RADIO TEST REPORT
FCC 47 CFR PART 15 SUBPART E

Test Standard	**FCC Part 15.407**
Brand name	XADA
Product name	**WIRELESS ROUTER**
Model No.	**XA2200**
Test Result	**Pass**
Statements of Conformity	**Determination of compliance is based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.**

The test Result was tested by Compliance Certification Services Inc. The test data, data evaluation, test procedures, and equipment configurations shown in this report were given in ANSI C63.10: 2013 and compliance standards.

The test results of this report relate only to the tested sample (EUT) identified in this report.
The test Report of full or partial shall not copy. Without written approval of Compliance Certification Services Inc.(Wugu Laboratory)

Approved by:

Kevin Tsai
Deputy Manager

Reviewed by:

Dally Hong
Engineer

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.
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Revision History

Rev.	Issue Date	Revisions	Effect Page	Revised By
00	October 04, 2019	Initial Issue	ALL	May Lin
01	October 28, 2019	See the following Note Rev. (01)	P.1, P.4	May Lin

Rev (01):

1. Revised the product name.

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1. GENERAL INFORMATION

1.1 EUT INFORMATION

Applicant	XADA Technologies Ltd. 1F., No. 2, Ln. 150, Sec. 5, Xinyi Rd., Xiny District, 110 Taipei City, Taiwan
Manufacturer	TechNexion Ltd. 16f-5, No.736, Zhongzheng Road, Zhonghe Dist., New Taipei City, 23511 Taiwan ROC
Equipment	WIRELESS ROUTER
Model No.	XA2200
Model Discrepancy	N/A
Received Date	April 11, 2019
Date of Test	April 22 ~ September 12, 2019
EUT Power Rating:	DC 9V, 3A
Power Adapter	Sunny Electronics Corp. / SYS1621-TYPE C 30 I/P: 100-240V~, 1.5A MAX, 50-60Hz O/P: 5V / 3A, 9V / 3A, 12V / 2.5A, 15V / 2A, 20V / 1.5A, 3.3-16V / 2A
Output Power(W)	

Band	Mode	Frequency Range (MHz)	Output Power (W)
U-NII-1	IEEE 802.11a	5180 ~ 5240	0.0570
	IEEE 802.11n HT 20 MHz	5180 ~ 5240	0.0651
	IEEE 802.11n HT 40 MHz	5190 ~ 5230	0.0628
	IEEE 802.11ac VHT 80 MHz	5210	0.0709
U-NII-2a	IEEE 802.11a	5260 ~ 5320	0.1396
	IEEE 802.11n HT 20 MHz	5260 ~ 5320	0.1781
	IEEE 802.11n HT 40 MHz	5270 ~ 5310	0.1503
	IEEE 802.11ac VHT 80 MHz	5290	0.0790
U-NII-2c	IEEE 802.11a	5500 ~ 5700	0.1843
	IEEE 802.11n HT 20 MHz	5500 ~ 5700	0.2248
	IEEE 802.11n HT 40 MHz	5510 ~ 5670	0.2181
	IEEE 802.11ac VHT 80 MHz	5530	0.0493
U-NII-3	IEEE 802.11a	5745 ~ 5825	0.4847
	IEEE 802.11n HT 20 MHz	5745 ~ 5825	0.3299
	IEEE 802.11n HT 40 MHz	5755 ~ 5795	0.4385
	IEEE 802.11ac VHT 80 MHz	5775	0.1259

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1.2 EUT CHANNEL INFORMATION

Frequency Range	**UNII-1**	
	IEEE 802.11a	5180 ~ 5240 MHz
	IEEE 802.11n HT 20 MHz	5180 ~ 5240 MHz
	IEEE 802.11n HT 40 MHz	5190 ~ 5230 MHz
	IEEE 802.11ac VHT 80 MHz	5210 MHz
	UNII-2a	
	IEEE 802.11a	5260 ~ 5320 MHz
	IEEE 802.11n HT 20 MHz	5260 ~ 5320 MHz
	IEEE 802.11n HT 40 MHz	5270 ~ 5310 MHz
	IEEE 802.11ac VHT 80 MHz	5290 MHz
	UNII-2c	
	IEEE 802.11a	5500 ~ 5700 MHz
	IEEE 802.11n HT 20 MHz	5500 ~ 5700 MHz
	IEEE 802.11n HT 40 MHz	5510 ~ 5670 MHz
	IEEE 802.11ac VHT 80 MHz	5530 MHz
	UNII-3	
	IEEE 802.11a	5745 ~ 5825 MHz
	IEEE 802.11n HT 20 MHz	5745 ~ 5825 MHz
	IEEE 802.11n HT 40 MHz	5755 ~ 5795 MHz
	IEEE 802.11ac VHT 80 MHz	5775 MHz
Modulation Type	1. IEEE 802.11a mode: OFDM 2. IEEE 802.11n HT 20 MHz mode: OFDM 3. IEEE 802.11n HT 40 MHz mode: OFDM 4. IEEE 802.11ac VHT 80 MHz mode: OFDM	

Remark:
Refer as ANSI C63.10: 2013 clause 5.6.1 Table 4 for test channels

Number of frequencies to be tested		
Frequency range in which device operates	**Number of frequencies**	**Location in frequency range of operation**
☐ 1 MHz or less	1	Middle
☐ 1 MHz to 10 MHz	2	1 near top and 1 near bottom
☒ More than 10 MHz	3	1 near top, 1 near middle, and 1 near bottom

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1.3 ANTENNA INFORMATION

Antenna Type	☐ PIFA ☒ PCB ☐ Dipole ☐ Coils
Antenna Gain	Chain 0: Gain: 4.5dBi (For Band 1、2), 3.9dBi (For Band 3、4) Chain 1: Gain: 4dBi (For Band 1、2), 2.7dBi (For Band 3、4) Power Directional Gain: 4.26 dBi (For Band 1、2), 3.34 dBi (For Band 3、4)
Antenna Connector	N/A

Notes:
1. Power Directional Gain: 10LOG(((10^(Ant1/10)+10^(Ant2/10))/2))

1.4 MEASUREMENT UNCERTAINTY

PARAMETER	UNCERTAINTY
AC Powerline Conducted Emission	+/- 1.2575
Emission bandwidth, 20dB bandwidth	+/- 0.0014
RF output power, conducted	+/- 1.14
Power density, conducted	+/- 1.40
3M Semi Anechoic Chamber / 30M~200M	+/- 4.12
3M Semi Anechoic Chamber / 200M~1000M	+/- 4.68
3M Semi Anechoic Chamber / 1G~8G	+/- 5.18
3M Semi Anechoic Chamber / 8G~18G	+/- 5.47
3M Semi Anechoic Chamber / 18G~26G	+/- 3.81
3M Semi Anechoic Chamber / 26G~40G	+/- 3.87

***Remark**:*
1.This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2
2. ISO/IEC 17025 requires that an estimate of the measurement uncertainties associated with the emissions test results be included in the report.

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1.5 FACILITIES AND TEST LOCATION

All measurement facilities used to collect the measurement data are located at

No.11, Wugong 6th Rd., Wugu Dist., New Taipei City 24891, Taiwan. (R.O.C.)

Test site	Test Engineer	Remark
AC Conduction Room	Dally Hong	-
Radiation	Kailin Lee	-
RF Conducted	Dally Hong	-

Remark: *The sites are constructed in conformance with the requirements of ANSI C63.7, ANSI C63.4 and CISPR Publication 22.*

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1.6 INSTRUMENT CALIBRATION

3M 966 Chamber Test Site					
Name of Equipment	**Manufacturer**	**Model**	**Serial Number**	**Calibration Date**	**Calibration Due**
Bilog Antenna	Sunol Sciences	JB3	A030105	07/13/2018	07/12/2019
Cable	HUBER SUHNER	SUCOFLEX 104PEA	25157	02/26/2019	02/25/2020
Cable	HUBER SUHNER	SUCOFLEX 104PEA	20995	02/26/2019	02/25/2020
Digital Thermo-Hygro Meter	WISEWIND	1206	D07	01/30/2019	01/29/2020
double Ridged Guide Horn Antenna	ETC	MCTD 1209	DRH13M02003	08/20/2018	08/19/2019
High Pass Filters	MICRO TRONICS	HPM13195	003	02/26/2019	02/25/2020
Horn Antenna	ETS LINDGREN	3116	00026370	12/26/2018	12/25/2019
Loop Ant	COM-POWER	AL-130	121051	03/22/2019	03/21/2020
Pre-Amplifier	EMEC	EM330	060609	02/26/2019	02/25/2020
Pre-Amplifier	HP	8449B	3008A00965	02/26/2019	02/25/2020
Pre-Amplifier	MITEQ	AMF-6F-260400-40-8P	985646	02/26/2019	02/25/2020
PSA Series Spectrum Analyzer	Agilent	E4446A	MY46180323	05/31/2018	05/30/2019
Antenna Tower	CCS	CC-A-1F	N/A	N.C.R	N.C.R
Controller	CCS	CC-C-1F	N/A	N.C.R	N.C.R
Turn Table	CCS	CC-T-1F	N/A	N.C.R	N.C.R
Software	e3 6.11-20180413				

RF Conducted Test Site					
Name of Equipment	**Manufacturer**	**Model**	**Serial Number**	**Calibration Date**	**Calibration Due**
Power Meter	Anritsu	ML2495A	1149001	02/12/2019	02/11/2020
Power Seneor	Anritsu	MA2491A	030982	02/12/2019	02/11/2020
Signal Analyzer	R&S	FSV 40	101073	09/27/2018	09/26/2019
Power Meter	Anritsu	ML2495A	1149001	02/12/2019	02/11/2020
Software	N/A				

Remark: *Each piece of equipment is scheduled for calibration once a year.*

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AC line Conduction Test Room					
Equipment	**Manufacturer**	**Model**	**S/N**	**Cal Date**	**Cal Due**
CABLE	EMCI	CFD300-NL	CERF	06/27/2019	06/26/2020
EMI Test Receiver	R&S	ESCI	100064	07/26/2019	07/25/2020
LISN	SCHWARZBECK	NSLK 8127	8127-541	01/31/2019	01/30/2020
LISN	SCHAFFNER	NNB 41	03/10013	02/13/2019	02/12/2020
Software	EZ-EMC(CCS-3A1-CE)				

Remark: *Each piece of equipment is scheduled for calibration once a year.*

1.7 SUPPORT AND EUT ACCESSORIES EQUIPMENT

EUT Accessories Equipment					
No.	**Equipment**	**Brand**	**Model**	**Series No.**	**FCC ID**
	N/A				

Support Equipment					
No.	**Equipment**	**Brand**	**Model**	**Series No.**	**FCC ID**
1	NB(L)	Toshiba	PORTEGE R30-A	N/A	PD97260H

1.8 TEST METHODOLOGY AND APPLIED STANDARDS

The test methodology, setups and results comply with all requirements in accordance with ANSI C63.10:2013, FCC Part 2, FCC Part 15.407, KDB 789033 D02, KDB 905462 D02, KDB 662911D01.

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2. TEST SUMMERY

FCC Standard Sec.	Chapter	Test Item	Result
15.203	1.3	Antenna Requirement	Pass
15.207	4.1	AC Conducted Emission	Pass
15.403(i)	4.2	26dB Bandwidth	Pass
15.407(e)	4.2	6dB Bandwidth	Pass
15.403(i)	4.2	Occupied Bandwidth (99%)	Pass
15.407(a)	4.3	Output Power Measurement	Pass
15.407(a)	4.4	Power Spectral Density	Pass
15.407(b)	4.5	Radiation Band Edge	Pass
15.407(b)	4.5	Radiation Spurious Emission	Pass
15.407(g)	4.6	Frequency Stability	Pass
15.407(h)	4.7	Dynamic Frequency Selection	Pass

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3. DESCRIPTION OF TEST MODES

3.1 THE WORST MODE OF OPERATING CONDITION

<table>
<tr><td>Operation mode</td><td>1. IEEE 802.11a mode: 6Mbps
2. IEEE 802.11n HT 20 MHz mode: MCS8
3. IEEE 802.11n HT 40 MHz mode: MCS8
4. IEEE 802.11ac VHT 80 MHz mode: MCS8</td></tr>
<tr><td>Operating Frequency Range &
Number of Channels</td><td>
<table>
<tr><th></th><th>Mode</th><th>Frequency Range (MHz)</th><th>Number of Channels</th></tr>
<tr><td rowspan="4">U-NII-1</td><td>IEEE 802.11a</td><td>5180 ~ 5240</td><td>4 Channels</td></tr>
<tr><td>IEEE 802.11n HT 20 MHz</td><td>5180 ~ 5240</td><td>4 Channels</td></tr>
<tr><td>IEEE 802.11n HT 40 MHz</td><td>5190 ~ 5230</td><td>2 Channels</td></tr>
<tr><td>IEEE 802.11ac VHT 80 MHz</td><td>5210</td><td>1 Channels</td></tr>
<tr><td rowspan="4">U-NII-2a</td><td>IEEE 802.11a</td><td>5260 ~ 5320</td><td>4 Channels</td></tr>
<tr><td>IEEE 802.11n HT 20 MHz</td><td>5260 ~ 5320</td><td>4 Channels</td></tr>
<tr><td>IEEE 802.11n HT 40 MHz</td><td>5270 ~ 5310</td><td>2 Channels</td></tr>
<tr><td>IEEE 802.11ac VHT 80 MHz</td><td>5290</td><td>1 Channels</td></tr>
<tr><td rowspan="4">U-NII-2c</td><td>IEEE 802.11a</td><td>5500 ~ 5700</td><td>11 Channels</td></tr>
<tr><td>IEEE 802.11n HT 20 MHz</td><td>5500 ~ 5700</td><td>11 Channels</td></tr>
<tr><td>IEEE 802.11n HT 40 MHz</td><td>5510 ~ 5670</td><td>5 Channels</td></tr>
<tr><td>IEEE 802.11ac VHT 80 MHz</td><td>5530</td><td>1 Channels</td></tr>
<tr><td rowspan="4">U-NII-3</td><td>IEEE 802.11a</td><td>5745 ~ 5825</td><td>5 Channels</td></tr>
<tr><td>IEEE 802.11n HT 20 MHz</td><td>5745 ~ 5825</td><td>5 Channels</td></tr>
<tr><td>IEEE 802.11n HT 40 MHz</td><td>5755 ~ 5795</td><td>2 Channels</td></tr>
<tr><td>IEEE 802.11ac VHT 80 MHz</td><td>5775</td><td>1 Channels</td></tr>
</table>
</td></tr>
</table>

Remark:
1. EUT pre-scanned data rate of output power for each mode, the worst data rate were recorded in this report.
2. Covered modes are test reduction modes. The output powers on the covered modes are equal to or less than the mode referenced and use the same module

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3.2 THE WORST MODE OF MEASUREMENT

AC Power Line Conducted Emission	
Test Condition	AC Power line conducted emission for line and neutral
Power supply Mode	Mode 1: EUT power by Adapter 100~240V To DC 9 V
Worst Mode	☒ Mode 1 ☐ Mode 2 ☐ Mode 3 ☐ Mode 4

Radiated Emission Measurement Above 1G	
Test Condition	Band edge, Emission for Unwanted and Fundamental
Power supply Mode	Mode 1: EUT power by Adapter 100~240V To DC 9 V
Worst Mode	☒ Mode 1 ☐ Mode 2 ☐ Mode 3 ☐ Mode 4
Worst Position	☐ Placed in fixed position. ☒ Placed in fixed position at X-Plane (E2-Plane) ☐ Placed in fixed position at Y-Plane (E1-Plane) ☐ Placed in fixed position at Z-Plane (H-Plane)
Worst Polarity	☒ Horizontal ☐ Vertical

Radiated Emission Measurement Below 1G	
Test Condition	Radiated Emission Below 1G
Power supply Mode	Mode 1: EUT power by Adapter 100~240V To DC 9 V
Worst Mode	☒ Mode 1 ☐ Mode 2 ☐ Mode 3 ☐ Mode 4

Remark:
1. The worst mode was record in this test report.
2. EUT pre-scanned in three axis, X, Y, Z and two polarity, Horizontal and Vertical for radiated measurement. The worst case (X-Plane and Horizontal) were recorded in this report
3. AC power line conducted emission and for below 1G radiation emission were performed the EUT transmit at the highest output power channel as worse case.

