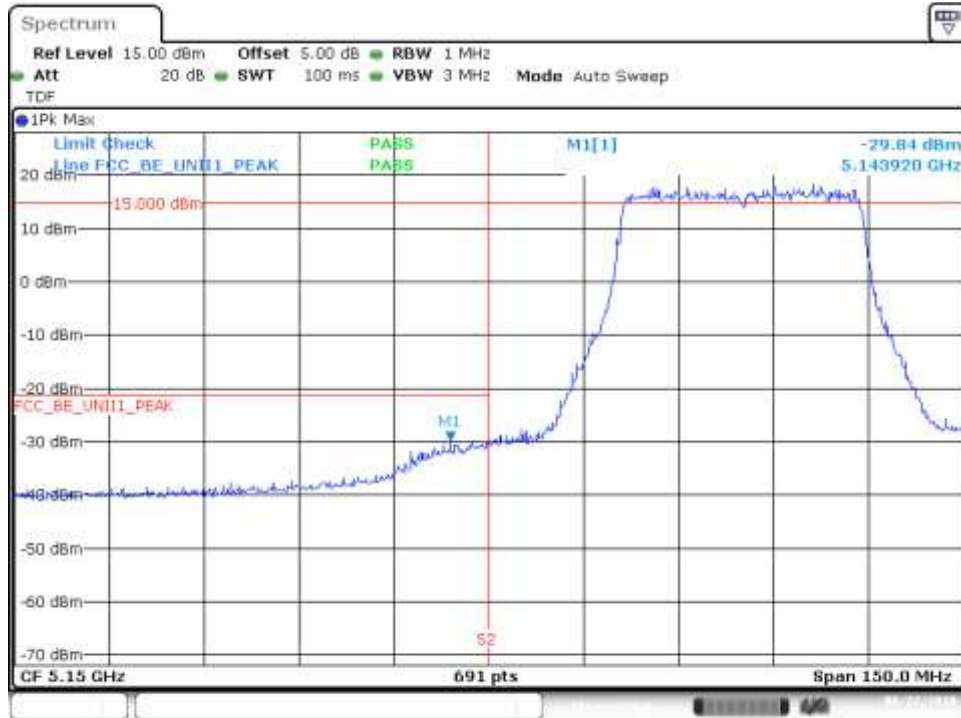


802.11ax40, HE0 (MIMO) – Chain A

BE Low Freq Section, Peak – CH38F



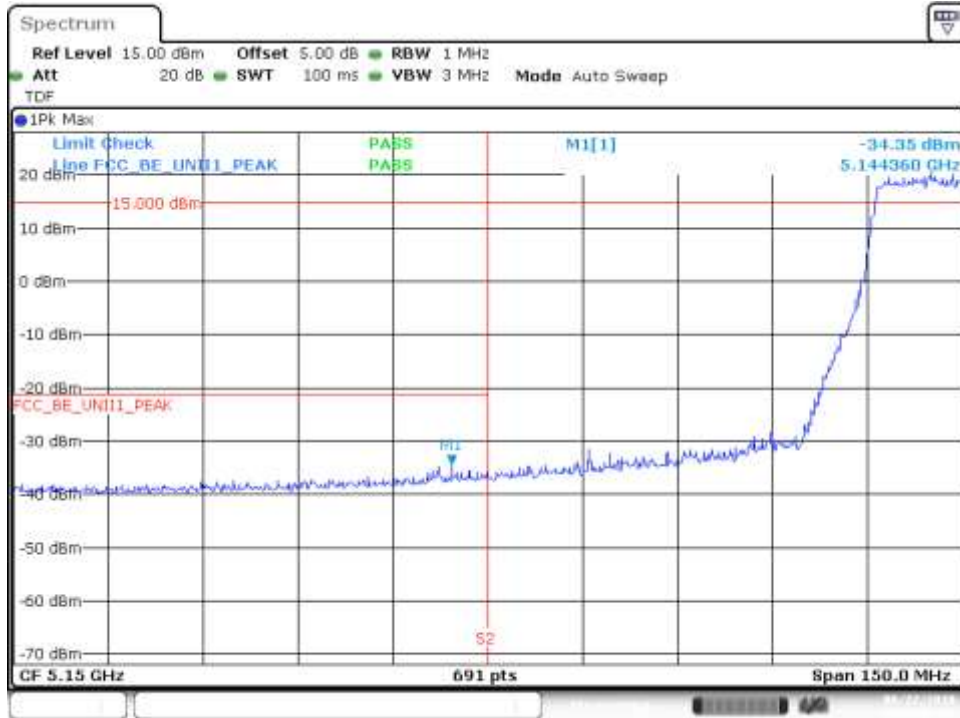
Date: 22.AUG.2018 16:54:24

BE Low Freq Section, RMS – CH38F



Date: 22.AUG.2018 16:53:44

BE Low Freq Section, Peak – CH46F



Date: 22.AUG.2018 17:05:18

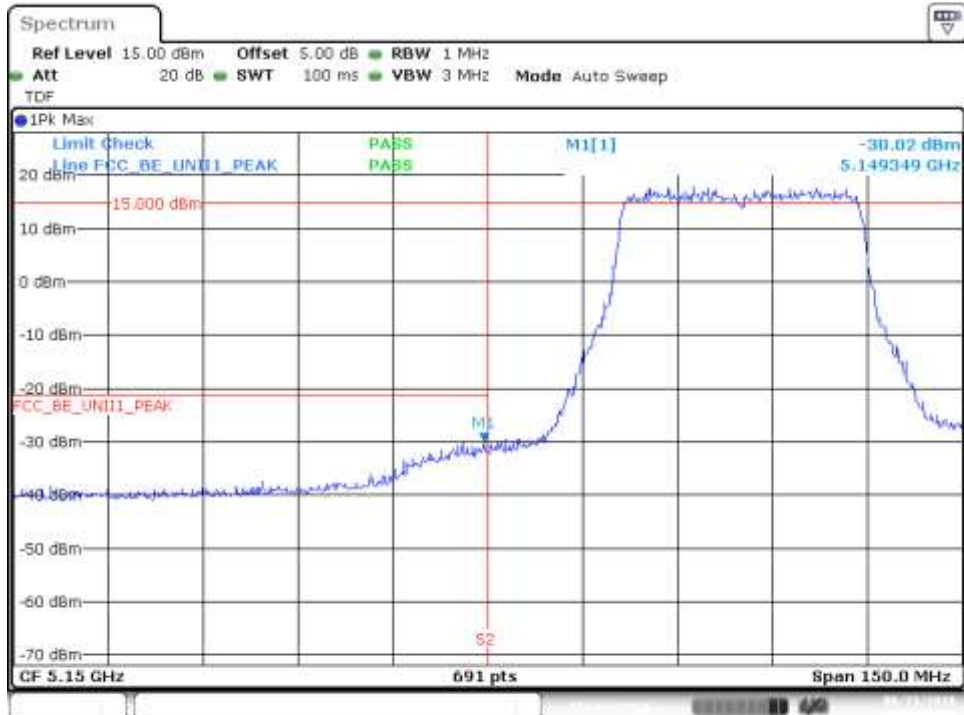
BE Low Freq Section, RMS – CH46F



Date: 22.AUG.2018 17:07:03

802.11ax40, HE0 (MIMO) – Chain B

BE Low Freq Section, Peak – CH38F



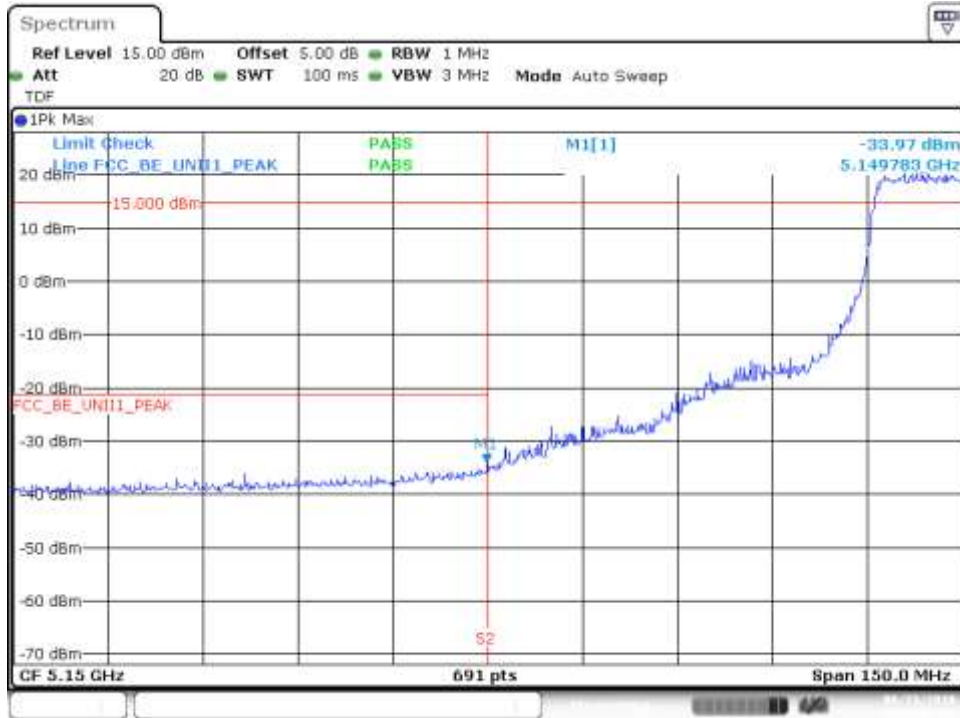
Date: 23.AUG.2018 15:53:54

BE Low Freq Section, RMS – CH38F



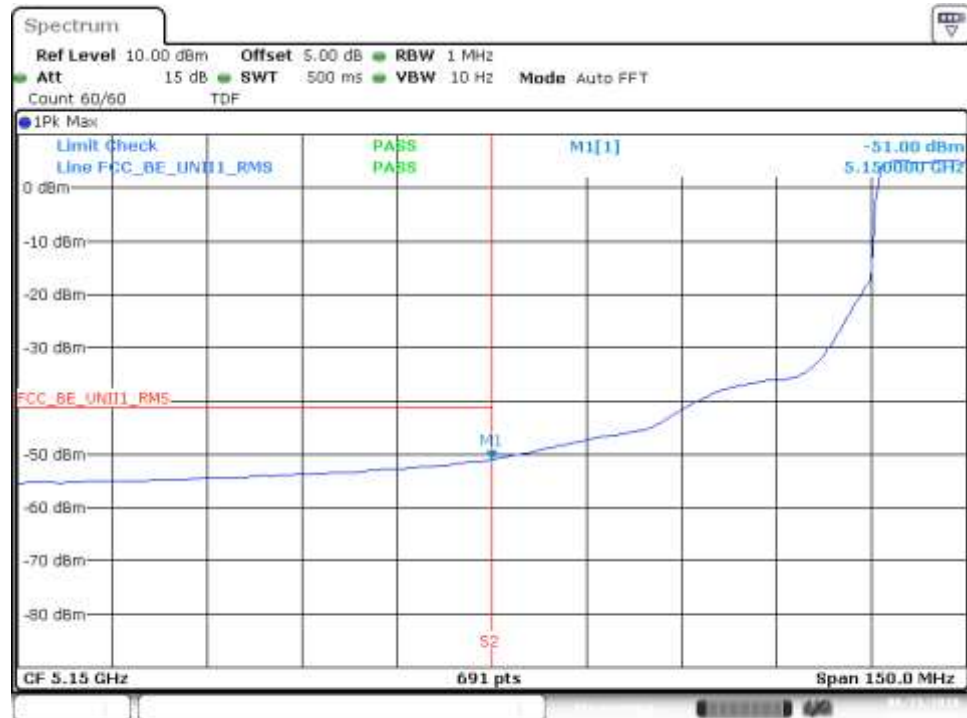
Date: 23.AUG.2018 15:48:22

BE Low Freq Section, Peak – CH46F

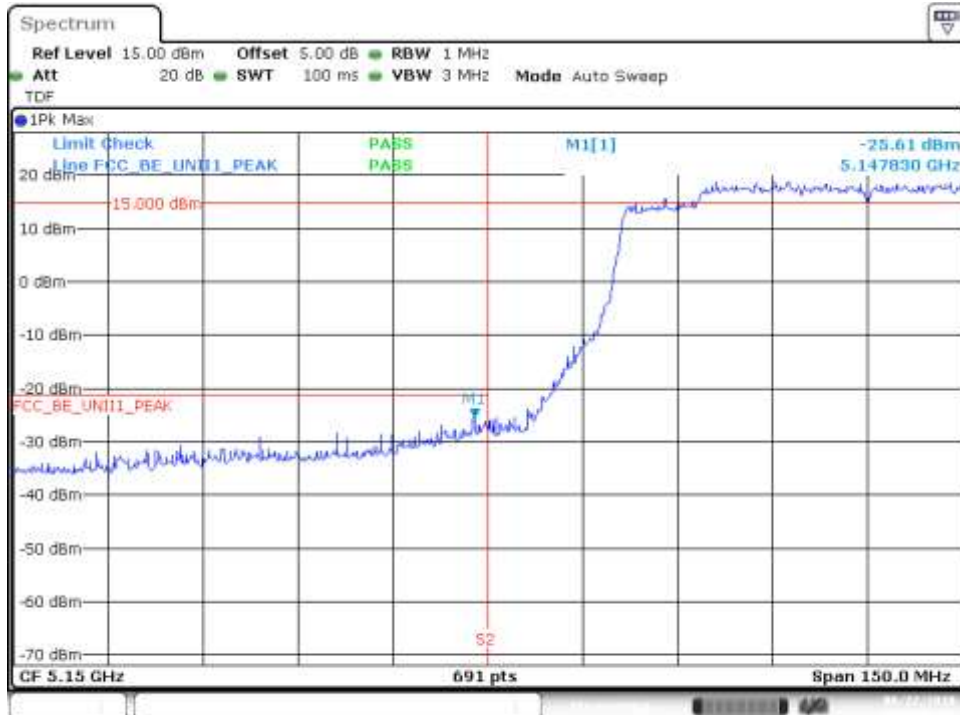


Date: 23.AUG.2018 15:59:09

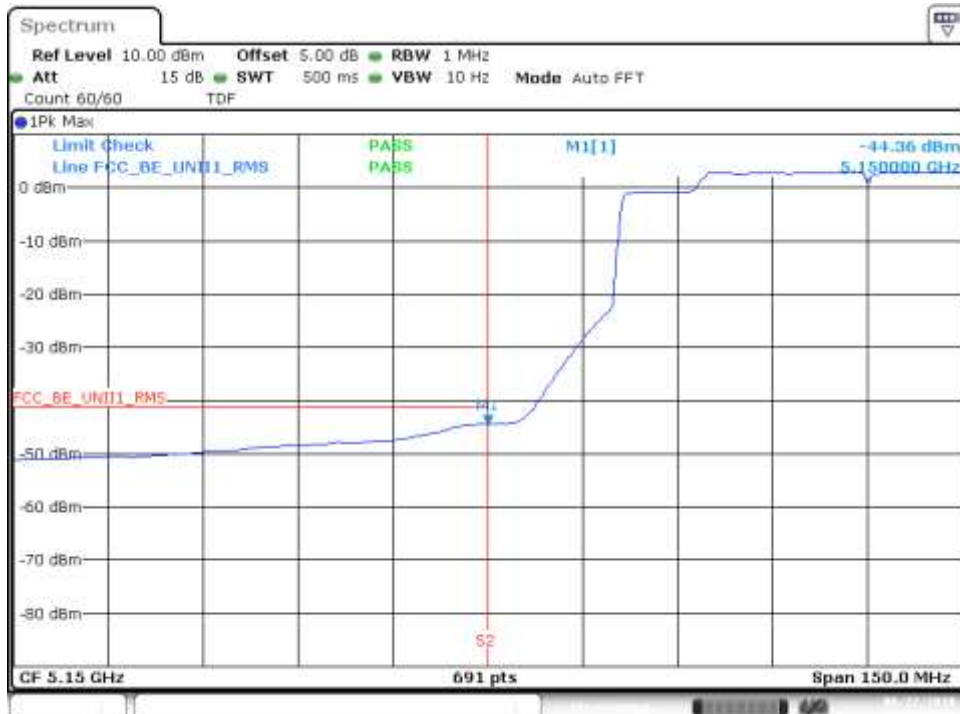
BE Low Freq Section, RMS – CH46F



Date: 23.AUG.2018 15:58:38

802.11ax80, HE0 (SISO) – Chain A**BE Low Freq Section, Peak – CH42ax80**

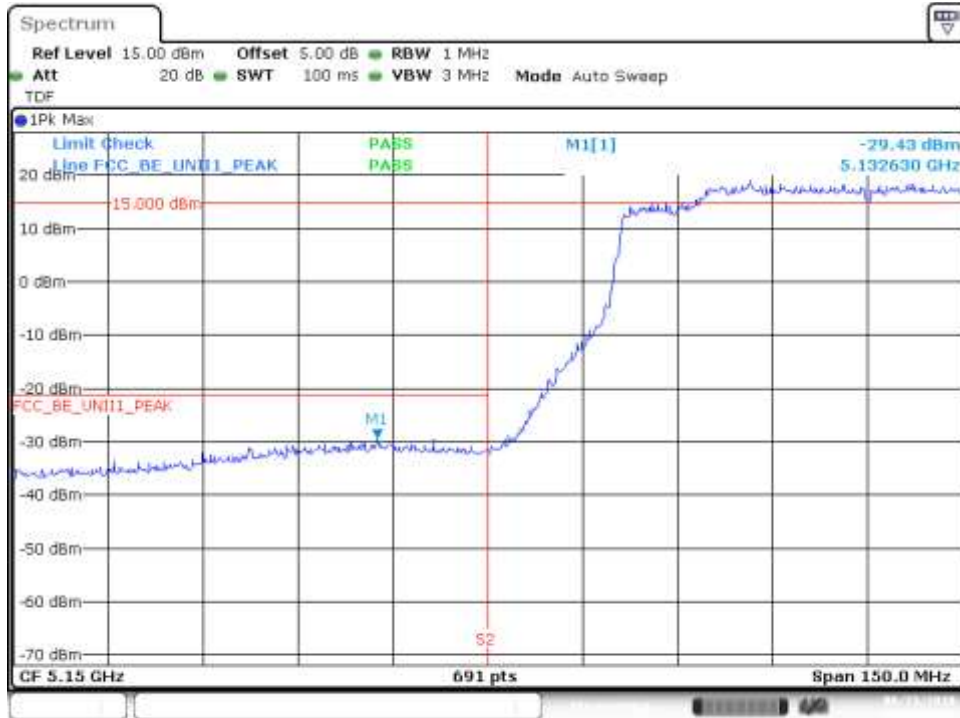
Date: 22.AUG.2018 17:33:43

BE Low Freq Section, RMS – CH42ax80

Date: 22.AUG.2018 17:35:37

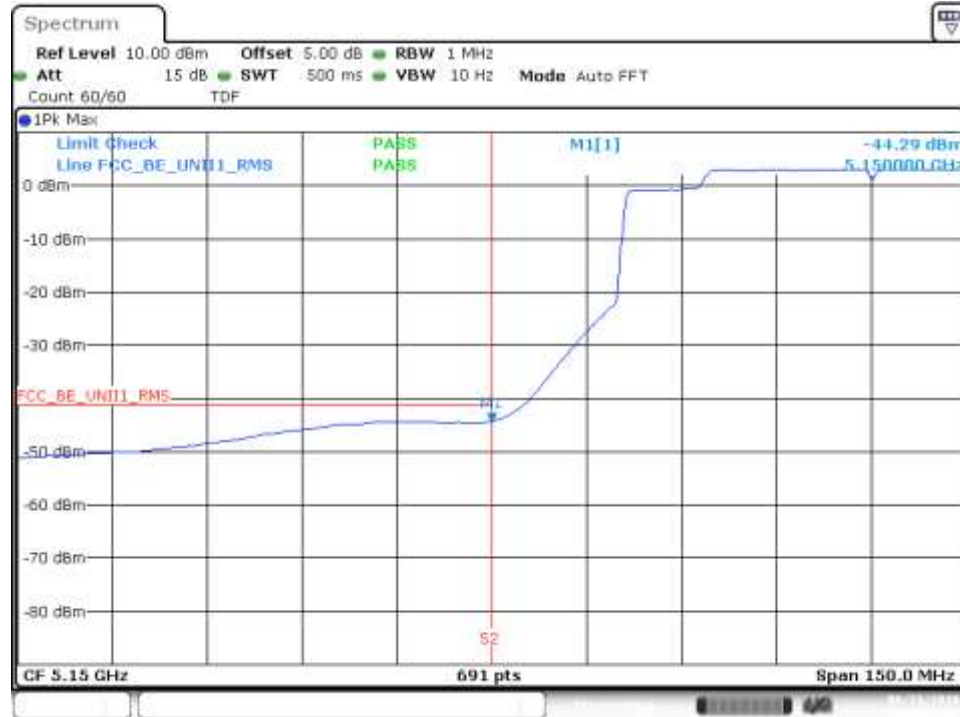
802.11ax80, HE0 (SISO) – Chain B

BE Low Freq Section, Peak – CH42ax80



Date: 23.AUG.2018 16:36:30

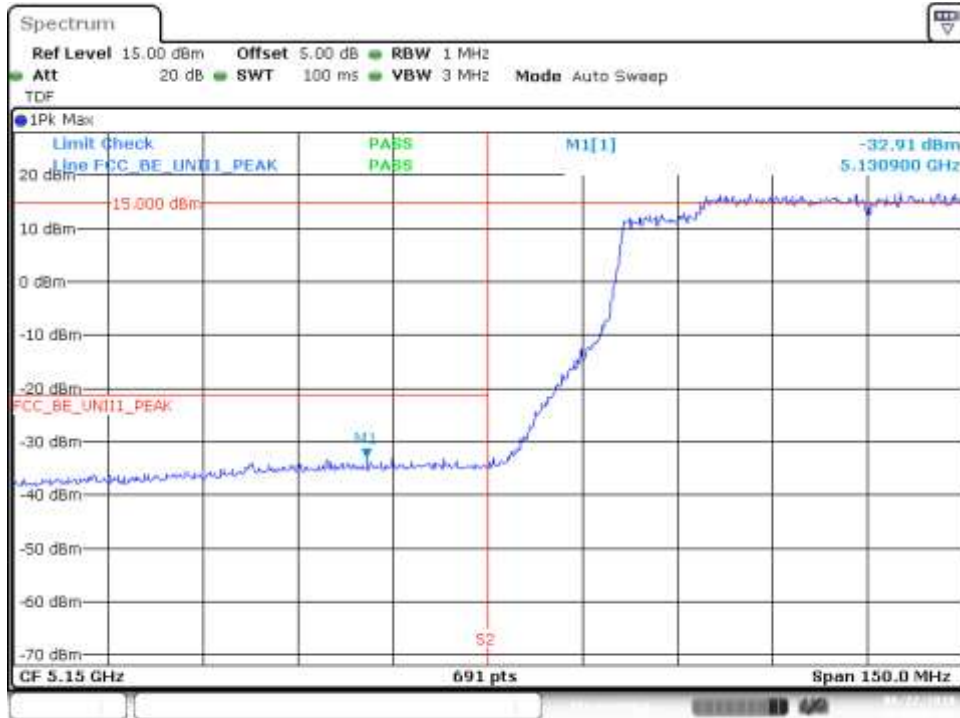
BE Low Freq Section, RMS – CH42ax80



Date: 23.AUG.2018 16:29:46

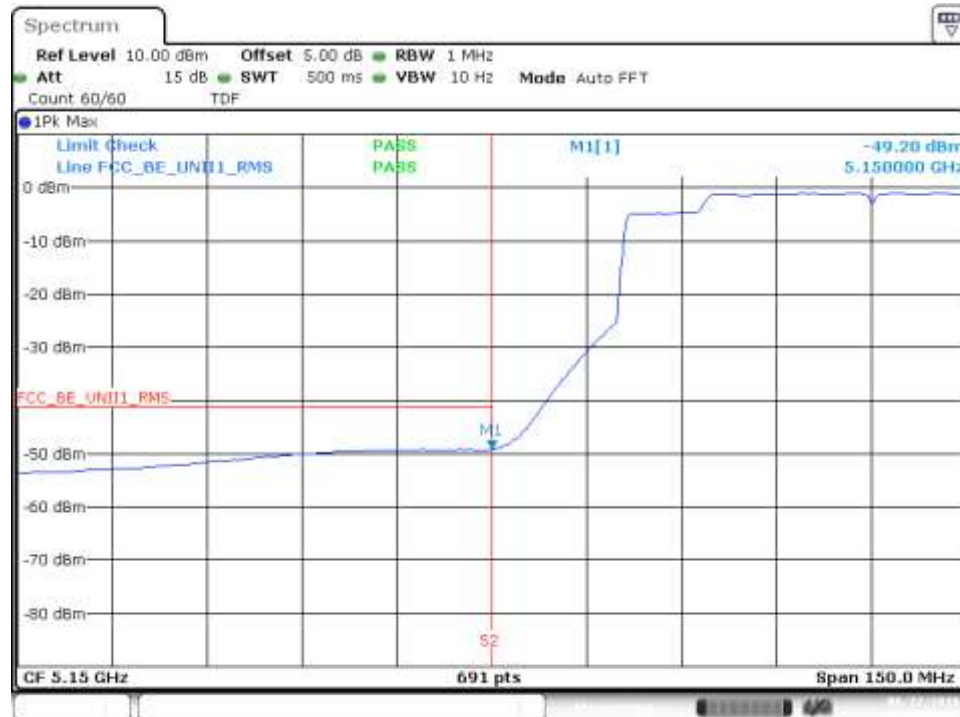
802.11ax80, HE0 (MIMO) – Chain A

BE Low Freq Section, Peak – CH42ax80

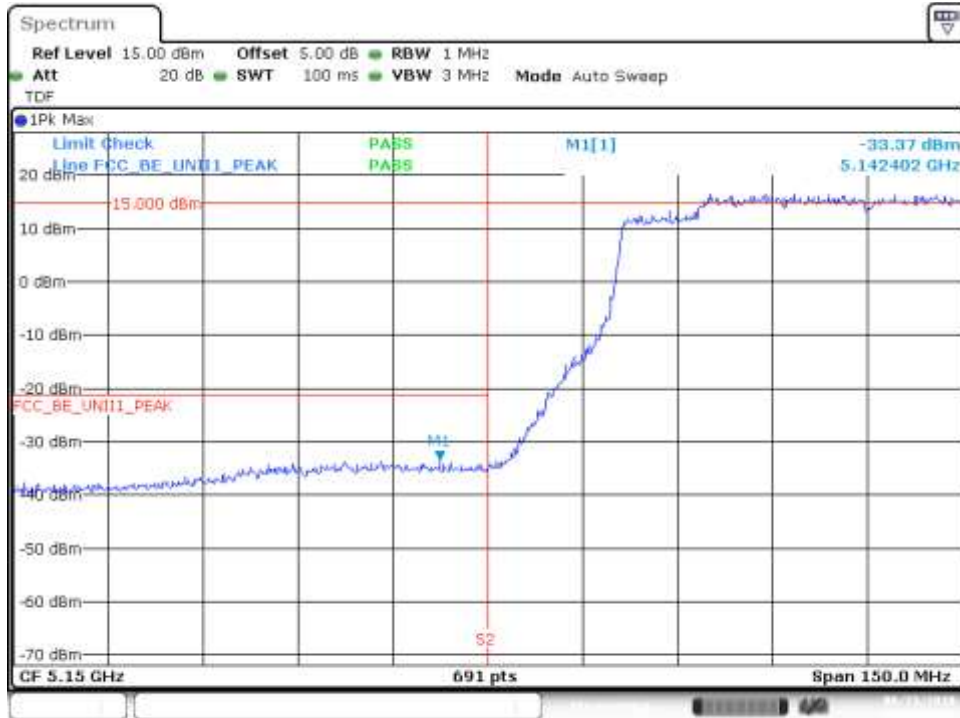


Date: 22.AUG.2018 18:10:47

BE Low Freq Section, RMS – CH42ax80



Date: 22.AUG.2018 18:09:52

802.11ax80, HE0 (MIMO) – Chain B**BE Low Freq Section, Peak – CH42ax80**

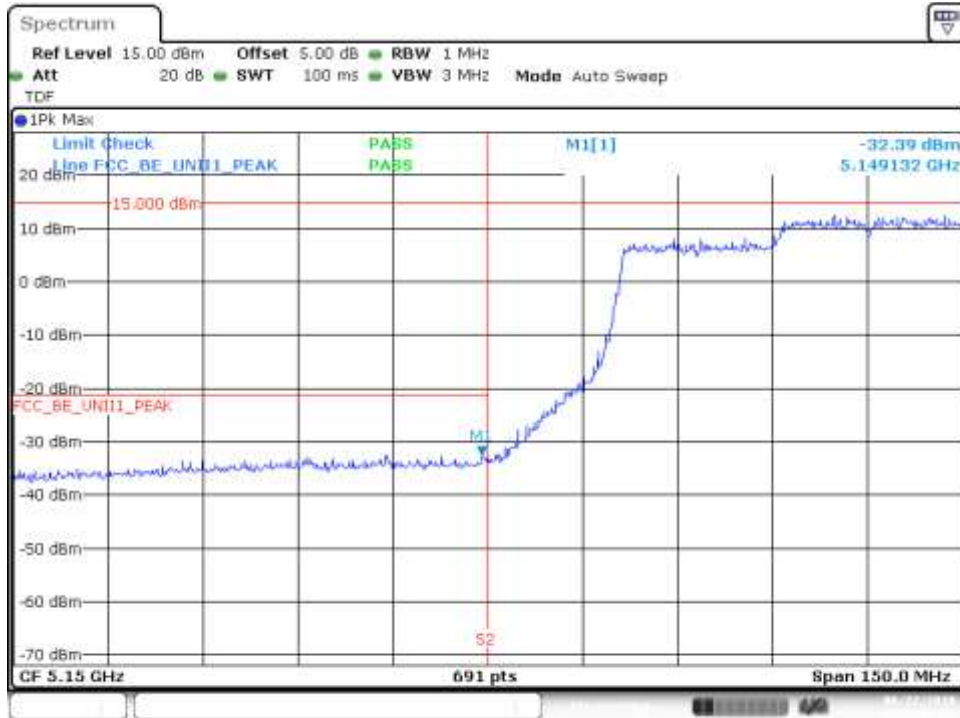
Date: 23.AUG.2018 16:46:26

BE Low Freq Section, RMS – CH42ax80

Date: 23.AUG.2018 16:46:56

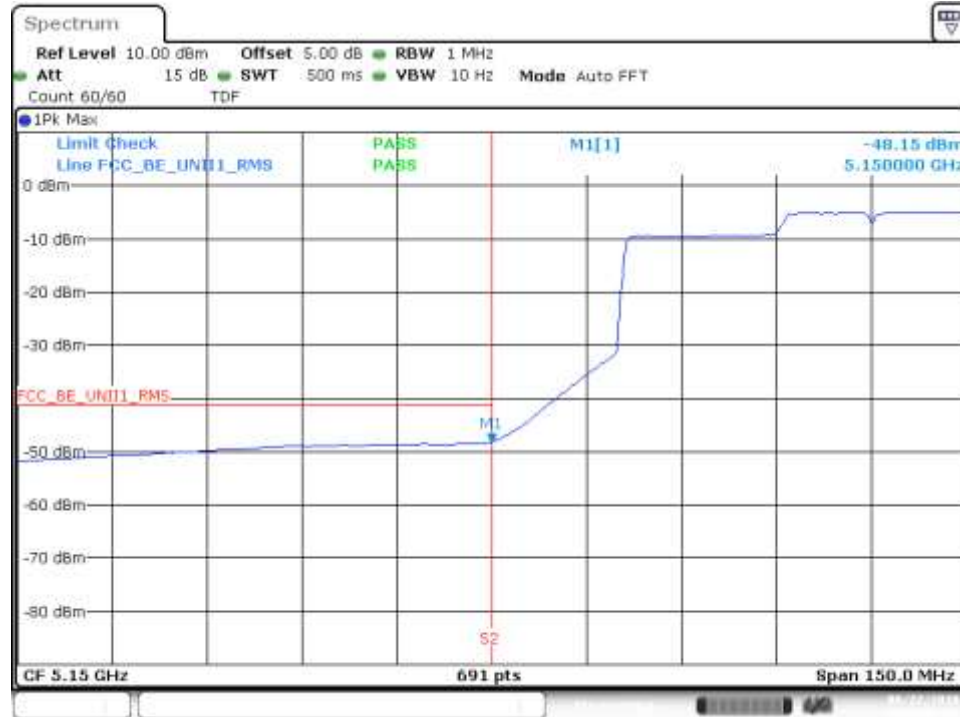
802.11ax160, HE0 (SISO) – Chain A

BE Low Freq Section, Peak – CH50ax160



Date: 22.AUG.2018 18:59:44

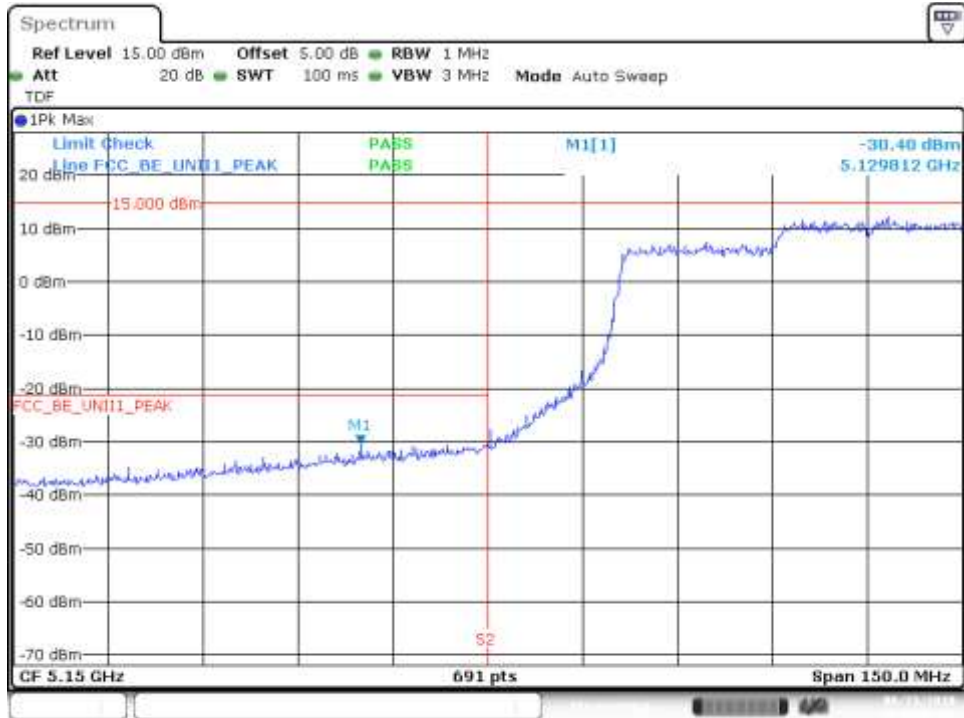
BE Low Freq Section, RMS – CH50ac160



Date: 22.AUG.2018 18:59:16

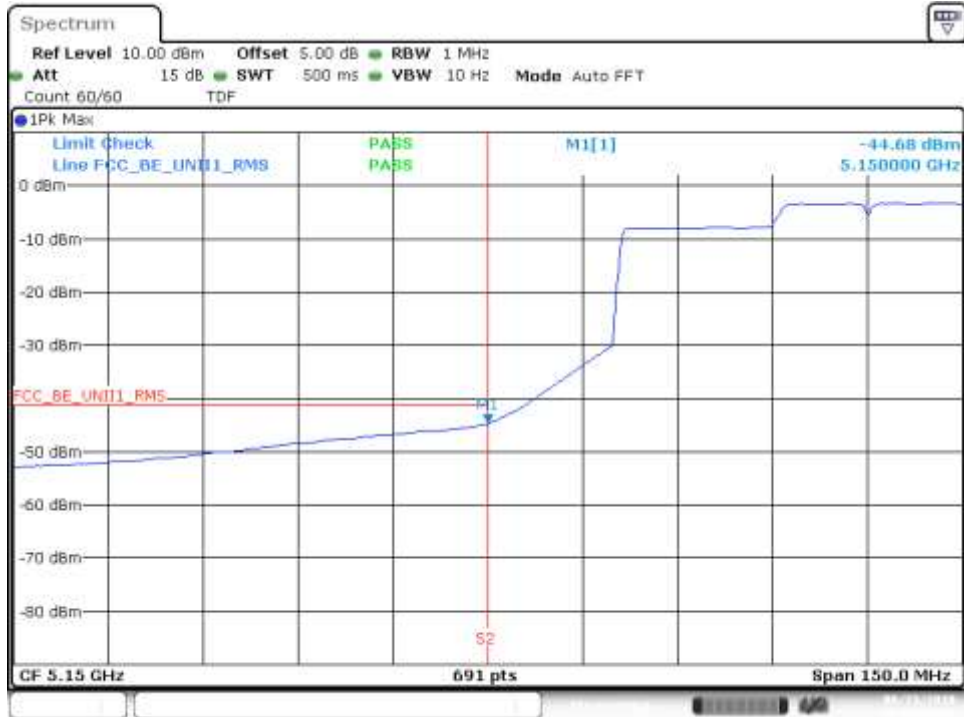
802.11ax160, HE0 (SISO) – Chain B

BE Low Freq Section, Peak – CH50ax160



Date: 23.AUG.2018 18:03:19

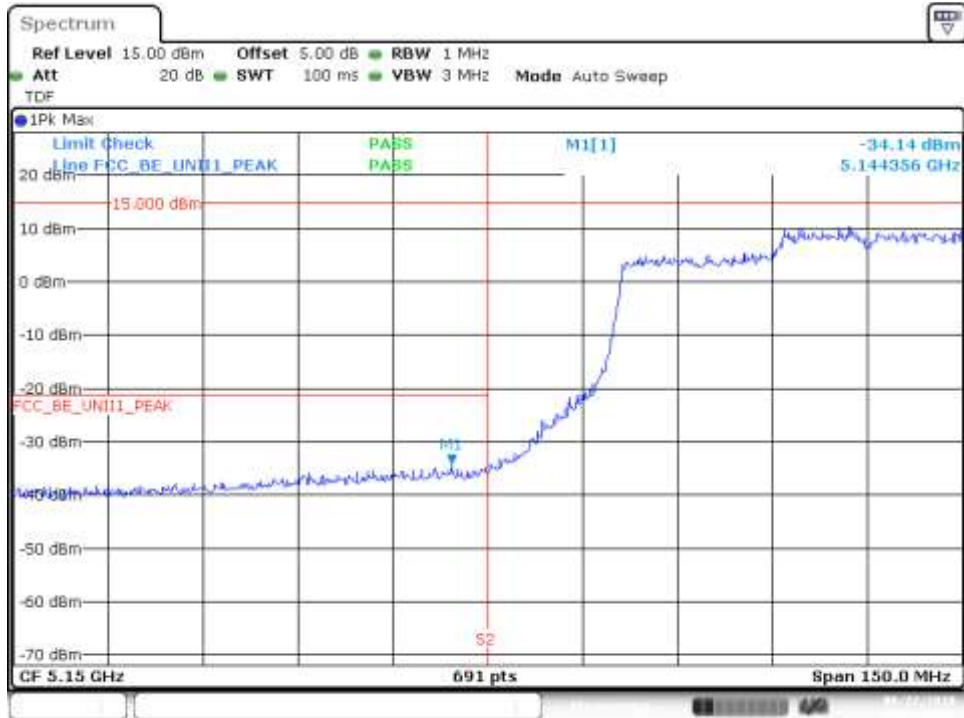
BE Low Freq Section, RMS – CH50ax160



Date: 23.AUG.2018 18:02:57

802.11ax160, HE0 (MIMO) – Chain A

BE Low Freq Section, Peak – CH50ax160



Date: 22.AUG.2018 19:07:13

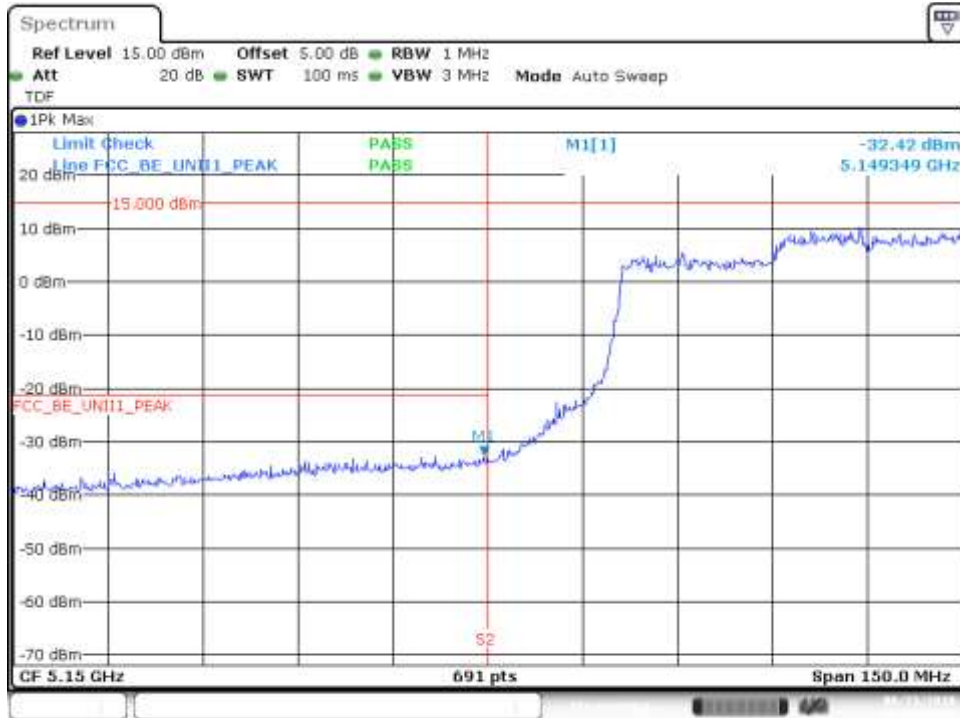
BE Low Freq Section, RMS – CH50ax160



Date: 22.AUG.2018 19:08:48

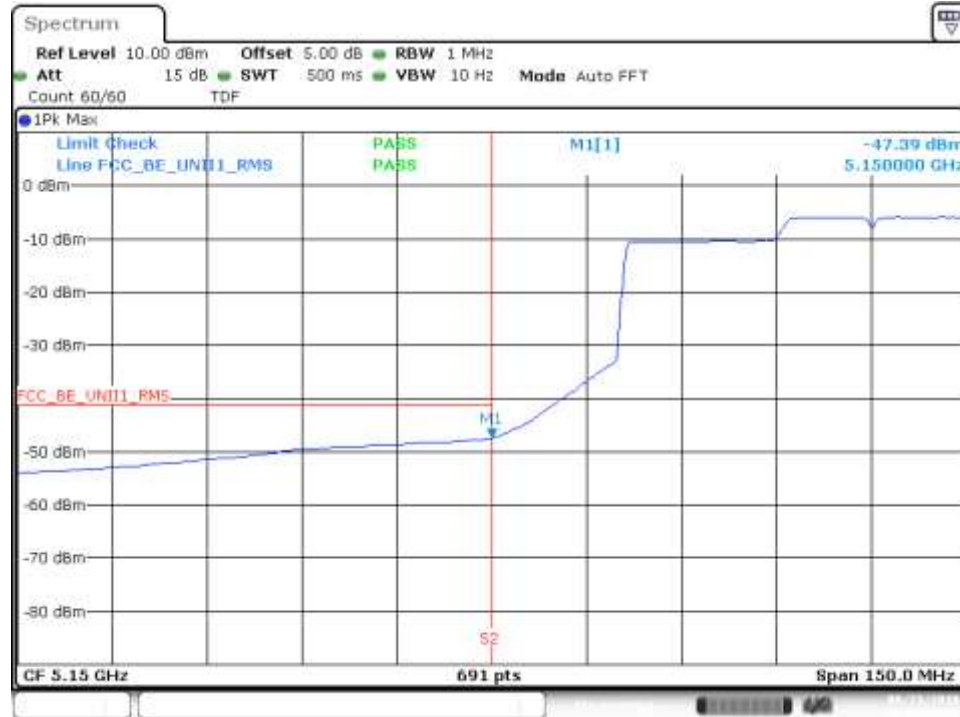
802.11ax160, HE0 (MIMO) – Chain B

BE Low Freq Section, Peak – CH50ax160



Date: 23.AUG.2018 18:12:39

BE Low Freq Section, RMS – CH50ax160



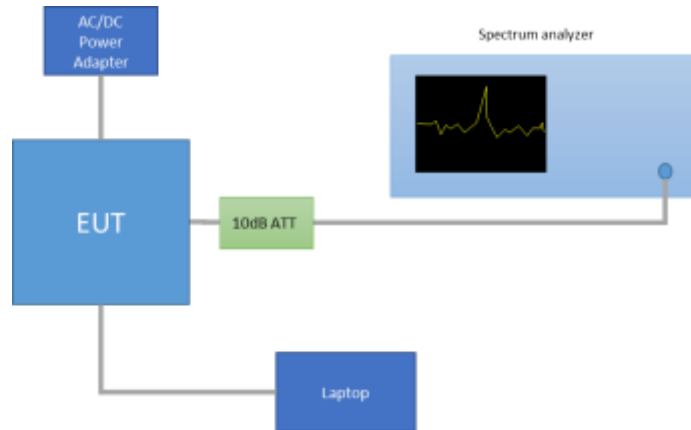
Date: 23.AUG.2018 18:12:26

B.4 Test Results Tables U-NII-2A

B.4.1 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 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	52	5260	26.98	17.28
			56	5280	27.38	17.28
			64	5320	24.57	16.92
		SISO-B	52	5260	29.93	17.60
			56	5280	31.28	17.76
			64	5320	24.77	16.88
802.11n20	HT0	SISO-A	52	5260	26.68	18.16
			56	5280	28.03	18.12
			64	5320	24.87	17.96
		SISO-B	52	5260	33.58	18.48
			56	5280	29.88	18.48
			64	5320	25.07	17.96
	HT8	MIMO-A	52	5260	25.63	18.00
			56	5280	25.38	18.00
			64	5320	24.87	17.96
		MIMO-B	52	5260	25.23	17.96
			56	5280	24.98	17.96
			64	5320	24.72	17.96
802.11n40	HT0	SISO-A	54F	5270	45.95	36.72
			62F	5310	45.22	36.64
		SISO-B	54F	5270	46.04	36.72
			62F	5310	44.96	36.56
	HT8	MIMO-A	54F	5270	46.67	36.64
			62F	5310	44.96	36.56
		MIMO-B	54F	5270	44.41	36.40
			62F	5310	43.33	36.40
802.11ac80	VHT0	SISO-A	58ac80	5290	86.92	75.12
		SISO-B	58ac80	5290	84.35	75.24
		MIMO-A	58ac80	5290	88.06	75.24
		MIMO-B	58ac80	5290	85.97	75.00

Mode	Rate	Antenna	Channel	Frequency [MHz]	26dB BW [MHz]	99% BW [MHz]
802.11ax20	HE0	SISO-A	52	5260	26.38	19.16
			56	5280	24.98	19.16
			64	5320	23.97	19.08
		SISO-B	52	5260	29.58	19.32
			56	5280	29.03	19.28
			64	5320	24.37	19.08
		MIMO-A	52	5260	25.03	19.12
			56	5280	24.52	19.08
			64	5320	24.67	19.08
		MIMO-B	52	5260	24.82	19.12
			56	5280	24.47	19.08
			64	5320	23.97	19.08
802.11ax40	HE0	SISO-A	54F	5270	45.05	38.00
			62F	5310	43.96	37.92
		SISO-B	54F	5270	44.77	37.92
			62F	5310	44.05	37.92
		MIMO-A	54F	5270	44.41	37.84
			62F	5310	44.41	37.84
		MIMO-B	54F	5270	43.96	37.84
			62F	5310	43.15	37.84
802.11ax80	HE0	SISO-A	58ax80	5290	83.87	76.68
		SISO-B	58ax80	5290	83.68	76.80
		MIMO-A	58ax80	5290	83.68	76.92
		MIMO-B	58ax80	5290	85.39	76.80

Mode	Rate	Antenna	Channel	Frequency [MHz]	RU Configuration	6dB BW [MHz]	99% BW [MHz]
802.11ax20	HE0	SISO-A	64	5320	26/8	20.42	18.60
					52/40	22.02	18.44
					106/54	23.12	18.32
		SISO-B			26/8	20.62	18.64
					52/40	22.57	18.44
					106/54	23.32	18.36
		MIMO-A			26/8	20.67	18.64
					52/40	21.12	18.44
					106/54	25.43	18.44
		MIMO-B			26/8	20.47	18.52
					52/40	20.47	18.32
					106/54	23.57	18.12
802.11ax40	HE0	SISO-A	62F	5310	242/62	25.22	19.12
		SISO-B			242/62	24.68	19.12
		MIMO-B			242/62	25.32	19.12
		MIMO-A			242/62	25.23	19.12
802.11ax80	HE0	SISO-A	58ax80	5290	484/66	44.69	38.04
		SISO-B			484/66	44.31	37.92
		MIMO-B			484/66	44.89	37.92
		MIMO-A			484/66	44.51	37.80

Max Value

See Section B.5.1 and Section B.5.2 for the screenshot results.

