802.11 ac 40MHz:

Channel 142 (5710 MHz). Out-of-band spurious emissions in the 1-40 GHz range.

Chain A

| Spurious frequency (GHz) | Polarization | Detector | Emission Level (dBµV/m) | Measurement Uncertainty (dB) |
|---|---|---|---|---|
| 11.41991 | V | Peak | 50.54 | ± 4.00 |
| 17.12374 | V | Peak | 64.43 | ± 4.00 |
| | | Average | 52.87 | ± 4.00 |
| 22.83950 | V | Peak | 53.03 | ± 4.00 |

Chain B

| Spurious frequency (GHz) | Polarization | Detector | Emission Level (dBµV/m) | Measurement Uncertainty (dB) |
|---|---|---|---|---|
| 11.41999 | V | Peak | 53.43 | ± 4.00 |
| 17.12393 | V | Peak | 62.51 | ± 4.00 |
| | | Average | 52.68 | ± 4.00 |
| 22.83950 | V | Peak | 52.57 | ± 4.00 |

Chain A+B

| Spurious frequency (GHz) | Polarization | Detector | Emission Level (dBµV/m) | Measurement Uncertainty (dB) |
|---|---|---|---|---|
| 11.3402 | V | Peak | 54.29 | ± 4.00 |
| | | Average | 43.37 | ± 4.00 |
| 17.0134 | V | Peak | 61.29 | ± 4.00 |
| | | Average | 50.38 | ± 4.00 |
| 22.8395 | V | Peak | 53.65 | ± 4.00 |

Verdict: PASS

4. WiFi 5GHz 802.11 ac80 mode

Lowest frequency (106) 5530MHz. Out-of-band spurious emissions inside restricted band 5.35-5.46 GHz and 5.46-5.47 adjacent band. Highest spurious levels in bands.

Chain A

| Spurious frequency (GHz) | Polarization | Detector | Emission Level (dBµV/m) | Measurement Uncertainty (dB) |
|---|---|---|---|---|
| 5.45954 | V | Peak | 64.38 | ± 4.00 |
| | | Average | 52.17 | ± 4.00 |
| 5.46281 | V | Peak | 65.50 | ± 4.00 |
| | | Average | 52.19 | ± 4.00 |

Chain B

| Spurious frequency (GHz) | Polarization | Detector | Emission Level (dBµV/m) | Measurement Uncertainty (dB) |
|---|---|---|---|---|
| 5.45879 | V | Peak | 59.43 | ± 4.00 |
| | | Average | 47.15 | ± 4.00 |
| 5.46285 | V | Peak | 61.97 | ± 4.00 |
| | | Average | 46.78 | ± 4.00 |

Chain A+B

| Spurious frequency (GHz) | Polarization | Detector | Emission Level (dBµV/m) | Measurement Uncertainty (dB) |
|---|---|---|---|---|
| 5.45994 | V | Peak | 58.42 | ± 4.00 |
| | | Average | 47.46 | ± 4.00 |
| 5.46539 | V | Peak | 63.09 | ± 4.00 |
| | | Average | 48.14 | ± 4.00 |

Middle frequency (122) 5610MHz. Out-of-band spurious emissions in the 1-40 GHz range and emissions inside restricted band 5.725-5.825 GHz adjacent bands.

Chain A

| Spurious frequency (GHz) | Polarization | Detector | Emission Level (dBµV/m) | Measurement Uncertainty (dB) |
|---|---|---|---|---|
| 5.79649 | V | Peak | 56.01 | ± 4.00 |
| | | Average | 42.45 | ± 4.00 |
| 16.8484 | V | Peak | 62.37 | ± 4.00 |
| | V | Average | 49.99 | ± 4.00 |
| 22.4395 | V | Peak | 53.79 | ± 4.00 |

Chain B

| Spurious frequency (GHz) | Polarization | Detector | Emission Level (dBµV/m) | Measurement Uncertainty (dB) |
|---|---|---|---|---|
| 5.785844 | V | Peak | 55.71 | ± 4.00 |
| | V | Average | 42.41 | ± 4.00 |
| 16.8319 | V | Peak | 57.69 | ± 4.00 |
| | | Average | 46.89 | ± 4.00 |
| 22.4405 | V | Peak | 53.92 | ± 4.00 |

Chain A+B

| Spurious frequency (GHz) | Polarization | Detector | Emission Level (dBµV/m) | Measurement Uncertainty (dB) |
|---|---|---|---|---|
| 5.763619 | V | Peak | 55.35 | ± 4.00 |
| | V | Average | 42.64 | ± 4.00 |
| 11.2398 | V | Peak | 52.69 | ± 4.00 |
| 16.8594 | V | Peak | 61.11 | ± 4.00 |
| | | Average | 48.92 | ± 4.00 |
| 22.4395 | V | Peak | 54.74 | ± 4.00 |
| | | Average | 48.12 | ± 4.00 |

802.11 ac 80MHz:

Channel 138 (5690 MHz). Out-of-band spurious emissions in the 1-40 GHz range.

Chain A

| Spurious frequency (GHz) | Polarization | Detector | Emission Level (dBµV/m) | Measurement Uncertainty (dB) |
|---|---|---|---|---|
| 17.1111 | V | Peak | 60.62 | ± 4.00 |
| | | Average | 48.07 | ± 4.00 |
| 22.7595 | V | Peak | 55.24 | ± 4.00 |
| | | Average | 50.01 | ± 4.00 |

Chain B

| Spurious frequency (GHz) | Polarization | Detector | Emission Level (dBµV/m) | Measurement Uncertainty (dB) |
|---|---|---|---|---|
| 17.09730 | V | Peak | 59.37 | ± 4.00 |
| | | Average | 47.83 | ± 4.00 |
| 22.75950 | V | Peak | 55.25 | ± 4.00 |
| | | Average | 50.37 | ± 4.00 |

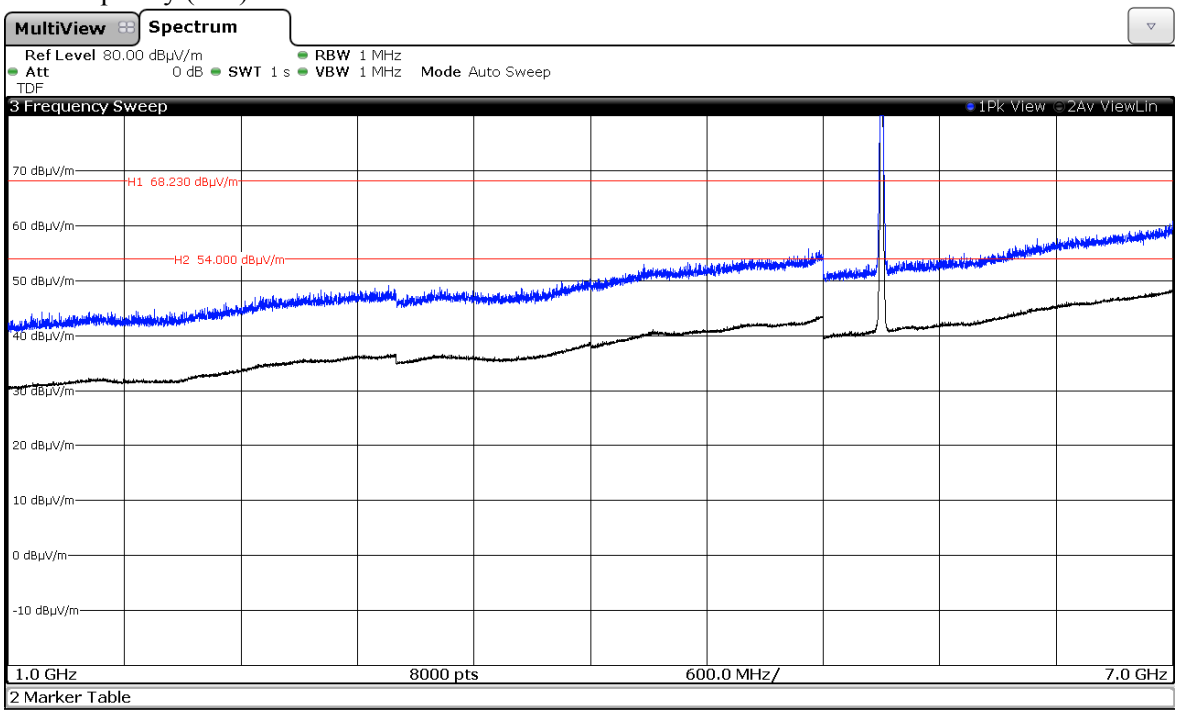
Chain A+B

| Spurious frequency (GHz) | Polarization | Detector | Emission Level (dBµV/m) | Measurement Uncertainty (dB) |
|---|---|---|---|---|
| 17.1028 | V | Peak | 60.92 | ± 4.00 |
| | | Average | 48.95 | ± 4.00 |
| 22.7595 | V | Peak | 55.53 | ± 4.00 |
| | | Average | 50.33 | ± 4.00 |

Verdict: PASS

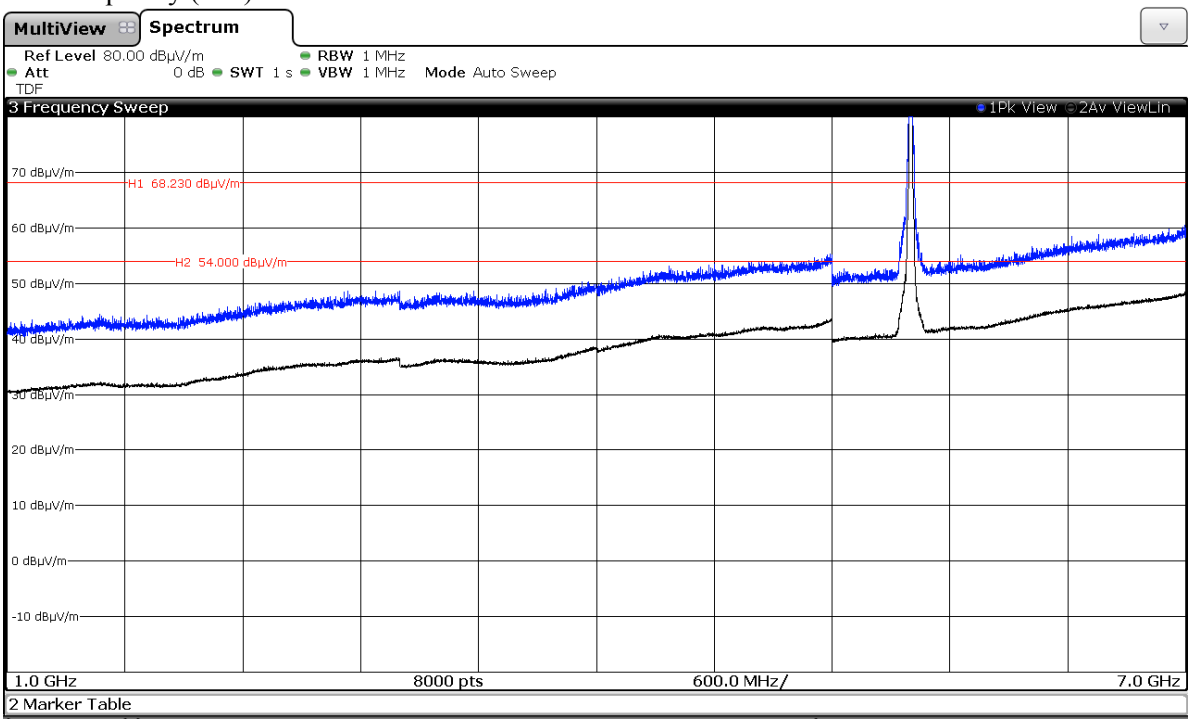
**FREQUENCY RANGE 1 GHz to 7 GHz.**
WiFi 5GHz 802.11 a mode

Lowest frequency (100) 5500 MHz.



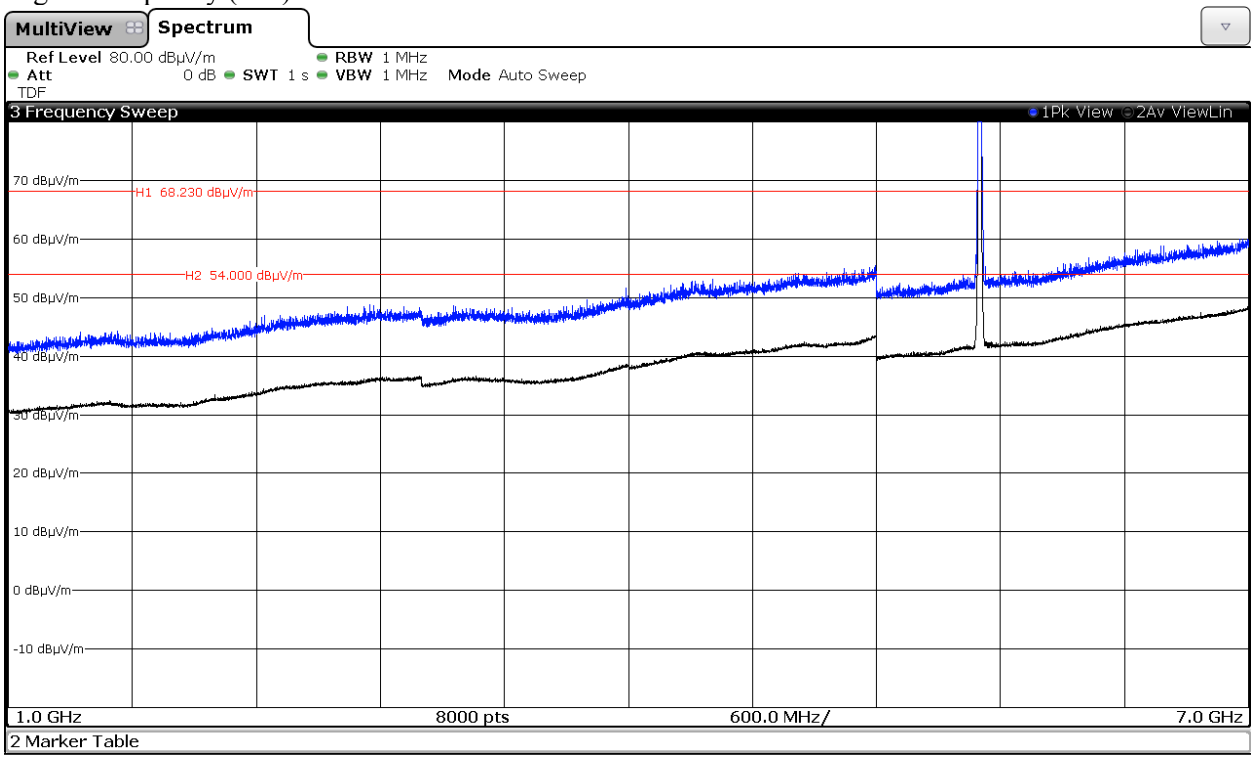

Note: The peak above the limit is the carrier frequency. This plot is valid for both Chain A and Chain B.

Middle frequency (120) 5600 MHz.




Note: The peak above the limit is the carrier frequency. This plot is valid for both Chain A and Chain B.

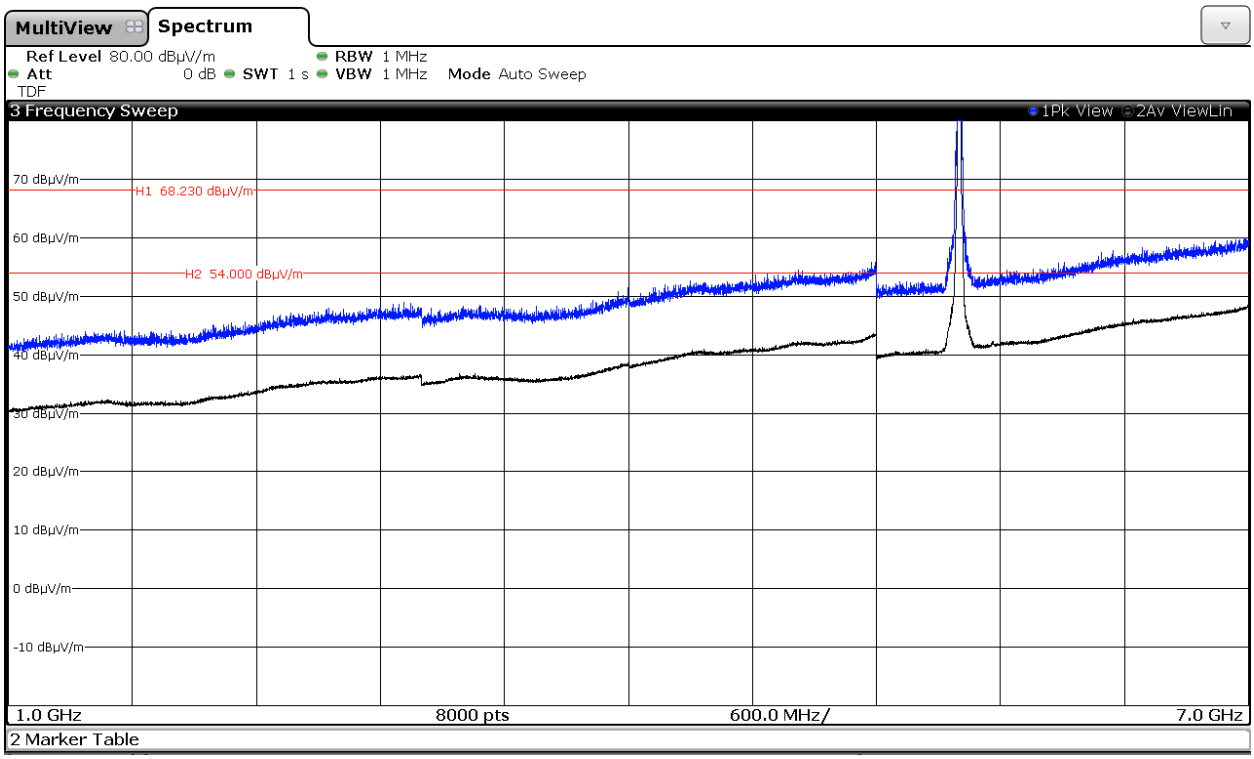
Highest frequency (140) 5700 MHz.




Note: The peak above the limit is the carrier frequency. This plot is valid for both Chain A and Chain B.

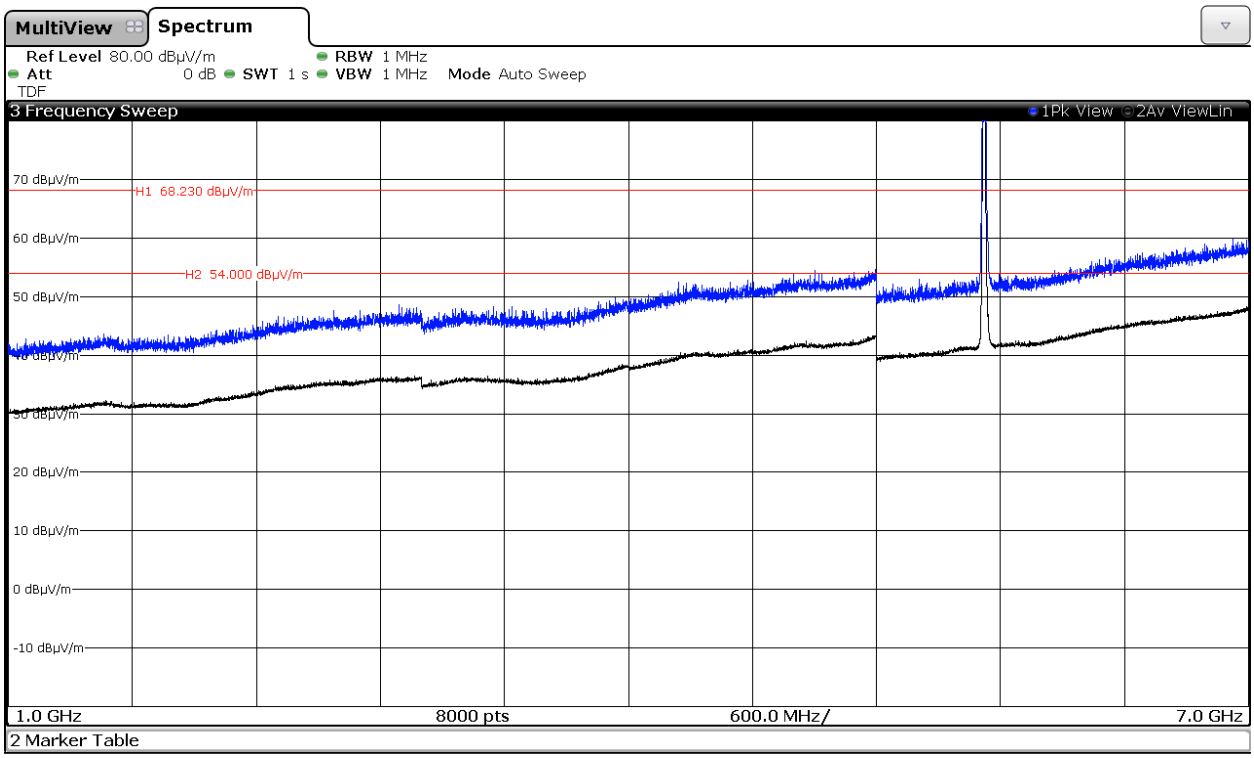
2. WiFi 5GHz 802.11 n20 mode

Middle frequency (120) 5600 MHz.




Note: The peak above the limit is the carrier frequency. This plot is valid for both Chain A and Chain B, Chain A+B.

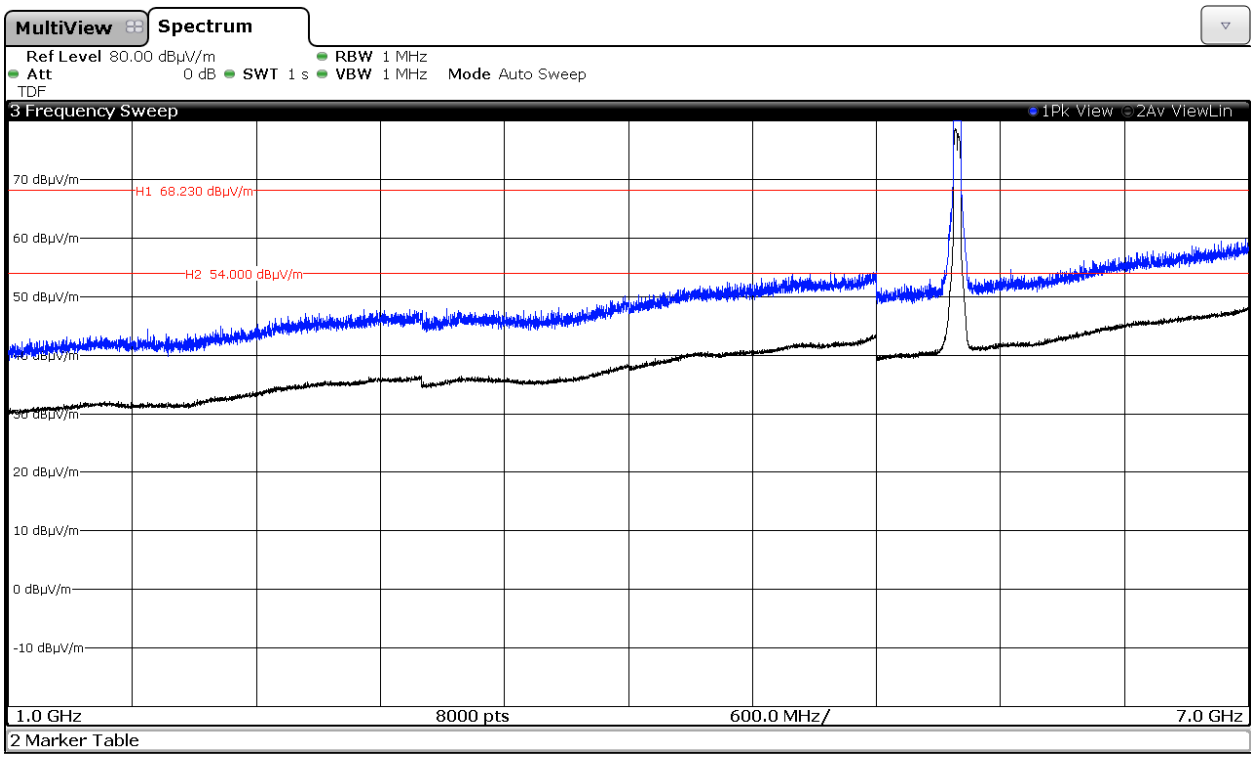
802.11ac20 mode: CH 144 5720 MHz.




Note: The peak above the limit is the carrier frequency. This plot is valid for both Chain A and Chain B, Chain A+B.

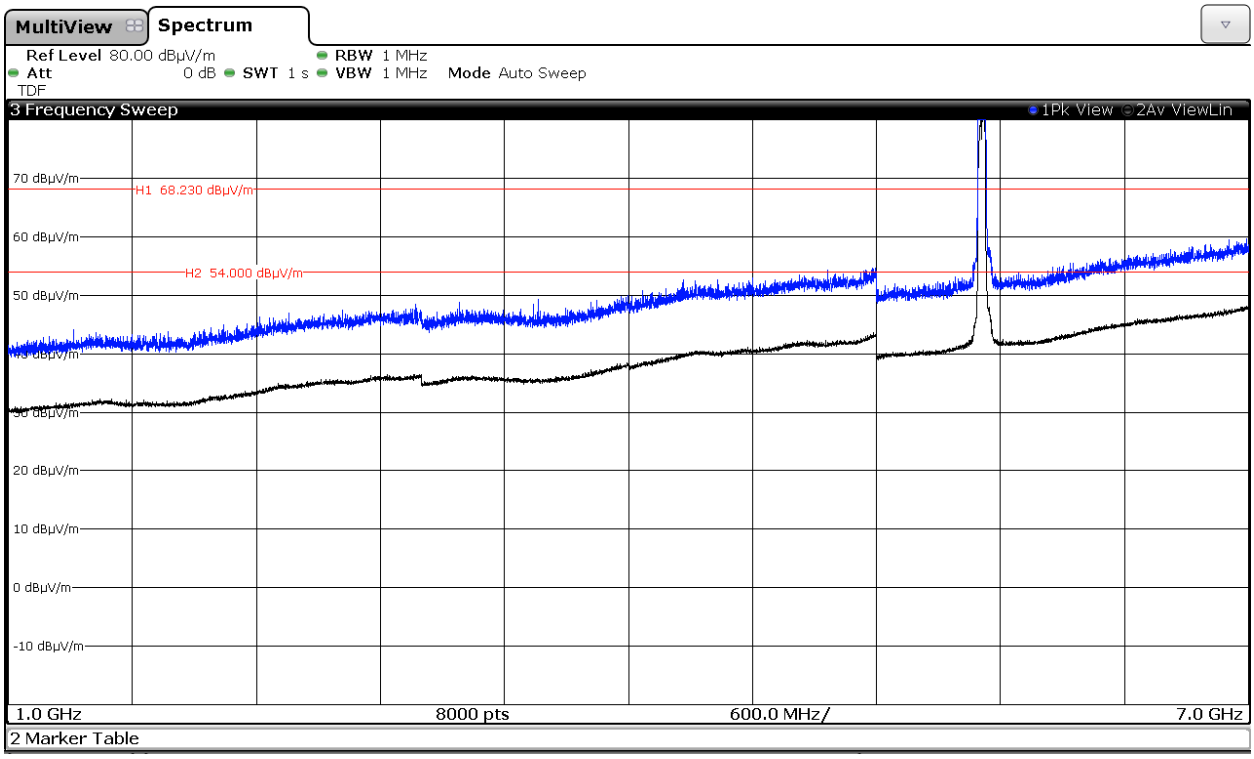
3. WiFi 5GHz 802.11 n40 mode

Middle frequency (118) 5590 MHz.




Note: The peak above the limit is the carrier frequency. This plot is valid for both Chain A and Chain B, Chain A+B.

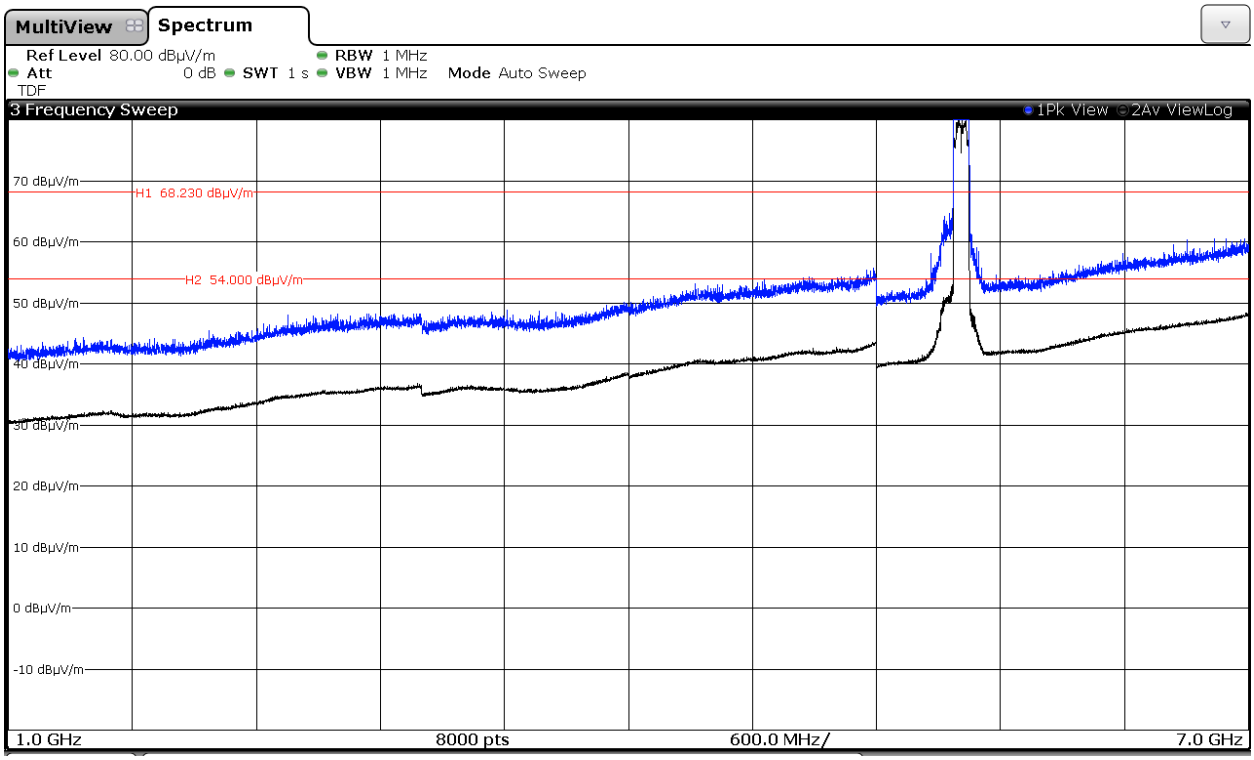
802.11ac40 mode: CH 142 5710 MHz.




Note: The peak above the limit is the carrier frequency. This plot is valid for both Chain A and Chain B, Chain A+B.

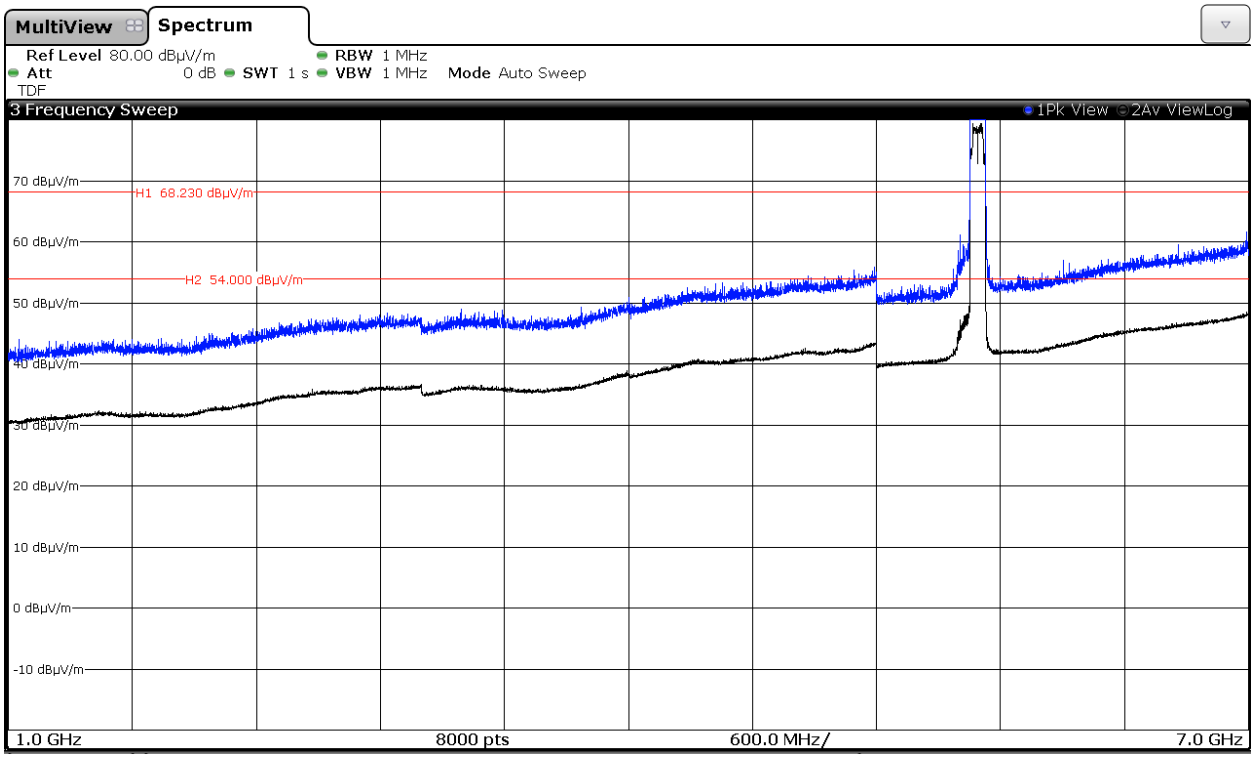
4. WiFi 5GHz 802.11 ac80 mode

Middle frequency (122) 5610 MHz.




Note: The peak above the limit is the carrier frequency. This plot is valid for both Chain A and Chain B, Chain A+B.

802.11ac80 mode: CH 138 5690 MHz.

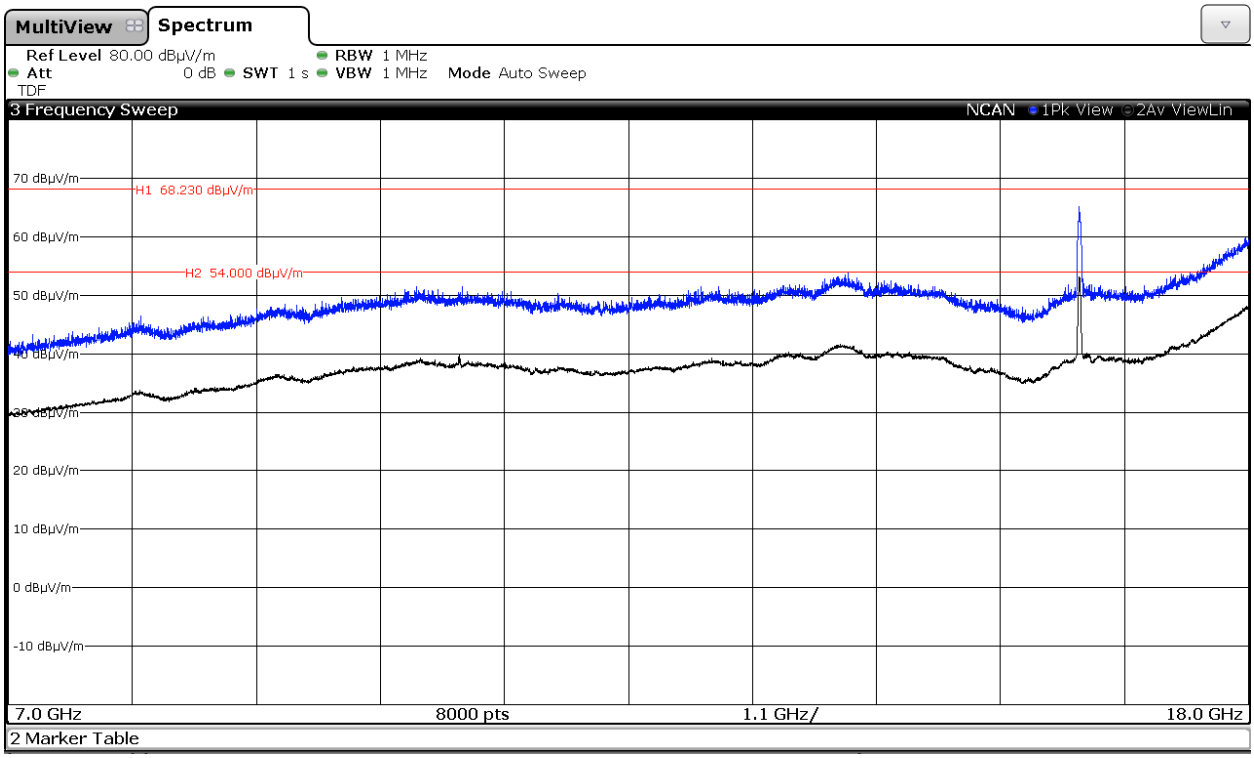



Note: The peak above the limit is the carrier frequency. This plot is valid for both Chain A and Chain B, Chain A+B.

