

TEST REPORT

EUT Description	WLAN and BT, 2x2 PCIe M.2 1216 SD adapter card
Brand Name	Intel® Wi-Fi 6 AX201
Model Name	AX201D2W
FCC ID	PD9AX201D2
Date of Test Start/End	2018-08-22 / 2018-10-03
Features	802.11ax, Dual Band, 2x2 Wi-Fi + Bluetooth® 5 (see section 5)

Applicant	Intel Mobile Communications
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Reference Standards	FCC CFR Title 47 Part 15 E (see section 1)
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Test Report identification	180717-03.TR01
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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1. Standards, reference documents and applicable test methods

1. FCC 47 CFR part 15 – Subpart E – Unlicensed National Information Infrastructure Devices.
2. FCC 47 CFR part 15 - Subpart C – §15.209 Radiated emission limits; general requirements.
3. FCC OET KDB 789033 D02 General U-NII Test Procedures New Rules v02r01 – Guidelines for compliance testing of Unlicensed National Information Infrastructure (U-NII) Devices (Part 15, Subpart E).
4. 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 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	24 °C ±2°C
Humidity	60 % ± 5 %

4. Test samples

Sample	Control #	Description	Model	Serial #	Date of receipt	Note
#1	180717-03.S04	RF MODULE	AX201D2W	WFM : 3413E8C8F81B	2018-08-17	Used for conducted tests
	180717-03.S13	EXTENDER	PCB00651_01	6510818-131	2018-08-21	
	180000-01.S04	ADAPTER	JFP ADAPTER M2	-	2017-04-10	
	170000-01.S01	LAPTOP	LATITUDE E5470	DBLMC2	2017-03-28	
#2	180717-03.S06	RF MODULE	AX201D2W	WFM : 3413E8C8EBC3	2018-08-17	Radiated Spurious emission from 30 MHz to 6.4 GHz
	180326-01.S03	EXTENDER	PCB00651_01	6510818-198	2018-03-27	
	180000-01.S02	ADAPTER	JFP ADAPTER M2	-	2017-08-09	
	170209-01.S16	LAPTOP	LATITUDE E470	C1HTPF2	2017-02-09	
#3	180717-03.S11	RF MODULE	AX201D2W	WFM : 3413E8C8EBFA	2018-08-17	Radiated Spurious emission from 6.4 GHz to 40 GHz
	180717-03.S18	EXTENDER	PCB00651_01	6510817-133	2018-08-21	
	180000-01.S06	ADAPTER	JFP ADAPTER M2	-	2018-08-20	
	170801-01.S10	LAPTOP	LATITUDE E7470	7KNOXF2	2017-09-07	
#4	180717-03.S08	RF MODULE	AX201D2W	WFM : 3413E8C8F89D	2018-08-17	Radiated Spurious emission from 6.4 GHz to 40 GHz
	180717-03.S18	EXTENDER	PCB00651_01	6510817-133	2018-08-21	
	180000-01.S06	ADAPTER	JFP ADAPTER M2	-	2018-08-20	
	170801-01.S10	LAPTOP	LATITUDE E7470	7KNOXF2	2017-09-07	

5. EUT Features

Brand Name	Intel® Wi-Fi 6 AX201										
Model Name	AX201D2W										
FCC ID	PD9AX201D2										
Software Version	OEM DRTU_08048_11_1832_0G										
Driver Version	99.0.39.1 (V010.16.t64)										
Prototype / Production	Production										
Supported Radios	<table border="0"> <tr> <td>802.11b/g/n/ax</td> <td>2.4GHz (2400.0 – 2483.5 MHz)</td> </tr> <tr> <td>802.11a/n/ac/ax</td> <td>5.2GHz (5150.0 – 5350.0 MHz)</td> </tr> <tr> <td></td> <td>5.6GHz (5470.0 – 5725.0 MHz)</td> </tr> <tr> <td></td> <td>5.8GHz (5725.0 – 5850.0 MHz)</td> </tr> <tr> <td>Bluetooth 5</td> <td>2.4GHz (2400.0 – 2483.5 MHz)</td> </tr> </table>	802.11b/g/n/ax	2.4GHz (2400.0 – 2483.5 MHz)	802.11a/n/ac/ax	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)
802.11b/g/n/ax	2.4GHz (2400.0 – 2483.5 MHz)										
802.11a/n/ac/ax	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 a/n/ac/ax – U-NII-1

FCC part	Test name	Verdict
15.407 (a) (1)	Power Limits. Maximum output power	P
15.407 (a) (1)	Peak power spectral density	P
15.407 (b) (1) 15.209	Undesirable emissions limits: Band Edge (conducted)	P
15.407 (b) (1) 15.209	Undesirable emissions limits (radiated)	P

7.2. 802.11 a/n/ac/ax – U-NII-2A

FCC part	Test name	Verdict
15.407 (a) (2)	Power Limits. Maximum output power	P
15.407 (a) (2)	Peak power spectral density	P
15.407 (b) (2) 15.209	Undesirable emissions limits: Band Edge (conducted)	P
15.407 (b) (2) 15.209	Undesirable emissions limits (radiated)	P

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

8. Document Revision History

Revision #	Date	Modified by	Revision Details
Rev. 00	2018-10-03	M. Lefebvre F. Nsengiyumva	First Issue

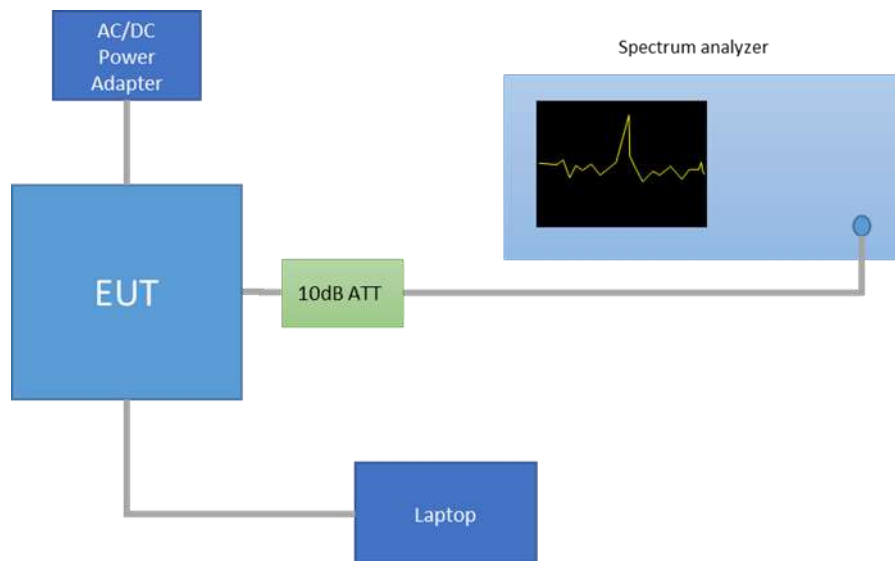
Annex A. Test & System Description

A.1 Measurement System

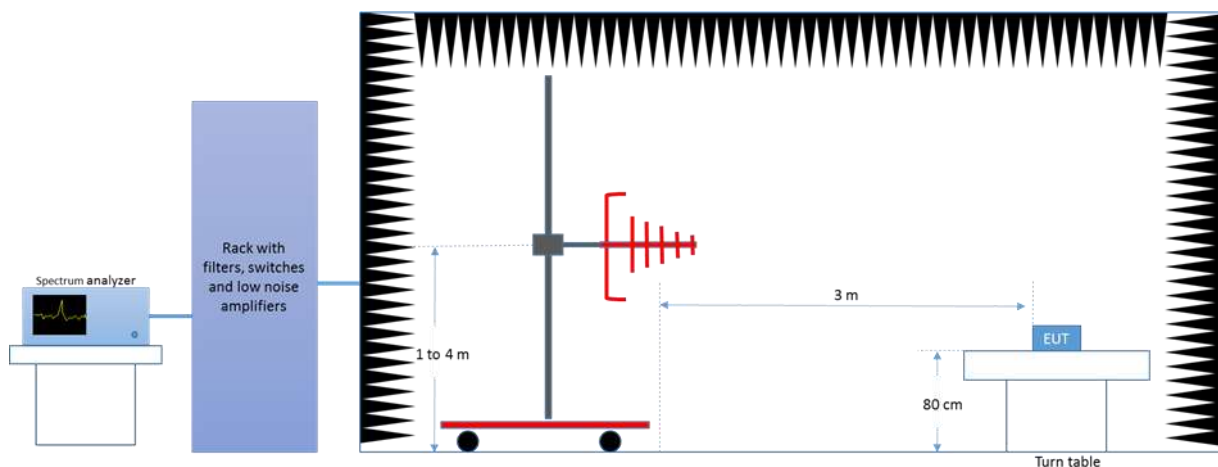
Measurements were performed using the following setups, made in accordance to the general provisions of FCC KDB 789033 D02 General UNII Test Procedures.

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.

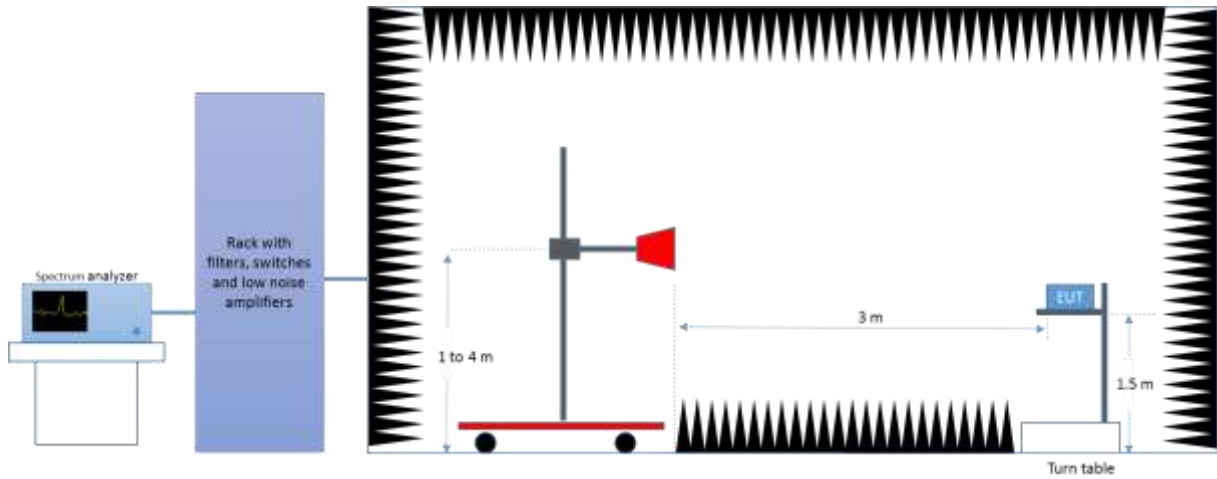
Conducted Setup



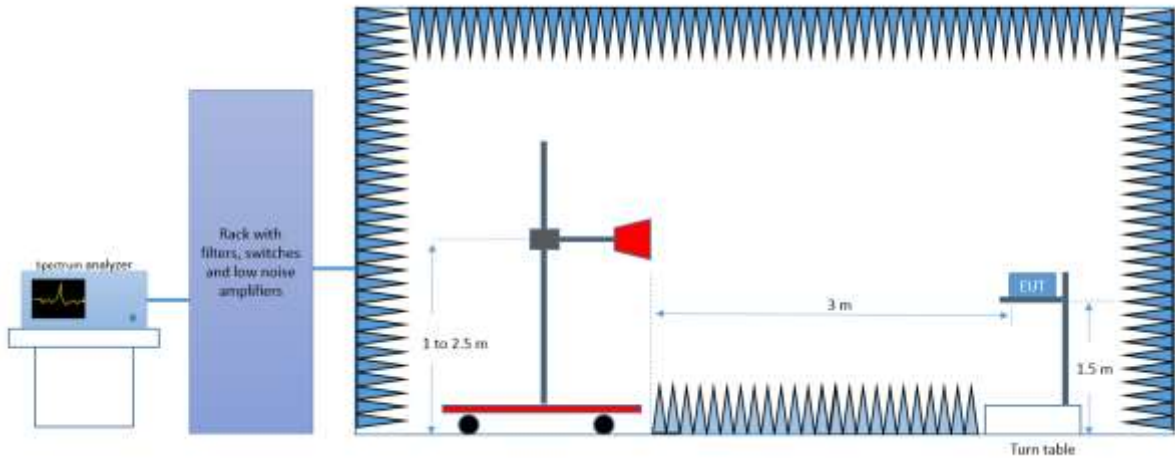
Radiated Setup 30 MHz - 1GHz



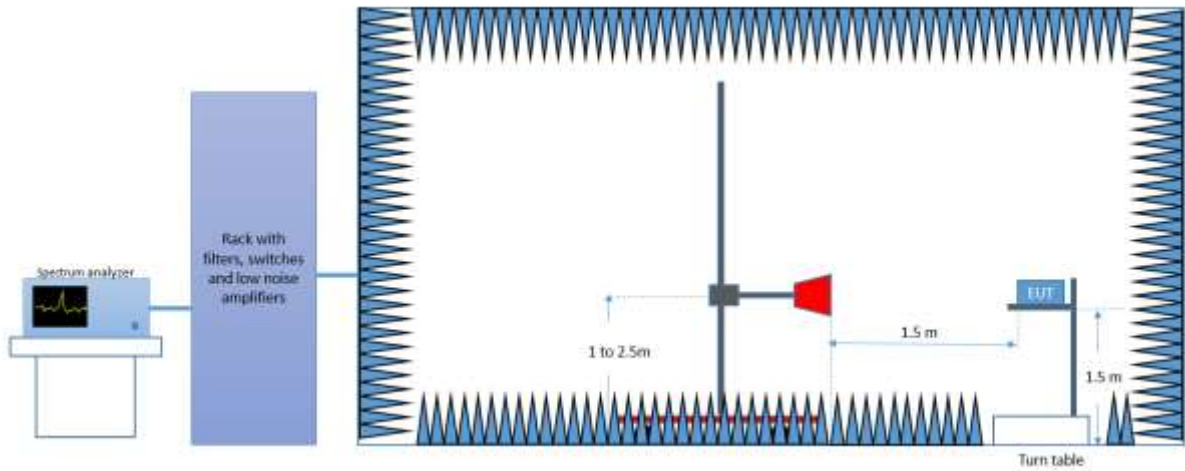
Radiated Setup 1 GHz – 6.4 GHz



Radiated Setup 6.4 GHz – 18 GHz



Radiated Setup 18 GHz – 40 GHz



A.2 Test Equipment List

Conducted Setup

ID#	Device	Type/Model	Serial #	Manufacturer	Cal. Date	Cal. Due Date
0315	Spectrum analyzer	FSV30	103307	Rohde & Schwarz	2018-04-10	2020-04-10

Radiated Setup-1

ID#	Device	Type/Model	Serial #	Manufacturer	Cal. Date	Cal. Due Date
0420	Spectrum analyzer	FSV40	101556	Rohde & Schwarz	2018-04-11	2020-04-11
0137	Log antenna 30 MHz – 1 GHz	3142E	00156946	ETS Lindgren	2017-12-19	2019-12-19
0325	Double Ridged Horn Antenna 1 GHz – 18 GHz	3117	00157734	ETS Lindgren	2017-08-22	2019-08-22
0135	Semi Anechoic chamber	FACT 3	5720	ETS Lindgren	2018-04-18	2020-04-18
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
0133	Spectrum analyzer	FSV40	101358	Rohde & Schwarz	2018-05-17	2020-05-17
0141	Double Ridged Horn Antenna 1 GHz – 18 GHz	3117	00157736	ETS Lindgren	2018-05-11	2020-05-11
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	2018-04-17	2020-04-17
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	2018-04-16	2020-04-16
0618	Power Sensor 50MHz-18GHz	NRP-Z81	104382	Rohde & Schwarz	2018-04-16	2020-04-16

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

Annex B. Test Results U-NII-1 & U-NII-2A

B.1 Test Conditions

For 802.11a mode the EUT can transmit at both CHAIN A and CHAIN B RF outputs individually, but not simultaneously.

For 802.11n20 & 802.11ax20 (20 MHz channel bandwidth), 802.11n40 & 802.11ax40 (40MHz channel bandwidth), 802.11ac80 & 802.11ax80 (80MHz channel bandwidth) and 802.11ac160 & 802.11ax160 (160MHz channel bandwidth) modes the EUT can transmit at both CHAIN A and CHAIN B RF outputs individually, and also simultaneously.

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 analyser with the channel integration method according to section II) E) 2) e) (Method SA-2 Alternative) of Guidance 789033 D02.

Measured values for adjustment were within +/- 0.25 dB from the declared Target values.

U-NII-1					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
802.11a	20	6Mbps	36	5180	19.0	19.5	-
			40	5200	19.5	20.0	-
			48	5240	21.0	21.5	-
802.11n	20	HT0 HT8*	36	5180	18.5	19.0	18.5
			40	5200	19.5	19.5	19.5
			48	5240	20.5	21.0	21.0
	40	HT0 HT8*	38F	5190	18.5	18.5	19.0
46F	5230		21.0	21.0	21.0		
802.11ac	80	VHT0	42ac80	5210	18.5	18.5	19.5
802.11ac	160	VHT0	50ac160	5250	15.0	15.5	16.0
802.11ax	20	HE0	36	5180	19.0	19.0	18.5
			40	5200	20.0	20.0	20.0
			48	5240	21.0	21.0	21.0
	40		38F	5190	18.5	19.0	18.5
	46F		5230	20.5	20.5	21.5	
802.11ax	80		42ax80	5210	18.5	18.5	19.5
802.11ax	160		50ax160	5250	15.0	15.0	16.0

* Note: HT8 for MIMO modes only.

U-NII-2A

U-NII-2A					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
802.11a	20	6Mbps	52	5260	21.5	21.5	-
			56	5280	21.5	21.5	-
			64	5320	18.5	18.5	-
802.11n	20	HT0 HT8*	52	5260	21.5	21.0	21.0
			56	5280	21.5	21.0	21.0
			64	5320	18.5	18.5	18.5
	40	HT0 HT8*	54F	5270	20.5	20.5	21.0
			62F	5310	17.5	17.5	17.5
802.11ac	80	VHT0	58ac80	5290	18.0	18.0	18.0
802.11ax	20	HE0	52	5260	21.5	21.5	21.0
			56	5280	21.5	21.5	21.0
			64	5320	18.0	18.5	18.5
	40		54F	5270	20.5	20.5	21.0
			62F	5310	17.5	17.5	17.5
802.11ax	80		58ax80	5290	18.0	18.0	17.5

* Note: HT8 for MIMO modes only.

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:

- 802.11a → 6Mbps
- 802.11n20 and 802.11n40 (SISO) → HT0
- 802.11n20 and 802.11n40 (MIMO) → HT8
- 802.11ac80 (SISO) → VHT0
- 802.11ac80 (MIMO) → VHT0
- 802.11ac160 (SISO) → VHT0
- 802.11ac160 (MIMO) → VHT0
- 802.11ax20 and 802.11ax40 (SISO) → HE0
- 802.11ax20 and 802.11ax40 (MIMO) → HE0
- 802.11ax80 (SISO) → HE0
- 802.11ax80 (MIMO) → HE0
- 802.11ax160 (SISO) → HE0
- 802.11ax160 (MIMO) → HE0

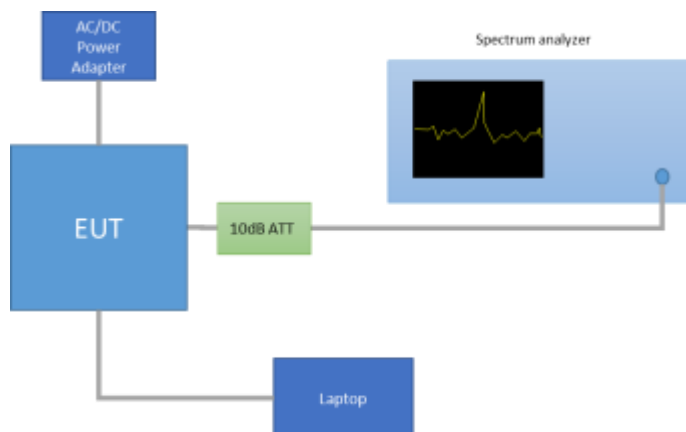
Alternative channels to the lowest and highest channels per band have been also tested for Band Edge compliance.

B.2 Test Results Tables U-NII-1

B.2.1 26dB & 99% Bandwidth

Test procedure

The setup below was used to measure the 26dB & 99% Bandwidth. 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.



Results tables

Mode	Rate	Antenna	Channel	Frequency [MHz]	26dB BW [MHz]	99% BW [MHz]
802.11a	6Mbps	SISO-A	36	5180	24.72	16.04
			40	5200	24.92	16.00
			48	5240	26.48	17.12
		SISO-B	36	5180	24.22	16.92
			40	5200	24.87	16.88
			48	5240	28.22	17.56
802.11n20	HT0	SISO-A	36	5180	24.98	17.96
			40	5200	24.93	17.96
			48	5240	25.93	18.04
		SISO-B	36	5180	25.03	17.96
			40	5200	25.28	18.00
			48	5240	27.58	18.20
802.11n20	HT8	MIMO-A	36	5180	24.93	17.96
			40	5200	25.08	17.96
			48	5240	24.93	17.96
		MIMO-B	36	5180	25.43	17.96
			40	5200	24.92	17.92
			48	5240	25.03	17.96

Mode	Rate	Antenna	Channel	Frequency [MHz]	26dB BW [MHz]	99% BW [MHz]
802.11n40	HT0	SISO-A	38F	5190	44.77	36.56
			46F	5230	48.65	36.00
		SISO-B	38F	5190	44.68	36.64
			46F	5230	56.57	36.80
	HT8	MIMO-A	38F	5190	45.05	36.64
			46F	5230	46.04	36.72
		MIMO-B	38F	5190	43.60	36.40
			46F	5230	44.50	36.40
802.11ac80	VHT0	SISO-A	42ac80	5210	86.16	75.12
		SISO-B	42ac80	5210	87.11	75.12
	VHT0	MIMO-A	42ac80	5210	87.49	75.12
		MIMO-B	42ac80	5210	87.68	75.00
802.11ac160	VHT0	SISO-A	50ac160	5250	164.51	152.80
		SISO-B	50ac160	5250	163.51	154.60
	VHT0	MIMO-A	50ac160	5250	165.49	153.00
		MIMO-B	50ac160	5250	163.51	153.00

Mode	Rate	Antenna	Channel	Frequency [MHz]	26dB BW [MHz]	99% BW [MHz]
802.11ax20	HE0	SISO-A	36	5180	24.07	19.08
			40	5200	24.37	19.08
			48	5240	24.87	19.16
		SISO-B	36	5180	24.37	19.08
			40	5200	24.87	19.08
			48	5240	25.77	19.16
802.11ax20	HE0	MIMO-A	36	5180	24.32	19.12
			40	5200	25.08	19.12
			48	5240	24.37	19.08
		MIMO-B	36	5180	24.67	19.08
			40	5200	24.37	19.08
			48	5240	24.92	19.08

Max Value

Mode	Rate	Antenna	Channel	Frequency [MHz]	26dB BW [MHz]	99% BW [MHz]
802.11ax40	HE0	SISO-A	38F	5190	44.32	37.84
			46F	5230	44.86	38.00
		SISO-B	38F	5190	43.51	37.92
			46F	5230	55.05	38.16
		MIMO-A	38F	5190	44.32	37.84
			46F	5230	44.77	37.92
MIMO-B		38F	5190	44.14	37.84	
		46F	5230	44.05	37.92	
802.11ax80		SISO-A	42ax80	5210	83.68	76.80
		SISO-B	42ax80	5210	85.21	76.80
		MIMO-A	42ax80	5210	83.87	76.80
		MIMO-B	42ax80	5210	83.68	76.80
802.11ax160	SISO-A	50ax160	5250	162.85	154.80	
	SISO-B	50ax160	5250	163.18	154.40	
	MIMO-A	50ax160	5250	163.84	154.60	
	MIMO-B	50ax160	5250	163.51	154.60	

Max Value

Mode	Rate	Antenna	Channel	Frequency [MHz]	RU Configuration	6dB BW [MHz]	99% BW [MHz]
802.11ax20	HE0	SISO-A	36	5180	26/0	20.72	18.36
					52/37	21.37	18.44
					106/53	21.72	18.20
		SISO-B			26/0	20.82	18.64
					52/37	21.47	18.44
					106/53	22.52	18.36
		MIMO-A			26/0	20.57	18.52
					52/37	21.47	18.44
					106/53	22.57	18.36
		MIMO-B			26/0	20.12	18.32
					52/37	20.42	18.16
					106/53	22.27	18.28
802.11ax40	HE0	SISO-A	38F	5190	242/61	24.96	19.28
		SISO-B			242/61	25.05	19.12
		MIMO-A			242/61	24.86	19.20
		MIMO-B			242/61	28.65	19.36
802.11ax80	HE0	SISO-A	42ax80	5210	484/65	44.51	37.92
		SISO-B			484/65	44.51	38.04
		MIMO-A			484/65	45.27	37.92
		MIMO-B			484/65	44.12	37.92
802.11ax160	HE0	SISO-A	50ax160	5210	996/67	86.55	76.80
					996/S67	85.89	77.00
		SISO-B			996/67	85.23	76.80
		996/S67			86.55	77.00	
	HE0	MIMO-A		5250	996/67	86.22	76.80
					996/S67	85.22	76.80
		MIMO-B			996/67	84.89	76.80
					996/S67	85.23	76.80

Max Value

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

B.2.2 Power Limits. Maximum Output power & Peak power spectral density

Test limits

FCC part	Limits
15.407 (a) (1) (iv)	For client devices in the 5.15-5.25 GHz band, the maximum conducted output power over the frequency band of operation shall not exceed 250 mW provided the maximum antenna gain does not exceed 6 dBi. In addition, the maximum power spectral density shall not exceed 11 dBm in any 1 megahertz band. If transmitting antennas of directional gain greater than 6 dBi are used, both the maximum conducted output power and the maximum power spectral density shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

Test procedure

The Maximum Conducted Output Power was measured using the channel integration method according to section E) 2) e) (Method SA-2 Alternative) of KDB 789033 D02.

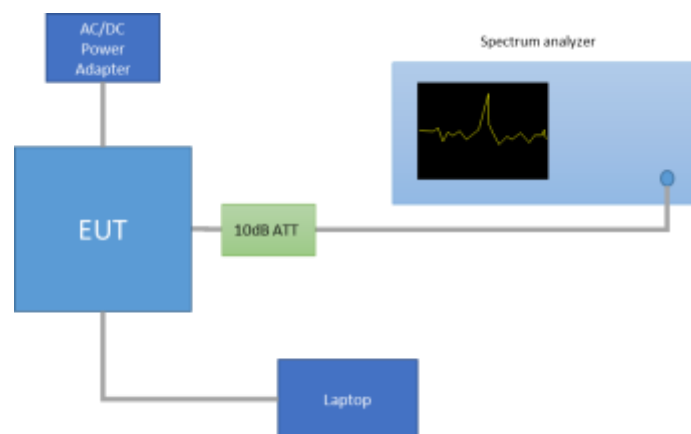
The maximum power spectral density (PSD) was measured using the method according to section F) (Method SA-2 Alternative) of KDB 789033 D02.

In the measure-and-sum approach for MIMO mode, 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 setup below was used to measure the maximum conducted output power and power spectral density. The antenna terminal of the EUT is connected to the spectrum analyser through an attenuator, and the spectrum analyzer reading is compensated to include the RF path loss.

The declared maximum antenna gain is 5dBi.



Results tables
Duty cycle

Mode	Rate	Antenna	Transmission Duration [ms]	Transmission Period [ms]	Duty Cycle [%]
802.11a	6Mbps	SISO-A	2.07	2.13	97.38%
		SISO-B	2.07	2.13	97.38%
802.11n20	HT0	SISO-A	4.05	4.10	98.63%
		SISO-B	4.05	4.10	98.63%
	HT8	MIMO-A	3.96	4.02	98.56%
		MIMO-B	3.96	4.02	98.56%
802.11ax20	HE0	SISO-A	3.94	3.99	98.66%
		SISO-B	3.94	3.99	98.66%
		MIMO-A	3.96	4.02	98.68%
		MIMO-B	3.96	4.02	98.68%
802.11n40	HT0	SISO-A	3.96	4.01	98.67%
		SISO-B	3.96	4.01	98.67%
	HT8	MIMO-A	3.96	4.02	98.66%
		MIMO-B	3.96	4.02	98.66%
802.11ax40	HE0	SISO-A	3.95	4.00	98.67%
		SISO-B	3.95	4.00	98.67%
		MIMO-A	3.95	4.00	98.64%
		MIMO-B	3.95	4.00	98.64%
802.11ac80	VHT0	SISO-A	3.95	4.00	98.67%
		SISO-B	3.95	4.00	98.67%
		MIMO-A	3.95	4.01	98.61%
		MIMO-B	3.95	4.01	98.61%
802.11ax80	HE0	SISO-A	3.95	4.01	98.59%
		SISO-B	3.95	4.01	98.59%
		MIMO-A	3.96	4.02	98.66%
		MIMO-B	3.96	4.02	98.66%
802.11ac160	VTH0	SISO-A	3.94	4.00	98.55%
		SISO-B	3.94	4.00	98.55%
		MIMO-A	2.77	2.82	98.22%
		MIMO-B	2.77	2.82	98.22%
802.11ax160	HE0	SISO-A	3.96	4.02	98.61%
		SISO-B	3.96	4.02	98.61%
		MIMO-A	2.28	2.33	97.93%
		MIMO-B	2.28	2.33	97.93%

Maximum output power

Mode	Rate	Channel	Freq. [MHz]	Antenna	Average Conducted Output Power [dBm]	Maximum* Conducted Output Power [dBm]	Maximum* Conducted Output Power [mW]	Max of EIRP [dBm]	
802.11a	6Mbps	36	5180	SISO-A	18.66	18.78	75.43	23.78	
				SISO-B	19.17	19.29	84.83	24.29	
		40	5200	SISO-A	19.36	19.48	88.62	24.48	
				SISO-B	19.93	20.05	101.05	25.05	
		48	5240	SISO-A	20.74	20.86	121.77	25.86	
				SISO-B	21.50	21.62	145.05	26.62	
802.11n20	HT0	36	5180	SISO-A	18.53	18.53	71.29	23.53	
				SISO-B	18.95	18.95	78.52	23.95	
		40	5200	SISO-A	19.29	19.29	84.92	24.29	
				SISO-B	19.71	19.71	93.54	24.71	
		48	5240	SISO-A	20.72	20.72	118.03	25.72	
				SISO-B	21.14	21.14	130.02	26.14	
	HT8	36	5180	MIMO-A	15.57	15.57	36.06	20.57	
				MIMO-B	15.82	15.82	38.19	20.82	
				Combined A+B	18.71	18.71	74.25	23.71	
		40	5200	MIMO-A	16.39	16.39	43.55	21.39	
				MIMO-B	16.65	16.65	46.24	21.65	
				Combined A+B	19.53	19.53	89.79	24.53	
		48	5240	MIMO-A	17.73	17.73	59.29	22.73	
				MIMO-B	17.93	17.93	62.09	22.93	
				Combined A+B	20.84	20.84	121.38	25.84	
	802.11ax20	HE0	36	5180	SISO-A	18.85	18.85	76.74	23.85
					SISO-B	19.08	19.08	80.91	24.08
			40	5200	SISO-A	19.88	19.88	97.27	24.88
SISO-B					19.96	19.96	99.08	24.96	
48			5240	SISO-A	21.16	21.16	130.62	26.16	
				SISO-B	21.07	21.07	127.94	26.07	
36			5180	MIMO-A	15.73	15.73	37.41	20.73	
				MIMO-B	15.72	15.72	37.33	20.72	
				Combined A+B	18.74	18.74	74.74	23.74	
40			5200	MIMO-A	16.72	16.72	46.99	21.72	
				MIMO-B	16.93	16.93	49.32	21.93	
				Combined A+B	19.84	19.84	96.31	24.84	
48			5240	MIMO-A	17.95	17.95	62.37	22.95	
				MIMO-B	18.17	18.17	65.61	23.17	
				Combined A+B	21.07	21.07	127.99	26.07	

Mode	Rate	Channel	Freq. [MHz]	Antenna	Average Conducted Output Power [dBm]	Maximum* Conducted Output Power [dBm]	Maximum* Conducted Output Power [mW]	Max of EIRP [dBm]
802.11n40	HT0	38F	5190	SISO-A	18.73	18.73	74.64	23.73
				SISO-B	18.64	18.64	73.11	23.64
		46F	5230	SISO-A	21.13	21.13	129.72	26.13
				SISO-B	21.08	21.08	128.23	26.08
	HT8	38F	5190	MIMO-A	15.85	15.85	38.46	20.85
				MIMO-B	15.90	15.90	38.90	20.90
				Combined A+B	18.89	18.89	77.36	23.89
		46F	5230	MIMO-A	17.82	17.82	60.53	22.82
				MIMO-B	18.06	18.06	63.97	23.06
				Combined A+B	20.95	20.95	124.51	25.95
802.11ac80	VHT0	42ac80	5210	SISO-A	18.67	18.67	73.62	23.67
				SISO-B	18.42	18.42	69.50	23.42
				MIMO-A	16.65	16.65	46.24	21.65
				MIMO-B	16.03	16.03	40.09	21.03
				Combined A+B	19.36	19.36	86.32	24.36
802.11ac160	VHT0	50ac160	5250	SISO-A	14.96	14.96	31.33	19.96
				SISO-B	15.25	15.25	33.50	20.25
				MIMO-A	13.13	13.13	20.56	18.13
				MIMO-B	13.15	13.15	20.65	18.15
				Combined A+B	16.15	16.15	41.21	21.15
802.11ax40	HE0	38F	5190	SISO-A	18.61	18.61	72.61	23.61
				SISO-B	18.83	18.83	76.38	23.83
		46F	5230	SISO-A	20.69	20.69	117.22	25.69
				SISO-B	20.73	20.73	118.30	25.73
		38F	5190	MIMO-A	15.71	15.71	37.24	20.71
				MIMO-B	15.76	15.76	37.67	20.76
				Combined A+B	18.75	18.75	74.91	23.75
		46F	5230	MIMO-A	18.17	18.17	65.61	23.17
				MIMO-B	18.39	18.39	69.02	23.39
				Combined A+B	21.29	21.29	134.64	26.29
802.11ax80	42ax80	5210	SISO-A	18.68	18.68	73.79	23.68	
			SISO-B	18.65	18.65	73.28	23.65	
			MIMO-A	16.25	16.25	42.17	21.25	
			MIMO-B	16.58	16.58	45.50	21.58	
			Combined A+B	19.43	19.43	87.67	24.43	
802.11ax160	50ax160	5250	SISO-A	15.12	15.12	32.51	20.12	
			SISO-B	15.22	15.22	33.27	20.22	
			MIMO-A	12.79	12.88	19.41	17.88	
			MIMO-B	13.04	13.13	20.56	18.13	
			Combined A+B	15.93	16.02	39.98	21.02	

Mode	Rate	Antenna	Channel	Frequency [MHz]	RU Configur ation	Average Conducted Output Power [dBm]	Maximum* Conducted Output Power [dBm]	Maximum* Conducted Output Power [mW]	Max of EIRP [dBm]	
802.11ax20	HEO	SISO-A	36	5180	26/0	13.51	13.51	22.44	18.51	
		SISO-A			52/37	16.53	16.53	44.98	21.53	
		SISO-A			106/53	18.78	18.78	75.51	23.78	
		SISO-B			26/0	13.66	13.66	23.23	18.66	
		SISO-B			52/37	16.66	16.66	46.34	21.66	
		SISO-B			106/53	19.59	19.59	90.99	24.59	
		MIMO-A			26/0	10.70	10.70	11.75	15.70	
		MIMO-B				10.67	10.67	11.67	15.67	
		Combined A+B				13.70	13.70	23.42	18.70	
		MIMO-A			52/37	13.57	13.57	22.75	18.57	
		MIMO-B				13.63	13.63	23.07	18.63	
		Combined A+B				16.61	16.61	45.82	21.61	
		MIMO-A			106/53	16.05	16.05	40.27	21.05	
		MIMO-B				17.42	17.42	55.21	22.42	
		Combined A+B				19.80	19.80	95.48	24.80	
		802.11ax40			HEO	SISO-A	38F	5190	242/61	19.11
SISO-B	18.97		18.97	78.89		23.97				
MIMO-A	16.04		16.04	40.18		21.04				
MIMO-B	17.51		17.51	56.36		22.51				
Combined A+B	19.85		19.85	96.54		24.85				
802.11ax80	HEO	SISO-A	42ax80	5210	484/65	18.76	18.76	75.16	23.76	
		SISO-B				19.13	19.13	81.85	24.13	
		MIMO-A				17.08	17.08	51.05	22.08	
		MIMO-B				16.42	16.42	43.95	21.42	
		Combined A+B				19.78	19.78	95.00	24.78	
802.11ax160	HEO	SISO-A	50ax160	5250	996/67	18.14	18.14	65.16	23.14	
		SISO-B				18.19	18.19	65.92	23.19	
		SISO-A				996/S67	15.36	15.36	34.36	20.36
		SISO-B					15.86	15.86	38.55	20.86
	HEO	MIMO-A			996/67	16.05	16.14	41.12	21.14	
		MIMO-B				16.21	16.30	42.67	21.30	
		Combined A+B				19.14	19.23	83.79	24.23	
		MIMO-A			996/S67	13.18	13.27	21.24	18.27	
		MIMO-B				13.08	13.17	20.75	18.17	
		Combined A+B				16.14	16.23	41.99	21.23	

* Maximum values are the duty cycle compensated values calculated from the average (measured) values

Max Value

Min Value

Maximum power spectral Density (PSD)

Mode	Rate	Channel	Freq. [MHz]	Antenna	Average conducted PSD [dBm/MHz]	Maximum* conducted PSD [dBm/MHz]
802.11a	6Mbps	36	5180	SISO-A	7.04	7.16
				SISO-B	7.53	7.65
		40	5200	SISO-A	7.71	7.83
				SISO-B	8.29	8.41
		48	5240	SISO-A	9.07	9.19
				SISO-B	9.81	9.93
802.11n20	HT0	36	5180	SISO-A	6.58	6.58
				SISO-B	6.99	6.99
		40	5200	SISO-A	7.33	7.33
				SISO-B	7.75	7.75
		48	5240	SISO-A	8.75	8.75
				SISO-B	9.20	9.20
	HT8	36	5180	MIMO-A	3.61	3.61
				MIMO-B	3.88	3.88
				Combined A+B	6.76	6.76
		40	5200	MIMO-A	4.43	4.43
				MIMO-B	4.70	4.70
				Combined A+B	7.58	7.58
		48	5240	MIMO-A	5.77	5.77
				MIMO-B	5.97	5.97
				Combined A+B	8.88	8.88

Mode	Rate	Channel	Freq. [MHz]	Antenna	Average conducted PSD [dBm/MHz]	Maximum* conducted PSD [dBm/MHz]
802.11n40	HT0	38F	5190	SISO-A	3.63	3.63
				SISO-B	3.53	3.53
		46F	5230	SISO-A	6.03	6.03
				SISO-B	5.99	5.99
	HT8	38F	5190	MIMO-A	0.73	0.73
				MIMO-B	0.82	0.82
				Combined A+B	3.79	3.79
		46F	5230	MIMO-A	2.70	2.70
				MIMO-B	2.96	2.96
				Combined A+B	5.84	5.84
802.11ac80	VHT0	42ac80	5210	SISO-A	1.15	1.15
				SISO-B	0.92	0.92
				MIMO-A	-0.85	-0.85
				MIMO-B	-1.48	-1.48
				Combined A+B	1.86	1.86
802.11ac160	VHT0	50ac160	5250	SISO-A	-5.34	-5.34
				SISO-B	-5.16	-5.16
				MIMO-A	-7.17	-7.17
				MIMO-B	-7.11	-7.11
				Combined A+B	-4.13	-4.13

Mode	Rate	Channel	Freq. [MHz]	Antenna	Average conducted PSD [dBm/MHz]	Maximum* conducted PSD [dBm/MHz]
802.11ax20	HE0	36	5180	SISO-A	6.59	6.59
				SISO-B	6.83	6.83
		40	5200	SISO-A	7.61	7.61
				SISO-B	7.70	7.70
		48	5240	SISO-A	8.91	8.91
				SISO-B	8.79	8.79
	36	5180	MIMO-A	3.46	3.46	
			MIMO-B	3.55	3.55	
			Combined A+B	6.52	6.52	
	40	5200	MIMO-A	4.43	4.43	
			MIMO-B	4.66	4.66	
			Combined A+B	7.56	7.56	
48	5240	MIMO-A	5.69	5.69		
		MIMO-B	5.90	5.90		
		Combined A+B	8.81	8.81		
802.11ax40	HE0	38F	5190	SISO-A	3.30	3.30
				SISO-B	3.52	3.52
		46F	5230	SISO-A	5.36	5.36
				SISO-B	5.43	5.43
		38F	5190	MIMO-A	0.44	0.44
				MIMO-B	0.47	0.47
	Combined A+B			3.47	3.47	
	46F	5230	MIMO-A	2.84	2.84	
			MIMO-B	3.06	3.06	
Combined A+B			5.96	5.96		
802.11ax80	42ax80	5210	SISO-A	1.04	1.04	
			SISO-B	1.05	1.05	
			MIMO-A	-1.35	-1.35	
			MIMO-B	-1.05	-1.05	
			Combined A+B	1.81	1.81	
802.11ax160	50ax160	5250	SISO-A	-5.30	-5.30	
			SISO-B	-5.16	-5.16	
			MIMO-A	-7.63	-7.54	
			MIMO-B	-7.33	-7.24	
			Combined A+B	-4.47	-4.38	

* Maximum values are the duty cycle compensated values calculated from the measured average values

Mode	Rate	Antenna	Channel	Frequency [MHz]	RU Configuration	Average conducted PSD [dBm/MHz]	Maximum* conducted PSD [dBm/MHz]	
802.11ax20	HE0	SISO-A	36	5180	26/0	10.68	10.68	
		SISO-A			52/37	10.88	10.88	
		SISO-A			106/53	9.97	9.97	
		SISO-B			26/0	10.83	10.83	
		SISO-B			52/37	10.87	10.87	
		SISO-B			106/53	10.81	10.81	
		MIMO-A			26/0	7.86	7.86	
		MIMO-B				7.92	7.92	
		Combined A+B				10.90	10.90	
		MIMO-A			53/37	7.83	7.83	
		MIMO-B				7.92	7.92	
		Combined A+B				10.89	10.89	
		MIMO-A			106/53	7.19	7.19	
		MIMO-B				8.57	8.57	
		Combined A+B				10.94	10.94	
		802.11ax40			HE0	SISO-A	38F	5190
SISO-B	6.63		6.63					
MIMO-A	3.67		3.67					
MIMO-B	5.14		5.14					
Combined A+B	7.48		7.48					
802.11ax80	HE0	SISO-A	42ax80	5210	484/65	3.52	3.52	
		SISO-B				3.88	3.88	
		MIMO-A				1.85	1.85	
		MIMO-B				1.25	1.25	
		Combined A+B				4.57	4.57	
802.11ax160	HE0	SISO-A	50ax160	5250	996/67	0.74	0.74	
		SISO-B				0.78	0.78	
		SISO-A				996/S67	-2.17	-2.17
		SISO-B				-1.62	-1.62	
	HE0	MIMO-A			996/67	-1.37	-1.28	
		MIMO-B				-1.20	-1.11	
		Combined A+B				1.73	1.82	
		MIMO-A			996/S67	-4.27	-4.18	
		MIMO-B				-4.36	-4.27	
		Combined A+B				-1.30	-1.21	

See Section B.3.3 for the screenshot results.

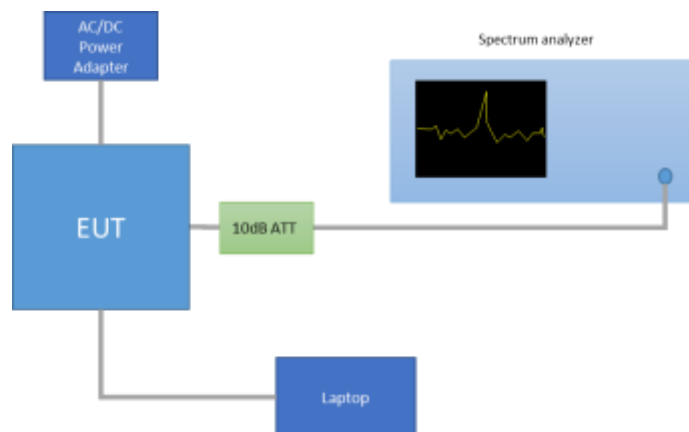
B.2.3 Undesirable emission limits : Band Edge (Conducted)

Test limits

FCC part	Limits																				
15.407 (b) (1)	For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.																				
15.209	<p>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):</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="background-color: #d9e1f2;">Freq Range (MHz)</th> <th style="background-color: #d9e1f2;">Field Strength (µV/m)</th> <th style="background-color: #d9e1f2;">Field Strength (dBµV/m)</th> <th style="background-color: #d9e1f2;">Meas. Distance (m)</th> </tr> </thead> <tbody> <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> </tbody> </table> <p>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.</p>	Freq Range (MHz)	Field Strength (µV/m)	Field Strength (dBµV/m)	Meas. Distance (m)	30-88	100	40	3	88-216	150	43.5	3	216-960	200	46	3	Above 960	500	54	3
Freq Range (MHz)	Field Strength (µV/m)	Field Strength (dBµV/m)	Meas. Distance (m)																		
30-88	100	40	3																		
88-216	150	43.5	3																		
216-960	200	46	3																		
Above 960	500	54	3																		

Test procedure

The setup below was used to measure undesirable emissions on the Band Edge domain. 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 and the declared Antenna Gain.



For Band Edge measurements in average mode on the low frequency section, one of the two methods is used according to section G) 6) (KDB 789033 D02):

- 1) Method AD (Average Detection) as per paragraph II.G.6.c.
- 2) Method VB (Averaging using reduced video bandwidth) as per paragraph II.G.6.d.

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 5dBi.

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 dB μ V/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

See Section B.3.4 for the screenshot results.

B.2.4 Radiated spurious emission

Standard references

FCC part	Limits																																
15.407 (b) (1)	For transmitters operating in the 5.15-5.25 GHz band: All emissions outside of the 5.15-5.35 GHz band shall not exceed an e.i.r.p. of -27 dBm/MHz.																																
15.209	<p>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):</p> <table border="1" data-bbox="541 562 1331 909"> <thead> <tr> <th data-bbox="547 568 740 631">Freq Range (MHz)</th> <th data-bbox="740 568 933 631">Field Strength (μV/m)</th> <th data-bbox="933 568 1126 631">Field Strength (dBμV/m)</th> <th data-bbox="1126 568 1326 631">Meas. Distance (m)</th> </tr> </thead> <tbody> <tr> <td data-bbox="547 631 740 672">0.009-0.490</td> <td data-bbox="740 631 933 672">2400/f(kHz)</td> <td data-bbox="933 631 1126 672">-</td> <td data-bbox="1126 631 1326 672">300</td> </tr> <tr> <td data-bbox="547 672 740 712">0.490-1.705</td> <td data-bbox="740 672 933 712">24000/f(kHz)</td> <td data-bbox="933 672 1126 712">-</td> <td data-bbox="1126 672 1326 712">300</td> </tr> <tr> <td data-bbox="547 712 740 752">1.705-30.0</td> <td data-bbox="740 712 933 752">30</td> <td data-bbox="933 712 1126 752">-</td> <td data-bbox="1126 712 1326 752">30</td> </tr> <tr> <td data-bbox="547 752 740 792">30-88</td> <td data-bbox="740 752 933 792">100</td> <td data-bbox="933 752 1126 792">40</td> <td data-bbox="1126 752 1326 792">3</td> </tr> <tr> <td data-bbox="547 792 740 833">88-216</td> <td data-bbox="740 792 933 833">150</td> <td data-bbox="933 792 1126 833">43.5</td> <td data-bbox="1126 792 1326 833">3</td> </tr> <tr> <td data-bbox="547 833 740 873">216-960</td> <td data-bbox="740 833 933 873">200</td> <td data-bbox="933 833 1126 873">46</td> <td data-bbox="1126 833 1326 873">3</td> </tr> <tr> <td data-bbox="547 873 740 913">Above 960</td> <td data-bbox="740 873 933 913">500</td> <td data-bbox="933 873 1126 913">54</td> <td data-bbox="1126 873 1326 913">3</td> </tr> </tbody> </table> <p data-bbox="389 943 1485 1061">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.</p> <p data-bbox="389 1064 1485 1153">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.</p>	Freq Range (MHz)	Field Strength (μ V/m)	Field Strength (dB μ V/m)	Meas. Distance (m)	0.009-0.490	2400/f(kHz)	-	300	0.490-1.705	24000/f(kHz)	-	300	1.705-30.0	30	-	30	30-88	100	40	3	88-216	150	43.5	3	216-960	200	46	3	Above 960	500	54	3
Freq Range (MHz)	Field Strength (μ V/m)	Field Strength (dB μ V/m)	Meas. Distance (m)																														
0.009-0.490	2400/f(kHz)	-	300																														
0.490-1.705	24000/f(kHz)	-	300																														
1.705-30.0	30	-	30																														
30-88	100	40	3																														
88-216	150	43.5	3																														
216-960	200	46	3																														
Above 960	500	54	3																														

Test procedure

The setup below was used to measure the radiated spurious emissions.

Depending of the frequency range and bands being tested, different antennas and filters were used.

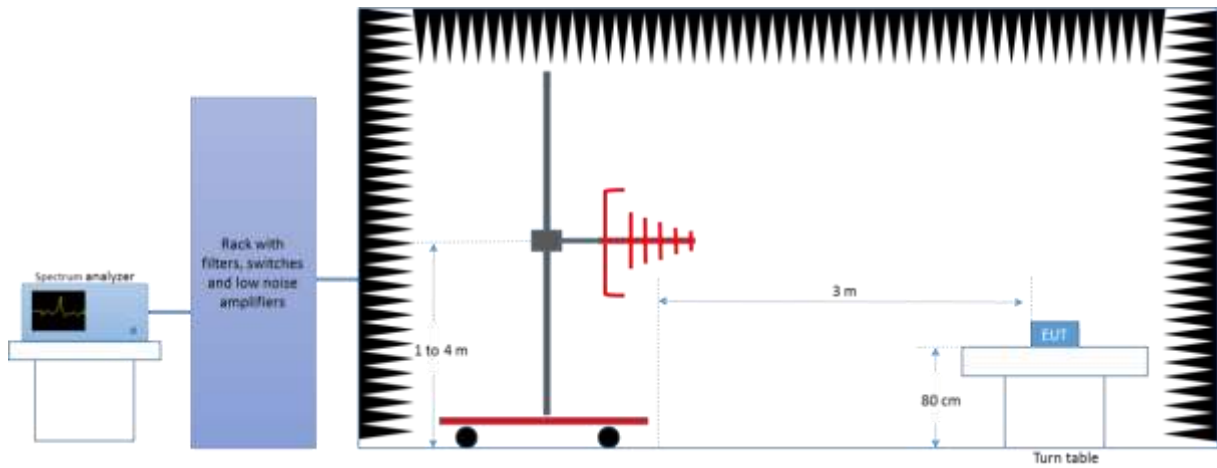
The final measurement is done by varying the antenna height, the EUT azimuth over 360° and for both Vertical and Horizontal polarizations.

The radiated spurious emission was measured on the worst case configuration selected from the chapter B.2.2 and using the low, middle and high channel.

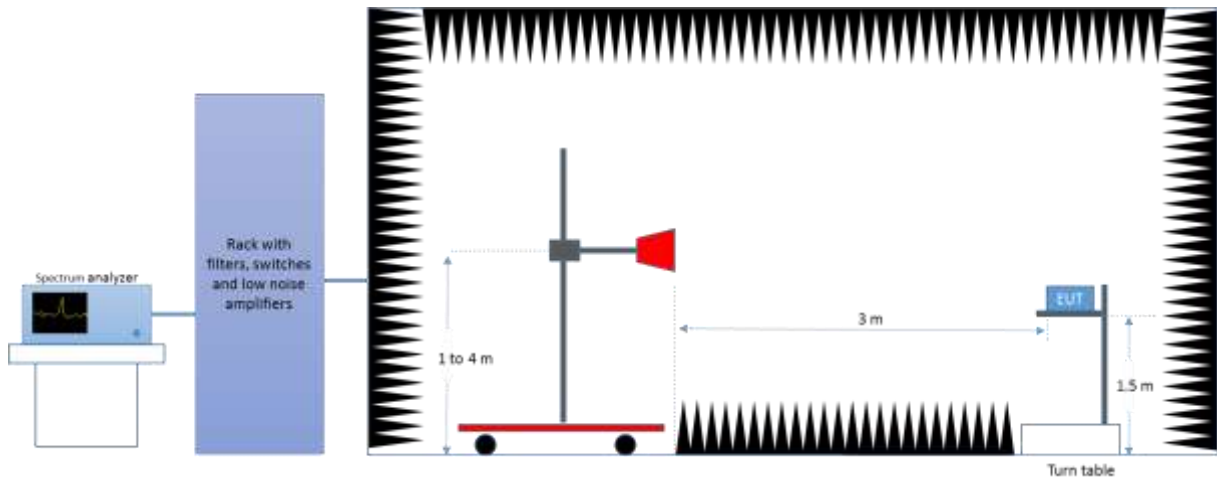
For technologies 802.11ax20, 802.11ax40, 802.11ax80 and 802.11ax160, the worst case spurious emission result among the low, mid and high channels tested separately on Chain A and B is used to perform the test on MIMO mode (Chain A+B).

For 802.11n20, 802.11n40, 802.11ac80 and 802.11ac160 the worst channel found among all 802.11ax modes mentioned above is chosen to perform the test in Chain A, B ,and MIMO (Chain A+B).

