TEST REPORT

Report Reference No. ..... :	**180203002RFC-1**
FCC ID ..... :	**2AEY7-S8A004**
Applicant's name ..... :	**Bak USA Technologies Corp.**
Address ..... :	425 Michigan Avenue,Buffalo,New York 14203,USA
Manufacturer..... :	Bak USA Technologies Corp.
Address..... :	425 Michigan Avenue,Buffalo,New York 14203,USA
Test item description..... :	**Tablet PC**
Trade Mark..... :	-
Model/Type reference..... :	Seal WiFi
Listed Model(s) ..... :	-
Standard..... :	**FCC CFR Title 47 Part 15 Subpart E Section 15.407**
Date of receipt of test sample..... :	Jan.19,2018
Date of testing..... :	Jan.19,2018-Feb.04,2018
Date of issue..... :	Feb.26,2018
Result ..... :	**PASS**
Tested by ..... :	Engineer : Henry Lu
Reviewed by..... :	Senior Engineer : Kevin Liang
Approved by..... :	Assistant Manager : Jim Long
Testing Laboratory Name..... :	**Shenzhen UnionTrust Quality and Technology Co., Ltd.**
Address..... :	16/F, Block A, Building 6, Baoneng Science and Technology Park, Qingxiang Road No.1, Longhua New District, Shenzhen, China

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Contents

1. TEST STANDARDS AND REPORT VERSION

1.1. Test Standards

The tests were performed according to following standards:
FCC Rules Part 15.407: General technical requirements.

ANSI C63.10-2013: American National Standard for Testing Unlicensed Wireless Devices

KDB789033 D02 v01r04: GUIDELINES FOR COMPLIANCE TESTING OF UNLICENSED NATIONAL INFORMATION INFRASTRUCTURE (U-NII) DEVICES PART 15, SUBPART E

1.2. Report Version

Version No.	Date of issue	Description
00	Feb.26,2018	Original

2. TEST DESCRIPTION

Test Item	FCC Rule	Result	Test Engineer
Antenna Requirement	15.203	PASS	Henry Lu
Line Conducted Emissions (AC Main)	15.207	PASS	Andy Lin
Maximum Conducted Output Power	15.407(a)	PASS	Henry Lu
Maximum Power Spectral Density	15.407(a)	PASS	Henry Lu
26dB Bandwidth and 99% Ocuppy bandwith	15.407(a)	PASS	Henry Lu
6dB Bandwidth	15.407(a)	PASS	Henry Lu
Band edge	15.407(b)	PASS	Henry Lu
Radiated Spurious Emissions	15.209	PASS	Terence Chen
Frequency Stability	15.407(g)	PASS	Henry Lu
Dynamic Frequency Selection(DFS)	15.407(h)	PASS	Henry Lu

Remark: The measurement uncertainty is not included in the test result.

3. SUMMARY

3.1. Client Information

Applicant:	Bak USA Technologies Corp.
Address:	425 Michigan Avenue,Buffalo,New York 14203,USA
Manufacturer:	Bak USA Technologies Corp.
Address:	425 Michigan Avenue,Buffalo,New York 14203,USA

3.2. Product Description

Name of EUT	Tablet PC		
Trade Mark:	-		
Model No.:	Seal WiFi		
Listed Model(s):	-		
Power supply:	DC 3.7V From exchange battery		
Adapter information:	Input: 100-240Va.c., 50/60Hz, 0.6A Output: 5Vd.c.,5A		
Hardware version:	1.1		
Software version:	1703		
5G WIFI			
Supported type:	☒ 802.11a	☒ 802.11n(HT20)	☒ 802.11n(HT40)
	☒ 802.11ac(HT20)	☒ 802.11ac(HT40)	☒ 802.11ac(HT80)
Function:	☐ Outdoor AP	☐ Indoor AP	☐ Fixed P2P
	☒ Client		
DFS type:	☐ master devices	☐ Slave devices with radar detection	☒ Slave devices without radar detection
Modulation:	BPSK, QPSK, 16QAM, 64QAM		
Operation frequency:	☒ Band I:	5150MHz~5250MHz	
	☒ Band II:	5250MHz~5350MHz	
	☒ Band III:	5470MHz~5725MHz	
	☒ Band IV:	5725MHz~5850MHz	
Supported Bandwidth	20MHz:	802.11ac, 802.11n, 802.11a	
	40MHz:	802.11ac, 802.11n	
	80MHz:	802.11ac	
Antenna type:	1 Transmit, 1 Receive		
Antenna gain:	2dBi		

3.3. Operation state

➢ **Frequency list**

According to section 15.31(m), regards to the operating frequency range over 10 MHz, must select three channel which were tested. the Lowest frequency, the middle frequency, and the highest frequency of channel were selected to perform the test, please see the above gray bottom.

Band	Test Channel	20MHz		40MHz		80MHz	
		Channel	Frequency (MHz)	Channel	Frequency (MHz)	Channel	Frequency (MHz)
I	CH_L	36	5180	38	5190	-	-
	CH_M	44	5220	-	-	42	5210
	CH_H	48	5240	46	5230	-	-
II	CH_L	52	5260	54	5270	-	-
	CH_M	56	5280	-	-	58	5290
	CH_H	64	5320	62	5310	-	-
III	CH_L	100	5500	102	5510	106	5530
	CH_M	120	5600	118	5590	-	-
	CH_H	140	5700	134	5670	122	5610
IV	CH_L	149	5745	151	5755	-	-
	CH_M	157	5785	-	-	155	5775
	CH_H	165	5825	159	5795	-	-

➢ **Data Rated**

Preliminary tests were performed in different data rate, and found which the below bit rate is worst case mode, so only show data which it is a worst case mode.

Mode	Data rate (worst mode)
802.11a	6Mbps
802.11n(HT20)	MCS0
802.11n(HT40)	MCS0
802.11ac(HT80)	MCS0

➢ **Test mode**

For RF test items
The engineering test program was provided and enabled to make EUT continuous transmit (duty cycle>98%).
For AC power line conducted emissions:
The EUT was set to connect with the WLAN AP under large package sizes transmission.
For Radiated suprious emissions test item:
The engineering test program was provided and enabled to make EUT continuous transmit(duty cycle>98%). The EUT in each of three orthogonal axis emissions had been tested ,but only the worst case (X axis) data Recorded in the report.

3.4. EUT configuration

The following peripheral devices and interface cables were connected during the measurement:

- ● - supplied by the manufacturer
- ○ - supplied by the lab

○	N/A	Manufacturer :	N/A
		Model No. :	N/A
○	N/A	Manufacturer :	N/A
		Model No. :	N/A

3.5. Modifications

No modifications were implemented to meet testing criteria.

4. TEST ENVIRONMENT

4.1. Address of the test laboratory

Shenzhen UnionTrust Quality and Technology Co., Ltd.
Address: 16/F, Block A, Building 6, Baoneng Science and Technology Park, Qingxiang Road No.1, Longhua New District, Shenzhen, China 518109
Phone: +86 (0) 755 2823 0888 Fax: +86 (0) 755 2823 0886

4.2. Test Facility

CNAS-Lab Code: L9069
The measuring equipment utilized to perform the tests documented in this report has been calibrated once a year or in accordance with the manufacturer's recommendations, and is traceable under the ISO/IEC/EN 17025 to international or national standards. Equipment has been calibrated by accredited calibration laboratories.

IC-Registration No.: 21600-1
The 3m Semi-anechoic chamber of Shenzhen UnionTrust Quality and Technology Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 21600-1

A2LA-Lab Certificate No.: 4312.01
Shenzhen UnionTrust Quality and Technology Co., Ltd. has been accredited by A2LA for technical competence in the field of electrical testing, and proved to be in compliance with ISO/IEC 17025: 2005 General Requirements for the Competence of Testing and Calibration Laboratories and any additional program requirements in the identified field of testing.

FCC Accredited Lab
Designation Number: CN1194
Test Firm Registration Number: 25948

4.3. Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature:	15~35°C
Relative Humidity:	30~60 %
Air Pressure:	950~1050mba

4.4. Statement of the measurement uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the Product as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2

No.	Item	Measurement Uncertainty
1	Conducted emission 9KHz-150KHz	±3.8 dB
2	Conducted emission 150KHz-30MHz	±3.4 dB
3	Radiated emission 9KHz-30MHz	±4.9 dB
4	Radiated emission 30MHz-1GHz	±4.7 dB
5	Radiated emission 1GHz-18GHz	±5.1 dB
6	Radiated emission 18GHz-26GHz	±5.2 dB
7	Radiated emission 26GHz-40GHz	±5.2 dB

4.5. Equipments Used during the Test

Radiated Emission Test Equipment List						
Used	**Equipment**	**Manufacturer**	**Model No.**	**Serial Number**	**Cal. date (mm dd, yyyy)**	**Cal. Due date (mm dd, yyyy)**
☑	3M Chamber & Accessory Equipment	ETS-LINDGREN	3M	N/A	Dec. 20, 2015	Dec. 19, 2018
☑	Receiver	R&S	ESIB26	100114	Dec. 10, 2017	Dec. 10, 2018
☑	Broadband Antenna	ETS-LINDGREN	3142E	00201566	Dec. 17, 2017	Dec. 17, 2018
☑	Preamplifier	HP	8447F	2805A02960	Dec. 10, 2017	Dec. 10, 2018
☑	Horn Antenna (Pre-amplifier)	ETS-LINDGREN	3117-PA	00201874	Dec. 17, 2017	Dec. 17, 2018
☑	Multi device Controller	ETS-LINDGREN	7006-001	00160105	N/A	N/A
☑	Band Rejection Filter (5150MHz~5880MHz)	Micro-Tronics	BRM50716	G1868	N/A	N/A
☑	Test Software	Audix	e3	Software Version: 9.160323		

Conducted RF test Equipment List						
Used	**Equipment**	**Manufacturer**	**Model No.**	**Serial Number**	**Cal. date (mm dd, yyyy)**	**Cal. Due date (mm dd, yyyy)**
☑	EXA Spectrum Analyzer	KEYSIGHT	N9010A	MY51440197	Dec. 10, 2017	Dec. 10, 2018
☑	Receiver	R&S	ESR7	1316.3003K07 -101181-K3	Dec. 10, 2017	Dec. 10, 2018
☑	USB Wideband Power Sensor	KEYSIGHT	U2021XA	MY55430035	Dec. 10, 2017	Dec. 10, 2018
☑	MXG X-Series RF Vector Signal Generator	KEYSIGHT	N5182B	MY51350267	Dec. 10, 2017	Dec. 10, 2018
☑	Temp & Humidity chamber	Votisch	VT4002	58566133290 020	Jun. 19, 2017	Jun. 18, 2018

Conducted Emission Test Equipment List						
Used	**Equipment**	**Manufacturer**	**Model No.**	**Serial Number**	**Cal. date (mm dd, yyyy)**	**Cal. Due date (mm dd, yyyy)**
☑	Receiver	R&S	ESR7	1316.3003K07 -101181-K3	Dec. 10, 2017	Dec. 10, 2018
☑	Pulse Limiter	R&S	ESH3-Z2	0357.8810.54	Dec. 10, 2017	Dec. 10, 2018
☑	LISN	R&S	ESH2-Z5	860014/024	Dec. 10, 2017	Dec. 10, 2018
☑	Test Software	Audix	e3	Software Version: 9.160323		

5. TEST CONDITIONS AND RESULTS

5.1. Antenna requirement

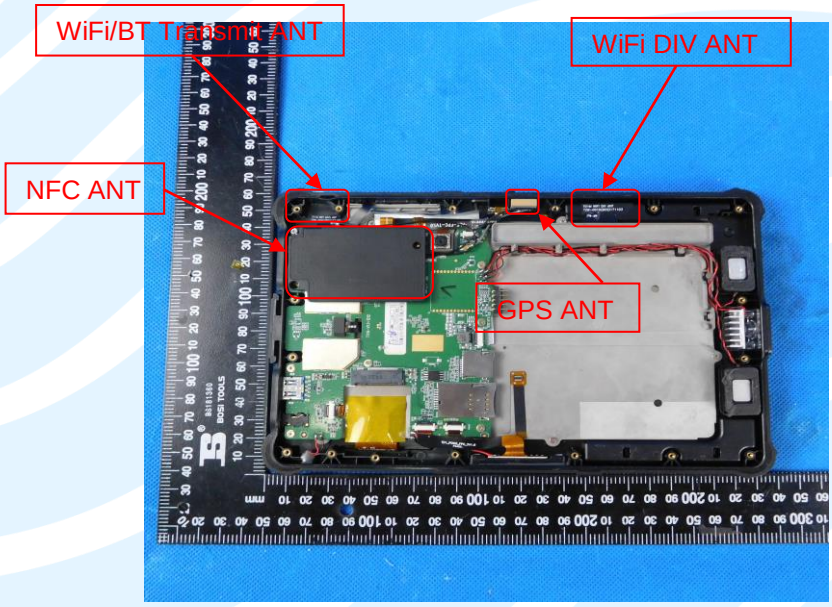
Requirement

FCC CFR Title 47 Part 15 Subpart C Section 15.203:

An intentional radiator shall be designed to ensure that no antenna other than that furnished by the responsible party shall be used with the device. The use of a permanently attached antenna or of anantenna that uses a unique coupling to the intentional radiator, the manufacturer may design the unit so that a broken antenna can be replaced by the user, but the use of a standard antenna jack or electrical connector is prohibited.

Test Result:

The directional gain of the antenna less than 6 dBi, please refer to the below antenna photo.



5.2. Conducted Emissions (AC Main)

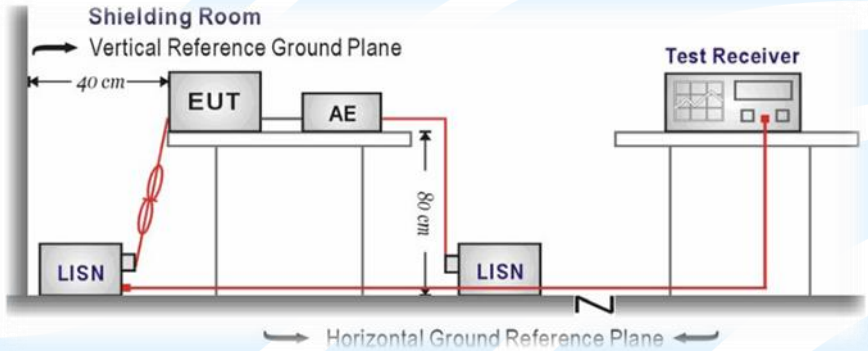
LIMIT

FCC CFR Title 47 Part 15 Subpart C Section 15.207:

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 CONFIGURATION



TEST PROCEDURE

1. The EUT was setup according to ANSI C63.10:2013 requirements.
2. The EUT was placed on a platform of nominal size, 1 m by 1.5 m, raised 80 cm above the conducting ground plane. The vertical conducting plane was located 40 cm to the rear of the EUT. All other surfaces of EUT were at least 80 cm from any other grounded conducting surface.
3. The EUT and simulators are connected to the main power through a line impedances stabilization network (LISN). The LISN provides a 50 ohm /50uH coupling impedance for the measuring equipment.
4. The peripheral devices are also connected to the main power through a LISN. (Please refer to the block diagram of the test setup and photographs)
5. Each current-carrying conductor of the EUT power cord, except the ground (safety) conductor,was individually connected through a LISN to the input power source.
6. The excess length of the power cord between the EUT and the LISN receptacle were folded back and forth at the center of the lead to form a bundle not exceeding 40 cm in length.
7. Conducted Emissions were investigated over the frequency range from 0.15MHz to 30MHz using a receiver bandwidth of 9 kHz.
8. During the above scans, the emissions were maximized by cable manipulation.