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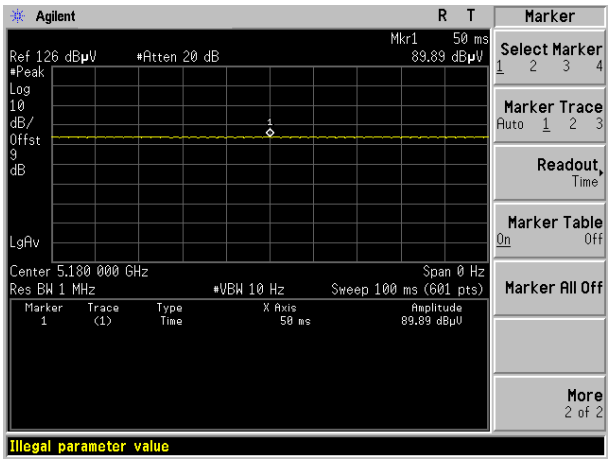
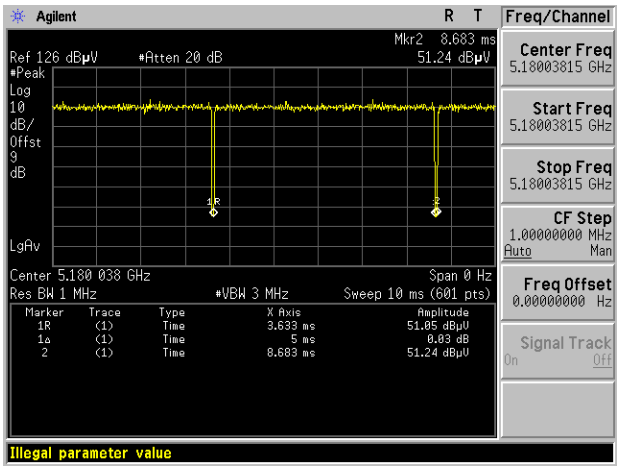
3.3 EUT DUTY CYCLE

Duty Cycle			
Configuration	TX ON (ms)	TX ALL (ms)	Duty Cycle (%)
802.11a	1.0000	1.0000	100.00%
802.11n HT20	5.0000	5.0500	99.01%
802.11n HT40	2.4580	2.5170	97.66%
802.11ac VHT80	1.1750	1.2170	96.55%

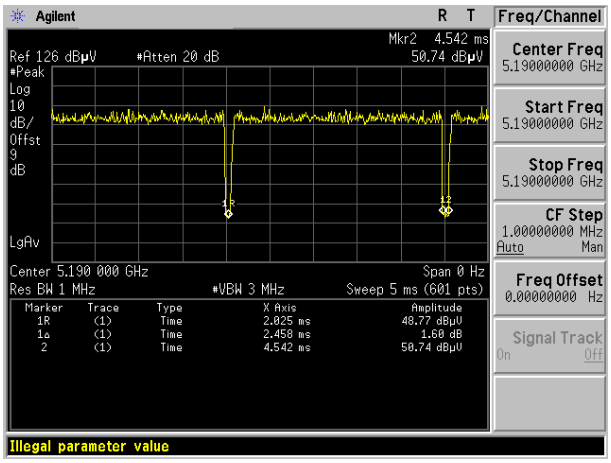
802.11a



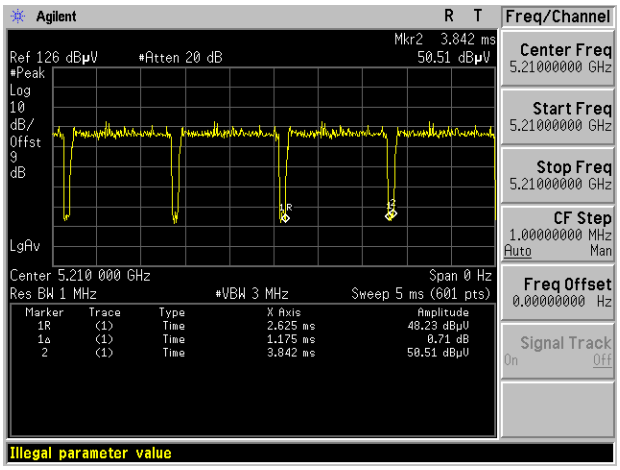
802.11n HT20



802.11n HT40



802.11ac VHT80



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4. TEST RESULT

4.1 AC POWER LINE CONDUCTED EMISSION

4.1.1 Test Limit

According to §15.207(a),

Frequency Range (MHz)	Limits(dBμV)	
	Quasi-peak	Average
0.15 to 0.50	66 to 56*	56 to 46*
0.50 to 5	56	46
5 to 30	60	50

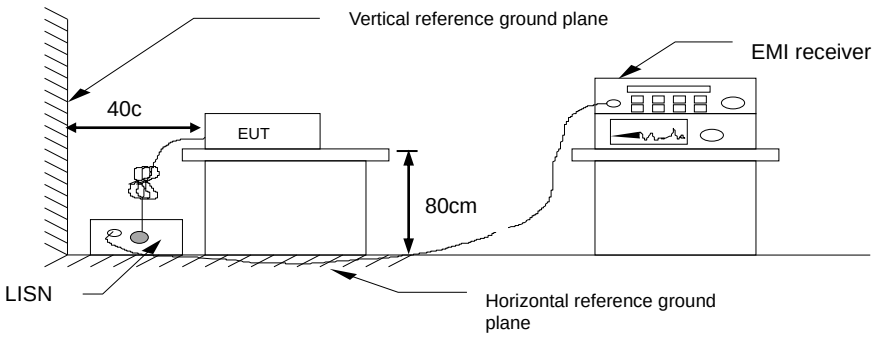
* Decreases with the logarithm of the frequency.

4.1.2 Test Procedure

Test method Refer as ANSI C63.10: 2013 clause 6.2,

1. The EUT was placed on a non-conducted table, which is 0.8m above horizontal ground plane and 0.4m above vertical ground plane.
2. EUT connected to the line impedance stabilization network (LISN)
3. Receiver set RBW of 9kHz and Detector Peak, and note as quasi-peak and average.
4. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
5. Recorded Line for Neutral and Line.

4.1.3 Test Setup



4.1.4 Test Result

Pass.

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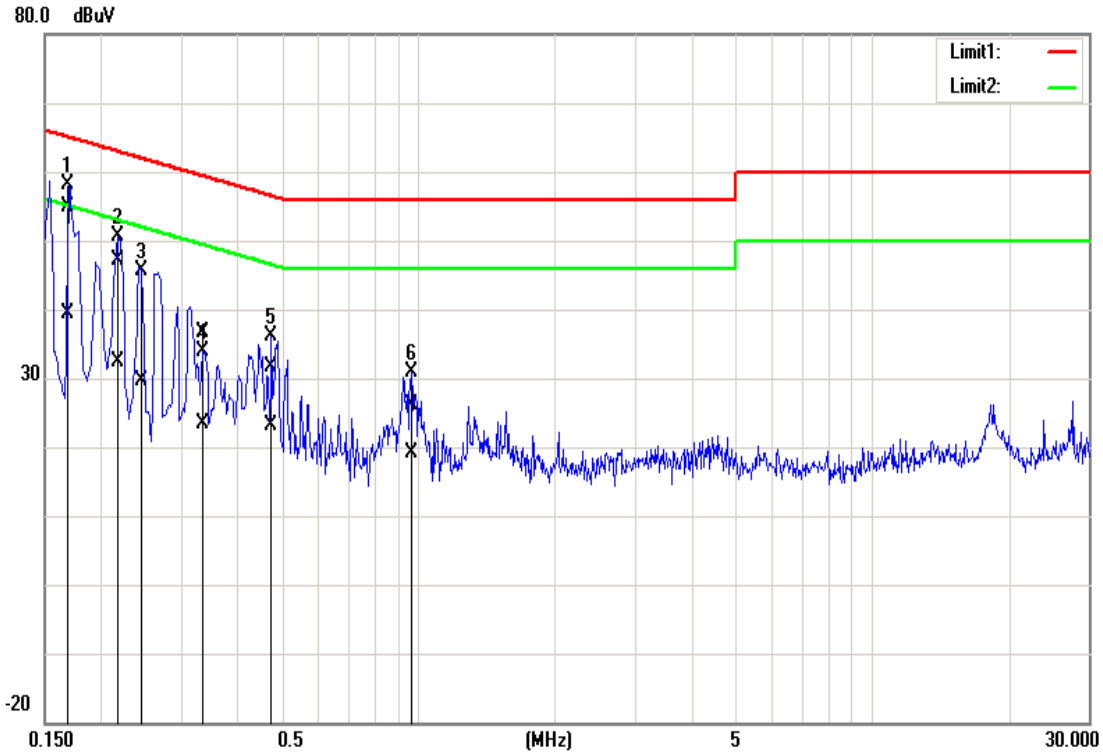
Test Data

Test Mode:	Mode 1	Temp/Hum	24(℃)/ 50%RH
Phase:	Line	Test Date	August 22, 2019
		Test Engineer	Dally Hong



Frequency (MHz)	Quasi Peak reading (dBuV)	Average reading (dBuV)	Correction factor (dB)	Quasi Peak result (dBuV)	Average result (dBuV)	Quasi Peak limit (dBuV)	Average limit (dBuV)	Quasi Peak margin (dB)	Average margin (dB)	Remark
0.1700	44.85	29.31	10.14	54.99	39.45	64.96	54.96	-9.97	-15.51	Pass
0.2180	37.02	22.30	10.13	47.15	32.43	62.89	52.89	-15.74	-20.46	Pass
0.2460	35.41	19.60	10.13	45.54	29.73	61.89	51.89	-16.35	-22.16	Pass
0.3340	26.55	13.25	10.14	36.69	23.39	59.35	49.35	-22.66	-25.96	Pass
0.4740	21.48	13.04	10.14	31.62	23.18	56.44	46.44	-24.82	-23.26	Pass
0.9660	15.93	8.91	10.17	26.10	19.08	56.00	46.00	-29.90	-26.92	Pass

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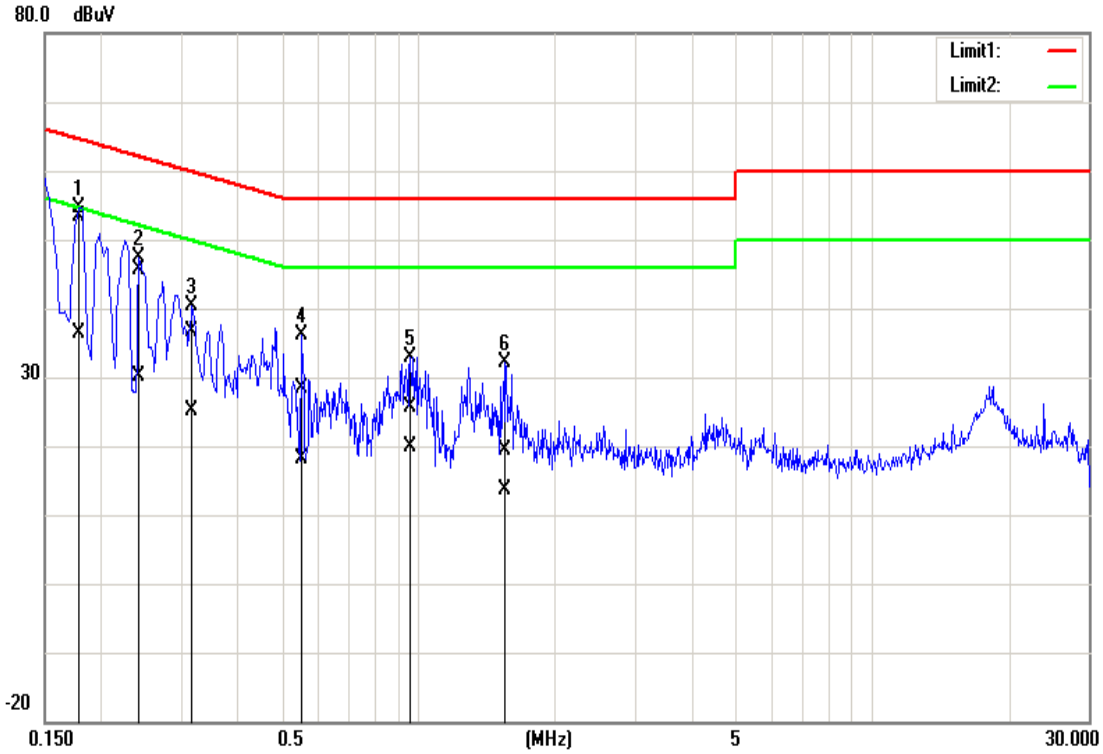
Test Mode:	Mode 1	Temp/Hum	24(℃)/ 50%RH
Phase:	Neutral	Test Date	August 22, 2019
		Test Engineer	Dally Hong



Frequency (MHz)	Quasi Peak reading (dBuV)	Average reading (dBuV)	Correction factor (dB)	Quasi Peak result (dBuV)	Average result (dBuV)	Quasi Peak limit (dBuV)	Average limit (dBuV)	Quasi Peak margin (dB)	Average margin (dB)	Remark
0.1780	43.38	26.40	10.02	53.40	36.42	64.58	54.58	-11.18	-18.16	Pass
0.2420	35.69	20.05	10.02	45.71	30.07	62.03	52.03	-16.32	-21.96	Pass
0.3180	26.65	15.21	10.03	36.68	25.24	59.76	49.76	-23.08	-24.52	Pass
0.5540	18.35	8.17	10.03	28.38	18.20	56.00	46.00	-27.62	-27.80	Pass
0.9620	15.66	9.74	10.04	25.70	19.78	56.00	46.00	-30.30	-26.22	Pass
1.5580	9.29	3.53	10.06	19.35	13.59	56.00	46.00	-36.65	-32.41	Pass

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4.2 26dB BANDWIDTH, 6dB BANDWIDTH AND OCCUPIED BANDWIDTH (99%)

4.2.1 Test Limit

26 dB Bandwidth ：For reporting purposes only.

6 dB Bandwidth ：Least 500kHz.

Occupied Bandwidth(99%) ： For reporting purposes only.

4.2.2 Test Procedure

Test method Refer as KDB 789033 D02, and ANSI C63.10: 2013 clause 6.9.2,

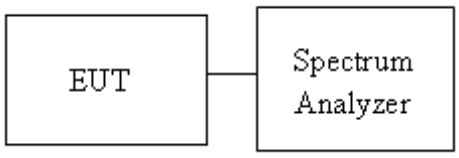
1. The EUT RF output connected to the spectrum analyzer by RF cable.
2. Setting maximum power transmit of EUT
3. UNII-1, UNII-2a and UNII-2c,

   (1) BW=20MHz : SA set RBW = 300kHz, VBW = 1MHz and Detector = Peak, to measurement 26 dB Bandwidth.

   (2) BW=40MHz : SA set RBW = 1MHz, VBW = 3MHz and Detector = Peak, to measurement 26 dB Bandwidth.

