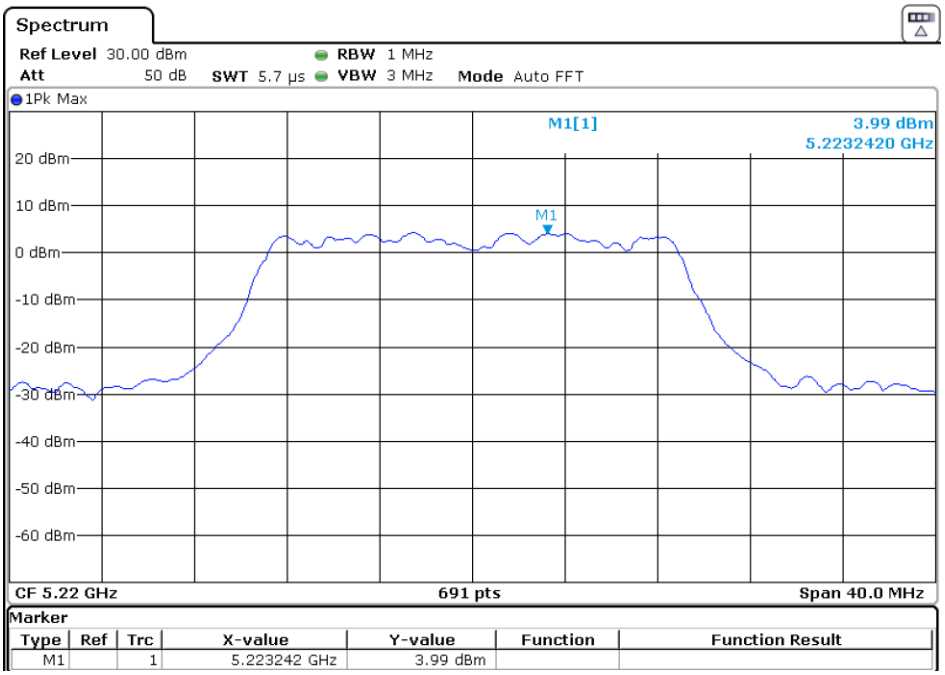

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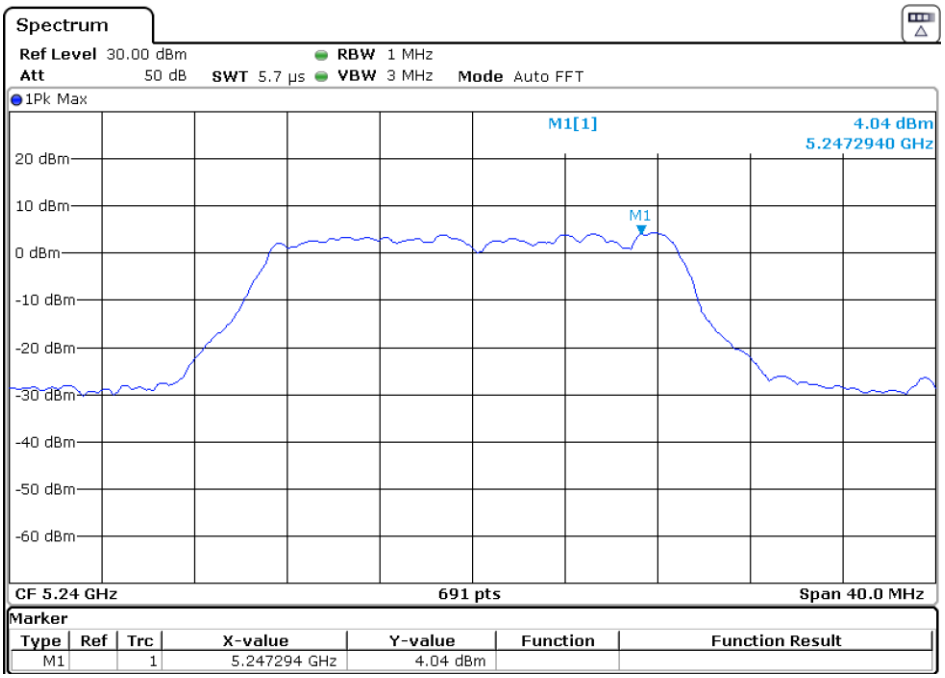
Channel: 48



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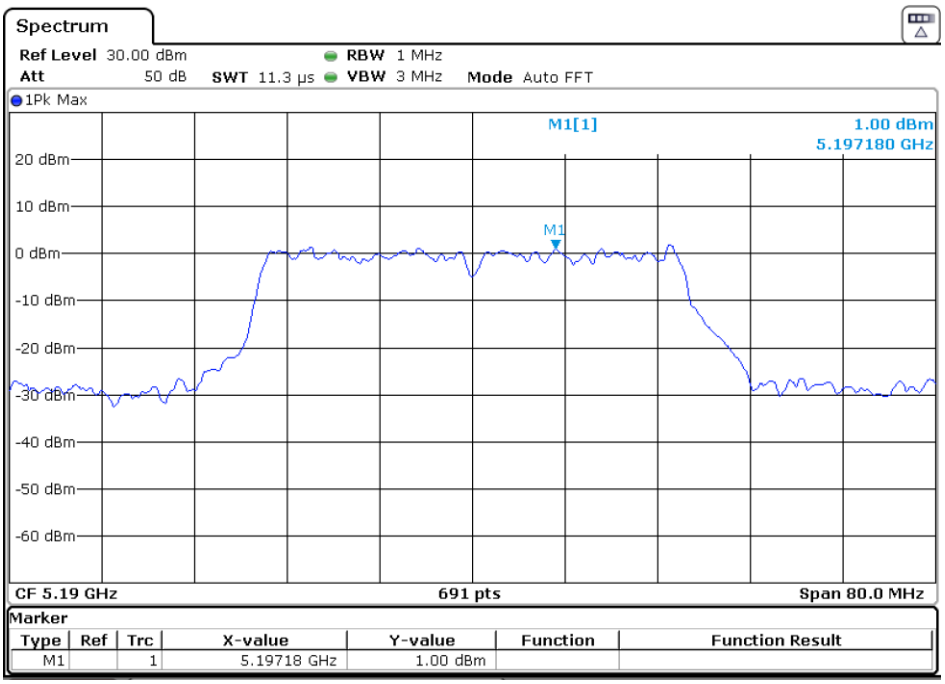
802.11n40

Channel: 38



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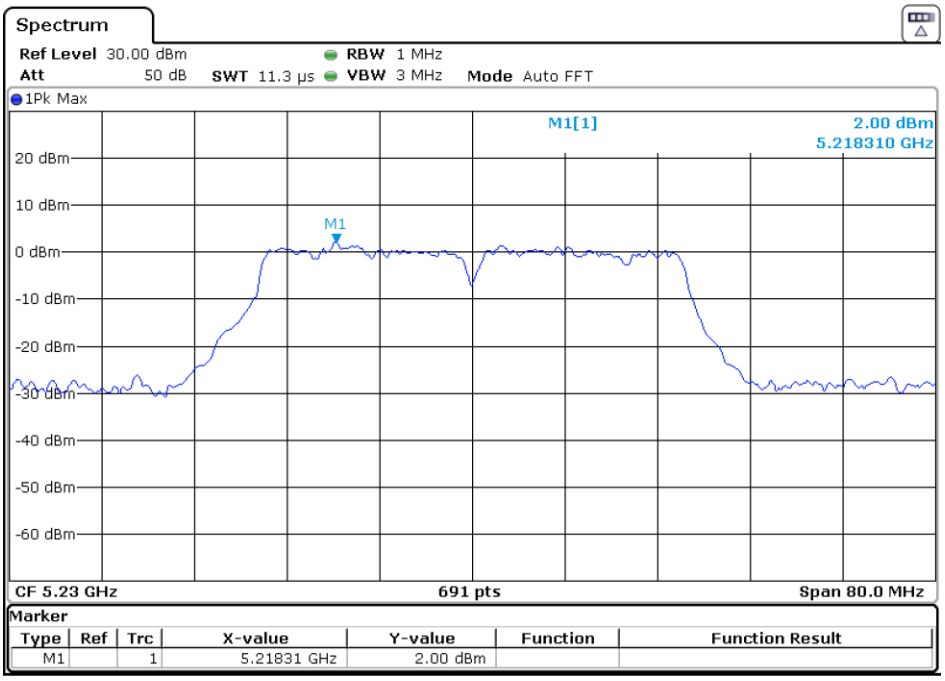

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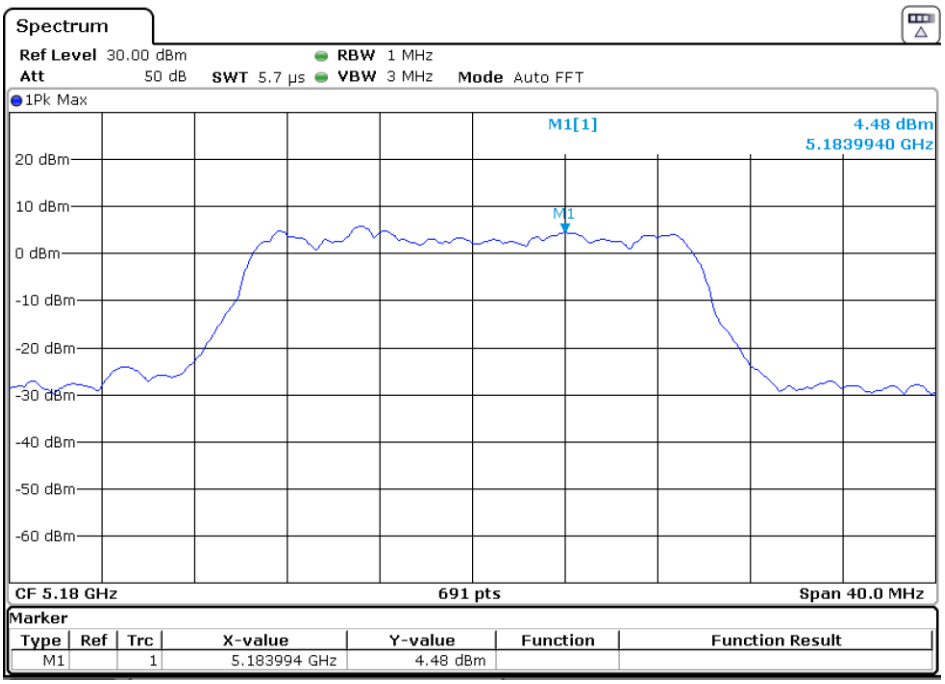
802.11ac20

Channel: 36



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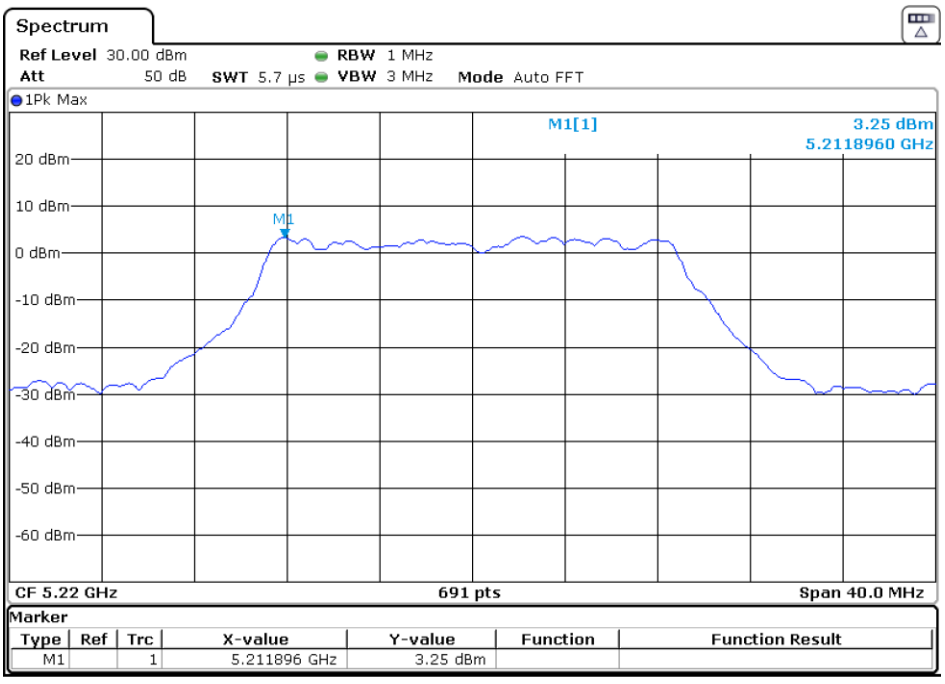