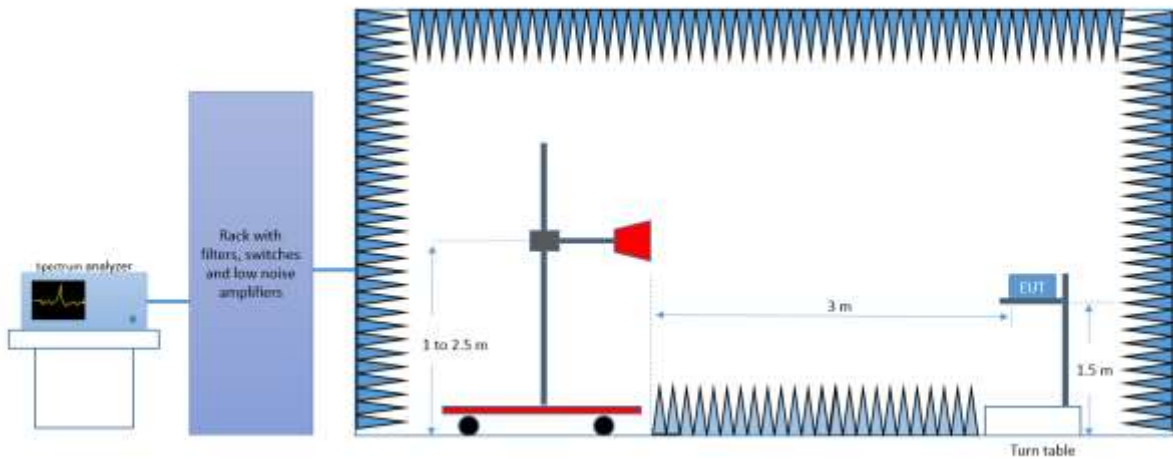
Radiated Setup 30 MHz - 1GHz

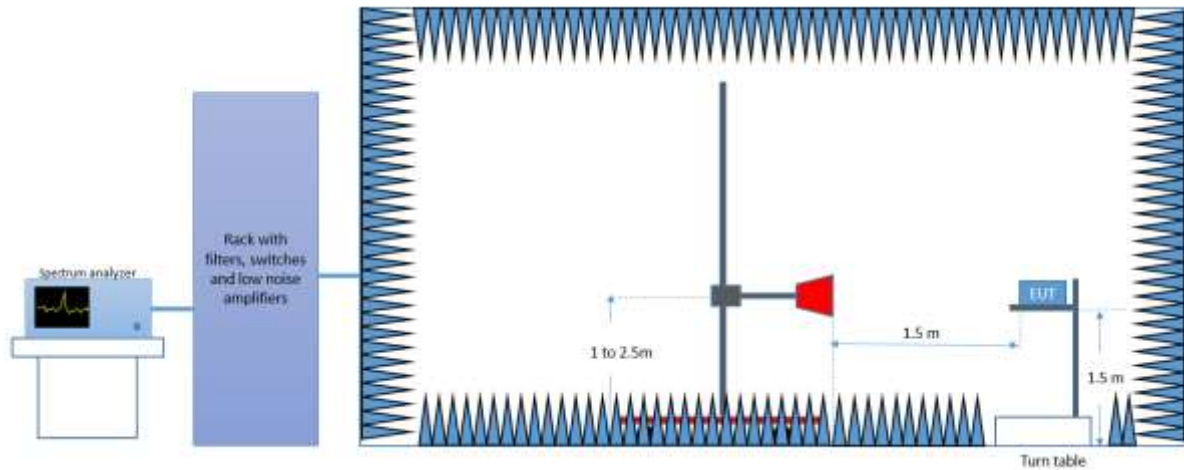


Radiated Setup 1 GHz – 6.4 GHz



Radiated Setup 6.4 GHz - 18 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 $\text{dB}\mu\text{V}/\text{m}$

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

λ is the wavelength of the emission under investigation [$300/f_{\text{MHz}}$], 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:

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

where

$E_{\text{SpecLimit}}$ is the field strength of the emission at the distance specified by the limit, in $\text{dB}\mu\text{V}/\text{m}$

E_{Meas} is the field strength of the emission at the measurement distance, in $\text{dB}\mu\text{V}/\text{m}$

D_{Meas} is the measurement distance, in m

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

Test Results

30 MHz – 40 GHz, 802.11a, 6Mbps, Chain A
Radiated Spurious – CH36

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dB μ V/m	dB μ V/m	dB μ V/m	dB
136.9	33.2	---	43.6	10.3
6317.5	55.4	---	74.0	18.6
6320.0	---	43.3	54.0	10.7
6474.9	47.2	---	74.0	26.8
6474.9	---	40.7	54.0	13.3
10360.9	50.3	---	74.0	23.7
10360.9	---	39.2	54.0	14.8
20720.3	53.8	---	74.0	20.2
20720.0	---	47.9	54.0	6.1

Radiated Spurious – CH40

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dB μ V/m	dB μ V/m	dB μ V/m	dB
174.7	36.8	---	43.6	6.8
183.0	35.1	---	43.6	8.5
6317.5	55.9	---	74.0	18.1
6310.0	---	43.1	54.0	10.9
10400.6	61.2	---	74.0	12.8
10401.0	---	50.8	54.0	3.2
20800.2	53.6	---	74.0	20.4
20800.2	---	50.1	54.0	3.9

Radiated Spurious – CH48

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dB μ V/m	dB μ V/m	dB μ V/m	dB
176.6	33.5	---	43.6	10.0
6284.5	55.9	---	74.0	18.1
6314.0	---	43.2	54.0	10.8
10475.0	56.4	---	74.0	17.6
10479.8	---	48.9	54.0	5.1
20960.1	53.0	---	74.0	21.0
20960.1	---	47.8	54.0	6.2

30 MHz – 40 GHz, 802.11a, 6Mbps, Chain B
Radiated Spurious – CH36

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dB μ V/m	dB μ V/m	dB μ V/m	dB
108.2	37.8	---	43.6	5.8
6318.5	56.0	---	74.0	18.0
6318.0	---	43.5	54.0	10.5
6474.9	47.2	---	74.0	26.8
6474.9	---	38.3	54.0	15.7
20720.0	53.7	---	74.0	20.3
20720.0	---	48.7	54.0	5.3

Radiated Spurious – CH40

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dB μ V/m	dB μ V/m	dB μ V/m	dB
174.7	29.8	---	43.6	13.8
6306.0	55.8	---	74.0	18.2
6318.0	---	43.2	54.0	10.8
6500.1	---	37.9	54.0	16.1
10400.1	---	38.6	54.0	15.4
17209.8	52.6	---	74.0	21.4
20800.2	---	47.6	54.0	6.4
21548.2	---	44.4	54.0	9.6
26000.4	---	46.6	54.0	7.4
26007.3	56.5	---	74.0	17.5

Radiated Spurious – CH48

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBµV/m	dBµV/m	dBµV/m	dB
178.9	28.2	---	43.6	15.4
6302.0	55.8	---	74.0	18.2
6321.5	---	43.4	54.0	10.6
6549.8	---	37.5	54.0	16.5
10480.3	---	39.5	54.0	14.5
10485.6	50.6	---	74.0	23.4
20959.9	---	45.4	54.0	8.6
20960.1	52.9	---	74.0	21.1

30 MHz – 40 GHz, 802.11n20, HT0, Chain A

Radiated Spurious – CH40

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBµV/m	dBµV/m	dBµV/m	dB
174.7	35.4	---	43.6	8.2
2413.5	---	37.3	54.0	16.7
2430.5	46.6	---	74.0	27.4
10398.1	---	50.7	54.0	3.3
10398.1	60.5	---	74.0	13.5
20800.0	---	46.8	54.0	7.2
20800.2	53.4	---	74.0	20.6

30 MHz – 40 GHz, 802.11n20, HT0, Chain B

Radiated Spurious – CH40

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBµV/m	dBµV/m	dBµV/m	dB
166.4	31.1	---	43.6	12.4
2407.5	47.6	---	74.0	26.4
2415.0	---	38.3	54.0	15.7
6499.6	---	37.9	54.0	16.1
16682.9	52.8	---	74.0	21.2
20799.7	52.8	---	74.0	21.2
20800.0	---	46.9	54.0	7.1

30 MHz – 40 GHz, 802.11n20, HT8, Chain A+B

Radiated Spurious – CH40

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBµV/m	dBµV/m	dBµV/m	dB
166.4	31.5	---	43.6	12.0
2413.0	---	37.3	54.0	16.7
2414.0	47.4	---	74.0	26.6
6499.6	---	39.1	54.0	14.9
6499.6	48.1	---	74.0	25.9
10399.6	---	41.1	54.0	12.9
10402.5	50.8	---	74.0	23.2
20800.2	54.9	---	74.0	19.1
20800.2	---	45.9	54.0	8.1

30 MHz – 40 GHz, 802.11ax20,HE0, Chain A

Radiated Spurious – CH36

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBµV/m	dBµV/m	dBµV/m	dB
174.7	37.7	---	43.6	5.9
6322.0	---	43.2	54.0	10.8
6324.0	55.8	---	74.0	18.2
6474.9	48.4	---	74.0	25.6
6474.9	---	40.8	54.0	13.2
10343.5	50.9	---	74.0	23.1
10344.0	---	40.9	54.0	13.1
15514.2	51.7	---	74.0	22.3
15515.2	---	42.5	54.0	11.6
20685.5	---	45.2	54.0	8.8
20688.7	56.1	---	74.0	17.9
20720.3	---	49.9	54.0	4.1
20720.3	54.2	---	74.0	19.8

Radiated Spurious – CH40

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBµV/m	dBµV/m	dBµV/m	dB
174.7	37.5	---	43.6	6.1
6315.5	55.8	---	74.0	18.2
6319.0	---	43.4	54.0	10.6
10399.1	---	52.0	54.0	2.0
10402.5	61.7	---	74.0	12.3
20766.0	---	45.8	54.0	8.2
20767.0	55.7	---	74.0	18.3
20800.2	53.3	---	74.0	20.7
20800.2	---	48.7	54.0	5.3

Radiated Spurious – CH48

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBµV/m	dBµV/m	dBµV/m	dB
174.7	38.7	---	43.6	4.9
6319.0	---	43.3	54.0	10.7
6370.5	55.8	---	74.0	18.2
10462.9	---	44.9	54.0	9.1
10463.9	54.2	---	74.0	19.8
20959.9	52.5	---	74.0	21.5
20960.1	---	46.1	54.0	7.9

30 MHz – 40 GHz, 802.11ax20, HE0, Chain B

Radiated Spurious – CH36

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBµV/m	dBµV/m	dBµV/m	dB
174.7	37.8	---	43.6	5.8
6298.0	56.0	---	74.0	18.0
6322.0	---	43.3	54.0	10.7
10343.5	---	37.9	54.0	16.1
10344.0	52.7	---	74.0	21.3
20685.5	---	47.0	54.0	7.0
20686.8	57.0	---	74.0	17.0
20720.0	---	47.7	54.0	6.3

Radiated Spurious – CH40

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBµV/m	dBµV/m	dBµV/m	dB
174.7	37.5	---	43.6	6.1
6317.5	---	43.3	54.0	10.7
6320.0	56.2	---	74.0	17.8
10382.7	---	42.3	54.0	11.7
10384.1	54.2	---	74.0	19.8
20764.6	55.0	---	74.0	19.0
20765.4	---	44.1	54.0	9.9
20800.2	---	47.6	54.0	6.4

Radiated Spurious – CH48

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBµV/m	dBµV/m	dBµV/m	dB
174.7	29.9	---	43.6	13.7
6317.0	55.9	---	74.0	18.1
6320.5	---	43.3	54.0	10.7
10461.9	56.4	---	74.0	17.6
10463.4	---	47.3	54.0	6.7
20959.3	52.9	---	74.0	21.1
20960.1	---	43.9	54.0	10.1

30 MHz – 40 GHz, 802.11ax20, HE0, Chain A+B

Radiated Spurious – CH40

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBµV/m	dBµV/m	dBµV/m	dB
166.4	30.8	---	43.6	12.8
2415.0	---	37.9	54.0	16.1
2455.0	47.1	---	74.0	26.9
5431.5	---	42.3	54.0	11.7
6500.1	---	40.0	54.0	14.0
6500.1	48.6	---	74.0	25.4
10382.7	---	48.5	54.0	5.5
10384.6	56.5	---	74.0	17.5
20767.0	---	49.5	54.0	4.5
20768.3	60.5	---	74.0	13.5
20800.2	---	44.9	54.0	9.1

30 MHz – 40 GHz, 802.11n40, HT0, Chain A

Radiated Spurious – CH38F

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBµV/m	dBµV/m	dBµV/m	dB
174.7	40.5	---	43.6	3.1
6311.5	56.7	---	74.0	17.3
6322.0	---	43.3	54.0	10.7
10380.7	58.4	---	74.0	15.6
10381.7	---	45.4	54.0	8.6
20760.4	53.3	---	74.0	20.7
20760.1	---	46.8	54.0	7.2

30 MHz – 40 GHz, 802.11n40, HT0, Chain B

Radiated Spurious – CH38F

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBµV/m	dBµV/m	dBµV/m	dB
174.7	38.1	---	43.6	5.5
6368.0	55.7	---	74.0	18.3
6318.5	---	43.3	54.0	10.7
17465.4	52.9	---	74.0	21.1
17468.8	---	41.0	54.0	13.0
20759.8	52.9	---	74.0	21.1
20760.1	---	46.2	54.0	7.8

30 MHz – 40 GHz, 802.11n40, HT8, Chain A+B

Radiated Spurious – CH38F

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBµV/m	dBµV/m	dBµV/m	dB
174.7	40.8	---	43.6	2.8
2416.0	47.9	---	74.0	26.1
2415.0	---	36.9	54.0	17.1
10379.3	58.9	---	74.0	15.1
10379.8	---	44.0	54.0	10.0
20689.2	57.8	---	74.0	16.2
20688.1	---	46.5	54.0	7.5

30 MHz – 40 GHz, 802.11ax40, HE0, Chain A

Radiated Spurious – CH38F

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBµV/m	dBµV/m	dBµV/m	dB
174.7	40.6	---	43.6	3.0
5099.5	---	44.6	54.0	9.4
5095.5	55.7	---	74.0	18.4
6487.0	49.3	---	74.0	24.7
6487.5	---	41.7	54.0	12.3
10343.5	---	41.5	54.0	12.5
10343.5	52.9	---	74.0	21.1
20760.1	54.2	---	74.0	19.8
20760.1	---	49.7	54.0	4.3

Radiated Spurious – CH46F

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBµV/m	dBµV/m	dBµV/m	dB
174.7	39.1	---	43.6	4.4
1007.0	51.8	---	74.0	22.2
1007.0	---	42.3	54.0	11.7
6314.5	56.3	---	74.0	17.7
6318.0	---	43.3	54.0	10.7
10424.7	56.7	---	74.0	17.3
10423.3	---	45.0	54.0	9.0
20919.2	53.8	---	74.0	20.2
20919.8	---	45.6	54.0	8.4

30 MHz – 40 GHz, 802.11ax40, HE0, Chain B

Radiated Spurious – CH38F

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBµV/m	dBµV/m	dBµV/m	dB
174.7	39.7	---	43.6	3.9
6312.0	56.0	---	74.0	18.0
6317.5	---	43.3	54.0	10.7
10344.0	---	39.6	54.0	14.4
10344.5	49.2	---	74.0	24.8
20687.9	---	49.6	54.0	4.4
20689.7	56.1	---	74.0	17.9
20760.1	---	45.8	54.0	8.2

Radiated Spurious – CH46F

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dB μ V/m	dB μ V/m	dB μ V/m	dB
174.7	39.6	---	43.6	4.0
1007.0	48.9	---	74.0	25.1
1007.0	---	38.8	54.0	15.2
6333.5	56.0	---	74.0	18.0
6321.0	---	43.4	54.0	10.6
6537.8	48.3	---	74.0	25.7
6537.3	---	41.5	54.0	12.5
10424.7	51.8	---	74.0	22.2
10423.8	---	43.2	54.0	10.8
20920.0	---	45.9	54.0	8.1
20920.5	52.2	---	74.0	21.8

30 MHz – 40 GHz, 802.11ax40, HE0, Chain A+B
Radiated Spurious – CH38F

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dB μ V/m	dB μ V/m	dB μ V/m	dB
174.7	40.3	---	43.6	3.3
6487.5	48.3	---	74.0	25.7
6487.5	---	41.0	54.0	13.0
10344.0	54.6	---	74.0	19.4
10344.5	---	45.4	54.0	8.6
15515.7	52.9	---	74.0	21.1
15515.7	---	42.4	54.0	11.6
20688.1	---	43.7	54.0	10.3
20759.8	---	45.0	54.0	9.0

30 MHz – 40 GHz, 802.11ac80, VHT0, Chain A

Radiated Spurious – CH42ac80

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dB μ V/m	dB μ V/m	dB μ V/m	dB
174.7	39.0	---	43.6	4.6
6194.0	53.5	---	74.0	20.5
6286.5	---	42.6	54.0	11.4
6512.1	---	40.7	54.0	13.3
6536.3	46.4	---	74.0	27.6
20839.8	---	46.7	54.0	7.3
20840.1	51.9	---	74.0	22.1

30 MHz – 40 GHz, 802.11ac80, VHT0, Chain B

Radiated Spurious – CH42ac80

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dB μ V/m	dB μ V/m	dB μ V/m	dB
174.7	38.0	---	43.6	5.5
5987.5	56.7	---	74.0	17.3
5944.5	---	41.3	54.0	12.7
6511.7	46.7	---	74.0	27.3
6512.1	---	38.5	54.0	15.5
20840.3	53.5	---	74.0	20.5
20840.1	---	46.8	54.0	7.2

30 MHz – 40 GHz, 802.11ac80, VHT0, Chain A+B
Radiated Spurious – CH42ac80

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dB μ V/m	dB μ V/m	dB μ V/m	dB
174.7	39.6	---	43.6	3.9
1247.5	48.9	---	74.0	25.1
1242.5	---	30.7	54.0	23.3
6310.5	56.1	---	74.0	17.9
6317.5	---	43.4	54.0	10.6
10411.2	50.8	---	74.0	23.2
10419.9	---	39.4	54.0	14.6
20840.1	52.8	---	74.0	21.2
20840.3	---	44.4	54.0	9.6

30 MHz – 40 GHz, 802.11ax80, HE0, Chain A
Radiated Spurious – CH42ac80

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dB μ V/m	dB μ V/m	dB μ V/m	dB
174.7	37.1	---	43.6	6.4
5021.0	---	48.3	54.0	5.7
5022.5	64.4	---	74.0	9.7
5095.5	63.0	---	74.0	11.1
6512.1	49.3	---	74.0	24.7
6512.1	---	42.0	54.0	12.0
20688.1	---	47.7	54.0	6.3
20688.1	58.0	---	74.0	16.0
20839.8	---	46.9	54.0	7.1

30 MHz – 40 GHz, 802.11ax80, HE0, Chain B

Radiated Spurious – CH42ac80

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBµV/m	dBµV/m	dBµV/m	dB
162.2	40.1	---	43.6	3.4
6294.0	56.0	---	74.0	18.0
6318.5	---	43.4	54.0	10.6
6511.7	46.7	---	74.0	27.3
6512.1	---	38.5	54.0	15.5
20689.2	57.4	---	74.0	16.6
20688.7	---	48.1	54.0	5.9

30 MHz – 40 GHz, 802.11ax80, HE0, Chain A+B

Radiated Spurious – CH42ac80

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBµV/m	dBµV/m	dBµV/m	dB
174.8	36.8	---	43.6	6.7
5095.5	62.1	---	74.0	11.9
5096.0	---	48.2	54.0	5.8
10344.0	---	43.2	54.0	10.8
10345.0	53.7	---	74.0	20.3
20688.4	60.5	---	74.0	13.5
20688.4	---	50.8	54.0	3.2
20840.6	---	46.1	54.0	7.9

30 MHz – 40 GHz, 802.11ac160, VHT0, Chain A

Radiated Spurious – CH50ac160

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dB μ V/m	dB μ V/m	dB μ V/m	dB
174.7	38.9	---	43.6	4.7
6175.5	53.7	---	74.0	20.3
6194.0	---	42.2	54.0	11.8
6562.4	48.3	---	74.0	25.7
6562.4	---	39.0	54.0	15.0
10519.0	49.9	---	74.0	24.1
10519.0	---	39.3	54.0	14.7
21000.0	52.8	---	74.0	21.2
21000.0	---	45.8	54.0	8.2

30 MHz – 40 GHz, 802.11ac160, VHT0, Chain B

Radiated Spurious – CH50ac160

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dB μ V/m	dB μ V/m	dB μ V/m	dB
174.7	41.6	---	43.6	1.9
6195.5	53.9	---	74.0	20.2
6194.0	---	42.5	54.0	11.5
6561.9	48.1	---	74.0	25.9
6562.4	---	39.3	54.0	14.7
21000.5	52.7	---	74.0	21.3
21000.0	---	44.9	54.0	9.1

30 MHz – 40 GHz, 802.11ac160, VHT0, Chain A+B

Radiated Spurious – CH50ac160

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBµV/m	dBµV/m	dBµV/m	dB
174.7	42.8	---	43.6	0.7
1241.5	---	30.4	54.0	23.6
1242.0	49.5	---	74.0	24.5
6261.0	54.3	---	74.0	19.7
6294.5	---	42.8	54.0	11.2
6561.4	47.0	---	74.0	27.0
6562.4	---	39.8	54.0	14.2
21000.8	53.0	---	74.0	21.0
21001.0	---	45.0	54.0	9.0

30 MHz – 40 GHz, 802.11ax160, HE0, Chain A

Radiated Spurious – CH50ac160

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBµV/m	dBµV/m	dBµV/m	dB
174.7	36.3	---	43.6	7.3
5482.7	61.3	---	74.0	12.7
5484.0	---	52.4	54.0	1.6
10504.5	56.2	---	74.0	17.8
10504.0	---	49.2	54.0	4.8
21007.9	53.1	---	74.0	20.9
21007.7	---	43.8	54.0	10.2
21159.6	53.0	---	74.0	21.0
21159.9	---	46.6	54.0	7.4

30 MHz – 40 GHz, 802.11ax160, HE0, Chain B

Radiated Spurious – CH50ac160

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBµV/m	dBµV/m	dBµV/m	dB
174.7	36.0	---	43.6	7.5
5482.4	58.3	---	74.0	15.7
5484.0	---	49.0	54.0	5.0
6484.1	---	40.6	54.0	13.4
6484.6	48.9	---	74.0	25.1
6562.4	48.9	---	74.0	25.1
6562.4	---	40.8	54.0	13.2
15516.2	---	40.7	54.0	13.3
20688.1	---	45.3	54.0	8.7
20688.4	55.3	---	74.0	18.7
21000.0	---	44.1	54.0	9.9

30 MHz – 40 GHz, 802.11ax160, HE0, Chain A+B

Radiated Spurious – CH50ac160

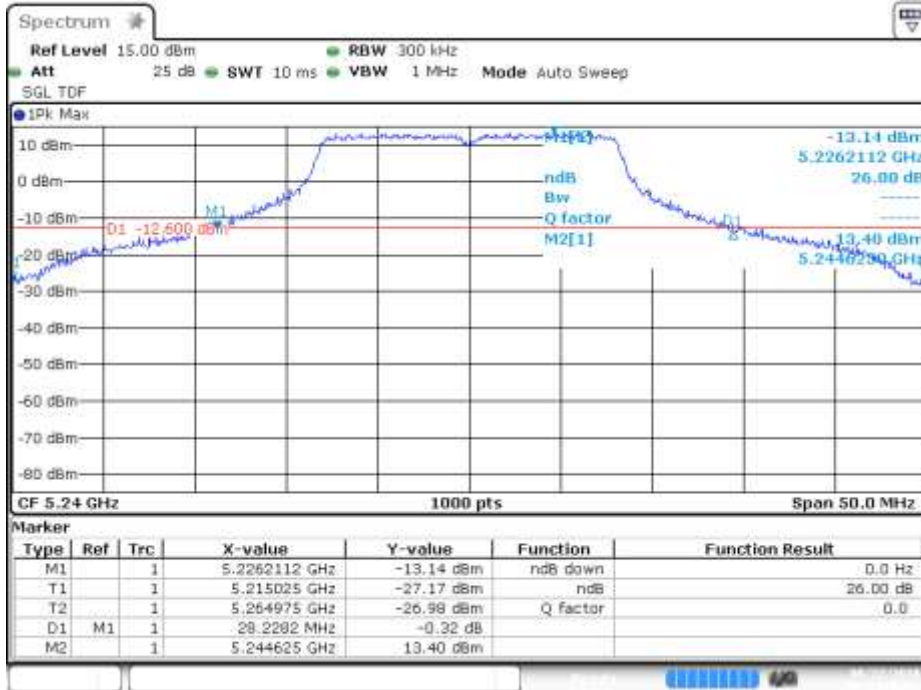
Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBµV/m	dBµV/m	dBµV/m	dB
174.7	36.5	---	43.6	7.1
5484.5	---	52.0	54.0	2.0
5484.0	63.1	---	74.0	10.9
6484.1	---	40.8	54.0	13.2
6562.4	---	41.8	54.0	12.2
10343.0	52.4	---	74.0	21.6
10344.0	---	43.6	54.0	10.5
15515.7	---	41.1	54.0	12.9
20687.9	57.9	---	74.0	16.1
20689.2	---	47.8	54.0	6.2
21000.5	---	44.8	54.0	9.2
21000.8	53.4	---	74.0	20.6