B.4.2 Power Limits. Maximum Output power & Peak power spectral density

Test limits

FCC part	Limits
15.407 (a) (2)	For the 5.25–5.35 GHz and 5.47–5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz. In addition, the peak power spectral density shall not exceed 11 dBm in any 1 megahertz band.

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.

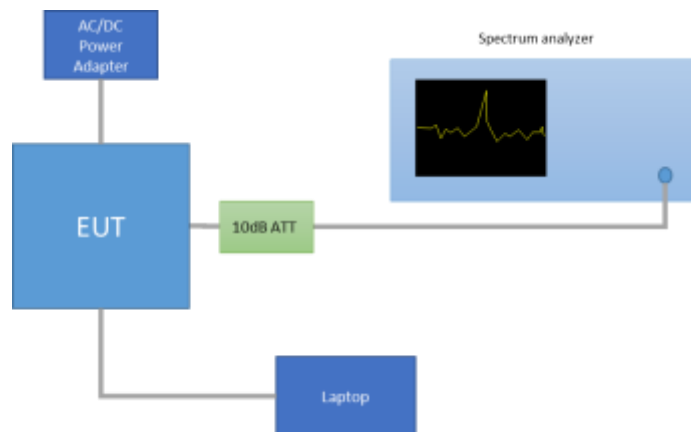
The maximum power spectral density (PSD) was measured using the method according to section F) (Method SA-2 Alternative) of KDB 789033 D02.

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 analyzer 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%

Maximum output power

Mode	Rate	Channel	Freq. [MHz]	Antenna	Average Conducted Output Power [dBm]	Maximum* Conducted Output Power [dBm]	Maximum* Conducted Output Power [mW]	Maximum* EIRP [dBm]	
802.11a	6Mbps	52	5260	SISO-A	21.32	21.44	139.16	26.44	
				SISO-B	21.28	21.40	137.89	26.40	
		56	5280	SISO-A	21.50	21.62	145.05	26.62	
				SISO-B	21.25	21.37	136.94	26.37	
		64	5320	SISO-A	18.58	18.70	74.05	23.70	
				SISO-B	18.49	18.61	72.53	23.61	
802.11n20	HT0	52	5260	SISO-A	21.31	21.31	135.21	26.31	
				SISO-B	21.21	21.21	132.13	26.21	
		56	5280	SISO-A	21.47	21.47	140.28	26.47	
				SISO-B	21.19	21.19	131.52	26.19	
		64	5320	SISO-A	18.30	18.30	67.61	23.30	
				SISO-B	18.40	18.40	69.18	23.40	
	HT8	52	5260	MIMO-A	17.83	17.83	60.67	22.83	
				MIMO-B	17.80	17.80	60.26	22.80	
				Combined A+B	20.83	20.83	120.93	25.83	
		56	5280	MIMO-A	17.96	17.96	62.52	22.96	
				MIMO-B	17.85	17.85	60.95	22.85	
				Combined A+B	20.92	20.92	123.47	25.92	
		64	5320	MIMO-A	15.57	15.57	36.06	20.57	
				MIMO-B	15.39	15.39	34.59	20.39	
				Combined A+B	18.49	18.49	70.65	23.49	
	802.11n40	HT0	54F	5270	SISO-A	20.66	20.66	116.41	25.66
					SISO-B	20.67	20.67	116.68	25.67
			62F	5310	SISO-A	17.54	17.54	56.75	22.54
SISO-B					17.56	17.56	57.02	22.56	
HT8		54F	5270	MIMO-A	17.91	17.91	61.80	22.91	
				MIMO-B	17.92	17.92	61.94	22.92	
				Combined A+B	20.93	20.93	123.75	25.93	
		62F	5310	MIMO-A	14.50	14.50	28.18	19.50	
				MIMO-B	14.35	14.35	27.23	19.35	
				Combined A+B	17.44	17.44	55.41	22.44	
802.11ac80		VHT0	58ac80	5290	SISO-A	17.88	17.88	61.38	22.88
					SISO-B	17.76	17.76	59.70	22.76
	MIMO-A				14.79	14.79	30.13	19.79	
	MIMO-B				14.75	14.75	29.85	19.75	
	Combined A+B				17.78	17.78	59.98	22.78	

Mode	Rate	Channel	Freq. [MHz]	Antenna	Average Conducted Output Power [dBm]	Maximum* Conducted Output Power [dBm]	Maximum* Conducted Output Power [mW]	Maximum* EIRP [dBm]		
802.11ax20	HE0	52	5260	SISO-A	21.33	21.33	135.83	26.33		
				SISO-B	21.37	21.37	137.09	26.37		
		56	5280	SISO-A	21.45	21.45	139.64	26.45		
				SISO-B	21.33	21.33	135.83	26.33		
		64	5320	SISO-A	18.06	18.06	63.97	23.06		
				SISO-B	18.56	18.56	71.78	23.56		
		52	5260	MIMO-A	17.98	17.98	62.81	22.98		
				MIMO-B	17.82	17.82	60.53	22.82		
				Combined A+B	20.91	20.91	123.34	25.91		
		56	5280	MIMO-A	18.07	18.07	64.12	23.07		
				MIMO-B	17.83	17.83	60.67	22.83		
				Combined A+B	20.96	20.96	124.79	25.96		
		64	5320	MIMO-A	15.71	15.71	37.24	20.71		
				MIMO-B	15.45	15.45	35.08	20.45		
				Combined A+B	18.59	18.59	72.31	23.59		
		802.11ax40	HE0	54F	5270	SISO-A	20.33	20.33	107.89	25.33
						SISO-B	20.46	20.46	111.17	25.46
				62F	5310	SISO-A	17.43	17.43	55.34	22.43
SISO-B	17.42					17.42	55.21	22.42		
54F	5270			MIMO-A	17.79	17.79	60.12	22.79		
				MIMO-B	17.82	17.82	60.53	22.82		
				Combined A+B	20.82	20.82	120.65	25.82		
62F	5310			MIMO-A	14.41	14.41	27.61	19.41		
				MIMO-B	14.36	14.36	27.29	19.36		
				Combined A+B	17.40	17.40	54.90	22.40		
802.11ax80	HE0			58ax80	5290	SISO-A	17.90	17.90	61.66	22.90
						SISO-B	17.87	17.87	61.24	22.87
		MIMO-A	14.65			14.65	29.17	19.65		
		MIMO-B	14.75			14.75	29.85	19.75		
		Combined A+B	17.71			17.71	59.03	22.71		

Mode	Rate	Antenna	Channel	Frequency [MHz]	RU Config.	Average Conducted Output Power [dBm]	Maximum* Conducted Output Power [dBm]	Maximum* Conducted Output Power [mW]	Max of EIRP [dBm]
802.11ax20	HEO	SISO-A	64	5320	26/8	13.56	13.56	22.70	18.56
		SISO-A			52/40	15.11	15.11	32.43	20.11
		SISO-A			106/54	19.72	19.72	93.76	24.72
		SISO-B			26/8	13.48	13.48	22.28	18.48
		SISO-B			52/40	15.21	15.21	33.19	20.21
		SISO-B			106/54	19.62	19.62	91.62	24.62
		MIMO-A			26/8	10.52	10.52	11.27	15.52
		MIMO-B				10.78	10.78	11.97	15.78
		Combined A+B				13.66	13.66	23.24	18.66
		MIMO-A			52/40	12.75	12.75	18.84	17.75
		MIMO-B				12.92	12.92	19.59	17.92
		Combined A+B				15.85	15.85	38.42	20.85
		MIMO-A			106/54	16.83	16.83	48.19	21.83
		MIMO-B				16.69	16.69	46.67	21.69
		Combined A+B				19.77	19.77	94.86	24.77
		802.11ax40			HEO	SISO-A	62F	5310	242/62
SISO-B	18.92		18.92	77.98		23.92			
MIMO-A	16.50		16.50	44.67		21.50			
MIMO-B	16.63		16.63	46.03		21.63			
Combined A+B	19.58		19.58	90.69		24.58			
802.11ax80	HEO	SISO-A	58ax80	5290	484/66	18.44	18.44	69.82	23.44
		SISO-B				18.34	18.34	68.23	23.34
		MIMO-A				16.19	16.19	41.59	21.19
		MIMO-B				16.48	16.48	44.46	21.48
		Combined A+B				19.35	19.35	86.05	24.35

* 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	52	5260	SISO-A	9.61	9.73
				SISO-B	9.56	9.68
		56	5280	SISO-A	9.78	9.90
				SISO-B	9.51	9.63
		64	5320	SISO-A	6.91	7.03
				SISO-B	6.81	6.93
802.11n20	HT0	52	5260	SISO-A	9.29	9.29
				SISO-B	9.19	9.19
		56	5280	SISO-A	9.46	9.46
				SISO-B	9.16	9.16
		64	5320	SISO-A	6.32	6.32
				SISO-B	6.42	6.42
	HT8	52	5260	MIMO-A	5.87	5.87
				MIMO-B	5.82	5.82
				Combined A+B	8.86	8.86
		56	5280	MIMO-A	5.98	5.98
				MIMO-B	5.87	5.87
				Combined A+B	8.94	8.94
		64	5320	MIMO-A	3.59	3.59
				MIMO-B	3.42	3.42
				Combined A+B	6.52	6.52
802.11n40	HT0	54F	5270	SISO-A	5.54	5.54
				SISO-B	5.55	5.55
		62F	5310	SISO-A	2.41	2.41
				SISO-B	2.46	2.46
	HT8	54F	5270	MIMO-A	2.80	2.80
				MIMO-B	2.83	2.83
				Combined A+B	5.83	5.83
		62F	5310	MIMO-A	-0.55	-0.55
				MIMO-B	-0.75	-0.75
Combined A+B	2.36	2.36				
802.11ac80	VHT0	58ac80	5290	SISO-A	0.33	0.33
				SISO-B	0.21	0.21
				MIMO-A	-2.76	-2.76
				MIMO-B	-2.79	-2.79
				Combined A+B	0.24	0.24

Mode	Rate	Channel	Freq. [MHz]	Antenna	Average conducted PSD [dBm/MHz]	Maximum* conducted PSD [dBm/MHz]		
802.11ax20	HE0	52	5260	SISO-A	9.03	9.03		
				SISO-B	9.06	9.06		
		56	5280	SISO-A	9.15	9.15		
				SISO-B	9.02	9.02		
		64	5320	SISO-A	5.77	5.77		
				SISO-B	6.30	6.30		
		52	5260	MIMO-A	5.68	5.68		
				MIMO-B	5.53	5.53		
				Combined A+B	8.62	8.62		
		56	5280	MIMO-A	5.78	5.78		
				MIMO-B	5.53	5.53		
				Combined A+B	8.67	8.67		
		64	5320	MIMO-A	3.42	3.42		
				MIMO-B	3.19	3.19		
				Combined A+B	6.32	6.32		
802.11ax40	HE0	54F	5270	SISO-A	4.98	4.98		
				SISO-B	5.12	5.12		
		62F	5310	SISO-A	2.09	2.09		
				SISO-B	2.08	2.08		
		54F	5270	MIMO-A	2.46	2.46		
				MIMO-B	2.48	2.48		
				Combined A+B	5.48	5.48		
		62F	5310	MIMO-A	-0.86	-0.86		
				MIMO-B	-0.97	-0.97		
				Combined A+B	2.10	2.10		
		802.11ax80	HE0	58ax80	5290	SISO-A	0.25	0.25
						SISO-B	0.23	0.23
MIMO-A	-2.93					-2.93		
MIMO-B	-2.82					-2.82		
Combined A+B	0.14					0.14		

Mode	Rate	Antenna	Channel	Frequency [MHz]	RU Configuration	Average conducted PSD [dBm/MHz]	Maximum* conducted PSD [dBm/MHz]	Maximum* EIRP PSD [dBm/MHz]	
802.11ax20	HE0	SISO-A	64	5320	26/8	10.74	10.74	15.74	
					52/40	9.34	9.34	14.34	
					106/54	10.86	10.86	15.86	
		SISO-B			26/8	10.61	10.61	15.61	
					52/40	9.47	9.47	14.47	
					106/54	10.82	10.82	15.82	
		MIMO-A			26/8	7.75	7.75	12.75	
						MIMO-B	7.98	7.98	12.98
							Combined A+B	10.88	10.88
		MIMO-A			54/40		7.05	7.05	12.05
						MIMO-B	7.20	7.20	12.20
							Combined A+B	10.14	10.14
		MIMO-A			106/54		8.00	8.00	13.00
						MIMO-B	7.87	7.87	12.87
							Combined A+B	10.95	10.95
802.11ax40	HE0	SISO-A	62F	5310	242/62		6.39	6.39	11.39
		SISO-B				6.54	6.54	11.54	
		MIMO-A				4.13	4.13	9.13	
		MIMO-B				4.25	4.25	9.25	
		Combined A+B				7.20	7.20	12.20	
802.11ax80	HE0	SISO-A	58ax80	5290	484/66	3.14	3.14	8.14	
		SISO-B				3.03	3.03	8.03	
		MIMO-A				0.89	0.89	5.89	
		MIMO-B				1.16	1.16	6.16	
		Combined A+B				4.04	4.04	9.04	

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

See Section B.5.3 for the screenshot results.

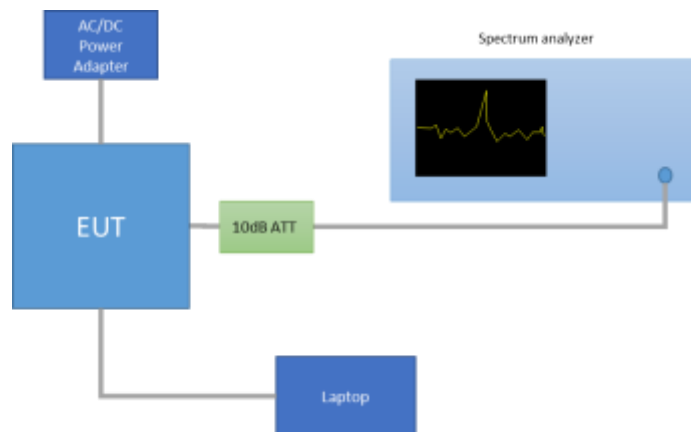
B.4.3 Undesirable emissions limits : Band Edge (Conducted)

Test limits

FCC part	Limits																				
15.407 (b) (2)	For transmitters operating in the 5.25–5.35 GHz band: all emissions outside of the 5.15–5.35 GHz band shall not exceed an EIRP of –27 dBm/MHz.																				
15.209	Radiated emissions which fall in the restricted bands, as defined in §15.205(a), must also comply with the radiated emission limits specified in §15.209(a):																				
	<table border="1"> <thead> <tr> <th>Freq Range (MHz)</th> <th>Field Strength (μV/m)</th> <th>Field Strength (dBμV/m)</th> <th>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>	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																		
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.																					

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.

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)
960-25000	3	500	53.98	-41.2

See Section 0 for the screenshot results.

B.4.4 Radiated spurious emission

Standard references

FCC part	Limits																				
15.407 (a) (2)	For the 5.25–5.35 GHz and 5.47–5.725 GHz bands, the maximum conducted output power over the frequency bands of operation shall not exceed the lesser of 250 mW or 11 dBm + 10 log B, where B is the 26 dB emission bandwidth in megahertz. In addition, the peak power spectral density shall not exceed 11 dBm in any 1 megahertz band.																				
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="541 629 1331 840"> <thead> <tr> <th data-bbox="547 638 738 698">Freq Range (MHz)</th> <th data-bbox="738 638 930 698">Field Strength (µV/m)</th> <th data-bbox="930 638 1121 698">Field Strength (dBµV/m)</th> <th data-bbox="1121 638 1324 698">Meas. Distance (m)</th> </tr> </thead> <tbody> <tr> <td data-bbox="547 698 738 730">30-88</td> <td data-bbox="738 698 930 730">100</td> <td data-bbox="930 698 1121 730">40</td> <td data-bbox="1121 698 1324 730">3</td> </tr> <tr> <td data-bbox="547 730 738 761">88-216</td> <td data-bbox="738 730 930 761">150</td> <td data-bbox="930 730 1121 761">43.5</td> <td data-bbox="1121 730 1324 761">3</td> </tr> <tr> <td data-bbox="547 761 738 792">216-960</td> <td data-bbox="738 761 930 792">200</td> <td data-bbox="930 761 1121 792">46</td> <td data-bbox="1121 761 1324 792">3</td> </tr> <tr> <td data-bbox="547 792 738 840">Above 960</td> <td data-bbox="738 792 930 840">500</td> <td data-bbox="930 792 1121 840">54</td> <td data-bbox="1121 792 1324 840">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.</p> <p>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 below setups were used to measure the radiated spurious emissions.

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

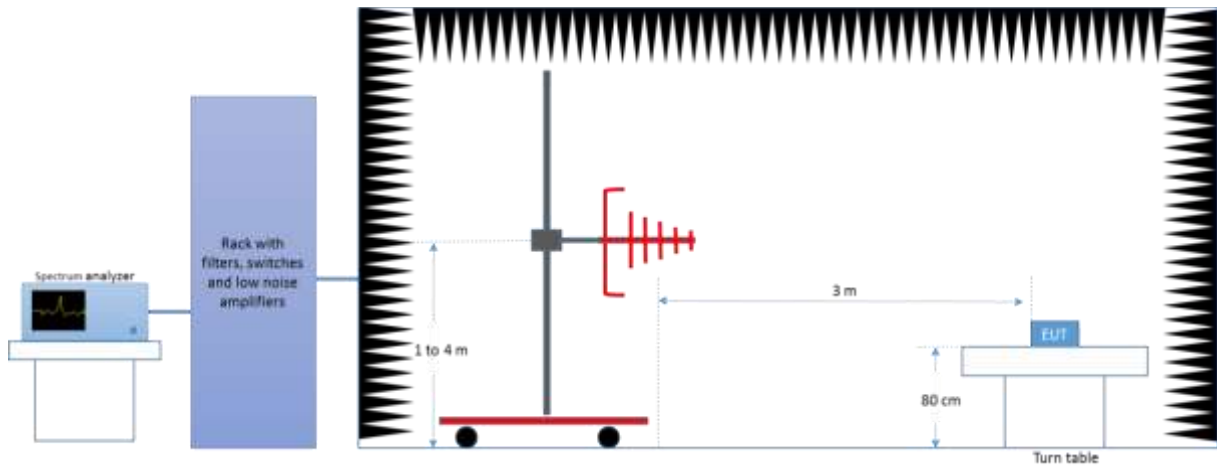
The final measurement is done by varying the antenna height, the EUT azimuth over 360° and for both Vertical and Horizontal polarizations.

The radiated spurious emissions were measured on the worst case configuration selected from the chapter B.4.2 and using the lowest, middle and highest channels.

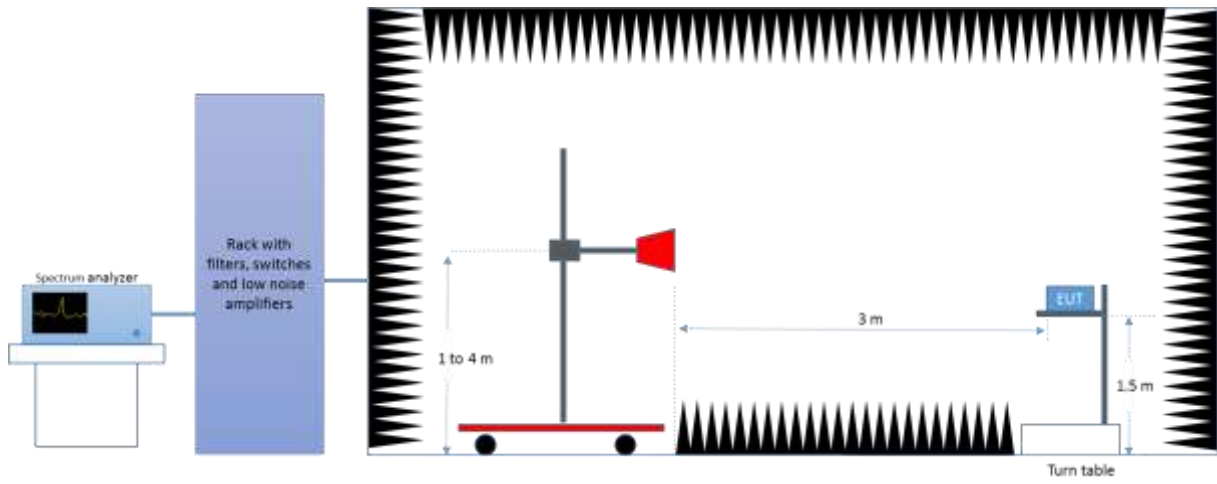
For technologies 802.11ax20, 802.11ax40, 802.11ax80 and 802.11ax160, the worst case spurious emission result among the low, mid and high channels tested separately on Chain A and B is used to perform the test on MIMO mode (Chain A+B).

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).

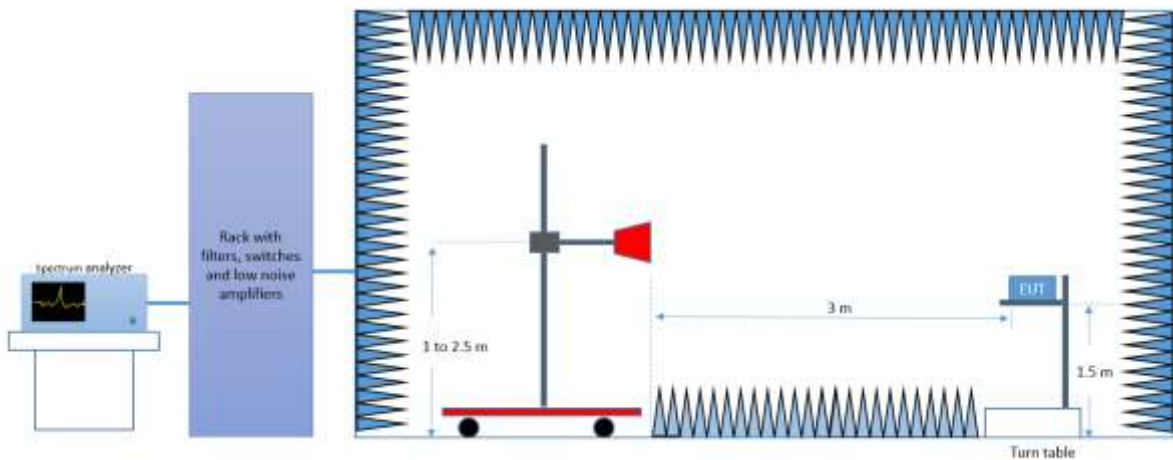
Radiated Setup 30 MHz- 1GHz

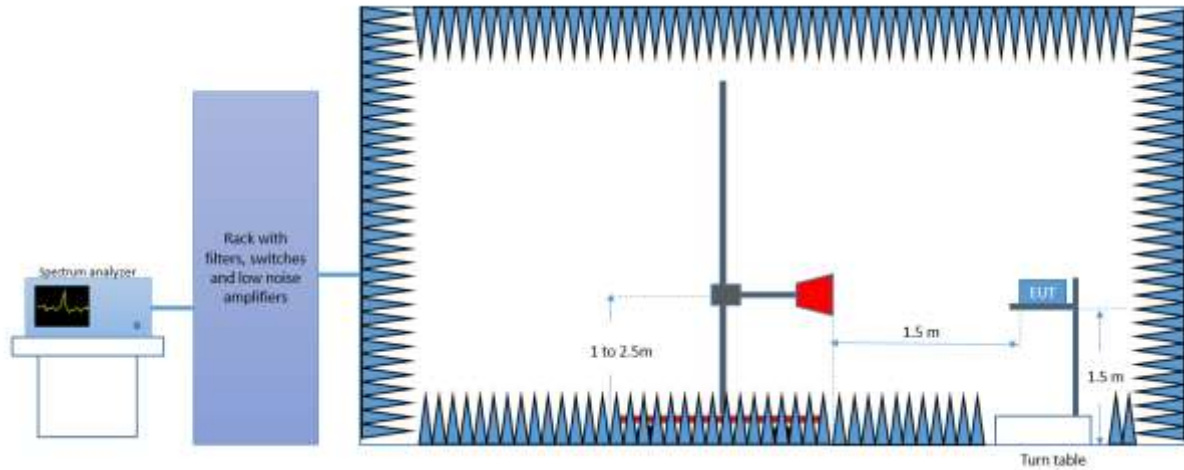


Radiated Setup 1 GHz – 6.4 GHz



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 dBµV/m

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

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

G is the gain of the test antenna, in dBi

NOTE – The measured power *P* includes all applicable instrument correction factors up to the connection to the test Antenna e.g. cable losses, amplifier gains.

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

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

where

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

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

D_{Meas} is the measurement distance, in m

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

Test Results

30 MHz – 40 GHz, 802.11a, 6Mbps, Chain A
Radiated Spurious – CH52

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dB μ V/m	dB μ V/m	dB μ V/m	dB
174.7	35.3	---	43.6	8.3
1245.5	---	30.8	54.0	23.2
1246.0	49.6	---	74.0	24.4
6306.5	56.7	---	74.0	17.3
6316.0	---	43.3	54.0	10.7
6575.0	---	39.8	54.0	14.2
6575.5	48.4	---	74.0	25.6
10518.0	51.8	---	74.0	22.2
10519.5	---	40.9	54.0	13.1
21036.6	52.4	---	74.0	21.6
21039.8	---	45.8	54.0	8.2

Radiated Spurious – CH56

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dB μ V/m	dB μ V/m	dB μ V/m	dB
178.9	28.2	---	43.6	15.4
1074.0	---	33.1	54.0	20.9
1075.0	44.9	---	74.0	29.1
1241.5	46.8	---	74.0	27.2
1242.5	---	30.2	54.0	23.8
6309.5	56.2	---	74.0	17.8
6315.0	---	43.0	54.0	11.0
6319.0	---	43.5	54.0	10.5
6342.0	55.8	---	74.0	18.2
6599.6	---	39.3	54.0	14.7
10560.5	53.6	---	74.0	20.5
10561.0	---	44.2	54.0	9.8
21120.0	---	46.5	54.0	7.5
21120.3	53.6	---	74.0	20.4

Radiated Spurious – CH64

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBµV/m	dBµV/m	dBµV/m	dB
174.7	30.4	---	43.6	13.2
1112.5	---	32.7	54.0	21.3
1116.0	44.8	---	74.0	29.3
1244.5	---	30.7	54.0	23.3
1246.0	49.5	---	74.0	24.5
6206.0	52.7	---	74.0	21.3
6264.0	---	42.4	54.0	11.6
10639.8	---	44.7	54.0	9.3
10644.2	54.0	---	74.0	20.0
16747.7	---	40.7	54.0	13.3
16757.8	53.0	---	74.0	21.0
21279.7	54.0	---	74.0	20.0
21279.9	---	46.7	54.0	7.3

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

Radiated Spurious – CH52

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBµV/m	dBµV/m	dBµV/m	dB
174.7	30.2	---	43.6	13.3
1052.0	---	31.6	54.0	22.4
1053.0	43.6	---	74.0	30.4
1243.0	48.9	---	74.0	25.1
1245.0	---	31.0	54.0	23.0
6314.5	55.9	---	74.0	18.1
6323.0	---	43.3	54.0	10.7
10519.5	---	47.1	54.0	6.9
10520.4	57.8	---	74.0	16.2
21039.8	53.7	---	74.0	20.3
21039.8	---	43.9	54.0	10.1

Radiated Spurious – CH56

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBµV/m	dBµV/m	dBµV/m	dB
726.7	36.0	---	46.0	10.0
1074.5	---	31.4	54.0	22.6
1079.5	42.3	---	74.0	31.8
1238.5	---	30.2	54.0	23.8
1243.0	49.4	---	74.0	24.7
6319.5	56.0	---	74.0	18.0
6320.0	---	43.3	54.0	10.7
10555.2	54.8	---	74.0	19.2
10560.5	---	45.4	54.0	8.6
21118.2	53.0	---	74.0	21.0
21120.0	---	43.7	54.0	10.3

Radiated Spurious – CH64

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBµV/m	dBµV/m	dBµV/m	dB
174.7	30.8	---	43.6	12.8
1109.5	41.8	---	74.0	32.2
1117.5	---	31.2	54.0	22.8
1231.0	---	30.2	54.0	23.8
1241.0	48.8	---	74.0	25.2
6241.5	---	41.6	54.0	12.4
6289.0	55.4	---	74.0	18.6
10636.9	54.8	---	74.0	19.2
10641.3	---	43.9	54.0	10.1
21279.9	---	44.6	54.0	9.4
21280.5	53.6	---	74.0	20.4

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

Radiated Spurious – CH52

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBµV/m	dBµV/m	dBµV/m	dB
174.7	31.2	---	43.6	12.4
6315.0	---	43.3	54.0	10.7
6371.0	56.3	---	74.0	17.7
6575.0	---	38.8	54.0	15.2
10521.9	---	40.5	54.0	13.5
10534.9	50.6	---	74.0	23.4
15783.9	59.4	---	74.0	14.6
15783.9	---	42.4	54.0	11.6
21039.8	---	47.4	54.0	6.6
21040.1	54.1	---	74.0	19.9

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

Radiated Spurious – CH52

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBµV/m	dBµV/m	dBµV/m	dB
174.7	30.8	---	43.6	12.7
6319.5	---	43.3	54.0	10.7
6322.5	55.9	---	74.0	18.1
10519.0	53.5	---	74.0	20.5
10519.5	---	47.6	54.0	6.4
21040.1	---	44.3	54.0	9.7
21040.1	53.1	---	74.0	20.9

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

Radiated Spurious – CH52

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBµV/m	dBµV/m	dBµV/m	dB
174.7	29.9	---	43.6	13.7
6319.5	---	43.3	54.0	10.7
6326.0	55.8	---	74.0	18.2
6575.0	---	40.7	54.0	13.3
6575.0	---	37.8	54.0	16.2
10519.5	---	44.0	54.0	10.0
10519.9	---	38.9	54.0	15.1
10522.8	54.7	---	74.0	19.3
10522.8	49.4	---	74.0	24.6
21005.8	---	44.4	54.0	9.6
21040.1	---	42.3	54.0	11.7

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

Radiated Spurious – CH52

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBµV/m	dBµV/m	dBµV/m	dB
174.7	30.6	---	43.6	13.0
6298.5	55.9	---	74.0	18.1
6318.0	---	43.2	54.0	10.8
6575.0	---	38.2	54.0	15.8
10503.0	54.8	---	74.0	19.2
10503.0	---	47.6	54.0	6.4
15745.7	56.1	---	74.0	17.9
21040.1	---	47.3	54.0	6.7
21040.6	52.6	---	74.0	21.4

Radiated Spurious – CH56

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBµV/m	dBµV/m	dBµV/m	dB
174.7	30.3	---	43.6	13.3
6316.5	56.7	---	74.0	17.3
6321.5	---	43.3	54.0	10.7
6599.6	---	39.1	54.0	14.9
10543.1	---	49.8	54.0	4.2
10544.1	56.0	---	74.0	18.0
21086.6	53.3	---	74.0	20.7
21086.6	---	43.7	54.0	10.3
21120.0	54.0	---	74.0	20.0
21120.0	---	45.9	54.0	8.1

Radiated Spurious – CH64

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBµV/m	dBµV/m	dBµV/m	dB
166.4	33.2	---	43.6	10.3
1106.5	---	39.3	54.0	14.7
1107.0	48.8	---	74.0	25.2
6302.0	55.8	---	74.0	18.2
6308.5	---	43.1	54.0	10.9
6649.9	45.8	---	74.0	28.2
6649.9	---	37.1	54.0	16.9
10622.9	---	45.7	54.0	8.3
10624.3	55.3	---	74.0	18.7
21246.5	57.8	---	74.0	16.2
21246.5	---	47.3	54.0	6.7
21279.9	54.5	---	74.0	19.5
21279.9	---	46.7	54.0	7.3

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

Radiated Spurious – CH52

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBµV/m	dBµV/m	dBµV/m	dB
174.7	30.5	---	43.6	13.1
6317.5	---	43.3	54.0	10.7
6341.5	56.1	---	74.0	17.9
6574.5	---	38.1	54.0	15.9
10503.0	---	43.8	54.0	10.2
10504.0	53.9	---	74.0	20.1
15754.4	52.4	---	74.0	21.6
15754.4	---	43.6	54.0	10.4
21039.8	53.2	---	74.0	20.8
21040.1	---	44.8	54.0	9.2

Radiated Spurious – CH56

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBµV/m	dBµV/m	dBµV/m	dB
174.7	31.1	---	43.6	12.4
6296.0	55.9	---	74.0	18.1
6309.5	---	43.3	54.0	10.7
10542.7	---	51.2	54.0	2.8
10543.1	59.2	---	74.0	14.8
15815.3	---	42.0	54.0	12.0
21087.1	---	43.4	54.0	10.6
21087.6	54.7	---	74.0	19.3

Radiated Spurious – CH64

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBµV/m	dBµV/m	dBµV/m	dB
174.7	30.6	---	43.6	13.0
1106.5	47.8	---	74.0	26.2
1106.5	---	38.6	54.0	15.4
6296.0	56.0	---	74.0	18.0
6313.5	---	43.1	54.0	10.9
10622.9	---	50.6	54.0	3.5
10623.4	56.9	---	74.0	17.1
21247.0	57.0	---	74.0	17.0
21247.0	---	47.7	54.0	6.3
21278.9	53.6	---	74.0	20.4
21279.9	---	44.2	54.0	9.8

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

Radiated Spurious – CH52

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBµV/m	dBµV/m	dBµV/m	dB
174.7	30.8	---	43.6	12.8
6314.0	56.1	---	74.0	17.9
6318.0	---	43.3	54.0	10.7
6575.0	---	41.1	54.0	12.9
10507.9	50.5	---	74.0	23.5
10510.3	---	40.3	54.0	13.7
21005.8	---	43.5	54.0	10.5
21007.9	55.1	---	74.0	18.9
21040.1	---	45.3	54.0	8.7

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

Radiated Spurious – CH54F

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBµV/m	dBµV/m	dBµV/m	dB
174.7	38.3	---	43.6	5.3
2416.0	47.4	---	74.0	26.6
2416.0	---	37.0	54.0	17.0
6587.1	46.2	---	74.0	27.8
6587.1	---	37.0	54.0	17.0
10541.7	---	41.2	54.0	12.8
10546.5	52.6	---	74.0	21.4
21079.9	---	45.7	54.0	8.3
21080.2	54.2	---	74.0	19.8

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

Radiated Spurious – CH54F

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBµV/m	dBµV/m	dBµV/m	dB
174.7	38.7	---	43.6	4.9
2397.5	46.5	---	74.0	27.5
2413.5	---	37.8	54.0	16.2
10543.6	---	40.6	54.0	13.4
10550.9	51.2	---	74.0	22.8
21079.7	52.9	---	74.0	21.1
21079.9	---	45.0	54.0	9.0

30 MHz – 40 GHz, 802.11n40, HT8, Chain A+B
Radiated Spurious – CH54F

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dB μ V/m	dB μ V/m	dB μ V/m	dB
174.7	38.2	---	43.6	5.4
6288.0	55.5	---	74.0	18.5
6318.0	---	43.2	54.0	10.8
10541.2	53.7	---	74.0	20.3
10541.7	---	43.6	54.0	10.4
21079.9	52.9	---	74.0	21.1
21080.2	---	44.9	54.0	9.1

30 MHz – 40 GHz, 802.11ax40, HE0, Chain A
Radiated Spurious – CH54F

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dB μ V/m	dB μ V/m	dB μ V/m	dB
170.5	30.9	---	43.6	12.6
1047.0	---	39.7	54.0	14.3
1047.0	48.7	---	74.0	25.3
6320.5	---	43.3	54.0	10.8
6350.5	56.2	---	74.0	17.8
10510.3	---	46.6	54.0	7.4
10510.3	54.4	---	74.0	19.6
21079.9	---	46.3	54.0	7.7
21080.2	52.7	---	74.0	21.3

Radiated Spurious – CH62F

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dB μ V/m	dB μ V/m	dB μ V/m	dB
174.7	30.7	---	43.6	12.9
1087.0	---	38.3	54.0	15.7
1087.0	47.6	---	74.0	26.4
6319.5	---	43.4	54.0	10.6
6354.0	56.0	---	74.0	18.1
10591.0	---	41.3	54.0	12.8
10591.5	51.8	---	74.0	22.2
21167.3	---	45.3	54.0	8.7
21168.1	54.8	---	74.0	19.2
21239.8	53.7	---	74.0	20.3
21240.1	---	45.8	54.0	8.2

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

Radiated Spurious – CH54F

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBµV/m	dBµV/m	dBµV/m	dB
174.7	31.2	---	43.6	12.4
1046.5	48.4	---	74.0	25.6
1046.5	---	38.0	54.0	16.0
6322.0	56.2	---	74.0	17.8
6328.5	---	42.9	54.0	11.1
6587.5	---	39.1	54.0	14.9
10504.0	---	48.6	54.0	5.4
10504.5	55.2	---	74.0	18.8
15756.9	---	43.5	54.0	10.5
15756.9	53.8	---	74.0	20.2
21079.9	53.0	---	74.0	21.0
21080.2	---	43.9	54.0	10.1

Radiated Spurious – CH62F

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBµV/m	dBµV/m	dBµV/m	dB
174.7	30.5	---	43.6	13.1
1086.5	46.2	---	74.0	27.8
1087.0	---	35.0	54.0	19.0
6302.5	55.9	---	74.0	18.1
6316.5	---	43.2	54.0	10.8
6637.3	---	37.6	54.0	16.4
10584.2	---	46.6	54.0	7.4
10584.7	57.0	---	74.0	17.0
15875.8	---	39.8	54.0	14.2
21167.3	55.6	---	74.0	18.4
21167.8	---	45.6	54.0	8.4

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

Radiated Spurious – CH54F

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBµV/m	dBµV/m	dBµV/m	dB
174.7	38.0	---	43.6	5.6
1047.0	---	45.5	54.0	8.5
1047.2	55.9	---	74.0	18.1
10503.0	59.2	---	74.0	14.8
10504.0	---	50.9	54.0	3.1
21079.9	54.2	---	74.0	19.8
21080.2	---	45.1	54.0	8.9

30 MHz – 40 GHz, 802.11ac80, HT0, Chain A

Radiated Spurious – CH58ac80

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBµV/m	dBµV/m	dBµV/m	dB
174.7	31.1	---	43.6	12.5
1243.5	---	30.7	54.0	23.3
1245.0	48.9	---	74.0	25.1
10586.6	59.8	---	74.0	14.2
10588.1	---	49.0	54.0	5.0
21156.4	54.2	---	74.0	19.8
21160.1	---	45.7	54.0	8.3

30 MHz – 40 GHz, 802.11ac80, HT0, Chain B

Radiated Spurious – CH58ac80

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBµV/m	dBµV/m	dBµV/m	dB
174.7	30.9	---	43.6	12.6
1242.5	49.1	---	74.0	24.9
1244.0	---	30.5	54.0	23.5
6612.2	---	38.6	54.0	15.4
10578.9	---	38.3	54.0	15.7
10579.4	48.4	---	74.0	25.6
21972.4	---	42.9	54.0	11.1
21975.6	52.6	---	74.0	21.4

30 MHz – 40 GHz, 802.11ac80, HT8, Chain A+B

Radiated Spurious – CH58ac80

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBµV/m	dBµV/m	dBµV/m	dB
174.7	30.5	---	43.6	13.1
1244.5	---	29.9	54.0	24.1
1245.5	48.8	---	74.0	25.2
6250.5	---	41.9	54.0	12.1
6612.2	---	42.3	54.0	11.7
6612.2	48.2	---	74.0	25.8
10571.2	57.0	---	74.0	17.0
10586.2	---	47.3	54.0	6.7
21160.1	---	44.8	54.0	9.2
21160.7	52.7	---	74.0	21.3

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

Radiated Spurious – CH58ac80

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBµV/m	dBµV/m	dBµV/m	dB
174.7	30.5	---	43.6	13.1
1047.0	---	39.6	54.0	14.4
1047.0	49.5	---	74.0	24.5
5403.5	56.8	---	74.0	17.2
5404.0	---	45.7	54.0	8.3
10504.0	---	49.2	54.0	4.8
10504.5	56.2	---	74.0	17.8
21007.7	---	43.8	54.0	10.2
21007.9	53.1	---	74.0	20.9
21159.6	53.0	---	74.0	21.0
21159.9	---	46.6	54.0	7.4

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

Radiated Spurious – CH58ac80

Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBµV/m	dBµV/m	dBµV/m	dB
174.7	31.1	---	43.6	12.5
1046.5	47.9	---	74.0	26.1
1047.0	---	38.9	54.0	15.1
5402.5	56.4	---	74.0	17.6
5404.0	---	46.1	54.0	7.9
10504.0	---	44.0	54.0	10.0
10505.0	52.9	---	74.0	21.1
21399.7	---	43.0	54.0	11.0
21420.5	53.7	---	74.0	20.3

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

Radiated Spurious – CH58ac80

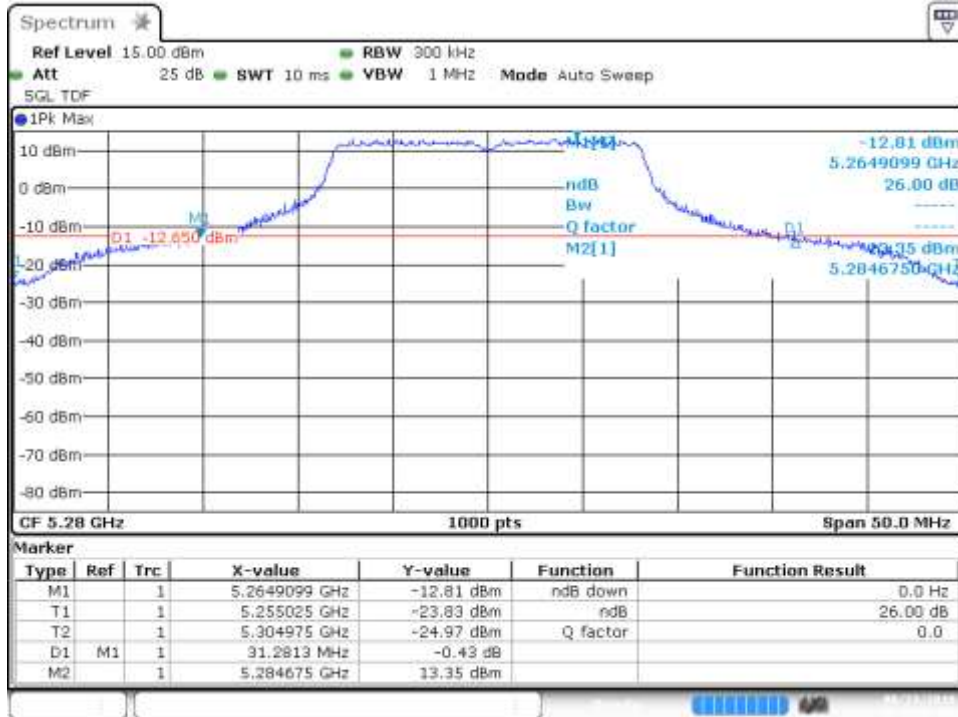
Frequency	MaxPeak	Avg	Limit	Margin
MHz	dBµV/m	dBµV/m	dBµV/m	dB
174.7	30.7	---	43.6	12.9
1046.5	54.3	---	74.0	19.7
1046.5	---	41.9	54.0	12.1
5404.0	60.8	---	74.0	13.2
5404.0	---	49.9	54.0	4.1
10504.0	---	47.1	54.0	6.9
10505.0	56.6	---	74.0	17.4
21008.2	53.7	---	74.0	20.3
21008.2	---	44.0	54.0	10.0
21160.1	---	44.1	54.0	9.9
21163.9	52.8	---	74.0	21.2

