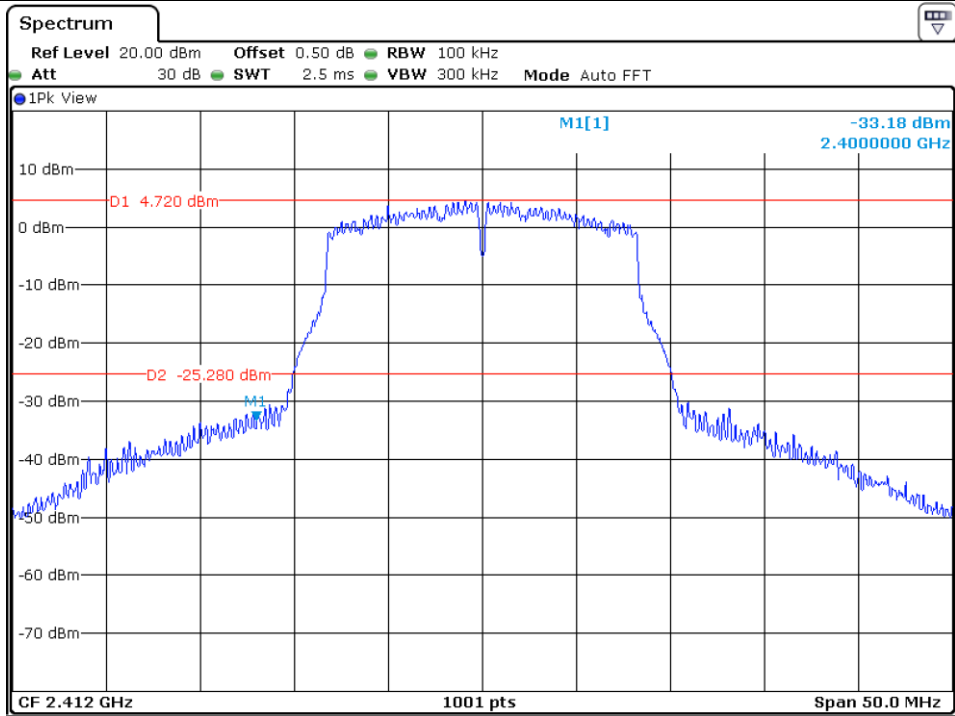
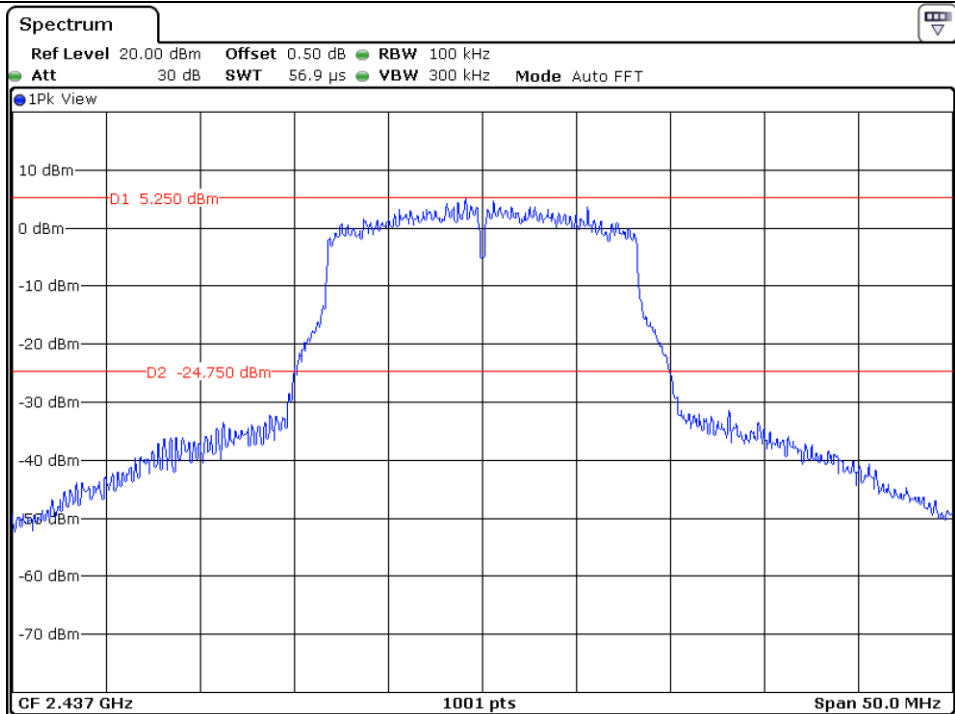


