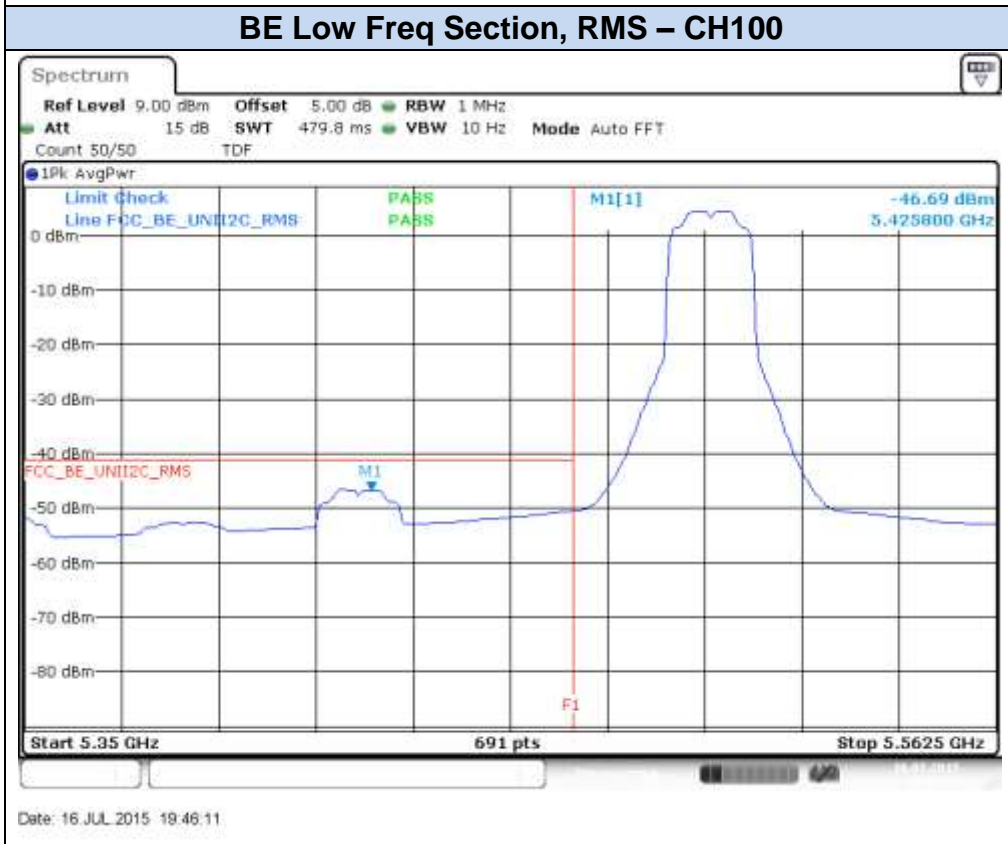
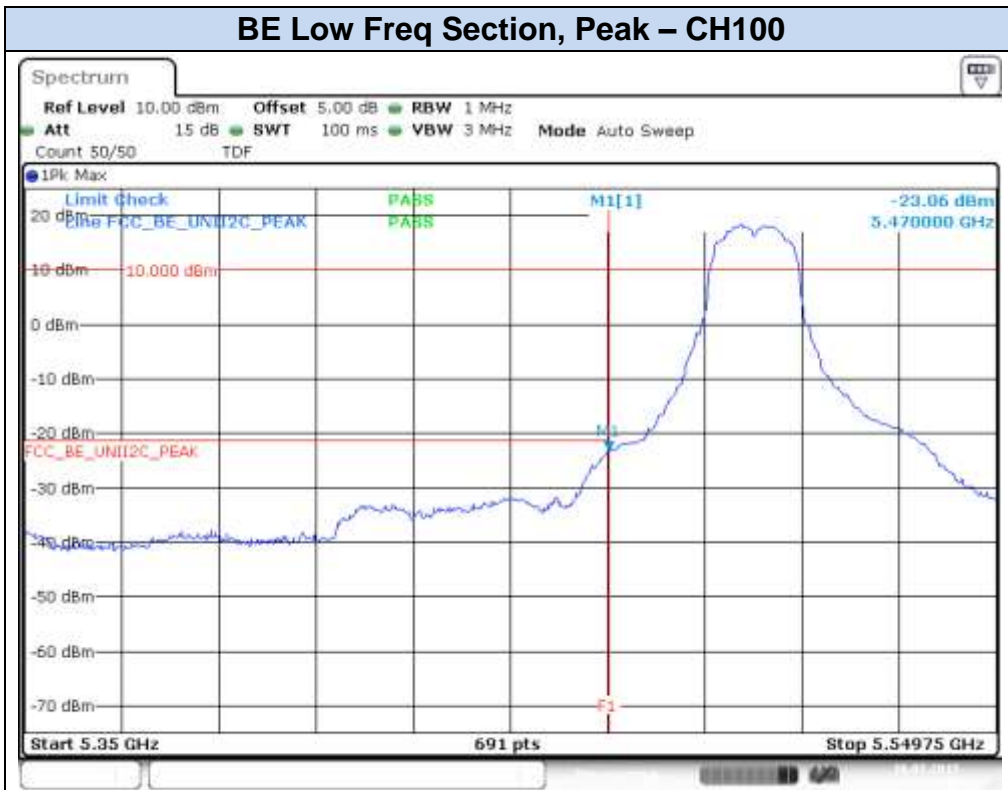
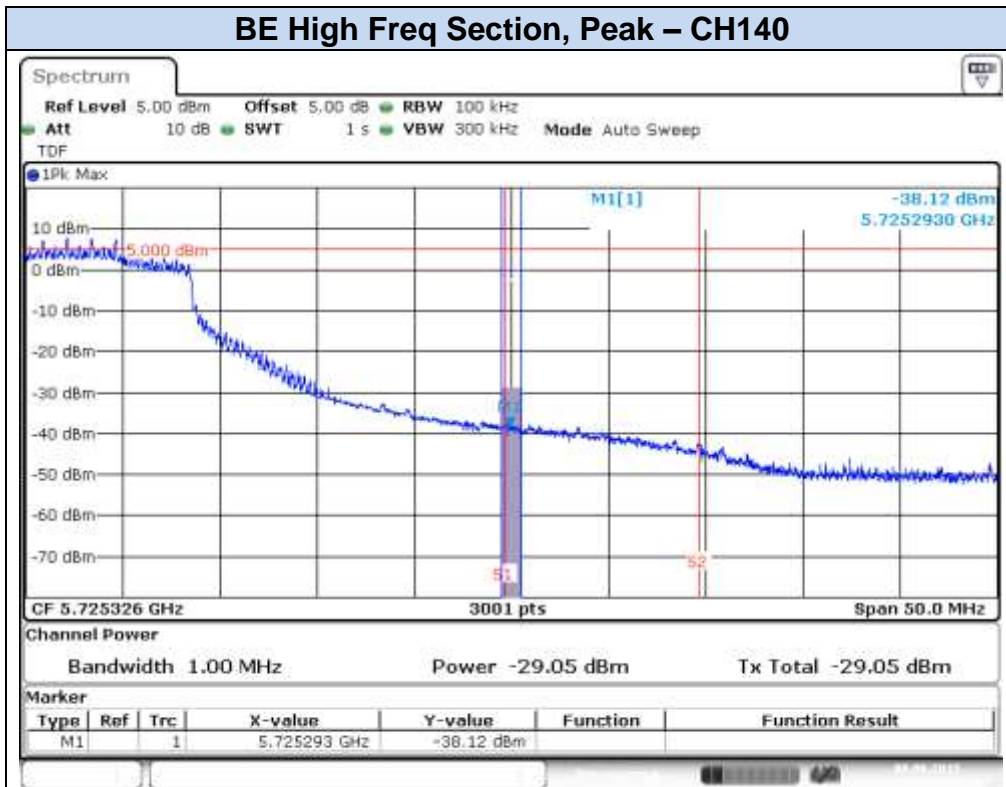
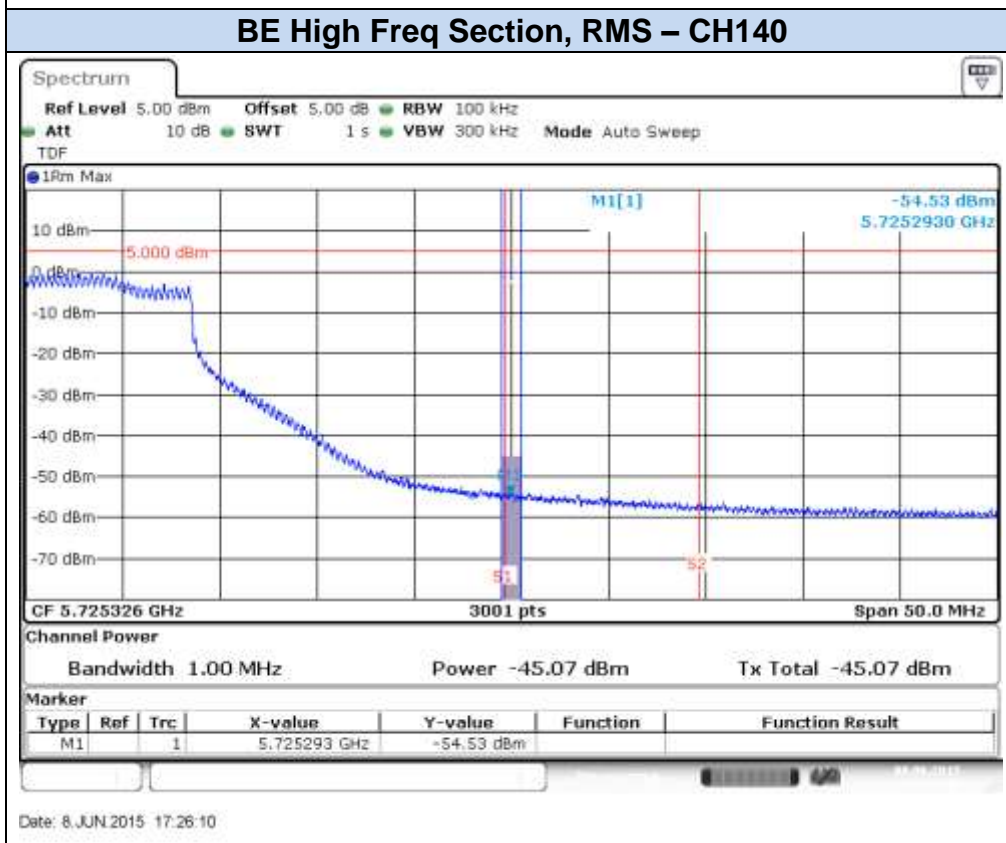


