

FCC RADIO TEST REPORT

For

FCC ID: O86-FLEX10B

IC: 10591A-FLEX10B

Report Reference No..... : 19EFAS10035 2701

Date of issue..... : 2019-10-16

Testing Laboratory..... : DongGuan ShuoXin Electronic Technology Co., Ltd.

Address..... : Zone A, 1F, No. 6, XinGang Road YuanGang Street, XinAn
District, ChangAn Town, DongGuan City, GuangDong,
China

Applicant's name : MobileDemand, LC

Address..... : 1501 Boyson Square Drive, Suite 101, Hiawatha, United
States 52233

Manufacturer..... : MobileDemand, LC

Test specification:

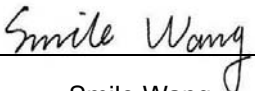
Test item description..... : 10.1" Tablet Computer With Rugged Protective Case

Trade Mark : Commercial Markets

Model/Type reference : FLEX10B

Ratings..... : INPUT: 100-240V~ 50/60Hz 0.65A, Output: DC12V 2.0A
DC 7.4V 6000mAh Li-poly Battery

Responsible Engineer :


Smile Wang

Authorized Signatory:

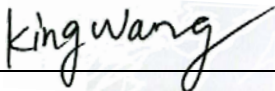

King Wang

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TEST REPORT DECLARE

Applicant	:	MobileDemand, LC
Address	:	1501 Boyson Square Drive, Suite 101, Hiawatha, United States 52233
Equipment under Test	:	10.1" Tablet Computer With Rugged Protective Case
Model No	:	FLEX10B
Trade Mark	:	Commercial Markets
Manufacturer	:	MobileDemand, LC
Address	:	1501 Boyson Square Drive, Suite 101, Hiawatha, United States 52233

Test Standard Used: FCC Part 15 Subpart C (15.247), RSS 247: Issue 2

Test procedure used: ANSI C63.10:2013, 558074 V05. RSS Gen: Issue 5.

We Declare:

The equipment described above is tested by DongGuan ShuoXin Electronic Technology Co., Ltd. and in the configuration tested the equipment complied with the standards specified above. The test results are contained in this test report and DongGuan ShuoXin Electronic Technology Co., Ltd. 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:	19EFAS10035 2701		
Date of Test:	2019-9-18 To 2019-10-16	Date of Report:	2019-10-16

Note: This report applies to above tested sample only. This report shall not be reproduced in parts without written approval of DongGuan ShuoXin Electronic Technology Co., Ltd.

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 §8.8/RSS-247 §6.2	PASS
Spurious Radiated Emissions	FCC §15.209(a), 15.407(b) RSS-247 §6.2	PASS
26 dB and 99% Emission Bandwidth	FCC §15.407(a) RSS-247 §6.2	PASS
Maximum Conducted Output Power	FCC §407(a)(1) RSS-247 §6.2	PASS
Band Edges	FCC §2.1051, §15.407(b) RSS-247 §6.2	PASS
Power Spectral Density	FCC §15.407(a)(1) RSS-247 §6.2	PASS
Spurious Emissions at Antenna Terminals	FCC §2.1051, §15.407(b) RSS-247 §6.2	PASS
Frequency Stability	FCC §15.407(a)(6)	PASS
Antenna Requirement	FCC §15.203 RSS-Gen §7.1.2	PASS

2. GENERAL TEST INFORMATION

2.1. DESCRIPTION OF EUT

EUT* Name	: 10.1" Tablet Computer With Rugged Protective Case
Model Number	: FLEX10B
Trade Mark	Commercial Markets
EUT function description	: 10.1" Tablet Computer With Rugged Protective Case with WiFi & BT function.
Power supply	: INPUT: 100-240V~ 50/60Hz 0.65A, Output: DC12V 2.0A DC 7.4V 6000mAh Li-poly Battery
Operation frequency	: WiFi: 802.11a/802.11n(HT20) /ac(VHT20): 5180 ~ 5240MHz; 5260-5320 MHz,5500-5720 MHz ,5745~ 5825MHz 802.11n(HT40)/ac(VHT40): 5190 ~ 5230MHz,5270-5310 MHz,5510-5710 MHz, 5755~ 5795MHz 802.11ac(VHT80): 5210MHz,5290 MHz,5530~5690 MHz, 5775MHz,
Modulation	: OFDM with OFDM, BPSK, QPSK, 16QAM, 64QAM, 256QAM for 802.11a/n/ac;
Data Rate	: 802.11 a: 6,9,12,18,24,36,48,54Mbps; 802.11n(HT20):MCS0-MCS7; 802.11n(HT40): MCS0-MCS7; 802.11ac(HT20/HT40/HT80):Up to 433Mbps
Antenna Type	: FPCB antenna, maximum PK gain: 1dBi Antenna A only WIFI, Antenna B WIFI&BT
Antenna Type	: FPCB Antenna, maximum PK gain: 1dBi Antenna A only WIFI&BT, Antenna B WIFI
HVIN	: FLEX10B
FVIN	: 1803

802.11a/HT20/ VHT20		HT40/ VHT40	
Channel	Frequency (MHz)	Channel	Frequency (MHz)
36	5180	38	5190
40	5200	46	5230
44	5220	54	5270
48	5240	62	5310
52	5260	102	5510
56	5280	110	5550
60	5300	134	5670
64	5320	151	5755
100	5500	159	5795
104	5520	VHT80	
108	5540	42	5210
112	5560	58	5290
116	5580	106	5530
120	5600	138	5690
124	5620	155	5775
128	5640	--	--
132	5660	--	--
136	5680	--	--
140	5700	--	--
149	5745	--	--
153	5765	--	--
157	5785	--	--
161	5805	--	--
165	5825	--	--

2.2.ASSISTANT EQUIPMENT USED FOR TEST

Description of Assistant equipment	Manufacturer	Model number or Type	EMC Compliance	SN
/	/	/	/	/

2.3. BLOCK DIAGRAM OF EUT CONFIGURATION FOR TEST



2.4. TEST ENVIRONMENT CONDITIONS

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Pretest Mode	Description
Mode 1	Link Mode
Mode 2	802.11a / n 20/ac20 CH36/ CH40/ CH48 802.11a / n 20/ac20 CH52/ CH56/ CH64 802.11a / n 20/ac20 CH100/ CH116/ CH140 802.11a / n 20/ac20 CH149/ CH157/ CH165
Mode 3	802.11n40/ac40 CH38/ CH 46 802.11n40/ac40 CH54/ CH 62 802.11n40/ac40 CH102/ CH 110/CH 134 802.11 n40/ac40 CH151/ CH159
Mode 4	802.11ac80 CH42/CH 58/CH106/CH138/CH155

For Radiated Emission	
Final Test Mode	Description
Mode 1	Link Mode
Mode 2	802.11a / n 20/ac20 CH36/ CH40/ CH48 802.11a / n 20/ac20 CH52/ CH56/ CH64 802.11a / n 20/ac20 CH100/ CH116/ CH140 802.11a / n 20/ac20 CH149/ CH157/ CH165
Mode 3	802.11n40/ac40 CH38/ CH 46 802.11n40/ac40 CH54/ CH 62 802.11n40/ac40 CH102/ CH 110/CH 134 802.11 n40/ac40 CH151/ CH159
Mode 4	802.11ac80 CH42/CH 58/CH106/CH138/CH155

Note:

- (1) The measurements are performed at the highest, middle, lowest available channels.
- (2) The measurements are performed at all Bit Rate of Transmitter, the worst data was reported
- (3) The EUT was used fully-charged battery and programmed to be in continuously transmitting mode and the transmit duty cycle is not less than 98%.

2.5. 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

2.6. MEASUREMENT UNCERTAINTY

Test Item	Uncertainty
Uncertainty for Conduction emission test (9kHz-150kHz)	3.7 dB
Uncertainty for Conduction emission test (150kHz-30MHz)	3.3 dB
Uncertainty for Radiation Emission test (30MHz-200MHz)	4.6 dB (Polarize: V)
	4.6 dB (Polarize: H)
Uncertainty for Radiation Emission test (200MHz-1GHz)	6.0 dB (Polarize: V)
	5.0 dB (Polarize: H)
Uncertainty for Radiation Emission test (1GHz-6GHz)	5.1 dB (Polarize: V)
	5.1 dB (Polarize: H)
Uncertainty for Radiation Emission test (6GHz-18GHz)	5.4 dB (Polarize: V)
	5.4 dB (Polarize: H)
Uncertainty for Radiation Emission test (18GHz-40GHz)	5.06 dB (Polarize: V)
	5.06 dB (Polarize: H)
Uncertainty for radio frequency	±0.048kHz
Uncertainty for conducted RF Power	±0.32dB

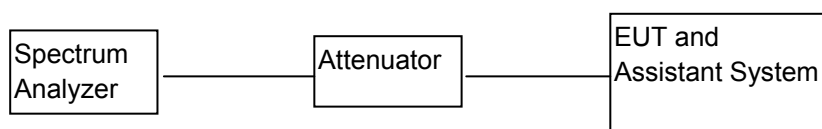
Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

3. POWER SPECTRAL DENSITY TEST

3.1. TEST EQUIPMENT

Item	Equipment	Manufacturer	Model No.	Serial No.	Cal Due.	Cal. Interval
1	Spectrum analyzer	KEYSIGHT	N9010A	MY55150427	2020/05/25	1 Year
2	Attenuator	Mini-Circuits	BW-S10W2	101109	2019/12/17	1 Year
3	RF Cable	Micable	C10-01-01-1	100309	2019/12/17	1 Year
4	Spectrum analyzer	R&S	FSV40	101470	2020/06/28	1 Year

3.2. BLOCK DIAGRAM OF TEST SETUP



3.3. 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, omnidirectional 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..

3.4. 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 $RBW \geq 1/T$, where T is defined in section II.B.I.a).
- b) Set $VBW \geq 3$ RBW.
- c) If measurement bandwidth of Maximum PSD is specified in 500 kHz, add $10\log(500\text{kHz}/RBW)$ 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 $10\log(1\text{MHz}/RBW)$ 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.

3.5. TEST RESULT

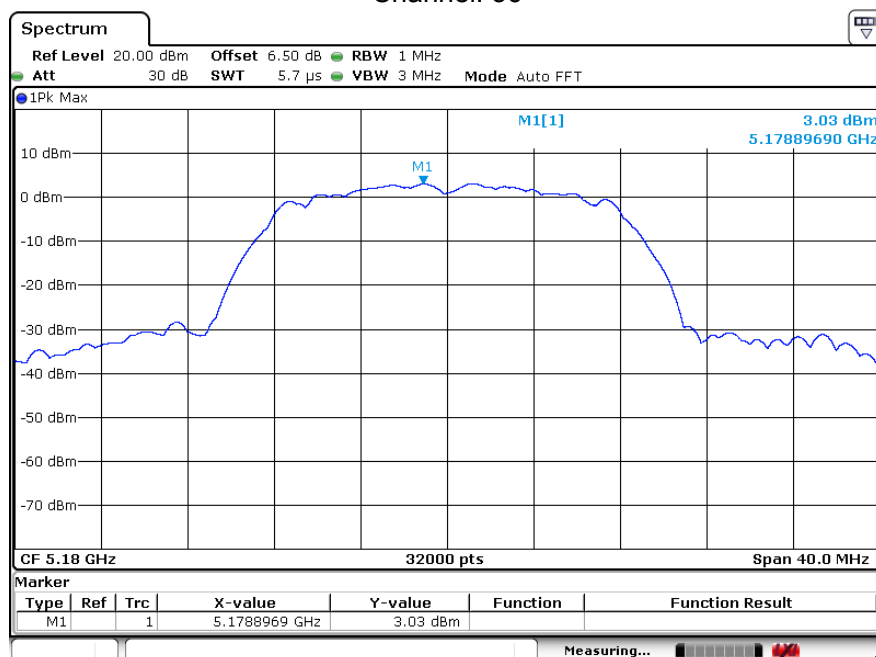
CH. No.	Frequency	Power Density ANT A (dBm/MHz)	Power Density ANT B (dBm/MHz)	total power density (dBm/MHz)	Limit (dBm/MHz)	Result
TX 802.11a Mode						
CH36	5180	3.03	2.39	5.73	11	Pass
CH40	5200	3.43	2.97	6.22	11	Pass
CH48	5240	5.40	4.84	8.14	11	Pass
CH 52	5260	3.84	3.52	6.69	11	Pass
CH 56	5280	4.26	4.09	7.19	11	Pass
CH 64	5320	4.90	4.19	7.57	11	Pass
CH 100	5500	4.54	4.37	7.47	11	Pass
CH 120	5600	5.04	5.03	8.05	11	Pass
CH 140	5700	5.93	5.36	8.66	11	Pass
CH 149	5745	3.31	3.17	6.25	30	Pass
CH 157	5785	2.47	2.02	5.26	30	Pass
CH 165	5825	0.74	0.36	3.56	30	Pass
TX 802.11n20 Mode						
CH36	5180	2.74	2.66	5.71	11	Pass
CH40	5200	3.37	3.36	6.38	11	Pass
CH48	5240	4.87	4.54	7.72	11	Pass
CH 52	5260	3.68	3.33	6.52	11	Pass
CH 56	5280	4.35	4.21	7.29	11	Pass
CH 64	5320	4.73	4.42	7.59	11	Pass
CH 100	5500	4.56	4.21	7.40	11	Pass
CH 120	5600	4.86	4.64	7.76	11	Pass
CH 140	5700	5.44	5.38	8.42	11	Pass
CH 149	5745	3.15	3.13	6.15	30	Pass
CH 157	5785	2.03	1.49	4.78	30	Pass
CH 165	5825	-0.77	-1.11	2.07	30	Pass
TX 802.11n40 Mode						
CH38	5190	0.11	-0.55	2.80	11	Pass
CH46	5230	1.66	1.18	4.44	11	Pass
CH 54	5270	2.21	1.78	5.01	11	Pass
CH 62	5310	3.36	3.17	6.28	11	Pass
CH 102	5510	2.94	2.86	5.91	11	Pass
CH 110	5550	3.32	3.13	6.24	11	Pass
CH 134	5670	3.83	3.66	6.76	11	Pass
CH151	5755	-2.44	-2.85	0.37	30	Pass
CH159	5795	-4.27	-4.56	-1.40	30	Pass

CH. No.	Frequency	Power Density ANT A (dBm/MHz)	Power Density ANT B (dBm/MHz)	total power density (dBm/MHz)	Limit (dBm/MHz)	Result
TX 802.11 ac(VHT20) Mode						
CH 36	5180	2.98	2.69	5.85	11	Pass
CH 40	5200	2.97	2.28	5.65	11	Pass
CH 48	5240	4.72	4.43	7.59	11	Pass
CH 52	5260	3.66	3.36	6.52	11	Pass
CH 56	5280	4.12	4.08	7.11	11	Pass
CH 64	5320	4.72	4.24	7.50	11	Pass
CH 100	5500	4.85	4.64	7.76	11	Pass
CH 120	5600	4.70	4.14	7.44	11	Pass
CH 140	5700	5.50	5.12	8.32	11	Pass
CH 149	5745	2.79	2.75	5.78	30	Pass
CH 157	5785	1.64	1.34	4.50	30	Pass
CH 165	5825	0.64	0.61	3.64	30	Pass
TX 802.11 ac(VHT40) Mode						
CH38	5190	0.34	0.23	3.30	11	Pass
CH46	5230	1.74	1.06	4.42	11	Pass
CH 54	5270	2.16	1.80	4.99	11	Pass
CH 62	5310	2.93	2.65	5.80	11	Pass
CH 102	5510	2.92	2.44	5.70	11	Pass
CH 110	5550	3.85	3.07	6.49	11	Pass
CH 134	5670	3.79	3.39	6.60	11	Pass
CH 151	5755	-2.41	-3.06	0.29	30	Pass
CH 159	5795	-4.34	-4.78	-1.54	30	Pass
TX 802.11 ac(VHT80) Mode						
CH42	5210	-2.35	-2.77	0.46	11	Pass
CH 58	5290	-0.89	-0.93	2.10	11	Pass
CH 106	5530	0.57	-0.06	3.28	11	Pass
CH 138	5690	0.22	0.02	3.13	11	Pass
CH155	5775	-5.00	-5.56	-2.26	30	Pass

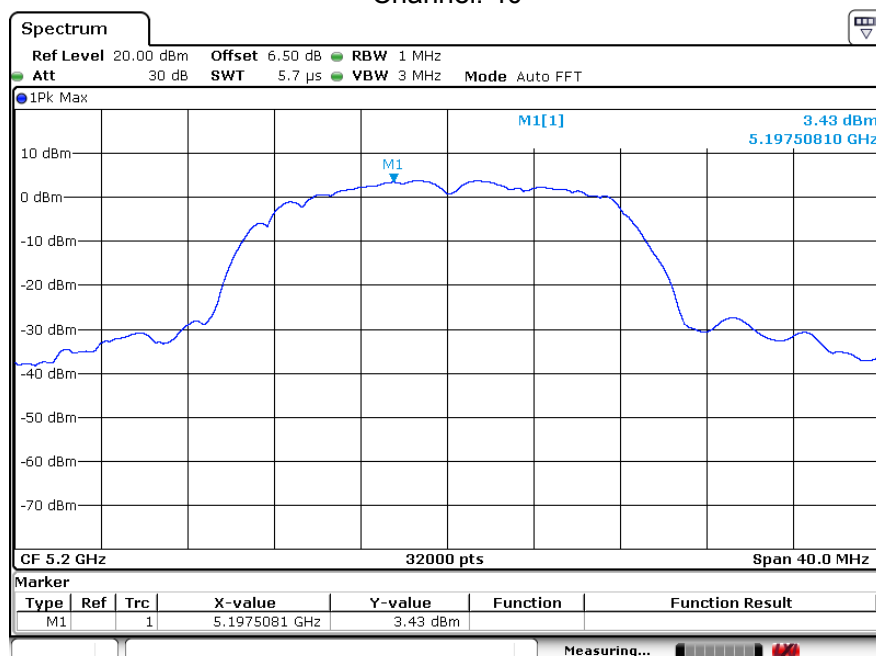
Note: The worst data is Antenna A, only shown Antenna A Plot.

