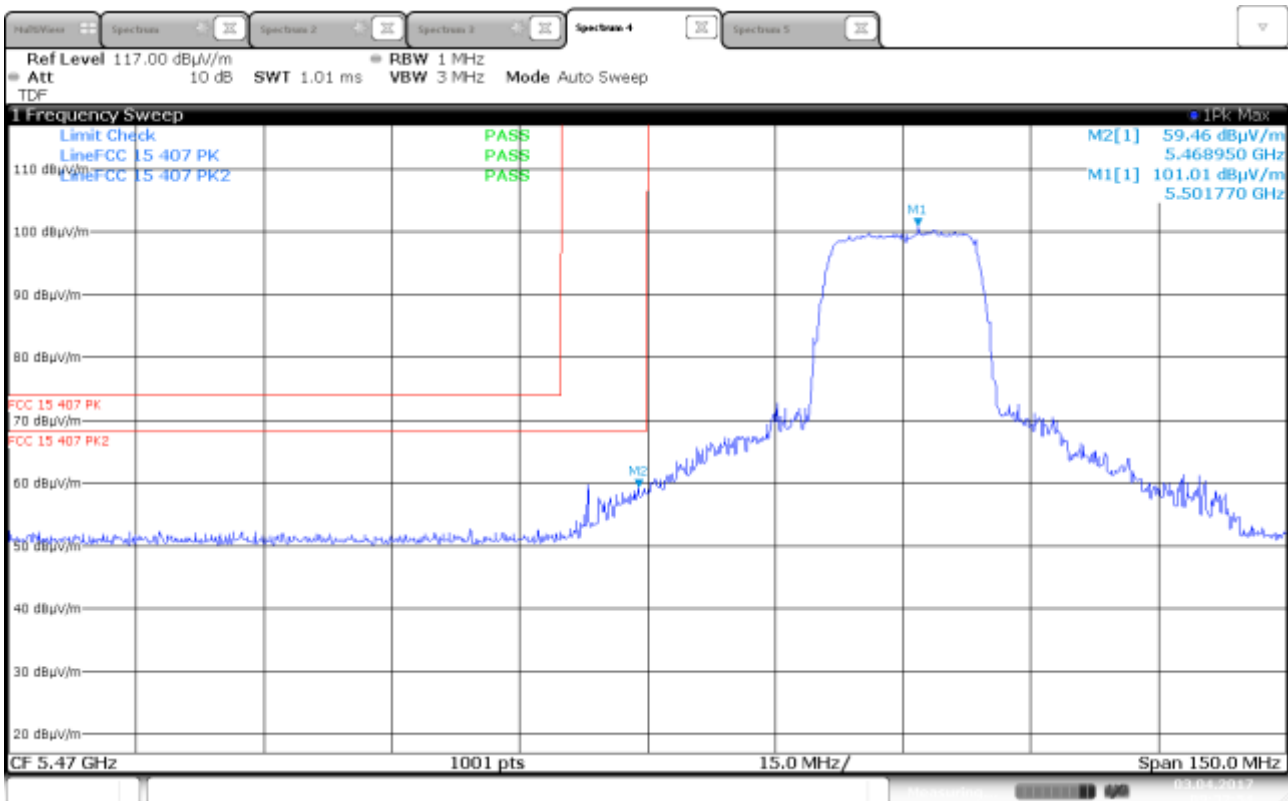
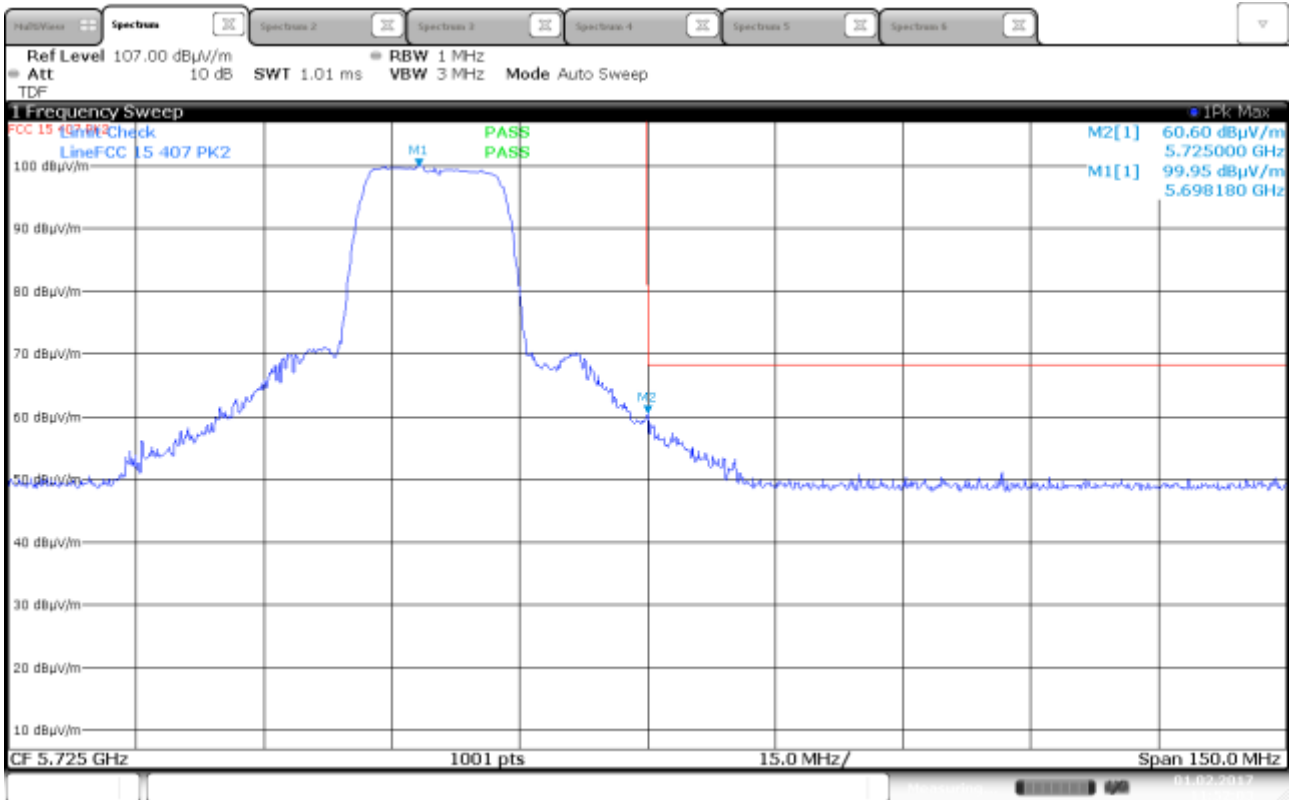


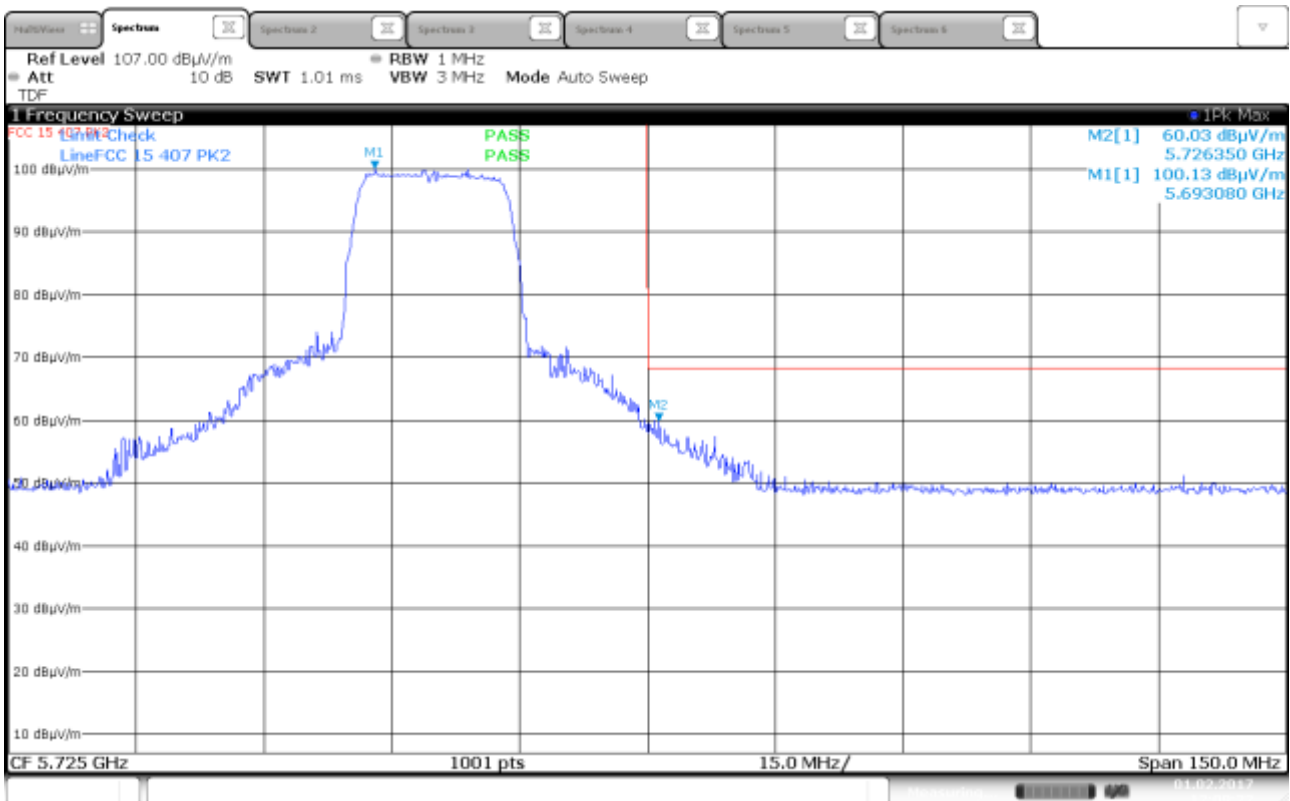
Unwanted Emissions, Band Edge, 5470 MHz, 802.11a 6Mbps



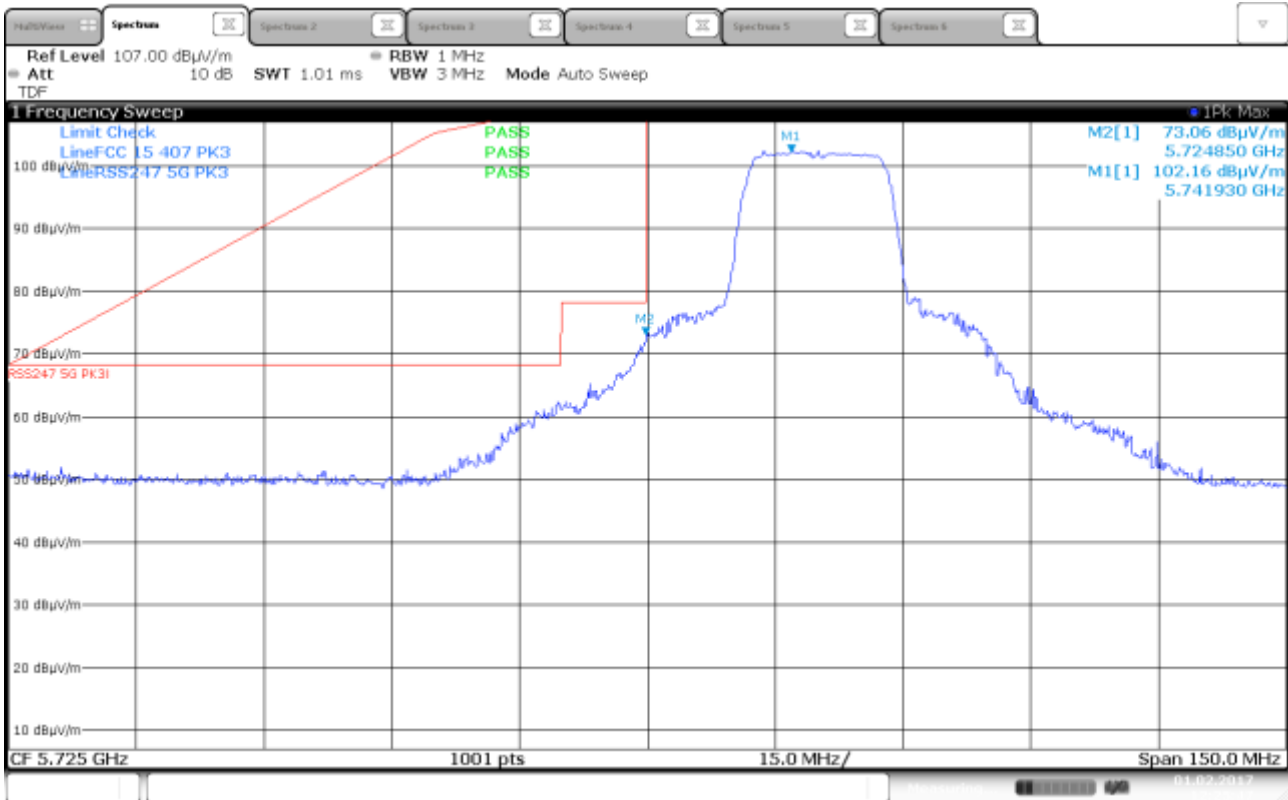
Unwanted Emissions, Band Edge, 5470 MHz, 802.11n MCS0



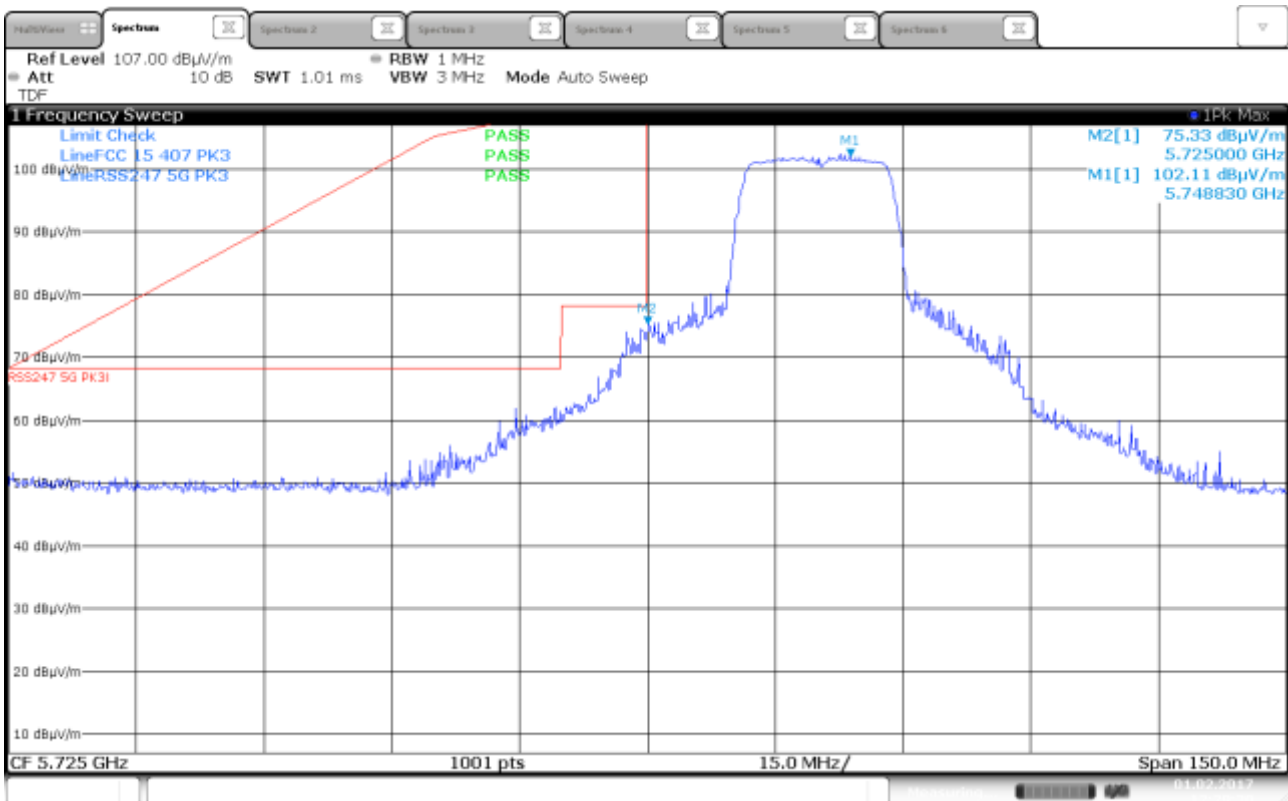
Unwanted Emissions, Band Edge, 5725 MHz, 802.11a 6Mbps



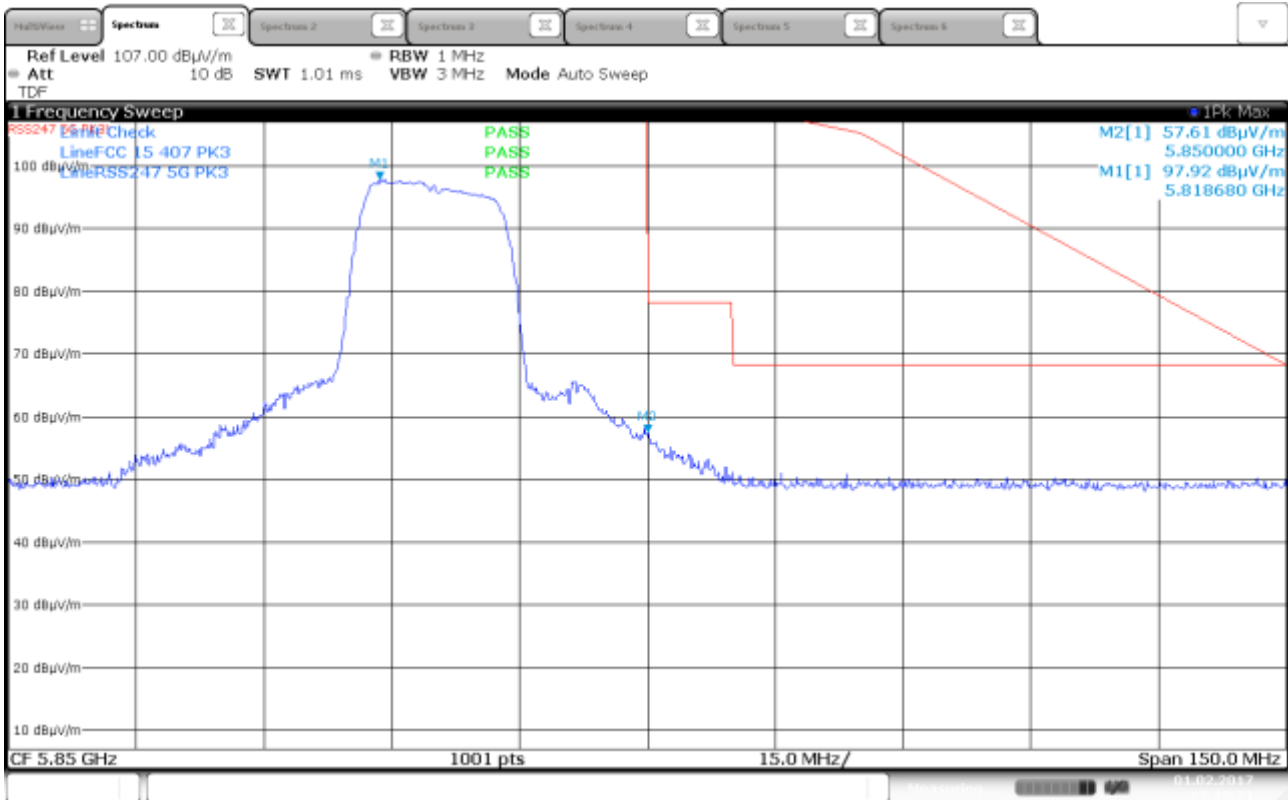
Unwanted Emissions, Band Edge, 5725 MHz, 802.11n MCS0



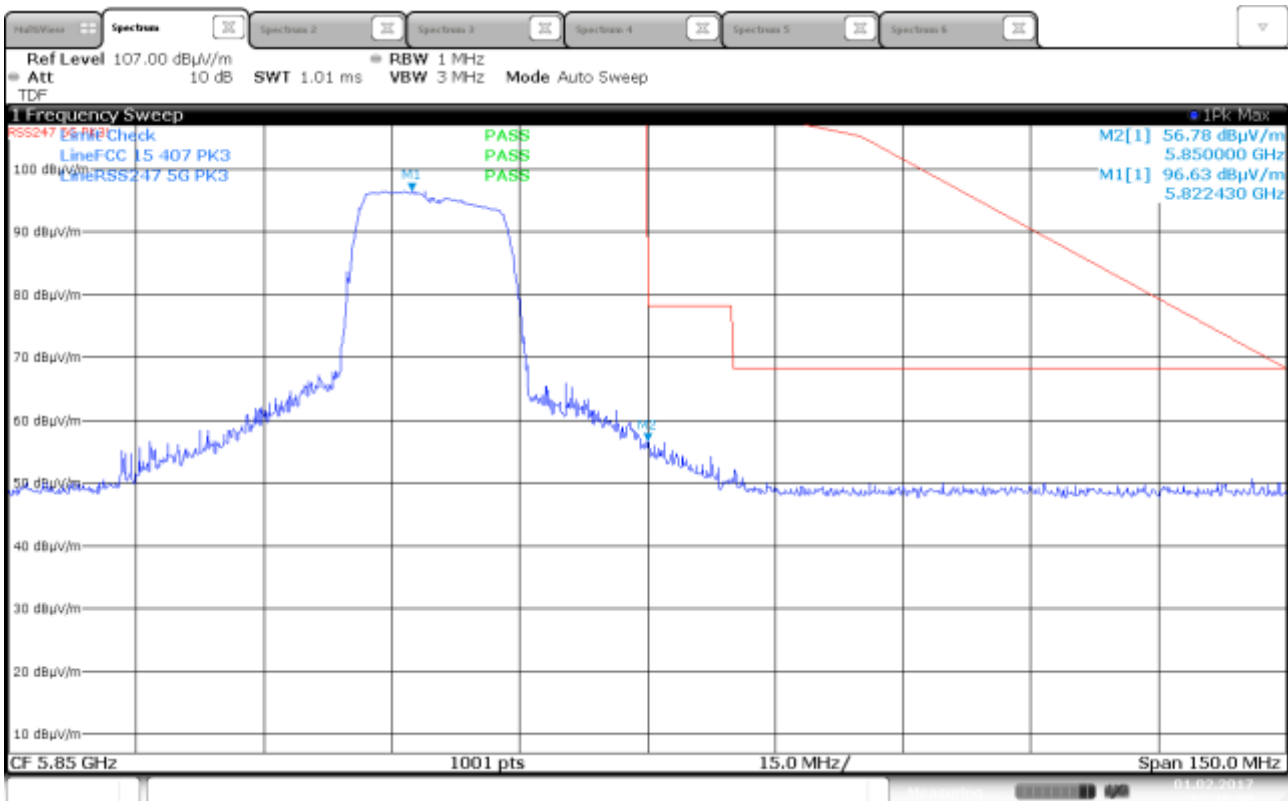
Unwanted Emissions, Band Edge, 5745 MHz, 802.11a 6Mbps



Unwanted Emissions, Band Edge, 5745 MHz, 802.11n MCS0



Unwanted Emissions, Band Edge, 5825 MHz, 802.11a 6Mbps



Unwanted Emissions, Band Edge, 5825 MHz, 802.11n MCS0

3.6 Restricted Bands of operation

Restricted Bands of operation for FCC and ISED are defined in FCC Part 15.205 and ISED RSS-GEN, Issue 4 clause 8.10.