802.11n20, HT8 (MIMO) – Chain B



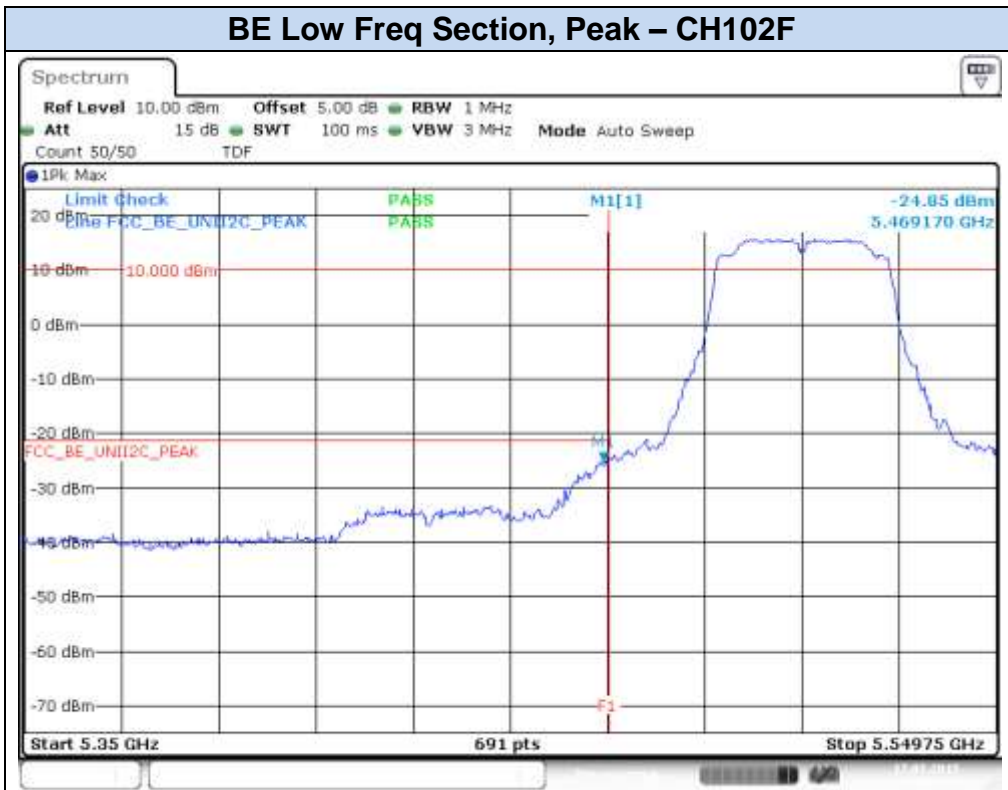


Date: 8 JUN 2015 17:27:34

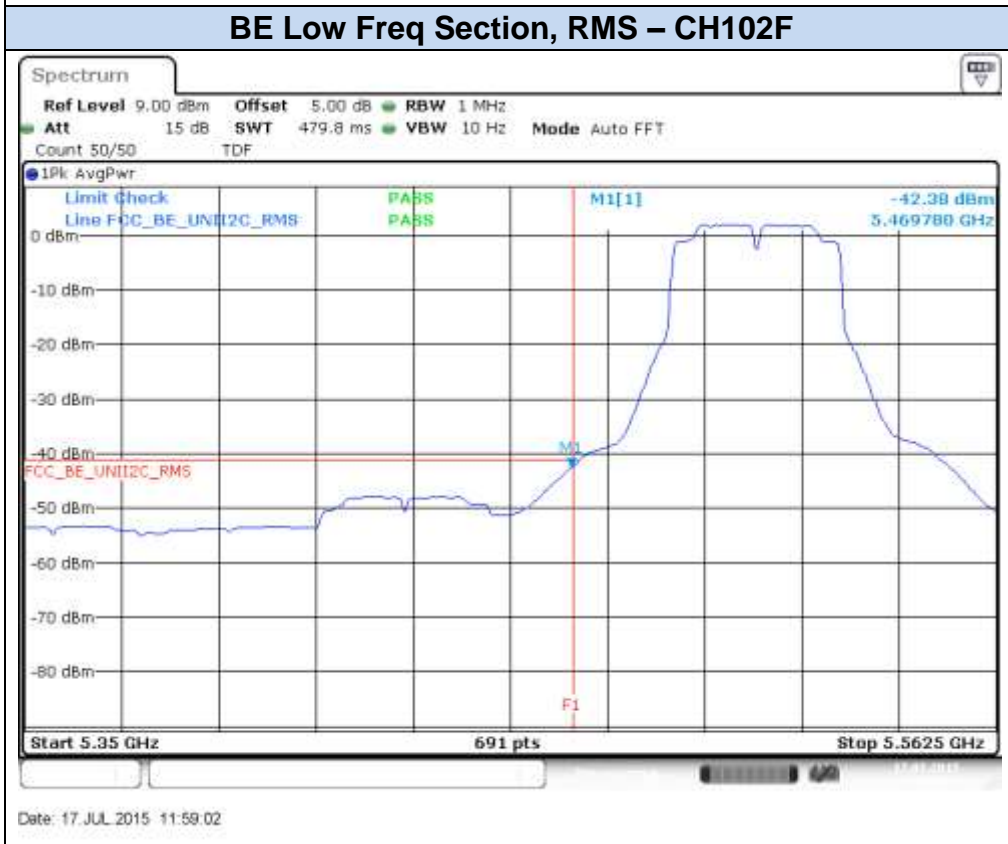


Date: 8 JUN 2015 17:26:10

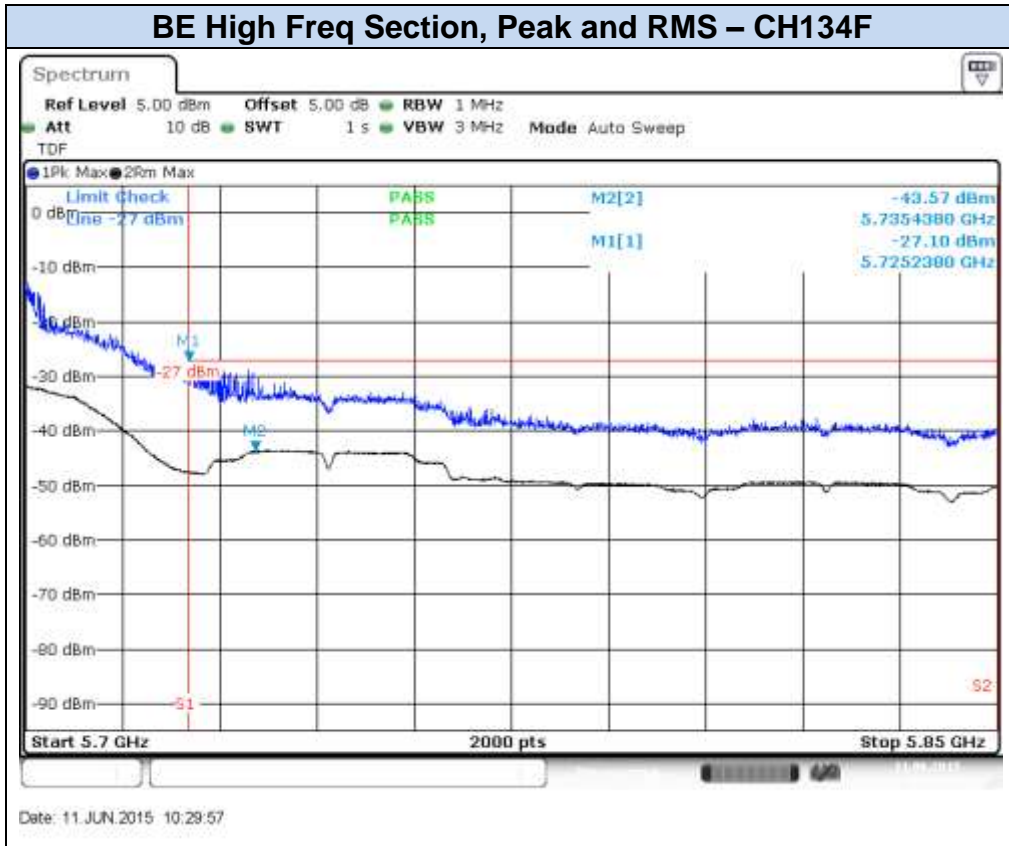
802.11n40, HT0 (SISO) – Chain A

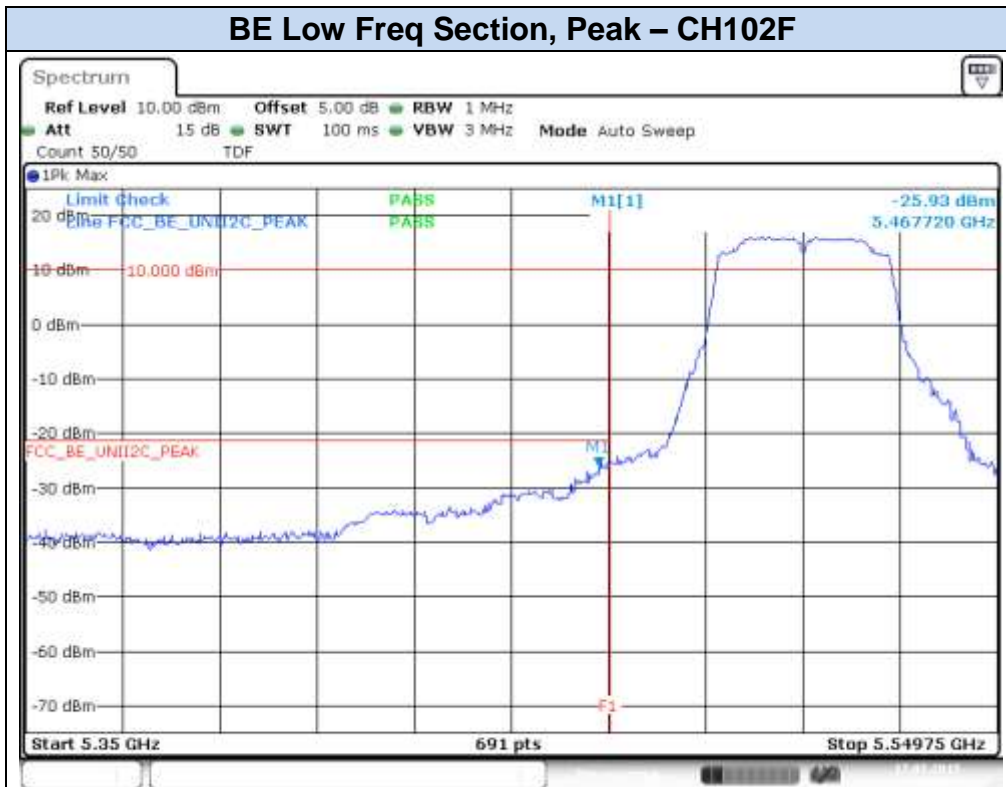


Date: 17 JUL 2015 12:01:03



Date: 17 JUL 2015 11:59:02

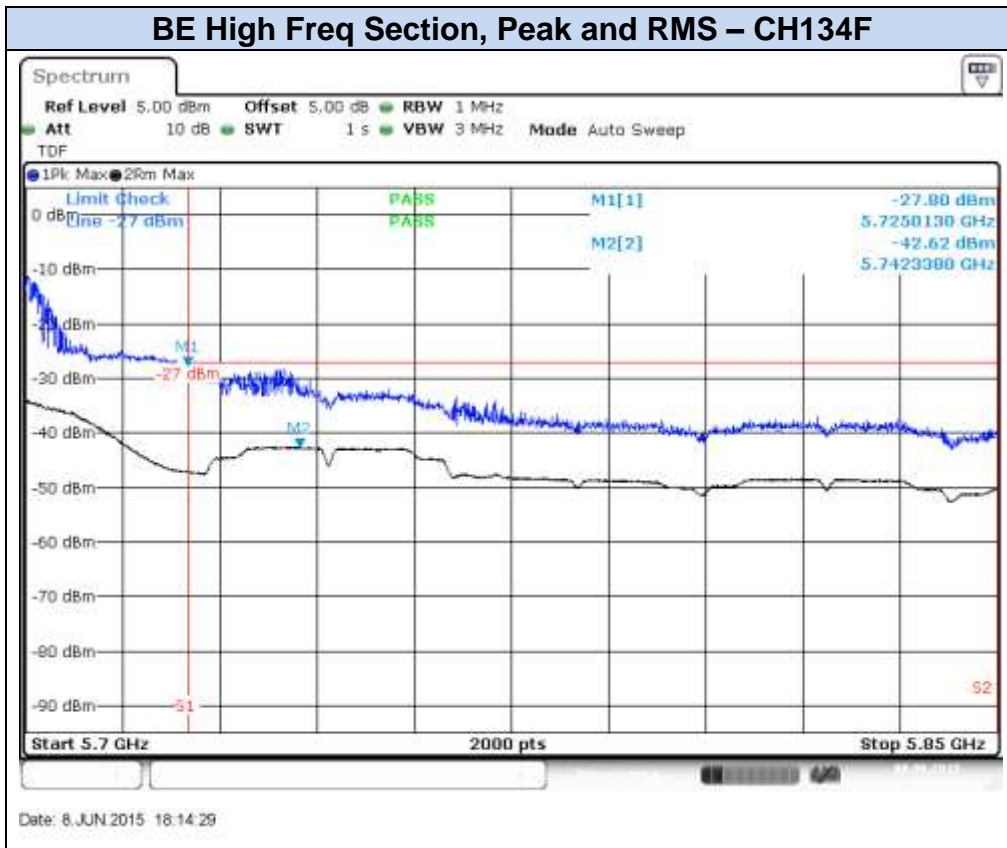


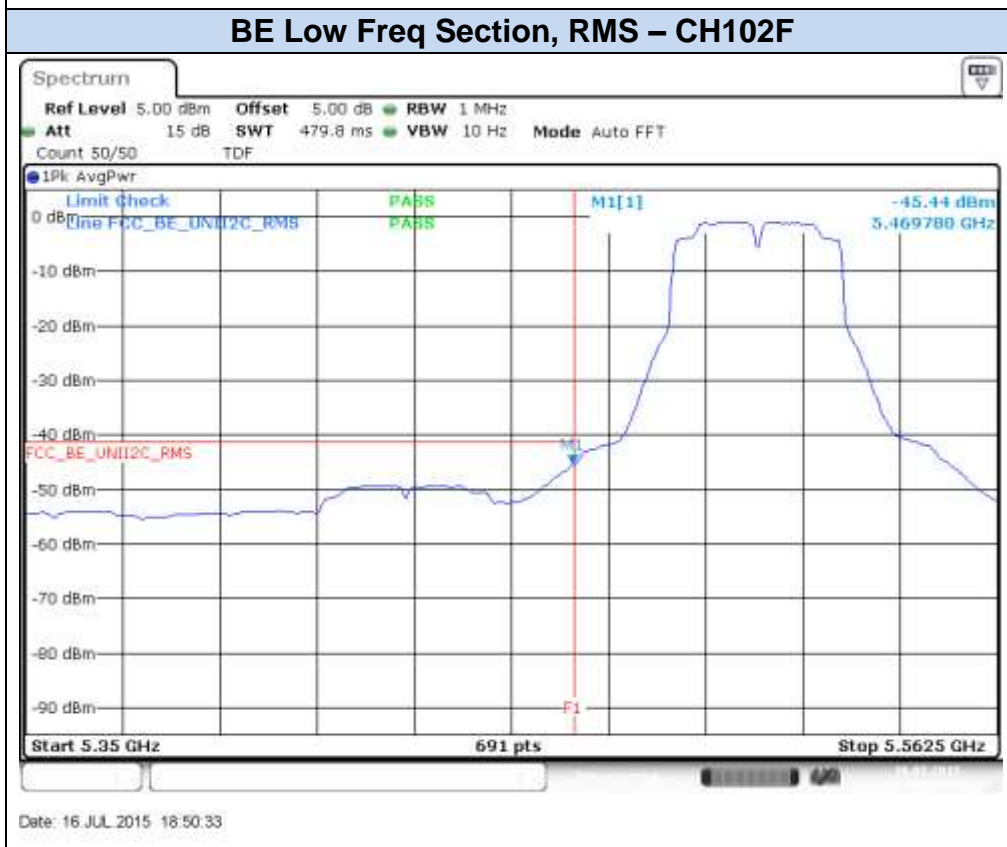
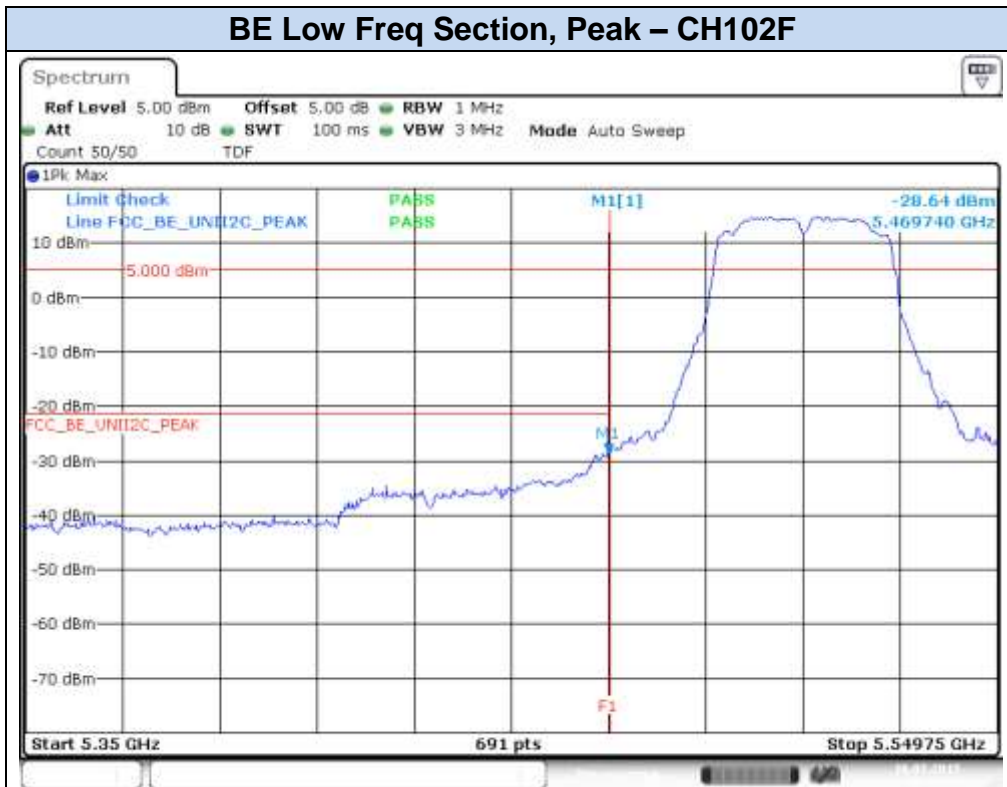
802.11n40, HT0 (SISO) – Chain B**BE Low Freq Section, Peak – CH102F**

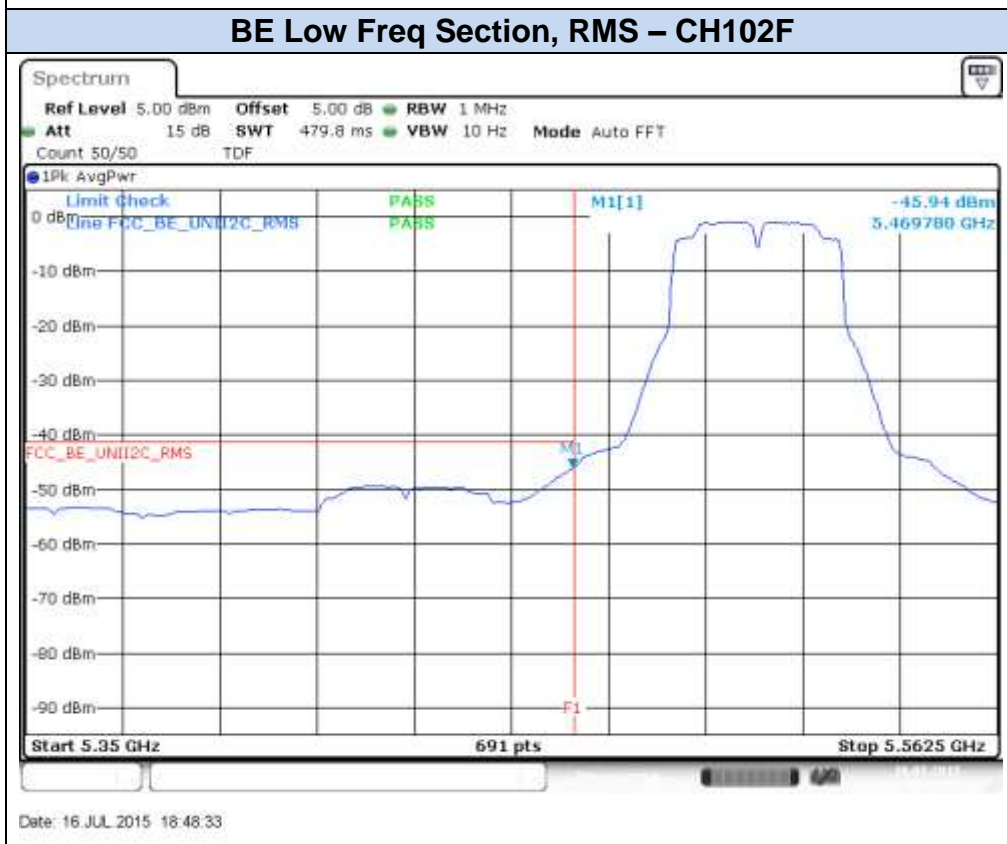
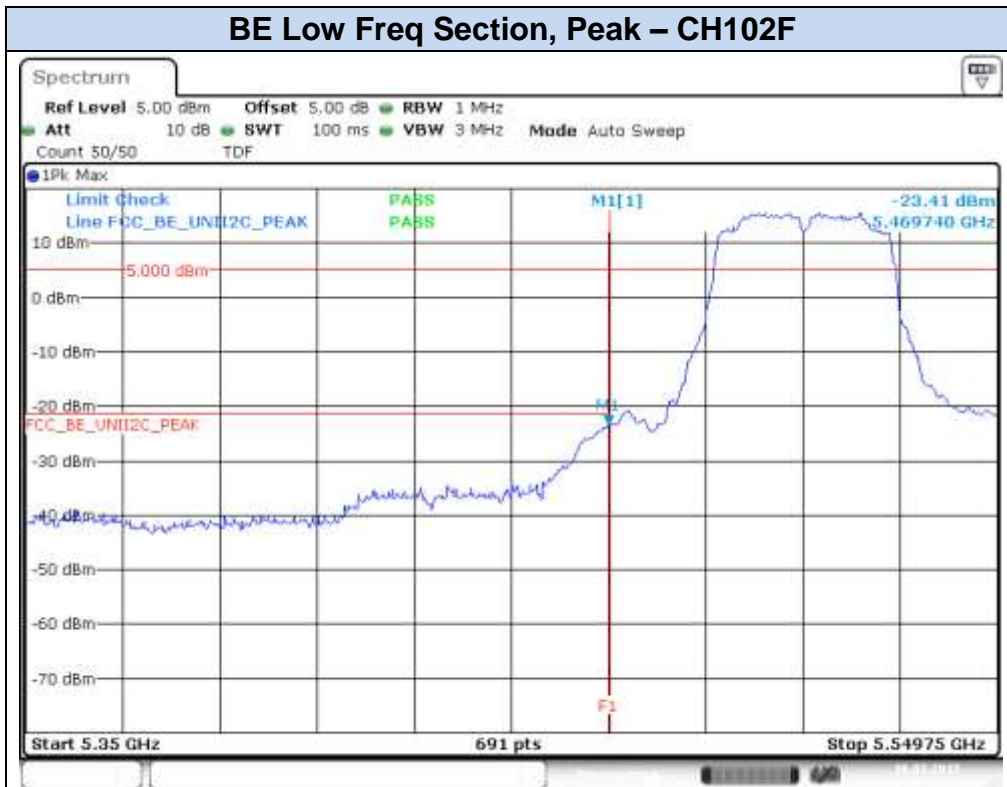
Date: 17 JUL 2015 11:54:03

