CERTIFICATE #3478.01

TEST REPORT

EUT Description	**WLAN and BT, 2x2 PCIe M.2 1216 SD adapter card, LTE Coexistence**
Brand Name	**Intel® Wireless-AC 9560**
Model Name	**9560D2WL**
FCC ID	**PD99560D2L**
ISED ID	**1000M-9560D2L**
Date of Test Start/End	**2018-02-15 / 2018-03-09**
Features	**802.11ac, Dual Band, 2x2 Wi-Fi + Bluetooth® 5** (see section 5)

Applicant	**Intel Mobile Communications**
Address	**100 Center Point Circle, Suite 200** **Columbia, South Carolina 29210** **USA**
Contact Person	**Steven Hackett**
Telephone/Fax/ Email	**steven.c.hackett@intel.com**

Reference Standards	**FCC CFR Title 47 Part 15 C** **RSS-247 issue 2, RSS-Gen issue 4** (see section 1)

Test Report identification	**180201-02.TR04**
Revision Control	**Rev. 00** **This test report revision replaces any previous test report revision** (see section 8)

The test results relate only to the samples tested.
The test report shall not be reproduced in full, without written approval of the laboratory.

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Table of Contents

1. Standards, reference documents and applicable test methods

1. FCC 47 CFR part 15 - Subpart C – §15.247 Operation within the bands 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz.
2. FCC 47 CFR part 15 - Subpart C – §15.209 Radiated emission limits; general requirements.
3. FCC OET KDB 558074 D01 DTS Meas Guidance v04 – Guidance for Performing Compliance Measurements on Digital Transmission Systems (DTS) Operating Under §15.247.
4. FCC OET KDB 662911 D01 Multiple Transmitter Output v02r01.
5. RSS-247 Issue 2 – Digital Transmission Systems (DTSs), Frequency Hopping Systems (FHSs) and Licence-Exempt Local Area Network (LE-LAN) Devices
6. RSS-Gen Issue 4 – General Requirements for Compliance of Radio Apparatus.
7. ANSI C63.10-2013 – American National Standard of Procedures for Compliance Testing of Unlicensed Wireless Devices.

2. General conditions, competences and guarantees

- ✓ Intel Mobile Communications France SAS Wireless RF Lab (Intel WRF Lab) is an ISO/IEC 17025:2005 testing laboratory accredited by the American Association for Laboratory Accreditation (A2LA) with the certificate number 3478.01.
- ✓ Intel Mobile Communications France SAS Wireless RF Lab (Intel WRF Lab) is an Accredited Test Firm recognized by the FCC, with Designation Number FR0011.
- ✓ Intel Mobile Communications France SAS Wireless RF Lab (Intel WRF Lab) is a Registered Test Site listed by ISED, with ISED Assigned Code 1000Y.
- ✓ Intel WRF Lab only provides testing services and is committed to providing reliable, unbiased test results and interpretations.
- ✓ Intel WRF Lab is liable to the client for the maintenance of the confidentiality of all information related to the item under test and the results of the test.
- ✓ Intel WRF Lab has developed calibration and proficiency programs for its measurement equipment to ensure correlated and reliable results to its customers.
- ✓ This report is only referred to the item that has undergone the test.
- ✓ This report does not imply an approval of the product by the Certification Bodies or competent Authorities.

3. Environmental Conditions

- ✓ At the site where the measurements were performed the following limits were not exceeded during the tests:

Temperature	22 ºC ±3 ºC
Humidity	35 % ± 15 %

4. Test samples

Sample	Control #	Description	Model	Serial #	Date of receipt	Note
#01	180201-02.S01	Module	9560D2WL	WFM: 3413E87ED82B	2018-02-14	Used for conducted tests
	170524-02.S15	Extender Board	PCB00609_01	6092416-442	2017-05-30	
	170000-01.S01	Laptop	Latitude E5470	DPBLMC2	2017-03-28	
	170220-04.S04	Adapter 1216SD to M.2	JfP Adapter M2	N/A	2017-04-10	
#02	180201-02.S03	Module	9560D2WL	WFM:3413E87ED853	2018-02-14	Used for Spurious Emission tests from 30 MHz to 1 GHz and AC power-line conducted emission tests
	170220-02.S03	Extender Board	PCB00609_01	6092416-446	2017-02-20	
	170000-01.S13	Laptop	Latitude E5470	FT6LMC2	2017-05-30	
	170727-02.S16	Adapter 1216SD to M.2	JfP Adapter M2	N/A	2017-07-27	
#03	180201-02.S04	Module	9560D2WL	WFM:3413E87ED803	2018-02-14	Used for Spurious Emission tests from 1 GHz to 26.5 GHz
	170220-02.S04	Extender Board	PCB00609_01	6092416-493	2017-02-20	
	170000-01.S16	Laptop	Latitude E5470	C2HTPF2	2017-06-13	
	170727-02.S13	Adapter 1216SD to M.2	JfP Adapter M2	N/A	2017-08-09	

5. EUT Features

Brand Name	Intel® Wireless-AC 9560
Model Name	9560D2WL
FCC ID	PD99560D2L
ISED ID	1000M-9560D2L
Software Version	11.1807.0-07027
Driver Version	99.0.28.6
Prototype / Production	Production
Supported Radios	802.11b/g/n 2.4GHz (2400.0 – 2483.5 MHz) 802.11a/n/ac 5.2GHz (5150.0 – 5350.0 MHz) 5.6GHz (5470.0 – 5725.0 MHz) 5.8GHz (5725.0 – 5850.0 MHz) Bluetooth 5 2.4GHz (2400.0 – 2483.5 MHz)
Antenna Information	CHAIN A: PIFA antenna. WiFi 2.4GHz & 5GHz and BT CHAIN B: PIFA antenna. WiFi 2.4GHz & 5GHz
Additional Information	

6. Remarks and comments

N/A

7. Test Verdicts summary

7.1. 802.11 b/g/n 2.4GHz

FCC part	RSS part	Test name	Verdict
15.247 (a) (2)	RSS-247 Clause 5.2 (a)	6dB Bandwidth	P
15.247 (b) (3)	RSS-247 Clause 5.4 (d)	Maximum output power and E.I.R.P	P
15.247 (e)	RSS-247 Clause 5.2 (b)	Power spectral density	P
15.247 (d) 15.209	RSS-247 Clause 5.5 RSS-Gen Clause 8.9	Out-of-band Emission (conducted)	P
15.247 (d) 15.209	RSS-247 Clause 5.5 RSS-Gen Clause 8.9	Out-of-band Emission (radiated)	P
15.207	RSS-GEN Clause 8.8	AC power-line conducted emission measurements	P

7.2. BLE

FCC part	RSS part	Test name	Verdict
15.247 (a) (2)	RSS-247 Clause 5.2 (a)	6dB Bandwidth	P
15.247 (b) (3)	RSS-247 Clause 5.4 (d)	Maximum output power and E.I.R.P.	P
15.247 (e)	RSS-247 Clause 5.2 (b)	Power spectral density	P
15.247 (d) 15.209	RSS-247 Clause 5.5 RSS-Gen Clause 8.9	Out-of-band Emissions (conducted)	P
15.247 (d) 15.209	RSS-247 Clause 5.5 RSS-Gen Clause 8.9	Out-of-band Emissions (radiated)	P
15.207	RSS-GEN Clause 8.8	AC power-line conducted emission measurements	P

P: Pass
F: Fail
NM: Not Measured
NA: Not Applicable

8. Document Revision History

Revision #	Date	Modified by	Revision Details
Rev.00	2018-03-09	F. Nsengiyumva I. Kharrat	First Issue

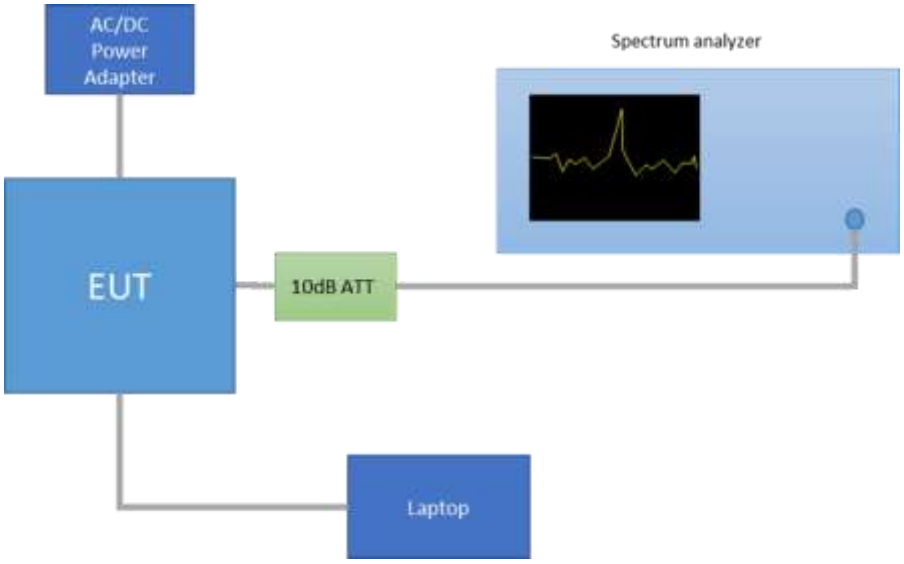
Annex A. Test & System Description

A.1 Measurement System

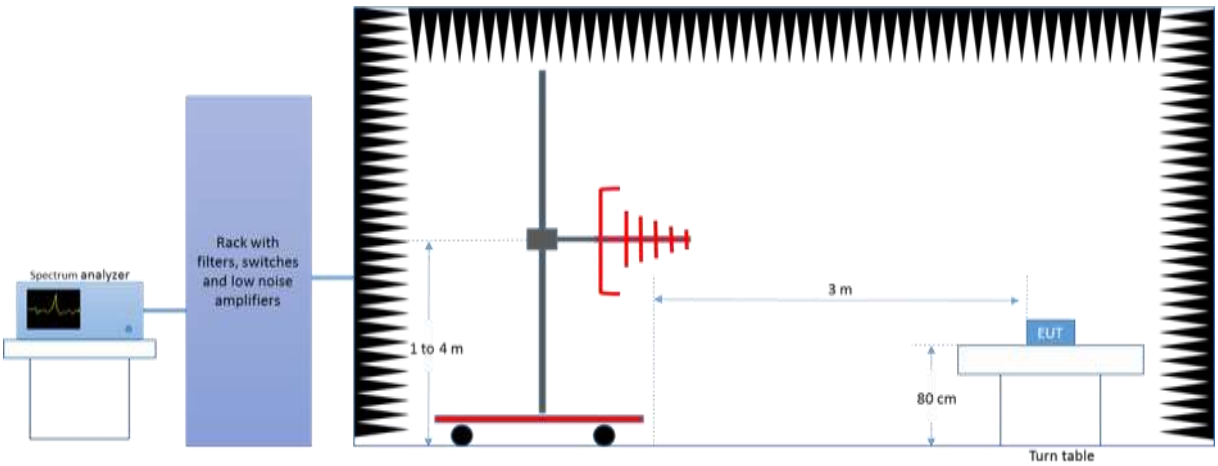
Measurements were performed using the following setups, made in accordance to the general provisions of FCC DTS Measurement KDB 558074 D01 DTS Meas Guidance.

The DUT was installed in a test fixture and this test fixture is connected to a laptop computer and AC/DC power adapter. The laptop computer was used to configure the EUT to continuously transmit at a specified output power using all different modes and modulation schemes, using the Intel proprietary tool DRTU.

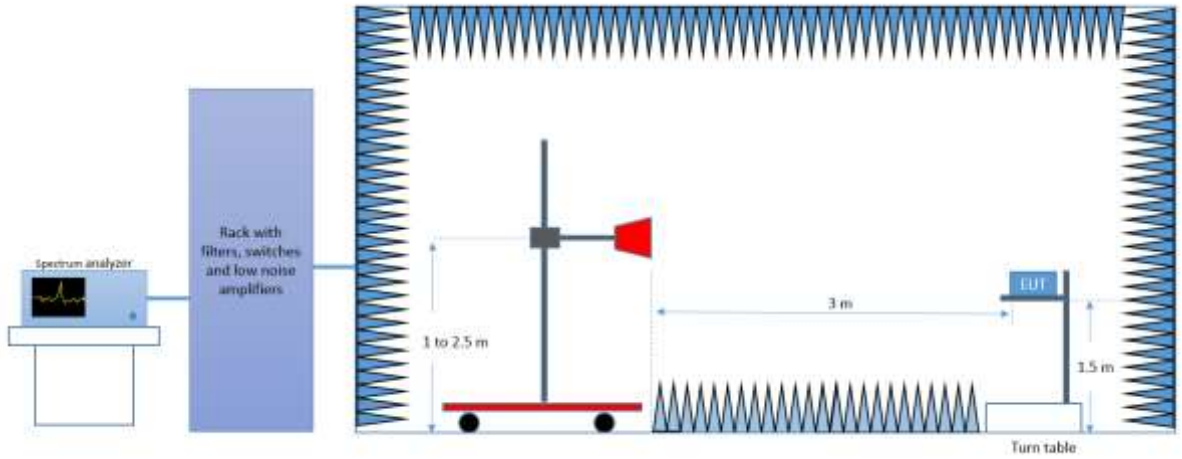
Conducted Setup



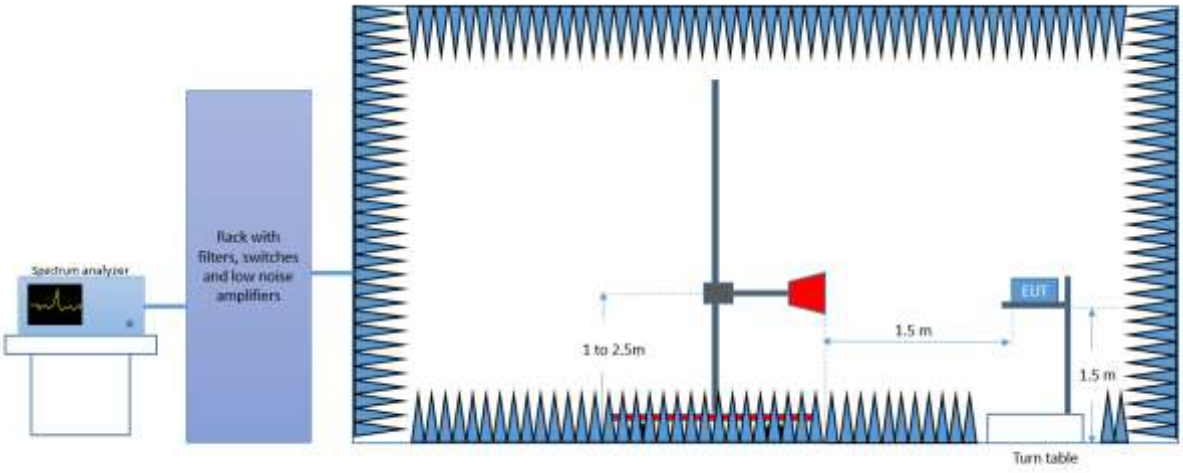
Radiated Setup 30 MHz - 1GHz



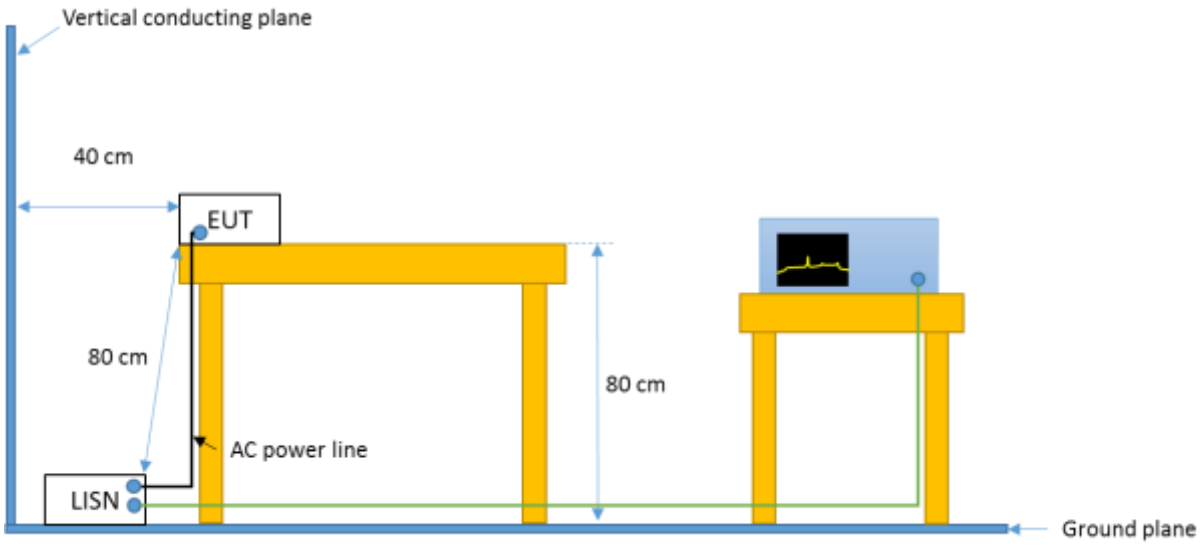
Radiated Setup 1 GHz – 18 GHz



Radiated Setup 18 GHz – 26.5 GHz



AC power-line conducted emission Setup 150 kHz – 30 MHz



A.2 Test Equipment List

Conducted Setup

ID#	Device	Type/Model	Serial #	Manufacturer	Cal. Date	Cal. Due Date
0316	Spectrum analyzer	FSV30	103309	Rohde & Schwarz	2017-09-22	2019-09-22

Radiated Setup-1

ID#	Device	Type/Model	Serial #	Manufacturer	Cal. Date	Cal. Due Date
0133	Spectrum analyzer	FSV40	101358	Rohde & Schwarz	2016-04-15	2018-04-15
0137	Log antenna 30 MHz – 1 GHz	3142E	00156946	ETS Lindgren	2017-12-19	2019-12-19
0135	Semi Anechoic chamber	FACT 3	5720	ETS Lindgren	2016-04-28	2018-04-28
0530	Measurement Software	EMC32	100623	Rohde & Schwarz	N/A	N/A

N/A: Not Applicable

Radiated Setup-2

ID#	Device	Type/Model	Serial #	Manufacturer	Cal. Date	Cal. Due Date
0420	Spectrum analyzer	FSV40	101556	Rohde & Schwarz	2016-04-14	2018-04-14
0138	Horn antenna 1 GHz – 6.4 GHz	3117	00152266	ETS Lindgren	2016-03-14	2018-03-14
0141	Double Ridged Horn Antenna 1 GHz – 18 GHz	3117	00157736	ETS Lindgren	2016-04-13	2018-04-13
0334	Double Ridged Horn Antenna 18 GHz – 40 GHz	3116C-PA	00196308	ETS Lindgren	2017-08-22	2019-08-22
0337	Full Anechoic chamber	RFD_FA_100	5996	ETS Lindgren	2016-04-28	2018-04-28
0329	Measurement Software	EMC32	100401	Rohde & Schwarz	N/A	N/A

N/A: Not Applicable

Radiated Setup - shared equipments

ID#	Device	Type/Model	Serial #	Manufacturer	Cal. Date	Cal. Due Date
0617	Power Sensor 50MHz-18GHz	NRP-Z81	104386	Rohde & Schwarz	2017-05-24	2019-05-24
0618	Power Sensor 50MHz-18GHz	NRP-Z81	104382	Rohde & Schwarz	2017-05-24	2019-05-24

AC power-line conducted emission Setup

ID#	Device	Type/Model	Serial #	Manufacturer	Cal. Date	Cal. Due Date
0027	Measurement software	EMC32	1300.7010.02	Rohde & Schwarz	NA	NA
0317	Spectrum Analyzer	FSV30	103308	Rohde & Schwarz	2017-08-05	2019-08-05
0532	LISN	ENV216	101321	Rohde & Schwarz	2016-09-13	2018-09-13
0607	LISN	ENV216	101342	Rohde & Schwarz	2017-09-06	2018-09-06
0538	Transformer	Monophase	TIMM3.15	Montelem	NA	NA
0095	Millivoltmeter	2000	4009301	KEITHLEY	2017-11-13	2019-11-13
0624	AC power source	61604	SM135546	CHROMA	NA	NA
0299	Multimeter	34401A	US36065790	HP	2017-11-14	2019-11-14

N/A: Not Applicable

A.3 Measurement Uncertainty Evaluation

The system uncertainty evaluation is shown in the below table:

Measurement type	Uncertainty [±dB]
Conducted Power	±1.0
Conducted Spurious Emission	±2.9
Radiated tests <1GHz	±3.8
Radiated tests 1GHz - 40 GHz	±4.7
AC power-line conducted emission	±1.45

Annex B. Test Results DTS

B.1 Test Conditions

For 802.11b/g modes the EUT can transmit at both CHAIN A and CHAIN B RF outputs individually, but not simultaneously.
For 802.11n20 (20 MHz channel bandwidth), 802.11n40 (40MHz channel bandwidth) modes the EUT can transmit at both CHAIN A and CHAIN B RF outputs individually, and also simultaneously.
For Bluetooth Low Energy mode the EUT can transmit only at CHAIN A RF output.

The conducted RF output power at each chain was adjusted according to the client's supplied Target values (see following table) using the Intel DRTU tool and measuring the power by using a spectrum analyzer with the channel integration method according to point 9.2.2.2 (Method AVGSA-1) of KDB 558074 D01.
Measured values for adjustment were within +/-0.25 dB from the declared Target values.

2.4GHz DTS & BLE					Conducted Power, Target Value (dBm)		
Mode	BW (MHz)	Data Rate	CH #	Freq. (MHz)	SISO Chain A	SISO Chain B	MIMO at both ports A and B
802.11b	20	1Mbps	1	2412	19.00	19.00	-
			7	2442	21.00	21.00	-
			11	2462	19.50	19.50	-
			12	2467	17.50	17.50	-
			13	2472	15.00	15.50	-
802.11g	20	6Mbps	1	2412	16.50	16.50	-
			7	2442	20.00	20.00	-
			11	2462	16.50	17.00	-
			12	2467	14.00	14.50	-
			13	2472	-3.50	-2.50	-
802.11n	20	HT0 HT8*	1	2412	16.50	16.00	19.00
			7	2442	20.00	20.00	21.00
			11	2462	16.00	17.00	19.00
			12	2467	14.00	14.00	16.50
			13	2472	-4.00	-3.00	-4.00
802.11n	40	HT0 HT8*	3F	2422	14.50	14.50	17.00
			7F	2442	16.50	16.00	19.00
			9F	2452	14.50	14.50	17.00
			10F	2457	8.00	9.00	11.00
			11F	2462	3.50	3.50	5.50
Bluetooth Low Energy	2	1Mbps	0	2412	6.00	-	-
			19	2440	7.00	-	-
			39	2462	7.00	-	-

The following data rates were selected based on preliminary testing that identified those rates as the worst cases for output power and spurious levels at the band edges:

802.11b → 1Mbps
802.11g → 6Mbps
802.11n20 and 802.11n40 (SISO) → HT0
802.11n20 and 802.11n40 (MIMO) → HT8

Alternative channels to the lowest and highest channels per band have been also tested for Band Edge compliance.

B.2 Test Results Tables

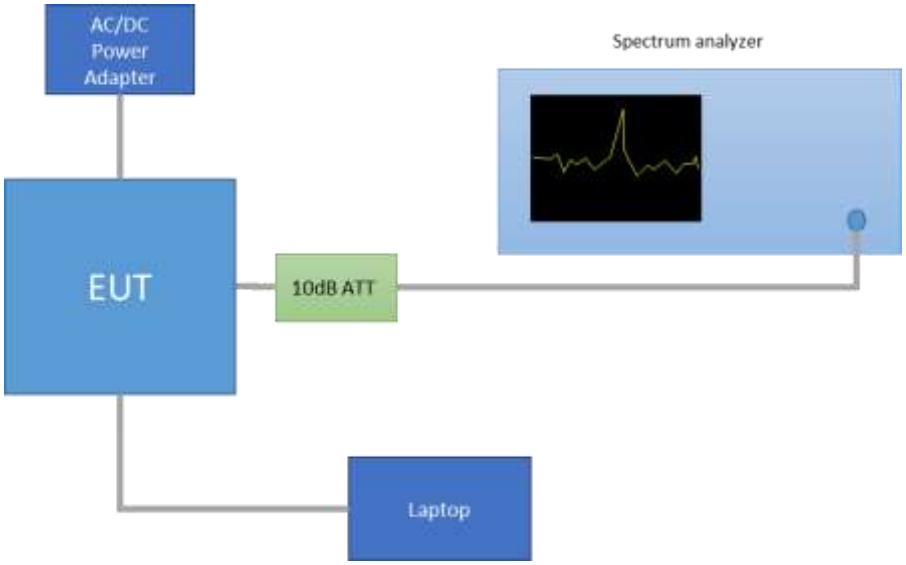
B.2.1 6dB & 99% Bandwidth

Test limits

FCC part	RSS part	Limits
15.247 (a) (2)	RSS-247 Clause 5.2 (a)	Systems using digital modulation techniques may operate in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands. The minimum 6 dB bandwidth shall be at least 500 kHz.

Test procedure

The setup below was used to measure the 6dB & 99% Bandwidth. The antenna terminal of the EUT is connected to the spectrum through an attenuator, and the spectrum analyzer reading is compensated to include the RF path loss.



Results tables

Mode	Rate	Antenna	Channel	Frequency [MHz]	6dB BW [MHz]	99% BW [MHz]
802.11b	1Mbps	SISO CHAIN A	1	2412	10.05	13.69
			7	2442	**10.11**	14.55
			11	2462	10.09	13.67
			12	2467	9.58	13.53
			13	2472	10.06	13.55
		SISO CHAIN B	1	2412	10.09	13.90
			7	2442	10.08	**14.57**
			11	2462	9.61	13.62
			12	2467	10.09	13.70
			13	2472	10.11	13.59
802.11g	6Mbps	SISO CHAIN A	1	2412	15.95	16.82
			7	2442	**16.34**	**21.31**
			11	2462	15.95	16.64
			12	2467	15.71	16.67
			13	2472	15.73	16.94
		SISO CHAIN B	1	2412	15.75	16.93
			7	2442	16.33	19.80
			11	2462	16.33	16.69
			12	2467	16.07	16.73
			13	2472	16.10	16.84
802.11n20	HT0	SISO CHAIN A	1	2412	16.54	17.89
			7	2442	17.58	**20.95**
			11	2462	16.65	17.75
			12	2467	16.36	17.79
			13	2472	16.36	17.96
		SISO CHAIN B	1	2412	16.37	17.98
			7	2442	**17.59**	19.67
			11	2462	17.54	17.81
			12	2467	17.19	17.85
			13	2472	17.57	17.91
	HT8	MIMO CHAIN A	1	2412	16.37	17.85
			7	2442	**17.59**	**18.41**
			11	2462	16.37	17.75
			12	2467	16.36	17.79
			13	2472	16.38	18.03
		MIMO CHAIN B	1	2412	16.96	17.92
			7	2442	17.58	18.07
			11	2462	17.58	17.77
			12	2467	17.59	17.80
			13	2472	17.58	17.93

Mode	Rate	Antenna	Channel	Frequency [MHz]	6dB BW [MHz]	99% BW [MHz]
802.11n40	HT0	SISO CHAIN A	3F	2422	35.13	36.31
			7F	2442	35.77	**36.69**
			9F	2452	35.74	36.42
			10F	2457	35.49	36.27
			11F	2462	35.14	36.26
		SISO CHAIN B	3F	2422	35.13	36.32
			7F	2442	**36.09**	36.64
			9F	2452	36.09	36.54
			10F	2457	35.53	36.40
			11F	2462	36.09	36.42
	HT8	MIMO CHAIN A	3F	2422	35.15	36.33
			7F	2442	35.67	**36.67**
			9F	2452	35.76	36.42
			10F	2457	35.74	36.28
			11F	2462	35.16	36.29
		MIMO CHAIN B	3F	2422	35.15	36.17
			7F	2442	**36.38**	36.42
			9F	2452	36.09	36.35
			10F	2457	35.77	36.25
			11F	2462	36.34	36.24

Max Value

See Section B.3.1 and Section B.3.2 for the screenshot results.

B.2.2 Maximum Output Power and antenna gain

Test limits

	Limits
FCC Part 15.247 (b) (3)	(b) The maximum peak conducted output power of the intentional radiator shall not exceed the following: (3) For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt. As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power. Maximum Conducted Output Power is defined as the total transmit power delivered to all antennas and antenna elements averaged across all symbols in the signaling alphabet when the transmitter is operating at its maximum power control level. Power must be summed across all antennas and antenna elements. The average must not include any time intervals during which the transmitter is off or is transmitting at a reduced power level. (4) The conducted output power limit specified in paragraph (b) of this section is based on the use of antennas with directional gains that do not exceed 6 dBi.
RSS-247 Clause 5.4 (d)	For DTSs employing digital modulation techniques operating in the bands 902-928 MHz and 2400-2483.5 MHz, the maximum peak conducted output power shall not exceed 1W. The e.i.r.p. shall not exceed 4 W, except as provided in section 5.4(e). As an alternative to a peak power measurement, compliance can be based on a measurement of the maximum conducted output power. The maximum conducted output power is the total transmit power delivered to all antennas and antenna elements, averaged across all symbols in the signalling alphabet when the transmitter is operating at its maximum power control level. Power must be summed across all antennas and antenna elements. The average must not include any time intervals during which the transmitter is off or transmitting at a reduced power level. If multiple modes of operation are implemented, the maximum conducted output power is the highest total transmit power occurring in any mode.

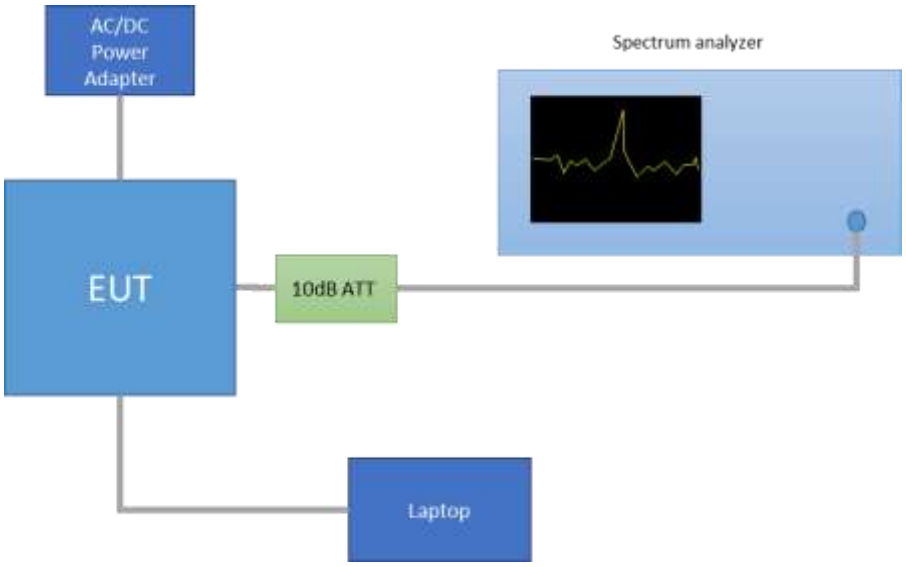
Test procedure

The Maximum Peak Conducted Output Power was measured using the channel integration method as authorized in chapter 2.0 "*Power limits, definitions and device configuration"* of FCC KDB 558074 D01.

For MIMO mode, according to the measure-and-sum approach defined in FCC KDB 662911 - Guidance for Emission Testing of Transmitters with Multiple Outputs in the Same Band, the conducted emission level (e.g., transmit power or power in specified bandwidth) is measured at each antenna port. The measured results at the various antenna ports are then summed mathematically in linear power units to determine the total emission level from the device.

The EIRP power (dBm) is calculated by adding the declared maximum antenna gain to the measured conducted power. The declared maximum antenna gain is 3.24dBi.

The setup below was used to measure the maximum conducted output power. The antenna terminal of the EUT is connected to the spectrum through an attenuator, and the spectrum analyzer reading is compensated to include the RF path loss.



Results tables

Maximum peak conducted output power

Mode	Rate	CH	Freq [MHz]	Antenna	Measured Conducted Output power [dBm]	EIRP [dBm]	EIRP [mW]	Conducted power [mW]
802.11b	1Mbps	1	2412	SISO A	22.16	25.40	346.74	164.44
				SISO B	22.15	25.39	345.94	164.06
		7	2442	SISO A	24.21	27.45	555.90	263.63
				SISO B	24.23	27.47	**558.47**	**264.85**
		11	2462	SISO A	22.46	25.70	371.54	176.20
				SISO B	22.84	26.08	405.51	192.31
		12	2467	SISO A	20.43	23.67	232.81	110.41
				SISO B	20.69	23.93	247.17	117.22
		13	2472	SISO A	18.27	21.51	**141.58**	**67.14**
				SISO B	18.67	21.91	155.24	73.62
802.11g	6Mbps	1	2412	SISO A	25.10	28.34	682.34	323.59
				SISO B	24.84	28.08	642.69	304.79
		7	2442	SISO A	28.78	32.02	**1592.21**	**755.09**
				SISO B	28.77	32.01	1588.55	753.36
		11	2462	SISO A	25.00	28.24	666.81	316.23
				SISO B	25.43	28.67	736.21	349.14
		12	2467	SISO A	22.71	25.95	393.55	186.64
				SISO B	22.98	26.22	418.79	198.61
		13	2472	SISO A	5.22	8.46	**7.01**	**3.33**
				SISO B	5.81	9.05	8.04	3.81
802.11n20	HT0	1	2412	SISO A	24.88	28.12	648.63	307.61
				SISO B	24.63	27.87	612.35	290.40
		7	2442	SISO A	28.78	32.02	**1592.21**	**755.09**
				SISO B	28.49	31.73	1489.36	706.32
		11	2462	SISO A	24.70	27.94	622.30	295.12
				SISO B	25.57	28.81	760.33	360.58
		12	2467	SISO A	22.64	25.88	387.26	183.65
				SISO B	22.79	26.03	400.87	190.11
		13	2472	SISO A	4.78	8.02	**6.34**	**3.01**
				SISO B	5.78	9.02	7.98	3.78

Max Value
Min Value

Mode	Rate	CH	Freq [MHz]	Antenna	Measured Conducted Output power [dBm]	EIRP [dBm]	EIRP [mW]	Conducted power [mW]
802.11n20	HT8	1	2412	MIMO A	24.47	27.71	590.20	279.90
				MIMO B	24.46	27.70	588.84	279.25
				Combined A+B	27.48	30.72	1179.04	559.15
		7	2442	MIMO A	27.06	30.30	1071.52	508.16
				MIMO B	26.82	30.06	1013.91	480.84
				Combined A+B	29.95	33.19	**2085.43**	**989.00**
		11	2462	MIMO A	24.27	27.51	563.64	267.30
				MIMO B	25.58	28.82	762.08	361.41
				Combined A+B	27.98	31.22	1325.72	628.71
		12	2467	MIMO A	22.07	25.31	339.63	161.06
				MIMO B	22.70	25.94	392.64	186.21
				Combined A+B	25.41	28.65	732.27	347.27
		13	2472	MIMO A	1.21	4.45	**2.79**	**1.32**
				MIMO B	2.02	5.26	3.36	1.59
				Combined A+B	4.64	7.88	6.14	2.91

Max Value
Min Value

Mode	Rate	CH	Freq [MHz]	Antenna	Measured Conducted Output power [dBm]	EIRP [dBm]	EIRP [mW]	Conducted power [mW]
802.11n40	HT0	3F	2422	SISO A	22.95	26.19	415.91	197.24
				SISO B	22.99	26.23	419.76	199.07
		7F	2442	SISO A	25.13	28.37	**687.07**	**325.84**
				SISO B	24.54	27.78	599.79	284.45
		9F	2452	SISO A	22.96	26.20	416.87	197.70
				SISO B	22.95	26.19	415.91	197.24
		10F	2457	SISO A	16.49	19.73	93.97	44.57
				SISO B	17.54	20.78	119.67	56.75
		11F	2462	SISO A	12.12	15.36	34.36	16.29
				SISO B	11.70	14.94	**31.19**	**14.79**
	HT8	3F	2422	MIMO A	22.53	25.77	377.57	179.06
				MIMO B	22.81	26.05	402.72	190.99
				Combined A+B	25.68	28.92	780.29	370.05
		7F	2442	MIMO A	24.42	27.66	583.45	276.69
				MIMO B	24.63	27.87	612.35	290.40
				Combined A+B	27.54	30.78	**1195.80**	**567.10**
		9F	2452	MIMO A	22.17	25.41	347.54	164.82
				MIMO B	23.08	26.32	428.55	203.24
				Combined A+B	25.66	28.90	776.08	368.05
		10F	2457	MIMO A	15.89	19.13	81.85	38.82
				MIMO B	17.61	20.85	121.62	57.68
				Combined A+B	19.84	23.08	203.47	96.49
		11F	2462	MIMO A	10.69	13.93	**24.72**	**11.72**
				MIMO B	11.58	14.82	30.34	14.39
				Combined A+B	14.17	17.41	55.06	26.11

Max Value
Min Value

Maximum (Average) conducted output power*

Mode	Rate	CH	Freq [MHz]	Antenna	Measured average conducted power [dBm]	Maximum** (average) conducted output power [dBm]	EIRP [dBm]	Average Output Power [mW]
802.11b	1Mbps	1	2412	SISO A	19.20	19.20	22.44	83.18
				SISO B	19.18	19.18	22.42	82.79
		7	2442	SISO A	21.19	21.19	24.43	131.52
				SISO B	21.21	21.21	24.45	132.13
		11	2462	SISO A	19.44	19.44	22.68	87.90
				SISO B	19.71	19.71	22.95	93.54
		12	2467	SISO A	17.39	17.39	20.63	54.83
				SISO B	17.63	17.63	20.87	57.94
		13	2472	SISO A	15.24	15.24	18.48	33.42
				SISO B	15.64	15.64	18.88	36.64
802.11g	6Mbps	1	2412	SISO A	16.62	16.62	19.86	45.92
				SISO B	16.36	16.36	19.60	43.25
		7	2442	SISO A	19.98	19.98	23.22	99.54
				SISO B	20.03	20.03	23.27	100.69
		11	2462	SISO A	16.44	16.44	19.68	44.06
				SISO B	16.89	16.89	20.13	48.87
		12	2467	SISO A	14.19	14.19	17.43	26.24
				SISO B	14.42	14.42	17.66	27.67
		13	2472	SISO A	-3.31	-3.31	-0.07	0.47
				SISO B	-2.74	-2.74	0.50	0.53
802.11n20	HT0	1	2412	SISO A	16.40	16.40	19.64	43.65
				SISO B	16.16	16.16	19.40	41.30
		7	2442	SISO A	20.01	20.01	23.25	100.23
				SISO B	19.76	19.76	23.00	94.62
		11	2462	SISO A	16.12	16.12	19.36	40.93
				SISO B	17.00	17.00	20.24	50.12
		12	2467	SISO A	14.07	14.07	17.31	25.53
				SISO B	14.21	14.21	17.45	26.36
		13	2472	SISO A	-3.75	-3.75	-0.51	0.42
				SISO B	-2.78	-2.78	0.46	0.53

Mode	Rate	CH	Freq [MHz]	Antenna	Measured average conducted power [dBm]	Maximum** (average) conducted output power [dBm]	EIRP [dBm]	Average Output Power [mW]
802.11n20	HT8	1	2412	MIMO A	15.88	16.08	19.32	40.52
				MIMO B	15.41	15.61	18.85	36.37
				Combined A+B	18.66	18.86	22.10	76.89
		7	2442	MIMO A	18.30	18.50	21.74	70.74
				MIMO B	17.70	17.90	21.14	61.61
				Combined A+B	21.02	21.22	24.46	132.36
		11	2462	MIMO A	15.55	15.75	18.99	37.56
				MIMO B	16.45	16.65	19.89	46.20
				Combined A+B	19.03	19.23	22.47	83.76
		12	2467	MIMO A	13.42	13.62	16.86	23.00
				MIMO B	13.61	13.81	17.05	24.03
				Combined A+B	16.53	16.72	19.96	47.02
		13	2472	MIMO A	-7.47	-7.27	-4.03	0.19
				MIMO B	-7.12	-6.92	-3.68	0.20
				Combined A+B	-4.28	-4.08	-0.84	0.39

Mode	Rate	CH	Freq [MHz]	Antenna	Measured average conducted power [dBm]	Maximum** (average) conducted output power [dBm]	EIRP [dBm]	Average Output Power [mW]
802.11n40	HT0	3F	2422	SISO A	14.11	14.27	17.51	26.70
				SISO B	14.18	14.34	17.58	27.14
		7F	2442	SISO A	16.37	16.53	19.77	44.93
				SISO B	15.76	15.92	19.16	39.05
		9F	2452	SISO A	14.15	14.31	17.55	26.95
				SISO B	14.16	14.32	17.56	27.01
		10F	2457	SISO A	9.01	9.17	12.41	8.25
				SISO B	7.94	8.10	11.34	6.45
		11F	2462	SISO A	3.18	3.34	6.58	2.16
				SISO B	3.58	3.74	6.98	2.36
	HT8	3F	2422	MIMO A	13.62	14.00	17.24	25.09
				MIMO B	13.41	13.79	17.03	23.91
				Combined A+B	16.53	16.90	20.14	49.00
		7F	2442	MIMO A	15.52	15.90	19.14	38.86
				MIMO B	15.24	15.62	18.86	36.44
				Combined A+B	18.39	18.77	22.01	75.30
		9F	2452	MIMO A	13.29	13.67	16.91	23.26
				MIMO B	13.66	14.04	17.28	25.32
				Combined A+B	16.49	16.86	20.10	48.58
		10F	2457	MIMO A	7.24	7.62	10.86	5.77
				MIMO B	8.32	8.70	11.94	7.41
				Combined A+B	10.82	11.20	14.44	13.18
		11F	2462	MIMO A	1.98	2.36	5.60	1.72
				MIMO B	2.25	2.63	5.87	1.83
				Combined A+B	5.13	5.50	8.74	3.55

* Maximum (average) conducted output power are shown for indicative purpose only.
** Duty cycle compensated

See Section B.3.3 for the screenshot results.

