TEST REPORT

Report Number: C21T00061-SRD04-V01

Applicant	Shanghai Sunmi Technology Co.,Ltd.
Product Name	Handheld Wireless Terminal
Model Name	T8911
Brand Name	SUNMI
FCC ID	2AH25T8911
IC	22621-T8911

Industrial Internet Innovation Center (Shanghai) Co., Ltd. tested the above equipment in accordance with the requirements in FCC Part15, ANSI C63.10-2013, KDB 558074, RSS-Gen Issue 5，RSS-247 Issue 2.

Prepared by		Reviewed by	
Approved by		Issue Date	2021-11-26

Industrial Internet Innovation Center (Shanghai) Co., Ltd.

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10. The measurement uncertainty is not taken into account when deciding conformity, and the results of measurement (or the average of measurement results) are directly used as the criterion for the stating conformity.

Test Laboratory:
Industrial Internet Innovation Center (Shanghai) Co., Ltd.
Add: Building 4, No. 766 Jingang Rd, Pudong, Shanghai, China
Tel: +86 21 68866880

Revision Version

Report Number	Revision	Date	Memo
C21T00061-SRD04-V00	00	2021-11-03	Initial creation of test report
C21T00061-SRD04-V01	01	2021-11-26	1. .The normal voltage of the prototype in the report has been corrected. 2. A declaration has been added in section 6.5.

CONTENTS

1. Test Laboratory

1.1. Testing Location

Primary Lab:

Company Name	Industrial Internet Innovation Center (Shanghai) Co., Ltd.
Address	Building 4, No. 766 Jingang Rd, Pudong, Shanghai, China
FCC Registration No.	958356
FCC Designation No.	CN1177
IC designation No.	CN0067

Subcontracting Lab #1:

Company Name	N/A
Address	N/A

1.2. Testing Environment

Normal Temperature	15℃~35℃
Relative Humidity	30%RH~60%RH
Supply Voltage	120V/60Hz

1.3. Project Information

Project Leader	Wang Wenen
Testing Start Date	2021-06-15
Testing End Date	2021-08-25

2. Client Information

2.1. Applicant Information

Company Name	Shanghai Sunmi Technology Co.,Ltd.
Address	Room 505, KIC Plaza, No.388 Song Hu Road, Yang Pu District, Shanghai, China
Telephone	+86 18721763396

2.2. Manufacturer Information

Company Name	Shanghai Sunmi Technology Co.,Ltd.
Address	Room 505, KIC Plaza, No.388 Song Hu Road, Yang Pu District, Shanghai, China
Telephone	+86 18721763396

3. Equipment under Test (EUT) and Ancillary Equipment (AE)

3.1. About EUT

Product Name	Handheld Wireless Terminal
Model name	T8911
Supported Radio Technology and Bands	GSM850/GSM900/GSM1800/GSM1900 WCDMA Band Ⅰ/BandⅡ/BandⅣ/BandⅤ/BandⅧ CDMA Band BC0/BC1/BC10 LTE 1/2/3/4/5/7/12/13/14/17/18/19/25/26/28/38/41/66/71 LTE CA Up Link 2CA: 7C,41C BT5.0 WLAN 802.11b,g,n WLAN 802.11a,n,ac NFC GPS/GLONASS /Galileo/BDS
Hardware Version	V1.02
Software Version	V01_T46
WLAN Frequency	U-NII-1:5150 MHz~5250 MHz U-NII-2a:5250 MHz~5350 MHz U-NII-2c:5470 MHz~5725 MHz
FCC ID	2AH25T8911
IC	22621-T8911

3.2. Internal Identification of EUT used during the test

EUT ID*	SN or IMEI	HW Version	SW Version	Date of Receipt
N01	864679050005368 864679050014659	V1.02	V01_T46	2021-06-04
N05	864679050005574 864679050014865	V1.02	V01_T46	2021-06-18

*EUT ID: is internally used to identify the test sample in the lab.

3.3. Internal Identification of AE used during the test

AE ID*	Description	Model	SN/Remark
AE1	RF Cable	N/A	N/A

*AE ID: is internally used to identify the test sample in the lab.

*The AE is provided by the client.

4. Reference Documents

4.1. Reference Documents for testing

The following documents listed in this section are referred for testing.

Reference	Title	Version
FCC Part15	Title 47 of the Code of Federal Regulations; Chapter I Part 15 - Radio frequency devices	2018-10-01
ANSI 63.10	Methods of Measurement of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz	2013
KDB 789033	Information Infrastructure (U-NII) Devices - Part 15, Subpart E	2017
KDB 905462	COMPLIANCE MEASUREMENT PROCEDURES FOR UNLICENSED-NATIONAL INFORMATION INFRASTRUCTURE DEVICES OPERATING IN THE 5250-5350 MHz AND 5470-5725 MHz BANDS INCORPORATING DYNAMIC FREQUENCY SELECTION	2016
RSS-247 Issue 2	Digital Transmission Systems (DTSs), Frequency Hopping Systems (FHSs) and Licence-Exempt Local Area Network (LE-LAN) Devices	2017
RSS-Gen Issue 5	General Requirements for Compliance of Radio Apparatus	2019

4.2. Reference Information from client

Information of the test sample provided by the client.

Antenna gain of EUT 0.69 dBi

Note:The product T8911 use an integral antenna which compliance with the requirement of 15.203.

5. Test Summary

5.1. Summary of Test Results

Measurement Items	Sub-clause of Part15C	Sub-clause of IC	Verdict
Maximum Output Power	15.407(a)	RSS-247 6.2	Pass
Power Spectral Density	15.407(a)	RSS-247 6.2	Pass
99% Occupied Bandwidth	N/A	RSS-Gen 6.7	Pass
-26dB	15. 407(a)	RSS-247 6.2	Pass
Band edge compliance	15.407(b)	RSS-247 6.2	Pass
Transmitter spurious emissions radiated	15.407(b)	RSS-247 6.2	Pass
Spurious emissions radiated < 30 MHz	15.209 & 15.407(b)	RSS-247 6.2 RSS-Gen 8.9,8.10	Pass
Spurious emissions conducted < 30 MHz	15.407(b)	RSS-247 6.2	Pass
Frequency Stability	15.407(g)	RSS-Gen 8.11	Pass
Transmit Power Control	15.407(h)	RSS-247 6.2	N/A

Test Conditions

Tnom	Normal Temperature
Tmin	Low Temperature
Tmax	High Temperature
Vnom	Normal Voltage
Vmin	Low Voltage
Vmax	High Voltage
Hnom	Norm Humidity
Anom	Norm Air Pressure

For this report, all the test case listed above are tested under Normal Temperature and Normal Voltage, and also under norm humidity, the specific conditions as following:

Temperature	Tnom	25℃
Voltage	Vnom	3.8V
Humidity	Hnom	48%
Air Pressure	Anom	1010hPa

Note:

a. All the test data for each data were verified, but only the worst case was reported.

b.The DC and low frequency voltages' measurement uncertainty is ±2%.

5.2. Statements

The T8911 manufactured by Shanghai Sunmi Technology Co.,Ltd., Incorporated are new products for testing.

Industrial Internet Innovation Center (Shanghai) Co., Ltd. only performed test cases which identified with Pass/Fail/Inc result in section 5.1.

Industrial Internet Innovation Center (Shanghai) Co., Ltd. has verified that the compliance of the tested device specified in section 3 of this test report is successfully evaluated according to the procedure and test methods as defined in type certification requirement listed in section 4 of this test report.

6. Measurement Results

Shielding Room1 (6.0 meters×3.0 meters×2.7 meters) did not exceed following limits along the conducted RF performance testing:

Temperature	Min. = 15 ℃, Max. = 35 ℃
Relative humidity	Min. = 20 %, Max. = 75 %
Shielding effectiveness	> 100 dB
Ground system resistance	< 0.5 Ω
Temperature	Min. = 15 ℃, Max. = 35 ℃

Control room did not exceed following limits along the EMC testing:

Temperature	Min. = 15 ℃, Max. = 35 ℃
Relative humidity	Min. =30 %, Max. = 60 %
Shielding effectiveness	> 100 dB
Electrical insulation	> 10 kΩ
Ground system resistance	< 0.5 Ω

Fully-anechoic chamber1 (6.9 meters×10.9 meters×5.4 meters) did not exceed following limits along the EMC testing:

Temperature	Min. = 15 ℃, Max. = 35 ℃
Relative humidity	Min. = 25 %, Max. = 75 %
Shielding effectiveness	> 100 dB
Electrical insulation	> 10 kΩ
Ground system resistance	< 0.5 Ω
VSWR	Between 0 and 6 dB, from 1GHz to 18GHz
Site Attenuation Deviation	Between -4 and 4 dB,30MHz to 1GHz
Uniformity of field strength	Between 0 and 6 dB, from 80MHz to 3000 MHz

6.1. Maximum output Power

6.1.1. Measurement Limit and Method

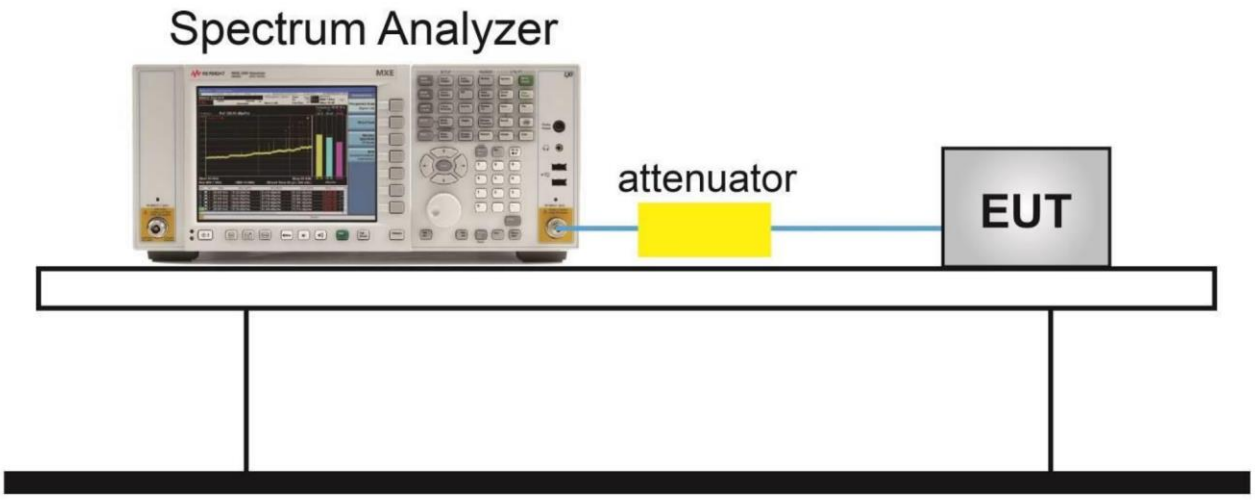
Standard	Limit (dBm)
FCC 47 CFR Part 15.407(a)(1)(iv)	23 or 10+10 log10B
RSS-247 6.2.1.1	23 or 10+10 log10B

Limit use the less value, and B is the 26dB bandwidth.

6.1.2. The measurement method SA-1 is made according to KDB 789033

Set the spectrum analyzer in the following:
Detector: RMS.
RBW=1MHz.
VBW=3MHz.
Sweep time = AUTO.
Span: 30MHz (for 20MHz); 60MHz (for 40MHz)；120MHz (for 80MHz).

6.1.3. Test Setup



Measurement Results

U-NII-1

Mode	Channel	Conducted (dBm)	E.I.R.P (dBm)	Duty cycle factor (dB)
802.11a	5180	11.90	12.7	0.11
	5200	11.07	11.87	0.11
	5240	10.10	10.90	0.11
802.11n(20MHz)	5180	11.74	12.74	0.31
	5200	10.98	11.98	0.31
	5240	10.30	11.3	0.31
802.11n(40MHz)	5190	11.54	12.58	0.35
	5230	10.29	11.33	0.35
802.11ac	5180	9.51	10.43	0.23
	5200	10.68	11.6	0.23
	5240	9.82	10.74	0.23
802.11ac(40)	5190	11.46	12.48	0.43
	5230	10.22	11.04	0.43
802.11ac(80)	5210	9.20	10.67	0.78

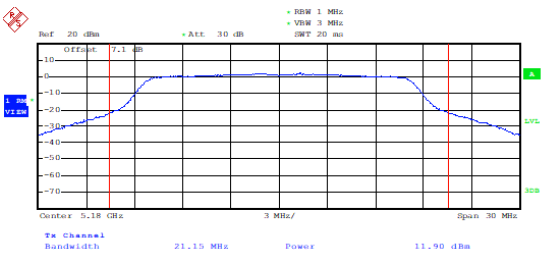
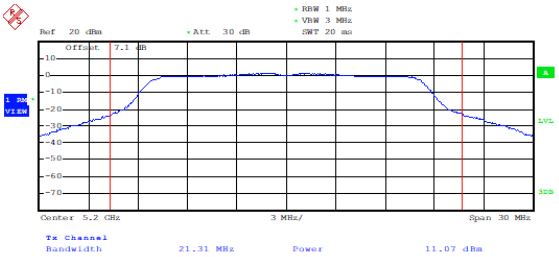
U-NII-2a

Mode	Channel	Conducted (dBm)	E.I.R.P (dBm)	Duty cycle factor (dB)
802.11a	5260	9.81	10.5	0
	5280	9.87	10.56	0
	5320	10.28	10.97	0
802.11n(20MHz)	5260	9.5	10.43	0.24
	5280	9.65	10.58	0.24
	5320	9.96	10.89	0.24
802.11n(40MHz)	5270	9.72	10.82	0.41
	5310	10.11	11.21	0.41
802.11ac	5260	9.45	10.37	0.23
	5280	9.61	10.53	0.23
	5320	9.92	10.84	0.23
802.11ac(40)	5270	9.73	10.83	0.41
	5310	10.09	11.19	0.41
802.11ac(80)	5290	8.34	9.67	0.64

U-NII-2c

Mode	Channel	Conducted (dBm)	E.I.R.P (dBm)	Duty cycle factor (dB)
802.11a	5500	11.62	12.31	0
	5680	9.92	10.61	0
	5700	9.96	10.65	0
802.11n(20MHz)	5500	11.38	12.19	0.12
	5680	9.55	10.36	0.12
	5700	9.68	10.49	0.12
802.11n(40MHz)	5510	11.85	12.98	0.44
	5550	9.55	10.68	0.44
	5670	9.68	10.81	0.44
802.11ac	5500	11.45	12.26	0.12
	5680	9.53	10.31	0.12
	5700	9.66	10.47	0.12
802.11ac(40)	5510	11.85	12.97	0.43
	5550	12.00	13.12	0.43
	5670	10.30	11.42	0.43
802.11ac(80)	5530	10.22	11.18	0.27
	5610	9.81	10.77	0.27

TEST PLOTS:

Output Power-Conducted (802.11a, Ch)	Output Power-Conducted (802.11a, Ch40)
 Date: 16.AUG.2021 10:34:19	 Date: 16.AUG.2021 10:34:53
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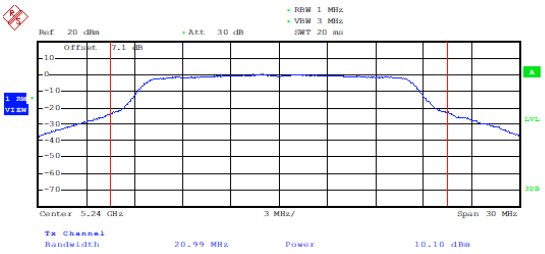
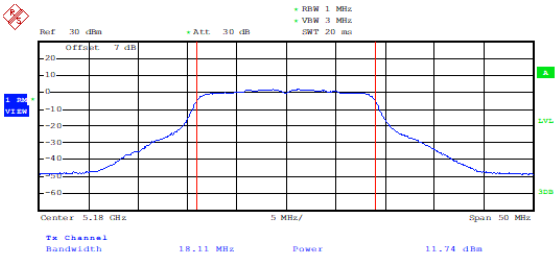
 Date: 16.AUG.2021 10:35:27	 Date: 21.JUN.2021 11:40:25

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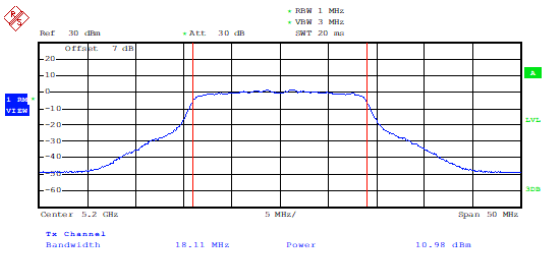
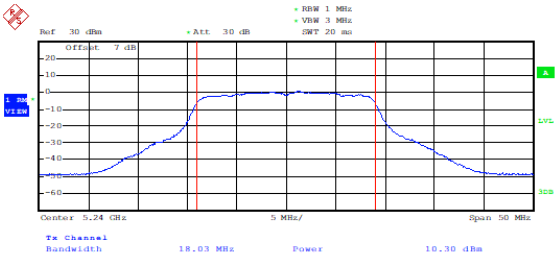
 Date: 21.JUN.2021 11:42:23	 Date: 21.JUN.2021 11:43:40
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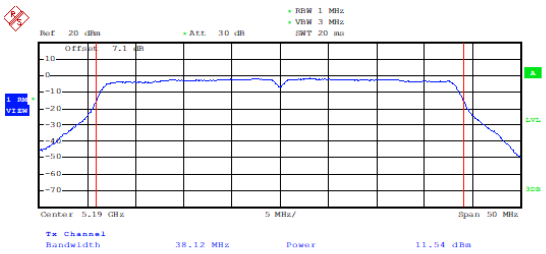
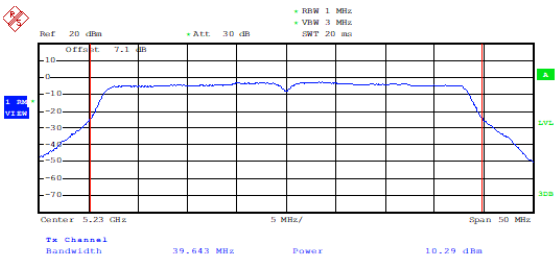
 Date: 16.AUG.2021 10:36:23	 Date: 16.AUG.2021 10:37:01

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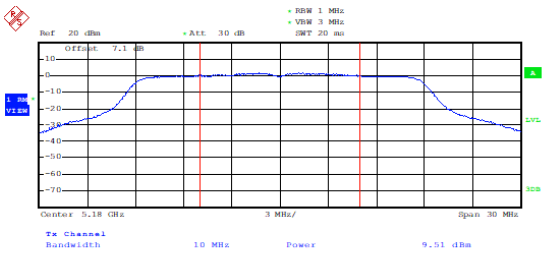
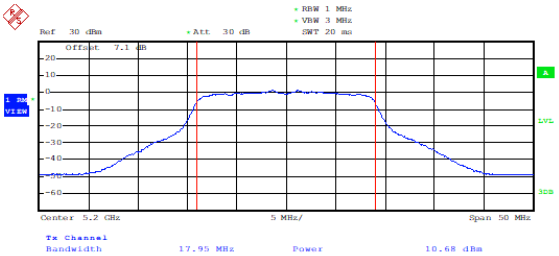
 Date: 16.AUG.2021 10:37:47	 Date: 16.AUG.2021 10:44:23
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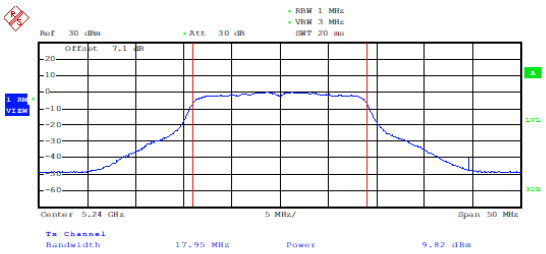
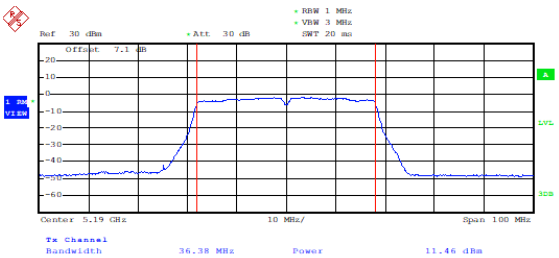
 Date: 16.AUG.2021 10:45:24	 Date: 16.AUG.2021 10:47:19

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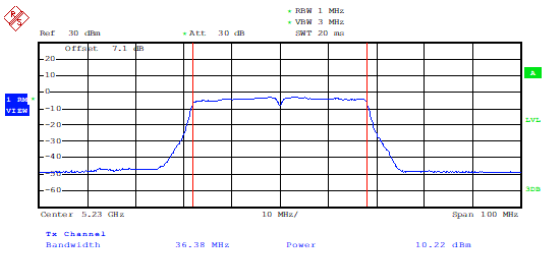	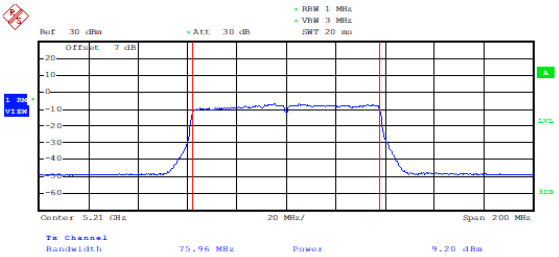

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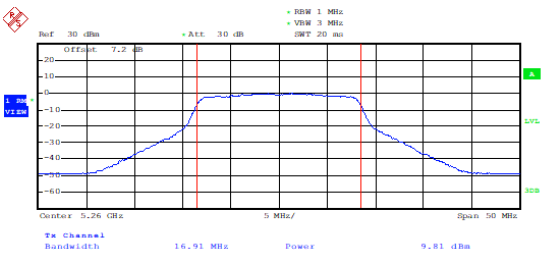
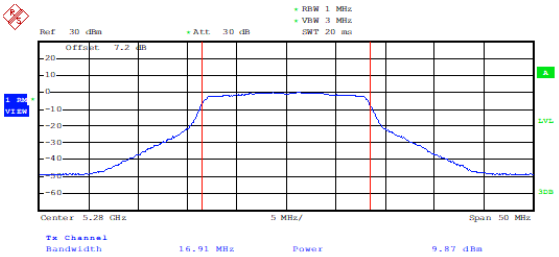
 Date: 16.AUG.2021 10:51:08	 Date: 16.AUG.2021 10:52:19
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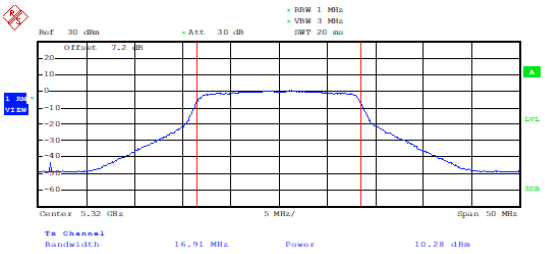
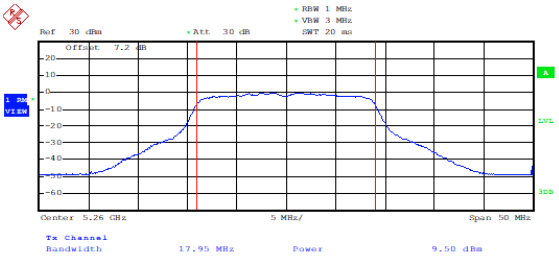
 Date: 16.AUG.2021 10:53:20	 Date: 16.AUG.2021 10:56:31

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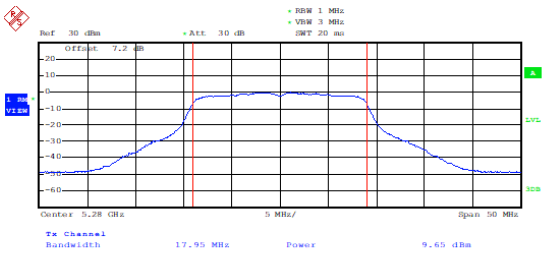
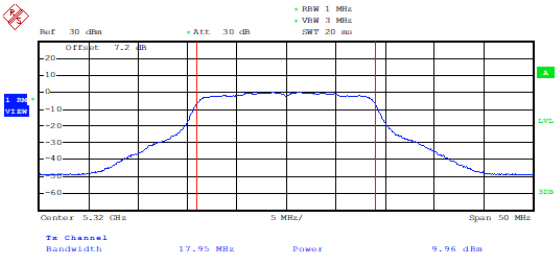
 Date: 16.AUG.2021 10:58:32	 Date: 16.AUG.2021 10:59:42
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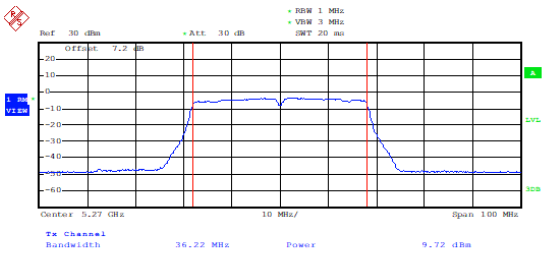
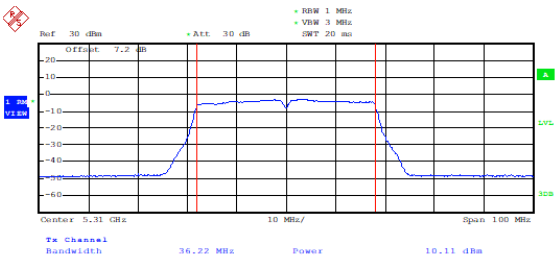
 Date: 16.AUG.2021 11:00:59	 Date: 16.AUG.2021 11:02:18