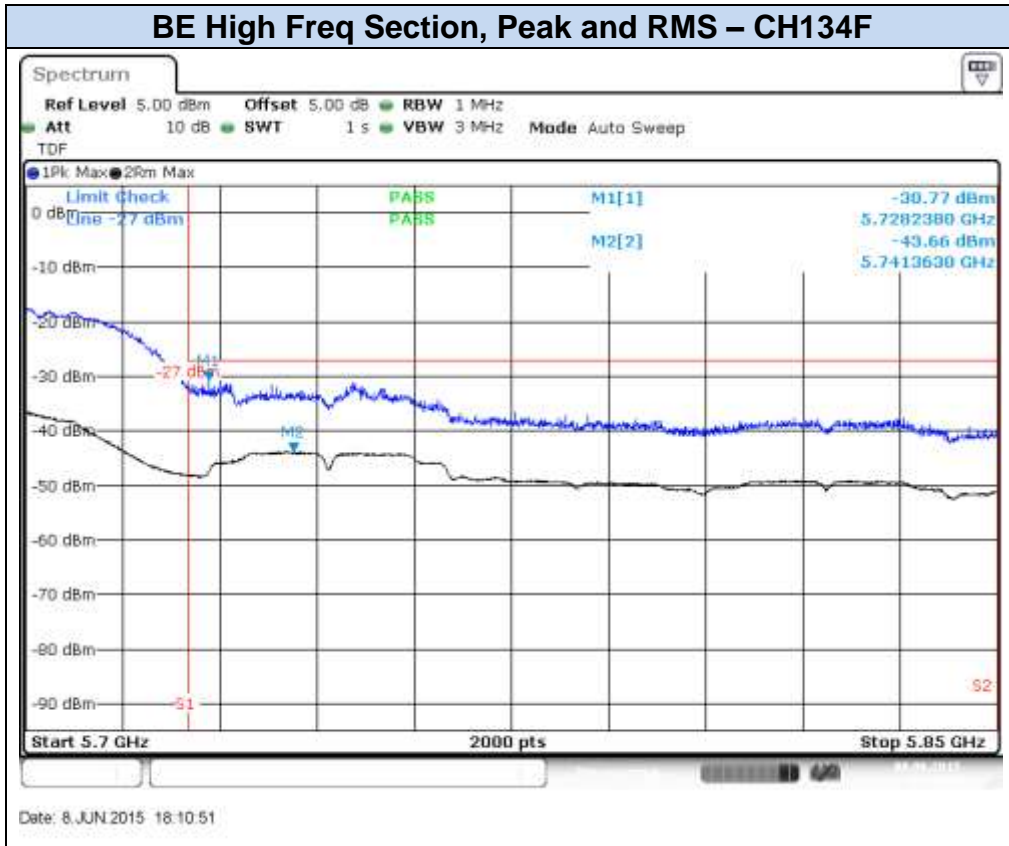
BE Low Freq Section, RMS – CH102F

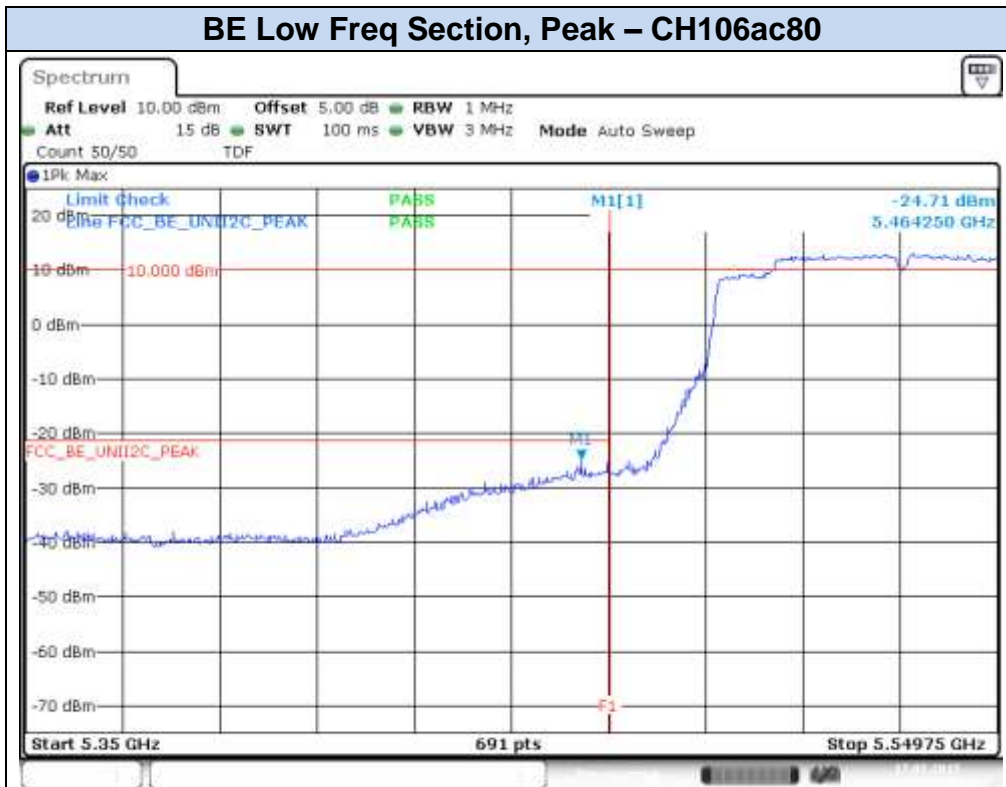
Date: 17 JUL 2015 11:51:51



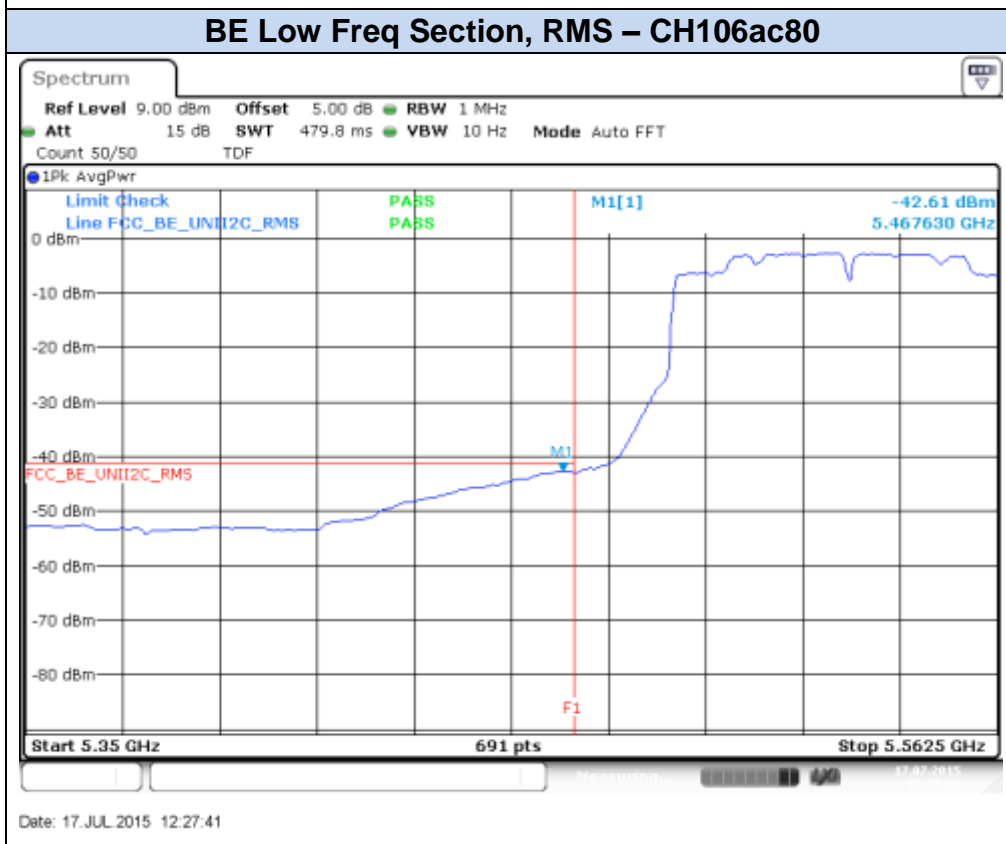
802.11n40, HT8 (MIMO) – Chain A

802.11n40, HT8 (MIMO) – Chain B

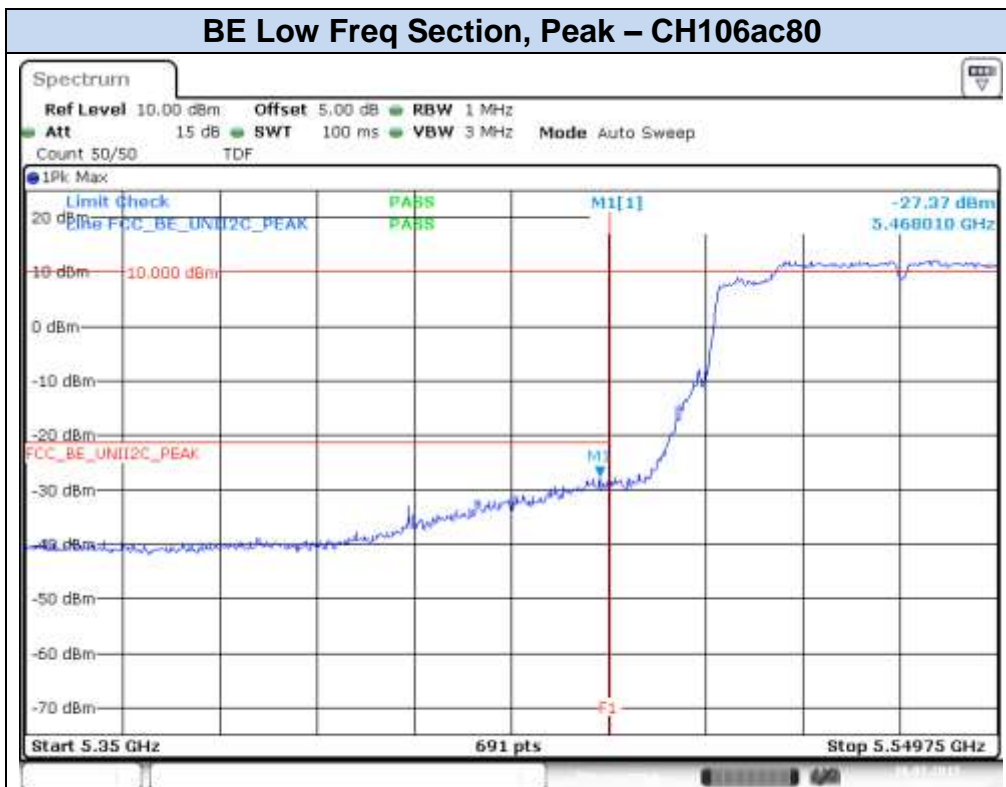


802.11ac80, VHT0 (SISO) – Chain B

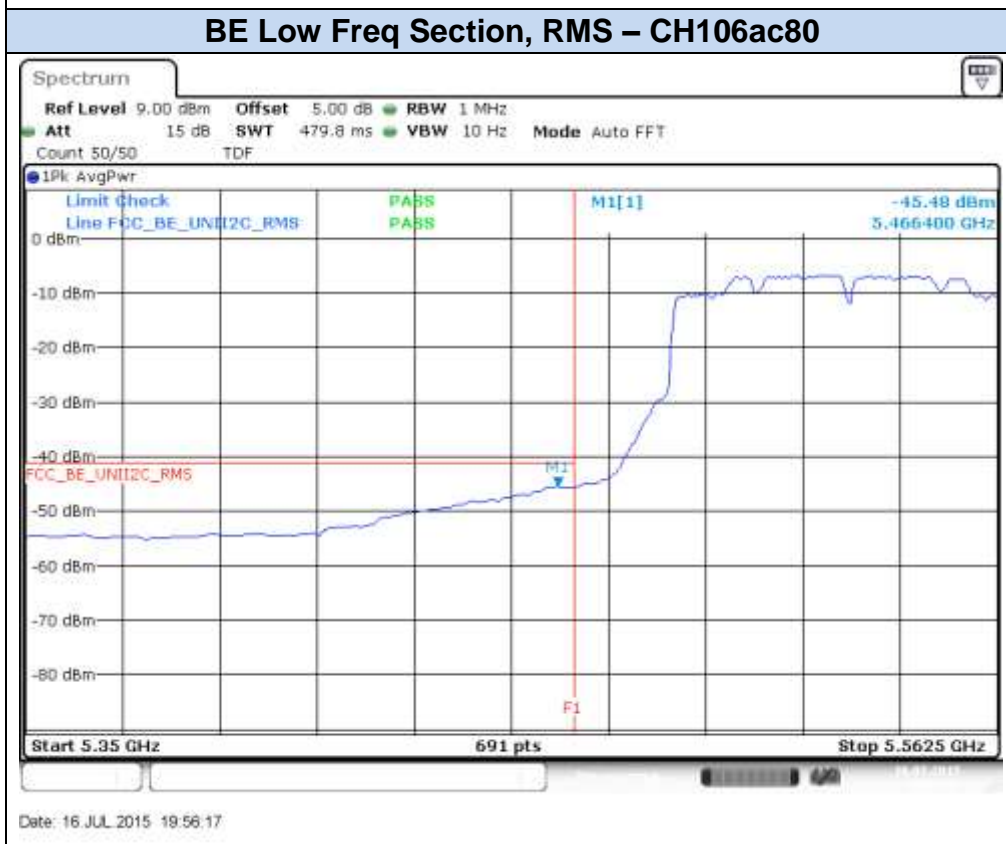
Date: 17 JUL 2015 12:28:40



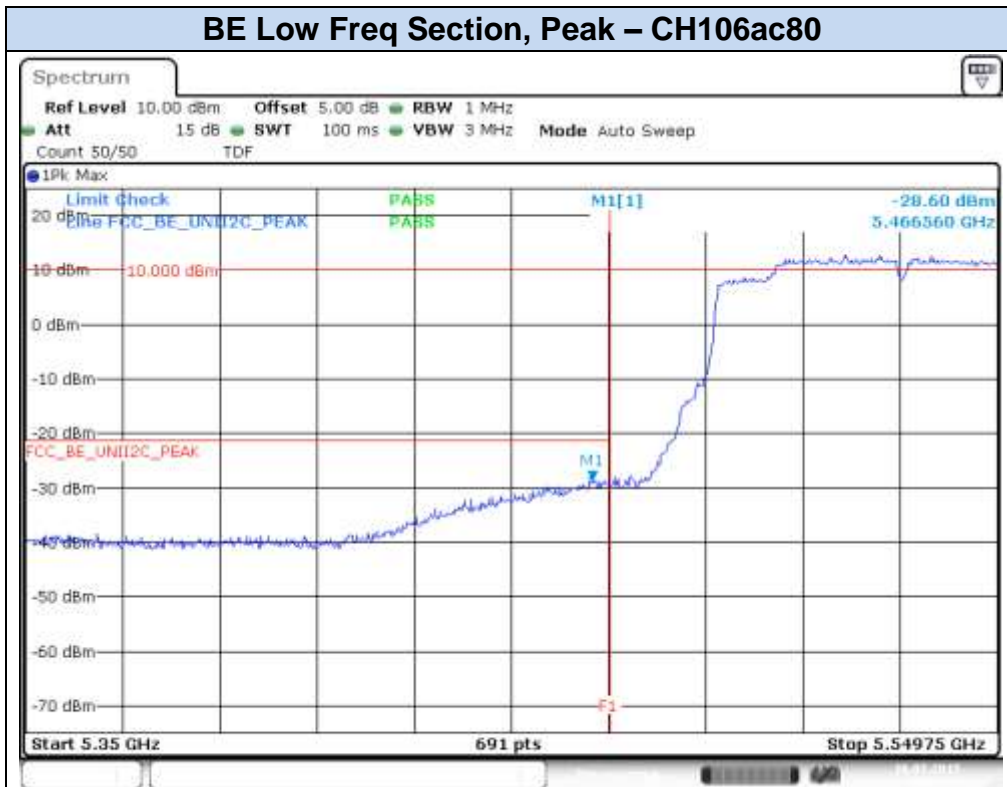
Date: 17 JUL 2015 12:27:41

802.11ac80, VHT0 (MIMO)- Chain A

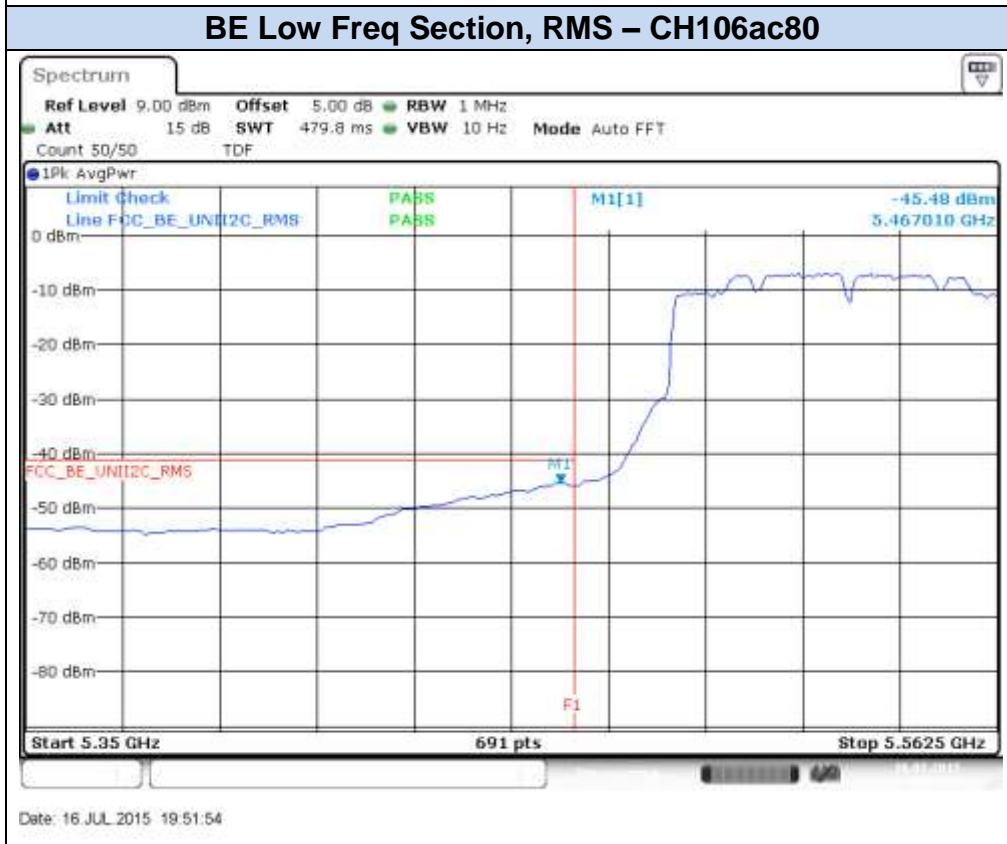
Date: 16 JUL 2015 19:53:59



Date: 16 JUL 2015 19:56:17

802.11ac80, VHT0 (MIMO)- Chain B

Date: 16 JUL 2015 19:52:53



Date: 16 JUL 2015 19:51:54

C.4 Radiated spurious emission

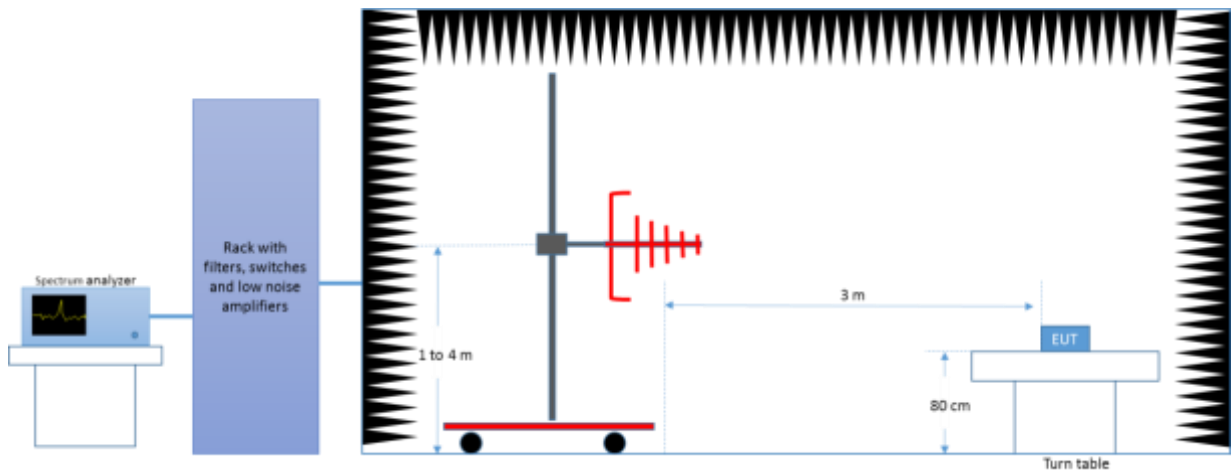
Standard references:

FCC part	RSS part	Limits			
15.407 (b) (3) 15.209	RSS-247 Clause 6.2.3 (2)	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):			
		Freq Range (MHz)	Field Strength (μV/m)	Field Strength (dBμV/m)	Meas. Distance (m)
		0.009-0.490	2400/f(kHz)	-	300
		0.490-1.705	24000/f(kHz)	-	300
		1.705-30.0	30	-	30
		30-88	100	40	3
		88-216	150	43.5	3
		216-960	200	46	3
		960-25000	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.			

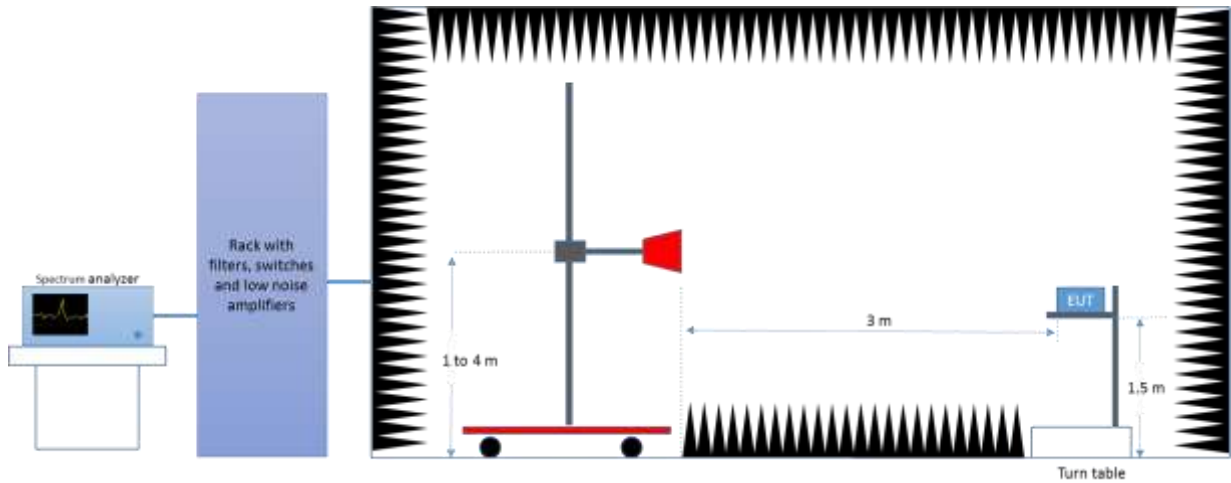
Test procedure:

The 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 from 1 to 4 meters, 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 C.2 Power Limits. Maximum Output power & Peak power spectral density and using the lowest, middle and highest channels.