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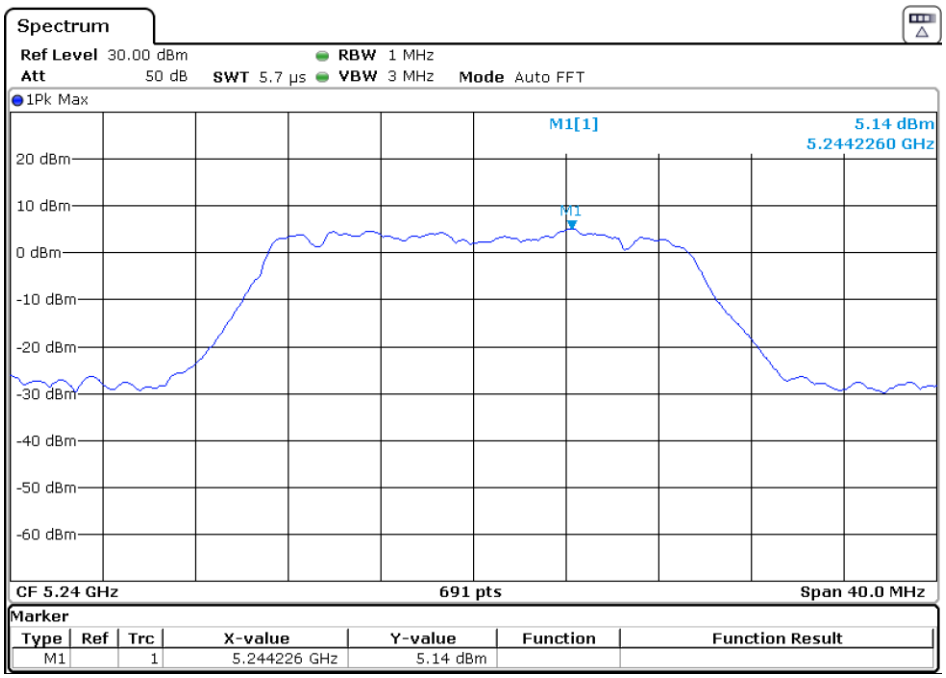
Channel: 48



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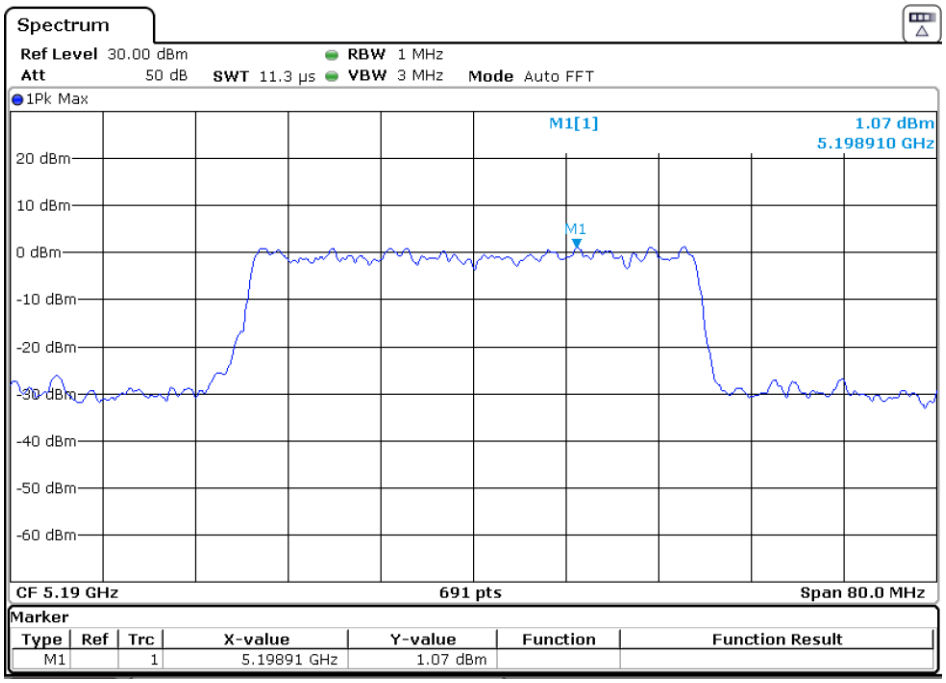

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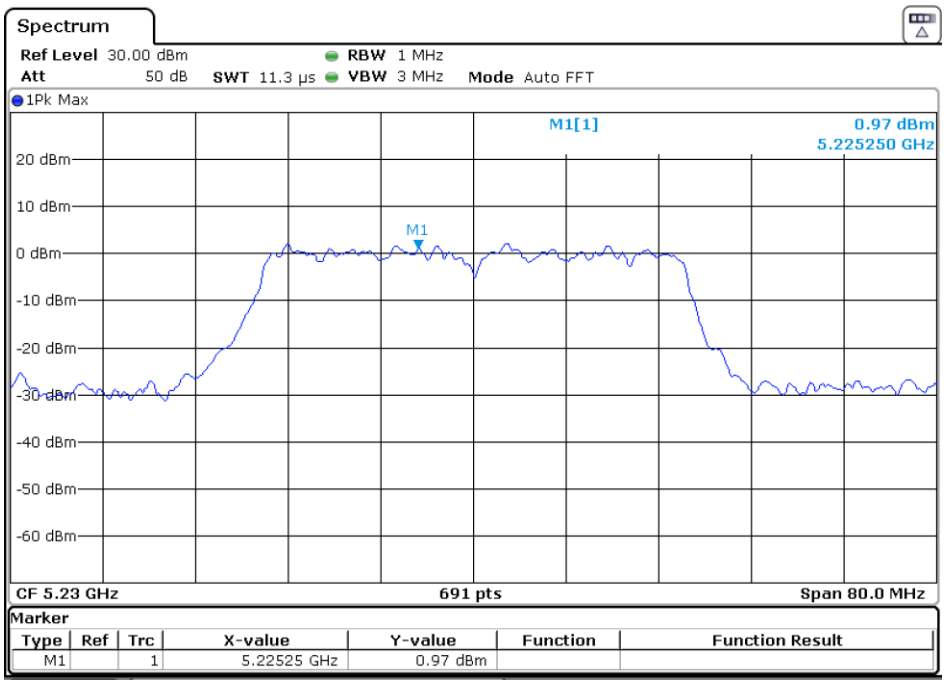
Channel: 46



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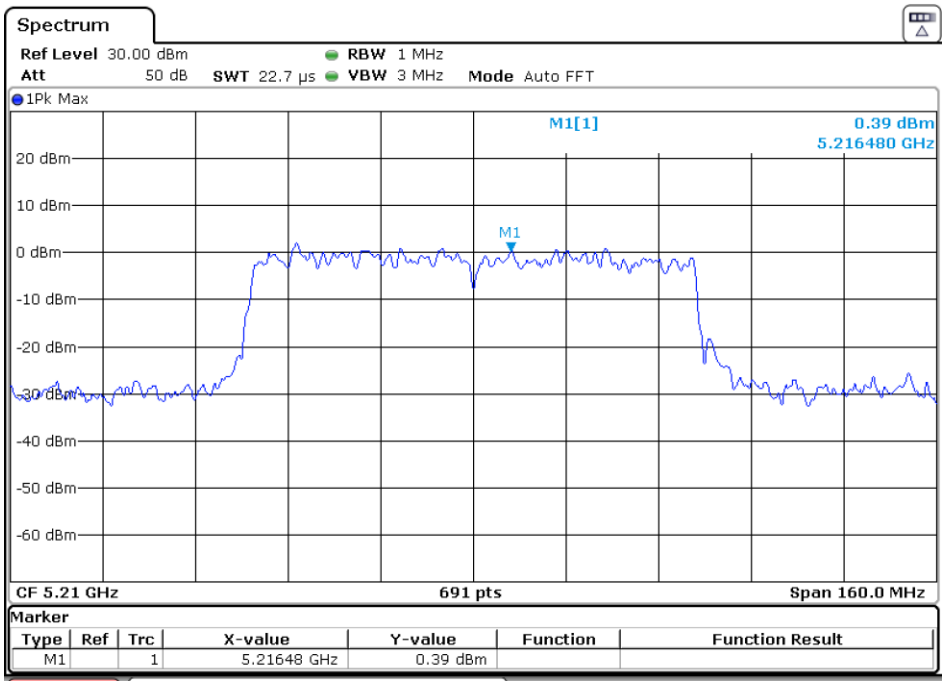
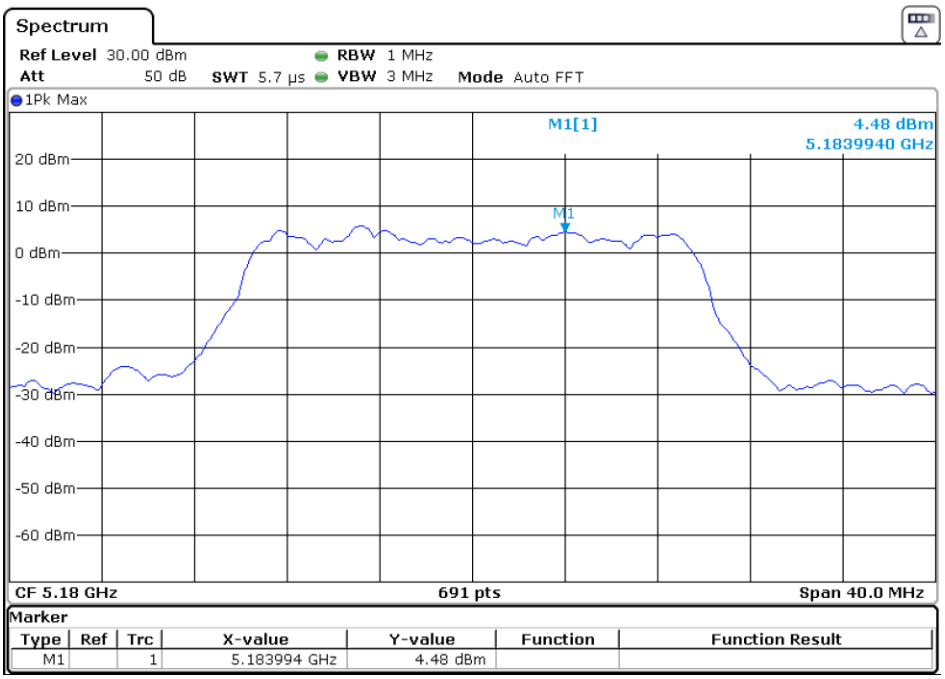
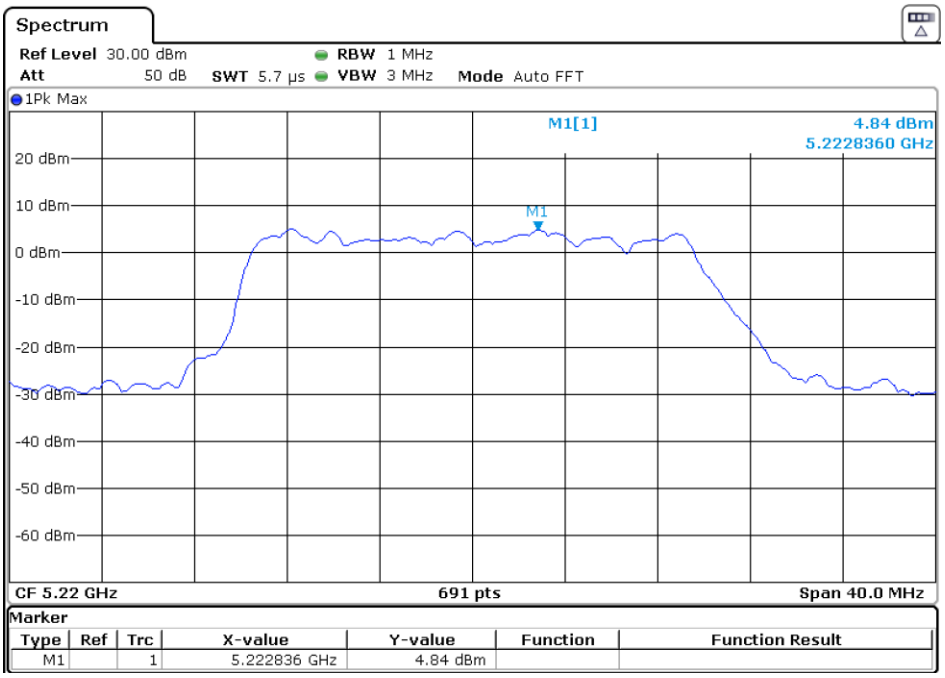


