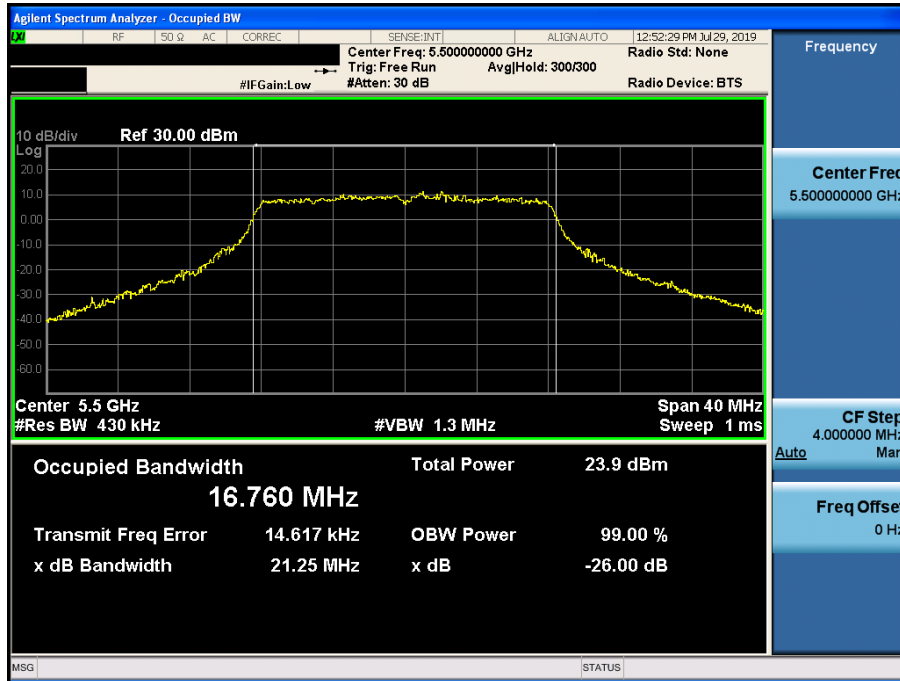


Occupied Bandwidth 99%

Test Mode: 802.11a & Ch.100



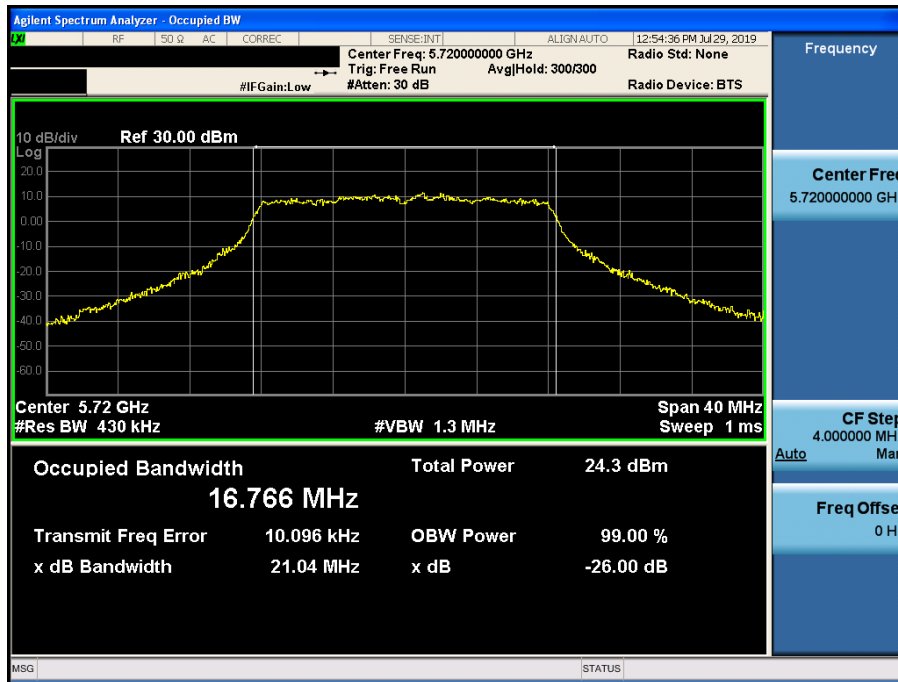
Occupied Bandwidth 99%

Test Mode: 802.11a & Ch.116



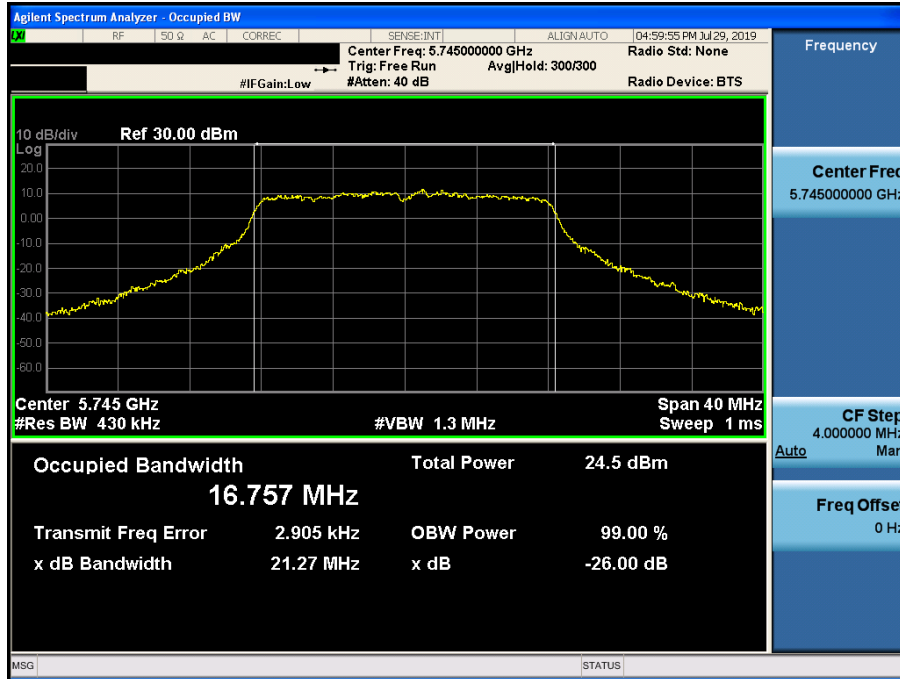
Occupied Bandwidth 99%

Test Mode: 802.11a & Ch.144



Occupied Bandwidth 99%

Test Mode: 802.11a & Ch.149



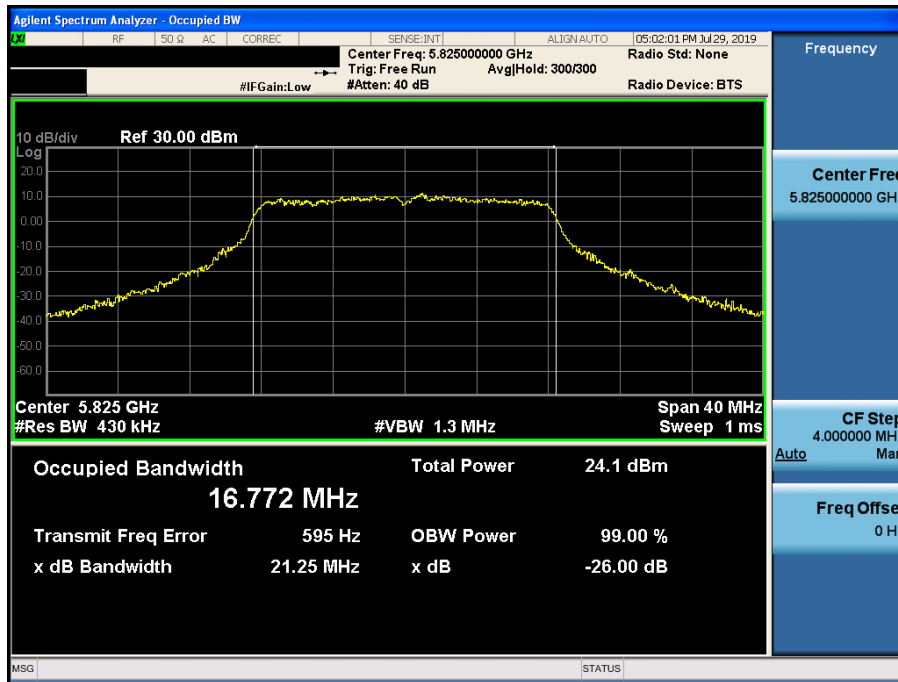
Occupied Bandwidth 99%

Test Mode: 802.11a & Ch.157



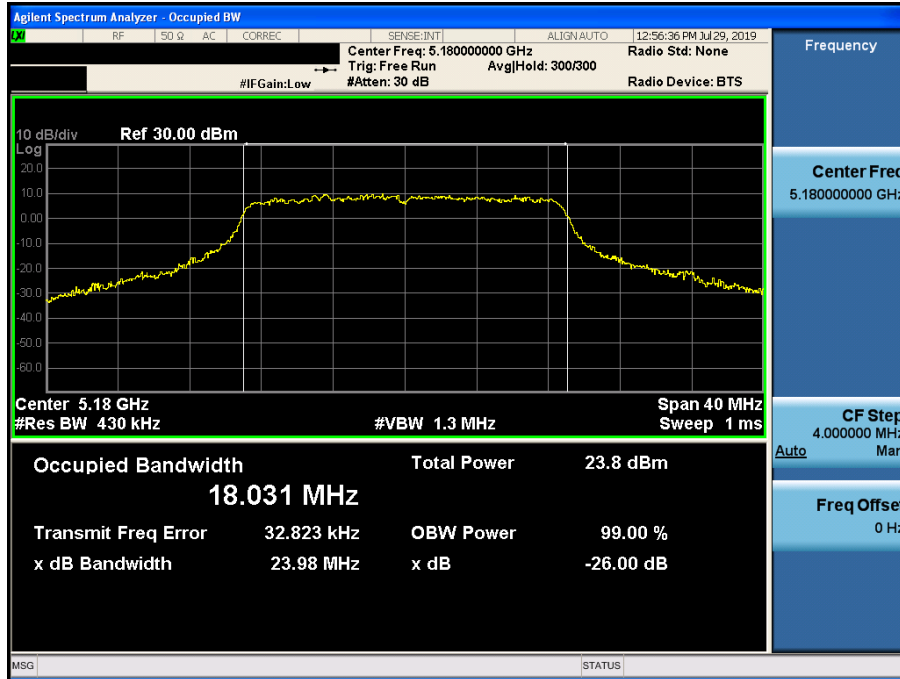
Occupied Bandwidth 99%

Test Mode: 802.11a & Ch.165



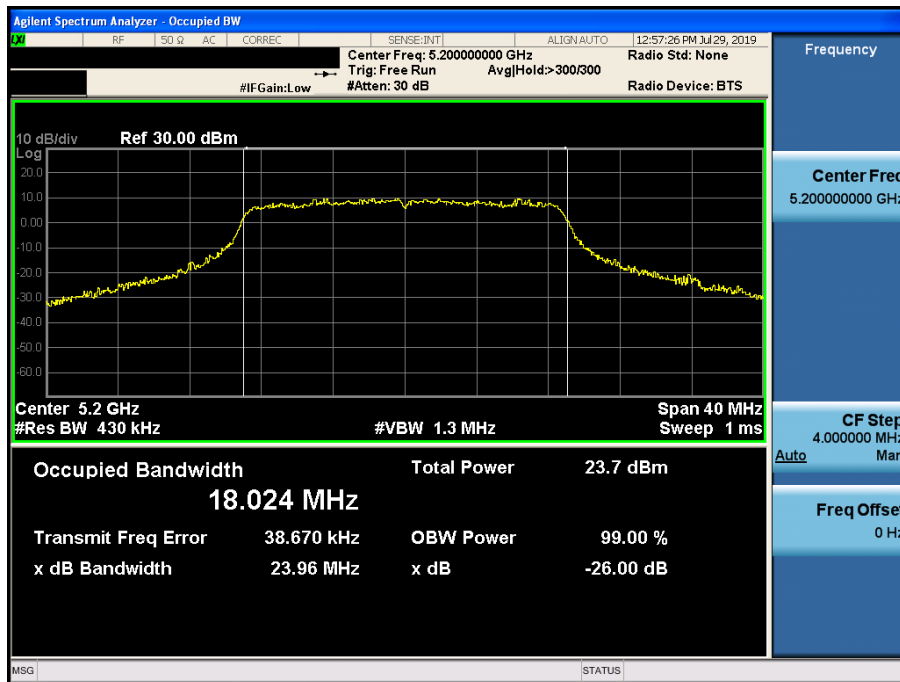
Occupied Bandwidth 99%

Test Mode: 802.11n(HT20) & Ch.36



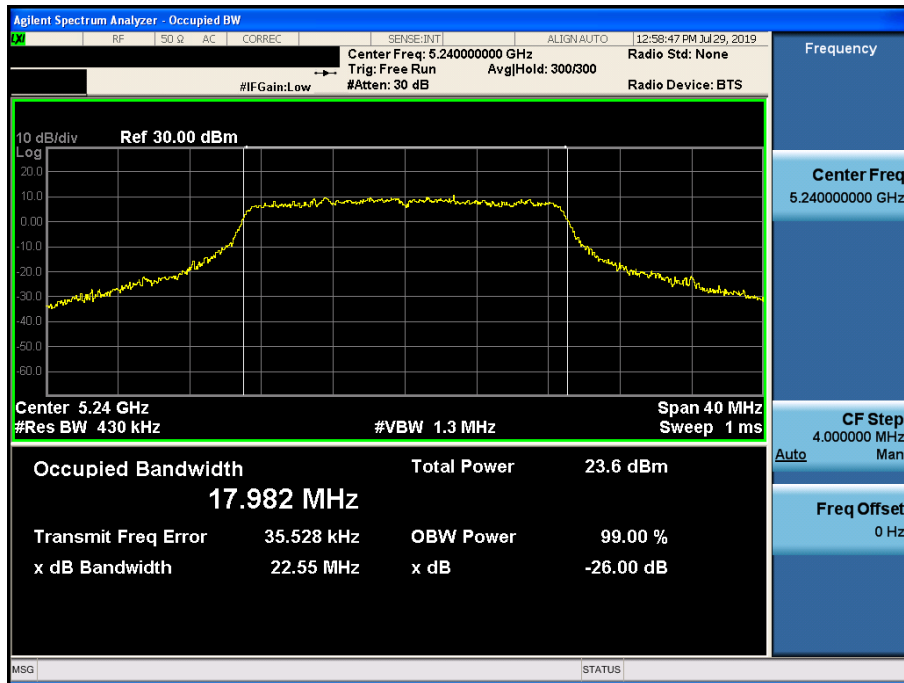
Occupied Bandwidth 99%

Test Mode: 802.11n(HT20) & Ch.40



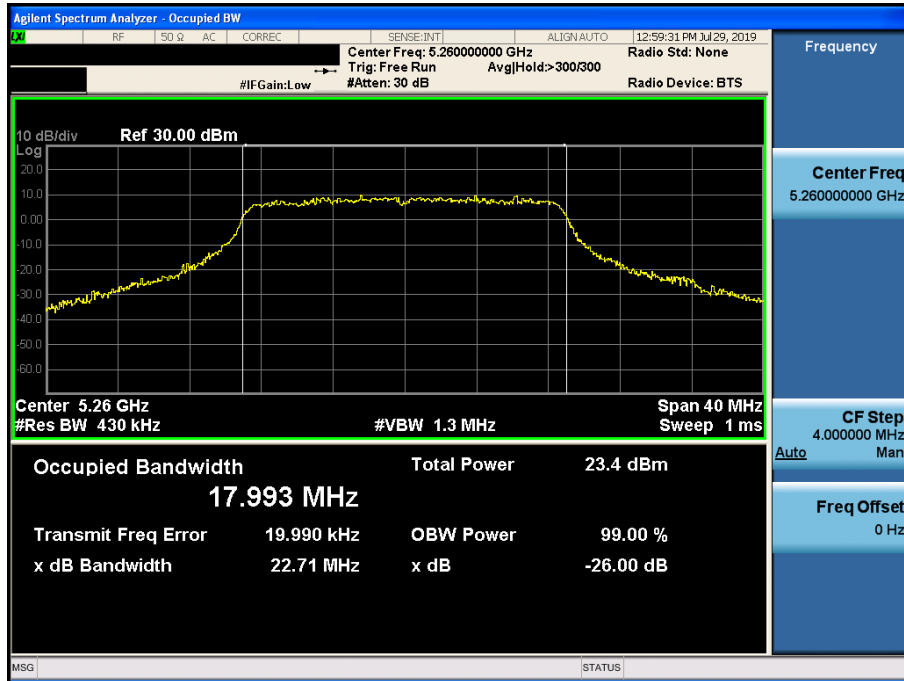
Occupied Bandwidth 99%

Test Mode: 802.11n(HT20) & Ch.48



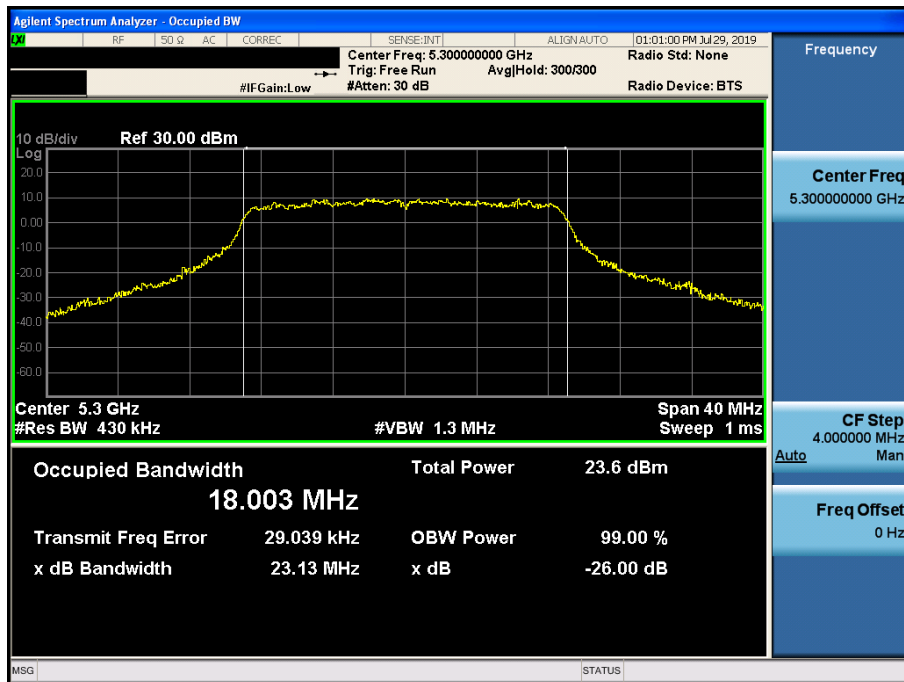
Occupied Bandwidth 99%

Test Mode: 802.11n(HT20) & Ch.52



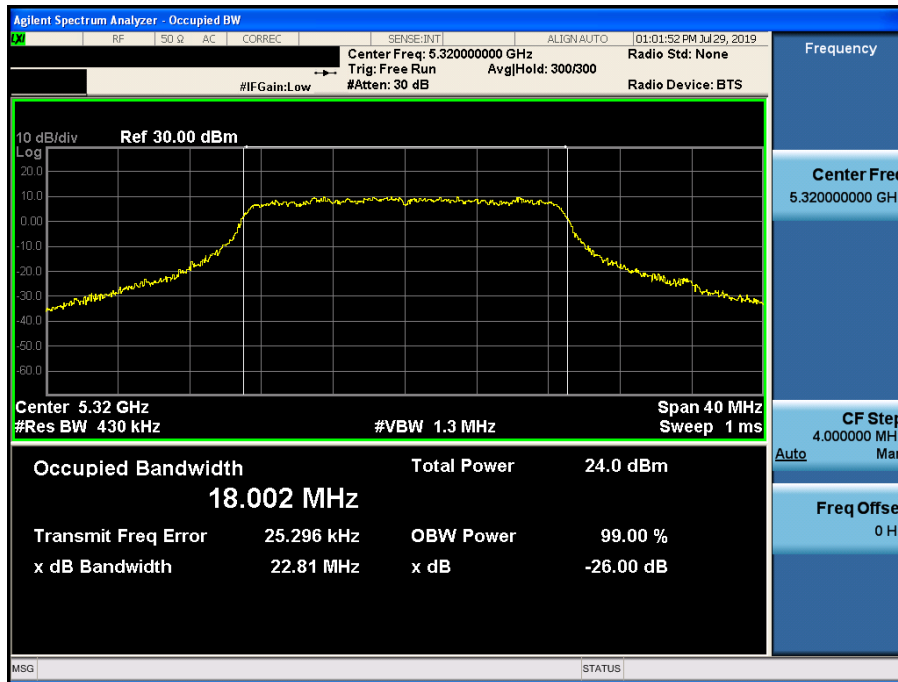
Occupied Bandwidth 99%

Test Mode: 802.11n(HT20) & Ch.60



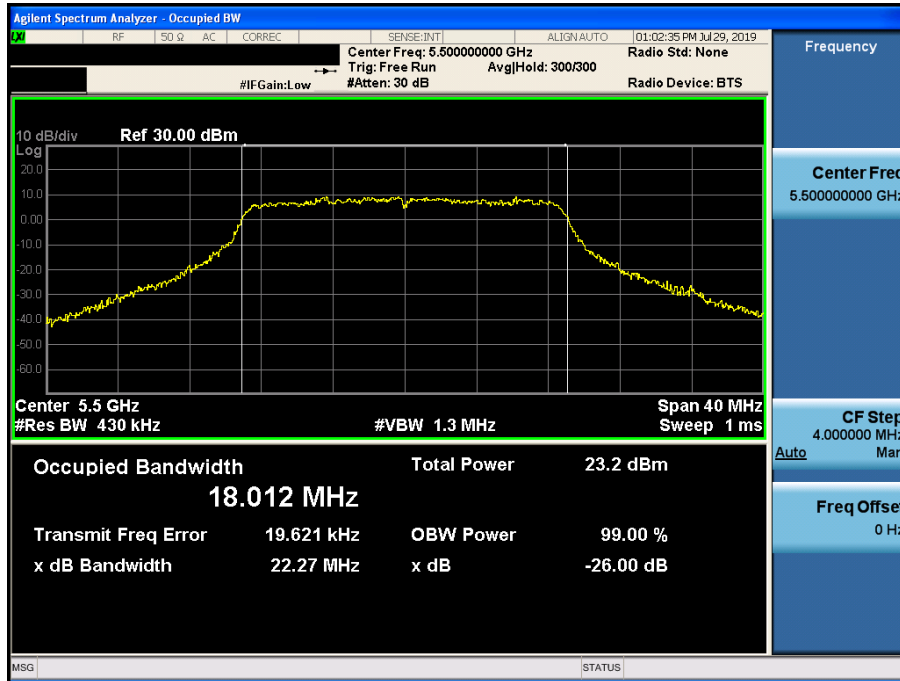
Occupied Bandwidth 99%

Test Mode: 802.11n(HT20) & Ch.64



Occupied Bandwidth 99%

Test Mode: 802.11n(HT20) & Ch.100



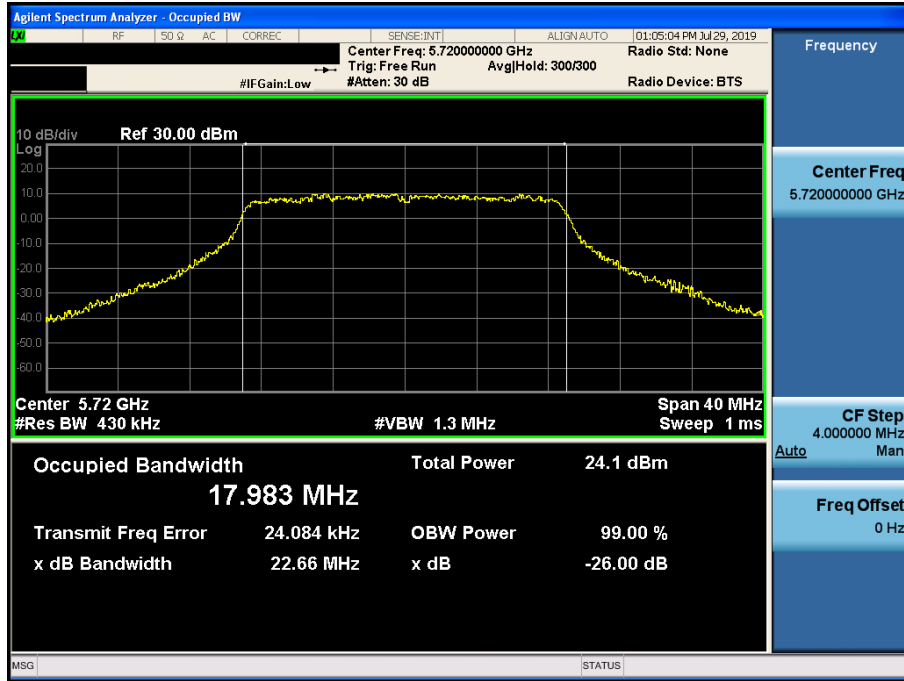
Occupied Bandwidth 99%

Test Mode: 802.11n(HT20) & Ch.116



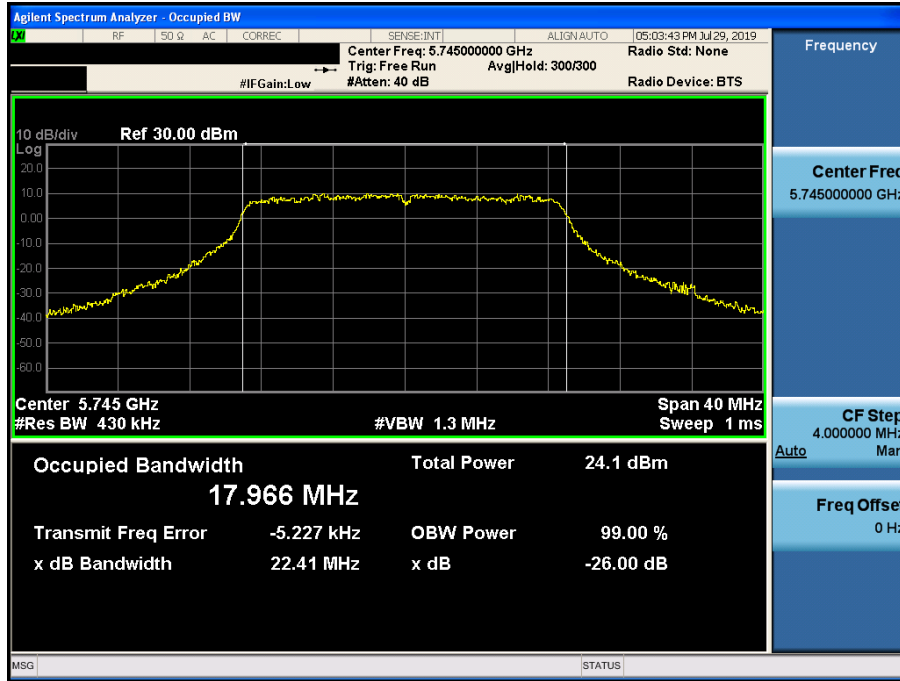
Occupied Bandwidth 99%

Test Mode: 802.11n(HT20) & Ch.144



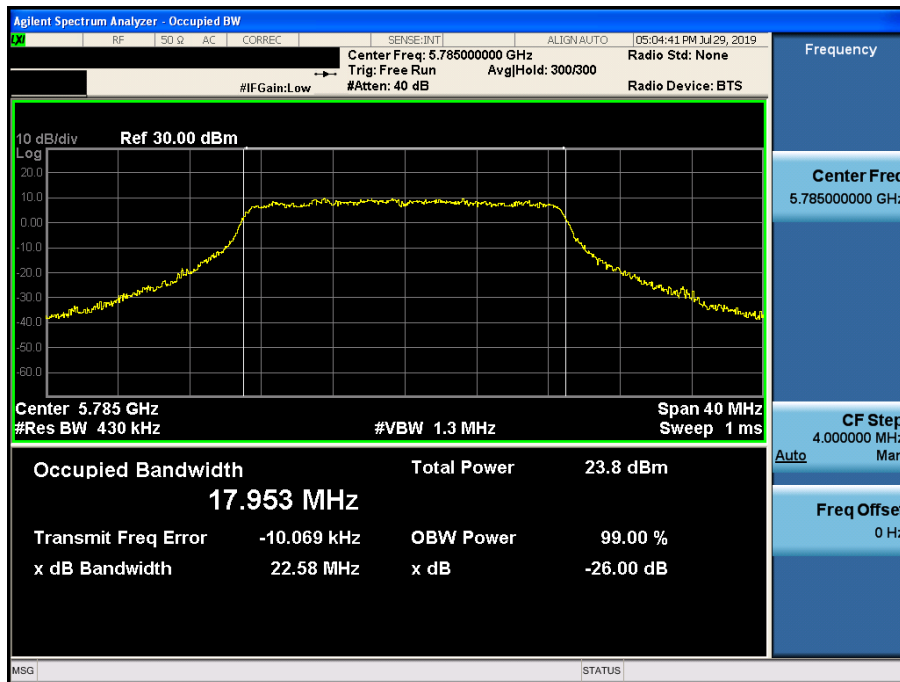
Occupied Bandwidth 99%

Test Mode: 802.11n(HT20) & Ch.149



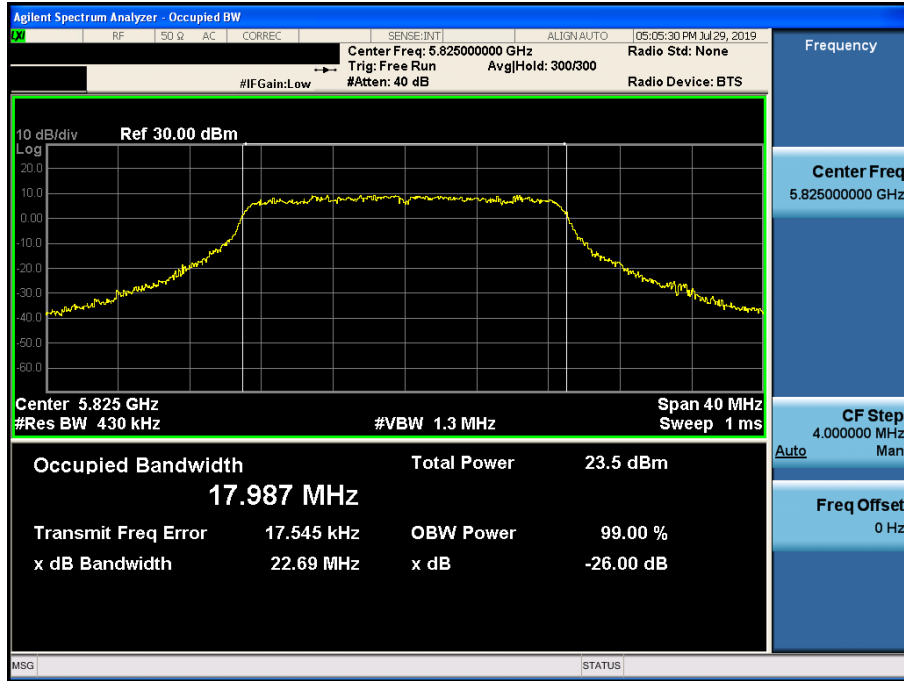
Occupied Bandwidth 99%

Test Mode: 802.11n(HT20) & Ch.157



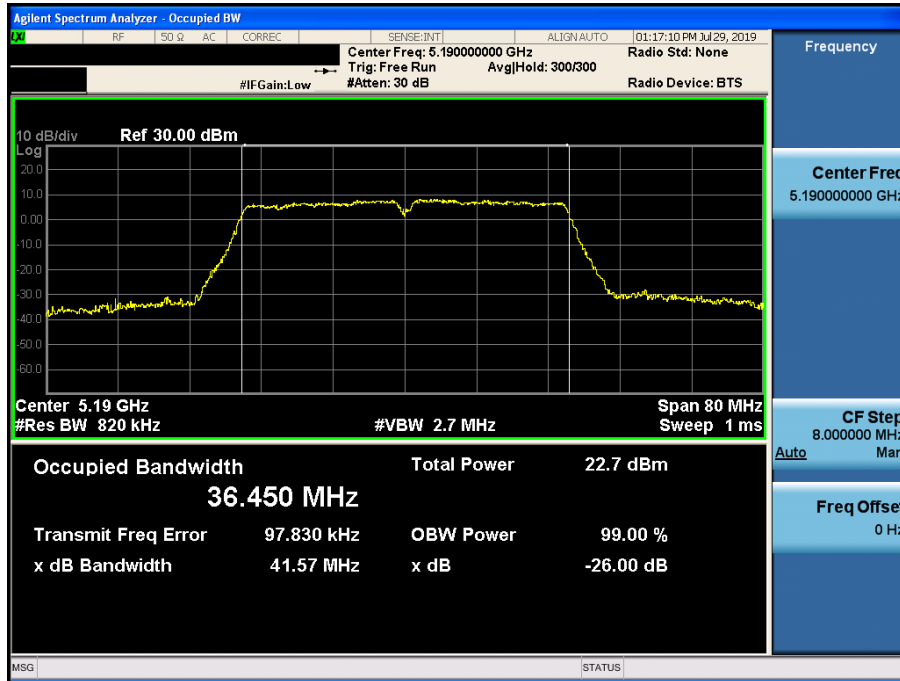
Occupied Bandwidth 99%

Test Mode: 802.11n(HT20) & Ch.165



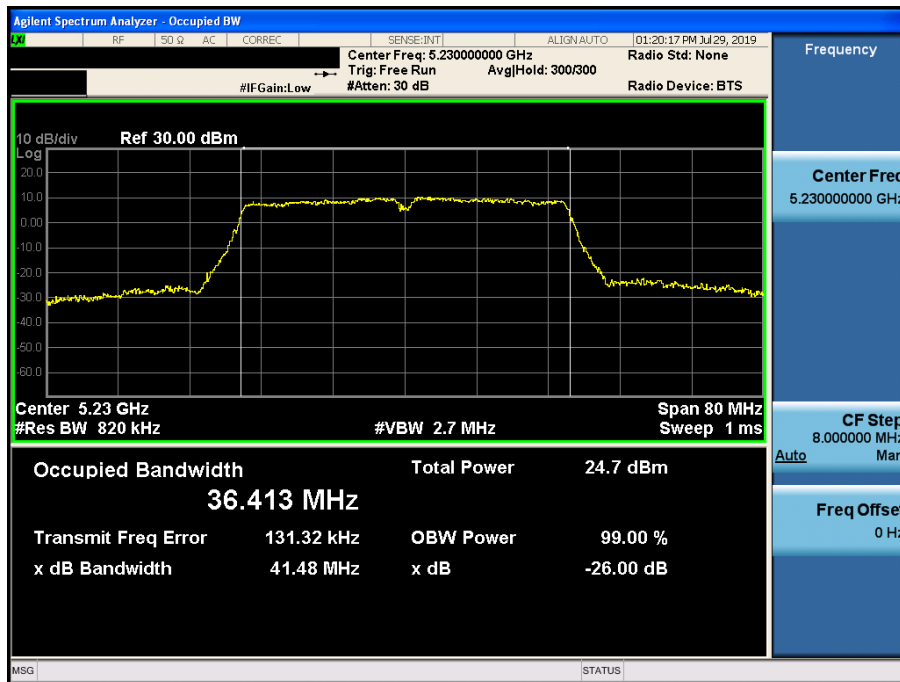
Occupied Bandwidth 99%

Test Mode: 802.11n(HT40) & Ch.38



Occupied Bandwidth 99%

Test Mode: 802.11n(HT40) & Ch.46



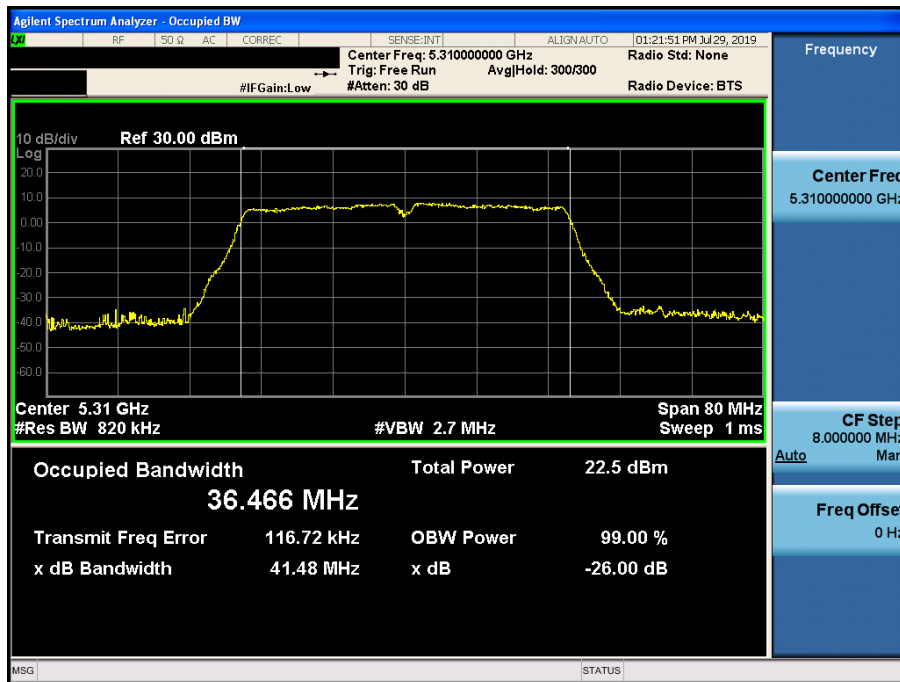
Occupied Bandwidth 99%

Test Mode: 802.11n(HT40) & Ch.54



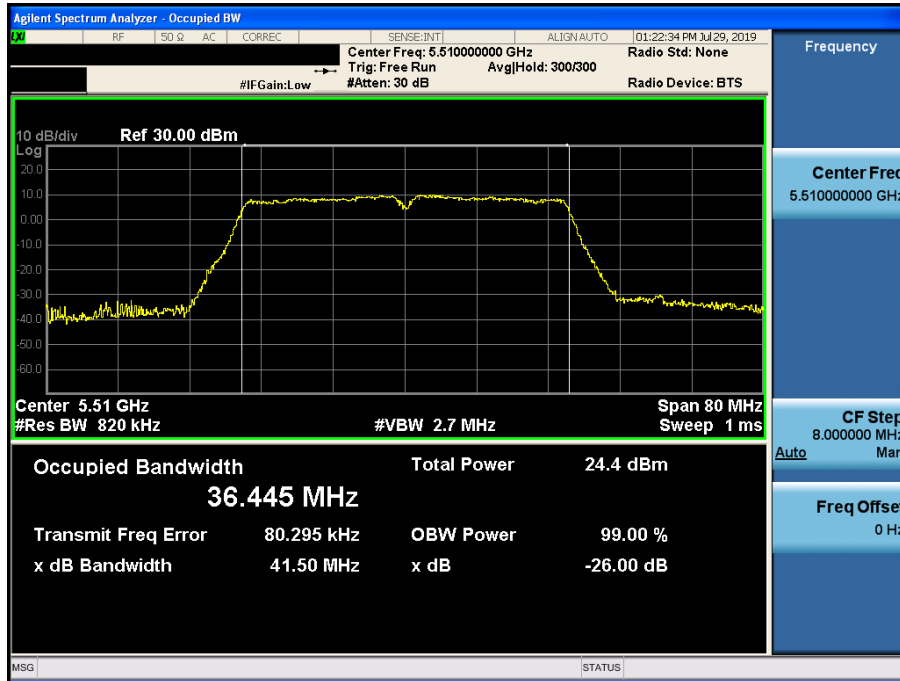
Occupied Bandwidth 99%

Test Mode: 802.11n(HT40) & Ch.62



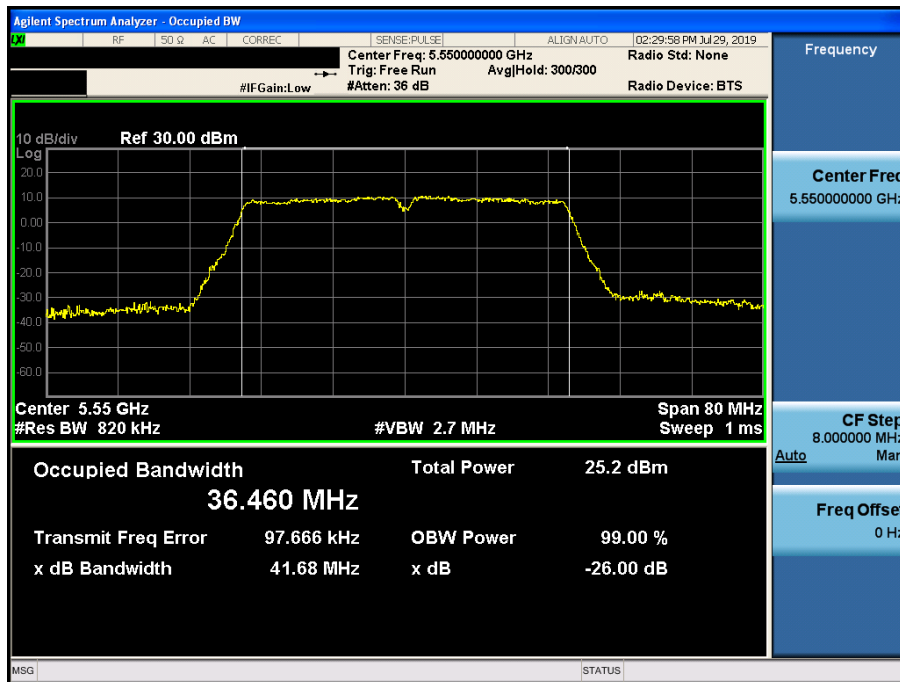
Occupied Bandwidth 99%

Test Mode: 802.11n(HT40) & Ch.102