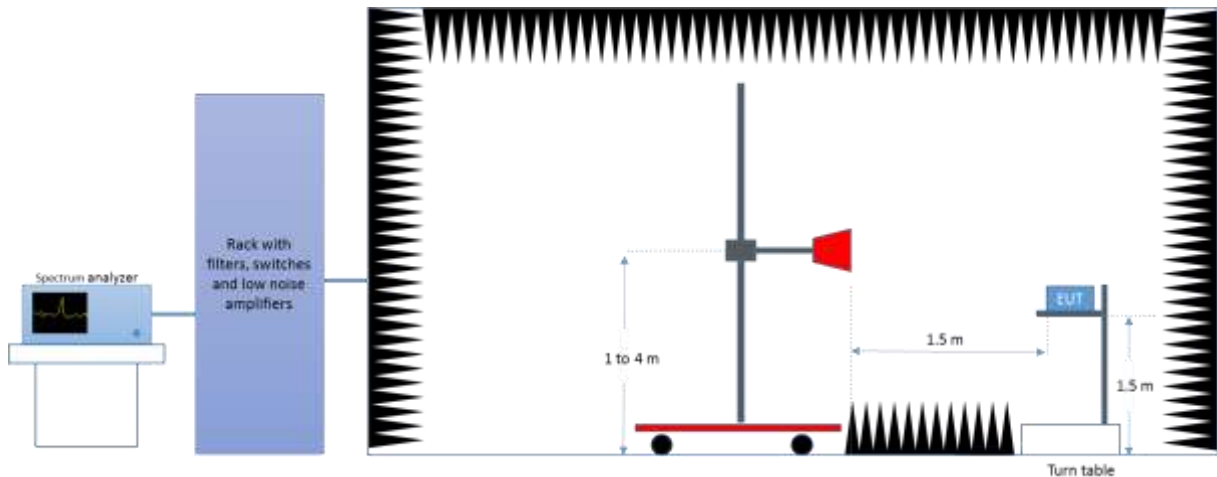
Radiated Setup < 1GHz



Radiated Setup 1 GHz - 18 GHz



Radiated Setup > 18 GHz



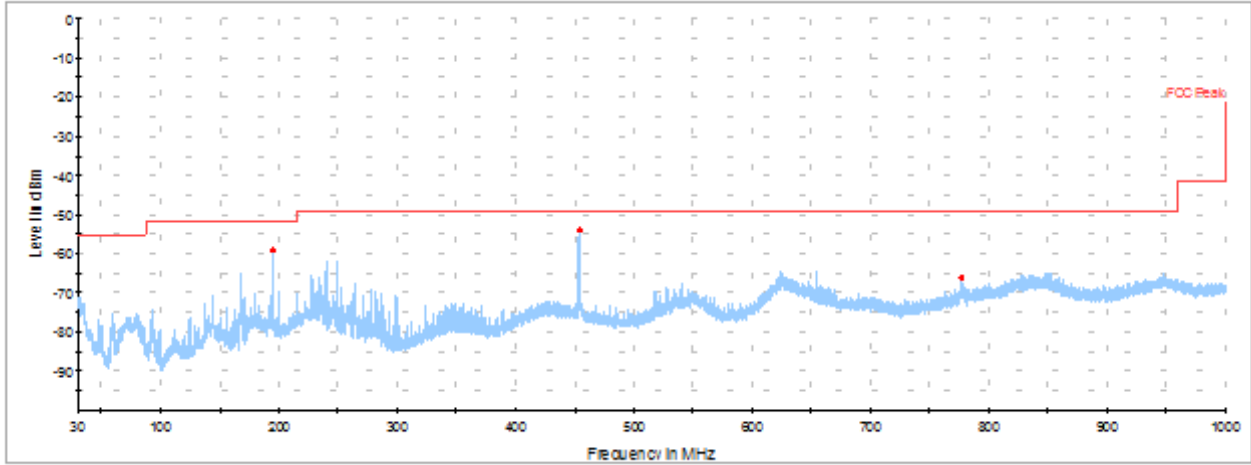
The following limits in dBm were applied for the average detector after the conversion from the limits detailed above in dBµV/m, according to FCC 47 CFR part 15 - Subpart C – §15.209(a). The limits in dBm for peak detector are 20dB above the indicated values in the table.

§15.209(a)			Converted values	
Freq Range (MHz)	Distance (m)	Field strength (microvolts/meter)	Field strength (dB microvolts/meter)	Power (dBm)
30-88	3	100	40.00	-55.26
88-216	3	150	43.52	-51.74
216-960	3	200	46.02	-49.24
960-25000	3	500	53.98	-41.28

Test Results:

Radiated Spurious – 30MHz to 1GHz

All modes



— Peak measurements — RMS measurements — FCC Peak

Frequency	MaxPeak	Limit	Margin
MHz	dBm	dBm	dB
194.5	-59.0	-51.7	7.3
454.5	-54.2	-49.2	5.0
776.7	-66.1	-49.2	16.9

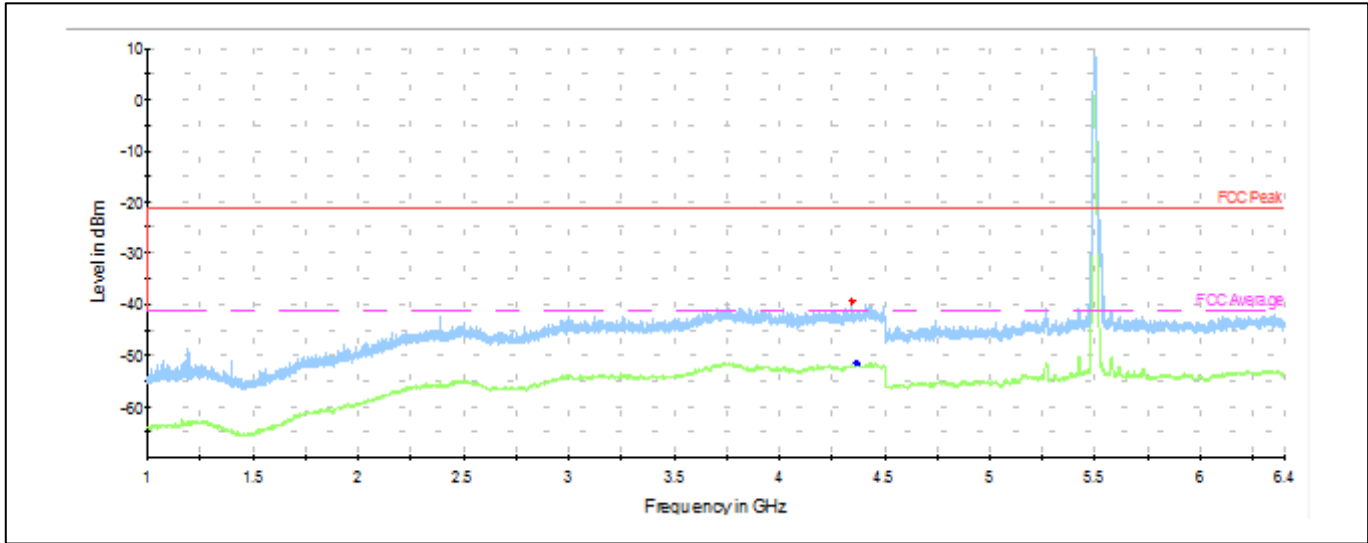
Note 1: The spurious signals detected do not depend on either the operating channel or the modulation mode.

Note 2: No spurious signals were found in all modulations and channels tested.

Note 3: This plot is valid for both SISO and MIMO modes.

**Radiated Spurious – 1GHz to 6.4GHz
802.11a, 6Mbps, Chain A**

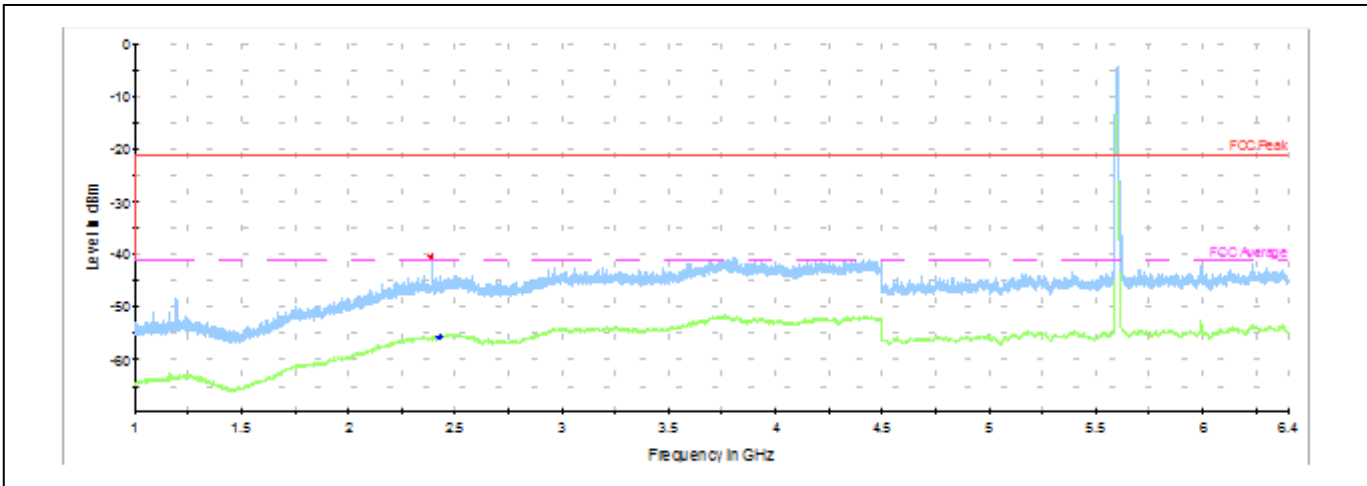
CH100



— Peak measurements
 — RMS measurements
 — FCC Peak
 - - - FCC RMS

Frequency	MaxPeak	RMS	Limit	Margin
MHz	dBm	dBm	dBm	dB
4369.5	---	-51.4	-41.2	10.2
4347.5	-39.4	---	-21.2	18.2

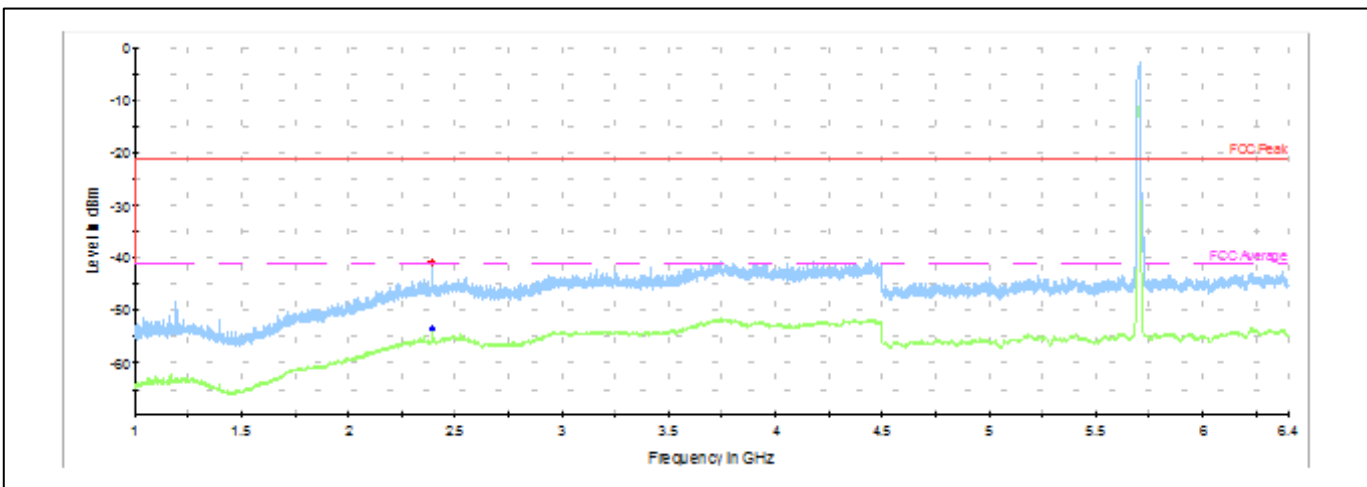
CH120



— Peak measurements
 — RMS measurements
 — FCC Peak
 - - - FCC RMS

Frequency	MaxPeak	RMS	Limit	Margin
MHz	dBm	dBm	dBm	dB
2427.5	---	-55.8	-41.2	14.6
2389.5	-40.3	---	-21.2	19.1

CH140

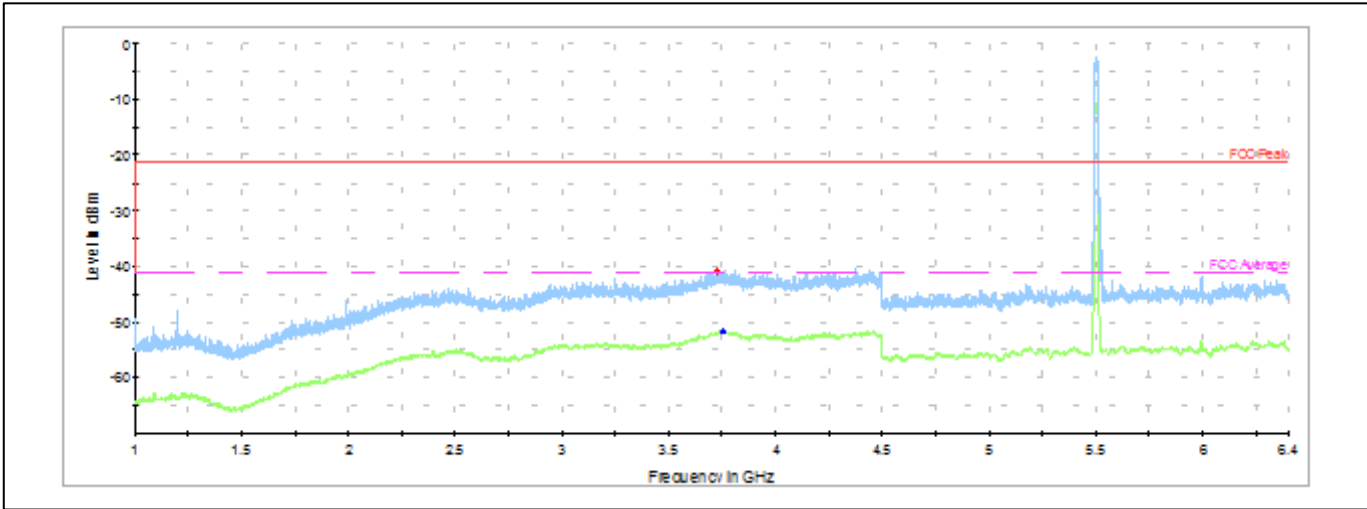


— Peak measurements
 — RMS measurements
 — FCC Peak
 - - - FCC RMS

Frequency	MaxPeak	RMS	Limit	Margin
MHz	dBm	dBm	dBm	dB
2392.5	---	-53.4	-41.2	12.2
2389.5	-40.9	---	-21.2	19.7

Radiated Spurious – 1GHz to 6.4GHz 802.11a, 6Mbps, Chain B

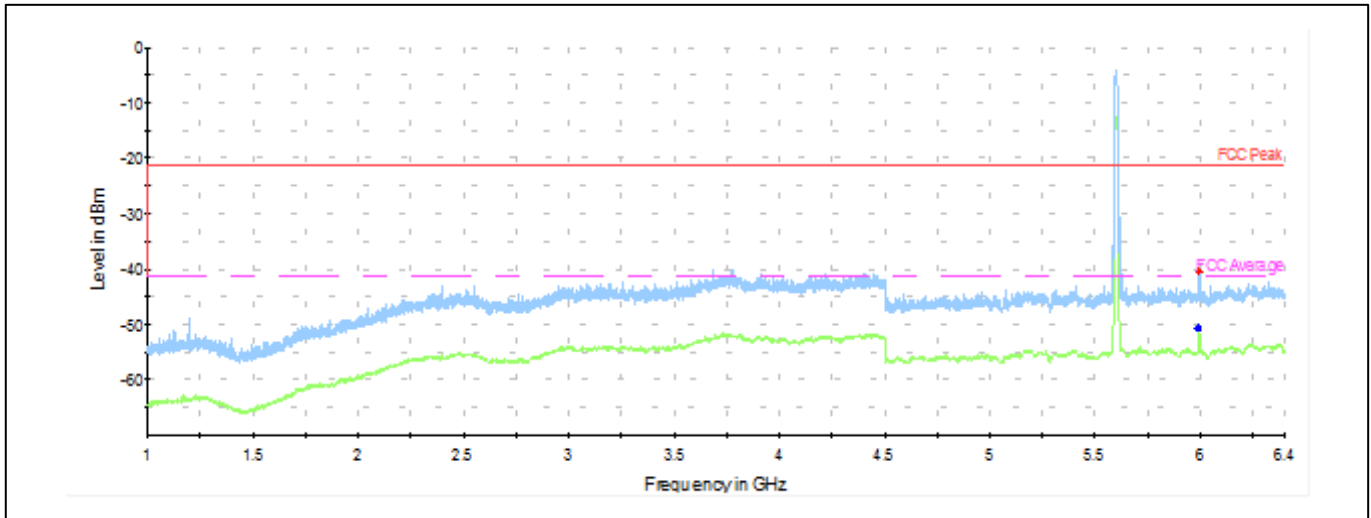
CH 100



— Peak measurements
 — RMS measurements
 — FCC Peak
 — FCC RMS

Frequency	MaxPeak	RMS	Limit	Margin
MHz	dBm	dBm	dBm	dB
3752.5	---	-51.7	-41.2	10.5
3725.0	-41.0	---	-21.2	19.8

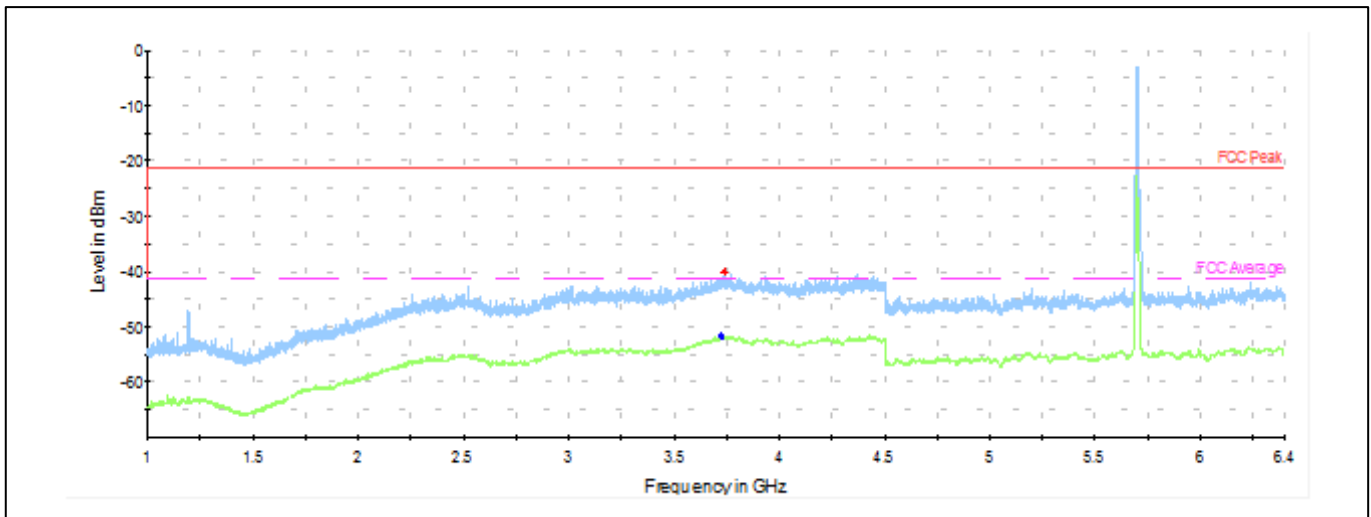
CH120



— Peak measurements
 — RMS measurements
 — FCC Peak
 - - - FCC RMS

Frequency	MaxPeak	RMS	Limit	Margin
MHz	dBm	dBm	dBm	dB
5990.5	---	-50.8	-41.2	9.6
5997.5	-40.4	---	-21.2	19.2