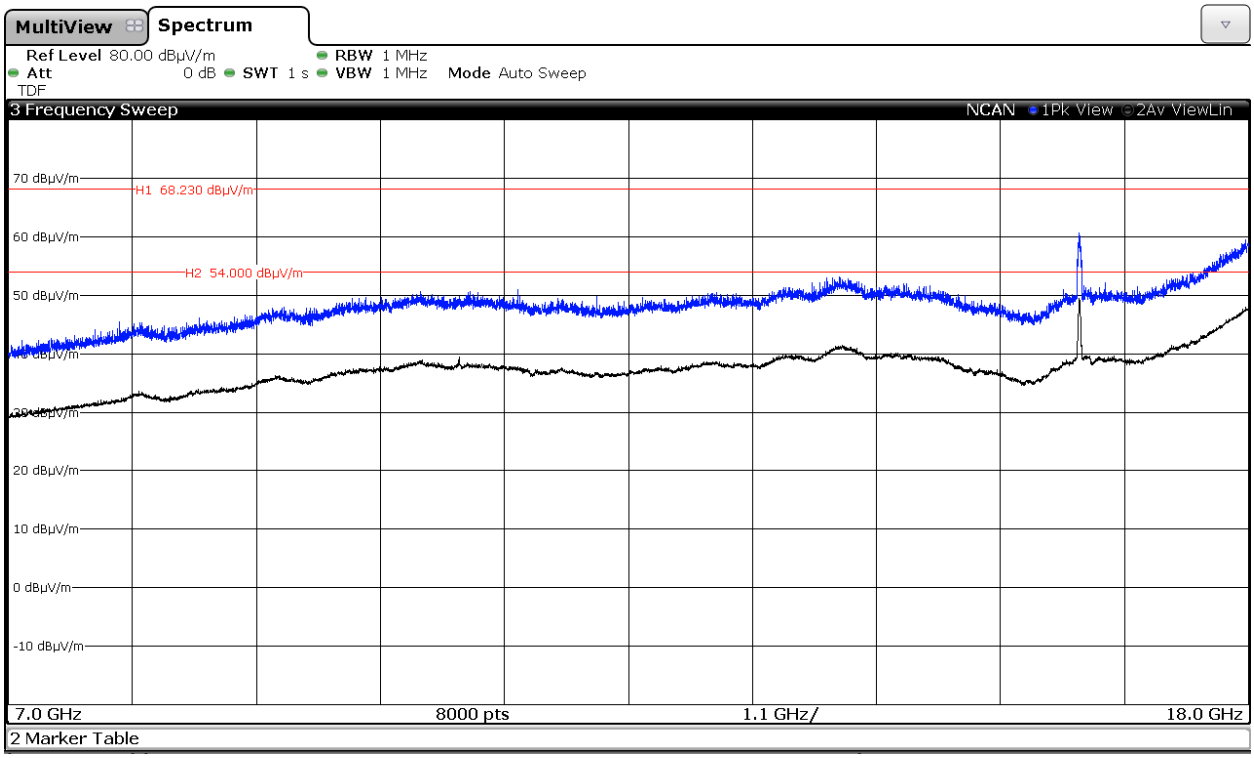
**FREQUENCY RANGE 7 GHz to 18 GHz.**

1. WiFi 5GHz 802.11 a mode

Lowest frequency (100) 5500 MHz.
Chain A

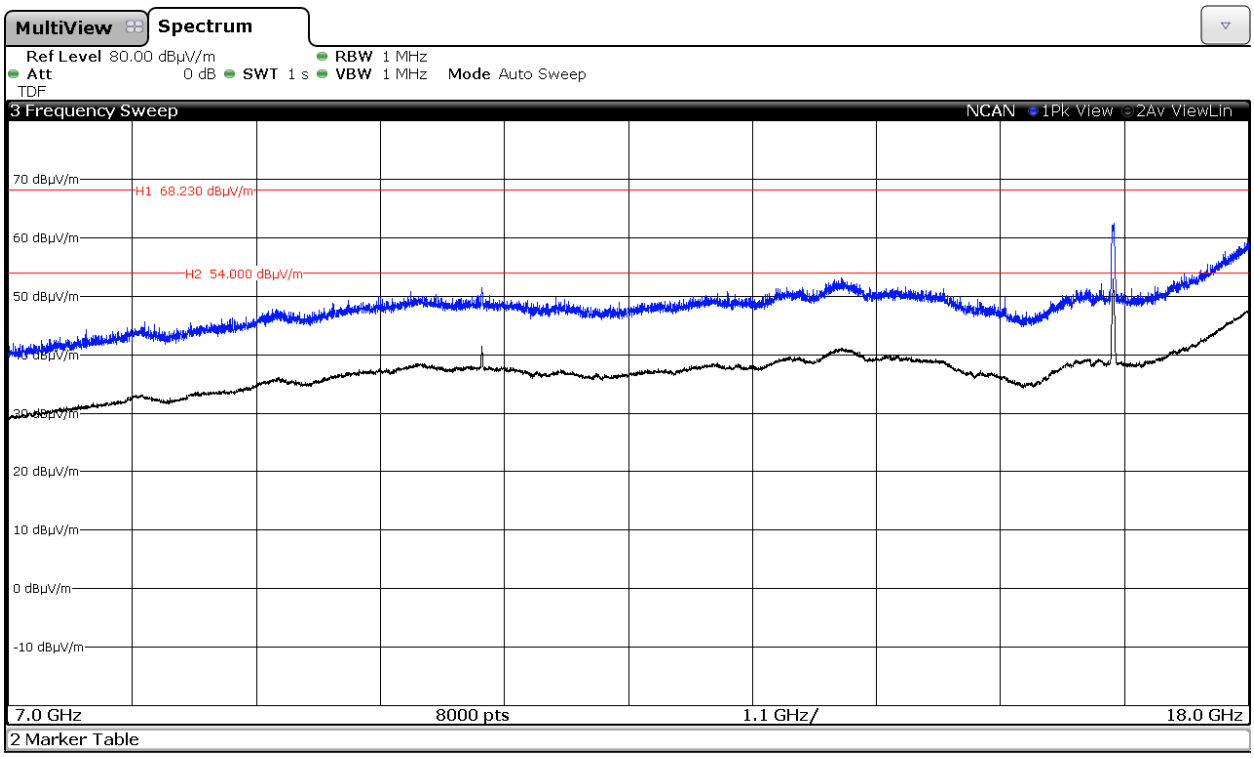


Chain B

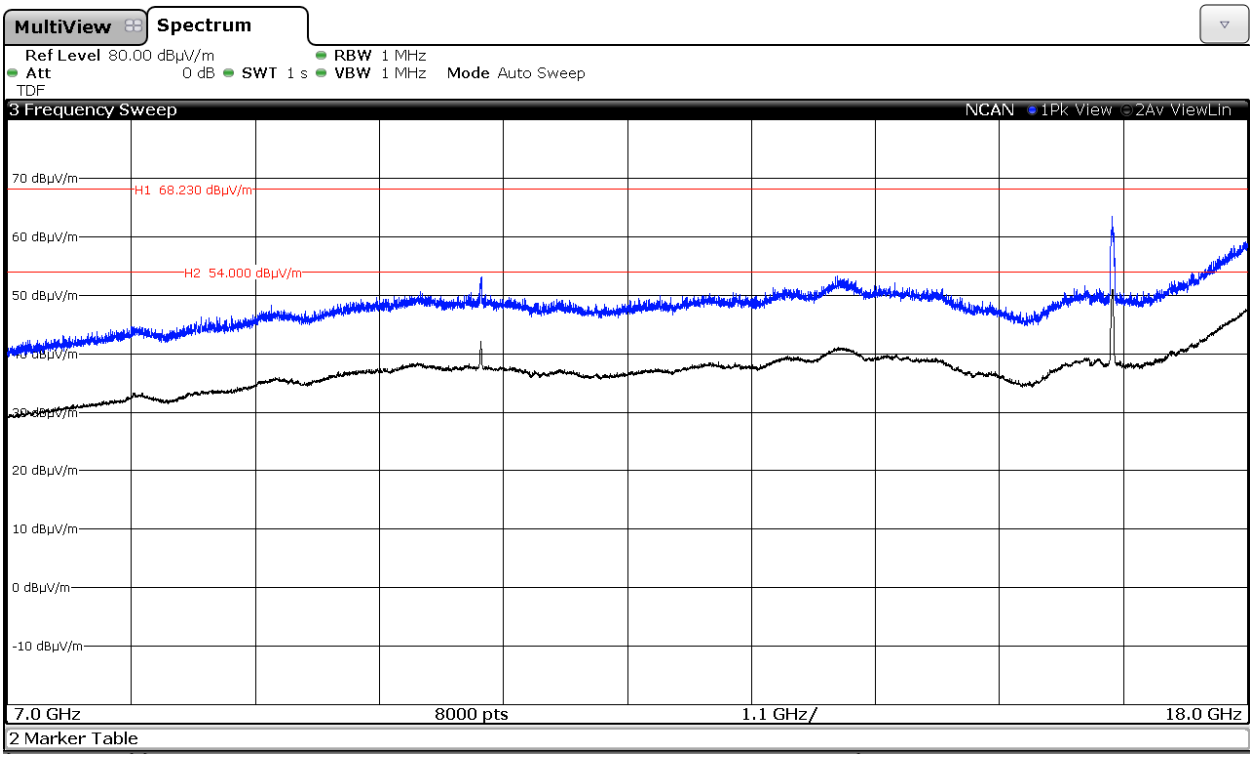



Middle frequency (120) 5600 MHz.

Chain A

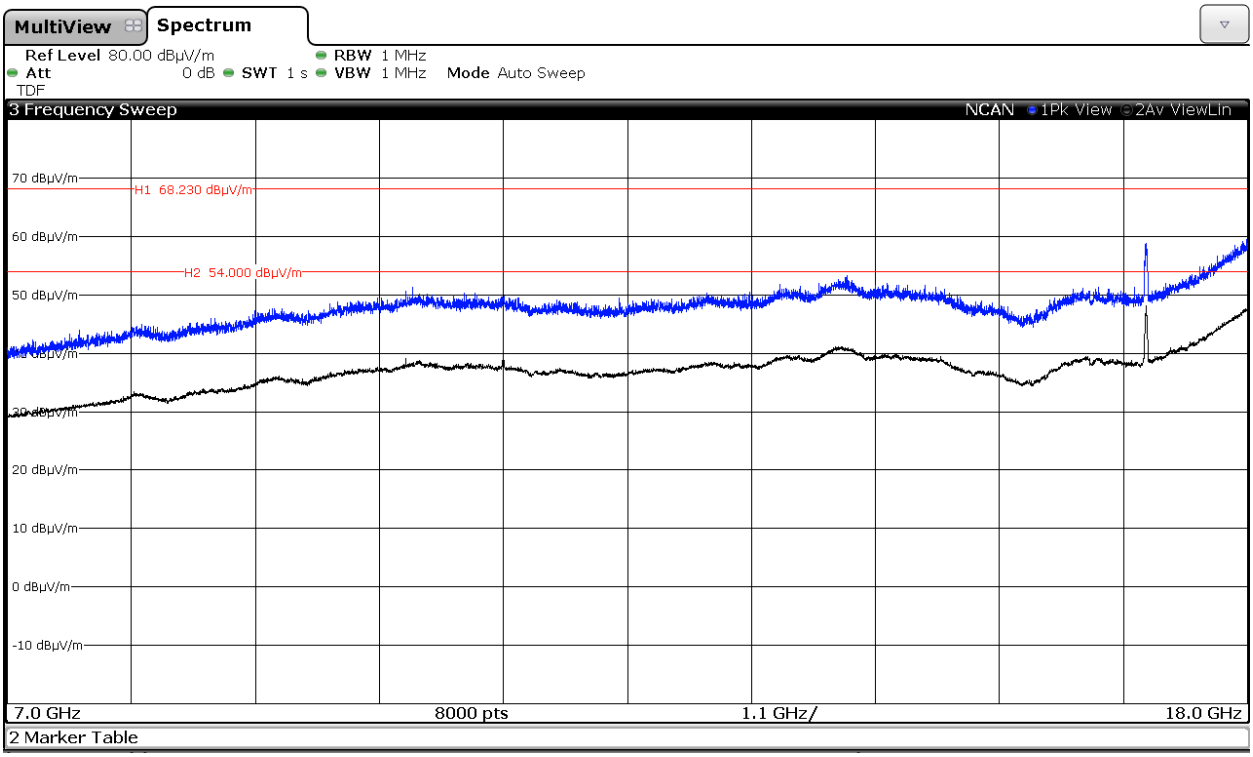


Chain B

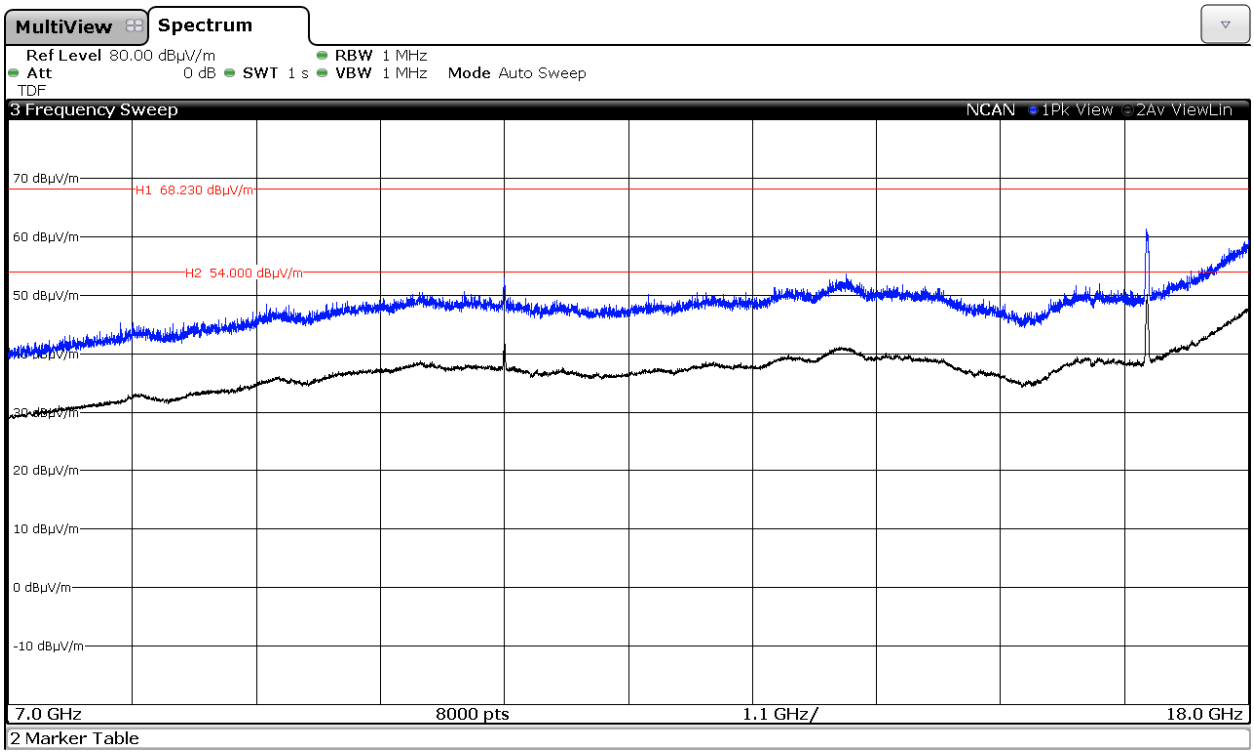



Highest frequency (140) 5700 MHz.

Chain A



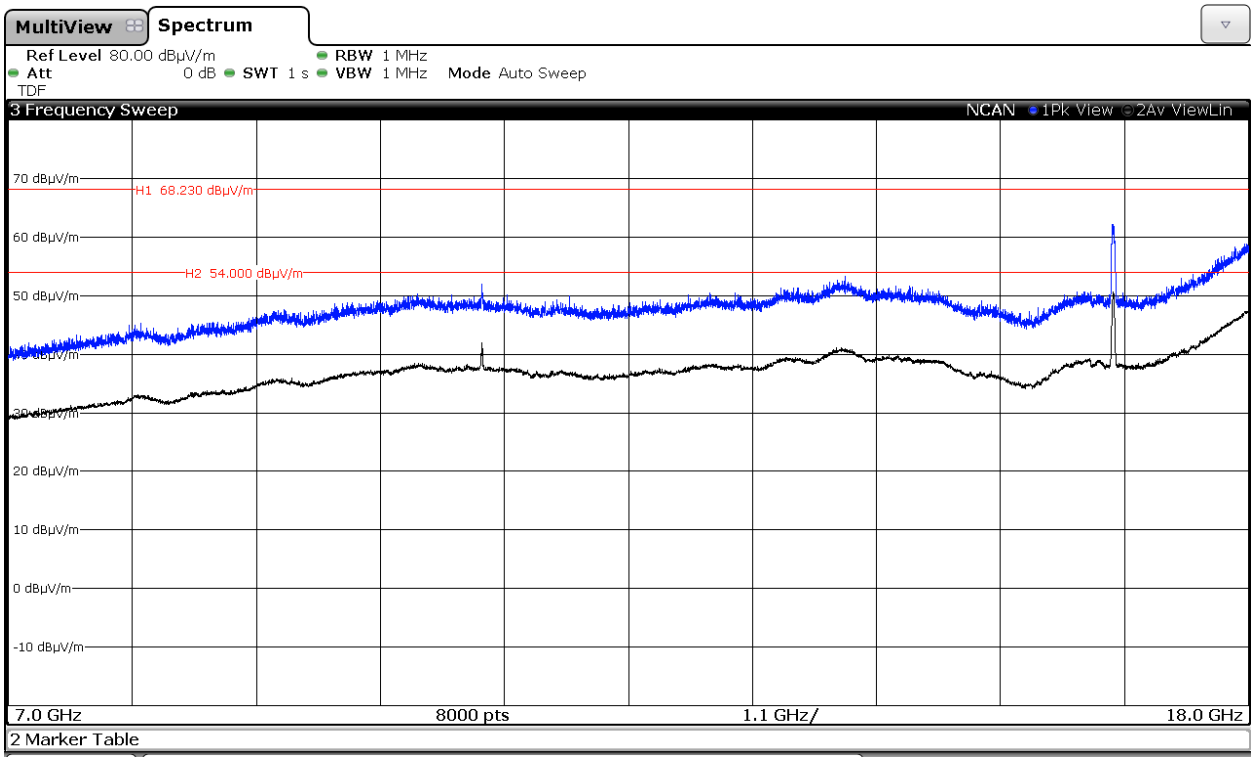
Chain B



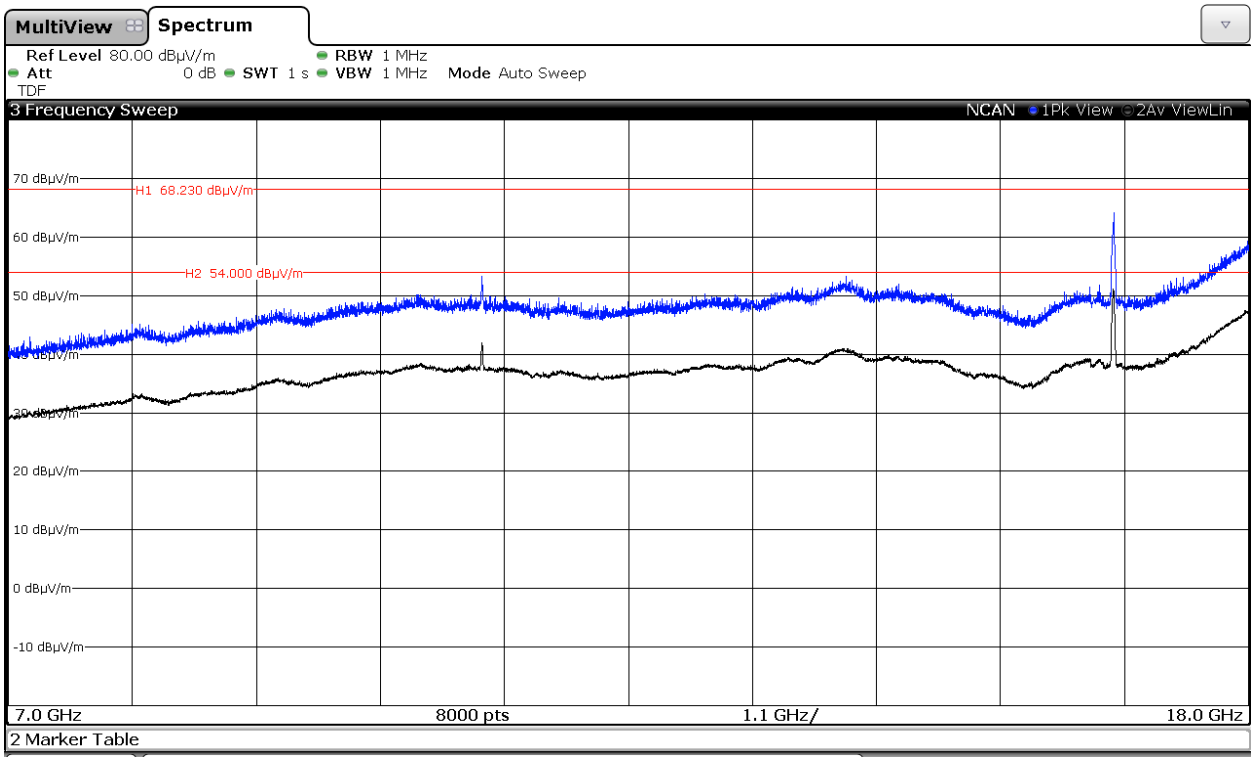

## 2. WiFi 5GHz 802.11 n20 mode

Middle frequency (120) 5600 MHz.

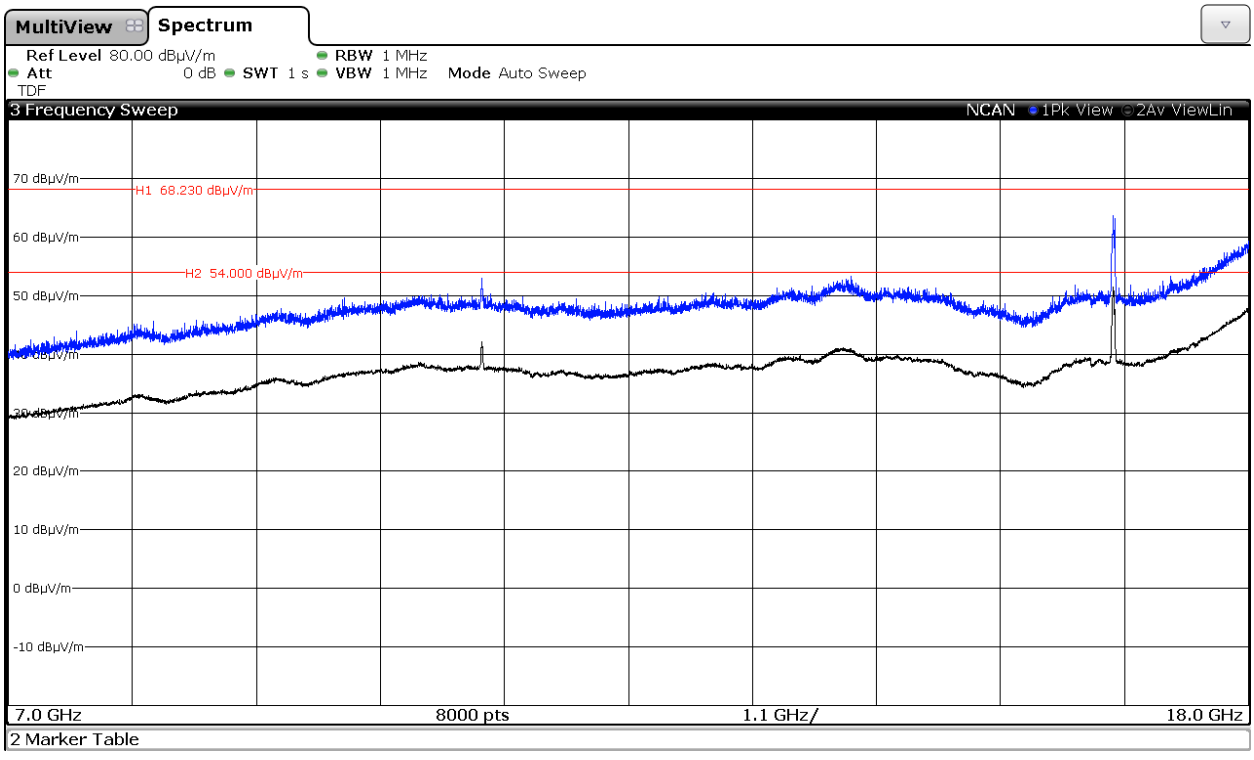
Chain A



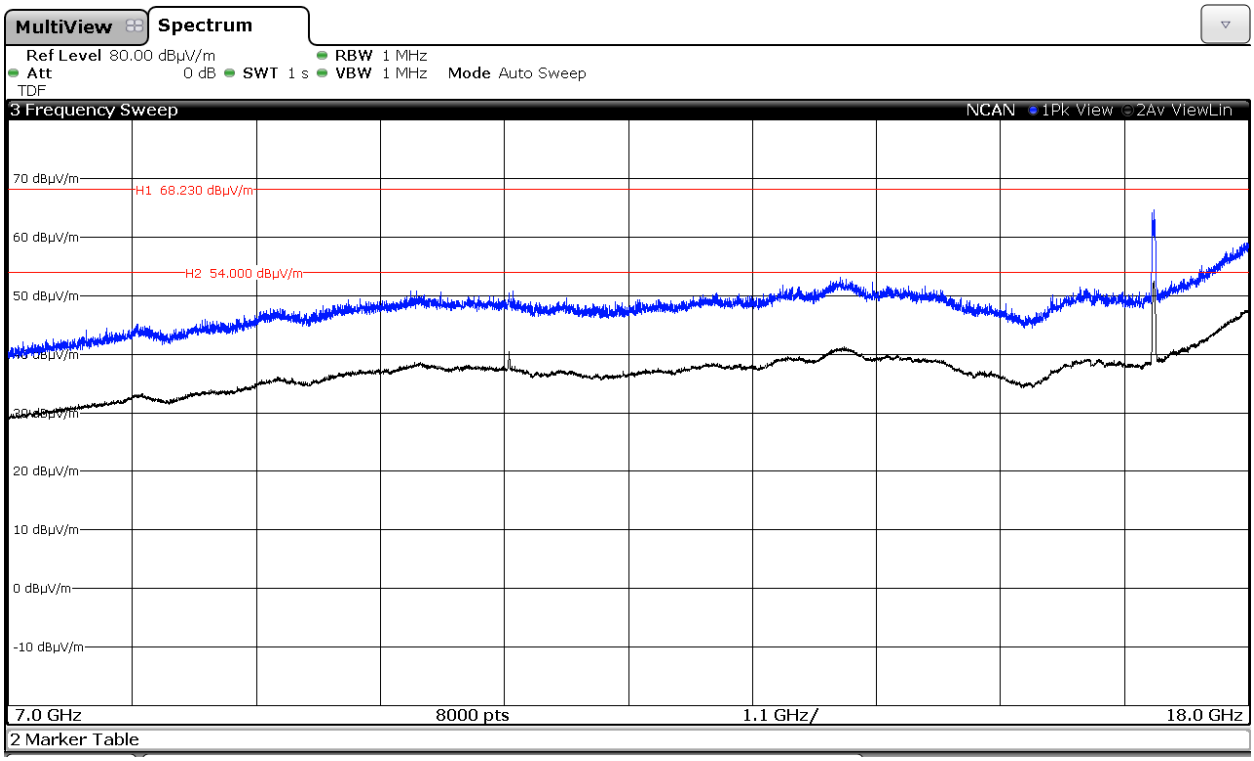
Chain B



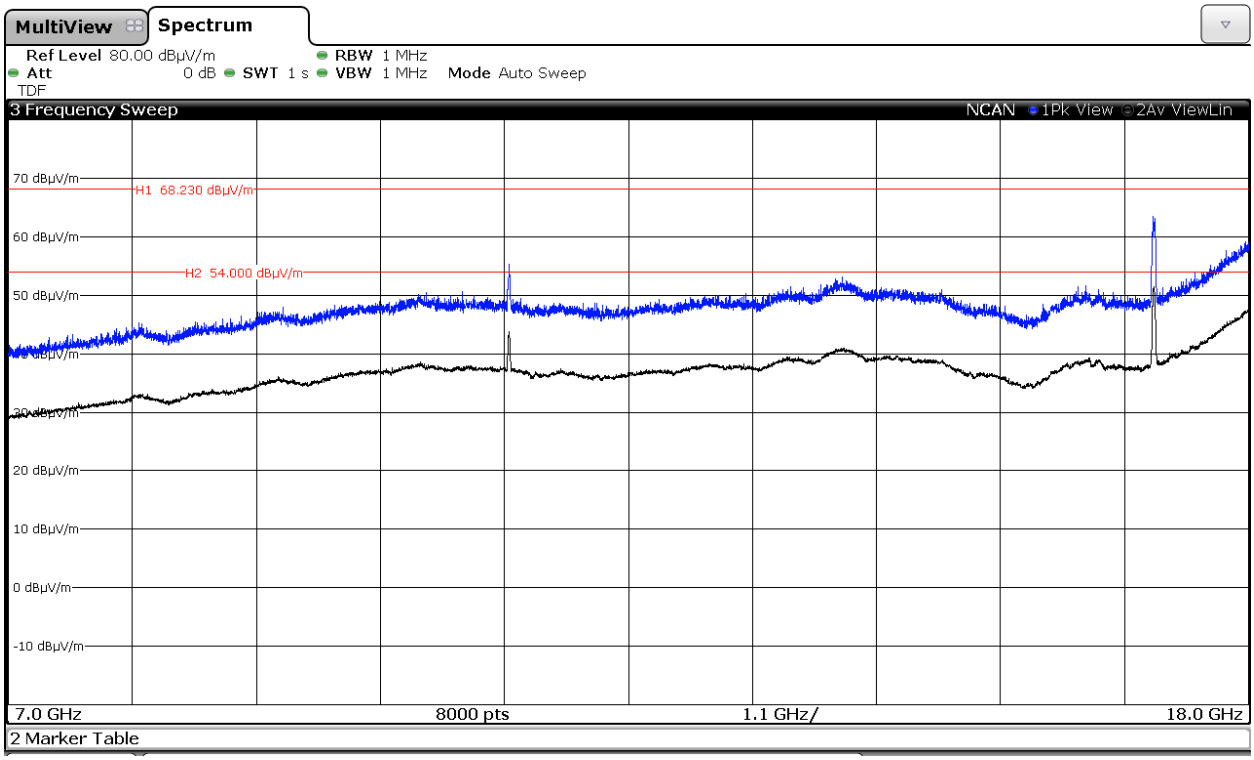

Chain A+B



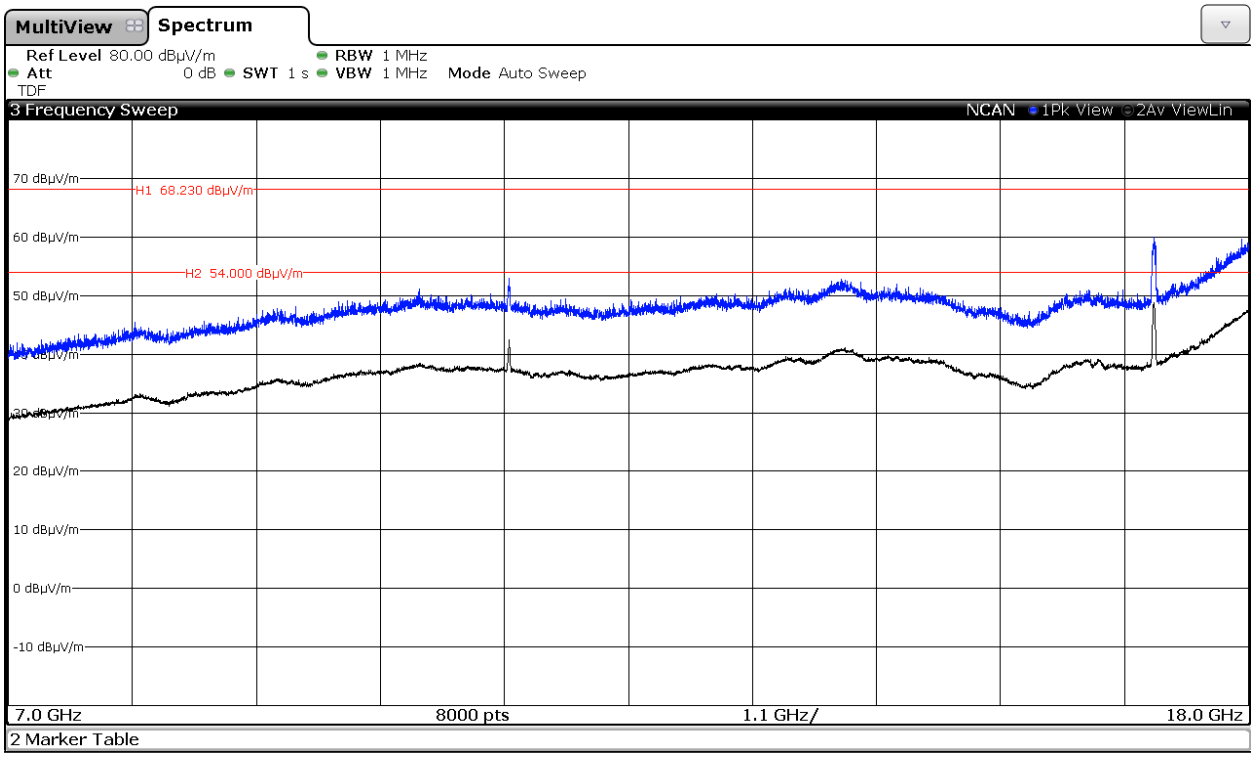
802.11ac20 mode: CH 144 (5720 MHz)
Chain A