Generally, no fundamentals are allowed in the restricted bands and all emissions must comply with the limits in FCC 15.209 or RSS-GEN, Issue 4, clause 8.9.

FCC (MHz)	ISED (MHz)	FCC (GHz)	ISED (GHz)
0.090-0.110		0.96-1.24 1.3-1.427	0.96-1.427
0.495-0.505		1.435-1.6265	
2.1735-2.1905		1.6455-1.6465	
	3.020-3.026	1.660-1.710	
4.125-4.128		1.7188-1.7222	
4.17725-4.17775		2.2-2.3	
4.20725-4.20775		2.31-2.39	
	5.677-5.683	2.4835-2.5	
6.215-6.218		2.69-2.9	2.655-2.9
6.26775-6.26825		3.26-3.267	
6.31175-6.31225		3.332-3.339	
8.291-8.294		3.3458-3.358	
8.362-8.366		3.6-4.4	3.5-4.4
8.37625-8.38675		4.5-5.15	
8.41425-8.41475		5.35-5.46	
12.29-12.293		7.25-7.75	
12.51975-12.52025		8.025-8.5	
12.57675-12.57725		9.0-9.2	
13.36-13.41		9.3-9.5	
16.42-16.423		10.6-12.7	
16.69475-16.69525		13.25-13.4	
16.80425-16.80475		14.47-14.5	
25.5-25.67		15.35-16.2	
37.5-38.25		17.7-21.4	
73-74.6		22.01-23.12	
74.8-75.2		23.6-24.0	
108-121.94 123-138	108-138	31.2-31.8	
149.9-150.05		36.43-36.5	
156.52475-156.52525		Above 38.6	
156.7-156.9			
162.0125-167.17			
167.72-173.2			
240-285			
322-335.4			
399.9-410			
608-614			

Frequencies in **Bold** text are specific for FCC or ISED, all other frequencies are common.

3.7 Radiated Emissions, below 1GHz

FCC 15.205, 15.209

ISED RSS-GEN, Issue 4, Clause 8.9

Test Results: Complies

Measurement Data:

Radiated emission 30 – 1000 MHz

Detector: Peak

Measuring distance 3m.

Tested in test mode with EUT transmitting on ch06.

No components were detected.

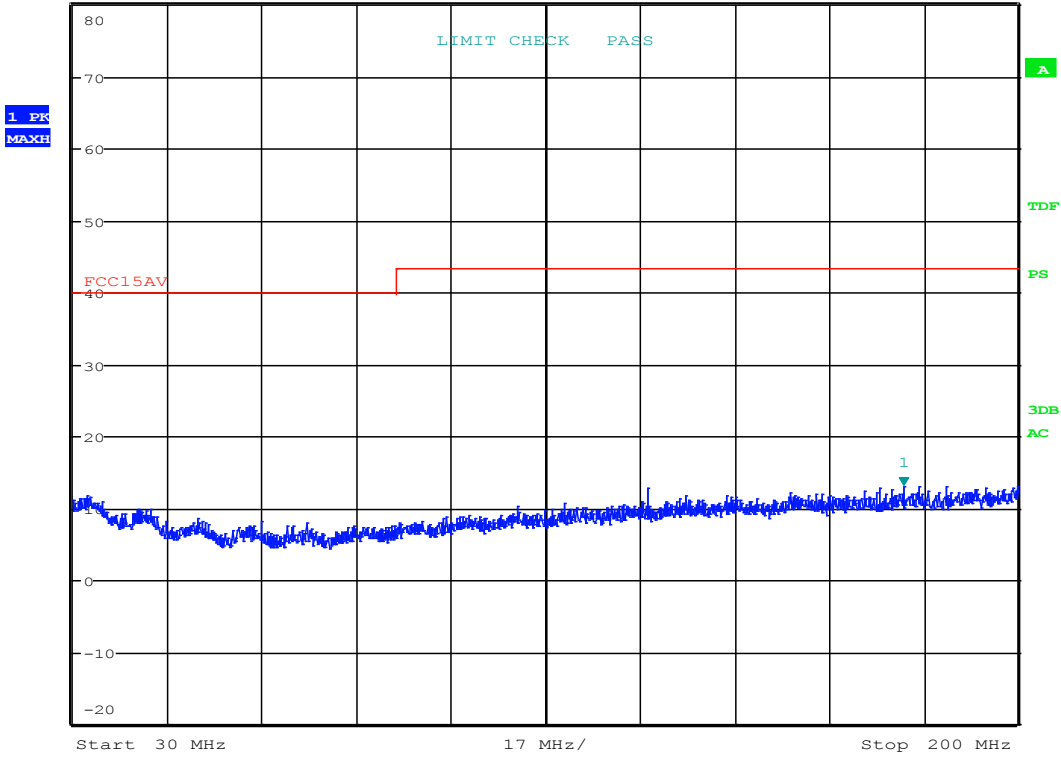
See attached plots.

Requirements/Limit

FCC	Part 15.209 @ frequencies defined in §15.205	
ISED	RSS-GEN Issue 4, Clause 8.9 @ frequencies defined in clause 8.10	
	Radiated emission limit @3 meters	
Frequency (MHz)	Quasi Peak ($\mu\text{V}/\text{m}$)	Quasi Peak ($\text{dB}\mu\text{V}/\text{m}$)
30 – 88	100	40.0
88 – 216	150	43.5
216 – 960	200	46.0
Above 960	500	54.0



MARKER 1
 179.26 MHz
 Ref 80 dBµV/m *Att 10 dB *RBW 100 kHz VBW 300 kHz SWT 20 ms
 Marker 1 [T1] 13.18 dBµV/m
 179.260000000 MHz

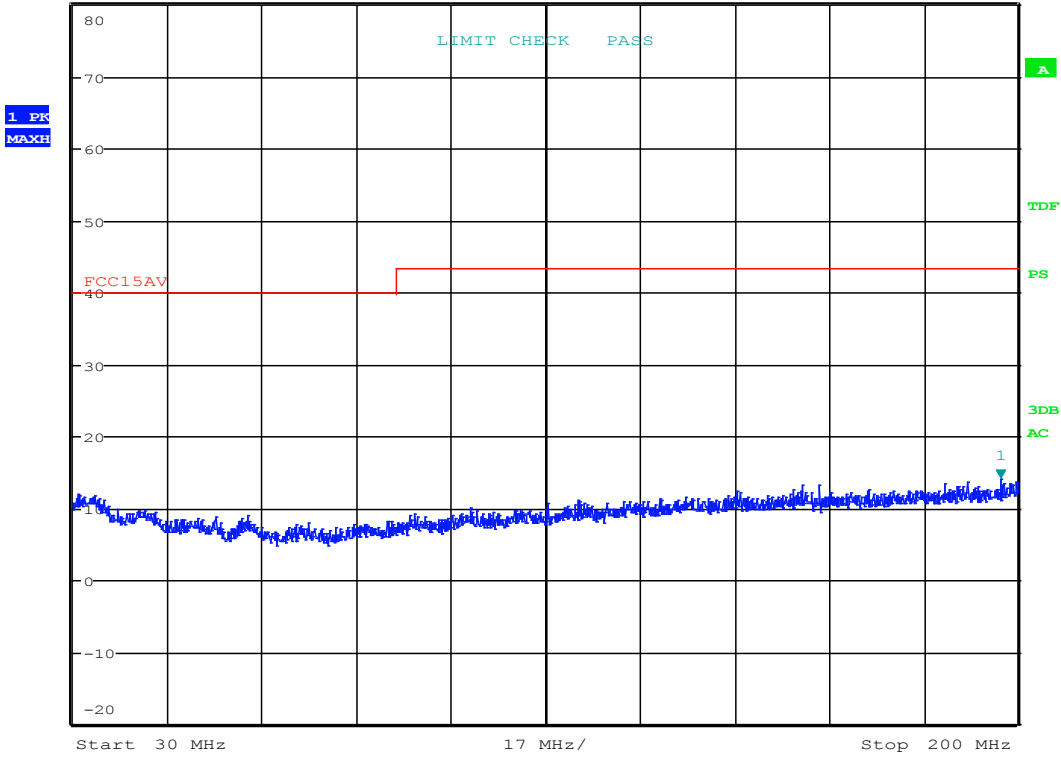


Date: 9.FEB.2017 09:50:06

Radiated Emissions, 30 -200MHz, HP



MARKER 1
 196.668 MHz
 Ref 80 dBµV/m *Att 10 dB *RBW 100 kHz VBW 300 kHz SWT 20 ms
 Marker 1 [T1] 14.05 dBµV/m
 196.66800000 MHz

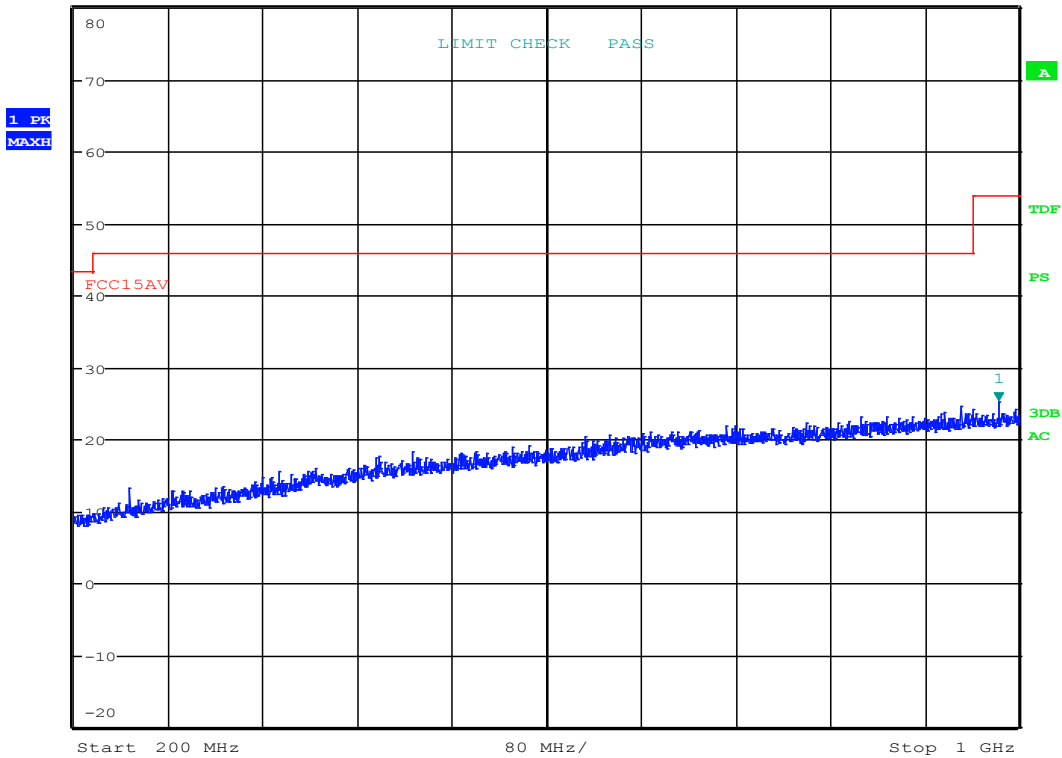


Date: 9.FEB.2017 09:46:13

Radiated Emissions, 30 -200MHz, VP



MARKER 1
 981.76 MHz
 Ref 80 dBµV/m *Att 10 dB
 *RBW 100 kHz Marker 1 [T1]
 VBW 300 kHz 25.19 dBµV/m
 SWT 80 ms 981.76000000 MHz

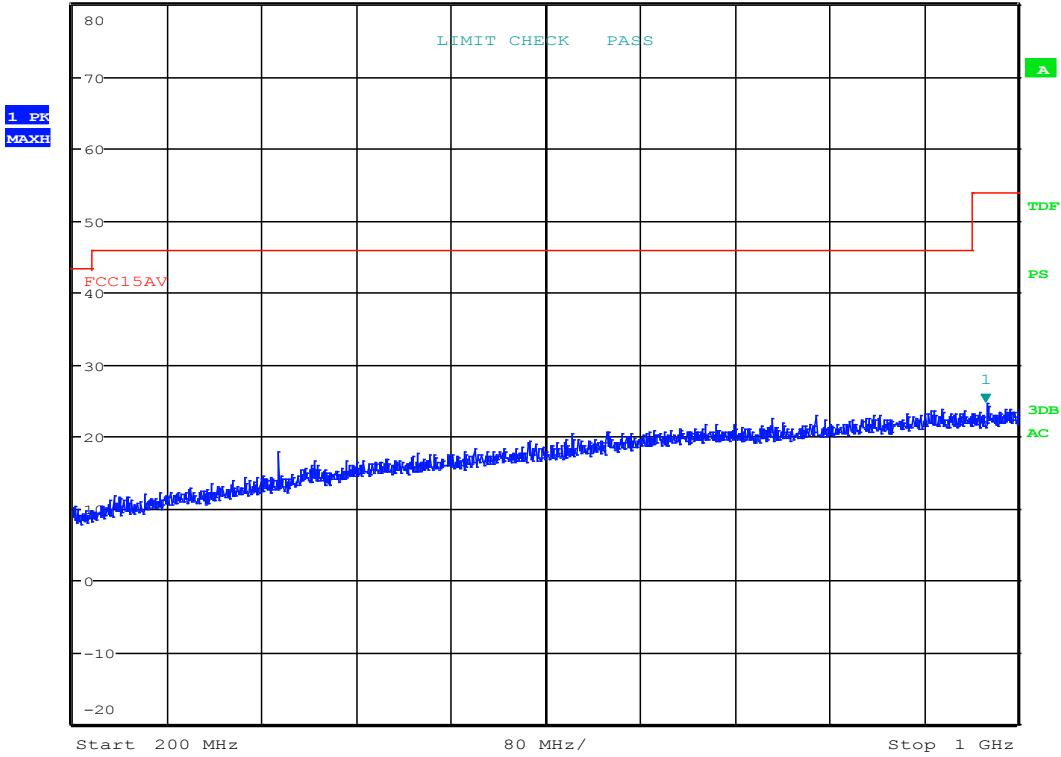


Date: 9.FEB.2017 09:59:12

Radiated Emissions, 200 -1000MHz, HP



MARKER 1
 972.16 MHz
 Ref 80 dBµV/m *Att 10 dB
 *RBW 100 kHz Marker 1 [T1]
 VBW 300 kHz 24.58 dBµV/m
 SWT 80 ms 972.16000000 MHz



Date: 9.FEB.2017 09:55:44

Radiated Emissions, 200 -1000MHz, VP

3.8 Radiated Emissions, above 1GHz

FCC 15.205, 15.209, 15.407(b)

ISED RSS-247, Issue 2, Clause 6.2

ISED RSS-GEN, Issue 4, Clause 8.9

Test Results: Complies

Measurement Data:

Radiated Emissions, 1-40 GHz

Measuring distance: 3m (1 – 8.5 GHz)
 1m (8.0 – 18 GHz)

A pre-scan was performed above 18 GHz and no spurious emissions were detected.

Band Edge Emissions, Restricted Bands, 5150MHz						
Carrier Modulation	Ch. No.	Carrier Freq MHz	Measured value AV dB μ V/m @3m	Measured value Peak dB μ V/m @3m	Limit (dB μ V/m)	Verdict
802.11a, 6M	36	5180	43.2	56.4	54/68.2	Complies
802.11n, MCS0	36	5180	46.0	64.5	54/68.2	Complies

Band Edge Emissions, Restricted Bands, 5350MHz						
Carrier Modulation	Ch. No.	Carrier Freq MHz	Measured value AV dB μ V/m @3m	Measured value Peak dB μ V/m @3m	Limit (dB μ V/m)	Verdict
802.11a, 6M	64	5320	42.5	59.3	54/68.2	Complies
802.11n, MCS0	64	5320	43.9	62.3	54/68.2	Complies

Band Edge Emissions, Restricted Bands, 5460MHz						
Carrier Modulation	Ch. No.	Carrier Freq MHz	Measured value AV dB μ V/m @3m	Measured value Peak dB μ V/m @3m	Limit (dB μ V/m)	Verdict
802.11a, 6M	100	5500	39.1	60.9	54/68.2	Complies
802.11n, MCS0	100	5500	37.6	59.5	54/68.2	Complies

Radiated Emissions, Restricted Bands						
Carrier Modulation	Carrier Frequency MHz	Spurious Frequency GHz	Measured value AV dB μ V/m @3m	Measured value Peak dB μ V/m @3m	Limit (dB μ V/m)	Verdict
802.11a, 6M	5300	10600	46.1	58.1	54/68.2	Complies
802.11n, MCS0		10600	46.1	58.6	54/68.2	Complies
802.11a, 6M	5500	11000	45.4	58.1	54/68.2	Complies
802.11n, MCS0		11000	45.3	57.8	54/68.2	Complies
802.11a, 6M	5745	11500	40.4	58.3	54/68.2	Complies
802.11n, MCS0		11500	40.3	59.3	54/68.2	Complies
802.11a, 6M	5300	15900	50.2	65.3	54/68.2	Complies
802.11n, MCS0		15900	49.0	65.3	54/68.2	Complies
802.11a, 6M	5280	21120	45.7	63.5	54/68.2	Complies
802.11n, MCS0		21120	47.5	63.5	54/68.2	Complies
802.11a, 6M	5300	21200	50.1	62.2	54/68.2	Complies
802.11n, MCS0		21200	47.7	59.9	54/68.2	Complies
802.11a, 6M	5580	22320	37.3	54.2	54/68.2	Complies
802.11n, MCS0		22320	46.2	55.3	54/68.2	Complies
802.11a, 6M	5785	23140	41.6	58.4	54/68.2	Complies
802.11n, MCS0		23140	41.7	57.0	54/68.2	Complies
802.11a, 6M	5280	31680	38.4	50.2	54/68.2	Complies
802.11n, MCS0		31680	38.5	50.3	54/68.2	Complies

Duty Cycle was 100% during all tests.

