## 8.7 AC Conducted Emissions

**▣ Test Requirements and limit, §15.207**

For an intentional radiator that is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies, within the band 150 kHz to 30 MHz, shall not exceed the limits in the following table, as measured using a 50 μH/50 ohms line impedance stabilization network (LISN).

| Frequency Range (MHz) | Conducted Limit (dBuV) | |
|---|---|---|
| | Quasi-Peak | Average |
| 0.15 ~ 0.5 | 66 to 56 * | 56 to 46 * |
| 0.5 ~ 5 | 56 | 46 |
| 5 ~ 30 | 60 | 50 |

* Decreases with the logarithm of the frequency

Compliance with this provision shall be based on the measurement of the radio frequency voltage between each power line (LINE and NEUTRAL) and ground at the power terminals.

**▣ Test Configuration**

See test photographs for the actual connections between EUT and support equipment.

**▣ Test Procedure**

Conducted emissions from the EUT were measured according to the ANSI C63.10-2013.

1. The test procedure is performed in a 6.5 m × 3.5 m × 3.5 m (L × W × H) shielded room. The EUT along with its peripherals were placed on a 1.0 m (W) × 1.5 m (L) and 0.8 m in height wooden table and the EUT was adjusted to maintain a 0.4 meter space from a vertical reference plane.
2. The EUT was connected to power mains through a line impedance stabilization network (LISN) which provides 50 ohm coupling impedance for measuring instrument and the chassis ground was bounded to the horizontal ground plane of shielded room.
3. All peripherals were connected to the second LISN and the chassis ground also bounded to the horizontal ground plane of shielded room.
4. The excess power cable between the EUT and the LISN was bundled. The power cables of peripherals were unbundled. All connecting cables of EUT and peripherals were moved to find the maximum emission.

**▣ Test Results: Comply**

Note 1: See next pages for actual measured spectrum plots and data for worst case result.

**AC Line Conducted Emissions (Graph)**

Test Mode: U-NII 1 & 802.11a & MIMO(CDD) & 5240 MHz & Normal(Without dual display)