9.5.2 Test data for 802.11g WLAN Mode

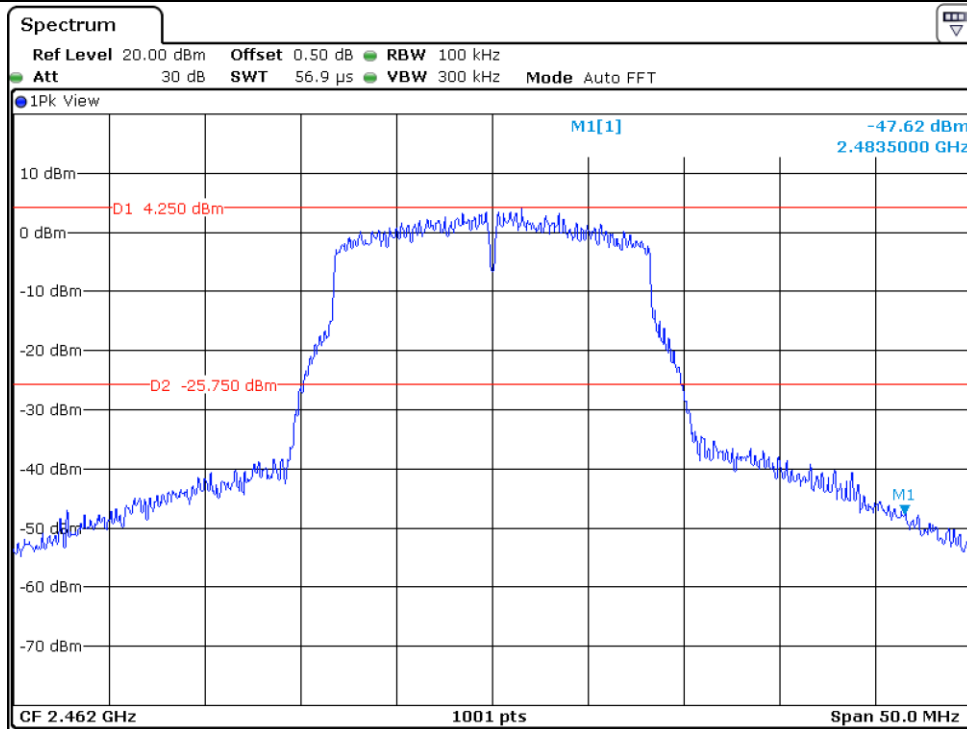
9.5.2.1 Test data for Antenna 0



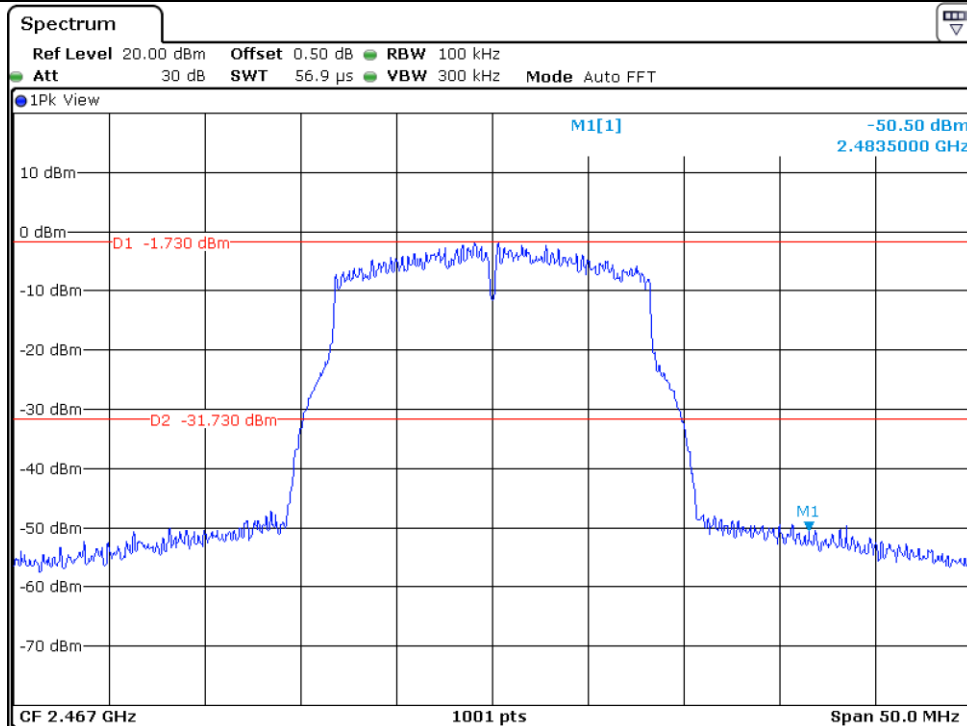
Low Channel



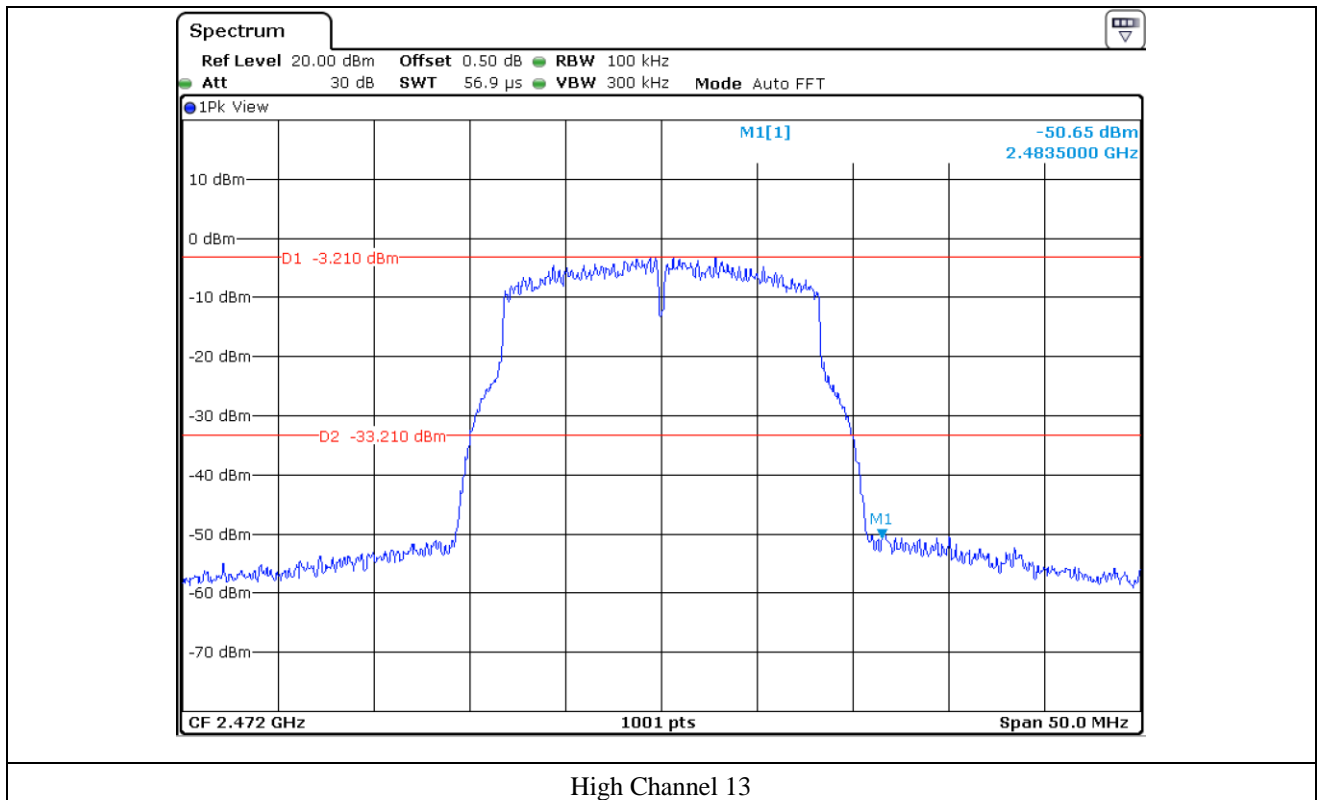
Middle Channel

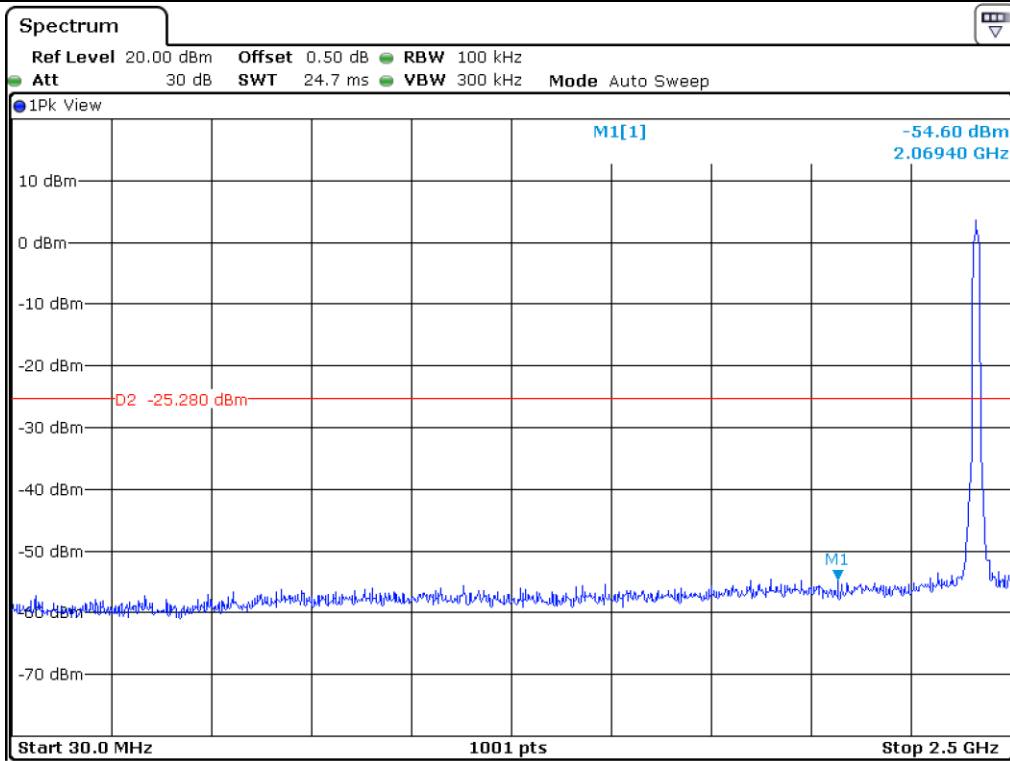


High Channel 11

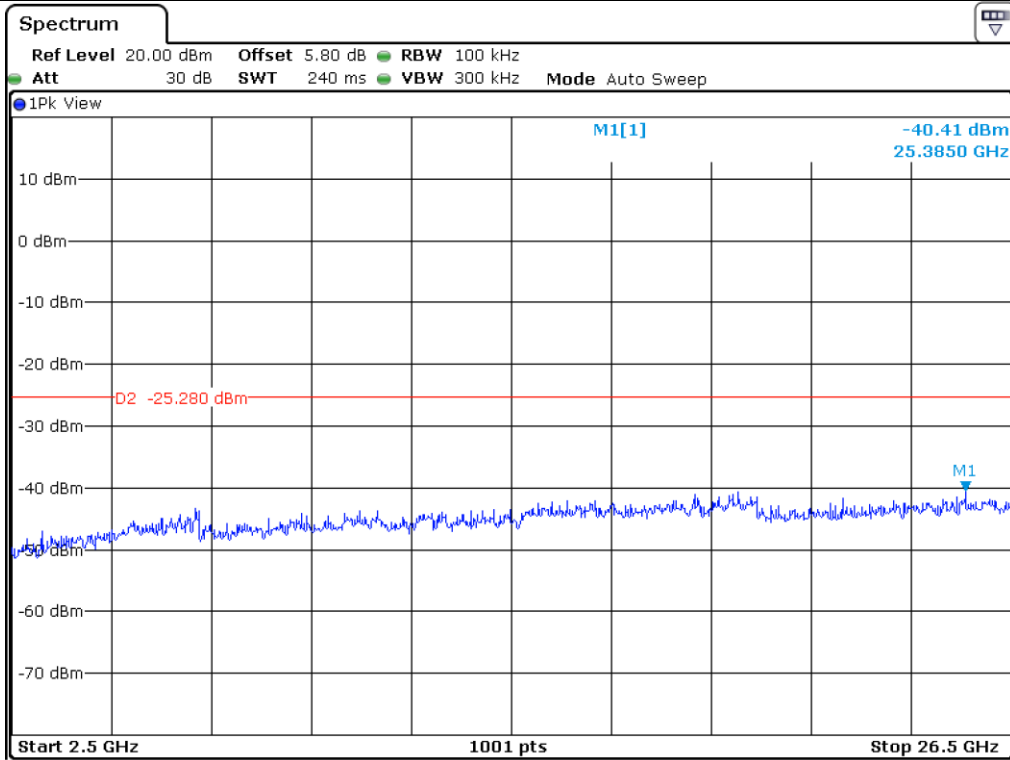


High Channel 12

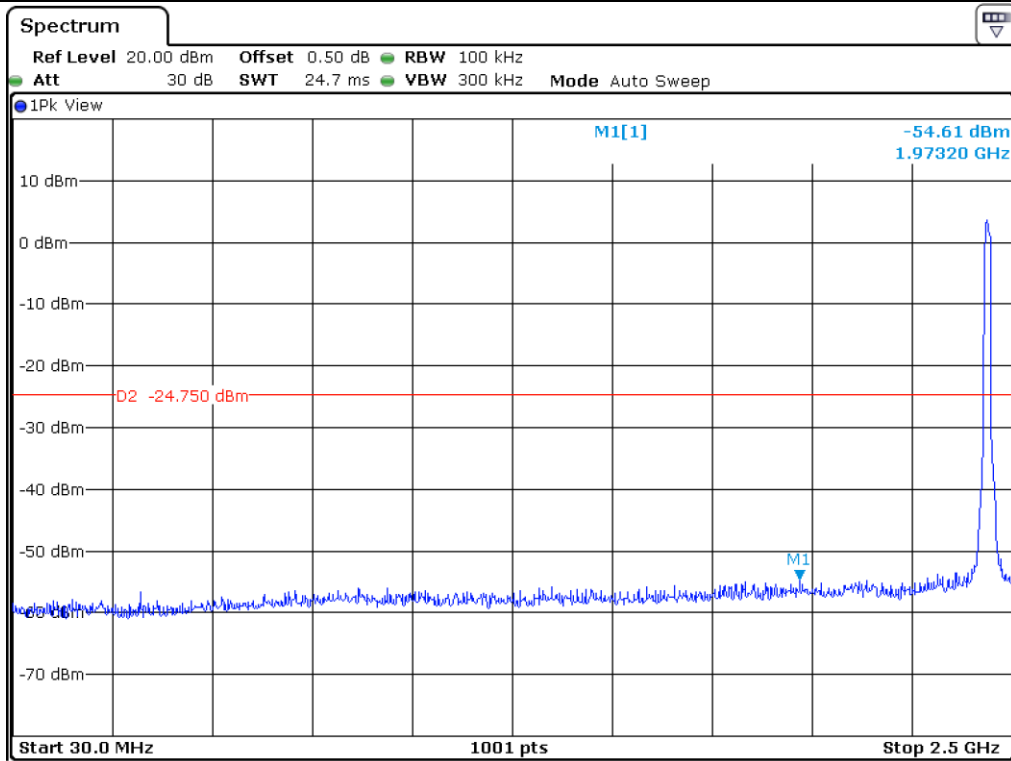




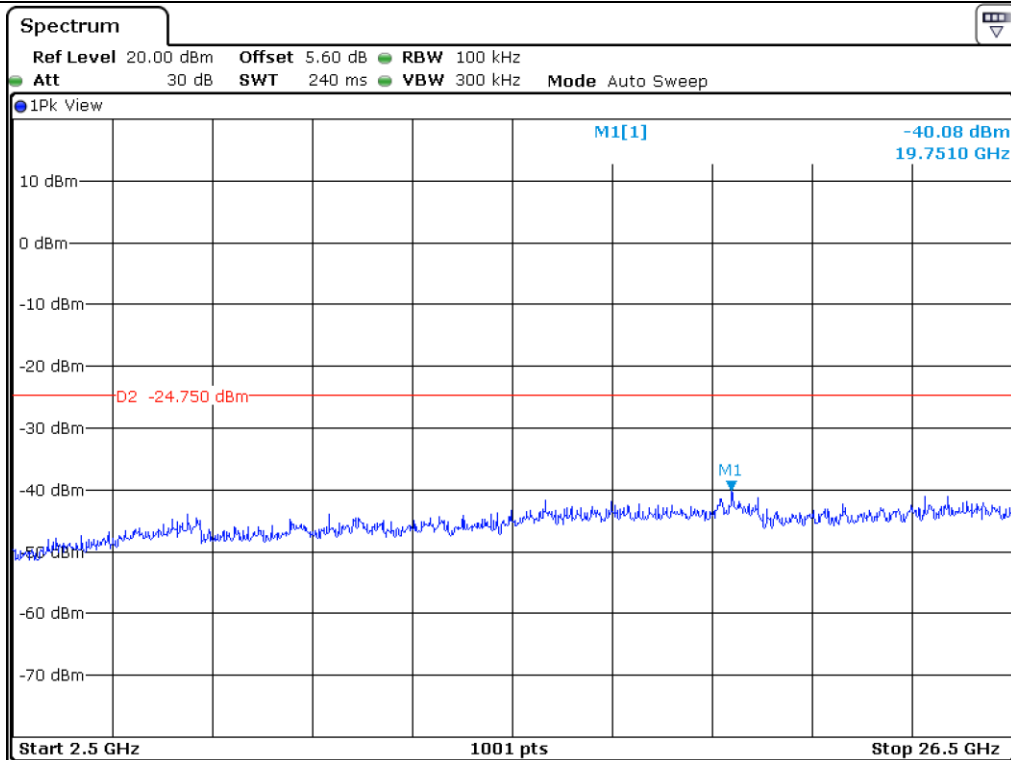
Low Channel



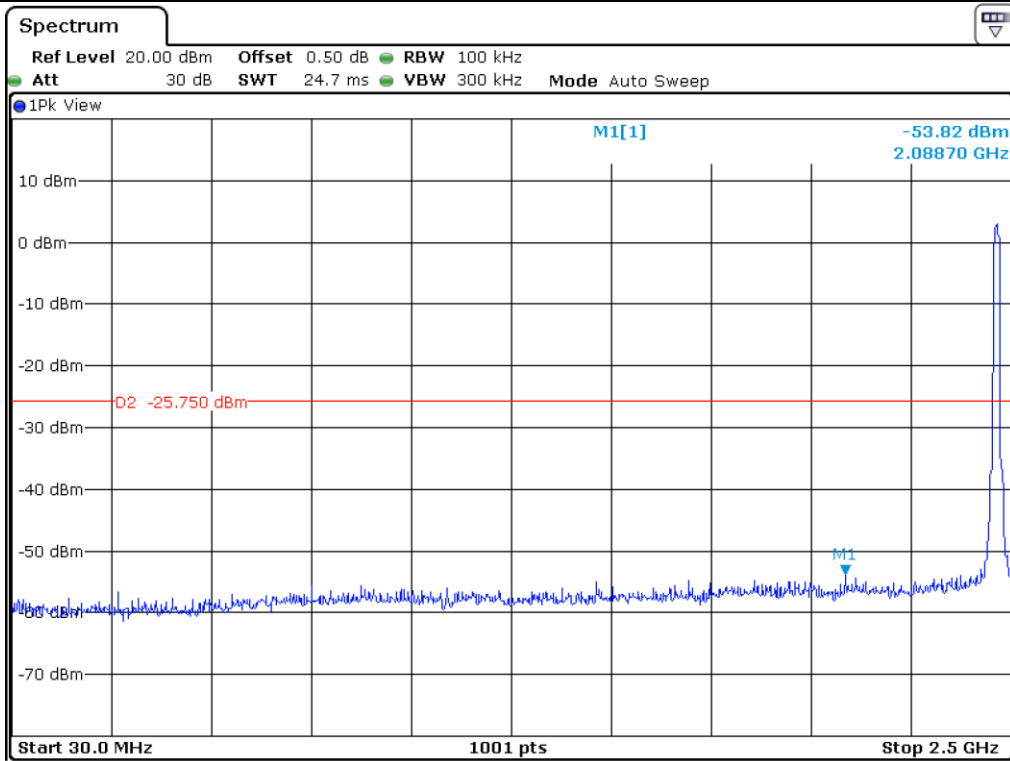
Low Channel



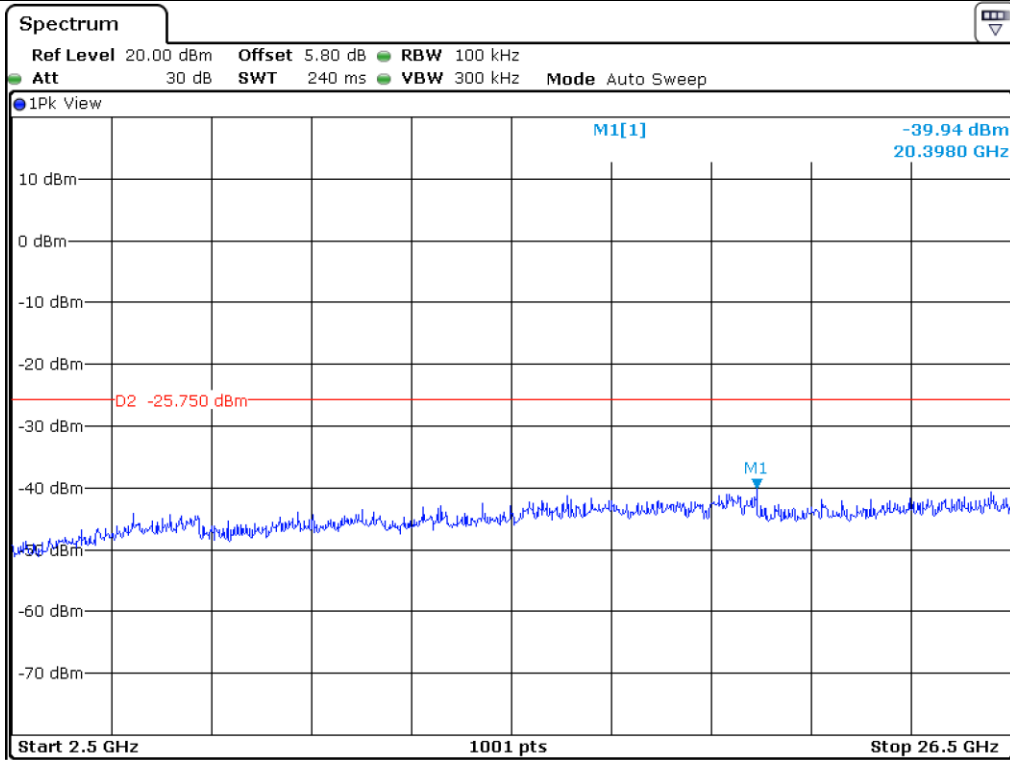
Middle Channel



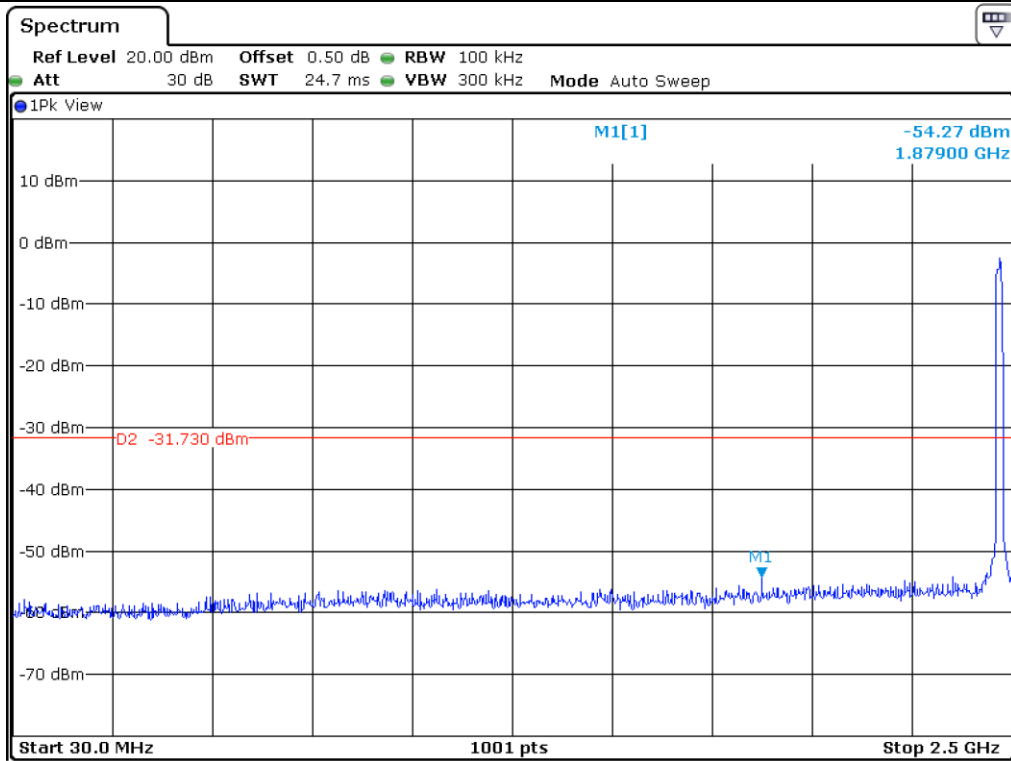
Middle Channel



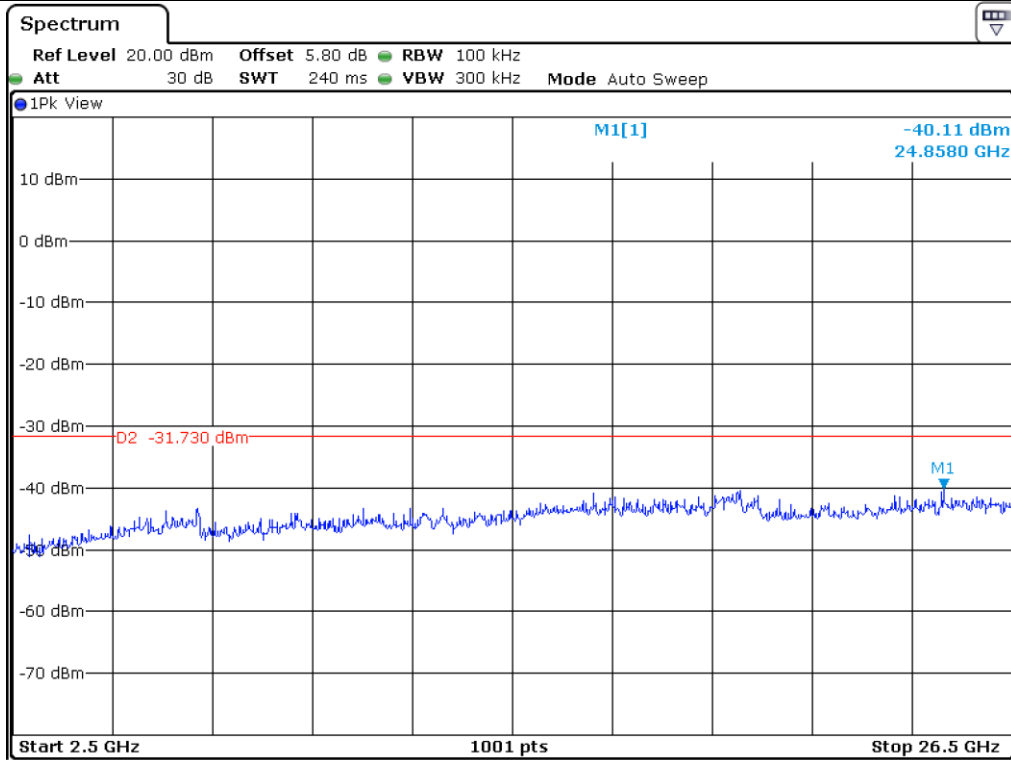
High Channel 11



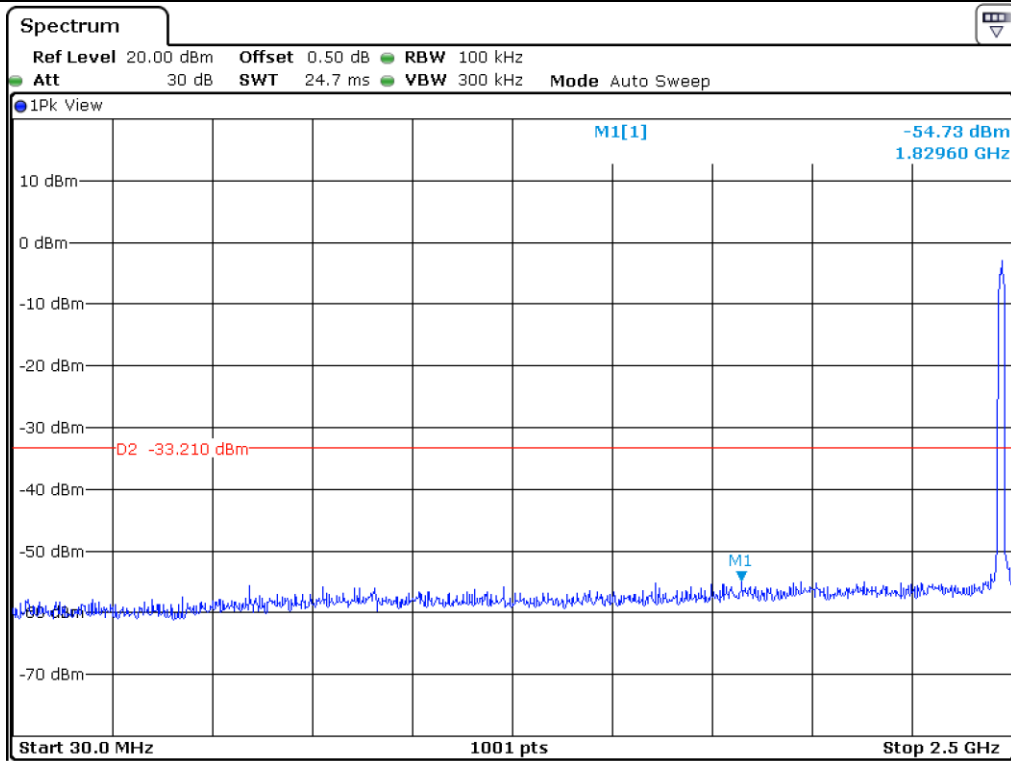
High Channel 11



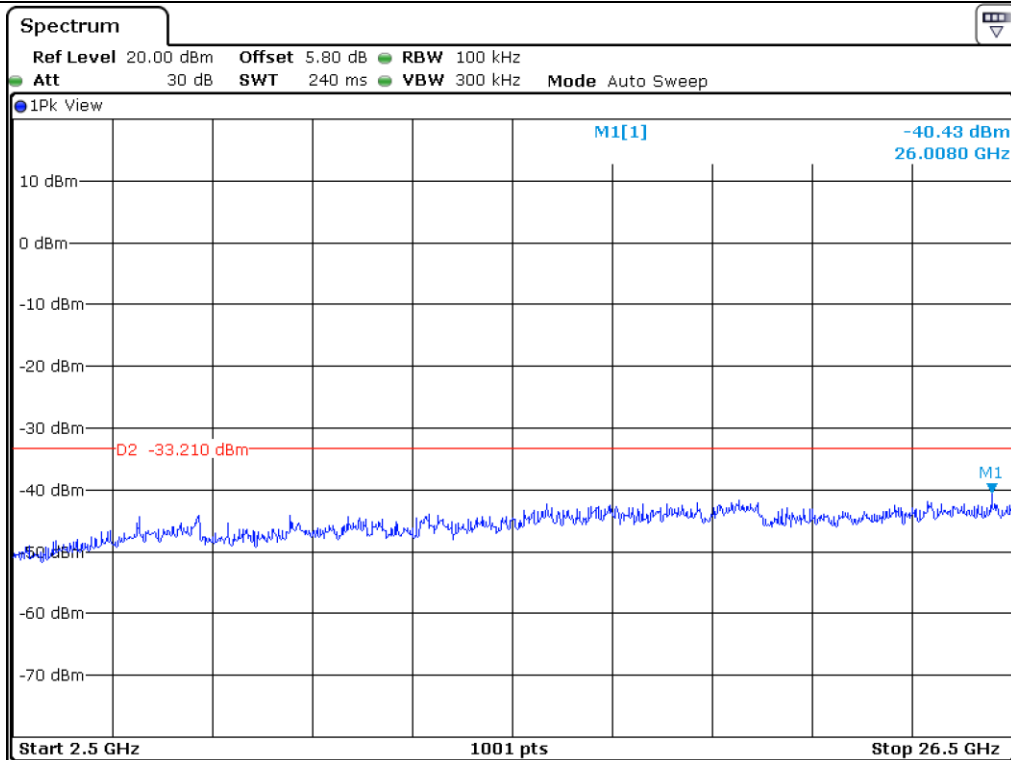
High Channel 12



High Channel 12

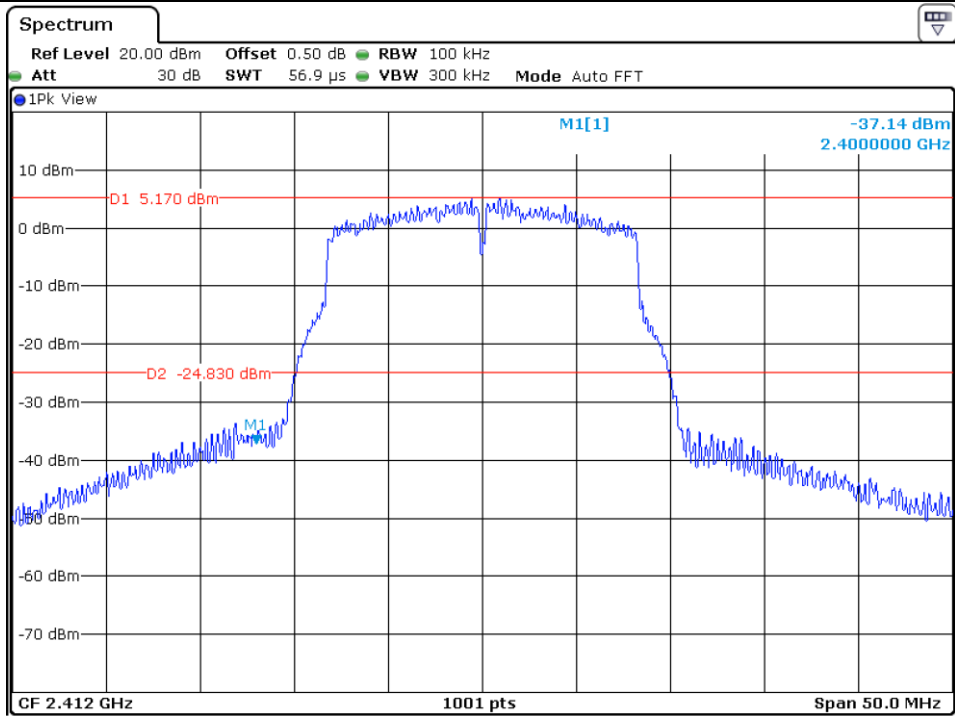


High Channel 13

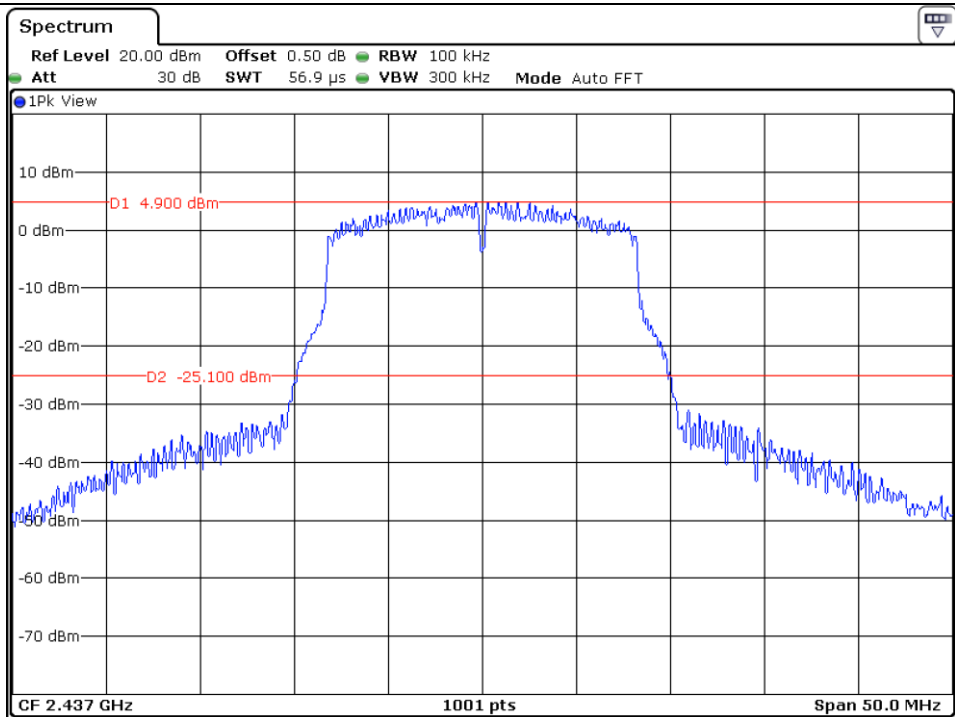


High Channel 13

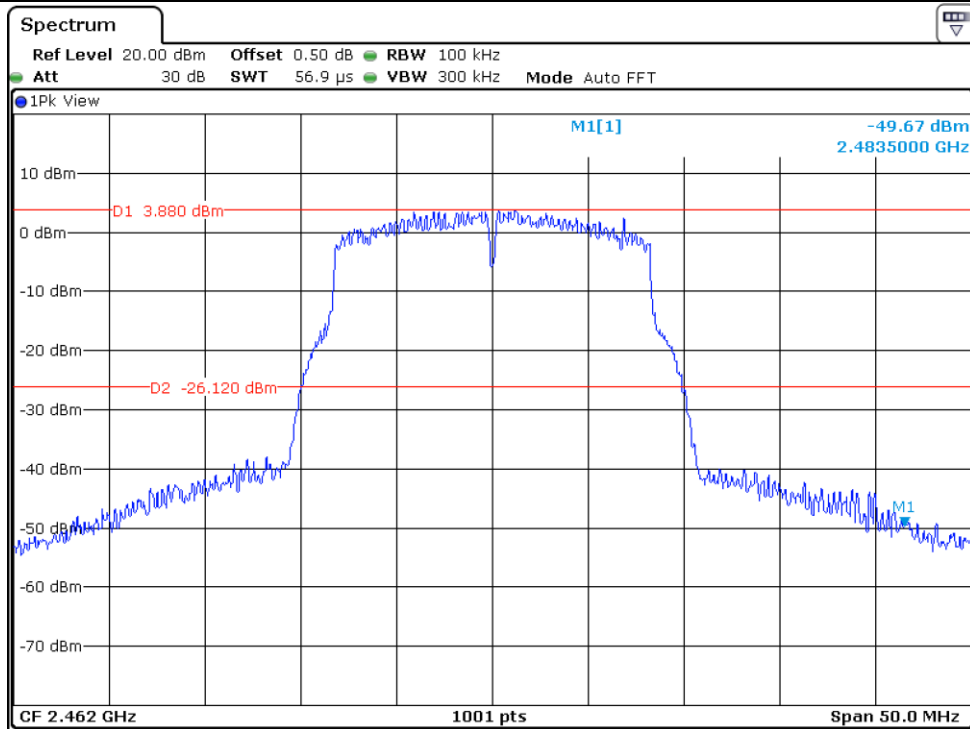
9.5.2.2 Test data for Antenna 1



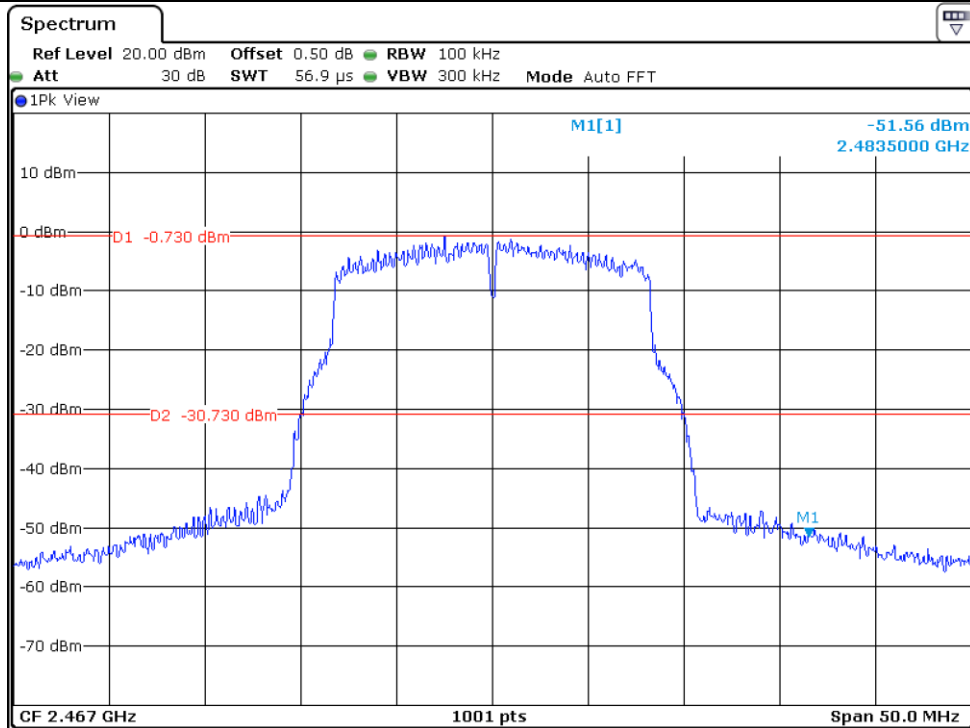
Low Channel



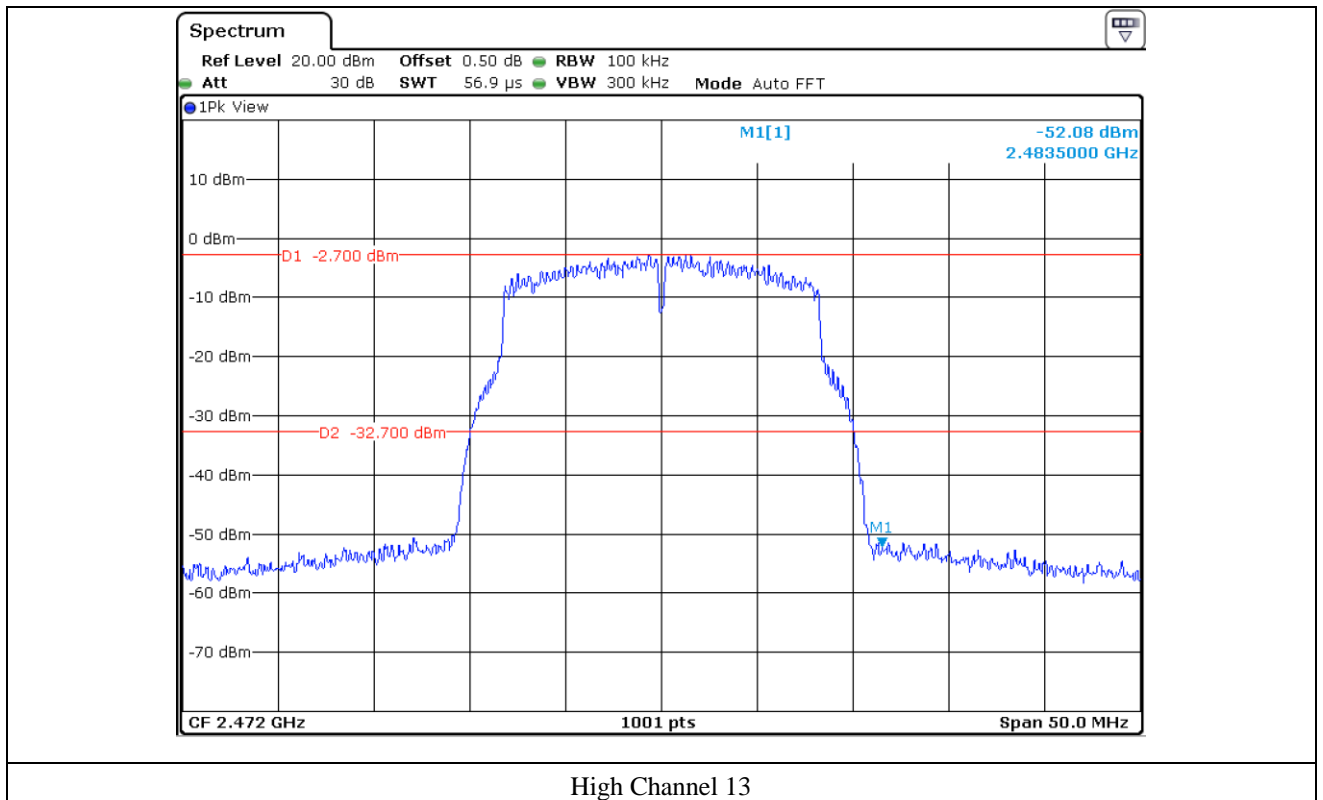
Middle Channel

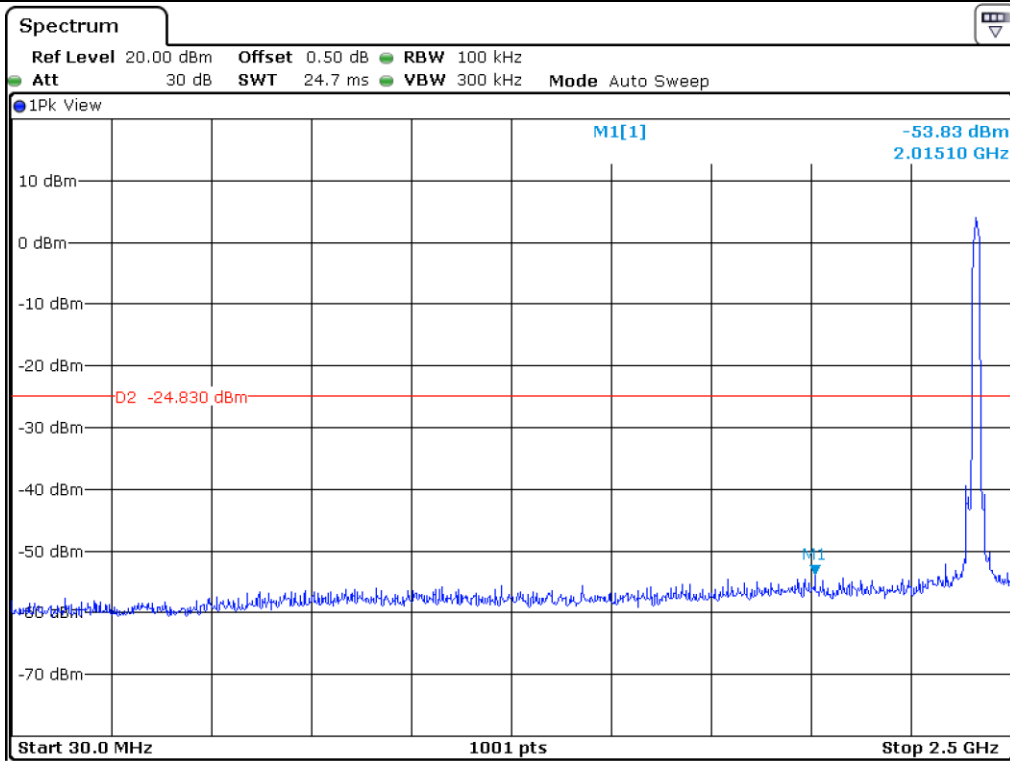


High Channel 11

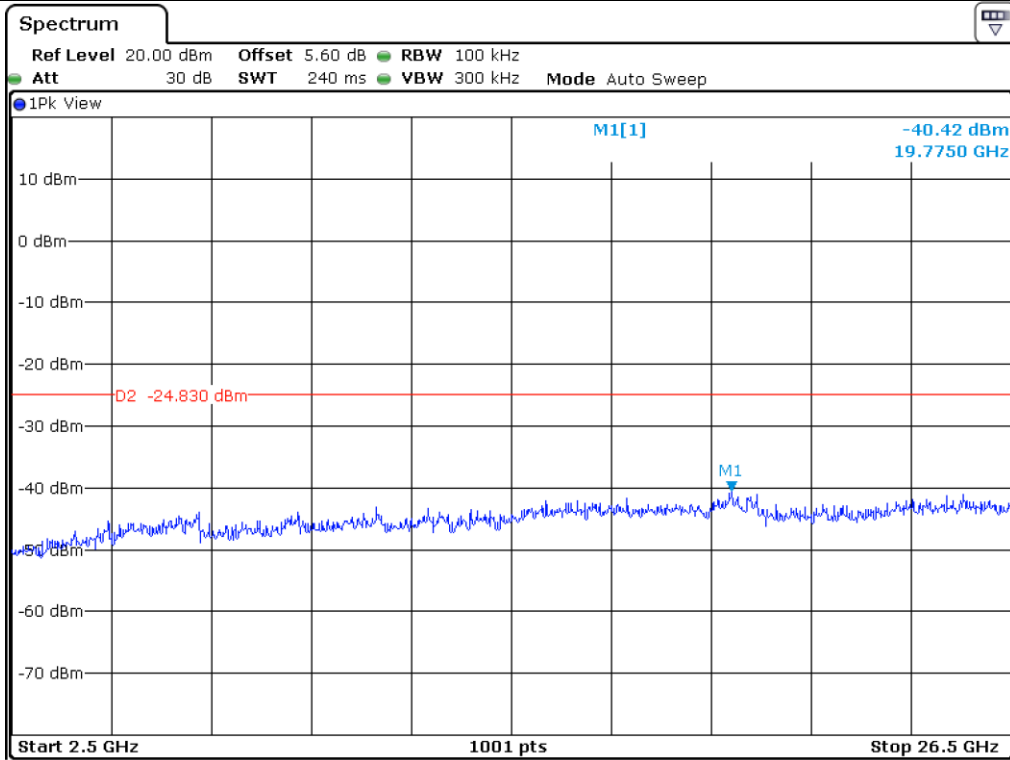


High Channel 12

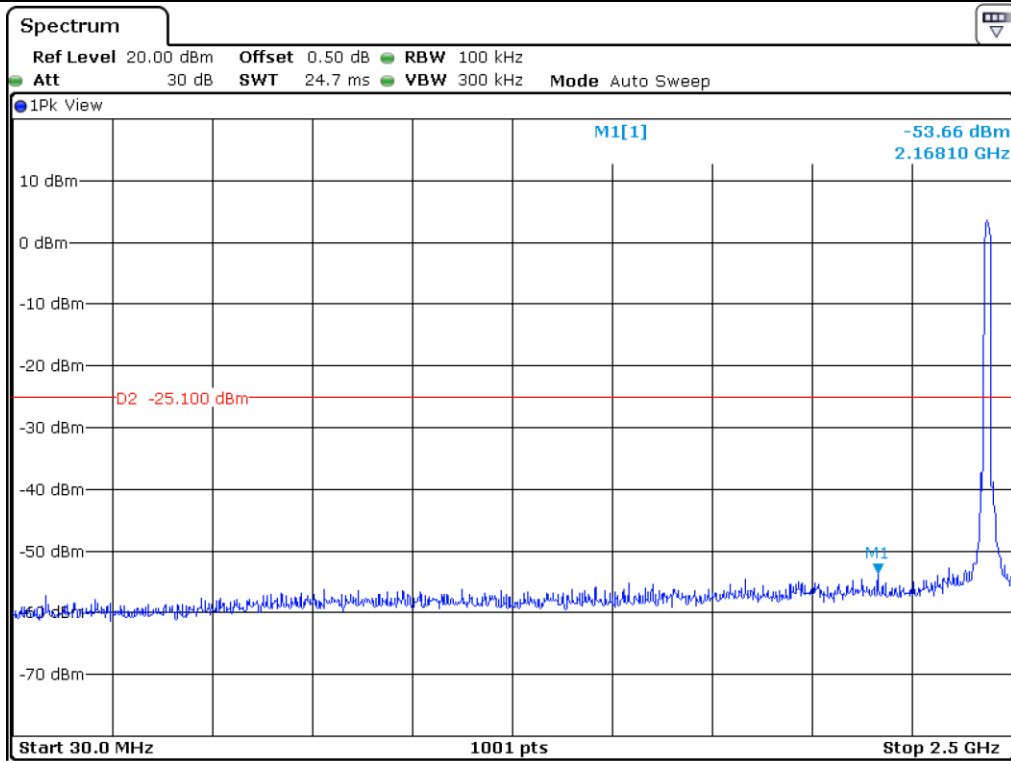




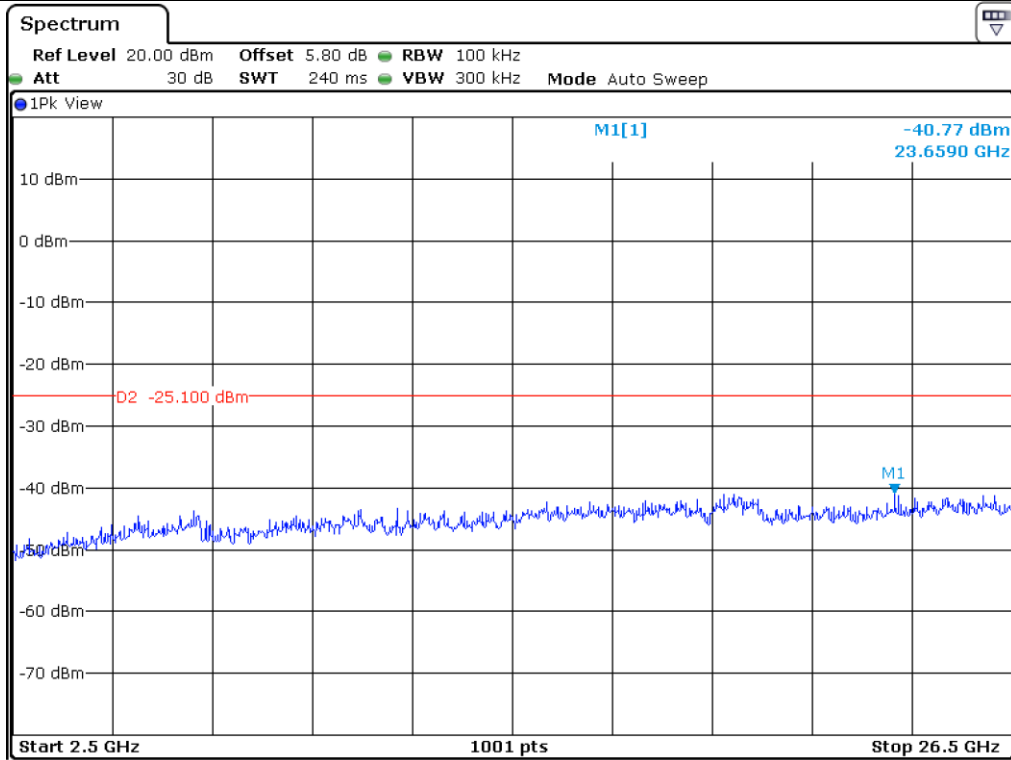
Low Channel



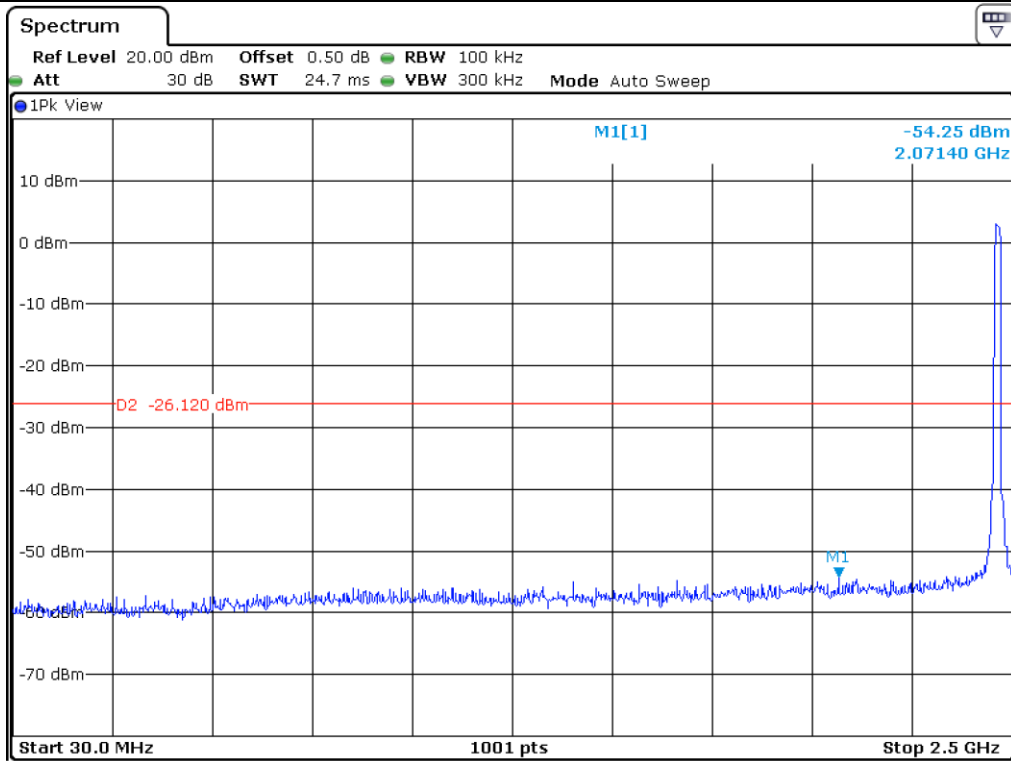
Low Channel



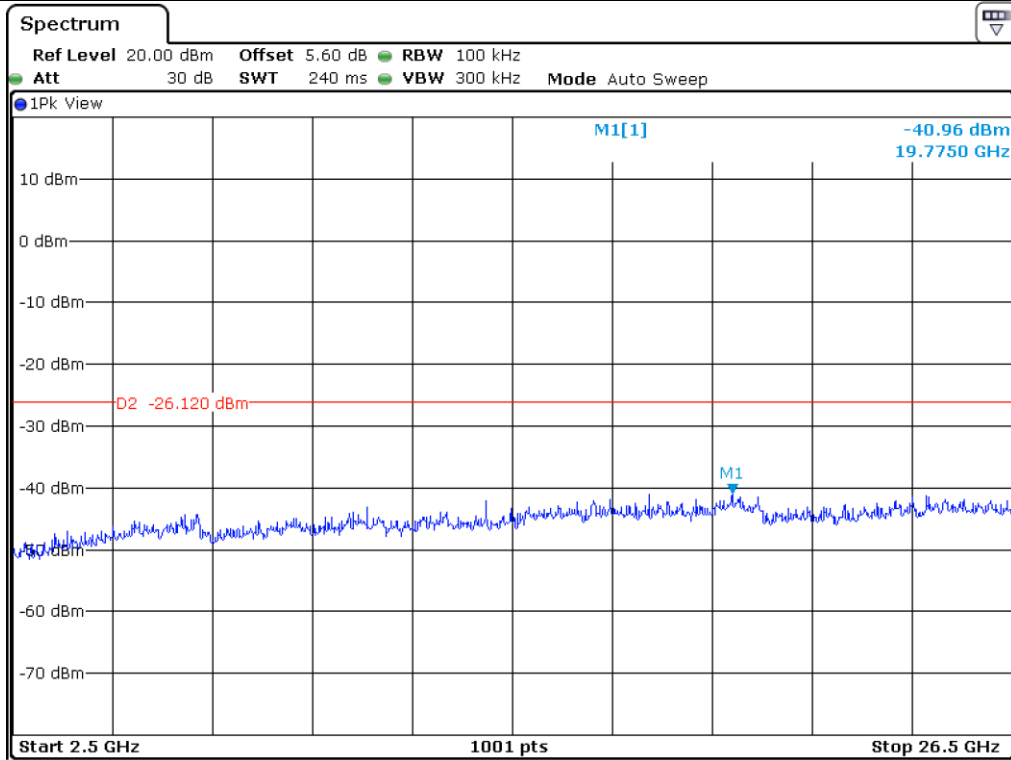
Middle Channel



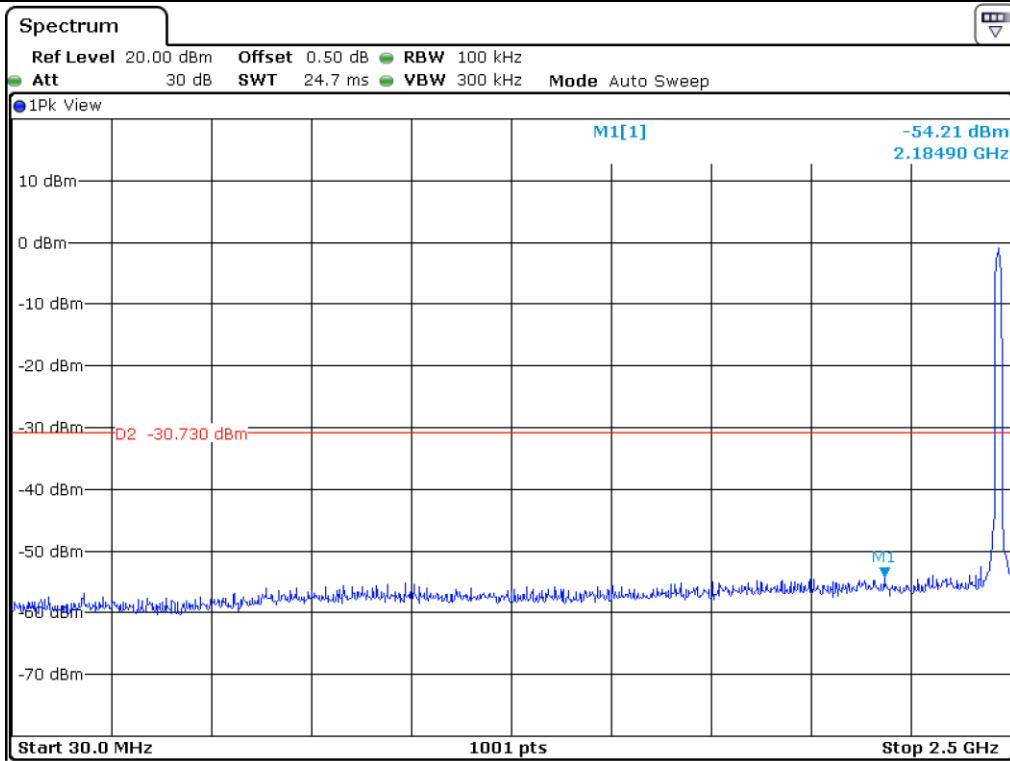
Middle Channel



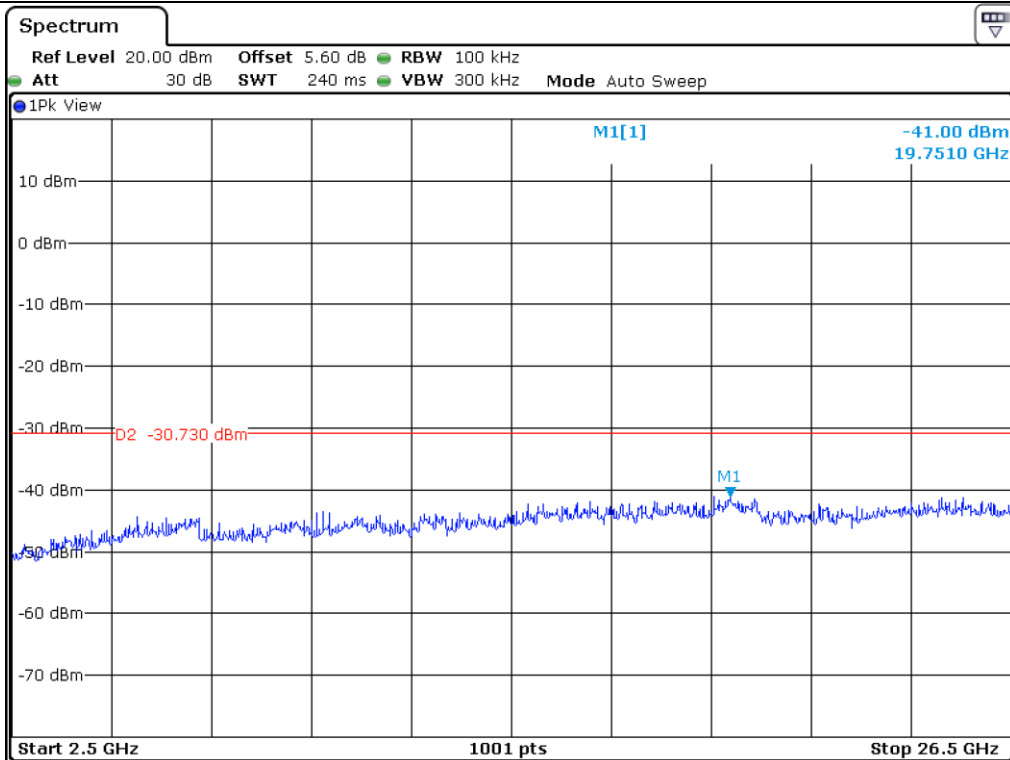
High Channel 11



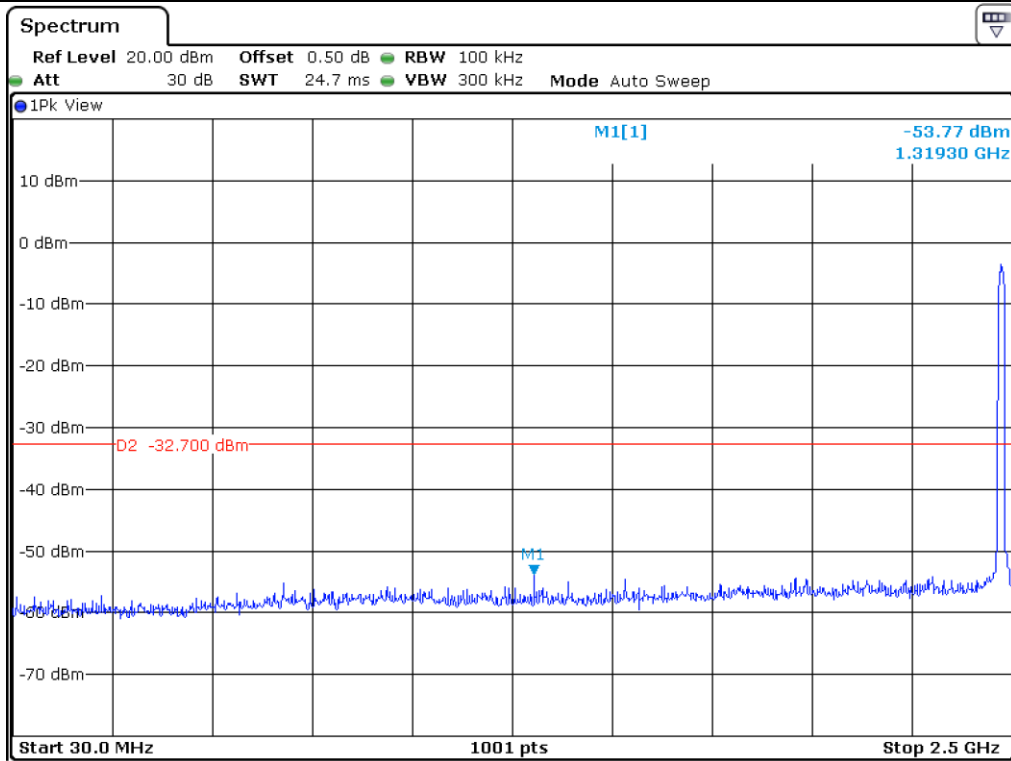
High Channel 11



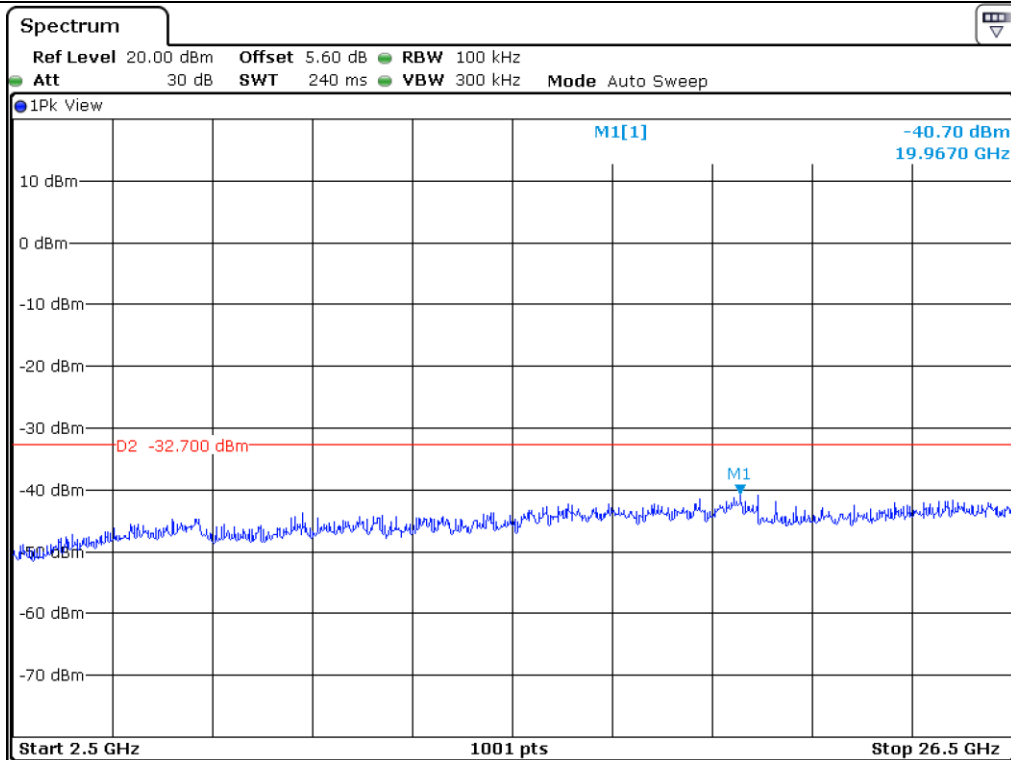
High Channel 12



High Channel 12



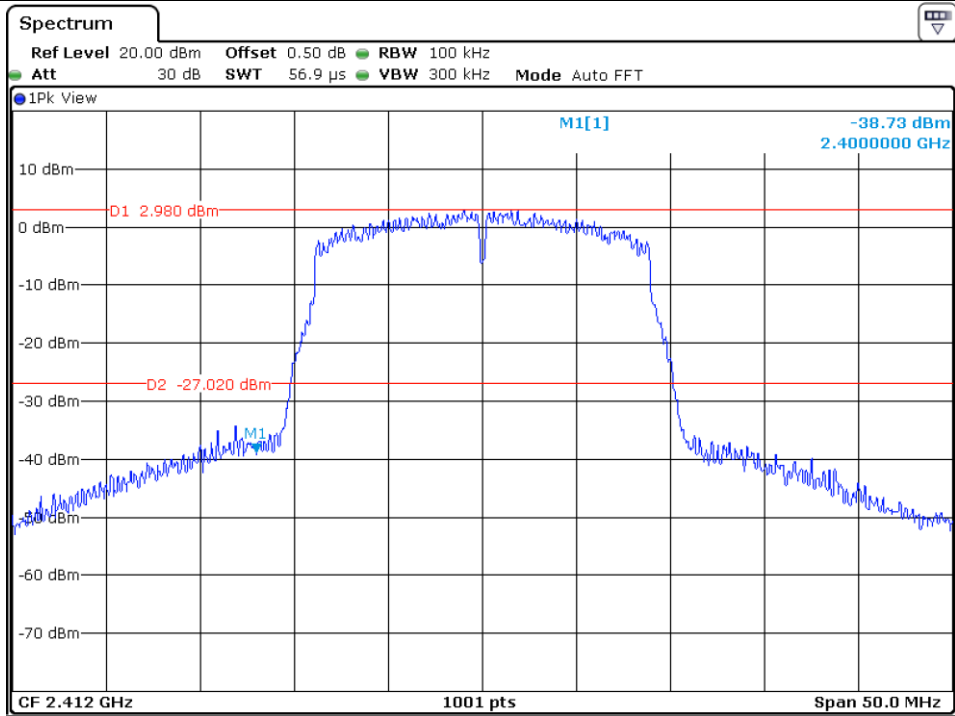
High Channel 13



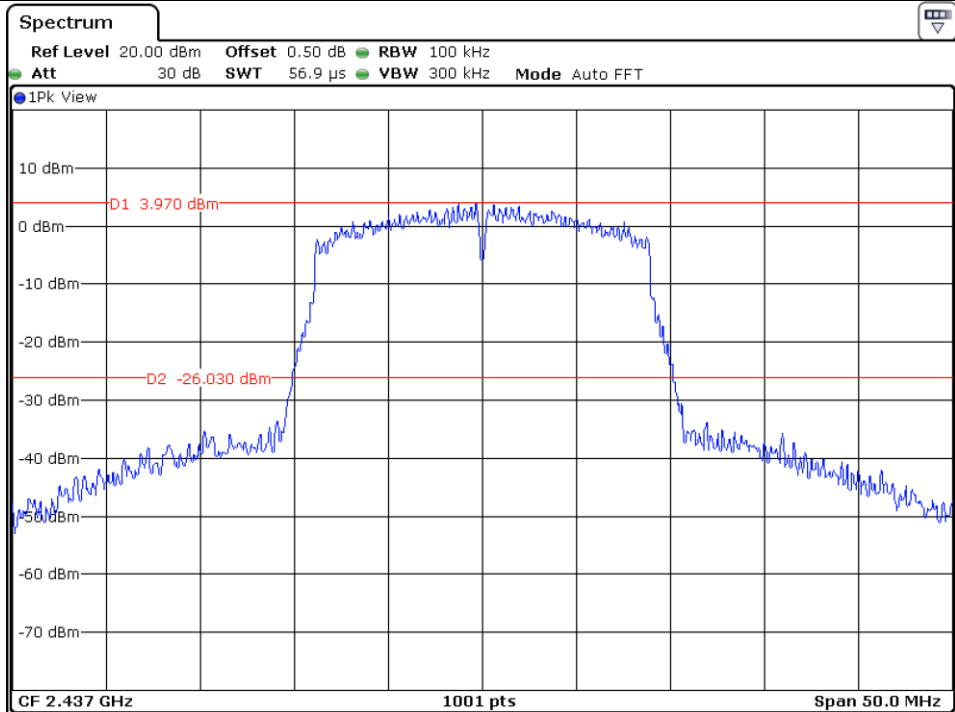
High Channel 13

9.5.3 Test data for 802.11n_HT20 WLAN Mode

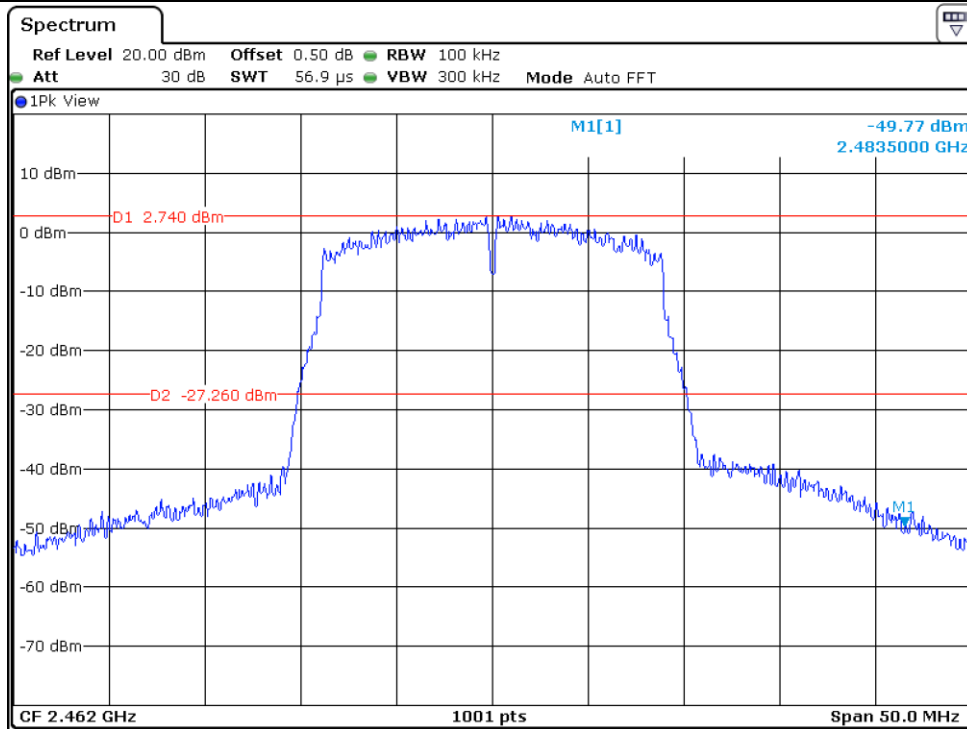
9.5.3.1 Test data for Antenna 0



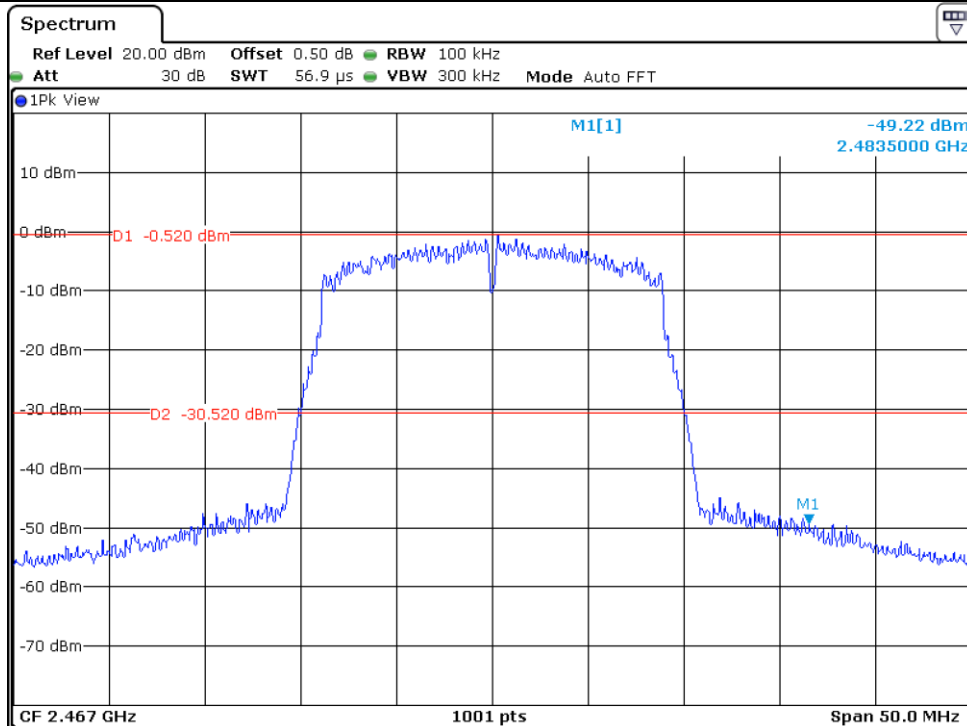
Low Channel



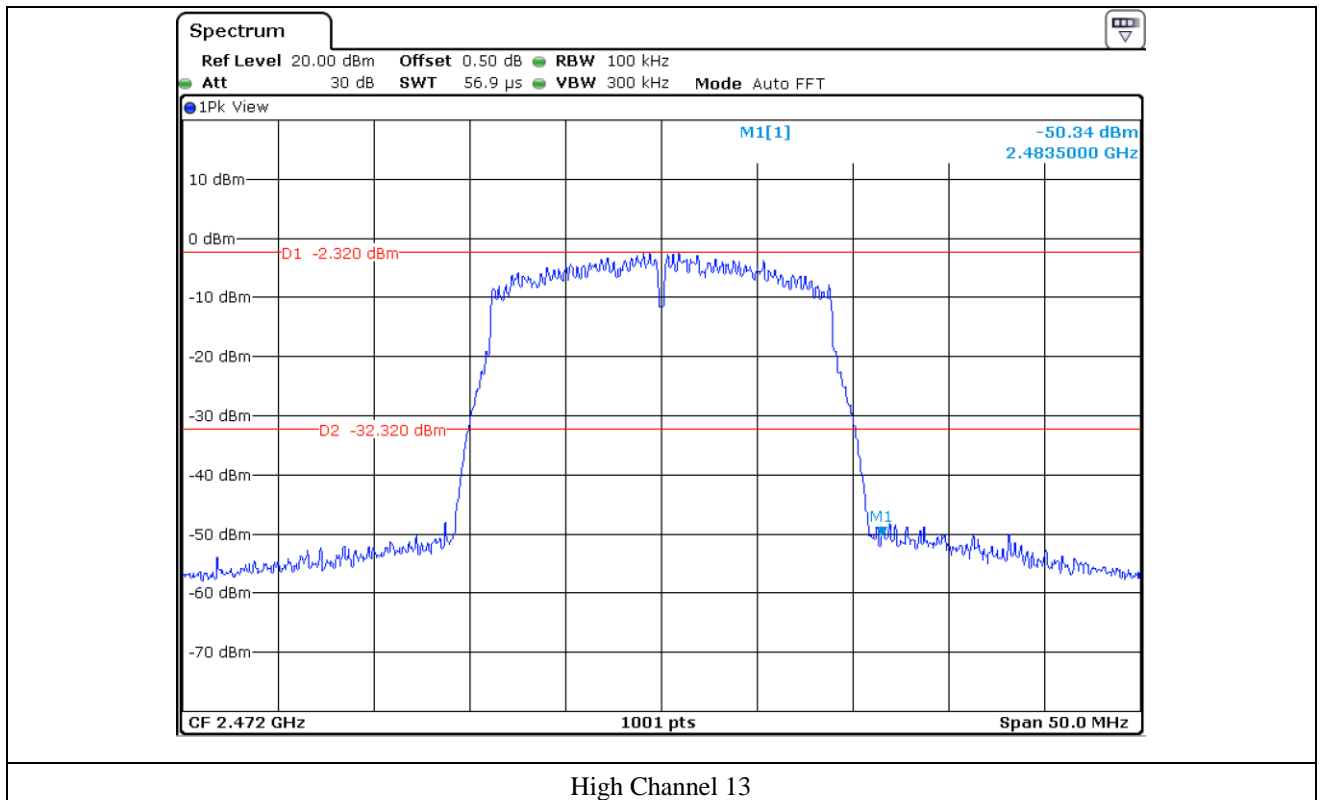
Middle Channel

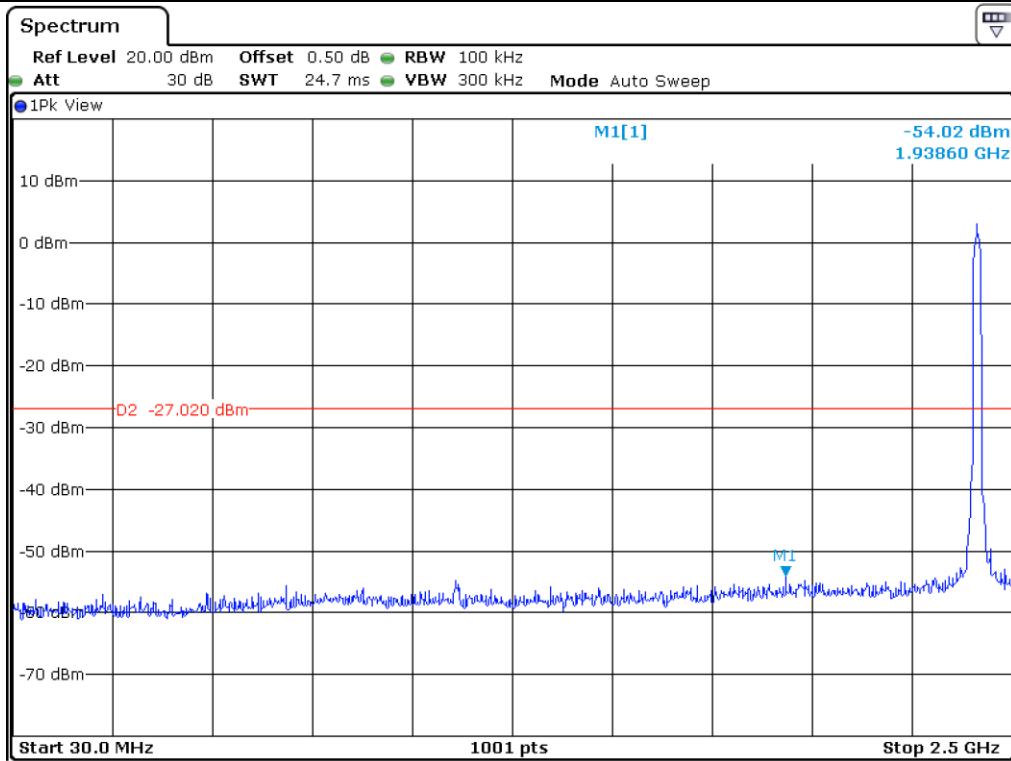


High Channel 11

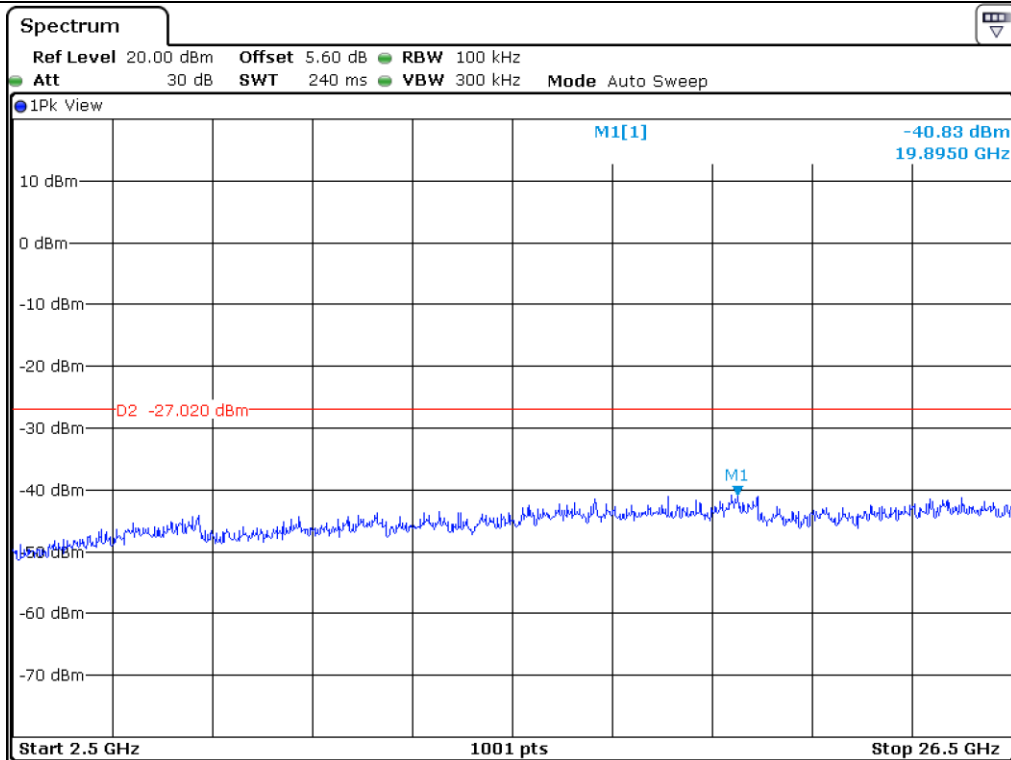


High Channel 12

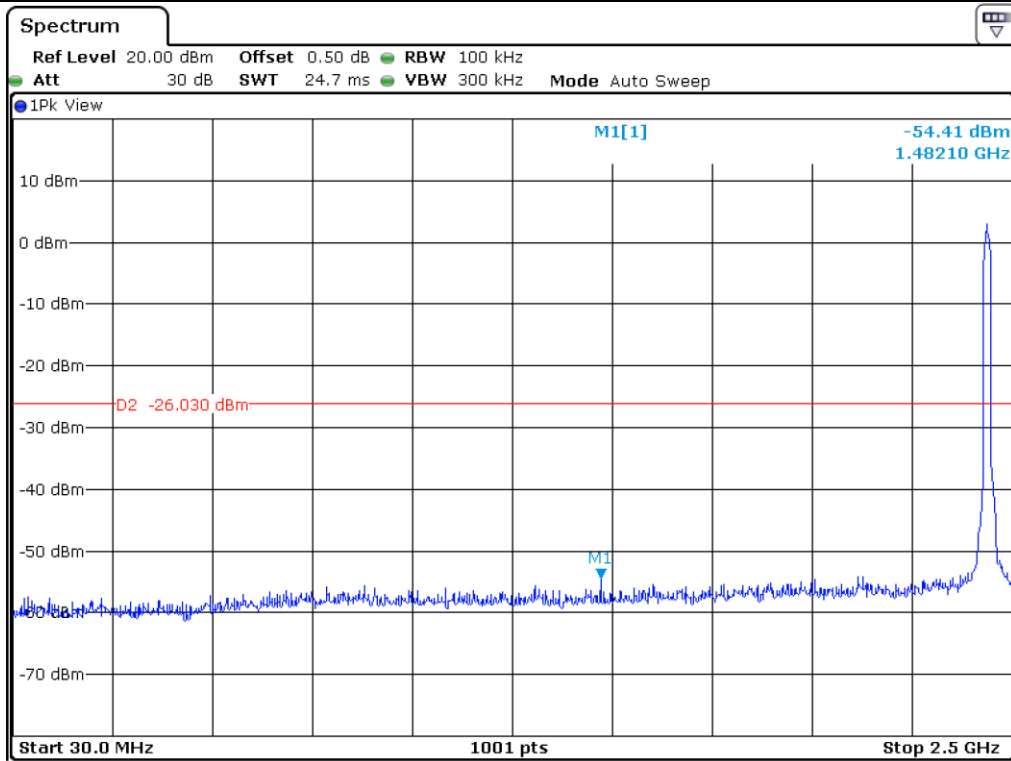




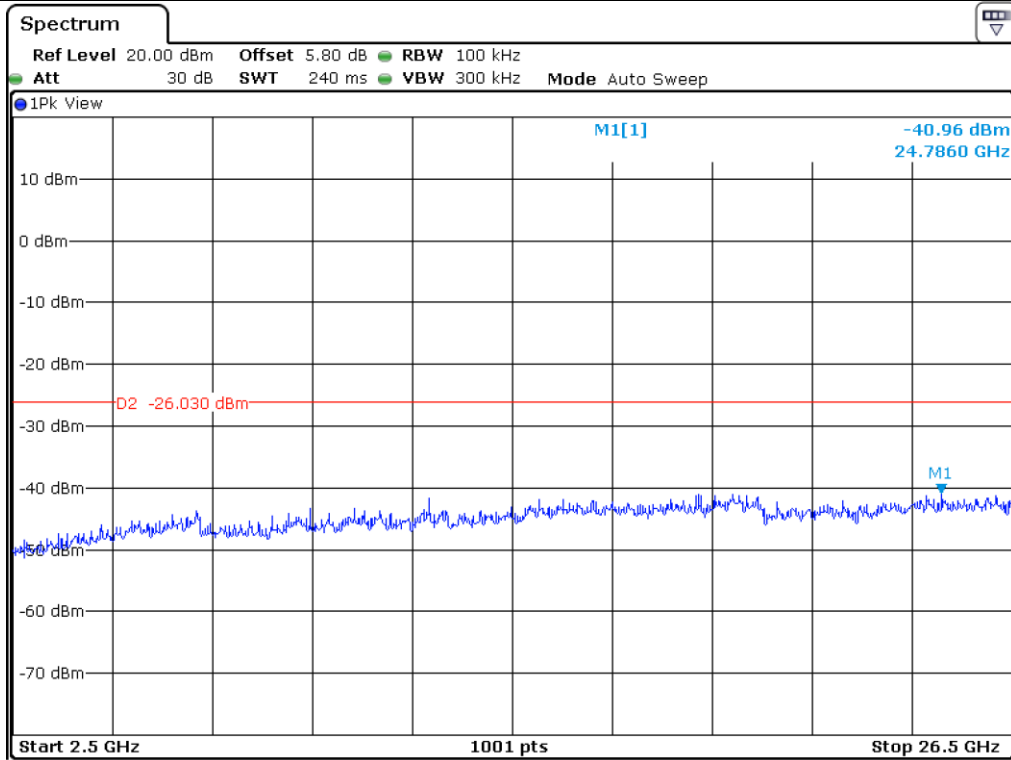
Low Channel



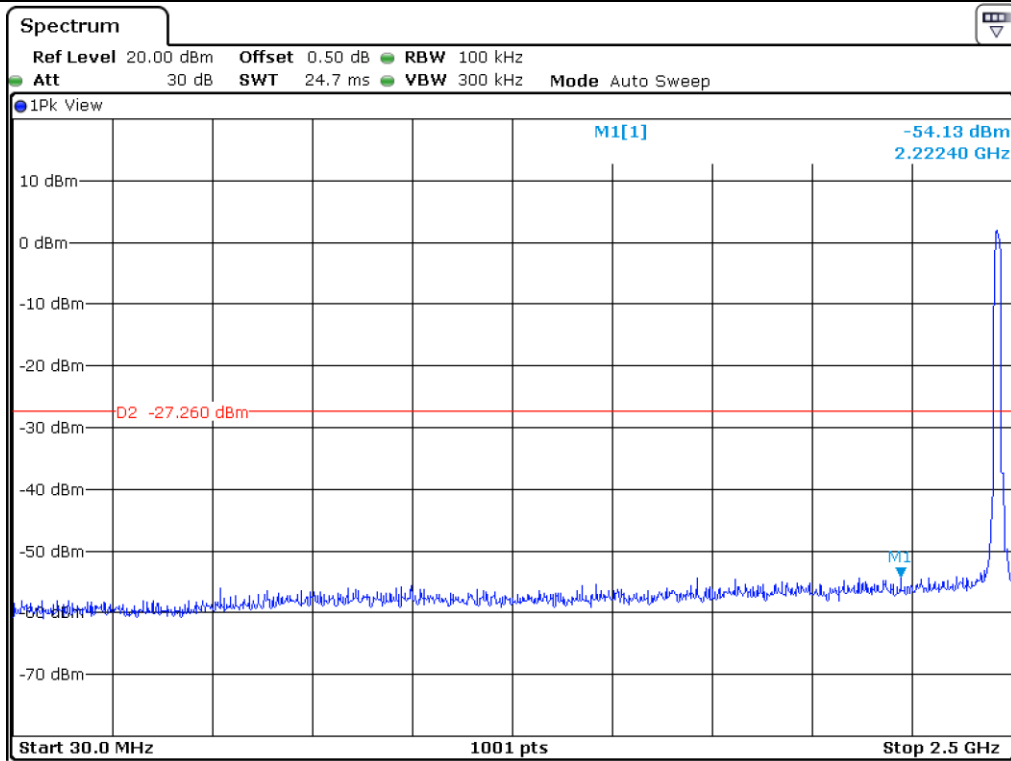
Low Channel



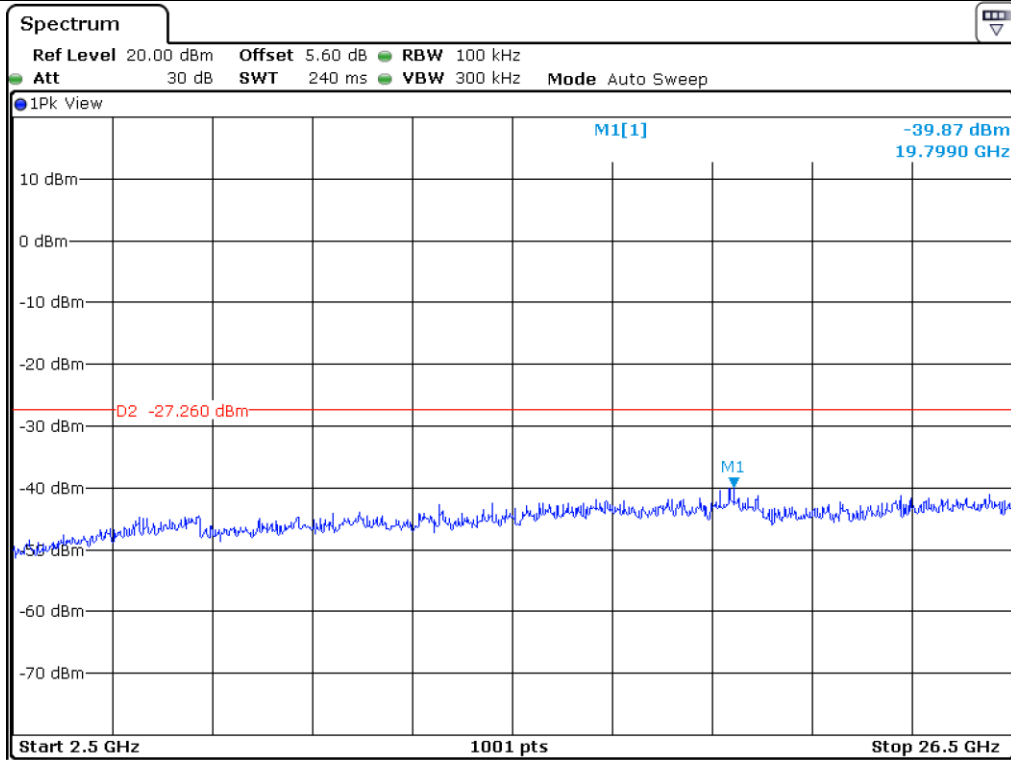
Middle Channel



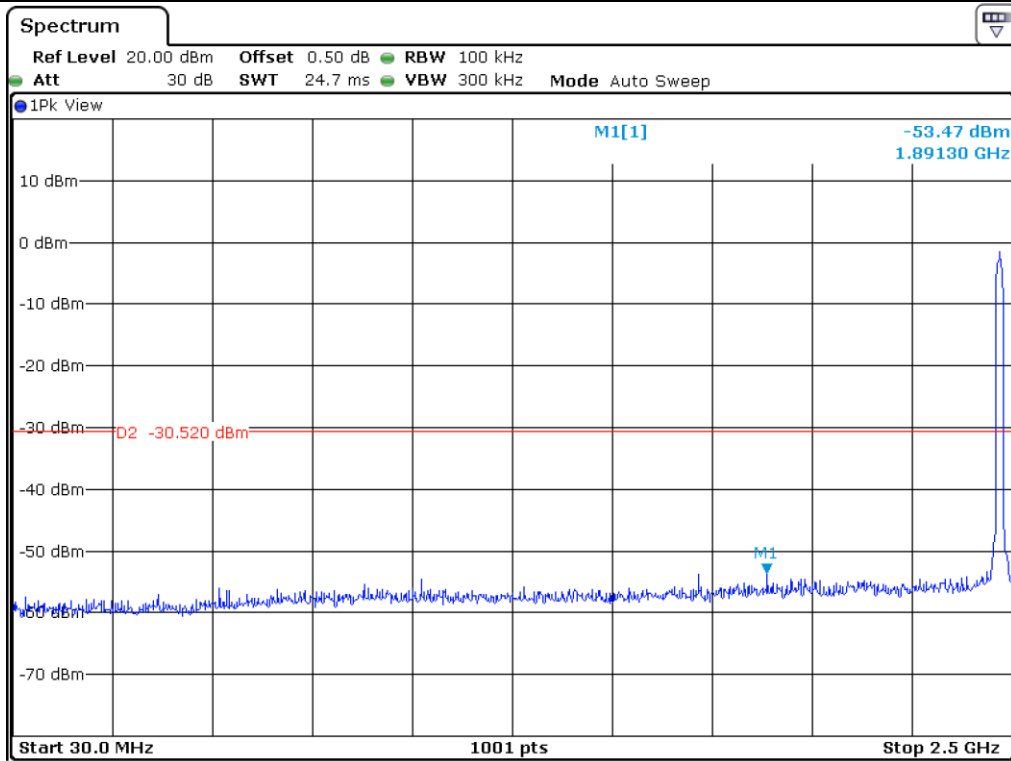
Middle Channel



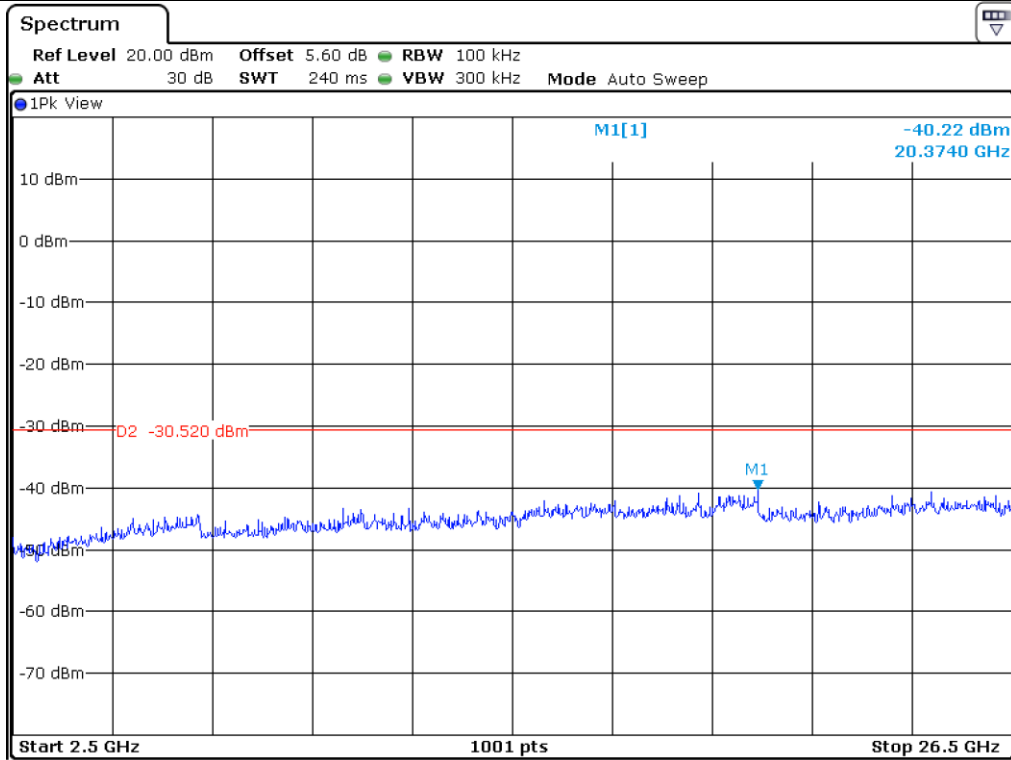
High Channel 11



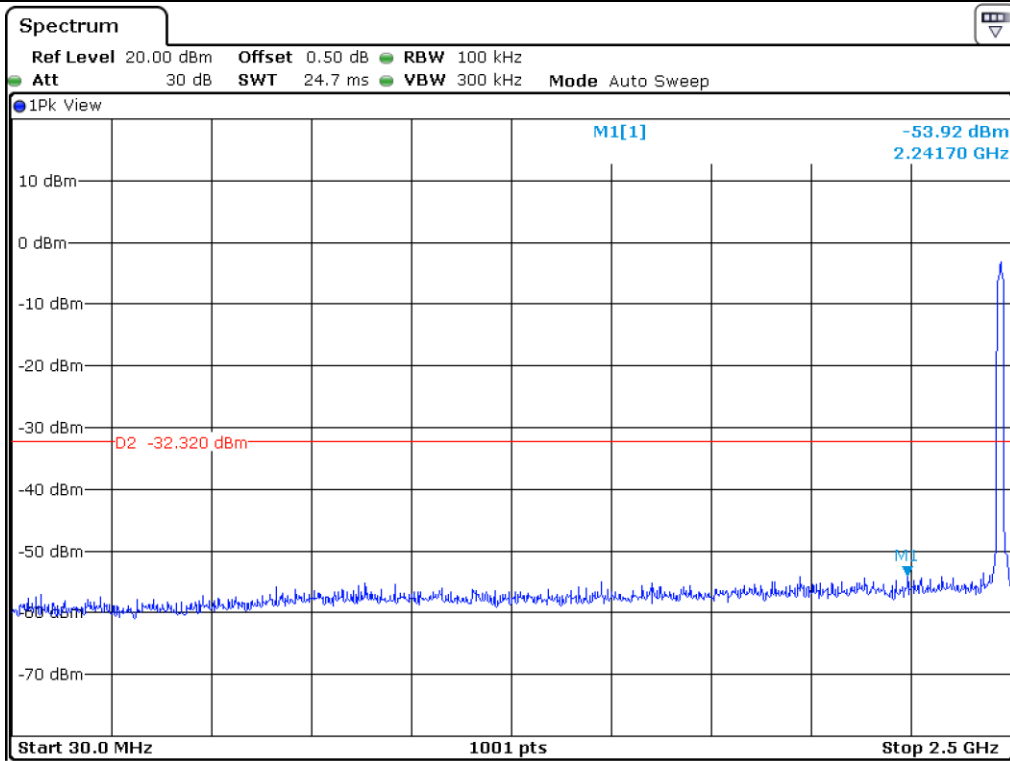
High Channel 11



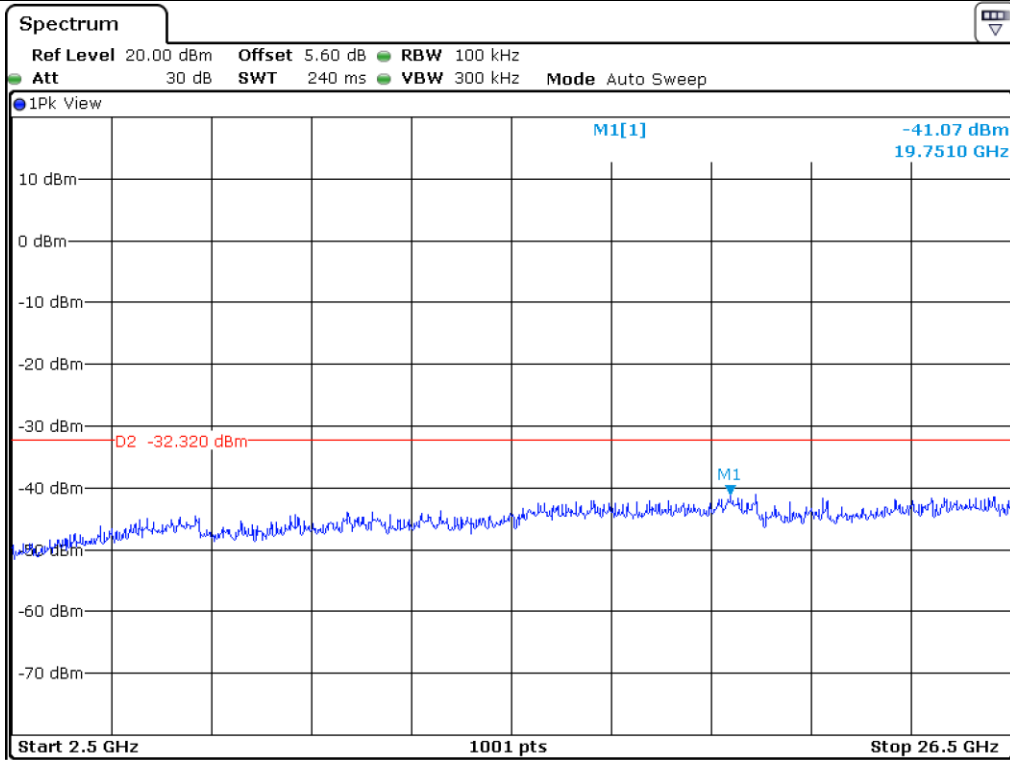
High Channel 12



High Channel 12

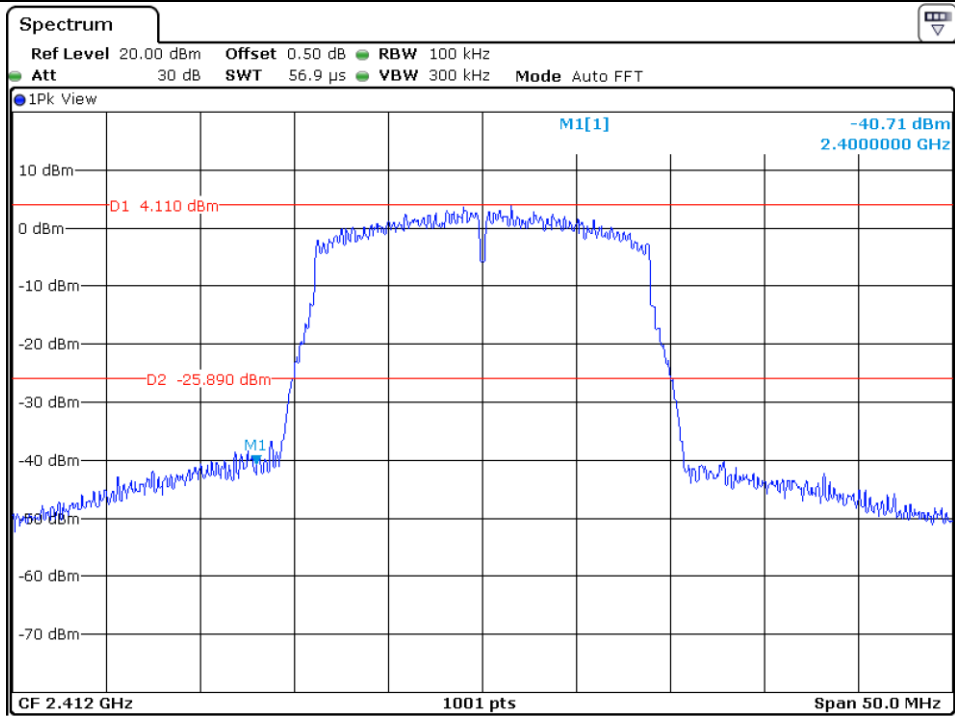


High Channel 13

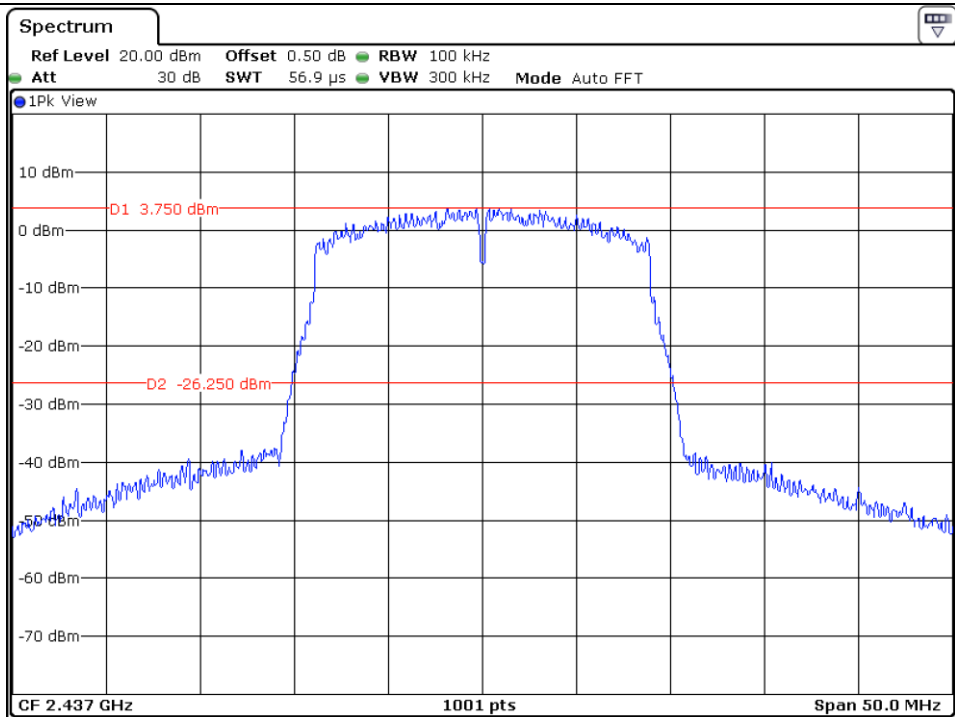


High Channel 13

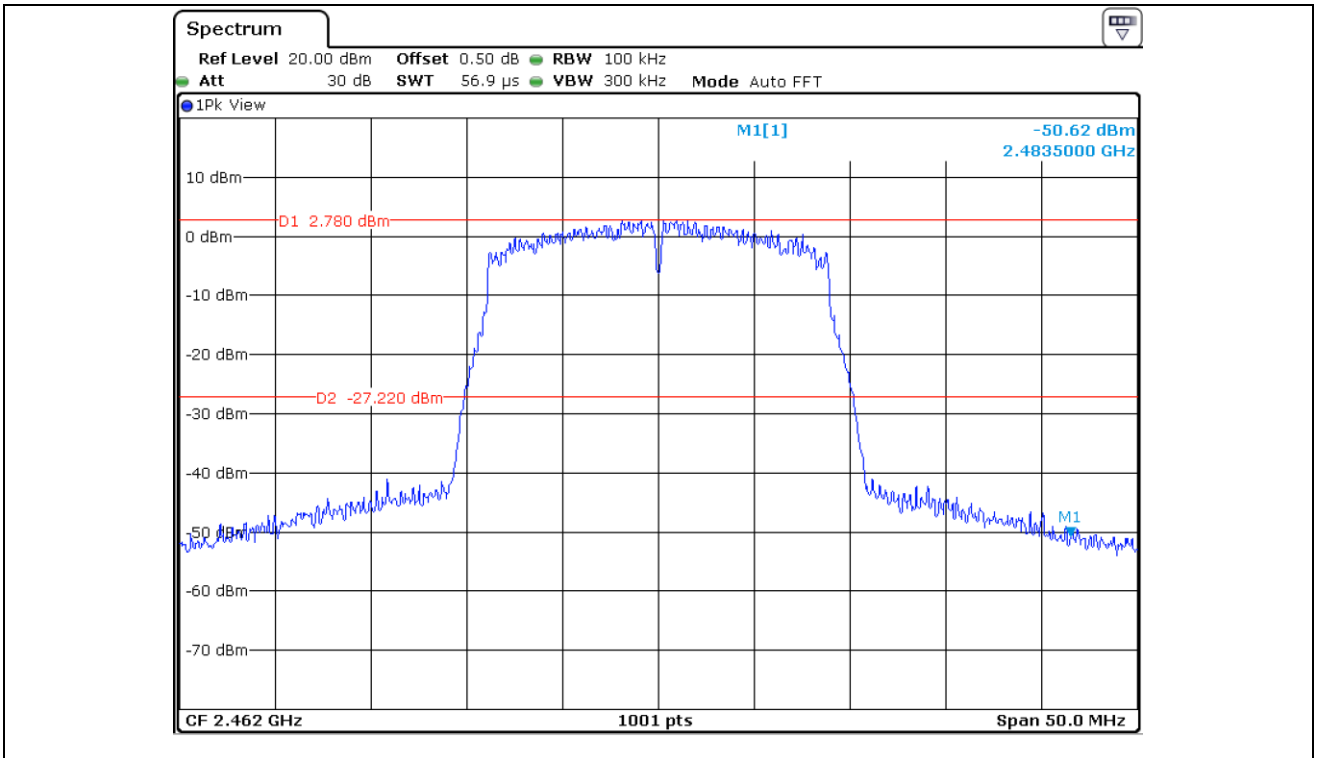
9.5.3.2 Test data for Antenna 1



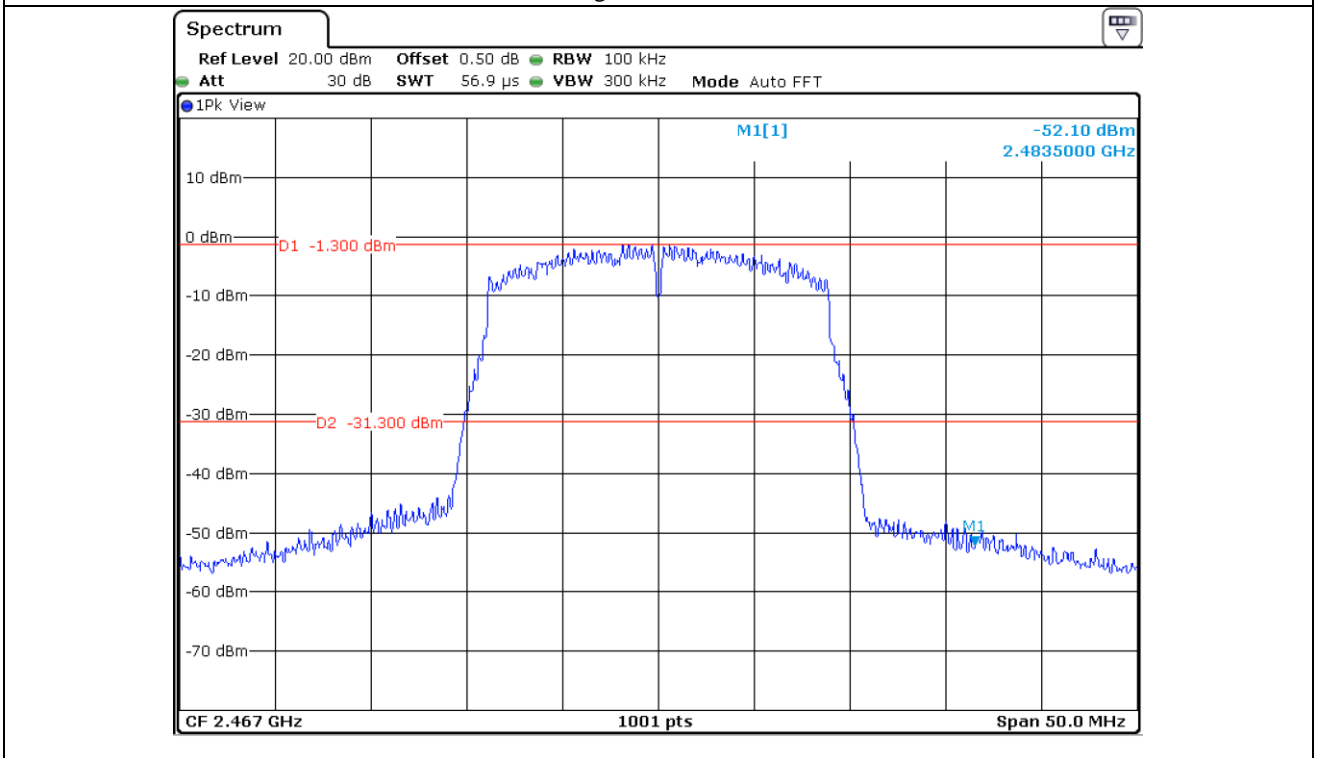
Low Channel



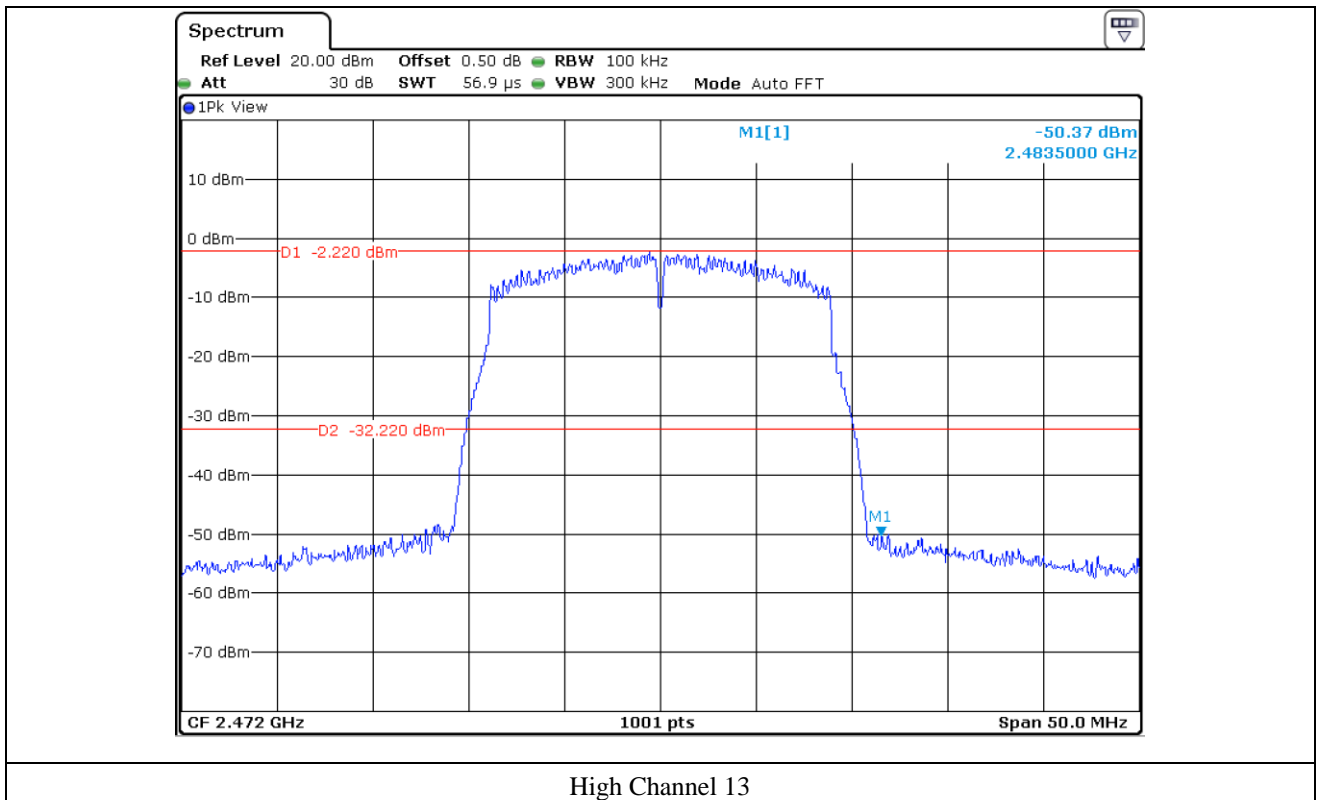
Middle Channel

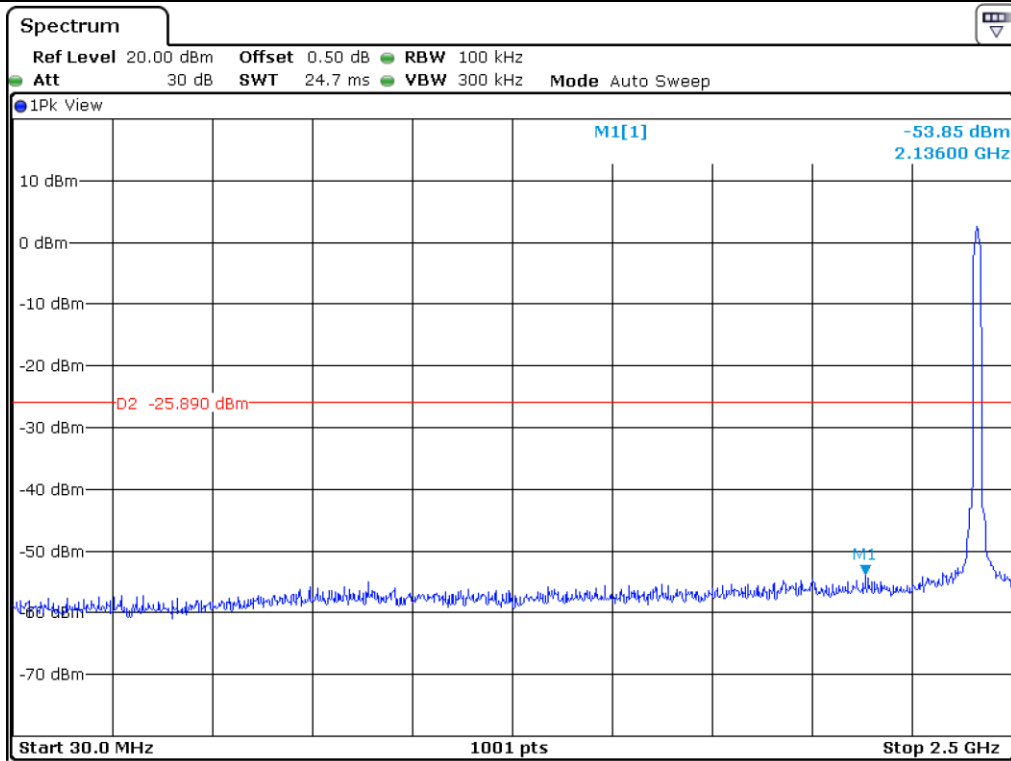


High Channel 11

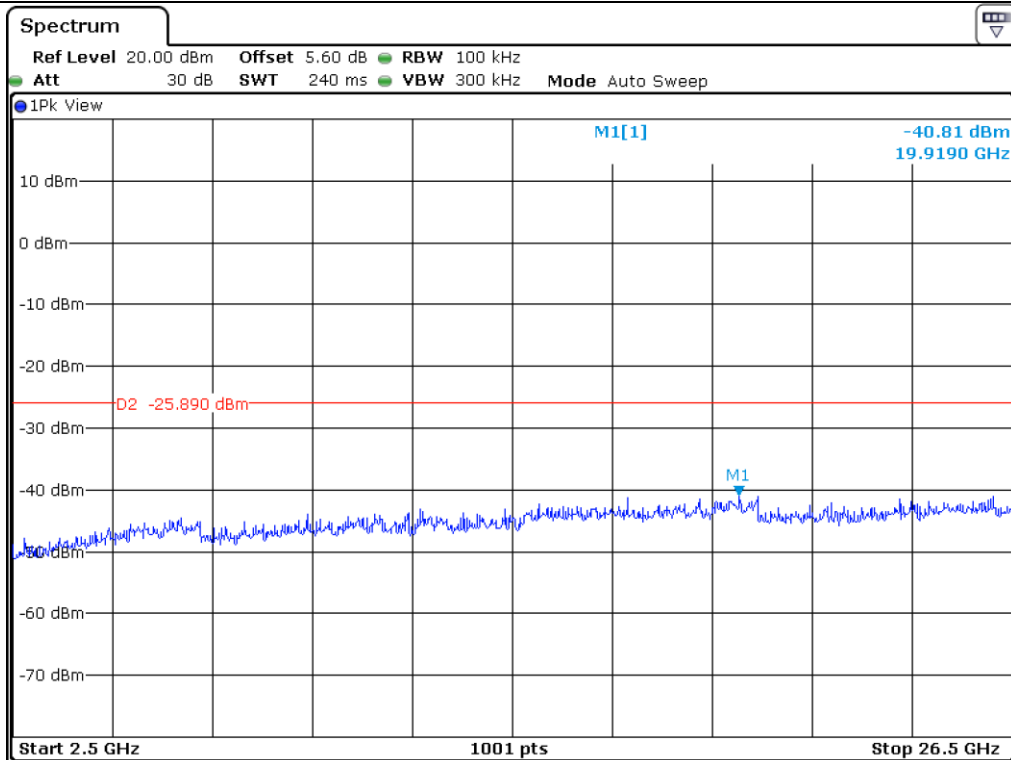


High Channel 12

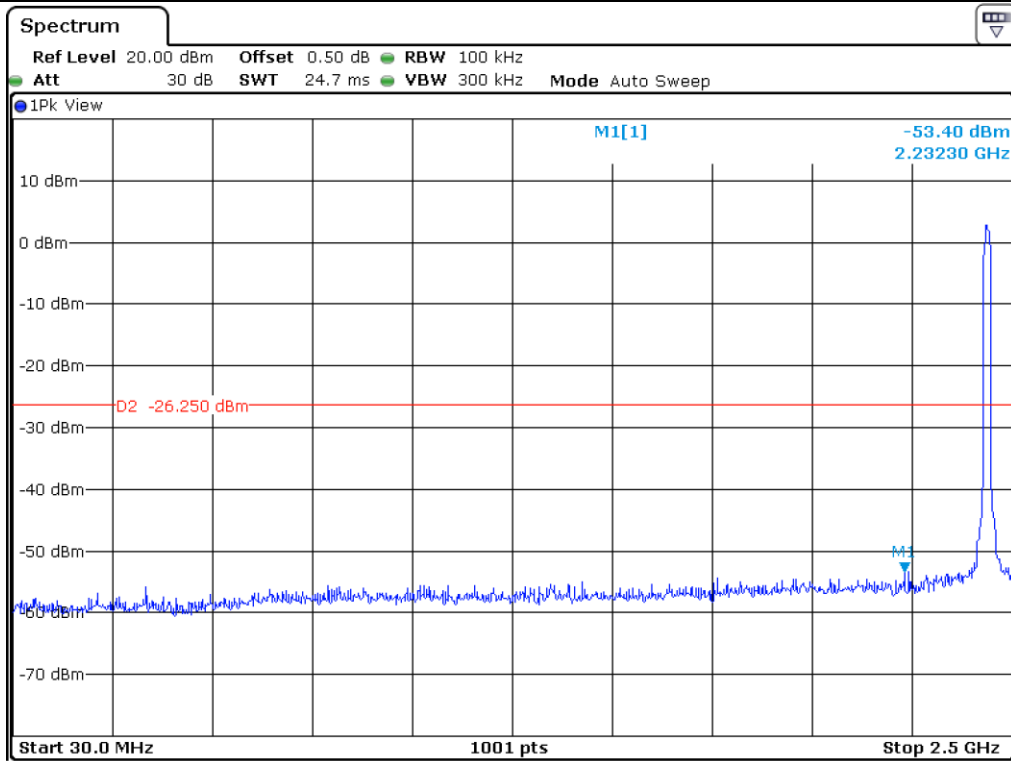




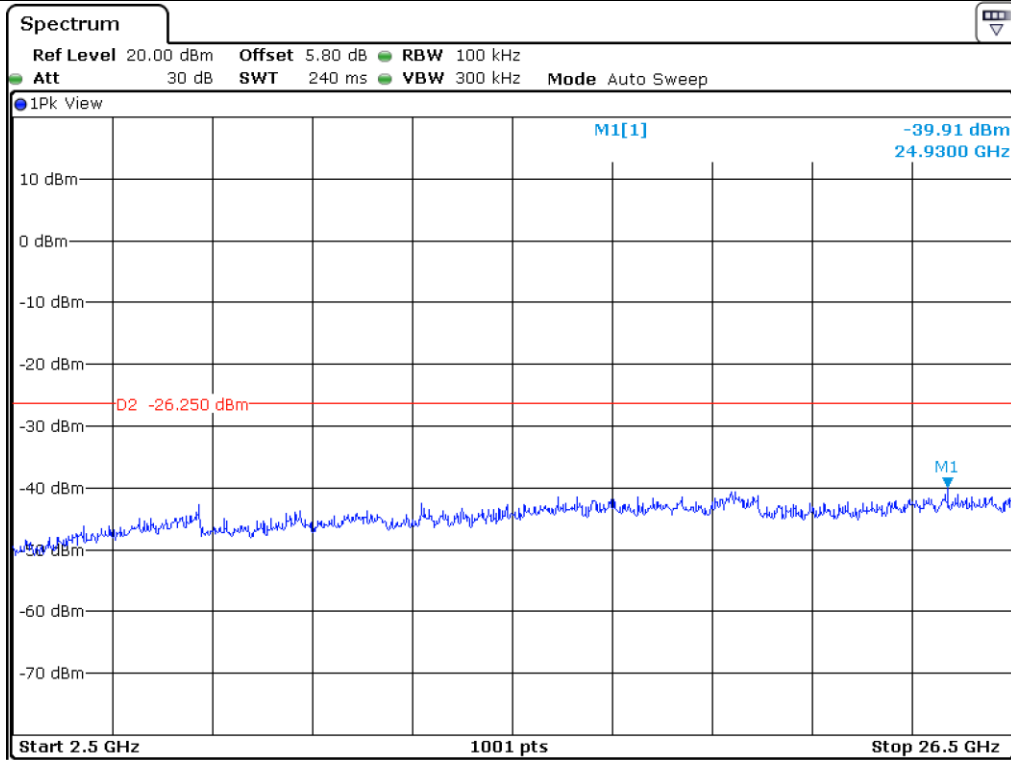
Low Channel



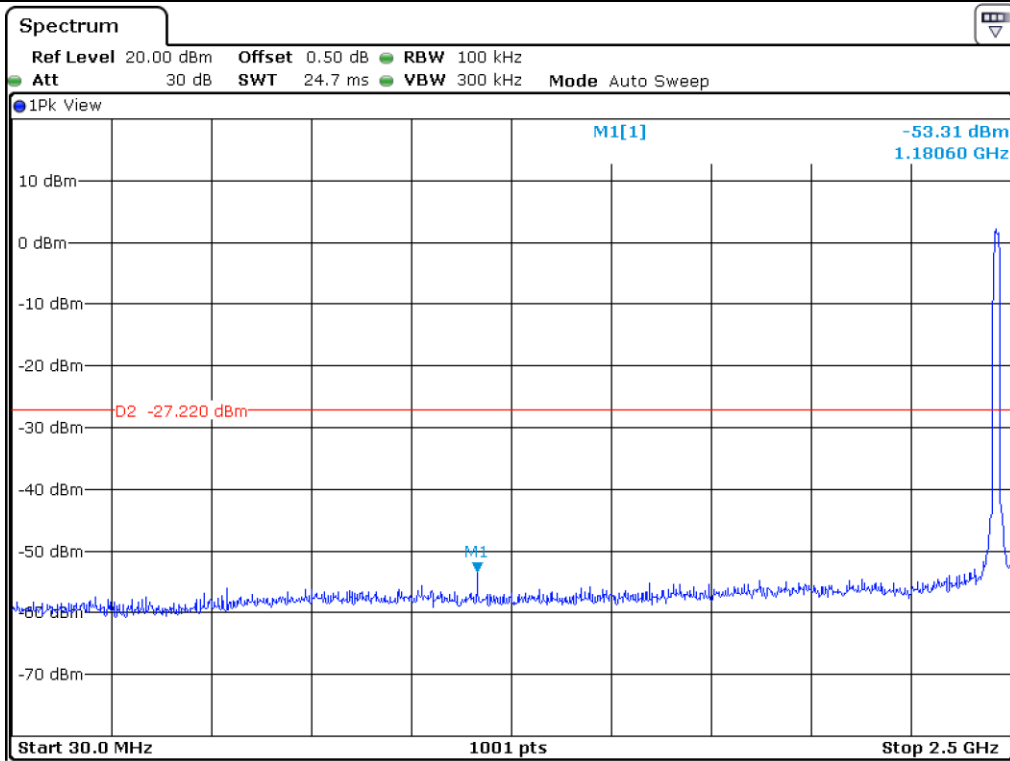
Low Channel



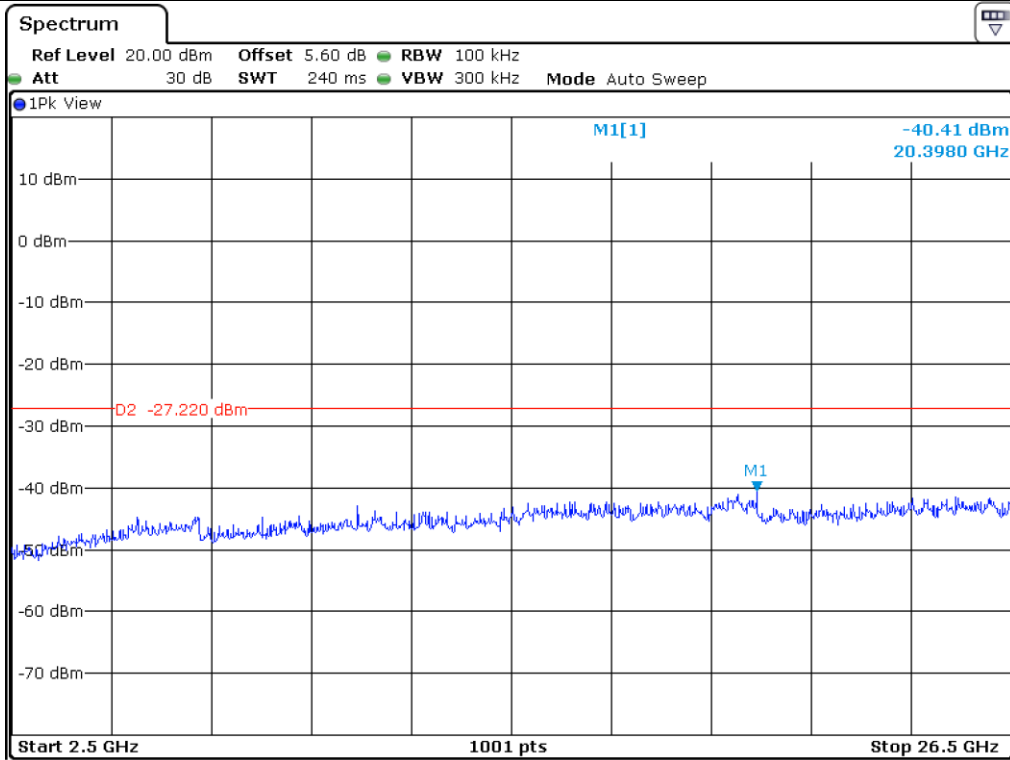
Middle Channel



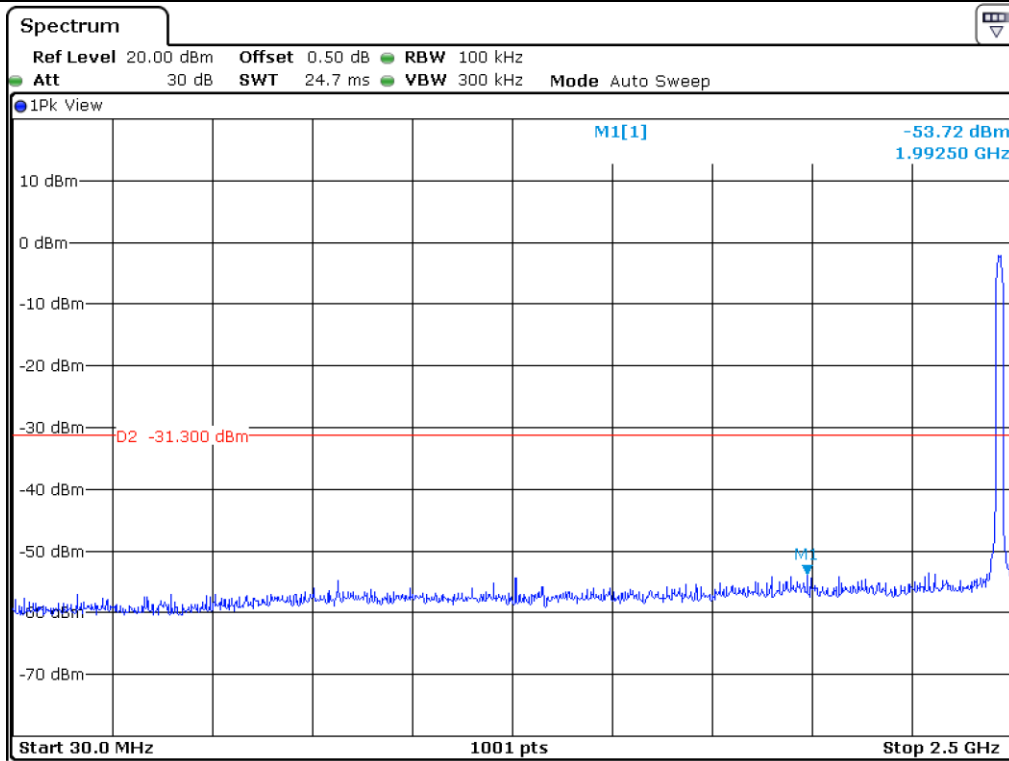
Middle Channel



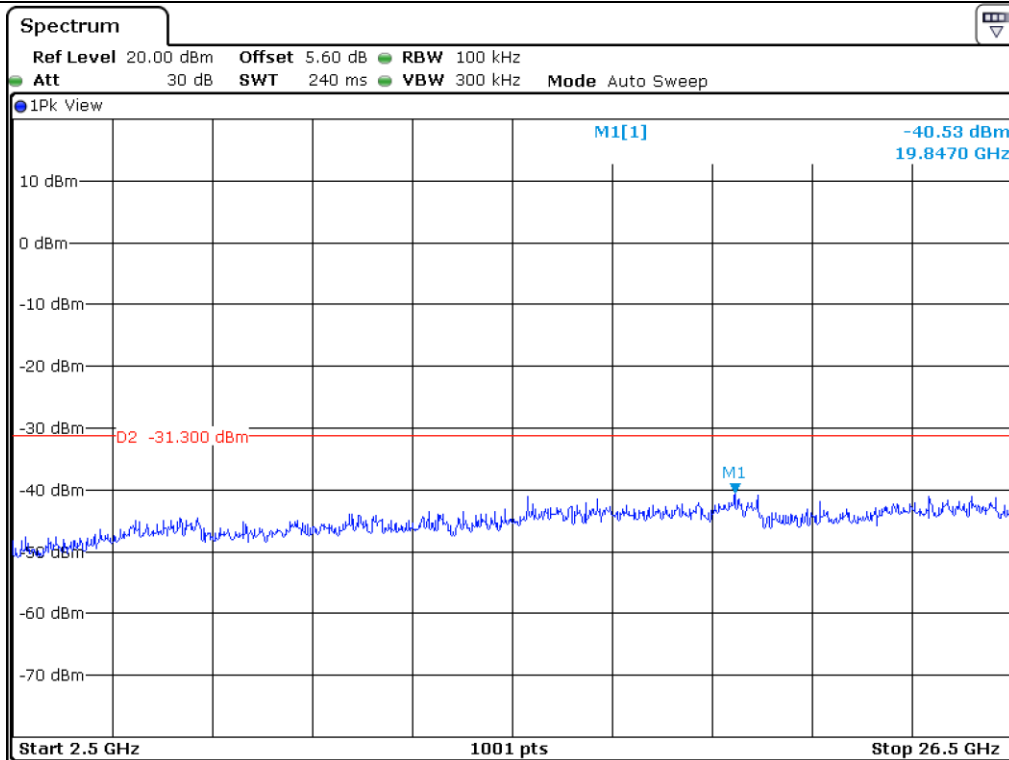
High Channel 11