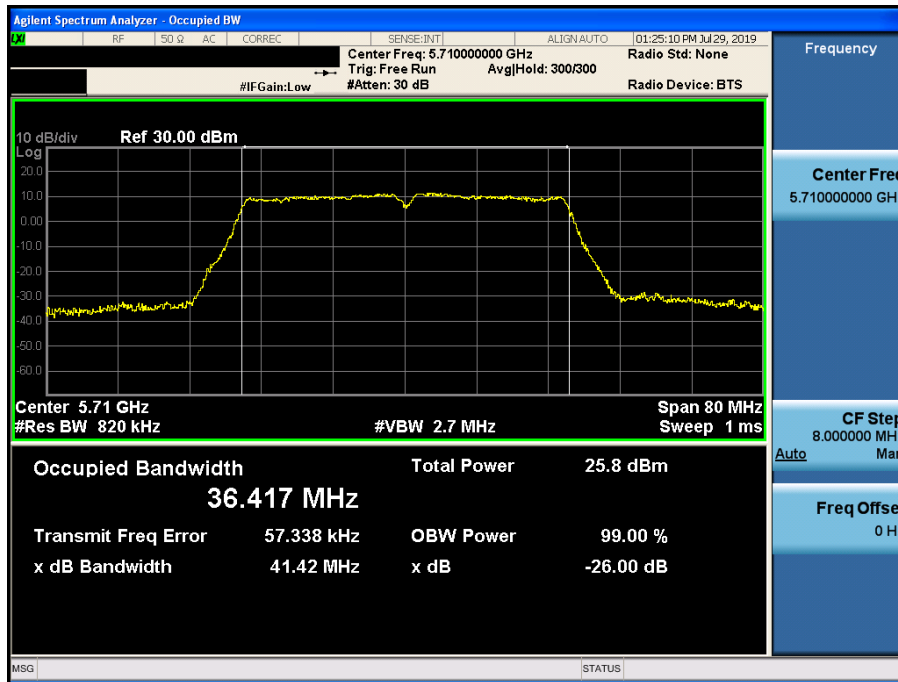
Occupied Bandwidth 99%

Test Mode: 802.11n(HT40) & Ch.110



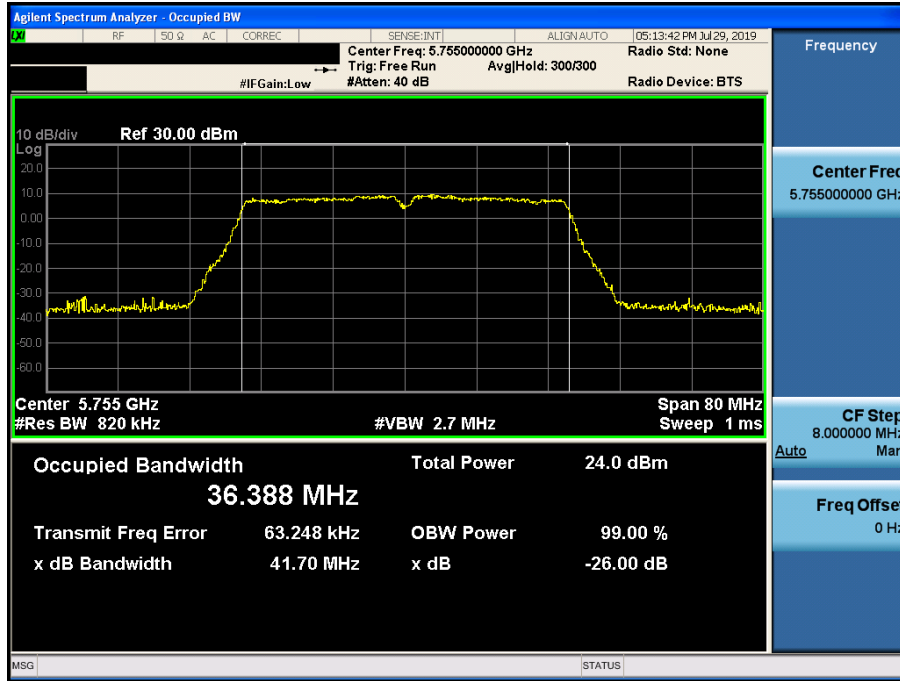
Occupied Bandwidth 99%

Test Mode: 802.11n(HT40) & Ch.142



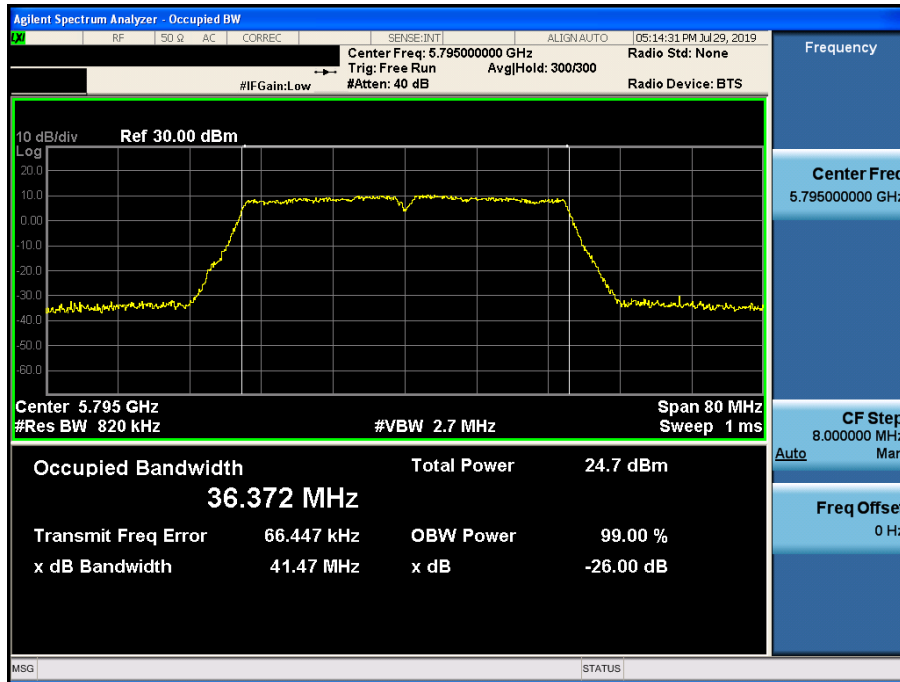
Occupied Bandwidth 99%

Test Mode: 802.11n(HT40) & Ch.151



Occupied Bandwidth 99%

Test Mode: 802.11n(HT40) & Ch.159



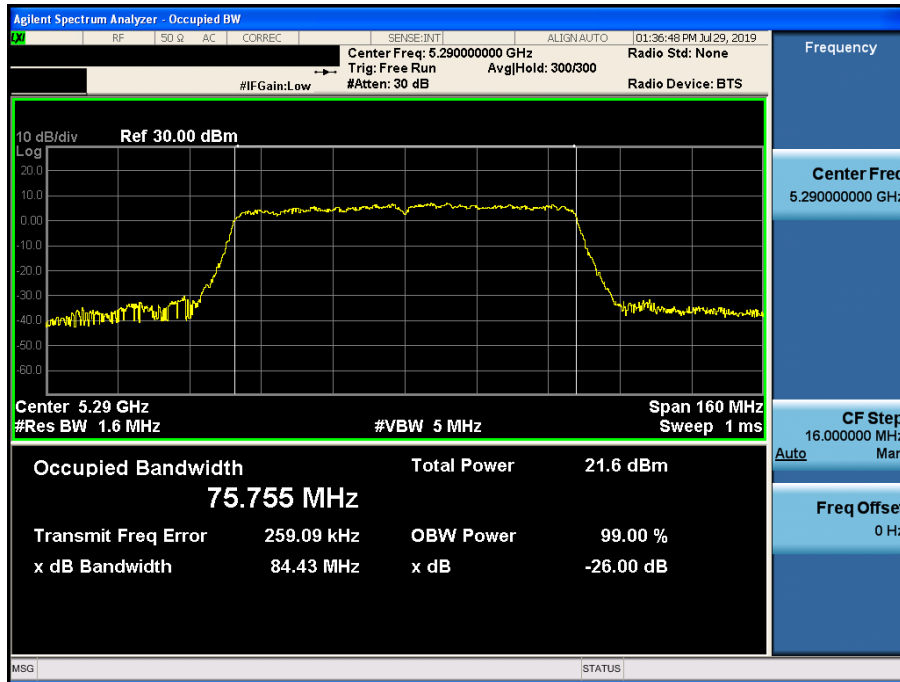
Occupied Bandwidth 99%

Test Mode: 802.11ac(VHT80) & Ch.42



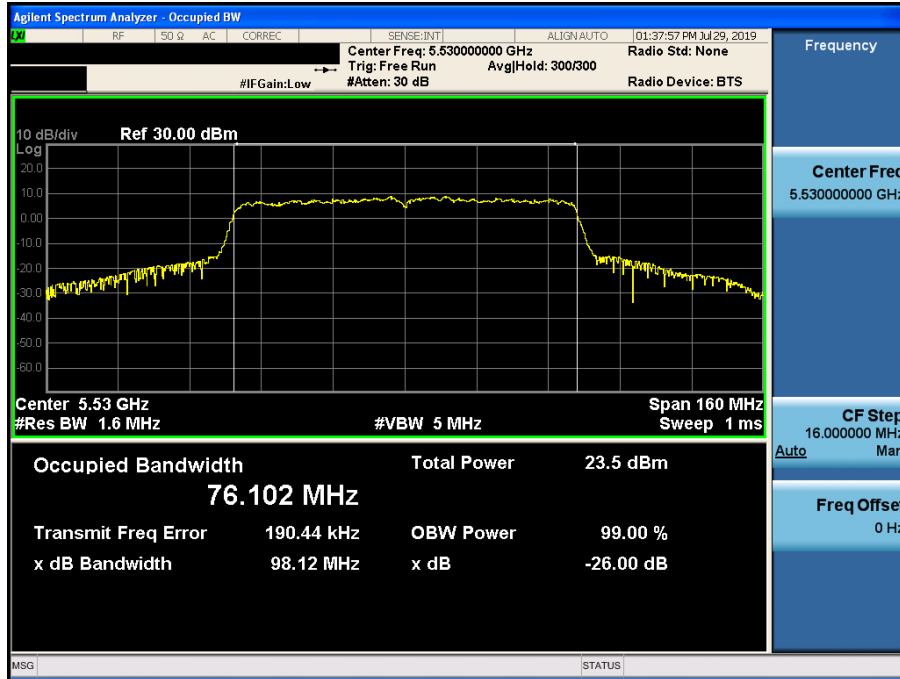
Occupied Bandwidth 99%

Test Mode: 802.11ac(VHT80) & Ch.58



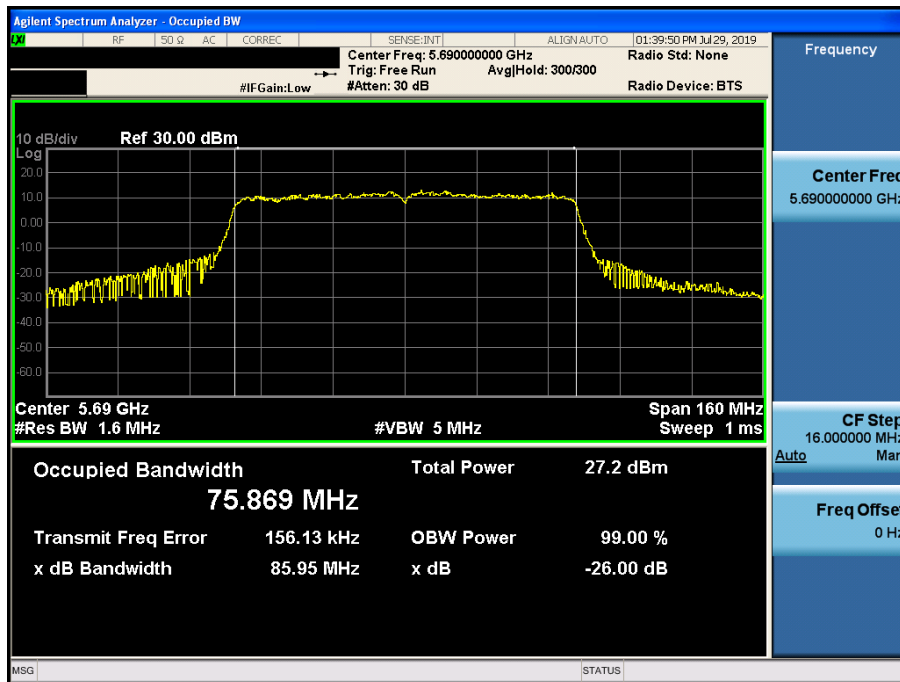
Occupied Bandwidth 99%

Test Mode: 802.11ac(VHT80) & Ch.106



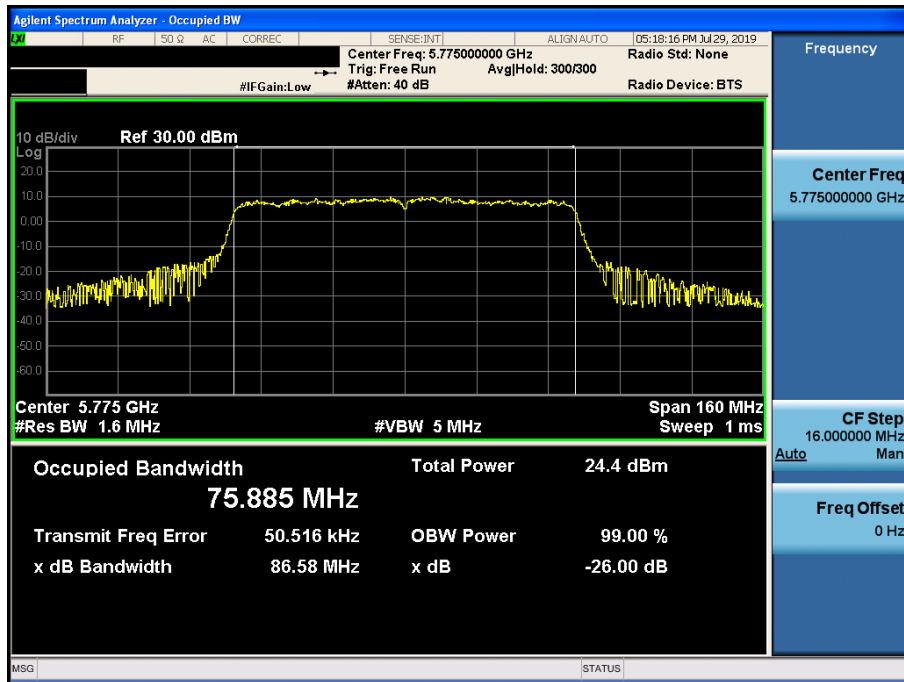
Occupied Bandwidth 99%

Test Mode: 802.11ac(VHT80) & Ch.138



Occupied Bandwidth 99%

Test Mode: 802.11ac(VHT80) & Ch.155



9. LIST OF TEST EQUIPMENT

| Type | Manufacturer | Model | Cal.Date (yy/mm/dd) | Next.Cal.Date (yy/mm/dd) | S/N |
|-------------------------------------|------------------------|------------------------------------|------------------------|-----------------------------|--------------------|
| Spectrum Analyzer | Agilent Technologies | N9020A | 19/06/26 | 20/06/26 | US47360812 |
| Spectrum Analyzer | Agilent Technologies | N9020A | 18/12/19 | 19/12/19 | MY48011700 |
| DC Power Supply | Agilent Technologies | 66332A | 18/12/18 | 19/12/18 | US37473833 |
| Multimeter | FLUKE | 17B | 18/12/18 | 19/12/18 | 26030065WS |
| Signal Generator | Rohde Schwarz | SMBV100A | 18/12/19 | 19/12/19 | 255571 |
| Signal Generator | ANRITSU | MG3695C | 18/12/10 | 19/12/10 | 173501 |
| Thermohygrometer | BODYCOM | BJ5478 | 18/12/27 | 19/12/27 | 120612-1 |
| Thermohygrometer | SATO | PC-5000TRH-II | 18/07/18 | 19/07/18 | N/A |
| | | | 19/07/18 | 20/07/18 | |
| Thermohygrometer | BODYCOM | BJ5478 | 19/07/03 | 20/07/03 | N/A |
| HYGROMETER | TESTO | 608-H1 | 19/01/31 | 20/01/31 | 34862883 |
| Loop Antenna | Schwarzbeck | FMZB1513 | 18/01/30 | 20/01/30 | 1513-128 |
| BILOG ANTENNA | Schwarzbeck | VULB 9160 | 18/07/13 | 20/07/13 | 3359 |
| Horn Antenna | ETS-Lindgren | 3115 | 18/01/30 | 20/01/30 | 6419 |
| Horn Antenna | A.H.Systems Inc. | SAS-574 | 17/07/31 | 19/07/31 | 155 |