802.11ax20

Channel: 36



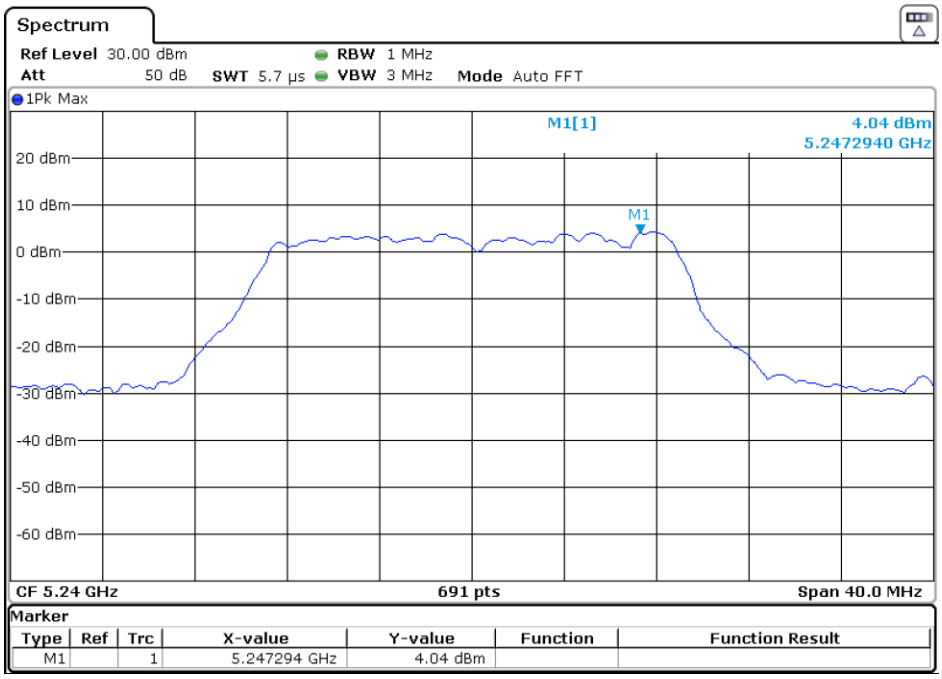
Channel: 44



Plot No.174, Udyog Vihar Phase 4, Sector -18, Gurgaon -122016, Haryana, India

Contact:0124-4235350, 4145343; e-mail: info @aaemtlabs.com; Website: www.aaemtlabs.com

Channel: 48



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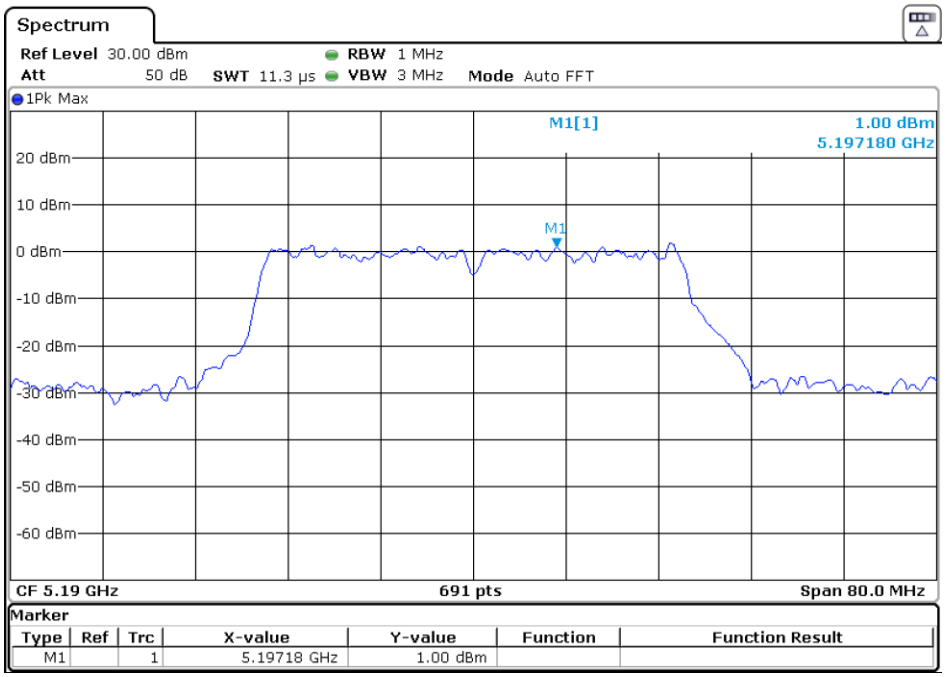
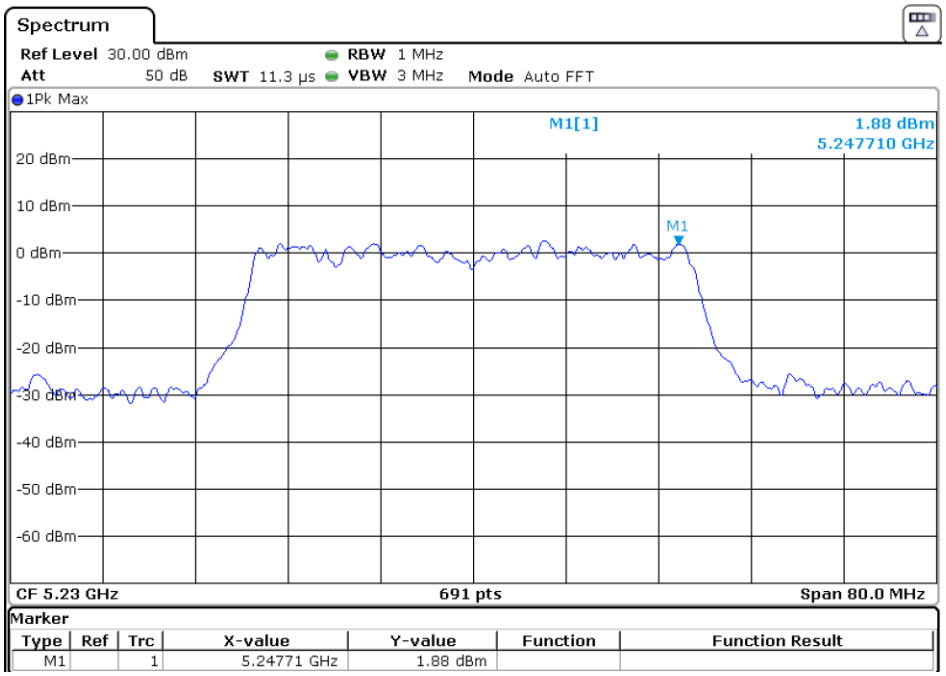
Contact:0124-4235350, 4145343; e-mail: info @aaemtlabs.com; Website: www.aaemtlabs.com

802.11ax40

Channel: 38



Channel: 46



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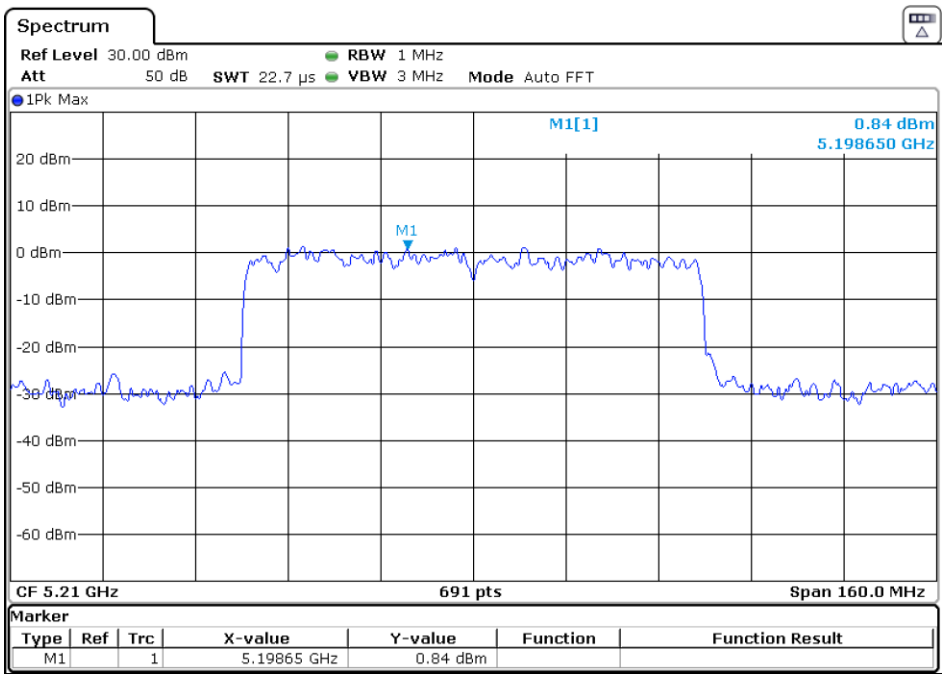
Contact:0124-4235350, 4145343; e-mail: info @aaemtlabs.com; Website: www.aaemtlabs.com