B.3 Test Results Screenshot U-NII-1

B.3.1 26dB Bandwidth

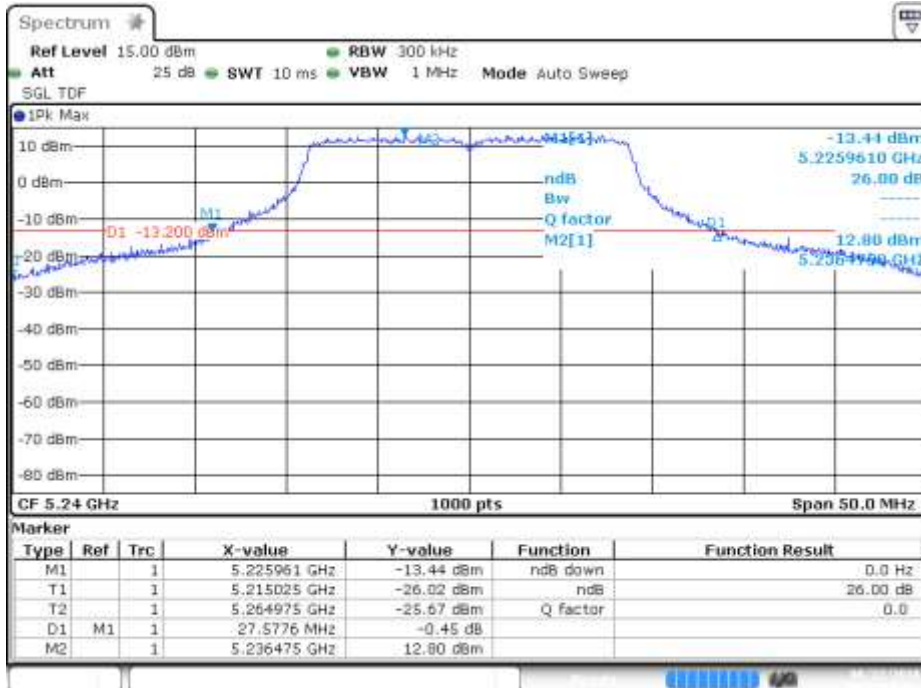
SISO-B, 802.11a, 6Mbps

Channel 48



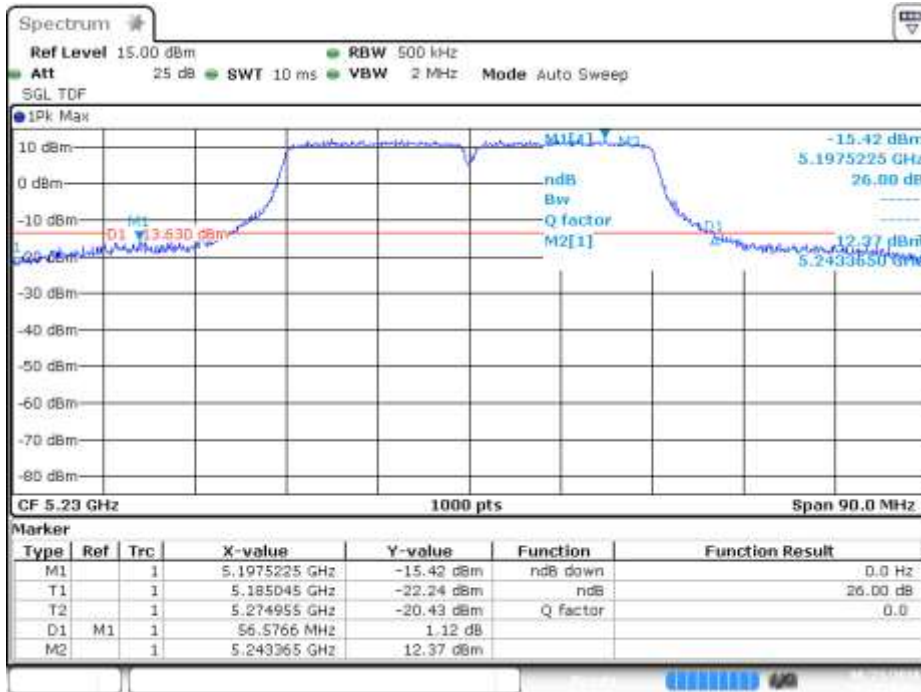
SISO-B, 802.11n20, HT0

Channel 48



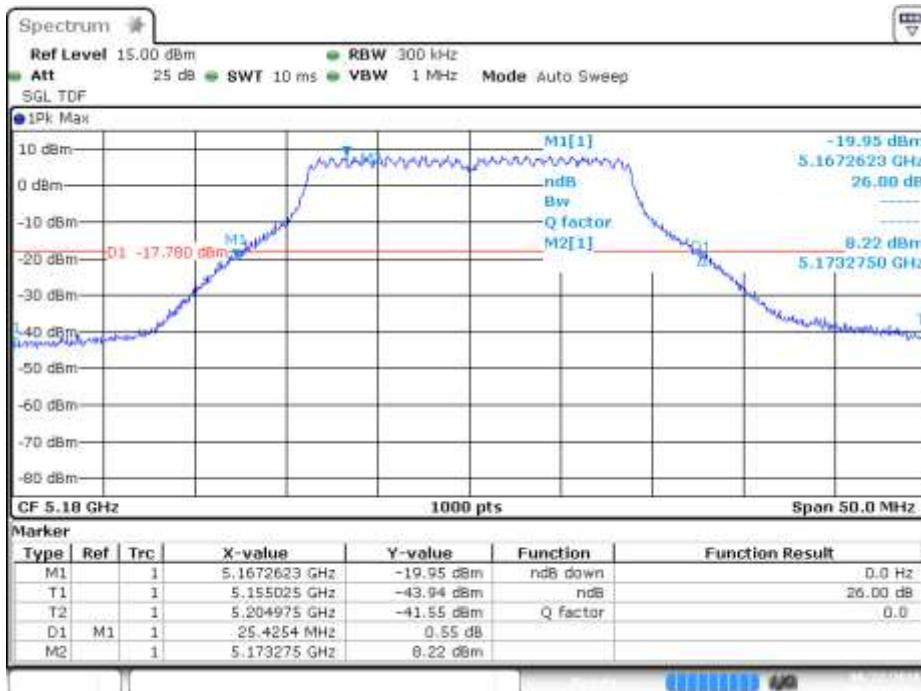
SISO-B, 802.11n40, HT0

Channel 46F



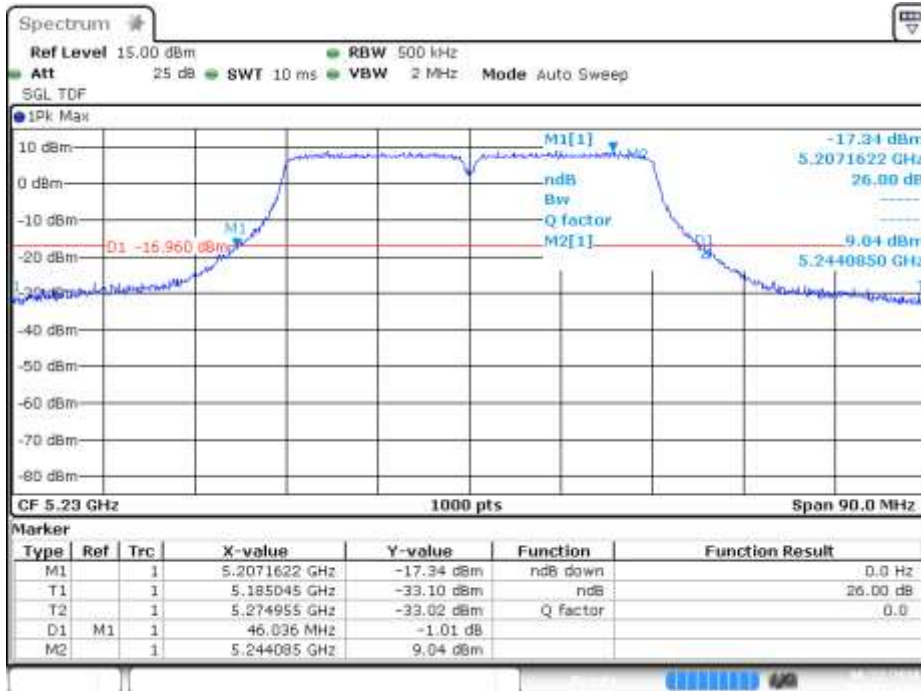
MIMO-B, 802.11n20, HT8

Channel 36



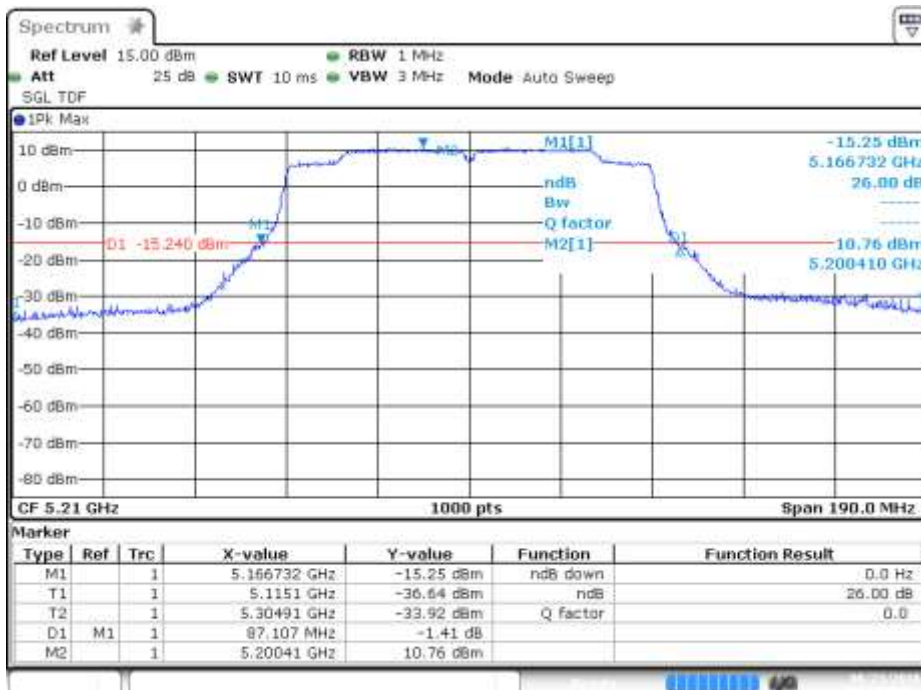
MIMO-A, 802.11n40, HT8

Channel 46F



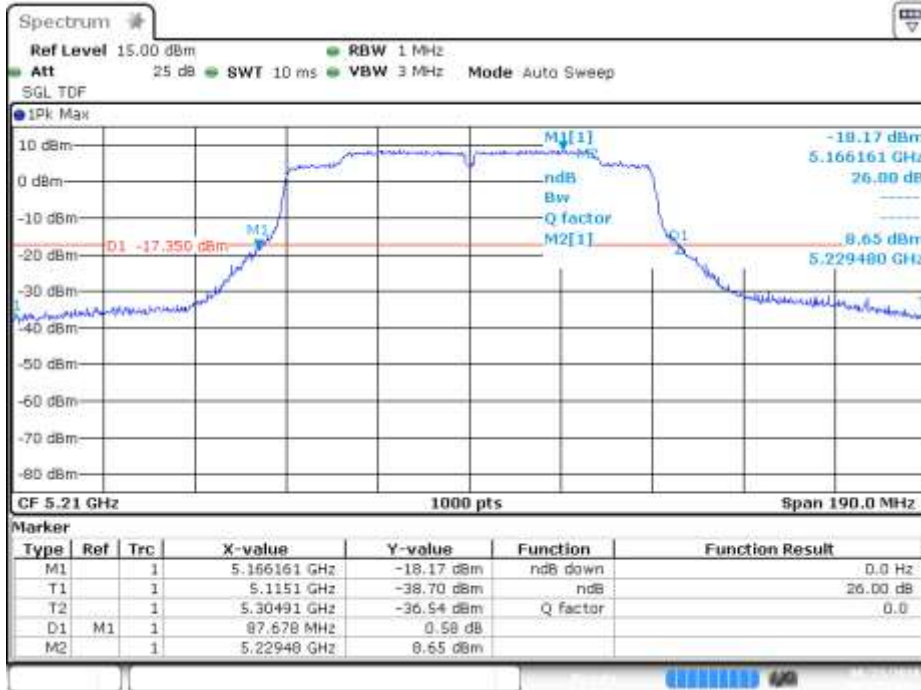
SISO-B, 802.11ac80, VHT0

Channel 42ac80



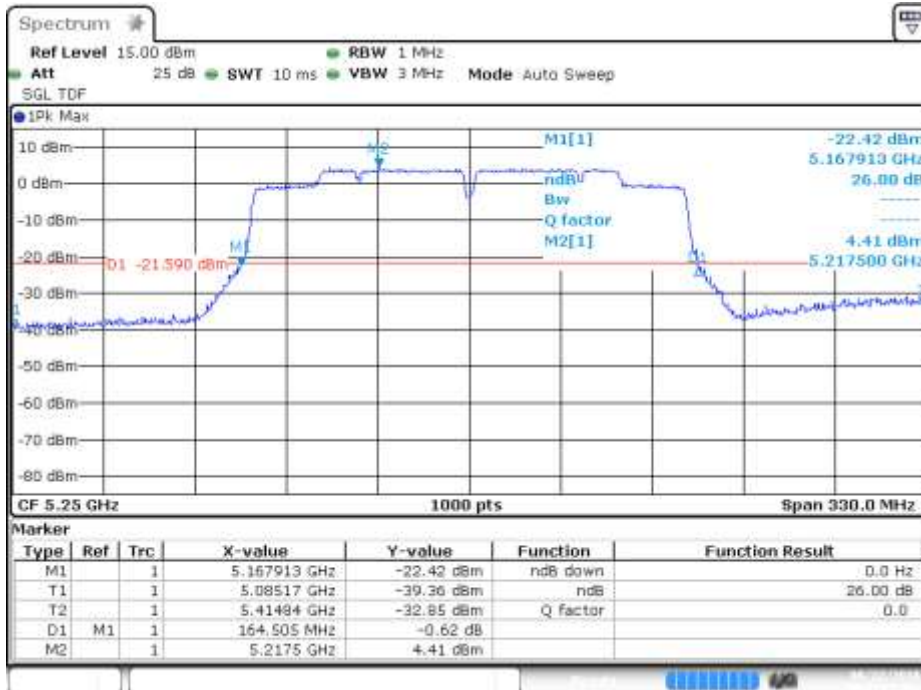
MIMO-B, 802.11ac80, VHT0

Channel 42ac80



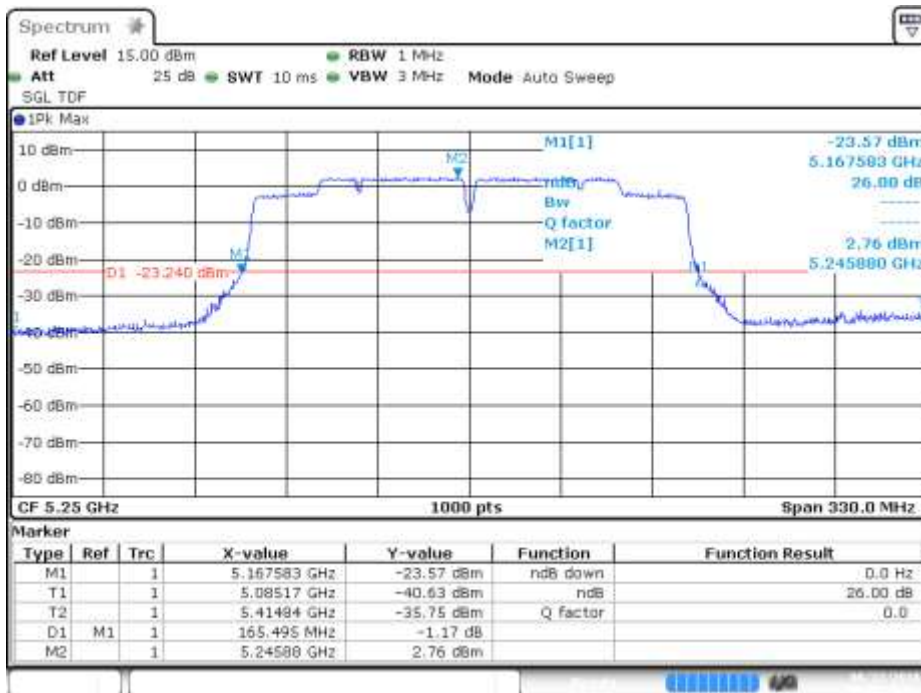
SISO-A, 802.11ac160, VHT0

Channel 50ac160



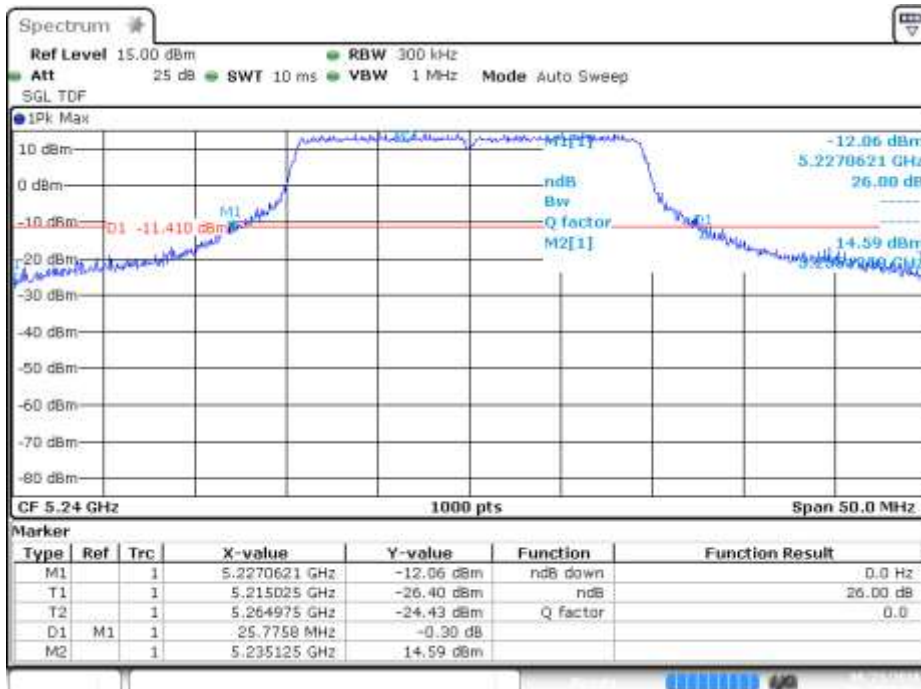
MIMO-A, 802.11ac160, VHT0

Channel 50ac160



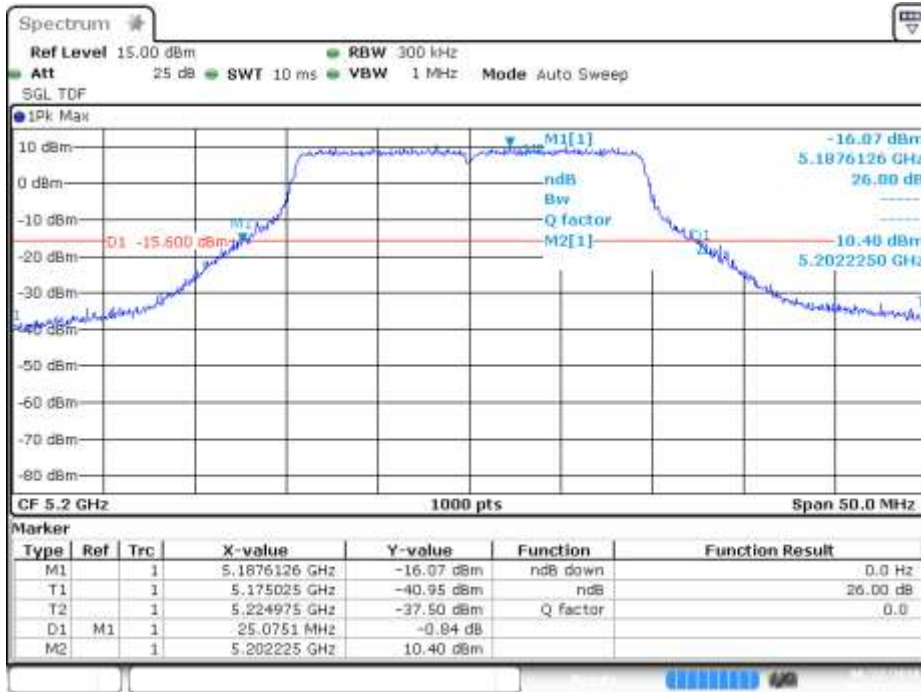
SISO-B, 802.11ax20, HE0

Channel 48



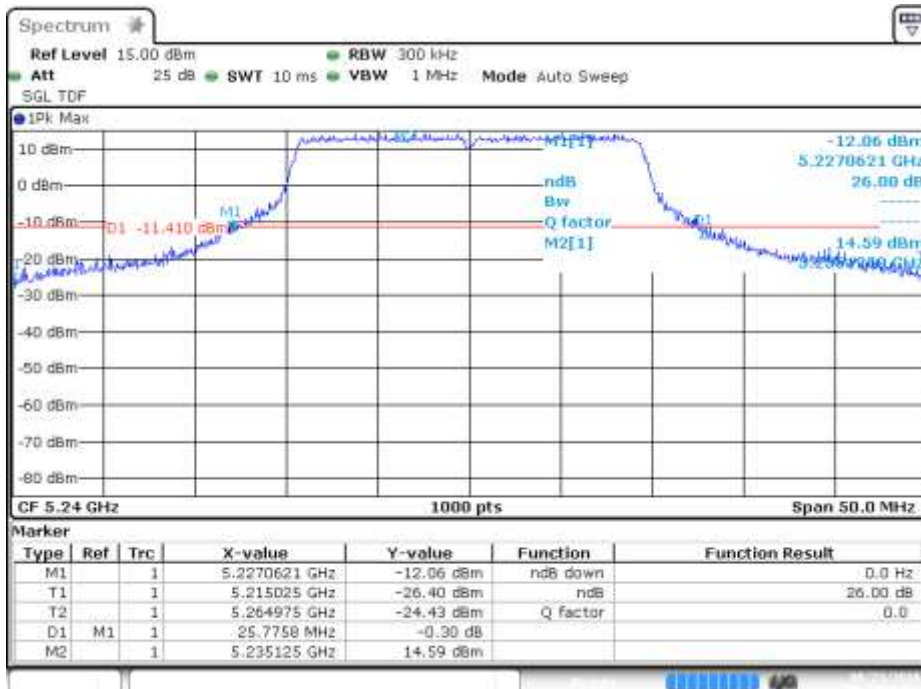
MIMO-A, 802.11ax20, HE0

Channel 40



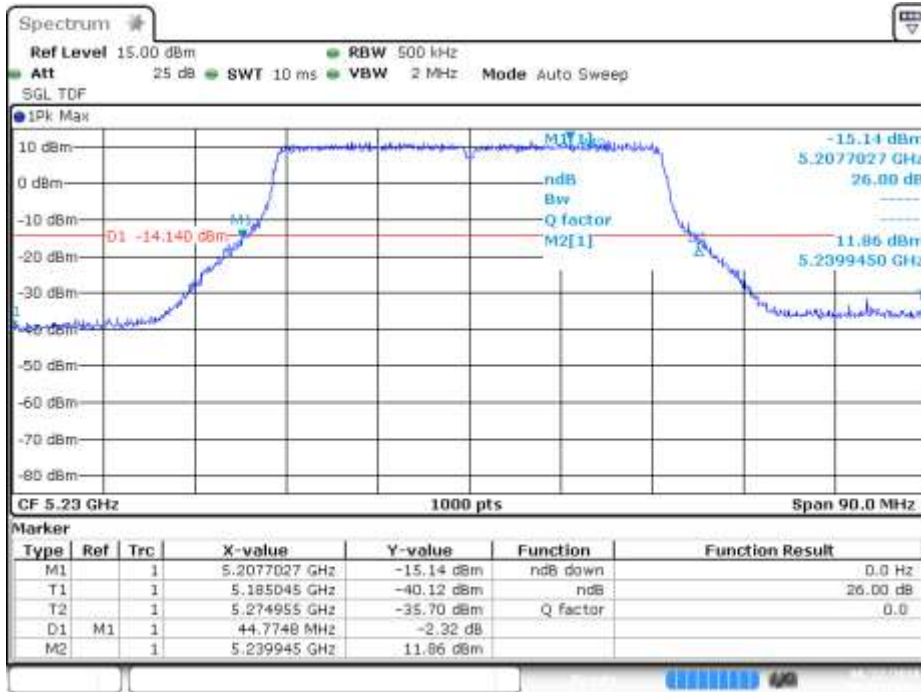
SISO-B, 802.11ax40, HE0

Channel 46F



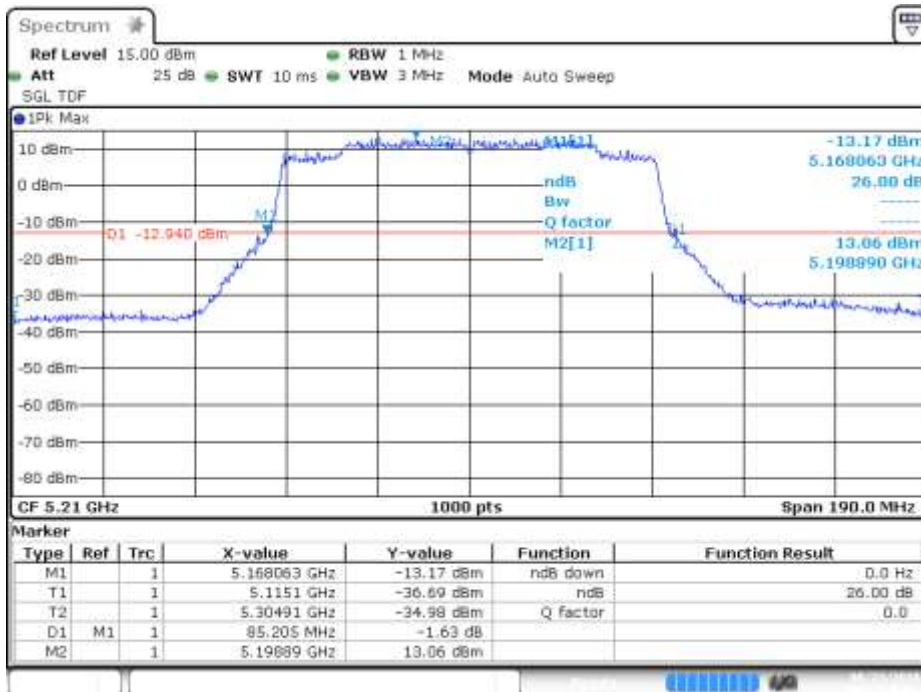
MIMO-A, 802.11ax40, HE0

Channel 46F



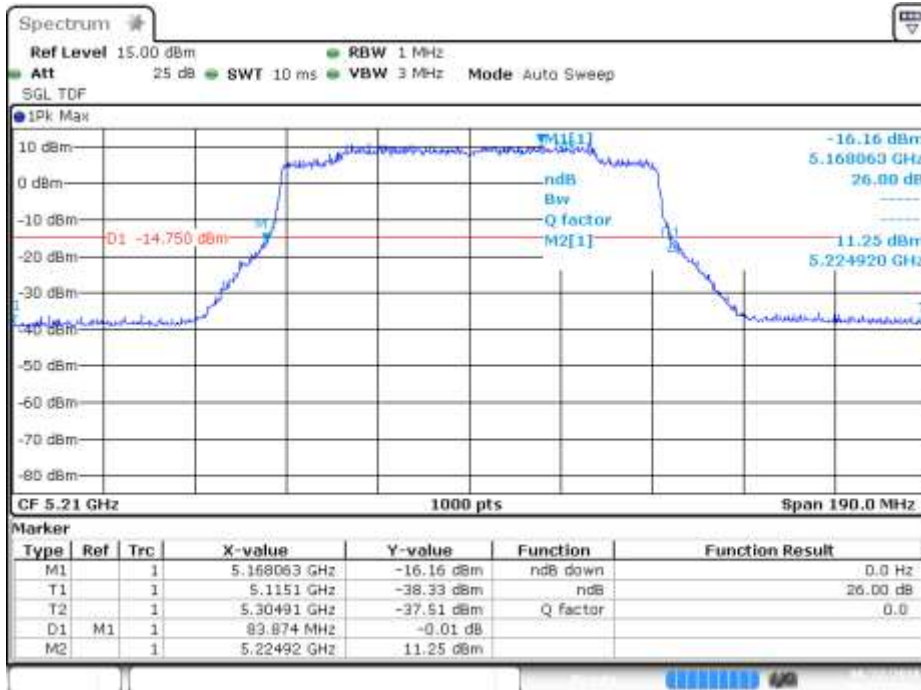
SISO-B, 802.11ax80, HE0

Channel 42ax80



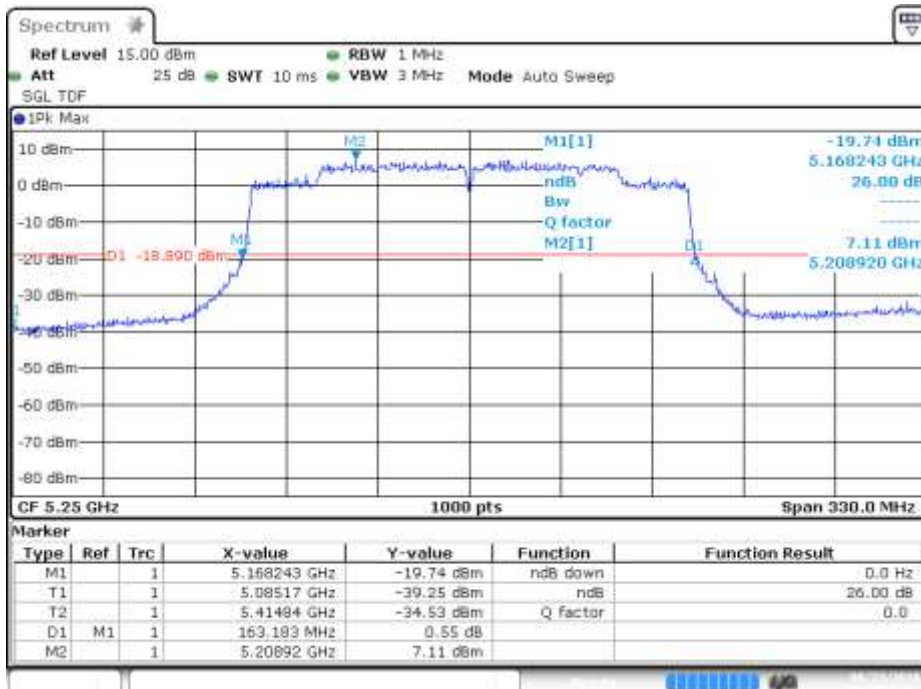
MIMO-A, 802.11ax80, HE0

Channel 42ax80



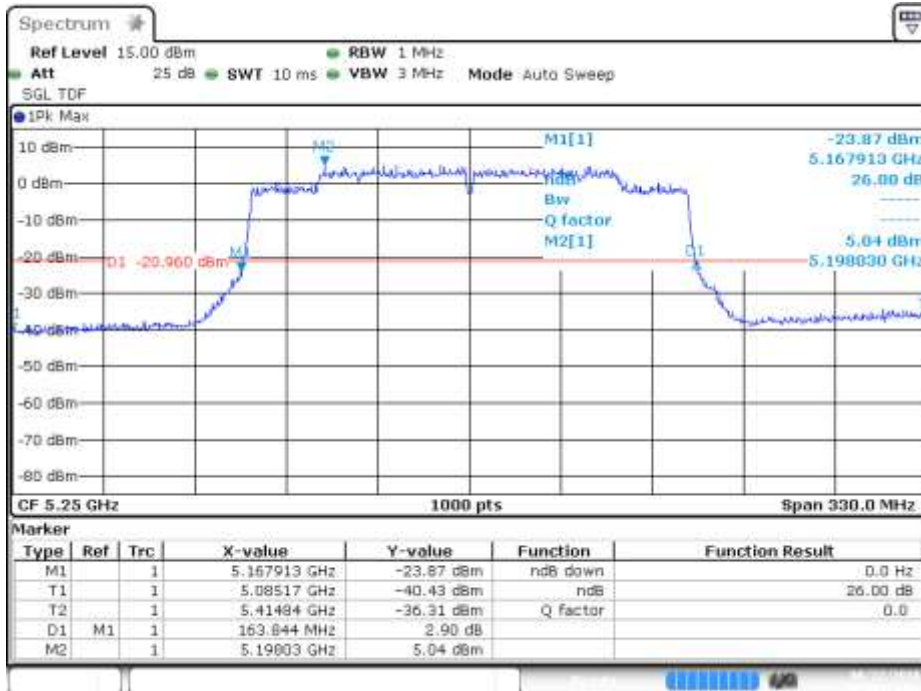
SISO-B, 802.11ax160, HE0

Channel 50ax160



MIMO-A, 802.11ax160, HE0

Channel 50ax160



SISO-B, 802.11ax20, HE0- RU 106/53

Channel 36



MIMO-A, 802.11ax20, HE0- RU 106/53

Channel 36



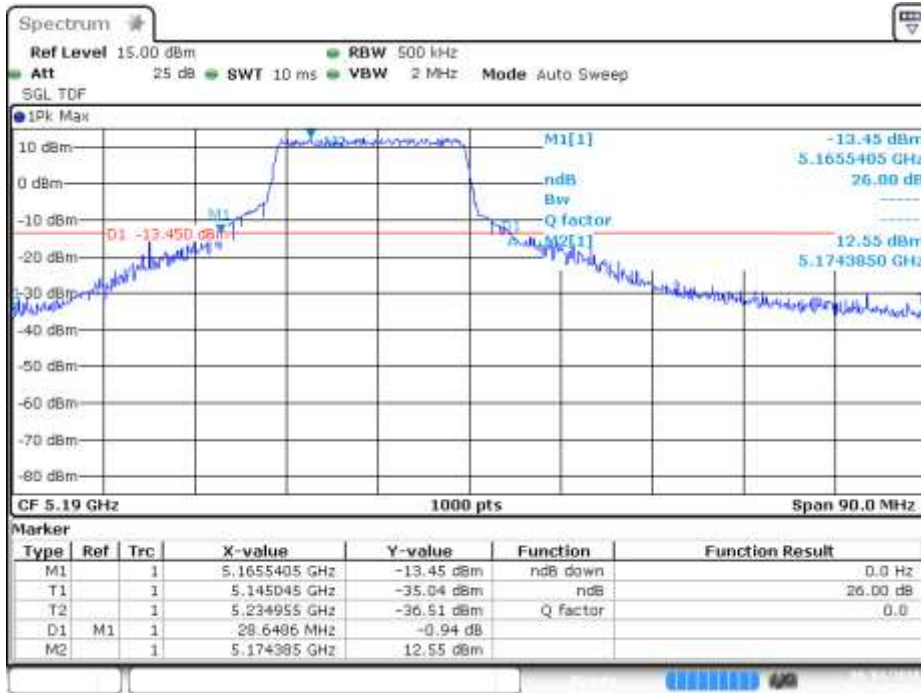
SISO-B, 802.11ax40, HE0- RU 242/61

Channel 38F



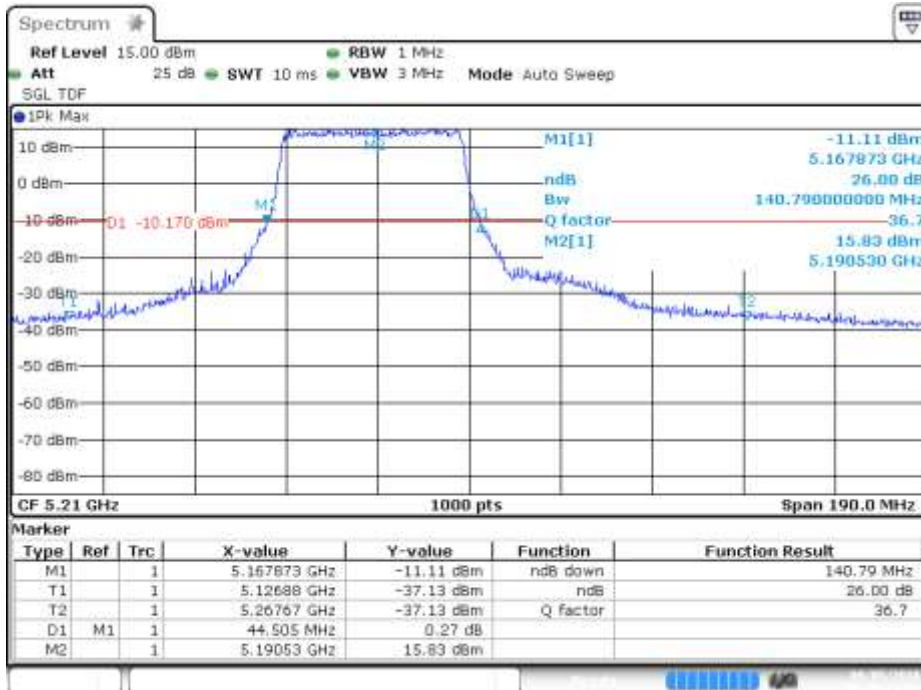
MIMO-B, 802.11ax40, HE0- RU 242/61

Channel 38F



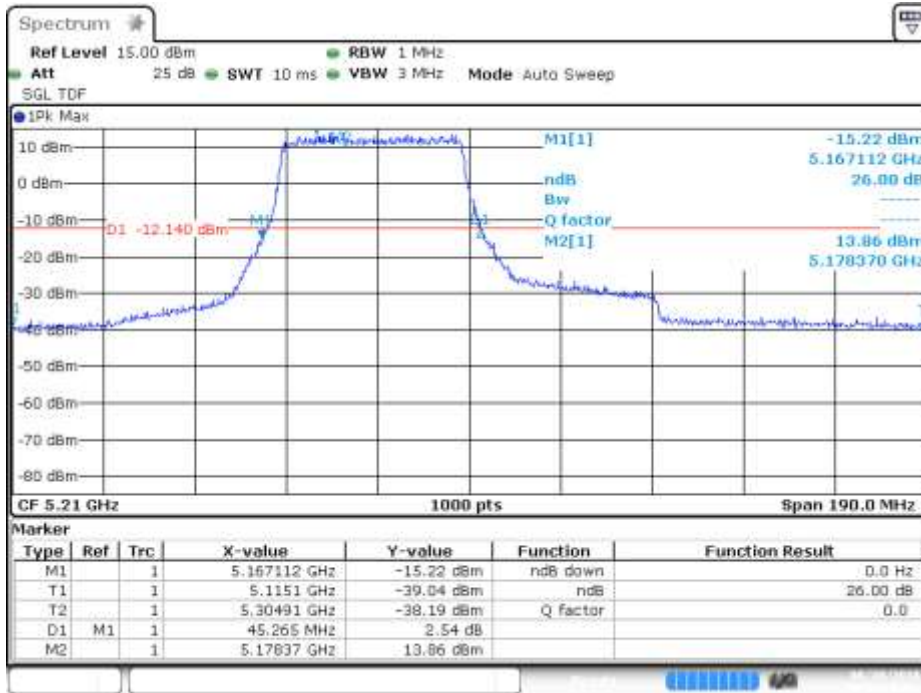
SISO-B, 802.11ax80, HE0- RU 484/65

Channel 42ax80



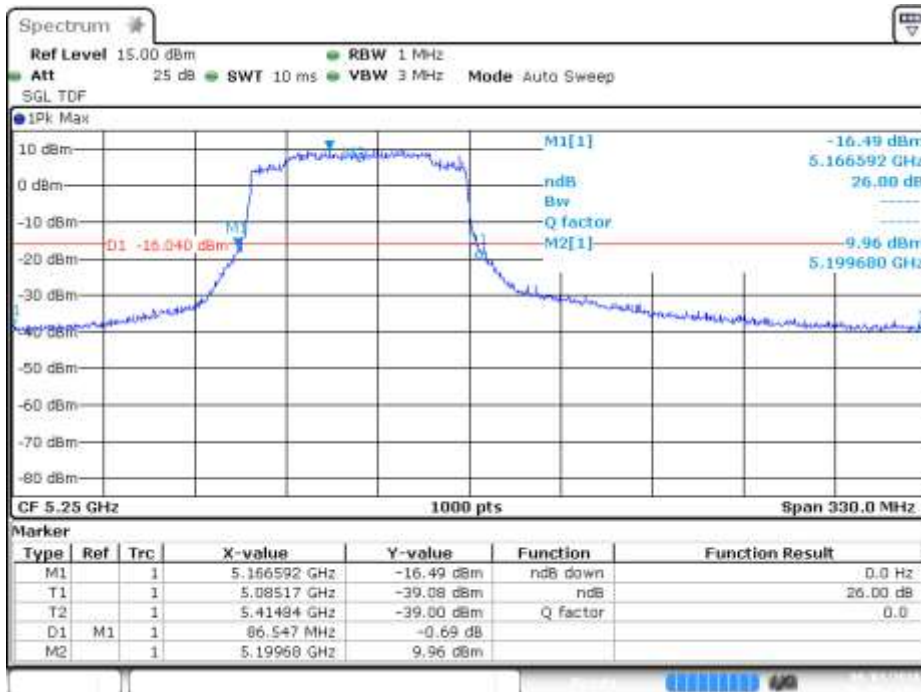
MIMO-A, 802.11ax80, HE0- RU 484/65

Channel 42ax80



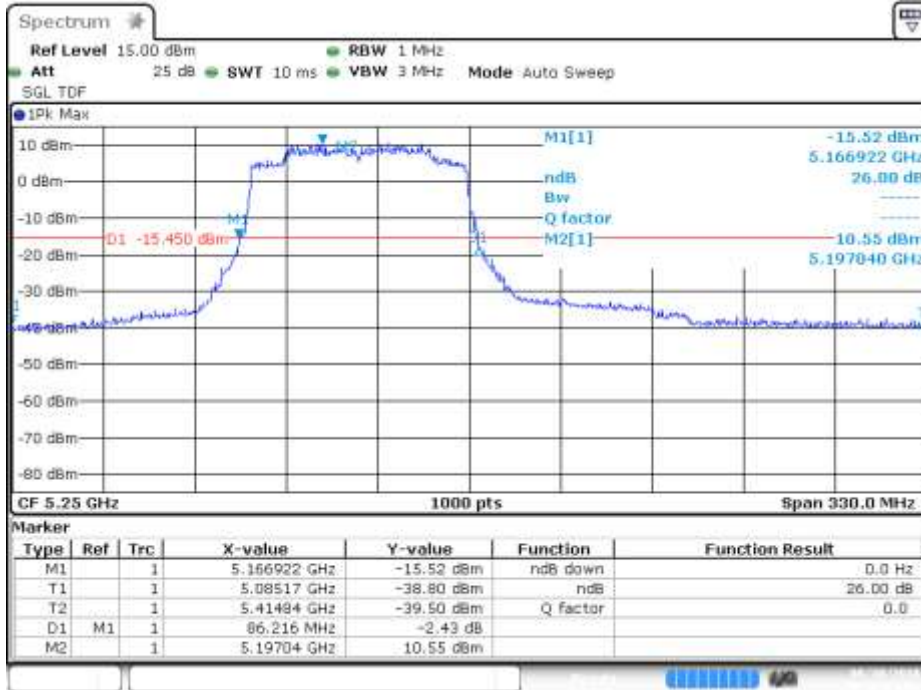
SISO-B, 802.11ax160, HE0- RU 996/S67

Channel 50ax160



MIMO-A, 802.11ax160, HE0- RU 996/67

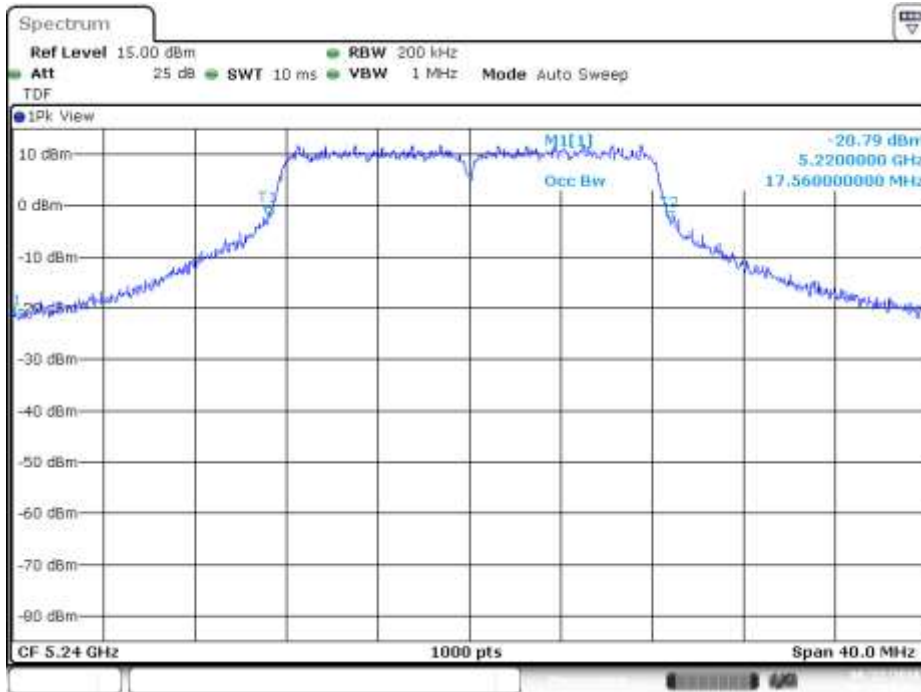
Channel 50ax160



B.3.2 99% Bandwidth

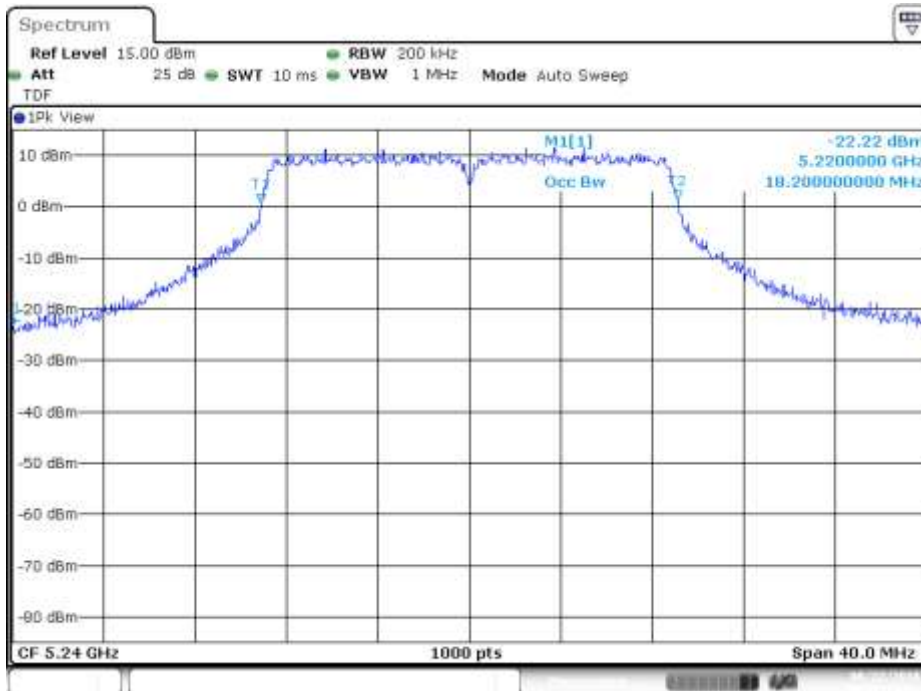
SISO-B, 802.11a, 6Mbps

Channel 48



SISO-B, 802.11n20, HT0

Channel 48



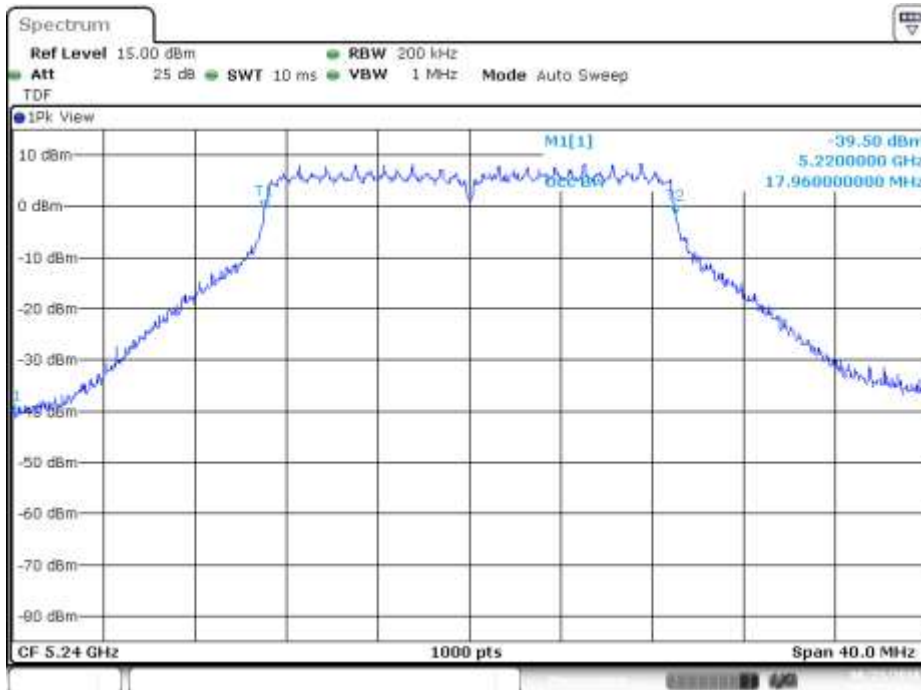
SISO-B, 802.11n40, HT0

Channel 46F



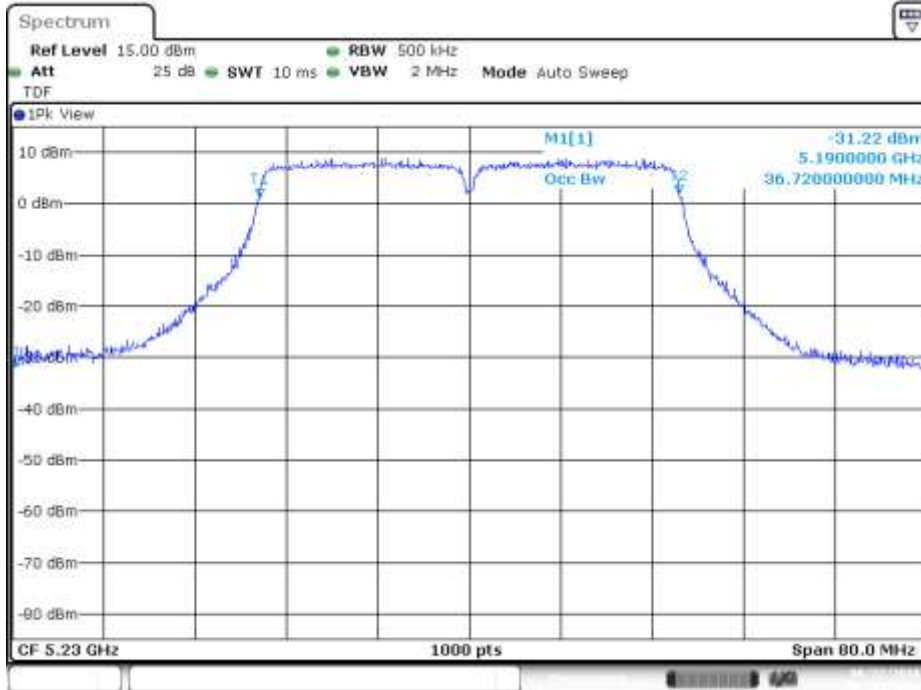
MIMO-B, 802.11n20, HT8

Channel 48



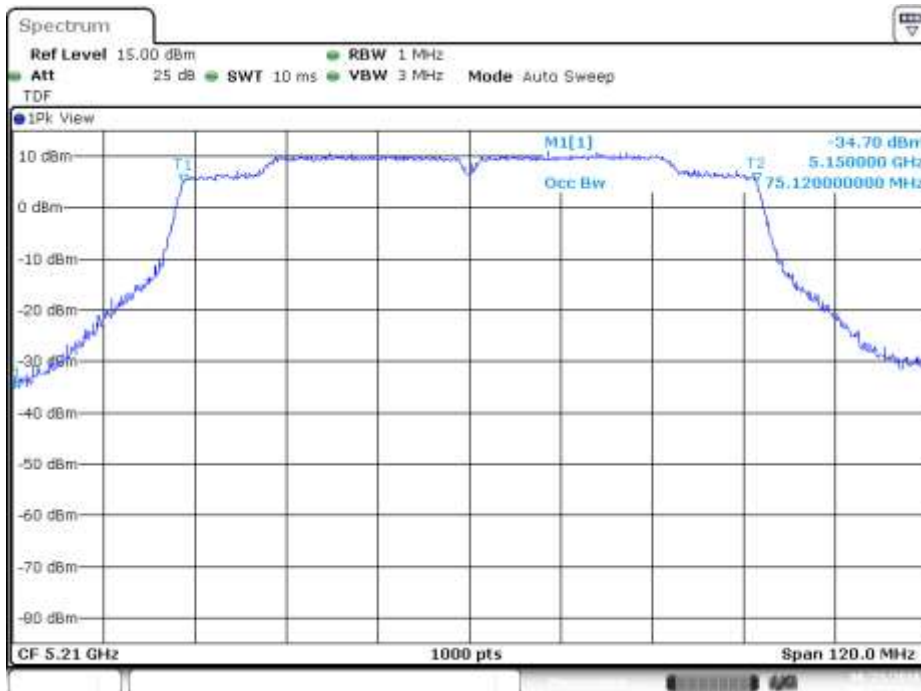
MIMO-A, 802.11n40, HT8

Channel 46F



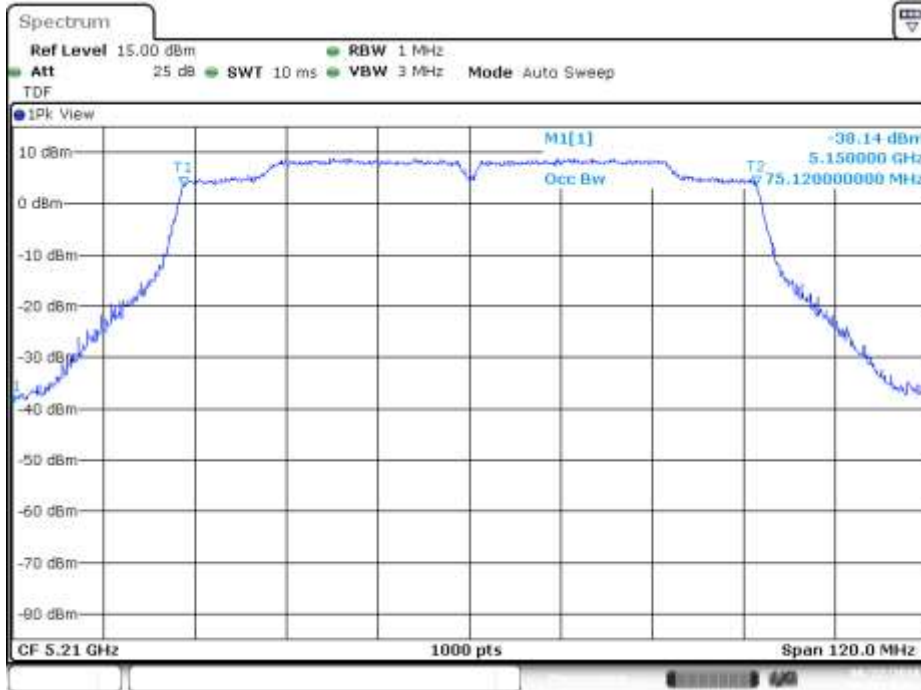
SISO-B, 802.11ac80, VHT0

Channel 42ac80



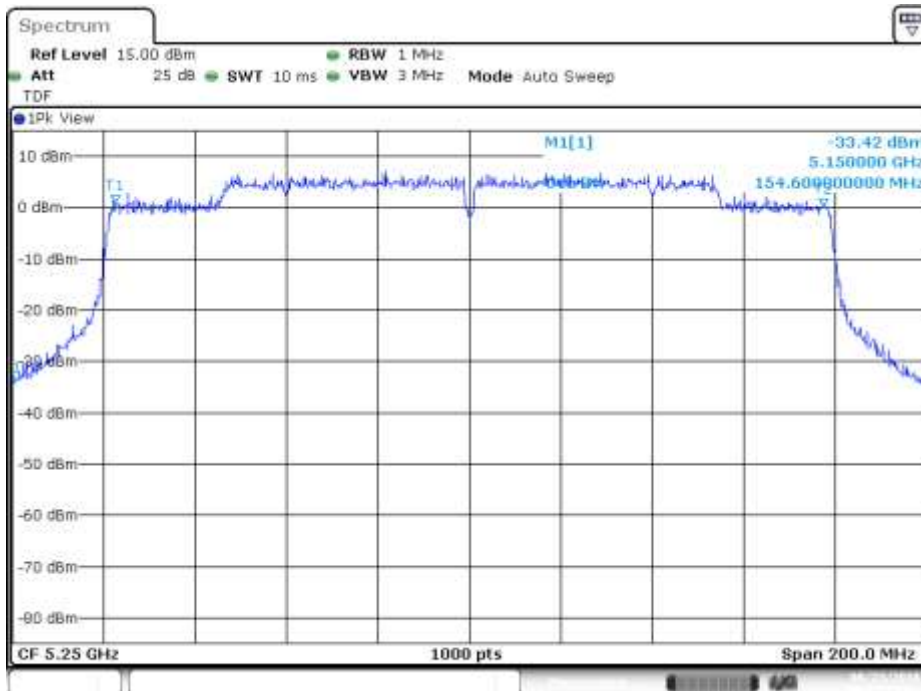
MIMO-A, 802.11ac80, VHT0

Channel 42ac80



SISO-B, 802.11ac160, VHT0

Channel 50ac160



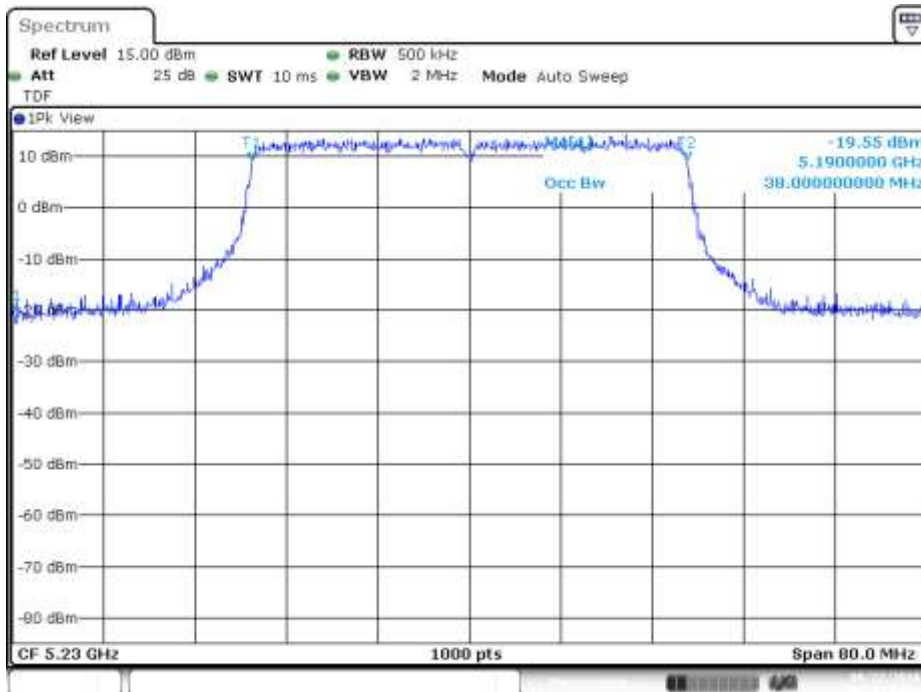
MIMO-A, 802.11ax20, HE0

Channel 40



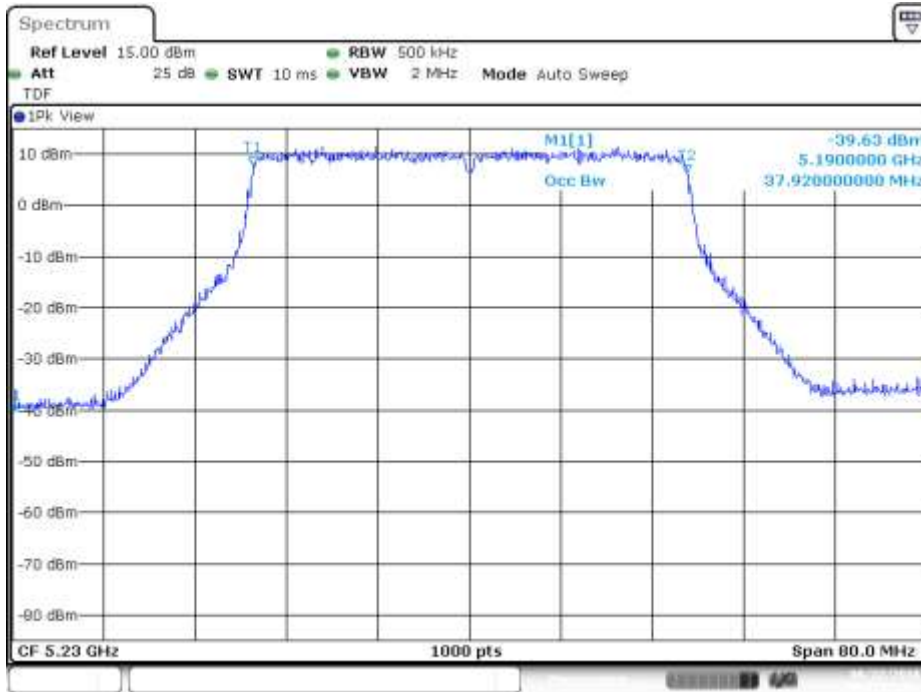
SISO-B, 802.11ax40, HE0

Channel 46F



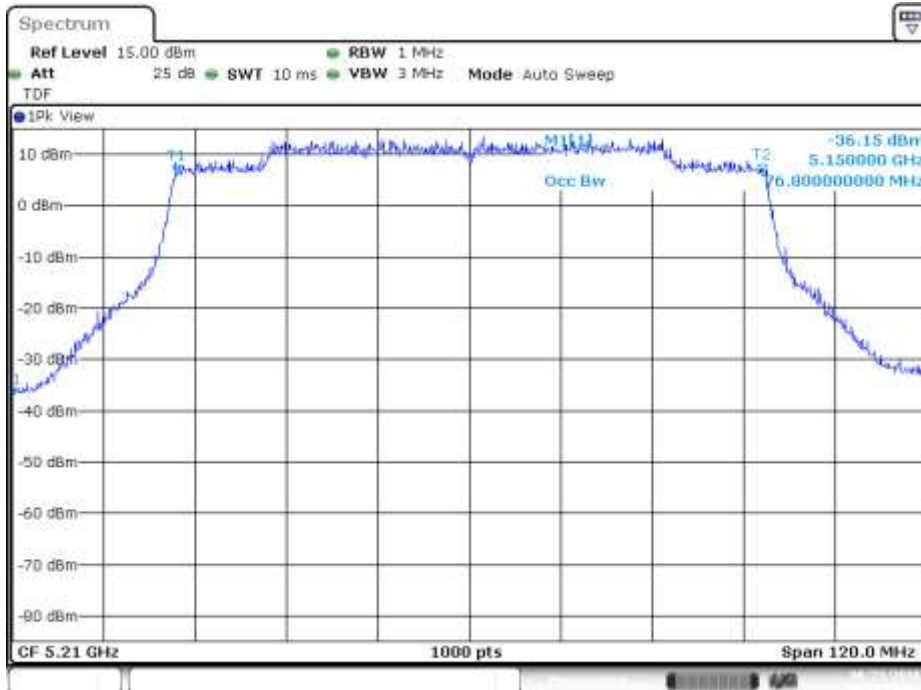
MIMO-A, 802.11ax40, HE0

Channel 46F



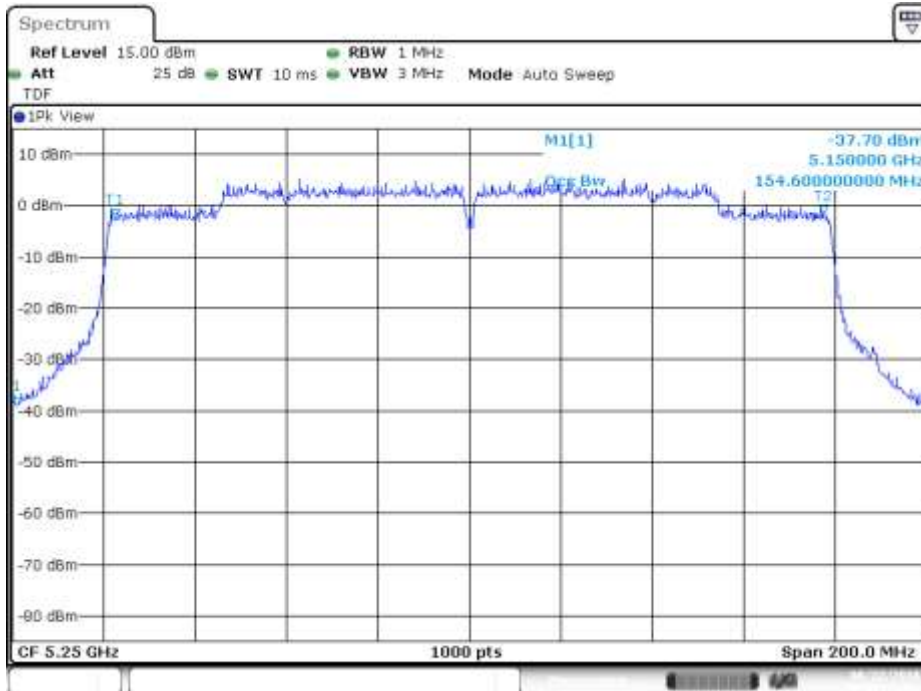
SISO-B, 802.11ax80, HE0

Channel 42ax80



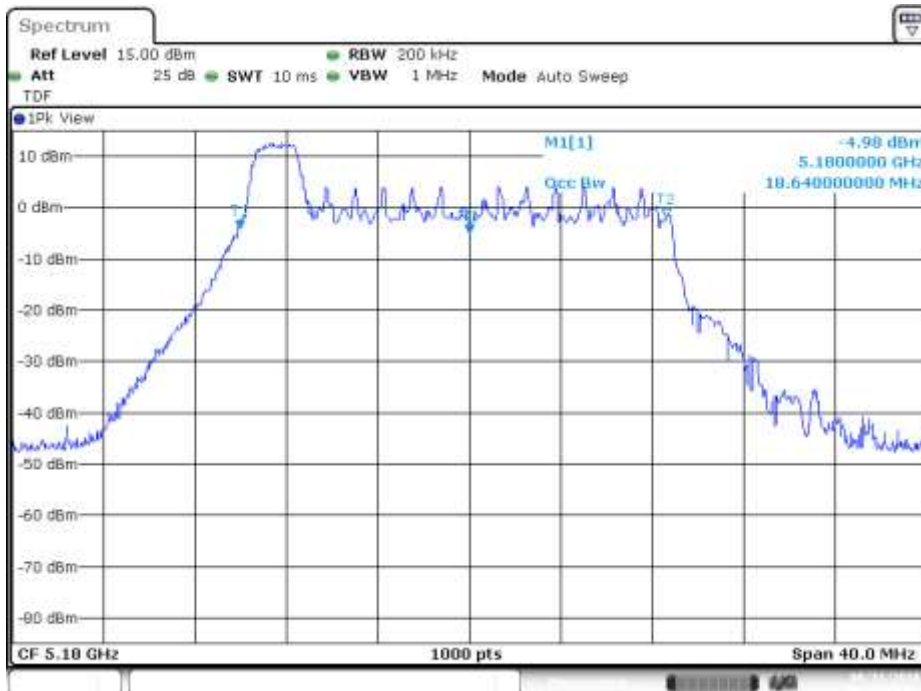
MIMO-A, 802.11ax160, HE0

Channel 50ax160



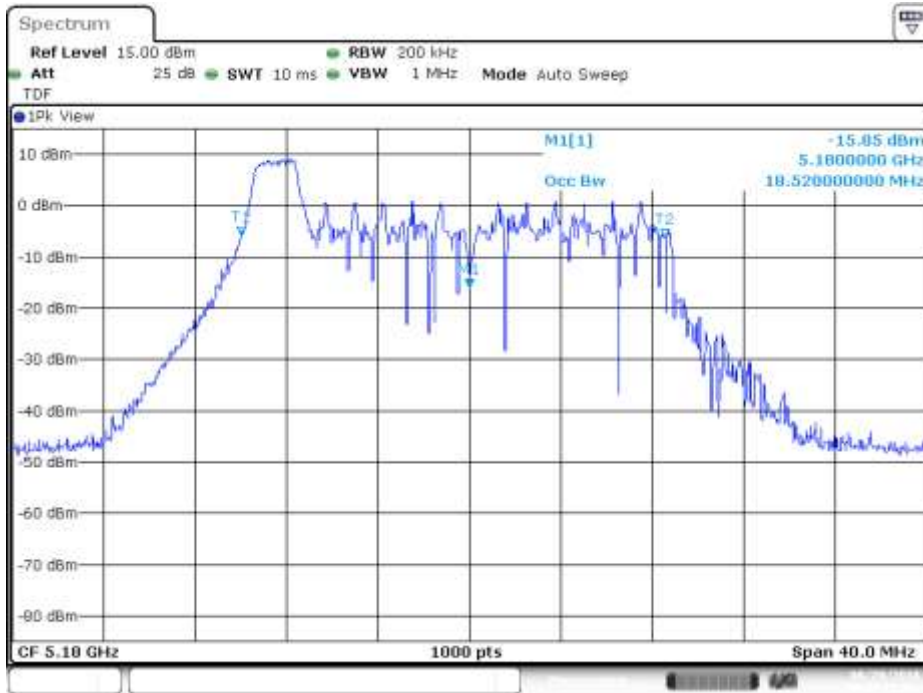
SISO-B, 802.11ax20, HE0- RU 26/0

Channel 36



MIMO-A, 802.11ax20, HE0- RU 26/0

Channel 36



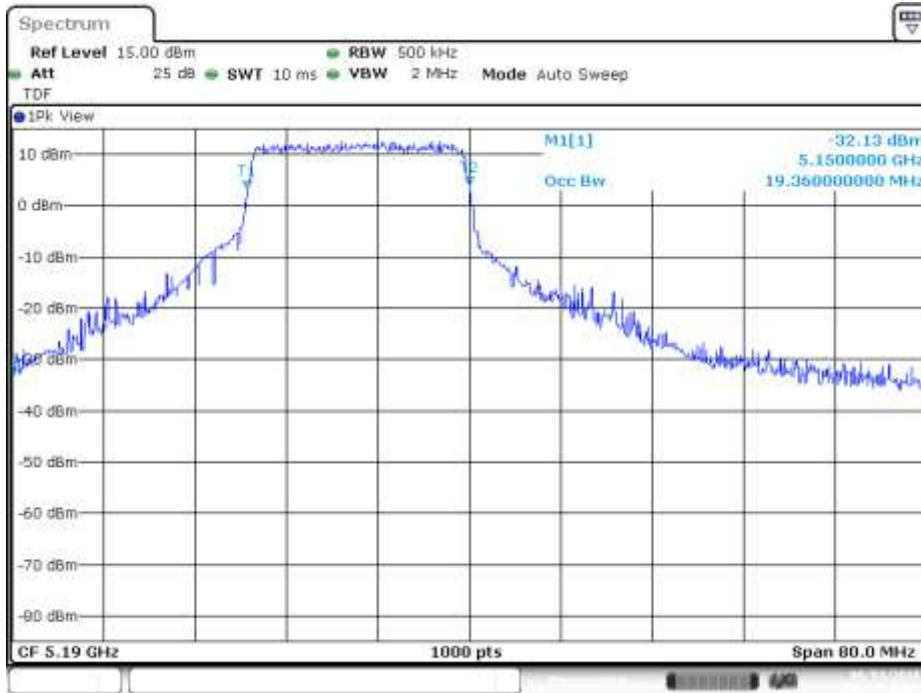
SISO-A, 802.11ax40, HE0- RU 242/61

Channel 38F



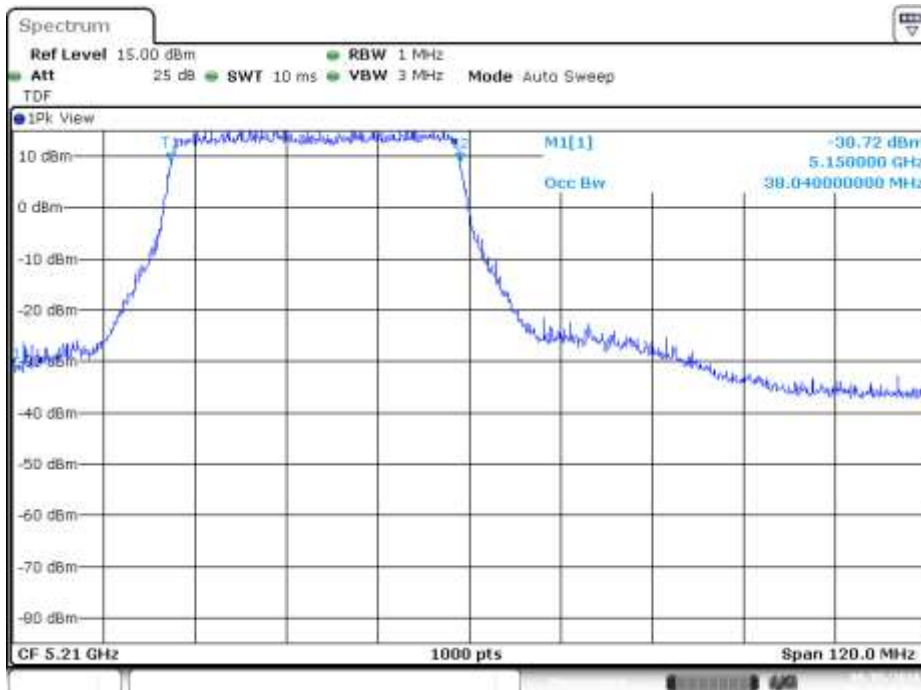
MIMO-B, 802.11ax40, HE0- RU 242/61

Channel 38F



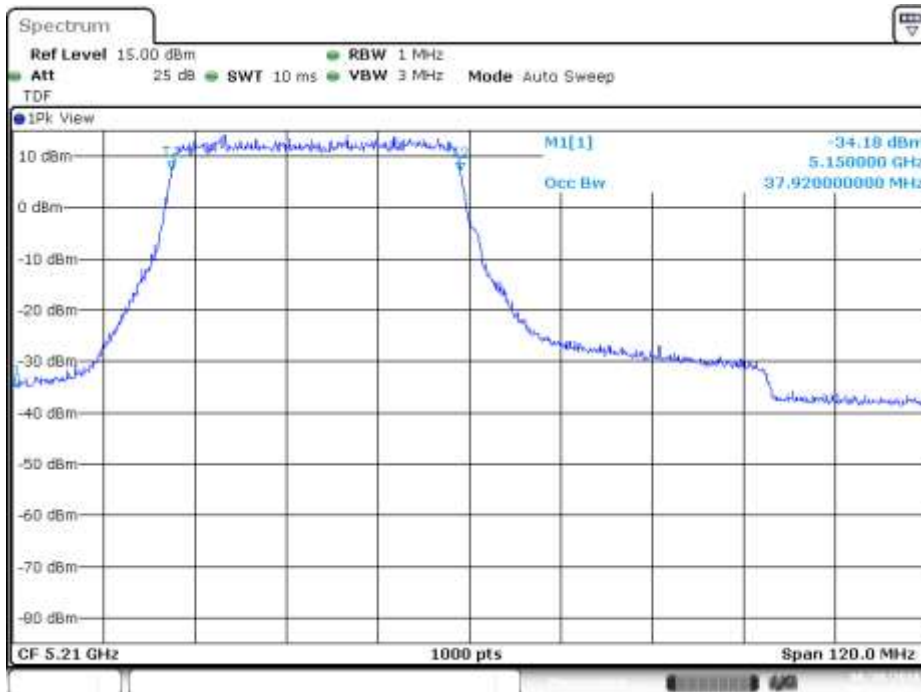
SISO-B, 802.11ax80, HE0- RU 484/65

Channel 42ax80



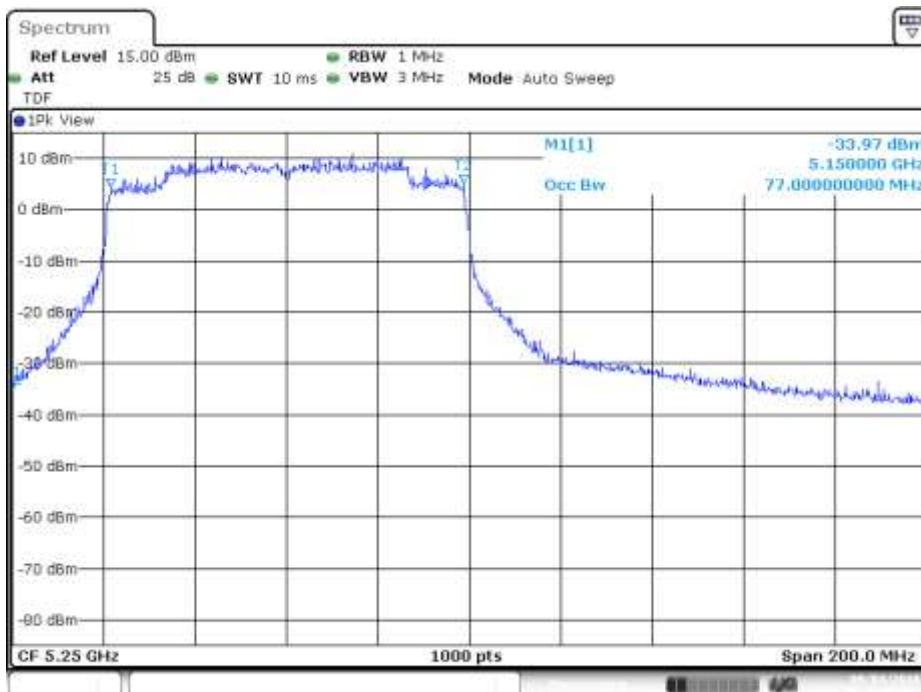
MIMO-A, 802.11ax80, HE0- RU 484/65

Channel 42ax80



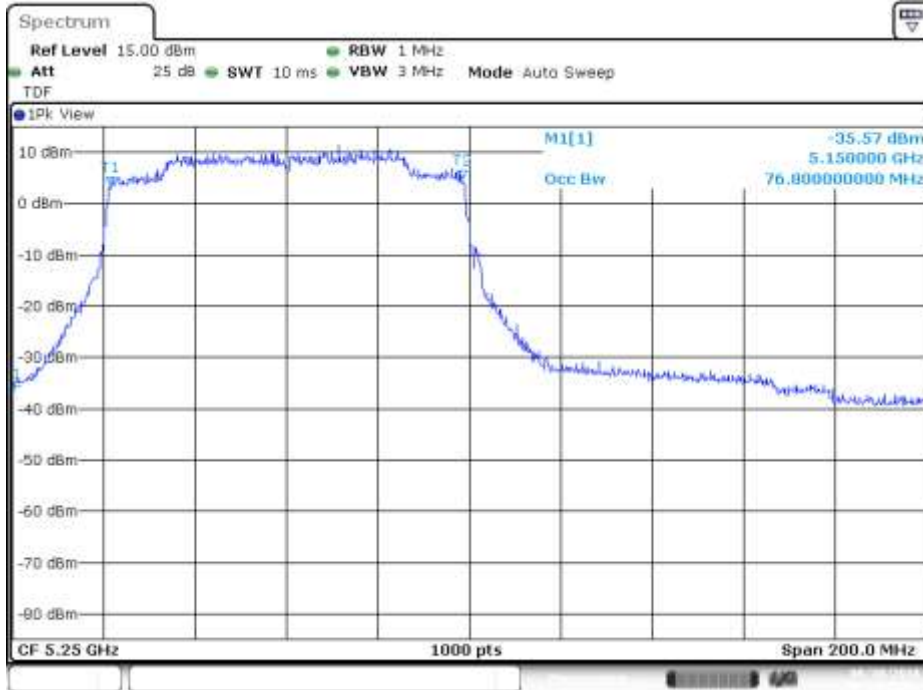
SISO-B, 802.11ax160, HE0- RU 996/S67

Channel 50ax160



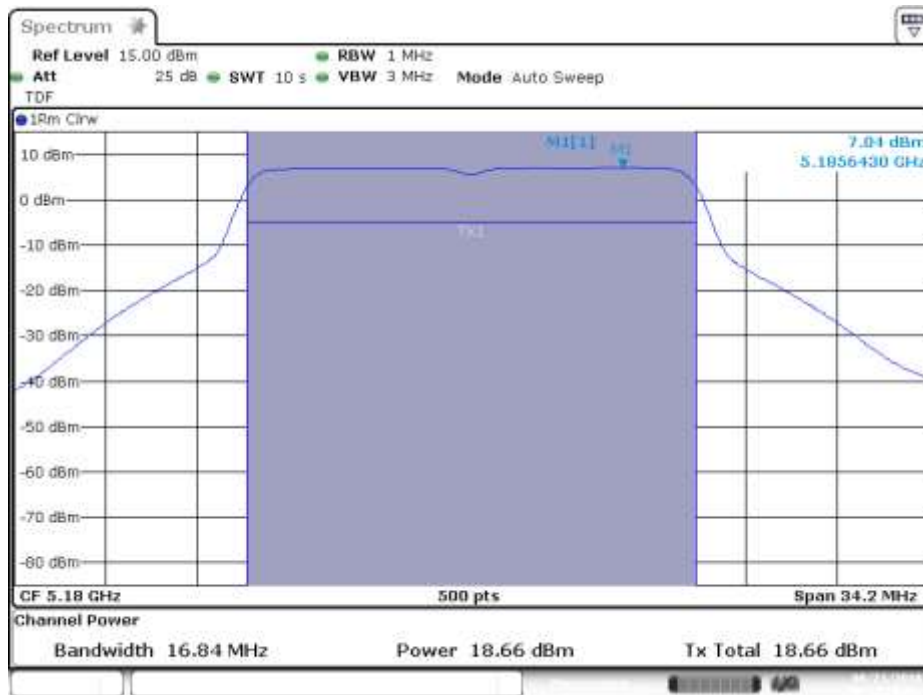
MIMO-A, 802.11ax160, HE0- RU 996/67

Channel 50ax160

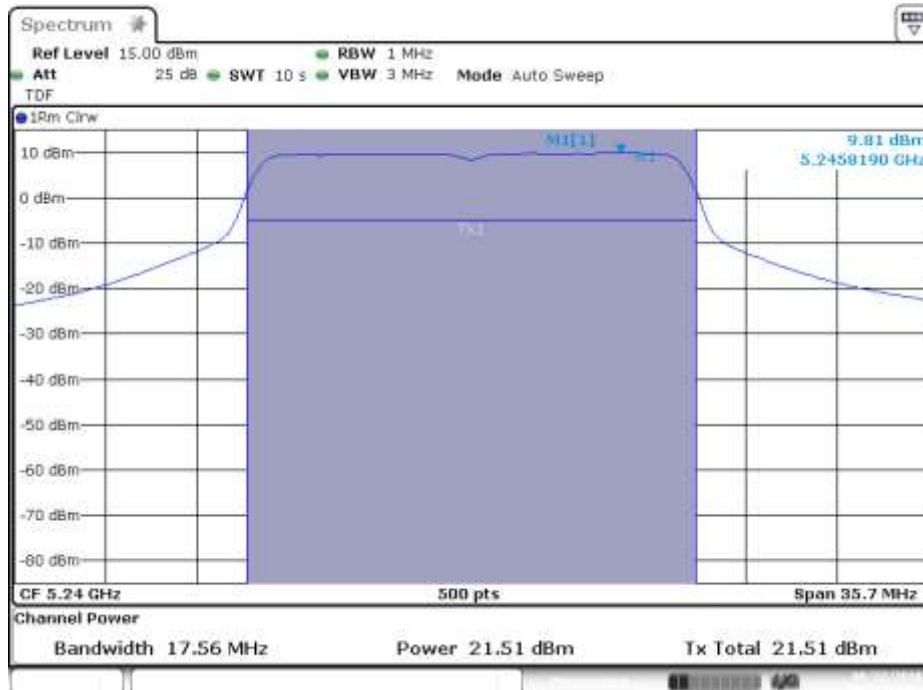


B.3.3 Power Limits. Maximum Output power & Peak power spectral density**SISO-A, 802.11a, 6Mbps**