## Results of Conducted Emission

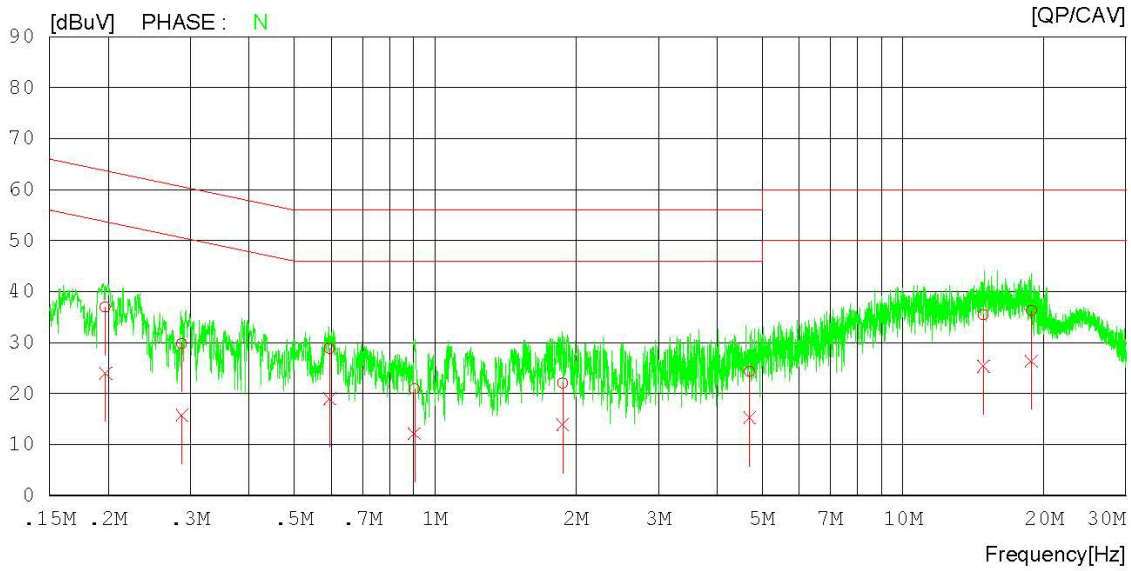
DTNC

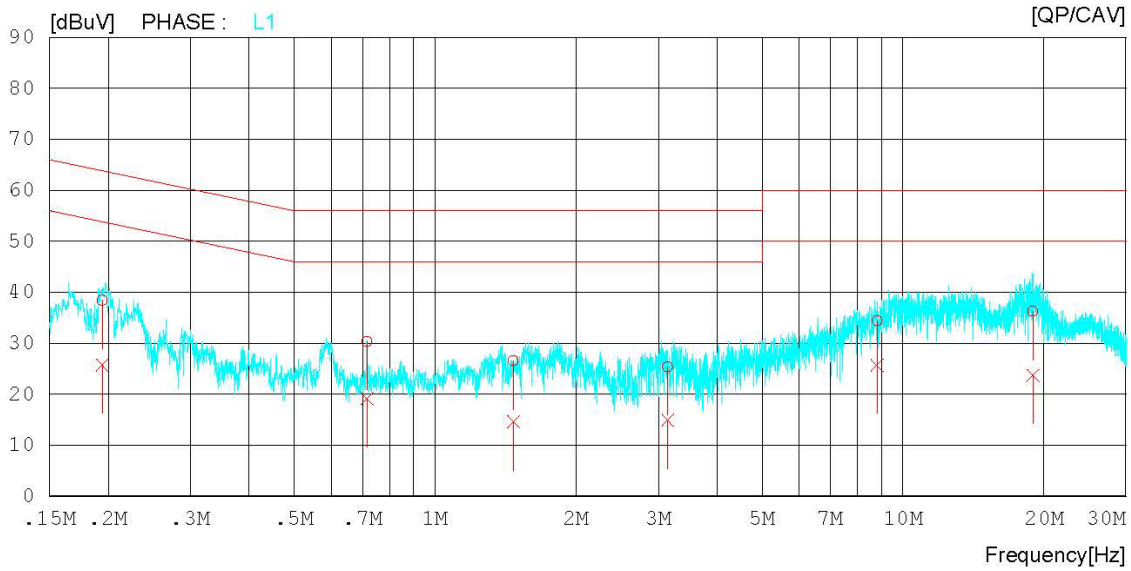
Date 2019-08-26

| | | | |
|---|---|---|---|
| Order No. | | Referrence No. | |
| Model No. | LM-G850EMW | Power Supply | 120 V, 60 Hz |
| Serial No. | | Temp/Humi. | 23 'C / 35 % |
| Test Condition | 5.1G | Operator | JaeJin Lee |

Memo

LIMIT : FCC P15.207 QP
FCC P15.207 AV



**AC Line Conducted Emissions (Data List)**

Test Mode: U-NII 1 & 802.11a & MIMO(CDD) & 5240 MHz & Normal(Without dual display)

# Results of Conducted Emission

DTNC Date 2019-08-26

| | | | |
|---|---|---|---|
| Order No. | | Referrence No. | |
| Model No. | LM-G850EMW | Power Supply | 120 V, 60 Hz |
| Serial No. | | Temp/Humi. | 23 'C / 35 % |
| Test Condition | 5.1G | Operator | JaeJin Lee |

Memo

LIMIT : FCC P15.207 QP
FCC P15.207 AV

| NO | FREQ | READING | | C.FACTOR | RESULT | | LIMIT | | MARGIN | | PHASE |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | QP | CAV | | QP | CAV | QP | CAV | QP | CAV | |
| | [MHz] | [dBuV] | [dBuV] | [dB] | [dBuV] | [dBuV] | [dBuV] | [dBuV] | [dBuV] | [dBuV] | |
| 1 | 0.19744 | 27.01 | 14.02 | 9.94 | 36.95 | 23.96 | 63.72 | 53.72 | 26.77 | 29.76 | N |
| 2 | 0.28757 | 19.86 | 5.81 | 9.94 | 29.80 | 15.75 | 60.59 | 50.59 | 30.79 | 34.84 | N |
| 3 | 0.59445 | 18.90 | 9.03 | 9.95 | 28.85 | 18.98 | 56.00 | 46.00 | 27.15 | 27.02 | N |
| 4 | 0.90383 | 11.00 | 2.18 | 9.97 | 20.97 | 12.15 | 56.00 | 46.00 | 35.03 | 33.85 | N |
| 5 | 1.87380 | 11.98 | 3.88 | 10.03 | 22.01 | 13.91 | 56.00 | 46.00 | 33.99 | 32.09 | N |
| 6 | 4.70140 | 14.19 | 5.10 | 10.15 | 24.34 | 15.25 | 56.00 | 46.00 | 31.66 | 30.75 | N |
| 7 | 14.85540 | 25.00 | 14.91 | 10.49 | 35.49 | 25.40 | 60.00 | 50.00 | 24.51 | 24.60 | N |
| 8 | 18.81640 | 25.69 | 15.83 | 10.54 | 36.23 | 26.37 | 60.00 | 50.00 | 23.77 | 23.63 | N |
| 9 | 0.19456 | 28.48 | 15.79 | 9.94 | 38.42 | 25.73 | 63.84 | 53.84 | 25.42 | 28.11 | L1 |
| 10 | 0.71516 | 20.35 | 9.15 | 9.96 | 30.31 | 19.11 | 56.00 | 46.00 | 25.69 | 26.89 | L1 |
| 11 | 1.47060 | 16.55 | 4.54 | 9.99 | 26.54 | 14.53 | 56.00 | 46.00 | 29.46 | 31.47 | L1 |
| 12 | 3.14080 | 15.25 | 4.81 | 10.06 | 25.31 | 14.87 | 56.00 | 46.00 | 30.69 | 31.13 | L1 |
| 13 | 8.80380 | 24.08 | 15.42 | 10.30 | 34.38 | 25.72 | 60.00 | 50.00 | 25.62 | 24.28 | L1 |
| 14 | 18.96240 | 25.67 | 13.09 | 10.52 | 36.19 | 23.61 | 60.00 | 50.00 | 23.81 | 26.39 | L1 |