CH140

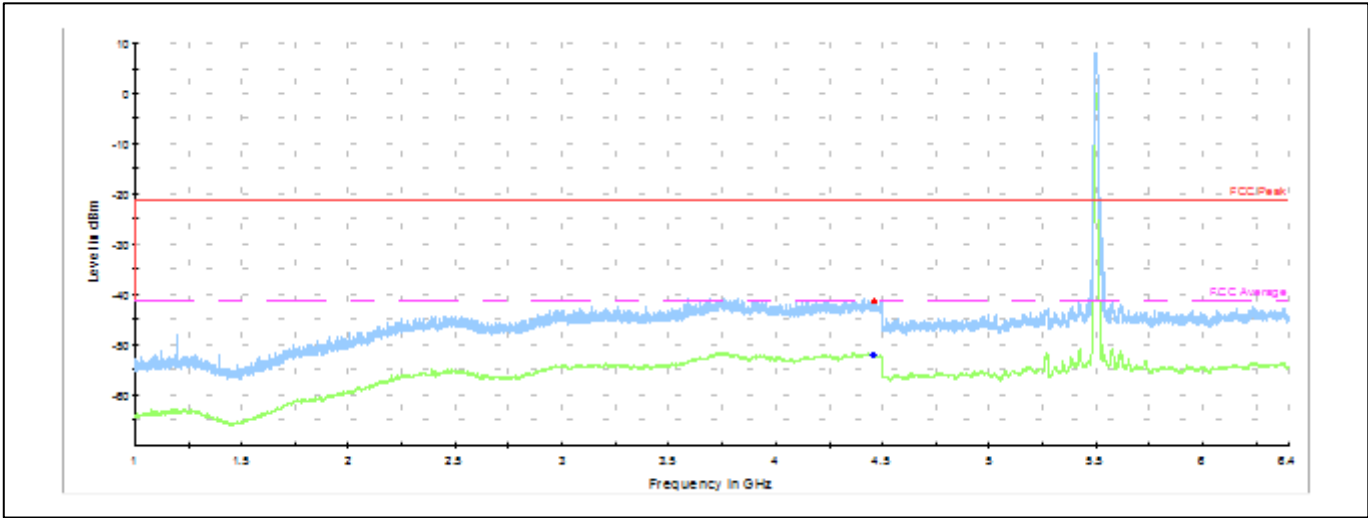


— Peak measurements
 — RMS measurements
 — FCC Peak
 - - - FCC RMS

Frequency	MaxPeak	RMS	Limit	Margin
MHz	dBm	dBm	dBm	dB
3727.0	---	-51.8	-41.2	10.6
3738.0	-39.9	---	-21.2	18.7

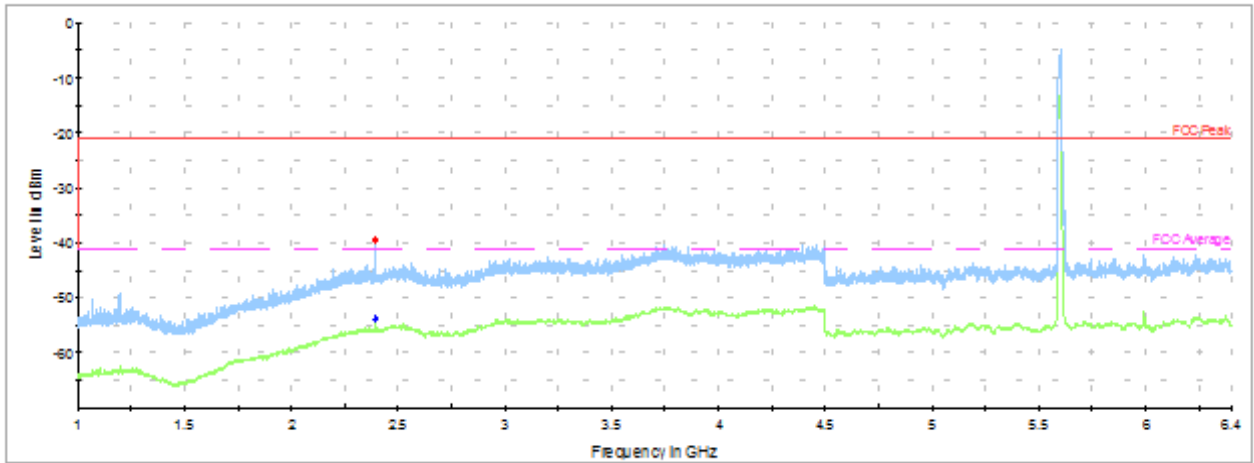
**Radiated Spurious – 1GHz to 6.4GHz
802.11n20, HT0 (SISO), Chain A**

CH100



Frequency	MaxPeak	RMS	Limit	Margin
MHz	dBm	dBm	dBm	dB
4459.5	---	-52.1	-41.2	10.9
4464.0	-41.4	---	-21.2	20.2

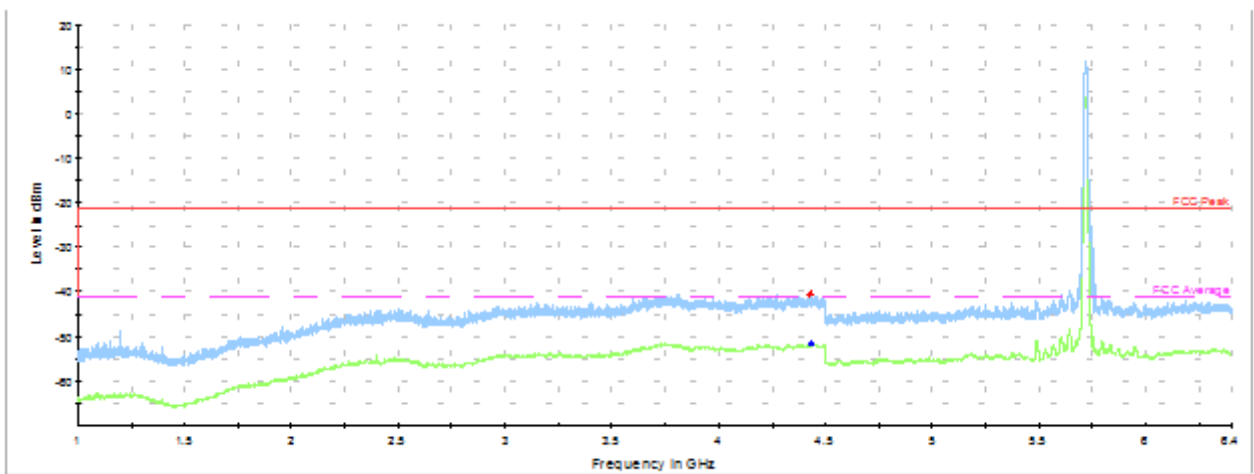
CH120



— Peak measurements
 — RMS measurements
 — FCC Peak
 - - - FCC RMS

Frequency	MaxPeak	RMS	Limit	Margin
MHz	dBm	dBm	dBm	dB
2394.0	---	-53.8	-41.2	12.6
2393.5	-39.5	---	-21.2	18.3

CH144

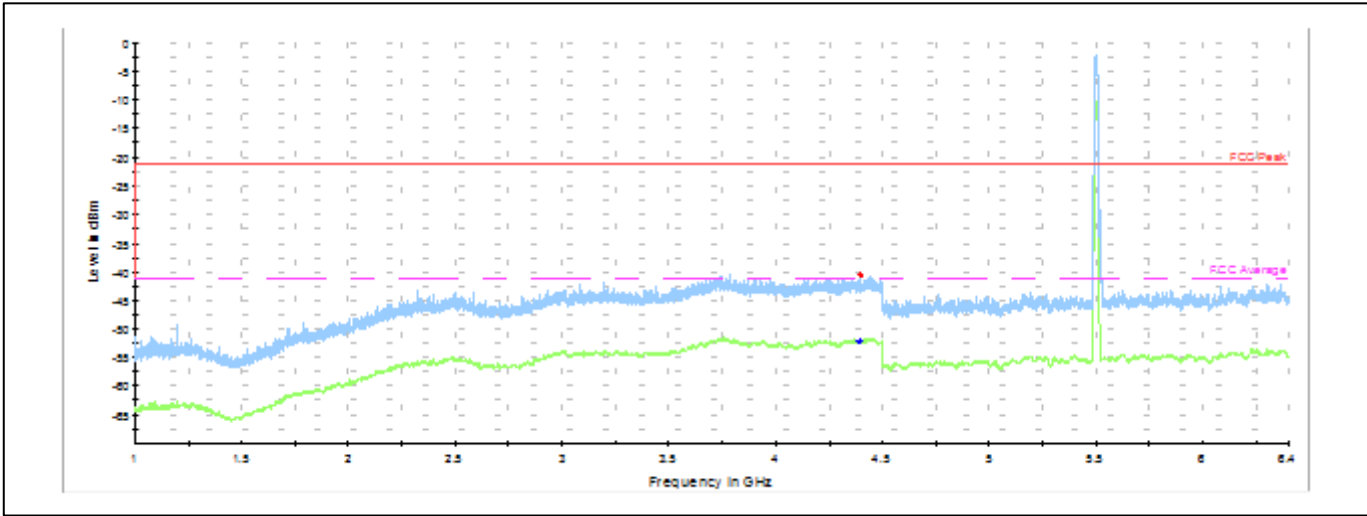


— Peak measurements
 — RMS measurements
 — FCC Peak
 - - - FCC RMS

Frequency	MaxPeak	RMS	Limit	Margin
MHz	dBm	dBm	dBm	dB
4433.5	---	-52.0	-41.2	10.8
4434.0	-40.6	---	-21.2	19.4

**Radiated Spurious – 1GHz to 6.4GHz
802.11n20, HT0 (SISO), Chain B**

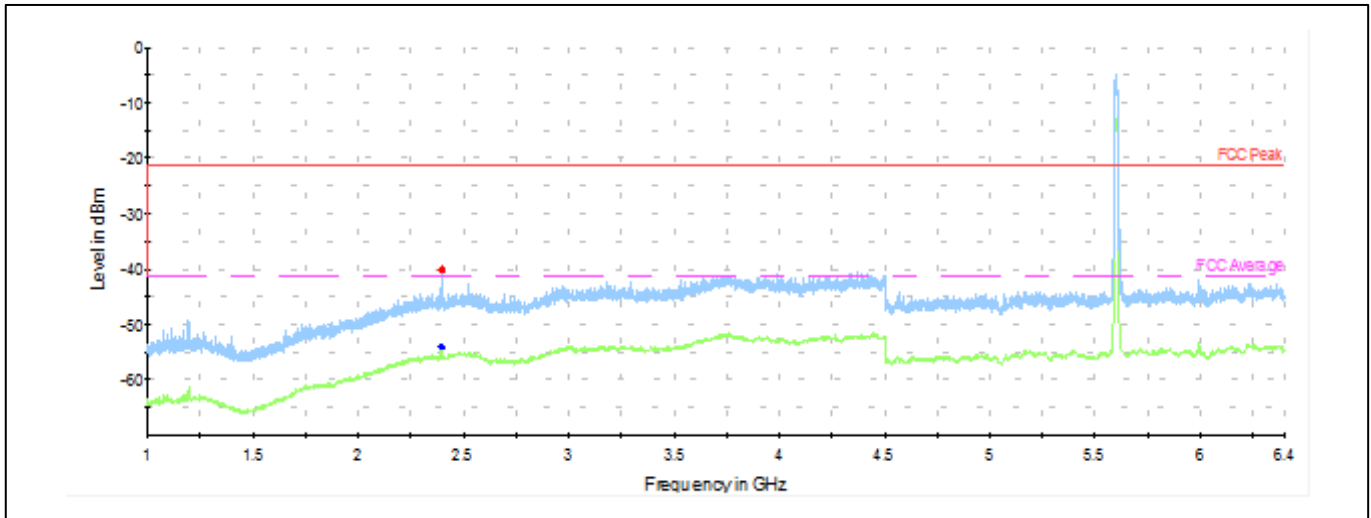
CH100



— Peak measurements
 — RMS measurements
 — FCC Peak
 — FCC RMS

Frequency	MaxPeak	RMS	Limit	Margin
MHz	dBm	dBm	dBm	dB
4391.0	---	-52.2	-41.2	11.0
4398.0	-40.6	---	-21.2	19.4

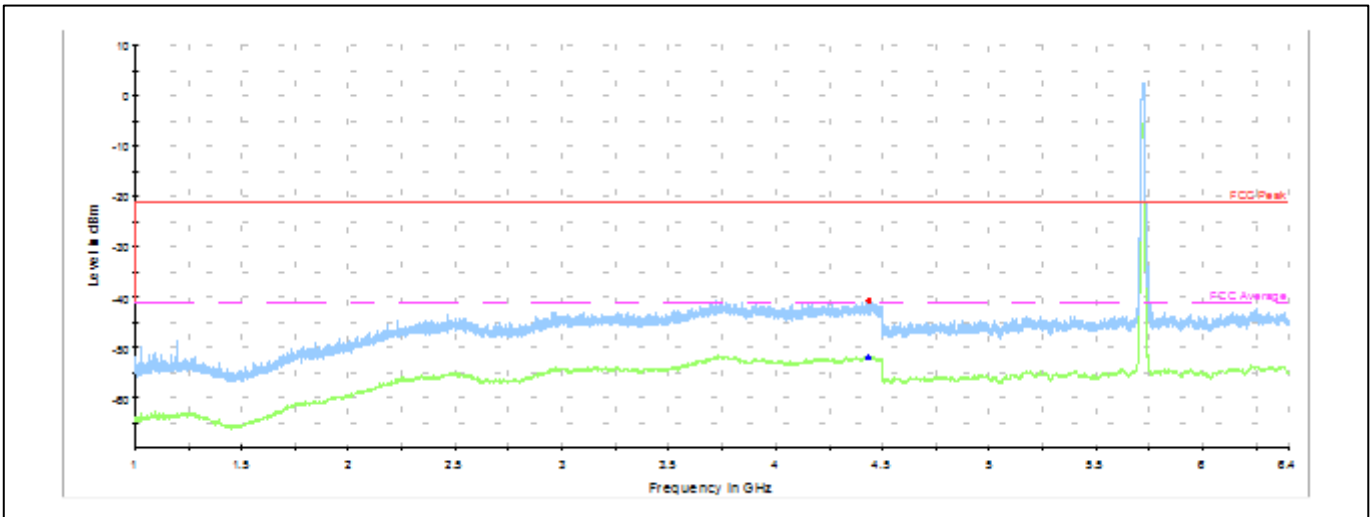
CH120



— Peak measurements
 — RMS measurements
 — FCC Peak
 - - - FCC RMS

Frequency	MaxPeak	RMS	Limit	Margin
MHz	dBm	dBm	dBm	dB
2398.0	---	-54.1	-41.2	12.9
2398.0	-40.1	---	-21.2	18.9

CH144

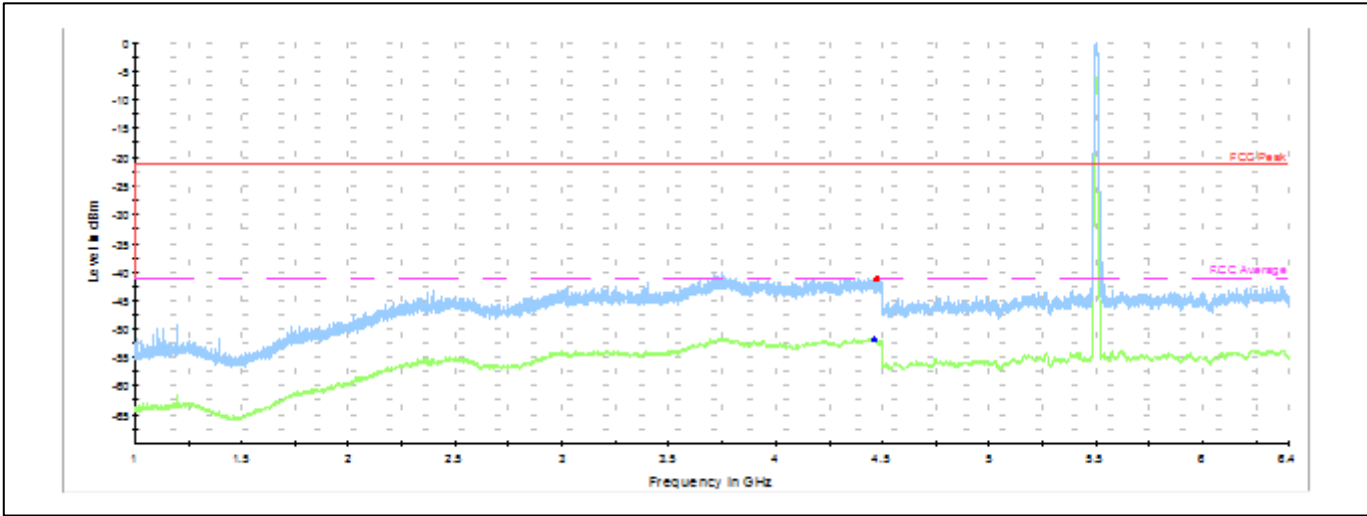


— Peak measurements
 — RMS measurements
 — FCC Peak
 - - - FCC RMS

Frequency	MaxPeak	RMS	Limit	Margin
MHz	dBm	dBm	dBm	dB
4432.5	---	-52.1	-41.2	10.9
4437.0	-40.7	---	-21.2	19.5

**Radiated Spurious – 1GHz to 6.4GHz
802.11n20, HT8 (MIMO), Chain A+B**

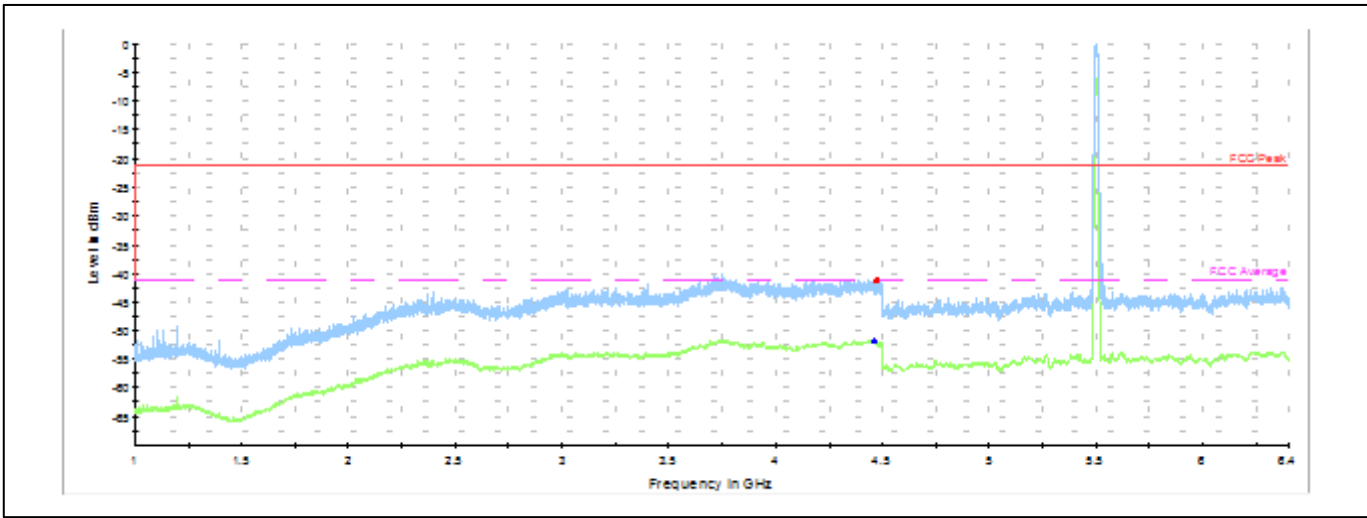
CH100



— Peak measurements
 — RMS measurements
 — FCC Peak
 — FCC RMS

Frequency	MaxPeak	RMS	Limit	Margin
MHz	dBm	dBm	dBm	dB
4460.0	---	-51.9	-41.2	10.7
4473.5	-41.3	---	-21.2	20.1