B.2.3 Power Spectral Density

Test limits

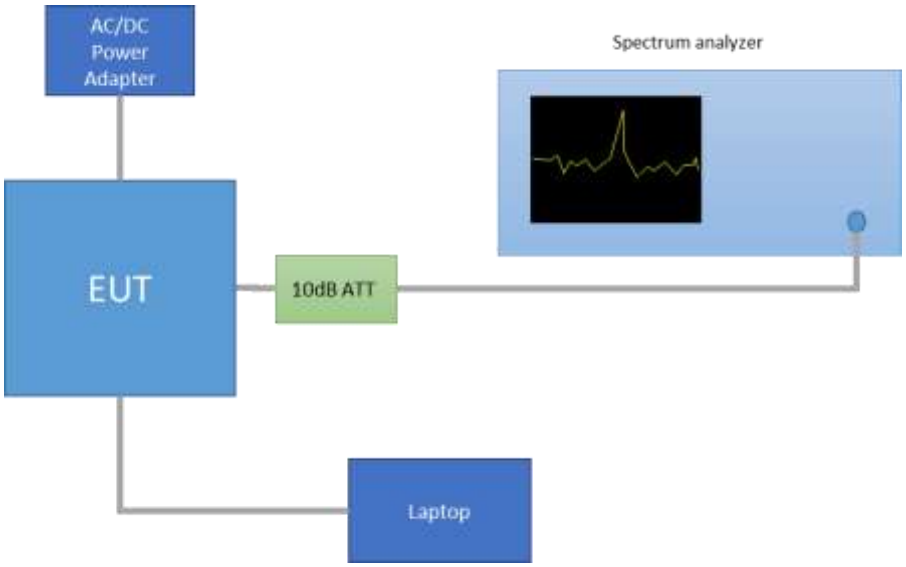
FCC part	RSS part	Limits
15.247 (e)	RSS-247 Clause 5.2 (b)	For digitally modulated systems, the power spectral density conducted from the intentional radiator to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission. This power spectral density shall be determined in accordance with the provisions of paragraph (b) of this section. The same method of determining the conducted output power shall be used to determine the power spectral density.

Test procedure

The peak power spectral density level in the fundamental emission was measured using the *Method PKPSD (peak PSD)* according to point 10.2 of KDB 558074 D01 DTS Meas Guidance. This method was used for 802.11b, 802.11g, 802.11n20 an 802.11n40 modes.

For MIMO mode, the *Measure and add 10 log(N_{ANT}) dB*, (where N_{ANT} is the number of outputs) technique was used according to the Guidance for Emission Testing of Transmitters with Multiple Outputs in the Same Band 662911 D01 Multiple Transmitter Output v02r01.
With this technique, spectrum measurements are performed at each output of the device, and the quantity 10 log(N_{ANT}) dB is added to each spectrum value before comparing to the emission limit. Number of outputs = 2.

The setup below was used to measure the power spectral density. The antenna terminal of the EUT is connected to the spectrum through an attenuator, and the spectrum analyzer reading is compensated to include the RF path loss.



Results tables

Mode	Rate	Channel	Frequency [MHz]	Antenna	PSD Peak [dBm]
802.11b	1Mbps	1	2412	SISO CHAIN A	-3.31
				SISO CHAIN B	-3.28
		7	2442	SISO CHAIN A	-1.63
				SISO CHAIN B	**-1.57**
		11	2462	SISO CHAIN A	-3.05
				SISO CHAIN B	-2.76
		12	2467	SISO CHAIN A	-4.83
				SISO CHAIN B	-4.87
		13	2472	SISO CHAIN A	-7.26
				SISO CHAIN B	-6.89
802.11g	6Mbps	1	2412	SISO CHAIN A	-7.79
				SISO CHAIN B	-7.73
		7	2442	SISO CHAIN A	**-4.59**
				SISO CHAIN B	-4.72
		11	2462	SISO CHAIN A	-7.70
				SISO CHAIN B	-7.48
		12	2467	SISO CHAIN A	-10.28
				SISO CHAIN B	-9.97
		13	2472	SISO CHAIN A	-27.29
				SISO CHAIN B	-27.48
802.11n20	HT0	1	2412	SISO CHAIN A	-6.70
				SISO CHAIN B	-6.79
		7	2442	SISO CHAIN A	**-3.74**
				SISO CHAIN B	-4.42
		11	2462	SISO CHAIN A	-7.67
				SISO CHAIN B	-6.76
		12	2467	SISO CHAIN A	-9.07
				SISO CHAIN B	-9.74
		13	2472	SISO CHAIN A	-26.08
				SISO CHAIN B	-26.82
802.11n40	HT0	3F	2422	SISO CHAIN A	-12.52
				SISO CHAIN B	-12.51
		7F	2442	SISO CHAIN A	**-9.16**
				SISO CHAIN B	-10.57
		9F	2452	SISO CHAIN A	-12.84
				SISO CHAIN B	-12.89
		10F	2457	SISO CHAIN A	-18.33
				SISO CHAIN B	-19.32
		11F	2462	SISO CHAIN A	-23.60
				SISO CHAIN B	-23.17

MIMO modes					PSD Peak [dBm]	
Mode	Rate	CH	Freq. [MHz]	Antenna	Measured Conducted	MIMO Combined +10·log(N_{ant})
802.11n20	HT8	1	2412	CHAIN A	-8.87	-5.86
				CHAIN B	-8.28	-5.27
		7	2442	CHAIN A	-6.68	-3.67
				CHAIN B	**-6.50**	-3.49
		11	2462	CHAIN A	-8.99	-5.98
				CHAIN B	-8.01	-5.00
		12	2467	CHAIN A	-10.86	-7.85
				CHAIN B	-10.72	-7.71
		13	2472	CHAIN A	-36.02	-33.01
				CHAIN B	-36.71	-33.70
802.11n40	HT8	3F	2422	CHAIN A	-13.20	-10.19
				CHAIN B	-12.94	-9.93
		7F	2442	CHAIN A	**-11.16**	-8.15
				CHAIN B	-11.64	-8.63
		9F	2452	CHAIN A	-13.86	-10.85
				CHAIN B	-12.96	-9.95
		10F	2457	CHAIN A	-19.22	-16.21
				CHAIN B	-17.89	-14.88
		11F	2462	CHAIN A	-24.86	-21.85
				CHAIN B	-24.59	-21.58

Max Value

See Section B.3.4 for the screenshot results

B.2.4 Out-of-band emission (conducted)

Test Limits

<table>
<tr><th>FCC part</th><th>RSS part</th><th>Limits</th></tr>
<tr><td>15.247 (d)</td><td>RSS-247
Clause 5.5</td><td>In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits.</td></tr>
<tr><td>15.209</td><td>RSS-Gen
Clause 8.9</td><td>Radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a):
<table>
<tr><th>Freq Range (MHz)</th><th>Field Stregth (µV/m)</th><th>Field Stregth (dBµV/m)</th><th>Meas. Distance (m)</th></tr>
<tr><td>30-88</td><td>100</td><td>40</td><td>3</td></tr>
<tr><td>88-216</td><td>150</td><td>43.5</td><td>3</td></tr>
<tr><td>216-960</td><td>200</td><td>46</td><td>3</td></tr>
<tr><td>Above 960</td><td>500</td><td>54</td><td>3</td></tr>
</table>
The emission limits shown in the above table are based on measurements employing CISPR quasi-peak detector except for the frequency bands 9-90 kHz, 110-490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.
For average radiated emission measurements above 1000 MHz, there is also a limit specified when measuring with peak detector function, corresponding to 20 dB above the indicated values in the table.</td></tr>
</table>

Test procedure

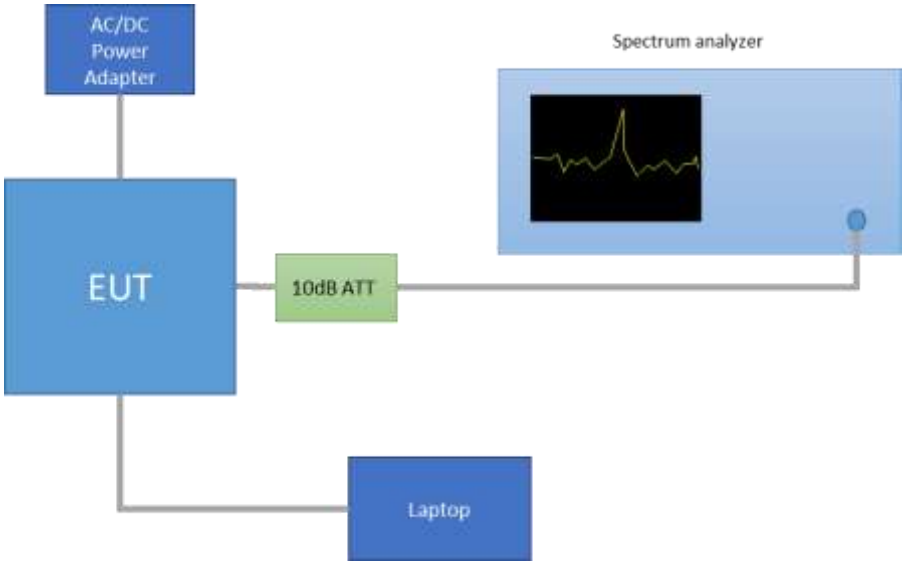
The setup below was used to measure the out-of-band emissions. The antenna terminal of the EUT is connected to the spectrum analyzer through an attenuator, and the spectrum analyzer reading is compensated to include the RF path loss.
The Band Edge High, was measured using the method according to point 13.3 (Integration Method) of KDB 558074 D01 DTS Meas Guidance v04.

In case of Band Edge measurements falling in restricted bands, the declared Antenna Gain is also compensated in the graph. The declared maximum antenna gain is 3.24dBi.

For Band Edge measurements falling in restricted bands, the following limits in dBm were applied for the average detector after the conversion from the limits detailed above in dBµV/m, according to FCC 47 CFR part 15 - Subpart C – §15.209(a). The limits in dBm for peak detector are 20dB above the indicated values in the table.

§15.209(a)			Converted values	
Freq Range (MHz)	Distance (m)	Field strength (microvolts/meter)	Field strength (dB microvolts/meter)	Power (dBm)
Above 960	3	500	54.0	-41.2

The setup below was used to measure the out-of-band emissions. The antenna terminal of the EUT is connected to the spectrum through an attenuator, and the spectrum analyzer reading is compensated to include the RF path loss.



Note: these PSD_{Peak} values are shown just as a reference for the compliance of the Out-of-band Measurements. Thus the RBW used for these measurements was 100kHz.

Mode	Rate	Measured Duty Cycle [%]	Channel	Frequency [MHz]	Antenna	PSD Peak [dBm]
802.11b	1Mbps	98.65%	1	2412	SISO CHAIN A	10.25
					SISO CHAIN B	10.27
			7	2437	SISO CHAIN A	11.87
					SISO CHAIN B	11.89
			11	2462	SISO CHAIN A	10.41
					SISO CHAIN B	10.63
			12	2467	SISO CHAIN A	8.63
					SISO CHAIN B	8.51
			13	2472	SISO CHAIN A	6.27
					SISO CHAIN B	6.41

Mode	Rate	Measured Duty Cycle [%]	Channel	Frequency [MHz]	Antenna	PSD Peak [dBm]
802.11g	6Mbps	98.23%	1	2412	SISO CHAIN A	6.57
					SISO CHAIN B	6.87
			7	2437	SISO CHAIN A	9.70
					SISO CHAIN B	9.74
			11	2462	SISO CHAIN A	5.74
					SISO CHAIN B	6.28
			12	2467	SISO CHAIN A	4.33
					SISO CHAIN B	4.00
			13	2472	SISO CHAIN A	-12.74
					SISO CHAIN B	-13.12
802.11n20	HT0	98.19%	1	2412	SISO CHAIN A	6.41
					SISO CHAIN B	6.66
			7	2442	SISO CHAIN A	9.58
					SISO CHAIN B	9.56
			11	2462	SISO CHAIN A	5.57
					SISO CHAIN B	6.46
			12	2467	SISO CHAIN A	4.24
					SISO CHAIN B	3.87
			13	2472	SISO CHAIN A	-13.13
					SISO CHAIN B	-12.96
	HT8	95.97%	1	2412	MIMO CHAIN A	5.88
					MIMO CHAIN B	5.88
			7	2442	MIMO CHAIN A	7.93
					MIMO CHAIN B	7.59
			11	2462	MIMO CHAIN A	5.24
					MIMO CHAIN B	5.98
			12	2467	MIMO CHAIN A	3.68
					MIMO CHAIN B	3.49
			13	2472	MIMO CHAIN A	-16.82
					MIMO CHAIN B	-17.05

Mode	Rate	Measured Duty Cycle [%]	Channel	Frequency [MHz]	Antenna	PSD Peak [dBm]
802.11n40	HT0	96.48%	3F	2422	SISO CHAIN A	1.24
					SISO CHAIN B	1.10
			7F	2442	SISO CHAIN A	3.24
					SISO CHAIN B	2.36
			9F	2452	SISO CHAIN A	0.52
					SISO CHAIN B	0.34
			10F	2457	SISO CHAIN A	-4.54
					SISO CHAIN B	-5.36
			11F	2462	SISO CHAIN A	-10.33
					SISO CHAIN B	-9.62
	HT8	91.72%	3F	2422	MIMO CHAIN A	0.76
					MIMO CHAIN B	0.54
			7F	2442	MIMO CHAIN A	2.56
					MIMO CHAIN B	1.79
			9F	2452	MIMO CHAIN A	-0.06
					MIMO CHAIN B	0.29
			10F	2457	MIMO CHAIN A	-5.99
					MIMO CHAIN B	-4.96
			11F	2462	MIMO CHAIN A	-10.86
					MIMO CHAIN B	-10.95

See Section B.3.5, Section B.3.6 and Section B.3.7 for the screenshot results.

B.2.5 Radiated spurious emission

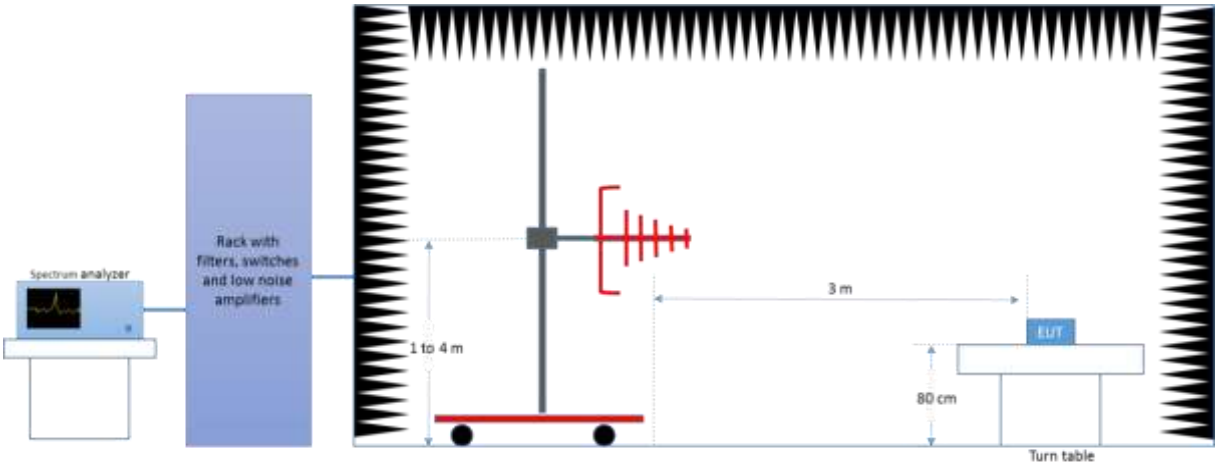
Standard references

<table>
<tr><th>FCC part</th><th>RSS part</th><th>Limits</th></tr>
<tr><td>15.247 (d)
15.209</td><td>RSS-247
Clause 5.5
RSS-Gen
Clause 8.9</td><td>Radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a):
<table>
<tr><th>Freq Range (MHz)</th><th>Field Stregth (µV/m)</th><th>Field Stregth (dBµV/m)</th><th>Meas. Distance (m)</th></tr>
<tr><td>30-88</td><td>100</td><td>40</td><td>3</td></tr>
<tr><td>88-216</td><td>150</td><td>43.5</td><td>3</td></tr>
<tr><td>216-960</td><td>200</td><td>46</td><td>3</td></tr>
<tr><td>Above 960</td><td>500</td><td>54</td><td>3</td></tr>
</table>
The emission limits shown in the above table are based on measurements employing CISPR quasi-peak detector except for the frequency bands 9-90 kHz. 110-490 kHz and above 1000 MHz. Radiated emission limits in these three bands are based on measurements employing an average detector.
For average radiated emission measurements above 1000 MHz. there is also a limit specified when measuring with peak detector function corresponding to 20 dB above the indicated values in the table.</td></tr>
</table>

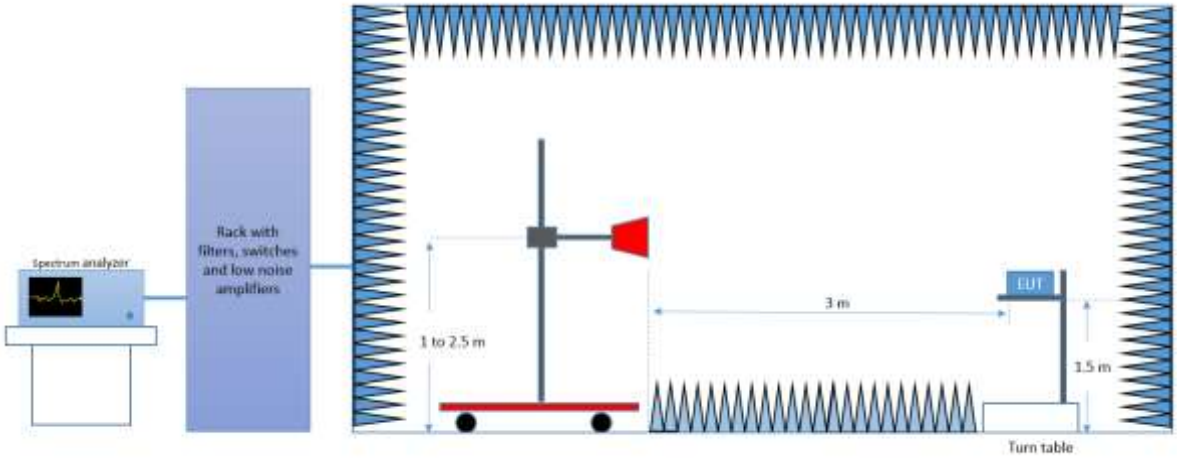
Test procedure

The setups below were used to measure the radiated spurious emissions.
Depending of the frequency range and bands being tested, different antennas and filters were used.
The final measurement is done by varying the antenna height from 1 to 4 meters, the EUT azimuth over 360º and for both Vertical and Horizontal polarizations.
The radiated spurious emissions were measured on the worst case configuration selected from the chapter B.2.2 and using the lowest, middle and highest channels.
For technologies 802.n20, 802.n40 the worst case in terms of spurious emissions found among the low, mid and high channels tested on chain A and B separately is used to perform the test in MIMO mode (Chain A+B).

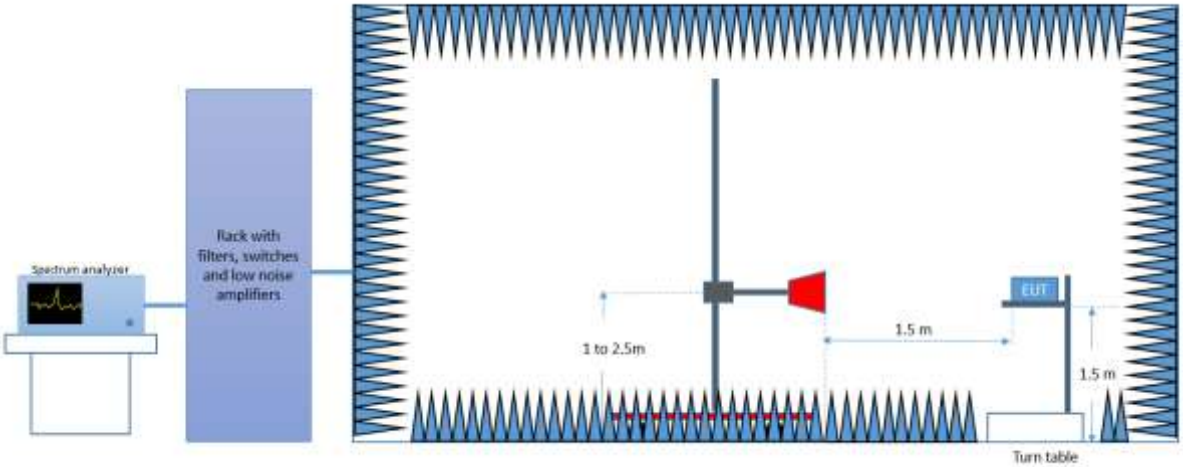
Radiated Setup 30 MHz - 1GHz



Radiated Setup 1 GHz - 18 GHz



Radiated Setup 18 GHz – 26.5 GHz



Sample Calculation

The field strength is deduced from the radiated measurement using the following equation:

$$E = 126.8 - 20\log(\lambda) + P - G$$

where

E is the field strength of the emission at the measurement distance, in dBµV/m

P is the power measured at the output of the test antenna, in dBm

λ is the wavelength of the emission under investigation [300/f_{MHz}], in m

G is the gain of the test antenna, in dBi

NOTE – The measured power P includes all applicable instrument correction factors up to the connection to the test

Antenna e.g. cable losses, amplifier gains.

For field strength measurements made at other than the distance at which the applicable limit is specified, the field strength of the emission at the distance specified by the limit is deduced as follows:

$$E_{SpecLimit} = E_{Meas} + 20\log(D_{Meas}/D_{SpecLimit})$$

where

$E_{SpecLimit}$ *is the field strength of the emission at the distance specified by the limit, in dBµV/m*

E_{Meas} *is the field strength of the emission at the measurement distance, in dBµV/m*

D_{Meas} *is the measurement distance, in m*

$D_{SpecLimit}$ *is the distance specified by the limit, in m*

Test Results

30 MHz – 26.5 GHz, 802.11b, 1Mbps, Chain A

Radiated Spurious – CH1

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBuV/m	dBuV/m	dBuV/m	dB
115.2	29.6	---	43.6	14.0
216.0	29.3	---	43.6	14.3
576.0	37.2	---	46.0	8.8
640.0	37.6	---	46.0	**8.4**
1190.3	---	42.2	54.0	11.8
7234.8	49.4	---	74.0	24.6
7235.2	---	40.5	54.0	13.5
25576.4	48.8	---	74.0	25.2
25927.8	---	37.9	54.0	16.1

Radiated Spurious – CH7

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBuV/m	dBuV/m	dBuV/m	dB
115.2	29.8	---	43.6	13.8
216.0	32.3	---	43.6	11.3
576.0	36.5	---	46.0	9.5
640.0	36.5	---	46.0	9.5
1113.1	---	39.4	54.0	14.6
1151.9	---	40.5	54.0	13.5
1190.3	---	42.0	54.0	12.0
1267.2	---	41.3	54.0	12.7
7339.2	48.3	---	74.0	25.7
7340.0	---	39.0	54.0	15.0
24317.4	48.2	---	74.0	25.8
25930.5	---	37.4	54.0	16.6

Radiated Spurious – CH11

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBuV/m	dBuV/m	dBuV/m	dB
115.2	29.8	---	43.6	13.8
216.0	32.2	---	43.6	11.4
576.0	35.3	---	46.0	10.7
640.0	35.2	---	46.0	10.8
1113.4	---	39.3	54.0	14.7
1190.3	---	42.3	54.0	11.7
1266.9	---	41.2	54.0	12.8
4923.9	---	40.9	54.0	13.1
7384.7	48.9	---	74.0	25.1
7387.8	---	38.7	54.0	15.3
21170.0	47.2	---	74.0	26.8
21191.8	---	36.6	54.0	17.4

30 MHz – 26.5 GHz, 802.11b, 1Mbps, Chain B

Radiated Spurious – CH1

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBuV/m	dBuV/m	dBuV/m	dB
115.2	29.6	---	43.6	14.0
216.0	30.5	---	46.0	15.5
576.0	35.3	---	46.0	10.7
640.0	36.4	---	46.0	9.6
1113.4	---	39.4	54.0	14.6
1190.3	---	42.0	54.0	12.0
1330.3	---	40.8	54.0	13.2
4824.2	---	41.1	54.0	12.9
7233.9	---	40.6	54.0	13.4
7237.9	49.2	---	74.0	24.8
24529.6	48.0	---	74.0	26.0
25935.3	---	36.8	54.0	17.2

Radiated Spurious – CH7

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBuV/m	dBuV/m	dBuV/m	dB
115.2	29.7	---	43.6	13.9
216.0	32.5	---	46.0	13.5
576.0	35.7	---	46.0	10.3
640.0	36.0	---	46.0	10.0
1113.4	---	39.8	54.0	14.2
1190.3	---	42.4	54.0	11.6
1267.2	---	41.1	54.0	12.9
10654.5	---	38.8	54.0	15.2
10712.1	50.5	---	74.0	23.5
25664.6	47.7	---	74.0	26.3
25922.5	---	37.2	54.0	16.8

Radiated Spurious – CH11

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBuV/m	dBuV/m	dBuV/m	dB
115.2	28.8	---	43.6	14.8
216.0	31.2	---	46.0	14.8
576.0	36.5	---	46.0	9.5
640.0	36.4	---	46.0	9.6
1113.4	---	39.3	54.0	14.7
1190.3	---	42.6	54.0	11.4
1233.8	---	41.0	54.0	13.0
7382.9	---	37.9	54.0	16.1
7386.9	49.3	---	74.0	24.7
19824.3	---	36.8	54.0	17.2
21330.4	47.3	---	74.0	26.7

30 MHz – 26.5 GHz, 802.11g, 6Mbps, Chain A

Radiated Spurious – CH1

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBuV/m	dBuV/m	dBuV/m	dB
115.2	29.5	---	43.6	14.1
216.0	31.2	---	46.0	14.8
576.0	35.7	---	46.0	10.3
640.0	35.9	---	46.0	10.1
1113.4	---	39.6	54.0	14.4
1190.3	---	42.2	54.0	11.8
1267.2	---	41.0	54.0	13.0
7230.3	48.1	---	74.0	25.9
7239.2	---	38.6	54.0	15.4
24267.4	---	36.6	54.0	17.4
24276.2	48.0	---	74.0	26.0

Radiated Spurious – CH7

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBuV/m	dBuV/m	dBuV/m	dB
115.2	29.6	---	43.6	14.0
216.0	31.7	---	46.0	14.3
576.0	35.2	---	46.0	10.8
640.0	35.1	---	46.0	10.9
1113.4	---	39.4	54.0	14.6
1190.3	---	42.5	54.0	11.5
1267.2	---	41.1	54.0	12.9
16628.1	---	44.9	54.0	**9.1**
16640.6	56.3	---	74.0	17.7
19831.5	---	36.3	54.0	17.7
19865.5	46.9	---	74.0	27.1

Radiated Spurious – CH11

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBuV/m	dBuV/m	dBuV/m	dB
115.2	29.2	---	43.6	14.4
216.0	31.7	---	46.0	14.3
576.0	36.0	---	46.0	10.0
640.0	36.0	---	46.0	10.0
1113.4	---	39.6	54.0	14.4
1151.9	---	40.1	54.0	13.9
1190.0	---	41.8	54.0	12.2
3482.2	61.4	---	74.0	12.6
3519.6	---	37.6	54.0	16.4
16645.9	54.8	---	74.0	19.2
16653.5	---	44.9	54.0	9.1
24247.8	---	36.6	54.0	17.4
25903.4	47.5	---	74.0	26.5

30 MHz – 26.5 GHz, 802.11g, 6Mbps, Chain B

Radiated Spurious – CH1

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBuV/m	dBuV/m	dBuV/m	dB
115.2	29.8	---	43.6	13.8
216.0	31.4	---	46.0	14.6
576.0	36.5	---	46.0	9.5
640.1	34.6	---	46.0	11.4
1113.4	---	39.3	54.0	14.7
1152.2	---	40.1	54.0	13.9
1190.3	---	41.9	54.0	12.1
7225.4	49.3	---	74.0	24.7
7236.5	---	37.8	54.0	16.2
24146.8	47.5	---	74.0	26.5
24214.8	---	36.6	54.0	17.4

Radiated Spurious – CH7

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBuV/m	dBuV/m	dBuV/m	dB
115.2	29.9	---	43.6	13.7
216.0	32.1	---	46.0	13.9
576.0	36.0	---	46.0	10.0
640.0	36.5	---	46.0	9.5
1113.8	---	39.5	54.0	14.5
1151.9	---	39.9	54.0	14.1
1190.3	---	42.3	54.0	11.7
16611.1	56.1	---	74.0	17.9
16656.6	---	44.6	54.0	9.4
20165.1	47.5	---	74.0	26.5
21482.3	---	36.2	54.0	17.8

Radiated Spurious – CH11

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBuV/m	dBuV/m	dBuV/m	dB
115.2	29.8	---	43.6	13.8
216.0	32.0	---	43.6	11.6
576.0	36.1	---	46.0	9.9
640.0	35.9	---	46.0	10.1
1113.8	---	39.6	54.0	14.4
1151.9	---	40.1	54.0	13.9
1190.3	---	42.2	54.0	11.8
1190.6	52.8	---	74.0	21.2
1267.2	---	41.1	54.0	12.9
16616.0	---	44.6	54.0	9.4
16684.3	55.1	---	74.0	18.9
24109.6	47.5	---	74.0	26.5
24212.7	---	36.7	54.0	17.3

30 MHz – 26.5 GHz, 802.11n20, HT0, Chain A

Radiated Spurious – CH1

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBuV/m	dBuV/m	dBuV/m	dB
115.2	29.8	---	43.6	13.8
216.0	30.9	---	46.0	15.1
576.0	35.9	---	46.0	10.1
640.0	36.1	---	46.0	9.9
1113.4	---	39.6	54.0	14.4
1156.6	---	40.0	54.0	14.0
1190.3	---	42.0	54.0	12.0
1755.3	56.9	---	74.0	17.1
1764.1	---	43.9	54.0	10.1
7236.1	---	38.2	54.0	15.8
7236.5	48.6	---	74.0	25.4
24196.5	47.3	---	74.0	26.7
24220.7	---	36.6	54.0	17.4

Radiated Spurious – CH7

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBuV/m	dBuV/m	dBuV/m	dB
115.2	29.4	---	43.6	14.2
144.0	26.7	---	43.6	16.9
168.0	28.1	---	43.6	15.5
216.0	31.4	---	43.6	12.2
576.0	36.2	---	46.0	9.8
1113.4	---	39.4	54.0	14.6
1190.3	---	41.8	54.0	12.2
16625.0	---	44.6	54.0	9.4
16641.5	55.6	---	74.0	18.4
23826.5	---	36.3	54.0	17.7
24311.3	48.1	---	74.0	25.9

Radiated Spurious – CH11

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBuV/m	dBuV/m	dBuV/m	dB
115.2	28.5	---	43.6	15.1
144.0	27.8	---	43.6	15.8
216.0	30.1	---	46.0	15.9
576.0	36.0	---	46.0	10.0
1113.1	---	39.3	54.0	14.7
1151.9	---	39.8	54.0	14.2
1190.3	---	42.0	54.0	12.0
1280.0	---	41.0	54.0	13.0
16670.9	---	44.8	54.0	9.2
16673.6	55.6	---	74.0	18.4
20543.9	---	36.2	54.0	17.8
21510.2	47.0	---	74.0	27.0

30 MHz – 26.5 GHz, 802.11n20, HT0, Chain B

Radiated Spurious – CH1

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBuV/m	dBuV/m	dBuV/m	dB
115.2	29.5	---	43.6	14.1
216.0	31.4	---	46.0	14.6
576.0	36.8	---	46.0	9.2
640.0	36.3	---	46.0	9.7
1113.4	---	39.5	54.0	14.5
1190.3	---	42.1	54.0	11.9
1267.2	---	41.0	54.0	13.0
7229.4	48.6	---	74.0	25.4
7239.2	---	37.8	54.0	16.2
24199.2	47.3	---	74.0	26.7
25948.6	---	36.3	54.0	17.7

Radiated Spurious – CH7

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBuV/m	dBuV/m	dBuV/m	dB
115.2	29.4	---	43.6	14.2
144.0	26.7	---	43.6	16.9
216.0	31.1	---	43.6	12.5
576.0	35.8	---	46.0	10.2
640.0	35.2	---	46.0	10.8
1113.1	---	39.3	54.0	14.7
1152.2	---	40.0	54.0	14.0
1190.3	---	42.2	54.0	11.8
16671.8	---	44.3	54.0	9.7
16724.0	55.5	---	74.0	18.5
24232.6	---	36.8	54.0	17.2
25950.2	47.5	---	74.0	26.5

Radiated Spurious – CH11

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBuV/m	dBuV/m	dBuV/m	dB
115.2	28.0	---	43.6	15.6
144.0	27.2	---	43.6	16.4
167.9	26.4	---	43.6	17.2
216.0	30.6	---	46.0	15.4
576.0	36.6	---	46.0	9.4
1113.4	---	39.3	54.0	14.7
1152.2	---	39.8	54.0	14.2
1190.3	---	41.9	54.0	12.1
16654.0	---	44.2	54.0	9.8
16740.5	55.2	---	74.0	18.8
20519.7	47.2	---	74.0	26.8
21236.1	---	36.2	54.0	17.8

30 MHz – 26.5 GHz, 802.11n20, HT0, Chain A+B

Radiated Spurious – CH1

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBuV/m	dBuV/m	dBuV/m	dB
115.2	27.0	---	43.6	16.6
181.2	34.3	---	43.6	9.3
251.8	35.4	---	46.0	10.6
576.0	35.2	---	46.0	10.9
640.0	37.5	---	46.0	8.5
3423.1	---	47.6	54.0	**6.4**
3426.6	60.0	---	74.0	14.0
7237.4	---	38.8	54.0	15.2
7239.7	50.0	---	74.0	24.0
25685.1	---	36.2	54.0	17.8
25709.2	47.3	---	74.0	26.7

30 MHz – 26.5 GHz, 802.11n40, HT0, Chain A

Radiated Spurious – CH3F

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBuV/m	dBuV/m	dBuV/m	dB
115.2	28.2	---	43.6	15.4
216.0	31.4	---	46.0	14.6
576.0	36.1	---	46.0	9.9
890.8	41.0	---	46.0	**5.0**
1190.0	---	41.8	54.0	12.2
1189.7	52.9	---	74.0	21.1
16643.7	56.0	---	74.0	18.0
16660.6	---	44.6	54.0	9.4
21442.8	47.0	---	74.0	27.0
21472.8	---	36.3	54.0	17.7

Radiated Spurious – CH6F

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBuV/m	dBuV/m	dBuV/m	dB
115.2	28.2	---	43.6	15.4
216.0	30.5	---	46.0	15.5
576.0	37.3	---	46.0	8.7
1113.8	---	39.3	54.0	14.7
1151.9	---	39.8	54.0	14.2
1190.3	---	42.4	54.0	11.6
1267.2	---	40.9	54.0	13.1
15987.4	---	43.9	54.0	10.1
16021.3	54.1	---	74.0	19.9
19787.9	---	36.1	54.0	17.9
19943.8	47.6	---	74.0	26.4

Radiated Spurious – CH9F

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBuV/m	dBuV/m	dBuV/m	dB
115.2	28.2	---	43.6	15.4
216.0	30.7	---	46.0	15.3
576.0	36.0	---	46.0	10.0
640.0	36.1	---	46.0	9.9
1113.4	---	39.5	54.0	14.5
1190.3	---	41.7	54.0	12.3
16671.8	---	44.2	54.0	9.8
16697.7	55.7	---	74.0	18.3
24109.1	47.4	---	74.0	26.6
24219.6	---	36.4	54.0	17.6

30 MHz – 26.5 GHz, 802.11n40, HT0, Chain B

Radiated Spurious – CH3F

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBuV/m	dBuV/m	dBuV/m	dB
115.2	29.0	---	43.6	14.6
144.0	26.9	---	43.6	16.7
216.0	31.7	---	43.6	11.9
576.0	36.1	---	46.0	9.9
1189.7	52.9	---	74.0	21.1
1190.0	---	41.8	54.0	12.2
16646.8	55.8	---	74.0	18.2
16649.5	---	44.9	54.0	9.1
24222.8	---	36.3	54.0	17.7
24254.4	46.8	---	74.0	27.2

Radiated Spurious – CH6F

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBuV/m	dBuV/m	dBuV/m	dB
115.2	28.3	---	43.6	15.3
144.0	26.8	---	43.6	16.8
216.0	31.4	---	46.0	14.6
576.0	36.2	---	46.0	9.8
1187.8	---	42.2	54.0	11.8
1188.1	51.8	---	74.0	22.2
16683.4	54.5	---	74.0	19.5
16691.0	---	44.3	54.0	9.7
22205.4	47.4	---	74.0	26.6
24244.8	---	36.5	54.0	17.5

Radiated Spurious – CH9F

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBuV/m	dBuV/m	dBuV/m	dB
115.2	28.2	---	43.6	15.4
144.0	26.8	---	43.6	16.8
216.0	30.8	---	46.0	15.2
576.0	37.3	---	46.0	8.7
1190.3	---	41.9	54.0	12.1
1190.6	52.7	---	74.0	21.3
16702.6	---	44.6	54.0	9.4
16765.0	55.4	---	74.0	18.6
25960.3	---	36.1	54.0	17.9
26029.8	47.1	---	74.0	26.9

30 MHz – 26.5 GHz, 802.11n40, HT0, Chain A+B

Radiated Spurious – CH3F

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBuV/m	dBuV/m	dBuV/m	dB
115.2	27.7	---	43.6	15.9
162.2	29.0	---	43.6	14.6
640.0	38.0	---	46.0	8.0
1188.1	52.4	---	74.0	21.6
1190.0	---	41.1	54.0	12.9
7258.4	---	37.8	54.0	16.2
7261.1	48.3	---	74.0	25.7
26000.1	---	36.6	54.0	17.4
26017.6	46.9	---	74.0	27.1

B.2.6 AC power-line conducted emission

Standard references:

<table>
<tr><th>FCC part</th><th>Limits</th></tr>
<tr><td>15.207</td><td>Except as shown in paragraphs (b) and (c) of this section, for an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50 µH/50 ohms line impedance stabilization network (LISN). Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal. The lower limit applies at the boundary between the frequency ranges.
<table>
<tr><th rowspan="2">Frequency of emission (MHz)</th><th colspan="2">Conducted limit (dBµV)</th></tr>
<tr><th>Quasi-peak</th><th>Average</th></tr>
<tr><td>0.15-0.5</td><td>66 to 56*</td><td>56 to 46*</td></tr>
<tr><td>0.5-5</td><td>56</td><td>46</td></tr>
<tr><td>5-30</td><td>60</td><td>50</td></tr>
</table>
*Decreases with the logarithm of the frequency.</td></tr>
</table>

Test procedure:

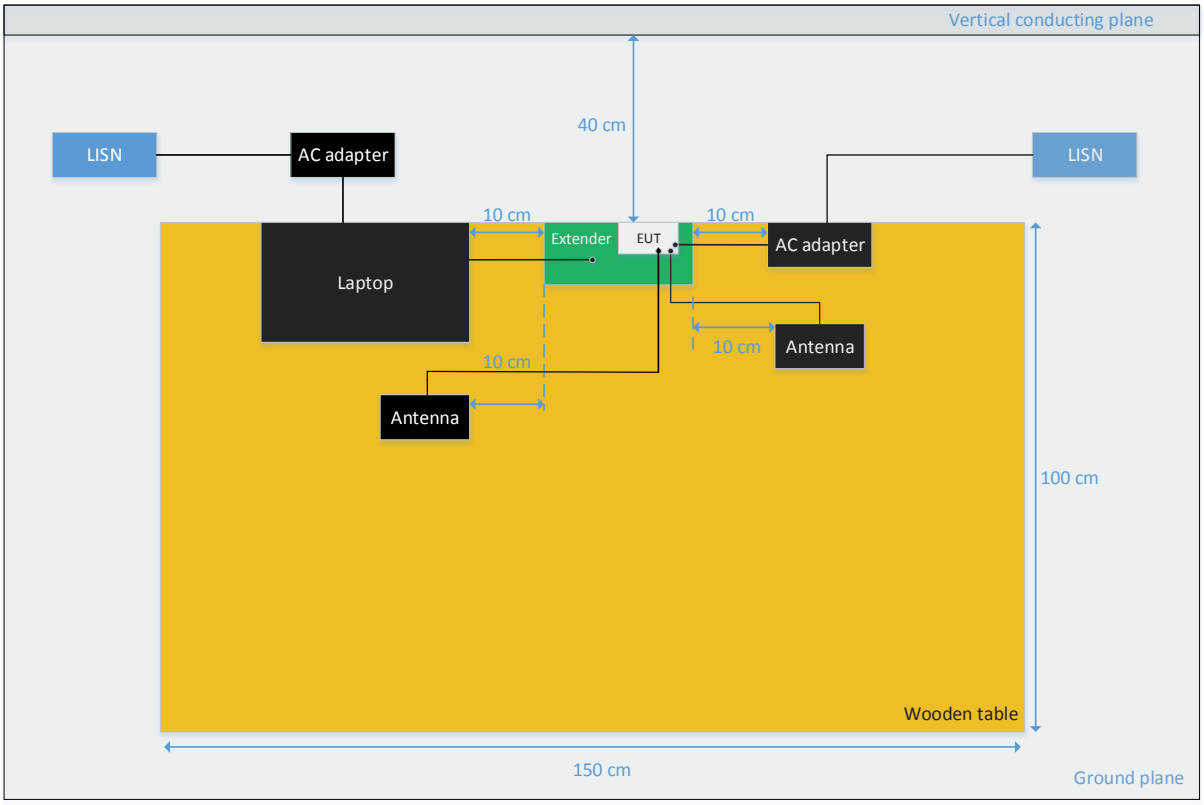
The EUT and peripherals are placed on a wooden table with a nominal size of 1.0 m by 1.5 m, raised 80 cm above the reference ground plane. The EUT is connected to AC-Power line through a Line Impedance Stabilization Network (LISN) to accommodate a 50 Ω/50 µH coupling impedance for the measurement system. The EUT control PC is considered as a peripheric and therefore is connected to a second LISN which has the measurement port connected to a 50 ohms impedance.