   (3) BW=80MHz : SA set RBW = 1MHz, VBW = 3MHz and Detector = Peak, to measurement 26 dB Bandwidth.
4. UNII-3, SA set RBW = 100kHz, VBW = 300kHz and Detector = Peak, to measurement 26 dB Bandwidth.
5. SA set RBW = 1% ~ 5% OBW, VBW = three times the RBW and Detector = Peak, to measurement 99% Bandwidth.
6. Measure and record the result of 6 dB, 26 dB Bandwidth and 99% Bandwidth. in the test report.

4.2.3 Test Setup



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4.2.4 Test Result

UNII-1 5150-5250 MHz					
Test mode: IEEE 802.11a mode					
Channel	**Frequency (MHz)**	**Chain 0 OBW (99%) (MHz)**	**Chain 1 OBW (99%) (MHz)**	**Chain 0 26dB BW (MHz)**	**Chain 1 26dB BW (MHz)**
Low	5180	16.3531	16.6425	37.029	25.6522
Mid	5220	16.4254	16.6425	45.942	24.2029
High	5240	16.6425	16.6425	39.058	25.5797
Test mode: IEEE 802.11n 20 MHz mode					
Channel	**Frequency (MHz)**	**Chain 0 OBW (99%) (MHz)**	**Chain 1 OBW (99%) (MHz)**	**Chain 0 26dB BW (MHz)**	**Chain 1 26dB BW (MHz)**
Low	5180	17.6555	17.6555	21.1594	20.7246
Mid	5220	17.5832	17.6555	21.087	23.913
High	5240	17.8726	17.7279	30.7971	27.3188
Test mode: IEEE 802.11n 40 MHz mode					
Channel	**Frequency (MHz)**	**Chain 0 OBW(99%) (MHz)**	**Chain 1 OBW(99%) (MHz)**	**Chain 0 26dB BW (MHz)**	**Chain 1 26dB BW (MHz)**
Low	5190	36.3531	35.8900	58.087	40.348
High	5230	36.4688	36.4688	70.261	70.493
Test mode: IEEE 802.11ac VHT80 mode					
Channel	**Frequency (MHz)**	**Chain 0 OBW(99%) (MHz)**	**Chain 1 OBW(99%) (MHz)**	**Chain 0 26dB BW (MHz)**	**Chain 1 26dB BW (MHz)**
Mid	5210	76.1794	75.7163	99.71	84.406

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UNII-2a 5250-5350 MHz					
Test mode: IEEE 802.11a mode					
Channel	**Frequency (MHz)**	**Chain 0 OBW(99%) (MHz)**	**Chain 1 OBW(99%) (MHz)**	**Chain 0 26dB BW (MHz)**	**Chain 1 26dB BW (MHz)**
Low	5260	17.2937	16.5701	42.971	22.8261
Mid	5280	16.7149	16.4254	32.8261	19.5652
High	5320	16.7149	16.6425	40.2174	23.913
Test mode: IEEE 802.11n 20 MHz mode					
Channel	**Frequency (MHz)**	**Chain 0 OBW(99%) (MHz)**	**Chain 1 OBW(99%) (MHz)**	**Chain 0 26dB BW (MHz)**	**Chain 1 26dB BW (MHz)**
Low	5260	17.7279	17.6555	47.029	21.0145
Mid	5280	17.8726	17.6555	29.3478	20.8696
High	5320	17.8726	17.8002	42.6087	27.3913
Test mode: IEEE 802.11n 40 MHz mode					
Channel	**Frequency (MHz)**	**Chain 0 OBW(99%) (MHz)**	**Chain 1 OBW(99%) (MHz)**	**Chain 0 26dB BW (MHz)**	**Chain 1 26dB BW (MHz)**
Low	5270	38.5528	36.1215	75.594	40.464
High	5310	36.0057	36.1215	44.754	61.681
Test mode: IEEE 802.11ac VHT80 mode					
Channel	**Frequency (MHz)**	**Chain 0 OBW(99%) (MHz)**	**Chain 1 OBW(99%) (MHz)**	**Chain 0 26dB BW (MHz)**	**Chain 1 26dB BW (MHz)**
Mid	5290	75.7163	75.4848	115.478	83.478

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UNII-2c 5475-5725 MHz					
Test mode: IEEE 802.11a mode					
Channel	**Frequency (MHz)**	**Chain 0 OBW(99%) (MHz)**	**Chain 1 OBW(99%) (MHz)**	**Chain 0 26dB BW (MHz)**	**Chain 1 26dB BW (MHz)**
Low	5500	16.4254	16.3531	19.6377	19.6377
Mid	5580	16.4254	16.4254	19.6377	19.7101
High	5700	16.4978	16.4254	19.6377	19.4928
Test mode: IEEE 802.11n 20 MHz mode					
Channel	**Frequency (MHz)**	**Chain 0 OBW(99%) (MHz)**	**Chain 1 OBW(99%) (MHz)**	**Chain 0 26dB BW (MHz)**	**Chain 1 26dB BW (MHz)**
Low	5500	17.5832	17.5832	20.5072	20.5797
Mid	5580	17.6555	17.6555	21.0145	21.087
High	5700	17.5832	17.5832	20.5072	20.5797
Test mode: IEEE 802.11n 40 MHz mode					
Channel	**Frequency (MHz)**	**Chain 0 OBW(99%) (MHz)**	**Chain 1 OBW(99%) (MHz)**	**Chain 0 26dB BW (MHz)**	**Chain 1 26dB BW (MHz)**
Low	5510	35.8900	36.0057	40.116	40.232
Mid	5500	36.0057	36.1215	40.232	40.58
High	5670	36.0057	36.0057	40.348	40.0
Test mode: IEEE 802.11ac VHT80 mode					
Channel	**Frequency (MHz)**	**Chain 0 OBW(99%) (MHz)**	**Chain 1 OBW(99%) (MHz)**	**Chain 0 26dB BW (MHz)**	**Chain 1 26dB BW (MHz)**
Mid	5530	75.9479	75.9479	83.71	83.71

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UNII-3 5725-5825MHz					
Test mode: IEEE 802.11a mode					
Channel	**Frequency (MHz)**	**Chain 0 OBW(99%) (MHz)**	**Chain 1 OBW(99%) (MHz)**	**Chain 0 6dB BW (MHz)**	**Chain 1 6dB BW (MHz)**
Low	5745	16.4978	16.4978	16.3478	16.3478
Mid	5785	16.4978	16.5701	16.3478	15.913
High	5825	16.4254	16.8596	16.3043	15.913
Test mode: IEEE 802.11n 20 MHz mode					
Channel	**Frequency (MHz)**	**Chain 0 OBW(99%) (MHz)**	**Chain 1 OBW(99%) (MHz)**	**Chain 0 6dB BW (MHz)**	**Chain 1 6dB BW (MHz)**
Low	5745	17.6555	17.5832	17.3478	16.0435
Mid	5785	17.6555	17.6555	17.5652	16.6522
High	5825	17.5832	17.9450	17.5652	17.6087
Test mode: IEEE 802.11n 40 MHz mode					
Channel	**Frequency (MHz)**	**Chain 0 OBW(99%) (MHz)**	**Chain 1 OBW(99%) (MHz)**	**Chain 0 6dB BW (MHz)**	**Chain 1 6dB BW (MHz)**
Low	5755	36.0057	36.1215	35.13	35.478
High	5795	36.1215	36.7004	33.275	35.362
Test mode: IEEE 802.11ac VHT80 mode					
Channel	**Frequency (MHz)**	**Chain 0 OBW(99%) (MHz)**	**Chain 1 OBW(99%) (MHz)**	**Chain 0 6dB BW (MHz)**	**Chain 1 6dB BW (MHz)**
Mid	5775	78.9580	78.9580	73.971	75.594

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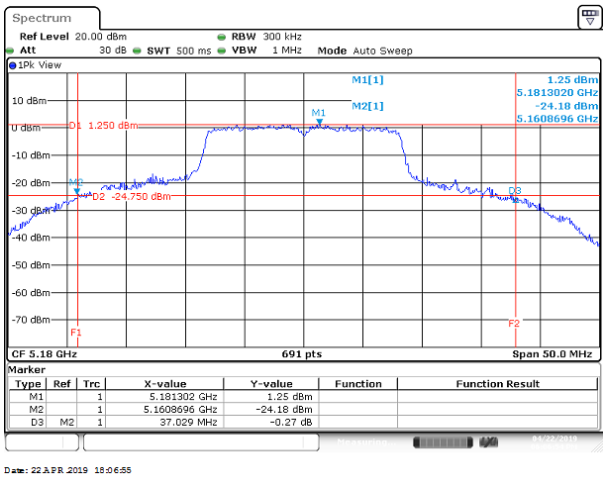
Test Data

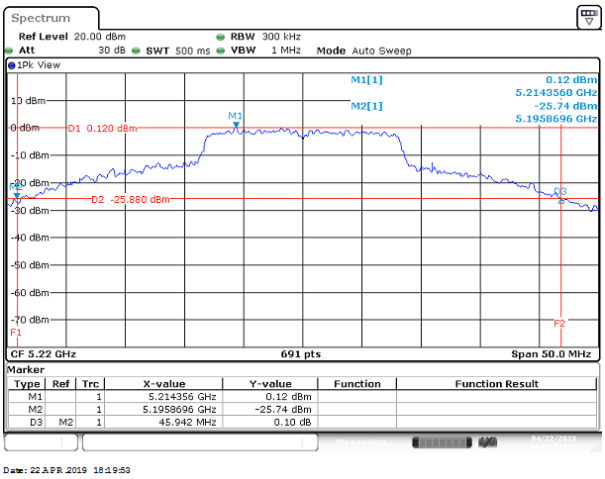
26dB BANDWIDTH

UNII-1 IEEE 802.11a mode- chain 0

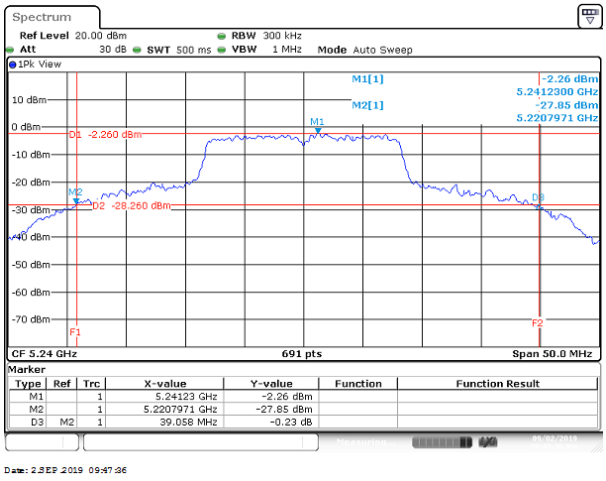
Low CH



Mid CH



High CH



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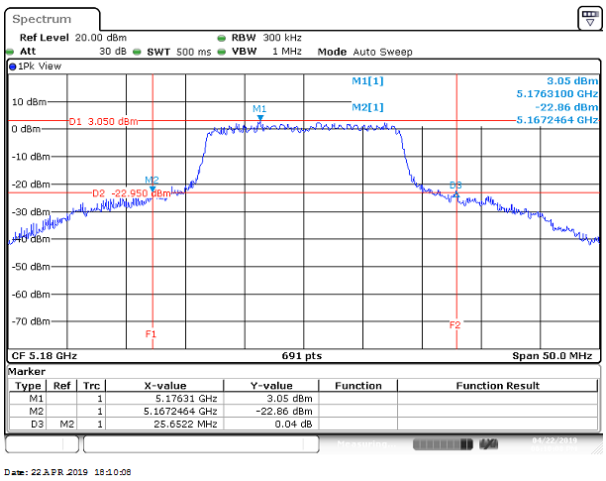
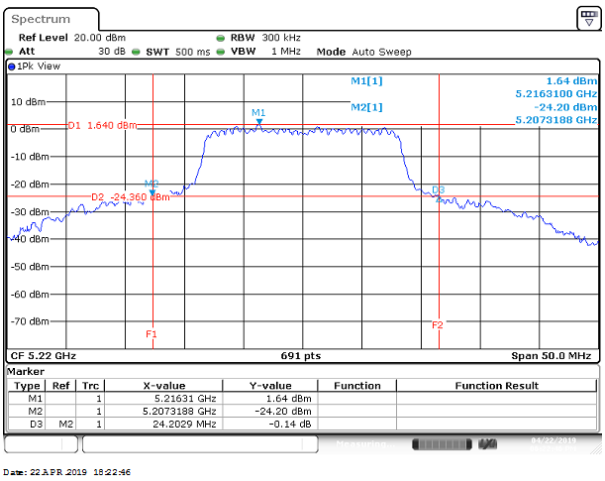
UNII-1 IEEE 802.11a mode- chain 1

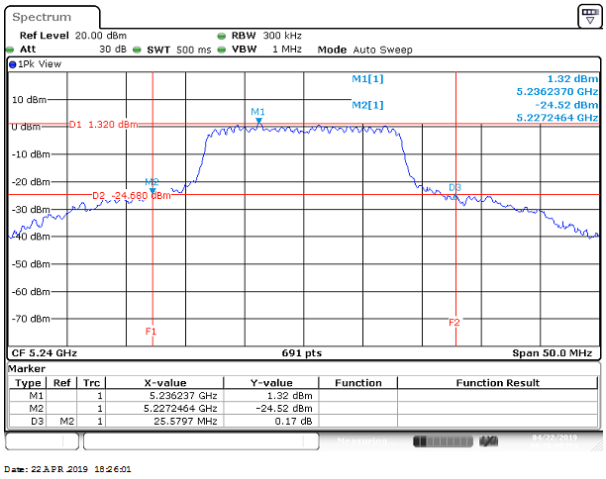
Low CH



Mid CH



High CH



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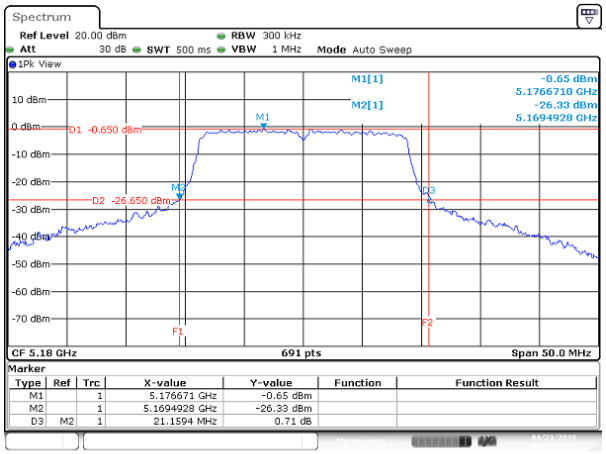
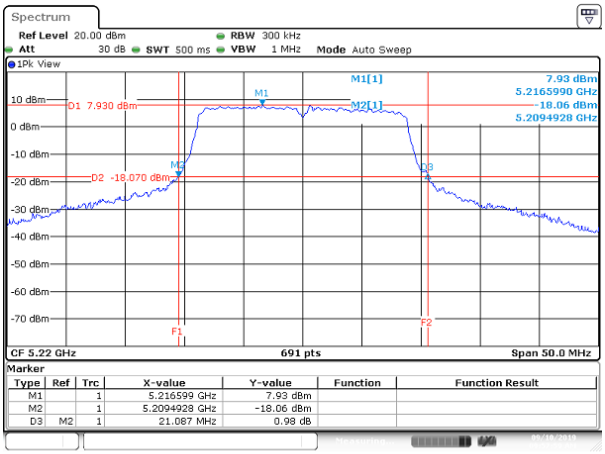
UNII-1 IEEE 802.11n 20 MHz mode- chain 0