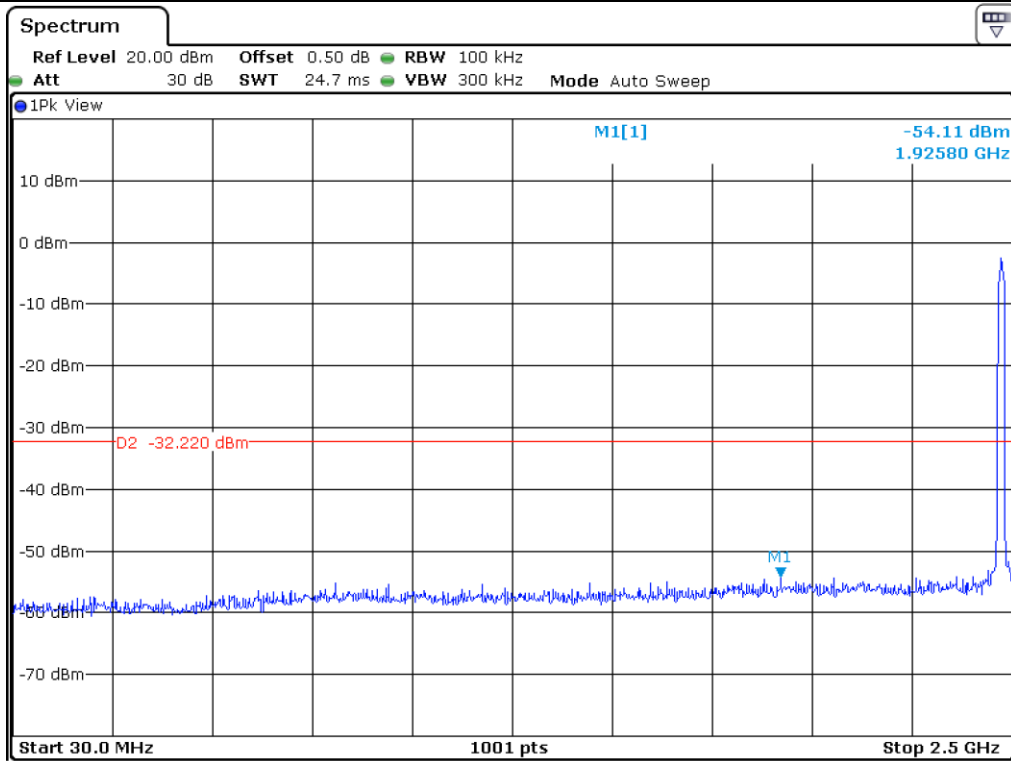
High Channel 11



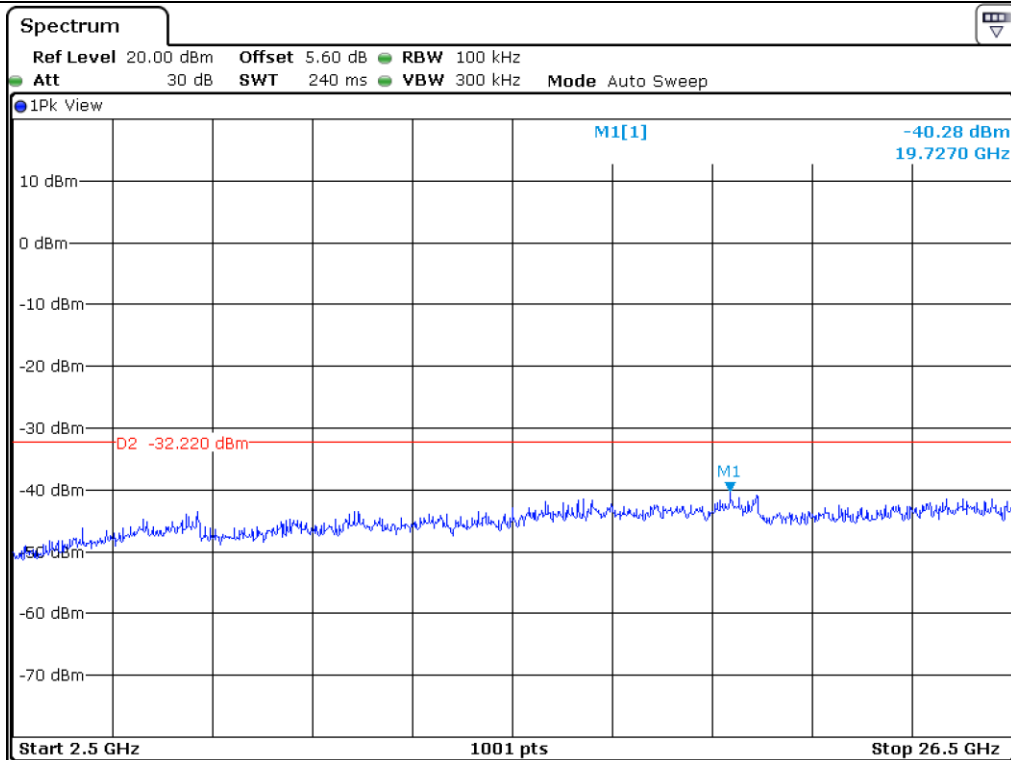
High Channel 12



High Channel 12



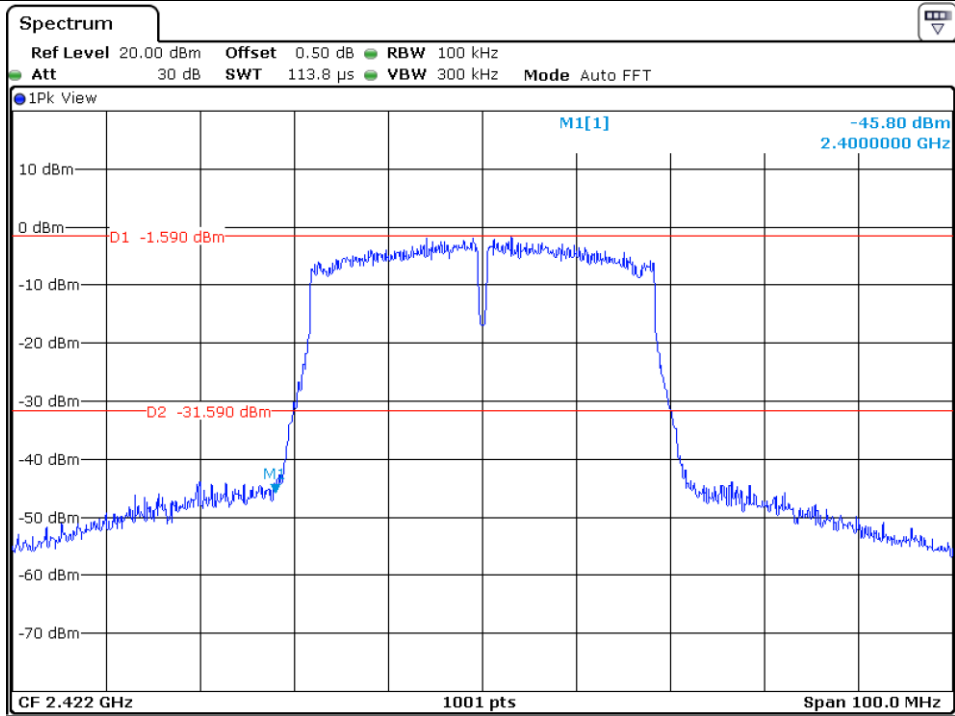
High Channel 13



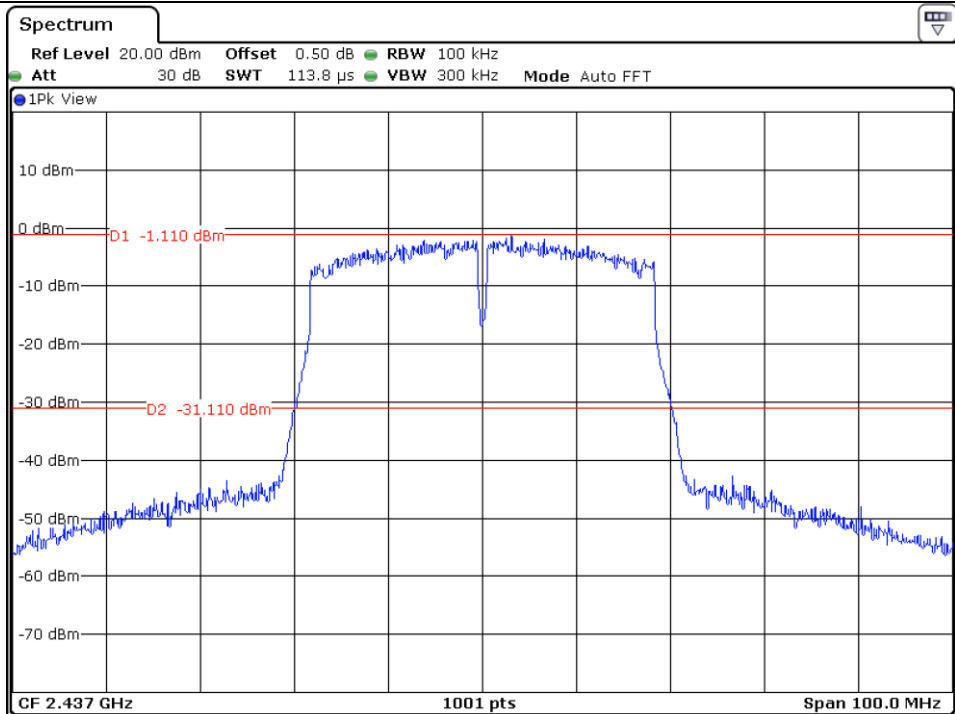
High Channel 13

9.5.4 Test data for 802.11n_HT40 WLAN Mode

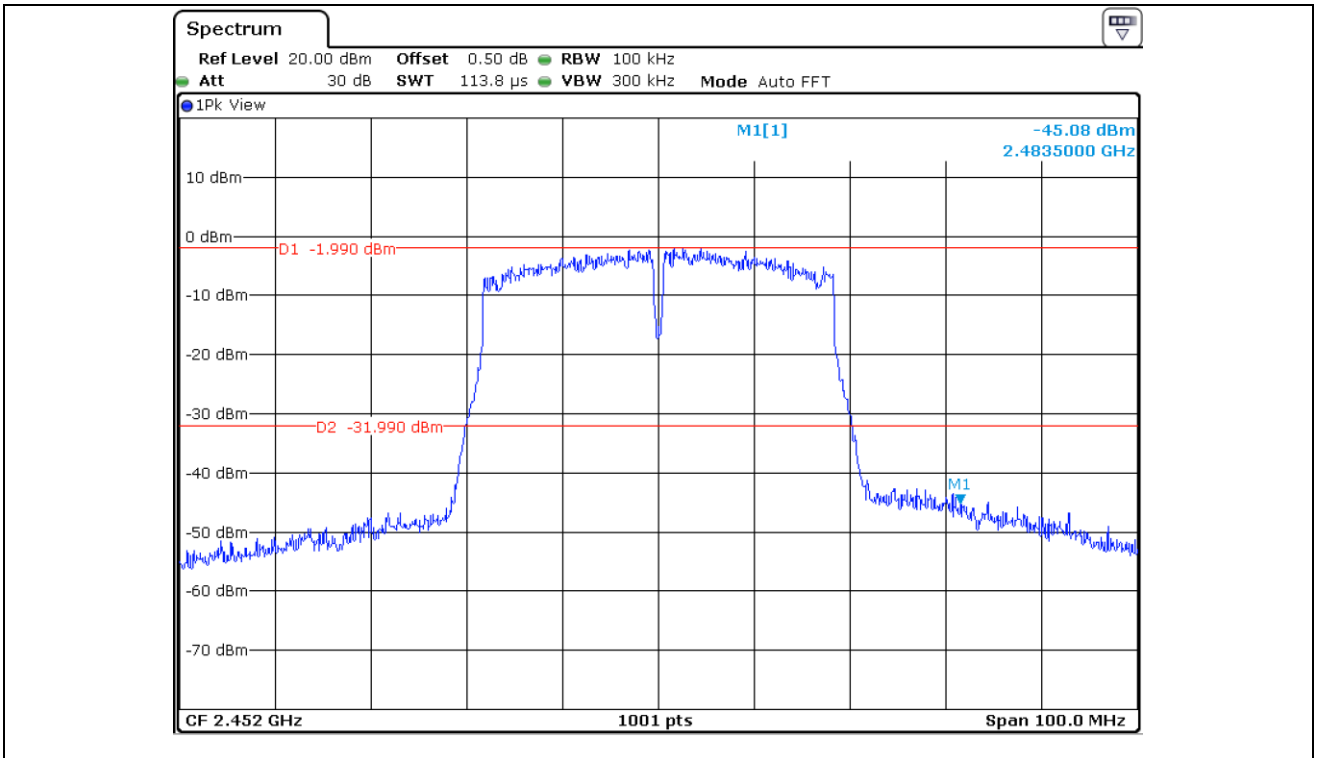
9.5.4.1 Test data for Antenna 0



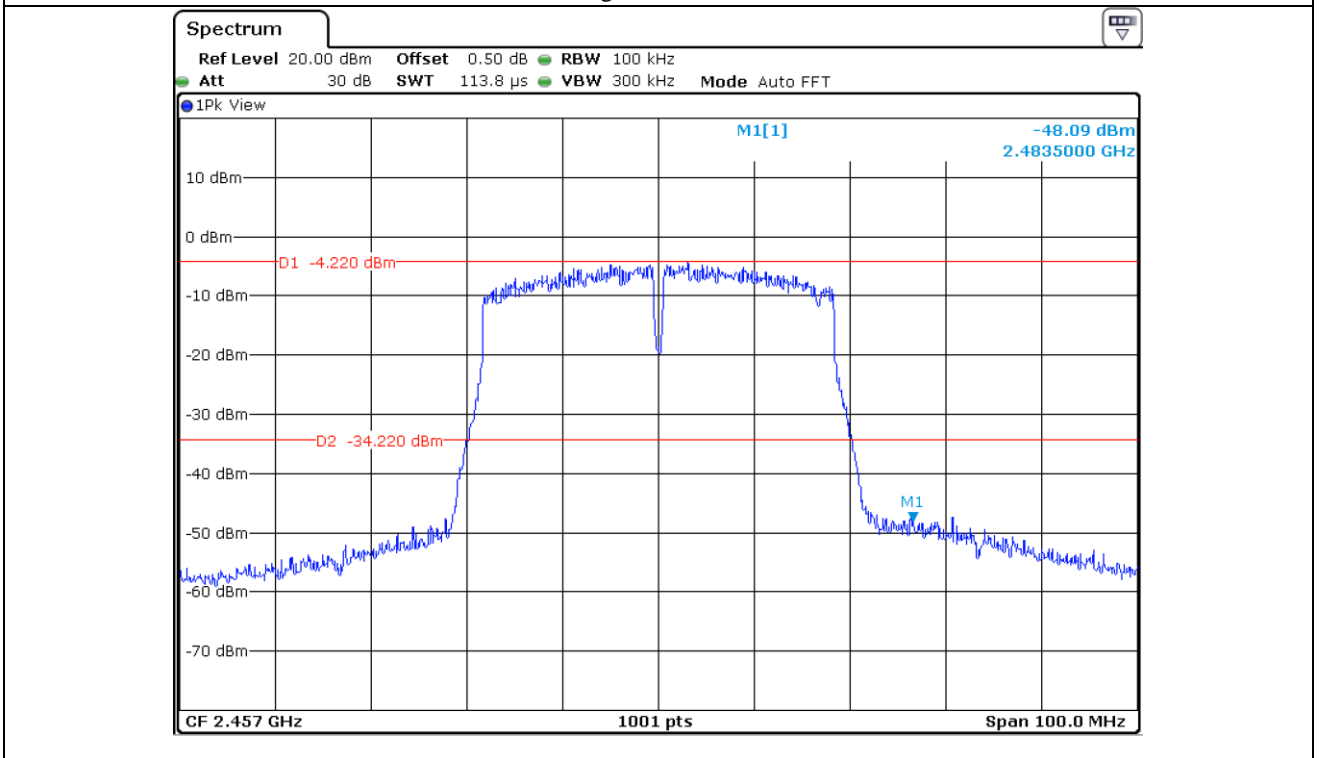
Low Channel



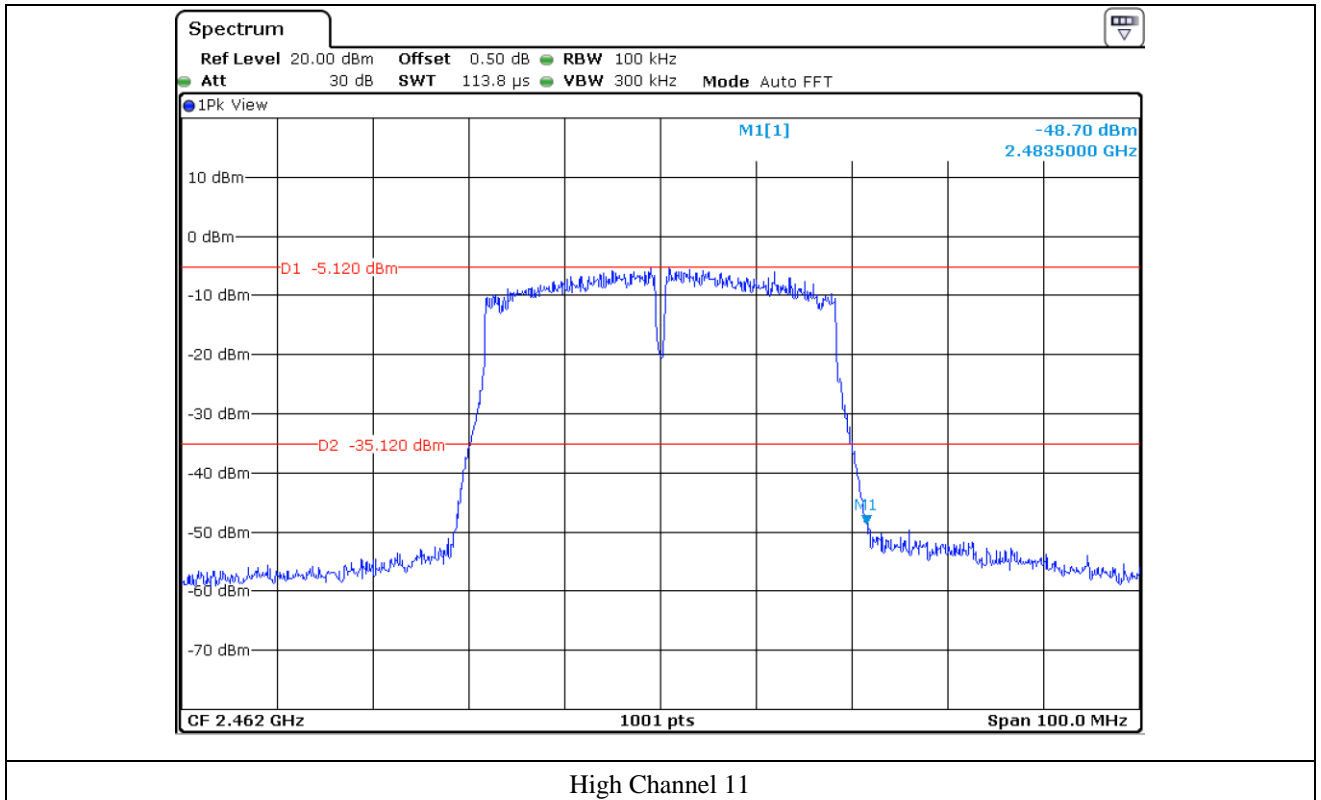
Middle Channel

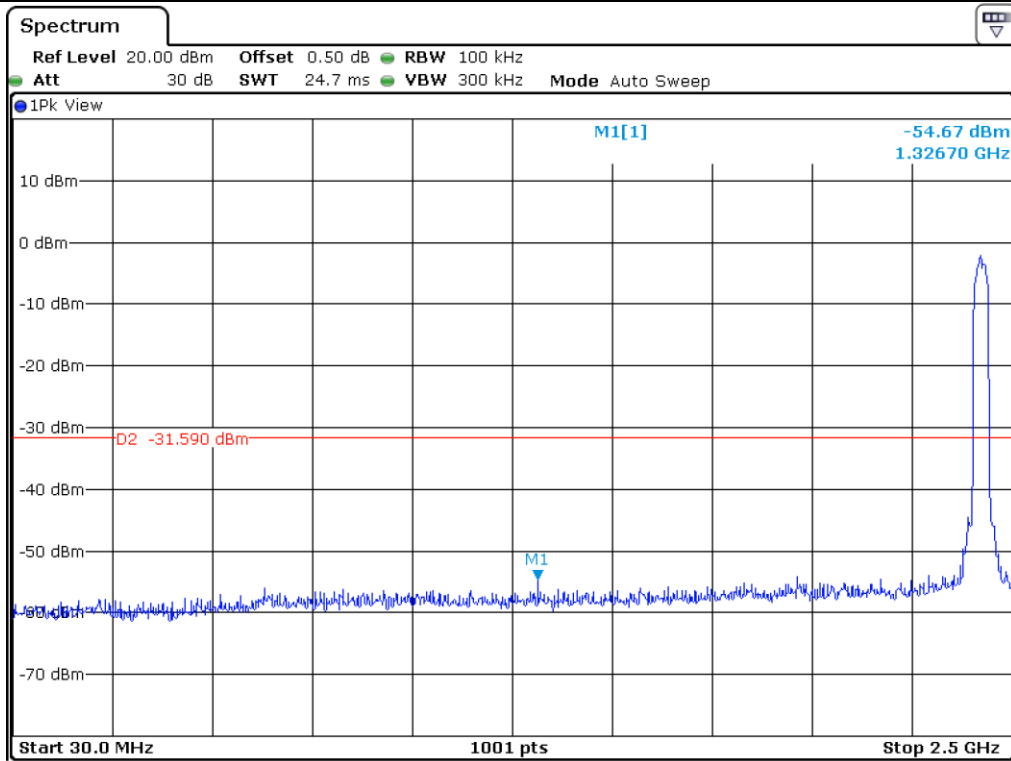


High Channel 9

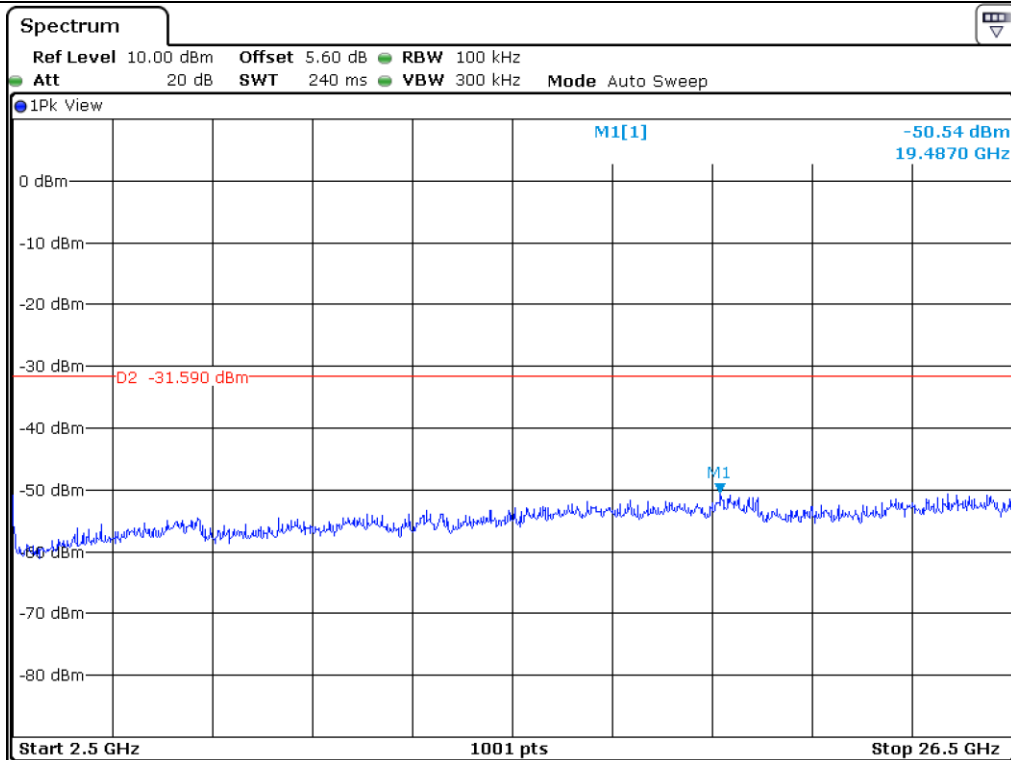


High Channel 10

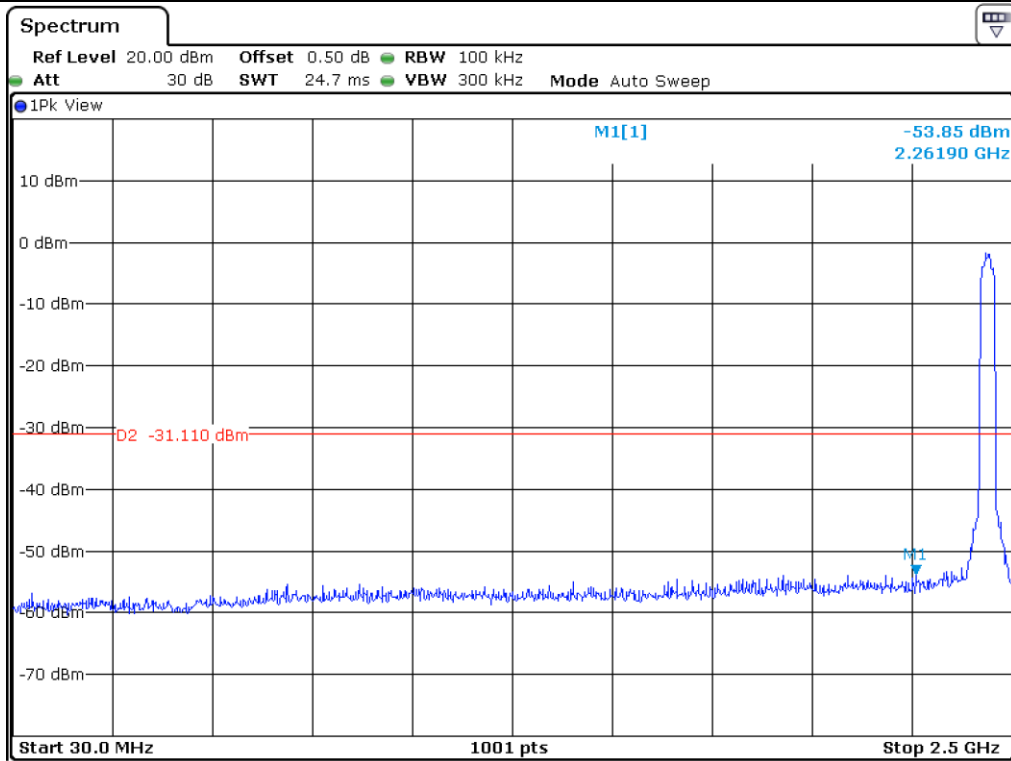




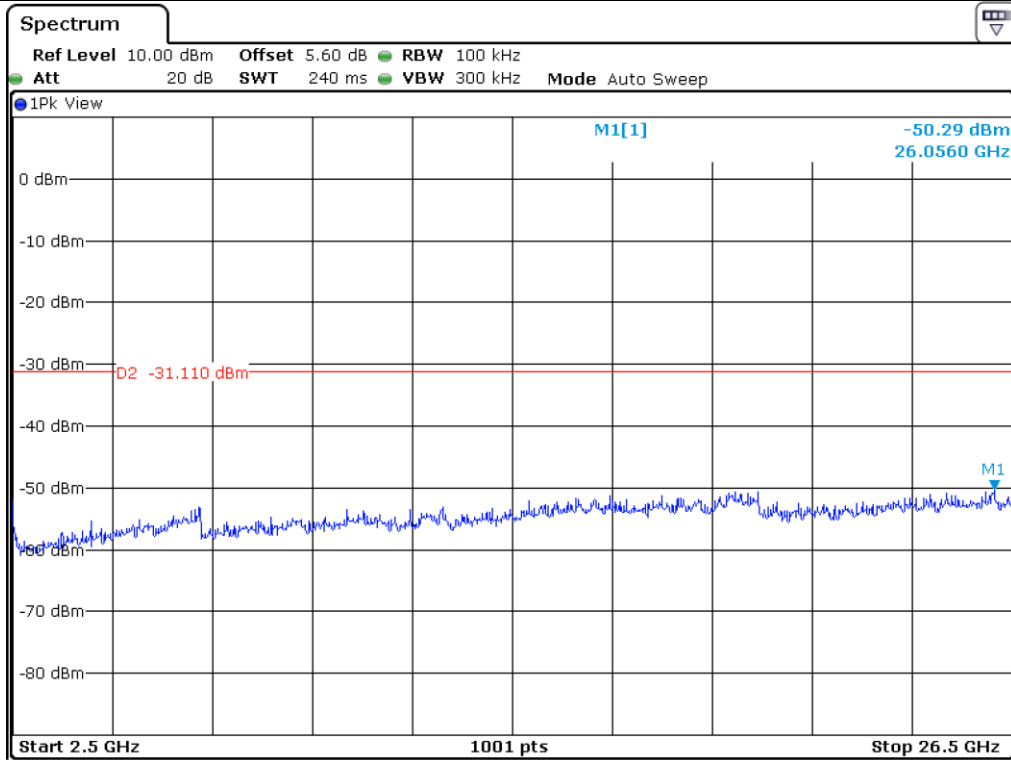
Low Channel



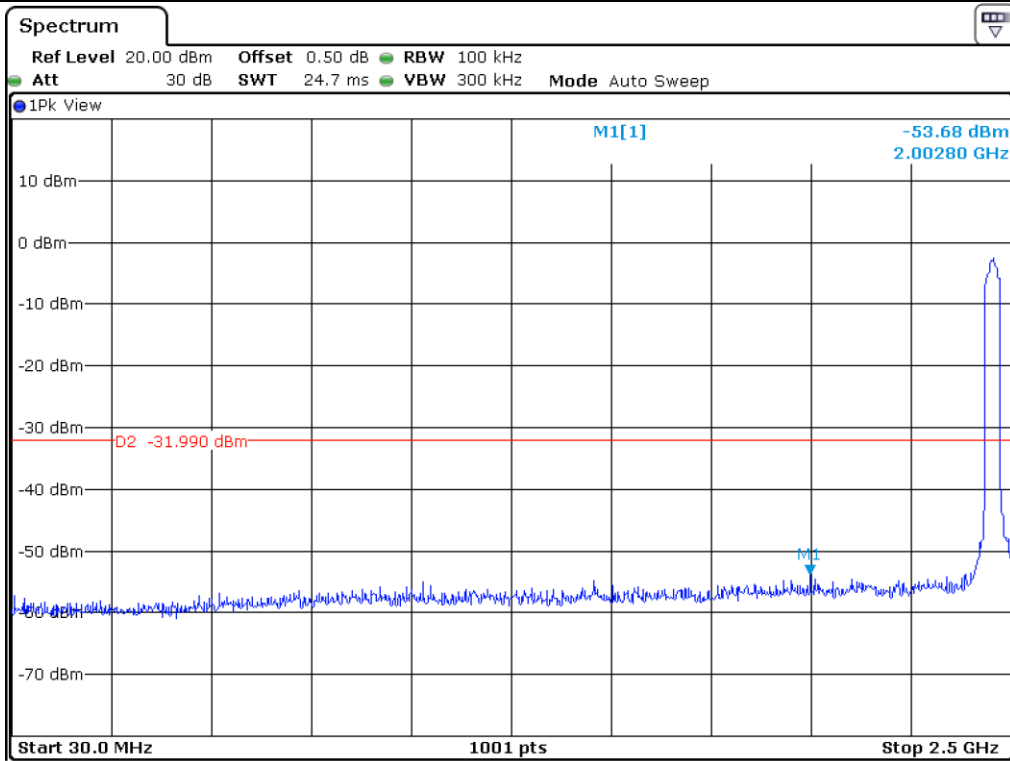
Low Channel



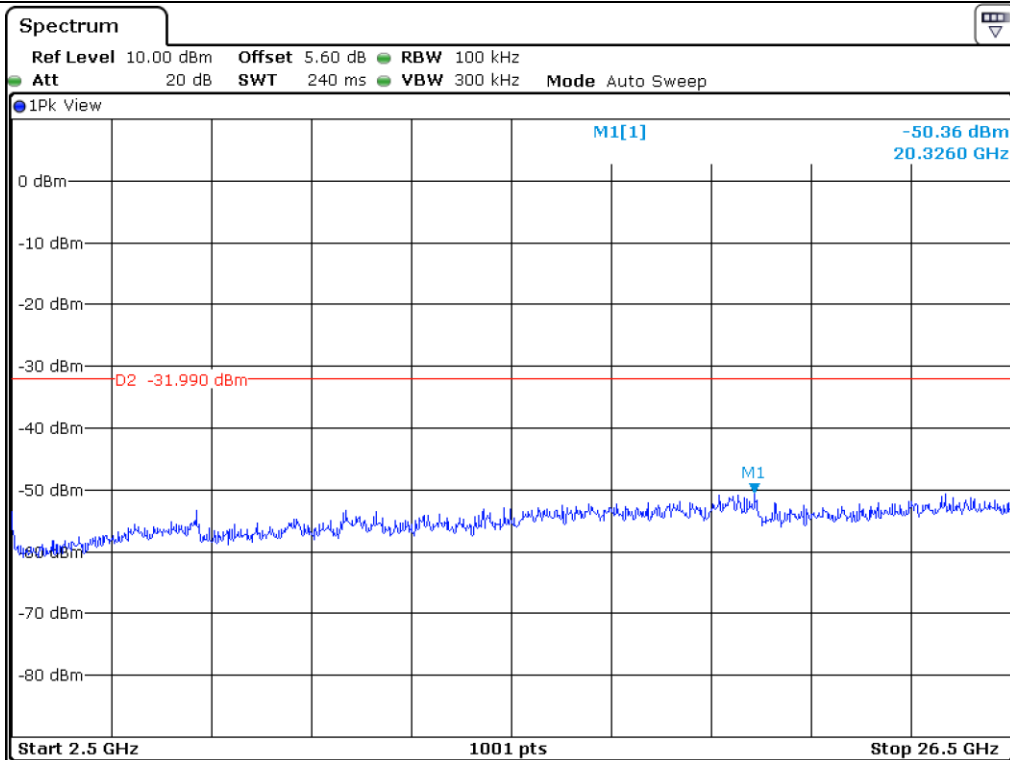
Middle Channel



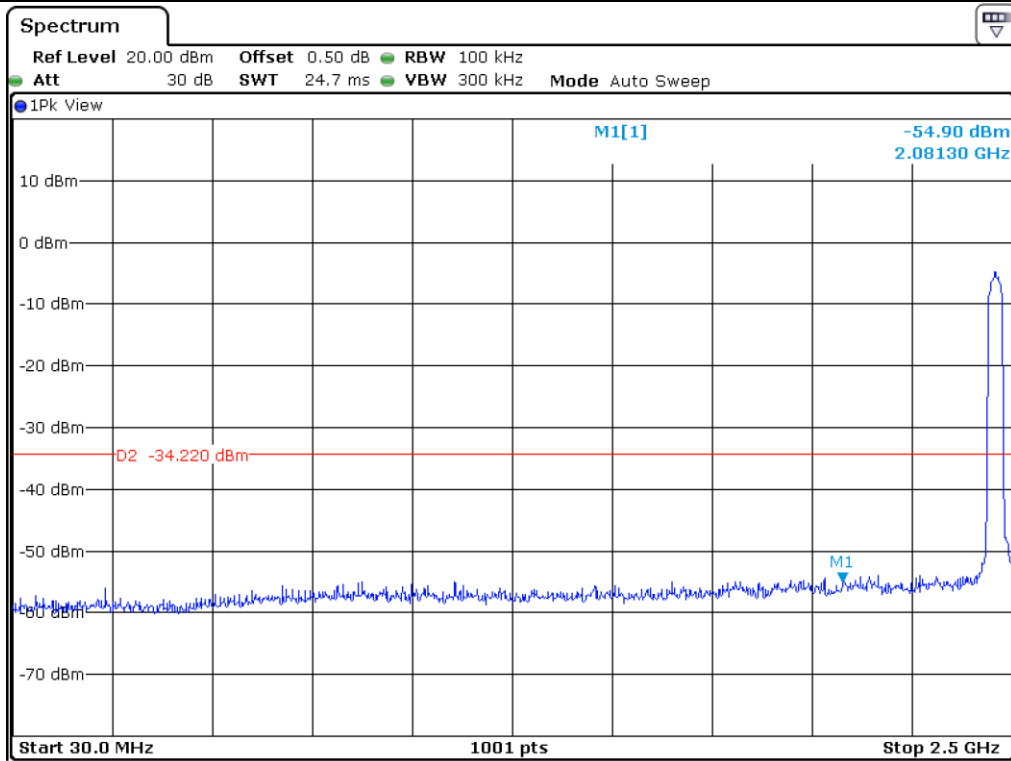
Middle Channel



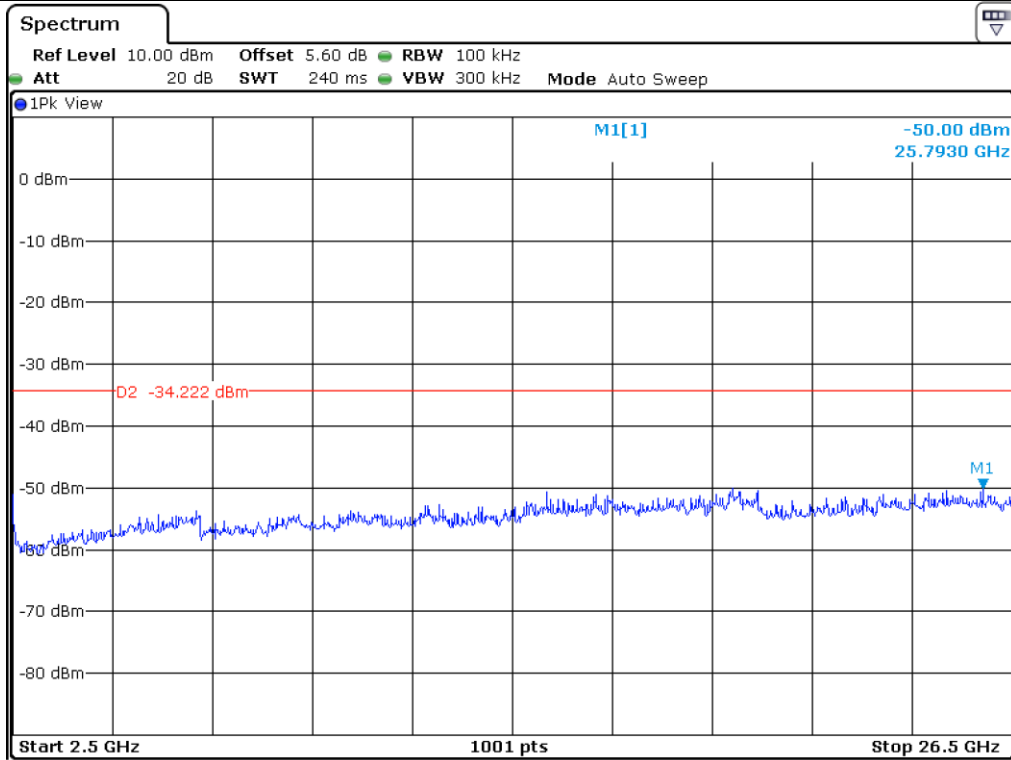
High Channel 9



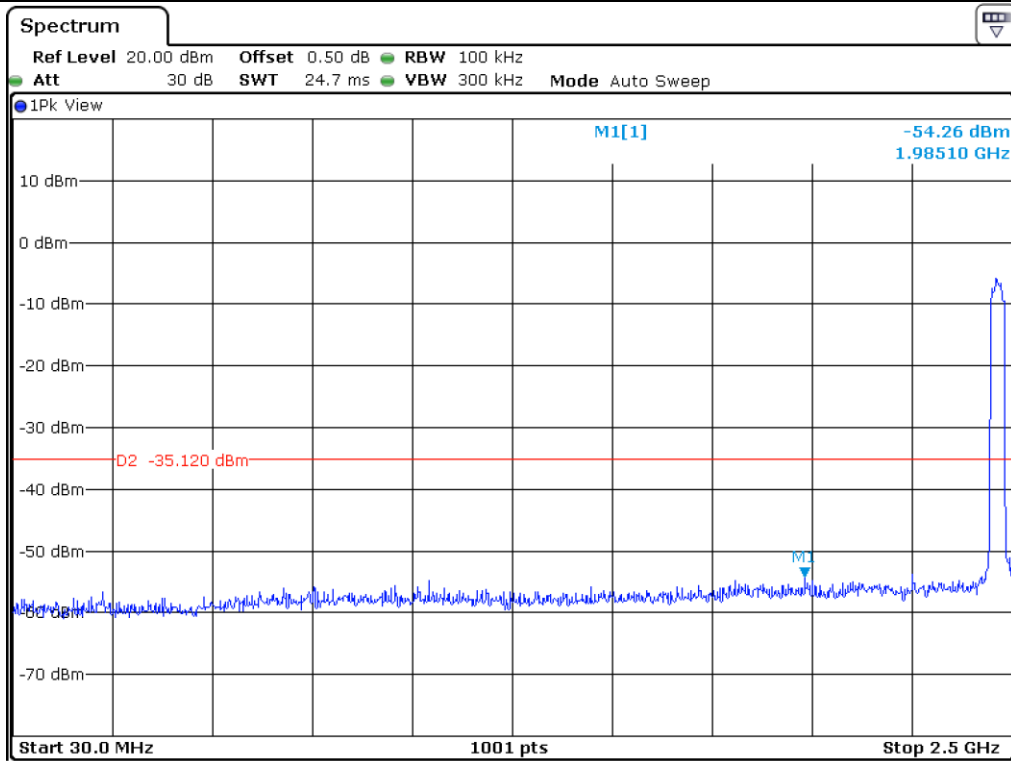
High Channel 9



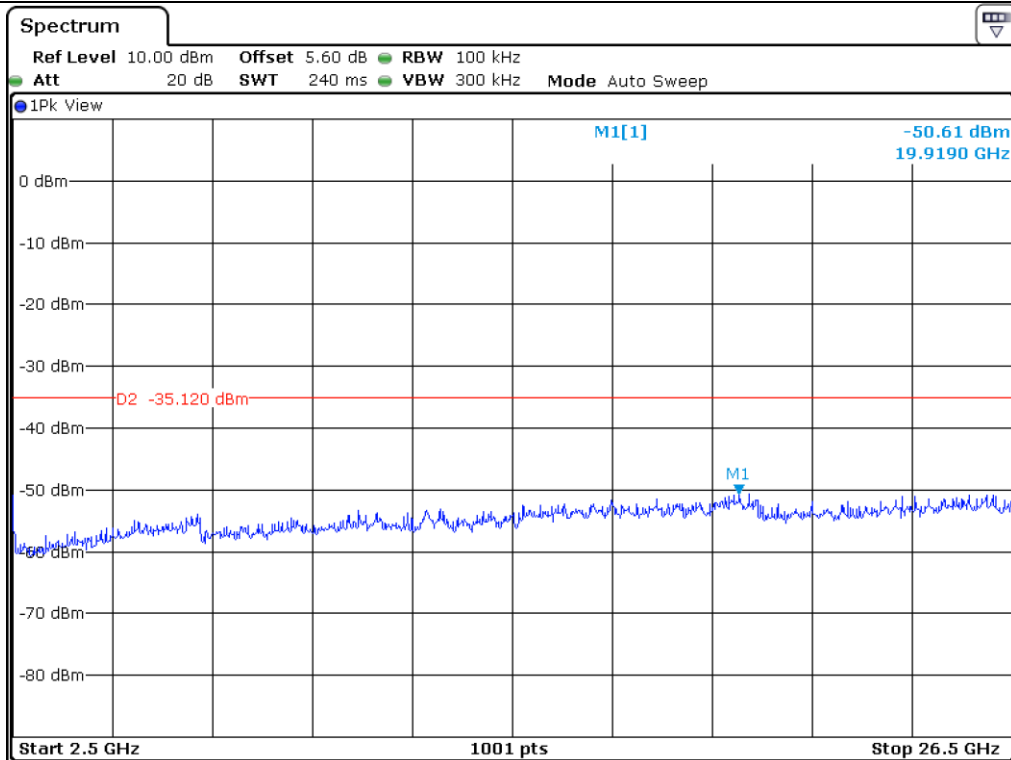
High Channel 10



High Channel 10

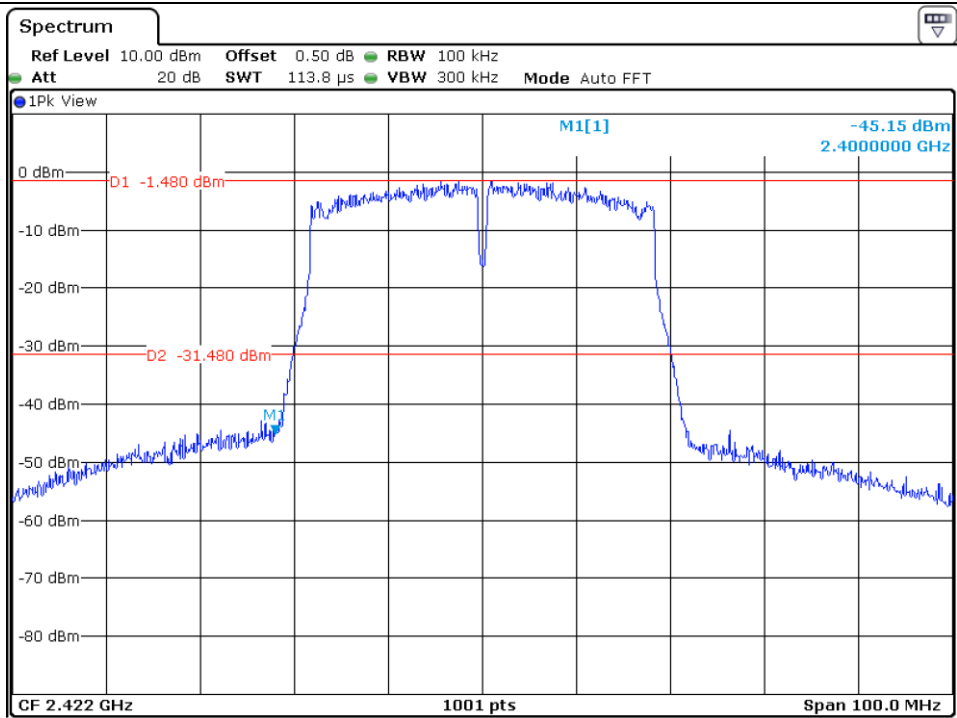


High Channel 11

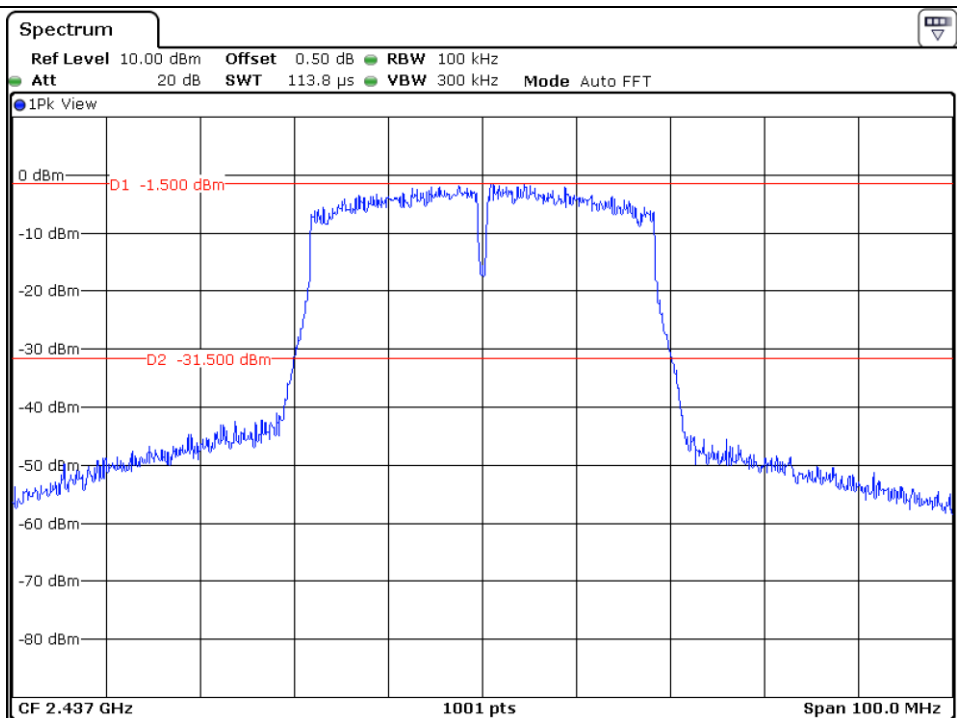


High Channel 11

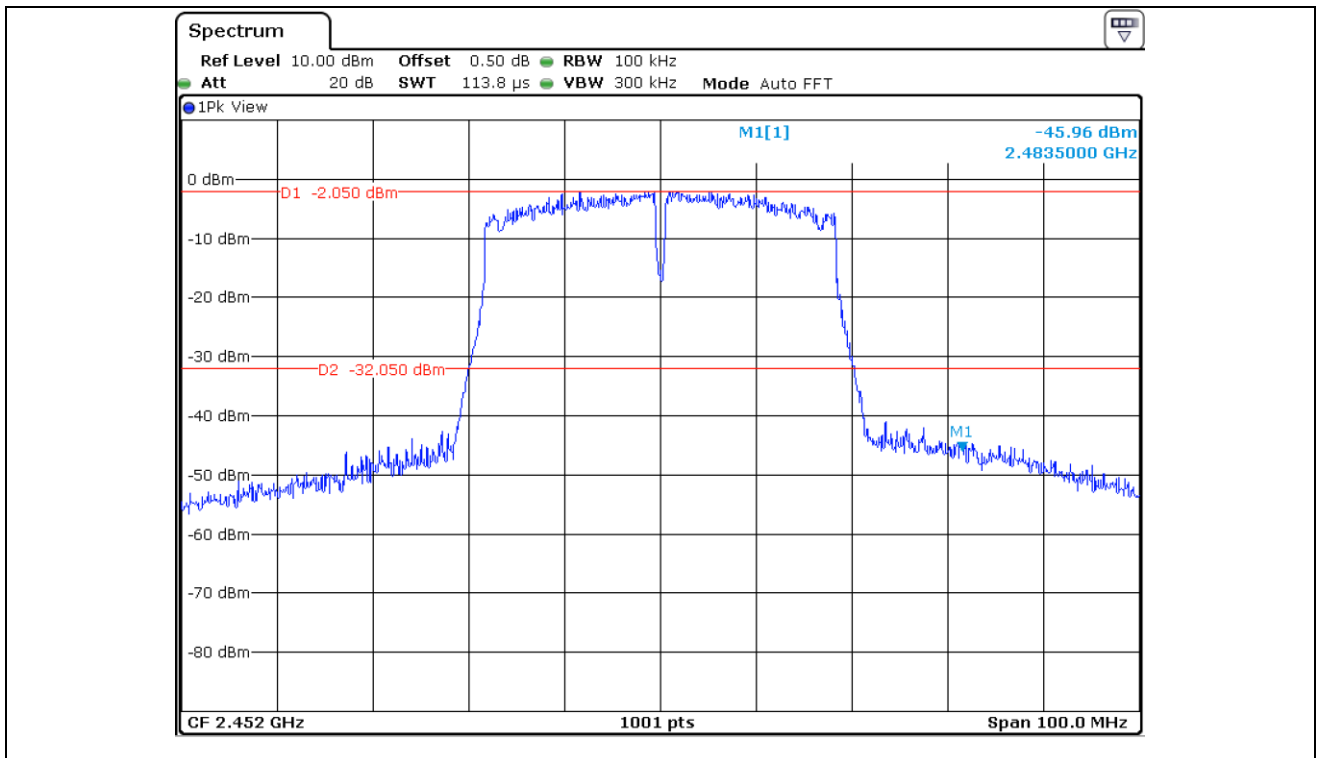
9.5.4.2 Test data for Antenna 1



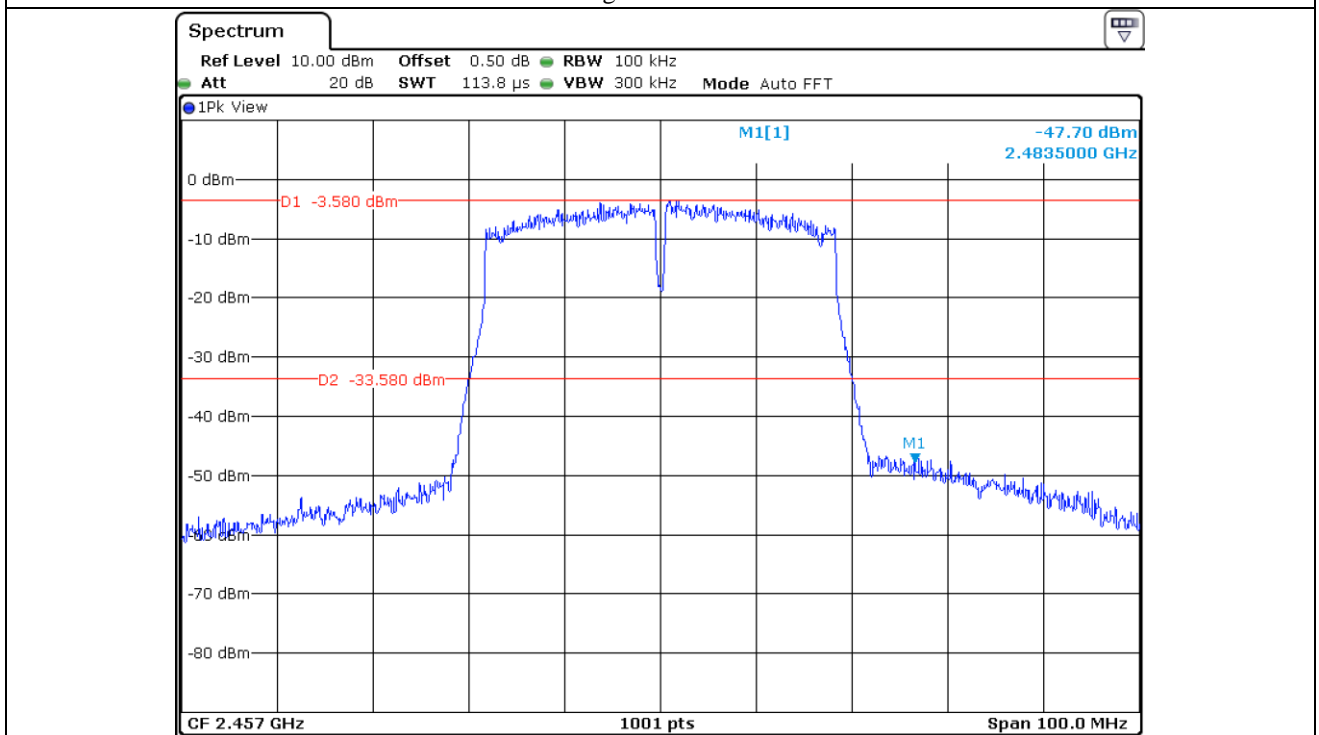
Low Channel



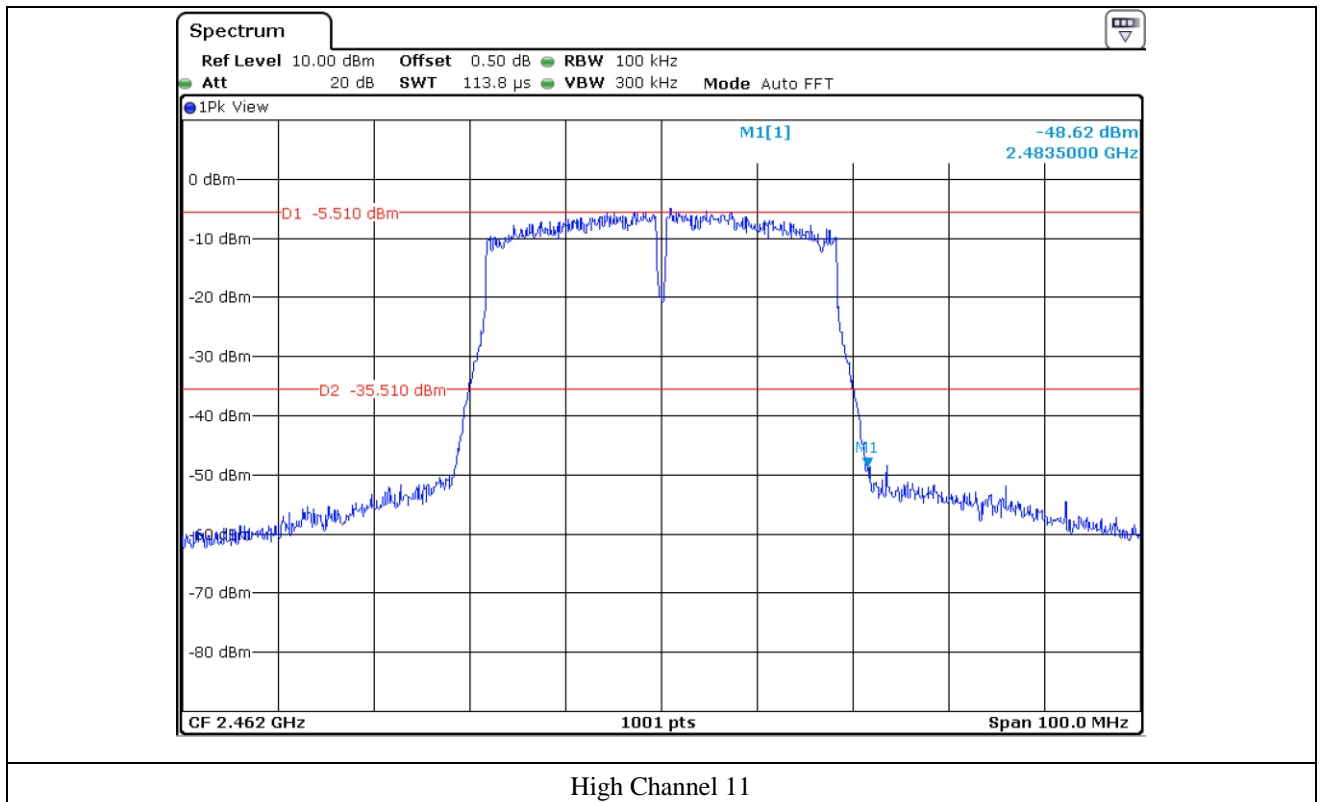
Middle Channel

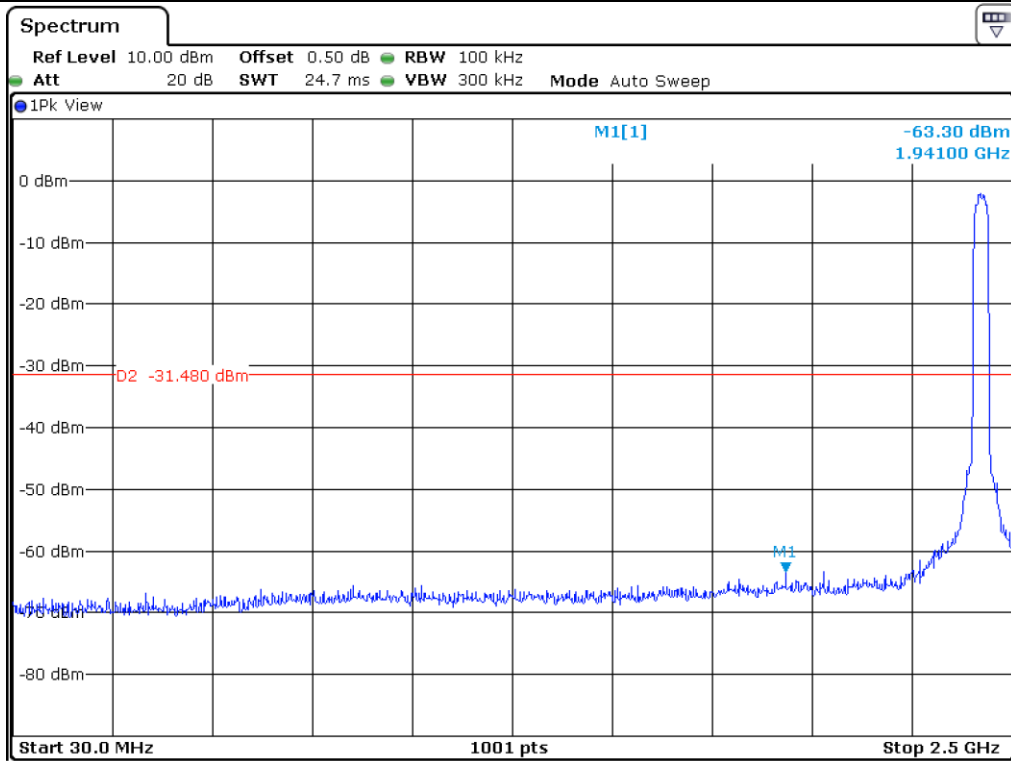


High Channel 9

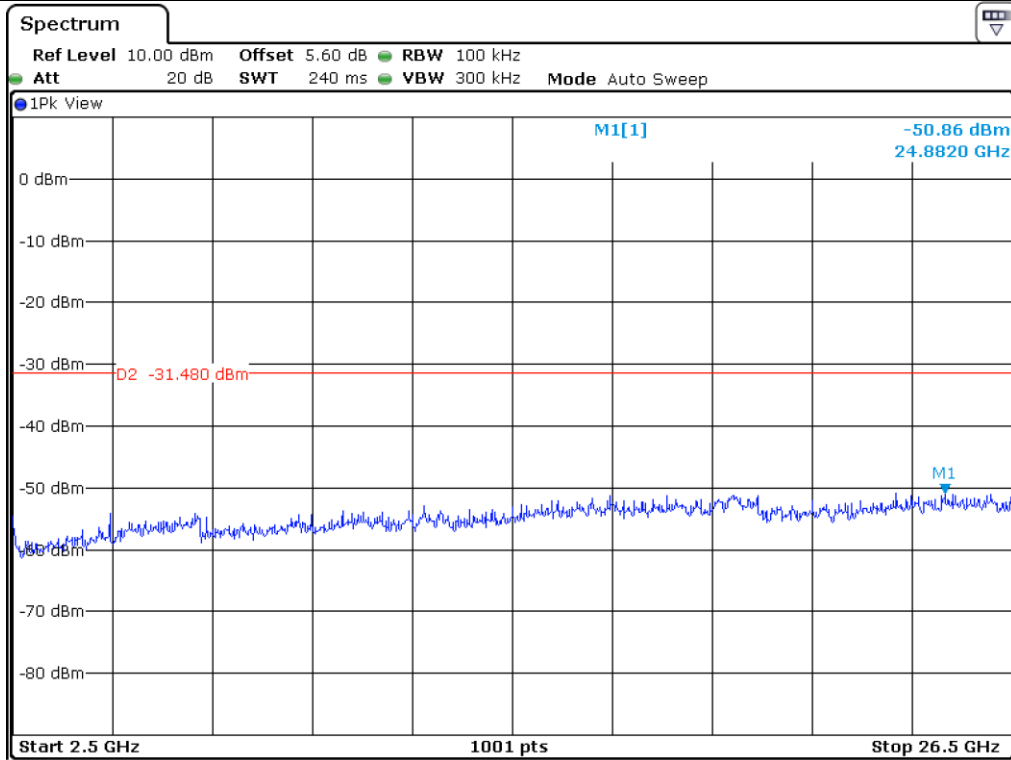


High Channel 10

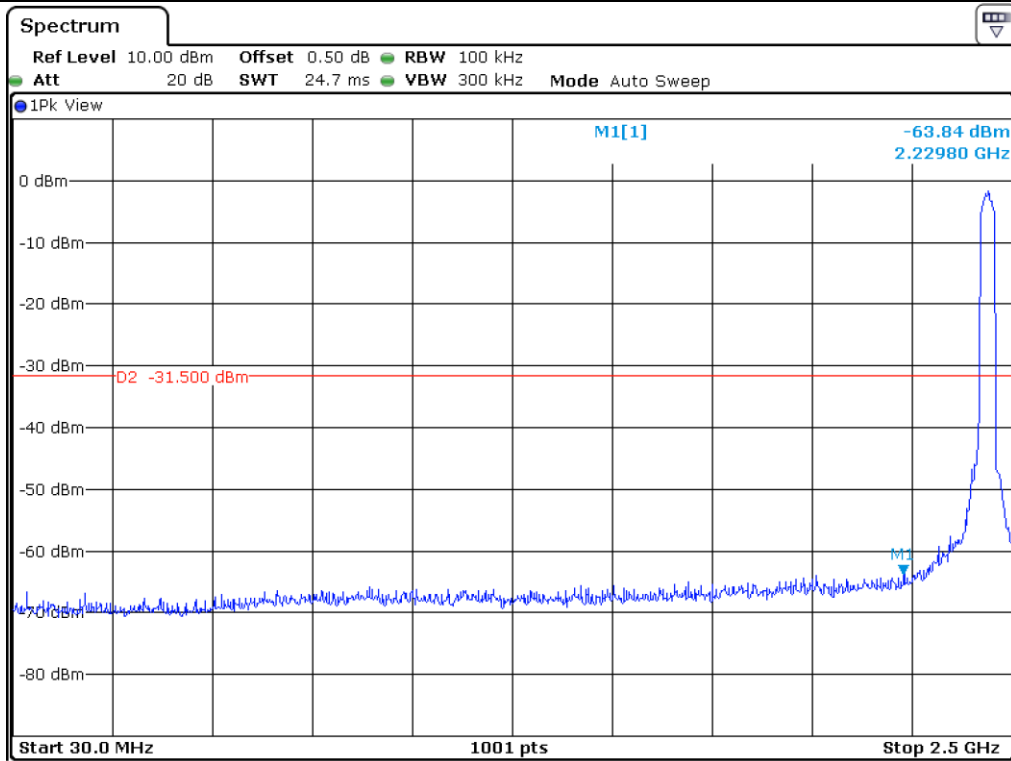




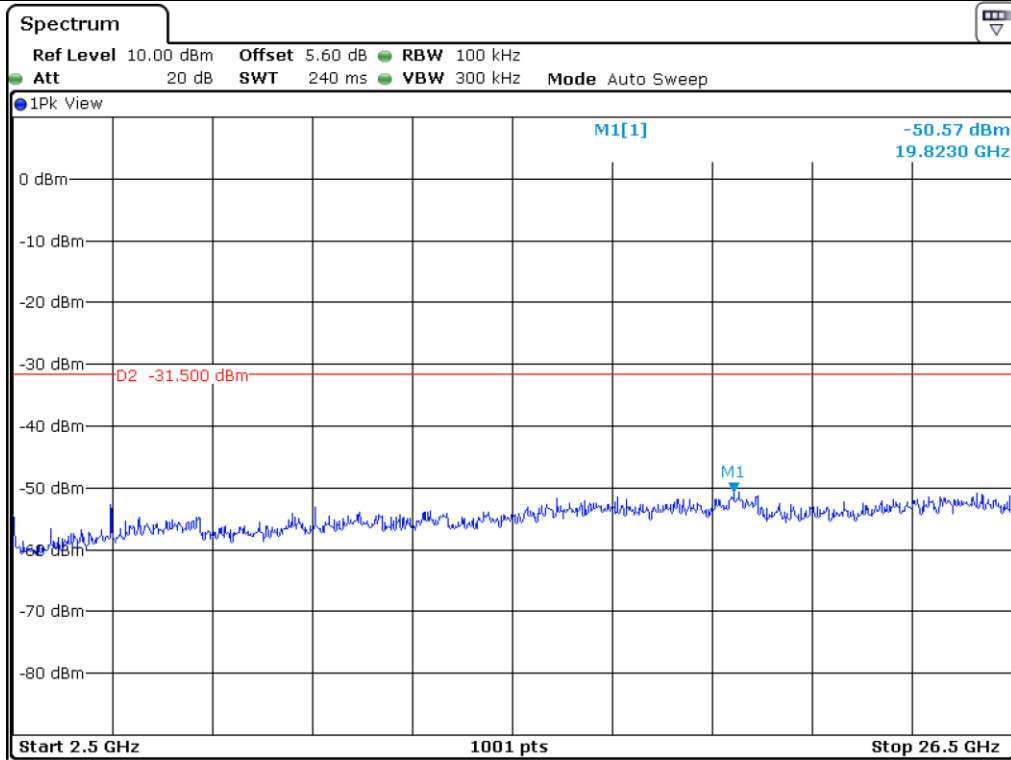
Low Channel



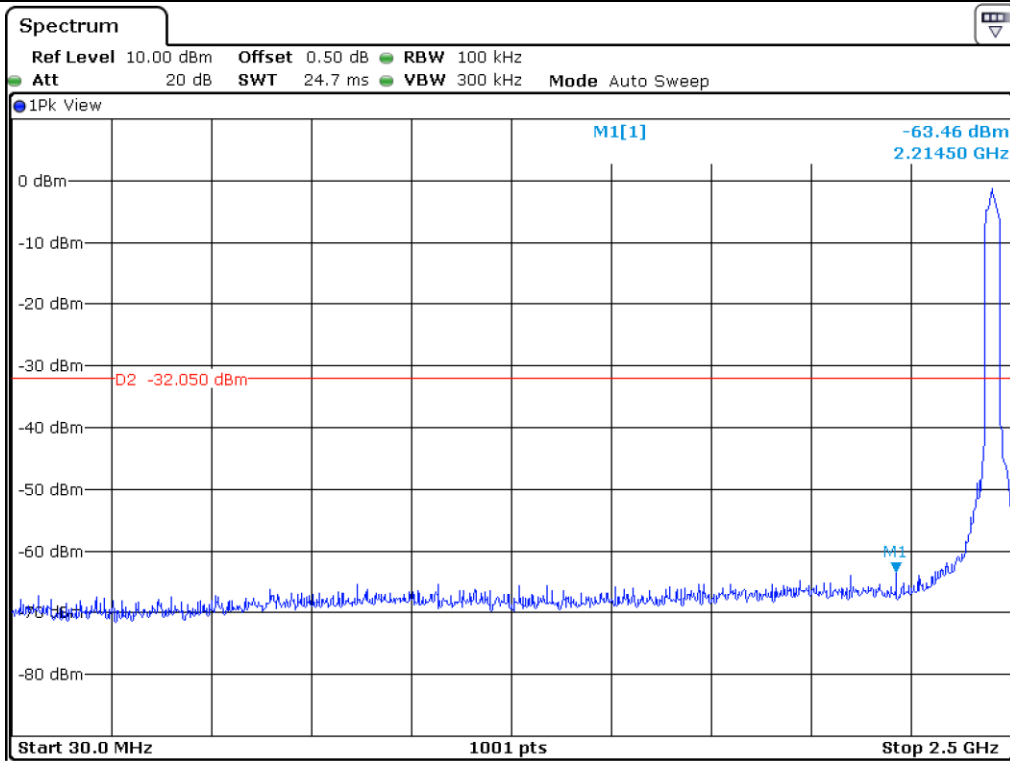
Low Channel



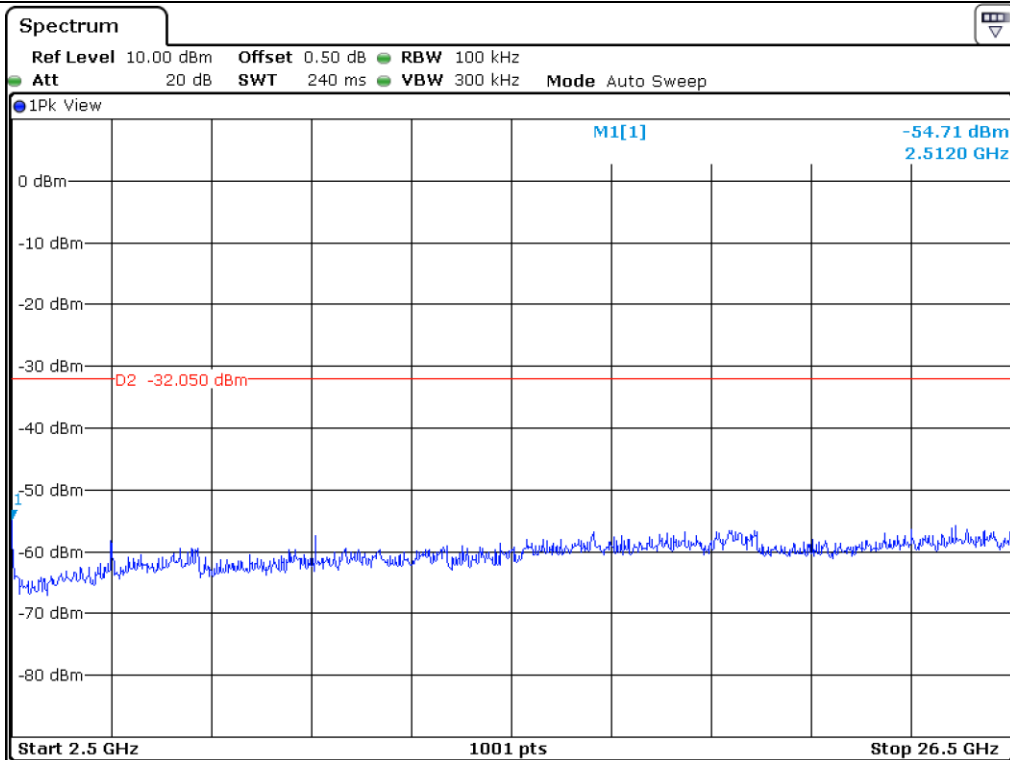
Middle Channel



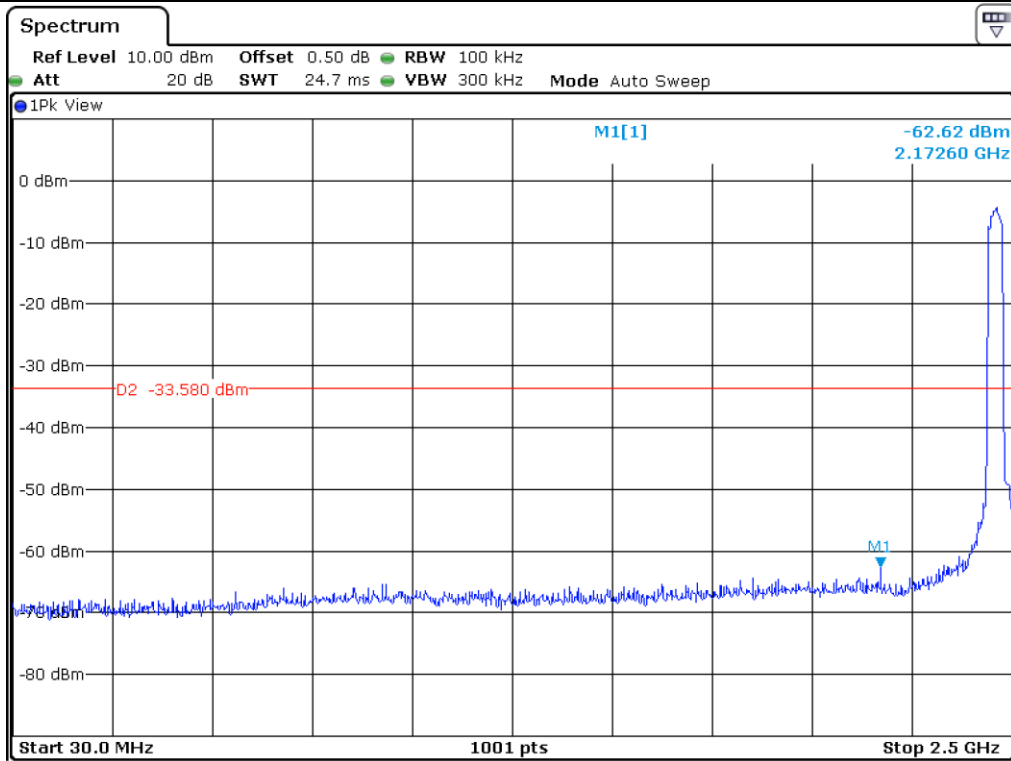
Middle Channel



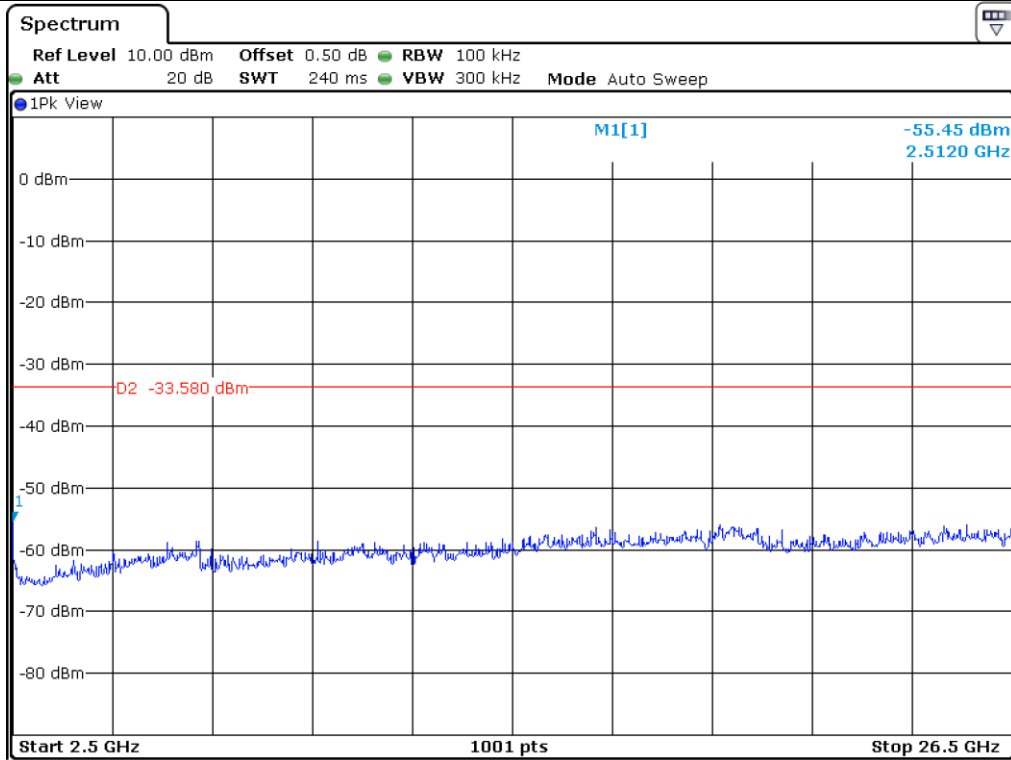
High Channel 9



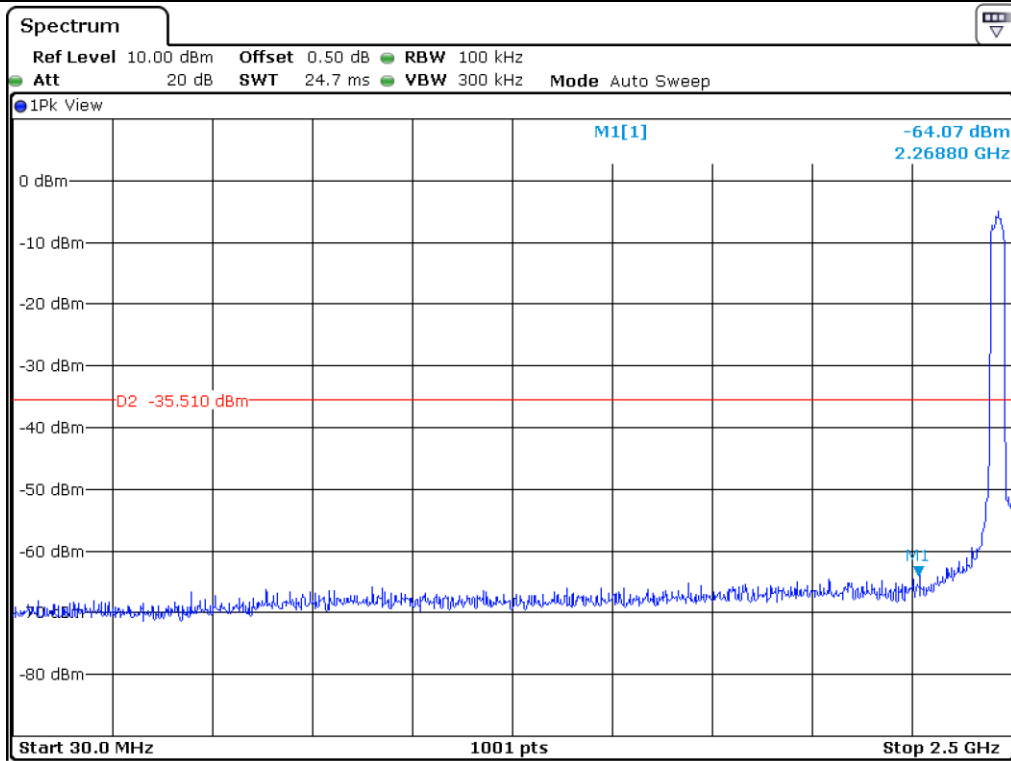
High Channel 9



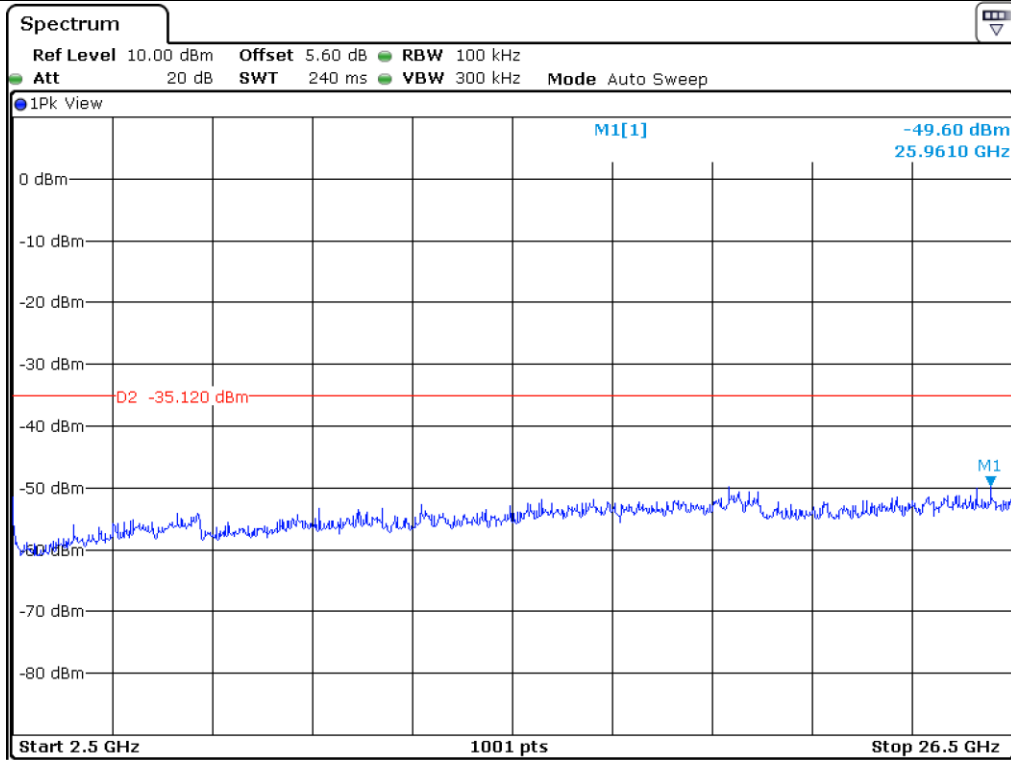
High Channel 10



High Channel 10



High Channel 11



High Channel 11

9.6 Test data for radiated emission

9.6.1 Radiated Emission which fall in the Restricted Band

9.6.1.1 Test data for 802.11b WLAN Mode

9.6.1.1.1 Test data for Antenna 0

- Test Date : September 28, 2018 ~ October 24, 2018
- Resolution bandwidth : 1 MHz and Peak Detector for Peak Mode
1 MHz and RMS Detector for Average Mode
- Video bandwidth : 3 MHz for Peak and Average Mode
- Measurement distance : 3 m
- Duty Cycle : > 98 %
- Result : PASSED

Frequency (MHz)	Reading (dBμV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Amp Gain	Total (dBμV/m)	Limits (dBμV/m)	Margin (dB)
Test Data for Low Channel									
2 386.364	48.15	Peak	H	26.94	9.20	34.76	49.53	74.00	24.47
2 388.282	33.80	Average	H	26.94	9.20	34.76	35.18	54.00	18.82
2 344.725	44.79	Peak	V	26.94	9.20	34.76	46.17	74.00	27.83
2 346.404	32.50	Average	V	26.94	9.20	34.76	33.88	54.00	20.12
Test Data for High 11 Channel									
2 483.591	50.28	Peak	H	27.47	9.49	35.51	51.73	74.00	22.27
2 483.508	37.78	Average	H	27.47	9.49	35.51	39.23	54.00	14.77
2 495.047	45.36	Peak	V	27.47	9.49	35.51	46.81	74.00	27.19
2 483.500	33.04	Average	V	27.47	9.49	35.51	34.49	54.00	19.51

Test Data for High 12 Channel									
2 483.508	62.84	Peak	H	27.47	9.49	35.51	64.29	74.00	9.71
2 483.508	50.49	Average	H	27.47	9.49	35.51	51.94	54.00	2.06
2 483.508	55.86	Peak	V	27.47	9.49	35.51	57.31	74.00	16.69
2 483.508	40.54	Average	V	27.47	9.49	35.51	41.99	54.00	12.01
