



**SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch**

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Report No.: SZEM180400245803
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FCC REPORT

Application No: SZEM1804002458CR
Applicant: NGSTB Company Limited
Address of Applicant: F11,BLOCK B,ZhiYuan Bldg,No. 89 Industry 8th Road Nanshan District,
Shenzhen, 518067, China
Manufacturer: ABOX42 GmbH
Address of Manufacturer: 76227 Karlsruhe Germany
Factory: Aztech Communication Device (DG) Ltd
Address of Factory: Jiu Jiang Shui Village,Chang Ping Town,Dong Guan City,GUangdong
Province
Product Name: Set Top Box for Smart TV/OTT/Hybrid
Model No.(EUT): M30WL.11
FCC ID: 2APK9-M30WL11
Trade Mark: ABOX42 GmbH
Standards: 47 CFR Part 15, Subpart E 15.407
Date of Receipt: 2016-12-26
Date of Test: 2016-12-26 to 2017-03-03
Date of Issue: 2018-04-08

Test Result:	PASS *
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. * In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:



Keny Xu
EMC Laboratory Manager

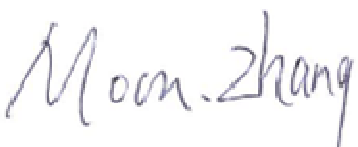
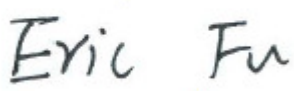
The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards. Any mention of SGS International Electrical Approvals or testing done by SGS International Electrical Approvals in connection with, distribution or use of the product described in this report must be approved by SGS International Electrical Approvals in writing.

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2 Version

Revision Record				
Version	Chapter	Date	Modifier	Remark
01		2018-04-08		Original

Authorized for issue by:				
				
		<hr/>		
		(Moon Zhang) /Project Engineer		
				
		<hr/>		
		(Eric Fu) /Reviewer		



3 Test Summary

Test Item	Test Requirement	Test method	Result
Antenna Requirement	47 CFR Part 15, Subpart E 15.407	N/A	PASS
AC Power Line Conducted Emission	47 CFR Part 15, Subpart E 15.407	ANSI C63.10 (2013) Section 6.2	PASS
Conducted Output Power	47 CFR Part 15, Subpart E 15.407	KDB 789033 D02 II E	PASS
6dB Occupied Bandwidth	47 CFR Part 15, Subpart E 15.407	KDB 789033 D02 II C 2	PASS
26 dB Emission Bandwidth & 99% Occupied Bandwidth	47 CFR Part 15, Subpart E 15.407	KDB 789033 D02 II C 1	PASS
Power Spectral Density	47 CFR Part 15, Subpart E 15.407	KDB 789033 D02 II F	PASS
Duty cycle	47 CFR Part 15, Subpart E 15.407	ANSI C63.10 (2013) Section 11.6	N/A
Radiated Spurious Emissions	47 CFR Part 15, Subpart E 15.407	KDB 789033 D02 II G	PASS
Restricted bands around fundamental frequency (Radiated Emission)	47 CFR Part 15, Subpart E 15.407	KDB 789033 D02 II G	PASS



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5 General Information

5.1 General Description of EUT

Operation Frequency:	Band	Mode	Frequency Range(MHz)	Number of channels
	UNII Band I	IEEE 802.11a/n(HT20)/ac(HT20)	5180-5240	4
		IEEE 802.11n(HT40)/ac(HT40)	5190-5230	2
		IEEE 802.11ac(HT80)	5210	1
	UNII Band II-A	IEEE 802.11a/n(HT20)/ac(HT20)	5260-5320	4
		IEEE 802.11n(HT40)/ac(HT40)	5270-5310	2
		IEEE 802.11ac(HT80)	5290	1
	UNII Band II-C	IEEE 802.11a/n(HT20)/ac(HT20)	5500-5700	11
		IEEE 802.11n(HT40)/ac(HT40)	5510-5670	5
		IEEE 802.11ac(HT80)	5530	2
UNII Band III	IEEE 802.11a/n(HT20)/ac(HT20)	5745-5825	5	
	IEEE 802.11n(HT40)/ac(HT40)	5755-5795	2	
	IEEE 802.11ac(HT80)	5775	1	
Type of Modulation:	IEEE 802.11a: OFDM(BPSK/QPSK/16QAM/64QAM) IEEE 802.11n: OFDM(BPSK/QPSK/16QAM/64QAM) IEEE 802.11ac: OFDM (BPSK/QPSK/16QAM/64QAM/256QAM)			
Sample Type:	Mobile production			
Antenna Type:	Embedded Antenna			
Antenna Gain:	6dBi (2x2 MIMO)			
Power Supply:	AC/DC Adapter: MODEL: F18W6-050250SPAU INPUT:AC100-240V, 50/60Hz, 0.6A OUTPUT: DC 5V, 2.5A			
Cable:	HDMI Cable: 150cm unshielded LAN Cable: 200cm unshielded			



Frequency Range of Operation Operating Frequency Range (in each Band)	Number of Measurement Frequencies Required	Location of Measurement Frequency in Band of Operation
1 MHz or less	1	centre
1 MHz to 10 MHz	2	1 near high end, 1 near low end
Greater than 10 MHz	3	1 near high end, 1 near centre

For UNII Band I:

Mode	Channel	Frequency(MHz)
IEEE 802.11a/n/ac 20MHz	The Lowest channel	5180
	The Middle channel	5220
	The Highest channel	5240
IEEE 802.11n/ac 40MHz	The Lowest channel	5190
	The Highest channel	5230
IEEE 802.11ac 80MHz	The Middle channel	5210

For UNII Band II-A:

Mode	Channel	Frequency(MHz)
IEEE 802.11a/n/ac 20MHz	The Lowest channel	5260
	The Middle channel	5300
	The Highest channel	5320
IEEE 802.11n/ac 40MHz	The Lowest channel	5270
	The Highest channel	5310
IEEE 802.11ac 80MHz	The Middle channel	5290



For UNII Band II-C:

Mode	Channel	Frequency(MHz)
IEEE 802.11a/n/ac 20MHz	The Lowest channel	5500
	The Middle channel	5580
	The Highest channel	5700
IEEE 802.11n/ac 40MHz	The Lowest channel	5510
	The Middle channel	5550
	The Highest channel	5670
IEEE 802.11ac 80MHz	The Lowest channel	5530

For UNII Band III:

Mode	Channel	Frequency(MHz)
IEEE 802.11a/n/ac 20MHz	The Lowest channel	5745
	The Middle channel	5785
	The Highest channel	5825
IEEE 802.11n/ac 40MHz	The Lowest channel	5755
	The Highest channel	5795
IEEE 802.11ac 80MHz	The Middle channel	5775



5.2 Test Environment and Mode

Operating Environment:	
Temperature:	25.0 °C
Humidity:	55 % RH
Atmospheric Pressure:	1010 mbar
Test mode:	
Transmitting mode:	Keep the EUT in transmitting mode with all kind of modulation and all kind of data rate.

5.3 Description of Support Units

The EUT has been tested independent unit.

5.4 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen Branch,
No. 1 Workshop, M-10, Middle Section, Science & Technology Park, Shenzhen, Guangdong, China.
518057.

Tel: +86 755 2601 2053 Fax: +86 755 2671 0594

No tests were sub-contracted.



5.5 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

- **CNAS (No. CNAS L2929)**

CNAS has accredited SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch EMC Lab to ISO/IEC 17025:2005 General Requirements for the Competence of Testing and Calibration Laboratories (CNAS-CL01 Accreditation Criteria for the Competence of Testing and Calibration Laboratories) for the competence in the field of testing.

- **A2LA (Certificate No. 3816.01)**

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory is accredited by the American Association for Laboratory Accreditation(A2LA). Certificate No. 3816.01.

- **VCCI**

The 3m Fully-anechoic chamber for above 1GHz, 10m Semi-anechoic chamber for below 1GHz, Shielded Room for Mains Port Conducted Interference Measurement and Telecommunication Port Conducted Interference Measurement of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: G-20026, R-14188, C-12383 and T-11153 respectively.

- **FCC –Designation Number: CN1178**

SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen EMC Laboratory has been recognized as an accredited testing laboratory.

Designation Number: CN1178. Test Firm Registration Number: 406779.

- **Industry Canada (IC)**

Two 3m Semi-anechoic chambers and the 10m Semi-anechoic chamber of SGS-CSTC Standards Technical Services Co., Ltd. Shenzhen Branch EMC Lab have been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 4620C-1, 4620C-2, 4620C-3.

5.6 Deviation from Standards

None.

5.7 Abnormalities from Standard Conditions

None.

5.8 Other Information Requested by the Customer

None.



5.9 Equipment List

Conducted Emission						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. Date (yyyy-mm-dd)	Cal. Due date (yyyy-mm-dd)
1	Shielding Room	ZhongYu Electron	GB-88	SEM001-06	2016-05-13	2017-05-13
2	LISN	Rohde & Schwarz	ENV216	SEM007-01	2016-10-09	2017-10-09
3	LISN	ETS-LINDGREN	3816/2	SEM007-02	2016-04-25	2017-04-25
4	8 Line ISN	Fischer Custom Communications Inc.	FCC-TLISN-T8-02	EMC0120	2016-09-28	2017-09-28
5	4 Line ISN	Fischer Custom Communications Inc.	FCC-TLISN-T4-02	EMC0121	2016-09-28	2017-09-28
6	2 Line ISN	Fischer Custom Communications Inc.	FCC-TLISN-T2-02	EMC0122	2016-09-28	2017-09-28
7	EMI Test Receiver	Rohde & Schwarz	ESCI	SEM004-02	2016-04-25	2017-04-25
8	DC Power Supply	Zhao Xin	RXN-305D	SEM011-02	2016-10-09	2017-10-09
9	Coaxial Cable	SGS	N/A	SEM024-01	2016-07-13	2017-07-12

RF connected test						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. Date (yyyy-mm-dd)	Cal. Due date (yyyy-mm-dd)
1	DC Power Supply	ZhaoXin	RXN-305D	SEM011-02	2016-10-09	2017-10-09
2	Spectrum Analyzer	Rohde & Schwarz	FSP	SEM004-06	2016-10-09	2017-10-09
3	Signal Generator	Rohde & Schwarz	SML03	SEM006-02	2016-04-25	2017-04-25
4	Power Meter	Rohde & Schwarz	NRVS	SEM014-02	2016-10-09	2017-10-09
5	Coaxial Cable	SGS	N/A	SEM031-02	2016-07-13	2017-07-12



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Shenzhen Branch

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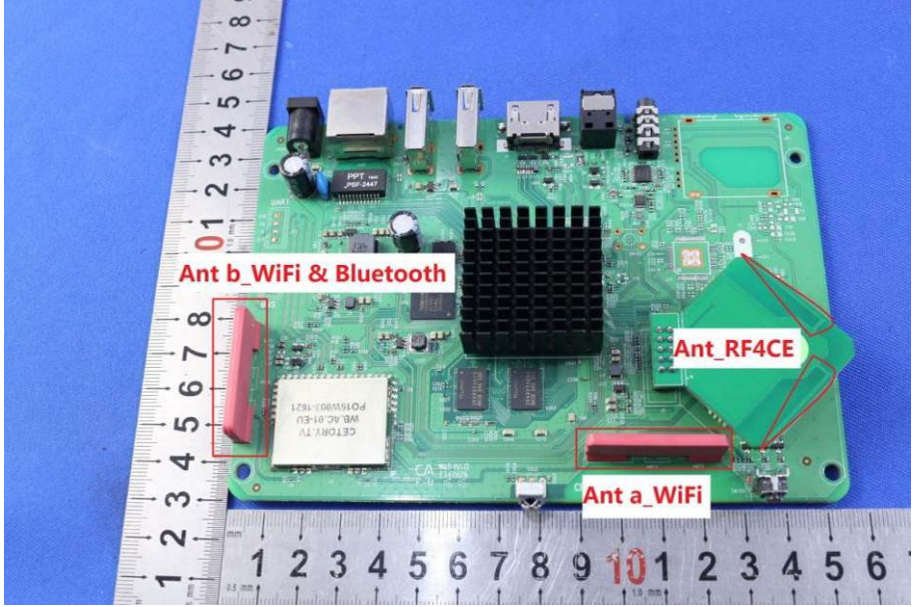
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RE in Chamber						
Item	Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. Date (yyyy-mm-dd)	Cal. Due date (yyyy-mm-dd)
1	3m Chamber	AUDIX	N/A	SEM001-02	2016-05-13	2017-05-13
2	EXA Spectrum Analyzer	Agilent Technologies Inc	N9010A	SEM004-09	2016-07-19	2017-07-19
3	BiConiLog Antenna (26-3000MHz)	ETS-Lindgren	3142C	SEM003-02	2014-11-15	2017-11-15
4	Amplifier (0.1-1300MHz)	HP	8447D	SEM005-02	2016-10-09	2017-10-09
5	Horn Antenna (1-18GHz)	Rohde & Schwarz	HF907	SEM003-07	2015-06-14	2018-06-14
6	Horn Antenna (18-26GHz)	ETS-Lindgren	3160	SEM003-12	2014-11-24	2017-11-24
7	Horn Antenna(26GHz-40GHz)	A.H.Systems, inc.	SAS-573	SEM003-13	2015-02-12	2018-02-12
8	Low Noise Amplifier	Black Diamond Series	BDLNA-0118-352810	SEM005-05	2016-10-09	2017-10-09
9	Band filter	Amindeon	Asi 3314	SEM023-01	N/A	N/A
10	Coaxial Cable	SGS	N/A	SEM026-01	2016-07-13	2017-07-12

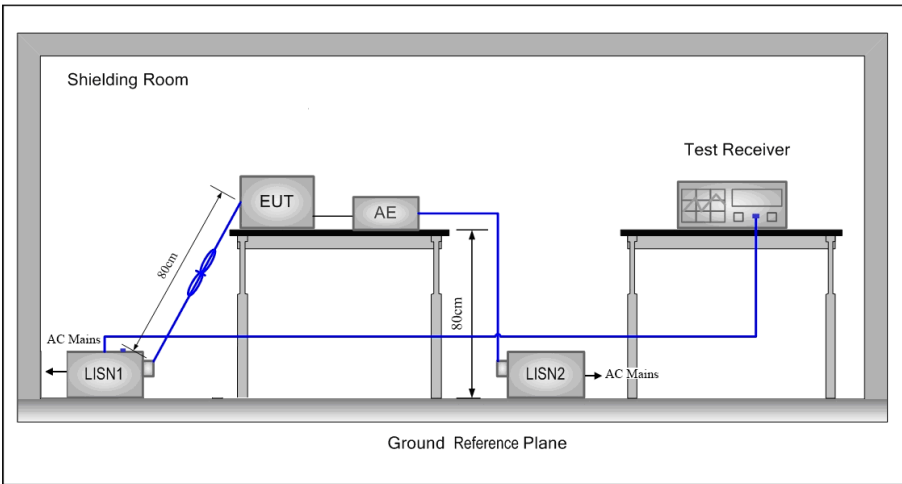
Note: The calibration interval is one year, all the instruments are valid.

6 Test results and Measurement Data

6.1 Antenna Requirement

Test requirement:	47 CFR Part 15, Subpart C 15.203
EUT Antenna:	
<p>The antenna is integrated antenna and no consideration of replacement. The best case gain of the antenna is 6dBi.</p>	

6.2 Conducted Emissions

Test Requirement:	47 CFR Part 15, Subpart C 15.207 & 15.407 b(6)														
Test Method:	ANSI C63.10 (2013) Section 6.2														
Test Frequency Range:	150kHz to 30MHz														
Limit:	<table border="1"> <thead> <tr> <th rowspan="2">Frequency range (MHz)</th> <th colspan="2">Limit (dBuV)</th> </tr> <tr> <th>Quasi-peak</th> <th>Average</th> </tr> </thead> <tbody> <tr> <td align="center">0.15-0.5</td> <td align="center">66 to 56*</td> <td align="center">56 to 46*</td> </tr> <tr> <td align="center">0.5-5</td> <td align="center">56</td> <td align="center">46</td> </tr> <tr> <td align="center">5-30</td> <td align="center">60</td> <td align="center">50</td> </tr> </tbody> </table>	Frequency range (MHz)	Limit (dBuV)		Quasi-peak	Average	0.15-0.5	66 to 56*	56 to 46*	0.5-5	56	46	5-30	60	50
	Frequency range (MHz)		Limit (dBuV)												
		Quasi-peak	Average												
	0.15-0.5	66 to 56*	56 to 46*												
	0.5-5	56	46												
5-30	60	50													
* Decreases with the logarithm of the frequency.															
Test Procedure:	<ol style="list-style-type: none"> 1) The mains terminal disturbance voltage test was conducted in a shielded room. 2) The EUT was connected to AC power source through a LISN 1 (Line Impedance Stabilization Network) which provides a 50Ω/50μH + 5Ω linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded. 3) The tabletop EUT was placed upon a non-metallic table 0.8m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane, 4) The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0.4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for LISNs mounted on top of the ground reference plane. This distance was between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0.8 m from the LISN 2. 5) In order to find the maximum emission, the relative positions of equipment and all of the interface cables must be changed according to ANSI C63.10: 2013 on conducted measurement. 														
Test Setup:															



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Exploratory Test Mode:	Transmitting with all kind of modulations, data rates at lowest, middle and highest channel.
Final Test Mode:	Through Pre-scan, find the 6Mbps of rate of 802.11a at lowest channel is the worst case. Only the worst case is recorded in the report.
Instruments Used:	Refer to section 5.10 for details
Test Results:	Pass

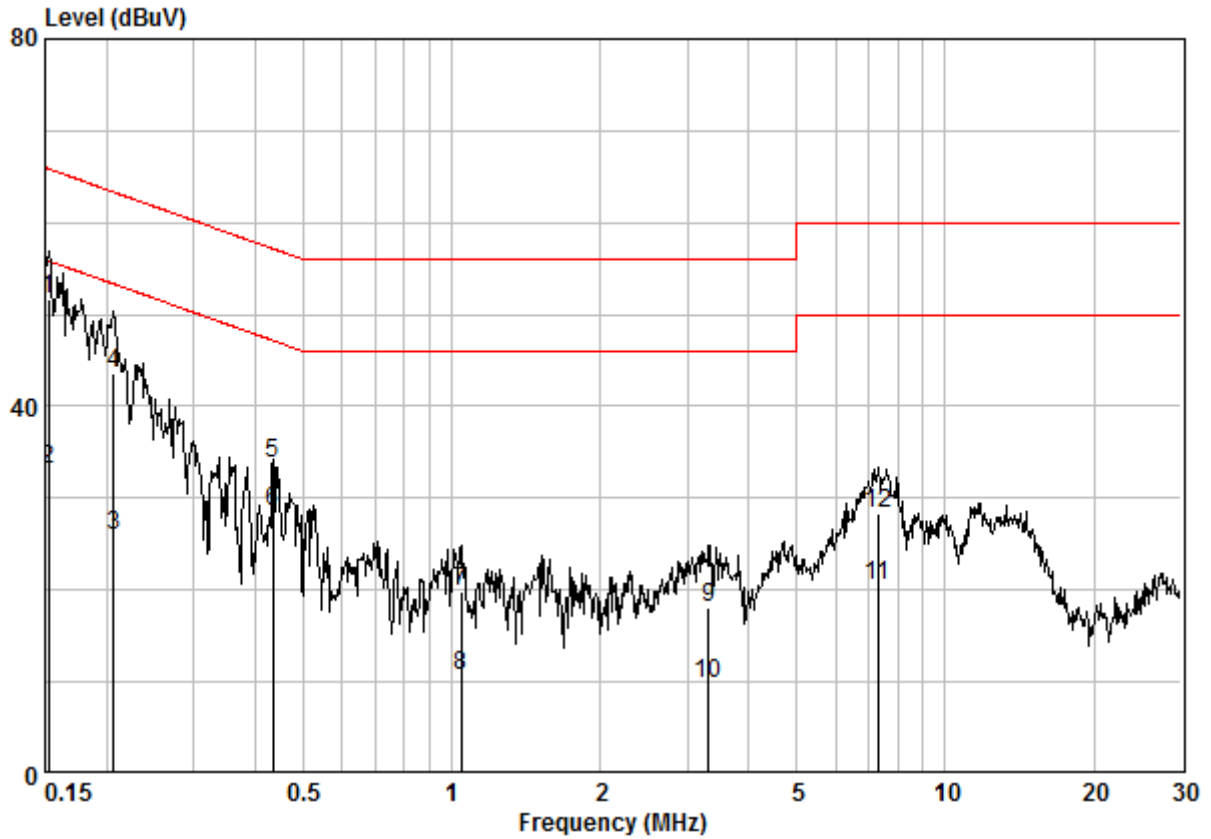
Measurement Data

An initial pre-scan was performed on the live and neutral lines with peak detector.

Quasi-Peak and Average measurement were performed at the frequencies with maximized peak emission were detected.



Live Line:

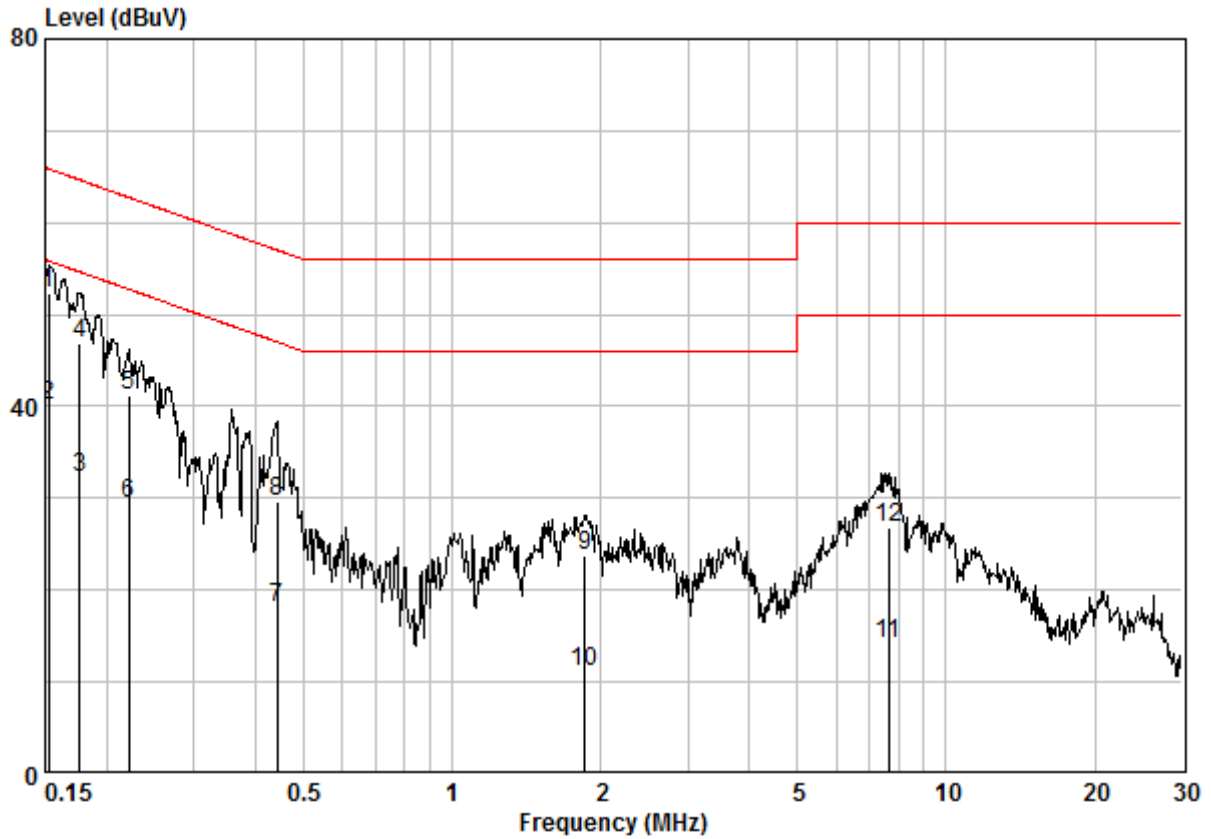


Site : Shielding Room
Condition : CE LINE
Job No. : 11090CR
Test Mode : TX mode

	Freq	Cable Loss	LISN Factor	Read Level	Limit Level	Over Limit	Remark
	MHz	dB	dB	dBuV	dBuV	dB	
1	0.15240	0.02	9.64	41.99	51.65	65.87	-14.22 QP
2	0.15240	0.02	9.64	23.50	33.16	55.87	-22.70 AVERAGE
3	0.20614	0.02	9.64	16.32	25.98	53.36	-27.38 AVERAGE
4	0.20614	0.02	9.64	33.95	43.61	63.36	-19.75 QP
5	0.43511	0.02	9.64	24.17	33.83	57.15	-23.32 QP
6	0.43511	0.02	9.64	18.94	28.60	47.15	-18.55 AVERAGE
7	1.043	0.03	9.65	10.15	19.83	56.00	-36.17 QP
8	1.043	0.03	9.65	1.08	10.76	46.00	-35.24 AVERAGE
9	3.310	0.02	9.70	8.33	18.05	56.00	-37.95 QP
10	3.310	0.02	9.70	0.09	9.82	46.00	-36.18 AVERAGE
11	7.290	0.09	9.80	10.64	20.52	50.00	-29.48 AVERAGE
12	7.290	0.09	9.80	18.42	28.30	60.00	-31.70 QP



Neutral Line:



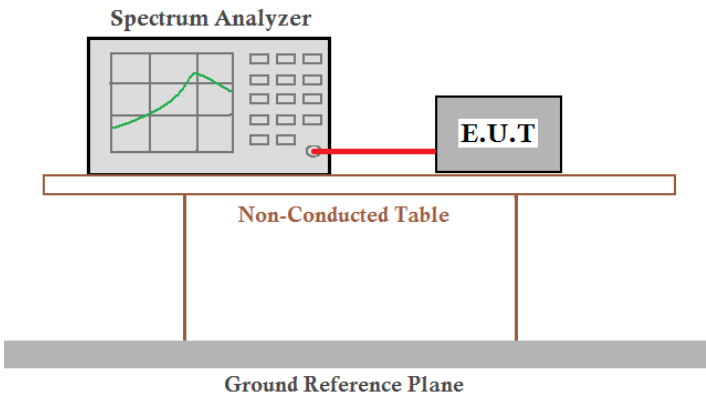
Site : Shielding Room
Condition : CE NEUTRAL
Job No. : 11090CR
Test Mode : TX mode

	Freq	Cable Loss	LISN Factor	Read Level	Limit	Over	Remark
	MHz	dB	dB	dBuV	dBuV	dB	
1 @	0.15240	0.02	9.64	42.56	52.22	65.87	-13.65 QP
2	0.15240	0.02	9.64	30.43	40.09	55.87	-15.78 AVERAGE
3	0.17584	0.02	9.63	22.52	32.17	54.68	-22.51 AVERAGE
4	0.17584	0.02	9.63	37.24	46.89	64.68	-17.79 QP
5	0.22201	0.02	9.63	31.64	41.29	62.74	-21.45 QP
6	0.22201	0.02	9.63	19.80	29.45	52.74	-23.30 AVERAGE
7	0.44208	0.02	9.63	8.52	18.17	47.02	-28.85 AVERAGE
8	0.44208	0.02	9.63	19.90	29.55	57.02	-27.47 QP
9	1.858	0.03	9.66	14.00	23.68	56.00	-32.32 QP
10	1.858	0.03	9.66	1.40	11.09	46.00	-34.91 AVERAGE
11	7.646	0.09	9.79	4.34	14.22	50.00	-35.78 AVERAGE
12	7.646	0.09	9.79	16.99	26.87	60.00	-33.13 QP

Notes:

1. The following Quasi-Peak and Average measurements were performed on the EUT:
2. Final Test Level = Receiver Reading + LISN Factor + Cable Loss.

6.3 Conducted Output Power

Test Requirement:	47 CFR Part 15, Subpart E 15.407 (a)	
Test Method:	KDB 789033 D02 II E	
Test Setup:		
Test Instruments:	Refer to section 5.10 for details	
Exploratory Test Mode:	Transmitting with all kind of modulations, data rates	
Final Test Mode:	Through Pre-scan, find the 6Mbps of rate is the worst case of 802.11a; MCS0 of rate is the worst case of 802.11n(HT20); MCS0 of rate is the worst case of 802.11n(HT40); MCS0 of rate is the worst case of 802.11ac(HT20); MCS0 of rate is the worst case of 802.11ac(HT40); MCS0 of rate is the worst case of 802.11ac(HT80) Only the worst case is recorded in the report.	
Limit:	Frequency Band	Limit
	5150-5250MHz	802.11a: 24dBm 802.11n ~ 802.11ac: 24dBm
	5250-5350MHz	802.11a: 24dBm 802.11n ~ 802.11ac: 24dBm
	5470-5725MHz	802.11a: 24dBm 802.11n ~ 802.11ac: 24dBm
	5725-5850MHz	802.11a: 30dBm 802.11n ~ 802.11ac: 30dBm
Remark:	Only the data of antenna b is recorded in the report.	
Test Results:	Pass	



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Measurement Data:

802.11a mode				
Frequency (MHz)	Conducted Output Power (dBm)		Limit (dBm)	Result
	Antenna a	Antenna b		
5180	11.42	11.98	24.00	Pass
5200	11.77	12.37	24.00	Pass
5240	12.60	13.52	24.00	Pass
5260	13.17	13.98	24.00	Pass
5300	13.63	14.49	24.00	Pass
5320	13.77	14.62	24.00	Pass
5500	12.60	11.94	24.00	Pass
5580	14.20	14.53	24.00	Pass
5700	16.25	16.74	24.00	Pass
5745	18.57	16.35	30.00	Pass
5785	17.61	15.84	30.00	Pass
5825	17.10	15.68	30.00	Pass

802.11n(HT20) mode					
Frequency (MHz)	Conducted Output Power (dBm)			Limit (dBm)	Result
	Antenna a	Antenna b	Total		
5180	8.66	9.26	11.98	24.00	Pass
5200	9.02	9.70	12.38	24.00	Pass
5240	10.06	10.79	13.45	24.00	Pass
5260	13.35	14.40	16.92	24.00	Pass
5300	13.84	14.63	17.26	24.00	Pass
5320	13.95	14.62	17.31	24.00	Pass
5500	13.02	14.21	16.67	24.00	Pass
5580	13.86	14.62	17.27	24.00	Pass
5700	13.79	14.82	17.35	24.00	Pass
5745	16.85	16.49	19.68	30.00	Pass
5785	16.63	16.06	19.36	30.00	Pass
5825	13.27	15.86	17.77	30.00	Pass



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802.11ac(HT20) mode					
Frequency (MHz)	Conducted Output Power (dBm)			Limit (dBm)	Result
	Antenna a	Antenna b	Total		
5180	8.45	9.07	11.78	24.00	Pass
5200	8.99	9.64	12.34	24.00	Pass
5240	9.96	10.65	13.33	24.00	Pass
5260	13.26	14.03	16.67	24.00	Pass
5300	13.79	14.77	17.32	24.00	Pass
5320	13.97	14.94	17.49	24.00	Pass
5500	12.76	11.85	15.34	24.00	Pass
5580	14.44	14.70	17.58	24.00	Pass
5700	14.15	15.07	17.64	24.00	Pass
5745	16.85	16.24	19.57	30.00	Pass
5785	16.82	16.08	19.48	30.00	Pass
5825	16.54	16.03	19.30	30.00	Pass

802.11n(HT40) mode					
Frequency (MHz)	Conducted Output Power (dBm)			Limit (dBm)	Result
	Antenna a	Antenna b	Total		
5190	8.14	8.67	11.42	24.00	Pass
5230	9.06	9.84	12.48	24.00	Pass
5270	9.72	10.55	13.17	24.00	Pass
5310	13.24	14.27	16.80	24.00	Pass
5510	12.35	13.43	15.93	24.00	Pass
5550	13.33	14.40	16.91	24.00	Pass
5670	14.22	14.91	17.59	24.00	Pass
5755	16.07	15.58	18.84	30.00	Pass
5795	16.06	15.57	18.83	30.00	Pass



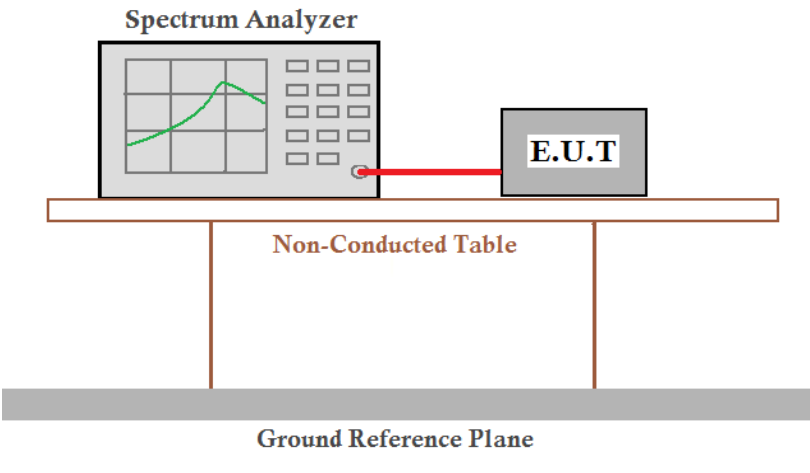
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802.11 ac(HT40) mode					
Frequency (MHz)	Conducted Output Power (dBm)			Limit (dBm)	Result
	Antenna a	Antenna b	Total		
5190	8.12	8.63	11.39	24.00	Pass
5230	8.98	10.00	12.53	24.00	Pass
5270	12.73	13.60	16.20	24.00	Pass
5310	13.23	14.21	16.76	24.00	Pass
5510	12.32	11.59	14.98	24.00	Pass
5550	13.27	13.17	16.23	24.00	Pass
5670	14.66	15.11	17.90	24.00	Pass
5755	16.08	15.64	18.88	30.00	Pass
5795	16.09	15.57	18.85	30.00	Pass

802.11ac(HT80) mode					
Frequency (MHz)	Conducted Output Power (dBm)			Limit (dBm)	Result
	Antenna a	Antenna b	Total		
5210	8.64	9.27	11.98	24.00	Pass
5290	13.04	14.12	16.62	24.00	Pass
5530	12.96	12.37	15.69	24.00	Pass
5775	16.23	15.76	19.01	30.00	Pass

6.4 26dB Emission Bandwidth and 99% Occupied Bandwidth

Test Requirement:	47 CFR Part 15, Subpart E 15.407 (a)
Test Method:	KDB 789033 D02 II C 1 KDB 789033 II D
Test Setup:	 <p>The diagram illustrates the test setup. A Spectrum Analyzer is connected to an E.U.T. (Equipment Under Test) via a red cable. Both are placed on a Non-Conducted Table, which is supported by a Ground Reference Plane.</p>
Instruments Used:	Refer to section 5.10 for details
Exploratory Test Mode:	Transmitting with all kind of modulations, data rates
Final Test Mode:	Through Pre-scan, find the 6Mbps of rate is the worst case of 802.11a; MCS0 of rate is the worst case of 802.11n(HT20); MCS0 of rate is the worst case of 802.11n(HT40); MCS0 of rate is the worst case of 802.11ac(HT20); MCS0 of rate is the worst case of 802.11ac(HT40); MCS0 of rate is the worst case of 802.11ac(HT80) Only the worst case is recorded in the report.
Limit:	No restriction limits
Remark:	Only the data of antenna b is recorded in the report.
Test Results:	Pass



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Measurement Data:

802.11a mode		
Frequency (MHz)	26dB Emission Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
5180	22.31	17.22
5200	21.84	16.92
5240	21.78	16.98
5260	21.86	17.01
5300	21.98	17.13
5320	21.73	16.95
5500	21.60	16.80
5580	22.32	17.07
5700	27.24	17.07
5745	22.16	16.98
5785	22.56	17.07
5825	22.88	16.95

802.11n(HT20) mode		
Frequency (MHz)	26dB Emission Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
5180	21.78	17.79
5200	21.60	17.76
5240	21.79	17.79
5260	21.60	17.79
5300	21.91	17.85
5320	21.65	17.79
5500	21.54	17.79
5580	21.59	17.82
5700	24.17	17.85
5745	21.99	17.85
5785	22.00	17.91
5825	22.95	17.91



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802.11ac(HT20) mode		
Frequency (MHz)	26dB Emission Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
5180	21.36	17.79
5200	21.68	17.88
5240	21.54	17.73
5260	21.67	17.76
5300	21.73	17.79
5320	21.67	17.76
5500	21.86	17.79
5580	22.31	17.76
5700	26.33	17.97
5745	21.59	17.82
5785	22.49	17.91
5825	26.08	17.94

802.11n(HT40) mode		
Frequency (MHz)	26dB Emission Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
5190	41.54	36.35
5230	41.18	36.54
5270	41.57	36.44
5310	42.31	36.54
5510	41.41	36.44
5550	41.97	36.54
5670	42.95	36.25
5755	42.05	36.44
5795	42.32	36.54



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802.11ac(HT40) mode		
Frequency (MHz)	26dB Emission Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
5190	41.79	36.35
5230	41.20	36.44
5270	41.79	36.44
5310	41.65	36.35
5510	42.02	36.35
5550	41.54	36.35
5670	42.27	36.44
5755	42.69	36.44
5795	41.79	36.54

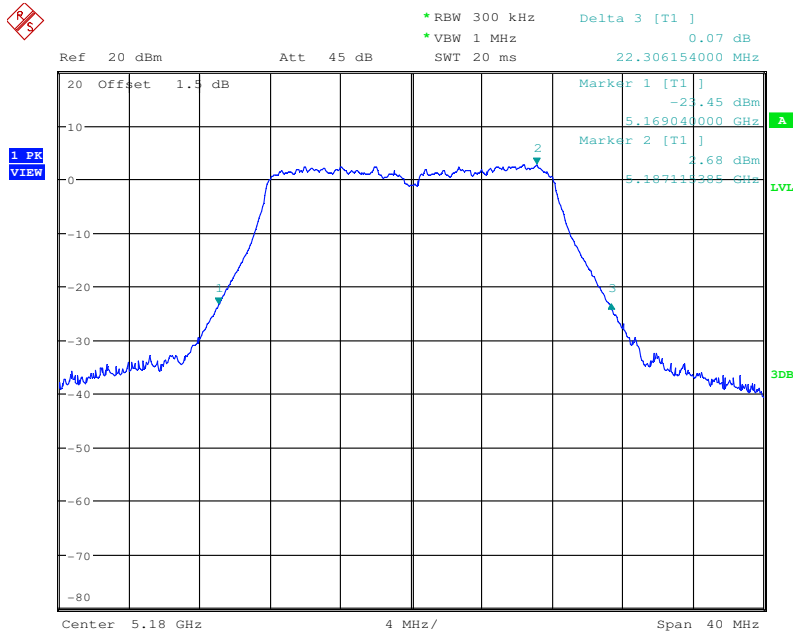
802.11ac(HT80) mode		
Frequency (MHz)	26dB Emission Bandwidth (MHz)	99% Occupied Bandwidth (MHz)
5210	81.51	75.24
5290	81.25	74.88
5530	82.31	75.24
5775	83.08	75.48



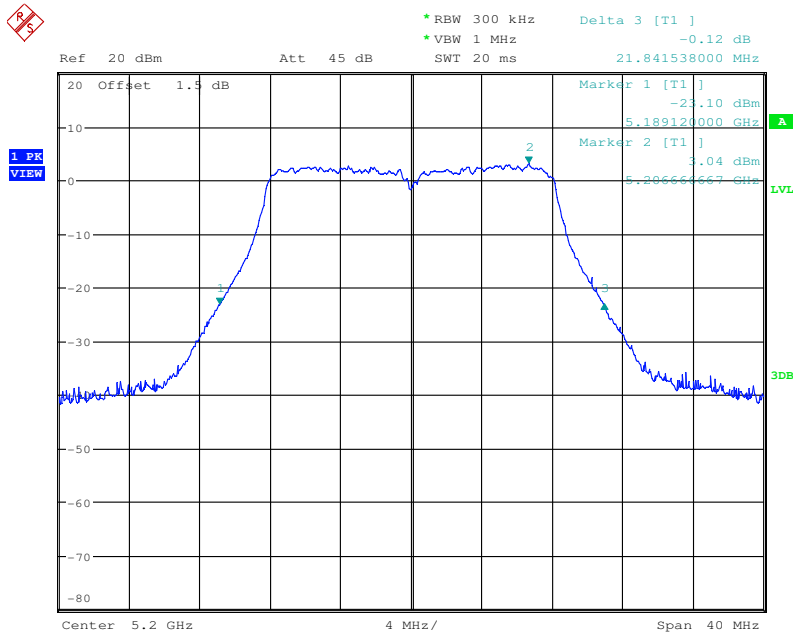
26dB Emission Bandwidth

Test plot as follows:

Test mode:	802.11a	Frequency(MHz):	5180
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Test mode:	802.11a	Frequency(MHz):	5200
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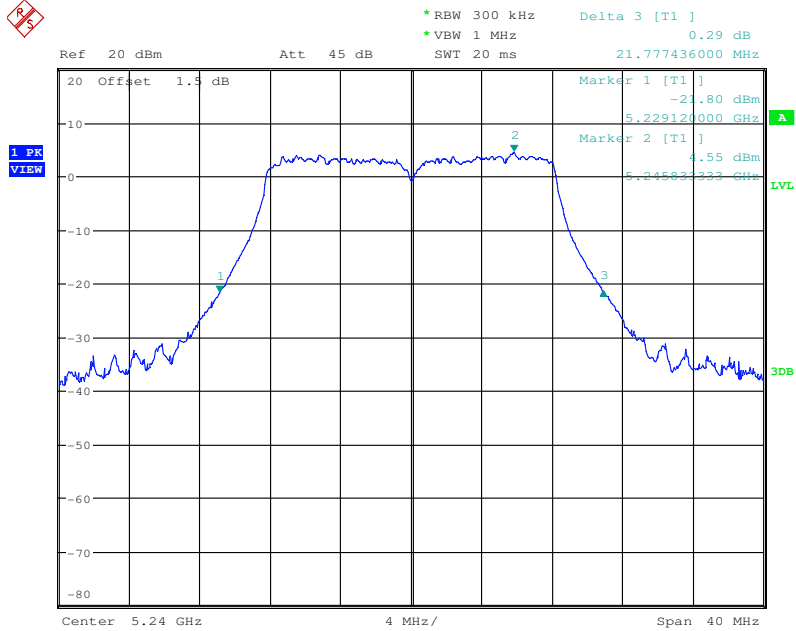




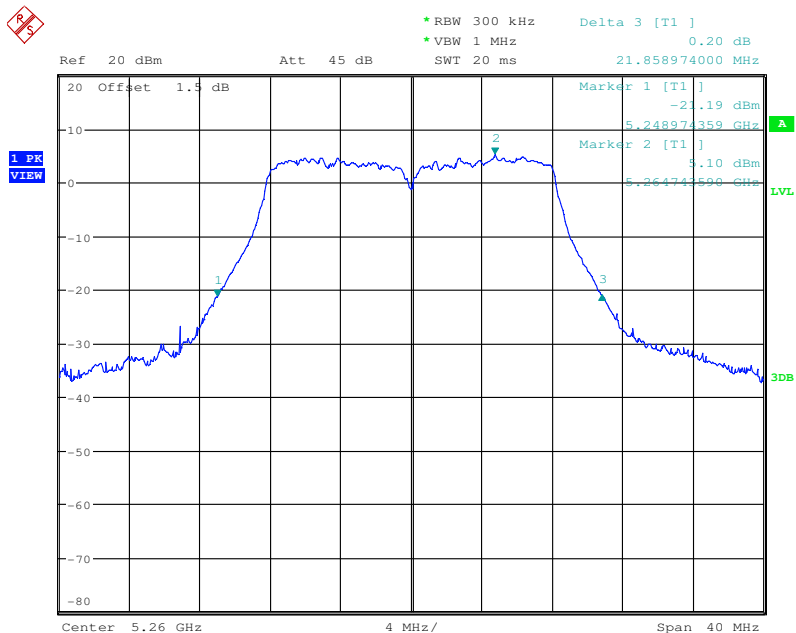
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Test mode:	802.11a	Frequency(MHz):	5240
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Test mode:	802.11a	Frequency(MHz):	5260
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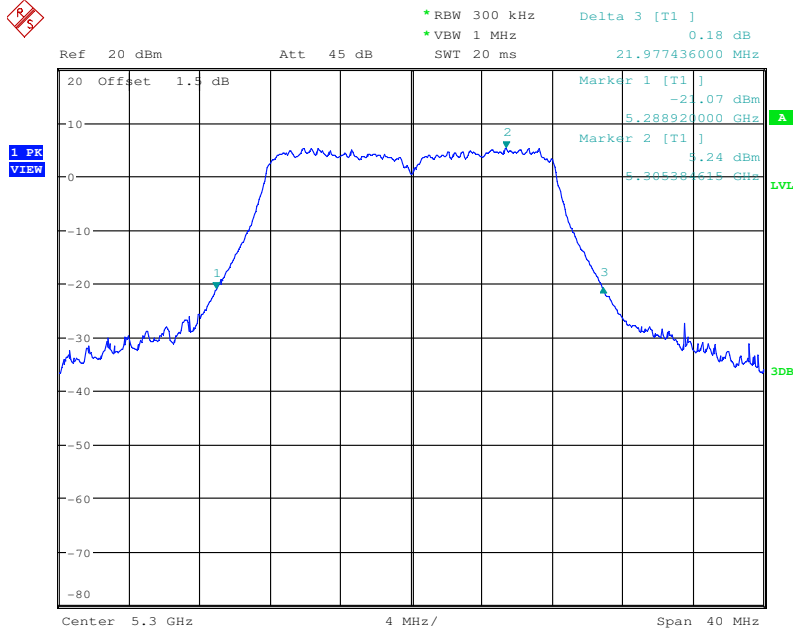




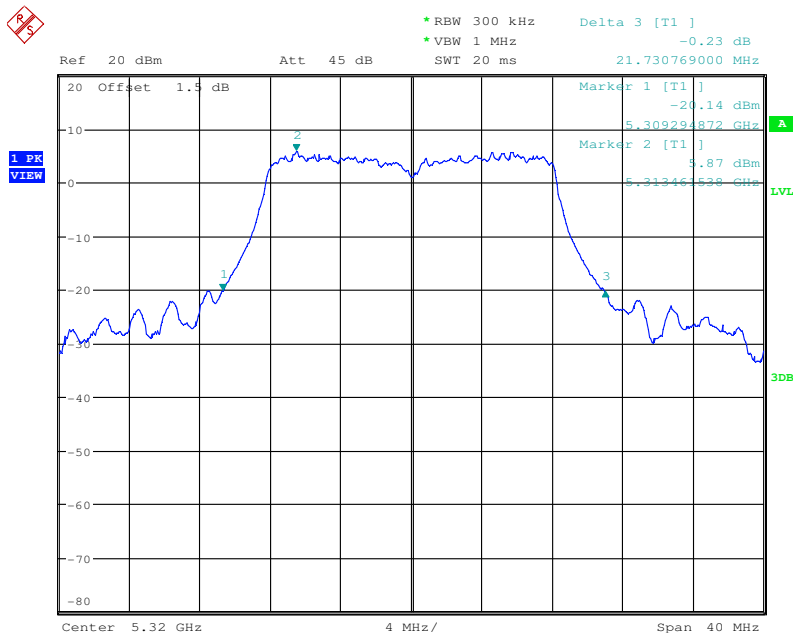
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Test mode:	802.11a	Frequency(MHz):	5300
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Test mode:	802.11a	Frequency(MHz):	5320
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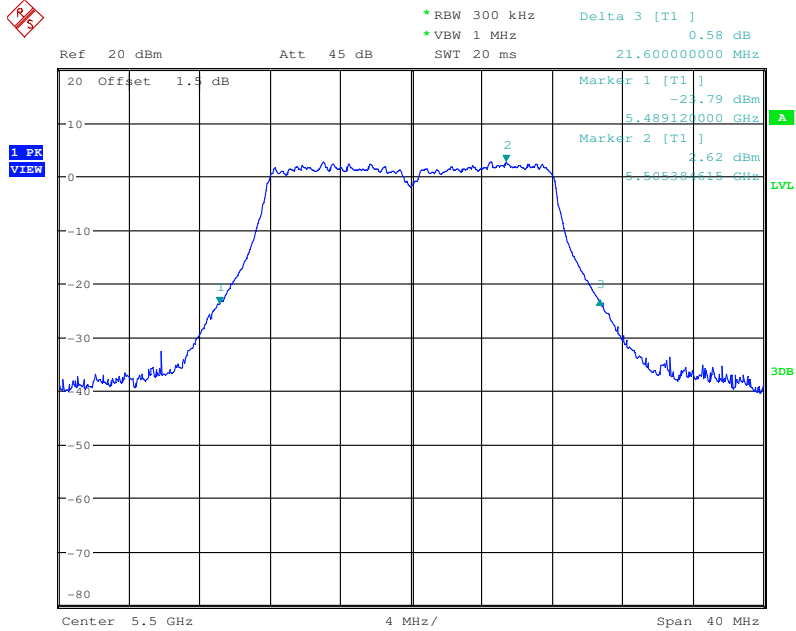




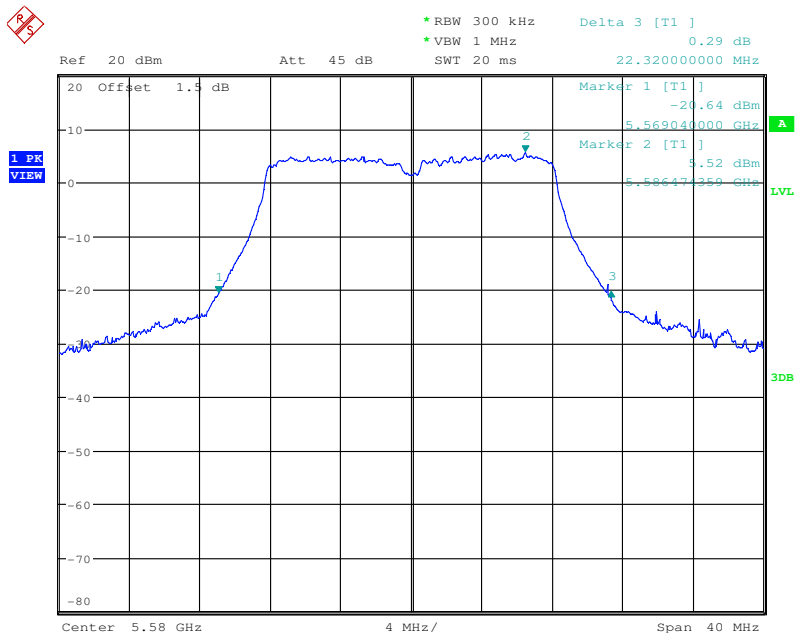
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Test mode:	802.11a	Frequency(MHz):	5500
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Test mode:	802.11a	Frequency(MHz):	5580
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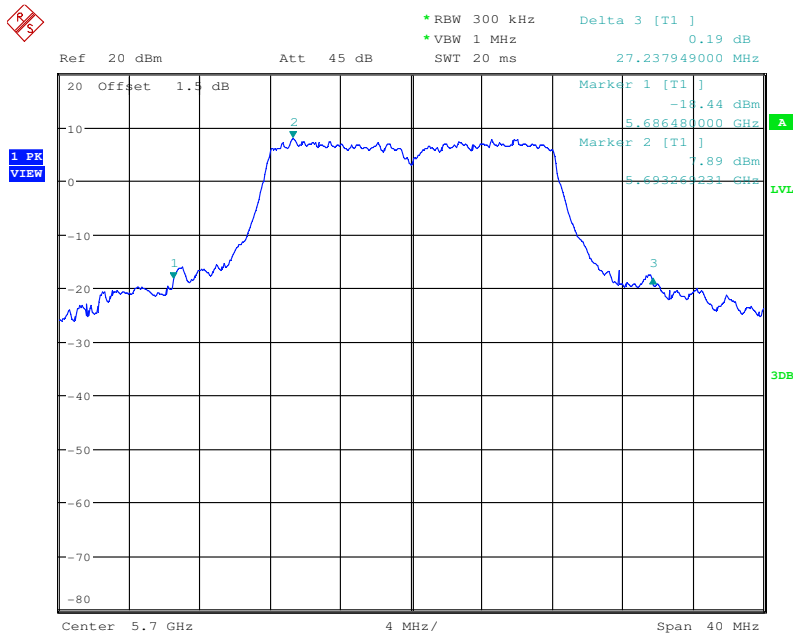




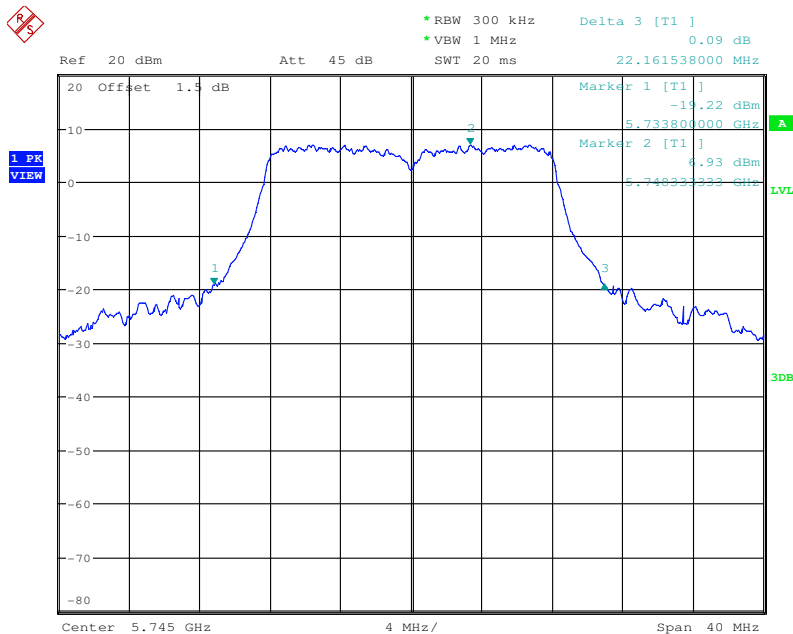
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Test mode:	802.11a	Frequency(MHz):	5700
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Test mode:	802.11a	Frequency(MHz):	5745
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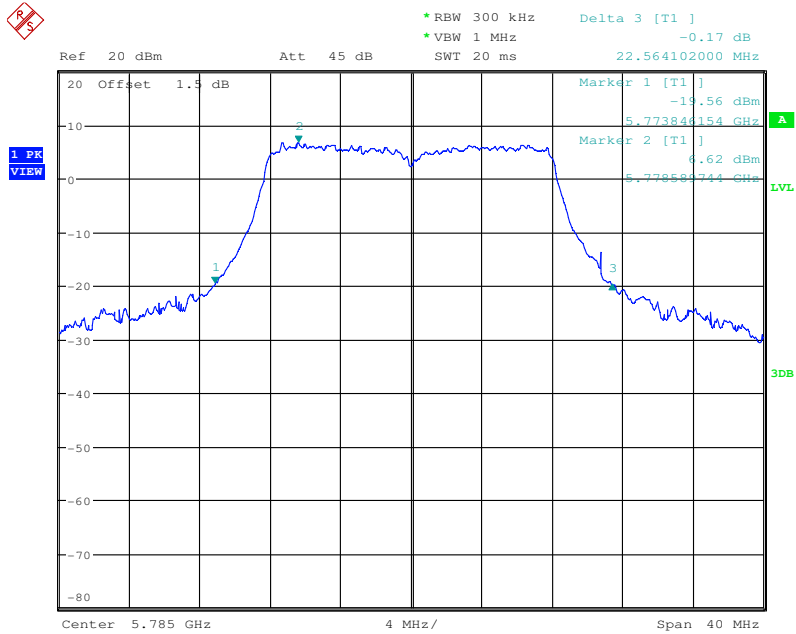




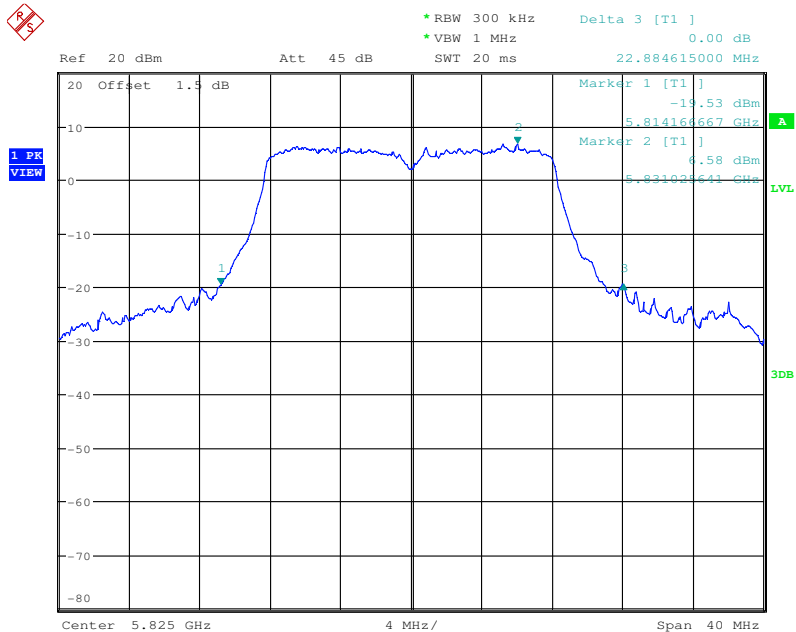
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Test mode:	802.11a	Frequency(MHz):	5785
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Test mode:	802.11a	Frequency(MHz):	5825
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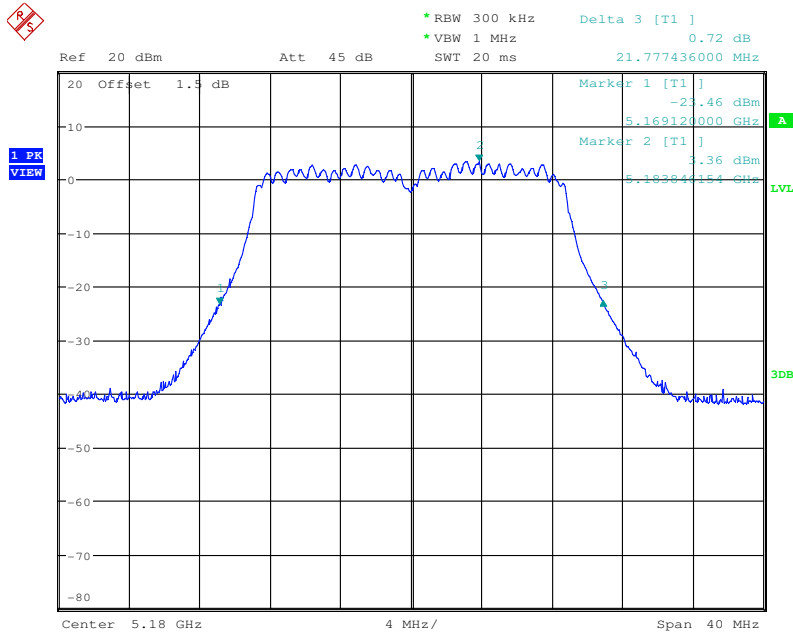




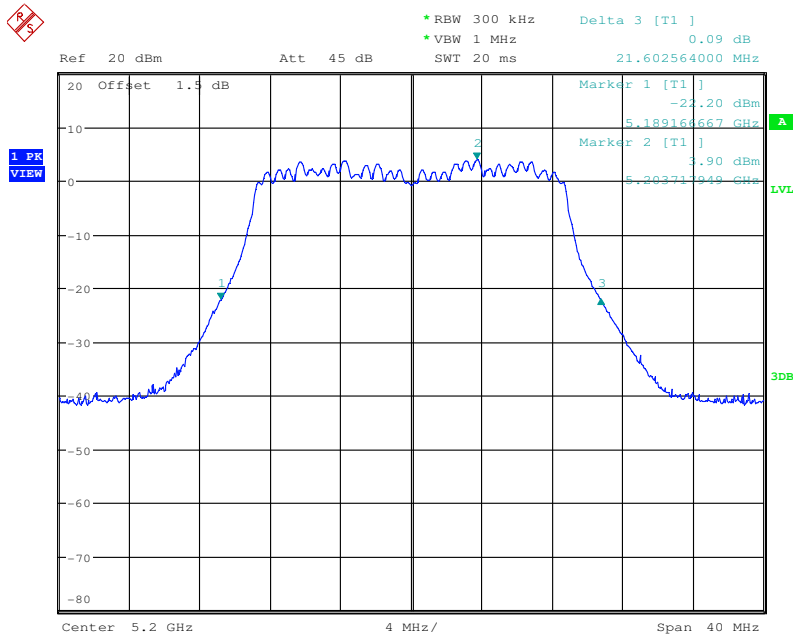
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Test mode:	802.11n(HT20)	Frequency(MHz):	5180
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Test mode:	802.11n(HT20)	Frequency(MHz):	5200
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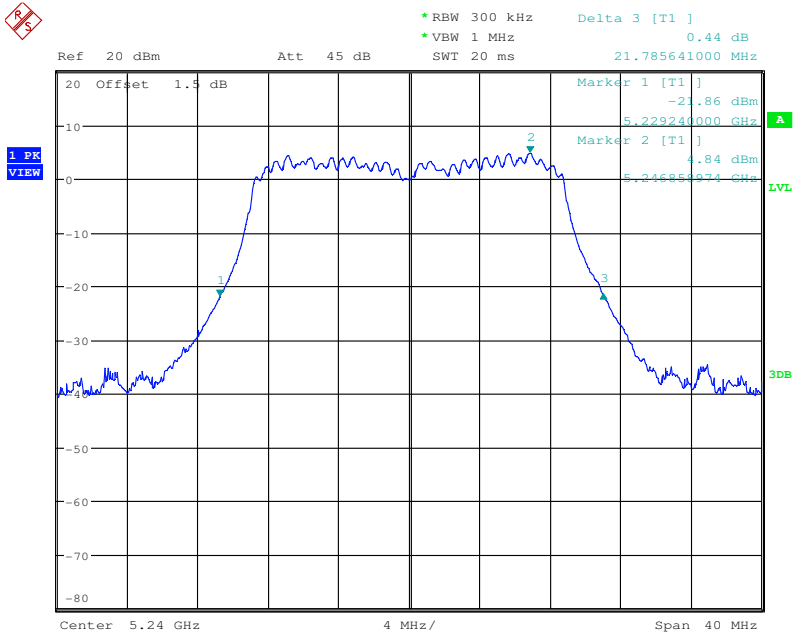




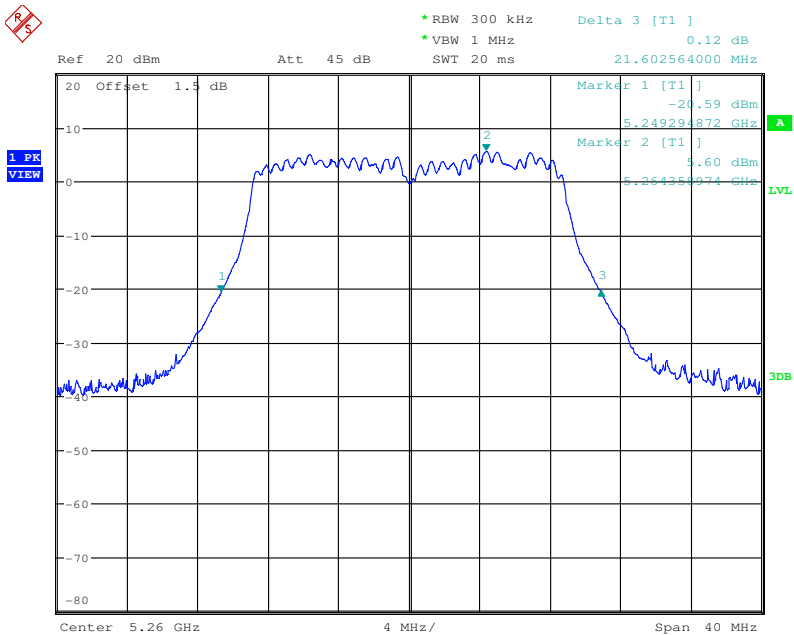
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Test mode:	802.11n(HT20)	Frequency(MHz):	5240
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Test mode:	802.11n(HT20)	Frequency(MHz):	5260
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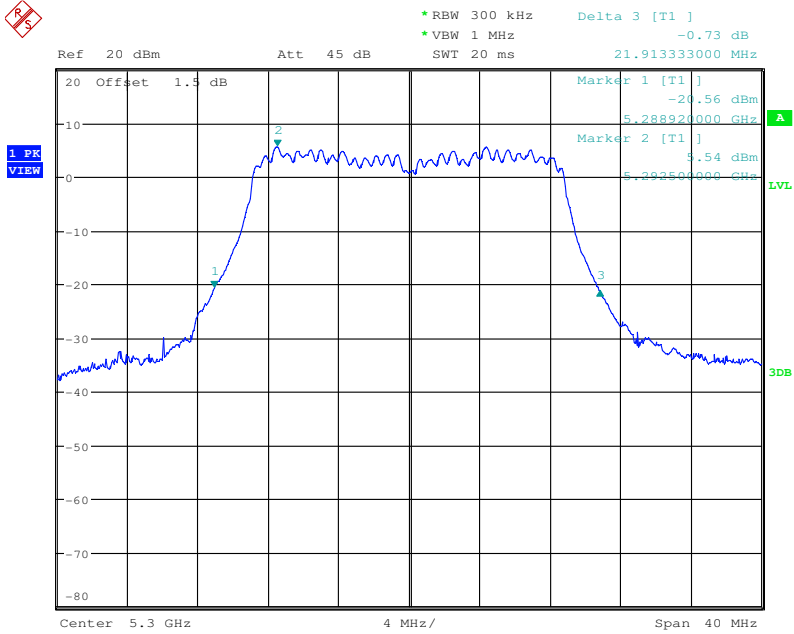




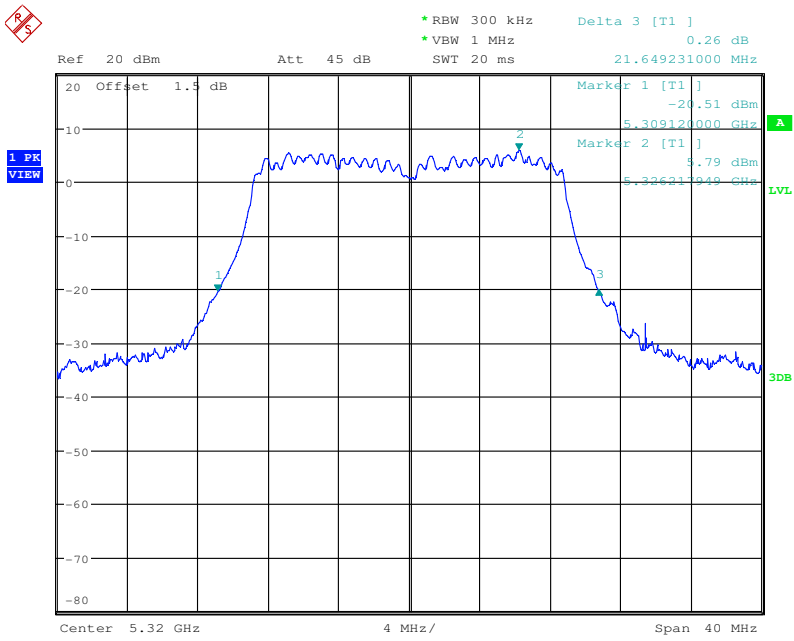
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Test mode:	802.11n(HT20)	Frequency(MHz):	5300
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Test mode:	802.11n(HT20)	Frequency(MHz):	5320
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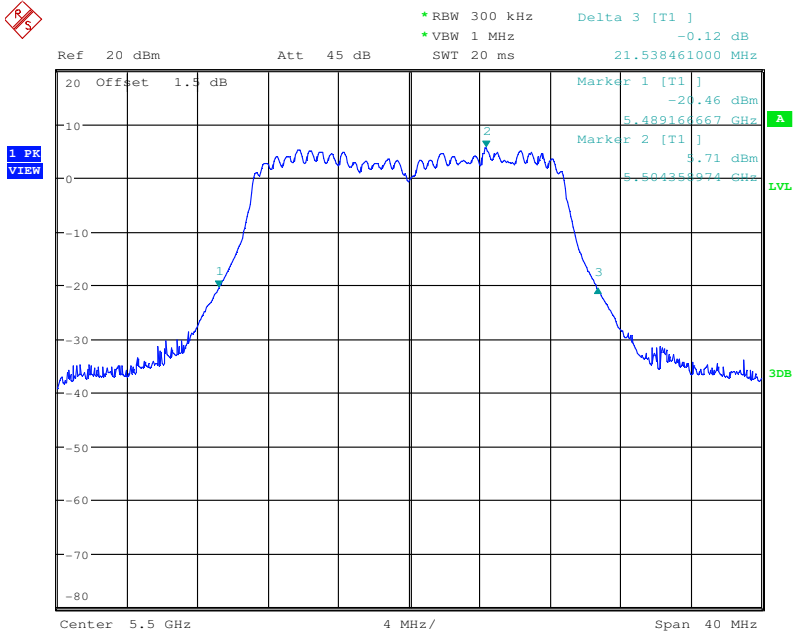
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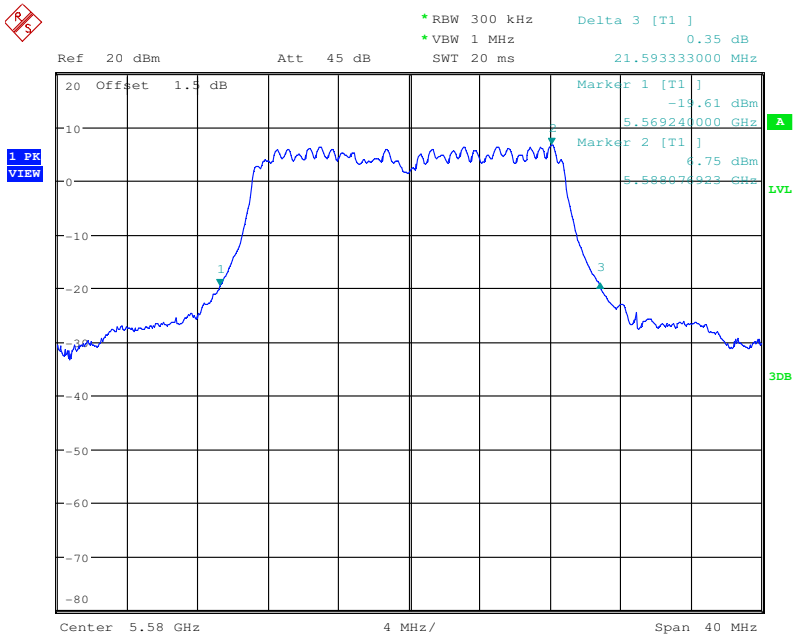
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Test mode:	802.11n(HT20)	Frequency(MHz):	5500
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Test mode:	802.11n(HT20)	Frequency(MHz):	5580
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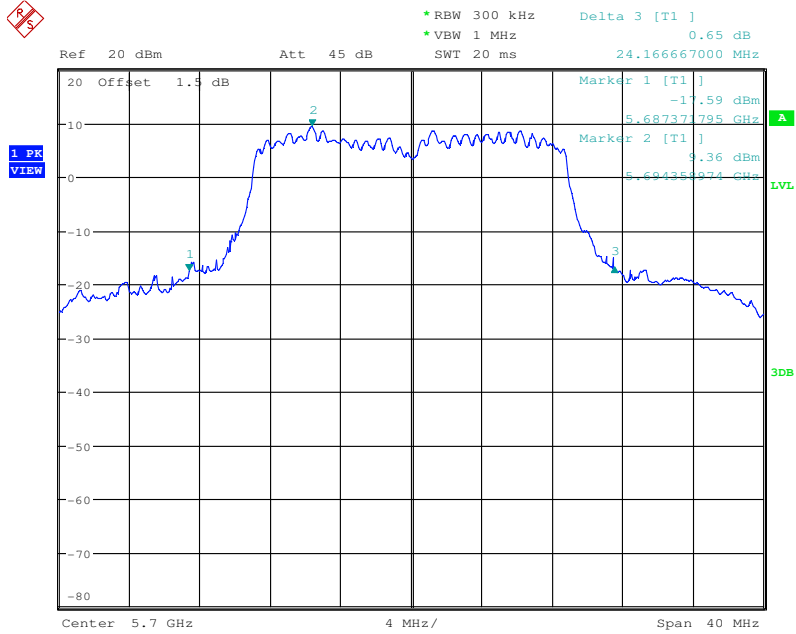




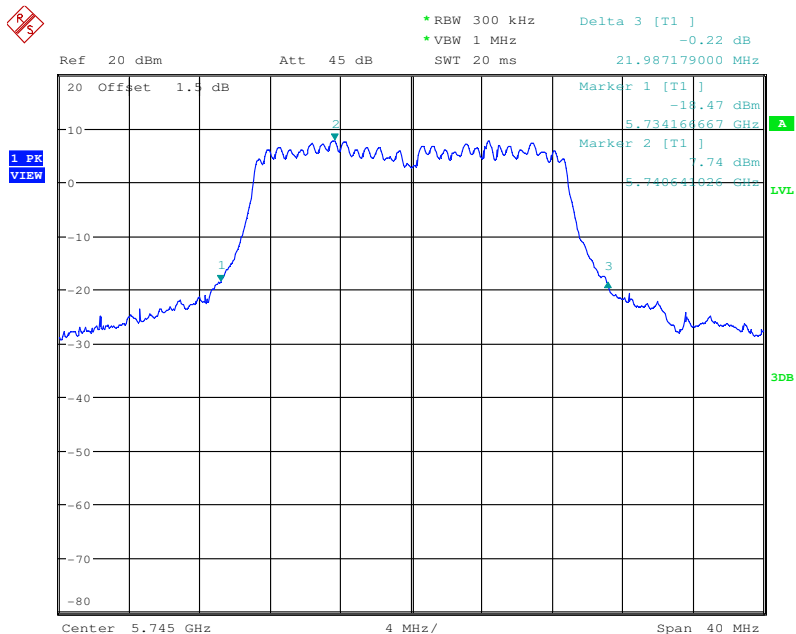
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Test mode:	802.11n(HT20)	Frequency(MHz):	5700
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Test mode:	802.11n(HT20)	Frequency(MHz):	5745
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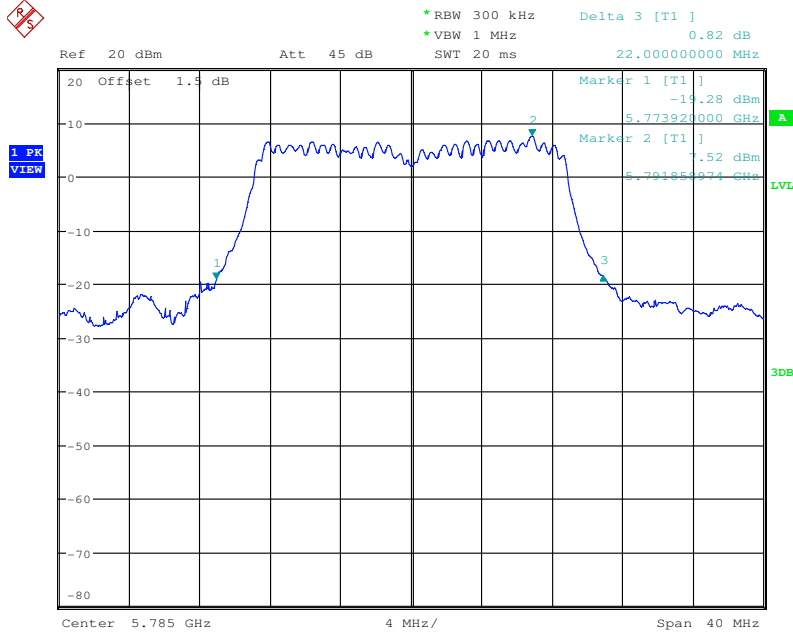




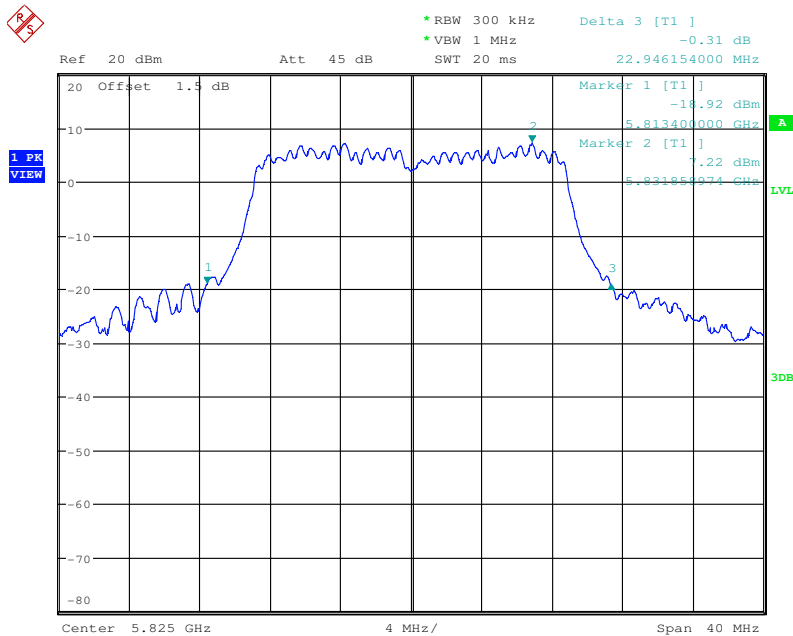
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Test mode:	802.11n(HT20)	Frequency(MHz):	5785
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Test mode:	802.11n(HT20)	Frequency(MHz):	5825
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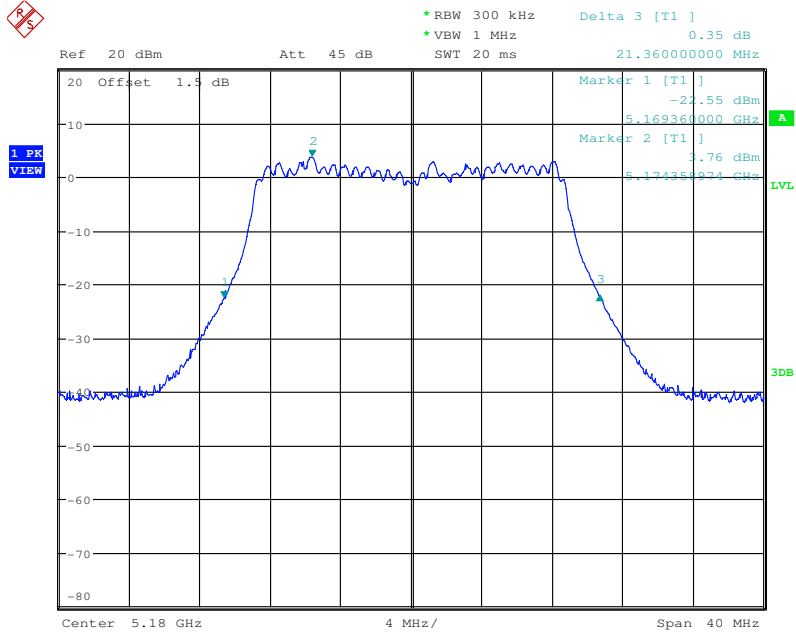




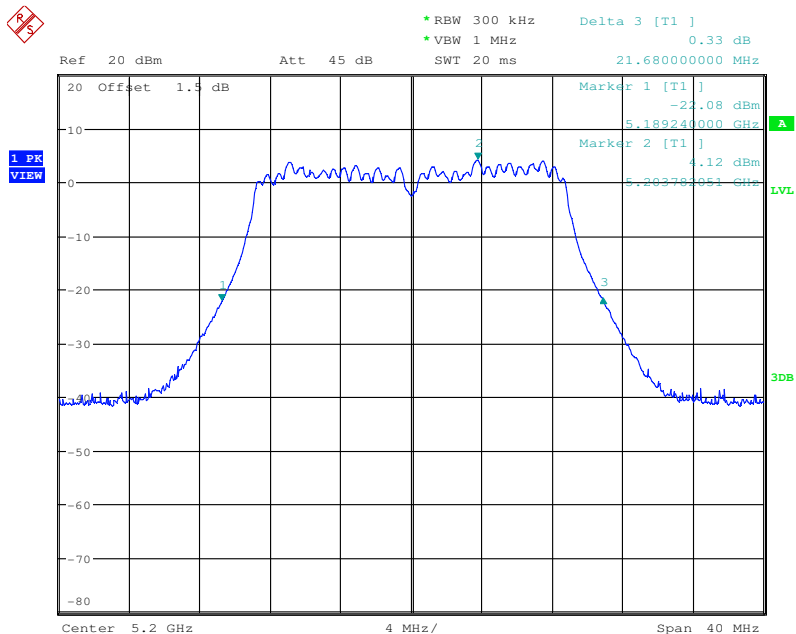
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Test mode:	802.11ac(HT20)	Frequency(MHz):	5180
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Test mode:	802.11ac(HT20)	Frequency(MHz):	5200
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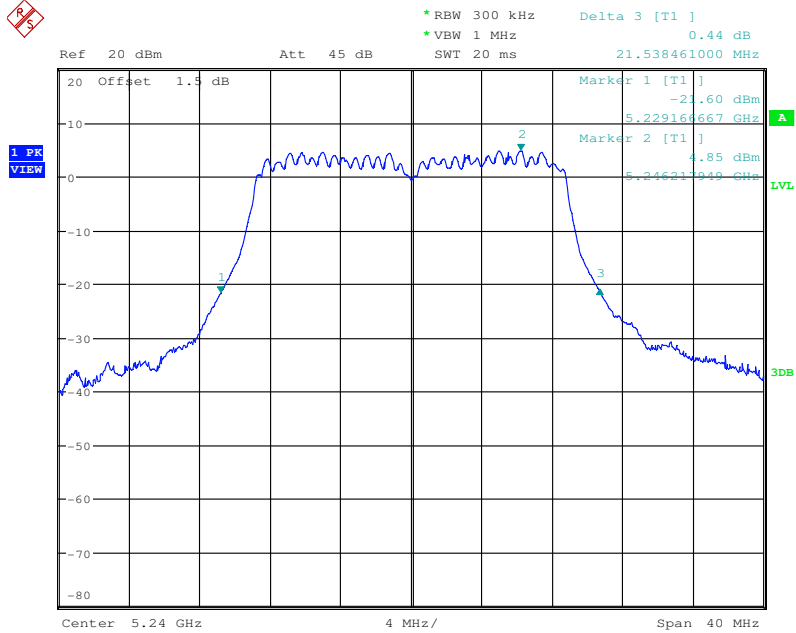