Measured results are for 802.11a 6 Mbps and 802.11n MCS0. It was checked that other modulations and/or bitrates did not produce higher emissions.

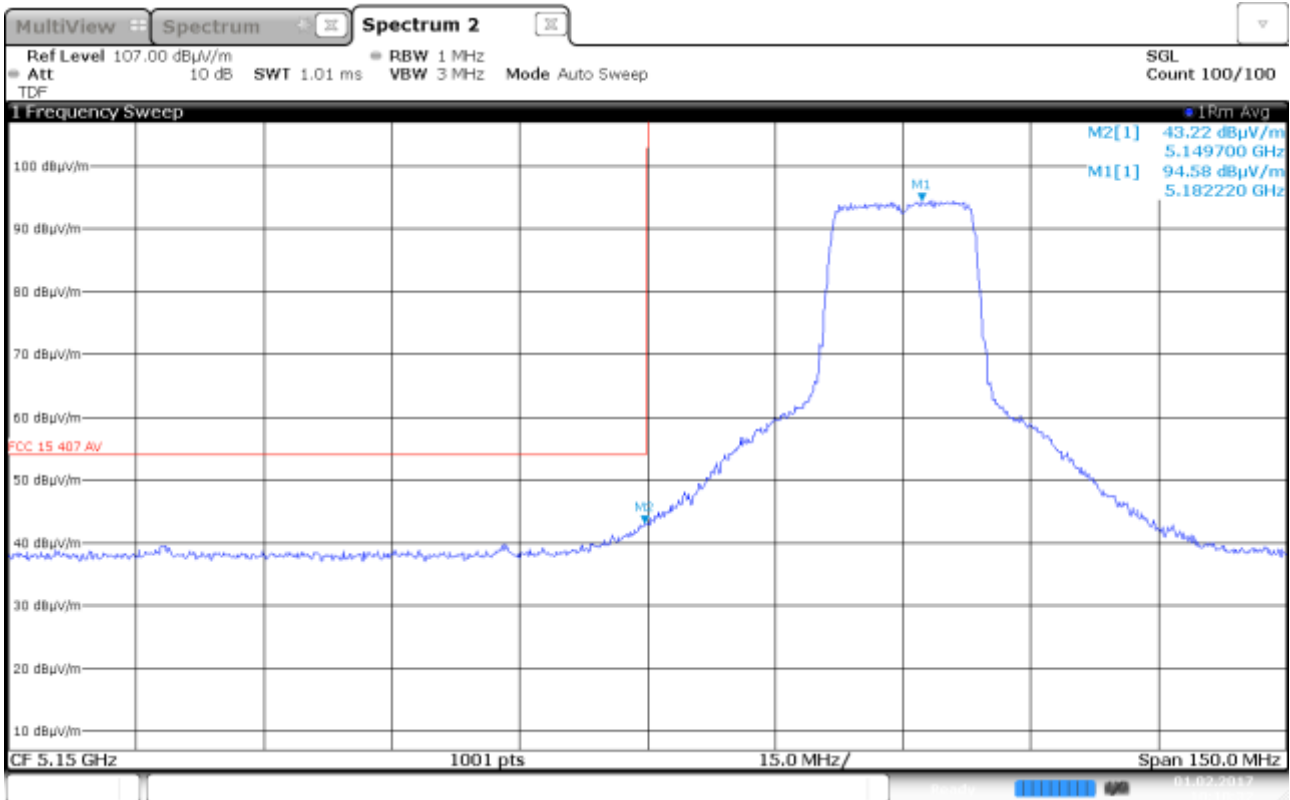
Only harmonics that fall in the restricted bands (ref. §15.205) have been measured.

Antenna factor, amplifier gain and cable loss are included in Spectrum Analyzer "Transducer factor".

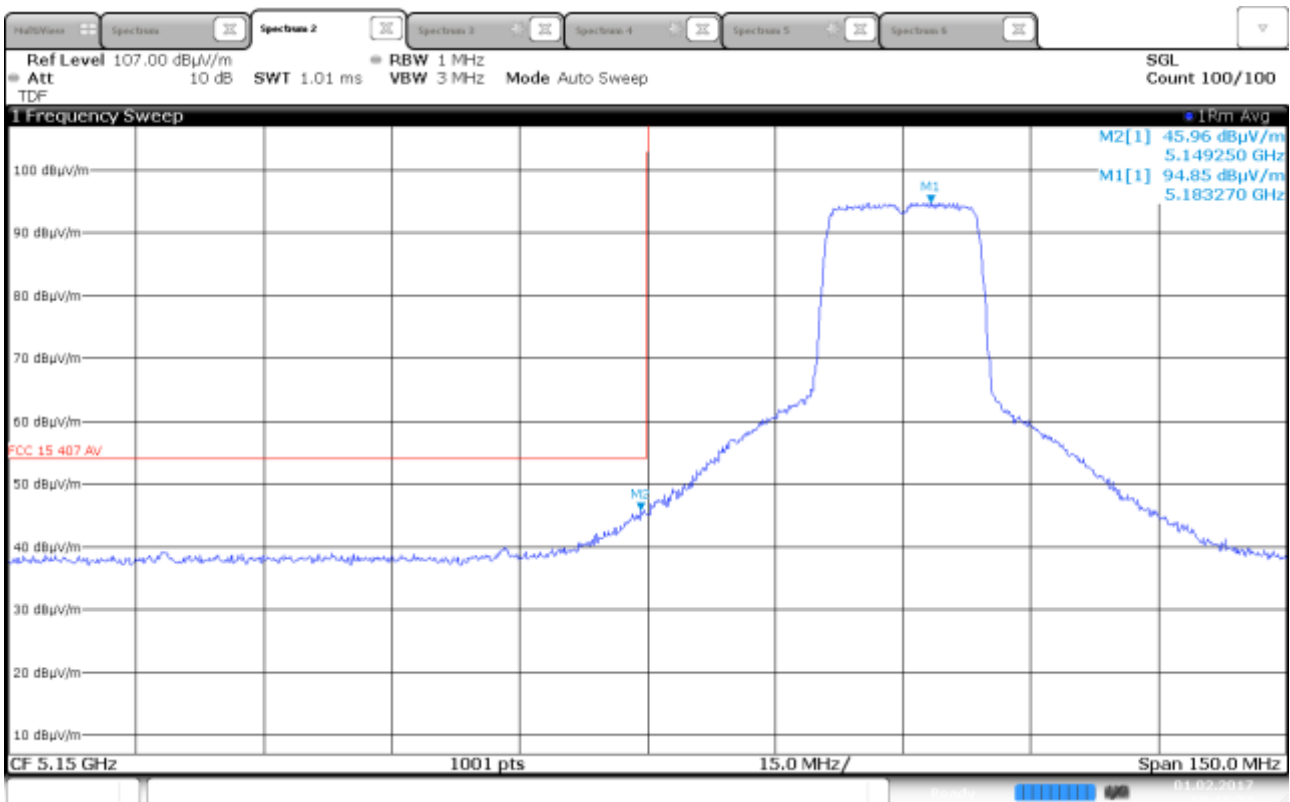
See attached plots.

Requirements/Limit

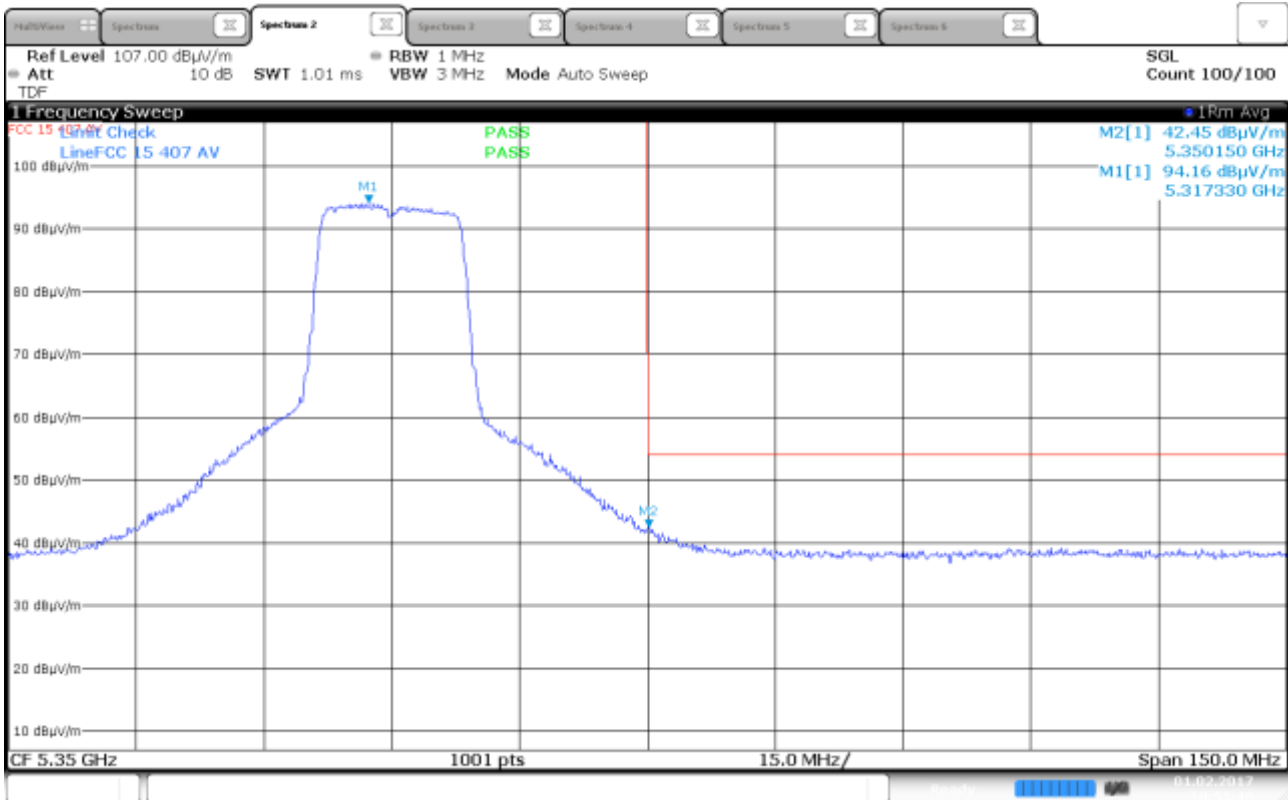
FCC	Part 15.209 @ frequencies defined in §15.205	
ISED	RSS-GEN Issue 4, Clause 8.9 @ frequencies defined in clause 8.10	
	Radiated emission limit @3 meters	
Frequency (MHz)	AV (dB μ V/m)	Peak (dB μ V/m)
Above 1 GHz	54.0	74.0



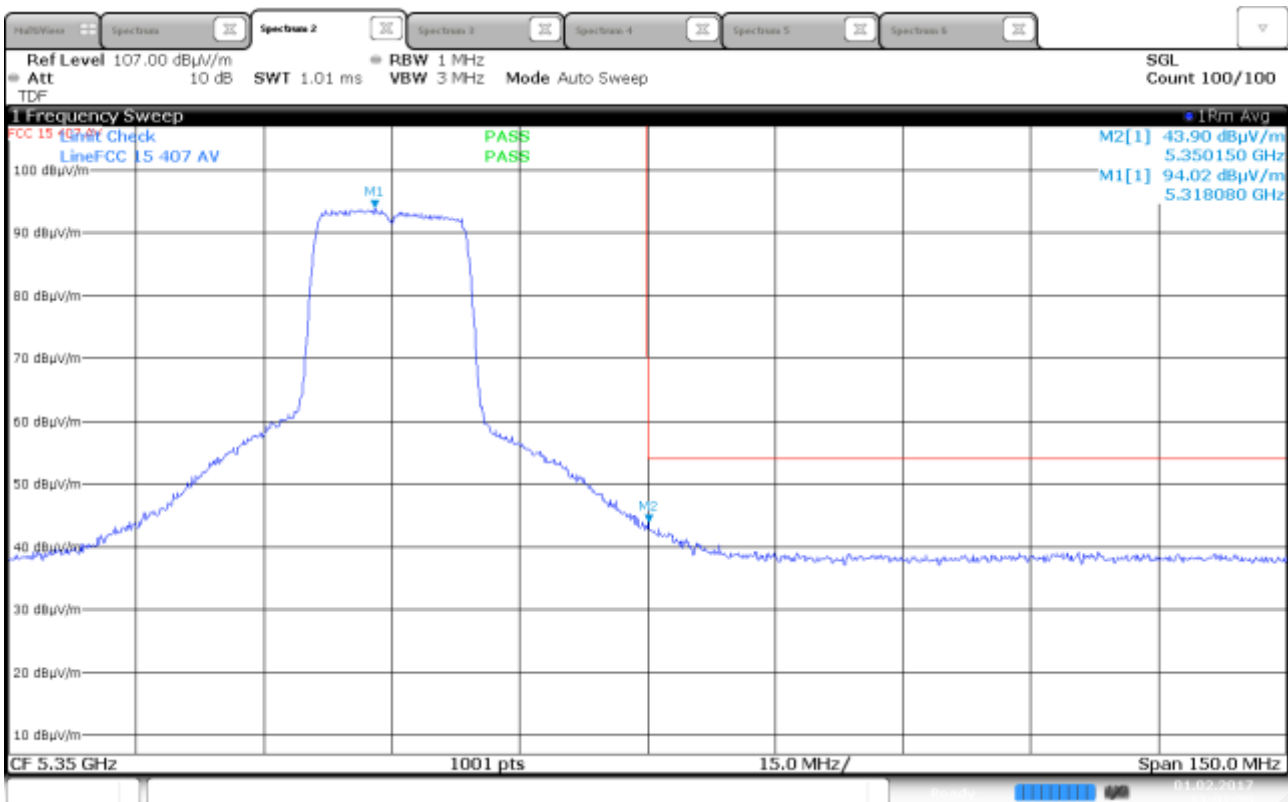
Radiated Emissions, Band Edge, 5150 MHz, 802.11a 6M, RMS



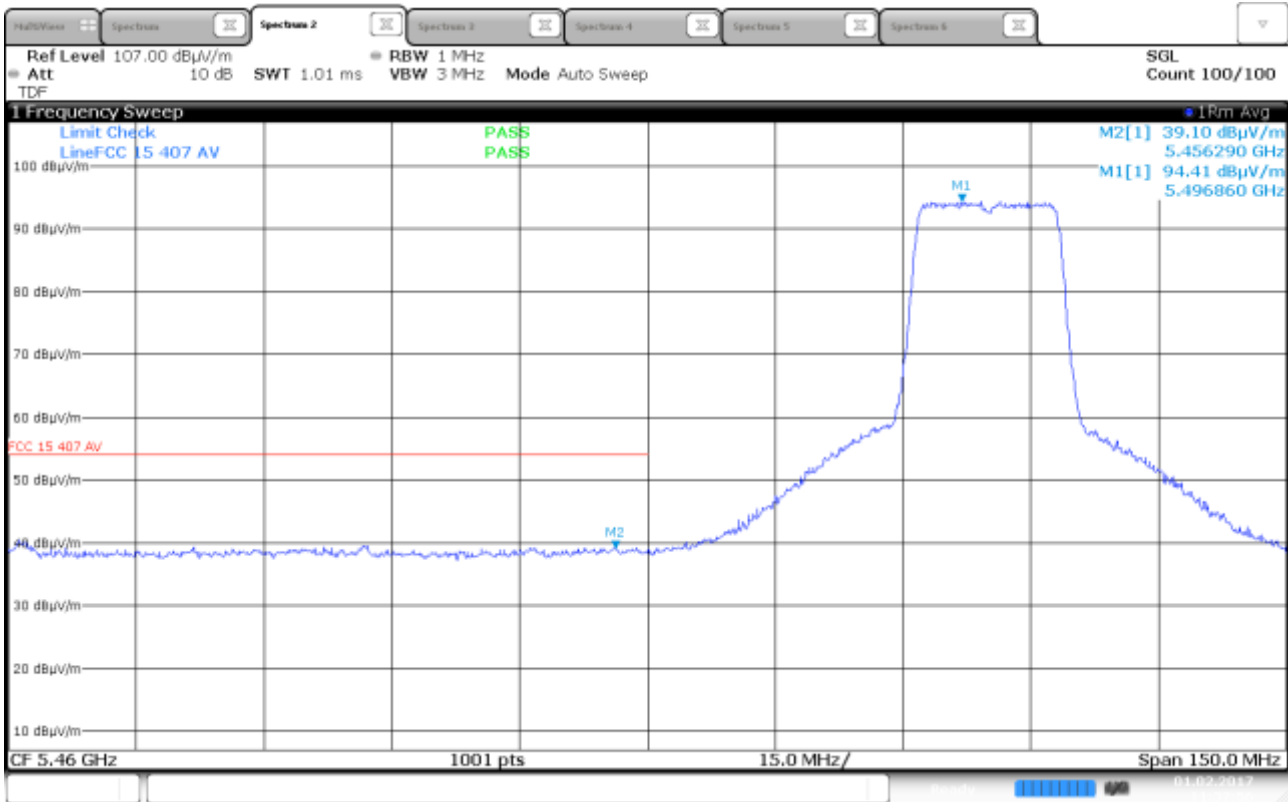
Radiated Emissions, Band Edge, 5150 MHz, 802.11n MCS0, RMS



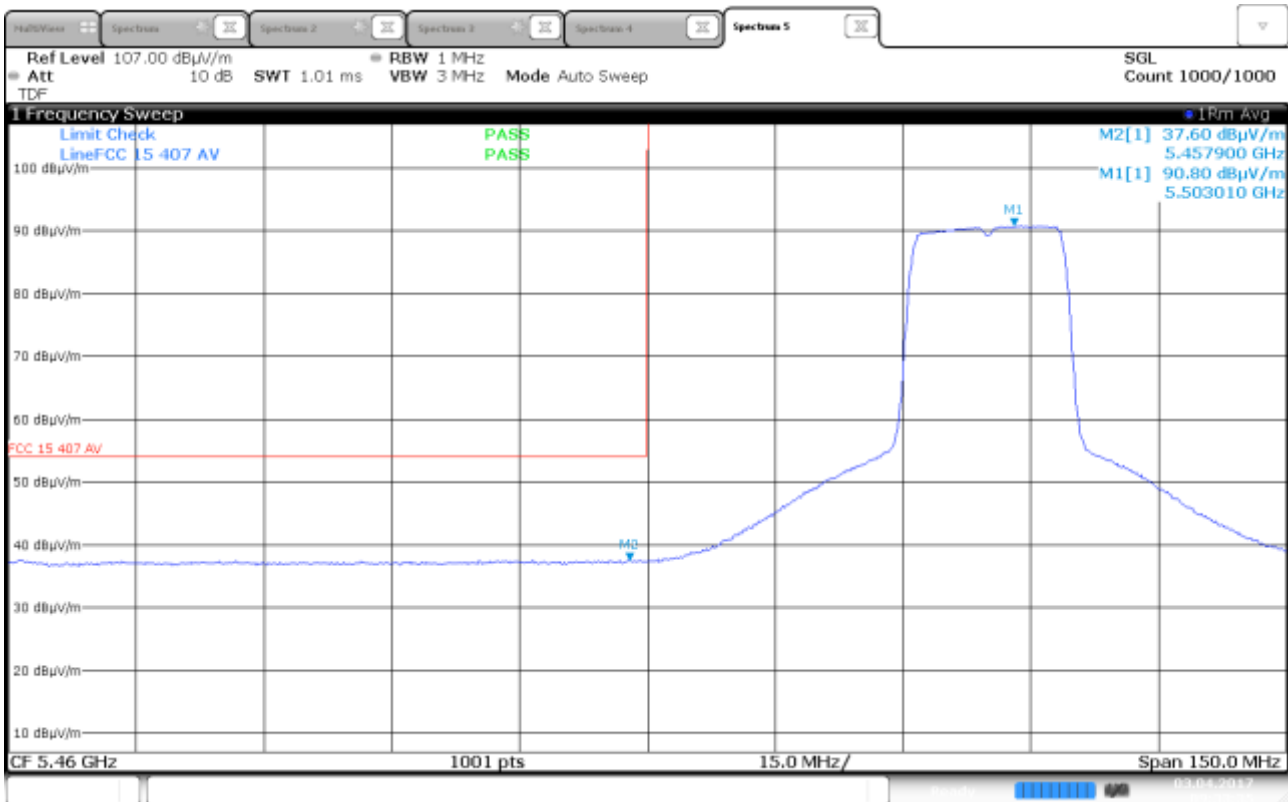
Radiated Emissions, Band Edge, 5350 MHz, 802.11a 6M, RMS