Test plots as followed: Antenna A

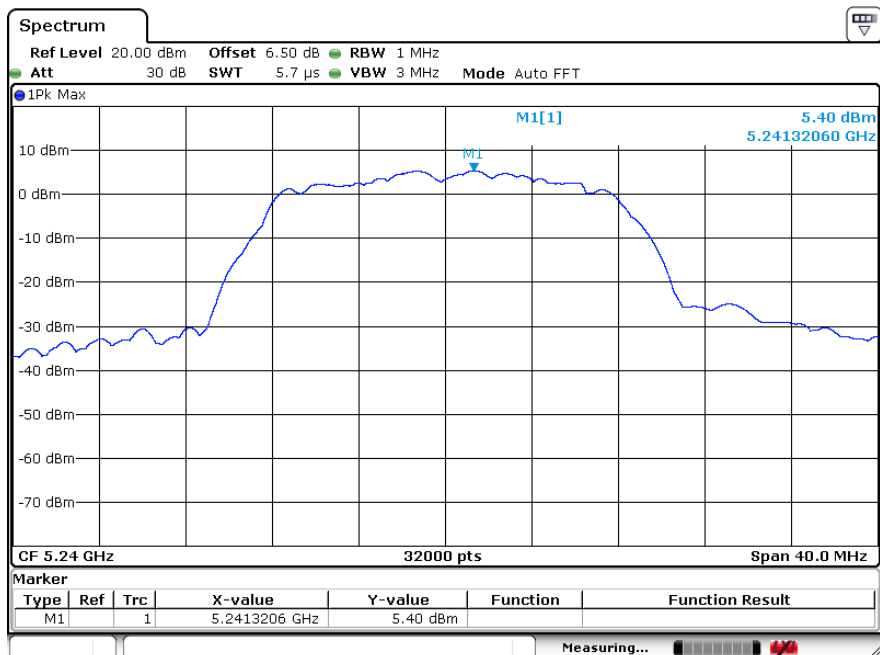
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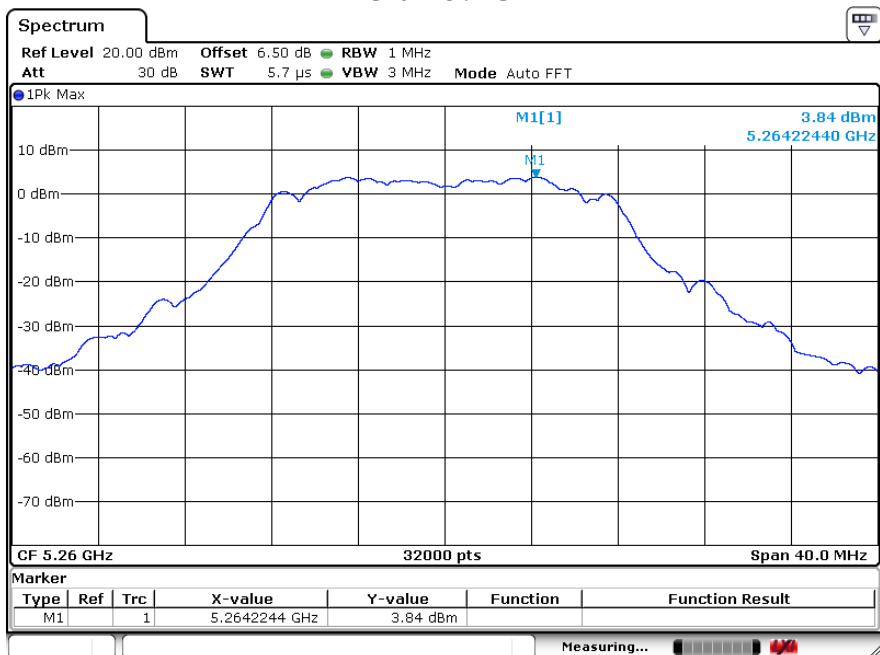
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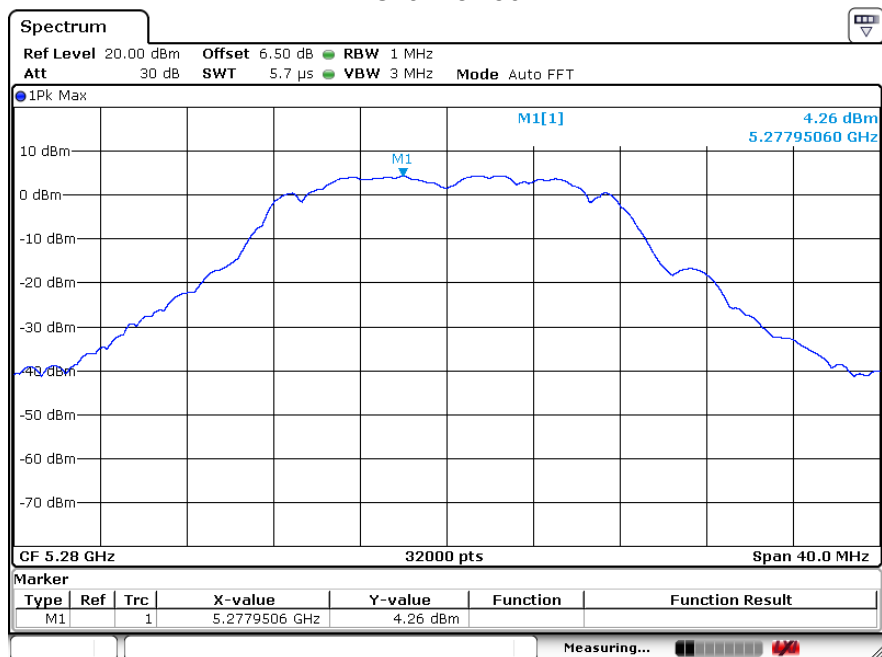
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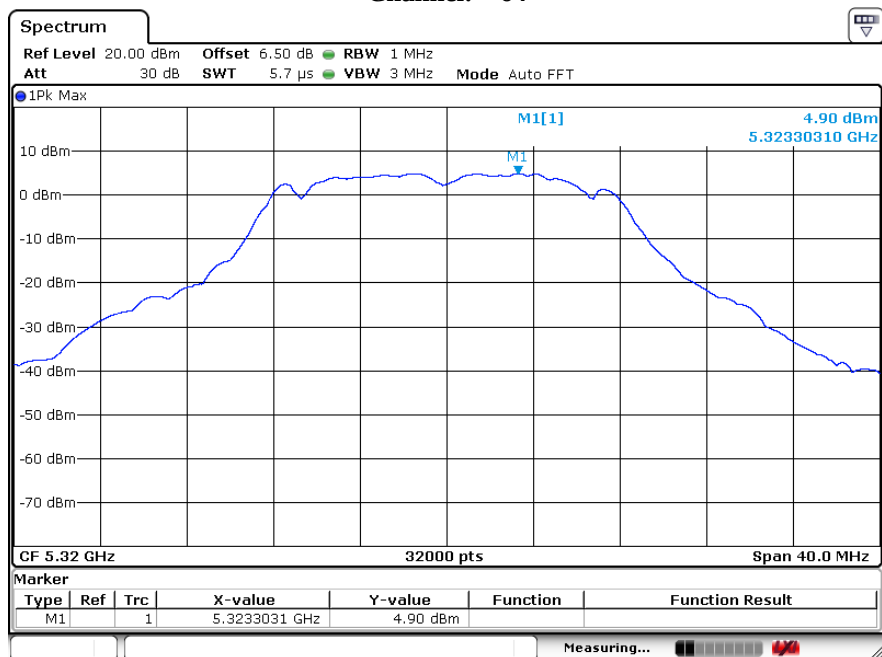
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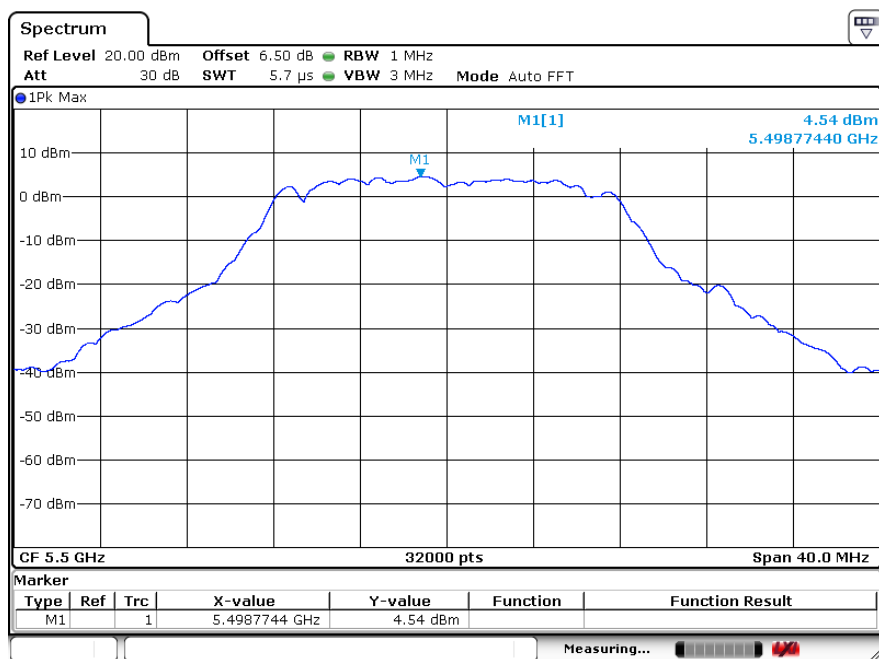
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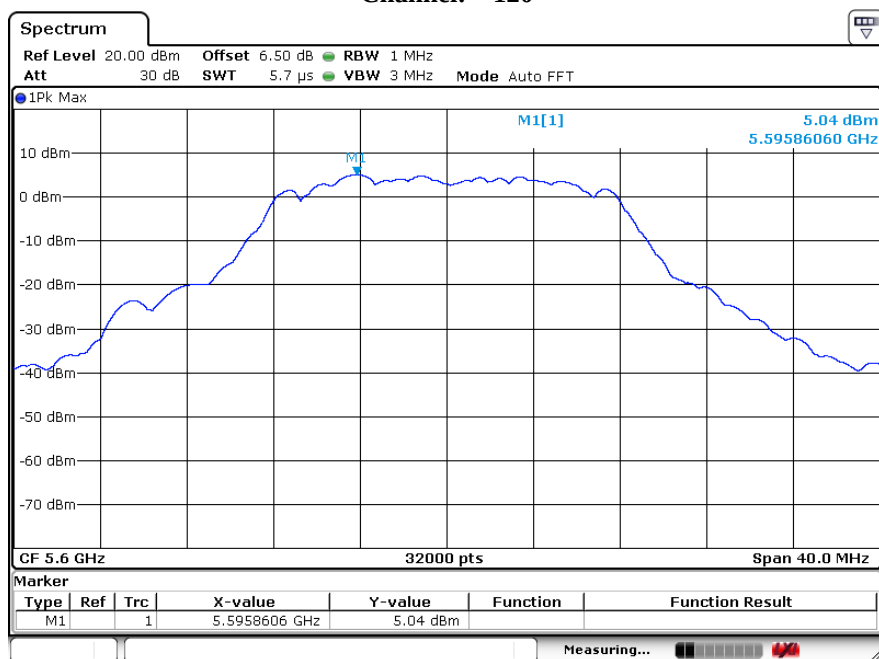
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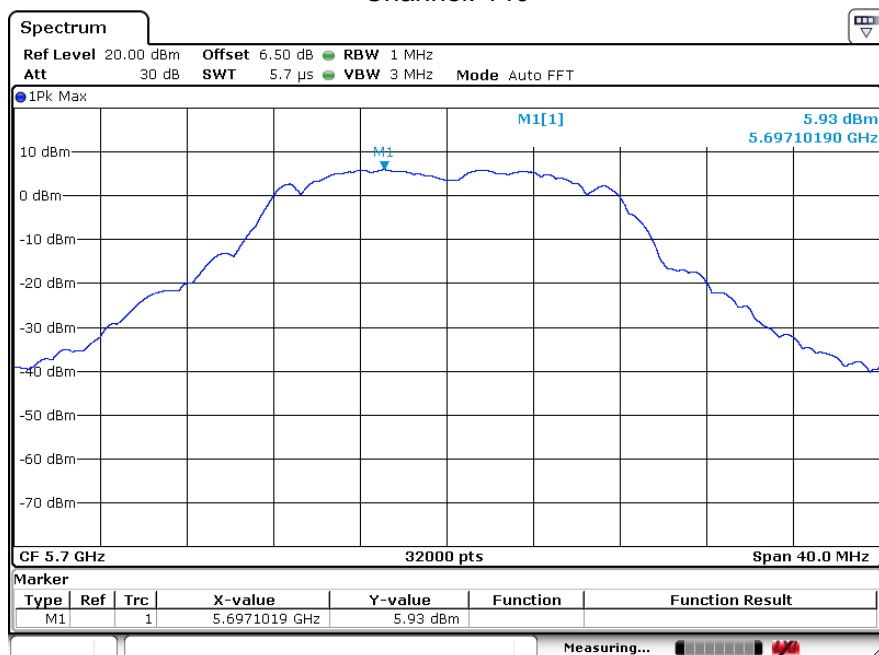
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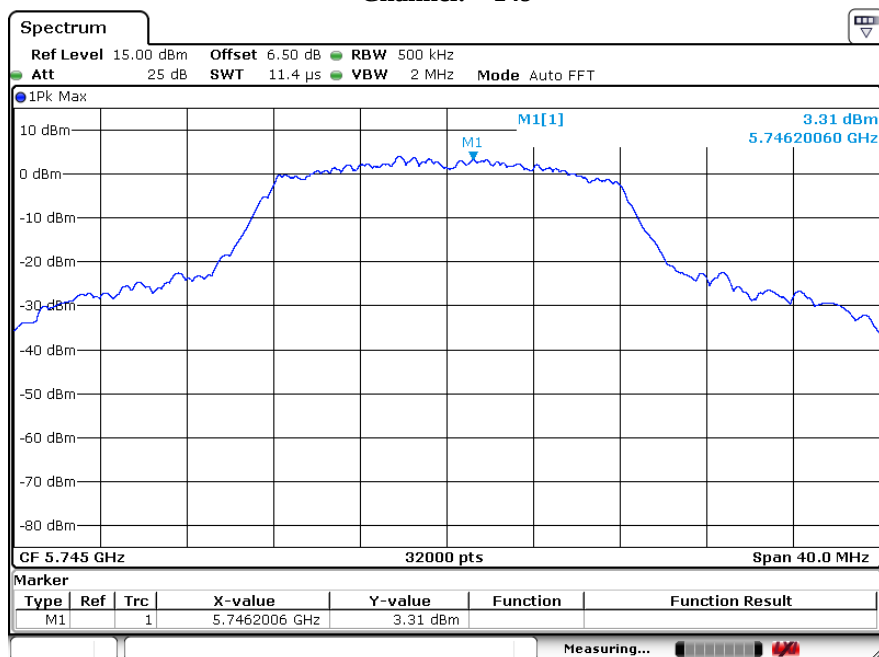
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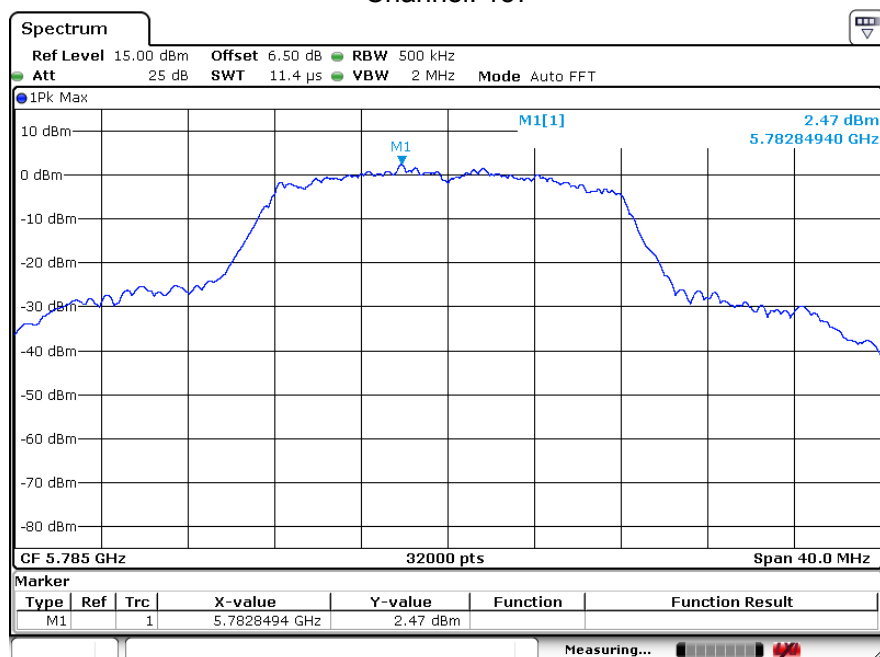
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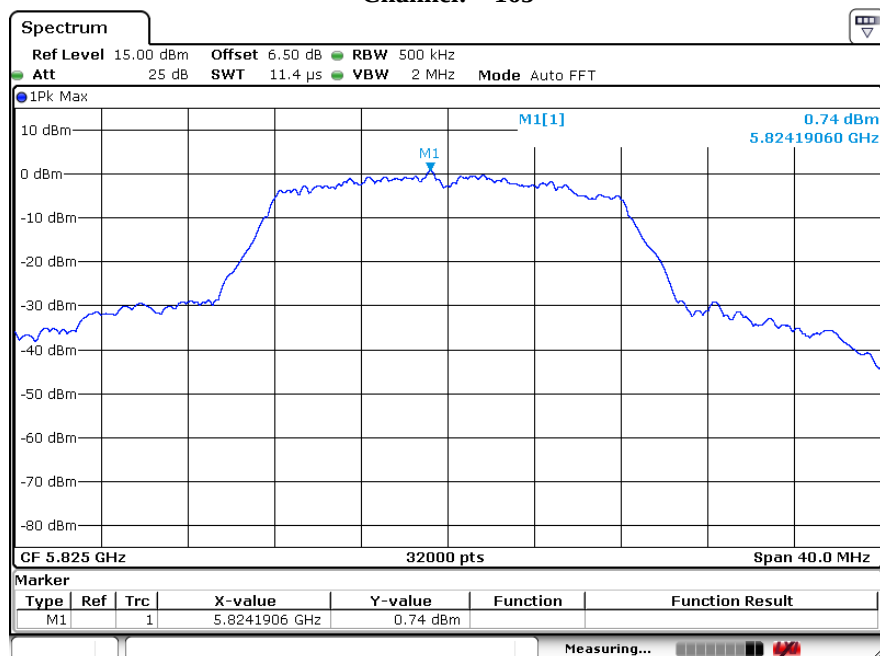
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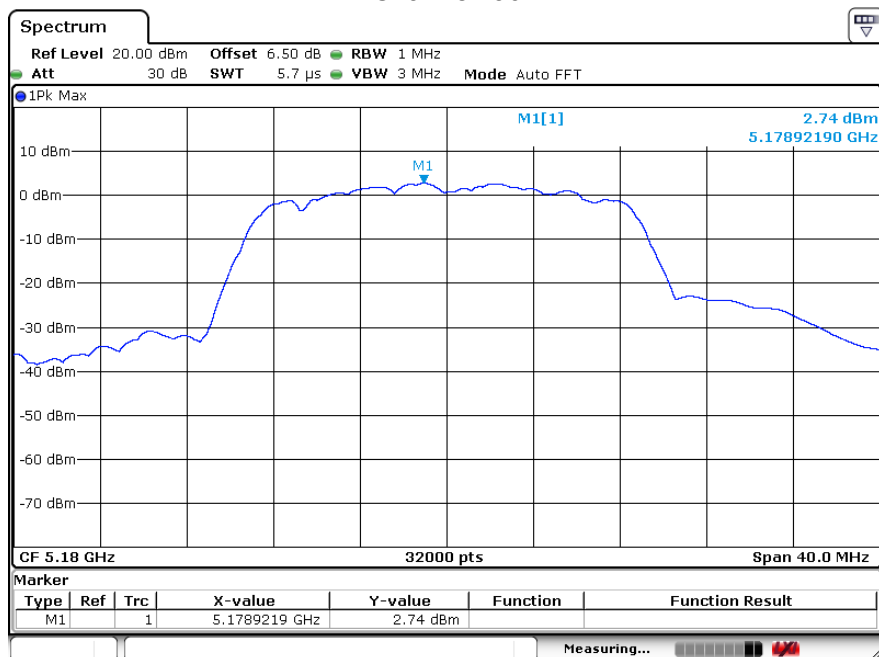
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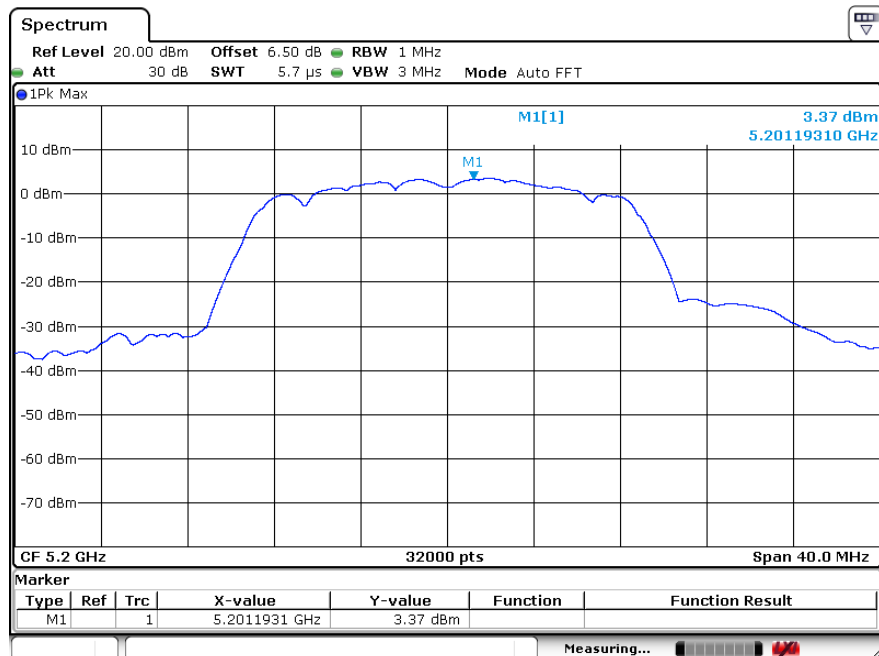
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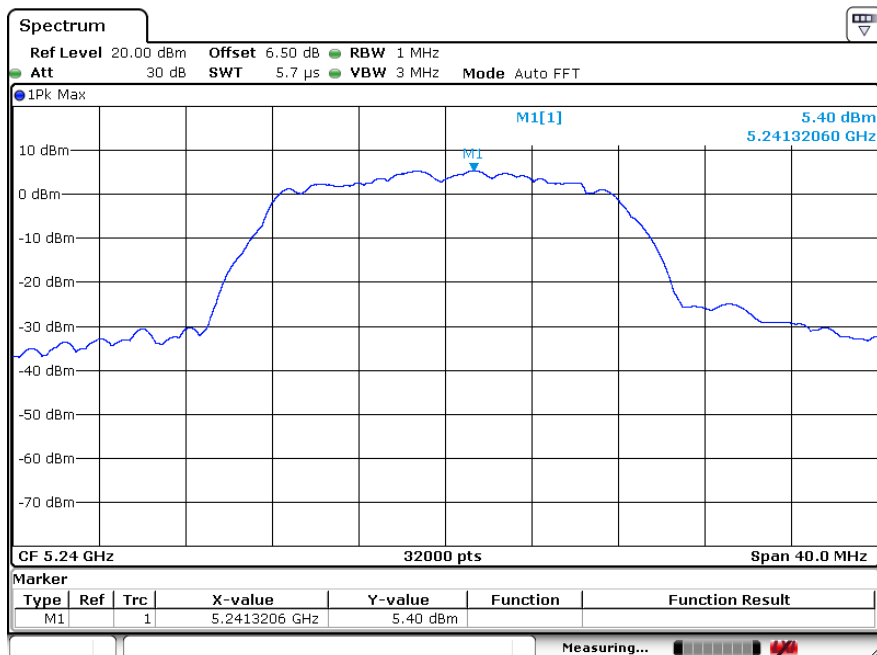
802.11n20 Channel: 36



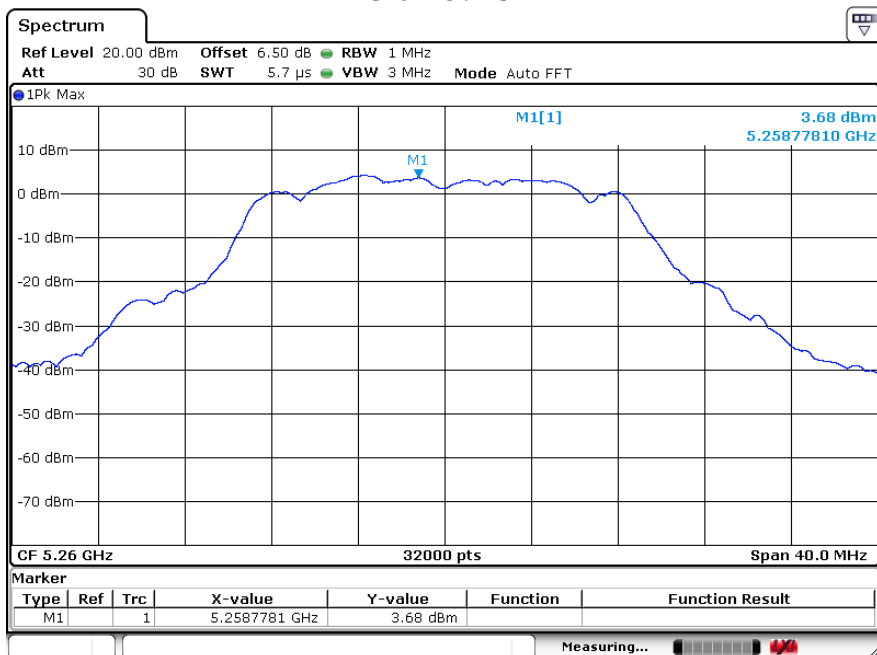
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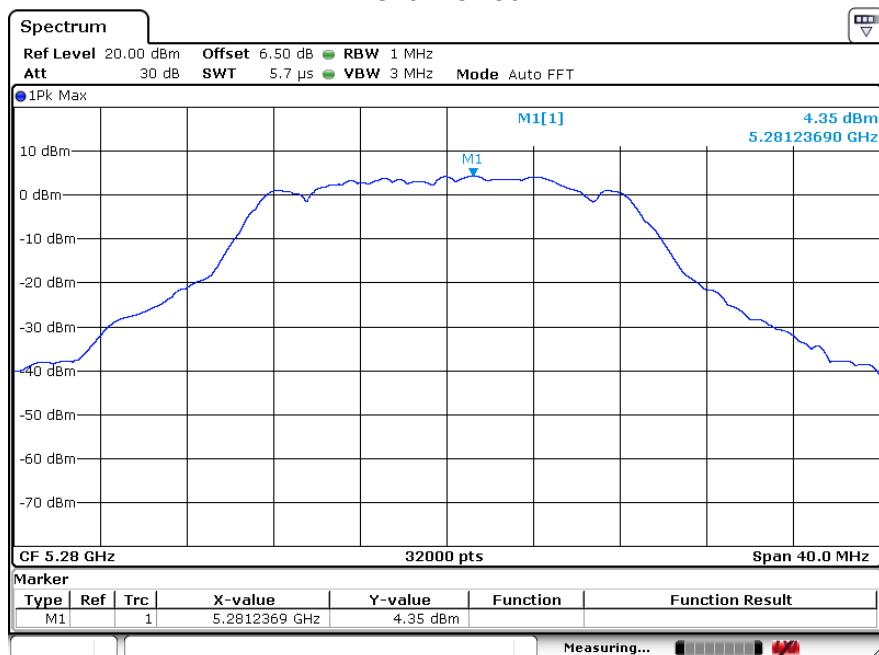
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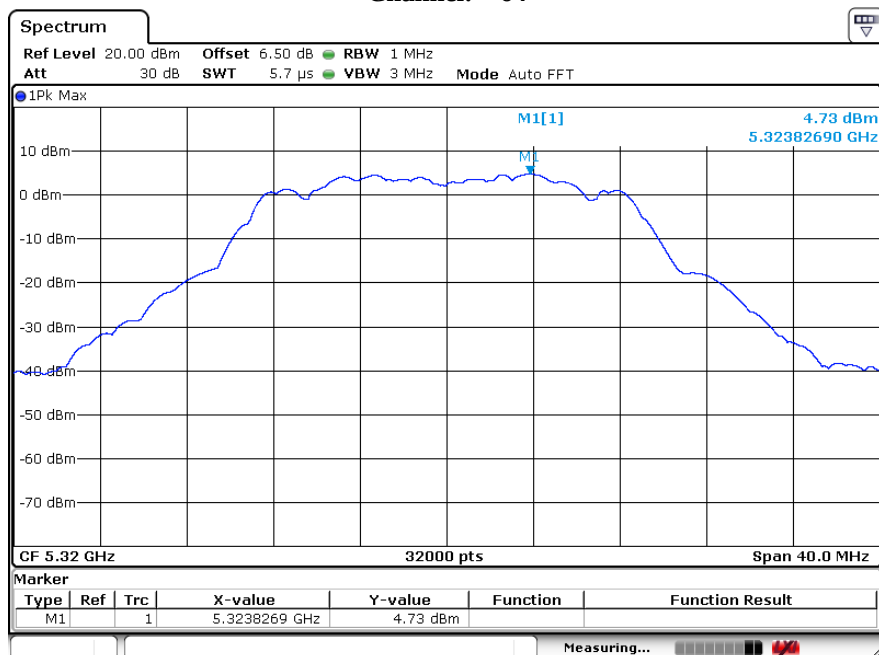
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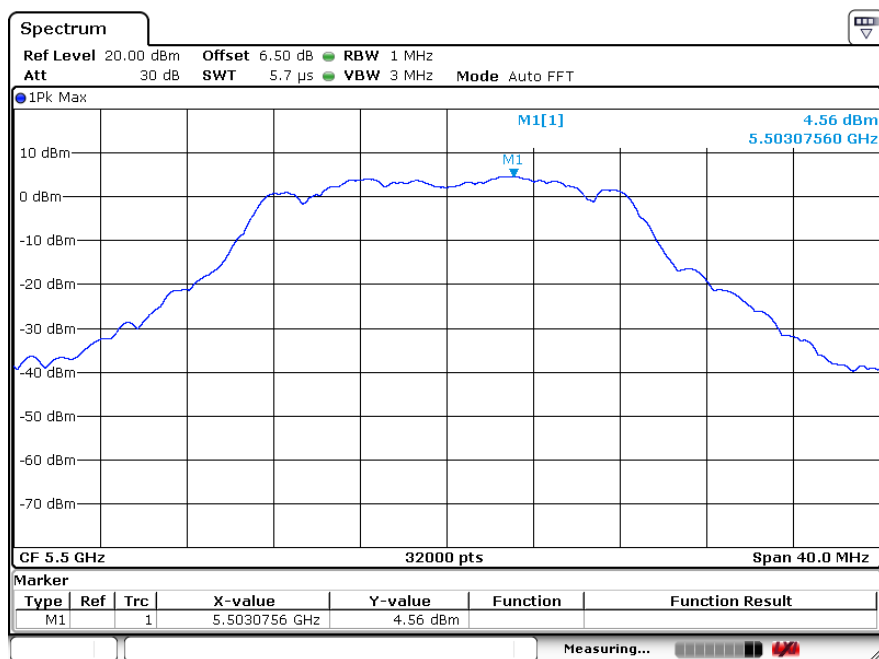
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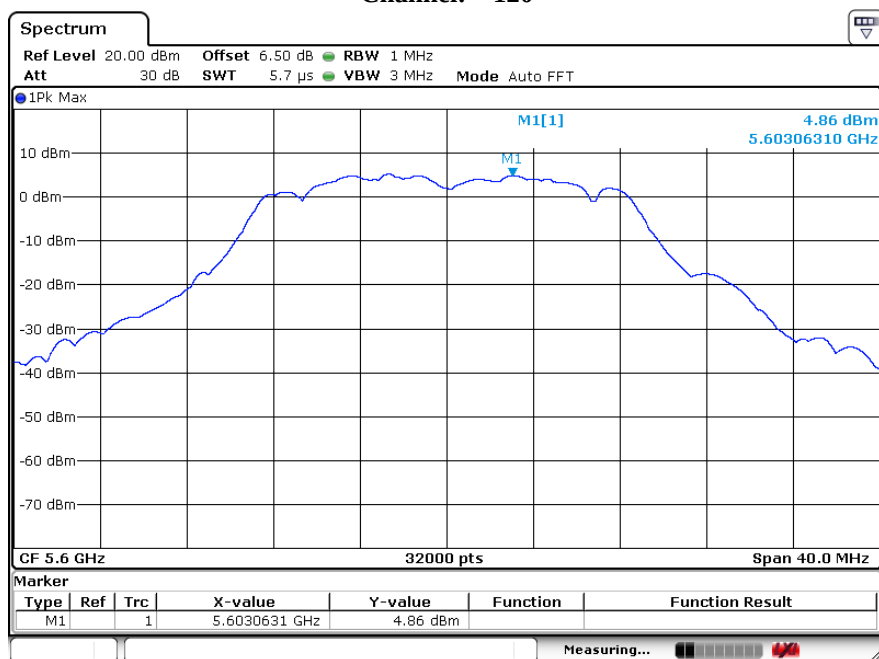
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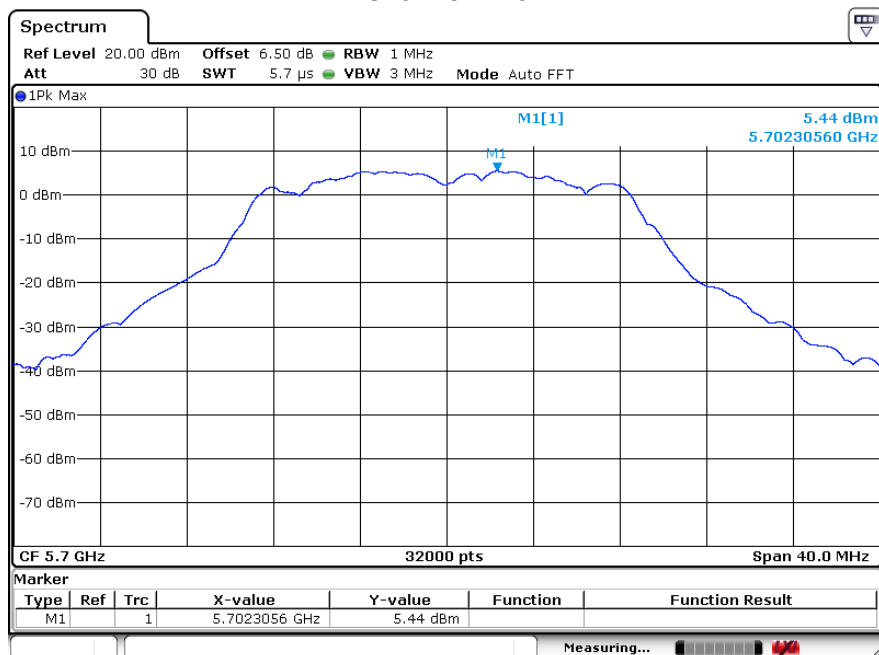
Channel: 100



