

FCC RADIO TEST REPORT

For

FCC ID: O86-FLEX10AND

IC: 10591A-FLEX10AND

Report Reference No..... : 19EFAS11085 3491

Date of issue..... : 2019-11-14

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:

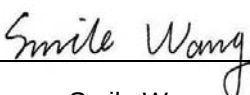
Test item description..... : 10.1" Tablet Computer With Rugged Protective Case

Trade Mark : Commercial Markets

Model/Type reference : FLEX10AND

Ratings..... : INPUT: 100-240V~ 50/60Hz 0.5A, Output: DC5V 2.0A
DC 3.7V 6000mAh Li-poly Battery

Responsible Engineer :


Smile Wang

Authorized Signatory:

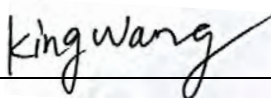

King Wang

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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	:	FLEX10AND
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:	19EFAS11085 3491		
Date of Test:	2019-10-10 To 2019-11-14	Date of Report:	2019-11-14

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	: FLEX10AND
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 0.5A, Output: DC5V 2.0A DC 3.7V 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
HVIN	: FLEX10AND
FVIN	: Flex10AND_1.00

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

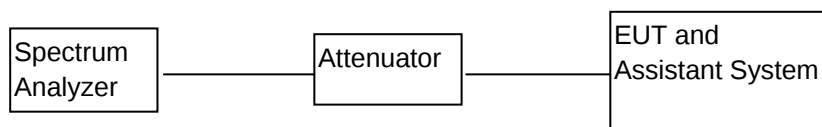
Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

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.

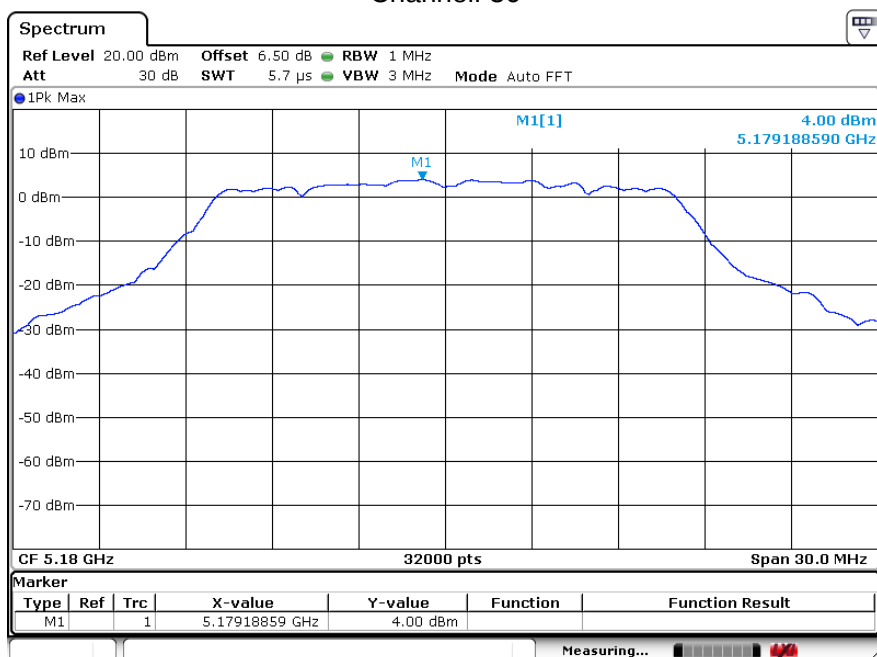
Note: As a practical matter, it is recommended to use reduced RBW of 100 KHz for the sections 5.c) and 5.d) above, since RBW=100 KHz is available on nearly all spectrum analyzers.

3.5. TEST RESULT

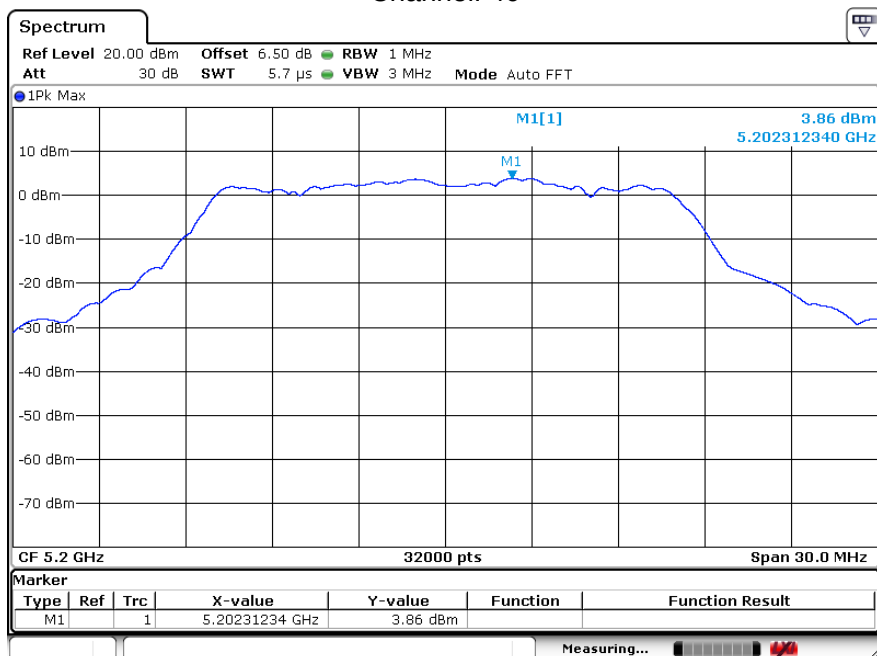
CH. No.	Frequency	Power Density ANT A (dBm/MHz)	Power Density ANT B (dBm/MHz)	total power density (dBm/MHz)	Limit (dBm/MHz)	Result
TX 802.11a Mode						
CH36	5180	4.00	--	--	11	Pass
CH40	5200	3.86	--	--	11	Pass
CH48	5240	4.55	--	--	11	Pass
CH 52	5260	3.84	--	--	11	Pass
CH 56	5280	4.26	--	--	11	Pass
CH 64	5320	4.90	--	--	11	Pass
CH 100	5500	2.07	--	--	11	Pass
CH 120	5600	2.06	--	--	11	Pass
CH 140	5700	1.43	--	--	11	Pass
CH 149	5745	3.31	--	--	30	Pass
CH 157	5785	2.47	--	--	30	Pass
CH 165	5825	0.74	--	--	30	Pass
TX 802.11n20 Mode						
CH36	5180	2.77	--	--	11	Pass
CH40	5200	2.99	--	--	11	Pass
CH48	5240	3.07	--	--	11	Pass
CH 52	5260	3.68	--	--	11	Pass
CH 56	5280	4.35	--	--	11	Pass
CH 64	5320	4.73	--	--	11	Pass
CH 100	5500	2.21	--	--	11	Pass
CH 120	5600	2.17	--	--	11	Pass
CH 140	5700	0.61	--	--	11	Pass
CH 149	5745	3.15	--	--	30	Pass
CH 157	5785	2.03	--	--	30	Pass
CH 165	5825	-0.77	--	--	30	Pass
TX 802.11n40 Mode						
CH38	5190	0.06	--	--	11	Pass
CH46	5230	0.57	--	--	11	Pass
CH 54	5270	2.21	--	--	11	Pass
CH 62	5310	3.36	--	--	11	Pass
CH 102	5510	-0.93	--	--	11	Pass
CH 110	5550	-0.67	--	--	11	Pass
CH 134	5670	3.17	--	--	11	Pass
CH151	5755	-2.44	--	--	30	Pass
CH159	5795	-4.27	--	--	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	1.42	--	--	11	Pass
CH 40	5200	1.51	--	--	11	Pass
CH 48	5240	1.89	--	--	11	Pass
CH 52	5260	3.66	--	--	11	Pass
CH 56	5280	4.12	--	--	11	Pass
CH 64	5320	4.72	--	--	11	Pass
CH 100	5500	1.76	--	--	11	Pass
CH 120	5600	2.10	--	--	11	Pass
CH 140	5700	0.94	--	--	11	Pass
CH 149	5745	2.79	--	--	30	Pass
CH 157	5785	1.64	--	--	30	Pass
CH 165	5825	0.64	--	--	30	Pass
TX 802.11 ac(VHT40) Mode						
CH38	5190	-0.88	--	--	11	Pass
CH46	5230	-0.47	--	--	11	Pass
CH 54	5270	2.16	--	--	11	Pass
CH 62	5310	2.93	--	--	11	Pass
CH 102	5510	-0.38	--	--	11	Pass
CH 110	5550	-1.05	--	--	11	Pass
CH 134	5670	-2.78	--	--	11	Pass
CH 151	5755	-2.41	--	--	30	Pass
CH 159	5795	-4.34	--	--	30	Pass
TX 802.11 ac(VHT80) Mode						
CH42	5210	-3.23	--	--	11	Pass
CH 58	5290	-0.89	--	--	11	Pass
CH 106	5530	0.57	--	--	11	Pass
CH 138	5690	0.22	--	--	11	Pass
CH155	5775	-5.00	--	--	30	Pass

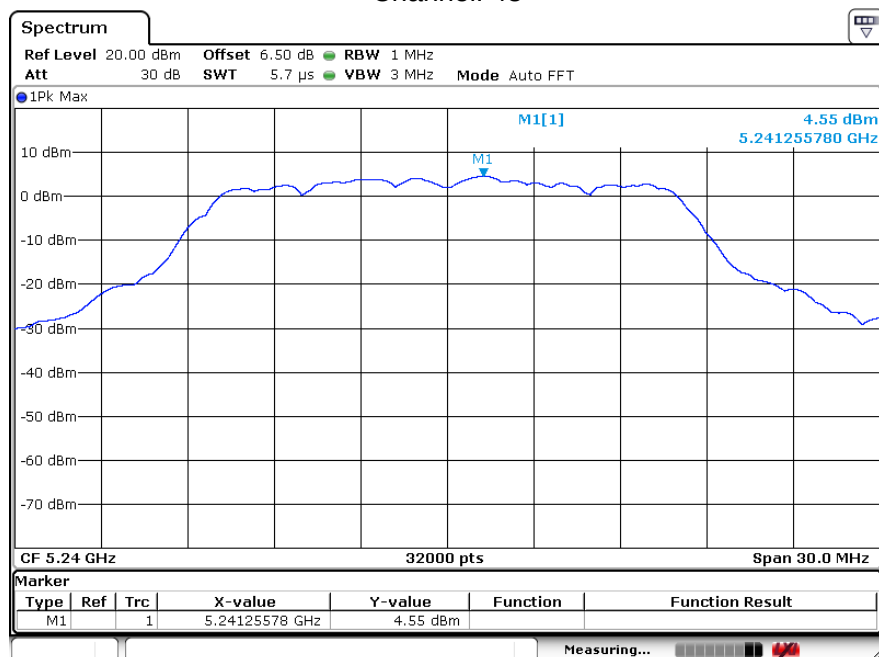
Test plots as followed:

802.11a
Channel: 36

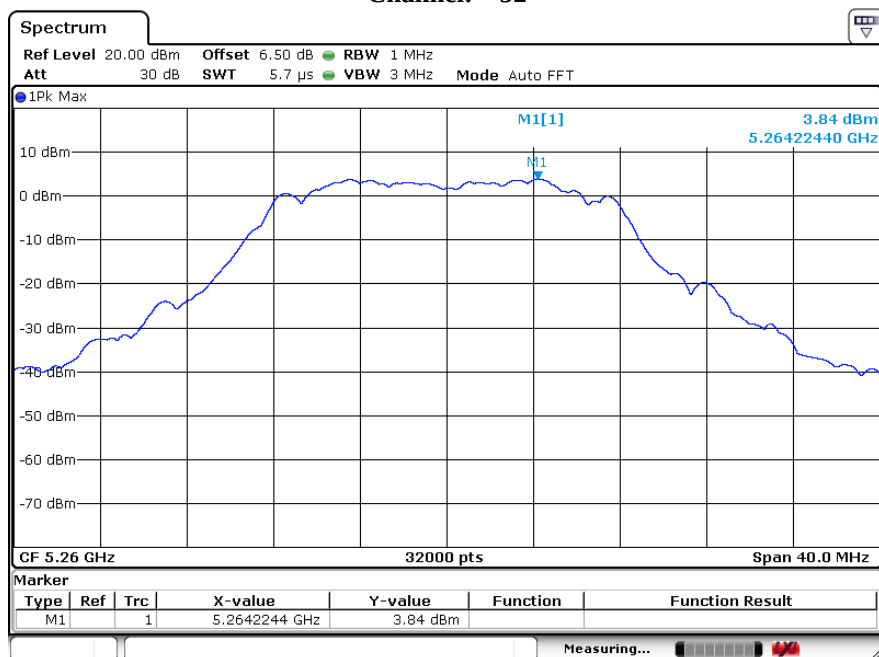
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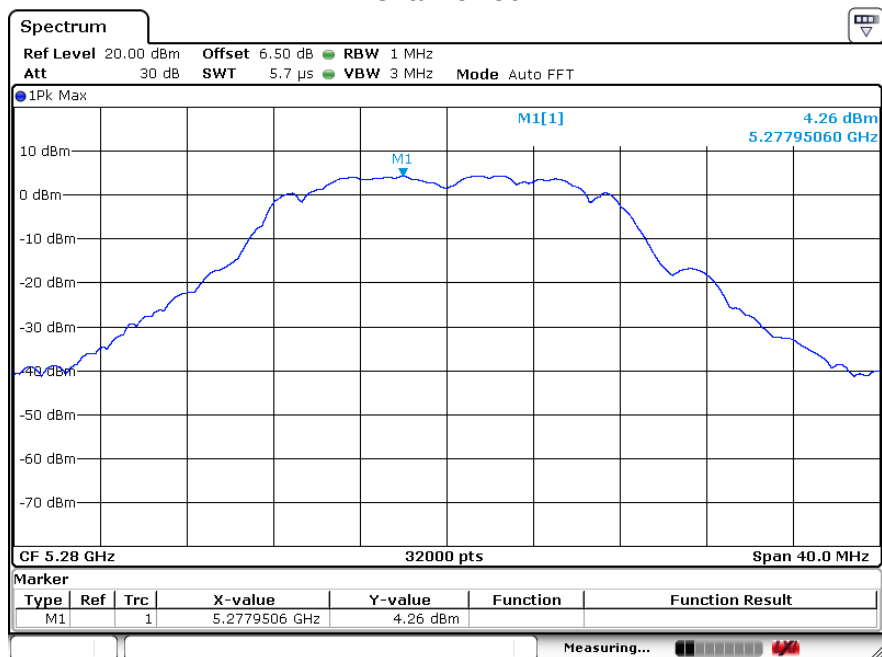
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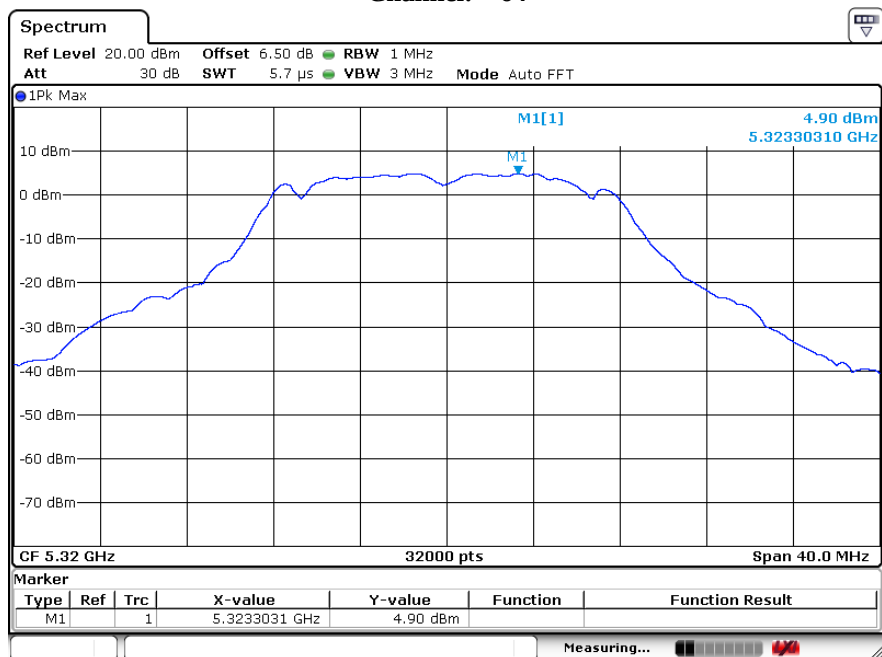
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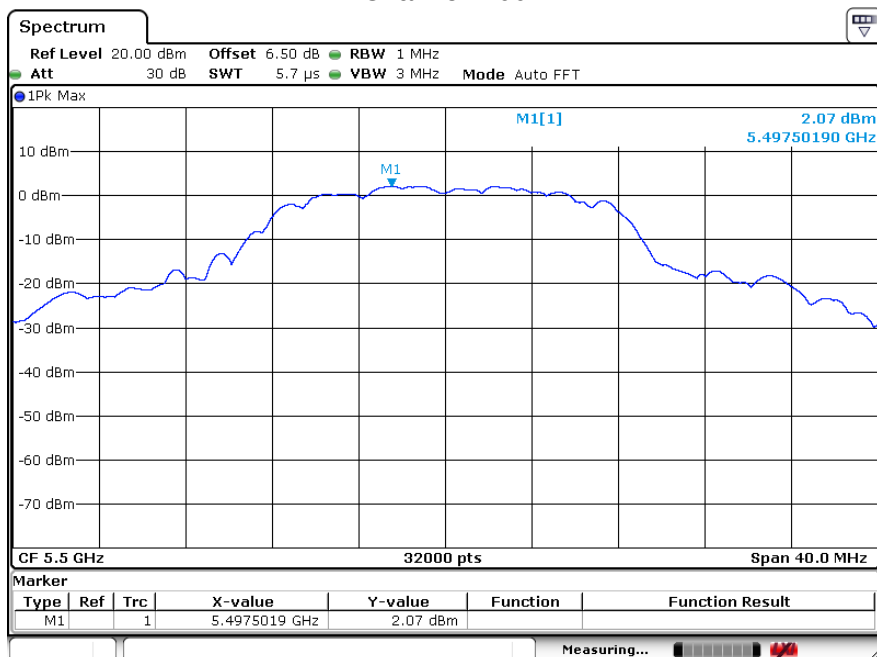
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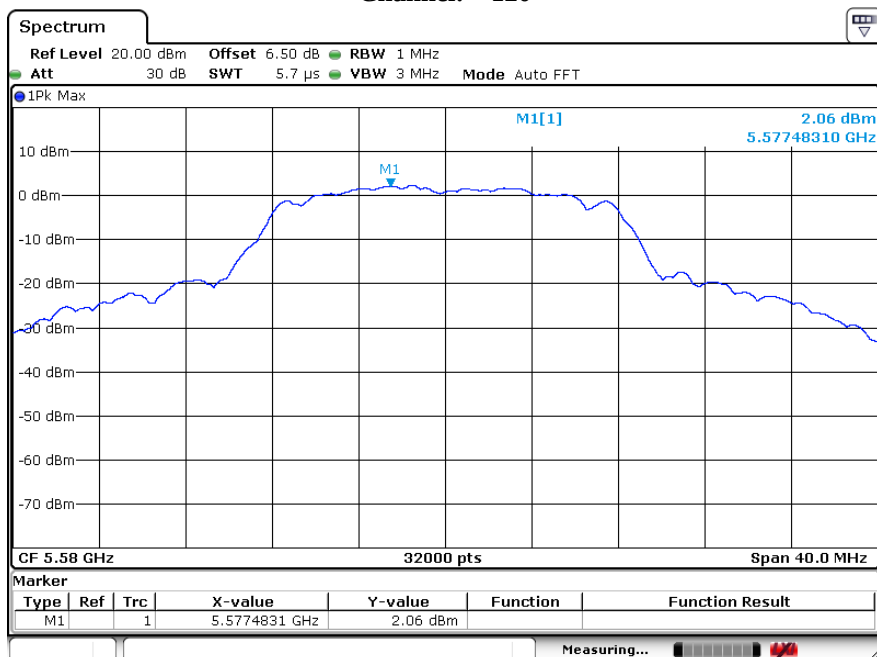
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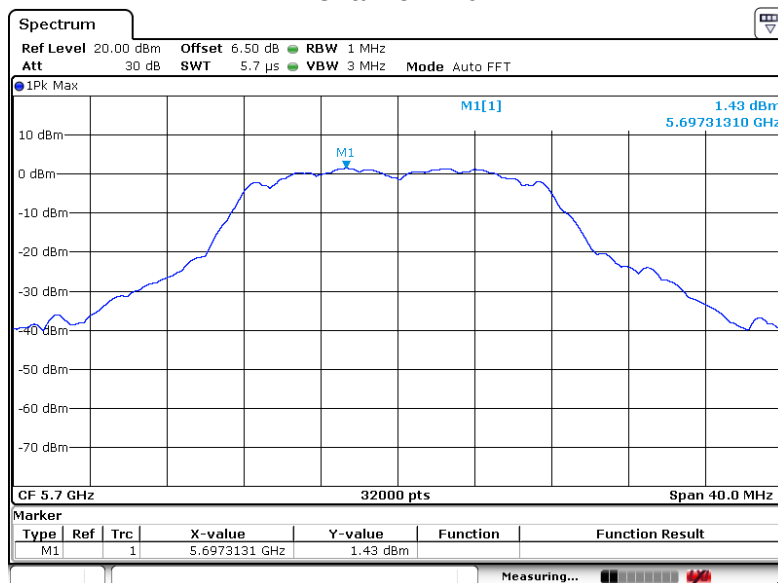
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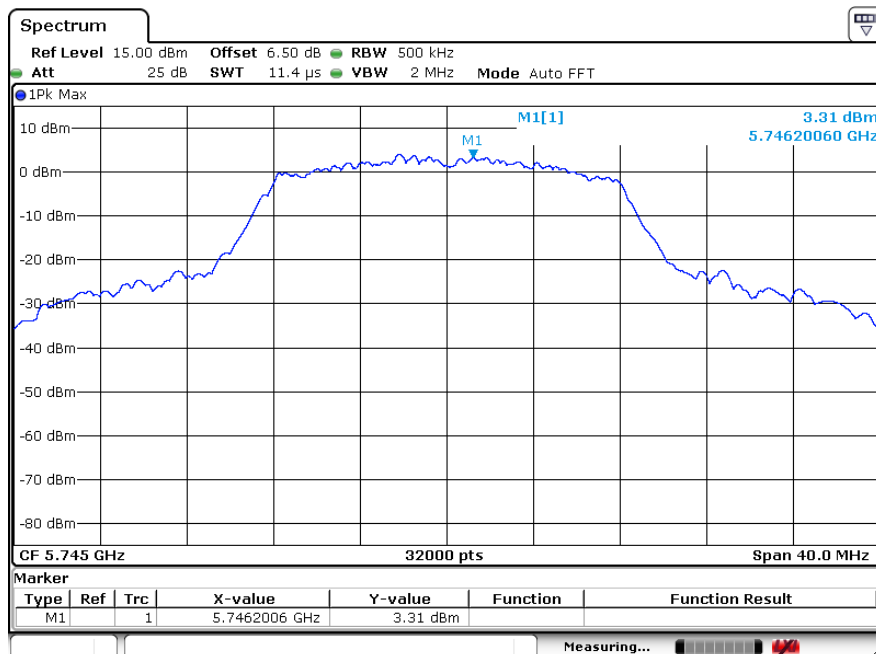
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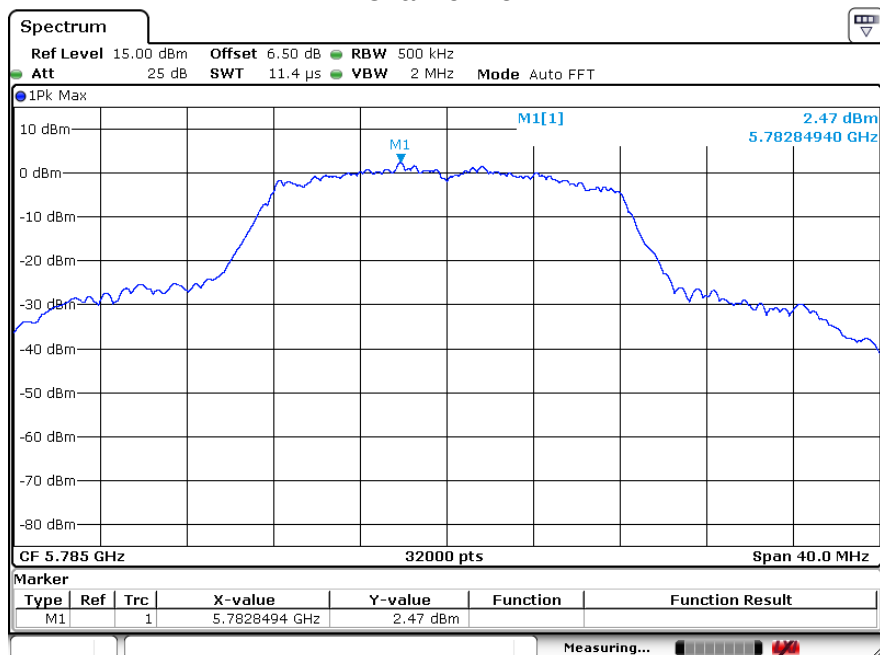
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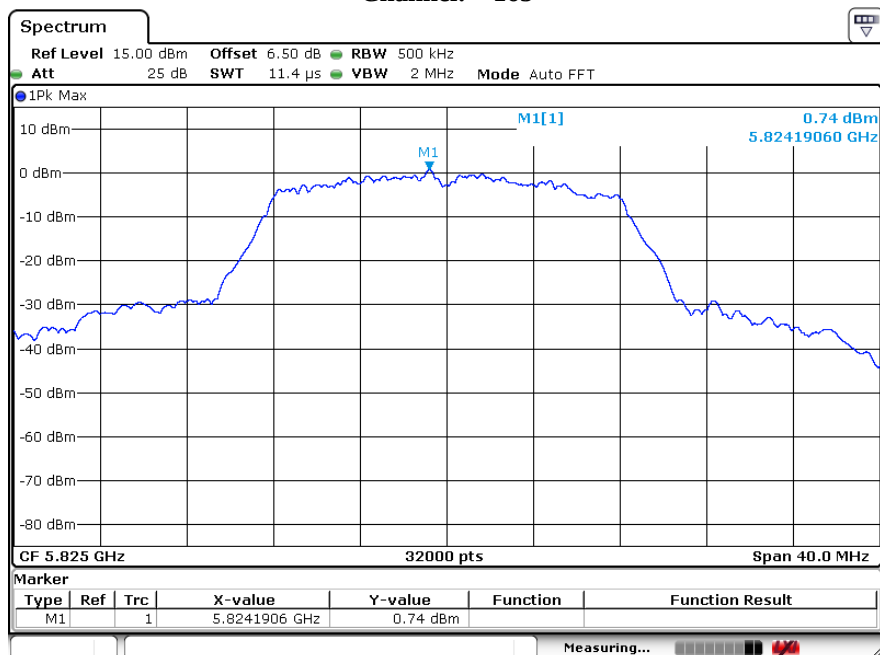
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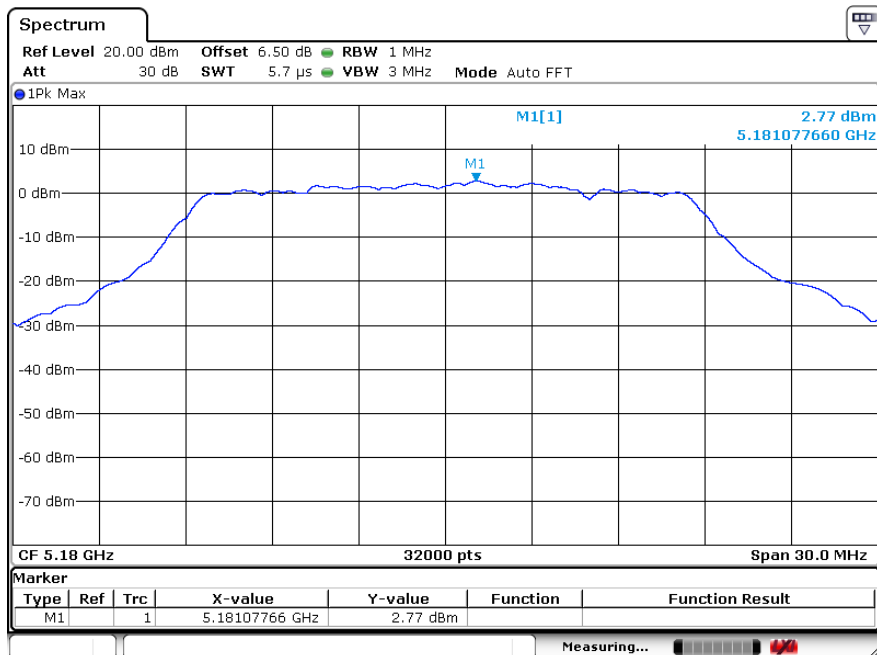


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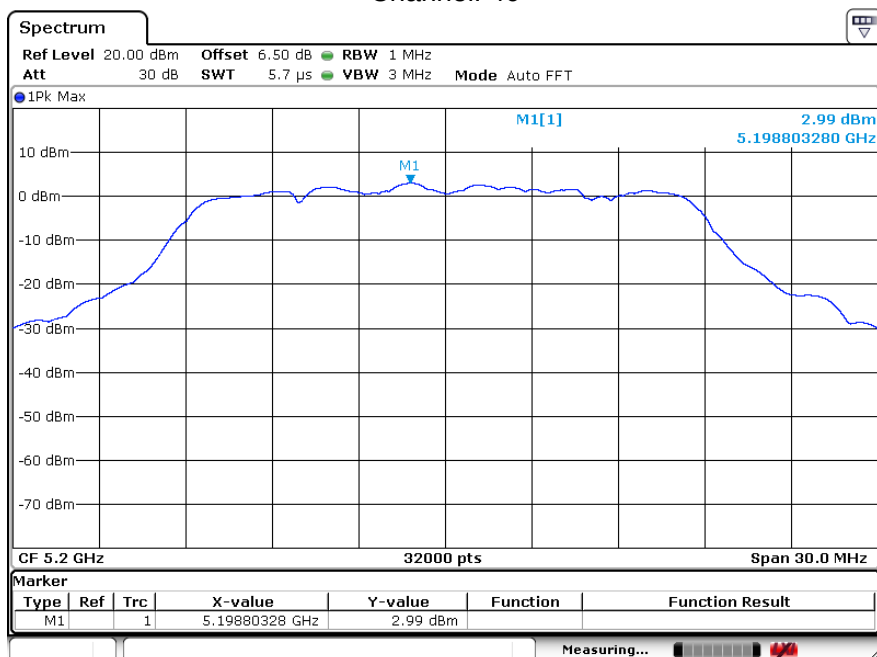


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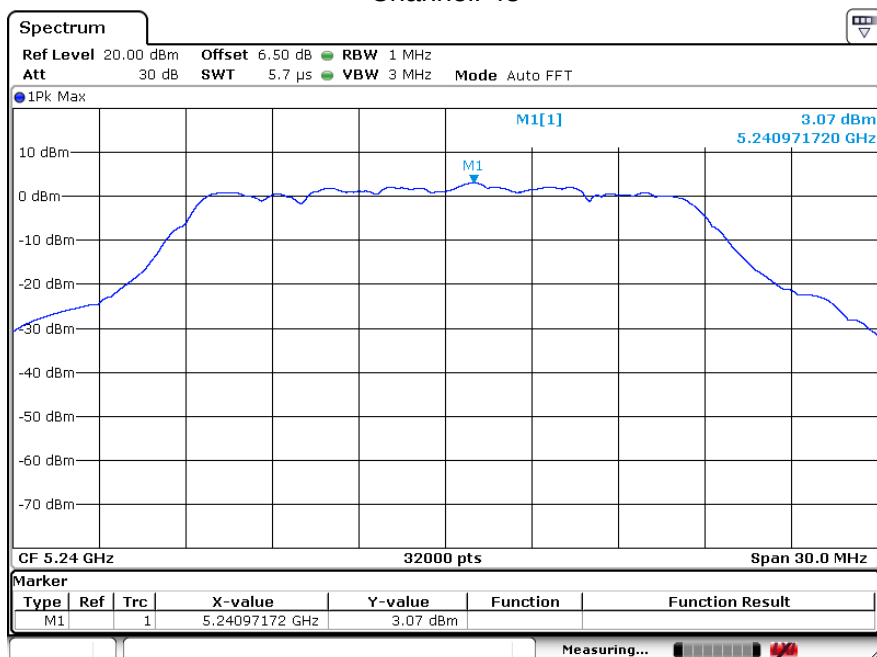