Chain B

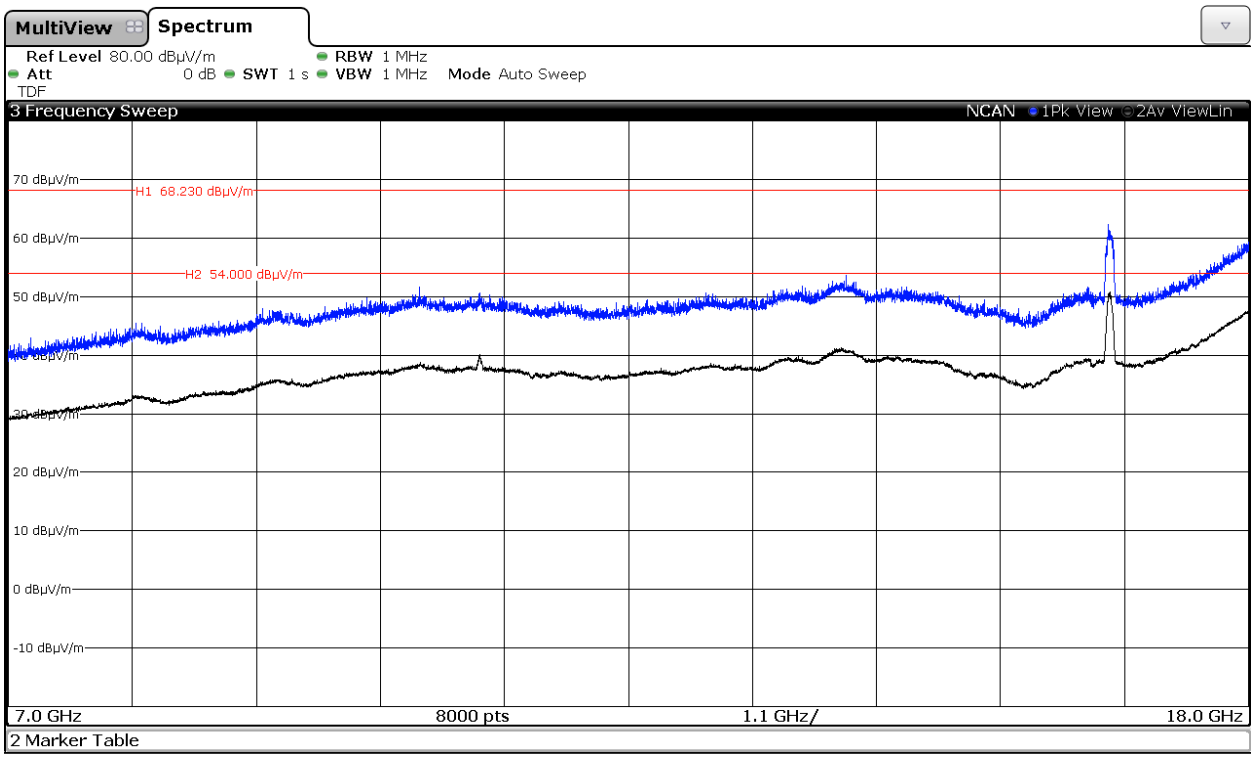


Chain A+B

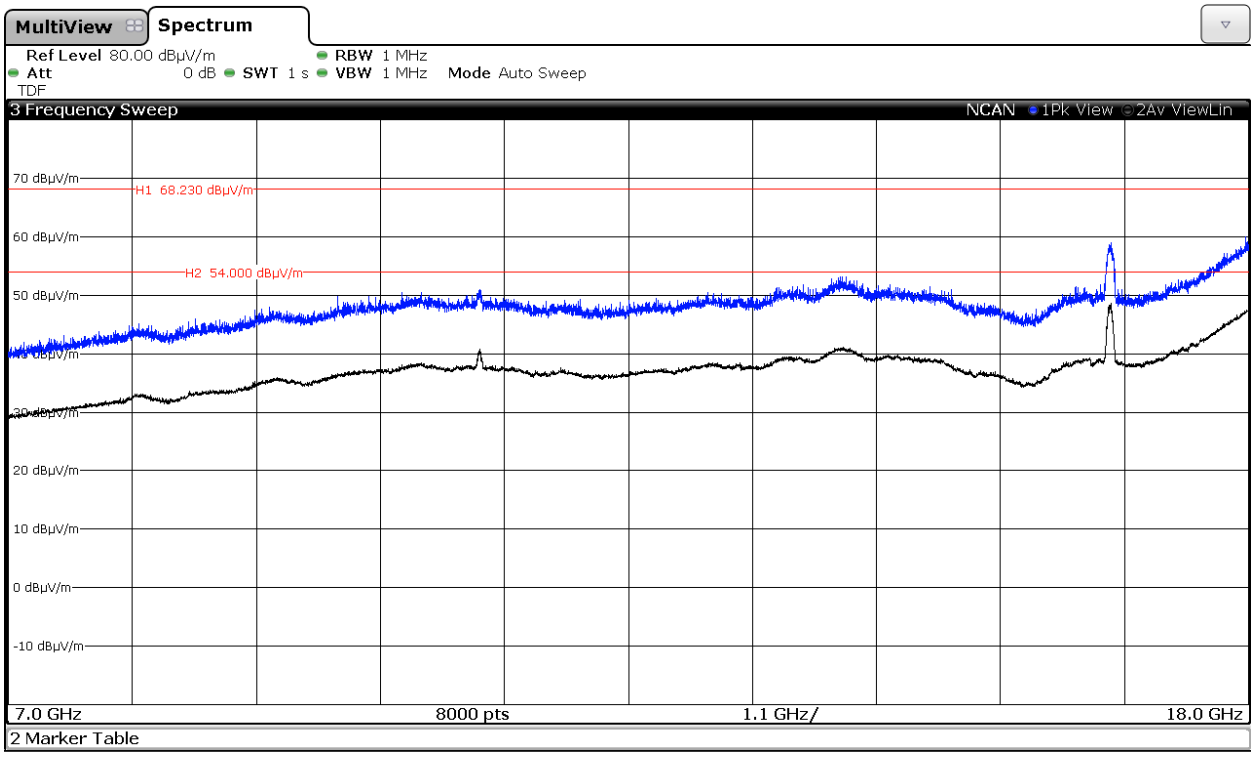



3. WiFi 5GHz 802.11 n40 mode

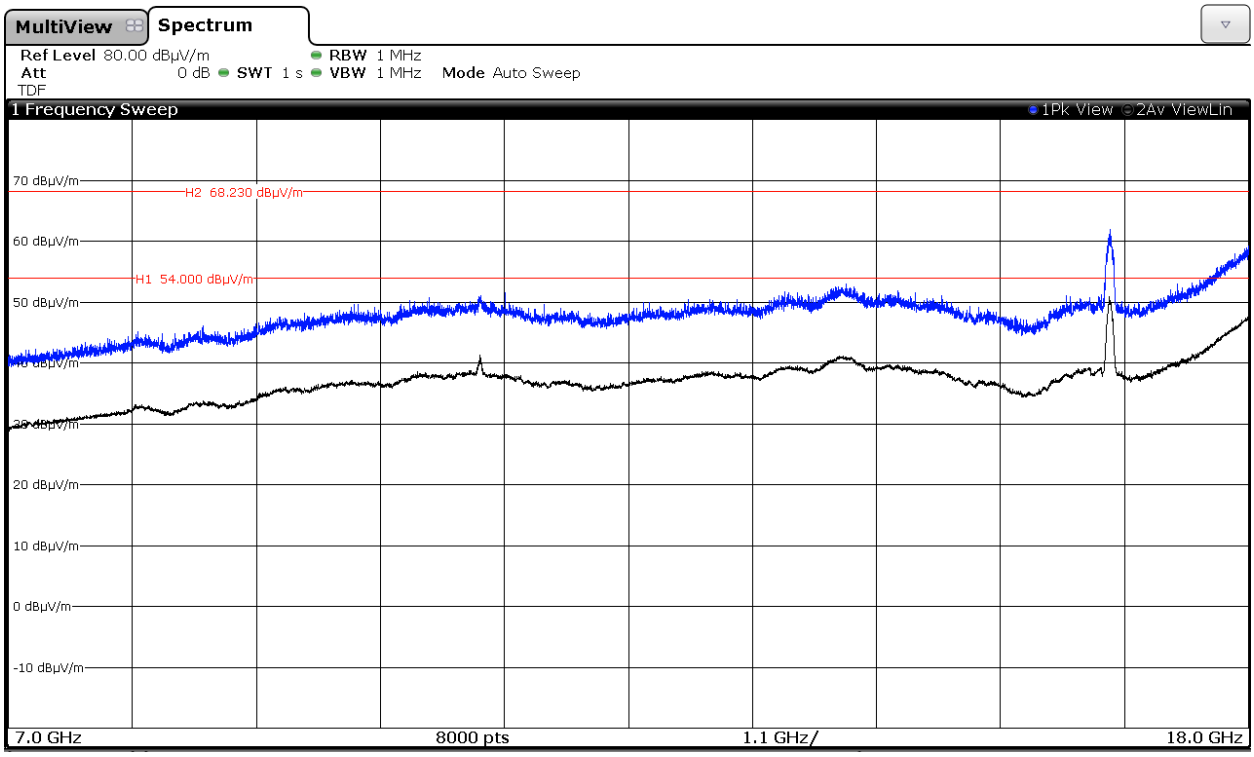
Middle frequency (118) 5590 MHz.
Chain A



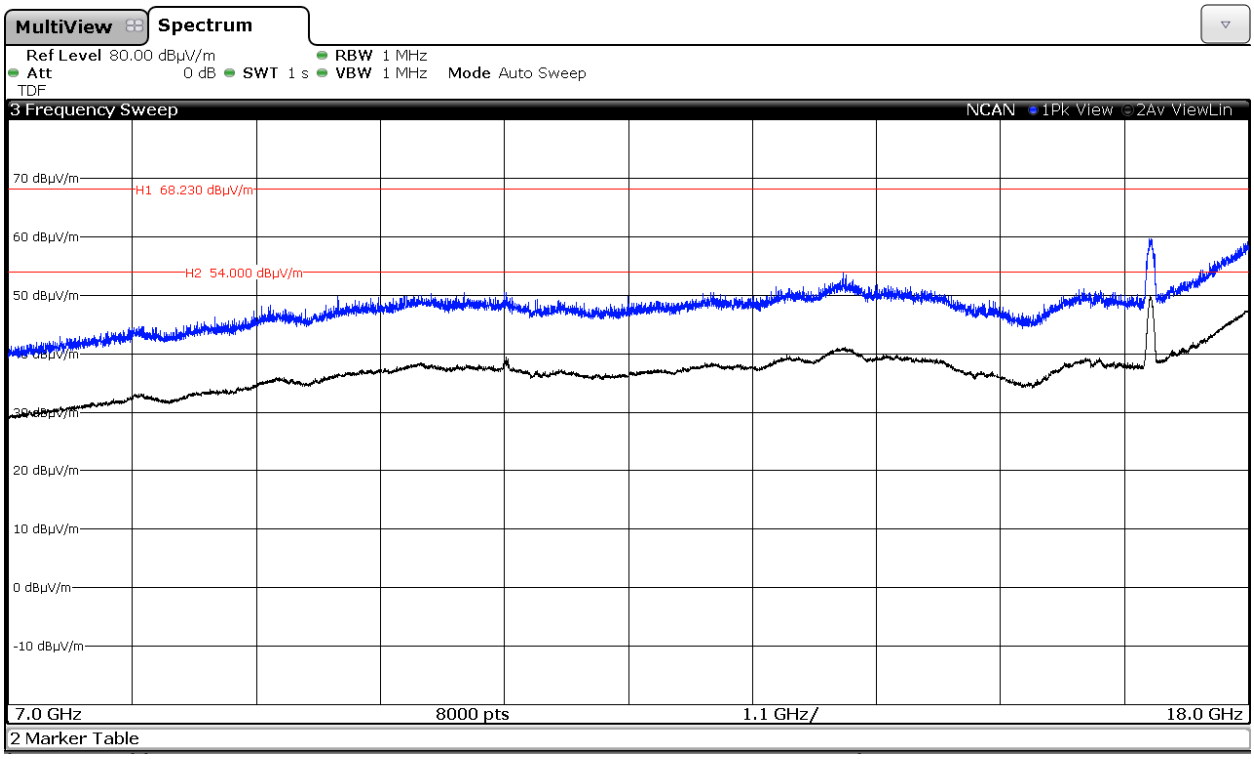
Chain B



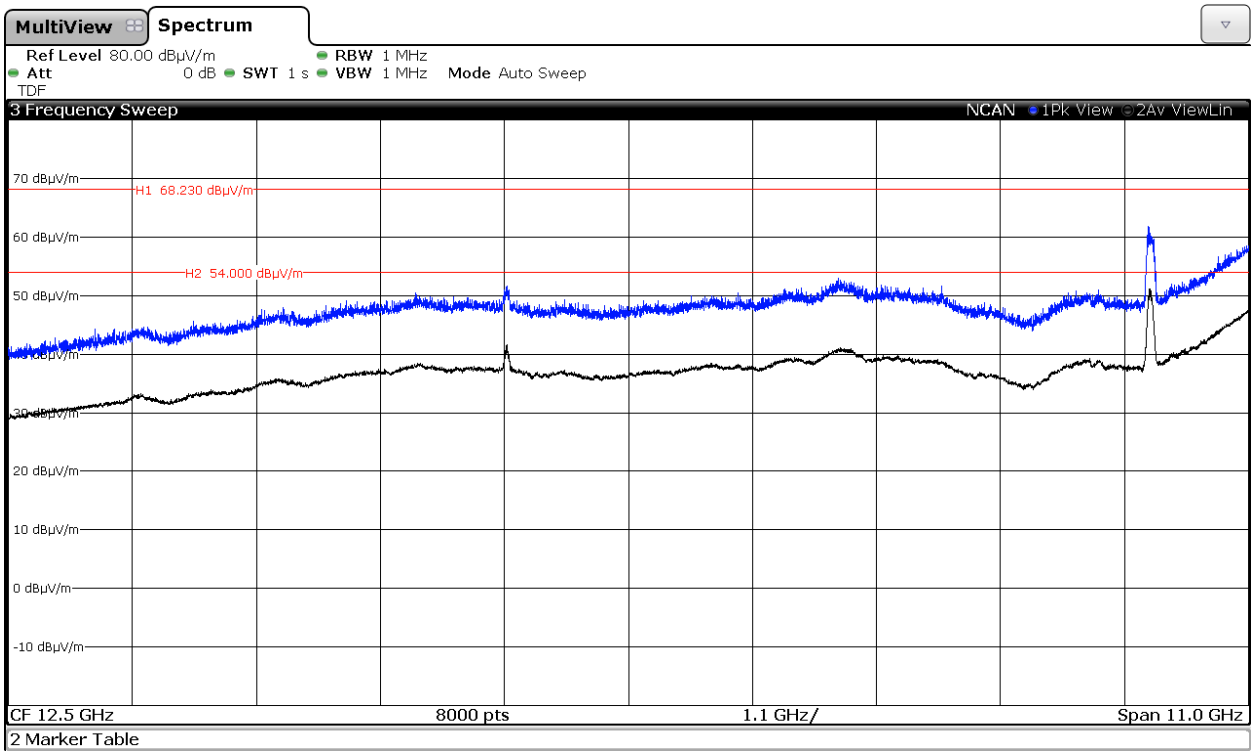

Chain A+B



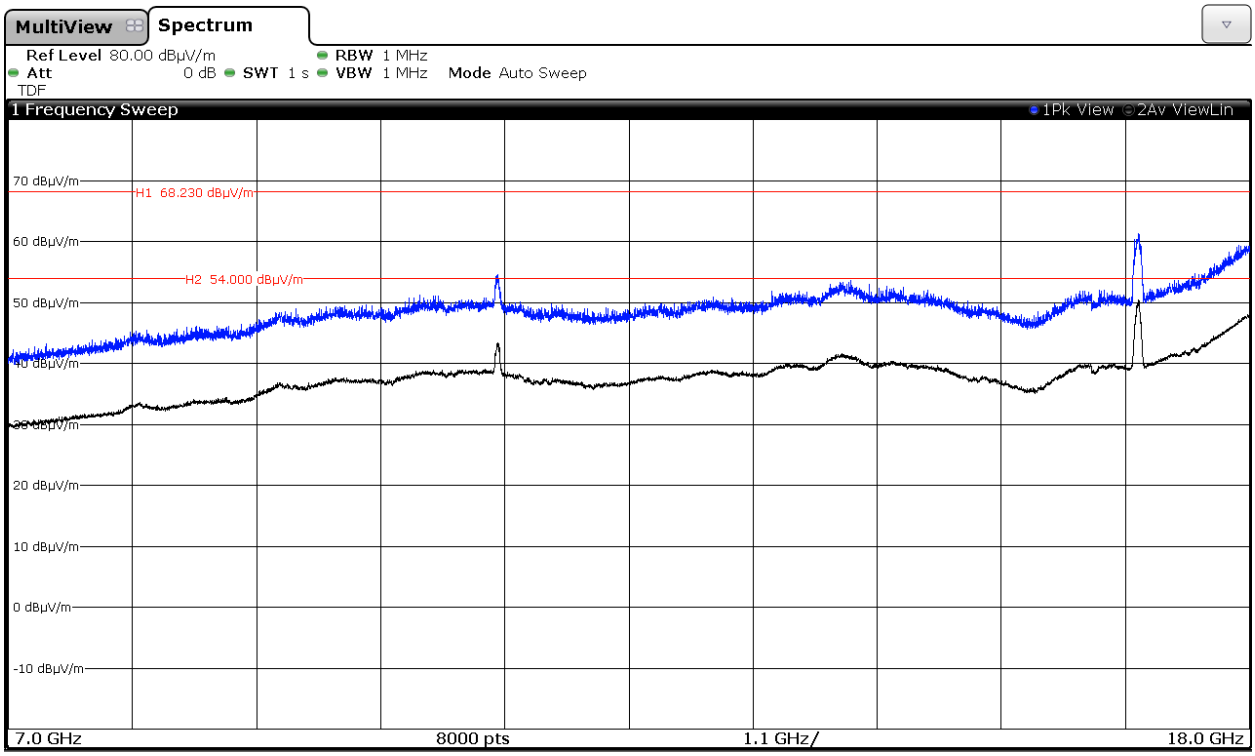
802.11ac40 mode: CH 142 (5710 MHz)
Chain A




Chain B

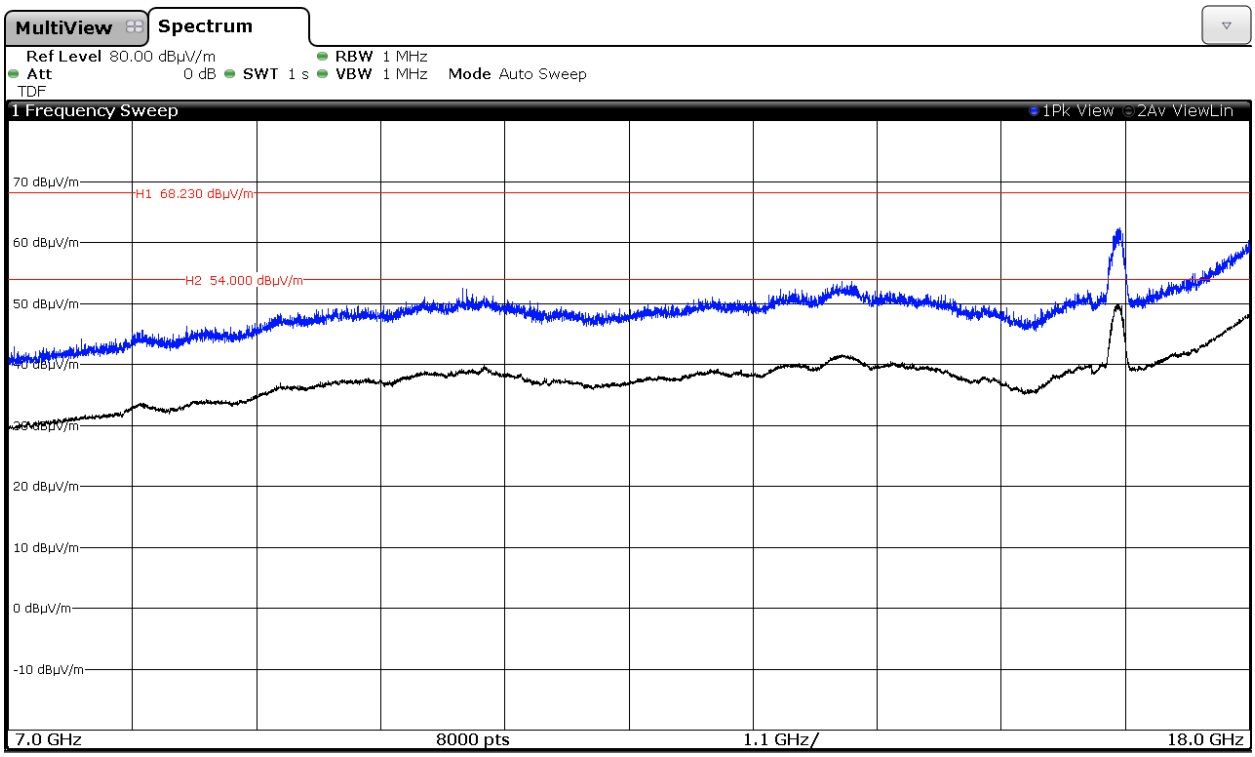


Chain A+B

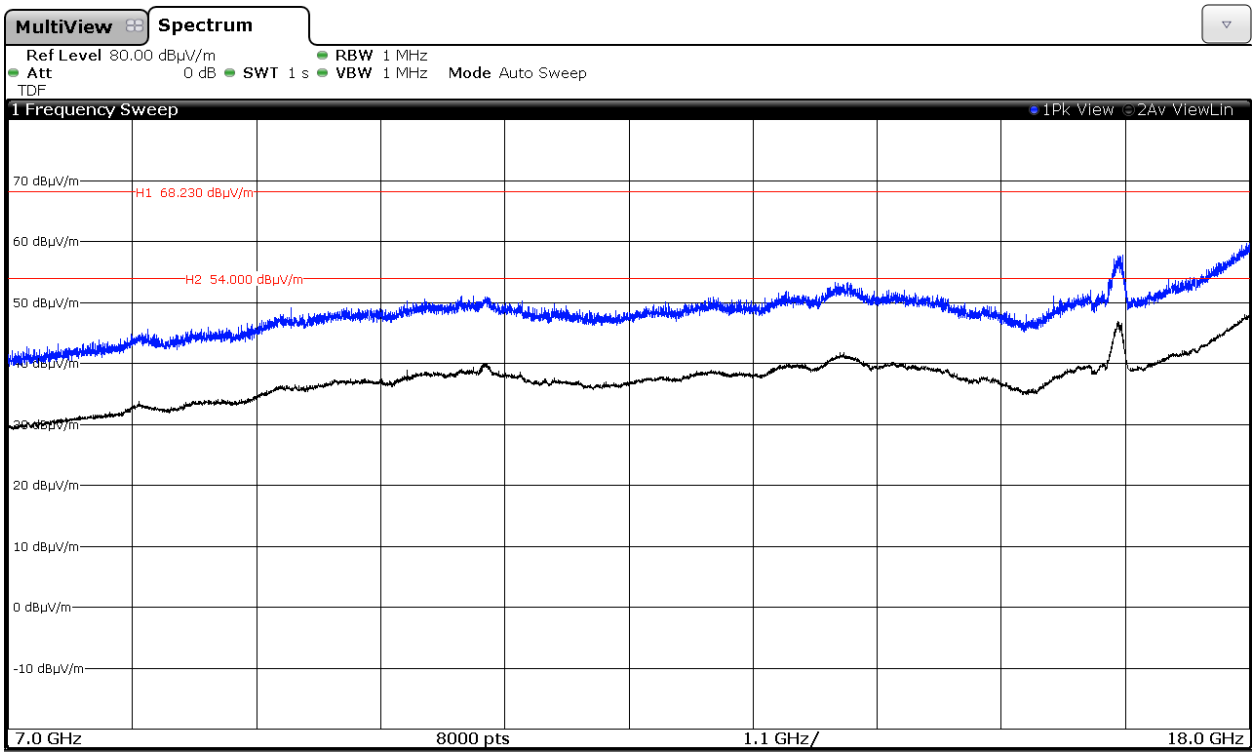



4. WiFi 5GHz 802.11 ac80 mode

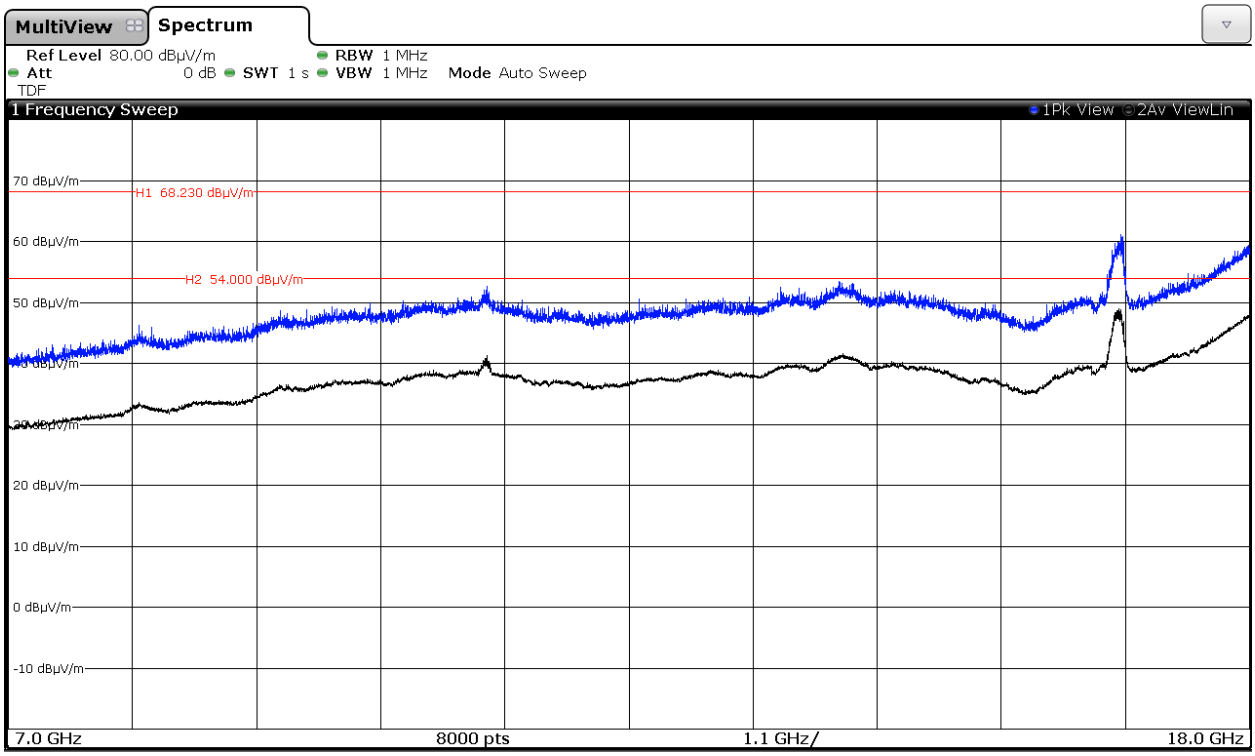
Middle frequency (122) 5610 MHz.
Chain A



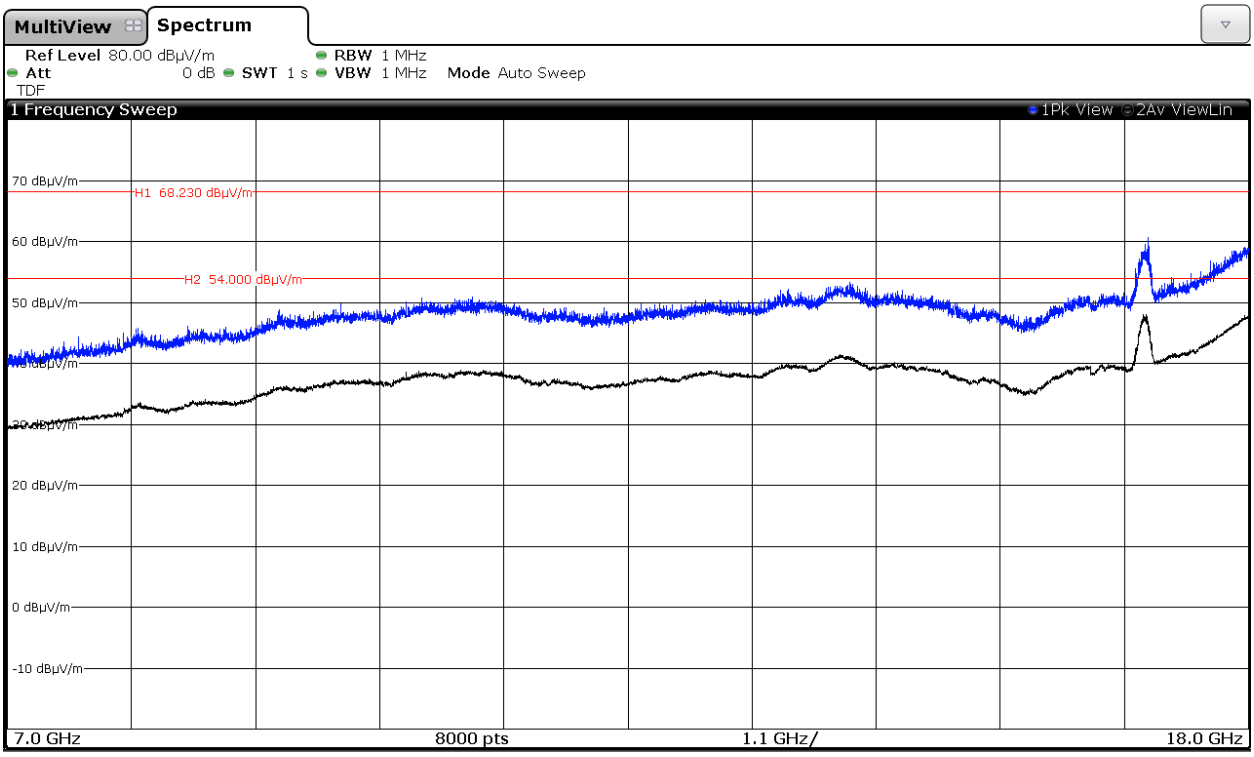
Chain B



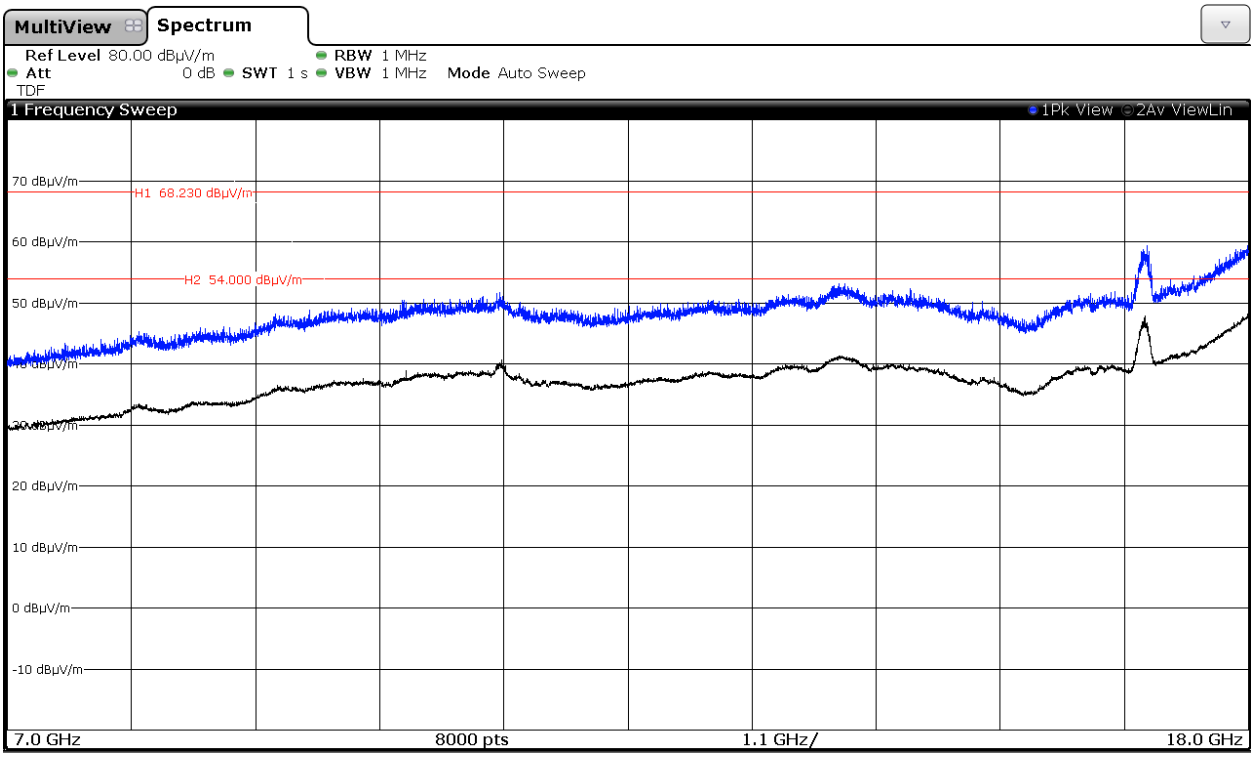

Chain A+B



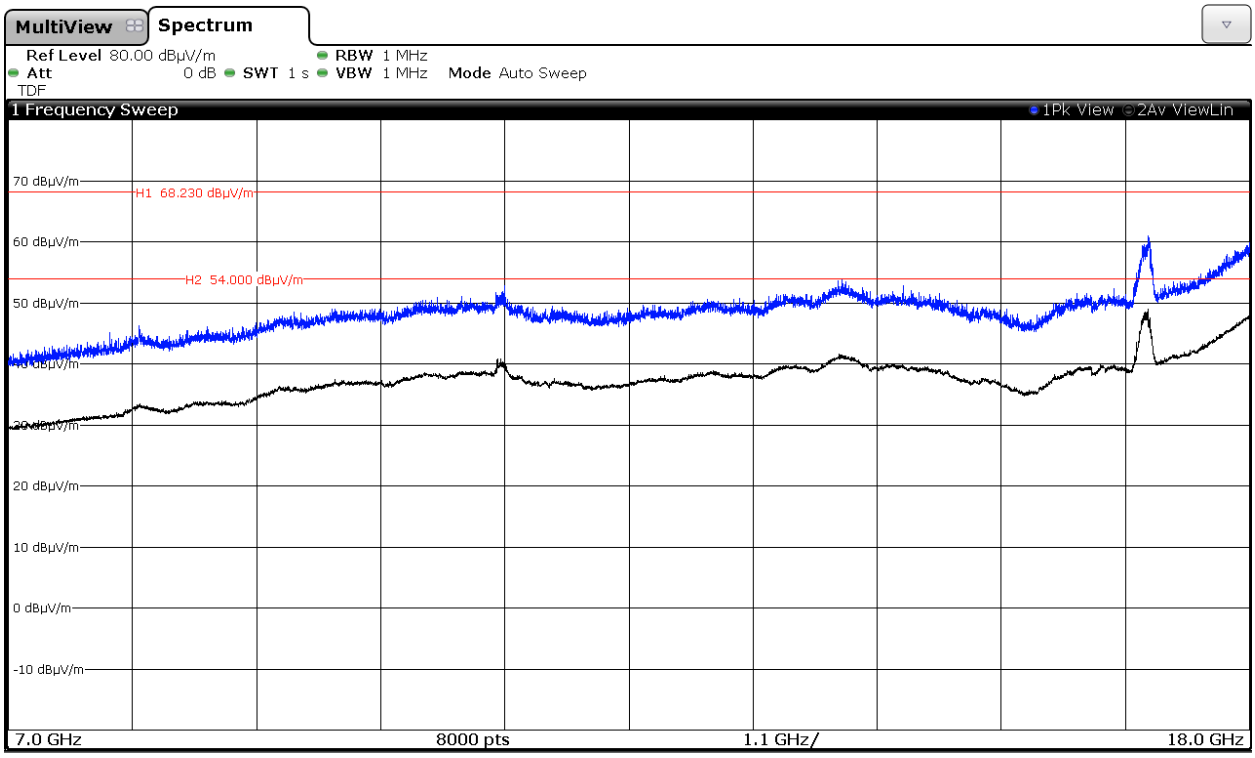
802.11ac80 mode: CH 138 (5690 MHz)
Chain A