| PreAmplifier | tsj | MLA-0118-J01-45 | 18/12/19 | 19/12/19 | 17138 |
| PreAmplifier | tsj | MLA-1840-J02-45 | 19/06/27 | 20/06/27 | 16966-10728 |
| PreAmplifier | tsj | MLA-10K01-B01-27 | 18/10/31 | 19/10/31 | 2005354 |
| Attenuator | SMAJK | SMAJK-2-3 | 19/06/25 | 20/06/25 | 4 |
| | | | 18/07/02 | 19/07/02 | 3 |
| Attenuator | SMAJK | SMAJK-2-3 | 19/06/27 | 20/06/27 | 13092403 |
| | | | 18/07/02 | 19/07/02 | |
| Attenuator | SRTechnology | F01-B0606-01 | 19/06/27 | 20/06/27 | 16012202 |
| | | | 18/07/03 | 19/07/03 | |
| Attenuator | Hefei Shunze | SS5T2.92-10-40 | 19/06/27 | 20/06/27 | 3 |
| | | | 18/07/03 | 19/07/03 | |
| High Pass Filter | Wainwright Instruments | WHNX8.0/26.5-6SS | 19/06/27 | 20/06/27 | 8 |
| | | | 18/07/02 | 19/07/02 | |
| High Pass Filter | Wainwright Instruments | WHKX12-935-1000-15000-40SS | 19/06/26 | 20/06/26 | 1 |
| | | | 18/07/02 | 19/07/02 | |
| High Pass Filter | Wainwright Instruments | WHKX10-2838-3300-18000-60SS | 19/06/26 | 20/06/26 | 1338004 1306053 |
| | | | 18/07/02 | 19/07/02 | |
| Power Meter & Wide Bandwidth Sensor | Anritsu | ML2496A MA2411B | 18/12/19 | 19/12/19 | 408 |
| Attenuator | Aeroflex/Weinschel | 1986-10-11 | 19/06/27 | 20/06/27 | SJ-TH-S50-140205 |
| Temp & Humi Test Chamber | SJ Science | SJ-TH-S50 | 18/12/20 | 19/12/20 | 101645 |
| EMI Receiver | ROHDE&SCHWARZ | ESW44 | 18/08/06 | 19/08/06 | 100910 |
| EMI Test Receiver | Rohde Schwarz | ESC17 | 19/01/30 | 20/01/30 | 101333 |
| PULSE LIMITER | Rohde Schwarz | ESH3-Z2 | 18/09/27 | 19/09/27 | 06183 |
| LISN | SCHWARZBECK | NNLK 8121 | 19/03/19 | 20/03/19 | C-1 |
| Cable | HUBER+SUHNER | SUCOFLEX | 18/12/21 | 19/12/21 | C-2 |
| Cable | HUBER+SUHNER | SUCOFLEX | 18/12/21 | 19/12/21 | C-3 |
| Cable | HUBER+SUHNER | SUCOFLEX | 18/12/21 | 19/12/21 | C-4 |
| Cable | Junkosha | MWX241 | 19/01/14 | 20/01/14 | G-04 |
| Cable | Junkosha | MWX241 | 19/01/14 | 20/01/14 | G-07 |
| Cable | DT&C | Cable | 19/01/14 | 20/01/14 | G-13 |
| Cable | DT&C | Cable | 19/01/14 | 20/01/14 | G-14 |
| Cable | HUBER+SUHNER | SUCOFLEX 104 | 19/01/14 | 20/01/14 | G-15 |
| Test Software | tsj | Radiated Emission Measurement | NA | NA | Version 2.00.0177 |