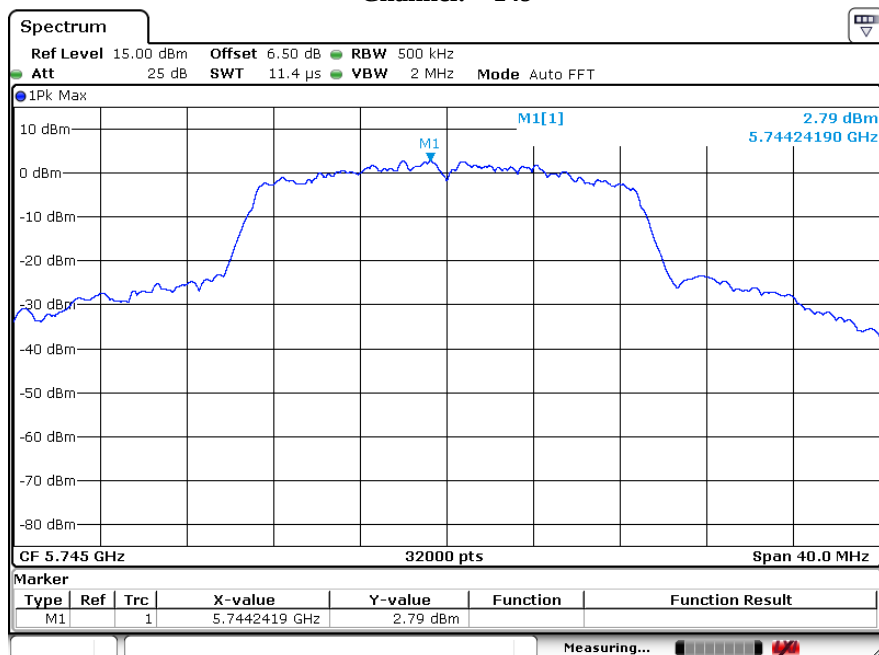
Channel: 120



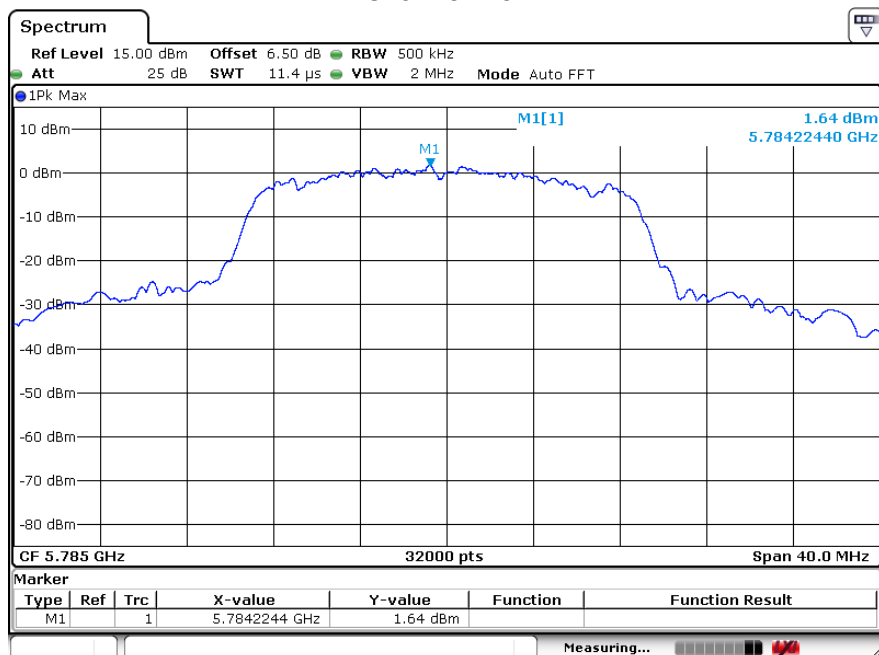
Channel: 140



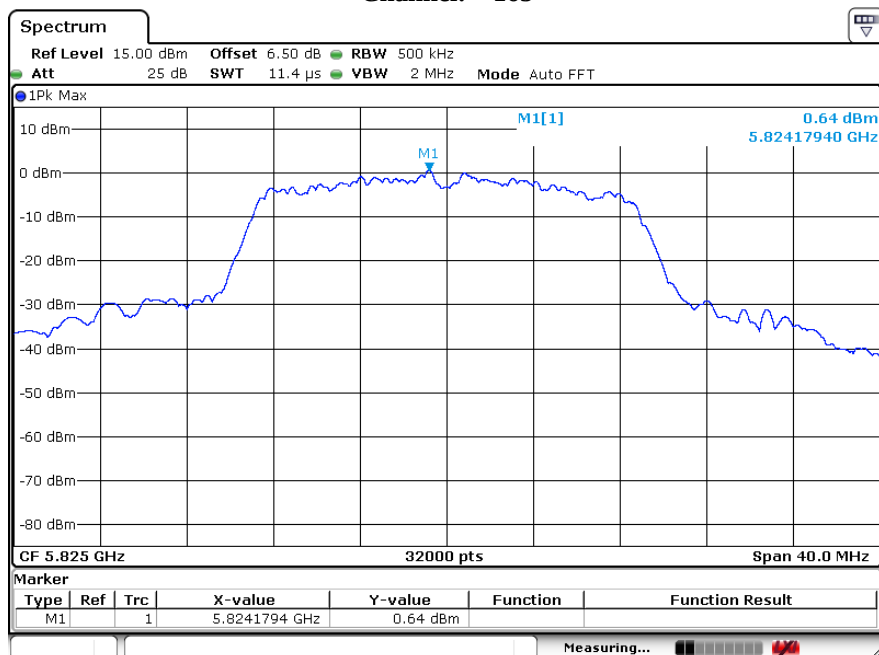
Channel: 149

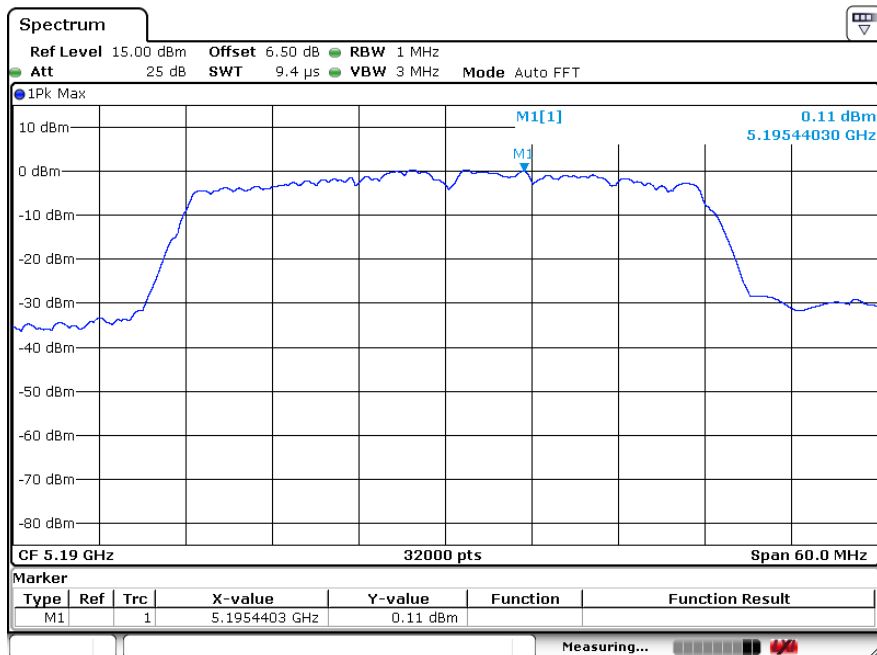


Channel: 157

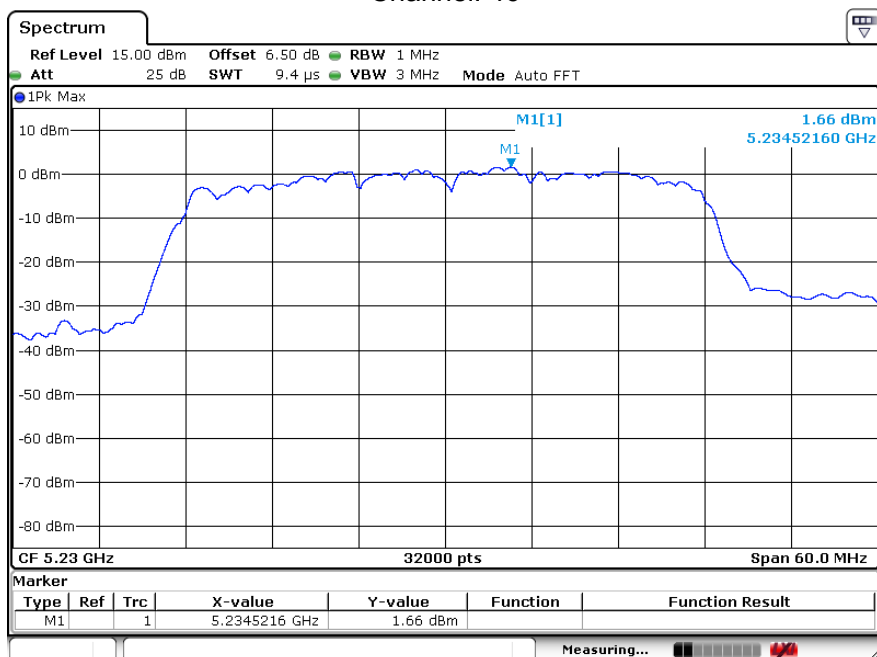


Channel: 165

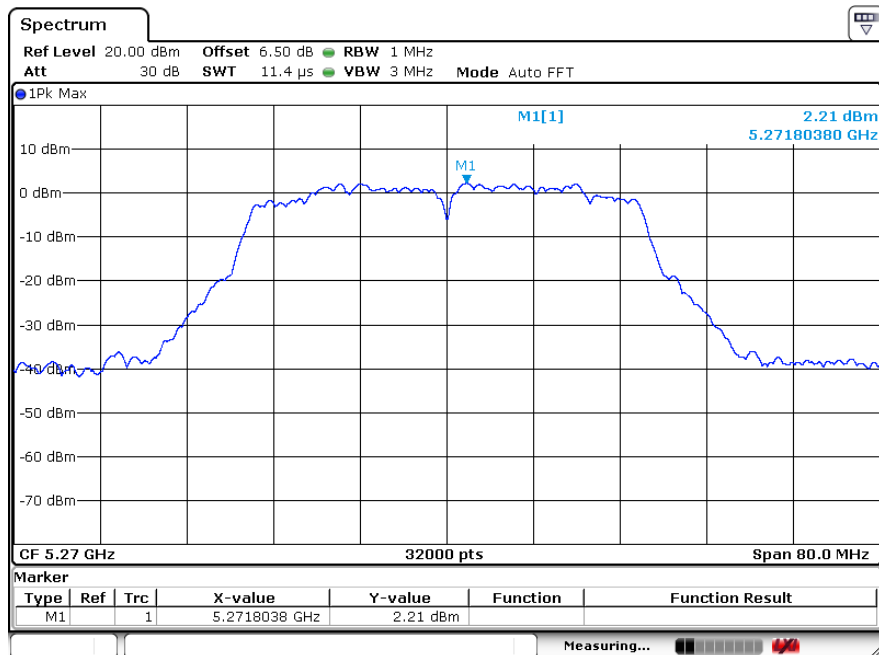


802.11n40
Channel: 38

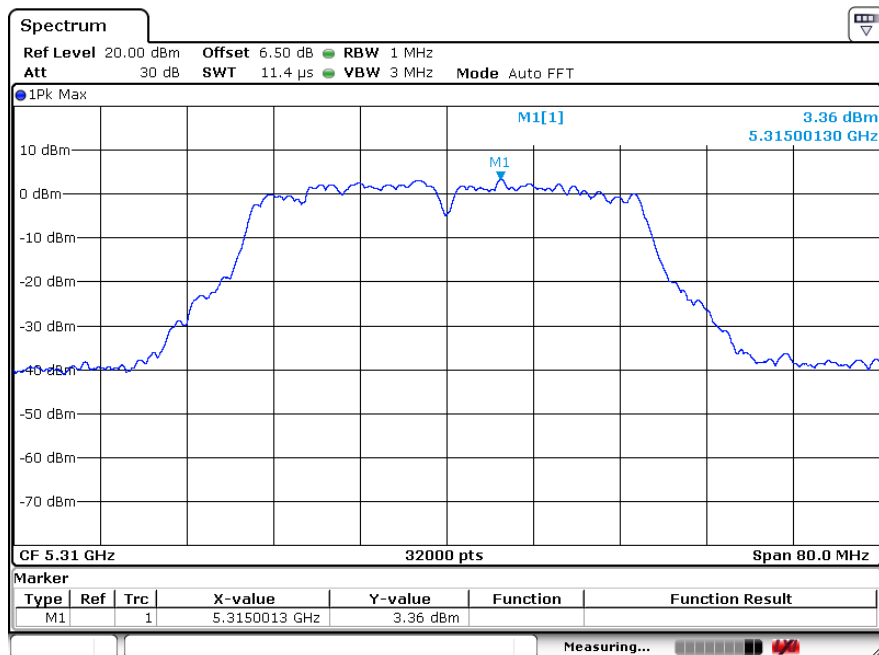
Channel: 46

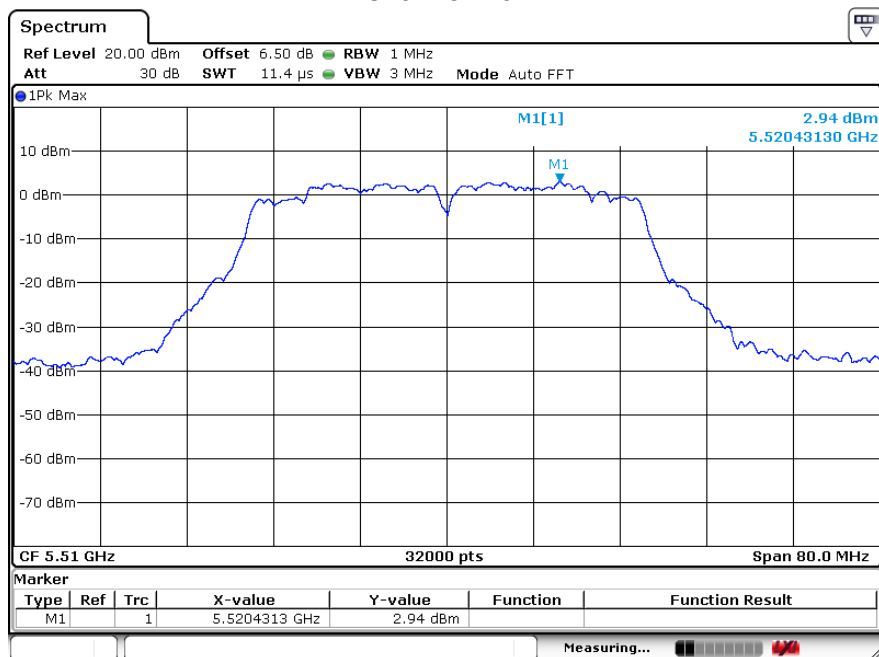


802.11n40 Channel: 54

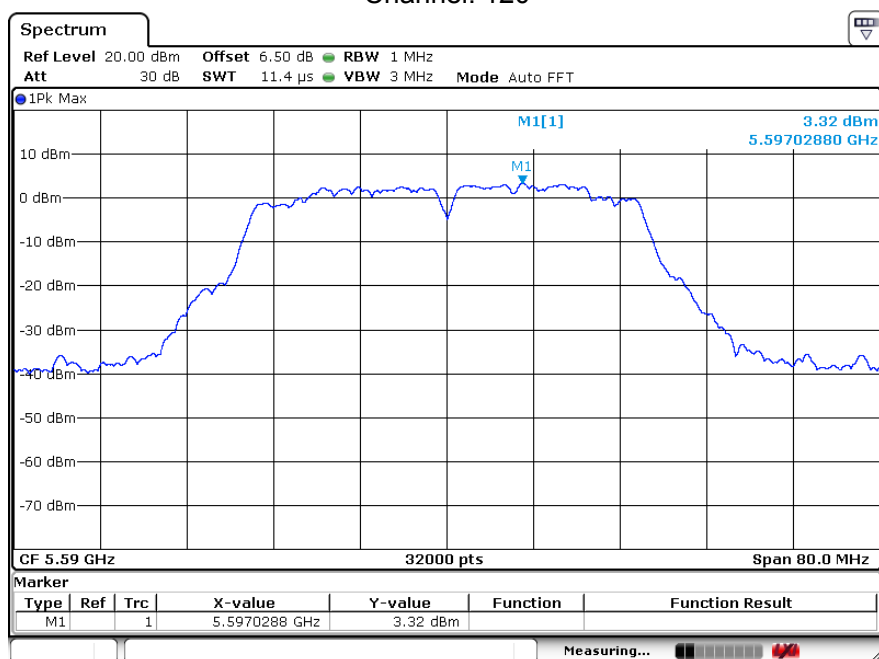


Channel: 62

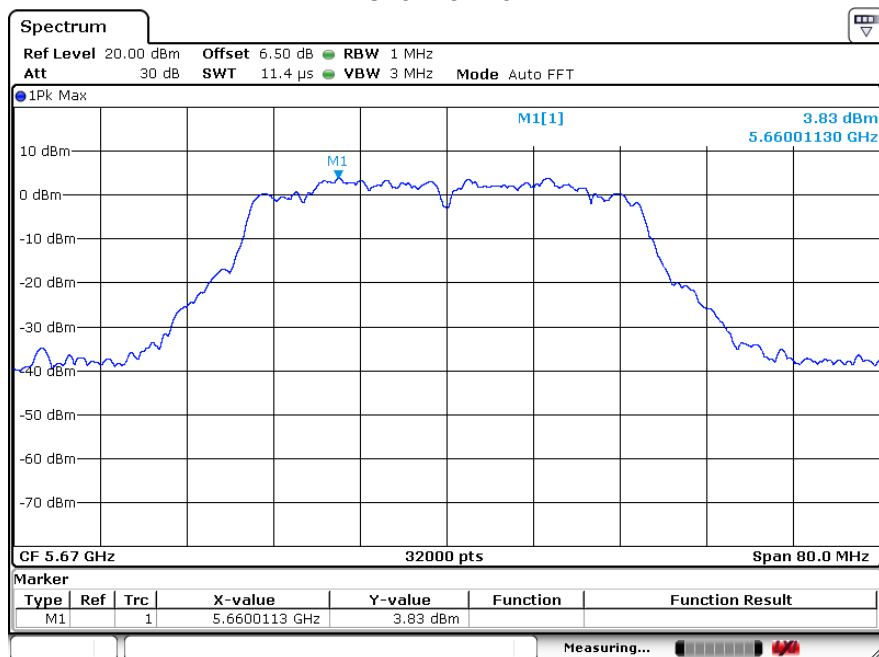


802.11n40
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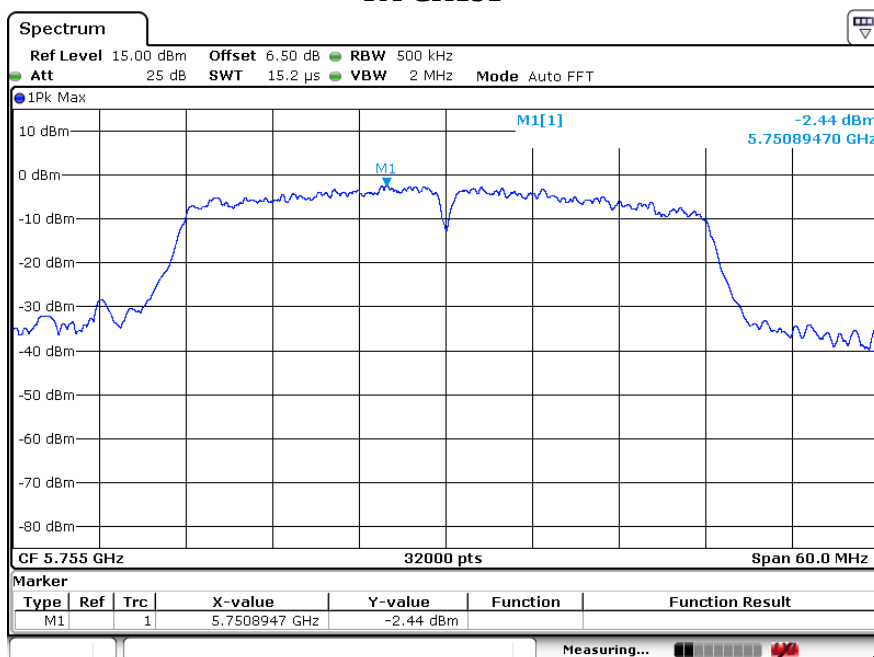
Channel: 120