TEST MODE:

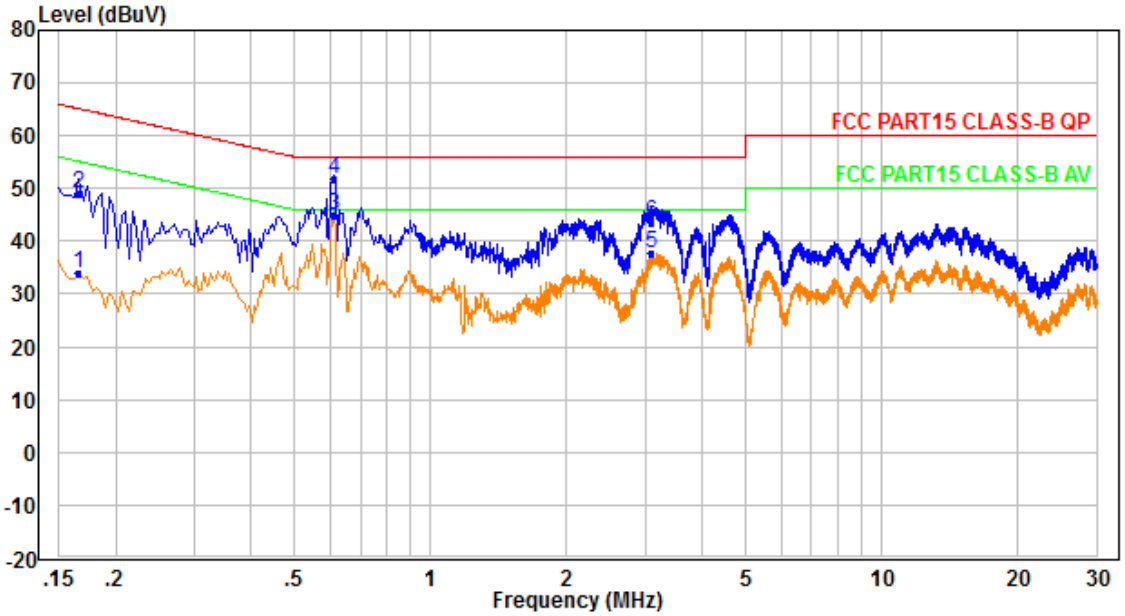
Please refer to the clause 3.3

TEST RESULTS

☒ **Passed** ☐ **Not Applicable**

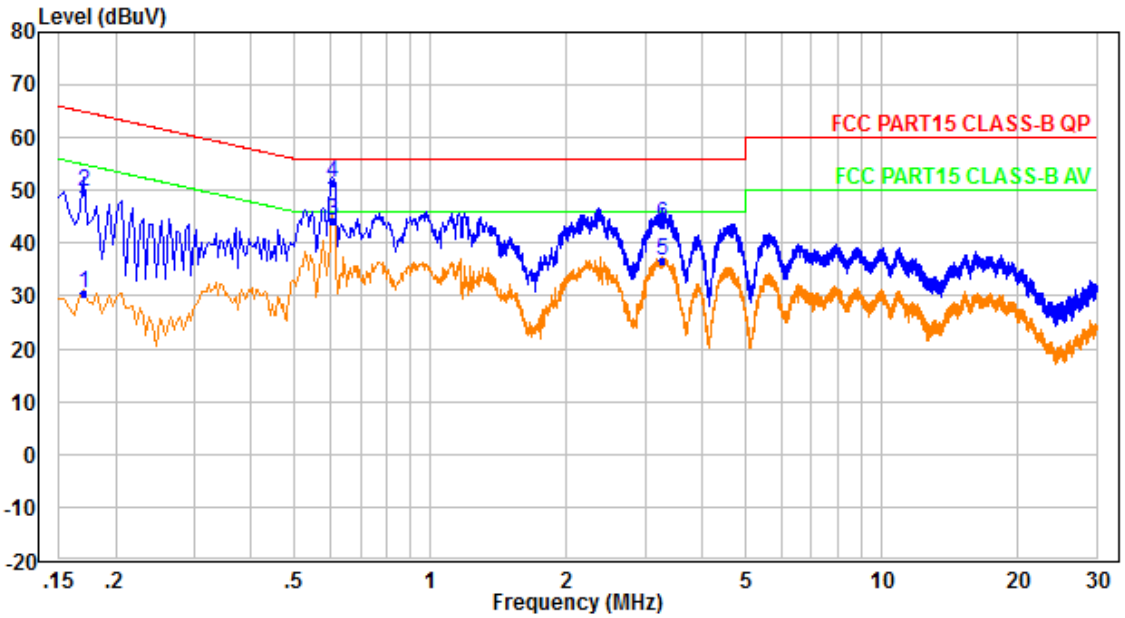
Note:
1) Transd=Cable lose+ Pulse Limiter Factor + Artificial Mains Factor
2) Margin= Limit -Level

Test Line:	L



No.	Frequency (MHz)	Reading (dBuV)	Correction factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.166	23.70	10.20	33.90	55.20	-21.30	Average
2	0.166	38.70	10.20	48.90	65.20	-16.30	QP
3*	0.610	34.80	10.20	45.00	46.00	-1.00	Average
4	0.610	41.60	10.20	51.80	56.00	-4.20	QP
5	3.078	27.30	10.30	37.60	46.00	-8.40	Average
6	3.078	33.30	10.30	43.60	56.00	-12.40	QP

Test Line:	N



No.	Frequency (MHz)	Reading (dBuV)	Correction factor (dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Remark
1	0.170	20.50	10.20	30.70	55.00	-24.30	Average
2	0.170	39.50	10.20	49.70	65.00	-15.30	QP
3*	0.606	33.90	10.40	44.30	46.00	-1.70	Average
4	0.606	41.20	10.40	51.60	56.00	-4.40	QP
5	3.254	26.10	10.50	36.60	46.00	-9.40	Average
6	3.254	33.10	10.50	43.60	56.00	-12.40	QP

Remark:
Margin=Limit -Level

5.3. Maximum Conducted Output Power

LIMIT

FCC CFR Title 47 Part 15 Subpart E Section 15.407(a):

For the 5.15~5.25GHz band:

- Outdoor AP
  The maximum conducted output power (P_{out}) shall not exceed the lesser of 1W (30dBm).
  if G_{Tx}>6dBi, then P_{out} =30-(G_{Tx}-6). e.i.r.p. at any elevation angle above 30 degrees≤125mW (21dBm)
- Indoor AP
  The maximum conducted output power (P_{out}) shall not exceed the lesser of 1W (30dBm).
  if G_{Tx}>6dBi, then Pout =30-(G_{Tx}-6).
- Point-to-point AP
  The maximum conducted output power (P_{out}) shall not exceed the lesser of 1W (30dBm).
  if G_{Tx}>23dBi, then Pout =30-(G_{Tx}-23).
- Client devices
  The maximum conducted output power (P_{out}) shall not exceed the lesser of 250W (24dBm).
  if G_{Tx}>6dBi, then Pout =24-(G_{Tx}-6).

For the 5.25~5.35GHz band:

The maximum conducted output power (P_{out}) shall not exceed the lesser of 250mW (24dBm) or 11dBm+10 log B, where B is the 26dB emission bandwith in MHz.
if G_{Tx}>6dBi, then P_{out} =24-(G_{Tx}-6).

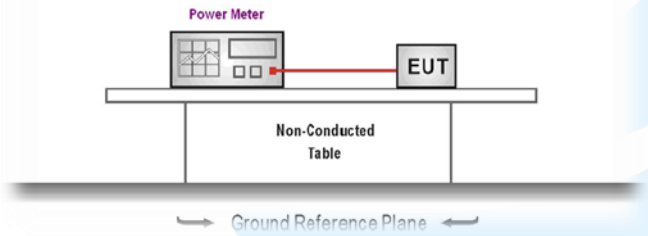
For the 5.47~5.725GHz band:

The maximum conducted output power (P_{out}) shall not exceed the lesser of 250mW (24dBm) or 11dBm+10 log B, where B is the 26dB emission bandwith in MHz.
if G_{Tx}>6dBi, then P_{out} =24-(G_{Tx}-6).

For the 5.725~5.85GHz band:

- Point-to-multipoint systems (P2M)
  The maximum conducted output power (P_{out}) shall not exceed the lesser of 1W (30dBm).
  if G_{Tx}>6dBi, then P_{out} =30-(G_{Tx}-6).
- Point-to-point systems (P2P)
  The maximum conducted output power (P_{out}) shall not exceed the lesser of 1W (30dBm).

TEST CONFIGURATION



TEST PROCEDURE

1. The EUT was tested according to KDB789033 Section E-3-b)
2. The maximum conducted output power may be measured using a broadband AVG RF power meter.
3. Average power measurements were performed only when the EUT was transmitting at its maximum power control level using a broadband power meter with a pulse sensor.
4. The power meter implemented triggering and gating capabilities which were set up such that power measurements were recorded only during the ON time of the transmitter.
5. Record the measurement data.

TEST MODE:

Please refer to the clause 3.3

TEST RESULTS

☒ **Passed** ☐ **Not Applicable**

Band	Bandwidth (MHz)	Type	Channel	Conducted Output Power (dBm)	Limit (dBm)	Result
I	20	802.11ac	CH_L	13.25	24.00	Pass
			CH_M	13.37		
			CH_H	13.35		
		802.11n	CH_L	14.30	24.00	Pass
			CH_M	14.48		
			CH_H	14.42		
		802.11a	CH_L	14.70	24.00	Pass
			CH_M	14.74		
			CH_H	14.33		
	40	802.11ac	CH_L	12.78	24.00	Pass
			CH_H	12.90		
		802.11n	CH_L	13.73	24.00	Pass
			CH_H	13.95		
	80	802.11ac	CH_M	10.80	24.00	Pass
II	20	802.11ac	CH_L	12.08	24.00	Pass
			CH_M	12.41		
			CH_H	12.29		
		802.11n	CH_L	14.04	24.00	Pass
			CH_M	14.13		
			CH_H	13.69		
		802.11a	CH_L	14.87	24.00	Pass
			CH_M	14.83		
			CH_H	14.41		
	40	802.11ac	CH_L	11.96	24.00	Pass
			CH_H	11.88		
		802.11n	CH_L	13.63	24.00	Pass
			CH_H	13.46		
	80	802.11ac	CH_M	10.13	24.00	Pass

Band	Bandwidth (MHz)	Type	Channel	Conducted Output Power (dBm)	Limit (dBm)	Result
III	20	802.11ac	CH_L	12.49	24.00	Pass
			CH_M	12.27		
			CH_H	12.18		
		802.11n	CH_L	14.66	24.00	Pass
			CH_M	14.69		
			CH_H	14.19		
		802.11a	CH_L	14.48	24.00	Pass
			CH_M	14.30		
			CH_H	14.67		
	40	802.11ac	CH_L	11.33	24.00	Pass
			CH_M	11.98		
			CH_H	12.24		
	40	802.11n	CH_L	12.43	24.00	Pass
			CH_M	12.61		
			CH_H	12.50		
	80	802.11ac	CH_L	10.15	24.00	Pass
			CH_H	10.66		
IV	20	802.11ac	CH_L	12.27	30.00	Pass
			CH_M	12.64		
			CH_H	12.64		
		802.11n	CH_L	14.02	30.00	Pass
			CH_M	14.20		
			CH_H	14.53		
		802.11a	CH_L	14.23	30.00	Pass
			CH_M	14.64		
			CH_H	14.07		
	40	802.11ac	CH_L	11.43	30.00	Pass
			CH_H	11.37		
		802.11n	CH_L	12.65	30.00	Pass
			CH_H	12.29		
	80	802.11ac	CH_M	10.85	30.00	Pass

5.4. Maximum Power Spectral Density

LIMIT

FCC CFR Title 47 Part 15 Subpart E Section 15.407(a):

For the 5.15~5.25GHz band:

- Outdoor AP
  The peak power spectral density (PSD) shall not exceed the lesser of 17dBm/MHz.
  if G_{Tx}>6dBi, then PSD =17-(G_{Tx}-6).
- Indoor AP
  The peak power spectral density (PSD) shall not exceed the lesser of 17dBm/MHz.
  if G_{Tx}>6dBi, then PSD =17-(G_{Tx}-6).
- Point-to-point AP
  The peak power spectral density (PSD) shall not exceed the lesser of 17dBm/MHz.
  if G_{Tx}>23dBi, then PSD =17-(G_{Tx}-23).
- Client devices
  The peak power spectral density (PSD) shall not exceed the lesser of 11dBm/MHz.
  if G_{Tx}>6dBi, then PSD =11-(G_{Tx}-6).

For the 5.25~5.35GHz band:

The peak power spectral density (PSD) shall not exceed the lesser of 11dBm/MHz.
if G_{Tx}>6dBi, then PSD =11-(G_{Tx}-6).

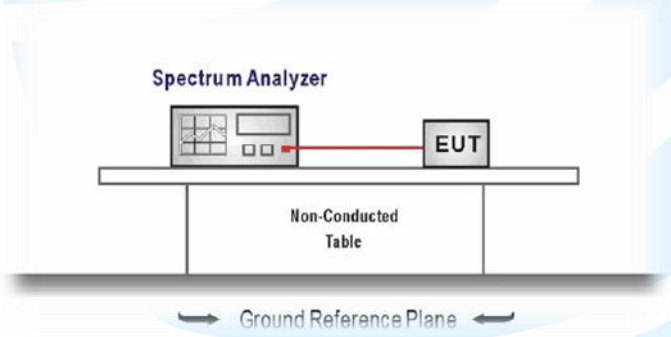
For the 5.47~5.725GHz band:

The peak power spectral density (PSD) shall not exceed the lesser of 11dBm/MHz.
if G_{Tx}>6dBi, then PSD =11-(G_{Tx}-6).

For the 5.725~5.85GHz band:

- Point-to-multipoint systems (P2M)
  The peak power spectral density (PSD) shall not exceed the lesser of 30dBm/500kHz.
  if G_{Tx}>6dBi, then PSD =30-(G_{Tx}-6).
- Point-to-point systems (P2P)
  The peak power spectral density (PSD) shall not exceed the lesser of 30dBm/500kHz.

TEST CONFIGURATION



TEST PROCEDURE

1. According KDB 789033 D02 – Section F
2. Analyzer was setting as follow:
   Center frequency: test channel
   Span was set to encompass the entire emission bandwidth of the signal
   RBW=1MHz for devices operating in the bands 5.15-5.25 GHz, 5.25-5.35 GHz, and 5.47-5.725 GHz
   RBW=500kHz for devices operating in the band 5.725-5.85 GHz
   VBW ≥ 3 RBW
   Number of sweep points > 2 x (span/RBW)
   Sweep time = auto
   Detector = Peak
   Trigger was set to free run for all modes, trace was averaged over 100 sweeps
3. The peak search function of the spectrum analyzer was used to find the peak of the spectrum.