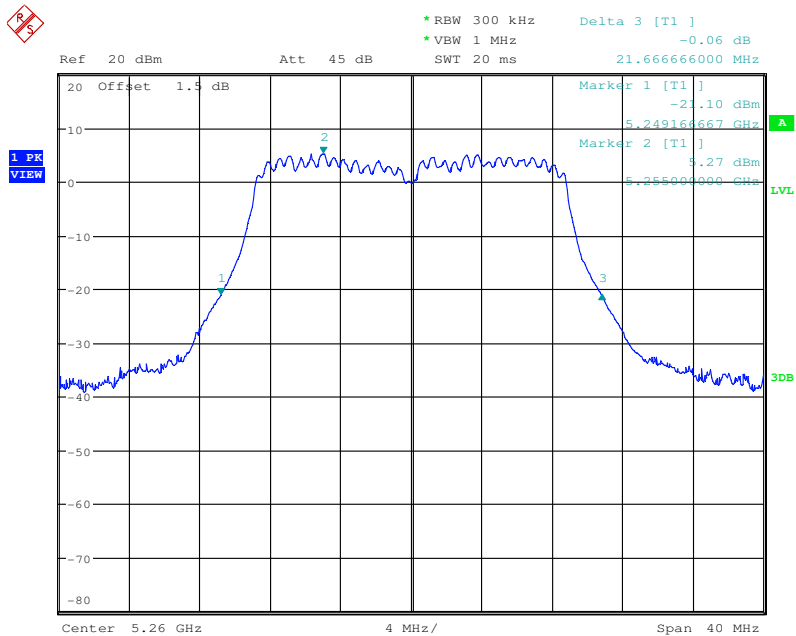
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Test mode:	802.11ac(HT20)	Frequency(MHz):	5240
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Test mode:	802.11ac(HT20)	Frequency(MHz):	5260
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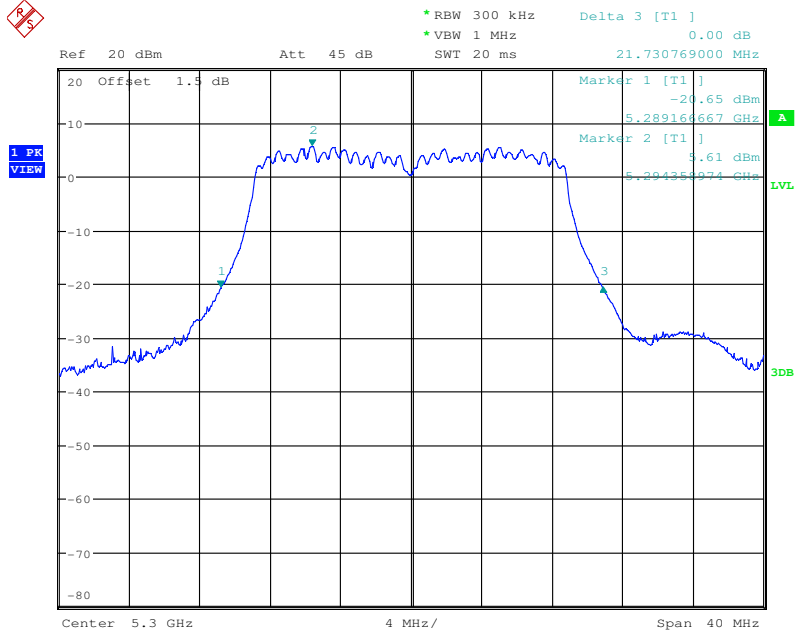




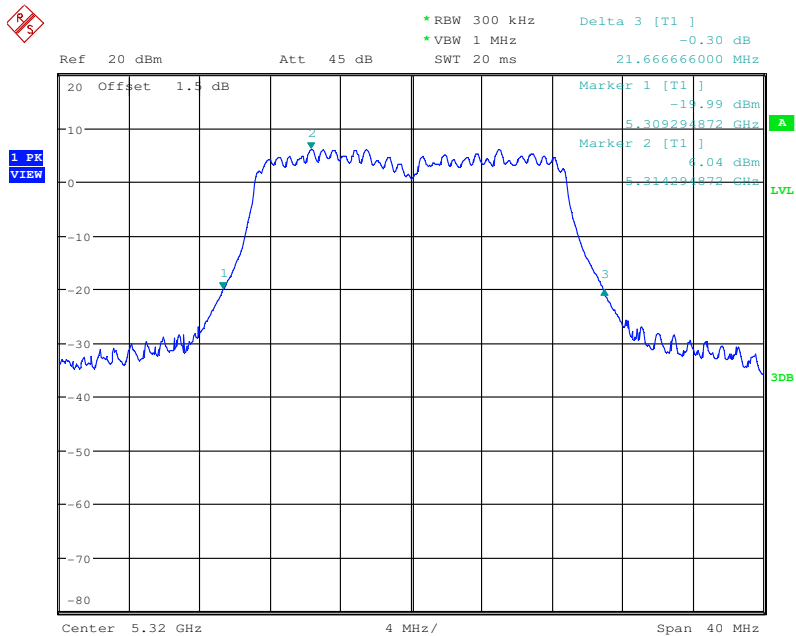
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Test mode:	802.11ac(HT20)	Frequency(MHz):	5300
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Test mode:	802.11ac(HT20)	Frequency(MHz):	5320
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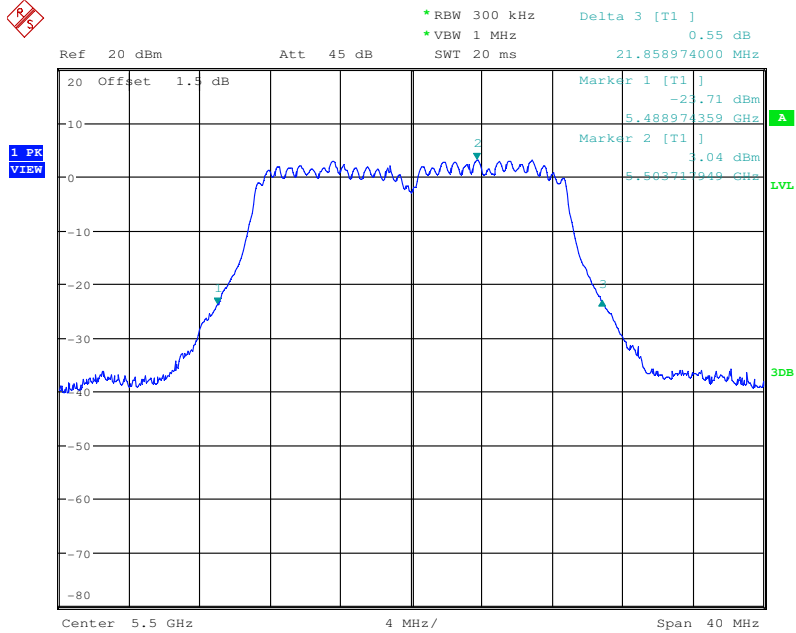




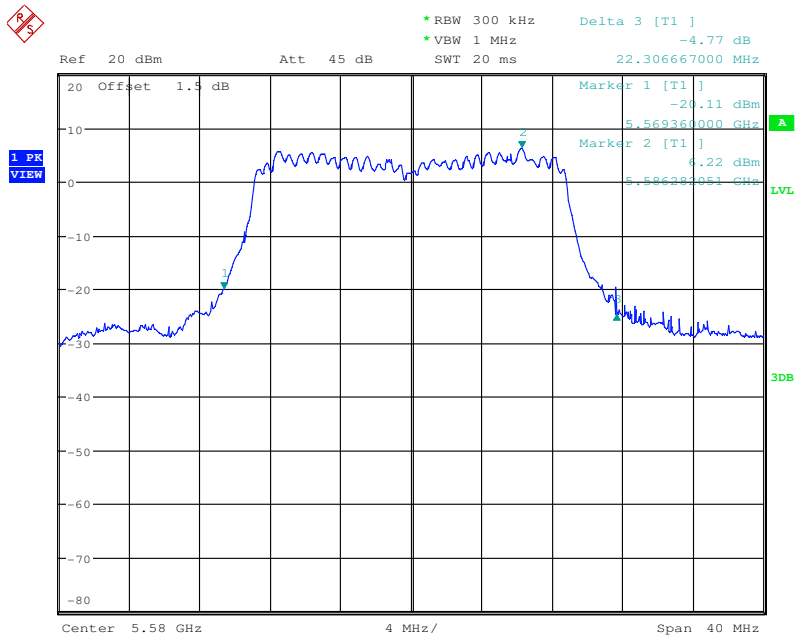
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Test mode:	802.11ac(HT20)	Frequency(MHz):	5500
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Test mode:	802.11ac(HT20)	Frequency(MHz):	5580
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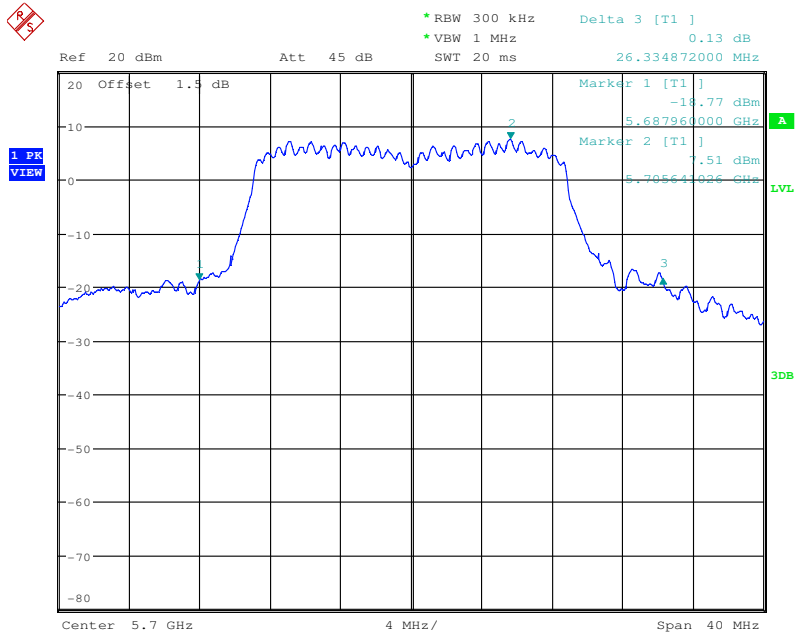




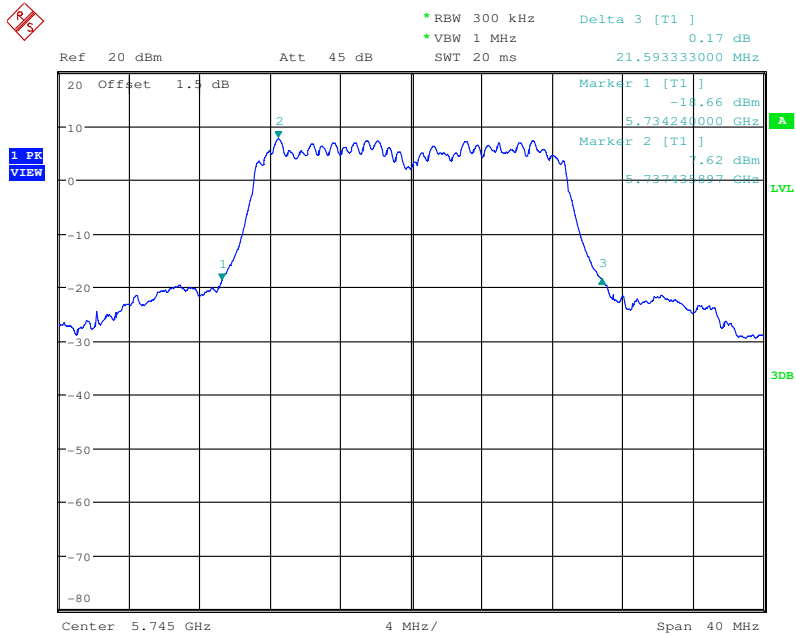
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Test mode:	802.11ac(HT20)	Frequency(MHz):	5700
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Test mode:	802.11ac(HT20)	Frequency(MHz):	5745
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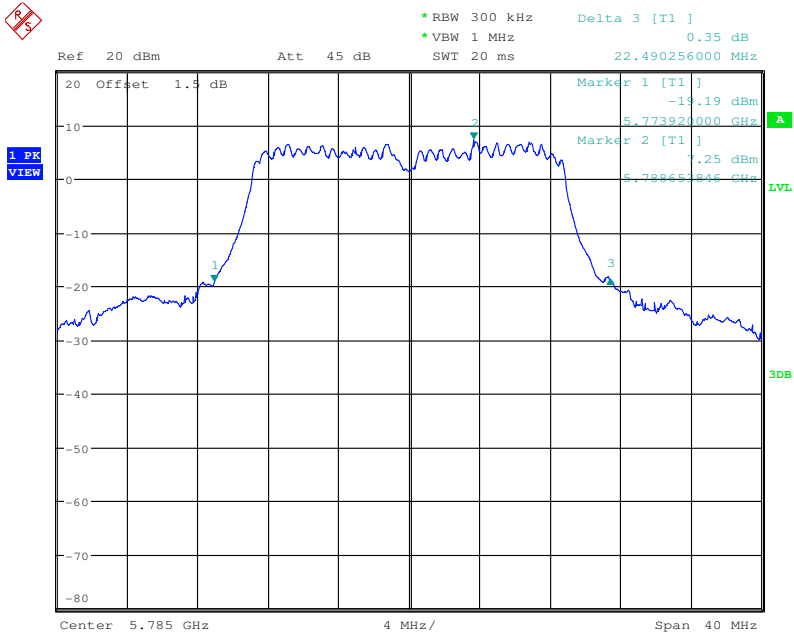




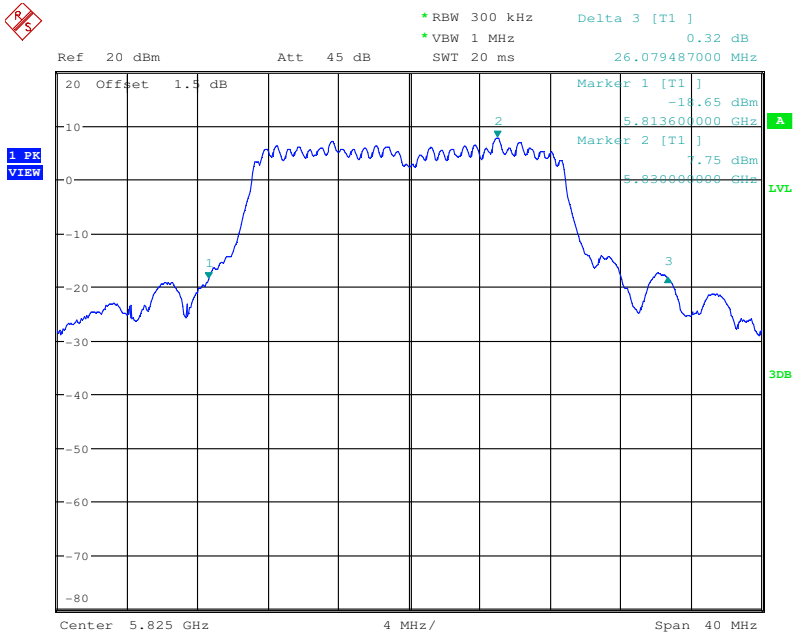
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Test mode:	802.11ac(HT20)	Frequency(MHz):	5785
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Test mode:	802.11ac(HT20)	Frequency(MHz):	5825
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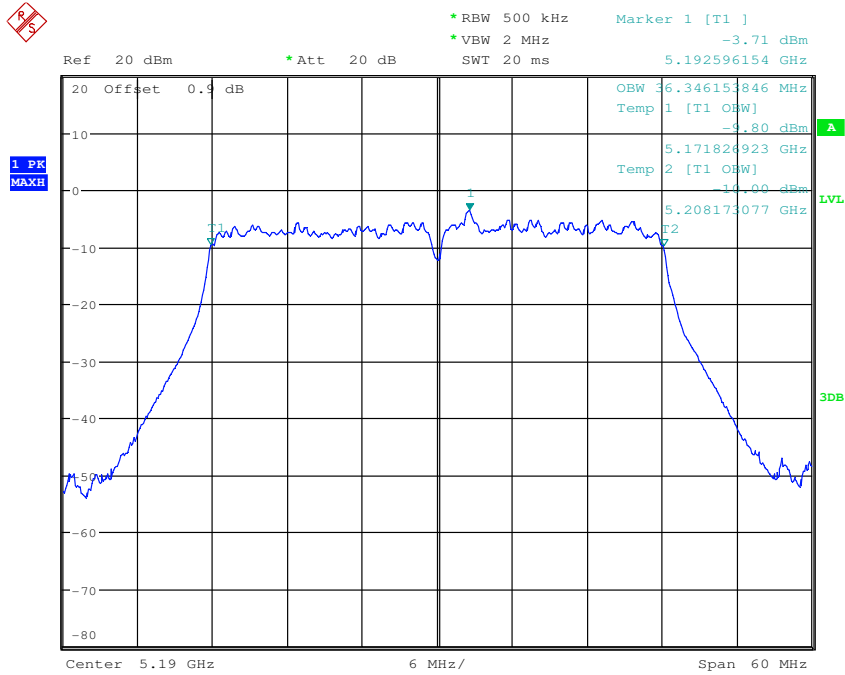




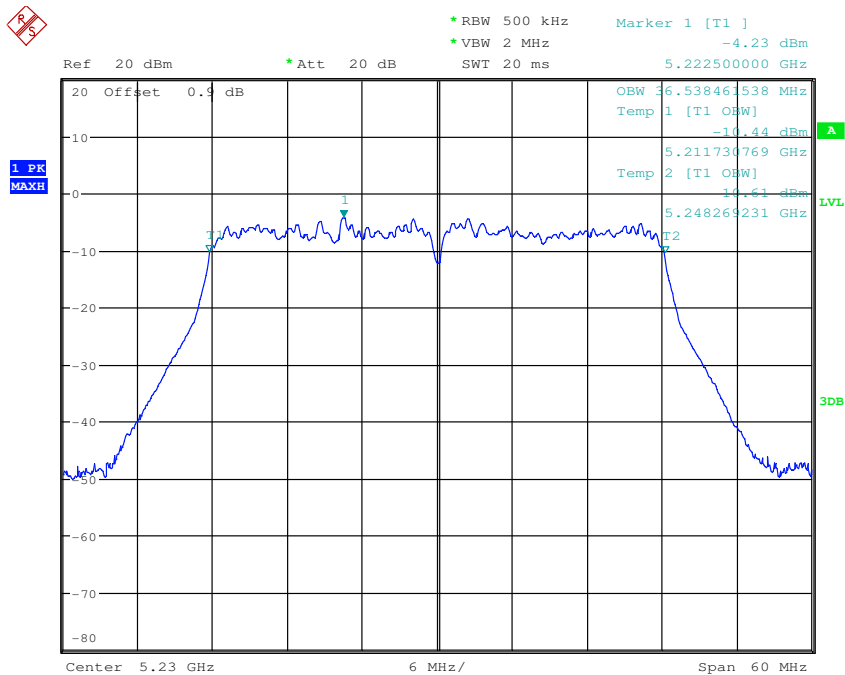
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Test mode:	802.11n(HT40)	Frequency(MHz):	5190
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Test mode:	802.11n(HT40)	Frequency(MHz):	5230
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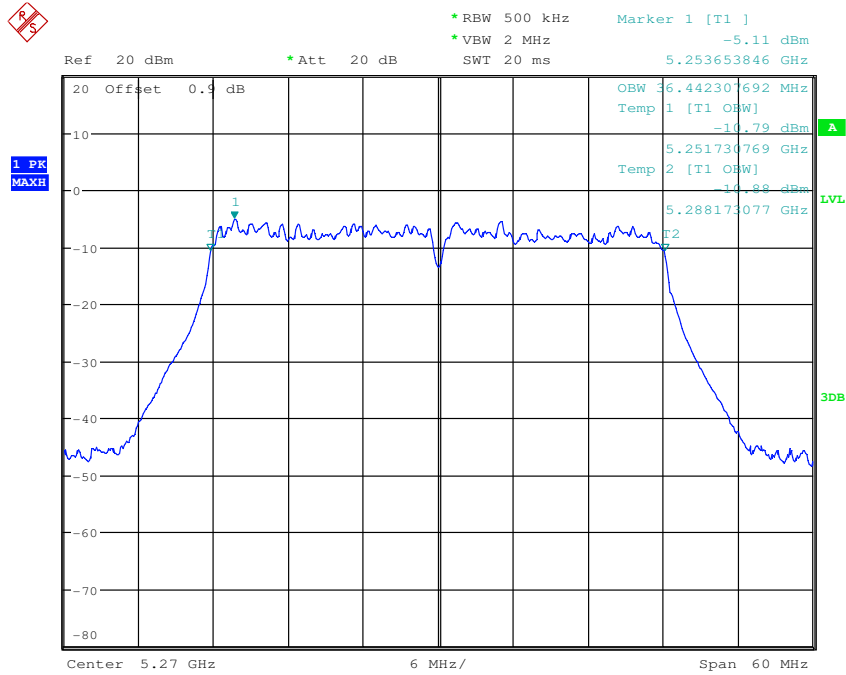




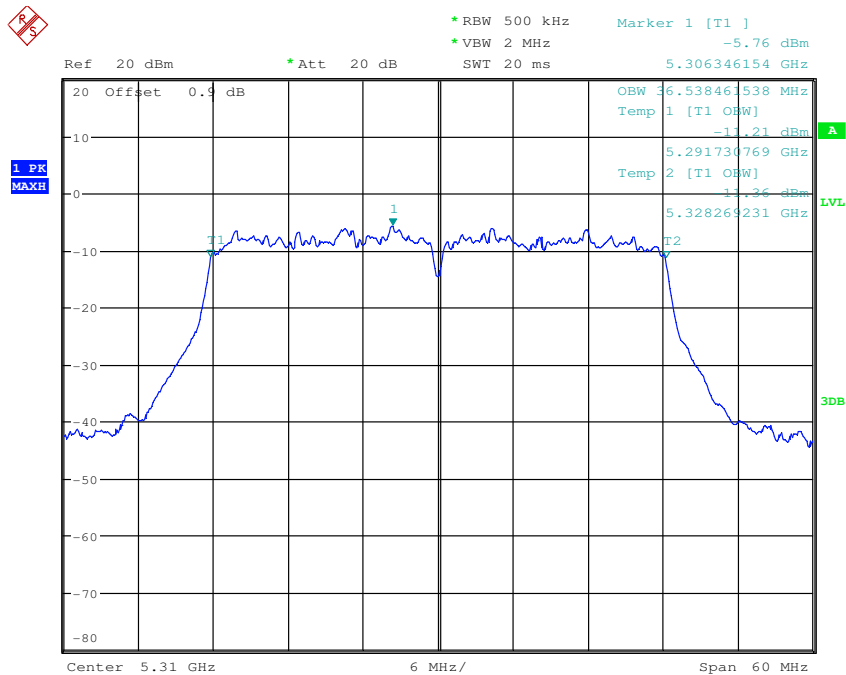
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Test mode:	802.11n(HT40)	Frequency(MHz):	5270
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Test mode:	802.11n(HT40)	Frequency(MHz):	5310
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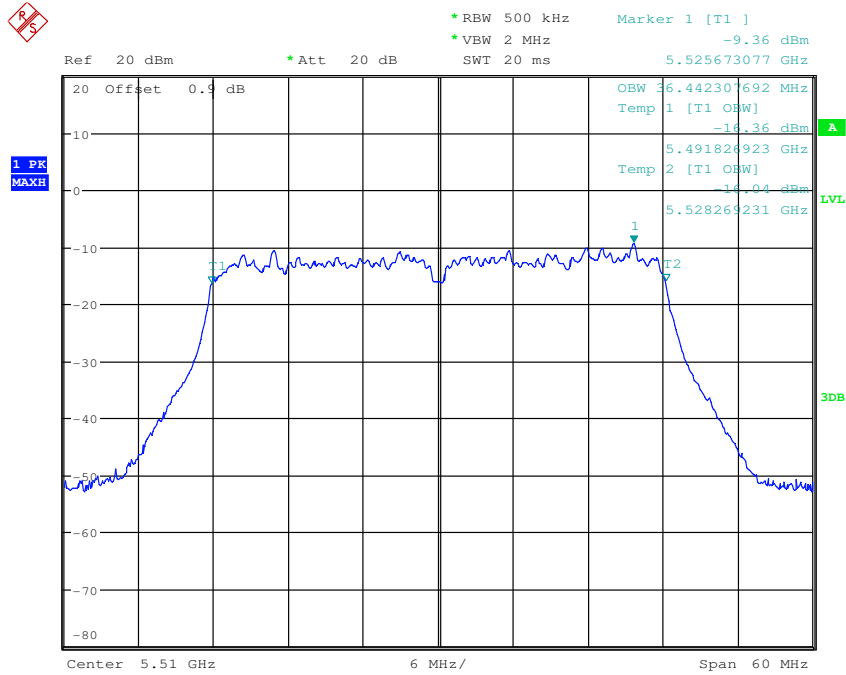




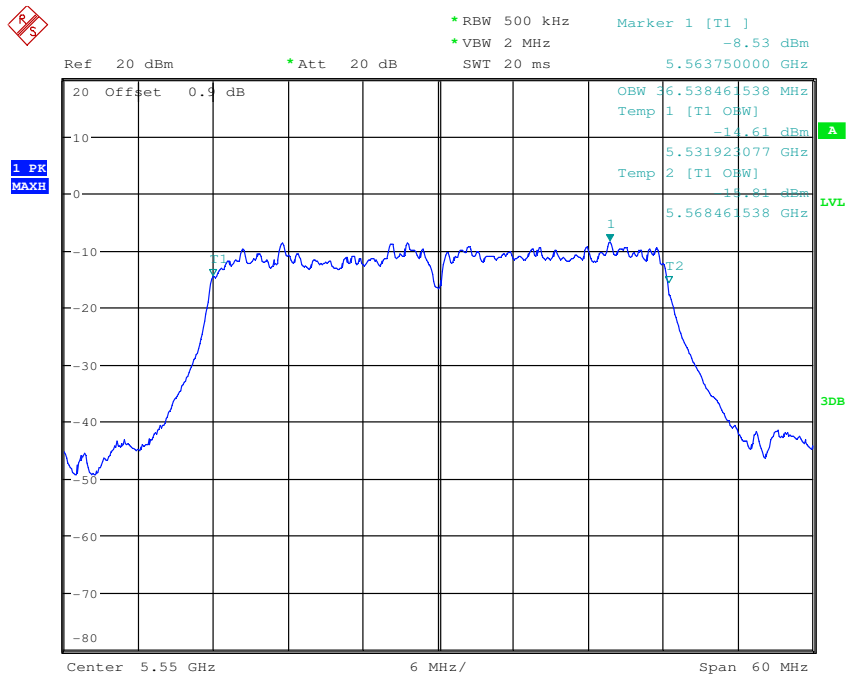
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Test mode:	802.11n(HT40)	Frequency(MHz):	5510
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Test mode:	802.11n(HT40)	Frequency(MHz):	5550
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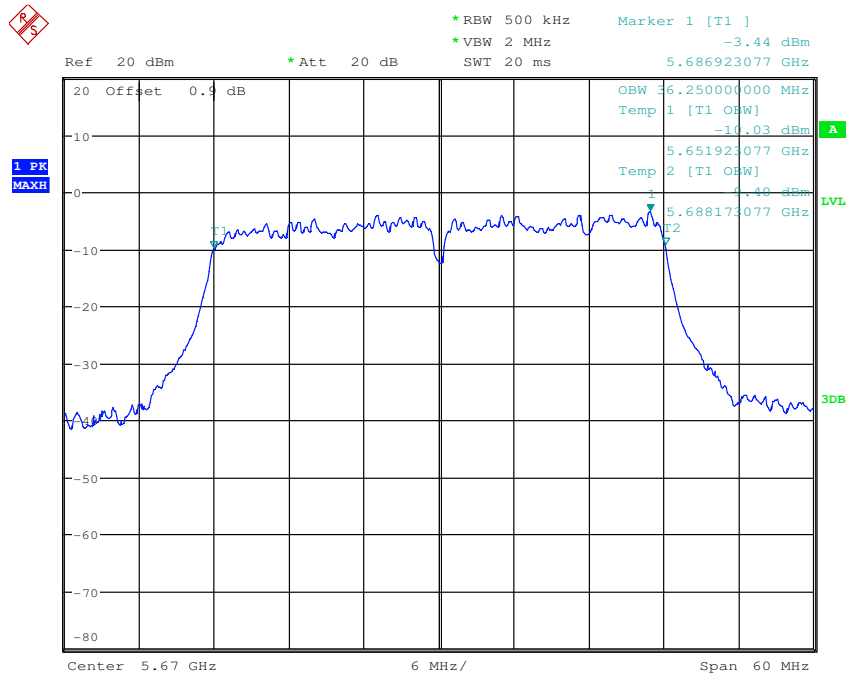




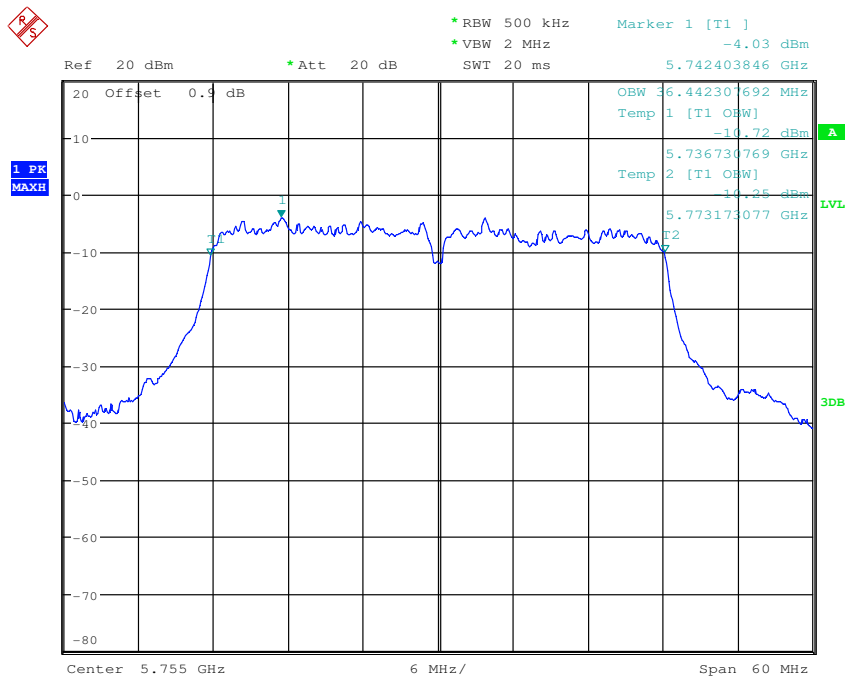
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Test mode:	802.11n(HT40)	Frequency(MHz):	5670
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Test mode:	802.11n(HT40)	Frequency(MHz):	5755
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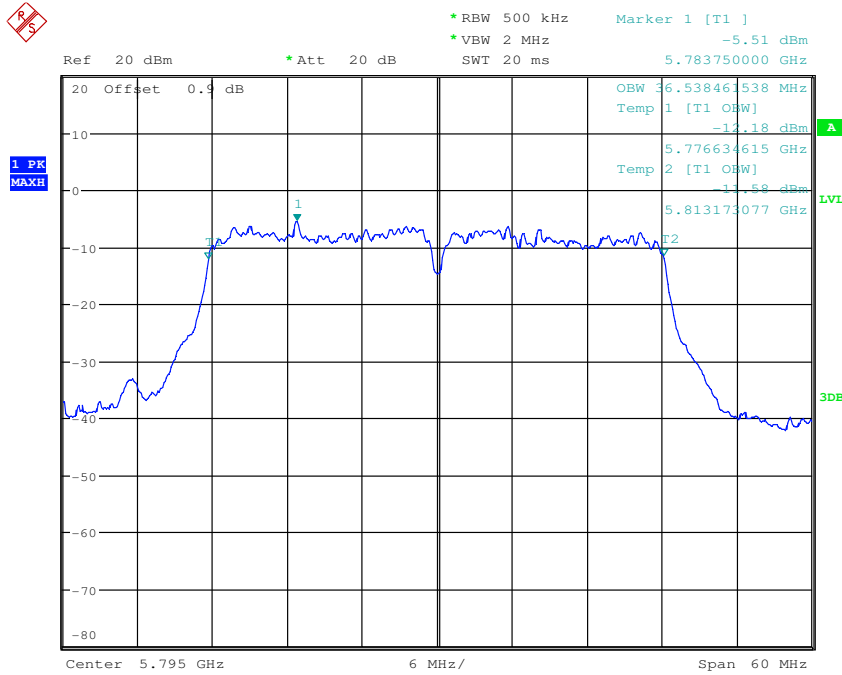




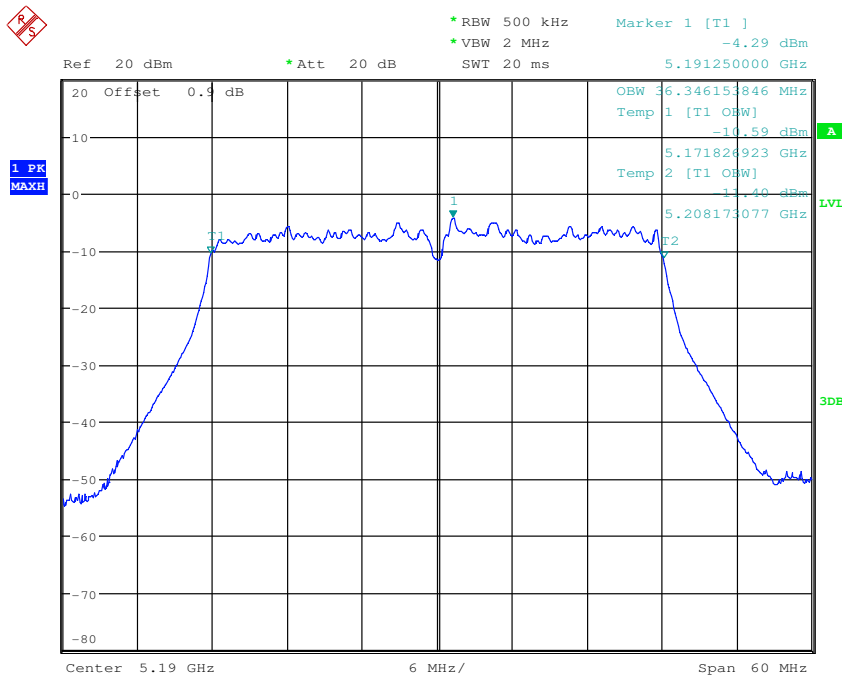
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Test mode:	802.11n(HT40)	Frequency(MHz):	5795
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Test mode:	802.11ac(HT40)	Frequency(MHz):	5190
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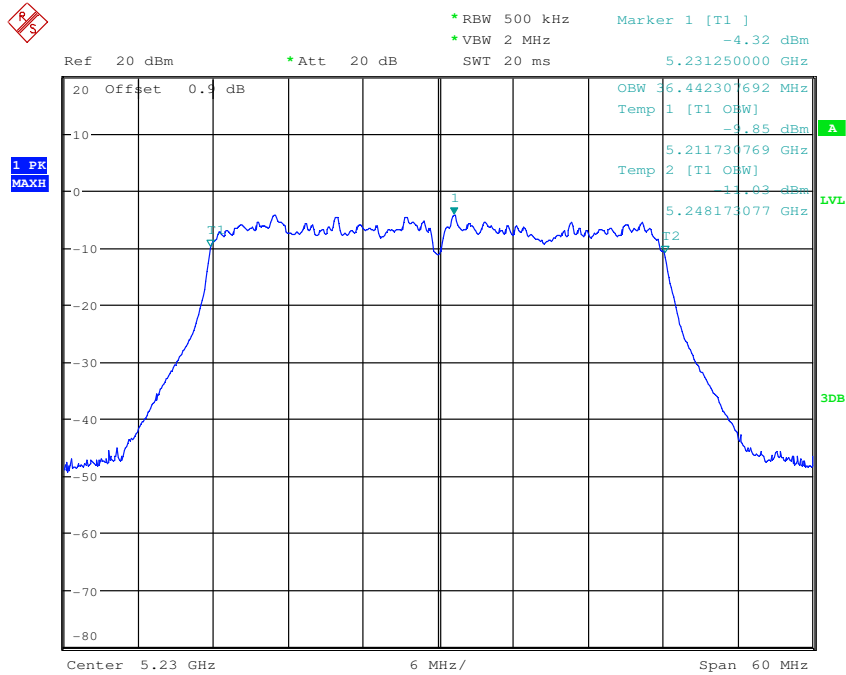




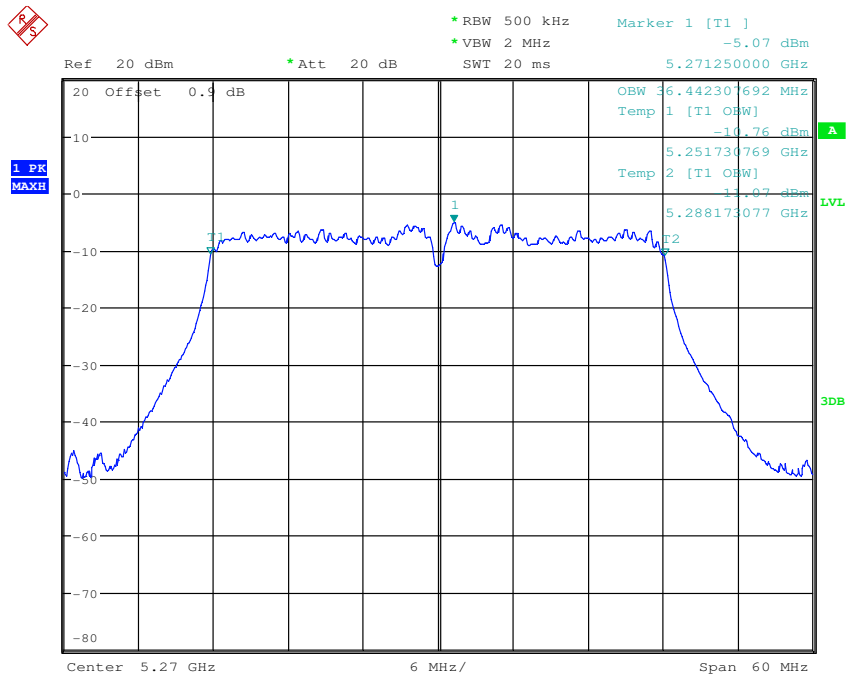
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Test mode:	802.11ac(HT40)	Frequency(MHz):	5230
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Test mode:	802.11ac(HT40)	Frequency(MHz):	5270
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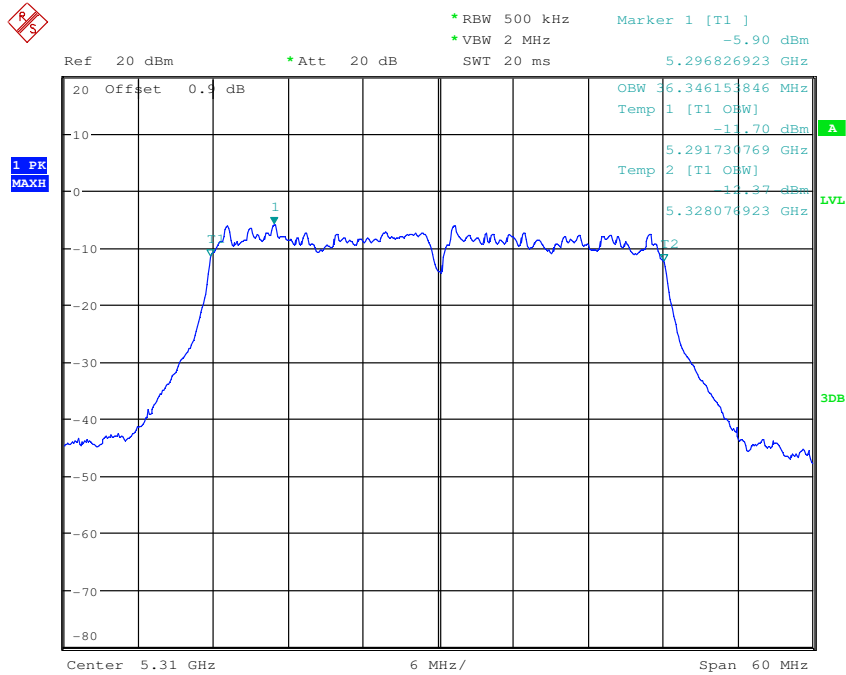