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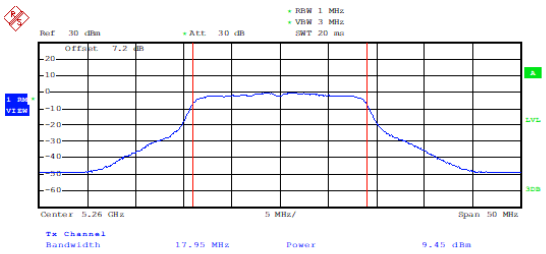
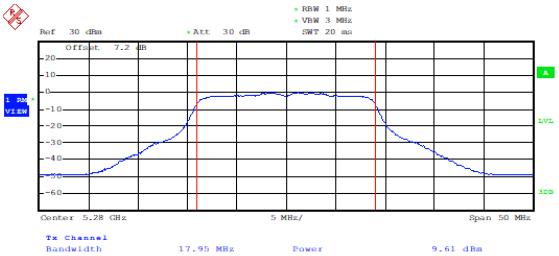
 Date: 16.AUG.2021 11:03:38	 Date: 16.AUG.2021 11:04:56
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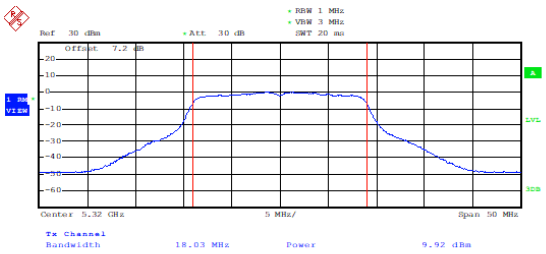
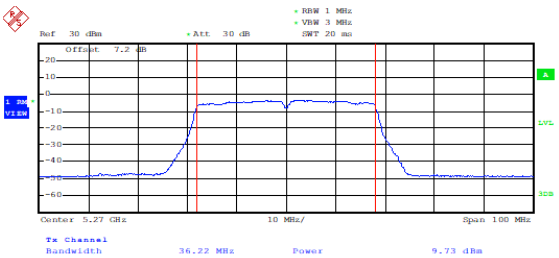
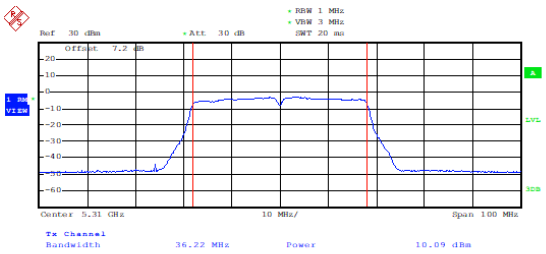
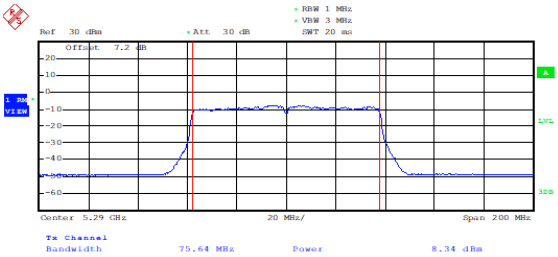
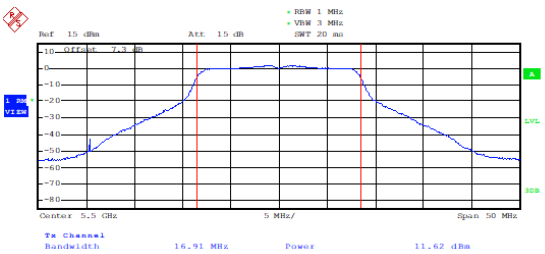
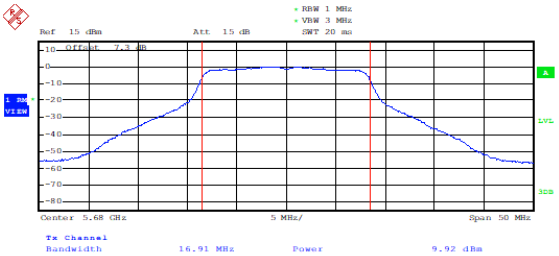
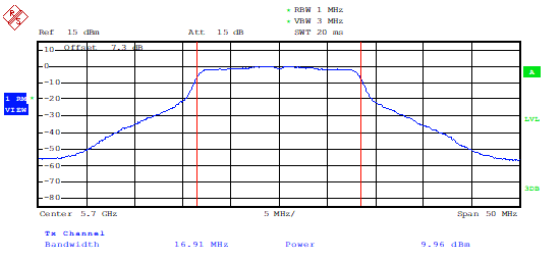
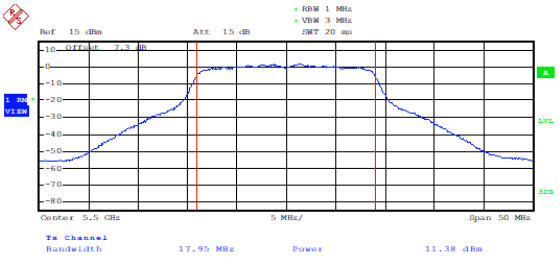
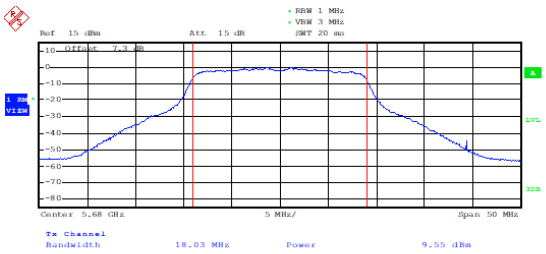
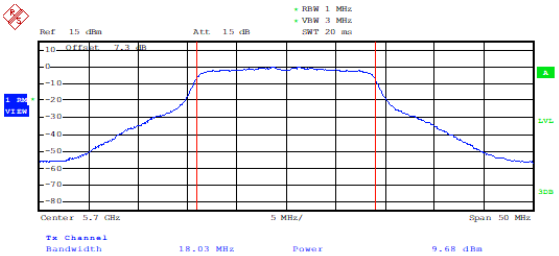
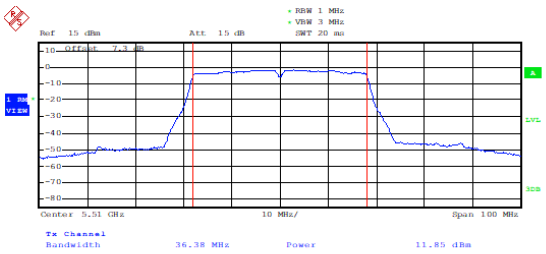
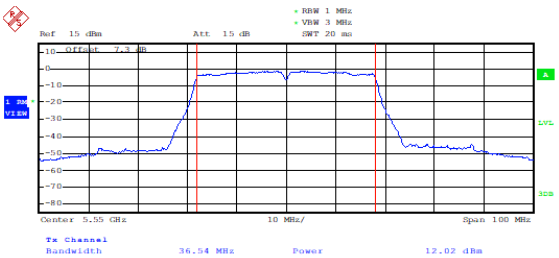
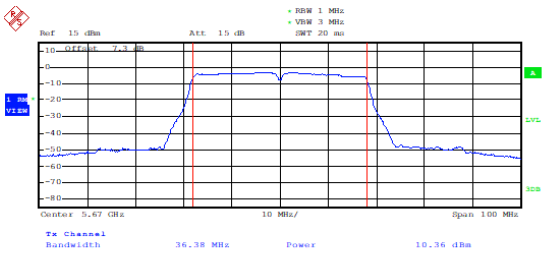
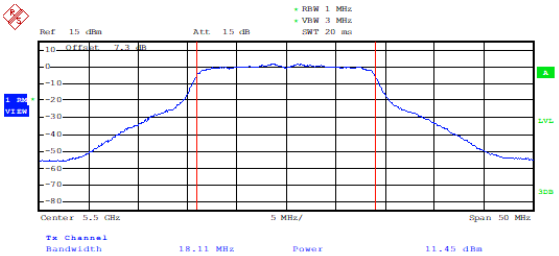
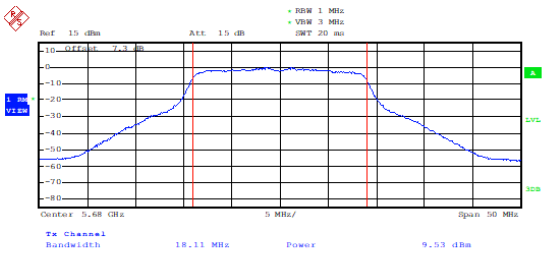
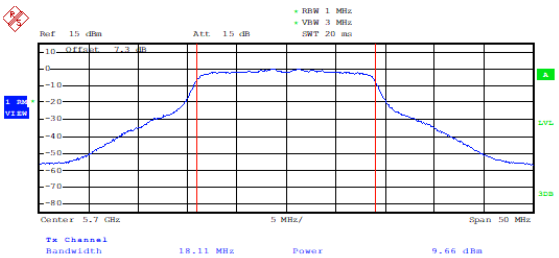
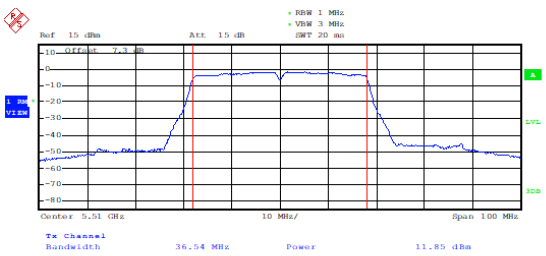
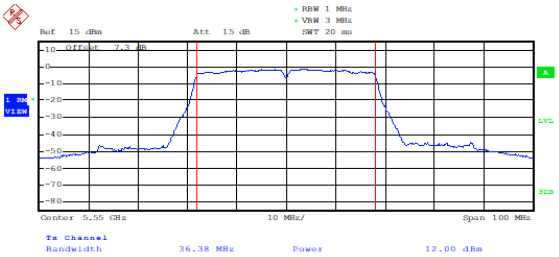
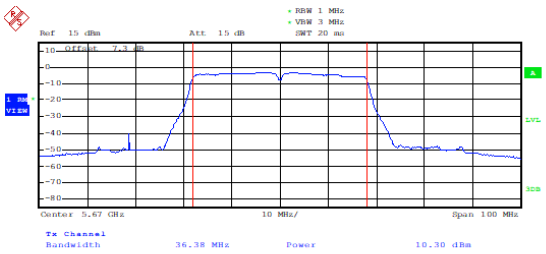
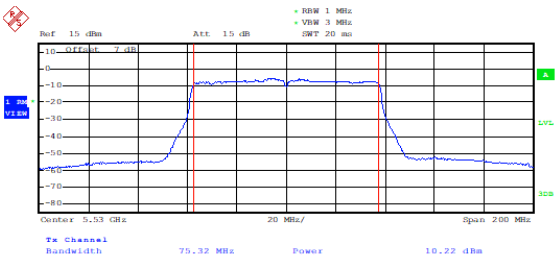
 Date: 16.AUG.2021 11:05:57	 Date: 16.AUG.2021 11:07:10

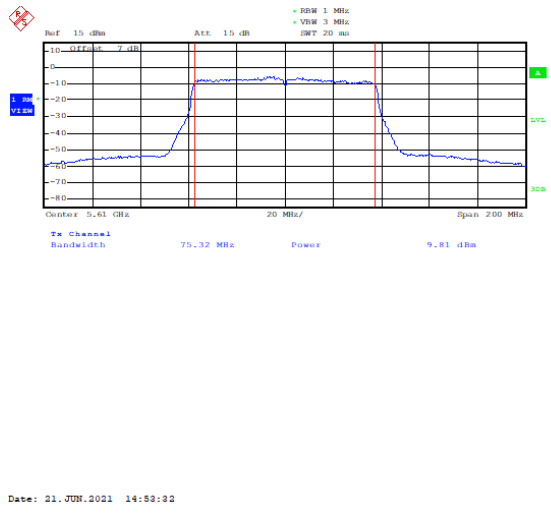
Output Power-Conducted (802.11ac-VHT40, Ch62)	Output Power-Conducted (802.11ac-VHT80, Ch58)
	

Output Power-Conducted (802.11a, Ch100)	Output Power-Conducted (802.11a, Ch136)
 Date: 16.AUG.2021 11:14:18	 Date: 16.AUG.2021 11:15:16
Output Power-Conducted (802.11a, Ch140)	**Output Power-Conducted (802.11n-HT20, Ch100)**
 Date: 16.AUG.2021 11:16:07	 Date: 16.AUG.2021 11:17:23

Output Power-Conducted (802.11n-HT20, Ch136)	Output Power-Conducted (802.11n-HT20, Ch140)
 Date: 16.AUG.2021 11:18:46	 Date: 16.AUG.2021 11:19:33
Output Power-Conducted (802.11n-HT40, Ch102)	**Output Power-Conducted (802.11n-HT40, Ch110)**
 Date: 16.AUG.2021 11:20:56	 Date: 16.AUG.2021 11:21:48

Output Power-Conducted (802.11n-HT40, Ch134)	Output Power-Conducted (802.11ac-VHT20, Ch100)
 Date: 16.AUG.2021 11:22:38	 Date: 16.AUG.2021 11:24:05
Output Power-Conducted (802.11ac-VHT20, Ch136)	Output Power-Conducted (802.11ac-VHT20, Ch140)
 Date: 16.AUG.2021 11:25:00	 Date: 16.AUG.2021 11:25:50

Output Power-Conducted (802.11ac-VHT40, Ch102)	Output Power-Conducted (802.11ac-VHT40, Ch110)
 Date: 16.AUG.2021 11:27:12	 Date: 16.AUG.2021 11:28:13
Output Power-Conducted (802.11ac-VHT40, Ch134)	Output Power-Conducted (802.11ac-VHT80, Ch106)
 Date: 16.AUG.2021 11:29:25	 Date: 21.JUN.2021 14:52:35

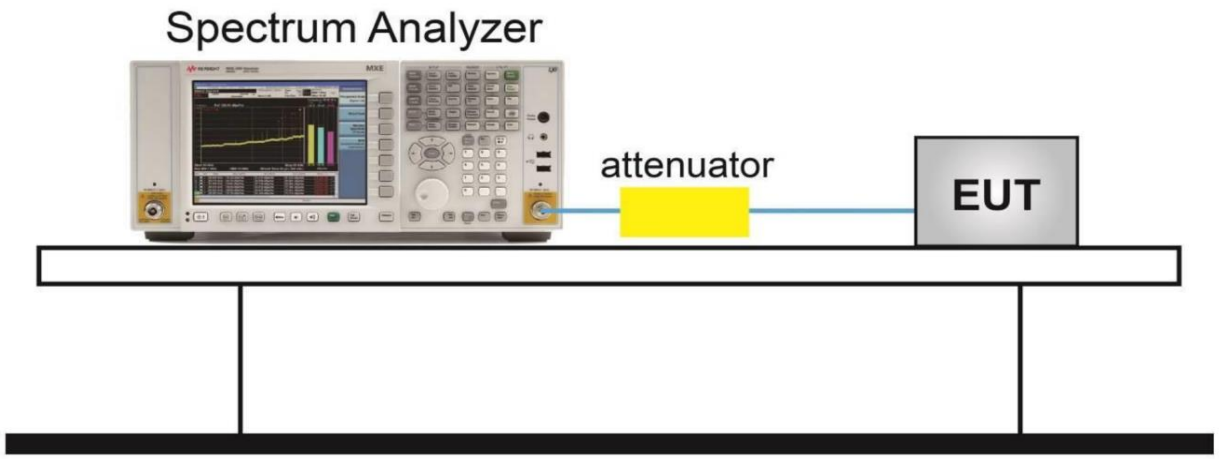
Output Power-Conducted (802.11ac-VHT80, Ch122)	/
	/

6.2. Peak Power Spectral Density

6.2.1. Measurement Limit

Standard	Limit (dBm)
FCC 47 CFR Part 15.407(a)(1)(iv)	≤11
RSS-247 6.2.1.1	≤11

6.2.2. Test Setup



6.2.3. The output power measurement method SA-1 is made according to KDB 789033

U-NII-1

Mode	Channel	Power Spectral Density (dBm/MHz)	Conclusion
802.11a	5180	3.053	P
	5200	2.094	P
	5240	1.286	P
802.11n HT20	5180	1.311	P
	5200	0.409	P
	5240	-0.128	P
802.11n HT40	5190	-2.333	P
	5230	-3.284	P
802.11ac VHT20	5180	2.231	P
	5200	1.403	P
	5240	0.719	P
802.11ac VHT40	5190	-3.333	P
	5230	-4.245	P
802.11ac VHT80	5210	-8.428	P

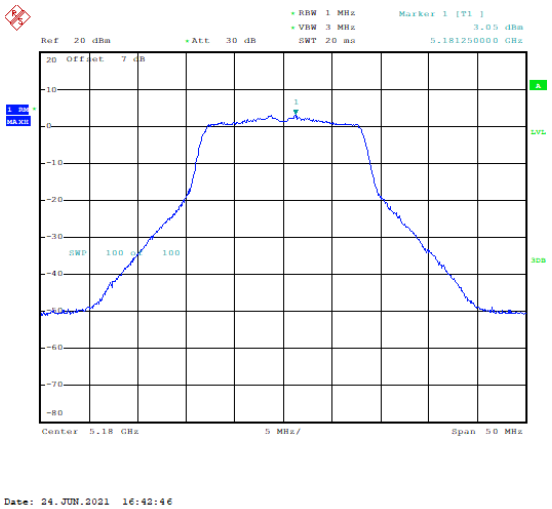
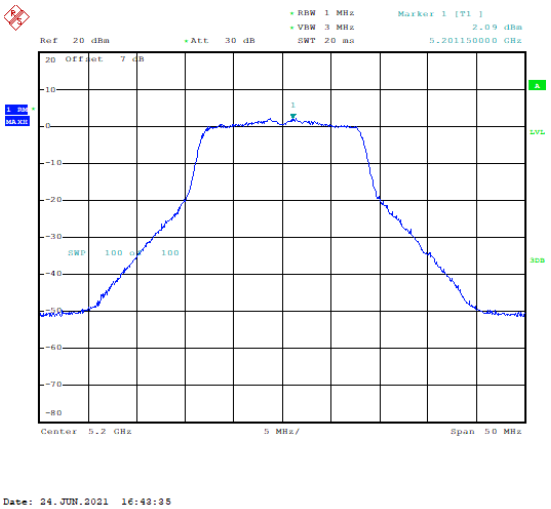
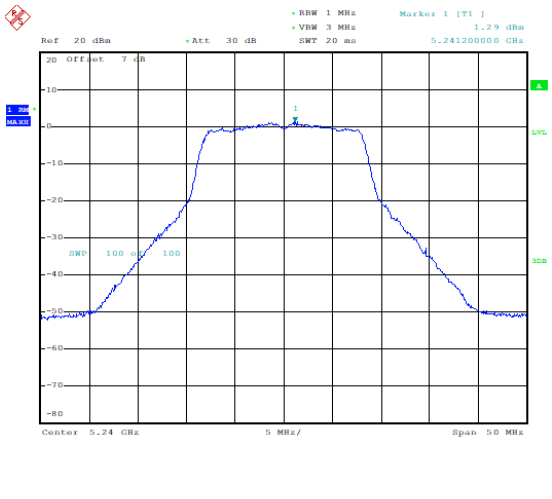
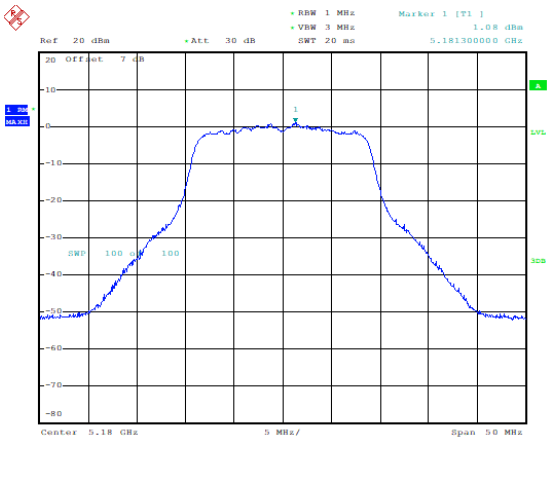
U-NII-2a

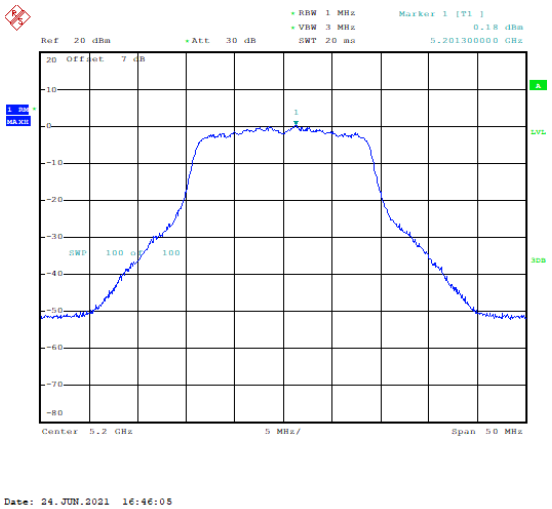
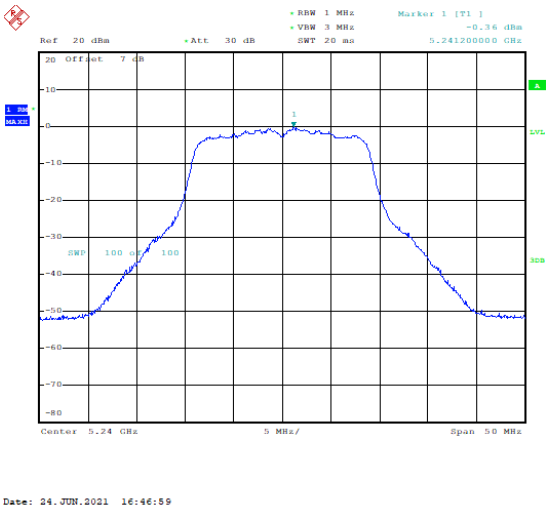
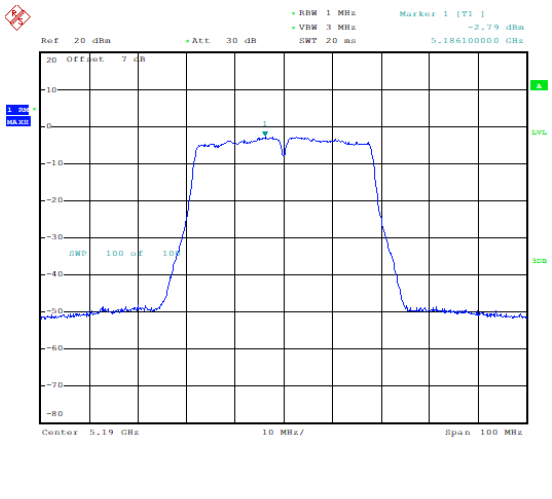
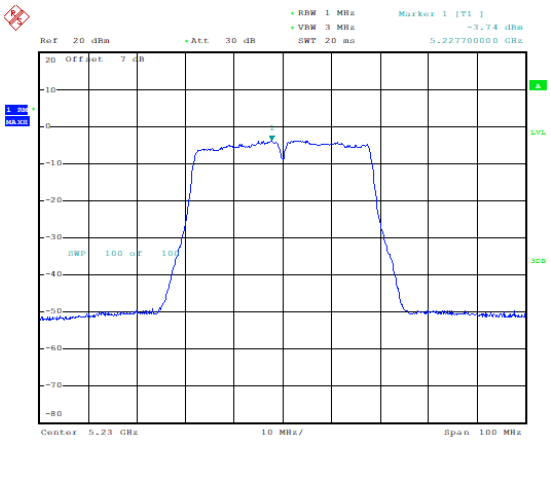
Mode	Channel	Power Spectral Density (dBm/MHz)	Conclusion
802.11a	5260	5.355	P
	5280	5.338	P
	5320	5.969	P
802.11n HT20	5260	3.089	P
	5280	3.152	P
	5320	3.673	P
802.11n HT40	5270	-0.064	P
	5310	0.326	P
802.11ac VHT20	5260	4.941	P
	5280	5.108	P
	5320	5.347	P
802.11ac VHT40	5270	-1.061	P
	5310	-0.598	P
802.11ac VHT80	5290	-5.831	P

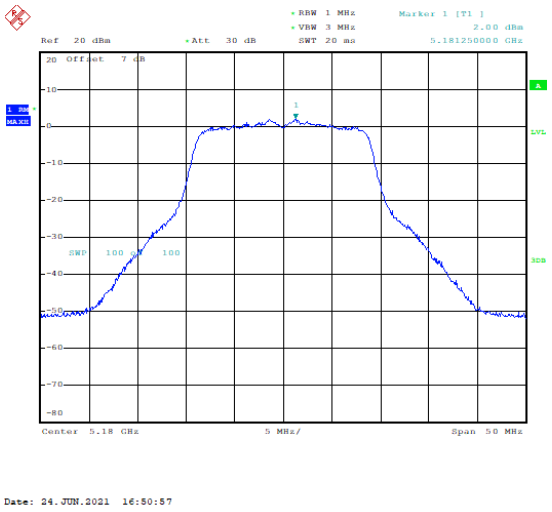
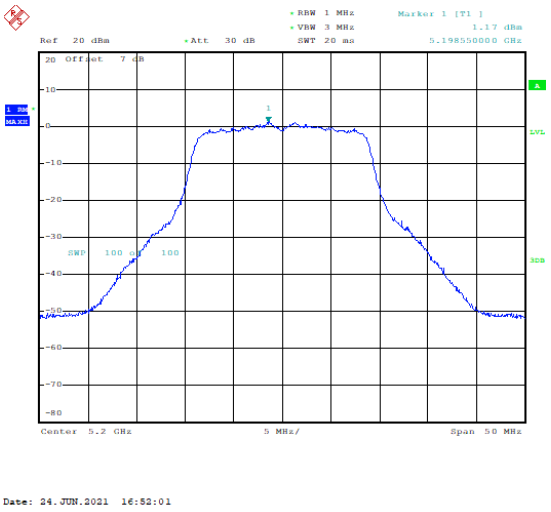
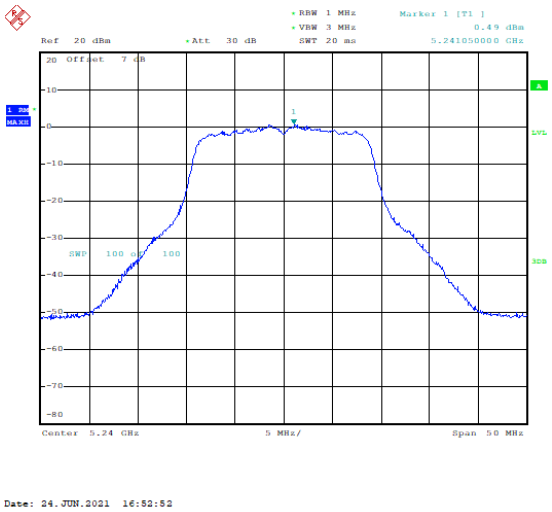
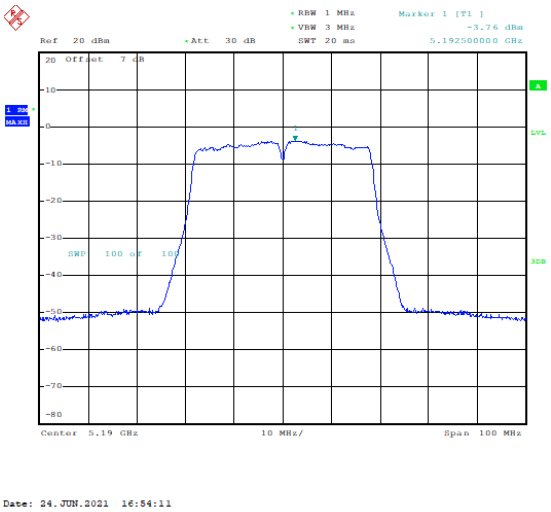
U-NII-2c

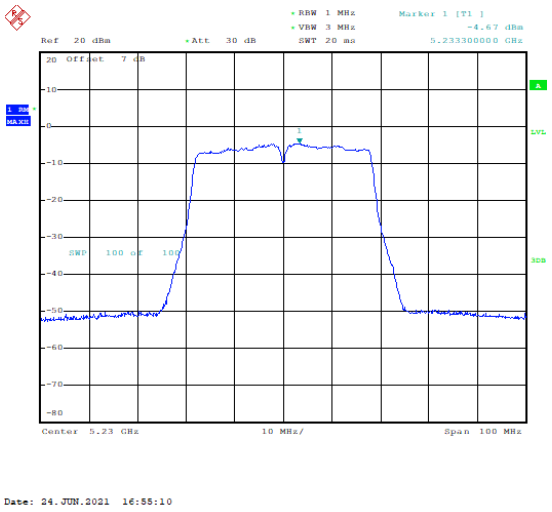
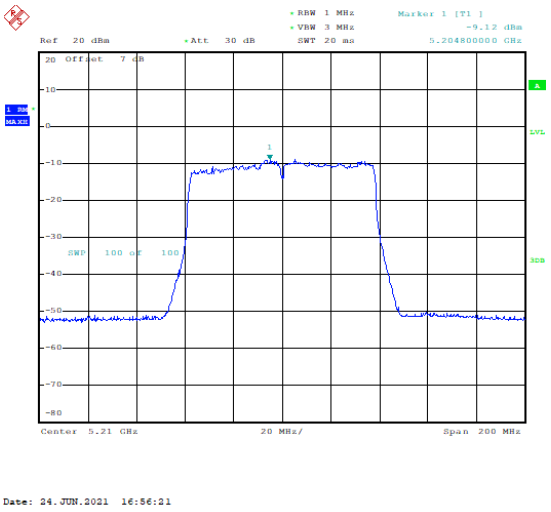
Mode	Channel	Power Spectral Density (dBm/MHz)	Conclusion
802.11a	5500	4.620	P
	5680	3.791	P
	5700	3.767	P
802.11n HT20	5500	2.245	P
	5680	1.220	P
	5700	1.023	P
802.11n HT40	5510	-0.867	P
	5550	-0.424	P
	5670	-1.746	P
802.11ac VHT20	5500	4.863	P
	5680	3.776	P
	5700	3.855	P
802.11ac VHT40	5510	-0.870	P
	5550	-0.321	P
	5670	-1.739	P
802.11ac VHT80	5530	-5.456	P
	5610	-6.077	P

U-NII-1:

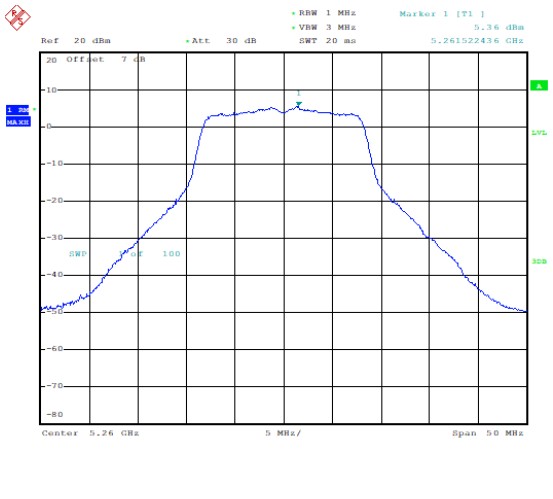
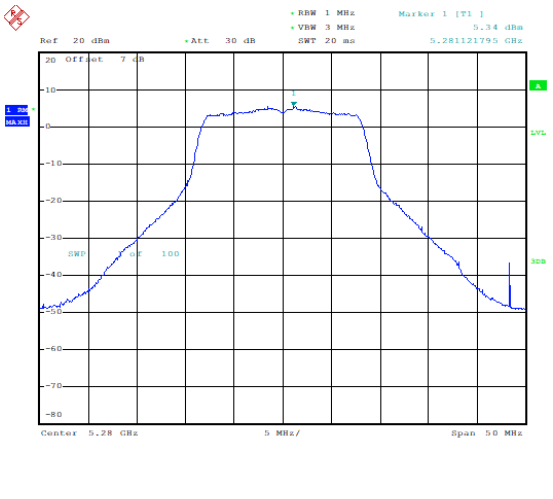
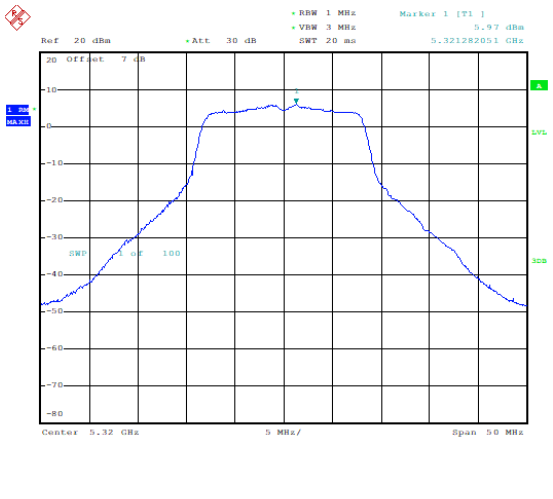
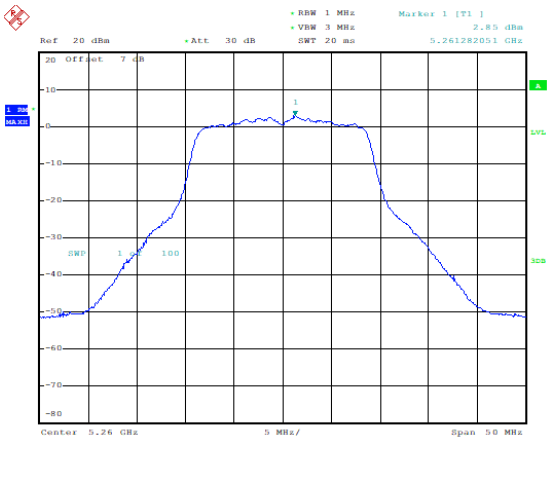
Power Spectral Density(dBm/MHz) (802.11a, 5180MHz)	Power Spectral Density(dBm/MHz) (802.11a, 5200MHz)
	
Power Spectral Density(dBm/MHz) (802.11a, 5240MHz)	Power Spectral Density(dBm/MHz) (802.11n-HT20), 5180MHz)
	