TEST MODE:

Please refer to the clause 3.3

TEST RESULTS

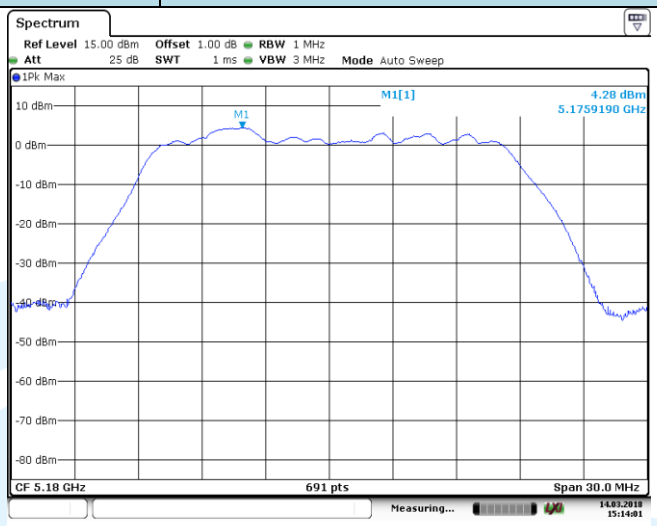
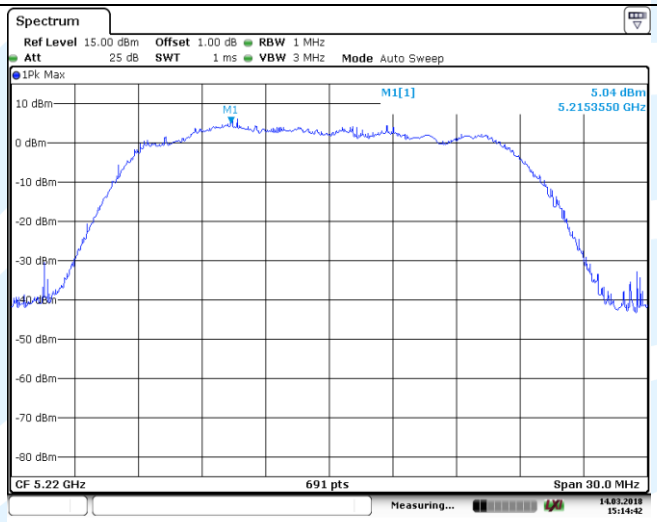
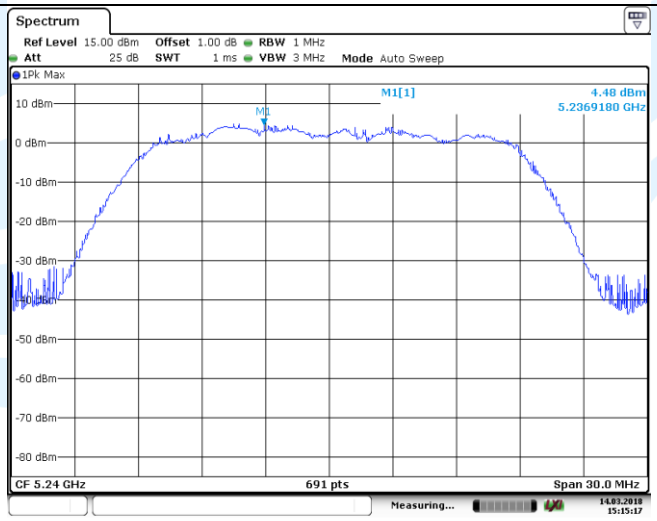
☒ **Passed** ☐ **Not Applicable**

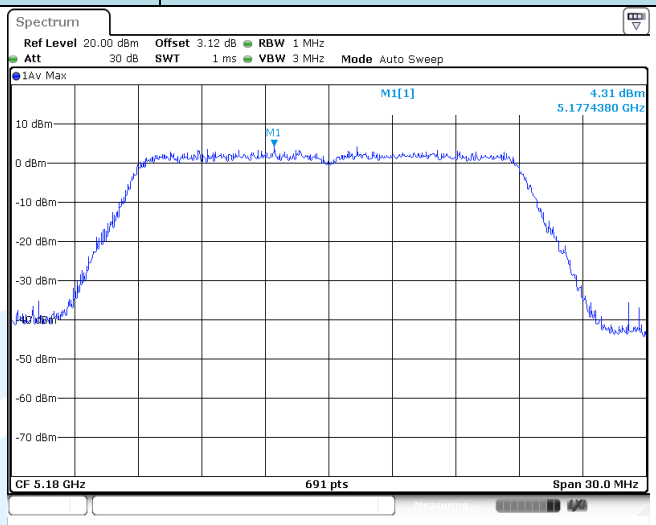
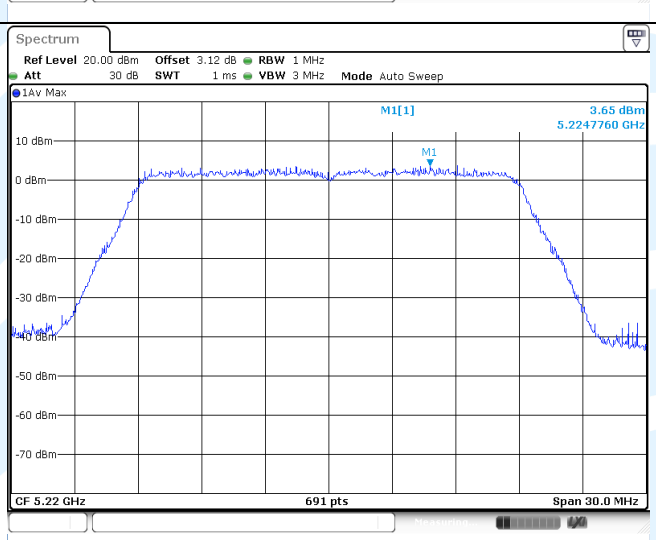
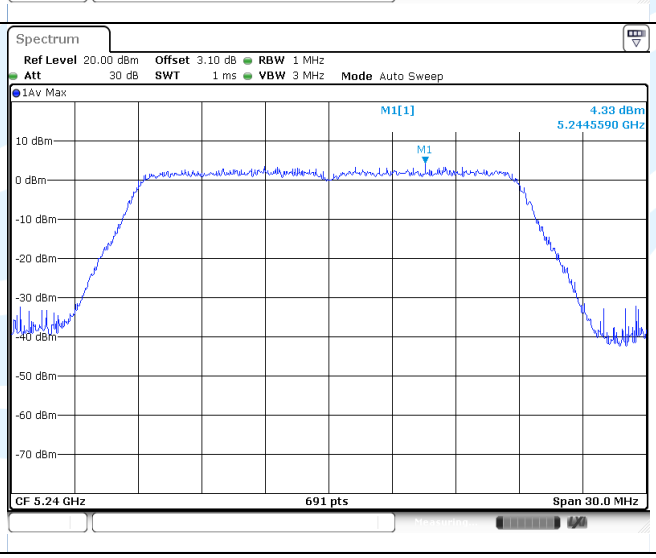
Band	Bandwidth (MHz)	Type	Channel	Power Spectral Density (dBm/MHz)	Limit (dBm/1MHz)	Result
I	20	802.11ac	CH_L	4.28	11.00	Pass
			CH_M	5.04		
			CH_H	4.48		
		802.11n	CH_L	4.31	11.00	Pass
			CH_M	3.65		
			CH_H	4.33		
		802.11a	CH_L	4.92	11.00	Pass
			CH_M	4.83		
			CH_H	4.33		
	40	802.11ac	CH_L	-0.14	11.00	Pass
			CH_H	-0.18		
		802.11n	CH_L	0.48	11.00	Pass
			CH_H	0.70		
	80	802.11ac	CH_M	-4.42	11.00	Pass
II	20	802.11ac	CH_L	6.97	11.00	Pass
			CH_M	5.04		
			CH_H	3.36		
		802.11n	CH_L	3.61	11.00	Pass
			CH_M	4.21		
			CH_H	3.30		
		802.11a	CH_L	4.45	11.00	Pass
			CH_M	4.16		
			CH_H	3.67		
	40	802.11ac	CH_L	-0.28	11.00	Pass
			CH_H	-0.79		
		802.11n	CH_L	0.17	11.00	Pass
			CH_H	-0.09		
	80	802.11ac	CH_M	-5.03	11.00	Pass

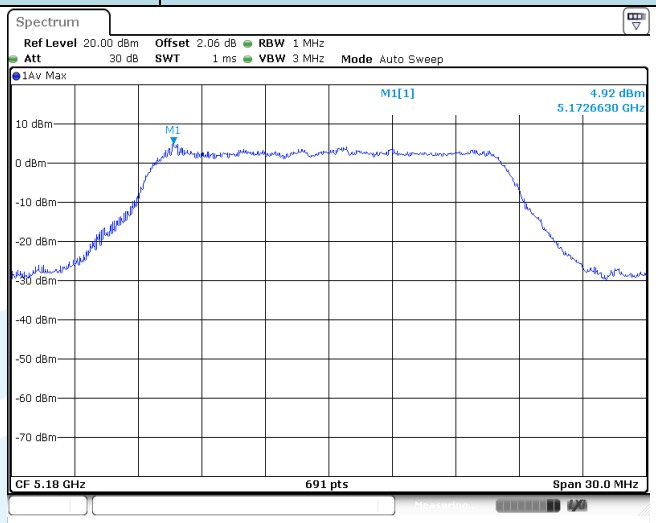
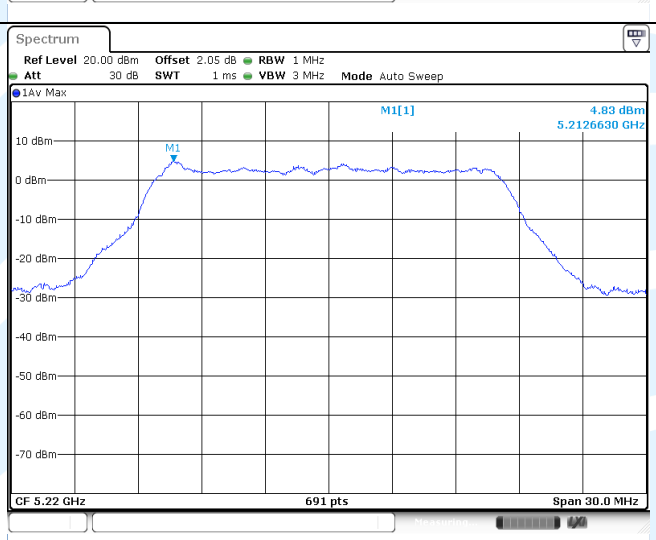
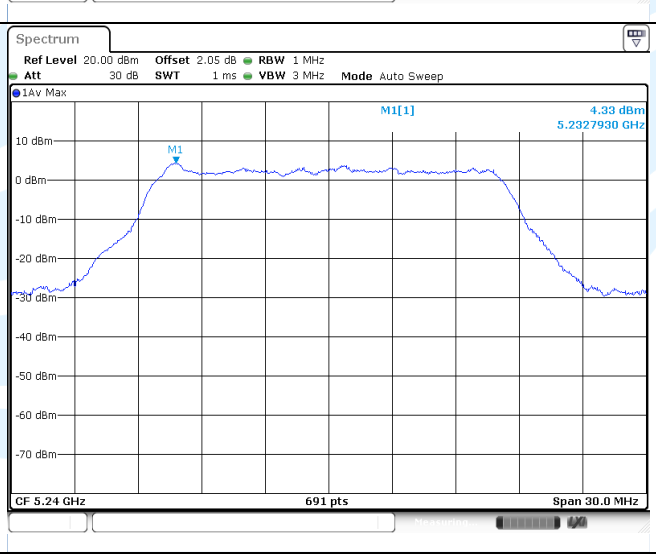
Band	Bandwidth (MHz)	Type	Channel	Power Spectral Density (dBm/MHz)	Limit (dBm/1MHz)	Result
III	20	802.11ac	CH_L	6.78	11.00	Pass
			CH_M	3.59		
			CH_H	3.02		
		802.11n	CH_L	3.84	11.00	Pass
			CH_M	4.25		
			CH_H	3.43		
		802.11a	CH_L	3.80	11.00	Pass
			CH_M	3.44		
			CH_H	4.04		
	40	802.11ac	CH_L	-1.02	11.00	Pass
			CH_M	-0.62		
			CH_H	-1.53		
		802.11n	CH_L	-1.02	11.00	Pass
			CH_M	-0.93		
			CH_H	-0.79		
	80	802.11ac	CH_L	-4.80	11.00	Pass
			CH_H	-4.47		

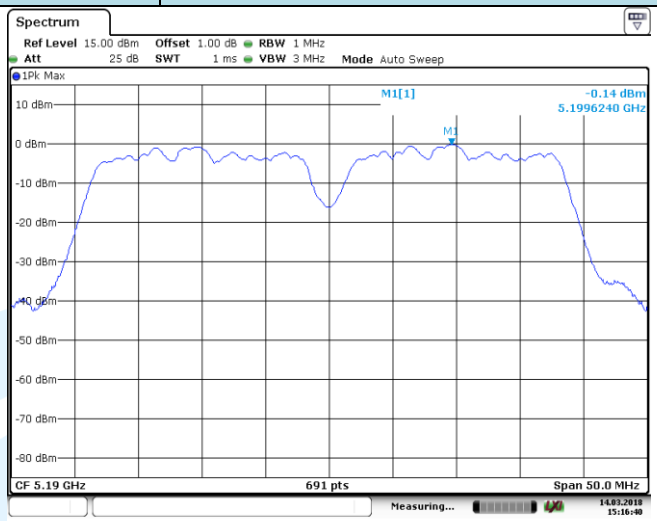
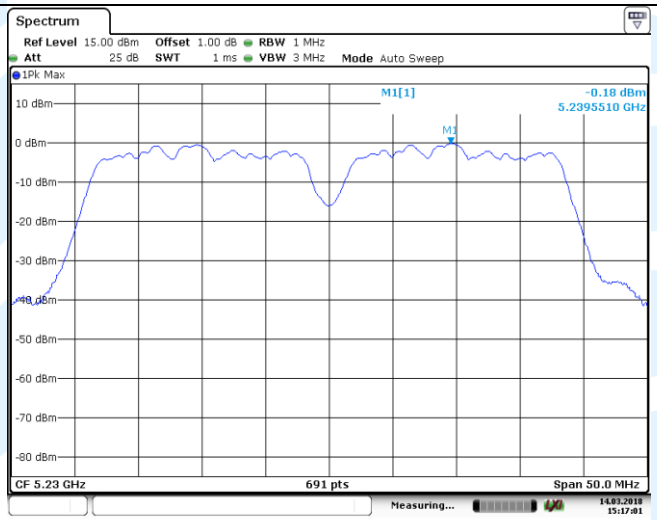
Band	Bandwidth (MHz)	Type	Channel	Power Spectral Density (dBm/500kHz)	Limit (dBm/500KHz)	Result
IV	20	802.11ac	CH_L	2.65	30.00	Pass
			CH_M	3.22		
			CH_H	2.17		
		802.11n	CH_L	2.29	30.00	Pass
			CH_M	1.86		
			CH_H	2.45		
		802.11a	CH_L	2.16	30.00	Pass
			CH_M	2.63		
			CH_H	2.26		
	40	802.11ac	CH_L	-0.98	30.00	Pass
			CH_H	-2.04		
		802.11n	CH_L	-2.55	30.00	Pass
			CH_H	-1.98		
	80	802.11ac	CH_M	-4.03	30.00	Pass