802.11ax80

Channel: 42



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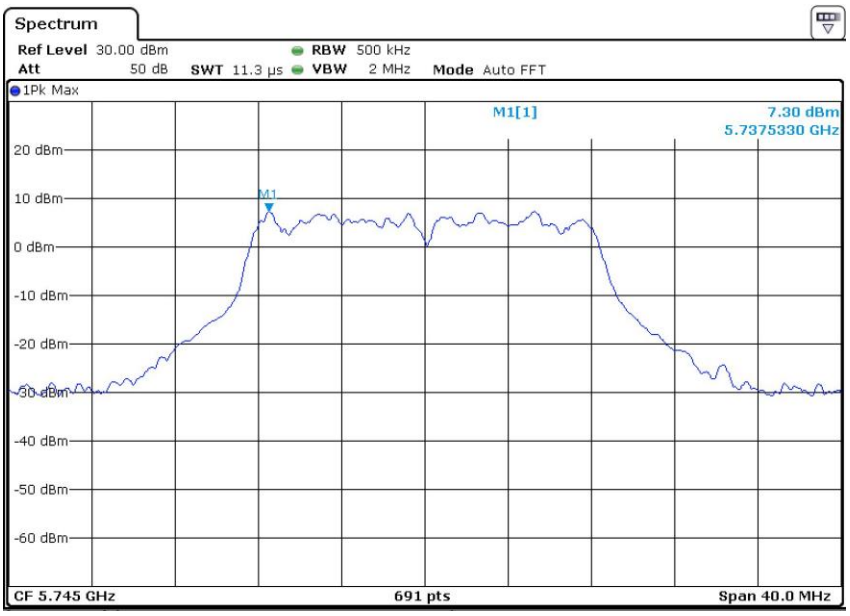
Contact:0124-4235350, 4145343; e-mail: info @aaemtlabs.com; Website: www.aaemtlabs.com

Test plots as followed:

802.11a

Channel: 149



Channel: 157

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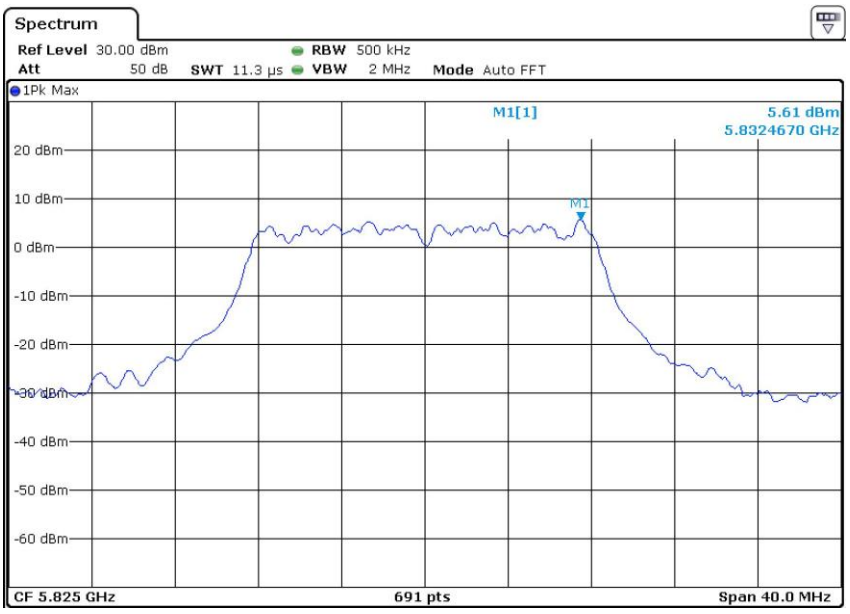
Channel: 165


Spectrum
Ref Level 30.00 dBm
RBW 500 kHz
Att 50 dB
SWT 11.3 µs
VBW 2 MHz
Mode Auto FFT
1Pk Max
M1[1]
5.61 dBm
5.8324670 GHz
20 dBm
10 dBm
0 dBm
-10 dBm
-20 dBm
-30 dBm
-40 dBm
-50 dBm
-60 dBm
M1
CF 5.825 GHz
691 pts
Span 40.0 MHz

802.11n20

Channel: 149

Channel: 157

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Channel: 165

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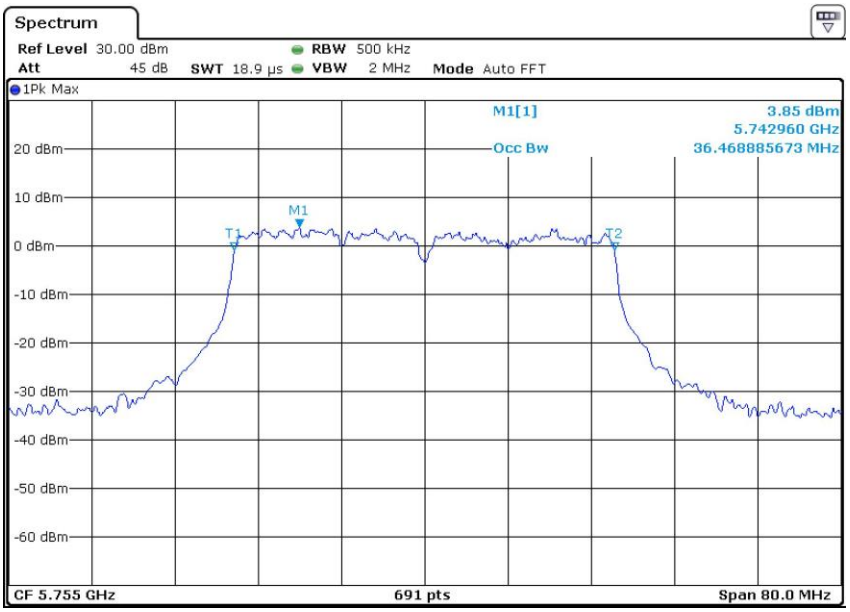
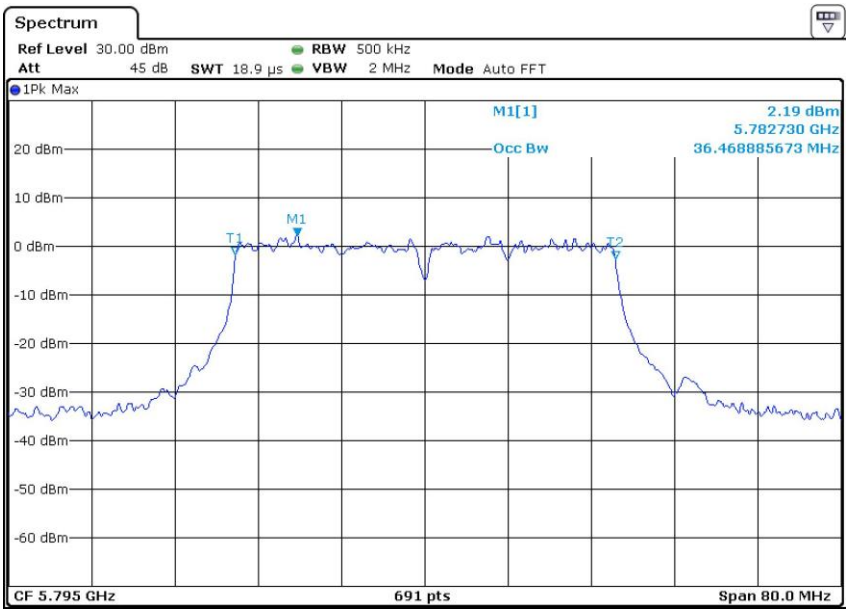
Contact:0124-4235350, 4145343; e-mail: info @aaemtlabs.com; Website: www.aaemtlabs.com

802.11n40

Channel: 151



Channel: 159



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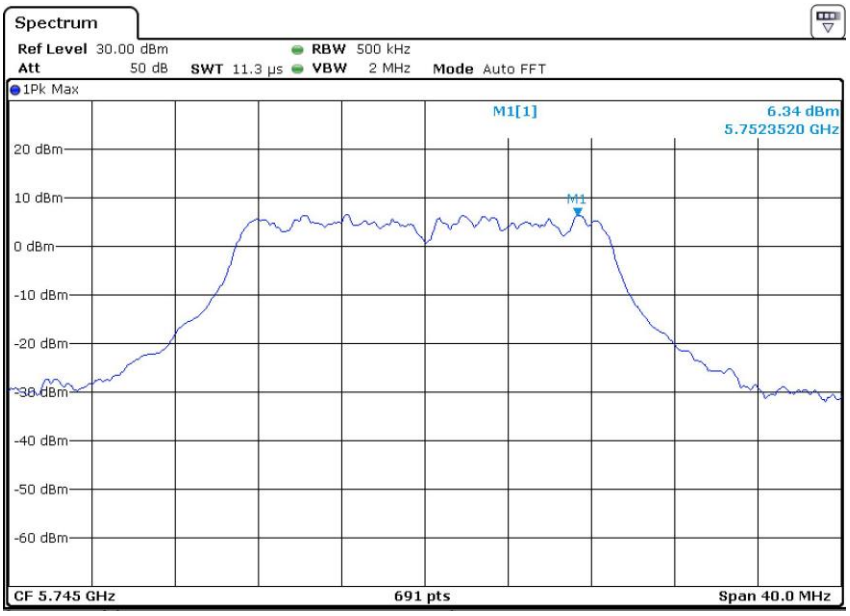
Contact:0124-4235350, 4145343; e-mail: info @aaemtlabs.com; Website: www.aaemtlabs.com

802.11ac20

Channel: 149



Channel: 157

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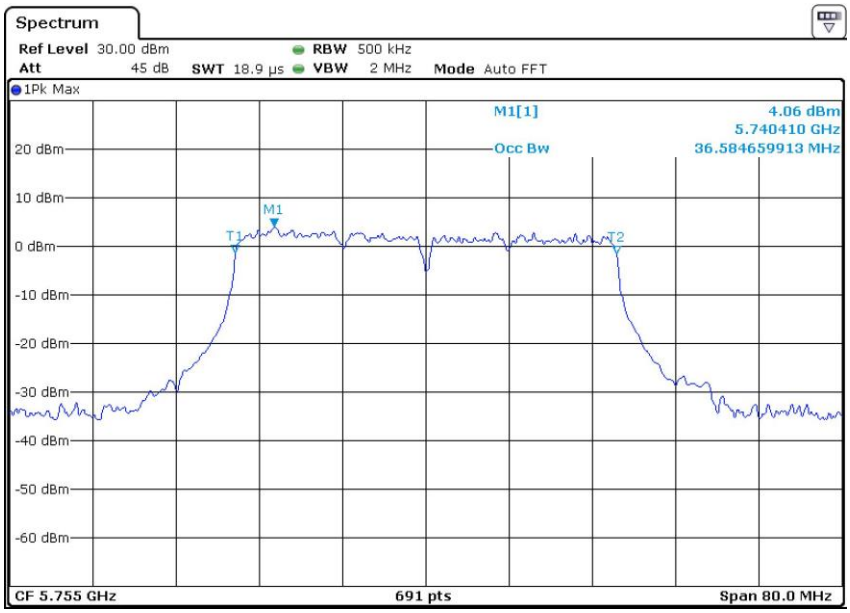
Contact:0124-4235350, 4145343; e-mail: info @aaemtlabs.com; Website: www.aaemtlabs.com