**AC Line Conducted Emissions (Graph)**

Test Mode: U-NII 2A & 802.11a & MIMO(CDD) & 5320 MHz & Normal(Without dual display)

## Results of Conducted Emission

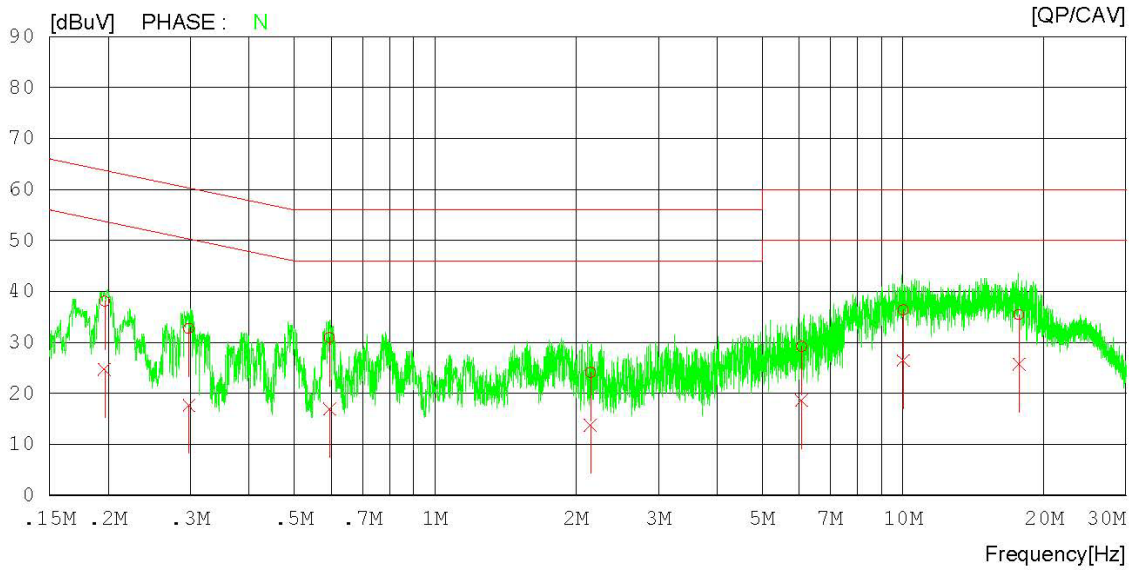
DTNC

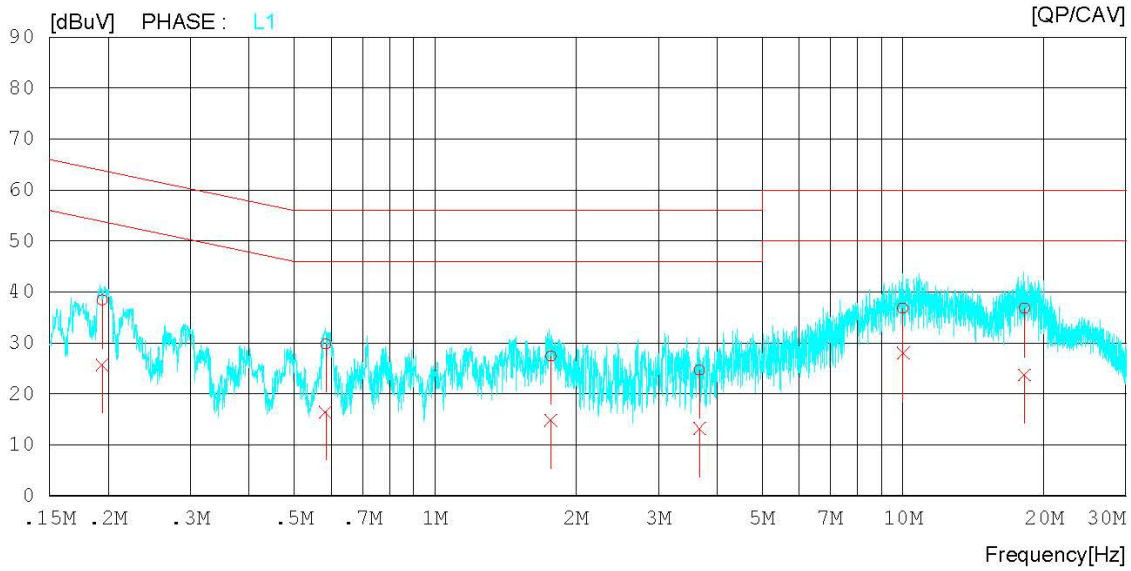
Date 2019-08-26

| | | | |
|---|---|---|---|
| Order No. | | Referrence No. | |
| Model No. | LM-G850EMW | Power Supply | 120 V, 60 Hz |
| Serial No. | | Temp/Humi. | 23 'C / 35 % |
| Test Condition | 5.3G | Operator | JaeJin Lee |

Memo

LIMIT : FCC P15.207 QP
FCC P15.207 AV



**AC Line Conducted Emissions (Data List)**

Test Mode: U-NII 2A & 802.11a & MIMO(CDD) & 5320 MHz & Normal(Without dual display)

# Results of Conducted Emission

DTNC Date 2019-08-26

| | | | |
|---|---|---|---|
| Order No. | | Referrence No. | |
| Model No. | LM-G850EMW | Power Supply | 120 V, 60 Hz |
| Serial No. | | Temp/Humi. | 23 'C / 35 % |
| Test Condition | 5.3G | Operator | JaeJin Lee |

Memo

LIMIT : FCC P15.207 QP
FCC P15.207 AV

| NO | FREQ | READING | | C.FACTOR | RESULT | | LIMIT | | MARGIN | | PHASE |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | QP | CAV | | QP | CAV | QP | CAV | QP | CAV | |
| | [MHz] | [dBuV] | [dBuV] | [dB] | [dBuV] | [dBuV] | [dBuV] | [dBuV] | [dBuV] | [dBuV] | |