Test Data for High 13 Channel									
2 485.041	60.50	Peak	H	27.47	9.49	35.51	61.95	74.00	12.05
2 484.843	49.90	Average	H	27.47	9.49	35.51	51.35	54.00	2.65
2 484.827	53.31	Peak	V	27.47	9.49	35.51	54.76	74.00	19.24
2 484.810	40.59	Average	V	27.47	9.49	35.51	42.04	54.00	11.96

Tabulated test data for Restricted Band

Remark: “H”: Horizontal, “V”: Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} - \text{Pre-Amplifier Gain}$$



Tested by: Tae-Ho, Kim / Senior Manager

9.6.1.1.2 Test data for Antenna 1

- Test Date : September 28, 2018 ~ October 24, 2018
- Resolution bandwidth : 1 MHz and Peak Detector for Peak Mode
1 MHz and RMS Detector for Average Mode
- Video bandwidth : 3 MHz for Peak and Average Mode
- Measurement distance : 3 m
- Duty Cycle : > 98 %
- Result : PASSED

Frequency (MHz)	Reading (dBμV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Amp Gain	Total (dBμV/m)	Limits (dBμV/m)	Margin (dB)
Test Data for Low Channel									
2 386.603	52.09	Peak	H	26.94	9.20	34.76	53.47	74.00	20.53
2 387.003	39.65	Average	H	26.94	9.20	34.76	41.03	54.00	12.97
2 380.130	45.15	Peak	V	26.94	9.20	34.76	46.53	74.00	27.47
2 387.003	33.13	Average	V	26.94	9.20	34.76	34.51	54.00	19.49
Test Data for High 11 Channel									
2 487.777	57.63	Peak	H	27.47	9.49	35.51	59.08	74.00	14.92
2 487.530	46.07	Average	H	27.47	9.49	35.51	47.52	54.00	6.48
2 486.970	48.57	Peak	V	27.47	9.49	35.51	50.02	74.00	23.98
2 487.514	36.08	Average	V	27.47	9.49	35.51	37.53	54.00	16.47

Test Data for High 12 Channel									
2 483.508	62.40	Peak	H	27.47	9.49	35.51	63.85	74.00	10.15
2 483.508	50.83	Average	H	27.47	9.49	35.51	52.28	54.00	1.72
2 483.508	50.16	Peak	V	27.47	9.49	35.51	51.61	74.00	22.39
2 483.508	38.17	Average	V	27.47	9.49	35.51	39.62	54.00	14.38
Test Data for High 13 Channel									
2 484.942	61.60	Peak	H	27.47	9.49	35.51	63.05	74.00	10.95
2 484.876	50.74	Average	H	27.47	9.49	35.51	52.19	54.00	1.81
2 484.909	50.42	Peak	V	27.47	9.49	35.51	51.87	74.00	22.13
2 484.876	39.56	Average	V	27.47	9.49	35.51	41.01	54.00	12.99

Tabulated test data for Restricted Band

Remark: “H”: Horizontal, “V”: Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} - \text{Pre-Amplifier Gain}$$



Tested by: Tae-Ho, Kim / Senior Manager

9.6.1.2 Test data for 802.11g WLAN Mode

9.6.1.2.1 Test data for Multiple Transmit

- Test Date : September 28, 2018 ~ October 24, 2018
- Resolution bandwidth : 1 MHz and Peak Detector for Peak Mode
1 MHz and RMS Detector for Average Mode
- Video bandwidth : 3 MHz for Peak and Average Mode
- Measurement distance : 3 m
- Duty Cycle : > 98 %
- Result : PASSED

Frequency (MHz)	Reading (dBμV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Amp Gain	Total (dBμV/m)	Limits (dBμV/m)	Margin (dB)
Test Data for Low Channel									
2 389.960	69.18	Peak	H	26.94	9.20	34.76	70.56	74.00	3.44
2 389.960	48.82	Average	H	26.94	9.20	34.76	50.20	54.00	3.80
2 389.960	57.24	Peak	V	26.94	9.20	34.76	58.62	74.00	15.38
2 389.960	38.36	Average	V	26.94	9.20	34.76	39.74	54.00	14.26
Test Data for High 11 Channel									
2 483.508	70.05	Peak	H	27.47	9.49	35.51	71.50	74.00	2.50
2 483.558	51.28	Average	H	27.47	9.49	35.51	52.73	54.00	1.27
2 483.508	58.59	Peak	V	27.47	9.49	35.51	60.04	74.00	13.96
2 483.508	40.63	Average	V	27.47	9.49	35.51	42.08	54.00	11.92

Test Data for High 12 Channel									
2 483.821	71.24	Peak	H	27.47	9.49	35.51	72.69	74.00	1.31
2 484.102	47.70	Average	H	27.47	9.49	35.51	49.15	54.00	4.85