Channel: 165

802.11ac40

Channel: 151



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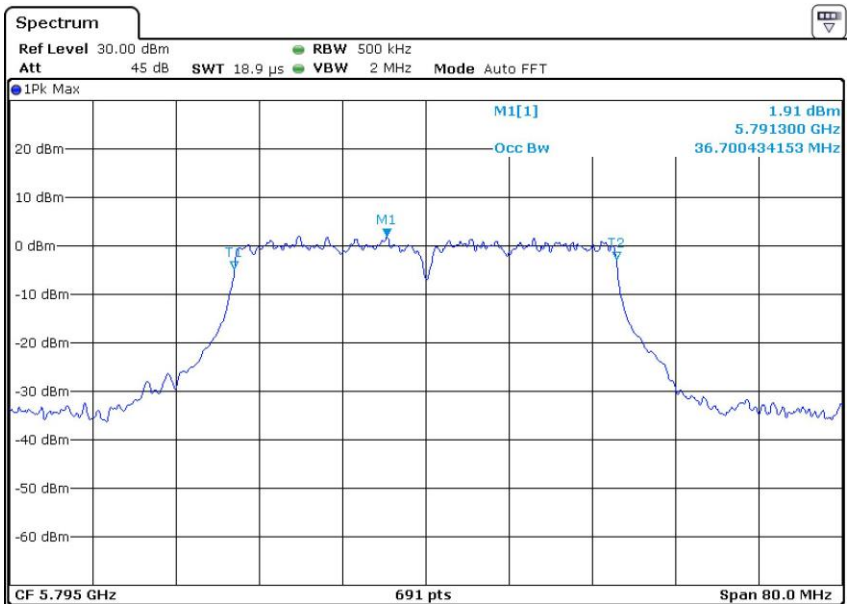
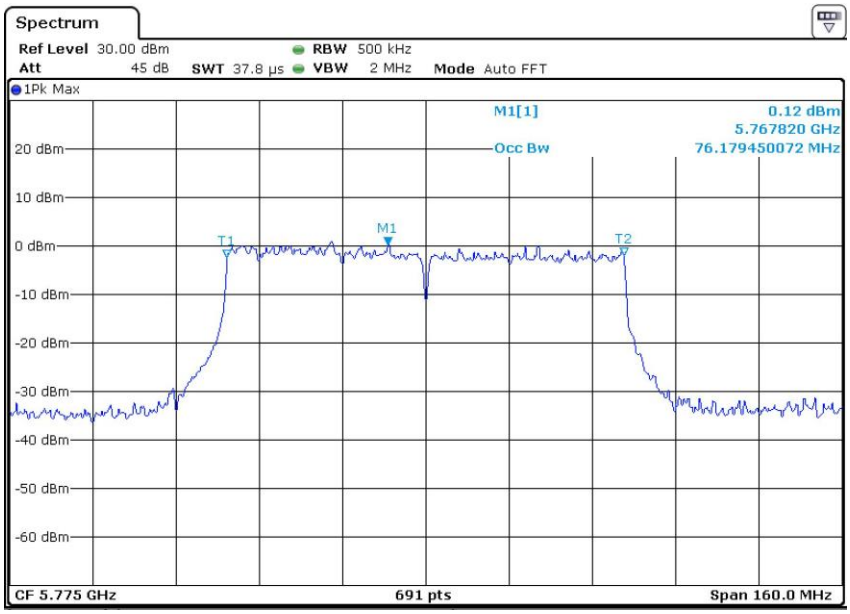
Contact:0124-4235350, 4145343; e-mail: info @aaemtlabs.com; Website: www.aaemtlabs.com

Channel: 159



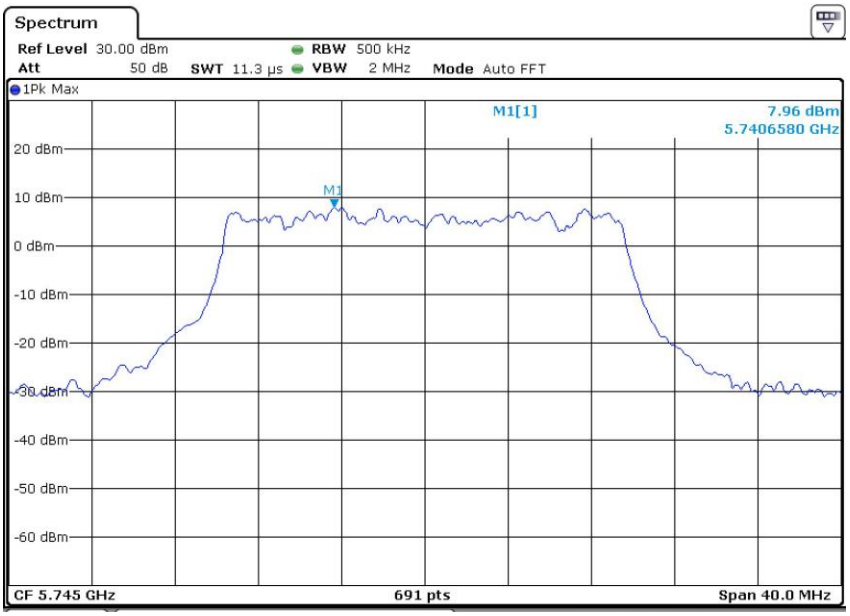
802.11ac80

Channel: 155

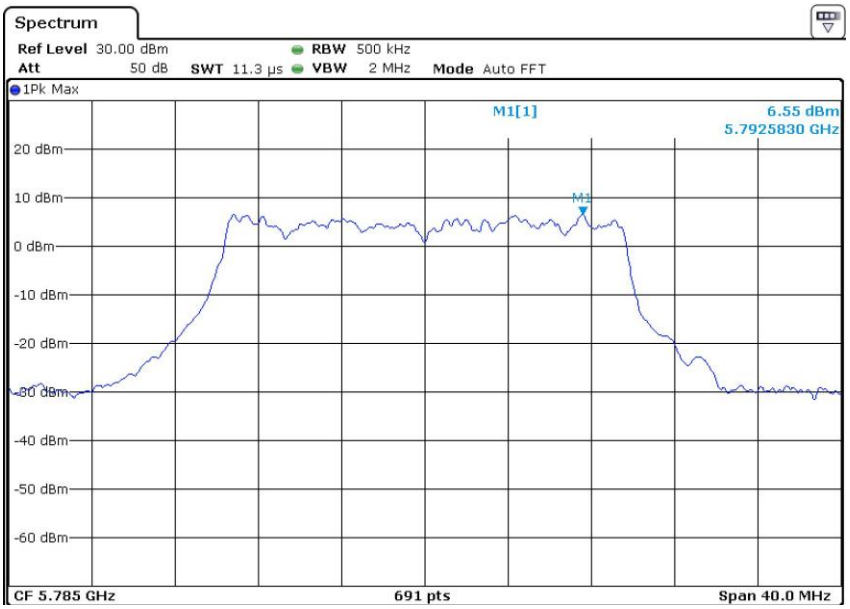


802.11ax20

Channel: 149



Channel: 157



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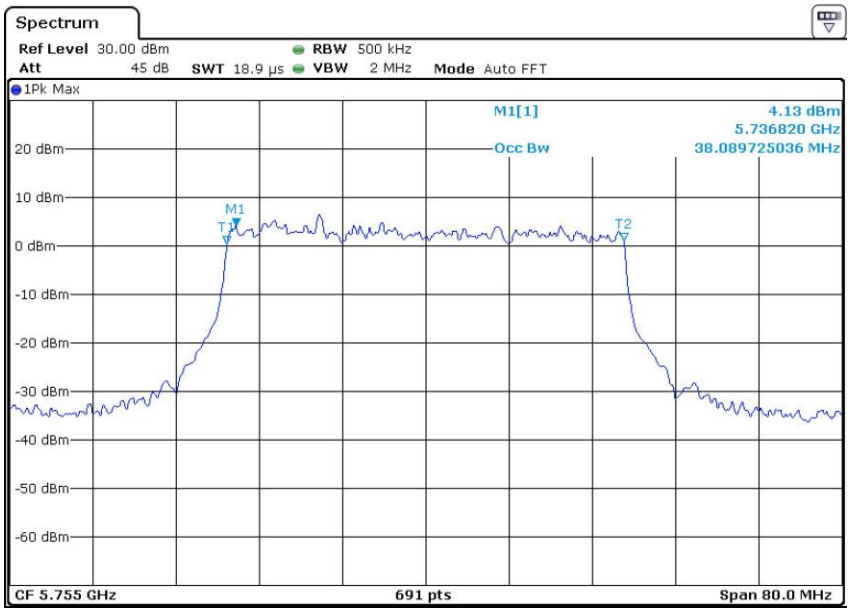
Contact:0124-4235350, 4145343; e-mail: info @aaemtlabs.com; Website: www.aaemtlabs.com

Channel: 165

802.11ax40

Channel: 151



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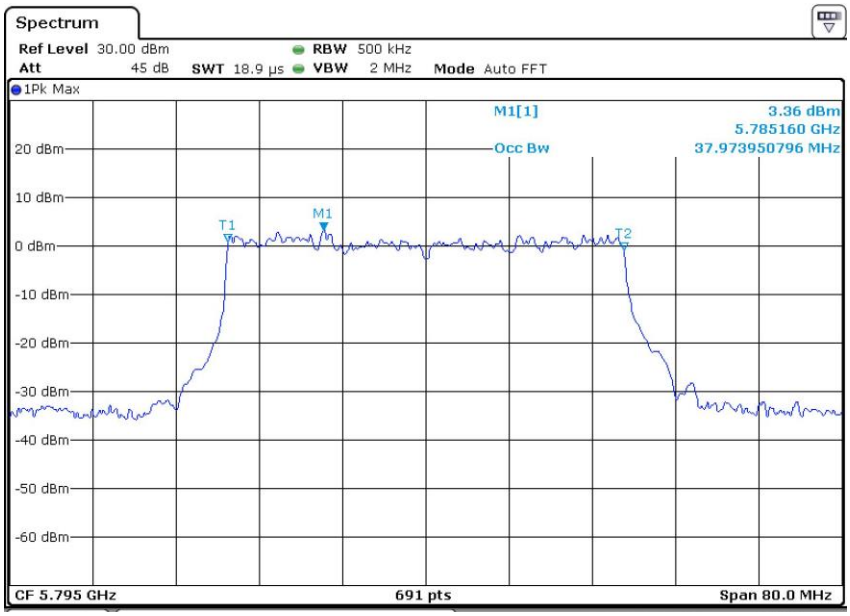
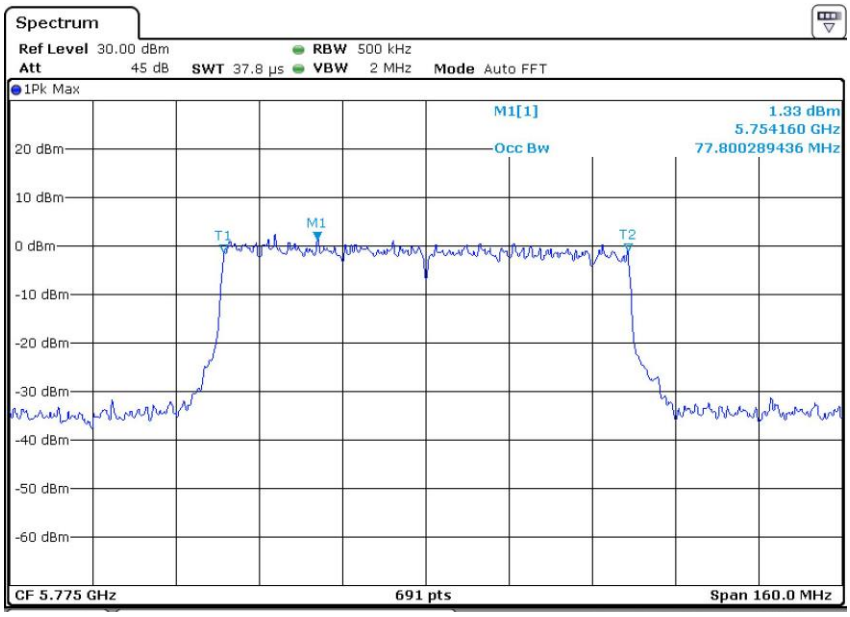
Contact:0124-4235350, 4145343; e-mail: info @aaemtlabs.com; Website: www.aaemtlabs.com