| 1 | 0.19668 | 28.12 | 14.77 | 9.94 | 38.06 | 24.71 | 63.75 | 53.75 | 25.69 | 29.04 | N |
| 2 | 0.29768 | 22.81 | 7.78 | 9.94 | 32.75 | 17.72 | 60.31 | 50.31 | 27.56 | 32.59 | N |
| 3 | 0.59484 | 20.93 | 7.02 | 9.95 | 30.88 | 16.97 | 56.00 | 46.00 | 25.12 | 29.03 | N |
| 4 | 2.14680 | 14.05 | 3.74 | 10.03 | 24.08 | 13.77 | 56.00 | 46.00 | 31.92 | 32.23 | N |
| 5 | 6.07060 | 18.96 | 8.48 | 10.20 | 29.16 | 18.68 | 60.00 | 50.00 | 30.84 | 31.32 | N |
| 6 | 10.00820 | 26.02 | 16.15 | 10.34 | 36.36 | 26.49 | 60.00 | 50.00 | 23.64 | 23.51 | N |
| 7 | 17.69320 | 24.90 | 15.24 | 10.53 | 35.43 | 25.77 | 60.00 | 50.00 | 24.57 | 24.23 | N |
| 8 | 0.19444 | 28.38 | 15.70 | 9.94 | 38.32 | 25.64 | 63.84 | 53.84 | 25.52 | 28.20 | L1 |
| 9 | 0.58405 | 19.83 | 6.46 | 9.95 | 29.78 | 16.41 | 56.00 | 46.00 | 26.22 | 29.59 | L1 |
| 10 | 1.76720 | 17.31 | 4.79 | 10.02 | 27.33 | 14.81 | 56.00 | 46.00 | 28.67 | 31.19 | L1 |
| 11 | 3.67720 | 14.57 | 3.08 | 10.09 | 24.66 | 13.17 | 56.00 | 46.00 | 31.34 | 32.83 | L1 |
| 12 | 9.99720 | 26.42 | 17.59 | 10.34 | 36.76 | 27.93 | 60.00 | 50.00 | 23.24 | 22.07 | L1 |
| 13 | 18.18520 | 26.25 | 13.19 | 10.51 | 36.76 | 23.70 | 60.00 | 50.00 | 23.24 | 26.30 | L1 |

**AC Line Conducted Emissions (Graph)**

Test Mode: U-NII 2C & 802.11a & MIMO(CDD) & 5500 MHz & Normal(Without dual display)