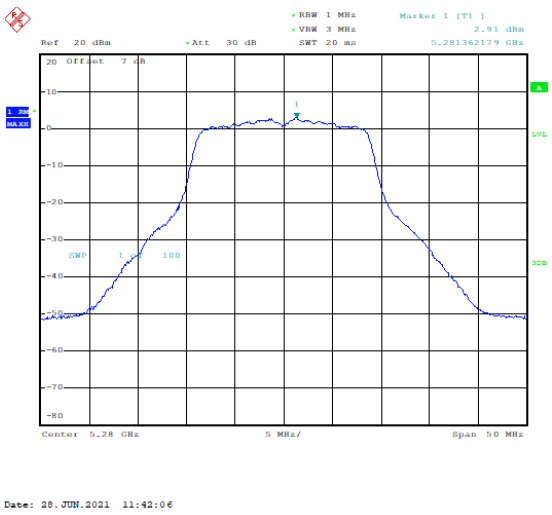
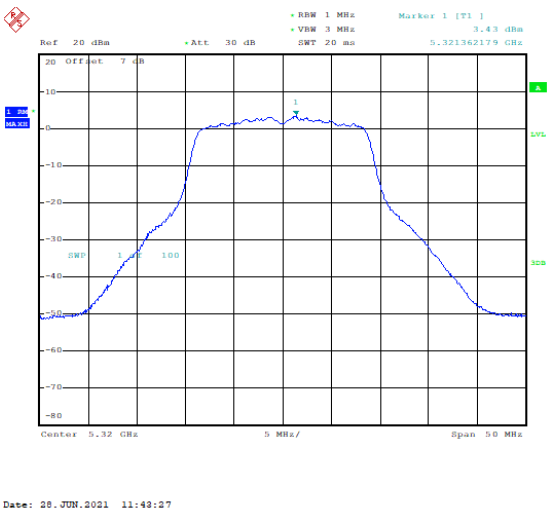
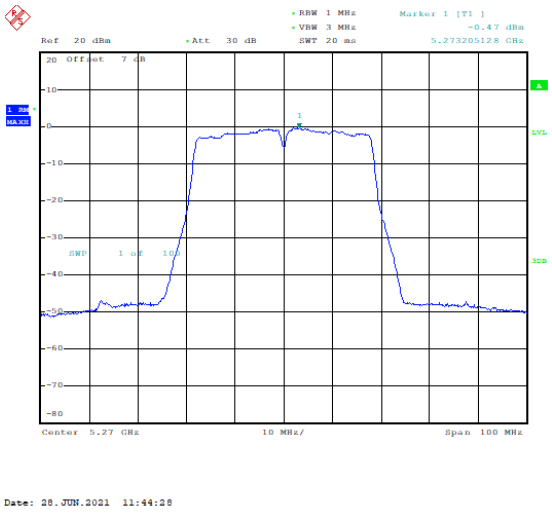
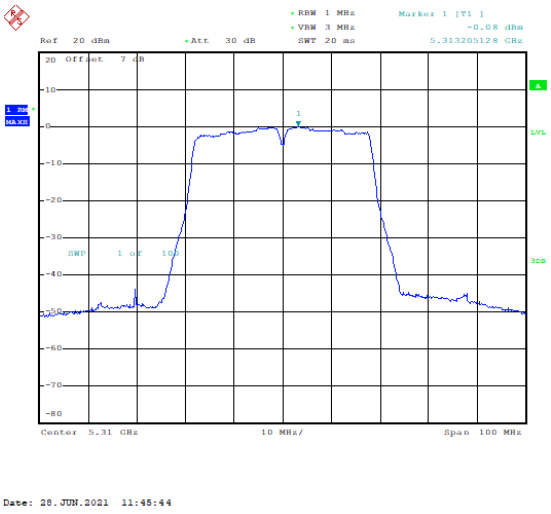
Power Spectral Density(dBm/MHz) (802.11n-HT20), 5200MHz)	Power Spectral Density(dBm/MHz) (802.11n-HT20), 5240MHz)
	
Power Spectral Density(dBm/MHz) (802.11n-HT40), 5190MHz)	Power Spectral Density(dBm/MHz) (802.11n-HT40), 5230MHz)
	

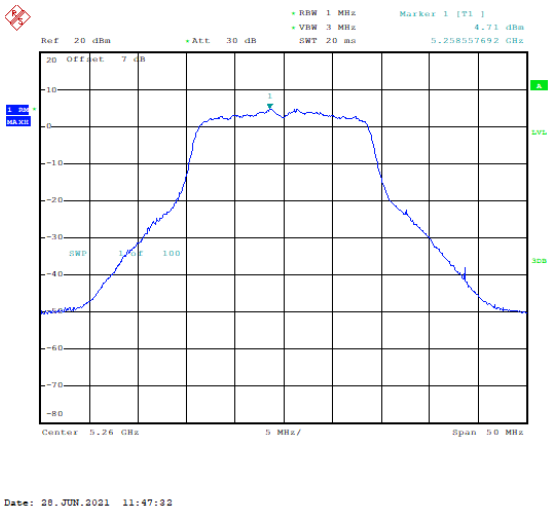
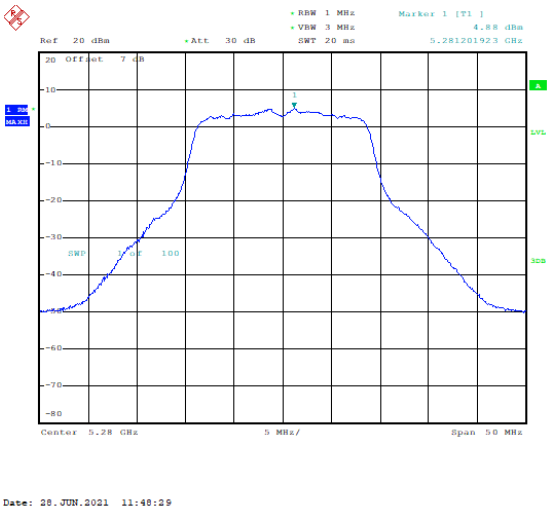
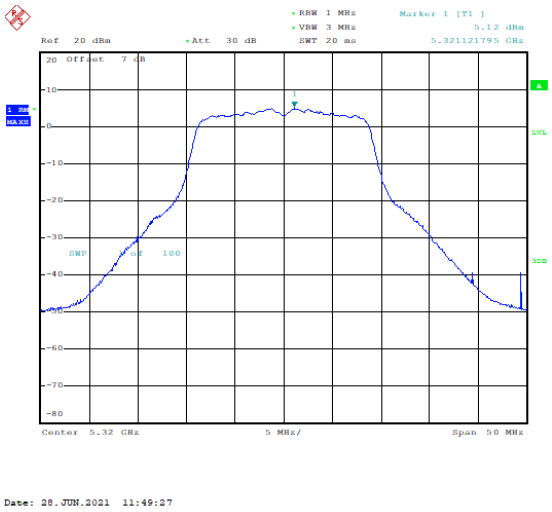
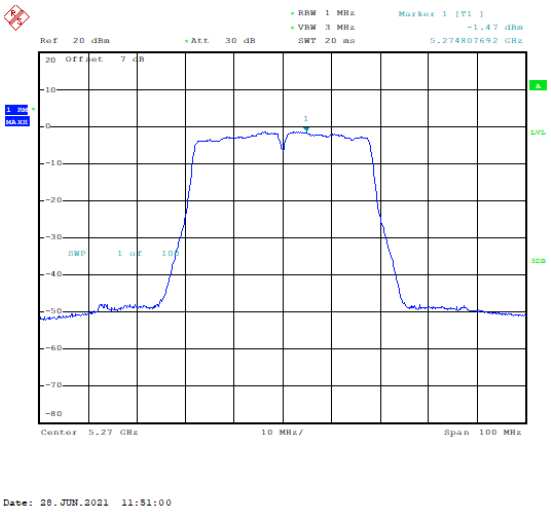
Power Spectral Density(dBm/MHz) (802.11ac-VHT20), 5180MHz)	Power Spectral Density(dBm/MHz) (802.11ac-VHT20), 5200MHz)
	
Power Spectral Density(dBm/MHz) (802.11ac-VHT20), 5240MHz)	Power Spectral Density(dBm/MHz) (802.11ac-VHT40), 5190MHz)
	

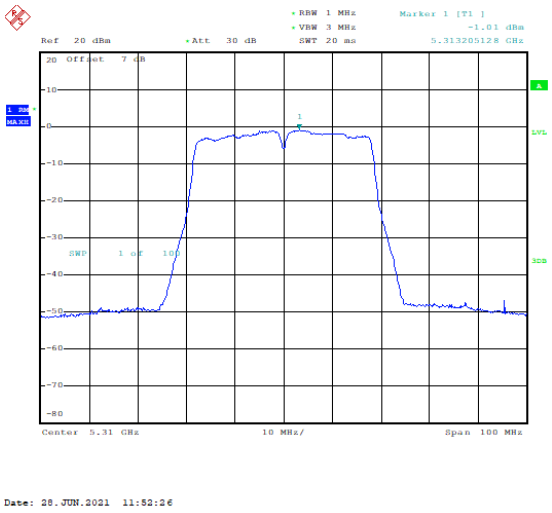
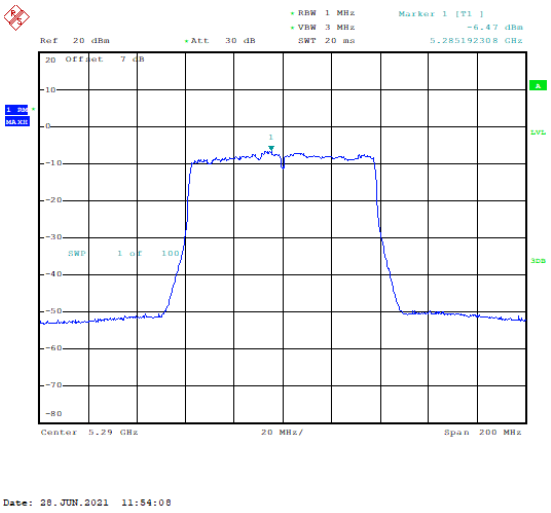
Power Spectral Density(dBm/MHz) (802.11ac-VHT40), 5230MHz)	Power Spectral Density(dBm/MHz) (802.11ac-VHT80), 5210MHz)
	

U-NII-2a:

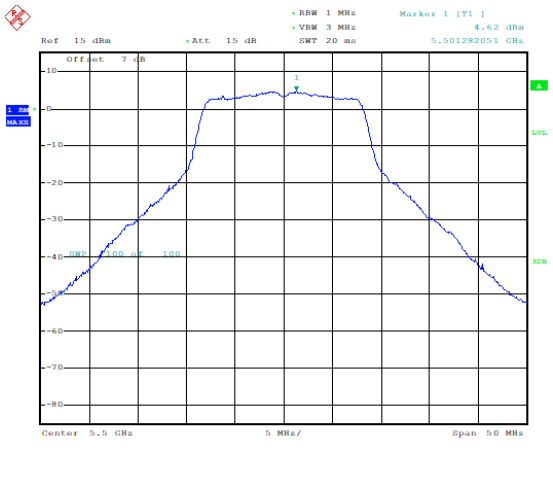
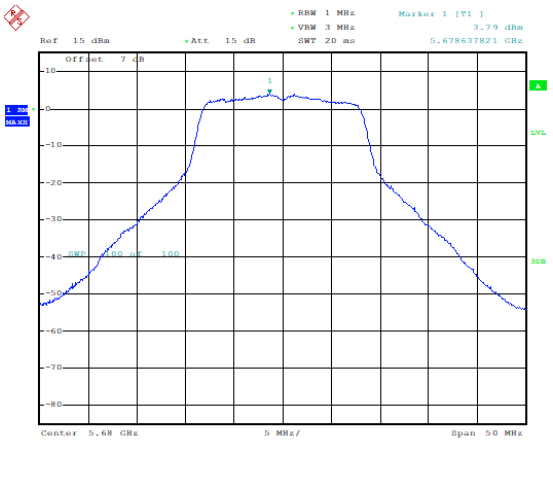
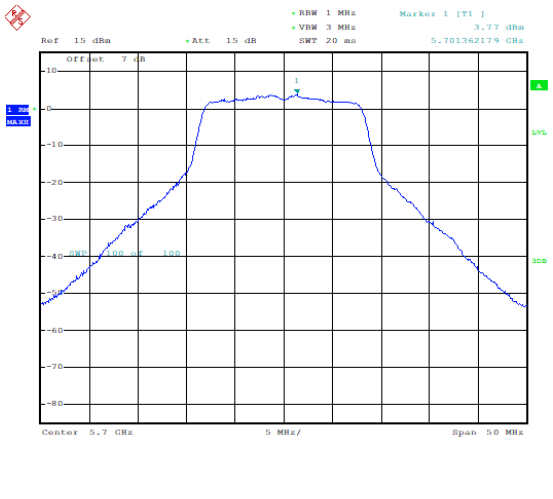
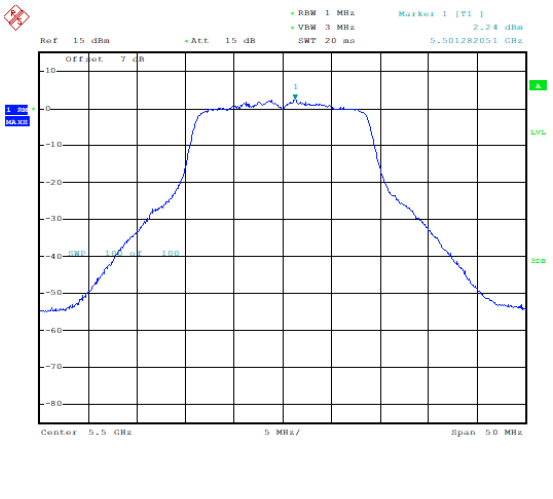
Power Spectral Density(dBm/MHz) (802.11a, 5260MHz)	Power Spectral Density(dBm/MHz) (802.11a, 5280MHz)
	
Power Spectral Density(dBm/MHz) (802.11a, 5320MHz)	Power Spectral Density(dBm/MHz) (802.11n-HT20), 5260MHz)
	

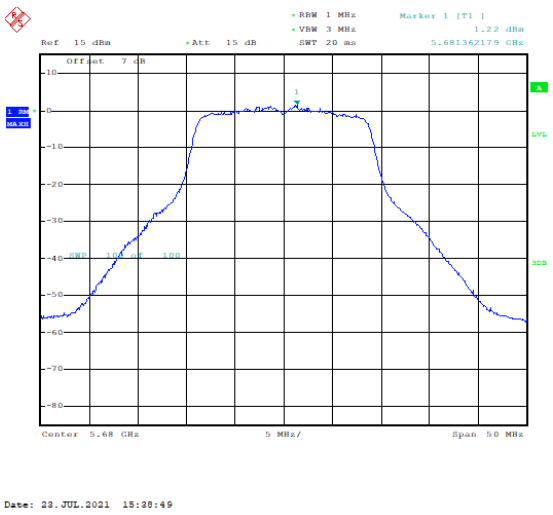
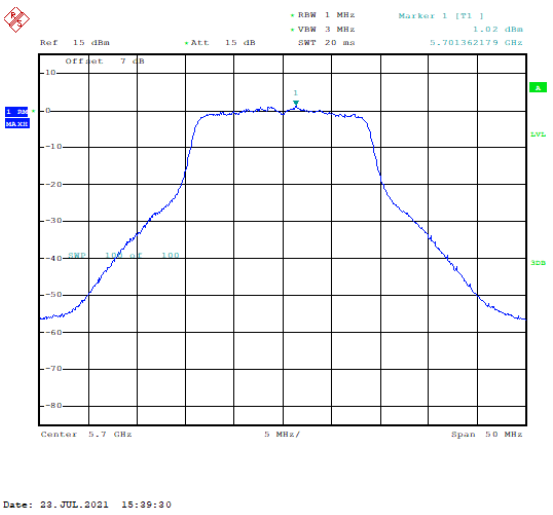
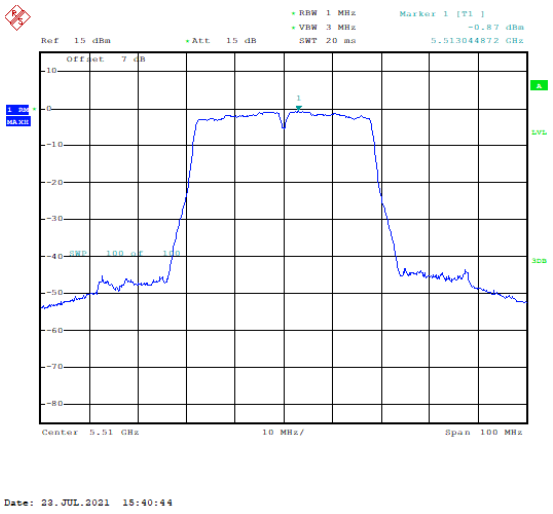
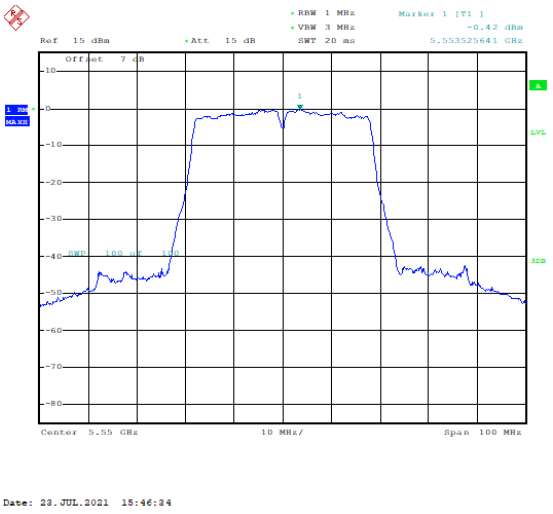
Power Spectral Density(dBm/MHz) (802.11n-HT20), 5280MHz)	Power Spectral Density(dBm/MHz) (802.11n-HT20), 5320MHz)
	
Power Spectral Density(dBm/MHz) (802.11n-HT40), 5270MHz)	Power Spectral Density(dBm/MHz) (802.11n-HT40), 5310MHz)
	

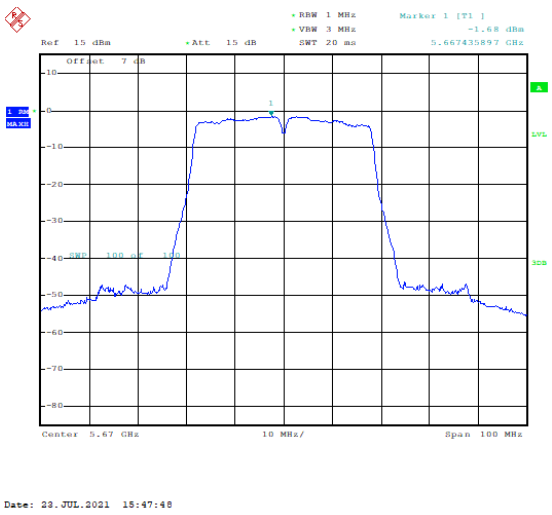
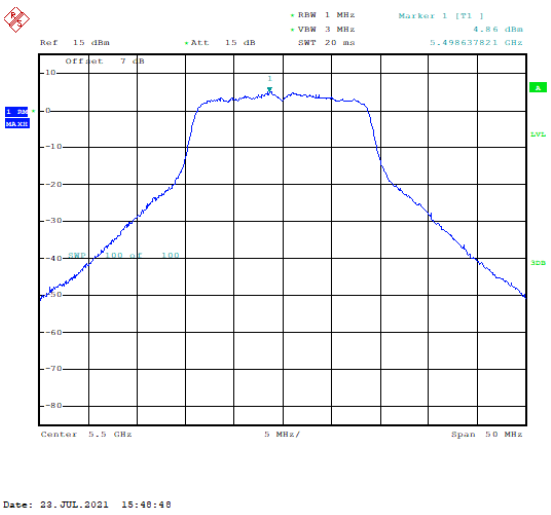
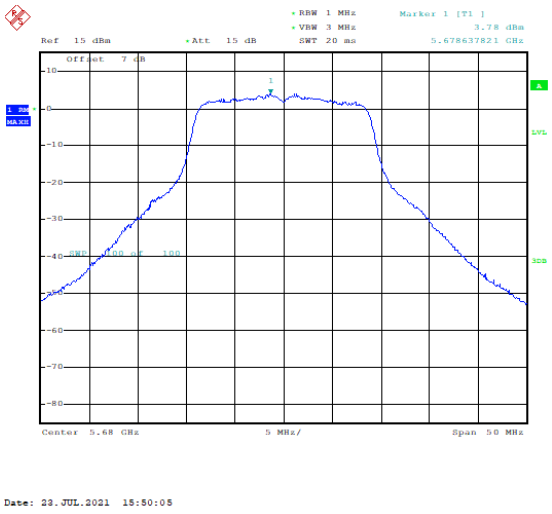
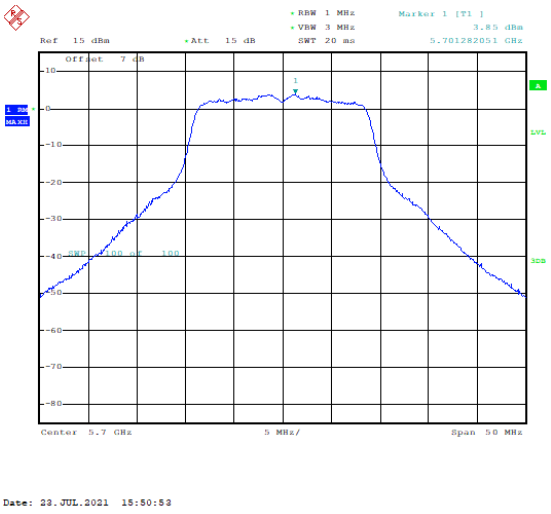
Power Spectral Density(dBm/MHz) (802.11ac-VHT20), 5260MHz)	Power Spectral Density(dBm/MHz) (802.11ac-VHT20), 5280MHz)
	
Power Spectral Density(dBm/MHz) (802.11ac-VHT20), 5320MHz)	Power Spectral Density(dBm/MHz) (802.11ac-VHT40), 5270MHz)
	

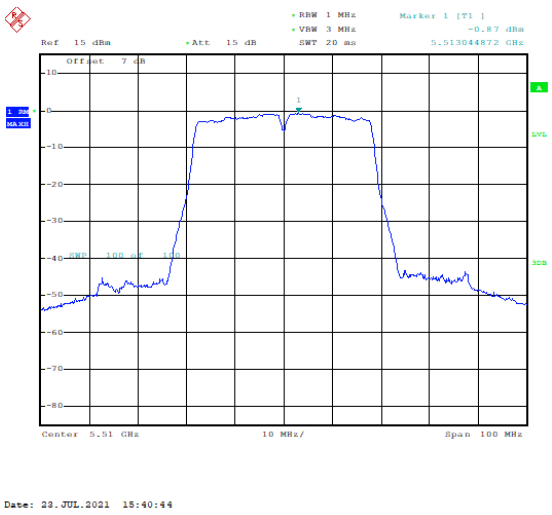
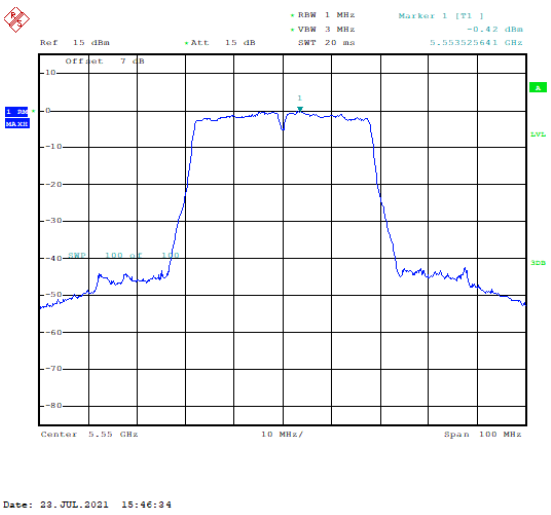
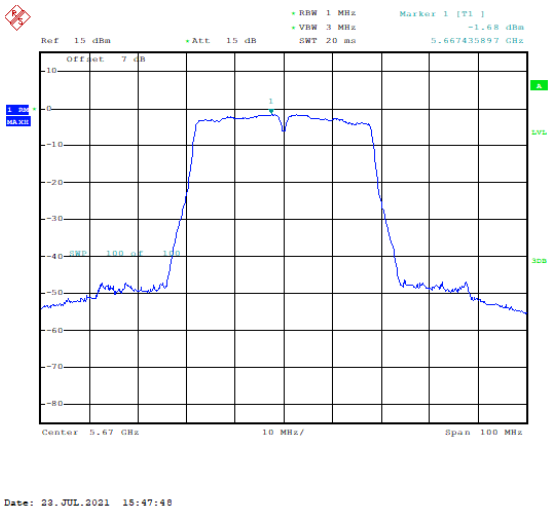
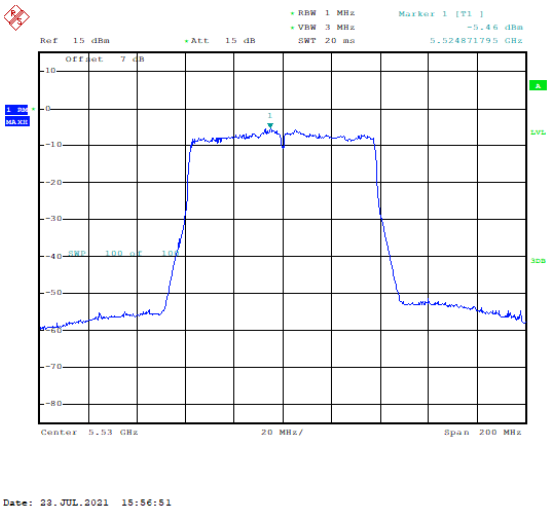
Power Spectral Density(dBm/MHz) (802.11ac-VHT40), 5310MHz)	Power Spectral Density(dBm/MHz) (802.11ac-VHT80), 5290MHz)
	

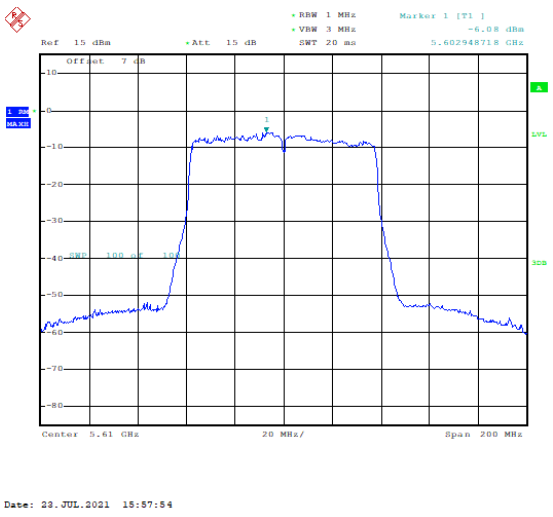
U-NII-2c:

Power Spectral Density(dBm/MHz) (802.11a, 5500MHz)	Power Spectral Density(dBm/MHz) (802.11a, 5680MHz)
	
Power Spectral Density(dBm/MHz) (802.11a, 5700MHz)	Power Spectral Density(dBm/MHz) (802.11n-HT20), 5500MHz)
	

Power Spectral Density(dBm/MHz) (802.11n-HT20), 5680MHz)	Power Spectral Density(dBm/MHz) (802.11n-HT20), 5700MHz)
	
Power Spectral Density(dBm/MHz) (802.11n-HT40), 5510MHz)	Power Spectral Density(dBm/MHz) (802.11n-HT40), 5550MHz)
	

Power Spectral Density(dBm/MHz) (802.11n-HT20), 5670MHz)	Power Spectral Density(dBm/MHz) (802.11ac-VHT20), 5500MHz)
	
Power Spectral Density(dBm/MHz) (802.11ac-VHT20), 5680MHz)	Power Spectral Density(dBm/MHz) (802.11ac-VHT20), 5700MHz)
	

Power Spectral Density(dBm/MHz) (802.11ac-VHT40), 5510MHz)	Power Spectral Density(dBm/MHz) (802.11ac-VHT40), 5550MHz)
	
Power Spectral Density(dBm/MHz) (802.11ac-VHT40), 5670MHz)	Power Spectral Density(dBm/MHz) (802.11ac-VHT80), 5530MHz)
	

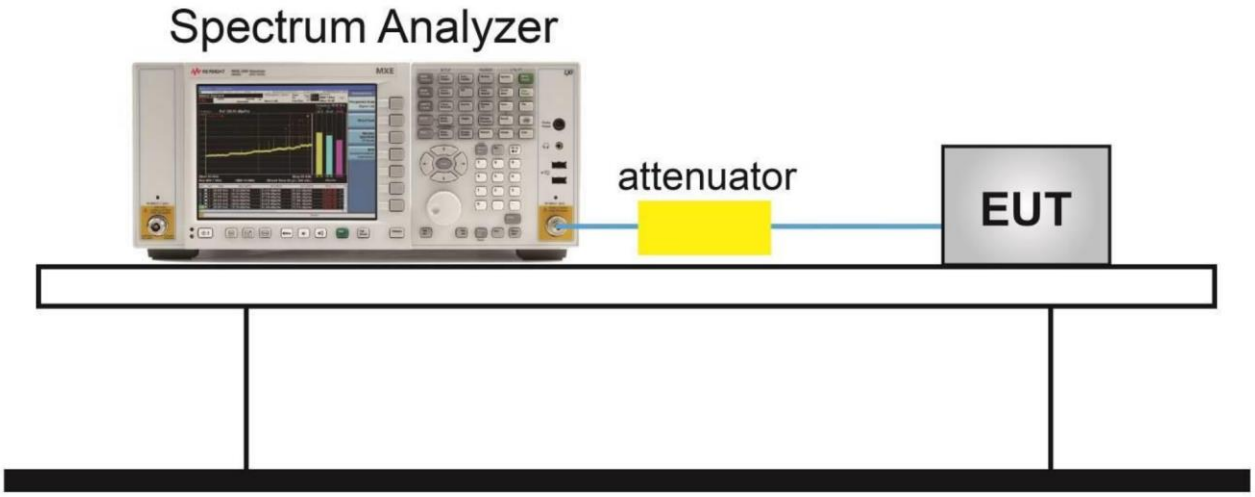
Power Spectral Density(dBm/MHz) (802.11ac-VHT80), 5610MHz)	/
	/

6.3. Occupied 26dB Bandwidth(conducted)

6.3.1. Measurement Limit:

Standard	Limit (MHz)
FCC 47 CFR Part 15.407(a)	N/A
RSS-247 6.2	N/A

6.3.2. Test Setup



6.3.3. The measurement is made according to KDB 789033

Measurement Result

U-NII-1:

Mode	Channel	Occupied 26dB Bandwidth (MHz)	Conclusion
802.11a	5180 MHz	23.08	P
	5200 MHz	22.92	P
	5240 MHz	22.76	P
802.11n HT20	5180 MHz	23.56	P
	5200 MHz	23.56	P
	5240 MHz	23.32	P
802.11n HT40	5190 MHz	41.83	P
	5230 MHz	41.83	P
802.11ac HT20	5180 MHz	23.64	P
	5200 MHz	23.64	P
	5240MHZ	23.88	P
802.11ac HT40	5190 MHz	41.83	P
	5230 MHz	41.83	P
802.11ac HT80	5210MHZ	83.01	P

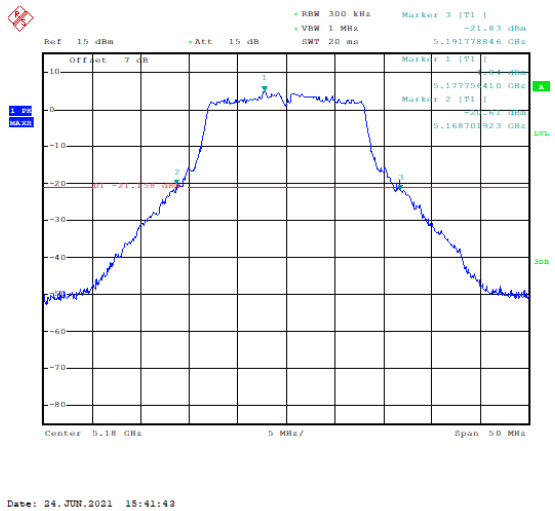
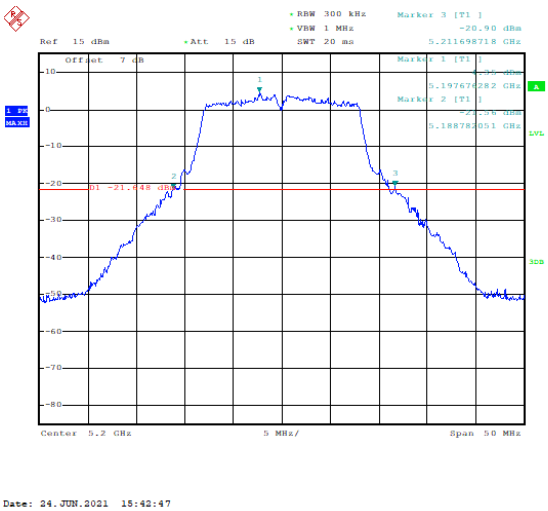
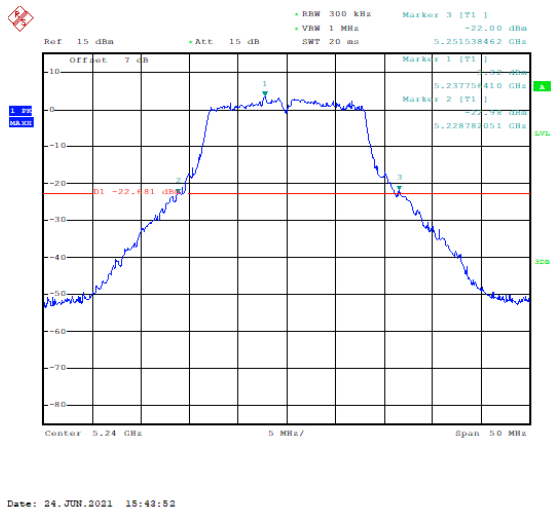
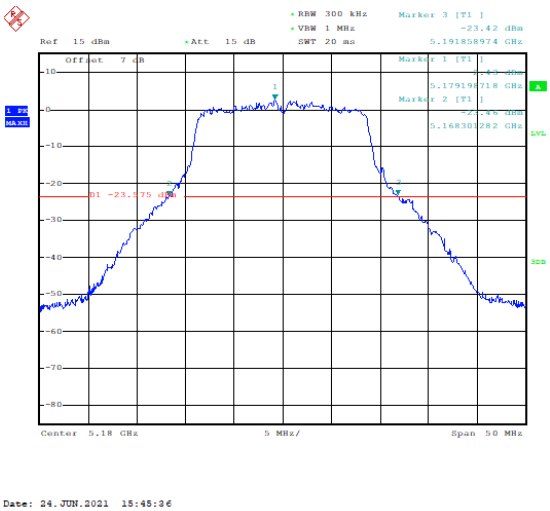
U-NII-2a:

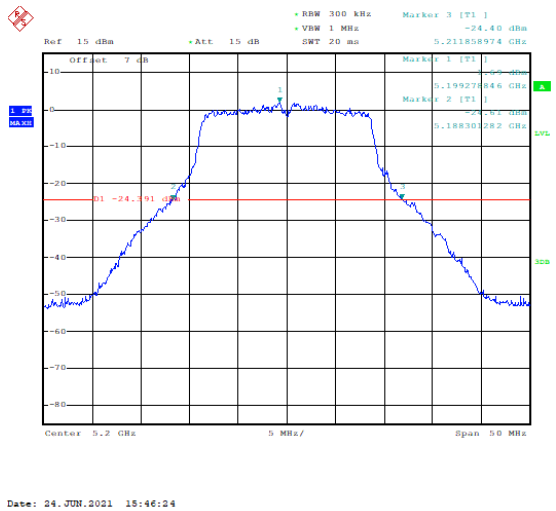
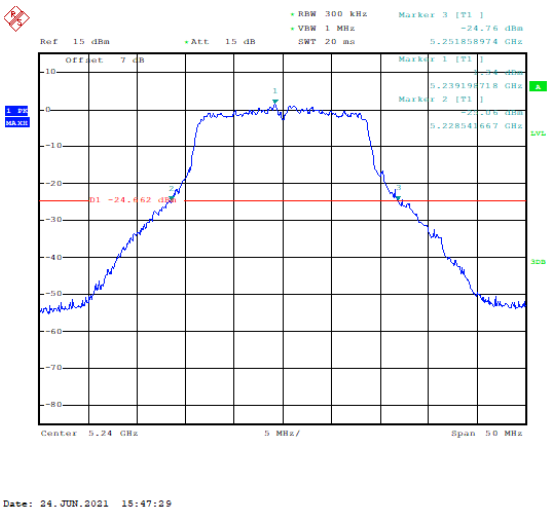
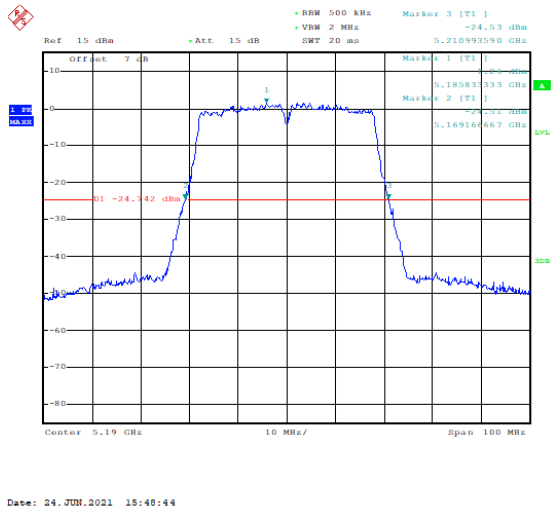
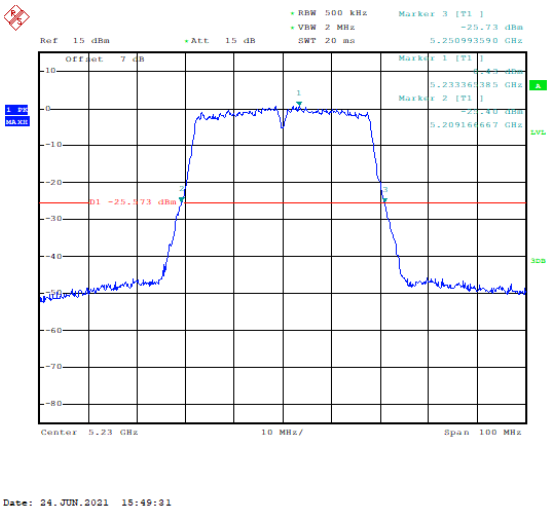
Mode	Channel	Occupied 26dB Bandwidth (MHz)	Conclusion
802.11a	5260	22.44	P
	5280	22.28	P
	5320	22.44	P
802.11n HT20	5260	23.24	P
	5280	23.48	P
	5320	23.8	P
802.11n HT40	5270	41.5	P
	5310	41.35	P
802.11ac VHT20	5260	23.32	P
	5280	23.56	P
	5320	23.56	P
802.11ac VHT40	5270	41.67	P
	5310	41.19	P
802.11ac VHT80	5290	83.01	P

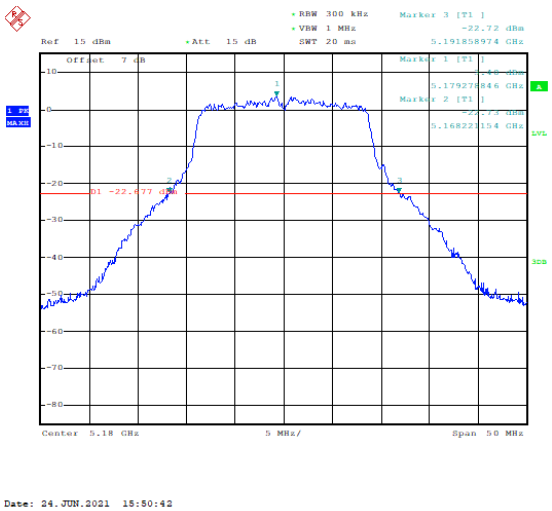
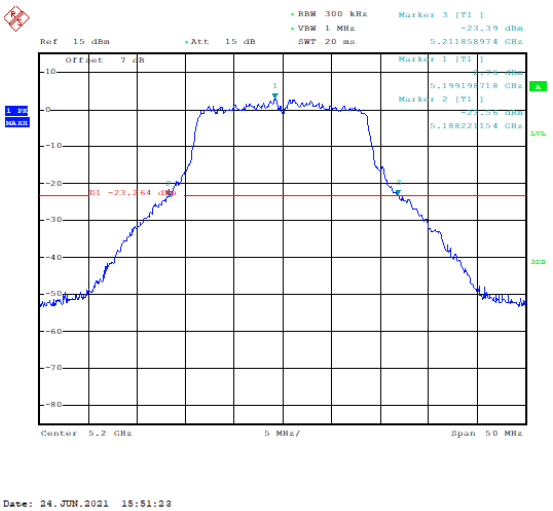
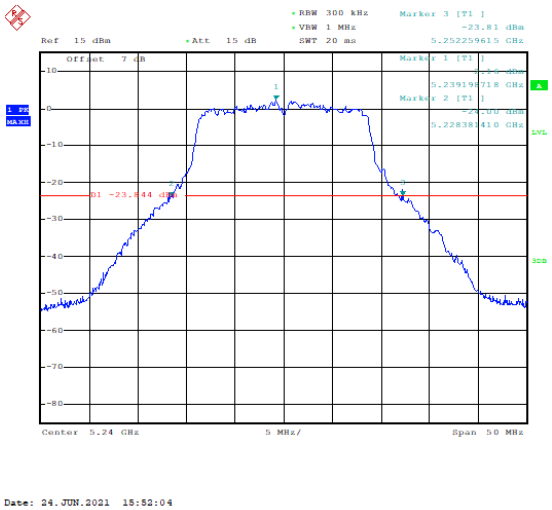
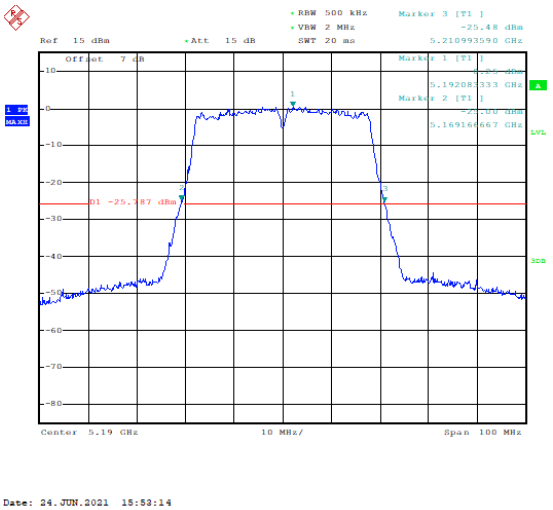
U-NII-2c:

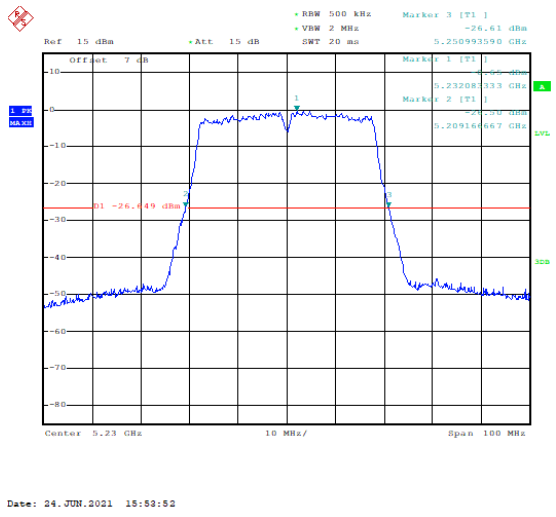
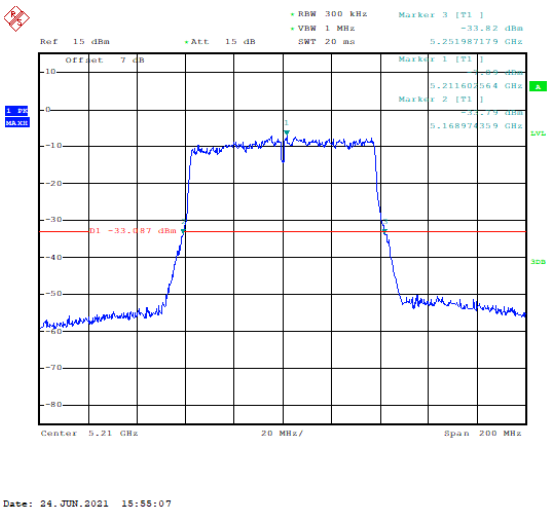
Mode	Channel	Occupied 26dB Bandwidth (MHz)	Conclusion
802.11a	5500	24.44	P
	5680	23.80	P
	5700	24.44	P
802.11n HT20	5500	24.04	P
	5680	24.12	P
	5700	24.28	P
802.11n HT40	5510	41.83	P
	5550	41.83	P
	5670	41.83	P
802.11ac VHT20	5500	25.00	P
	5680	25.24	P
	5700	25.16	P
802.11ac VHT40	5510	41.83	P
	5550	41.83	P
	5670	41.99	P
802.11ac VHT80	5530	83.33	P
	5610	83.65	P

U-NII-1:

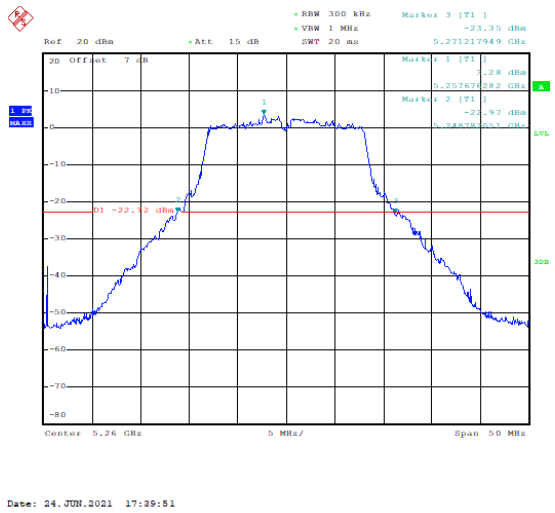
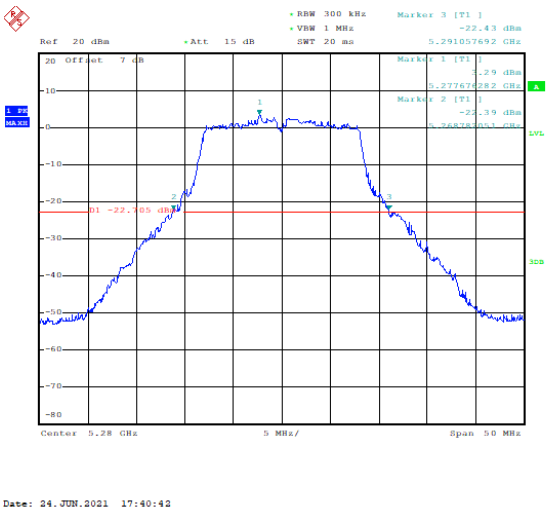
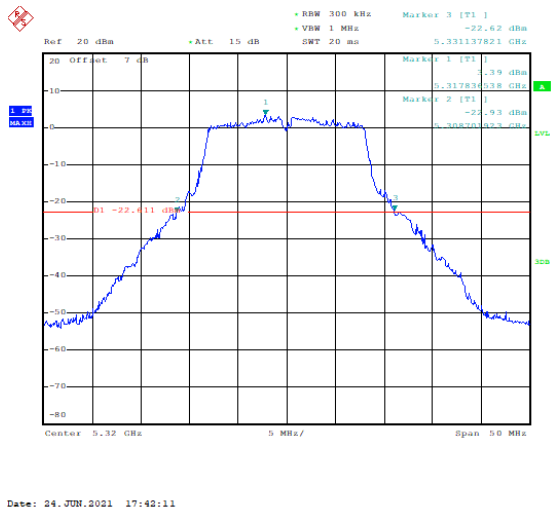
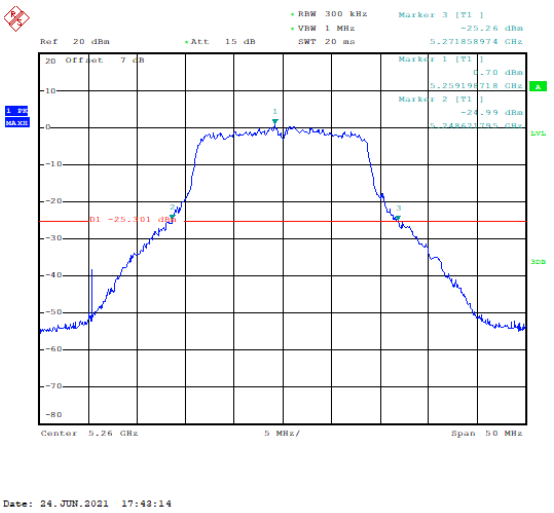
Occupied 26dB Bandwidth (MHz) (802.11a, 5180MHz)	Occupied 26dB Bandwidth (MHz) (802.11a, 5200MHz)
	
Occupied 26dB Bandwidth (MHz) (802.11a, 5240MHz)	Occupied 26dB Bandwidth (MHz) (802.11n-HT20, 5180MHz)
	

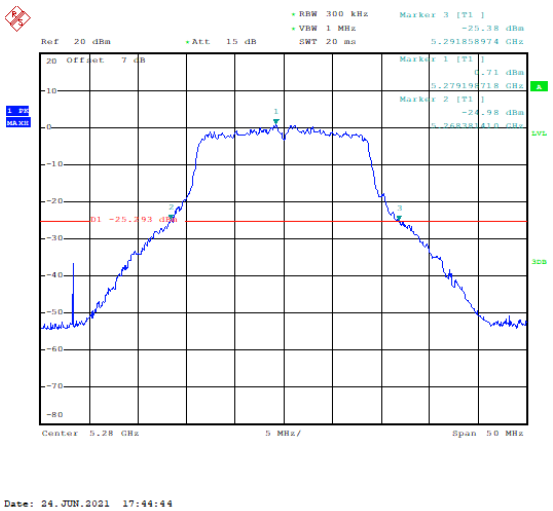
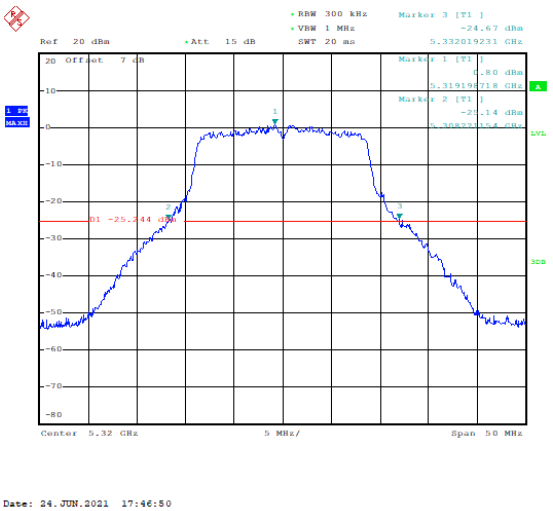
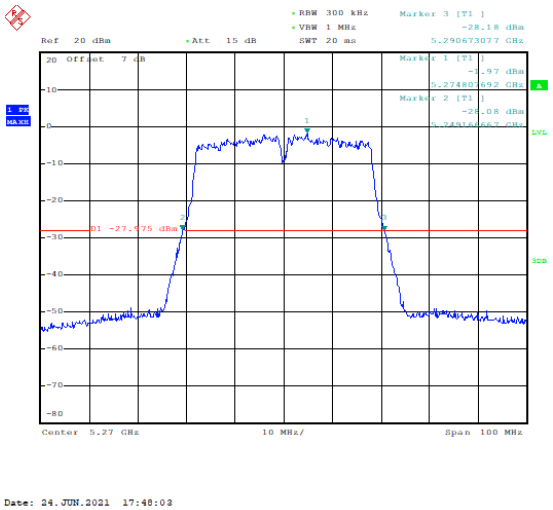
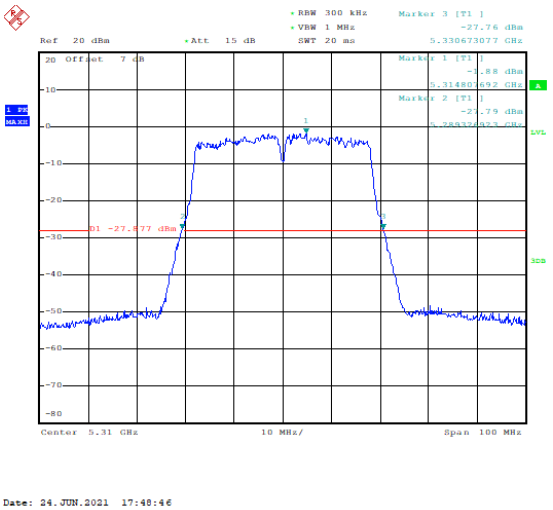
Occupied 26dB Bandwidth (MHz) (802.11n-HT20, 5200MHz)	Occupied 26dB Bandwidth (MHz) (802.11n-HT20, 5240MHz)
	
Occupied 26dB Bandwidth (MHz) (802.11n-HT40, 5190MHz)	Occupied 26dB Bandwidth (MHz) (802.11n-HT40, 5230MHz)
	

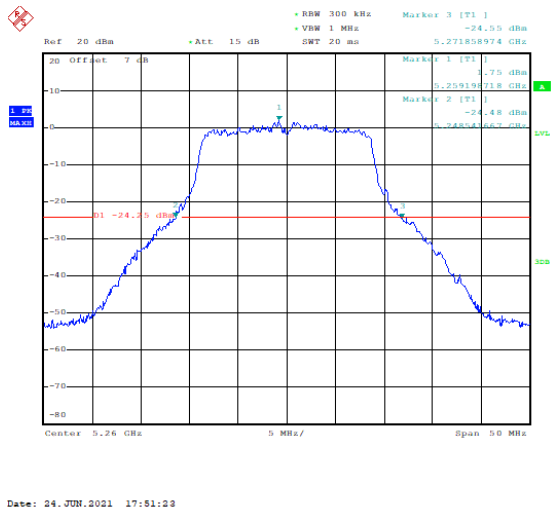
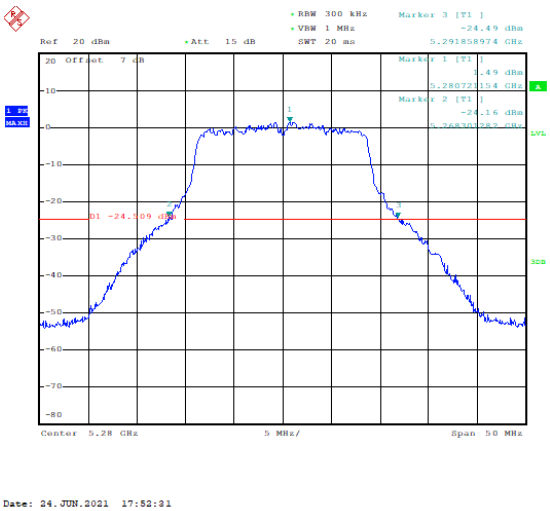
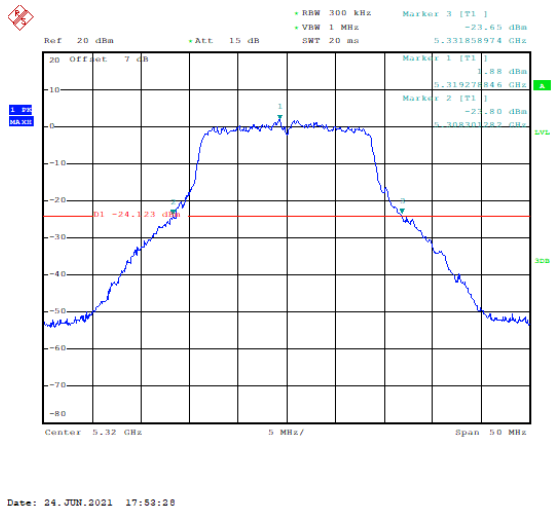
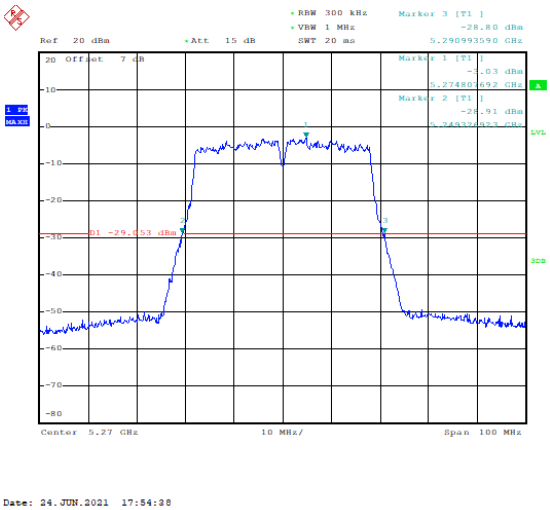
Occupied 26dB Bandwidth (MHz) (802.11ac-VHT20, 5180MHz)	Occupied 26dB Bandwidth (MHz) (802.11ac-VHT20, 5200MHz)
	
Occupied 26dB Bandwidth (MHz) (802.11ac-VHT20, 5240MHz)	Occupied 26dB Bandwidth (MHz) (802.11ac-VHT40, 5190MHz)
	

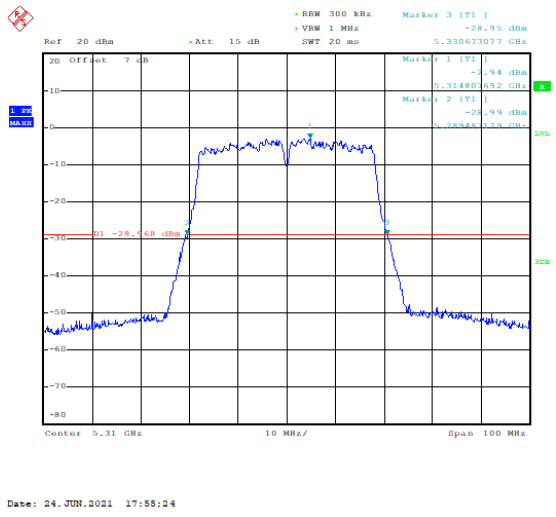
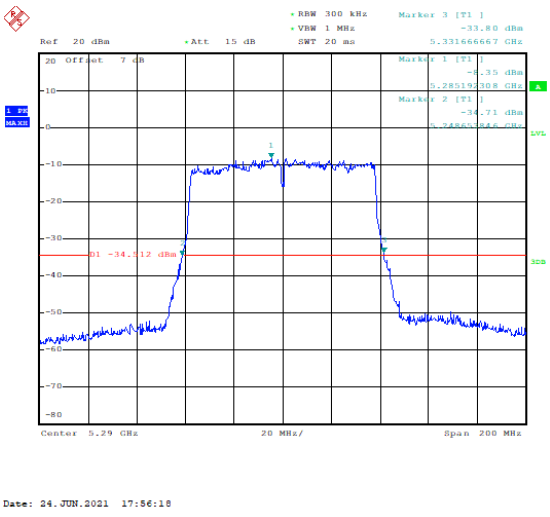
Occupied 26dB Bandwidth (MHz) (802.11ac-VHT40, 5230MHz)	Occupied 26dB Bandwidth (MHz) (802.11ac-VHT80, 5210MHz)
	

U-NII-2a:

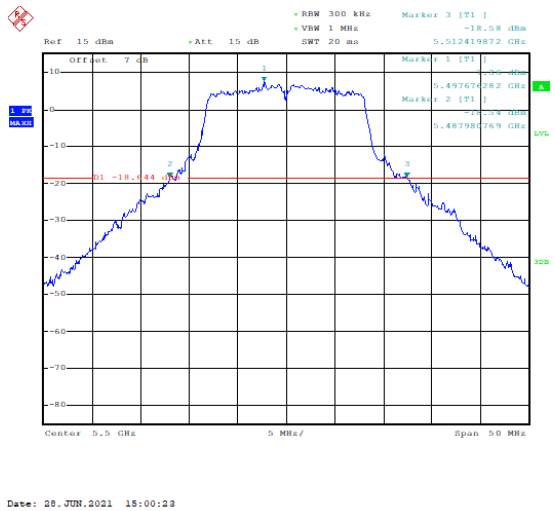
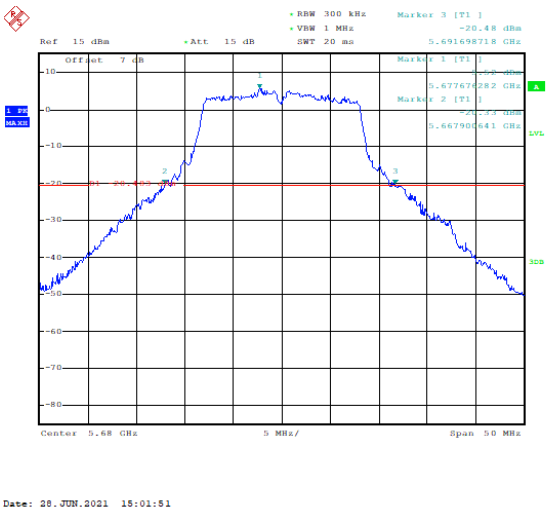
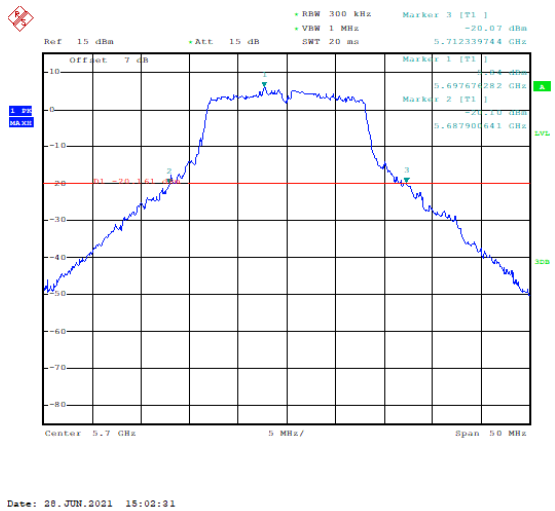
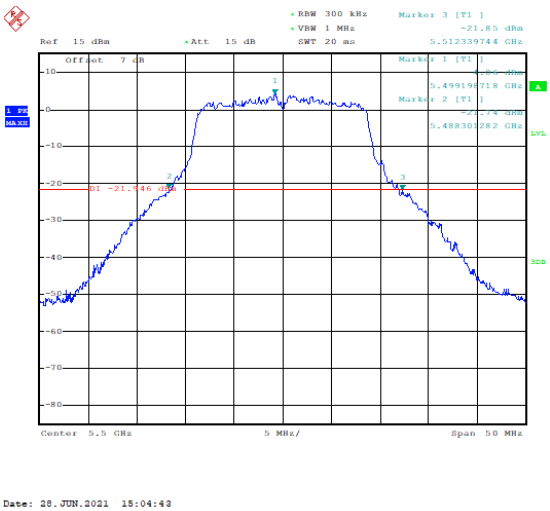
Occupied 26dB Bandwidth (MHz) (802.11a, 5260MHz)	Occupied 26dB Bandwidth (MHz) (802.11a, 5280MHz)
	
Occupied 26dB Bandwidth (MHz) (802.11a, 5320MHz)	Occupied 26dB Bandwidth (MHz) (802.11n-HT20, 5260MHz)
	

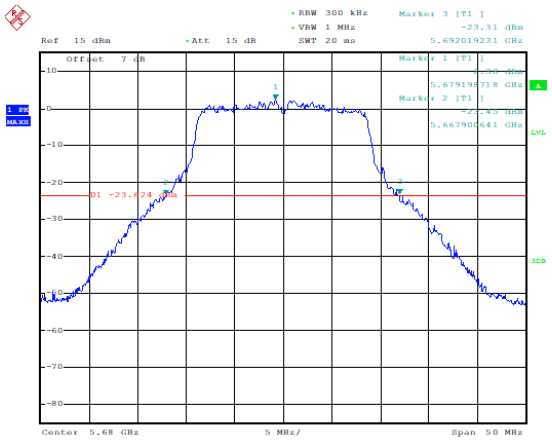
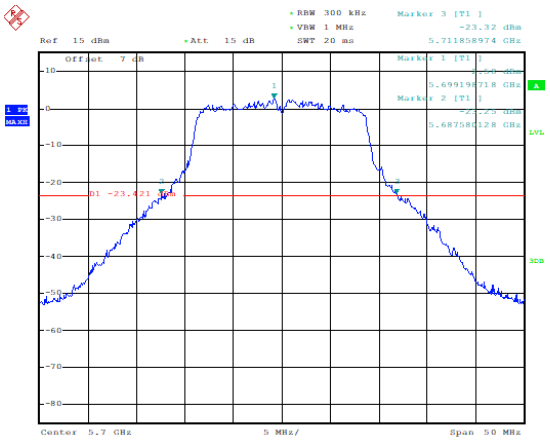
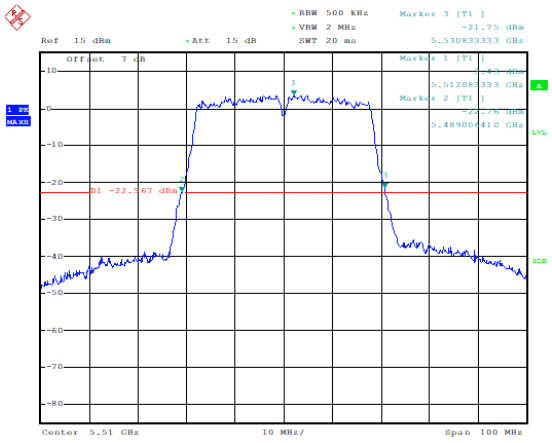
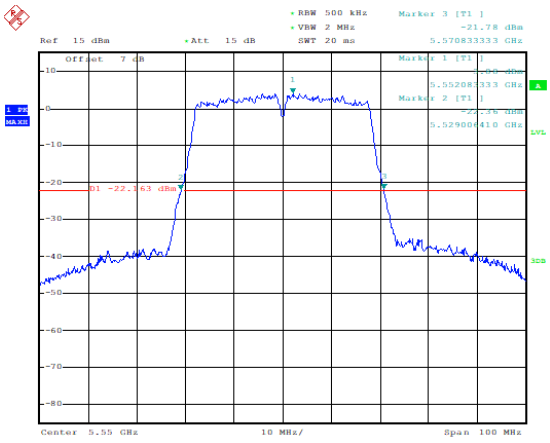
Occupied 26dB Bandwidth (MHz) (802.11n-HT20, 5280MHz)	Occupied 26dB Bandwidth (MHz) (802.11n-HT20, 5320MHz)
	
Occupied 26dB Bandwidth (MHz) (802.11n-HT40, 5270MHz)	Occupied 26dB Bandwidth (MHz) (802.11n-HT40, 5310MHz)
	

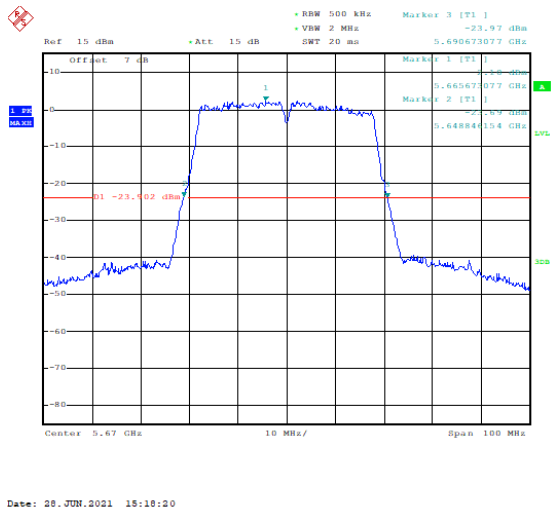
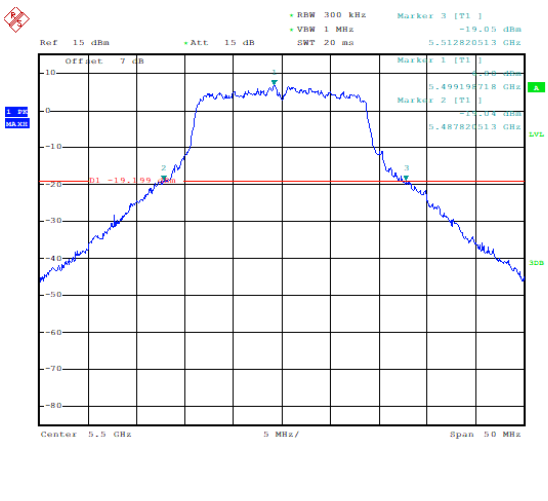
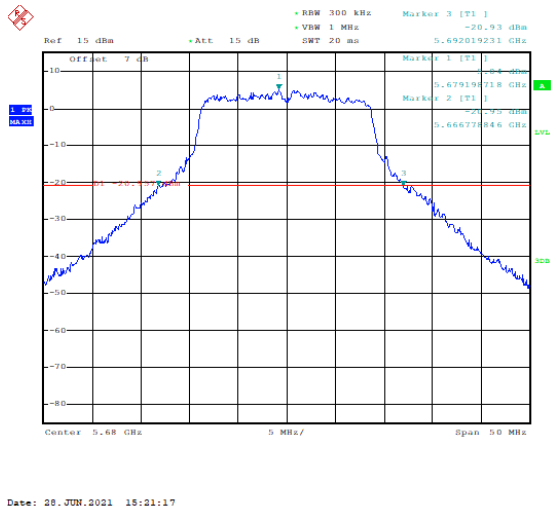
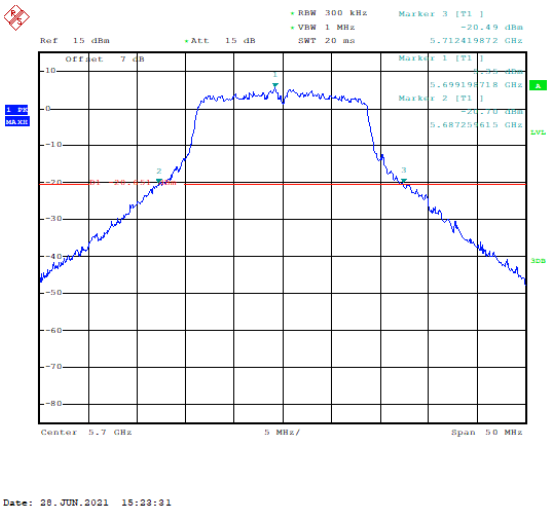
Occupied 26dB Bandwidth (MHz) (802.11ac-VHT20, 5260MHz)	Occupied 26dB Bandwidth (MHz) (802.11ac-VHT20, 5280MHz)
	
Occupied 26dB Bandwidth (MHz) (802.11ac-VHT20, 5320MHz)	Occupied 26dB Bandwidth (MHz) (802.11ac-VHT40, 5270MHz)
	

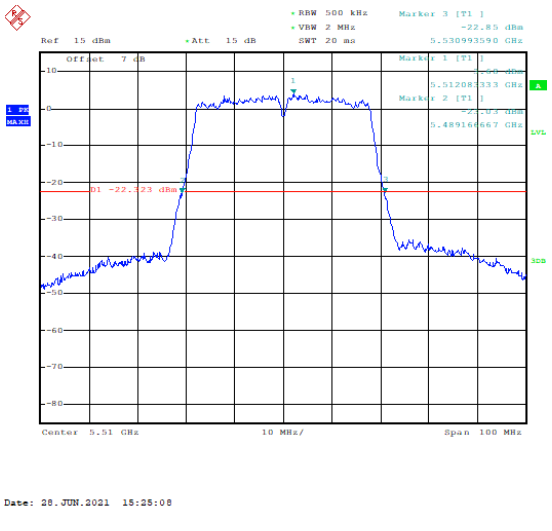
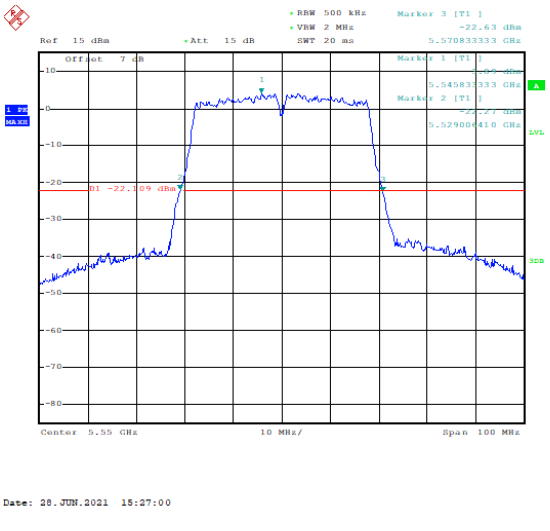
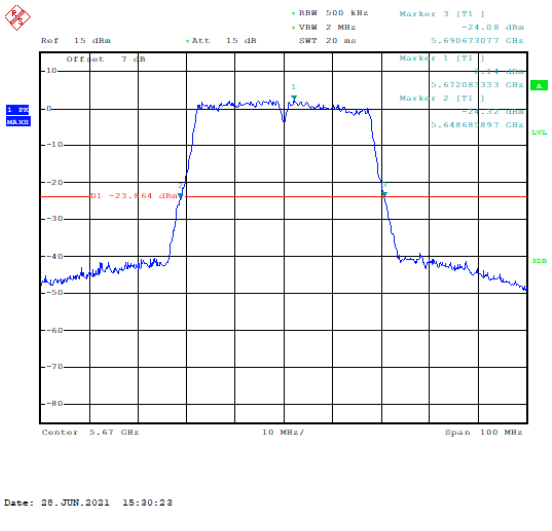
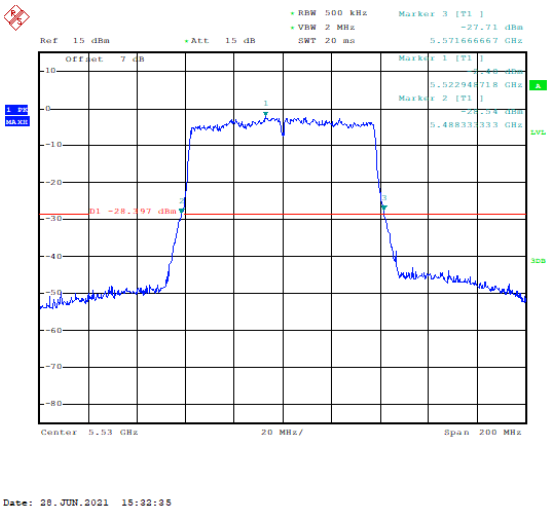
Occupied 26dB Bandwidth (MHz) (802.11ac-VHT40, 5310MHz)	Occupied 26dB Bandwidth (MHz) (802.11ac-VHT80, 5290MHz)
	

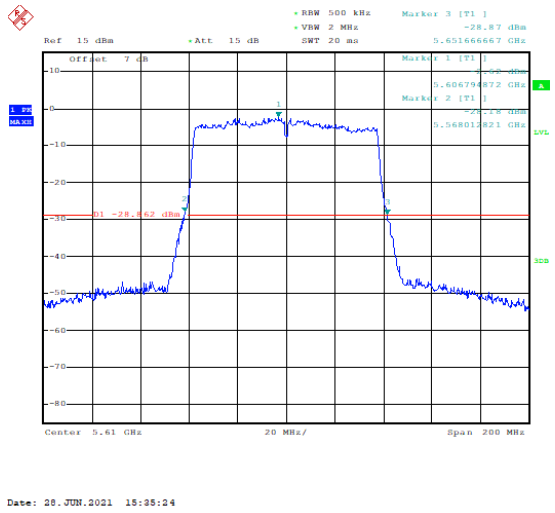
U-NII-2c:

Occupied 26dB Bandwidth (MHz) (802.11a, 5500MHz)	Occupied 26dB Bandwidth (MHz) (802.11a, 5680MHz)
	
Occupied 26dB Bandwidth (MHz) (802.11a, 5700MHz)	Occupied 26dB Bandwidth (MHz) (802.11n-HT20, 5500MHz)
	

Occupied 26dB Bandwidth (MHz) (802.11n-HT20, 5680MHz)	Occupied 26dB Bandwidth (MHz) (802.11n-HT20, 5700MHz)
	
Occupied 26dB Bandwidth (MHz) (802.11n-HT40, 5510MHz)	Occupied 26dB Bandwidth (MHz) (802.11n-HT40, 5550MHz)
	

Occupied 26dB Bandwidth (MHz) (802.11n-HT40, 5670MHz)	Occupied 26dB Bandwidth (MHz) (802.11ac-VHT20, 5500MHz)
	
Occupied 26dB Bandwidth (MHz) (802.11ac-VHT20, 5680MHz)	Occupied 26dB Bandwidth (MHz) (802.11ac-VHT20, 5700MHz)
	

Occupied 26dB Bandwidth (MHz) (802.11ac-VHT40, 5510MHz)	Occupied 26dB Bandwidth (MHz) (802.11ac-VHT40, 5550MHz)
	
Occupied 26dB Bandwidth (MHz) (802.11ac-VHT40, 5670MHz)	Occupied 26dB Bandwidth (MHz) (802.11ac-VHT80, 5530MHz)
	

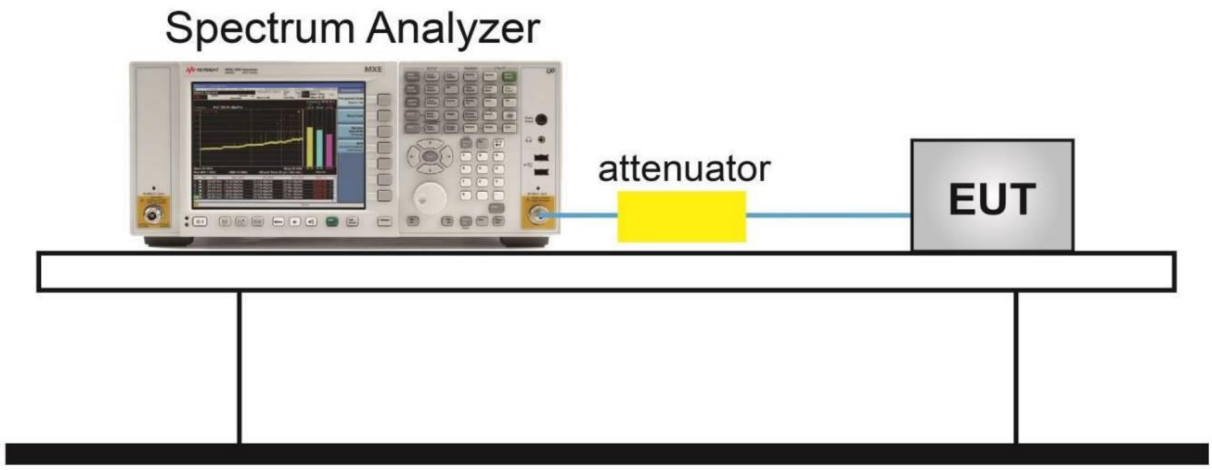
Occupied 26dB Bandwidth (MHz) (802.11ac-VHT80, 5610MHz)	/
 	/

6.4. 99% Occupied Bandwidth(conducted)

6.4.1. Measurement Limit:

Standard	Limit (MHz)
RSS-Gen 6.7	N/A

6.4.2. Test Setup



6.4.3. The measurement is made according to KDB 789033

U-NII-1:

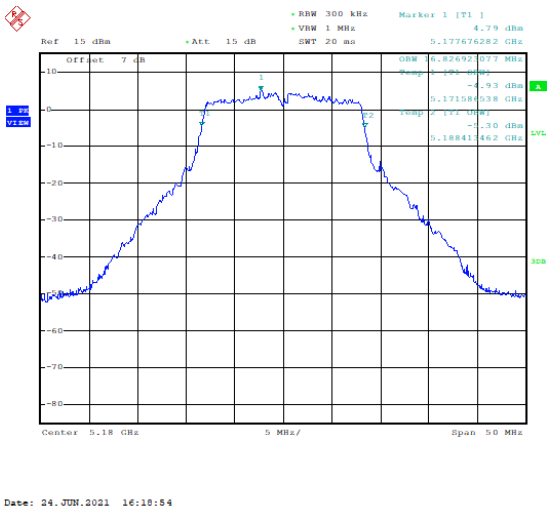
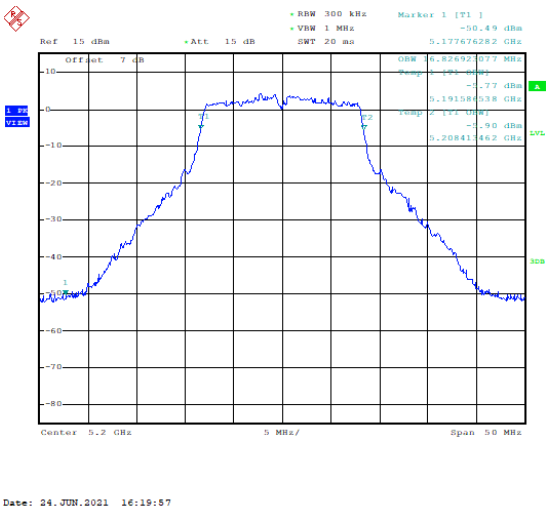
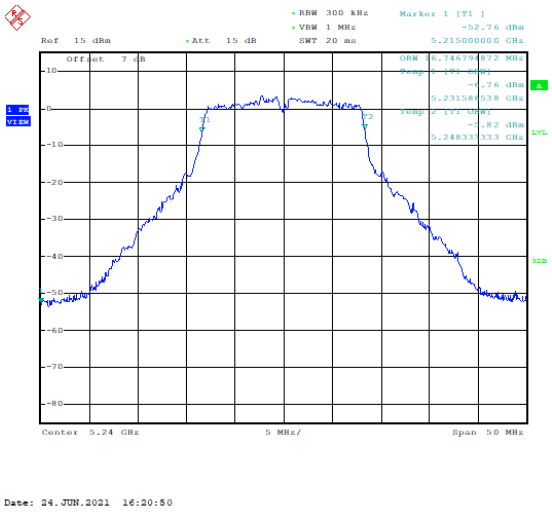
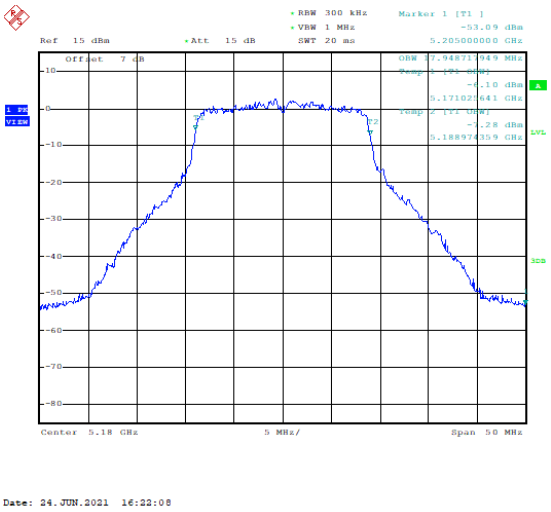
Mode	Channel	99% Occupied Bandwidth (MHz)	Conclusion
802.11a	5180 MHz	16.827	P
	5200 MHz	16.827	P
	5240 MHz	16.747	P
802.11n HT20	5180 MHz	17.949	P
	5200 MHz	17.949	P
	5240 MHz	17.949	P
802.11n HT40	5190 MHz	36.378	P
	5230 MHz	36.378	P
802.11ac HT20	5180 MHz	17.949	P
	5200 MHz	17.949	P
	5240MHZ	17.949	P
802.11ac HT40	5190 MHz	36.378	P
	5230 MHz	36.378	P
802.11ac HT80	5210MHZ	75.962	P

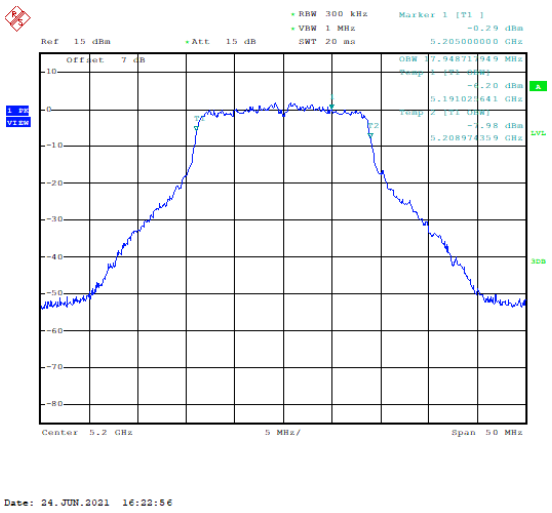
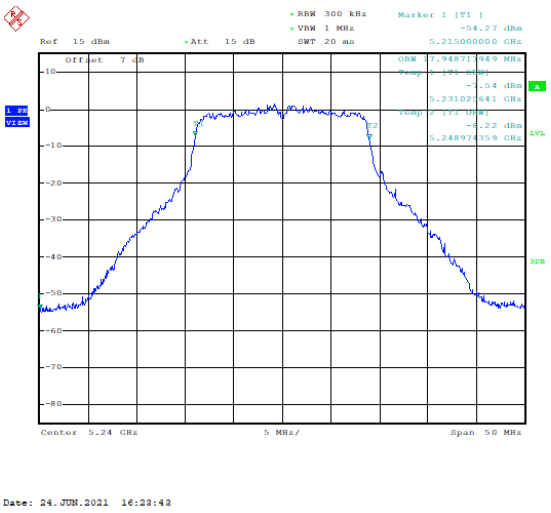
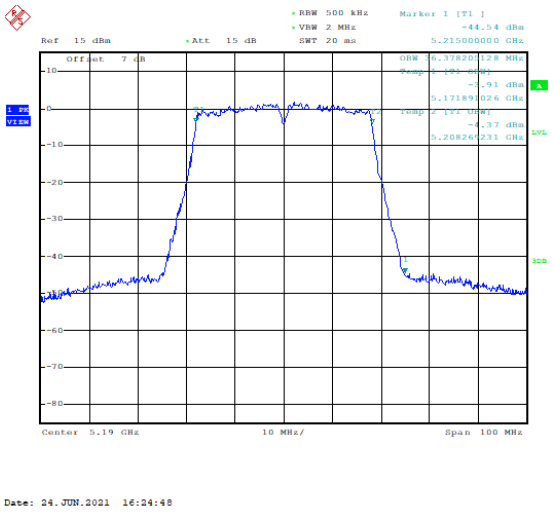
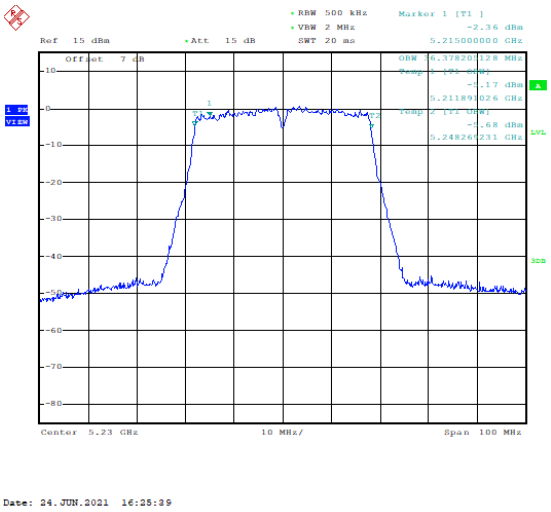
U-NII-2a:

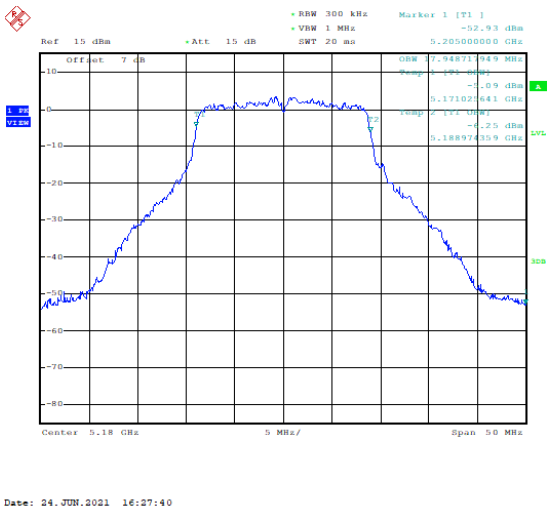
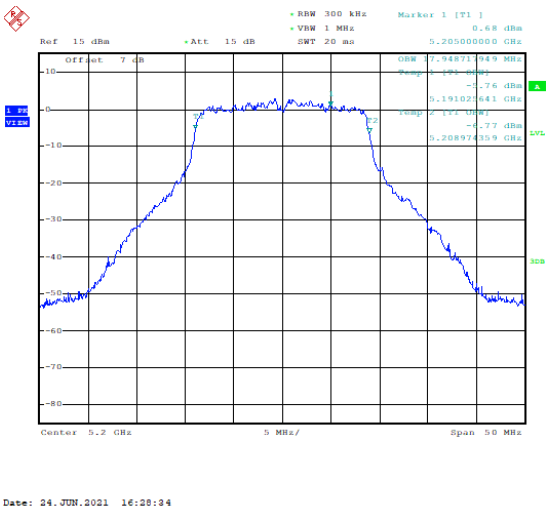
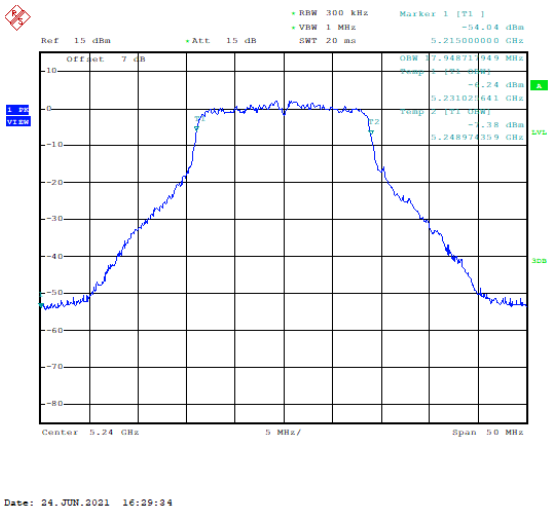
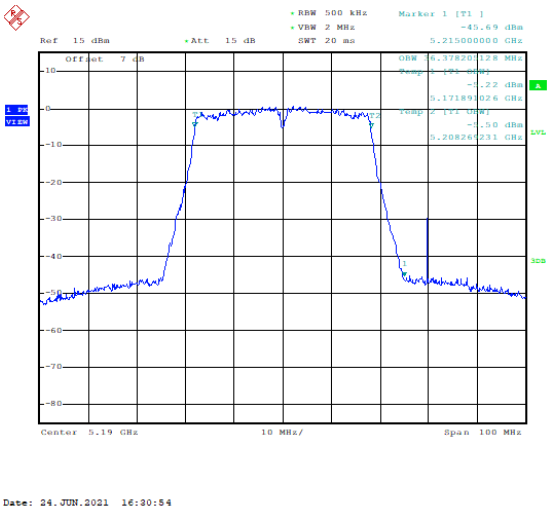
Mode	Channel	99% Occupied Bandwidth (MHz)	Conclusion
802.11a	5260	16.907	P
	5280	16.907	P
	5320	16.907	P
802.11n HT20	5260	17.949	P
	5280	17.949	P
	5320	17.949	P
802.11n HT40	5270	36.218	P
	5310	36.218	P
802.11ac VHT20	5260	17.949	P
	5280	17.949	P
	5320	18.029	P
802.11ac VHT40	5270	36.218	P
	5310	36.218	P
802.11ac VHT80	5290	75.641	P