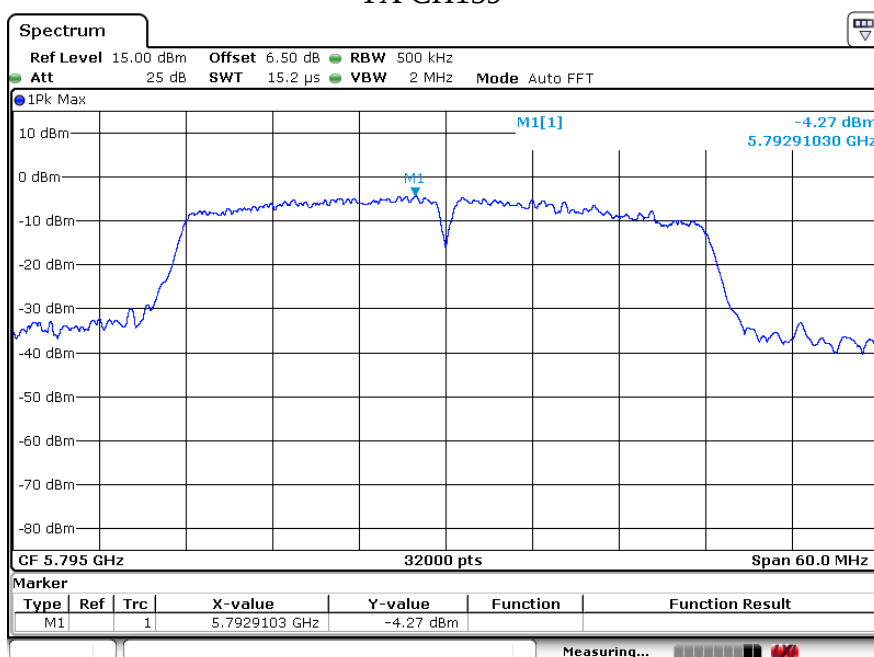
802.11n40 Channel: 134

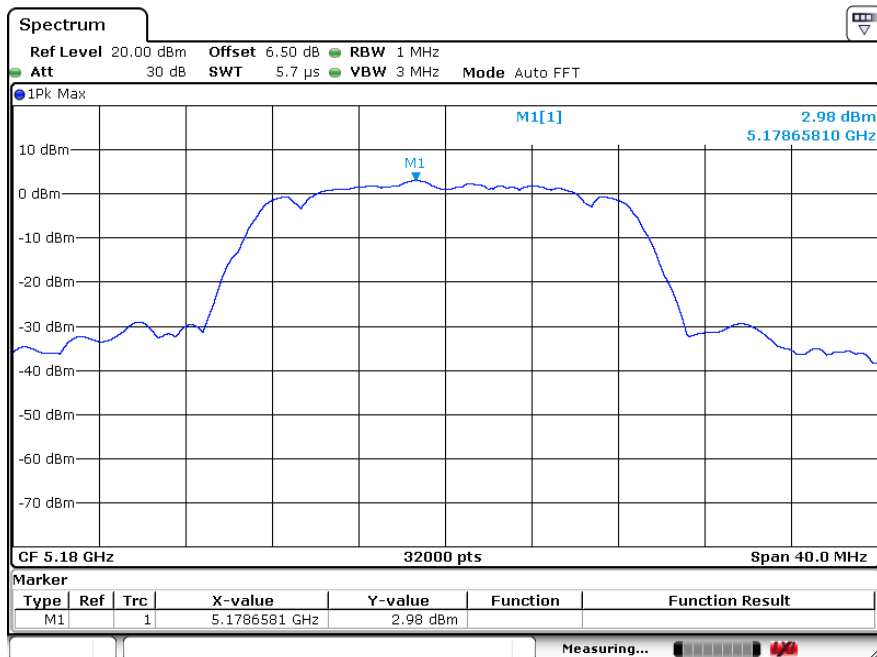


TX CH151

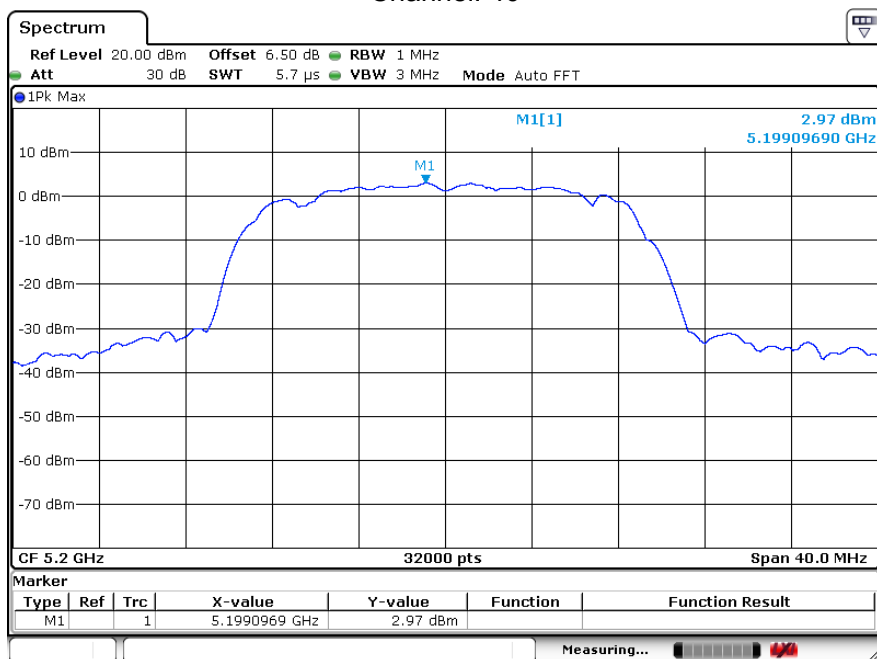


TX CH159

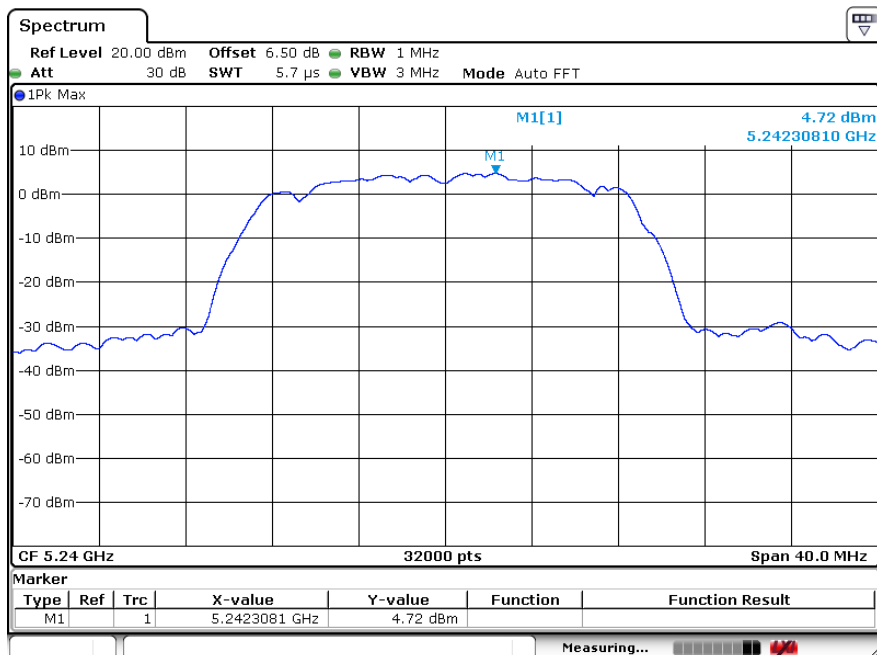


802.11ac 20
Channel: 36

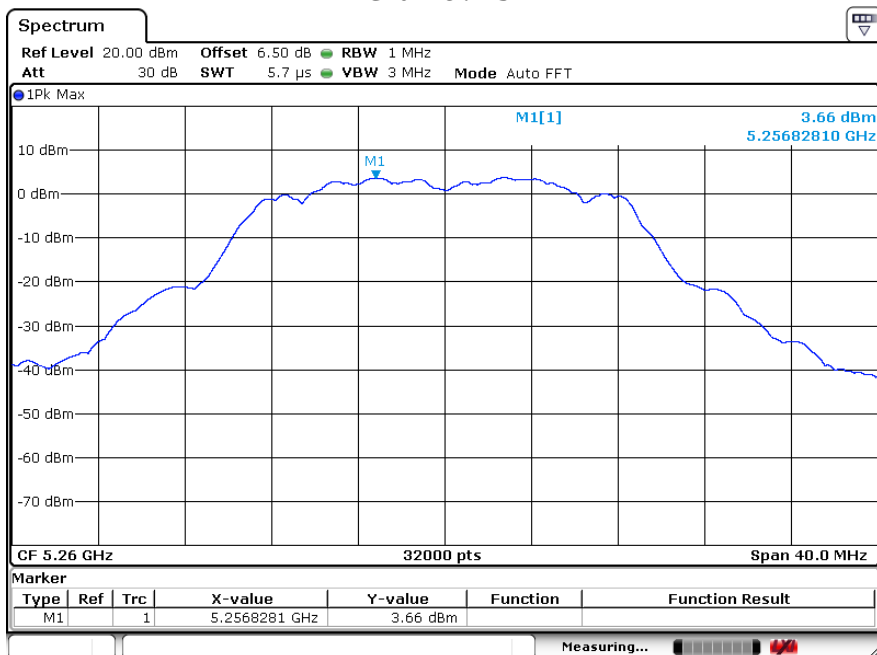
Channel: 40



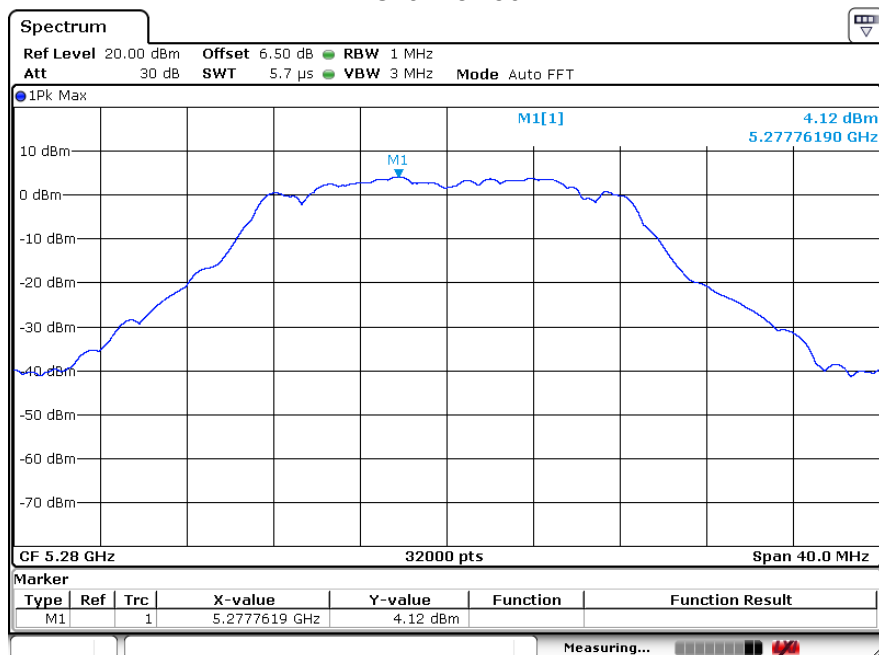
Channel: 48



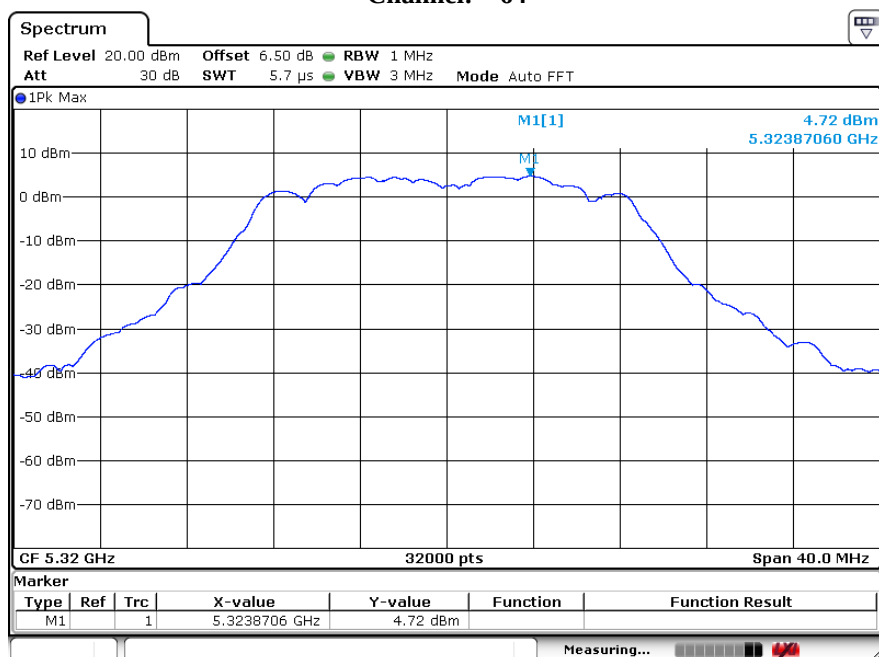
Channel: 52



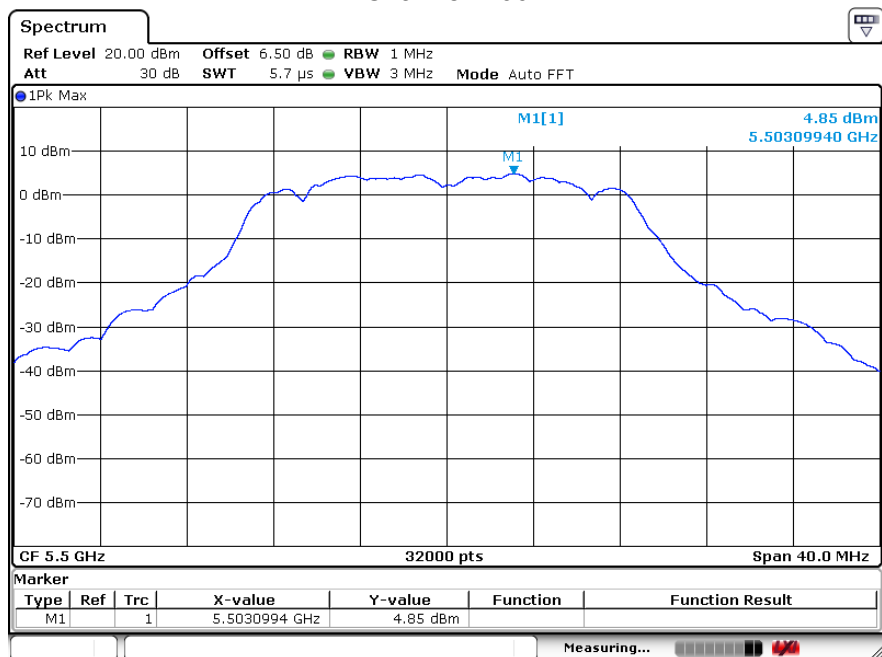
Channel: 56



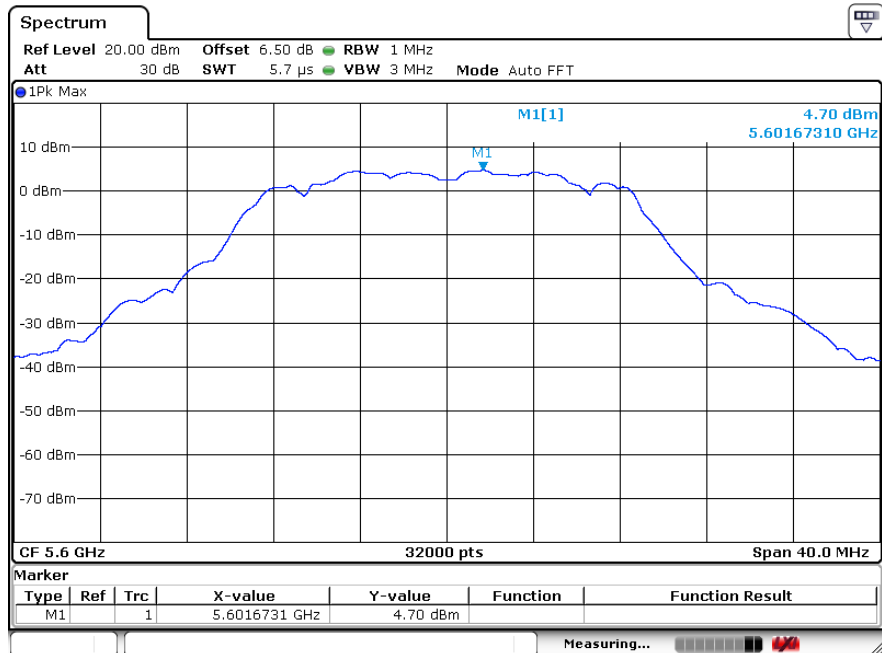
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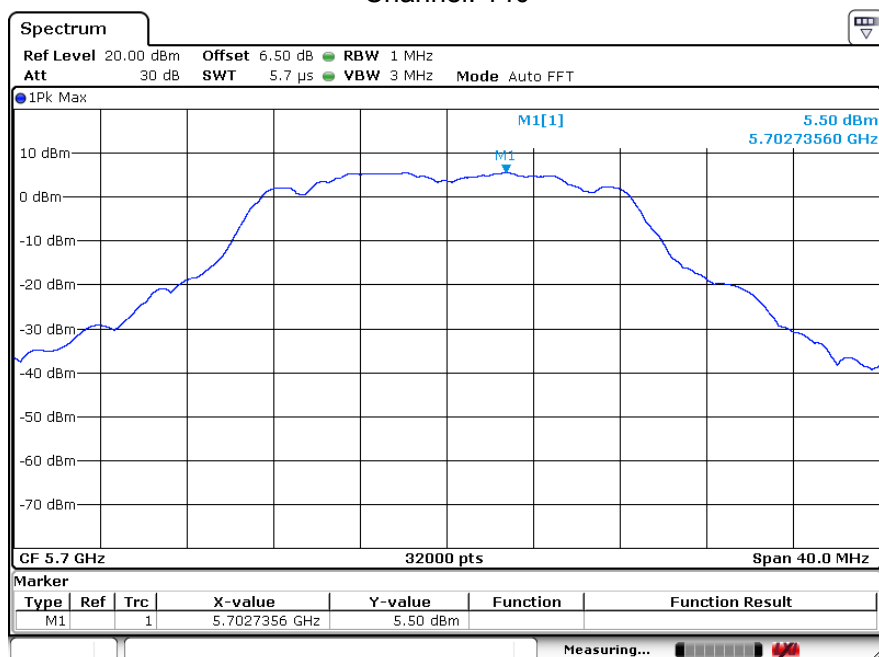
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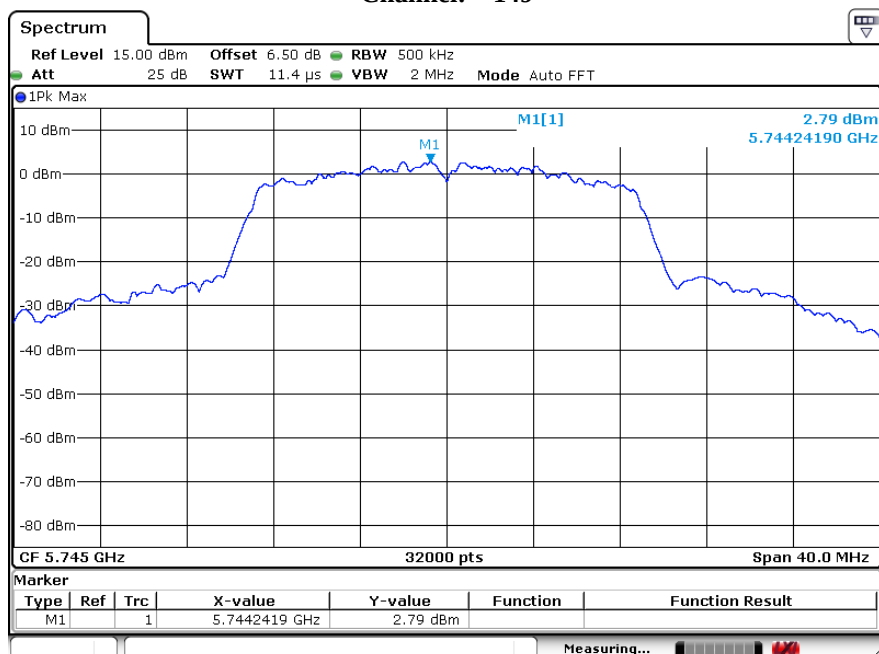
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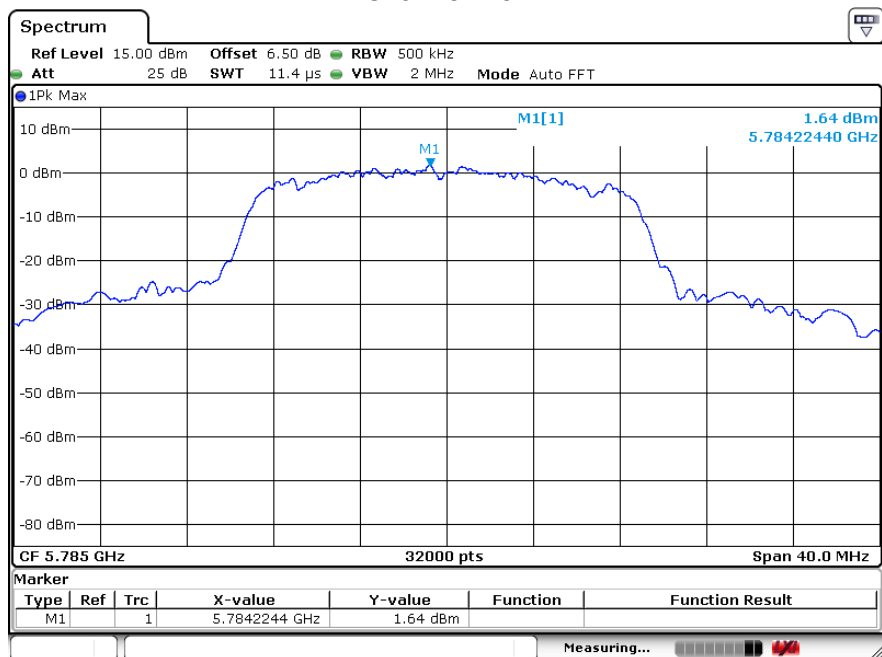
Channel: 140