| Test Software | tsj | Noise Terminal Voltage Measurement | NA | NA | Version 2.00.0170 |

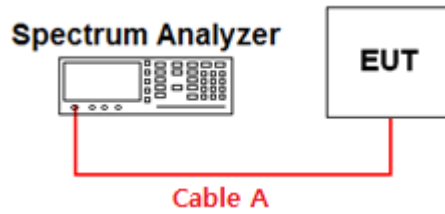
Note1: The measurement antennas were calibrated in accordance to the requirements of ANSI C63.5-2017

Note2: The cable is not a regular calibration item, so it has been calibrated by DT & C itself.

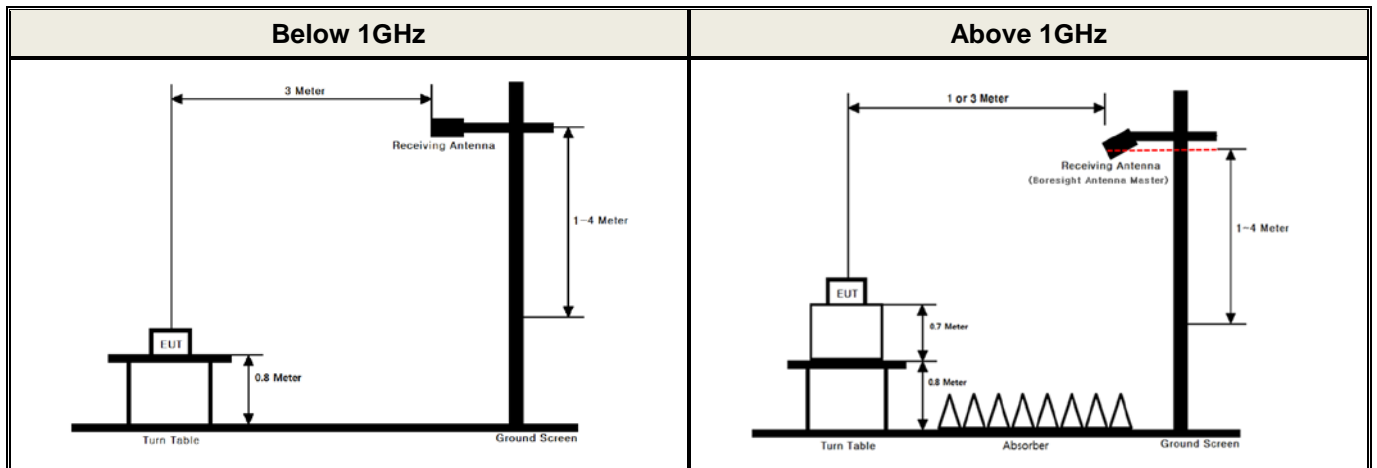
APPENDIX I

Test set up Diagram

Conducted Measurement



Radiated Measurement



APPENDIX II

Duty Cycle Information

■ Test Procedure

Duty Cycle [X = On Time / (On + Off time)] is measured using Measurement Procedure of **KDB789033 D02v02r01**

1. Set the center frequency of the spectrum analyzer to the center frequency of the transmission.
2. Set RBW \geq EBW if possible; otherwise, set RBW to the largest available value.
3. Set VBW \geq RBW. Set detector = peak.
4. Note : The zero-span measurement method shall not be used unless both **RBW and VBW are $> 50/T$** , where T is defined in section II.B.1.a), and **the number of sweep points across duration T exceeds 100**. (For example, if VBW and/or RBW are limited to 3 MHz, then the zero-span method of measuring duty cycle shall not be used if $T \leq 16.7$ microseconds.)

T : The minimum transmission duration over which the transmitter is on and is transmitting at its maximum power control level for the tested mode of operation.

(T = On time of the above table since the EUT operates with above fixed Duty Cycle and it is the minimum On time)

■ Test Results:

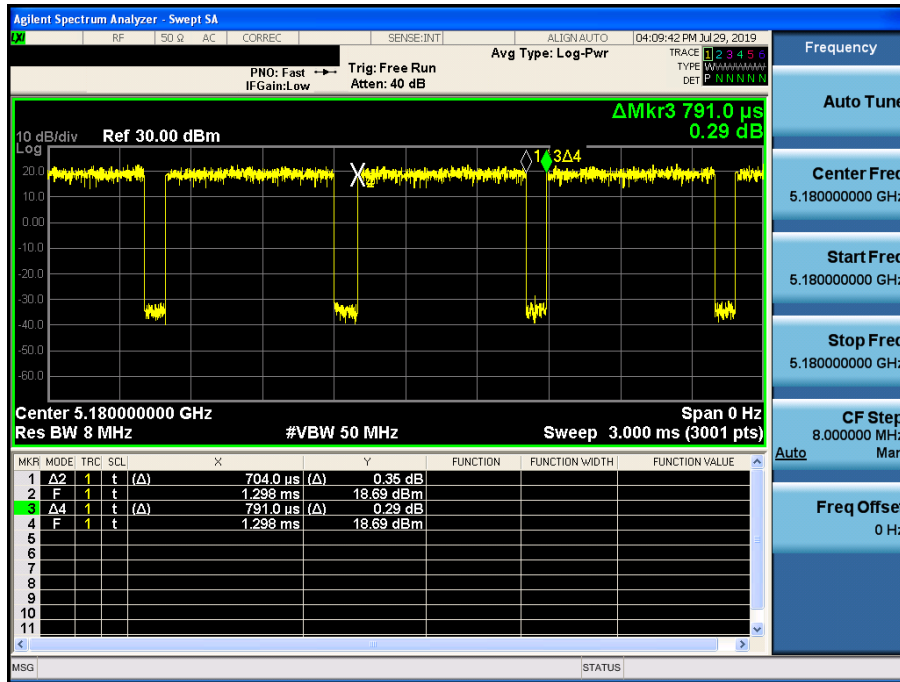
Duty cycle

| Mode | Data Rate | Tested Frequency [MHz] | Maximum Achievable Duty Cycle (x) = On / (On+Off) | | | Duty Cycle Correction Factor [dB] | 50/T [kHz] |
|------------------|-----------|------------------------|---|--------------------|--------|-----------------------------------|------------|
| | | | On Time [ms] | (On+Off) Time [ms] | x | | |
| 802.11a | 18Mbps | 5180 | 0.704 | 0.791 | 0.8900 | 0.51 | 71.02 |
| 802.11n (HT20) | MCS2 | 5180 | 0.668 | 0.756 | 0.8836 | 0.54 | 74.85 |
| 802.11n (HT40) | MCS0 | 5190 | 0.948 | 1.038 | 0.9136 | 0.39 | 52.74 |
| 802.11ac (VHT80) | MCS1 | 5210 | 0.252 | 0.341 | 0.7390 | 1.31 | 198.41 |