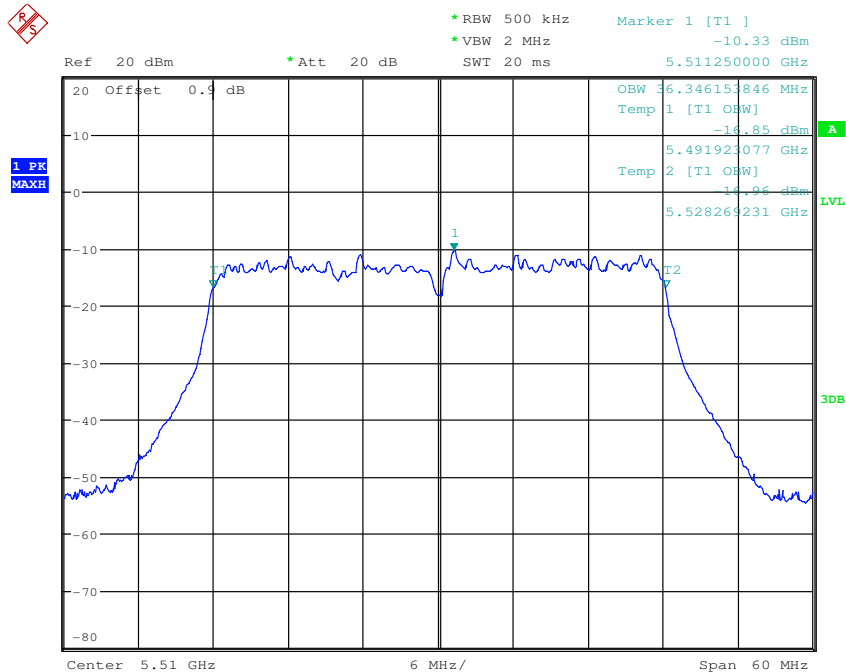
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Test mode:	802.11ac(HT40)	Frequency(MHz):	5310
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Test mode:	802.11ac(HT40)	Frequency(MHz):	5510
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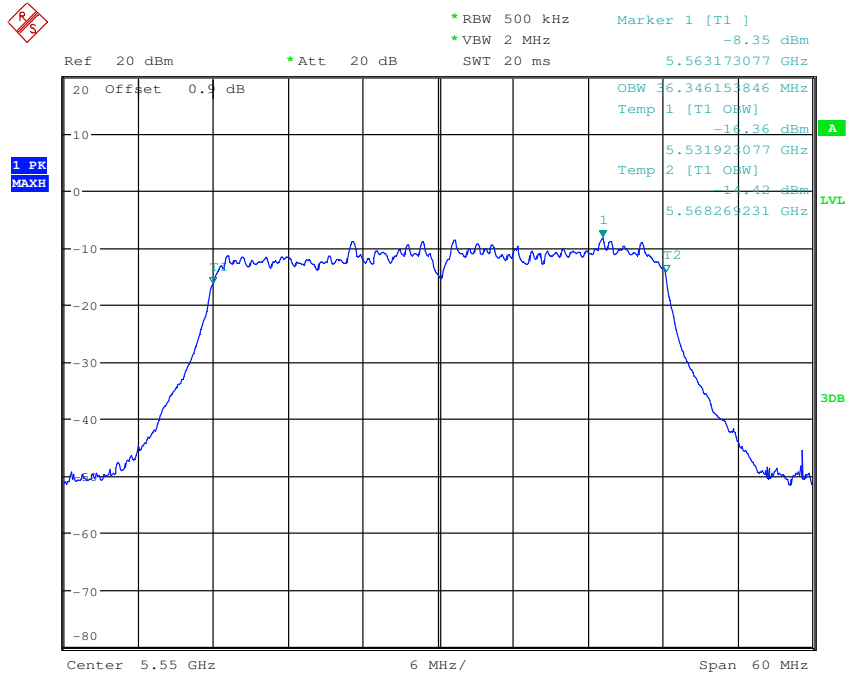




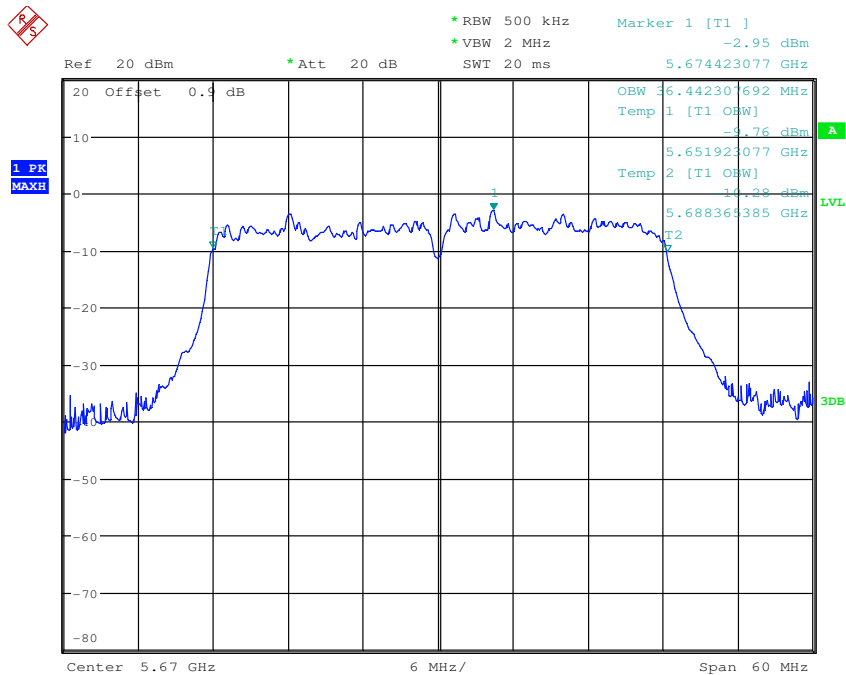
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Test mode:	802.11ac(HT40)	Frequency(MHz):	5550
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Test mode:	802.11ac(HT40)	Frequency(MHz):	5670
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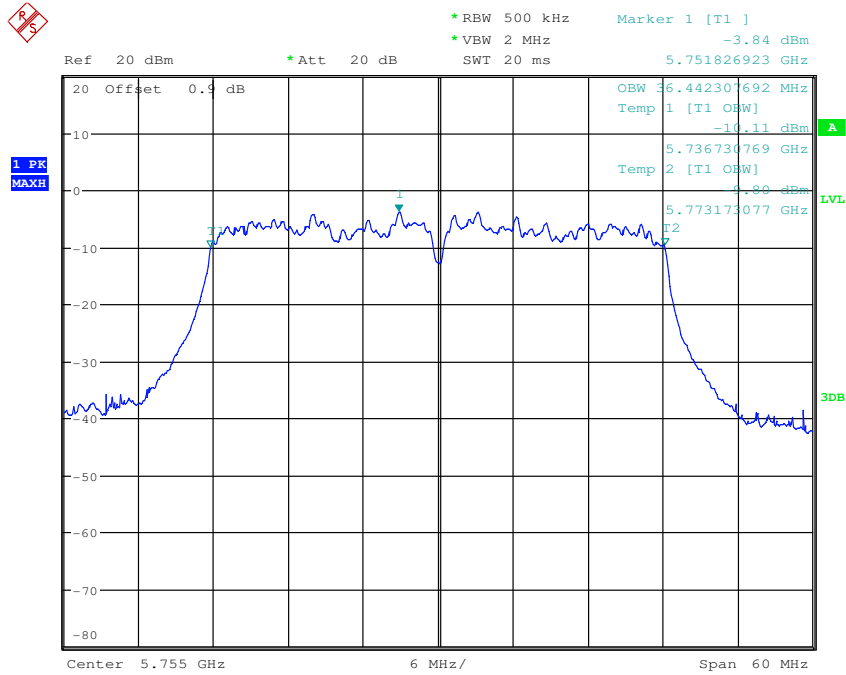




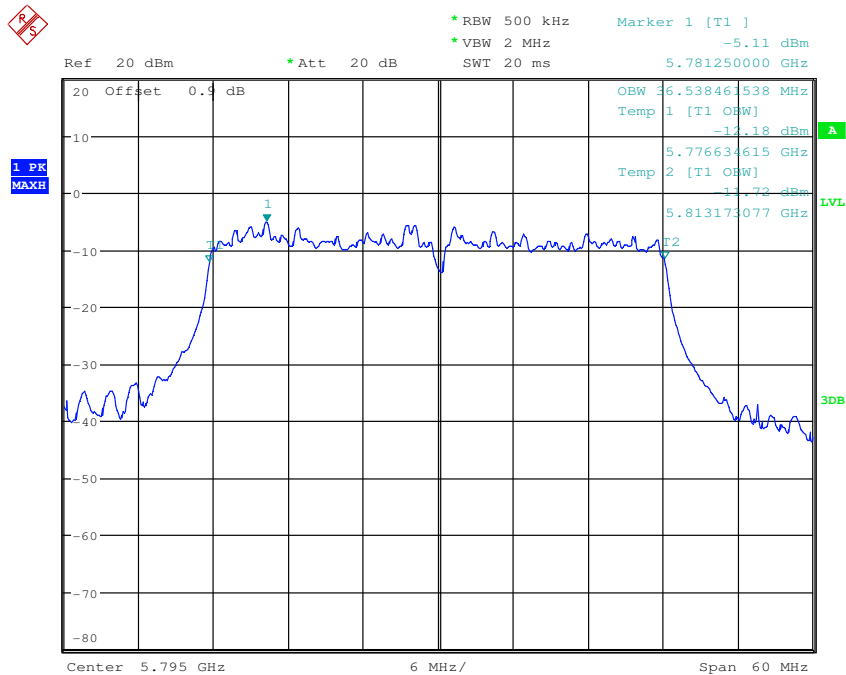
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Test mode:	802.11ac(HT40)	Frequency(MHz):	5755
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Test mode:	802.11ac(HT40)	Frequency(MHz):	5795
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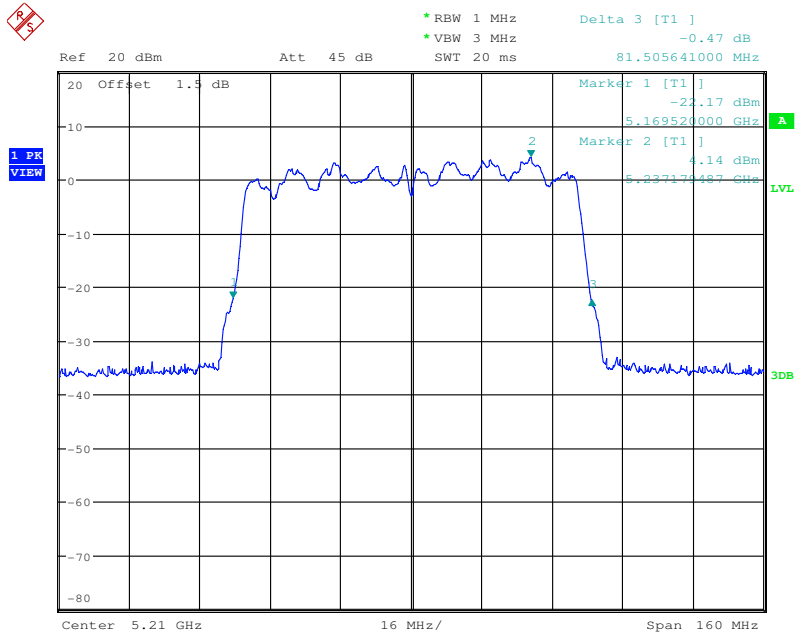




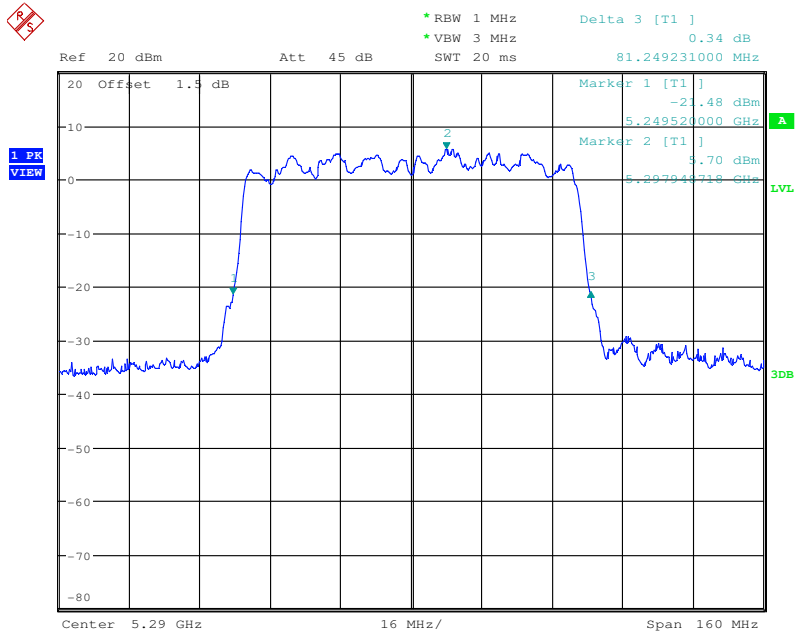
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Test mode:	802.11ac(HT80)	Frequency(MHz):	5210
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Test mode:	802.11ac(HT80)	Frequency(MHz):	5290
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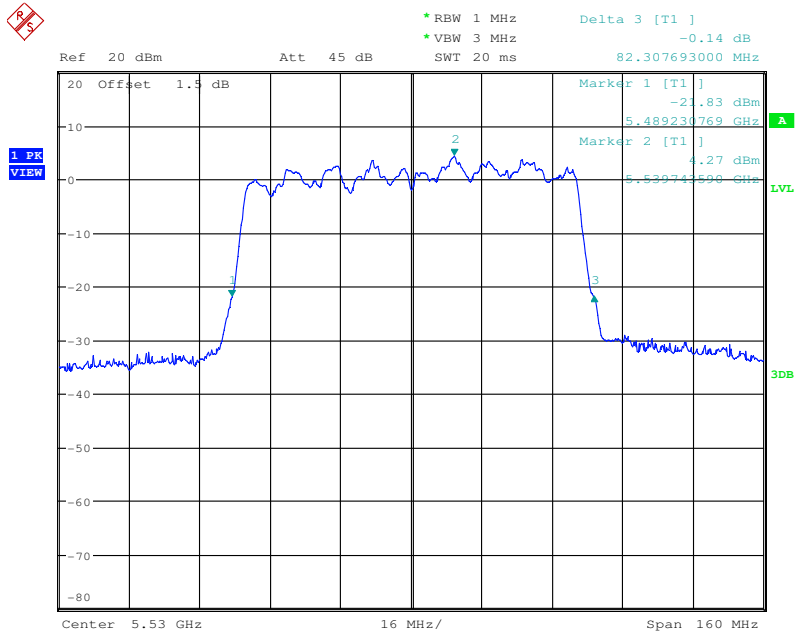




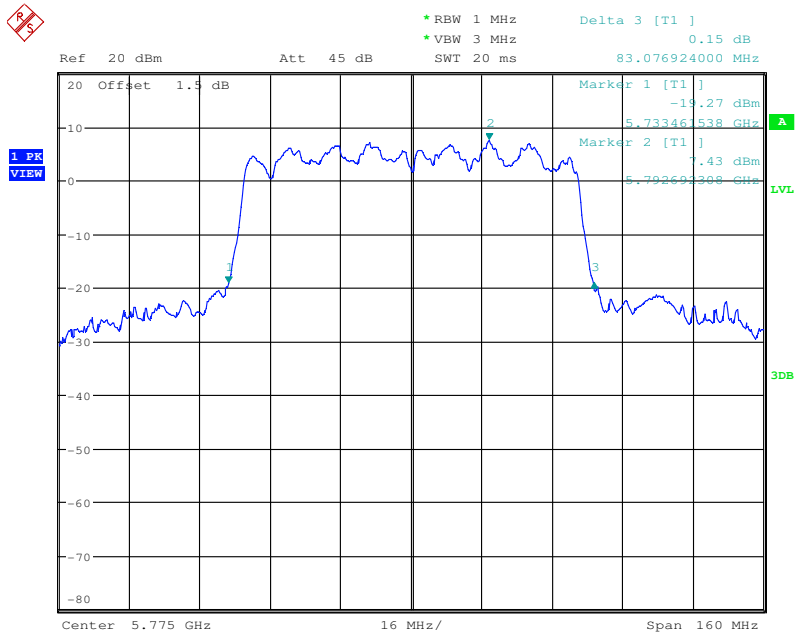
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Test mode:	802.11ac(HT80)	Frequency(MHz):	5530
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Test mode:	802.11ac(HT80)	Frequency(MHz):	5775
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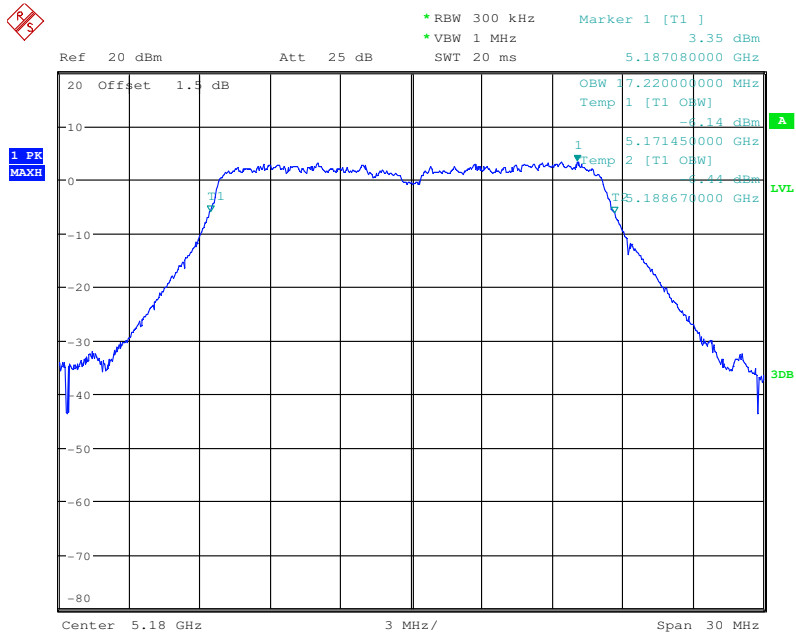




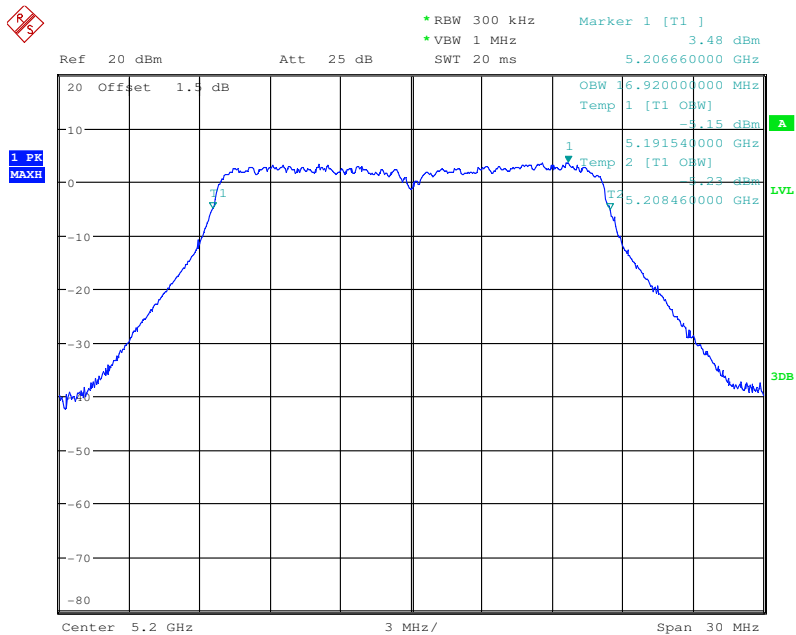
99% occupied bandwidth

Test plot as follows:

Test mode:	802.11a	Frequency(MHz):	5180
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Test mode:	802.11a	Frequency(MHz):	5200
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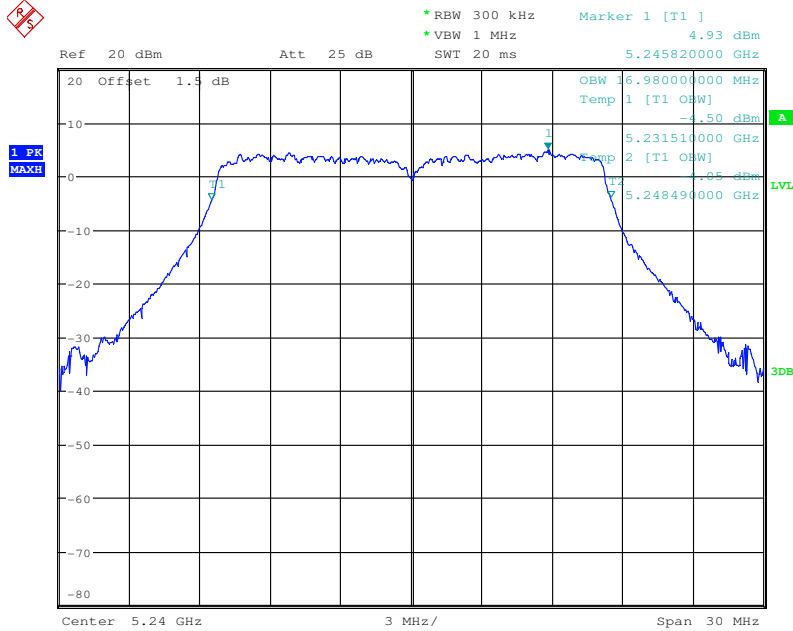




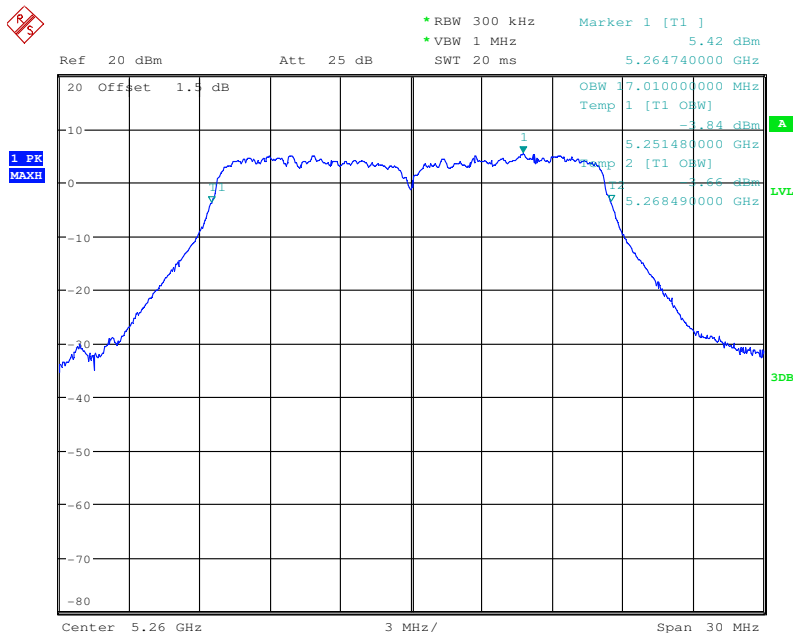
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Test mode:	802.11a	Frequency(MHz):	5240
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Test mode:	802.11a	Frequency(MHz):	5260
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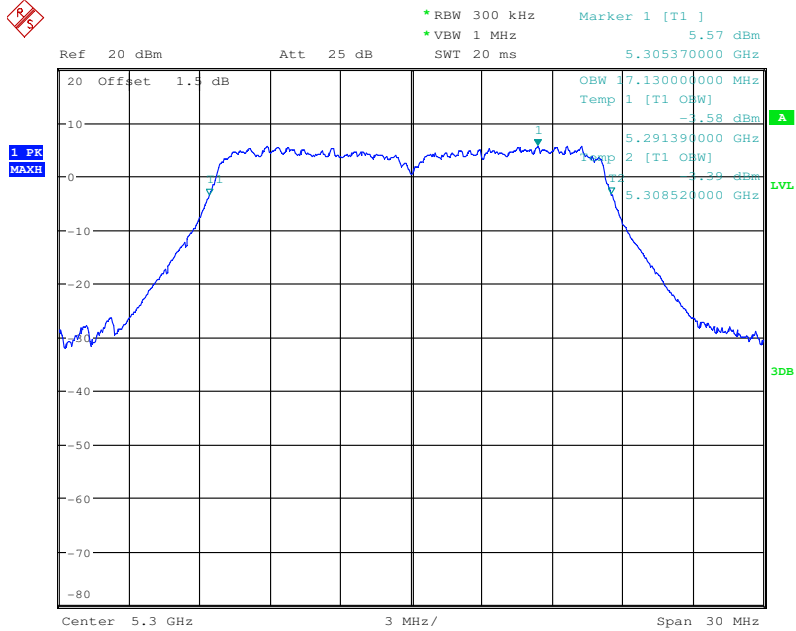




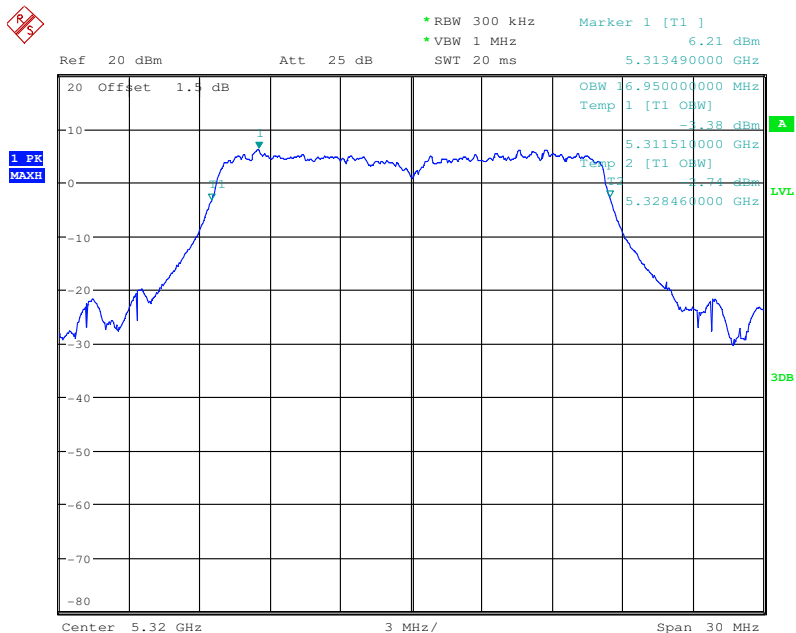
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Test mode:	802.11a	Frequency(MHz):	5300
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Test mode:	802.11a	Frequency(MHz):	5320
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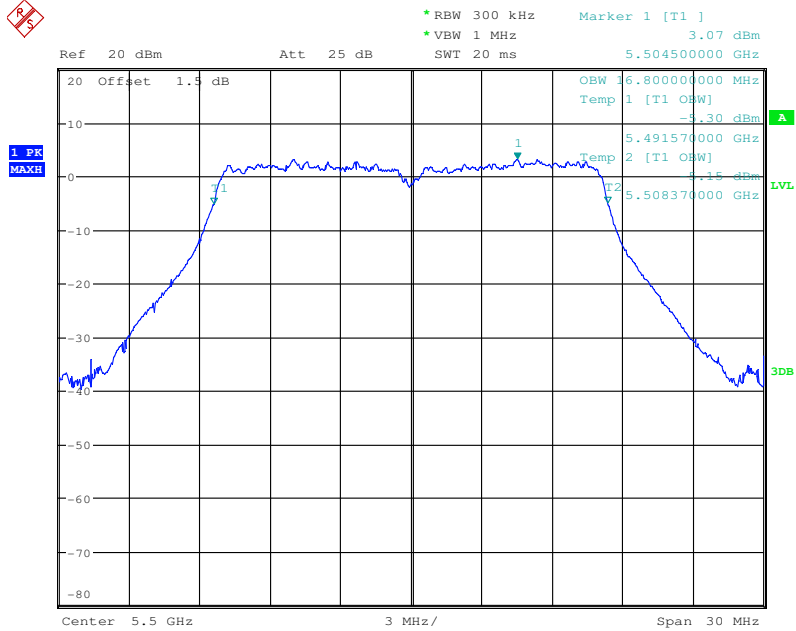




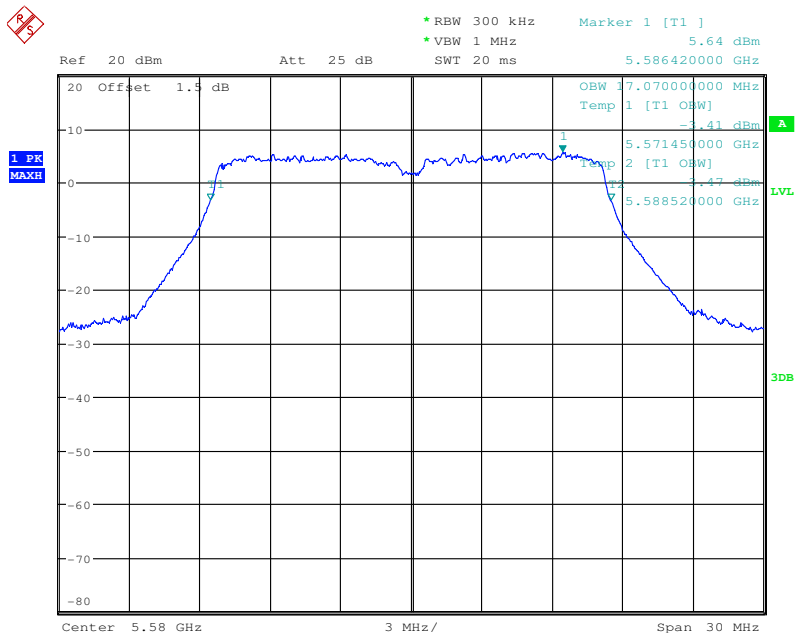
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Test mode:	802.11a	Frequency(MHz):	5500
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Test mode:	802.11a	Frequency(MHz):	5580
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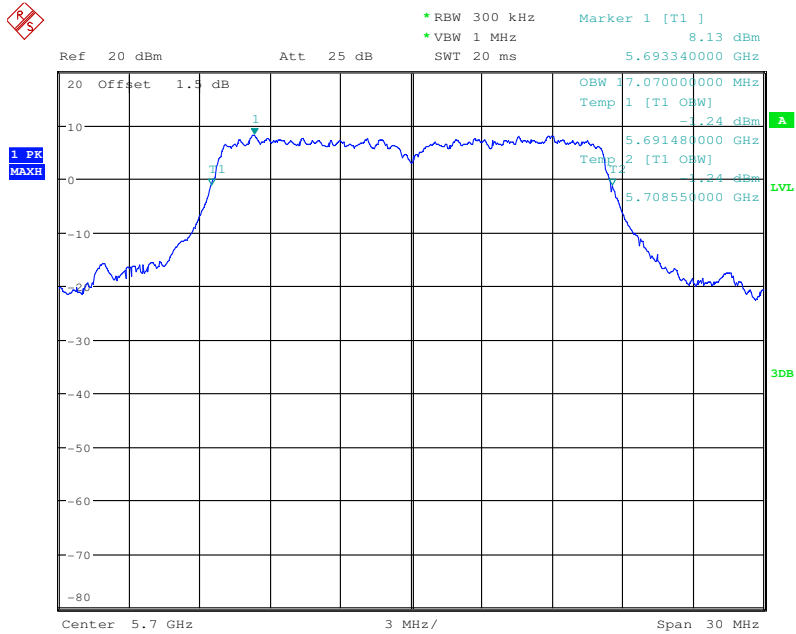




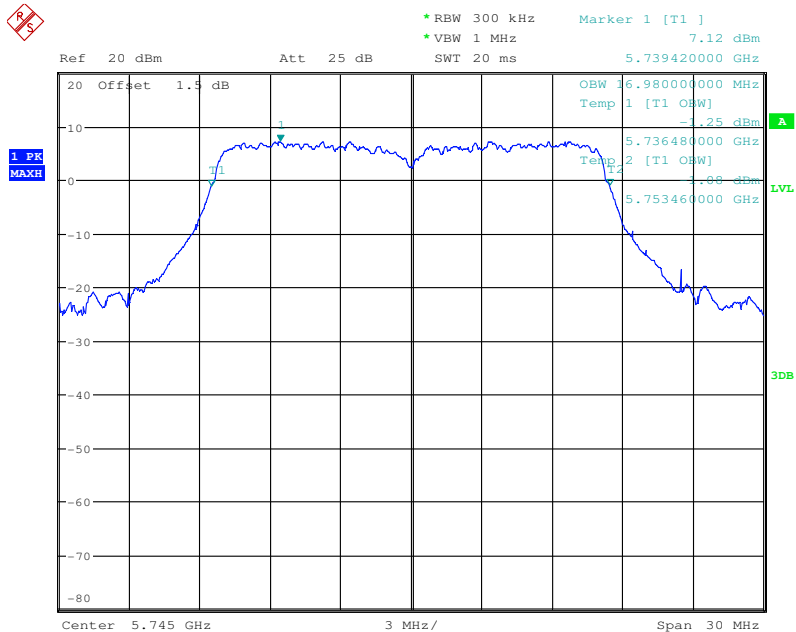
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Test mode:	802.11a	Frequency(MHz):	5700
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Test mode:	802.11a	Frequency(MHz):	5745
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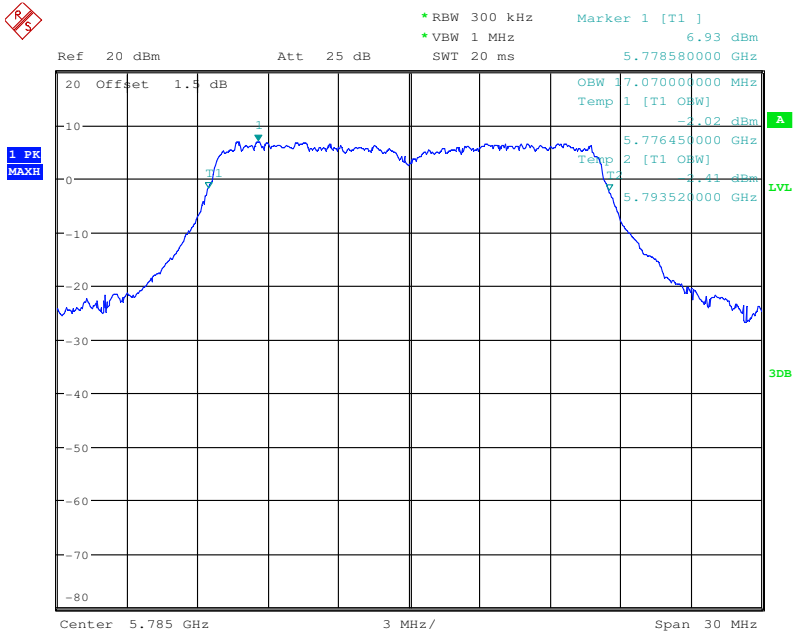




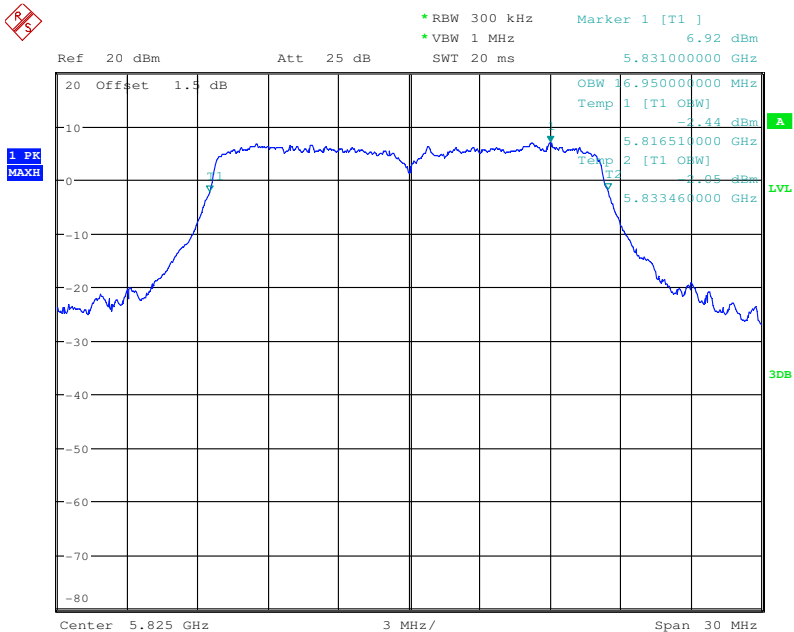
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Test mode:	802.11a	Frequency(MHz):	5785
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Test mode:	802.11a	Frequency(MHz):	5825
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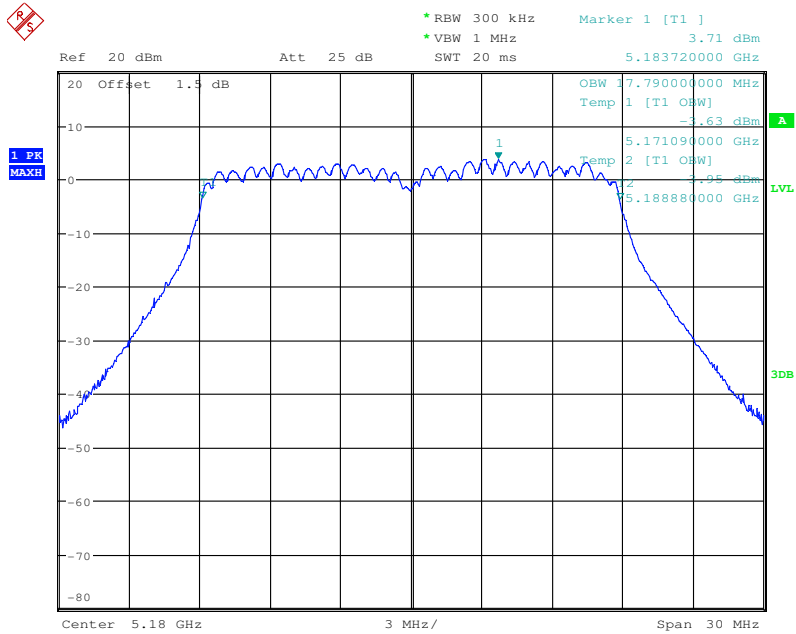