B.5 Test Results Screenshot U-NII-2A

B.5.1 26dB Bandwidth

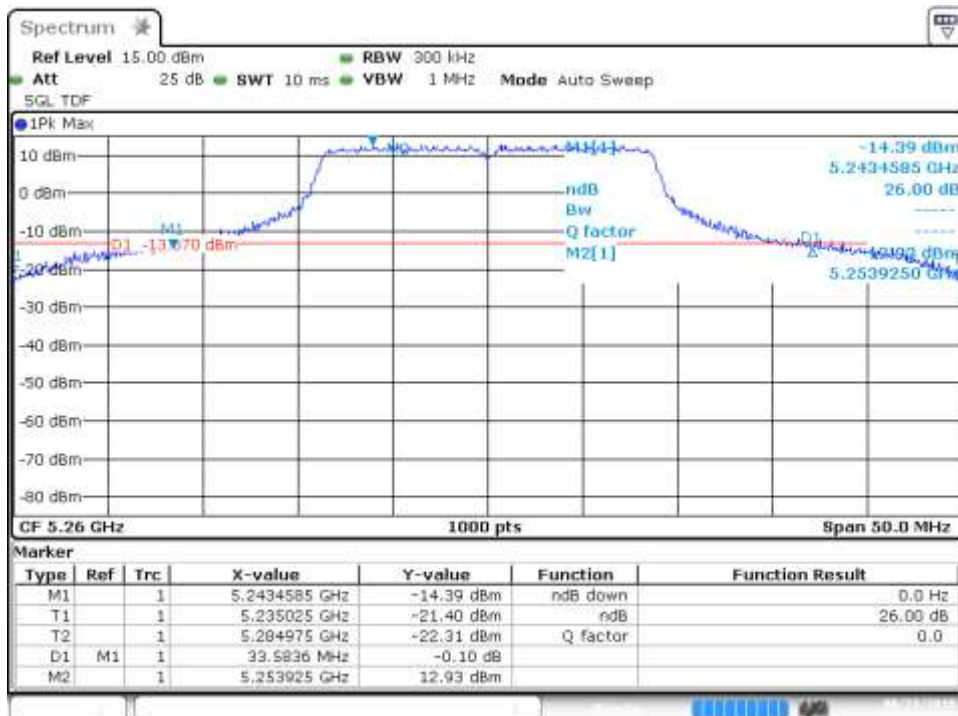
SISO-B, 802.11a, 6Mbps

Channel 56



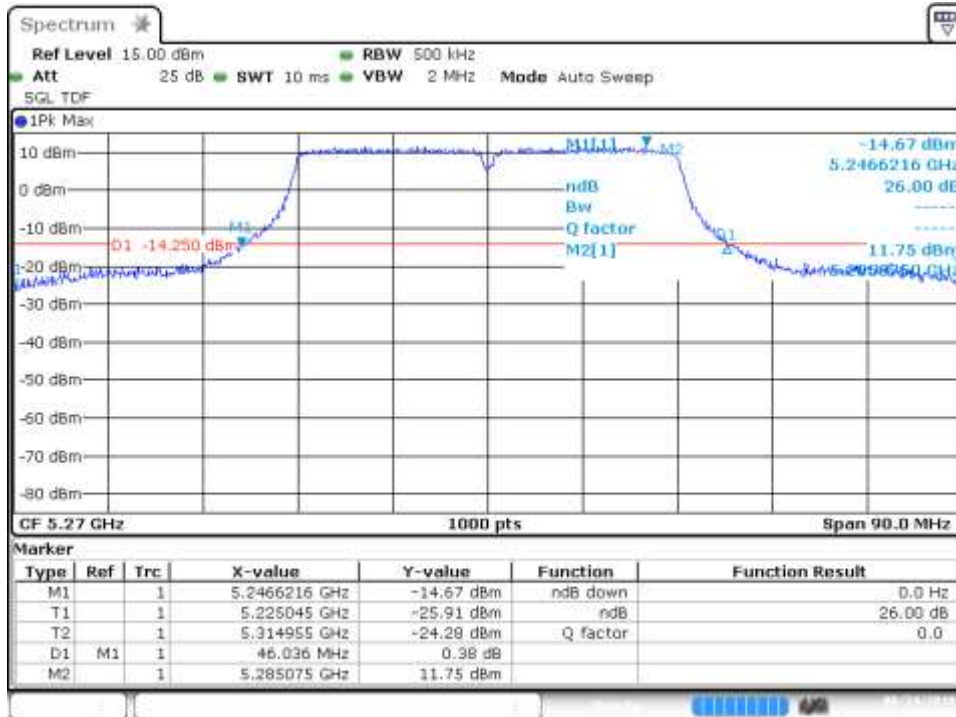
SISO-B, 802.11n20, HT0

Channel 52



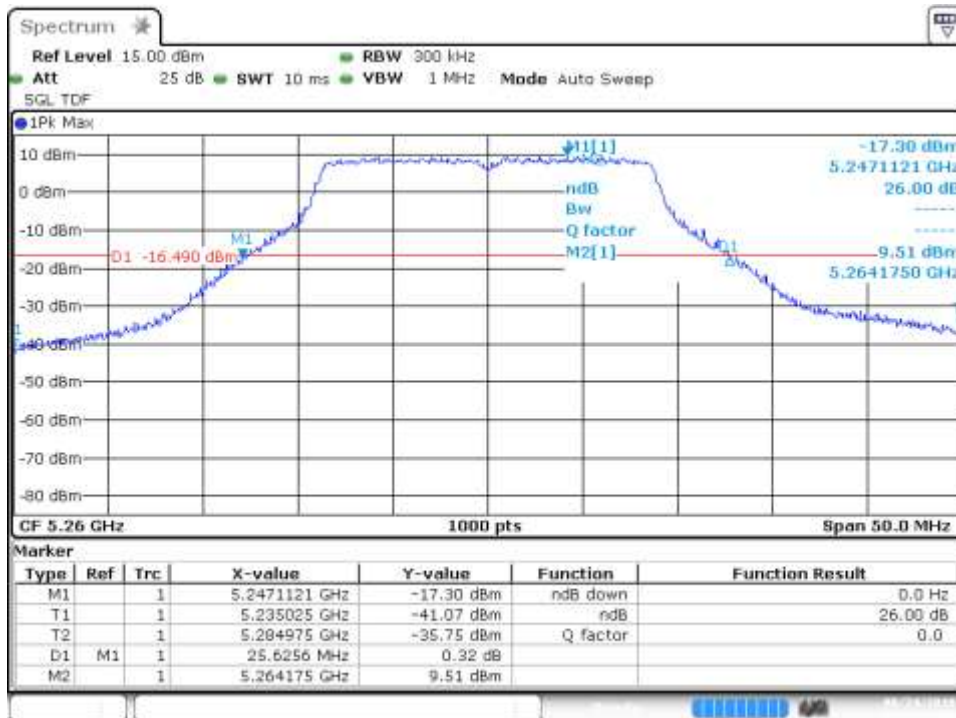
SISO-B, 802.11n40, HT0

Channel 54F



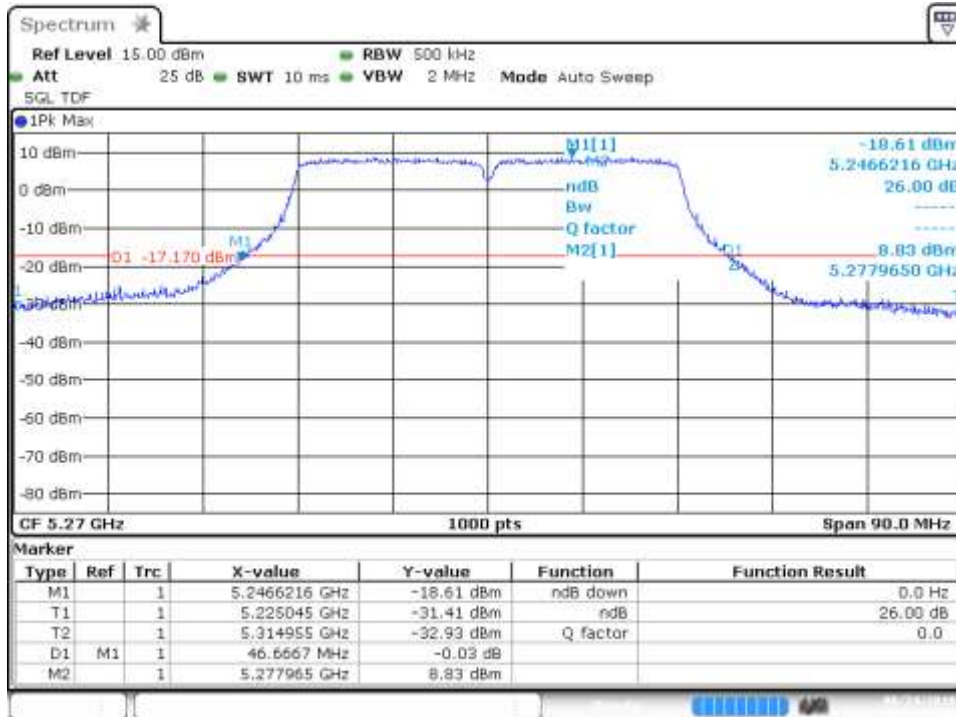
MIMO-A, 802.11n20, HT8

Channel 52



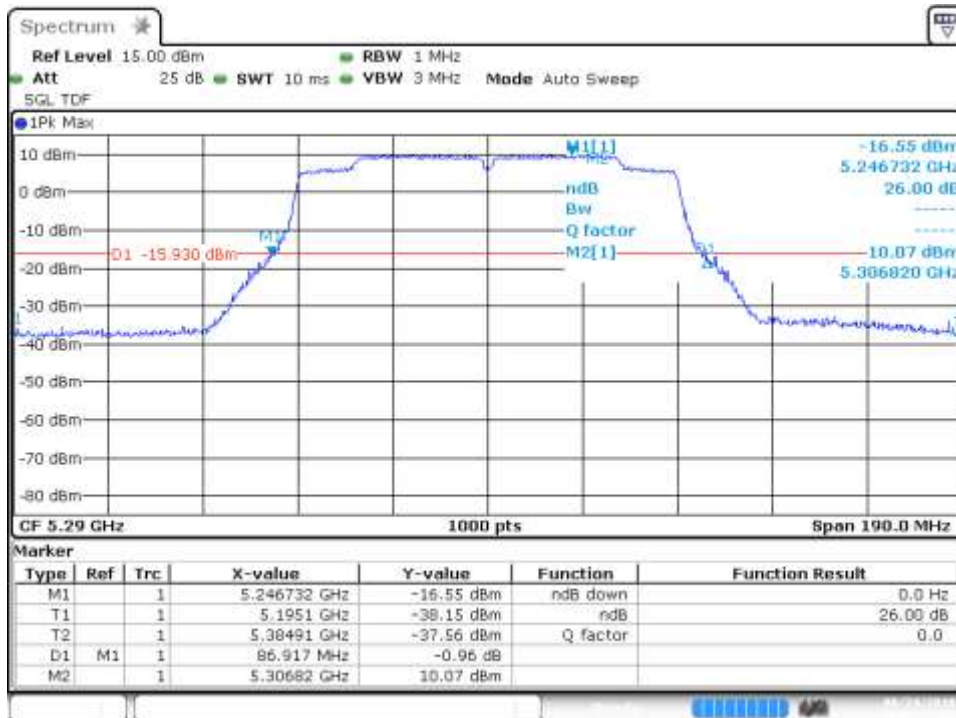
MIMO-A, 802.11n40, HT8

Channel 54F



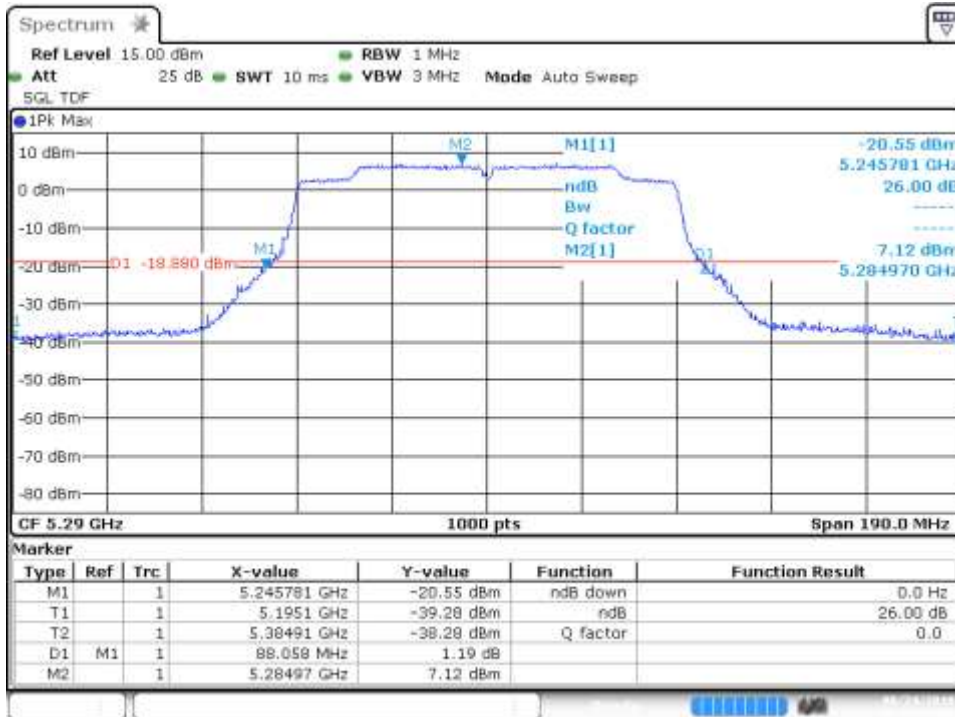
SISO-A, 802.11ac80, VHT0

Channel 58ac80



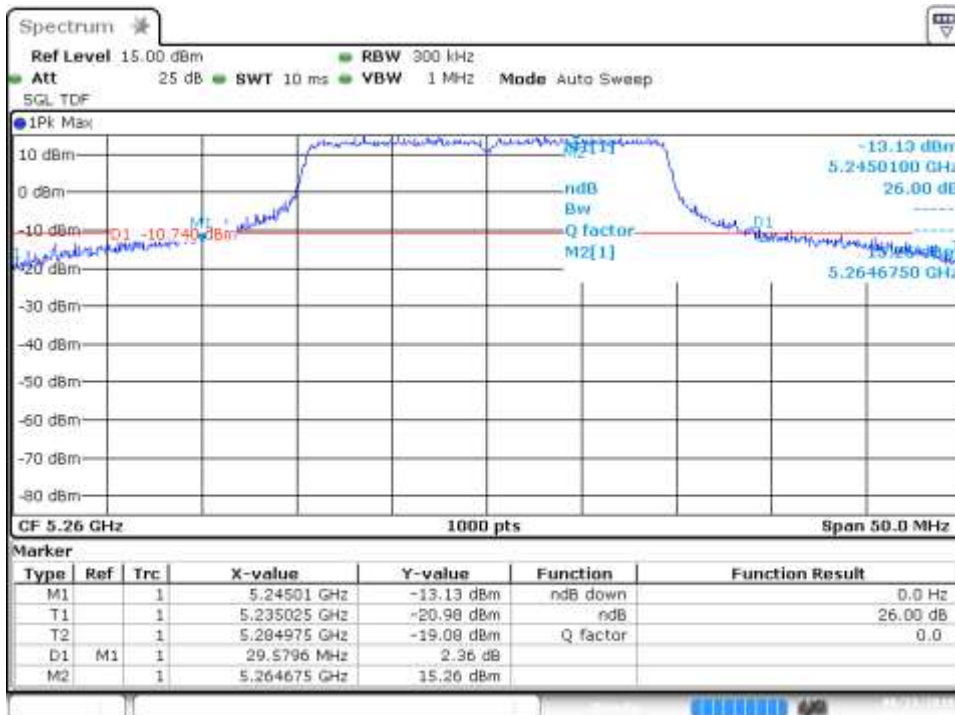
MIMO-A, 802.11ac80, VHT0

Channel 58ac80



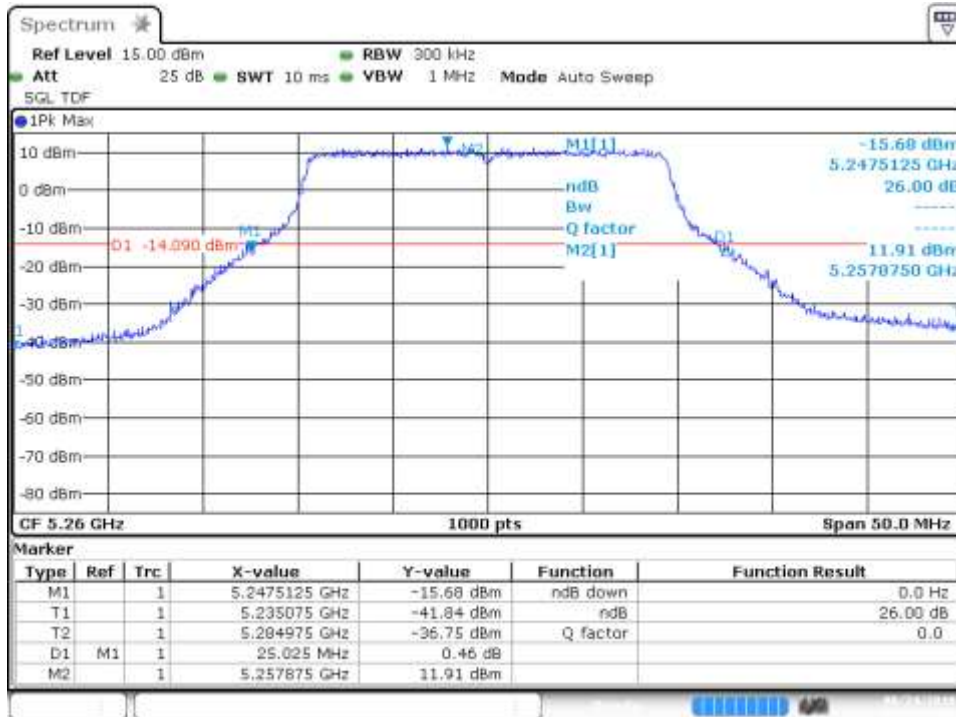
SISO-B, 802.11ax20, HE0

Channel 52



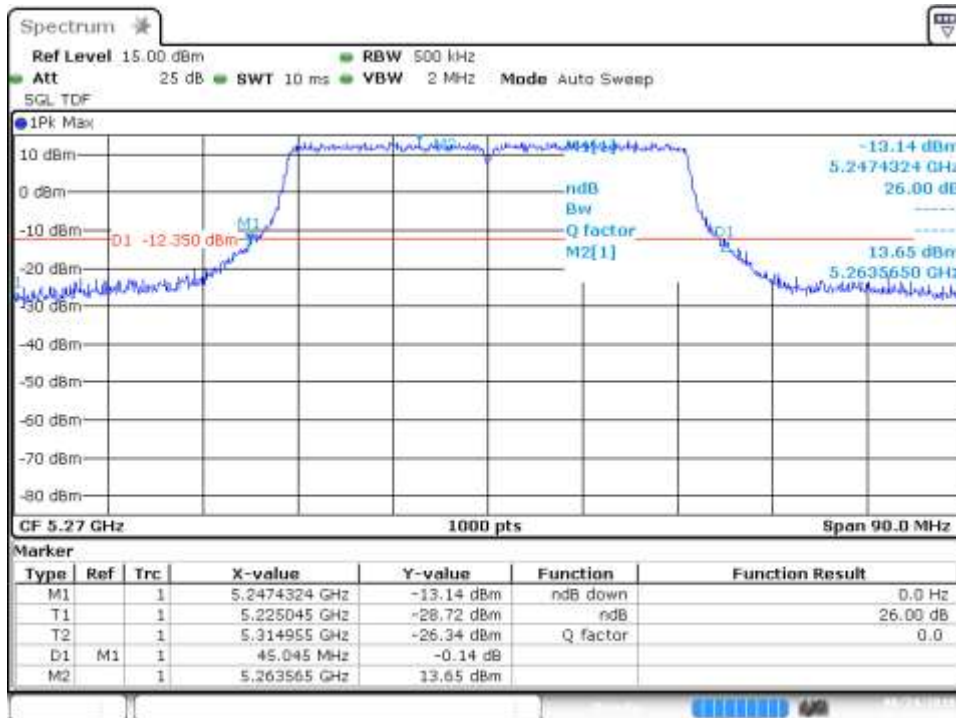
MIMO-A, 802.11ax20, HE0

Channel 52



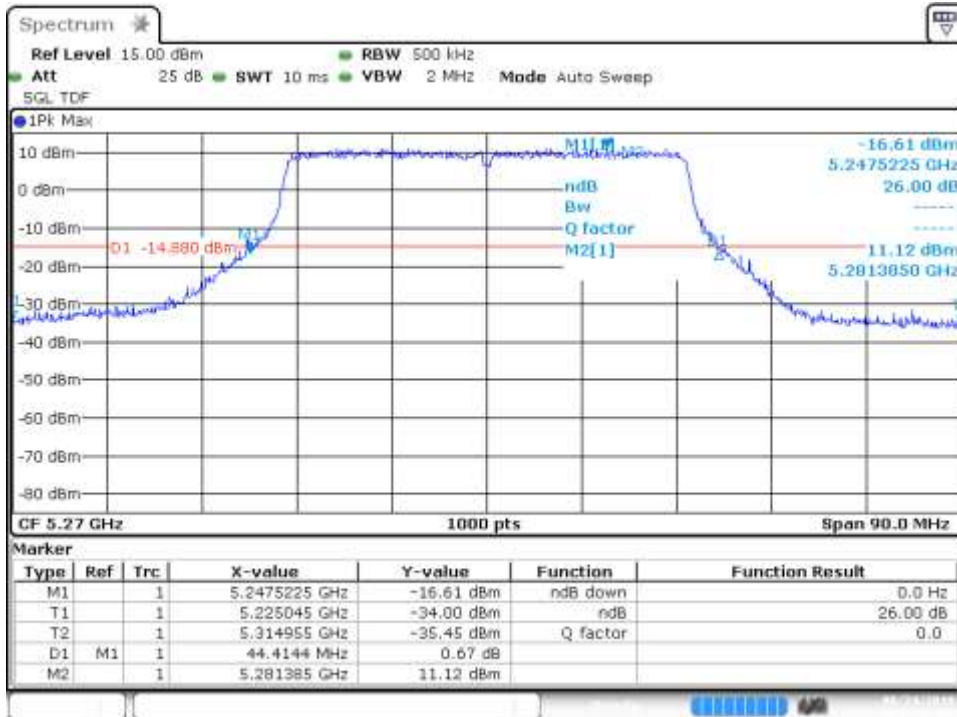
SISO-A, 802.11ax20, HE0

Channel 54F



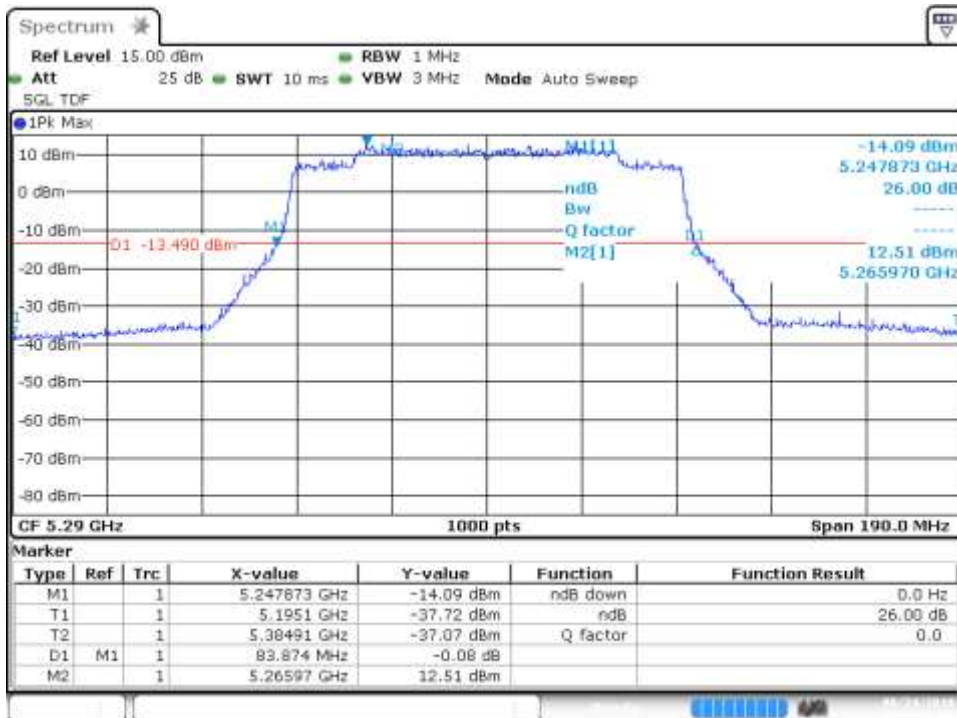
MIMO-A, 802.11ax40, HE0

Channel 54F



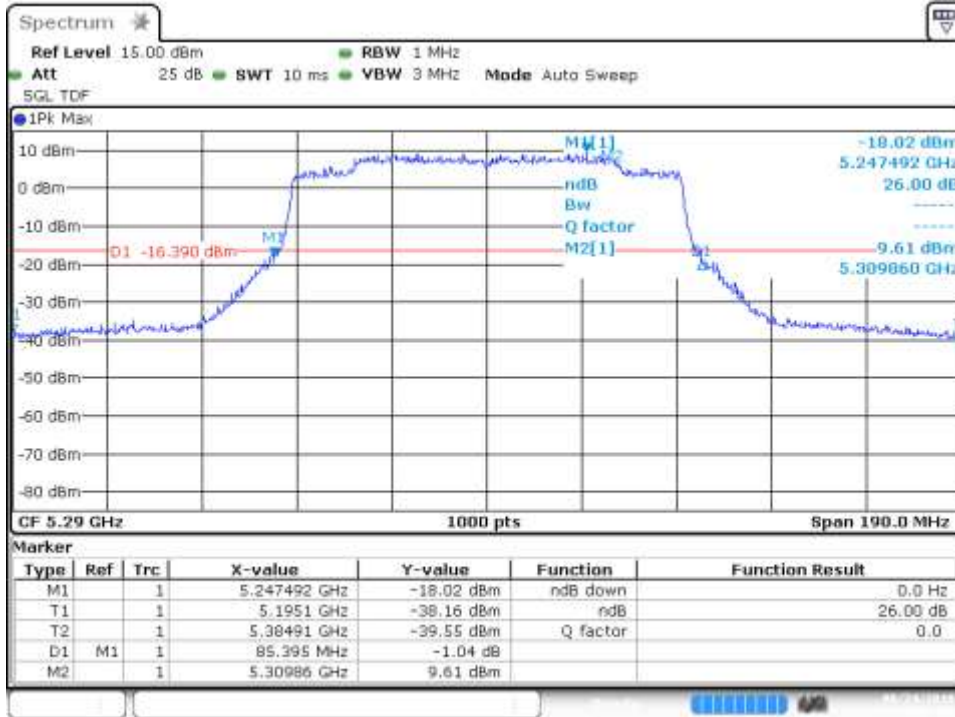
SISO-A, 802.11ax80, HE0

Channel 58ax80



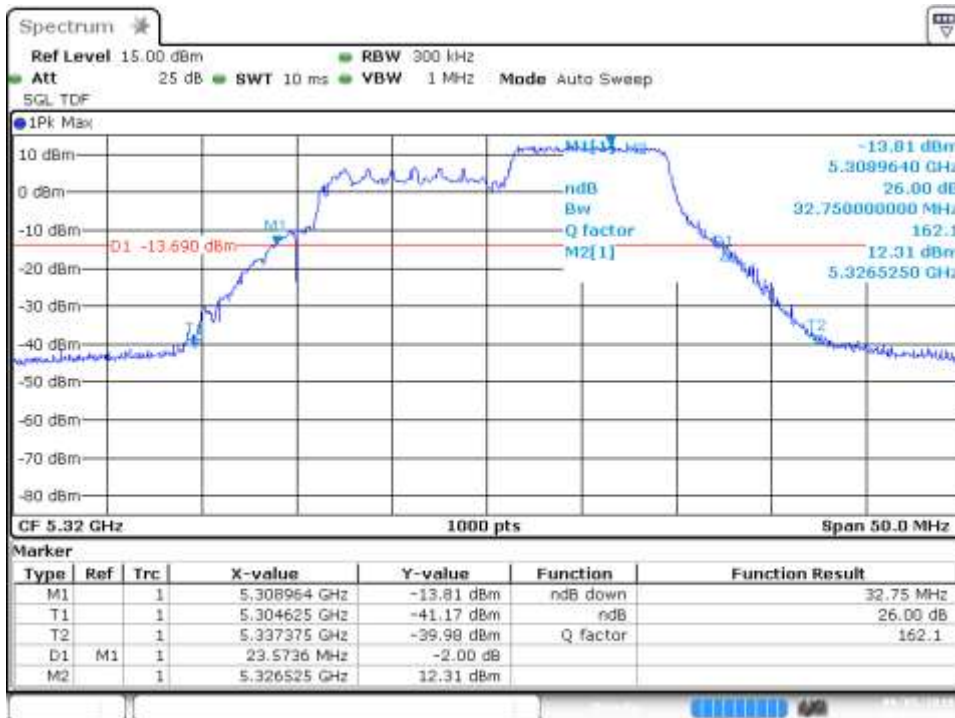
MIMO-B, 802.11ax80, HE0

Channel 58ax80



SISO-B, 802.11ax20, HE0, RU 106/54

Channel 64



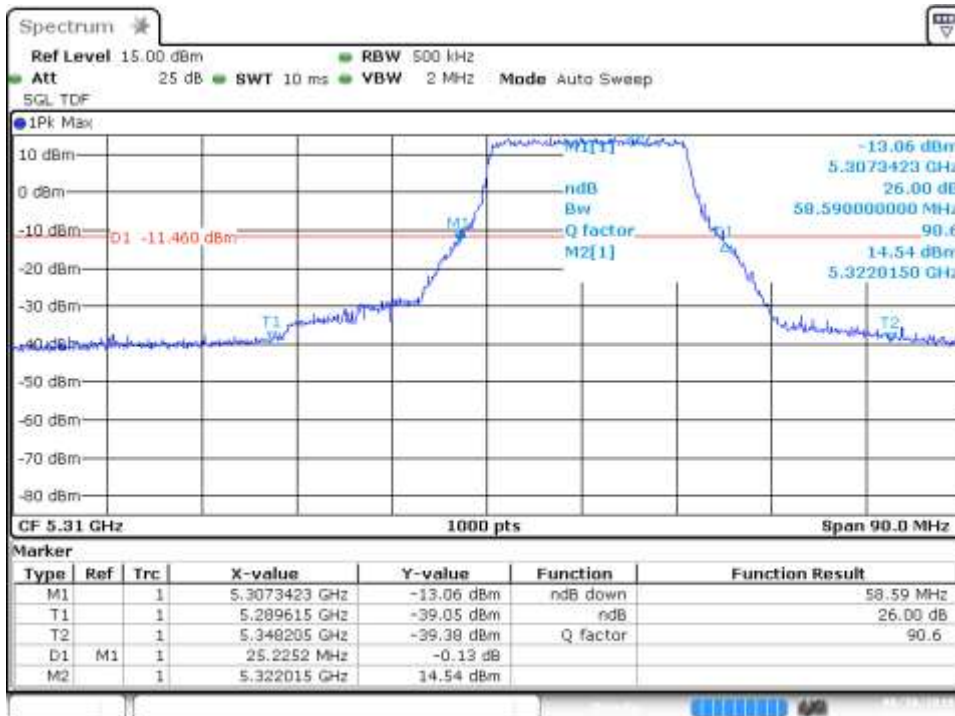
MIMO-A, 802.11ax20, HE0, RU 106/54

Channel 64



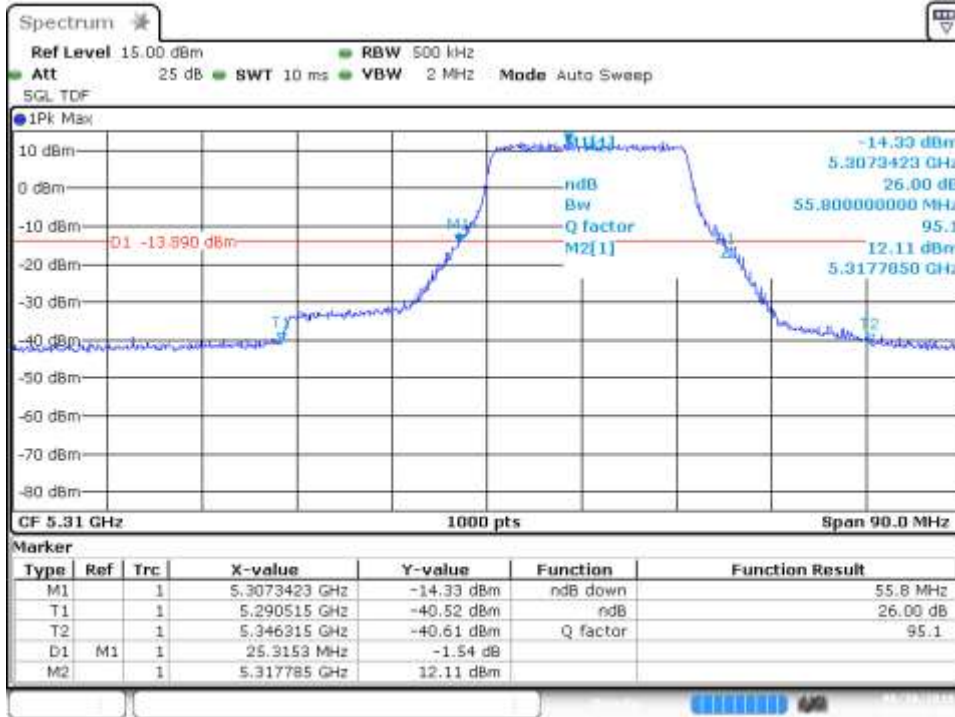
SISO-A, 802.11ax40, HE0, RU 242/62

Channel 62F



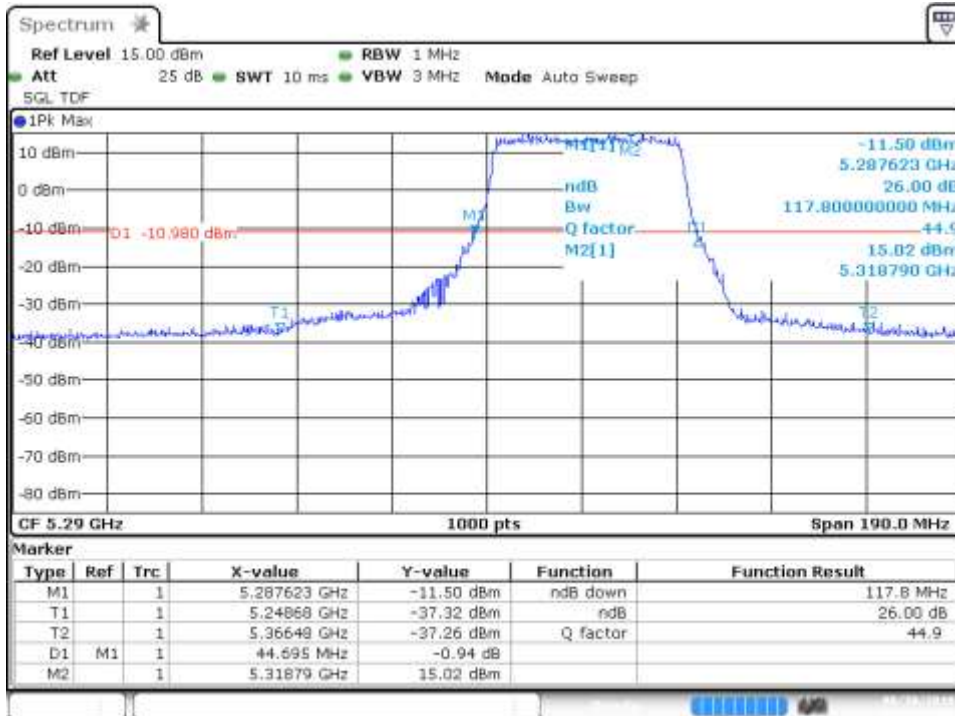
MIMO-A, 802.11ax40, HE0, RU 242/62

Channel 62F



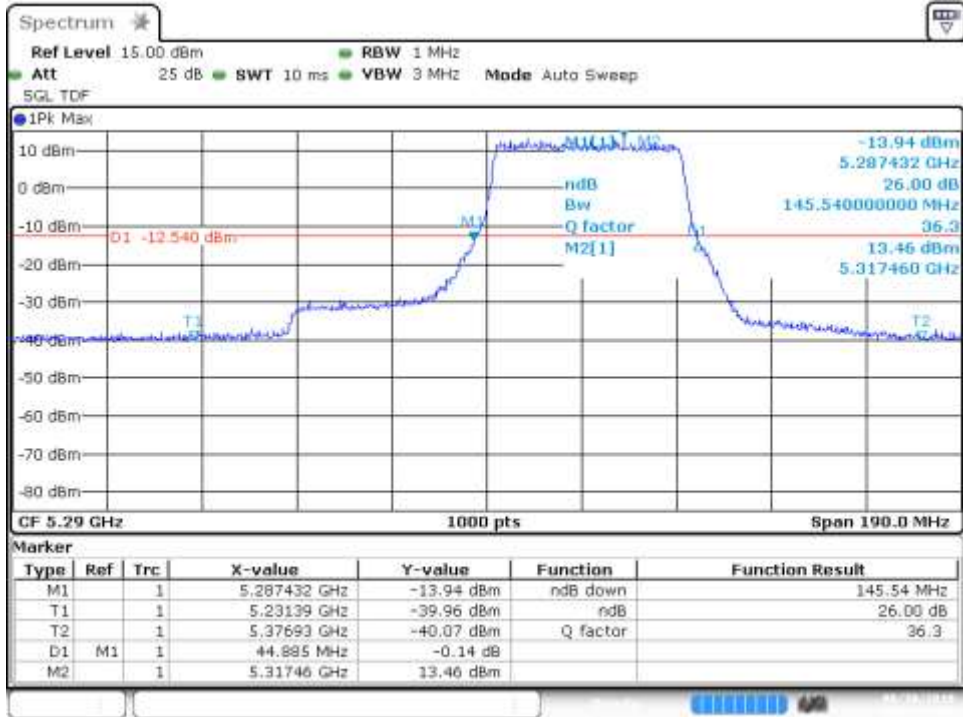
SISO-A, 802.11ax80, HE0, RU 484/66

Channel 58ax80



MIMO-A, 802.11ax80, HE0, RU 484/66

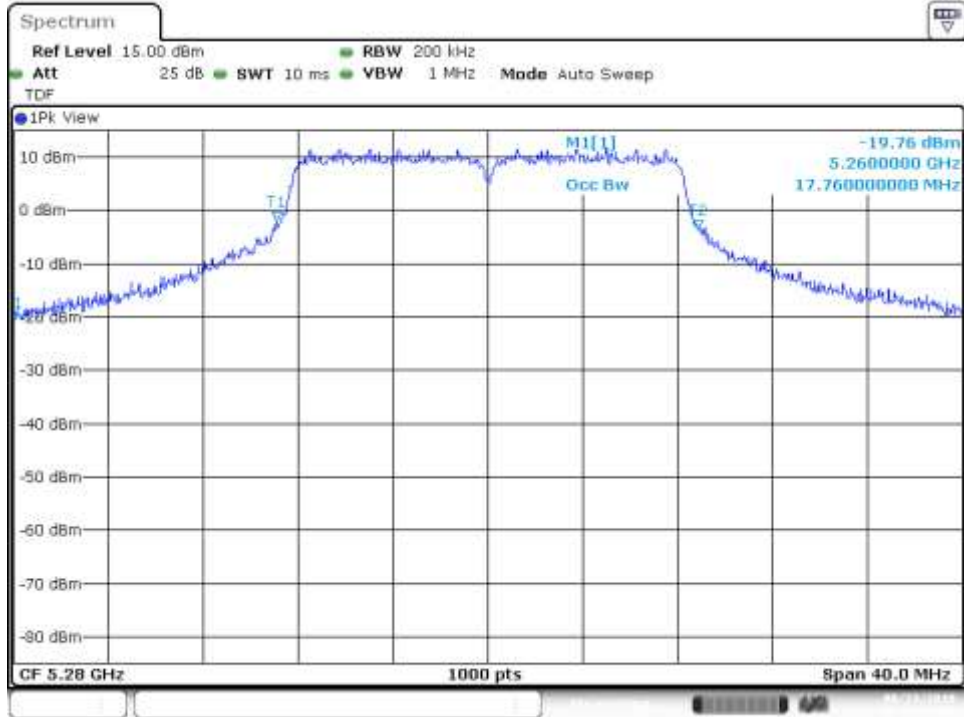
Channel 58ax80



B.5.2 99% Bandwidth

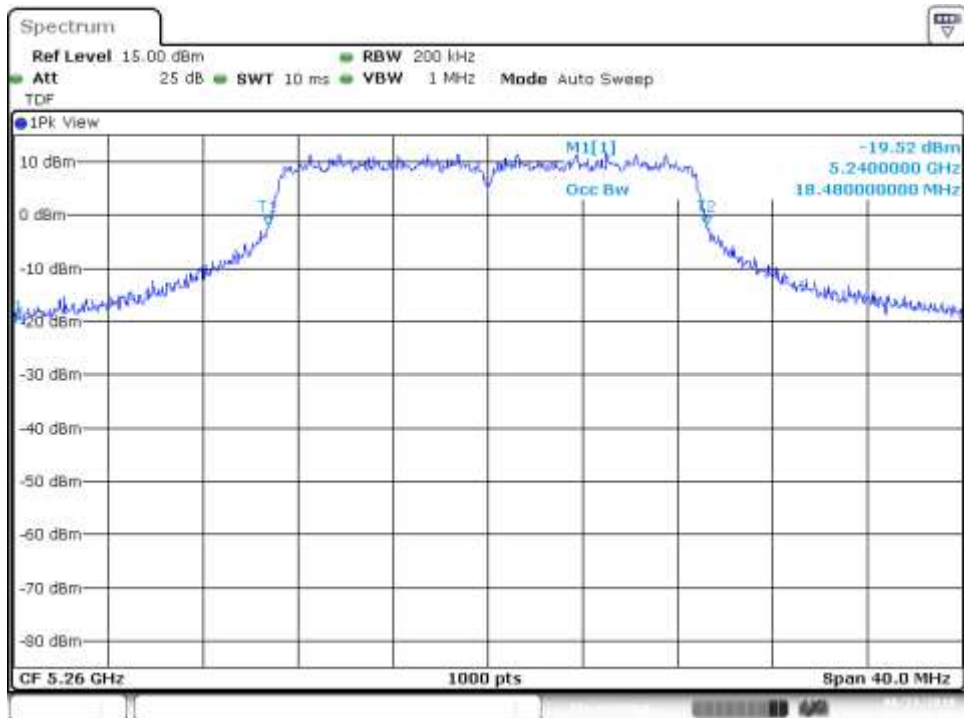