2 483.508	55.94	Peak	V	27.47	9.49	35.51	57.39	74.00	16.61
2 483.508	36.09	Average	V	27.47	9.49	35.51	37.54	54.00	16.46
Test Data for High 13 Channel									
2 484.118	70.03	Peak	H	27.47	9.49	35.51	71.48	74.00	2.52
2 484.431	51.08	Average	H	27.47	9.49	35.51	52.53	54.00	1.47
2 488.140	55.43	Peak	V	27.47	9.49	35.51	56.88	74.00	17.12
2 483.508	37.04	Average	V	27.47	9.49	35.51	38.49	54.00	15.51

Tabulated test data for Restricted Band

Remark: “H”: Horizontal, “V”: Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} - \text{Pre-Amplifier Gain}$$



Tested by: Tae-Ho, Kim / Senior Manager

9.6.1.3 Test data for 802.11n_HT20 WLAN Mode

9.6.1.3.1 Test data for Multiple Transmit

- Test Date : September 28, 2018 ~ October 24, 2018
- Resolution bandwidth : 1 MHz and Peak Detector for Peak Mode
1 MHz and RMS Detector for Average Mode
- Video bandwidth : 3 MHz for Peak and Average Mode
- Measurement distance : 3 m
- Duty Cycle : > 98 %
- Result : PASSED

Frequency (MHz)	Reading (dBμV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Amp Gain	Total (dBμV/m)	Limits (dBμV/m)	Margin (dB)
Test Data for Low Channel									
2 389.960	69.54	Peak	H	26.94	9.20	34.76	70.92	74.00	3.08
2 389.960	48.74	Average	H	26.94	9.20	34.76	50.12	54.00	3.88
2 389.960	54.28	Peak	V	26.94	9.20	34.76	55.66	74.00	18.34
2 389.960	37.31	Average	V	26.94	9.20	34.76	38.69	54.00	15.31
Test Data for High 11 Channel									
2 483.508	71.31	Peak	H	27.47	9.49	35.51	72.76	74.00	1.24
2 483.508	51.32	Average	H	27.47	9.49	35.51	52.77	54.00	1.23
2 483.508	57.48	Peak	V	27.47	9.49	35.51	58.93	74.00	15.07
2 483.508	40.29	Average	V	27.47	9.49	35.51	41.74	54.00	12.26

Test Data for High 12 Channel									
2 483.508	70.08	Peak	H	27.47	9.49	35.51	71.53	74.00	2.47
2 483.508	47.64	Average	H	27.47	9.49	35.51	49.09	54.00	4.91
2 483.574	53.38	Peak	V	27.47	9.49	35.51	54.83	74.00	19.17
2 483.508	35.91	Average	V	27.47	9.49	35.51	37.36	54.00	16.64
Test Data for High 13 Channel									
2 483.508	70.91	Peak	H	27.47	9.49	35.51	72.36	74.00	1.64
2 483.508	50.49	Average	H	27.47	9.49	35.51	51.94	54.00	2.06
2 483.508	56.78	Peak	V	27.47	9.49	35.51	58.23	74.00	15.77
2 483.508	37.38	Average	V	27.47	9.49	35.51	38.83	54.00	15.17

Tabulated test data for Restricted Band

Remark: “H”: Horizontal, “V”: Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} - \text{Pre-Amplifier Gain}$$



Tested by: Tae-Ho, Kim / Senior Manager

9.6.1.4 Test data for 802.11n_HT40 WLAN Mode

9.6.1.4.1 Test data for Multiple Transmit

- Test Date : September 28, 2018 ~ October 24, 2018
- Resolution bandwidth : 1 MHz and Peak Detector for Peak Mode
1 MHz and RMS Detector for Average Mode
- Video bandwidth : 3 MHz for Peak and Average Mode
- Measurement distance : 3 m
- Duty Cycle : > 98 %
- Result : PASSED

Frequency (MHz)	Reading (dBμV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Amp Gain	Total (dBμV/m)	Limits (dBμV/m)	Margin (dB)
Test Data for Low Channel									
2 389.960	66.65	Peak	H	26.94	9.20	34.76	68.03	74.00	5.97
2 389.960	48.82	Average	H	26.94	9.20	34.76	50.20	54.00	3.80
2 389.960	51.30	Peak	V	26.94	9.20	34.76	52.68	74.00	21.32
2 389.960	37.53	Average	V	26.94	9.20	34.76	38.91	54.00	15.09
Test Data for High 9 Channel									
2 484.777	69.68	Peak	H	27.47	9.49	35.51	71.13	74.00	2.87
2 483.508	51.12	Average	H	27.47	9.49	35.51	52.57	54.00	1.43
2 487.679	54.68	Peak	V	27.47	9.49	35.51	56.13	74.00	17.87
2 483.508	38.38	Average	V	27.47	9.49	35.51	39.83	54.00	14.17