Chain B



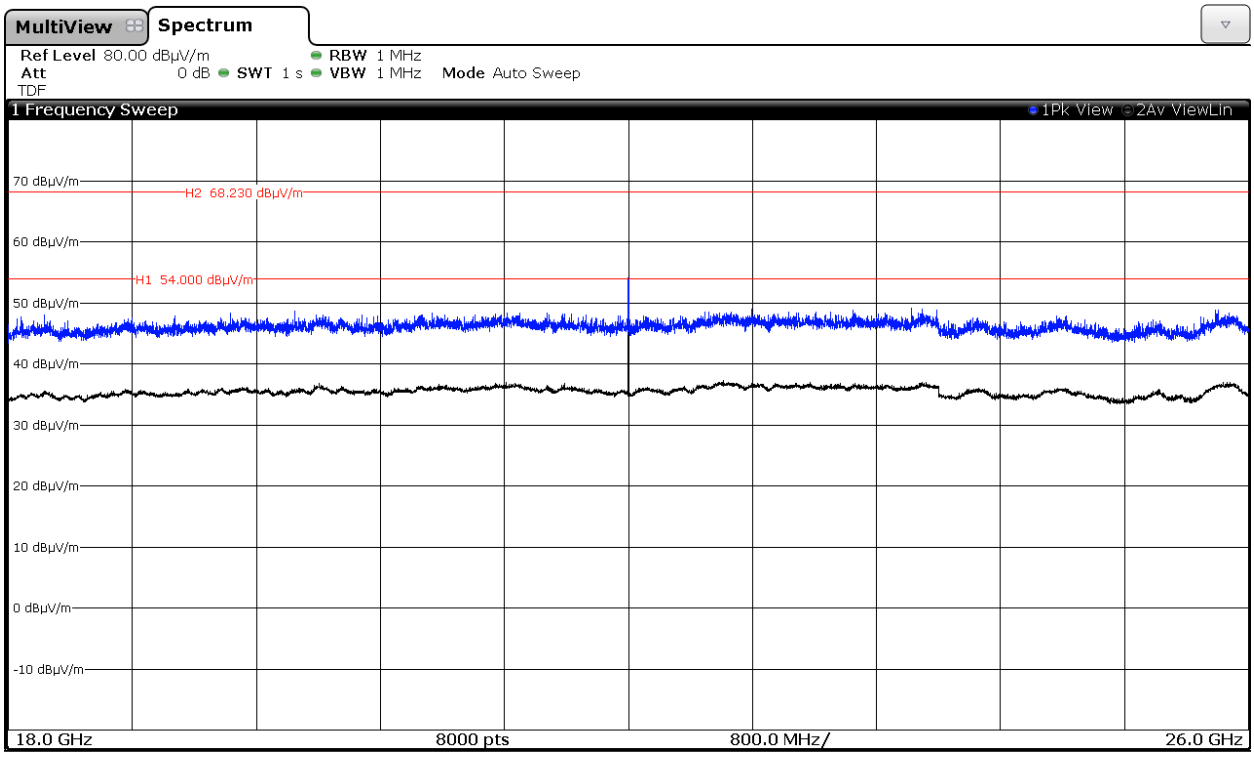
Chain A+B



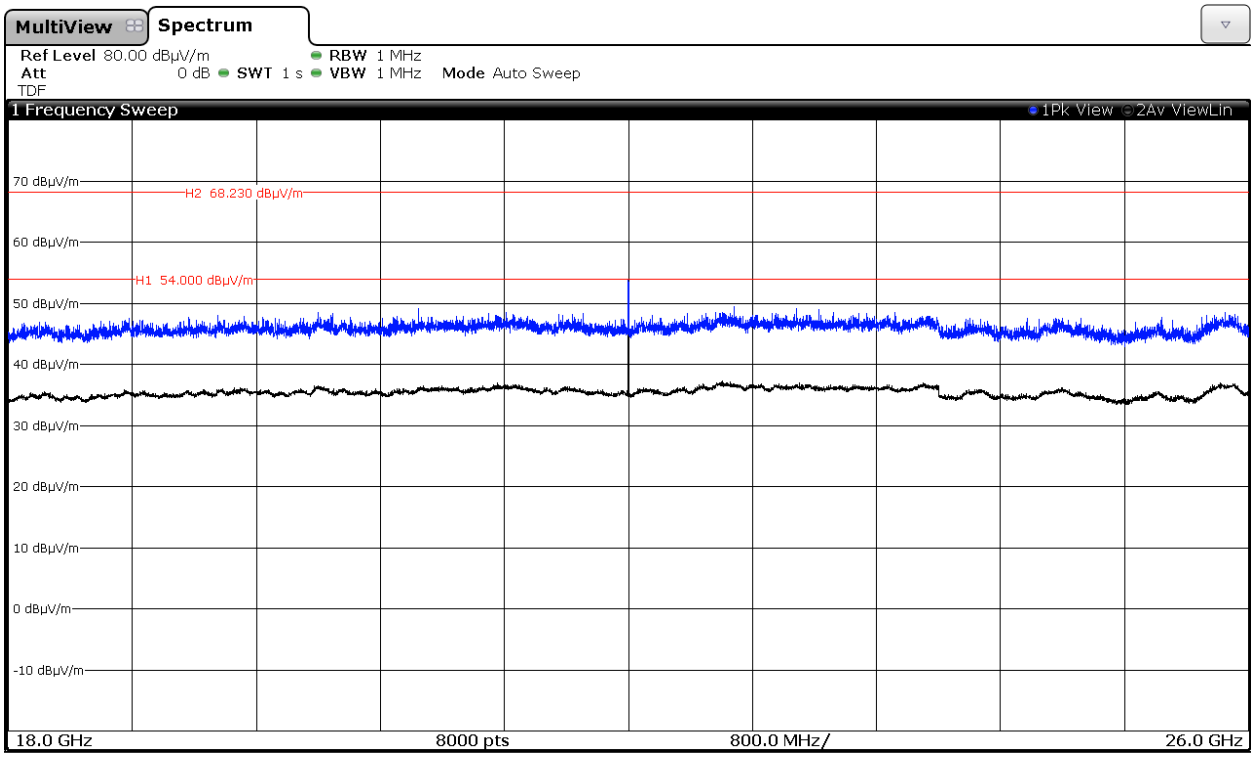

**FREQUENCY RANGE 18 GHz to 26 GHz.**

1. WiFi 5GHz 802.11 a mode

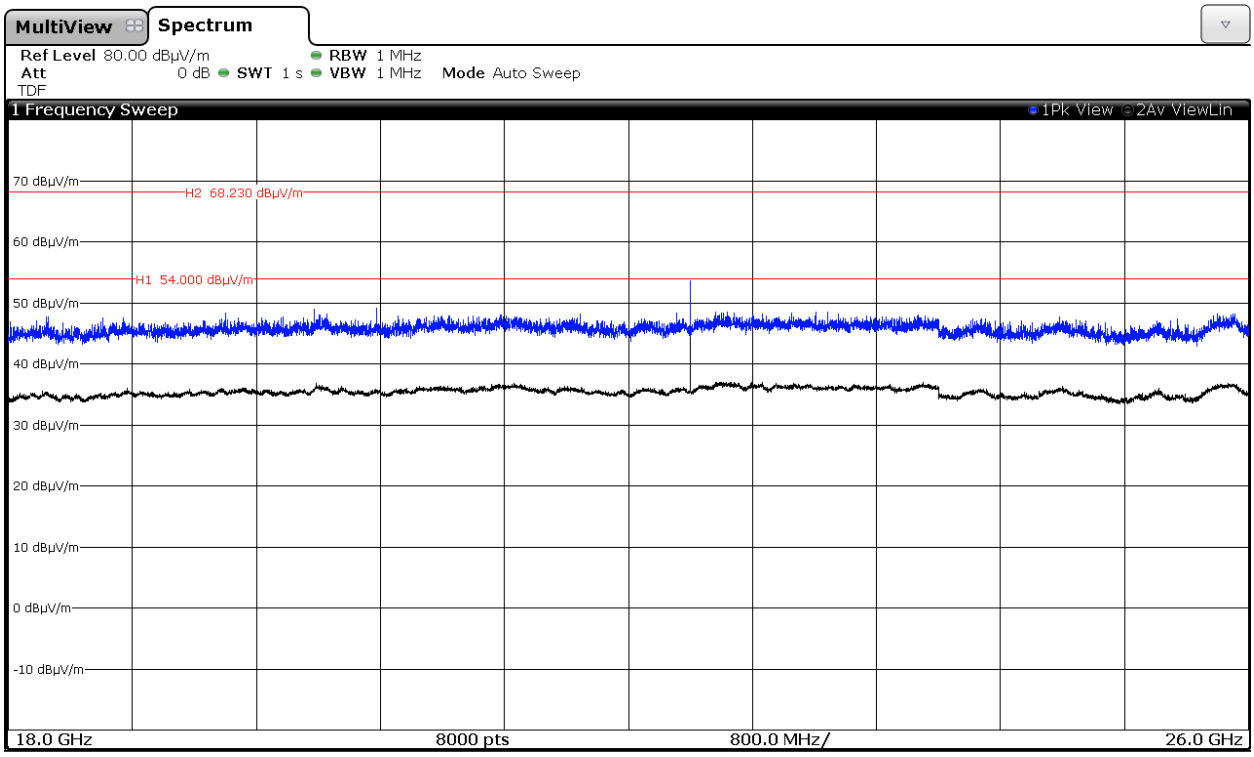
Lowest frequency (100) 5500 MHz.
Chain A



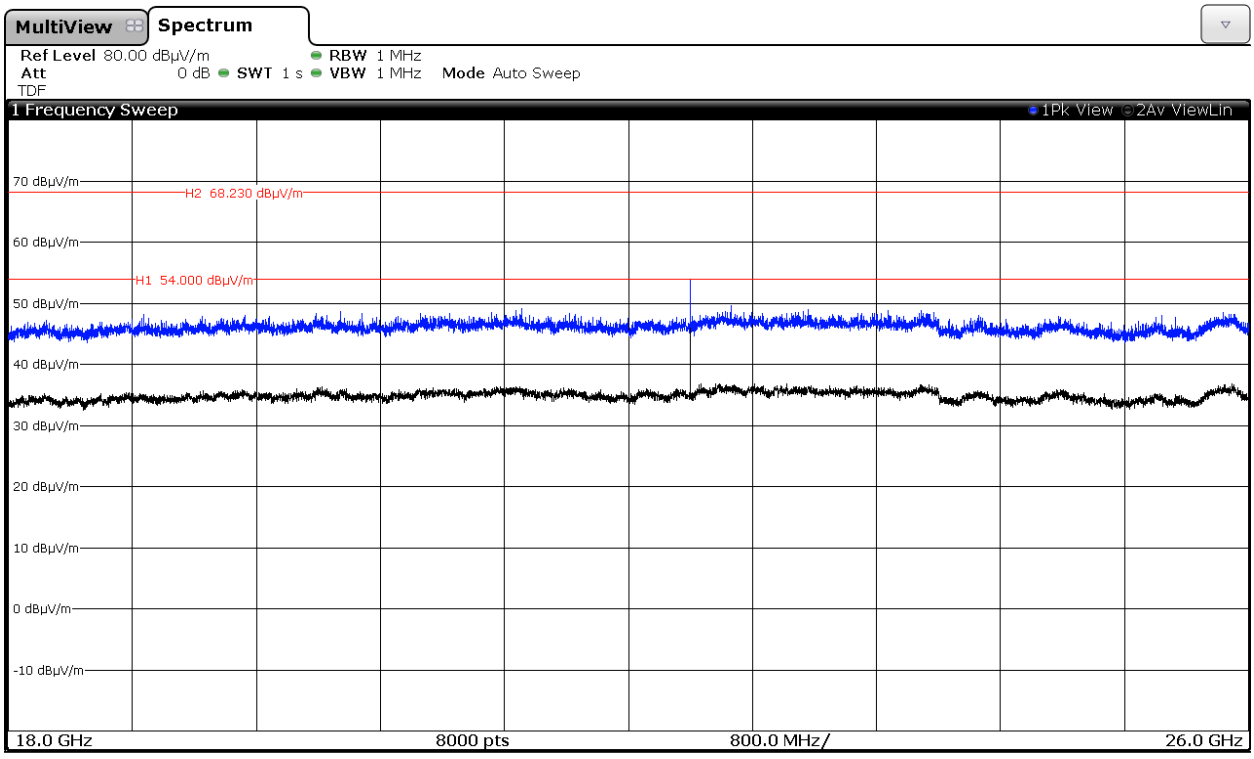
Chain B




Middle frequency (120) 5600 MHz.
Chain A

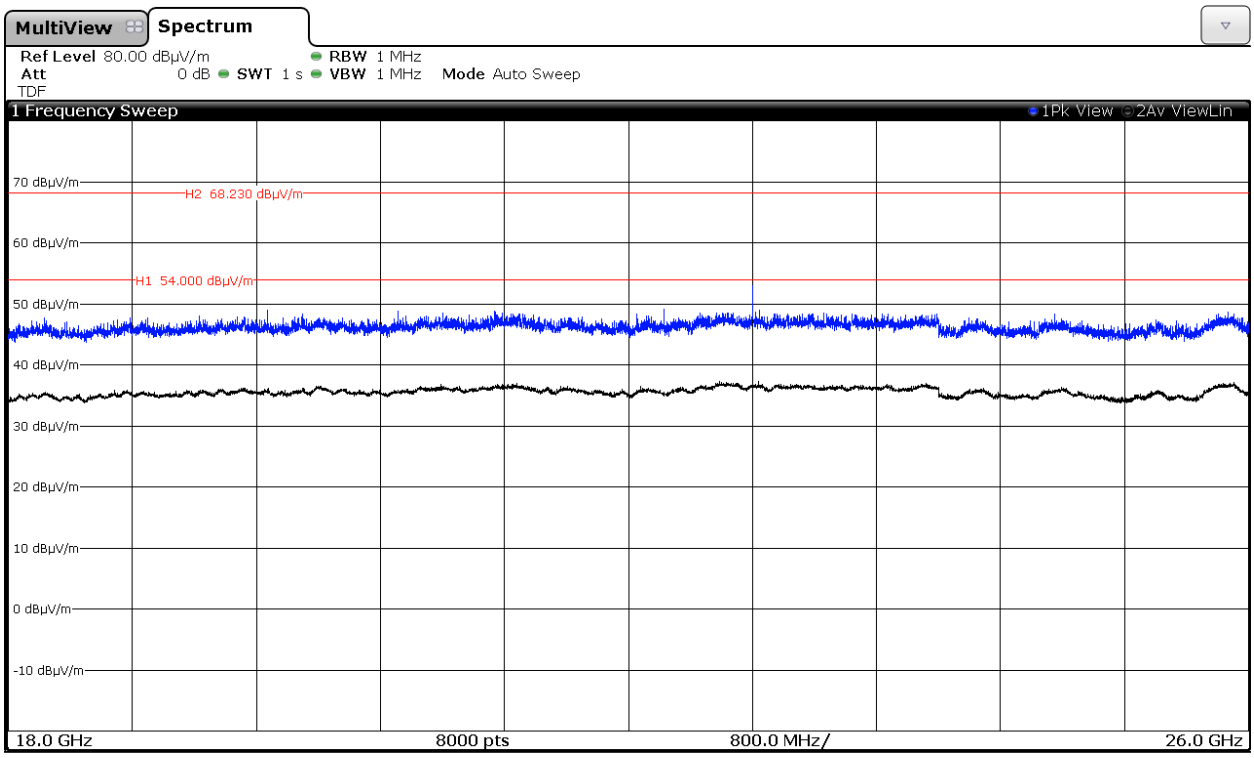


Chain B

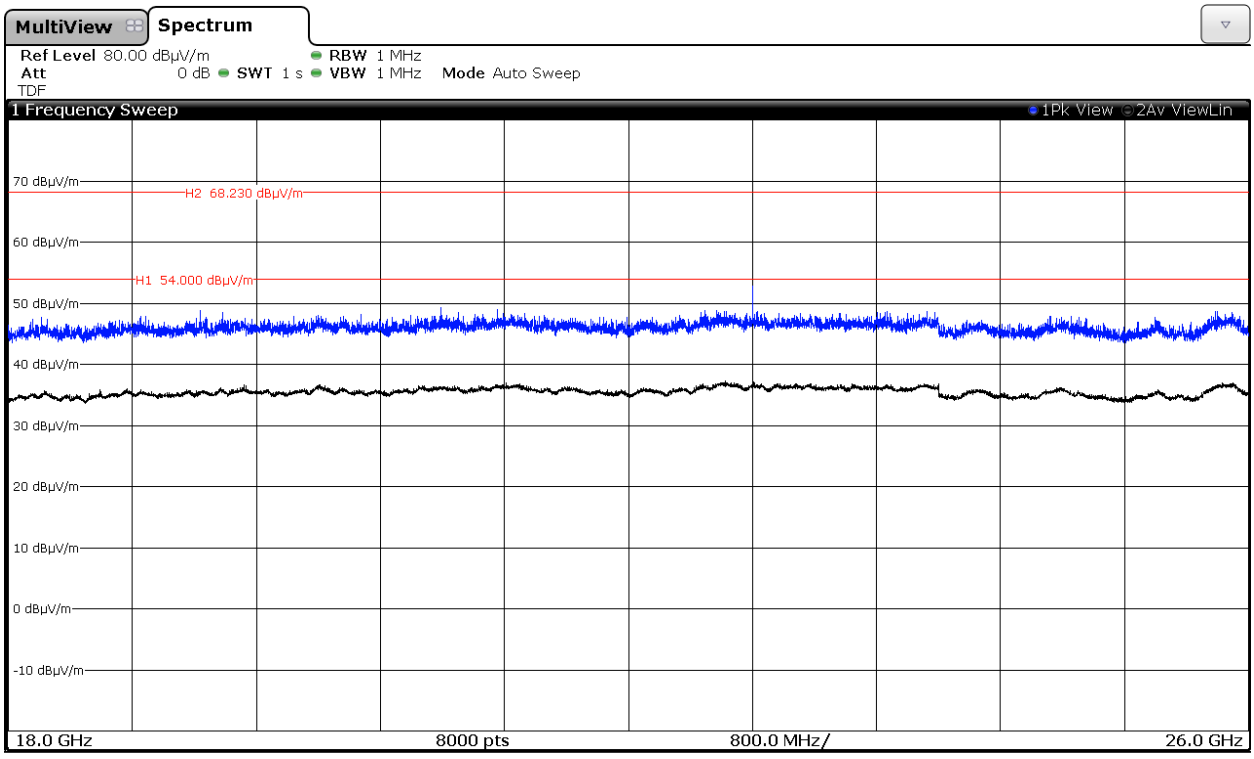



Highest frequency (140)  5700 MHz.

Chain A

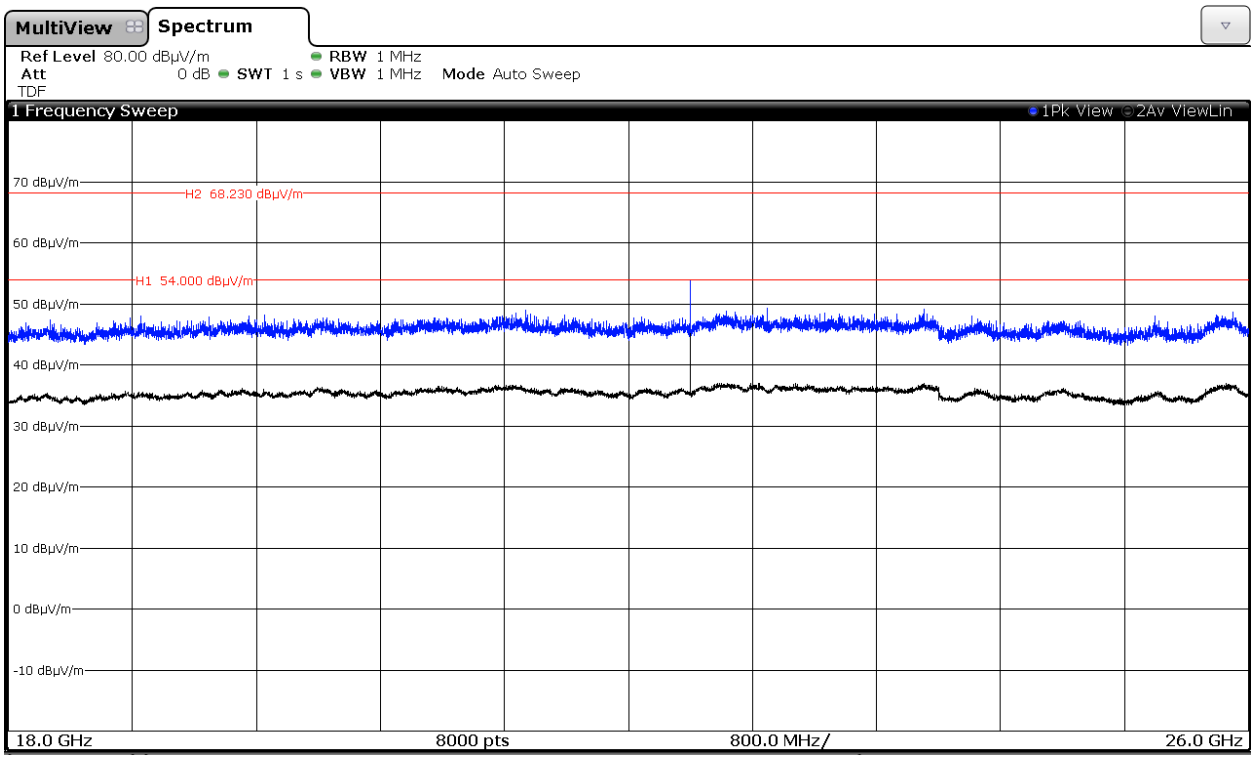


Chain B

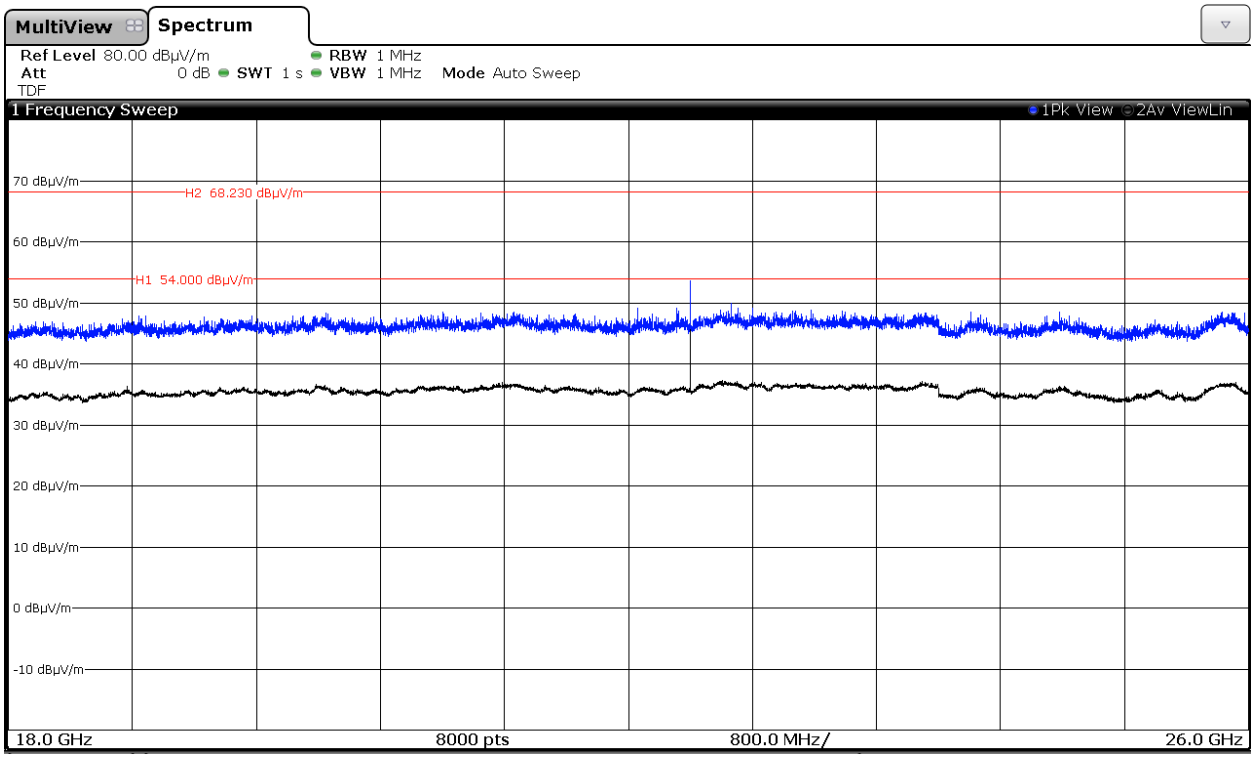



2. WiFi 5GHz 802.11 n20 mode

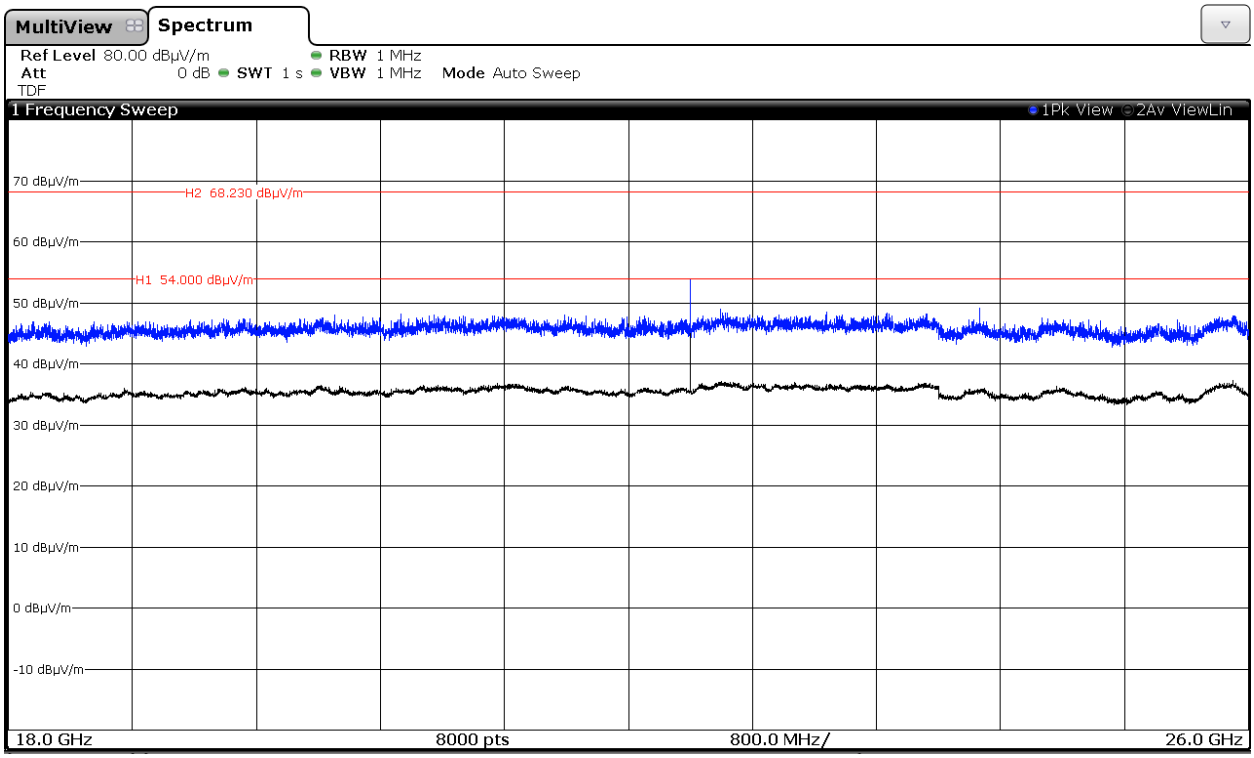
Middle frequency (120) 5600 MHz.
Chain A



Chain B

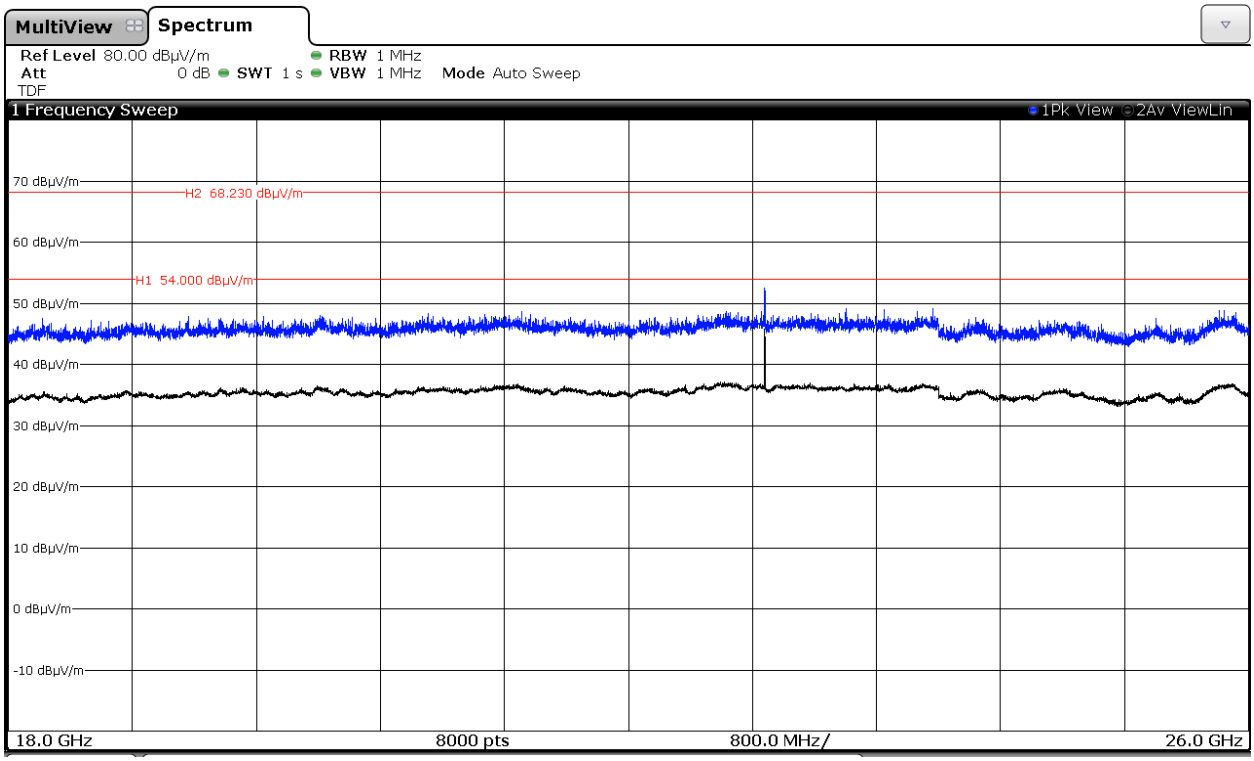



Chain A+B

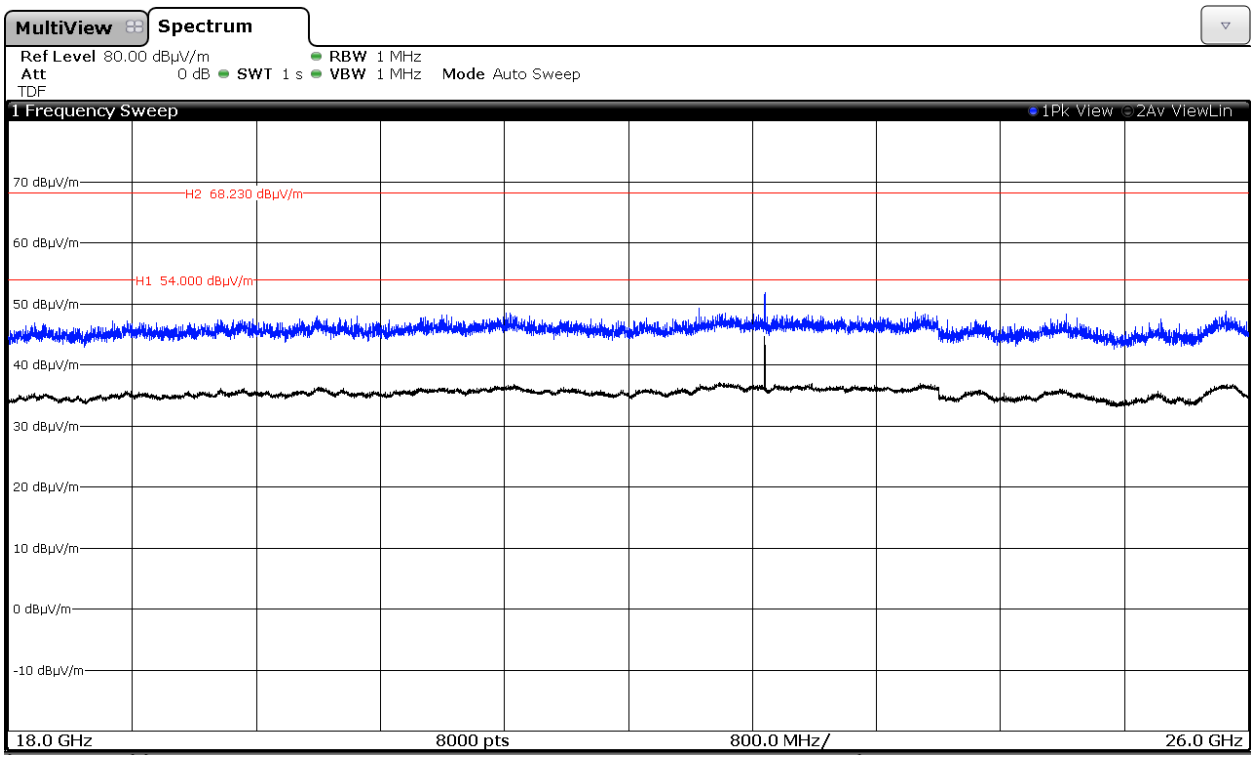


802.11ac20 mode: CH 144 (5720 MHz)