SISO-B, 802.11a, 6Mbps

Channel 56



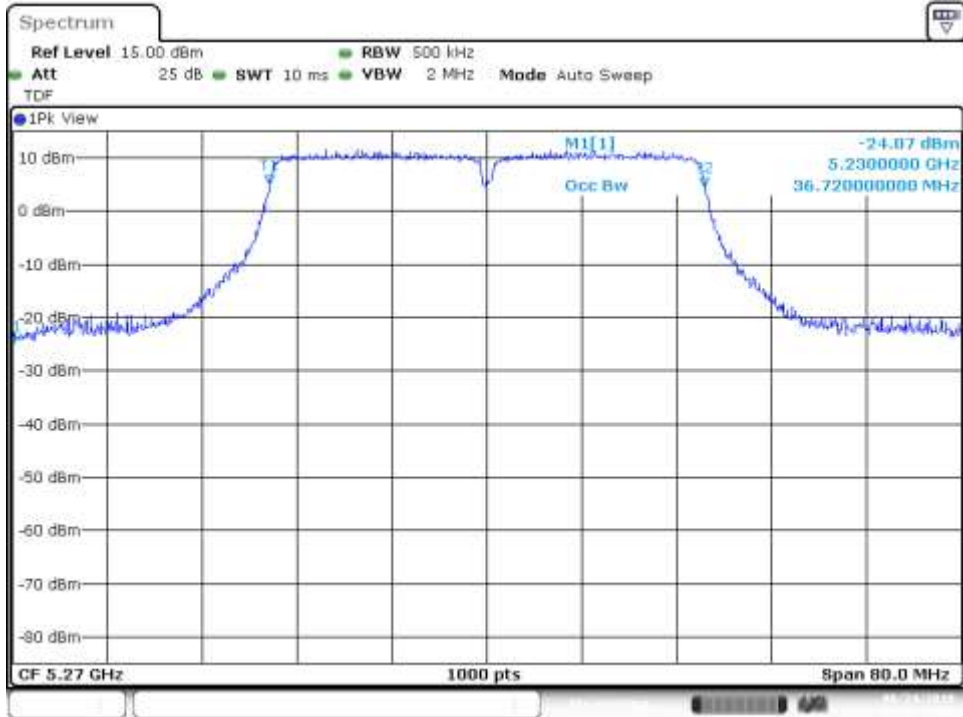
SISO-B, 802.11n20, HT0

Channel 52



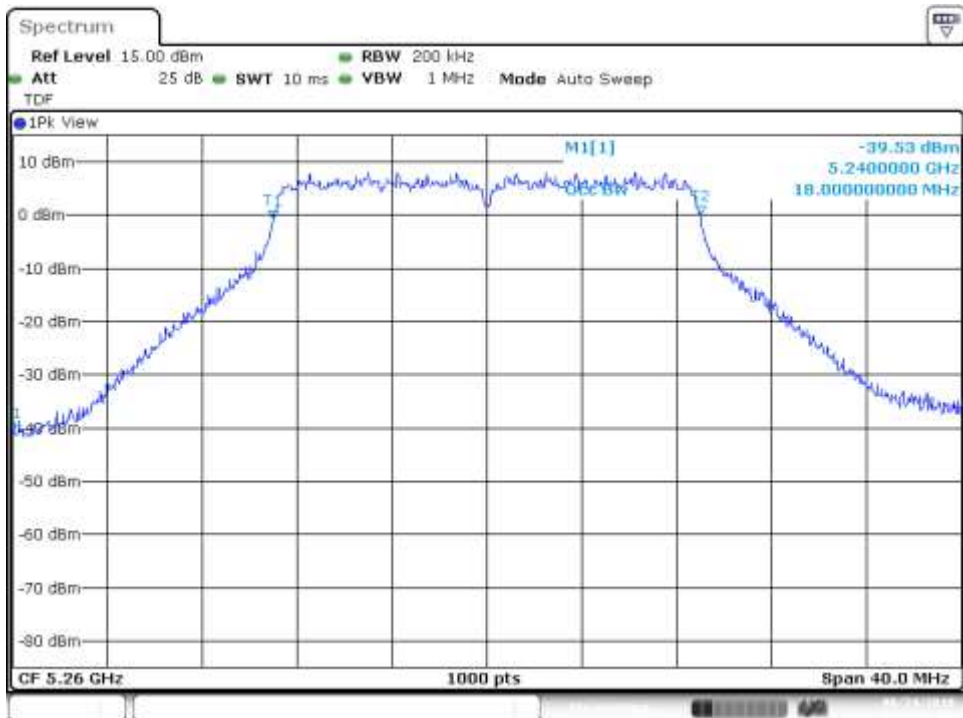
SISO-B, 802.11n40, HT0

Channel 54F



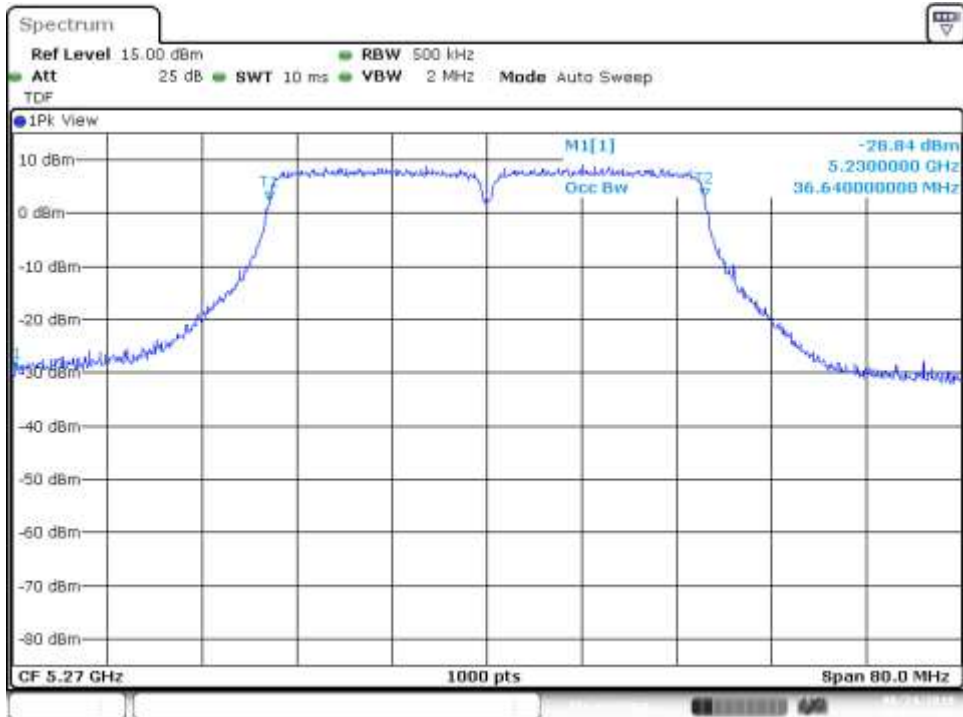
MIMO-A, 802.11n20, HT8

Channel 52



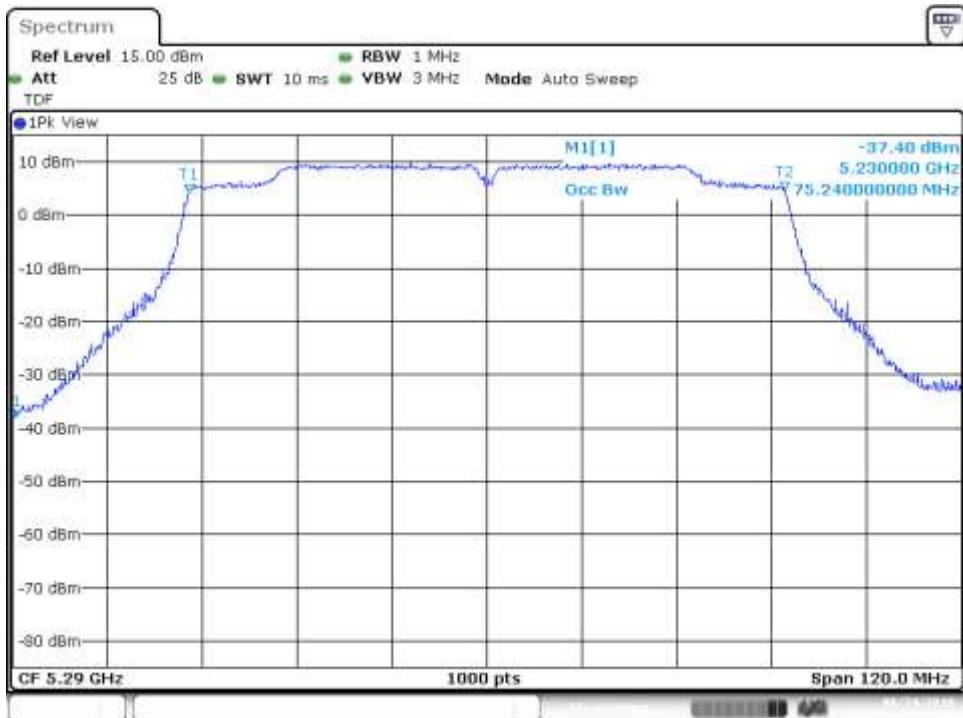
MIMO-A, 802.11n40, HT8

Channel 54F



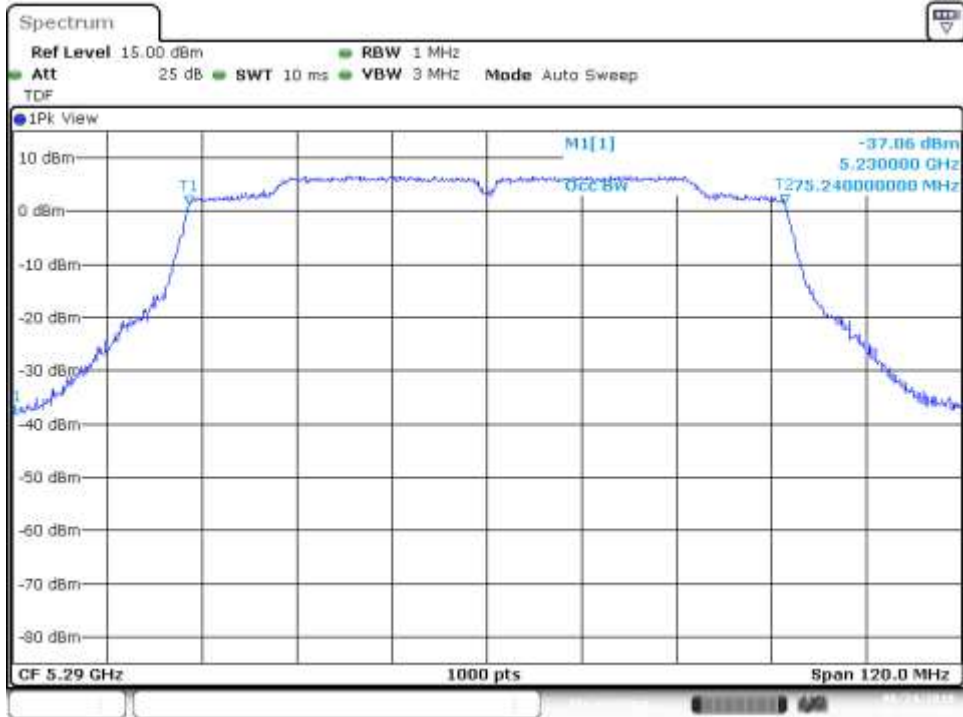
SISO-B, 802.11ac80, VHT0

Channel 58ac80



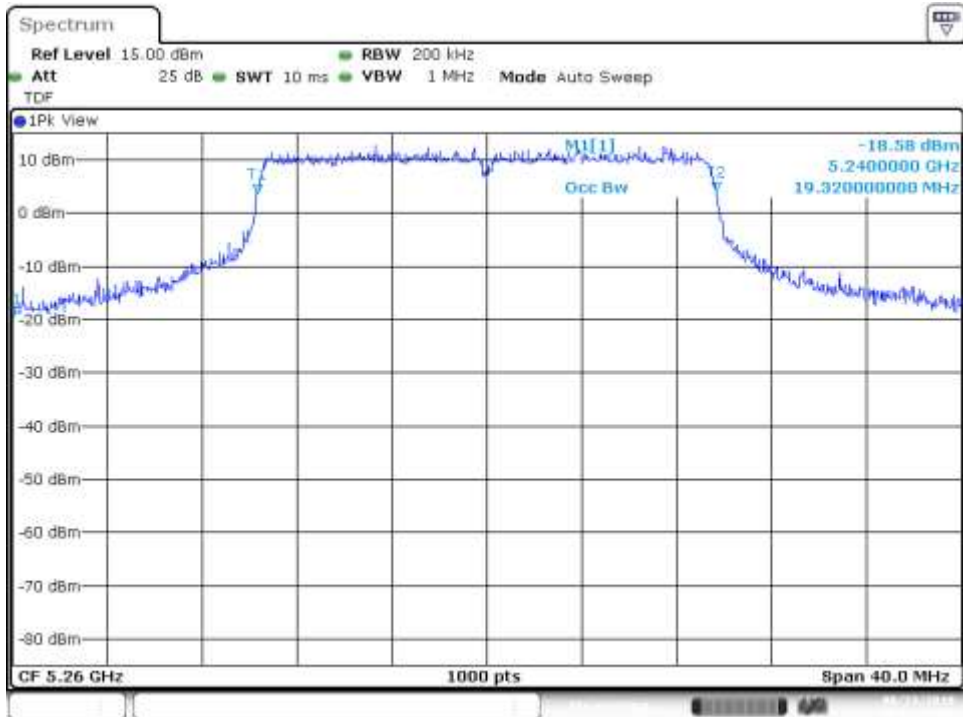
MIMO-A, 802.11ac80, VHT0

Channel 58ac80



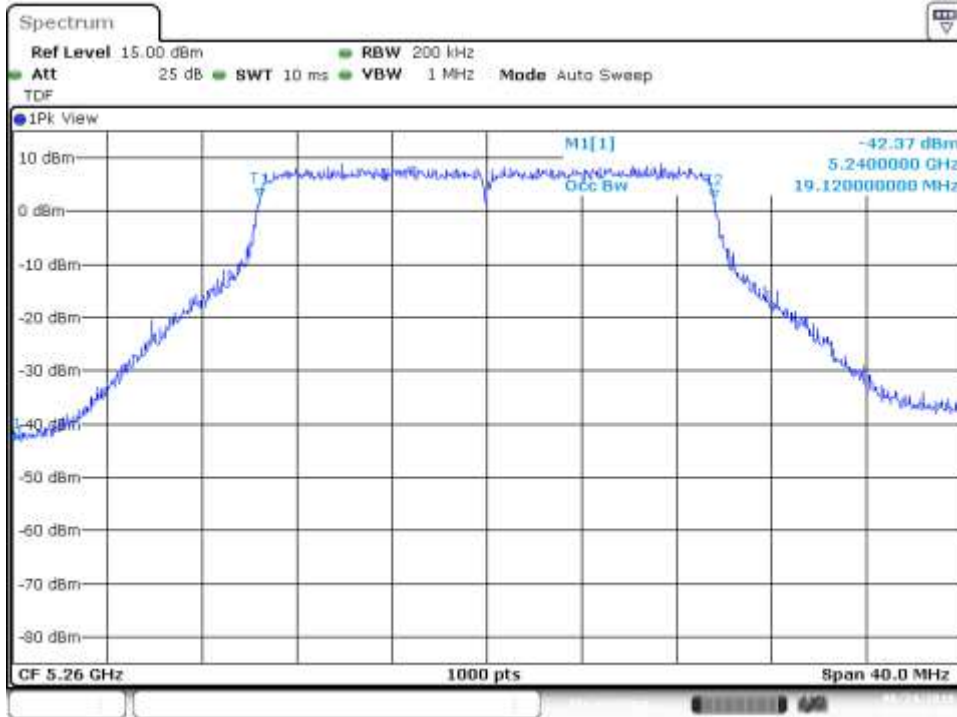
SISO-B, 802.11ax20, HE0

Channel 52



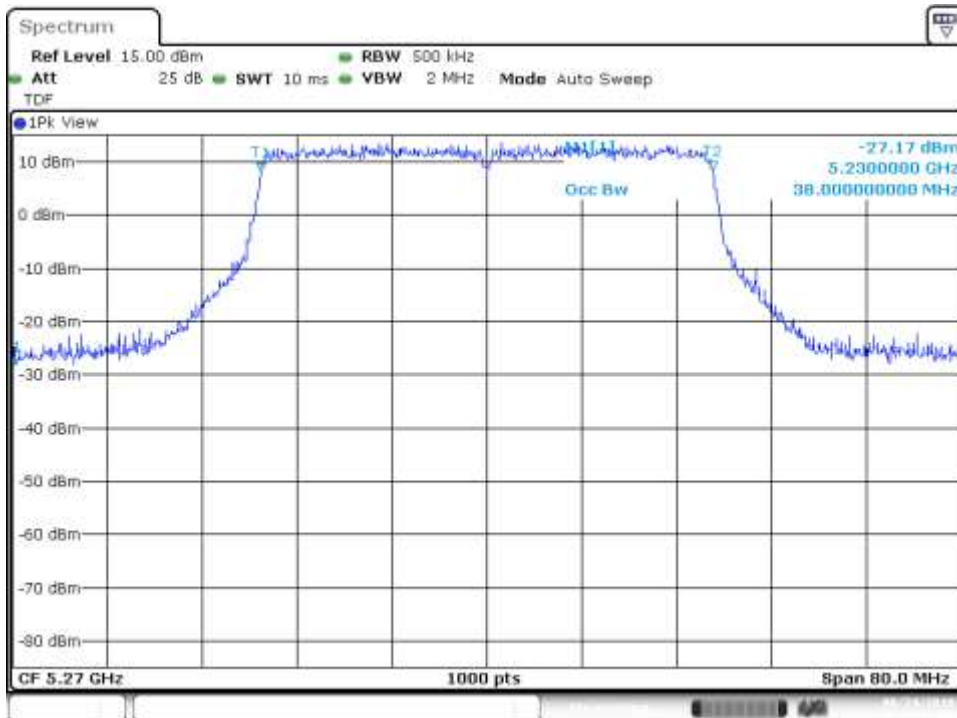
MIMO-A, 802.11ax20, HE0

Channel 52



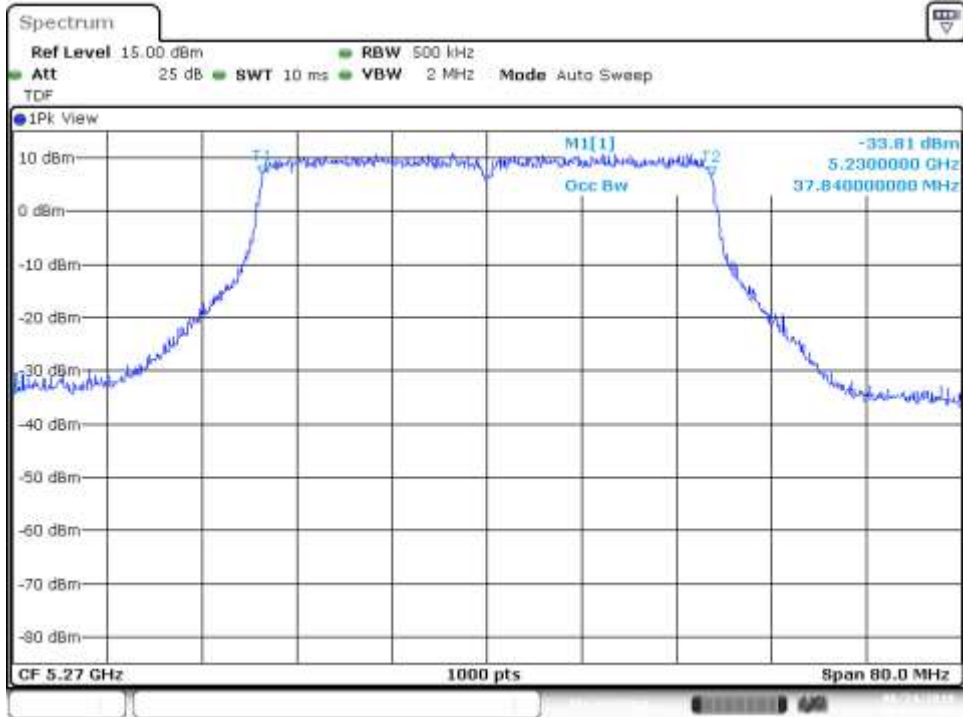
SISO-A, 802.11ax0, HE0

Channel 54F



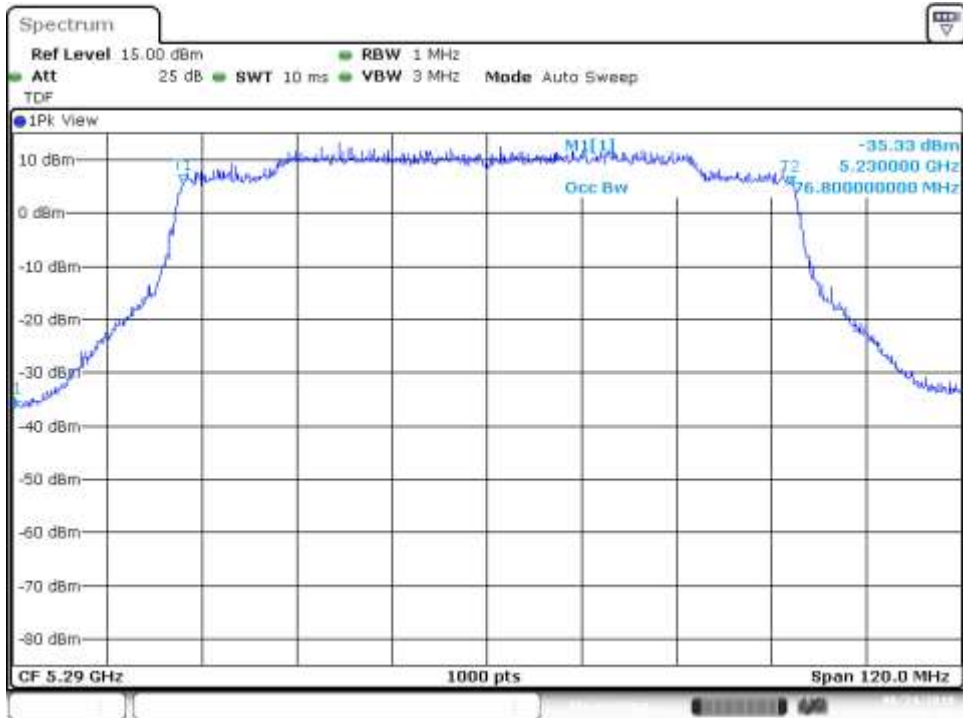
MIMO-A, 802.11ax40, HE0

Channel 54F



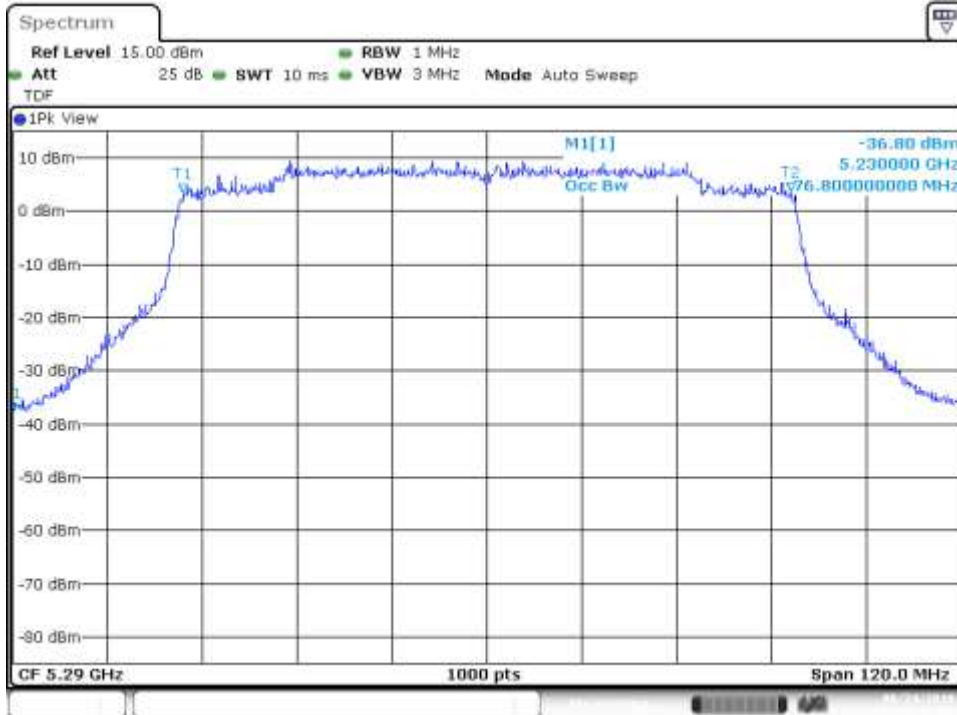
SISO-B, 802.11ax80, HE0

Channel 58ax80



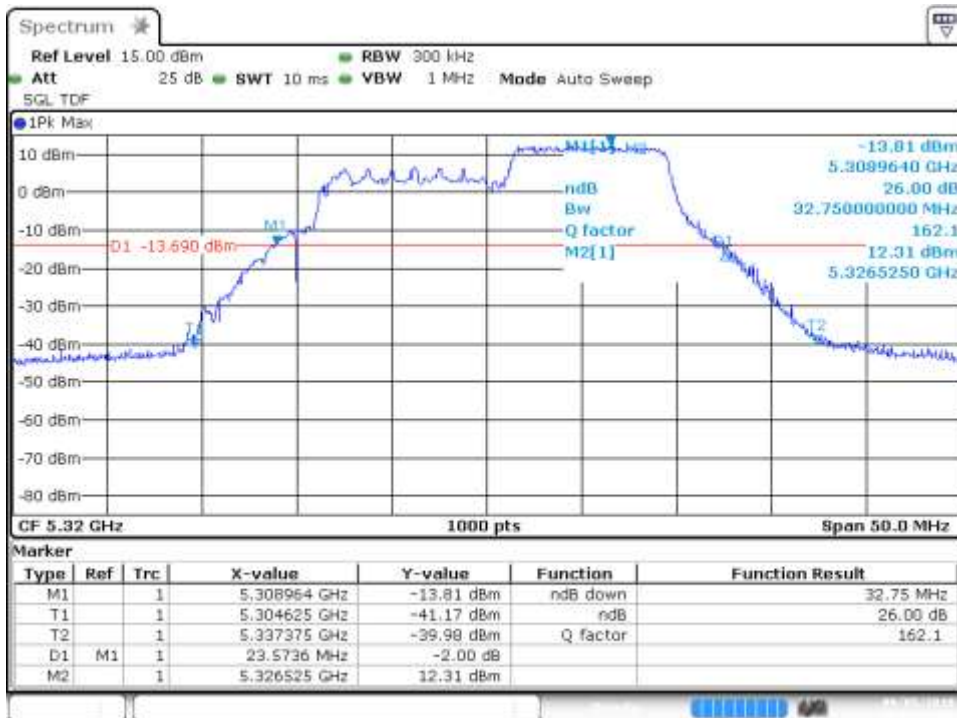
MIMO-B, 802.11ax80, HE0

Channel 58ax80



SISO-B, 802.11ax20, HE0, RU 106/54

Channel 64



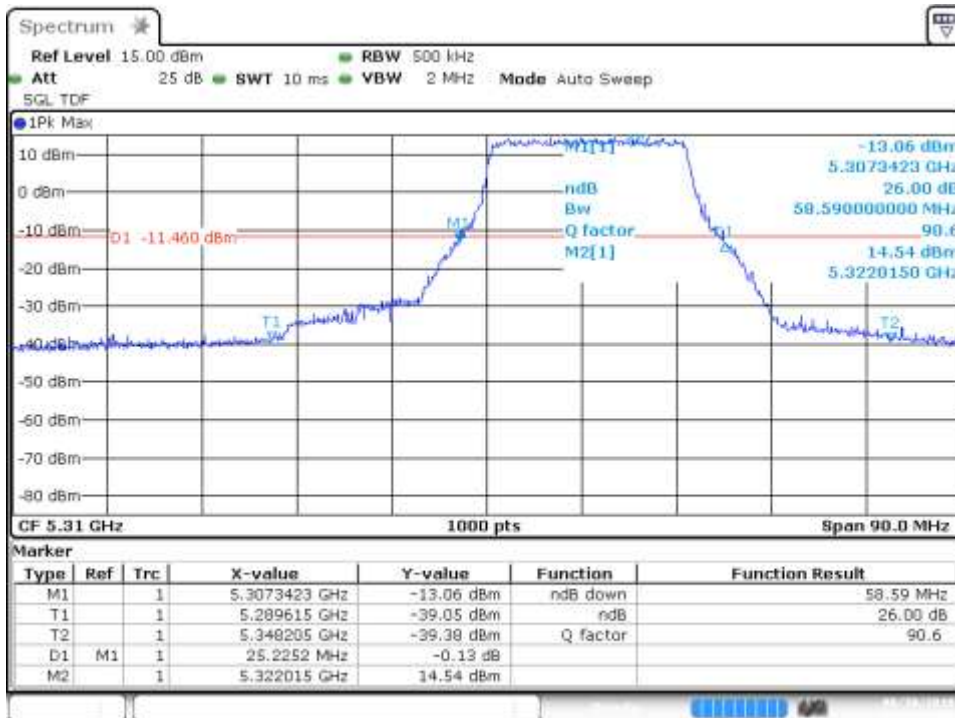
MIMO-A, 802.11ax20, HE0, RU 106/54

Channel 64



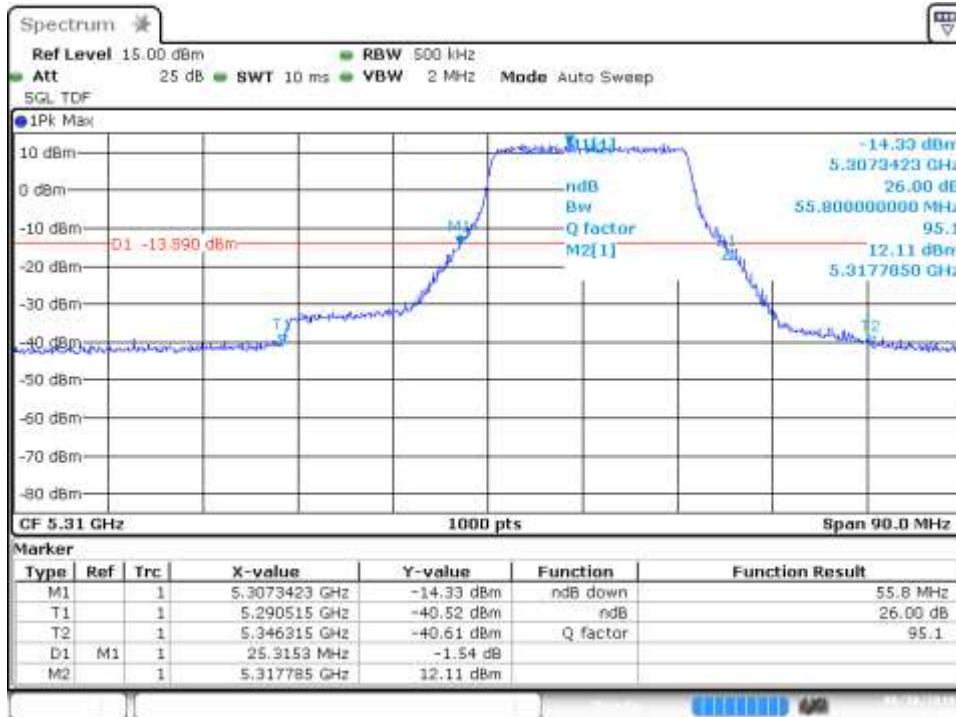
SISO-A, 802.11ax40, HE0, RU 242/62

Channel 62F



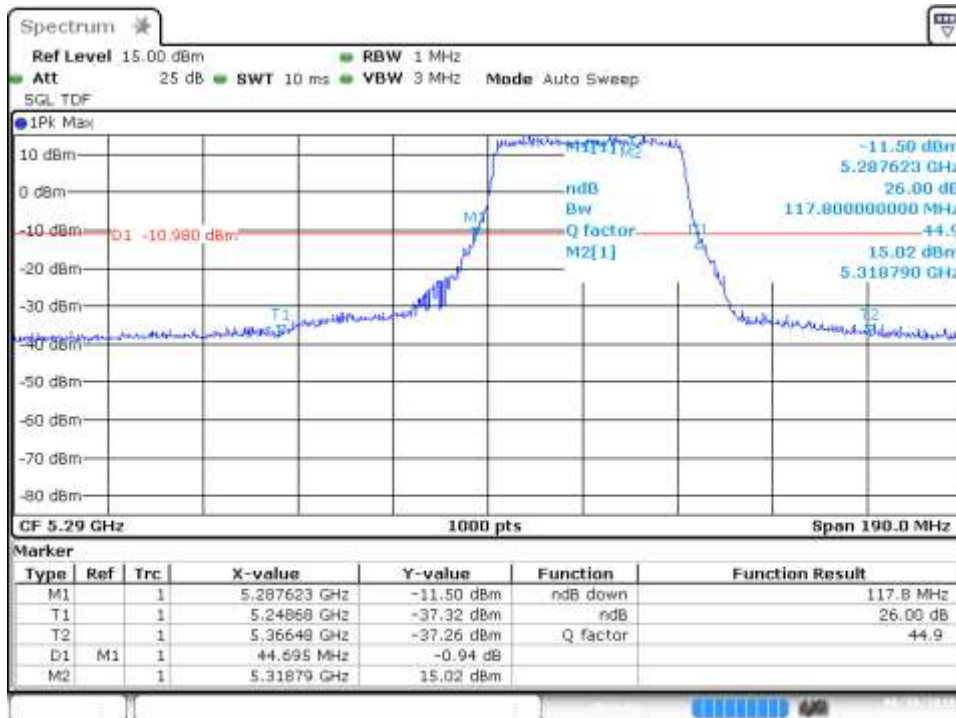
MIMO-A, 802.11ax40, HE0, RU 242/62

Channel 62F



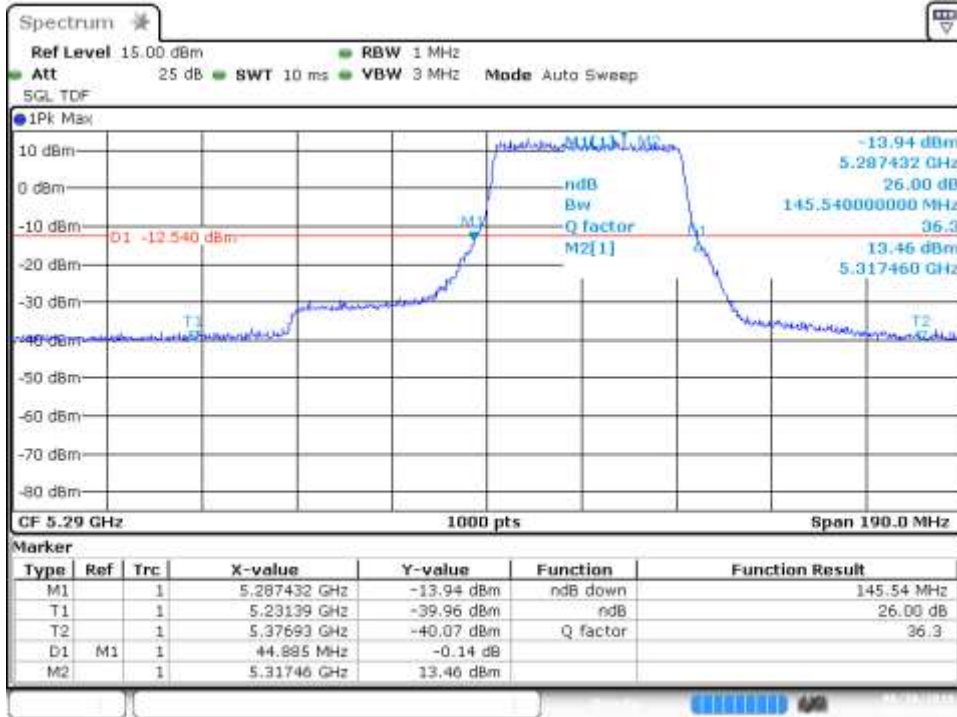
SISO-A, 802.11ax80, HE0, RU 484/66

Channel 58ax80



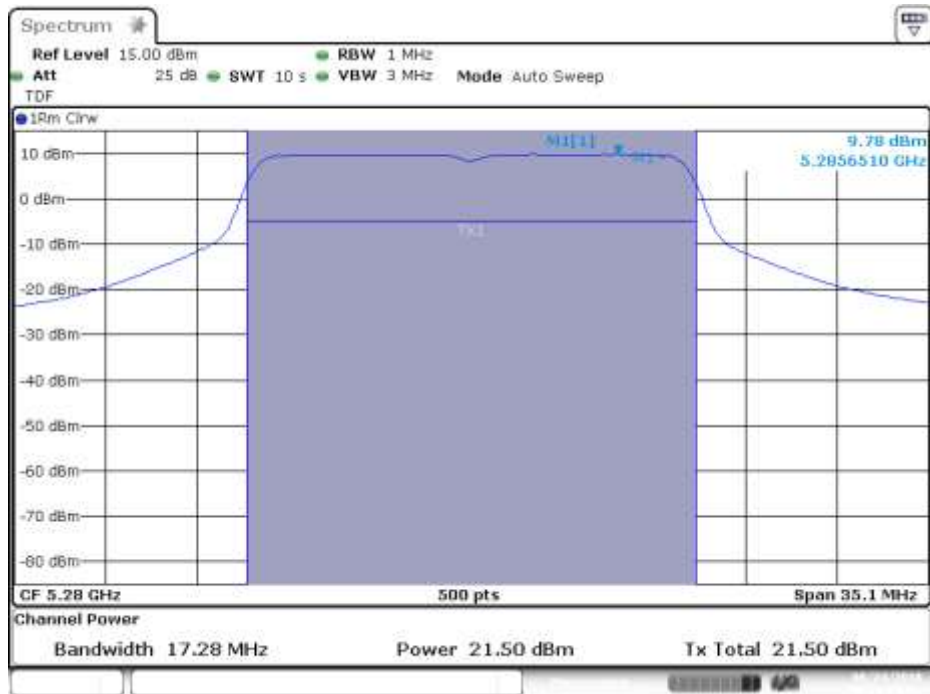
MIMO-A, 802.11ax80, HE0, RU 484/66

Channel 58ax80

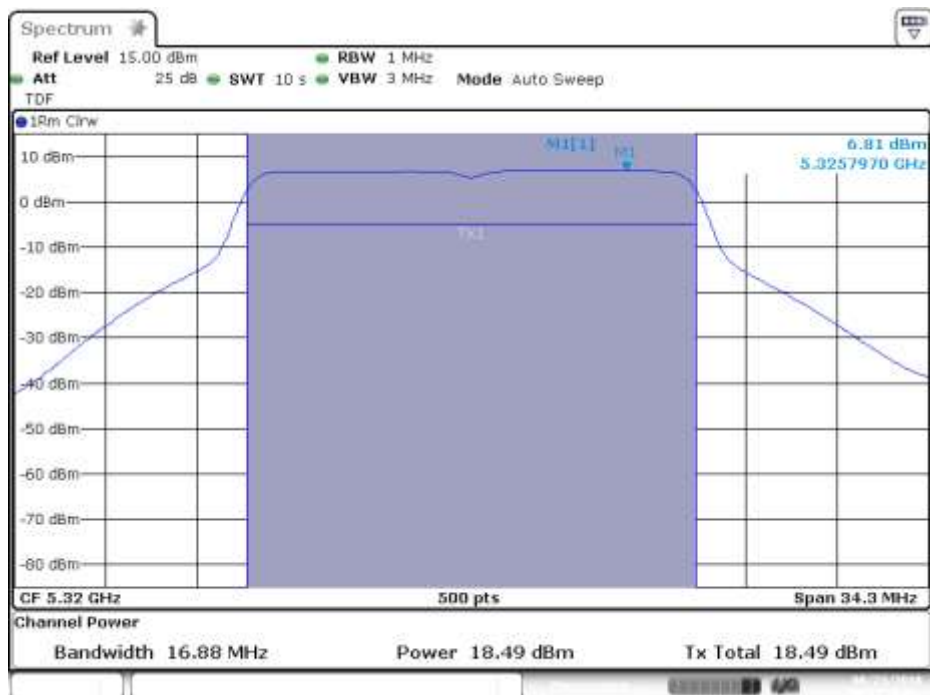


B.5.3 Power Limits. Maximum Output power & Peak power spectral density**SISO-A, 802.11a, 6Mbps**