Each measurement is done for each current-carrying conductor (Line and Neutral) at the end plug of the EUT power cord. The EUT is tested for several transmission modes (frequency channel, modulation, etc.) and the result providing the maximum measured emission is reported.

The exploratory measurement is done over the frequency range from 150 kHz to 30 MHz, while the measurement receiver is recording the Peak and Average signal at 10 kHz steps in Max Hold mode. The cables manipulation is performed within the range of likely configurations to determine the maximum emission. Once the EUT cable configuration, arrangement and mode of operation that produced the emission with the highest amplitude relative to the limit is found the six highest AC power-line conducted emissions relative to 20 dB of the limit are reported as the final measurement. If fewer than six emission frequencies are within 20 dB of the limit, the noise level is reported. For the final measurement, the measurement receiver records the Quasi Peak values with 9 kHz resolution bandwidth and the average values with 10 kHz resolution bandwidth.

The reported results correspond to the configuration of the worst case spurious level detected among all modes.

EUT arrangement for AC power-line conducted emission tests



Sample Calculation:

The measured level at the spectrum analyzer in dBuV is corrected by a transducer factor taking into account the losses of the RF cable and the LISN as follows:

Conducted Emission level (dBuV) = SA_{Level} + $RFCable_{Losses}$ + $LISN_{Losses}$

Where:
SA_{Level} is the voltage level displayed on the measurement receiver, in dBuV.
$RFCable_{Losses}$ is the value of the cable losses between the LISN and the measurement receiver, in dB.
$LISN_{Losses}$ is the value of the insertion losses of the LISN, in dB.

Test Results:

150kHz – 30MHz, all modes

AC power-line conducted – Phase L1

Frequency	Max Peak	Avg	Limit	Margin
MHz	dBµV	dBµV	dBµV	dB
0.16	52.9	---	65.8	12.9
0.16	---	28.3	55.8	27.5
0.37	45.1	---	59.6	14.5
0.37	---	29.4	49.6	20.2
3.66	40.2	---	56.0	15.8
3.76	---	30.0	46.0	16.0
6.62	44.2	---	60.0	15.8
6.73	---	32.3	50.0	17.7
13.56	55.5	---	60.0	4.5
13.56	---	39.8	50.0	10.2
25.34	32.5	---	60.0	27.5
25.32	---	19.4	50.0	30.6

Note: The emissions found do not change with the modulation and/or frequency.

AC power-line conducted – Neutral N

Frequency	Max Peak	Avg	Limit	Margin
MHz	dBµV	dBµV	dBµV	dB
0.16	52.2	---	65.6	13.4
0.16	---	28.4	55.8	27.4
0.37	42.1	---	59.6	17.5
0.38	---	27.5	49.4	21.9
2.84	31.8	---	56.0	24.2
2.80	---	20.2	46.0	25.8
3.78	41.1	---	56.0	14.9
3.77	---	29.3	46.0	16.7
13.55	49.8	---	60.0	10.2
13.56	---	38.2	50.0	11.8
18.41	38.0	---	60.0	22.0
18.38	---	26.0	50.0	24.0

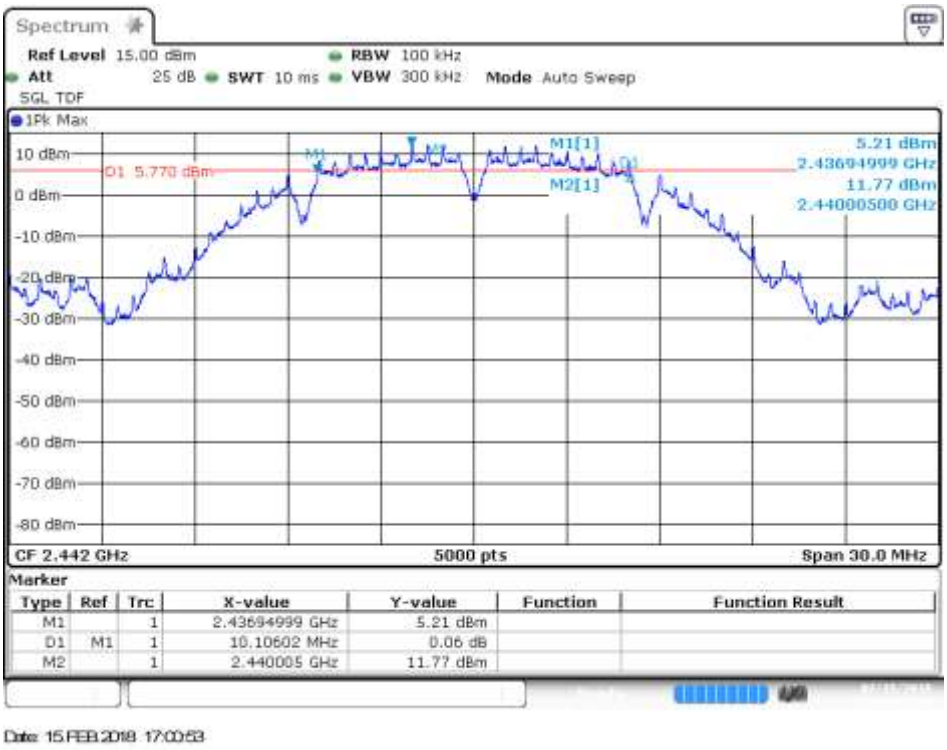
Note: The emissions found do not change with the modulation and/or frequency.