802.11n20
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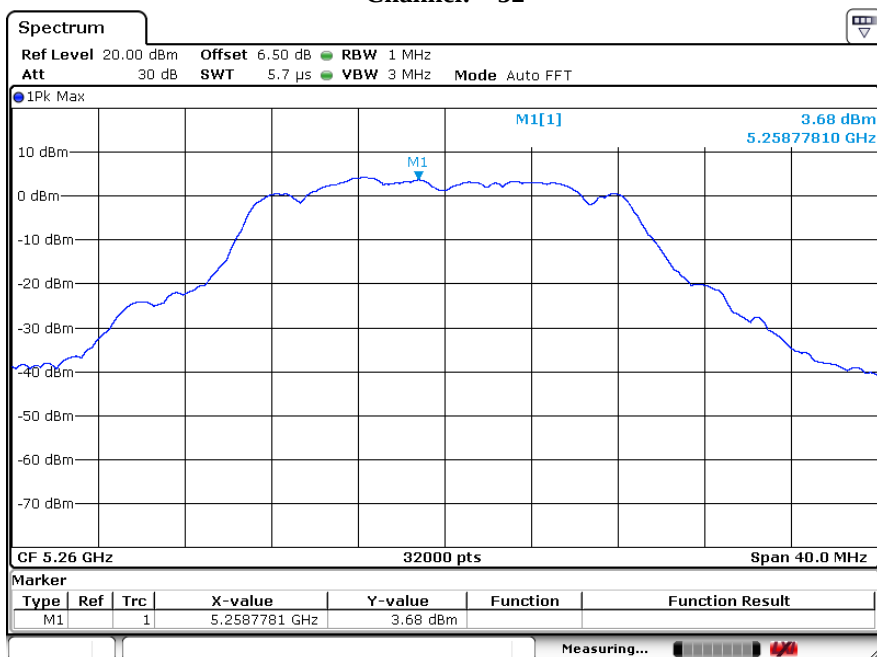
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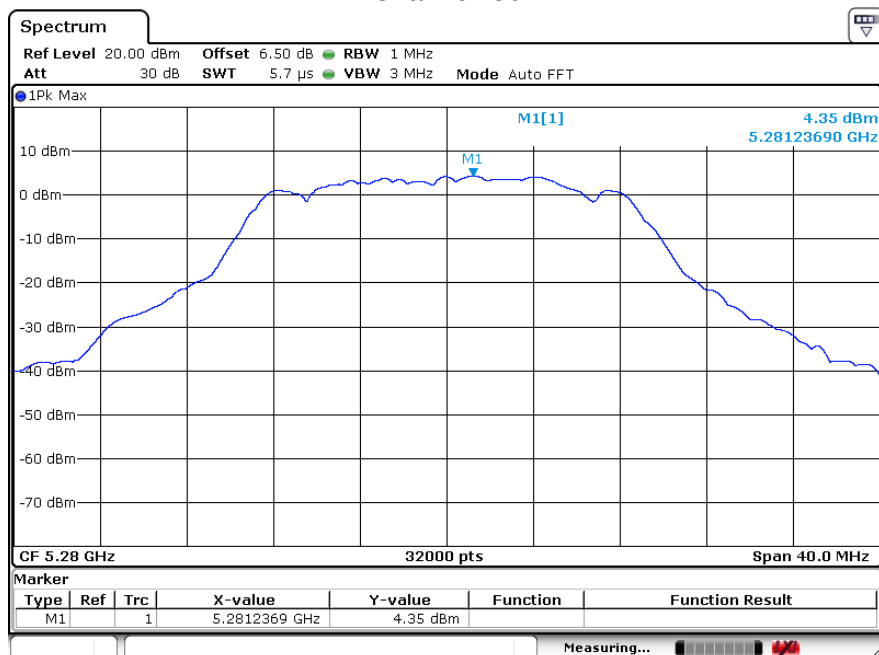
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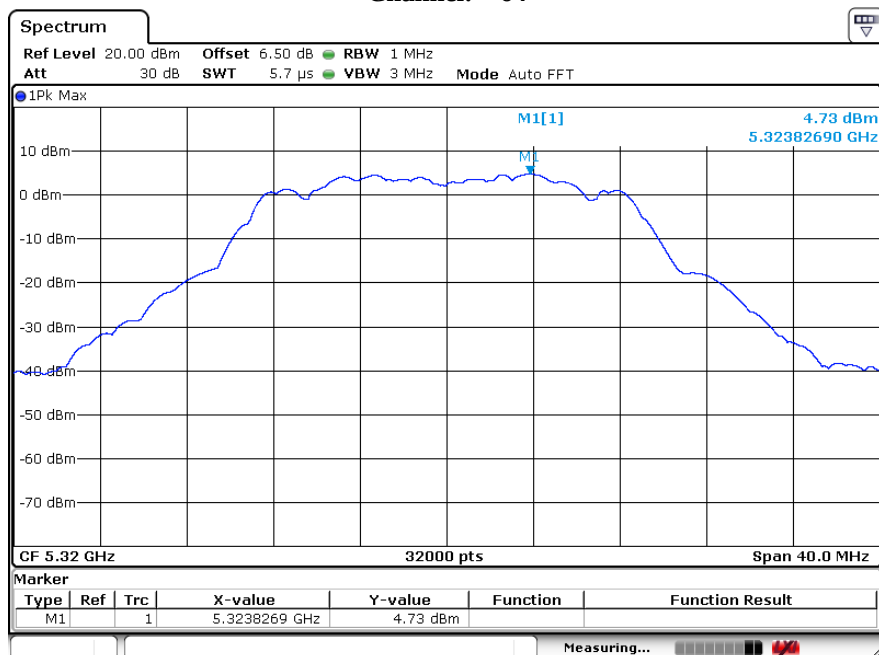
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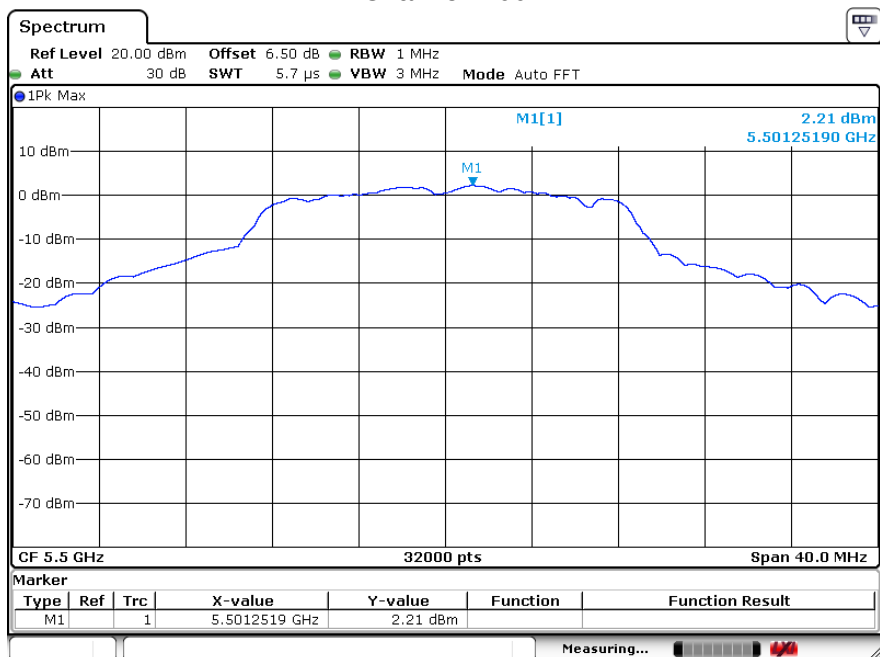
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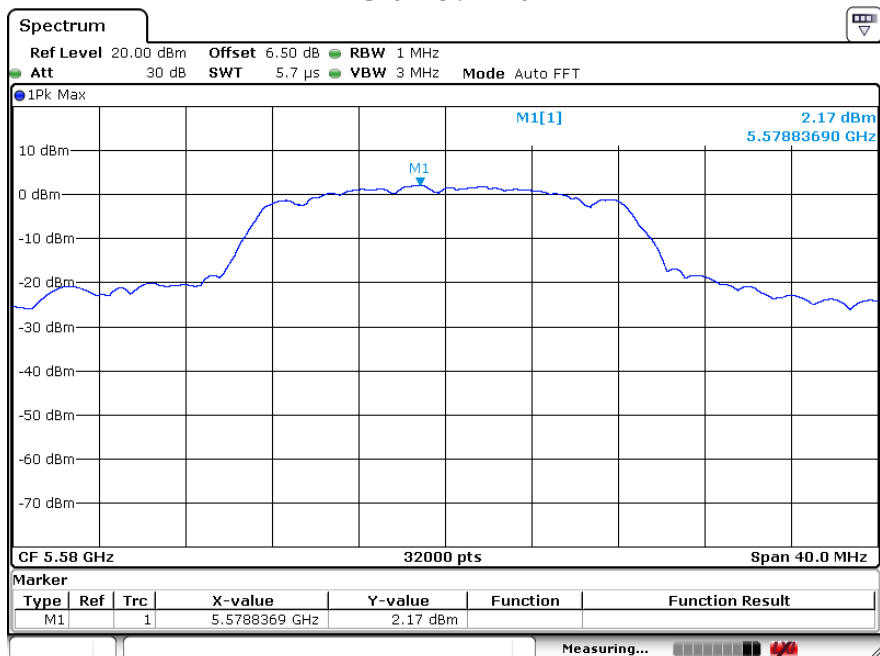
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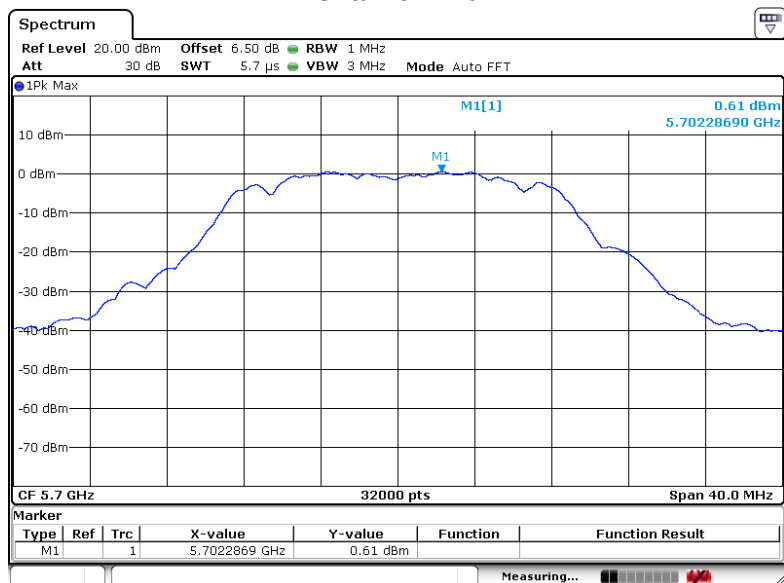
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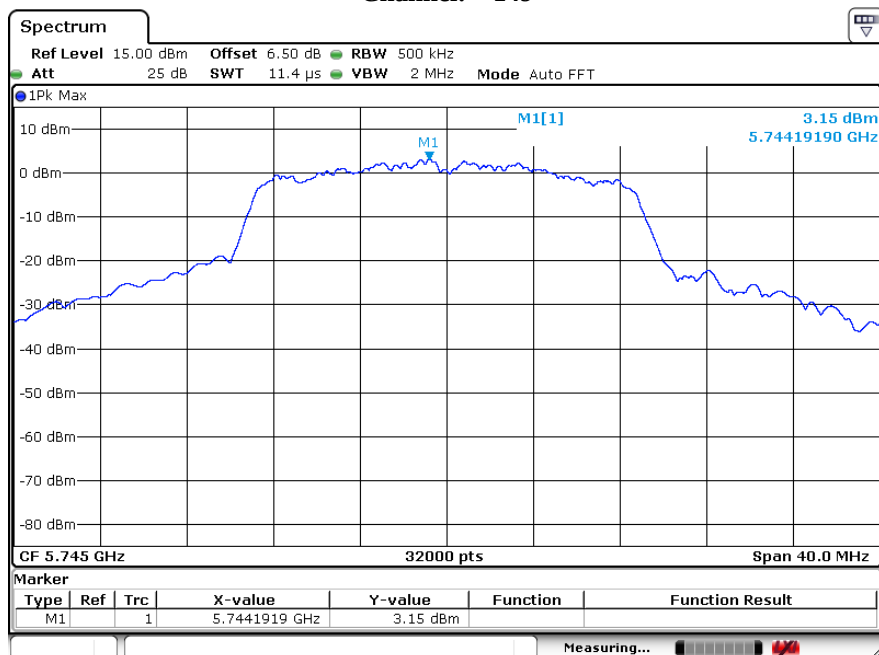
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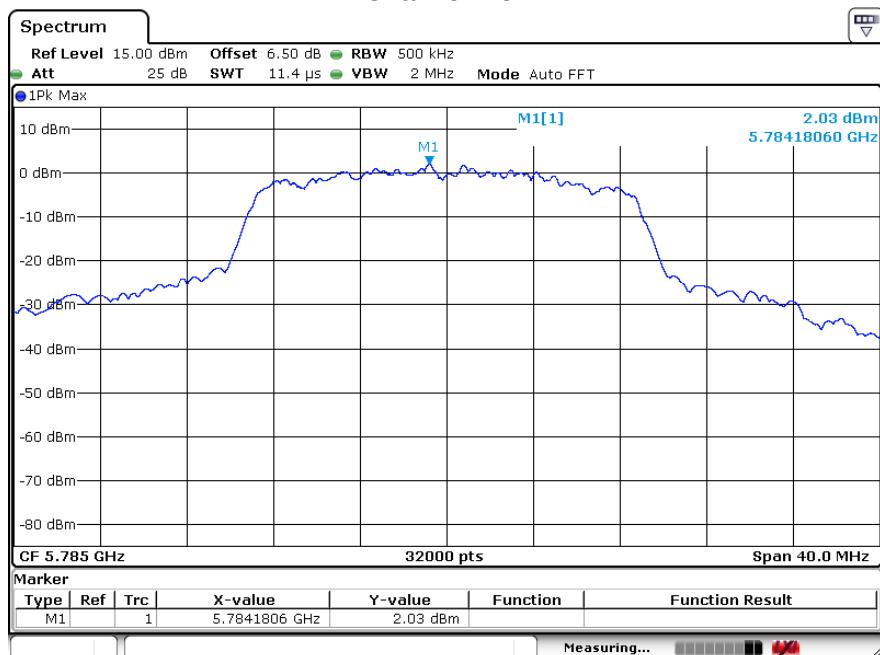
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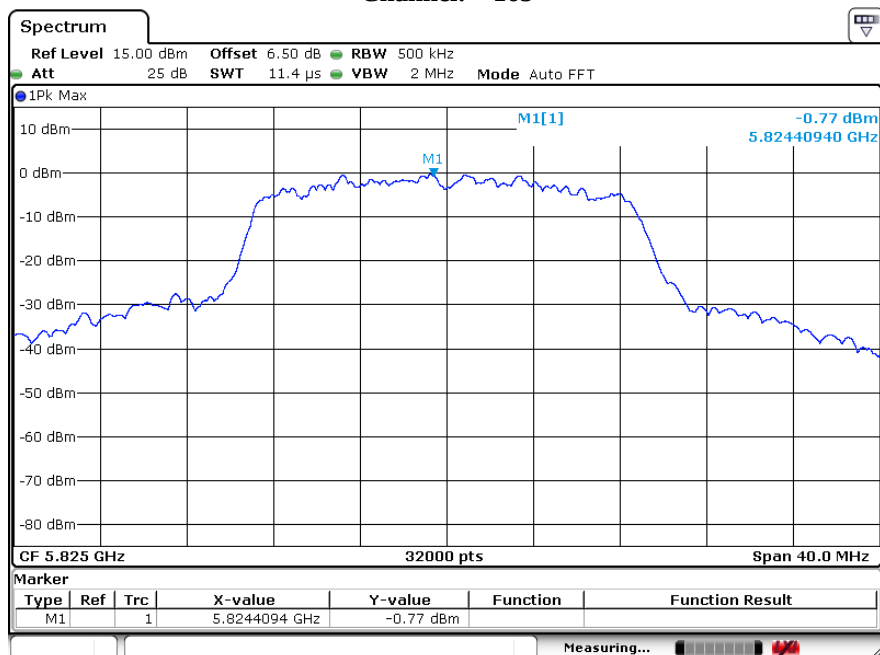
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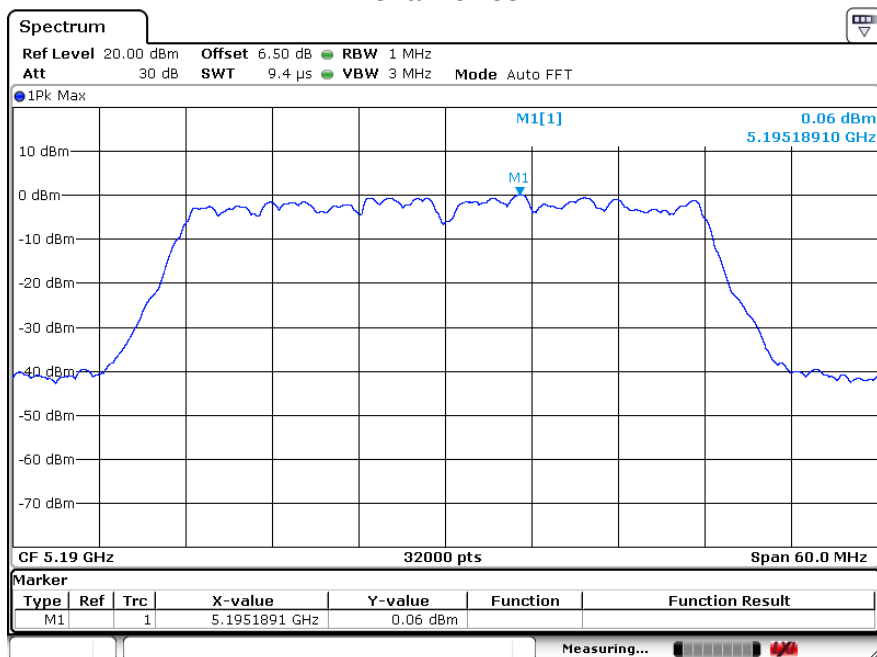
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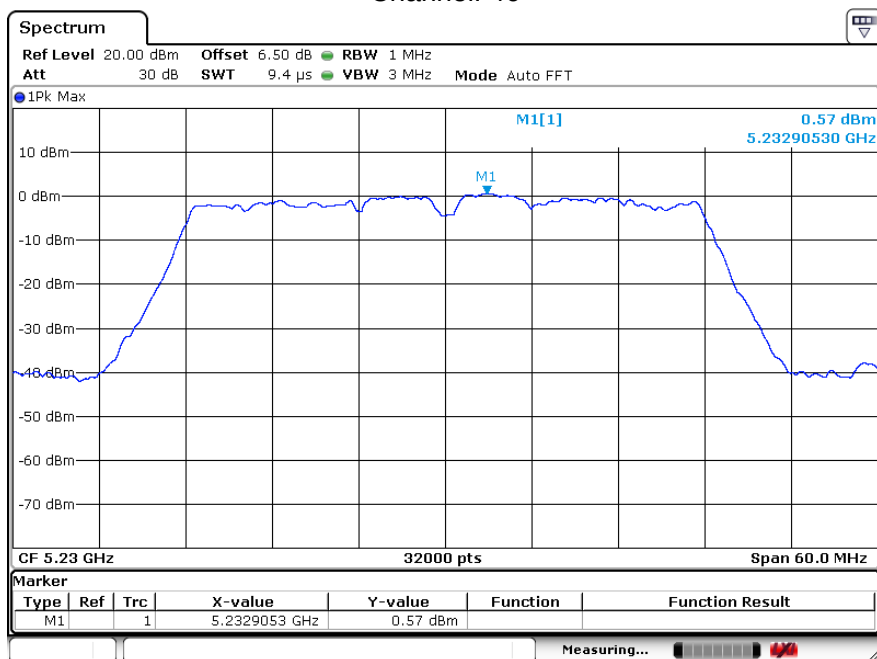
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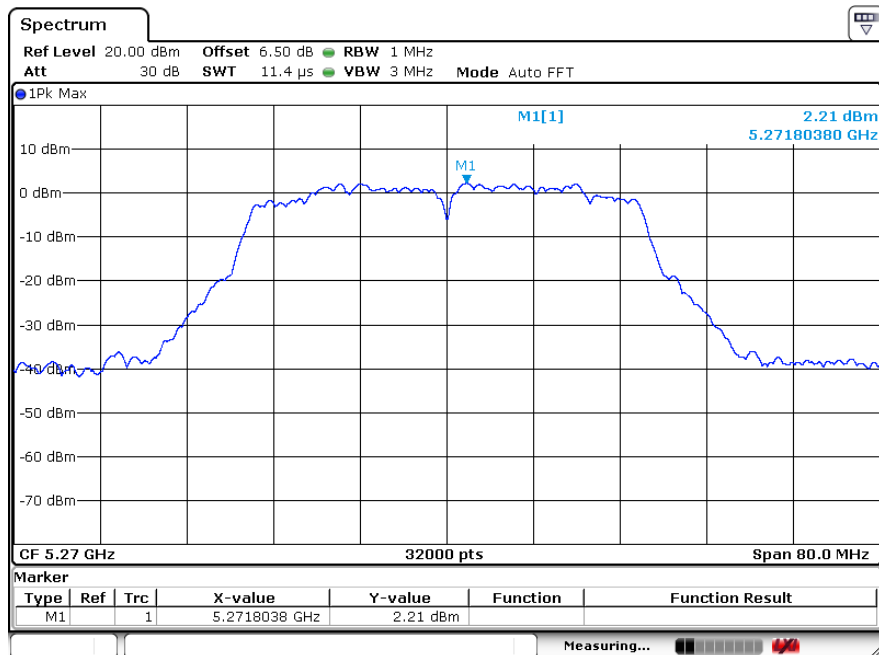


802.11n40 Channel: 38

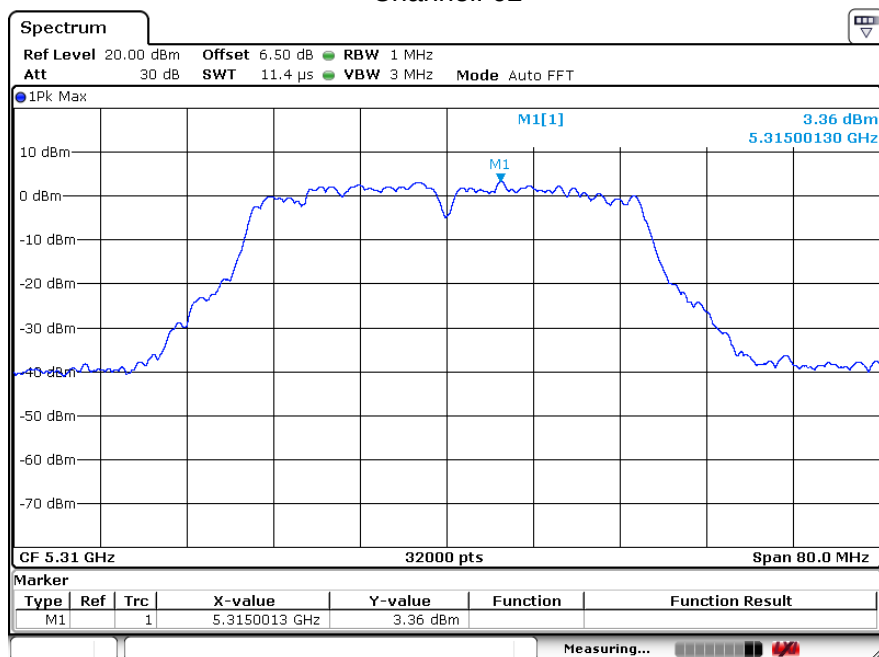


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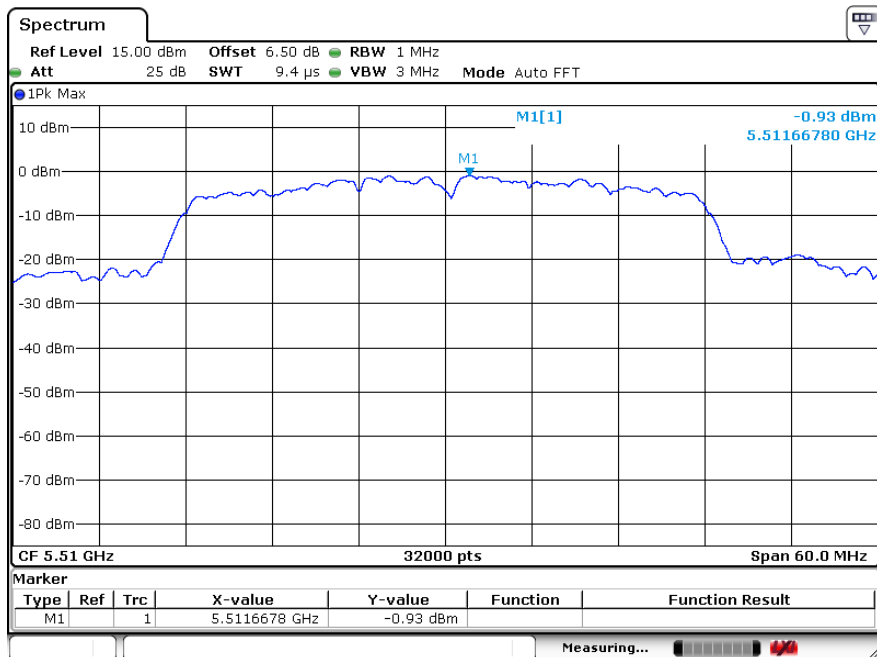


802.11n40
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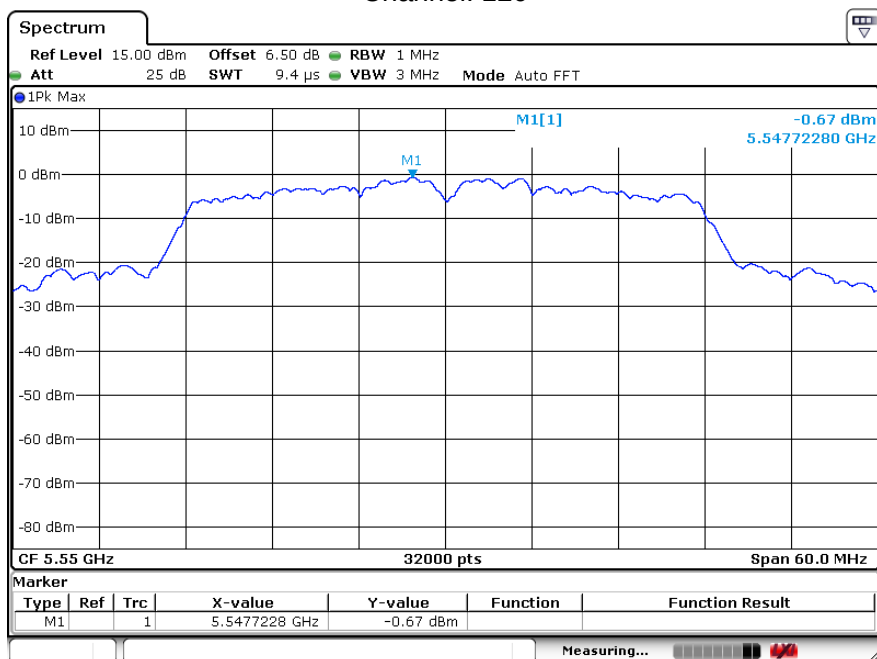
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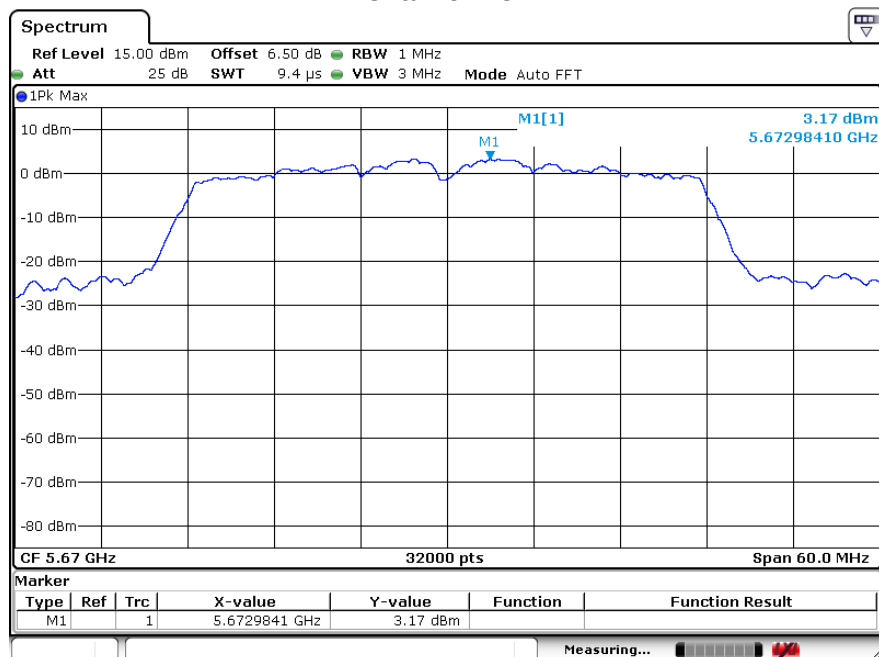
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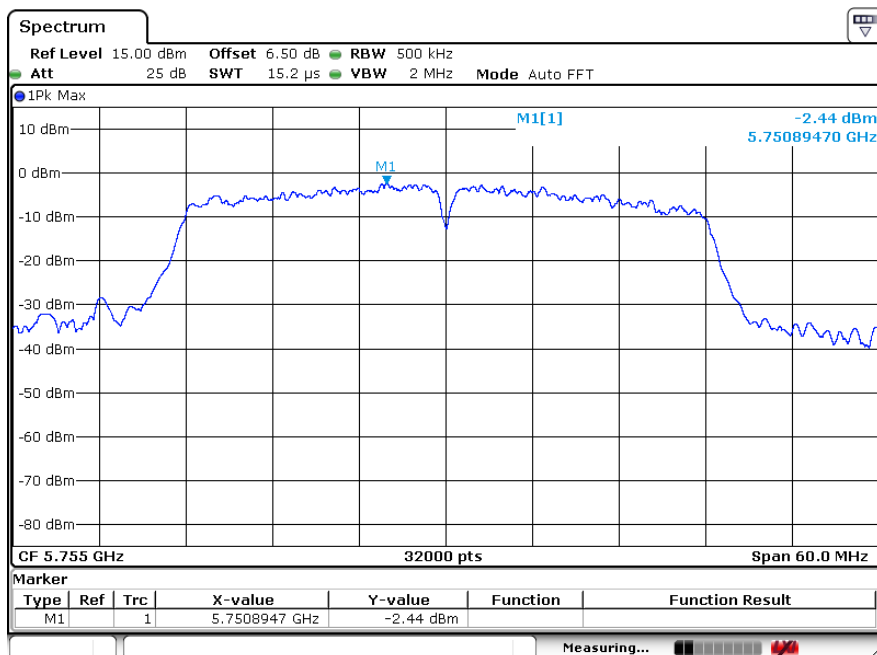
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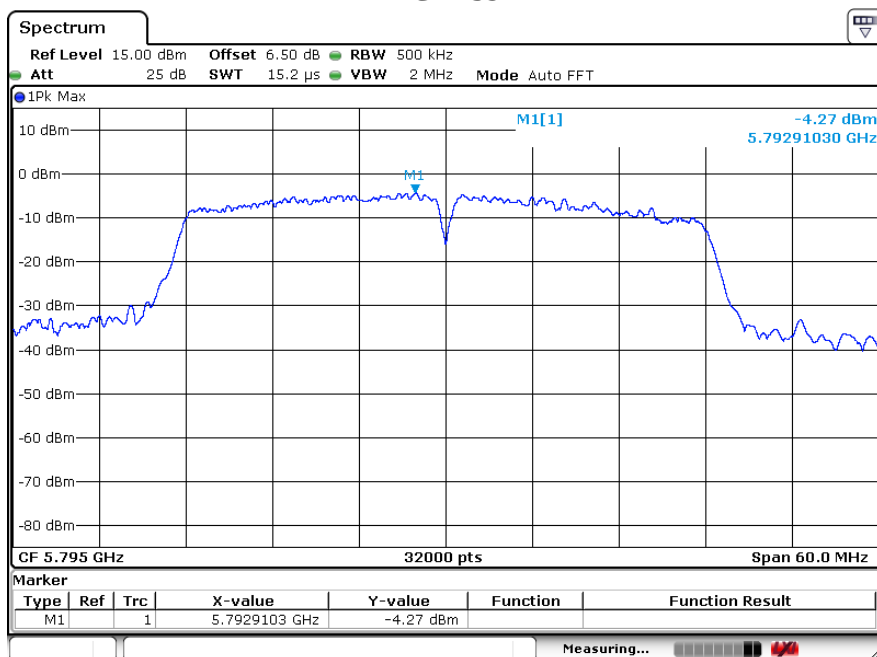
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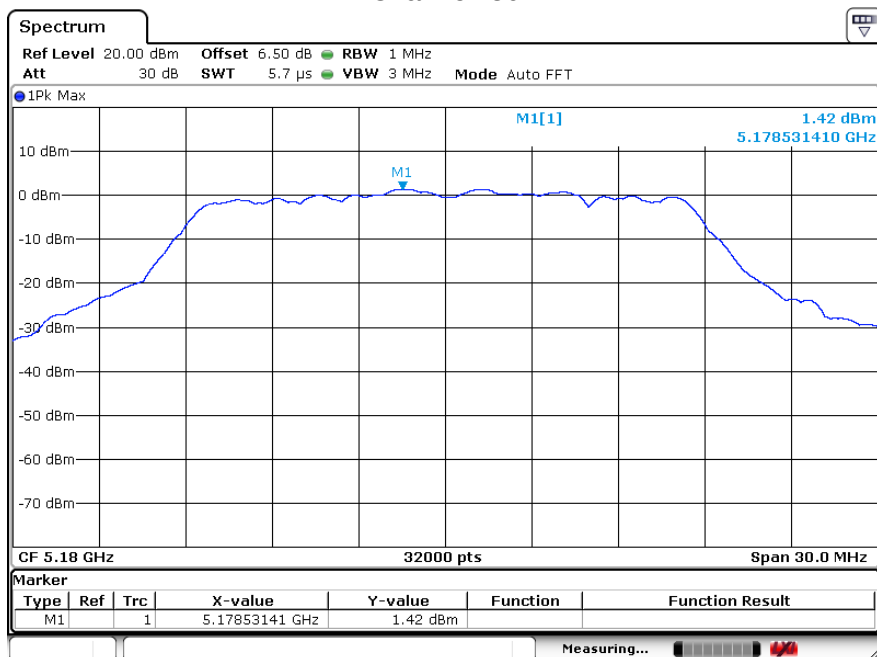