Channel 56

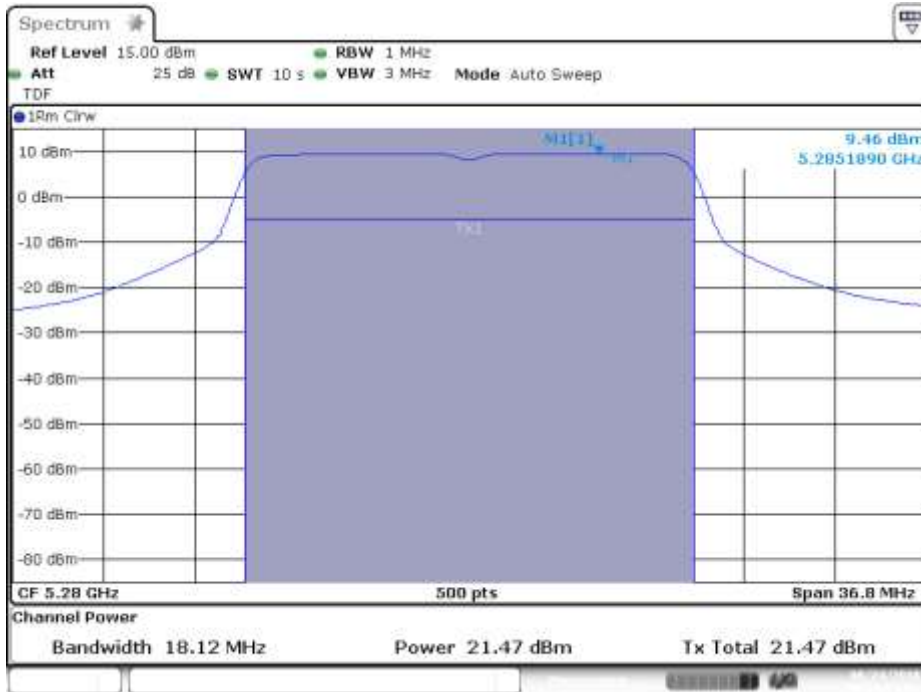
**SISO-B, 802.11a, 6Mbps**

Channel 64



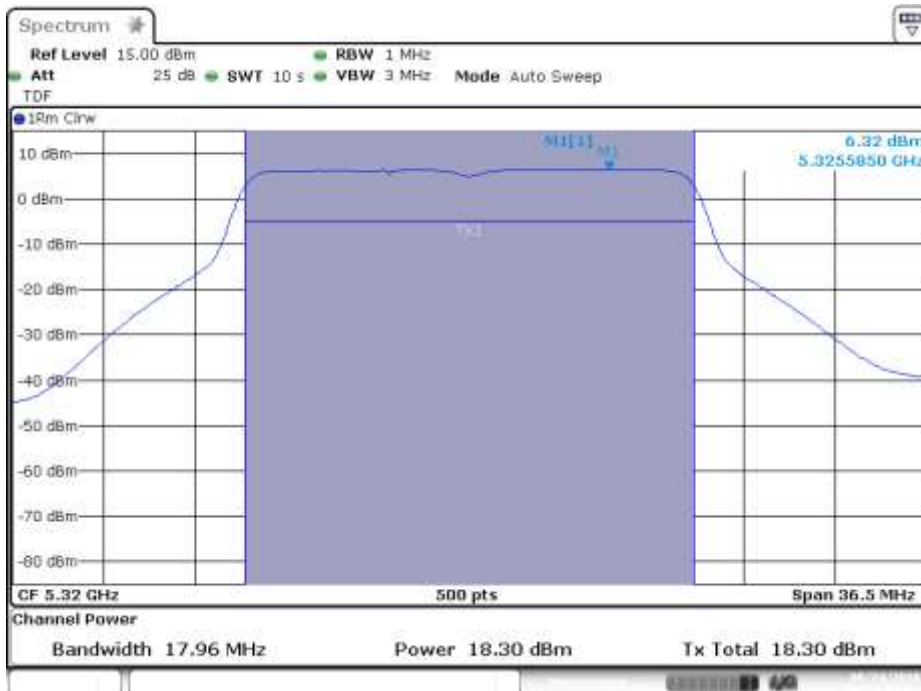
SISO-A, 802.11n20, HT0

Channel 56



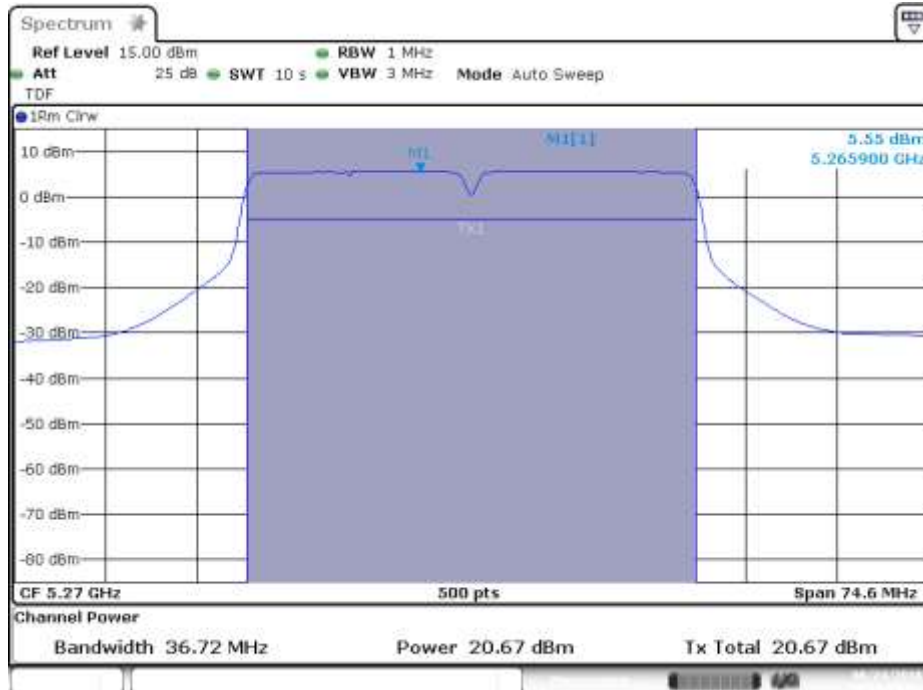
SISO-A, 802.11n20, HT0

Channel 64

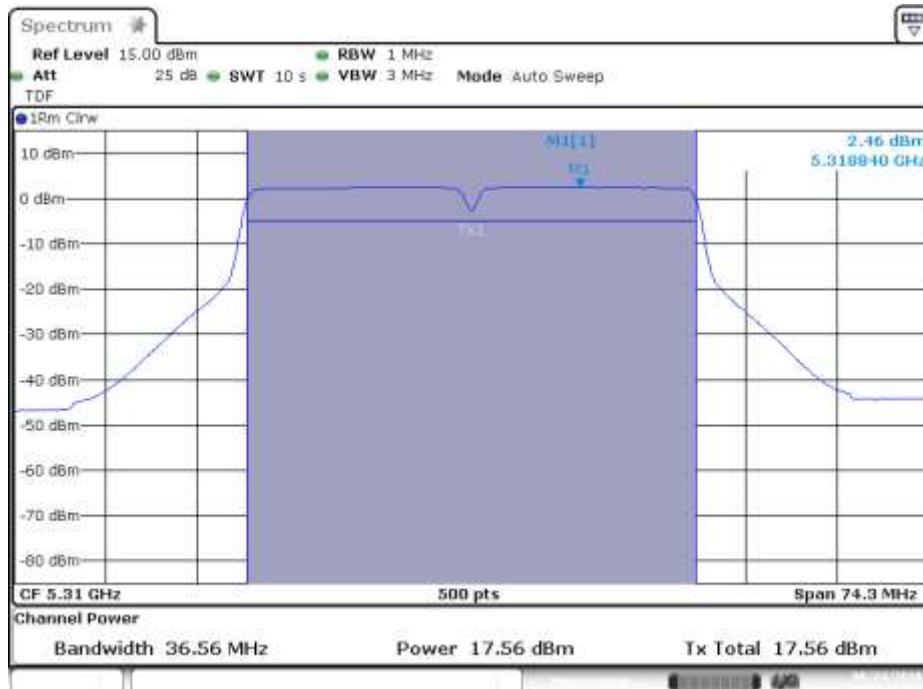


SISO-B, 802.11n40, HT0

Channel 54F

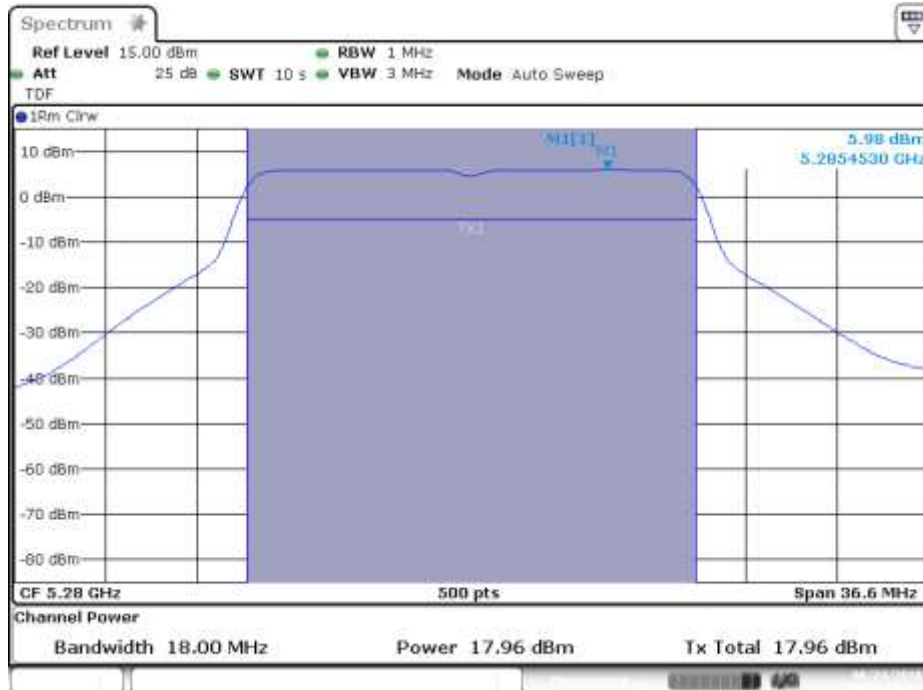


Channel 62F



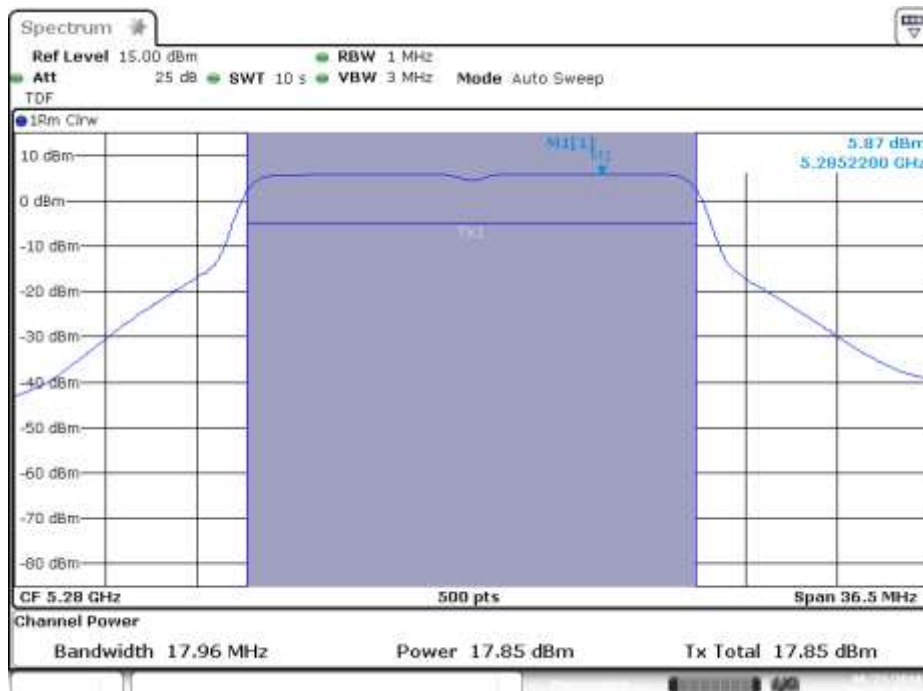
MIMO-A, 802.11n20, HT8

Channel 56



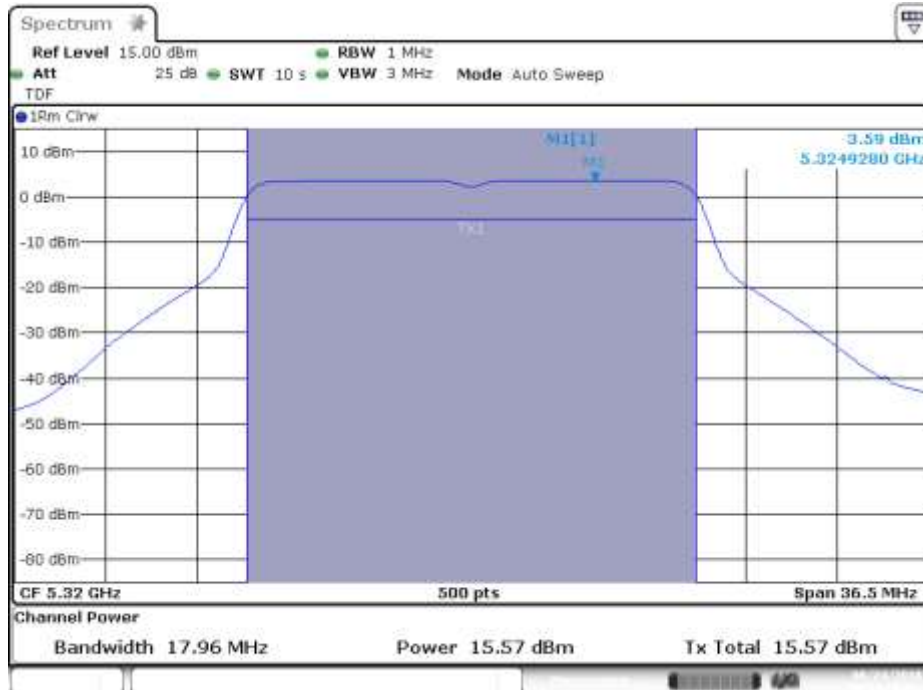
MIMO-B, 802.11n20, HT8

Channel 56



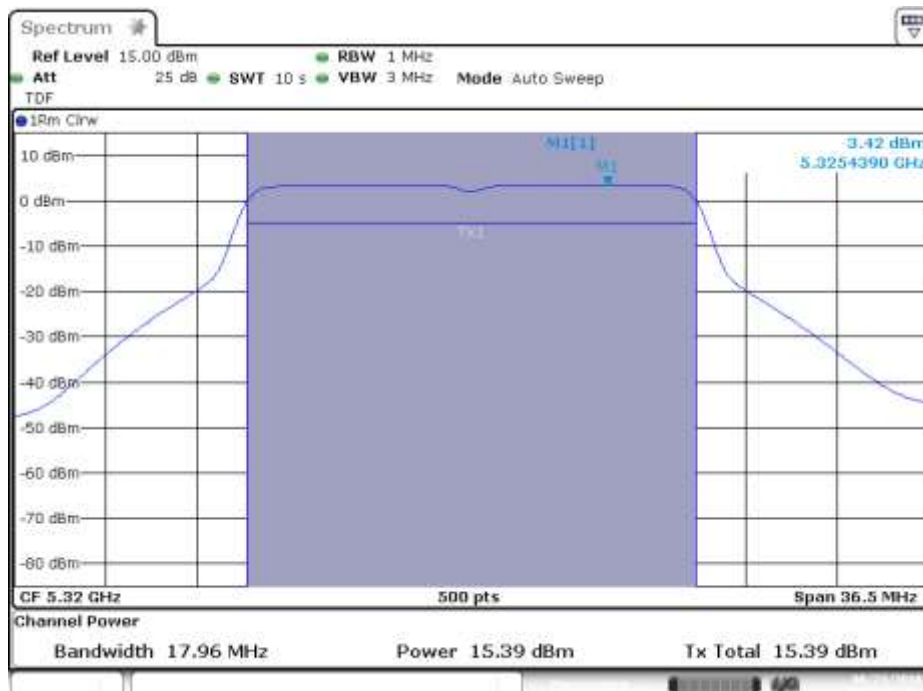
MIMO-A, 802.11n20, HT8

Channel 64



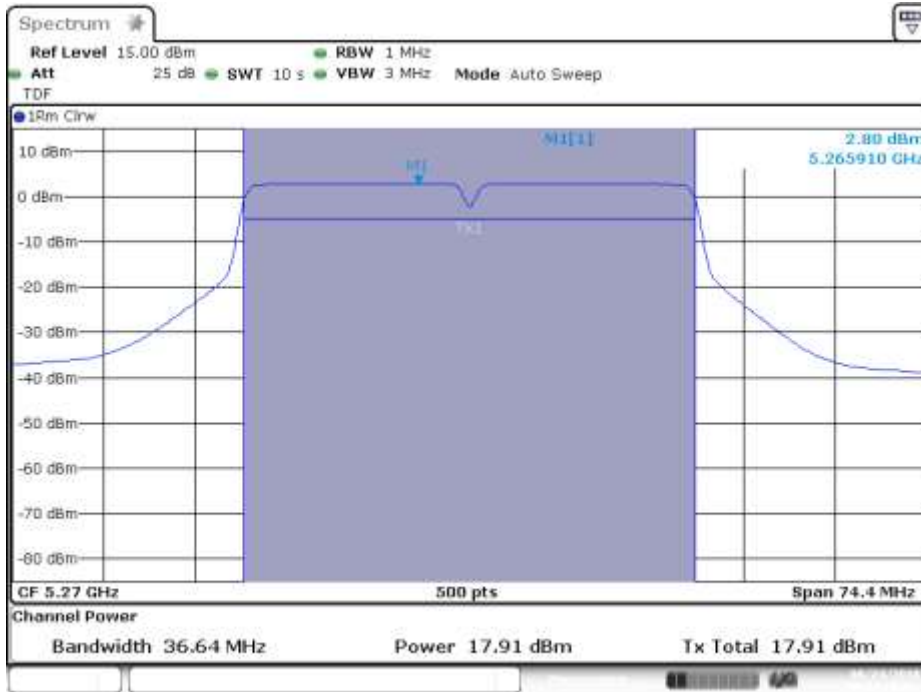
MIMO-B, 802.11n20, HT8

Channel 64



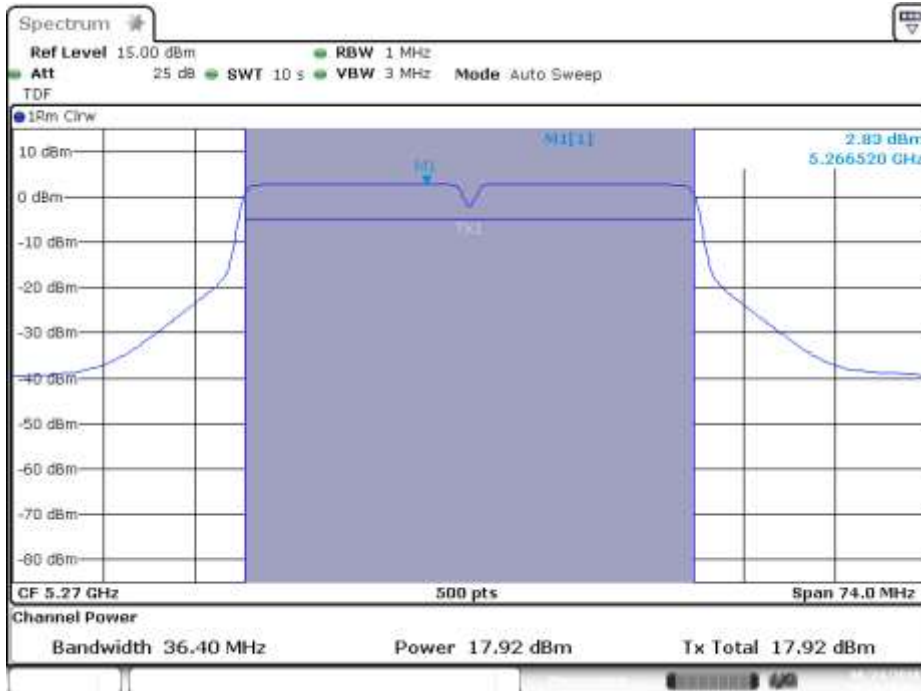
MIMO-A, 802.11n40, HT8

Channel 54F



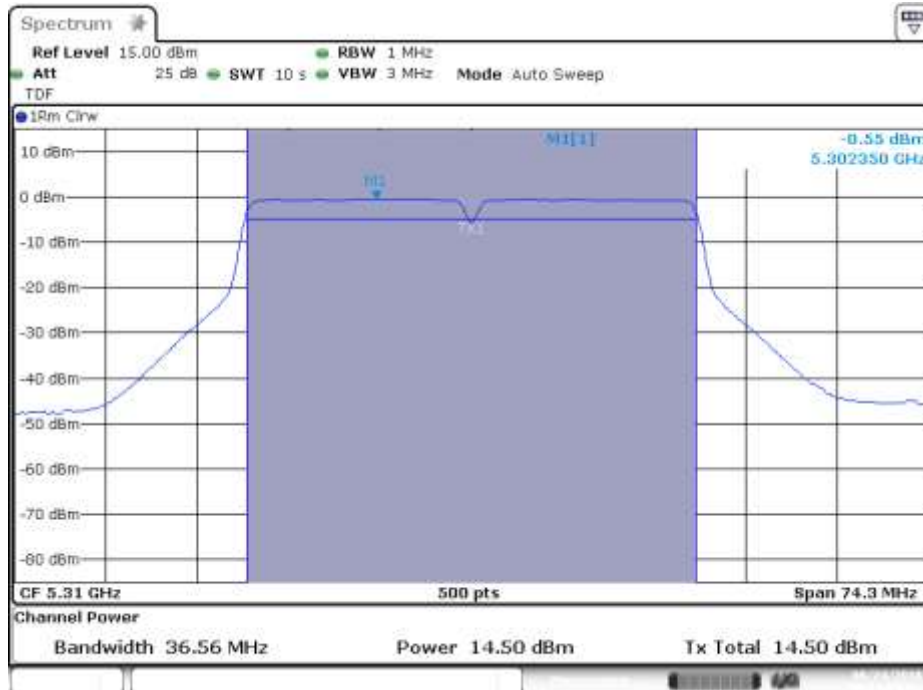
MIMO-B, 802.11n40, HT8

Channel 54F



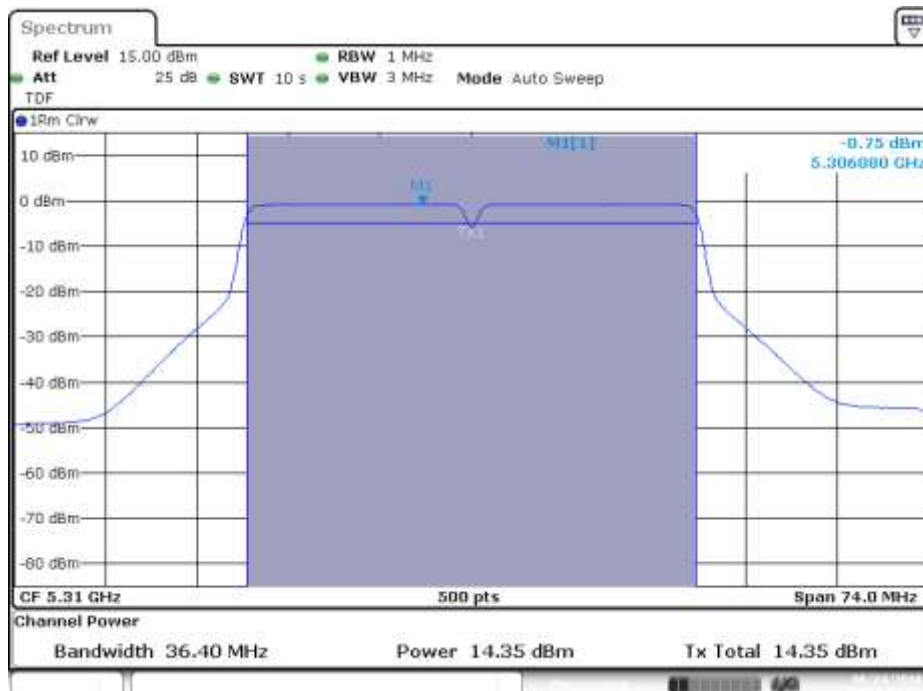
MIMO-A, 802.11n40, HT8

Channel 62F



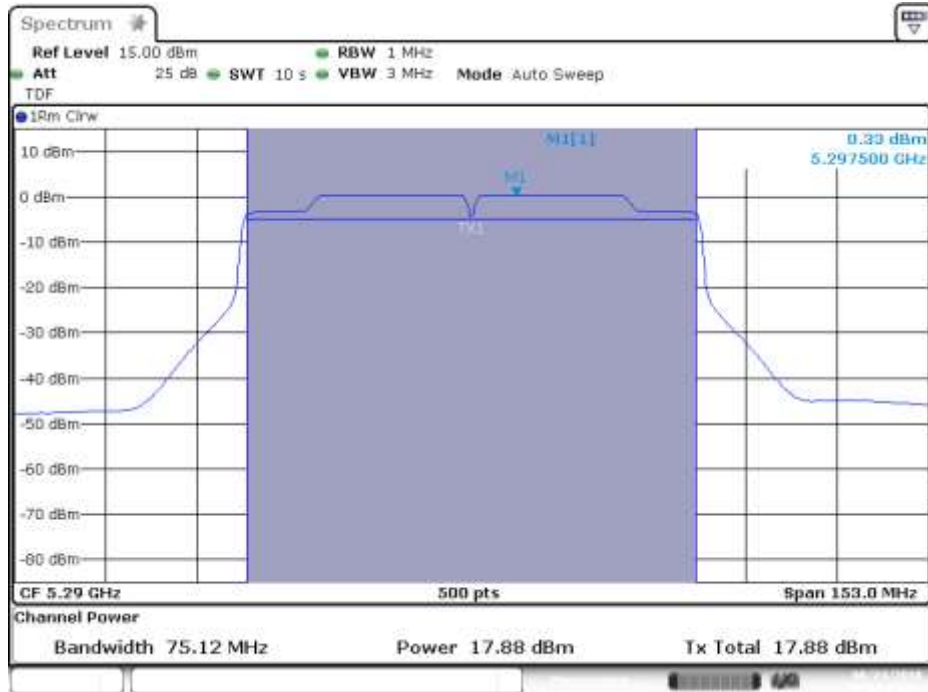
MIMO-B, 802.11n40, HT8

Channel 62F



SISO-A, 802.11ac80, VHT0

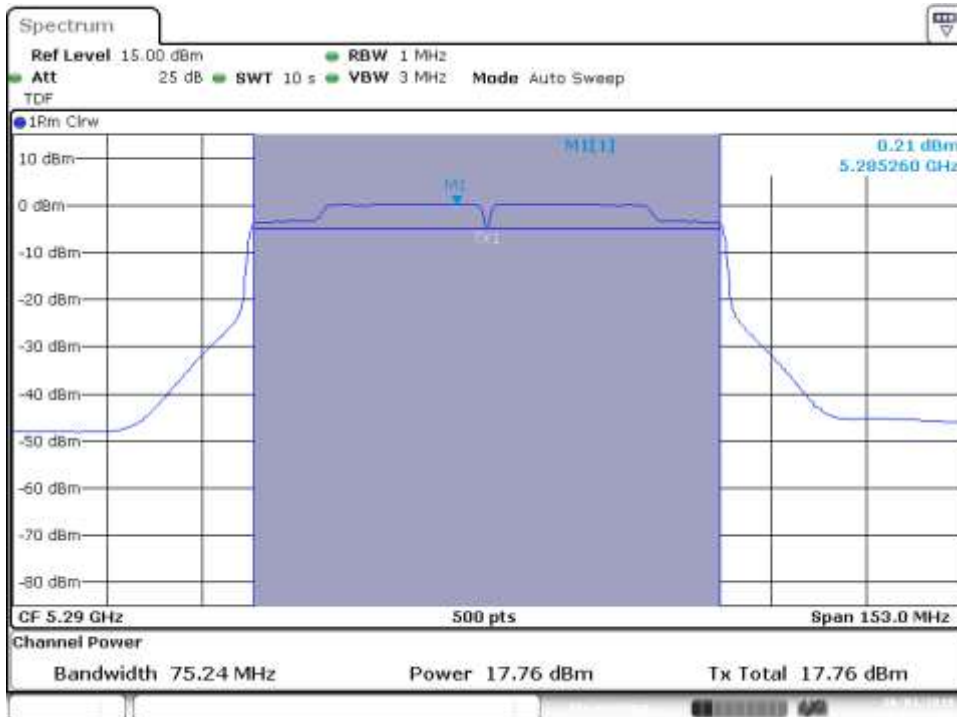
Channel 58ac80



+

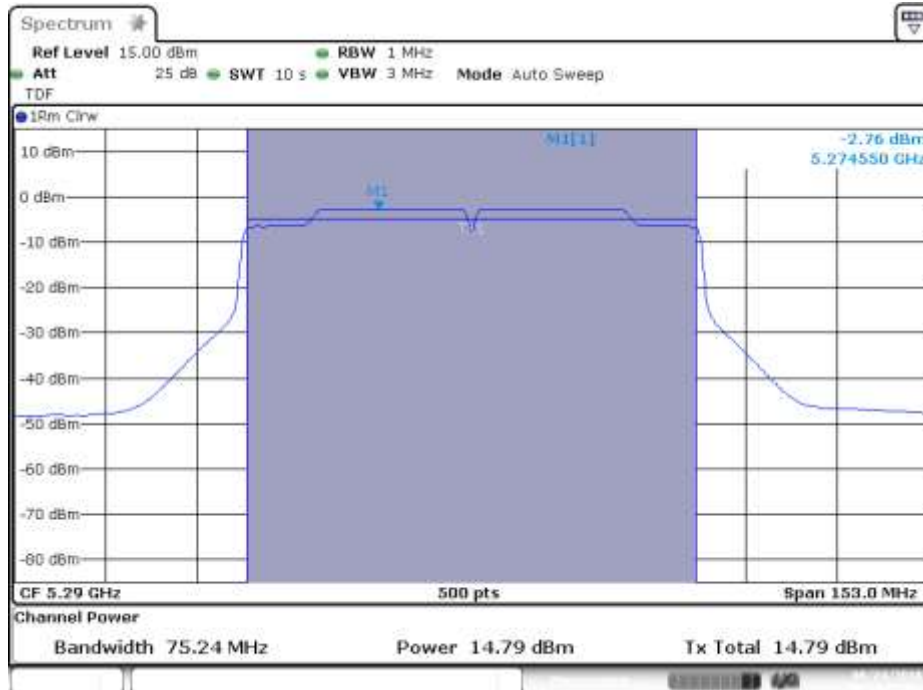
SISO-B, 802.11ac80, VHT0

Channel 58ac80



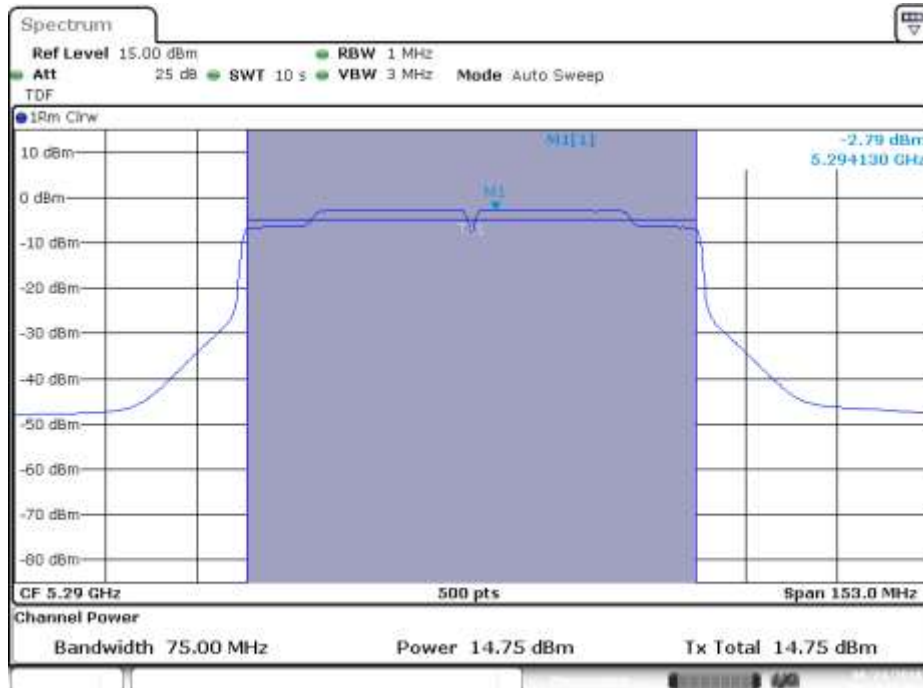
MIMO-A, 802.11ac80, VHT0

Channel 58ac80



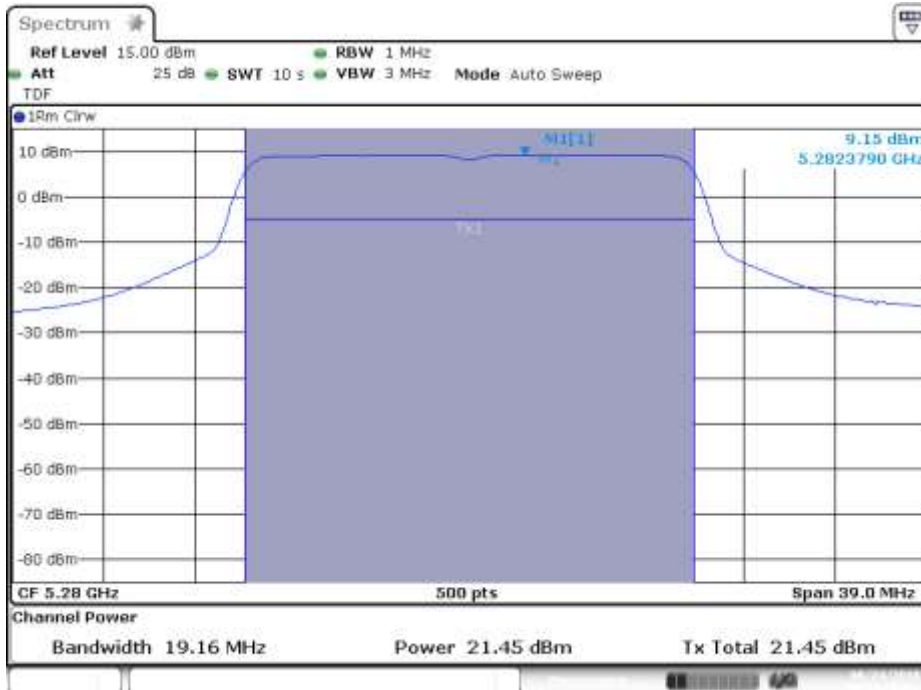
MIMO-B, 802.11ac80, VHT0

Channel 58ac80



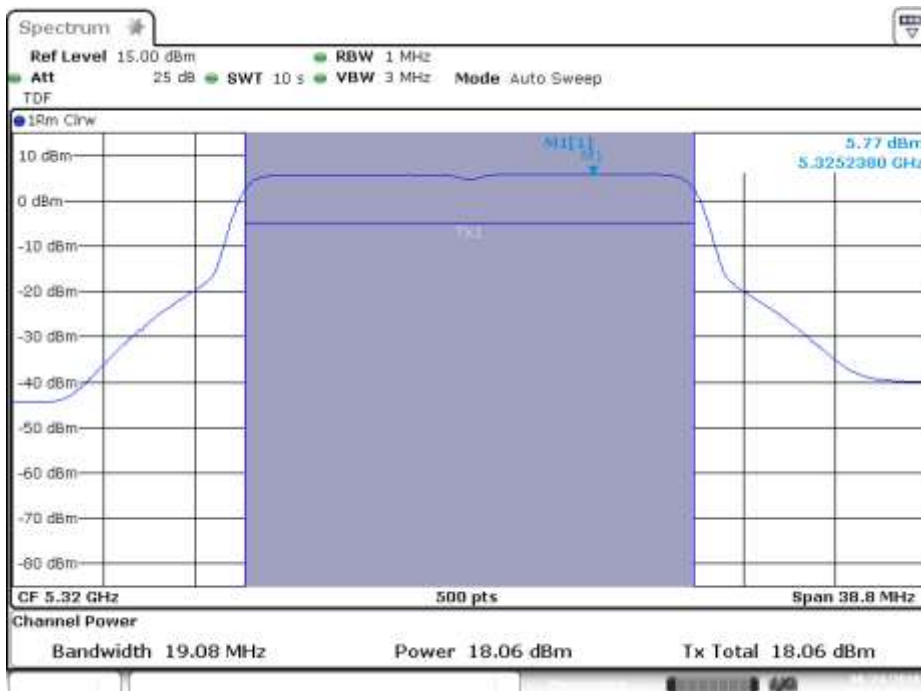
SISO-A, 802.11ax20, HE0

Channel 56



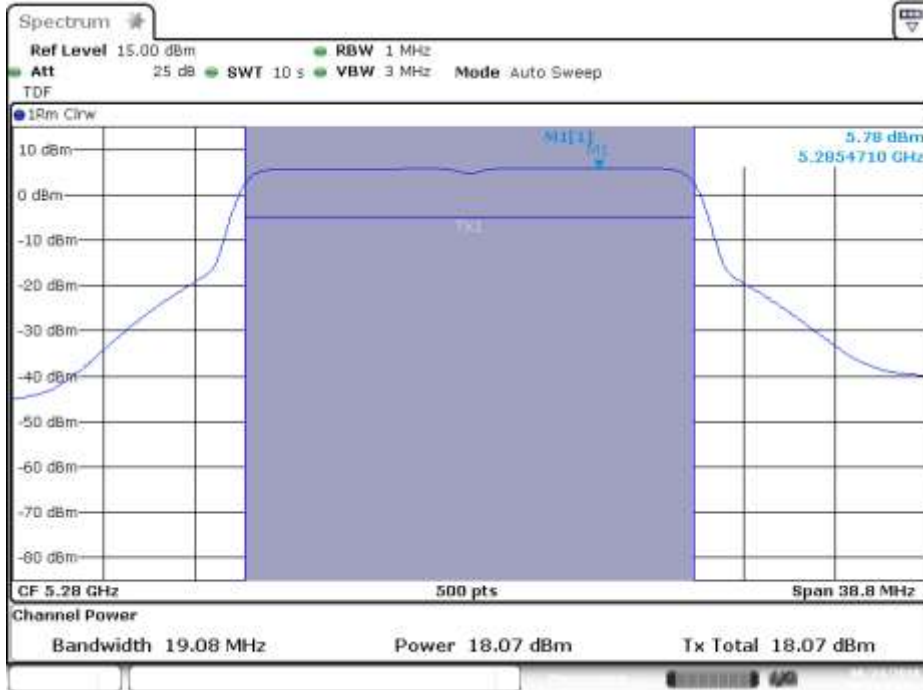
SISO-A, 802.11ax20, HE0

Channel 64



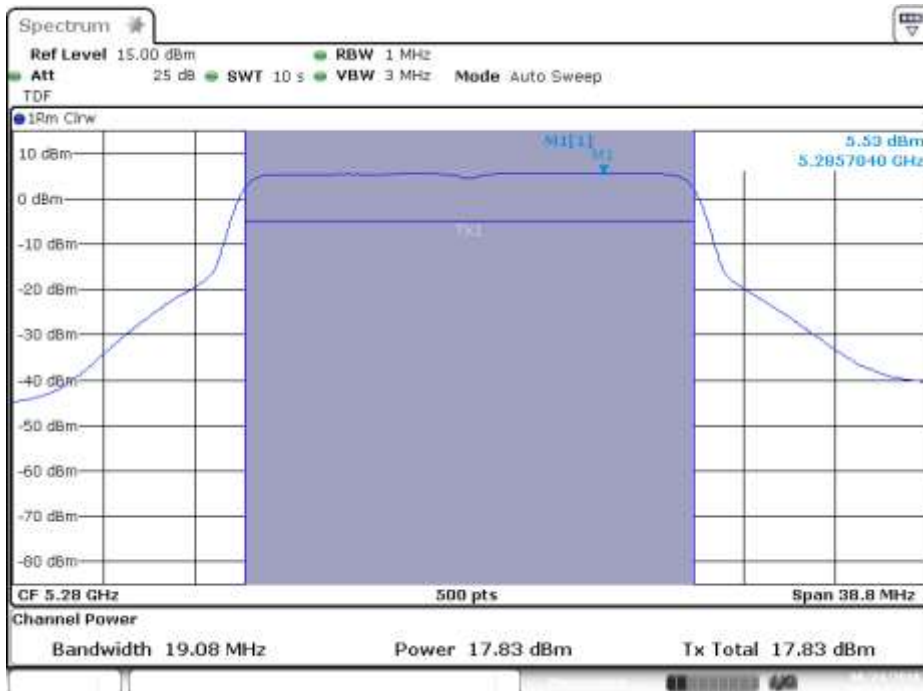
MIMO-A, 802.11ax20, HE0

Channel 56



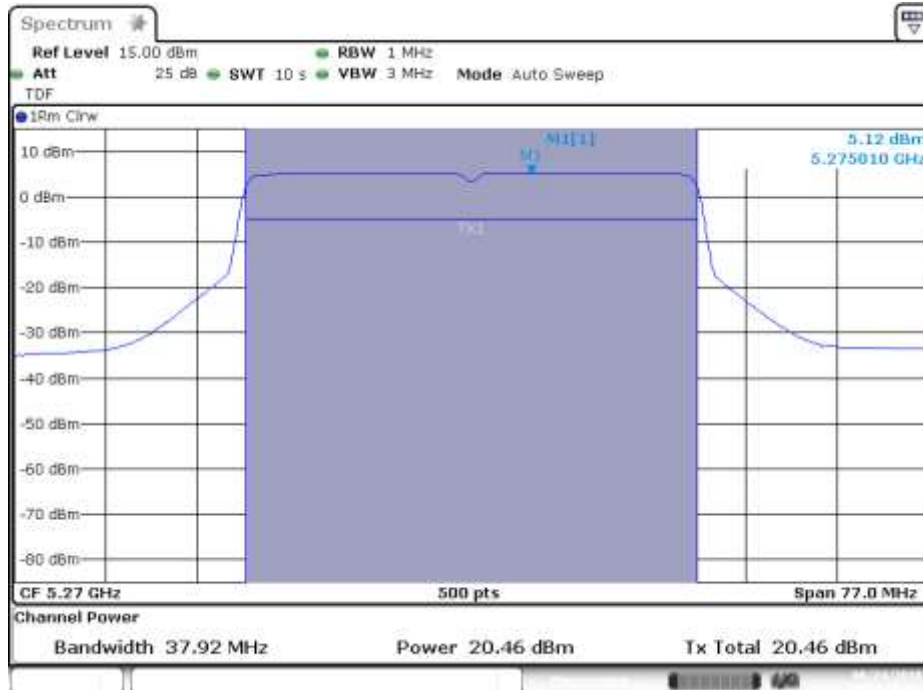
MIMO-B, 802.11ax20, HE0

Channel 56



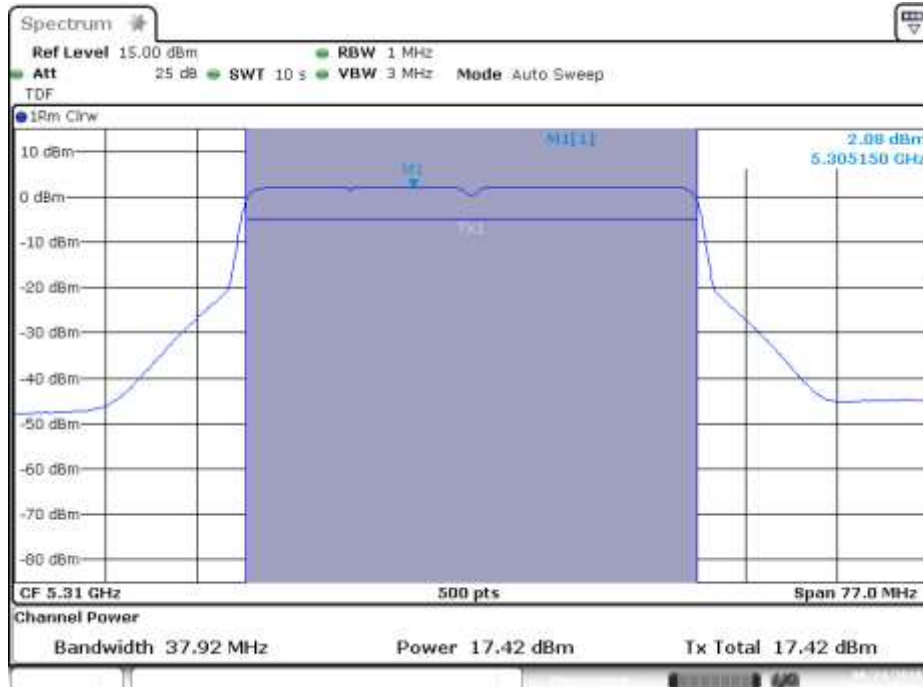
SISO-B, 802.11ax40, HE0

Channel 54F



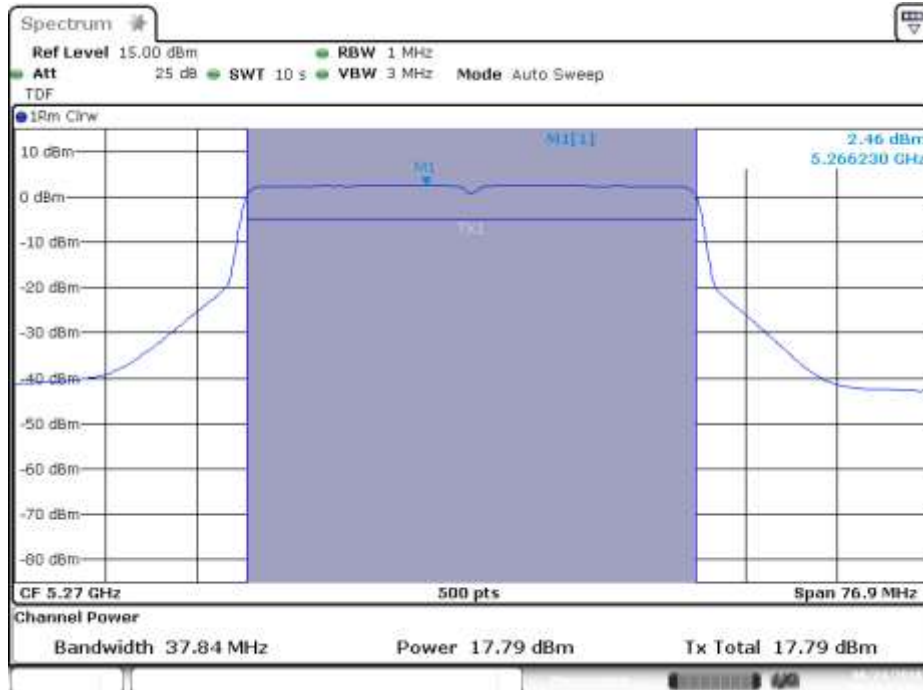
SISO-B, 802.11ax40, HE0

Channel 62F



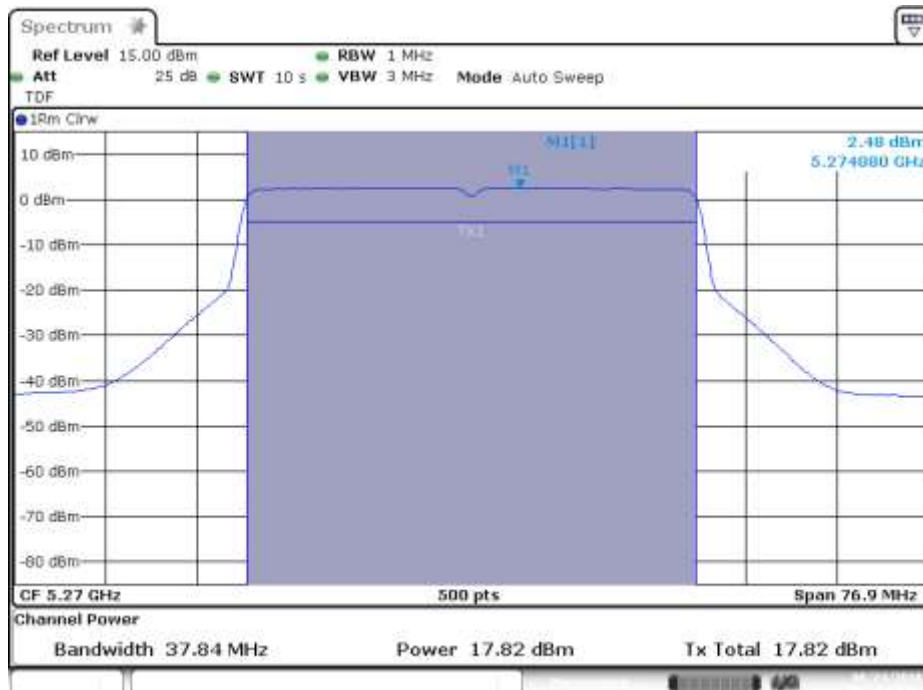
MIMO-A, 802.11ax40, HE0

Channel 54F