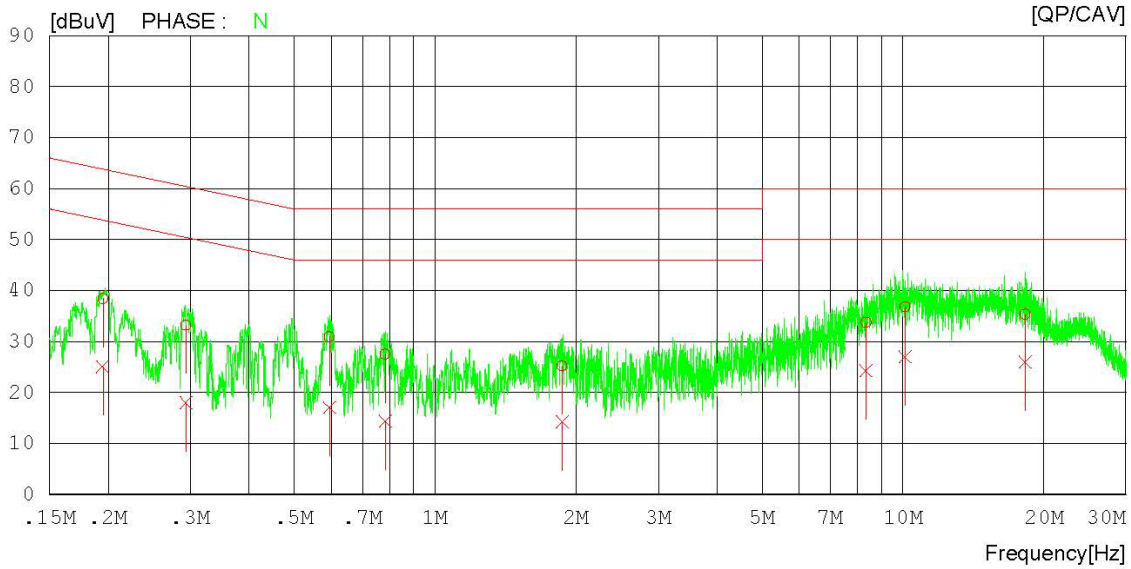
## Results of Conducted Emission

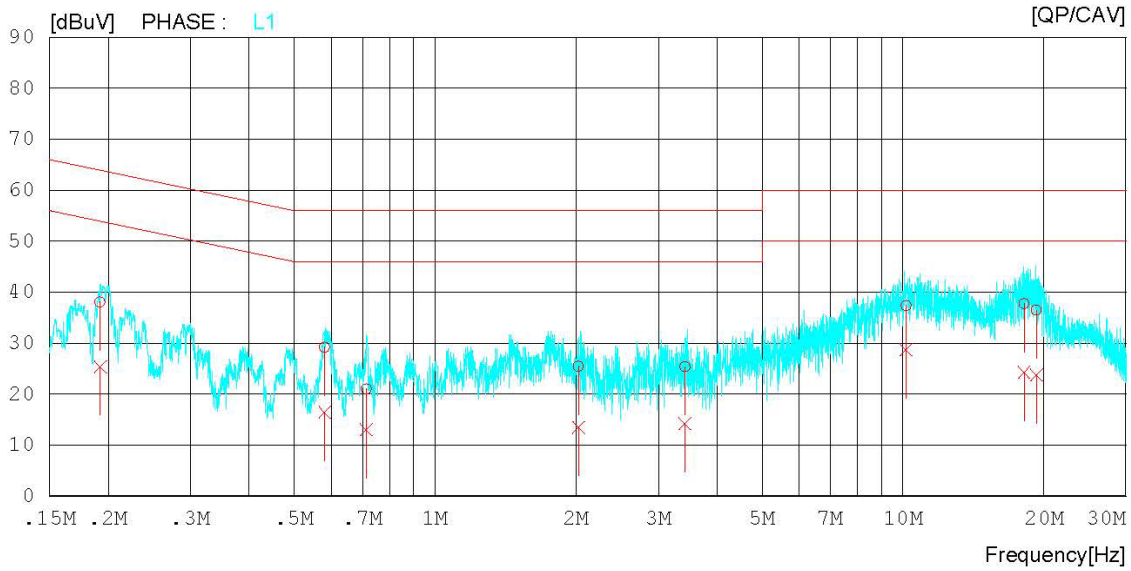
DTNC Date 2019-08-26

| | | | |
|---|---|---|---|
| Order No. | | Referrence No. | |
| Model No. | LM-G850EMW | Power Supply | 120 V, 60 Hz |
| Serial No. | | Temp/Humi. | 23 'C / 35 % |
| Test Condition | 5.5G | Operator | JaeJin Lee |

Memo

LIMIT : FCC P15.207 QP
FCC P15.207 AV



**AC Line Conducted Emissions (Data List)**

Test Mode: U-NII 2C & 802.11a & MIMO(CDD) & 5500 MHz & Normal(Without dual display)