TX CH151

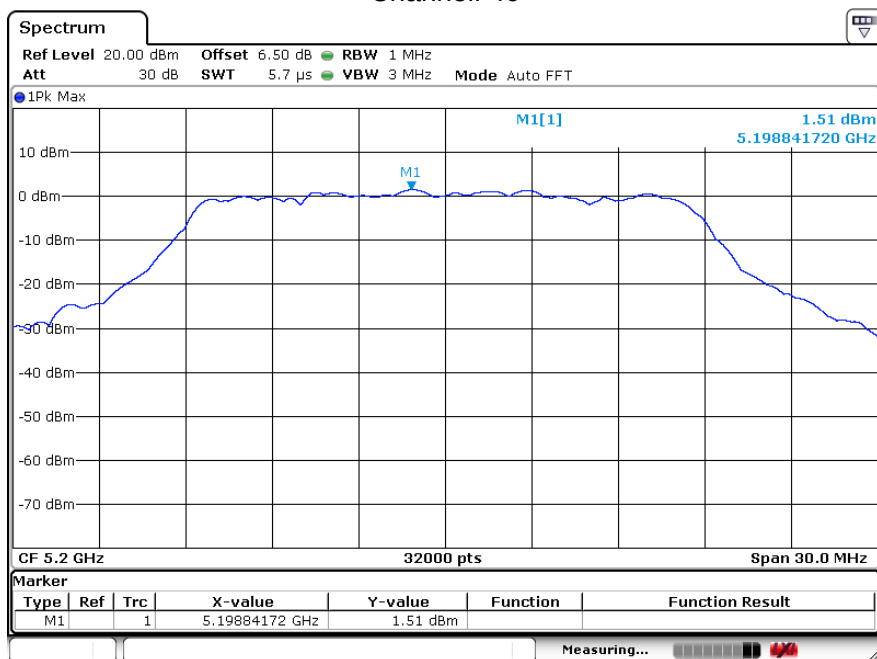


TX CH159

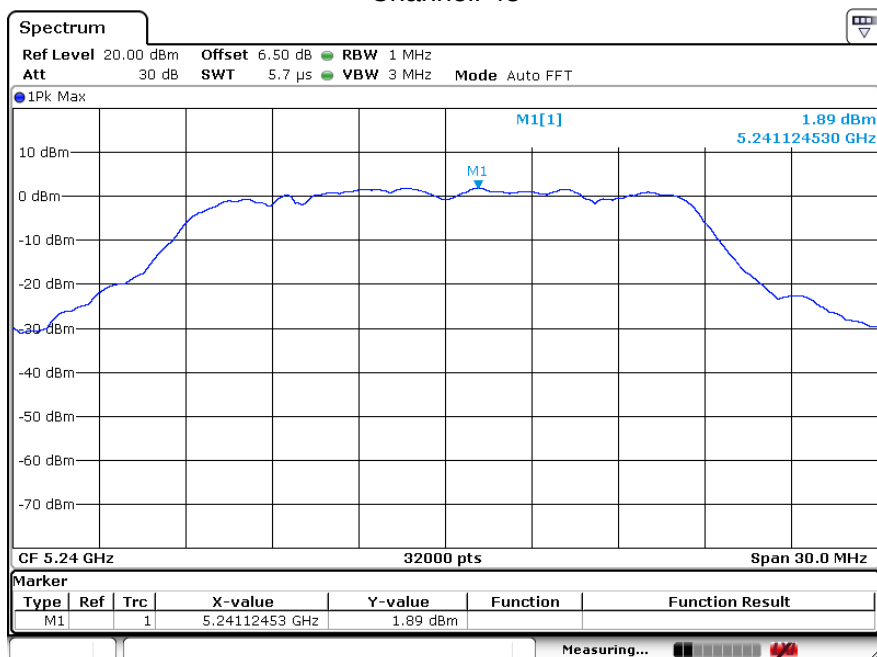


802.11ac 20
Channel: 36

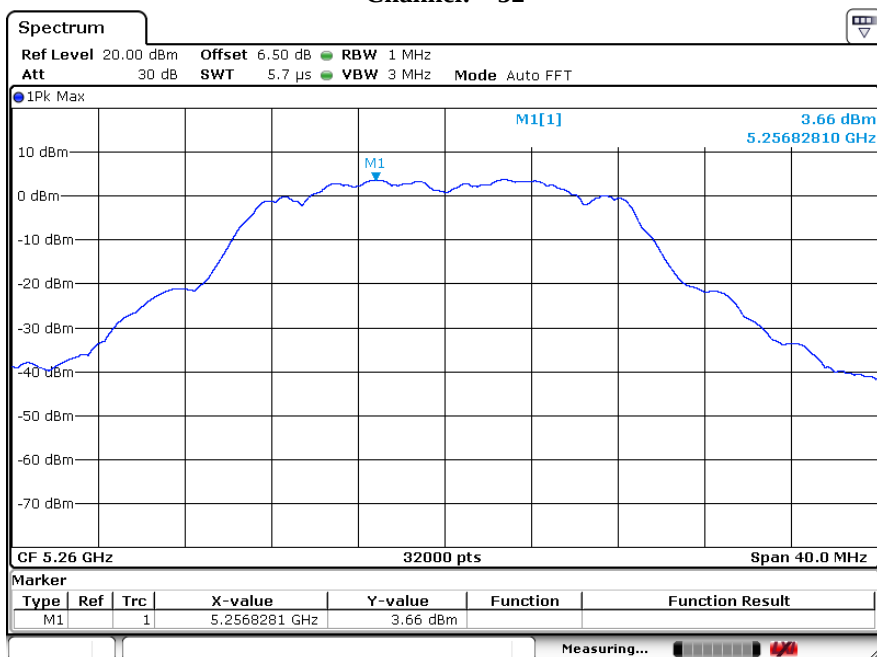
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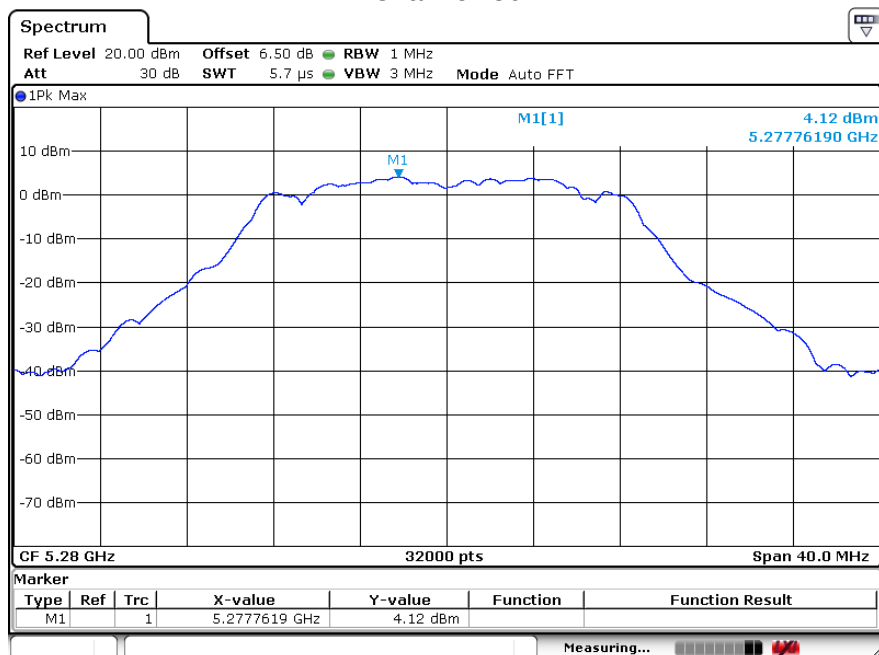
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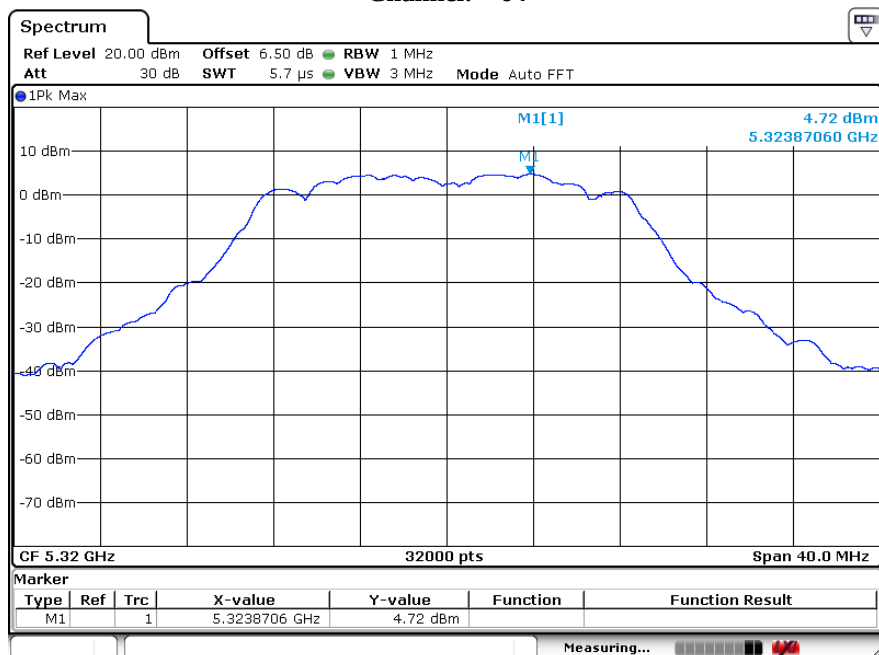
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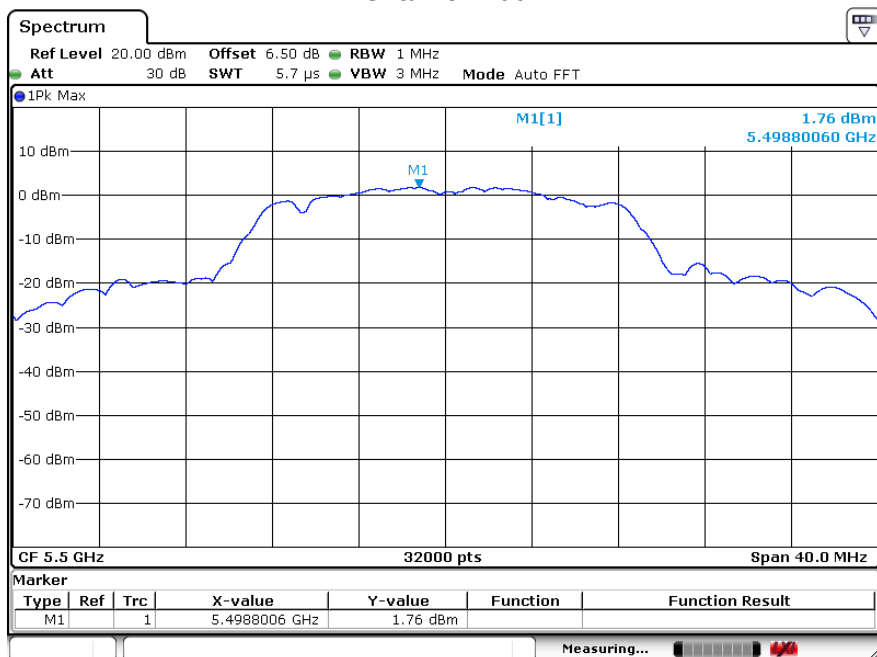
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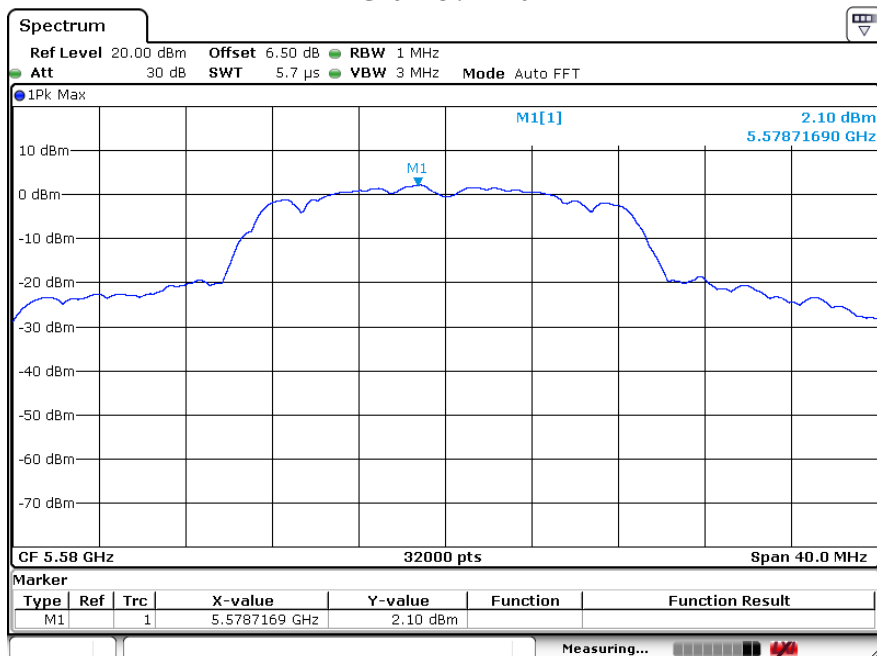
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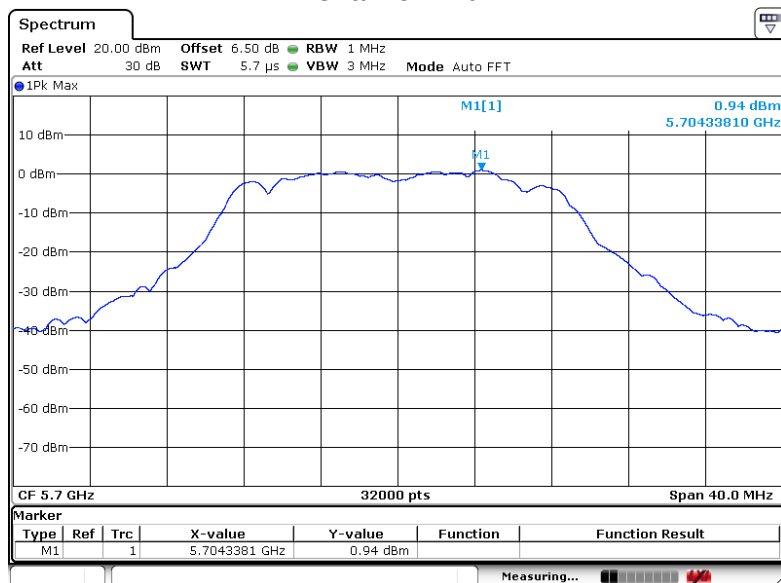
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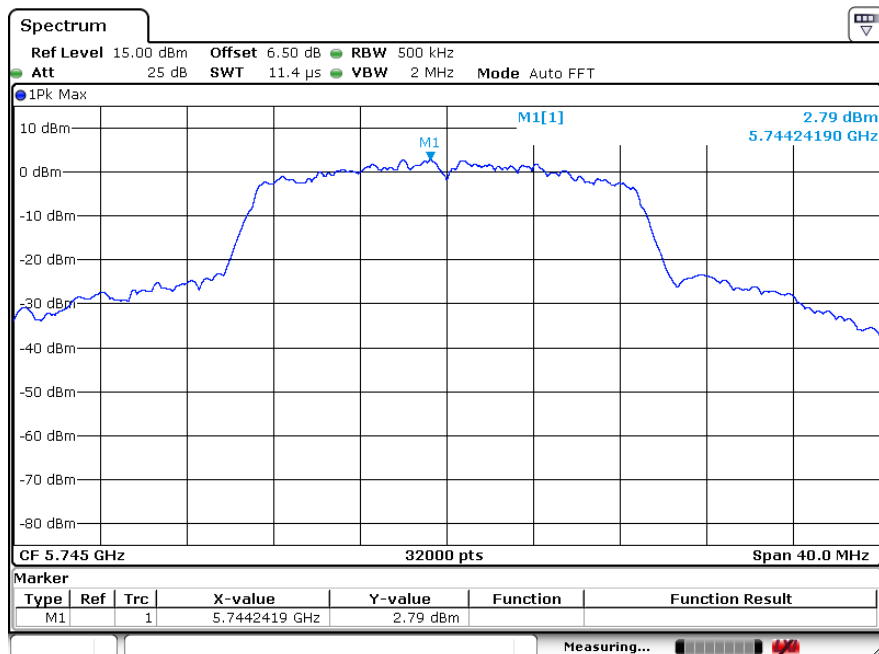
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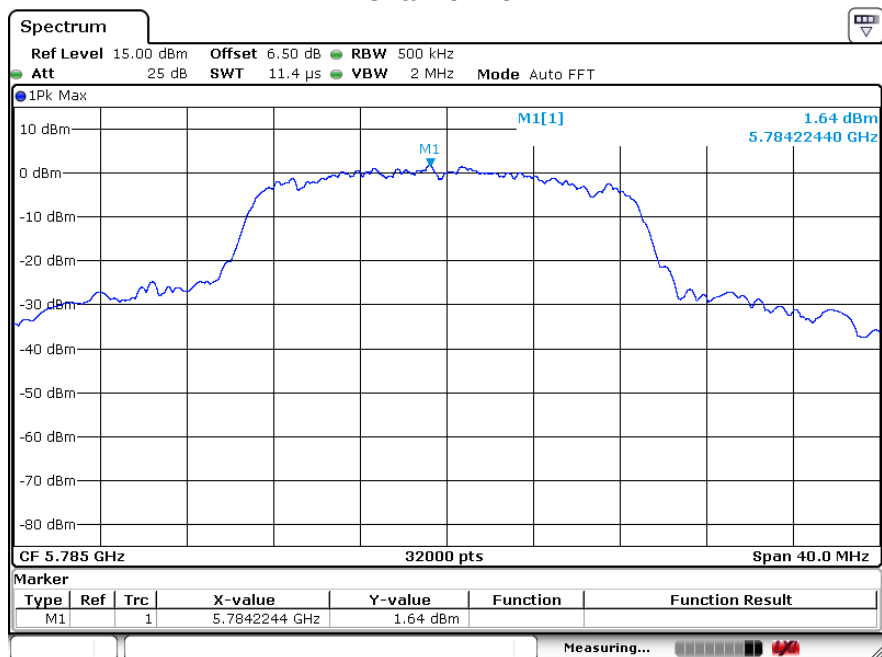
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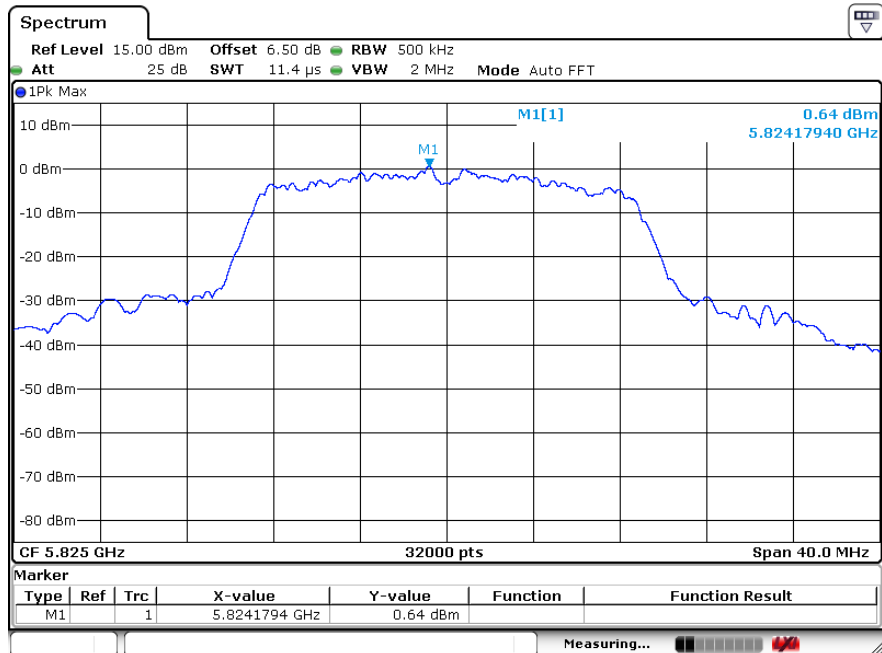
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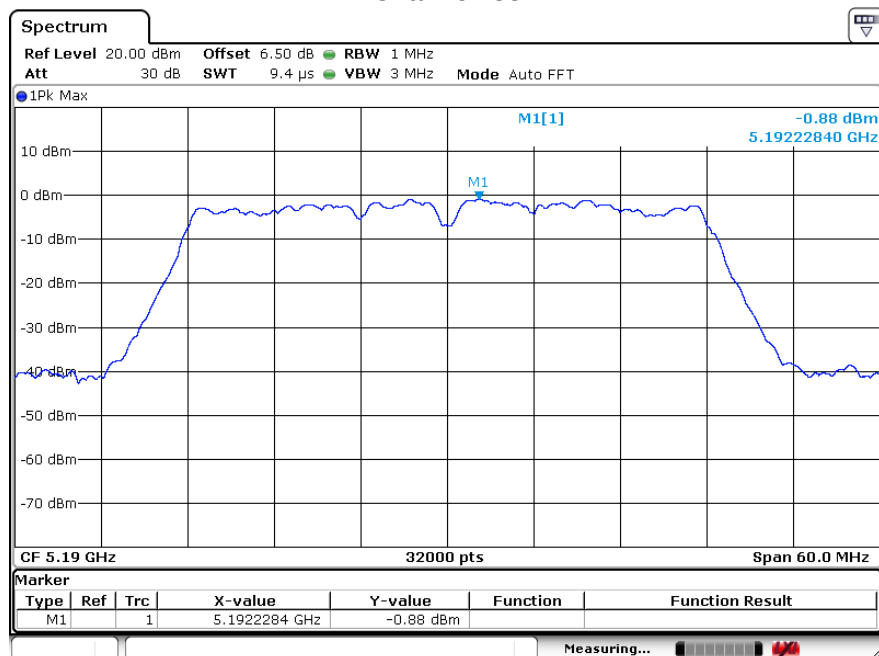


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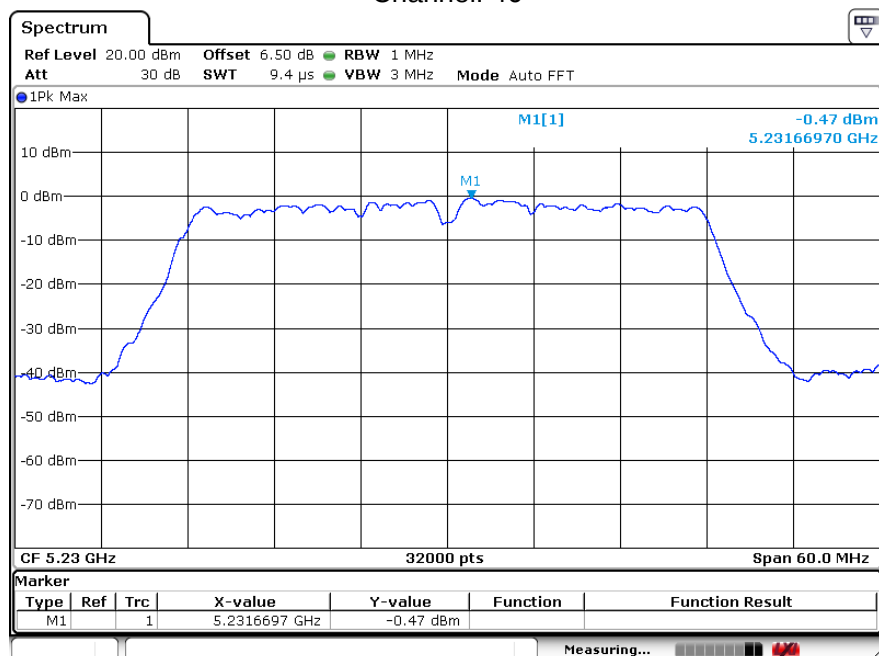


Channel: 165

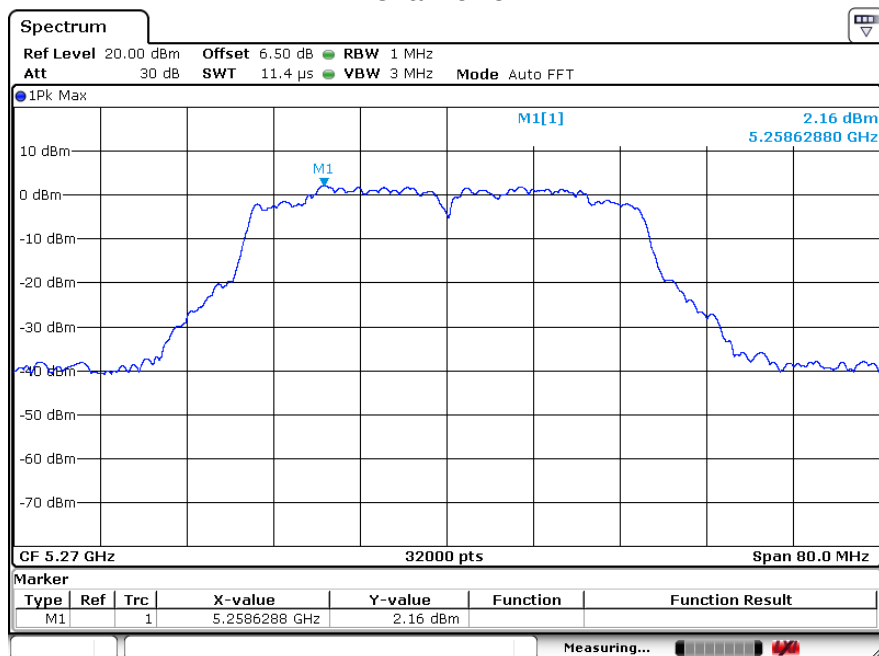


802.11 ac 40
Channel: 38

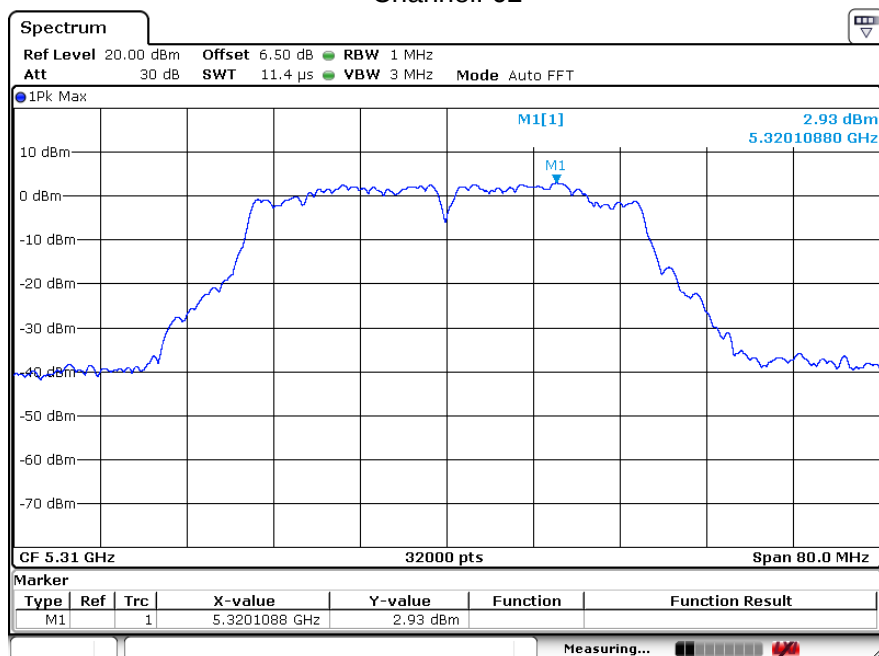
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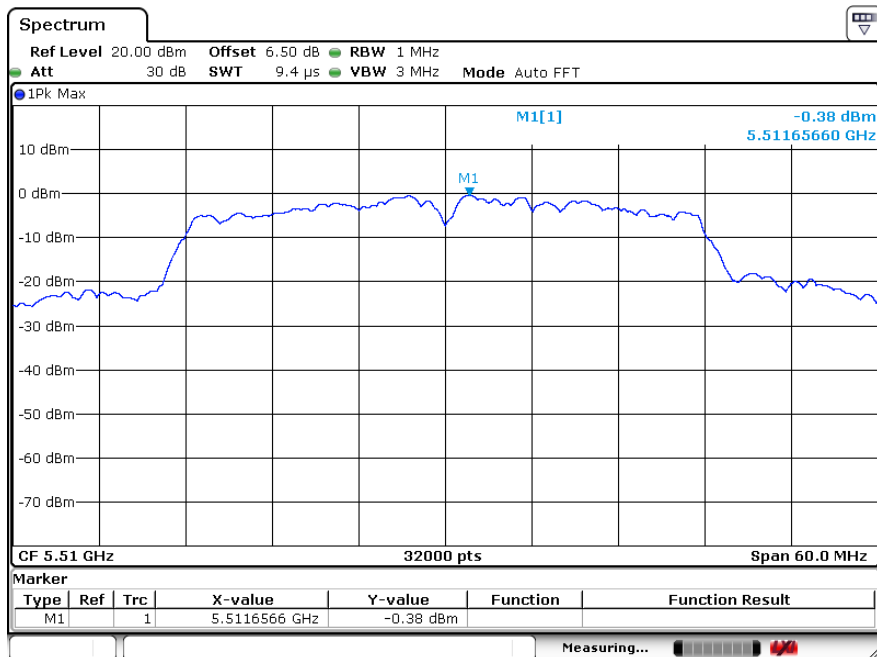


802.11 ac 40 Channel: 54

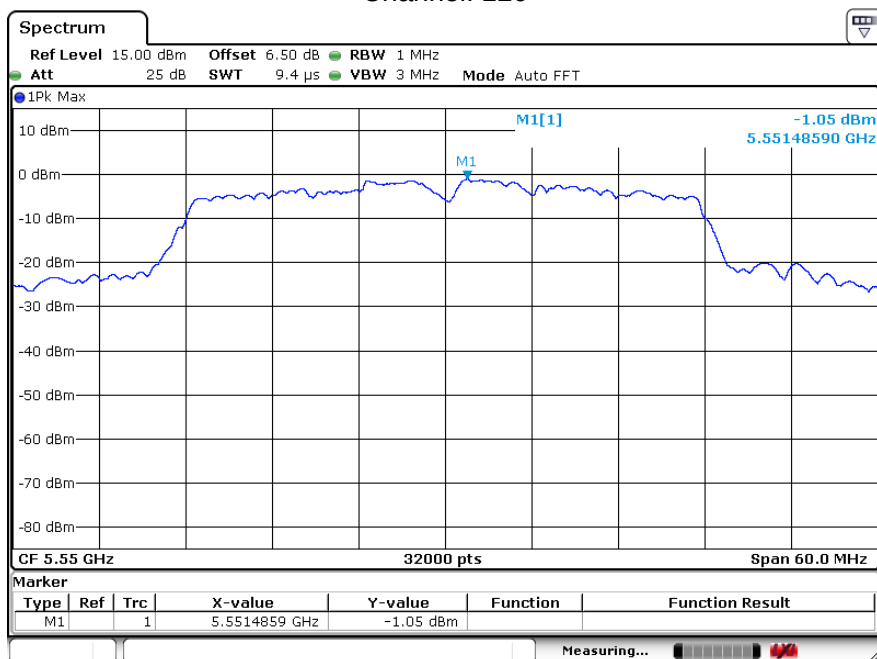


Channel: 62

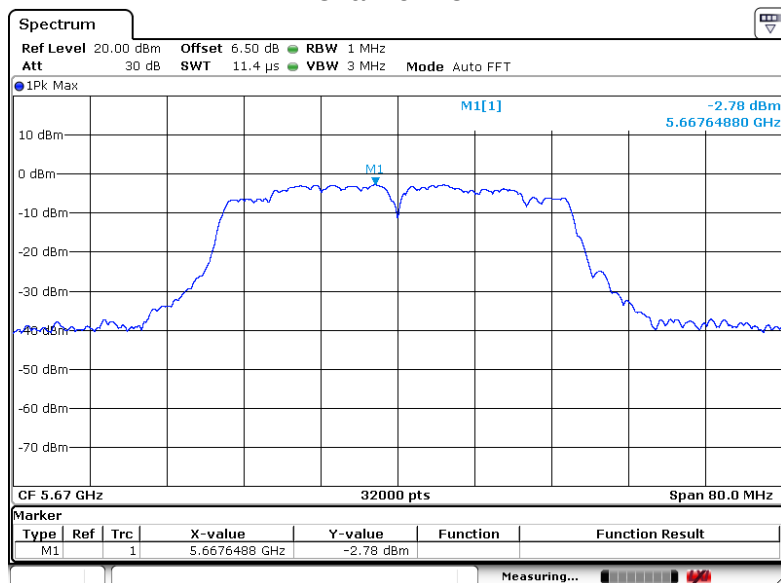


802.11 ac 40
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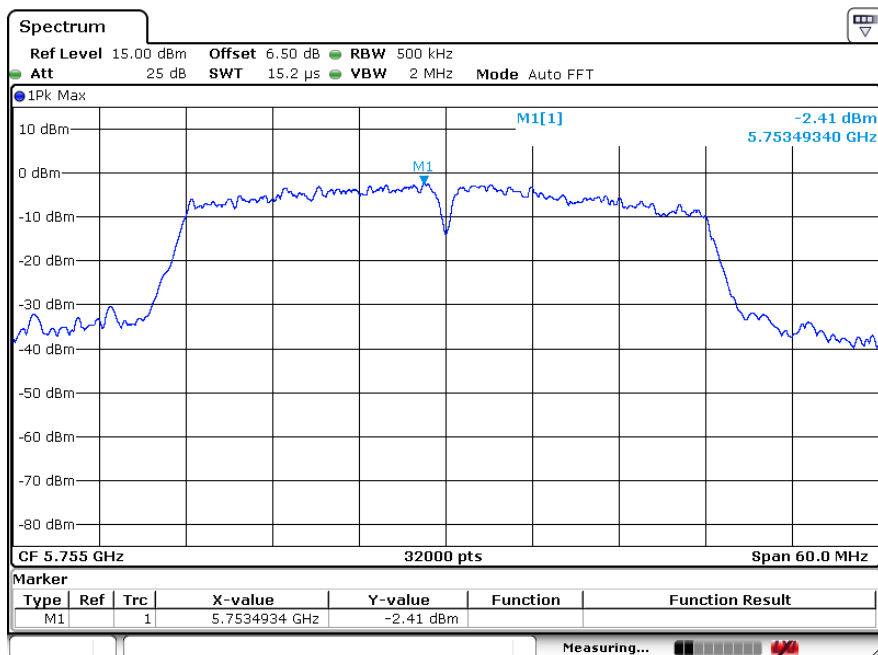
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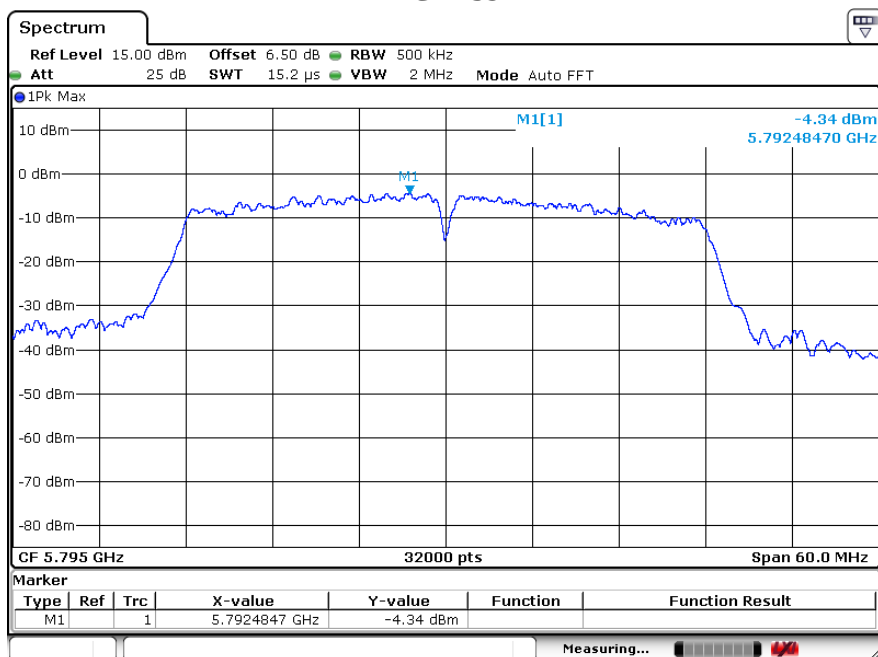
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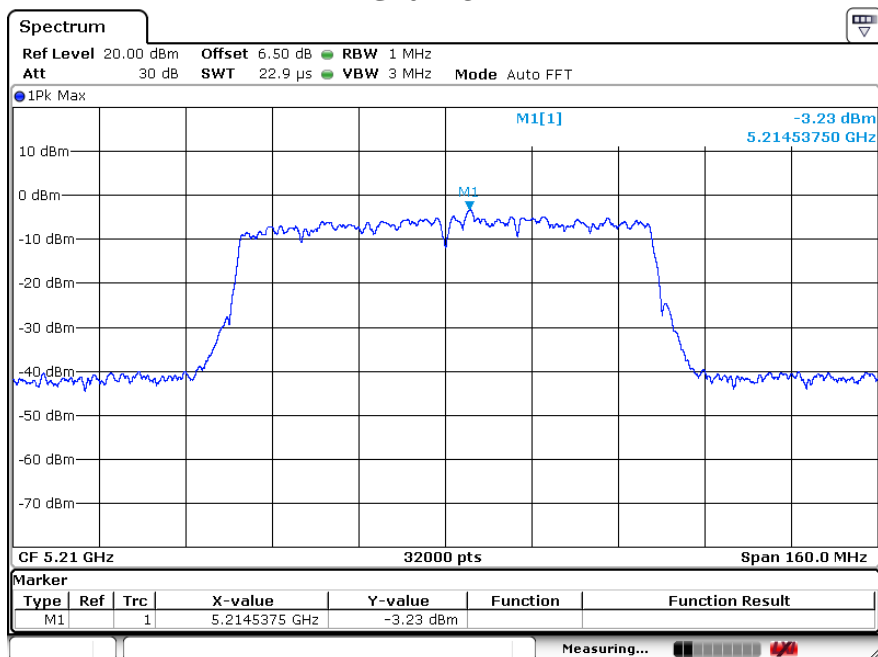
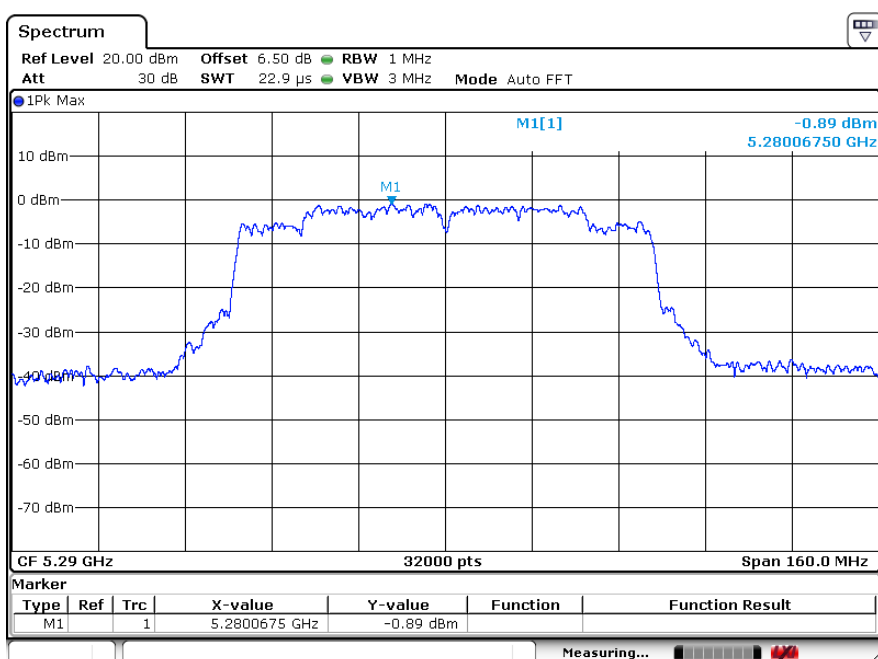


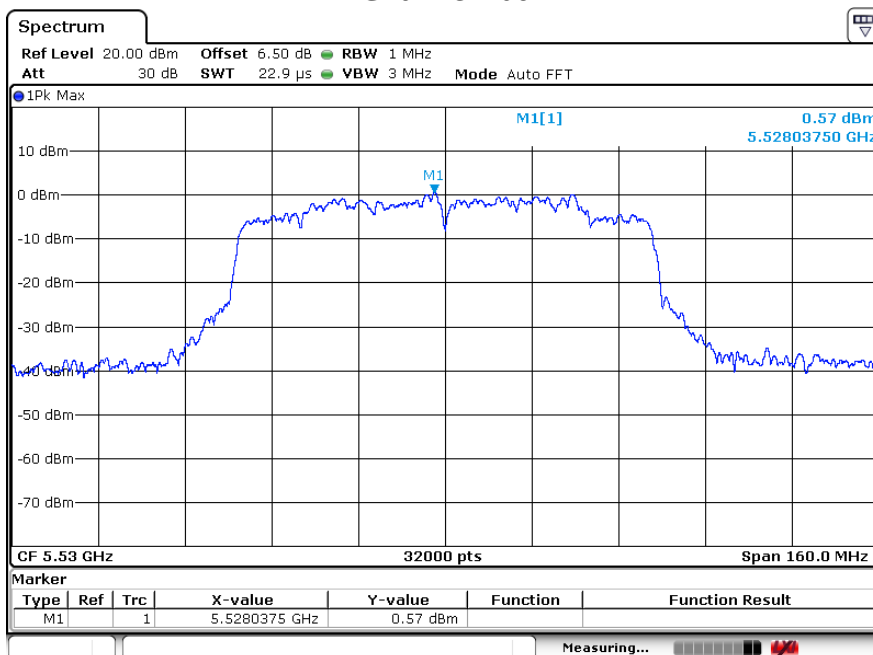
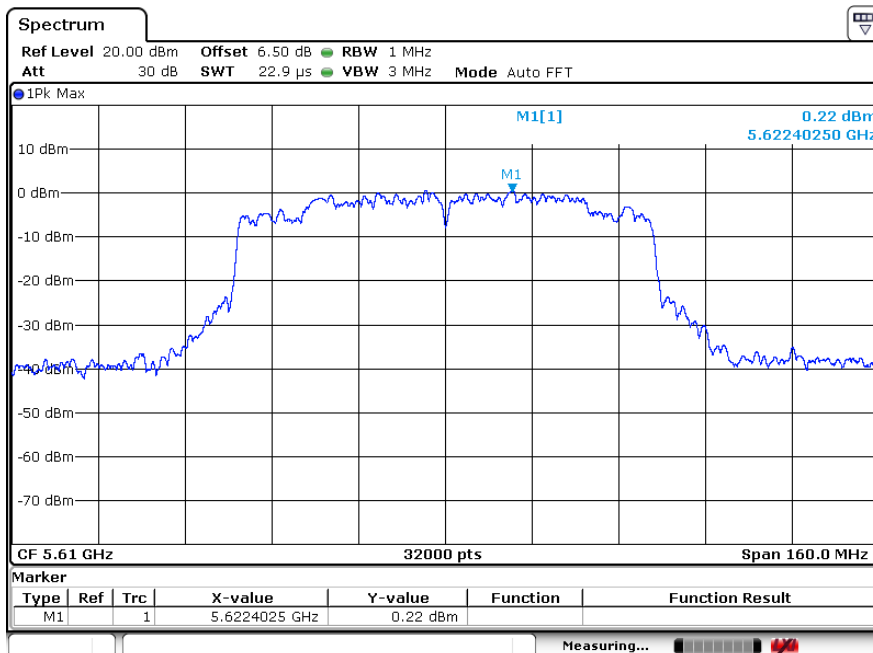
802.11 ac 40 TX CH151