B.3 Test Results Screenshot

B.3.1 6dB Bandwidth

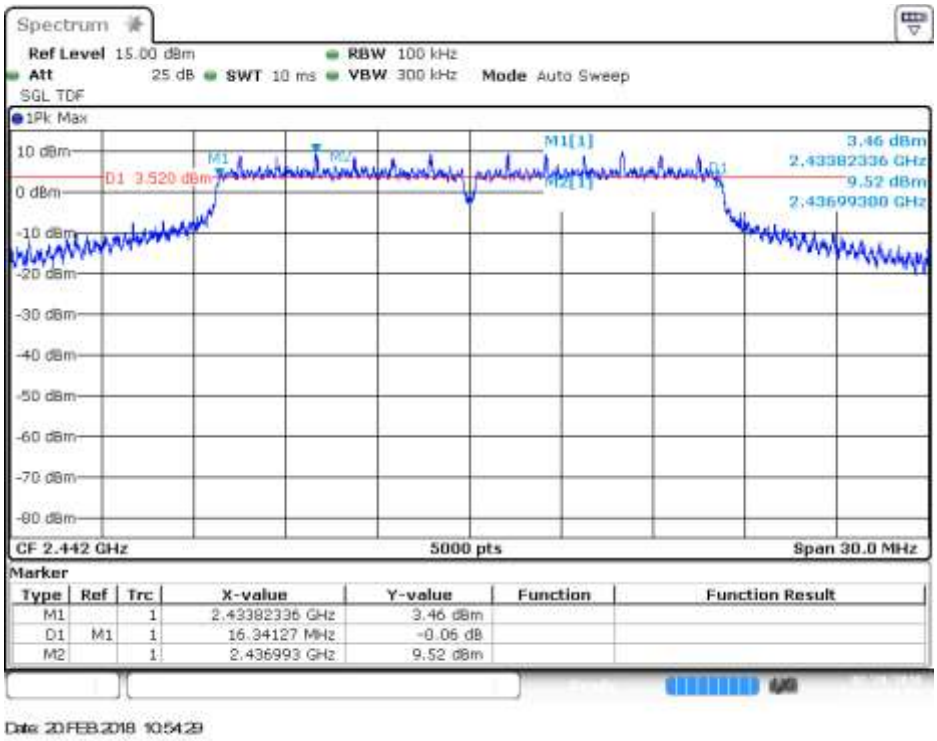
SISO-A, 802.11b, 1Mbps

Channel 7



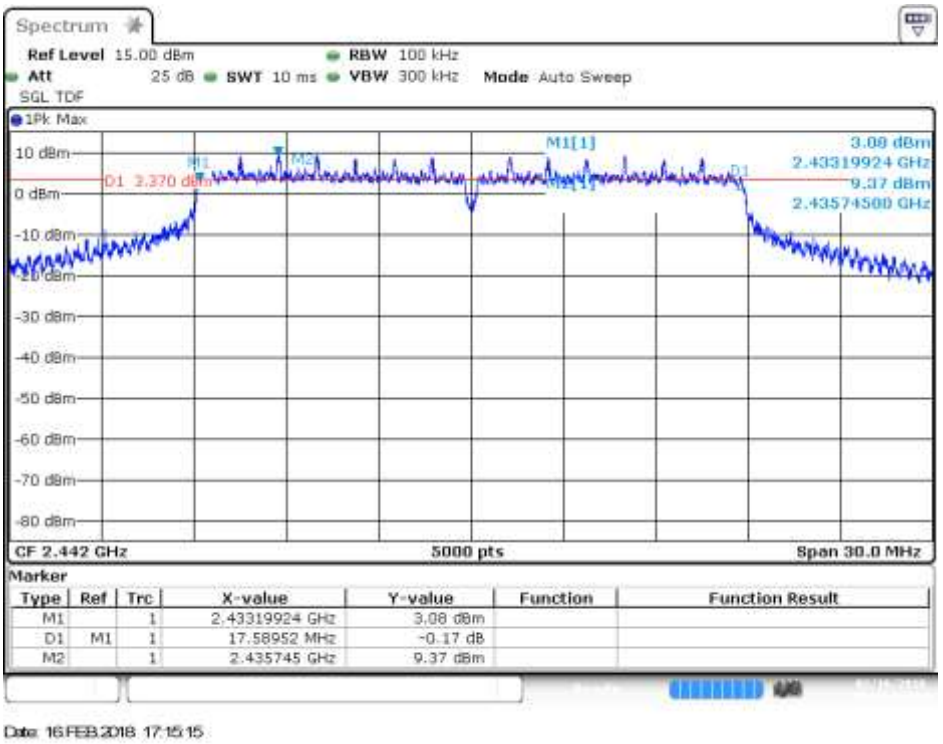
SISO-A, 802.11g, 6Mbps

Channel 7



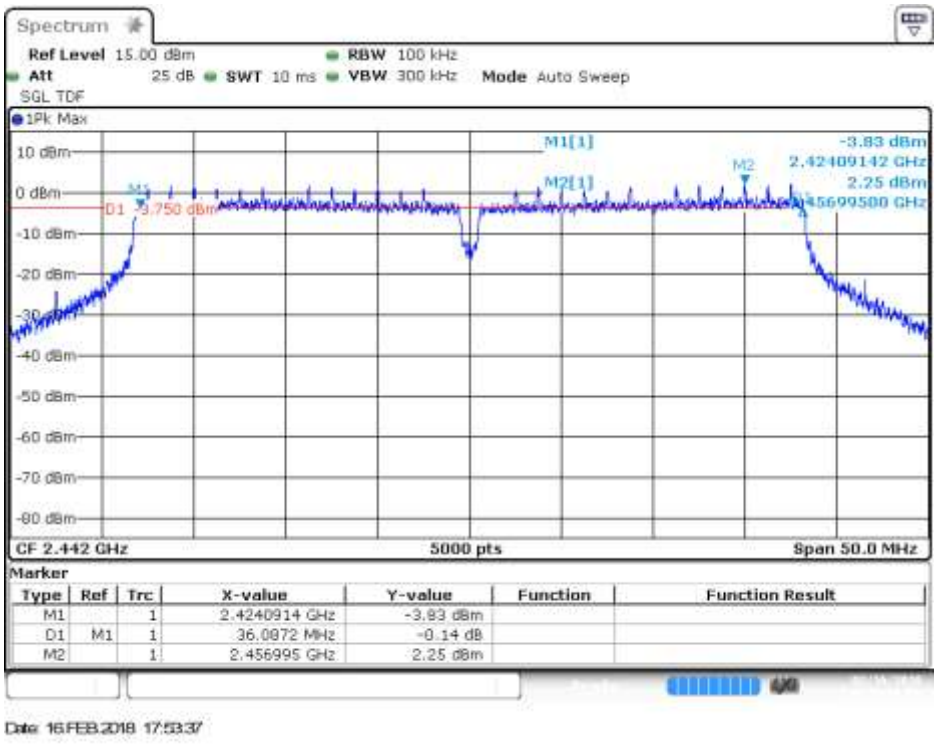
SISO-B, 802.11n20, HT0

Channel 7



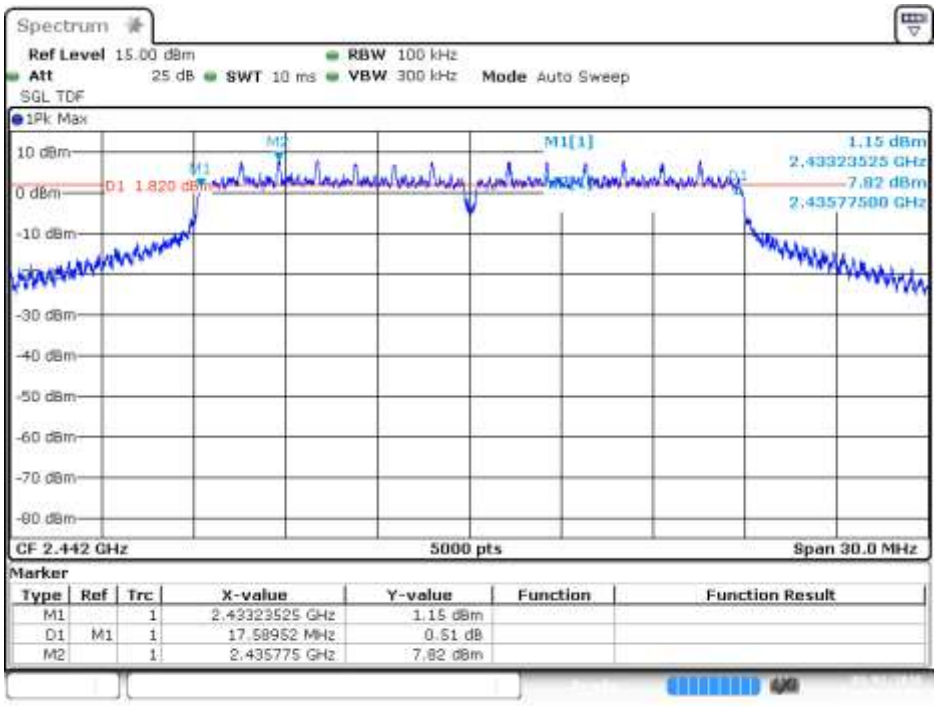
SISO-B, 802.11n40, HT0

Channel 7F



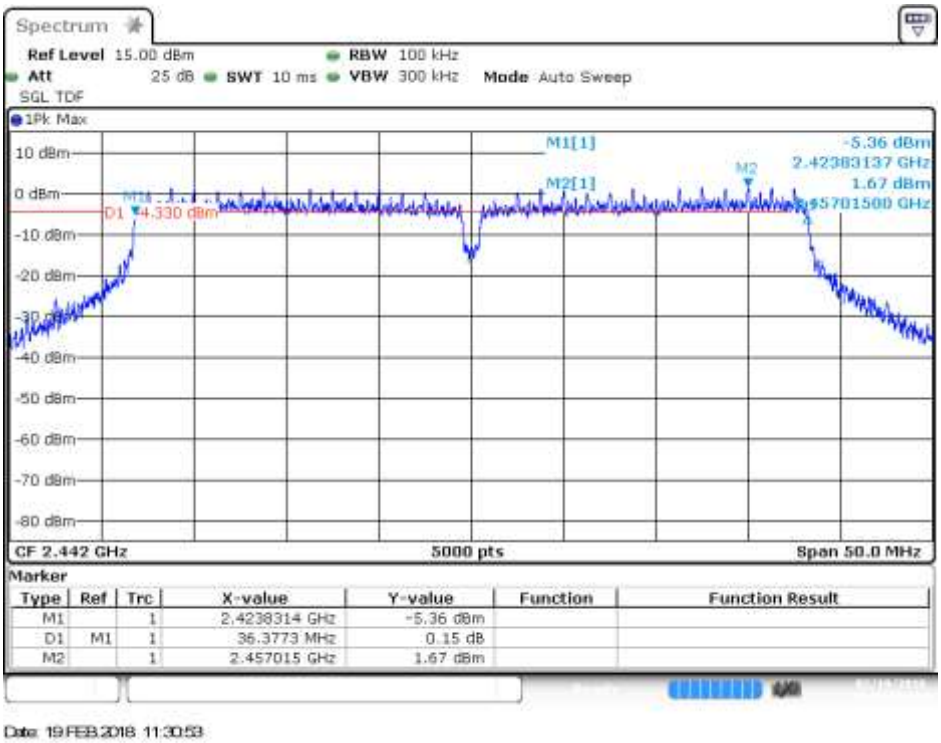
MIMO-A, 802.11n20, HT8

Channel 7



MIMO-B, 802.11n40, HT8

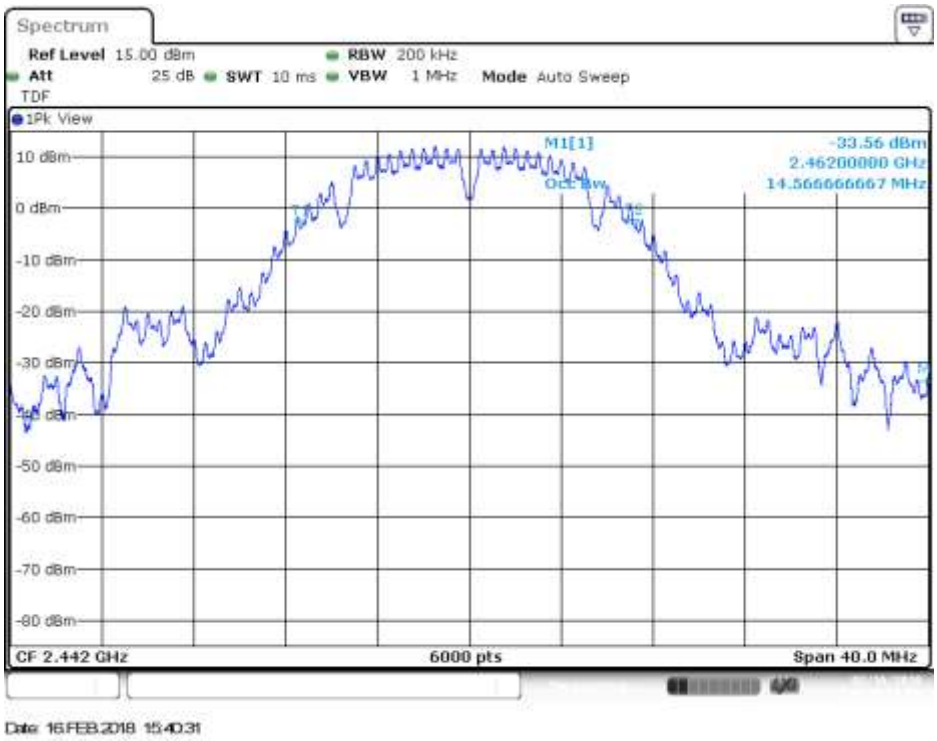
Channel 7F



B.3.2 99% Bandwidth

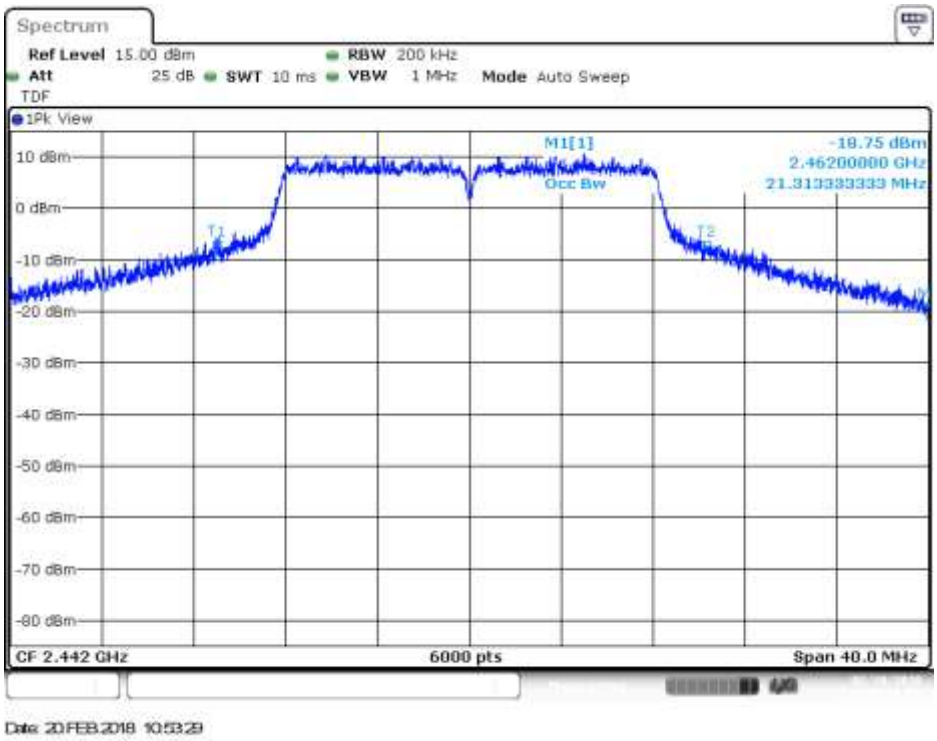
SISO-B, 802.11b, 1Mbps

Channel 7



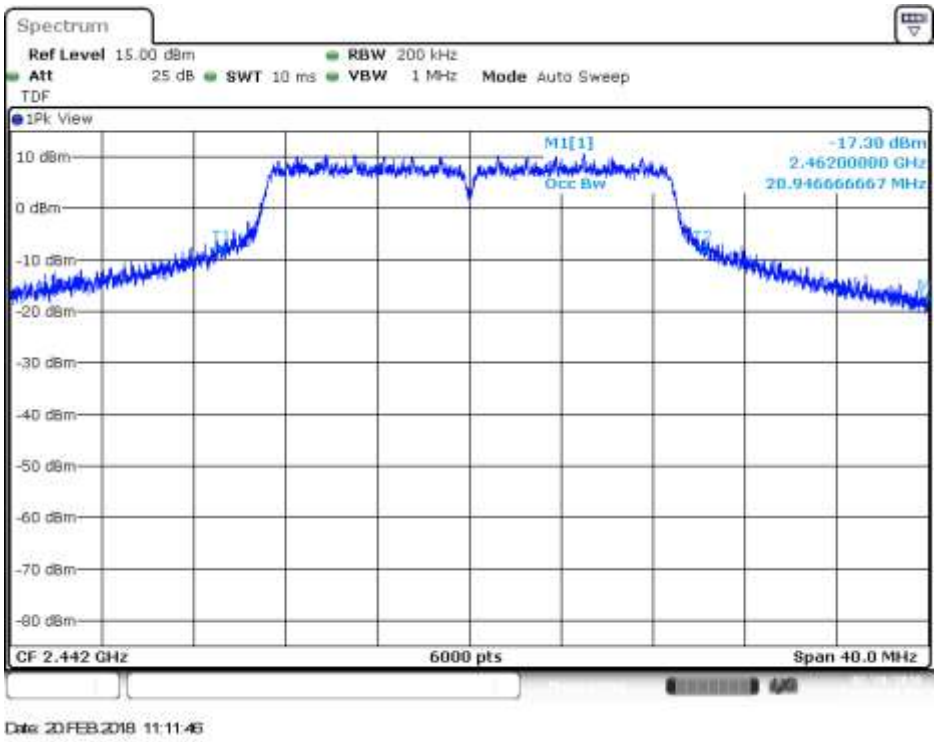
SISO-A, 802.11g, 6Mbps

Channel 7



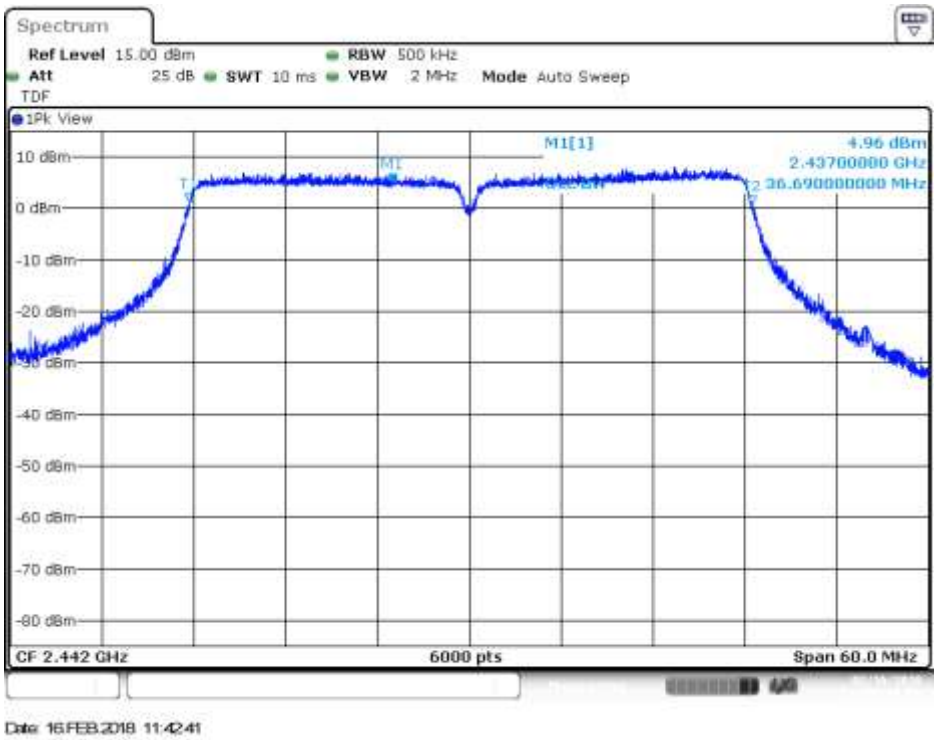
SISO-A, 802.11n20, HT0

Channel 7



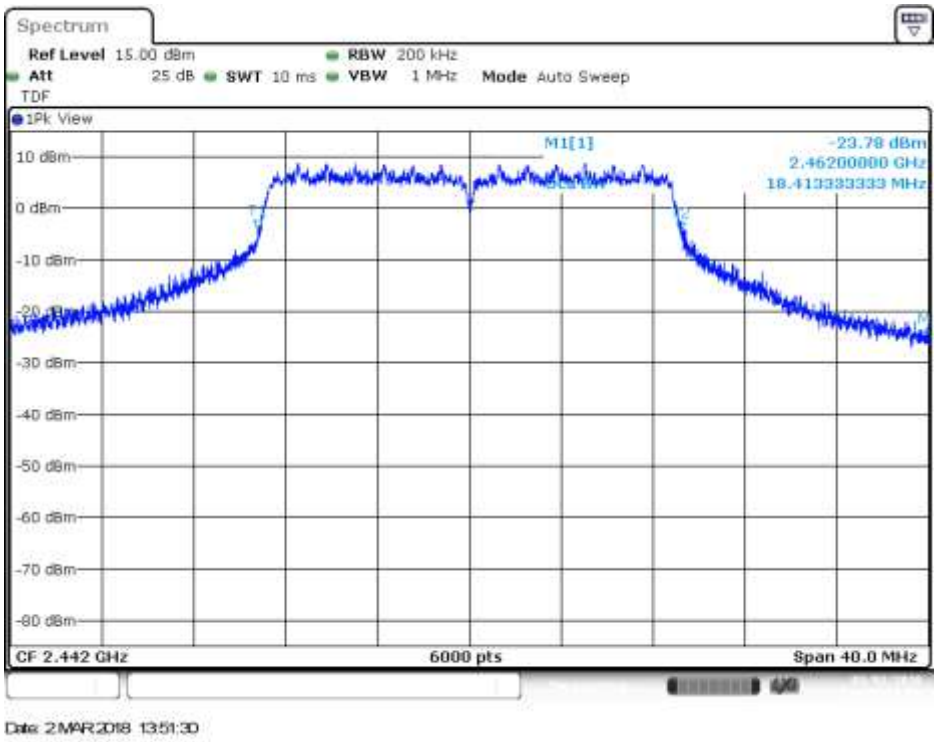
SISO-A, 802.11n40, HT0

Channel 7F



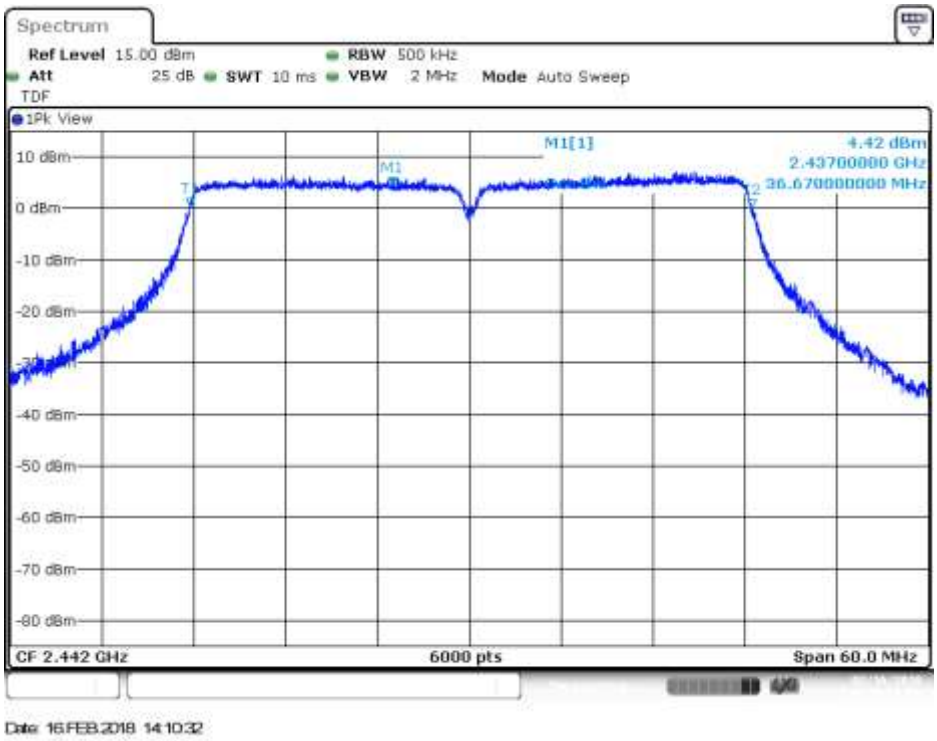
MIMO-A, 802.11n20, HT8

Channel 7



MIMO-A, 802.11n40, HT8

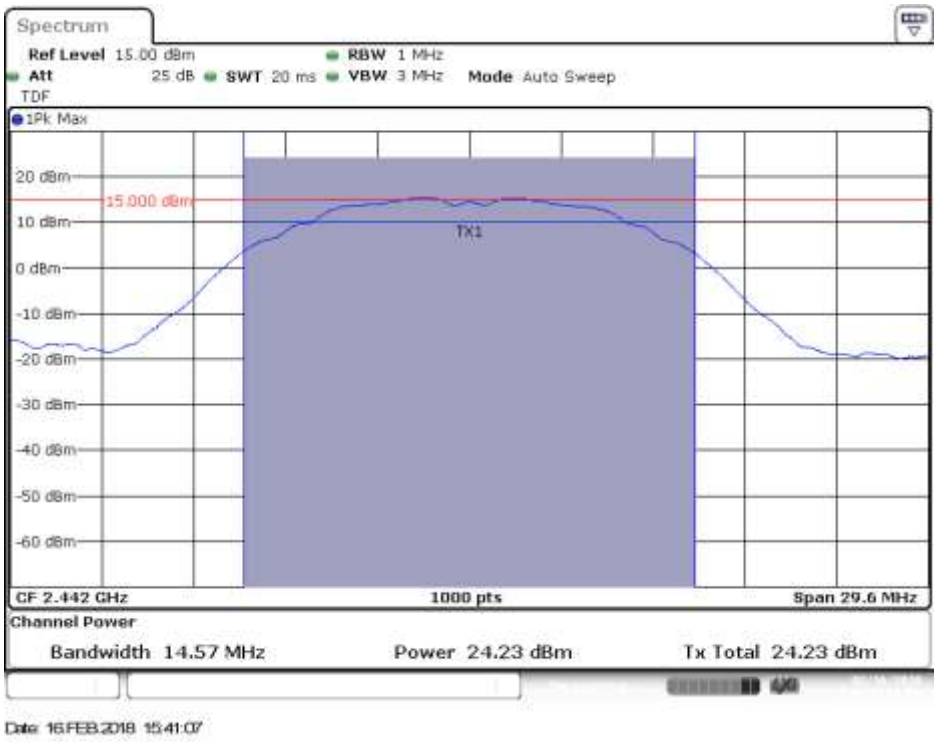
Channel 7F



B.3.3 Maximum output power and antenna gain

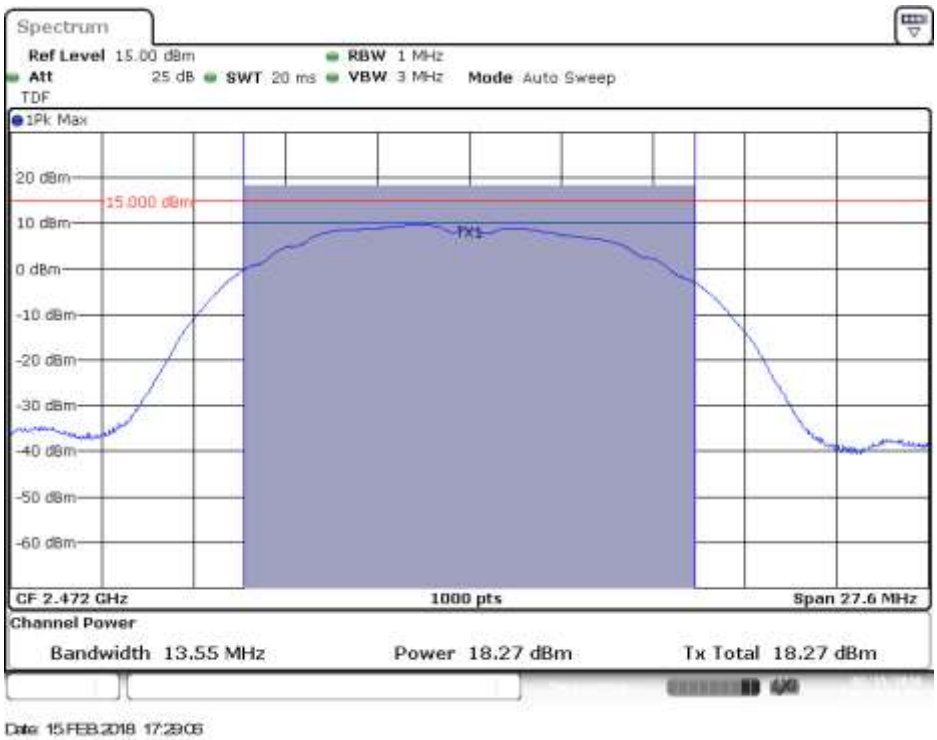
SISO-B, 802.11b, 1Mbps

Channel 7



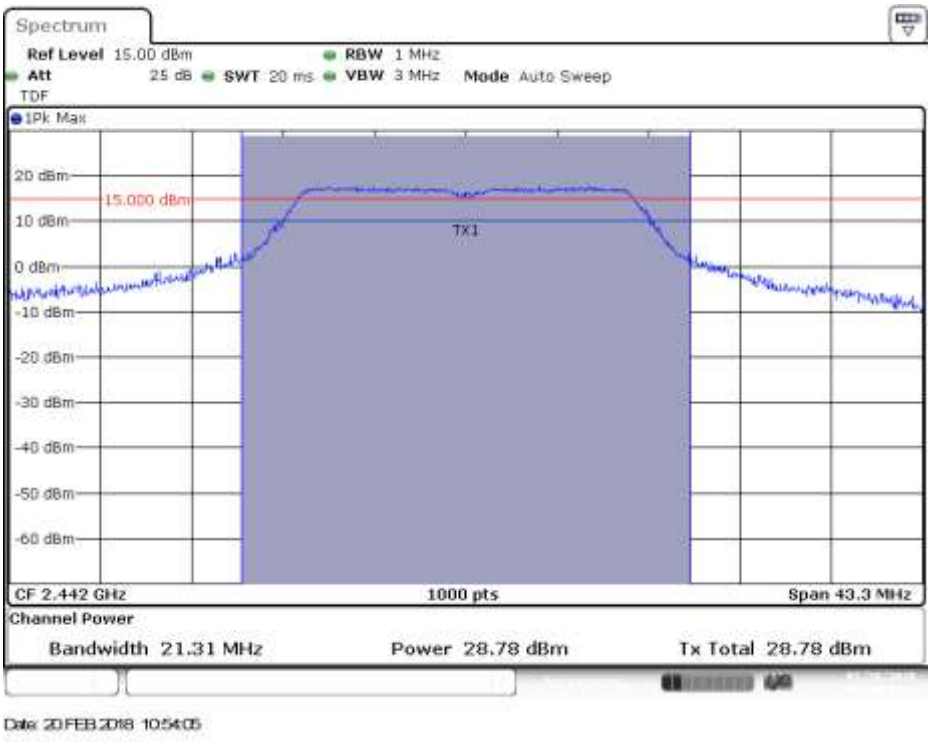
SISO-A, 802.11b, 1Mbps

Channel 13



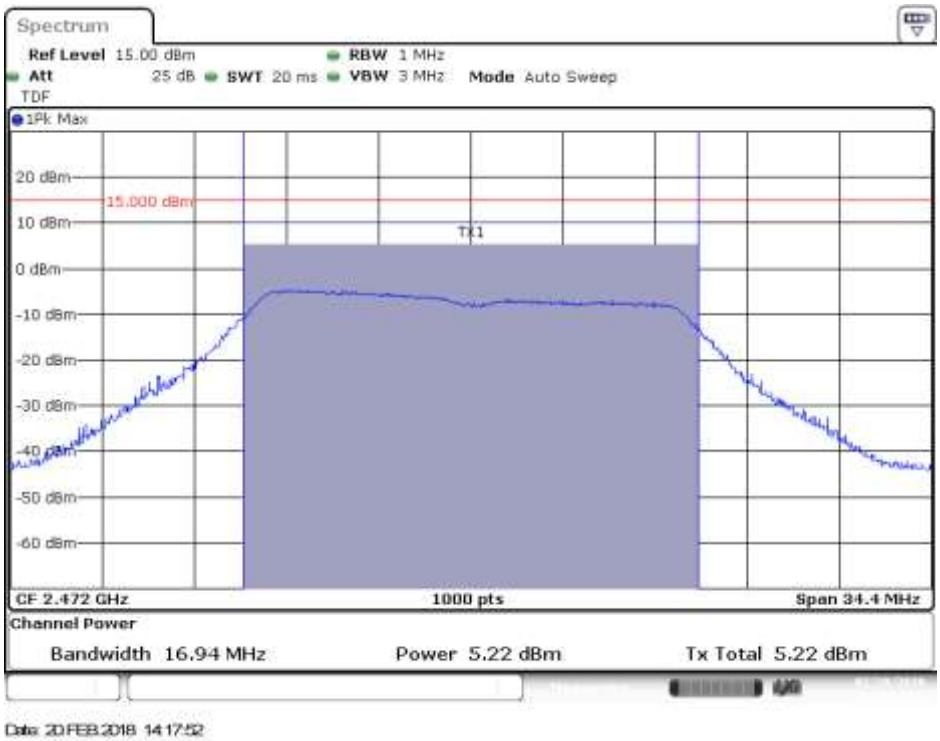
SISO-A, 802.11g, 6Mbps

Channel 7



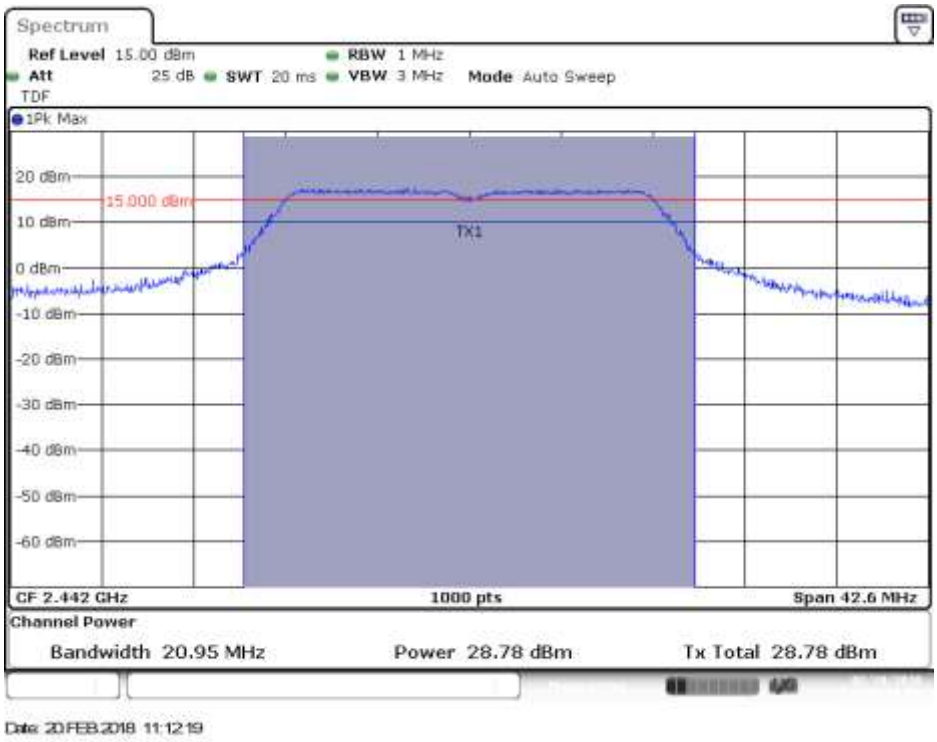
SISO-A, 802.11g, 6Mbps

Channel 13

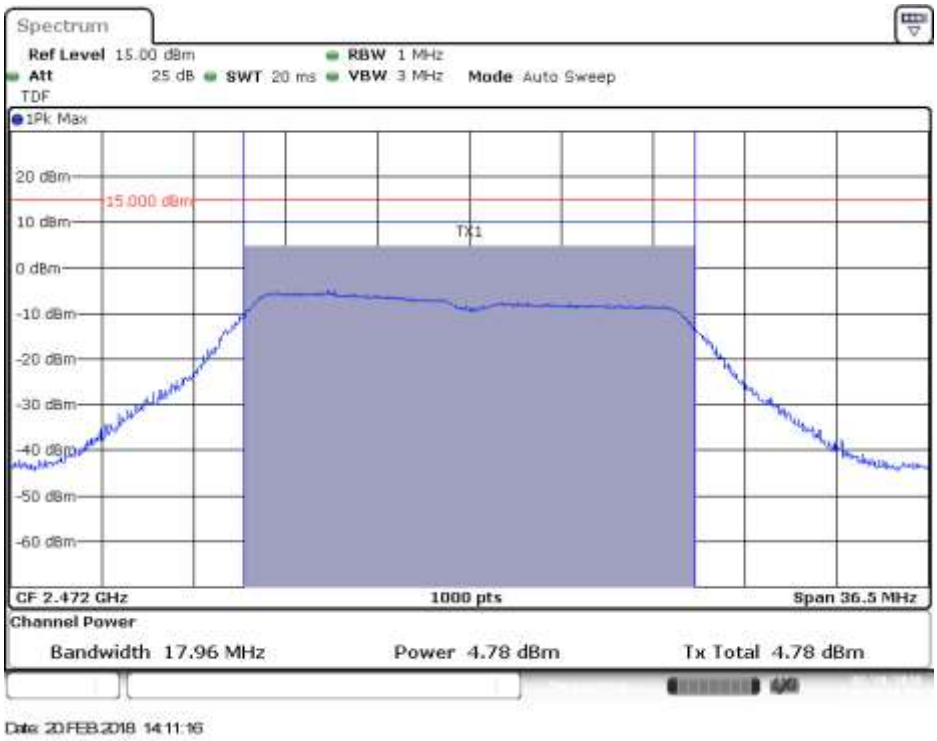


SISO-A, 802.11n20, HT0

Channel 7

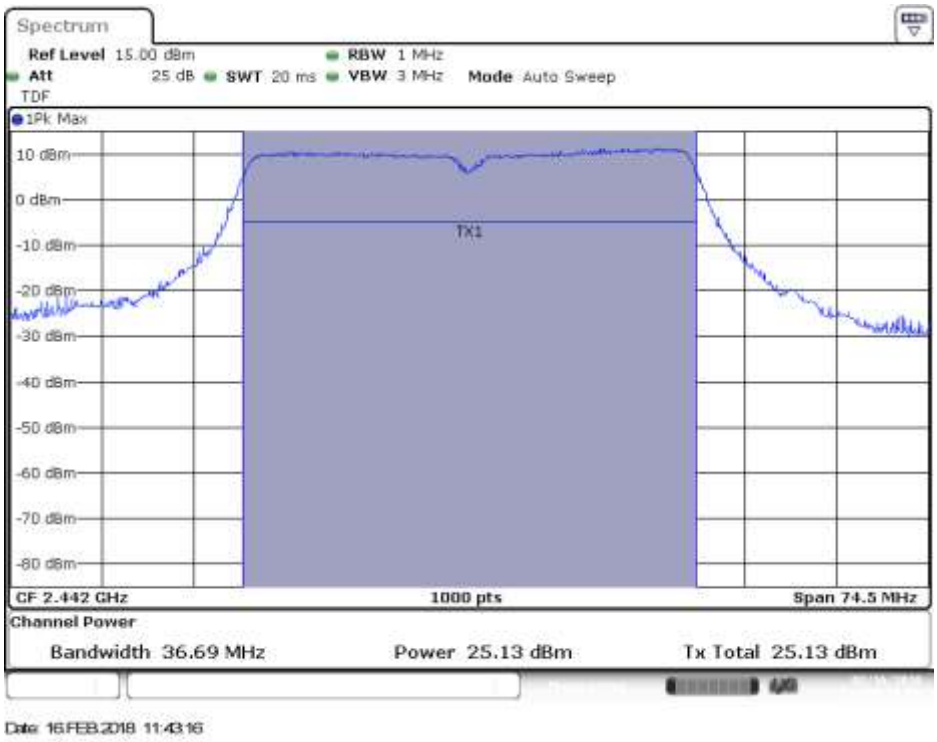


Channel 13



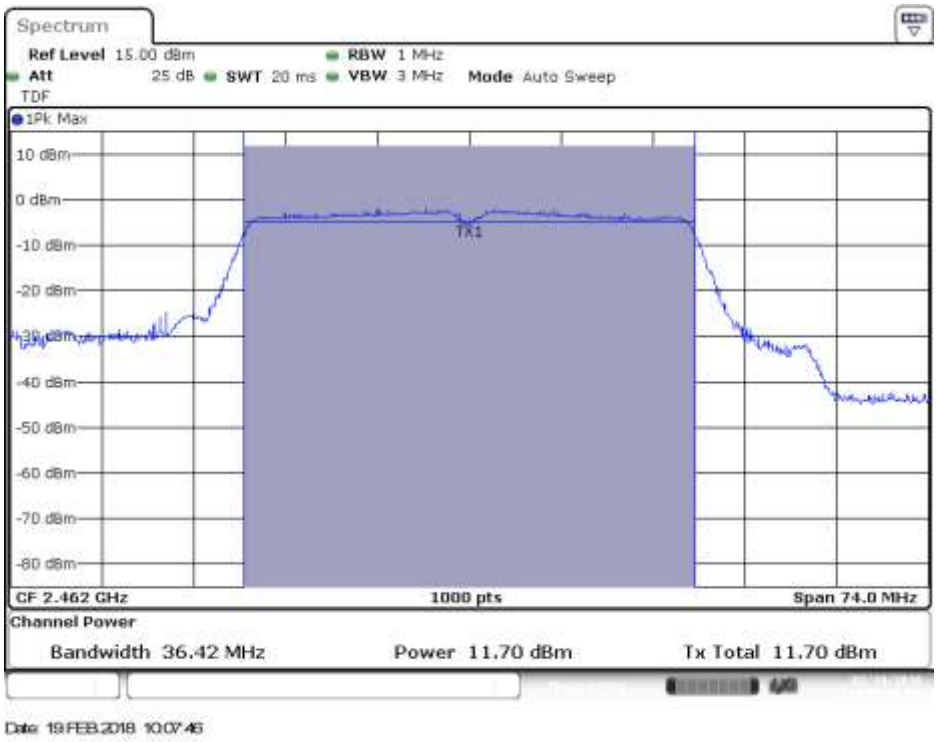
SISO-A, 802.11n40, HT0

Channel 7F



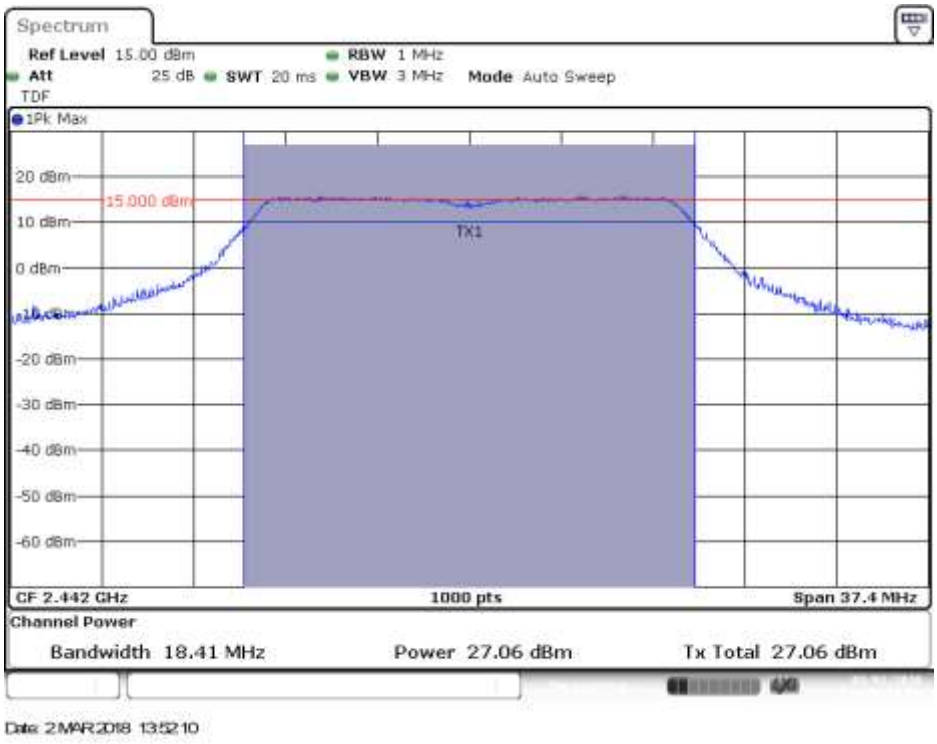
SISO-B, 802.11n40, HT0

Channel 11F



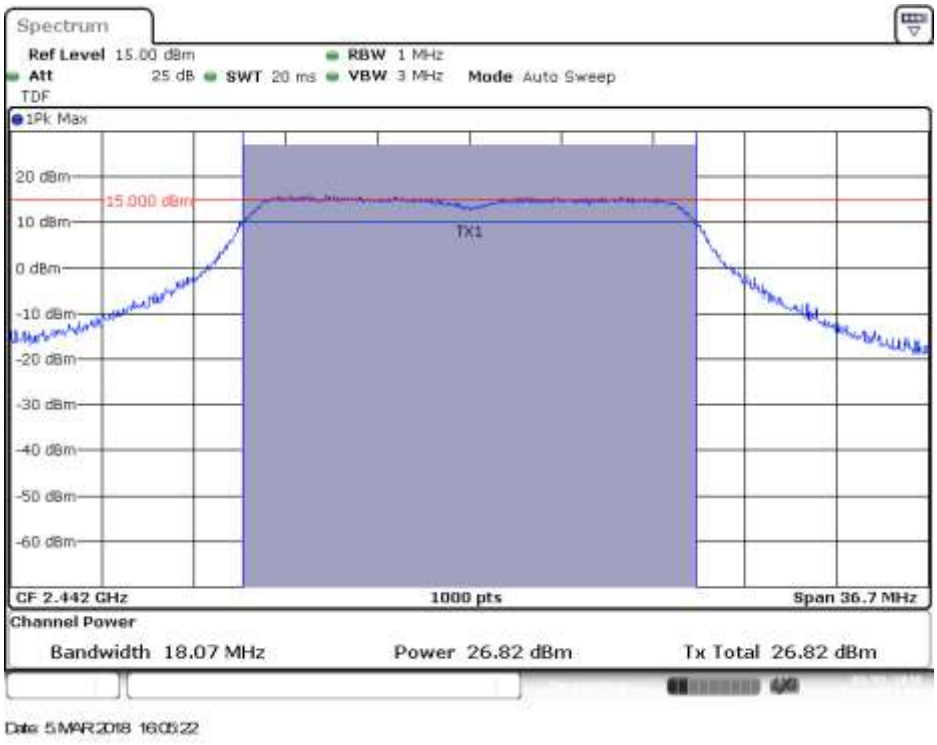
MIMO-A, 802.11n20, HT8

Channel 7



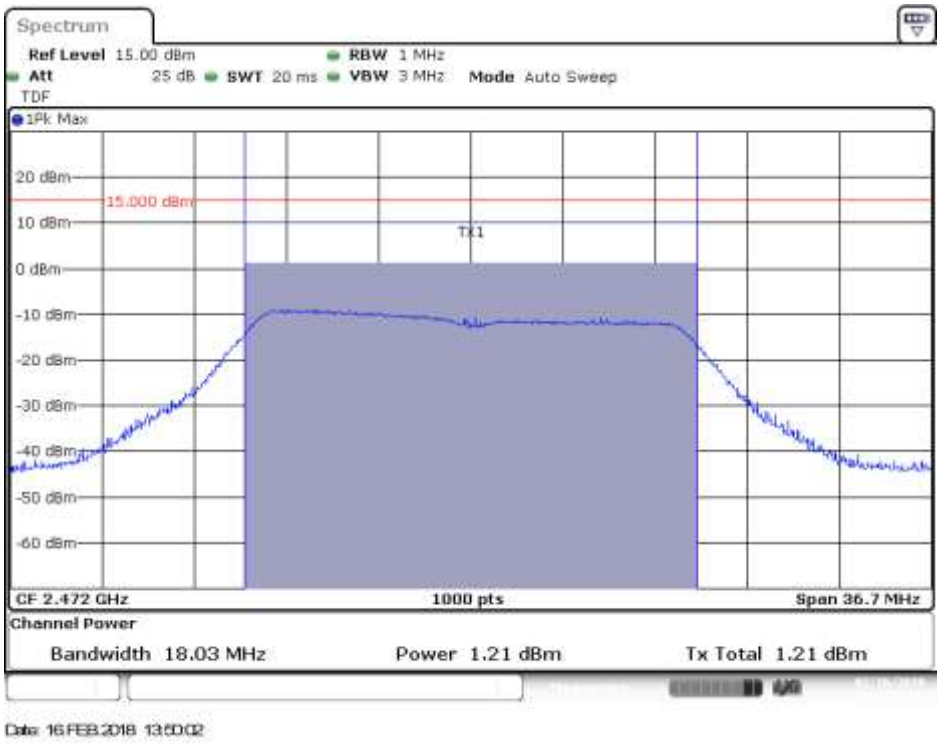
MIMO-B, 802.11n20, HT8

Channel 7



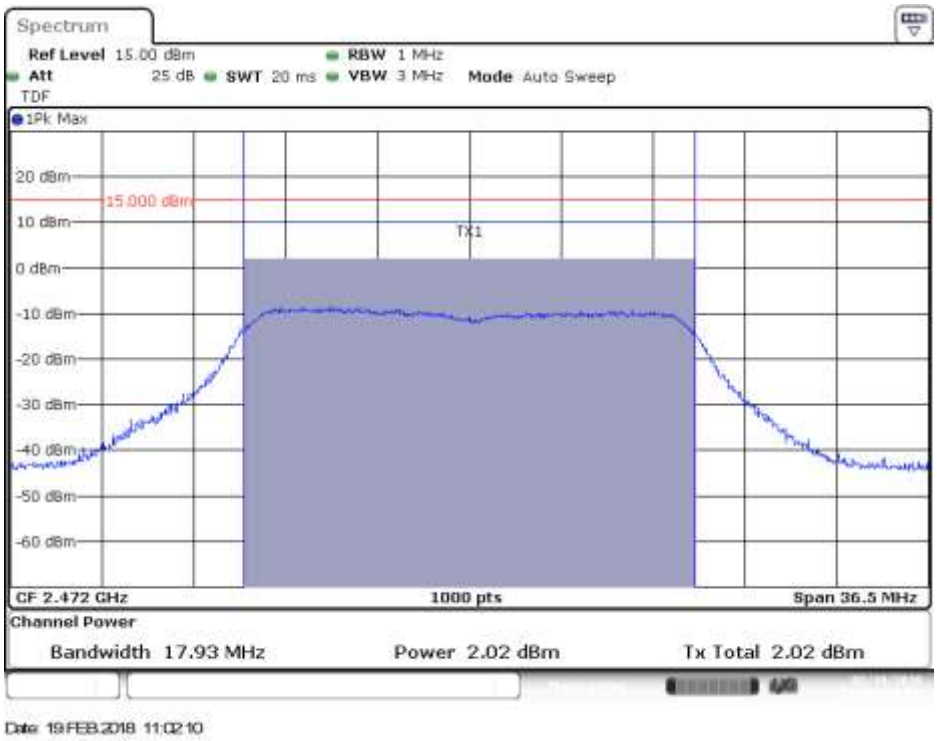
MIMO-A, 802.11n20, HT8

Channel 13



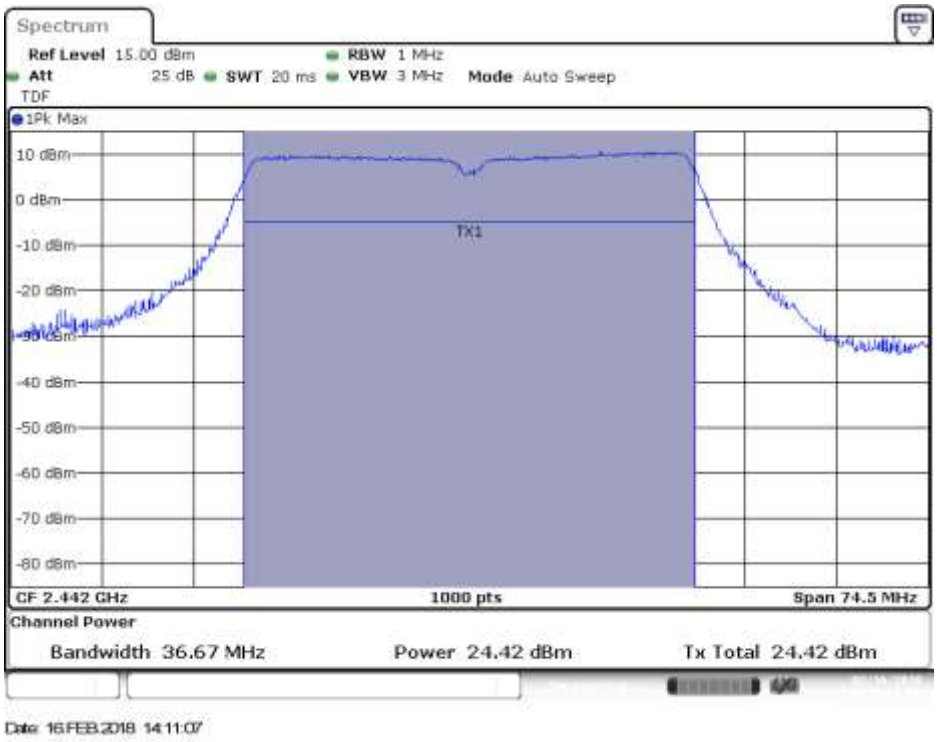
MIMO-B, 802.11n20, HT8

Channel 13



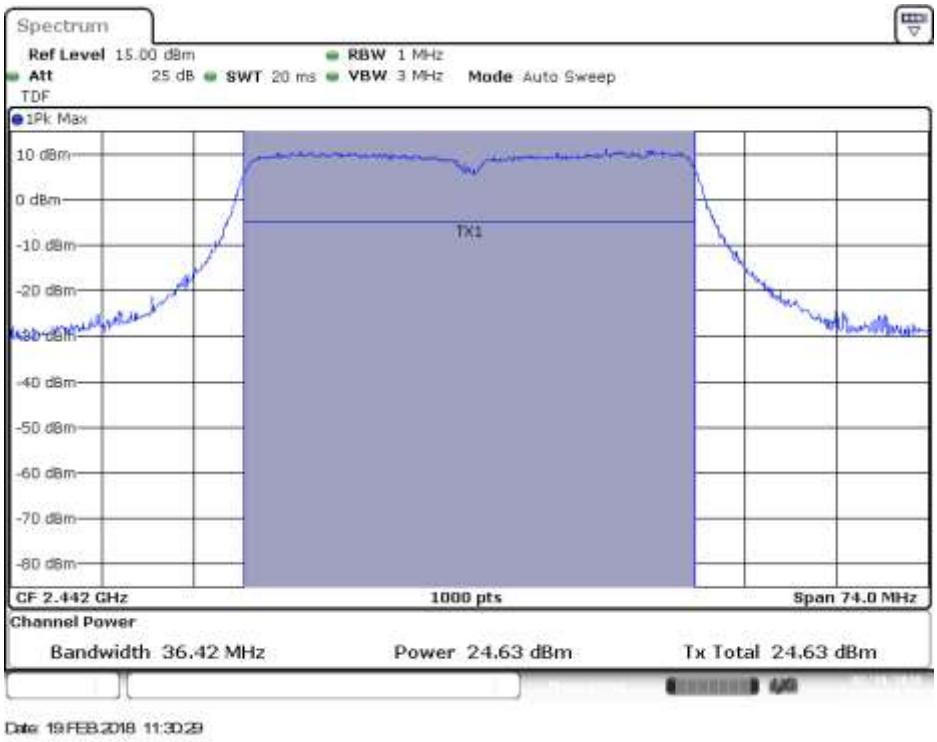
MIMO-A, 802.11n40, HT8

Channel 7F



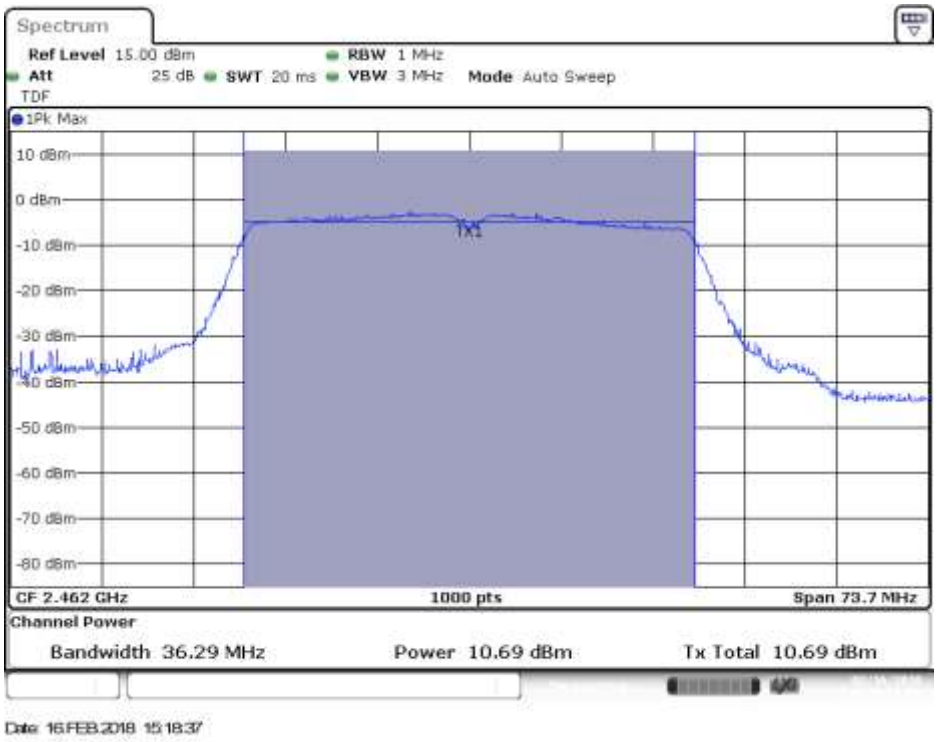
MIMO-B, 802.11n40, HT8

Channel 7F



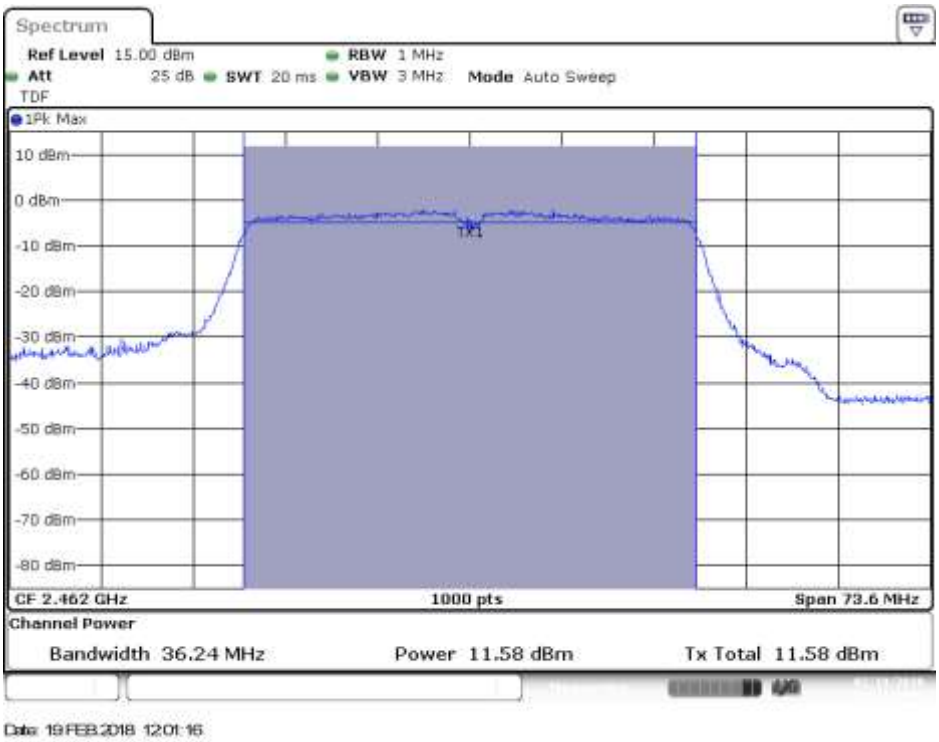
MIMO-A, 802.11n40, HT8

Channel 11F



MIMO-B, 802.11n40, HT8

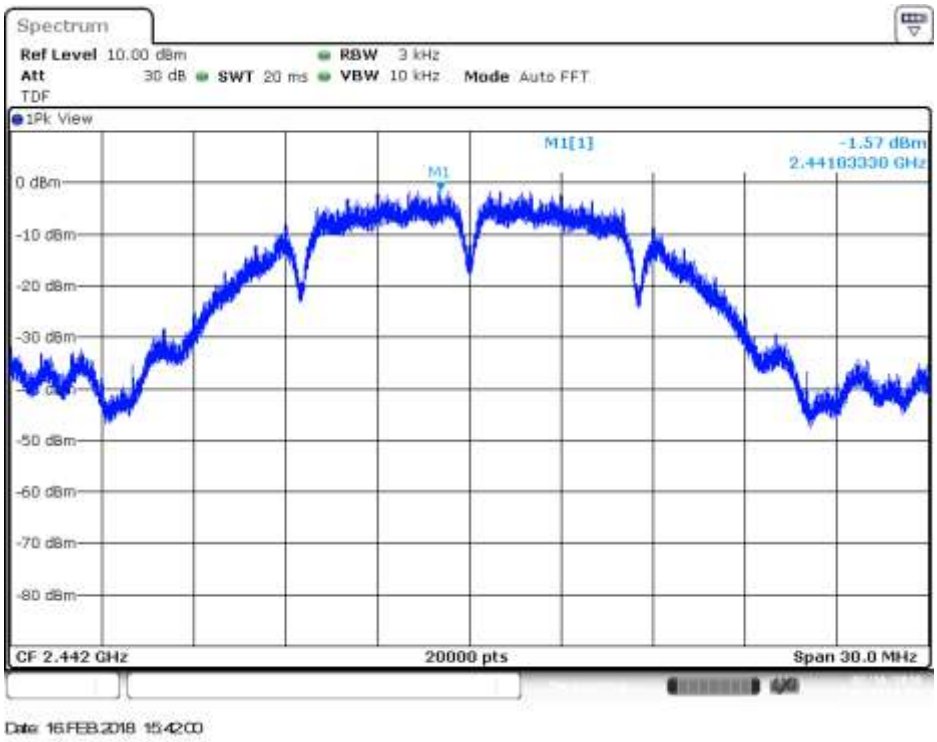
Channel 11F



B.3.4 Power spectral density

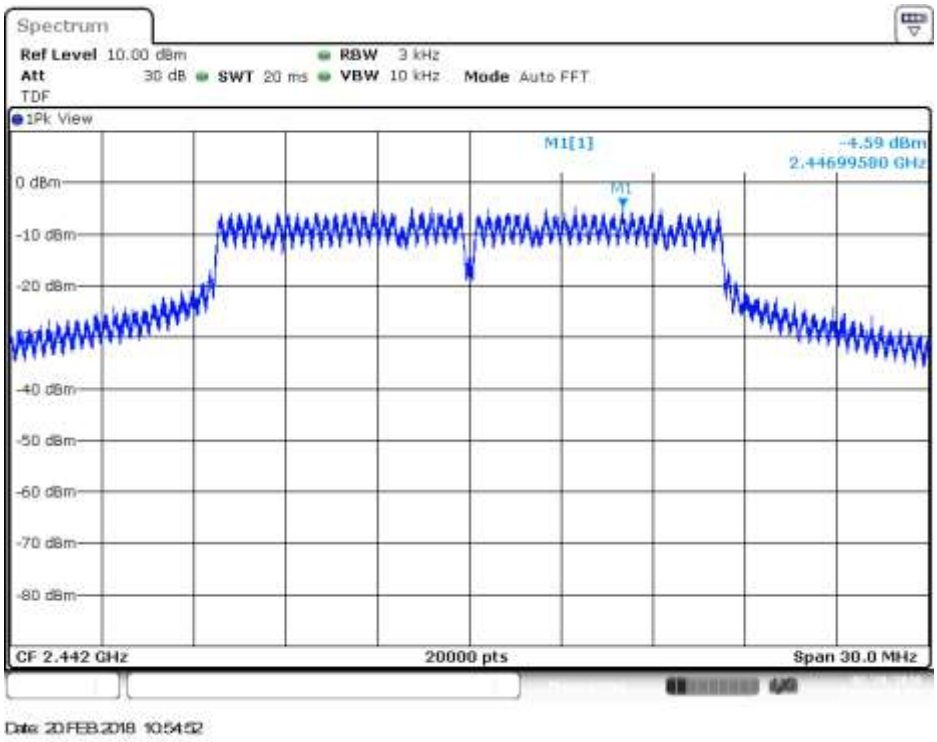
SISO-B, 802.11b, 1Mbps

Channel 7



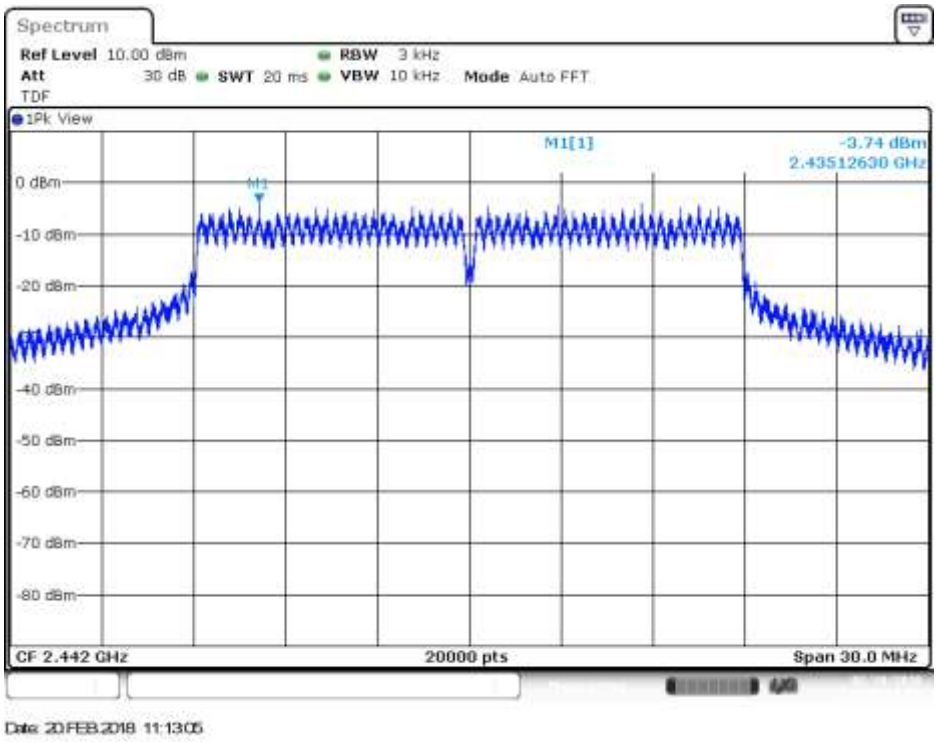
SISO-A, 802.11g, 6Mbps

Channel 7



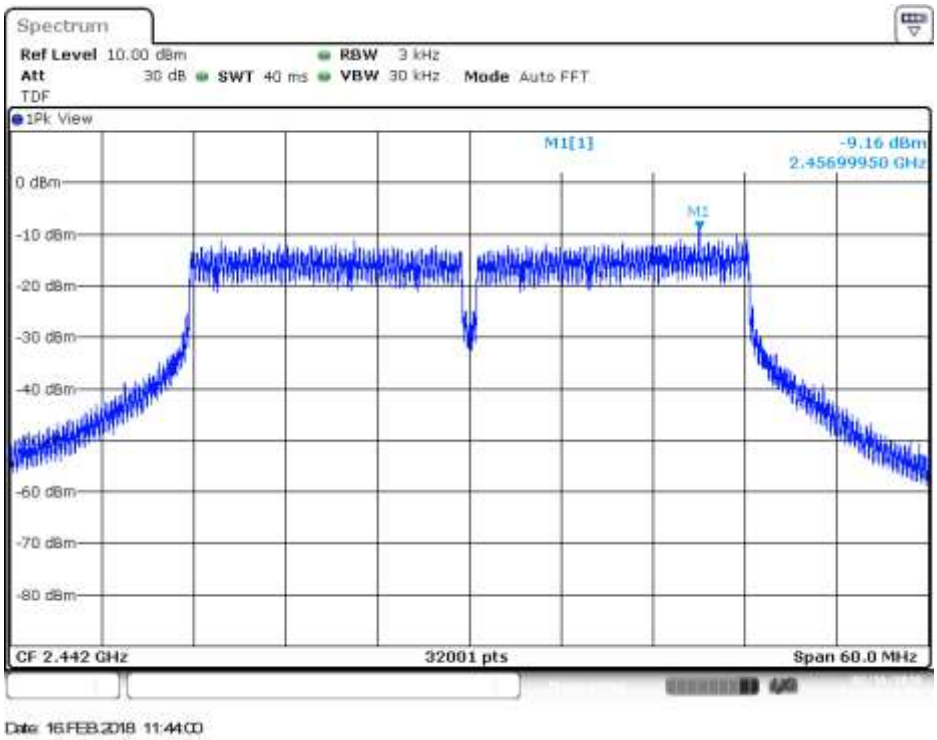
SISO-A, 802.11n20, HT0

Channel 7



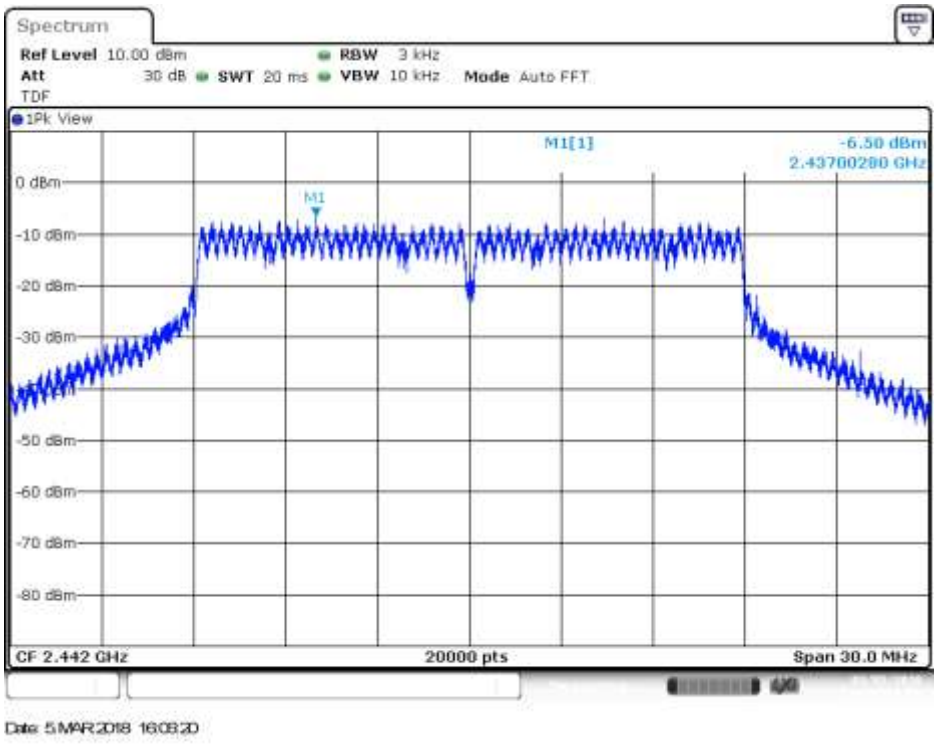
SISO-A, 802.11n40, HT0

Channel 7F



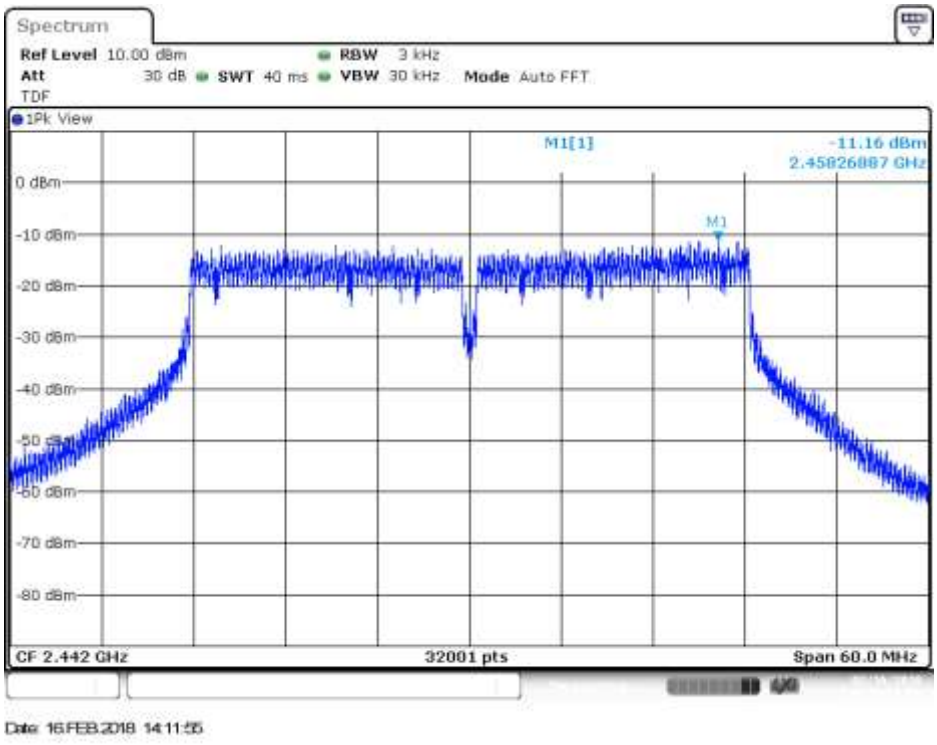
MIMO-B, 802.11n20, HT8

Channel 7



MIMO-A, 802.11n40, HT8

Channel 7F

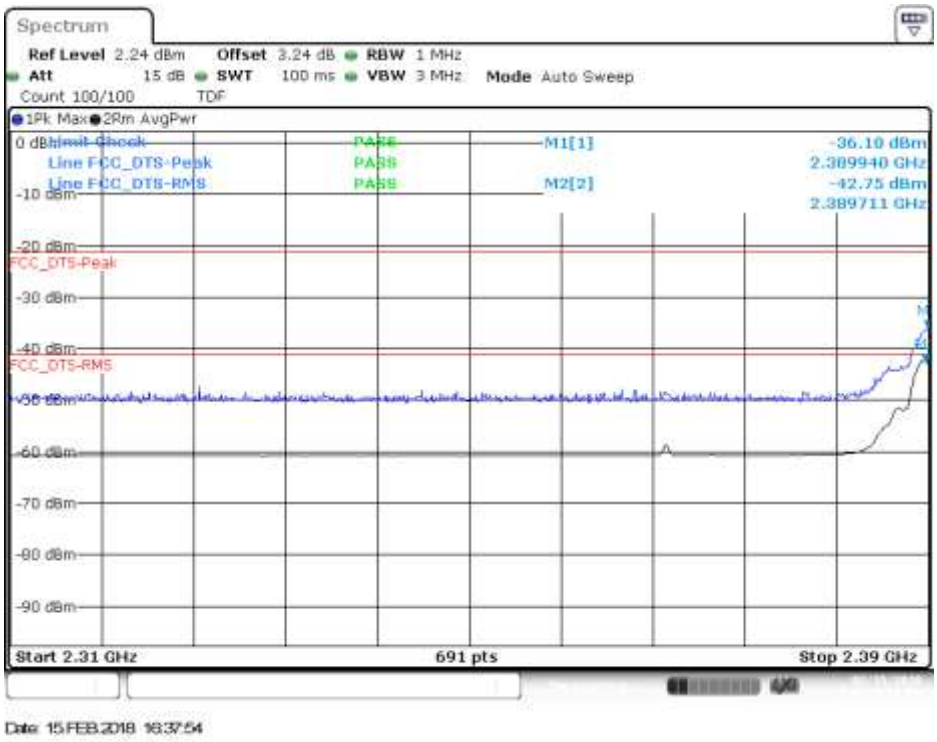


B.3.5 Out of band emissions - band-edge low (conducted)