Single Transmit

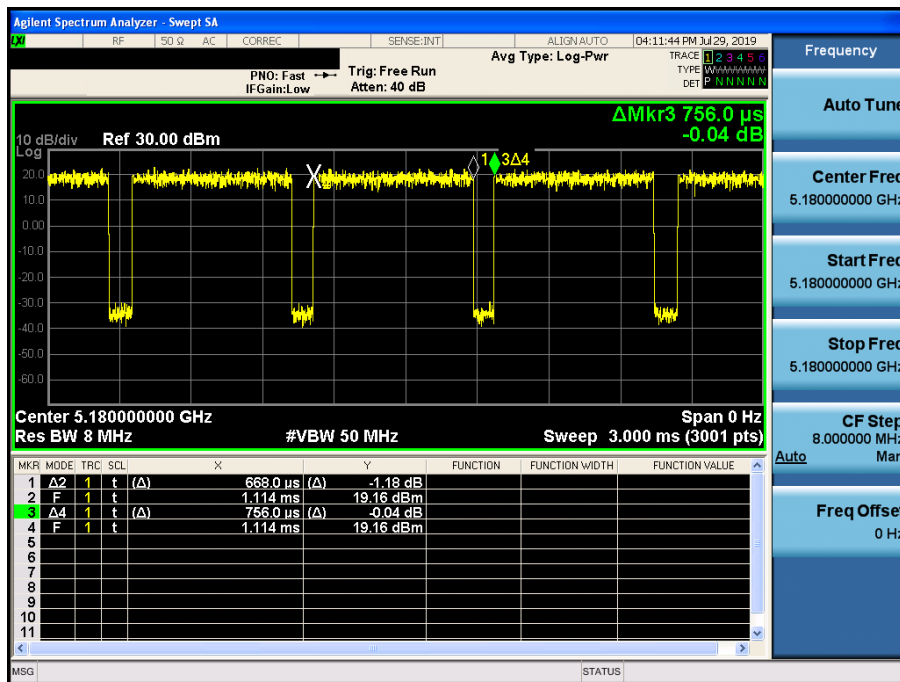
Duty Cycle

Test Mode: 802.11a & Ch.36



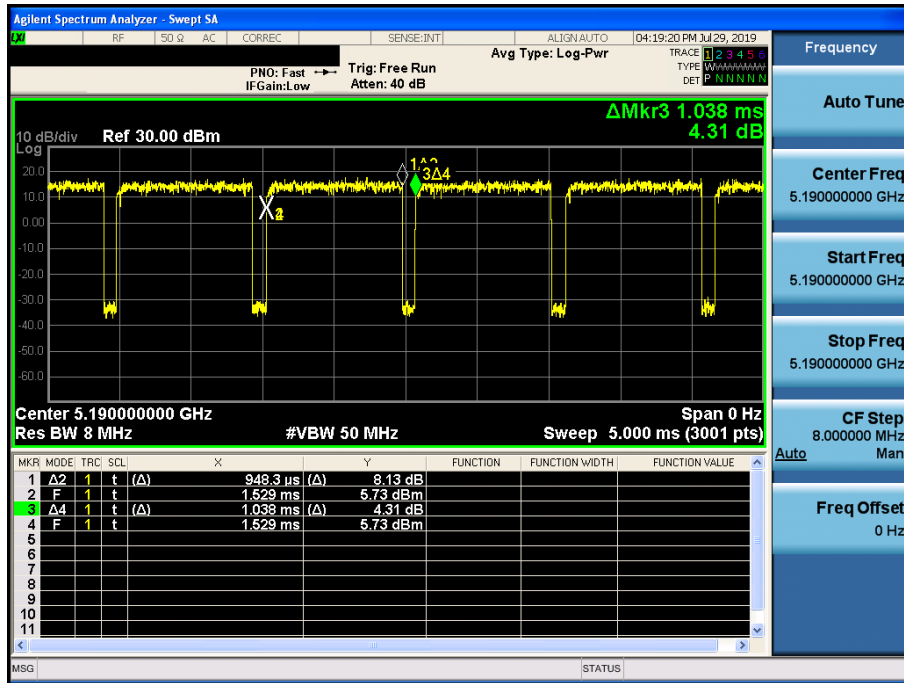
Duty Cycle

Test Mode: 802.11n HT20 & Ch.36



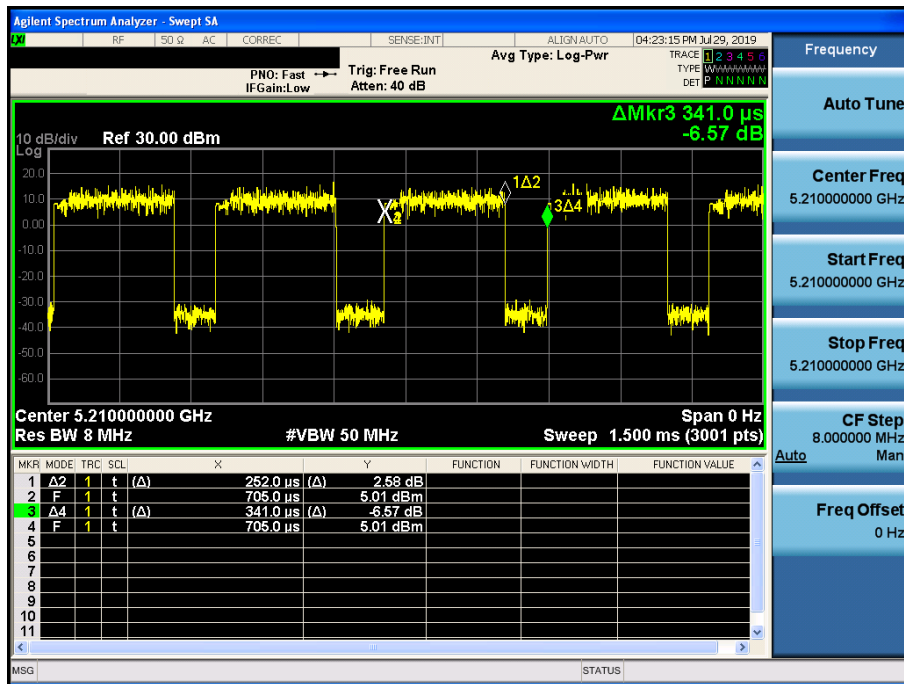
Duty Cycle

Test Mode: 802.11n HT40 & Ch.38



Duty Cycle

Test Mode: 802.11ac VHT80 & Ch.42

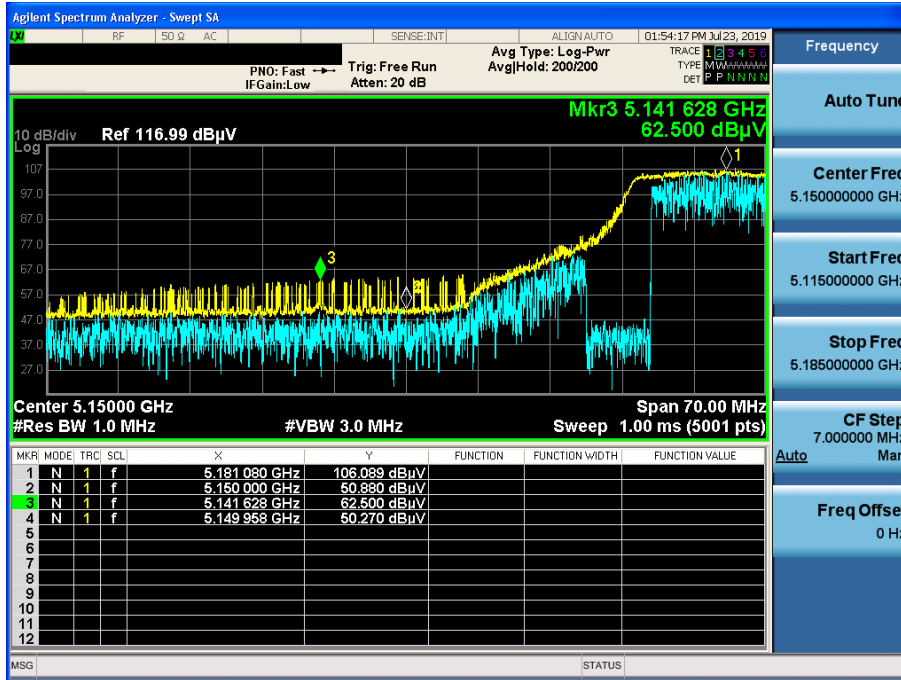


APPENDIX III

Unwanted Emissions (Radiated) Test Plot

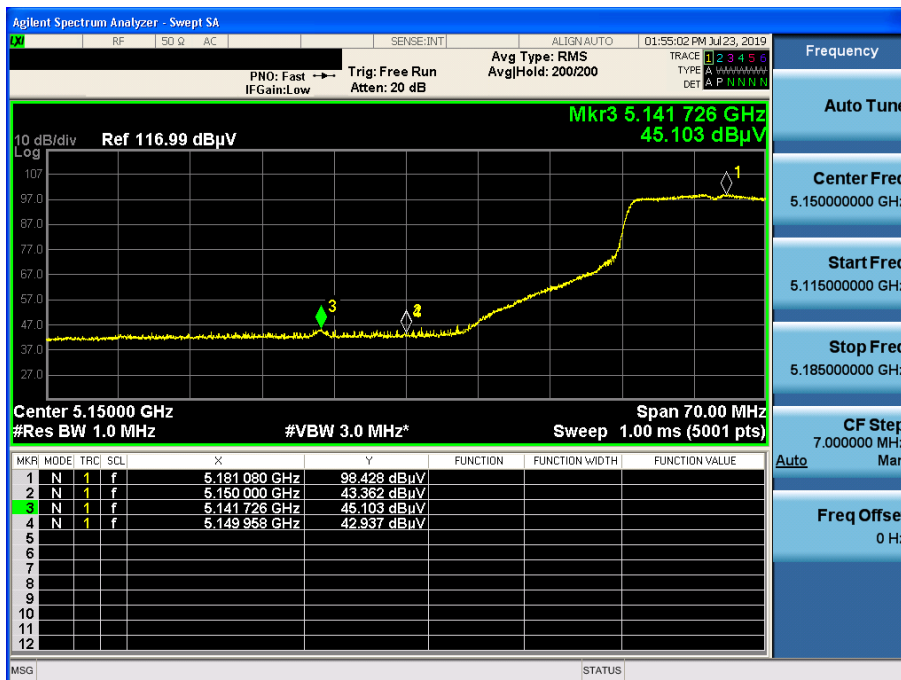
802.11a & U-NII 1 & Ch.36 & X axis & Hor

Detector Mode : PK



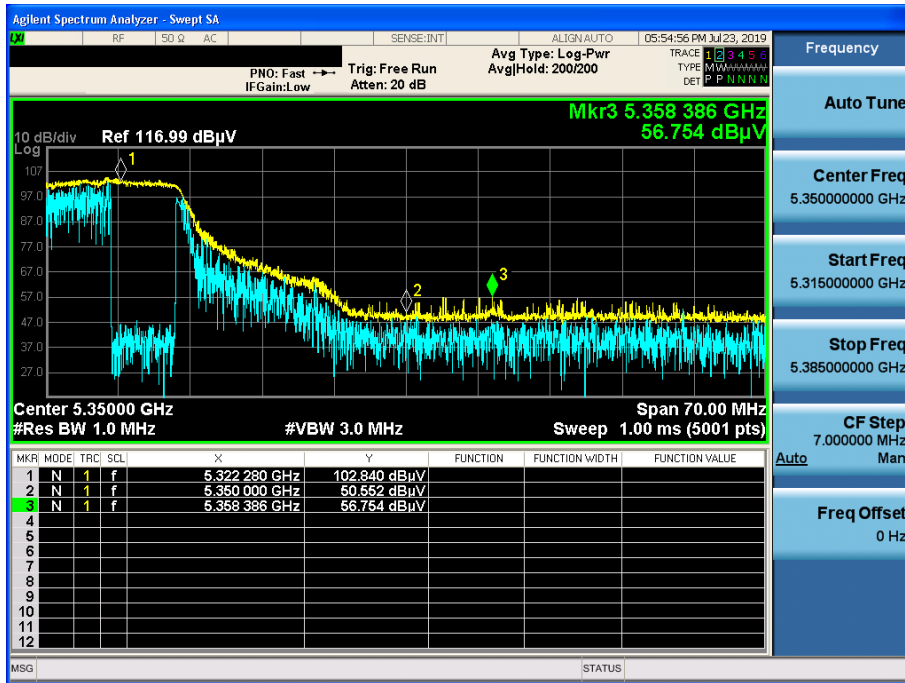
802.11a & U-NII 1 & Ch.36 & X axis & Hor

Detector Mode : AV



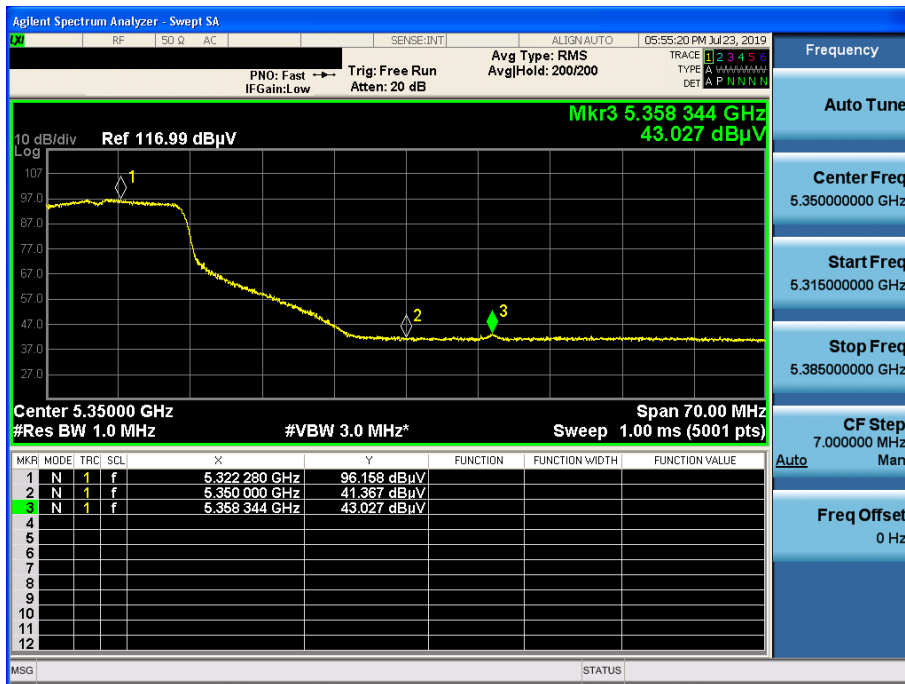
802.11a & U-NII 2A & Ch.64 & X axis & Hor

Detector Mode : PK



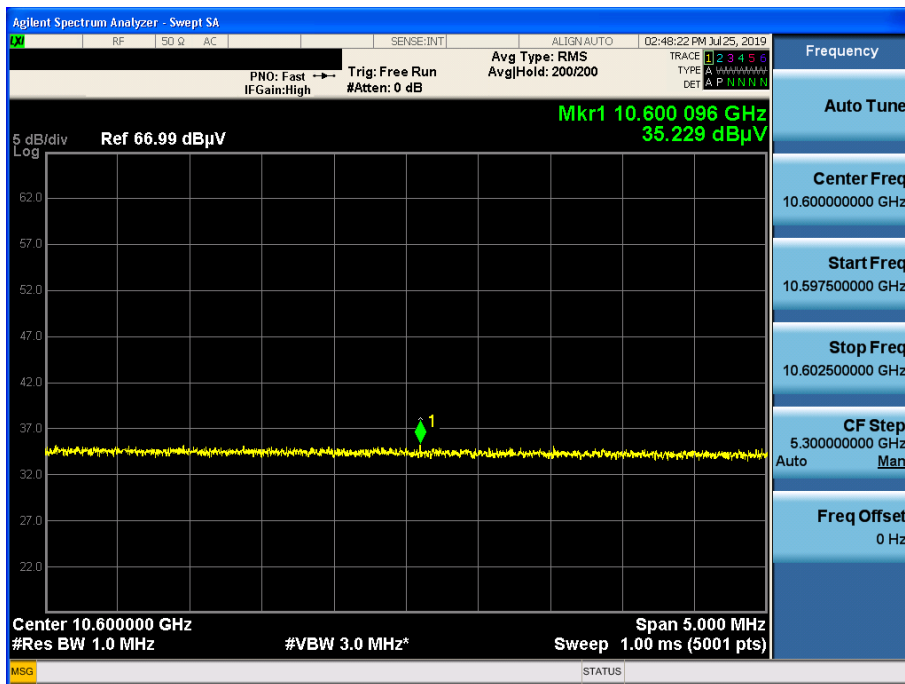
802.11a & U-NII 2A & Ch.64 & X axis & Hor

Detector Mode : AV



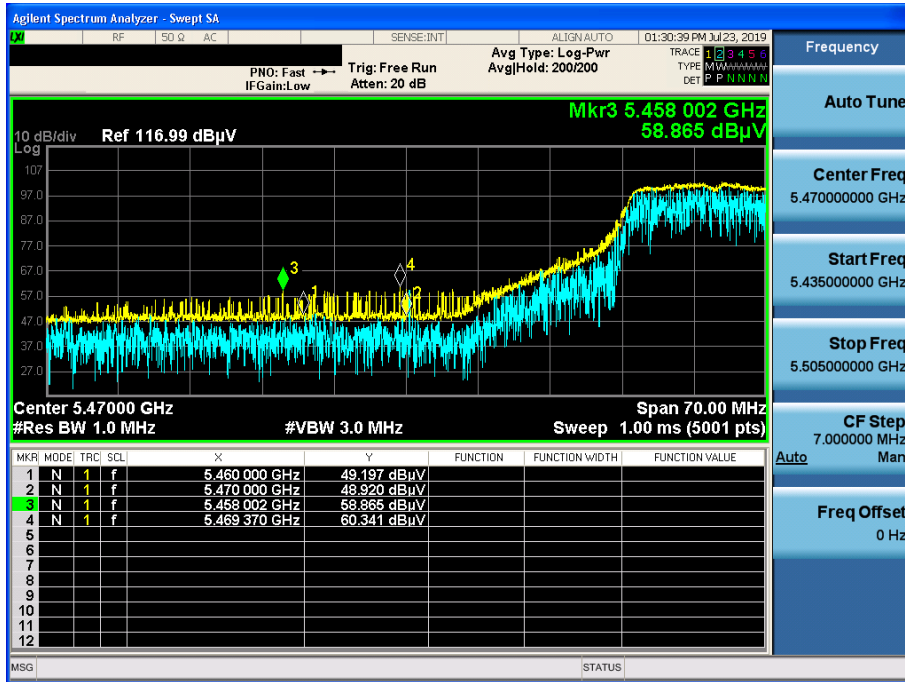
802.11a & U-NII 2A & Ch.60 & Z axis & Hor

Detector Mode : AV



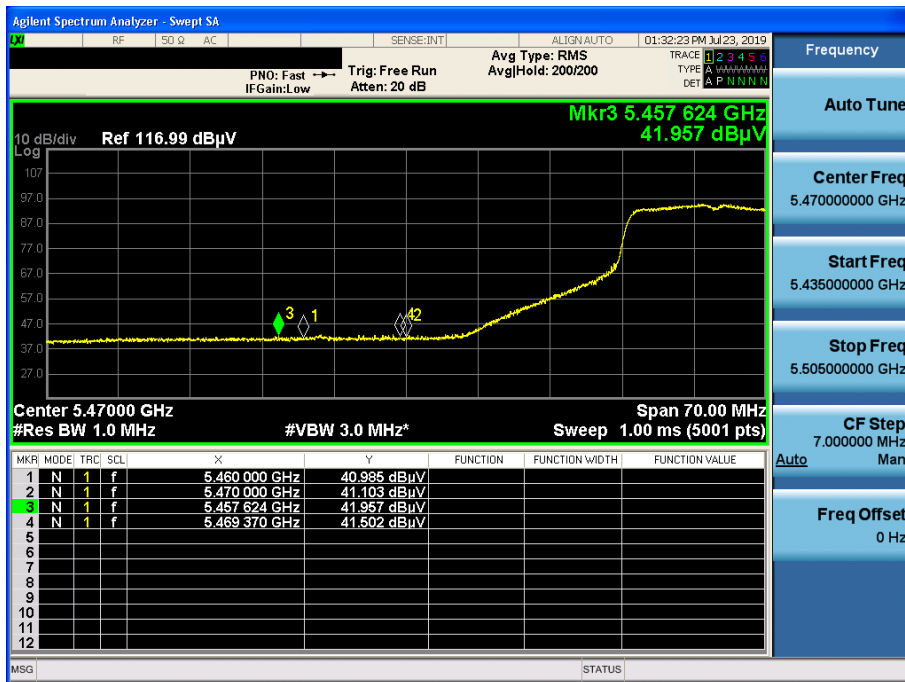
802.11a & U-NII 2C & Ch.100 & X axis & Hor

Detector Mode : PK



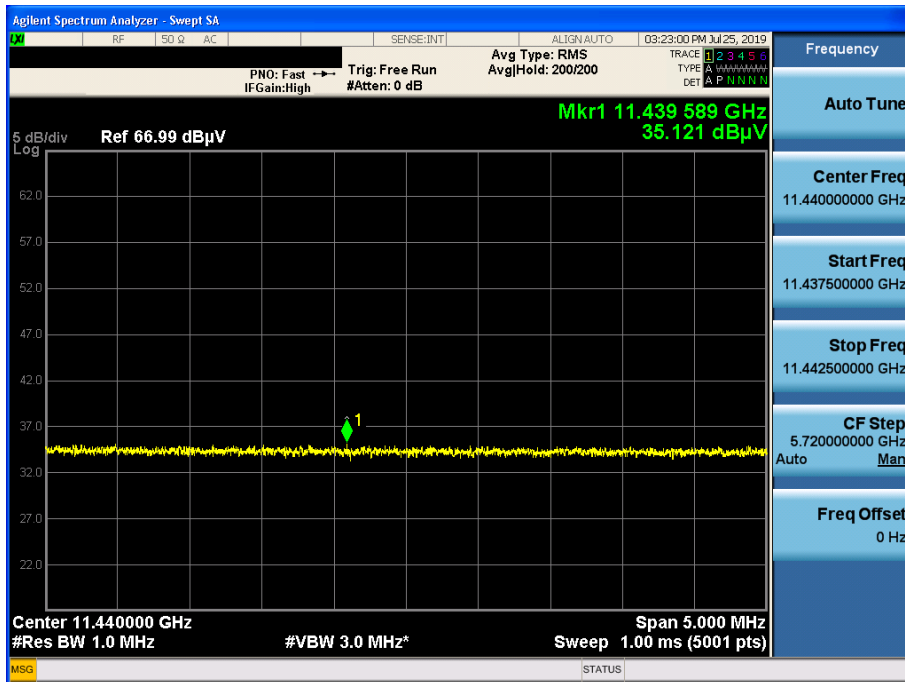
802.11a & U-NII 2C & Ch.100 & X axis & Hor

Detector Mode : AV



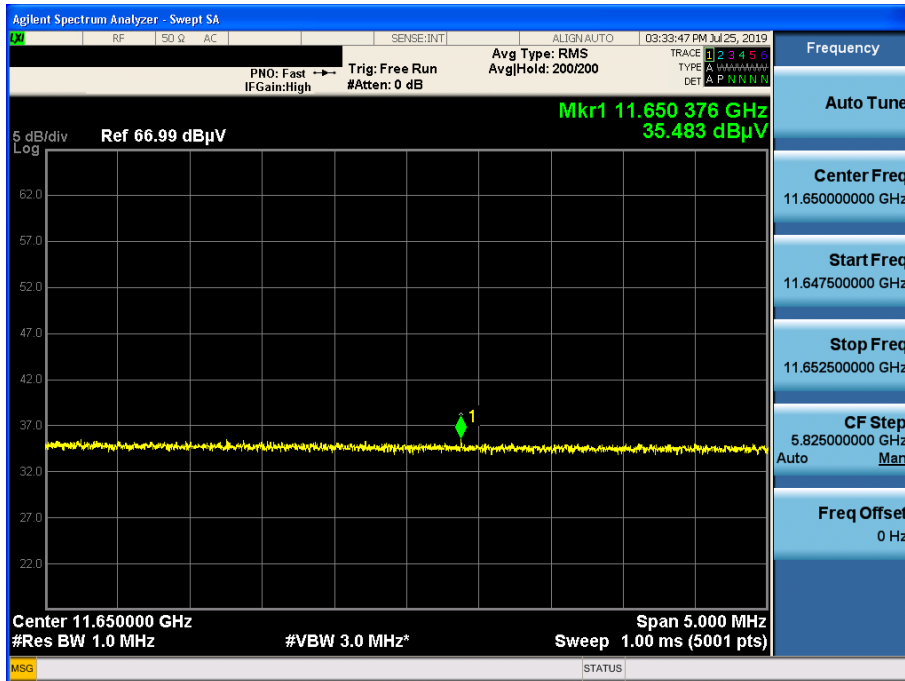
802.11a & U-NII 2C & Ch.144 & Z axis & Hor