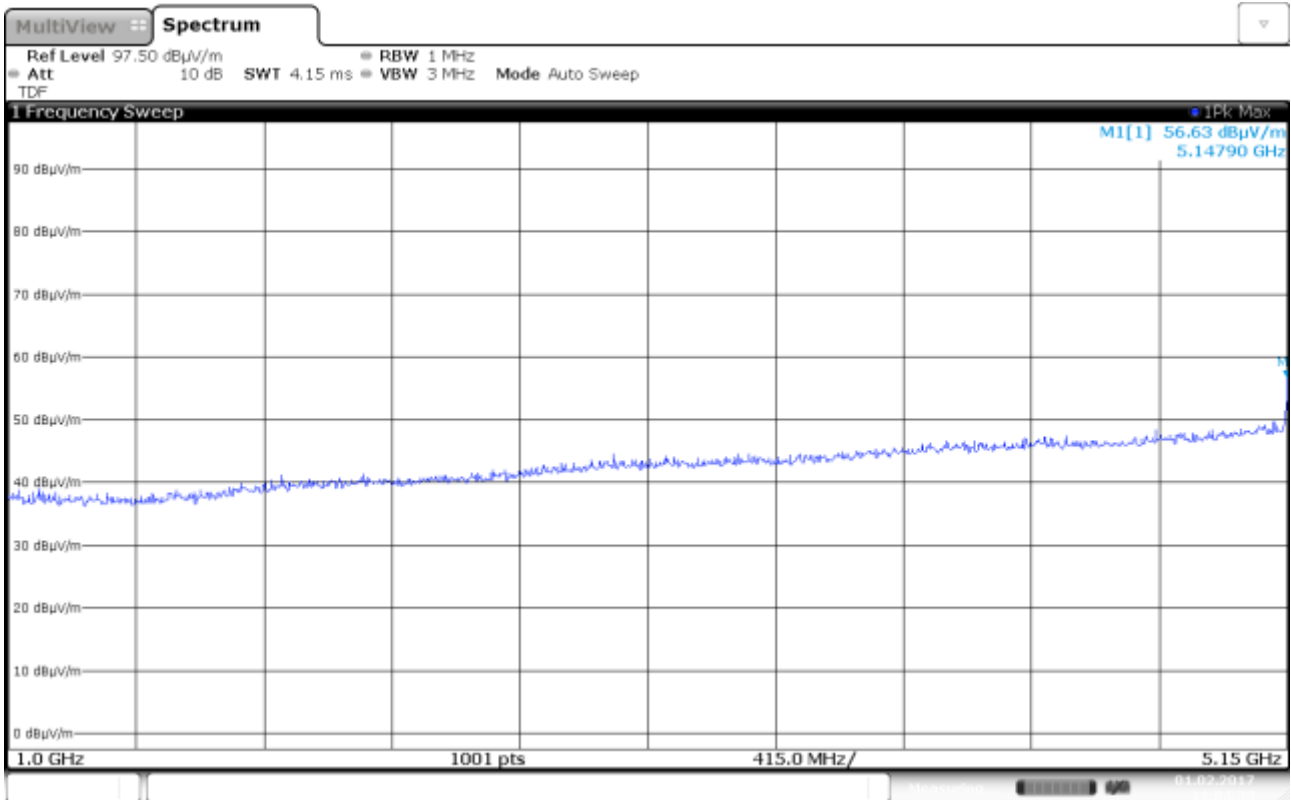
Radiated Emissions, Band Edge, 5350 MHz, 802.11n MCS0, RMS



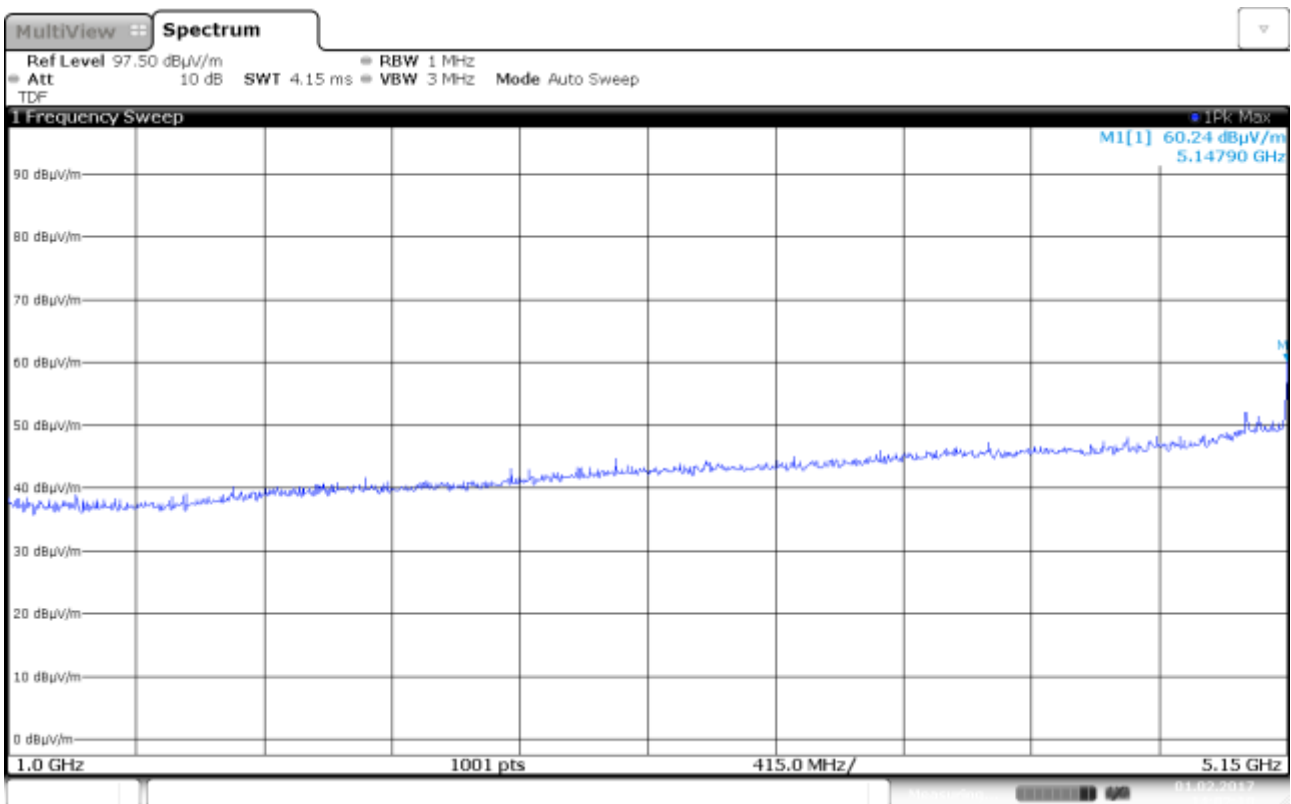
Radiated Emissions, Band Edge, 5460 MHz, 802.11a 6M, RMS



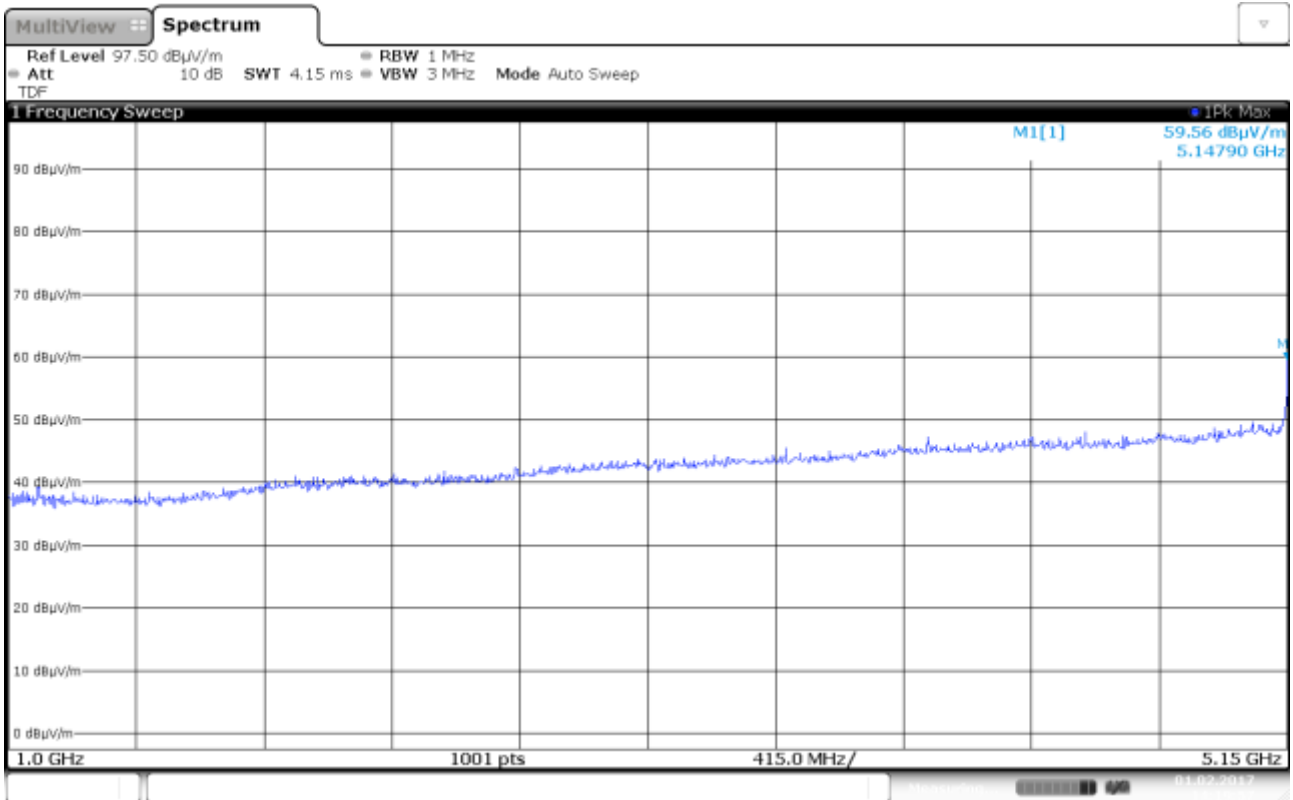
Radiated Emissions, Band Edge, 5460 MHz, 802.11n MCS0, RMS



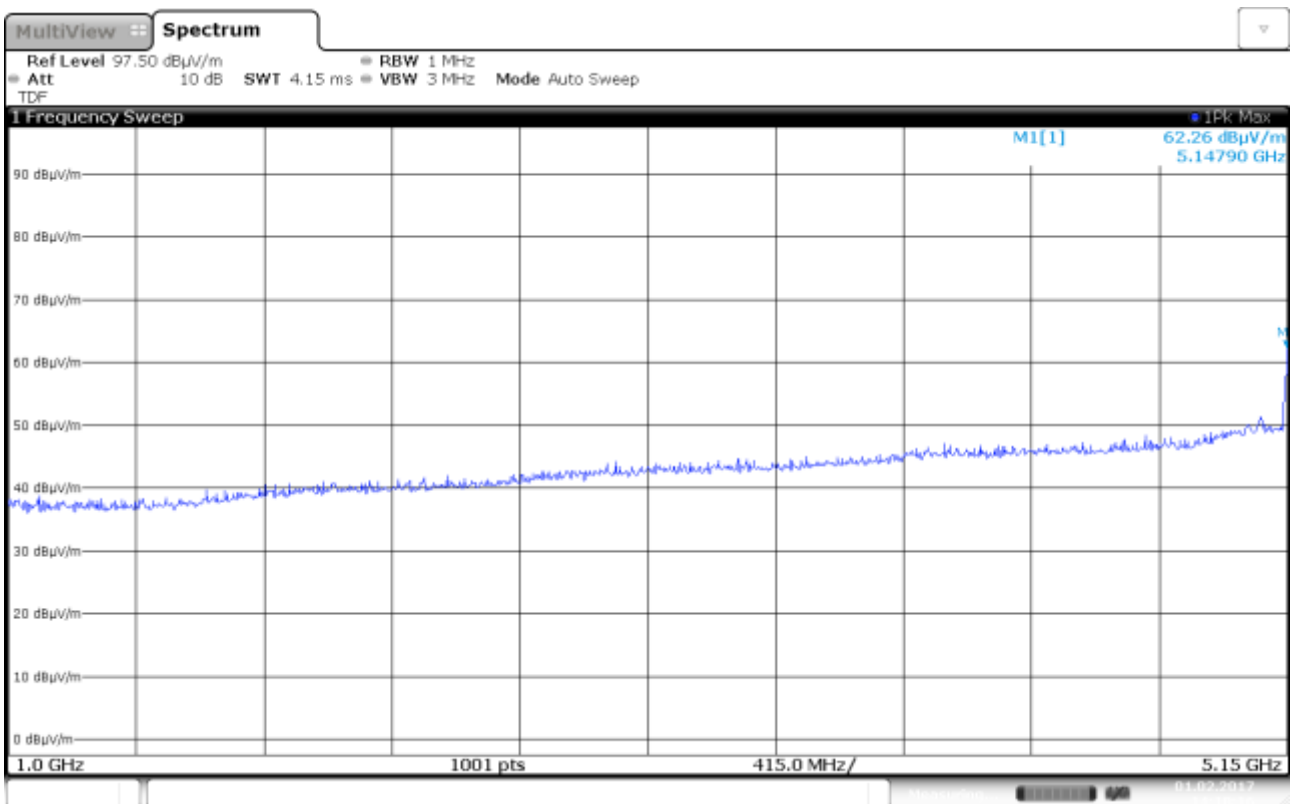
Radiated Emissions, Pk, 1.0 – 5.15 GHz, ch036, 802.11a 6M, EUT V, HP



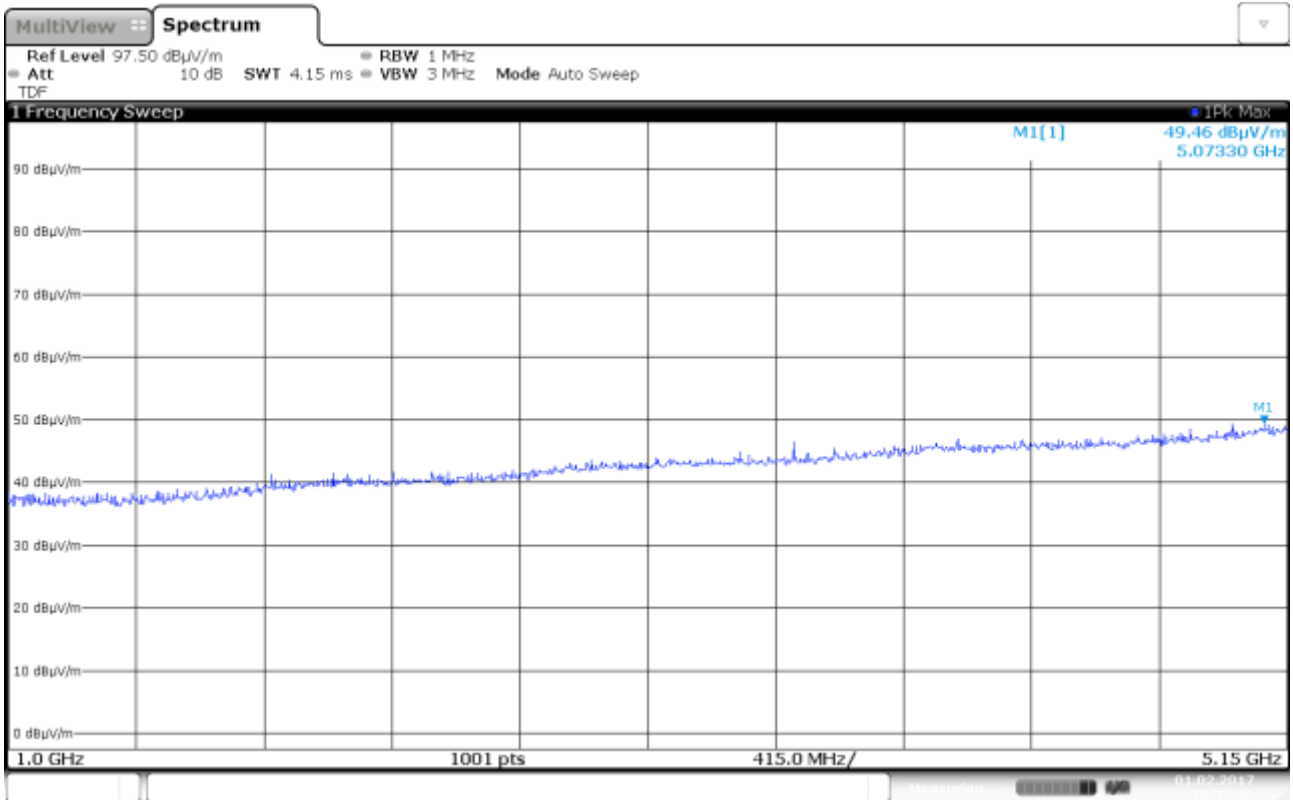
Radiated Emissions, Pk, 1.0 – 5.15 GHz, ch036, 802.11a 6M, EUT V, VP



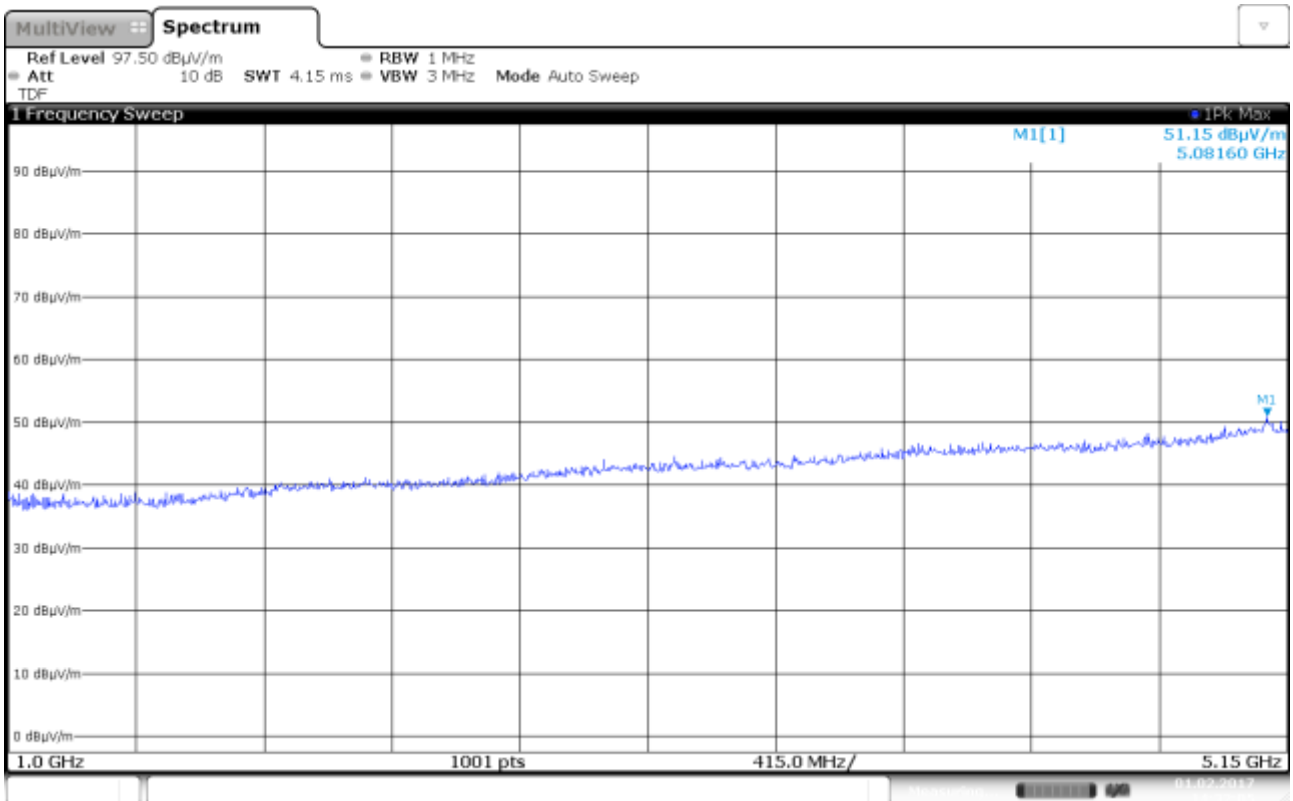
Radiated Emissions, Pk, 1.0 – 5.15 GHz, ch036, 802.11n MCS0, EUT V, HP