Channel 36

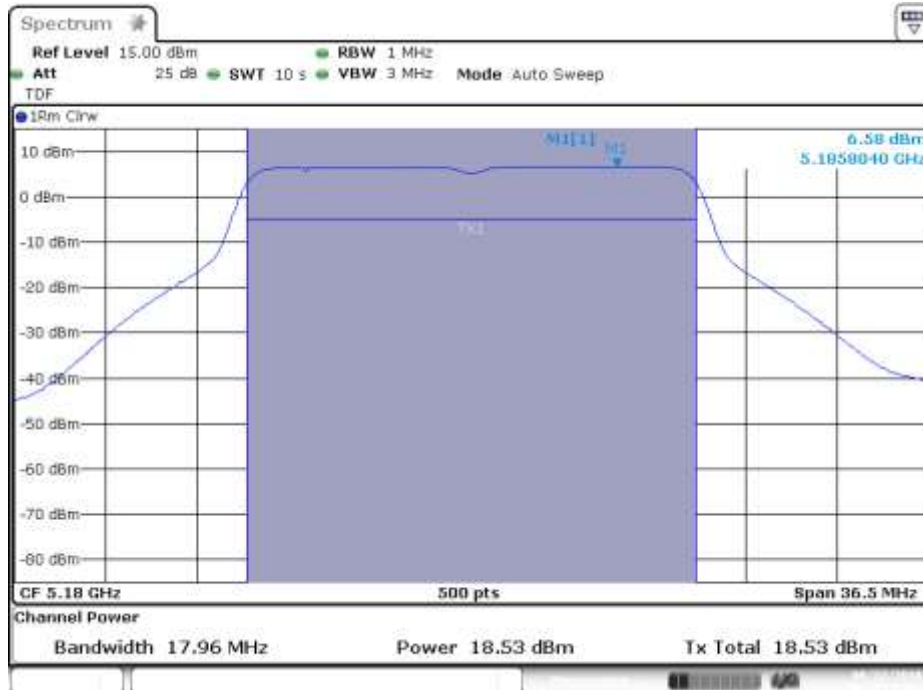
**SISO-B, 802.11a, 6Mbps**

Channel 48



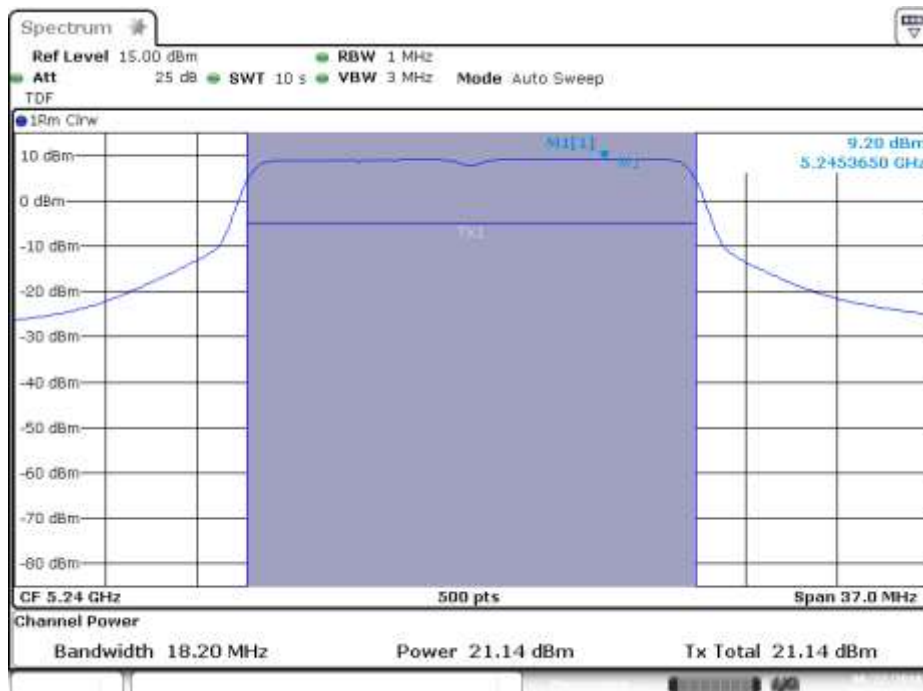
SISO-A, 802.11n20, HT0

Channel 36



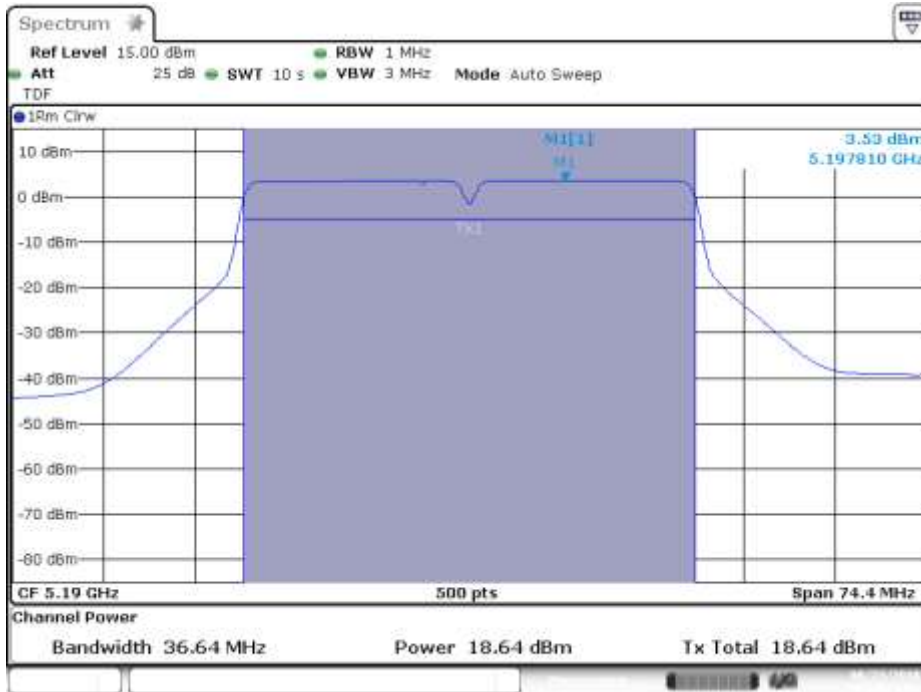
SISO-B, 802.11n20, HT0

Channel 48



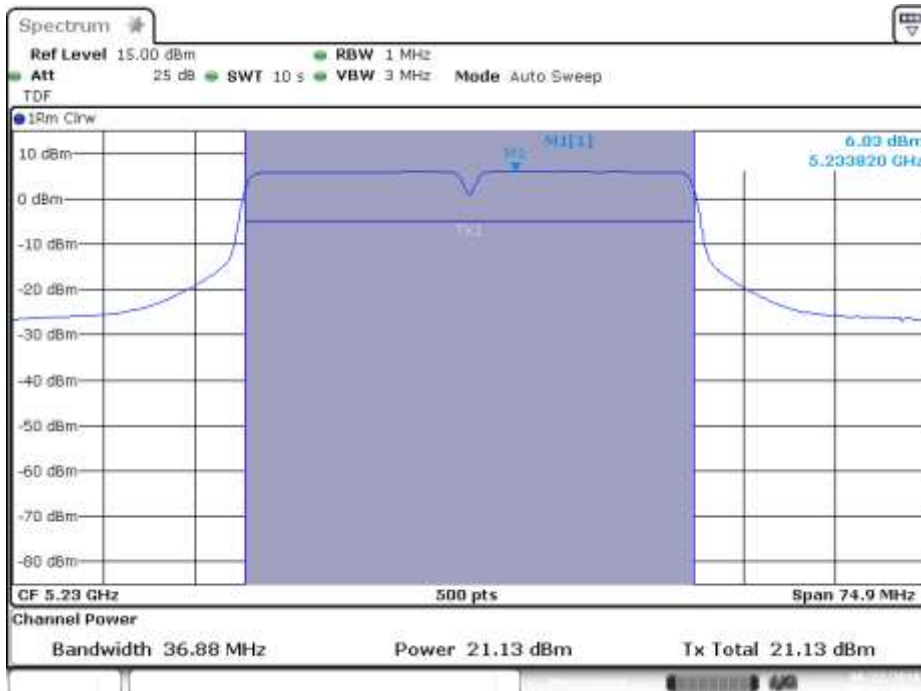
SISO-B, 802.11n40, HT0

Channel 38F



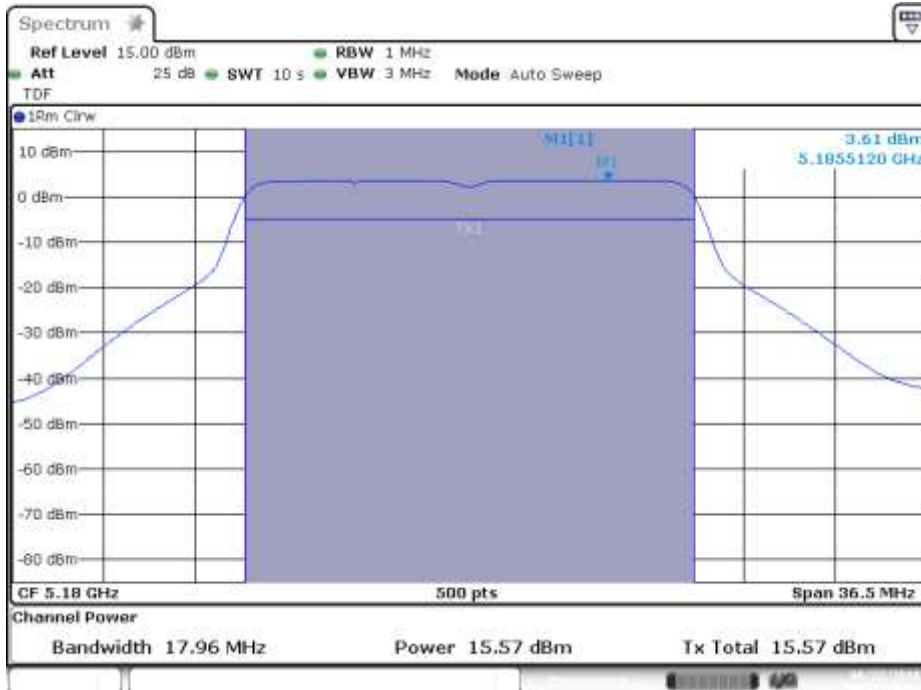
SISO-A, 802.11n40, HT0

Channel 46F



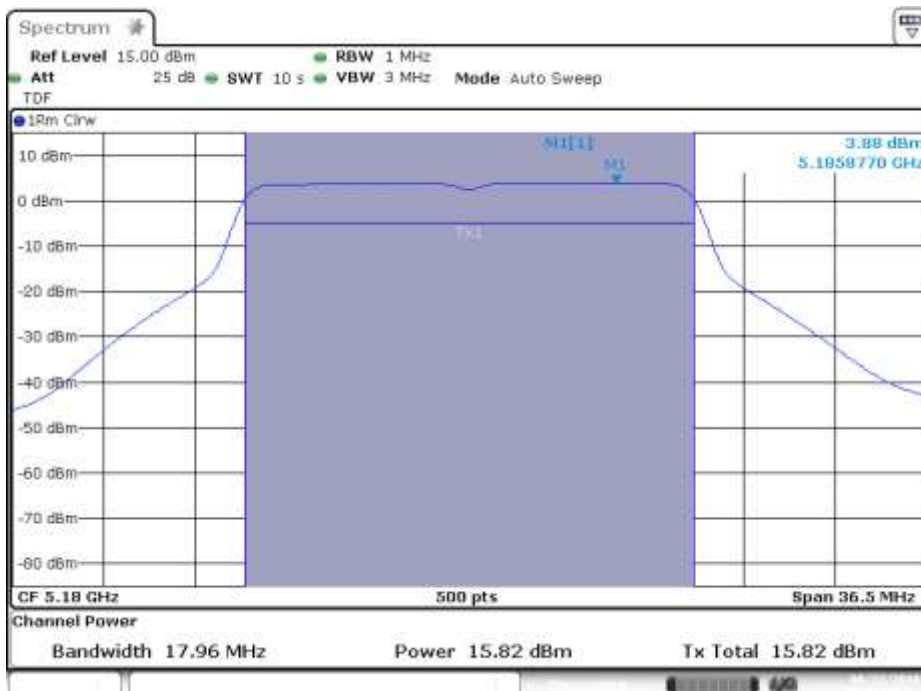
MIMO-A, 802.11n20, HT8

Channel 36



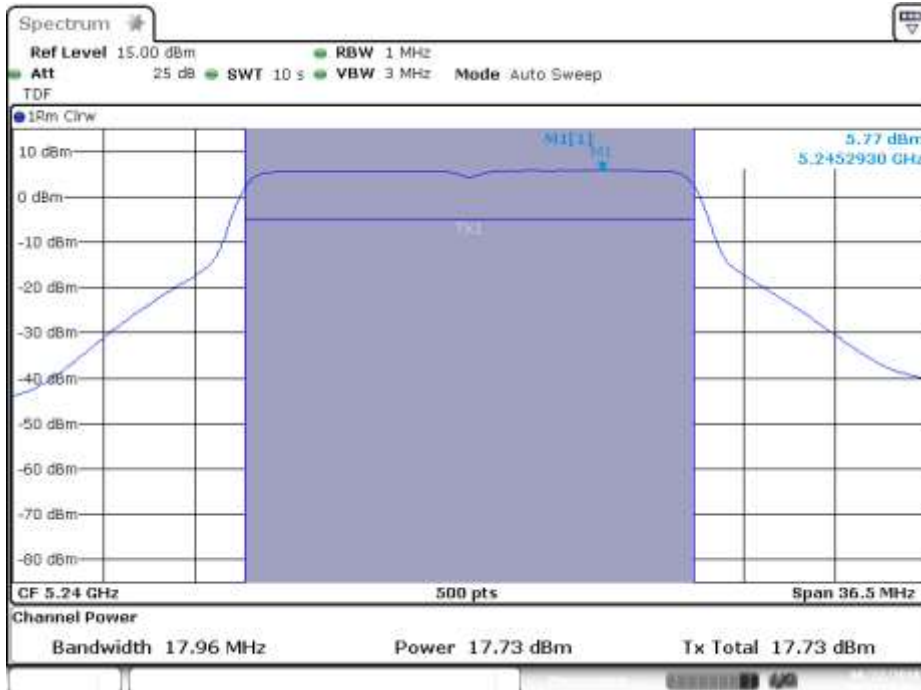
MIMO-B, 802.11n20, HT8

Channel 36



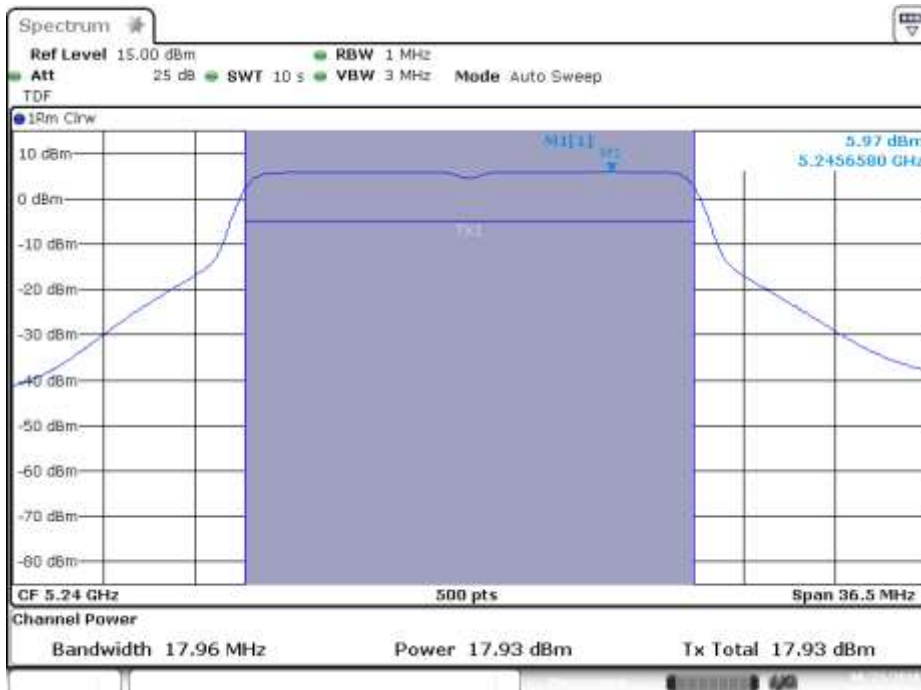
MIMO-A, 802.11n20, HT8

Channel 48



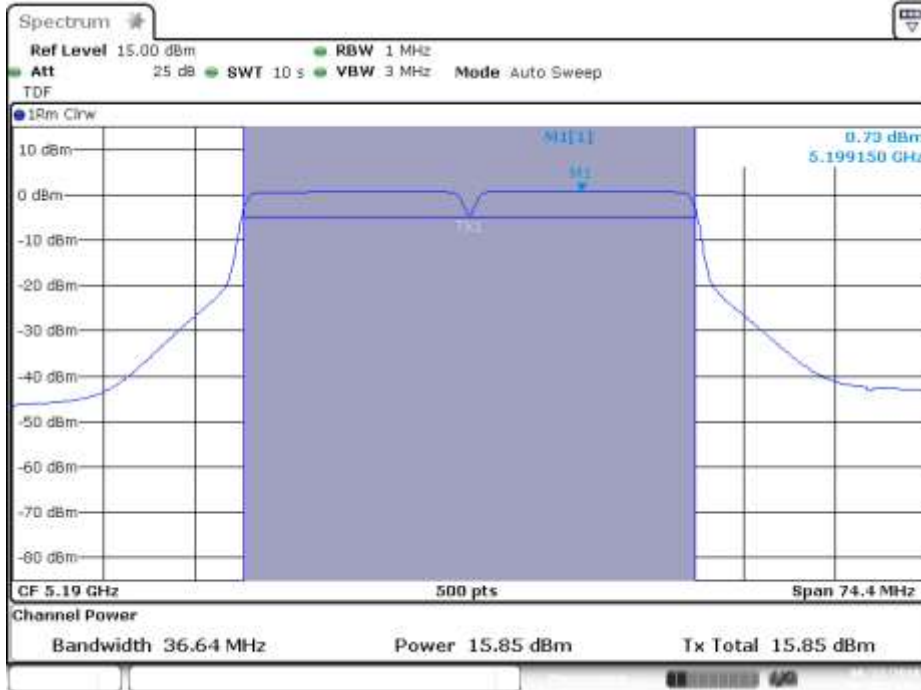
MIMO-B, 802.11n20, HT8

Channel 48



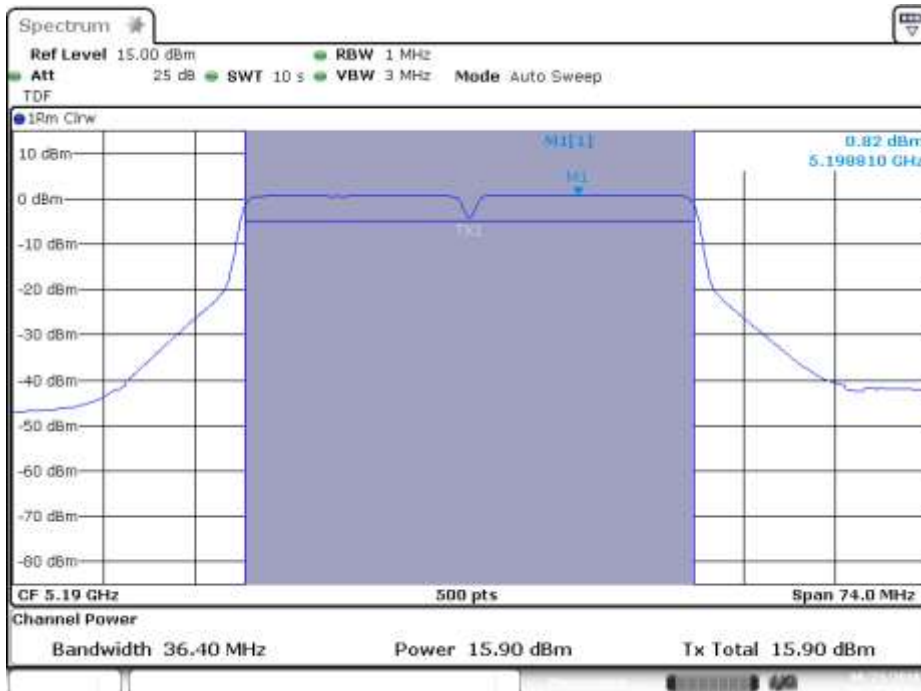
MIMO-A, 802.11n40, HT8

Channel 38F



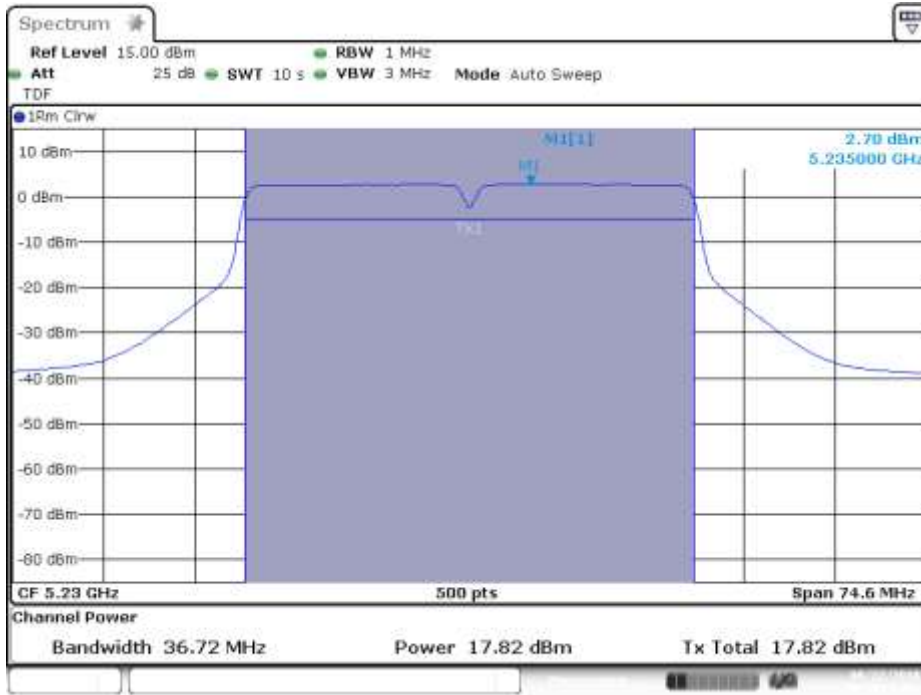
MIMO-B, 802.11n40, HT8

Channel 38F



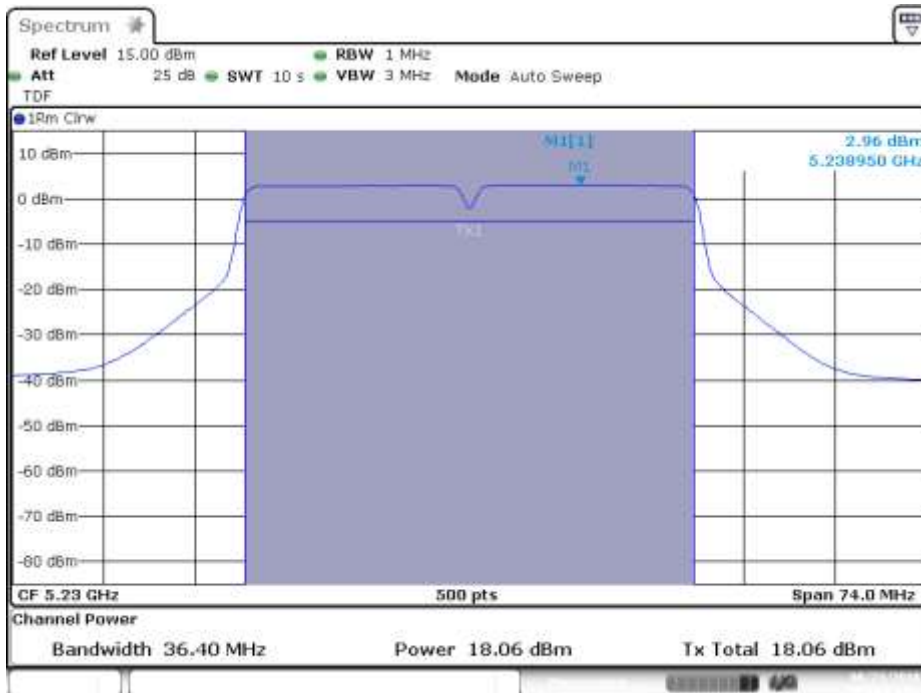
MIMO-A, 802.11n40, HT8

Channel 46F



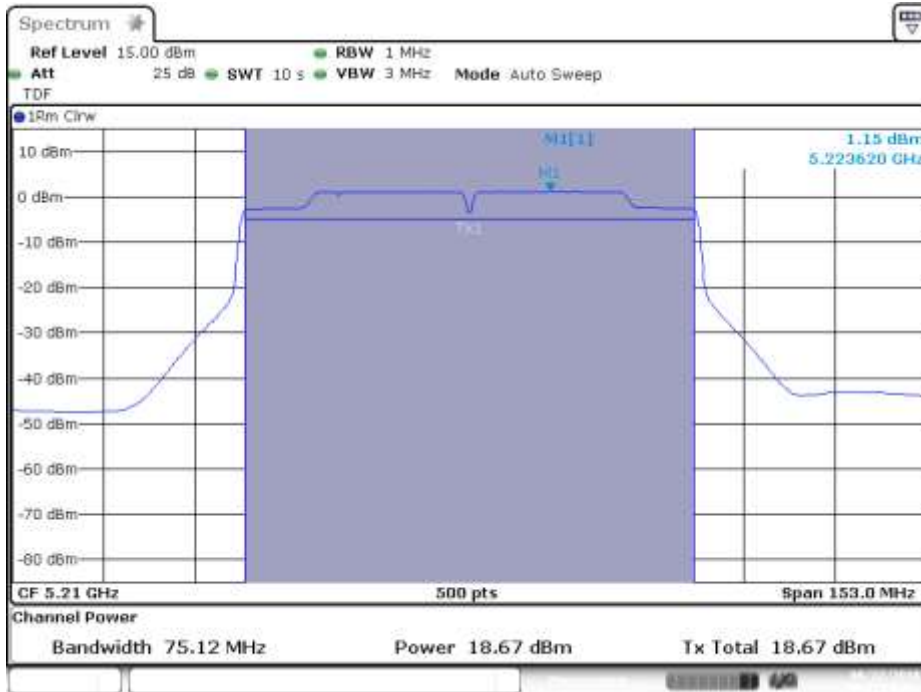
MIMO-B, 802.11n40, HT8

Channel 46F



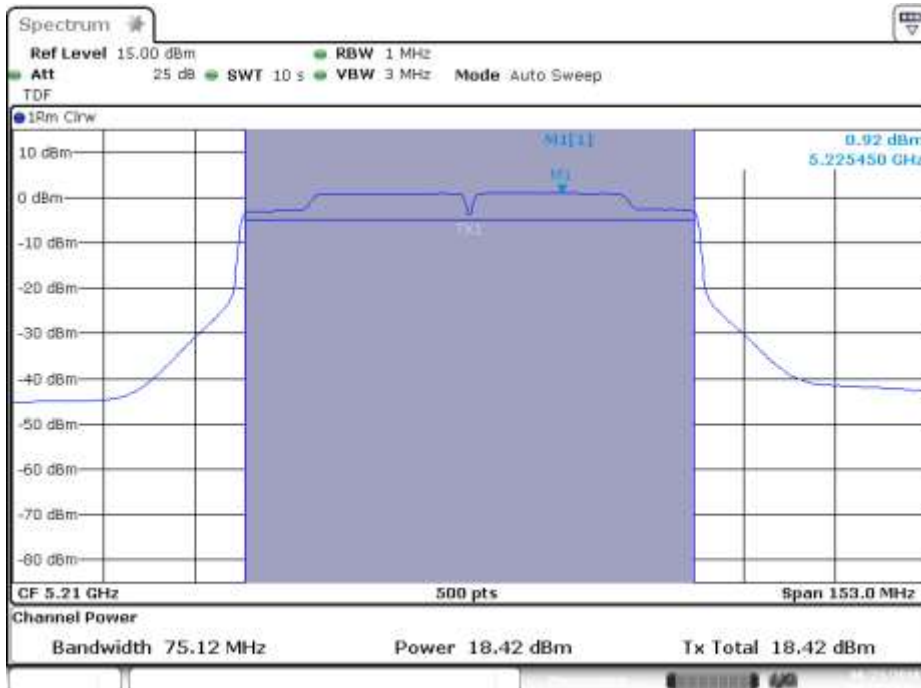
SISO-A, 802.11ac80, VHT0

Channel 42ac80



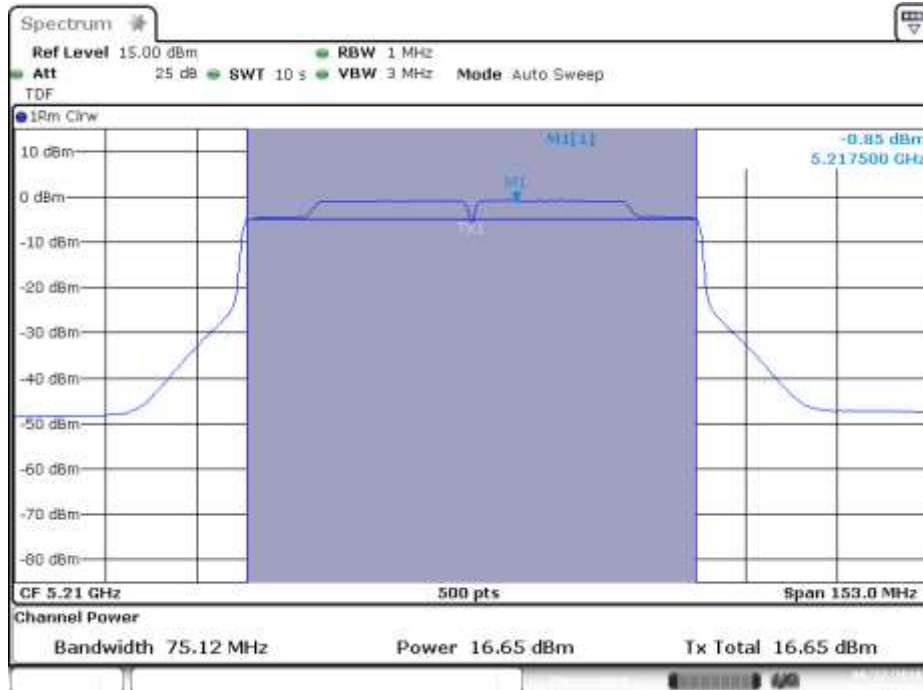
SISO-B, 802.11ac80, VHT0

Channel 42ac80



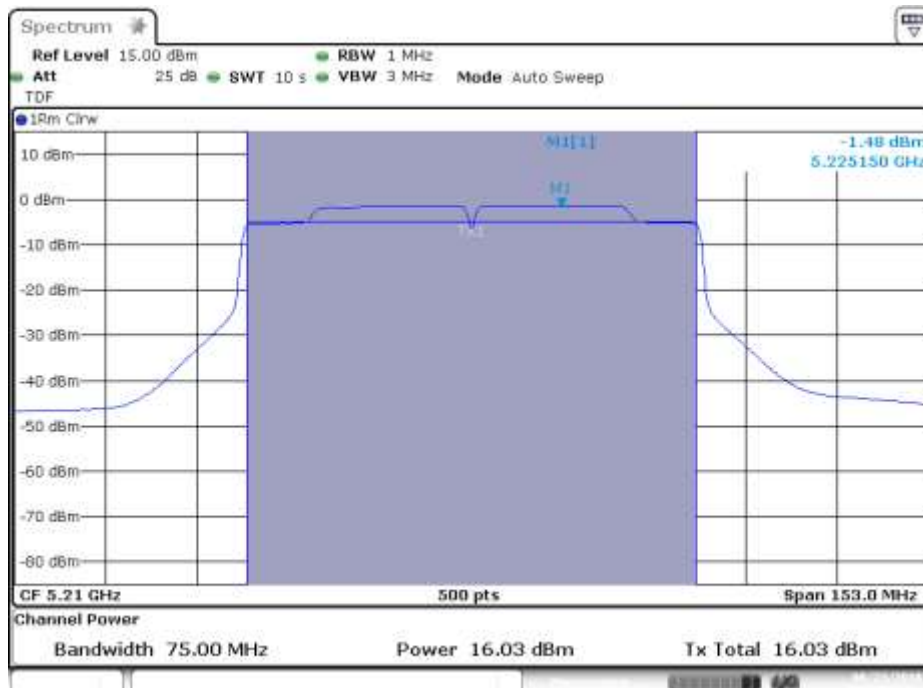
MIMO-A, 802.11ac80, VHT0

Channel 42ac80



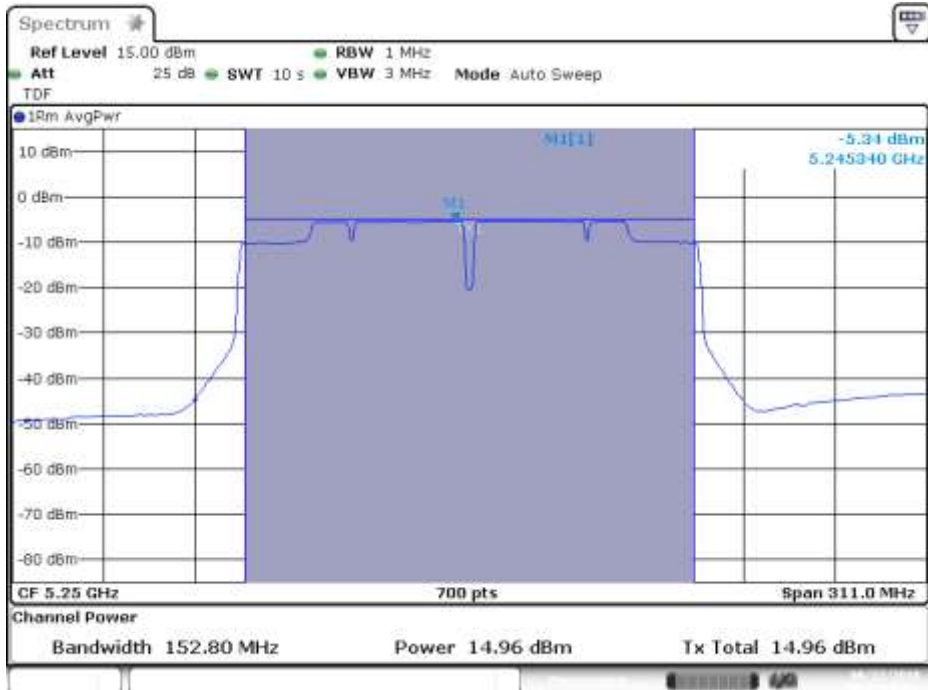
MIMO-B, 802.11ac80, VHT0

Channel 42ac80



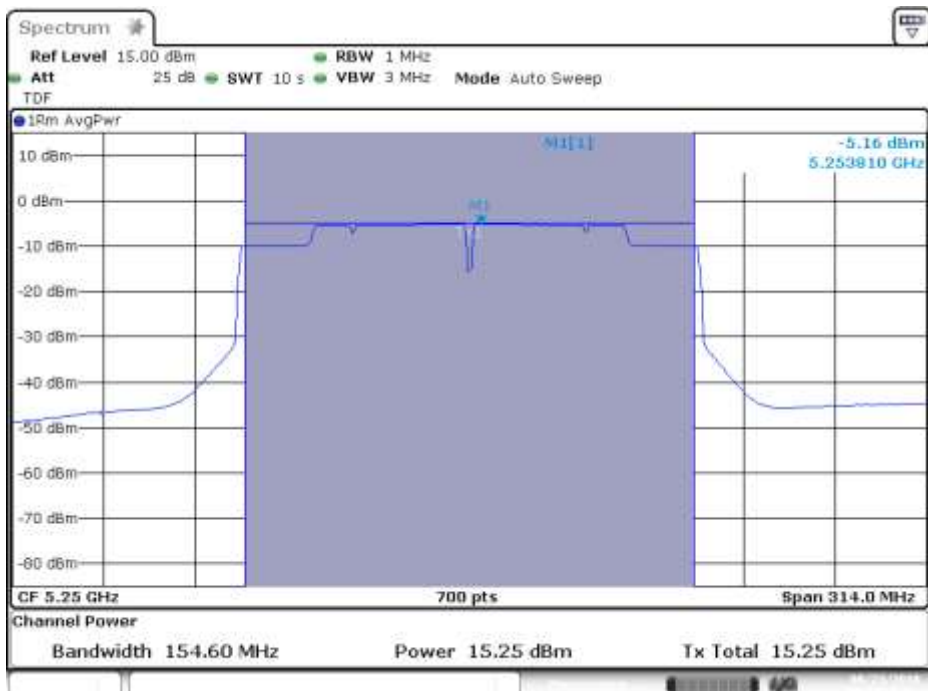
SISO-A, 802.11ac160, VHT0

Channel 50ac160



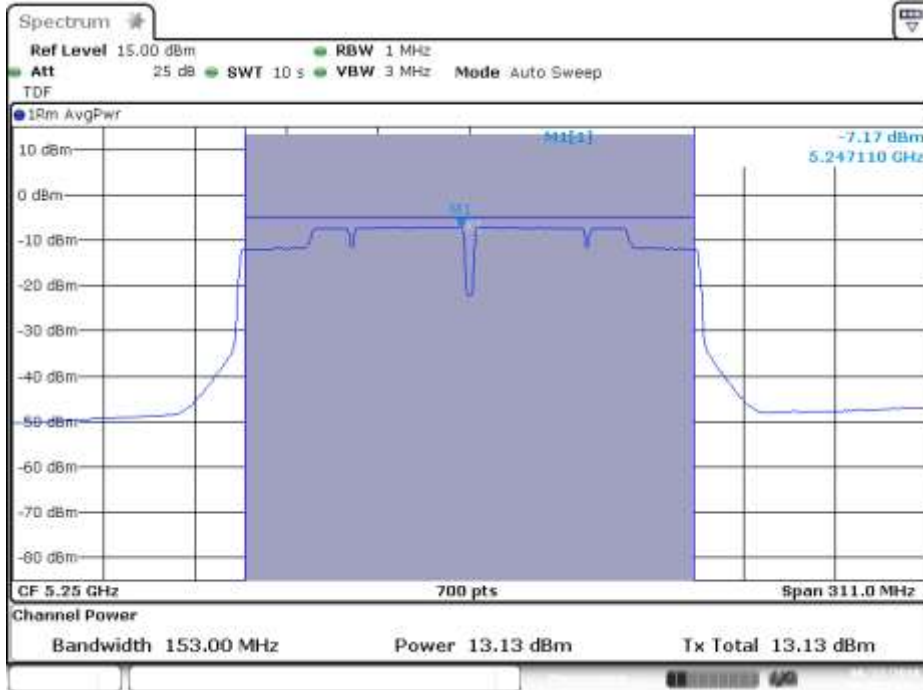
SISO-B, 802.11ac160, VHT0

Channel 50ac160



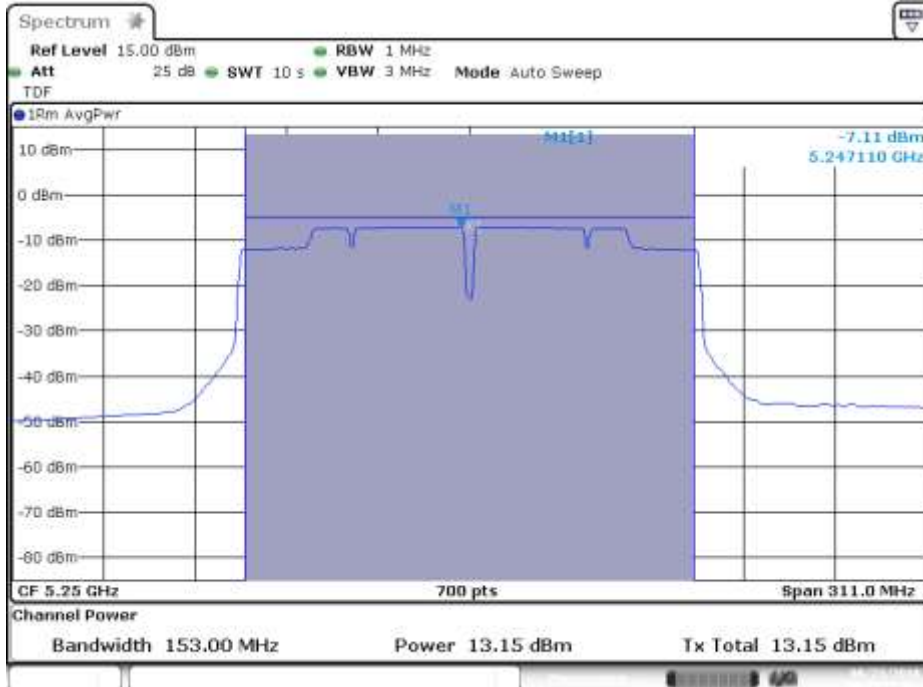
MIMO-A, 802.11ac160, VHT0

Channel 50ac160



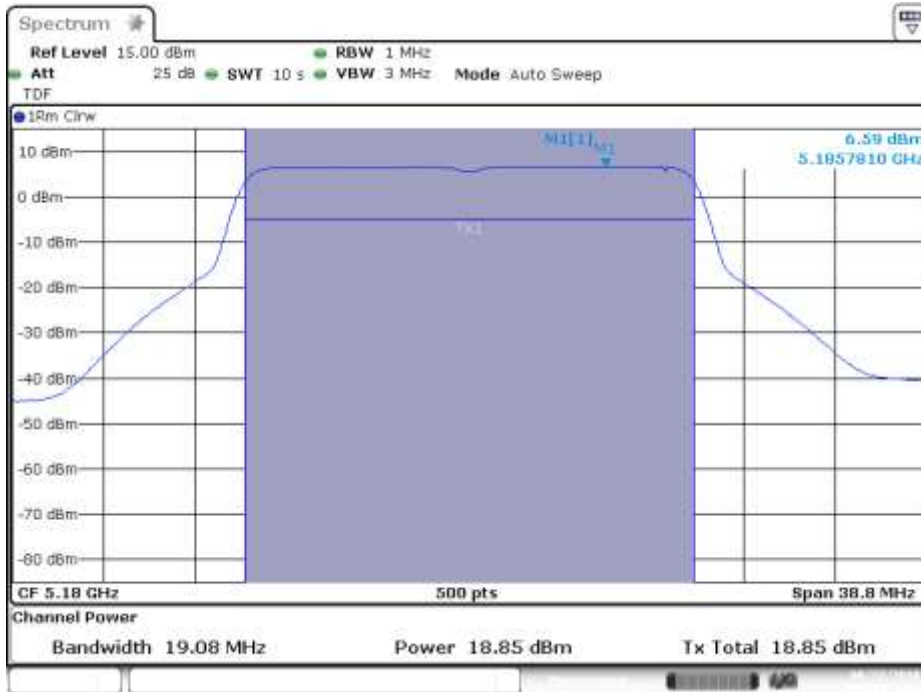
MIMO-B, 802.11ac160, VHT0

Channel 50ac160



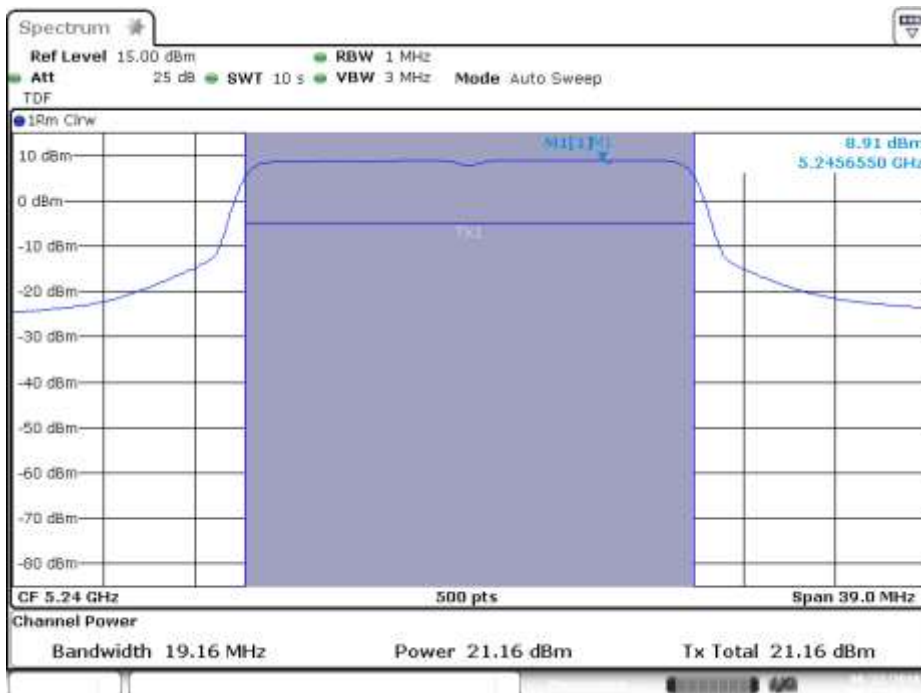
SISO-A, 802.11ax20, HE0

Channel 36



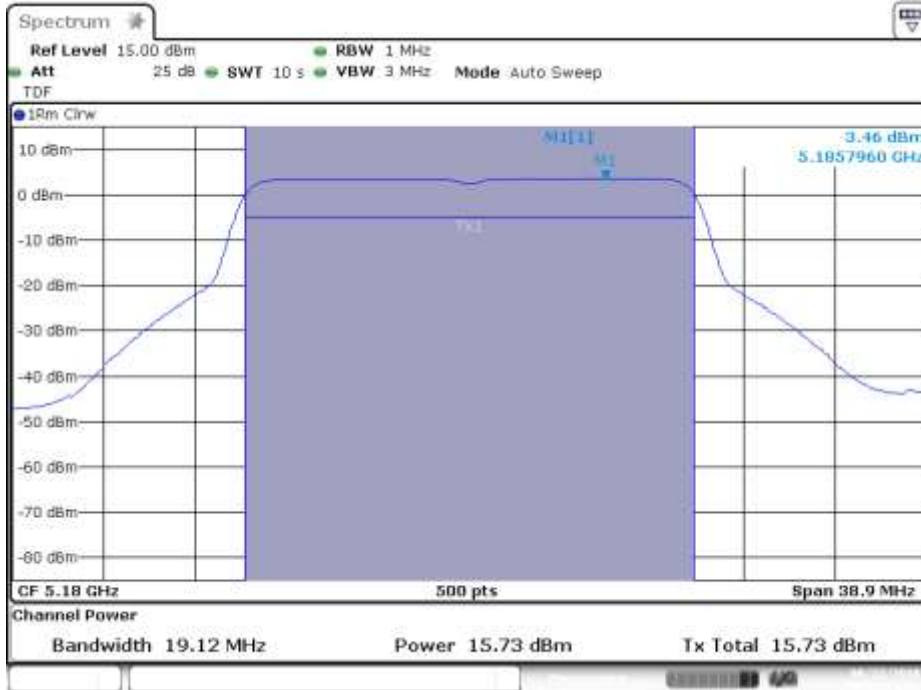
SISO-A, 802.11ax20, HE0

Channel 48



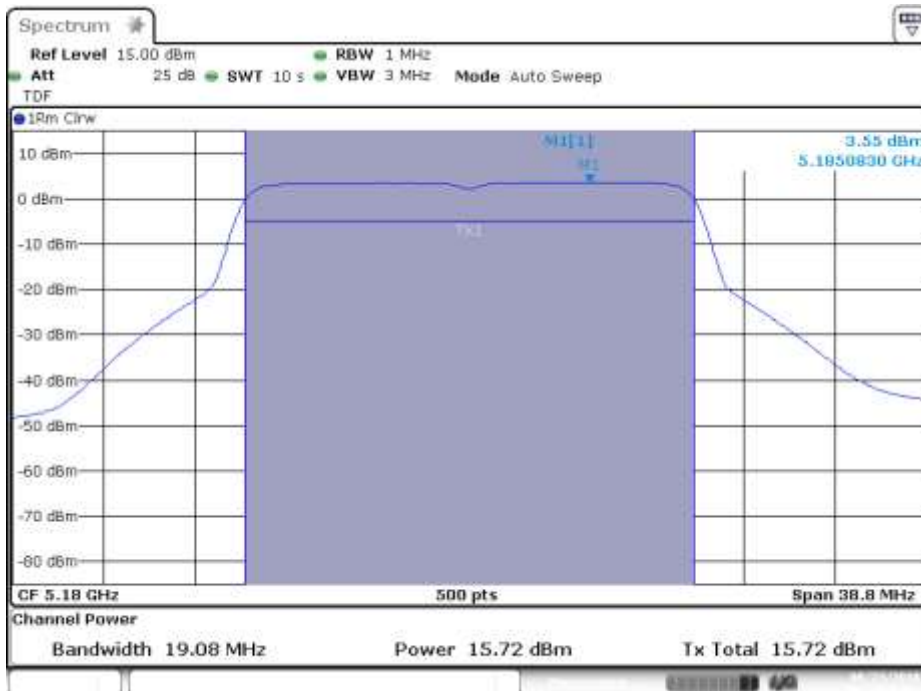
MIMO-A, 802.11ax20, HE0

Channel 36



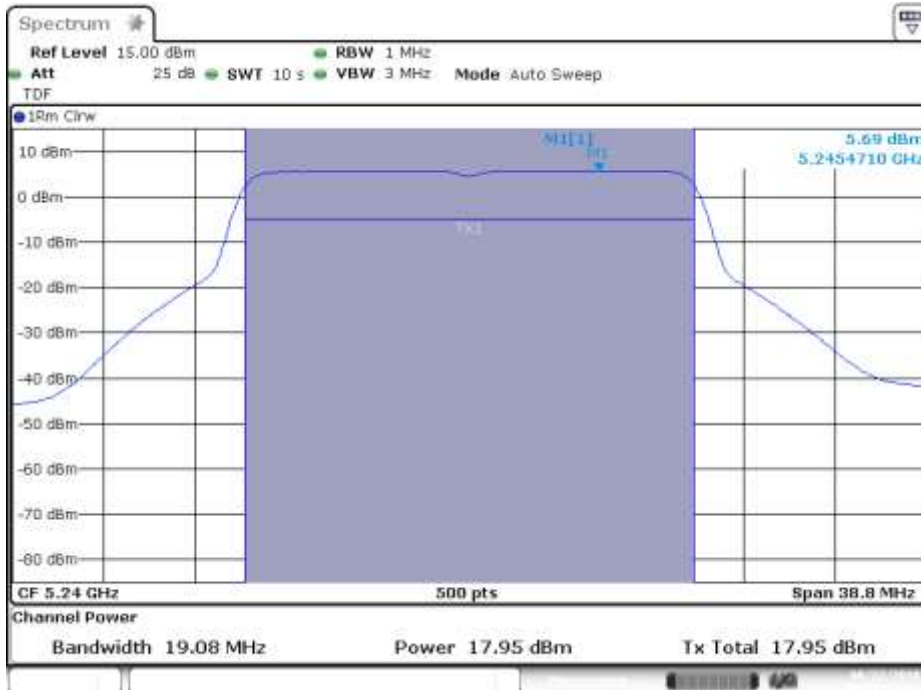
MIMO-B, 802.11ax20, HE0

Channel 36



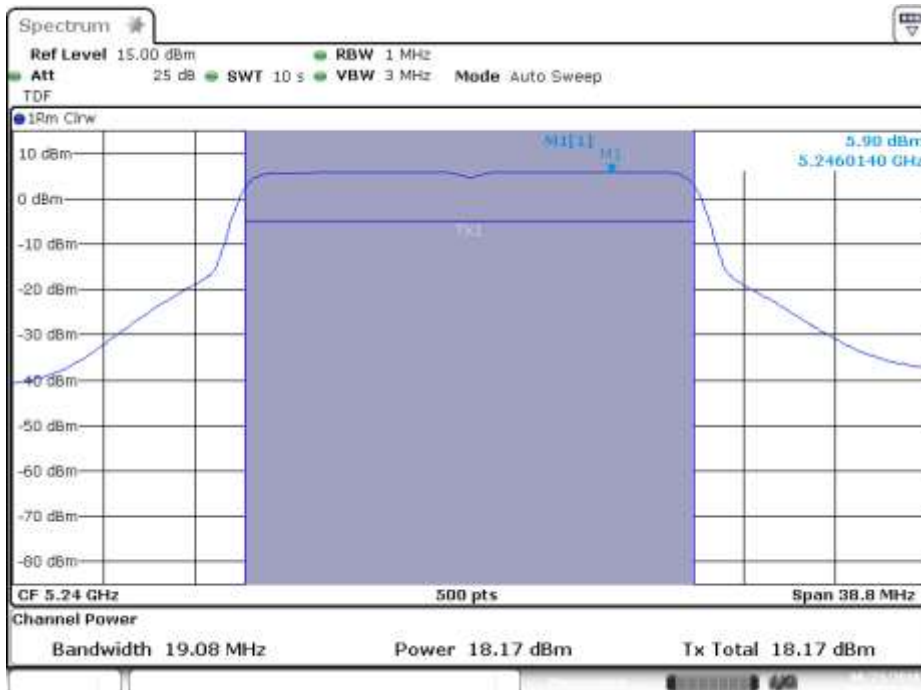
MIMO-A, 802.11ax20, HE0

Channel 48



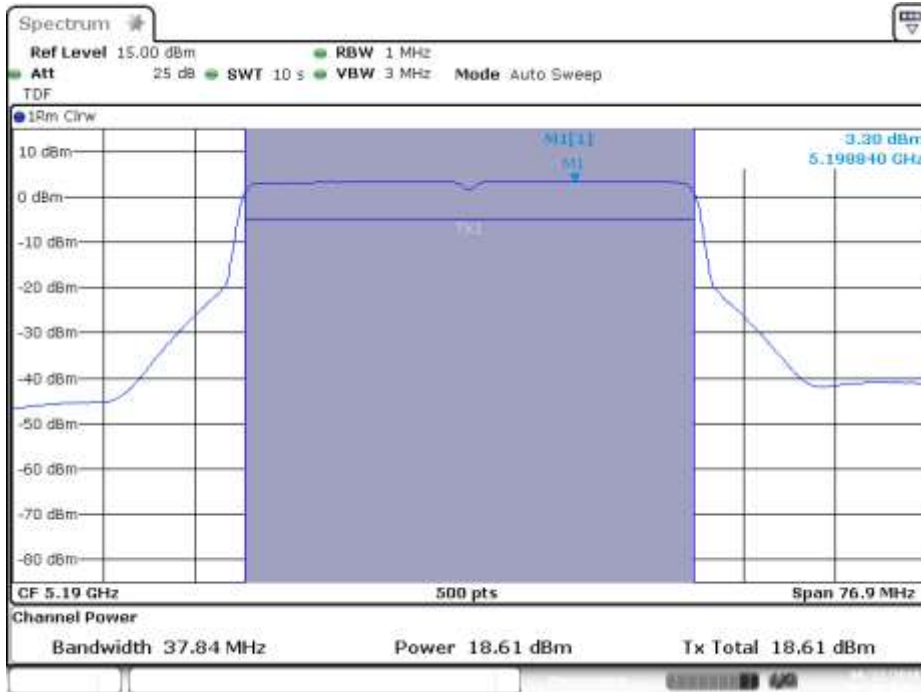
MIMO-B, 802.11ax20, HE0

Channel 48



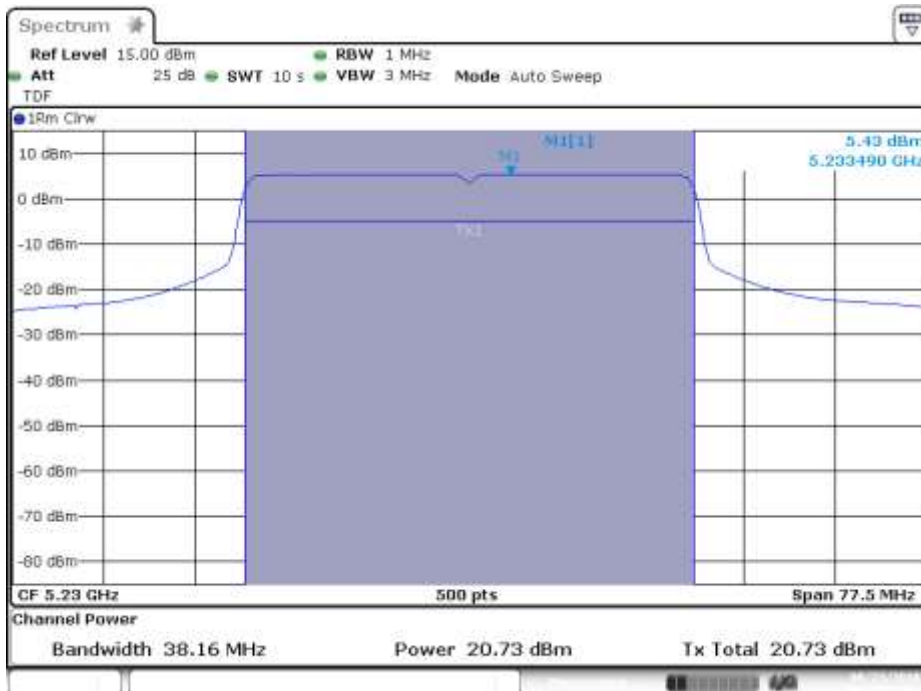