Channel: 159



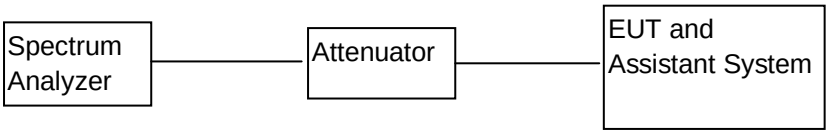
802.11ax80

Channel: 155



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

a) Set RBW = approximately 1% of the emission bandwidth.

b) Set the VBW > RBW.

c) Detector = Peak.

d) Trace mode = max hold.

e) 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:

1. Set center frequency to the nominal EUT channel center frequency.
2. Set span = 1.5 times to 5.0 times the OBW.
3. Set RBW = 1 % to 5 % of the OBW
4. Set VBW ≥ 3 · RBW
5. 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.
6. Use the 99 % power bandwidth function of the instrument (if available).
7. 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

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

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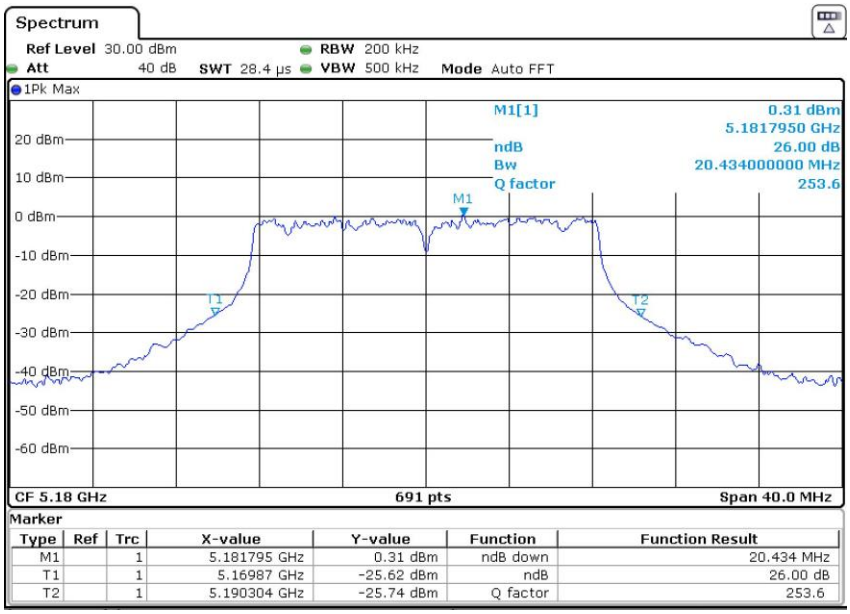
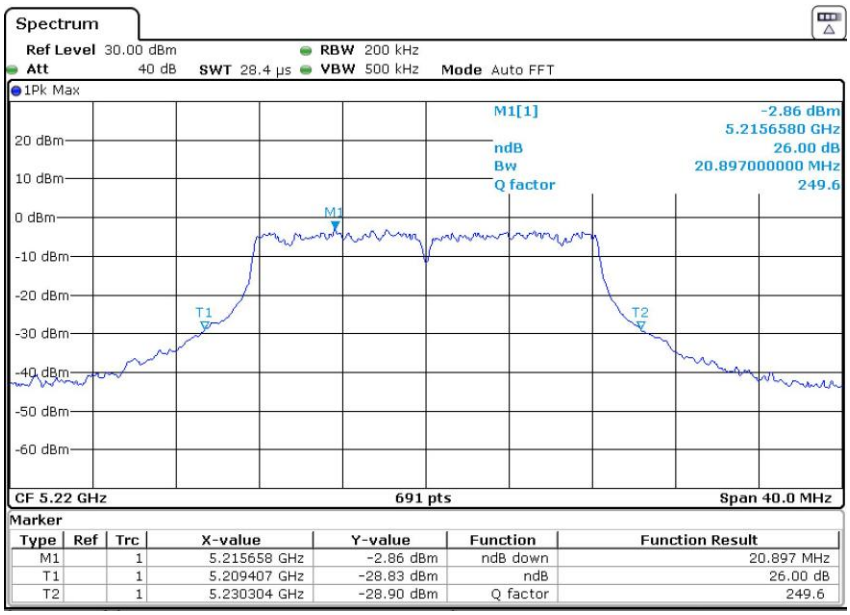
Test plots as followed:

26dB BW 802.11a

Channel: 36



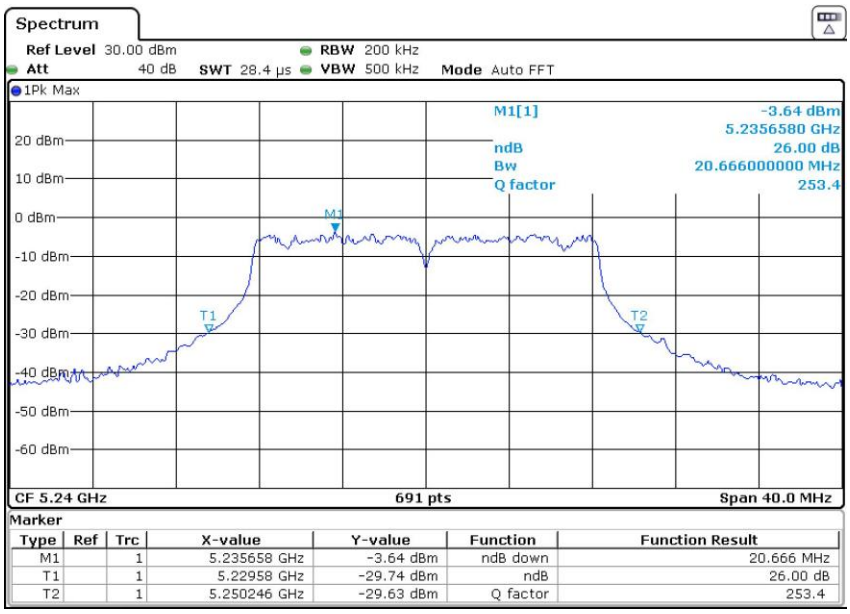
Channel: 44



Plot No.174, Udyog Vihar Phase 4, Sector -18, Gurgaon -122016, Haryana, India

Contact:0124-4235350, 4145343; e-mail: info @aaemtlabs.com; Website: www.aaemtlabs.com

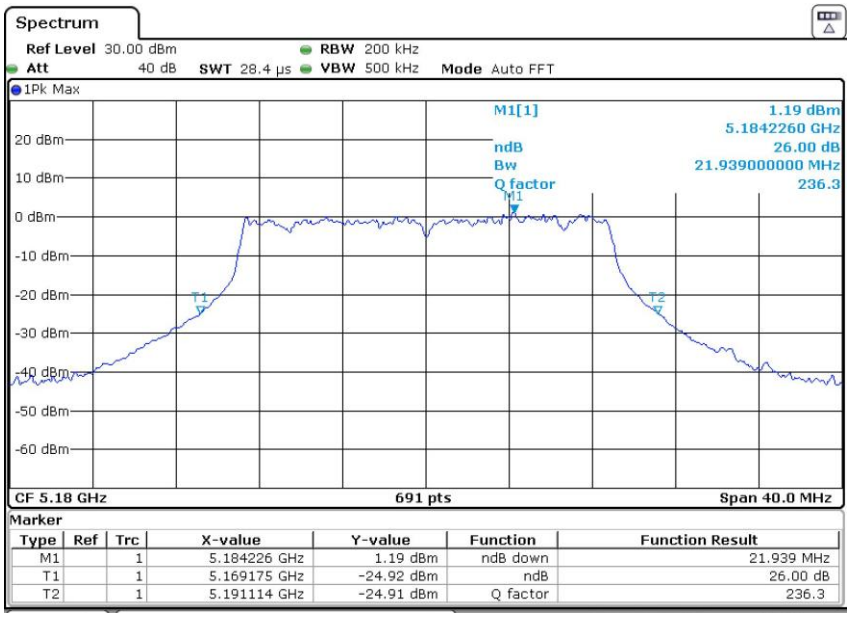
Channel: 48



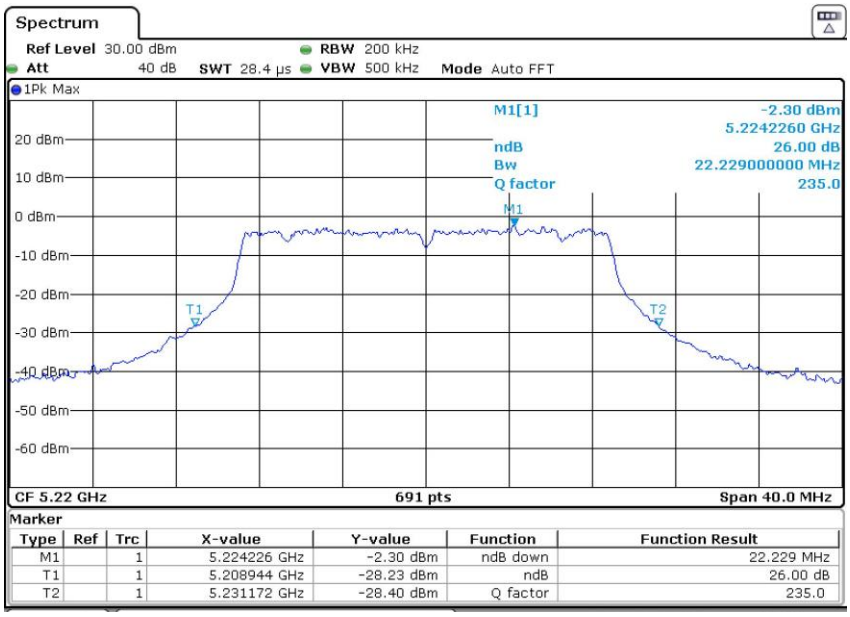
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.235658 GHz	-3.64 dBm	ndB down	20.666 MHz
T1		1	5.22958 GHz	-29.74 dBm	ndB	26.00 dB
T2		1	5.250246 GHz	-29.63 dBm	Q factor	253.4

26dB BW 802.11n20

Channel: 36



Channel: 44



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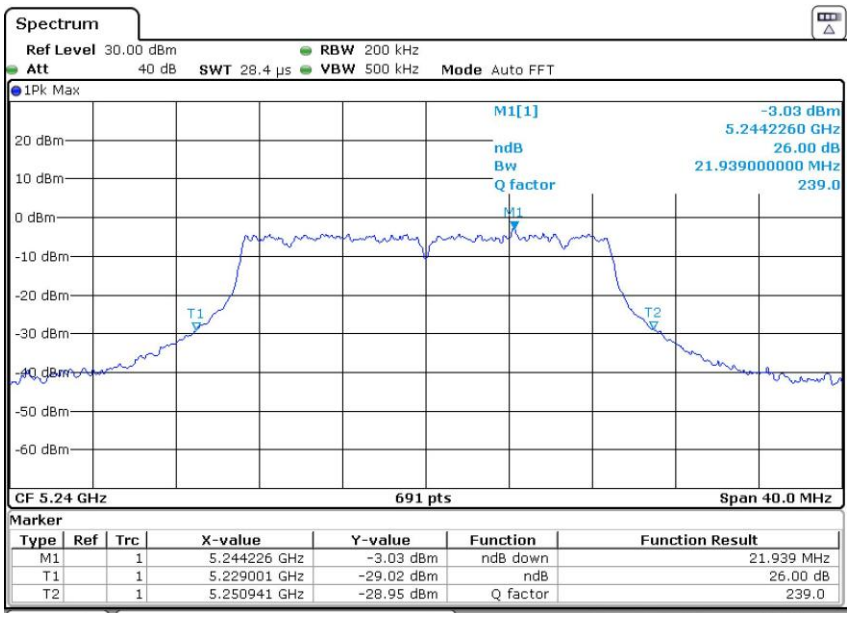
Contact:0124-4235350, 4145343; e-mail: info @aaemtlabs.com; Website: www.aaemtlabs.com