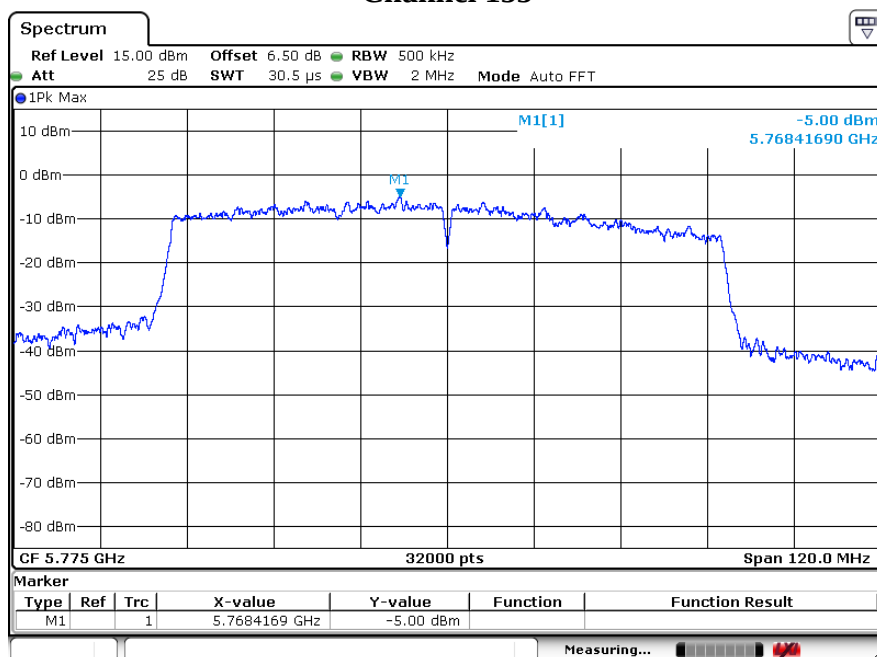
802.11 ac 40 TX CH159



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

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

802.11ac(80M) Channel 155

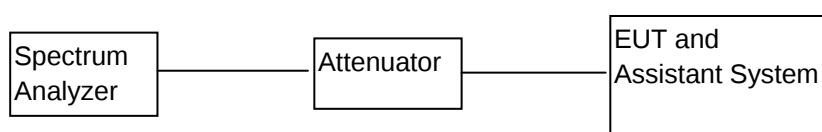


4. 26 dB & 99% Emission Bandwidth

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

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	19.90	20.28	20.17	16.93	18.03	17.95
CH 40	5200	19.95	20.24	20.38	16.91	17.99	17.90
CH 48	5240	20.16	20.50	20.24	17.05	17.87	17.90
CH 52	5260	20.12	20.26	20.21	17.00	17.88	17.84
CH 56	5280	20.03	20.29	20.34	16.95	17.82	17.91
CH 64	5320	19.83	20.28	20.24	16.95	17.85	17.90
CH 100	5500	20.03	20.24	20.11	17.08	17.96	17.85
CH 120	5600	19.89	20.09	20.16	17.08	17.94	17.87
CH 140	5700	20.05	20.99	20.54	17.21	18.14	18.15
CH 149	5745	16.34	17.58	17.59	16.87	17.86	17.85
CH 157	5785	16.35	17.59	17.59	16.86	17.88	17.81
CH 165	5825	16.35	17.60	17.59	16.83	18.06	17.83

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	40.22	41.24	36.36	36.35
CH 46	5230	41.16	40.43	36.28	36.36
CH 54	5270	40.71	40.46	36.34	36.36
CH 62	5310	40.38	40.38	36.31	36.33
CH 102	5510	40.00	40.60	36.33	36.44
CH 110	5550	40.20	40.02	36.36	36.38
CH 134	5670	40.38	40.10	36.61	36.45
CH 151	5755	35.72	36.04	36.29	36.27
CH 159	5795	36.04	35.89	36.16	36.21

CH. No.	Frequency (MHz)	6dB&26dB Occupied Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
		802.11ac(VHT80)	802.11ac(VHT80)
CH 42	5210	80.65	75.11
CH 58	5290	82.07	75.18
CH 106	5530	81.31	75.17
CH 138	5690	81.51	75.18
CH 155	5775	66.32	75.22

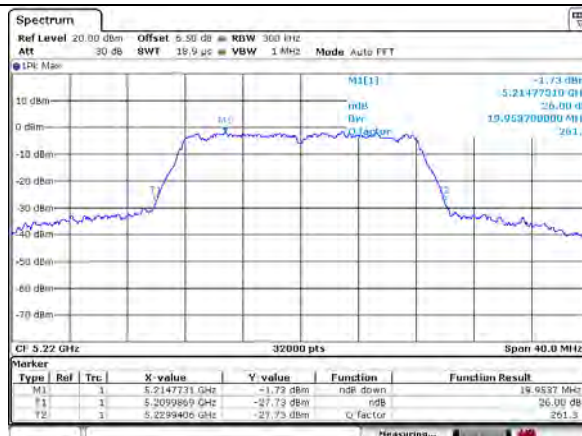
Note:

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

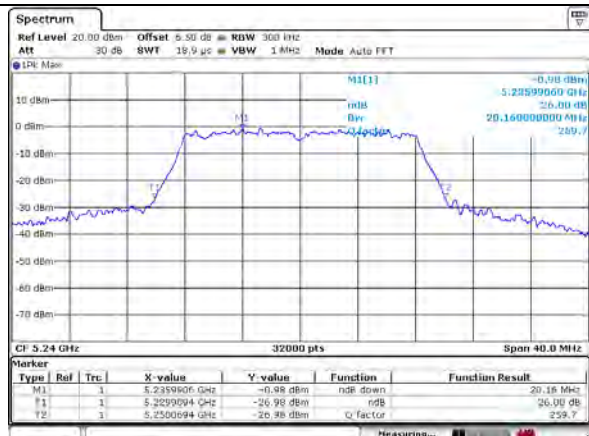
26dB BW 802.11a CH 36



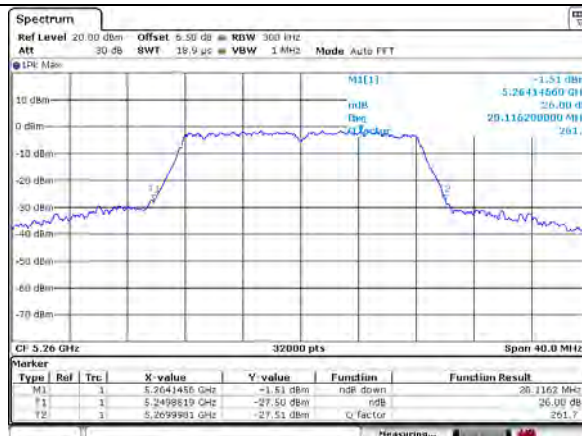
26dB BW 802.11a CH 40



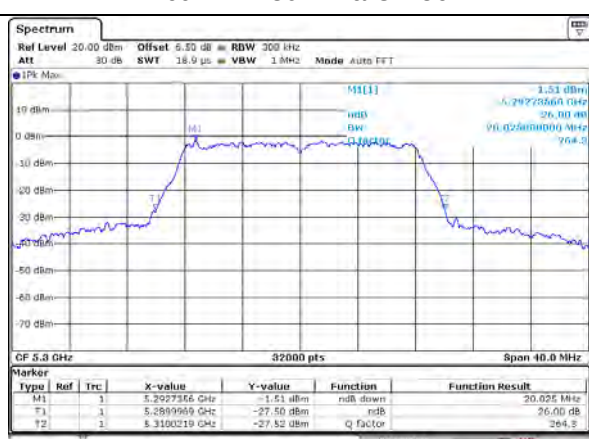
26dB BW 802.11a CH 48



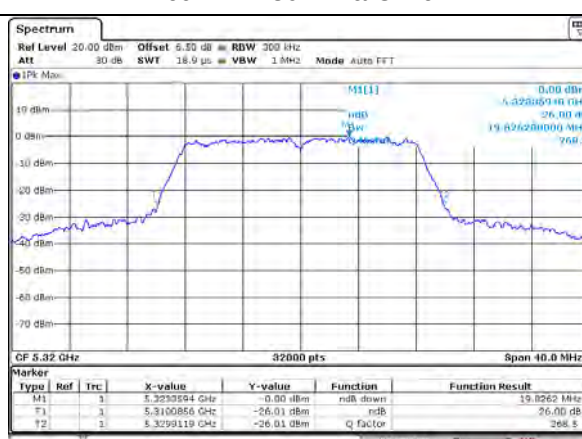
26dB BW 802.11a CH 52



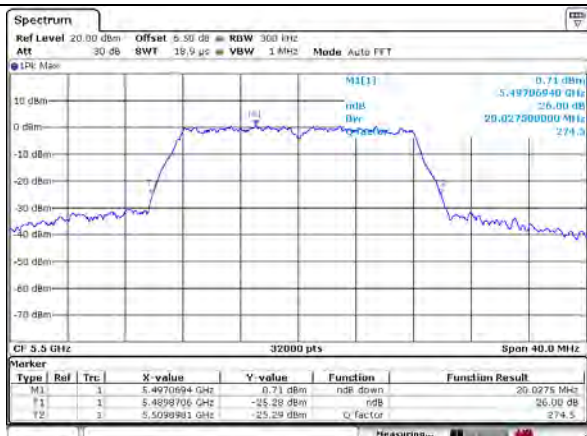
26dB BW 802.11a CH 56



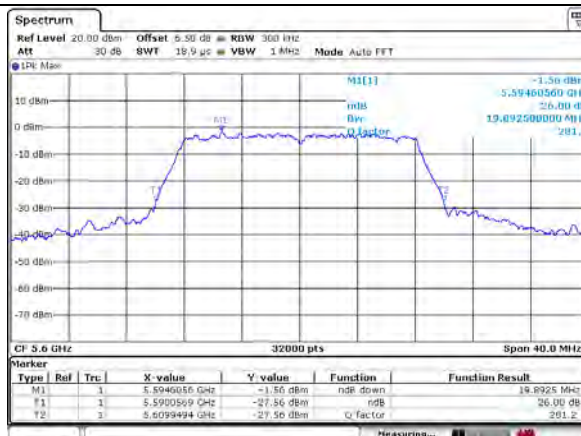
26dB BW 802.11a CH 64



26dB BW 802.11a CH 100



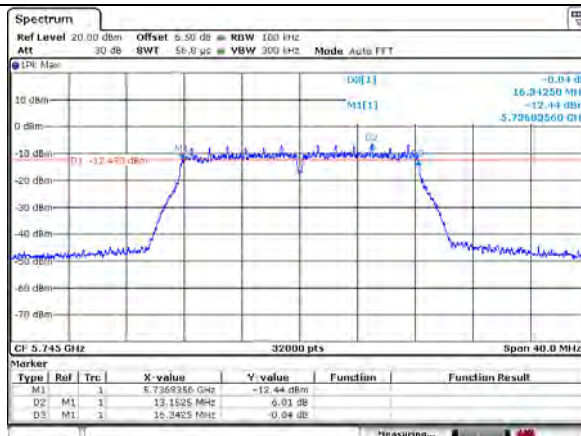
26dB BW 802.11a CH 120



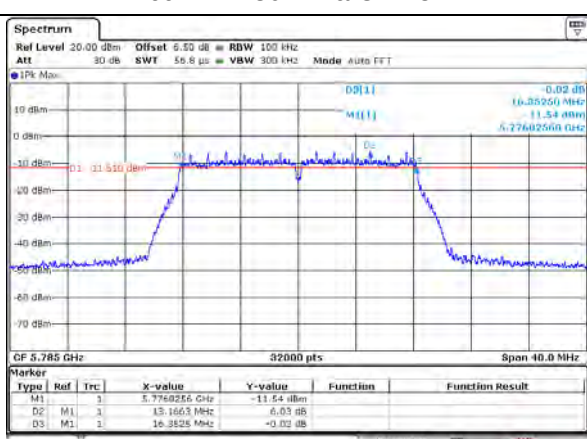
26dB BW 802.11a CH 140



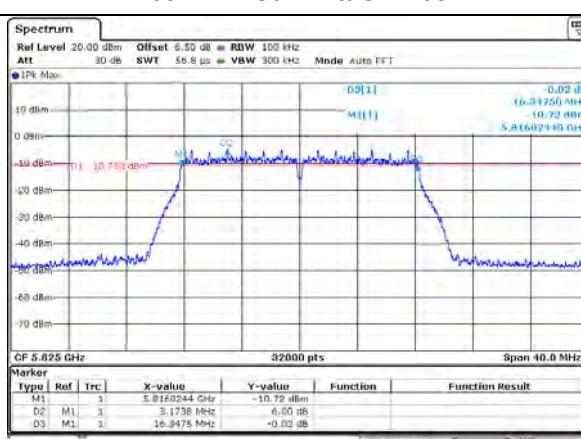
6dB BW 802.11a CH 149



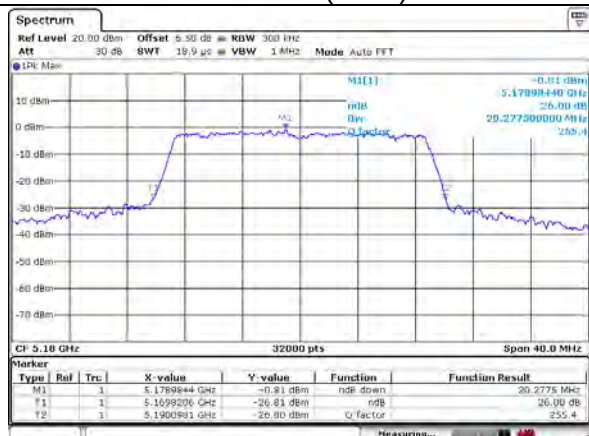
6dB BW 802.11a CH 157



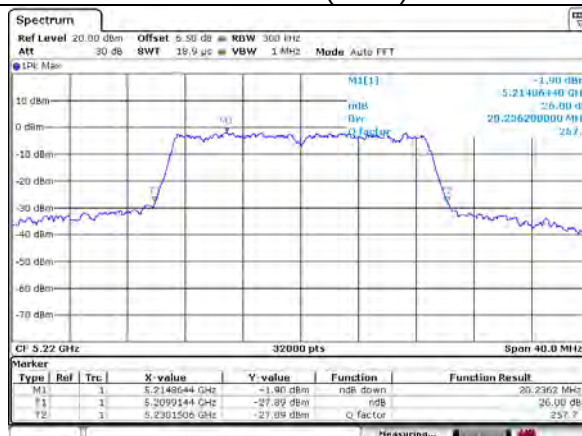
6dB BW 802.11a CH 165



26dB BW 802.11n(HT20) CH 36



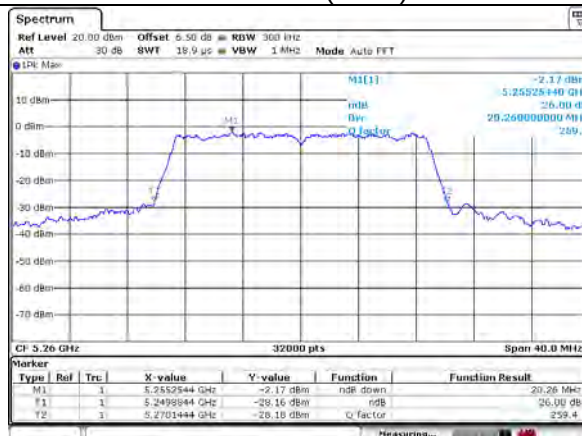
26dB BW 802.11n(HT20) CH 40



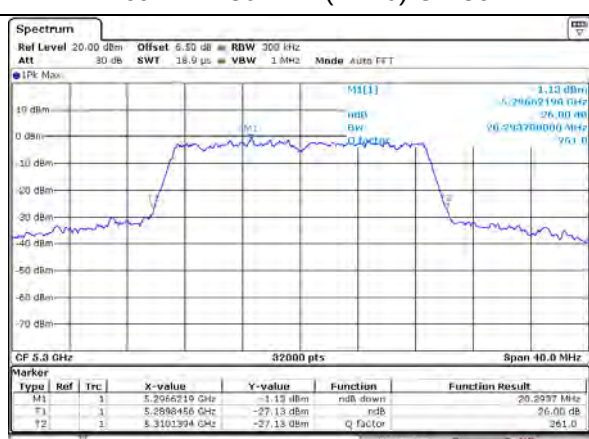
26dB BW 802.11n(HT20) CH 48



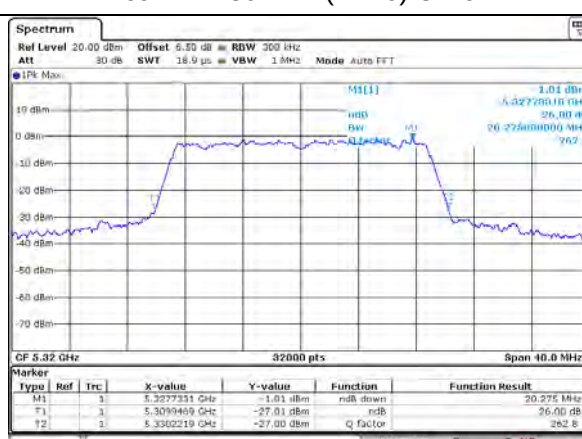
26dB BW 802.11n(HT20) CH 52



26dB BW 802.11n(HT20) CH 56



26dB BW 802.11n(HT20) CH 64



26dB BW 802.11n(HT20) CH 100



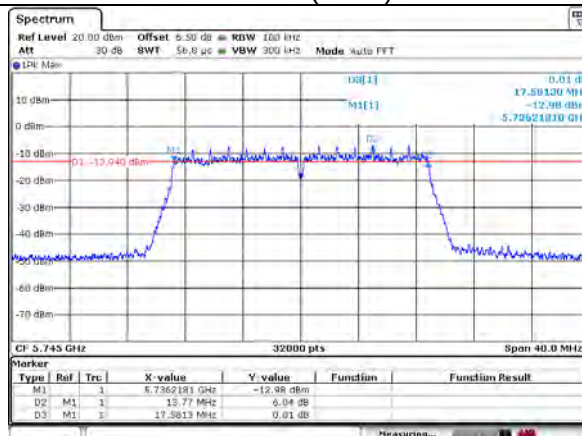
26dB BW 802.11n(HT20) CH 120



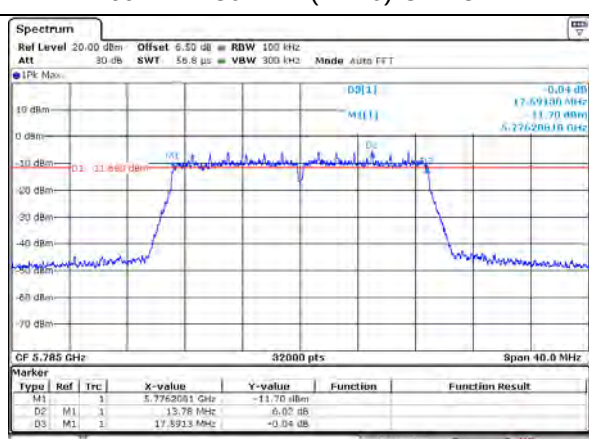
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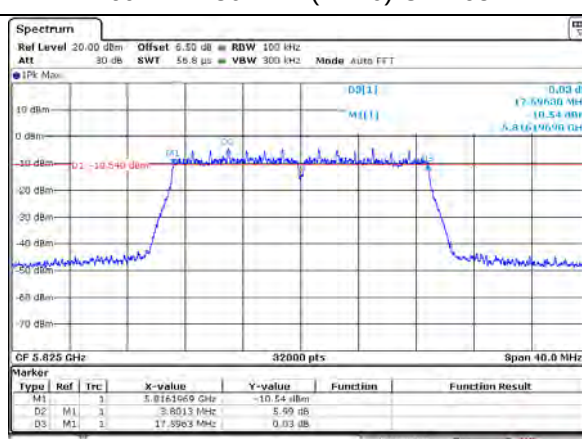
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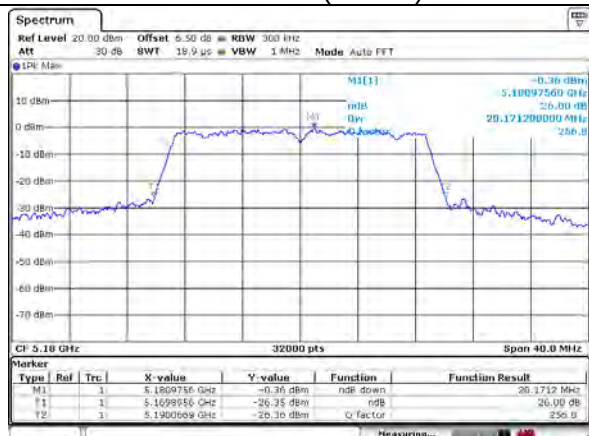
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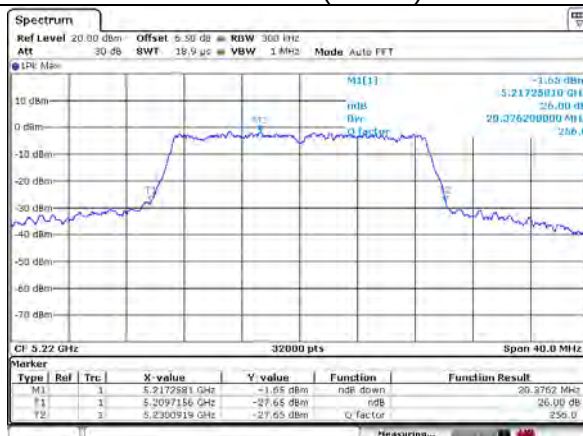
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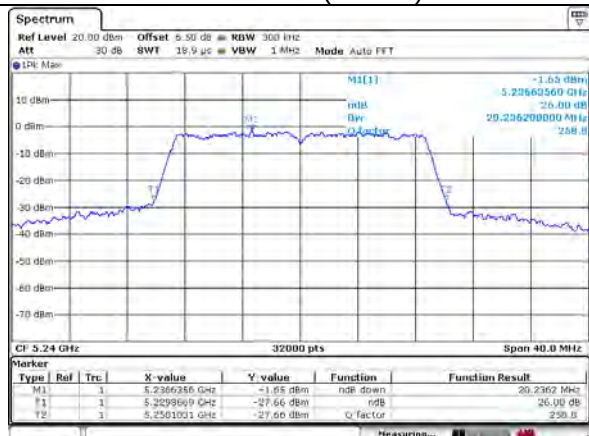
26dB BW 802.11ac(VHT20) CH 36