Low CH



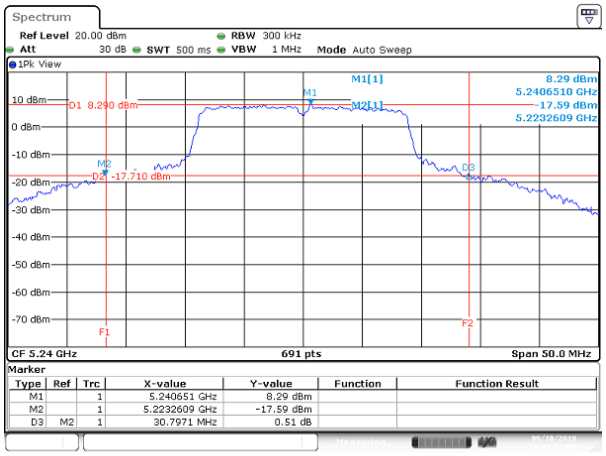
Date: 23.APR.2019 08:29:20

Mid CH



Date: 10.SEP.2019 09:57:59

High CH



Date: 10.SEP.2019 10:02:22

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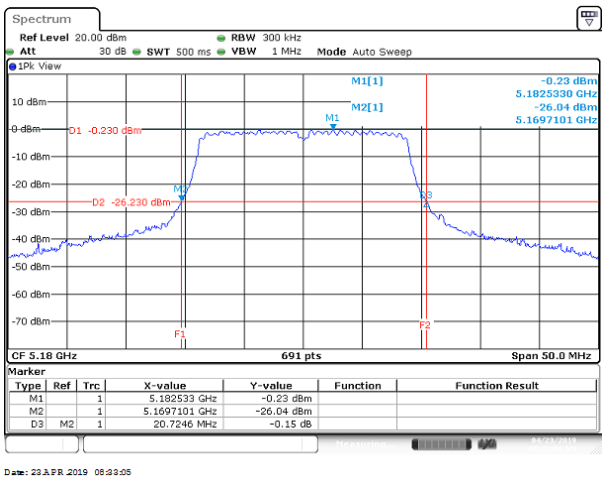
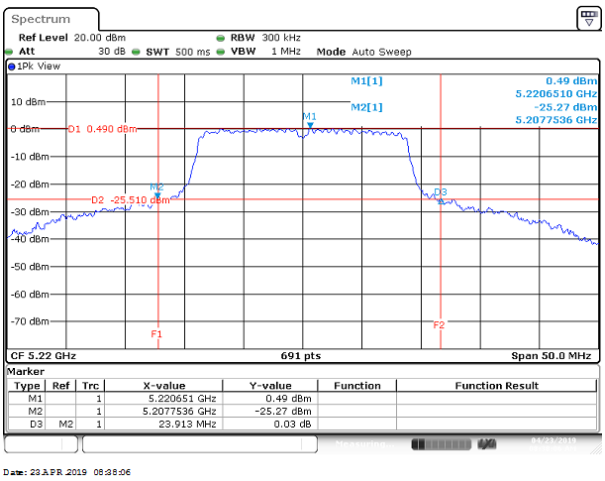
UNII-1 IEEE 802.11n 20 MHz mode- chain 1

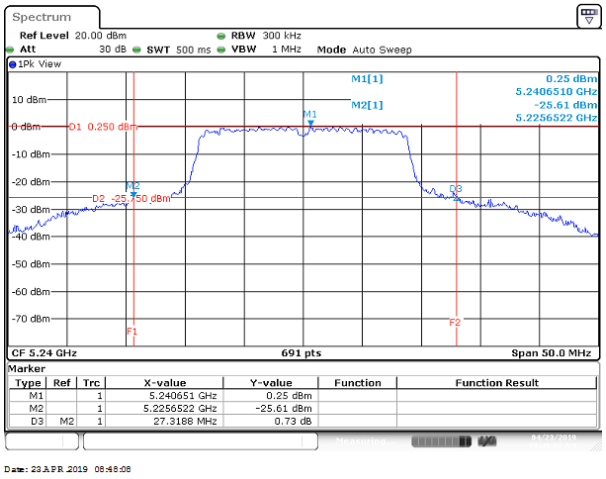
Low CH



Mid CH



High CH



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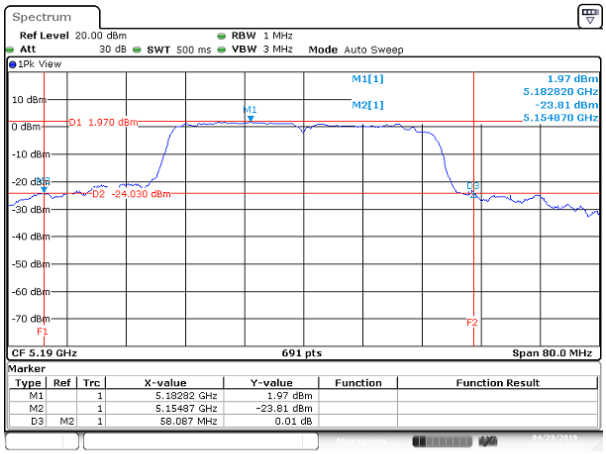
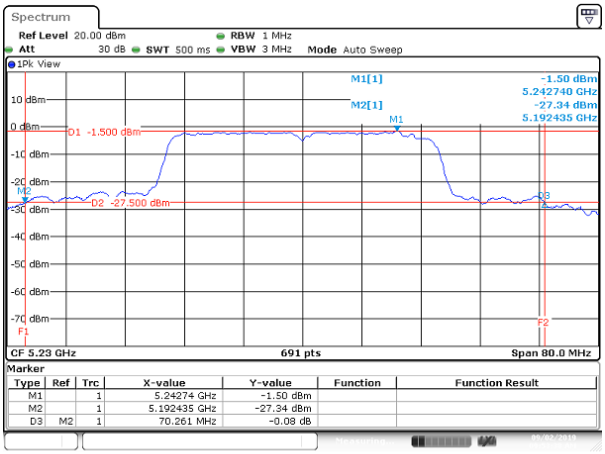
UNII-1 IEEE 802.11n 40 MHz mode- chain 0

Low CH

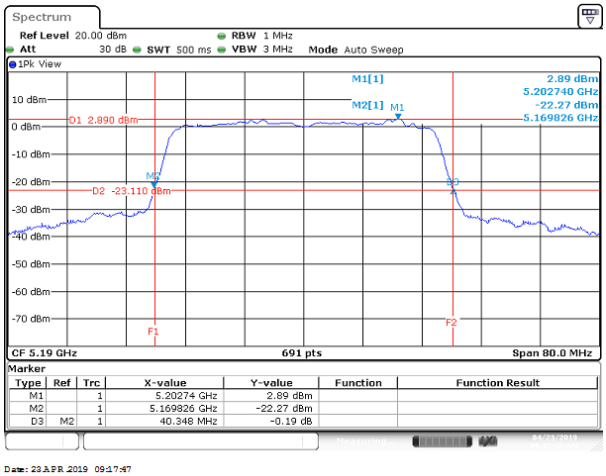


High CH

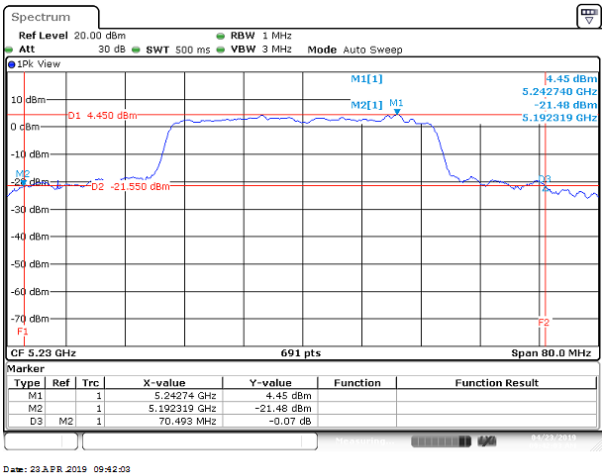


UNII-1 IEEE 802.11n 40 MHz mode- chain 1

Low CH



High CH



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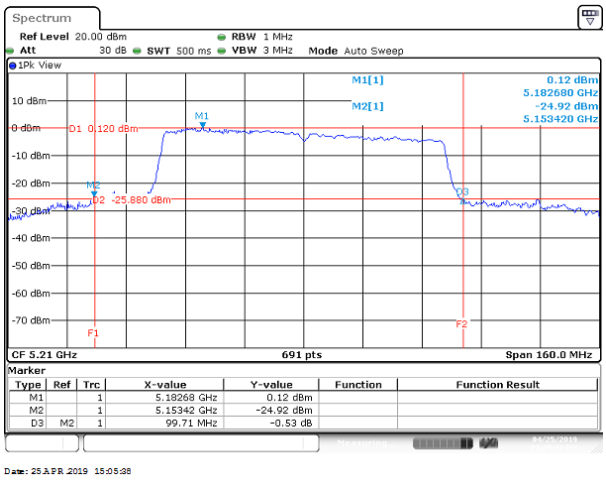
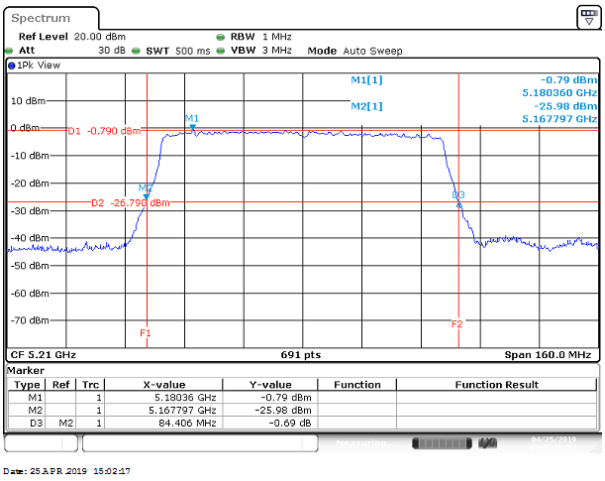
UNII-1 IEEE 802.11ac VHT80 mode	
Mid CH-chain 0	**Mid CH-chain 1**
	

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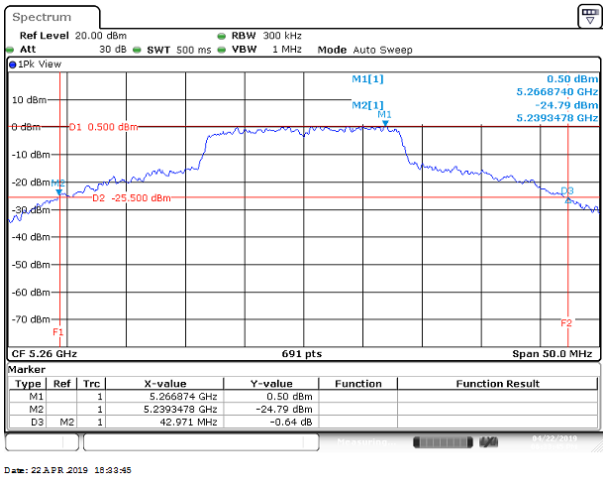
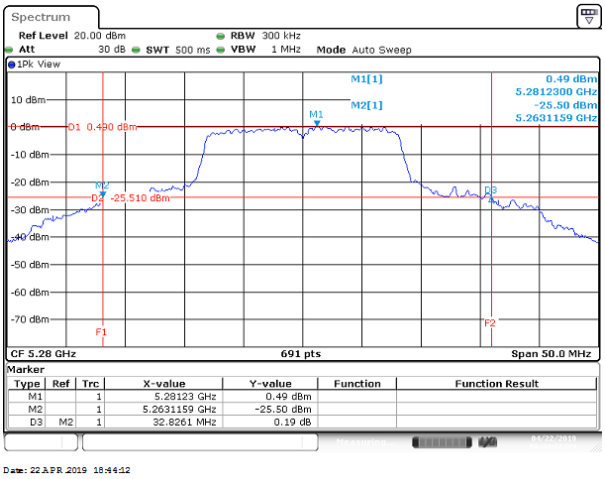
Test Data

UNII-2a IEEE 802.11a mode- chain 0

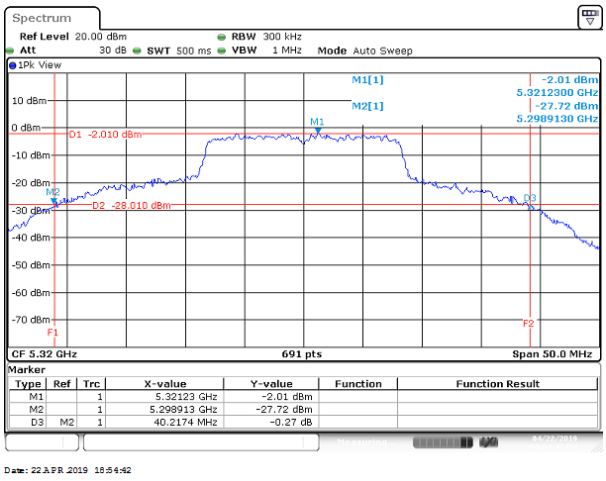
Low CH



Mid CH



High CH



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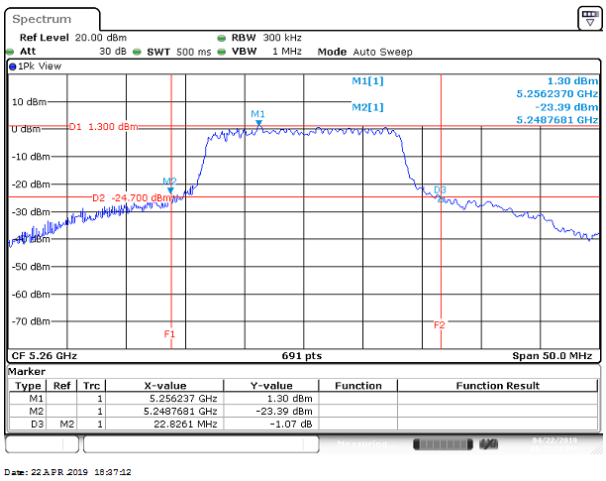
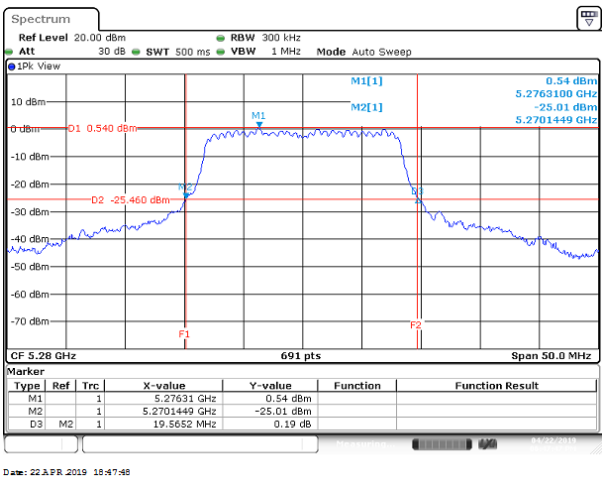
UNII-2a IEEE 802.11a mode- chain 1