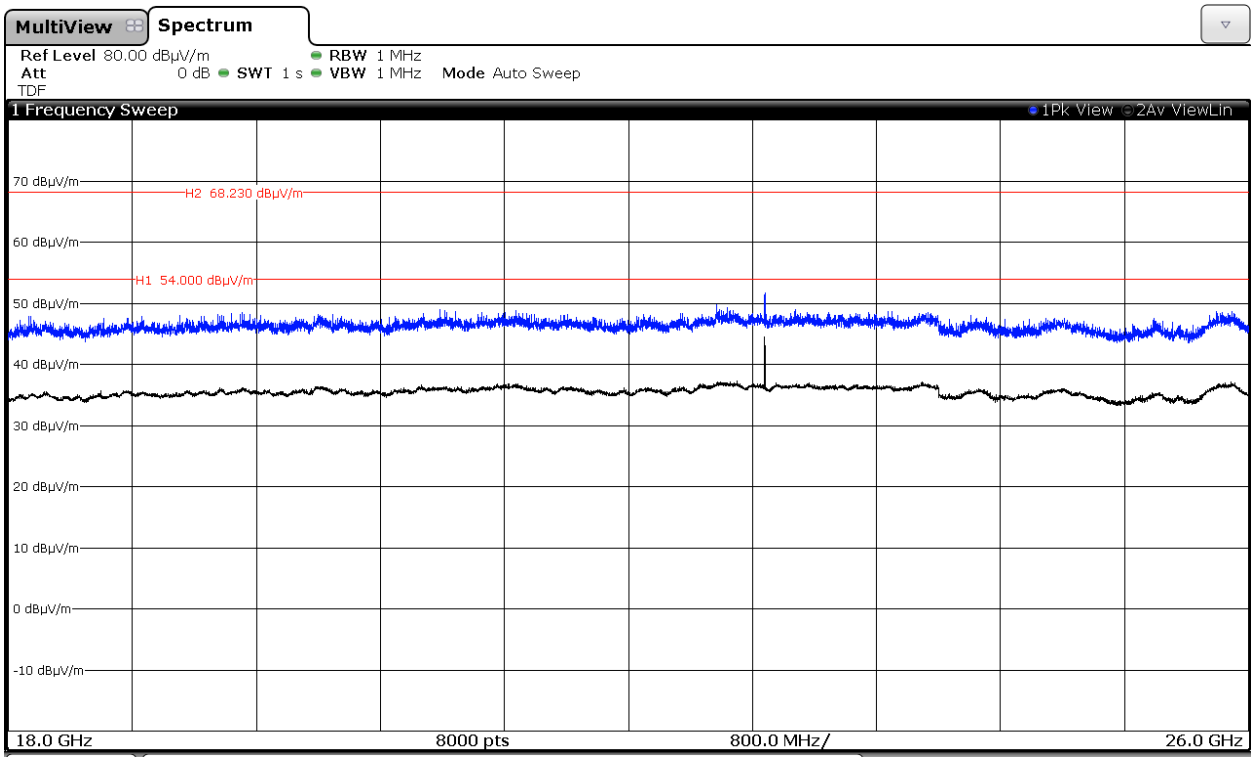
Chain A




Chain B

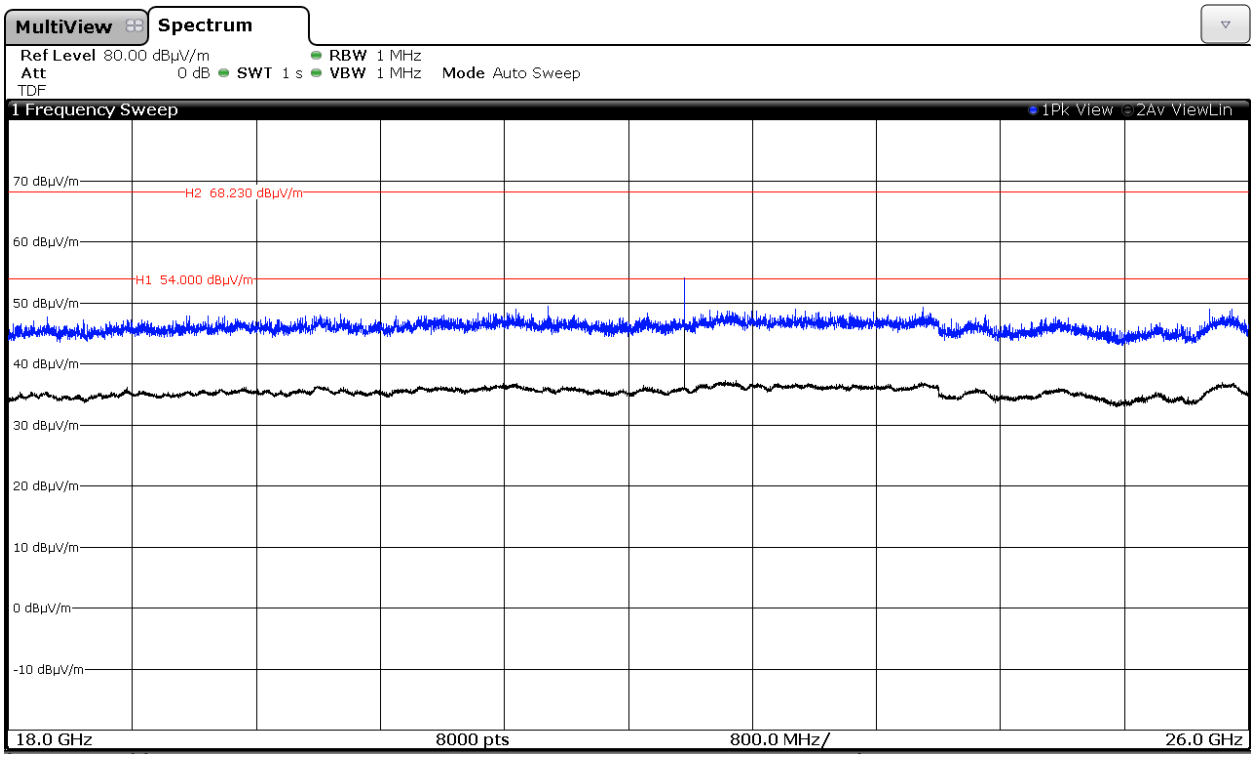


Chain A+B

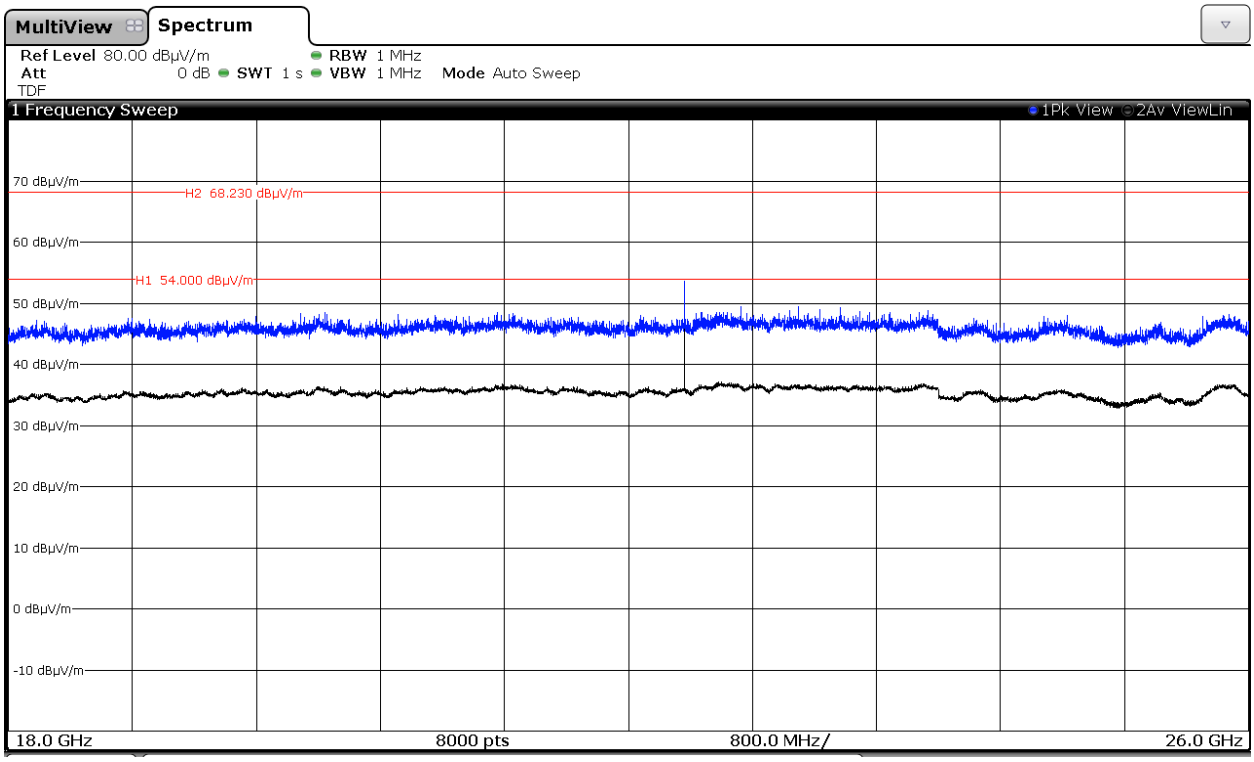



3. WiFi 5GHz 802.11 n40 mode

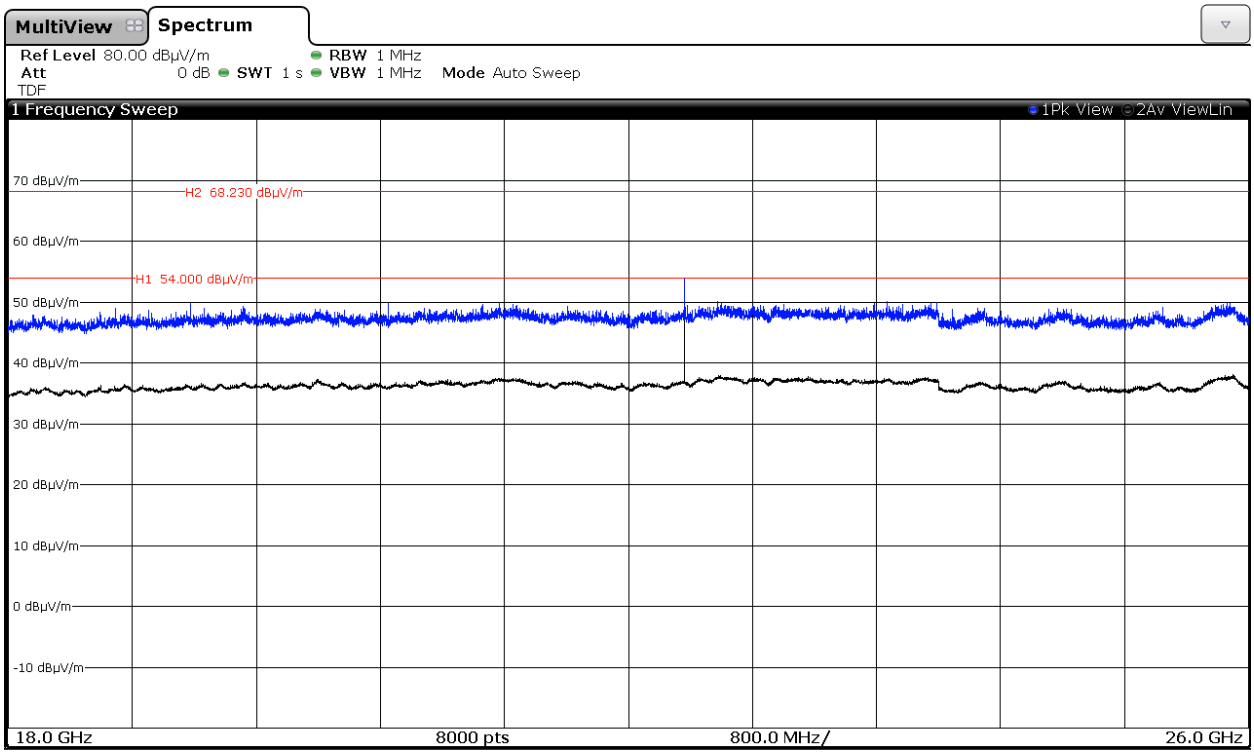
Middle frequency (118) 5590 MHz.
Chain A



Chain B

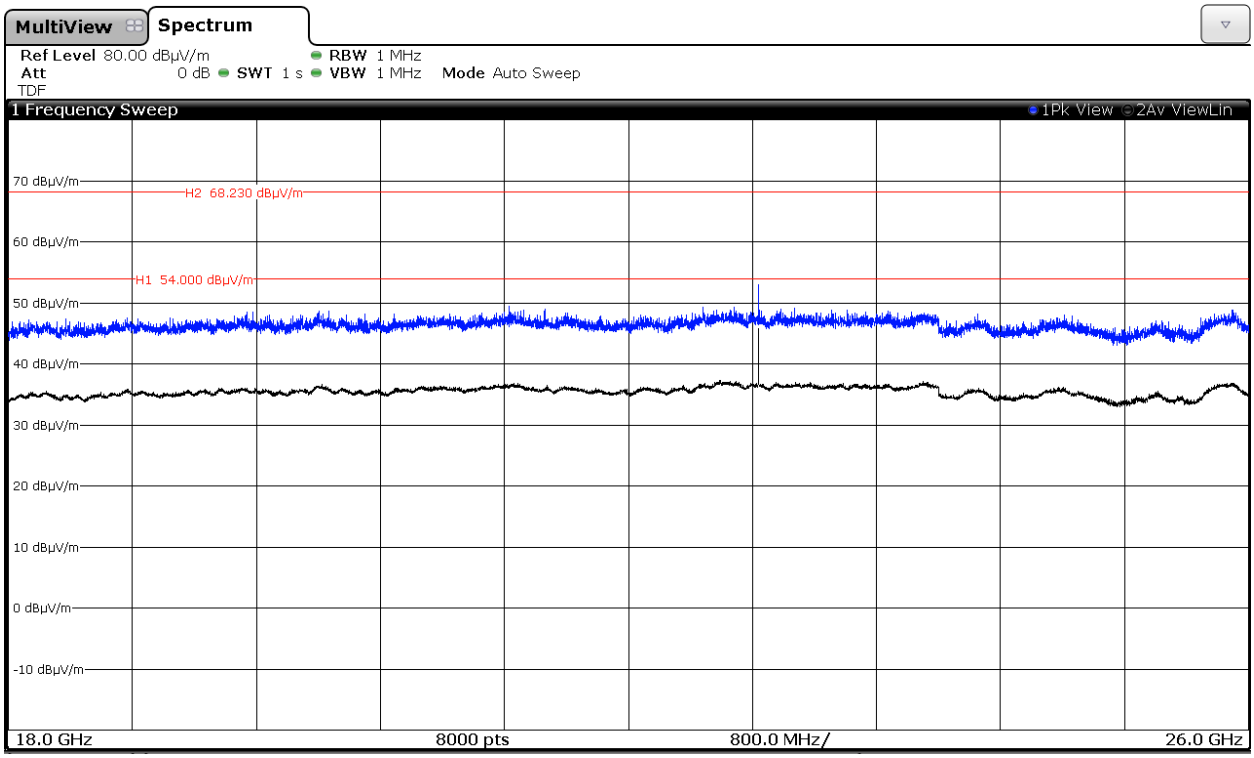



Chain A+B

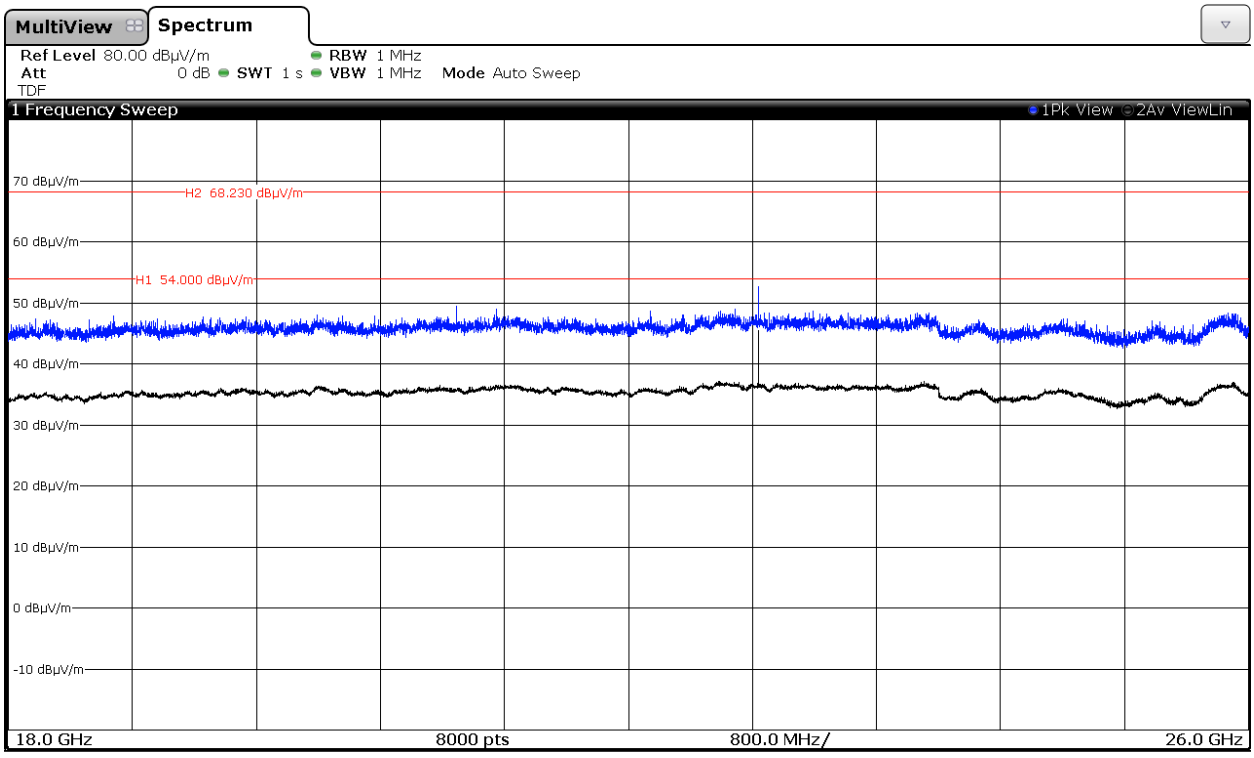


802.11ac40 mode: CH 142 (5710 MHz)

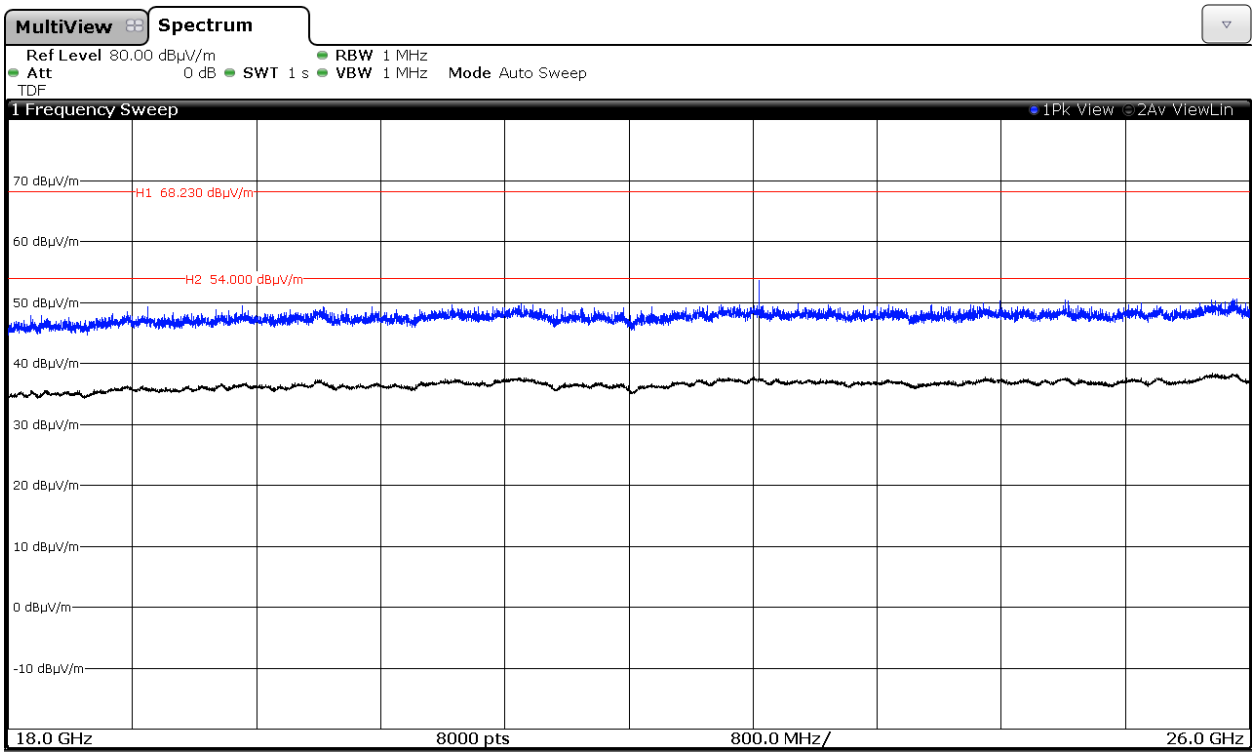
Chain A




Chain B

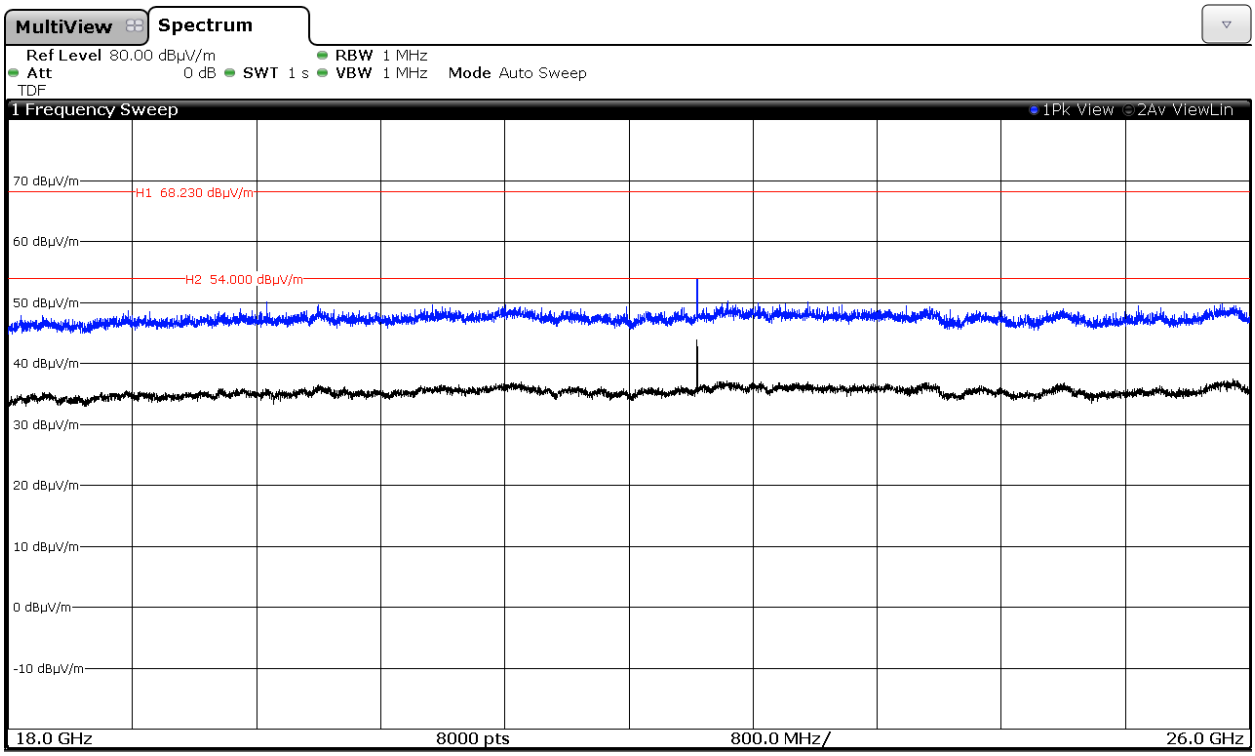


Chain A+B

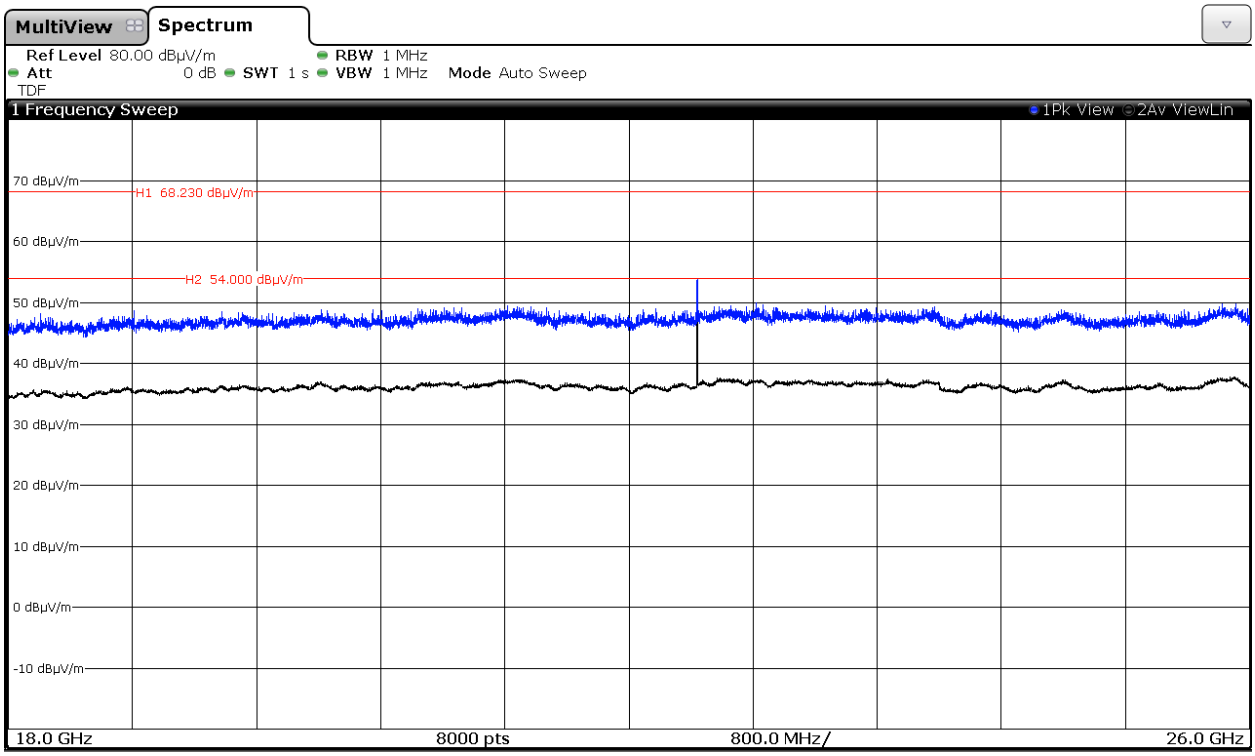



## 4. WiFi 5GHz 802.11 ac80 mode

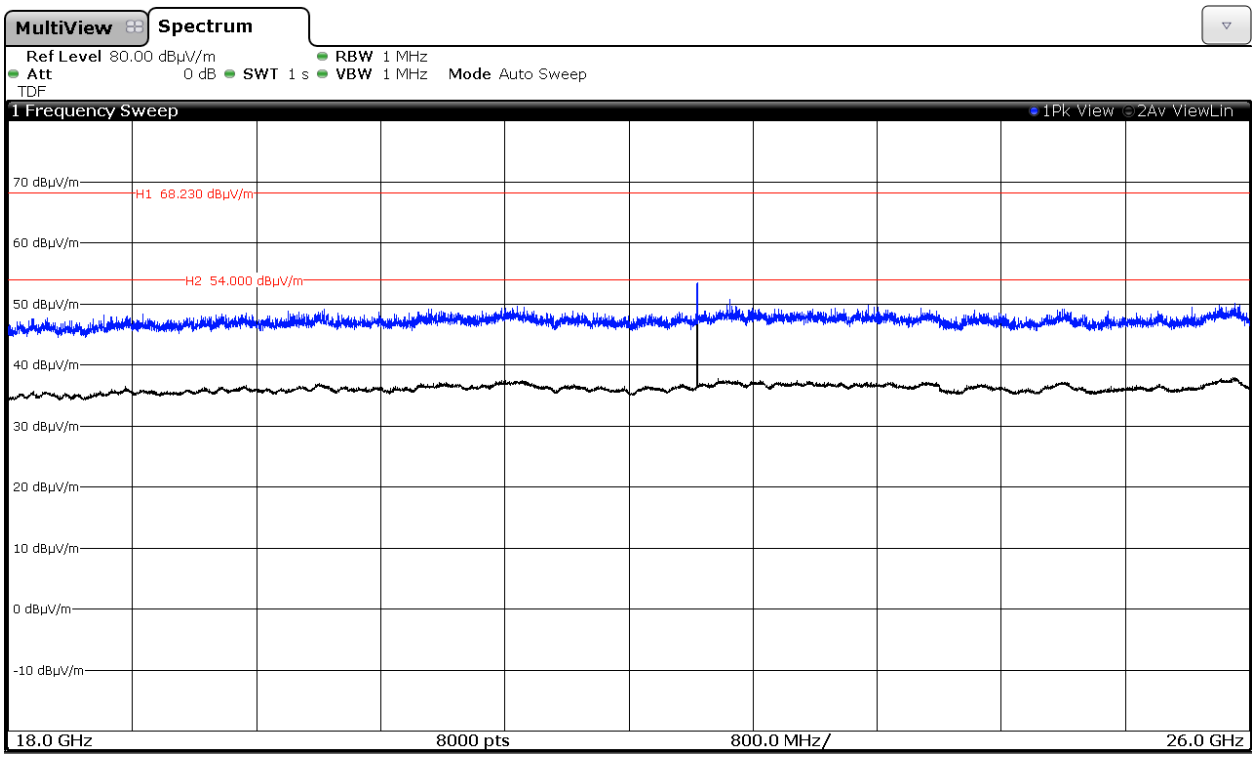
Middle frequency (122) 5610 MHz.
Chain A



Chain B

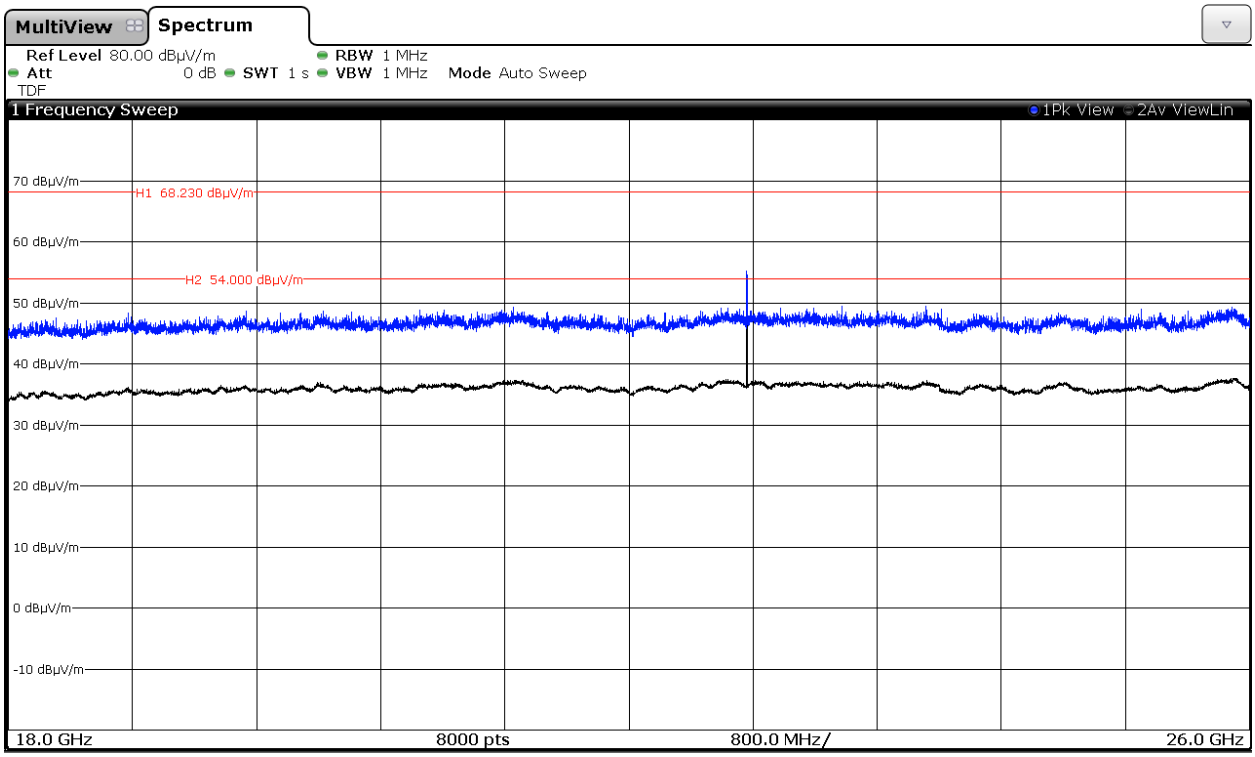



Chain A+B

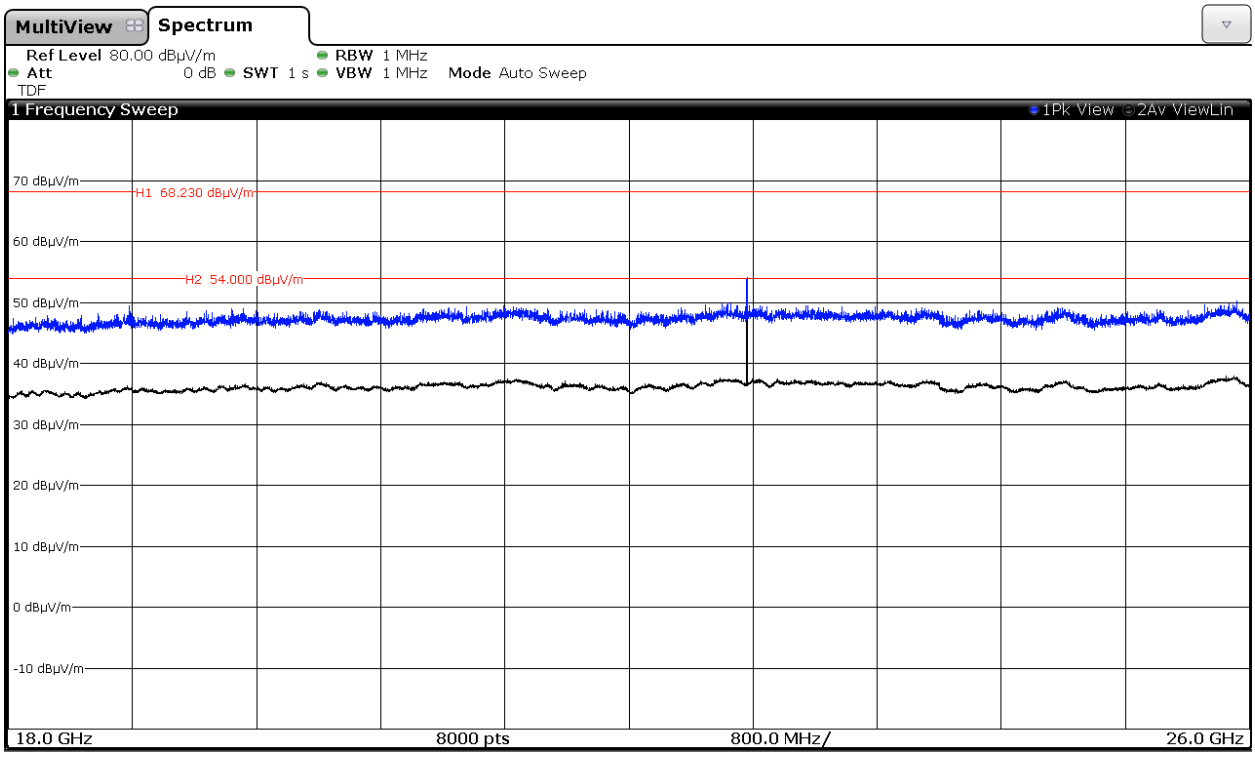


802.11ac80 mode: CH 138 (5690 MHz)

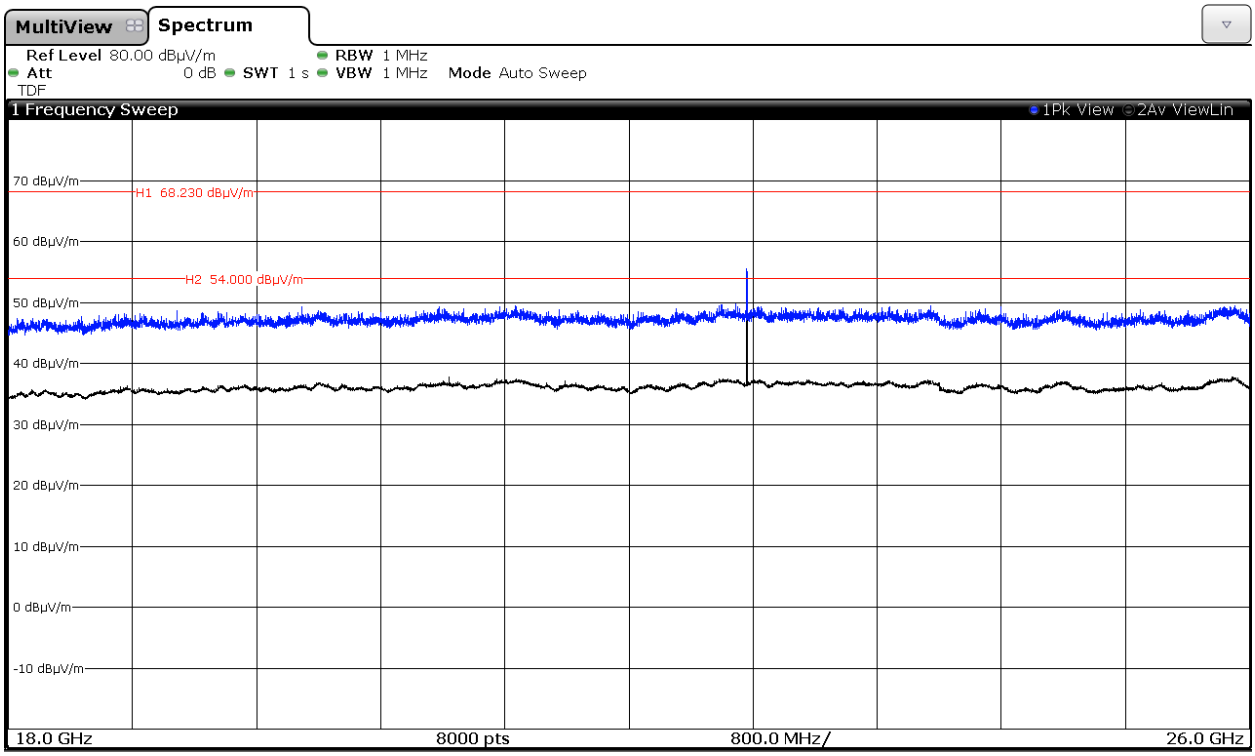
Chain A




Chain B

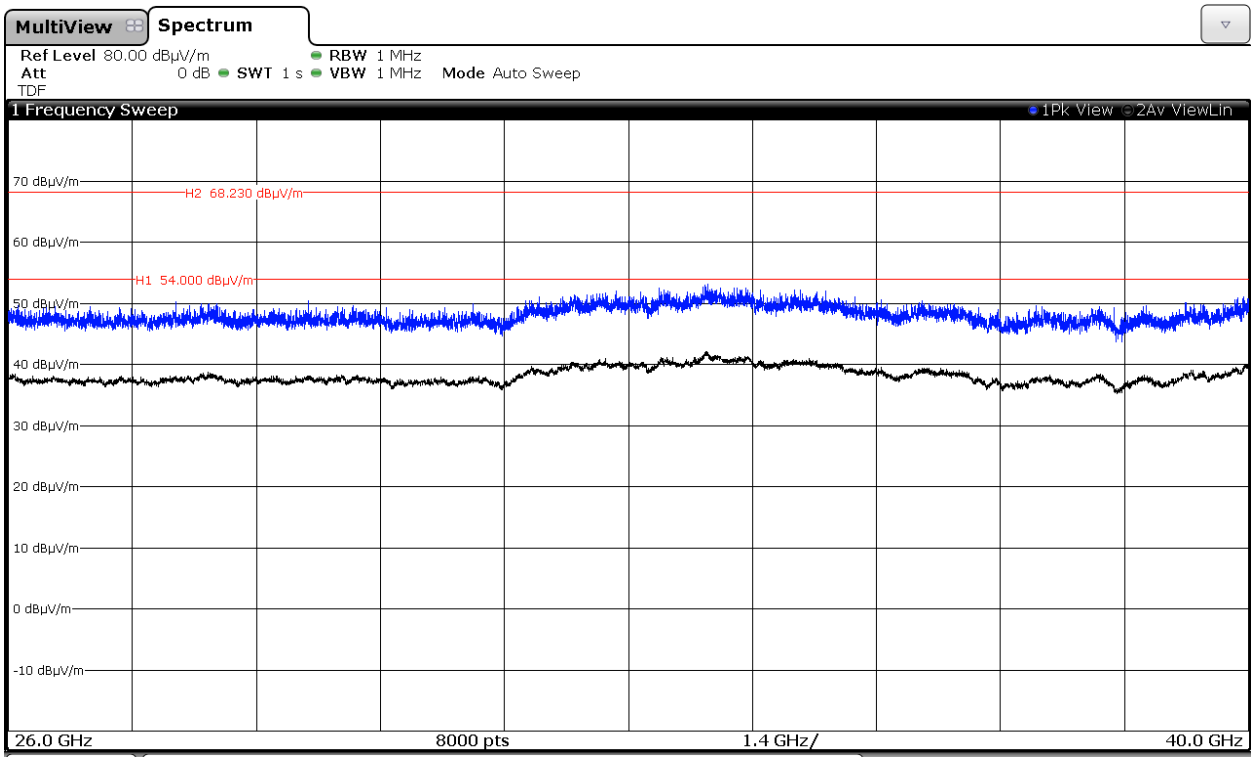


Chain A+B




**FREQUENCY RANGE 26GHz to 40GHz.**

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

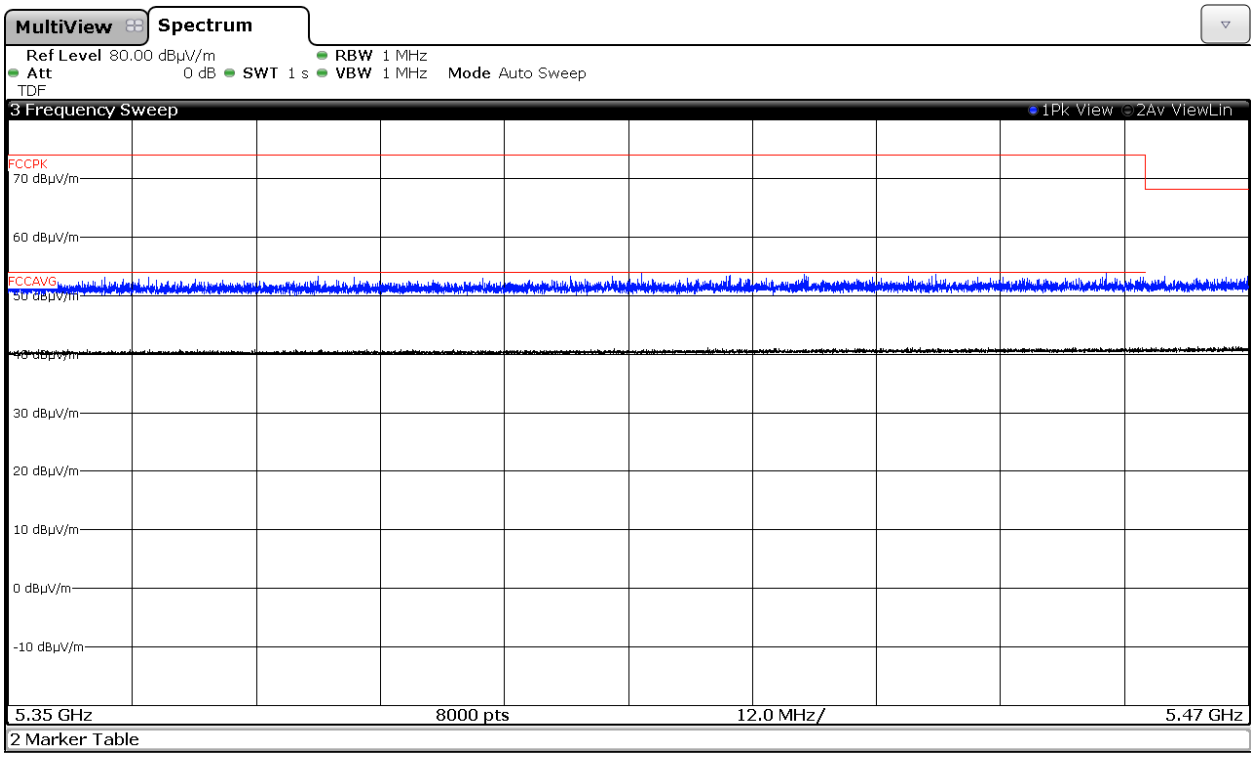



(This plot is valid for both SISO and MIMO).