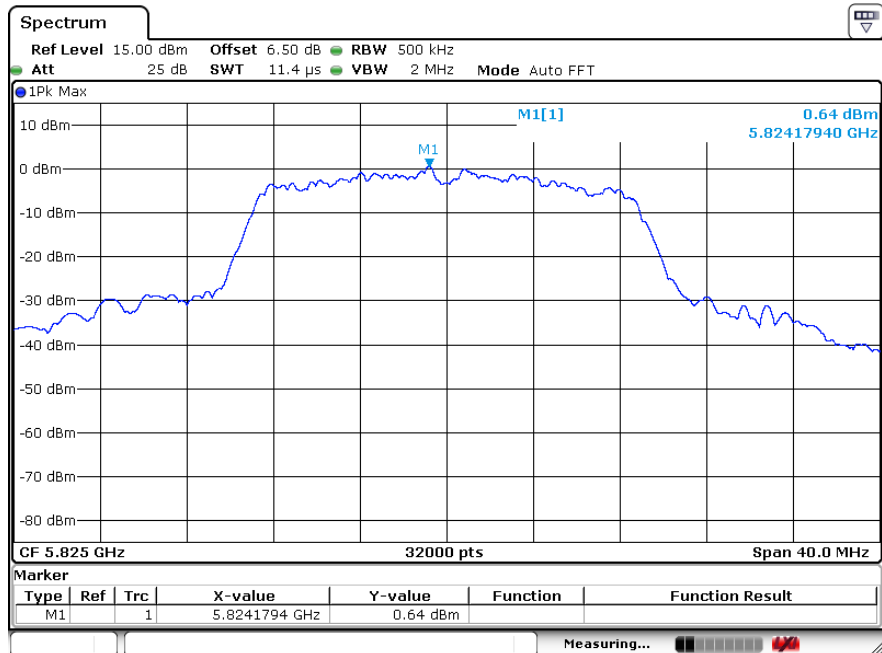
Channel: 149



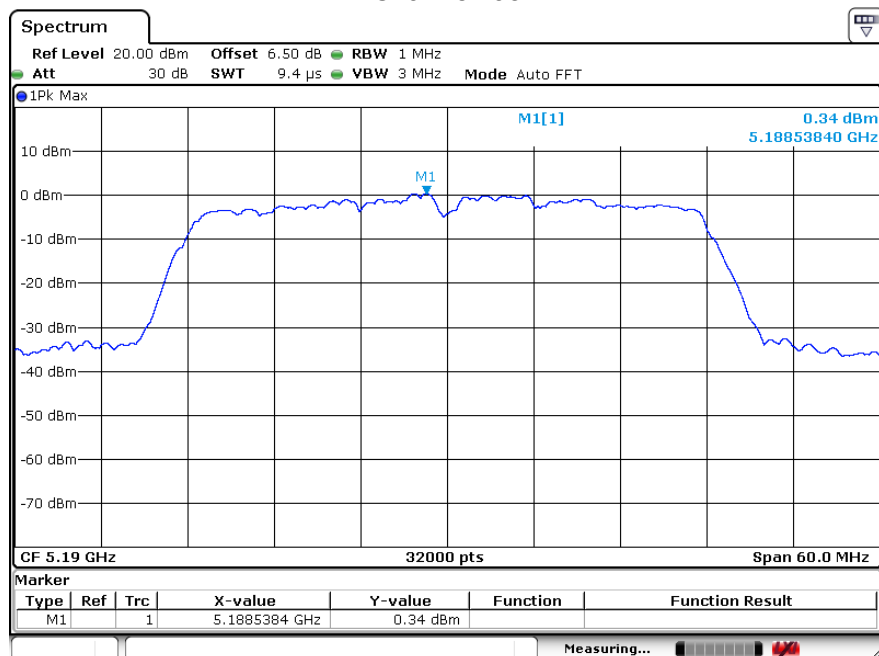
Channel: 157



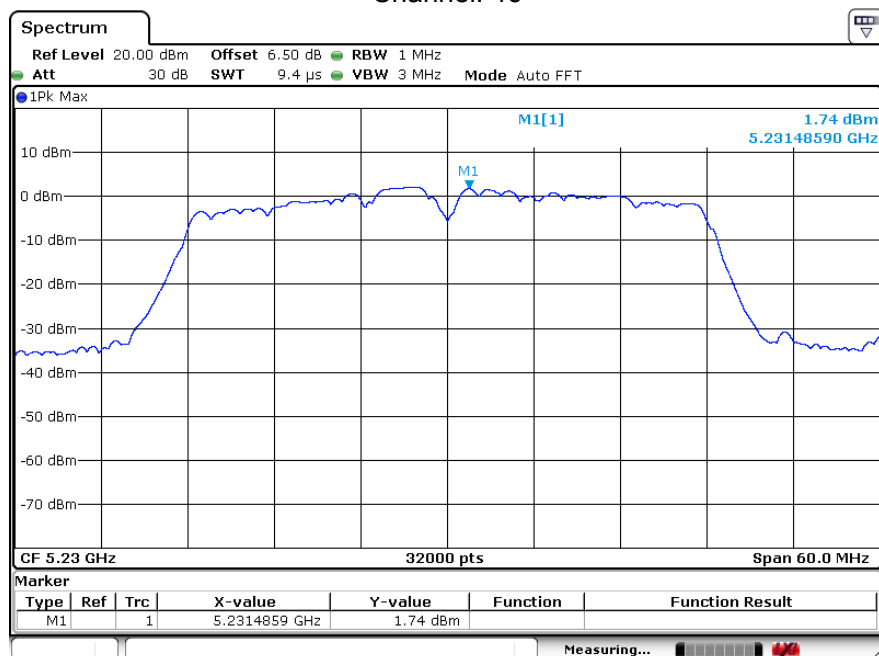
Channel: 165

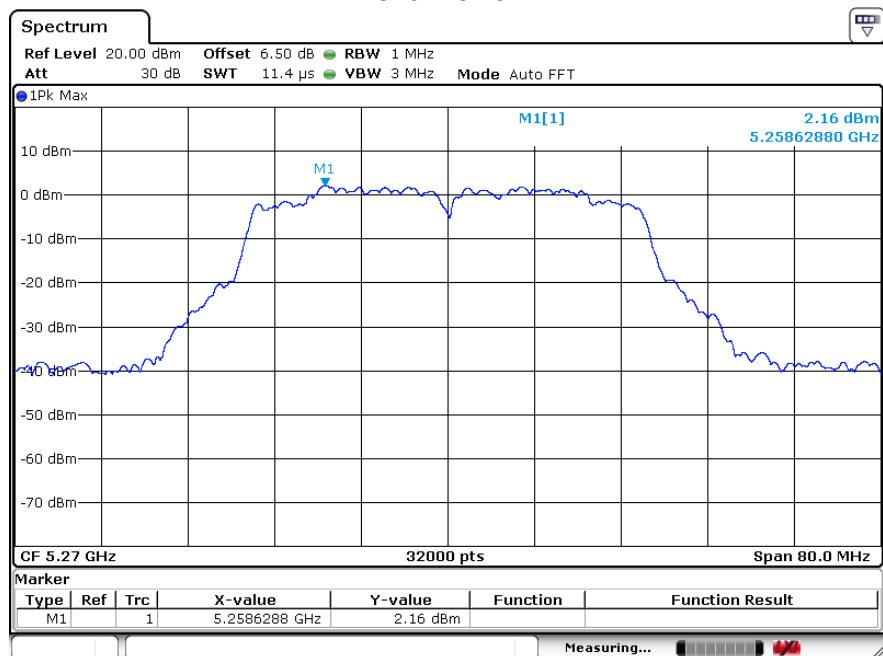


802.11 ac 40 Channel: 38

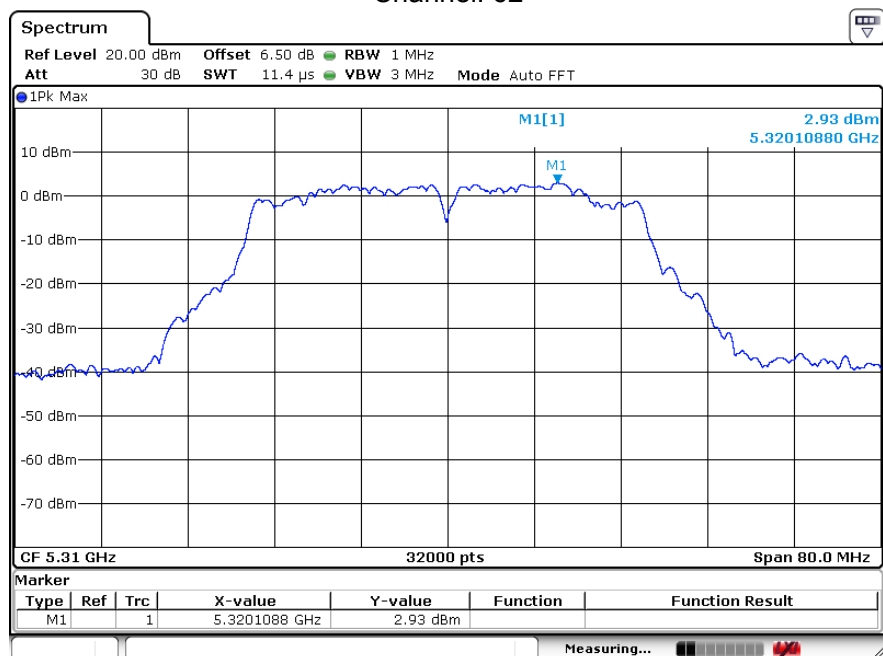


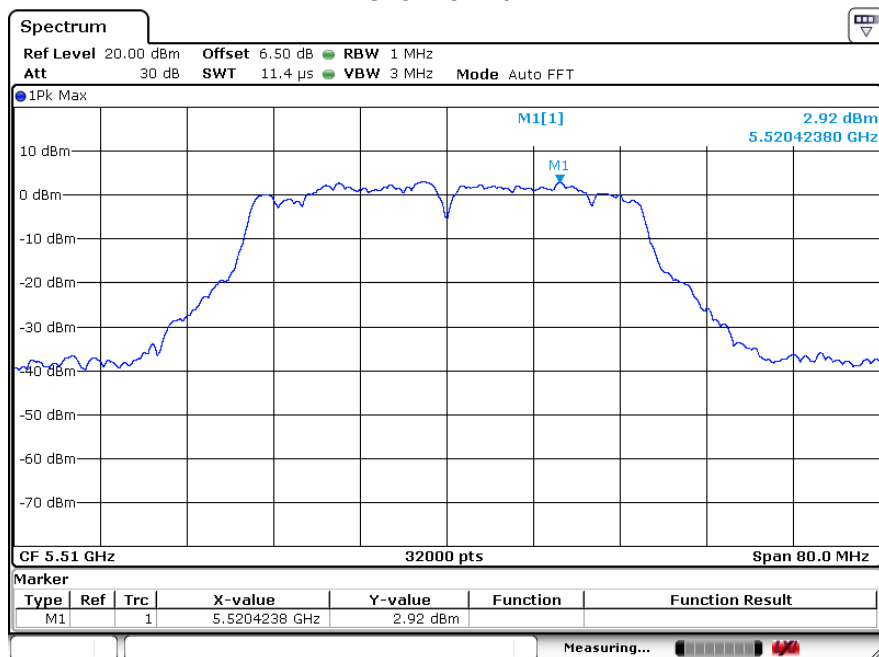
Channel: 46



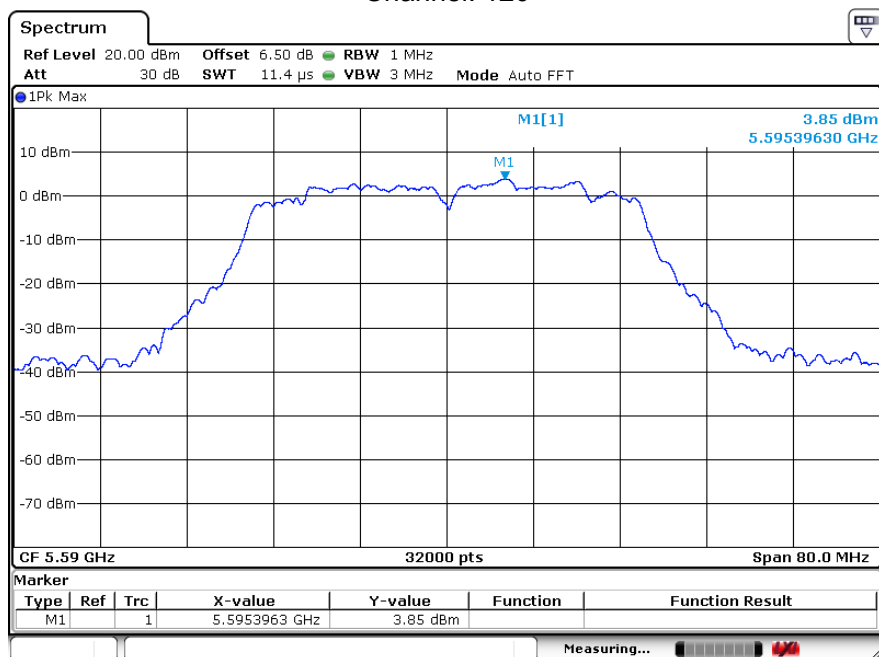
802.11n40
Channel: 54

Channel: 62

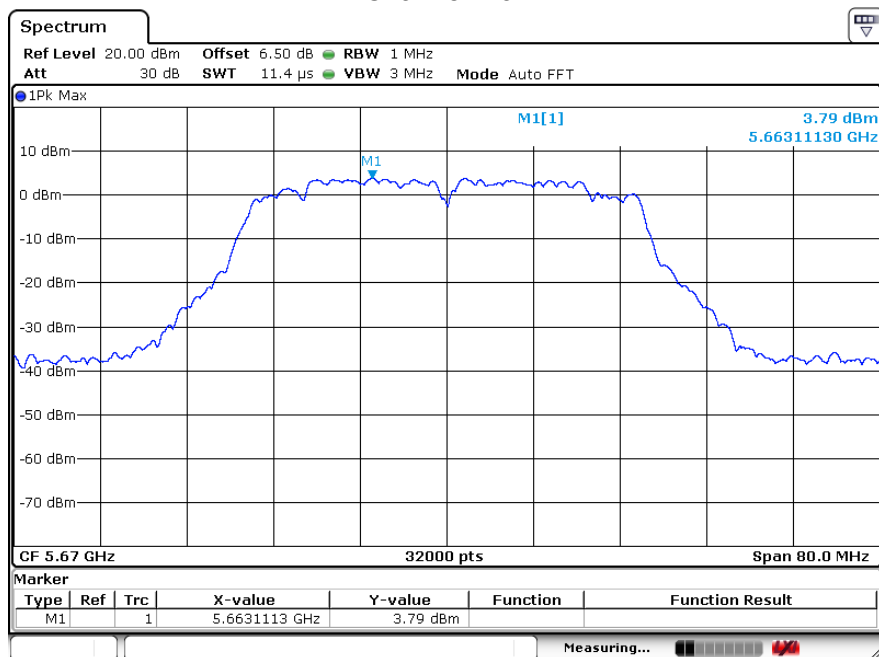


802.11n40
Channel: 102

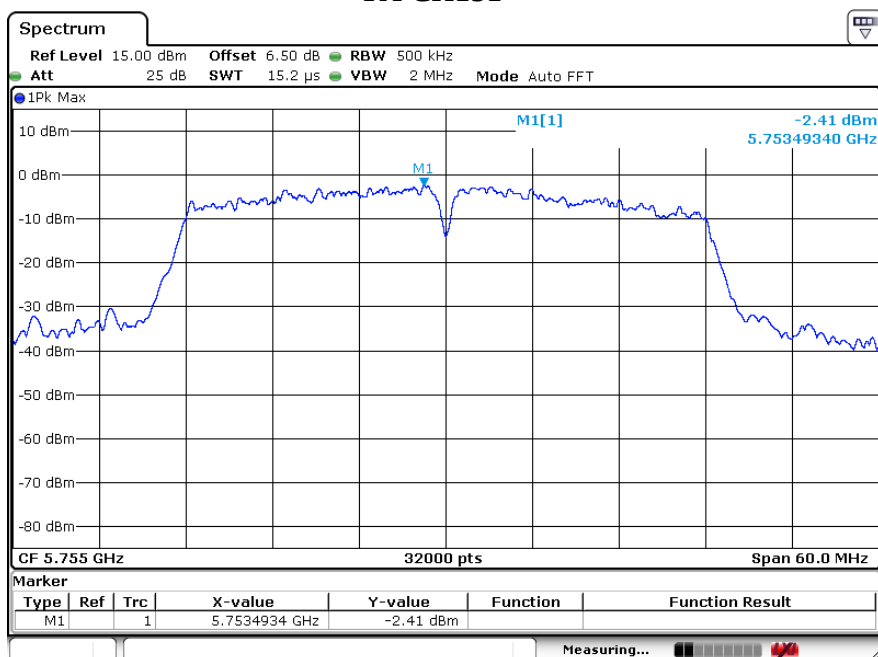
Channel: 120



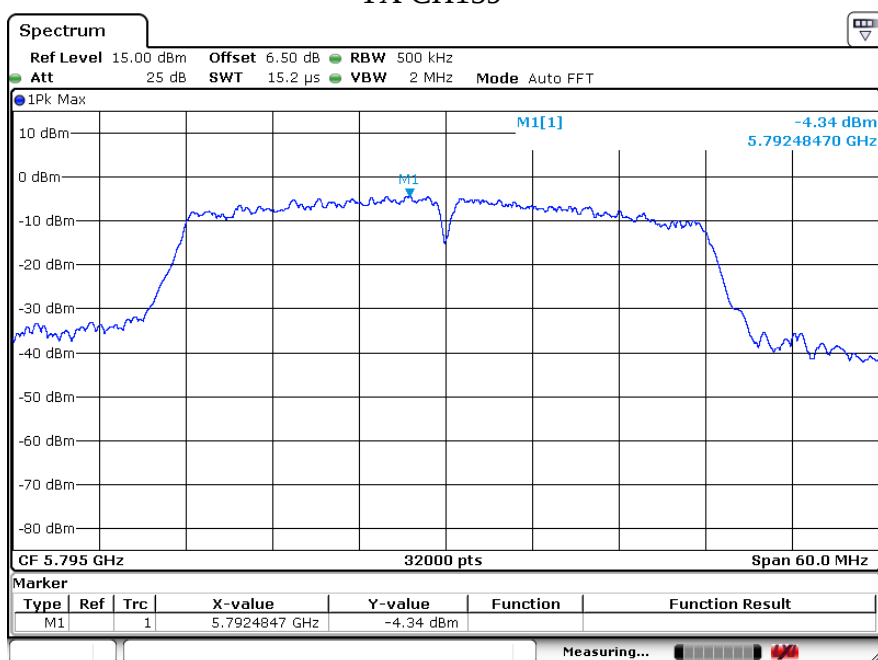
802.11n40 Channel: 134

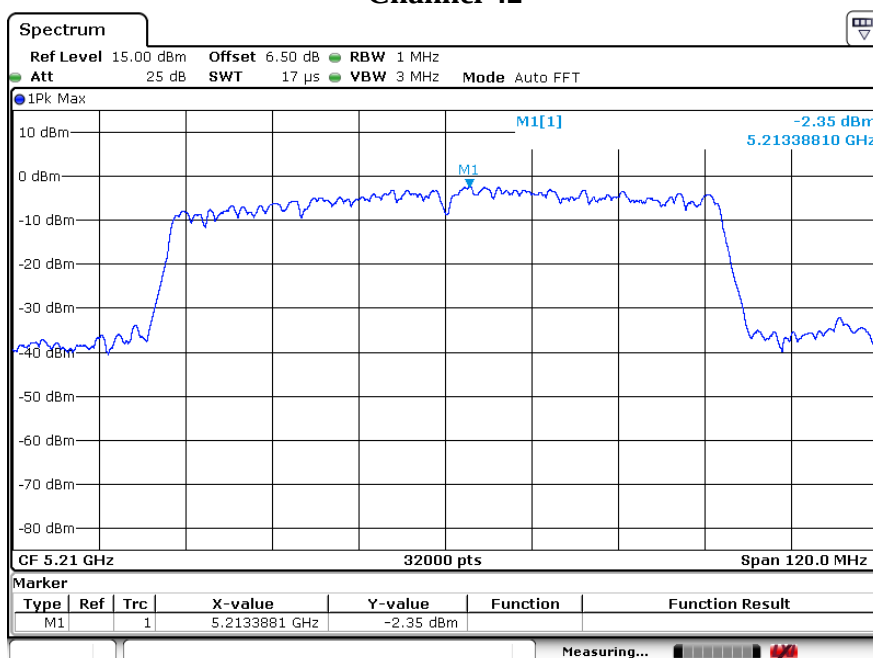
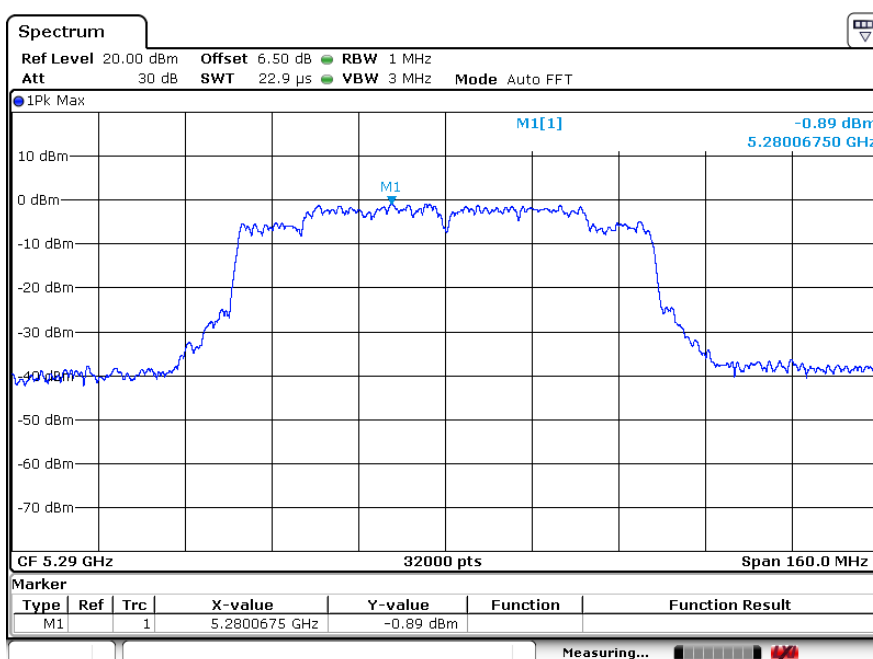