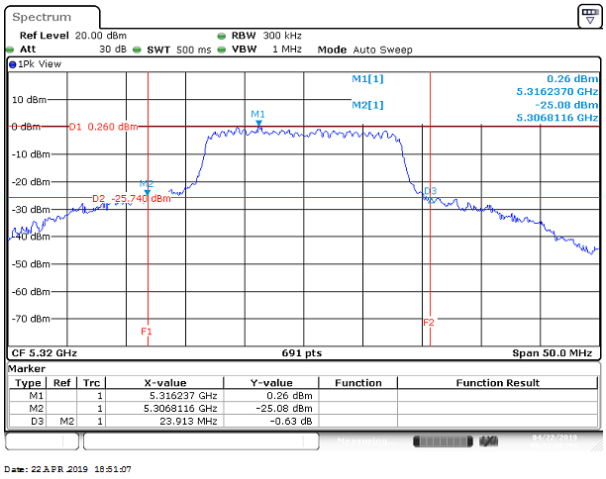
Low CH



Mid CH



High CH



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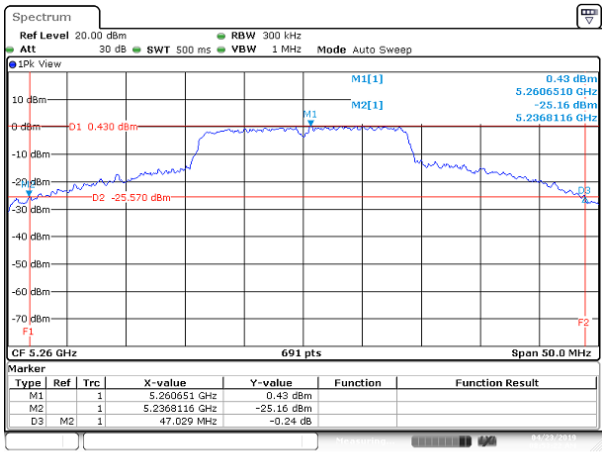
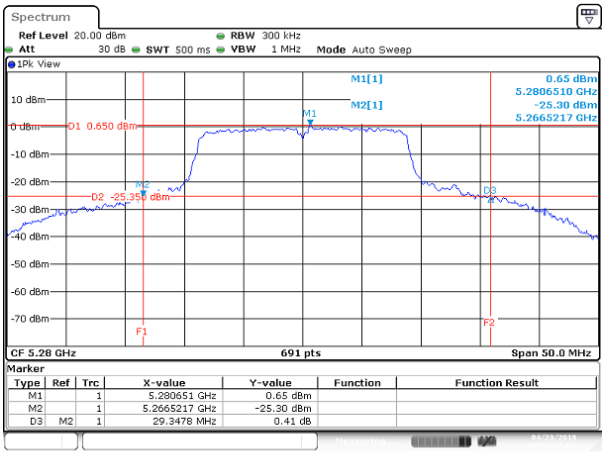
UNII-2a IEEE 802.11n 20 MHz mode- chain 0

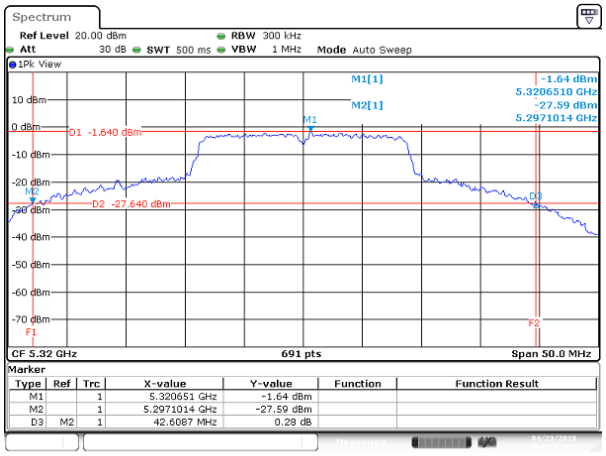
Low CH



Mid CH



High CH



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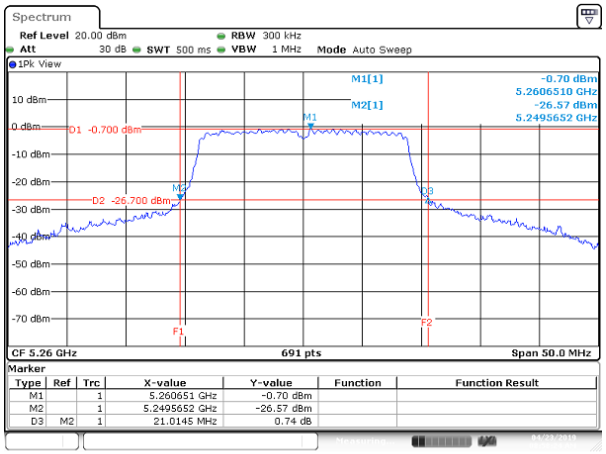
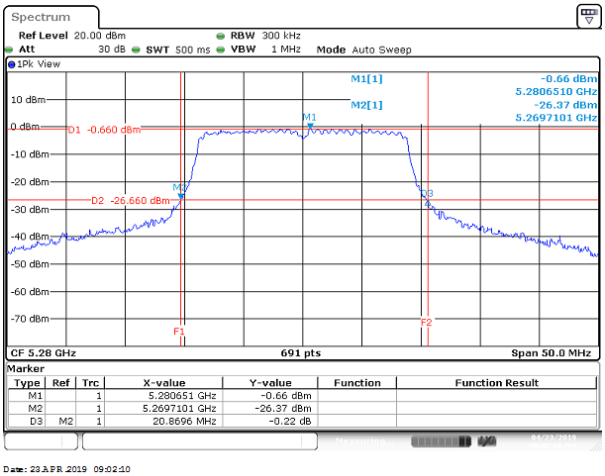
UNII-2a IEEE 802.11n 20 MHz mode- chain 1

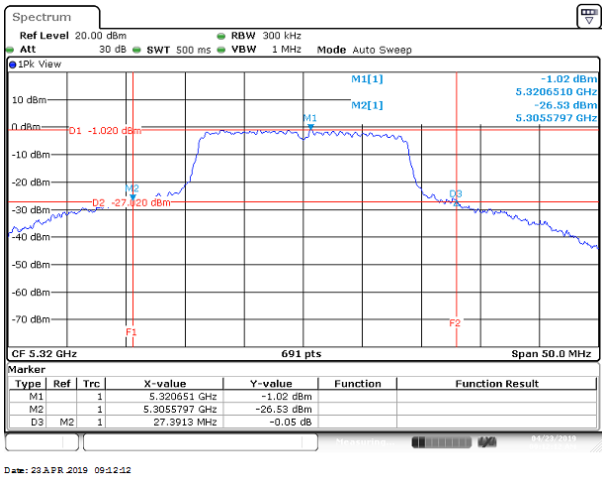
Low CH



Mid CH



High CH



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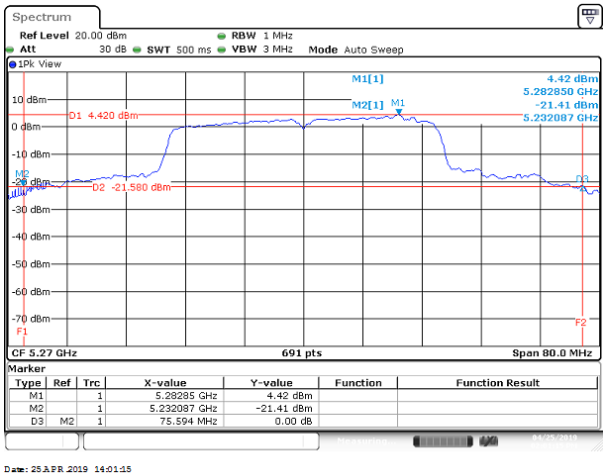
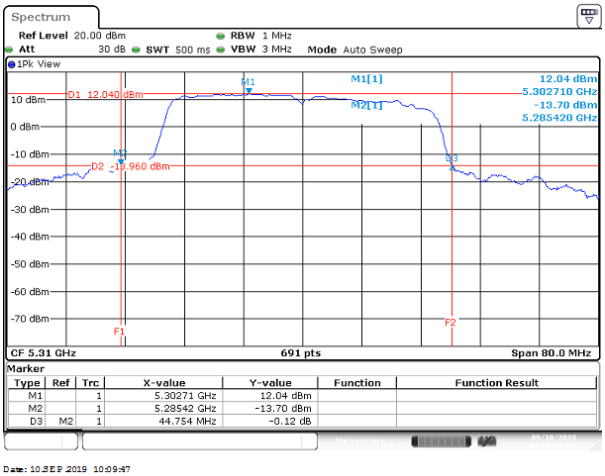
UNII-2a IEEE 802.11n 40 MHz mode- chain 0

Low CH

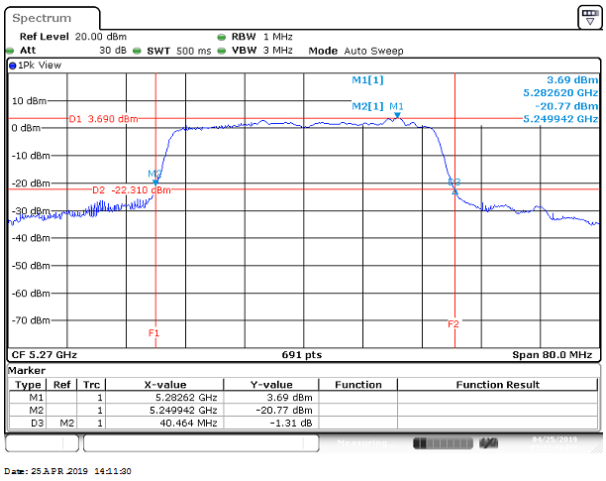


High CH

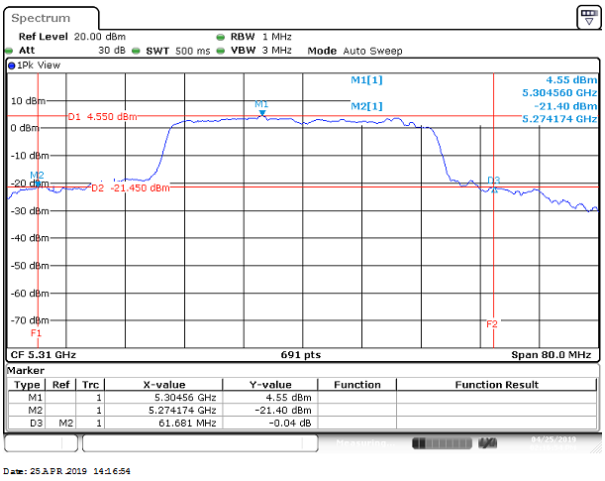


UNII-2a IEEE 802.11n 40 MHz mode- chain 1

Low CH



High CH



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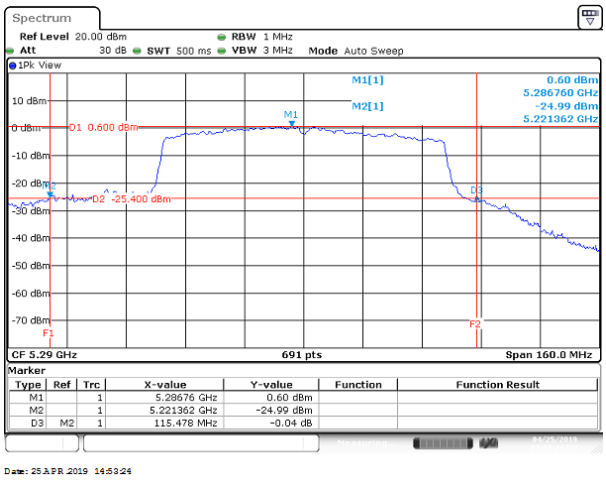
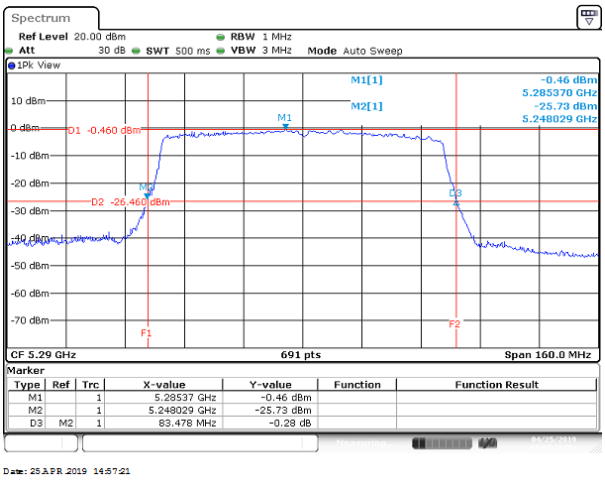
UNII-2a IEEE 802.11ac VHT80 mode	
Mid CH- chain 0	**Mid CH- chain 1**
	

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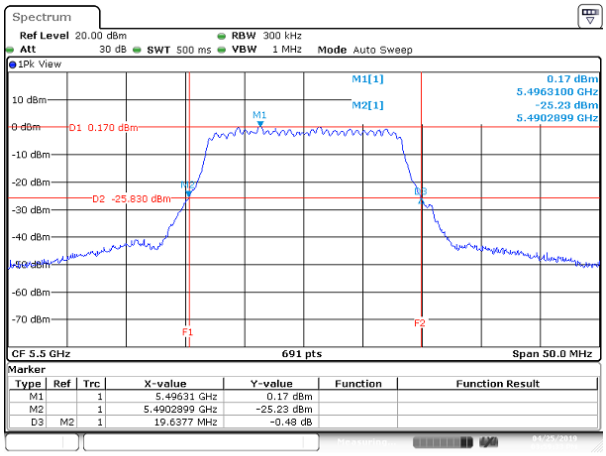
Test Data

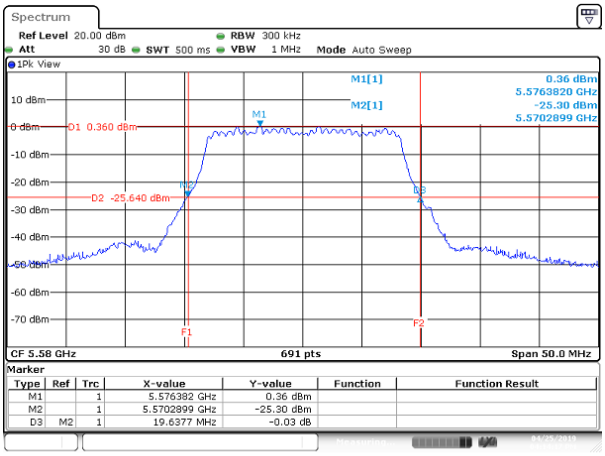
UNII-2c IEEE 802.11a mode- chain 0

Low CH



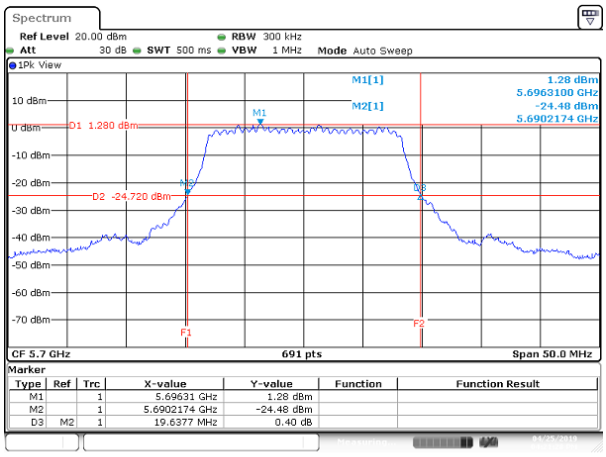
Date: 25.APR.2019 15:59:33

Mid CH



Date: 25.APR.2019 16:14:17

High CH



Date: 25.APR.2019 16:21:28

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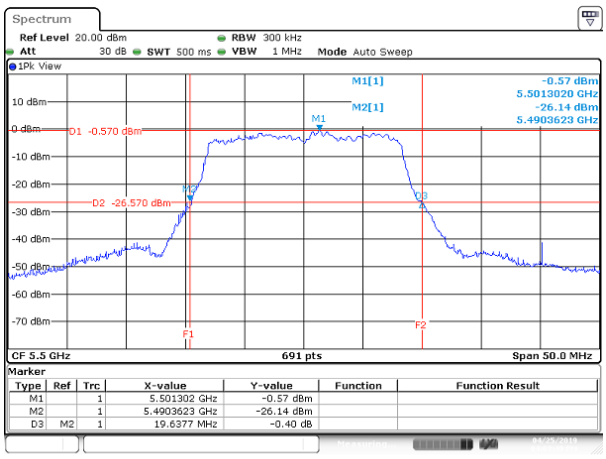
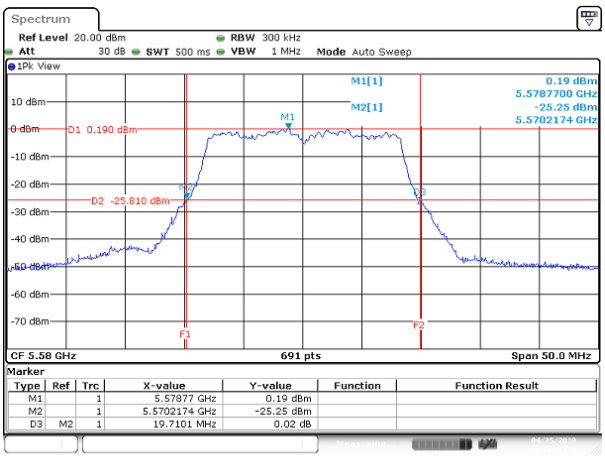
UNII-2c IEEE 802.11a mode- chain 1