SISO-A, 802.11ax40, HE0

Channel 38F



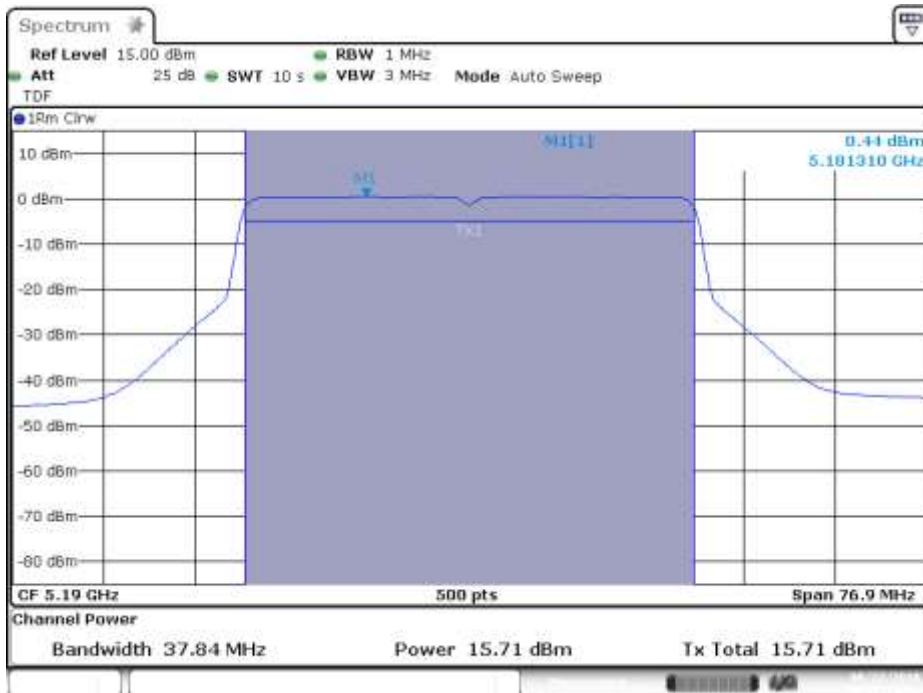
SISO-B, 802.11ax40, HE0

Channel 46F



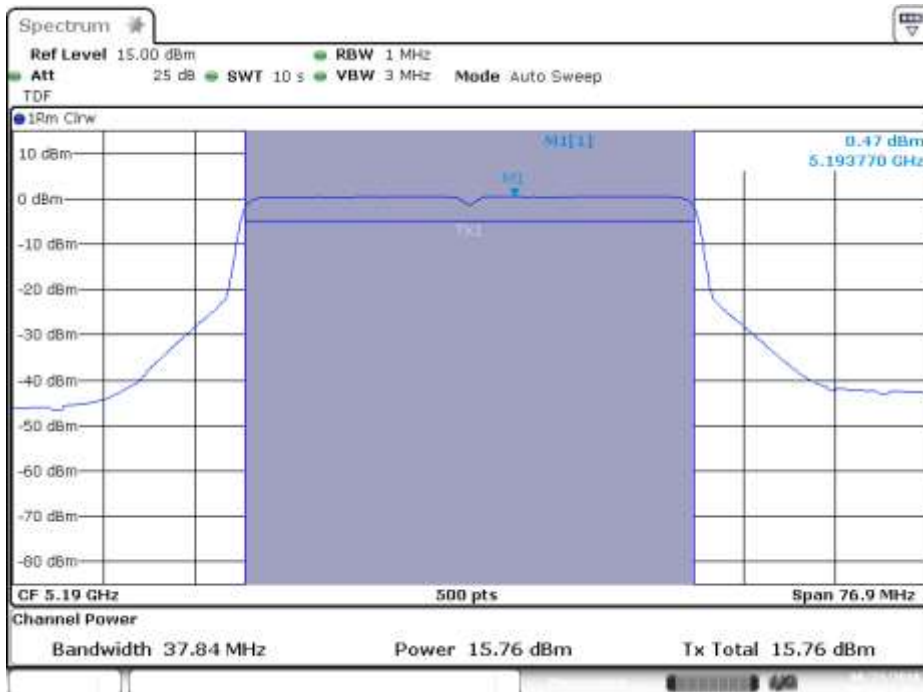
MIMO-A, 802.11ax40, HE0

Channel 38F



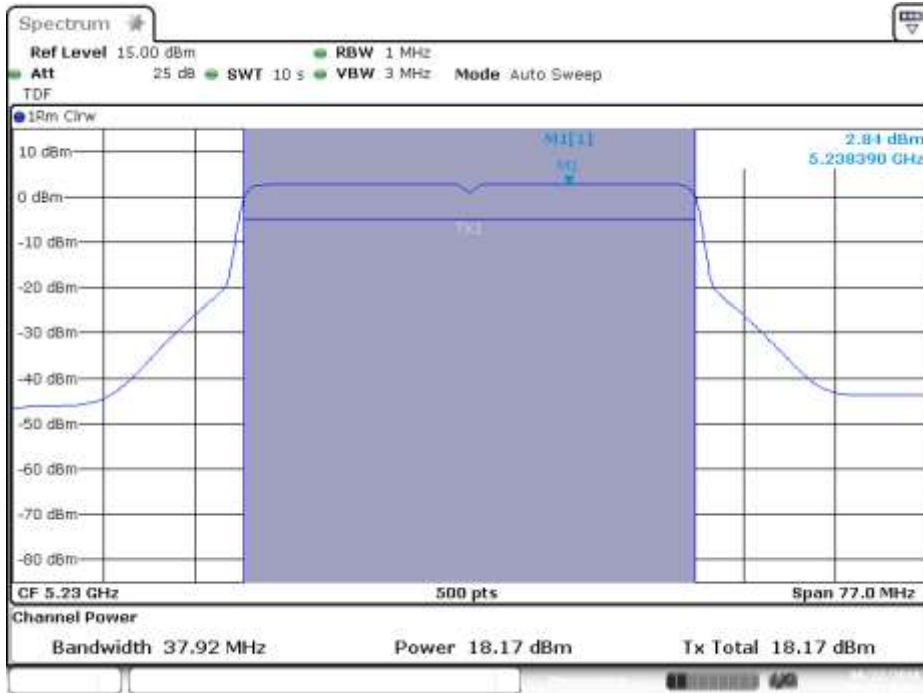
MIMO-B, 802.11ax40, HE0

Channel 38F



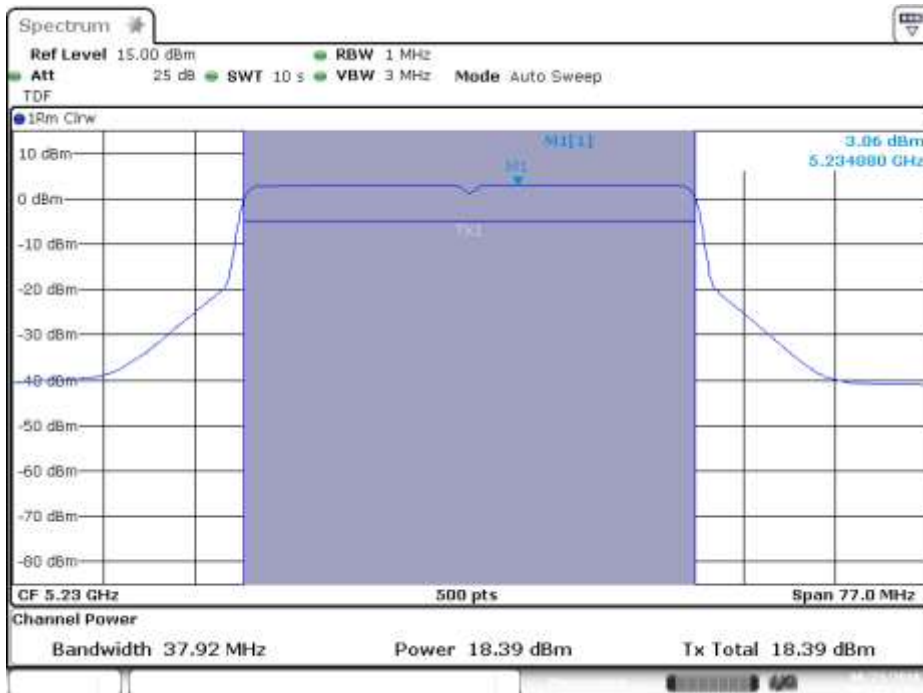
MIMO-A, 802.11ax40, HE0

Channel 46F



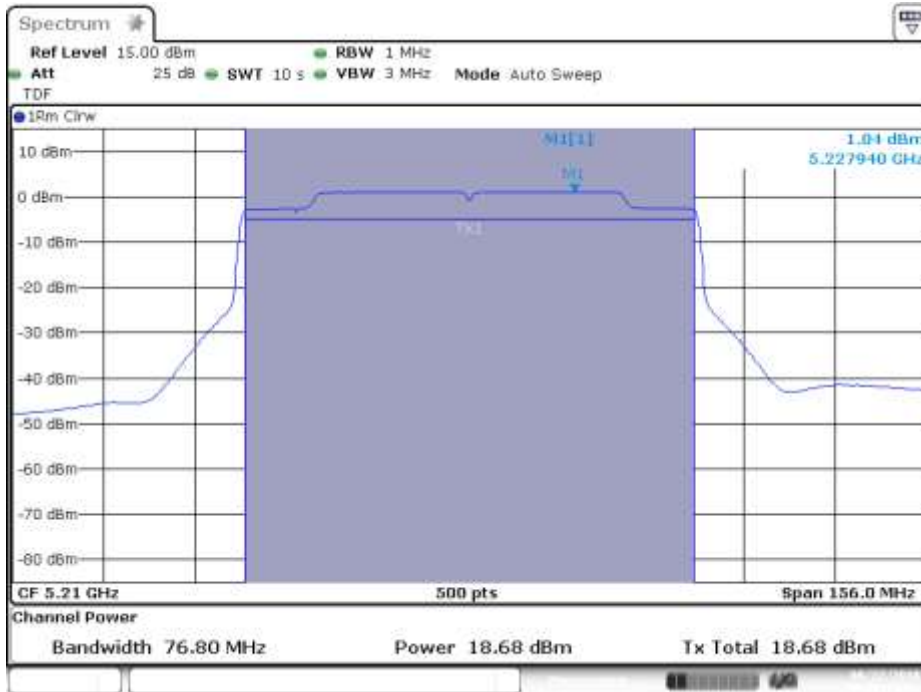
MIMO-B, 802.11ax40, HE0

Channel 46F



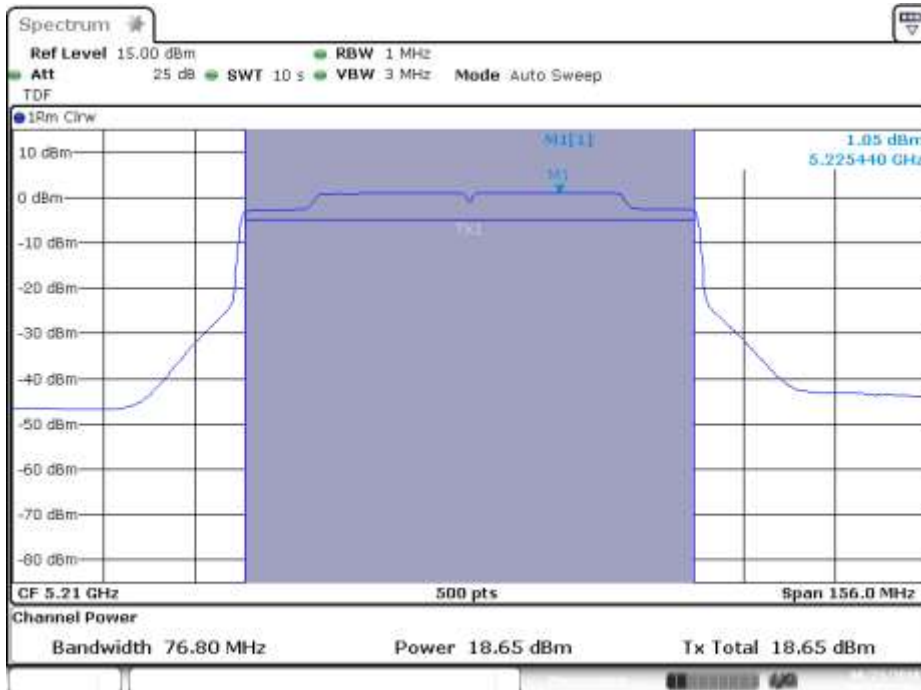
SISO-A, 802.11ax80, HE0

Channel 42ax80



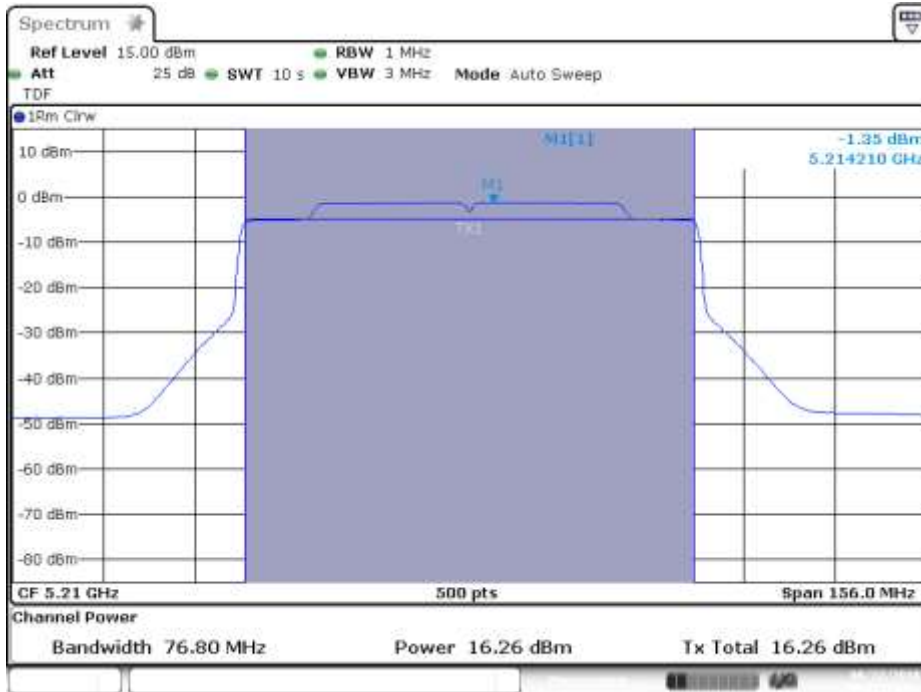
SISO-B, 802.11ax80, HE0

Channel 42ax80



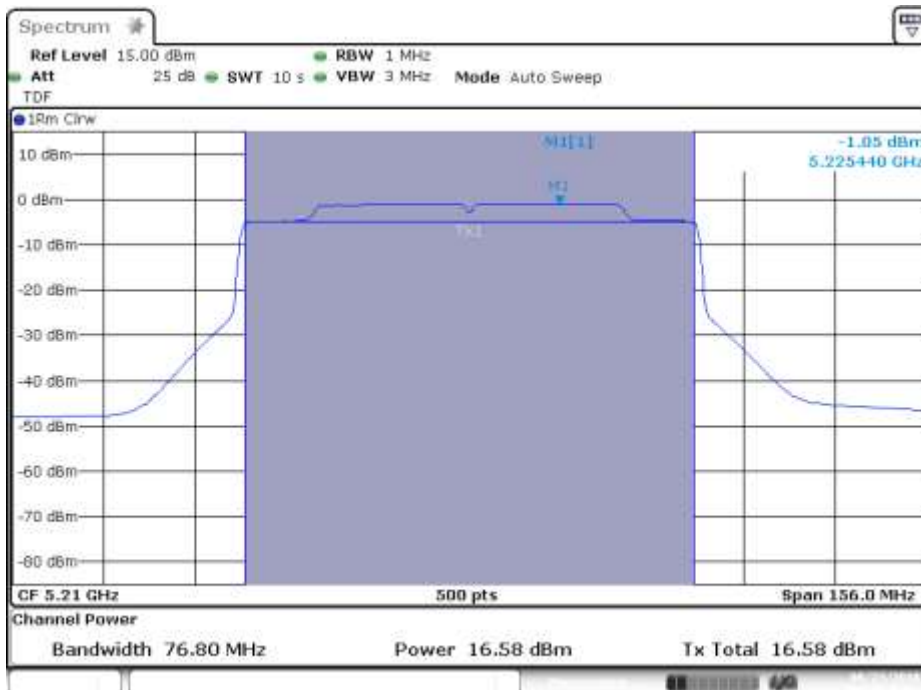
MIMO-A, 802.11ax80, HE0

Channel 42ax80



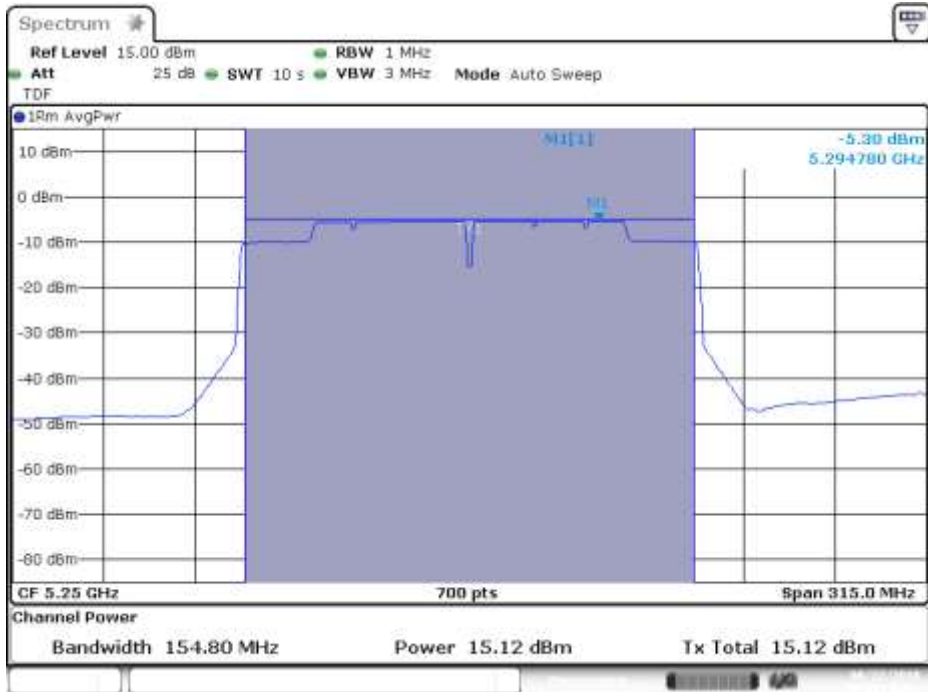
MIMO-B, 802.11ax80, HE0

Channel 42ax80



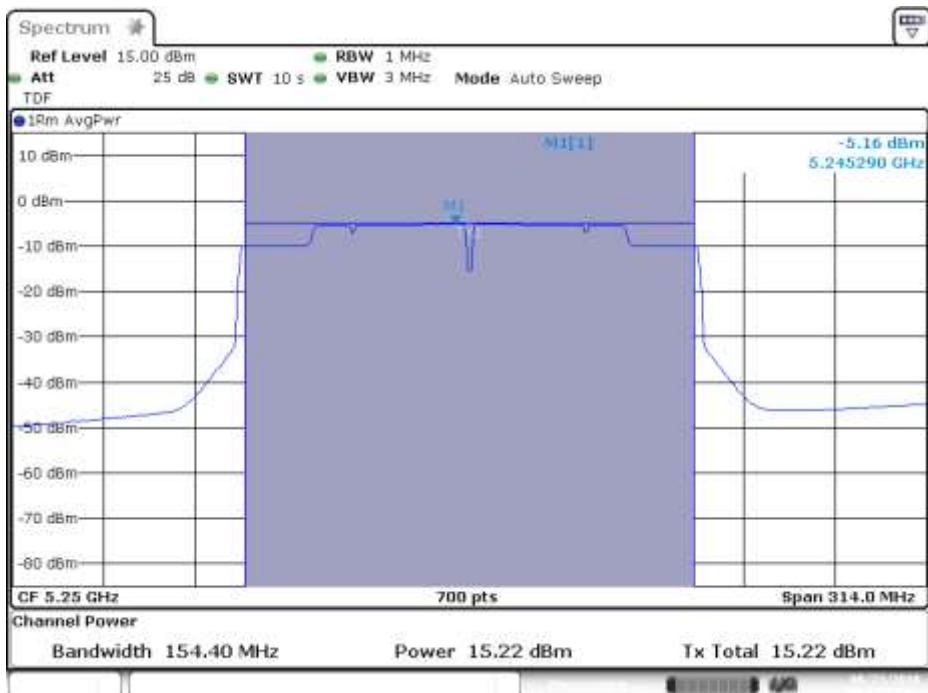
SISO-A, 802.11ax160, HE0

Channel 50ax160



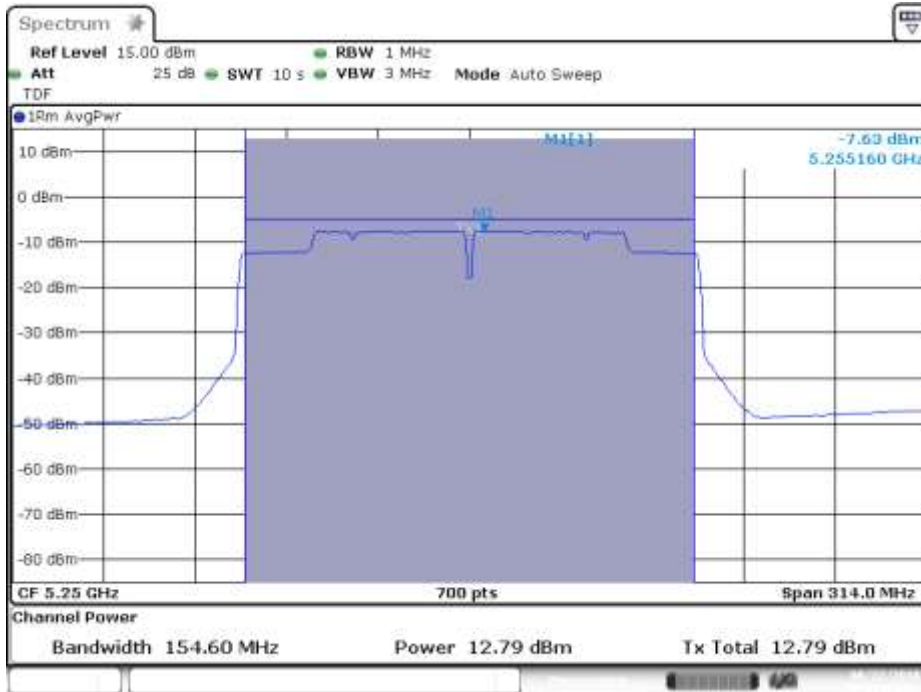
SISO-B, 802.11ax160, HE0

Channel 50ax160



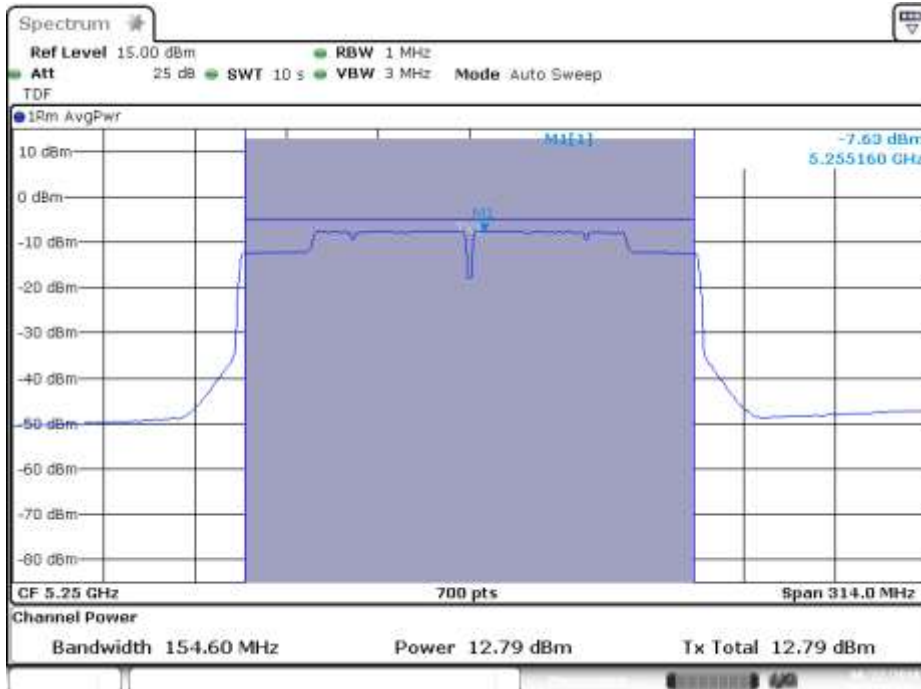
MIMO-A, 802.11ax160, HE0

Channel 50ax160



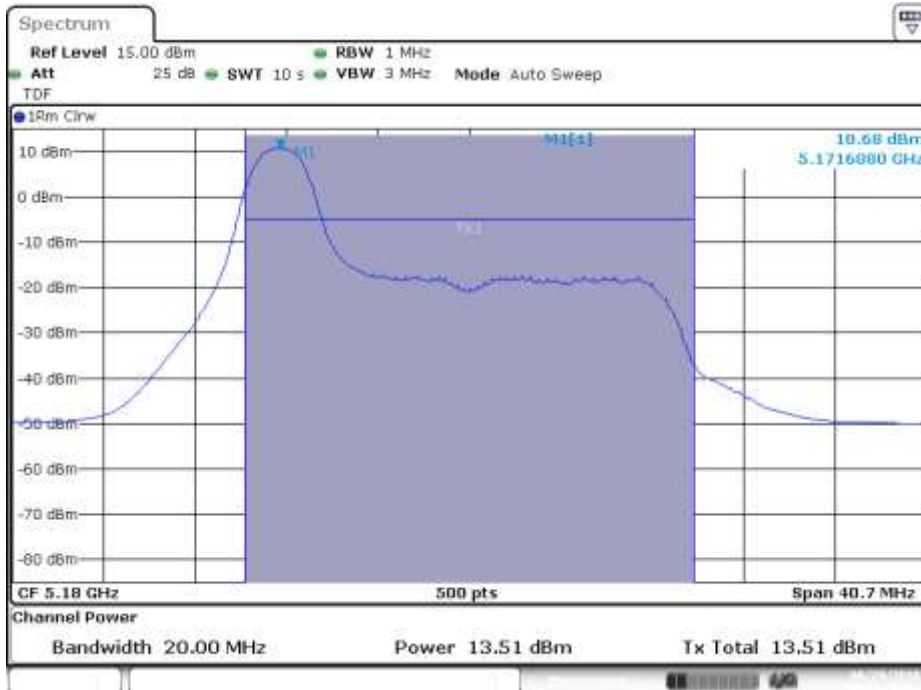
MIMO-B, 802.11ax160, HE0

Channel 50ax160



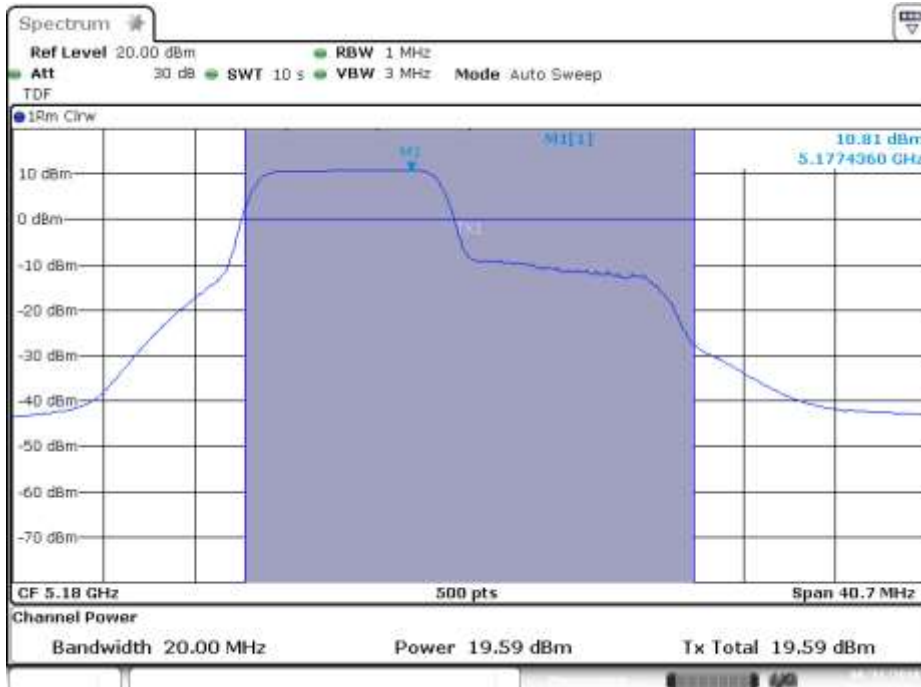
SISO-A, 802.11ax20, HE0, RU 26/0

Channel 36



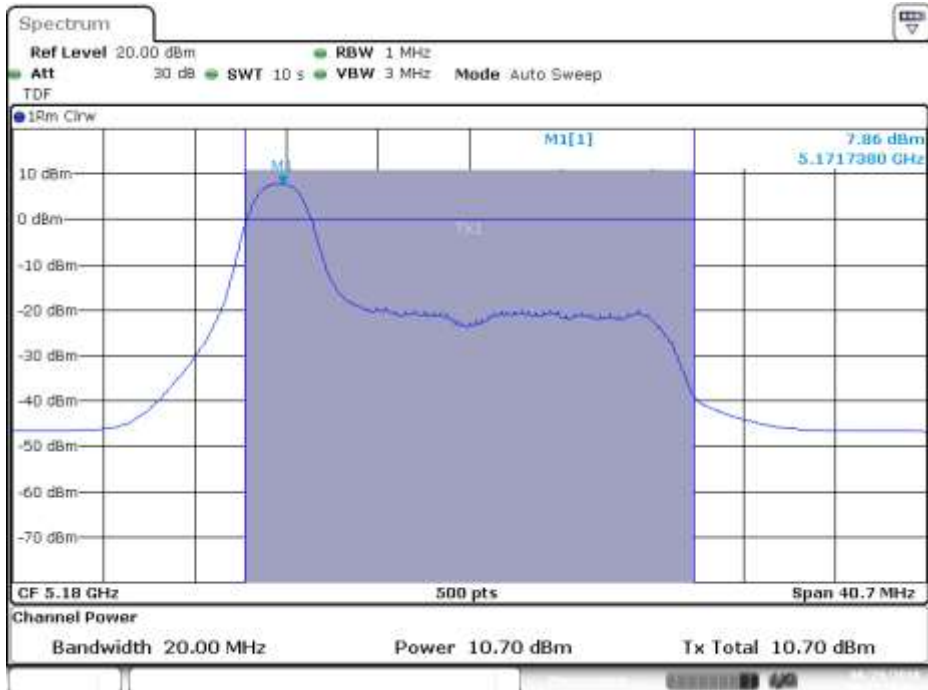
SISO-B, 802.11ax20, HE0, RU 106/53

Channel 36



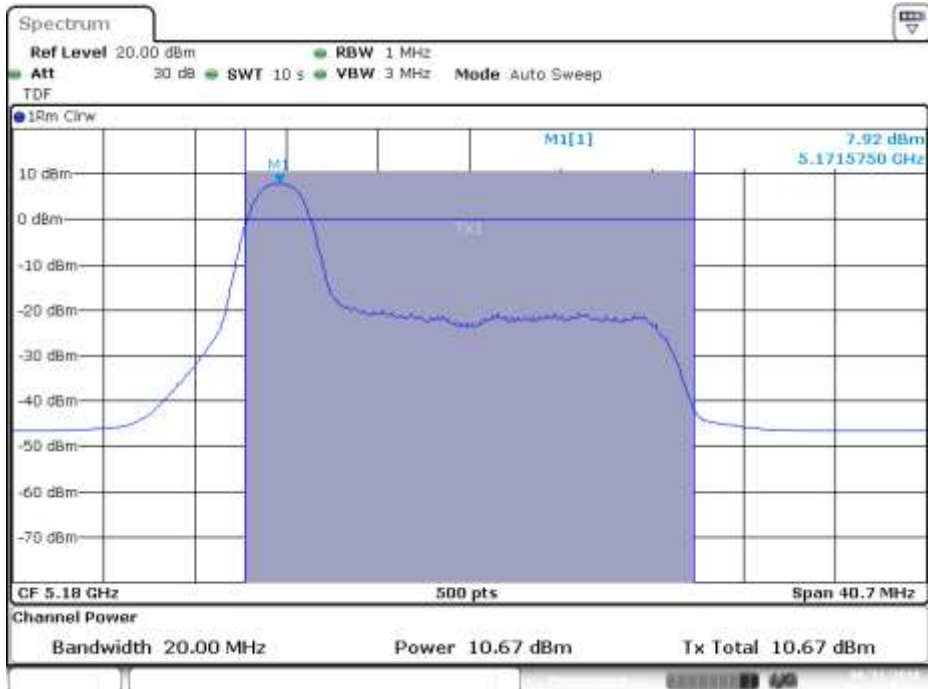
MIMO-A, 802.11ax20, HE0, RU 26/0

Channel 36



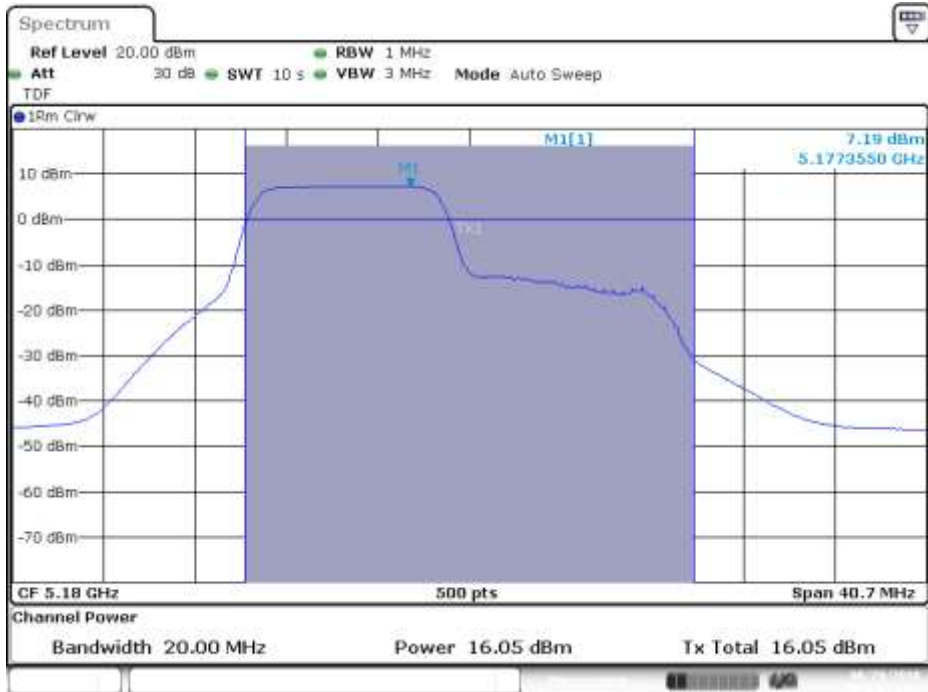
MIMO-B, 802.11ax20, HE0, RU 26/0

Channel 36



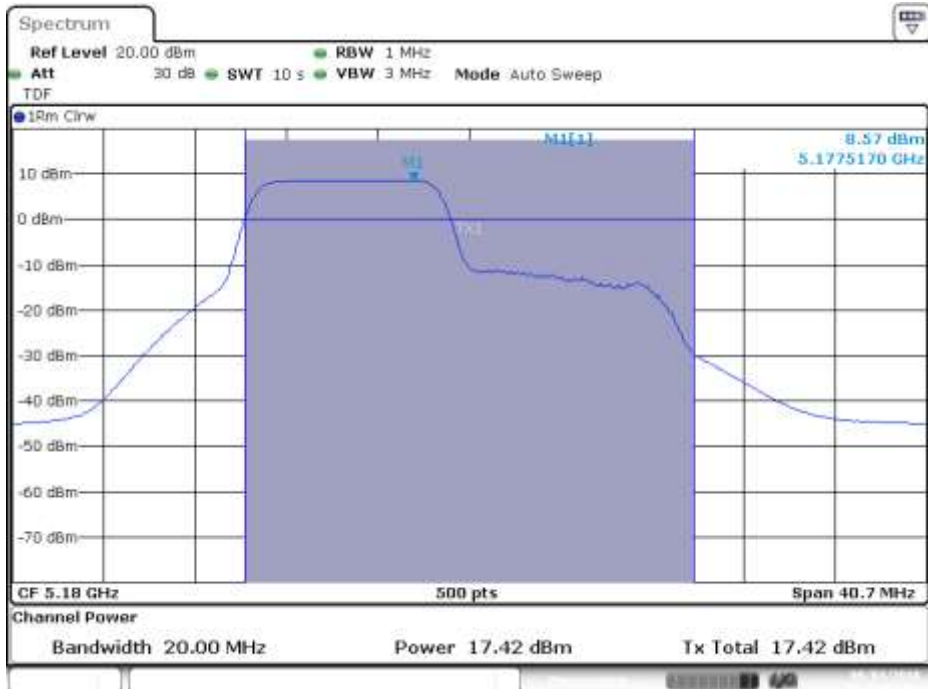
MIMO-A, 802.11ax20, HE0, RU 106/53

Channel 36



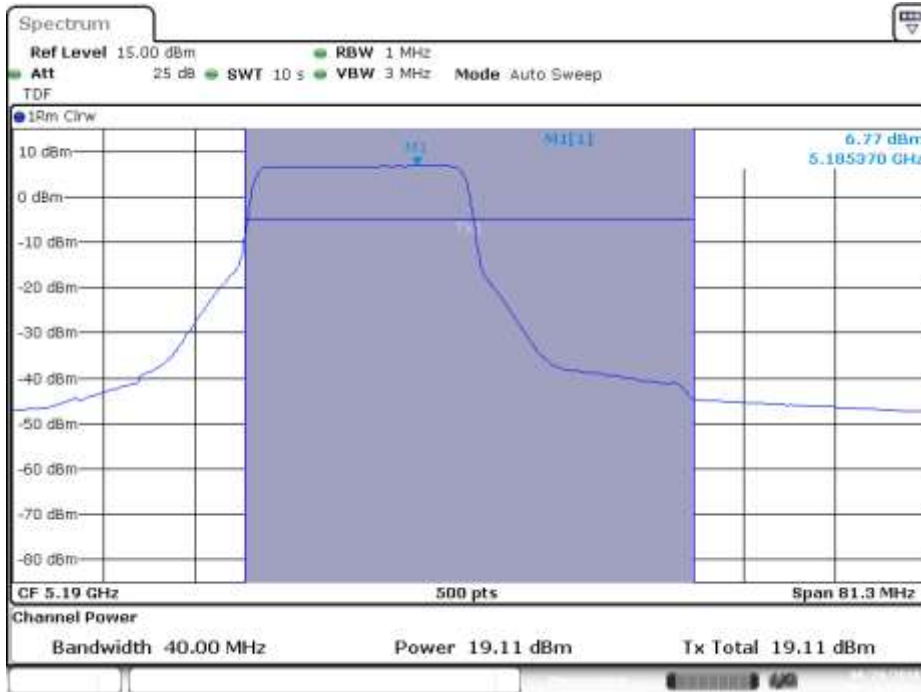
MIMO-B, 802.11ax20, HE0, RU 106/53

Channel 36



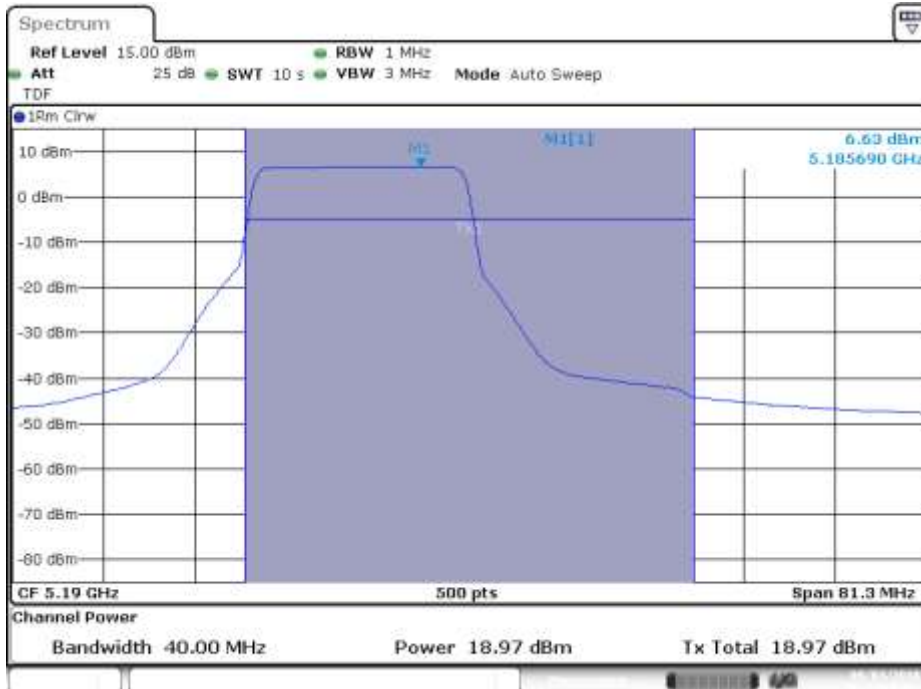
SISO-A, 802.11ax40, HE0, RU 242/61

Channel 38F



SISO-B, 802.11ax40, HE0, RU 242/61

Channel 38F



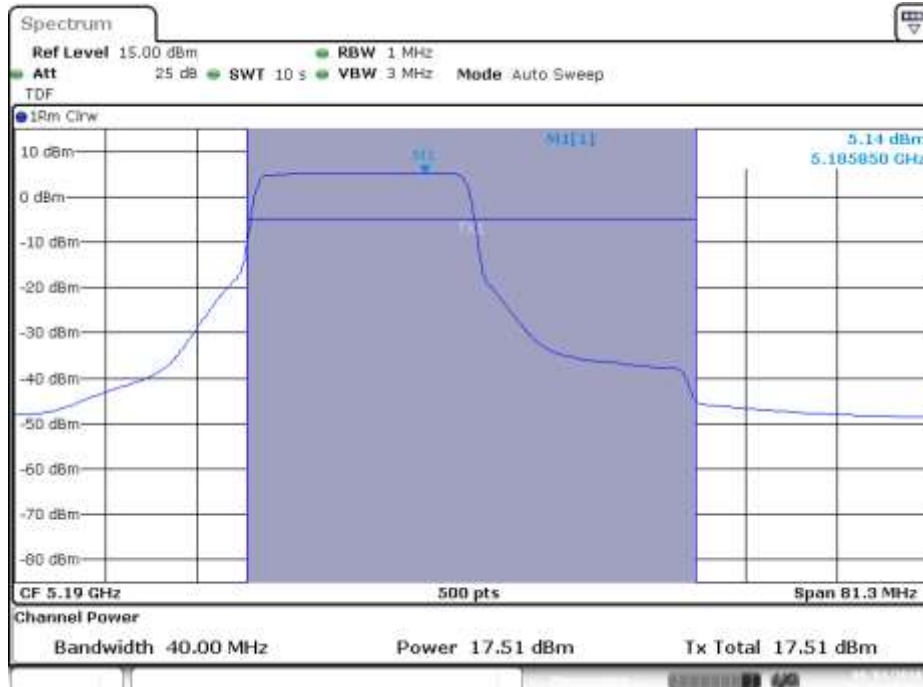
MIMO-A, 802.11ax40, HE0, RU 242/61

Channel 38F



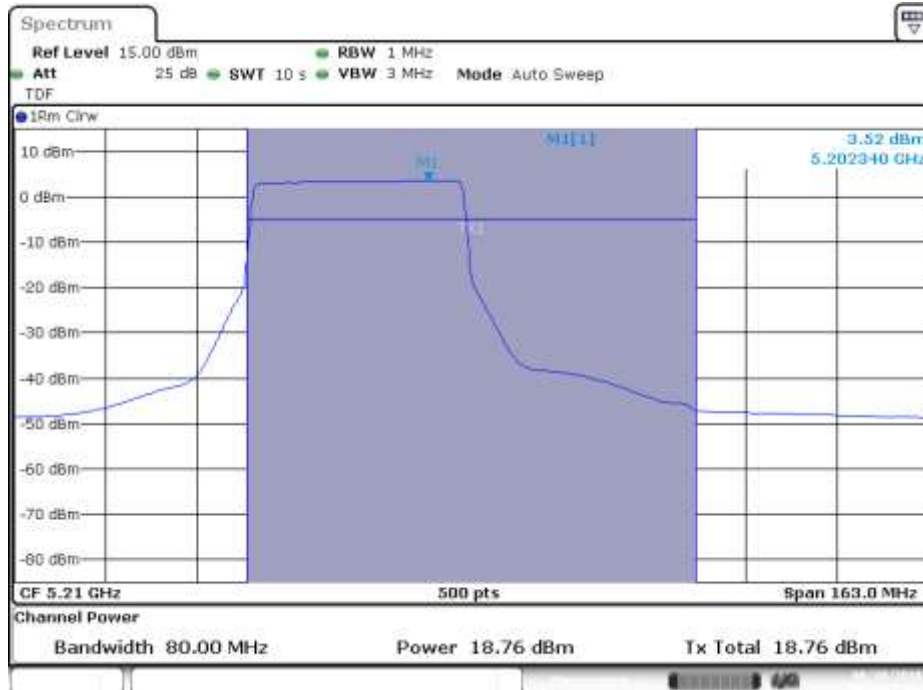
MIMO-B, 802.11ax40, HE0, RU 242/61

Channel 38F



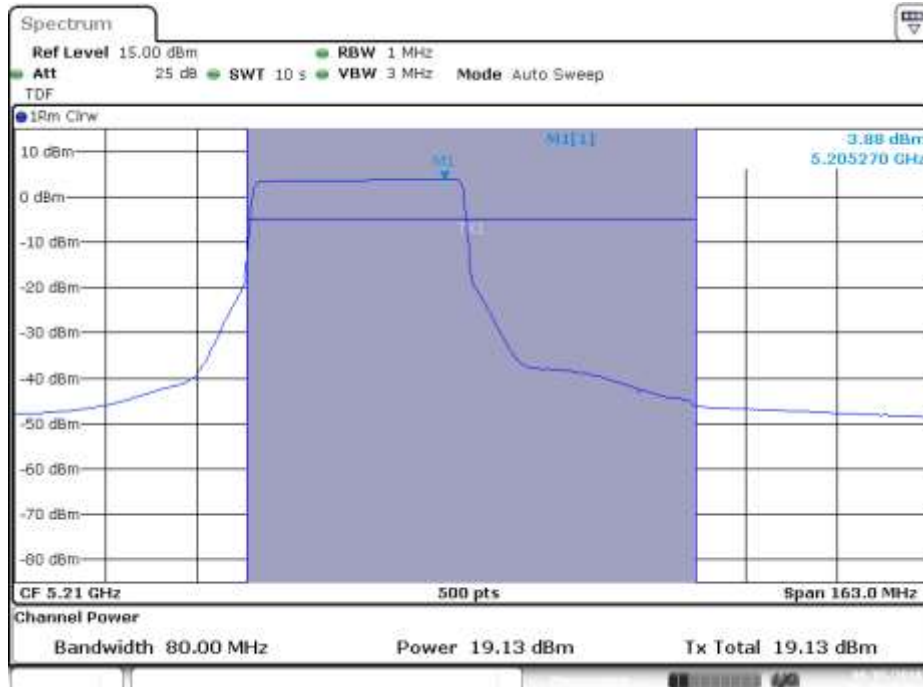
SISO-A, 802.11ax80, HE0, RU 484/65

Channel 42ax80



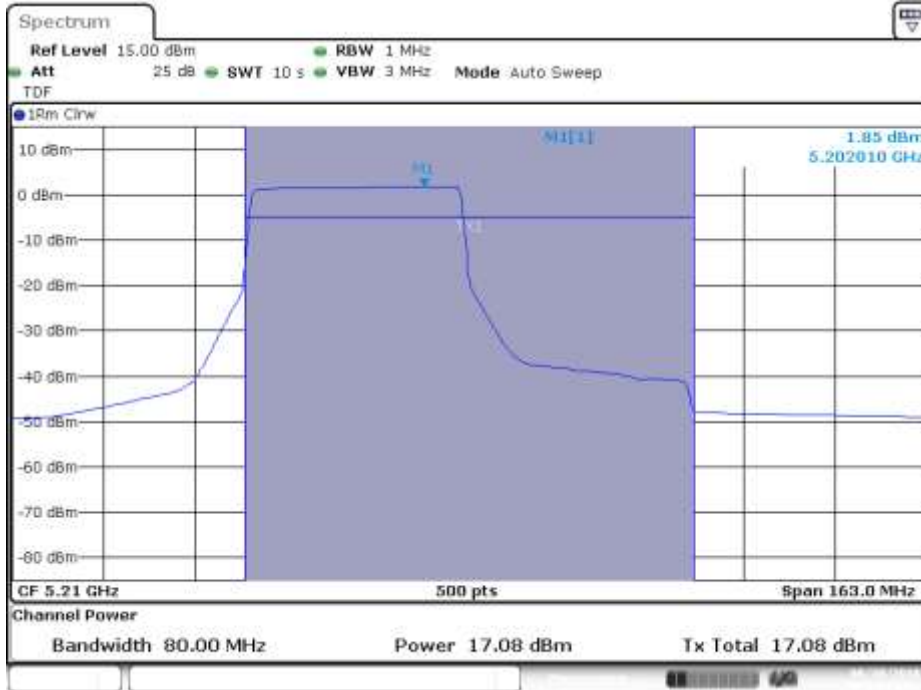
SISO-B, 802.11ax80, HE0, RU 484/65

Channel 42ax80



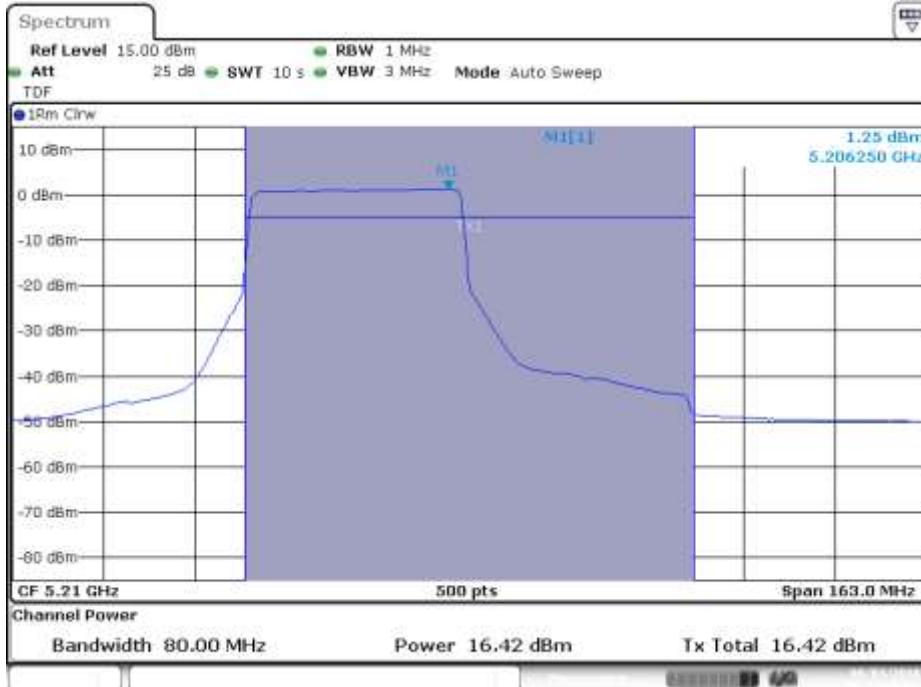
MIMO-A, 802.11ax80, HE0, RU 484/65