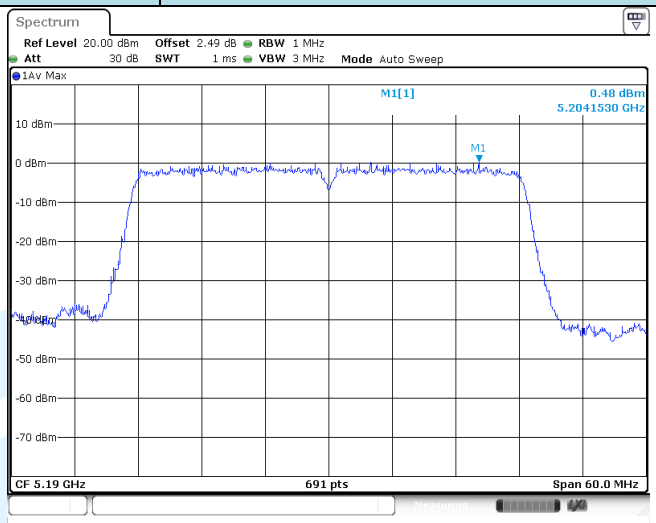
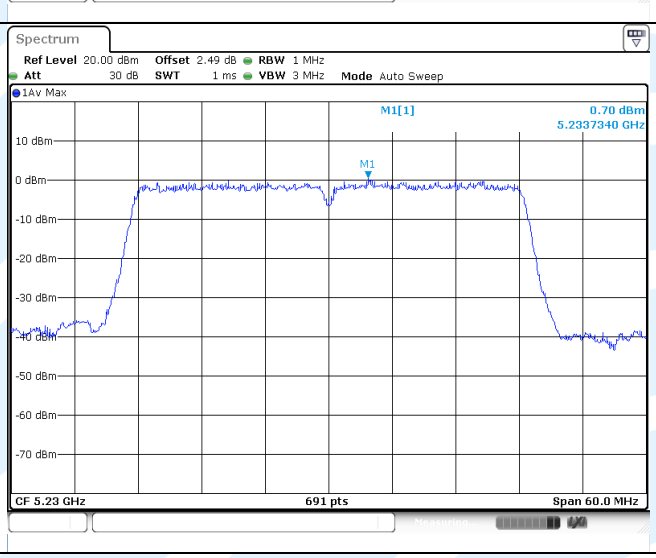
Test plot as follows:

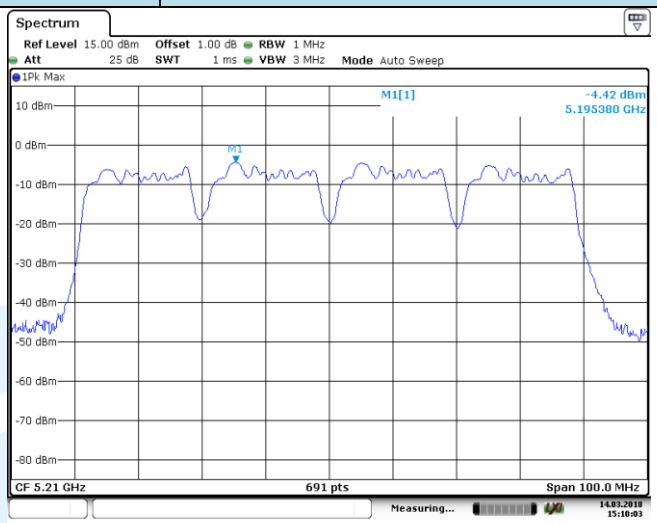
Band I	802.11ac (HT20)
CH_L	
CH_M	
CH_H	

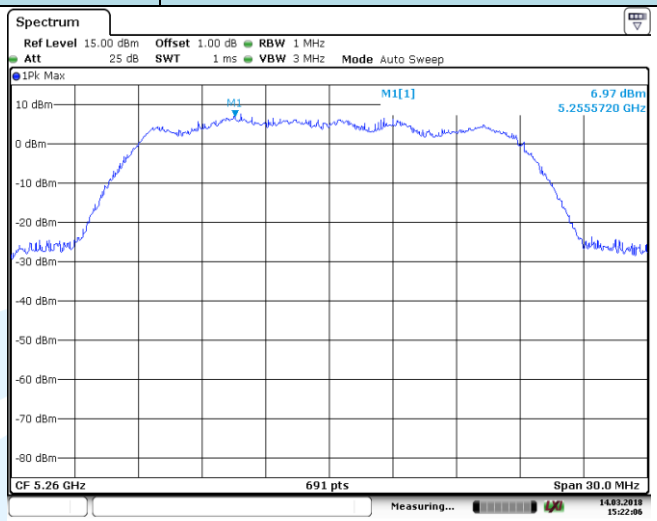
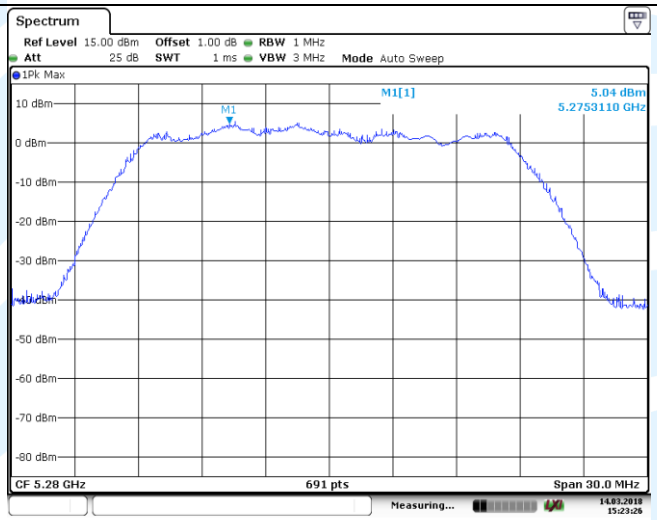
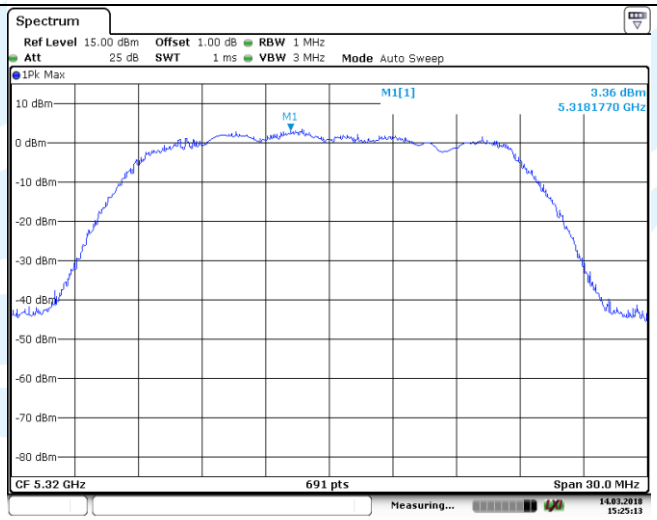
Band I	802.11n (HT20)
CH_L	
CH_M	
CH_H	

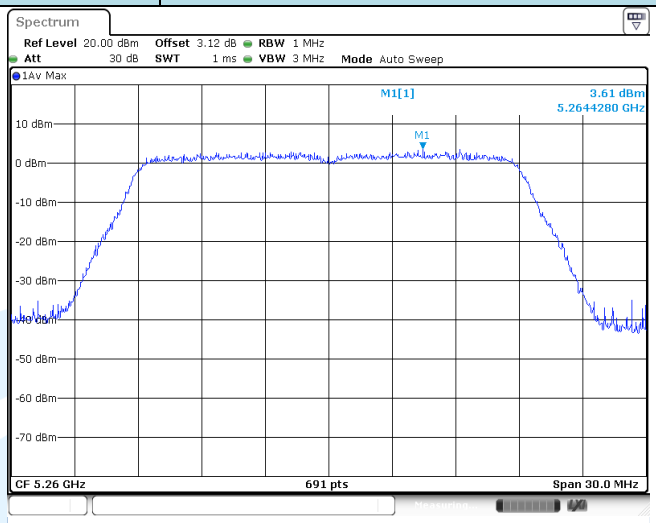
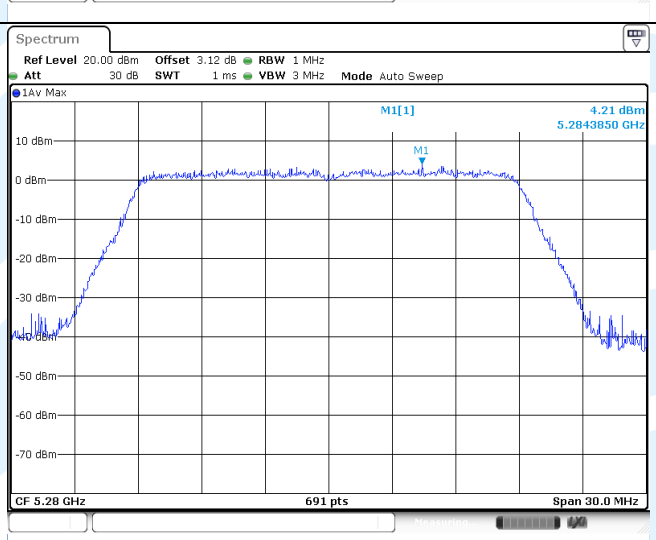
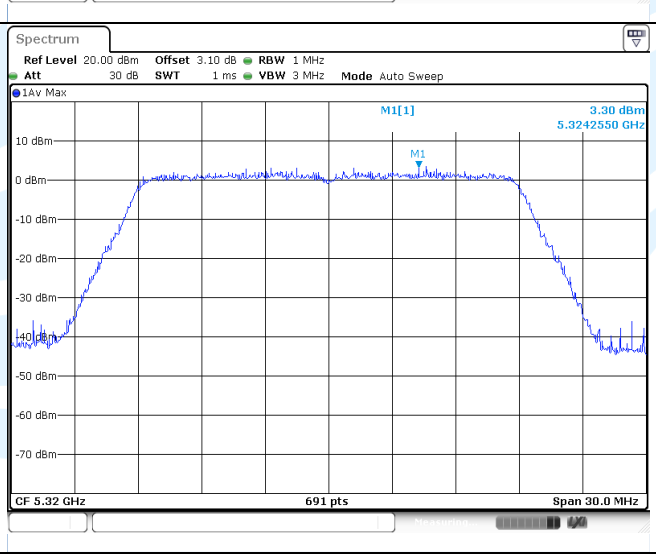
Band I	802.11a
CH_L	
CH_M	
CH_H	

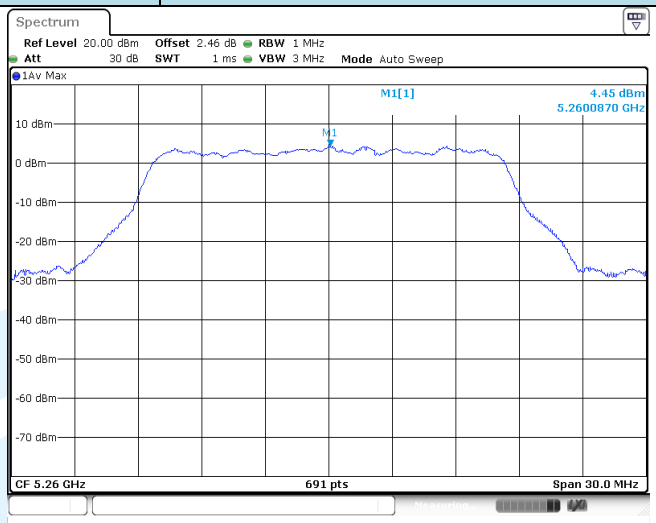
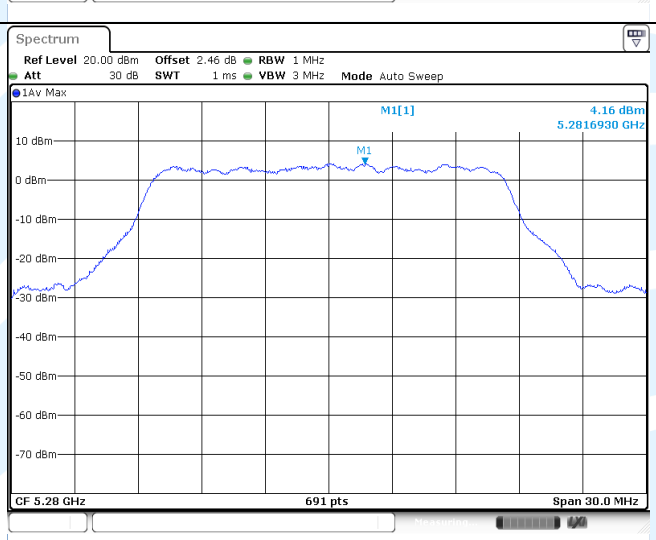
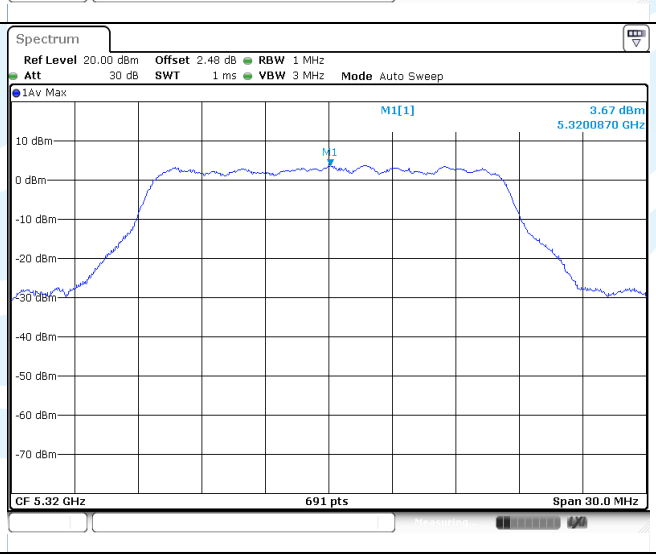
Band I	802.11ac (HT40)
CH_L	
CH_H	