# Results of Conducted Emission

DTNC Date 2019-08-26

| | | | |
|---|---|---|---|
| Order No. | | Referrence No. | |
| Model No. | LM-G850EMW | Power Supply | 120 V, 60 Hz |
| Serial No. | | Temp/Humi. | 23 'C / 35 % |
| Test Condition | 5.5G | Operator | JaeJin Lee |

Memo

LIMIT : FCC P15.207 QP
FCC P15.207 AV

| NO | FREQ | READING QP | READING CAV | C.FACTOR | RESULT QP | RESULT CAV | LIMIT QP | LIMIT CAV | MARGIN QP | MARGIN CAV | PHASE |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | [MHz] | [dBuV] | [dBuV] | [dB] | [dBuV] | [dBuV] | [dBuV] | [dBuV] | [dBuV] | [dBuV] | |
| 1 | 0.19485 | 28.43 | 15.11 | 9.94 | 38.37 | 25.05 | 63.83 | 53.83 | 25.46 | 28.78 | N |
| 2 | 0.29351 | 23.29 | 8.04 | 9.94 | 33.23 | 17.98 | 60.42 | 50.42 | 27.19 | 32.44 | N |
| 3 | 0.59462 | 21.01 | 7.09 | 9.95 | 30.96 | 17.04 | 56.00 | 46.00 | 25.04 | 28.96 | N |
| 4 | 0.78267 | 17.49 | 4.43 | 9.97 | 27.46 | 14.40 | 56.00 | 46.00 | 28.54 | 31.60 | N |
| 5 | 1.87000 | 15.19 | 4.24 | 10.03 | 25.22 | 14.27 | 56.00 | 46.00 | 30.78 | 31.73 | N |
| 6 | 8.34160 | 23.53 | 14.01 | 10.27 | 33.80 | 24.28 | 60.00 | 50.00 | 26.20 | 25.72 | N |
| 7 | 10.08960 | 26.50 | 16.64 | 10.34 | 36.84 | 26.98 | 60.00 | 50.00 | 23.16 | 23.02 | N |
| 8 | 18.22840 | 24.84 | 15.42 | 10.53 | 35.37 | 25.95 | 60.00 | 50.00 | 24.63 | 24.05 | N |
| 9 | 0.19242 | 28.06 | 15.38 | 9.94 | 38.00 | 25.32 | 63.93 | 53.93 | 25.93 | 28.61 | L1 |
| 10 | 0.58062 | 19.19 | 6.39 | 9.95 | 29.14 | 16.34 | 56.00 | 46.00 | 26.86 | 29.66 | L1 |
| 11 | 0.71309 | 11.06 | 3.00 | 9.96 | 21.02 | 12.96 | 56.00 | 46.00 | 34.98 | 33.04 | L1 |
| 12 | 2.02640 | 15.40 | 3.37 | 10.03 | 25.43 | 13.40 | 56.00 | 46.00 | 30.57 | 32.60 | L1 |
| 13 | 3.41920 | 15.25 | 4.13 | 10.08 | 25.33 | 14.21 | 56.00 | 46.00 | 30.67 | 31.79 | L1 |
| 14 | 10.15620 | 27.07 | 18.29 | 10.34 | 37.41 | 28.63 | 60.00 | 50.00 | 22.59 | 21.37 | L1 |
| 15 | 18.15000 | 27.15 | 13.74 | 10.51 | 37.66 | 24.25 | 60.00 | 50.00 | 22.34 | 25.75 | L1 |
| 16 | 19.28840 | 25.91 | 13.25 | 10.52 | 36.43 | 23.77 | 60.00 | 50.00 | 23.57 | 26.23 | L1 |

**AC Line Conducted Emissions (Graph)**

Test Mode: U-NII 2C & 802.11a & MIMO(CDD) & 5785 MHz & Normal(Without dual display)