Channel 42ax80



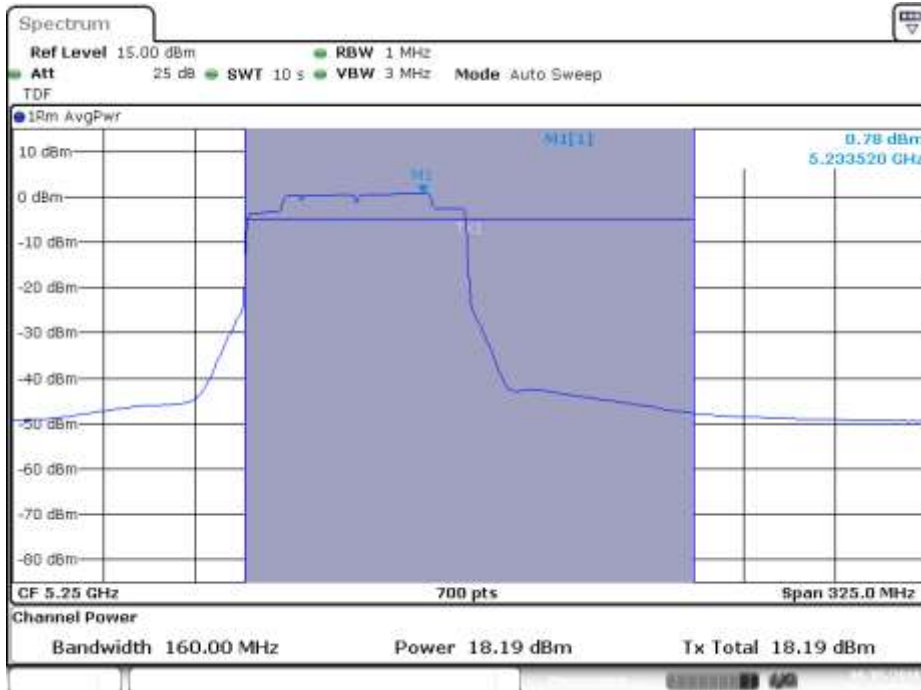
MIMO-B, 802.11ax80, HE0, RU 484/65

Channel 42ax80



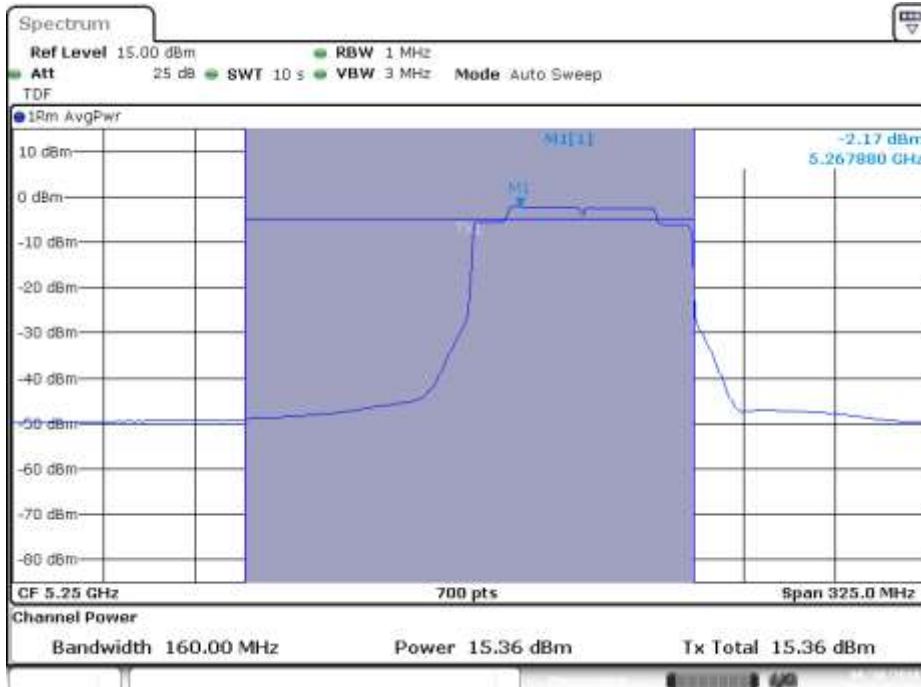
SISO-B, 802.11ax160, HE0, RU 996/67

Channel 50ax160



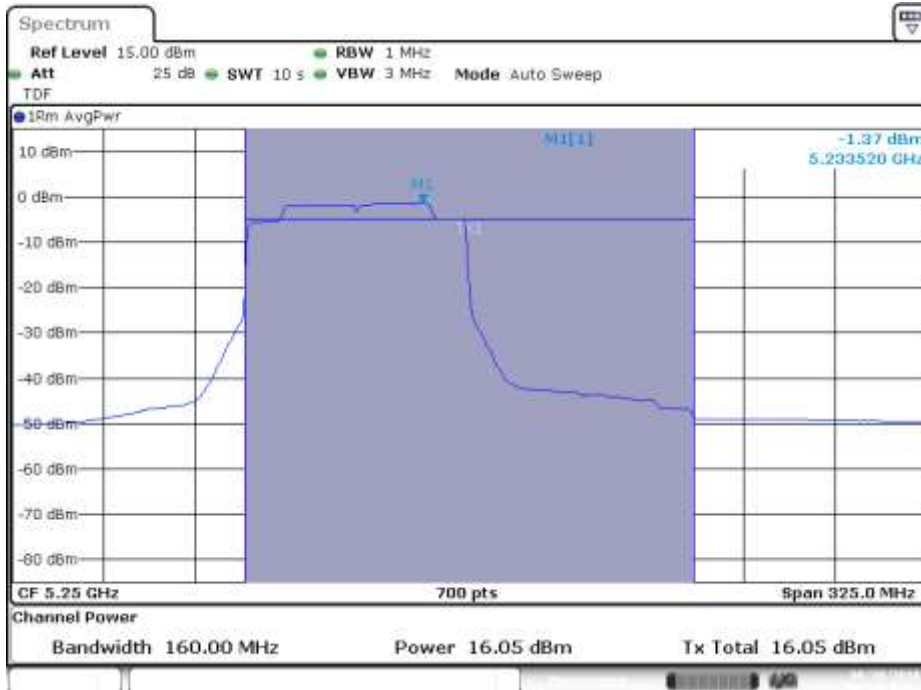
SISO-A, 802.11ax160, HE0, RU 996/S67

Channel 50ax160



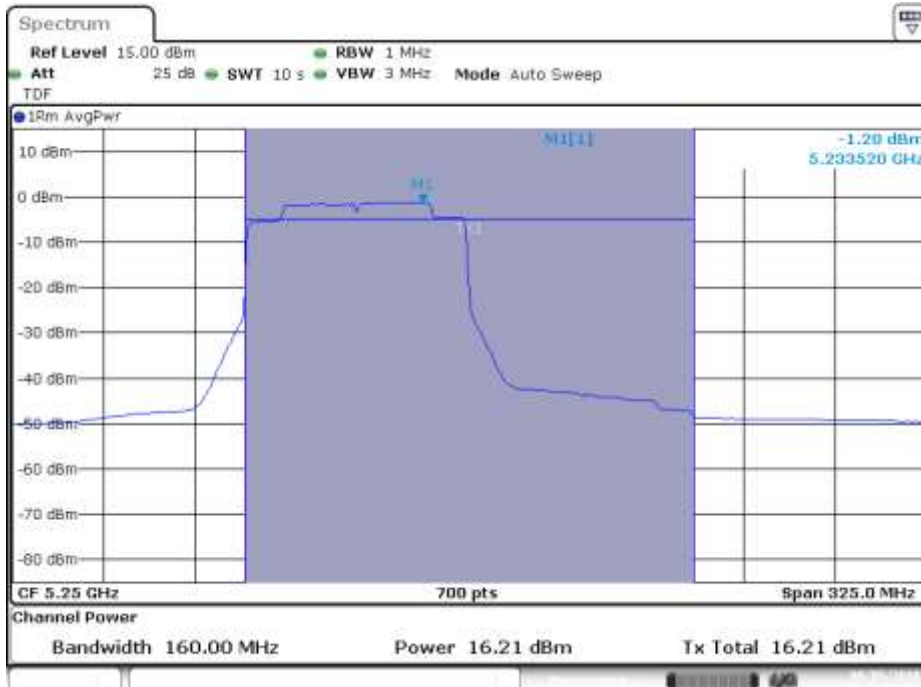
MIMO-A, 802.11ax160, HE0, RU 996/67

Channel 50ax160



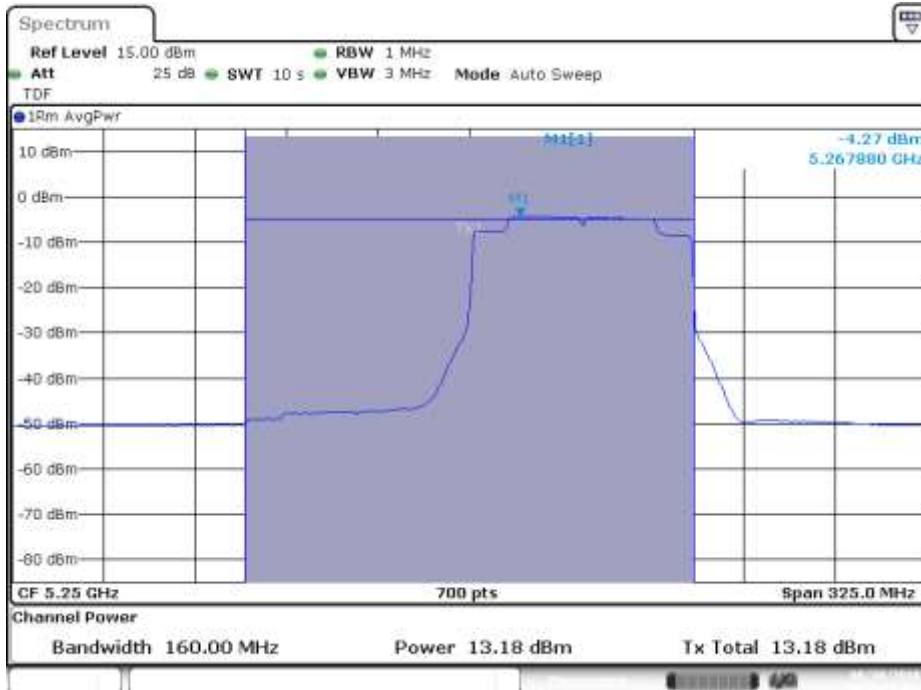
MIMO- B, 802.11ax160, HE0, RU 996/67

Channel 50ax160



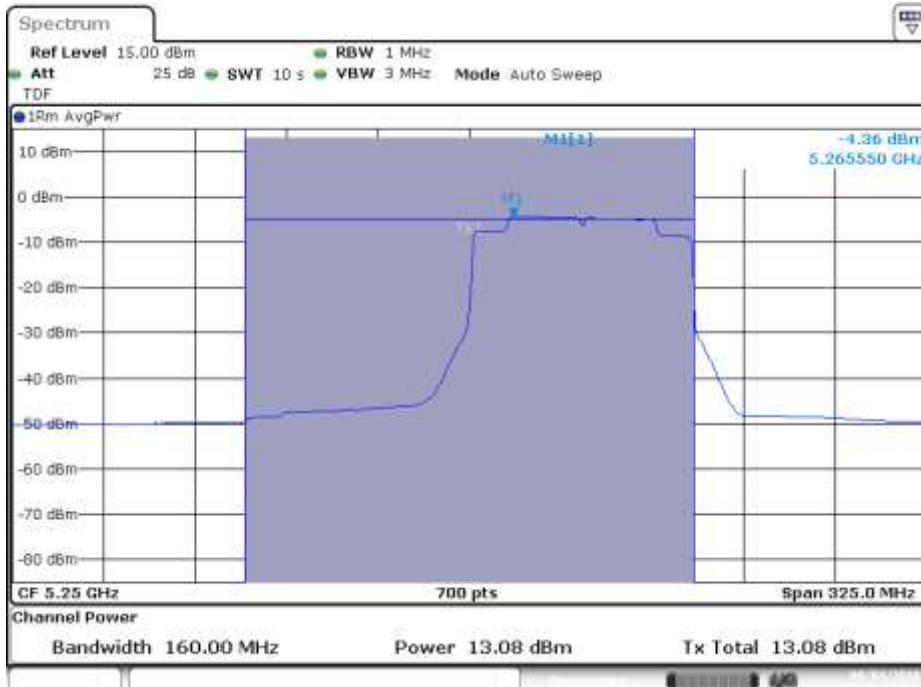
MIMO-A, 802.11ax160, HE0, RU 996/S67

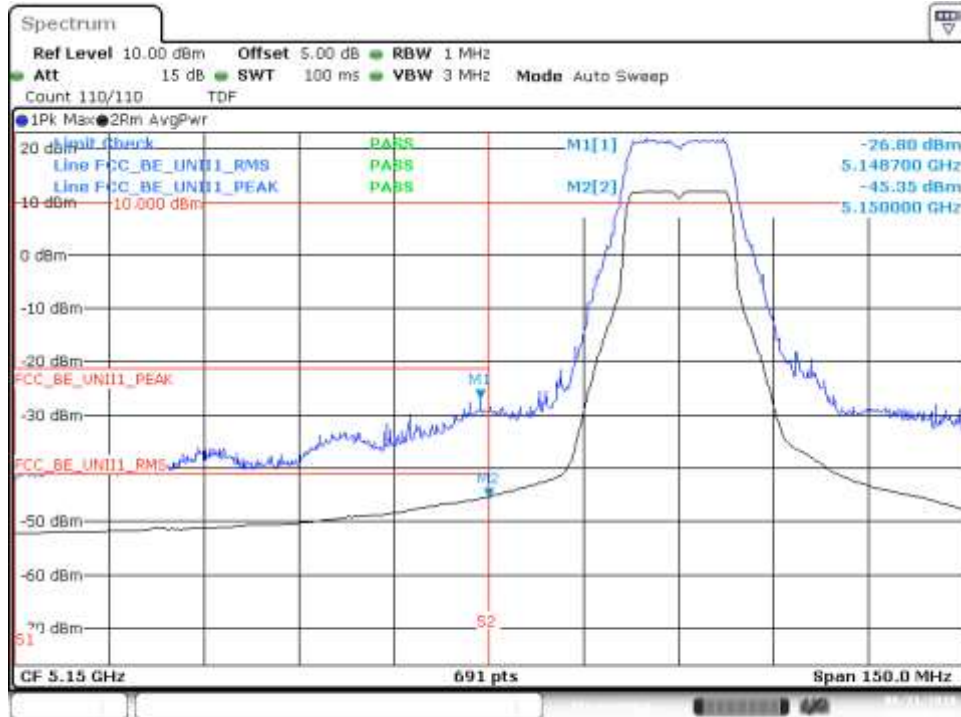
Channel 50ax160



MIMO- B, 802.11ax160, HE0, RU 996/S67

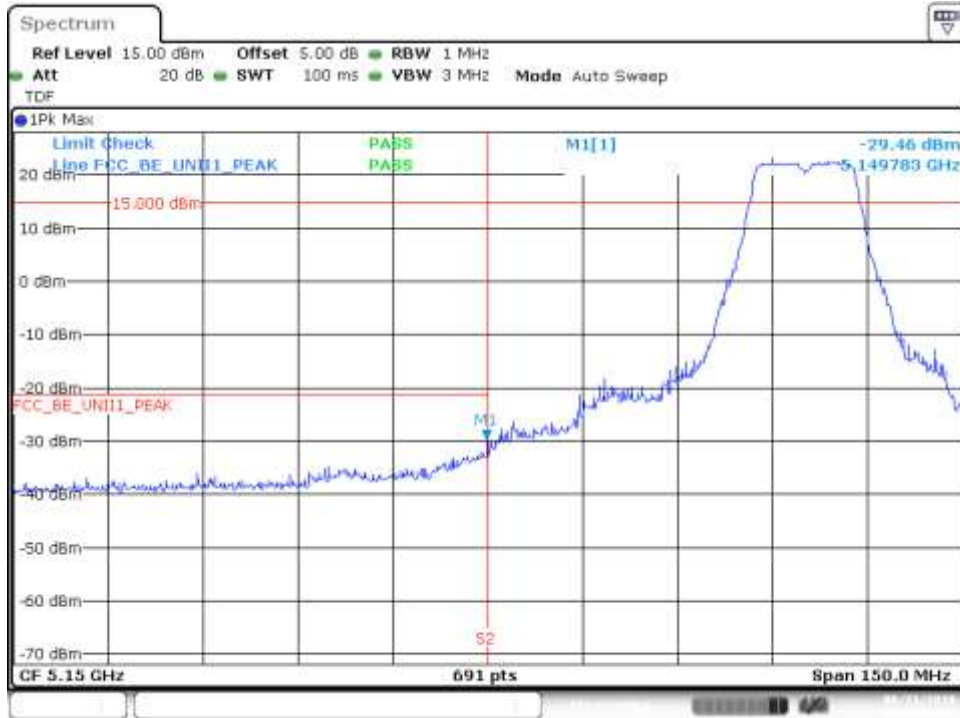
Channel 50ax160



B.3.4 Undesirable emission limits : Band Edge (Conducted)**802.11a, 6Mbps – Chain A****BE Low Freq Section , Peak, RMS – CH36**

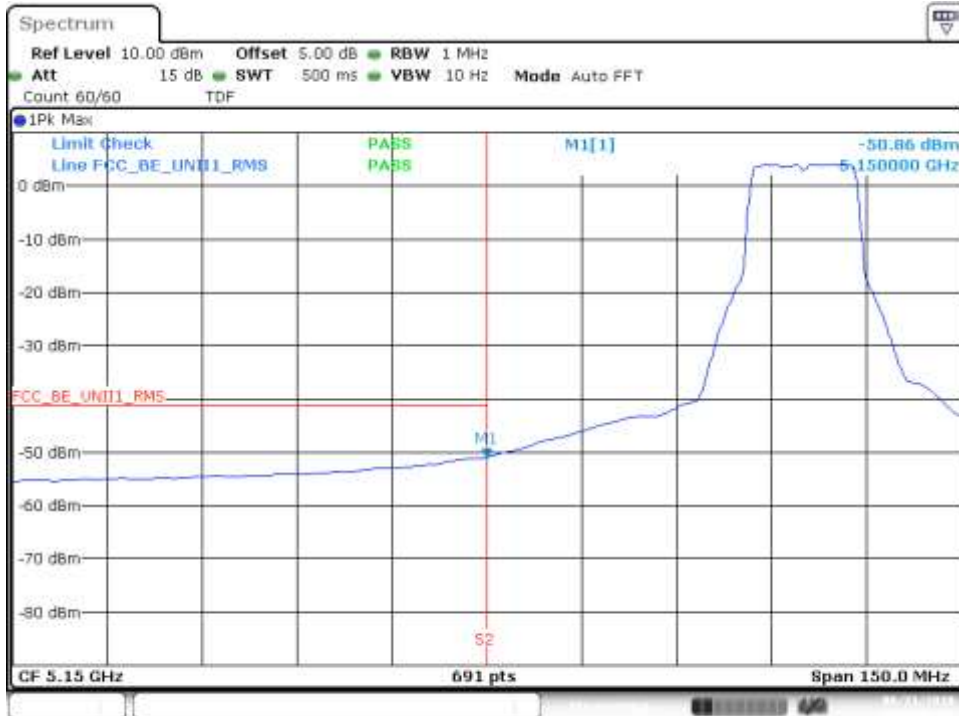
Date: 21.AUG.2018 19:46:48

BE Low Freq Section, Peak – CH40



Date: 21.AUG.2018 19:54:49

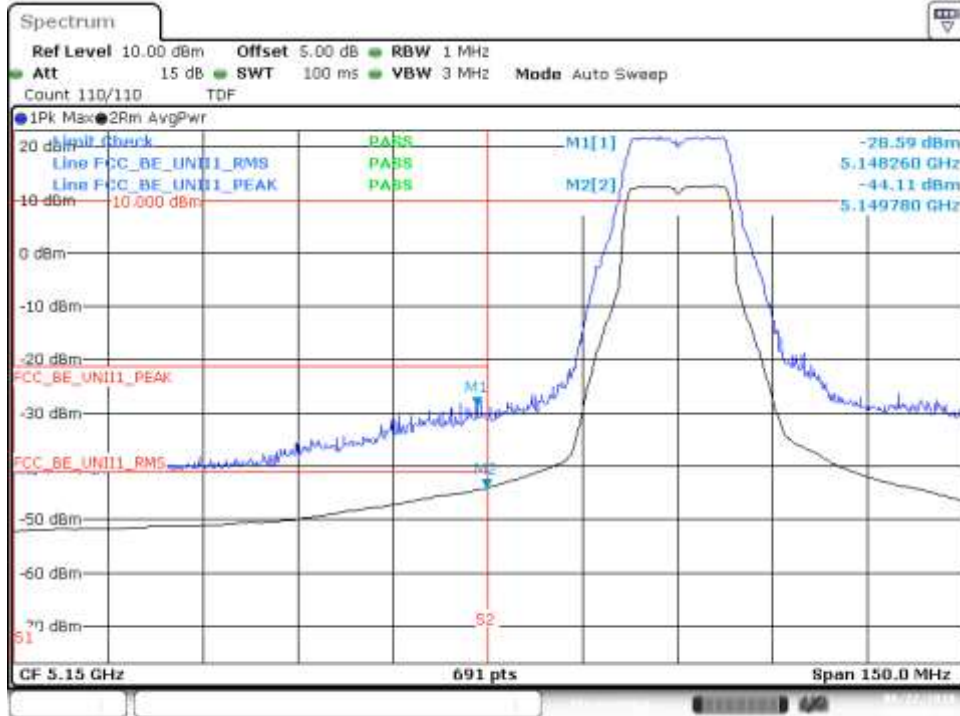
BE Low Freq Section, RMS – CH40



Date: 21.AUG.2018 19:54:08

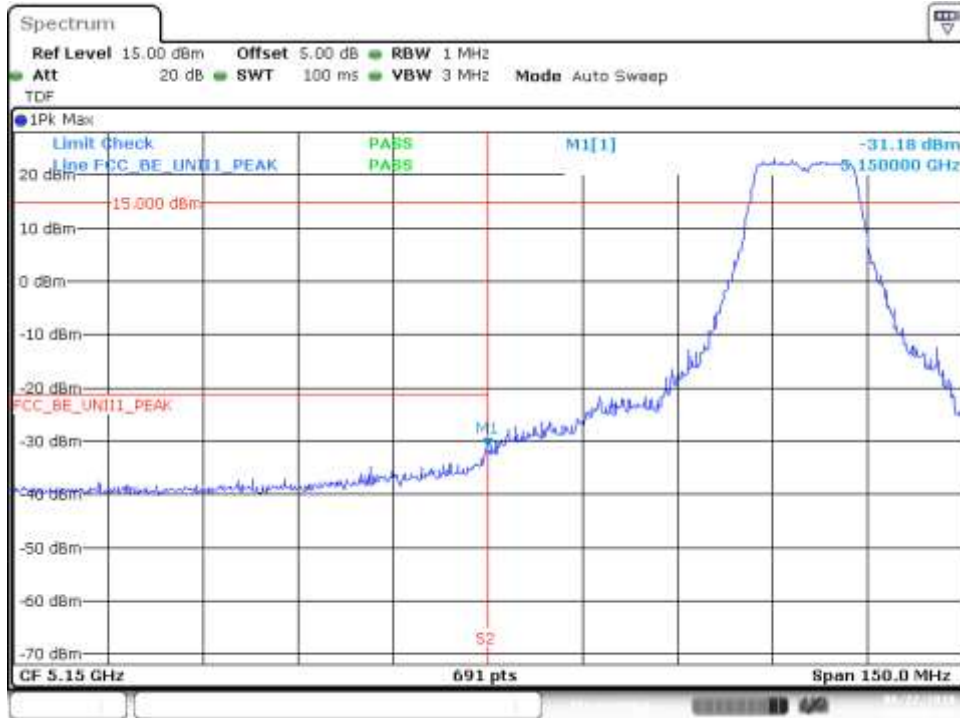
802.11a, 6Mbps – Chain B

BE Low Freq Section , Peak, RMS – CH36



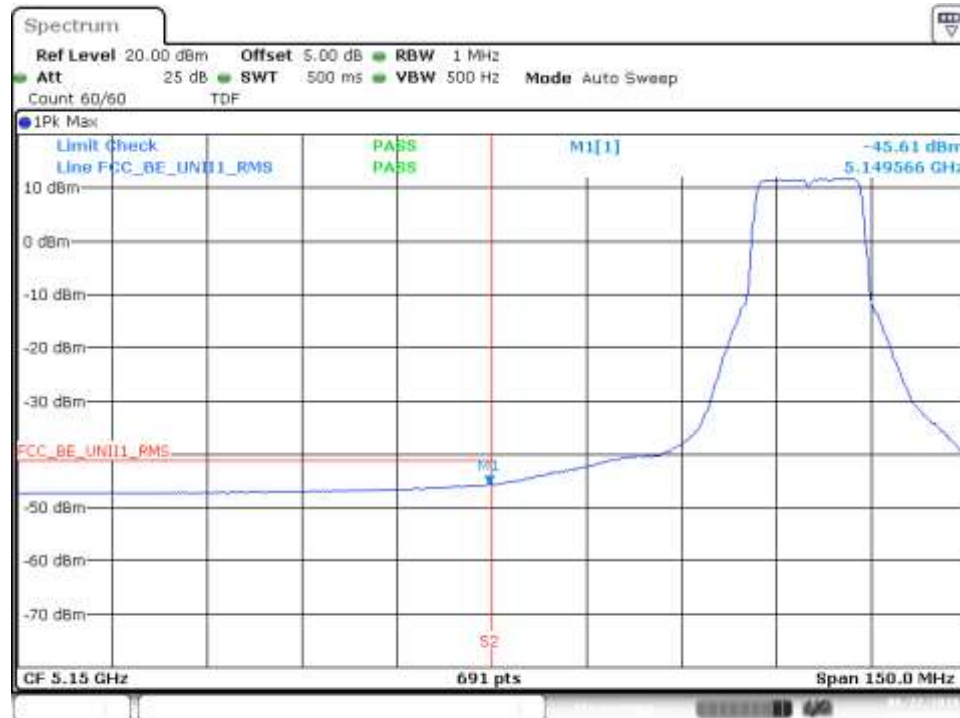
Date: 22.AUG.2018 19:24:16

BE Low Freq Section, Peak – CH40



Date: 22.AUG.2018 19:29:18

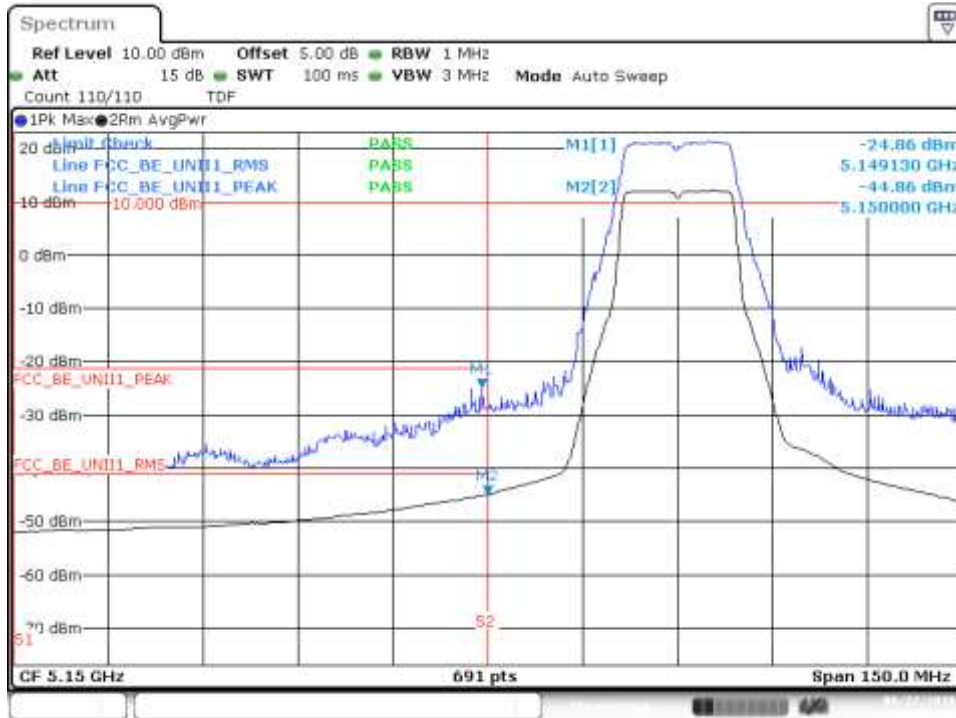
BE Low Freq Section, RMS – CH40



Date: 22.AUG.2018 19:29:04

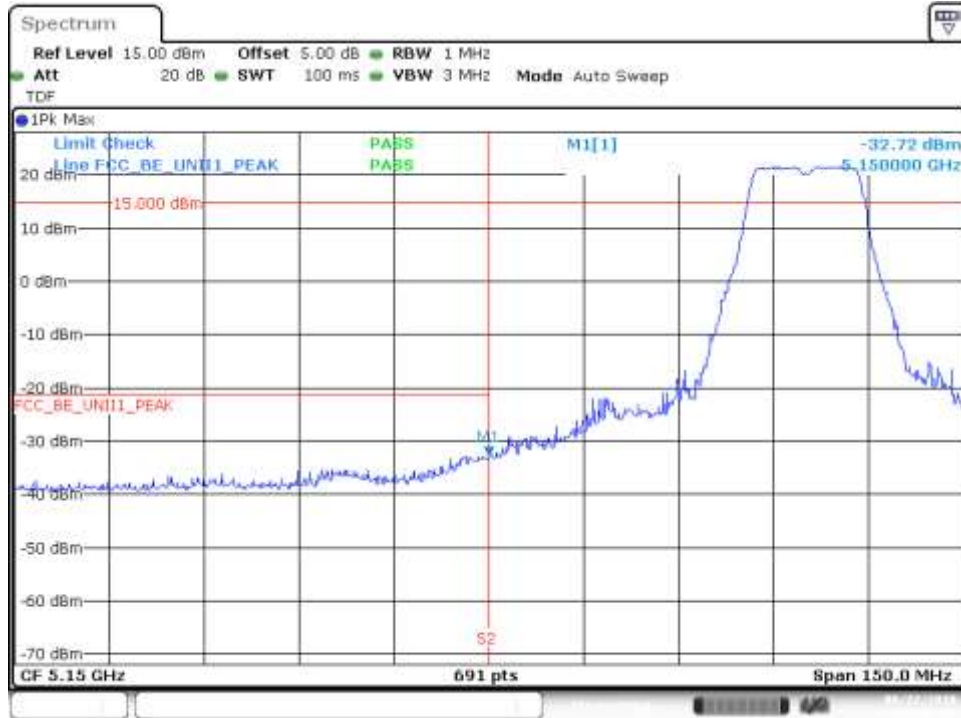
802.11n20, HT0 (SISO) – Chain A

BE Low Freq Section, Peak, RMS – CH36



Date: 22.AUG.2018 13:31:00

BE Low Freq Section, Peak – CH40



Date: 22.AUG.2018 13:49:05

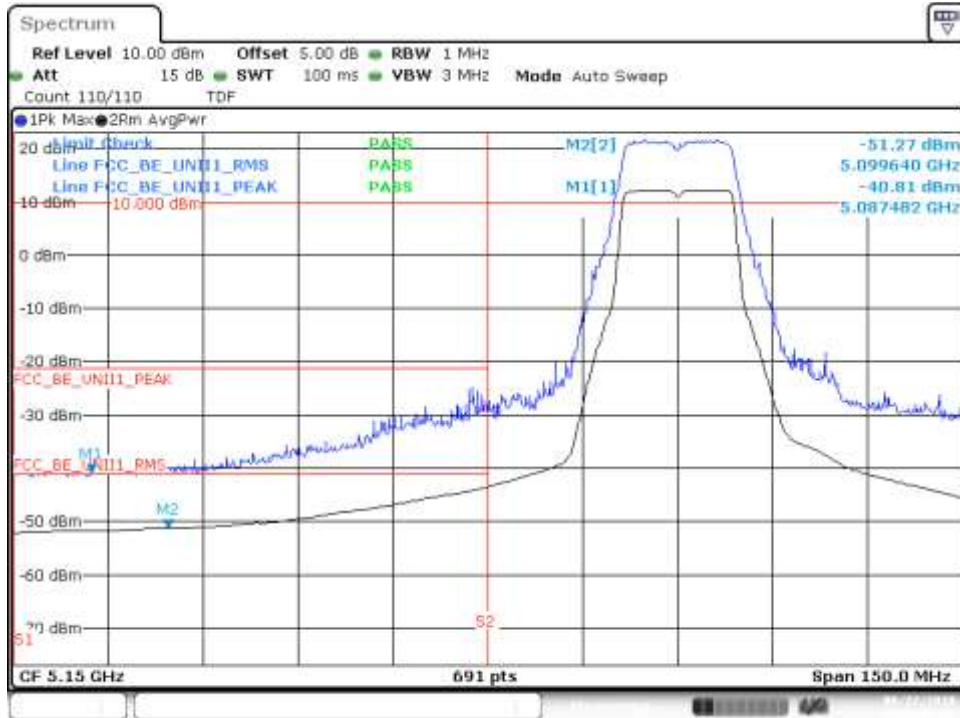
BE Low Freq Section, RMS – CH40



Date: 22.AUG.2018 13:51:11

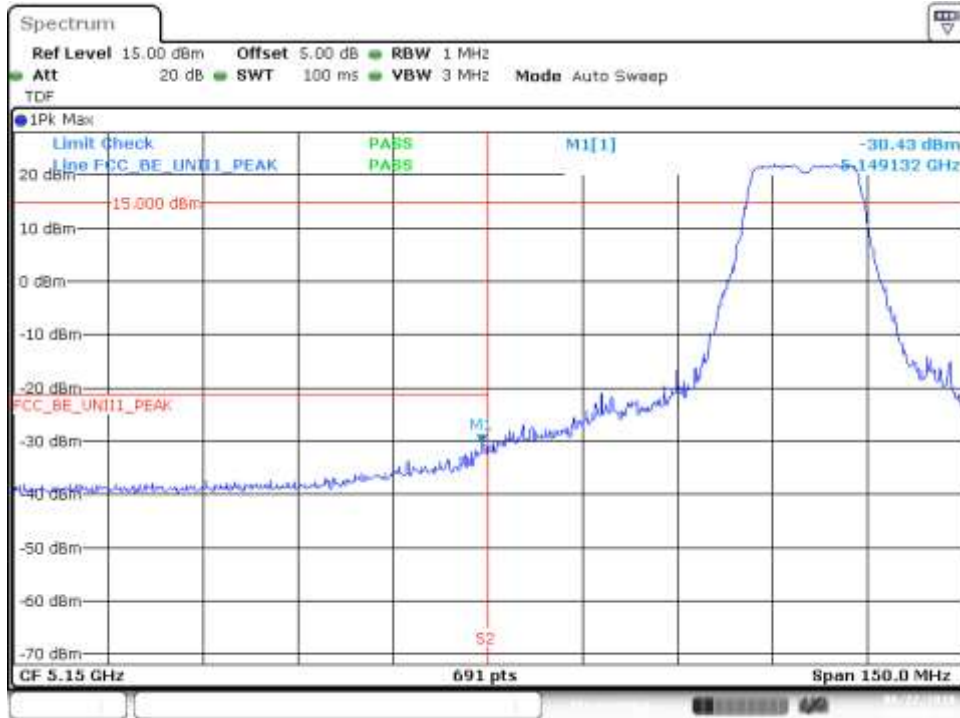
802.11n20, HT0 (SISO) – Chain B

BE Low Freq Section, Peak, RMS – CH36



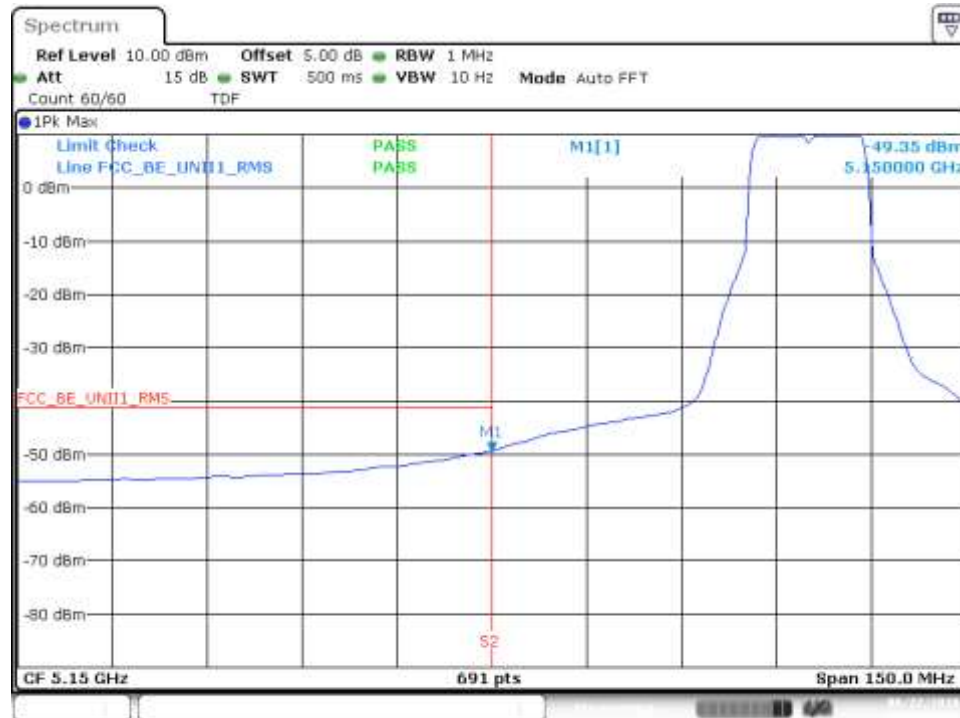
Date: 22.AUG.2018 19:36:43

BE Low Freq Section, Peak – CH40

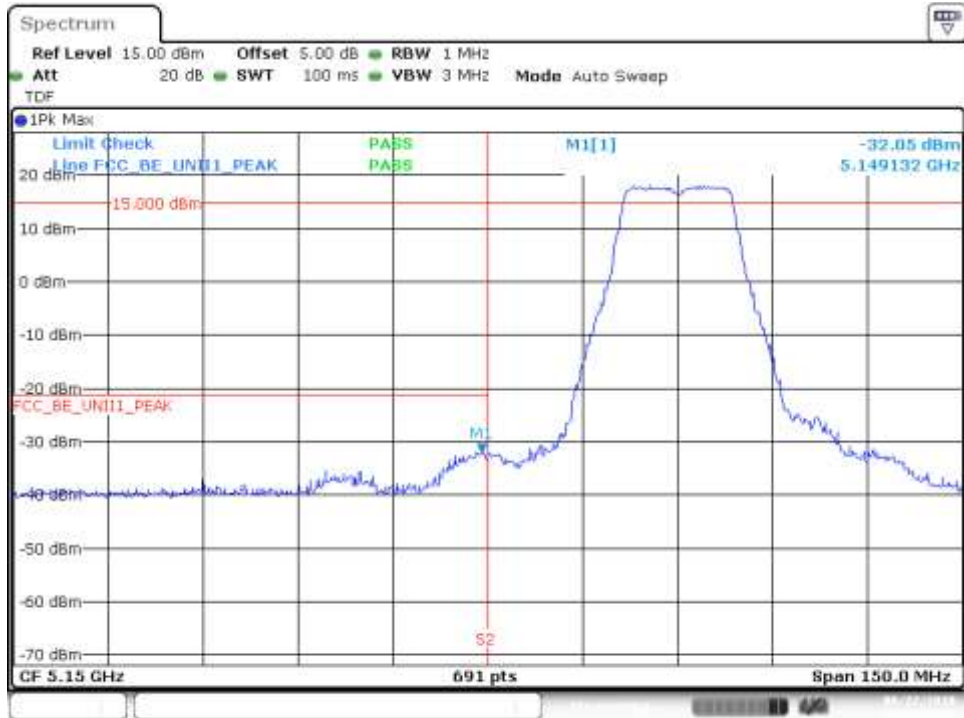


Date: 22.AUG.2018 19:50:13

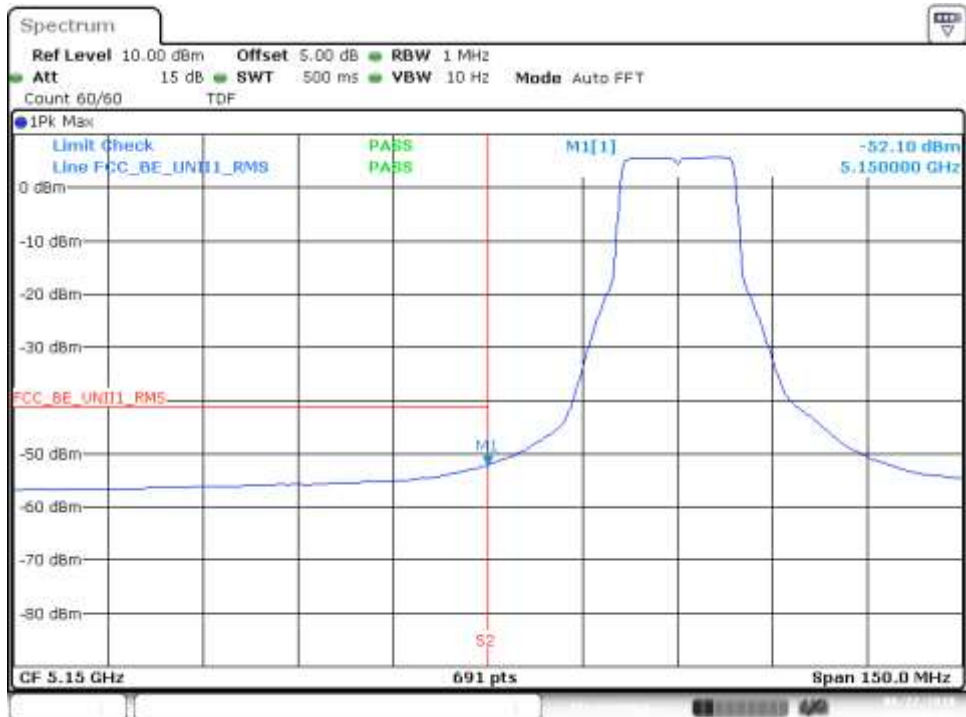
BE Low Freq Section, RMS – CH40



Date: 22.AUG.2018 19:52:01

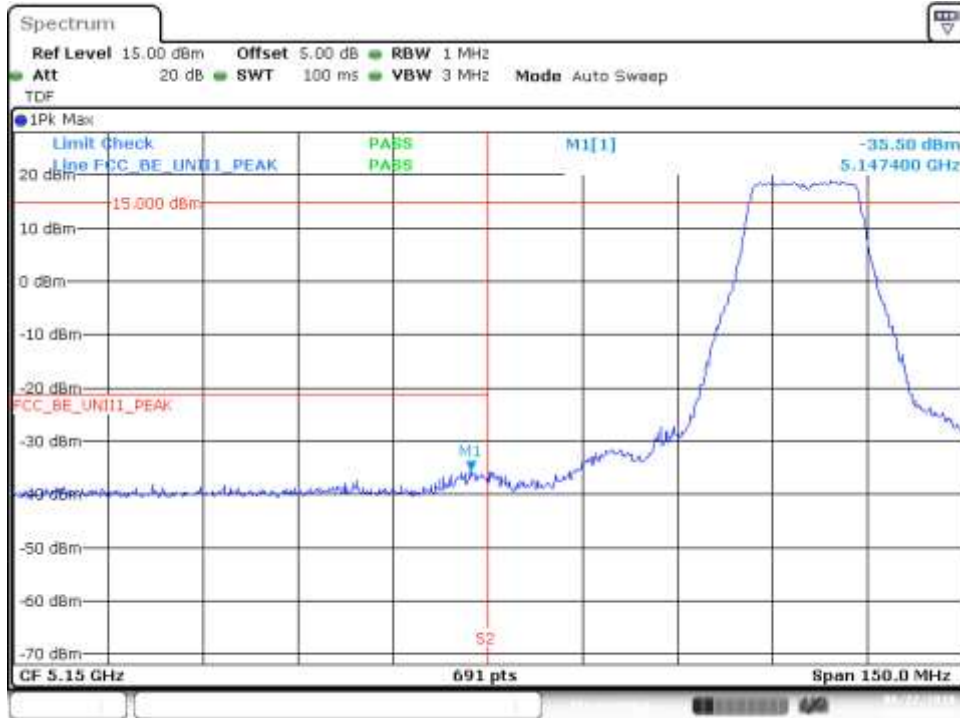
802.11n20, HT8 (MIMO) – Chain A**BE Low Freq Section, Peak – CH36**