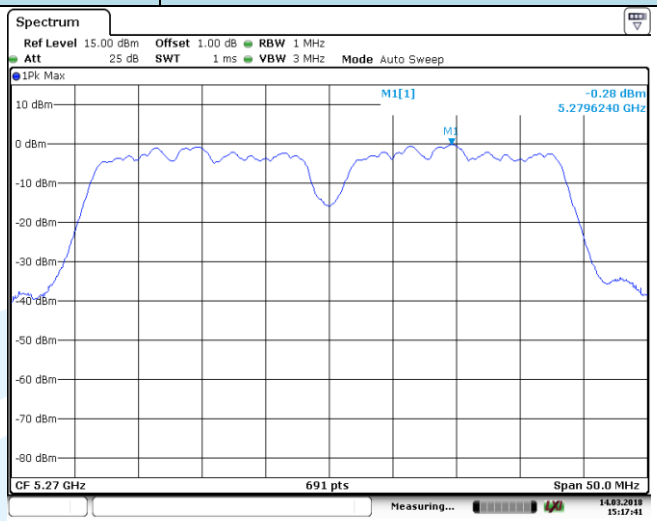
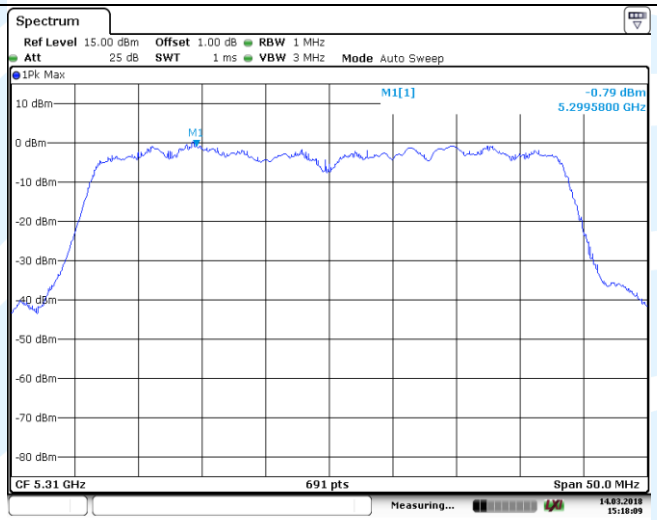
Band I	802.11n (HT40)
CH_L	
CH_H	

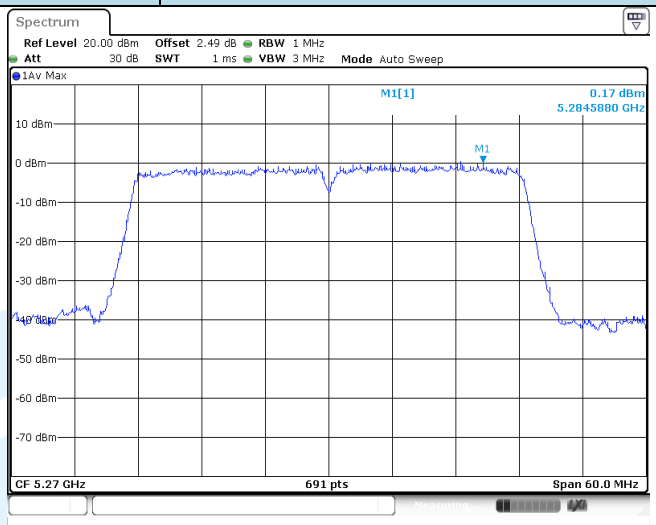
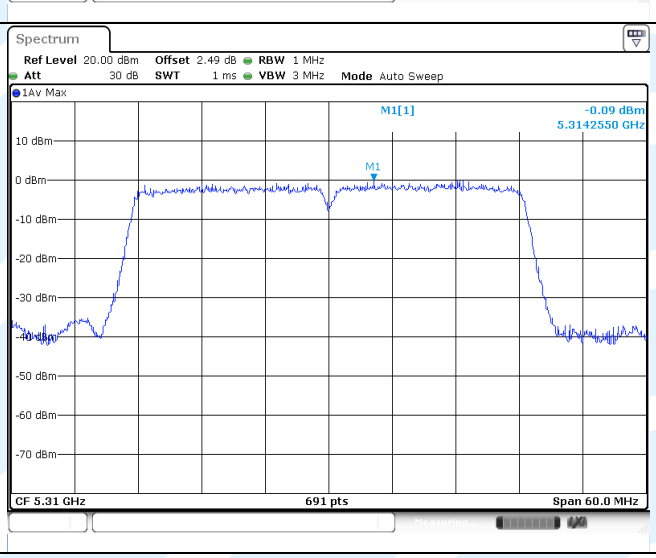
Band I	802.11ac (HT80)
CH_M	

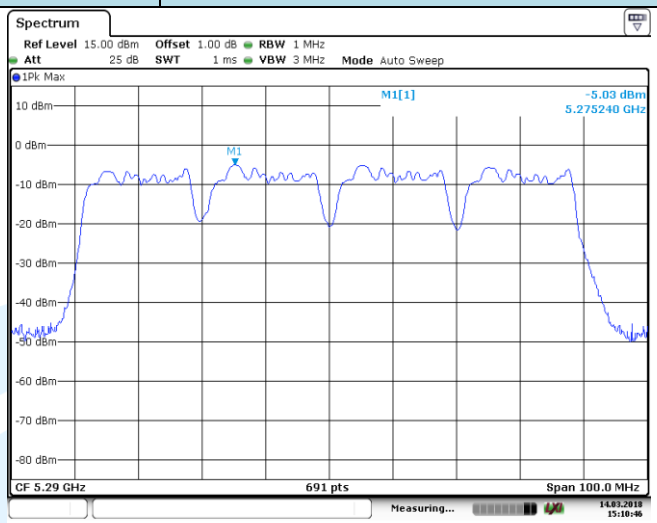
Band II	802.11ac (HT20)
CH_L	
CH_M	
CH_H	

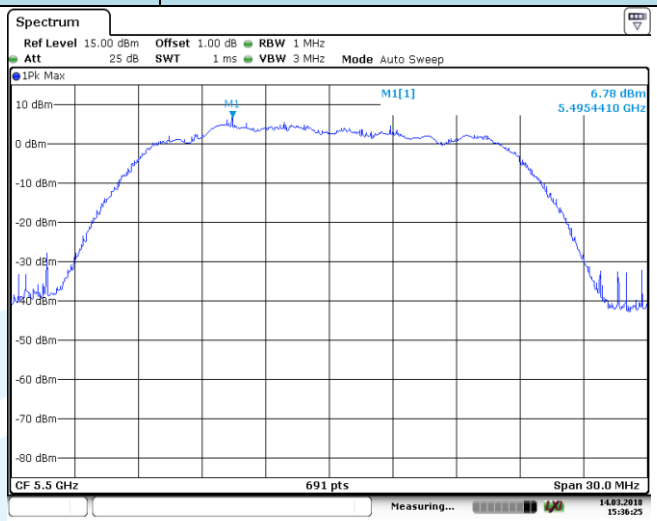
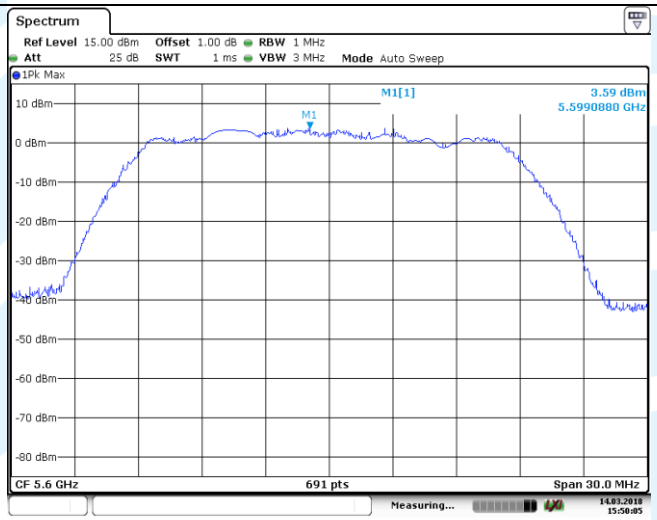
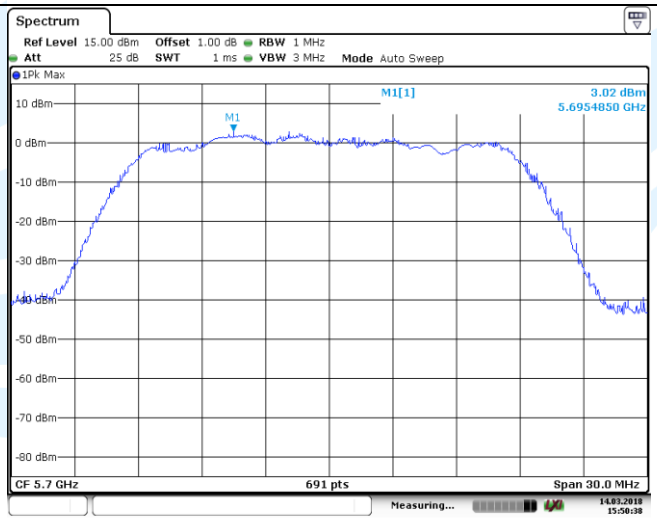
Band II	802.11n (HT20)
CH_L	
CH_M	
CH_H	

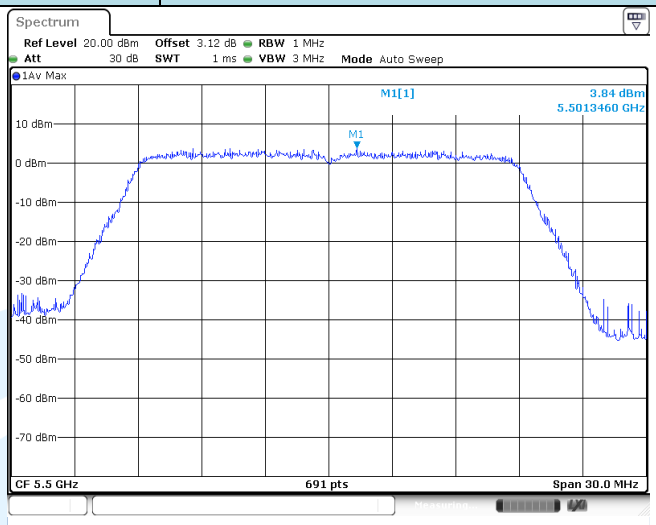
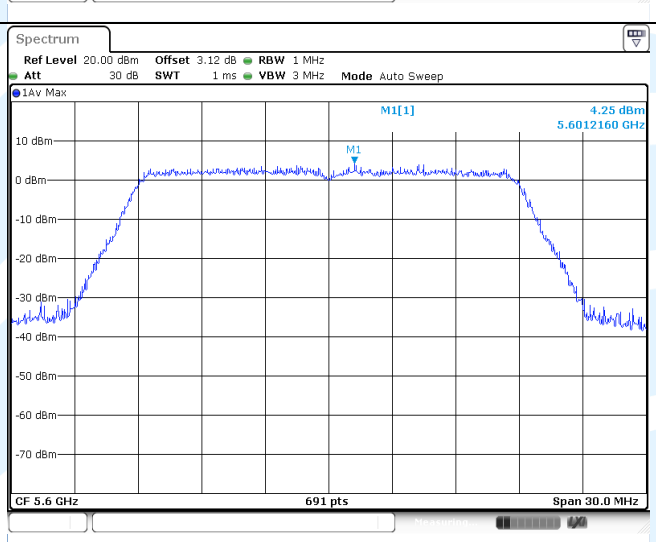
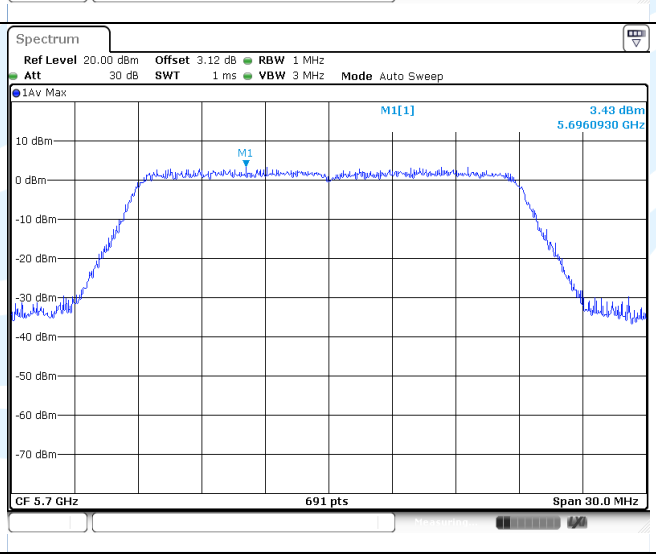
Band II	802.11a
CH_L	
CH_M	
CH_H	

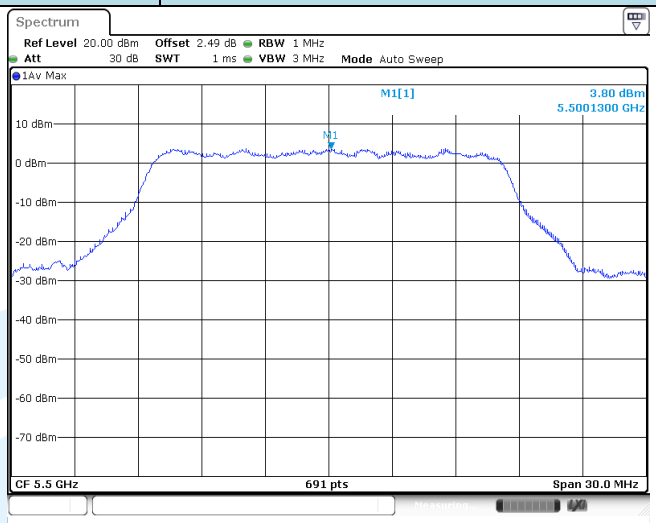
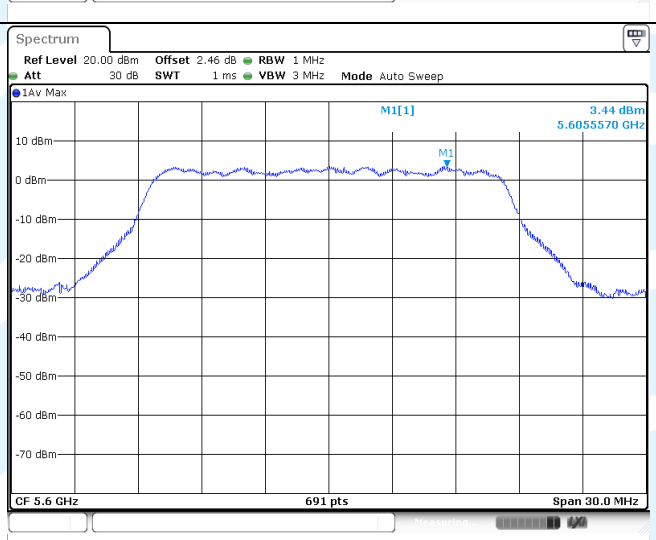
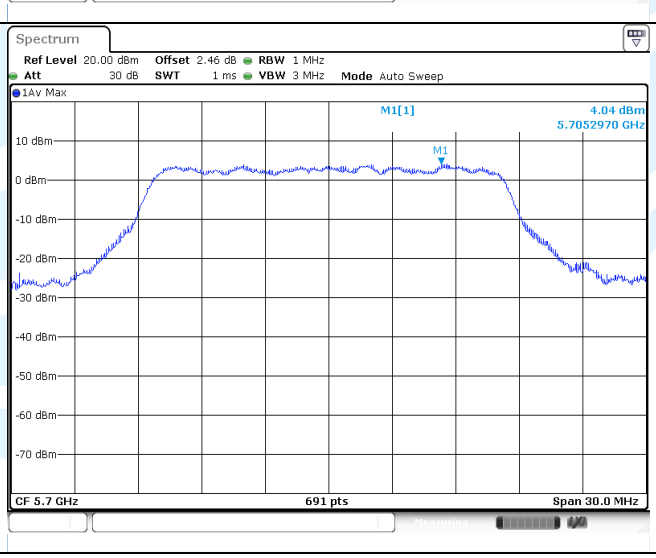
Band II	802.11ac (HT40)
CH_L	
CH_H	