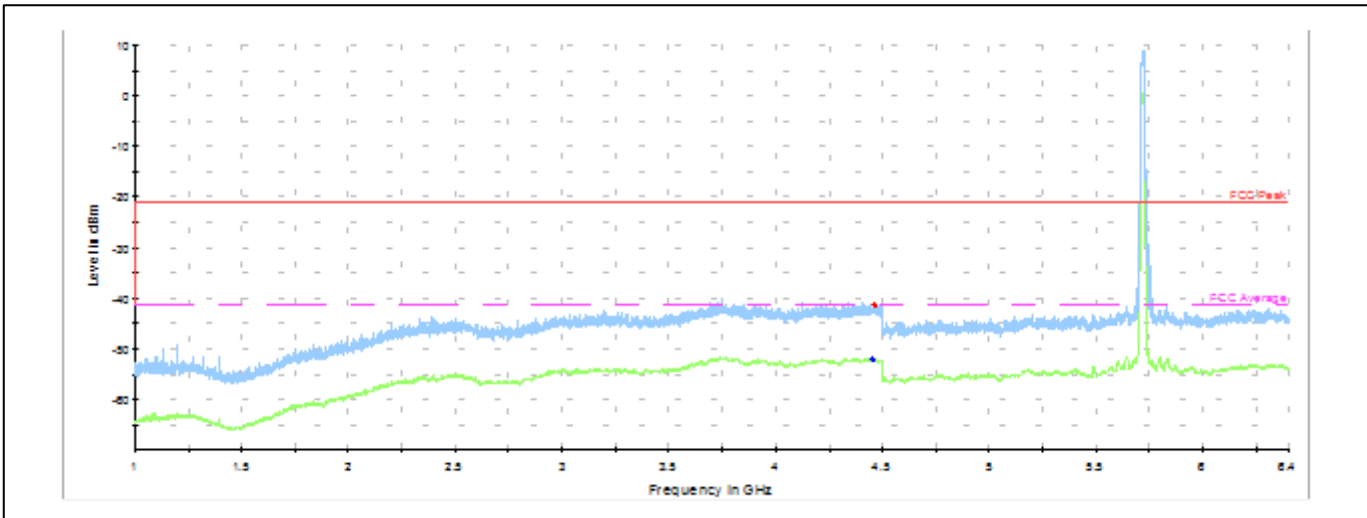
CH120



— Peak measurements
 — RMS measurements
 — FCC Peak
 - - - FCC RMS

Frequency	MaxPeak	RMS	Limit	Margin
MHz	dBm	dBm	dBm	dB
5996.5	---	-51.9	-41.2	10.7
5999.5	-42.0	---	-21.2	20.8

CH144

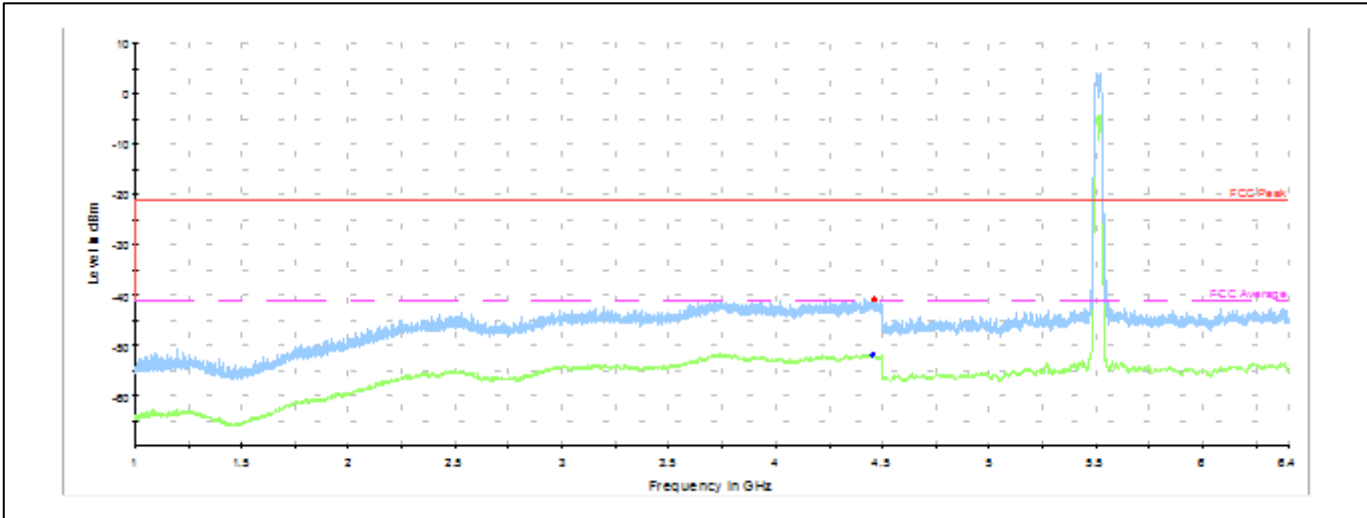


— Peak measurements
 — RMS measurements
 — FCC Peak
 - - - FCC RMS

Frequency	MaxPeak	RMS	Limit	Margin
MHz	dBm	dBm	dBm	dB
4457.5	---	-51.9	-41.2	10.7
4464.0	-41.4	---	-21.2	20.2

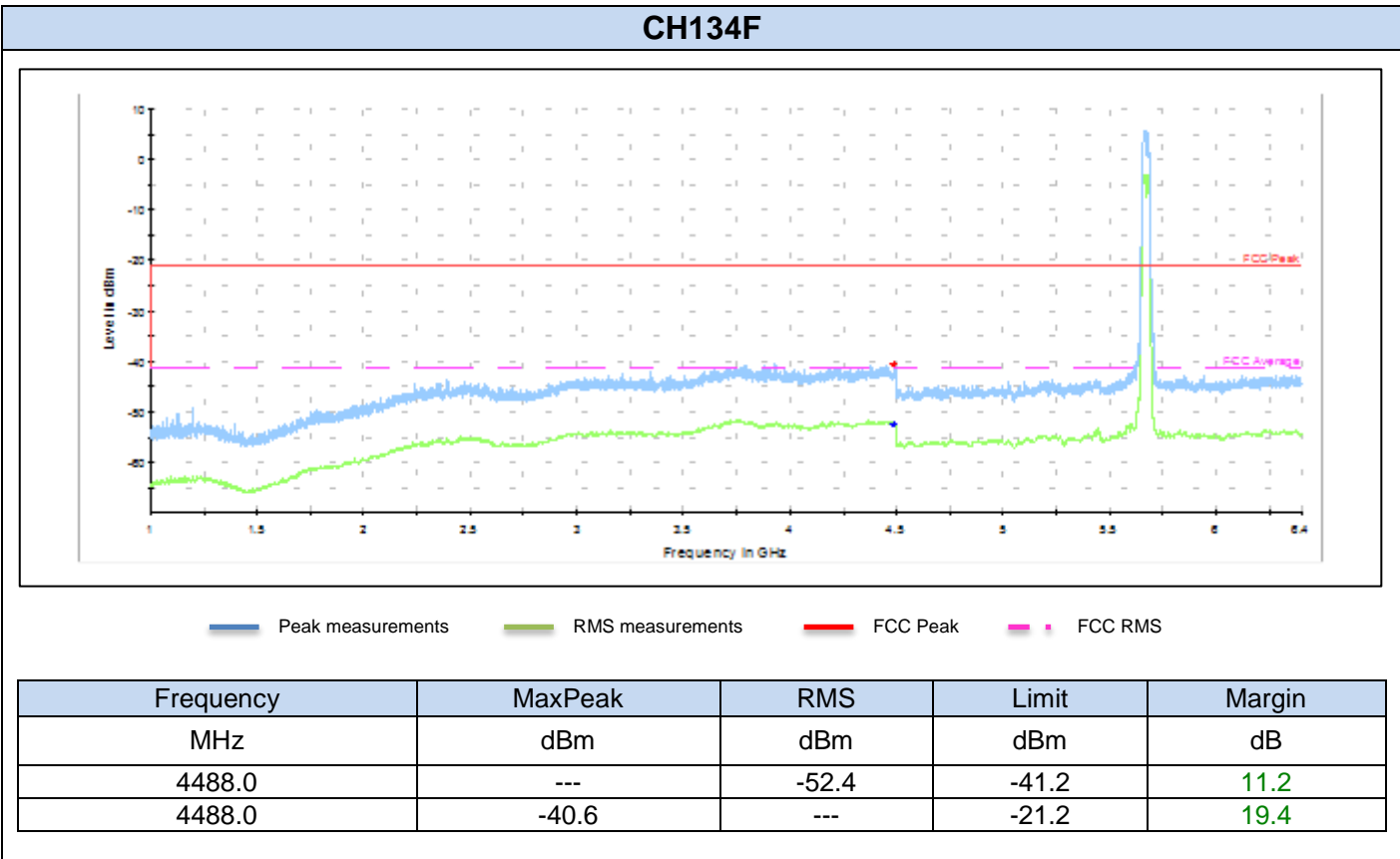
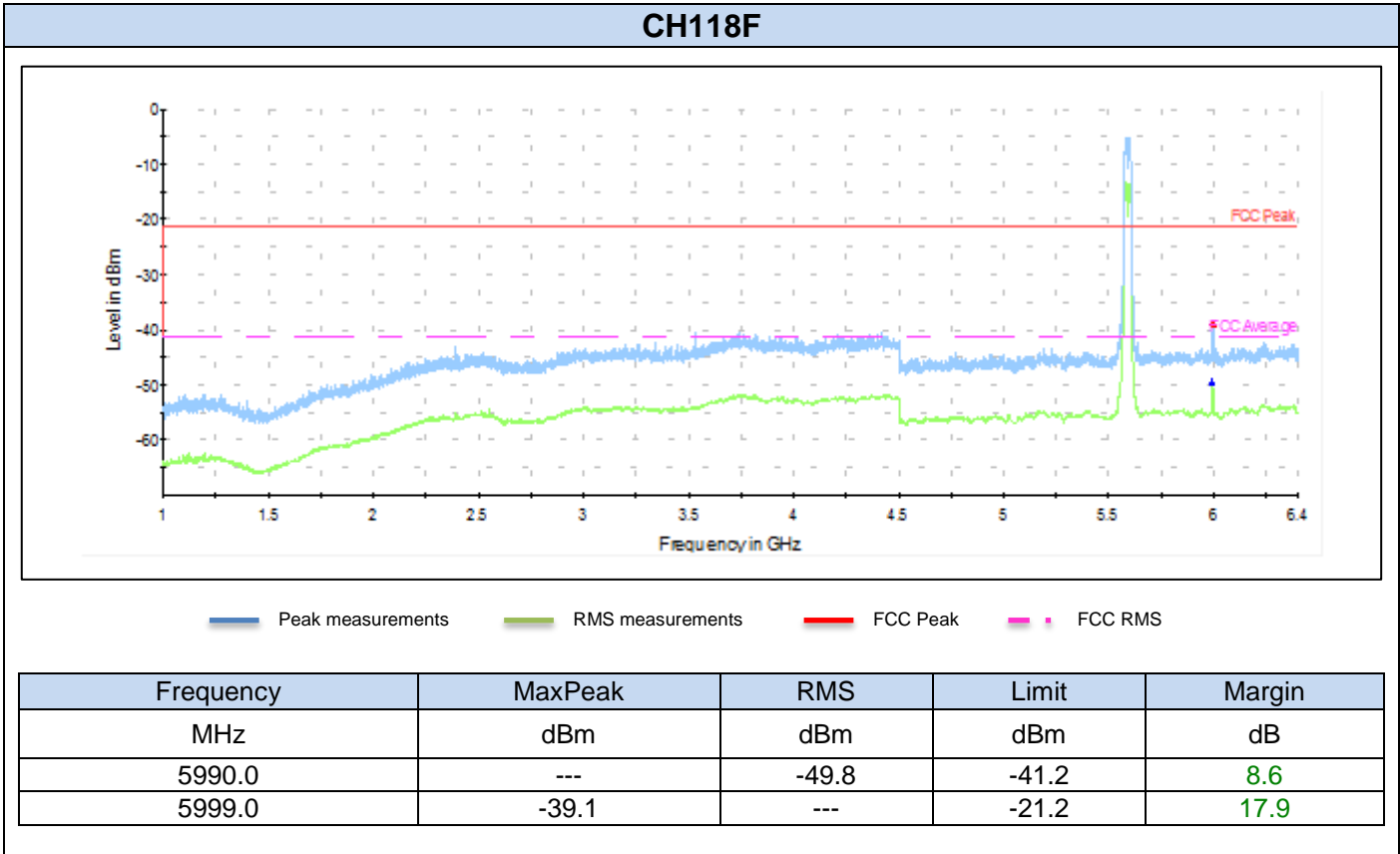
**Radiated Spurious – 1GHz to 6.4GHz
802.11n40, HT0 (SISO), Chain A**

CH102F



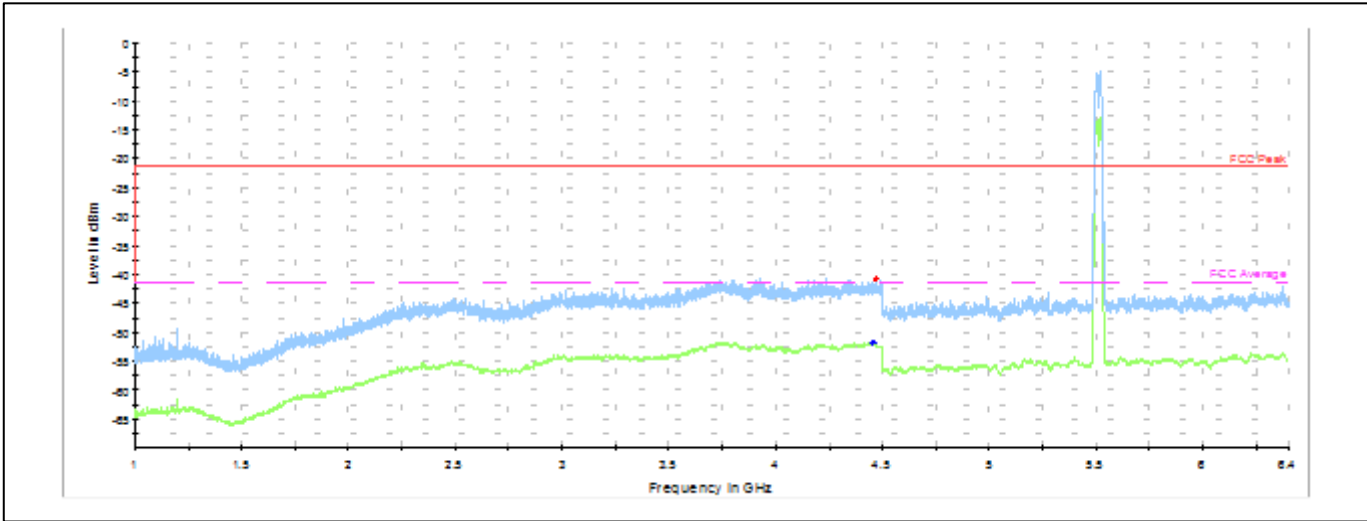
— Peak measurements
 — RMS measurements
 — FCC Peak
 - - - FCC RMS

Frequency	MaxPeak	RMS	Limit	Margin
MHz	dBm	dBm	dBm	dB
4457.0	---	-51.7	-41.2	10.5
4460.5	-40.8	---	-21.2	19.6



**Radiated Spurious – 1GHz to 6.4GHz
802.11n40, HT0 (SISO), Chain B**

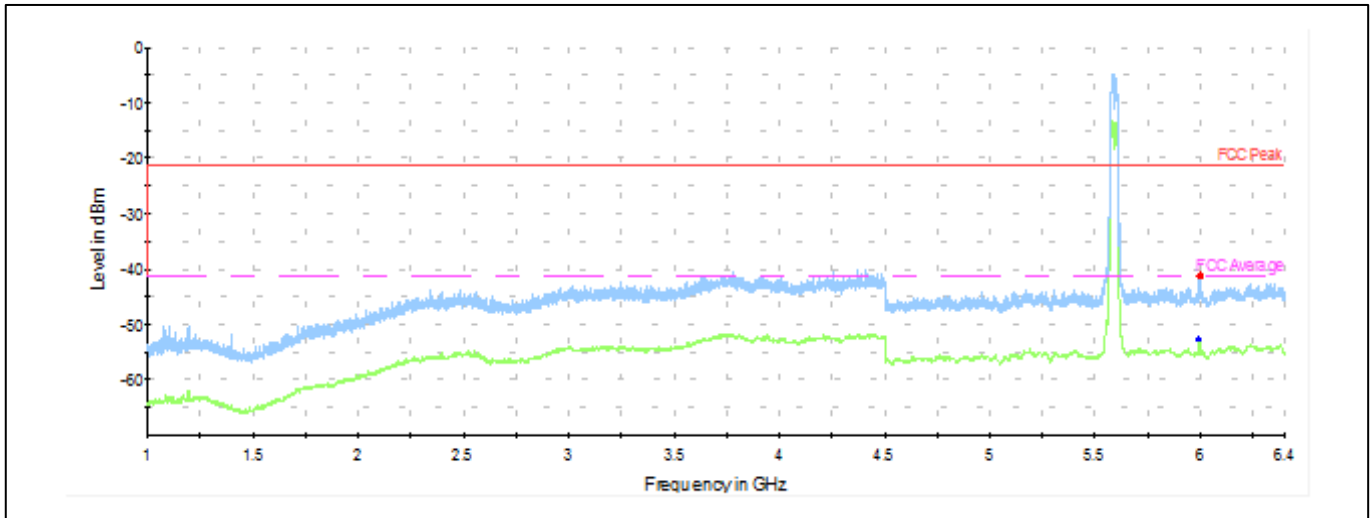
CH102F



— Peak measurements
 — RMS measurements
 — FCC Peak
 - - - FCC RMS

Frequency	MaxPeak	RMS	Limit	Margin
MHz	dBm	dBm	dBm	dB
4457.5	---	-51.7	-41.2	10.5
4469.0	-40.8	---	-21.2	19.6