Date: 22.AUG.2018 14:01:40

BE Low Freq Section, RMS – CH36

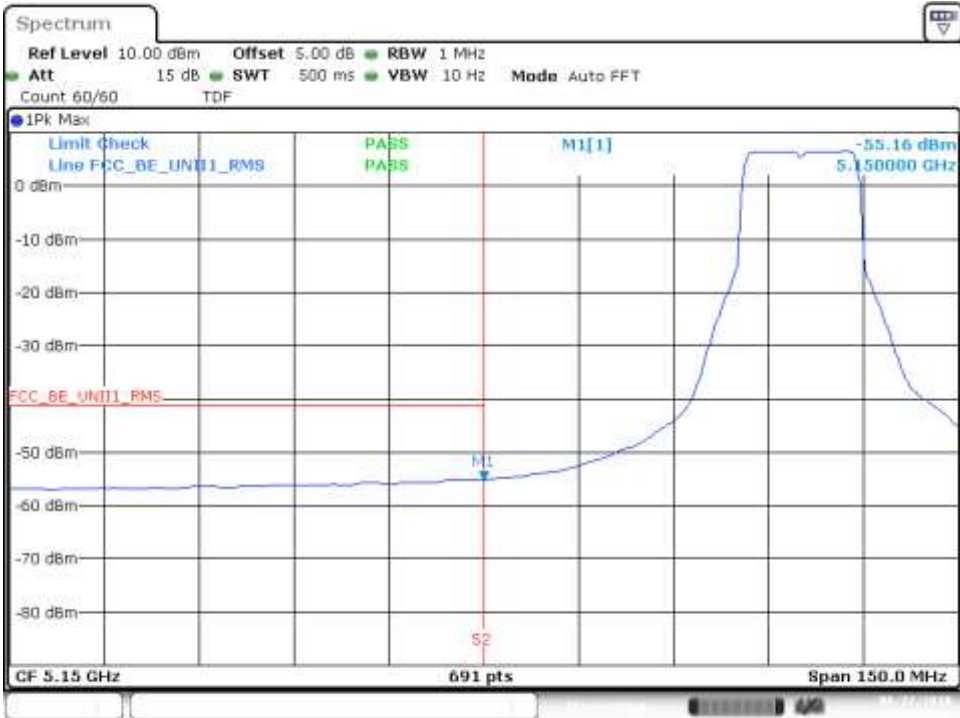
Date: 22.AUG.2018 14:01:06

BE Low Freq Section, Peak – CH40



Date: 22.AUG.2018 14:09:30

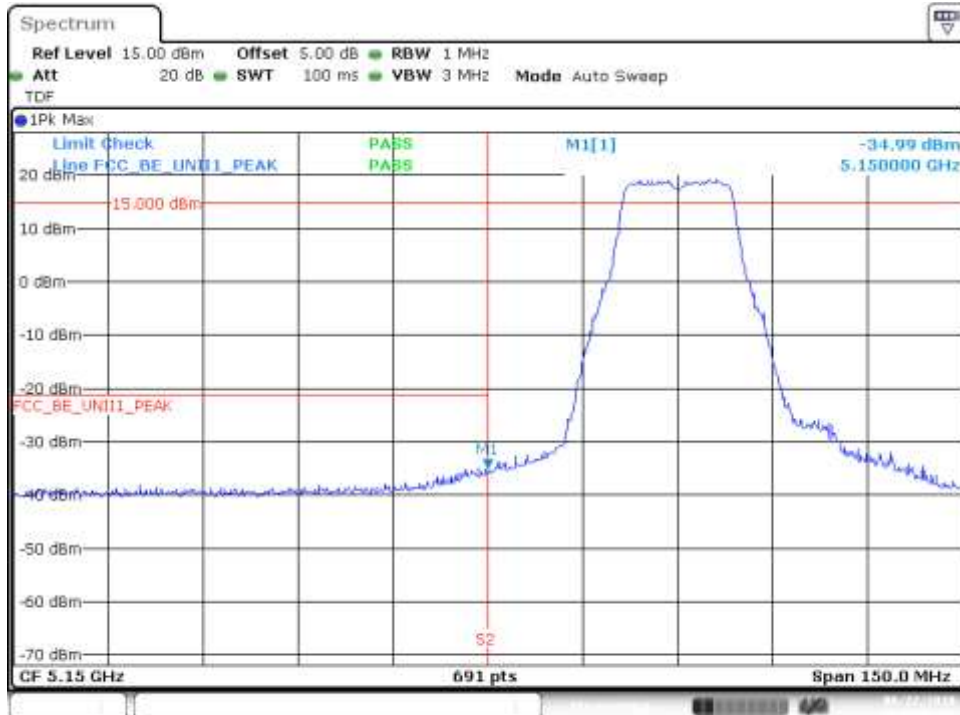
BE Low Freq Section, RMS – CH40



Date: 22.AUG.2018 14:11:21

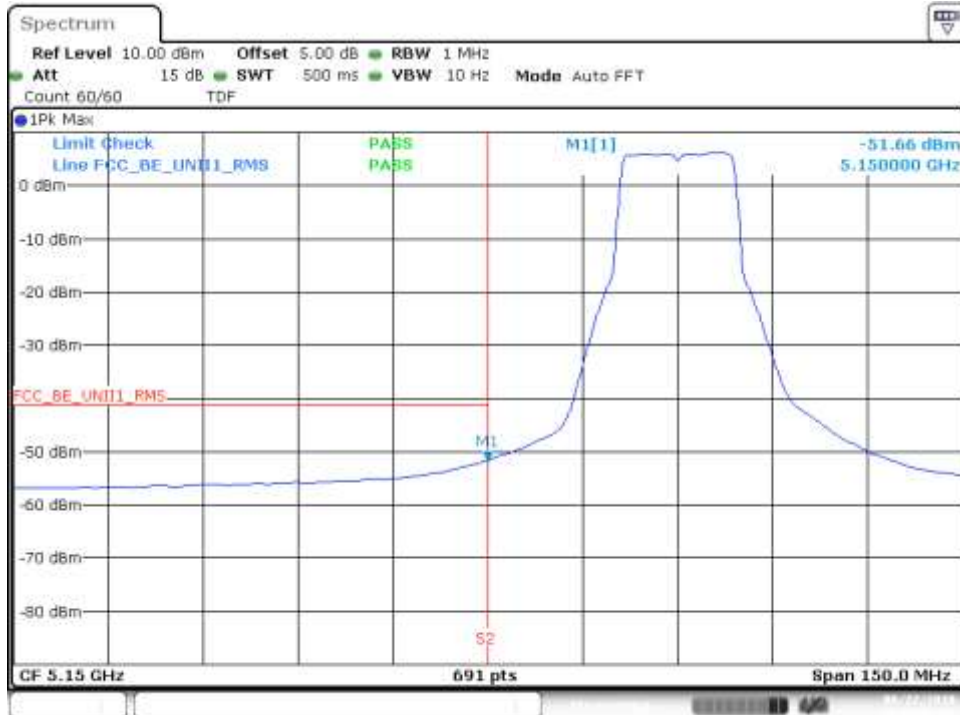
802.11n20, HT8 (MIMO) – Chain B

BE Low Freq Section, Peak – CH36



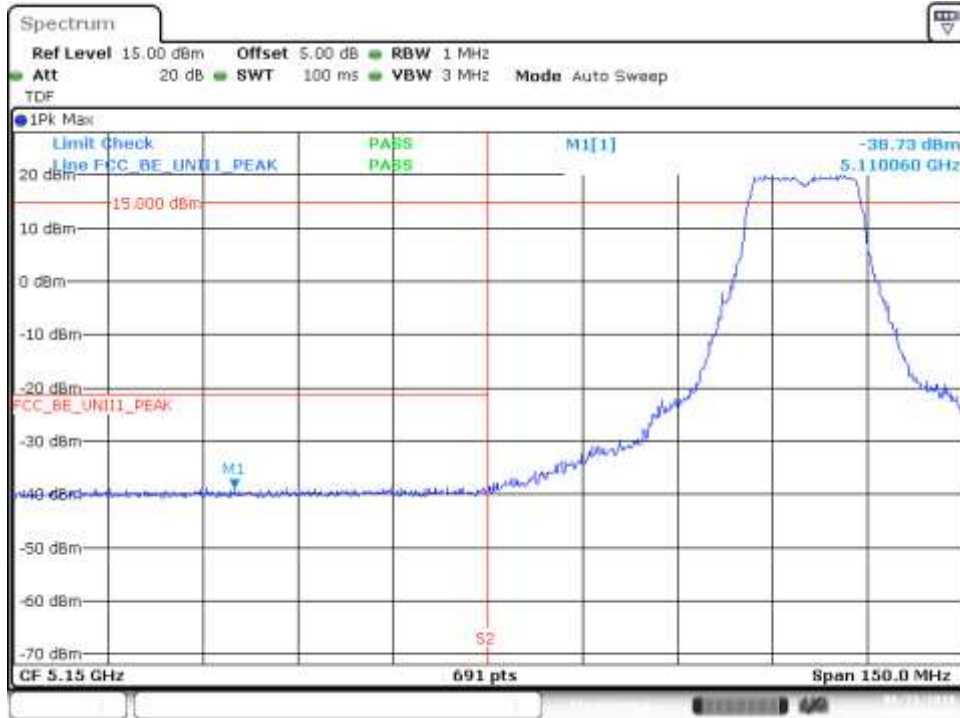
Date: 22.AUG.2018 20:05:06

BE Low Freq Section, RMS – CH36



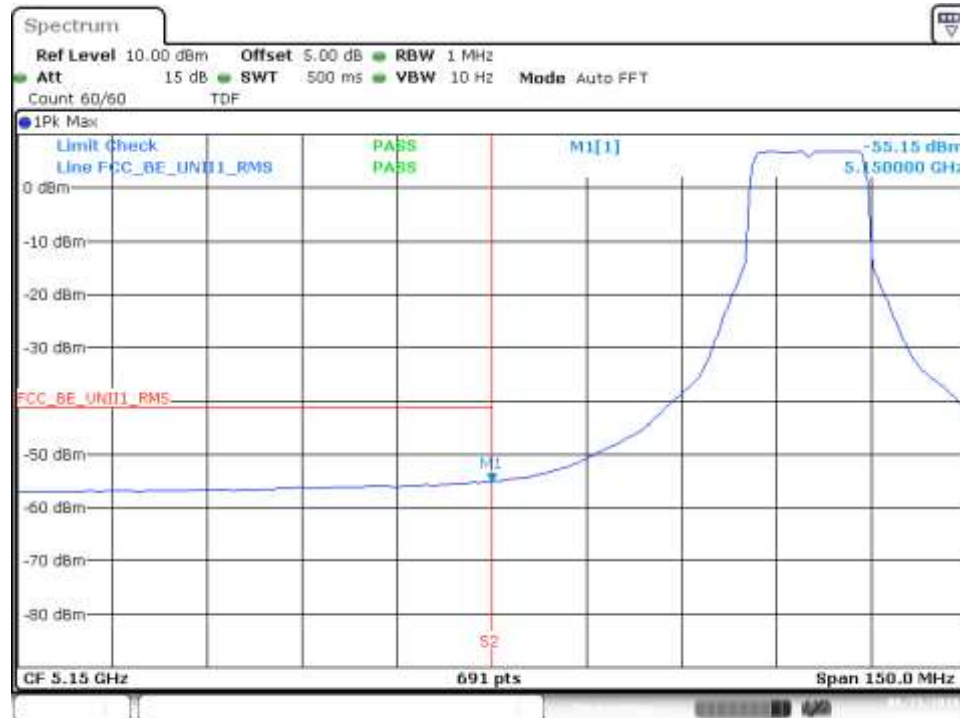
Date: 22.AUG.2018 20:04:06

BE Low Freq Section, Peak – CH40



Date: 23.AUG.2018 12:00:06

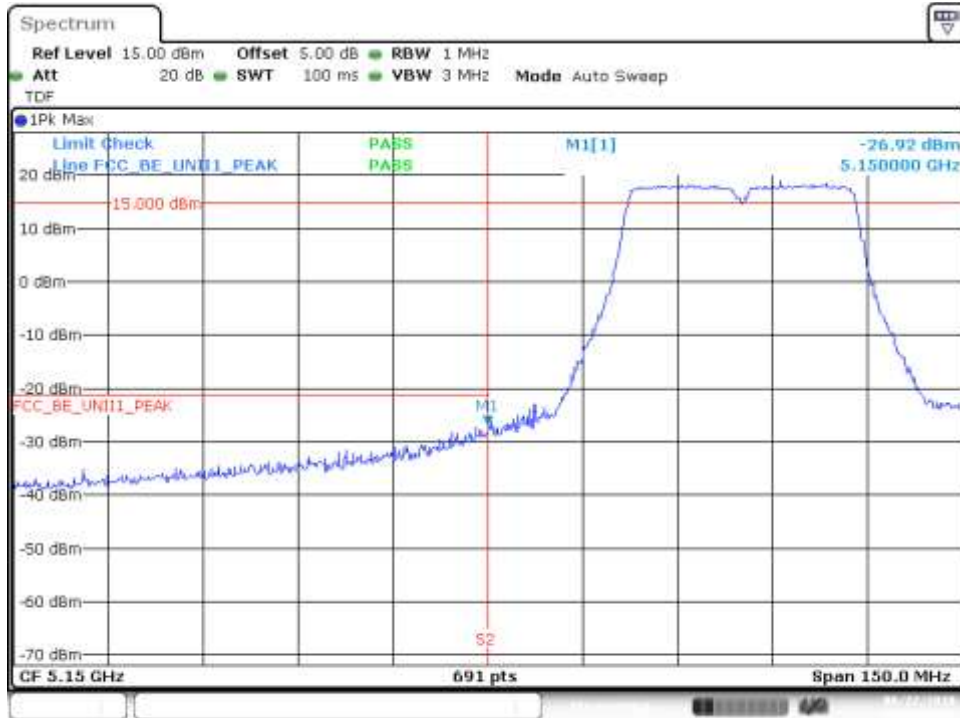
BE Low Freq Section, RMS – CH40



Date: 23.AUG.2018 11:59:35

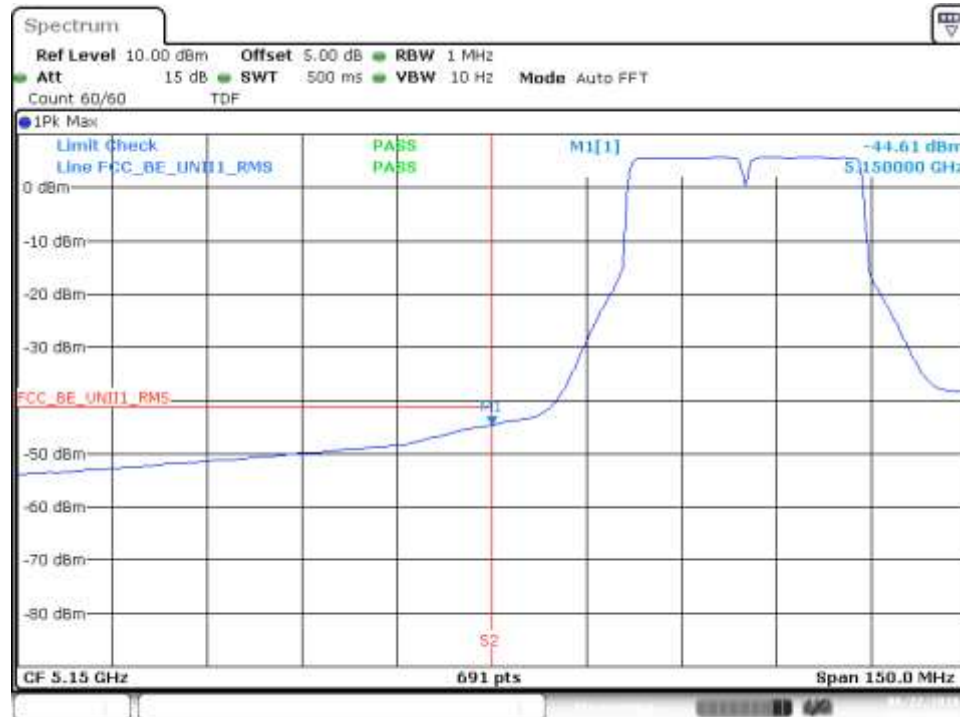
802.11n40, HT0 (SISO) – Chain A

BE Low Freq Section, Peak – CH38F



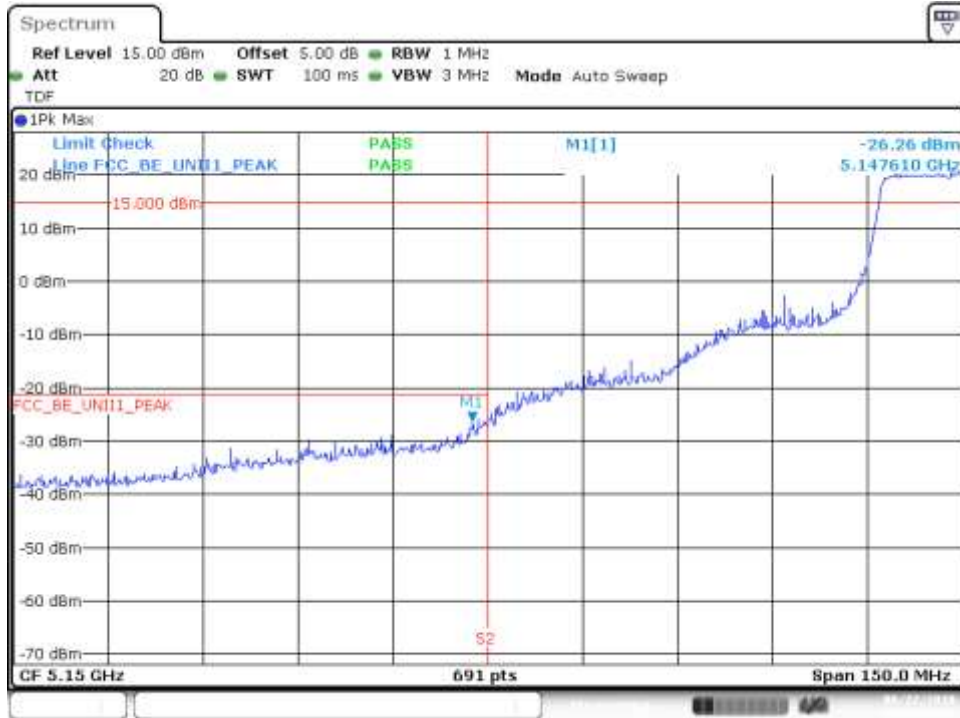
Date: 22.AUG.2018 15:22:05

BE Low Freq Section, RMS – CH38F



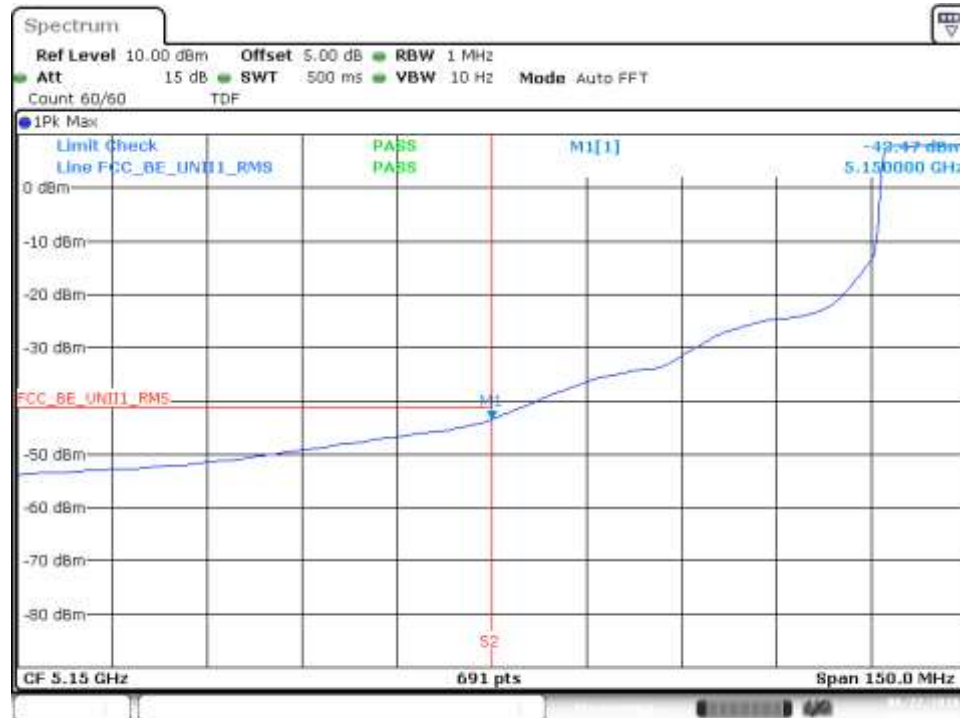
Date: 22.AUG.2018 15:21:43

BE Low Freq Section, Peak – CH46F



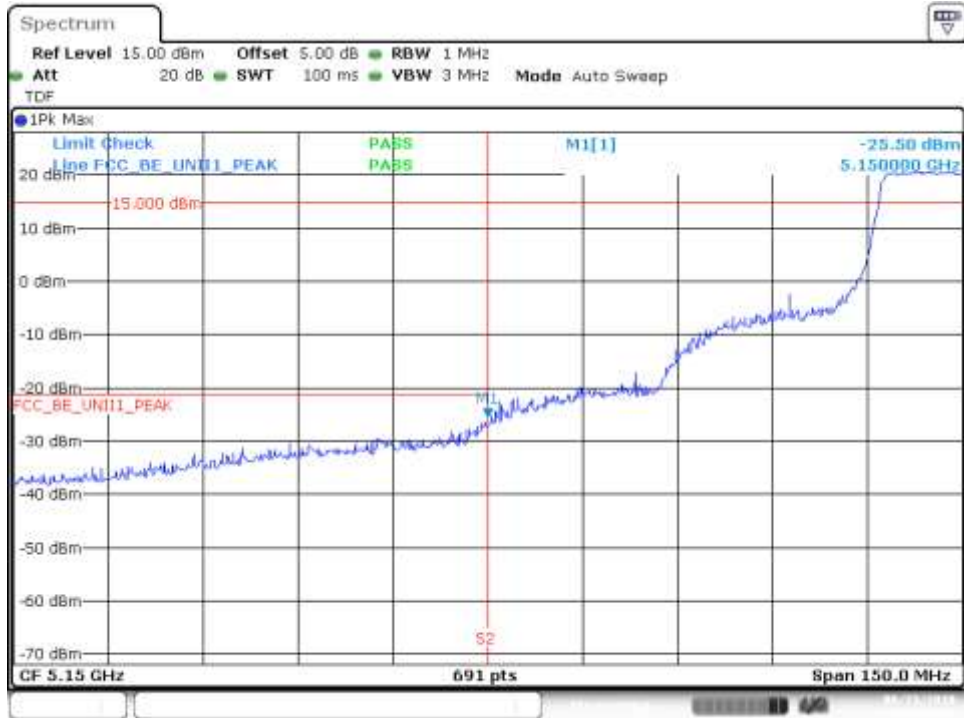
Date: 22.AUG.2018 15:33:38

BE Low Freq Section, RMS – CH46F



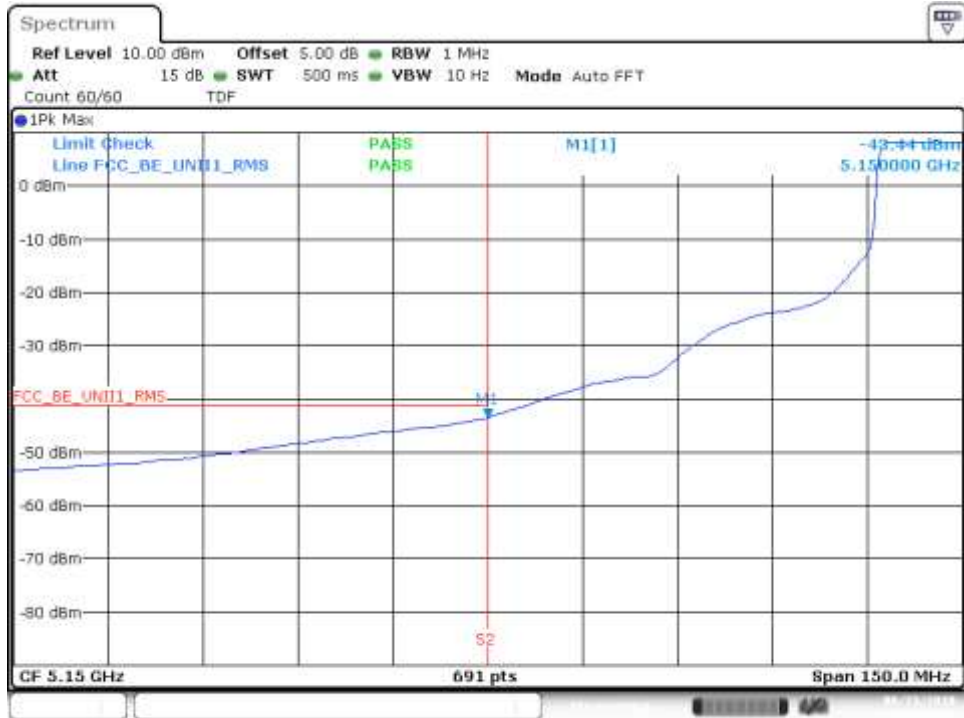
Date: 22.AUG.2018 15:37:55

BE Low Freq Section, Peak – CH46F

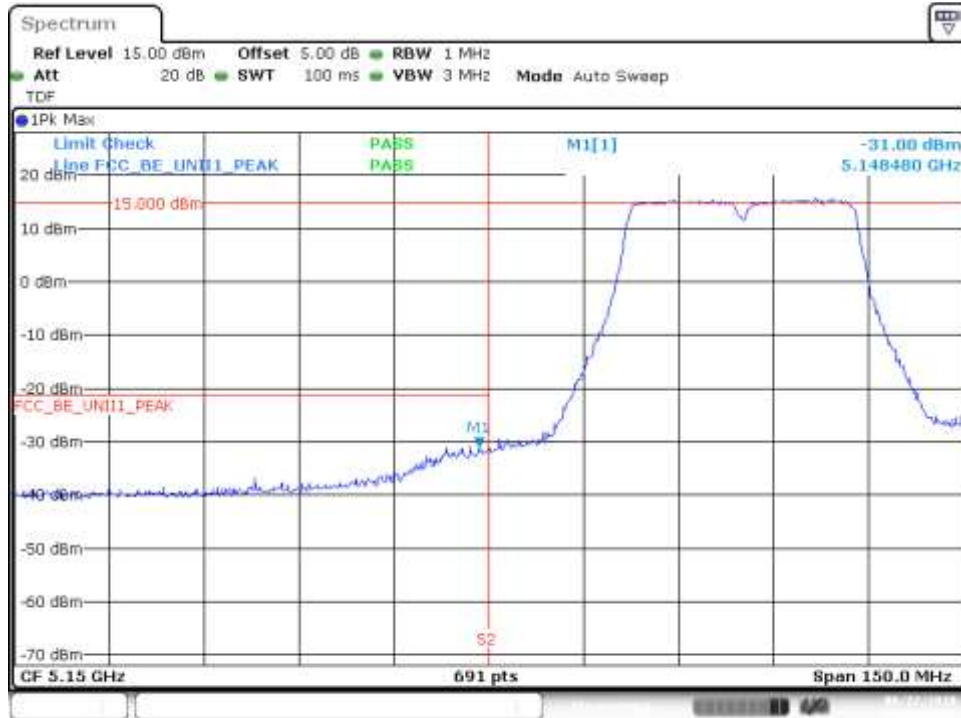


Date: 23.AUG.2018 12:30:25

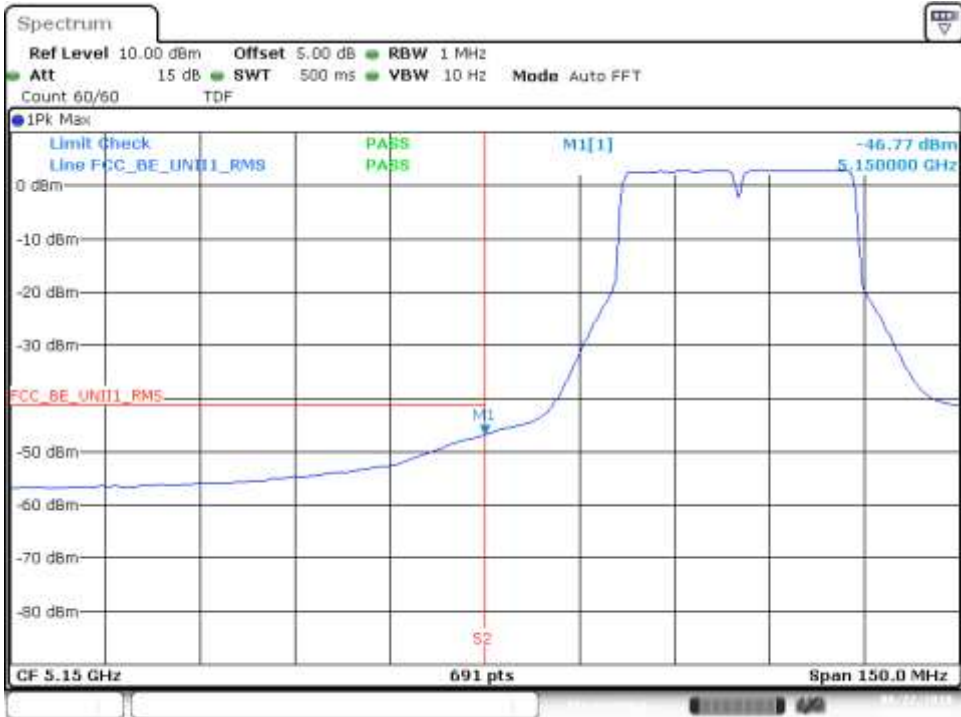
BE Low Freq Section, RMS – CH46F



Date: 23.AUG.2018 12:30:05

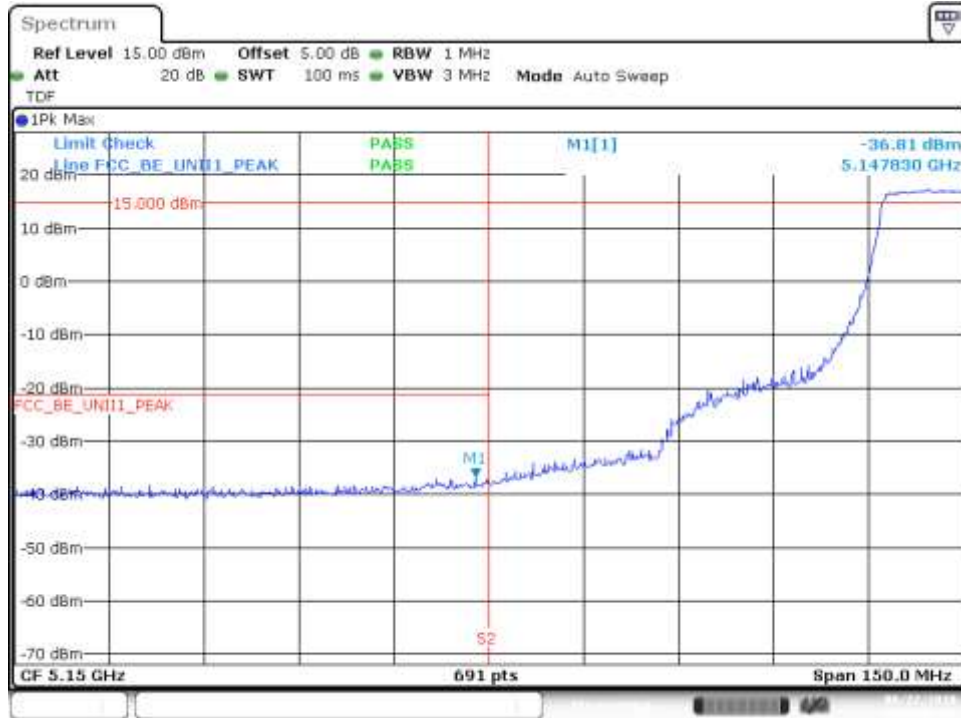
802.11n40, HT8 (MIMO) – Chain A**BE Low Freq Section, Peak – CH38F**

Date: 22.AUG.2018 15:44:34

BE Low Freq Section, RMS – CH38F

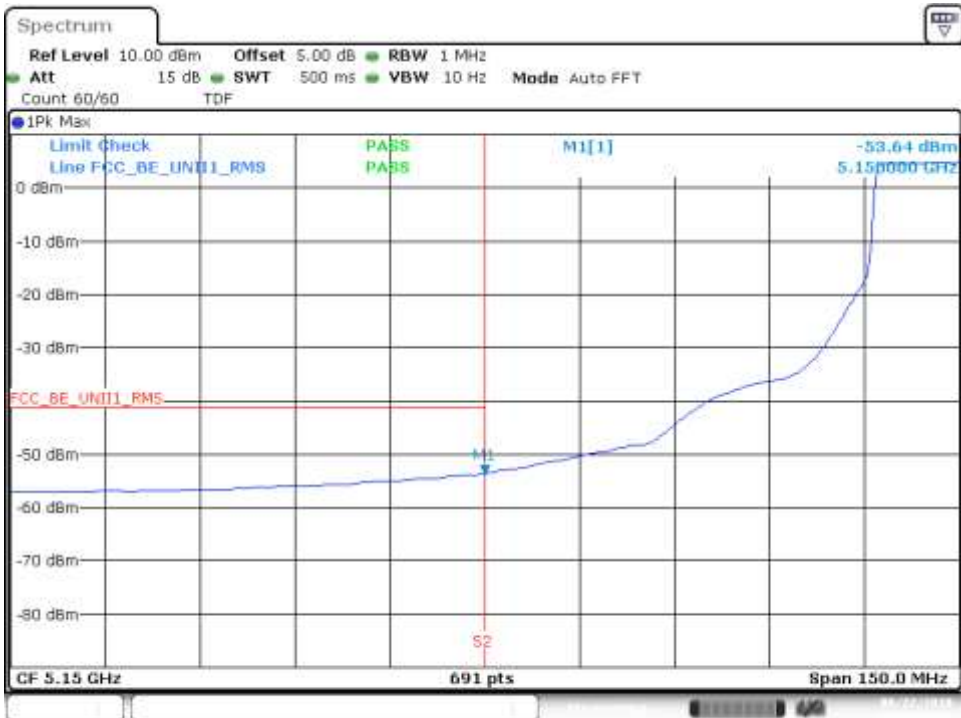
Date: 22.AUG.2018 15:44:05

BE Low Freq Section, Peak – CH46F

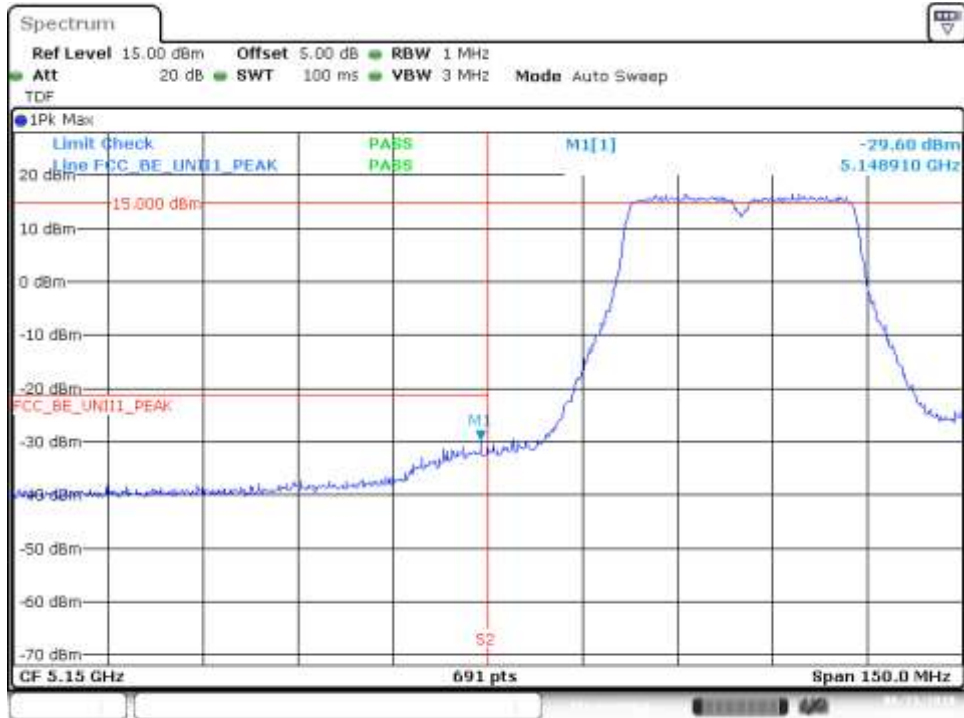


Date: 22.AUG.2018 15:49:11

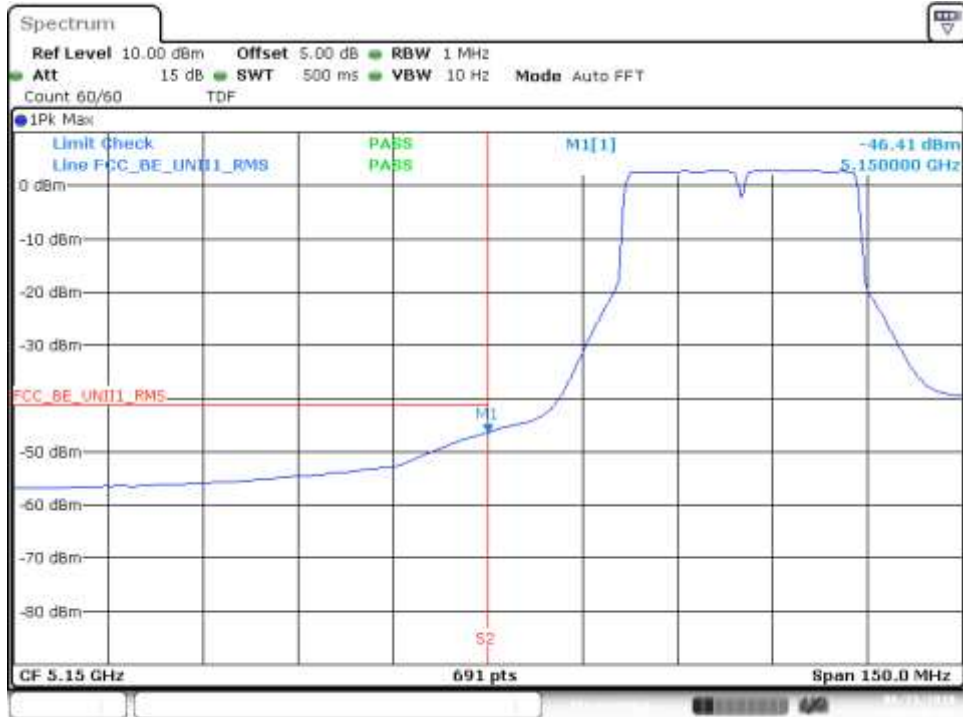
BE Low Freq Section, RMS – CH46F



Date: 22.AUG.2018 15:48:31

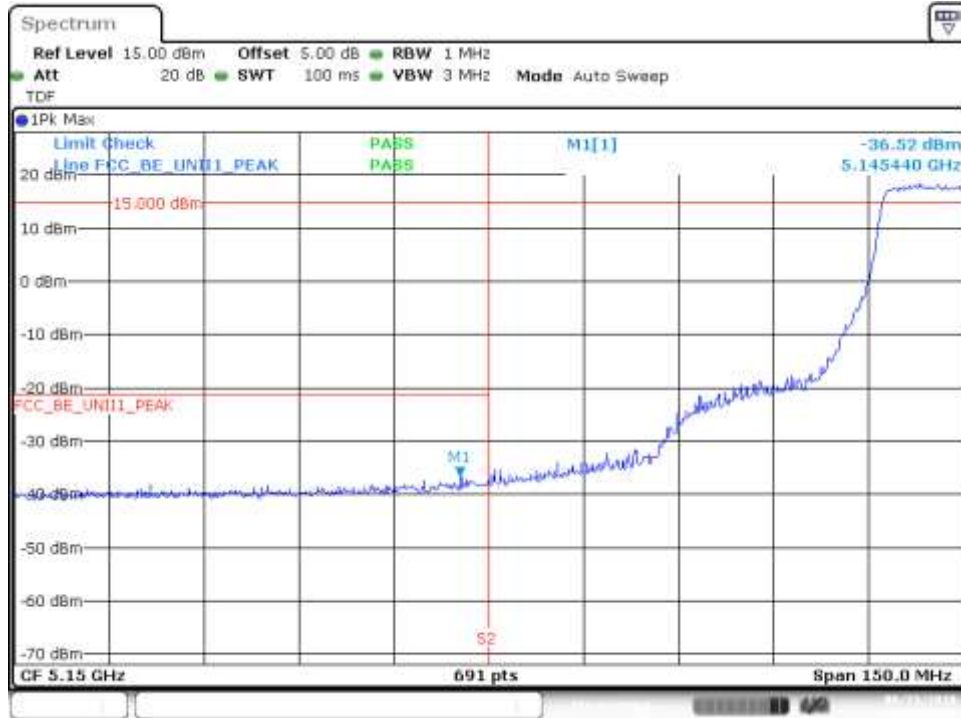
802.11n40, HT8 (MIMO) – Chain B**BE Low Freq Section, Peak – CH38F**