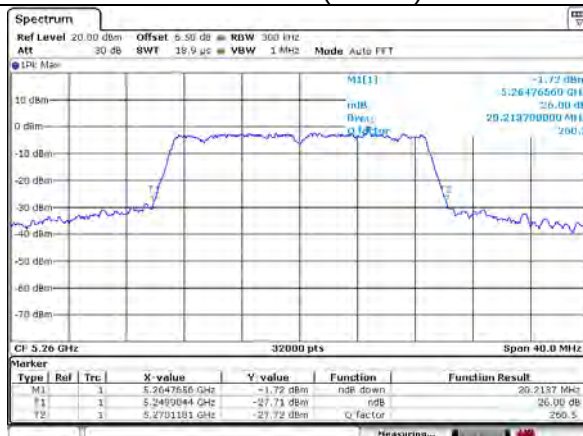
26dB BW 802.11ac(VHT20) CH 40



26dB BW 802.11ac(VHT20) CH 48



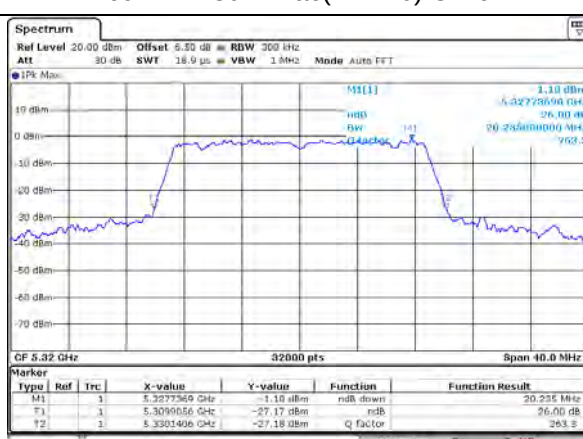
26dB BW 802.11ac(VHT20) CH 52



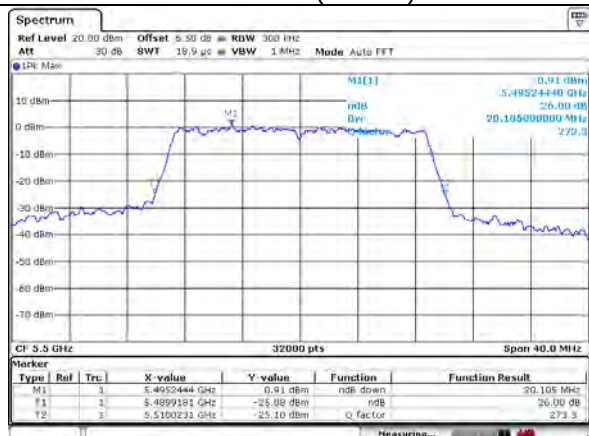
26dB BW 802.11ac(VHT20) CH 56



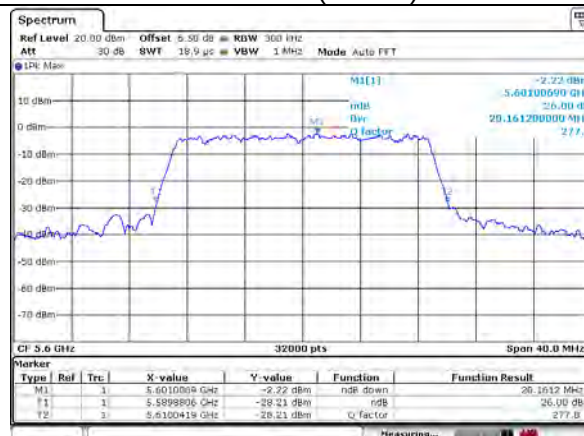
26dB BW 802.11ac(VHT20) CH 64



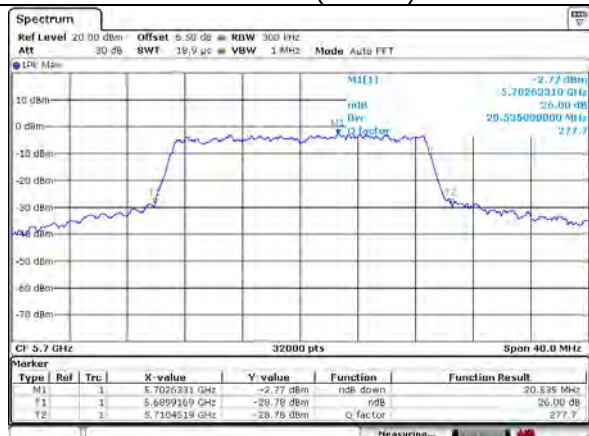
26dB BW 802.11ac(VHT20) CH 100



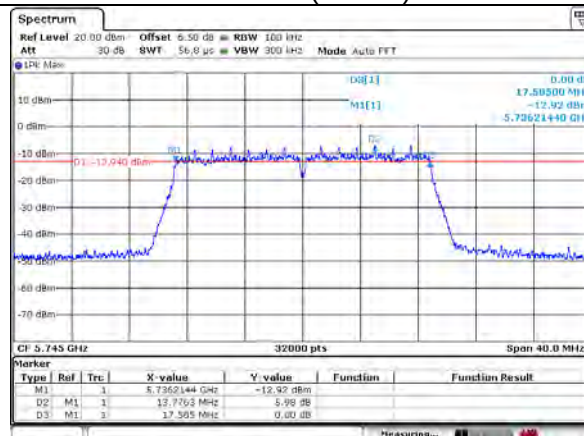
26dB BW 802.11ac(VHT20) CH 120



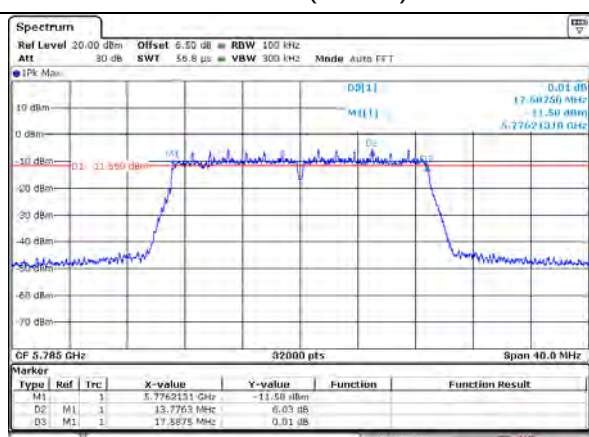
26dB BW 802.11ac(VHT20) CH 140



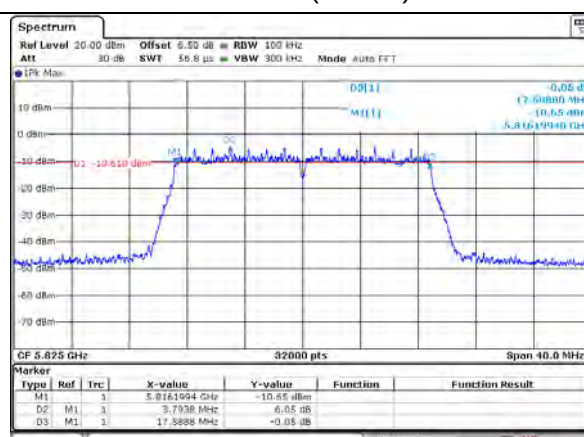
6dB BW 802.11ac(VHT20) CH 149



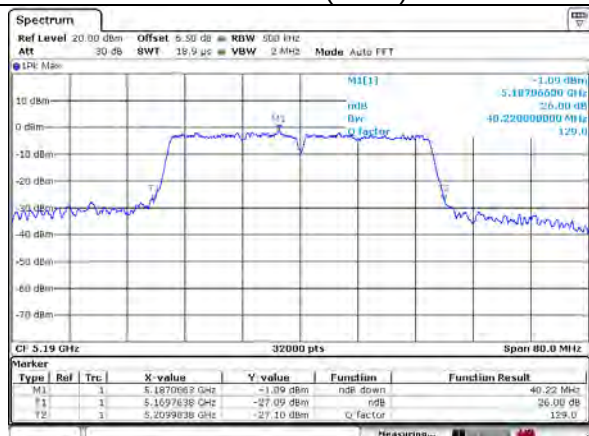
6dB BW 802.11ac(VHT20) CH 157



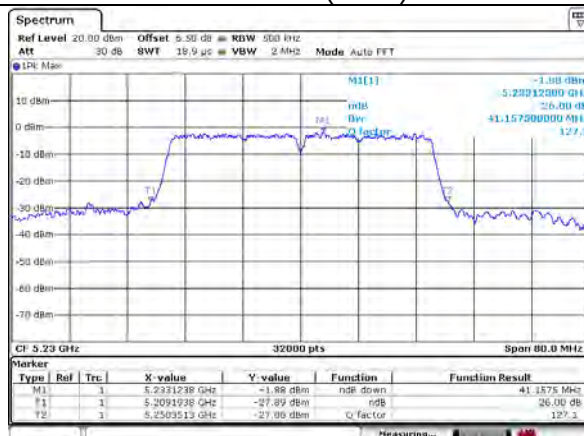
6dB BW 802.11ac(VHT20) CH 165



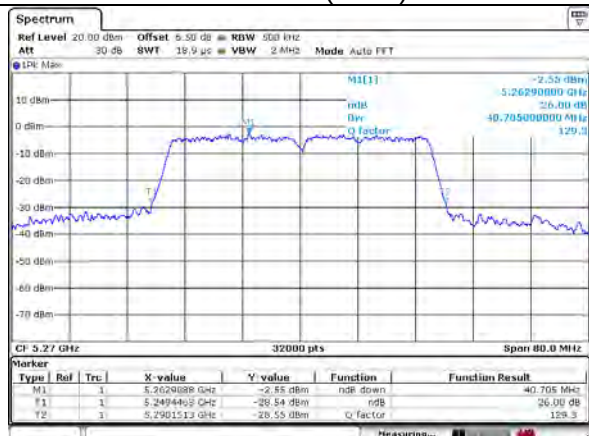
26dB BW 802.11n(HT40) CH 38



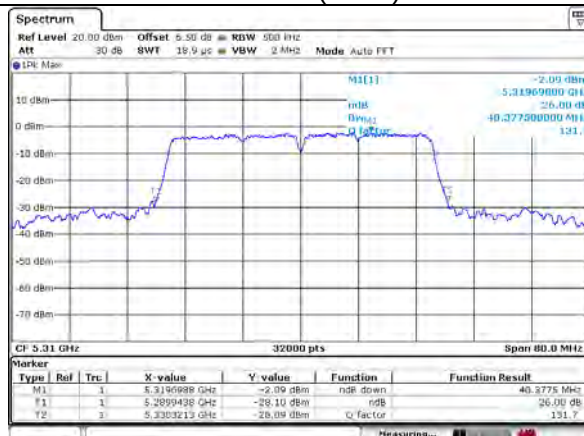
26dB BW 802.11n(HT40) CH 46



26dB BW 802.11n(HT40) CH 54



6dB BW 802.11n(HT40) CH 62



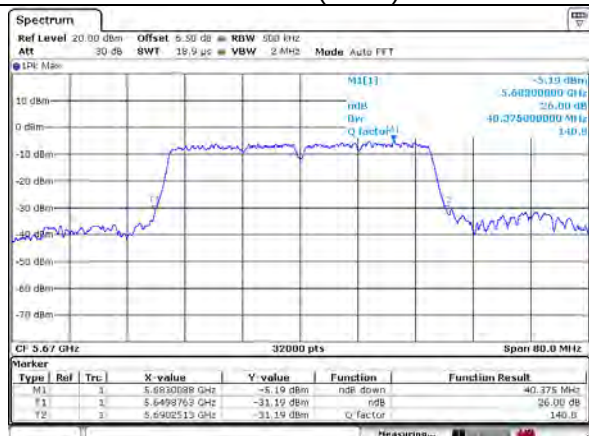
6dB BW 802.11n(HT40) CH 102



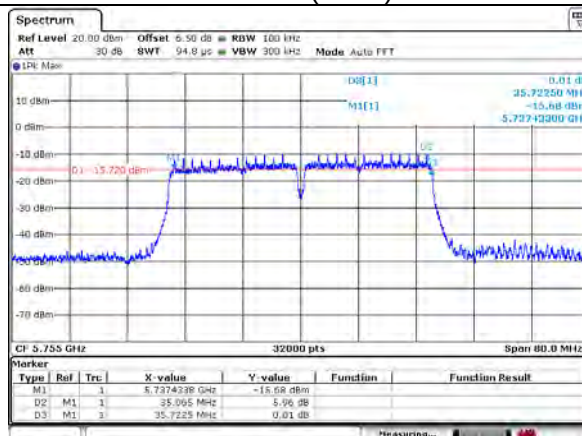
6dB BW 802.11n(HT40) CH 110



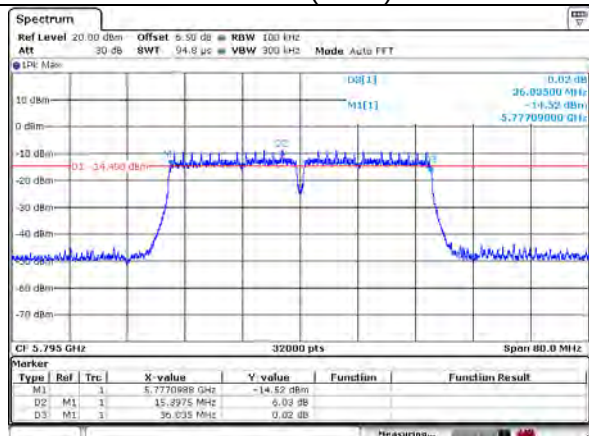
26dB BW 802.11n(HT40) CH 134



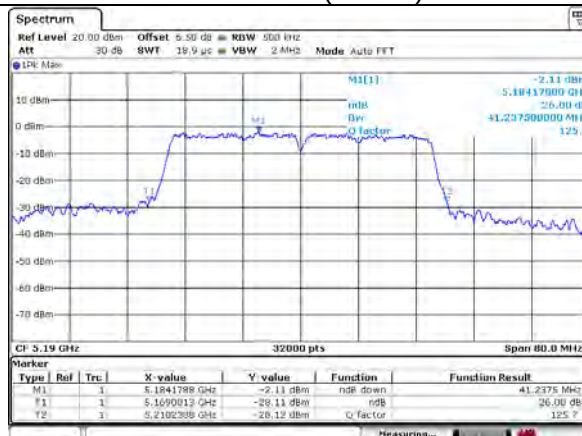
6dB BW 802.11n(HT40) CH 151



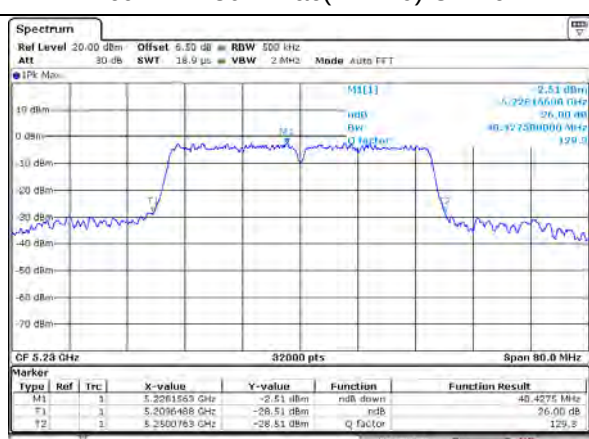
6dB BW 802.11n(HT40) CH 159



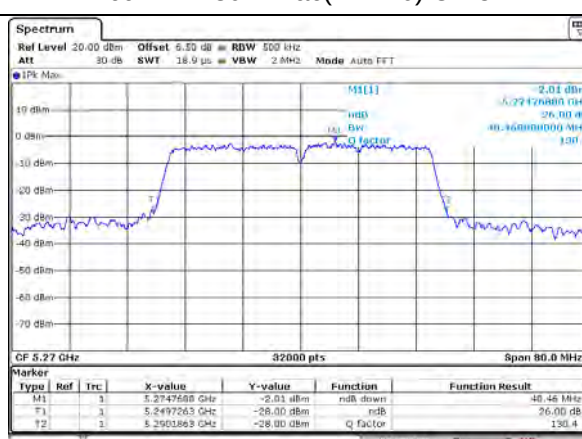
26dB BW 802.11ac(VHT40) CH 38



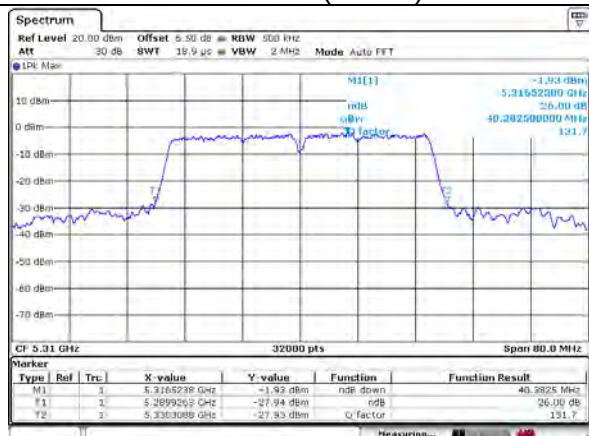
26dB BW 802.11ac(VHT40) CH 46



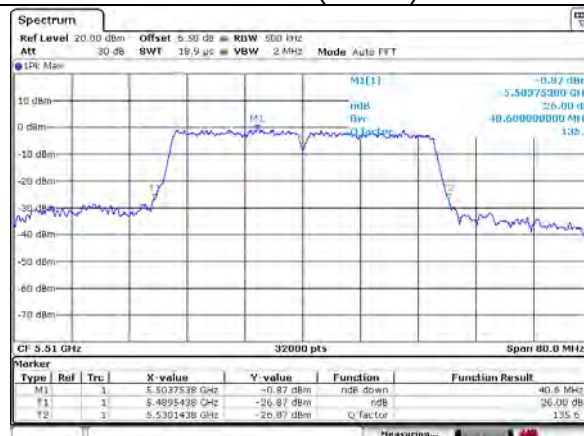
26dB BW 802.11ac(VHT40) CH 54



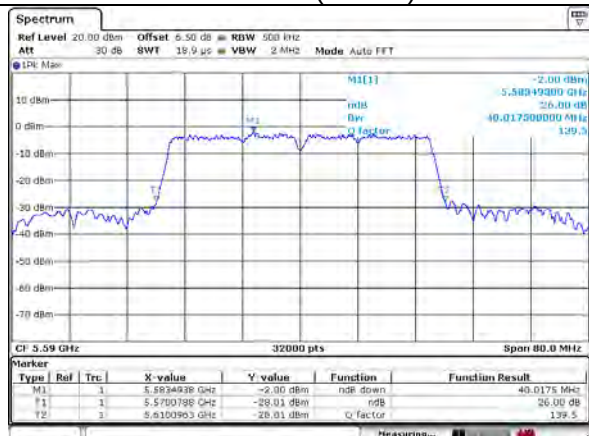
26dB BW 802.11ac(VHT40) CH 62



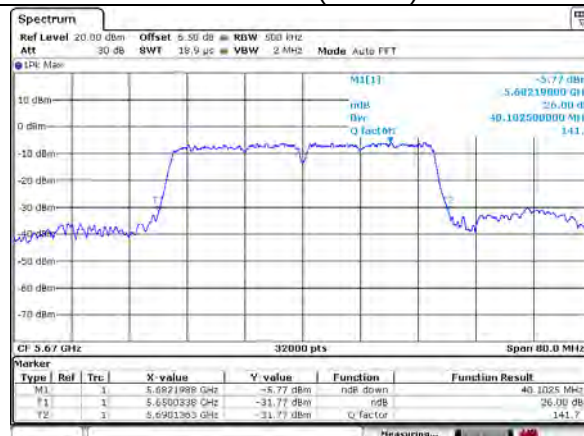
26dB BW 802.11ac(VHT40) CH 102



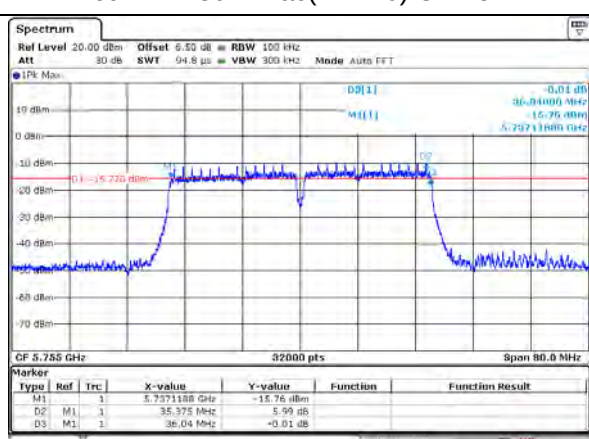
26dB BW 802.11ac(VHT40) CH 110



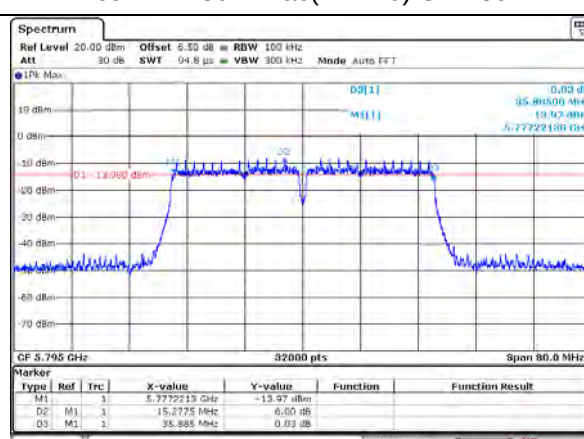
26dB BW 802.11ac(VHT40) CH 134



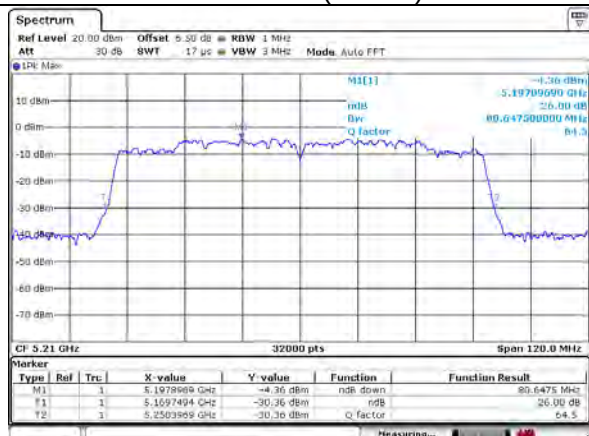
6dB BW 802.11ac(VHT40) CH 151



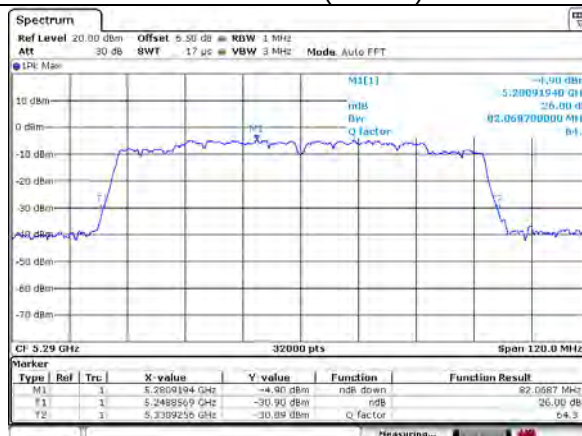
6dB BW 802.11ac(VHT40) CH 159



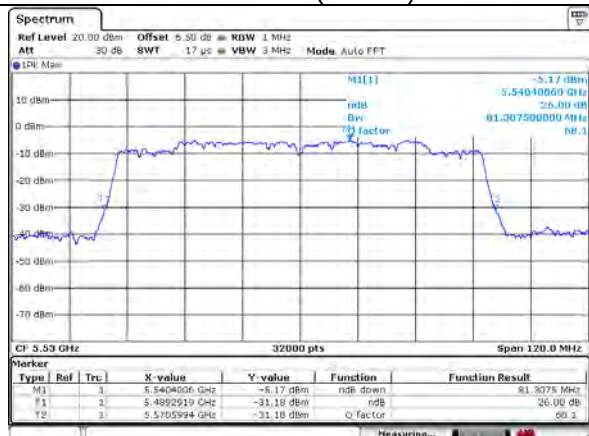
26dB BW 802.11ac(VHT80) CH 42



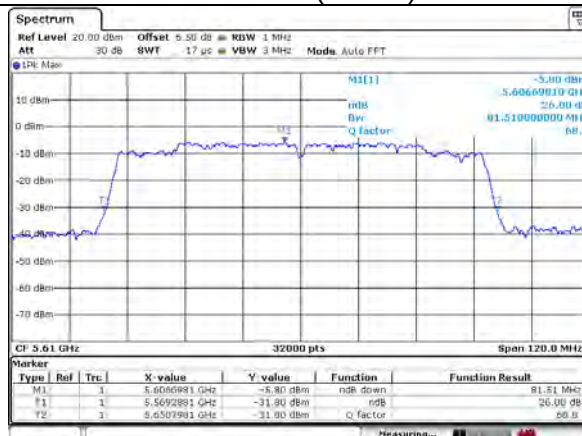
26dB BW 802.11ac(VHT80) CH 58



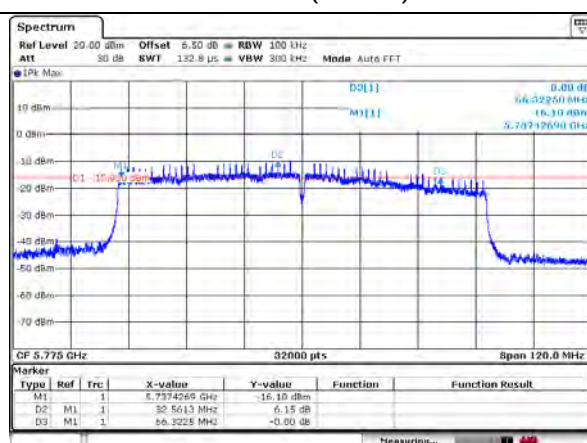
26dB BW 802.11ac(VHT80) CH 106



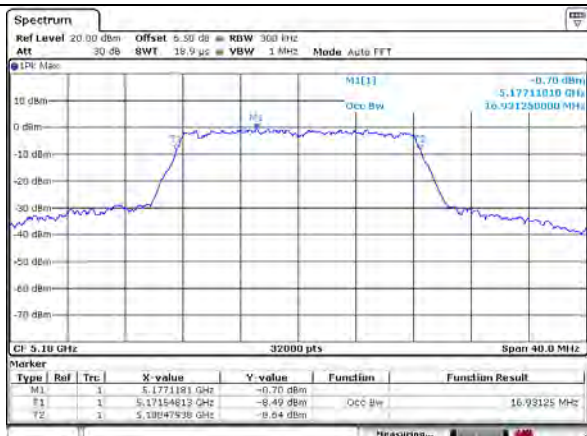
26dB BW 802.11ac(VHT80) CH 138



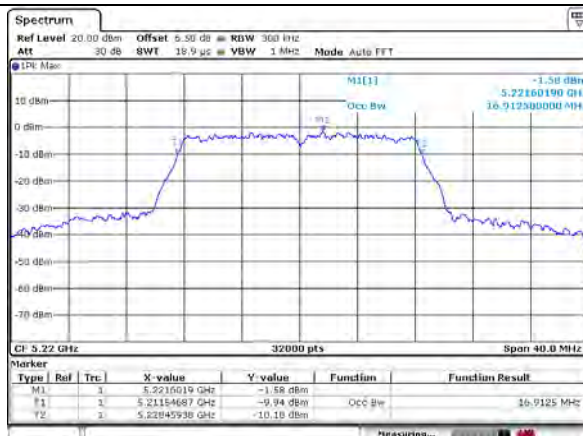
6dB BW 802.11ac(VHT80) CH 155



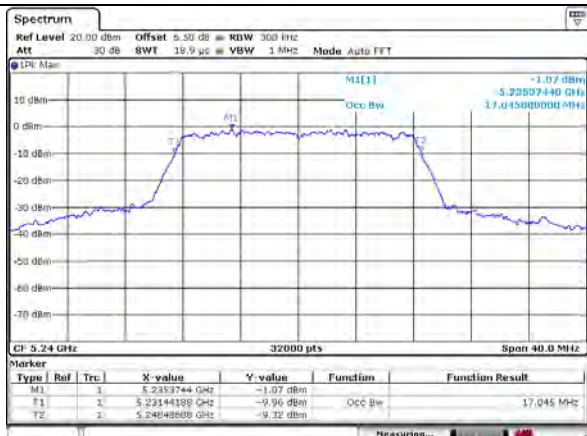
99% BW 802.11a CH 36



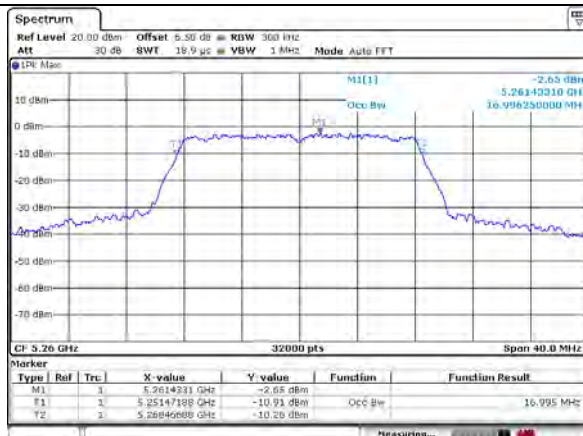
99% BW 802.11a CH 40



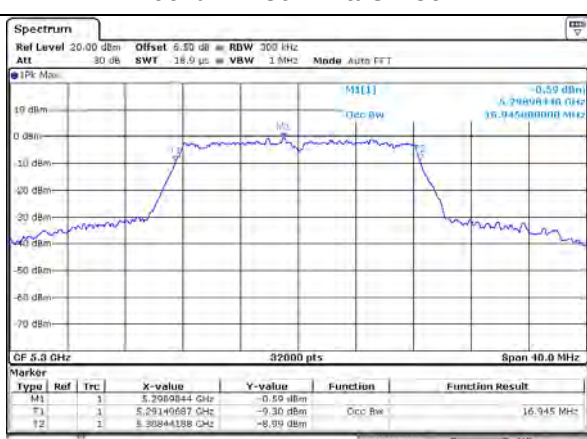
99% BW 802.11a CH 48



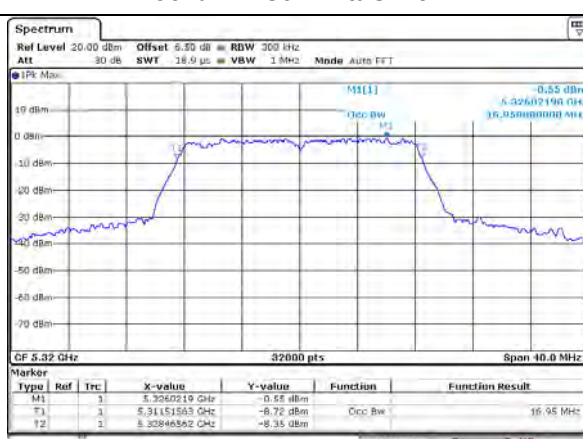
99% BW 802.11a CH 52



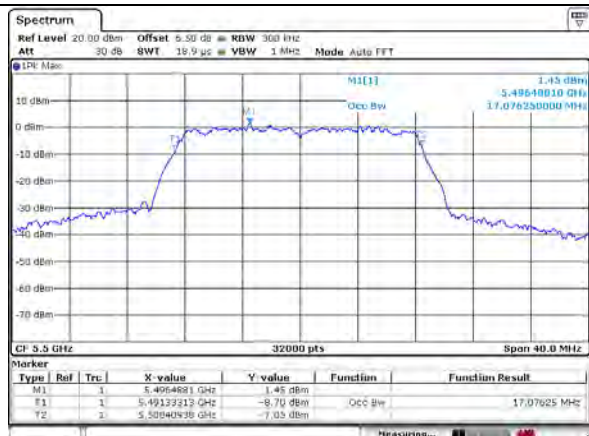
99% BW 802.11a CH 56



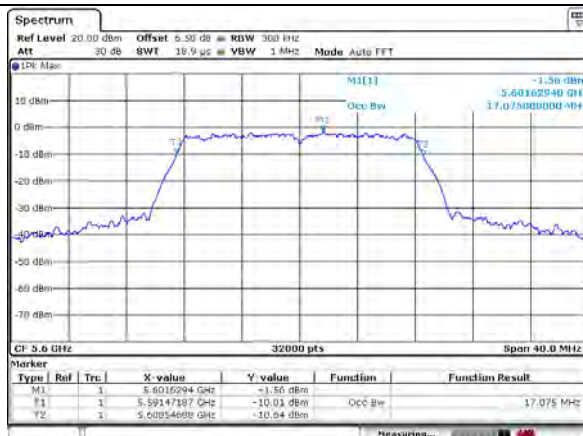
99% BW 802.11a CH 64



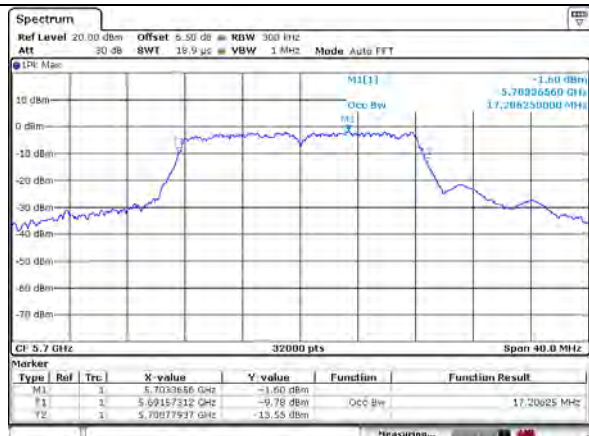
99% BW 802.11a CH 100



99% BW 802.11a CH 120



99% BW 802.11a CH 140



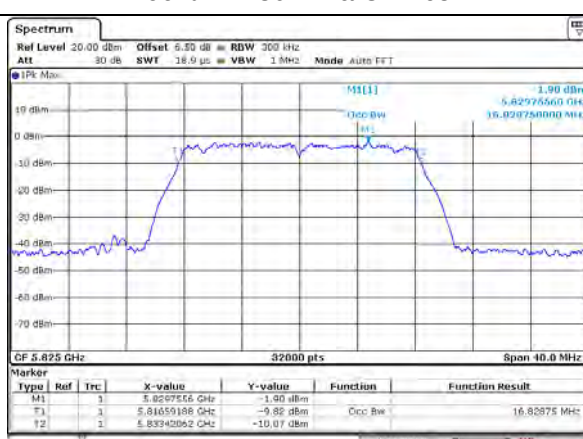
99% BW 802.11a CH 149



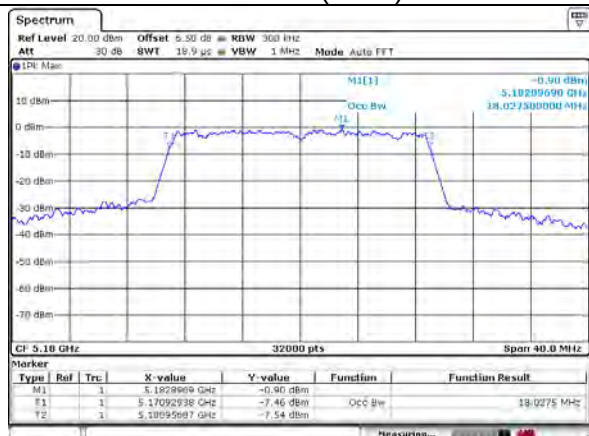
99% BW 802.11a CH 157



99% BW 802.11a CH 165



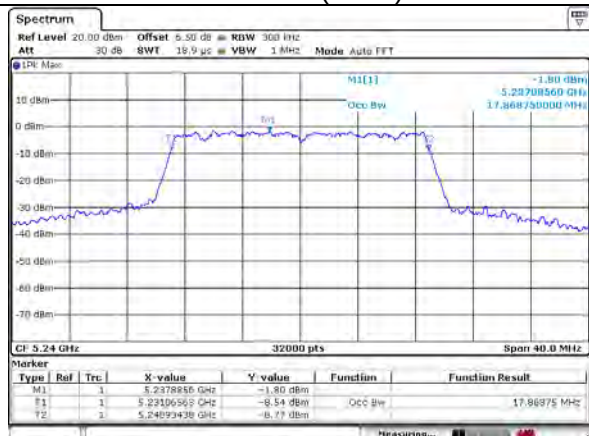
99% BW 802.11n(HT20) CH 36



99% BW 802.11n(HT20) CH 40



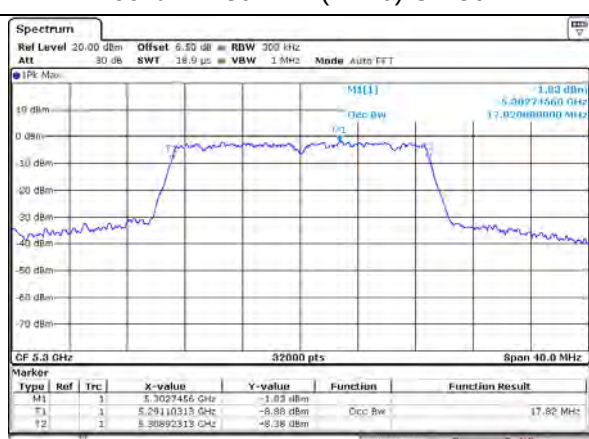
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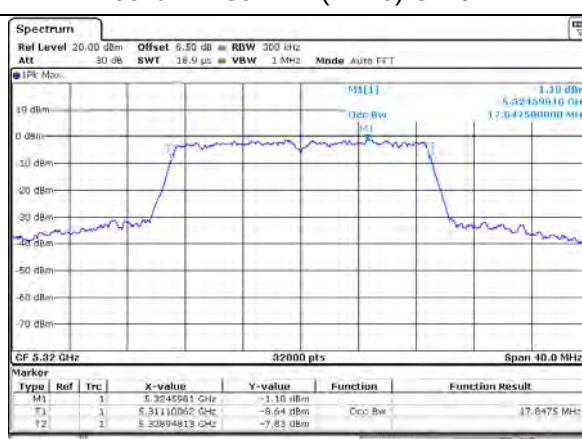
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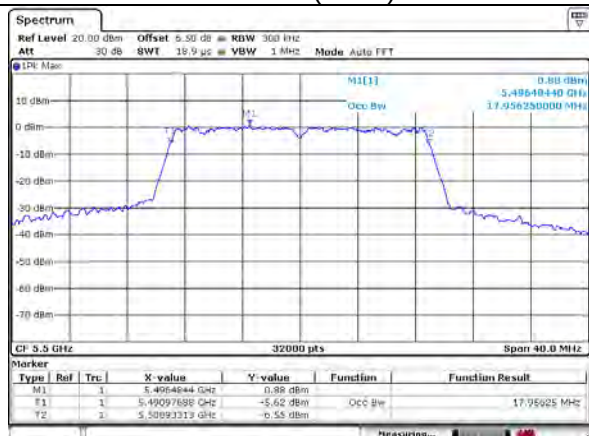
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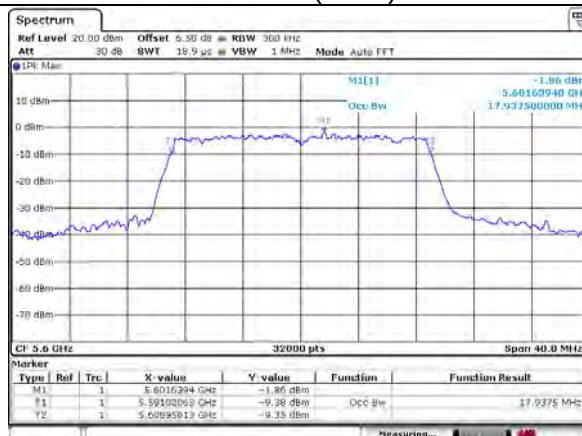
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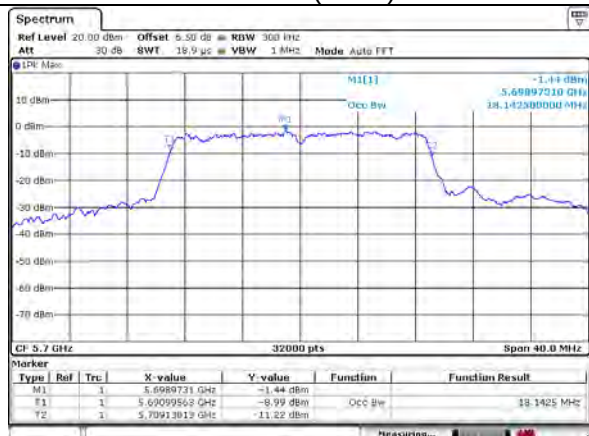
99% BW 802.11n(HT20) CH 100



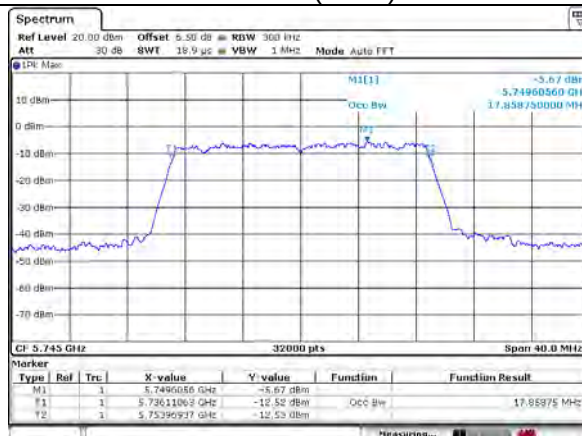
99% BW 802.11n(HT20) CH 120



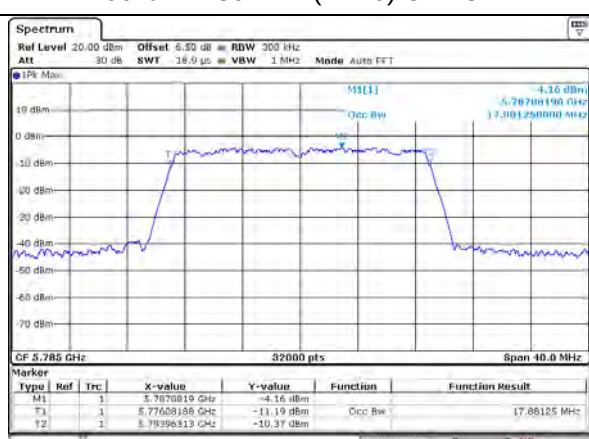
99% BW 802.11n(HT20) CH 140



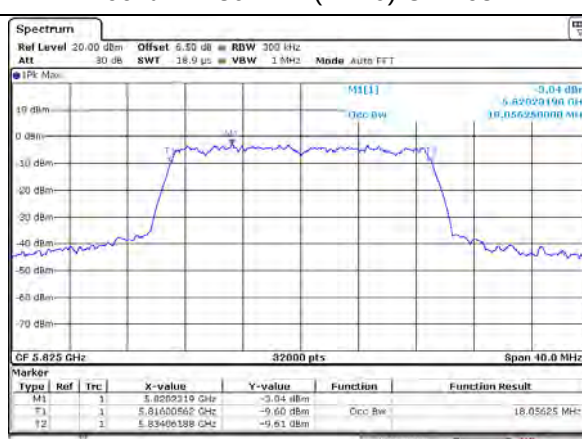
99% BW 802.11n(HT20) CH 149



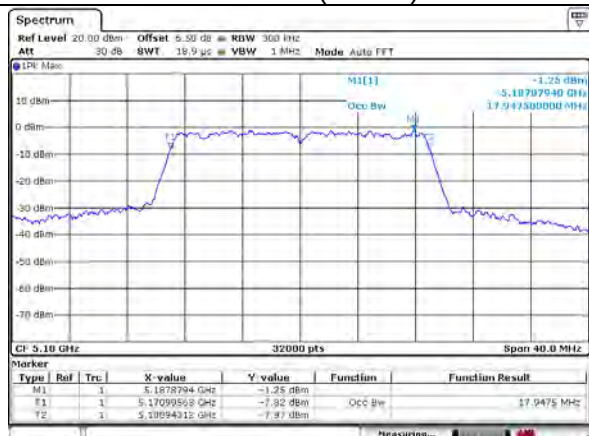
99% BW 802.11n(HT20) CH 157



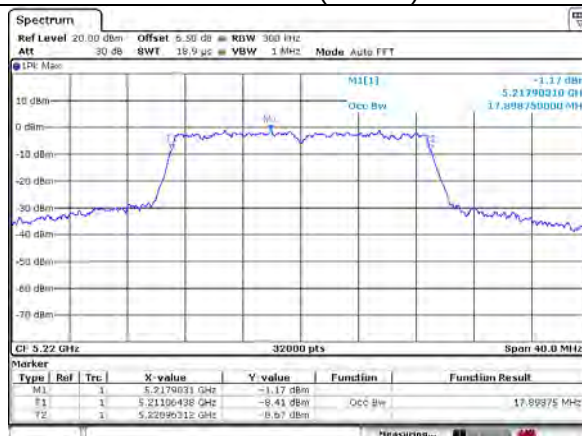
99% BW 802.11n(HT20) CH 165



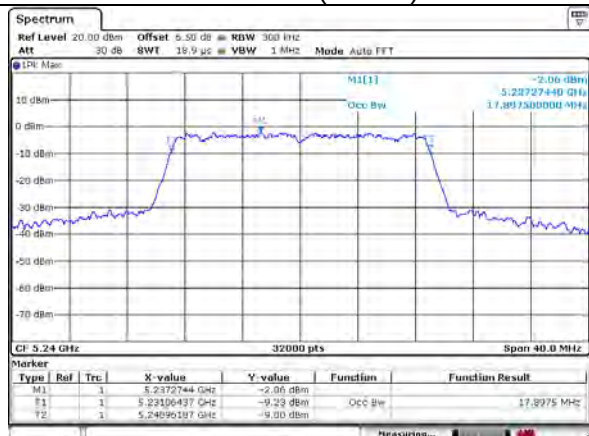
99% BW 802.11ac(VHT20) CH 36



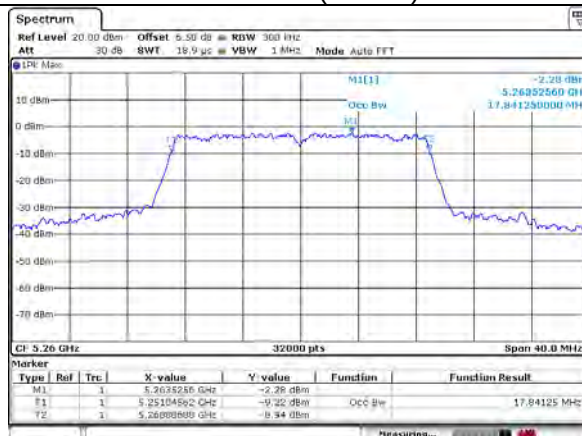
99% BW 802.11ac(VHT20) CH 40



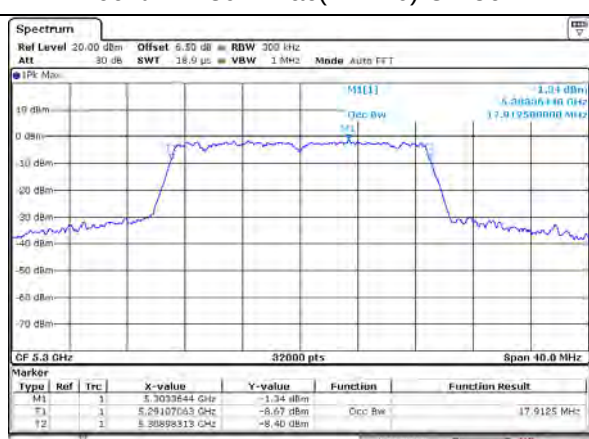
99% BW 802.11ac(VHT20) CH 48



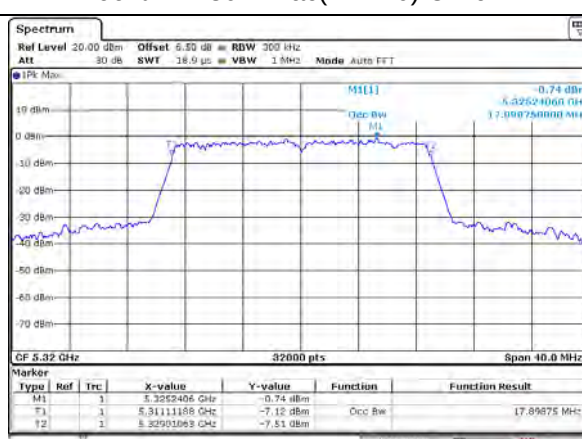
99% BW 802.11ac(VHT20) CH 52



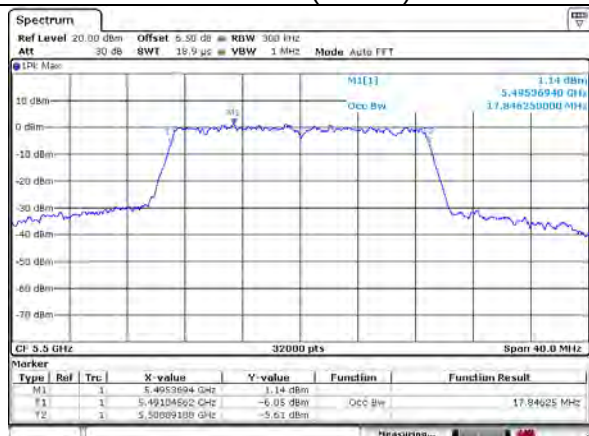
99% BW 802.11ac(VHT20) CH 56



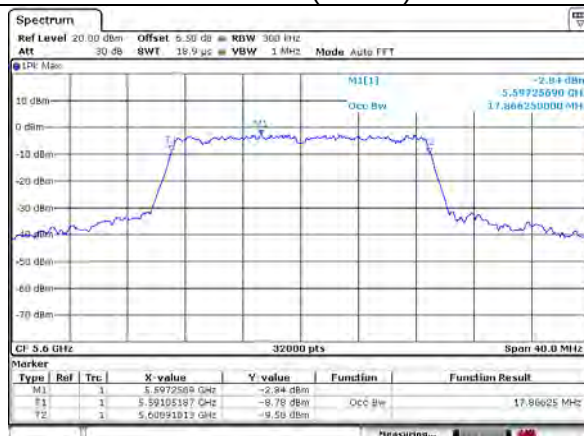
99% BW 802.11ac(VHT20) CH 64



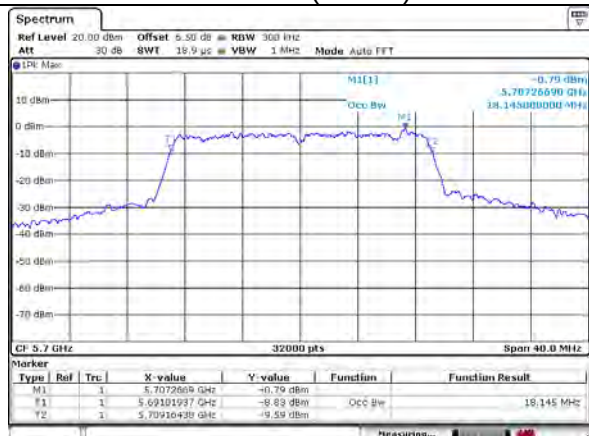
99% BW 802.11ac(VHT20) CH 100



99% BW 802.11ac(VHT20) CH 120



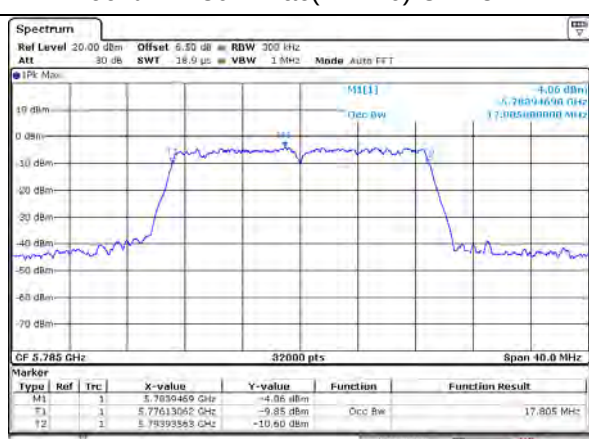
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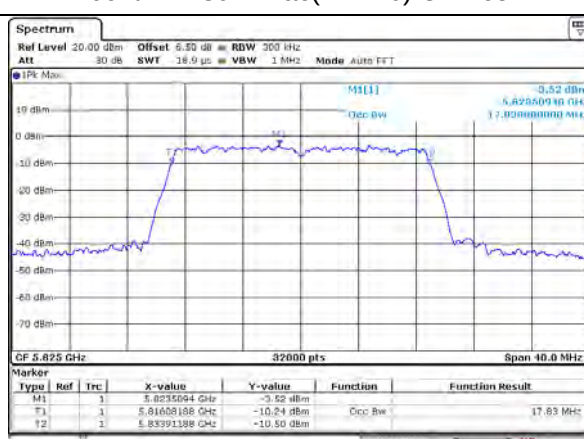
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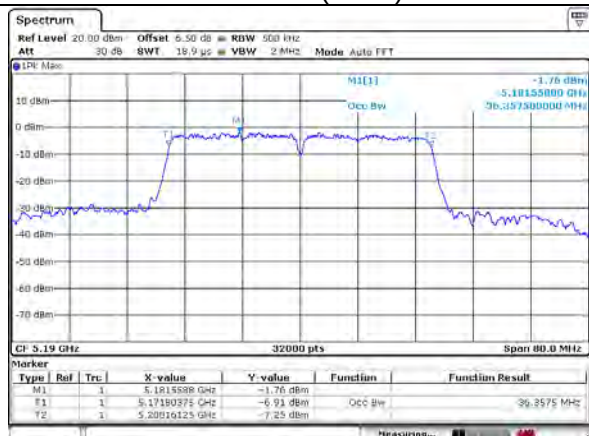
99% BW 802.11ac(VHT20) CH 157