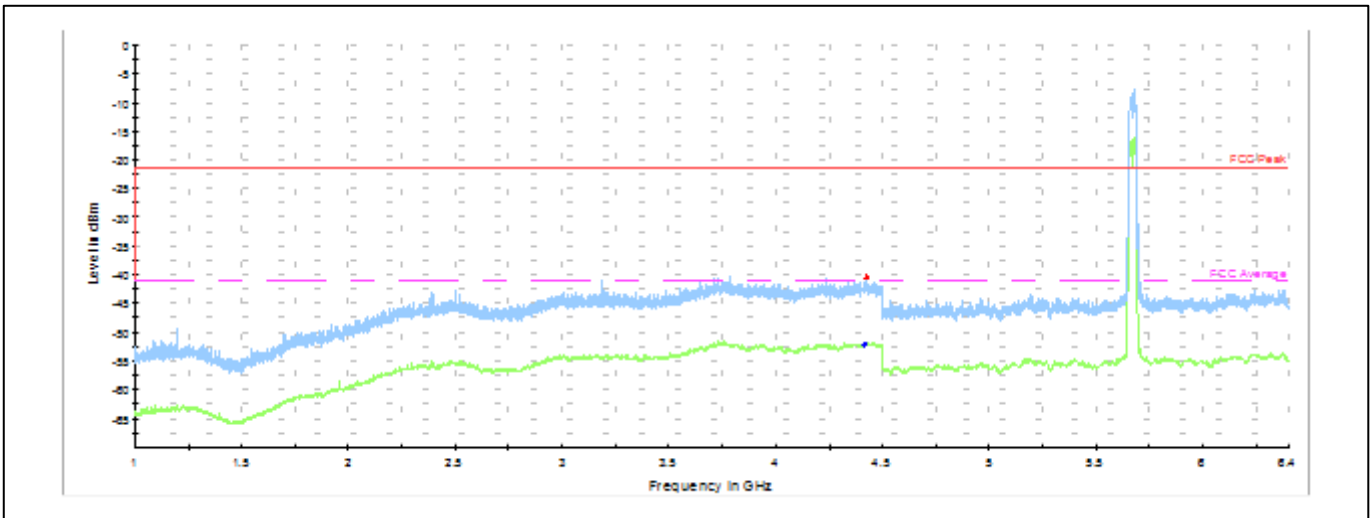
CH118F



— Peak measurements
 — RMS measurements
 — FCC Peak
 - - - FCC RMS

Frequency	MaxPeak	RMS	Limit	Margin
MHz	dBm	dBm	dBm	dB
5991.5	---	-52.7	-41.2	11.5
5999.0	-41.1	---	-21.2	19.9

CH134F

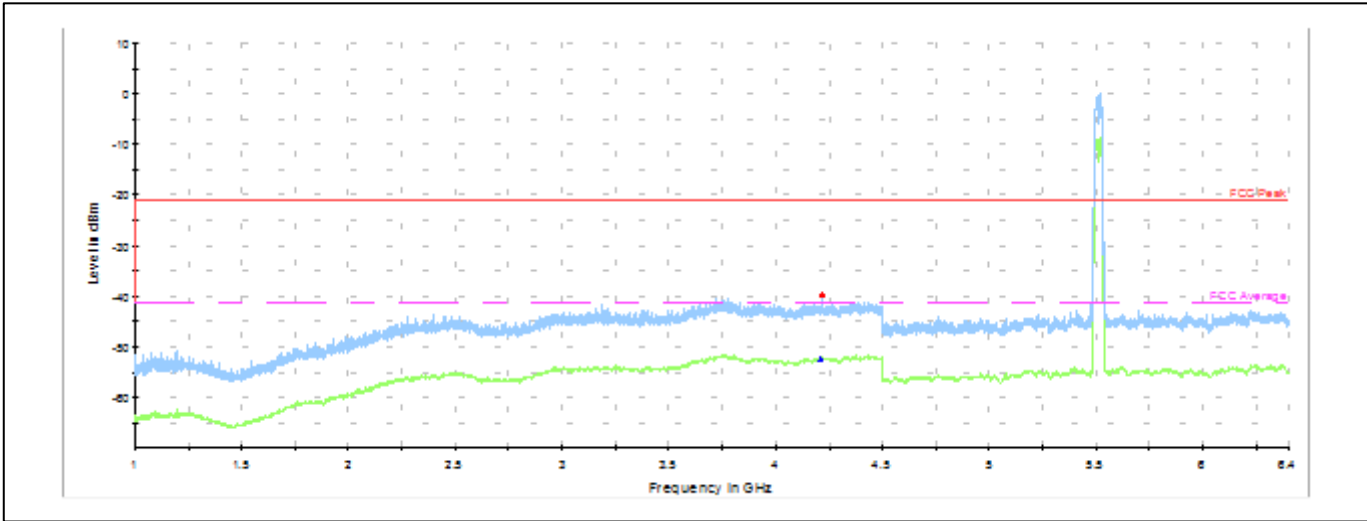


— Peak measurements
 — RMS measurements
 — FCC Peak
 - - - FCC RMS

Frequency	MaxPeak	RMS	Limit	Margin
MHz	dBm	dBm	dBm	dB
4420.0	---	-52.2	-41.2	11.0
4424.5	-40.5	---	-21.2	19.3

Radiated Spurious – 1GHz to 6.4GHz 802.11n40, HT8 (MIMO), Chain A+B

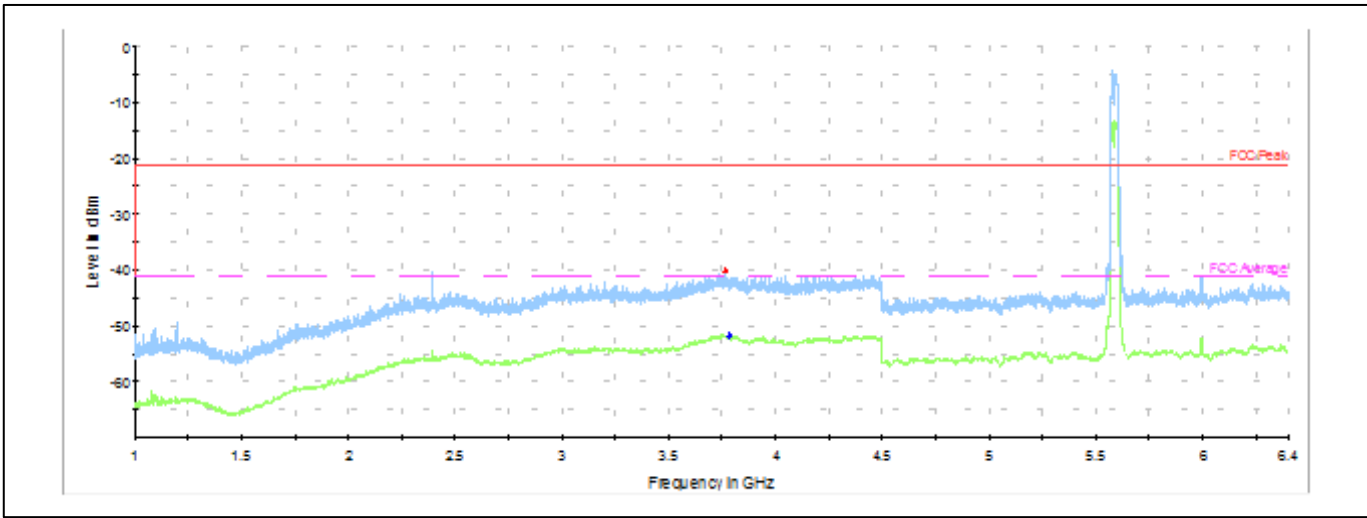
CH102F



— Peak measurements
 — RMS measurements
 — FCC Peak
 — FCC RMS

Frequency	MaxPeak	RMS	Limit	Margin
MHz	dBm	dBm	dBm	dB
4209.5	---	-52.5	-41.2	11.3
4216.5	-39.8	---	-21.2	18.6

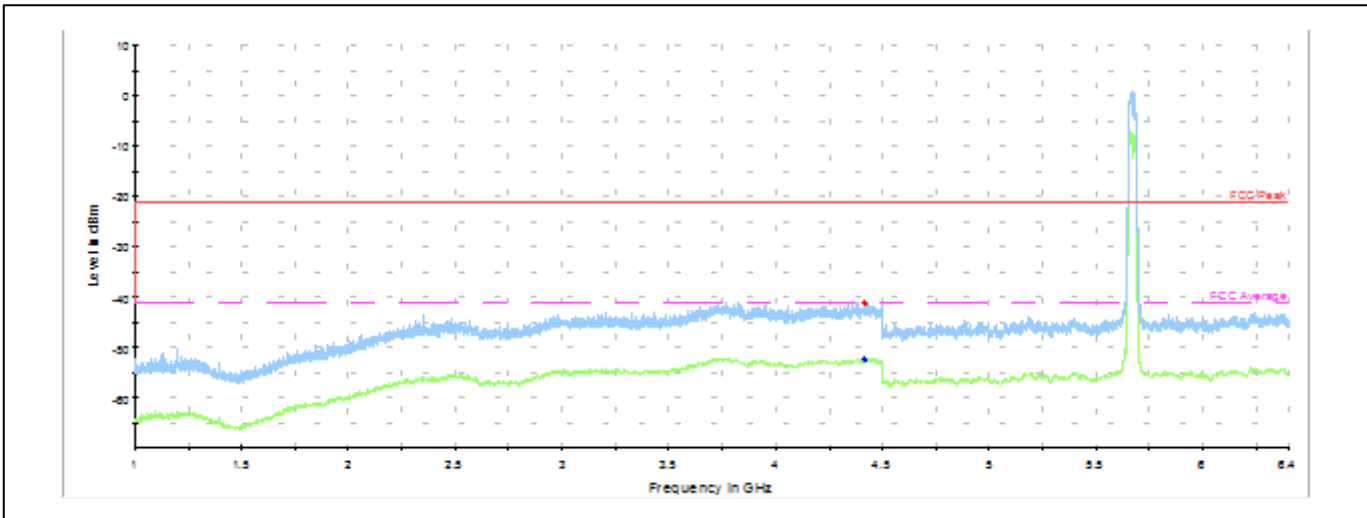
CH118F



— Peak measurements
 — RMS measurements
 — FCC Peak
 — FCC RMS

Frequency	MaxPeak	RMS	Limit	Margin
MHz	dBm	dBm	dBm	dB
3782.0	---	-51.8	-41.2	10.6
3766.5	-40.2	---	-21.2	19.0

CH134F

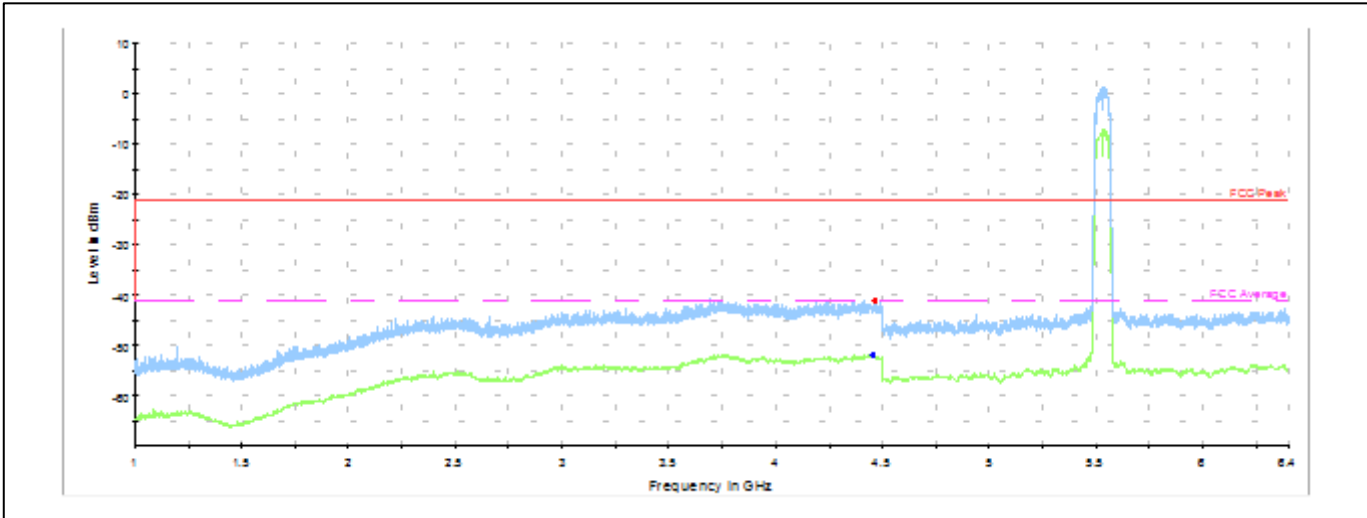


— Peak measurements
 — RMS measurements
 — FCC Peak
 — FCC RMS

Frequency	MaxPeak	RMS	Limit	Margin
MHz	dBm	dBm	dBm	dB
4417.5	---	-52.3	-41.2	11.1
4420.5	-41.3	---	-21.2	20.1

**Radiated Spurious – 1GHz to 6.4GHz
802.11ac80, VHT0 (SISO), Chain A**

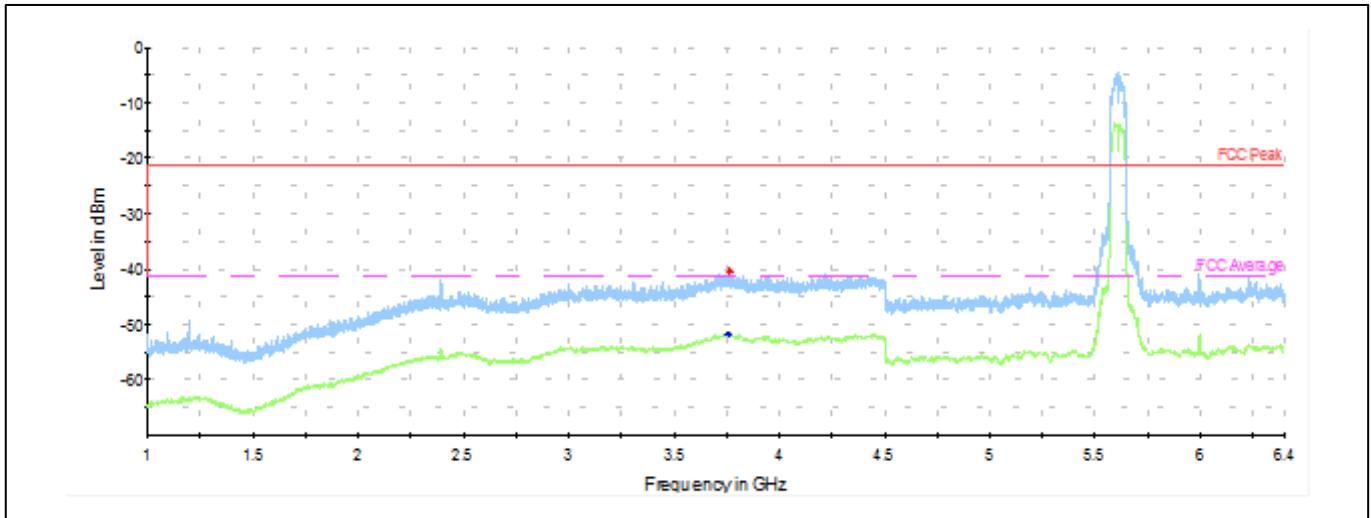
CH106ac80



— Peak measurements
 — RMS measurements
 — FCC Peak
 - - - FCC RMS

Frequency	MaxPeak	RMS	Limit	Margin
MHz	dBm	dBm	dBm	dB
4459.5	---	-51.9	-41.2	10.7
4469.5	-41.1	---	-21.2	19.9

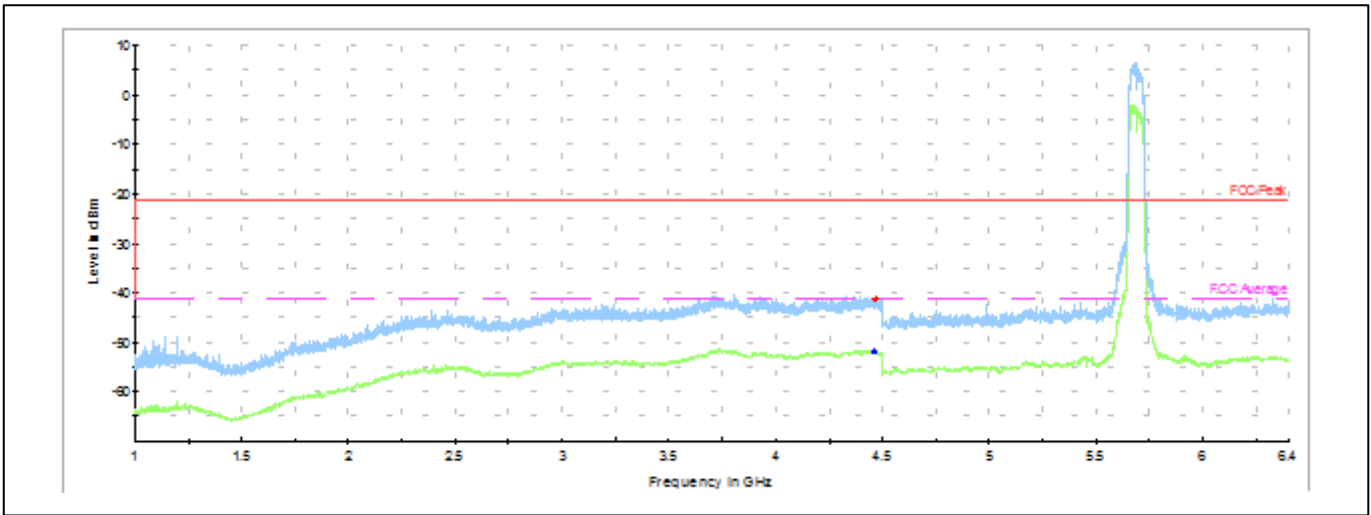
CH122ac80



— Peak measurements
 — RMS measurements
 — FCC Peak
 - - - FCC RMS

Frequency	MaxPeak	RMS	Limit	Margin
MHz	dBm	dBm	dBm	dB
3756.5	---	-51.7	-41.2	10.5
3767.0	-40.4	---	-21.2	19.2

CH138ac80

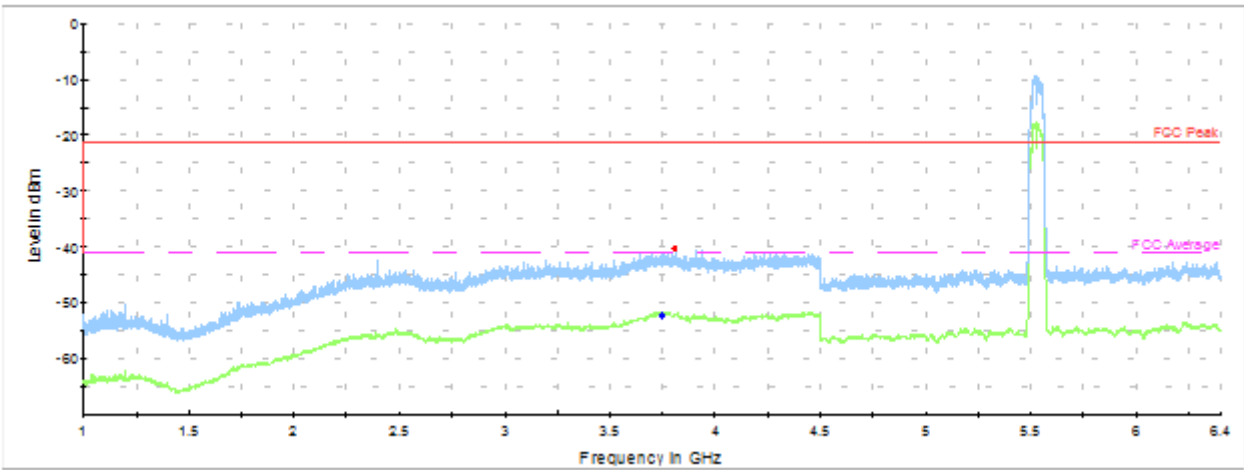


— Peak measurements
 — RMS measurements
 — FCC Peak
 - - - FCC RMS

Frequency	MaxPeak	RMS	Limit	Margin
MHz	dBm	dBm	dBm	dB
4461.0	---	-52.0	-41.2	10.8
4467.5	-41.4	---	-21.2	20.2