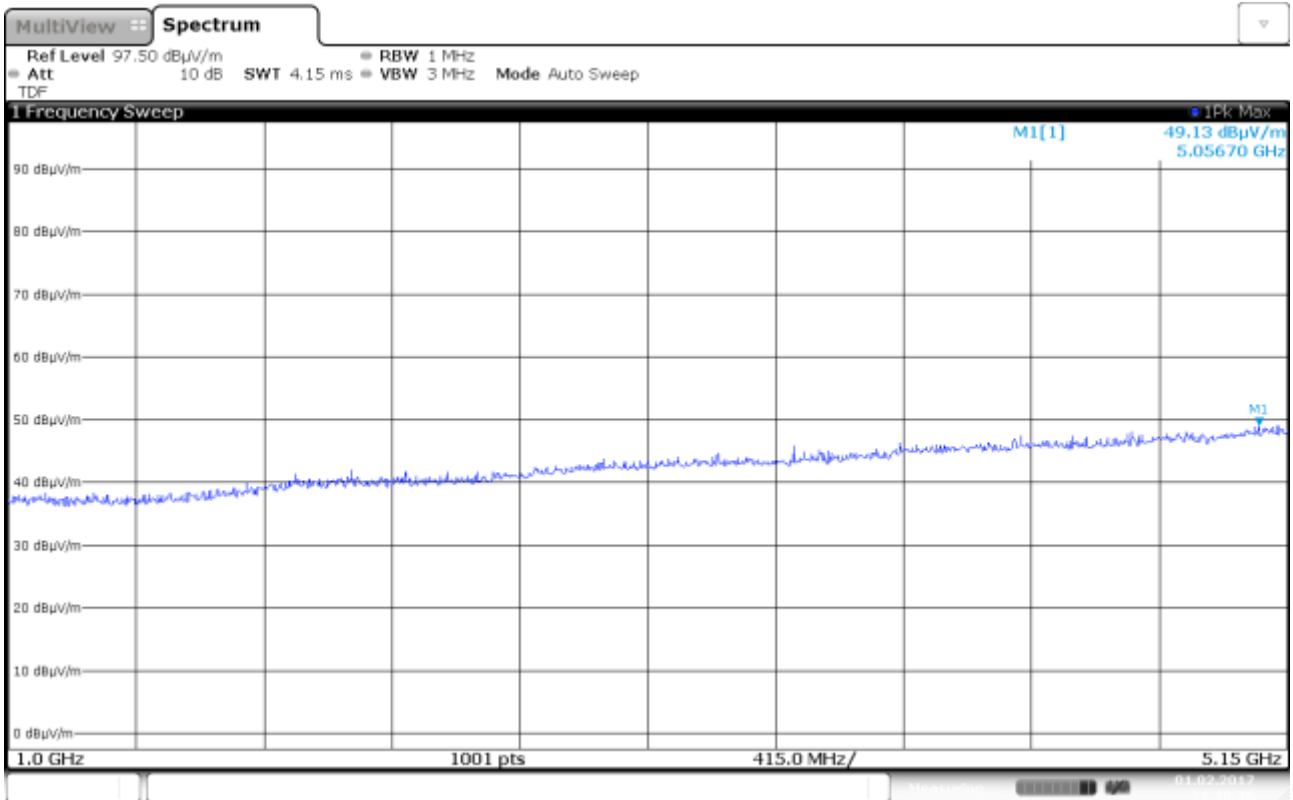
Radiated Emissions, Pk, 1.0 – 5.15 GHz, ch036, 802.11n MCS0, EUT V, VP



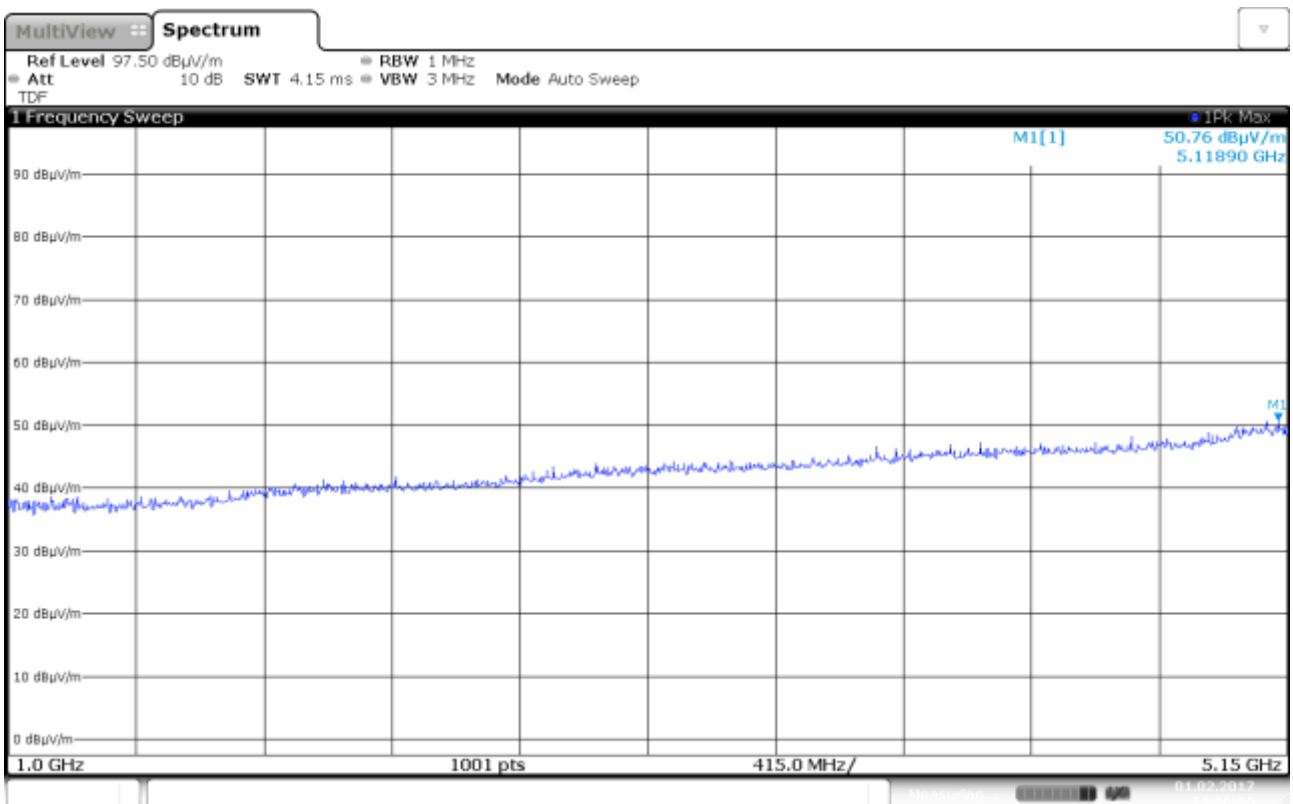
Radiated Emissions, Pk, 1.0 – 5.15 GHz, ch064, 802.11a 6M, EUT V, HP



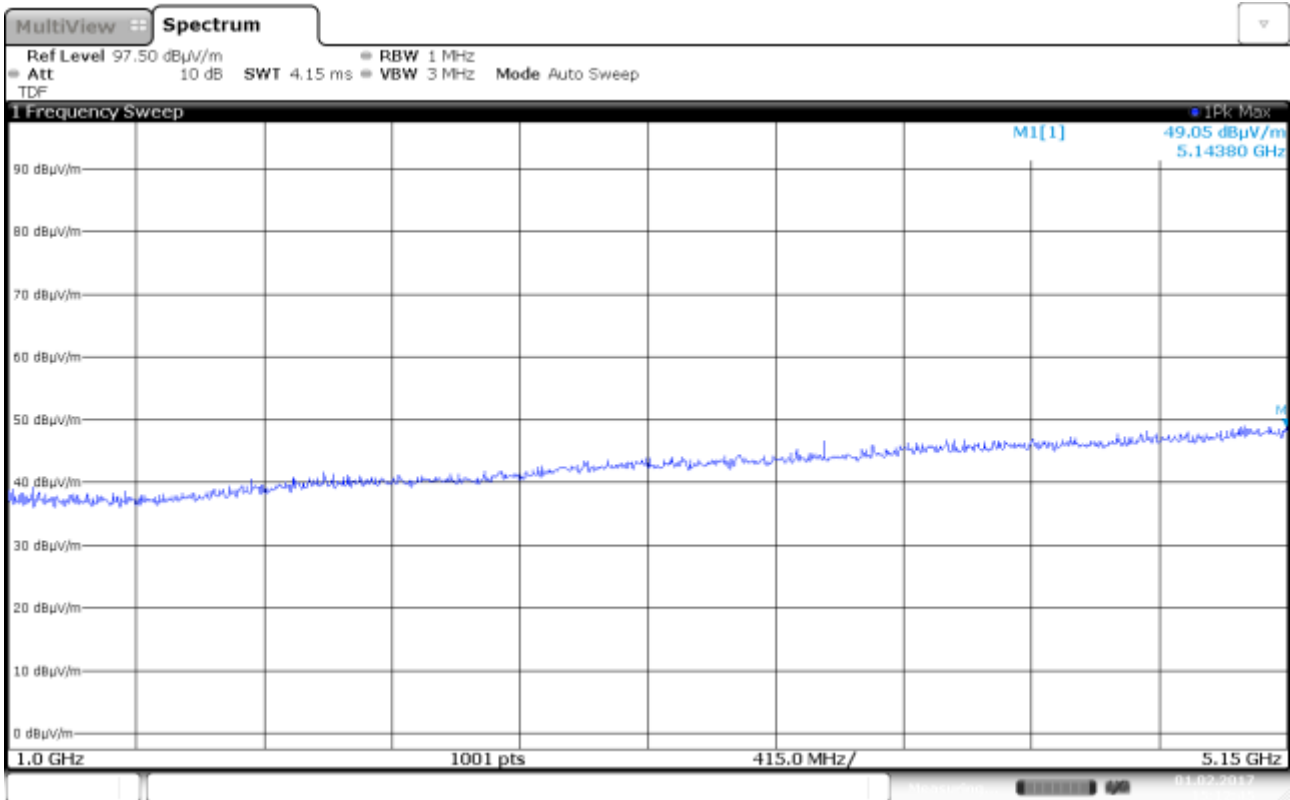
Radiated Emissions, Pk, 1.0 – 5.15 GHz, ch064, 802.11a 6M, EUT V, VP



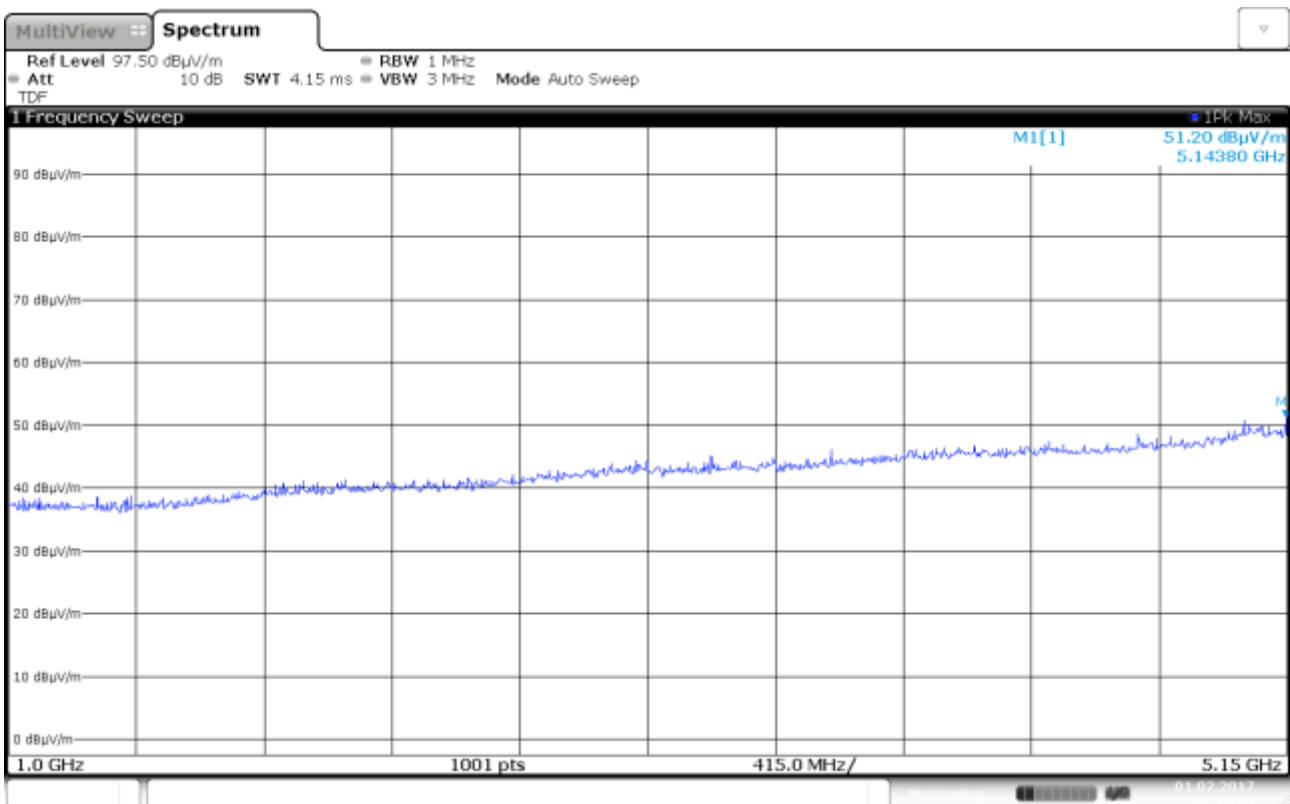
Radiated Emissions, Pk, 1.0 – 5.15 GHz, ch064, 802.11n MCS0, EUT V, HP



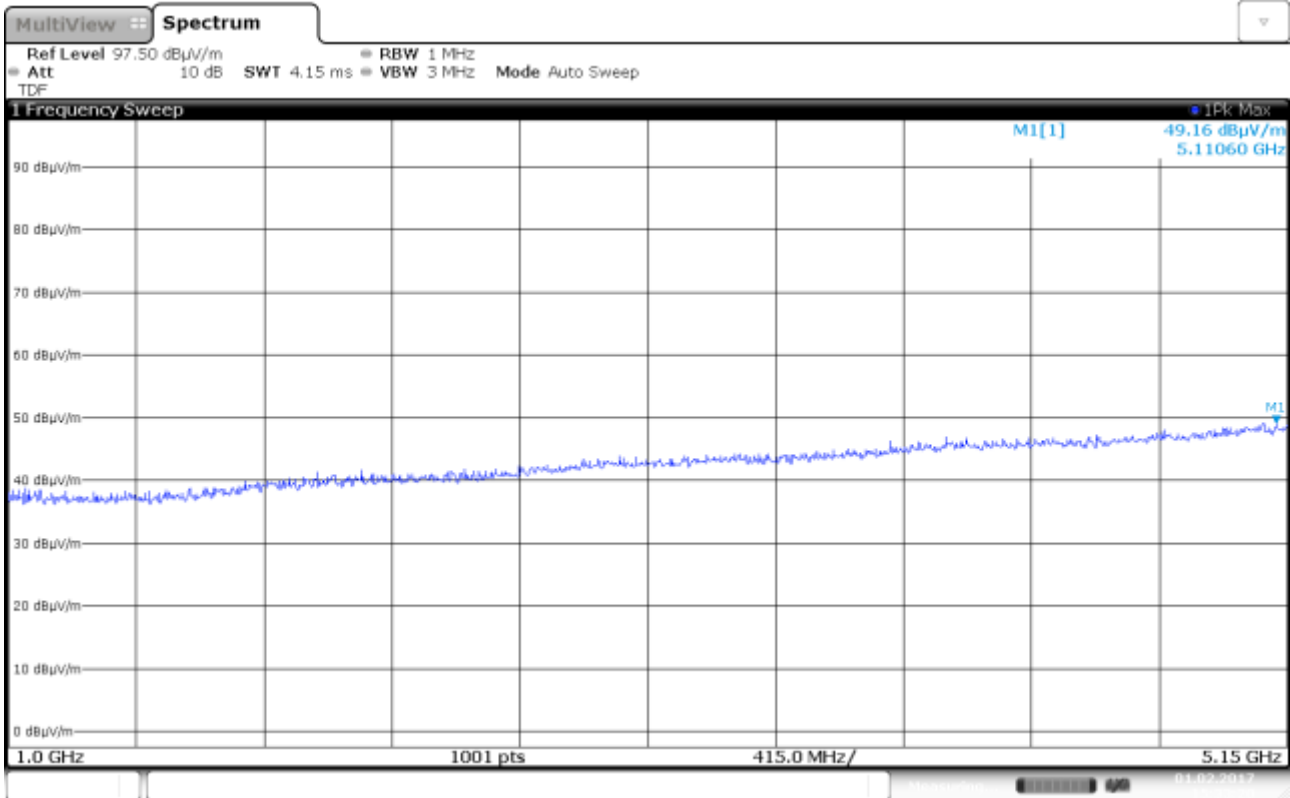
Radiated Emissions, Pk, 1.0 – 5.15 GHz, ch064, 802.11n MCS0, EUT V, VP



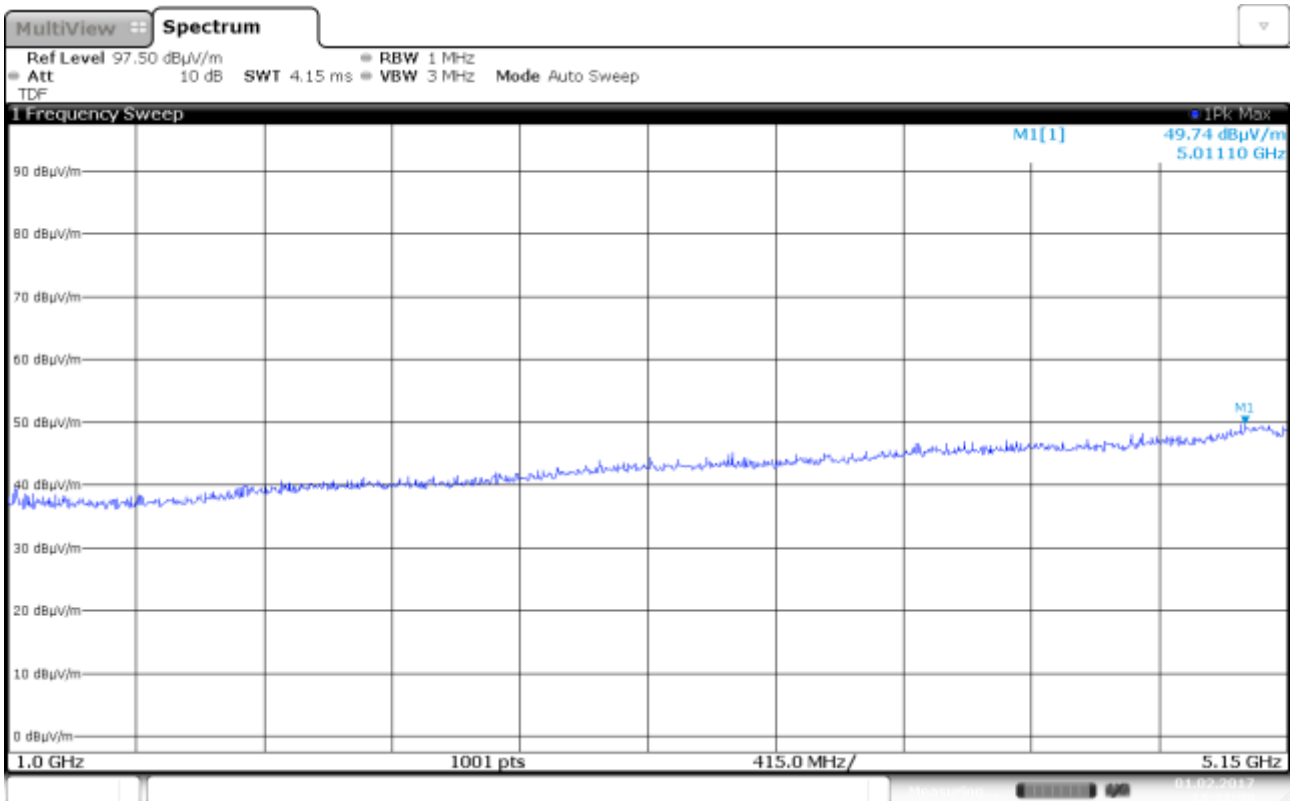
Radiated Emissions, Pk, 1.0 – 5.15 GHz, ch100, 802.11a 6M, EUT V, HP