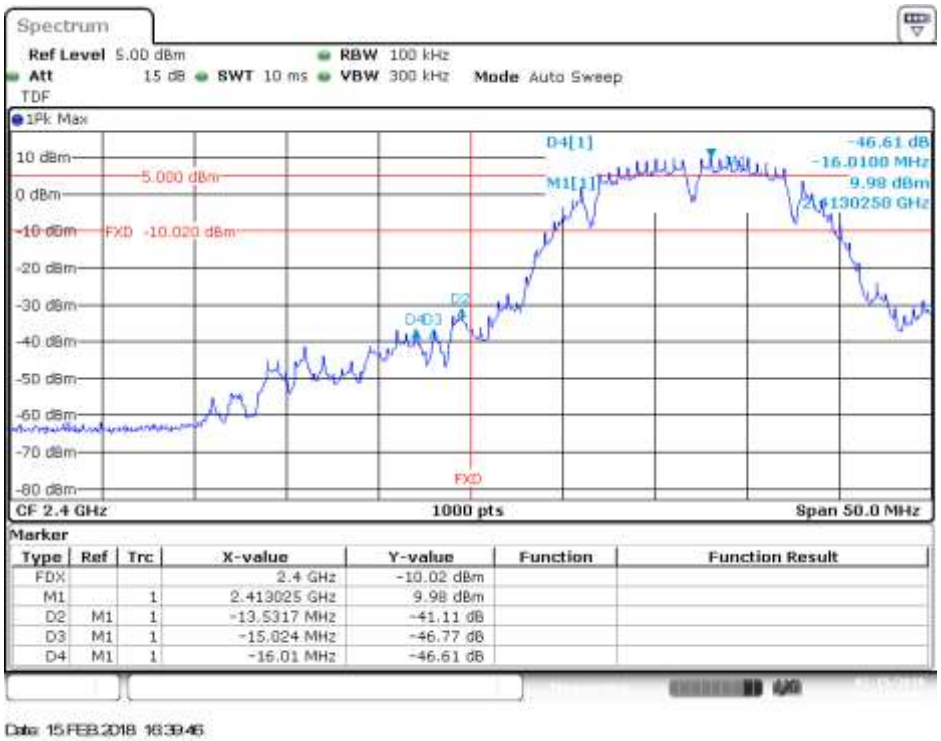
SISO-A, 802.11b, 1Mbps

Channel 1

BE Low Freq Section



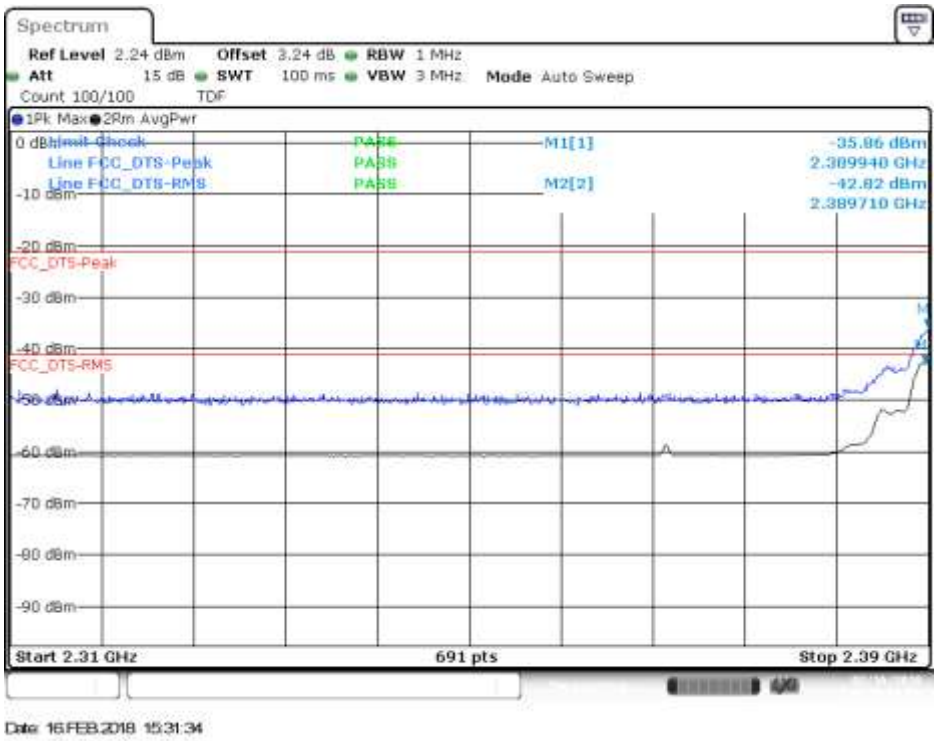
BE Low (Non Restricted)



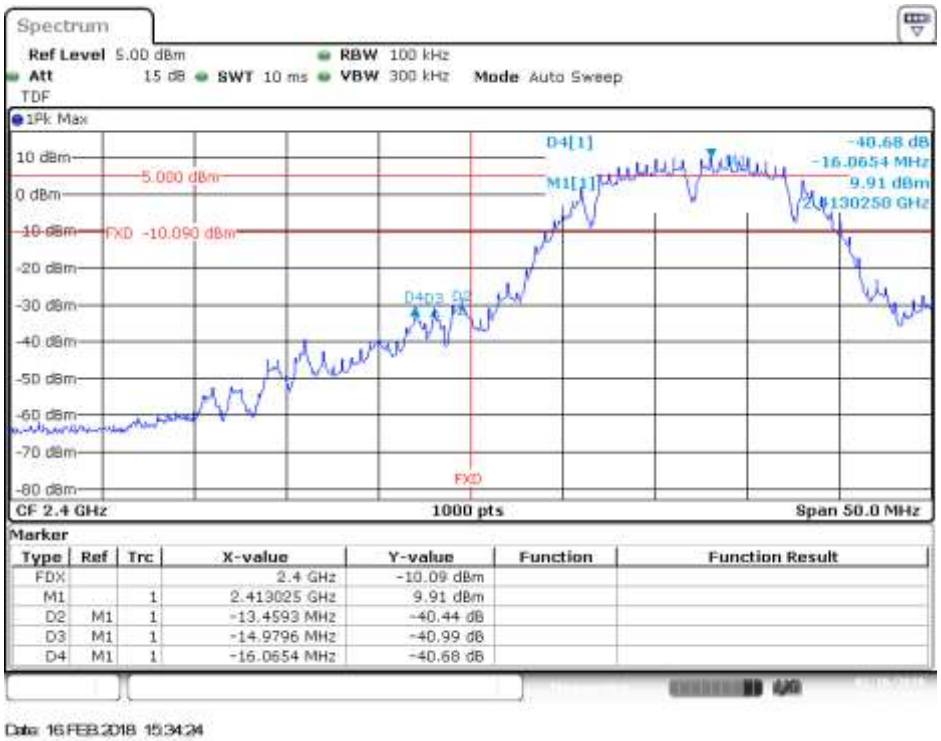
SISO-B, 802.11b, 1Mbps

Channel 1

BE Low Freq Section



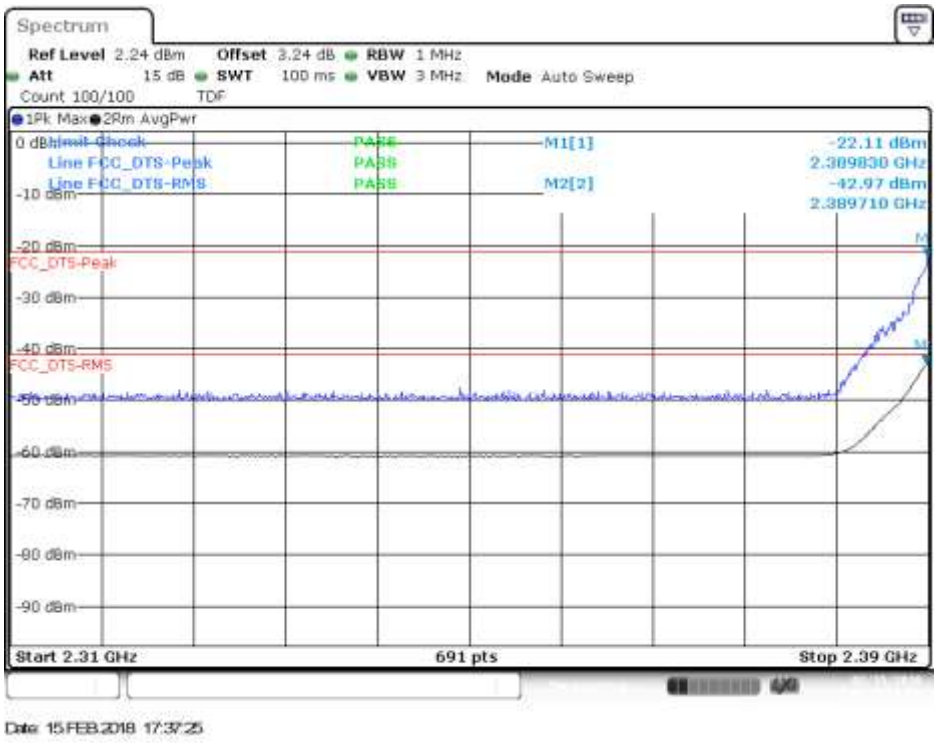
BE Low (Non Restricted)



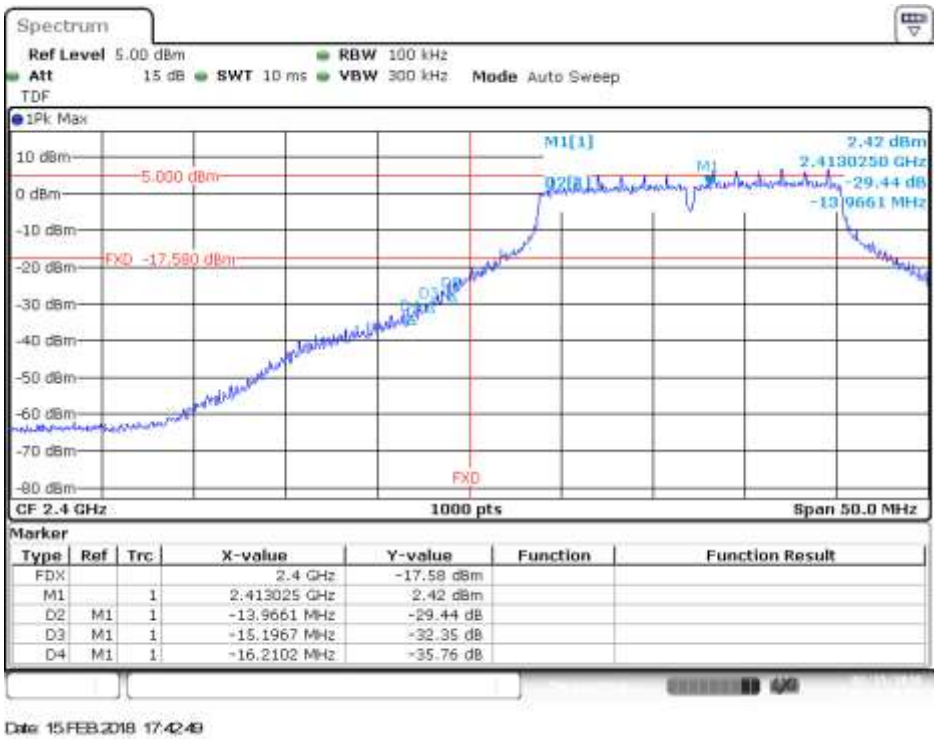
SISO-A, 802.11g, 6Mbps

Channel 1

BE Low Freq Section



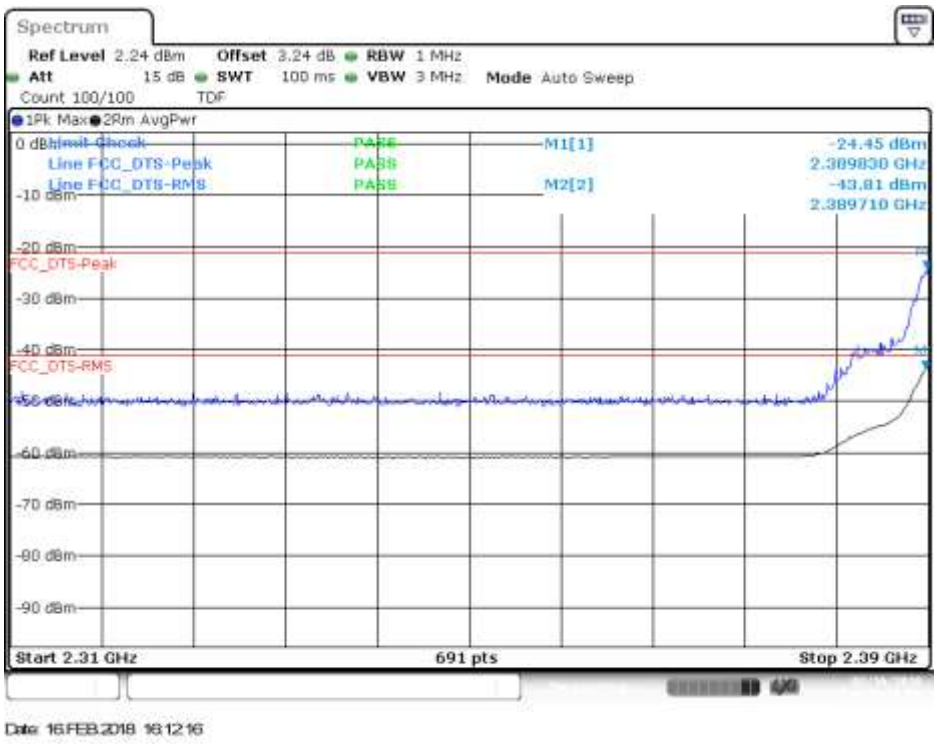
BE Low (Non Restricted)



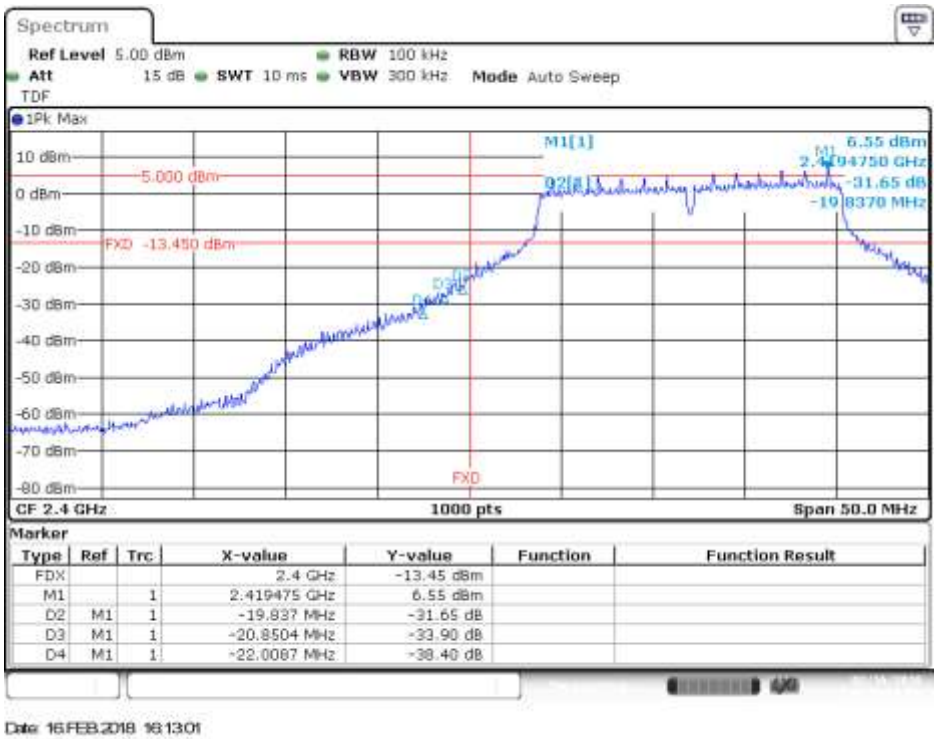
SISO-B, 802.11g, 6Mbps

Channel 1

BE Low Freq Section



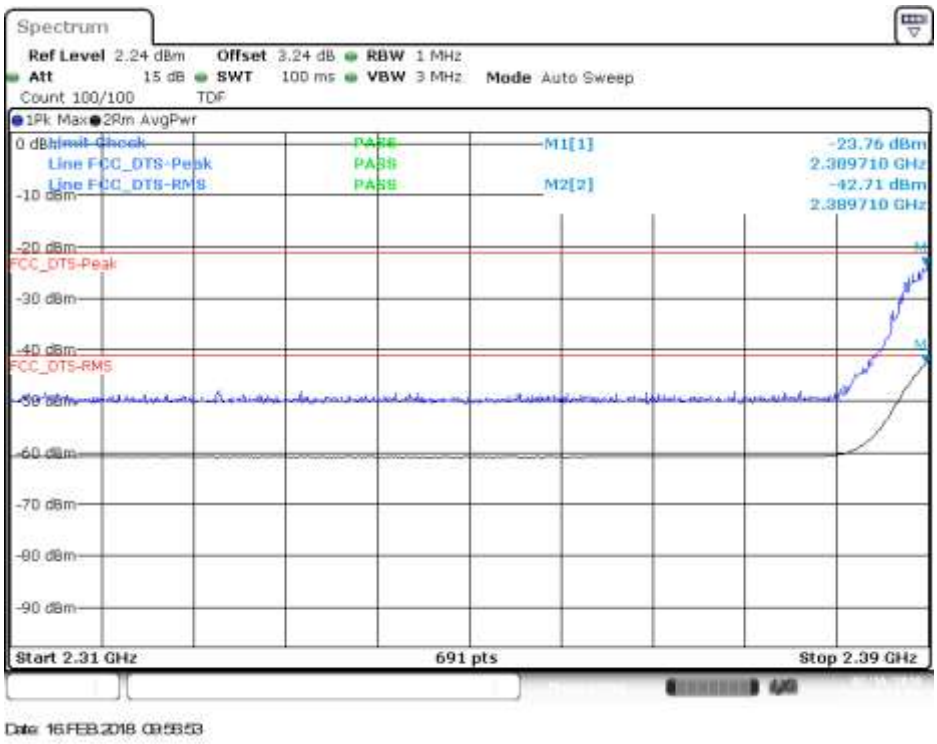
BE Low (Non Restricted)



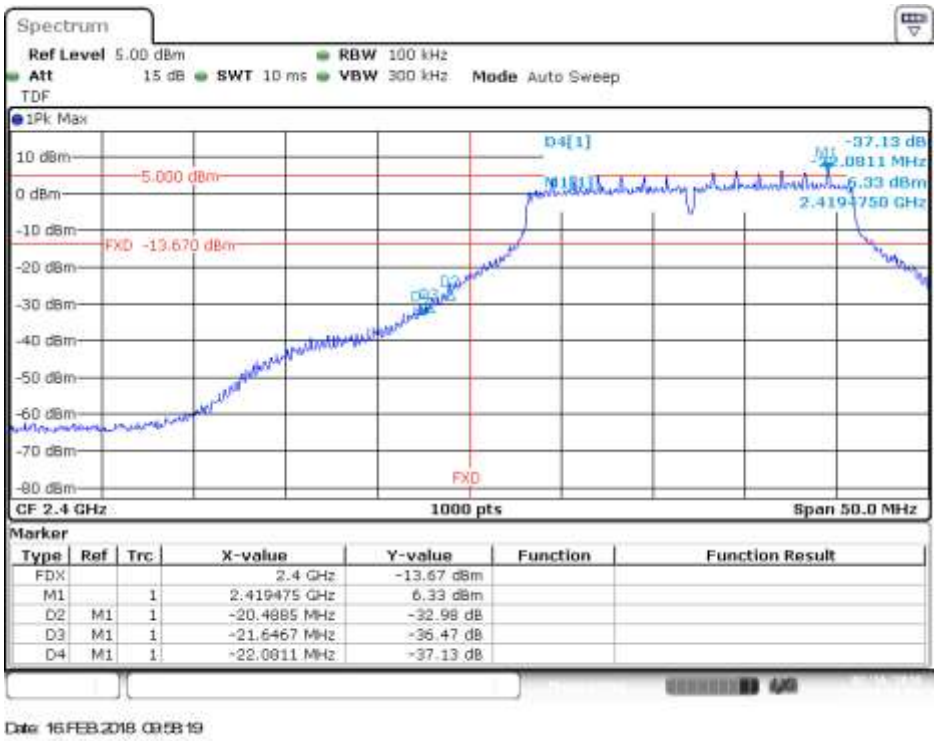
SISO-A, 802.11n20, HT0

Channel 1

BE Low Freq Section



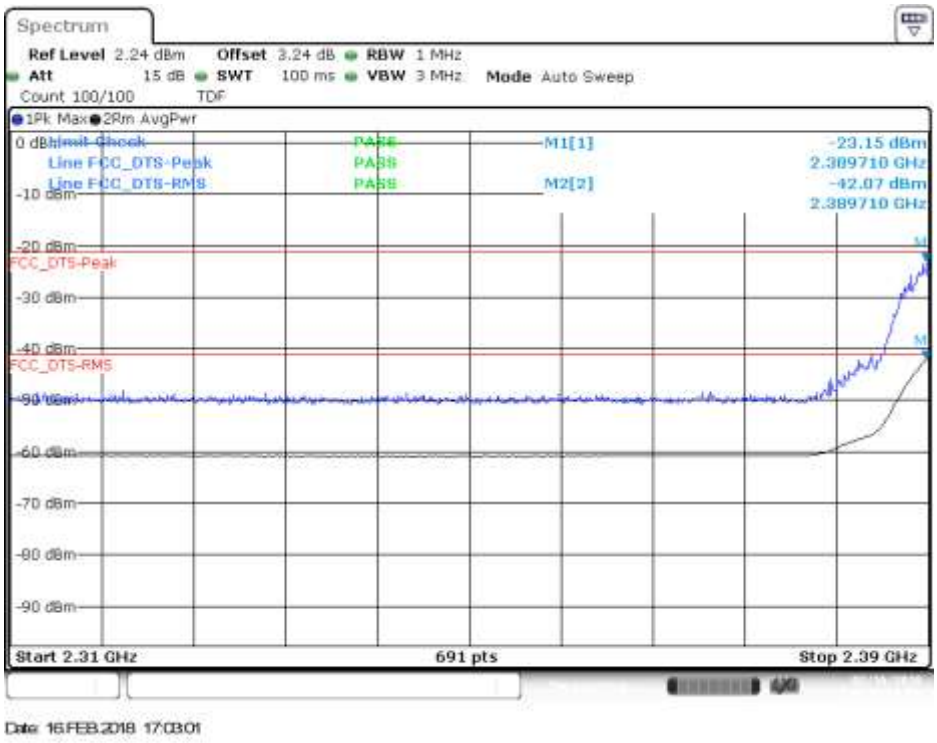
BE Low (Non Restricted)



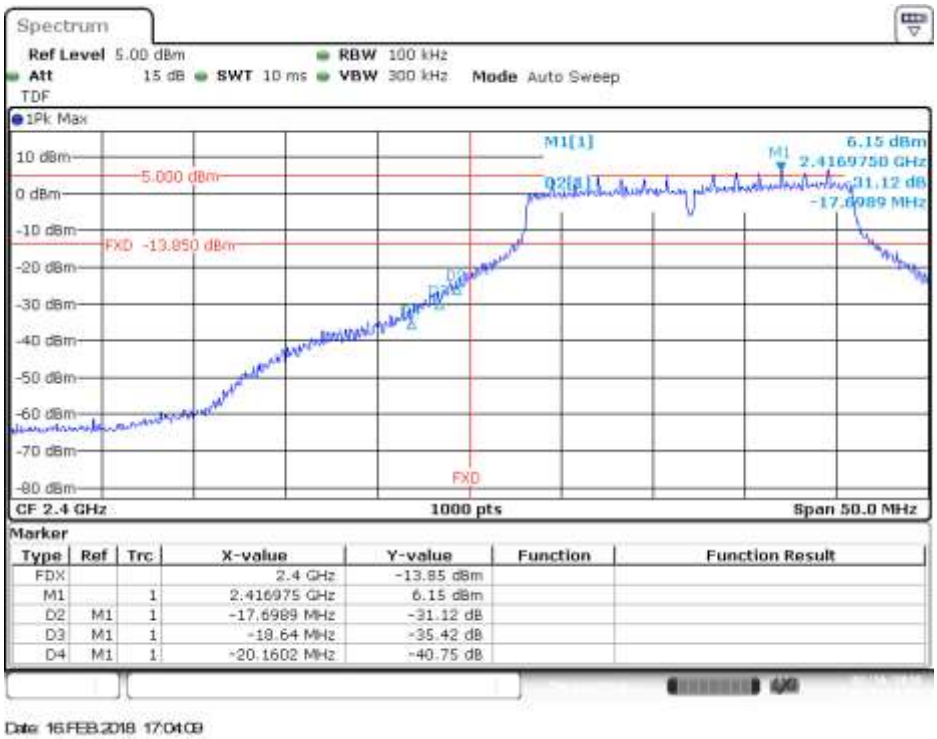
SISO-B, 802.11n20, HT0

Channel 1

BE Low Freq Section



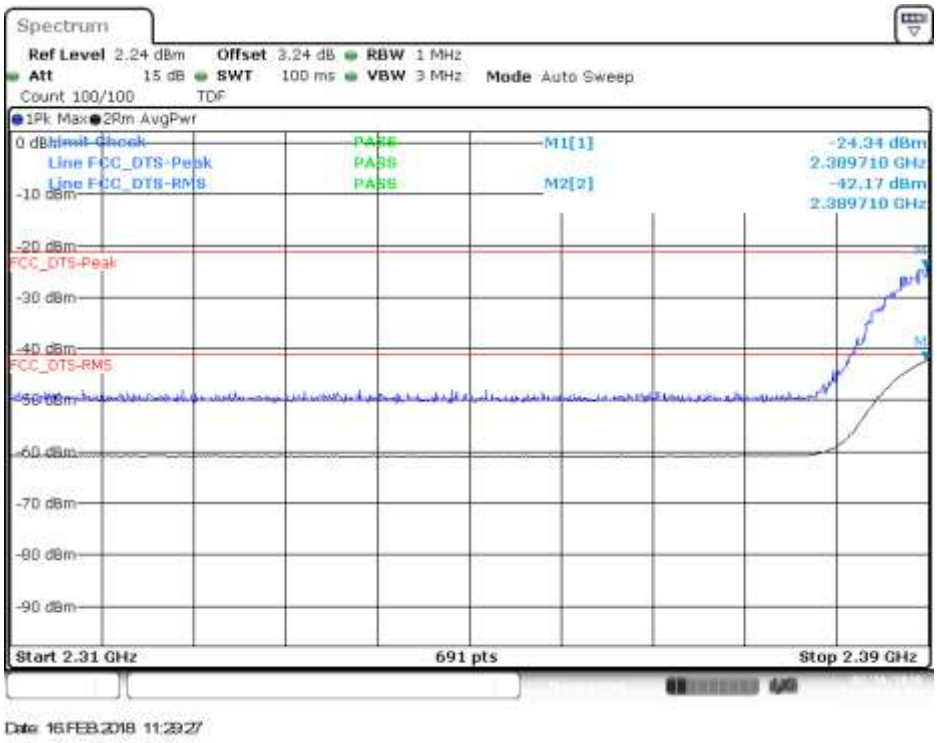
BE Low (Non Restricted)



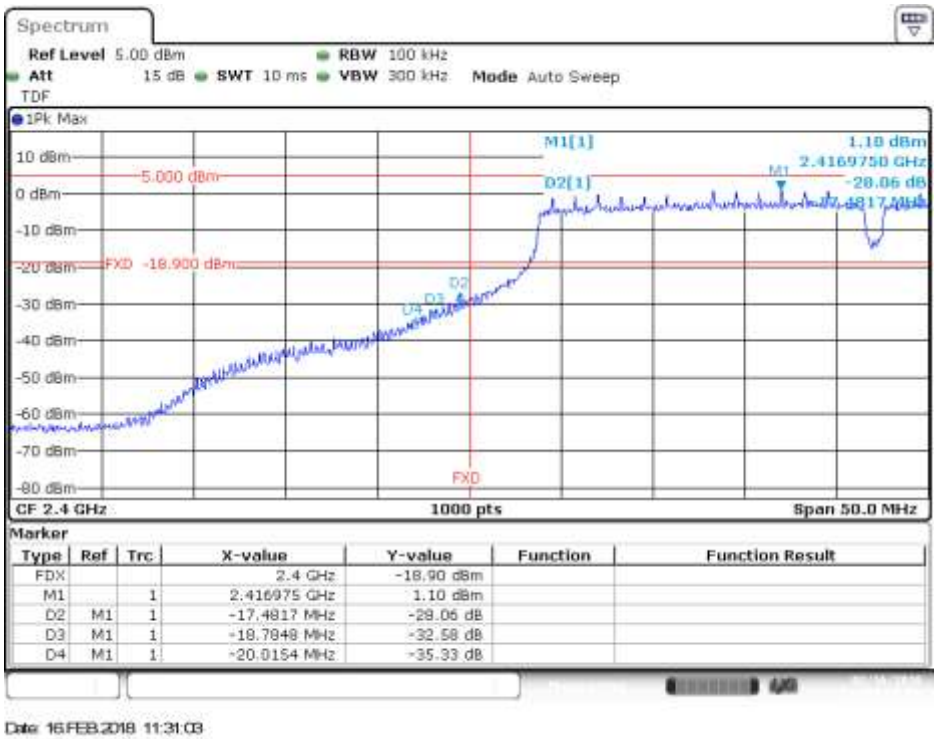
SISO-A, 802.11n40, HT0

Channel 3F

BE Low Freq Section



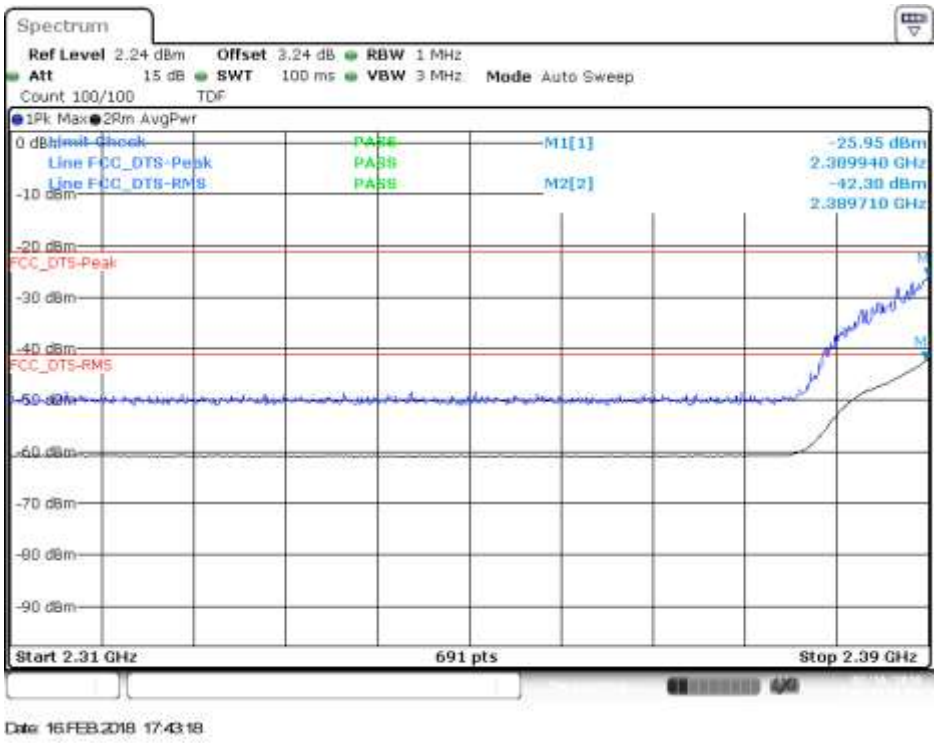
BE Low (Non Restricted)



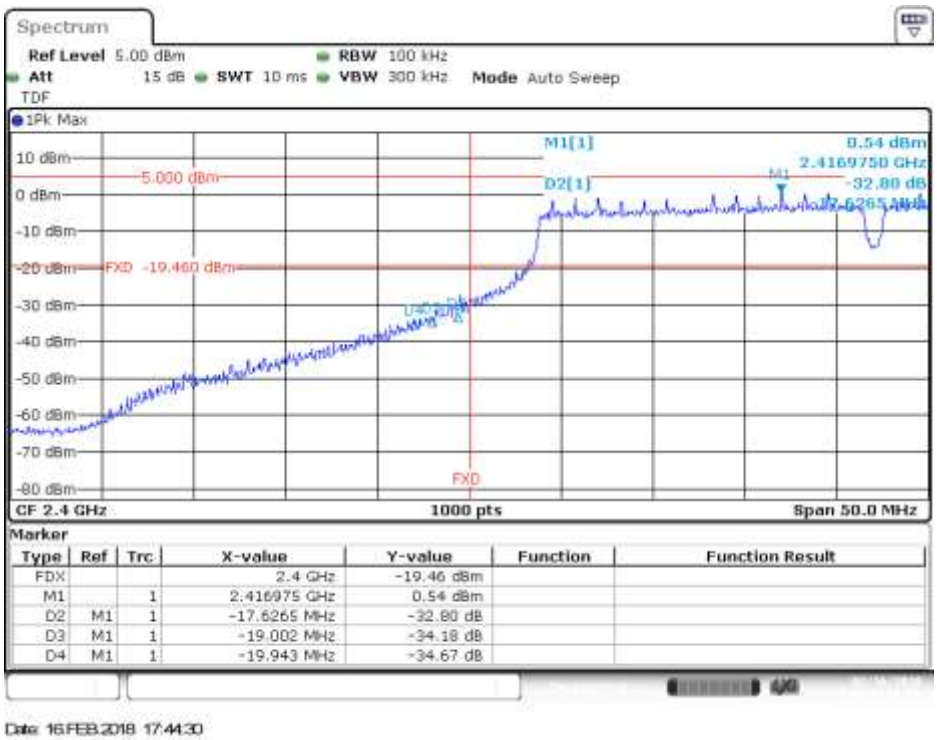
SISO-B, 802.11n40, HT0

Channel 3F

BE Low Freq Section



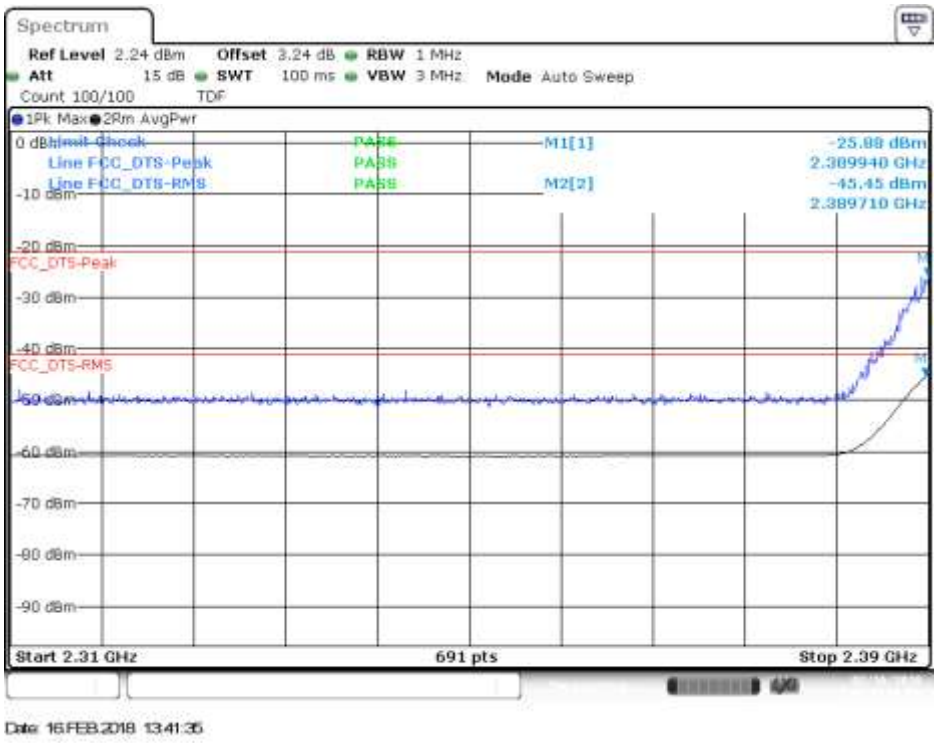
BE Low (Non Restricted)



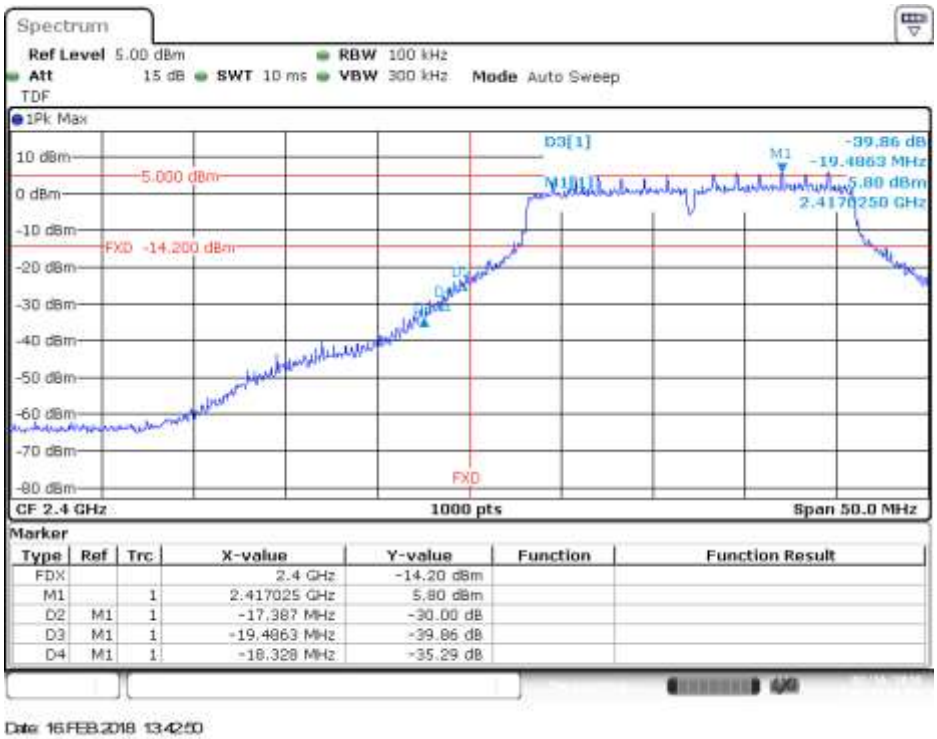
MIMO-A, 802.11n20, HT8

Channel 1

BE Low Freq Section



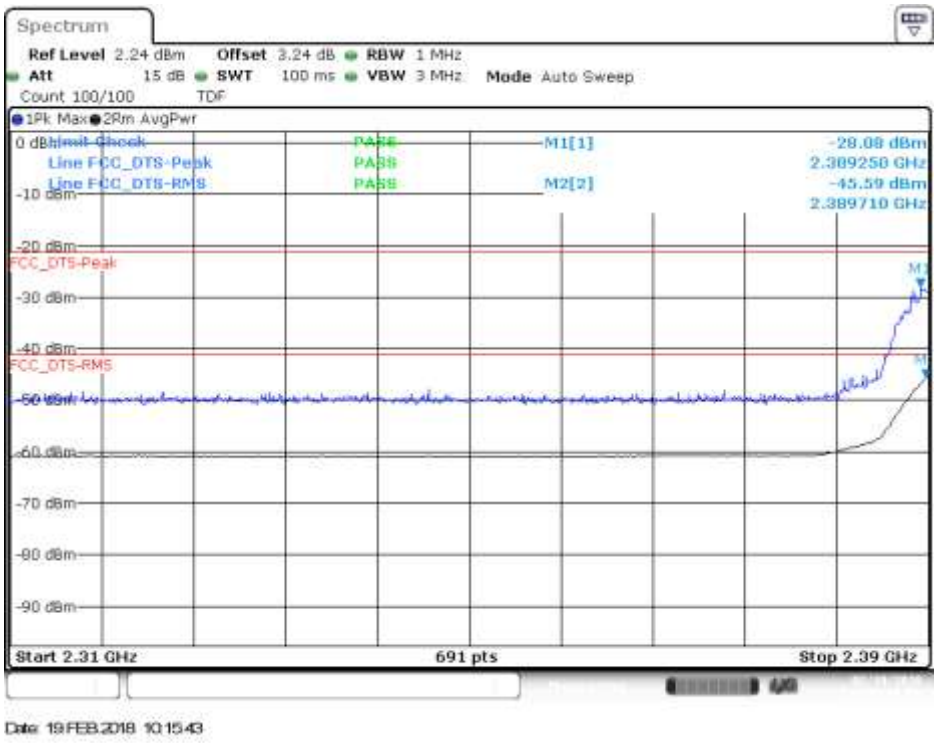
BE Low (Non Restricted)