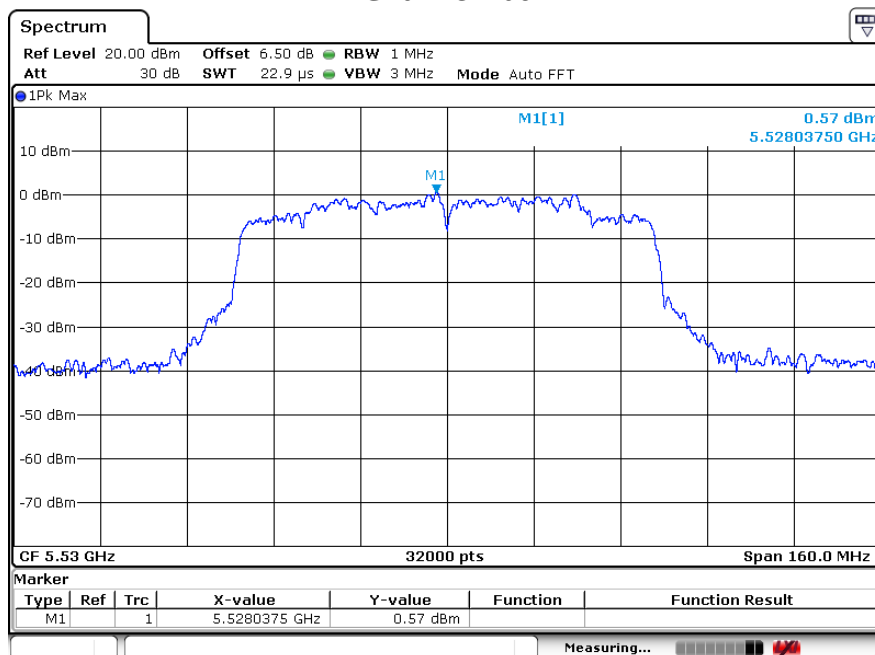
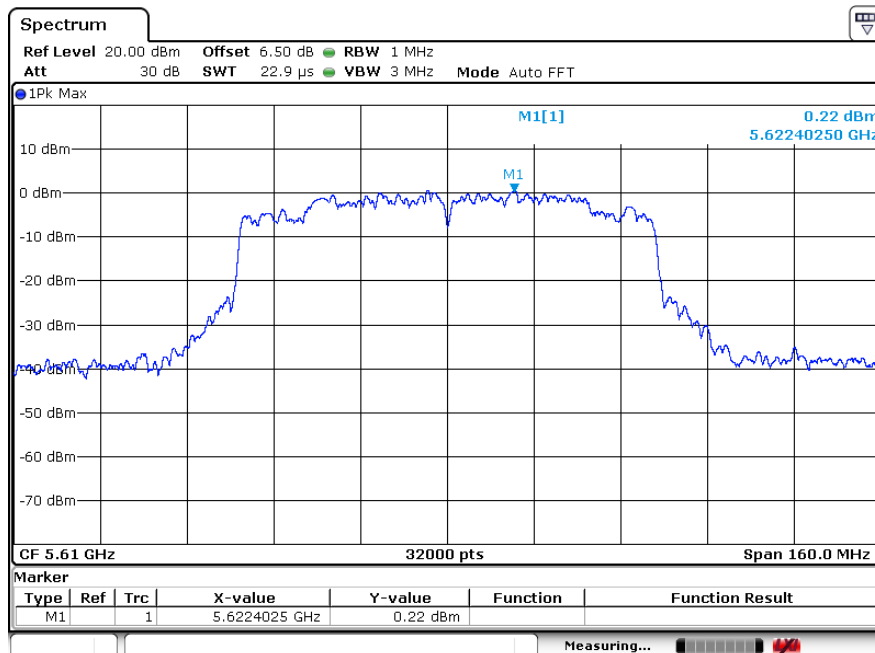
TX CH151

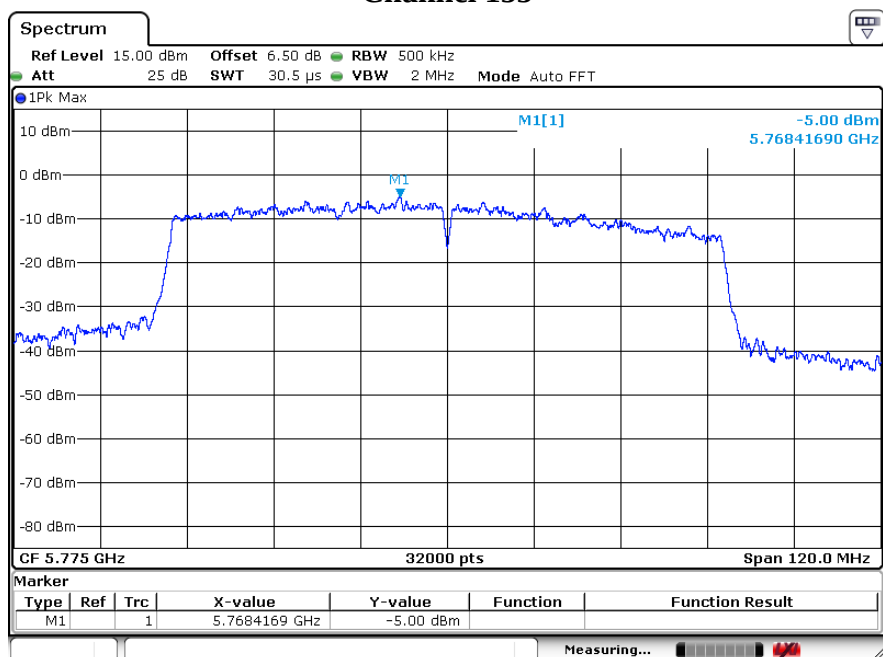


TX CH159



**802.11ac(80M)
Channel 42****Channel 58**

**802.11ac(80M)
Channel 106****Channel 138**

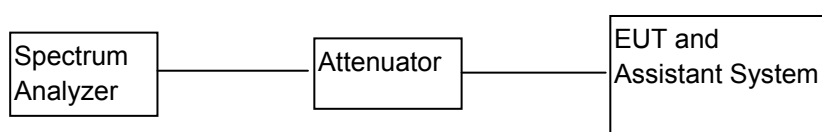
802.11ac(80M)
Channel 155

4.26 dB & 99% Emission Bandwidth

4.1. TEST EQUIPMENT

Item	Equipment	Manufacturer	Model No.	Serial No.	Cal Due.	Cal. Interval
1	Spectrum analyzer	KEYSIGHT	N9010A	MY55150427	2020/05/25	1 Year
2	Attenuator	Mini-Circuits	BW-S10W2	101109	2019/12/17	1 Year
3	RF Cable	Micable	C10-01-01-1	100309	2019/12/17	1 Year
4	Spectrum analyzer	R&S	FSV40	101470	2020/06/28	1 Year

4.2. BLOCK DIAGRAM OF TEST SETUP



4.3. 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.

4.4. 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.

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.

6dB Bandwidth

Spectrum Parameter	Setting
Attenuation	Auto
Span Frequency	> Measurement Bandwidth or Channel Separation
RB	100 kHz (6dB Bandwidth) / 100 kHz (Channel Separation)
VB	300 kHz (6dB Bandwidth) / 300 kHz (Channel Separation)
Detector	Peak
Trace	Max Hold
Sweep Time	Auto

4.5. TEST RESULT

Antenna A

CH. No.	Frequency (MHz)	6dB&26dB Occupied Bandwidth (MHz)			99% Occupied Bandwidth (MHz)		
		802.11a	802.11n (HT20)	802.11ac (VHT20)	802.11a	802.11n (HT20)	802.11ac (VHT20)
CH 36	5180	20.25	20.34	20.41	16.39	17.57	17.57
CH 40	5200	20.33	20.27	20.36	16.43	17.60	17.58
CH 48	5240	20.40	20.34	20.49	16.38	17.59	17.58
CH 52	5260	22.35	24.19	23.73	16.39	17.59	17.57
CH 56	5280	22.24	23.92	23.73	16.39	17.60	17.57
CH 64	5320	23.21	24.17	23.45	16.40	17.59	17.57
CH 100	5500	24.09	23.52	23.52	16.41	17.59	17.57
CH 120	5600	23.18	23.87	24.17	16.37	17.59	17.59
CH 140	5700	23.19	23.90	23.84	16.42	17.59	17.58
CH 149	5745	15.10	15.11	15.11	16.42	17.61	17.58
CH 157	5785	15.11	15.11	15.11	16.40	17.61	17.59
CH 165	5825	15.11	15.11	15.11	16.42	17.57	17.58

CH. No.	Frequency (MHz)	6dB&26dB Occupied Bandwidth (MHz)		99% Occupied Bandwidth (MHz)	
		802.11n(HT40)	802.11ac(VHT40)	802.11n(HT40)	802.11ac(VHT40)
CH 38	5190	41.05	41.00	35.97	35.98
CH 46	5230	41.24	40.65	36.06	36.06
CH 54	5270	44.99	43.18	35.98	36.01
CH 62	5310	45.28	43.38	36.09	36.04
CH 102	5510	45.59	43.72	36.03	36.06
CH 110	5550	45.02	42.73	36.00	36.07
CH 134	5670	44.49	43.55	36.04	36.03
CH 151	5755	35.06	35.07	36.01	36.07
CH 159	5795	35.04	35.07	36.02	35.97

CH. No.	Frequency (MHz)	6dB&26dB Occupied Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
		802.11ac(VHT80)	802.11ac(VHT80)
CH 42	5210	80.85	75.03
CH 58	5290	82.37	75.00
CH 106	5530	83.52	75.02
CH 138	5690	83.70	74.99
CH 155	5775	66.32	75.07

Antenna B

CH. No.	Frequency (MHz)	6dB&26dB Occupied Bandwidth (MHz)			99% Occupied Bandwidth (MHz)		
		802.11a	802.11n (HT20)	802.11ac (VHT20)	802.11a	802.11n (HT20)	802.11ac (VHT20)
CH 36	5180	19.47	20.57	20.23	16.70	17.84	17.69
CH 40	5200	20.39	20.05	19.93	16.43	17.61	17.23
CH 48	5240	20.48	20.14	20.02	16.63	17.02	17.11
CH 52	5260	22.18	24.14	23.42	16.68	17.42	17.39
CH 56	5280	22.04	24.16	23.92	16.25	17.31	17.43
CH 64	5320	22.94	24.08	23.29	16.11	17.60	17.36
CH 100	5500	23.80	23.06	23.08	16.17	17.81	17.23
CH 120	5600	23.16	23.22	23.45	16.02	16.98	17.38
CH 140	5700	23.06	23.93	24.05	16.27	17.20	17.87
CH 149	5745	14.65	14.81	15.04	16.27	17.06	17.48
CH 157	5785	15.16	14.64	15.09	15.92	16.99	17.50
CH 165	5825	14.39	14.40	15.22	16.01	16.98	17.11

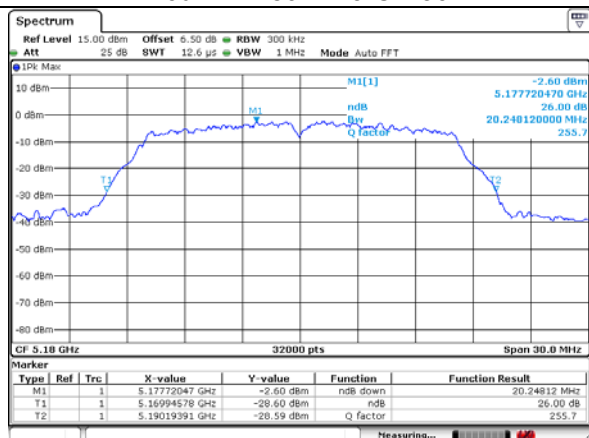
CH. No.	Frequency (MHz)	6dB&26dB Occupied Bandwidth (MHz)		99% Occupied Bandwidth (MHz)	
		802.11n(HT40)	802.11ac(VHT40)	802.11n(HT40)	802.11ac(VHT40)
CH 38	5190	40.99	40.49	35.56	35.72
CH 46	5230	41.39	40.27	35.56	36.17
CH 54	5270	44.97	42.79	35.74	36.12
CH 62	5310	44.59	43.57	35.52	35.66
CH 102	5510	45.12	43.32	36.12	35.98
CH 110	5550	44.47	42.80	35.43	35.73
CH 134	5670	44.36	43.45	35.84	36.10
CH 151	5755	34.56	34.64	35.66	35.82
CH 159	5795	35.06	35.05	36.25	35.79

CH. No.	Frequency (MHz)	6dB&26dB Occupied Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
		802.11ac(VHT80)	802.11ac(VHT80)
CH 42	5210	80.82	74.47
CH 58	5290	81.91	74.40
CH 106	5530	83.28	74.34
CH 138	5690	83.63	74.28
CH 155	5775	66.24	75.27

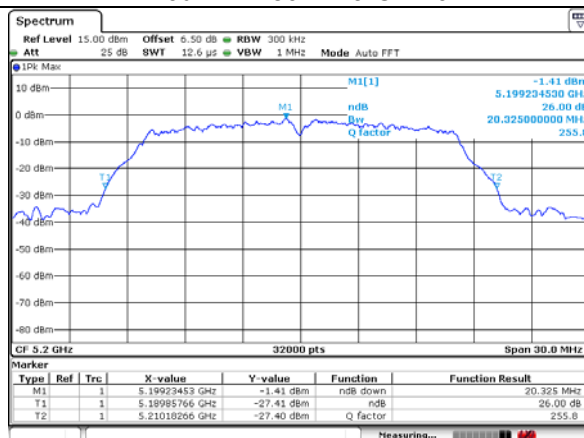
Note: The worst data is Antenna A, only shown Antenna A Plot.

6dB down bandwidth for 5.725-5.85GHz band / 26dB down bandwidth for other band.