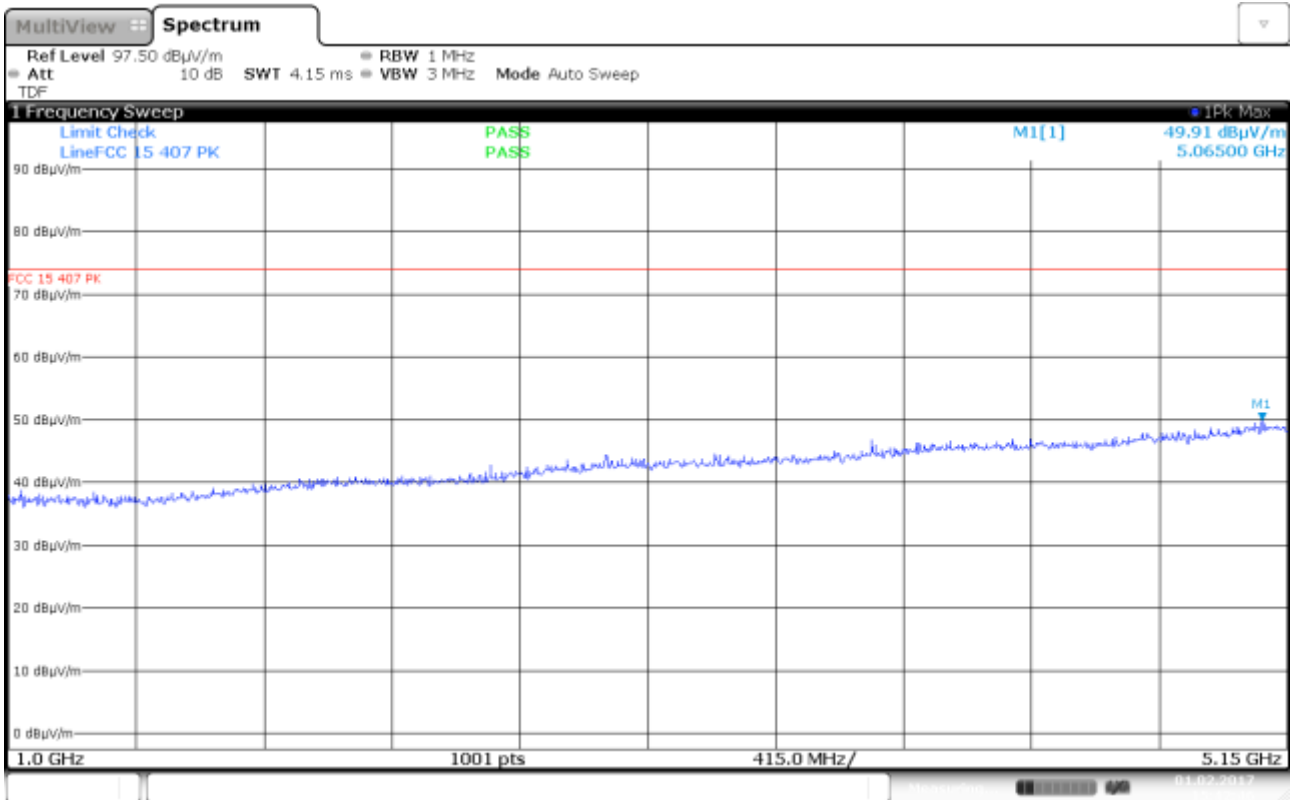
Radiated Emissions, Pk, 1.0 – 5.15 GHz, ch100, 802.11a 6M, EUT V, VP



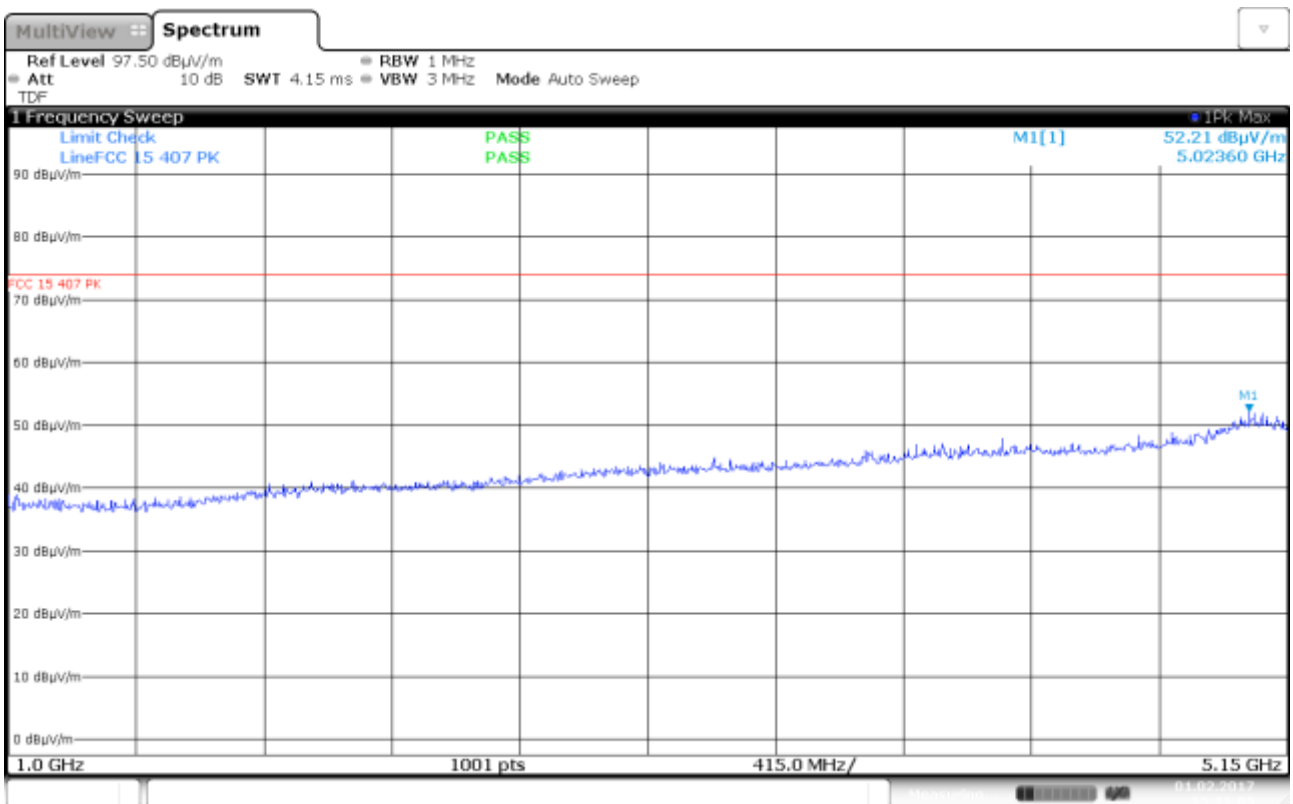
Radiated Emissions, Pk, 1.0 – 5.15 GHz, ch100, 802.11n MCS0, EUT V, HP



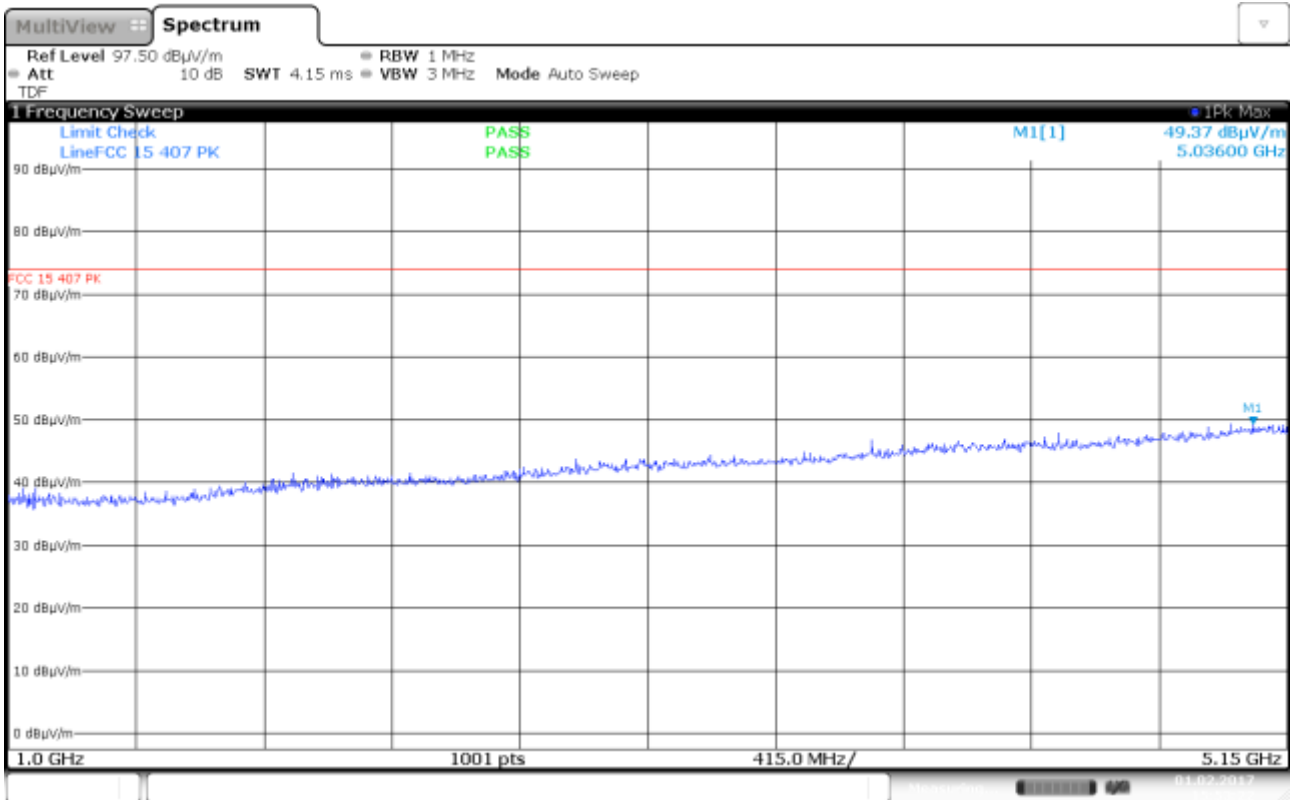
Radiated Emissions, Pk, 1.0 – 5.15 GHz, ch100, 802.11n MCS0, EUT V, VP



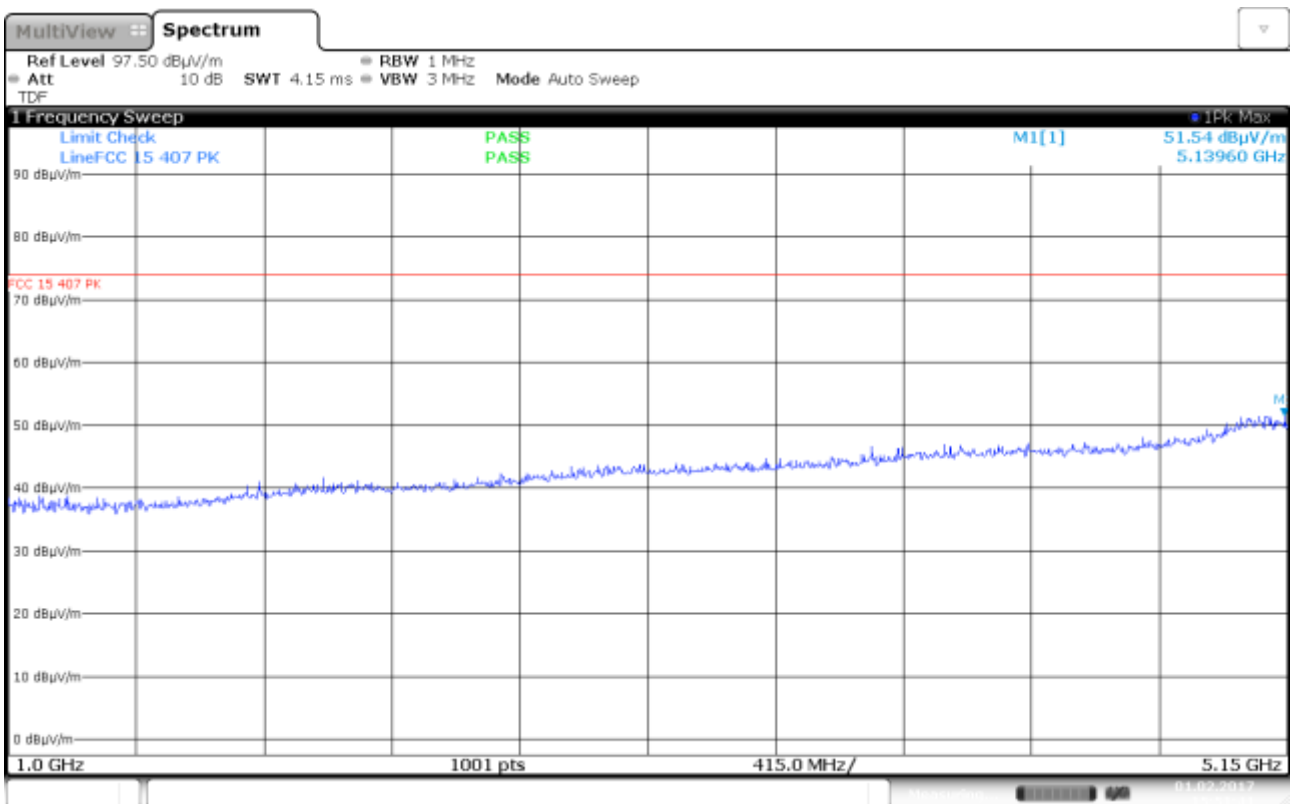
Radiated Emissions, Pk, 1.0 – 5.15 GHz, ch140, 802.11a 6M, EUT V, HP



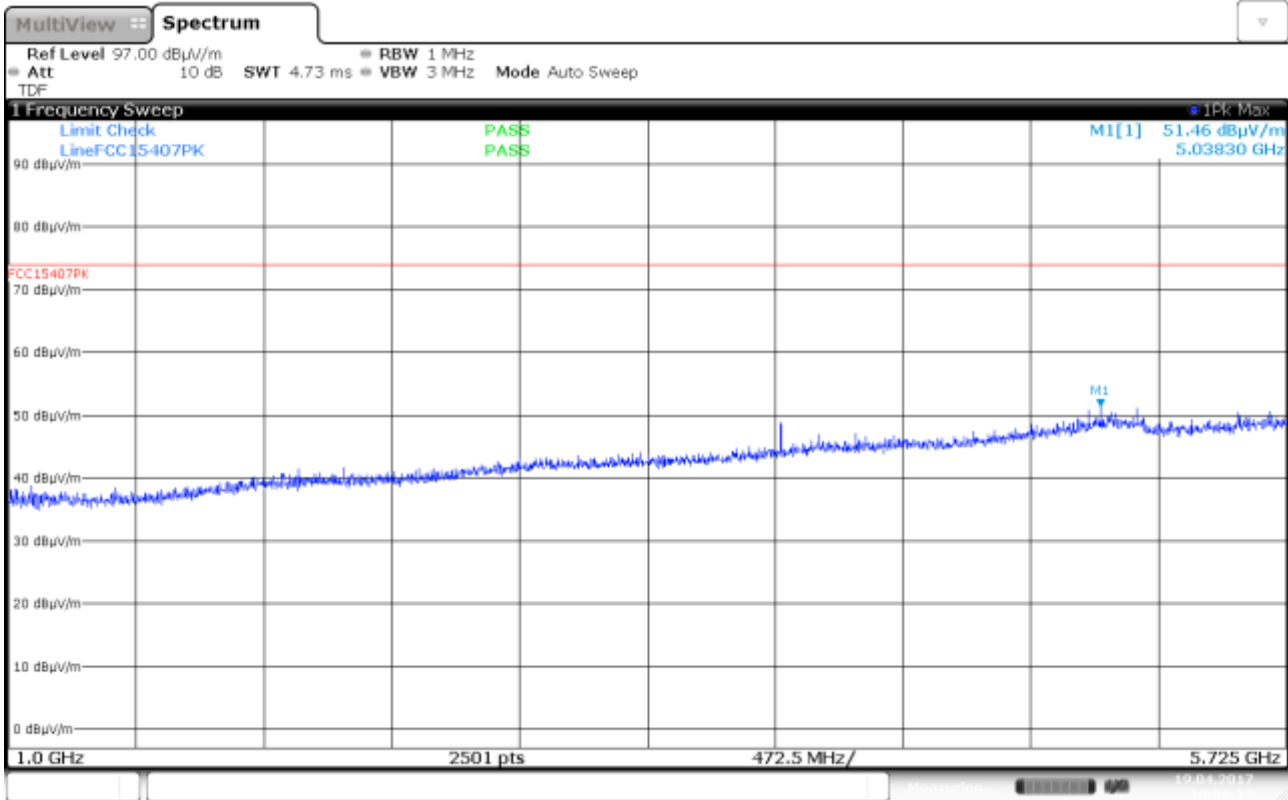
Radiated Emissions, Pk, 1.0 – 5.15 GHz, ch140, 802.11a 6M, EUT V, VP



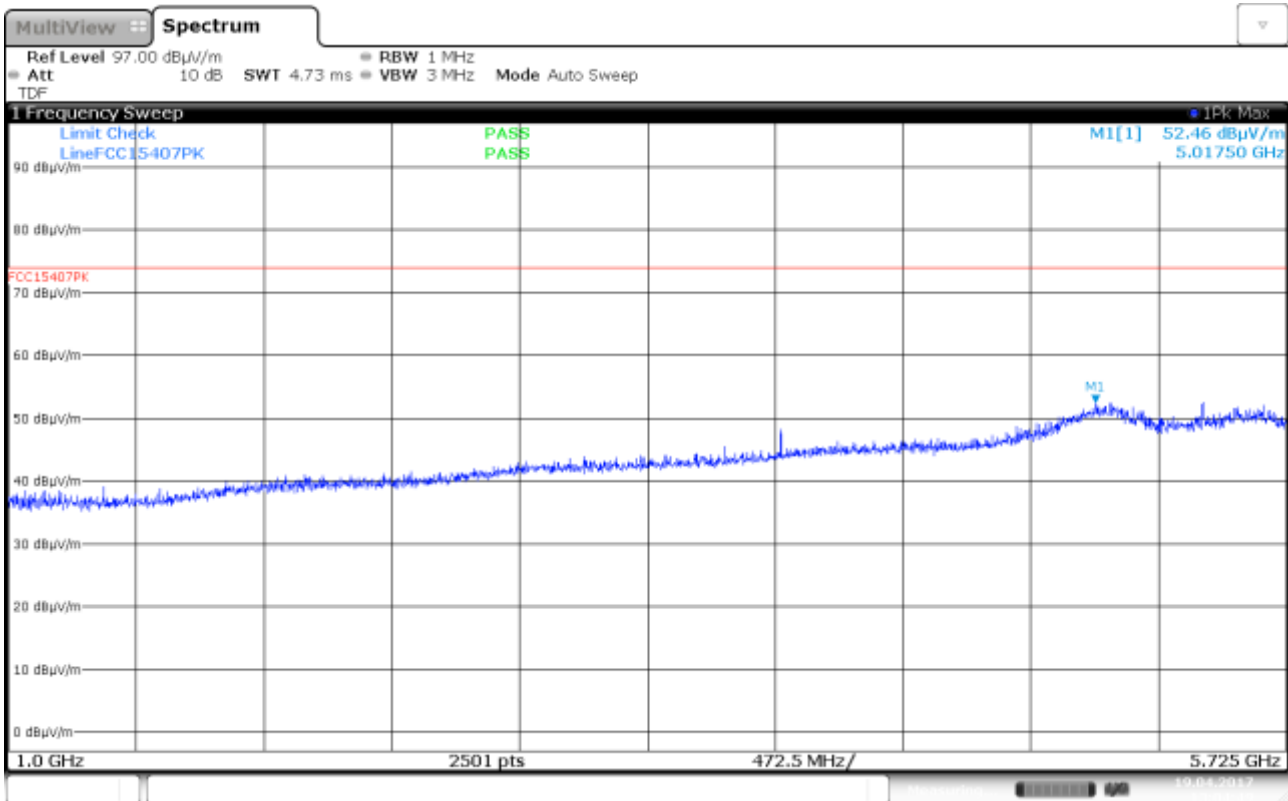
Radiated Emissions, Pk, 1.0 – 5.15 GHz, ch140, 802.11n MCS0, EUT V, HP