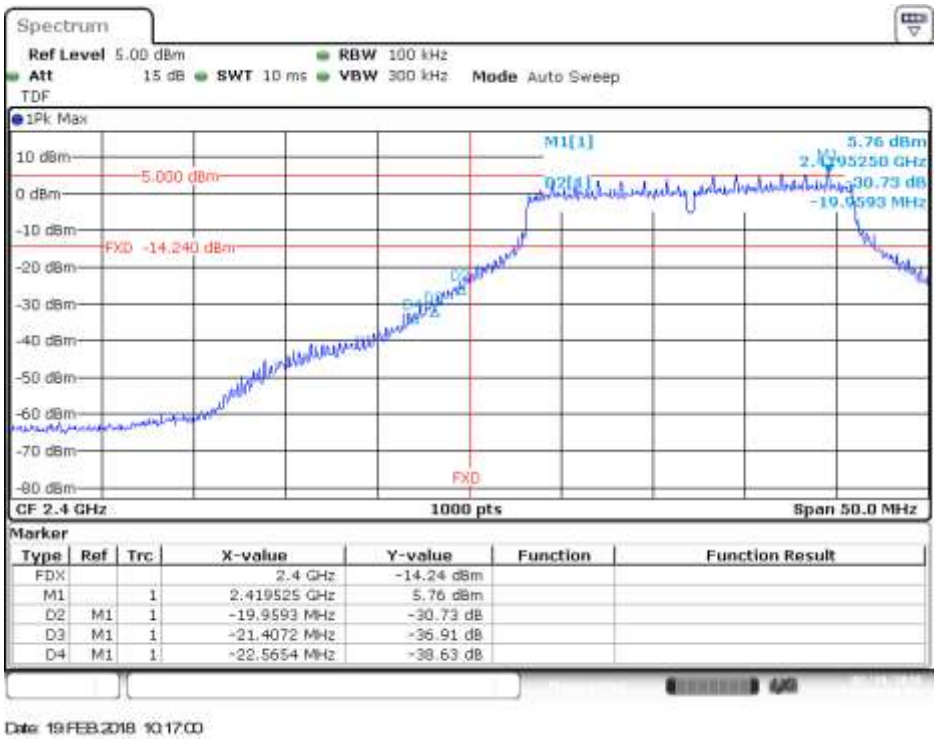
MIMO-B, 802.11n20, HT8

Channel 1

BE Low Freq Section



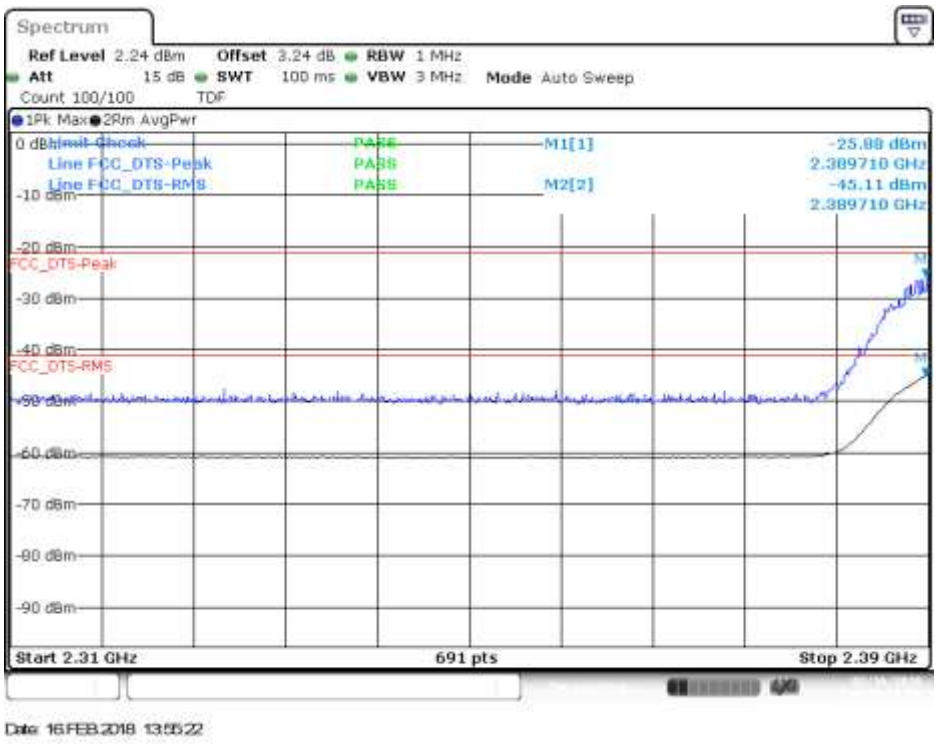
BE Low (Non Restricted)



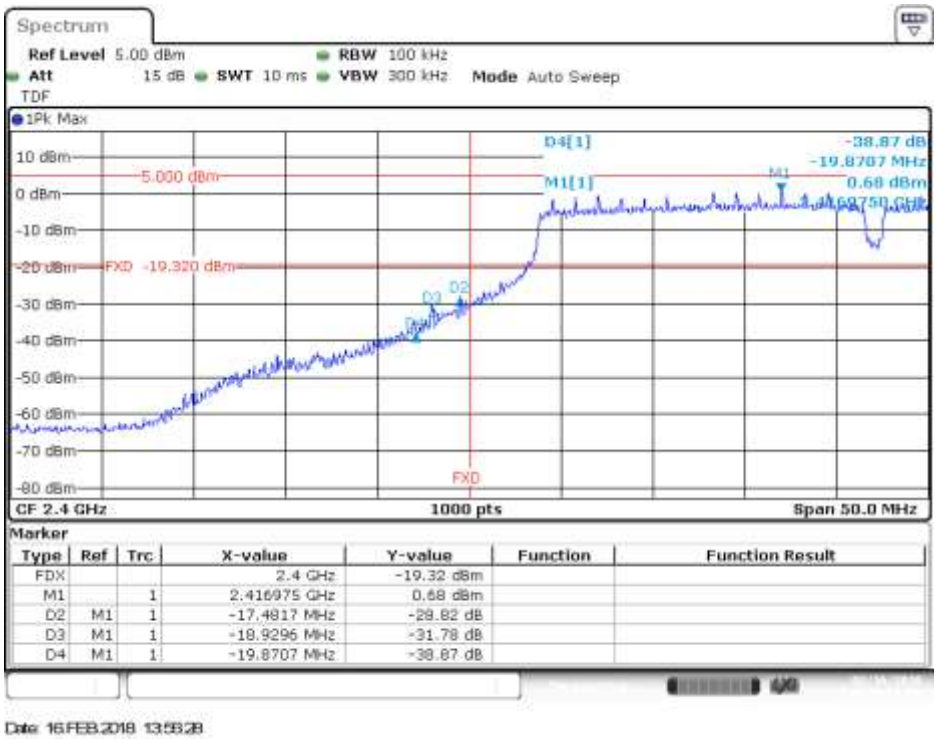
MIMO-A, 802.11n40, HT8

Channel 3F

BE Low Freq Section



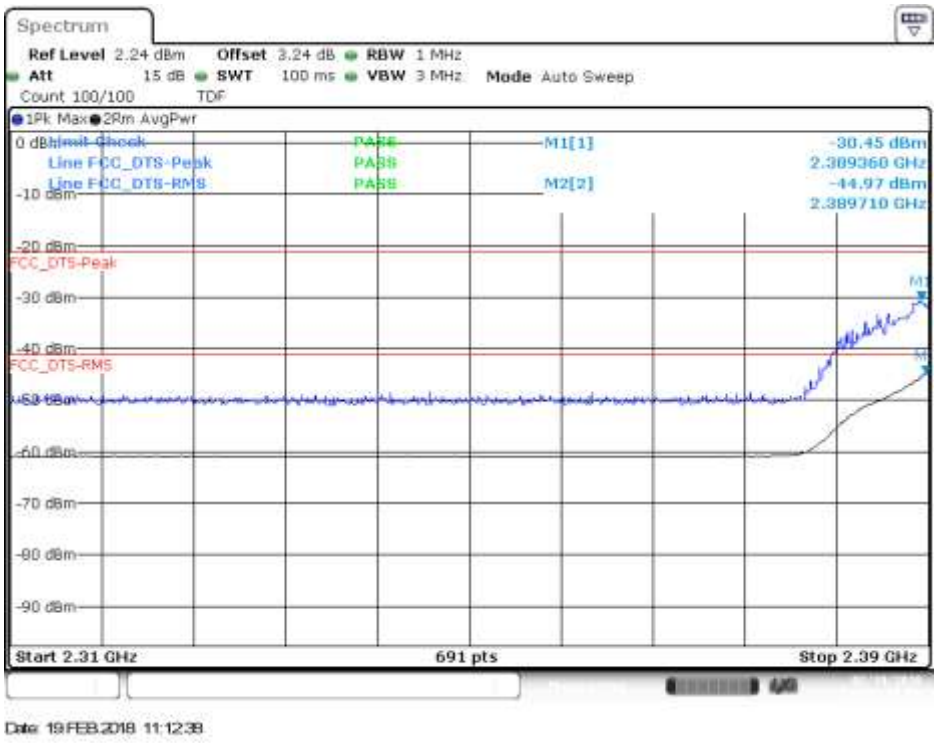
BE Low (Non Restricted)



MIMO-B, 802.11n40, HT8

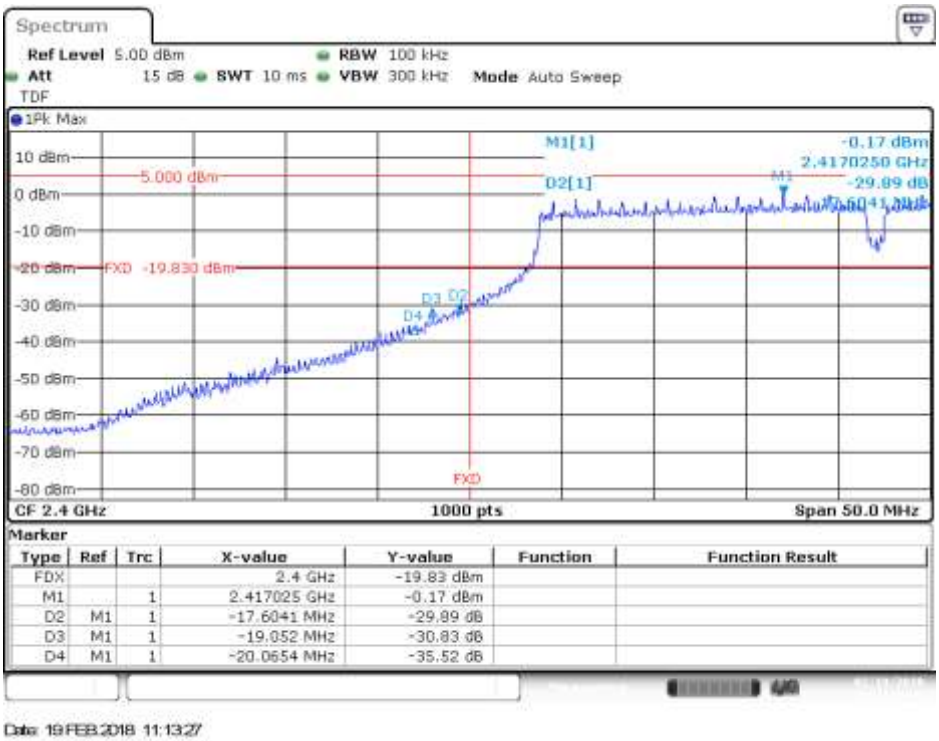
Channel 3F

BE Low Freq Section



Channel 3F

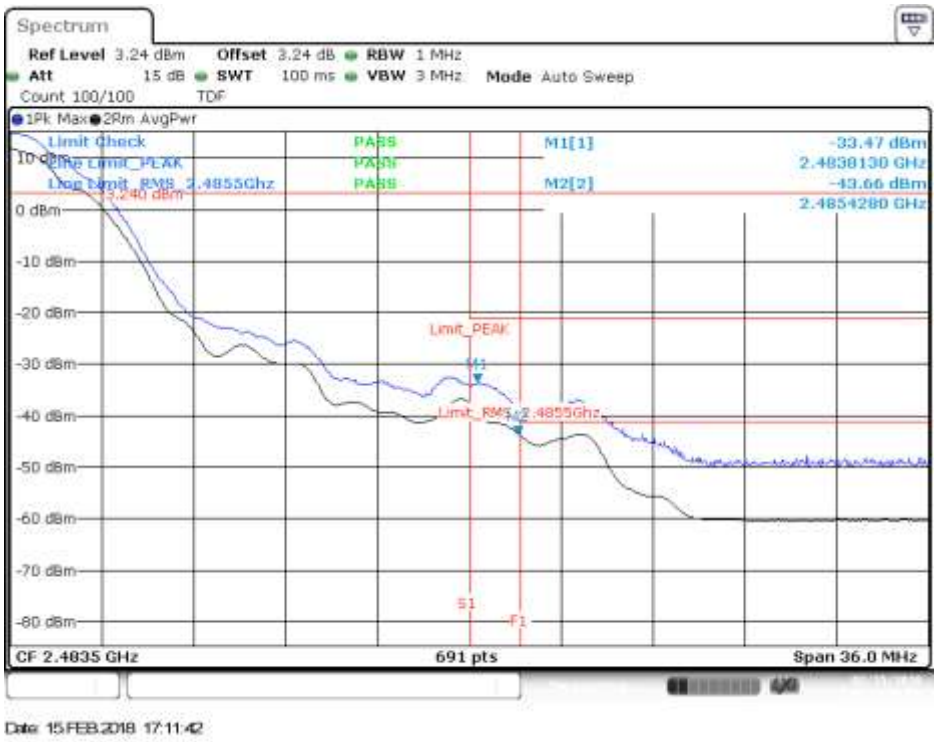
BE Low (Non Restricted)



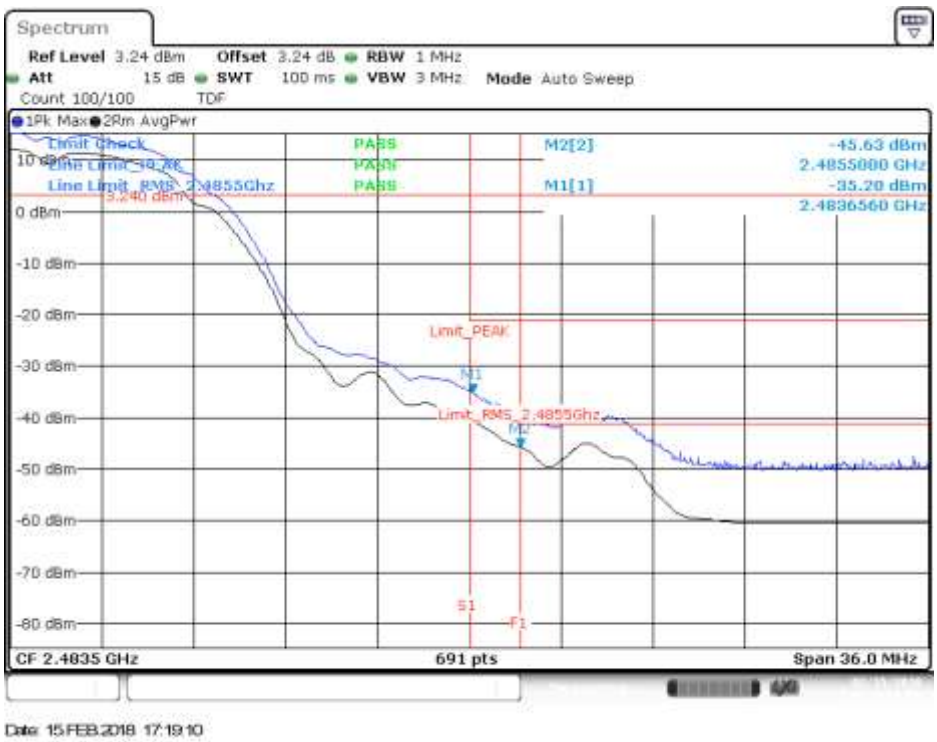
B.3.6 Out of band emissions - band-edge high (conducted)

SISO-A, 802.11b, 1Mbps

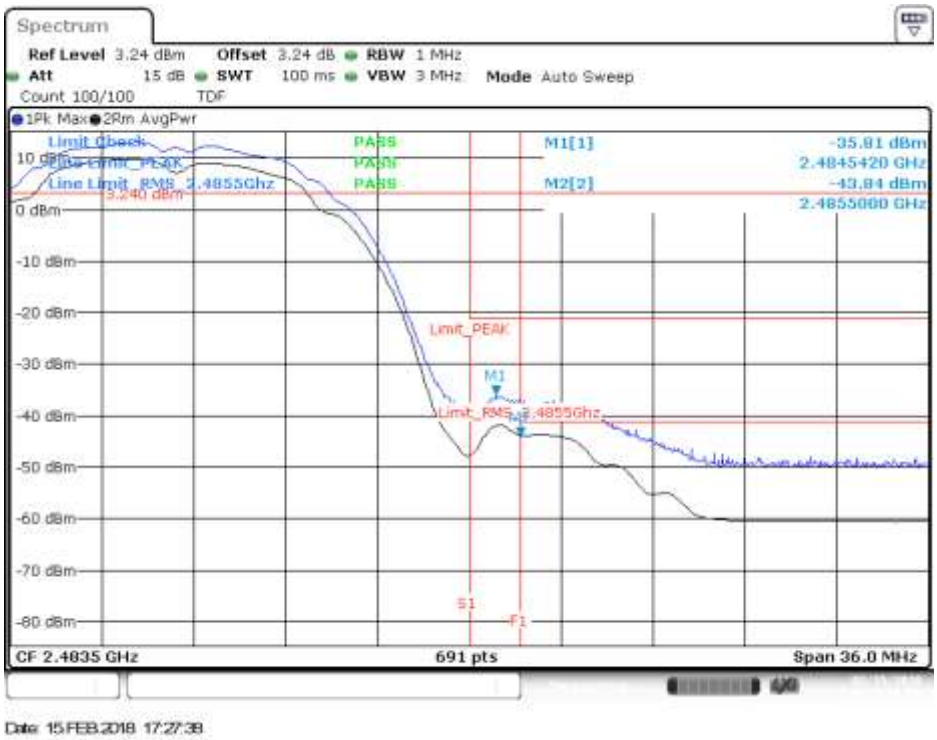
Channel 11 - BE High Freq Section (restricted)



Channel 12 - BE High Freq Section (restricted)



Channel 13 - BE High Freq Section (restricted)



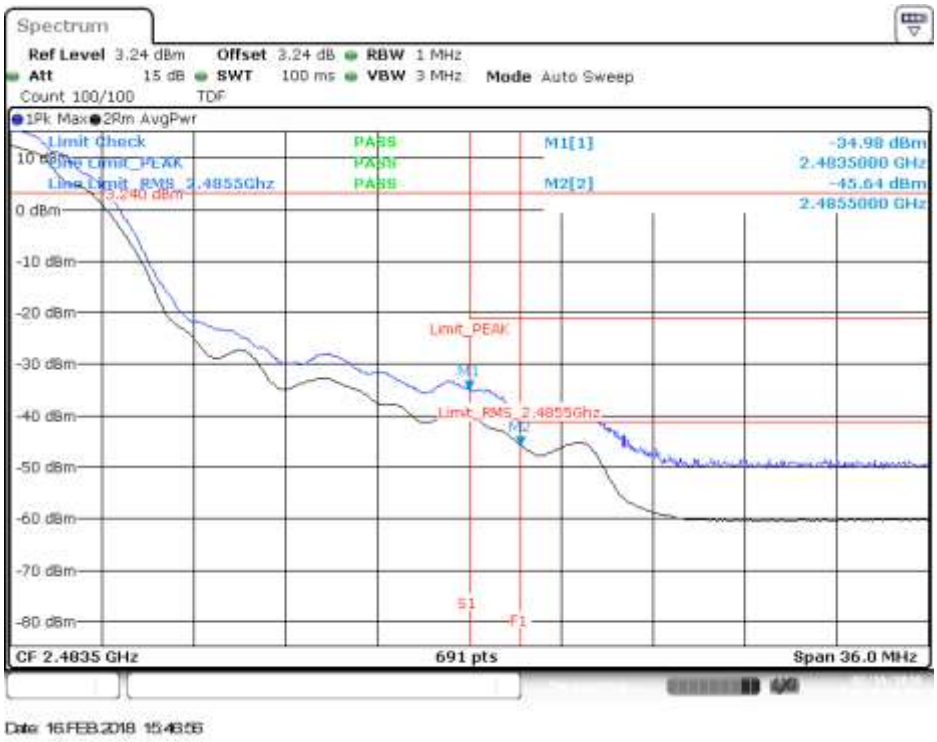
Channel 11 - BE High Freq Section RMS within 2MHz (restricted)

Channel 12 - BE High Freq Section RMS within 2MHz (restricted)

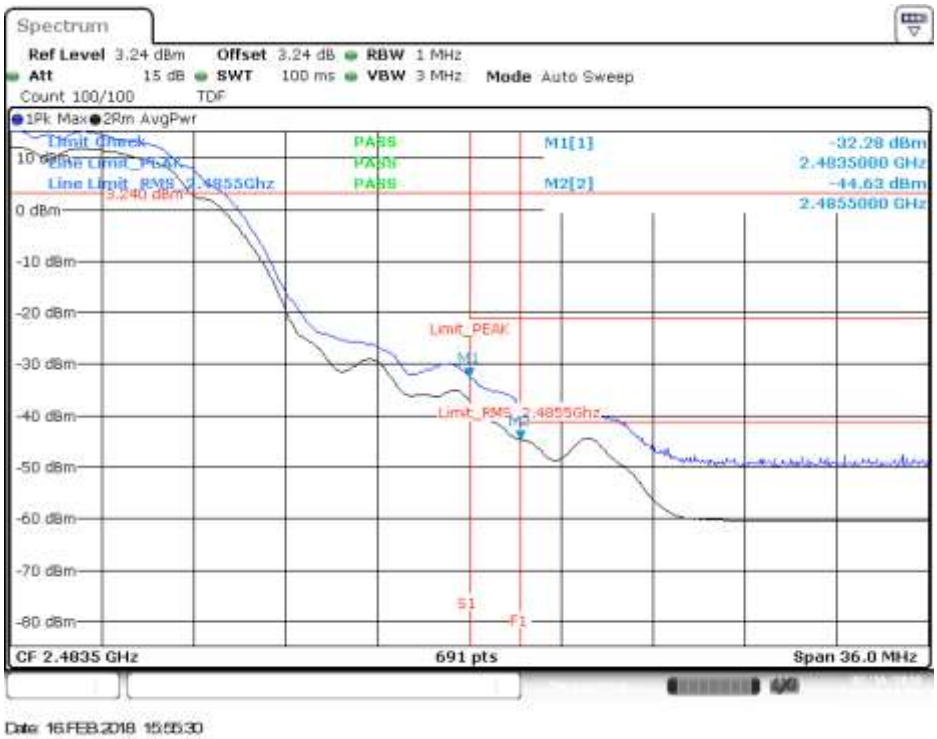
Channel 13 - BE High Freq Section RMS within 2MHz (restricted)

SISO-B, 802.11b, 1Mbps

Channel 11 - BE High Freq Section (restricted)



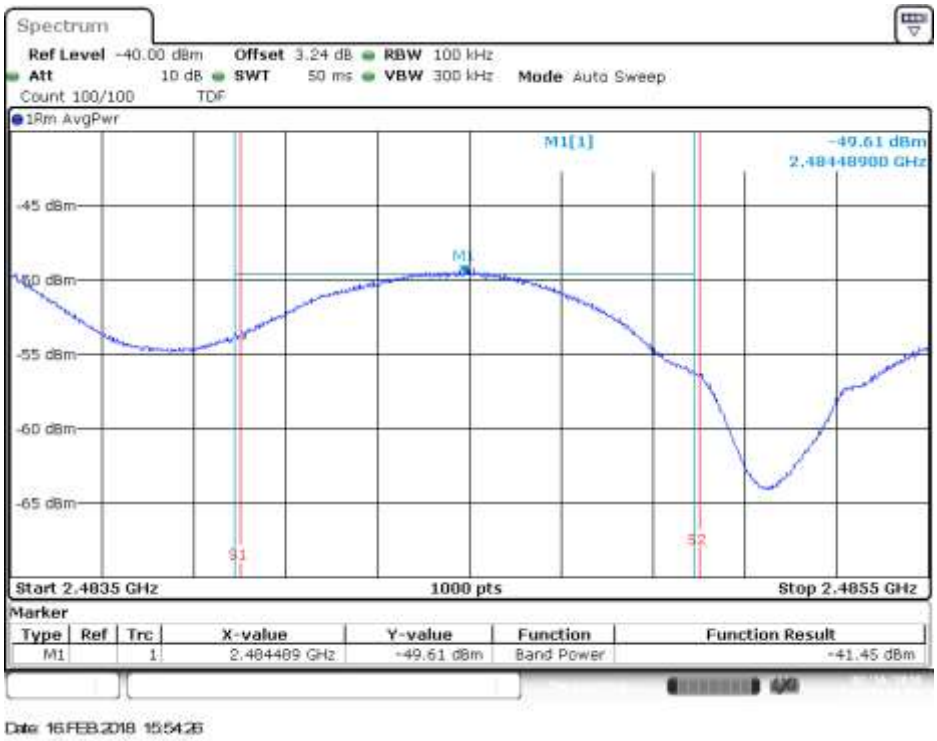
Channel 12 - BE High Freq Section (restricted)



Channel 13 - BE High Freq Section (restricted)

Channel 11 - BE High Freq Section RMS within 2MHz (restricted)

Channel 12 - BE High Freq Section RMS within 2MHz (restricted)

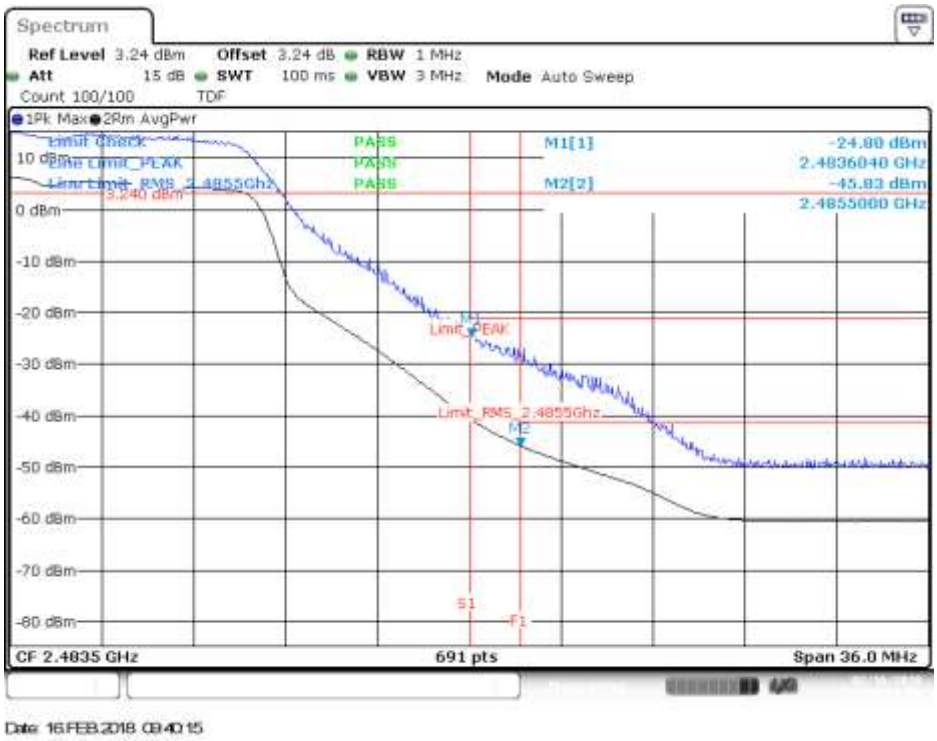


Channel 13 - BE High Freq Section RMS within 2MHz (restricted)

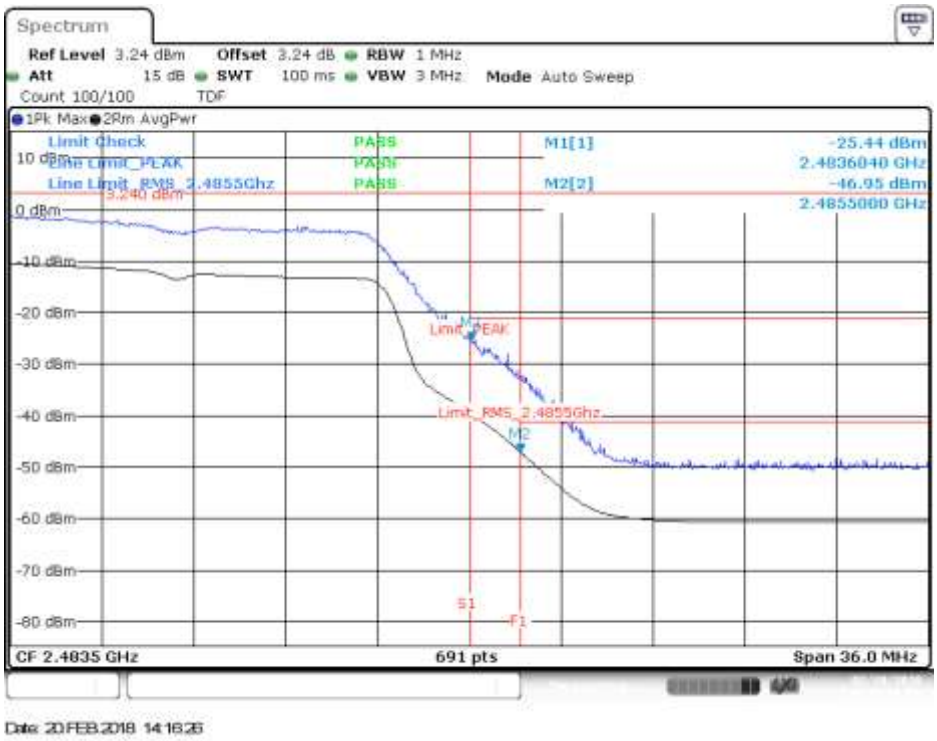
SISO-A, 802.11g, 6Mbps

Channel 11 - BE High Freq Section (restricted)

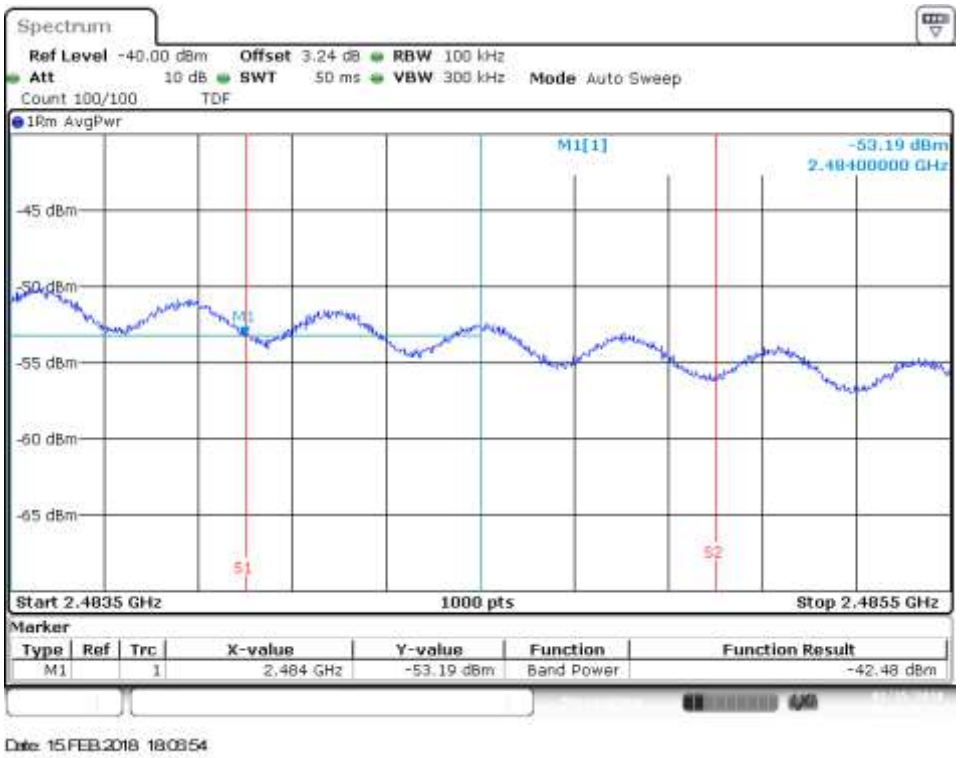
Channel 12 - BE High Freq Section (restricted)



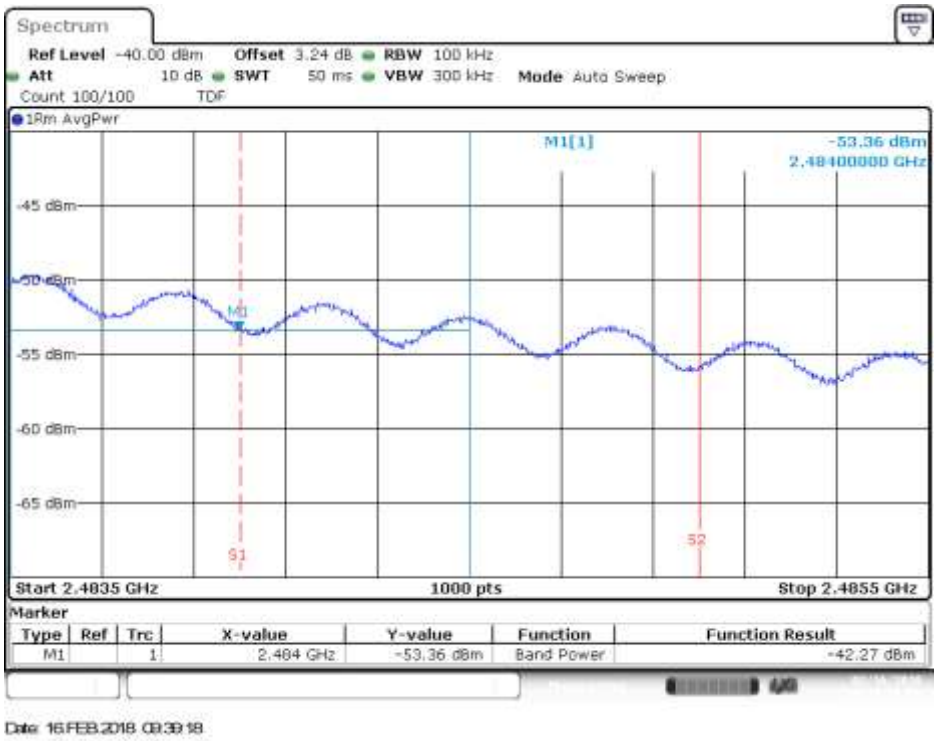
Channel 13 - BE High Freq Section (restricted)



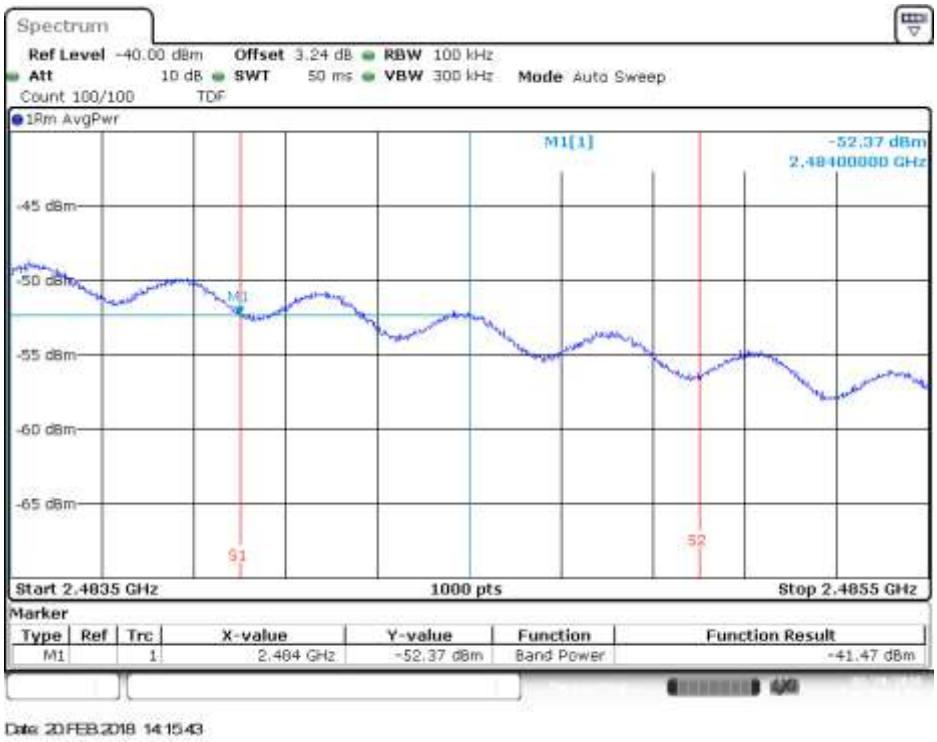
Channel 11 - BE High Freq Section RMS within 2MHz (restricted)



Channel 12 - BE High Freq Section RMS within 2MHz (restricted)

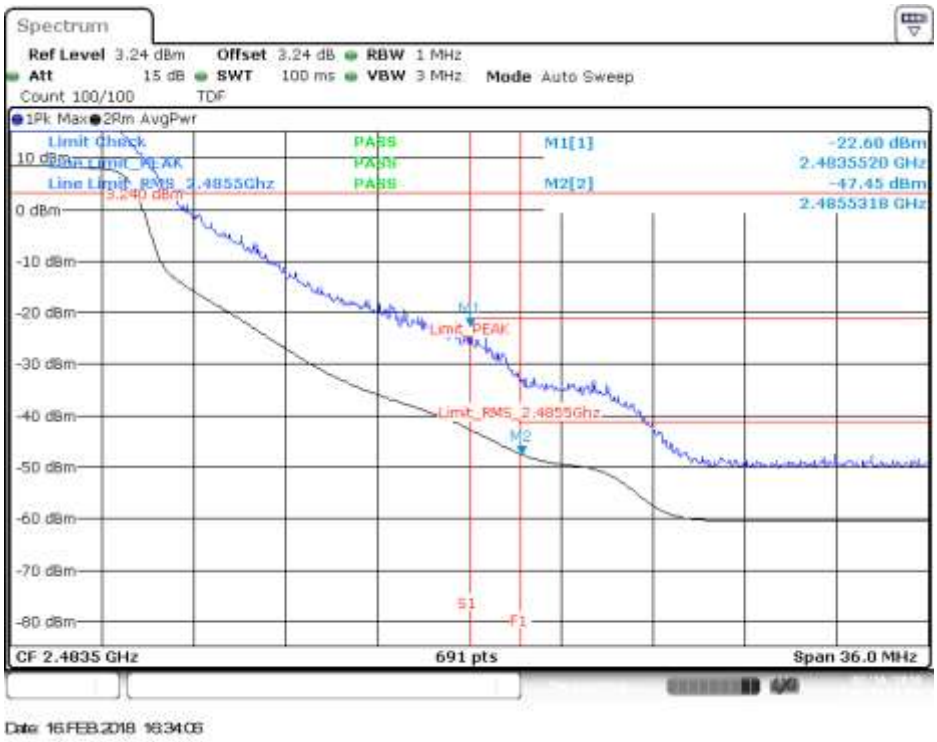


Channel 13 - BE High Freq Section RMS within 2MHz (restricted)