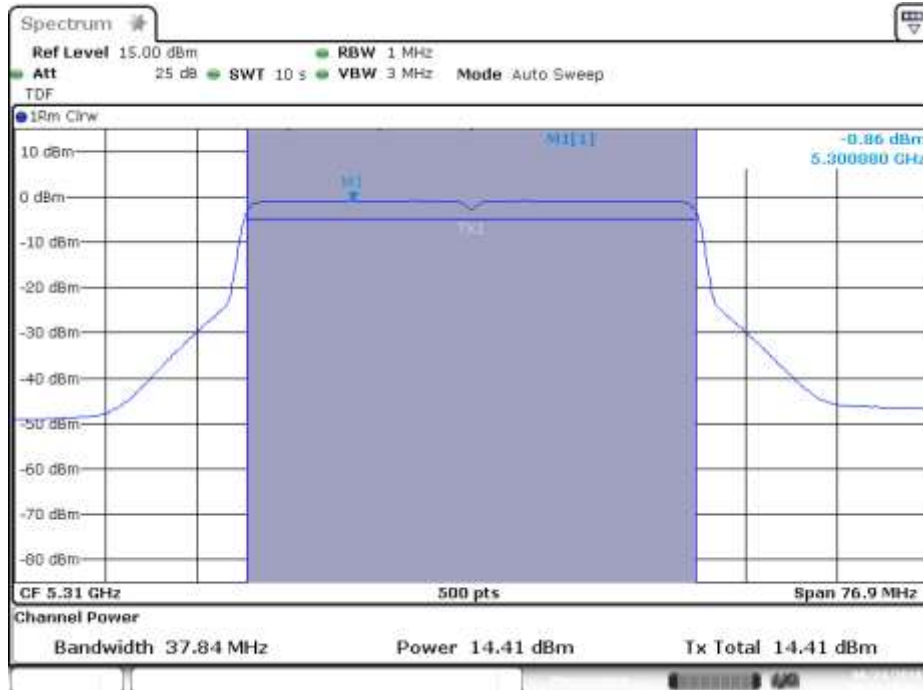
MIMO-B, 802.11ax40, HE0

Channel 54F



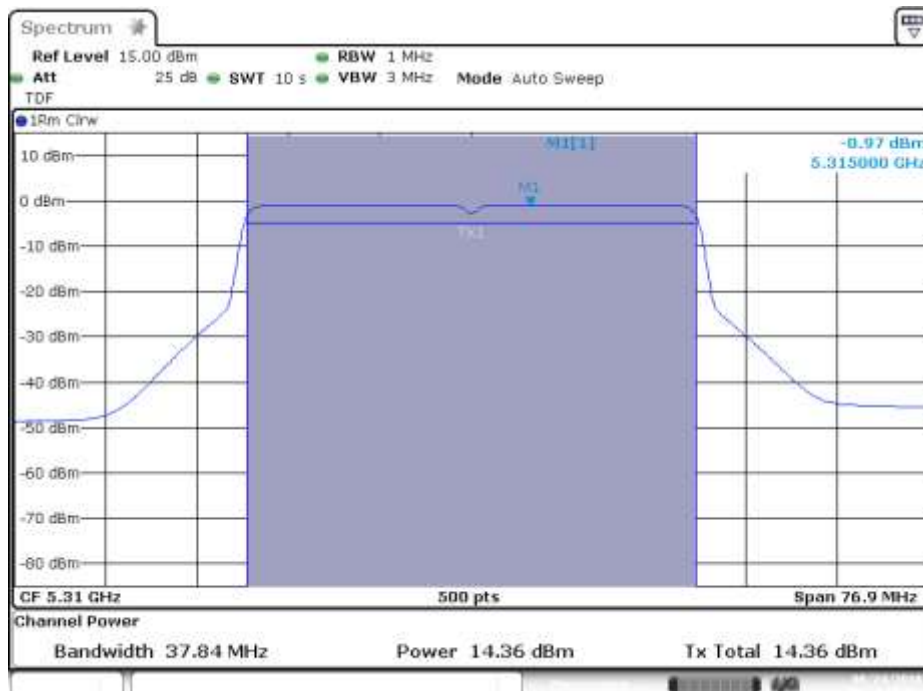
MIMO-A, 802.11ax40, HE0

Channel 62F



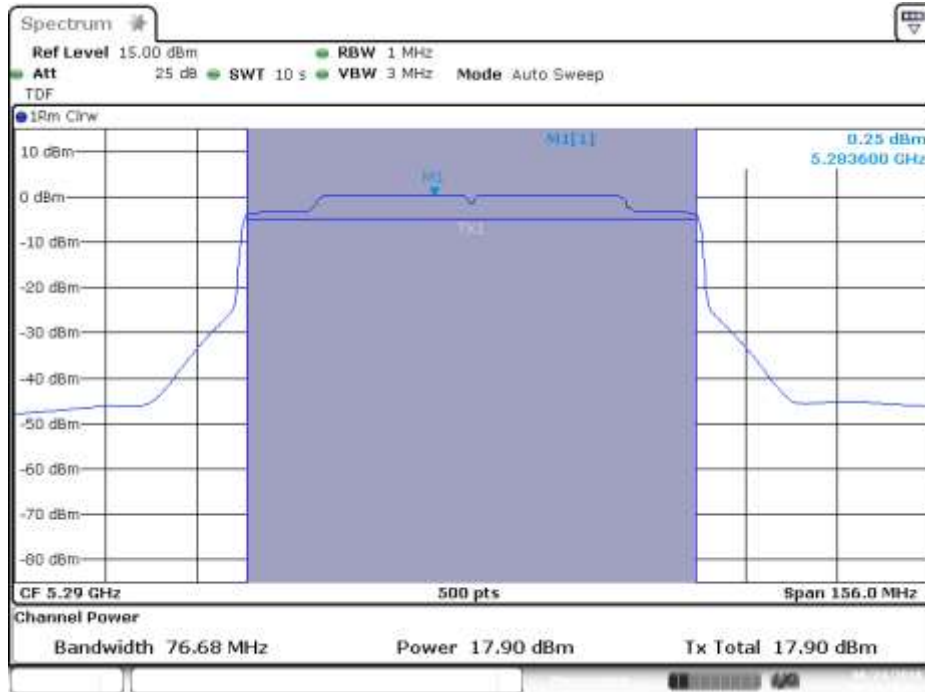
MIMO-B, 802.11ax40, HE0

Channel 62F



SISO-A, 802.11ax80, HE0

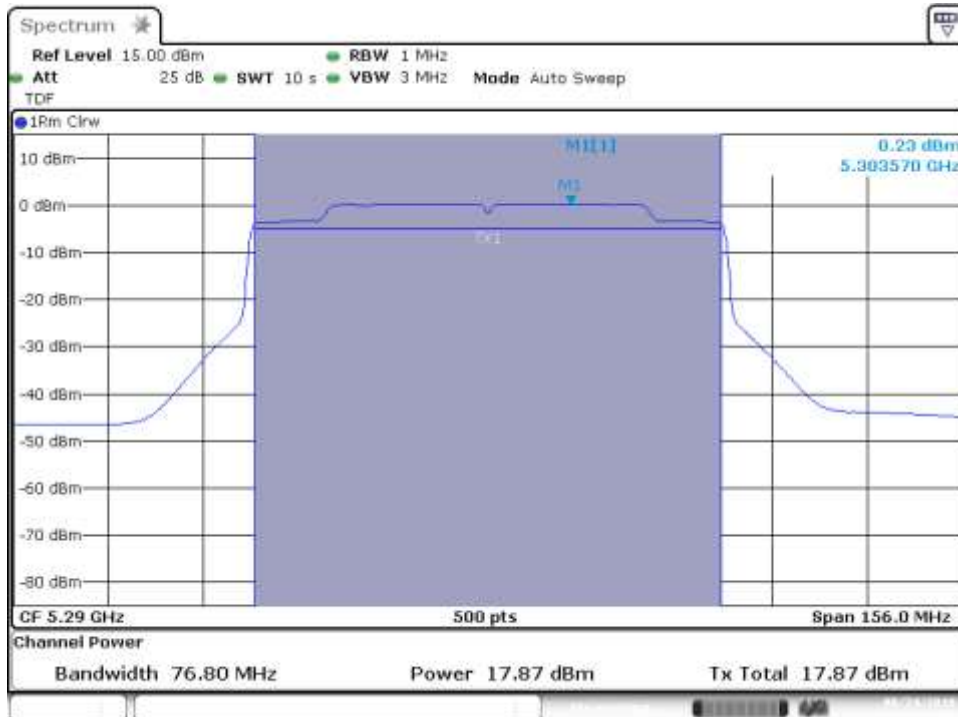
Channel 58ax80



+

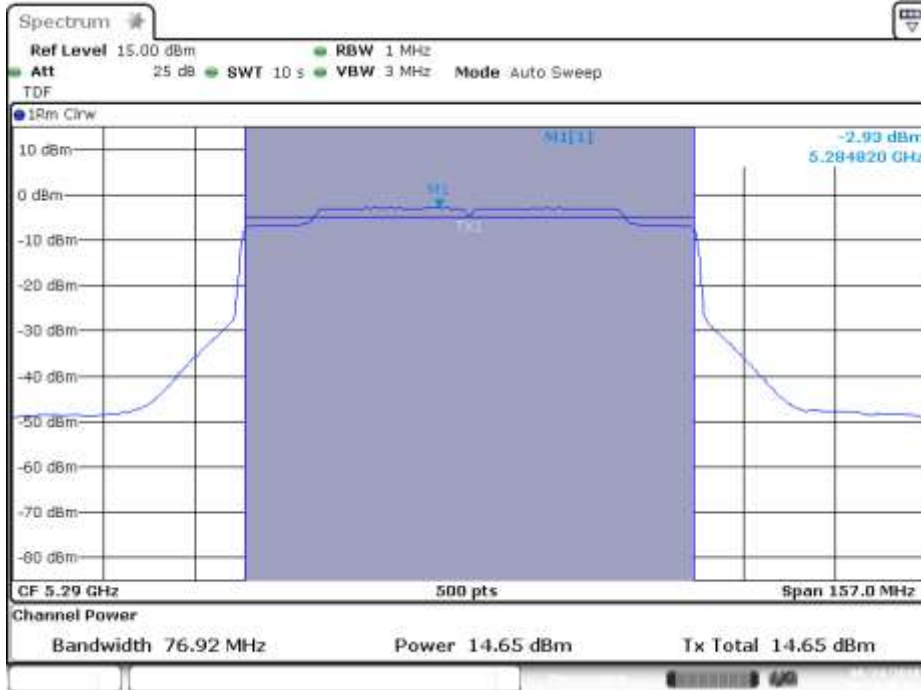
SISO-B, 802.11ax80, HE0

Channel 58ax80



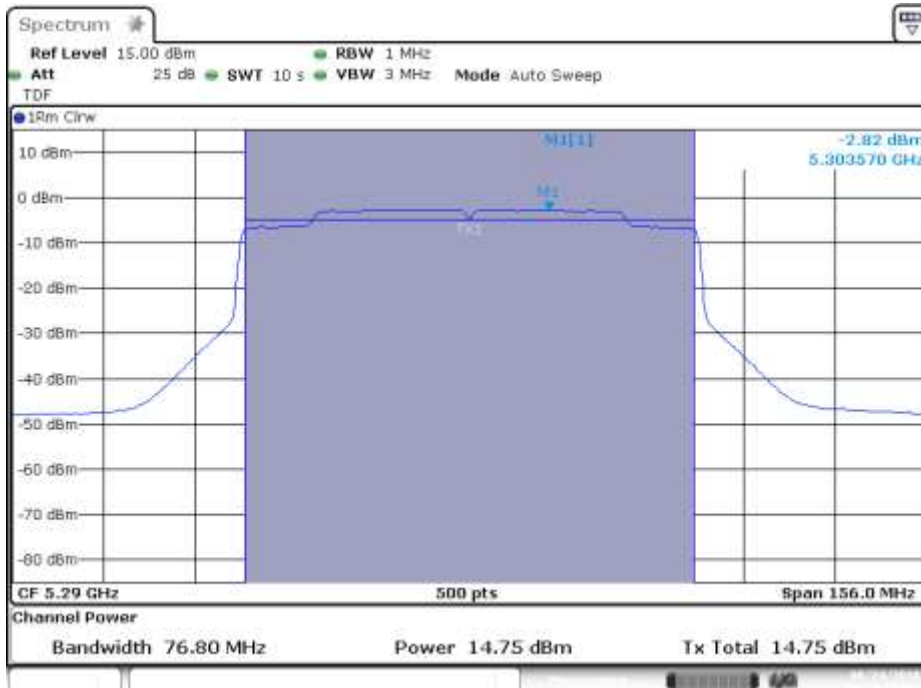
MIMO-A, 802.11ax80, HE0

Channel 58ax80



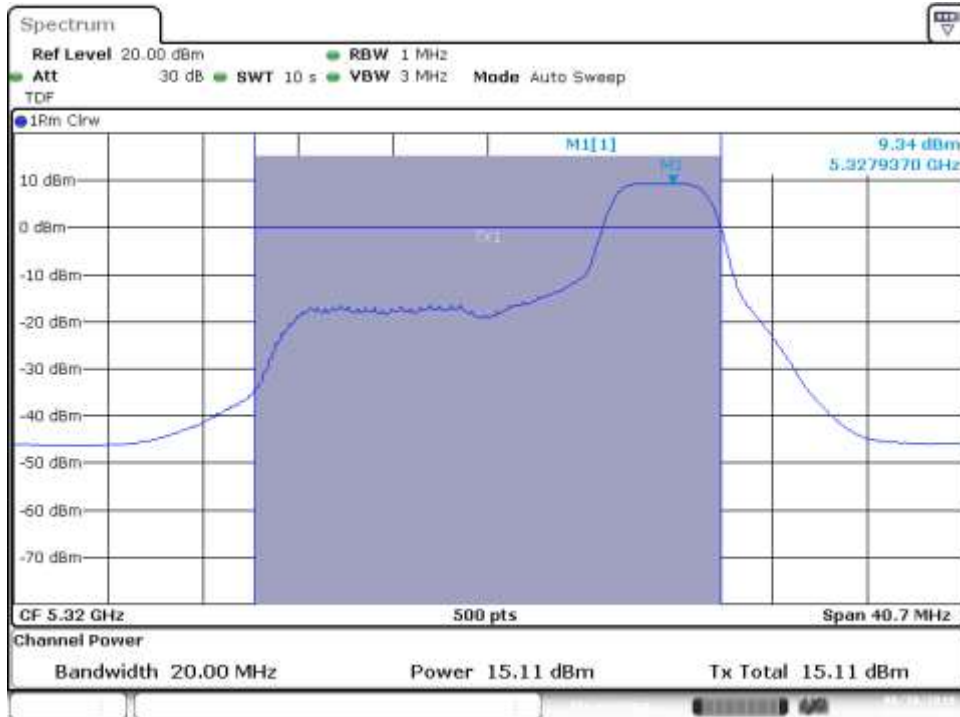
MIMO-B, 802.11ax80, HE0

Channel 58ax80



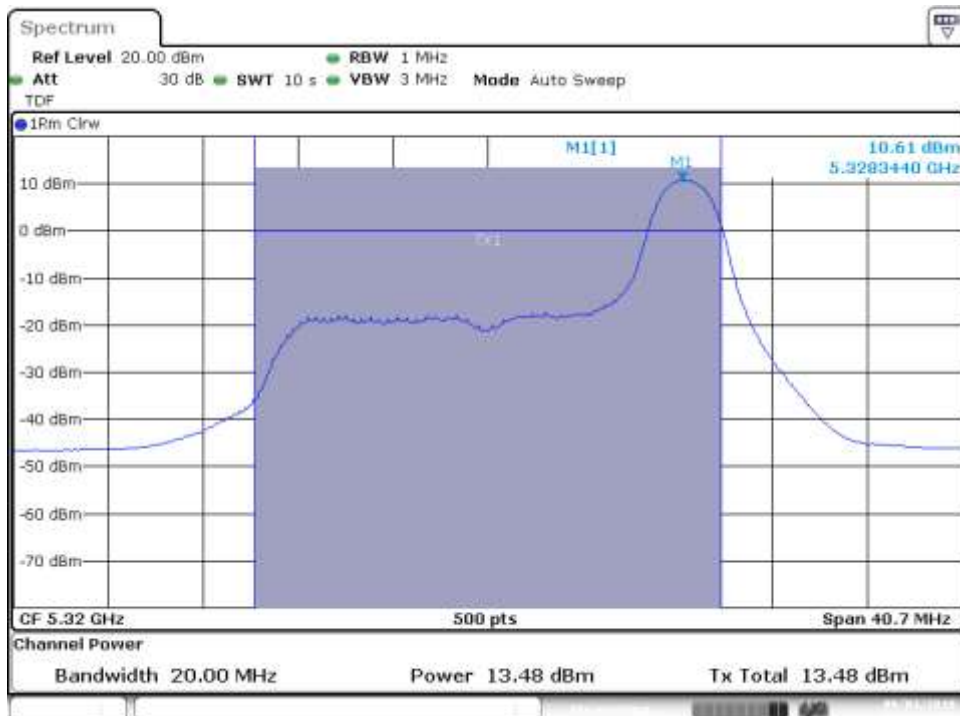
SISO-A, 802.11ax20, HE0, RU 106/54

Channel 64



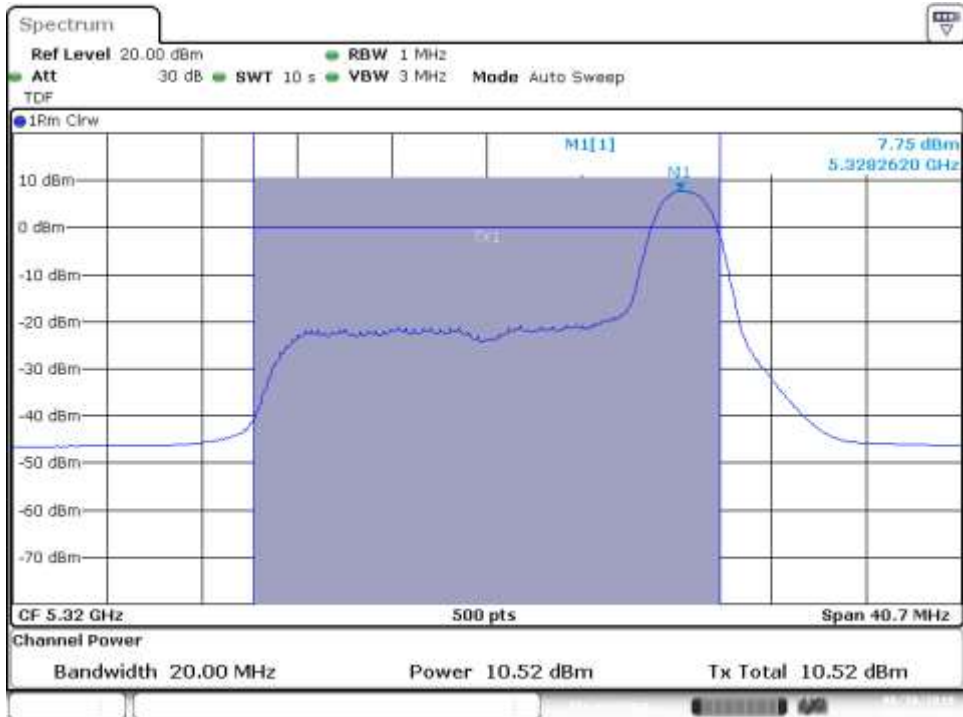
SISO-B, 802.11ax20, HE0, RU 26/8

Channel 64



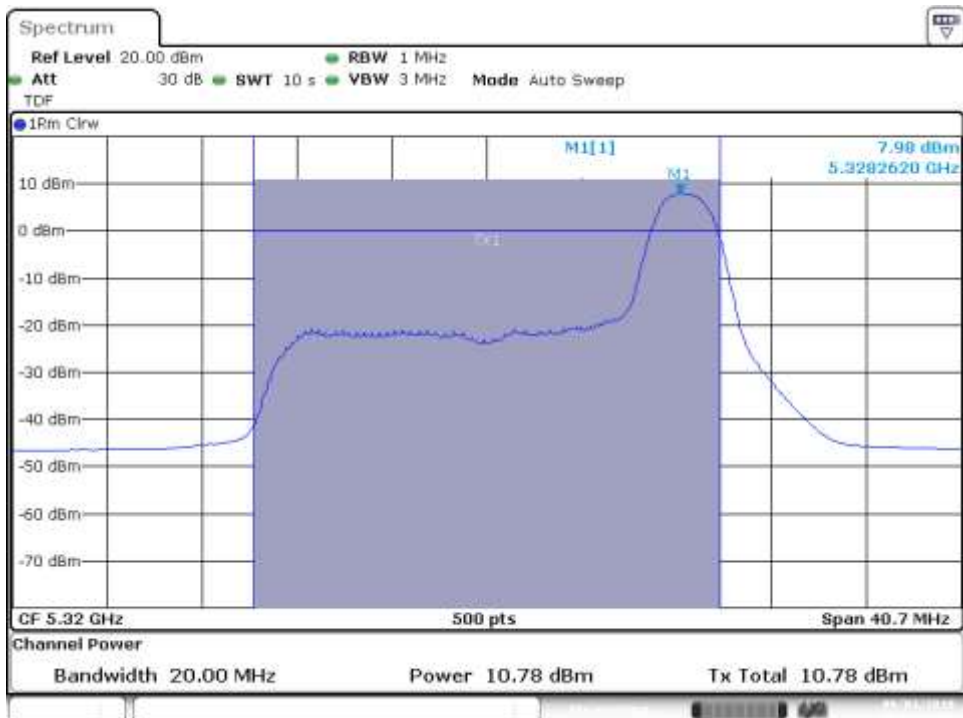
MIMO-A, 802.11ax20, HE0, RU 26/8

Channel 64



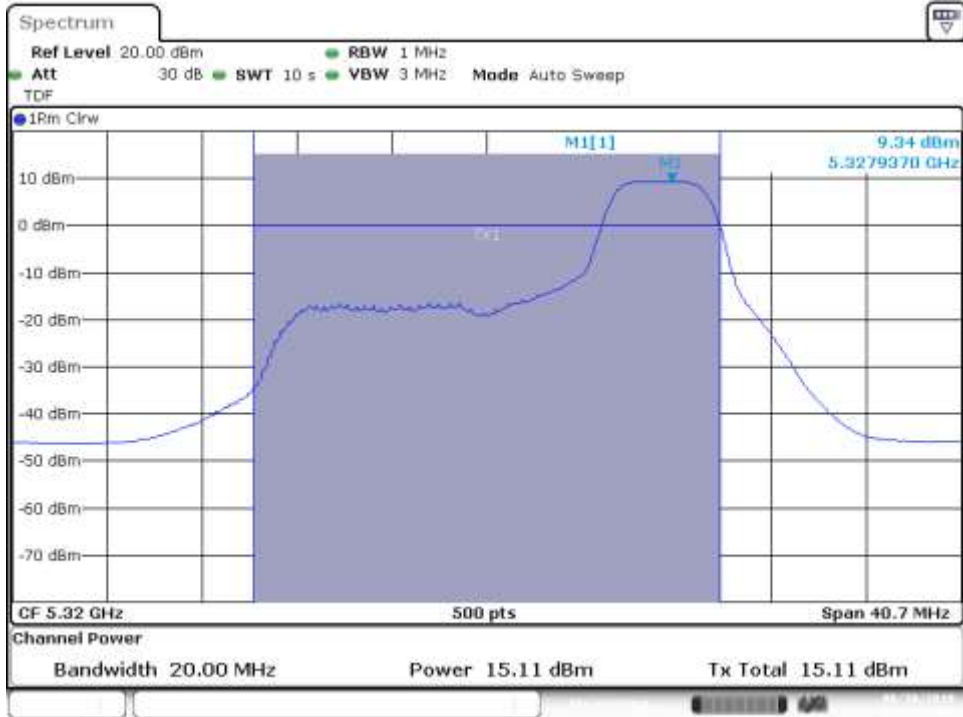
MIMO-B, 802.11ax20, HE0, RU 26/8

Channel 64



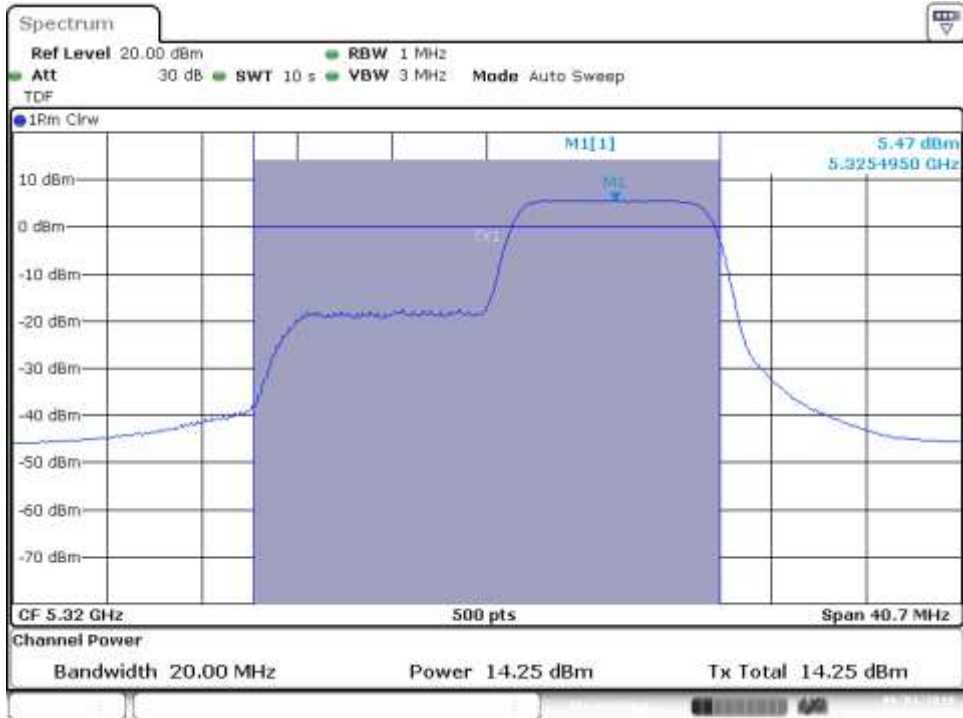
MIMO-A, 802.11ax20, HE0, RU 106/54

Channel 64



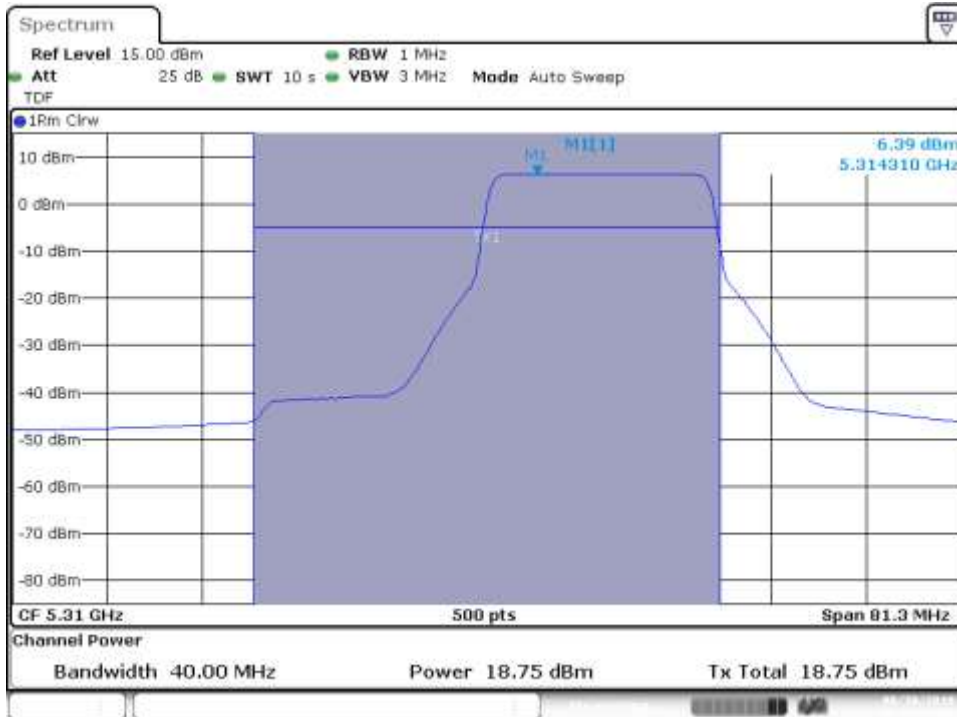
MIMO-B, 802.11ax20, HE0, RU 106/54

Channel 64



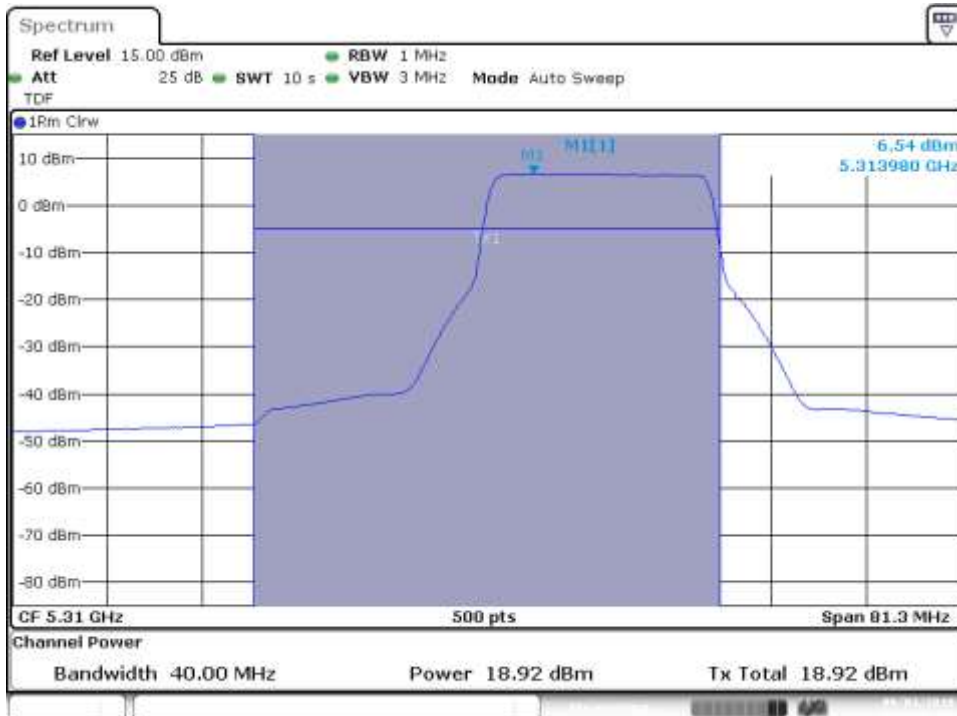
SISO-A, 802.11ax40, HE0, RU 242/62

Channel 62F



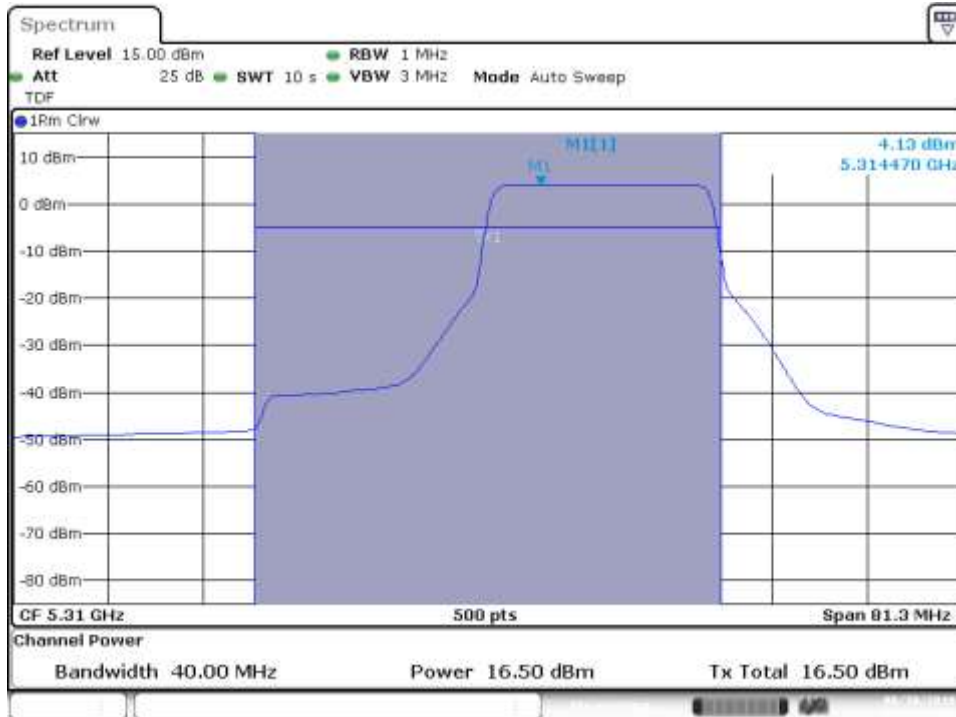
SISO-B, 802.11ax40, HE0, RU 242/62

Channel 62F



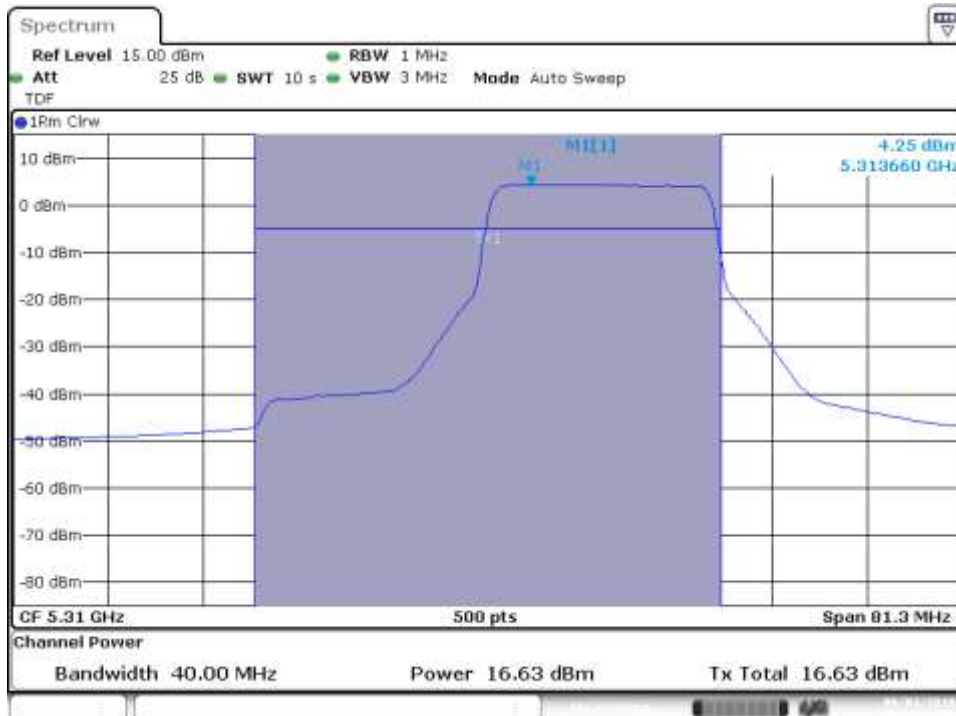
MIMO-A, 802.11ax40, HE0, RU 242/62

Channel 62F



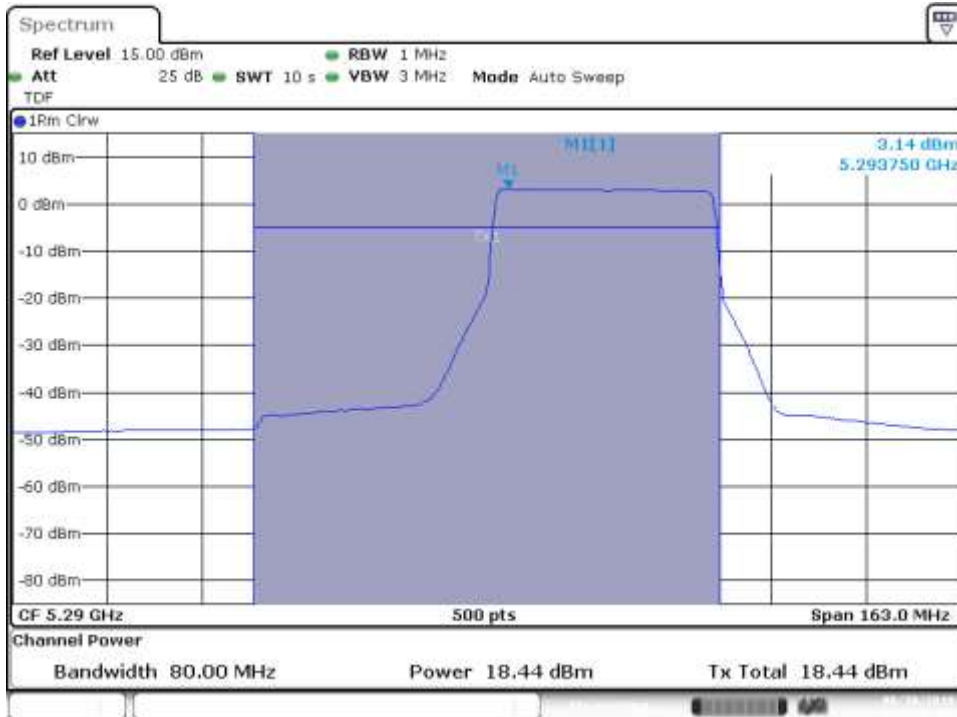
MIMO-B, 802.11ax40, HE0, RU 242/62

Channel 62F



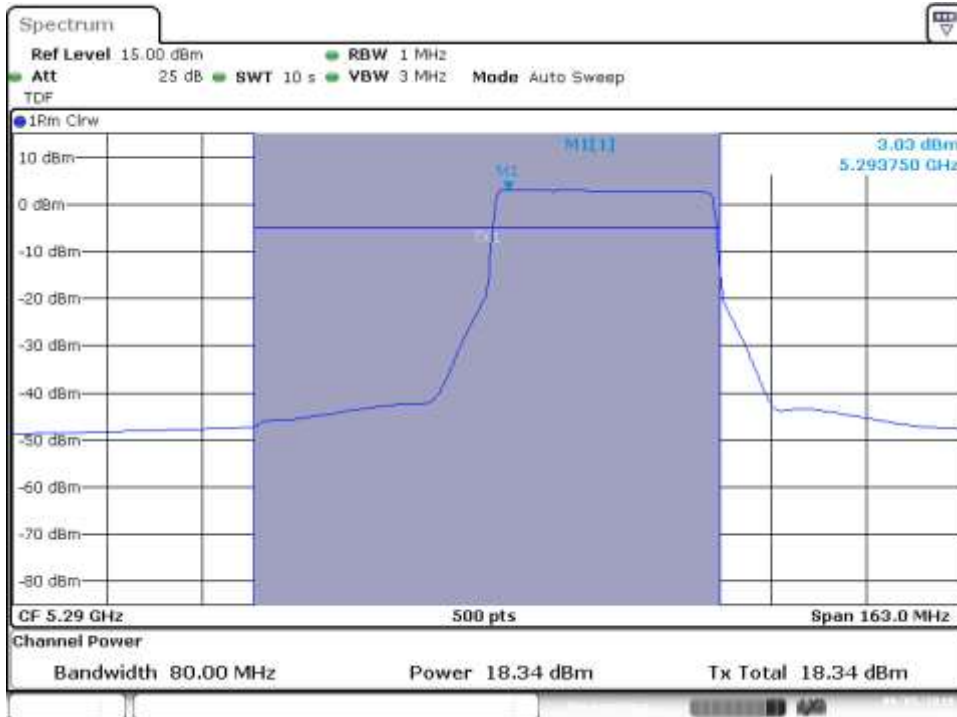
SISO-A, 802.11ax80, HE0, RU 484/66

Channel 58ax80



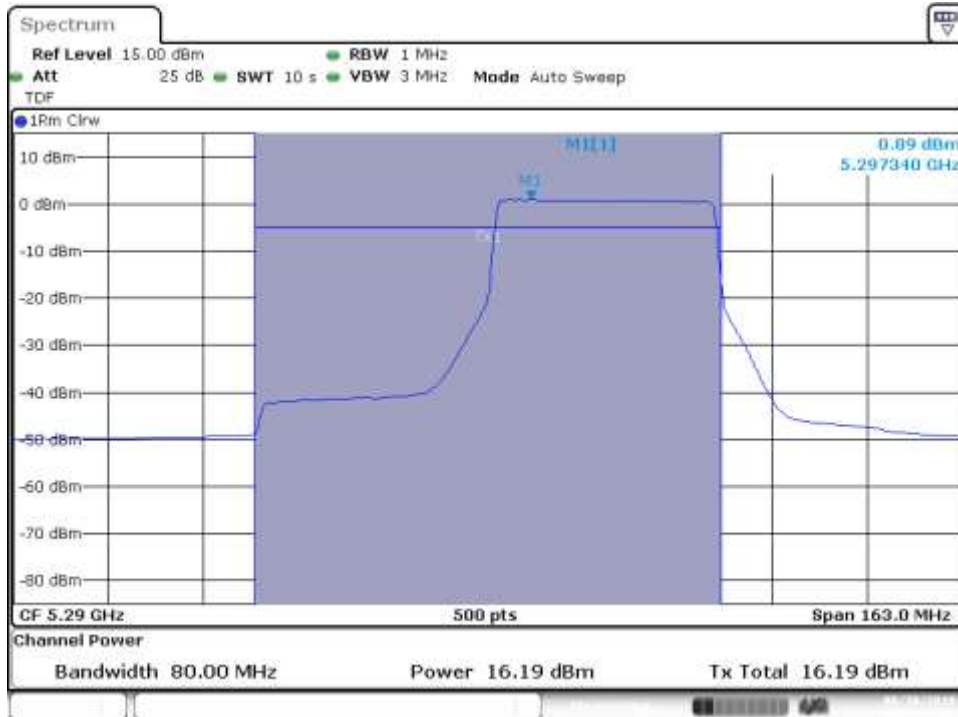
SISO-B, 802.11ax80, HE0, RU 484/66

Channel 58ax80



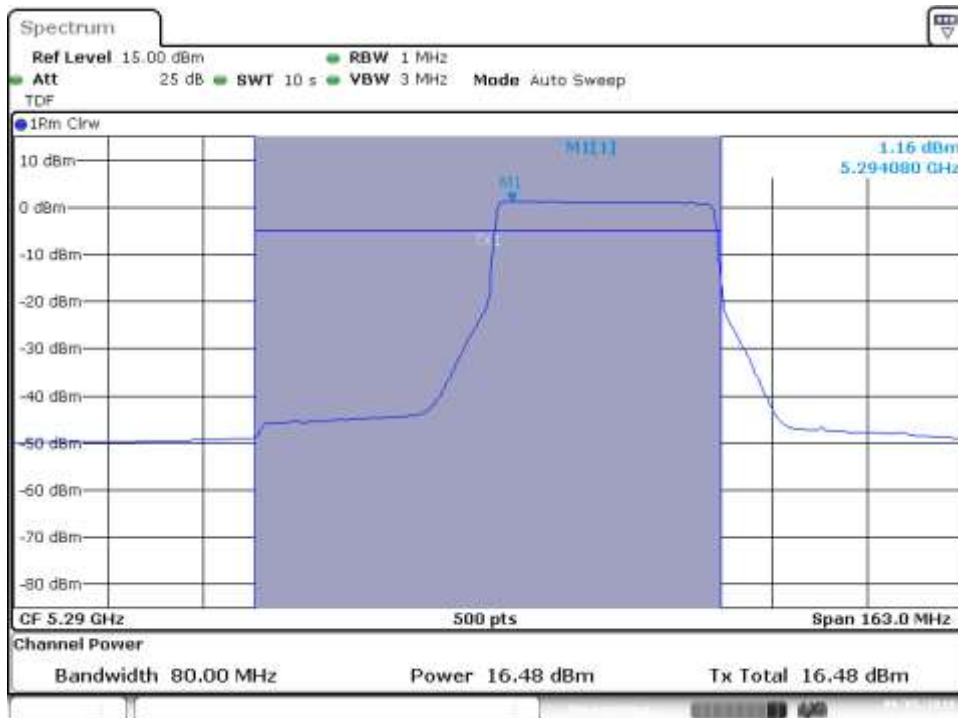
MIMO-A, 802.11ax80, HE0, RU 484/66

Channel 58ax80



MIMO-B, 802.11ax80, HE0, RU 484/66

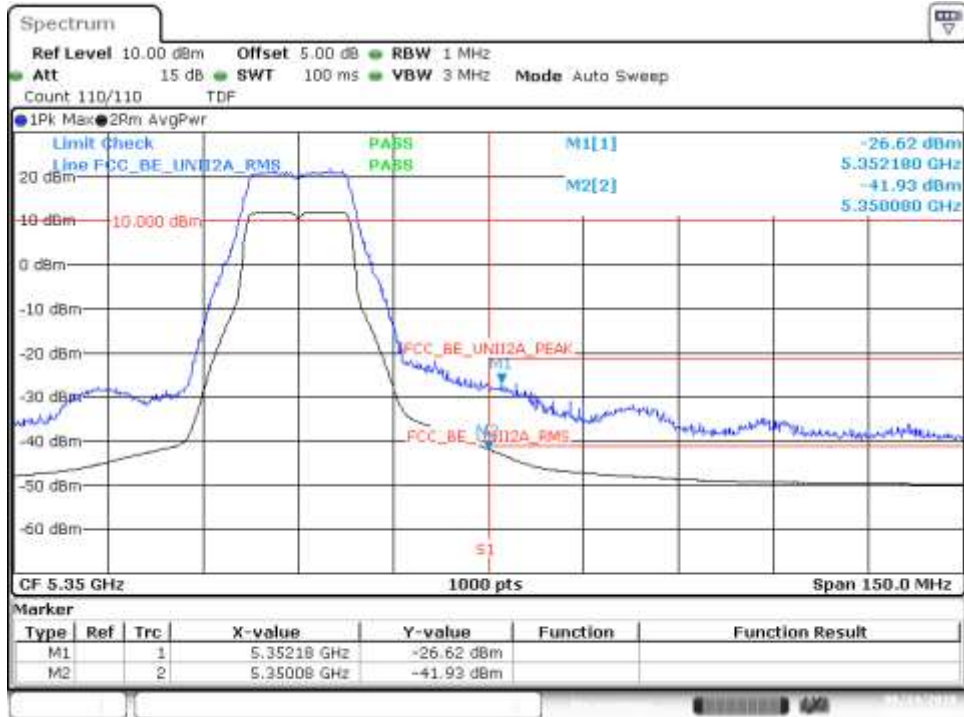
Channel 58ax80



B.5.4 Undesirable emissions limits : Band Edge (Conducted)