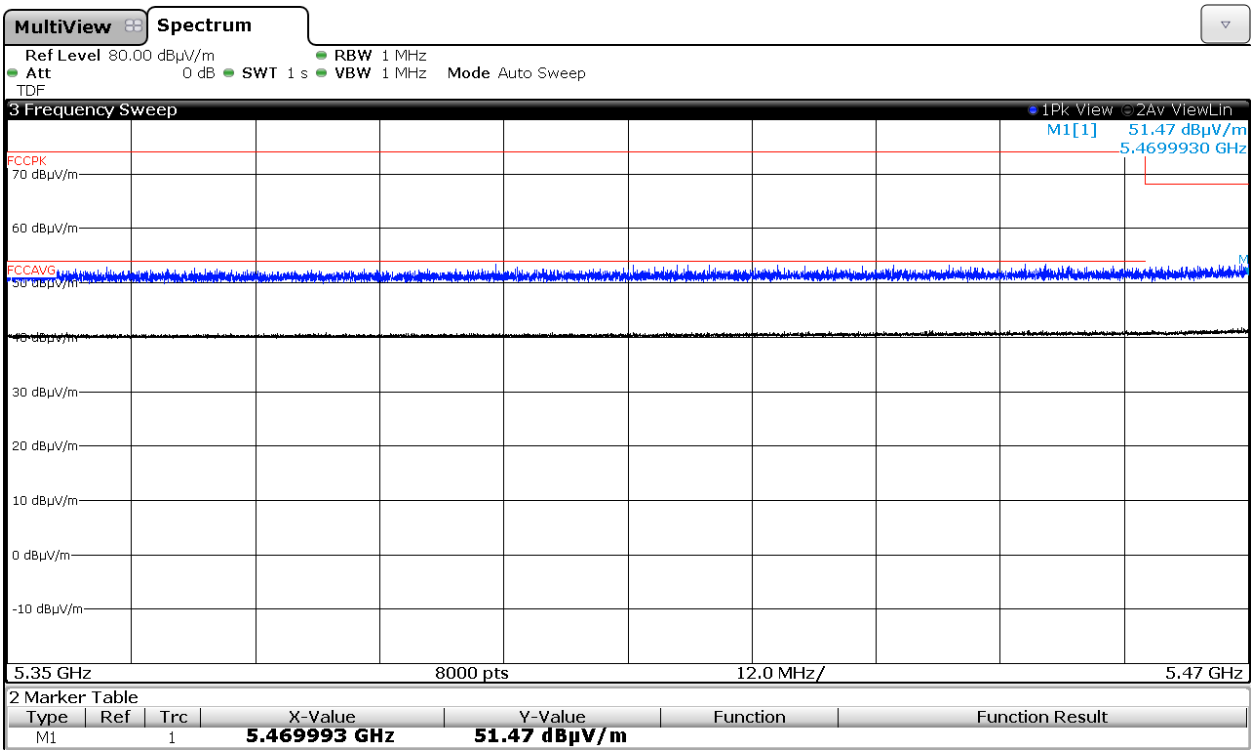
**Radiated spurious emissions at band-edges and inside restricted band 5.35 – 5.46 GHz and adjacent band 5.46 – 5.47 GHz.**

1. WiFi 5GHz 802.11 a mode

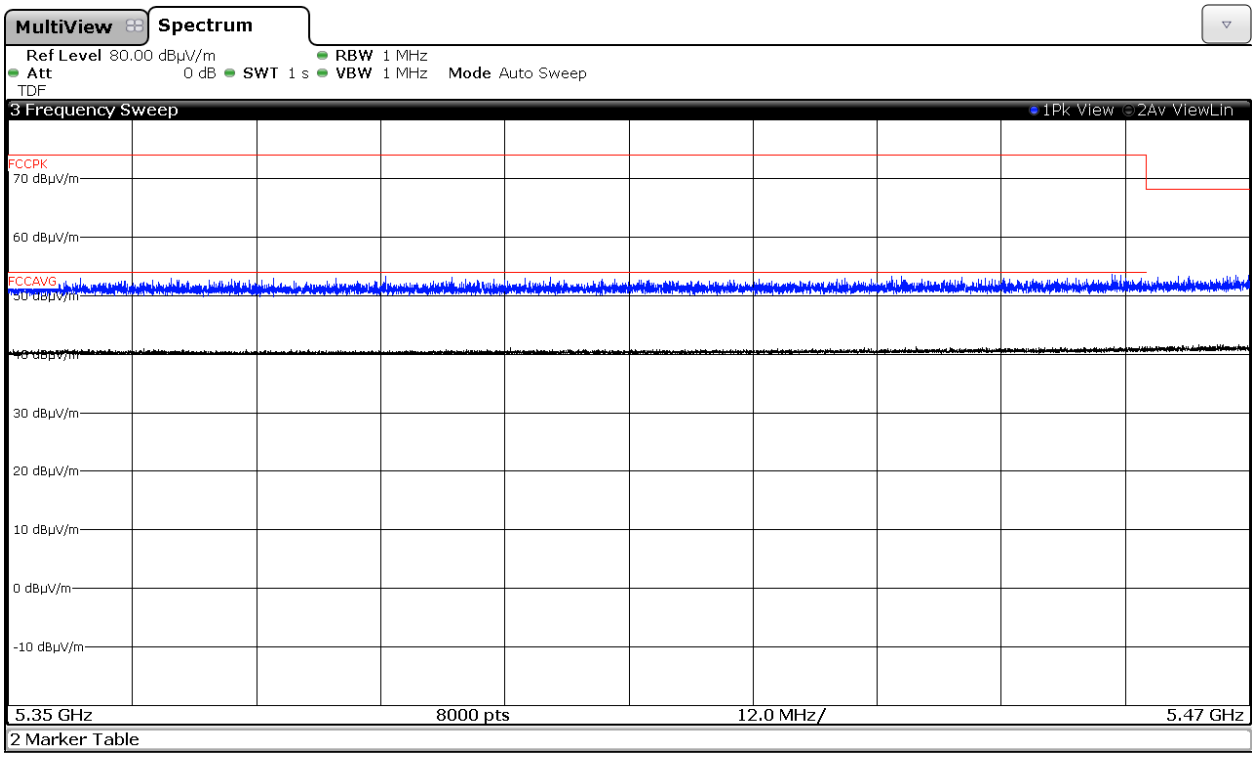
Lowest Channel (100) 5500 MHz. Chain A.



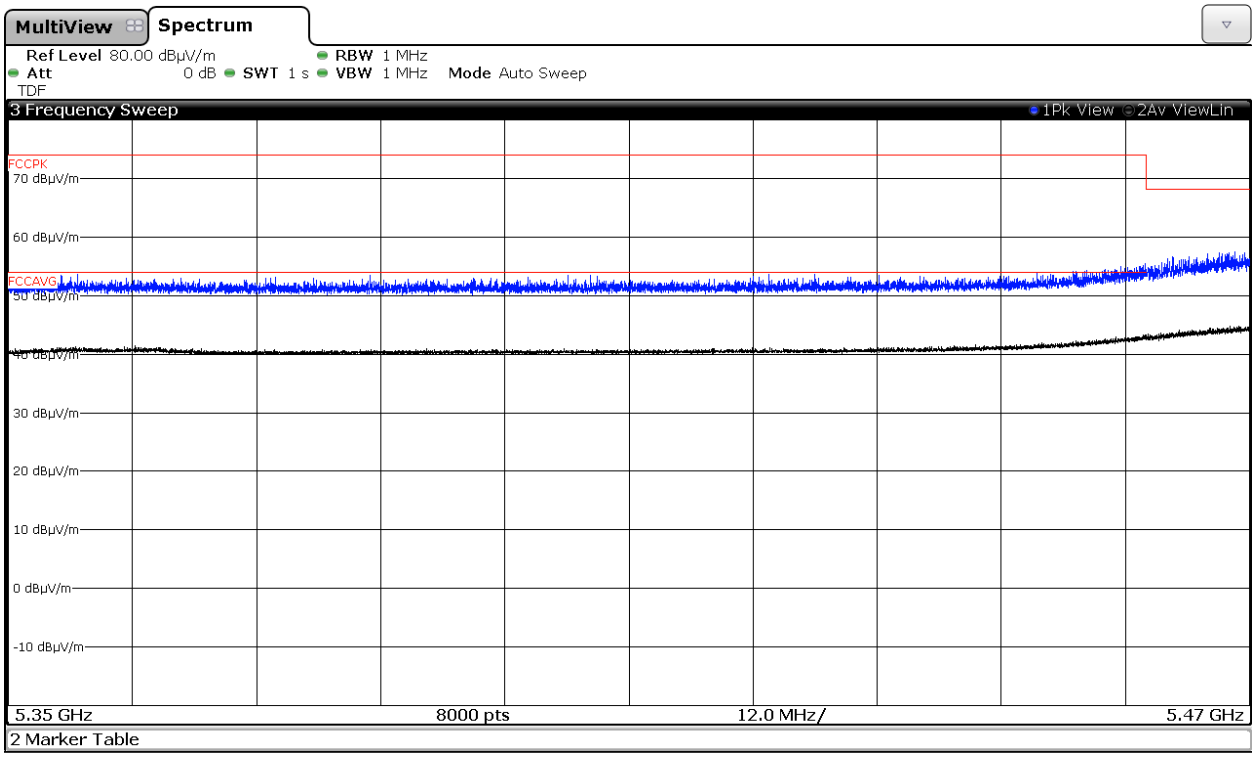

Lowest Channel (100) 5500MHz. Chain B.



Channel 104. 5520MHz. Chain A.

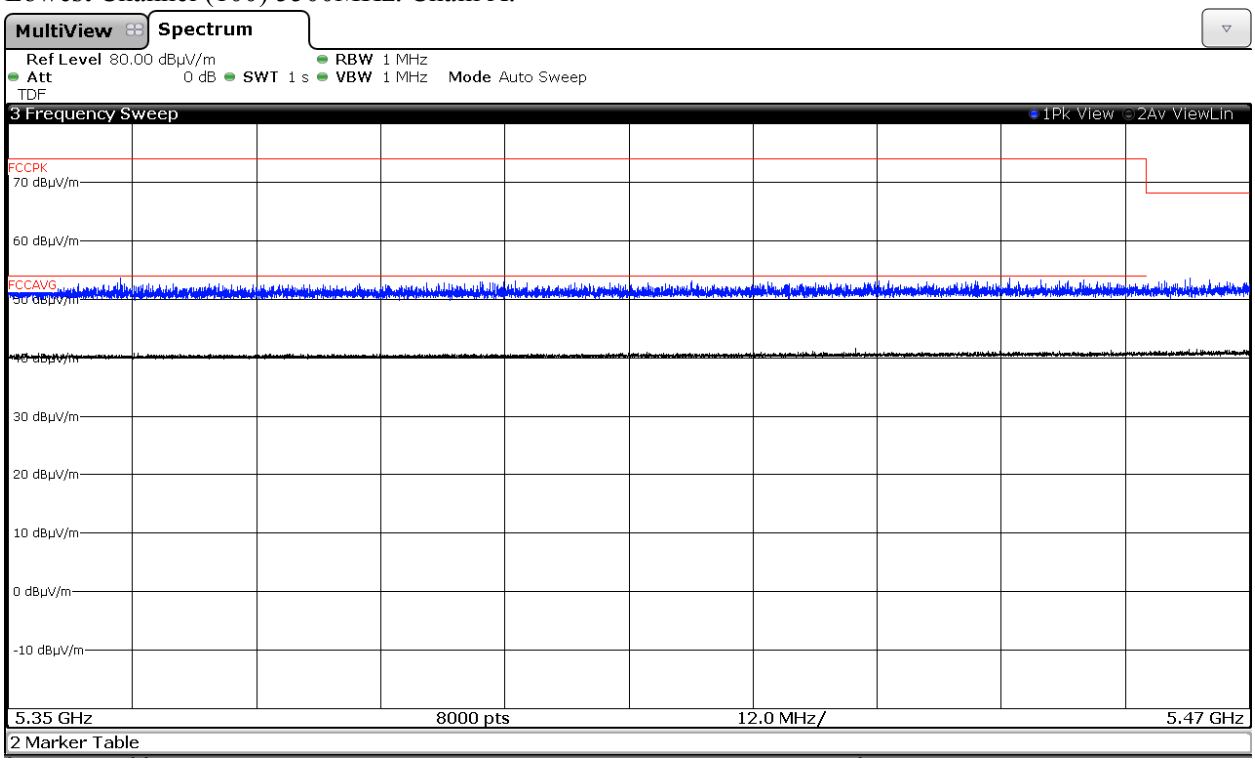



Channel 104. 5520MHz. Chain B.

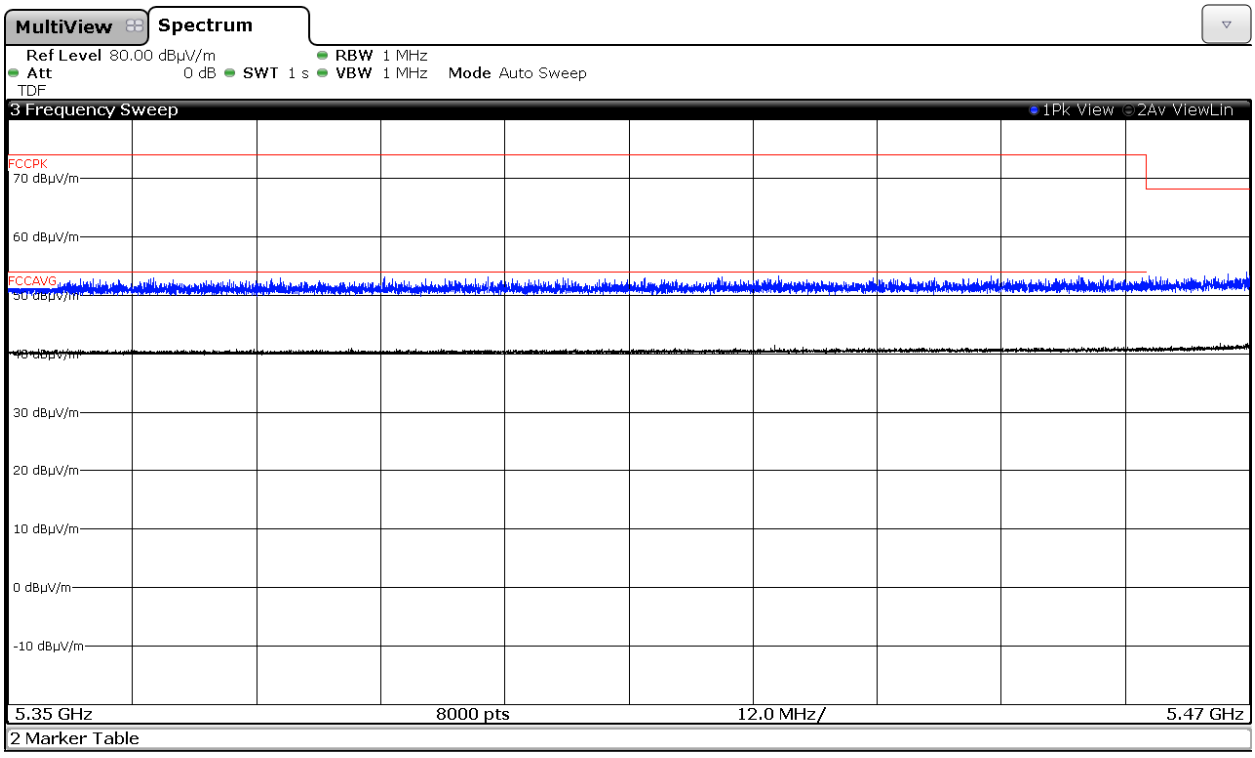


2. WiFi 5GHz 802.11 n20 mode

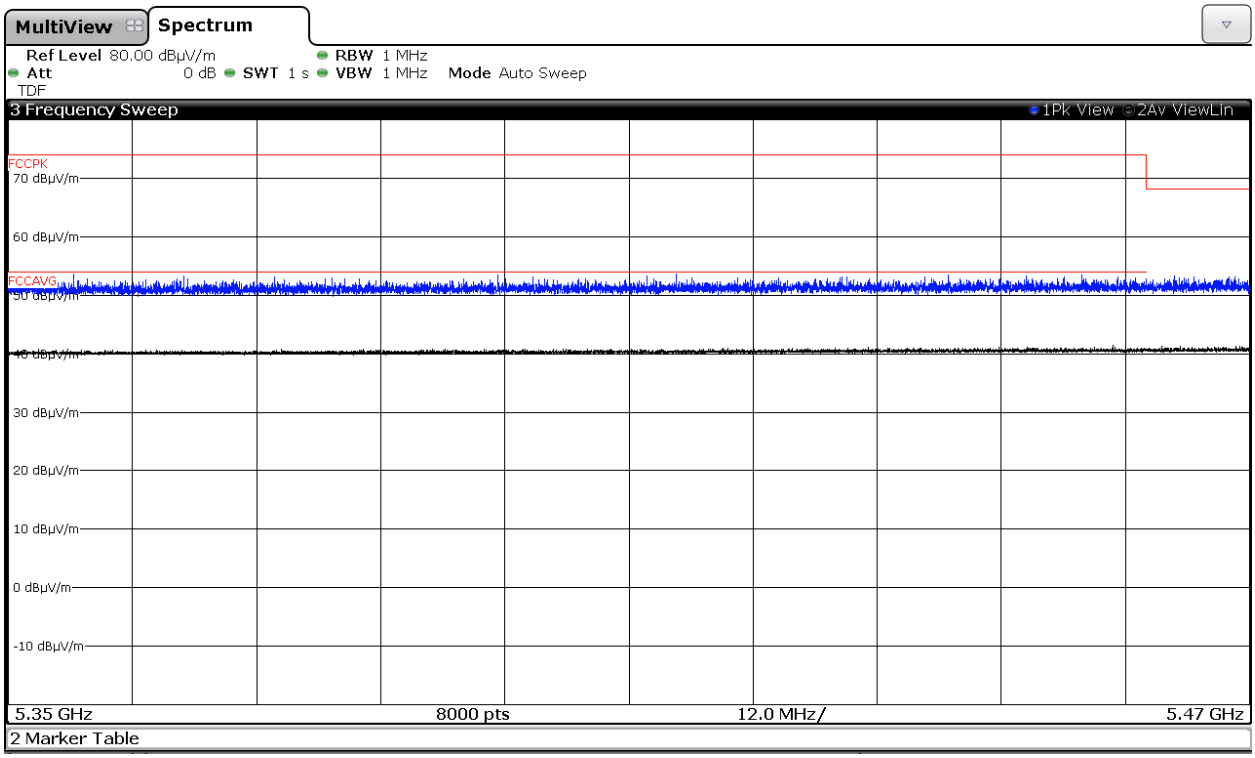
Lowest Channel (100) 5500MHz. Chain A.



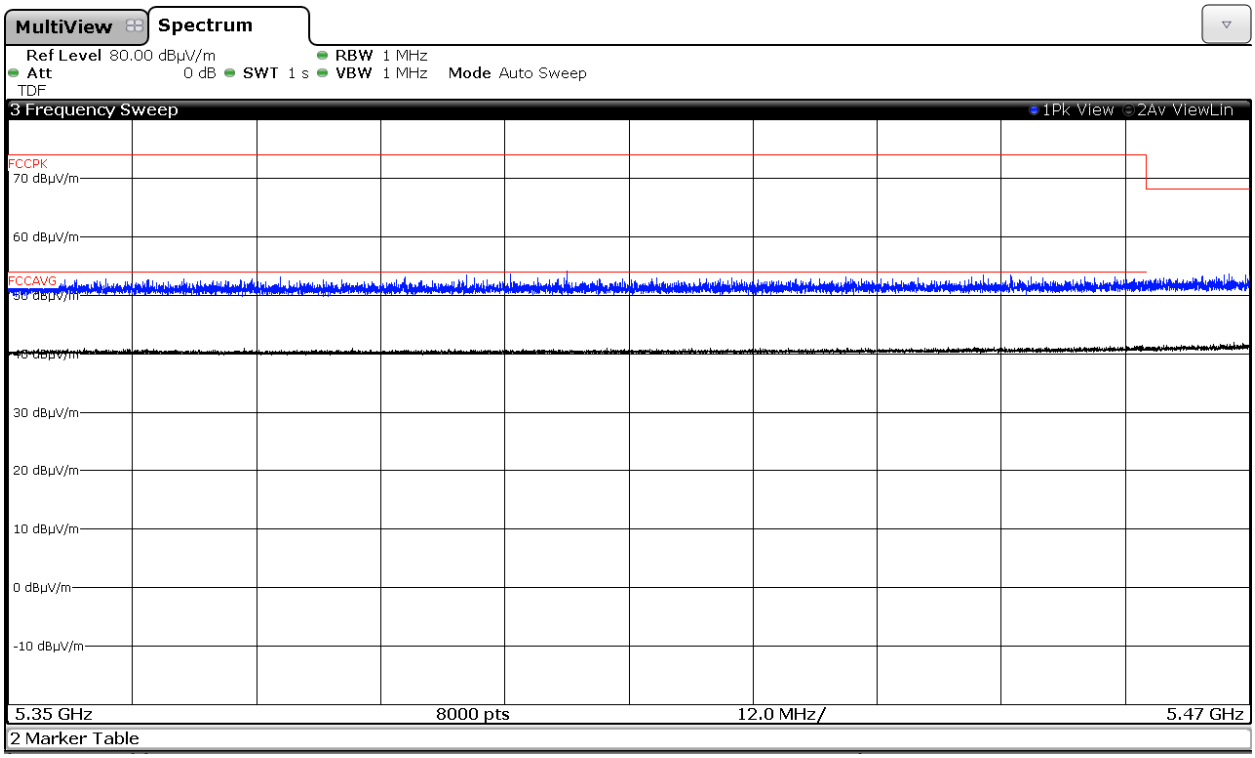

Lowest Channel (100) 5500MHz. Chain B.



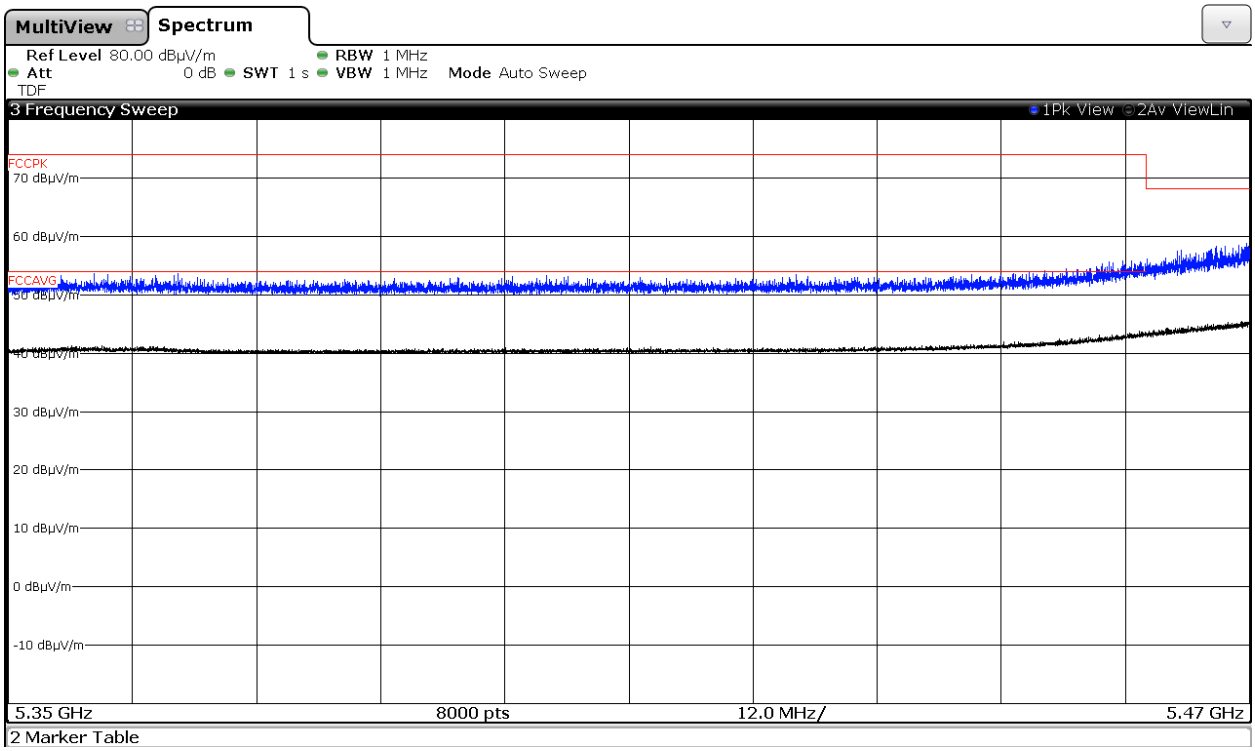
Lowest Channel (100) 5500MHz. Chain A+B.



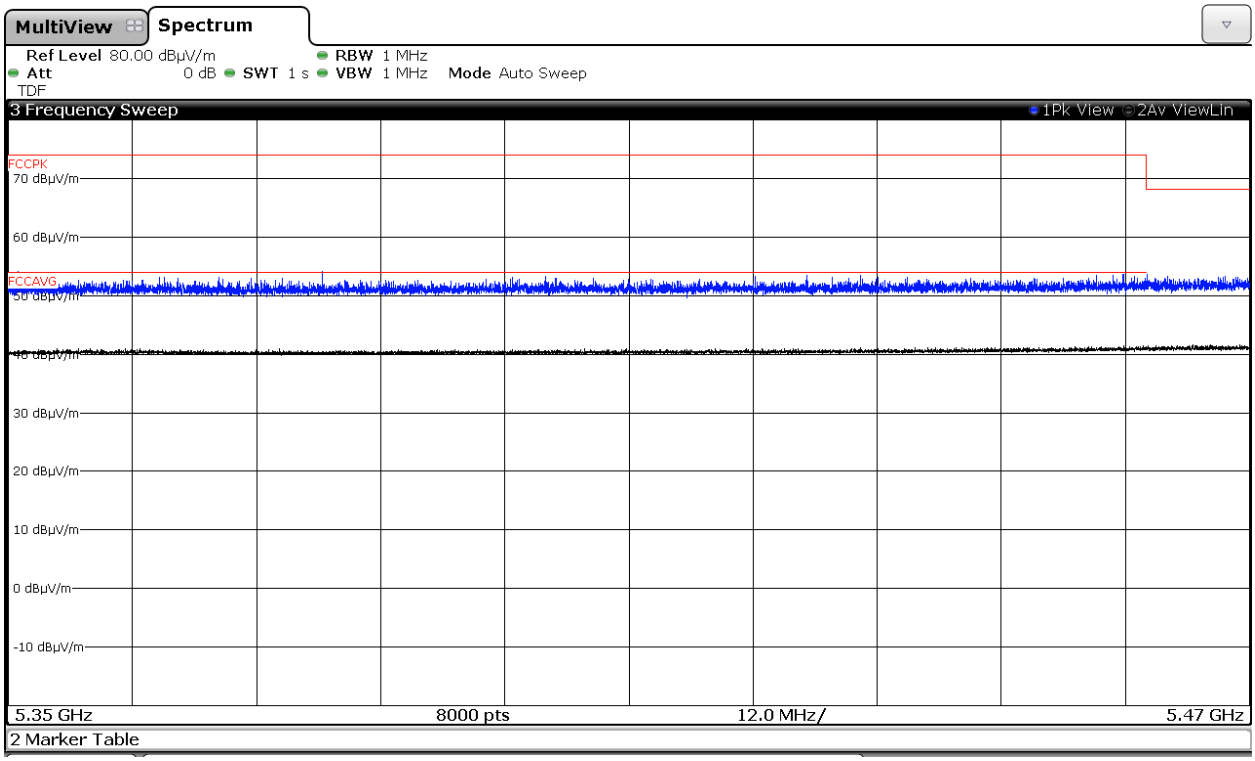

Channel 104. 5520MHz. Chain A.



Channel 104. 5520MHz. Chain B.

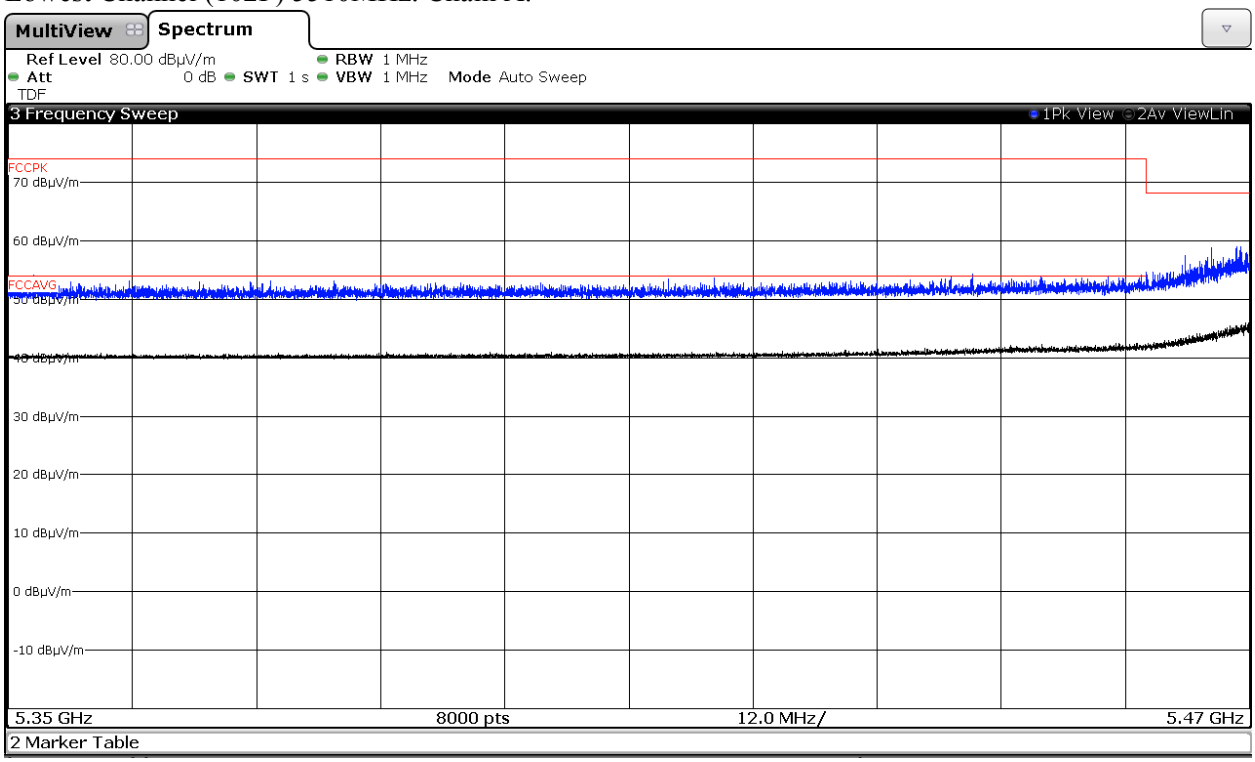



Channel 104. 5520MHz. Chain A+B.