Test Data for High 10 Channel									
2 483.508	68.66	Peak	H	27.47	9.49	35.51	70.11	74.00	3.89
2 483.508	49.45	Average	H	27.47	9.49	35.51	50.90	54.00	3.10
2 483.522	53.16	Peak	V	27.47	9.49	35.51	54.61	74.00	19.39
2 483.508	37.41	Average	V	27.47	9.49	35.51	38.86	54.00	15.14
Test Data for High 11 Channel									
2 484.102	69.09	Peak	H	27.47	9.49	35.51	70.54	74.00	3.46
2 483.508	51.13	Average	H	27.47	9.49	35.51	52.58	54.00	1.42
2 483.508	53.18	Peak	V	27.47	9.49	35.51	54.63	74.00	19.37
2 483.508	38.58	Average	V	27.47	9.49	35.51	40.03	54.00	13.97

Tabulated test data for Restricted Band

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} - \text{Pre-Amplifier Gain}$$



Tested by: Tae-Ho, Kim / Senior Manager

9.6.2 Spurious & Harmonic Radiated Emission

9.6.2.1 Test data for 802.11b WLAN Mode

9.6.2.1.1 Test data for Antenna 0

- Test Date : September 28, 2018 ~ October 24, 2018
- Resolution bandwidth : 1 MHz and Peak Detector for Peak Mode for the emissions fall in restricted band,
1 MHz and RMS Detector for Average Mode for the emissions fall in restricted band
100 kHz for Peak Mode for the emissions outside restricted band
- Video bandwidth : 3 MHz for Peak and Average Mode
- Frequency range : 1 GHz ~ 26.5 GHz
- Measurement distance : 3 m
- Duty Cycle : > 98 %
- Result : PASSED

Frequency (GHz)	Reading (dBμV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Amp Gain	Total (dBμV/m)	Limits (dBμV/m)	Margin (dB)
Test Data for Low Channel									
4 824.00	42.22	Peak	H	30.84	12.31	35.74	49.63	74.00	24.37
	30.26	Average	H				37.67	54.00	16.33
	41.01	Peak	V				48.42	74.00	25.58
	31.41	Average	V				38.82	54.00	15.18
Test Data for Middle Channel									
4 884.00	40.04	Peak	H	30.01	12.43	35.80	46.68	74.00	27.32
	32.19	Average	H				38.83	54.00	15.17
	41.75	Peak	V				48.39	74.00	25.61
	31.82	Average	V				38.46	54.00	15.54

Test Data for High 11 Channel									
4 924.00	40.46	Peak	H	31.15	12.81	35.96	48.46	74.00	25.54
	31.91	Average	H				39.91	54.00	14.09
	39.72	Peak	V				47.72	74.00	26.28
	29.73	Average	V				37.73	54.00	16.27
Test Data for High 12 Channel									
4 934.00	40.87	Peak	H	31.15	12.81	35.96	48.87	74.00	25.13
	31.25	Average	H				39.25	54.00	14.75
	41.37	Peak	V				49.37	74.00	24.63
	31.71	Average	V				39.71	54.00	14.29
Test Data for High 13 Channel									
4 944.00	40.10	Peak	H	31.15	12.81	35.96	48.10	74.00	25.90
	32.01	Average	H				40.01	54.00	13.99
	42.29	Peak	V				50.29	74.00	23.71
	31.46	Average	V				39.46	54.00	14.54

Tabulated test data for Restricted Band

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} - \text{Pre-Amplifier Gain}$$



Tested by: Tae-Ho, Kim / Senior Manager

9.6.2.1.2 Test data for Antenna 1

- Test Date : September 28, 2018 ~ October 24, 2018
- Resolution bandwidth : 1 MHz and Peak Detector for Peak Mode for the emissions fall in restricted band,
1 MHz and RMS Detector for Average Mode for the emissions fall in restricted band
100 kHz for Peak Mode for the emissions outside restricted band
- Video bandwidth : 3 MHz for Peak and Average Mode
- Frequency range : 1 GHz ~ 26.5 GHz
- Measurement distance : 3 m
- Duty Cycle : > 98 %
- Result : PASSED

Frequency (GHz)	Reading (dBμV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Amp Gain	Total (dBμV/m)	Limits (dBμV/m)	Margin (dB)
Test Data for Low Channel									
4 824.00	40.52	Peak	H	30.84	12.31	35.74	47.93	74.00	26.07
	29.60	Average	H				37.01	54.00	16.99
	41.57	Peak	V				48.98	74.00	25.02