Low CH



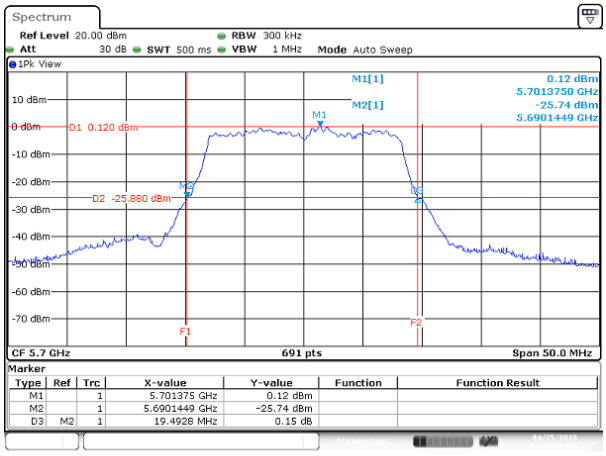
Date: 25.APR.2019 16:03:49

Mid CH



Date: 25.APR.2019 16:10:28

High CH



Date: 25.APR.2019 16:27:40

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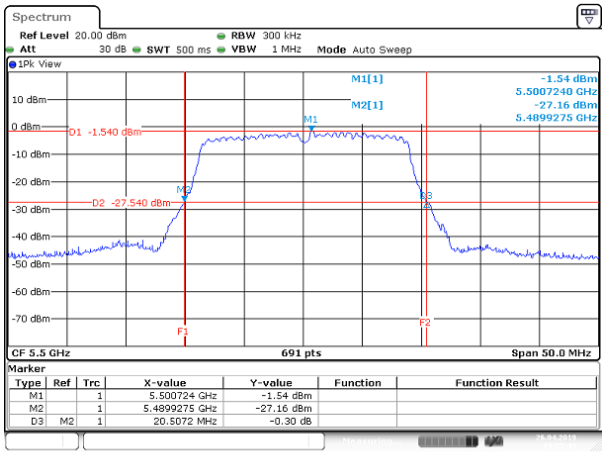
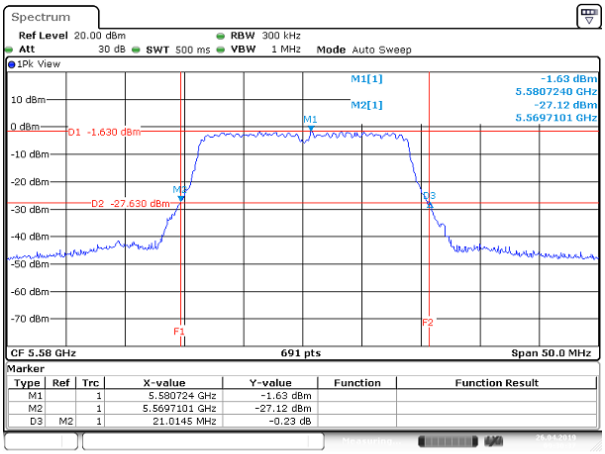
UNII-2c IEEE 802.11n 20 MHz mode- chain 0

Low CH



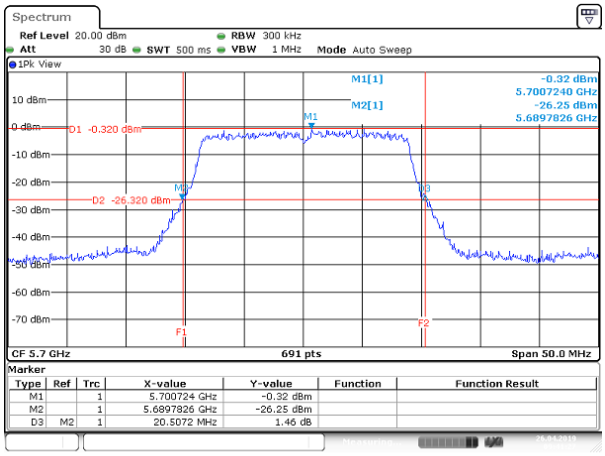
Date: 26.APR.2019 09:25:43

Mid CH



Date: 26.APR.2019 09:30:37

High CH



Date: 26.APR.2019 09:41:27

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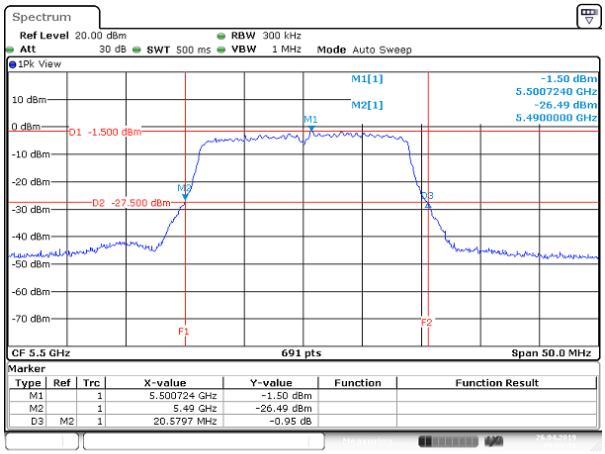
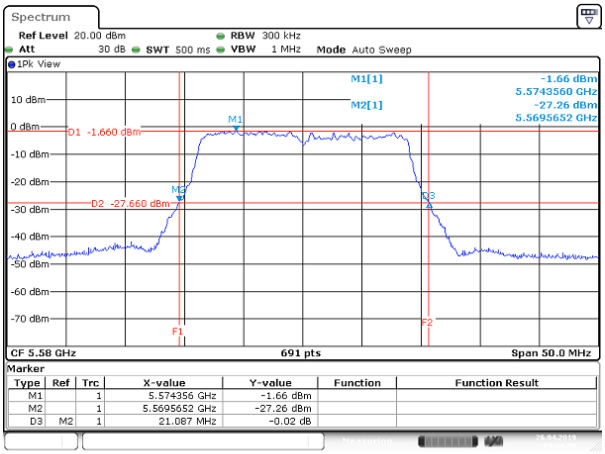
UNII-2c IEEE 802.11n 20 MHz mode- chain 1

Low CH



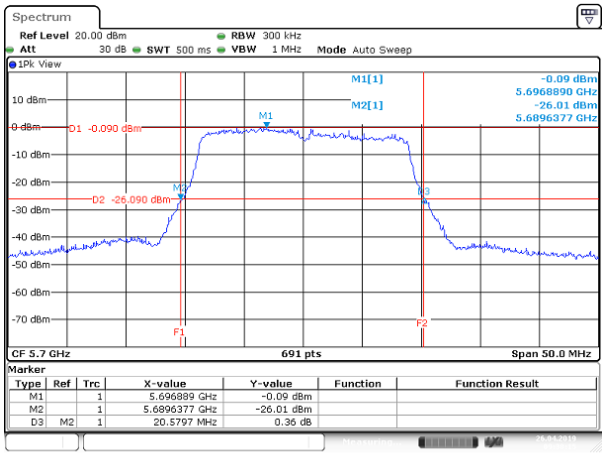
Date: 26.APR.2019 09:21:28

Mid CH



Date: 26.APR.2019 09:34:51

High CH



Date: 26.APR.2019 09:38:16

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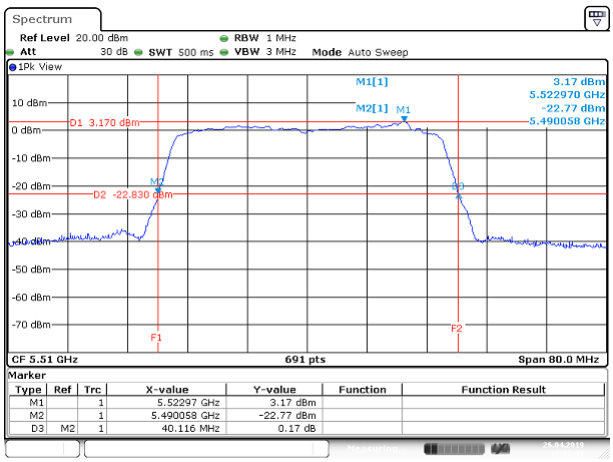
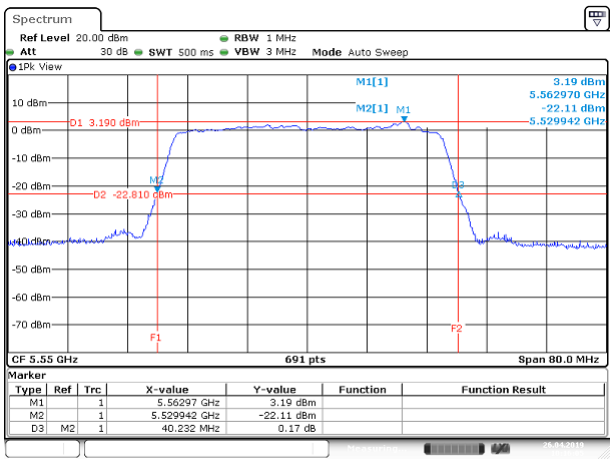
UNII-2c IEEE 802.11n 40 MHz mode- chain 0

Low CH



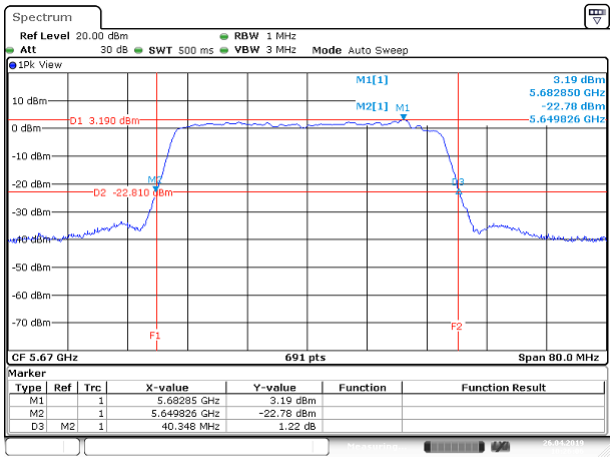
Date: 26.APR.2019 10:12:41

Mid CH



Date: 26.APR.2019 10:16:06

High CH



Date: 26.APR.2019 10:26:06

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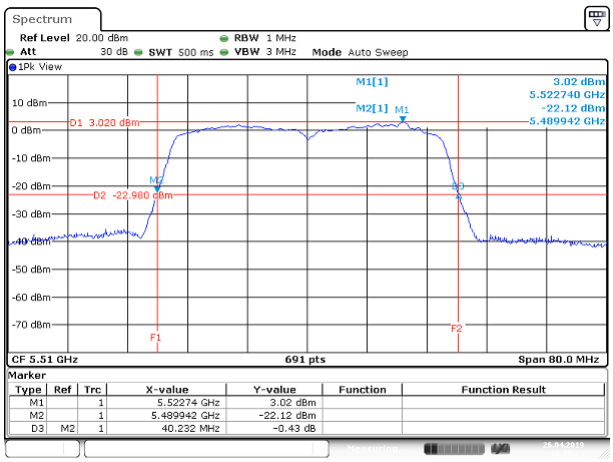
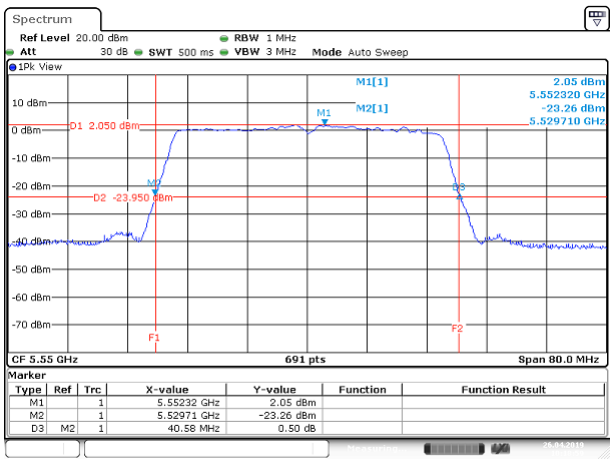
UNII-2c IEEE 802.11n 40 MHz mode- chain 1

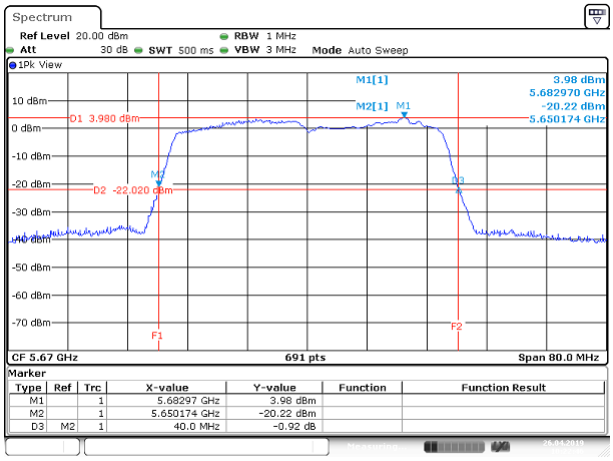
Low CH



Mid CH



High CH



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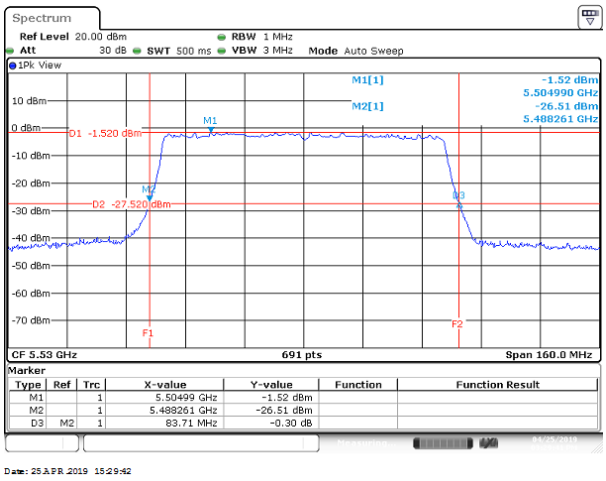
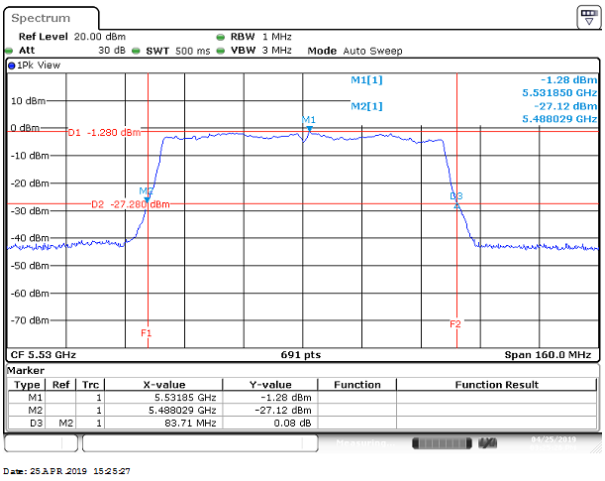
UNII-2c IEEE 802.11ac VHT80 mode	
Mid CH- chain 0	**Mid CH- chain 1**
	