## Results of Conducted Emission

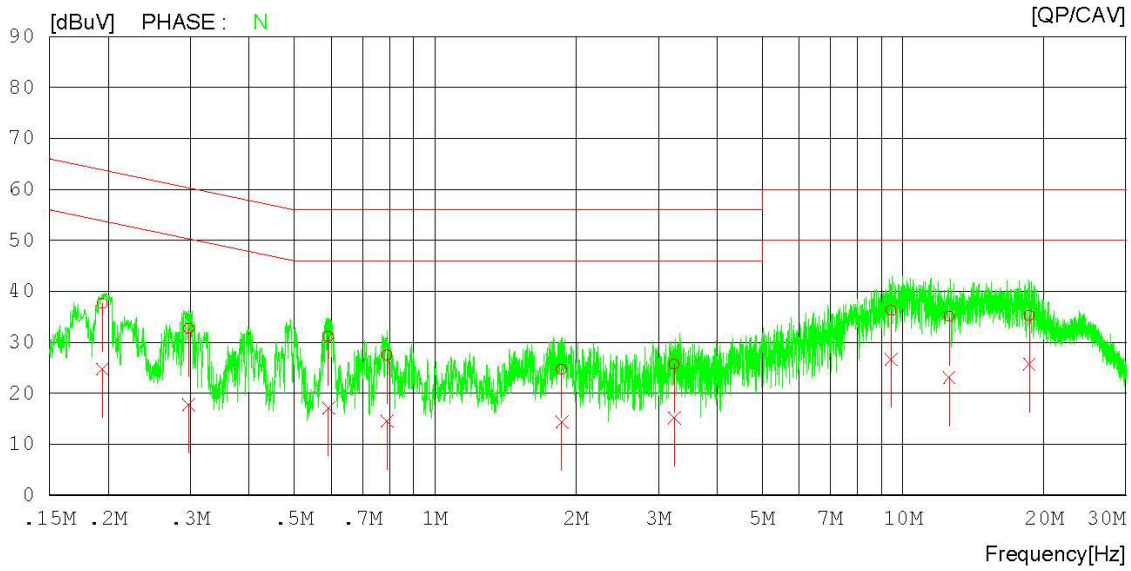
DTNC

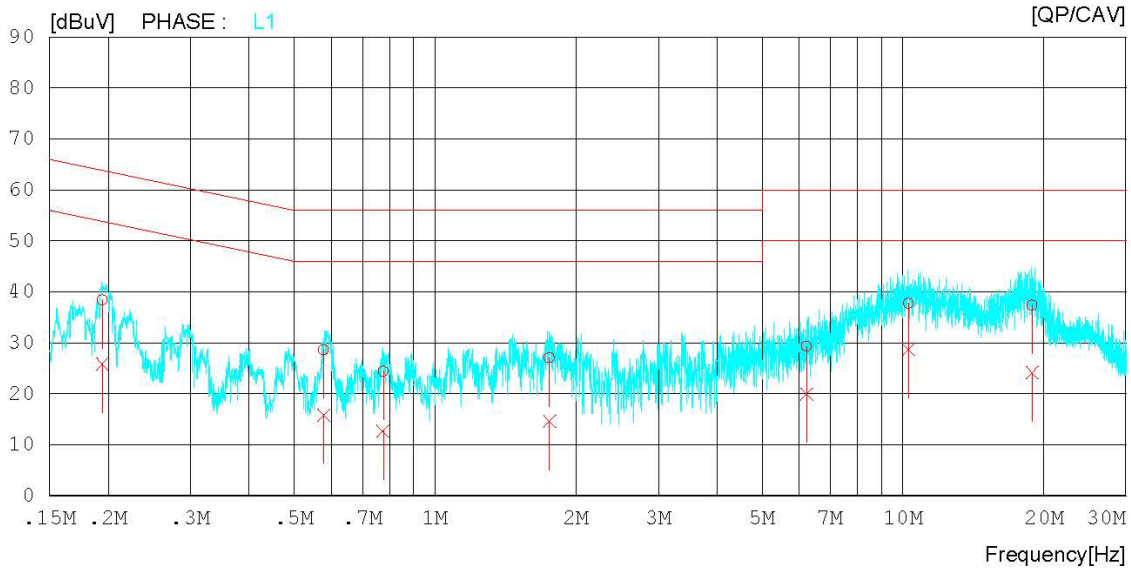
Date 2019-08-26

| | | | |
|---|---|---|---|
| Order No. | | Referrence No. | |
| Model No. | LM-G850EMW | Power Supply | 120 V, 60 Hz |
| Serial No. | | Temp/Humi. | 23 'C / 35 % |
| Test Condition | 5.7G | Operator | JaeJin Lee |

Memo

LIMIT : FCC P15.207 QP
FCC P15.207 AV



**AC Line Conducted Emissions (Data List)**

Test Mode: U-NII 2C & 802.11a & MIMO(CDD) & 5785 MHz & Normal(Without dual display)

# Results of Conducted Emission

DTNC Date 2019-08-26

| | | | |
|---|---|---|---|
| Order No. | | Referrence No. | |
| Model No. | LM-G850EMW | Power Supply | 120 V, 60 Hz |
| Serial No. | | Temp/Humi. | 23 'C / 35 % |
| Test Condition | 5.7G | Operator | JaeJin Lee |