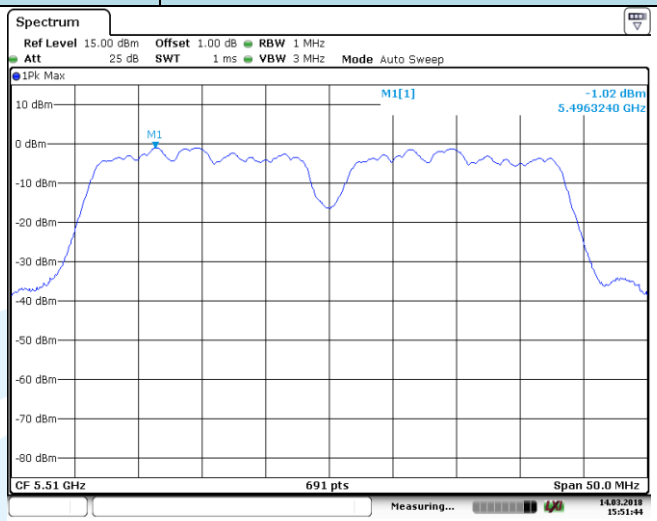
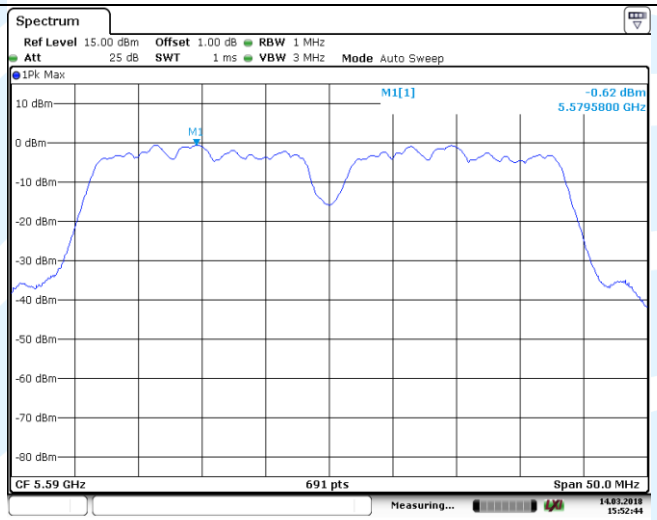
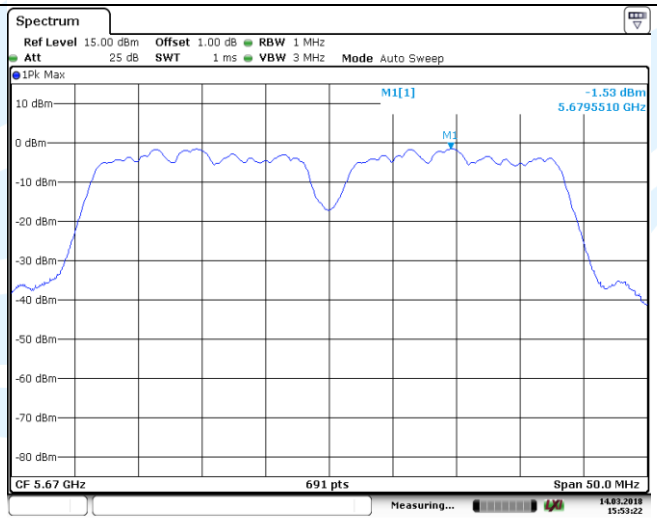
Band II	802.11n (HT40)
CH_L	
CH_H	

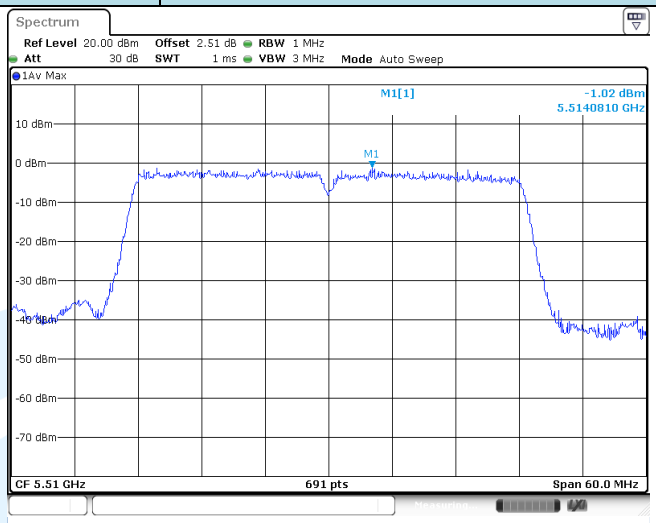
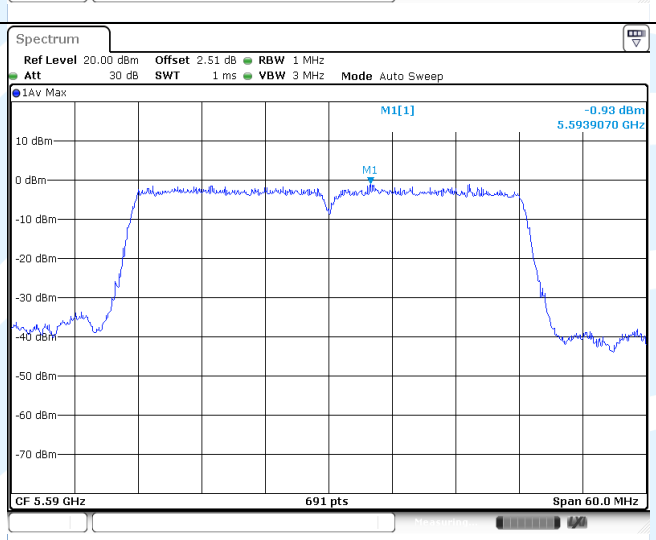
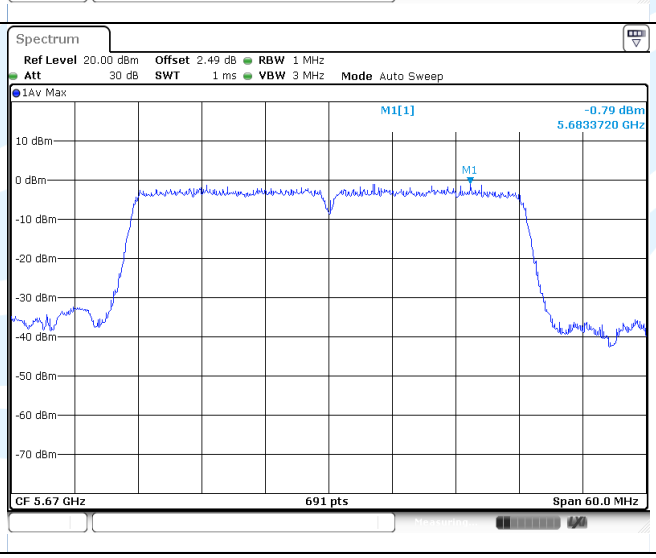
Band II	802.11ac (HT80)
CH_M	

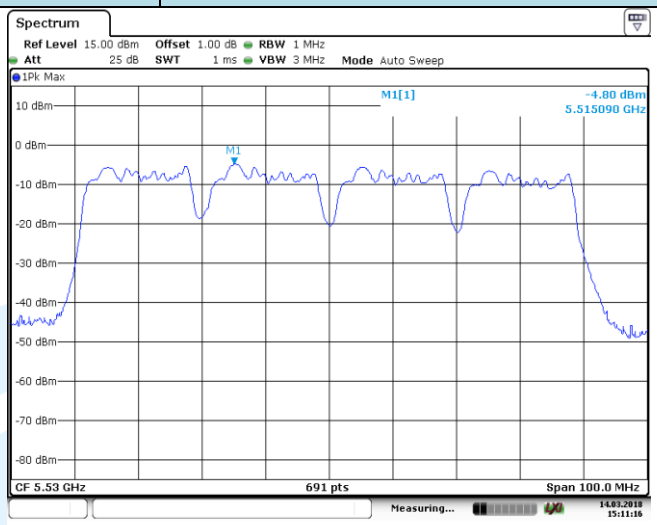
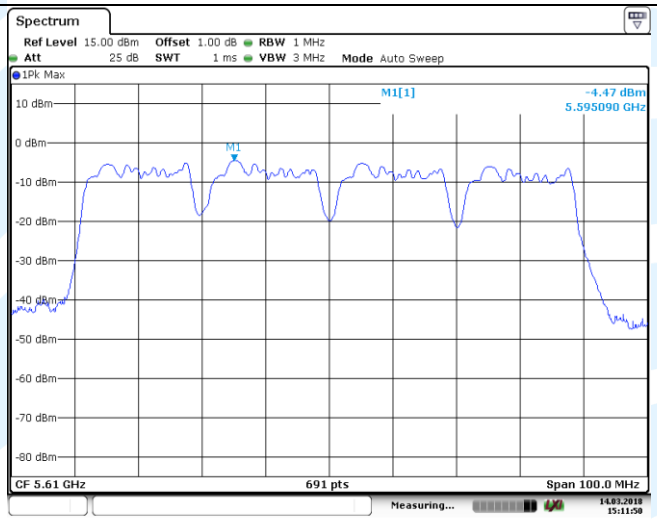
Band III	802.11ac (HT20)
CH_L	
CH_M	
CH_H	

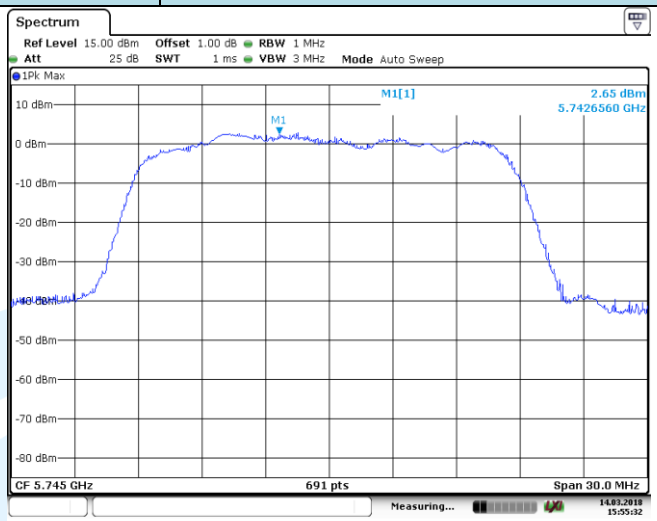
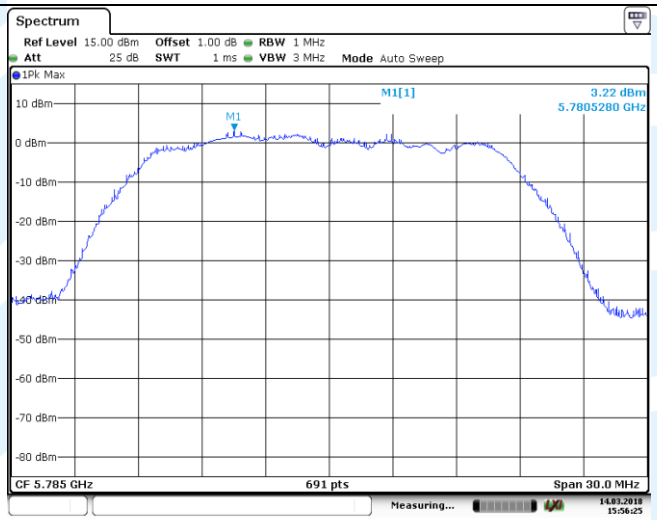
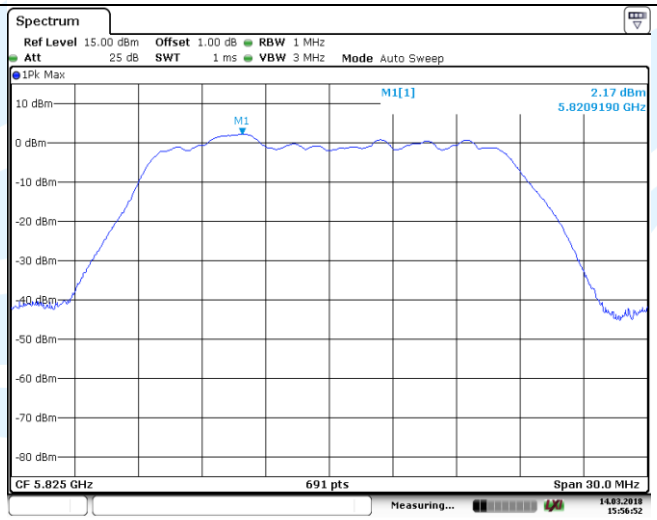
Band III	802.11n (HT20)
CH_L	
CH_M	
CH_H	