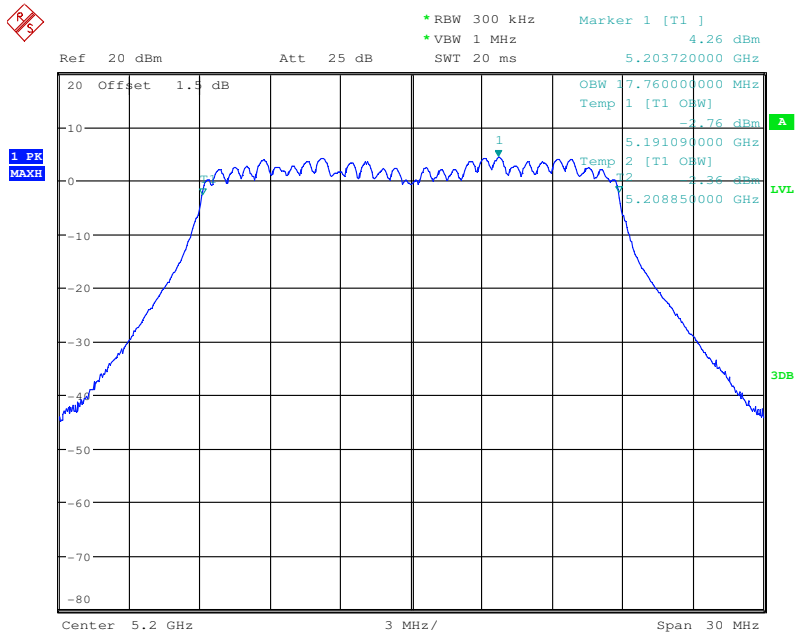
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Test mode:	802.11n(HT20)	Frequency(MHz):	5180
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Test mode:	802.11n(HT20)	Frequency(MHz):	5200
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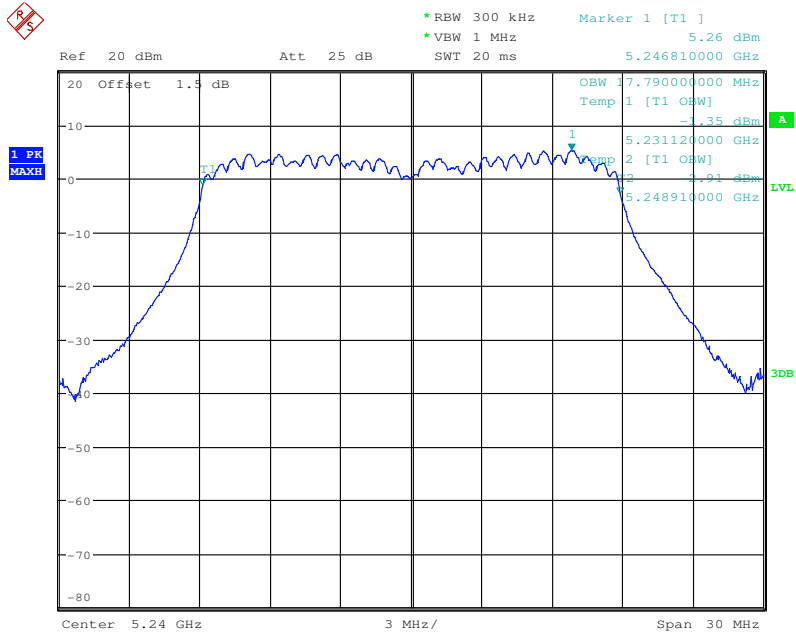




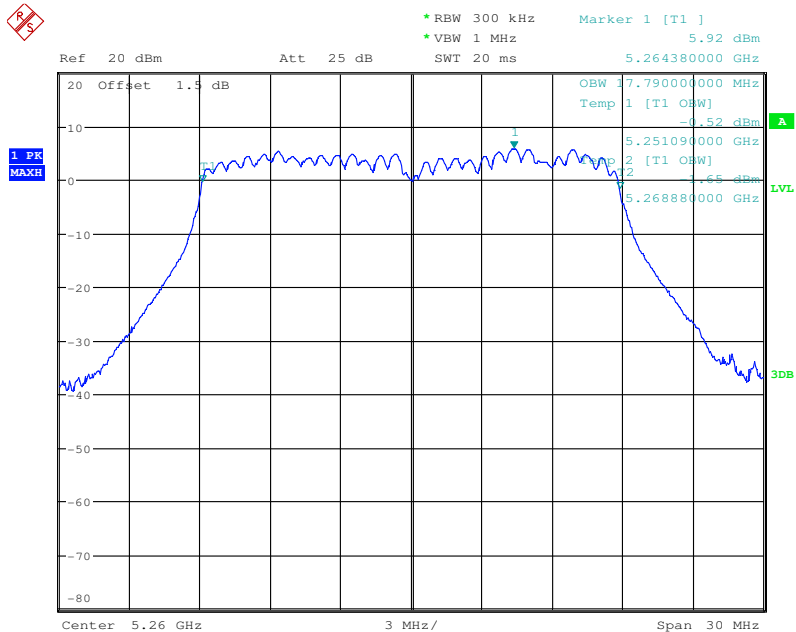
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Test mode:	802.11n(HT20)	Frequency(MHz):	5240
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Test mode:	802.11n(HT20)	Frequency(MHz):	5260
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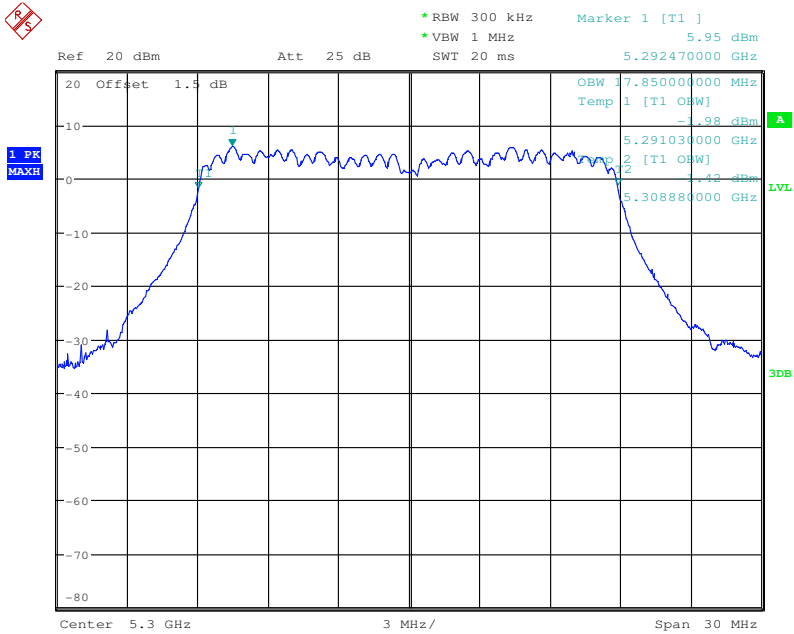




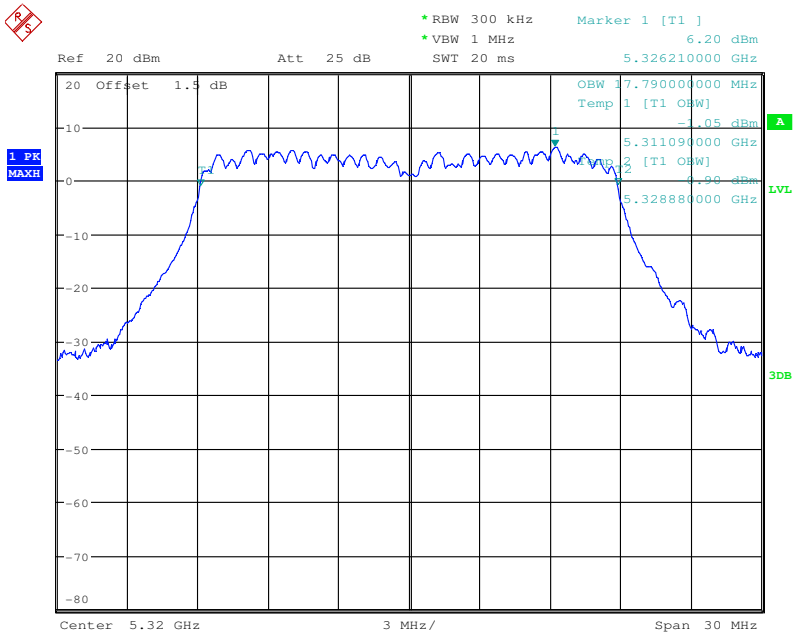
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Test mode:	802.11n(HT20)	Frequency(MHz):	5300
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Test mode:	802.11n(HT20)	Frequency(MHz):	5320
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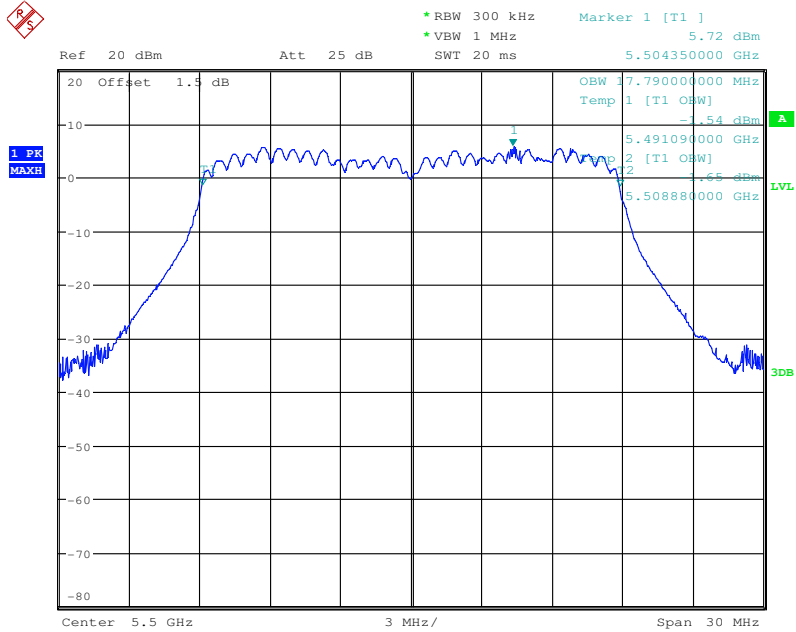




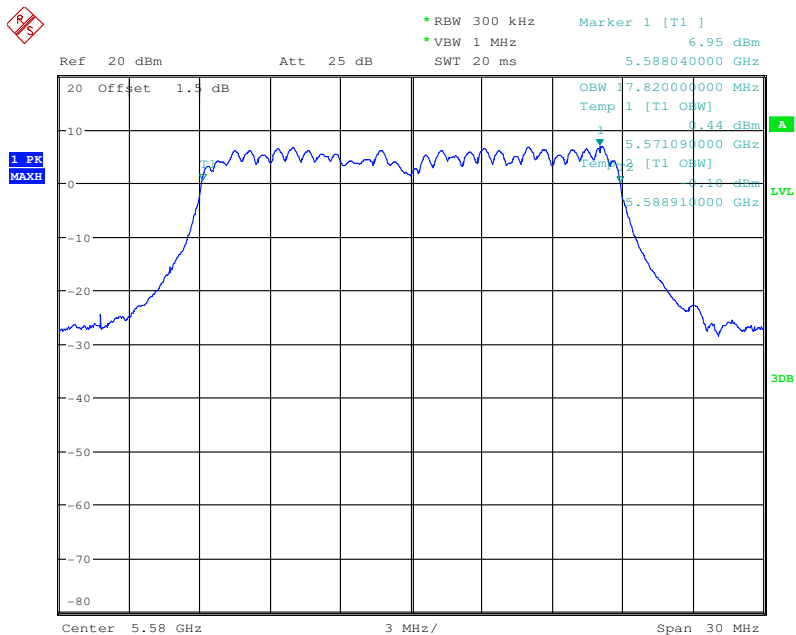
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Test mode:	802.11n(HT20)	Frequency(MHz):	5500
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Test mode:	802.11n(HT20)	Frequency(MHz):	5580
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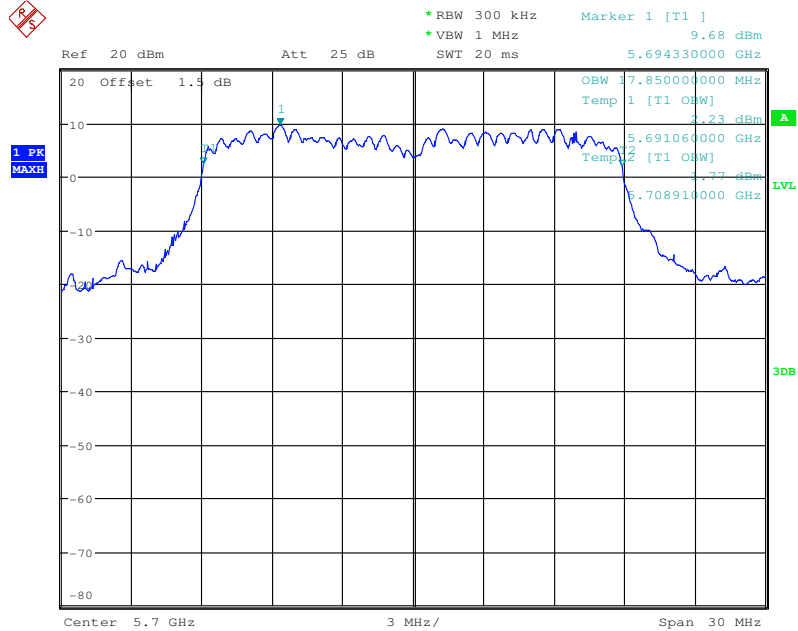




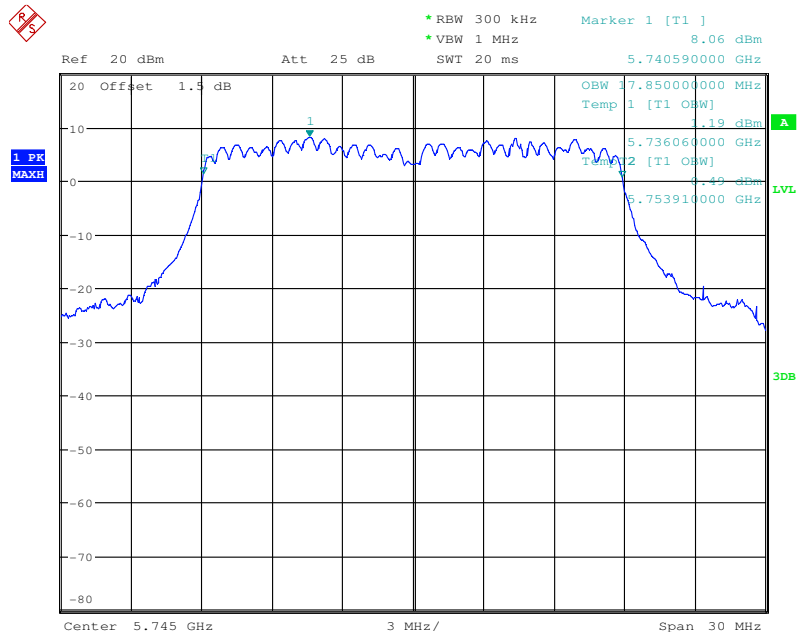
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Test mode:	802.11n(HT20)	Frequency(MHz):	5700
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Test mode:	802.11n(HT20)	Frequency(MHz):	5745
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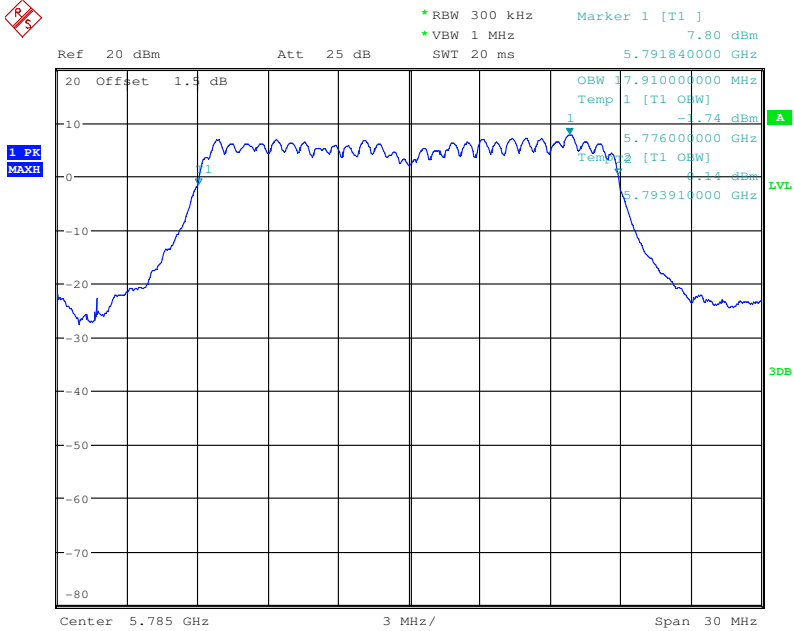




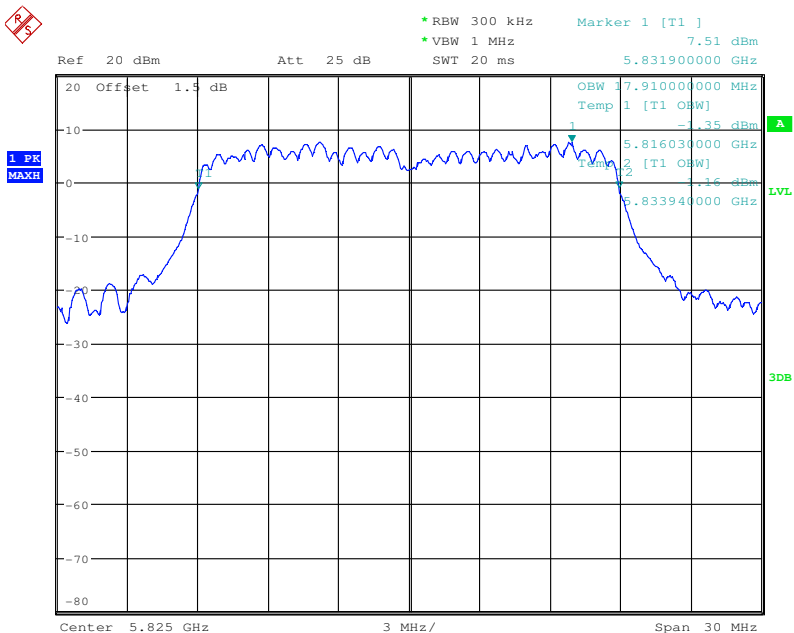
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Test mode:	802.11n(HT20)	Frequency(MHz):	5785
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Test mode:	802.11n(HT20)	Frequency(MHz):	5825
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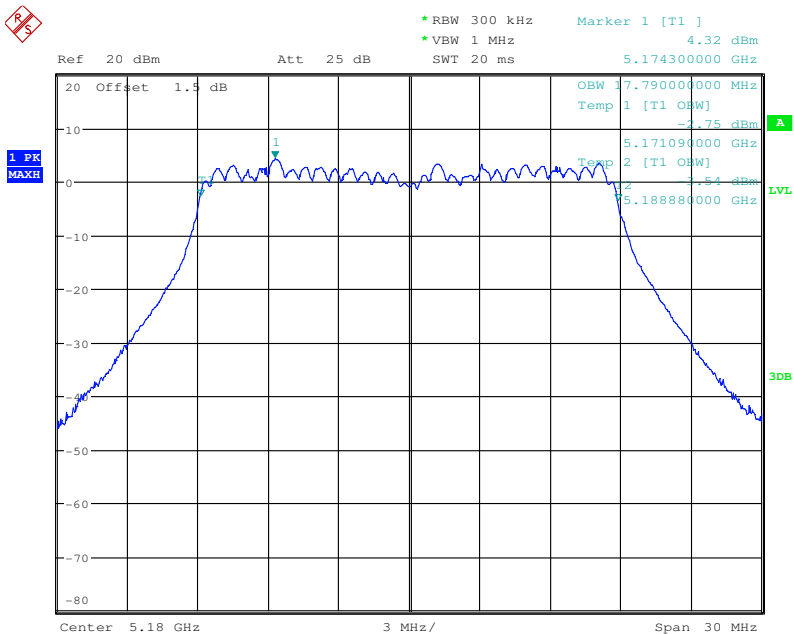


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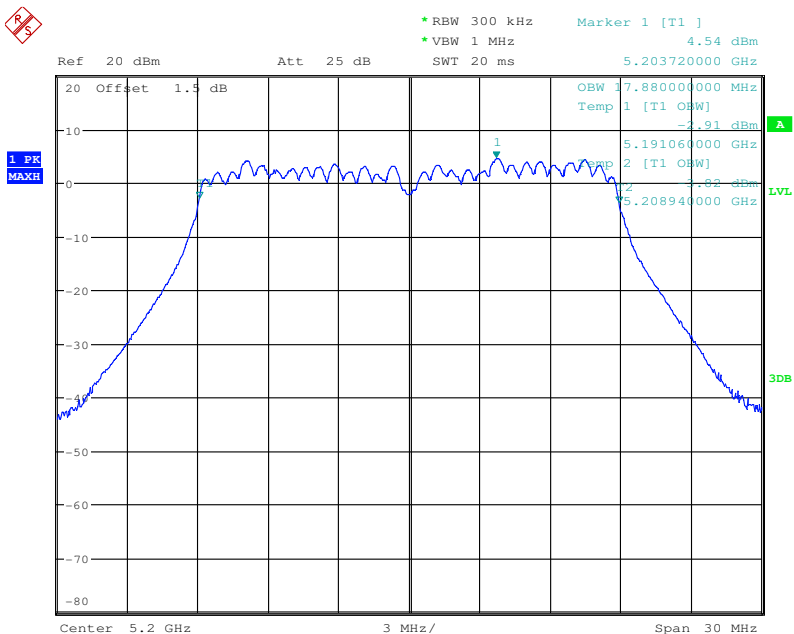
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Test mode:	802.11ac(HT20)	Frequency(MHz):	5180
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Test mode:	802.11ac(HT20)	Frequency(MHz):	5200
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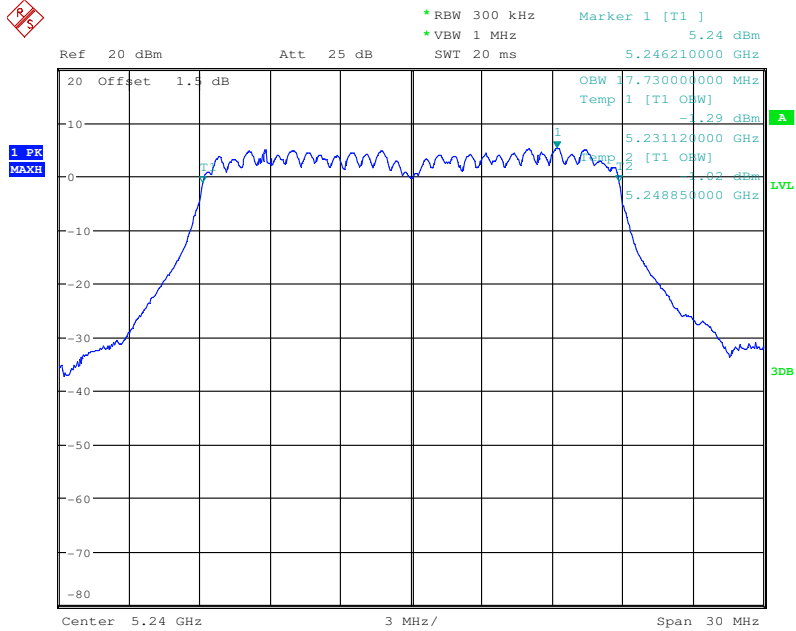
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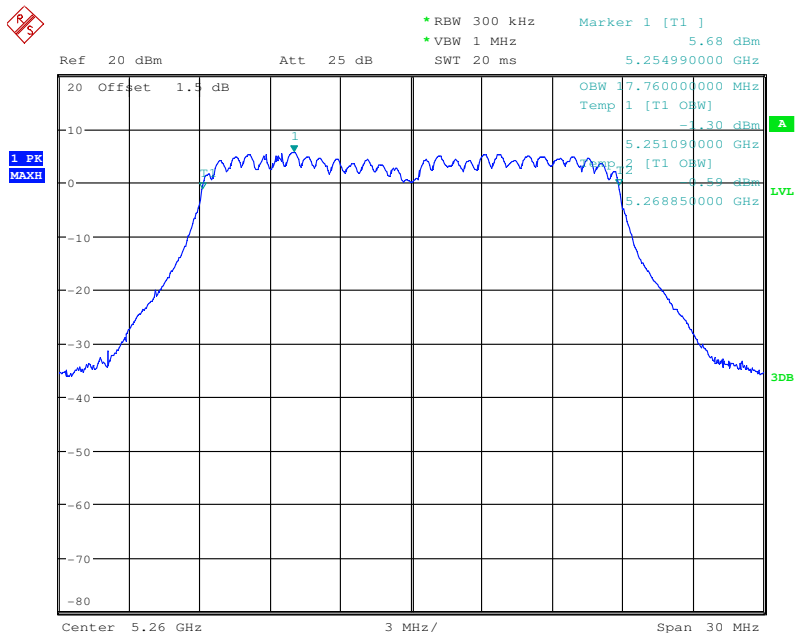
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Test mode:	802.11ac(HT20)	Frequency(MHz):	5240
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Test mode:	802.11ac(HT20)	Frequency(MHz):	5260
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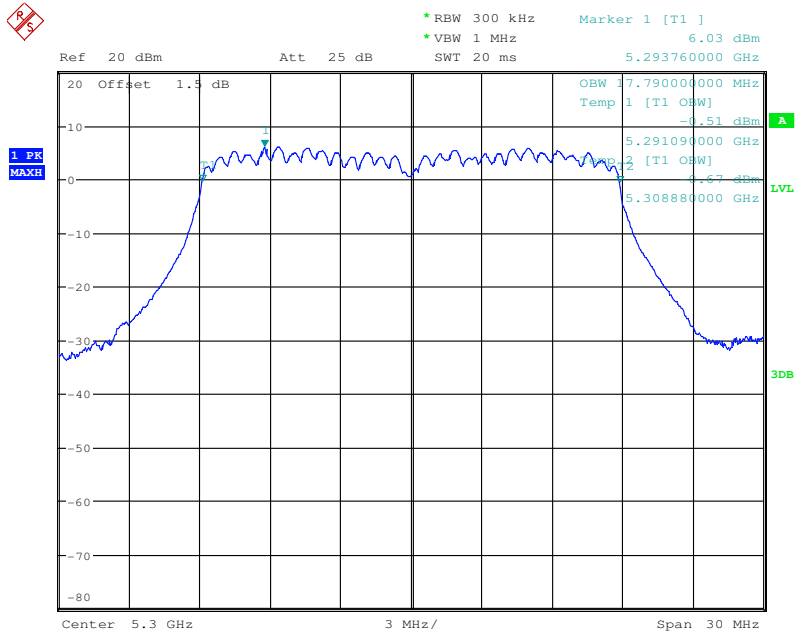




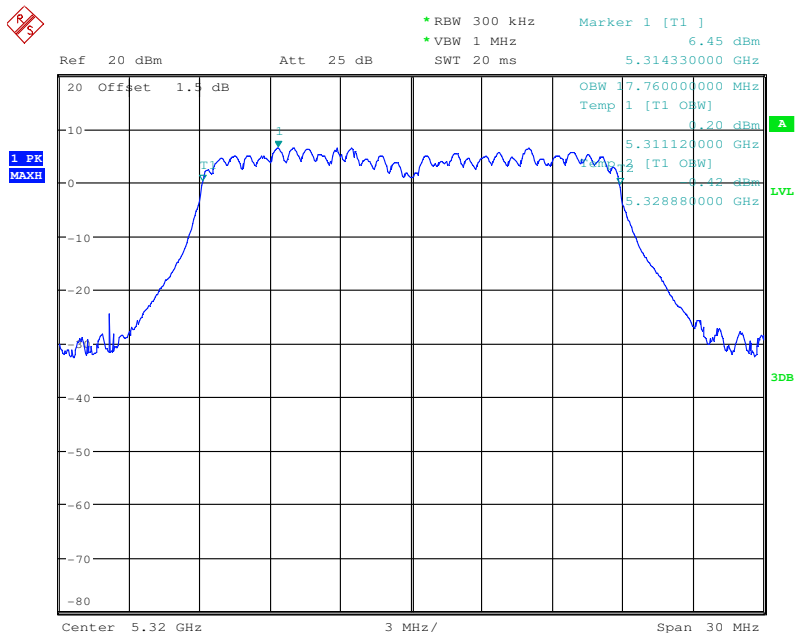
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Test mode:	802.11ac(HT20)	Frequency(MHz):	5300
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Test mode:	802.11ac(HT20)	Frequency(MHz):	5320
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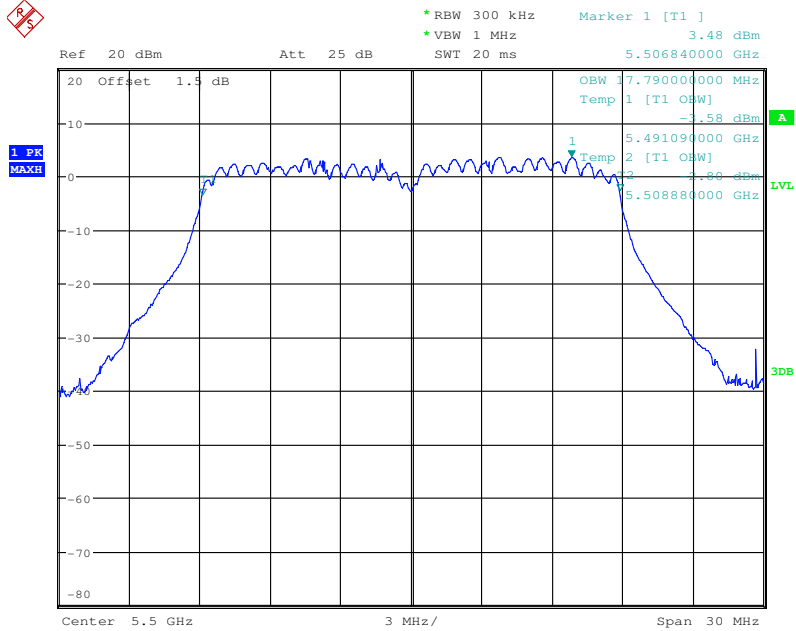




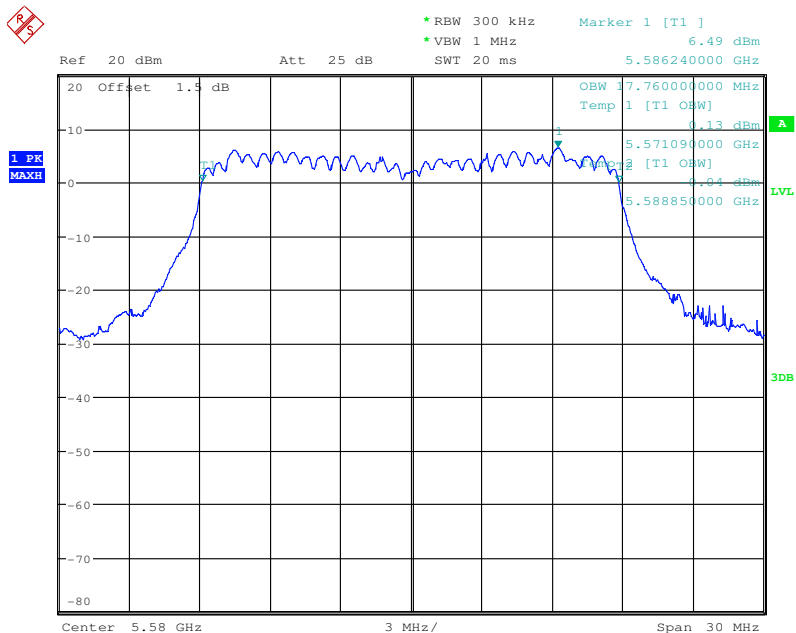
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Test mode:	802.11ac(HT20)	Frequency(MHz):	5500
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Test mode:	802.11ac(HT20)	Frequency(MHz):	5580
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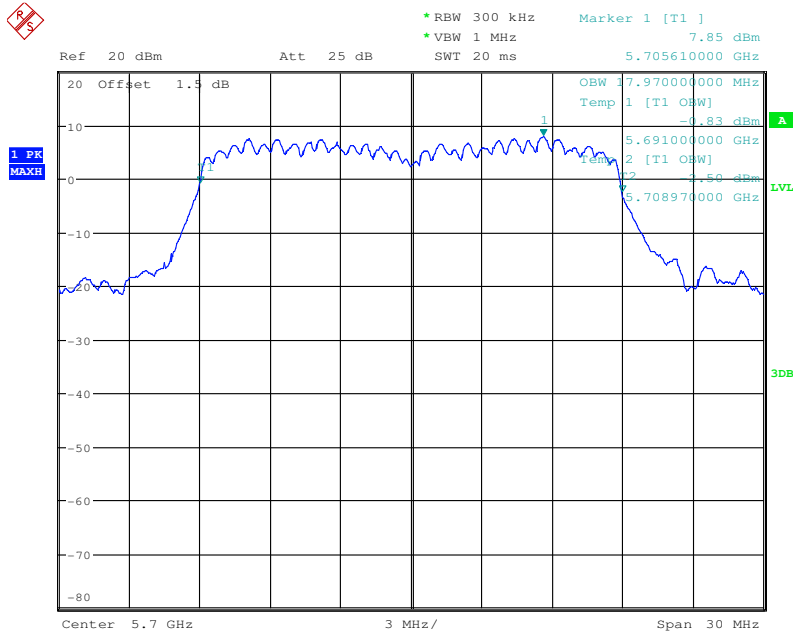




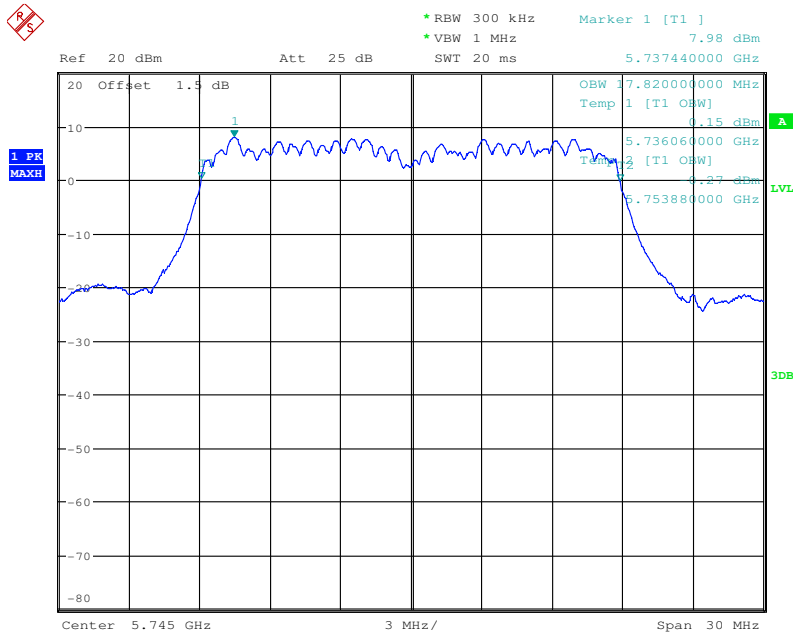
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Test mode:	802.11ac(HT20)	Frequency(MHz):	5700
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Test mode:	802.11ac(HT20)	Frequency(MHz):	5745
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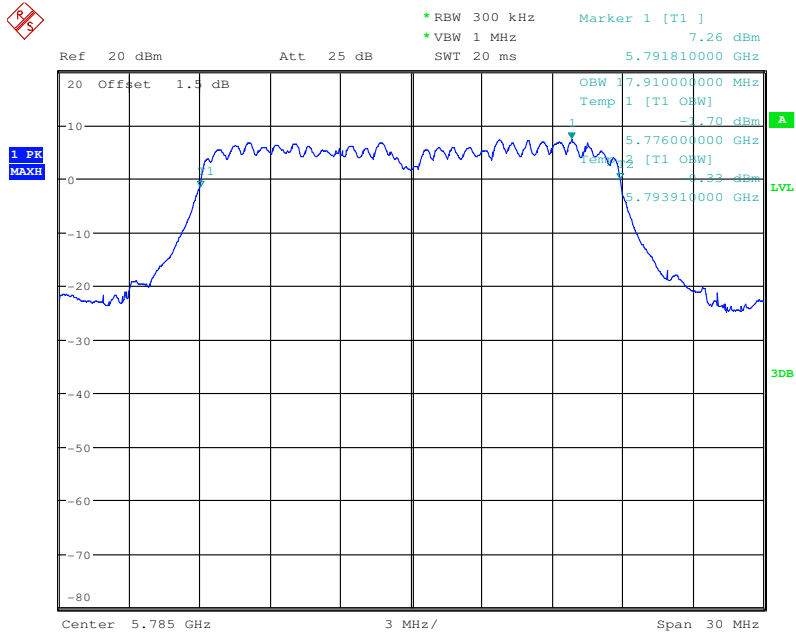




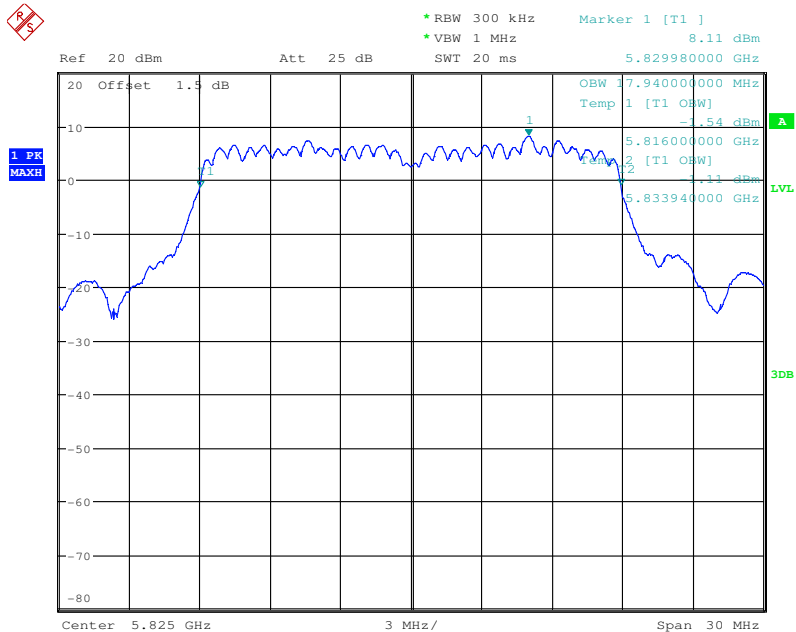
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Test mode:	802.11ac(HT20)	Frequency(MHz):	5785
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Test mode:	802.11ac(HT20)	Frequency(MHz):	5825
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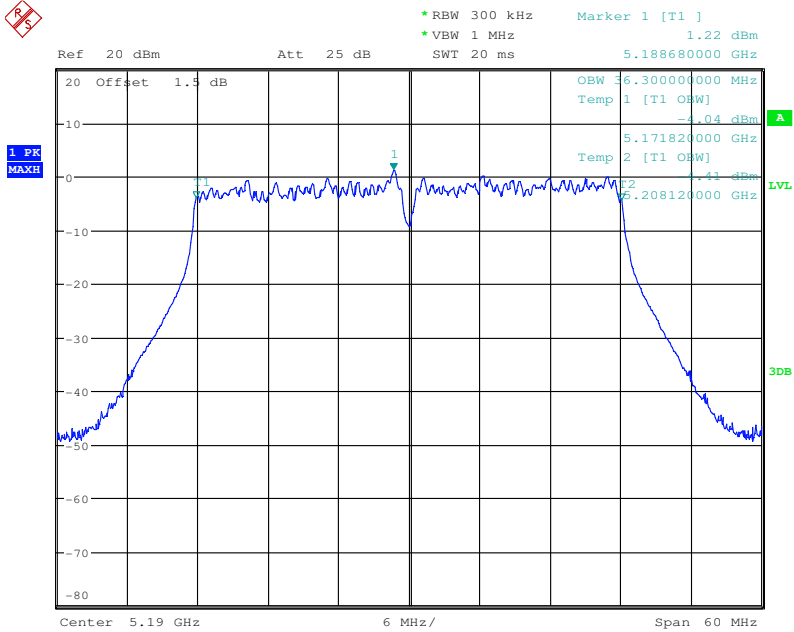




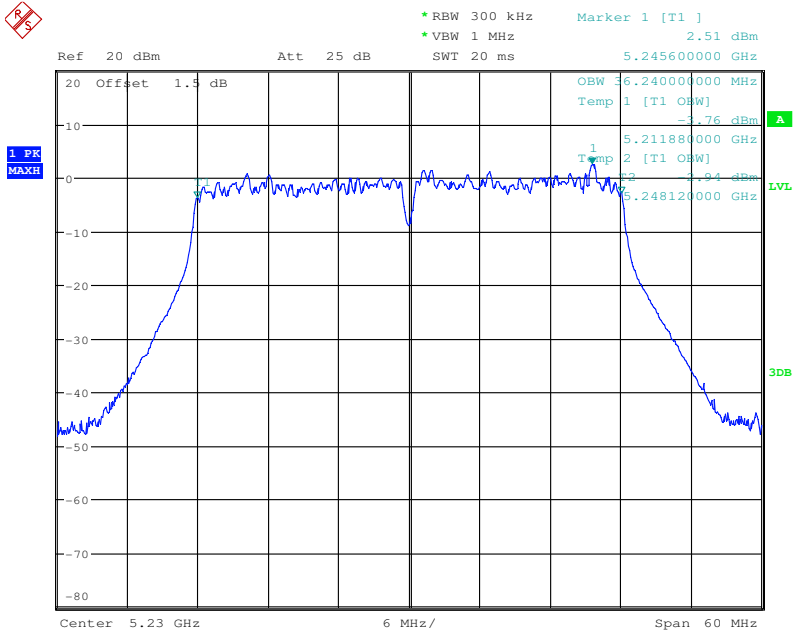
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Test mode:	802.11n(HT40)	Frequency(MHz):	5190
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Test mode:	802.11n(HT40)	Frequency(MHz):	5230
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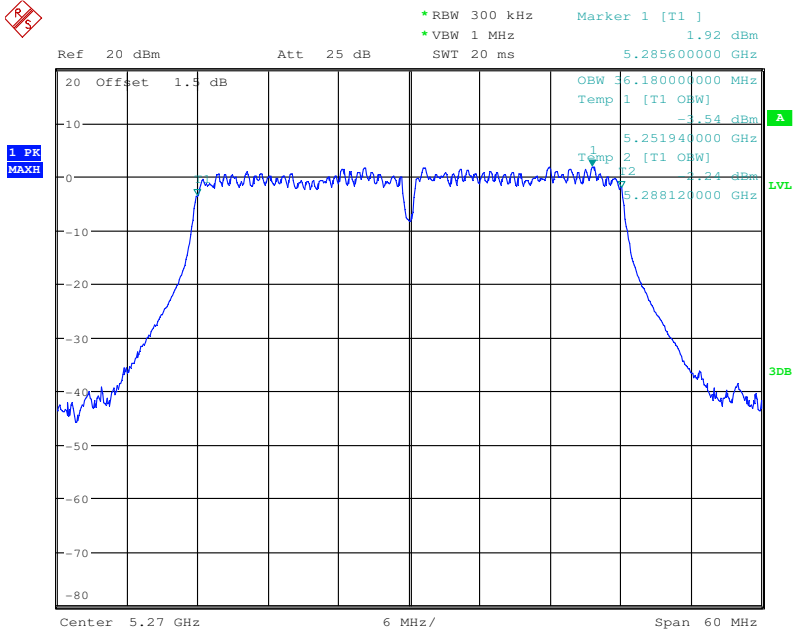