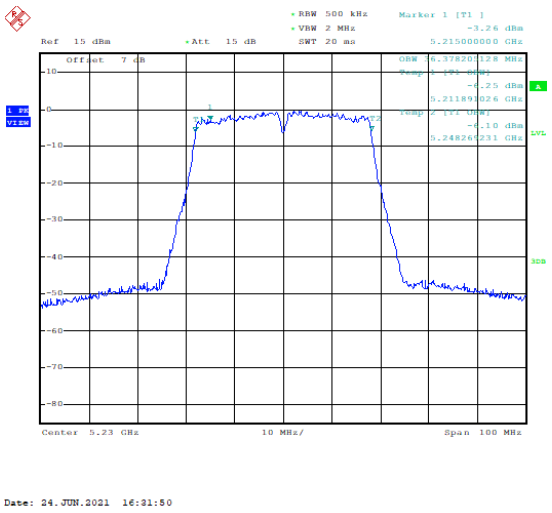
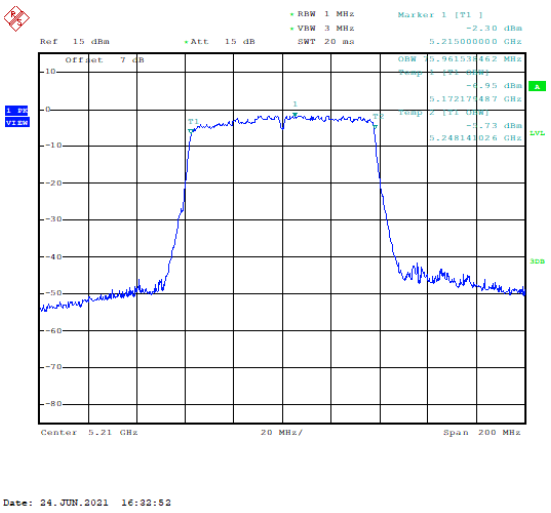
U-NII-2c:

Mode	Channel	99% Occupied Bandwidth (MHz)	Conclusion
802.11a	5500	16.907	P
	5680	16.907	P
	5700	16.907	P
802.11n HT20	5500	17.949	P
	5680	18.029	P
	5700	18.029	P
802.11n HT40	5510	36.378	P
	5550	36.538	P
	5670	36.378	P
802.11ac VHT20	5500	18.109	P
	5680	18.109	P
	5700	18.109	P
802.11ac VHT40	5510	36.538	P
	5550	36.378	P
	5670	36.378	P
802.11ac VHT80	5530	75.641	P
	5610	75.962	P

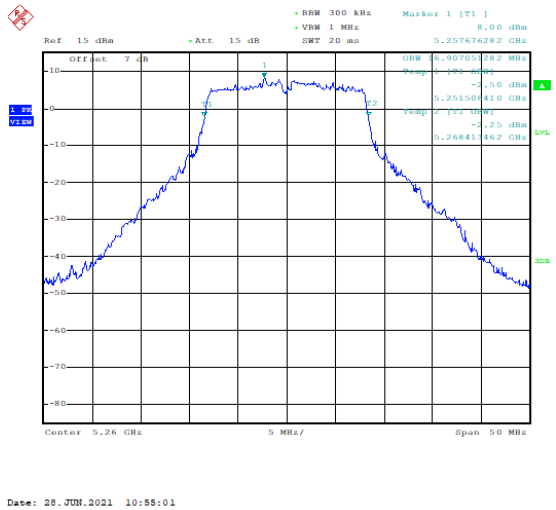
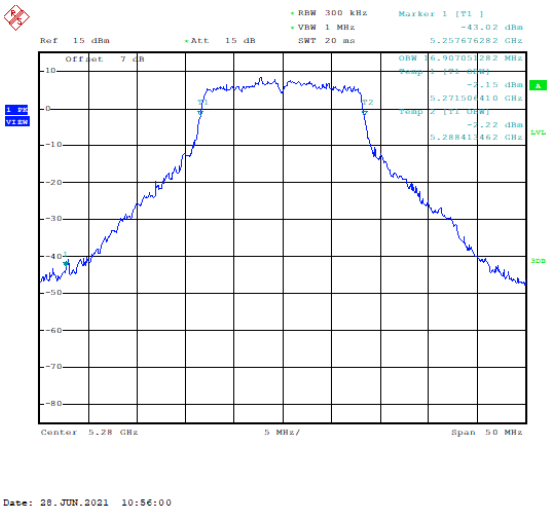
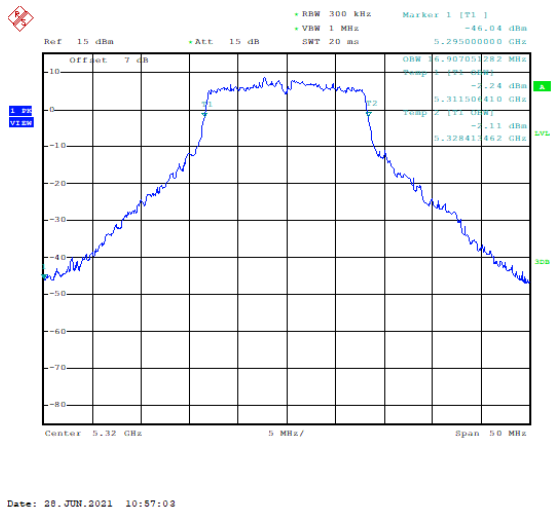
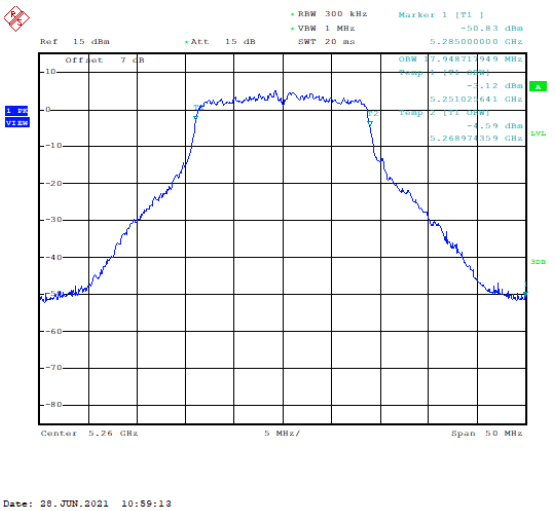
99% Occupied Bandwidth (MHz) (802.11a, 5180MHz)	99% Occupied Bandwidth (MHz) (802.11a, 5200MHz)
	
99% Occupied Bandwidth (MHz) (802.11a, 5240MHz)	99% Occupied Bandwidth (MHz) (802.11n-HT20), 5180MHz)
	

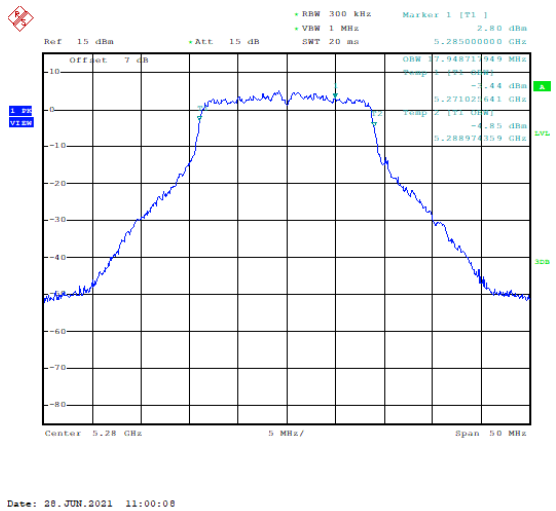
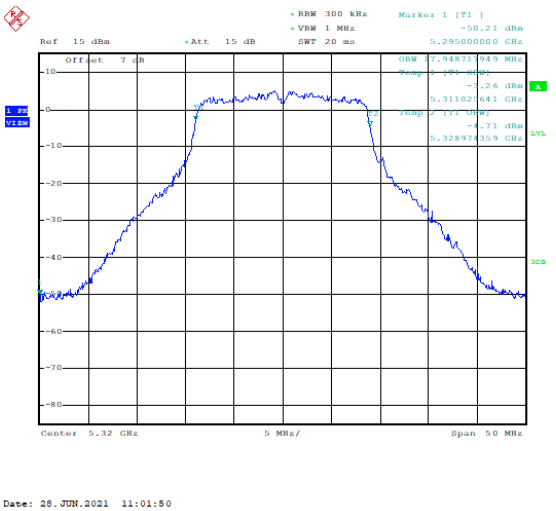
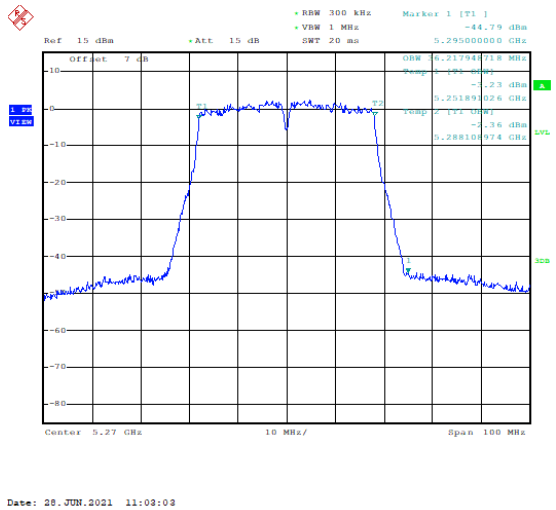
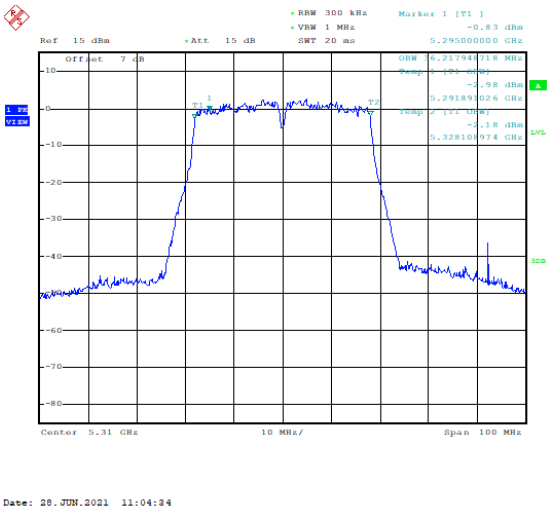
99% Occupied Bandwidth (MHz) (802.11n-HT20), 5200MHz)	99% Occupied Bandwidth (MHz) (802.11n-HT20), 5240MHz)
	
99% Occupied Bandwidth (MHz) (802.11n-HT40), 5190MHz)	99% Occupied Bandwidth (MHz) (802.11n-HT40), 5230MHz)
	

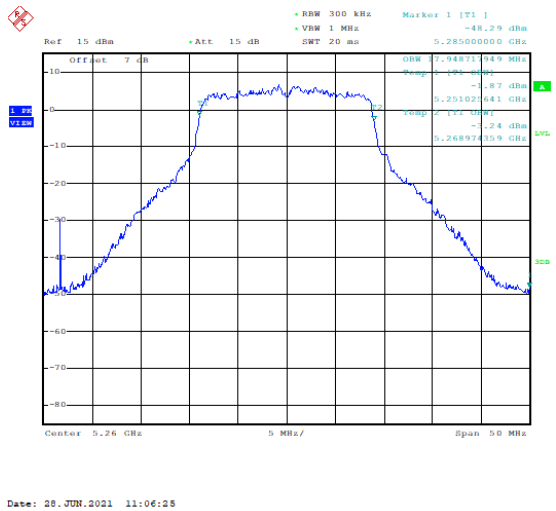
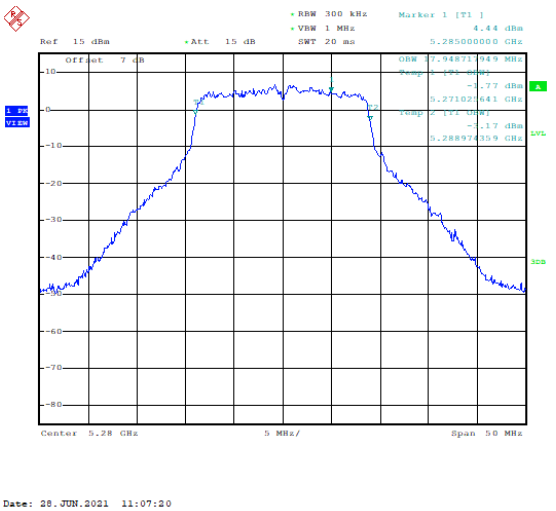
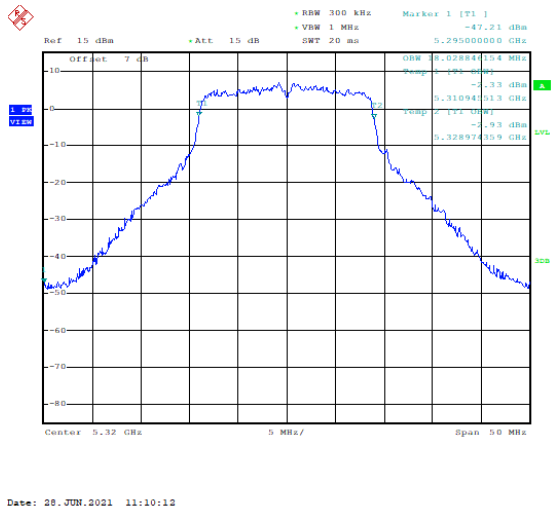
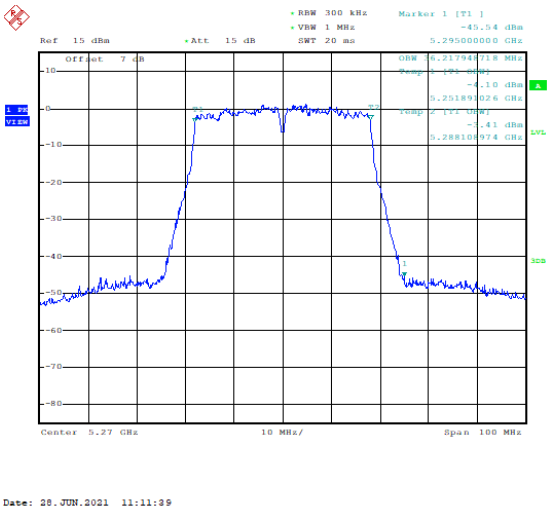
99% Occupied Bandwidth (MHz) (802.11ac-VHT20), 5180MHz)	99% Occupied Bandwidth (MHz) (802.11ac-VHT20), 5200MHz)
	
99% Occupied Bandwidth (MHz) (802.11ac-VHT20), 5240MHz)	99% Occupied Bandwidth (MHz) (802.11ac-VHT40), 5190MHz)
	

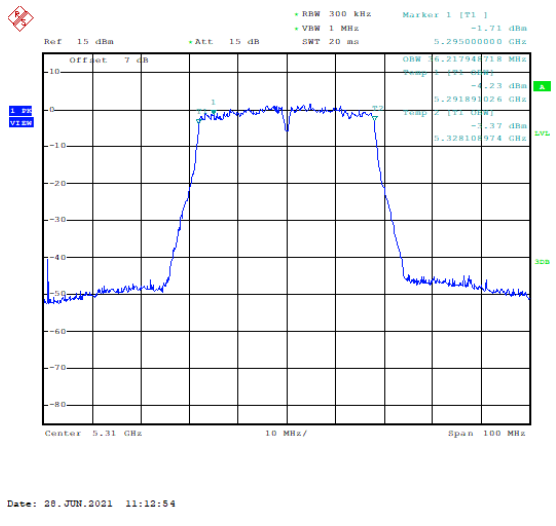
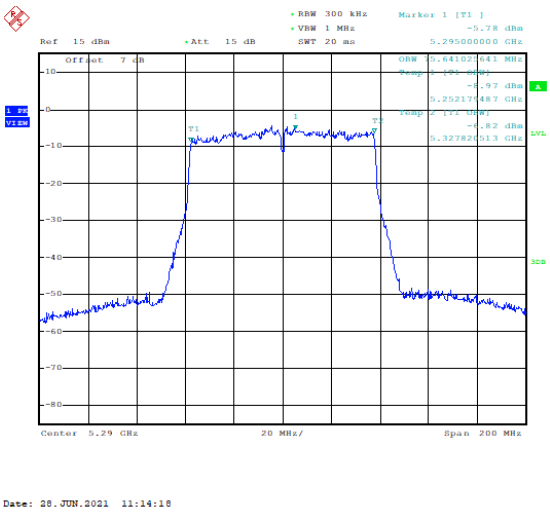
99% Occupied Bandwidth (MHz) (802.11ac-VHT40), 5230MHz)	99% Occupied Bandwidth (MHz) (802.11ac-VHT80), 5210MHz)
	

U-NII-2a:

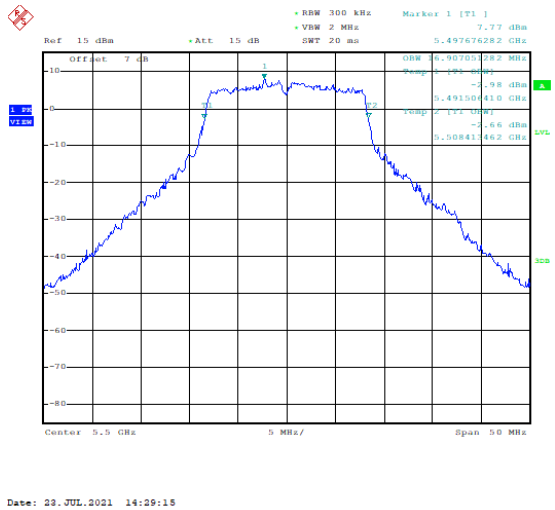
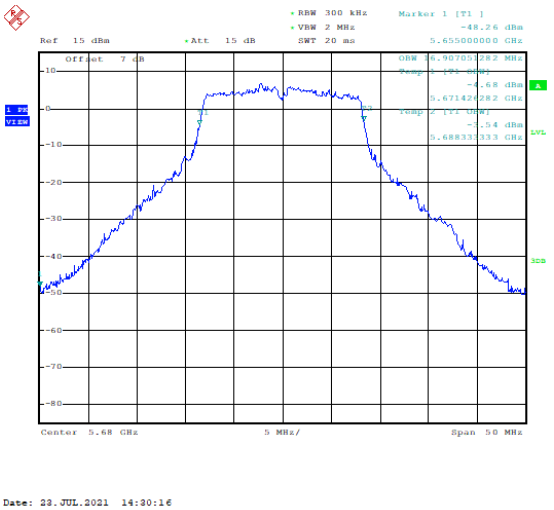
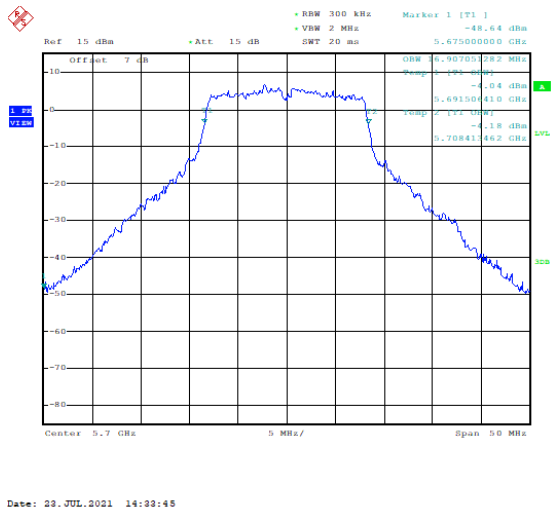
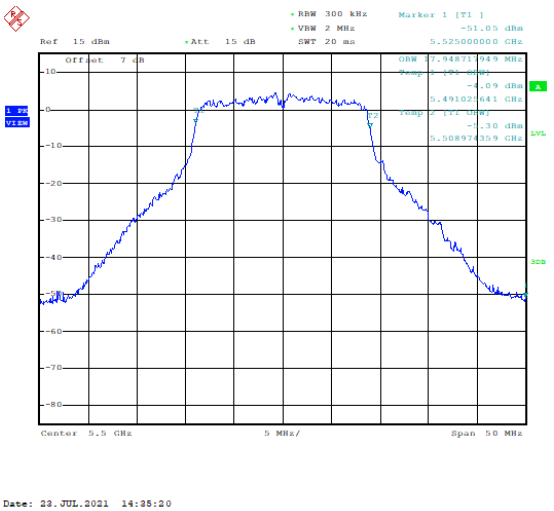
99% Occupied Bandwidth (MHz) (802.11a, 5260MHz)	99% Occupied Bandwidth (MHz) (802.11a, 5280MHz)
	
99% Occupied Bandwidth (MHz) (802.11a, 5320MHz)	99% Occupied Bandwidth (MHz) (802.11n-HT20, 5260MHz)
	

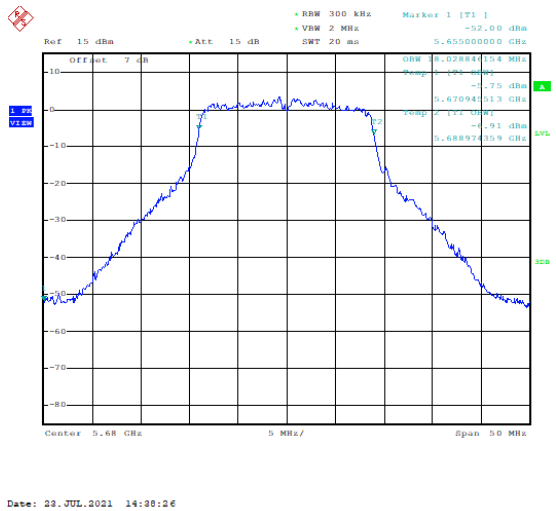
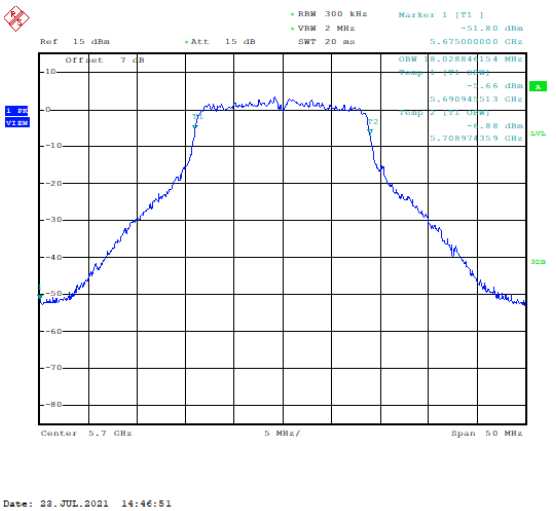
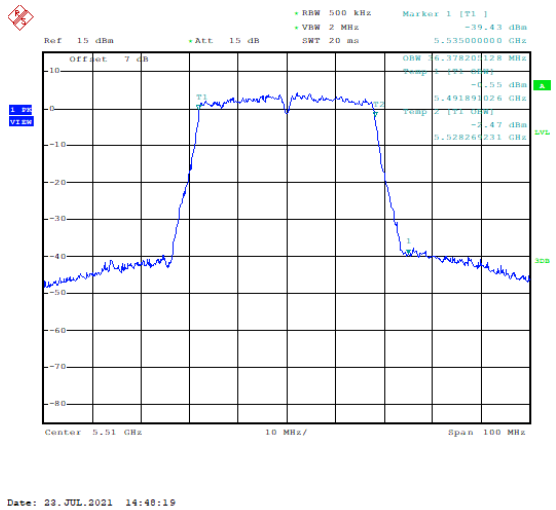
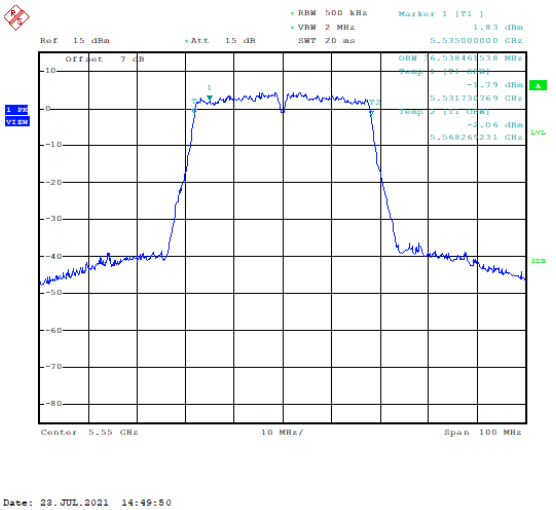
99% Occupied Bandwidth (MHz) (802.11n-HT20, 5280MHz)	99% Occupied Bandwidth (MHz) (802.11n-HT20, 5320MHz)
	
99% Occupied Bandwidth (MHz) (802.11n-HT40, 5270MHz)	99% Occupied Bandwidth (MHz) (802.11n-HT40, 5310MHz)
	

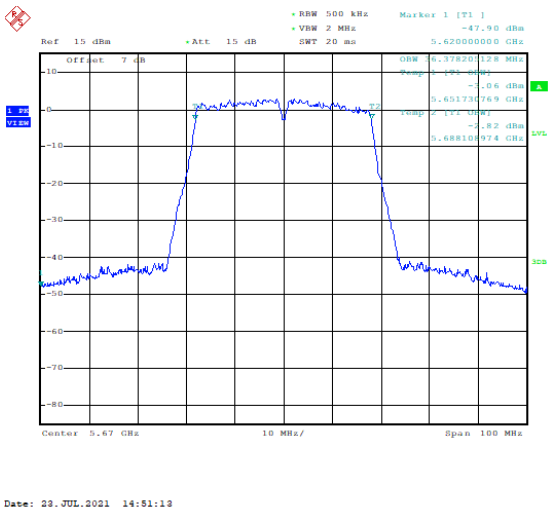
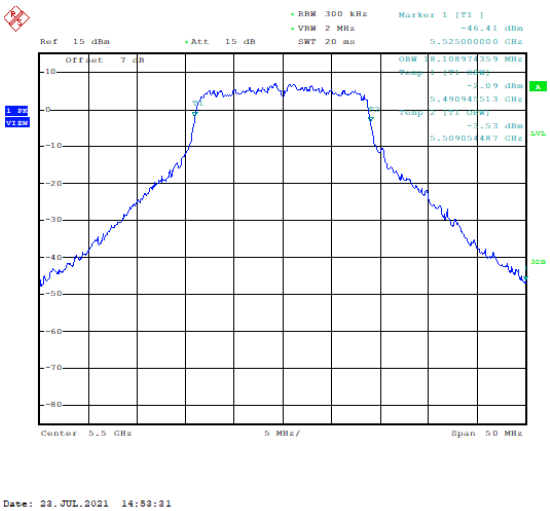
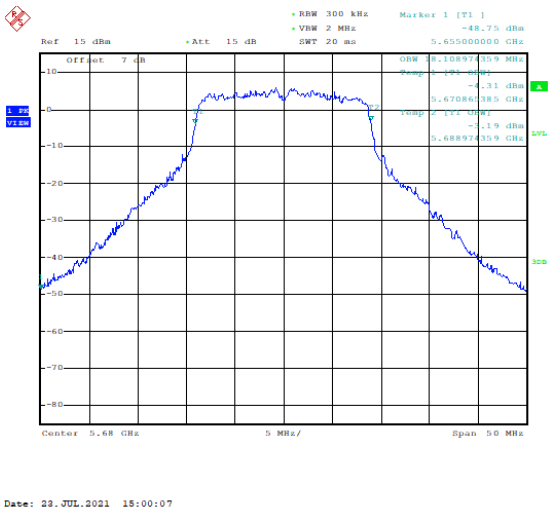
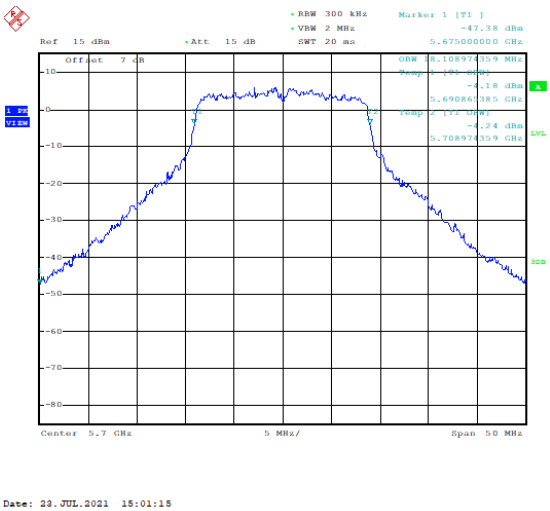
99% Occupied Bandwidth (MHz) (802.11ac-VHT20, 5260MHz)	99% Occupied Bandwidth (MHz) (802.11ac-VHT20, 5280MHz)
	
99% Occupied Bandwidth (MHz) (802.11ac-VHT20, 5320MHz)	99% Occupied Bandwidth (MHz) (802.11ac-VHT40, 5270MHz)
	