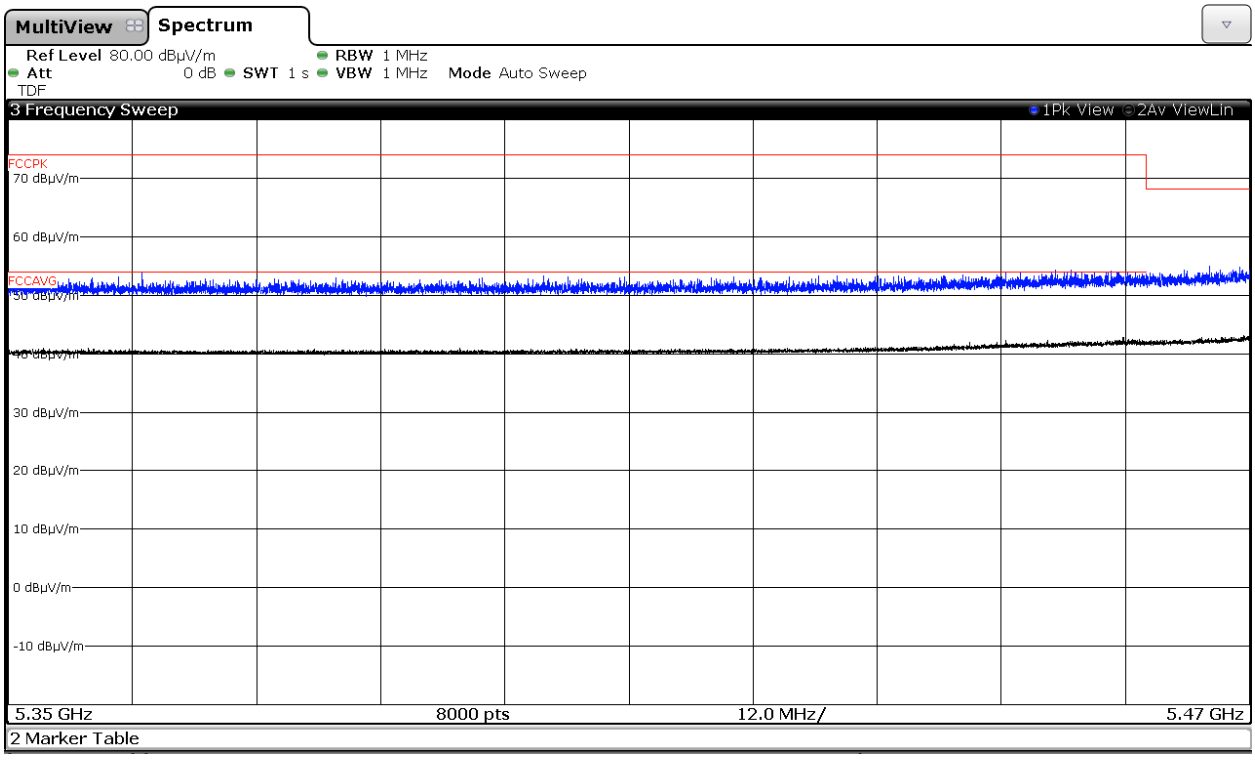


3. WiFi 5GHz 802.11 n40 mode

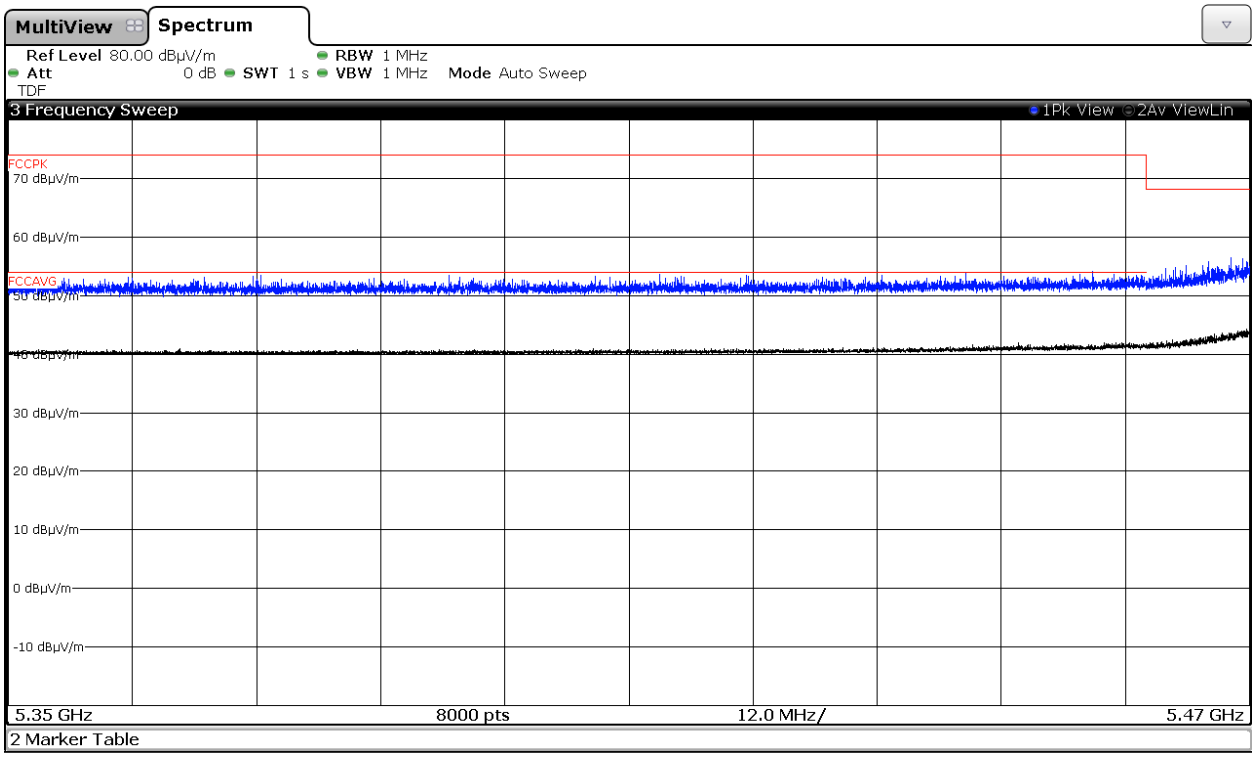
Lowest Channel (102F) 5510MHz. Chain A.



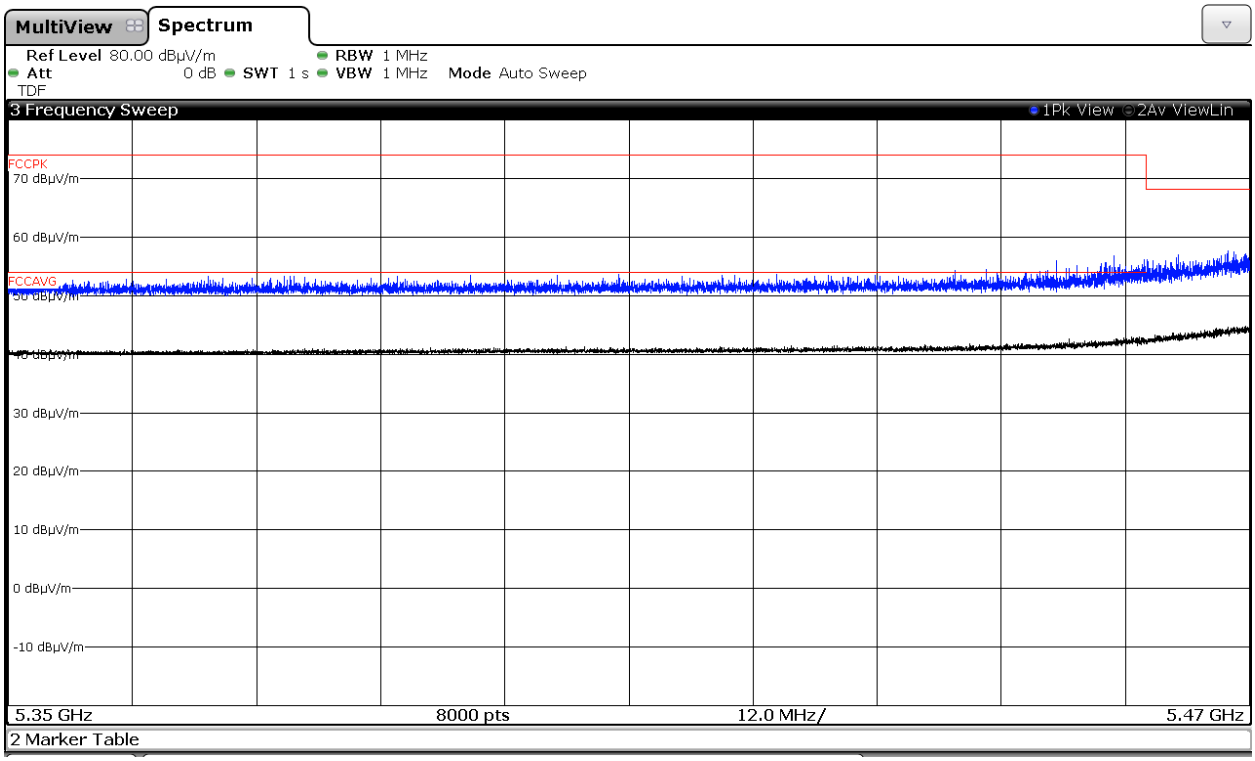

Lowest Channel (102F) 5510MHz. Chain B.



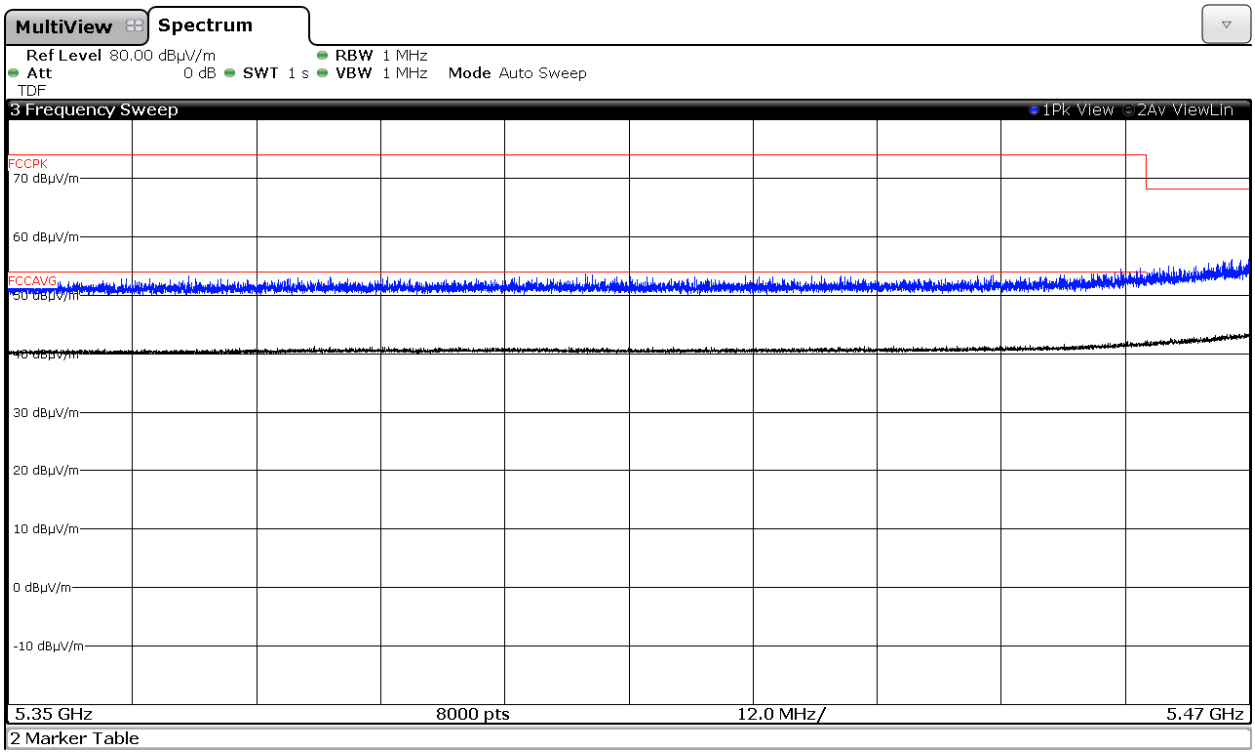
Lowest Channel (102F) 5510MHz. Chain A+B.



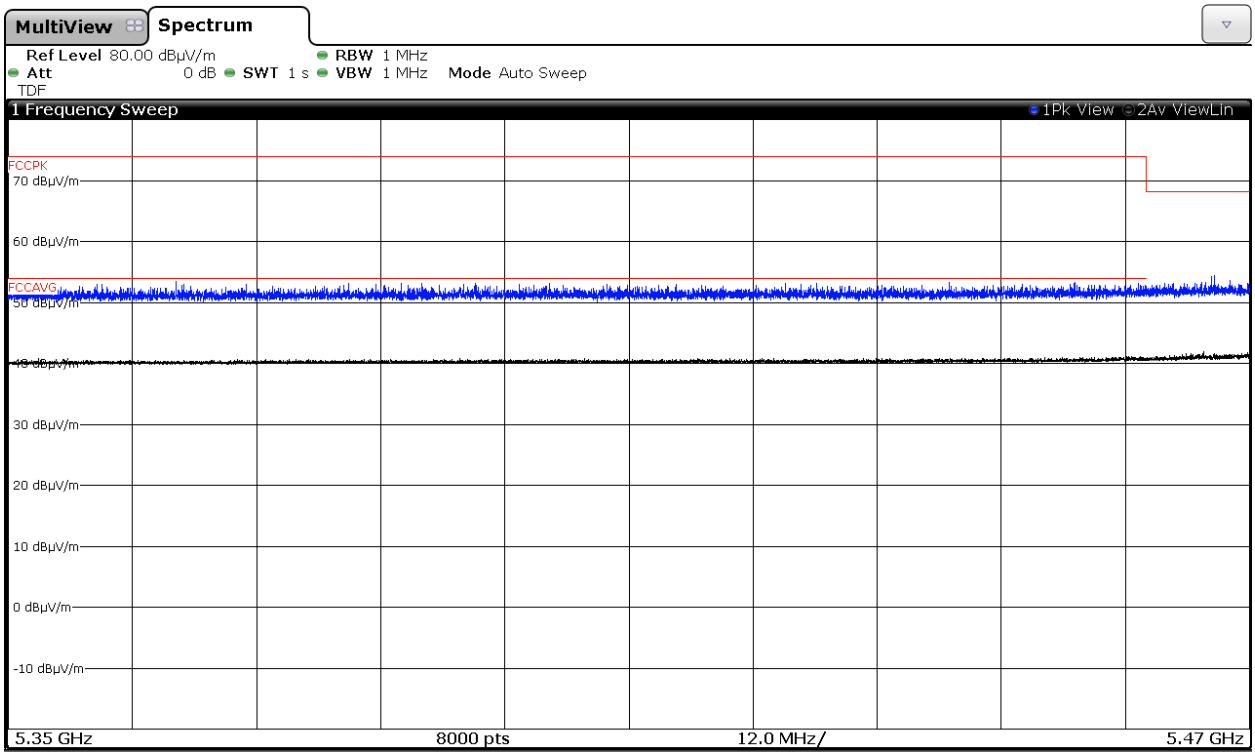

Channel 110F. 5550MHz. Chain A.



Channel 110F. 5550MHz. Chain B.

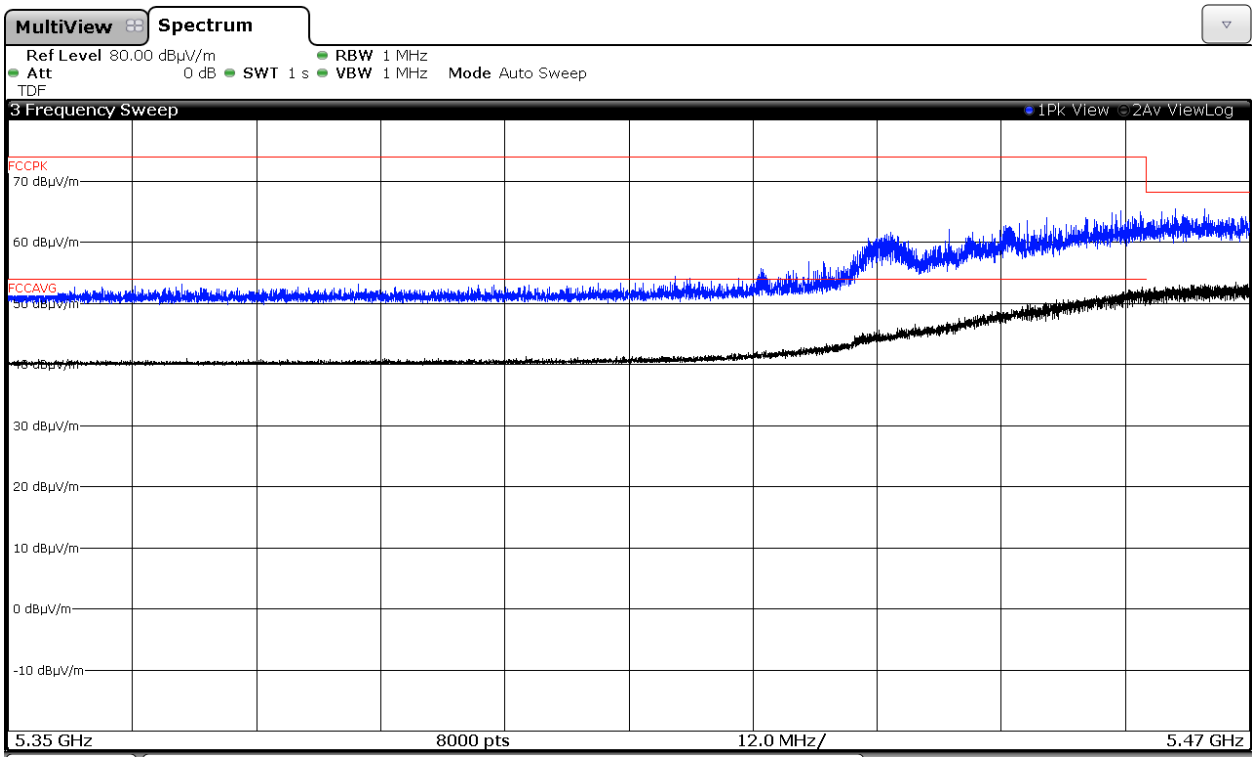



Channel 110F. 5550MHz. Chain A+B.

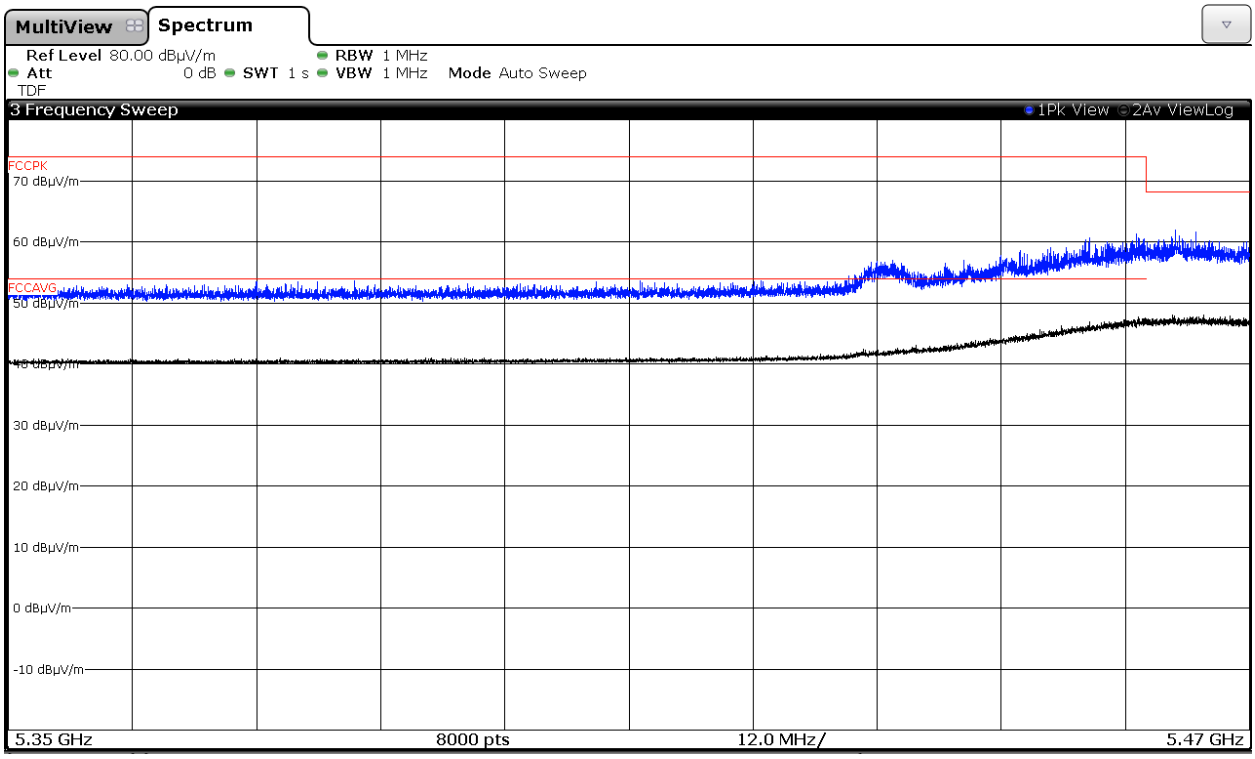


4. WiFi 5GHz 802.11 ac80 mode

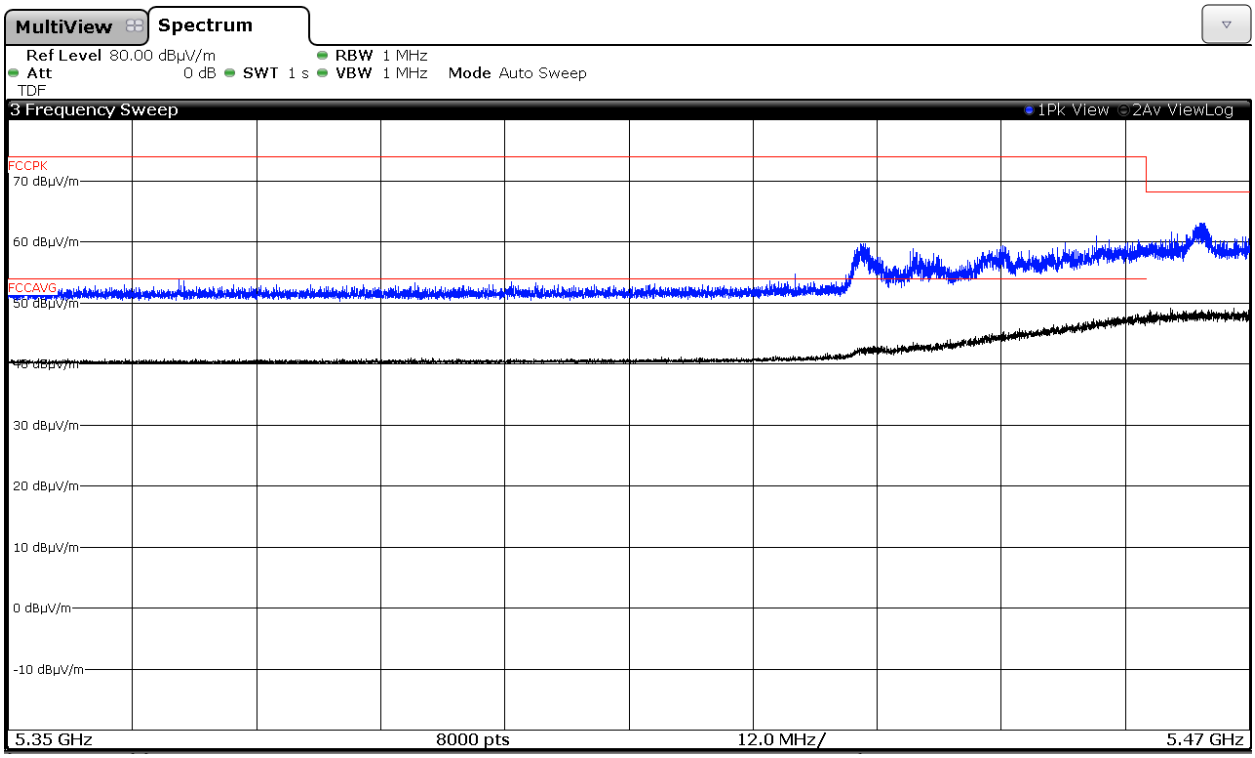
Lowest Channel (106) 5530MHz. Chain A.




Lowest Channel (106) 5530MHz. Chain B.



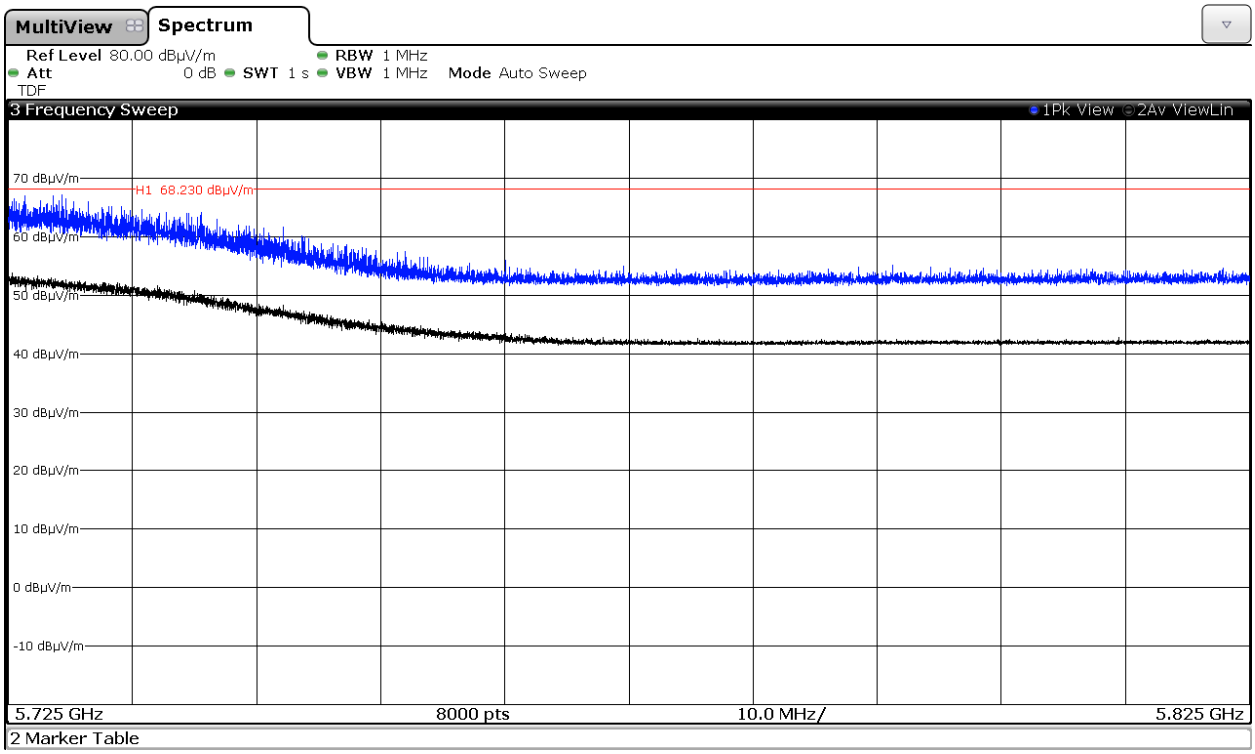
Lowest Channel (106) 5530MHz. Chain A+B.



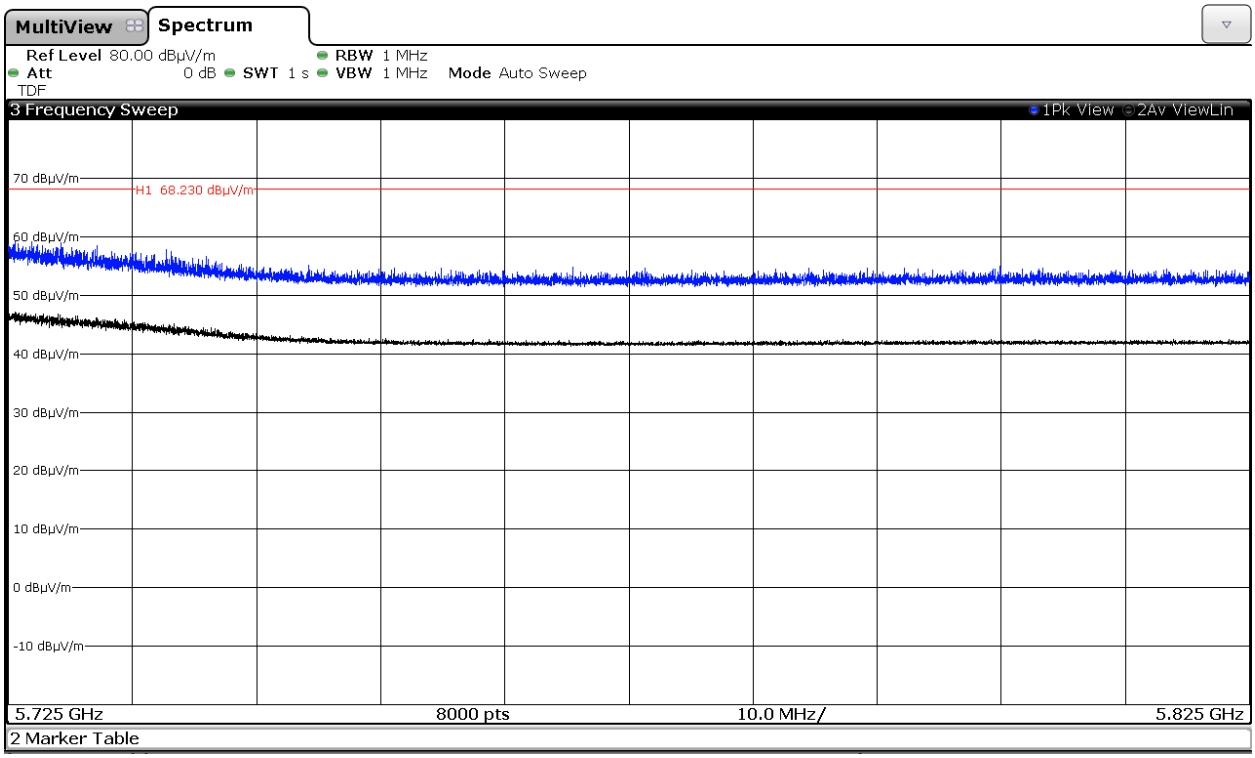
**Radiated spurious emissions at band-edges and inside adjacent band 5.725 – 5.825 GHz.**

1. WiFi 5GHz 802.11 a mode

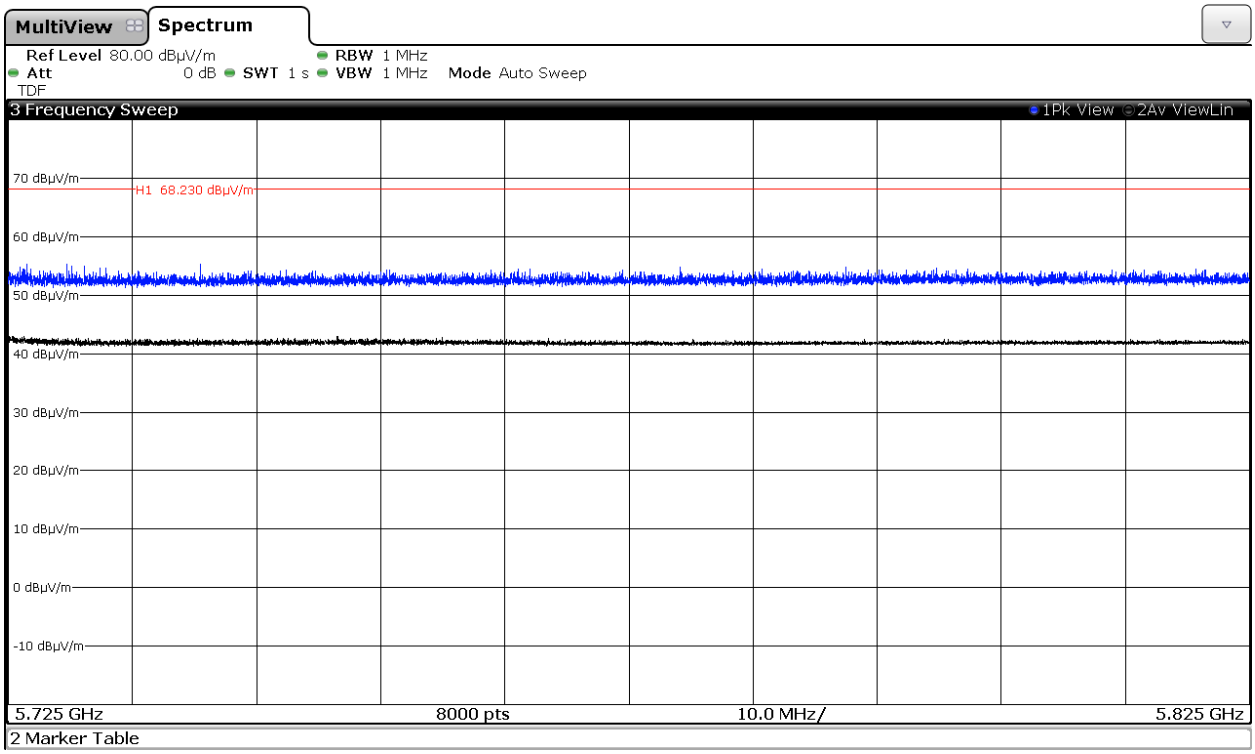
Channel 136. 5680MHz. Chain A.



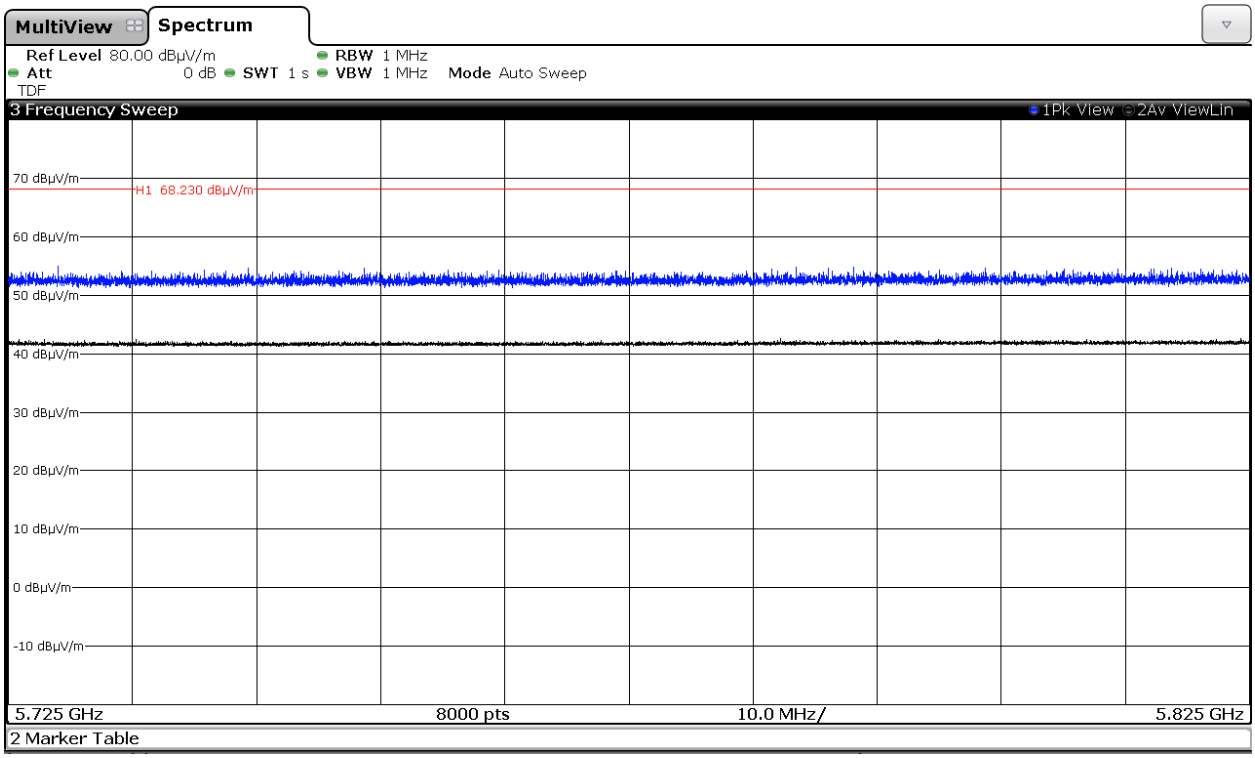

Channel 136. 5680MHz. Chain B.



Highest Channel (140) 5700 MHz. Chain A.