Detector Mode : AV



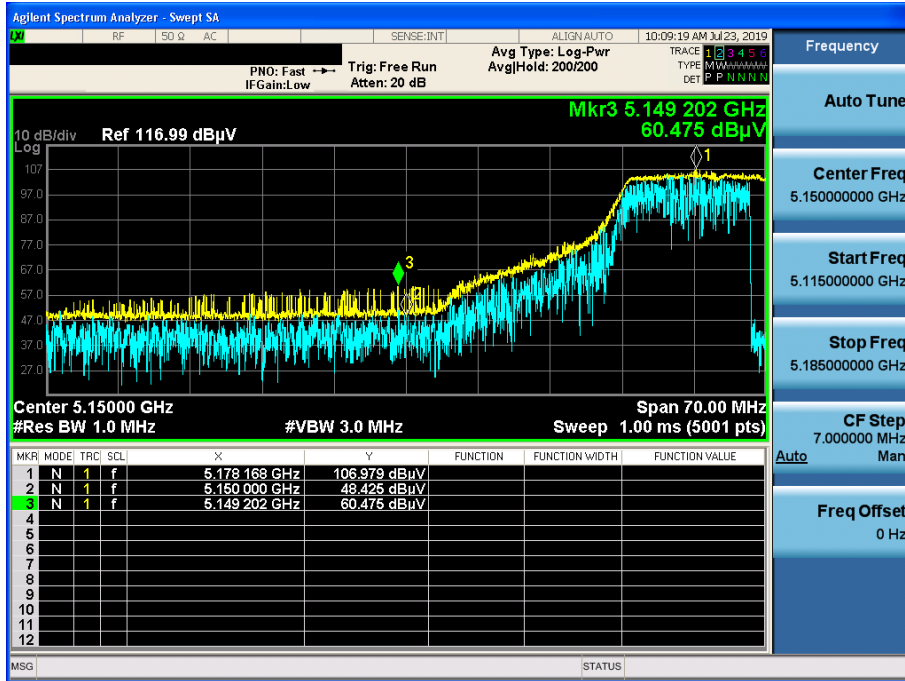
802.11a & U-NII 3 & Ch.165 & Z axis & Hor

Detector Mode : AV



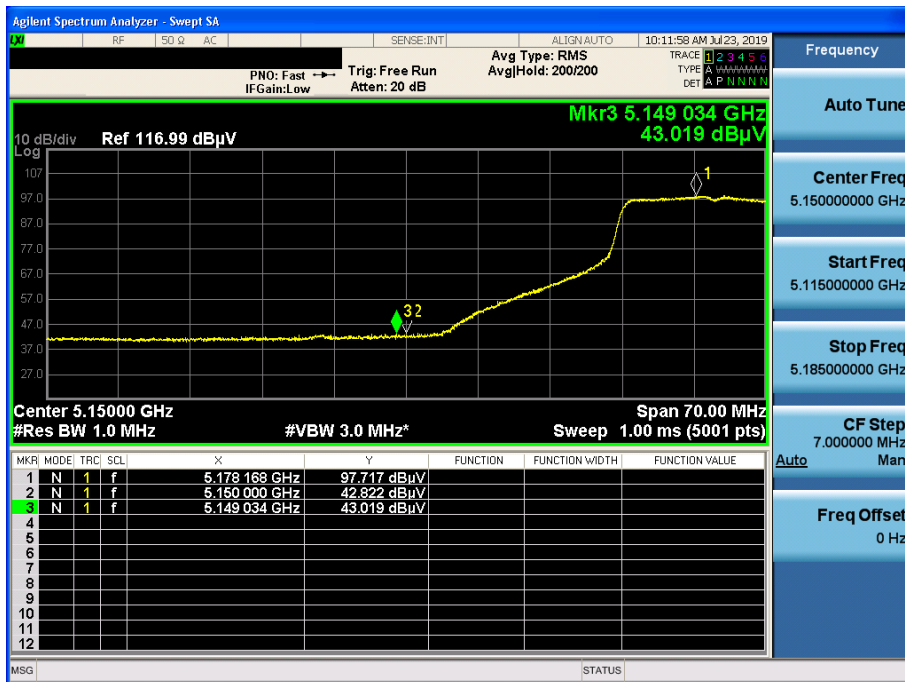
802.11n(HT20) & U-NII 1 & Ch.36 & X axis & Hor

Detector Mode : PK



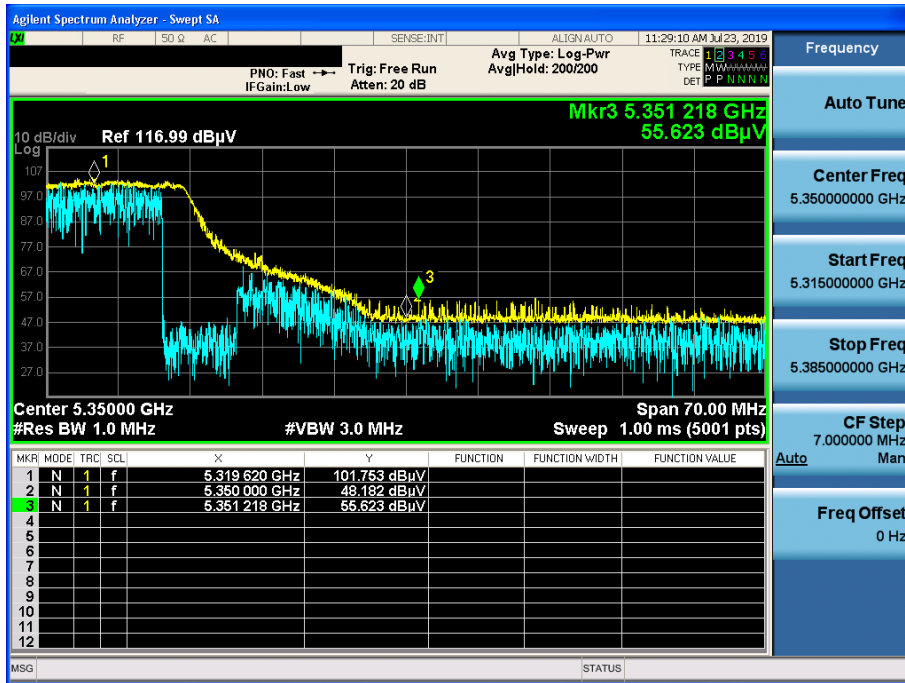
802.11n(HT20) & U-NII 1 & Ch.36 & X axis & Hor

Detector Mode : AV



802.11n(VHT20) & U-NII 2A & Ch.64 & X axis & Hor

Detector Mode : PK



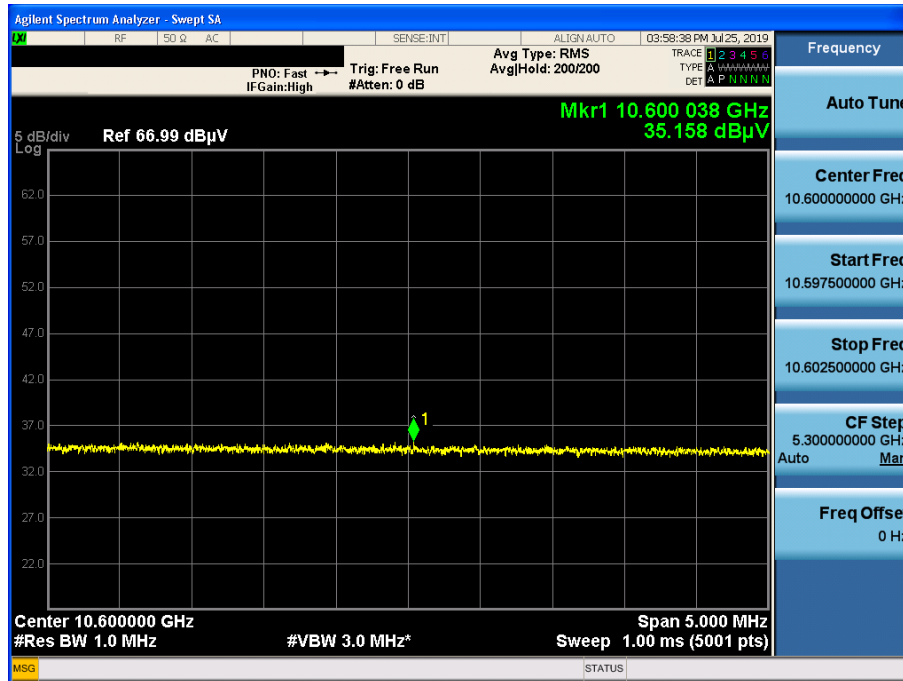
802.11n(VHT20) & U-NII 2A & Ch.64 & X axis & Hor

Detector Mode : AV



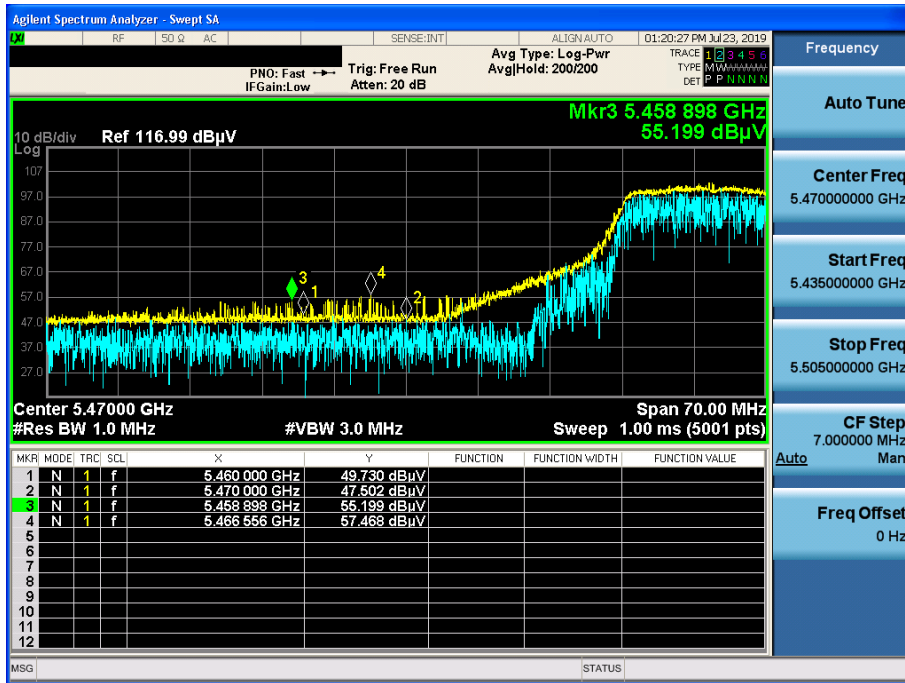
802.11n(HT20) & U-NII 2A & Ch.60 & Z axis & Hor

Detector Mode : AV



802.11n(HT20) & U-NII 2C & Ch.100 & X axis & Hor

Detector Mode : PK



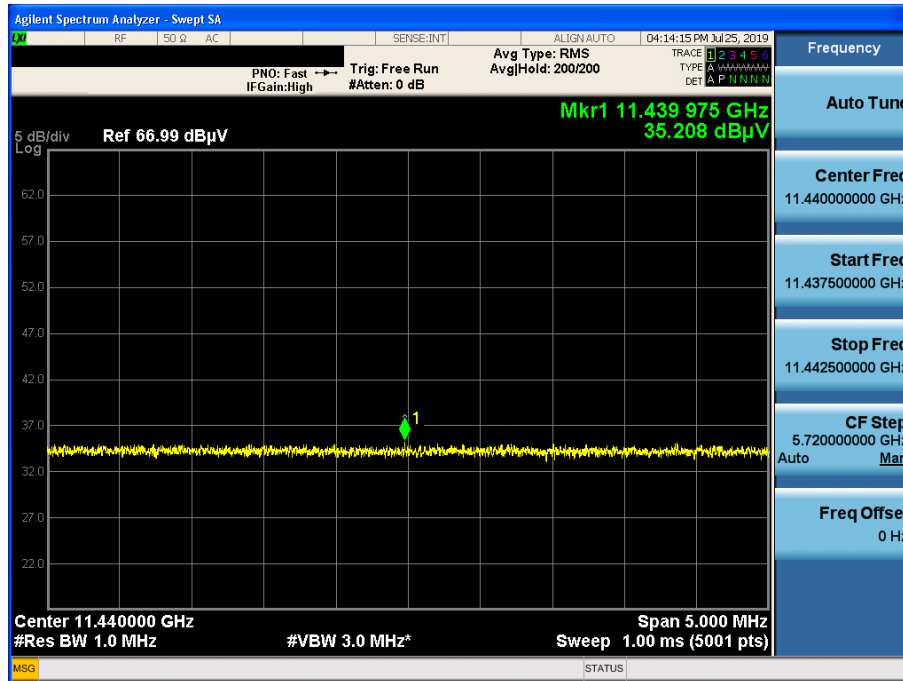
802.11n(HT20) & U-NII 2C & Ch.100 & X axis & Hor

Detector Mode : AV



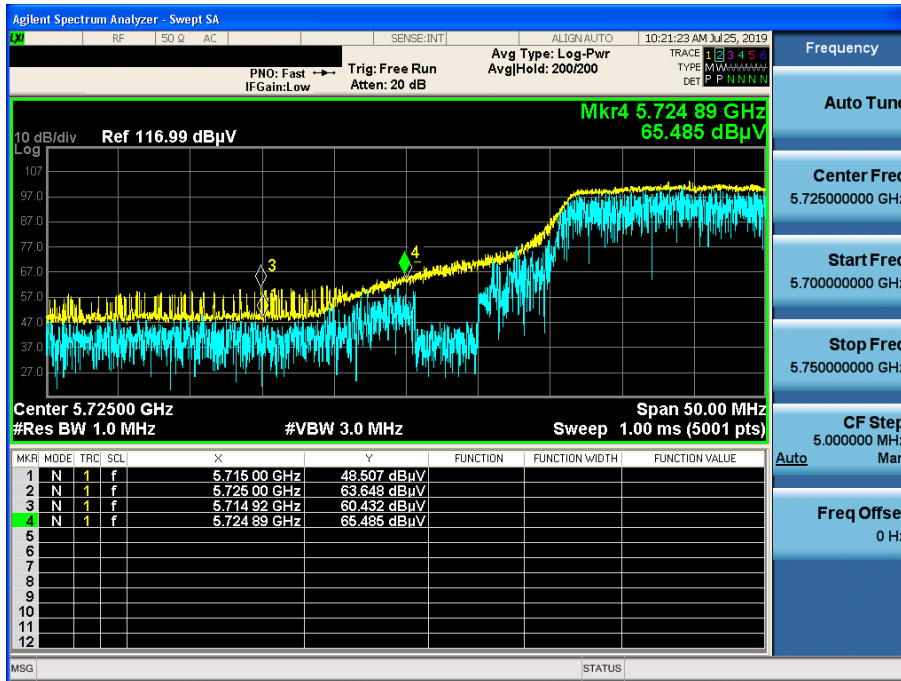
802.11n(VHT20) & U-NII 2C & Ch.144 & Z axis & Hor

Detector Mode : PK



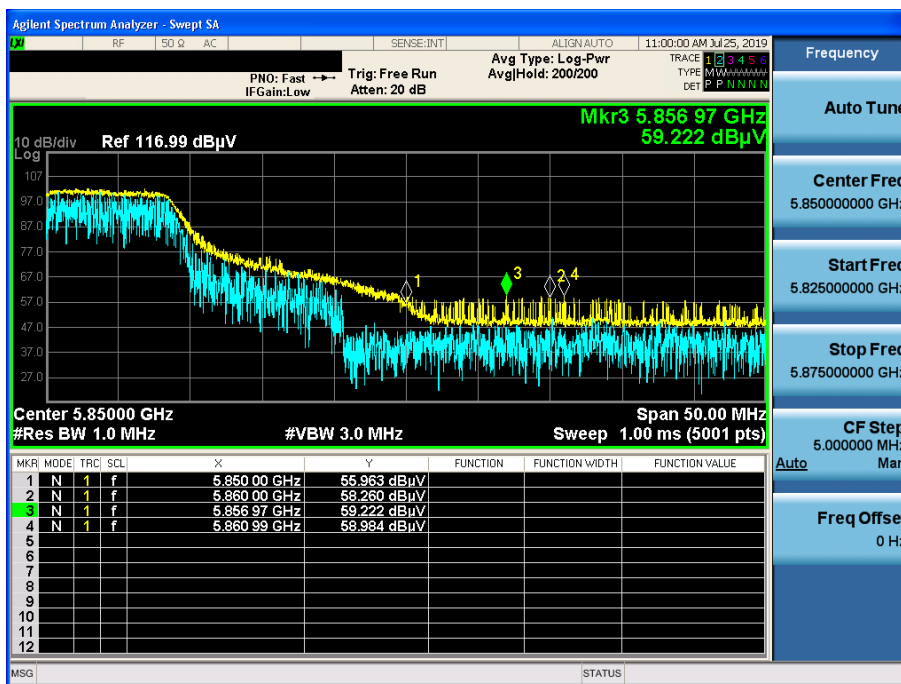
802.11n(HT20) & U-NII 3 & Ch.149 & X axis & Hor

Detector Mode : PK



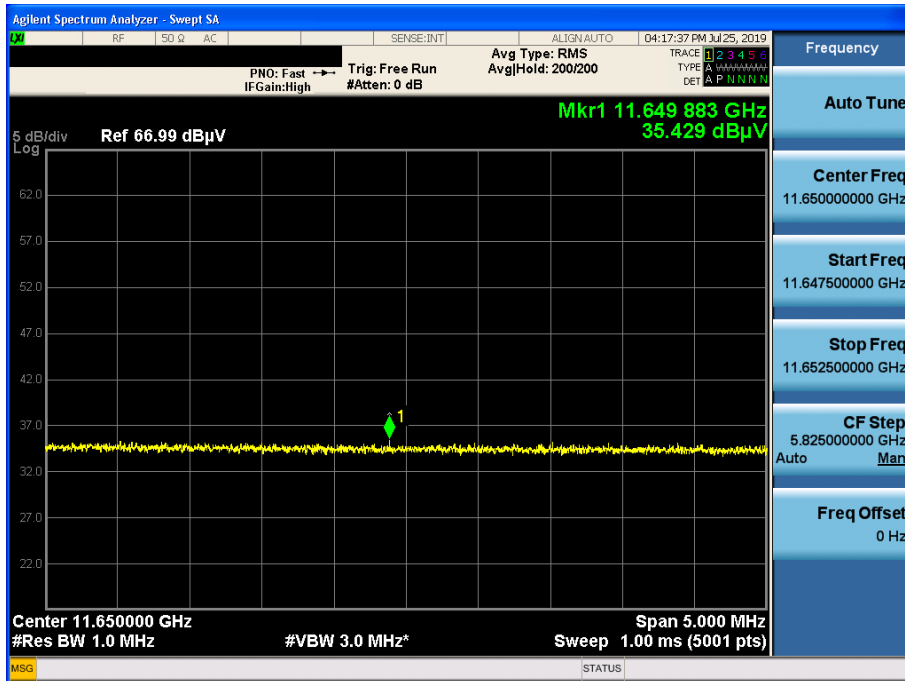
802.11n(HT20) & U-NII 3 & Ch.165 & X axis & Hor