802.11a, 6Mbps – Chain A

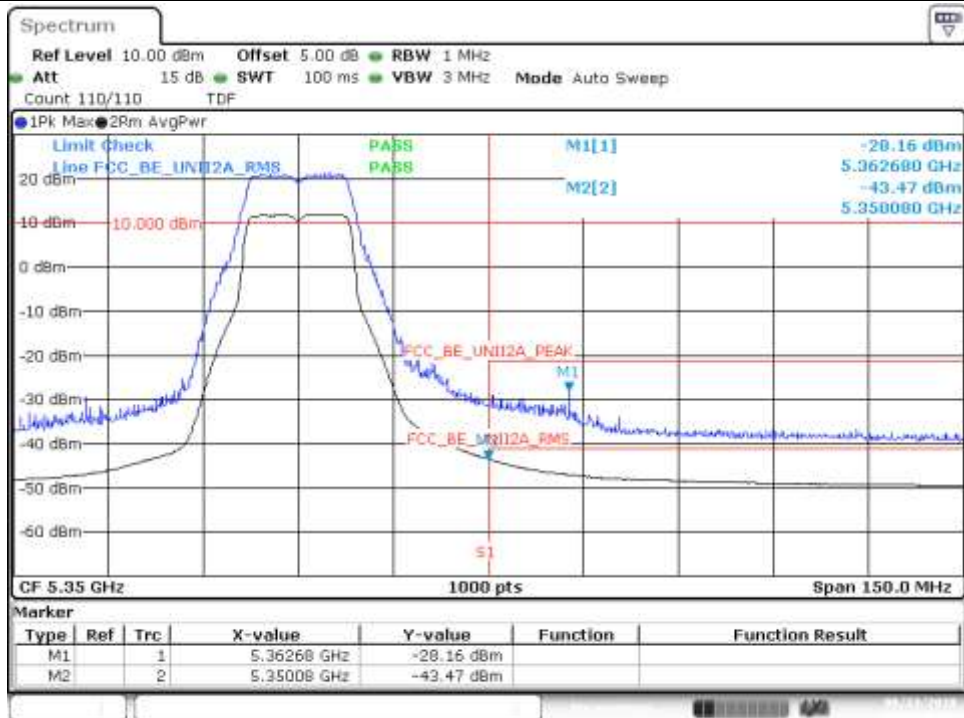
BE High Freq Section, Peak, RMS – CH64



Date: 24.AUG.2018 14:29:45

802.11a, 6Mbps – Chain B

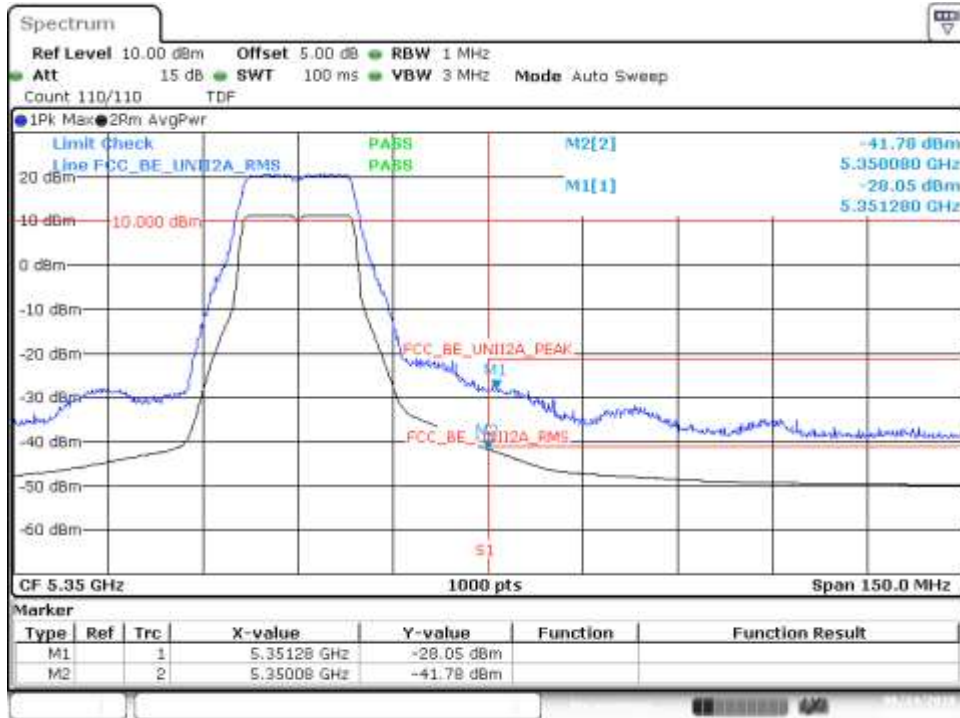
BE High Freq Section, Peak, RMS – CH64



Date: 23.AUG.2018 19:20:48

802.11n20, HT0 (SISO) - Chain A

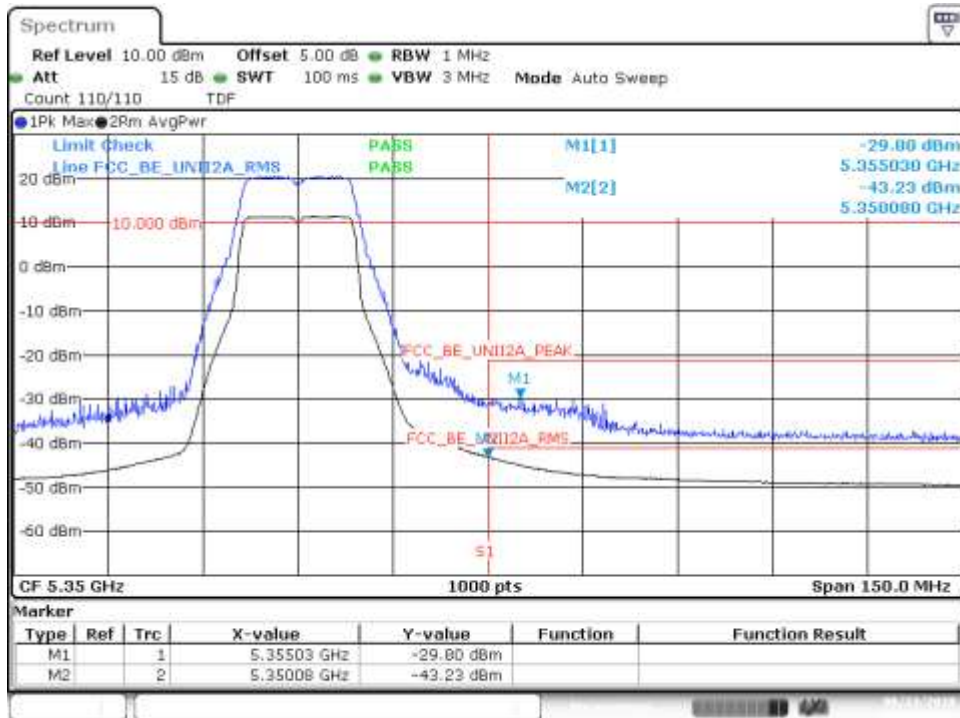
BE High Freq Section, Peak, RMS – CH64



Date: 24.AUG.2018 14:39:13

802.11n20, HT0 (SISO) - Chain B

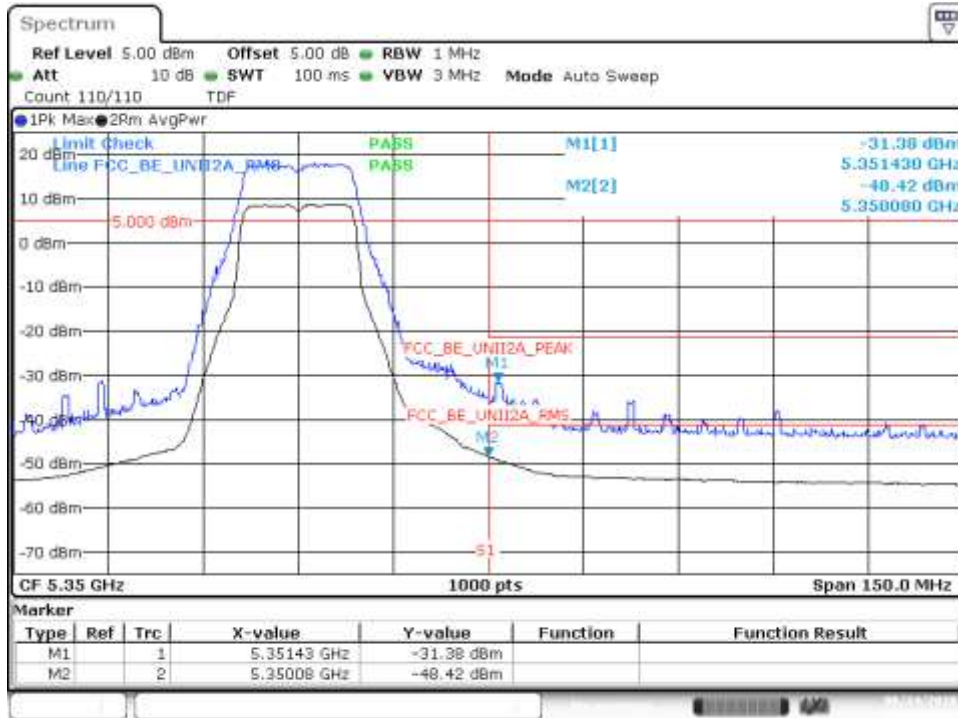
BE High Freq Section, Peak, RMS – CH64



Date: 23.AUG.2018 19:32:58

802.11n20, HT8 (MIMO) - Chain A

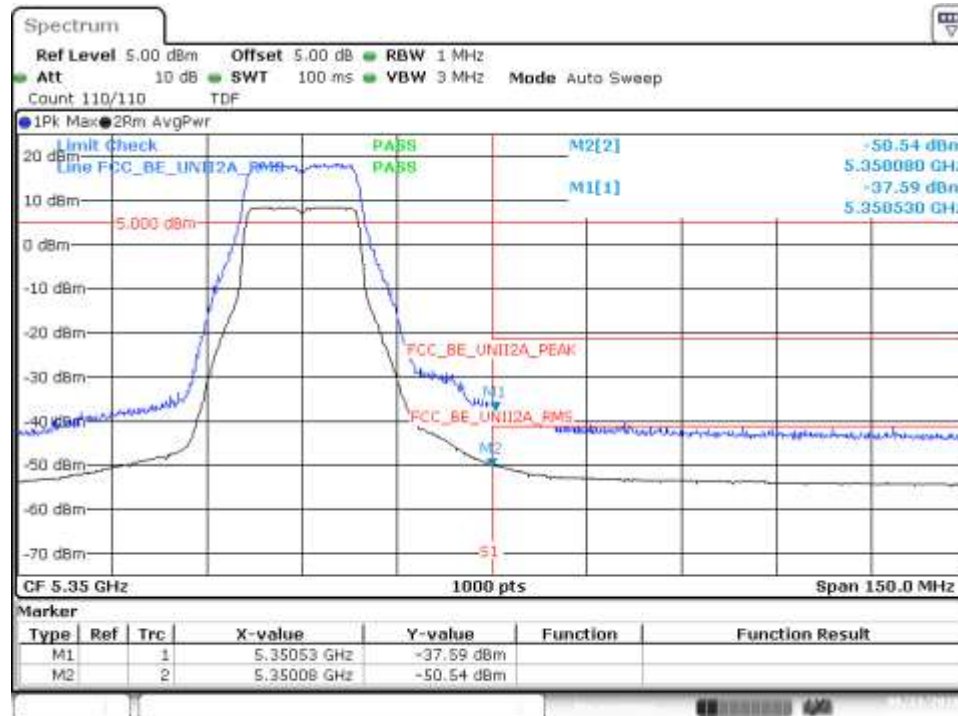
BE High Freq Section, Peak, RMS – CH64



Date: 24.AUG.2018 16:02:38

802.11n20, HT8 (MIMO) - Chain B

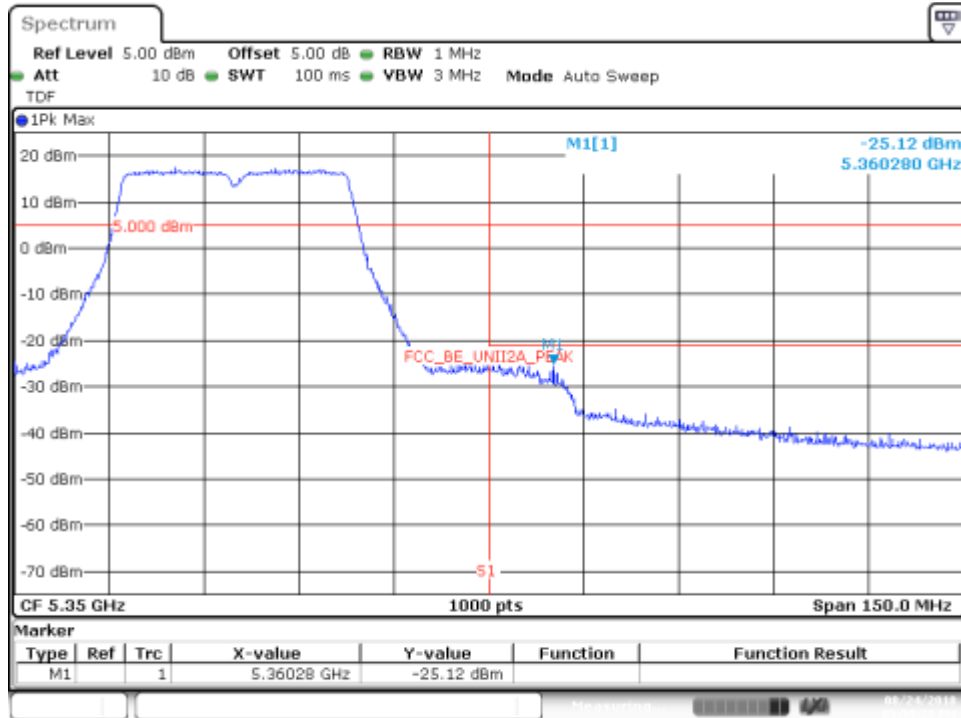
BE High Freq Section, Peak, RMS – CH64



Date: 23.AUG.2018 19:55:32

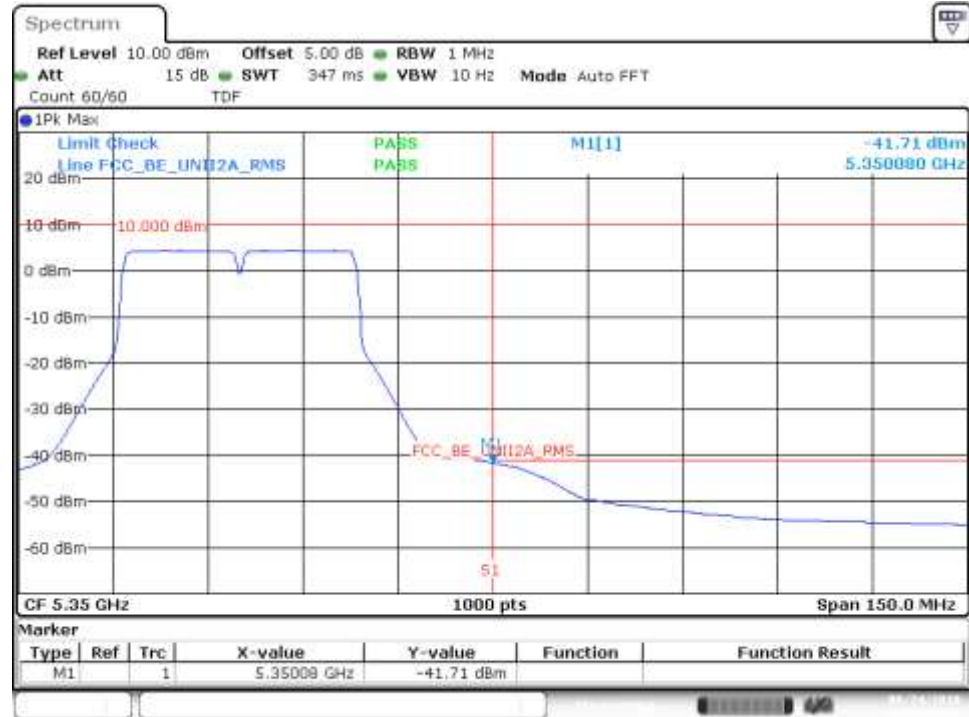
802.11n40, HT0 (SISO) - Chain A

BE High Freq Section, Peak – CH62F



Date: 24.AUG.2018 17:59:23

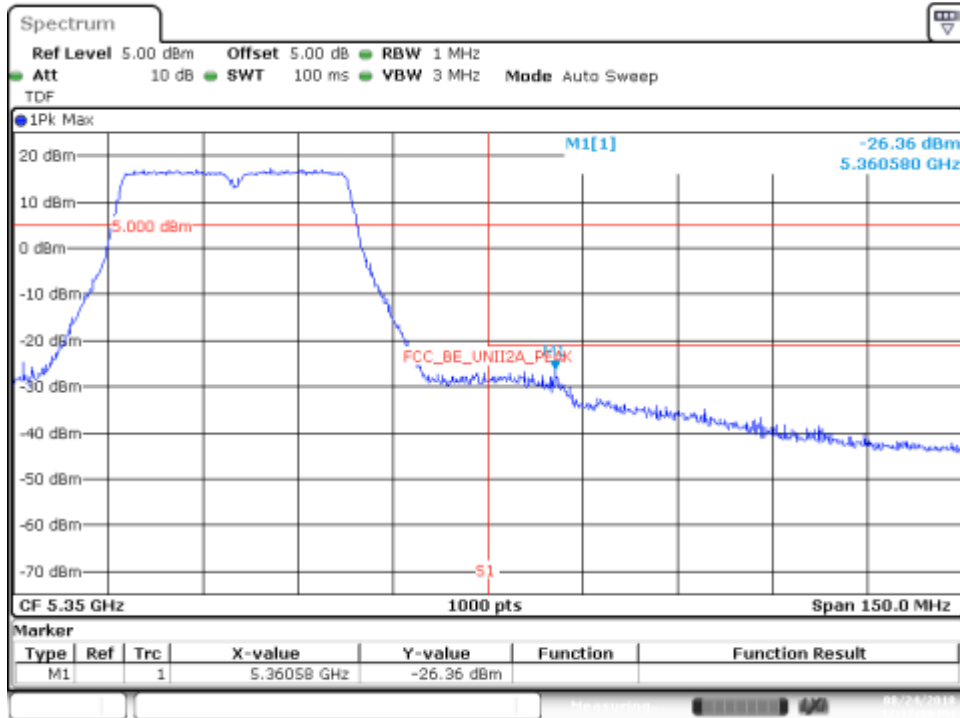
BE High Freq Section, RMS – CH54F



Date: 24.AUG.2018 17:58:58

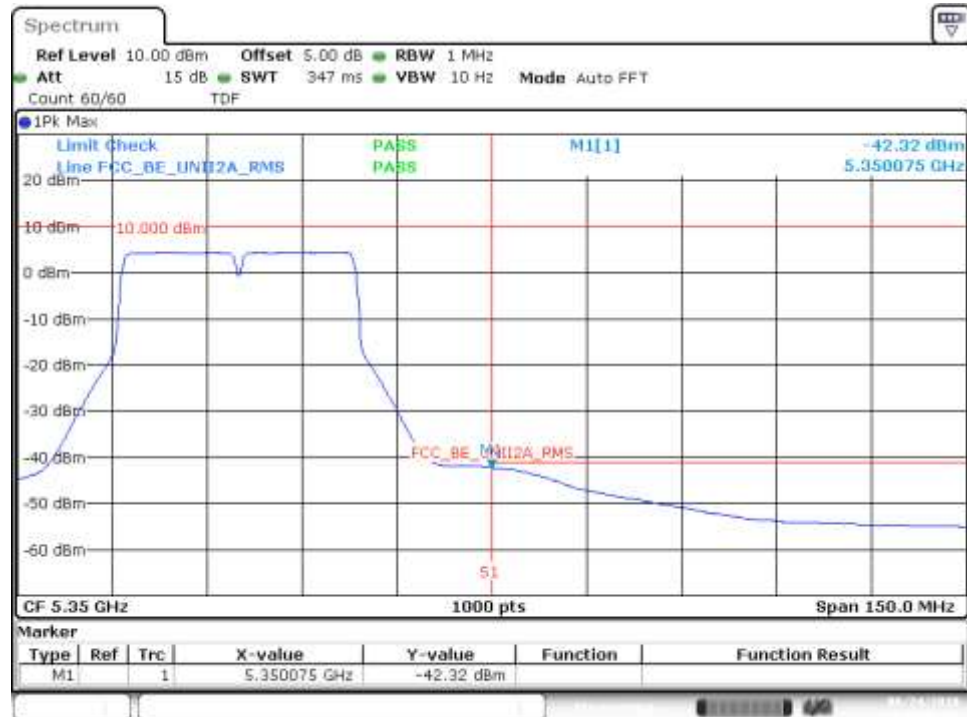
802.11n40, HT0 (SISO) - Chain B

BE High Freq Section, Peak – CH62F



Date: 24.AUG.2018 12:17:11

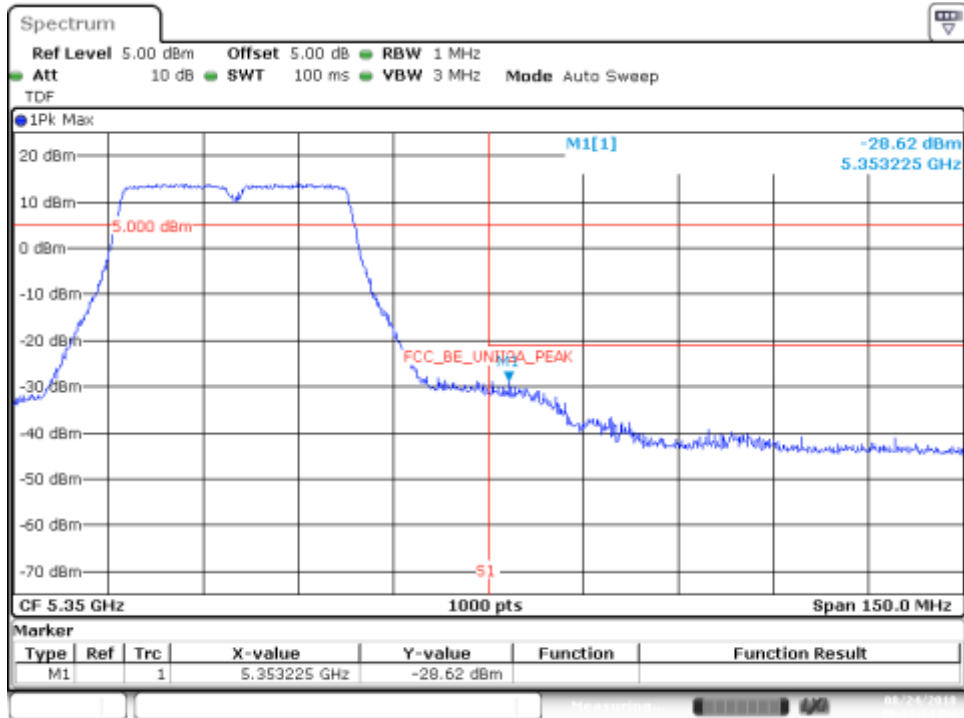
BE High Freq Section, RMS – CH54F



Date: 24.AUG.2018 12:16:49

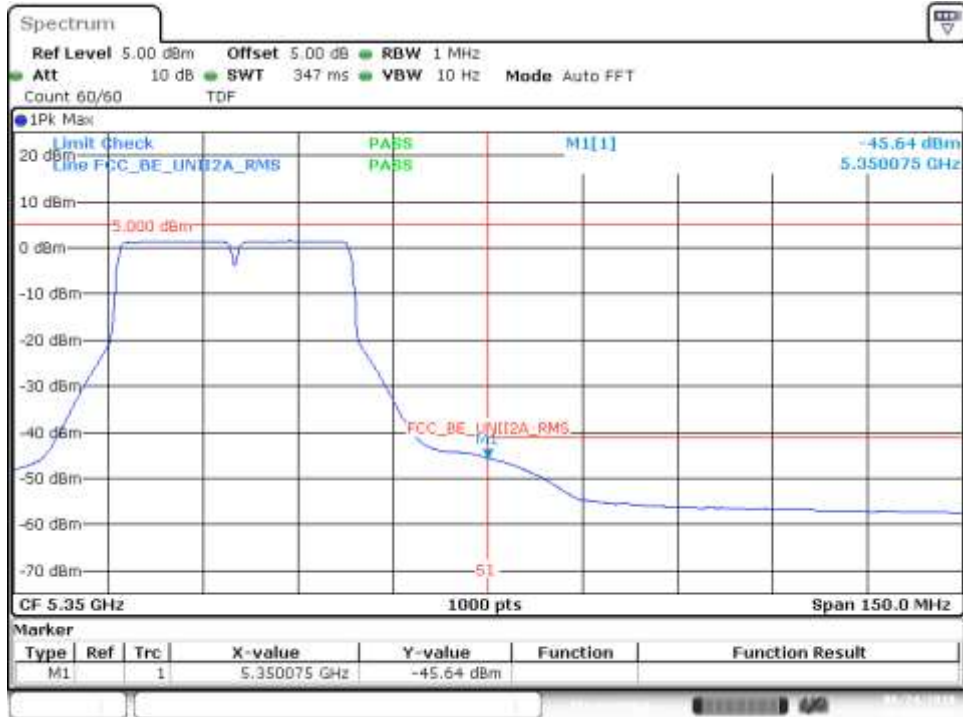
802.11n40, HT8 (MIMO) - Chain A

BE High Freq Section, Peak- CH62F



Date: 24.AUG.2018 18:13:24

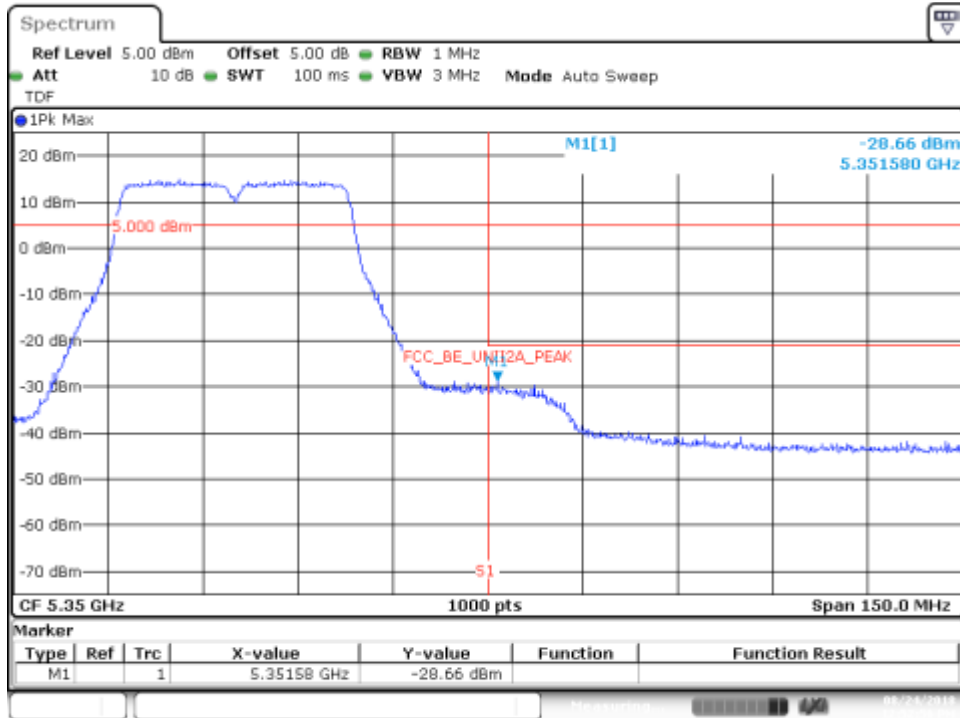
BE High Freq Section, RMS - CH62F



Date: 24.AUG.2018 18:12:59

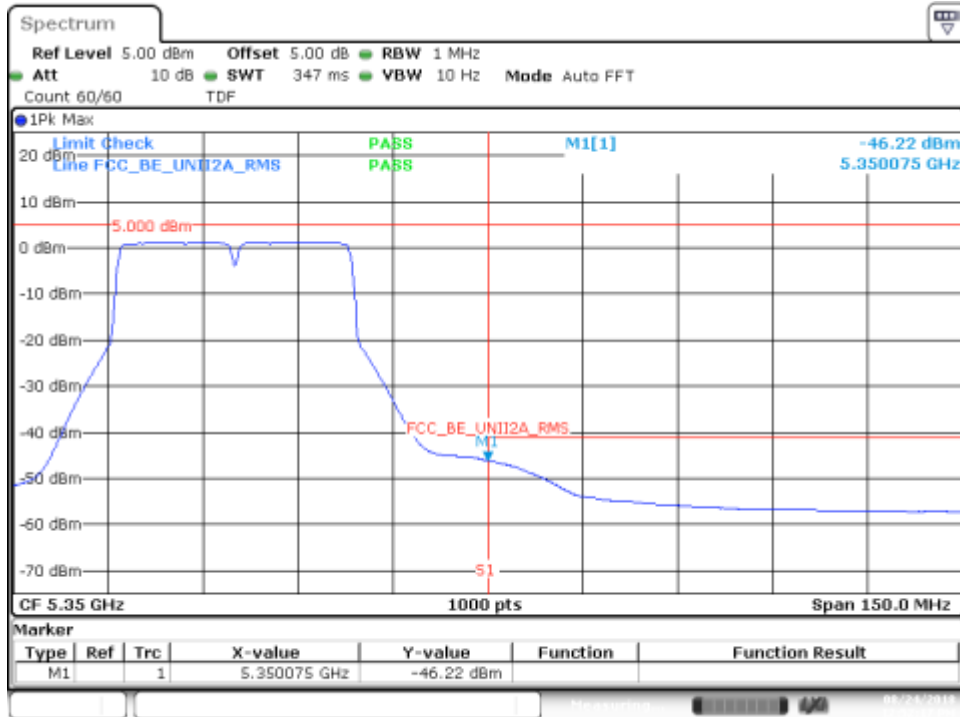
802.11n40, HT8 (MIMO) - Chain B

BE High Freq Section, Peak – CH62F



Date: 24.AUG.2018 12:52:56

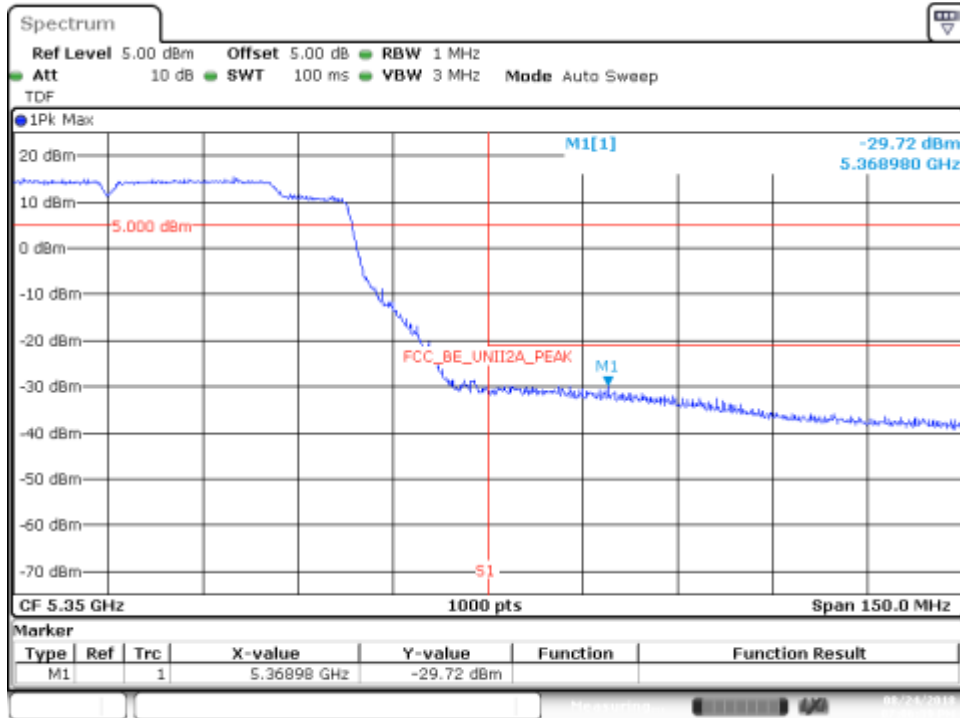
BE High Freq Section, RMS – CH62F



Date: 24.AUG.2018 12:52:18

802.11ac80, VHT0 (SISO) - Chain A

BE High Freq Section, Peak – CH58ac80



Date: 24.AUG.2018 19:06:39

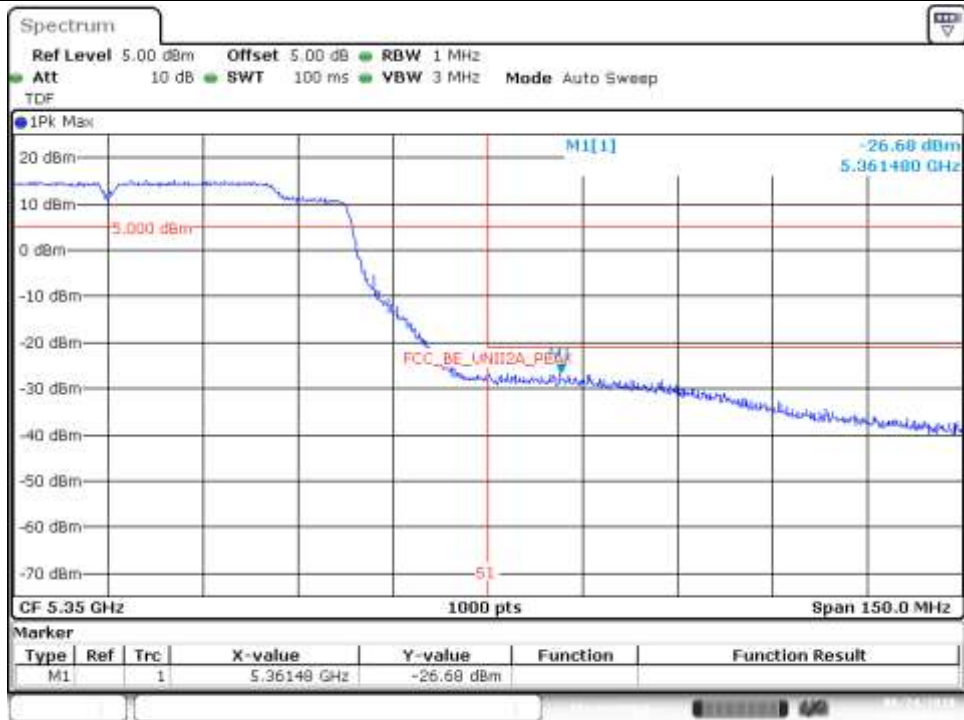
BE High Freq Section, RMS – CH58ac80



Date: 24.AUG.2018 19:06:17

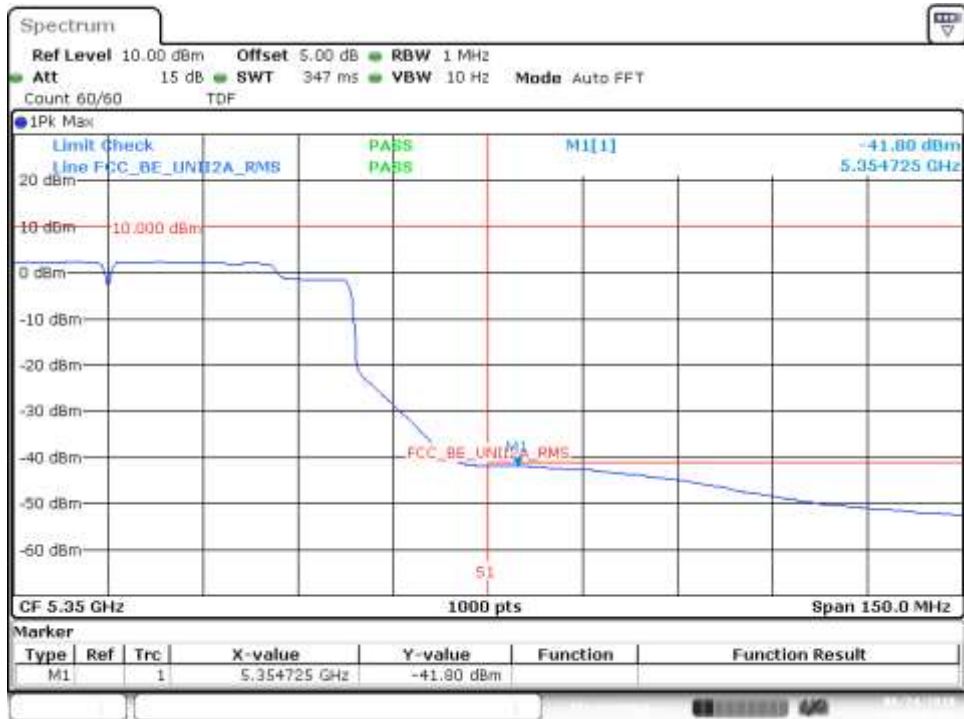
802.11ac80, VHT0 (SISO) - Chain B

BE High Freq Section, Peak – CH58ac80



Date: 24.AUG.2018 13:35:06

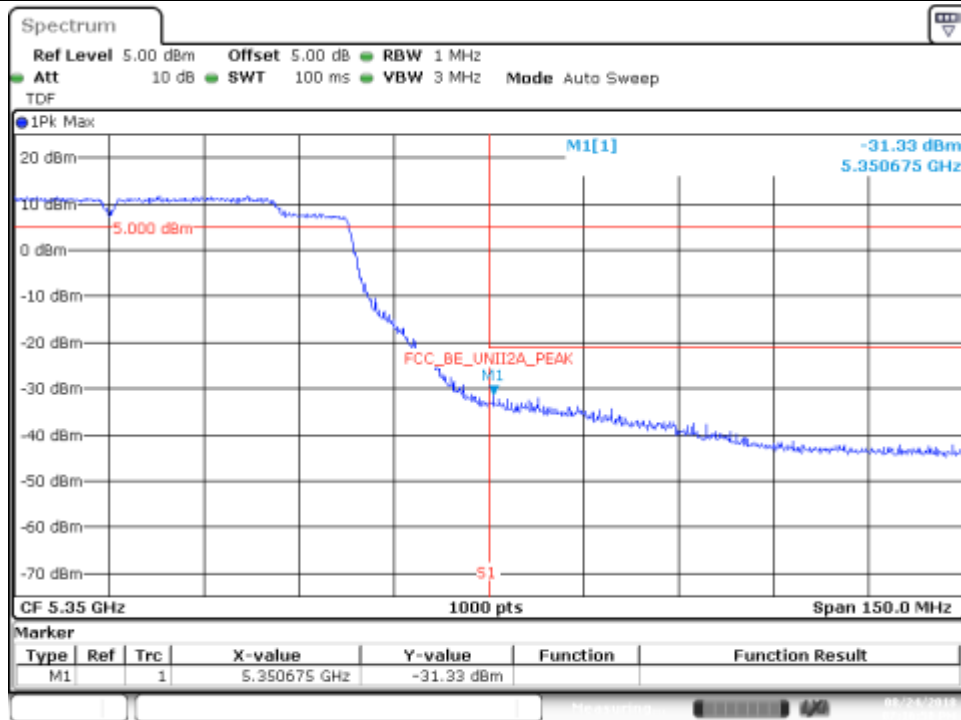
BE High Freq Section, RMS – CH58ac80



Date: 24.AUG.2018 13:34:45

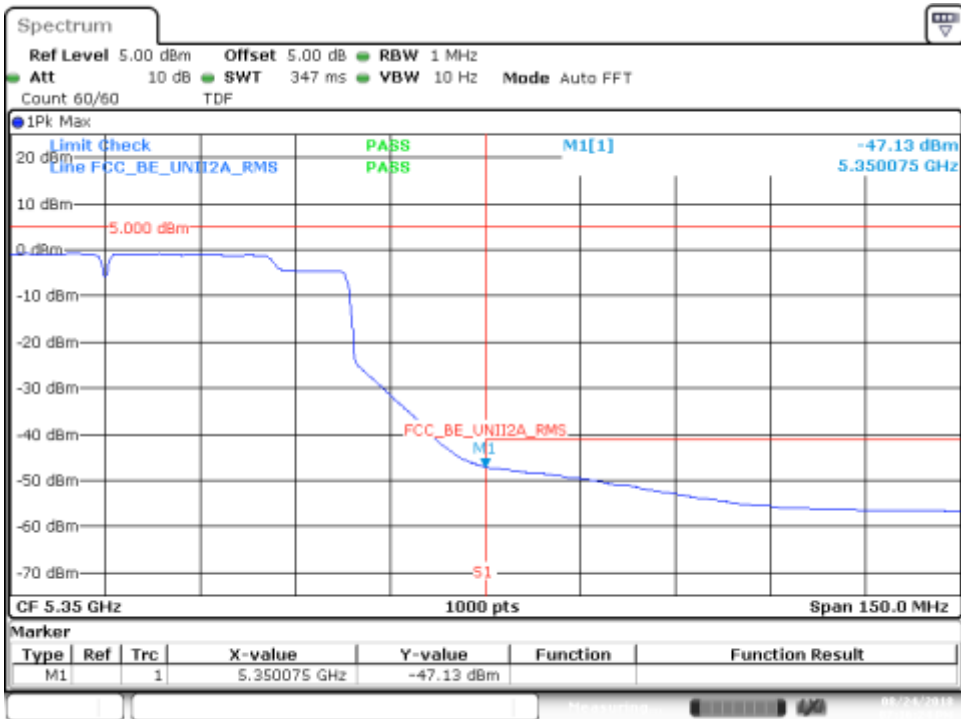
802.11ac80, VHT0 (MIMO) - Chain A

BE High Freq Section, Peak – CH58ac80



Date: 24.AUG.2018 19:16:59

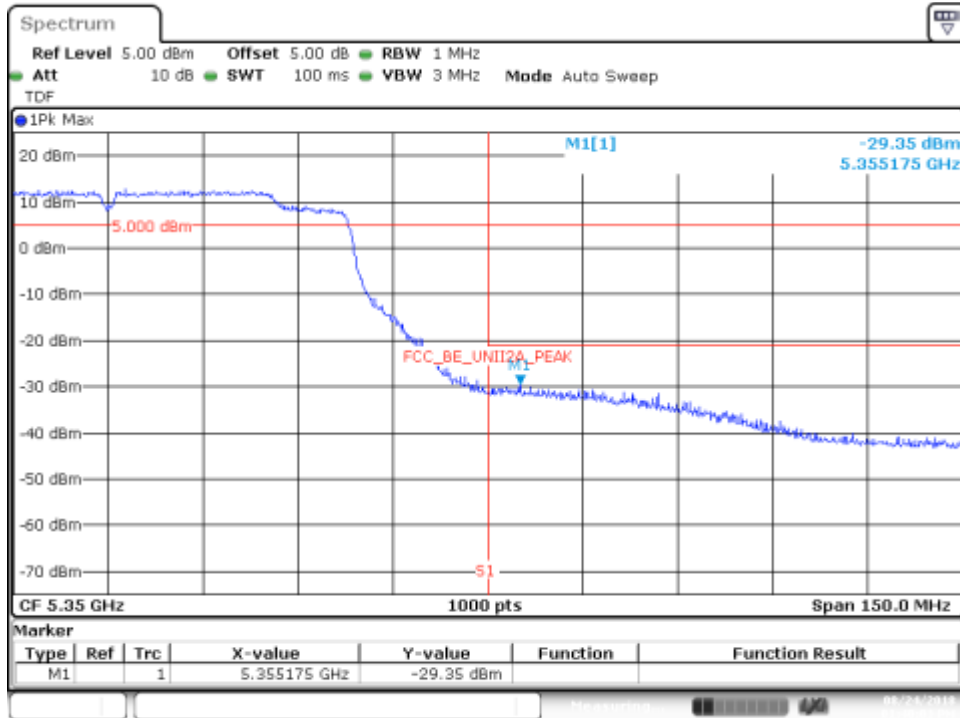
BE High Freq Section, RMS – CH58ac80



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

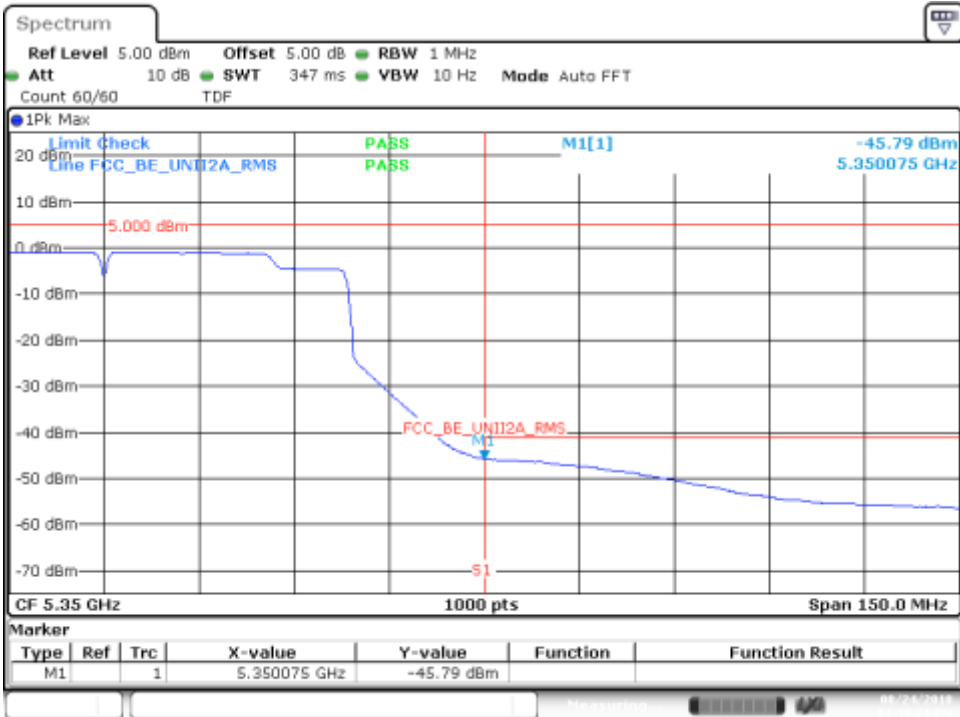
802.11ac80, VHT0 (MIMO) - Chain B

BE High Freq Section, Peak – CH58ac80