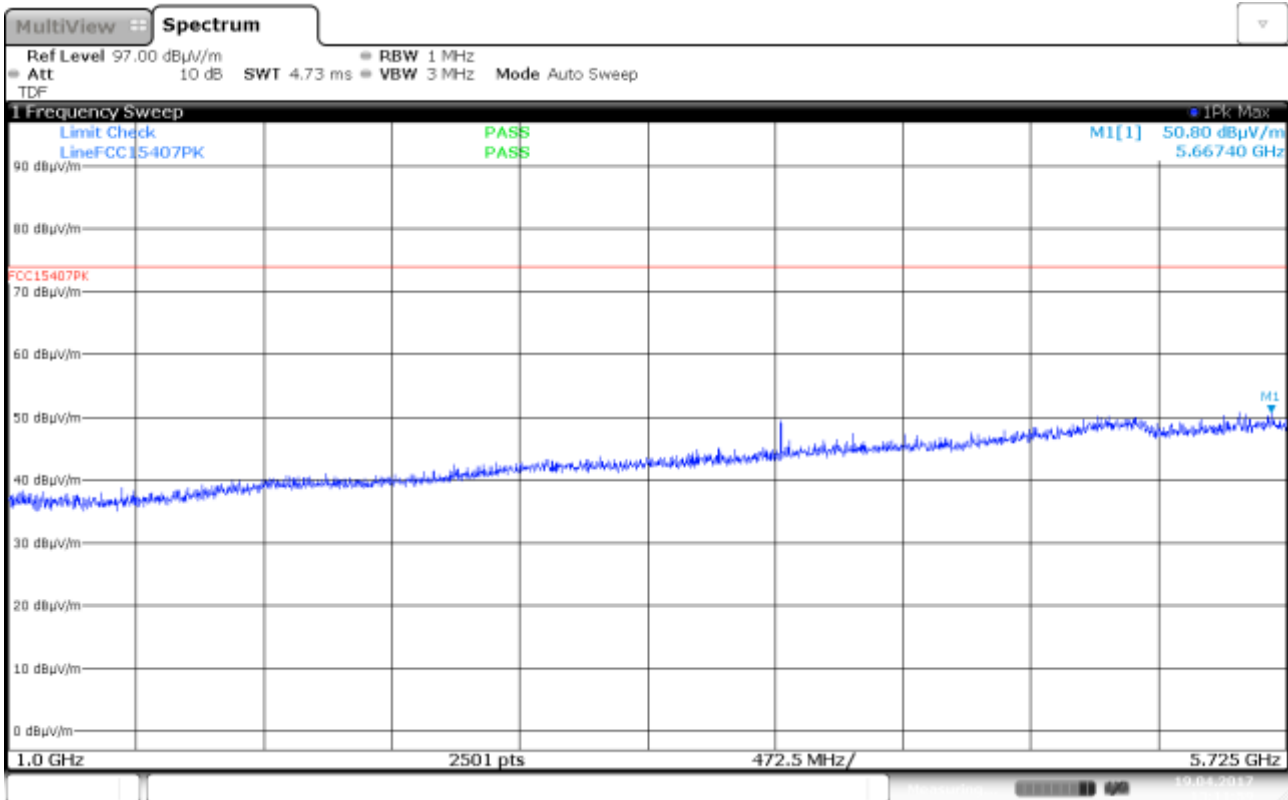
Radiated Emissions, Pk, 1.0 – 5.15 GHz, ch140, 802.11n MCS0, EUT V, VP



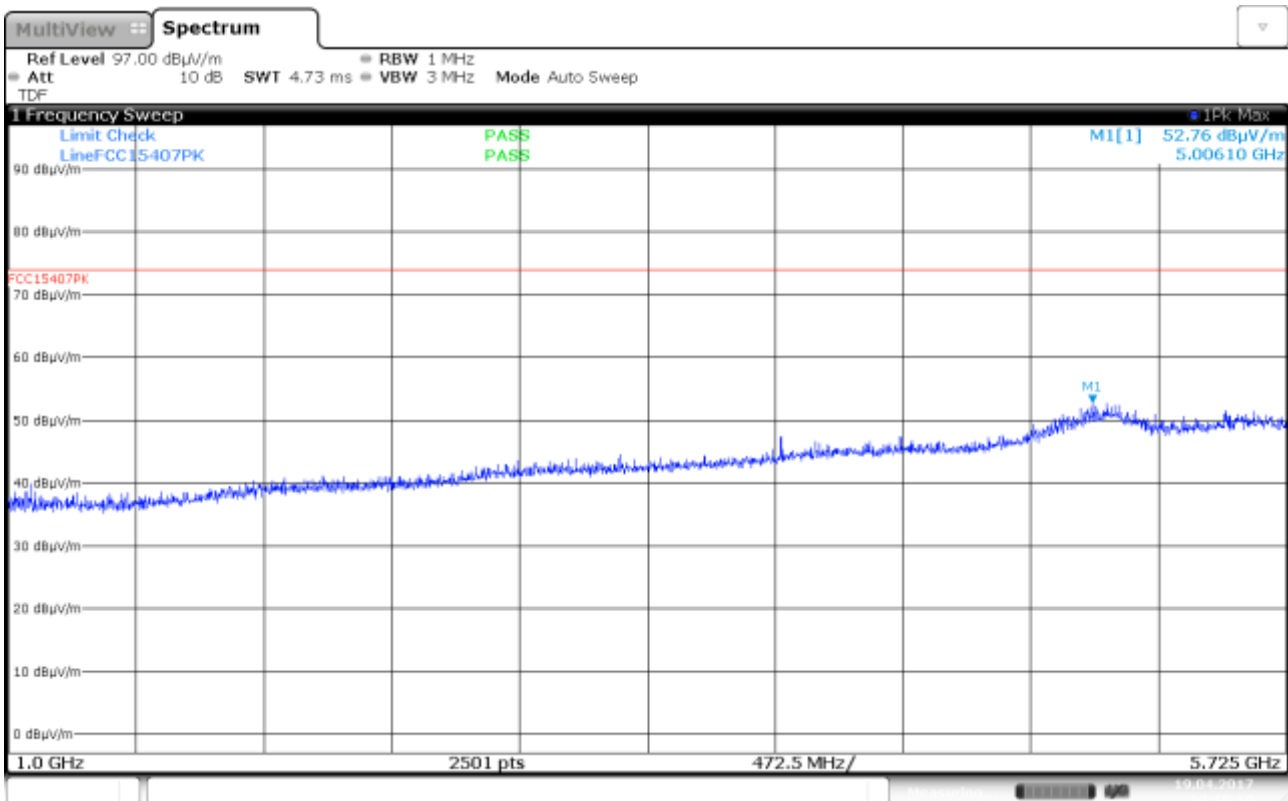
Radiated Emissions, Pk, 1.0 – 5.725 GHz, ch157, 802.11a 6M, EUT V, HP



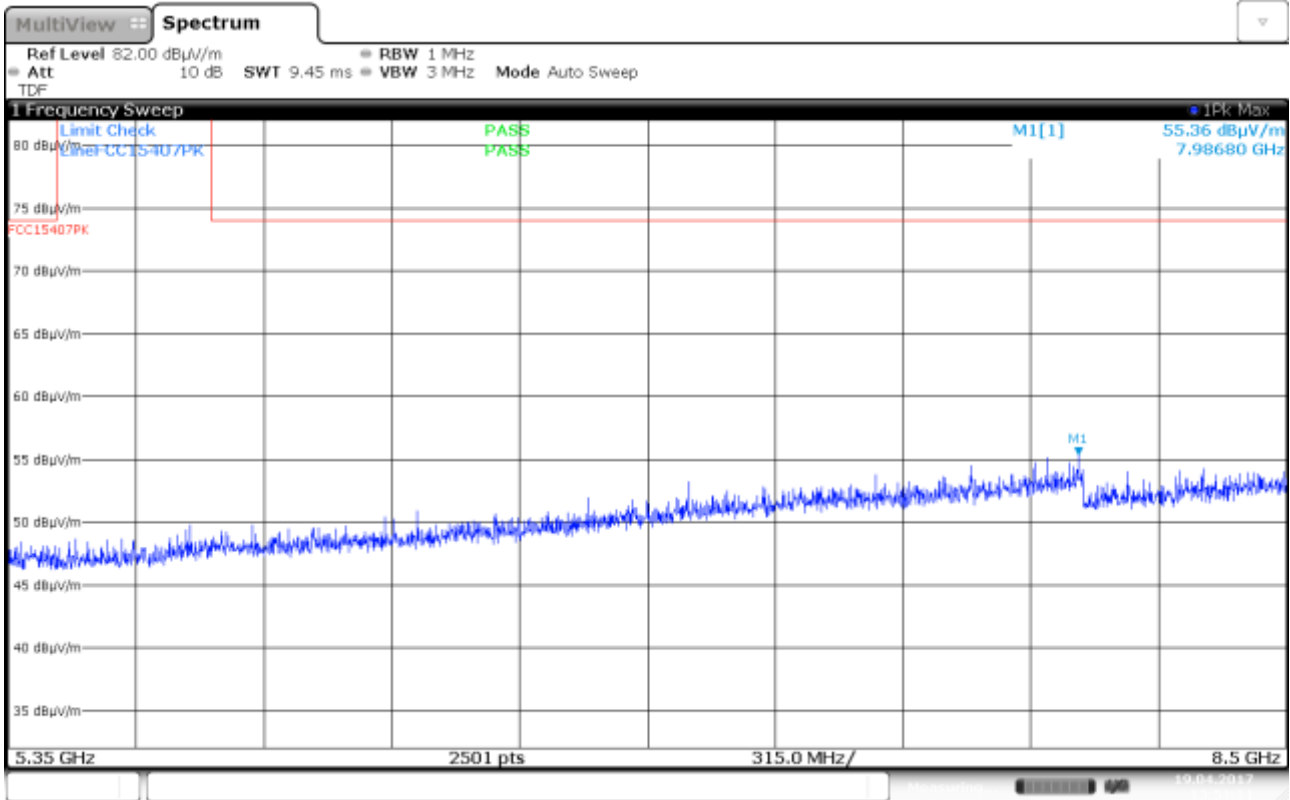
Radiated Emissions, Pk, 1.0 – 5.725 GHz, ch157, 802.11a 6M, EUT V, VP



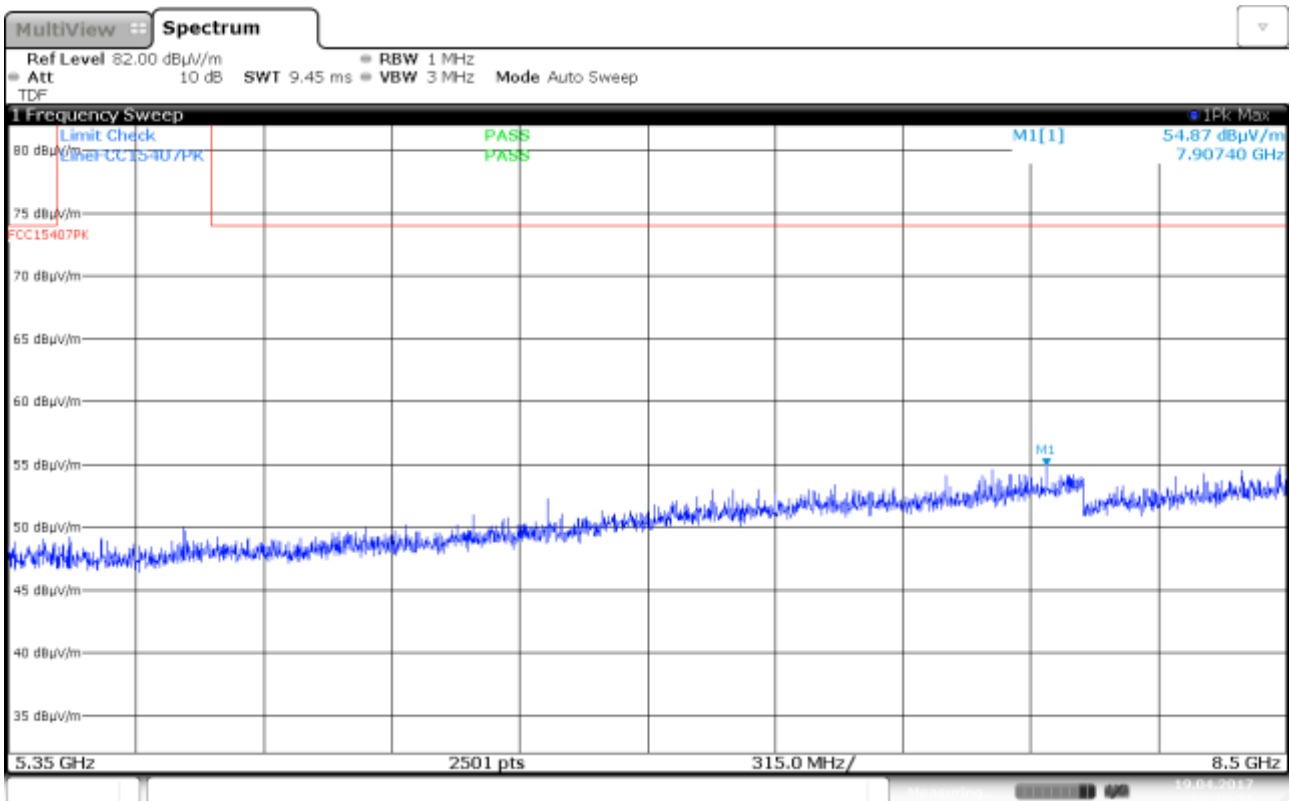
Radiated Emissions, Pk, 1.0 – 5.725 GHz, ch157, 802.11n MCS0, EUT V, HP



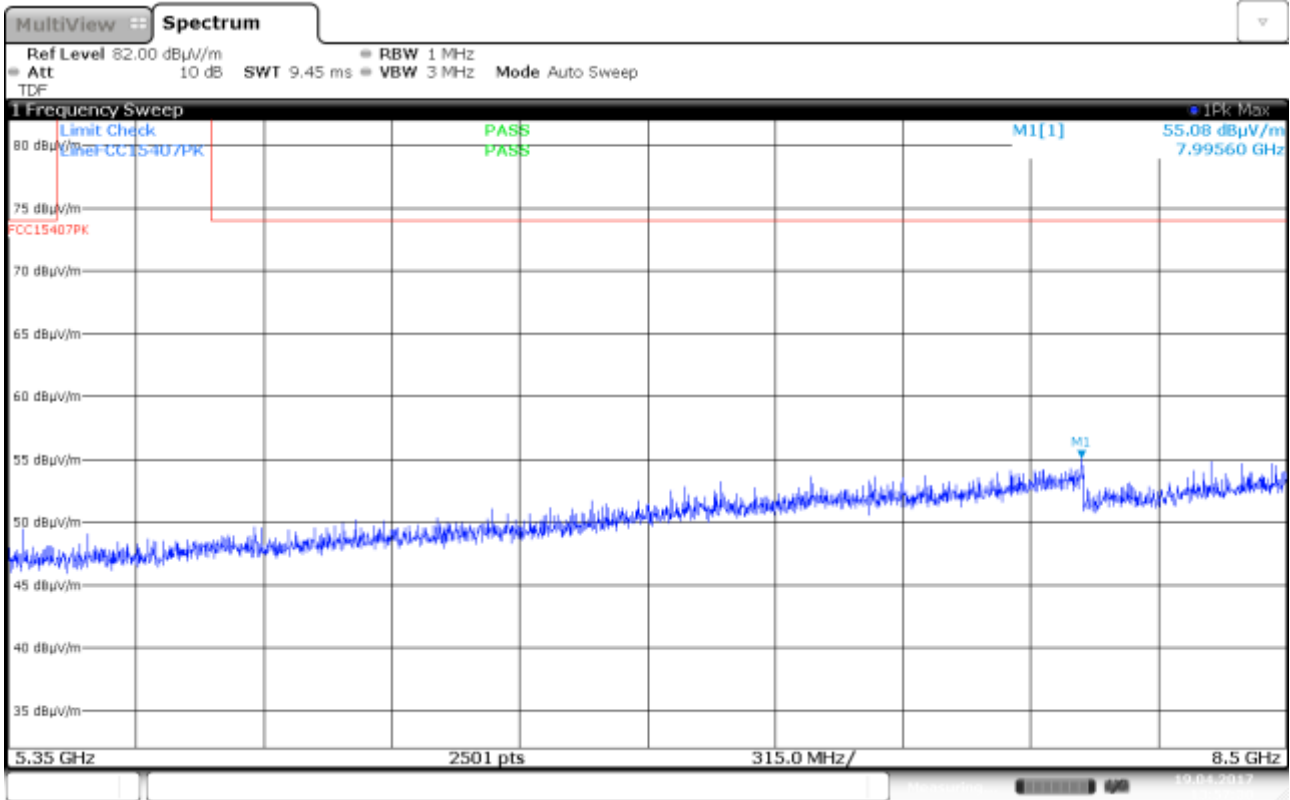
Radiated Emissions, Pk, 1.0 – 5.725 GHz, ch157, 802.11n MCS0, EUT V, VP



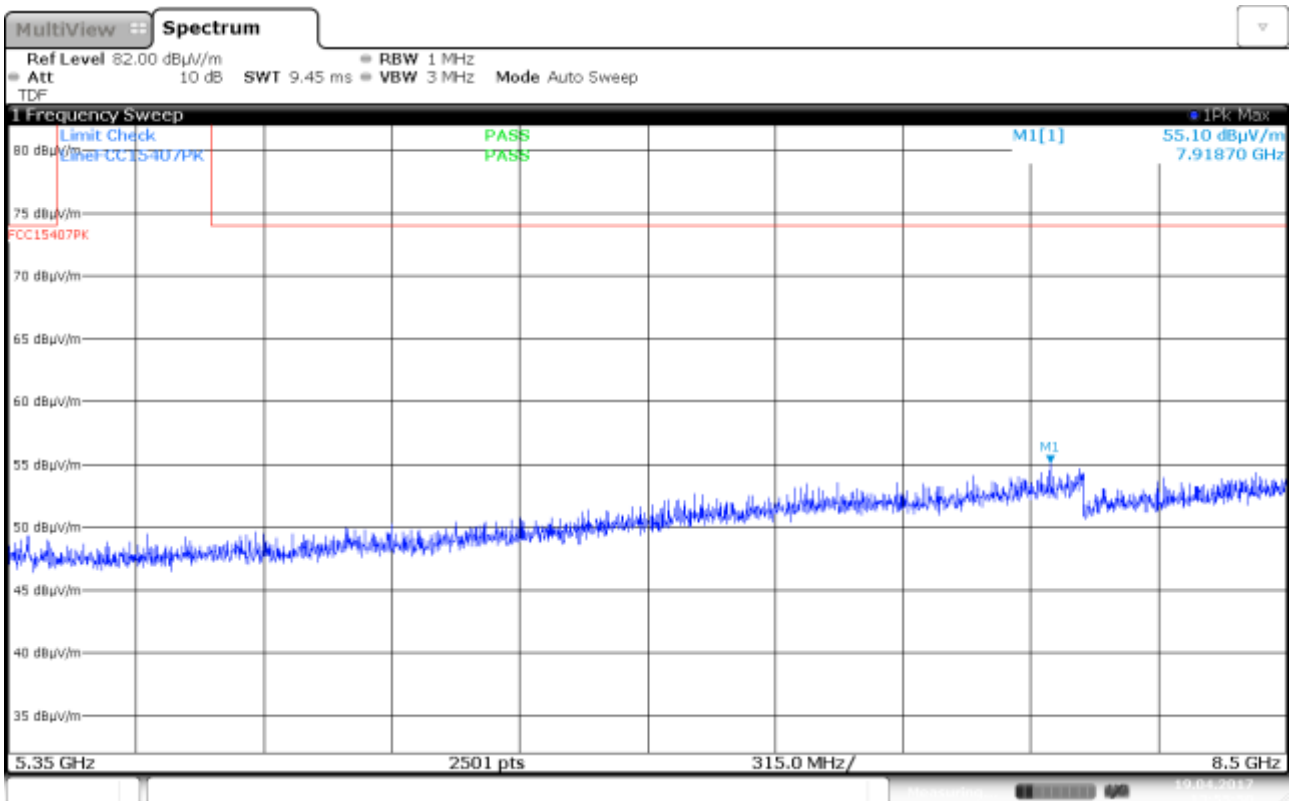
Radiated Emissions, Pk, 5.35 – 8.5 GHz, ch056, 802.11a 6M, EUT V, HP