	31.50	Average	V				38.91	54.00	15.09
Test Data for Middle Channel									
4 884.00	41.10	Peak	H	30.01	12.43	35.80	47.74	74.00	26.26
	31.11	Average	H				37.75	54.00	16.25
	41.68	Peak	V				48.32	74.00	25.68
	31.05	Average	V				37.69	54.00	16.31

Test Data for High 11 Channel									
4 924.00	40.58	Peak	H	31.15	12.81	35.96	48.58	74.00	25.42
	32.01	Average	H				40.01	54.00	13.99
	39.60	Peak	V				47.60	74.00	26.40
	29.85	Average	V				37.85	54.00	16.15
Test Data for High 12 Channel									
4 934.00	41.78	Peak	H	31.15	12.81	35.96	49.78	74.00	24.22
	29.69	Average	H				37.69	54.00	16.31
	42.21	Peak	V				50.21	74.00	23.79
	32.19	Average	V				40.19	54.00	13.81
Test Data for High 13 Channel									
4 944.00	40.11	Peak	H	31.15	12.81	35.96	48.11	74.00	25.89
	32.43	Average	H				40.43	54.00	13.57
	42.91	Peak	V				50.91	74.00	23.09
	31.86	Average	V				39.86	54.00	14.14

Tabulated test data for Restricted Band

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} - \text{Pre-Amplifier Gain}$$



Tested by: Tae-Ho, Kim / Senior Manager

9.6.2.2 Test data for 802.11g WLAN Mode

9.6.2.2.1 Test data for Multiple Transmit

- Test Date : September 28, 2018 ~ October 24, 2018
- Resolution bandwidth : 1 MHz and Peak Detector for Peak Mode for the emissions fall in restricted band,
1 MHz and RMS Detector for Average Mode for the emissions fall in restricted band
100 kHz for Peak Mode for the emissions outside restricted band
- Video bandwidth : 3 MHz for Peak and Average Mode
- Frequency range : 1 GHz ~ 26.5 GHz
- Measurement distance : 3 m
- Duty Cycle : > 98 %
- Result : PASSED

Frequency (GHz)	Reading (dBμV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Amp Gain	Total (dBμV/m)	Limits (dBμV/m)	Margin (dB)
Test Data for Low Channel									
4 824.00	42.24	Peak	H	30.84	12.31	35.74	49.65	74.00	24.35
	30.67	Average	H				38.08	54.00	15.92
	41.32	Peak	V				48.73	74.00	25.27
	31.90	Average	V				39.31	54.00	14.69
Test Data for Middle Channel									
4 884.00	40.30	Peak	H	30.01	12.43	35.80	46.94	74.00	27.06
	31.09	Average	H				37.73	54.00	16.27
	42.65	Peak	V				49.29	74.00	24.71
	32.16	Average	V				38.80	54.00	15.20

Test Data for High 11 Channel									
4 924.00	41.11	Peak	H	31.15	12.81	35.96	49.11	74.00	24.89
	31.06	Average	H				39.06	54.00	14.94
	39.95	Peak	V				47.95	74.00	26.05
	29.90	Average	V				37.90	54.00	16.10
Test Data for High 12 Channel									
4 934.00	40.35	Peak	H	31.15	12.81	35.96	48.35	74.00	25.65
	29.36	Average	H				37.36	54.00	16.64
	42.68	Peak	V				50.68	74.00	23.32
	31.76	Average	V				39.76	54.00	14.24
Test Data for High 13 Channel									
4 944.00	39.61	Peak	H	31.15	12.81	35.96	47.61	74.00	26.39
	31.40	Average	H				39.40	54.00	14.60
	42.87	Peak	V				50.87	74.00	23.13
	31.22	Average	V				39.22	54.00	14.78

Tabulated test data for Restricted Band

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} - \text{Pre-Amplifier Gain}$$



Tested by: Tae-Ho, Kim / Senior Manager

9.6.2.3 Test data for 802.11n_HT20 WLAN Mode

9.6.2.3.1 Test data for Multiple Transmit

- Test Date : September 28, 2018 ~ October 24, 2018
- Resolution bandwidth : 1 MHz and Peak Detector for Peak Mode for the emissions fall in restricted band,
1 MHz and RMS Detector for Average Mode for the emissions fall in restricted band
100 kHz for Peak Mode for the emissions outside restricted band
- Video bandwidth : 3 MHz for Peak and Average Mode
- Frequency range : 1 GHz ~ 26.5 GHz
- Measurement distance : 3 m