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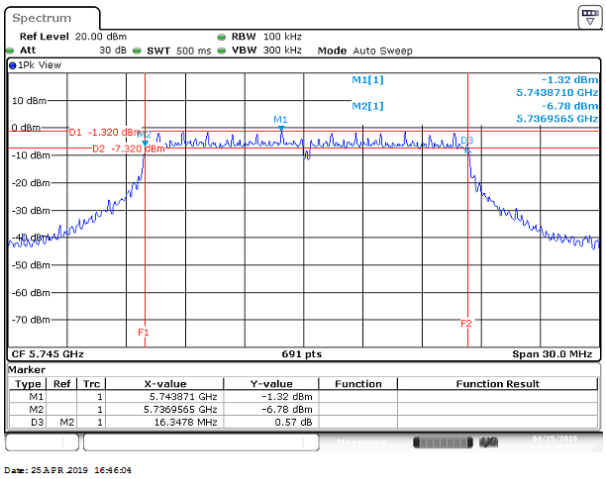
Test Data

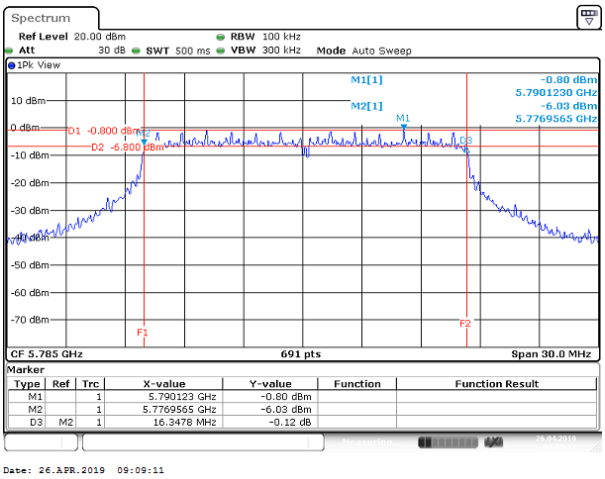
6dB BANDWIDTH

UNII-3 IEEE 802.11a mode- chain 0

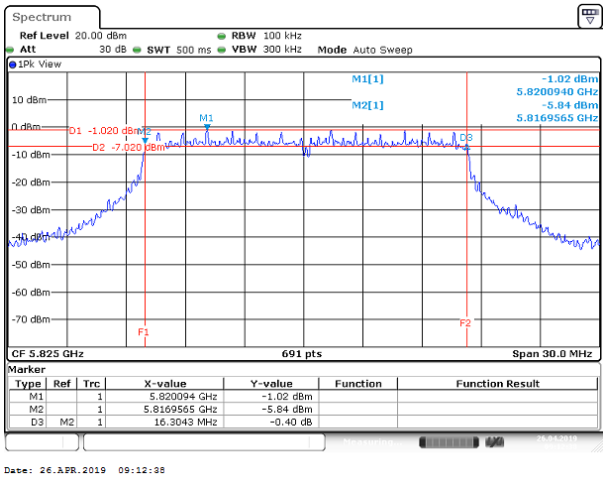
Low CH



Mid CH



High CH



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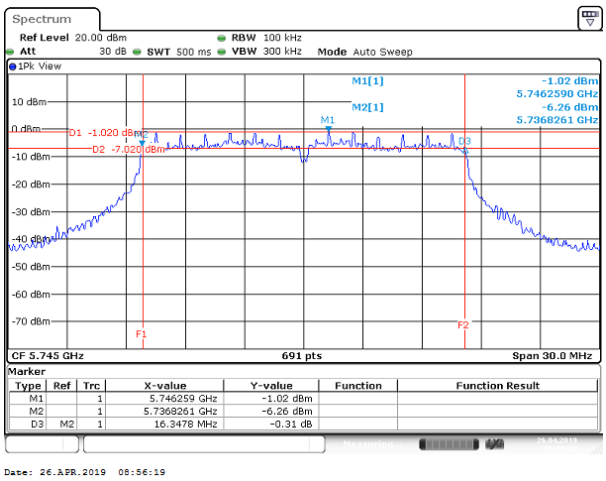
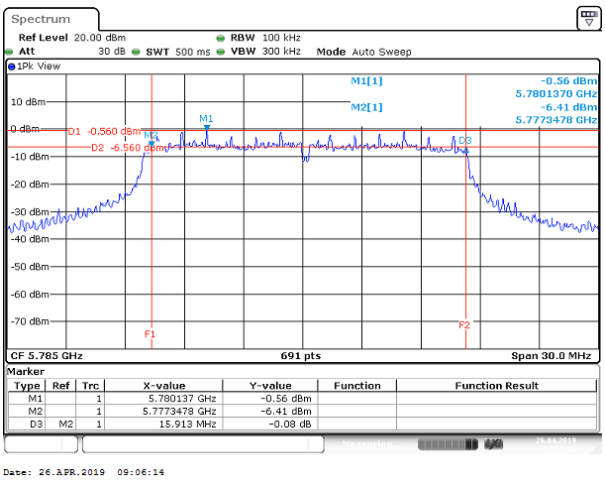
UNII-3 IEEE 802.11a mode- chain 1

Low CH



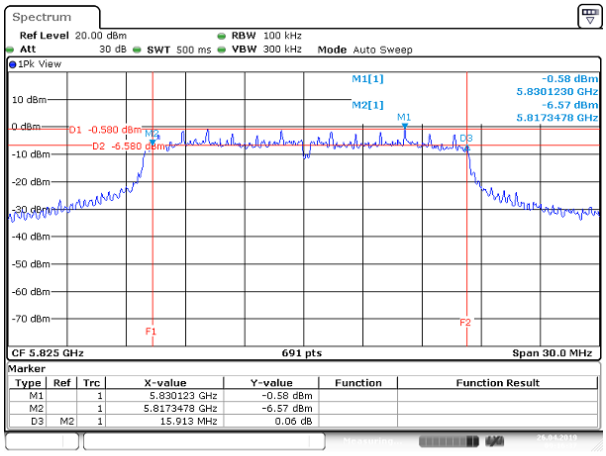
Date: 26.APR.2019 08:56:19

Mid CH



Date: 26.APR.2019 09:06:14

High CH



Date: 26.APR.2019 09:16:38

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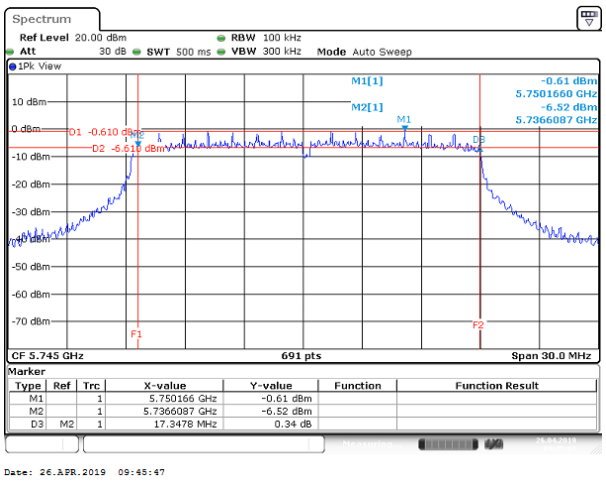
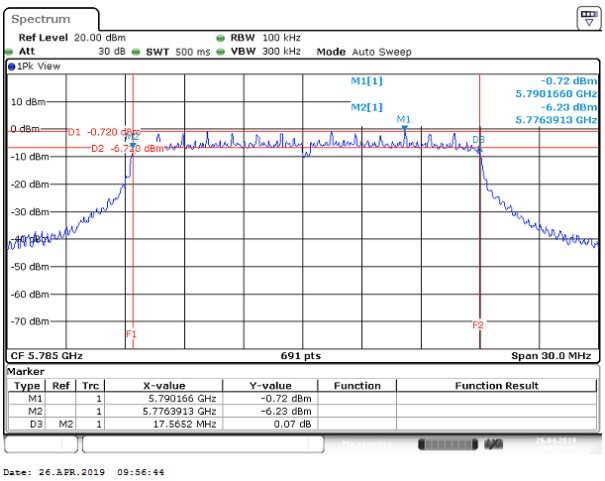
UNII-3 IEEE 802.11n 20 MHz mode- chain 0

Low CH



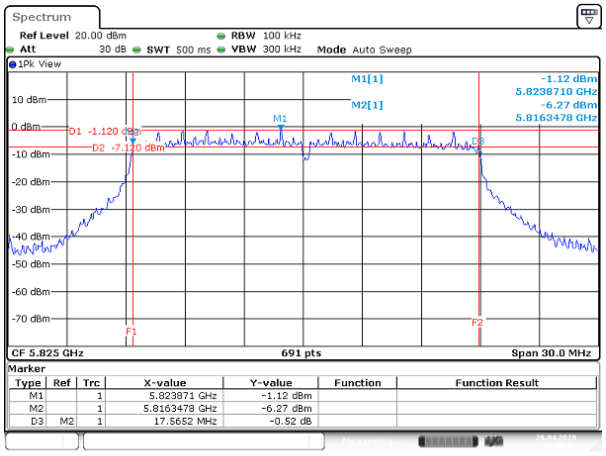
Date: 26.APR.2019 09:45:47

Mid CH



Date: 26.APR.2019 09:56:44

High CH



Date: 26.APR.2019 10:00:02

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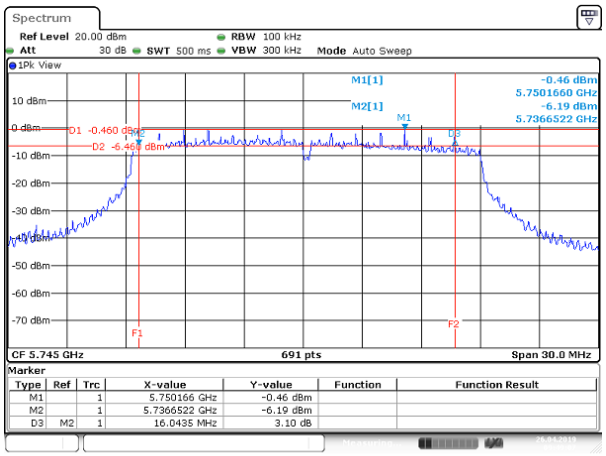
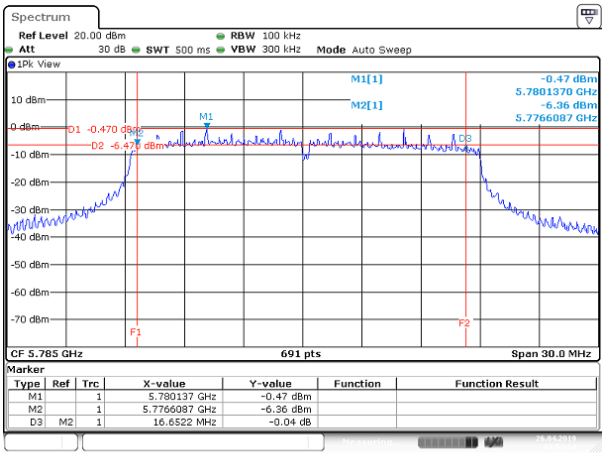
UNII-3 IEEE 802.11n 20 MHz mode- chain 1

Low CH



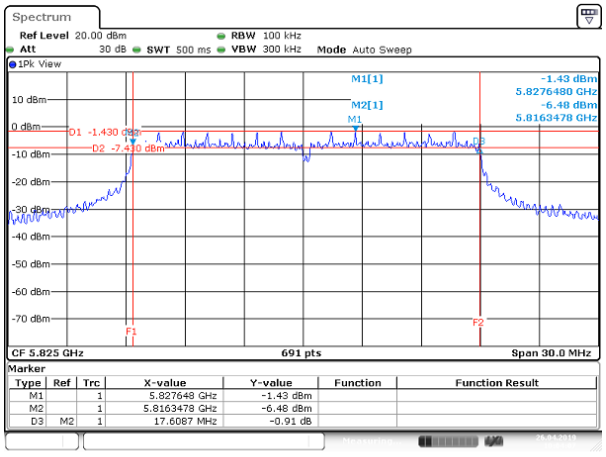
Date: 26.APR.2019 09:49:07

Mid CH



Date: 26.APR.2019 09:53:14

High CH



Date: 26.APR.2019 10:04:07

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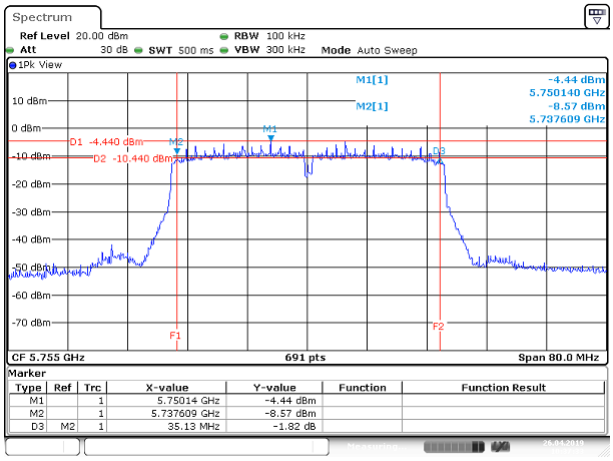
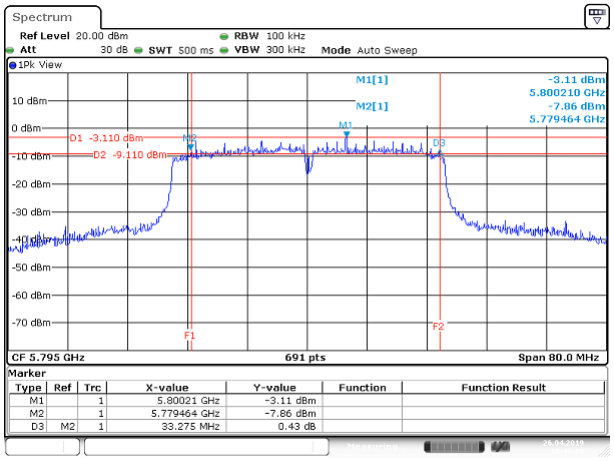
UNII-3 IEEE 802.11n 40 MHz mode- chain 0