**Radiated Spurious – 1GHz to 6.4GHz
802.11ac80, VHT0 (SISO), Chain B**

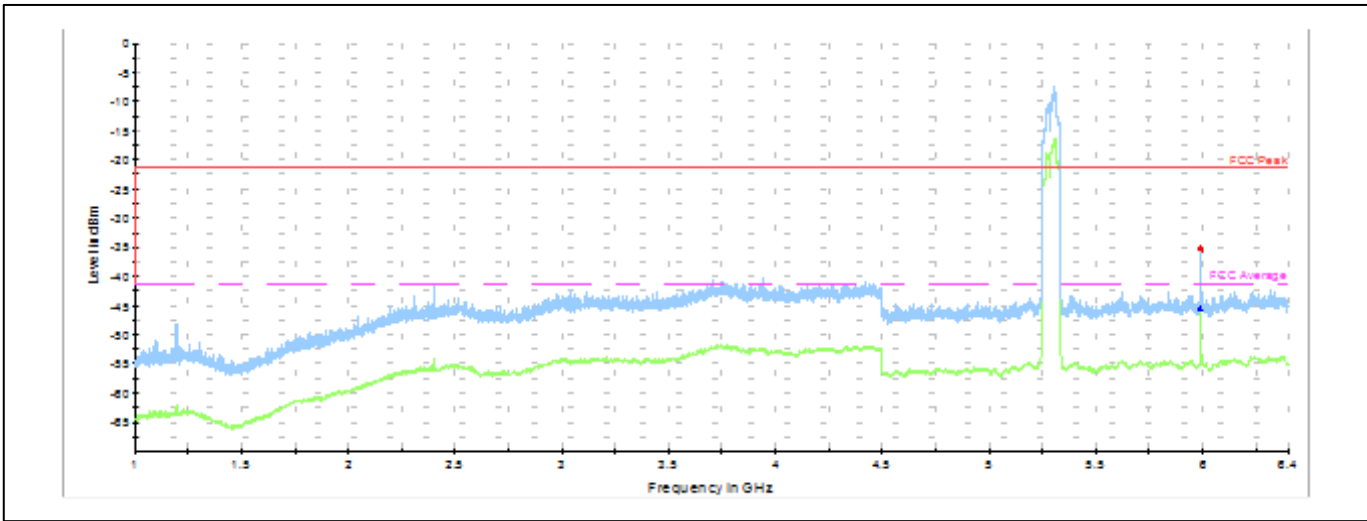
CH106ac80



— Peak measurements
 — RMS measurements
 — FCC Peak
 - - - FCC RMS

Frequency	MaxPeak	RMS	Limit	Margin
MHz	dBm	dBm	dBm	dB
3748.5	---	-52.3	-41.2	11.1
3812.0	-40.3	---	-21.2	19.1

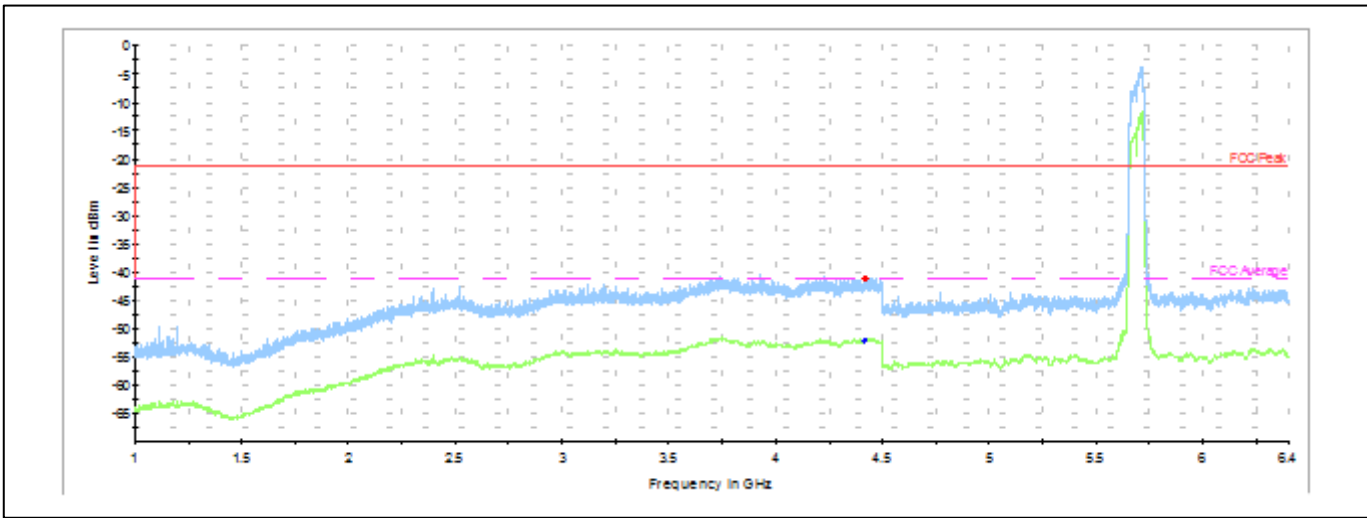
CH122ac80



— Peak measurements
 — RMS measurements
 — FCC Peak
 — FCC RMS

Frequency	MaxPeak	RMS	Limit	Margin
MHz	dBm	dBm	dBm	dB
5990.0	---	-45.7	-41.2	4.5
5987.5	-35.2	---	-21.2	14.0

CH138ac80

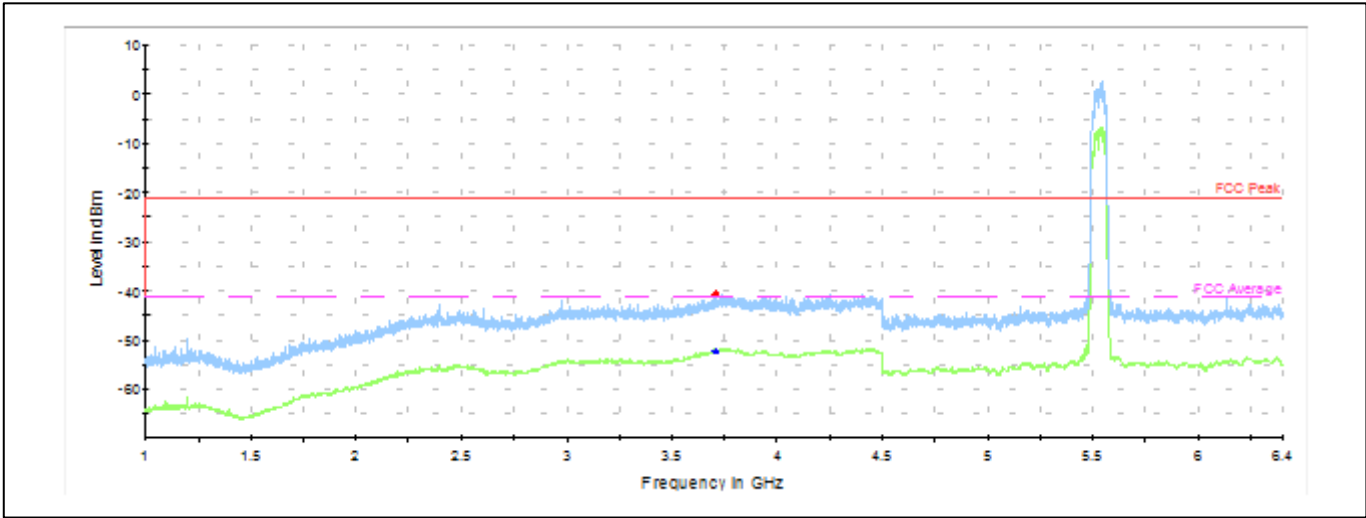


— Peak measurements
 — RMS measurements
 — FCC Peak
 — FCC RMS

Frequency	MaxPeak	RMS	Limit	Margin
MHz	dBm	dBm	dBm	dB
4418.5	---	-52.0	-41.2	10.8
4424.0	-41.2	---	-21.2	20.0

**Radiated Spurious – 1GHz to 6.4GHz
802.11ac80, VHT0 (MIMO), Chain A+B**

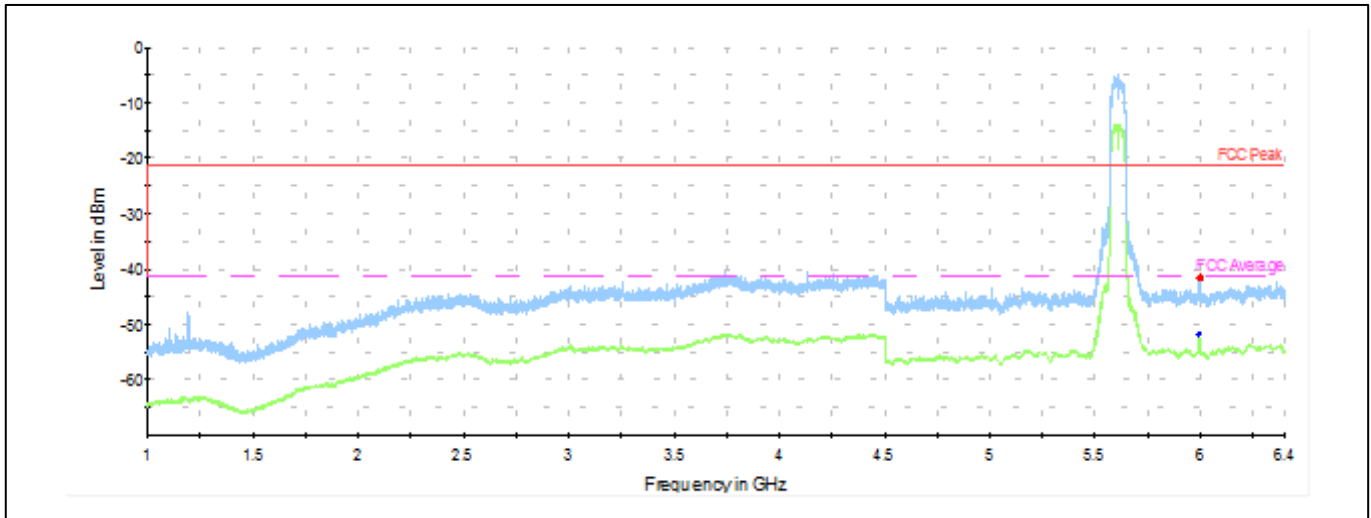
CH106ac80



— Peak measurements
 — RMS measurements
 — FCC Peak
 - - - FCC RMS

Frequency	MaxPeak	RMS	Limit	Margin
MHz	dBm	dBm	dBm	dB
3709.0	-40.7	---	-21.2	19.5
3710.0	---	-52.3	-41.2	11.1

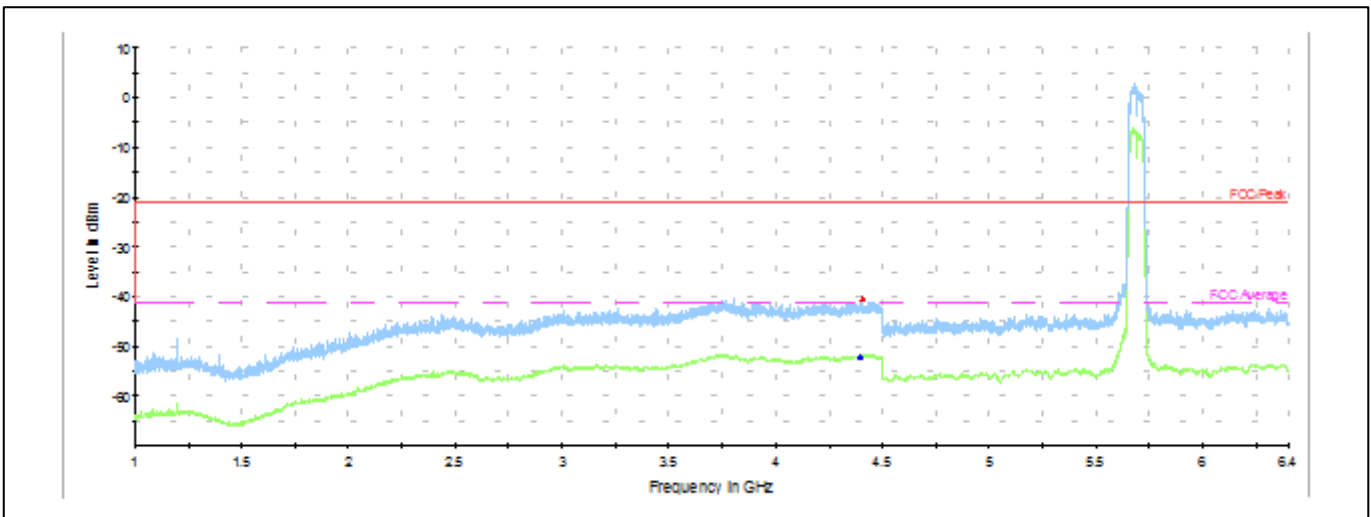
CH122ac80



— Peak measurements
 — RMS measurements
 — FCC Peak
 - - - FCC RMS

Frequency	MaxPeak	RMS	Limit	Margin
MHz	dBm	dBm	dBm	dB
5994.5	---	-51.8	-41.2	10.6
5998.5	-41.5	---	-21.2	20.3

CH138ac80

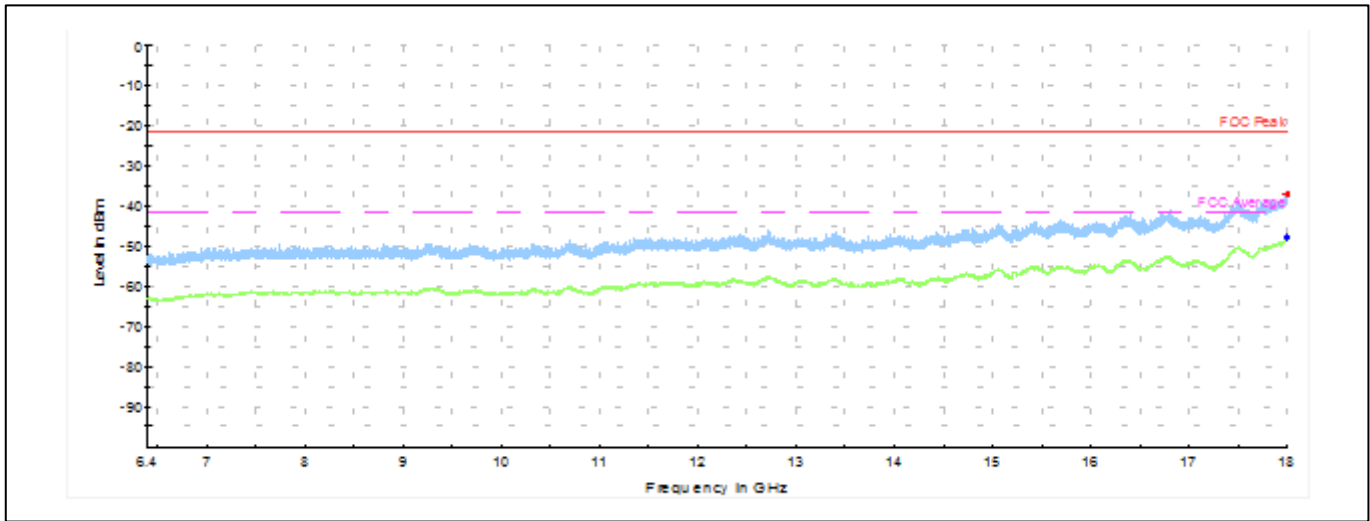


— Peak measurements
 — RMS measurements
 — FCC Peak
 - - - FCC RMS

Frequency	MaxPeak	RMS	Limit	Margin
MHz	dBm	dBm	dBm	dB
4397.0	---	-52.4	-41.2	11.2
4408.5	-40.6	---	-21.2	19.4

Radiated Spurious – 6.4GHz to 18GHz

All modes



— Peak measurements
 — RMS measurements
 — FCC Peak
 - - - FCC RMS

Frequency	MaxPeak	RMS	Limit	Margin
MHz	dBm	dBm	dBm	dB
17999.4	---	-47.9	-41.2	6.75
18000.0	-36.8	---	-21.2	15.6

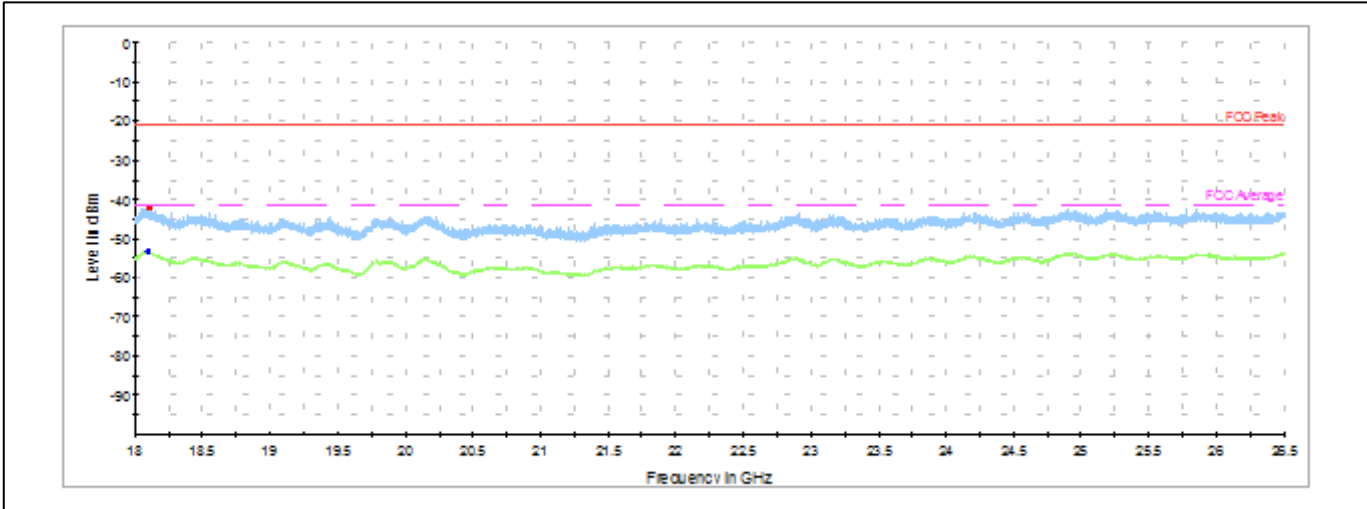
Note 1: The spurious signals detected do not depend on either the operating channel or the modulation mode.

Note 2: No spurious signals were found in all modulations and channels tested.

Note 3: This plot is valid for both SISO and MIMO modes.

Radiated Spurious – 18GHz to 26.5GHz

Radiated Spurious – All modes



— Peak measurements
 — RMS measurements
 — FCC Peak
 — FCC RMS

Frequency	MaxPeak	RMS	Limit	Margin
MHz	dBm	dBm	dBm	dB
18094.0	---	-53.3	-41.2	12.1
18106.7	-42.2	---	-21.2	21.0

Note 1: The spurious signals detected do not depend on either the operating channel or the modulation mode.

Note 2: No spurious signals were found in all modulations and channels tested.

Note 3: This plot is valid for both SISO and MIMO modes.

Radiated Spurious – 26.5GHz to 40GHz

Radiated Spurious – All modes



— Peak measurements
 — RMS measurements
 — FCC Peak
 - - - FCC RMS

Frequency	MaxPeak	RMS	Limit	Margin
MHz	dBm	dBm	dBm	dB
26775.7	-46.6	---	-21.2	25.4
26802.7	---	-59.0	-41.2	17.8

Note 1: The spurious signals detected do not depend on either the operating channel or the modulation mode.

Note 2: No spurious signals were found in all modulations and channels tested.

Note 3: This plot is valid for both SISO and MIMO modes.