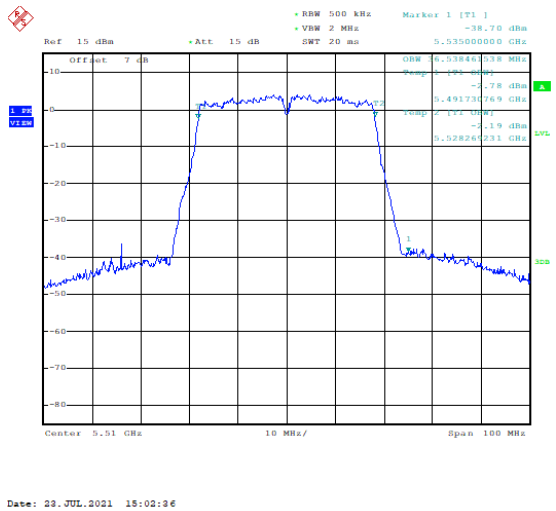
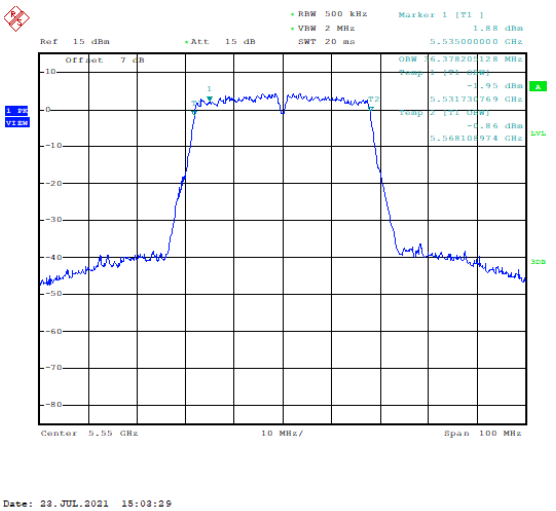
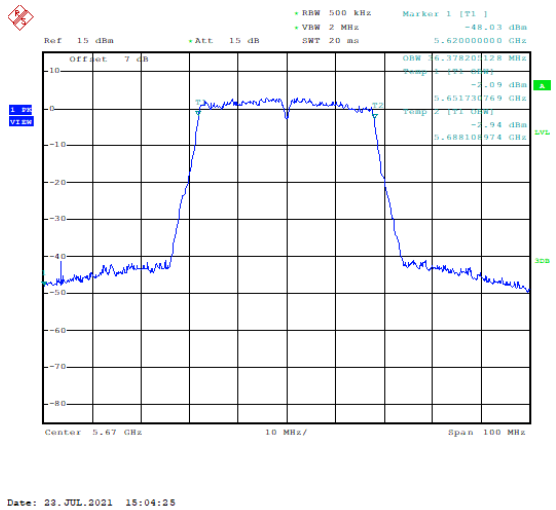
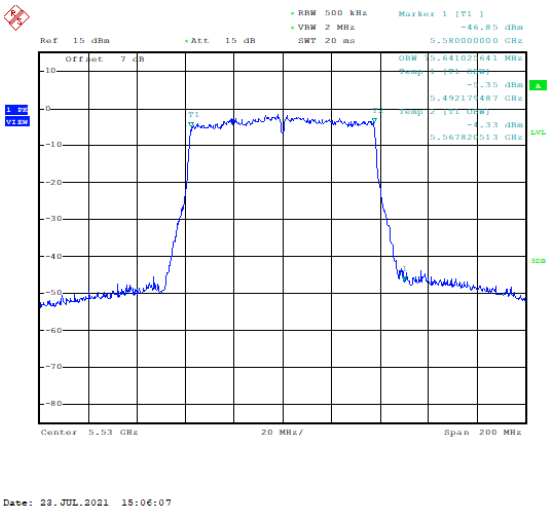
99% Occupied Bandwidth (MHz) (802.11ac-VHT40, 5310MHz)	99% Occupied Bandwidth (MHz) (802.11ac-VHT80, 5290MHz)
	

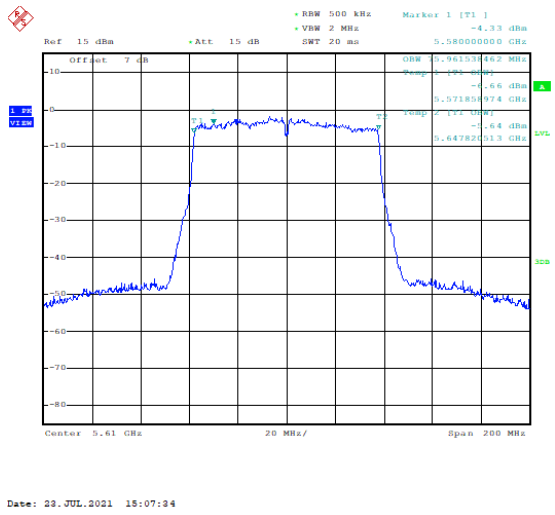
U-NII-2c:

99% Occupied Bandwidth (MHz) (802.11a, 5500MHz)	99% Occupied Bandwidth (MHz) (802.11a, 5680MHz)
	
99% Occupied Bandwidth (MHz) (802.11a, 5700MHz)	99% Occupied Bandwidth (MHz) (802.11n-HT20, 5500MHz)
	

99% Occupied Bandwidth (MHz) (802.11n-HT20, 5680MHz)	99% Occupied Bandwidth (MHz) (802.11n-HT20, 5700MHz)
	
99% Occupied Bandwidth (MHz) (802.11n-HT40, 5510MHz)	99% Occupied Bandwidth (MHz) (802.11n-HT40, 5550MHz)
	

99% Occupied Bandwidth (MHz) (802.11n-HT40, 5670MHz)	99% Occupied Bandwidth (MHz) (802.11ac-VHT20, 5500MHz)
	
99% Occupied Bandwidth (MHz) (802.11ac-VHT20, 5680MHz)	99% Occupied Bandwidth (MHz) (802.11ac-VHT20, 5700MHz)
	

99% Occupied Bandwidth (MHz) (802.11ac-VHT40, 5510MHz)	99% Occupied Bandwidth (MHz) (802.11ac-VHT40, 5550MHz)
	
99% Occupied Bandwidth (MHz) (802.11ac-VHT40, 5670MHz)	99% Occupied Bandwidth (MHz) (802.11ac-VHT80, 5530MHz)
	

99% Occupied Bandwidth (MHz) (802.11ac-VHT80, 5610MHz)	/
 	/

6.5. Band Edges Compliance

6.5.1. Band Edges - conducted

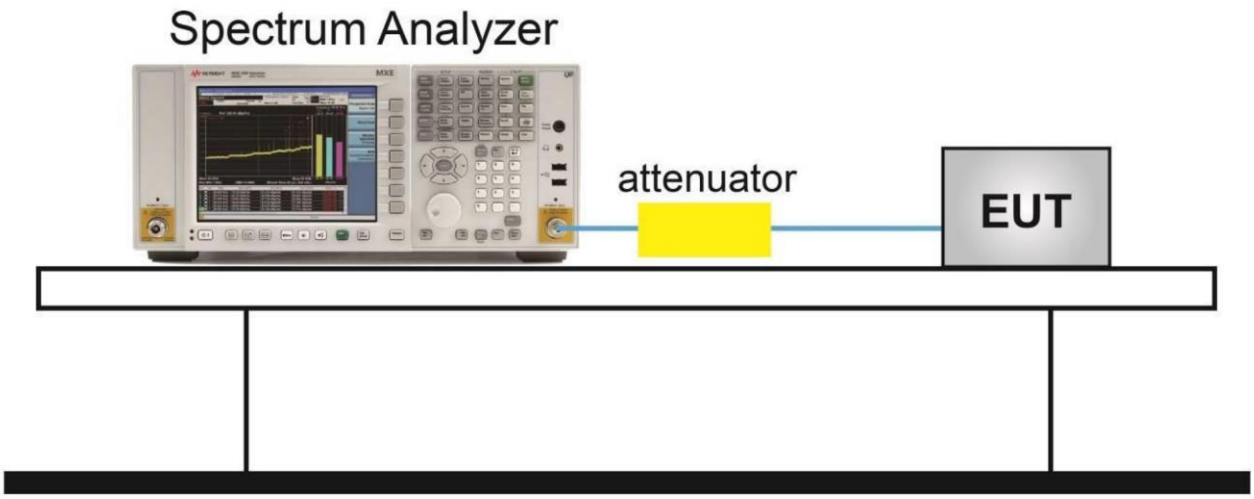
Measurement Limit:

Standard	Limit (dBm/MHz)
FCC 47 CFR Part 15.407(b)(1)	< -27
RSS-247 6.2.1.2	< -27

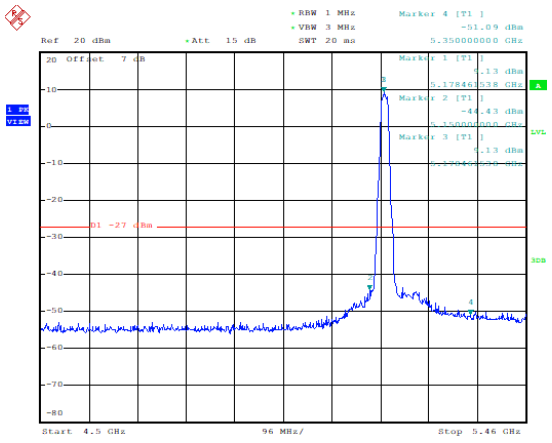
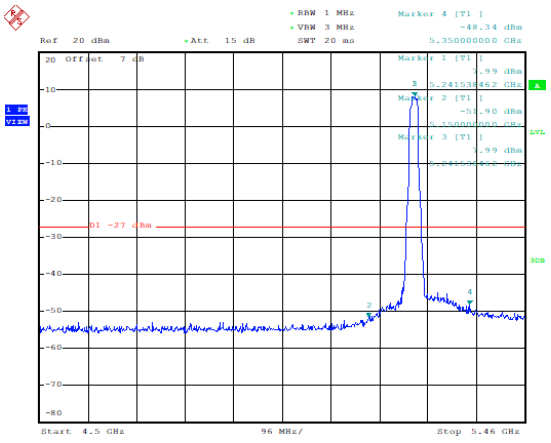
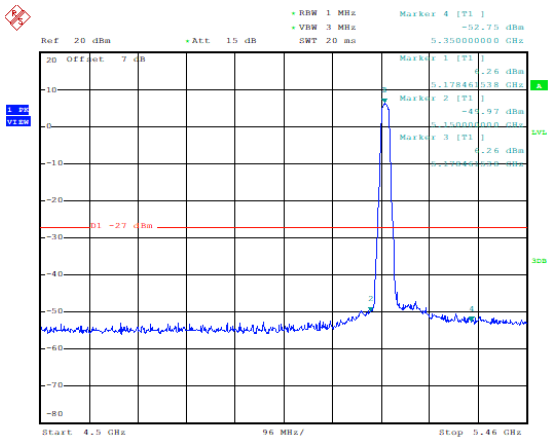
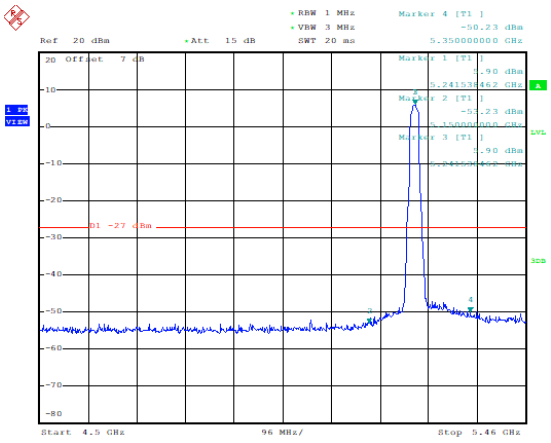
Note:The test doesn't add the antenna gain to the test plots.

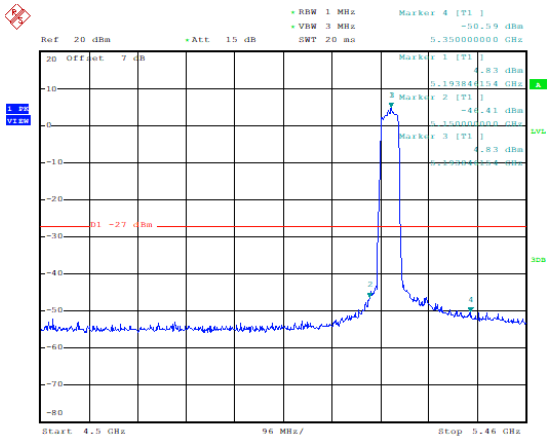
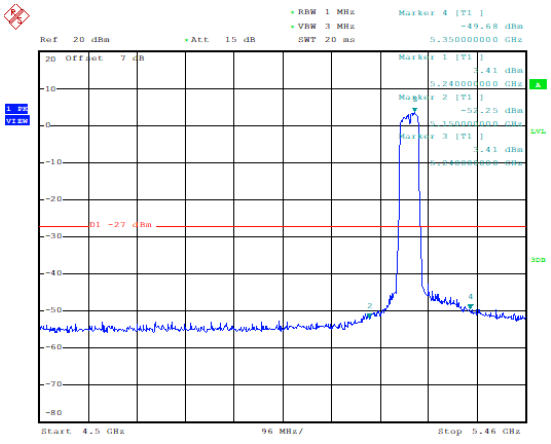
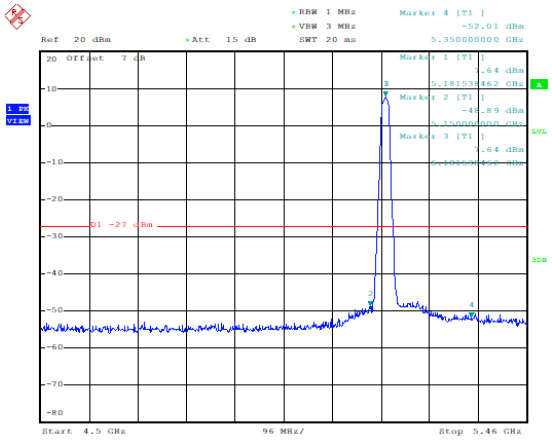
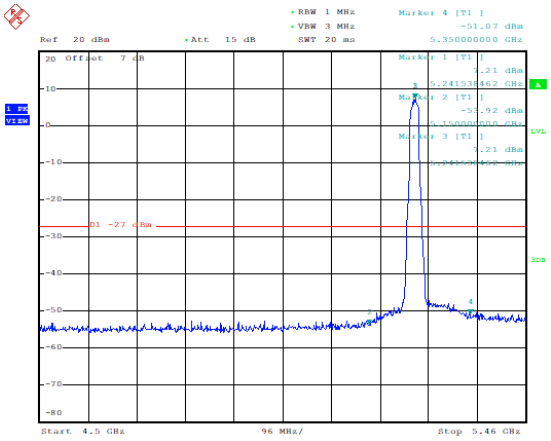
6.5.2. The measurement is made according to KDB 789033

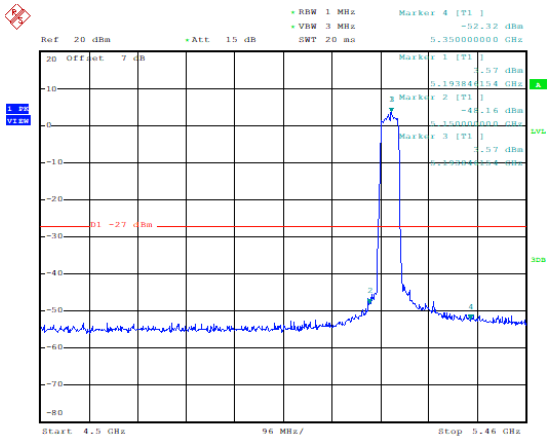
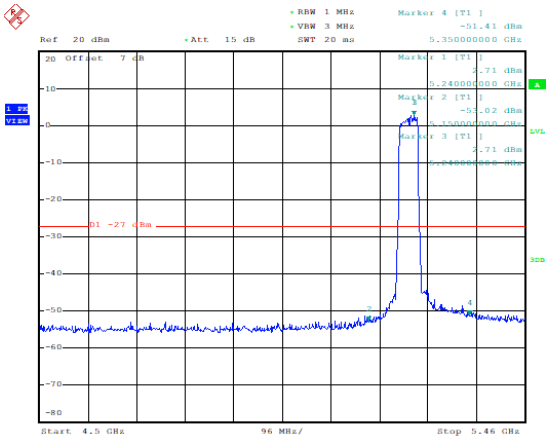
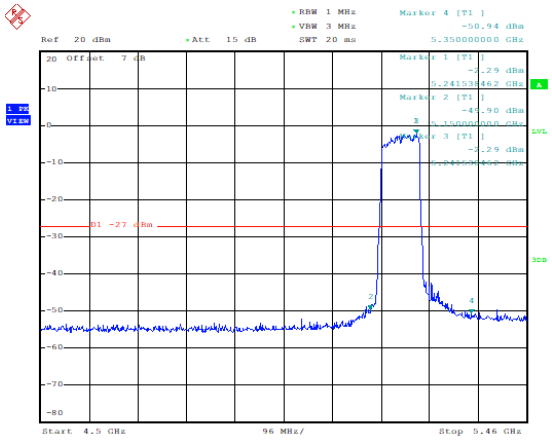
6.5.3. Test Setup



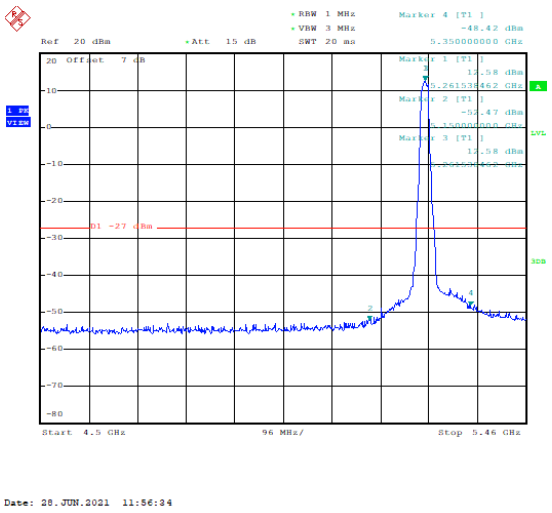
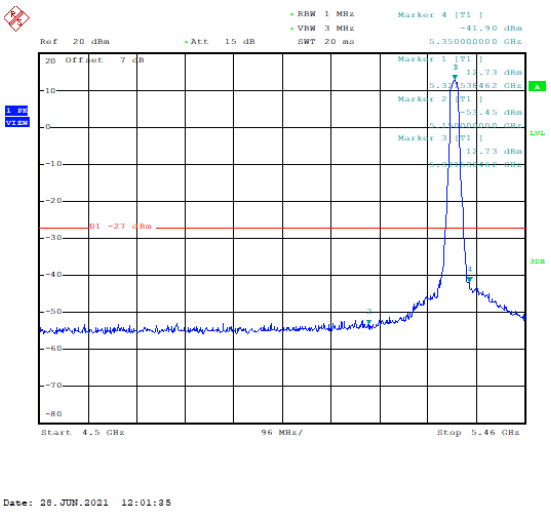
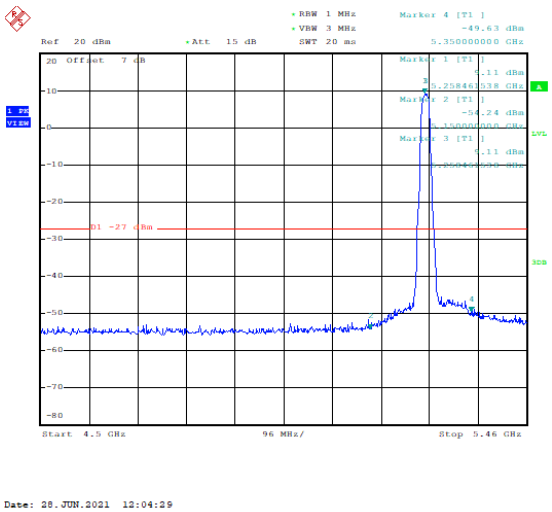
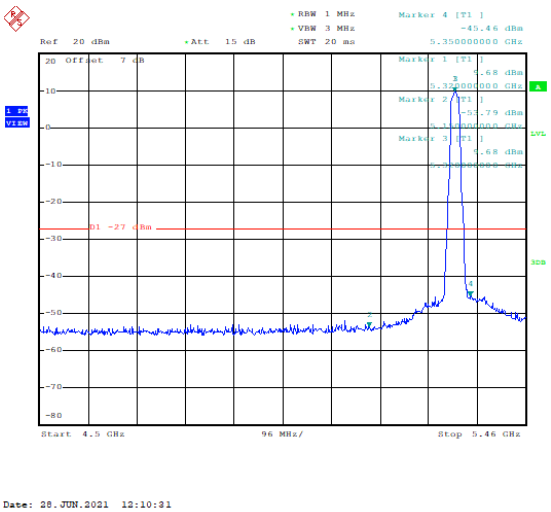
U-NII-1:

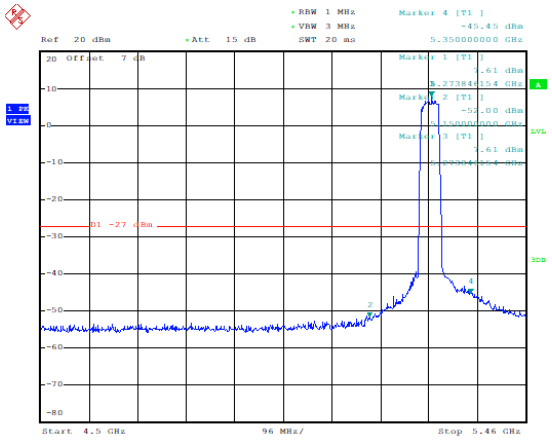
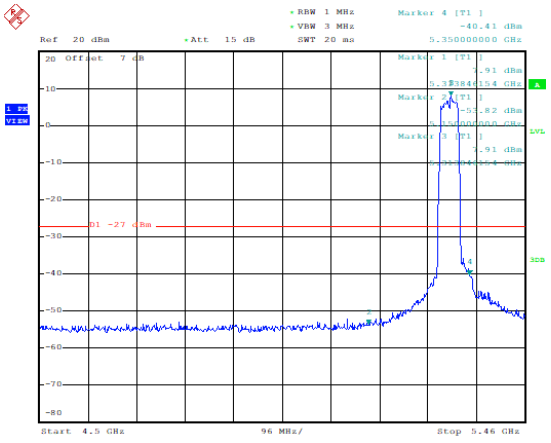
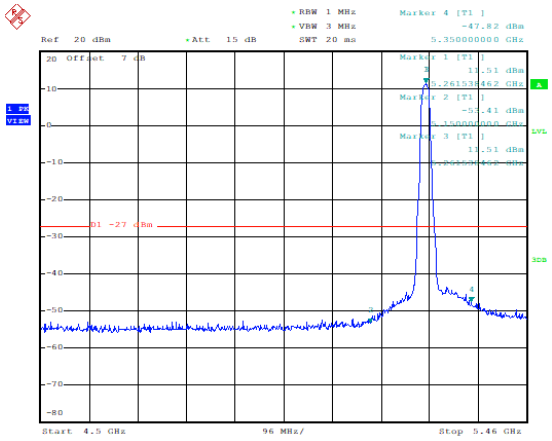
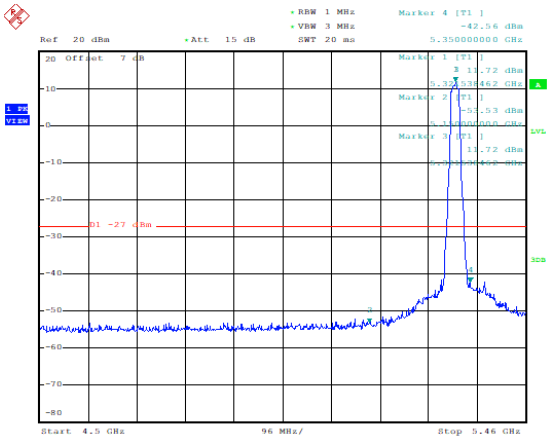
Band Edges (802.11a, 5180MHz)	Band Edges (802.11a, 5240MHz)
	
Band Edges(802.11n-HT20), 5180MHz)	Band Edges (802.11n-HT20), 5240MHz)
	

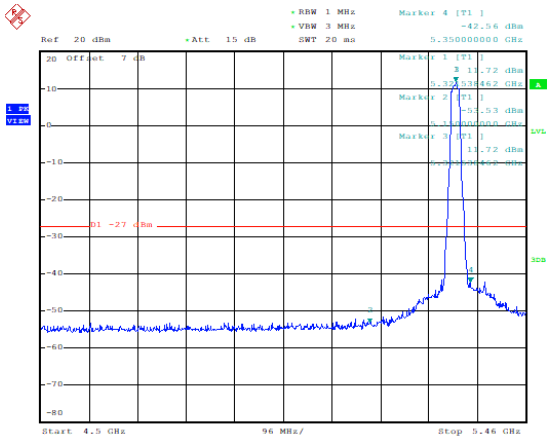
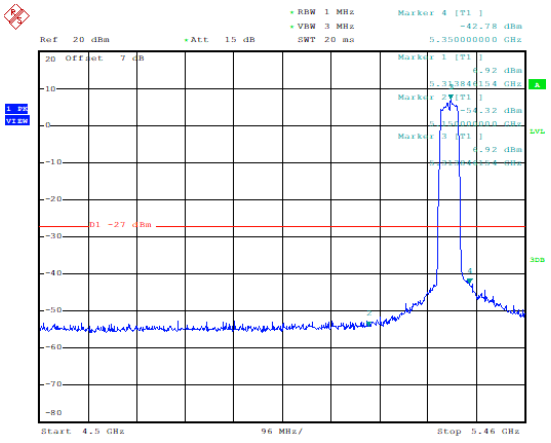
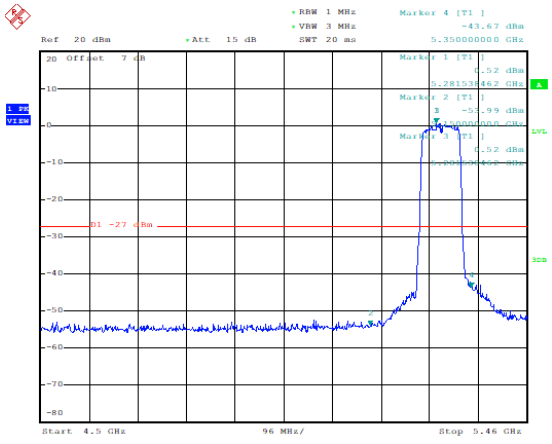
Band Edges(802.11n-HT40), 5190MHz)	Band Edges (802.11n-HT40), 5230MHz)
	
Band Edges (802.11ac-VHT20), 5180MHz)	Band Edges (802.11ac-VHT20), 5240MHz)
	

Band Edges (802.11ac-VHT40), 5190MHz)	Band Edges (802.11ac-VHT40), 5230MHz)
	
Band Edges (802.11ac-VHT80), 5210MHz)	/
	/

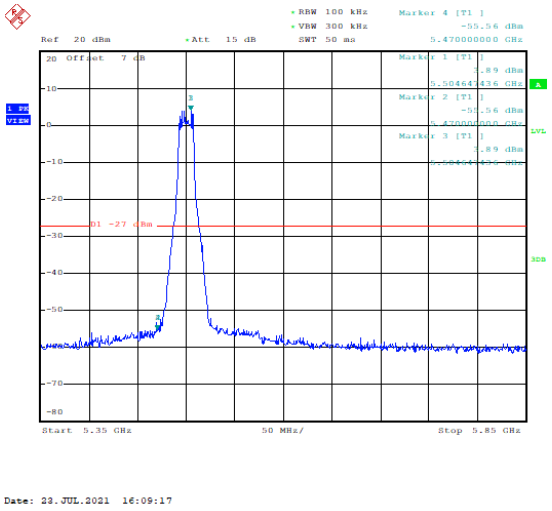
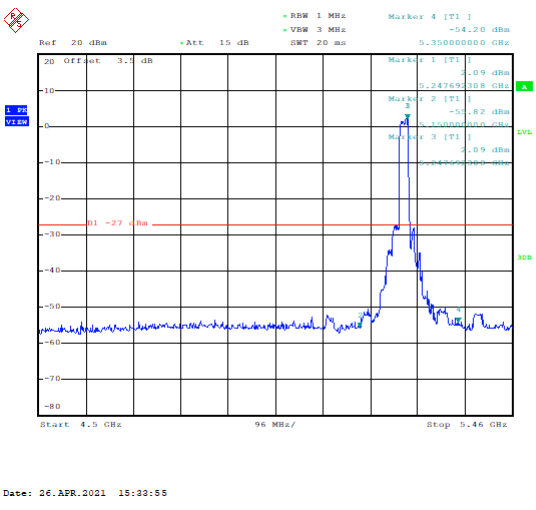
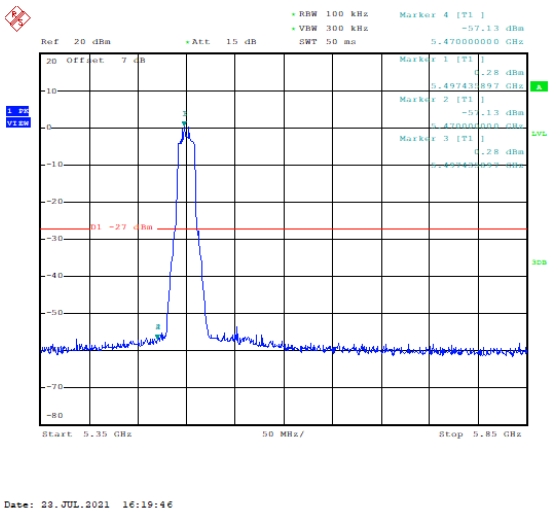
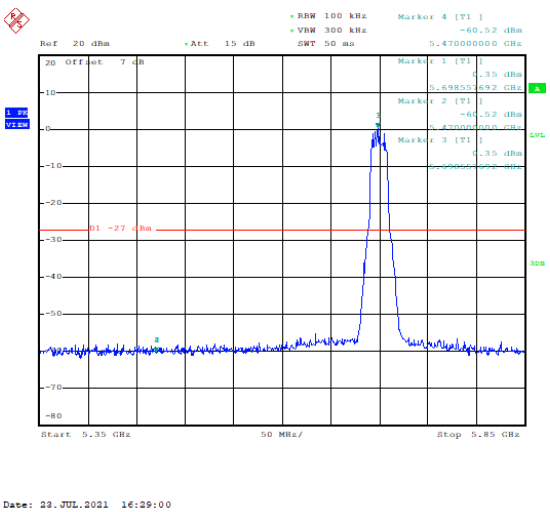
U-NII-2a:

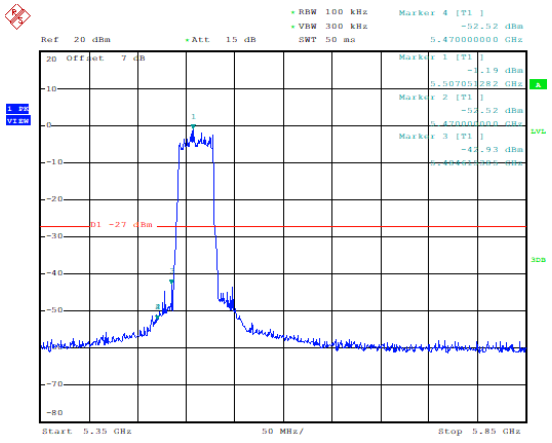
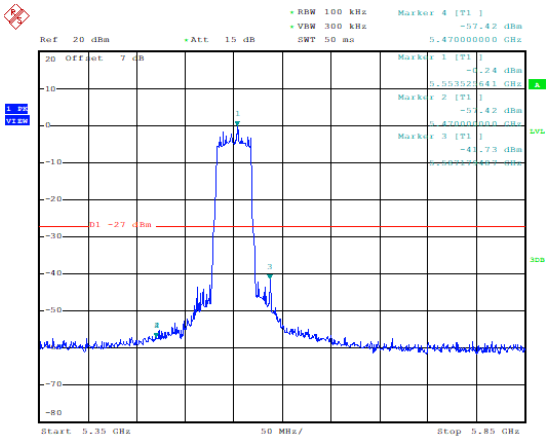
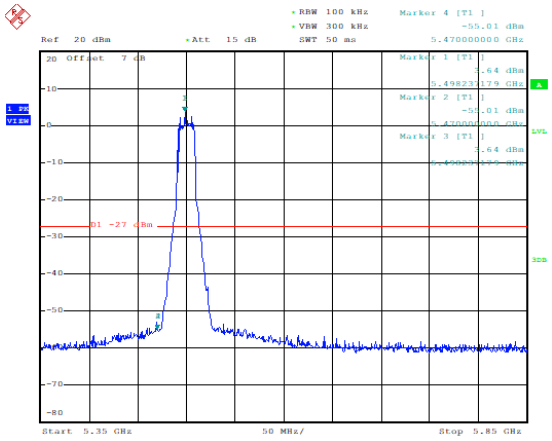
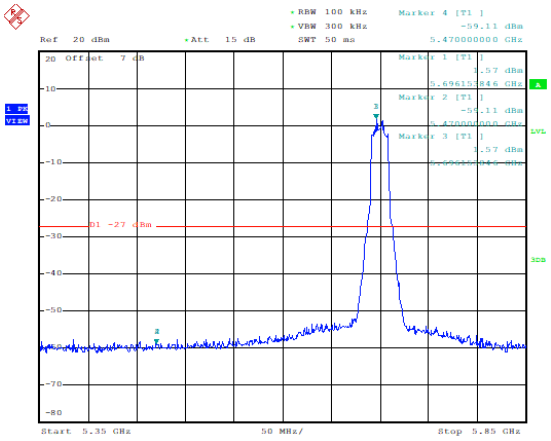
Band Edges (802.11a, 5260MHz)	Band Edges (802.11a, 5320MHz)
	
Band Edges(802.11n-HT20), 5260MHz)	Band Edges (802.11n-HT20), 5320MHz)
	

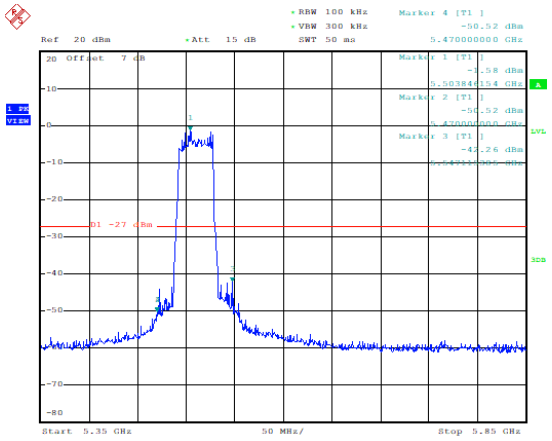
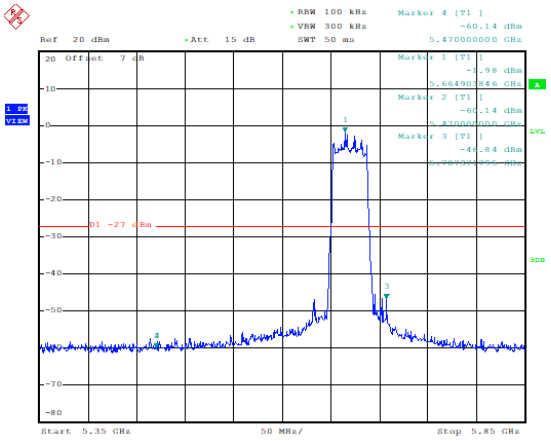
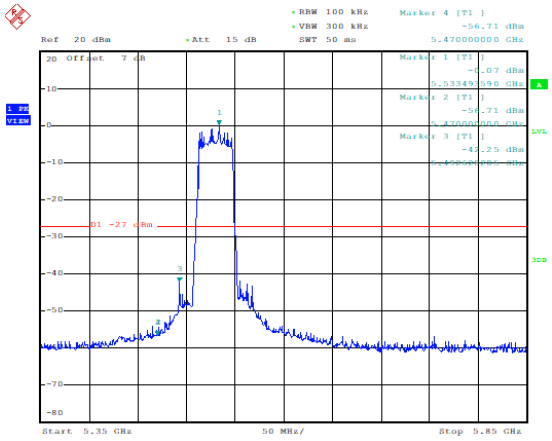
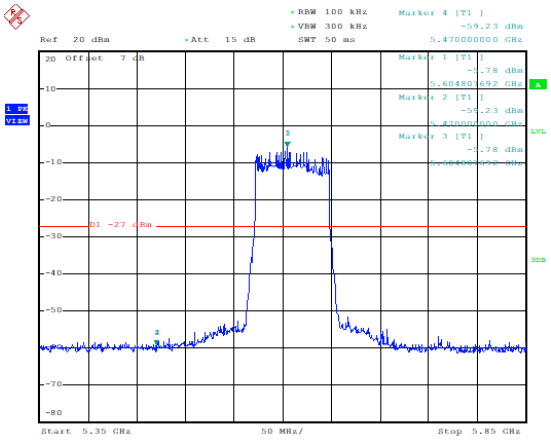
Band Edges(802.11n-HT40), 5270MHz)	Band Edges (802.11n-HT40), 5310MHz)
	
Band Edges (802.11ac-VHT20), 5260MHz)	Band Edges (802.11ac-VHT20), 5320MHz)
	

Band Edges (802.11ac-VHT40), 5270MHz)	Band Edges (802.11ac-VHT40), 5310MHz)
	
Band Edges (802.11ac-VHT80), 5290MHz)	/
	/

U-NII-2c:

Band Edges (802.11a, 5500MHz)	Band Edges (802.11a, 5700MHz)
	
Band Edges(802.11n-HT20), 5500MHz)	Band Edges (802.11n-HT20), 5700MHz)
	

Band Edges(802.11n-HT40), 5510MHz)	Band Edges (802.11n-HT40), 5670MHz)
	
Band Edges (802.11ac-VHT20), 5500MHz)	Band Edges (802.11ac-VHT20), 5700MHz)
	

Band Edges (802.11ac-VHT40), 5510MHz	Band Edges (802.11ac-VHT40), 5670MHz
	
Band Edges (802.11ac-VHT80), 5530MHz)	Band Edges (802.11ac-VHT80), 5610MHz
	

6.5.2. Band Edges - Radiated

6.5.2.1 Measurement Limit:

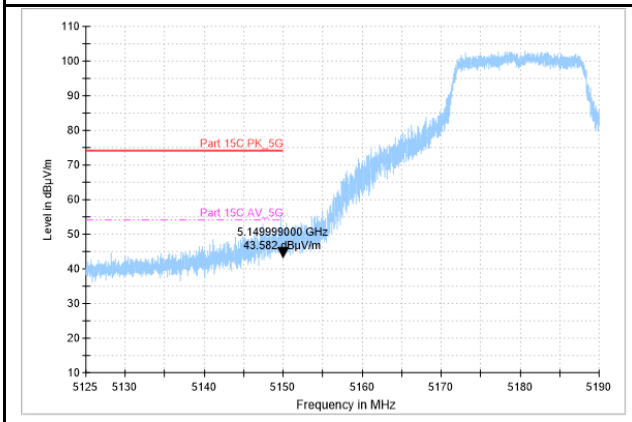
Standard	Limit (dB μ V/m)	
FCC 47 CFR Part 15.209 & 15.407(b)(9),(10)	Peak	74
	Average	54
RSS-Gen 8.9,8.10 RSS-247 6.2.1.2	Peak	74
	Average	54

6.5.2.2 The measurement is made according to KDB 789033.

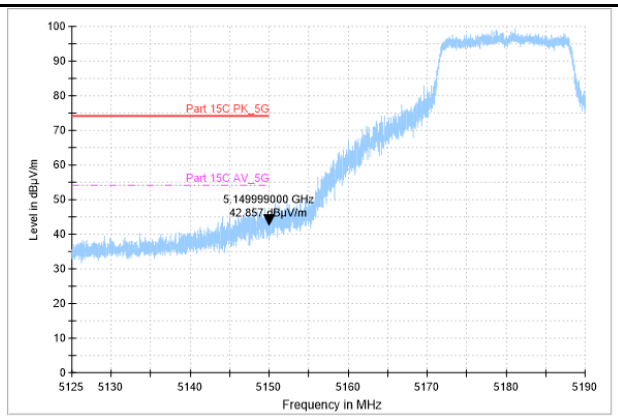
Measurement Result
U-NII-1:

Band Edges (802.11a, 5180MHz)-H

Peak detector

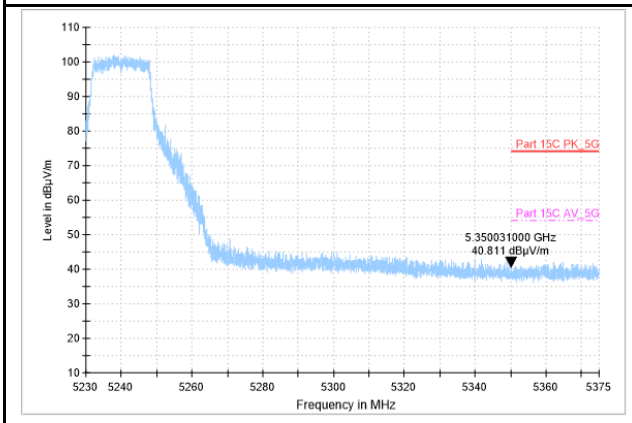


AV detector

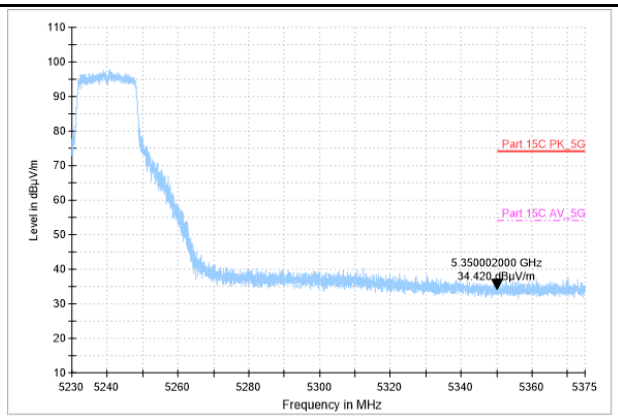


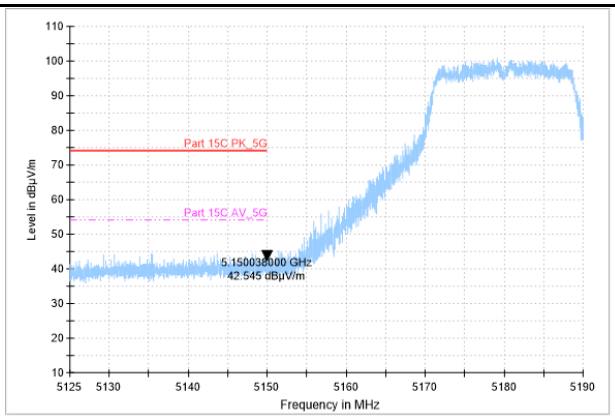
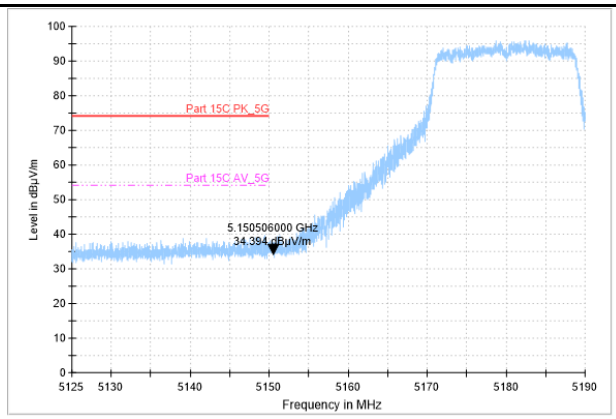
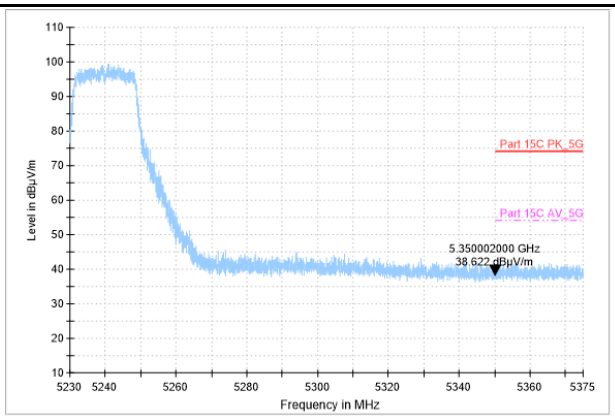
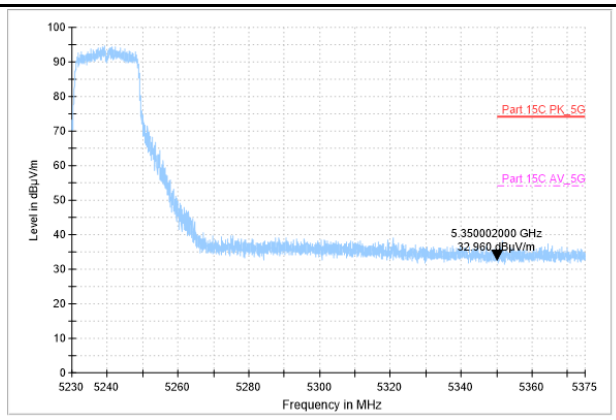
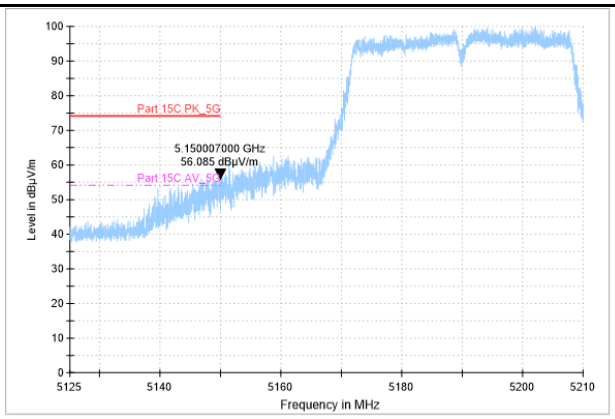
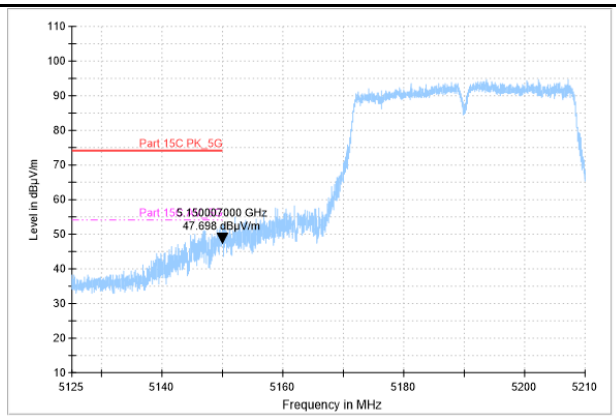
Band Edges (802.11a, 5240MHz)-V

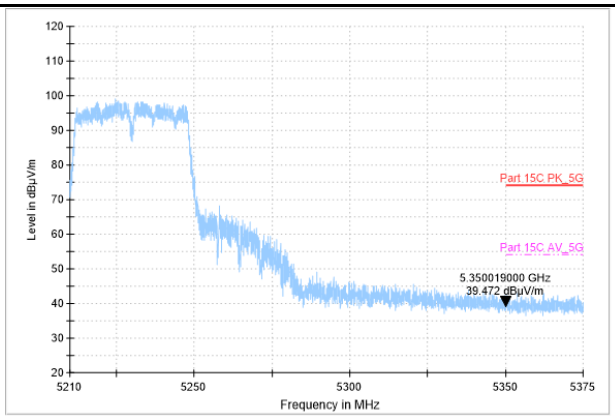
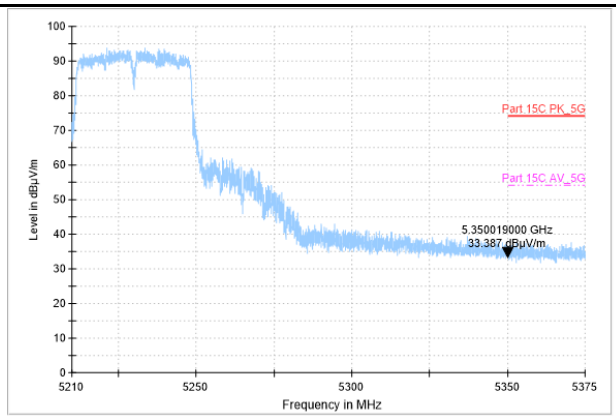
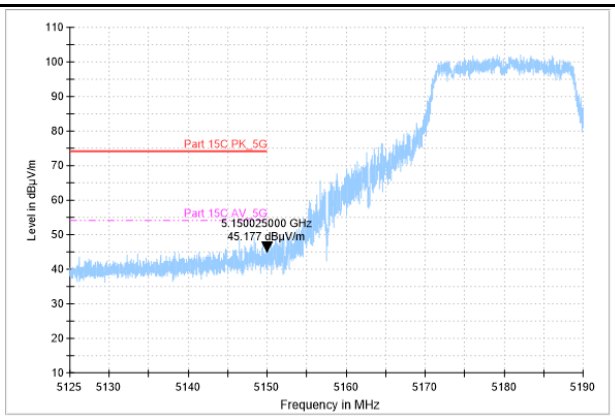
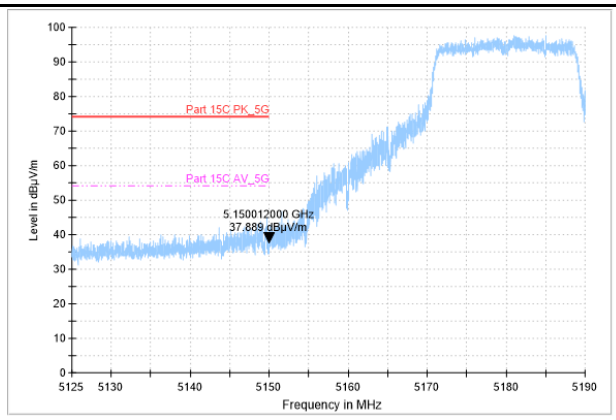
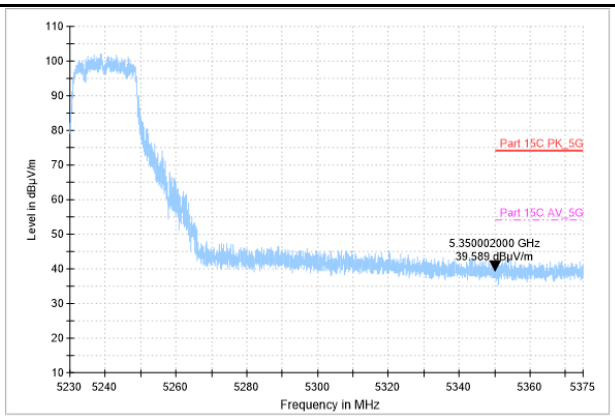
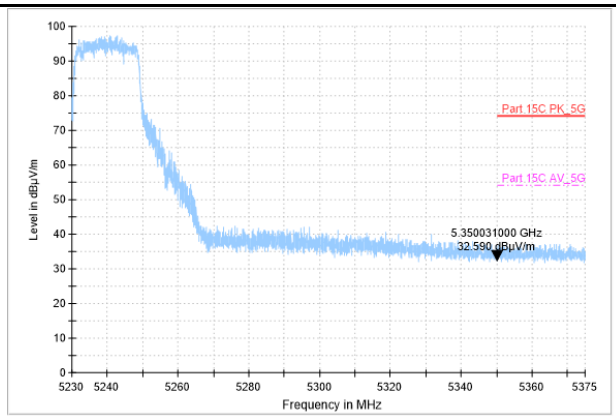
Peak detector

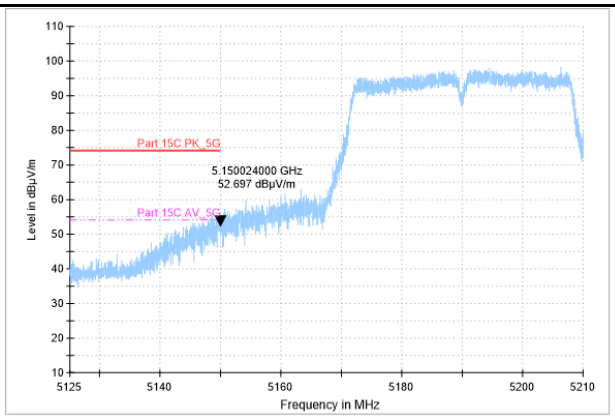
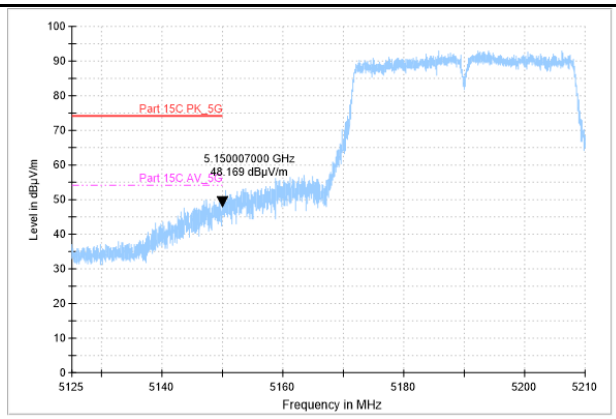
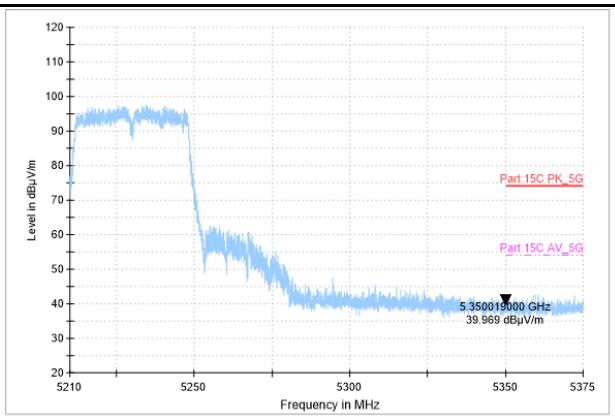
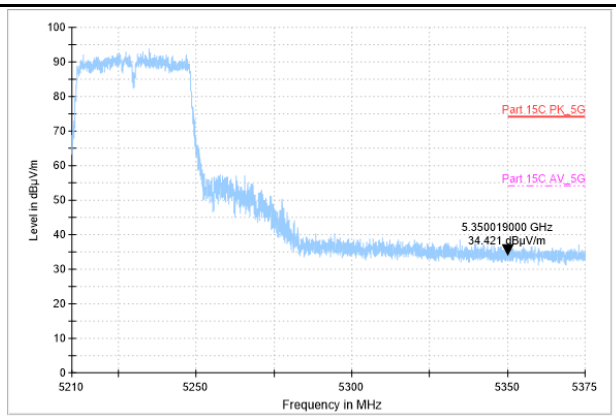
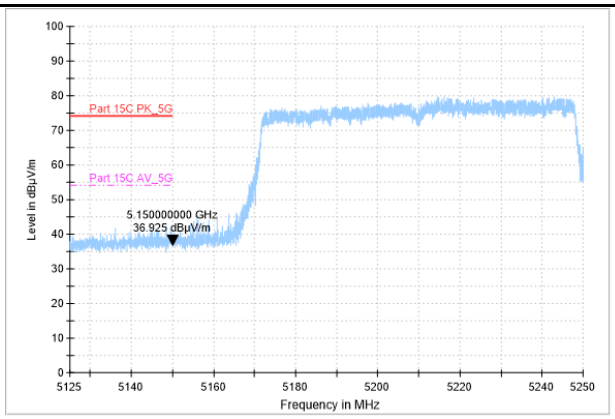
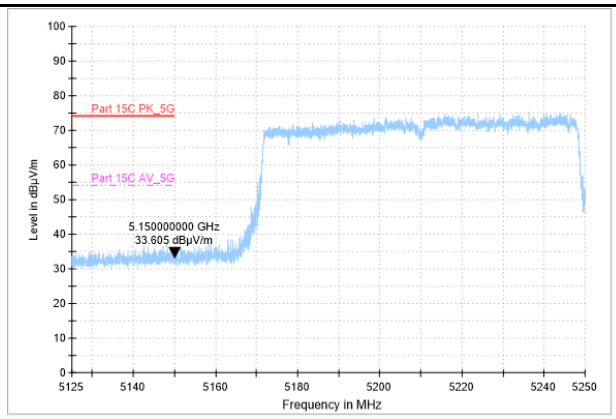


AV detector

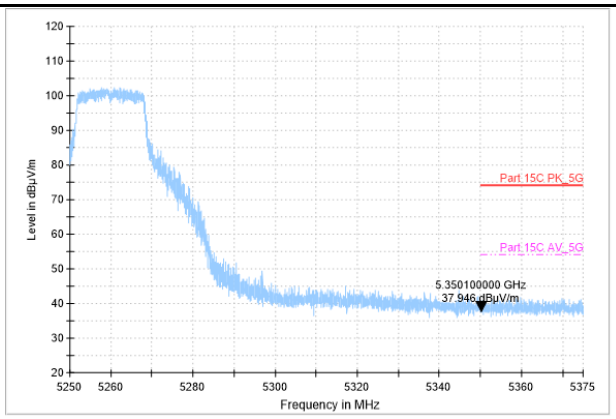
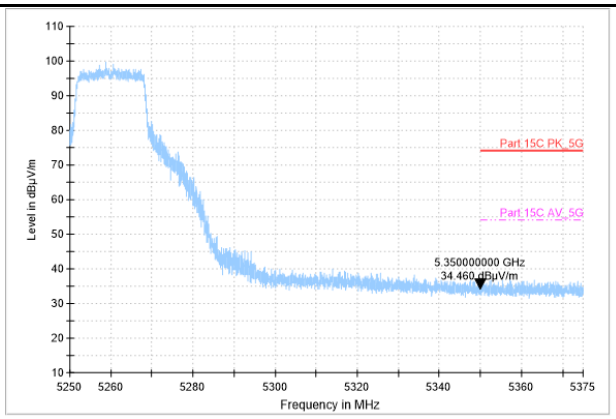
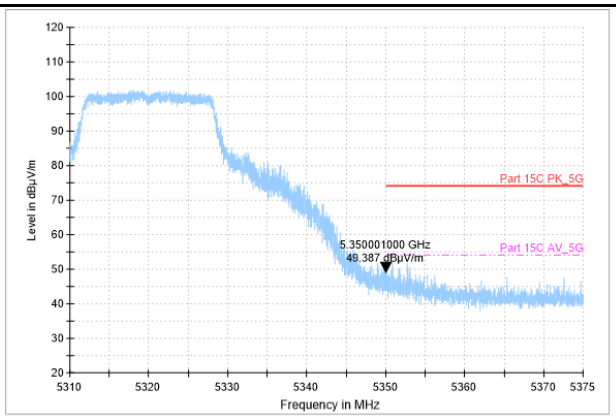
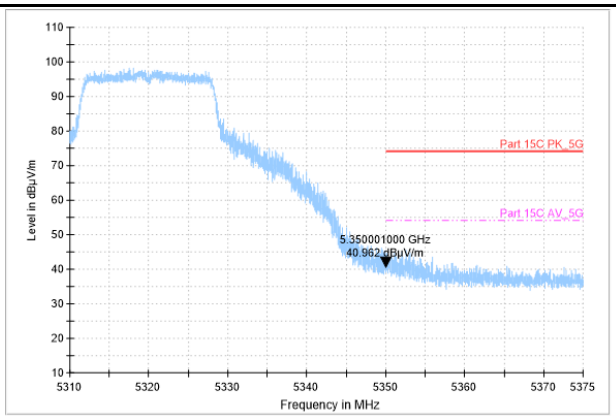


Band Edges (802.11n-HT20, 5180MHz)-V	
Peak detector	AV detector
	
Band Edges (802.11n-HT20, 5240MHz)-H	
Peak detector	AV detector
	
Band Edges (802.11n-HT40, 5190MHz)-H	
Peak detector	AV detector
	

Band Edges (802.11n-HT40, 5230MHz)-V	
Peak detector	AV detector
	
Band Edges (802.11ac-HT20, 5180MHz)-H	
Peak detector	AV detector
	
Band Edges (802.11ac-HT20, 5240MHz)-V	
Peak detector	AV detector
	

Band Edges (802.11ac-HT40, 5190MHz)-H	
Peak detector	AV detector
	
Band Edges (802.11ac-HT40, 5230MHz)-V	
Peak detector	AV detector
	
Band Edges (802.11ac-HT80, 5210MHz)-V	
Peak detector	AV detector
	

U-NII-2a:

Band Edges (802.11a, 5260MHz)-V	
Peak detector	AV detector
	
Band Edges (802.11a, 5320MHz)-H	
Peak detector	AV detector
	
Band Edges (802.11n-HT20, 5260MHz)-H	
Peak detector	AV detector