Channel: 48



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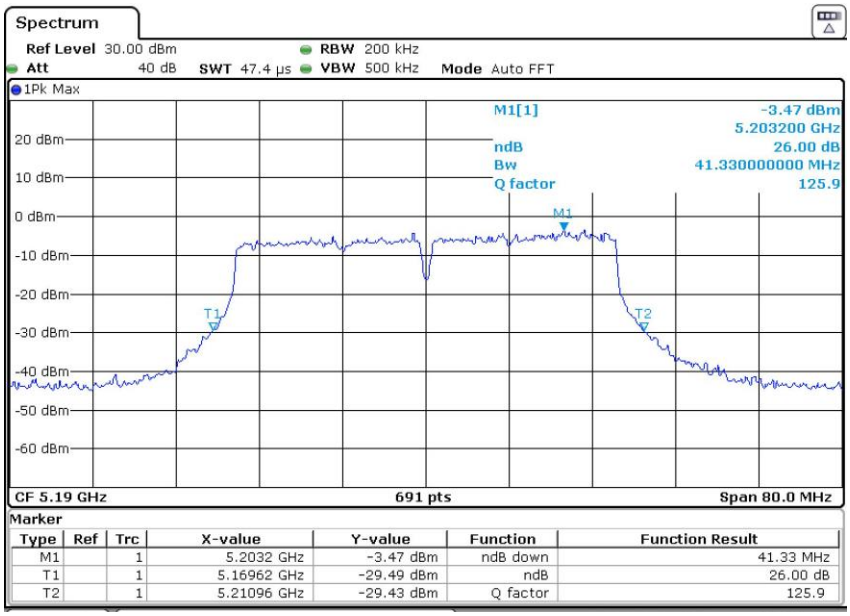
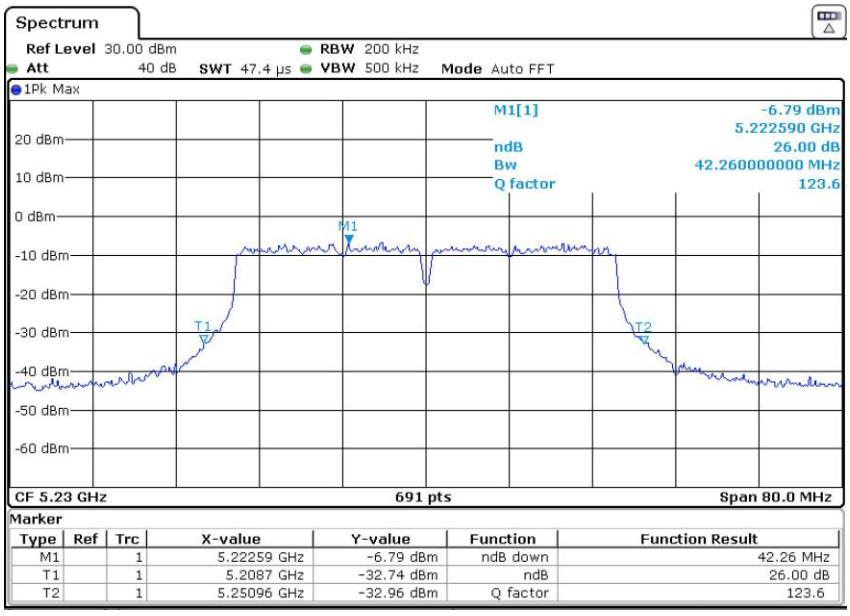
26dB BW 802.11n40

Channel: 38

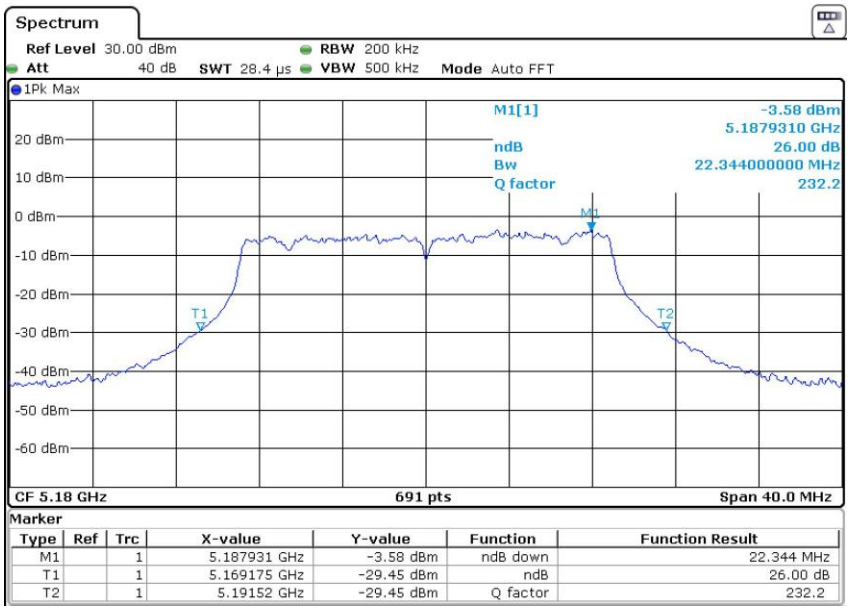


Channel: 46

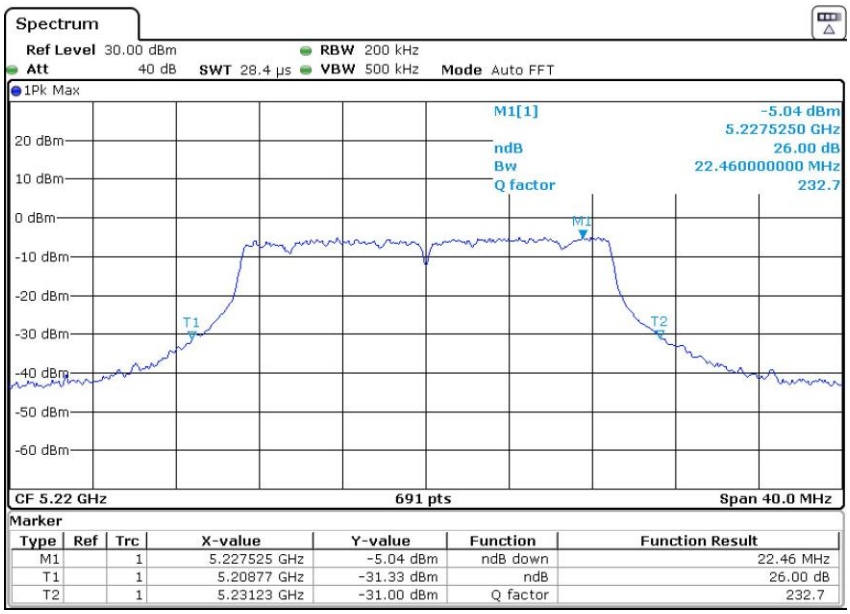


26dB BW 802.11ac20

Channel: 36



Channel: 44



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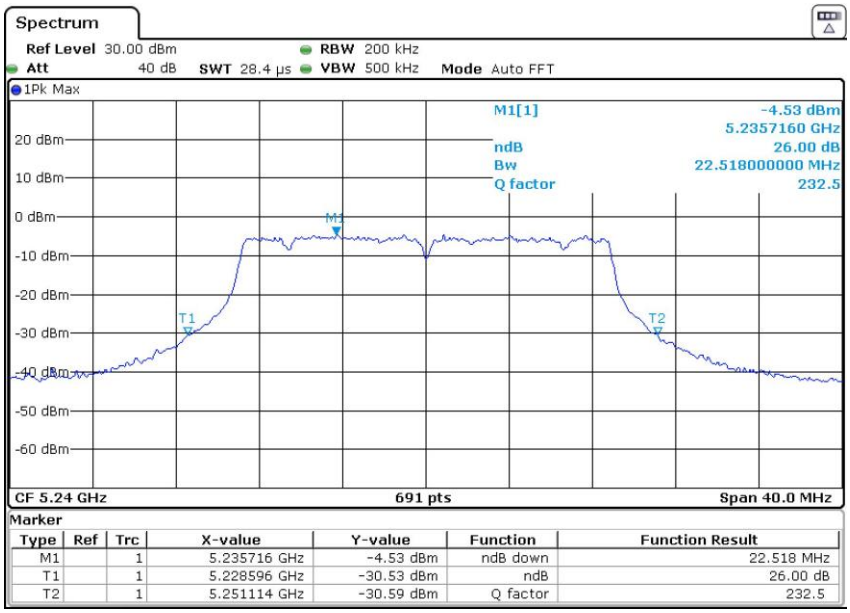
Contact:0124-4235350, 4145343; e-mail: info @aaemtlabs.com; Website: www.aaemtlabs.com

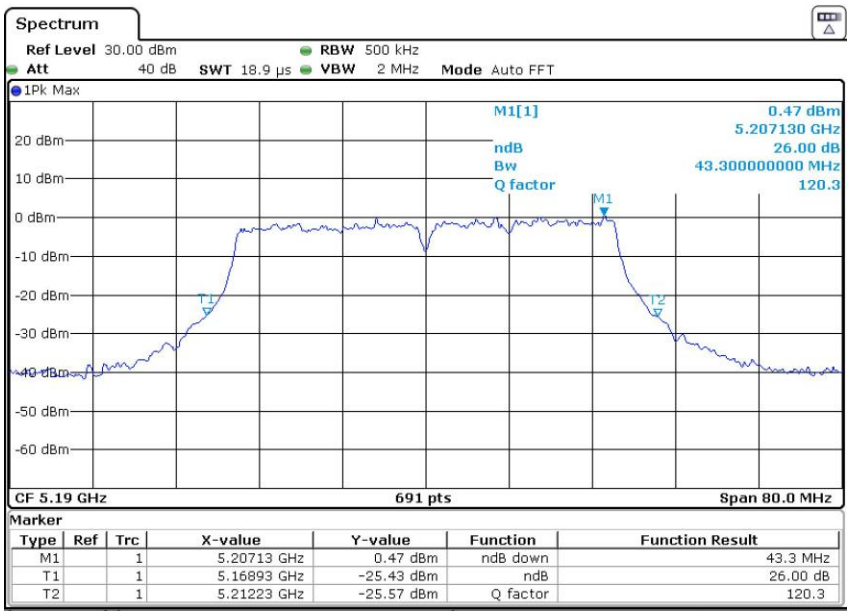
Channel: 48



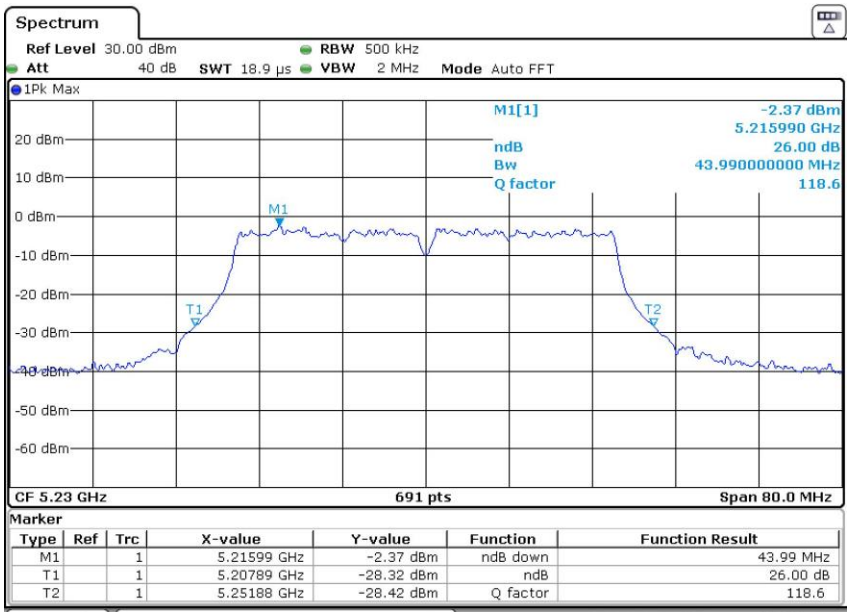
Type	Ref	Trc	X-value	Y-value	Function	Function Result
M1		1	5.235716 GHz	-4.53 dBm	ndB down	22.518 MHz
T1		1	5.228596 GHz	-30.53 dBm	ndB	26.00 dB
T2		1	5.251114 GHz	-30.59 dBm	Q factor	232.5