Low CH



Date: 26.APR.2019 10:37:33

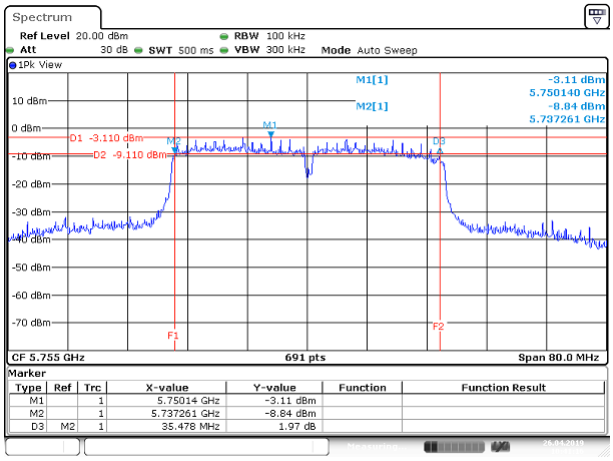
High CH



Date: 26.APR.2019 10:46:20

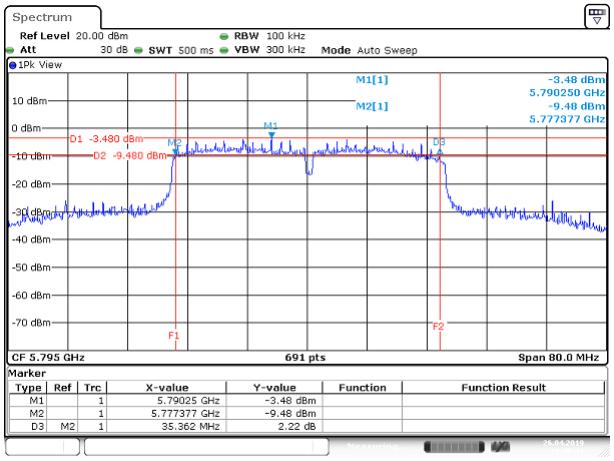
UNII-3 IEEE 802.11n 40 MHz mode- chain 1

Low CH



Date: 26.APR.2019 10:41:17

High CH



Date: 26.APR.2019 10:49:42

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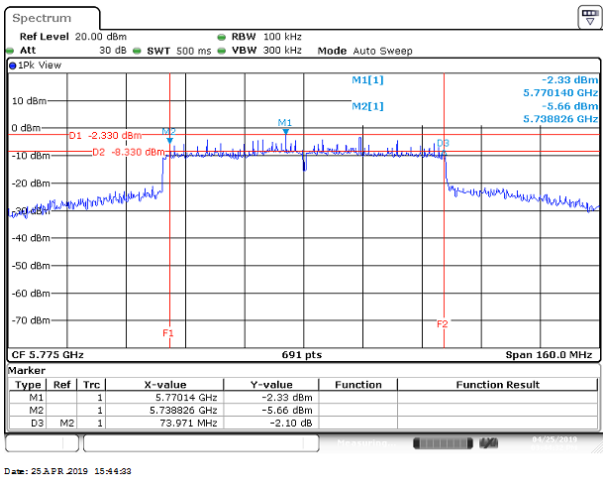
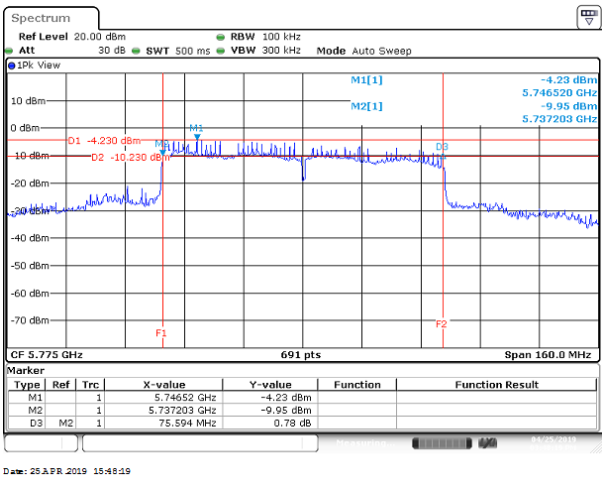
UNII-3 IEEE 802.11ac VHT80 mode	
Mid CH- chain 0	**Mid CH- chain 1**
	

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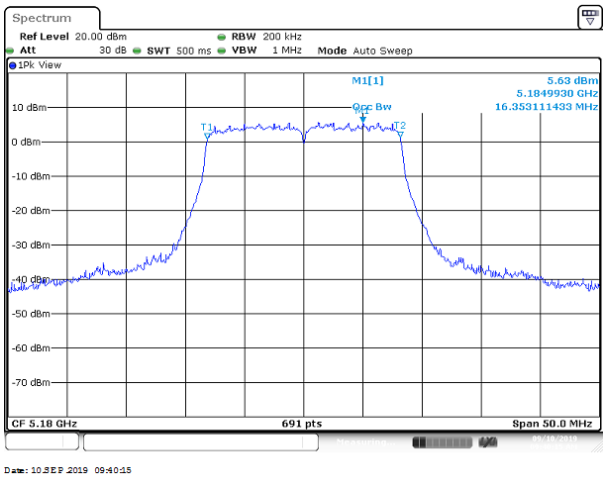
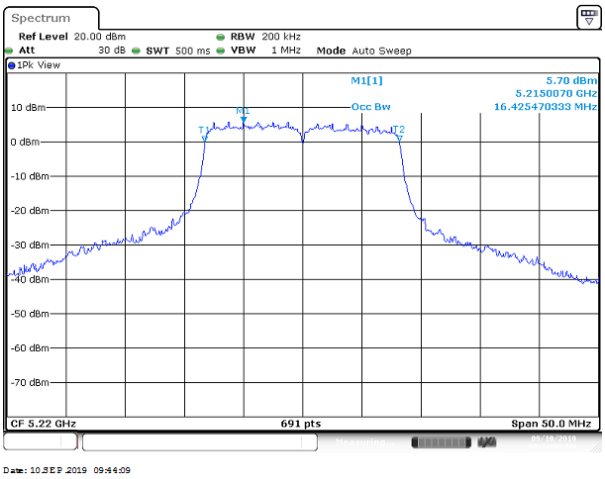
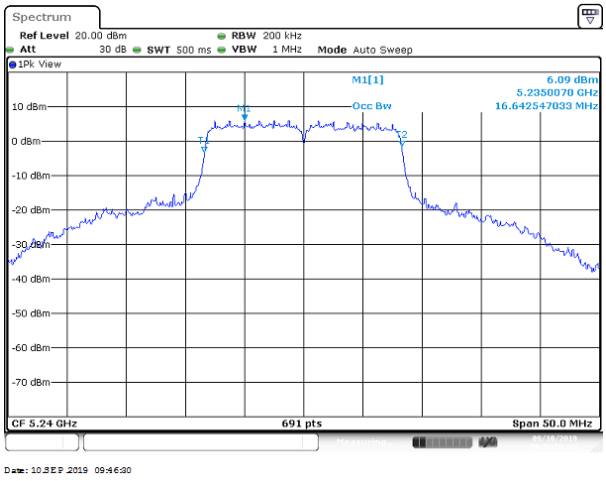
Test Data

BANDWIDTH 99%

UNII-1 IEEE 802.11a mode- chain 0	
Low CH	**Mid CH**
	
High CH	
	

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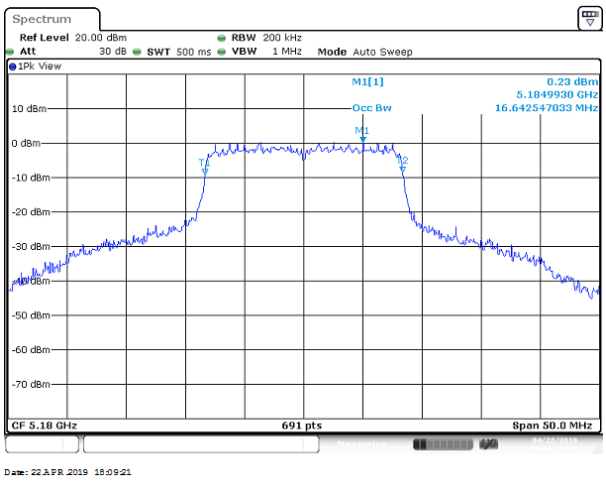
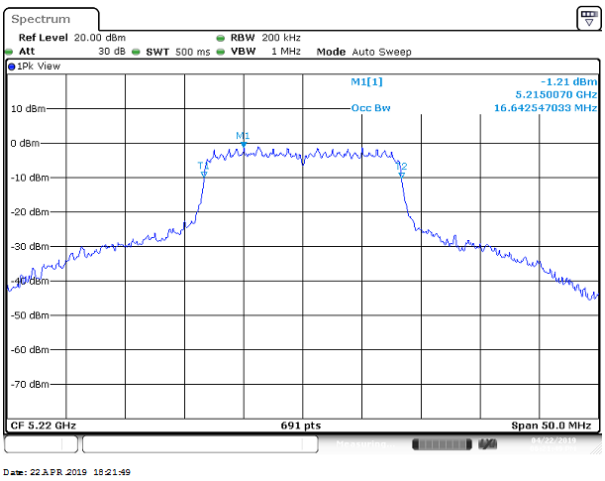
UNII-1 IEEE 802.11a mode- chain 1

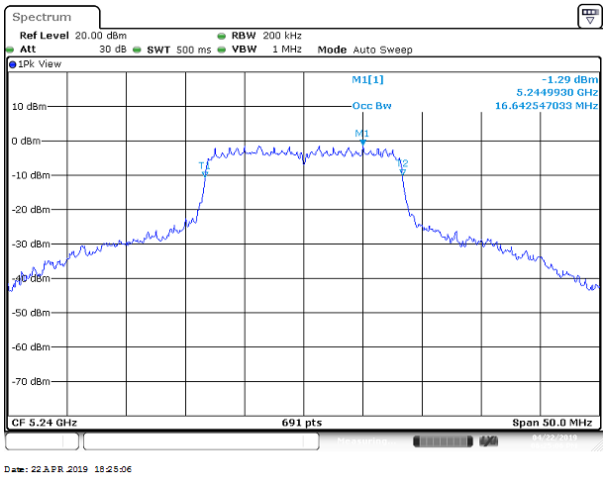
Low CH



Mid CH



High CH



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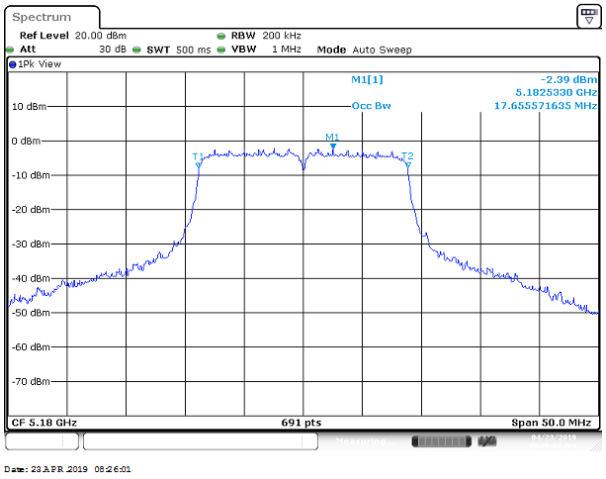
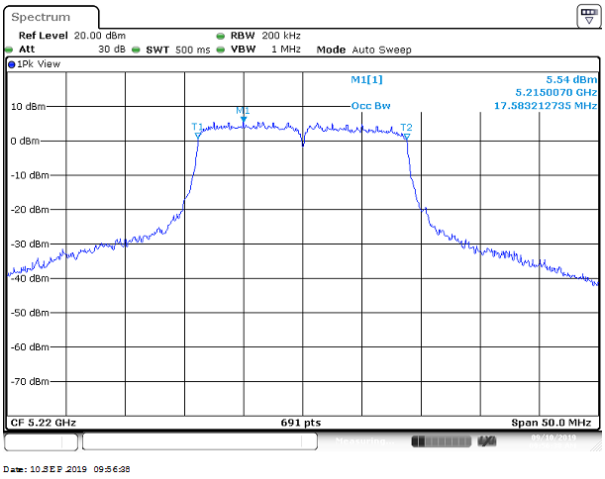
UNII-1 IEEE 802.11n 20 MHz mode- chain 0

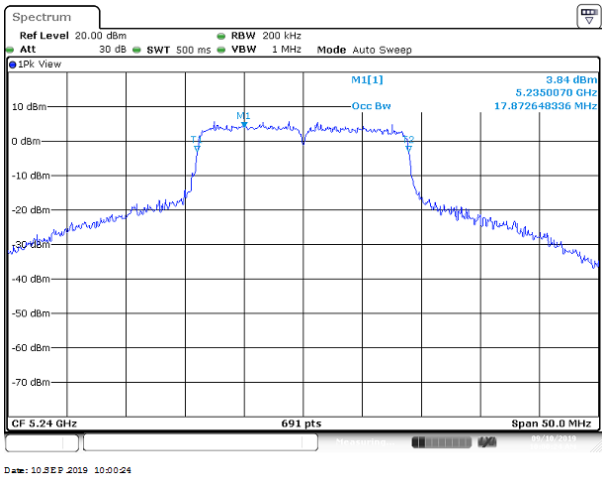
Low CH



Mid CH



High CH



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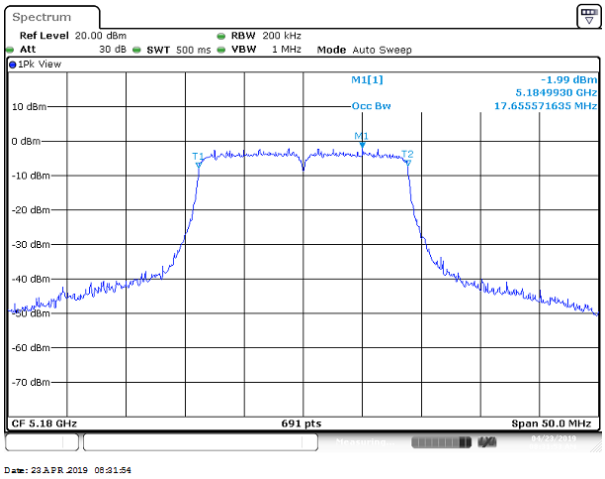
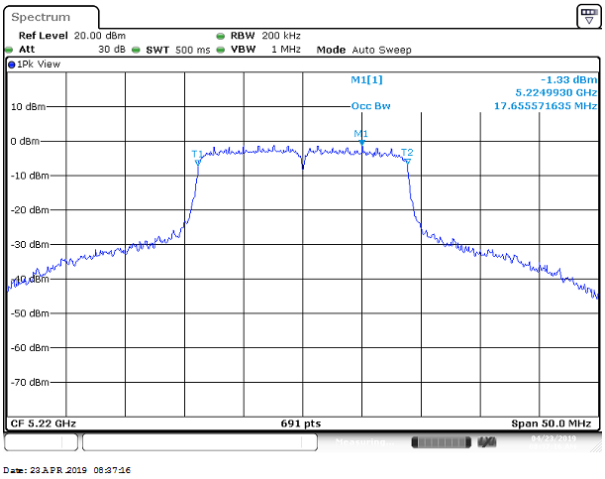
UNII-1 IEEE 802.11n 20 MHz mode- chain 1

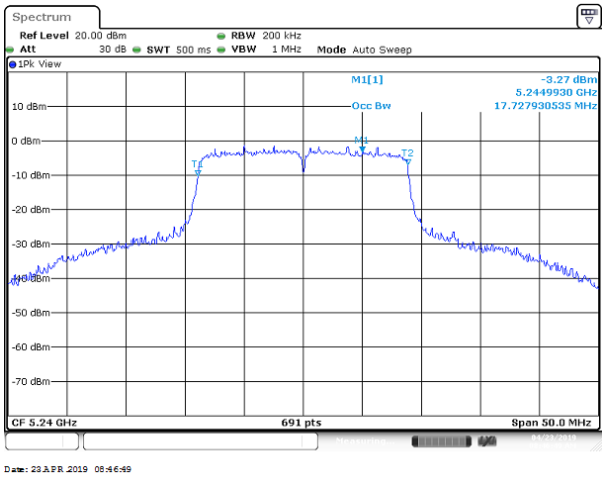
Low CH



Mid CH



High CH



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