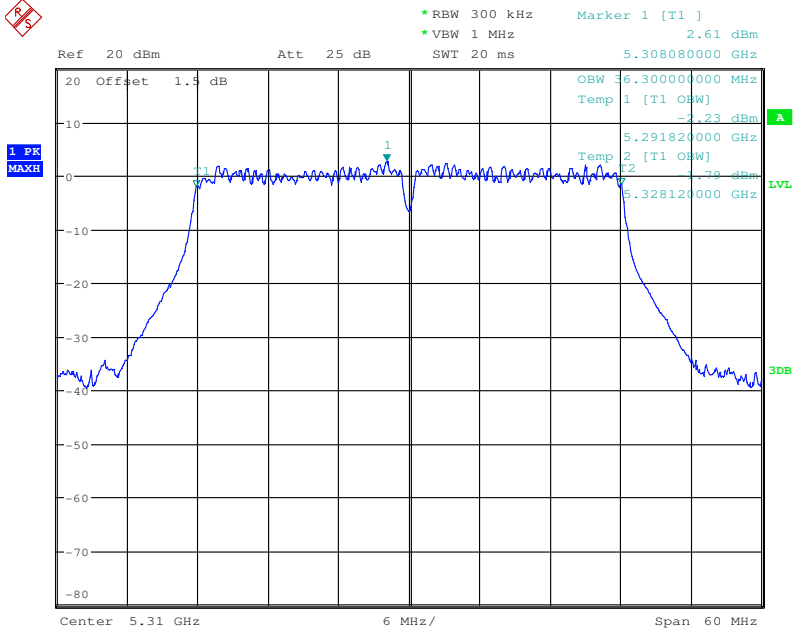
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Test mode:	802.11n(HT40)	Frequency(MHz):	5270
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Test mode:	802.11n(HT40)	Frequency(MHz):	5310
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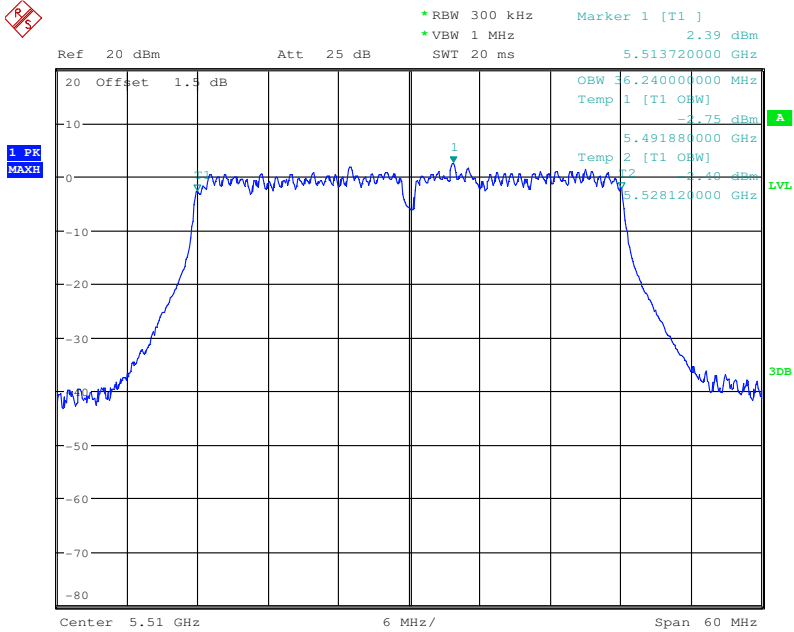




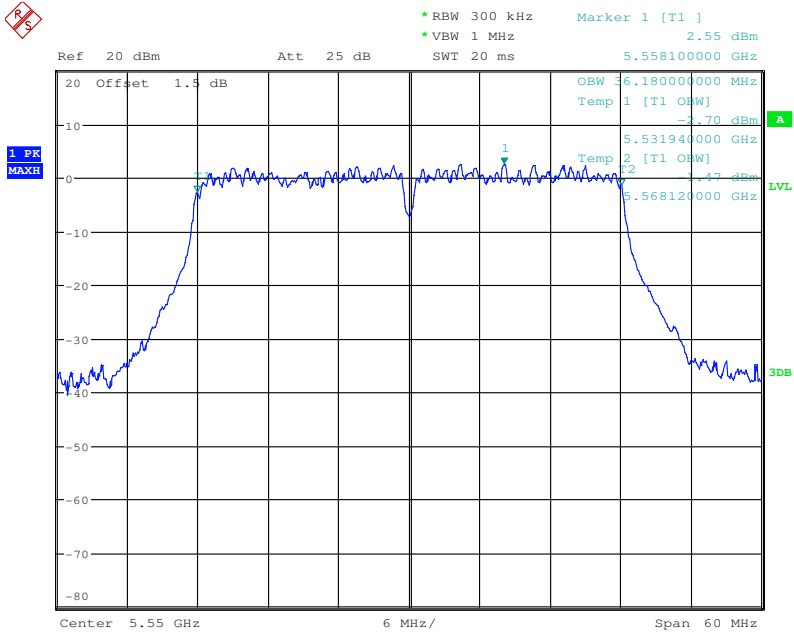
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Test mode:	802.11n(HT40)	Frequency(MHz):	5510
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Test mode:	802.11n(HT40)	Frequency(MHz):	5550
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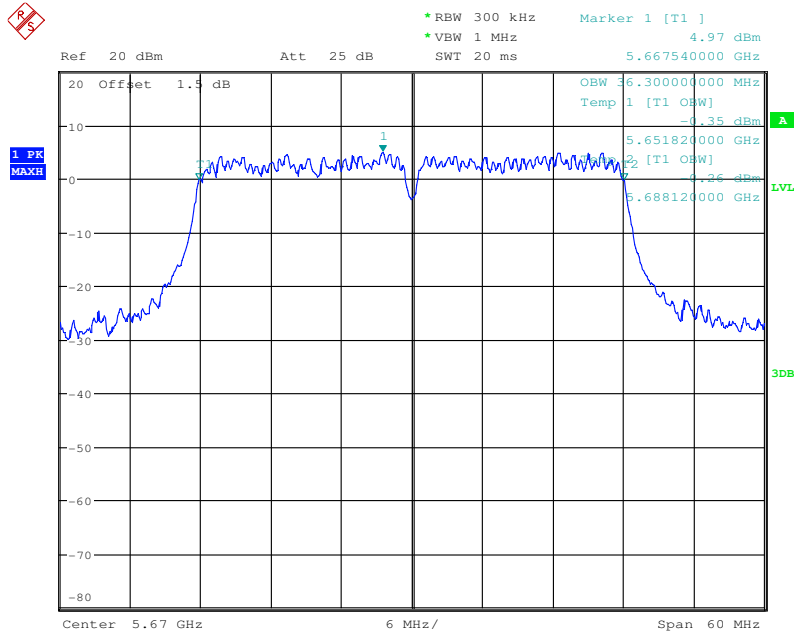




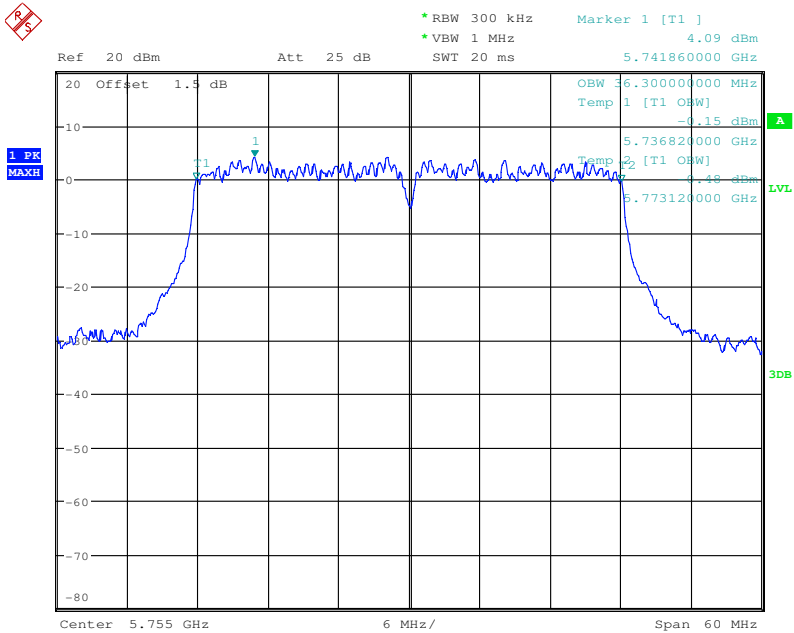
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Test mode:	802.11n(HT40)	Frequency(MHz):	5670
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Test mode:	802.11n(HT40)	Frequency(MHz):	5755
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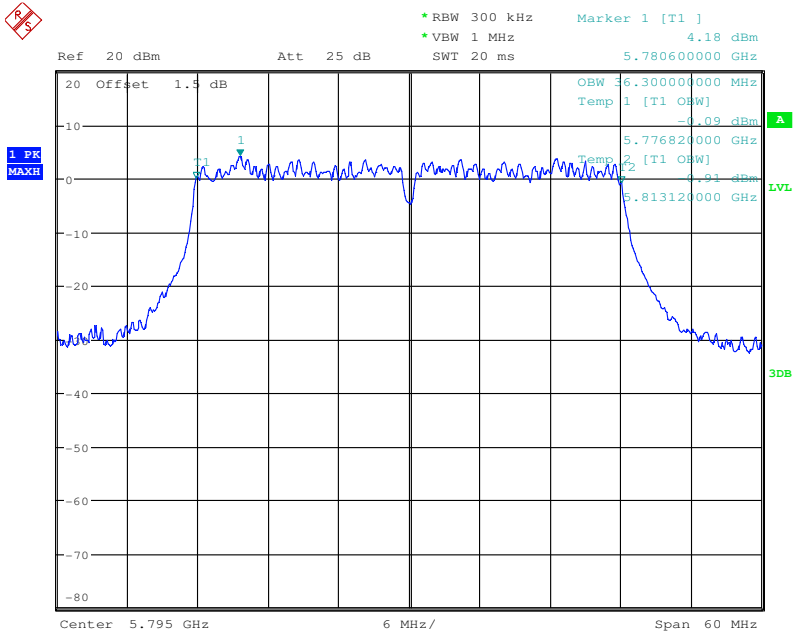




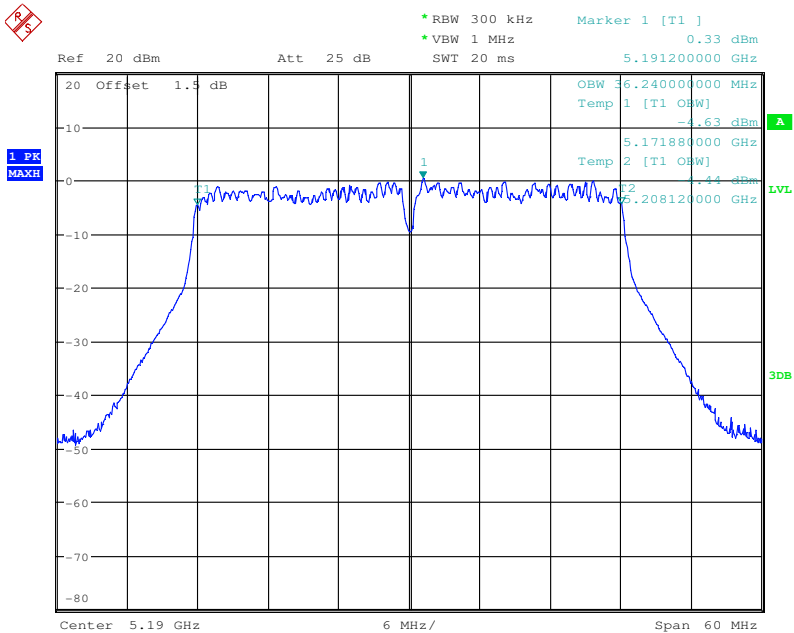
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Test mode:	802.11n(HT40)	Frequency(MHz):	5795
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Test mode:	802.11ac(HT40)	Frequency(MHz):	5190
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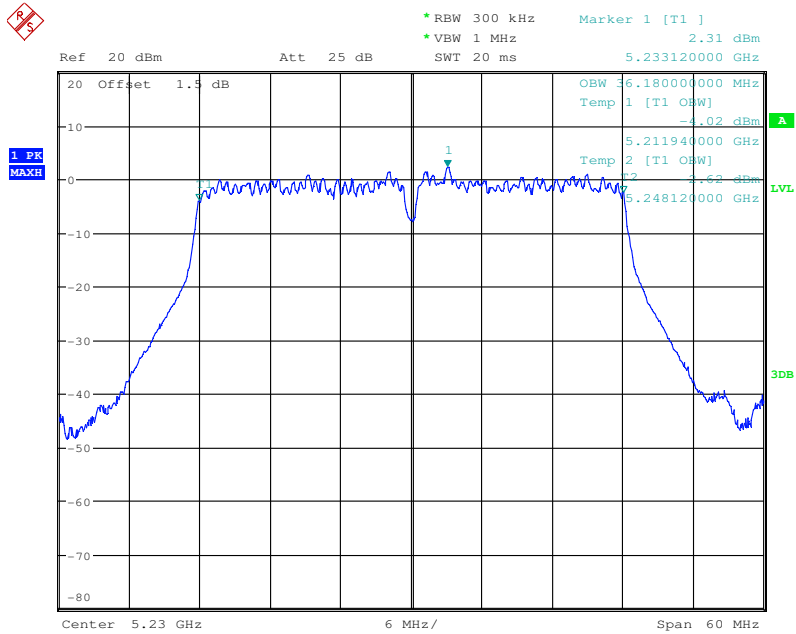




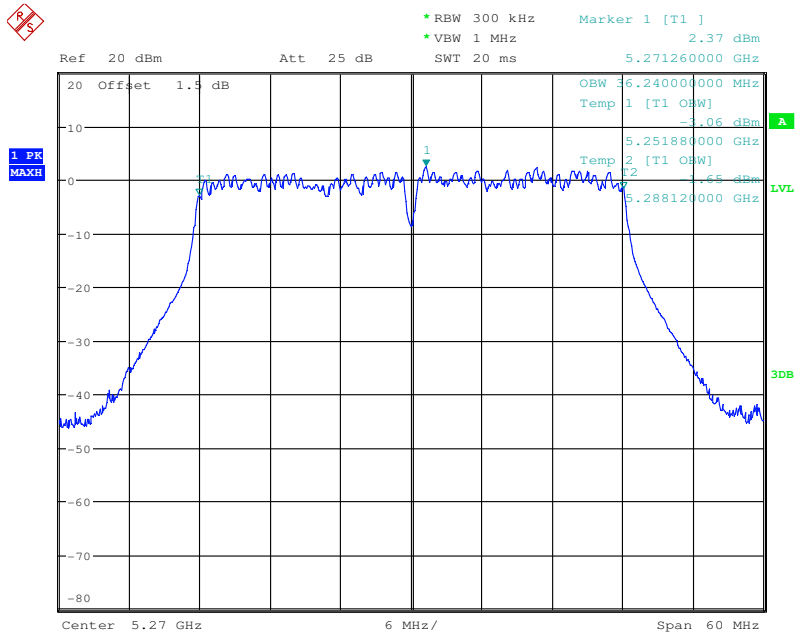
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Test mode:	802.11ac(HT40)	Frequency(MHz):	5230
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Test mode:	802.11ac(HT40)	Frequency(MHz):	5270
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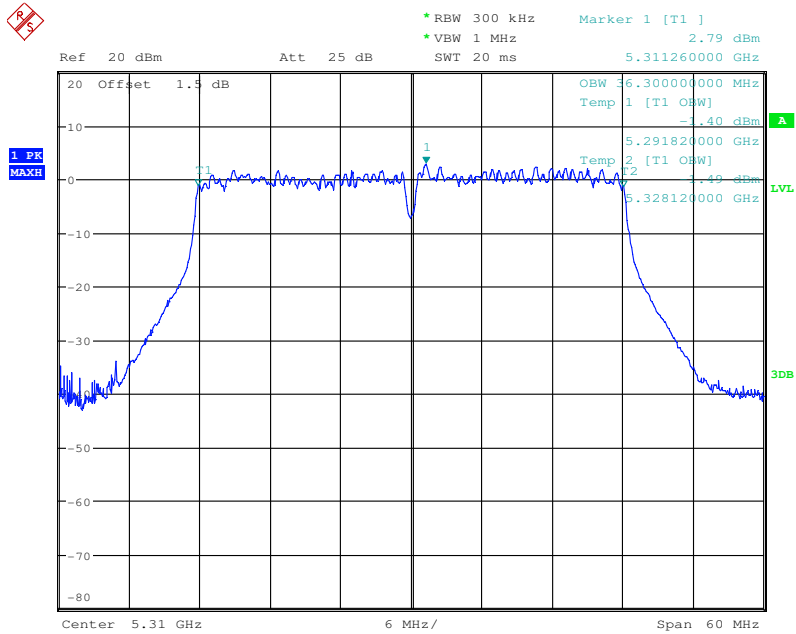




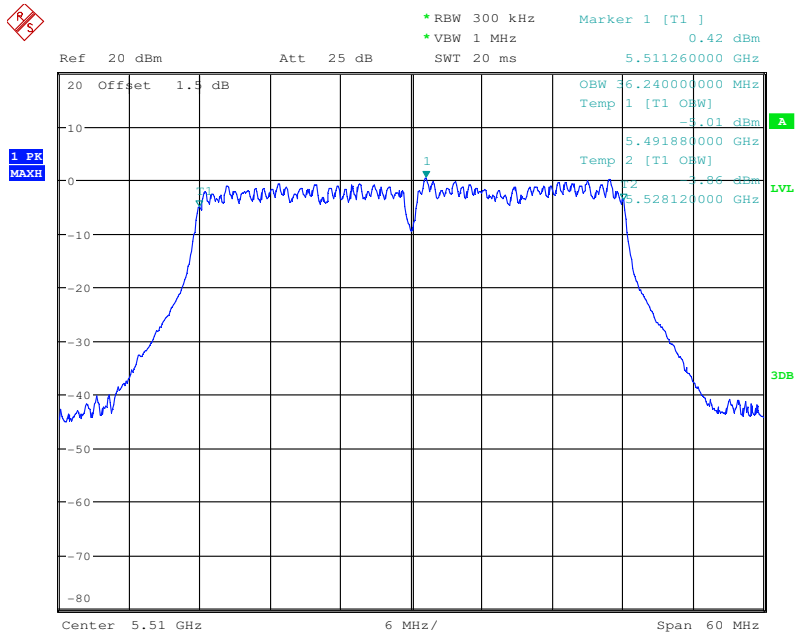
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Test mode:	802.11ac(HT40)	Frequency(MHz):	5310
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Test mode:	802.11ac(HT40)	Frequency(MHz):	5510
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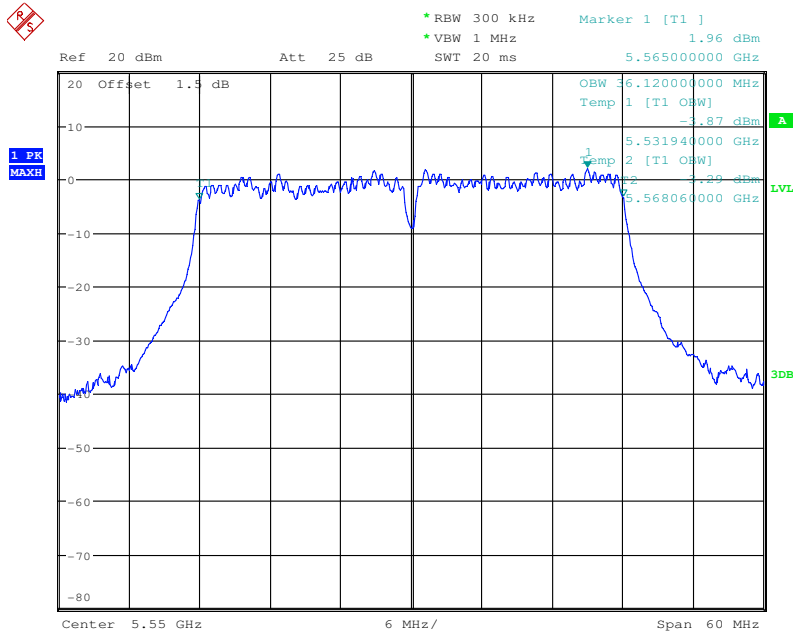




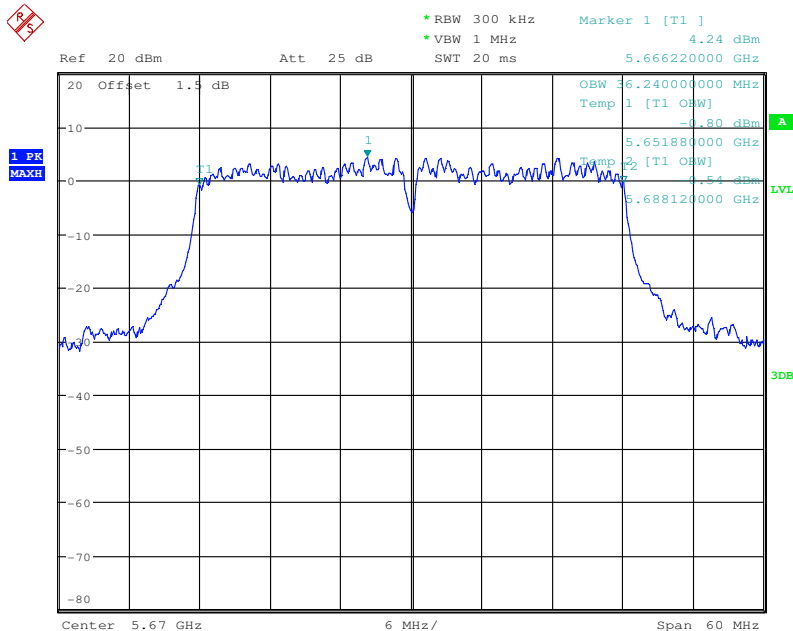
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Test mode:	802.11ac(HT40)	Frequency(MHz):	5550
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Test mode:	802.11ac(HT40)	Frequency(MHz):	5670
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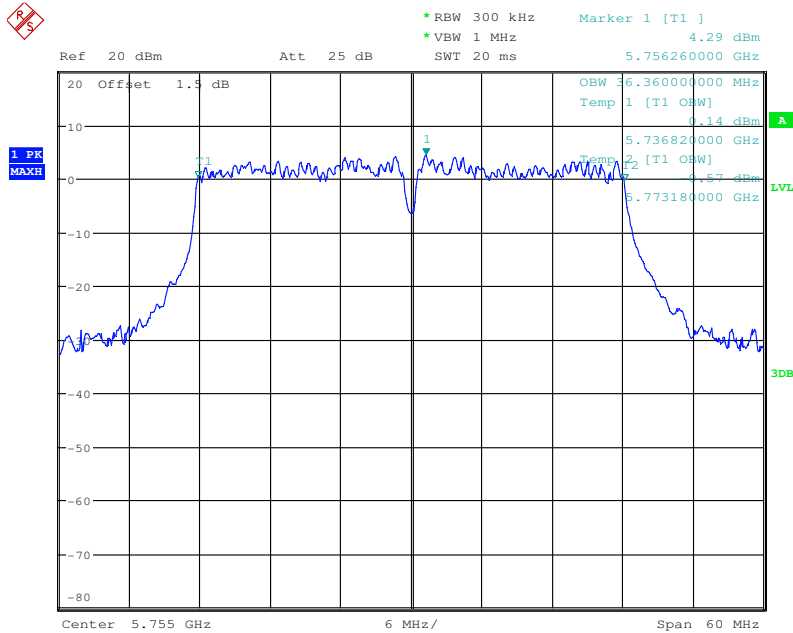




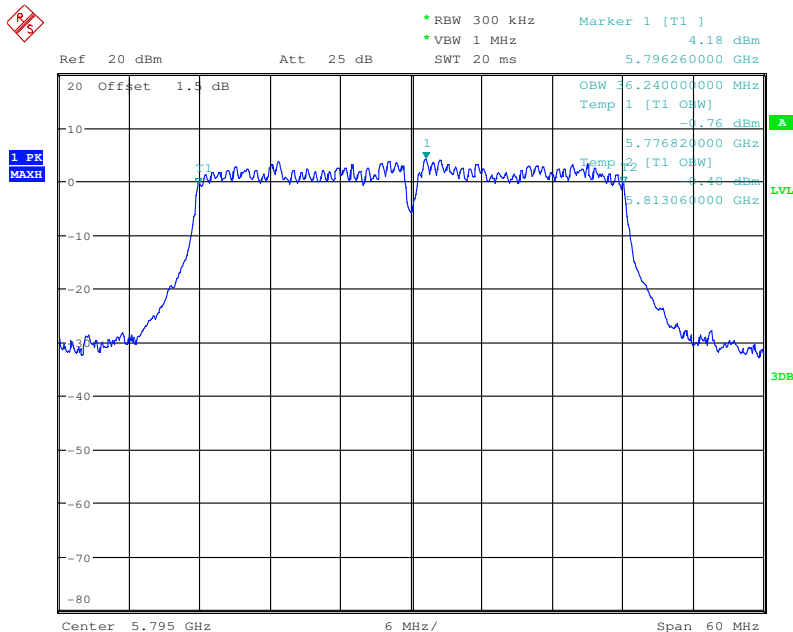
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Test mode:	802.11ac(HT40)	Frequency(MHz):	5755
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Test mode:	802.11ac(HT40)	Frequency(MHz):	5795
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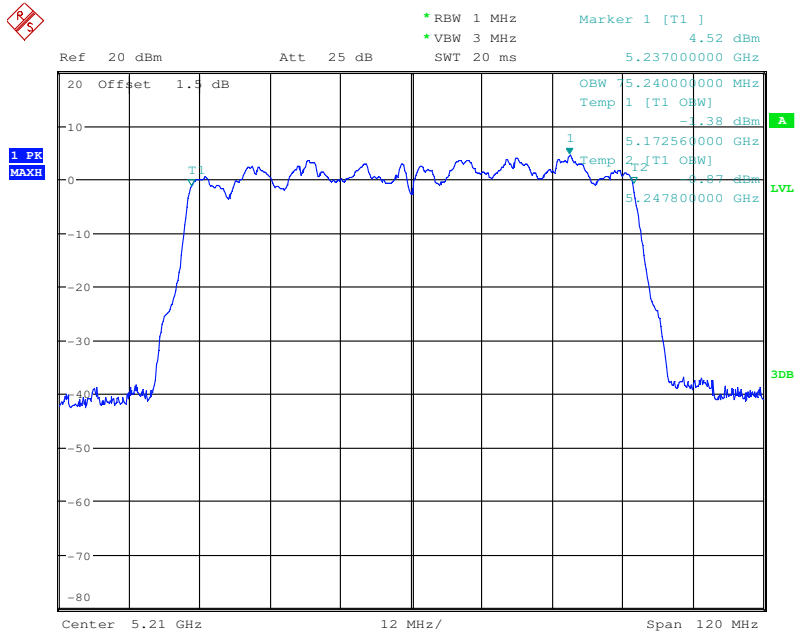




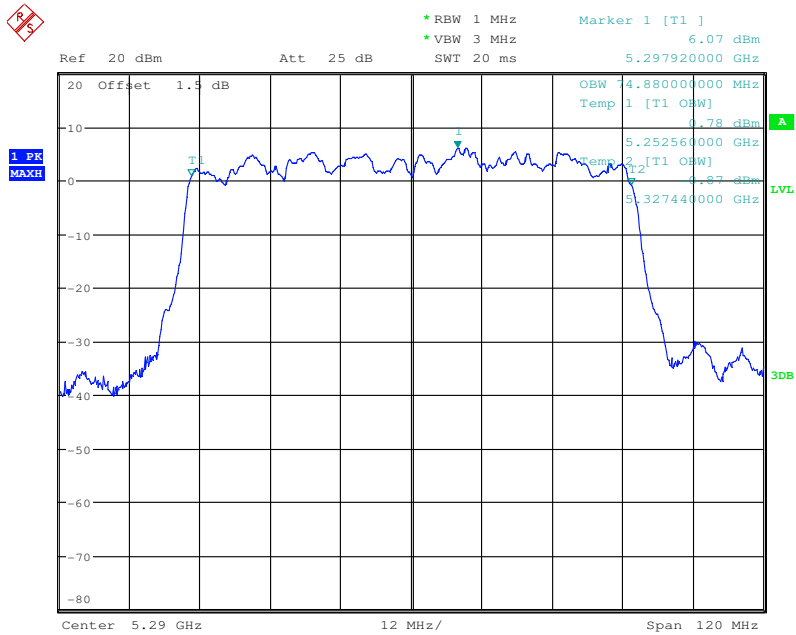
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Test mode:	802.11ac(HT80)	Frequency(MHz):	5210
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Test mode:	802.11ac(HT80)	Frequency(MHz):	5290
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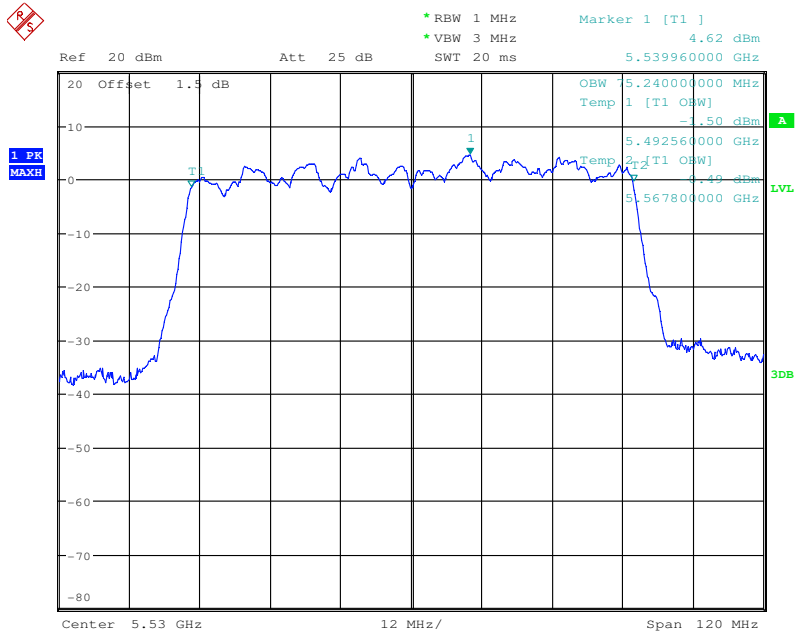




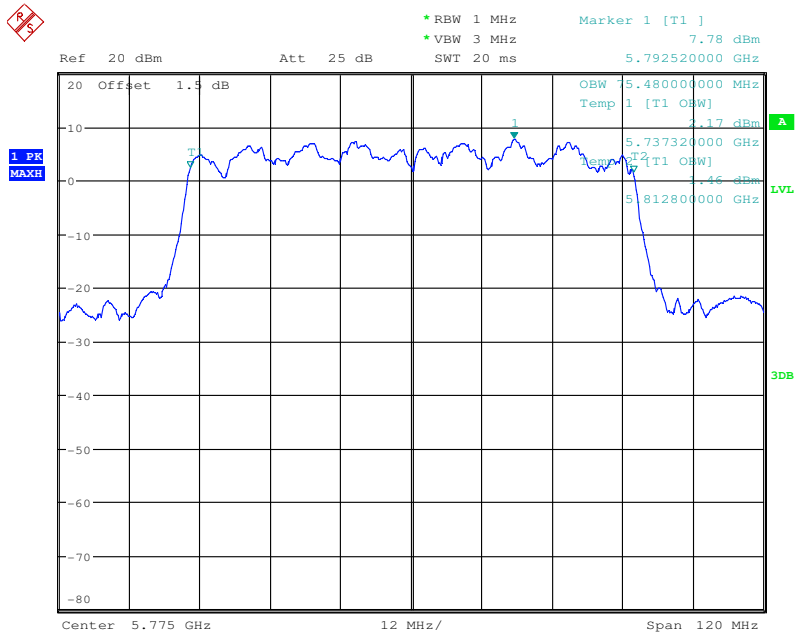
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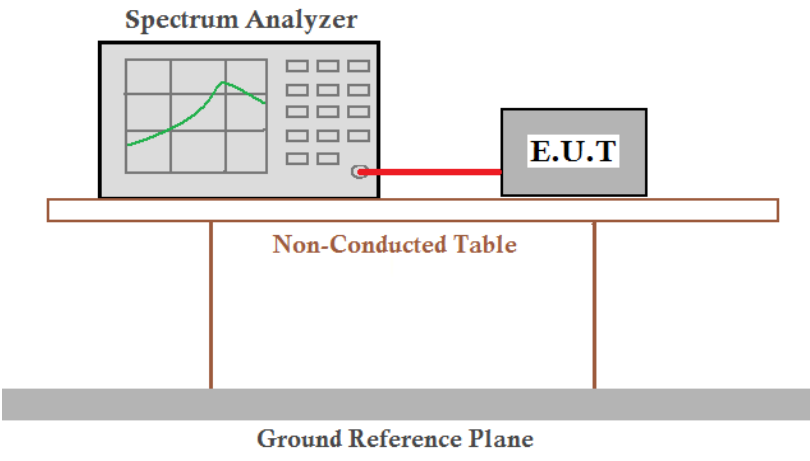
Test mode:	802.11ac(HT80)	Frequency(MHz):	5530
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Test mode:	802.11ac(HT80)	Frequency(MHz):	5775
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6.5 6dB Emission Bandwidth

Test Requirement:	47 CFR Part 15, Subpart E 15.407 (e)	
Test Method:	KDB 789033 D02 II C 2	
Test Setup:	 <p>The diagram shows a Spectrum Analyzer on the left and an E.U.T. on the right, connected by a red cable. They are positioned on a brown table labeled 'Non-Conducted Table'. Below the table is a grey horizontal bar labeled 'Ground Reference Plane'.</p>	
Instruments Used:	Refer to section 5.10 for details	
Exploratory Test Mode:	Transmitting with all kind of modulations, data rates	
Final Test Mode:	<p>Through Pre-scan, find the 6Mbps of rate is the worst case of 802.11a; MCS0 of rate is the worst case of 802.11n(HT20); MCS0 of rate is the worst case of 802.11n(HT40); MCS0 of rate is the worst case of 802.11ac(HT20); MCS0 of rate is the worst case of 802.11ac(HT40); MCS0 of rate is the worst case of 802.11ac(HT80)</p> <p>Only the worst case is recorded in the report.</p>	
Limit:	Frequency Band	Limit
	5725-5850MHz	At least 500kHz
Remark:	Only the data of antenna b is recorded in the report.	
Test Results:	Pass	



Measurement Data:

802.11a mode			
Frequency (MHz)	6dB Occupy Bandwidth (MHz)	Limit (kHz)	Result
5745	16.38	≥500	Pass
5785	16.38	≥500	Pass
5825	16.38	≥500	Pass

802.11n(HT20) mode			
Frequency (MHz)	6dB Occupy Bandwidth (MHz)	Limit (kHz)	Result
5745	17.64	≥500	Pass
5785	17.61	≥500	Pass
5825	17.61	≥500	Pass

802.11ac(HT20) mode			
Frequency (MHz)	6dB Occupy Bandwidth (MHz)	Limit (kHz)	Result
5745	17.61	≥500	Pass
5785	17.64	≥500	Pass
5825	17.61	≥500	Pass

802.11n(HT40) mode			
Frequency (MHz)	6dB Occupy Bandwidth (MHz)	Limit (kHz)	Result
5755	36.42	≥500	Pass
5795	36.42	≥500	Pass

802.11ac(HT40) mode			
Frequency (MHz)	6dB Occupy Bandwidth (MHz)	Limit (kHz)	Result
5755	36.42	≥500	Pass
5795	36.18	≥500	Pass

802.11ac(HT80) mode			
Frequency (MHz)	6dB Occupy Bandwidth (MHz)	Limit (kHz)	Result
5775	75.36	≥500	Pass

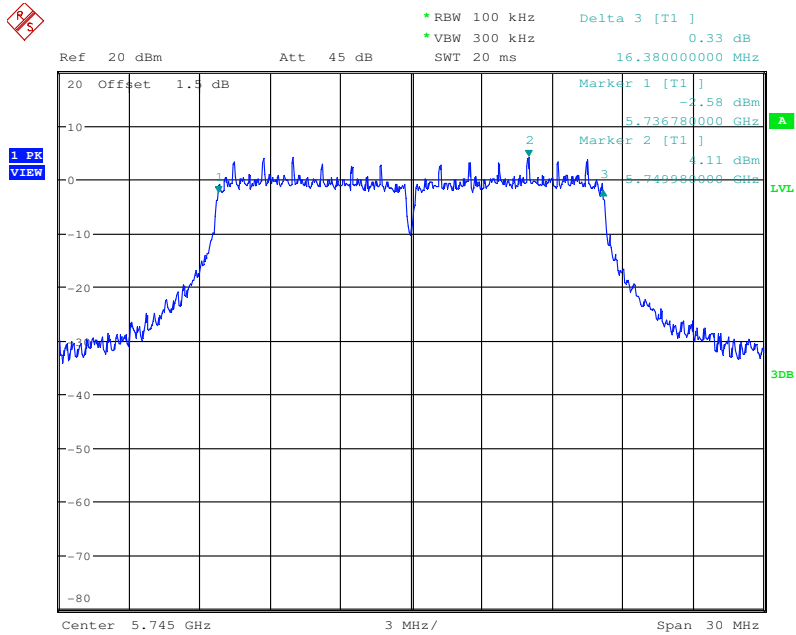


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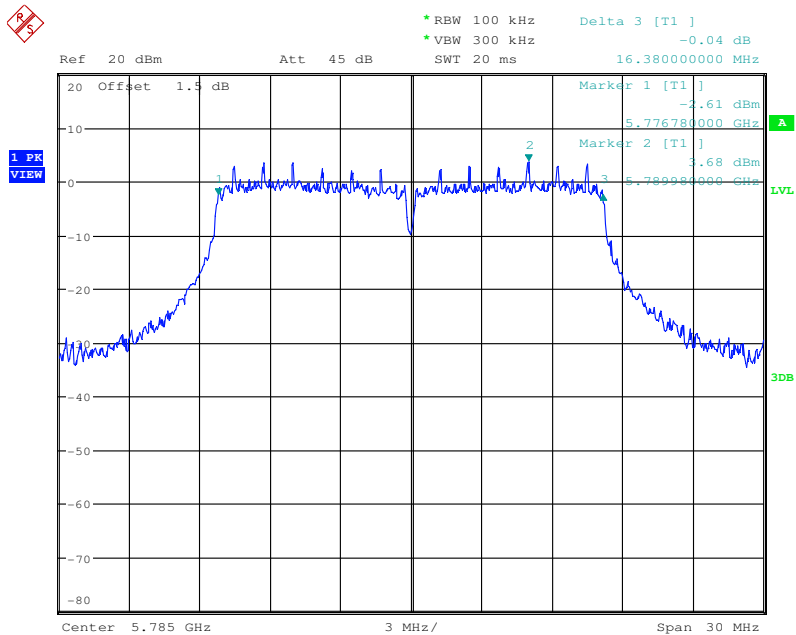
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Test plot as follows:

Test mode:	802.11a	Frequency(MHz):	5745
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Test mode:	802.11a	Frequency(MHz):	5785
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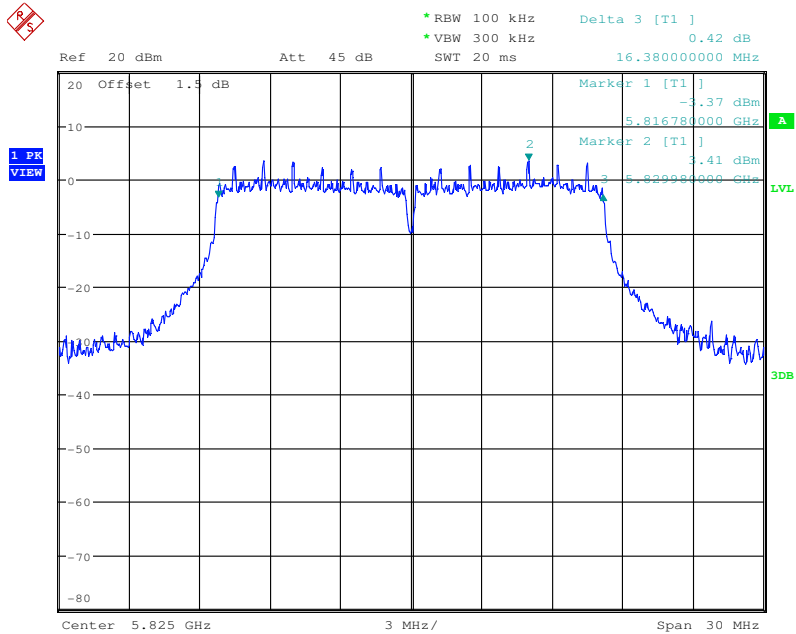




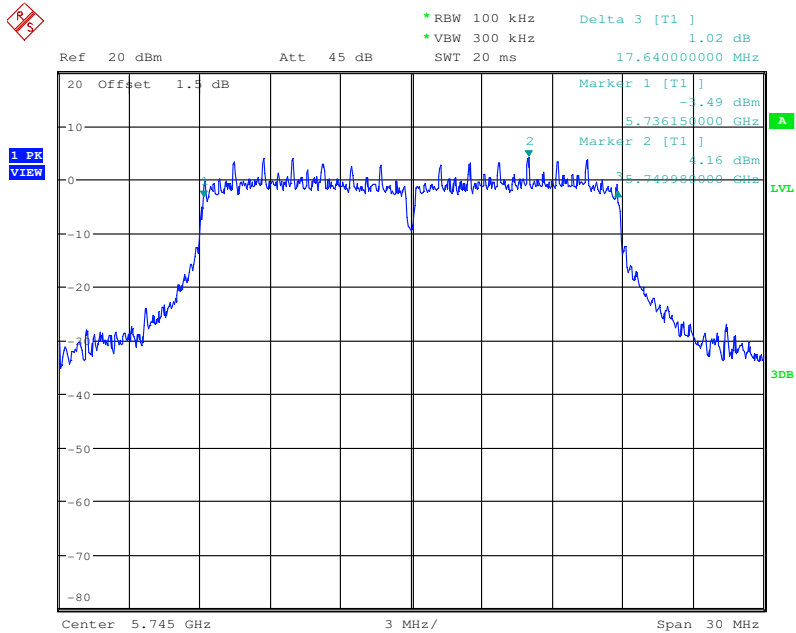
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Test mode:	802.11a	Frequency(MHz):	5825
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Test mode:	802.11n(HT20)	Frequency(MHz):	5745
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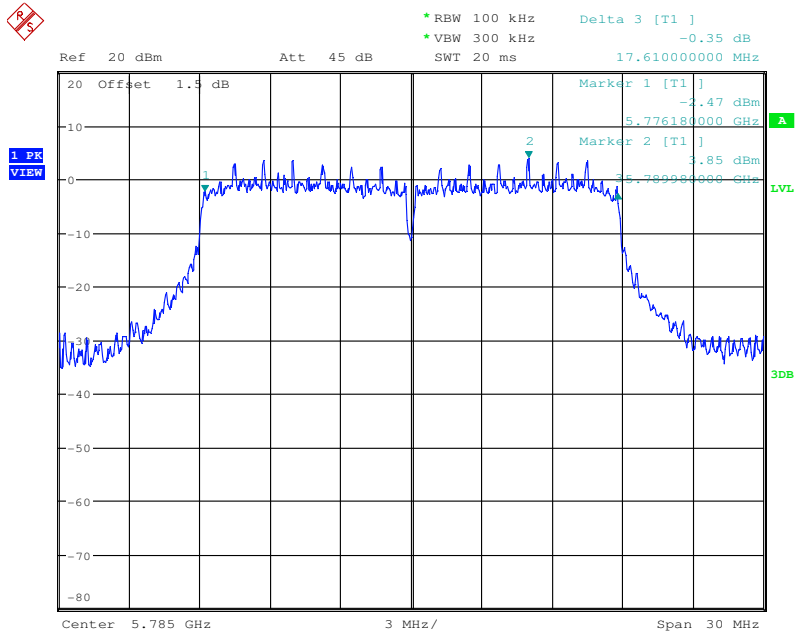




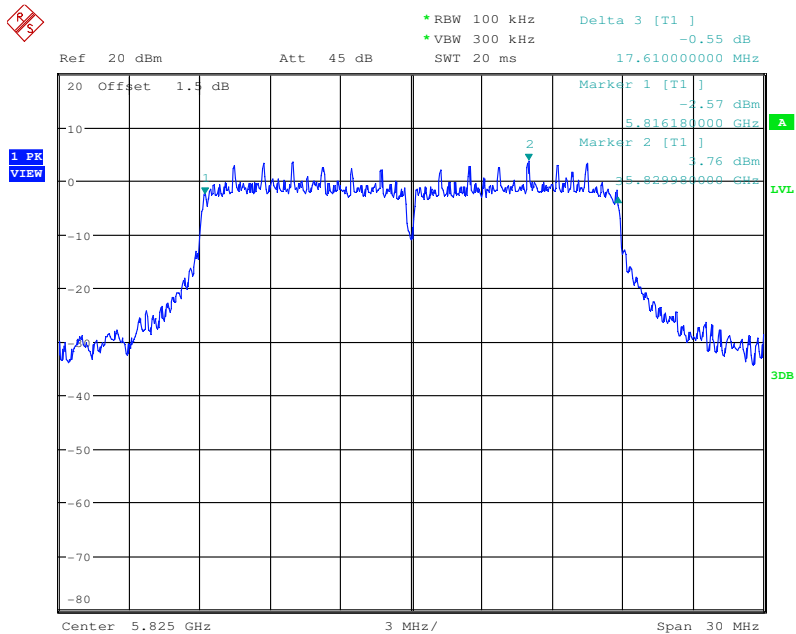
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Test mode:	802.11n(HT20)	Frequency(MHz):	5785
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Test mode:	802.11n(HT20)	Frequency(MHz):	5825
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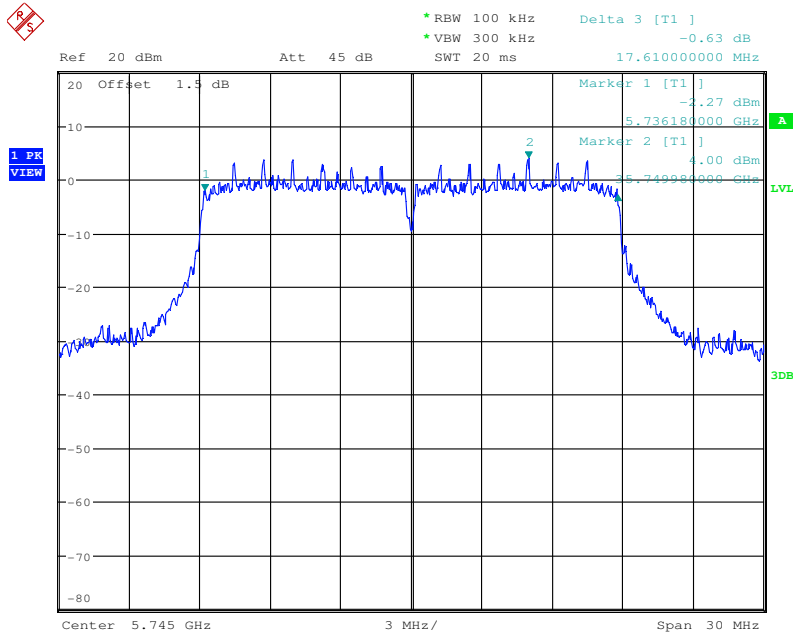




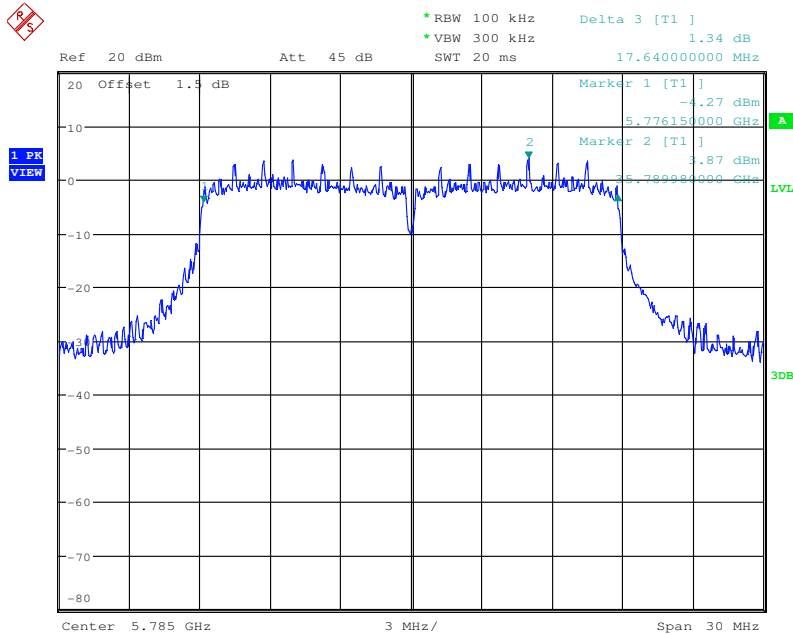
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Test mode:	802.11ac(HT20)	Frequency(MHz):	5745
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Test mode:	802.11ac(HT20)	Frequency(MHz):	5785
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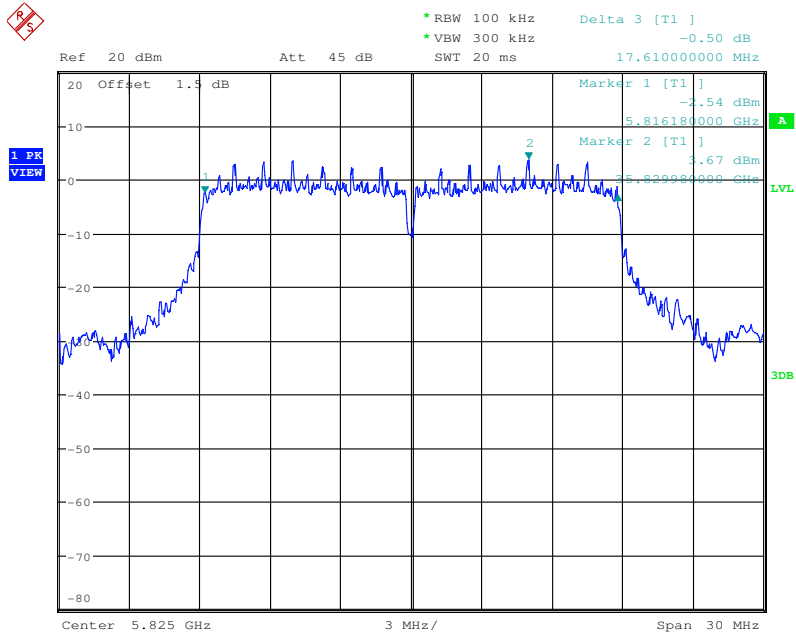




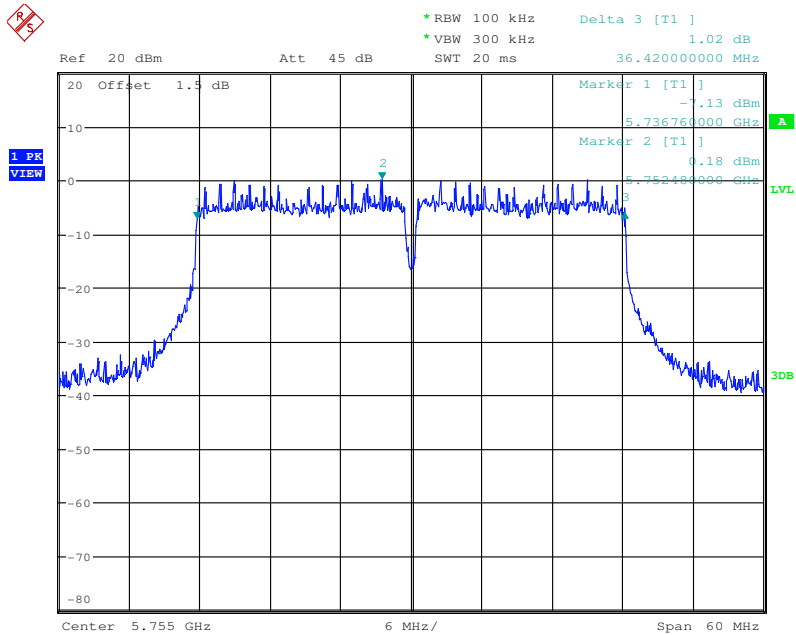
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Test mode:	802.11ac(HT20)	Frequency(MHz):	5825
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Test mode:	802.11n(HT40)	Frequency(MHz):	5755
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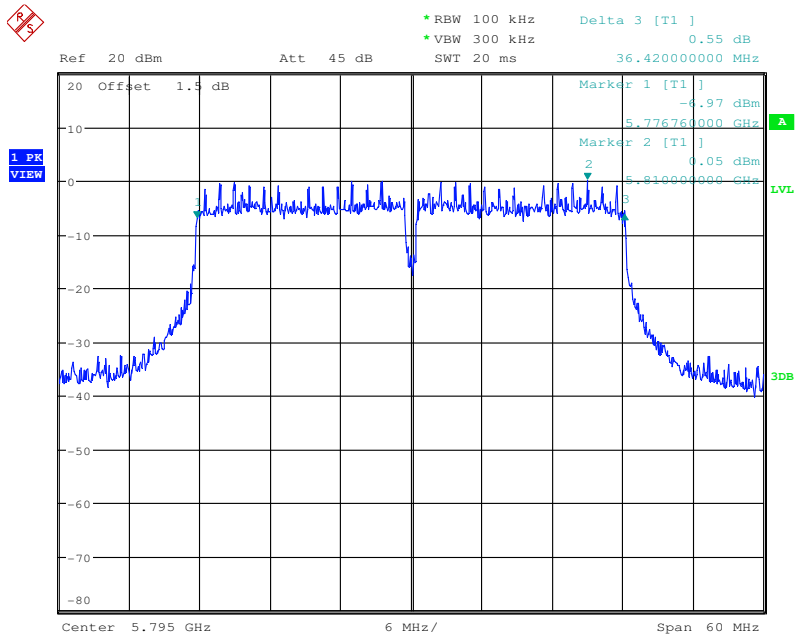




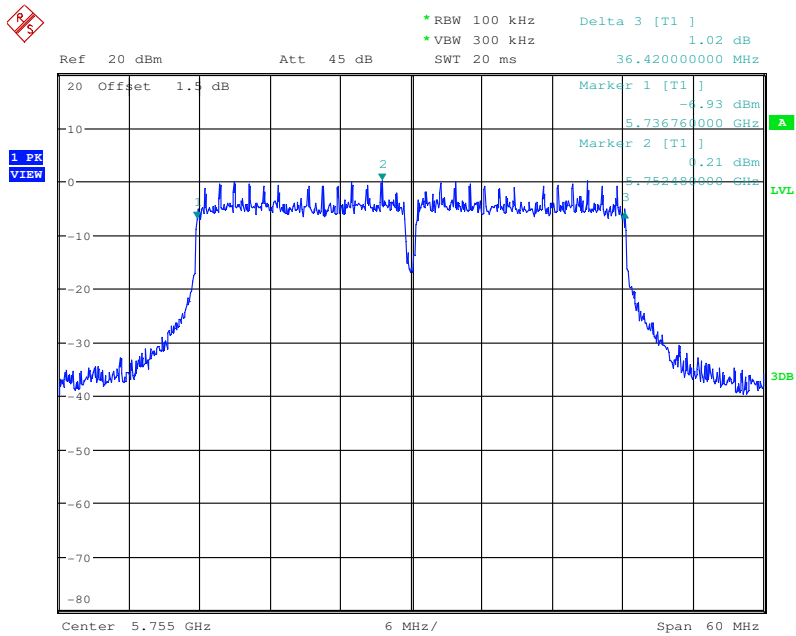
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Test mode:	802.11n(HT40)	Frequency(MHz):	5795
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Test mode:	802.11ac(HT40)	Frequency(MHz):	5755
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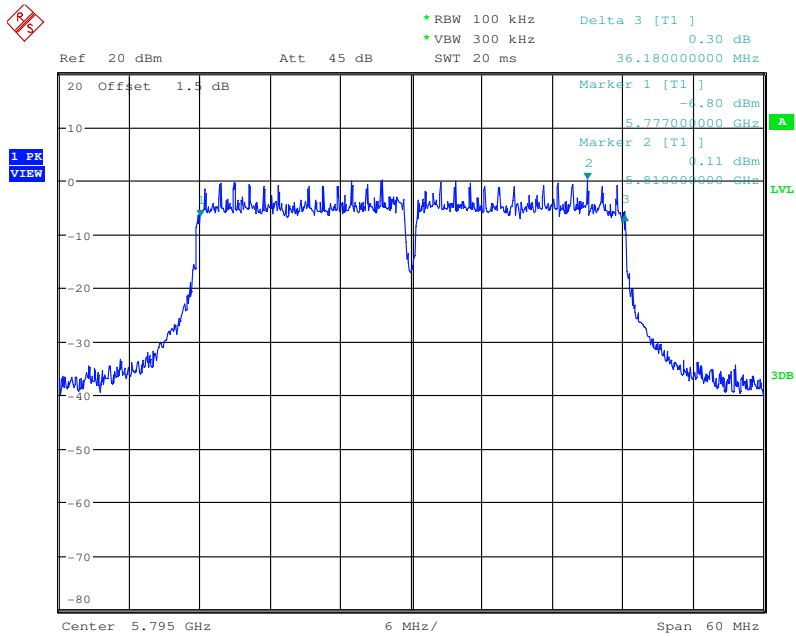




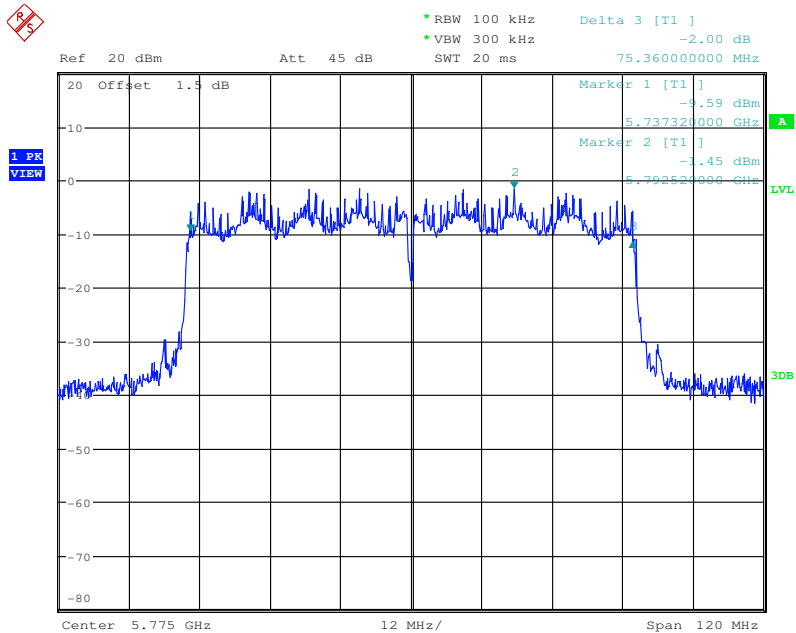
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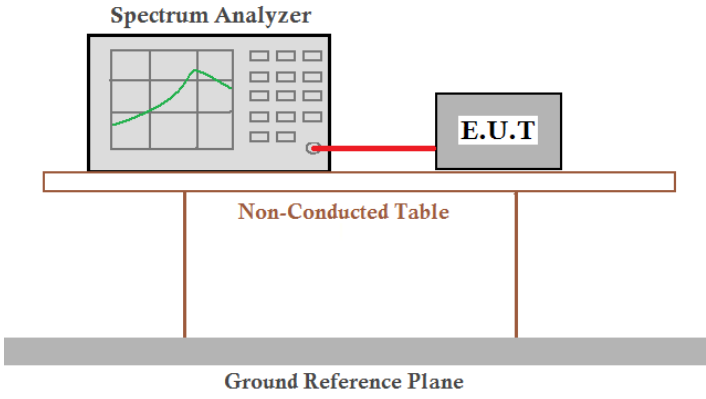
Test mode:	802.11ac(HT40)	Frequency(MHz):	5795
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Test mode:	802.11ac(HT80)	Frequency(MHz):	5775
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6.6 Power Spectral Density

Test Requirement:	47 CFR Part 15, Subpart E 15.407 (a)	
Test Method:	KDB 789033 D02 II F	
Test Setup:	 <p><i>Remark:</i> Offset the High-Frequency cable loss 1.5dB in the spectrum analyzer.</p>	
Test Instruments:	Refer to section 5.10 for details	
Exploratory Test Mode:	Transmitting with all kind of modulations, data rates	
Final Test Mode:	Through Pre-scan, find the 6Mbps of rate is the worst case of 802.11a; MCS0 of rate is the worst case of 802.11n(HT20); MCS0 of rate is the worst case of 802.11n(HT40); MCS0 of rate is the worst case of 802.11ac(HT20); MCS0 of rate is the worst case of 802.11ac(HT40); MCS0 of rate is the worst case of 802.11ac(HT80) Only the worst case is recorded in the report.	
Limit:	Frequency Band	Limit
	5150-5250MHz	802.11a:11dBm/1MHz 802.11n & 802.11ac:8dBm/1MHz
	5250-5350MHz	802.11a:11dBm/1MHz
	5470-5725MHz	802.11n & 802.11ac:8dBm/1MHz
	5725-5850MHz	802.11a:30dBm/500kHz 802.11n & 802.11ac:27dBm/500kHz
	Remark: transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi	
Test Results:	Pass	



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Measurement Data_Conducted:

802.11a mode				
Frequency (MHz)	Power Spectral Density		Limit	Result
	Antenna a	Antenna b		
5180	0.67	0.90	≤11dBm/1MHz	Pass
5200	0.70	1.36	≤11dBm/1MHz	Pass
5240	1.48	2.53	≤11dBm/1MHz	Pass
5260	2.11	2.98	≤11dBm/1MHz	Pass
5300	2.56	3.19	≤11dBm/1MHz	Pass
5320	2.72	3.56	≤11dBm/1MHz	Pass
5500	1.39	0.96	≤11dBm/1MHz	Pass
5580	3.26	3.56	≤11dBm/1MHz	Pass
5700	5.31	4.80	≤11dBm/1MHz	Pass
5745	5.36	3.41	≤30dBm/500kHz	Pass
5785	4.44	2.91	≤30dBm/500kHz	Pass
5825	4.22	2.88	≤30dBm/500kHz	Pass

802.11n(HT20) mode					
Frequency (MHz)	Power Spectral Density			Limit	Result
	Antenna a	Antenna b	Total		
5180	-4.23	-5.52	-1.82	≤8dBm/1MHz	Pass
5200	-4.35	-4.93	-1.62	≤8dBm/1MHz	Pass
5240	-3.42	-3.82	-0.61	≤8dBm/1MHz	Pass
5260	1.97	2.68	5.35	≤8dBm/1MHz	Pass
5300	2.48	2.98	5.75	≤8dBm/1MHz	Pass
5320	2.57	3.54	6.09	≤8dBm/1MHz	Pass
5500	1.47	2.88	5.24	≤8dBm/1MHz	Pass
5580	3.88	4.46	7.19	≤8dBm/1MHz	Pass
5700	4.48	4.30	7.81	≤8dBm/1MHz	Pass
5745	3.77	3.21	6.51	≤27dBm/500kHz	Pass
5785	3.60	2.96	6.30	≤27dBm/500kHz	Pass
5825	5.28	2.72	7.20	≤27dBm/500kHz	Pass

802.11ac(HT20) mode					
Frequency (MHz)	Power Spectral Density			Limit	Result
	Antenna a	Antenna b	Total		
5180	-4.02	-5.67	-1.76	≤8dBm/1MHz	Pass
5200	-4.19	-5.45	-1.76	≤8dBm/1MHz	Pass
5240	-3.31	-3.53	-0.41	≤8dBm/1MHz	Pass
5260	1.99	2.86	5.46	≤8dBm/1MHz	Pass
5300	2.26	3.50	5.93	≤8dBm/1MHz	Pass
5320	2.45	3.59	6.07	≤8dBm/1MHz	Pass
5500	1.24	0.41	3.86	≤8dBm/1MHz	Pass
5580	3.45	3.42	6.45	≤8dBm/1MHz	Pass
5700	4.10	4.55	7.85	≤8dBm/1MHz	Pass
5745	3.77	3.37	6.58	≤27dBm/500kHz	Pass
5785	3.67	2.97	6.34	≤27dBm/500kHz	Pass

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5825	3.52	2.87	6.22	≤27dBm/500kHz	Pass
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802.11n(HT40) mode					
Frequency (MHz)	Power Spectral Density			Limit	Result
	Antenna a	Antenna b	Total		
5190	-5.22	-5.93	-2.55	≤8dBm/1MHz	Pass
5230	-4.54	-4.60	-1.56	≤8dBm/1MHz	Pass
5270	-1.74	-0.65	1.85	≤8dBm/1MHz	Pass
5310	-0.99	0.15	2.63	≤8dBm/1MHz	Pass
5510	-1.98	-1.02	1.54	≤8dBm/1MHz	Pass
5550	-1.01	0.47	2.80	≤8dBm/1MHz	Pass
5670	1.35	2.34	4.88	≤8dBm/1MHz	Pass
5755	-0.26	-0.48	2.64	≤27dBm/500kHz	Pass
5795	-0.04	-0.20	2.89	≤27dBm/500kHz	Pass

802.11ac(HT40) mode					
Frequency (MHz)	Power Spectral Density			Limit	Result
	Antenna a	Antenna b	Total		
5190	-3.72	-5.70	-1.59	≤8dBm/1MHz	Pass
5230	-3.33	-4.38	-0.81	≤8dBm/1MHz	Pass
5270	-1.21	-0.27	2.30	≤8dBm/1MHz	Pass
5310	-0.94	-0.12	2.50	≤8dBm/1MHz	Pass
5510	-1.46	-2.41	1.10	≤8dBm/1MHz	Pass
5550	-0.86	-0.91	2.13	≤8dBm/1MHz	Pass
5670	1.96	1.50	4.75	≤8dBm/1MHz	Pass
5755	0.46	-0.32	3.10	≤27dBm/500kHz	Pass
5795	-0.11	-0.57	2.68	≤27dBm/500kHz	Pass

802.11ac(HT80) mode					
Frequency (MHz)	Power Spectral Density			Limit	Result
	Antenna a	Antenna b	Total		
5210	-4.30	-3.68	-0.97	≤8dBm/1MHz	Pass
5290	-3.32	-1.30	0.82	≤8dBm/1MHz	Pass
5530	-2.86	-3.27	-0.05	≤8dBm/1MHz	Pass
5775	0.01	-0.58	2.74	≤27dBm/500kHz	Pass



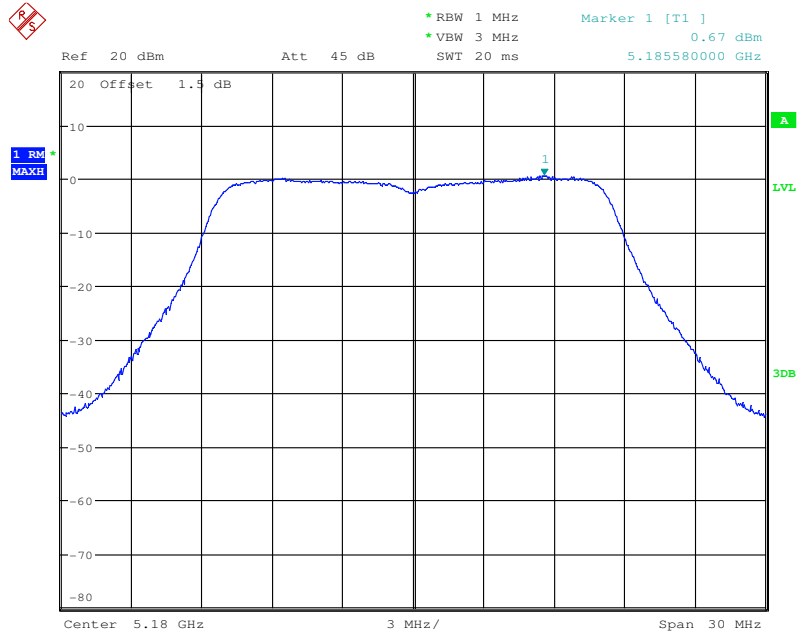
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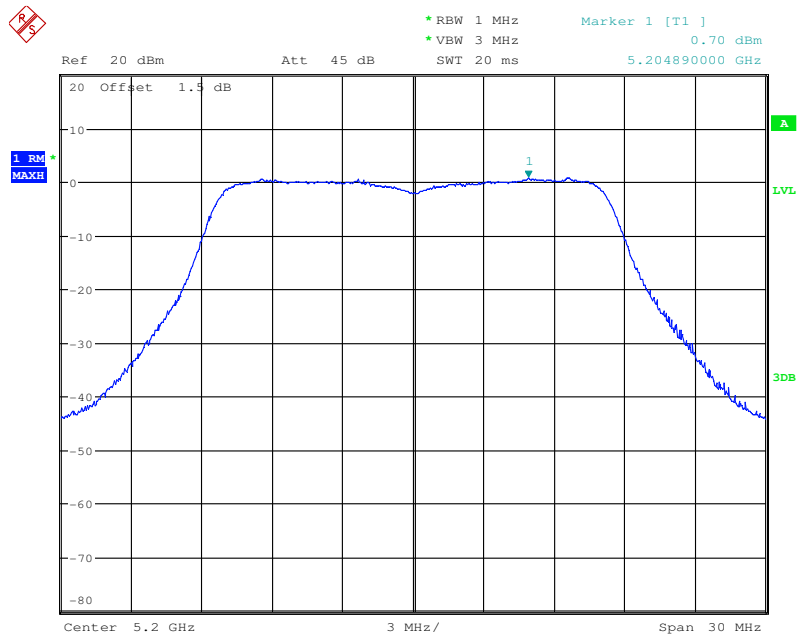
Test plot as follows:

Ant a:

Test mode:	802.11a	Frequency(MHz):	5180
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Test mode:	802.11a	Frequency(MHz):	5200
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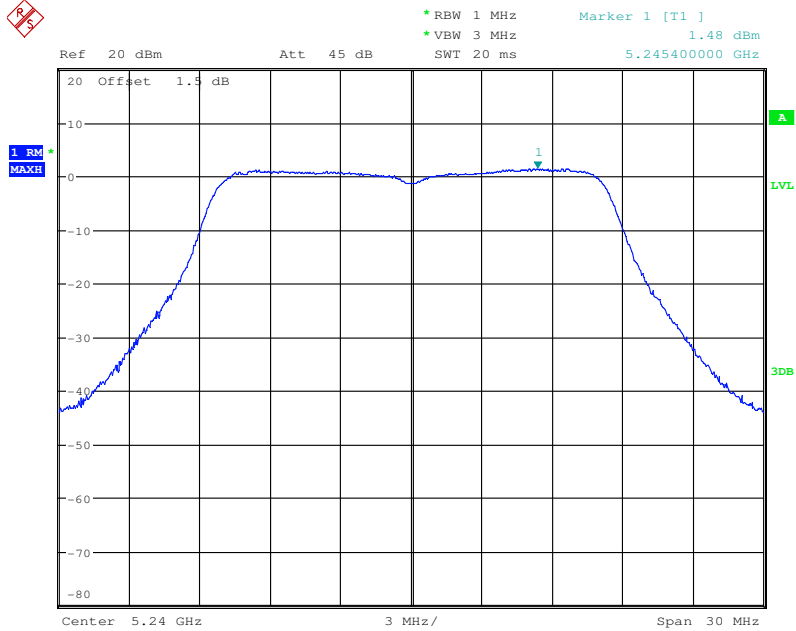




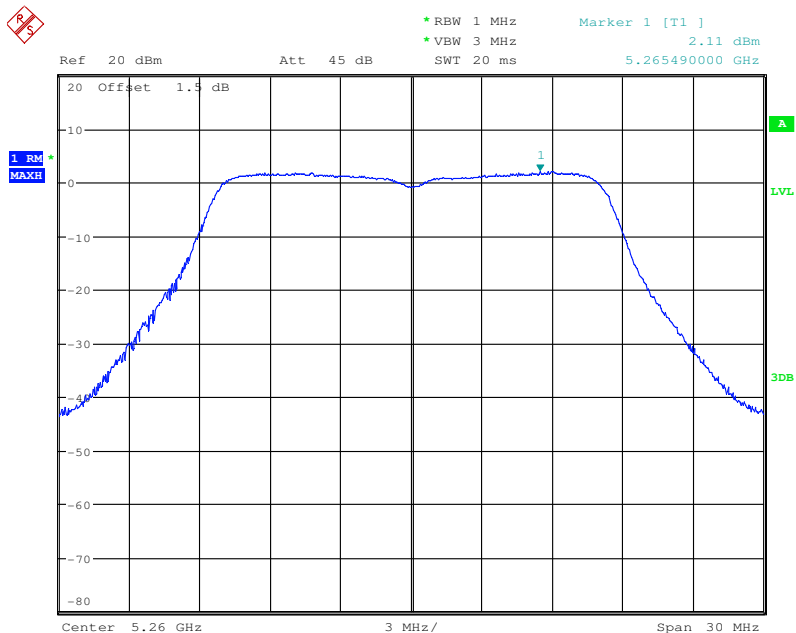
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Test mode:	802.11a	Frequency(MHz):	5240
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Test mode:	802.11a	Frequency(MHz):	5260
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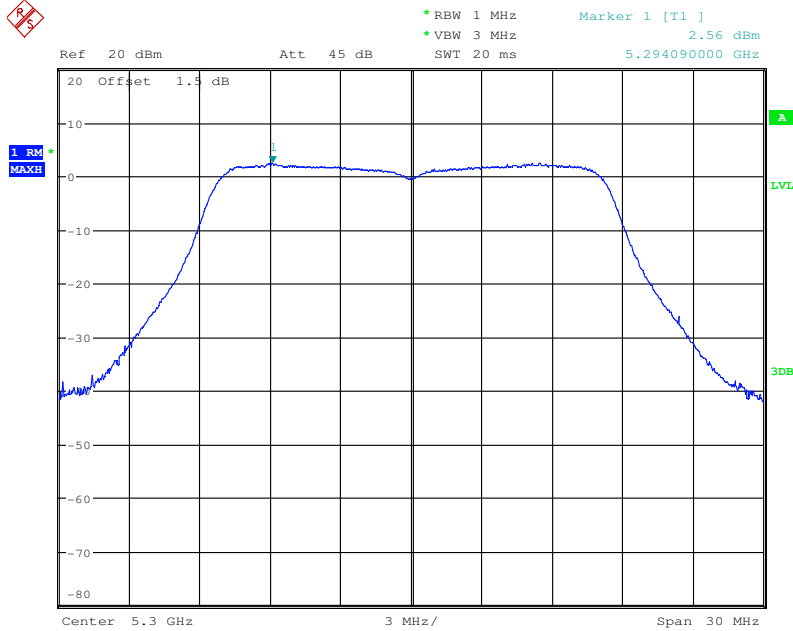




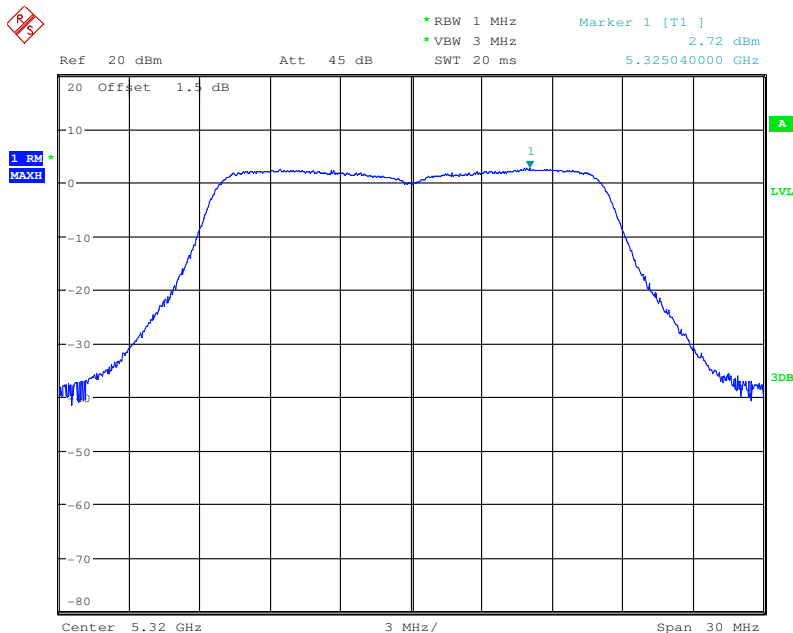
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Test mode:	802.11a	Frequency(MHz):	5300
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Test mode:	802.11a	Frequency(MHz):	5320
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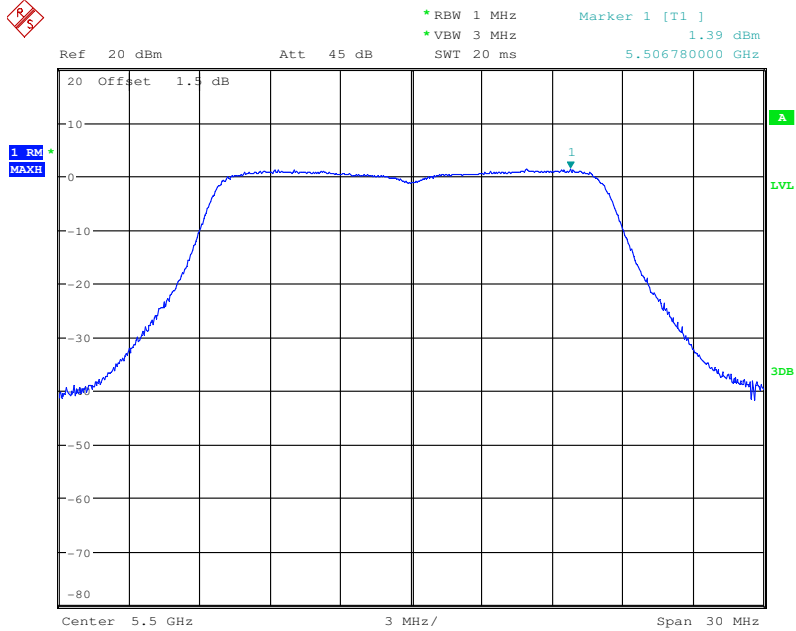