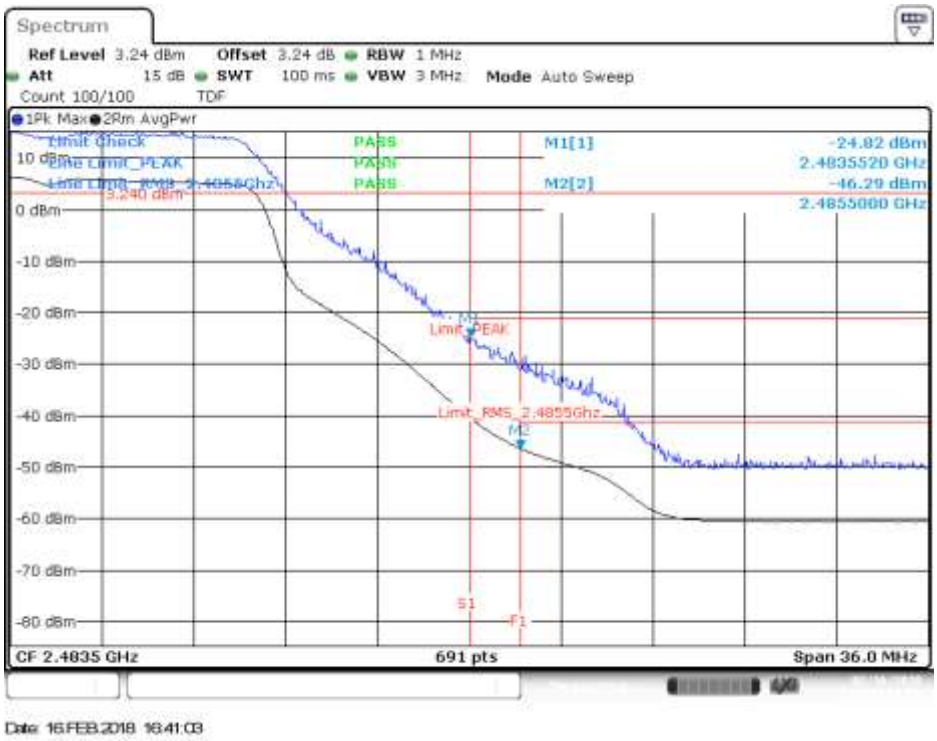


SISO-B, 802.11g, 6Mbps

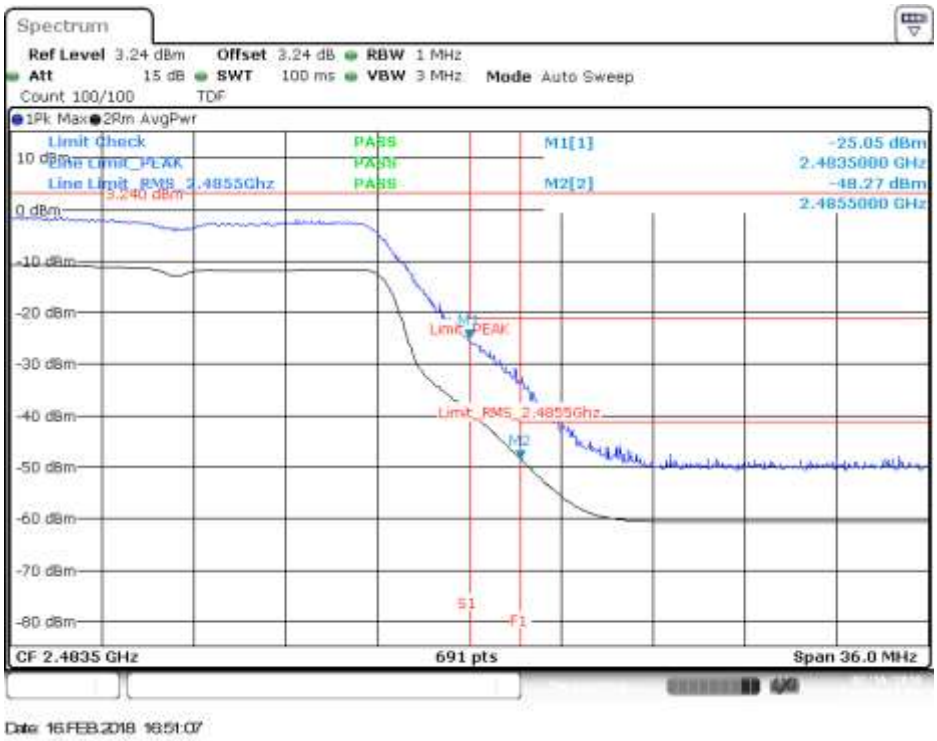
Channel 11 - BE High Freq Section (restricted)



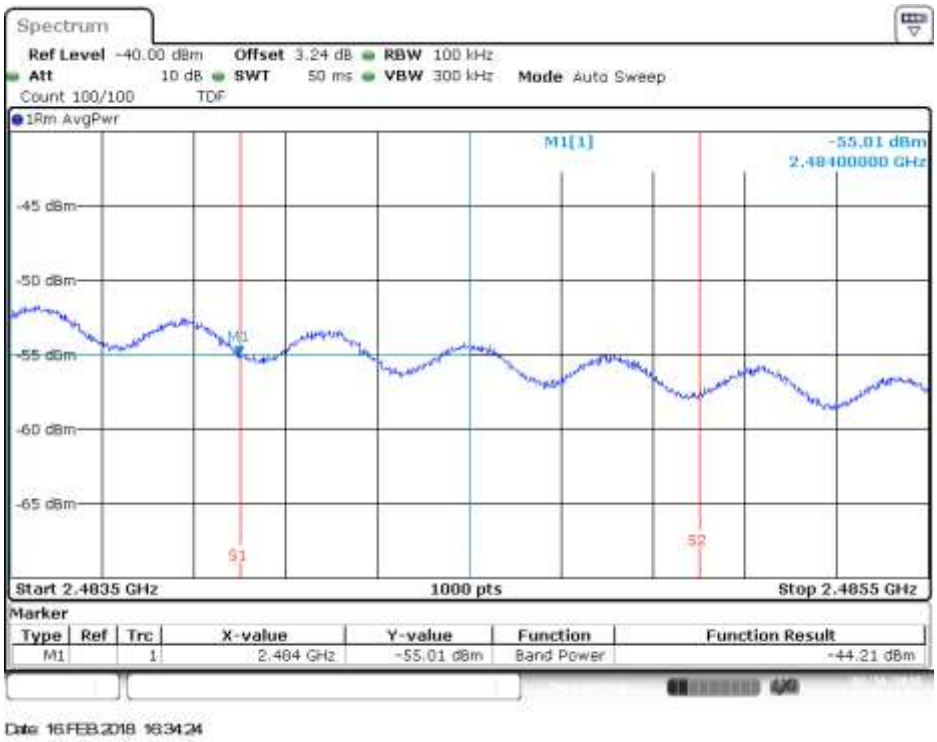
Channel 12 - BE High Freq Section (restricted)



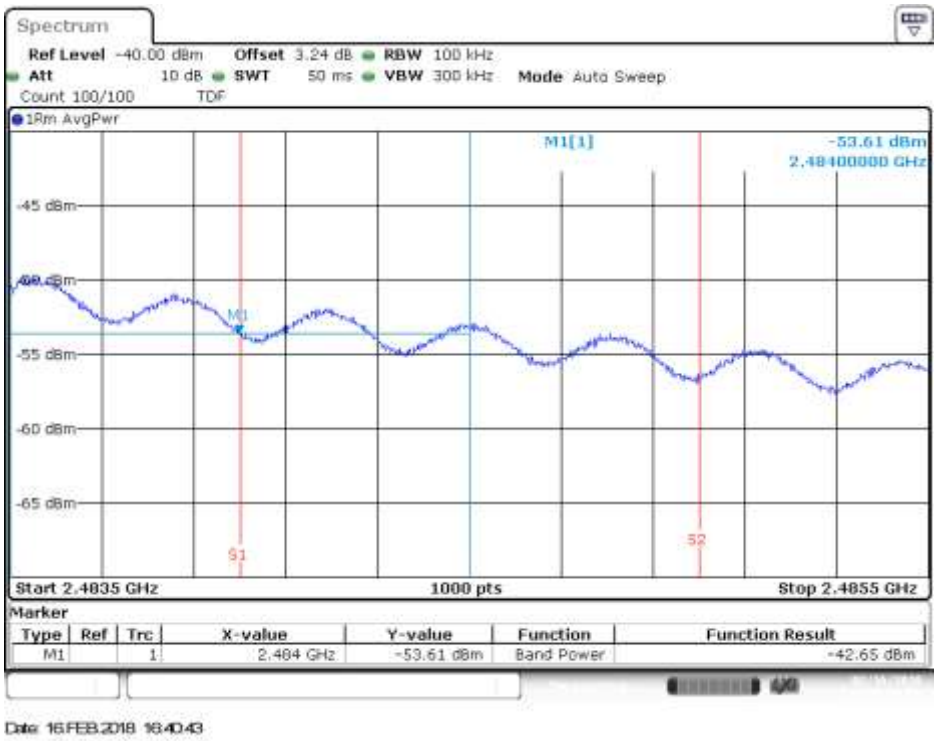
Channel 13 - BE High Freq Section (restricted)



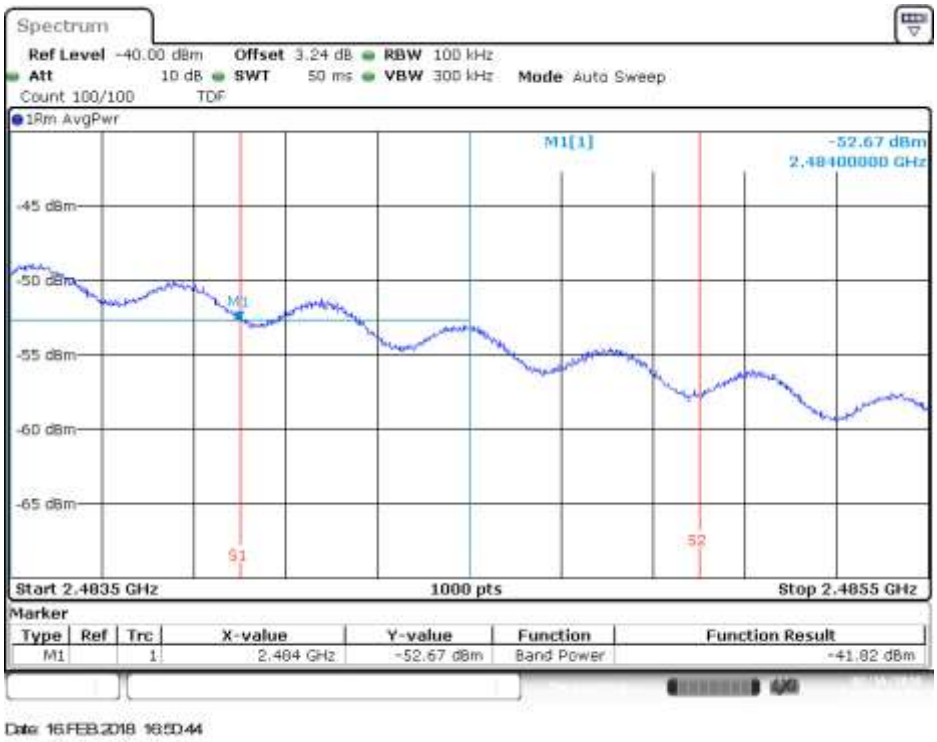
Channel 11 - BE High Freq Section RMS within 2MHz (restricted)



Channel 12 - BE High Freq Section RMS within 2MHz (restricted)

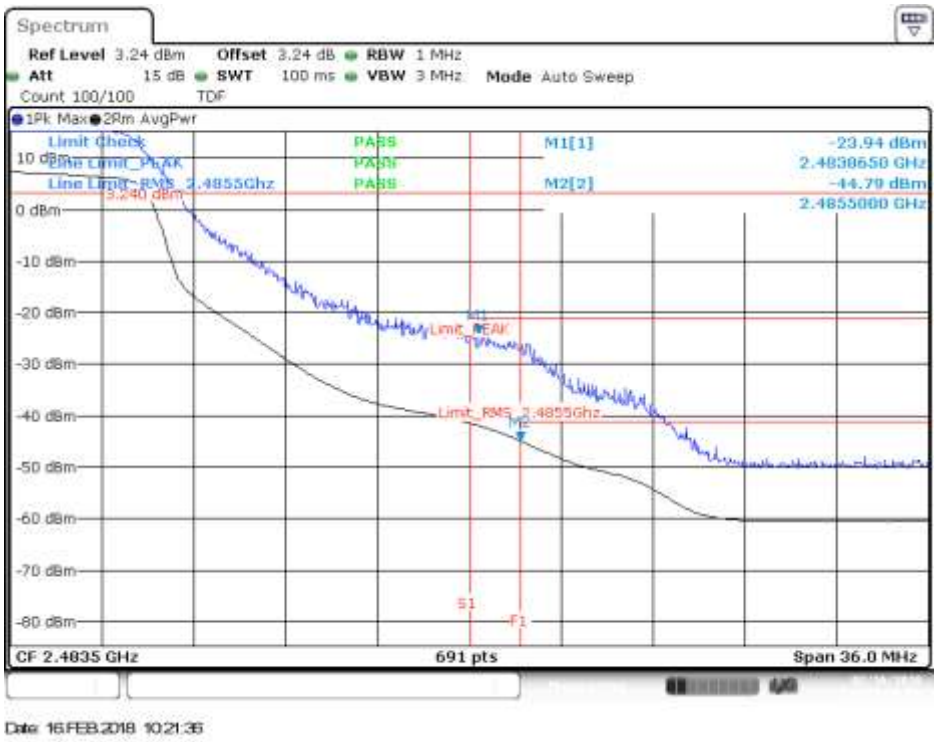


Channel 13 - BE High Freq Section RMS within 2MHz (restricted)

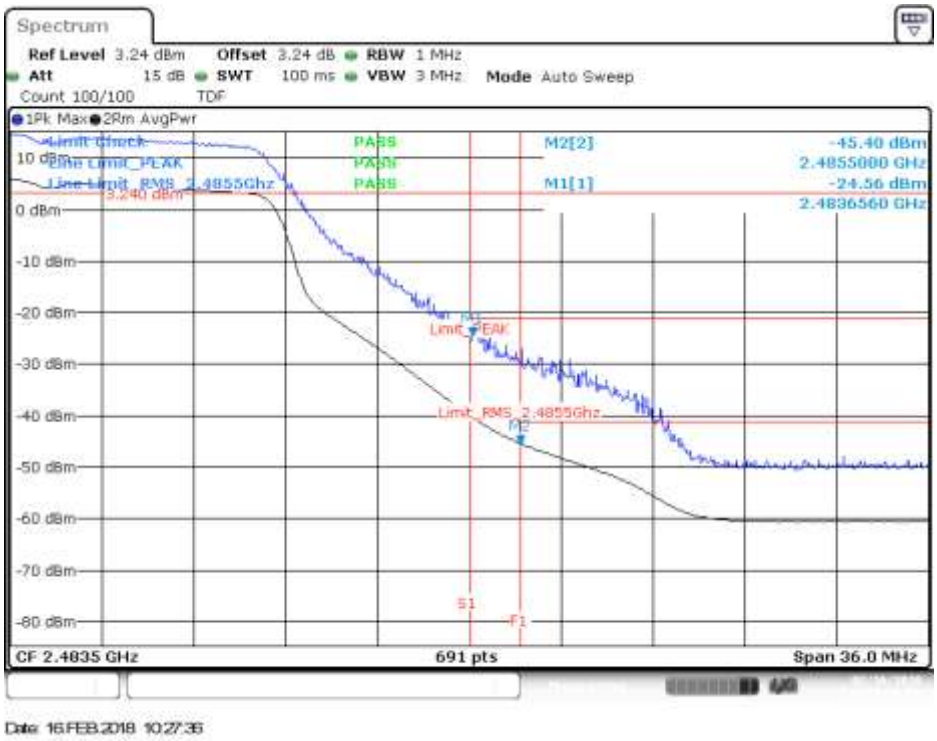


SISO-A, 802.11n20, HT0

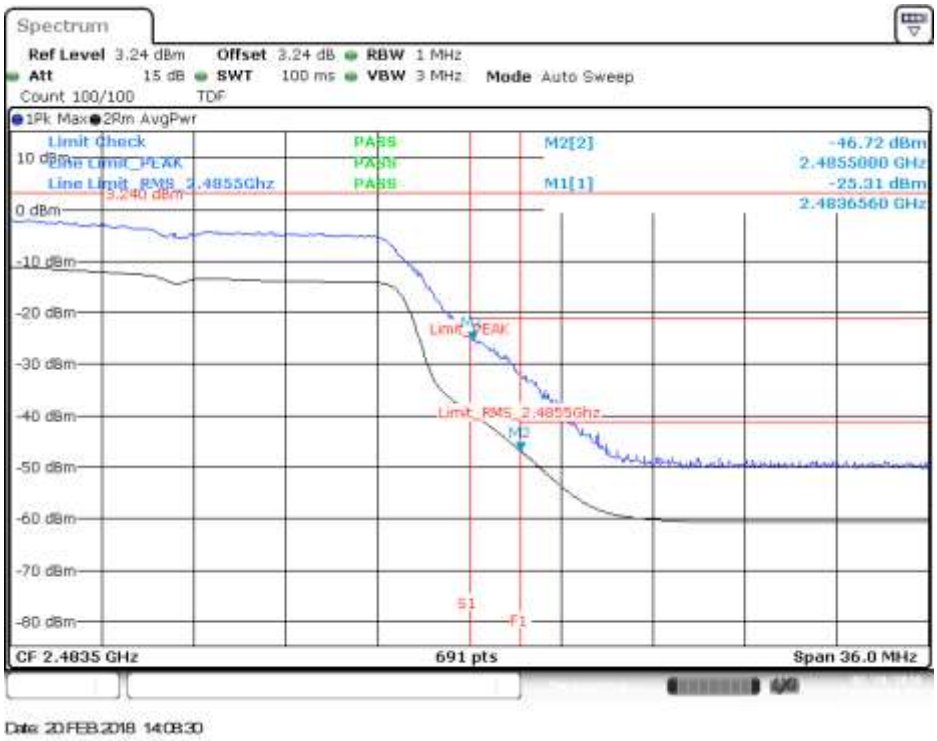
Channel 11 - BE High Freq Section (restricted)



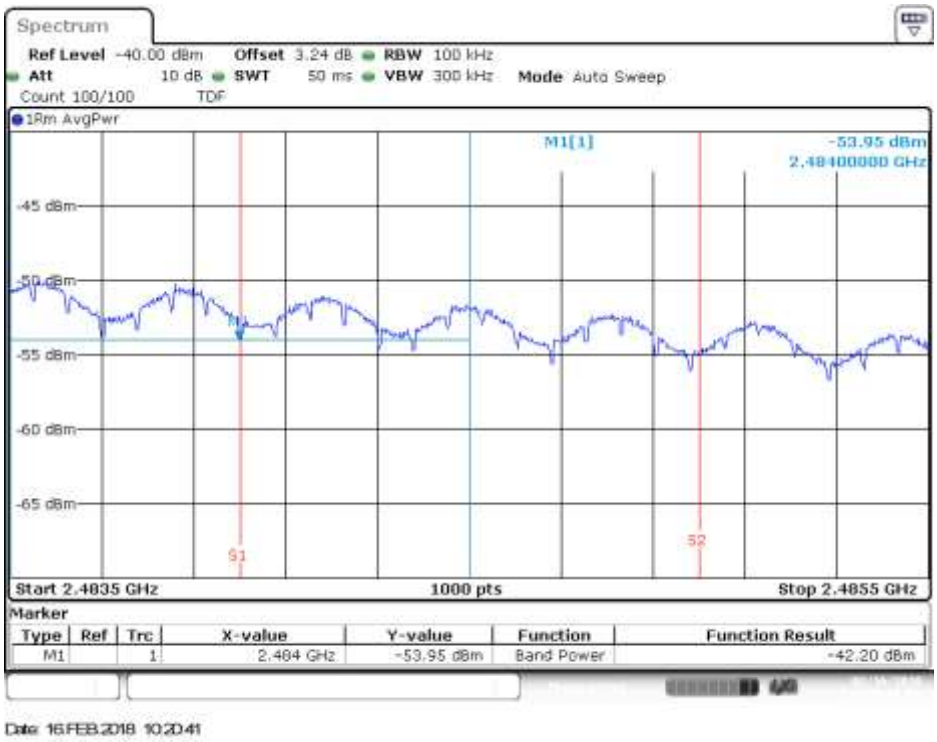
Channel 12 - BE High Freq Section (restricted)



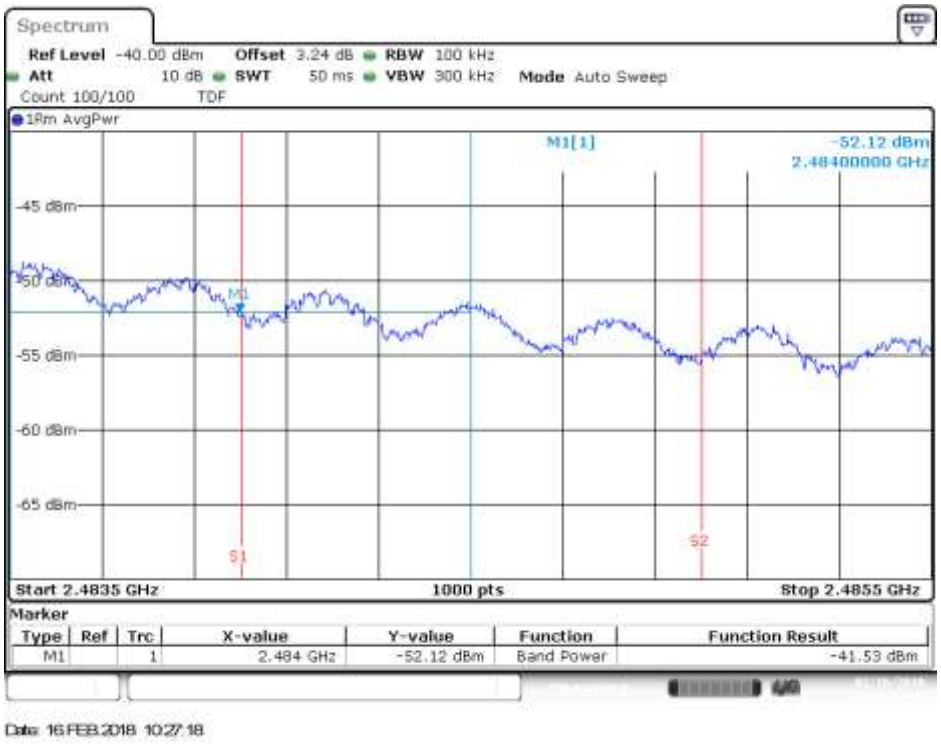
Channel 13 - BE High Freq Section (restricted)



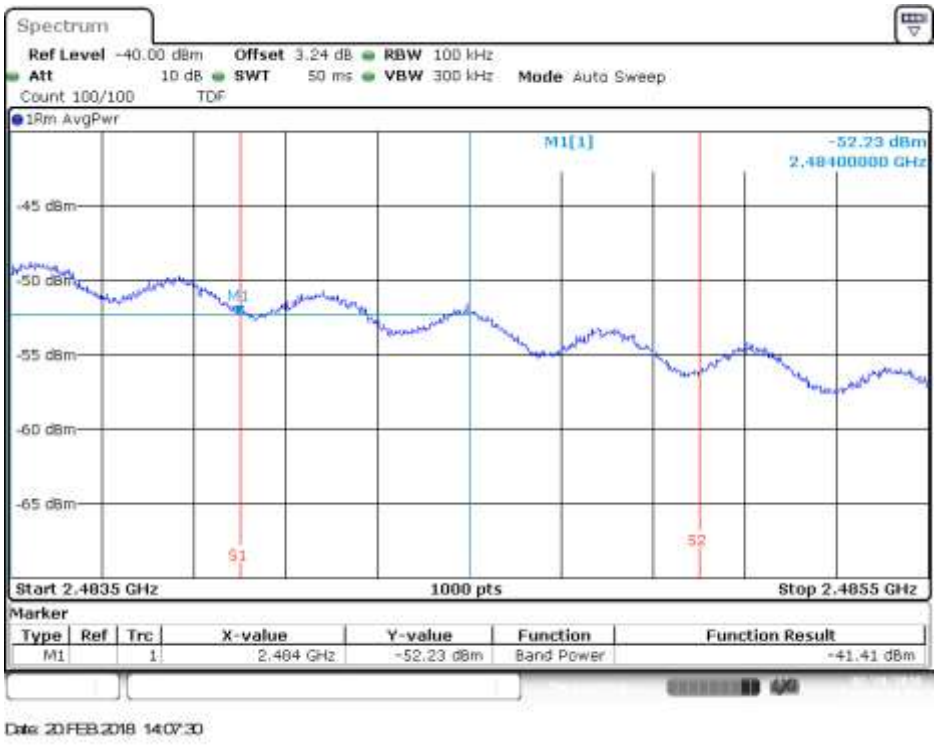
Channel 11 - BE High Freq Section RMS within 2MHz (restricted)



Channel 12 - BE High Freq Section RMS within 2MHz (restricted)

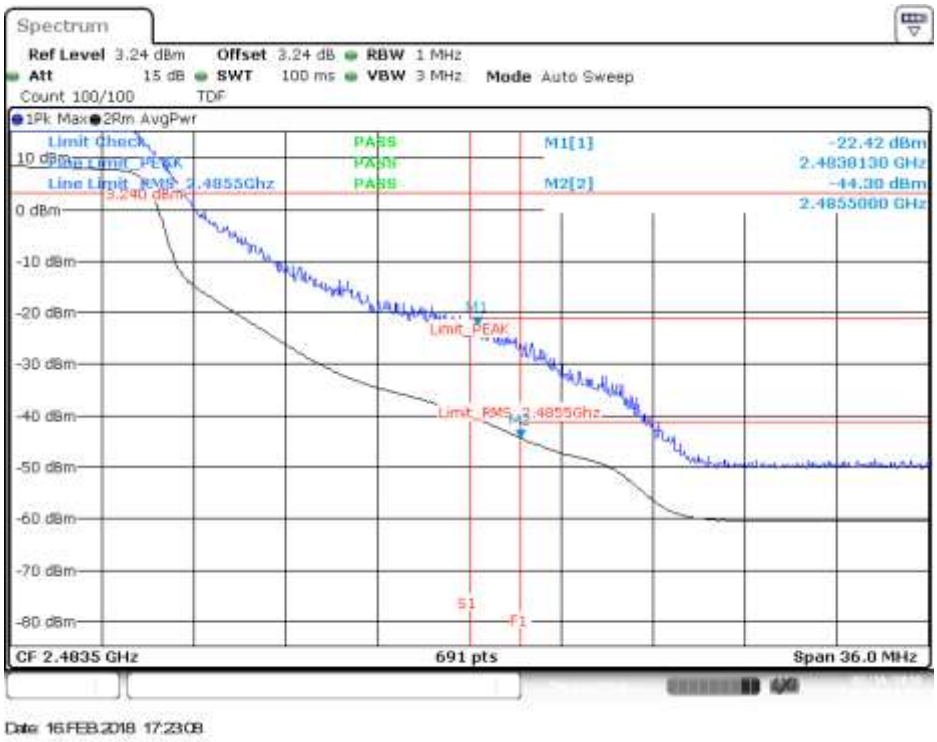


Channel 13 - BE High Freq Section RMS within 2MHz (restricted)

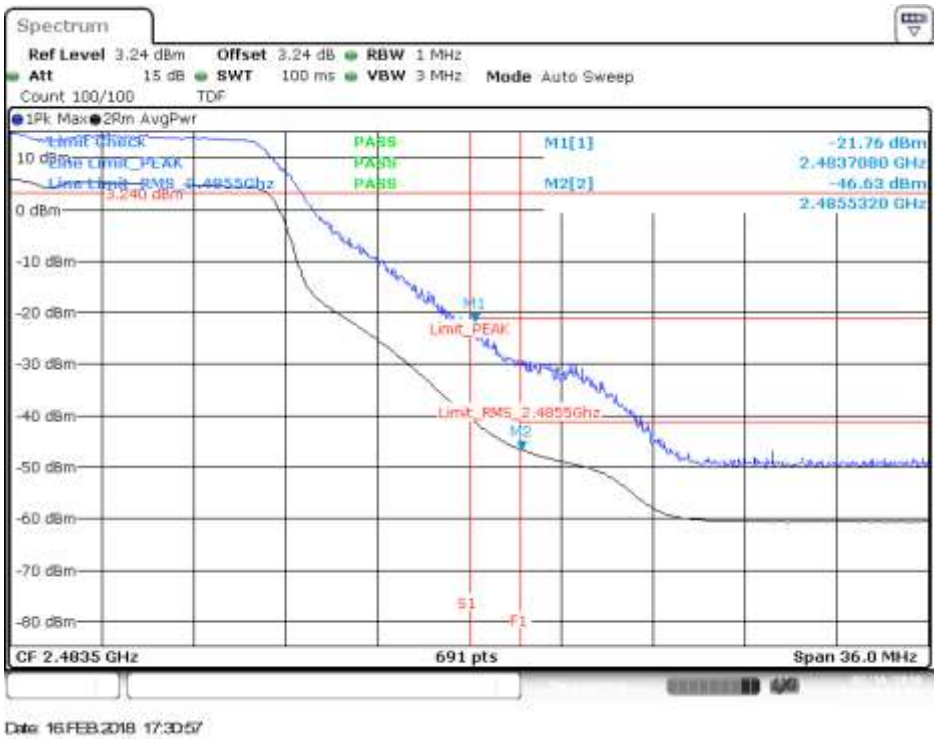


SISO-B, 802.11n20, HT0

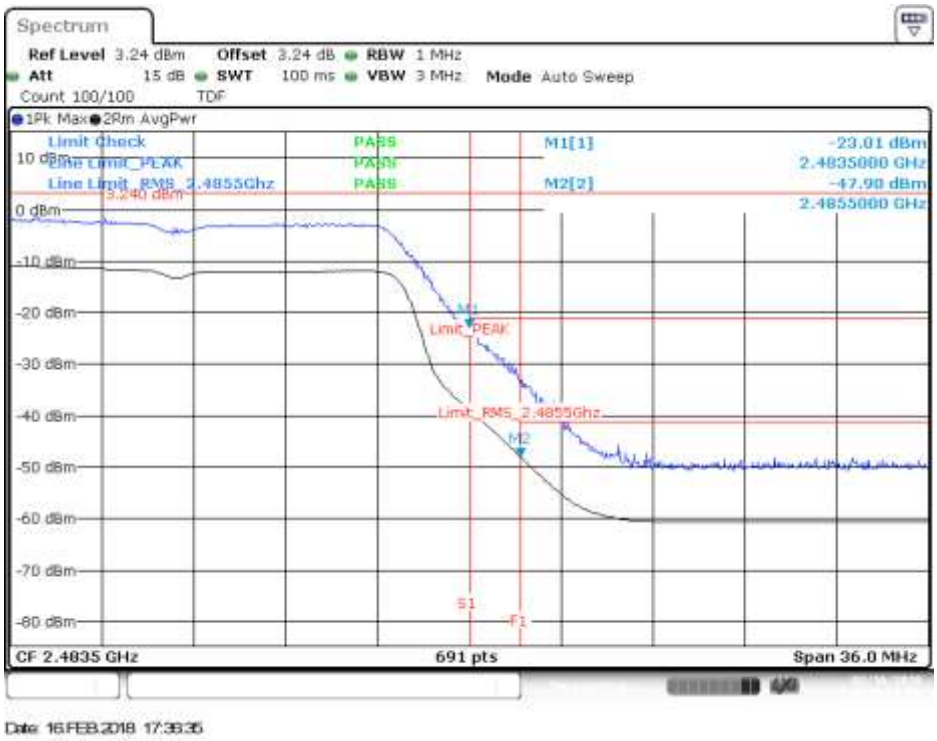
Channel 11 - BE High Freq Section (restricted)



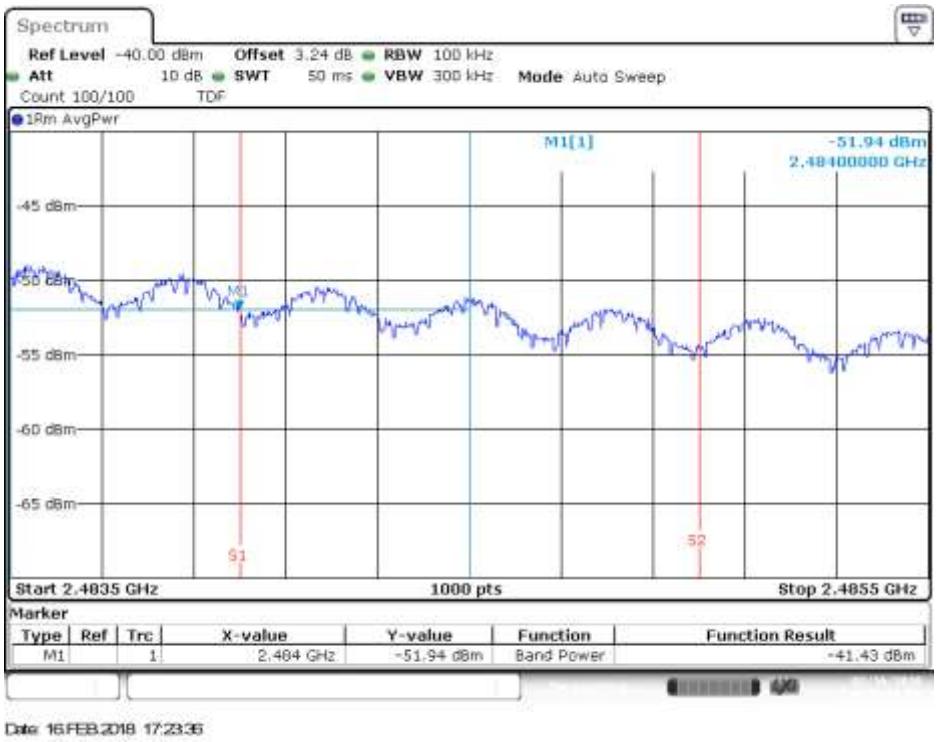
Channel 12 - BE High Freq Section (restricted)



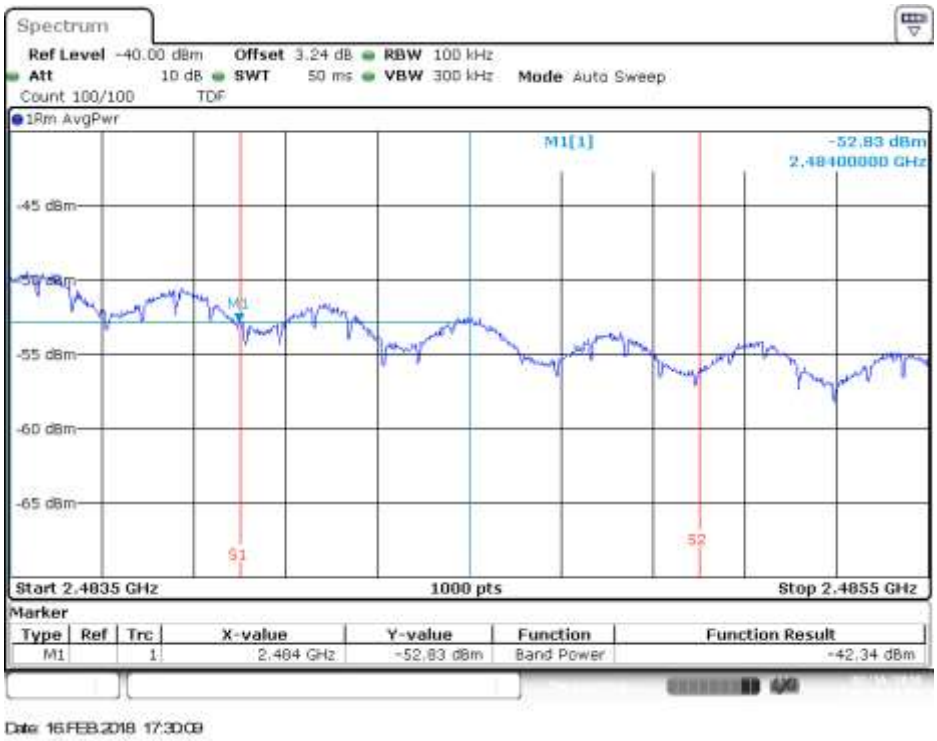
Channel 13 - BE High Freq Section (restricted)



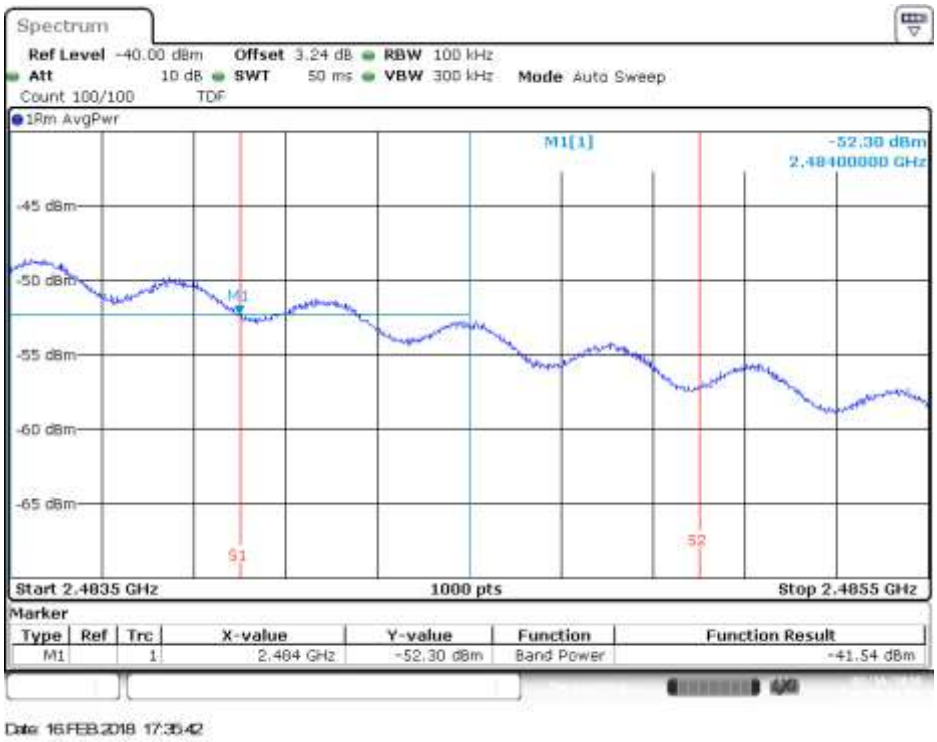
Channel 11 - BE High Freq Section RMS within 2MHz (restricted)



Channel 12 - BE High Freq Section RMS within 2MHz (restricted)

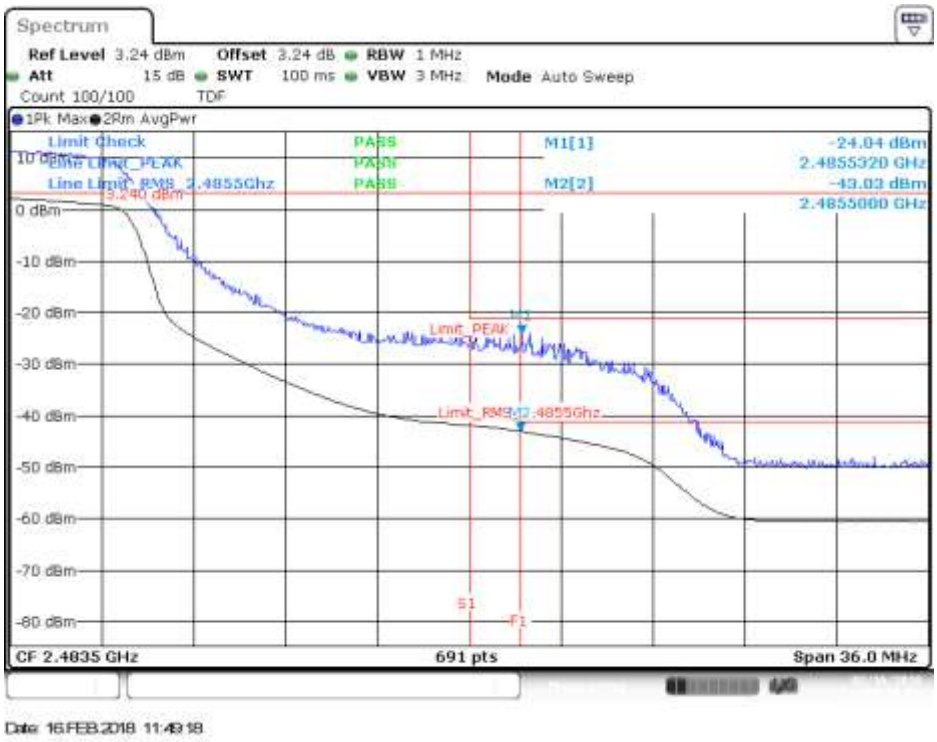


Channel 13 - BE High Freq Section RMS within 2MHz (restricted)