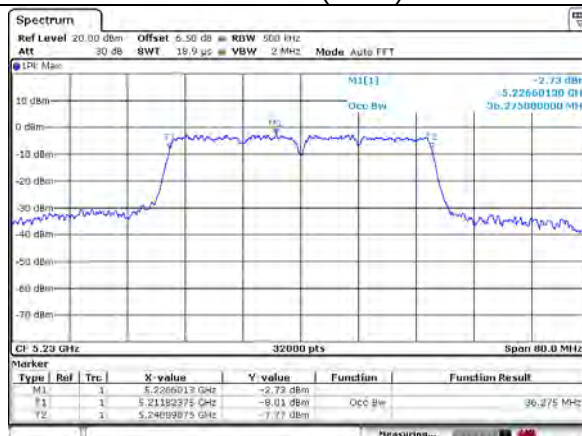
99% BW 802.11ac(VHT20) CH 165



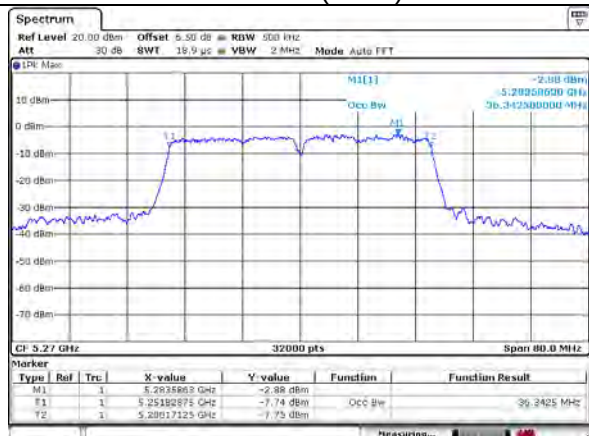
99% BW 802.11n(HT40) CH 38



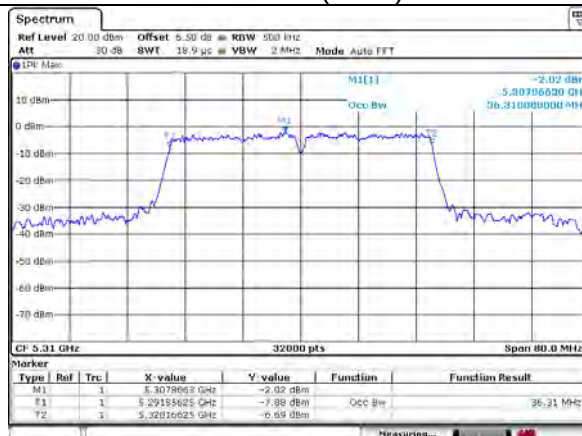
99% BW 802.11n(HT40) CH 46



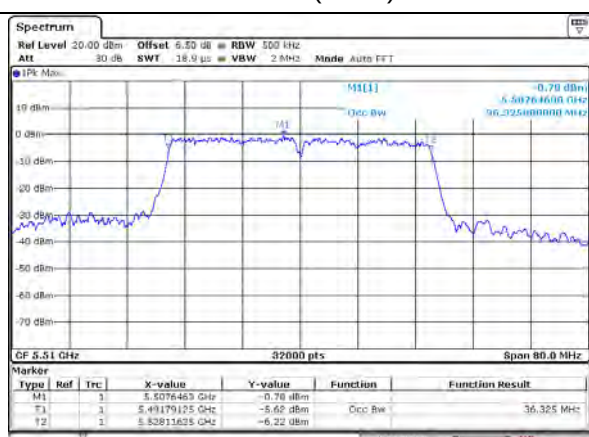
99% BW 802.11n(HT40) CH 54



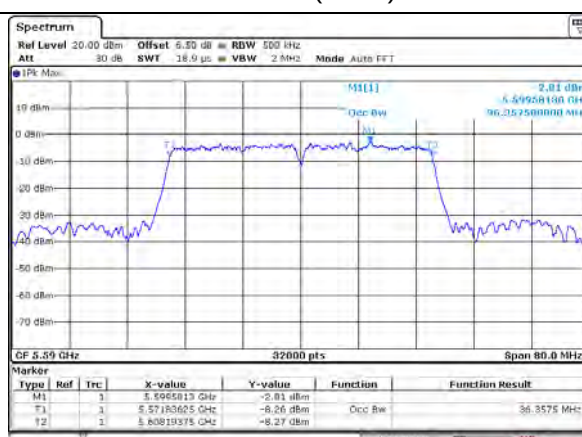
99% BW 802.11n(HT40) CH 62



99% BW 802.11n(HT40) CH 102



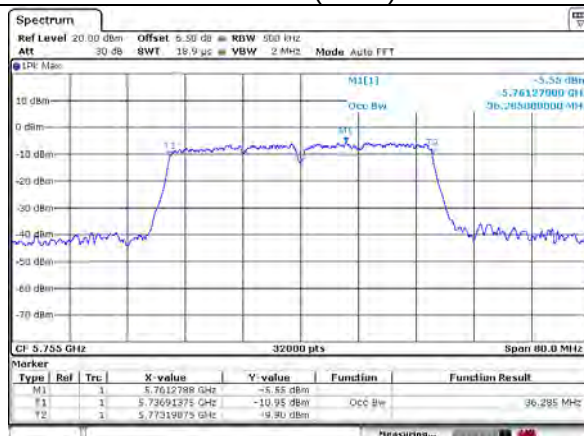
99% BW 802.11n(HT40) CH 110



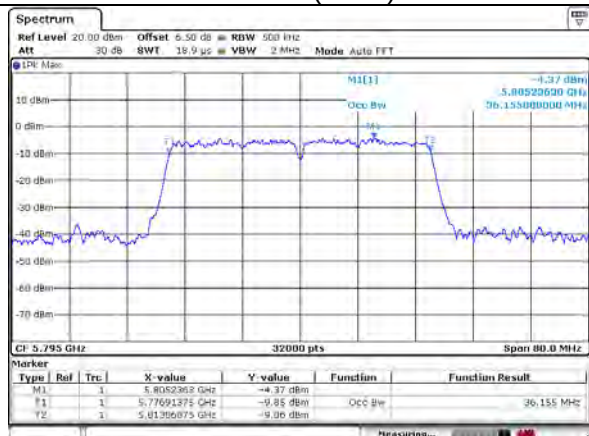
99% BW 802.11n(HT40) CH 134



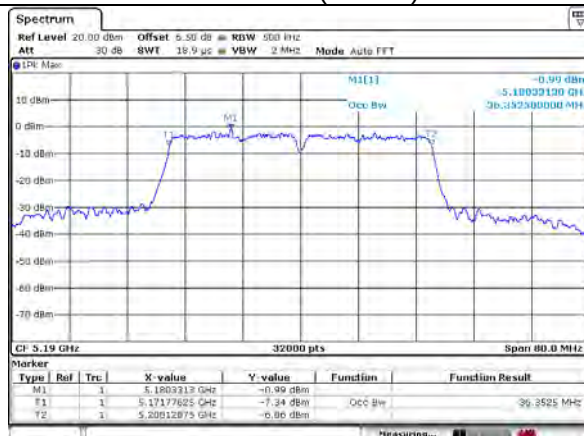
99% BW 802.11n(HT40) CH 151



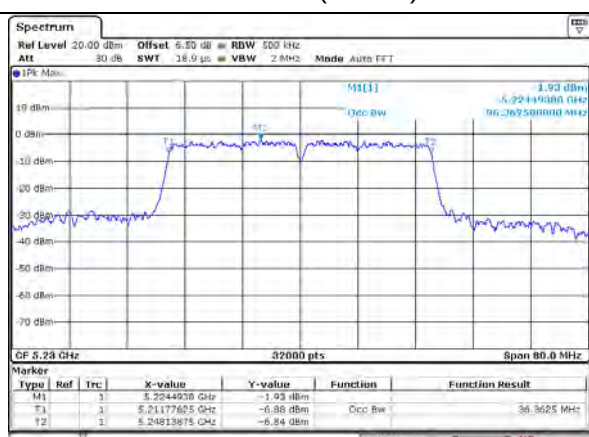
99% BW 802.11n(HT40) CH 159



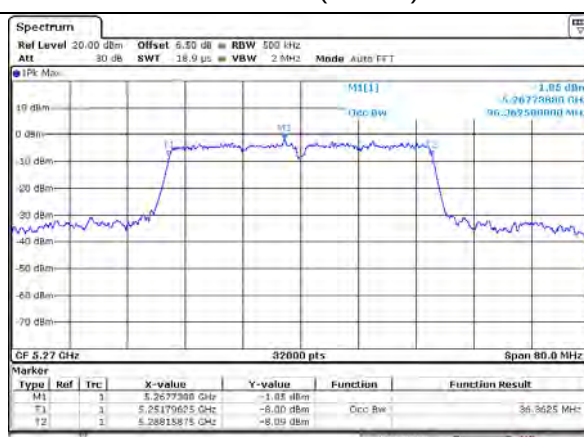
99% BW 802.11ac(VHT40) CH 38



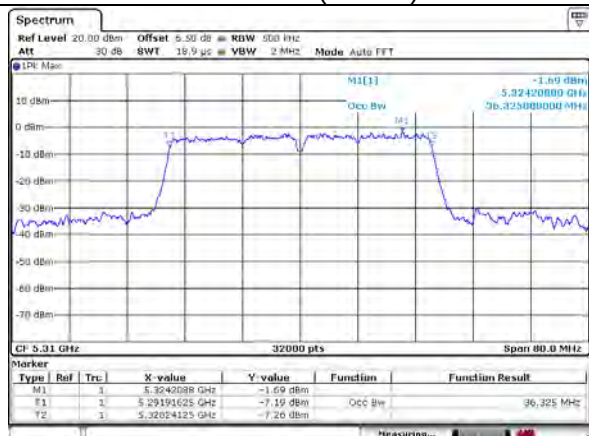
99% BW 802.11ac(VHT40) CH 46



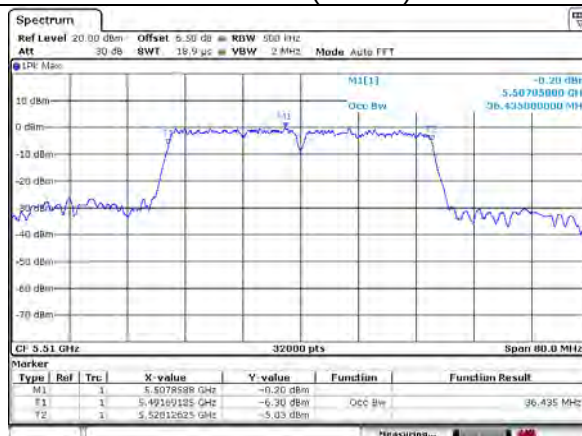
99% BW 802.11ac(VHT40) CH 54



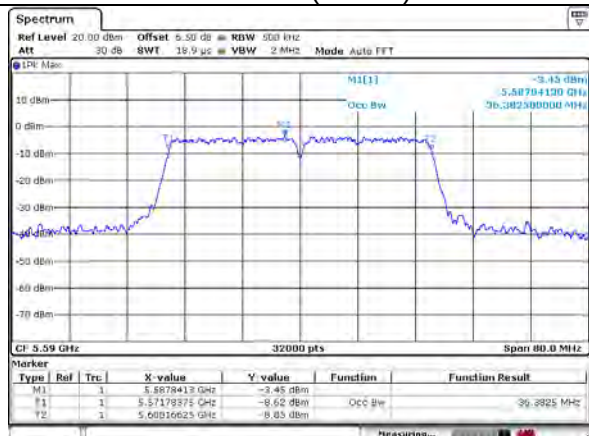
99% BW 802.11ac(VHT40) CH 62



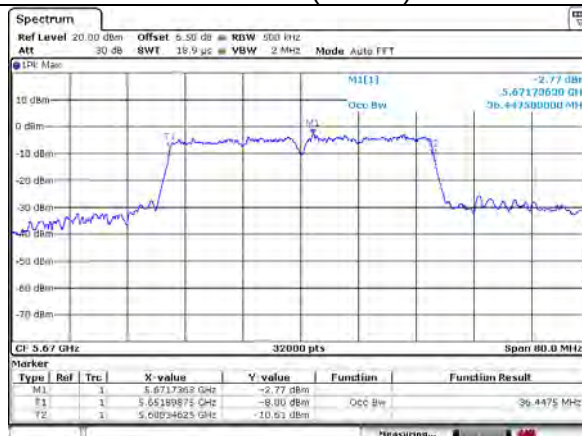
99% BW 802.11ac(VHT40) CH 102



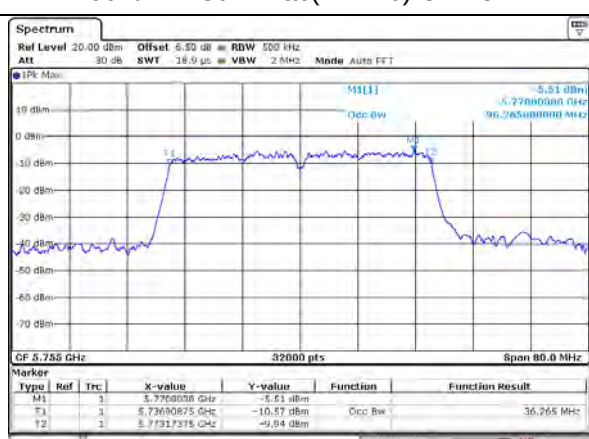
99% BW 802.11ac(VHT40) CH 110



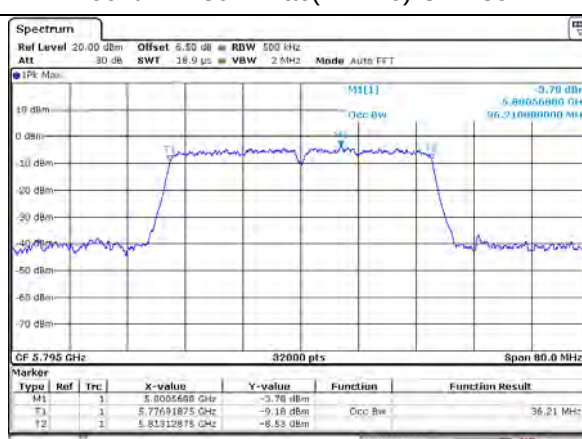
99% BW 802.11ac(VHT40) CH 134



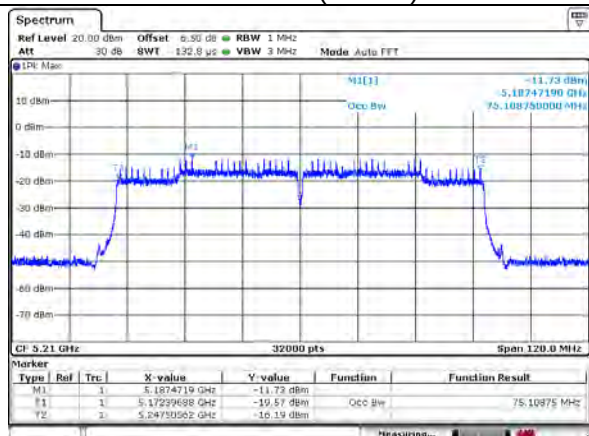
99% BW 802.11ac(VHT40) CH 151



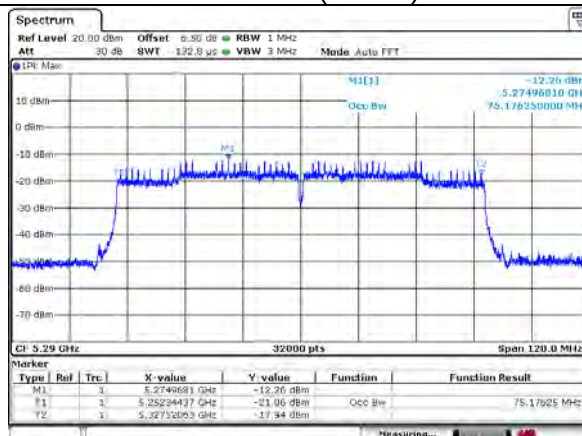
99% BW 802.11ac(VHT40) CH 159



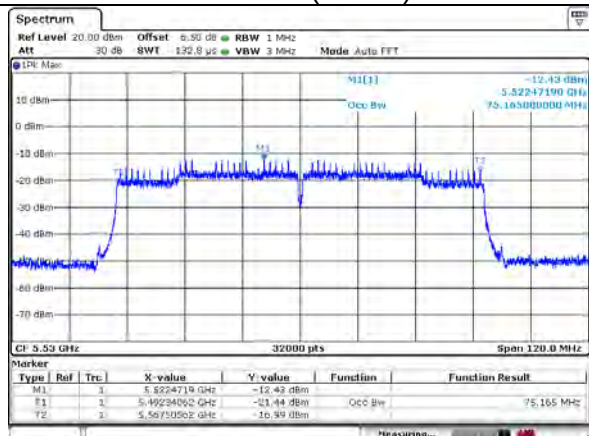
99% BW 802.11ac(VHT80) CH 42



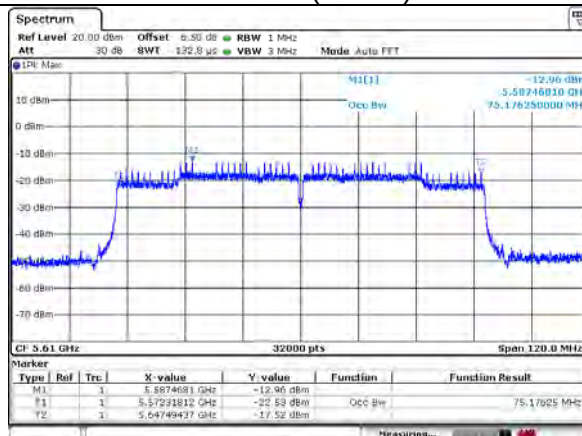
99% BW 802.11ac(VHT80) CH 58



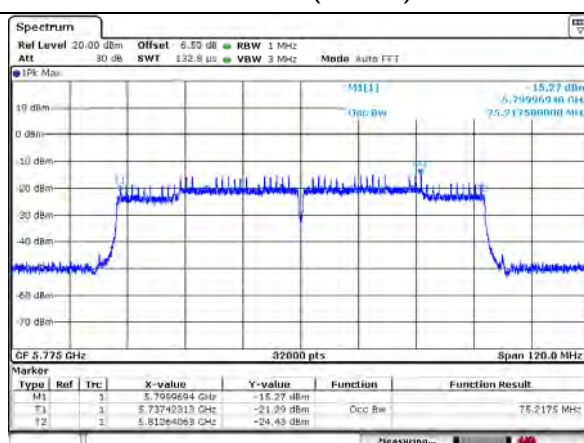
99% BW 802.11ac(VHT80) CH 106



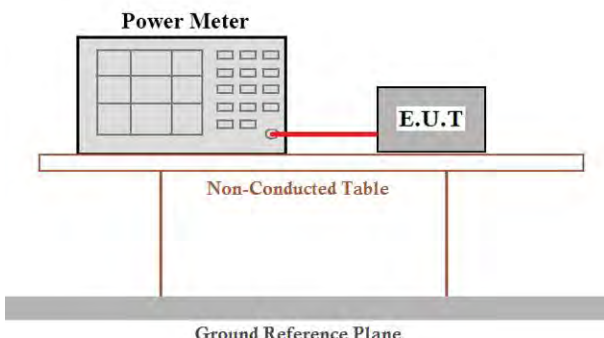
99% BW 802.11ac(VHT80) CH 138



99% BW 802.11ac(VHT80) CH 155



5. MAXIMUM CONDUCTED OUTPUT POWER

Test Requirement:	FCC Part15 E Section 15.407
Test Method:	KDB 789033 D02 General UNII Test Procedures New Rules v02r01
Limit:	For the band 5.15-5.25 GHz, the maximum conducted output power over the frequency bands of operation shall not exceed 250mW. For the band 5.745-5.850 GHz, the maximum conducted output power over the frequency bands of operation shall not exceed 30dBm
Test setup:	 The diagram illustrates the test setup. A 'Power Meter' is connected to an 'E.U.T.' (Equipment Under Test) via a red cable. Both devices are placed on a 'Non-Conducted Table'. The table is supported by two legs and sits on a 'Ground Reference Plane'.
Test procedure:	Measurement using an RF average power meter (i) Measurements may be performed using a wideband RF power meter with a thermocouple detector or equivalent if all of the conditions listed below are satisfied a) The EUT is configured to transmit continuously or to transmit with a constant duty cycle. b) At all times when the EUT is transmitting, it must be transmitting at its maximum power control level. c) The integration period of the power meter exceeds the repetition period of the transmitted signal by at least a factor of five. (ii) If the transmitter does not transmit continuously, measure the duty cycle, x, of the transmitter output signal as described in section B). (iii) Measure the average power of the transmitter. This measurement is an average over both the on and off periods of the transmitter. (iv) Adjust the measurement in dBm by adding $10 \log(1/x)$ where x is the duty cycle (e.g., $10 \log(1/0.25)$ if the duty cycle is 25 percent).
Test Instruments:	Refer to section 5.10 for details
Test mode:	Refer to section 5.3 for details

CH. No.	Frequency	Conducted Average Power(dBm)		total power (dBm)	Limit (dBm)	Result
		ANT A	ANT B			
TX 802.11 ac(VHT20) Mode						
CH 36	5180	12.92	--	--	24	Pass
CH 40	5200	13.04	--	--	24	Pass
CH 48	5240	13.23	--	--	24	Pass
CH 52	5260	13.25	--	--	24	Pass
CH 56	5280	13.70	--	--	24	Pass
CH 64	5320	13.97	--	--	24	Pass
CH 100	5500	13.40	--	--	24	Pass
CH 120	5600	13.35	--	--	24	Pass
CH 140	5700	13.91	--	--	24	Pass
CH 149	5745	14.09	--	--	30	Pass
CH 157	5785	13.69	--	--	30	Pass
CH 165	5825	13.30	--	--	30	Pass
TX 802.11 ac(VHT40) Mode						
CH38	5190	12.12	--	--	24	Pass
CH46	5230	13.17	--	--	24	Pass
CH 54	5270	13.66	--	--	24	Pass
CH 62	5310	13.03	--	--	24	Pass
CH 102	5510	13.12	--	--	24	Pass
CH 110	5550	12.99	--	--	24	Pass
CH 134	5670	13.13	--	--	24	Pass
CH 151	5755	12.42	--	--	30	Pass
CH 159	5795	13.34	--	--	30	Pass
TX 802.11 ac(VHT80) Mode						
CH42	5210	12.94	--	--	24	Pass
CH 58	5290	12.28	--	--	24	Pass
CH 106	5530	12.04	--	--	24	Pass
CH 138	5690	12.23	--	--	24	Pass
CH155	5775	12.43	--	--	30	Pass

6. Band Edges Measurement

Test Requirement:	FCC Part15 E Section 15.407 and 5.205																								
Test Method:	ANSI C63.10:2013																								
Test site:	Measurement Distance: 3m																								
Receiver setup:	<table><tr><td>Frequency</td><td>Detector</td><td>RBW</td><td>VBW</td><td>Remark</td></tr><tr><td>30MHz-1GHz</td><td>Quasi-peak</td><td>100KHz</td><td>300KHz</td><td>Quasi-peak Value</td></tr><tr><td rowspan="2">Above 1GHz</td><td>Peak</td><td>1MHz</td><td>3MHz</td><td>Peak Value</td></tr><tr><td>AV</td><td>1MHz</td><td>3MHz</td><td>Average Value</td></tr></table>					Frequency	Detector	RBW	VBW	Remark	30MHz-1GHz	Quasi-peak	100KHz	300KHz	Quasi-peak Value	Above 1GHz	Peak	1MHz	3MHz	Peak Value	AV	1MHz	3MHz	Average Value	
Frequency	Detector	RBW	VBW	Remark																					
30MHz-1GHz	Quasi-peak	100KHz	300KHz	Quasi-peak Value																					
Above 1GHz	Peak	1MHz	3MHz	Peak Value																					
	AV	1MHz	3MHz	Average Value																					
Limit:	<table><tr><td>Frequency</td><td>Limit (dBuV/m @3m)</td><td>Remark</td></tr><tr><td>30MHz-88MHz</td><td>40.0</td><td>Quasi-peak Value</td></tr><tr><td>88MHz-216MHz</td><td>43.5</td><td>Quasi-peak Value</td></tr><tr><td>216MHz-960MHz</td><td>46.0</td><td>Quasi-peak Value</td></tr><tr><td>960MHz-1GHz</td><td>54.0</td><td>Quasi-peak Value</td></tr><tr><td rowspan="2">Above 1GHz</td><td>54.0</td><td>Average Value</td></tr><tr><td>74.0</td><td>Peak Value</td></tr></table> Undesirable emission limits: (1) For transmitters operating in the 5.15-5.25 GHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27 dBm/MHz. (2) For transmitters operating in the 5.25-5.35 GHz band: all emissions outside of the 5.15-5.35 GHz band shall not exceed an EIRP of -27 dBm/MHz. Devices operating in the 5.25-5.35 GHz band that generate emissions in the 5.15-5.25 GHz band must meet all applicable technical requirements for operation in the 5.15-5.25 GHz band (including indoor use) or alternatively meet an out-of-band emission EIRP limit of -27 dBm/MHz in the 5.15-5.25 GHz band. (3) For transmitters operating in the 5.47-5.725 GHz band: all emissions outside of the 5.47-5.725 GHz band shall not exceed an EIRP of -27 dBm/MHz.					Frequency	Limit (dBuV/m @3m)	Remark	30MHz-88MHz	40.0	Quasi-peak Value	88MHz-216MHz	43.5	Quasi-peak Value	216MHz-960MHz	46.0	Quasi-peak Value	960MHz-1GHz	54.0	Quasi-peak Value	Above 1GHz	54.0	Average Value	74.0	Peak Value
Frequency	Limit (dBuV/m @3m)	Remark																							
30MHz-88MHz	40.0	Quasi-peak Value																							
88MHz-216MHz	43.5	Quasi-peak Value																							
216MHz-960MHz	46.0	Quasi-peak Value																							
960MHz-1GHz	54.0	Quasi-peak Value																							
Above 1GHz	54.0	Average Value																							
	74.0	Peak Value																							
Test Procedure:	a. The EUT was placed on the top of a rotating table 1.5 m above the ground at a 3 meter camber. The table was rotated 360 degrees to determine the position of the highest radiation. b. The EUT was set 3 meters away from the interference-receiving antenna, which was mounted on the top of a variable-height antenna tower. c. The antenna height is varied from one meter to four meters above the ground to determine the maximum value of the field strength. Both horizontal and vertical polarizations of the antenna are set to make the measurement. d. For each suspected emission, the EUT was arranged to its worst case and then the antenna was tuned to heights from 1 meter to 4 meters and the rotatable table was turned from 0 degrees to 360 degrees to find the maximum reading. e. The test-receiver system was set to Peak Detect Function and Specified Bandwidth with Maximum Hold Mode. f. If the emission level of the EUT in peak mode was 10dB lower than the limit specified, then testing could be stopped and the peak values of the EUT would be reported. Otherwise the emissions that did not have 10dB margin would be re-tested one by one using peak, quasi-peak or average method as specified and then reported in a data sheet.																								

Test setup:	Above 1GHz
Test Instruments:	Refer to section 5.10 for details
Test mode:	Refer to section 5.3 for details
Test results:	Pass

Remark:

According to KDB 789033 v02r01 section G) 1) (d), for For measurements above 1000 MHz @ 3m distance, the limit of field strength is computed as follows:

$$E[\text{dBuV/m}] = \text{EIRP}[\text{dBm}] + 95.2;$$

For example, if EIRP = -27dBm

$$E[\text{dBuV/m}] = -27 + 95.2 = 68.2\text{dBuV/m}.$$

6.1. TEST RESULT

Peak value:

Test mode:		802.11a					
Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector	Antenna Pol.
5150	46.32	7.18	53.50	68.2	-14.70	PK	H
5150	45.25	7.18	52.43	68.2	-15.77	PK	V
5350	45.59	7.2	52.79	68.2	-15.41	PK	H
5350	50.97	7.2	58.17	68.2	-10.03	PK	V

Average

Test mode:		802.11a					
Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector	Antenna Pol.
5150	32.05	7.18	39.23	54	-14.77	AV	H
5150	30.96	7.18	38.14	54	-15.86	AV	V
5350	31.30	7.2	38.50	54	-15.50	AV	H
5350	37.03	7.2	44.23	54	-9.77	AV	V

Peak value:

Test mode:		802.11n(HT20)					
Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector	Antenna Pol.
5150	49.25	7.18	56.43	68.2	-11.77	PK	H
5150	55.65	7.18	62.83	68.2	-5.37	PK	V
5350	44.80	7.2	52.00	68.2	-16.20	PK	H
5350	51.80	7.2	59.00	68.2	-9.20	PK	V

Average

Test mode:		802.11n(HT20)					
Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector	Antenna Pol.
5150	35.26	7.18	42.44	54	-11.56	AV	H
5150	42.50	7.18	49.68	54	-4.32	AV	V
5350	30.91	7.2	38.11	54	-15.89	AV	H
5350	37.80	7.2	45.00	54	-9.00	AV	V

Peak value:

Test mode:		802.11n(HT40)					
Frequency (MHz)	Reading Level	Factor	Measure Level	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Pol.
5150	44.69	7.18	51.87	68.2	-16.33	PK	H
5150	45.37	7.18	52.55	68.2	-15.65	PK	V
5350	45.35	7.2	52.55	68.2	-15.65	PK	H
5350	49.43	7.2	56.63	68.2	-11.57	PK	V

Average

Test mode:		802.11n(HT40)					
Frequency (MHz)	Reading Level	Factor	Measure Level	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Pol.
5150	30.95	7.18	38.13	54	-15.87	AV	H
5150	30.80	7.18	37.98	54	-16.02	AV	V
5350	31.58	7.2	38.78	54	-15.22	AV	H
5350	35.87	7.2	43.07	54	-10.93	AV	V

Peak value:

Test mode:		802.11ac(VHT80)					
Frequency (MHz)	Reading Level	Factor	Measure Level	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Pol.
5150	47.27	7.18	54.45	68.2	-13.75	PK	H
5150	50.59	7.18	57.77	68.2	-10.43	PK	V
5350	48.37	7.2	55.57	68.2	-12.63	PK	H
5350	50.50	7.2	57.70	68.2	-10.50	PK	V

Average

Test mode:		802.11ac(VHT80)					
Frequency (MHz)	Reading Level	Factor	Measure Level	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Pol.
5150	33.13	7.18	40.31	54	-13.69	AV	H
5150	36.19	7.18	43.37	54	-10.63	AV	V
5350	33.77	7.2	40.97	54	-13.03	AV	H
5350	36.21	7.2	43.41	54	-10.59	AV	V

Peak value:

Test mode:		802.11a					
Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector	Antenna Pol.
5470.000	49.02	8.2	57.22	68.2	-10.98	PK	V
5470.000	46.21	8.2	54.41	68.2	-13.79	PK	H
5725.000	47.85	8.79	56.64	68.2	-11.56	PK	V
5725.000	48.38	8.79	57.17	68.2	-11.03	PK	H

Peak value:

Test mode:		802.11n(HT20)					
Frequency (MHz)	Reading Level (dBuV)	Factor (dB/m)	Measure Level (dBuV/m)	Limit (dBuV/m)	Over limit(dB)	Detector	Antenna Pol.
5470.000	47.69	8.2	55.89	68.2	-12.31	PK	V
5470.000	45.60	8.2	53.80	68.2	-14.40	PK	H
5725.000	47.27	8.79	56.06	68.2	-12.14	PK	V
5725.000	44.05	8.79	52.84	68.2	-15.36	PK	H

Peak value:

Test mode:		802.11n(HT40)					
Frequency (MHz)	Reading Level	Factor	Measure Level	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Pol.
5470.000	46.94	8.2	55.14	68.2	-13.06	PK	V
5470.000	44.02	8.2	52.22	68.2	-15.98	PK	H
5725.000	47.27	8.79	56.06	68.2	-12.14	PK	V
5725.000	44.32	8.79	53.11	68.2	-15.09	PK	H

Peak value:

Test mode:		802.11ac(VHT80)					
Frequency (MHz)	Reading Level	Factor	Measure Level	Limit (dBuV/m)	Margin (dB)	Detector	Antenna Pol.
5470.000	47.19	8.2	55.39	68.2	-12.81	PK	V
5470.000	44.79	8.2	52.99	68.2	-15.21	PK	H
5725.000	46.47	8.79	55.26	68.2	-12.94	PK	V
5725.000	48.13	8.79	56.92	68.2	-11.28	PK	H

Test mode: 802.11a Test channel: Lowest

Peak value:

Frequency (MHz)	Read Level (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5725	41.88	8.79	50.67	74	-23.33	Horizontal
5741.35	84.33	8.57	92.90	N/A	N/A	Horizontal
5725	42.53	8.79	51.32	74	-22.68	Vertical
5741.35	86.34	8.57	94.91	N/A	N/A	Vertical

Average

Frequency (MHz)	Read Level (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5725	32.00	8.79	40.79	54	-13.21	Horizontal
5741.35	74.63	8.57	83.20	N/A	N/A	Horizontal
5725	32.25	8.79	41.04	54	-12.96	Vertical
5741.35	76.78	8.57	85.35	N/A	N/A	Vertical

Test mode: 802.11a Test channel: Highest

Peak value:

Frequency (MHz)	Read Level (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5826.2	80.16	8.79	88.95	74	14.95	Horizontal
5850	40.44	8.57	49.01	N/A	N/A	Horizontal
5826.2	86.85	8.79	95.64	74	21.64	Vertical
5850	41.99	8.57	50.56	N/A	N/A	Vertical

Average

Frequency (MHz)	Read Level (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5850	30.05	8.79	38.84	54	-15.16	Horizontal
5826.2	71.69	8.57	80.26	N/A	N/A	Horizontal
5850	29.89	8.79	38.68	54	-15.32	Vertical
5826.2	78.39	8.57	86.96	N/A	N/A	Vertical

Test mode: 802.11n(HT20) Test channel: Lowest

Peak value:

Frequency (MHz)	Read Level (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5725	39.42	8.79	48.21	74	-25.79	Horizontal
5742.19	78.96	8.57	87.53	N/A	N/A	Horizontal
5725	41.53	8.79	50.32	74	-23.68	Vertical
5742.19	85.99	8.57	94.56	N/A	N/A	Vertical

Average

Frequency (MHz)	Read Level (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5725	30.59	8.79	39.38	54	-14.62	Horizontal
5742.19	70.21	8.57	78.78	N/A	N/A	Horizontal
5725	31.45	8.79	40.24	54	-13.76	Vertical
5742.19	77.50	8.57	86.07	N/A	N/A	Vertical

Test mode: 802.11n(HT20) Test channel: Highest

Peak value:

Frequency (MHz)	Read Level (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5850	39.97	8.79	48.76	74	-25.24	Horizontal
5826.2	79.34	8.57	87.91	N/A	N/A	Horizontal
5850	42.52	8.79	51.31	74	-22.69	Vertical
5826.2	37.41	8.57	45.98	N/A	N/A	Vertical

Average

Frequency (MHz)	Read Level (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5850	30.61	8.79	39.40	54	-14.60	Horizontal
5826.2	70.05	8.57	78.62	N/A	N/A	Horizontal
5850	30.46	8.79	39.25	54	-14.75	Vertical
5826.2	76.43	8.57	85.00	N/A	N/A	Vertical

Test mode: 802.11n(HT40) Test channel: Lowest

Peak value:

Frequency (MHz)	Read Level (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5725	39.89	8.79	48.68	74	-25.32	Horizontal
5745	76.89	8.57	85.46	N/A	N/A	Horizontal
5725	40.05	8.79	48.84	74	-25.16	Vertical
5745	86.07	8.57	94.64	N/A	N/A	Vertical

Average

Frequency (MHz)	Read Level (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5725	31.90	8.79	40.69	54	-13.31	Horizontal
5745	70.31	8.57	78.88	N/A	N/A	Horizontal
5725	30.56	8.79	39.35	54	-14.65	Vertical
5745	77.08	8.57	85.65	N/A	N/A	Vertical

Test mode: 802.11n(HT40) Test channel: Highest

Peak value:

Frequency (MHz)	Read Level (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5850	40.28	8.79	49.07	74	-24.93	Horizontal
5784.88	80.57	8.57	89.14	N/A	N/A	Horizontal
5850	43.96	8.79	52.75	74	-21.25	Vertical
5784.88	86.00	8.57	94.57	N/A	N/A	Vertical

Average

Frequency (MHz)	Read Level (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5784.88	73.37	8.79	82.16	54	28.16	Horizontal
5850	30.37	8.57	38.94	N/A	N/A	Horizontal
5784.88	75.96	8.79	84.75	54	30.75	Vertical
5850	28.78	8.57	37.35	N/A	N/A	Vertical

Test mode: 802.11ac(VHT80) Test channel: Middle

Peak value:

Frequency (MHz)	Read Level (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5725.000	39.65	8.52	48.17	74	-25.83	Horizontal
5778.180	80.46	8.68	89.14	N/A	N/A	Horizontal
5850.000	37.99	8.82	46.81	74	-27.19	Horizontal
5725.000	39.34	8.52	47.86	74	-26.14	Vertical
5778.180	83.85	8.68	92.53	N/A	N/A	Vertical
5850.000	42.30	8.82	51.12	74	-22.88	Vertical

Average

Frequency (MHz)	Read Level (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Polarization
5725.000	31.42	8.52	39.94	54	-14.06	Horizontal
5778.180	71.70	8.68	80.38	N/A	N/A	Horizontal
5850.000	30.10	8.82	38.92	54	-15.08	Horizontal
5725.000	30.92	8.52	39.44	54	-14.56	Vertical
5778.180	72.98	8.68	81.66	N/A	N/A	Vertical
5850.000	31.02	8.82	39.84	54	-14.16	Vertical

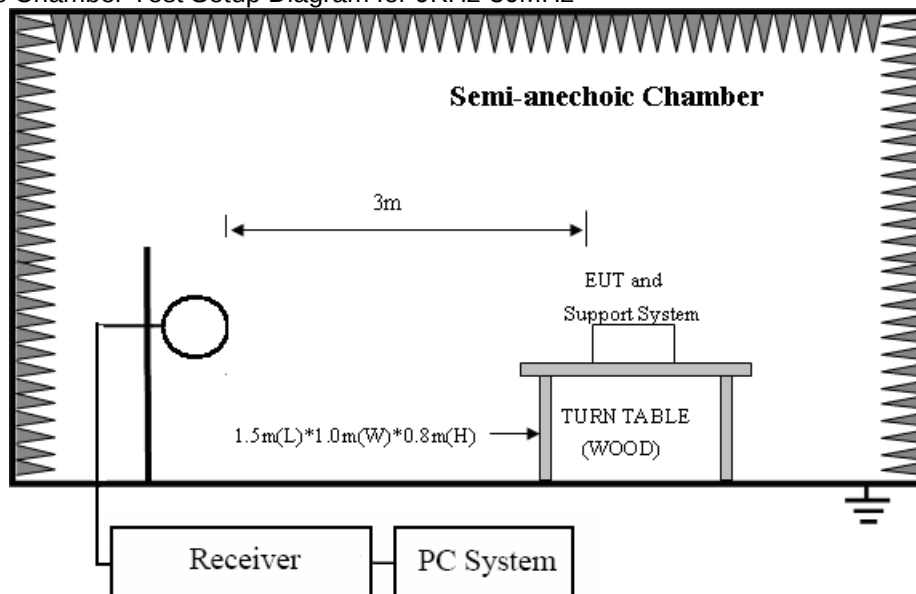
7. RADIATED EMISSION MEASUREMENT

7.1. Test equipment

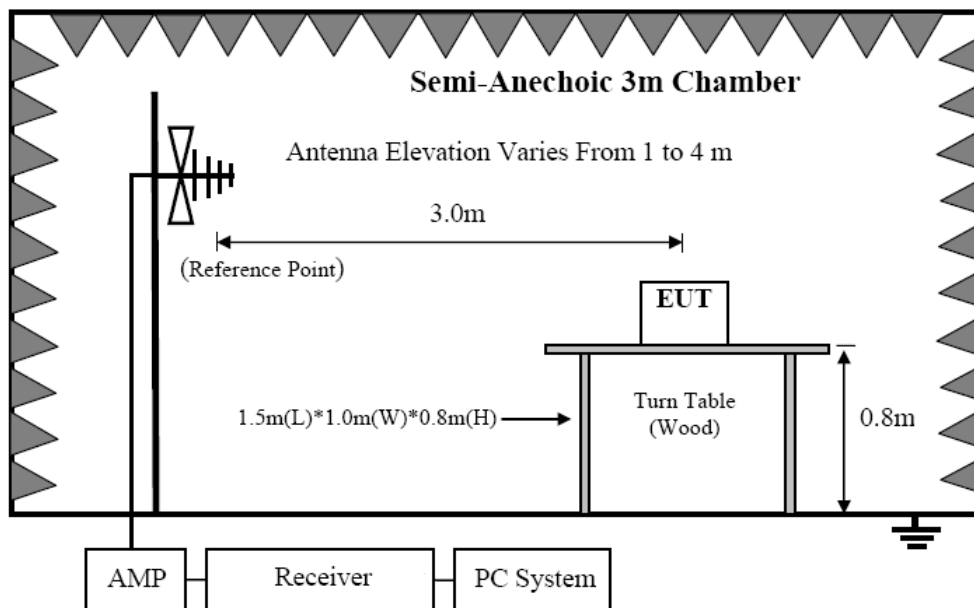
Item	Equipment	Manufacturer	Model No.	Serial No.	Calibrated until	Calibrated Date
1	EMI Test Receiver	R&S	ESCI	101307	12/17/2019	12/18/2018
2	Spectrum analyzer	Agilent	E4407B	US40240708	07/04/2020	07/05/2019
3	Trilog Broadband Antenna	Schwarzbeck	VULB9168	VULB9168-192	03/04/2020	03/05/2019
4	Double Ridged Horn Antenna	SCHWARZBEC K	BBHA 9120D1065	100276	12/17/2019	12/18/2018
5	Double Ridged Horn Antenna	SCHWARZBEC K	BBHA 9120D1065	100546	12/17/2019	12/18/2018
6	Dipole antenna	Schwarzbeck	UHAP	1101	12/17/2019	12/18/2018
7	Dipole antenna	Schwarzbeck	VHAP	1118	12/17/2019	12/18/2018
8	Pre-Amplifier	CY	EMC011830	980136	12/17/2019	12/18/2018
9	Pre-amplifier	HP	8447F	3113A05680	12/17/2019	12/18/2018
10	RF Cable	R&S	R01	10403	12/17/2019	12/18/2018
11	RF Cable	R&S	R02	10512	12/17/2019	12/18/2018
12	RF Cable	R&S	R01	10454	12/17/2019	12/18/2018
13	RF Cable	R&S	R02	10343	12/17/2019	12/18/2018
14	Spectrum analyze	R&S	FSV40	101470	06/28/2020	06/29/2019
15	Measurement Software	Farad	EZ-EMC (Ver.ATT-03 A)	N/A	N/A	N/A
16	Loop antenna	TESEQ	HLA6120	20129	12/17/2019	12/18/2018

7.2. Block diagram of test setup

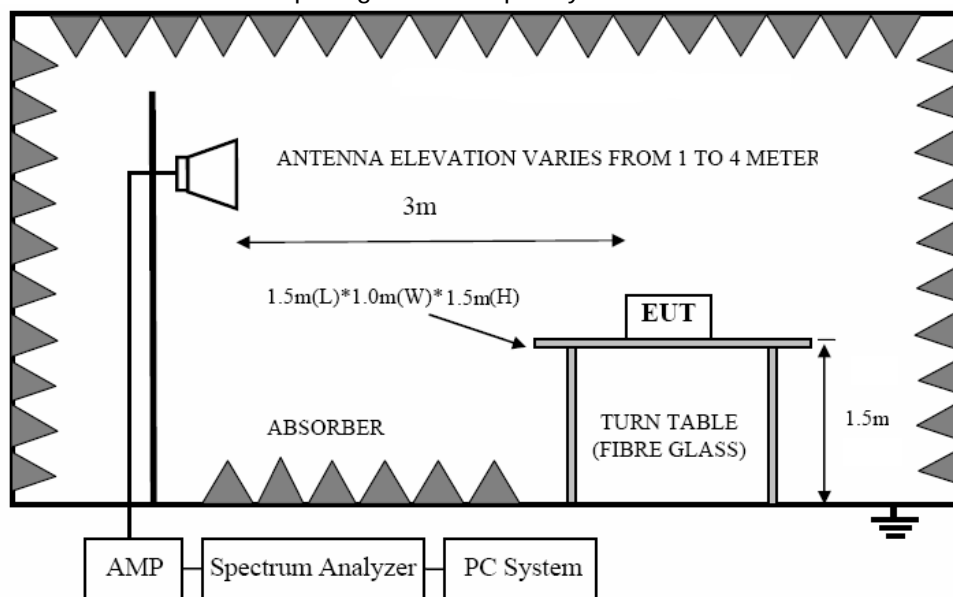
In 3m Anechoic Chamber Test Setup Diagram for 9KHz-30MHz



In 3m Anechoic Chamber Test Setup Diagram for 30MHz-1GHz



In 3m Anechoic Chamber Test Setup Diagram for frequency above 1GHz



Note: For harmonic emissions test a appropriate high pass filter was inserted in the input port of AMP.

7.3. Limit

9.3.1 FCC 15.205 Restricted frequency band

MHz	MHz	MHz	GHz
0.090 - 0.110	16.42 - 16.423	399.9 - 410	4.5 - 5.15
¹ 0.495 - 0.505	16.69475 - 16.69525	608 - 614	5.35 - 5.46
2.1735 - 2.1905	16.80425 - 16.80475	960 - 1240	7.25 - 7.75
4.125 - 4.128	25.5 - 25.67	1300 - 1427	8.025 - 8.5
4.17725 - 4.17775	37.5 - 38.25	1435 - 1626.5	9.0 - 9.2
4.20725 - 4.20775	73 - 74.6	1645.5 - 1646.5	9.3 - 9.5
6.215 - 6.218	74.8 - 75.2	1660 - 1710	10.6 - 12.7
6.26775 - 6.26825	108 - 121.94	1718.8 - 1722.2	13.25 - 13.4
6.31175 - 6.31225	123 - 138	2200 - 2300	14.47 - 14.5
8.291 - 8.294	149.9 - 150.05	2310 - 2390	15.35 - 16.2
8.362 - 8.366	156.52475 - 156.52525	2483.5 - 2500	17.7 - 21.4
8.37625 - 8.38675	156.7 - 156.9	2690 - 2900	22.01 - 23.12
8.41425 - 8.41475	162.0125 - 167.17	3260 - 3267	23.6 - 24.0
12.29 - 12.293	167.72 - 173.2	3332 - 3339	31.2 - 31.8
12.51975 - 12.52025	240 - 285	3345.8 - 3358	36.43 - 36.5
12.57675 - 12.57725	322 - 335.4	3600 - 4400	(²)

9.3.2. FCC 15.209 Limit.

FREQUENCY MHz	DISTANCE Meters	FIELD STRENGTHS LIMIT	
		μV/m	dB(μV)/m
0.009 ~ 0.490	300	2400/F(KHz)	67.6-20log(F)
0.490 ~ 1.705	30	24000/F(KHz)	87.6-20log(F)
1.705 ~ 30.0	30	30	29.54
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
960 ~ 1000	3	500	54.0
Above 1000	3	74.0 dB(μV)/m (Peak) 54.0 dB(μV)/m (Average)	

Note: (1) The emission limits shown in the above table are based on measurements employing a CISPR QP detector except for the frequency bands 9-90KHz, 110-490KHz and above 1000MHz. Radiated emissions limits in these three bands are based on measurements employing an average detector.

(2) At frequencies below 30MHz, measurement may be performed at a distance closer than that specified, and the limit at closer measurement distance can be extrapolated by below formula:

$$\text{Limit}_{3m}(\text{dBuV/m}) = \text{Limit}_{30m}(\text{dBuV/m}) + 40\text{Log}(30m/3m)$$

9.3.3. Limit for this EUT

All the emissions appearing within 15.205 restricted frequency bands shall not exceed the limits shown in 15.209, all the other emissions shall be at least 30dB below the fundamental emissions, or comply with 15.209 limits.

7.4. Test Procedure

- (1) EUT was placed on a non-metallic table, 80 cm above the ground plane inside a semi-anechoic chamber.
- (2) Setup EUT and assistant system according clause 2.4 and 7.2
- (3) Test antenna was located 3m(except 18GHz-40GHz was 1m) from the EUT on an adjustable mast, and the antenna used as below table.

Test frequency range	Test antenna used
9KHz-30MHz	Active Loop antenna
30MHz-1GHz	Trilog Broadband Antenna
1GHz-18GHz	Double Ridged Horn Antenna(1GHz-18GHz)
18GHz-40GHz	Horn Antenna(18GHz-40GHz)

According ANSI C63.10:2013 clause 6.4.4.2 and 6.5.3, for measurements below 30 MHz, the loop antenna was positioned with its plane vertical from the EUT and rotated about its vertical axis for maximum response at each azimuth position around the EUT. And the loop antenna also be positioned with its plane horizontal at the specified distance from the EUT. The center of the loop is 1 m above the ground. for measurement above 30MHz, the Trilog Broadband Antenna or Horn Antenna was located 3m from EUT, Measurements were made with the antenna positioned in both the horizontal and vertical planes of Polarization, and the measurement antenna was varied from 1 m to 4 m. in height above the reference ground plane to obtain the maximum signal strength.

- (4) Below pre-scan procedure was first performed in order to find prominent frequency spectrum radiated emissions from 9KHz to 25GHz:
 - (a) Scanning the peak frequency spectrum with the antenna specified in step (3), and the EUT was rotated 360 degree, the antenna height was varied from 1m to 4m(Except loop antenna, it's fixed 1m above ground.)
 - (b) Change work frequency or channel of device if practicable.
 - (c) Change modulation type of device if practicable.
 - (d) new battery is used during testing
 - (e) Rotated EUT though three orthogonal axes to determine the attitude of EUT arrangement produces highest emissions.

Spectrum frequency from 9KHz to 25GHz (tenth harmonic of fundamental frequency) was investigated, and no any obvious emission were detected from 18GHz to 25GHz, so below final test was performed with frequency range from 9KHz to 18GHz.

- (5) For final emissions measurements at each frequency of interest, the EUT was rotated and the antenna height was varied between 1m and 4m in order to maximize the emission. Measurements in both horizontal and vertical polarities were made and the data was recorded. In order to find the maximum emission, the relative positions of equipments and all of the interface cables were changed according to ANSI C63.10 2013 on Radiated Emission test.
- (6) The emissions from 9KHz to 1GHz were measured based on CISPR QP detector except for the frequency bands 9-90KHz, 110-490KHz, for emissions from 9KHz-90KHz, 110KHz-490KHz and above 1GHz were measured based on average detector, for emissions above 1GHz, peak emissions also be measured and need comply with Peak limit.
- (7) The emissions from 9KHz to 1GHz, QP or average values were measured with EMI receiver with below RBW

Frequency band	RBW
9KHz-150KHz	200Hz
150KHz-30MHz	9KHz
30MHz-1GHz	120KHz

- (8) For emissions above 1GHz, both Peak and Average level were measured with Spectrum Analyzer, and the RBW is set at 1MHz, VBW is set at 3MHz for Peak measure; RBW is set at 1MHz, VBW is set at 10Hz for Average measure(according ANSI C63.10:2013 clause 4.2.3.2.3 procedure for average measure). Peak detector is used for Peak and AV measurement both.

7.5. Test result(Below 30MHz)

EUT:	10.1" Tablet Computer With Rugged Protective Case	Model No.:	FLEX10AND
Temperature:	24℃	Relative Humidity:	55%
Distance:	3m	Test Power:	120V 60Hz
Polarization:	--	Test Result:	Pass
Test Mode:	Keeping TX mode	Test By:	Smile

Freq.	Reading	Limit	Margin	State
(MHz)	(dBuV/m)	(dBuV/m)	(dB)	P/F
--	--	--	--	P
--	--	--	--	P

Note:

The amplitude of spurious emissions which are attenuated by more than 20dB below the permissible value has no need to be reported.

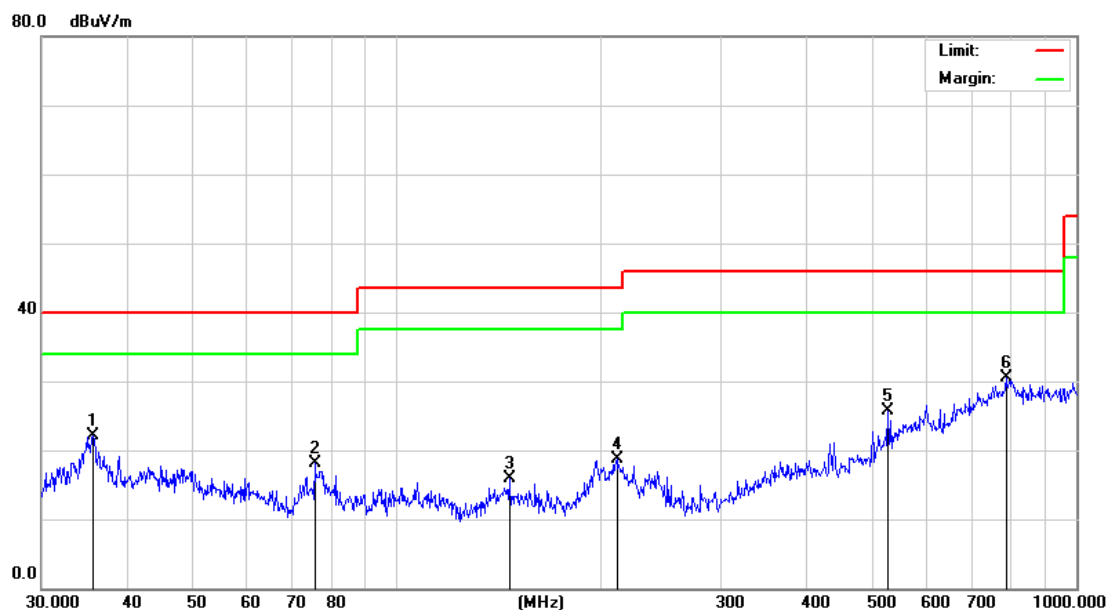
Distance extrapolation factor = $20 \log (\text{specific distance}/\text{test distance})$ (dB);

Limit line = specific limits(dBuv) + distance extrapolation factor.

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

TEST RESULTS (Between 30M – 1000 MHz)

EUT:	10.1" Tablet Computer With Rugged Protective Case	Model No.:	FLEX10AND
Temperature:	24	Relative Humidity:	55%
Distance:	3m	Test Power:	AC120V/60Hz
Polarization:	Vertical	Test Result:	Pass
Standard:	(RE)FCC PART 15	Test By:	Smile
Test Mode:	Keeping TX mode		

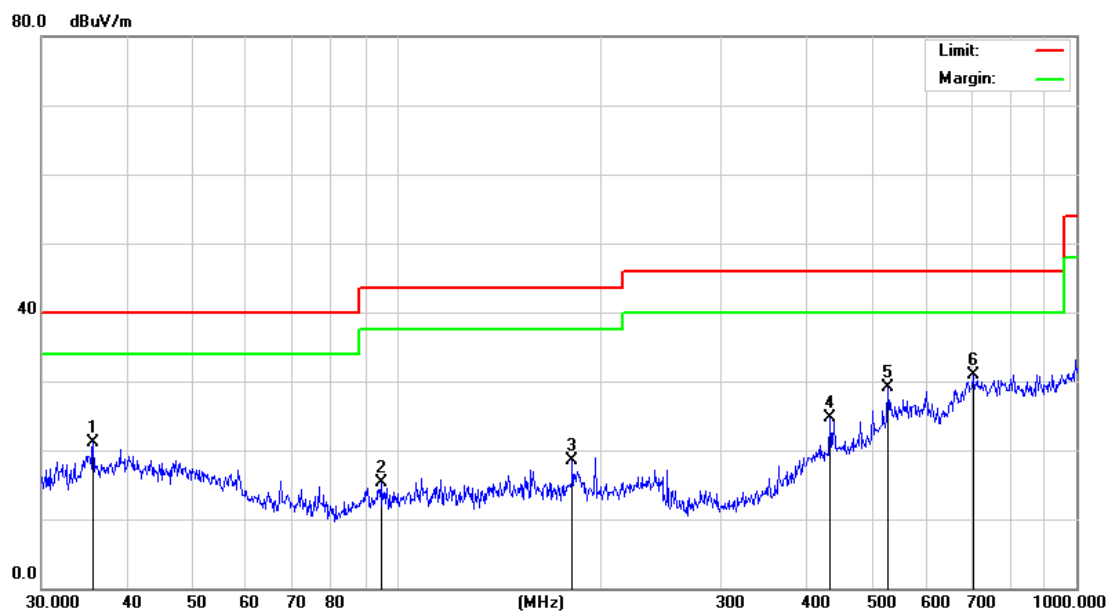


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		35.7490	26.91	-4.71	22.20	40.00	-17.80	peak
2		75.7113	28.44	-10.43	18.01	40.00	-21.99	peak
3		146.3735	23.30	-7.31	15.99	43.50	-27.51	peak
4		210.7860	22.59	-3.97	18.62	43.50	-24.88	peak
5		528.2458	25.38	0.32	25.70	46.00	-20.30	peak
6	*	787.8513	23.18	7.41	30.59	46.00	-15.41	peak

The test result is calculated as the following:

- (1) Result = Reading + Correct Factor
- (2) Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain + Attenuator
- (3) Margin = Result - Limit

EUT:	10.1" Tablet Computer With Rugged Protective Case	Model No.:	FLEX10AND
Temperature:	24	Relative Humidity:	55%
Distance:	3m	Test Power:	AC120V/60Hz
Polarization:	Horizontal	Test Result:	Pass
Standard:	(RE)FCC PART 15	Test By:	Smile
Test Mode:	Keeping TX mode		



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV/m	Limit dBuV/m	Over dB	Detector
1		35.7490	24.70	-3.50	21.20	40.00	-18.80	peak
2		94.7601	23.77	-8.43	15.34	43.50	-28.16	peak
3		181.2834	24.42	-5.88	18.54	43.50	-24.96	peak
4		434.0651	25.67	-0.95	24.72	46.00	-21.28	peak
5		528.2458	25.33	3.83	29.16	46.00	-16.84	peak
6	*	704.2261	23.70	7.16	30.86	46.00	-15.14	peak

The test result is calculated as the following:

(4) Result = Reading + Correct Factor

(5) Correct Factor = Antenna Factor + Cable Loss – Amplifier Gain + Attenuator

(6) Margin = Result - Limit

TEST RESULTS (Above 1000 MHz)

EUT:	10.1" Tablet Computer With Rugged Protective Case	Model No.:	FLEX10AND
Temperature:	24°C	Relative Humidity:	55%
Distance:	3m	Test Power:	120V 60Hz
Polarization:		Test Result:	Pass
Test Mode:	TX-802.11a/n20/n40/ac20/ac40/ac/80	Test By:	Smile

Above 1GHz:

Mode	Polar (H/V)	Frequency (MHz)	Reading (dBμV)	Factor (dB)	Result (dBμV)	Limit (dBμV/m)	Margin (dB)	Detector (PK/AV)
802.11a-5180MHz	H	10360	34.16	12.56	46.72	74	-27.28	PEAK
	H	15540	35.31	16.45	51.76	74	-22.24	PEAK
	V	10360	35.77	12.56	48.33	74	-25.67	PEAK
	V	15540	36.29	16.45	52.74	74	-21.26	PEAK

802.11a-5200 MHz	H	10400	35.74	12.64	48.38	74	-25.62	PEAK
	H	15600	35.72	16.53	52.25	74	-21.75	PEAK
	V	10400	36.60	12.64	49.24	74	-24.76	PEAK
	V	15600	34.11	16.53	50.64	74	-23.36	PEAK

802.11a-5240 MHz	H	10480	32.94	12.68	45.62	74	-28.38	PEAK
	H	15720	34.62	16.54	51.16	74	-22.84	PEAK
	V	10480	35.58	12.68	48.26	74	-25.74	PEAK
	V	15720	33.71	16.54	50.25	74	-23.75	PEAK

Mode	Polar (H/V)	Frequency (MHz)	Reading (dBμV)	Factor (dB)	Result (dBμV)	Limit (dBμV/m)	Margin (dB)	Detector (PK/AV)
802.11a-5260MHz	H	10520	33.86	13.45	47.31	74	-26.69	PEAK
	H	15780	34.71	17.52	52.23	74	-21.77	PEAK
	V	10520	34.80	13.45	48.25	74	-25.75	PEAK
	V	15780	36.35	17.52	53.87	74	-20.13	PEAK

802.11a-5280 MHz	H	10560	35.41	13.67	49.08	74	-24.92	PEAK
	H	15840	34.68	17.84	52.52	74	-21.48	PEAK
	V	10560	35.76	13.67	49.43	74	-24.57	PEAK
	V	15840	34.43	17.84	52.27	74	-21.73	PEAK

802.11a-5320 MHz	H	10640	32.35	13.73	46.08	74	-27.92	PEAK
	H	15960	34.24	17.98	52.22	74	-21.78	PEAK
	V	10640	35.19	13.73	48.92	74	-25.08	PEAK
	V	15960	32.84	17.98	50.82	74	-23.18	PEAK

Mode	Polar (H/V)	Frequency (MHz)	Reading (dBμV)	Factor (dB)	Result (dBμV)	Limit (dBμV/m)	Margin (dB)	Detector (PK/AV)
802.11a-5500MHz	H	11000	33.64	13.25	46.89	74	-27.11	PEAK
	H	16500	34.53	18.78	53.31	74	-20.69	PEAK
	V	11000	34.93	13.25	48.18	74	-25.82	PEAK
	V	16500	33.25	18.78	52.03	74	-21.97	PEAK
802.11a-5580 MHz	H	11160	31.27	14.53	45.80	74	-28.20	PEAK
	H	16740	31.50	22.12	53.62	74	-20.38	PEAK
	V	11160	32.90	14.53	47.43	74	-26.57	PEAK
	V	16740	30.08	22.12	52.20	74	-21.80	PEAK
802.11a-5700 MHz	H	11400	33.41	14.53	47.94	74.00	-26.06	PEAK
	H	17100	30.98	22.12	52.10	74.00	-20.90	PEAK
	V	11400	34.80	14.53	49.33	74.00	-24.67	PEAK
	V	17100	31.15	22.12	53.27	74.00	-20.73	PEAK
802.11a-5745 MHz	H	11490	30.50	16.82	47.32	74	-26.68	PEAK
	H	17235	25.16	22.93	48.09	74	-25.91	PEAK
	V	11490	28.76	16.82	45.58	74	-28.42	PEAK
	V	17235	25.78	22.93	48.71	74	-25.29	PEAK
802.11a-5785 MHz	H	11570	30.93	16.71	47.64	74	-26.36	PEAK
	H	17355	23.84	24.37	48.21	74	-25.79	PEAK
	V	11570	28.27	16.71	44.98	74	-29.02	PEAK
	V	17355	24.22	24.37	48.59	74	-25.41	PEAK
802.11a-5825 MHz	H	11650	32.61	16.61	49.22	74	-24.78	PEAK
	H	17475	23.71	25.01	48.72	74	-25.28	PEAK
	V	11650	30.13	16.61	46.74	74	-27.26	PEAK
	V	17475	24.67	25.01	49.68	74	-24.32	PEAK

Mode	Polar (H/V)	Frequency (MHz)	Reading (dB μ V)	Factor (dB)	Result (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Detector (PK/AV)
802.11n HT20-5180MHz	H	10360	32.61	12.56	45.17	74.00	-28.83	PEAK
	H	15540	35.22	16.45	51.67	74.00	-22.33	PEAK
	V	10360	35.19	12.56	47.75	74.00	-26.25	PEAK
	V	15540	35.64	16.45	52.09	74.00	-21.91	PEAK

802.11n HT20-5200MHz	H	10400	35.20	12.64	47.84	74.00	-26.16	PEAK
	H	15600	33.28	16.53	49.81	74.00	-24.19	PEAK
	V	10400	36.36	12.64	49.00	74.00	-25.00	PEAK
	V	15600	35.76	16.53	52.29	74.00	-21.71	PEAK

802.11n HT20-5240MHz	H	10480	34.75	12.68	47.43	74.00	-26.57	PEAK
	H	15720	32.41	16.54	48.95	74.00	-25.05	PEAK
	V	10480	34.43	12.68	47.11	74.00	-26.89	PEAK
	V	15720	33.75	16.54	50.29	74.00	-23.71	PEAK

Mode	Polar (H/V)	Frequency (MHz)	Reading (dB μ V)	Factor (dB)	Result (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Detector (PK/AV)
802.11n HT20-5260MHz	H	10520	36.04	13.45	49.49	74.00	-24.51	PEAK
	H	15780	34.48	17.52	52.00	74.00	-22.00	PEAK
	V	10520	37.18	13.45	50.63	74.00	-23.37	PEAK
	V	15780	35.69	17.52	53.21	74.00	-20.79	PEAK

802.11n HT20-5280 MHz	H	10560	35.31	13.67	48.98	74.00	-25.02	PEAK
	H	15840	34.64	17.84	52.48	74.00	-21.52	PEAK
	V	10560	38.45	13.67	52.12	74.00	-21.88	PEAK
	V	15840	35.66	17.84	53.50	74.00	-20.50	PEAK

802.11n HT20-5320 MHz	H	10640	33.97	13.73	47.70	74.00	-26.30	PEAK
	H	15960	35.63	17.98	53.61	74.00	-20.39	PEAK
	V	10640	36.31	13.73	50.04	74.00	-23.96	PEAK
	V	15960	34.50	17.98	52.48	74.00	-21.52	PEAK

Mode	Polar (H/V)	Frequency (MHz)	Reading (dB μ V)	Factor (dB)	Result (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Detector (PK/AV)
802.11n HT20-5500MHz	H	11000	33.20	13.25	46.45	74.00	-27.55	PEAK
	H	16500	34.31	18.78	53.09	74.00	-20.91	PEAK
	V	11000	34.11	13.25	47.36	74.00	-26.64	PEAK
	V	16500	34.90	18.78	53.68	74.00	-20.32	PEAK
802.11n HT20-5580 MHz	H	11160	35.77	13.57	49.34	74.00	-24.66	PEAK
	H	16740	32.45	19.37	51.82	74.00	-22.18	PEAK
	V	11160	36.89	13.57	50.46	74.00	-23.54	PEAK
	V	16740	33.13	19.37	52.50	74.00	-21.50	PEAK
802.11n HT20-5700 MHz	H	11400	34.97	14.53	49.50	74.00	-24.50	PEAK
	H	17100	30.71	22.12	52.83	74.00	-21.17	PEAK
	V	11400	37.06	14.53	51.59	74.00	-22.41	PEAK
	V	17100	29.27	22.12	51.39	74.00	-22.61	PEAK
802.11n HT20-5745MHz	H	11490	31.03	16.82	47.85	74.00	-26.15	PEAK
	H	17235	29.91	22.93	52.84	74.00	-21.16	PEAK
	V	11570	32.22	16.71	48.93	74.00	-25.07	PEAK
	V	17235	28.52	22.93	51.45	74.00	-22.55	PEAK
802.11n HT20-5785MHz	H	11570	30.20	16.71	46.91	74.00	-27.09	PEAK
	H	17355	27.99	24.37	52.36	74.00	-21.64	PEAK
	V	11570	32.80	16.71	49.51	74.00	-24.49	PEAK
	V	17355	29.11	24.37	53.48	74.00	-20.52	PEAK
802.11n HT20-5825MHz	H	11650	31.73	16.61	48.34	74.00	-25.66	PEAK
	H	17475	27.29	25.01	52.30	74.00	-21.70	PEAK
	V	11650	33.97	16.61	50.58	74.00	-23.42	PEAK
	V	17475	28.19	25.01	53.20	74.00	-20.80	PEAK
802.11n HT40-5190MHz	H	10380	35.91	12.58	48.49	74.00	-25.51	PEAK
	H	15570	34.48	16.48	50.96	74.00	-23.04	PEAK
	V	10380	36.62	12.58	49.20	74.00	-24.80	PEAK
	V	15570	33.48	16.48	49.96	74.00	-24.04	PEAK

Mode	Polar (H/V)	Frequency (MHz)	Reading (dB μ V)	Factor (dB)	Result (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Detector (PK/AV)
802.11n HT40-5230MHz	H	10460	35.41	12.66	50.02	74	-23.98	PEAK
	H	15690	31.06	16.53	51.49	74	-22.51	PEAK
	V	10460	33.55	12.66	48.09	74	-25.91	PEAK
	V	15690	30.57	16.53	50.87	74	-23.13	PEAK

Mode	Polar (H/V)	Frequency (MHz)	Reading (dB μ V)	Factor (dB)	Result (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Detector (PK/AV)
802.11n HT40-5270MHz	H	10540	35.71	13.72	49.43	74	-24.57	PEAK
	H	15810	30.85	17.67	48.52	74	-25.48	PEAK
	V	10540	33.64	13.72	47.36	74	-26.64	PEAK
	V	15810	29.84	17.67	47.51	74	-26.49	PEAK

Mode	Polar (H/V)	Frequency (MHz)	Reading (dB μ V)	Factor (dB)	Result (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Detector (PK/AV)
802.11n HT40-5310MHz	H	10620	36.22	13.71	49.93	74	-24.07	PEAK
	H	15930	31.41	17.93	49.34	74	-24.66	PEAK
	V	10620	33.65	13.71	47.36	74	-26.64	PEAK
	V	15930	31.08	17.93	49.01	74	-24.99	PEAK

Mode	Polar (H/V)	Frequency (MHz)	Reading (dB μ V)	Factor (dB)	Result (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Detector (PK/AV)
802.11n HT40-5510MHz	H	11020	35.85	13.5	49.35	74	-24.65	PEAK
	H	16530	29.28	18.95	48.23	74	-25.77	PEAK
	V	11020	34.00	13.5	47.50	74	-26.50	PEAK
	V	16530	30.87	18.87	49.74	74	-24.26	PEAK

Mode	Polar (H/V)	Frequency (MHz)	Reading (dB μ V)	Factor (dB)	Result (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Detector (PK/AV)
802.11n HT40-5550MHz	H	11100	37.51	13.58	51.09	74	-22.91	PEAK
	H	16650	28.22	19.41	47.63	74	-26.37	PEAK
	V	11100	34.76	13.58	48.34	74	-25.66	PEAK
	V	16650	29.95	19.41	49.36	74	-24.64	PEAK

Mode	Polar (H/V)	Frequency (MHz)	Reading (dB μ V)	Factor (dB)	Result (dB μ V)	Limit (dB μ V/m)	Margin (dB)	Detector (PK/AV)
802.11n HT40-5670MHz	H	11340	34.80	14.38	49.18	74	-24.82	PEAK
	H	17010	27.04	21.78	48.82	74	-25.18	PEAK
	V	11340	33.68	14.38	48.06	74	-25.94	PEAK
	V	17010	28.36	21.78	50.14	74	-23.86	PEAK

802.11n HT40-5755MHz	H	11510	29.46	16.78	48.49	74	-25.51	PEAK
	H	17265	23.85	23.29	50.93	74	-23.07	PEAK
	V	11510	31.52	16.78	49.96	74	-24.04	PEAK
	V	17265	24.98	23.29	52.19	74	-21.81	PEAK
802.11n HT40-5795MHz	H	11590	28.46	16.69	47	74	-27	PEAK
	H	17385	22.42	24.73	51.3	74	-22.7	PEAK
	V	11590	30.97	16.69	49.38	74	-24.62	PEAK
	V	17385	23.66	24.73	52.07	74	-21.93	PEAK
802.11ac HT20-5180MHz	H	10360	31.61	12.56	44.17	74	-29.83	PEAK
	H	15540	29.74	16.45	46.19	74	-27.81	PEAK
	V	10360	31.46	12.56	44.02	74	-29.98	PEAK
	V	15540	30.68	16.45	47.13	74	-26.87	PEAK
802.11ac HT20-5200MHz	H	10400	31.75	12.64	44.39	74	-29.61	PEAK
	H	15600	28.10	16.53	44.63	74	-29.37	PEAK
	V	10400	30.72	12.64	43.36	74	-30.64	PEAK
	V	15600	27.91	16.53	44.44	74	-29.56	PEAK
802.11ac HT20-5240MHz	H	10480	32.23	12.68	44.91	74	-29.09	PEAK
	H	15720	27.91	16.54	44.45	74	-29.55	PEAK
	V	10480	30.56	12.68	43.24	74	-30.76	PEAK
	V	15720	30.10	16.54	46.64	74	-27.36	PEAK
802.11ac HT20-5260MHz	H	10520	34.24	13.45	47.69	74	-26.31	PEAK
	H	15780	28.71	17.52	46.23	74	-27.77	PEAK
	V	10520	35.97	13.45	49.42	74	-24.58	PEAK
	V	15780	27.81	17.52	45.33	74	-28.67	PEAK
802.11ac HT20-5280MHz	H	10560	33.56	13.67	47.23	74	-26.77	PEAK
	H	15840	28.98	17.84	46.82	74	-27.18	PEAK
	V	10560	31.71	13.67	45.38	74	-28.62	PEAK
	V	15840	28.86	17.84	46.70	74	-27.30	PEAK
802.11ac HT20-5320MHz	H	10640	33.47	13.73	47.20	74	-26.80	PEAK
	H	15960	29.92	17.98	47.90	74	-26.10	PEAK
	V	10640	31.89	13.73	45.62	74	-28.38	PEAK
	V	15960	30.82	17.98	48.80	74	-25.20	PEAK