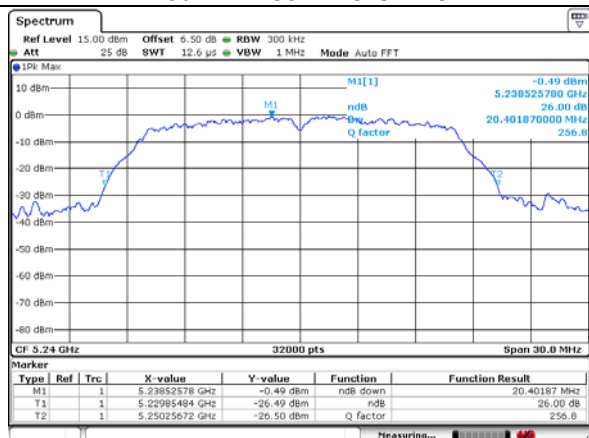
26dB BW 802.11a CH 36



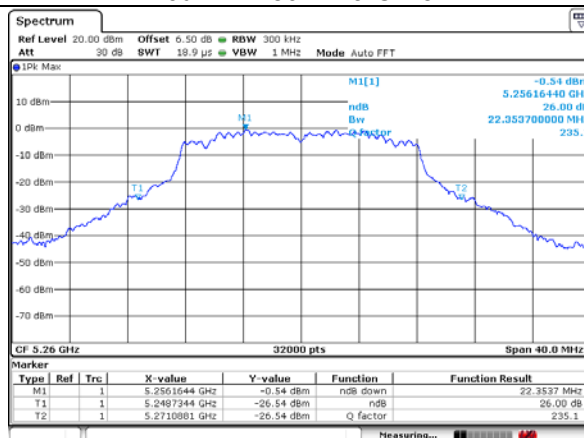
26dB BW 802.11a CH 40



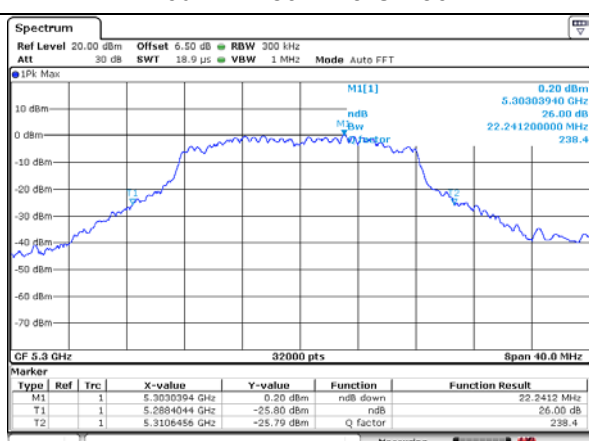
26dB BW 802.11a CH 48



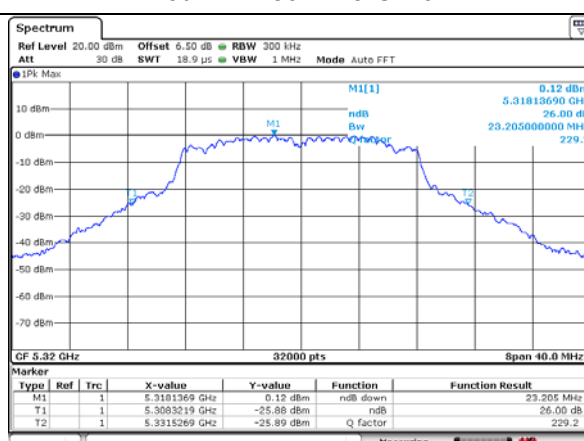
26dB BW 802.11a CH 52



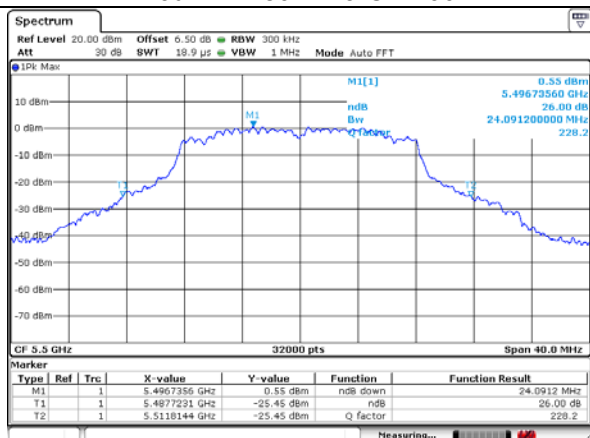
26dB BW 802.11a CH 56



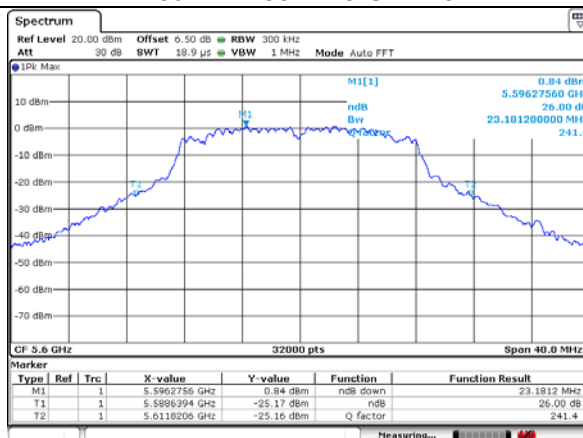
26dB BW 802.11a CH 64



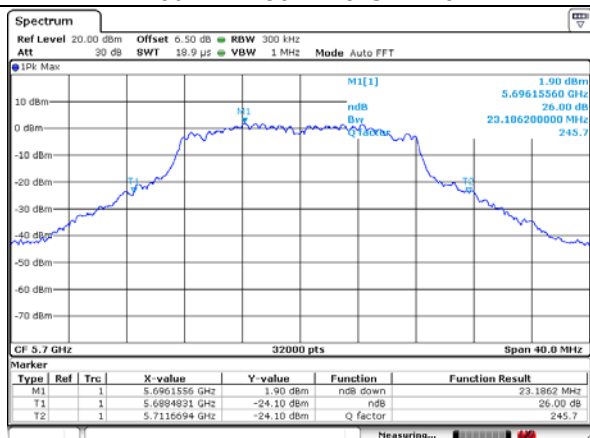
26dB BW 802.11a CH 100



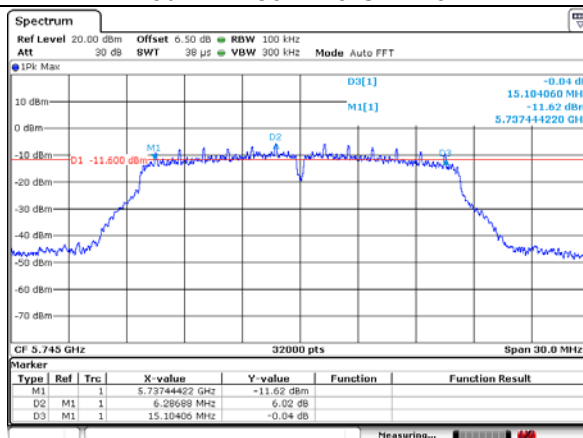
26dB BW 802.11a CH 120



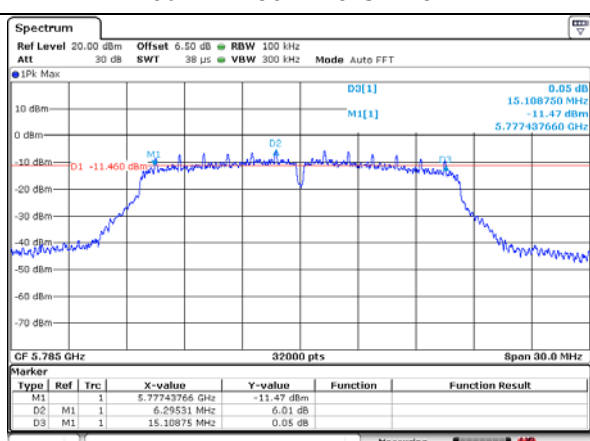
26dB BW 802.11a CH 140



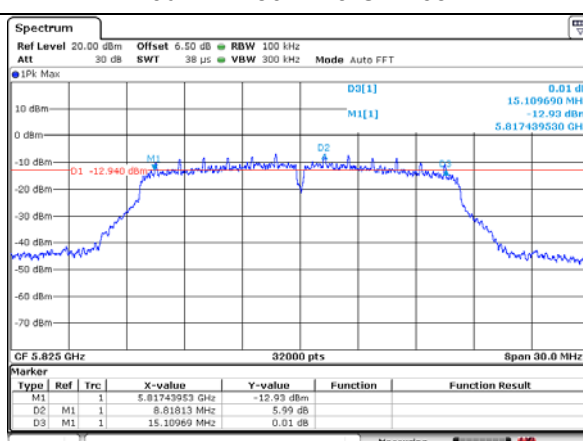
6dB BW 802.11a CH 149



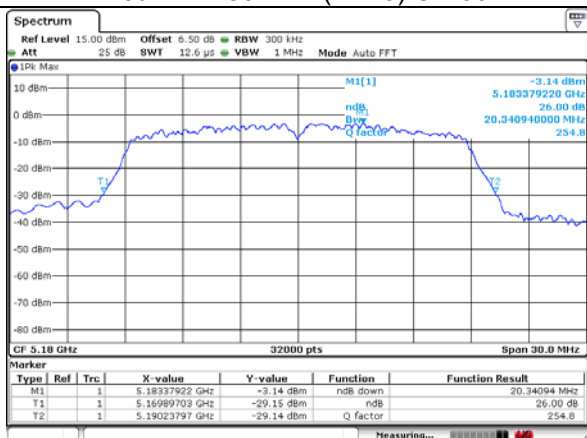
6dB BW 802.11a CH 157



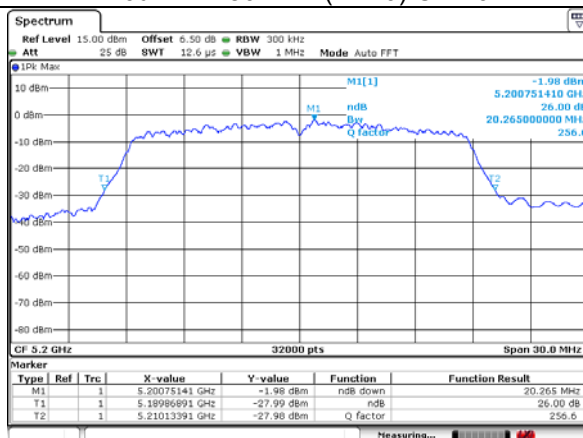
6dB BW 802.11a CH 165



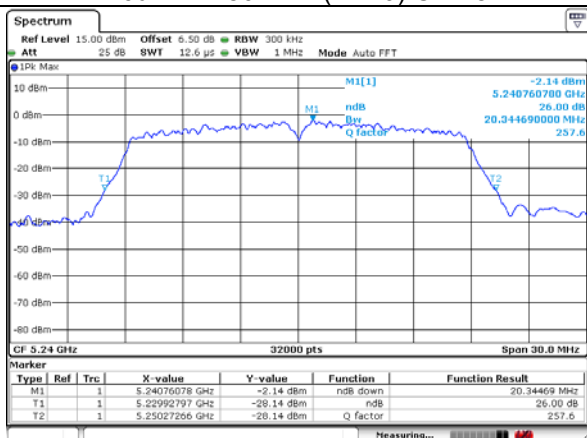
26dB BW 802.11n(HT20) CH 36



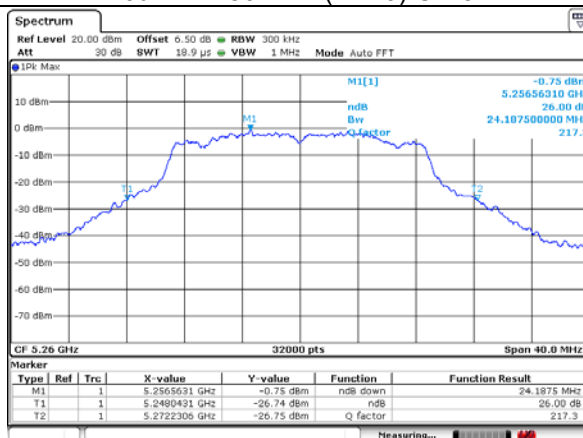
26dB BW 802.11n(HT20) CH 40



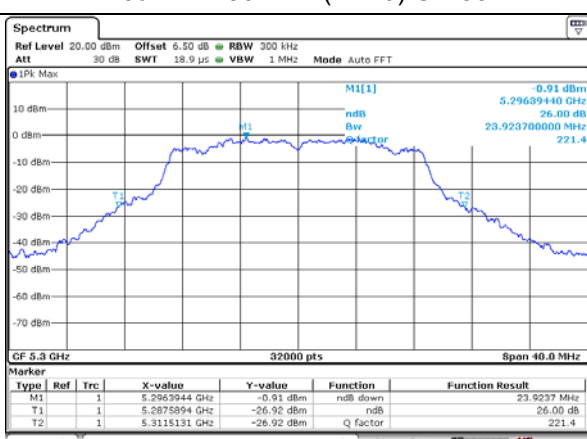
26dB BW 802.11n(HT20) CH 48



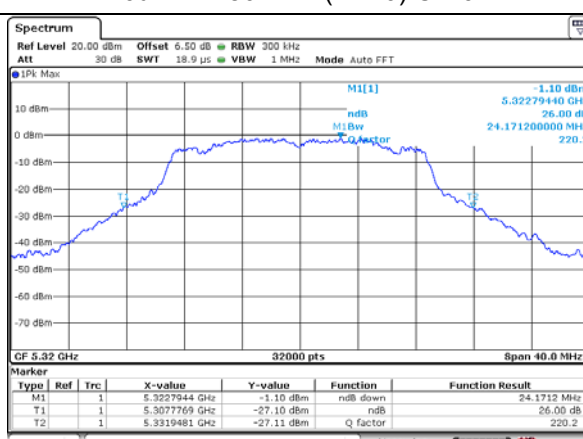
26dB BW 802.11n(HT20) CH 52



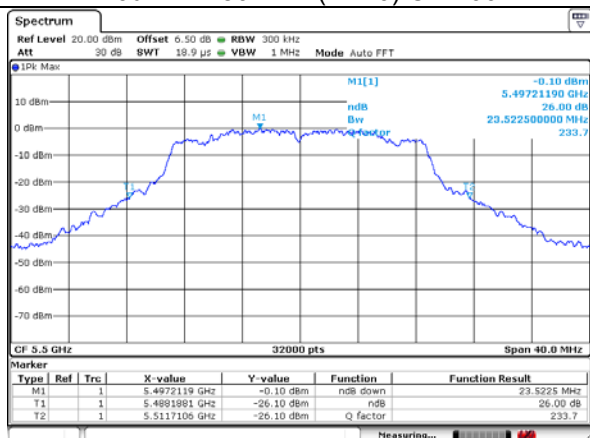
26dB BW 802.11n(HT20) CH 56



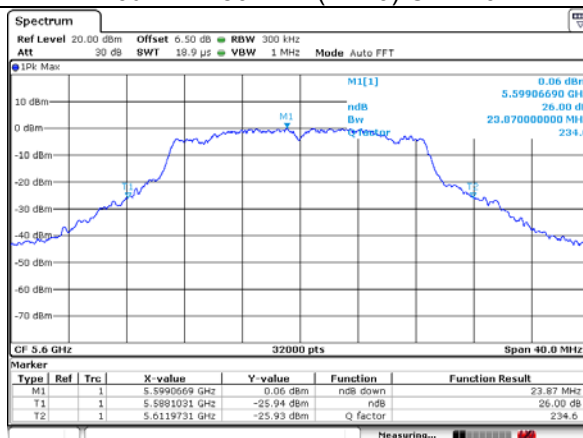
26dB BW 802.11n(HT20) CH 64



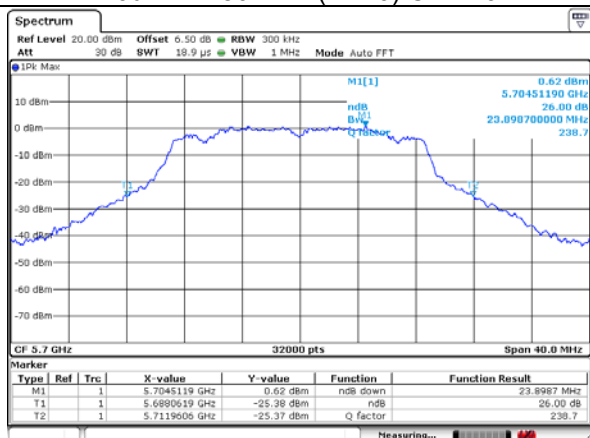
26dB BW 802.11n(HT20) CH 100



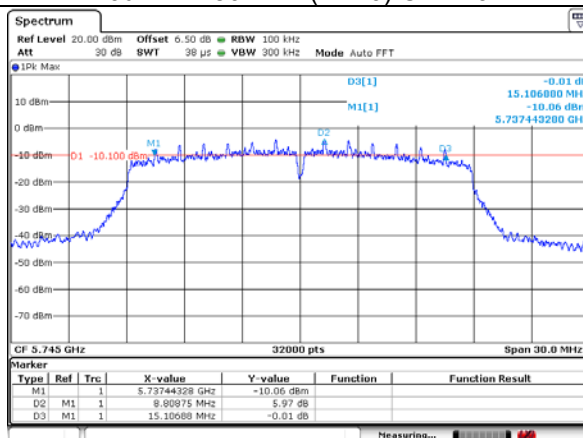
26dB BW 802.11n(HT20) CH 120



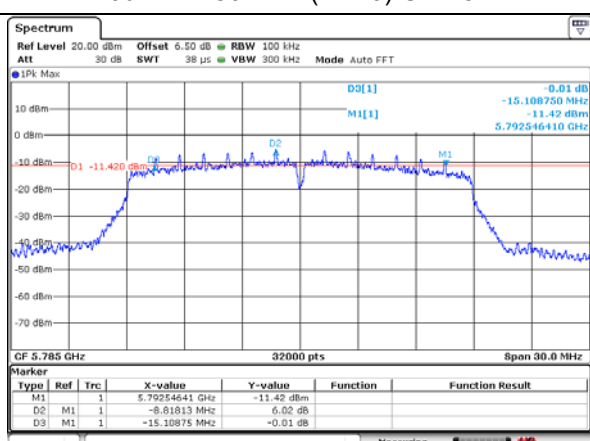
26dB BW 802.11n(HT20) CH 140



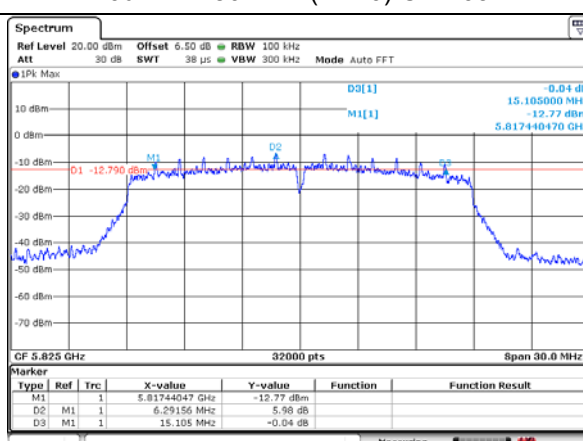
6dB BW 802.11n(HT20) CH 149



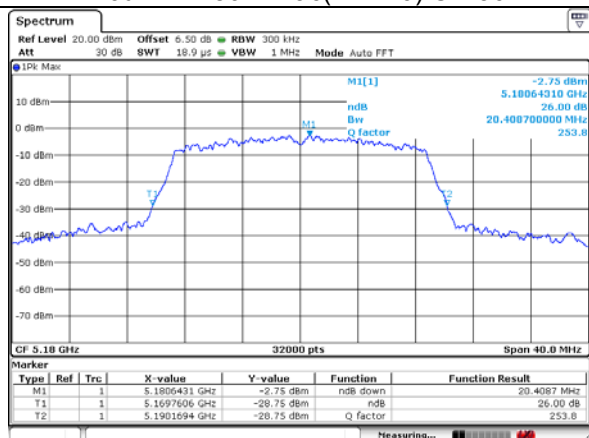
6dB BW 802.11n(HT20) CH 157



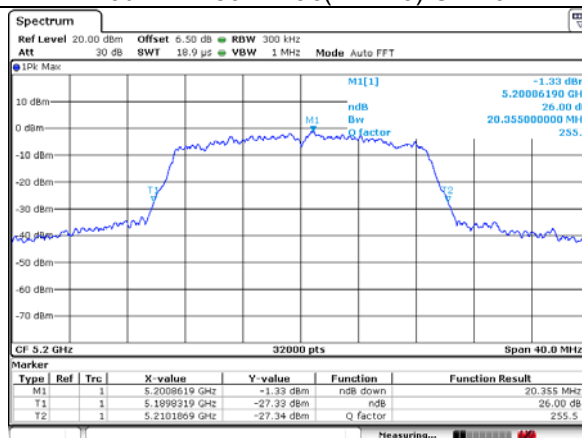
6dB BW 802.11n(HT20) CH 165



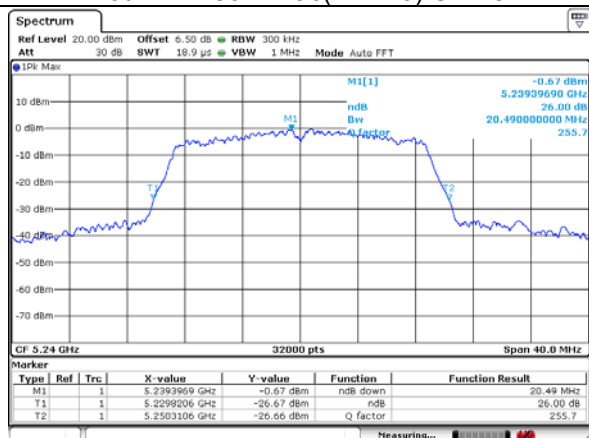
26dB BW 802.11ac(VHT20) CH 36



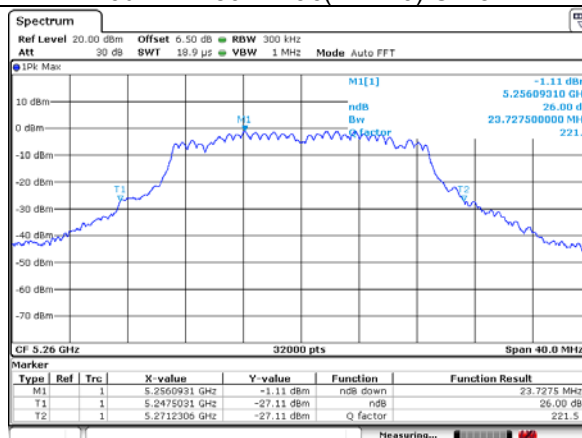
26dB BW 802.11ac(VHT20) CH 40



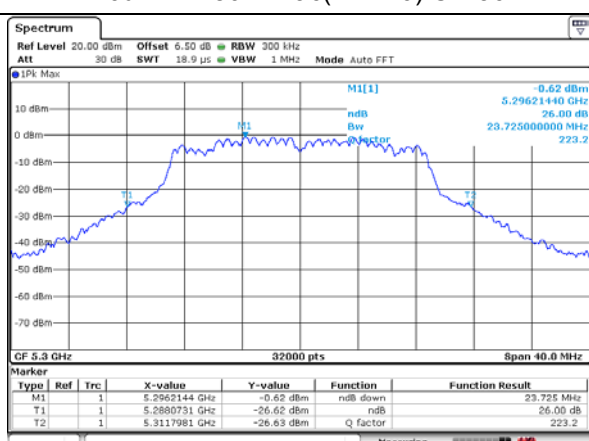
26dB BW 802.11ac(VHT20) CH 48



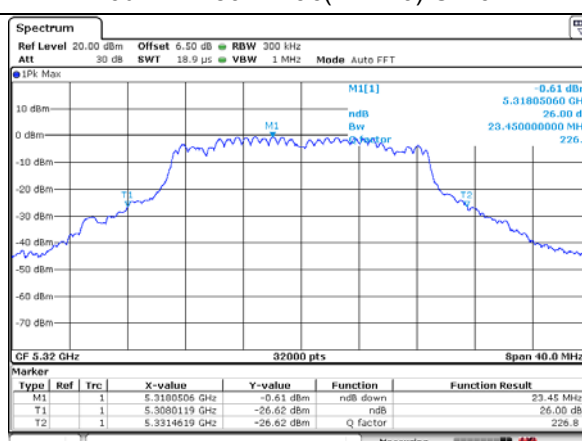
26dB BW 802.11ac(VHT20) CH 52



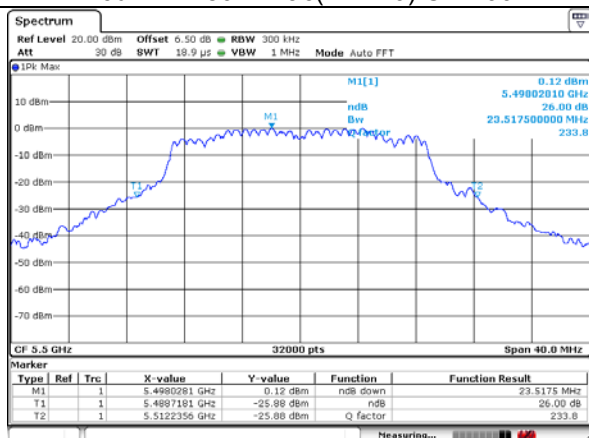
26dB BW 802.11ac(VHT20) CH 56



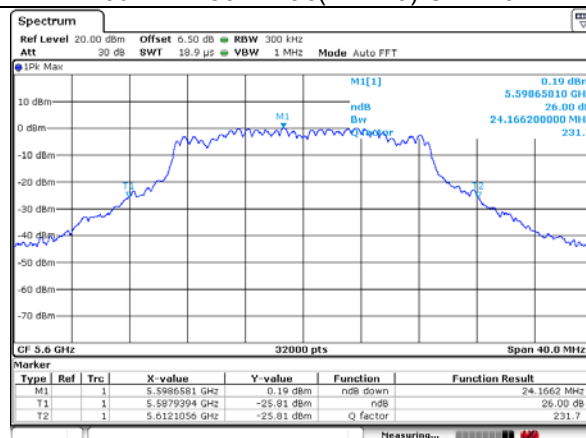
26dB BW 802.11ac(VHT20) CH 64



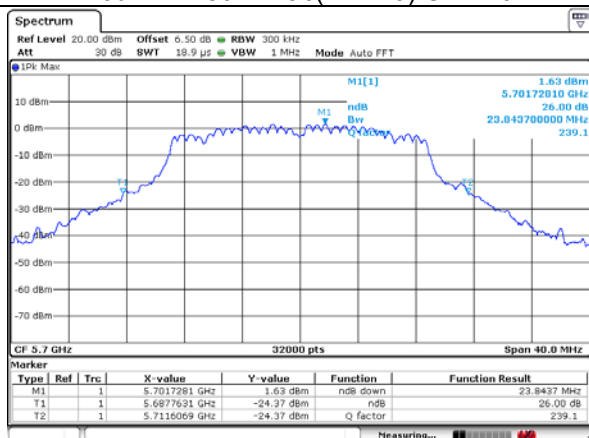
26dB BW 802.11ac(VHT20) CH 100



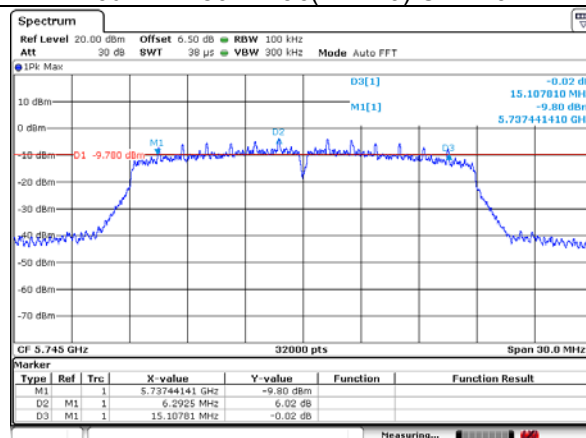
26dB BW 802.11ac(VHT20) CH 120



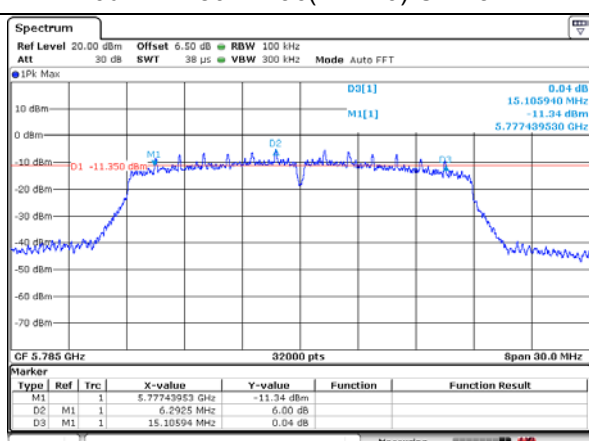
26dB BW 802.11ac(VHT20) CH 140



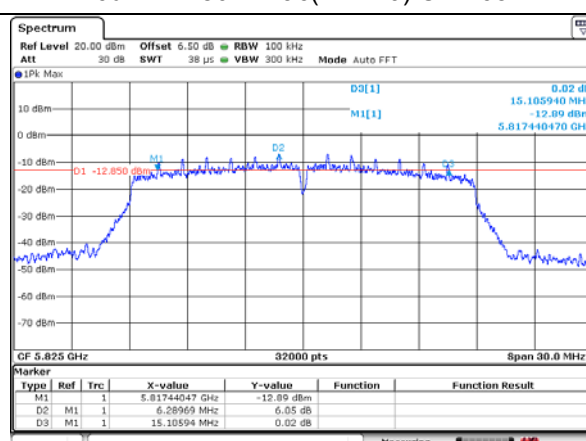
6dB BW 802.11ac(VHT20) CH 149



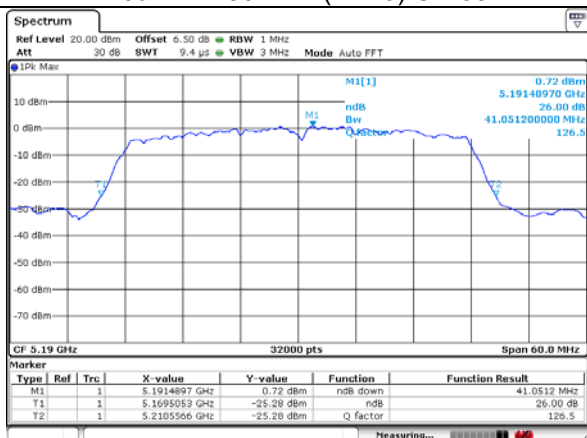