Detector Mode : PK



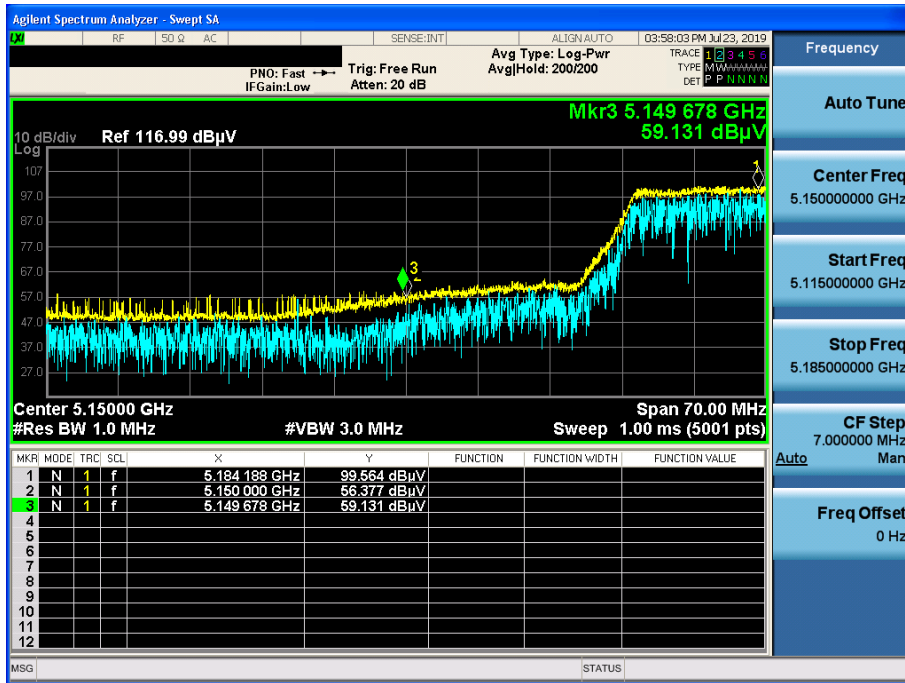
802.11n(HT20) & U-NII 3 & Ch.165 & Z axis & Hor

Detector Mode : AV



802.11n(HT40) & U-NII 1 & Ch.38 & X axis & Hor

Detector Mode : PK



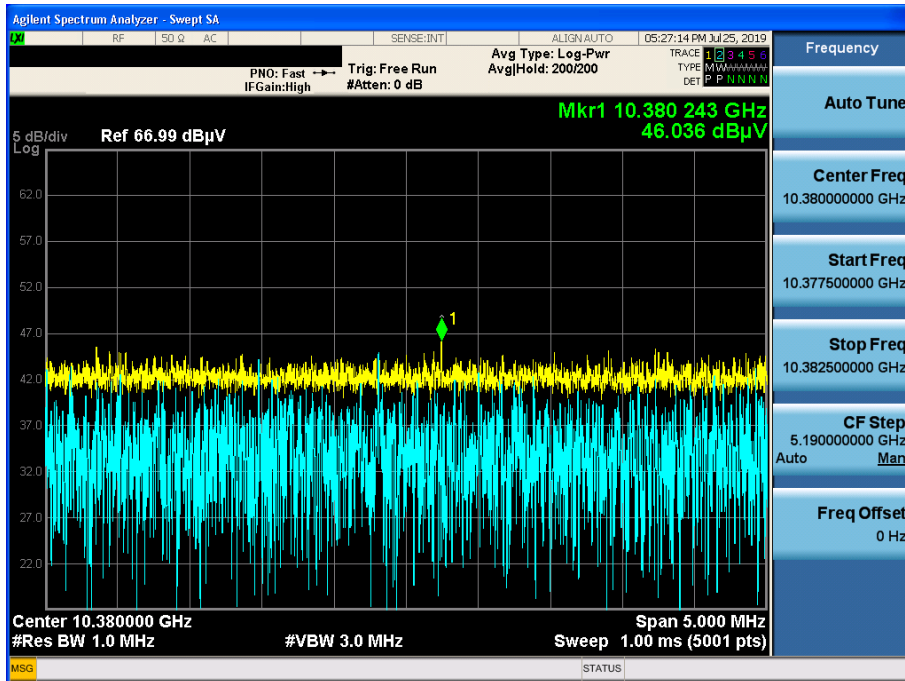
802.11n(HT40) & U-NII 1 & Ch.38 & X axis & Hor

Detector Mode : AV



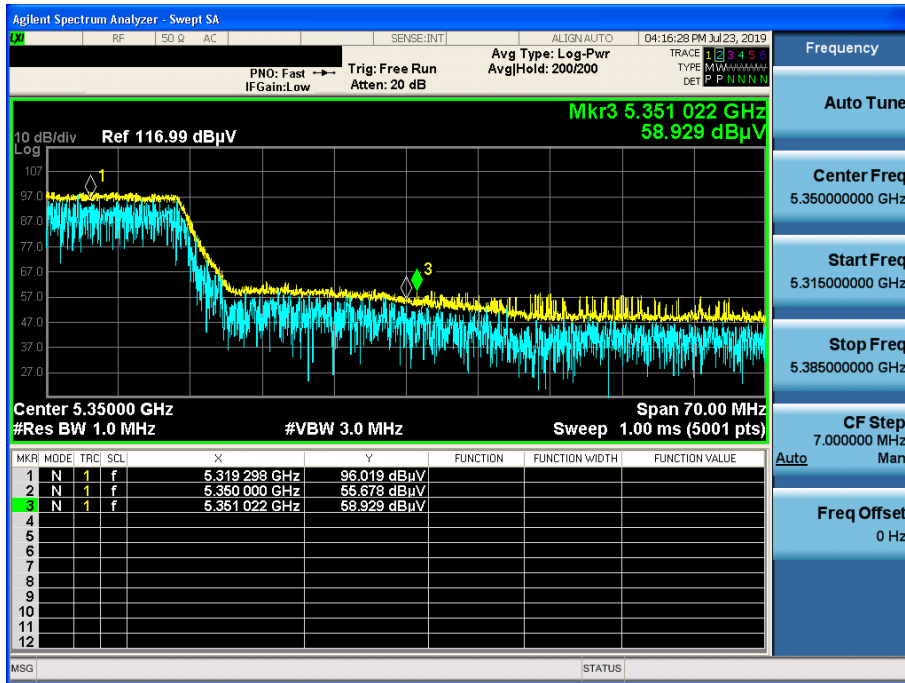
802.11n(HT40) & U-NII 1 & Ch.38 & Z axis & Hor

Detector Mode : PK



802.11n(HT40) & U-NII 2A & Ch.62 & X axis & Hor

Detector Mode : PK



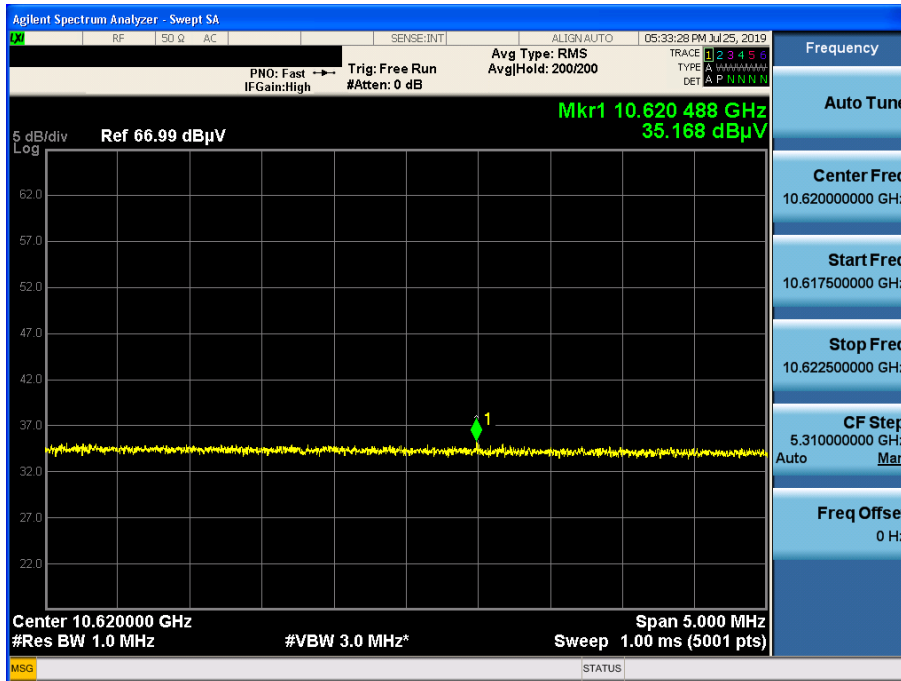
802.11n(HT40) & U-NII 2A & Ch.62 & X axis & Hor

Detector Mode : AV



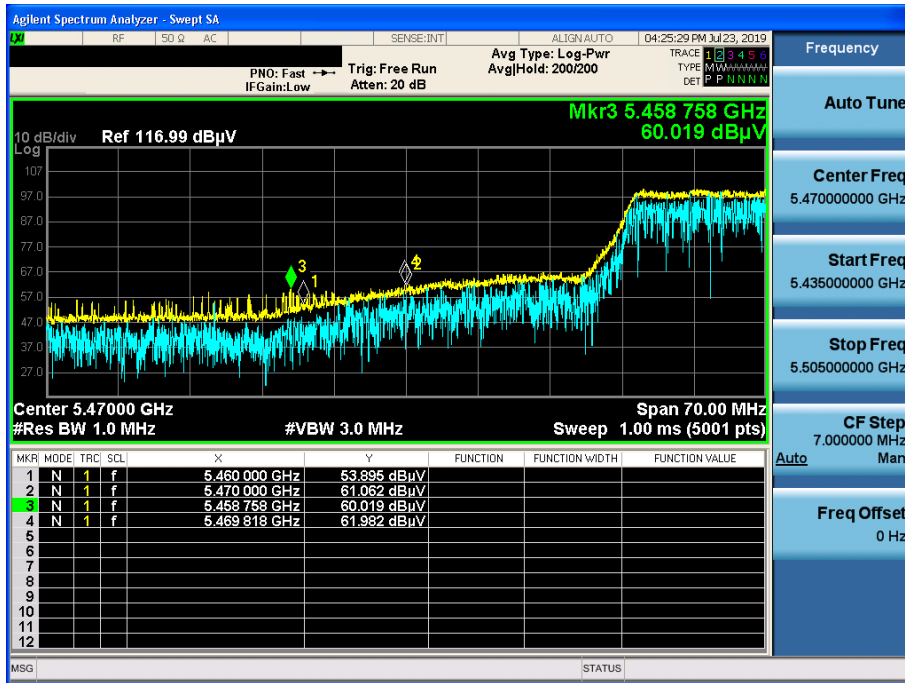
802.11n(HT40) & U-NII 2A & Ch.62 & Z axis & Hor

Detector Mode : AV



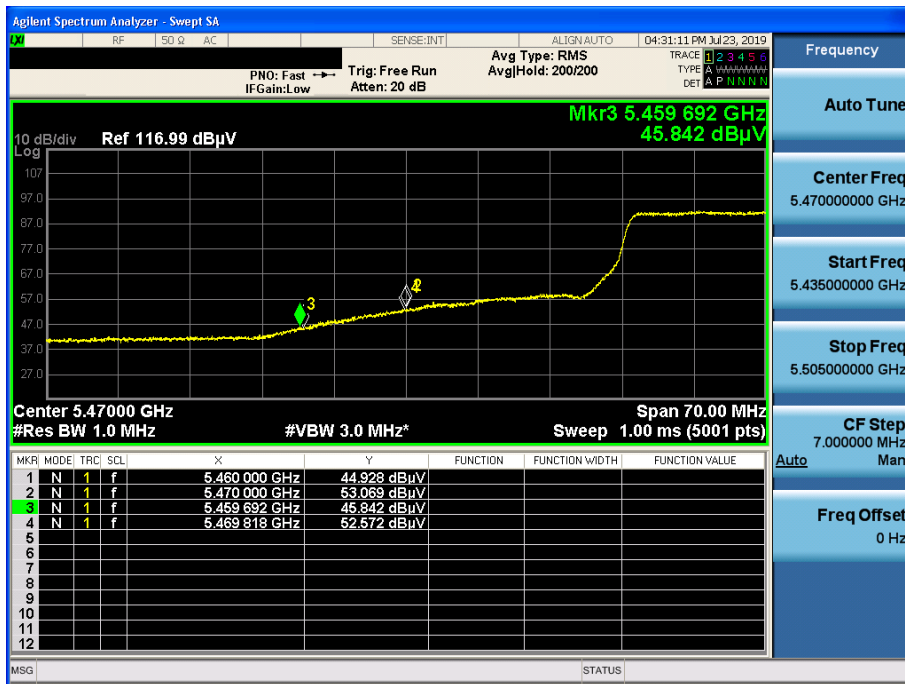
802.11n(HT40) & U-NII 2C & Ch.102 & X axis & Hor

Detector Mode : PK



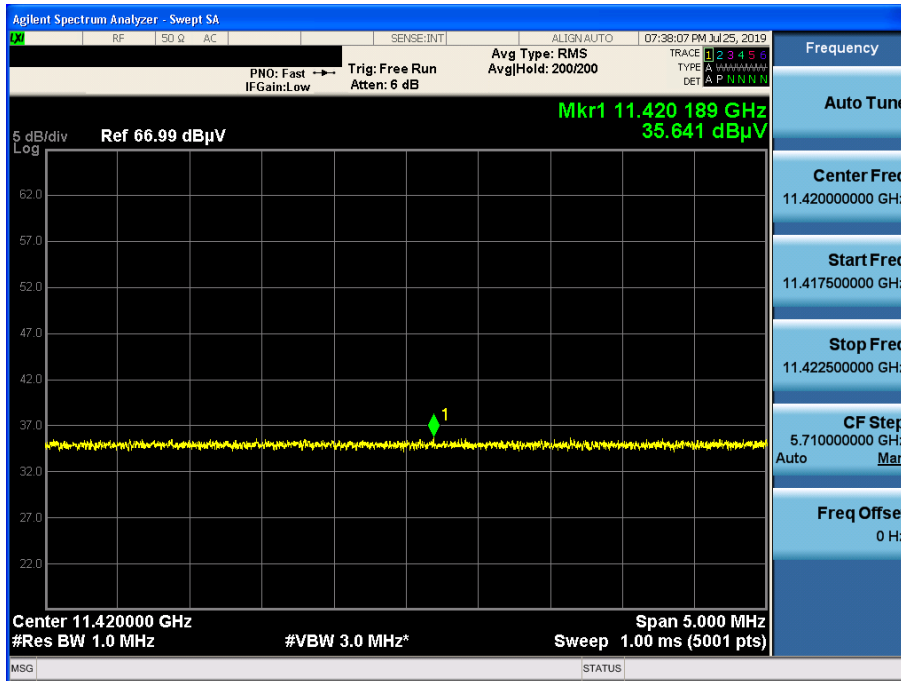
802.11n(HT40) & U-NII 2C & Ch.102 & X axis & Hor

Detector Mode : AV



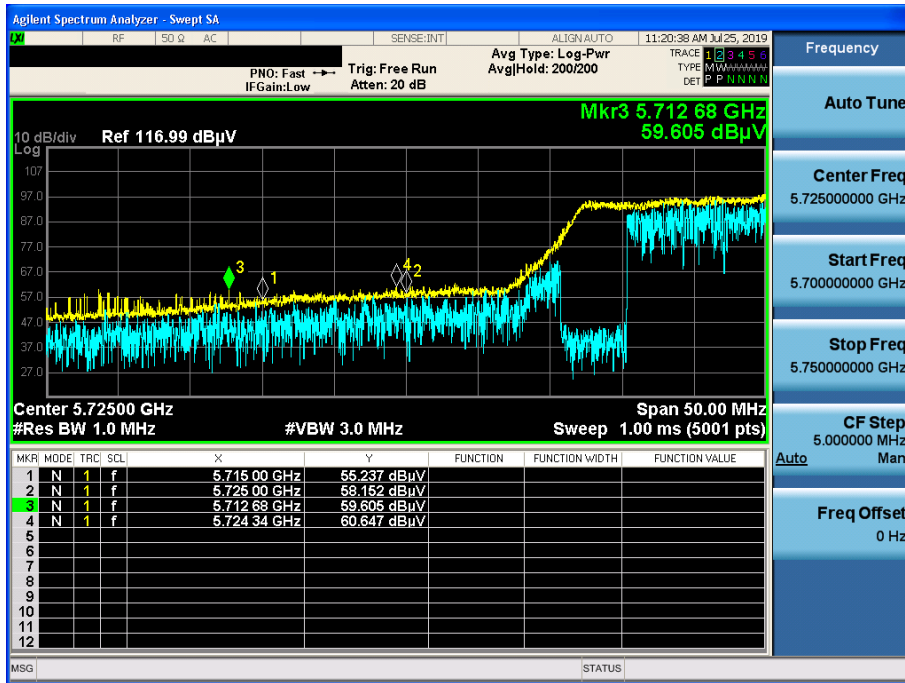
802.11n(HT40) & U-NII 2C & Ch.142 & Z axis & Hor

Detector Mode : AV



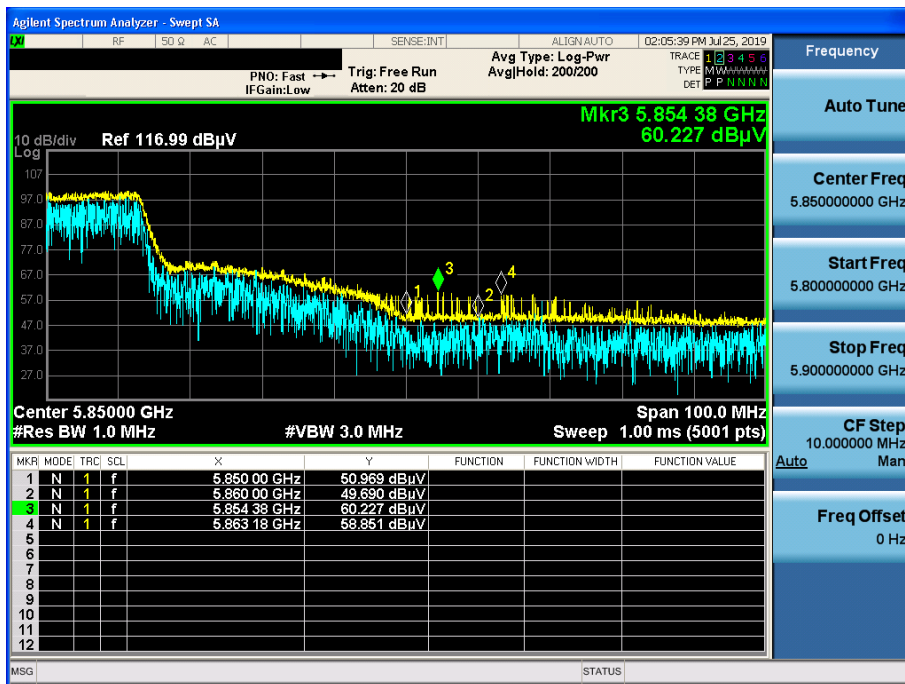
802.11n(HT40) & U-NII 3 & Ch.151 & X axis & Hor