Date: 23.AUG.2018 12:49:27

BE Low Freq Section, RMS – CH38F

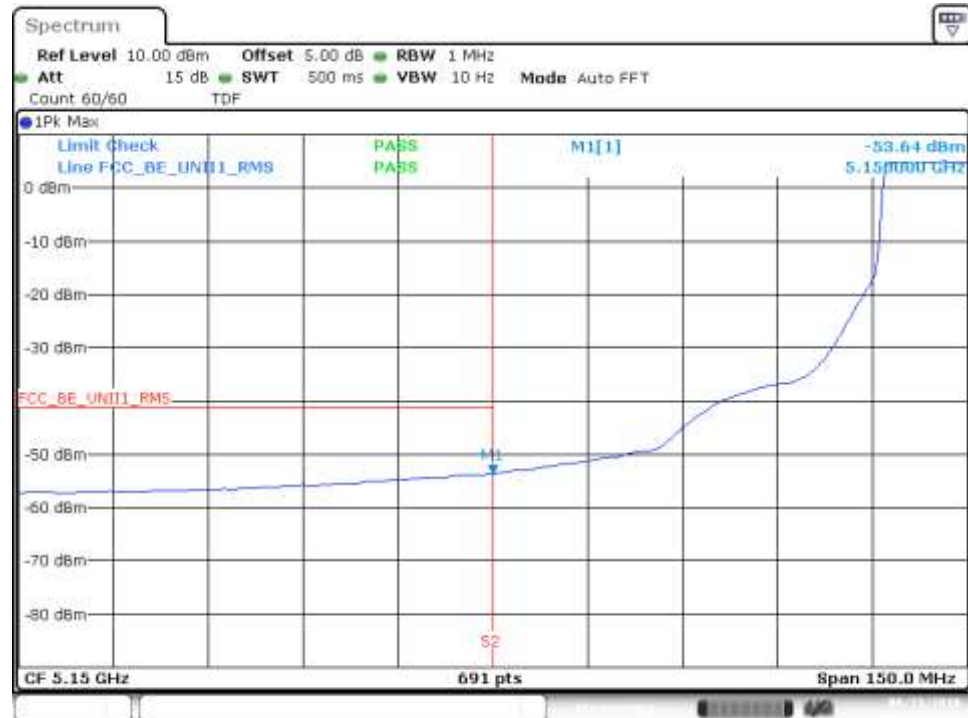
Date: 23.AUG.2018 12:51:11

BE Low Freq Section, Peak – CH46F

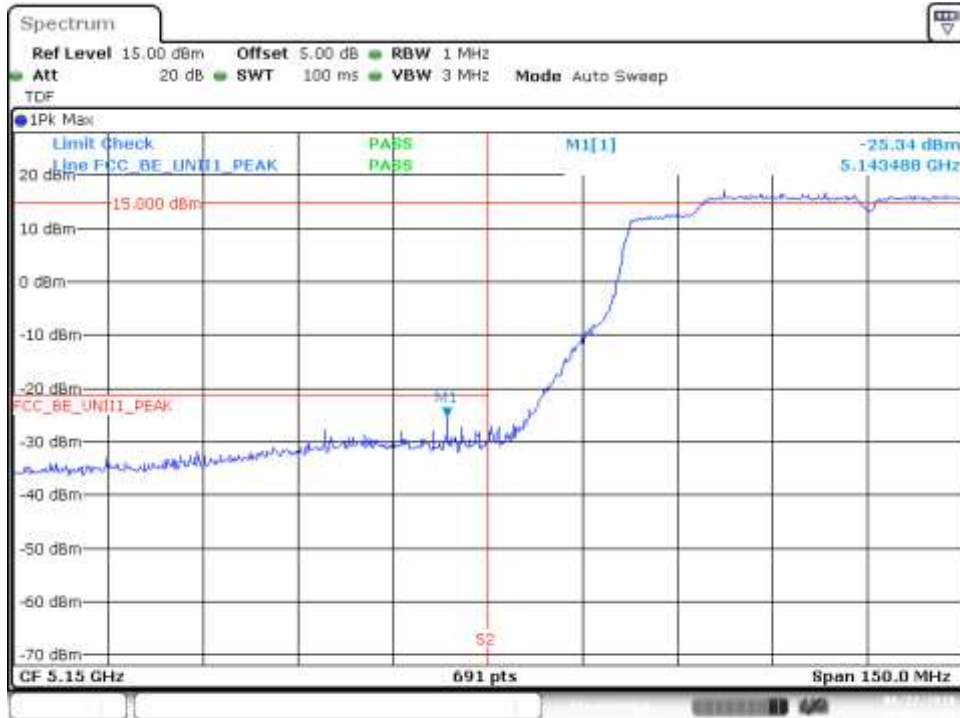


Date: 23.AUG.2018 12:55:15

BE Low Freq Section, RMS – CH46F



Date: 23.AUG.2018 12:54:52

802.11ac80, VHT0 (SISO) – Chain A**BE Low Freq Section, Peak – CH42ac80**

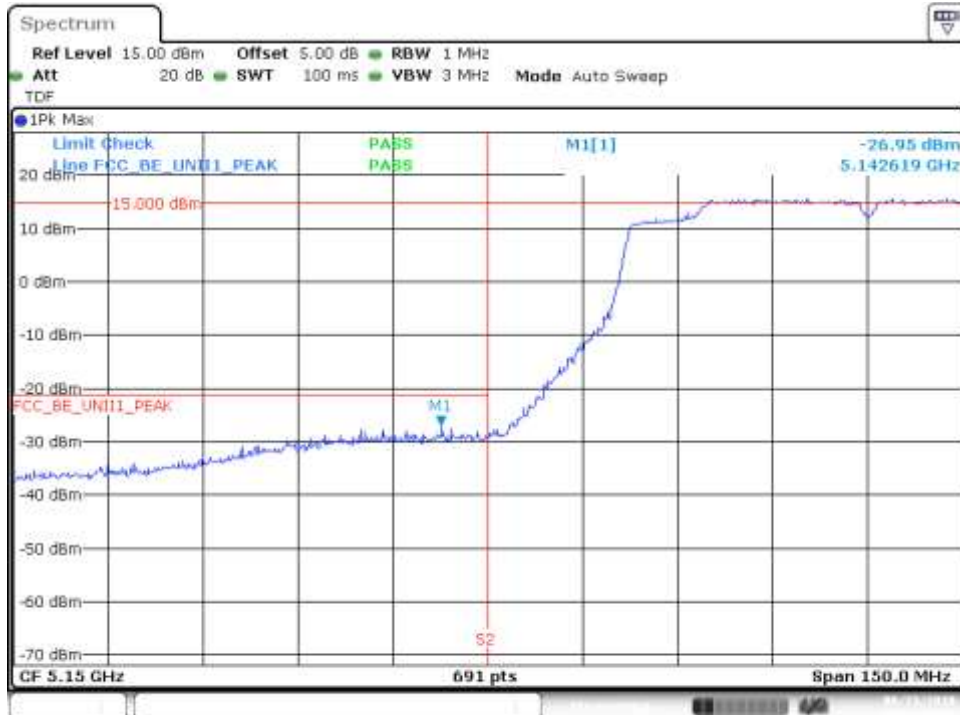
Date: 22.AUG.2018 17:19:22

BE Low Freq Section, RMS – CH42ac80

Date: 22.AUG.2018 17:20:52

802.11ac80, VHT0 (SISO) – Chain B

BE Low Freq Section, Peak – CH42ac80



Date: 23.AUG.2018 16:12:15

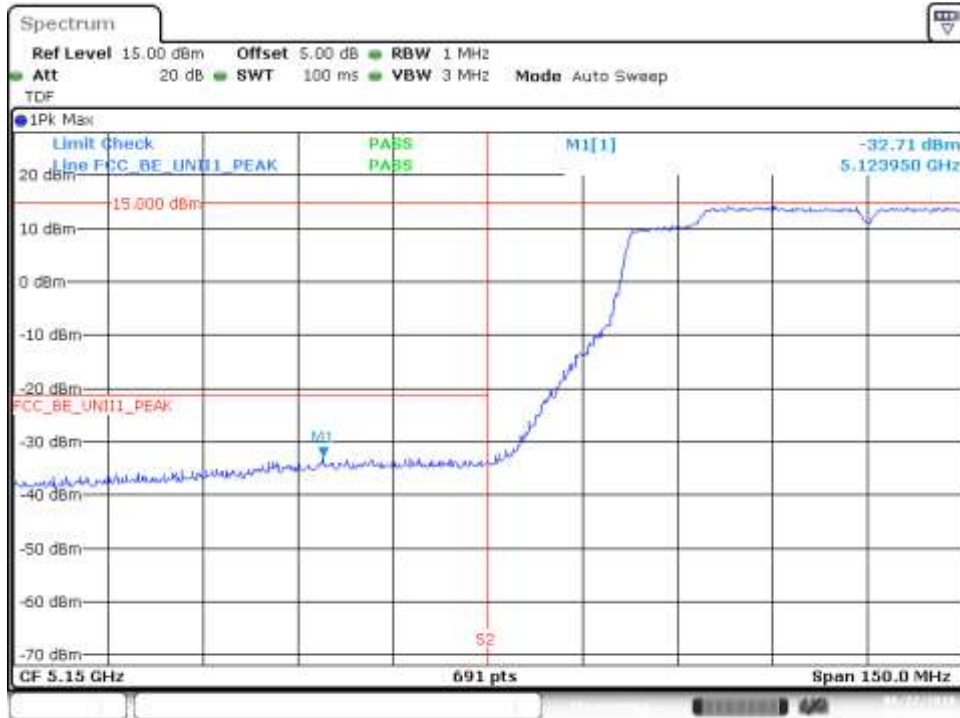
BE Low Freq Section, RMS – CH42ac80



Date: 23.AUG.2018 16:11:45

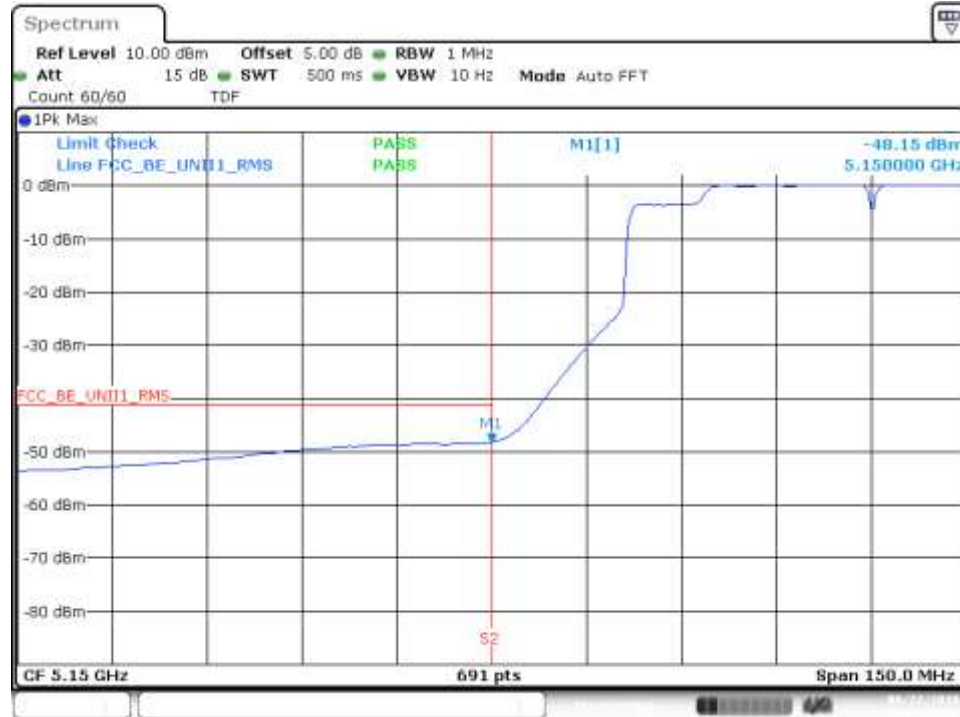
802.11ac80, VHT0 (MIMO) – Chain A

BE Low Freq Section, Peak – CH42ac80



Date: 22.AUG.2018 18:18:10

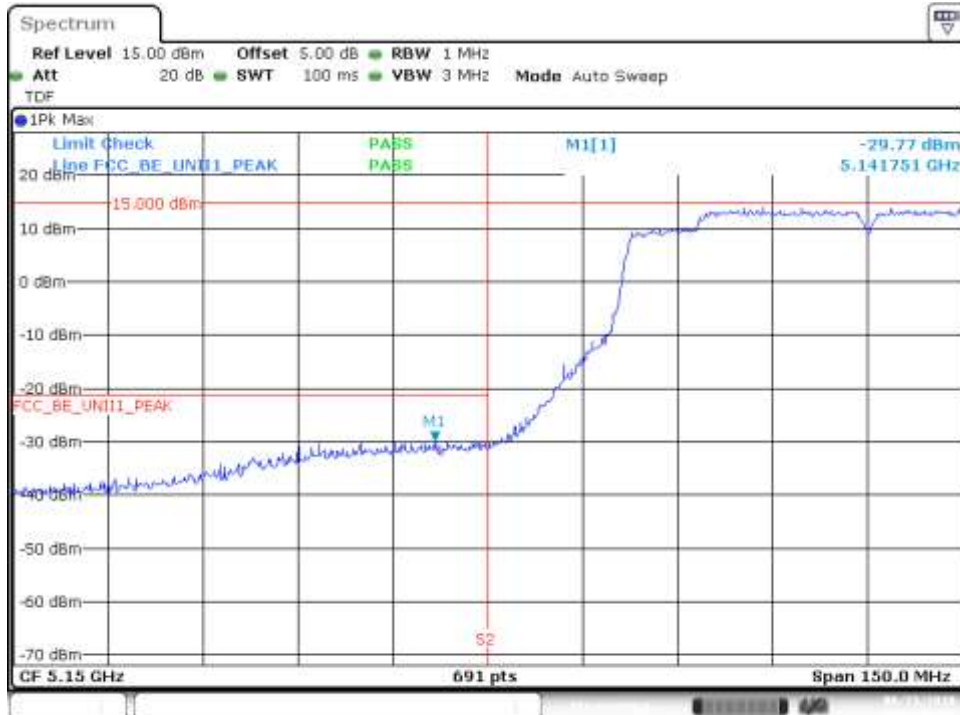
BE Low Freq Section, RMS – CH42ac80



Date: 22.AUG.2018 18:17:44

802.11ac80, VHT0 (MIMO) – Chain B

BE Low Freq Section, Peak – CH42ac80



Date: 23.AUG.2018 16:21:12

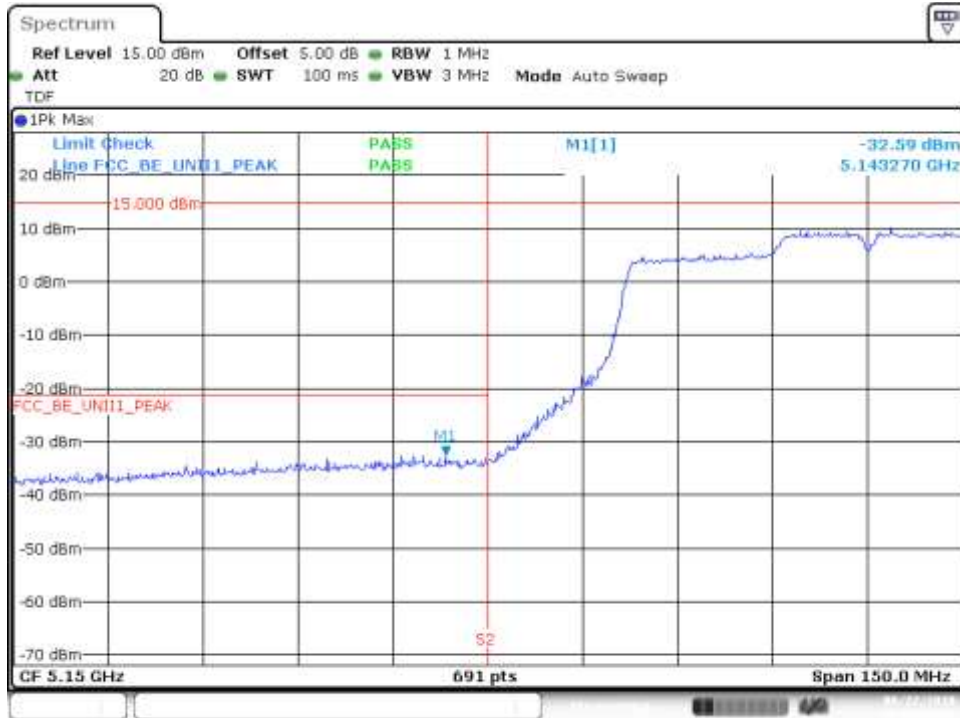
BE Low Freq Section, RMS – CH42ac80



Date: 23.AUG.2018 16:20:28

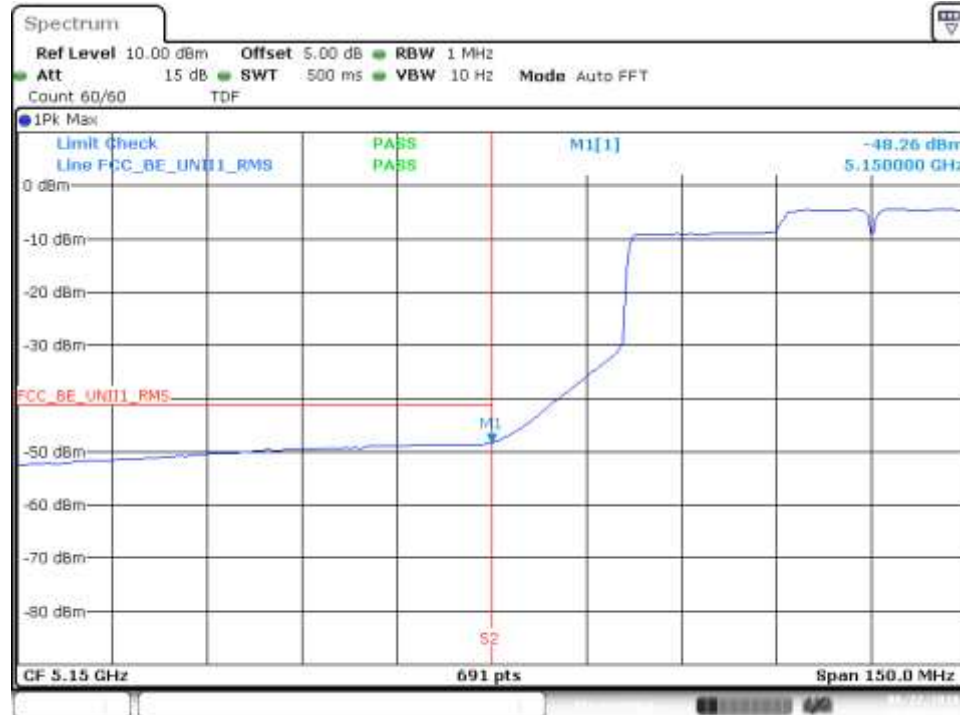
802.11ac160, VHT0 (SISO) – Chain A

BE Low Freq Section, Peak – CH50ac160



Date: 22.AUG.2018 18:32:01

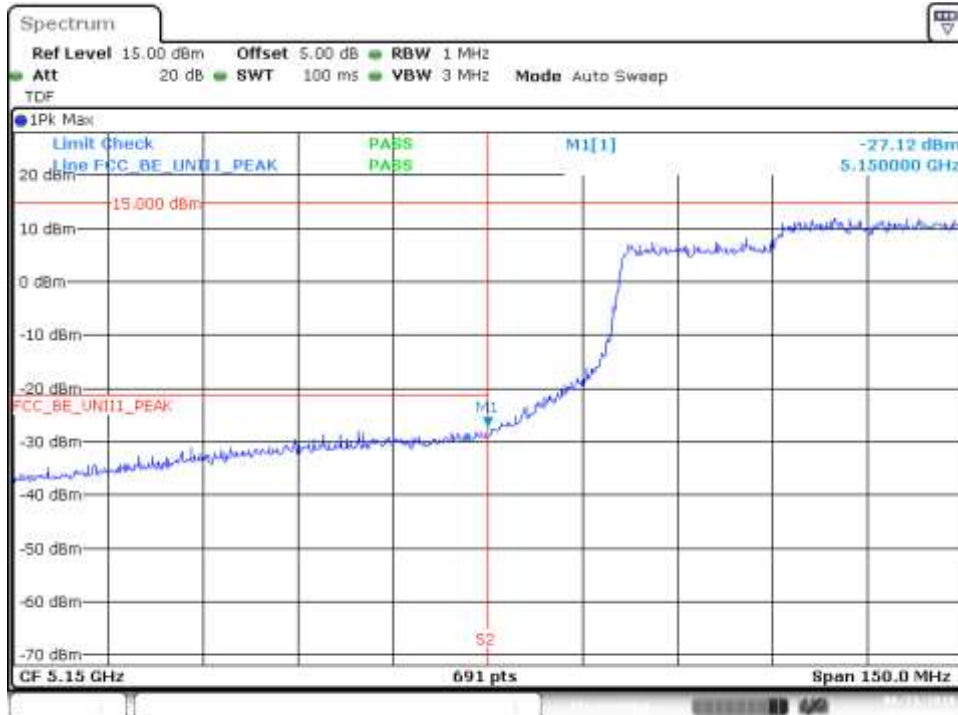
BE Low Freq Section, RMS – CH50ac160



Date: 22.AUG.2018 18:31:21

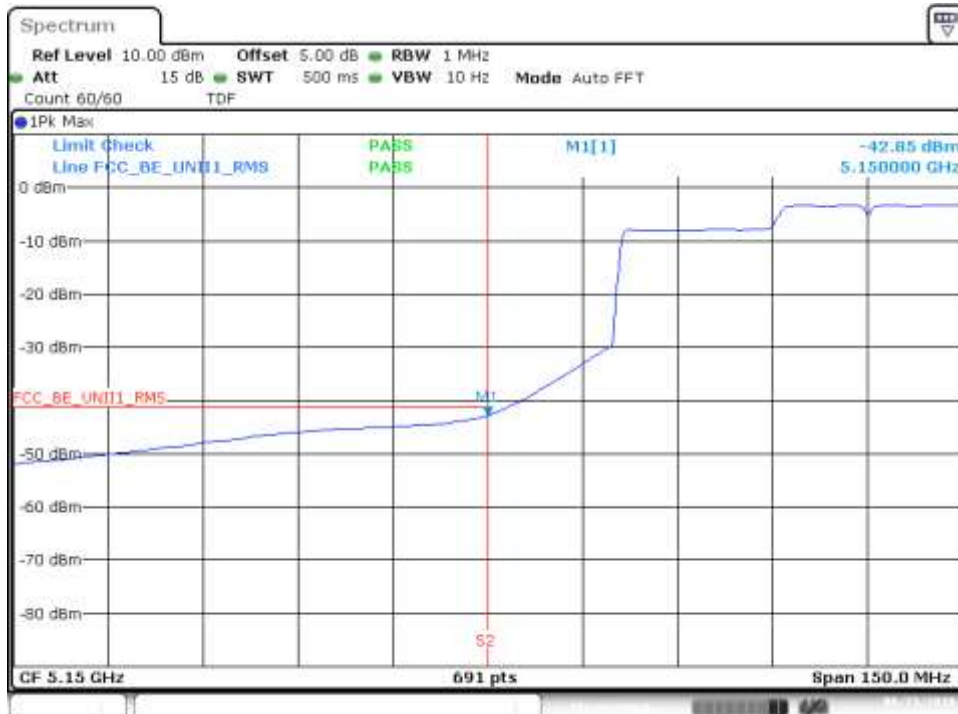
802.11ac160, VHT0 (SISO) – Chain B

BE Low Freq Section, Peak – CH50ac160



Date: 23.AUG.2018 17:10:59

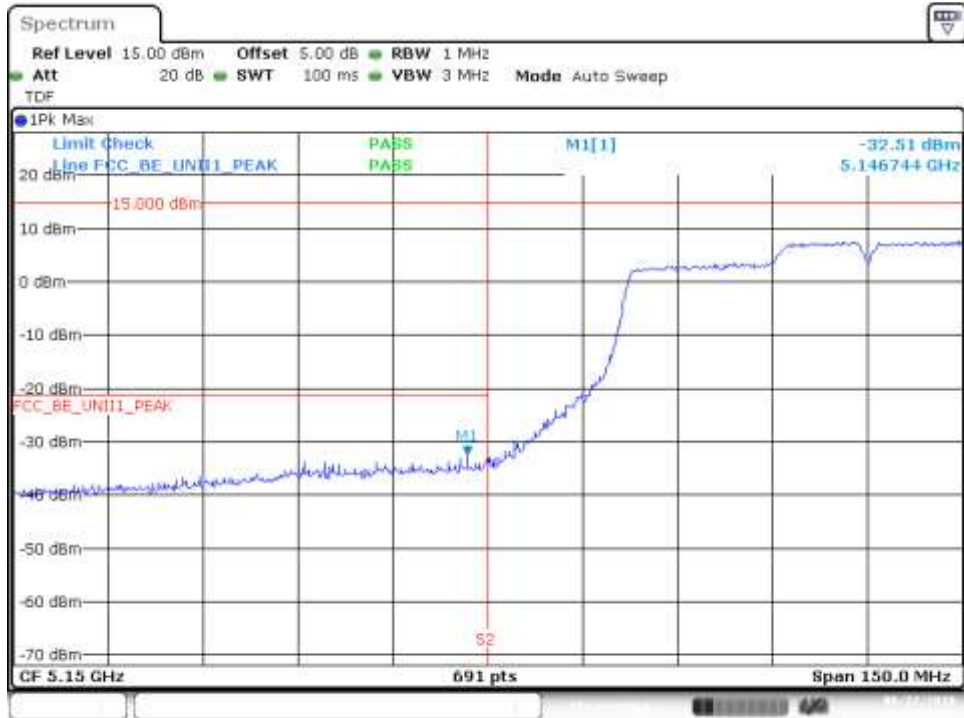
BE Low Freq Section, RMS – CH50ac160



Date: 23.AUG.2018 17:10:28

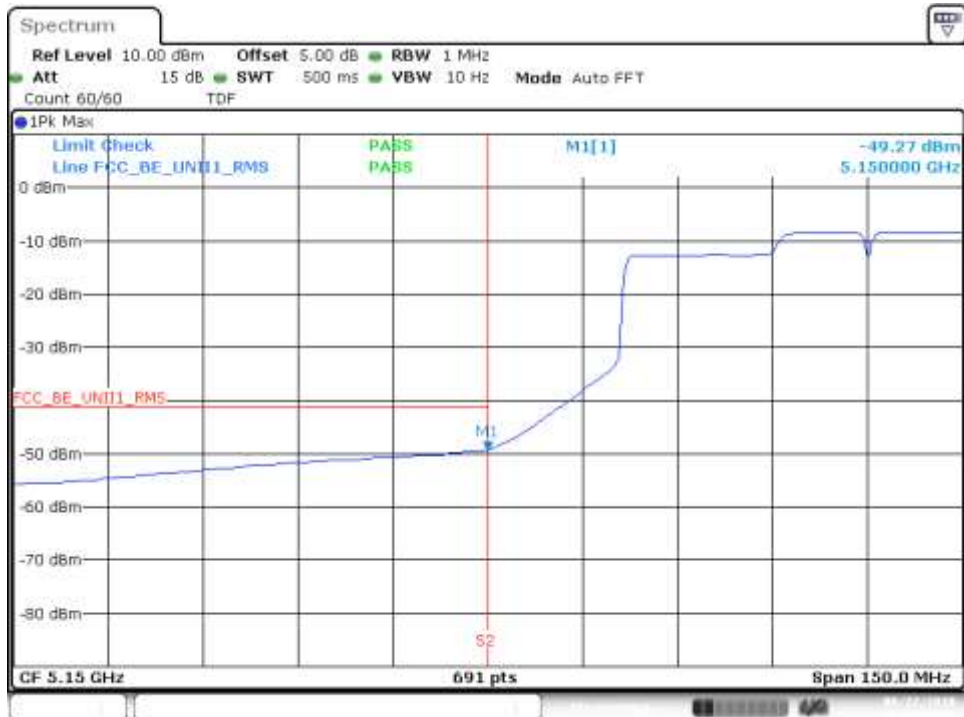
802.11ac160, VHT0 (MIMO) – Chain A

BE Low Freq Section, Peak – CH50ac160



Date: 22.AUG.2018 18:44:44

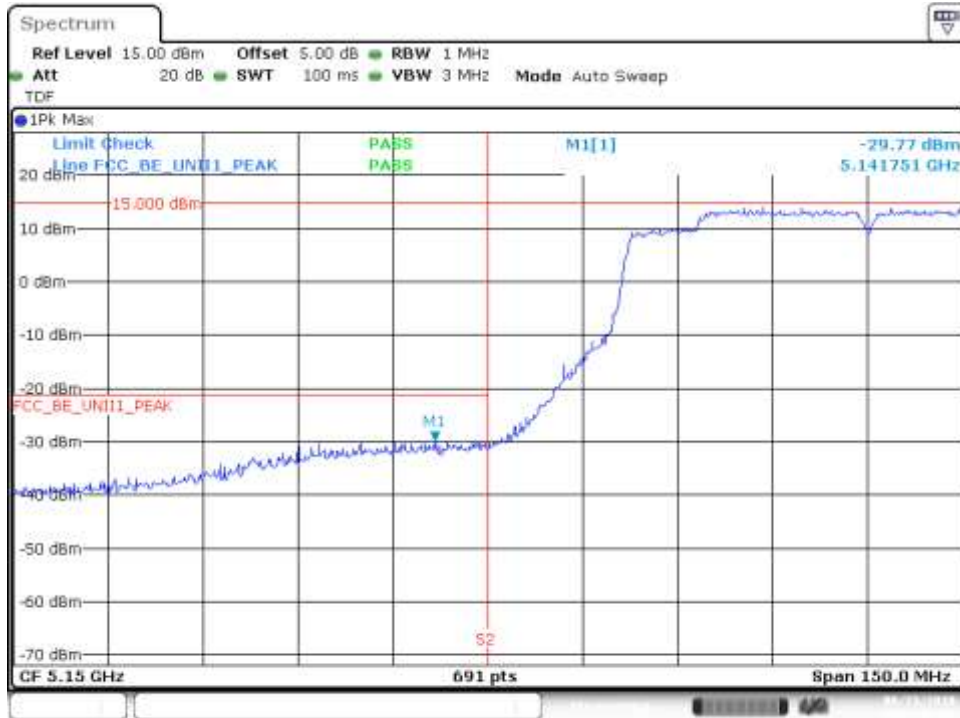
BE Low Freq Section, RMS – CH50ac160



Date: 22.AUG.2018 18:44:31

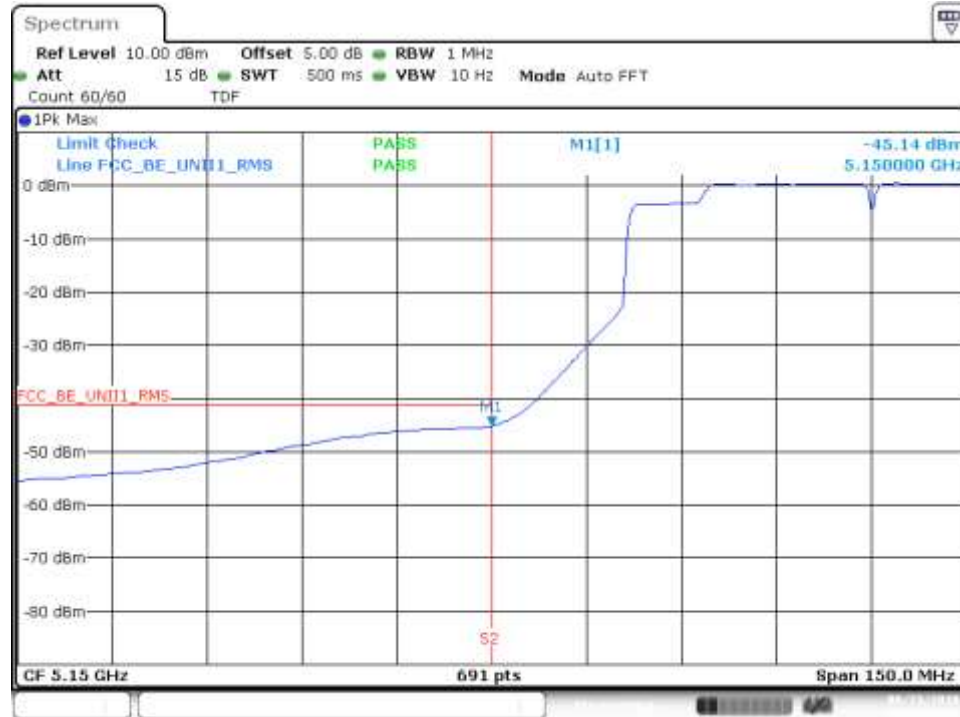
802.11ac160, VHT0 (MIMO) – Chain B

BE Low Freq Section, Peak – CH50ac160



Date: 23.AUG.2018 16:21:12

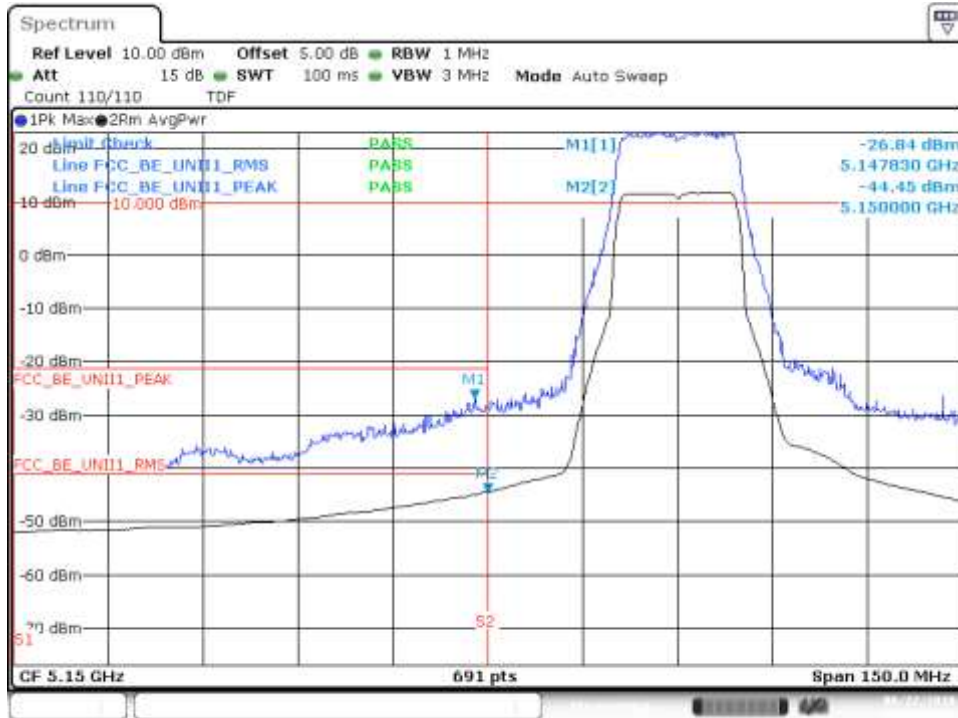
BE Low Freq Section, RMS – CH50ac160



Date: 23.AUG.2018 16:20:28

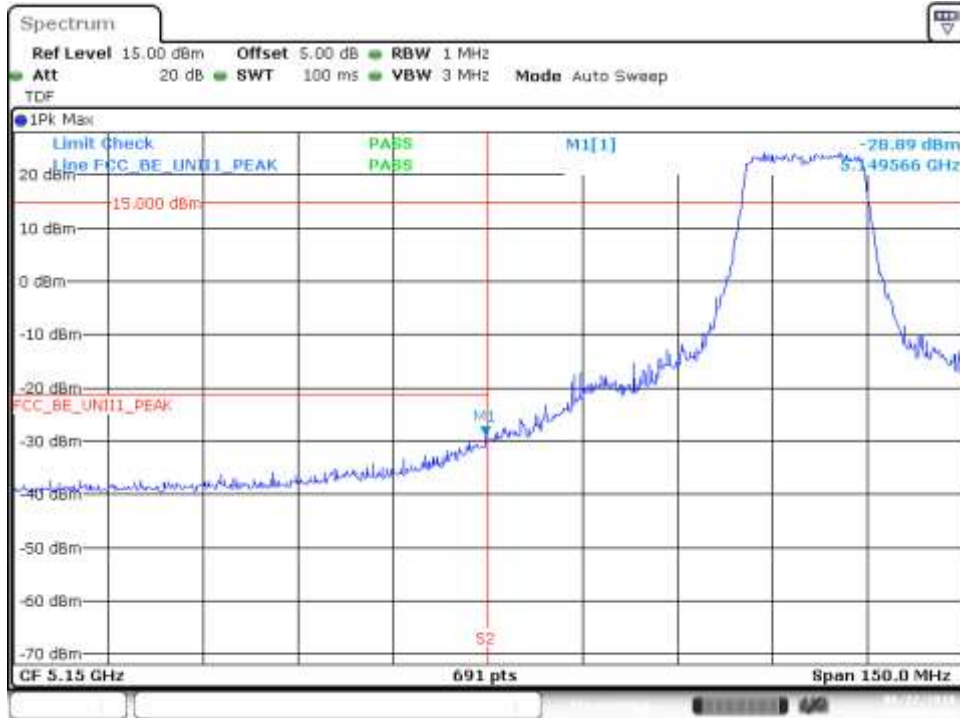
802.11ax20, HE0 (SISO) – Chain A

BE Low Freq Section, Peak, RMS – CH36



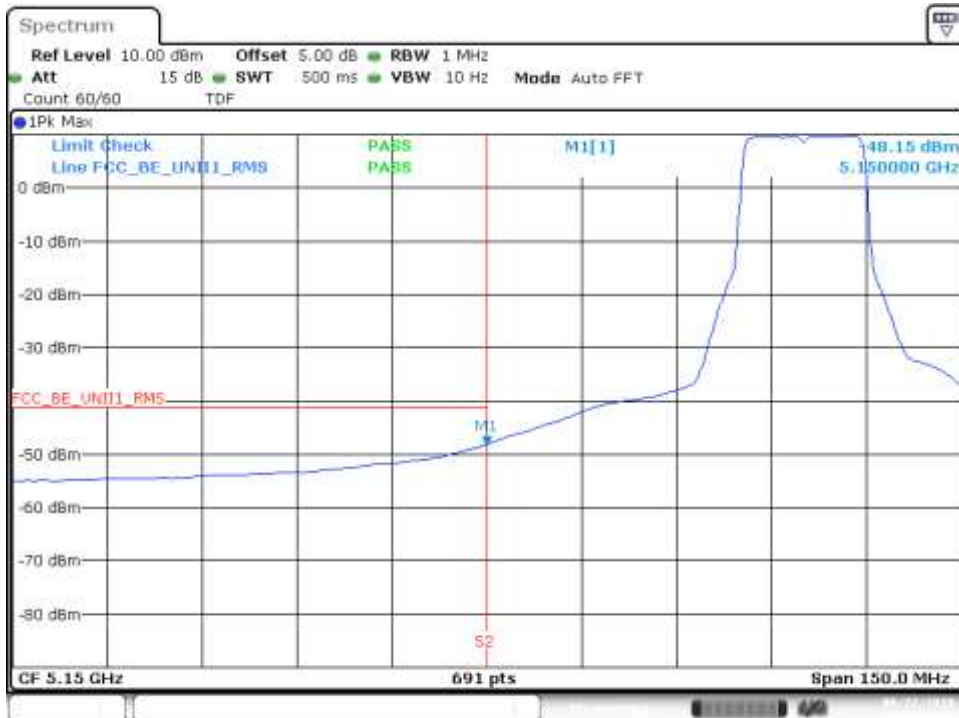
Date: 22.AUG.2018 16:01:31

BE Low Freq Section, Peak – CH40



Date: 22.AUG.2018 16:08:40

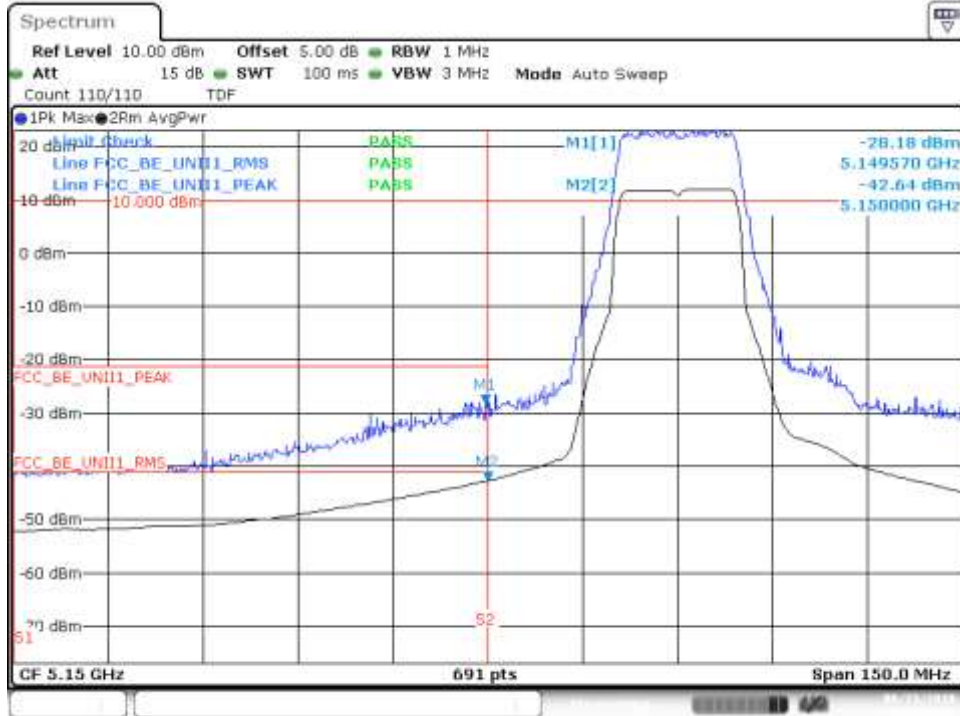
BE Low Freq Section, RMS – CH40



Date: 22.AUG.2018 16:08:09

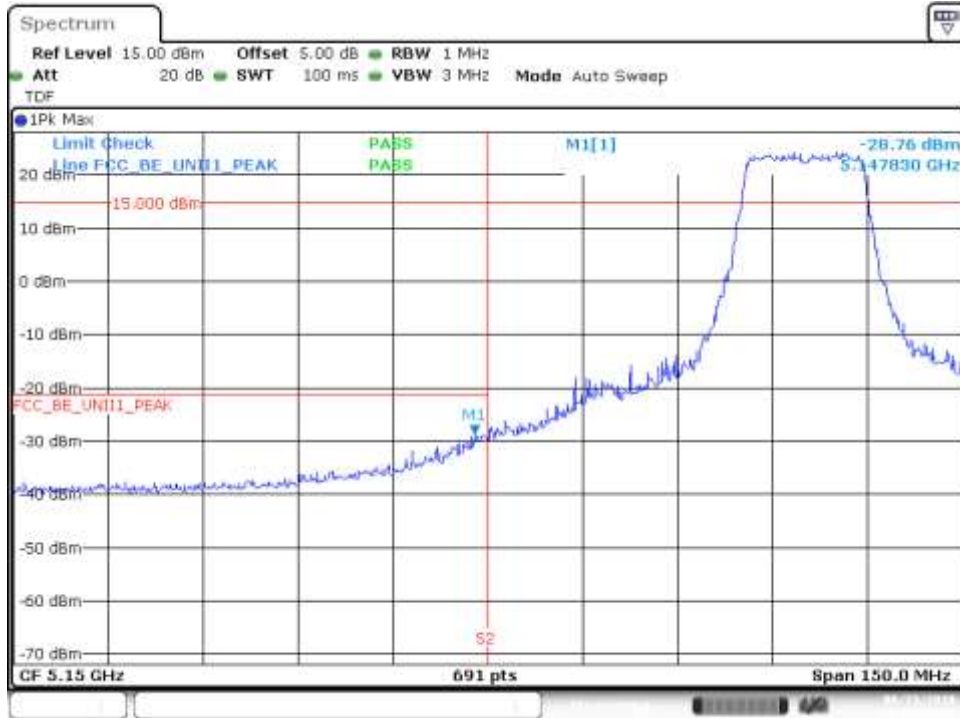
802.11ax20, HE0(SISO) – Chain B

BE Low Freq Section, Peak, RMS – CH36



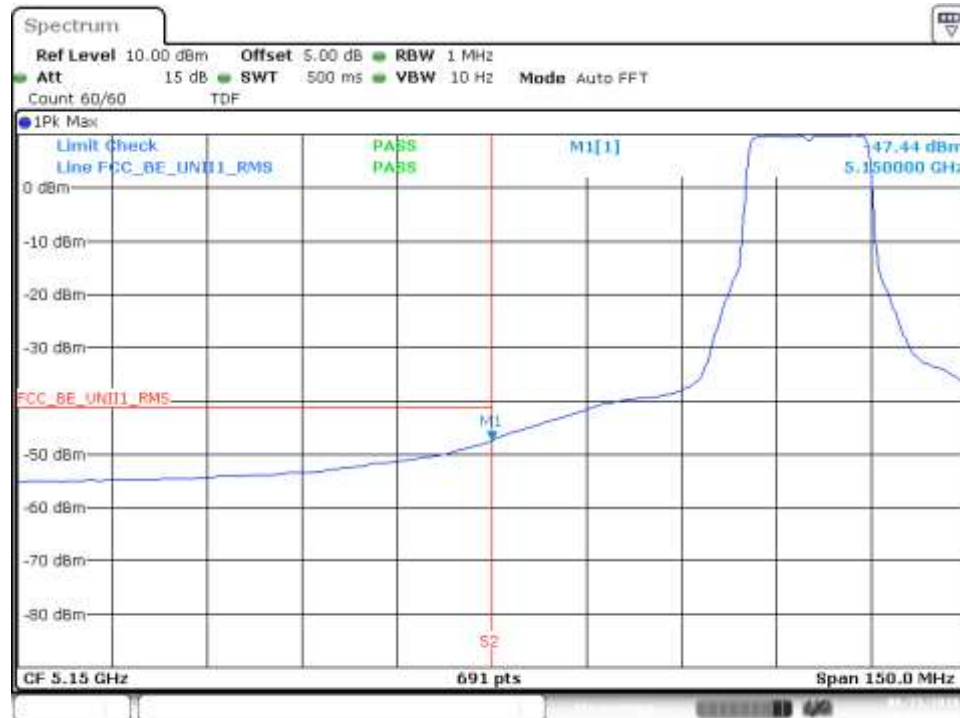
Date: 23.AUG.2018 13:01:37

BE Low Freq Section, Peak – CH40



Date: 23.AUG.2018 13:19:27

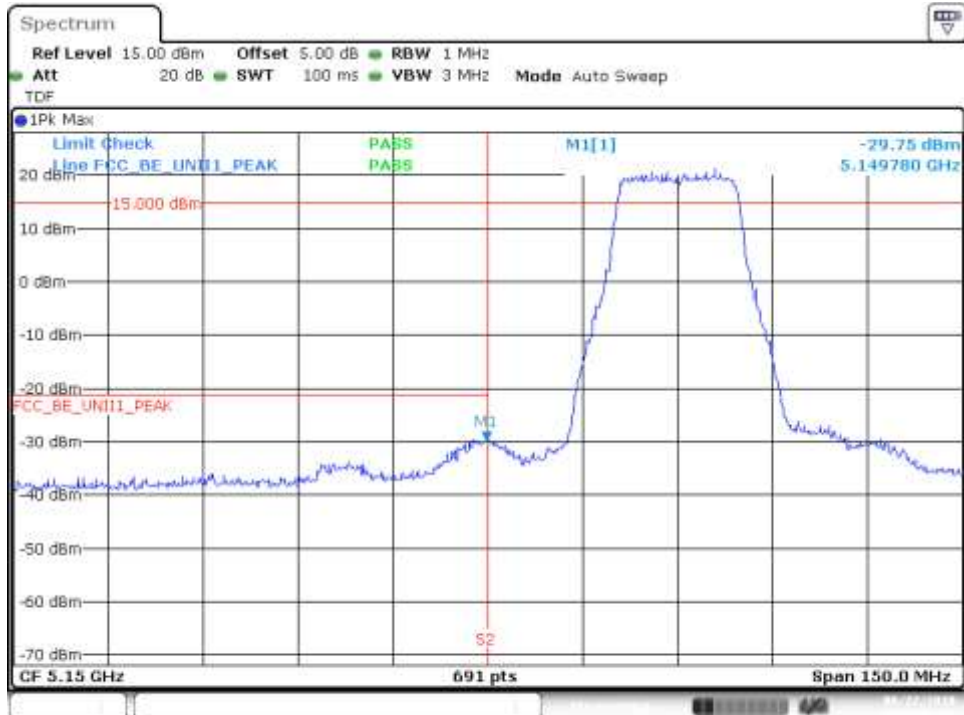
BE Low Freq Section, RMS – CH40



Date: 23.AUG.2018 13:19:01

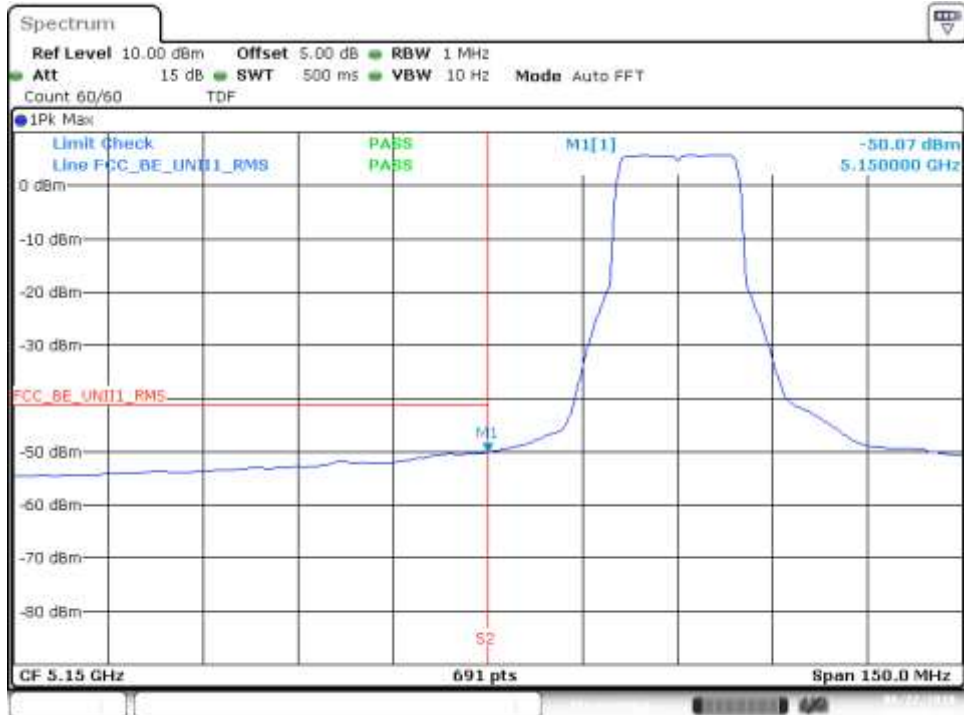
802.11ax20, HE0 (MIMO) – Chain A

BE Low Freq Section, Peak – CH36



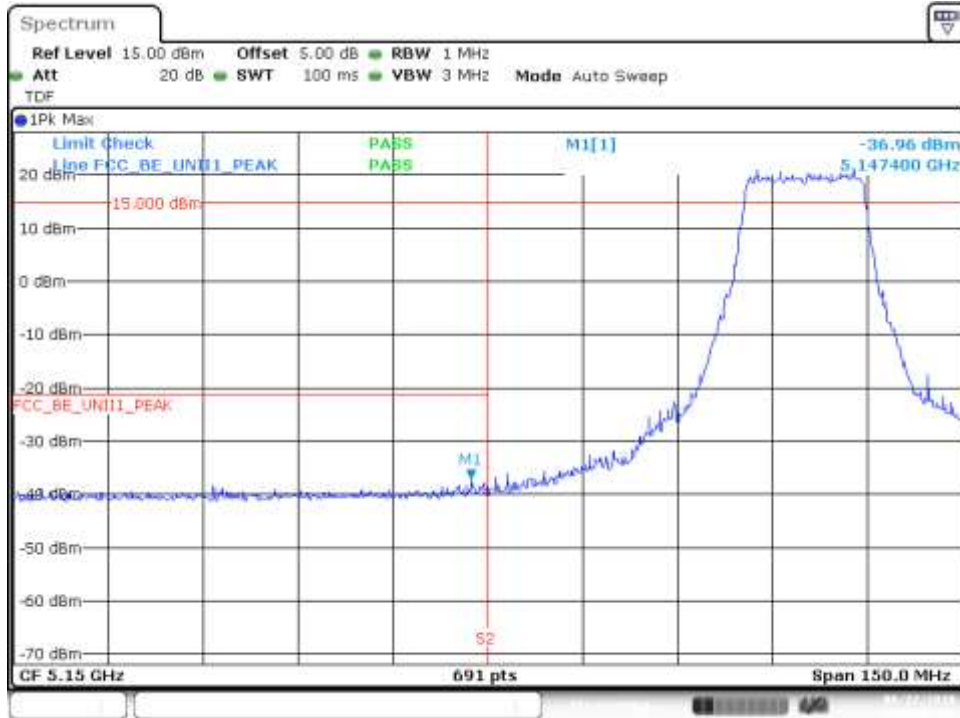
Date: 22.AUG.2018 16:20:47

BE Low Freq Section, RMS – CH36



Date: 22.AUG.2018 16:23:07

BE Low Freq Section, Peak – CH40

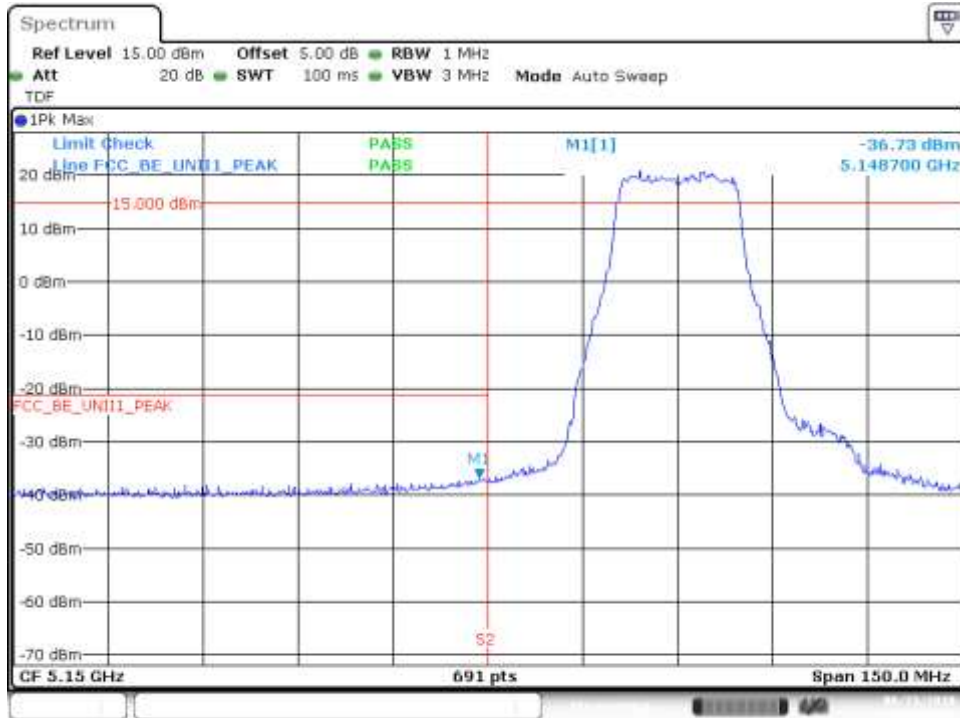


Date: 22.AUG.2018 16:28:55

BE Low Freq Section, RMS – CH40



Date: 22.AUG.2018 16:28:32

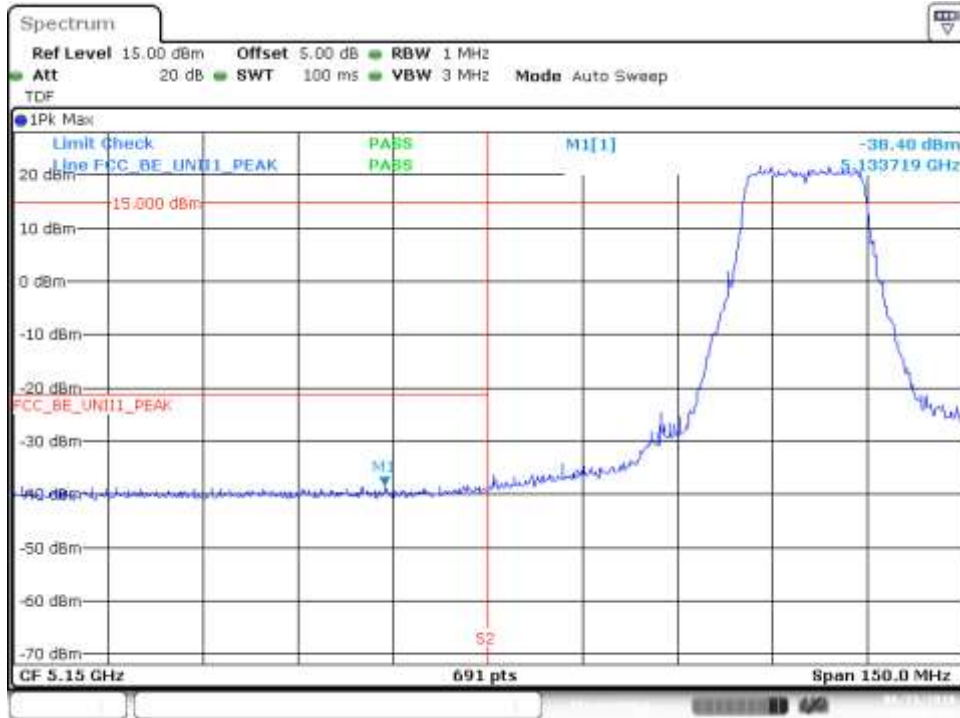
802.11ax20, HE0 (MIMO) – Chain B**BE Low Freq Section, Peak – CH36**

Date: 23.AUG.2018 13:32:36

BE Low Freq Section, RMS – CH36

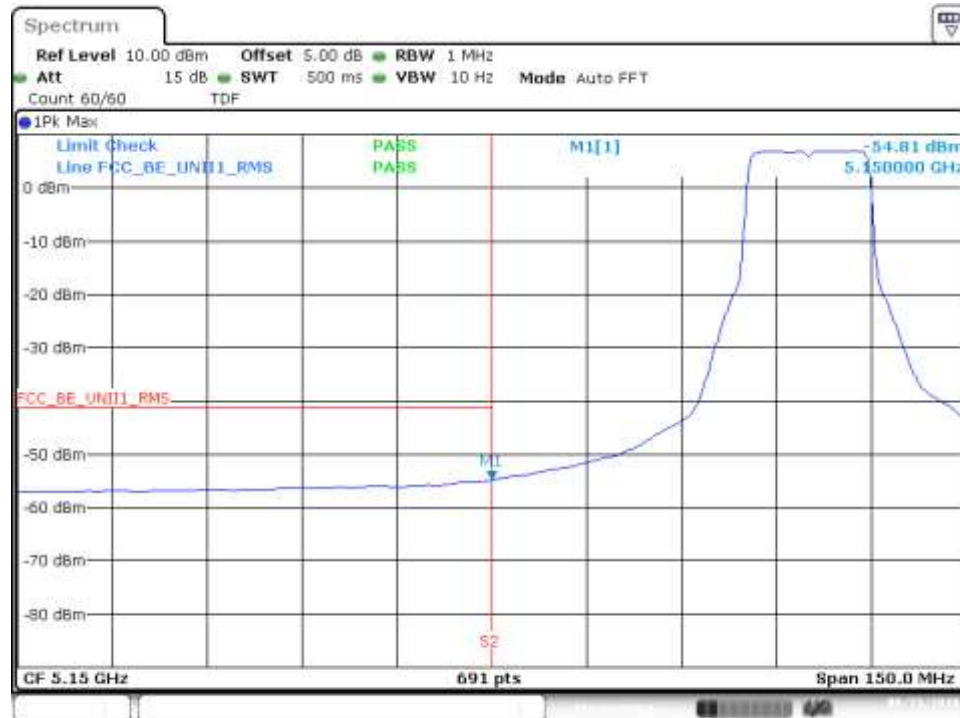
Date: 23.AUG.2018 13:31:56

BE Low Freq Section, Peak – CH40



Date: 23.AUG.2018 13:37:02

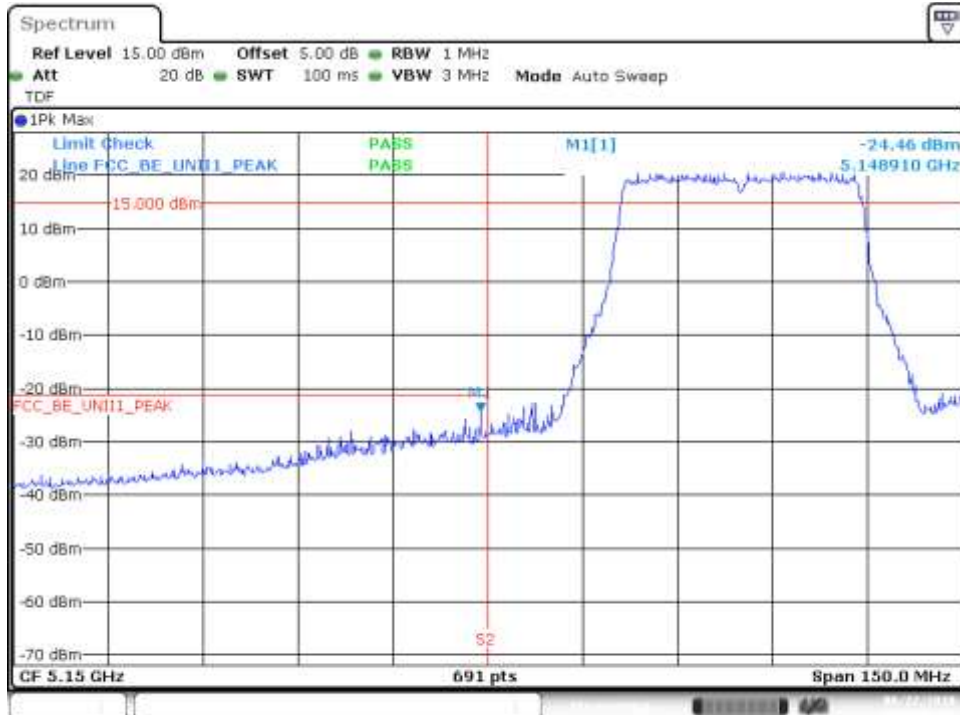
BE Low Freq Section, RMS – CH40



Date: 23.AUG.2018 13:36:40

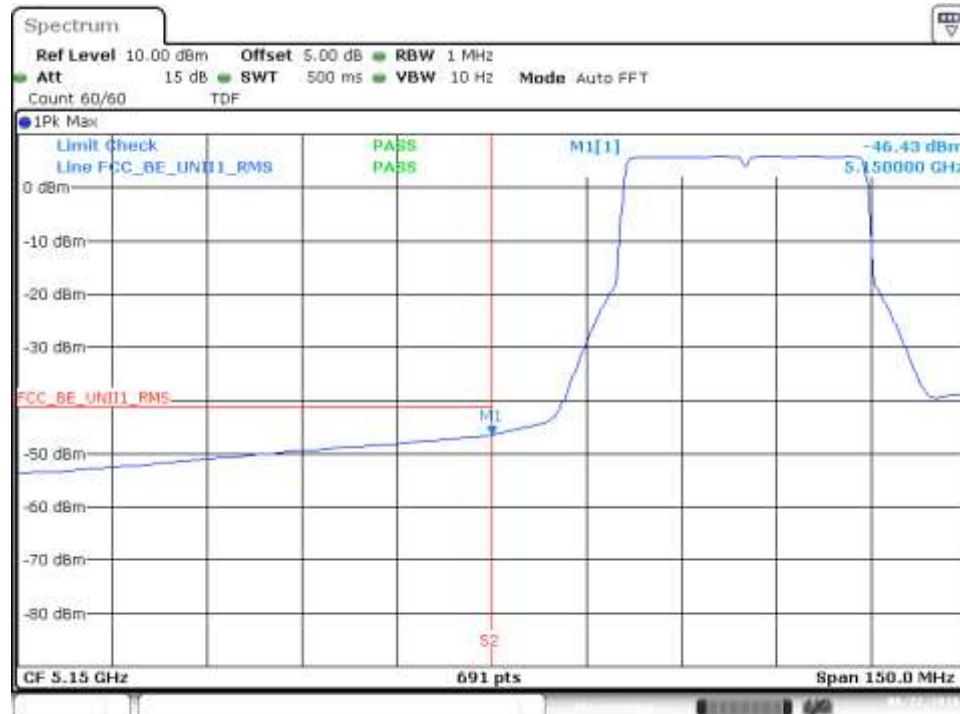
802.11ax40, HE0 (SISO) – Chain A

BE Low Freq Section, Peak – CH38F



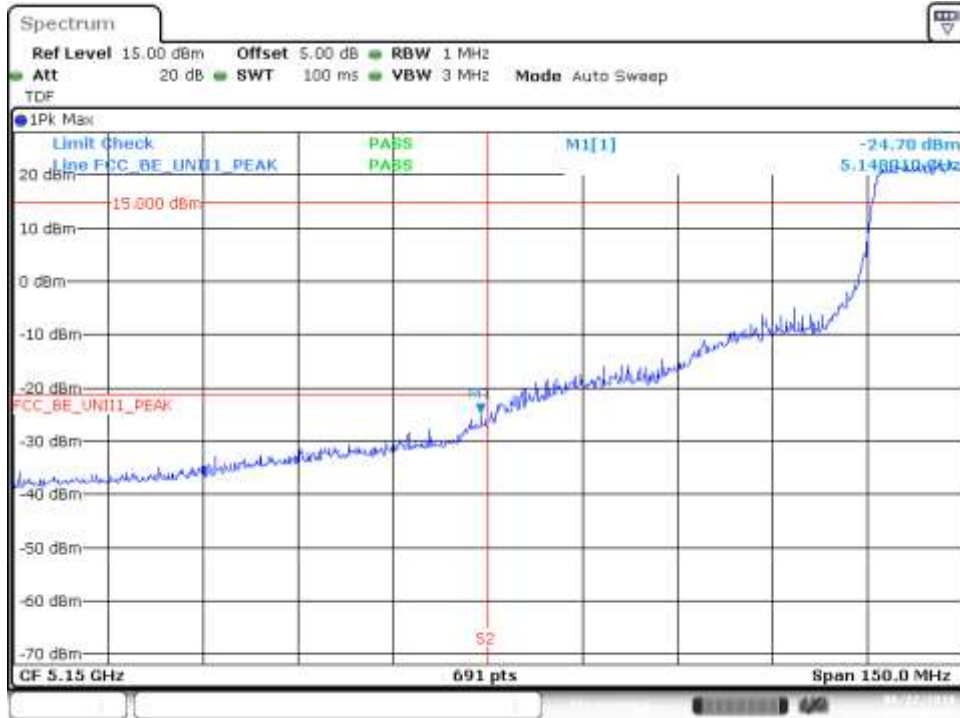
Date: 22.AUG.2018 16:43:45

BE Low Freq Section, RMS – CH38F



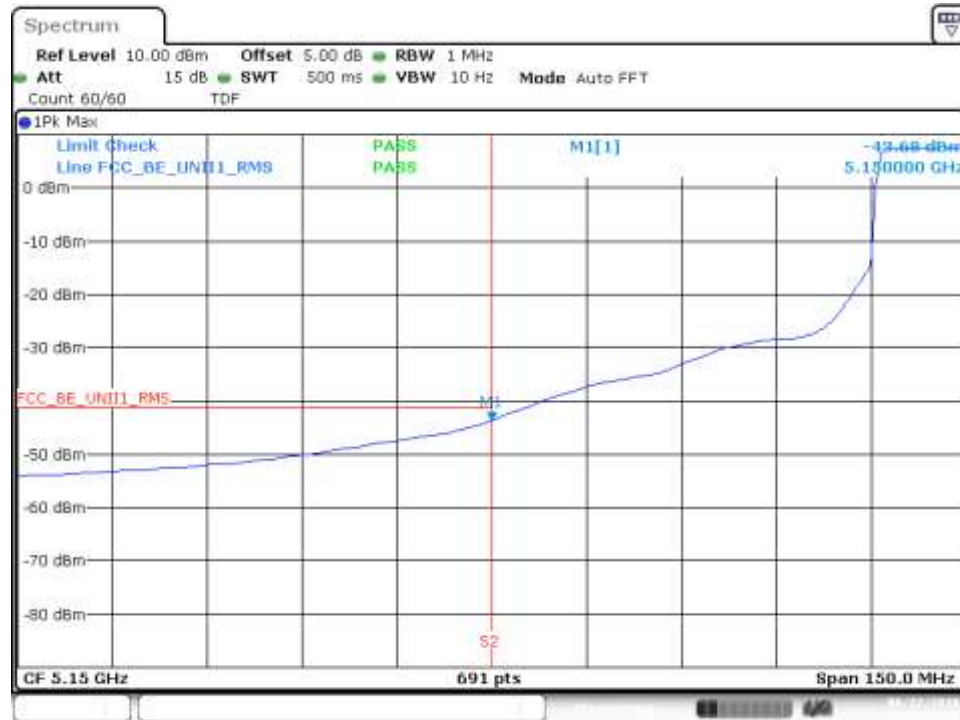
Date: 22.AUG.2018 16:42:17

BE Low Freq Section, Peak – CH46F



Date: 22.AUG.2018 16:49:20

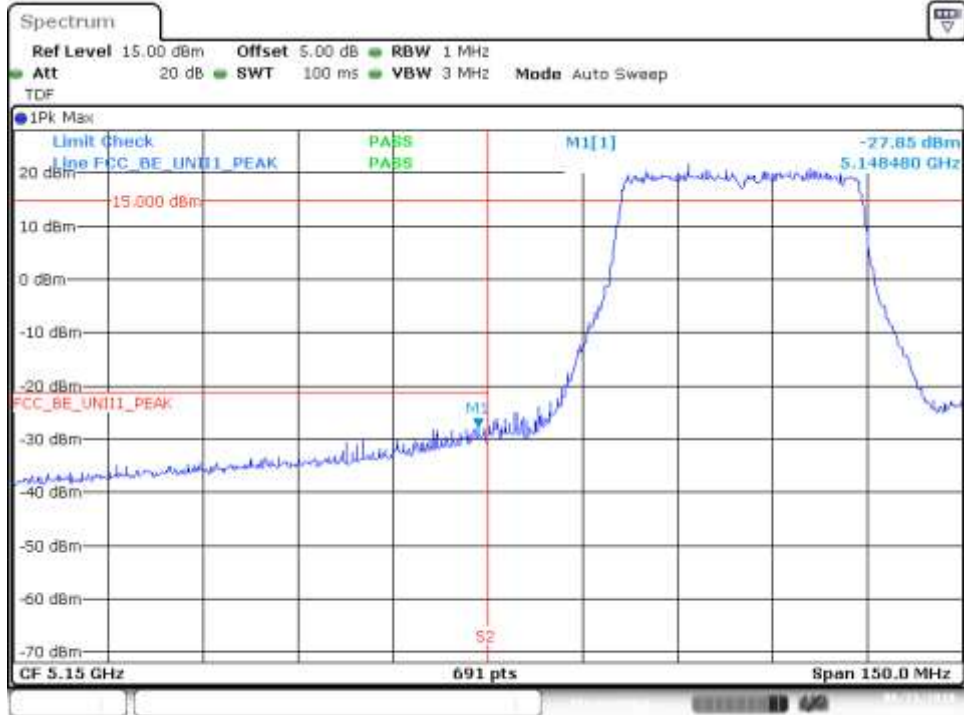
BE Low Freq Section, RMS – CH46F



Date: 22.AUG.2018 16:48:51

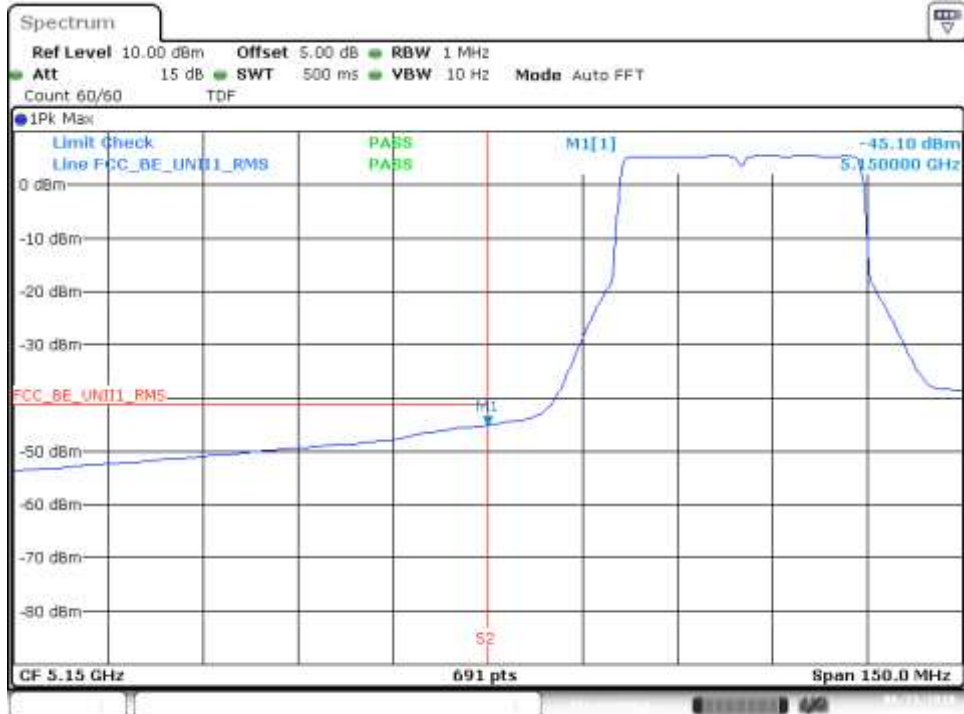
802.11ax40, HE0 (SISO) – Chain B

BE Low Freq Section, Peak – CH38F



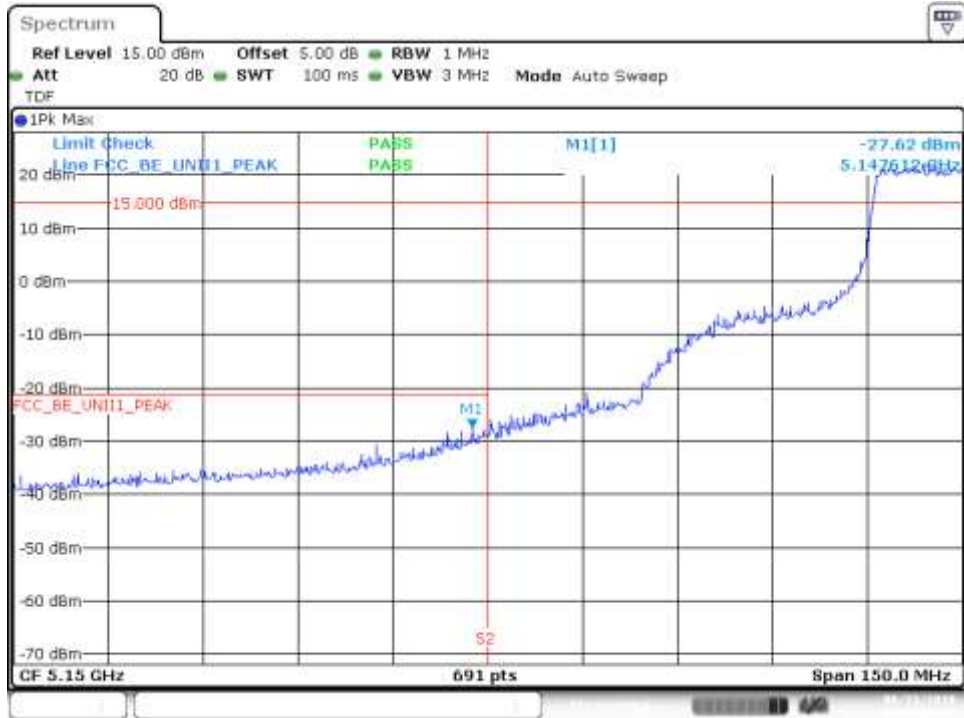
Date: 23.AUG.2018 13:57:33

BE Low Freq Section, RMS – CH38F



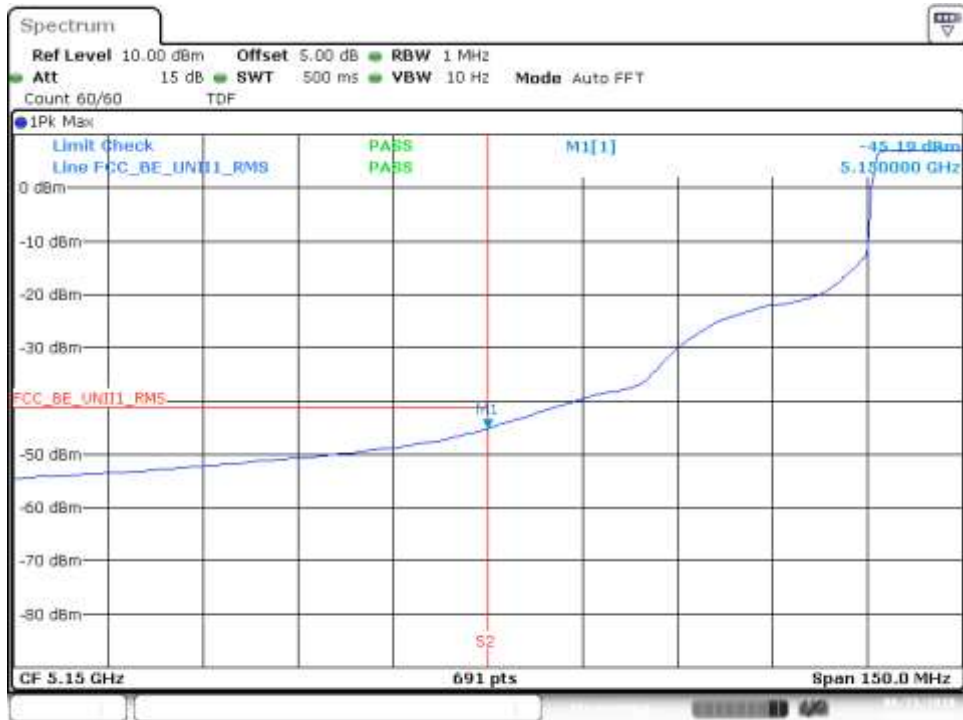
Date: 23.AUG.2018 13:57:09

BE Low Freq Section, Peak – CH46F



Date: 23.AUG.2018 15:45:08

BE Low Freq Section, RMS – CH46F



Date: 23.AUG.2018 15:44:54