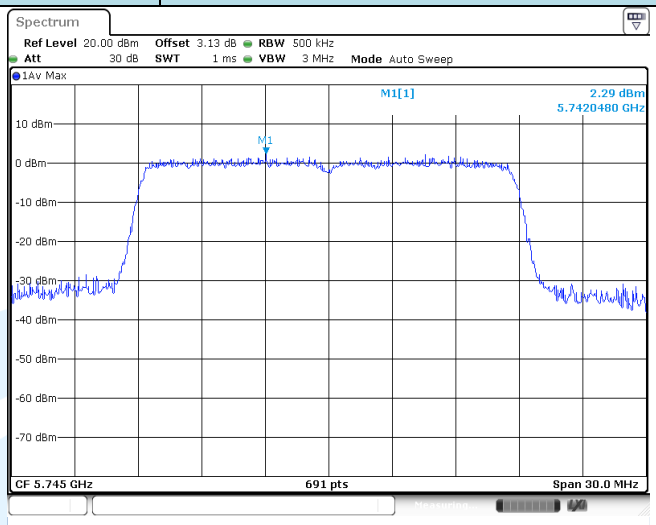
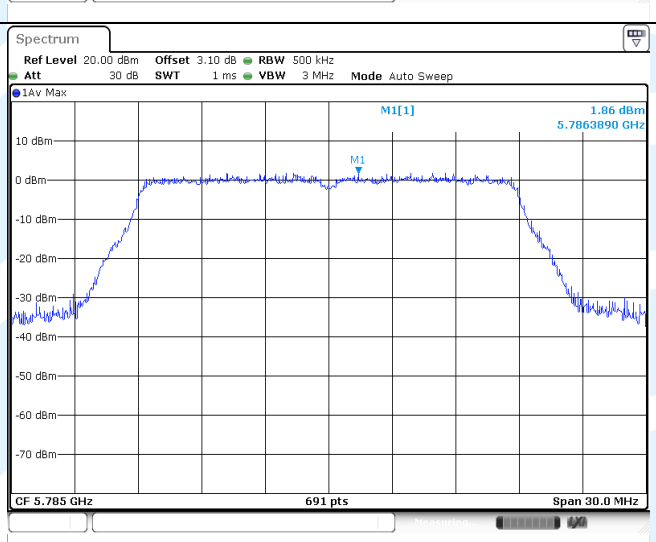
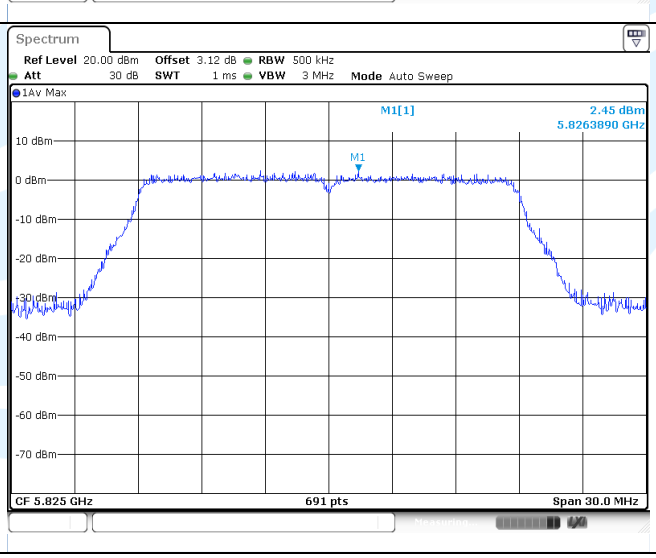
Band III	802.11a
CH_L	
CH_M	
CH_H	

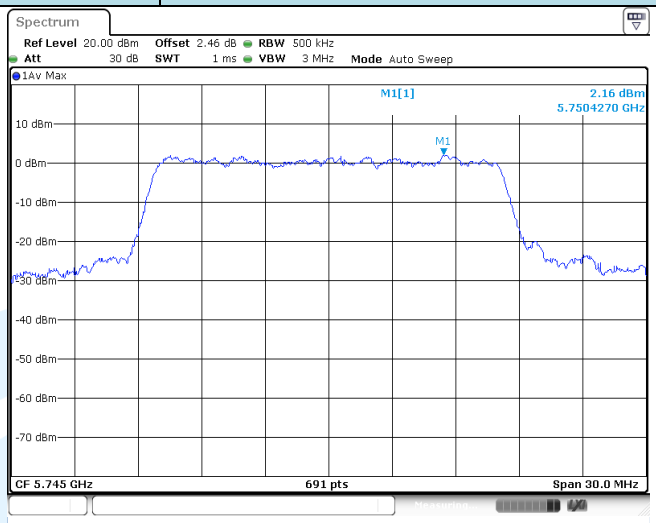
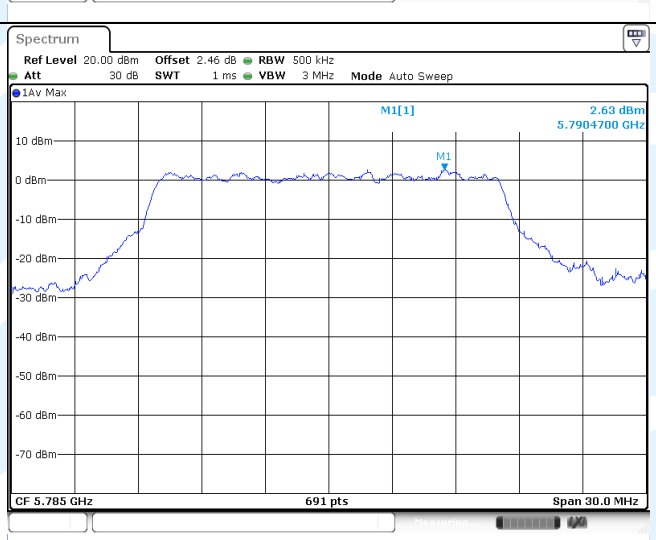
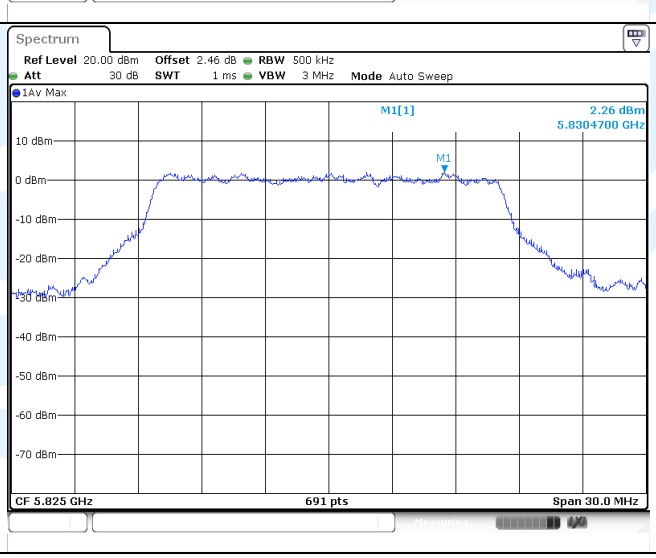
Band III	802.11ac (HT40)
CH_L	
CH_M	
CH_H	

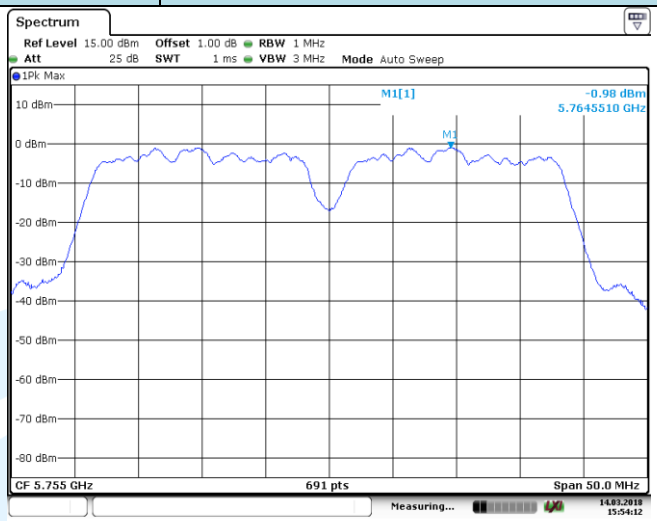
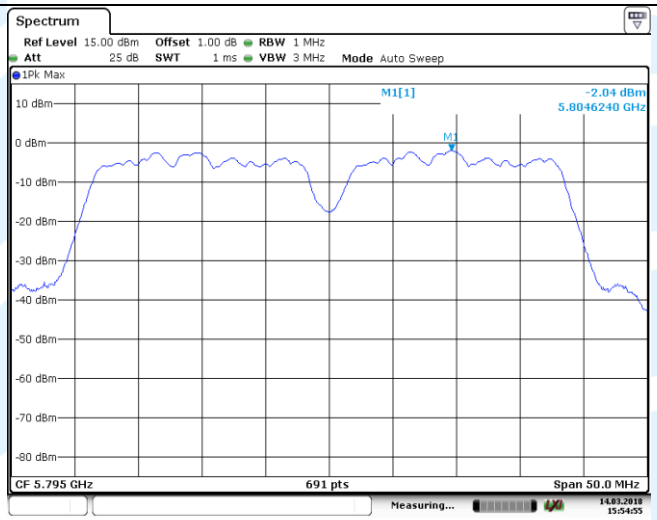
Band III	802.11n (HT40)
CH_L	
CH_M	
CH_H	

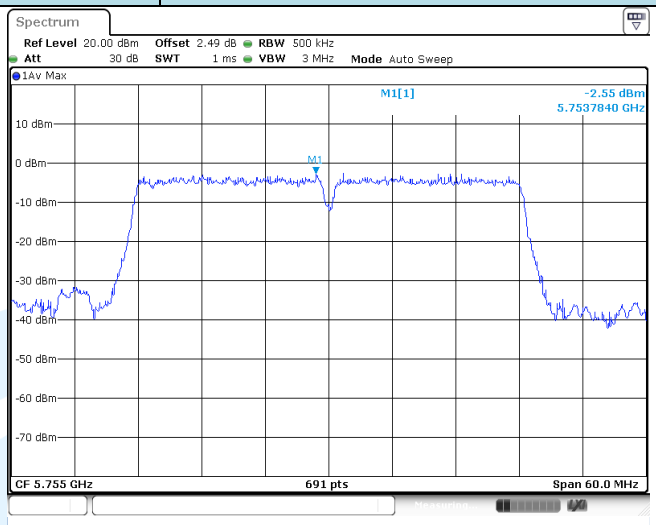
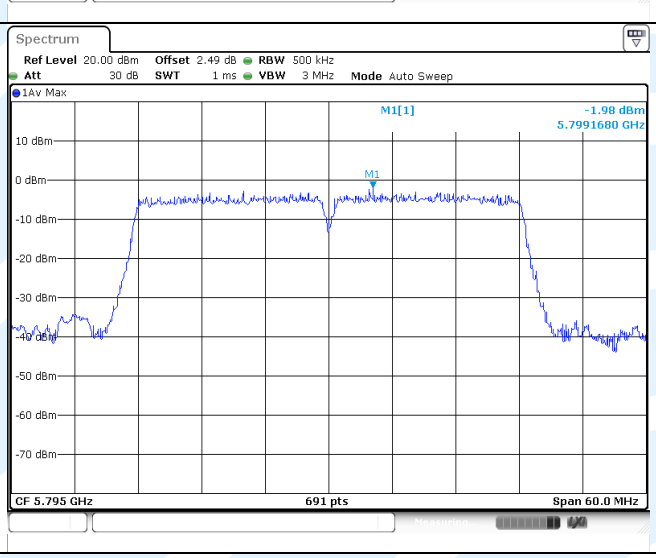
Band III	802.11ac (HT80)
CH_L	
CH_H	

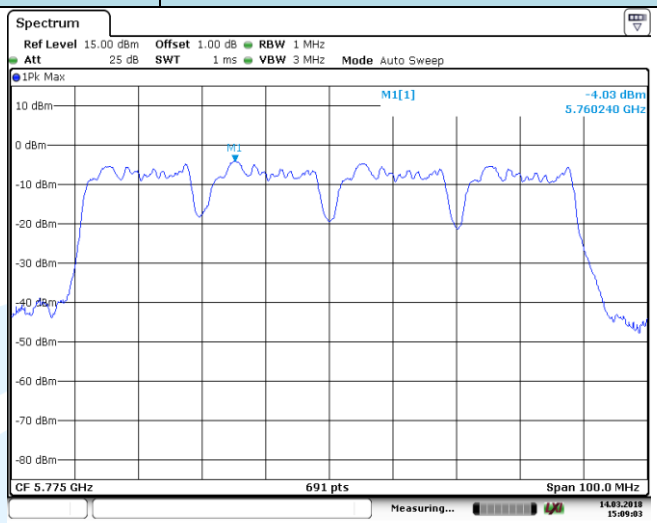
Band IV	802.11ac (HT20)
CH_L	
CH_M	
CH_H	

Band IV	802.11n (HT20)
CH_L	
CH_M	
CH_H	

Band IV	802.11a
CH_L	
CH_M	
CH_H	

Band IV	802.11ac (HT40)
CH_L	
CH_H	

Band IV	802.11n (HT40)
CH_L	
CH_H	

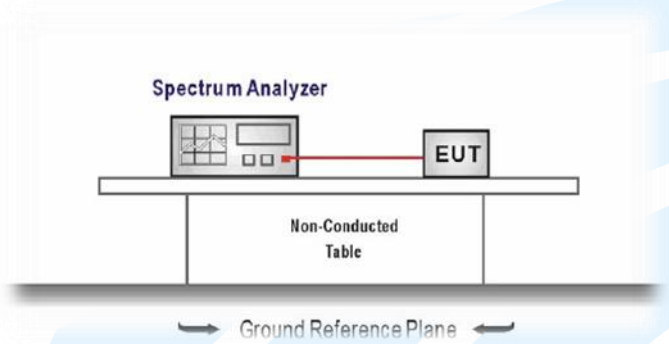
Band IV	802.11ac (HT80)
CH_M	

5.5. 26dB bandwidth and 99% Occupy bandwidth

LIMIT

The bandwidth at 26dB down from the highest in-band spectral density is measured with a spectrum analyzer connected to the antenna terminal while the EUT is operating at its maximum duty cycle, at its maximum power control level, as defined in KDB 789033 D02 , and at the appropriate frequencies. The spectrum analyzer's bandwidth measurement function is configured to measure the 26dB bandwidth.

TEST CONFIGURATION



TEST PROCEDURE

1. According KDB 789033 D02 – Section C
2. Connect the antenna port(s) to the spectrum analyzer input.
3. Configure the spectrum analyzer as shown below (enter all losses between the transmitter output and the spectrum analyzer).
   Center Frequency =Channel center frequency
   Span=2 x emission bandwidth
   RBW = 1% to 5% of the emission bandwidth
   VBW>3 x RBW
   Sweep time= auto couple
   Detector = Peak
   Trace mode = max hold
4. Place the radio in continuous transmit mode, allow the trace to stabilize, view the transmitter wave form on the spectrum analyzer.
5. Measure the maximum width of the emission that is 26 dB down from the maximum of the emission, and use the 99 % power bandwidth function of the instrument

TEST MODE:

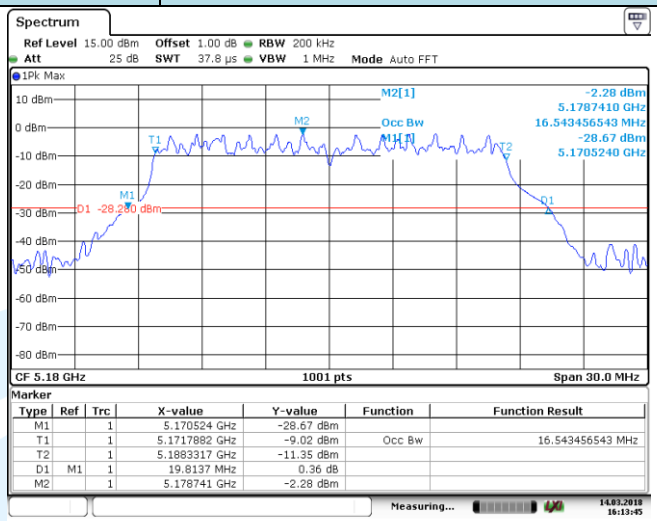
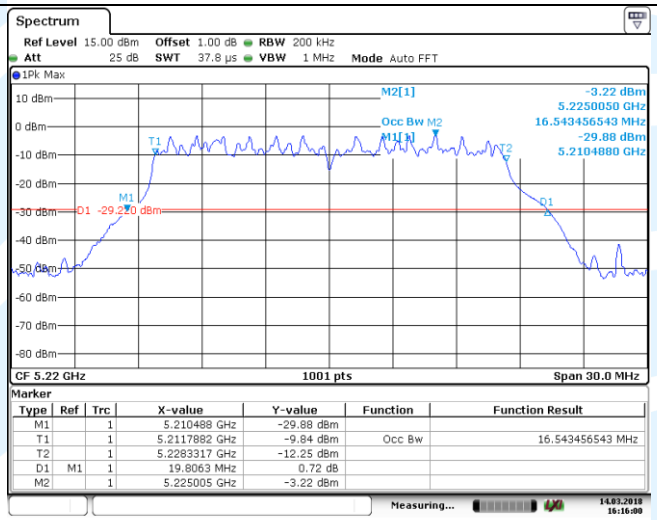
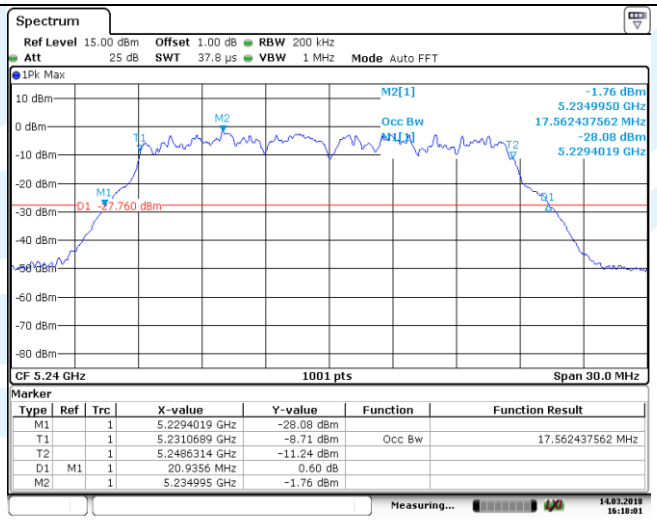
Please refer to the clause 3.3

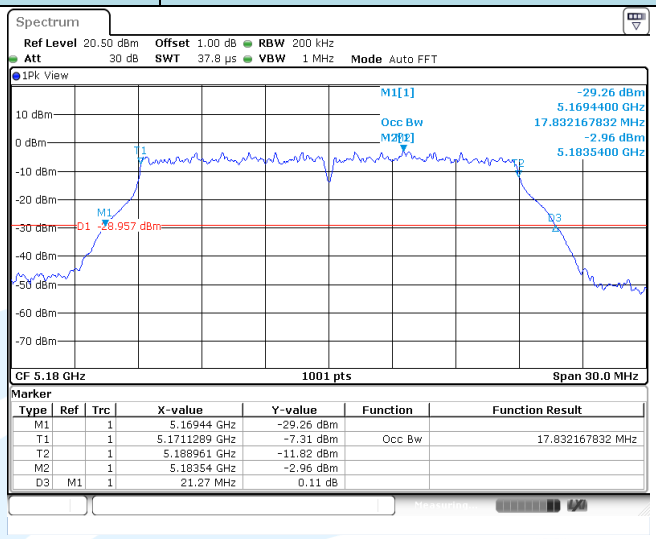
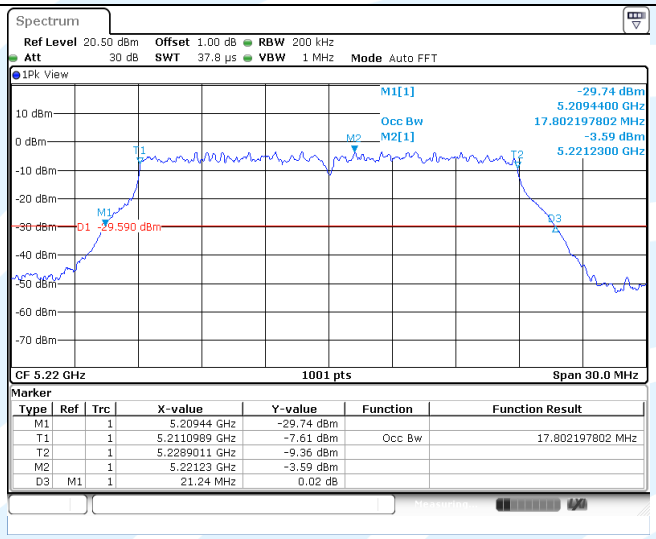
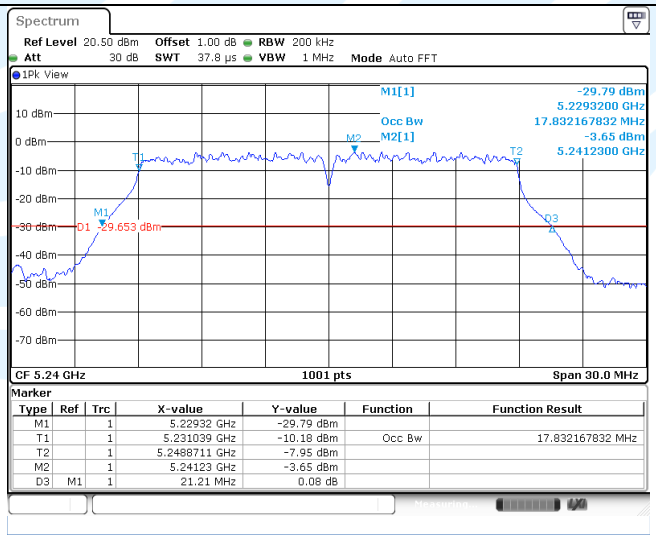
TEST RESULTS

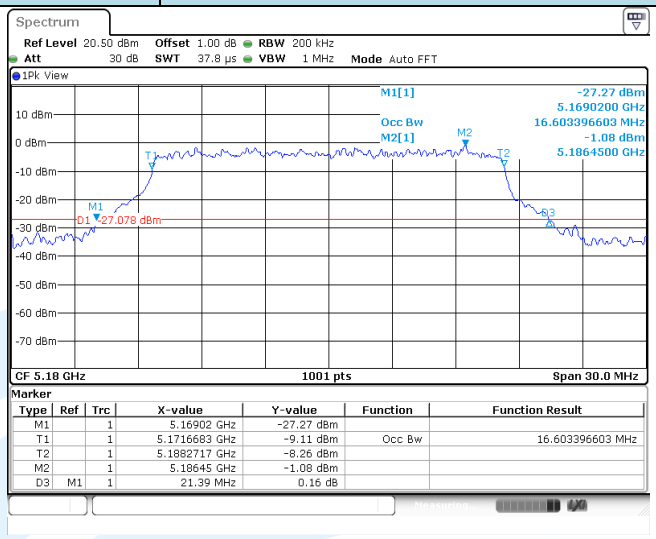
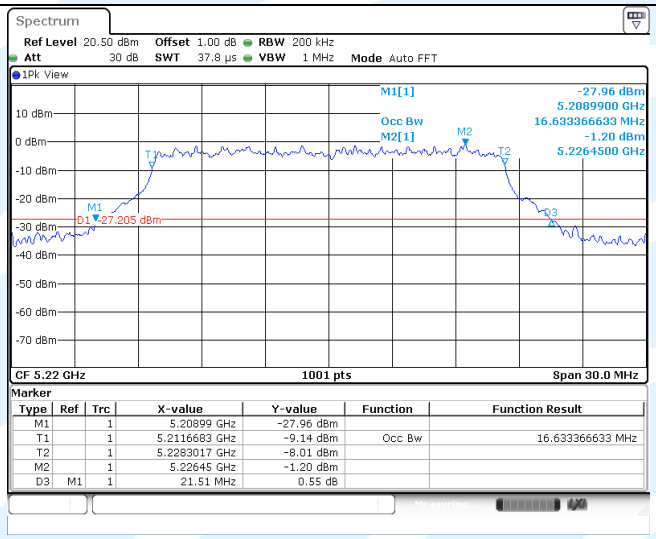
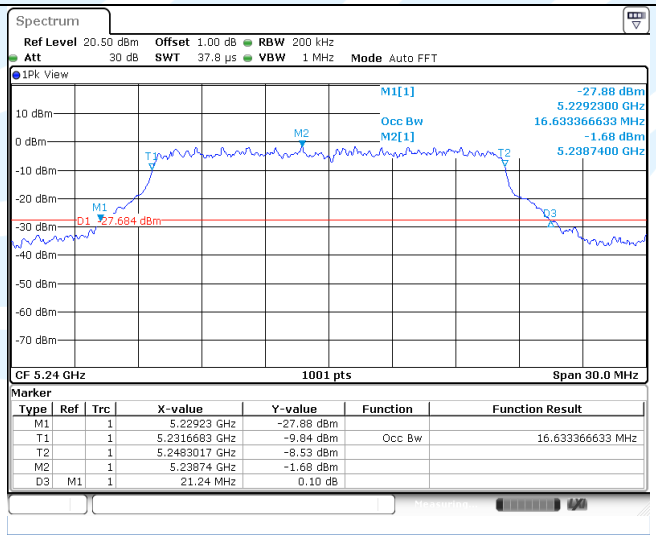
☒ **Passed** ☐ **Not Applicable**

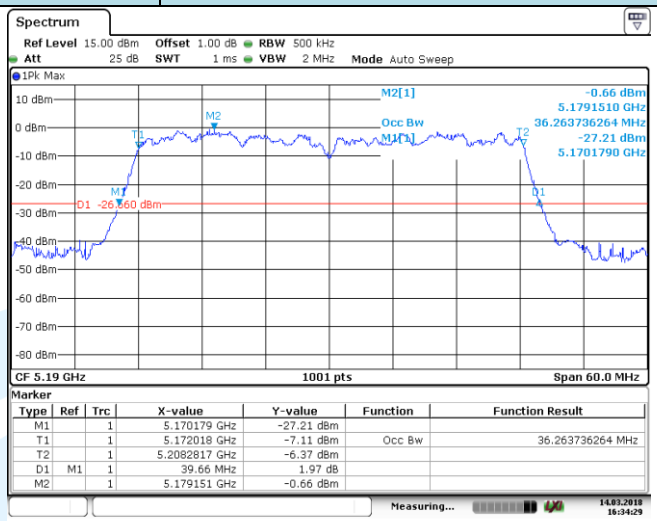
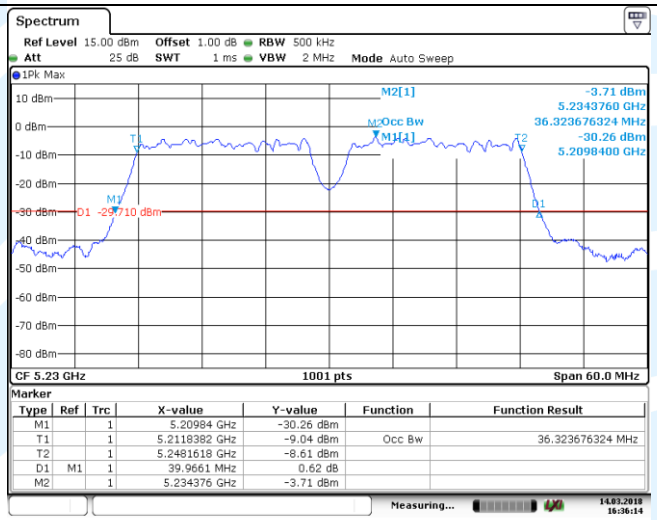
Band	Bandwidth (MHz)	Type	Channel	99% Occupy bandwith (MHz)	26dB bandwidth (MHz)	Result
I	20	802.11ac	CH_L	16.54	19.81	Pass
			CH_M	16.54	19.81	
			CH_H	17.56	20.94	
		802.11n	CH_L	17.83	21.27	Pass
			CH_M	17.80	21.24	
			CH_H	17.83	21.21	
		802.11a	CH_L	16.60	21.39	Pass
			CH_M	16.63	21.51	
			CH_H	16.63	21.24	
	40	802.11ac	CH_L	36.26	39.66	Pass
			CH_H	36.32	39.97	
		802.11n	CH_L	36.38	40.32	Pass
			CH_H	36.44	39.84	
	80	802.11ac	CH_M	76.00	80.74	Pass
II	20	802.11ac	CH_L	17.41	21.22	Pass
			CH_M	16.54	19.94	
			CH_H	17.65	20.82	
		802.11n	CH_L	17.80	21.30	Pass
			CH_M	17.74	21.12	
			CH_H	17.80	21.36	
		802.11a	CH_L	16.54	21.27	Pass
			CH_M	16.54	20.94	
			CH_H	16.51	21.09	
	40	802.11ac	CH_L	36.38	39.88	Pass
			CH_H	36.50	39.90	
		802.11n	CH_L	36.44	39.96	Pass
			CH_H	36.44	39.96	
	80	802.11ac	CH_M	76.00	80.80	Pass

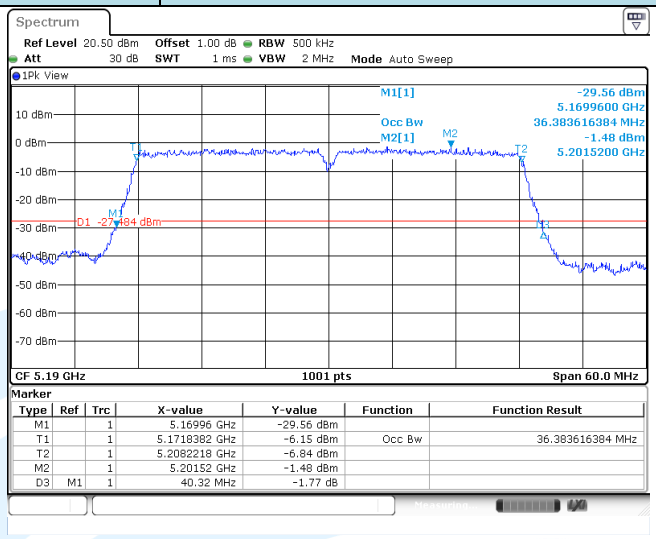
Band	Bandwidth (MHz)	Type	Channel	99% Occupy bandwith (MHz)	26dB bandwidth (MHz)	Result
III	20	802.11ac	CH_L	17.80	20.10	Pass
			CH_M	16.54	19.73	
			CH_H	17.65	20.98	
		802.11n	CH_L	17.77	21.33	Pass
			CH_M	17.89	21.33	
			CH_H	17.71	21.15	
		802.11a	CH_L	16.51	21.30	Pass
			CH_M	16.54	21.30	
			CH_H	16.57	21.24	
	40	802.11ac	CH_L	36.44	39.99	Pass
			CH_M	36.44	40.02	
			CH_H	36.38	39.96	
		802.11n	CH_L	36.38	40.14	Pass
			CH_M	36.44	40.02	
			CH_H	36.44	39.96	
	80	802.11ac	CH_L	76.00	80.73	Pass
			CH_H	76.00	80.81	

Band I	802.11ac (HT20)
CH_L	
CH_M	
CH_H	

Band I	802.11n (HT20)
CH_L	
CH_M	
CH_H	

Band I	802.11a
CH_L	
CH_M	
CH_H	

Band I	802.11ac (HT40)
CH_L	
CH_H	

Band I	802.11n (HT40)
CH_L	
CH_H