Date: 24.AUG.2018 13:40:04

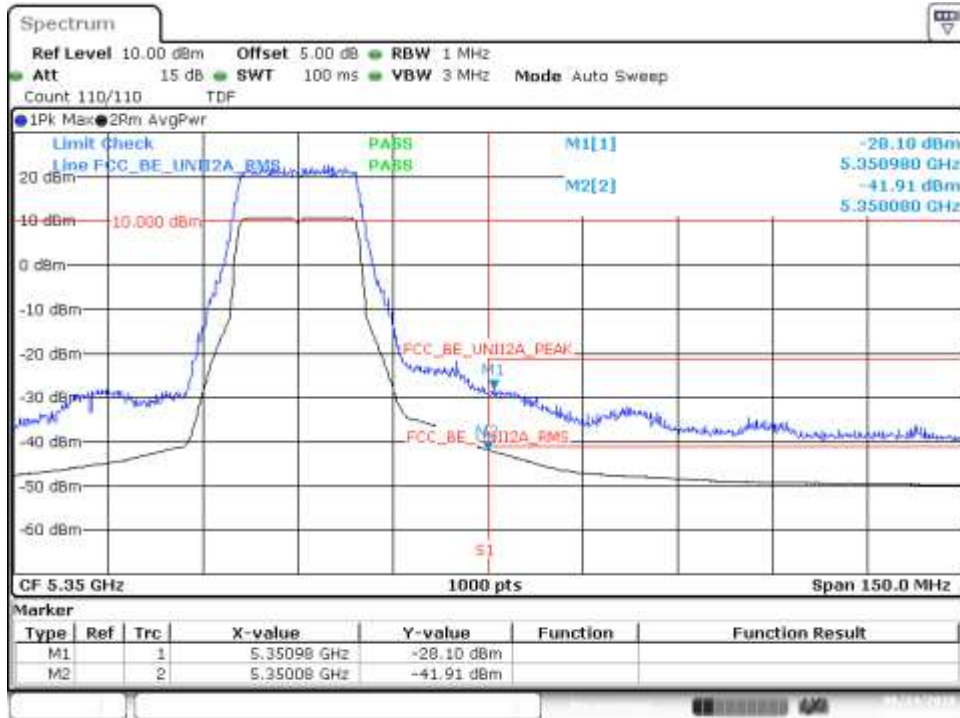
BE High Freq Section, Peak – CH58ac80



Date: 24.AUG.2018 13:39:28

802.11ax20, HE0 (SISO) - Chain A

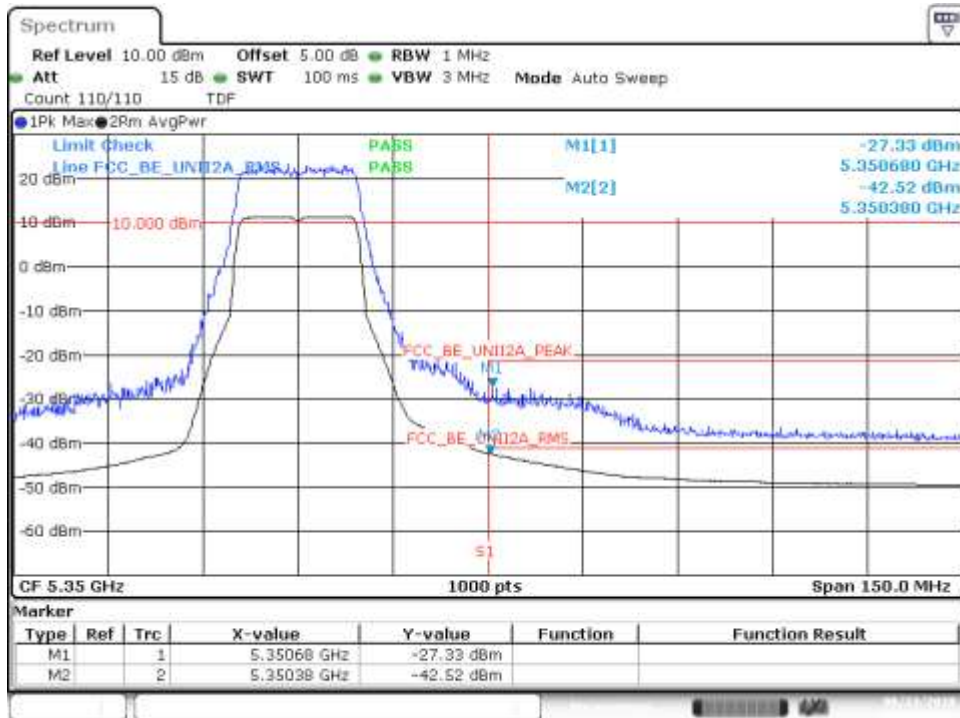
BE High Freq Section, Peak, RMS – CH64



Date: 24.AUG.2018 16:12:18

802.11ax20, HE0 (SISO) - Chain B

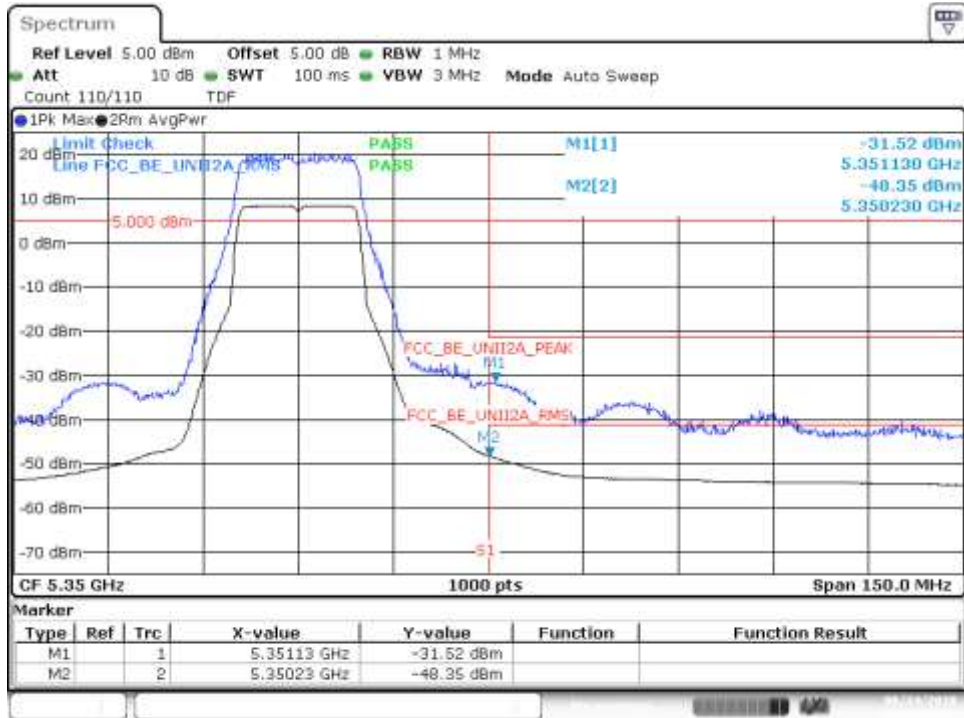
BE High Freq Section, Peak, RMS – CH64



Date: 23.AUG.2018 20:05:22

802.11ax20, HE0 (MIMO) - Chain A

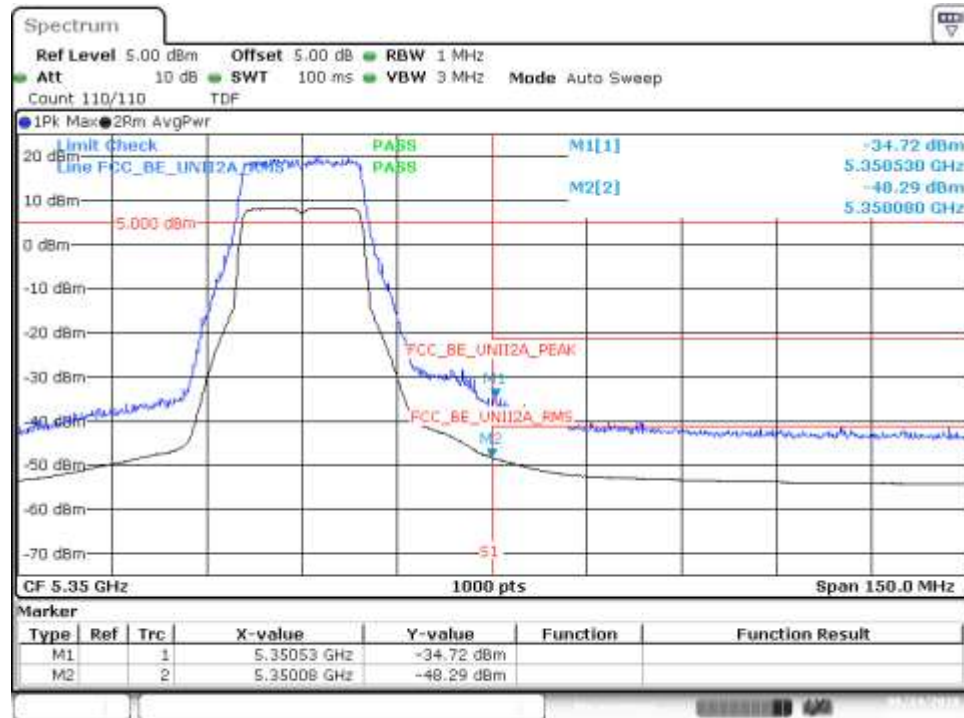
BE High Freq Section, Peak, RMS – CH64



Date: 24.AUG.2018 16:23:34

802.11ax20, HE0 (MIMO) - Chain B

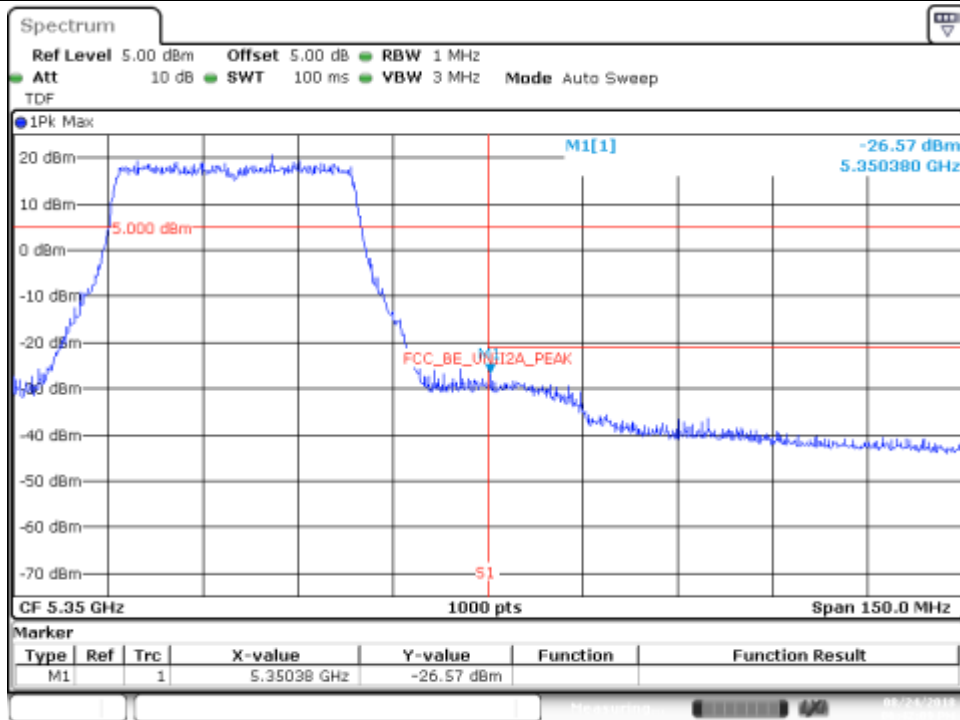
BE High Freq Section, Peak, RMS – CH64



Date: 24.AUG.2018 12:01:56

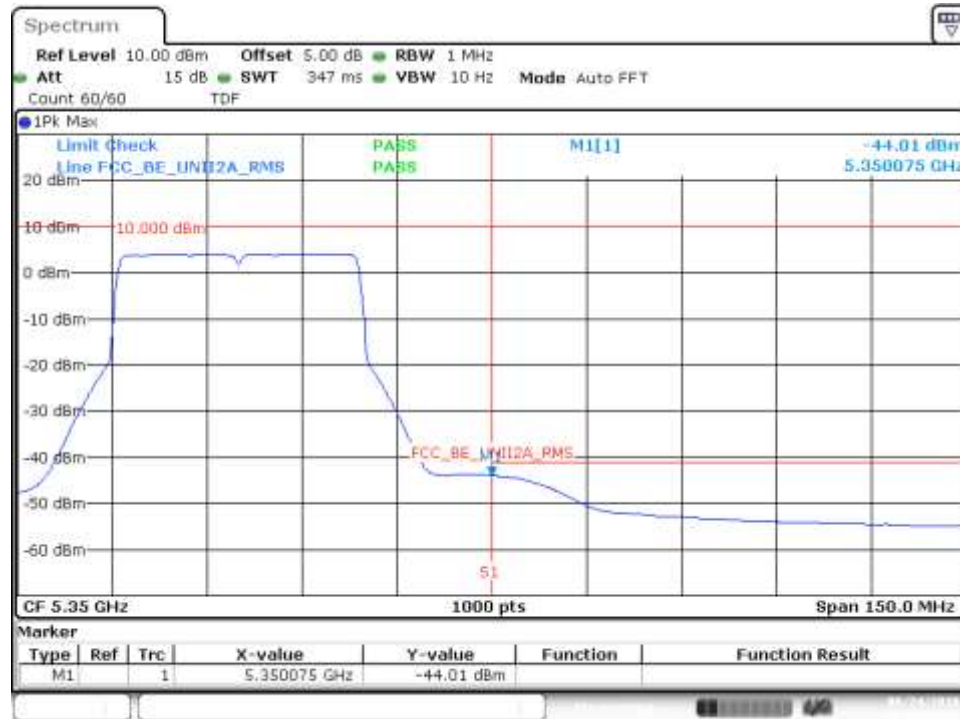
802.11ax40, HE0 (SISO) - Chain A

BE High Freq Section, Peak – CH62F



Date: 24.AUG.2018 18:42:10

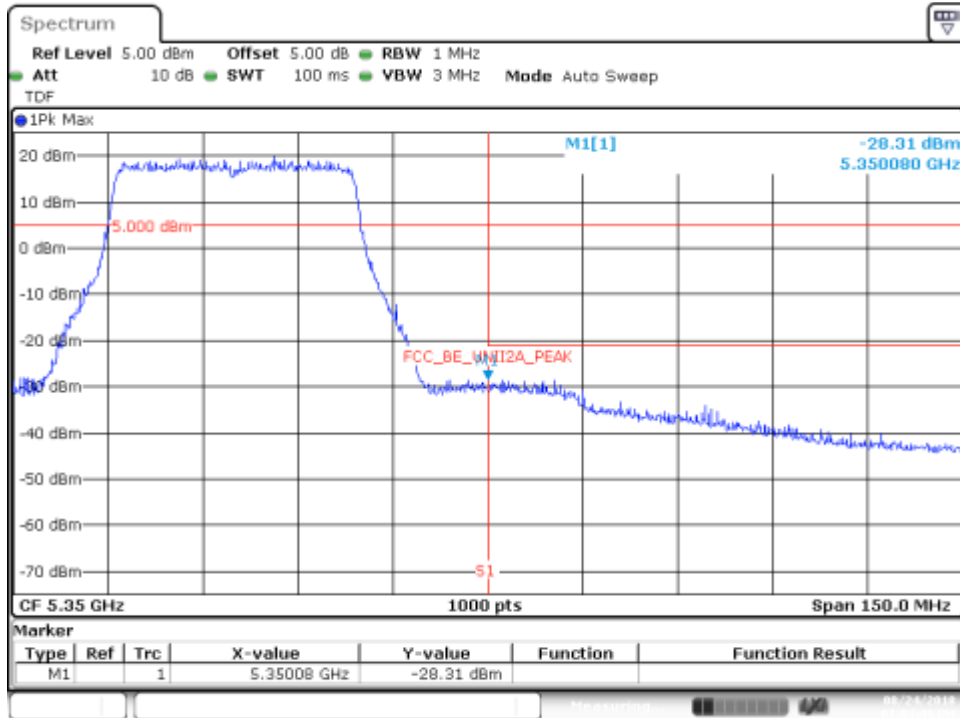
BE High Freq Section, RMS – CH54F



Date: 24.AUG.2018 18:41:54

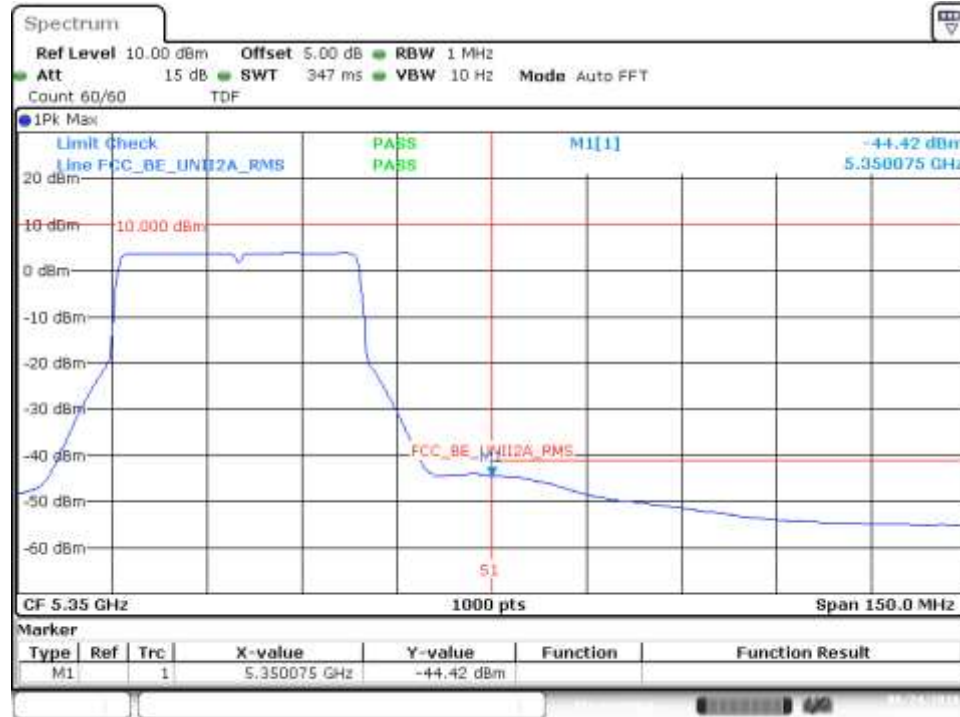
802.11ax40, HE0 (SISO) - Chain B

BE High Freq Section, Peak – CH62F



Date: 24.AUG.2018 13:03:49

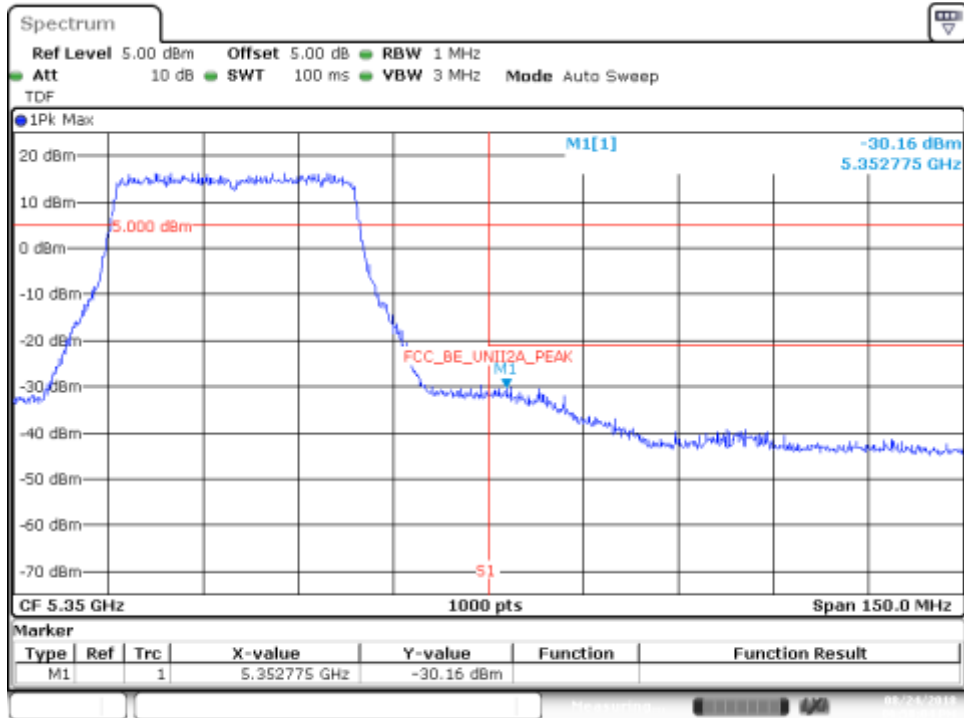
BE High Freq Section, RMS – CH54F



Date: 24.AUG.2018 13:03:23

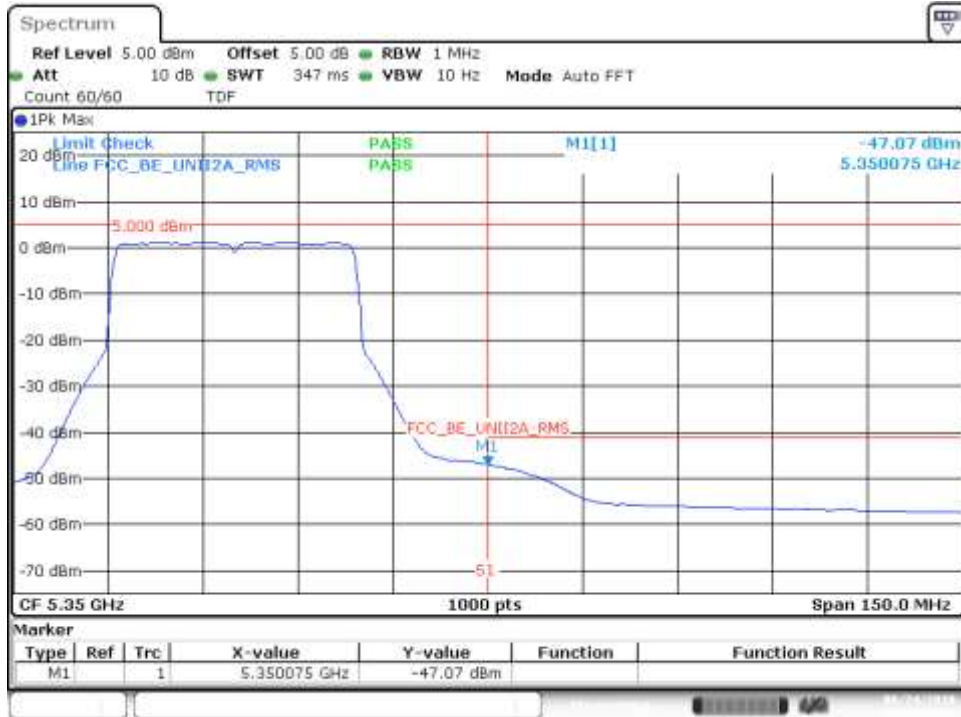
802.11ax40, HE0 (MIMO) - Chain A

BE High Freq Section, Peak- CH62F



Date: 24.AUG.2018 18:58:04

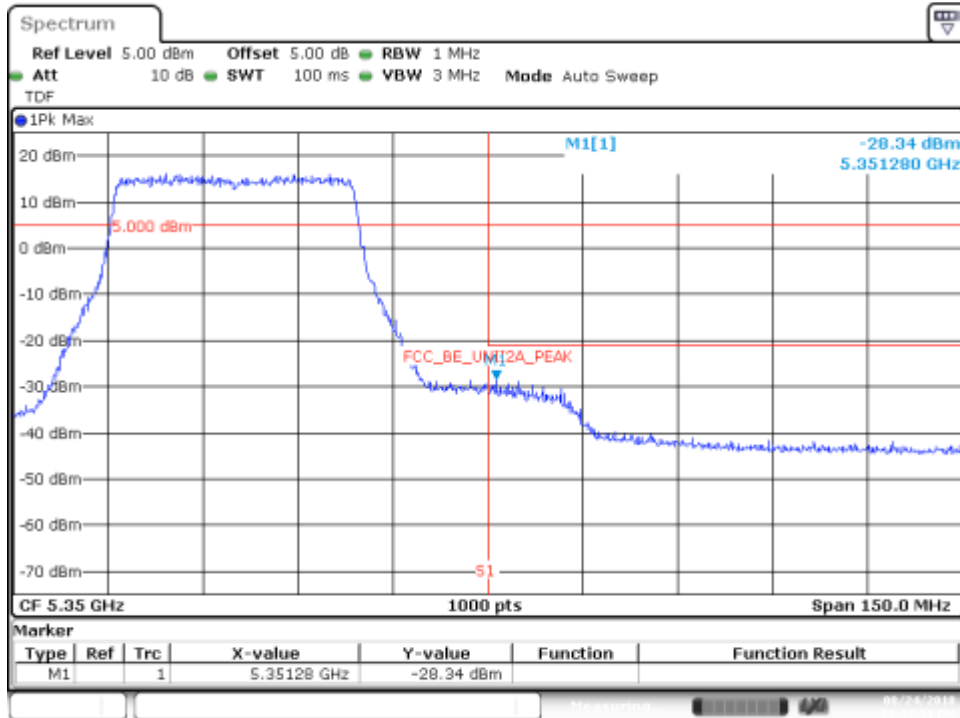
BE High Freq Section, RMS - CH62F



Date: 24.AUG.2018 18:57:39

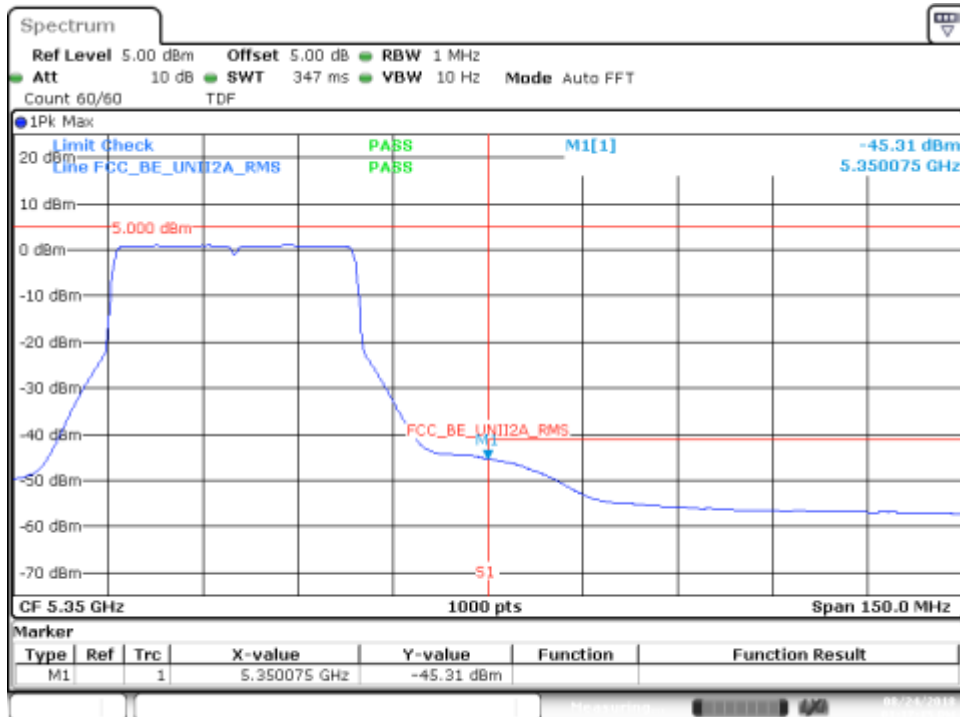
802.11ax40, HE0 (MIMO) - Chain B

BE High Freq Section, Peak – CH62F



Date: 24.AUG.2018 13:17:51

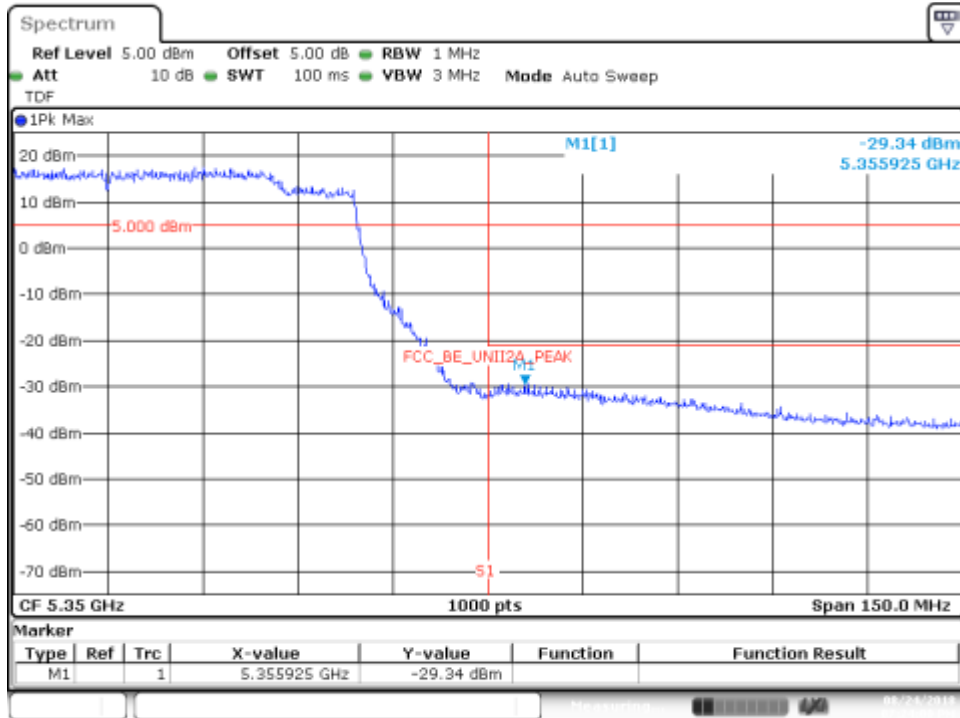
BE High Freq Section, RMS – CH62F



Date: 24.AUG.2018 13:17:16

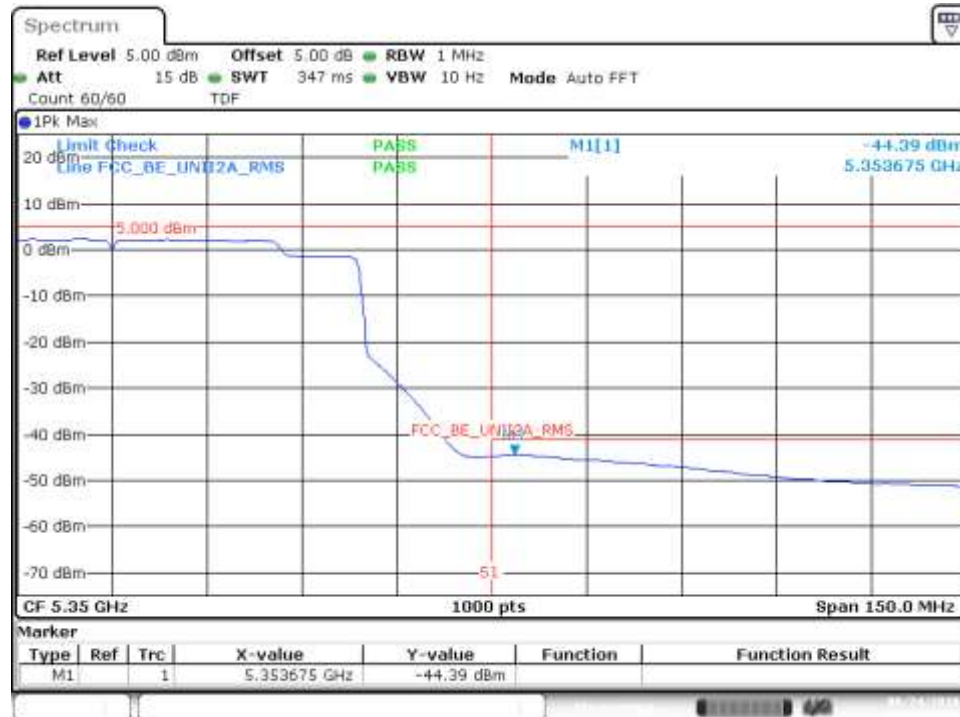
802.11ax80, HE0 (SISO) - Chain A

BE High Freq Section, Peak – CH58ax80



Date: 24.AUG.2018 19:24:01

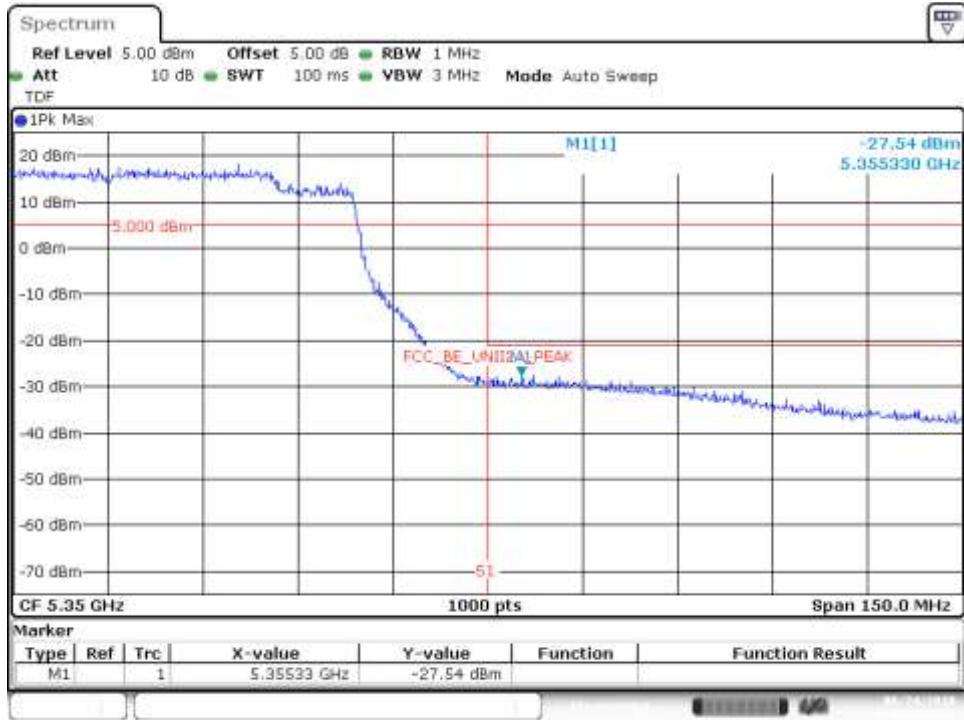
BE High Freq Section, RMS – CH58ax80



Date: 24.AUG.2018 19:23:43

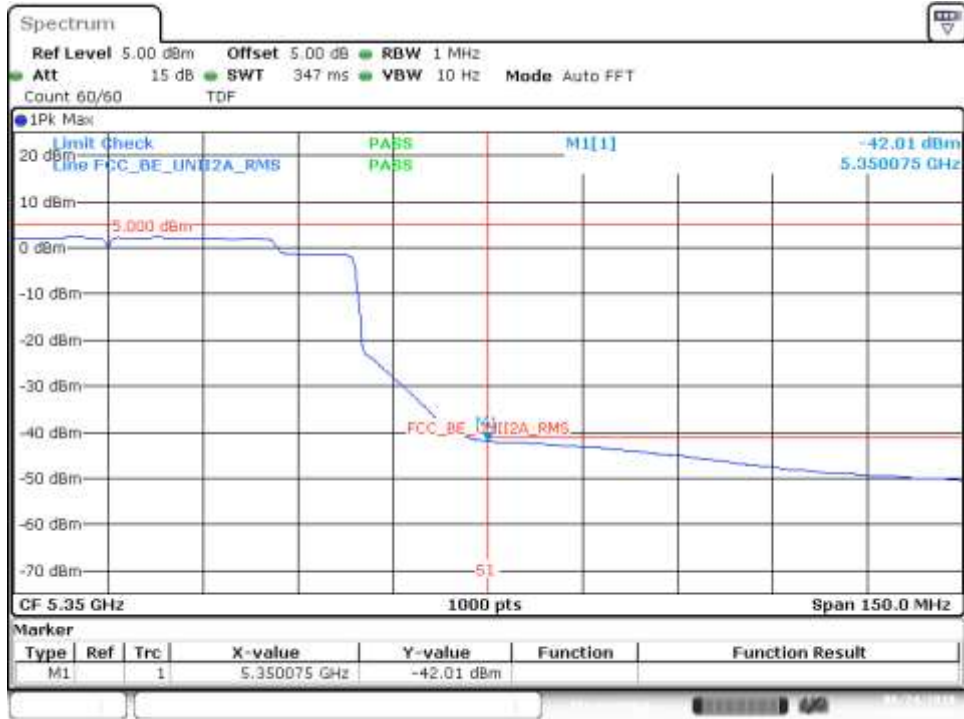
802.11ax80, HE0 (SISO) - Chain B

BE High Freq Section, Peak – CH58ax80



Date: 24.AUG.2018 13:53:28

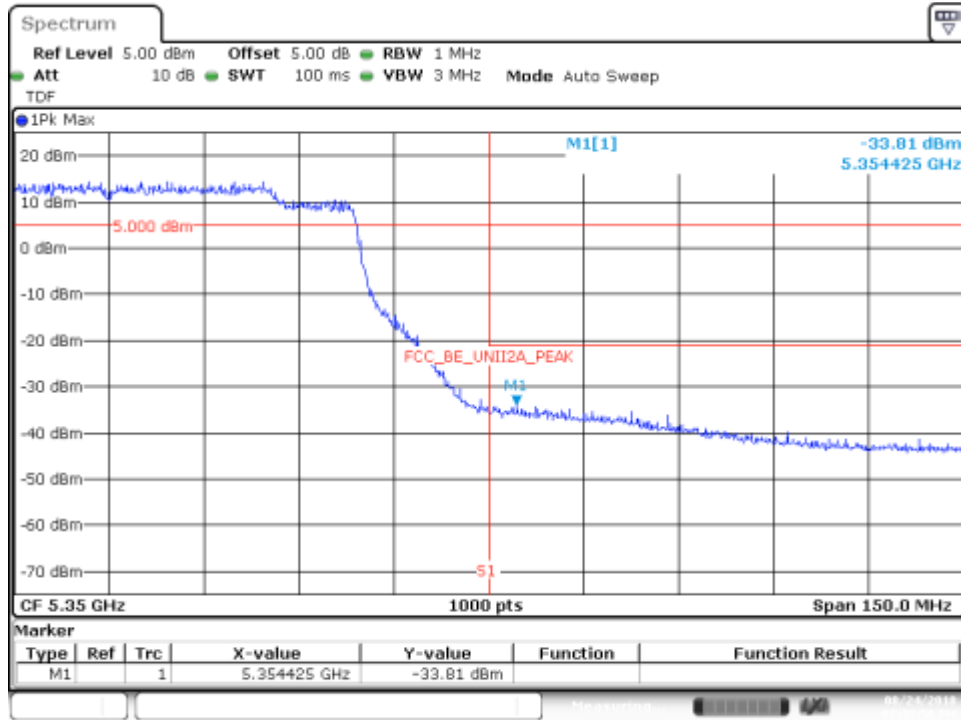
BE High Freq Section, RMS – CH58ax80



Date: 24.AUG.2018 13:53:01

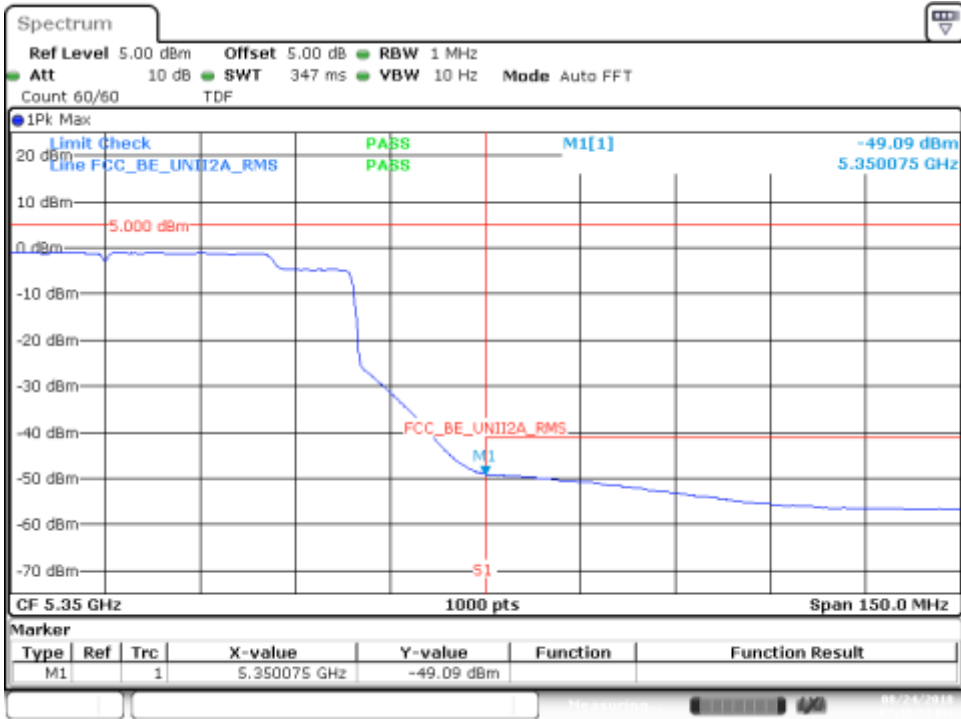
802.11ax80, HE0 (MIMO) - Chain A

BE High Freq Section, Peak – CH58ax80



Date: 24.AUG.2018 19:33:57

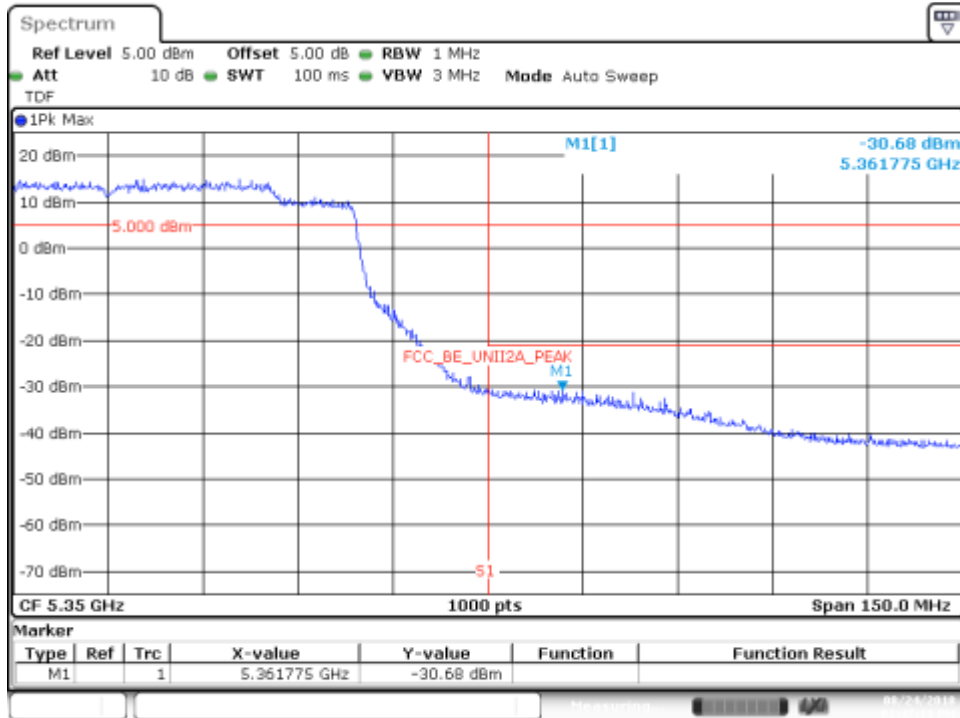
BE High Freq Section, RMS – CH58ax80



Date: 24.AUG.2018 19:33:33

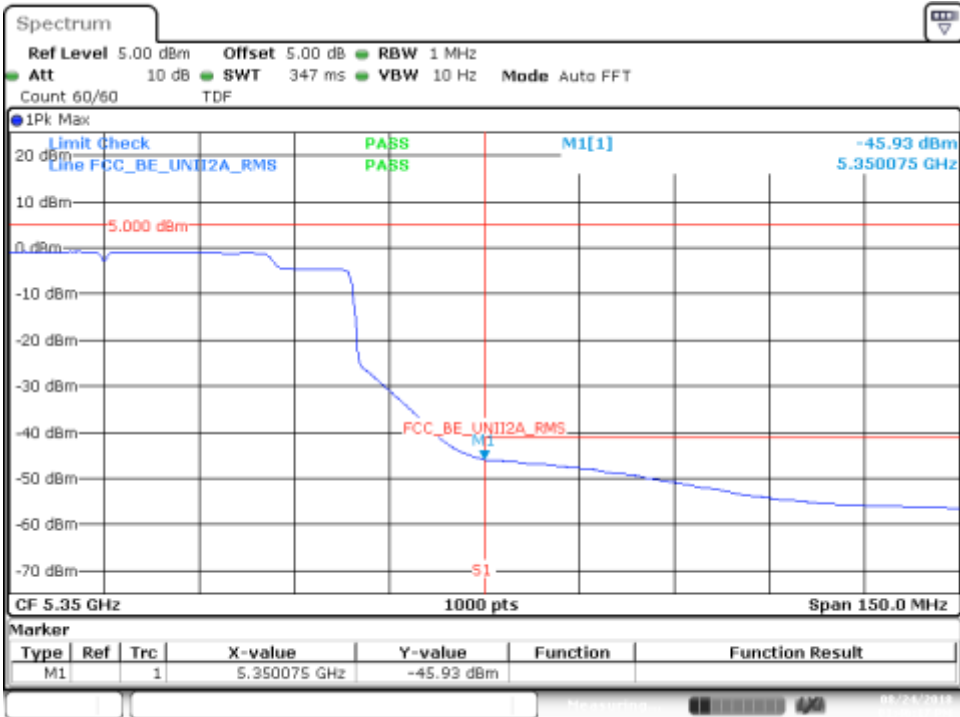
802.11ax80, HE0 (MIMO) - Chain B

BE High Freq Section, Peak – CH58ax80



Date: 24.AUG.2018 13:47:11

BE High Freq Section, Peak – CH58ax80



Date: 24.AUG.2018 13:48:17