26dB BW 802.11ac40

Channel: 38



Channel: 46



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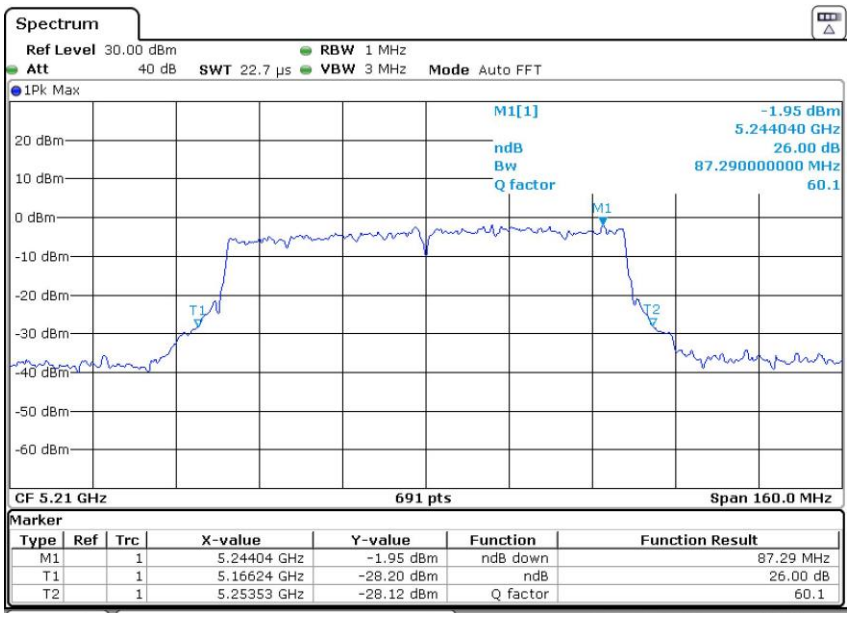
26dB BW 802.11ac80

Channel: 42



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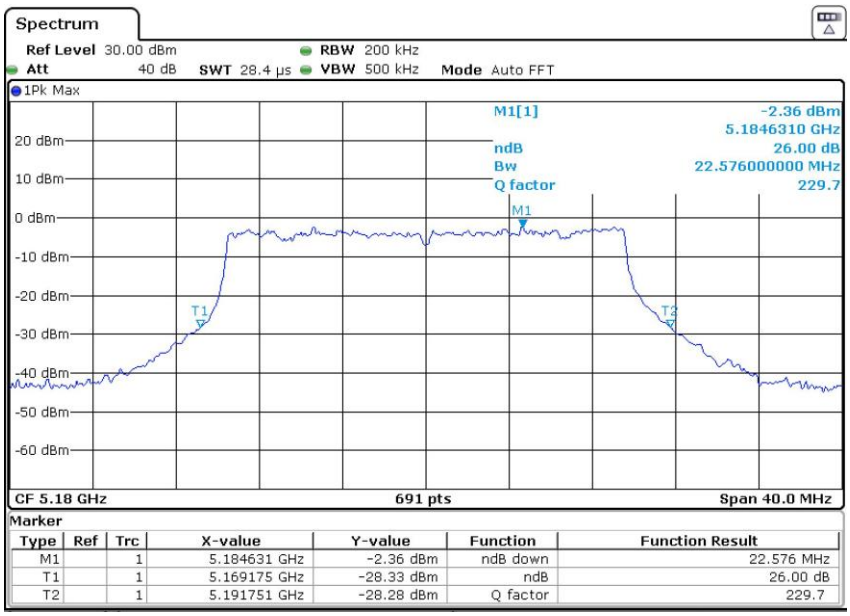
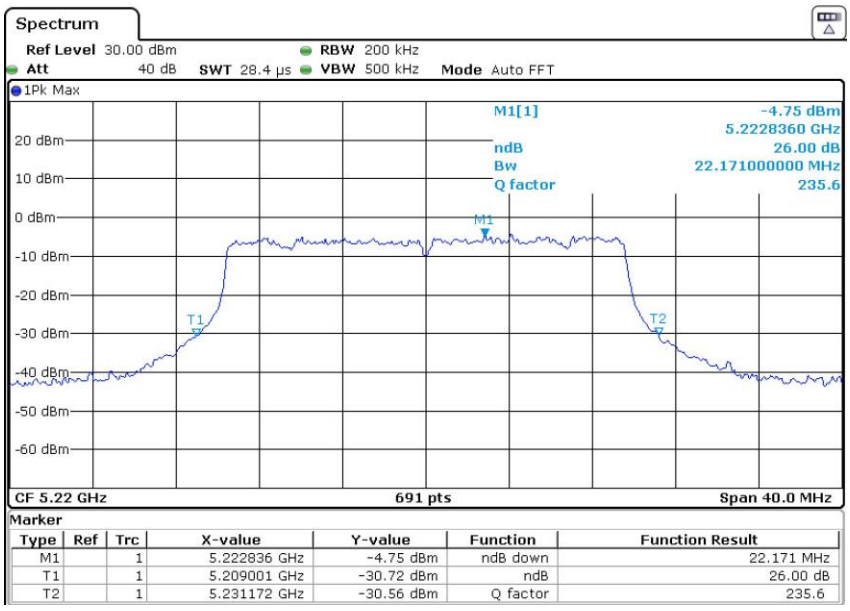
Contact:0124-4235350, 4145343; e-mail: info @aaemtlabs.com; Website: www.aaemtlabs.com

26dB BW 802.11ax20

Channel: 36



Channel: 44



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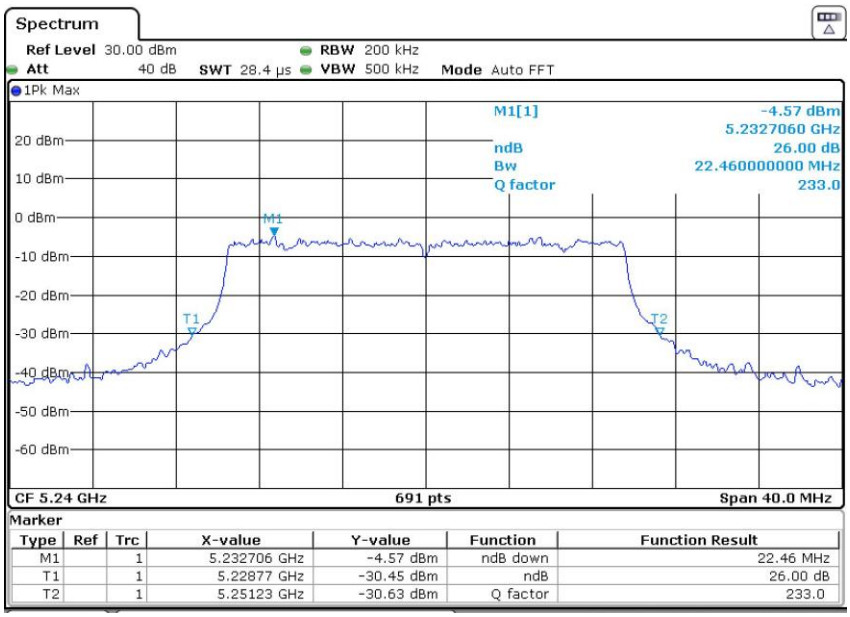
Channel: 48



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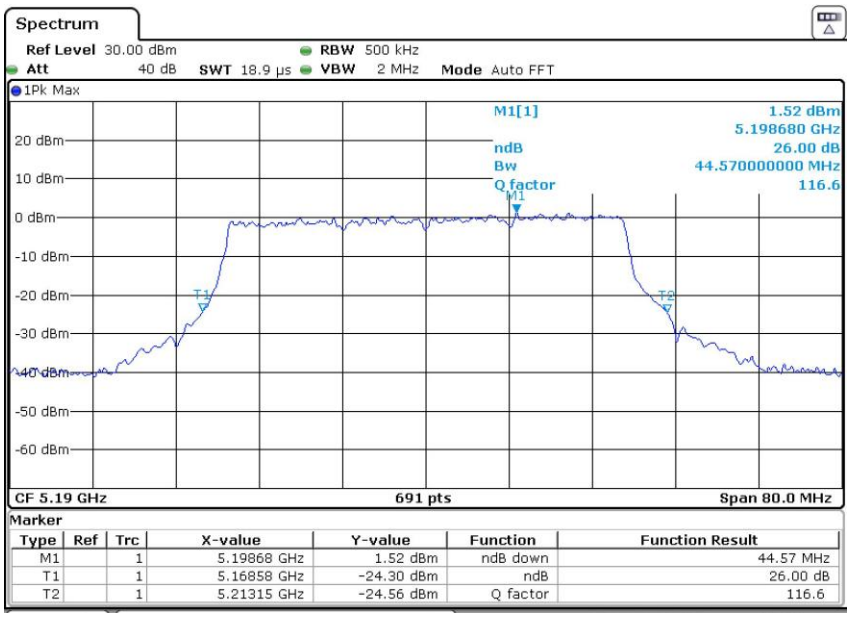
26dB BW 802.11ax40

Channel: 38



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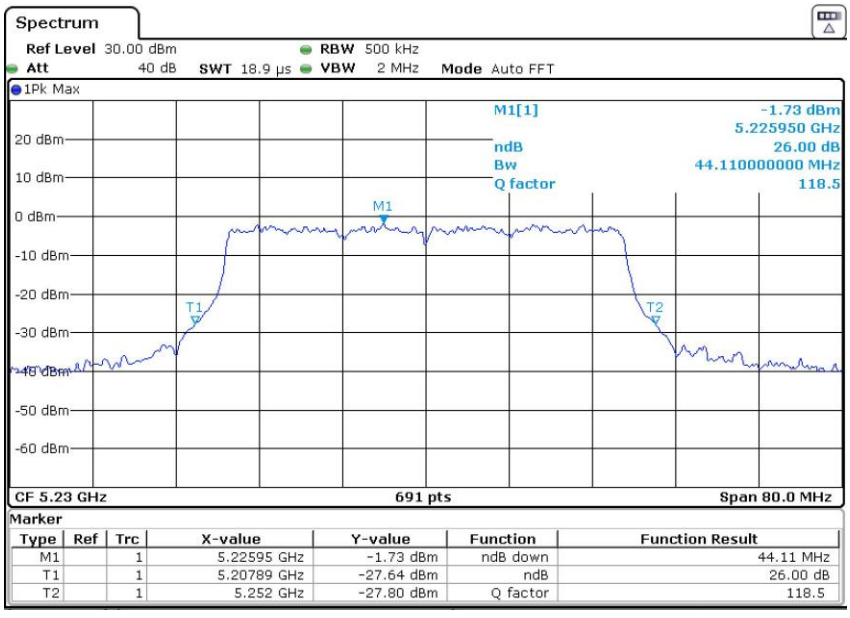

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