6dB BW 802.11ac(VHT20) CH 157



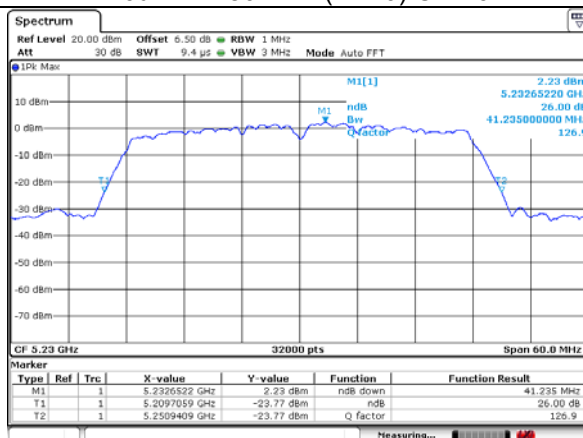
6dB BW 802.11ac(VHT20) CH 165



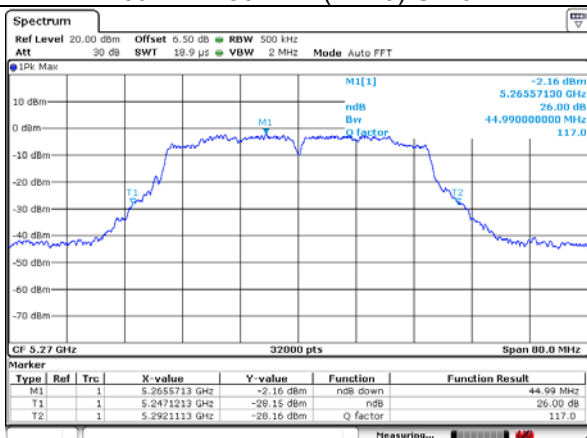
26dB BW 802.11n(HT40) CH 38



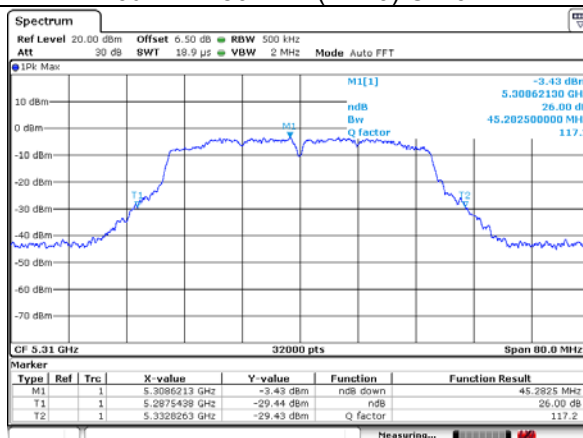
26dB BW 802.11n(HT40) CH 46



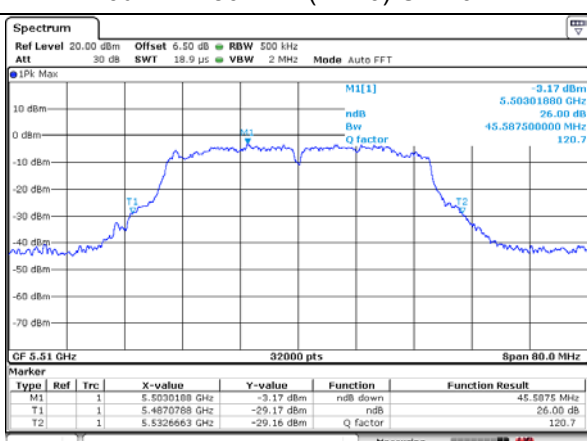
26dB BW 802.11n(HT40) CH 54



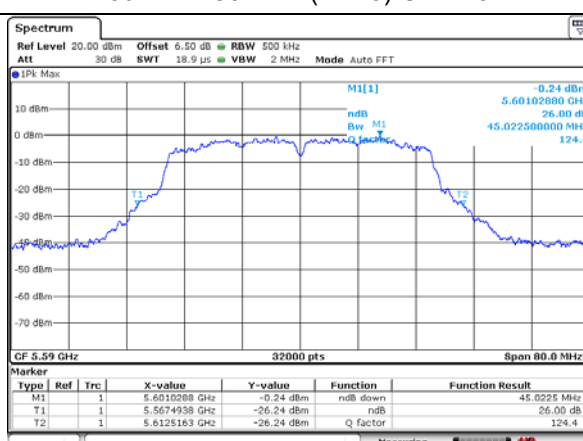
6dB BW 802.11n(HT40) CH 62



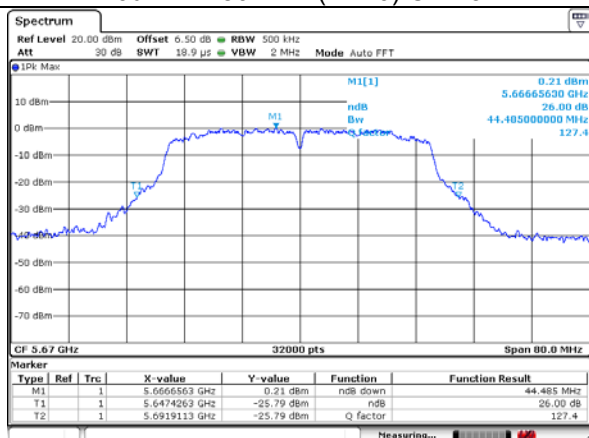
6dB BW 802.11n(HT40) CH 102



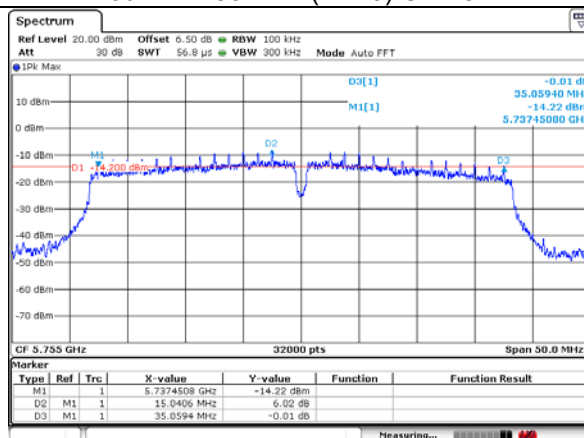
6dB BW 802.11n(HT40) CH 110



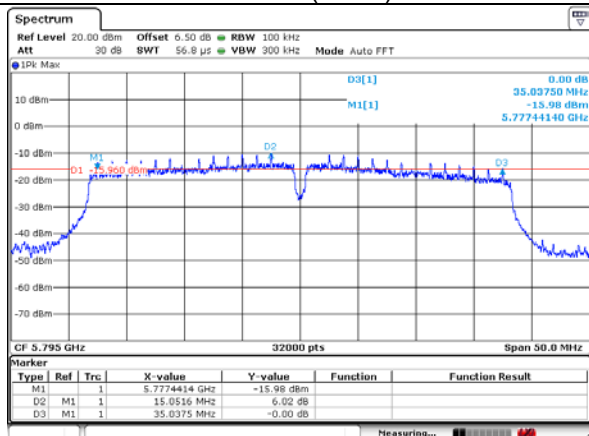
26dB BW 802.11n(HT40) CH 134



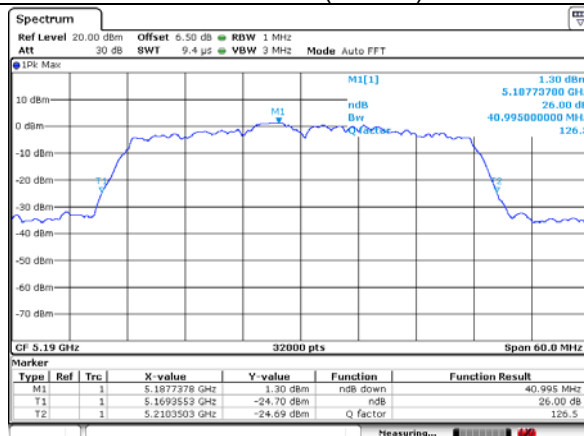
6dB BW 802.11n(HT40) CH 151



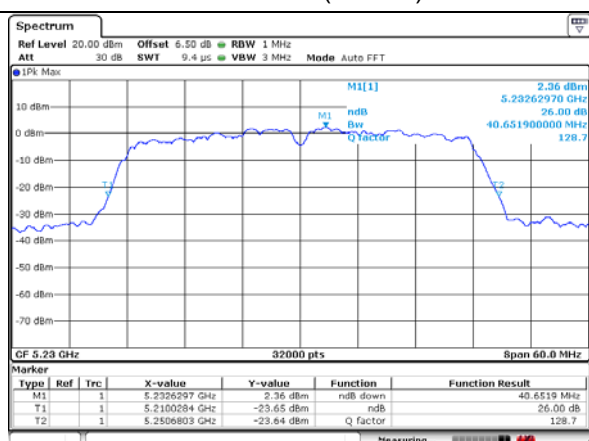
6dB BW 802.11n(HT40) CH 159



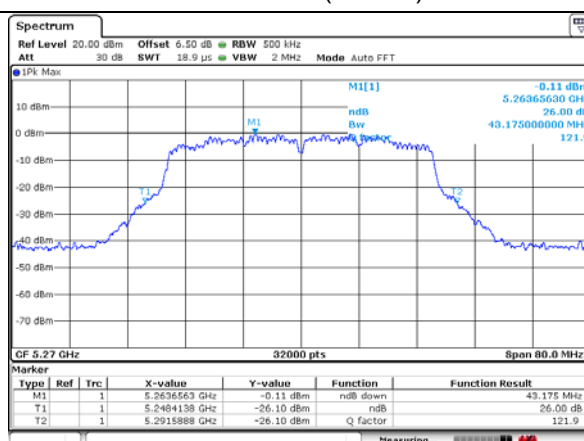
26dB BW 802.11ac(VHT40) CH 38



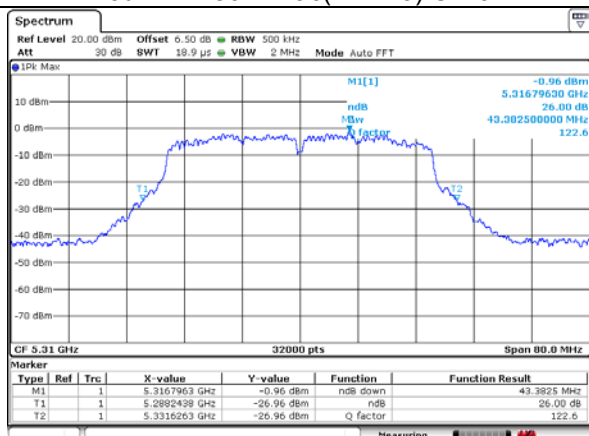
26dB BW 802.11ac(VHT40) CH 46



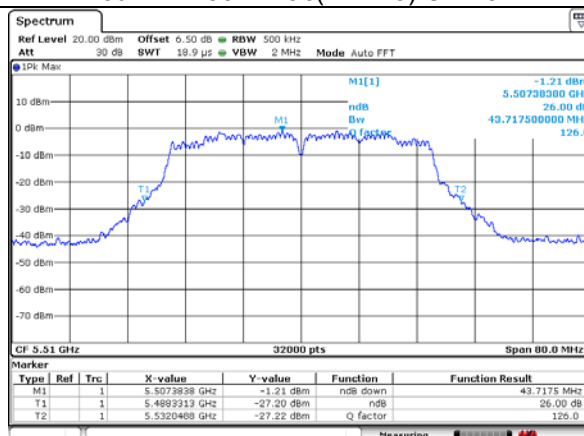
26dB BW 802.11ac(VHT40) CH 54



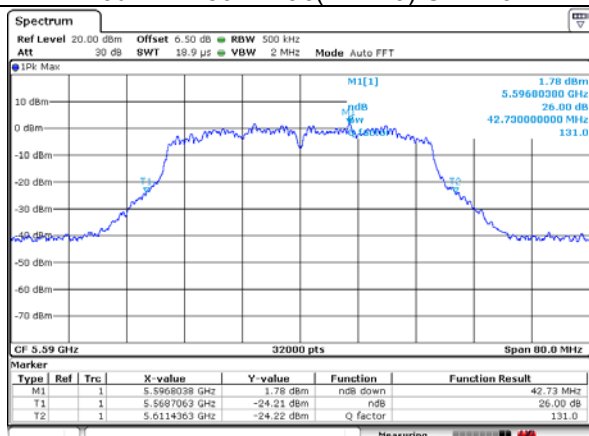
26dB BW 802.11ac(VHT40) CH 62



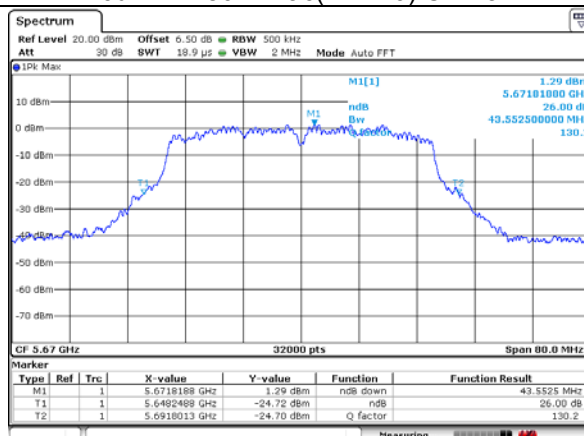
26dB BW 802.11ac(VHT40) CH 102



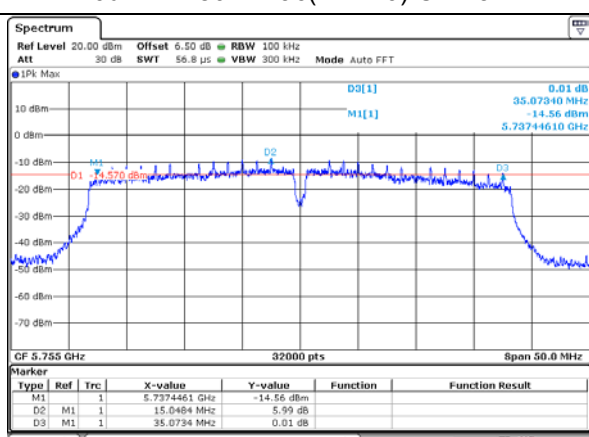
26dB BW 802.11ac(VHT40) CH 110



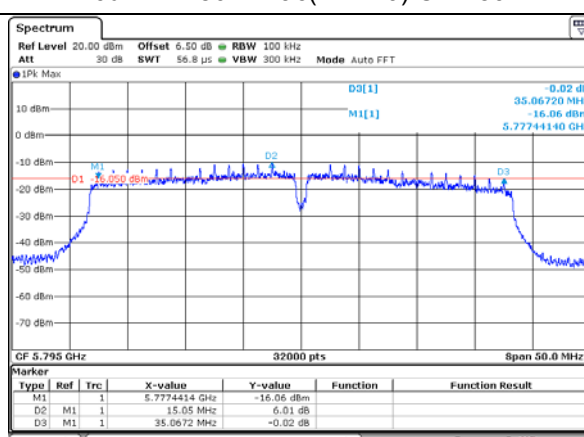
26dB BW 802.11ac(VHT40) CH 134



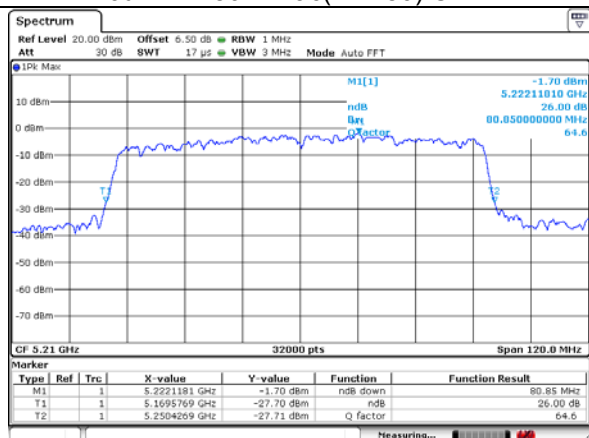
6dB BW 802.11ac(VHT40) CH 151



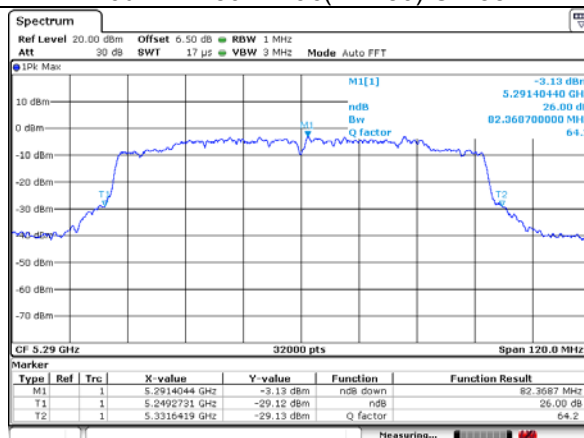
6dB BW 802.11ac(VHT40) CH 159



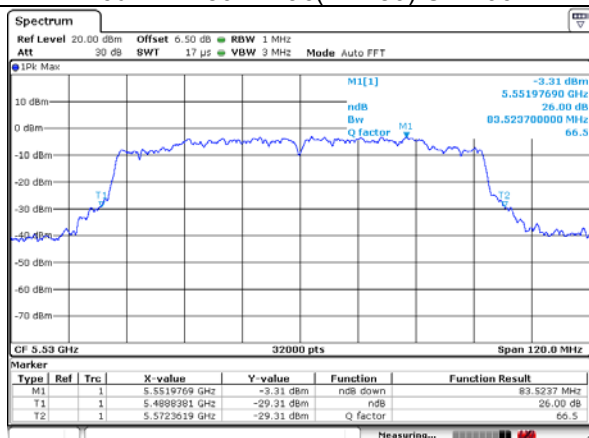
26dB BW 802.11ac(VHT80) CH 42



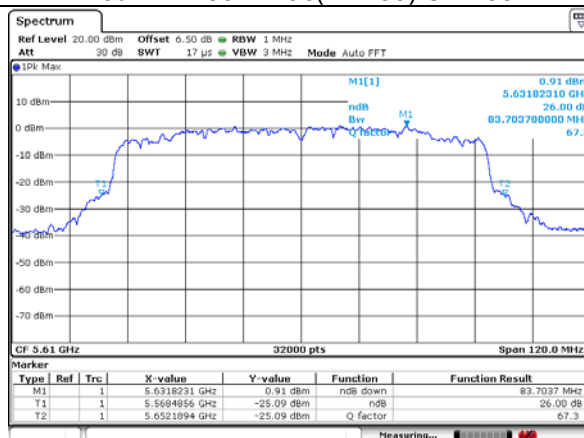
26dB BW 802.11ac(VHT80) CH 58



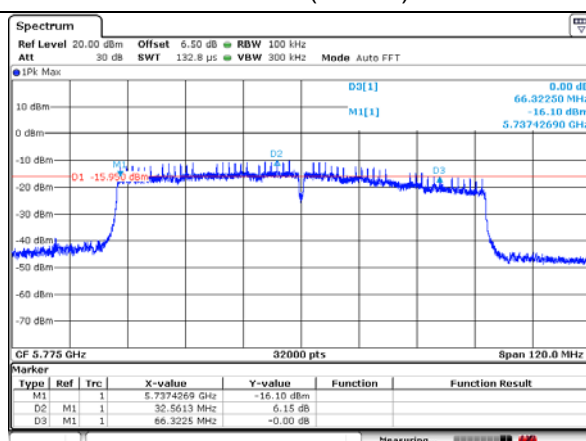
26dB BW 802.11ac(VHT80) CH 106



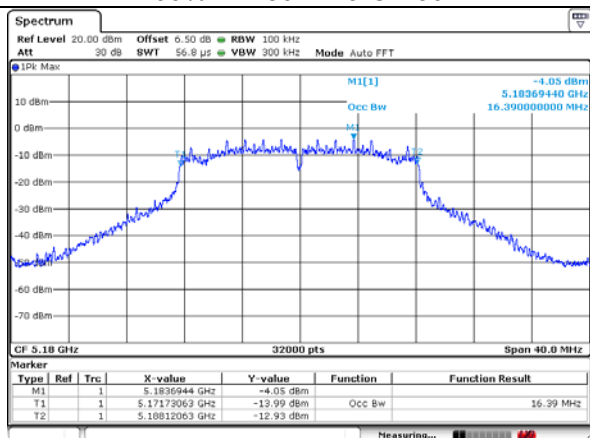
26dB BW 802.11ac(VHT80) CH 138



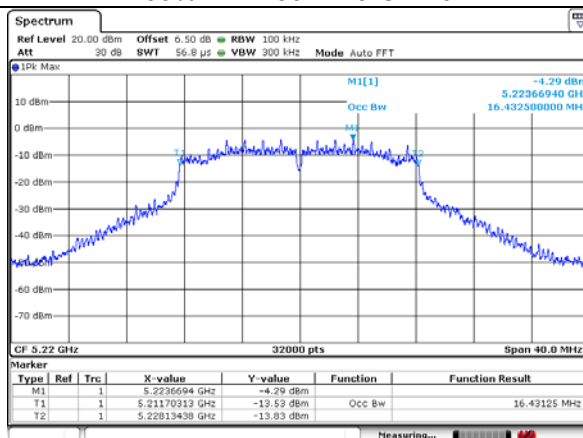
6dB BW 802.11ac(VHT80) CH 155



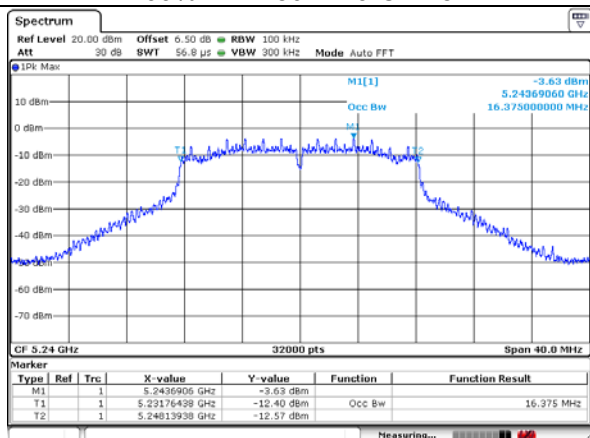
99% BW 802.11a CH 36



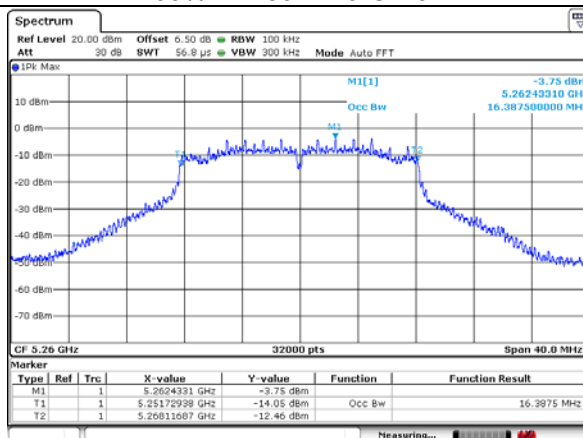
99% BW 802.11a CH 40



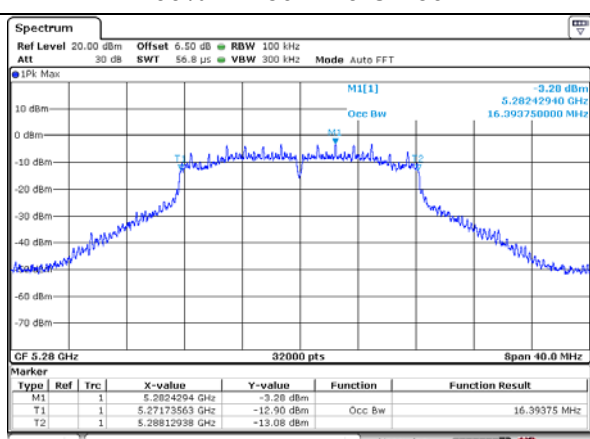
99% BW 802.11a CH 48



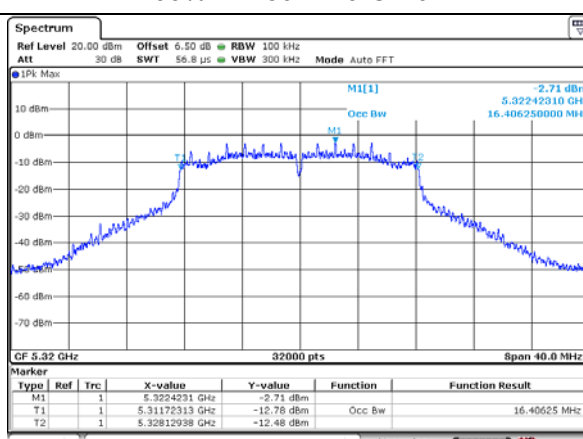
99% BW 802.11a CH 52



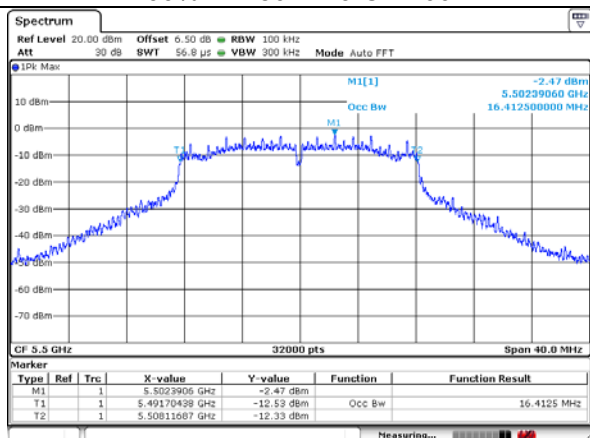
99% BW 802.11a CH 56



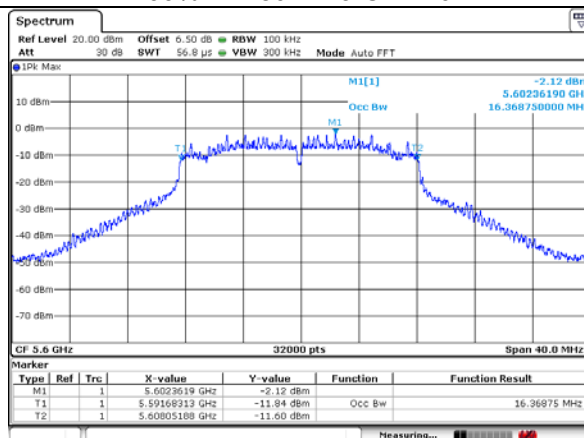
99% BW 802.11a CH 64



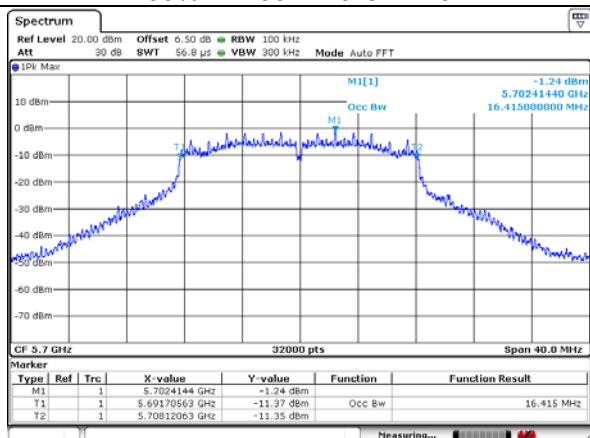
99% BW 802.11a CH 100



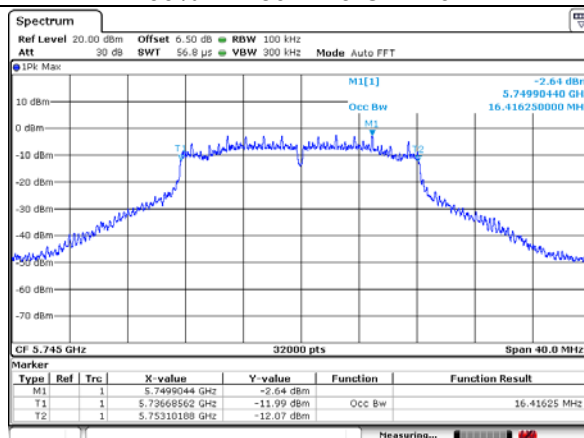
99% BW 802.11a CH 120



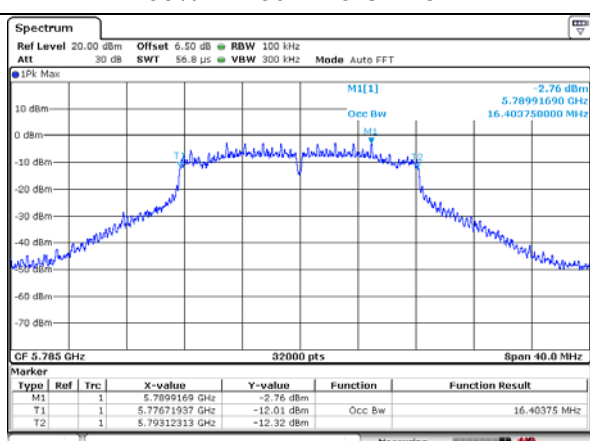
99% BW 802.11a CH 140



99% BW 802.11a CH 149



99% BW 802.11a CH 157



99% BW 802.11a CH 165