Detector Mode : PK



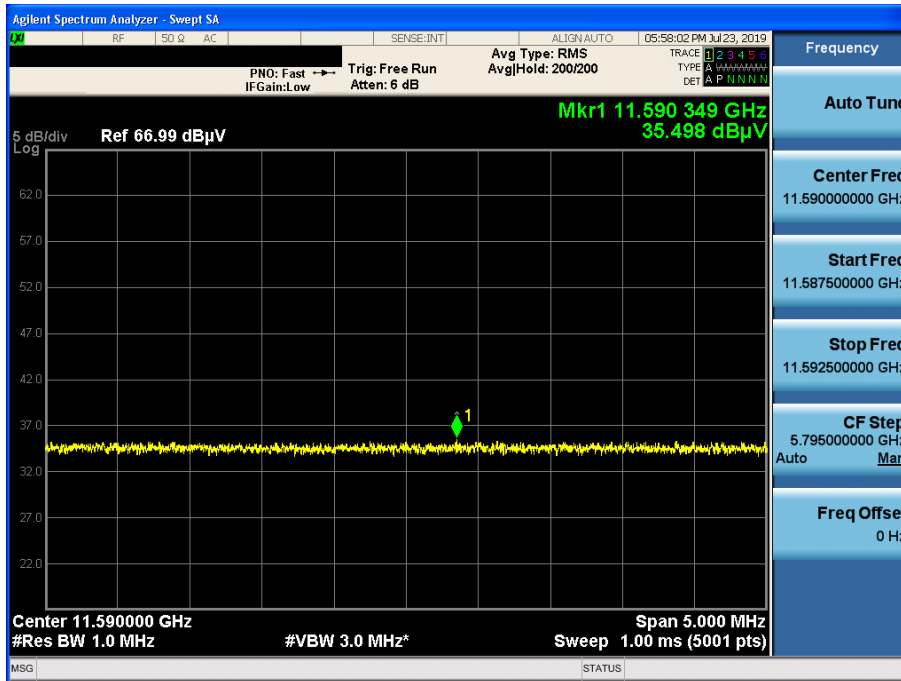
802.11n(HT40) & U-NII 3 & Ch.159 & X axis & Hor

Detector Mode : PK



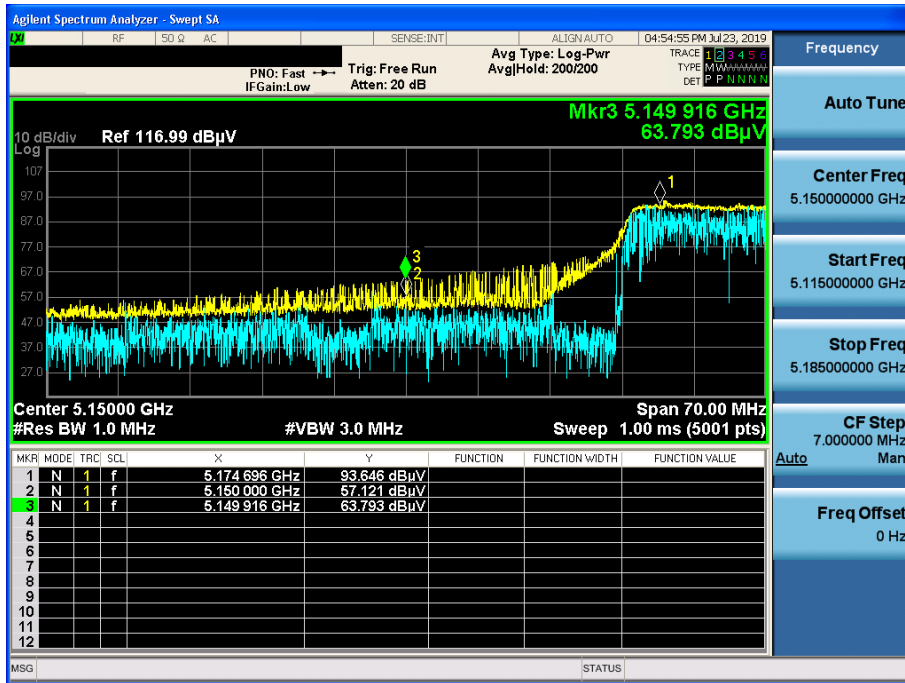
802.11n(HT40) & U-NII 3 & Ch.159 & X axis & Hor

Detector Mode : AV



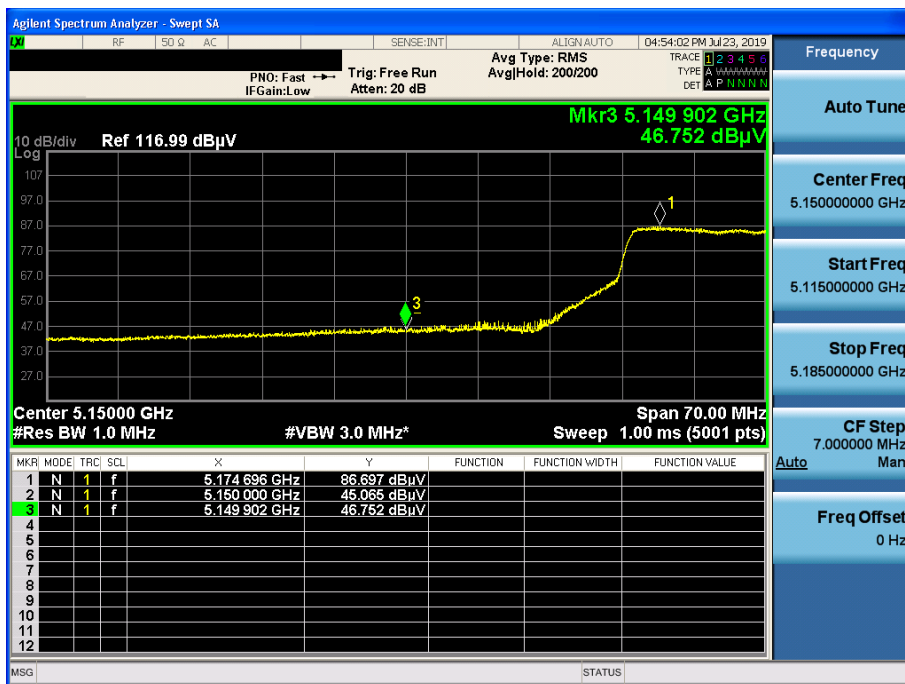
802.11ac(VHT80) & U-NII 1 & Ch.42 & Z axis & Hor

Detector Mode : PK



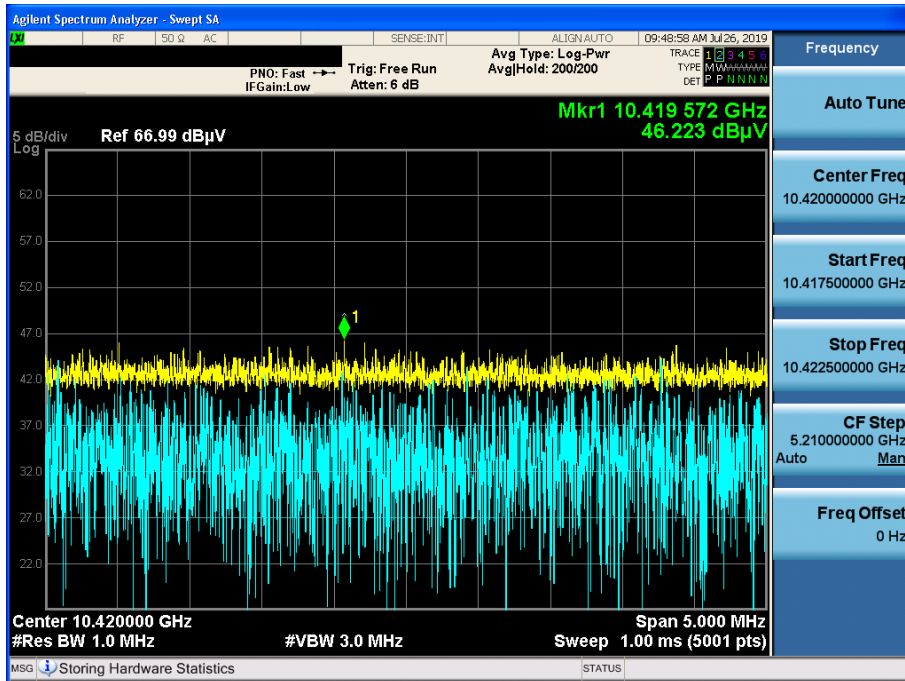
802.11ac(VHT80) & U-NII 1 & Ch.42 & Z axis & Hor

Detector Mode : AV



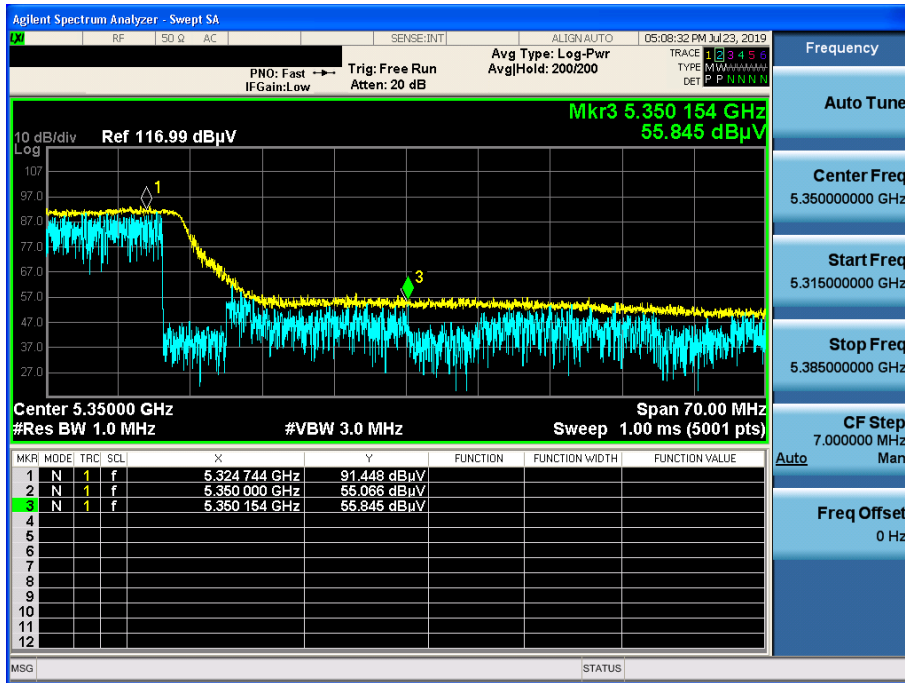
802.11ac(VHT80) & U-NII 1 & Ch.42 & Z axis & Hor

Detector Mode : PK



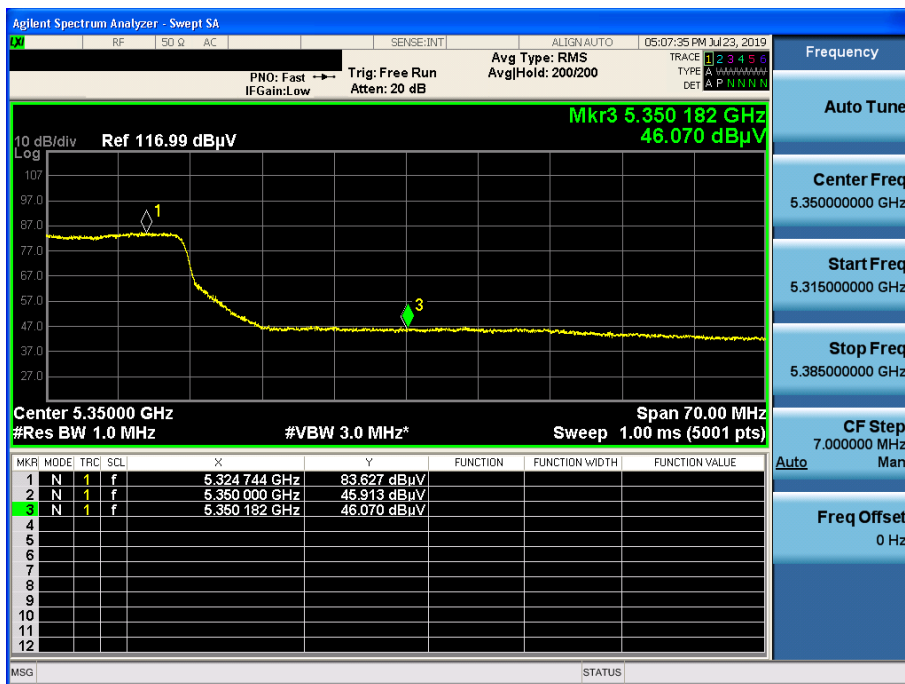
802.11ac(VHT80) & U-NII 2A & Ch.58 & X axis & Hor

Detector Mode : PK



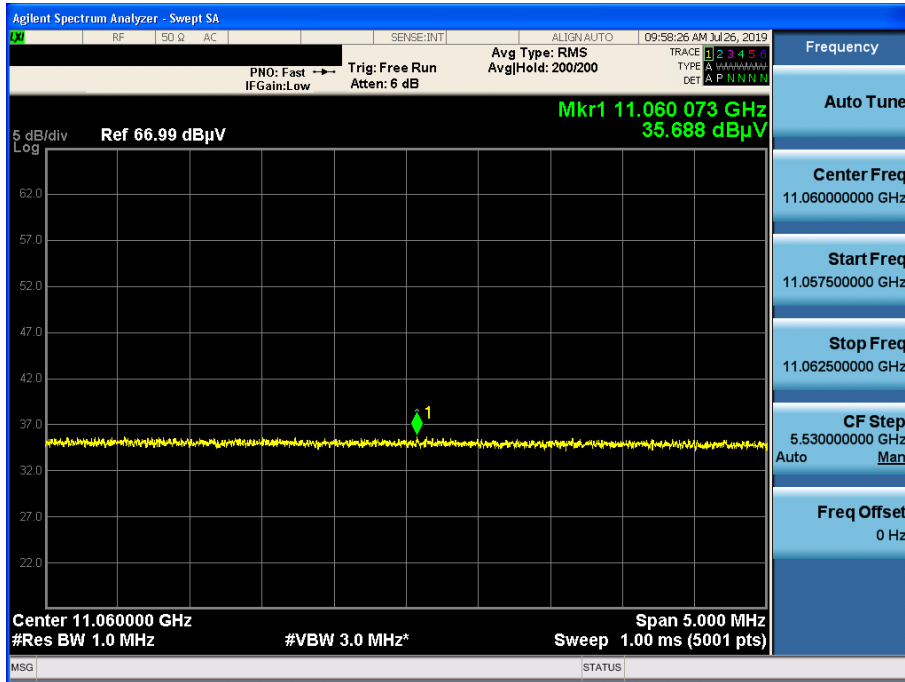
802.11ac(VHT80) & U-NII 2A & Ch.58 & Z axis & Hor

Detector Mode : AV



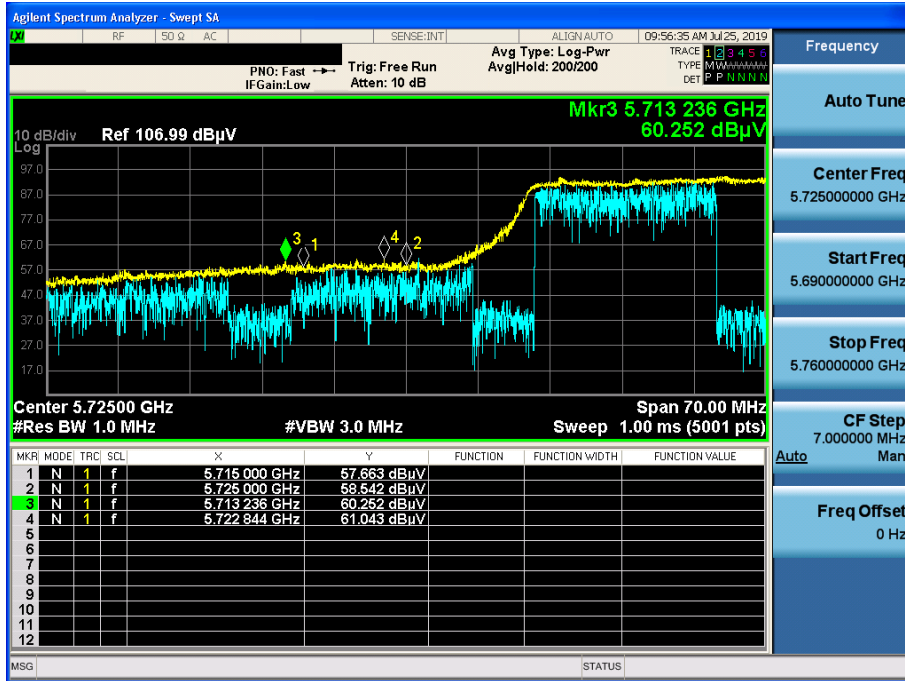
802.11ac(VHT80) & U-NII 2C & Ch.106 & Z axis & Hor

Detector Mode : AV



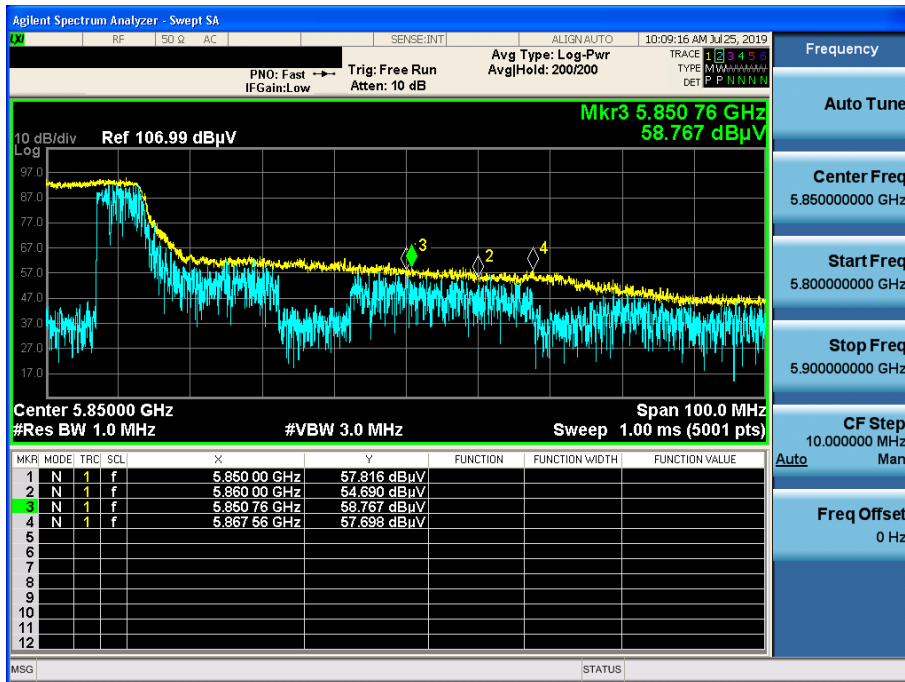
802.11ac(VHT80) & U-NII 3 & Ch.155 & X axis & Hor

Detector Mode : PK



802.11ac(VHT80) & U-NII 3 & Ch.155 & X axis & Hor

Detector Mode : PK



802.11ac(VHT80) & U-NII 3 & Ch.155 & Z axis & Hor

Detector Mode : AV