802.11ac HT20-5500MHz	H	11000	31.51	13.25	44.76	74	-29.24	PEAK
	H	16500	31.35	18.78	50.13	74	-23.87	PEAK
	V	11000	33.61	13.25	46.86	74	-27.14	PEAK
	V	16500	31.25	18.78	50.03	74	-23.97	PEAK

802.11ac HT20-5580MHz	H	11160	31.75	13.57	45.32	74	-28.68	PEAK
	H	16740	28.84	19.37	48.21	74	-25.79	PEAK
	V	11160	31.39	13.57	44.96	74	-29.04	PEAK
	V	16740	28.48	19.37	47.85	74	-26.15	PEAK

802.11ac HT20-5700MHz	H	11400	33.09	14.53	47.62	74	-26.38	PEAK
	H	17100	26.80	22.12	48.92	74	-25.08	PEAK
	V	11400	31.62	14.53	46.15	74	-27.85	PEAK
	V	17100	27.30	22.12	49.42	74	-24.58	PEAK

802.11ac HT20-5745MHz	H	11490	29.67	16.82	46.49	74	-27.51	PEAK
	H	17235	26.29	22.93	49.22	74	-24.78	PEAK
	V	11490	30.00	16.82	46.82	74	-27.18	PEAK
	V	17235	25.16	22.93	48.09	74	-25.91	PEAK

802.11ac HT20-5785MHz	H	11570	31.06	16.71	47.77	74	-26.23	PEAK
	H	17355	24.12	24.37	48.49	74	-25.51	PEAK
	V	11570	29.40	16.71	46.11	74	-27.89	PEAK
	V	17355	24.38	24.37	48.75	74	-25.25	PEAK

802.11ac HT20-5825MHz	H	11650	29.60	16.61	46.21	74	-27.79	PEAK
	H	17475	22.29	25.01	47.30	74	-26.70	PEAK
	V	11650	30.17	16.61	46.78	74	-27.22	PEAK
	V	17475	23.42	25.01	48.43	74	-25.57	PEAK

802.11ac HT40-5190MHz	H	10380	31.27	12.58	45.47	74	-28.53	PEAK
	H	15570	30.66	16.48	51.4	74	-22.6	PEAK
	V	10380	32.65	12.58	47.16	74	-26.84	PEAK
	V	15570	29.20	16.48	49.21	74	-24.79	PEAK

802.11ac HT40-5230MHz	H	10460	33.06	12.66	50.02	74	-23.98	PEAK
	H	15690	28.15	16.53	51.49	74	-22.51	PEAK
	V	10460	32.03	12.66	48.09	74	-25.91	PEAK
	V	15690	29.01	16.53	50.87	74	-23.13	PEAK
802.11ac HT40-5270MHz	H	10540	34.51	13.72	48.23	74.00	-25.77	PEAK
	H	15810	29.65	17.67	47.32	74.00	-26.68	PEAK
	V	10540	33.42	13.72	47.14	74.00	-26.86	PEAK
	V	15810	29.76	17.67	47.43	74.00	-26.57	PEAK
802.11ac HT40-5310MHz	H	10620	33.29	13.71	47.00	74	-27.00	PEAK
	H	15930	27.26	17.93	45.19	74	-28.81	PEAK
	V	10620	34.61	13.71	48.32	74	-25.68	PEAK
	V	15930	28.68	17.93	46.61	74	-27.39	PEAK
802.11ac HT40-5510MHz	H	11020	32.17	13.5	45.67	74	-28.33	PEAK
	H	16530	29.16	18.95	48.11	74	-25.89	PEAK
	V	11020	32.68	13.5	46.18	74	-27.82	PEAK
	V	16530	28.98	18.87	47.85	74	-26.15	PEAK
802.11ac HT40-5550MHz	H	11100	33.20	13.58	46.78	74	-27.22	PEAK
	H	16650	26.00	19.41	45.41	74	-28.59	PEAK
	V	11100	32.55	13.58	46.13	74	-27.87	PEAK
	V	16650	26.39	19.41	45.80	74	-28.20	PEAK
802.11ac HT40-5670MHz	H	11340	31.27	14.38	45.65	74	-28.35	PEAK
	H	17010	24.52	21.78	46.30	74	-27.70	PEAK
	V	11340	31.17	14.38	45.55	74	-28.45	PEAK
	V	17010	24.63	21.78	46.41	74	-27.59	PEAK
802.11ac HT40-5755MHz	H	11510	29.58	16.78	48.49	74	-25.51	PEAK
	H	17265	23.67	23.29	50.93	74	-23.07	PEAK
	V	11510	29.46	16.78	49.96	74	-24.04	PEAK
	V	17265	23.85	23.29	52.19	74	-21.81	PEAK
802.11ac HT40-5795MHz	H	11590	30.32	16.69	47	74	-27	PEAK
	H	17385	22.87	24.73	51.3	74	-22.7	PEAK
	V	11590	28.81	16.69	49.38	74	-24.62	PEAK
	V	17385	22.85	24.73	52.07	74	-21.93	PEAK

802.11ac HT80-5210MHz	H	10420	31.59	12.62	45.53	74	-28.47	PEAK
	H	15630	28.69	16.52	49.28	74	-24.72	PEAK
	V	10420	30.92	12.62	45.66	74	-28.34	PEAK
	V	15630	27.86	16.52	47.92	74	-26.08	PEAK

802.11ac HT80-5290MHz	H	10580	32.79	13.35	47.8	74	-26.2	PEAK
	H	15870	29.83	17.67	51.41	74	-22.59	PEAK
	V	10580	32.67	13.35	48.03	74	-25.97	PEAK
	V	15870	28.81	17.67	49.99	74	-24.01	PEAK

802.11ac HT80-5530MHz	H	11060	31.98	13.52	47.52	74	-26.48	PEAK
	H	16590	30.07	19.34	52.97	74	-21.03	PEAK
	V	11060	33.27	13.52	48.16	74	-25.84	PEAK
	V	16590	29.11	19.34	52.4	74	-21.6	PEAK

802.11ac HT80-5690MHz	H	11380	32.84	14.54	47.38	74	-26.62	PEAK
	H	17070	26.49	21.82	48.31	74	-25.69	PEAK
	V	11380	32.22	14.54	46.76	74	-27.24	PEAK
	V	17070	26.65	21.82	48.47	74	-25.53	PEAK

Mode	Polar (H/V)	Frequency (MHz)	Reading (dBμV)	Factor (dB)	Result (dBμV)	Limit (dBμV/m)	Margin (dB)	Detector (PK/AV)
802.11ac HT80-5775MHz	H	11550	30.26	16.73	48.32	74	-25.68	PEAK
	H	17325	22.14	24.01	50.25	74	-23.75	PEAK
	V	11550	27.49	16.73	45.98	74	-28.02	PEAK
	V	17325	21.61	24.01	49.5	74	-24.5	PEAK

The field strength is calculated by adding the Antenna Factor. Cable Factor & Preamplifier.
The basic equation with a sample calculation is as follows:

Final Test Level = Receiver Reading + Antenna Factor + Cable Factor – Preamplifier Factor.

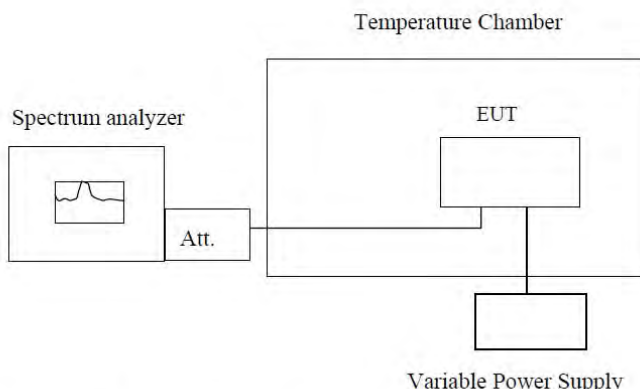
Average measurement was not performed if peak level lower than average limit.

No any other emissions level very low which are attenuated less than 20dB below the limit.

According to 15.31(o), The amplitude of spurious emissions from intentional radiators and emissions from unintentional radiators which are attenuated more than 20 dB below the permissible value need not be reported unless specifically required elsewhere in this Part.

Hence there no other emissions have been reported.

8. FREQUENCY STABILITY

Test Requirement:	FCC Part15 C Section 15.407(g)
Test Method:	ANSI C63.10:2013, FCC Part 2.1055
Limit:	Manufactures of U-NII devices are responsible for ensuring frequency stability such that an emission is maintained within the band of operation under all conditions of normal operation as specified
Test Procedure:	The EUT was setup to ANSI C63.4, 2014; tested to 2.1055 for compliance to FCC Part 15.407(g) requirements.
Test setup:	 Note : Measurement setup for testing on Antenna connector
Test Instruments:	Refer to section 5.10 for details
Test mode:	Refer to section 5.3 for details
Test results:	Pass

Frequency stability versus Temp.					
Power Supply: DC 7.6V					
Temp. (°C)	Operating Frequency (MHz)	0 minute Measured Frequency (MHz)	2 minute Measured Frequency (MHz)	5 minute Measured Frequency (MHz)	10 minute Measured Frequency (MHz)
-30	5180	5180.1347	5179.4146	5179.5114	5179.7364
	5200	5200.3252	5199.8628	5199.3637	5199.6310
	5220	5220.2695	5219.8233	5219.4495	5220.1666
	5240	5239.9838	5239.8559	5239.5587	5240.3712
	5260	5259.2729	5258.8789	5258.5026	5259.2564
	5270	5271.7586	5271.3623	5270.1690	5271.0982
	5280	5281.4461	5281.4251	5280.7070	5281.5307
	5310	5311.1183	5311.0832	5310.2410	5311.2208
	5320	5320.5599	5319.9892	5319.7544	5320.1372
	5500	5501.3461	5500.8600	5500.5951	5501.5843
	5510	5511.4403	5511.4232	5510.3136	5510.9233
	5530	5531.1622	5530.7027	5530.7887	5531.2421
	5550	5551.4717	5551.4188	5550.4291	5551.1746
	5580	5581.2651	5580.2940	5580.1894	5580.4954
	5670	5671.1251	5670.4727	5670.4177	5671.3599
	5690	5691.3213	5690.4480	5690.2438	5691.0302
	5700	5700.5591	5699.8609	5699.8157	5700.6191
	5745	5745.7845	5745.3610	5744.3841	5744.9014
	5785	5785.3210	5784.3611	5784.8901	5785.4912
	5825	5825.8062	5825.3160	5825.0023	5825.9282
-20	5180	5180.1705	5179.8906	5179.7850	5180.0681
	5200	5200.2458	5199.8262	5199.2927	5199.9965
	5220	5220.3978	5219.5646	5218.9857	5219.0495
	5240	5240.2273	5239.8625	5238.9159	5239.5964
	5260	5260.7423	5260.5957	5260.0641	5261.0459
	5270	5270.7858	5270.1648	5270.3696	5271.1113
	5280	5280.9938	5280.1460	5280.1720	5281.0204
	5310	5311.5131	5310.5909	5311.2439	5311.5185
	5320	5320.7745	5320.4105	5320.0356	5320.0679
	5500	5501.8012	5501.3439	5500.8090	5500.9818
	5510	5511.5475	5510.9291	5510.0767	5510.7833
	5530	5531.2337	5531.1080	5530.3584	5530.9615
	5550	5551.9678	5551.4907	5551.7672	5552.2130
	5580	5580.9283	5580.7540	5579.7236	5579.9874
	5670	5671.0794	5670.3698	5670.2688	5671.2638
	5690	5690.6977	5690.3942	5689.8810	5690.4830
	5700	5700.5451	5699.6460	5700.3167	5700.7060
	5745	5745.4713	5744.9244	5744.5193	5745.2178
	5785	5784.9259	5784.5717	5784.5514	5785.1095
	5825	5825.8118	5825.0408	5824.0554	5824.7576
-10	5180	5179.5060	5178.7346	5178.9579	5179.2290
	5200	5200.7870	5200.2435	5199.2628	5200.2271
	5220	5219.8387	5218.9269	5219.5682	5219.9216
	5240	5239.8259	5238.8572	5238.6119	5239.3990

	5260	5259.1219	5258.8430	5258.5577	5259.2145
	5270	5271.3702	5271.0784	5270.4750	5270.6793
	5280	5280.7493	5280.7008	5279.4920	5280.0617
	5310	5311.3564	5311.0442	5310.3721	5311.0197
	5320	5321.0519	5320.7108	5320.4565	5320.7840
	5500	5500.4445	5499.8430	5499.5599	5500.4057
	5510	5512.2228	5511.7656	5511.7017	5512.1684
	5530	5531.0982	5530.6071	5529.8622	5529.8937
	5550	5552.1185	5551.2560	5550.3222	5551.2719
	5580	5580.6384	5580.1985	5579.7282	5580.2059
	5670	5671.5123	5671.0733	5670.1153	5671.0132
	5690	5691.3644	5690.4251	5690.8437	5691.5107
	5700	5701.6541	5701.3206	5700.6354	5701.4389
	5745	5745.4757	5745.0769	5744.1612	5744.5851
	5785	5785.1188	5784.3197	5784.1009	5784.3243
	5825	5824.9847	5824.3178	5824.3935	5824.8406
0	5180	5180.1348	5179.4027	5179.8139	5180.0189
	5200	5199.7207	5199.1204	5199.0596	5199.4067
	5220	5219.9196	5219.0480	5218.4006	5219.0606
	5240	5239.5356	5238.8905	5239.1631	5239.9459
	5260	5259.9211	5259.9198	5259.2975	5260.1459
	5270	5271.6211	5270.7900	5270.2069	5270.9397
	5280	5281.4044	5280.4954	5281.0423	5281.4850
	5310	5310.6611	5309.8577	5310.0163	5310.3841
	5320	5320.7854	5320.6815	5319.7172	5320.4537
	5500	5501.3820	5500.9827	5500.3953	5501.2380
	5510	5512.0181	5511.8604	5510.6603	5511.5630
	5530	5531.3659	5530.5266	5530.3143	5530.5235
	5550	5551.2766	5550.4180	5550.0635	5550.0816
	5580	5581.3339	5580.3881	5579.5963	5579.7707
	5670	5671.2072	5670.8935	5669.8318	5670.1032
	5690	5691.9927	5691.4709	5691.2938	5691.8451
	5700	5701.5548	5700.7700	5700.1368	5700.4394
	5745	5745.0041	5744.0096	5744.1312	5744.6409
	5785	5785.8838	5785.6667	5784.7994	5785.1412
	5825	5825.4310	5824.5048	5824.6150	5824.7432

10	5180	5180.0484	5179.0968	5179.2482	5179.7918
	5200	5200.2703	5199.9380	5199.8208	5200.8142
	5220	5219.5492	5219.3435	5218.6349	5219.5214
	5240	5239.8076	5239.2484	5239.5698	5240.1711
	5260	5261.1977	5260.8555	5259.7693	5260.0263
	5270	5270.1541	5269.6474	5269.5714	5269.7922
	5280	5280.8658	5280.7187	5279.7454	5279.8150
	5310	5310.3619	5309.7840	5309.3515	5310.2085
	5320	5320.4431	5320.0664	5319.5897	5320.5317
	5500	5499.9303	5499.8822	5498.9268	5499.6947
	5510	5511.0061	5510.0072	5509.8086	5510.3935
	5530	5531.3300	5530.9730	5530.7796	5531.4512
	5550	5552.2430	5551.4531	5551.3587	5551.7366
	5580	5581.7934	5580.8085	5580.5092	5580.6029
	5670	5670.7522	5670.7216	5669.8888	5670.5119
	5690	5693.0176	5692.8495	5692.1403	5693.0931
	5700	5700.9958	5700.7966	5700.2298	5700.4738
	5745	5745.7613	5744.7915	5744.4636	5744.7921
	5785	5785.4385	5784.5178	5784.3947	5784.6944
	5825	5825.6295	5825.1439	5824.3147	5825.2775
20	5180	5180.1823	5179.9403	5178.9336	5179.0585
	5200	5200.5431	5200.0937	5199.2221	5199.3407
	5220	5220.3454	5219.8350	5219.1974	5219.9410
	5240	5239.9105	5239.7707	5238.6874	5239.5549
	5260	5259.5590	5259.0056	5259.4434	5260.4028
	5270	5270.6513	5269.7681	5269.4377	5269.7577
	5280	5281.3719	5280.4368	5280.2642	5280.2823
	5310	5311.5715	5311.1518	5310.4404	5310.6501
	5320	5322.3560	5321.5477	5321.3229	5322.0035
	5500	5500.5133	5500.4561	5499.6802	5500.6498
	5510	5510.6752	5510.6737	5509.0647	5509.9868
	5530	5531.4444	5530.6872	5531.0677	5531.9627
	5550	5551.0260	5550.5488	5550.0848	5550.5534
	5580	5582.6109	5581.6269	5581.8821	5582.4005
	5670	5670.7770	5670.5558	5670.3564	5670.4157
	5690	5692.0973	5691.6819	5690.8958	5691.1485
	5700	5701.0923	5700.6663	5700.2806	5701.1220
	5745	5745.9947	5745.2518	5744.7222	5744.8418
	5785	5785.1393	5784.2065	5784.1230	5784.6423
	5825	5825.7341	5825.6088	5824.1999	5824.2030

30	5180	5180.7197	5180.2893	5179.7183	5179.7904
	5200	5199.5461	5199.3938	5199.2718	5199.5057
	5220	5219.4583	5218.5625	5218.3255	5218.7280
	5240	5239.6103	5239.2284	5239.2531	5240.1407
	5260	5260.5451	5260.0655	5259.4340	5259.9817
	5270	5270.3890	5269.9629	5269.2192	5269.6006
	5280	5280.9864	5280.0729	5280.2877	5280.3034
	5310	5311.5088	5311.3190	5310.4707	5310.7192
	5320	5321.8879	5321.4053	5320.9653	5321.8379
	5500	5500.2571	5500.1952	5499.4837	5500.3976
	5510	5510.7342	5510.5309	5509.5079	5509.8855
	5530	5531.4834	5530.6715	5530.8183	5531.5142
	5550	5550.9584	5550.2299	5549.8903	5550.0512
	5580	5582.2996	5582.1902	5580.4717	5580.7186
	5670	5670.4407	5669.8665	5670.1155	5670.6002
	5690	5692.3109	5691.9804	5690.6200	5691.1848
	5700	5701.4650	5701.2263	5699.8345	5700.4214
	5745	5745.5051	5744.7849	5744.8712	5745.4133
	5785	5785.1625	5784.4938	5784.6014	5785.5868
	5825	5825.1372	5824.7009	5824.8389	5825.7307
40	5180	5180.1790	5179.9956	5179.6427	5179.9393
	5200	5199.4948	5199.2463	5198.9936	5199.7461
	5220	5220.1770	5219.6317	5219.1020	5219.5222
	5240	5240.0263	5239.8042	5238.6267	5238.7407
	5260	5259.8963	5258.9107	5258.9165	5259.5251
	5270	5270.1281	5270.0903	5269.1003	5269.8429
	5280	5281.2206	5280.7773	5280.5416	5281.0434
	5310	5311.3094	5310.4335	5310.5257	5310.6263
	5320	5321.6940	5321.5026	5320.6083	5320.7304
	5500	5501.2783	5500.6109	5500.0716	5501.0374
	5510	5510.9476	5510.5480	5509.8432	5510.4592
	5530	5530.6480	5529.7739	5529.4761	5529.6464
	5550	5551.0470	5550.4901	5550.1231	5551.1149
	5580	5581.6080	5581.6001	5580.7696	5581.3508
	5670	5670.7211	5669.9179	5670.4079	5671.3479
	5690	5691.2191	5690.2364	5690.1249	5690.2800
	5700	5700.4683	5699.8261	5699.4893	5700.1048
	5745	5745.7671	5744.9147	5744.4135	5745.2906
	5785	5785.5674	5784.5970	5784.1640	5784.2812
	5825	5825.9756	5825.1274	5824.6808	5825.0061

50	5180	5179.5457	5178.7942	5178.9639	5179.2329
	5200	5200.0149	5199.6529	5199.3279	5199.5896
	5220	5220.1511	5220.0729	5219.6944	5219.9062
	5240	5240.4268	5239.5899	5238.8420	5239.2082
	5260	5260.4366	5260.1316	5259.6054	5259.8858
	5270	5270.5346	5270.0163	5269.7497	5270.0351
	5280	5281.1327	5280.4019	5279.6947	5280.2676
	5310	5311.0837	5310.1727	5310.2022	5310.2380
	5320	5322.0609	5321.3972	5321.0411	5321.1492
	5500	5501.4108	5500.9725	5500.3292	5500.4360
	5510	5511.2044	5511.0053	5510.4387	5510.7344
	5530	5530.2983	5529.3000	5529.0792	5529.1896
	5550	5550.9959	5550.3693	5549.2759	5550.0111
	5580	5582.1991	5581.9970	5580.6080	5580.6571
	5670	5670.5590	5669.9965	5669.9991	5670.2393
	5690	5692.3332	5691.8551	5690.7930	5691.0122
	5700	5701.8588	5700.9444	5700.5284	5700.7110
	5745	5745.5984	5745.0541	5744.4052	5745.1446
	5785	5785.7984	5784.9249	5784.5140	5785.1949
	5825	5825.1875	5824.5066	5824.4719	5824.9966

Frequency stability versus Voltage					
Temperature: 25°C					
Power Supply (VDC)	Operating Frequency (MHz)	0 minute Measured Frequency (MHz)	2 minute Measured Frequency (MHz)	5 minute Measured Frequency (MHz)	10 minute Measured Frequency (MHz)
3.7	5180	5181.0229	5180.6297	5179.0714	5179.7466
	5200	5200.7386	5200.7232	5199.3582	5199.6044
	5220	5220.5113	5220.0463	5220.0166	5220.6686
	5240	5241.2726	5240.7618	5240.1027	5240.5443
	5260	5260.1717	5259.8751	5258.8882	5259.0275
	5270	5270.9295	5270.6377	5269.5252	5269.6330
	5280	5281.1995	5280.5942	5280.4385	5281.1855
	5310	5311.2079	5310.4149	5310.2764	5311.0784
	5320	5321.4629	5321.0757	5320.0983	5320.1928
	5500	5500.8834	5500.5841	5499.9091	5499.9668
	5510	5510.7347	5509.9440	5510.3625	5510.5102
	5530	5530.3875	5529.8234	5529.2551	5529.9932
	5550	5551.6125	5550.8679	5550.0127	5550.9576
	5580	5581.0634	5580.0871	5579.5862	5580.5761
	5670	5670.1795	5670.0031	5669.0294	5669.2799
	5690	5691.3404	5690.7767	5689.6185	5689.6527
	5700	5700.4305	5699.9802	5699.4650	5700.3937
	5745	5745.3154	5744.4865	5744.7361	5745.4710
	5785	5784.8993	5784.2945	5784.4155	5785.0290
	5825	5825.5468	5824.6626	5824.8539	5825.2567
4.2	5180	5182.0251	5181.5540	5180.4471	5180.9311
	5200	5201.1522	5200.9997	5199.4432	5200.0126
	5220	5220.2555	5219.9314	5219.1045	5219.8842
	5240	5240.2087	5239.2415	5239.8961	5240.3868
	5260	5259.8239	5258.9850	5258.9029	5258.9861
	5270	5270.3731	5269.5868	5269.3486	5269.3958
	5280	5281.1530	5281.0231	5280.3437	5280.3940
	5310	5311.4692	5310.9103	5310.4095	5310.5018
	5320	5321.4725	5320.8701	5320.5210	5321.0524
	5500	5501.7831	5500.8037	5500.3079	5500.7651
	5510	5511.1112	5510.2017	5509.9370	5510.6856
	5530	5531.3940	5531.2160	5529.9993	5530.7250
	5550	5550.8636	5550.3086	5549.5623	5550.0543
	5580	5580.4617	5580.1153	5579.9972	5580.6368
	5670	5670.9008	5670.1782	5669.9453	5670.4329
	5690	5690.9572	5690.2418	5689.8498	5689.8877
	5700	5700.7355	5700.4925	5699.2542	5699.7055
	5745	5745.3695	5744.9753	5744.5620	5744.8855
	5785	5785.0634	5784.6807	5784.8135	5785.0127
	5825	5825.5746	5825.3639	5824.7959	5825.5613

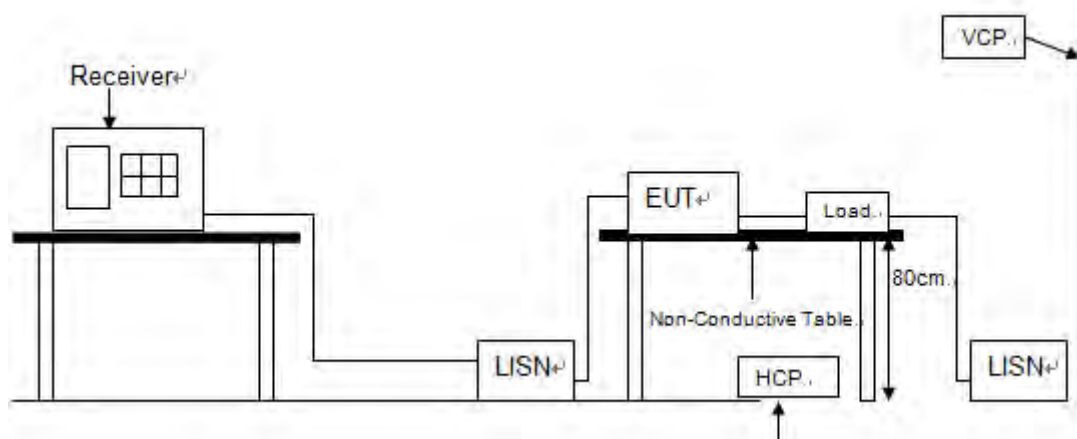
3.4	5180	5180.5752	5180.4228	5179.8017	5180.0607
	5200	5200.3813	5199.4735	5200.2141	5200.5317
	5220	5219.9955	5219.6267	5218.9007	5219.4076
	5240	5241.4001	5240.7566	5240.1915	5240.2307
	5260	5260.5979	5259.7891	5260.2689	5260.3163
	5270	5270.7724	5270.6380	5269.4221	5269.8026
	5280	5281.8068	5281.6571	5280.7823	5281.0961
	5310	5310.7209	5310.4342	5310.2507	5311.0403
	5320	5320.3857	5319.5283	5320.2326	5320.5990
	5500	5500.6685	5500.0687	5500.0542	5500.7635
	5510	5511.4152	5510.4834	5510.0748	5510.5850
	5530	5530.6594	5529.7521	5529.8813	5530.5191
	5550	5551.1220	5550.3737	5549.5925	5550.0378
	5580	5581.5623	5580.7740	5580.0815	5580.7472
	5670	5671.2441	5671.1056	5669.4179	5670.1591
	5690	5690.7568	5690.1223	5689.9675	5690.0957
	5700	5700.9819	5700.2664	5700.2877	5700.4732
	5745	5745.1893	5744.8468	5744.1548	5744.6383
	5785	5785.6718	5785.2199	5784.2962	5784.7466
	5825	5825.7635	5825.1338	5824.2639	5824.4141

9. POWER LINE CONDUCTED EMISSION

9.1 Test equipment

Item	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	Pulse Limiter	MTS-systemtechnik	MTS-IMP-136	261115-010-0024	12/17/2019
2	EMI Test Receiver	R&S	ESCI	101308	12/17/2019
3	LISN	AFJ	LS16	16011103219	12/17/2019
4	LISN	Schwarzbeck	NSLK 8127	8127-432	12/17/2019
5	Measurement Software	Farad	EZ-EMC (Ver.ATT-03A)	N/A	N/A
6	MeasurementSoftware	Farad	EZ-EMC (Ver.ATT-03A)	N/A	N/A

9.2 Block diagram of test setup



9.3 Power Line Conducted Emission Limits(Class B)

Frequency	Quasi-Peak Level dB(μ V)	Average Level dB(μ V)
150kHz ~ 500kHz	66 ~ 56*	56 ~ 46*
500kHz ~ 5MHz	56	46
5MHz ~ 30MHz	60	50

Note 1: * Decreasing linearly with logarithm of frequency.

Note 2: The lower limit shall apply at the transition frequencies.

9.4 TEST PROCEDURE

The EUT and Support equipment, if needed, were put placed on a non-metallic table, 80cm above the ground plane.

Configuration EUT to simulate typical usage as described in clause 2.4 and test equipment as described in clause 10.2 of this report.

All I/O cables were positioned to simulate typical actual usage as per ANSI C63.4.

All support equipment power received from a second LISN.

Emissions were measured on each current carrying line of the EUT using an EMI Test Receiver connected to the LISN powering the EUT.

The Receiver scanned from 150 kHz to 30MHz for emissions in each of the test modes.

During the above scans, the emissions were maximized by cable manipulation.

The test mode(s) described in clause 2.4 were scanned during the preliminary test.

After the preliminary scan, we found the test mode producing the highest emission level.

The EUT configuration and worse cable configuration of the above highest emission levels were recorded for reference of the final test.

EUT and support equipment were set up on the test bench as per the configuration with highest emission level in the preliminary test.

A scan was taken on both power lines, Neutral and Line, recording at least the six highest emissions.

Emission frequency and amplitude were recorded into a computer in which correction factors were used to calculate the emission level and compare reading to the applicable limit.

The test data of the worst-case condition(s) was recorded.

The bandwidth of test receiver is set at 9 KHz.

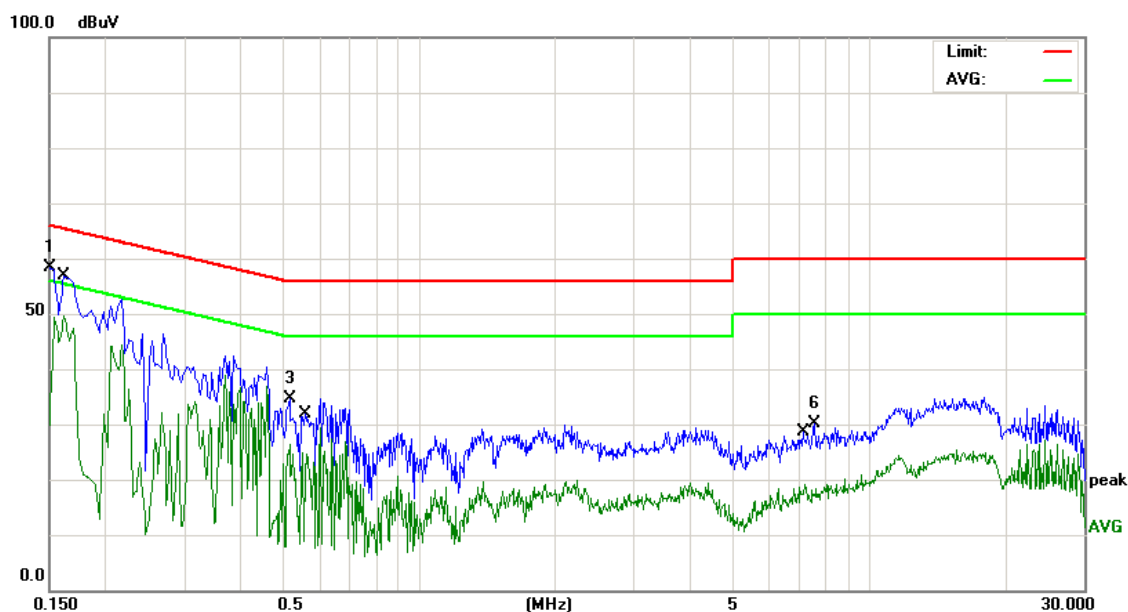
9.5 Test Result

PASS. (See below detailed test result)

Note1: All emissions not reported below are too low against the prescribed limits.

Note2: "-----" means peak detection; "-----" mans average detection

EUT:	Table PC	Model No.:	FLEX10AND
Temperature:	23℃	Relative Humidity:	52%
Probe:	N	Test Power:	AC 120V/60Hz
Test Time:	2019-10-16	Test Result:	Pass
Standard:	(CE)FCC PART 15 class B_QP		
Test Mode:	TX		
Note:			

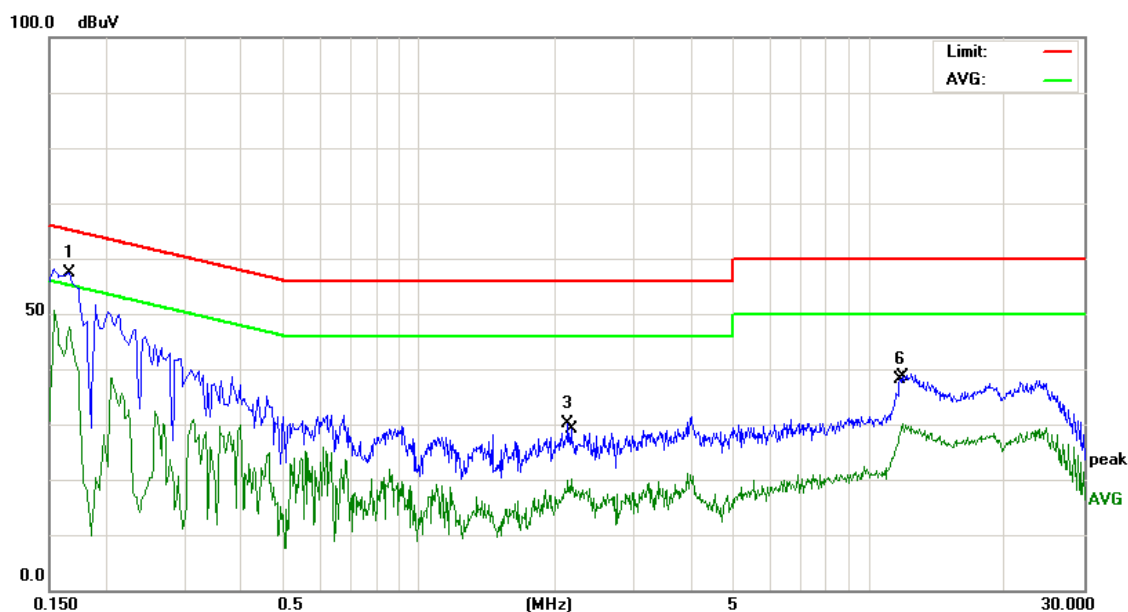


No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB
1		0.1500	46.34	11.94	58.28	65.99	-7.71
2	*	0.1620	37.85	11.68	49.53	55.36	-5.83
3		0.5140	24.50	10.01	34.51	56.00	-21.49
4		0.5500	14.95	10.00	24.95	46.00	-21.05
5		7.2020	9.06	10.17	19.23	50.00	-30.77
6		7.5260	19.84	10.18	30.02	60.00	-29.98

The test result is calculated as the following:

- (1) Result = Reading + Correct Factor
- (2) Correct Factor = (LISN, ISN, PLC or Current Probe) Factor + Cable Loss + Attenuator
- (3) Margin = Result - Limit

EUT:	Table PC	Model No.:	FLEX10AND
Temperature:	23℃	Relative Humidity:	52%
Probe:	L	Test Power:	AC 120V/60Hz
Test Time:	2019-10-16	Test Result:	Pass
Standard:	(CE)FCC PART 15 class B_QP		
Test Mode:	TX		
Note:			



No.	Mk.	Freq. MHz	Reading Level dBuV	Correct Factor dB	Measure- ment dBuV	Limit dBuV	Over dB	Detector
1		0.1660	45.77	11.61	57.38	65.15	-7.77	peak
2	*	0.1660	36.12	11.61	47.73	55.15	-7.42	AVG
3		2.1420	20.10	10.00	30.10	56.00	-25.90	peak
4		2.1700	10.19	10.00	20.19	46.00	-25.81	AVG
5		11.6700	17.40	10.34	27.74	50.00	-22.26	AVG
6		11.7220	27.68	10.34	38.02	60.00	-21.98	peak

The test result is calculated as the following:

- (1) Result = Reading + Correct Factor
- (2) Correct Factor = (LISN, ISN, PLC or Current Probe) Factor + Cable Loss + Attenuator
- (3) Margin = Result - Limit

10. ANTENNA REQUIREMENTS

10.1. Limit

15.203 requirement: For intentional device, according to 15.203: an intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device.

10.2. EUT ANTENNA

The EUT antenna is permanent attached antenna. It comply with the standard requirement.