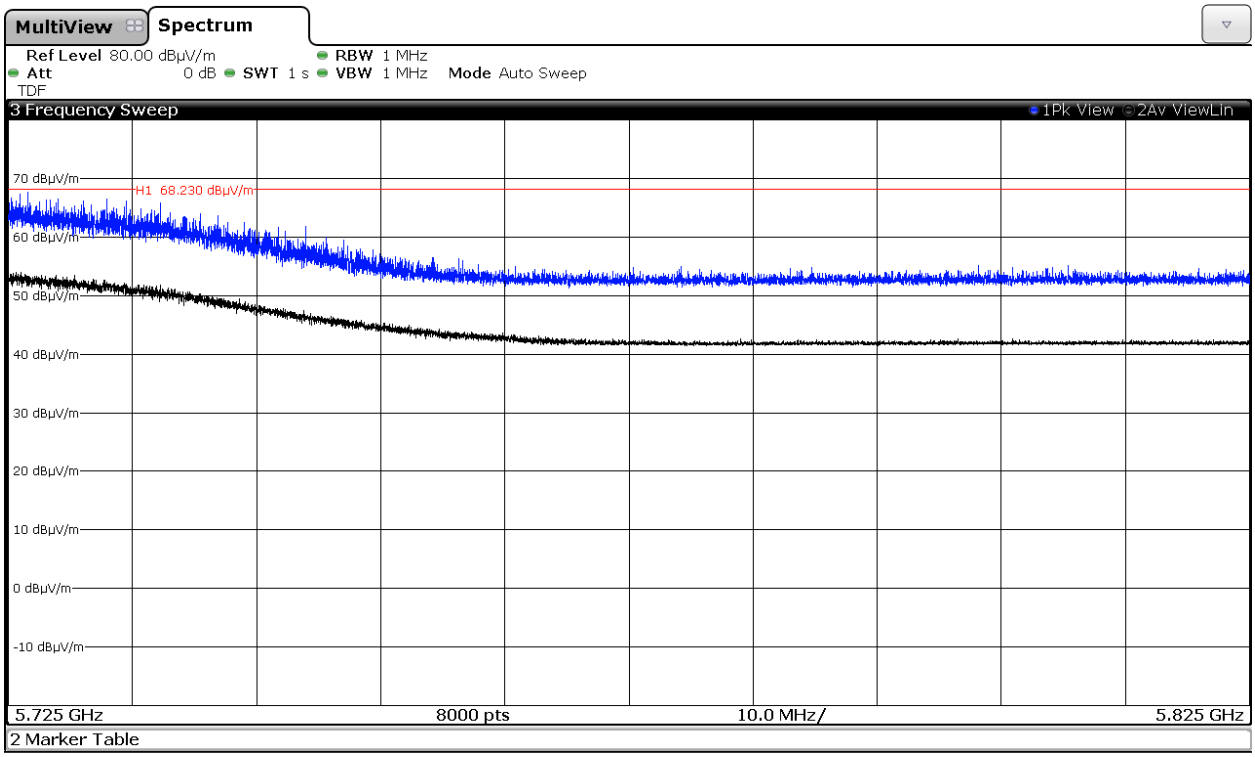



Highest Channel (140) 5700 MHz. Chain B.

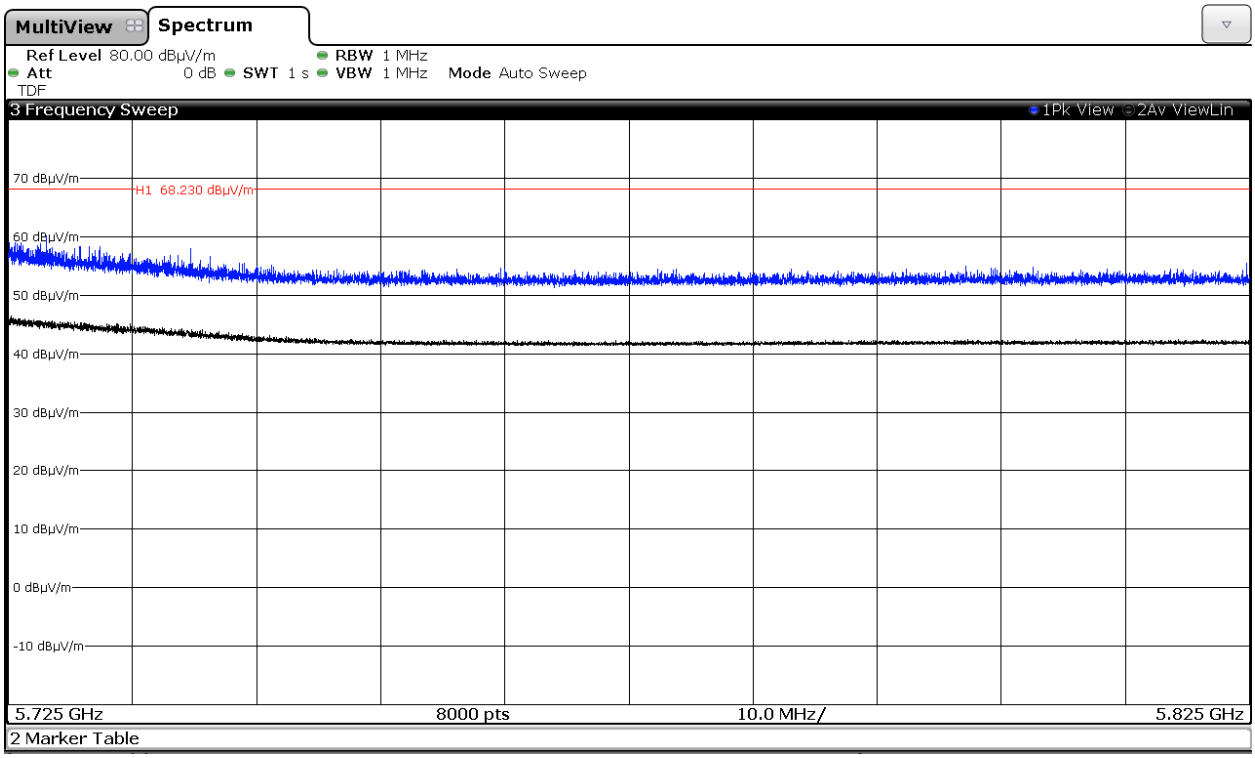


2. WiFi 5GHz 802.11 n20 mode

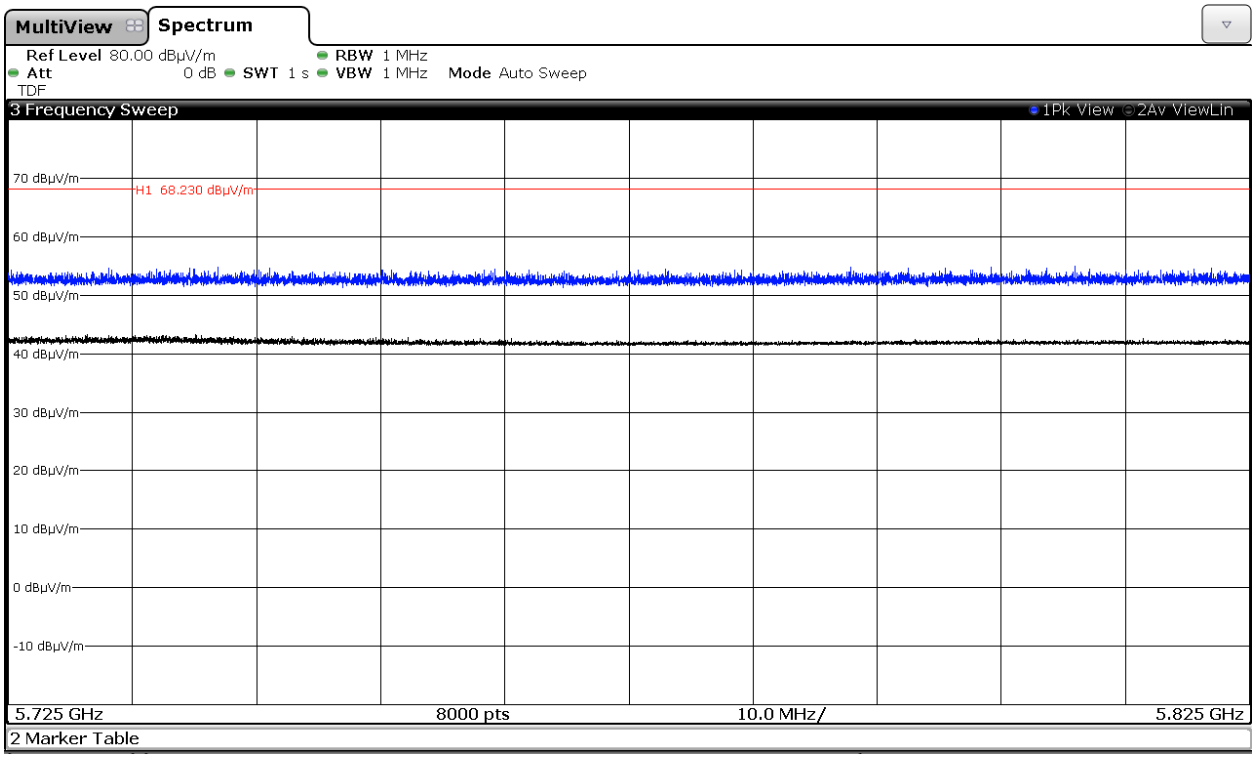
Channel 136. 5680MHz. Chain A.



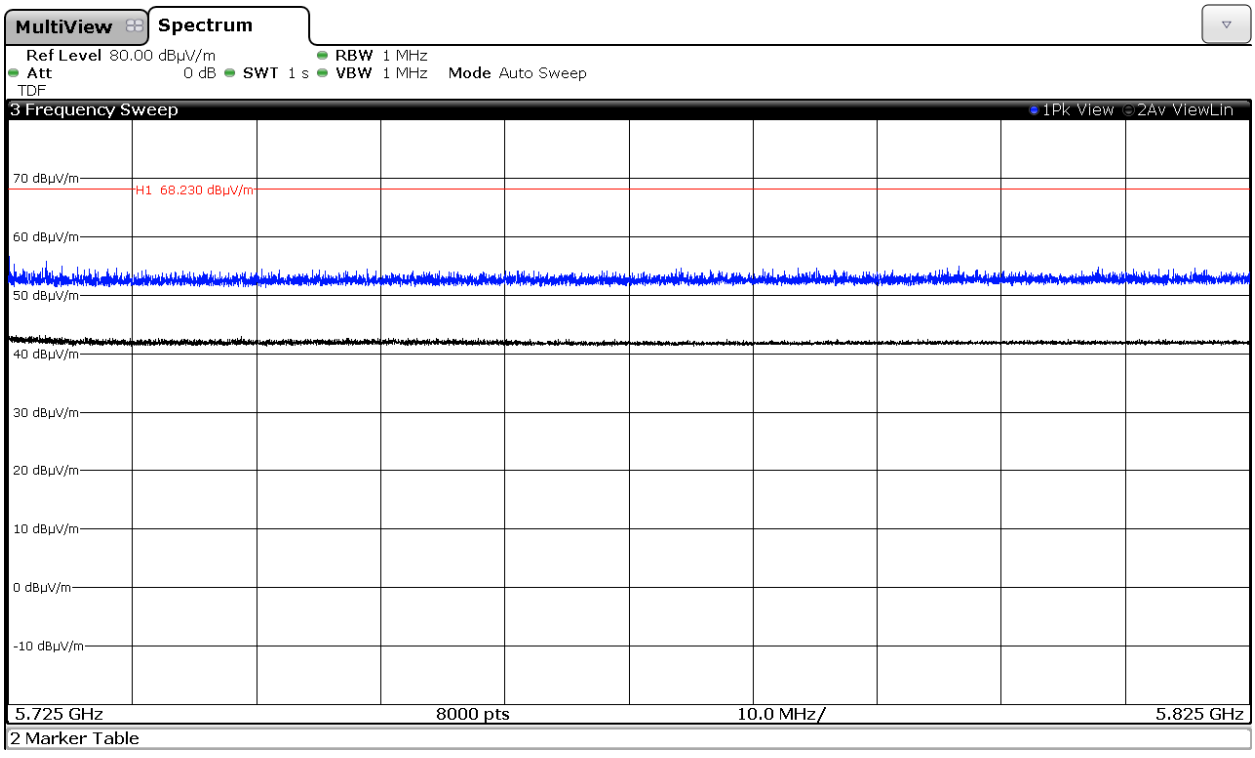

Channel 136. 5680MHz. Chain B.



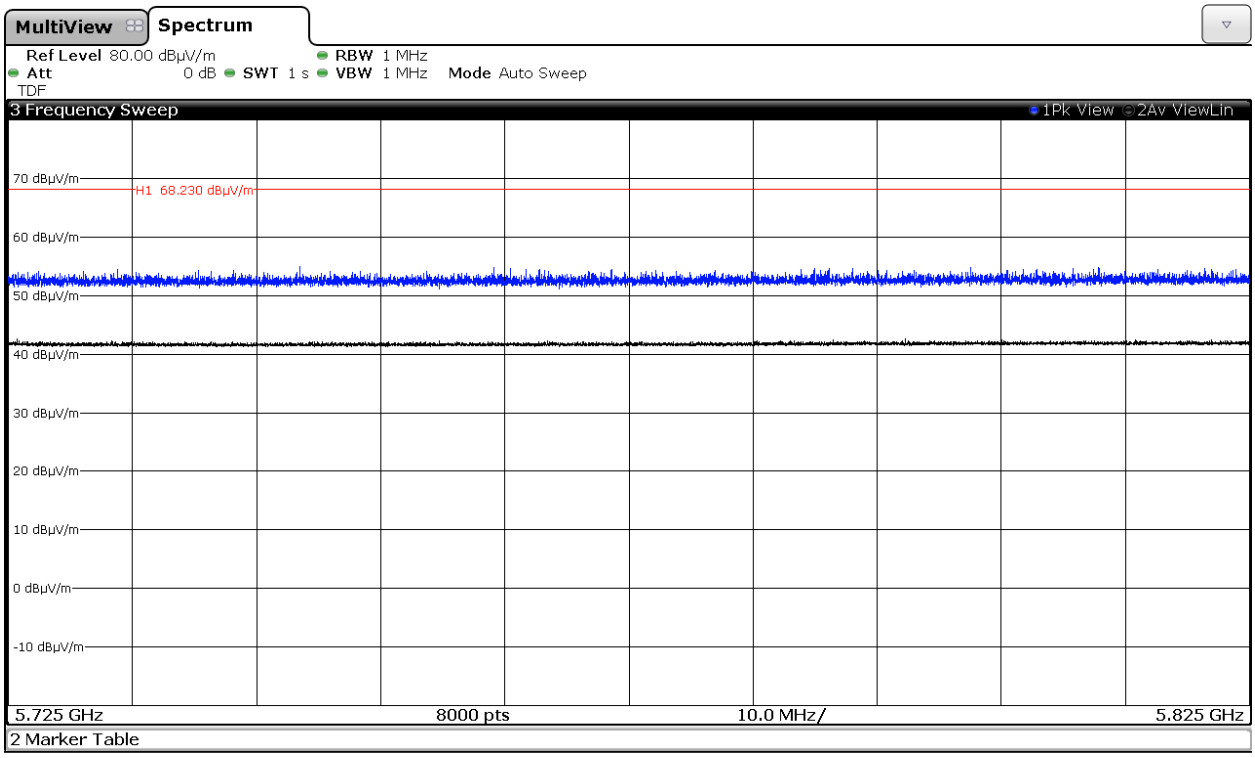
Channel 136. 5680MHz. Chain A+B.



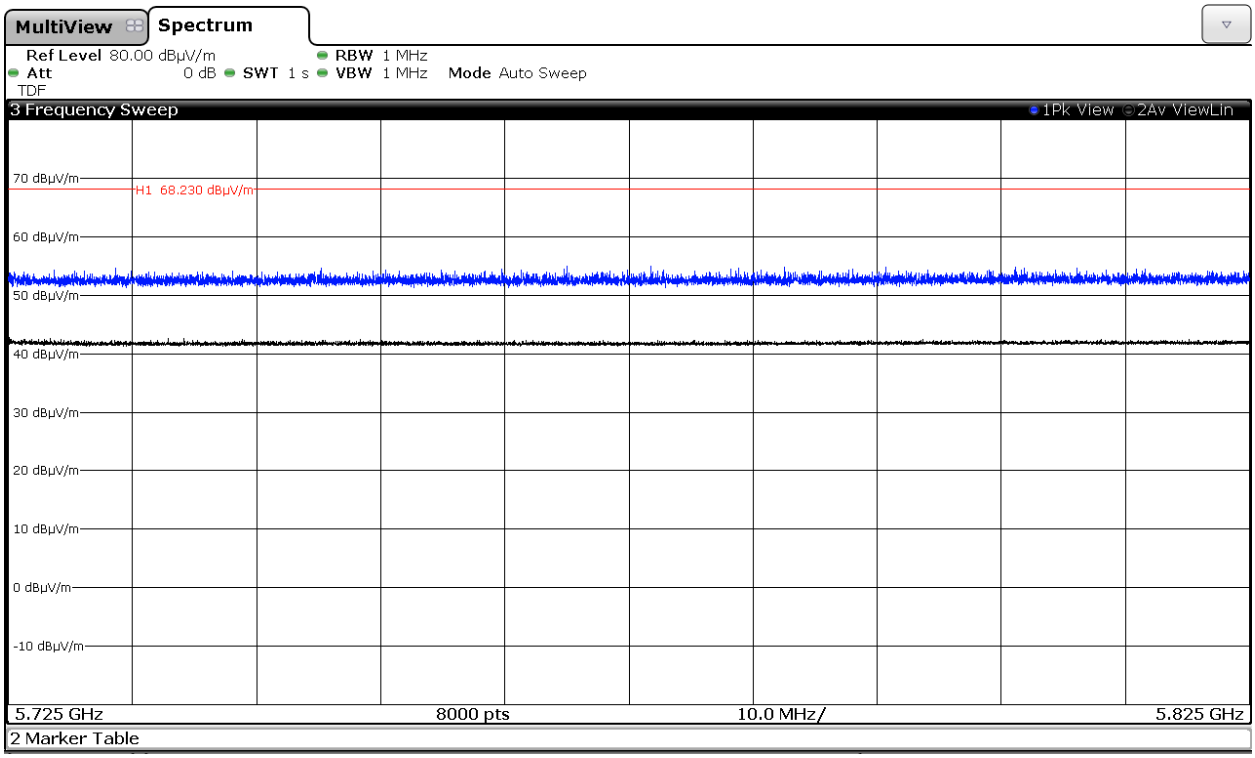

Highest Channel (140) 5700 MHz. Chain A.



Highest Channel (140) 5700 MHz. Chain B.

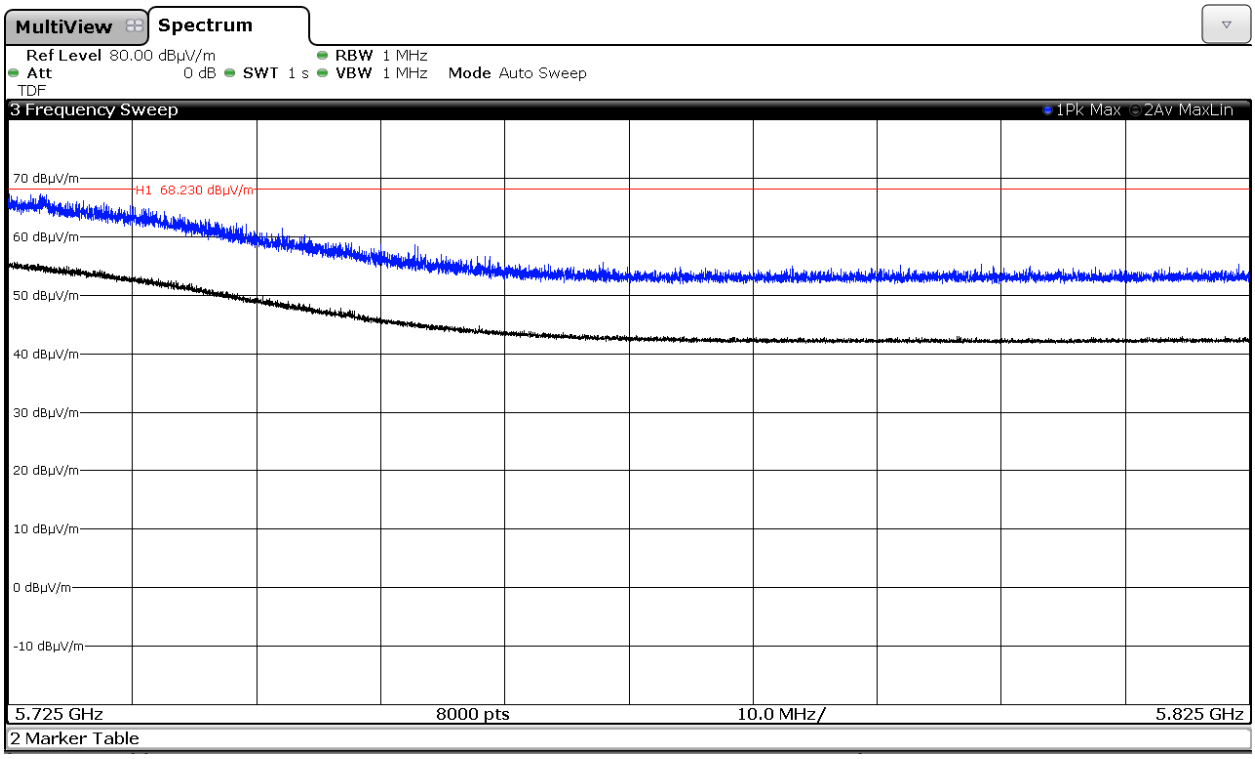



Highest Channel (140) 5700 MHz. Chain A+B.

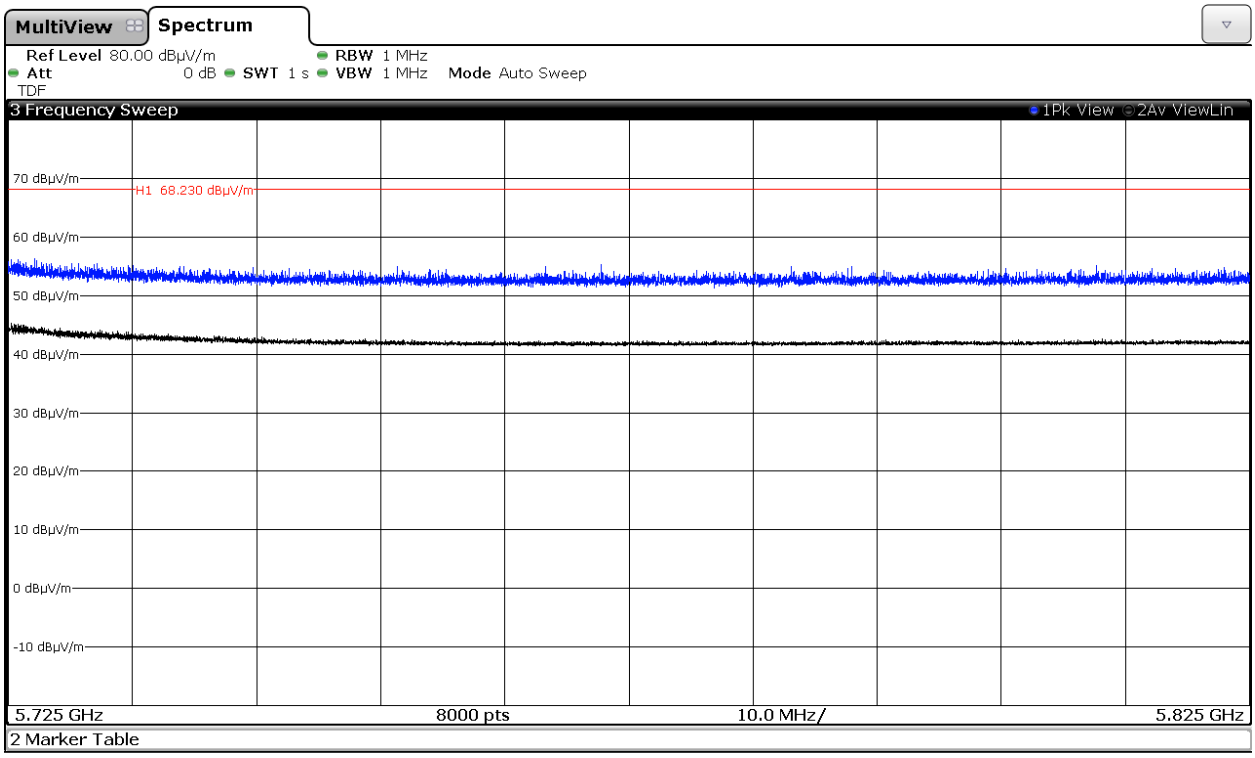


3. WiFi 5GHz 802.11 n40 mode

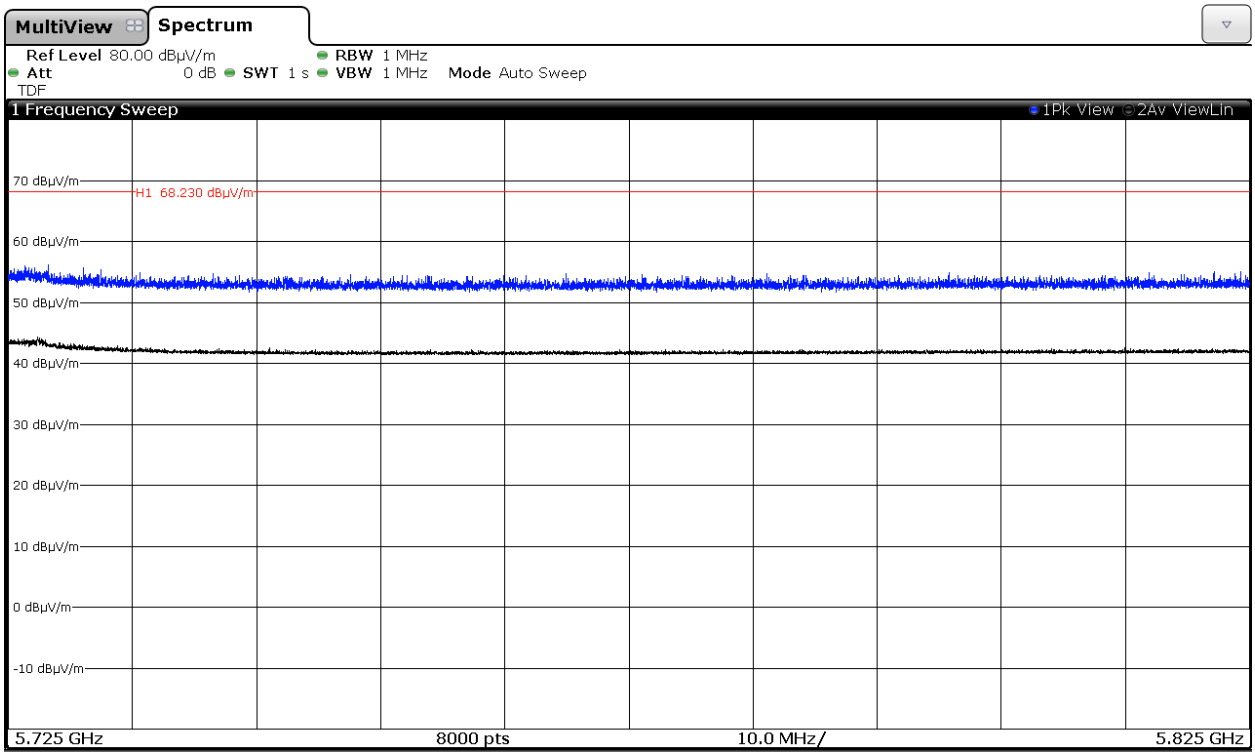
Highest Channel (134) 5670 MHz. Chain A.




Highest Channel (134) 5670 MHz. Chain B.

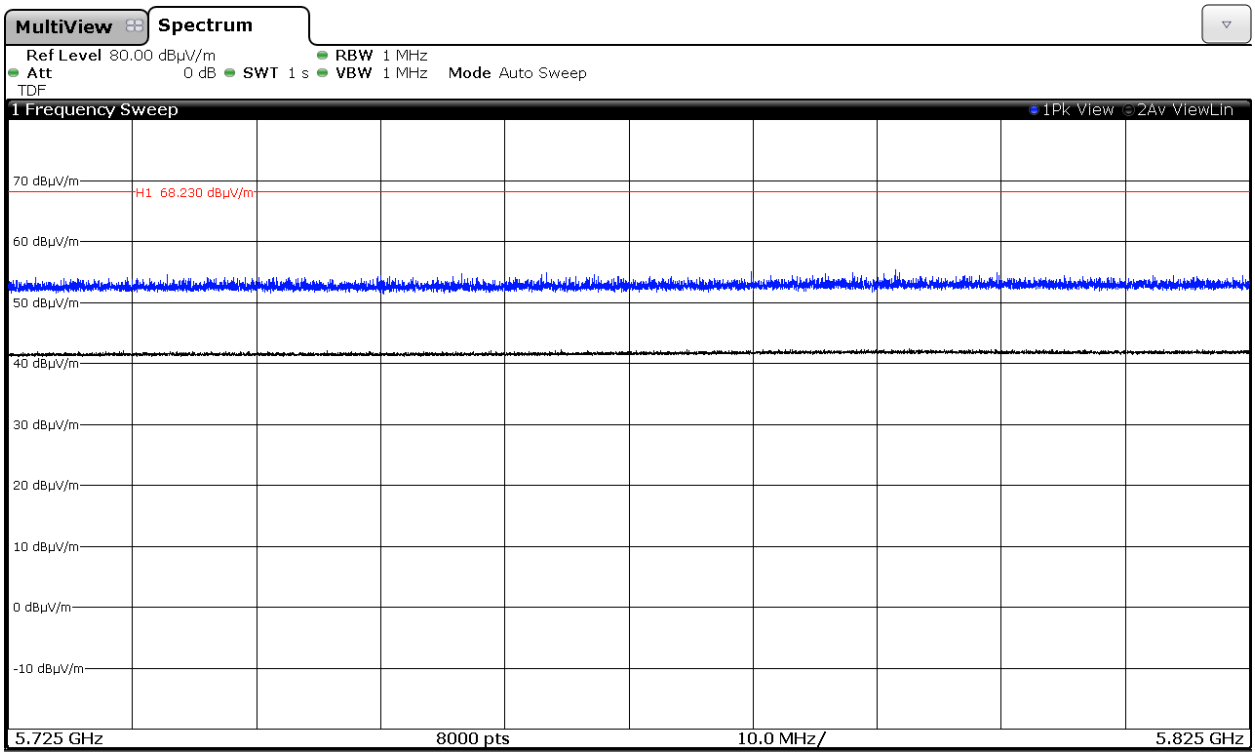


Highest Channel (134) 5670 MHz. Chain A+B.

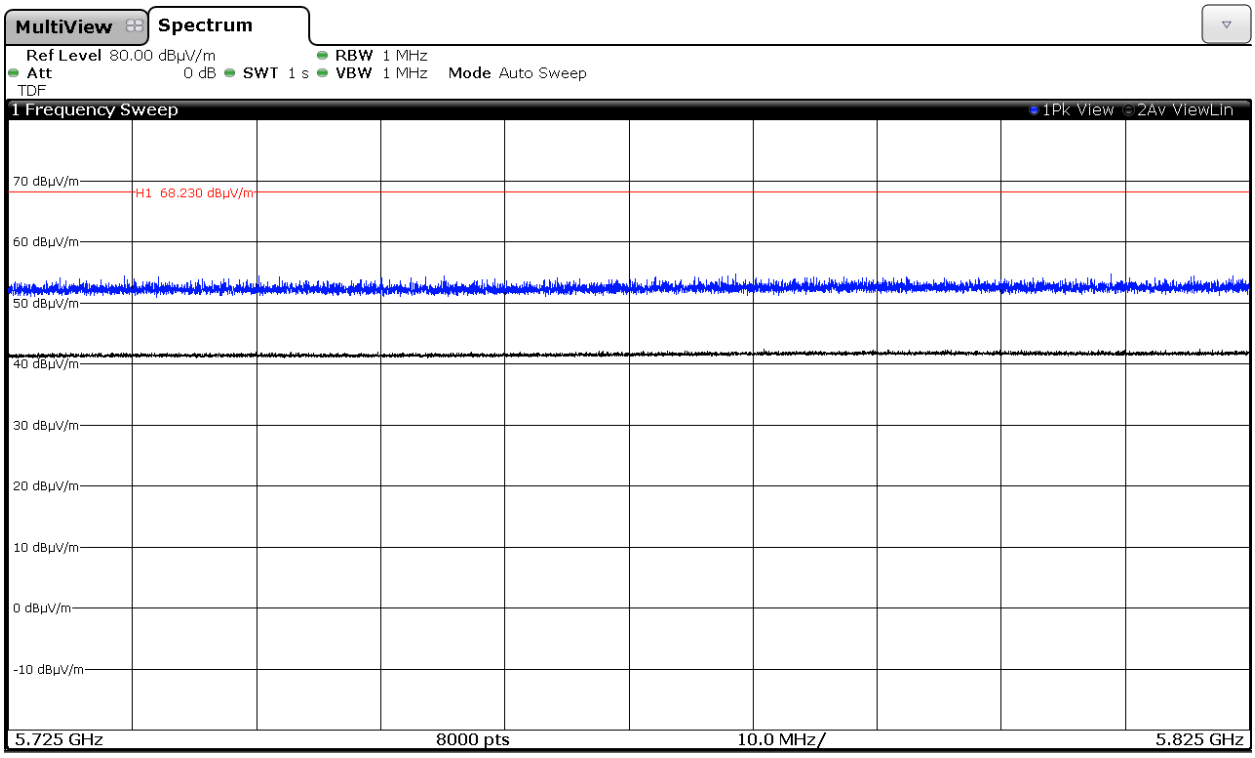


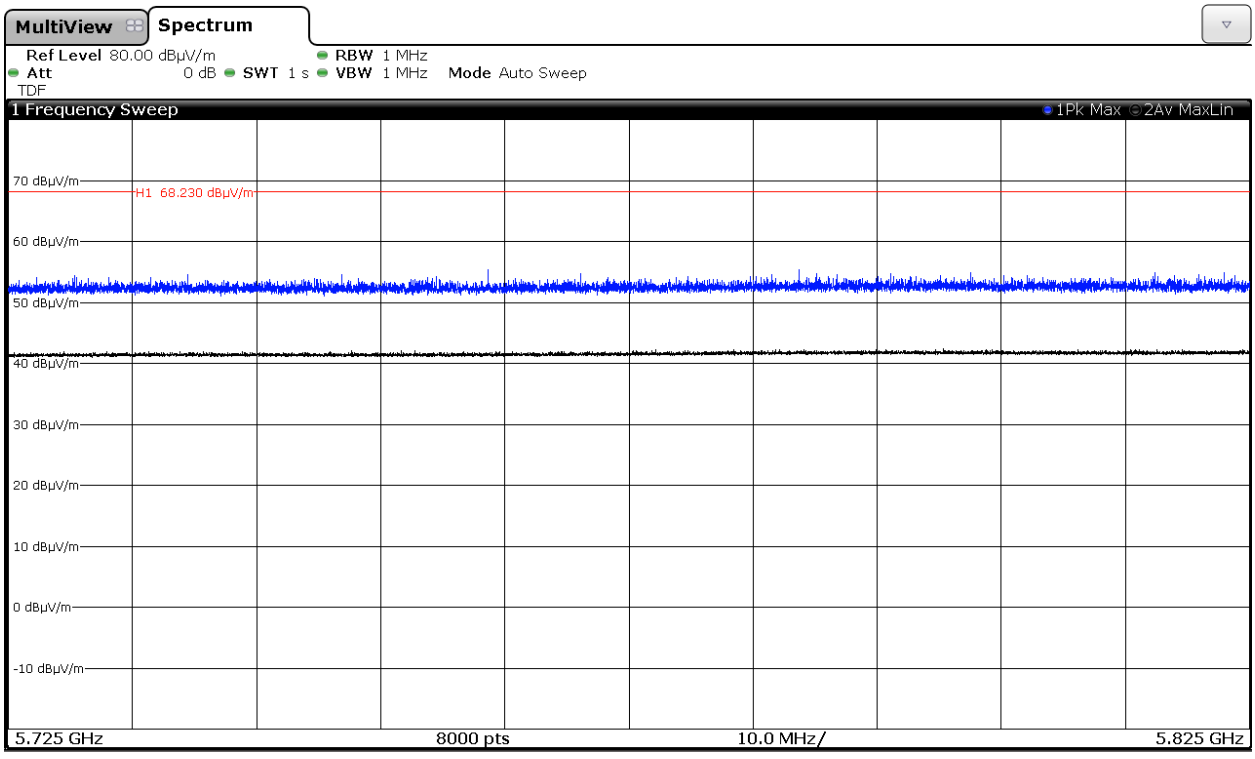

## 4. WiFi 5GHz 802.11 ac80 mode

Middle Channel (122) 5610 MHz. Chain A.



Middle Channel (122) 5610 MHz. Chain B.




Middle Channel (122) 5610 MHz. Chain A+B.