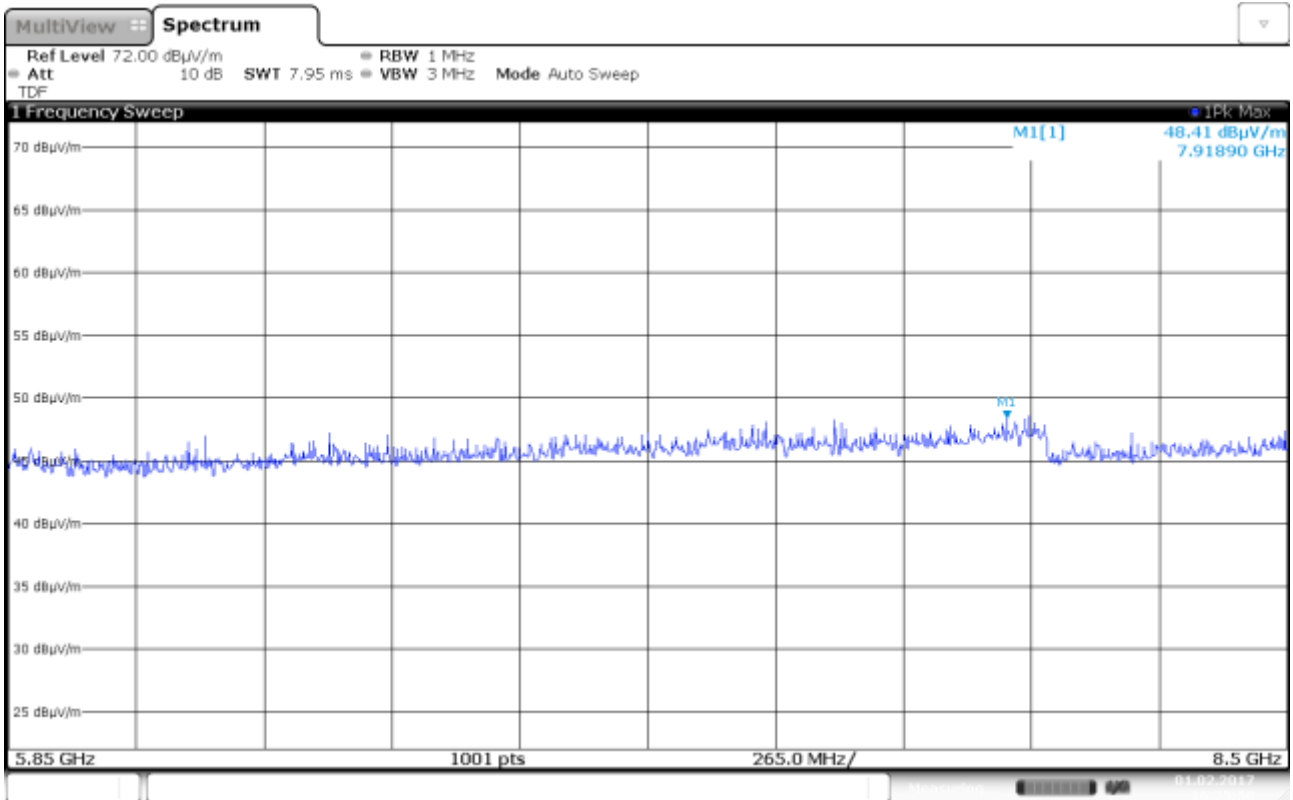
Radiated Emissions, Pk, 5.35 – 8.5 GHz, ch056, 802.11a 6M, EUT V, VP



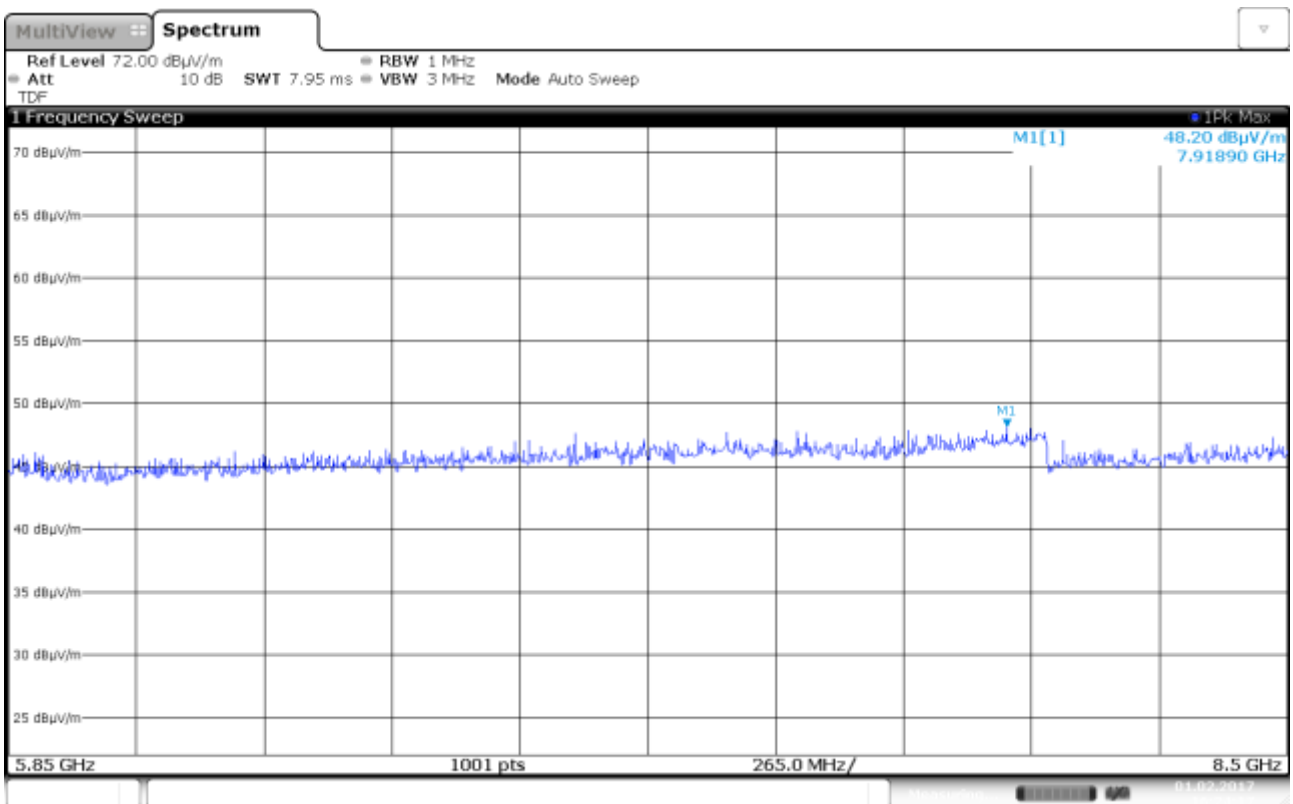
Radiated Emissions, Pk, 5.35 – 8.5 GHz, ch056, 802.11n MCS0, EUT V, HP



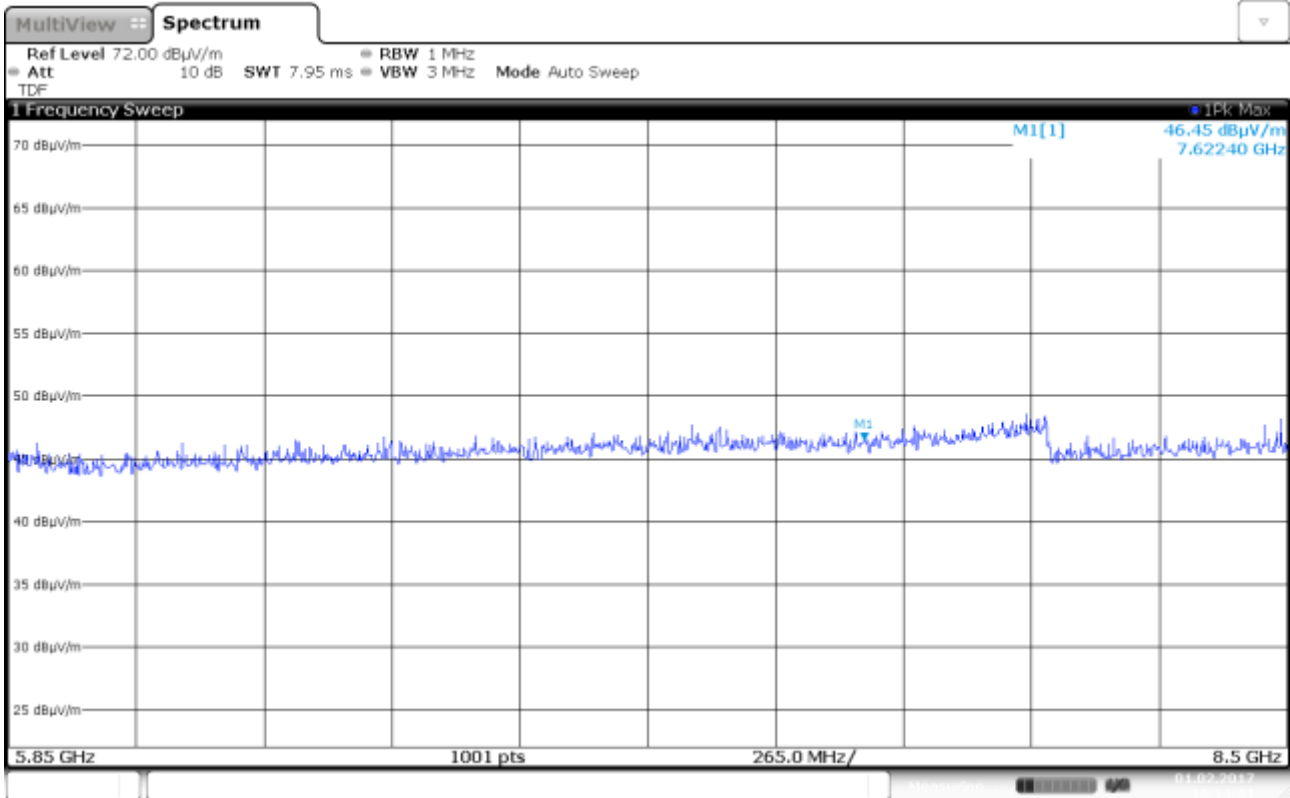
Radiated Emissions, Pk, 5.35 – 8.5 GHz, ch056, 802.11n MCS0, EUT V, VP



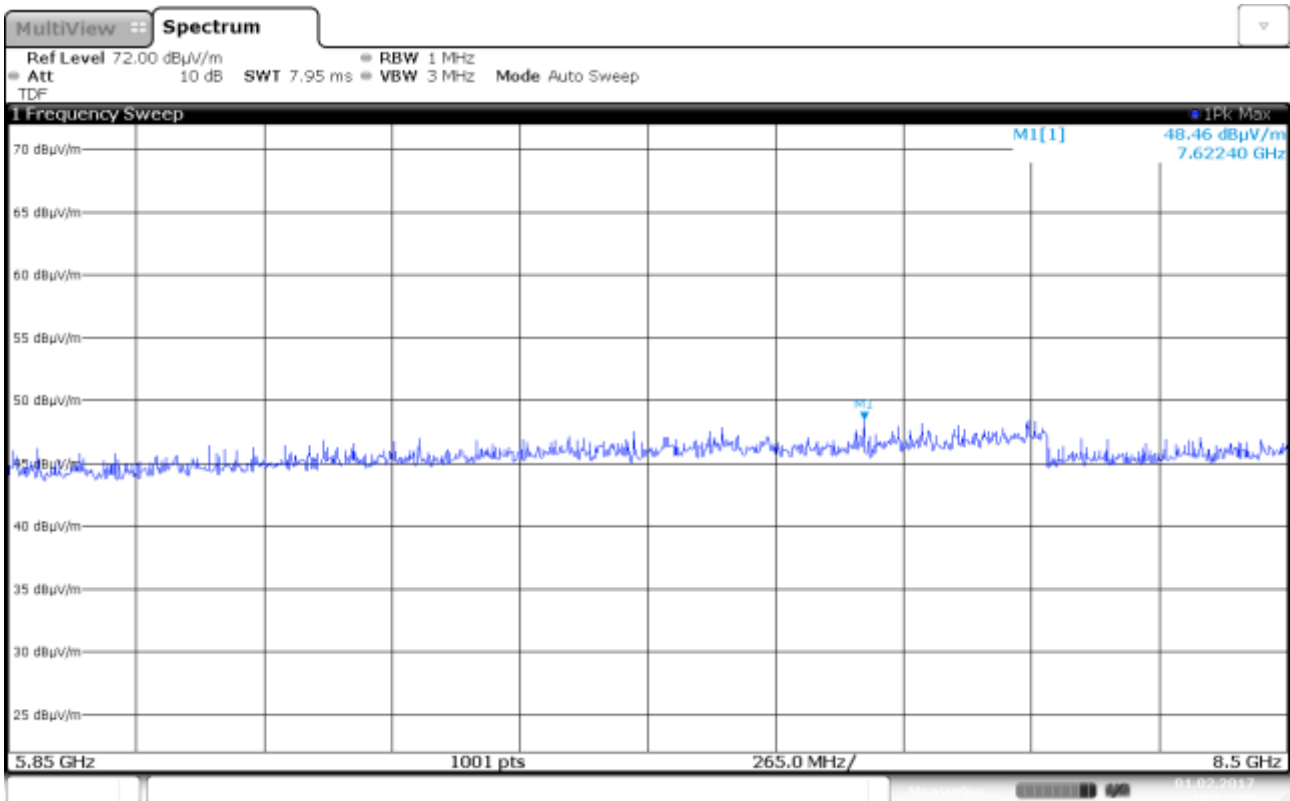
Radiated Emissions, Pk, 5.85 – 8.5 GHz, ch140, 802.11a 6M, EUT V, HP



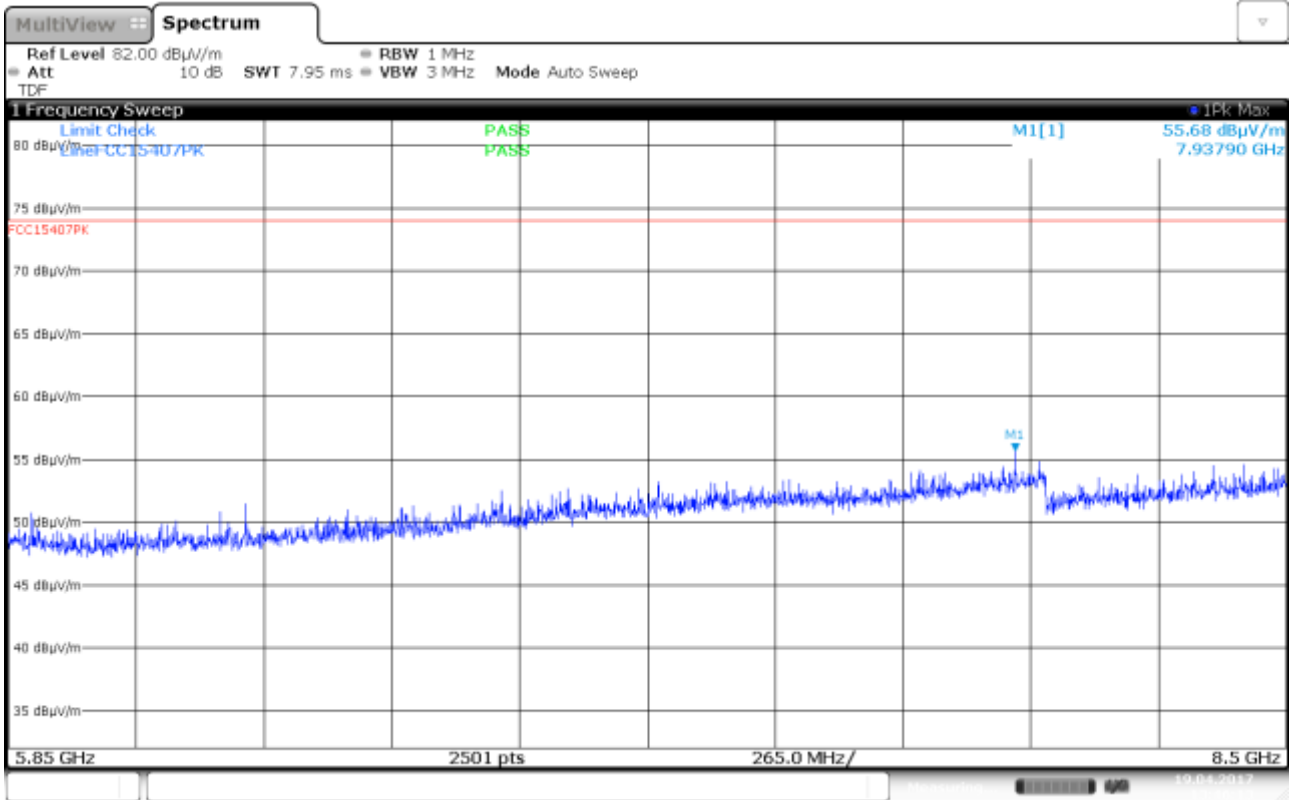
Radiated Emissions, Pk, 5.85 – 8.5 GHz, ch140, 802.11a 6M, EUT V, VP



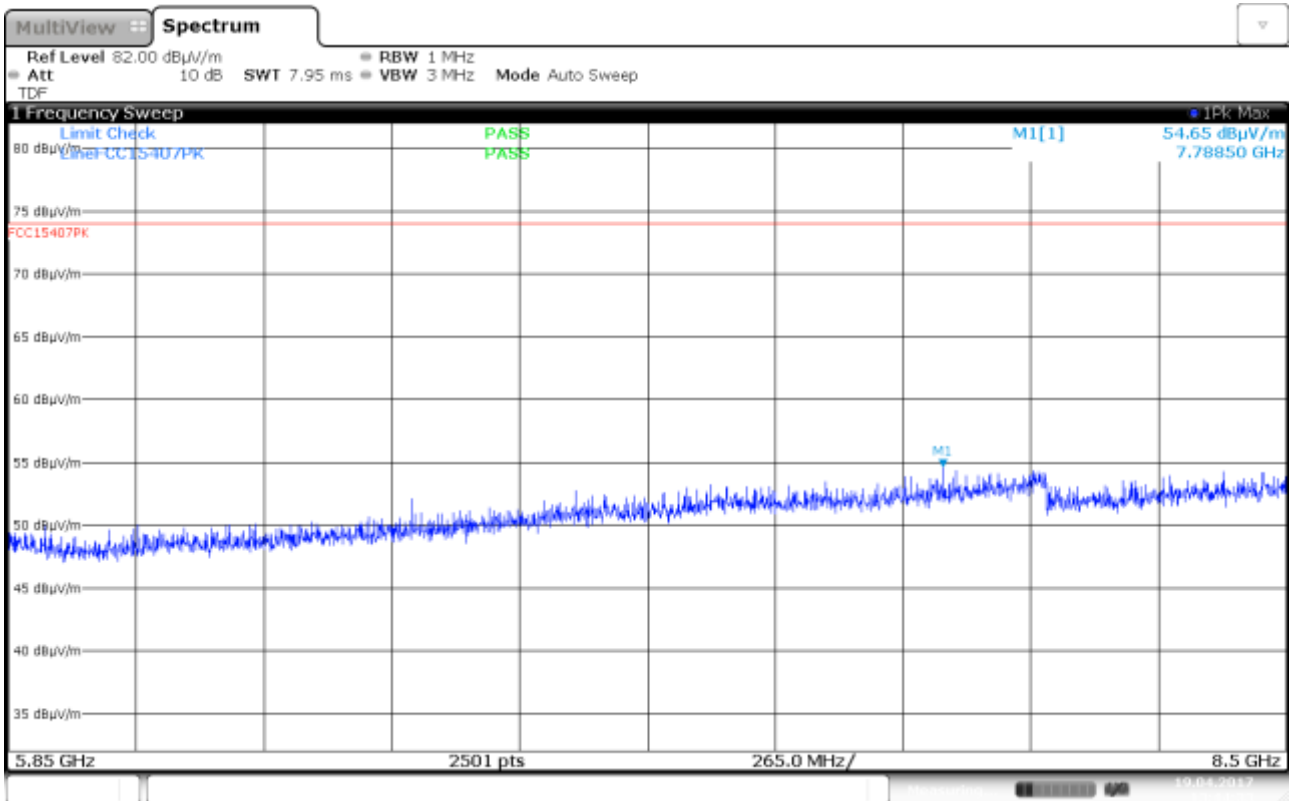
Radiated Emissions, Pk, 5.85 – 8.5 GHz, ch140, 802.11n MCS0, EUT V, HP



Radiated Emissions, Pk, 5.85 – 8.5 GHz, ch140, 802.11n MCS0, EUT V, VP



Radiated Emissions, Pk, 5.85 – 8.5 GHz, ch157, 802.11a 6M, EUT V, HP



Radiated Emissions, Pk, 5.85 – 8.5 GHz, ch157, 802.11a 6M, EUT V, VP