- Duty Cycle : > 98 %
- Result : PASSED

Frequency (GHz)	Reading (dBμV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Amp Gain	Total (dBμV/m)	Limits (dBμV/m)	Margin (dB)
Test Data for Low Channel									
4 824.00	40.78	Peak	H	30.84	12.31	35.74	48.19	74.00	25.81
	31.19	Average	H				38.60	54.00	15.40
	40.98	Peak	V				48.39	74.00	25.61
	32.27	Average	V				39.68	54.00	14.32
Test Data for Middle Channel									
4 884.00	41.46	Peak	H	30.01	12.43	35.80	48.10	74.00	25.90
	30.79	Average	H				37.43	54.00	16.57
	42.49	Peak	V				49.13	74.00	24.87
	31.76	Average	V				38.40	54.00	15.60

Test Data for High 11 Channel									
4 924.00	41.03	Peak	H	31.15	12.81	35.96	49.03	74.00	24.97
	32.26	Average	H				40.26	54.00	13.74
	39.62	Peak	V				47.62	74.00	26.38
	30.00	Average	V				38.00	54.00	16.00
Test Data for High 12 Channel									
4 934.00	42.21	Peak	H	31.15	12.81	35.96	50.21	74.00	23.79
	30.80	Average	H				38.80	54.00	15.20
	42.69	Peak	V				50.69	74.00	23.31
	30.91	Average	V				38.91	54.00	15.09
Test Data for High 13 Channel									
4 944.00	41.33	Peak	H	31.15	12.81	35.96	49.33	74.00	24.67
	31.82	Average	H				39.82	54.00	14.18
	41.37	Peak	V				49.37	74.00	24.63
	30.94	Average	V				38.94	54.00	15.06

Tabulated test data for Restricted Band

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} - \text{Pre-Amplifier Gain}$$



Tested by: Tae-Ho, Kim / Senior Manager

9.6.2.4 Test data for 802.11n_HT40 WLAN Mode

9.6.2.4.1 Test data for Multiple Transmit

- Test Date : September 28, 2018 ~ October 24, 2018
- Resolution bandwidth : 1 MHz and Peak Detector for Peak Mode for the emissions fall in restricted band,
1 MHz and RMS Detector for Average Mode for the emissions fall in restricted band
100 kHz for Peak Mode for the emissions outside restricted band
- Video bandwidth : 3 MHz for Peak and Average Mode
- Frequency range : 1 GHz ~ 26.5 GHz
- Measurement distance : 3 m
- Duty Cycle : > 98 %
- Result : PASSED

Frequency (GHz)	Reading (dBμV)	Detector Mode	Ant. Pol. (H/V)	Ant. Factor	Cable Loss	Amp Gain	Total (dBμV/m)	Limits (dBμV/m)	Margin (dB)
Test Data for Low Channel									
4 844.00	41.12	Peak	H	30.84	12.31	35.74	48.53	74.00	25.47
	30.01	Average	H				37.42	54.00	16.58
	41.97	Peak	V				49.38	74.00	24.62
	31.24	Average	V				38.65	54.00	15.35
Test Data for Middle Channel									
4 884.00	41.26	Peak	H	30.01	12.43	35.80	47.90	74.00	26.10
	31.55	Average	H				38.19	54.00	15.81
	41.57	Peak	V				48.21	74.00	25.79
	31.97	Average	V				38.61	54.00	15.39

Test Data for High 9 Channel									
4 904.00	40.27	Peak	H	31.15	12.81	35.96	48.27	74.00	25.73
	30.94	Average	H				38.94	54.00	15.06
	40.13	Peak	V				48.13	74.00	25.87
	29.32	Average	V				37.32	54.00	16.68
Test Data for High 10 Channel									
4 914.00	41.28	Peak	H	31.15	12.81	35.96	49.28	74.00	24.72
	30.77	Average	H				38.77	54.00	15.23
	42.24	Peak	V				50.24	74.00	23.76
	31.38	Average	V				39.38	54.00	14.62
Test Data for High 11 Channel									
4 924.00	39.56	Peak	H	31.15	12.81	35.96	47.56	74.00	26.44
	31.27	Average	H				39.27	54.00	14.73
	41.56	Peak	V				49.56	74.00	24.44
	32.05	Average	V				40.05	54.00	13.95

Tabulated test data for Restricted Band

Remark: "H": Horizontal, "V": Vertical

$$\text{Margin (dB)} = \text{Limits (dB}\mu\text{V/m)} - \text{Total Level (dB}\mu\text{V/m)}$$

$$\text{Total Level} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss} - \text{Pre-Amplifier Gain}$$



Tested by: Tae-Ho, Kim / Senior Manager