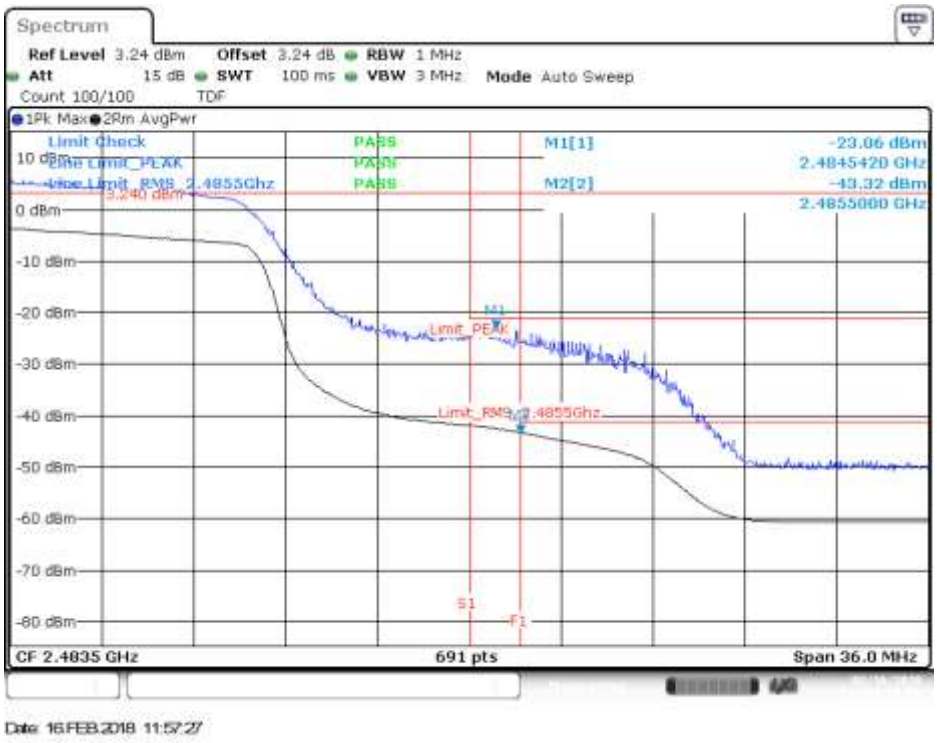


SISO-A, 802.11n40, HT0

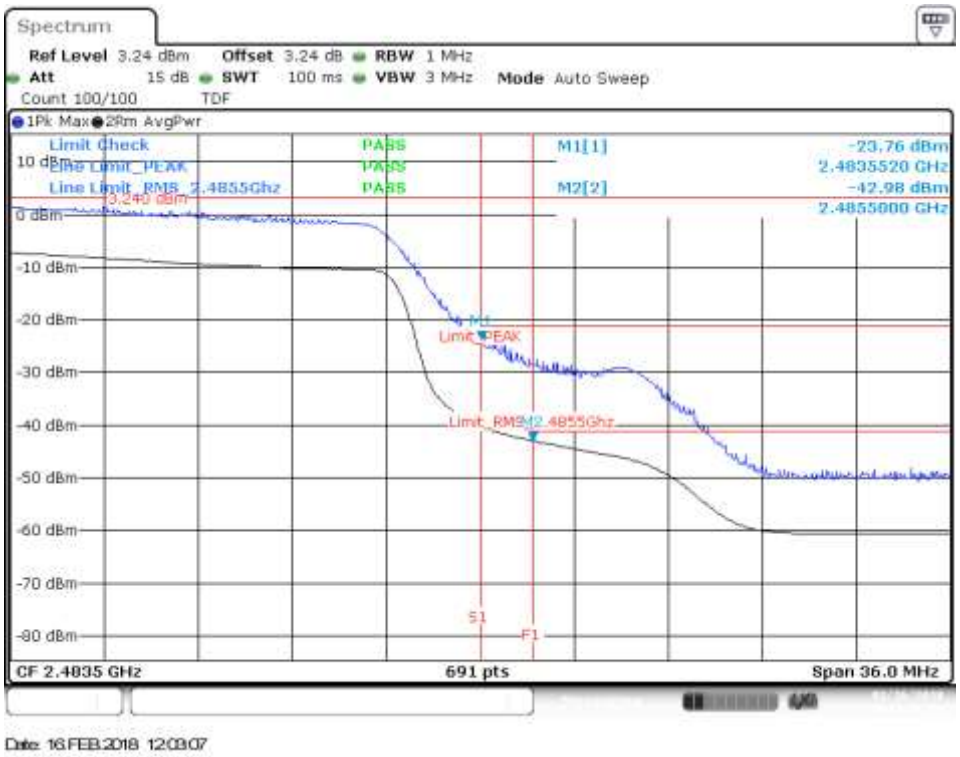
Channel 9F - BE High Freq Section (restricted)



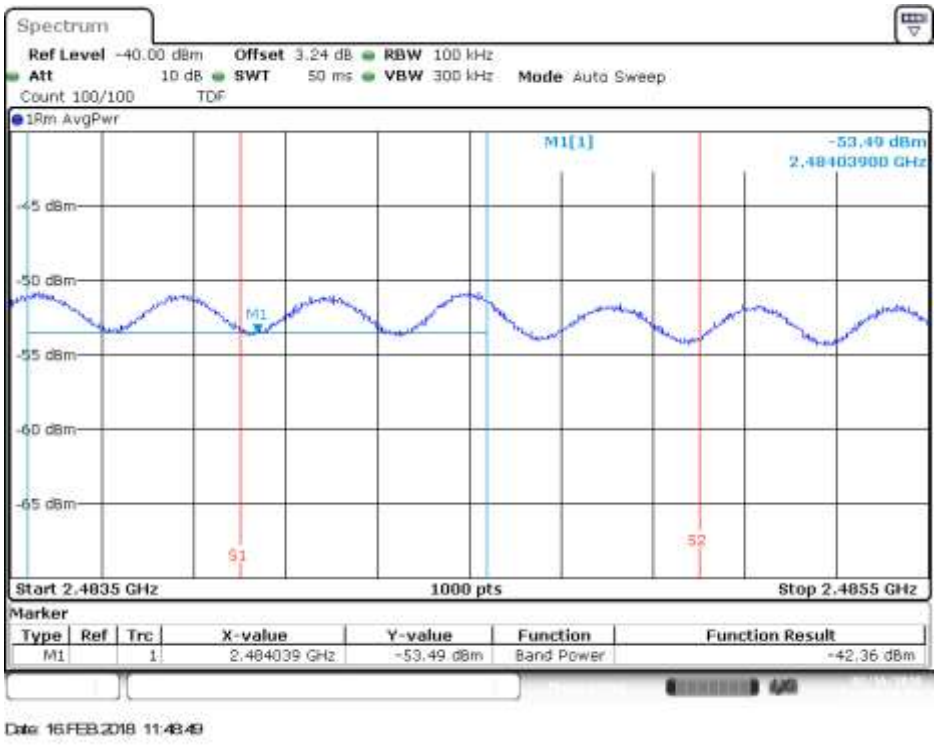
Channel 10F - BE High Freq Section (restricted)



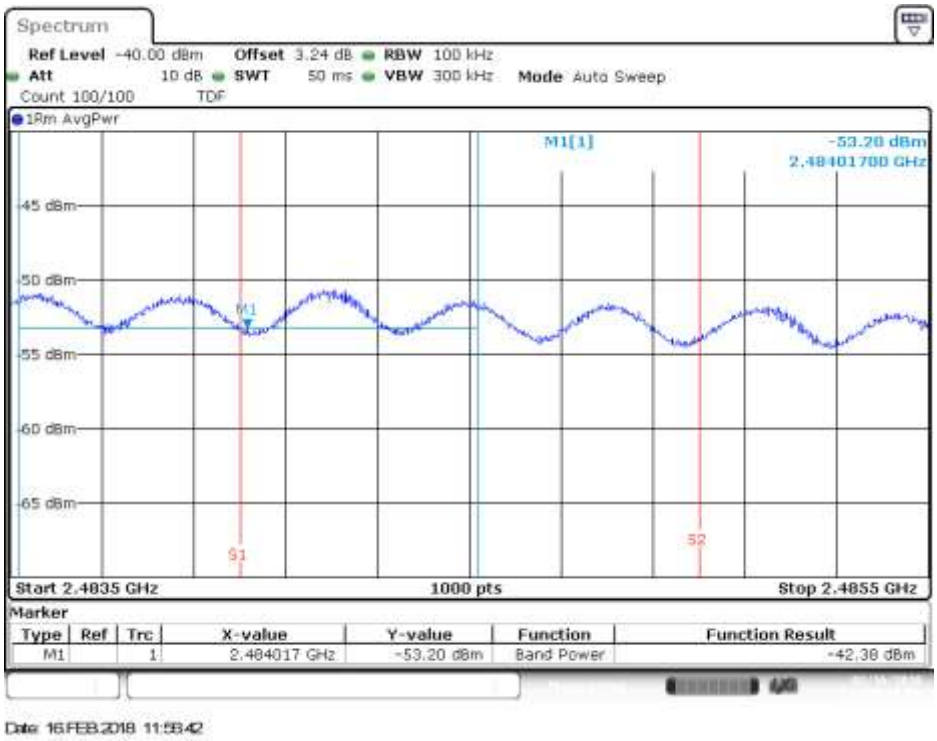
Channel 11F - BE High Freq Section (restricted)



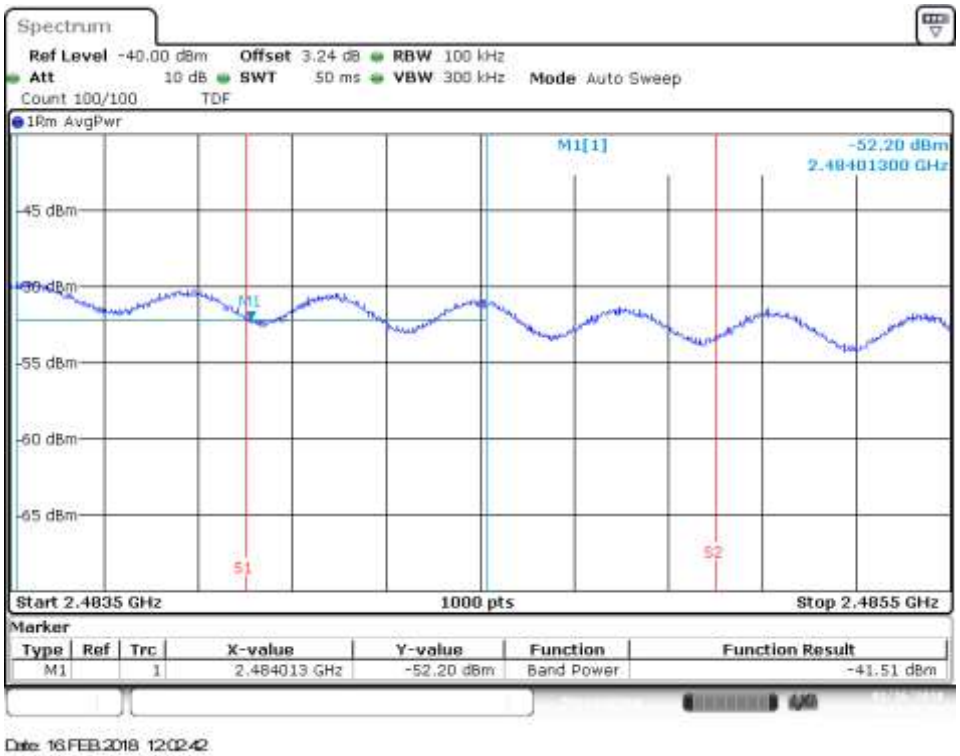
Channel 9F - BE High Freq Section RMS within 2MHz (restricted)



Channel 10F - BE High Freq Section RMS within 2MHz (restricted)

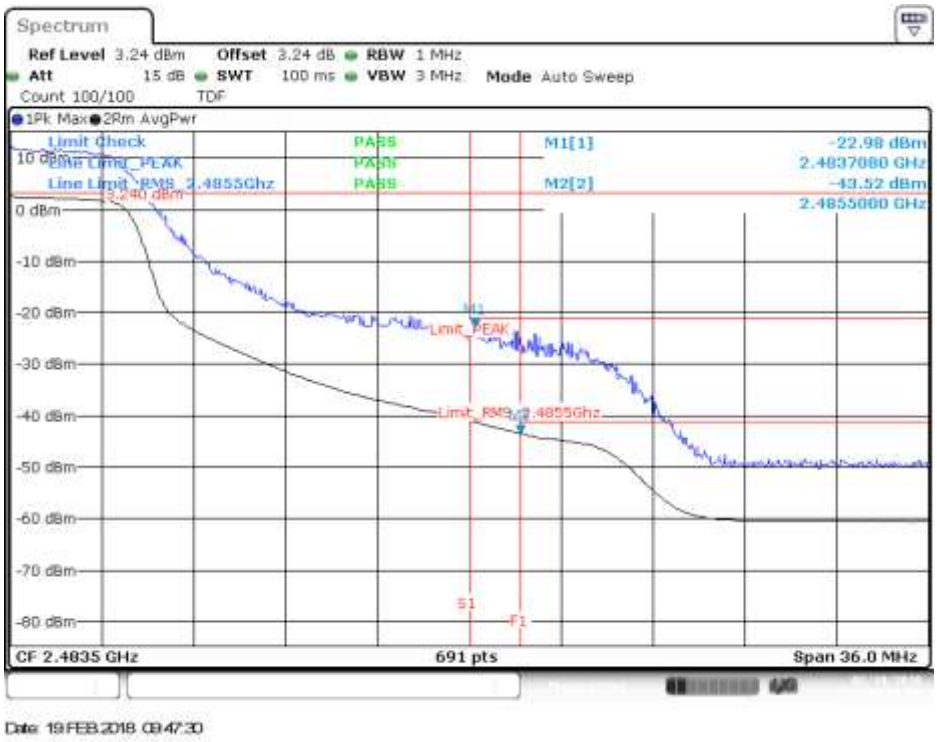


Channel 11F - BE High Freq Section RMS within 2MHz (restricted)

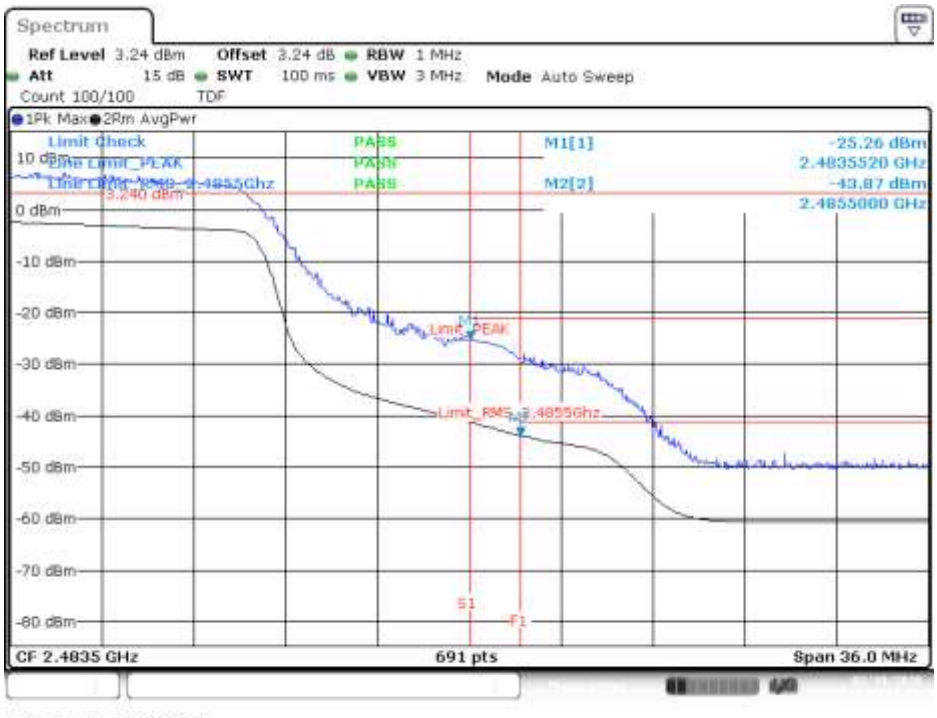


SISO-B, 802.11n40, HT0

Channel 9F - BE High Freq Section (restricted)

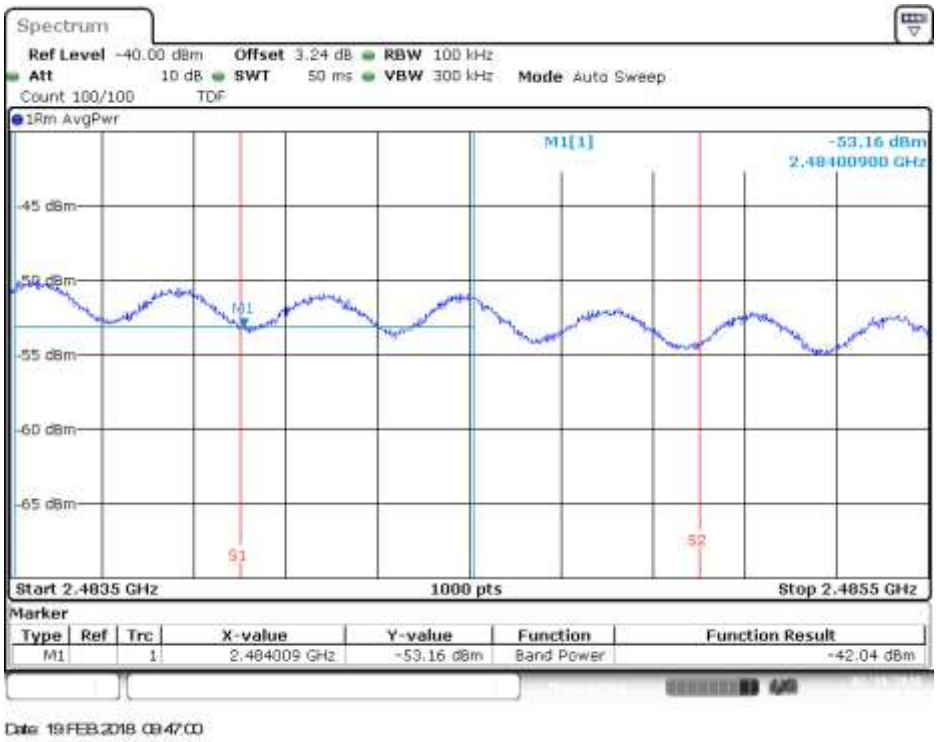


Channel 10F - BE High Freq Section (restricted)

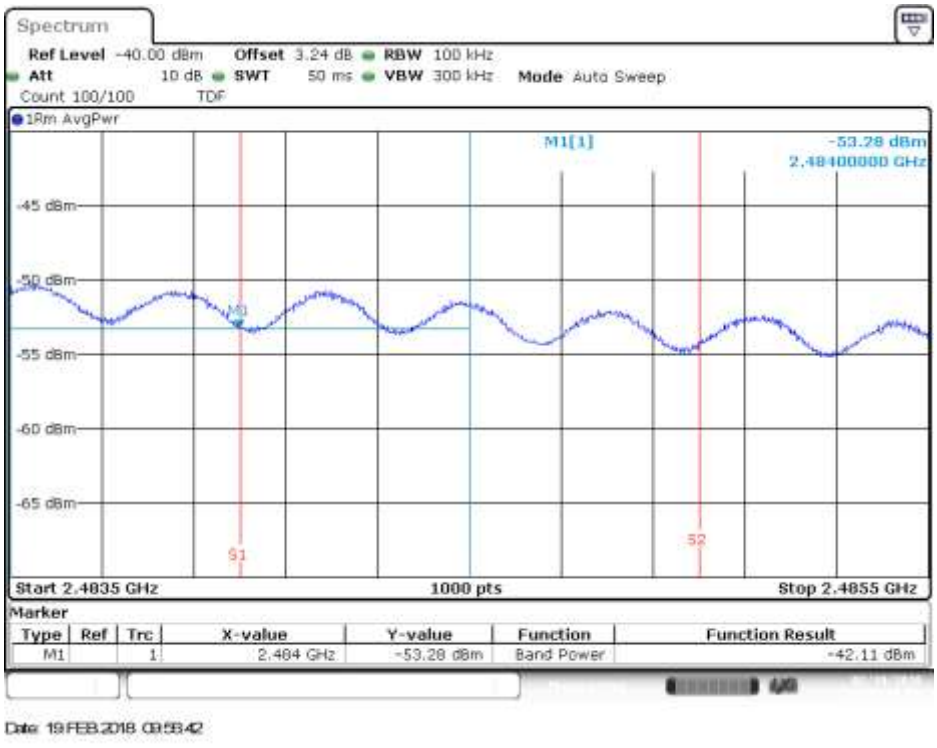


Channel 11F - BE High Freq Section (restricted)

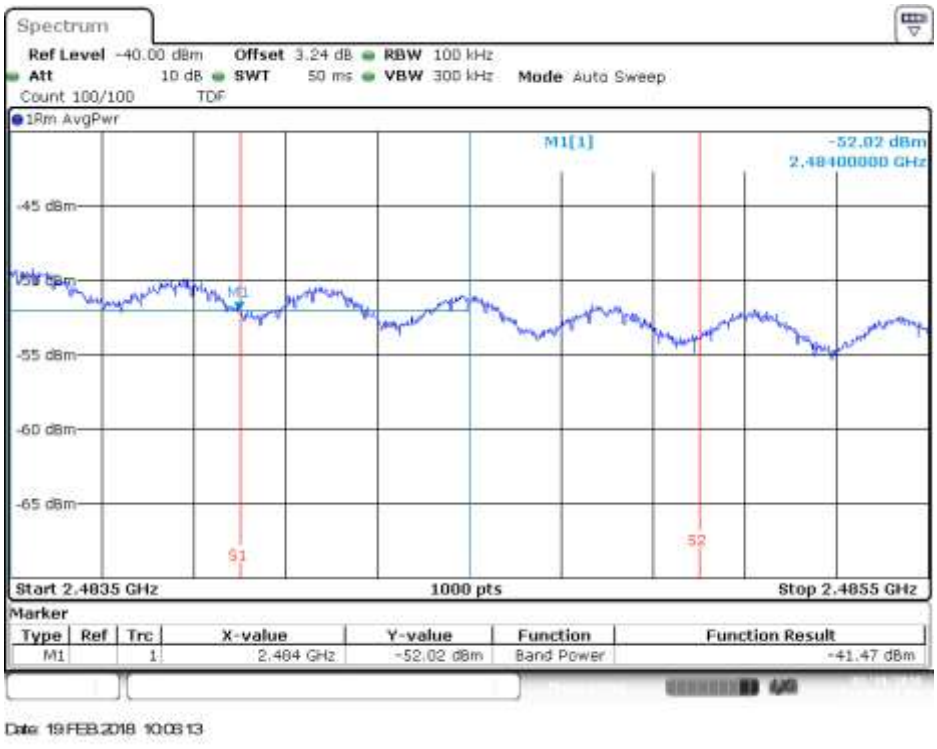
Channel 9F - BE High Freq Section RMS within 2MHz (restricted)



Channel 10F - BE High Freq Section RMS within 2MHz (restricted)

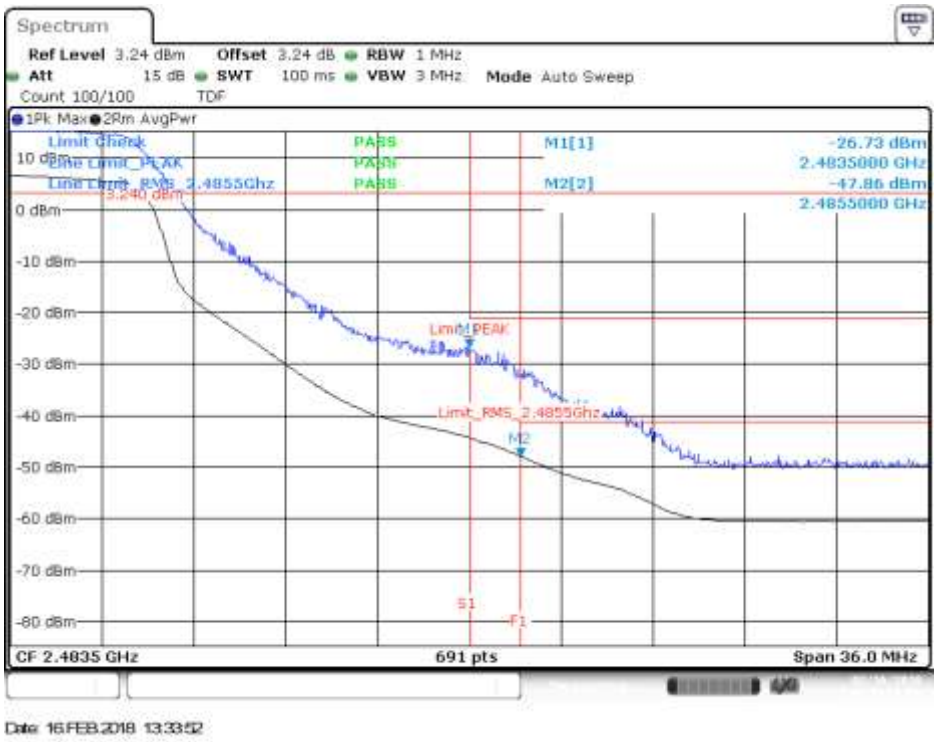


Channel 11F - BE High Freq Section RMS within 2MHz (restricted)

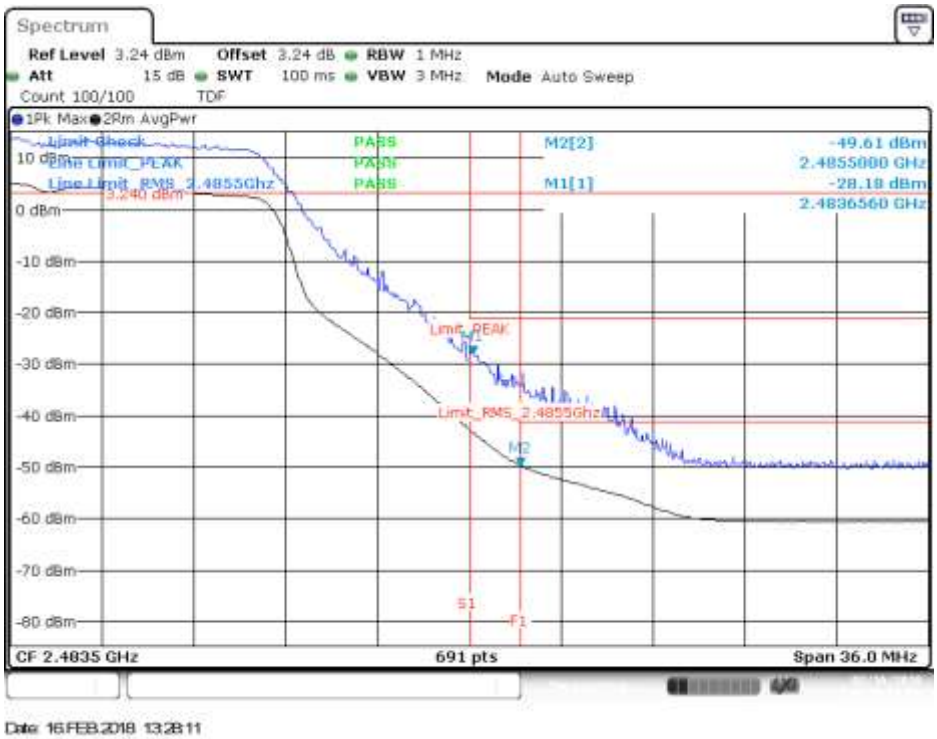


MIMO-A, 802.11n20, HT8

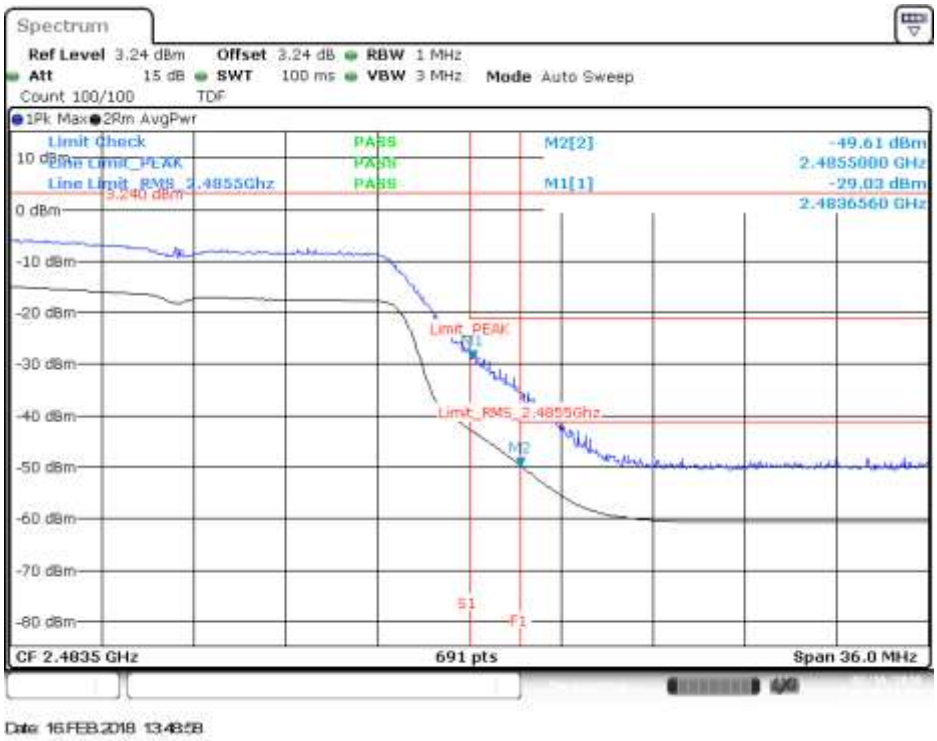
Channel 11 - BE High Freq Section (restricted)



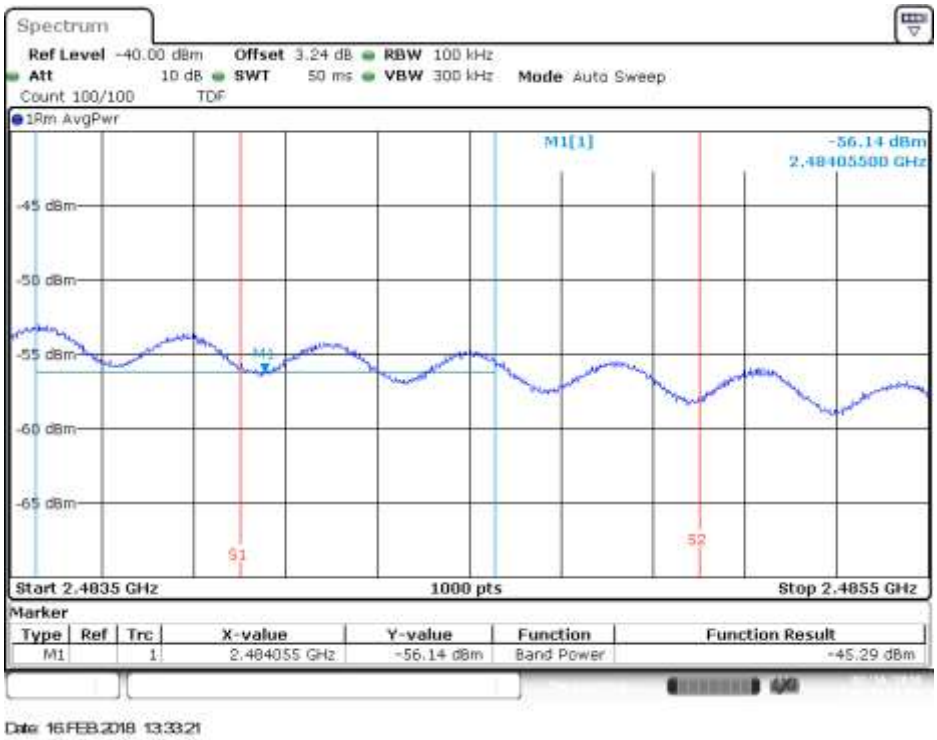
Channel 12 - BE High Freq Section (restricted)



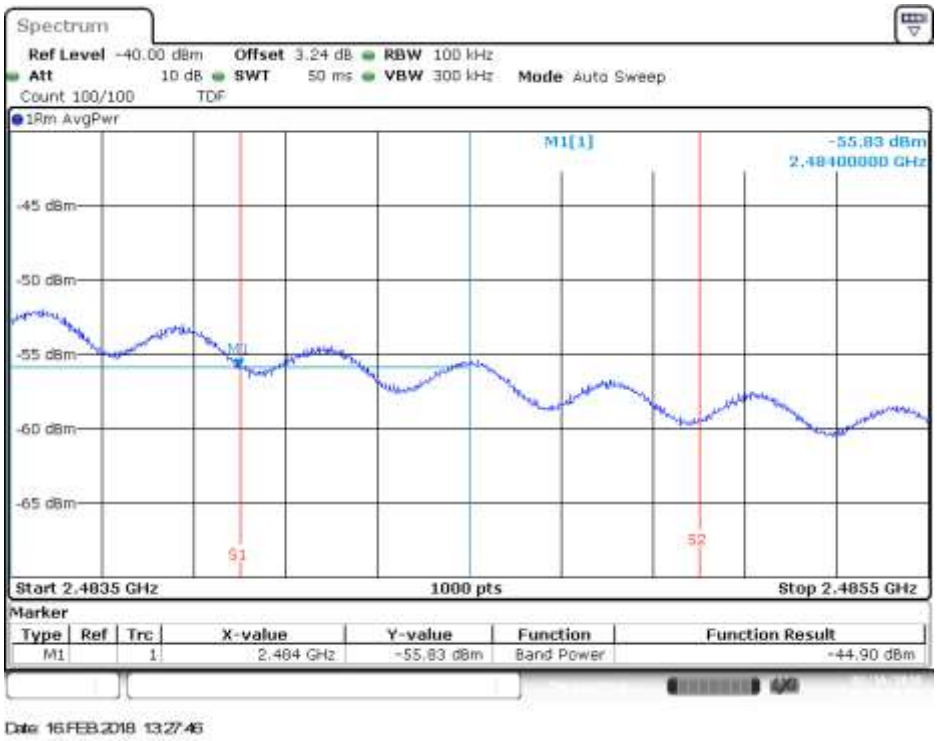
Channel 13 - BE High Freq Section (restricted)



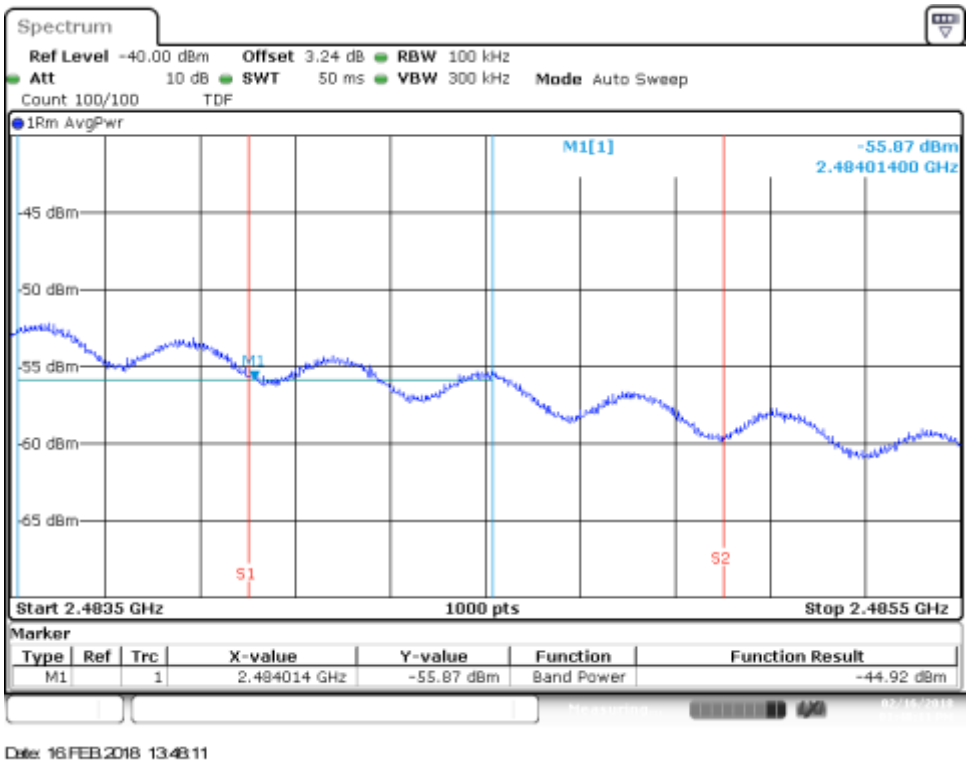
Channel 11 - BE High Freq Section RMS within 2MHz (restricted)



Channel 12 - BE High Freq Section RMS within 2MHz (restricted)

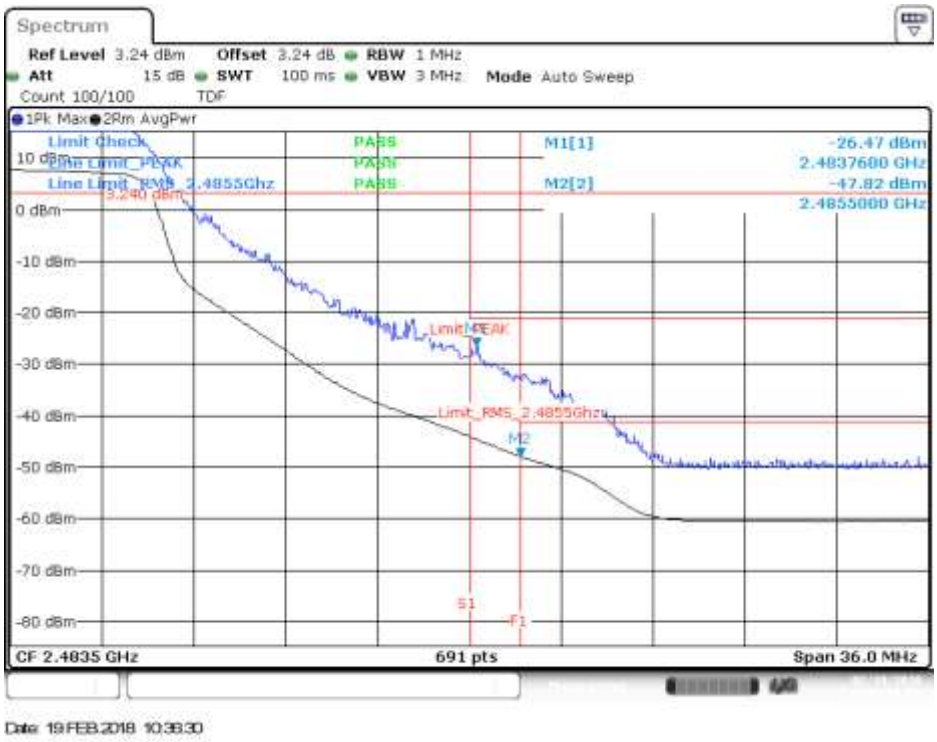


Channel 13 - BE High Freq Section RMS within 2MHz (restricted)

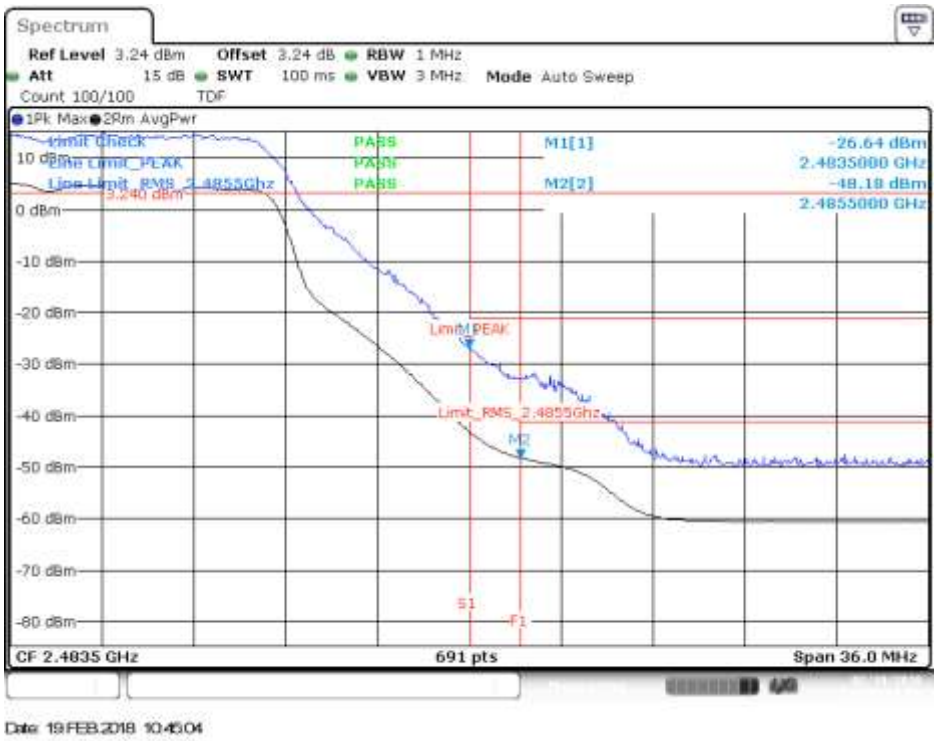


MIMO-B, 802.11n20, HT8

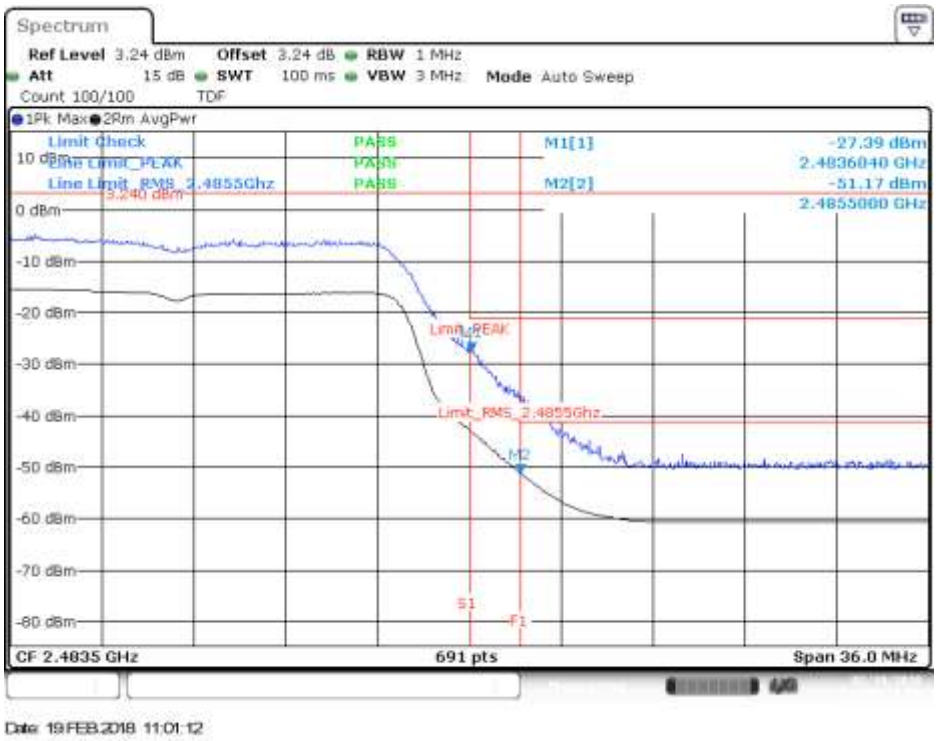
Channel 11 - BE High Freq Section (restricted)



Channel 12 - BE High Freq Section (restricted)



Channel 13 - BE High Freq Section (restricted)



Channel 11 - BE High Freq Section RMS within 2MHz (restricted)