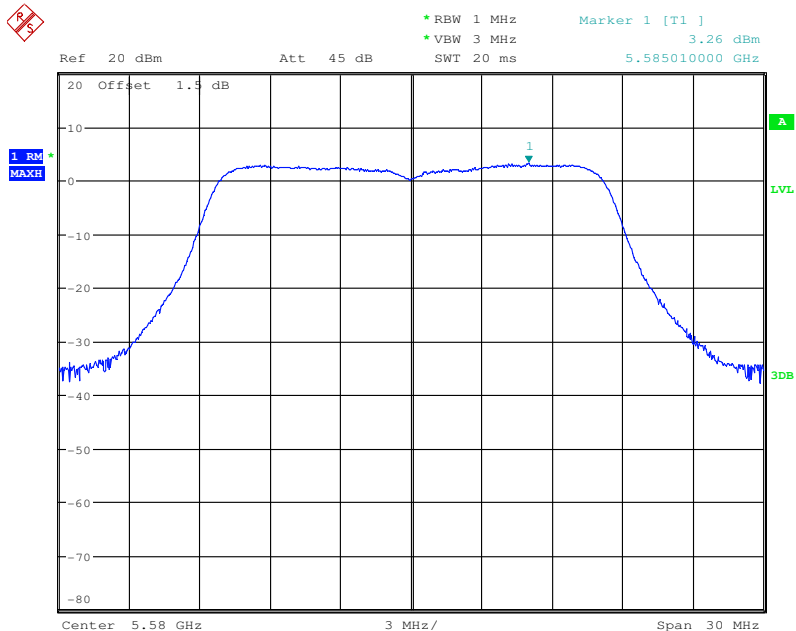
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Test mode:	802.11a	Frequency(MHz):	5500
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Test mode:	802.11a	Frequency(MHz):	5580
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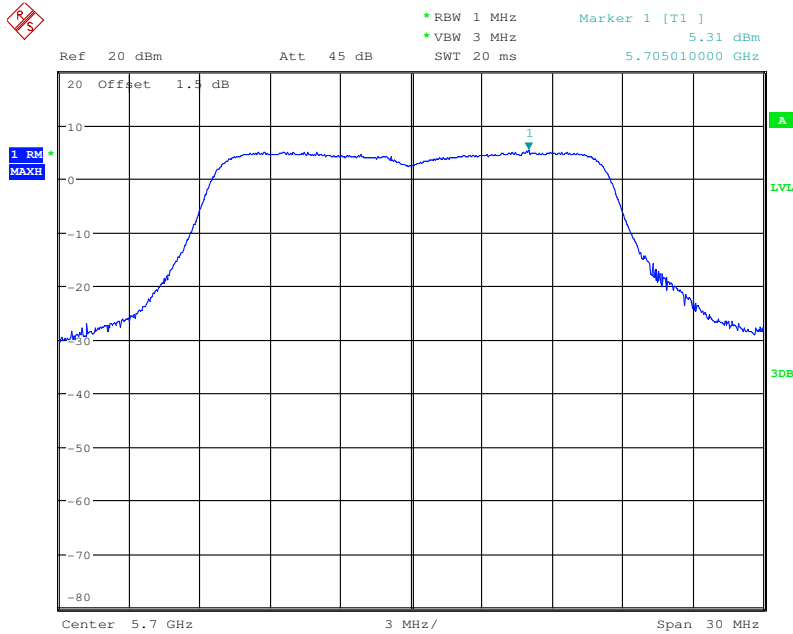




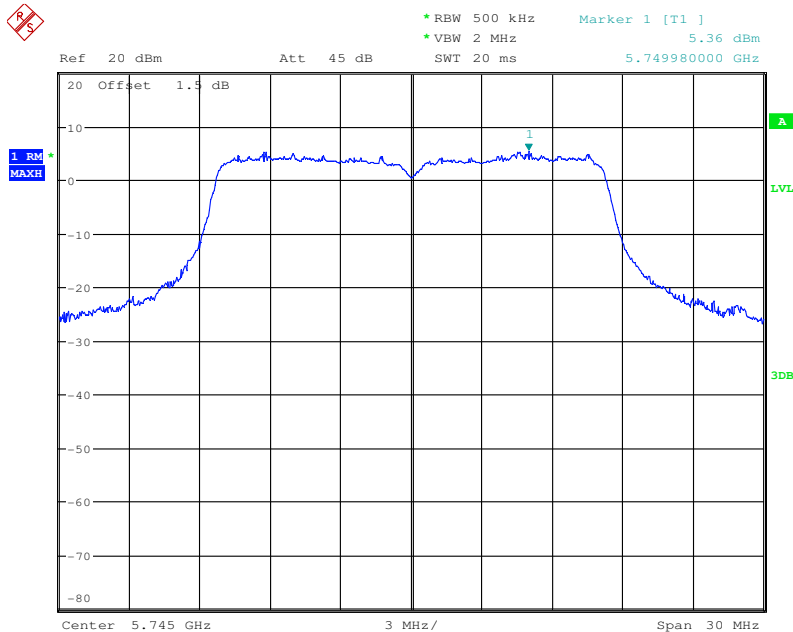
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Test mode:	802.11a	Frequency(MHz):	5700
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Test mode:	802.11a	Frequency(MHz):	5745
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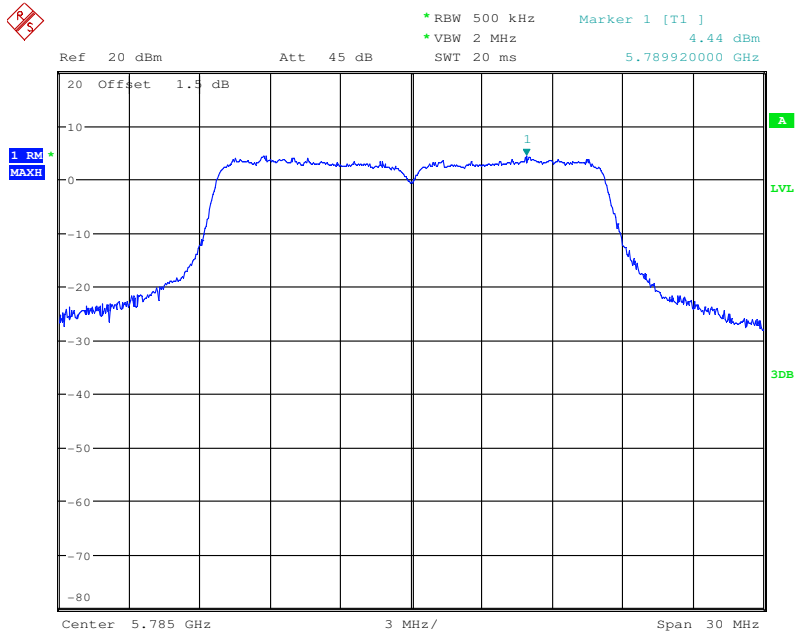




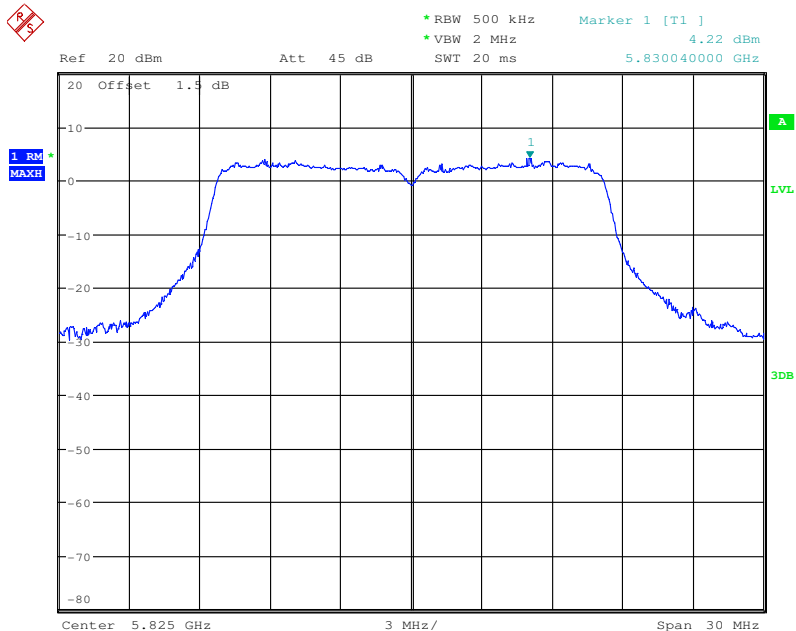
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Test mode:	802.11a	Frequency(MHz):	5785
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Test mode:	802.11a	Frequency(MHz):	5825
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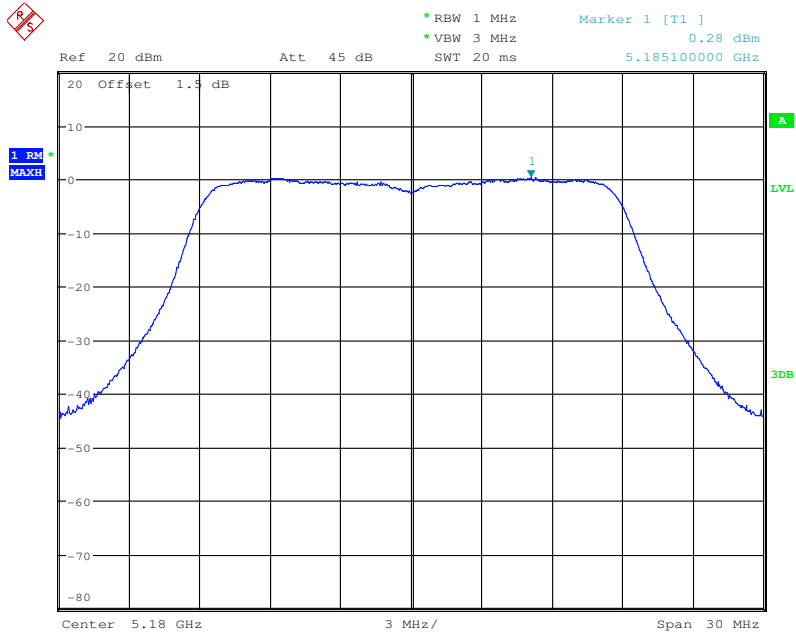




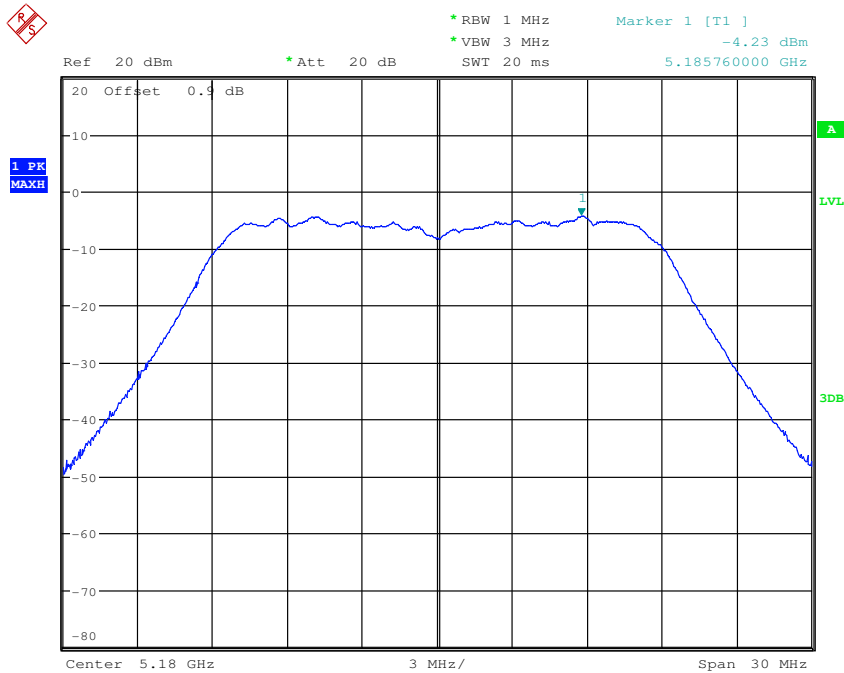
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Test mode:	802.11n(HT20)	Frequency(MHz):	5180
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Test mode:	802.11n(HT20)	Frequency(MHz):	5200
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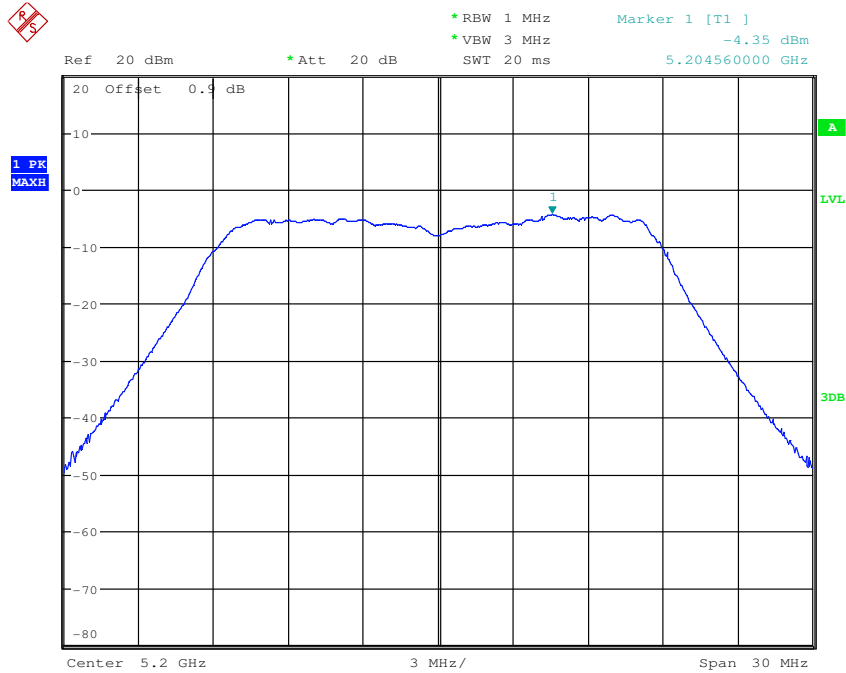




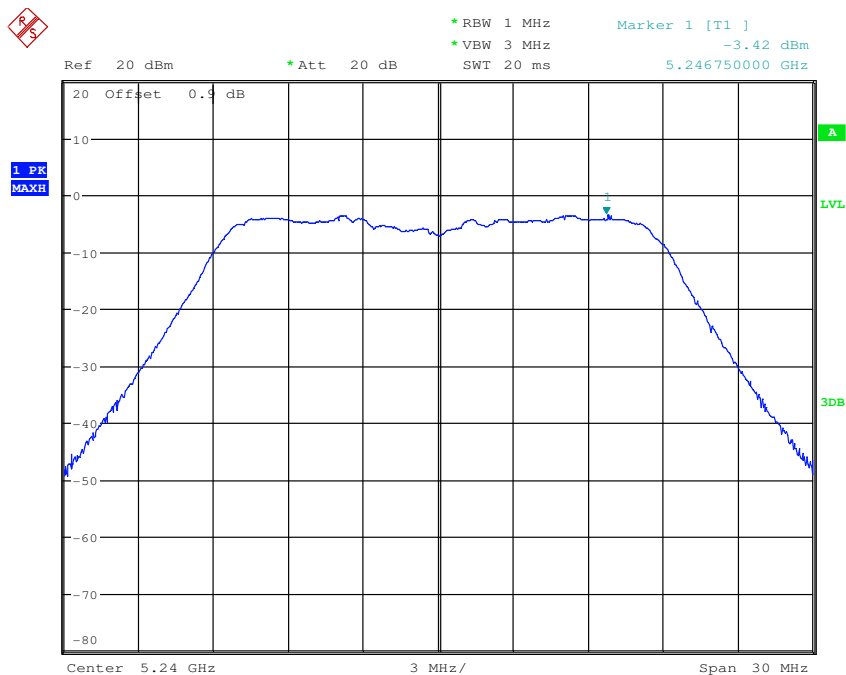
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Test mode:	802.11n(HT20)	Frequency(MHz):	5240
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Test mode:	802.11n(HT20)	Frequency(MHz):	5260
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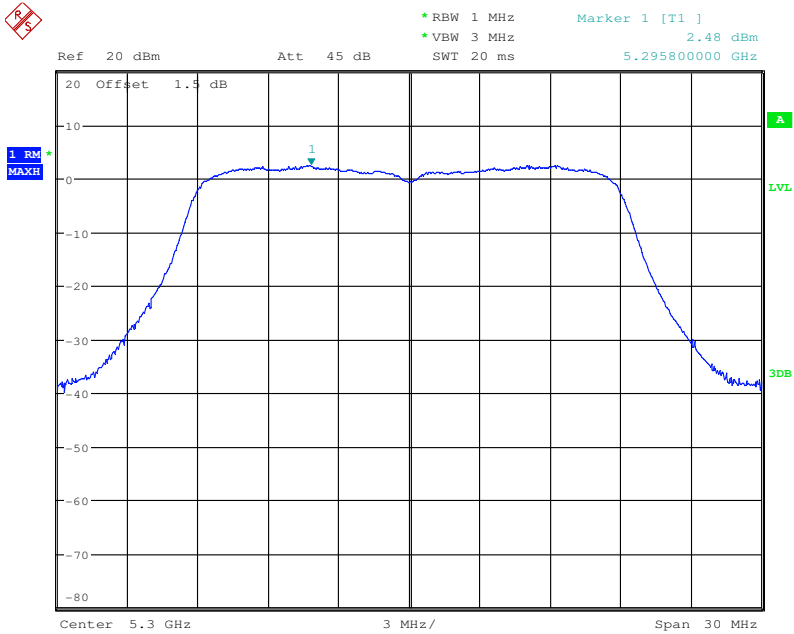




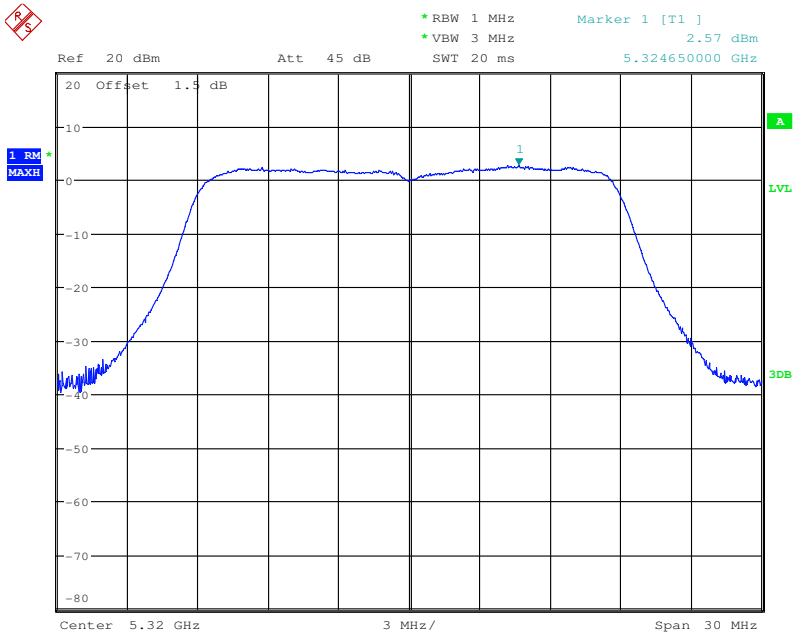
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Test mode:	802.11n(HT20)	Frequency(MHz):	5300
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Test mode:	802.11n(HT20)	Frequency(MHz):	5320
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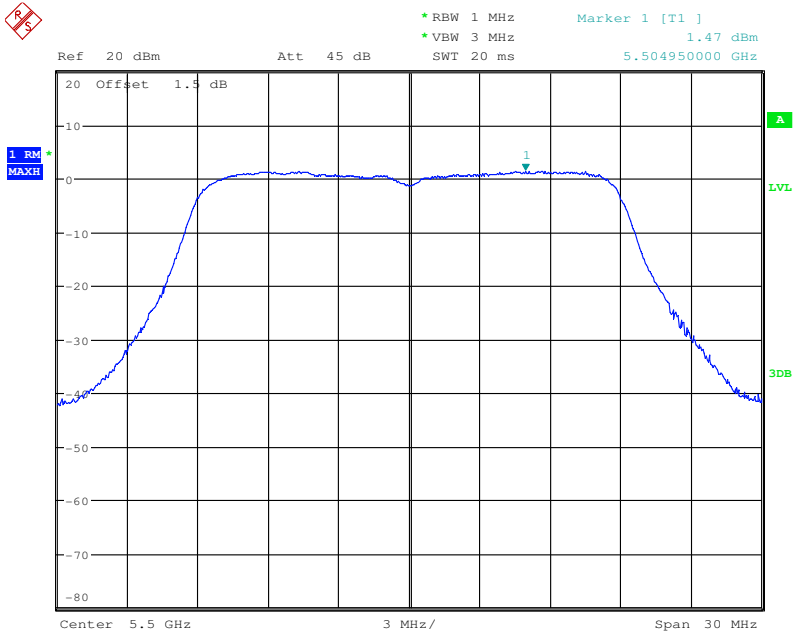




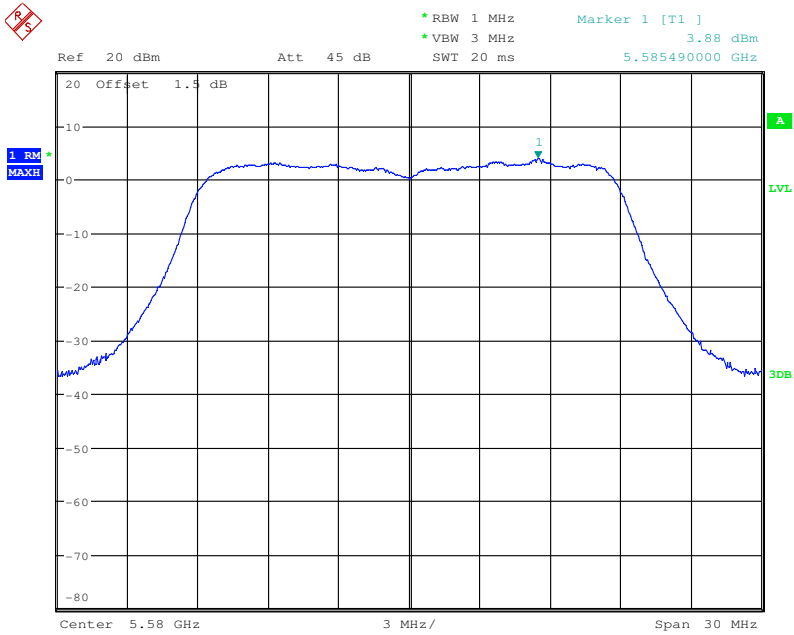
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Test mode:	802.11n(HT20)	Frequency(MHz):	5500
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Test mode:	802.11n(HT20)	Frequency(MHz):	5580
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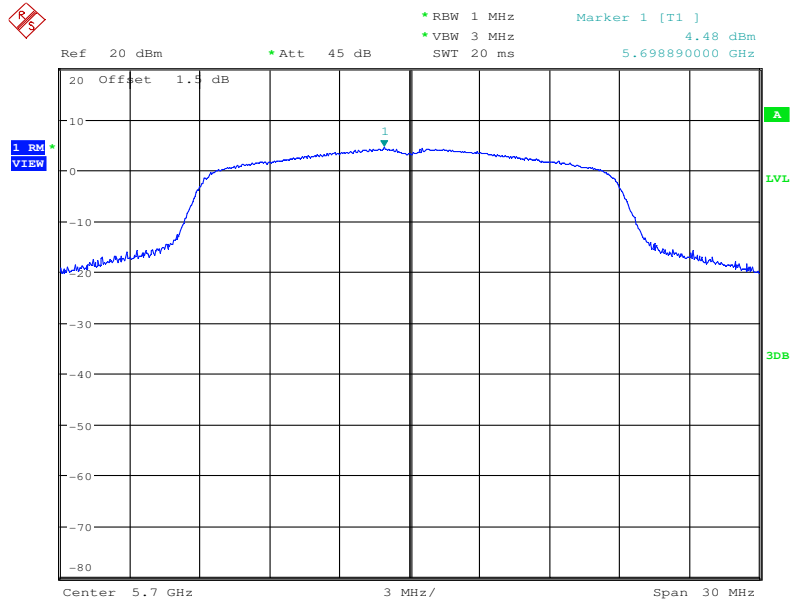




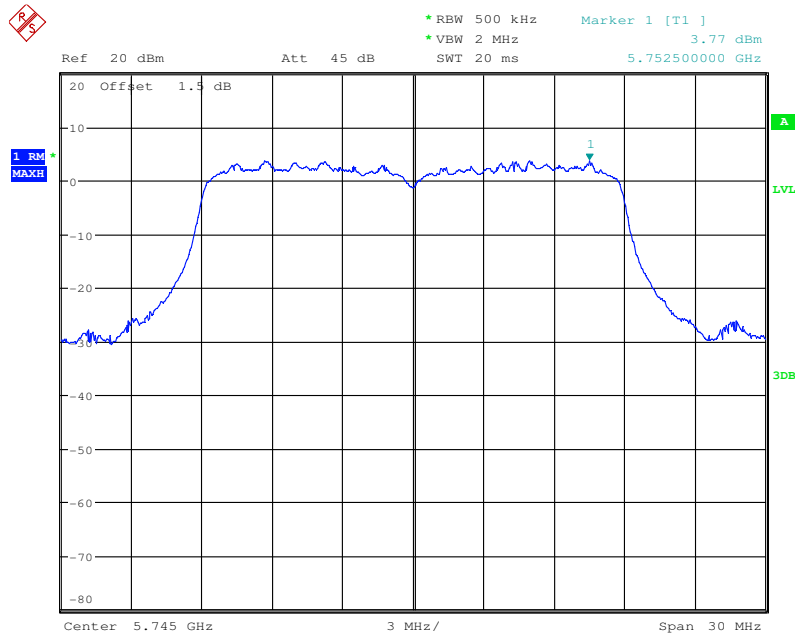
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Test mode:	802.11n(HT20)	Frequency(MHz):	5700
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Test mode:	802.11n(HT20)	Frequency(MHz):	5745
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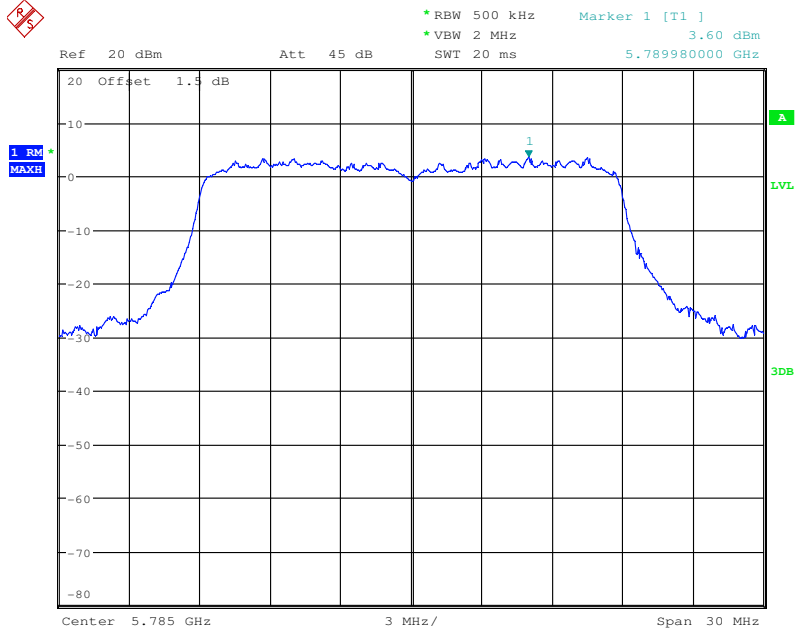




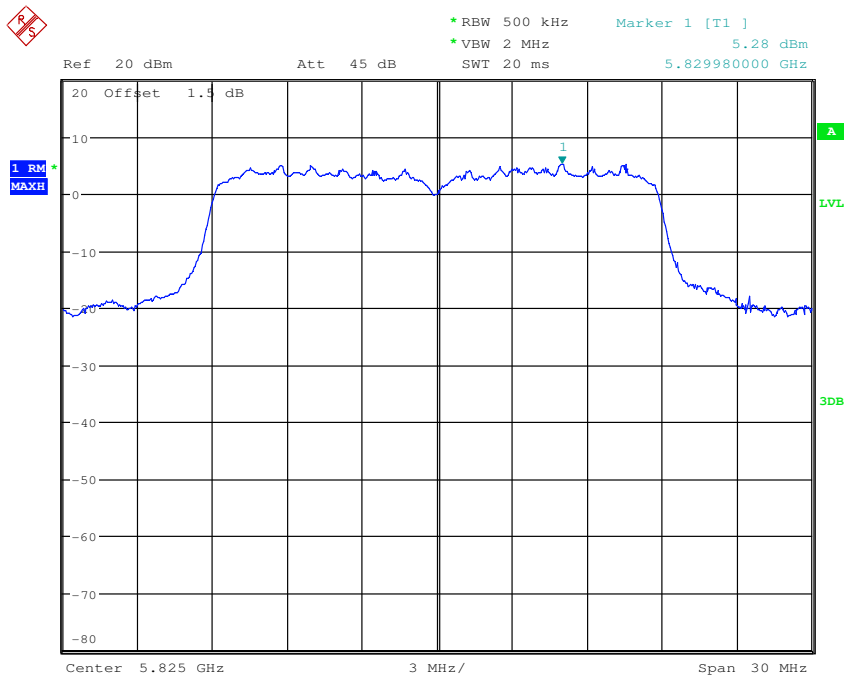
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Test mode:	802.11n(HT20)	Frequency(MHz):	5785
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Test mode:	802.11n(HT20)	Frequency(MHz):	5825
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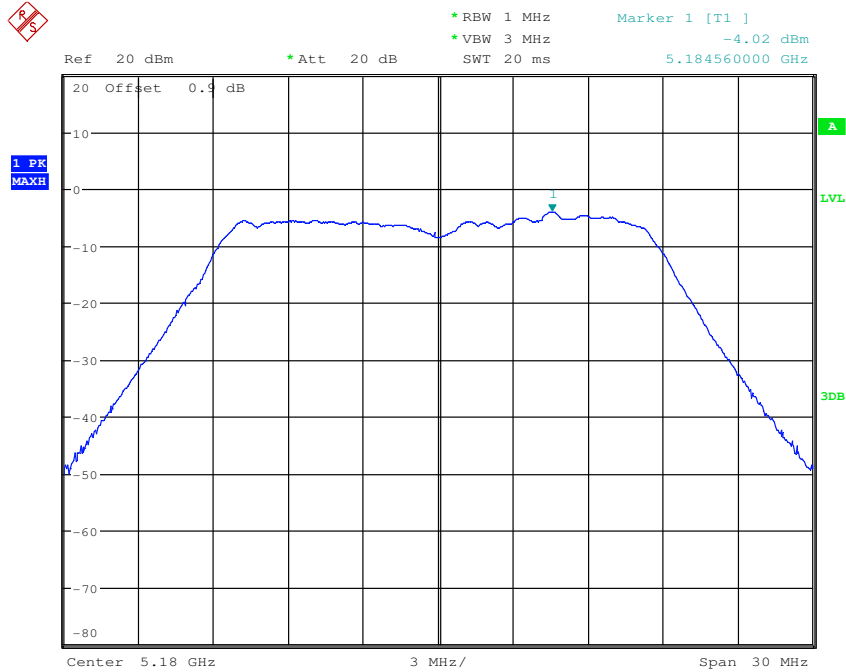




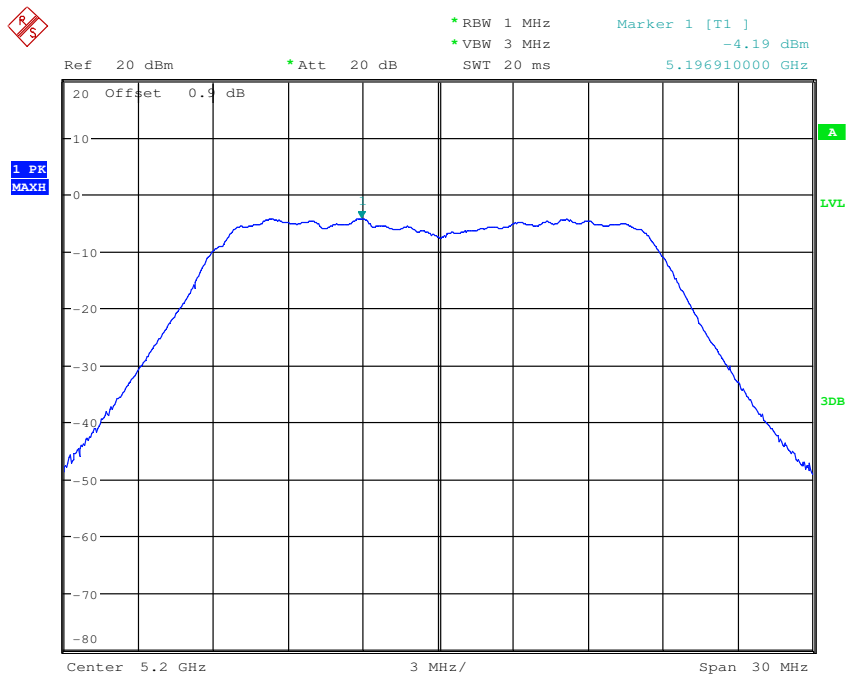
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Test mode:	802.11ac(HT20)	Frequency(MHz):	5180
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Test mode:	802.11ac(HT20)	Frequency(MHz):	5200
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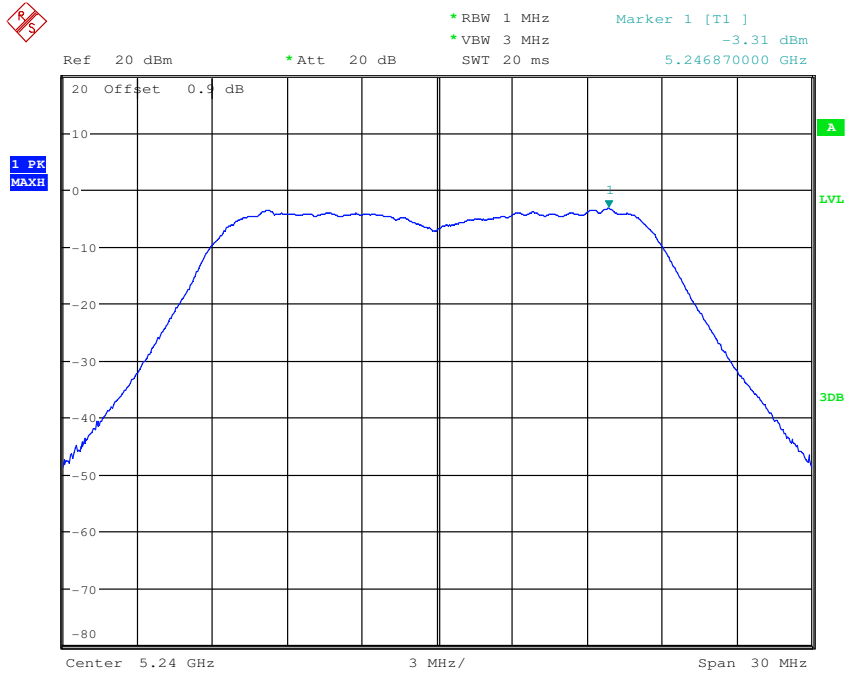




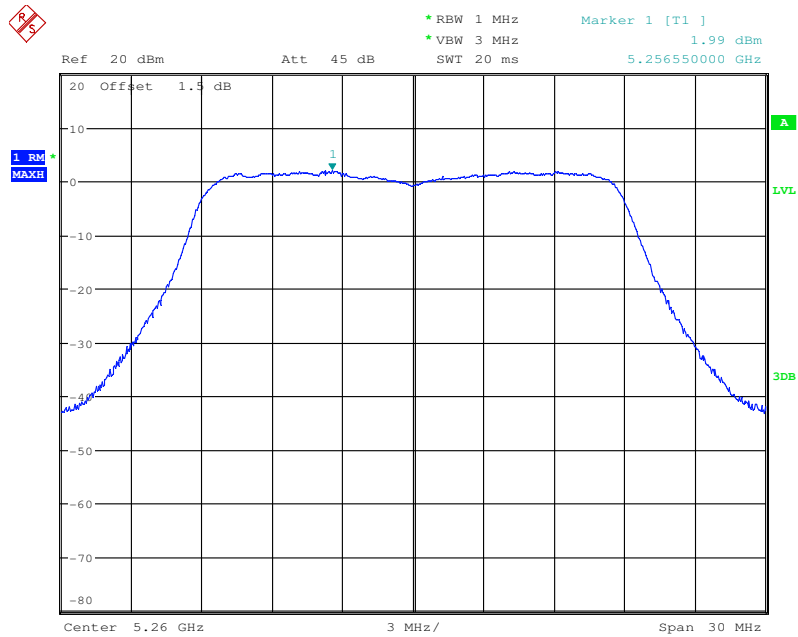
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Test mode:	802.11ac(HT20)	Frequency(MHz):	5240
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Test mode:	802.11ac(HT20)	Frequency(MHz):	5260
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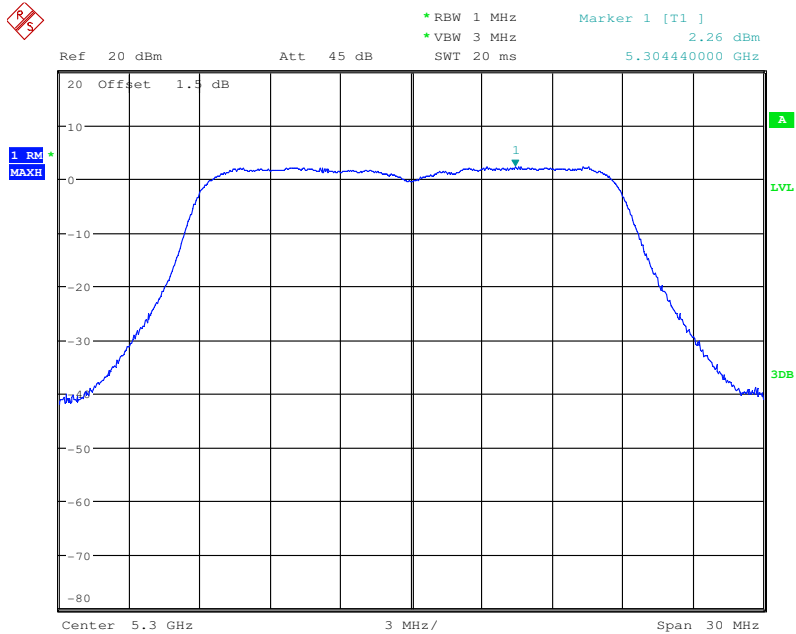




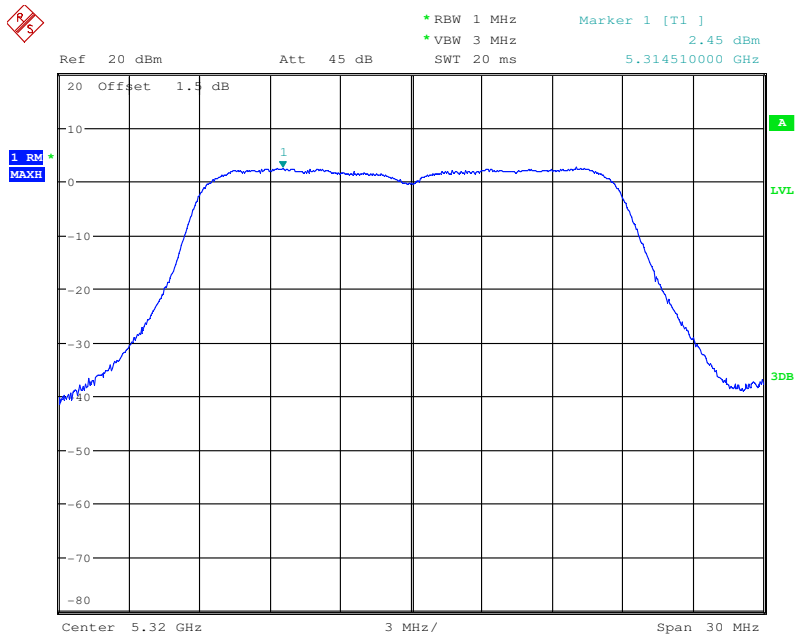
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Test mode:	802.11ac(HT20)	Frequency(MHz):	5300
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Test mode:	802.11ac(HT20)	Frequency(MHz):	5320
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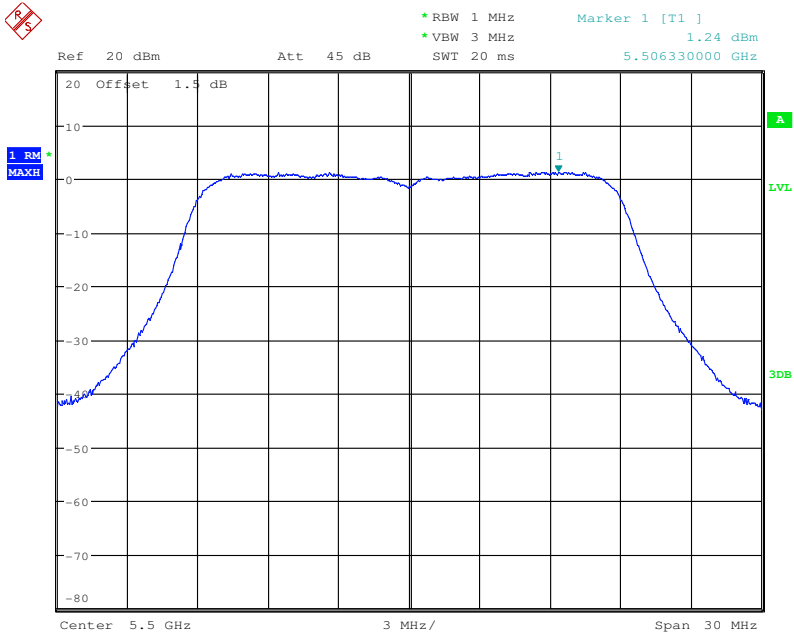




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Test mode:	802.11ac(HT20)	Frequency(MHz):	5500
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Test mode:	802.11ac(HT20)	Frequency(MHz):	5580
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