Memo

LIMIT : FCC P15.207 QP
FCC P15.207 AV

| NO | FREQ | READING | | C.FACTOR | RESULT | | LIMIT | | MARGIN | | PHASE |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | QP | CAV | | QP | CAV | QP | CAV | QP | CAV | |
| | [MHz] | [dBuV] | [dBuV] | [dB] | [dBuV] | [dBuV] | [dBuV] | [dBuV] | [dBuV] | [dBuV] | |
| 1 | 0.19450 | 27.70 | 14.84 | 9.94 | 37.64 | 24.78 | 63.84 | 53.84 | 26.20 | 29.06 | N |
| 2 | 0.29729 | 22.82 | 7.81 | 9.94 | 32.76 | 17.75 | 60.32 | 50.32 | 27.56 | 32.57 | N |
| 3 | 0.59167 | 21.16 | 7.20 | 9.95 | 31.11 | 17.15 | 56.00 | 46.00 | 24.89 | 28.85 | N |
| 4 | 0.78935 | 17.50 | 4.64 | 9.97 | 27.47 | 14.61 | 56.00 | 46.00 | 28.53 | 31.39 | N |
| 5 | 1.86340 | 14.65 | 4.31 | 10.03 | 24.68 | 14.34 | 56.00 | 46.00 | 31.32 | 31.66 | N |
| 6 | 3.24480 | 15.61 | 5.08 | 10.07 | 25.68 | 15.15 | 56.00 | 46.00 | 30.32 | 30.85 | N |
| 7 | 9.43920 | 25.93 | 16.38 | 10.32 | 36.25 | 26.70 | 60.00 | 50.00 | 23.75 | 23.30 | N |
| 8 | 12.55720 | 24.65 | 12.75 | 10.42 | 35.07 | 23.17 | 60.00 | 50.00 | 24.93 | 26.83 | N |
| 9 | 18.61200 | 24.75 | 15.19 | 10.53 | 35.28 | 25.72 | 60.00 | 50.00 | 24.72 | 24.28 | N |
| 10 | 0.19453 | 28.39 | 15.88 | 9.94 | 38.33 | 25.82 | 63.84 | 53.84 | 25.51 | 28.02 | L1 |
| 11 | 0.57797 | 18.65 | 5.88 | 9.95 | 28.60 | 15.83 | 56.00 | 46.00 | 27.40 | 30.17 | L1 |
| 12 | 0.77446 | 14.42 | 2.66 | 9.96 | 24.38 | 12.62 | 56.00 | 46.00 | 31.62 | 33.38 | L1 |
| 13 | 1.75700 | 16.96 | 4.50 | 10.02 | 26.98 | 14.52 | 56.00 | 46.00 | 29.02 | 31.48 | L1 |
| 14 | 6.21900 | 19.04 | 9.72 | 10.20 | 29.24 | 19.92 | 60.00 | 50.00 | 30.76 | 30.08 | L1 |
| 15 | 10.27260 | 27.33 | 18.27 | 10.34 | 37.67 | 28.61 | 60.00 | 50.00 | 22.33 | 21.39 | L1 |
| 16 | 18.88040 | 26.81 | 13.59 | 10.52 | 37.33 | 24.11 | 60.00 | 50.00 | 22.67 | 25.89 | L1 |

# 9. LIST OF TEST EQUIPMENT

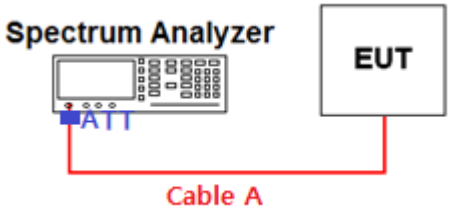
| Type | Manufacturer | Model | Cal.Date (yy/mm/dd) | Next.Cal.Date (yy/mm/dd) | S/N |
|---|---|---|---|---|---|
| Spectrum Analyzer | Agilent Technologies | N9020A | 18/12/19 | 19/12/19 | MY50410357 |
| Spectrum Analyzer | Agilent Technologies | N9020A | 18/12/19 | 19/12/19 | MY48011700 |
| Spectrum Analyzer | Agilent Technologies | N9030A | 19/03/15 | 20/03/15 | MY53310140 |
| Signal Analyzer | Rohde Schwarz | FSW67 | 19/07/11 | 20/07/11 | 104037 |
| DC Power Supply | Agilent Technologies | 66332A | 19/06/25 | 20/06/25 | MY43000211 |
| 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 | BODYCOM | BJ5478 | 18/12/27 | 19/12/27 | 120612-2 |
| Thermohygrometer | BODYCOM | BJ5478 | 19/07/03 | 20/07/03 | N/A |
| HYGROMETER | TESTO | 608-H1 | 19/01/31 | 20/01/31 | 34862883 |
| Loop Antenna | ETS | 6502 | 19/03/21 | 21/03/21 | 3471 |
| BILOG ANTENNA | Schwarzbeck | VULB 9160 | 18/07/13 | 20/07/13 | 3359 |
| Horn Antenna | ETS-Lindgren | 3115 | 19/01/11 | 21/01/11 | 9202-3820 |
| Horn Antenna | Schwarzbeck | BBHA 9120C | 17/12/04 | 19/12/04 | 9120C-561 |
| Horn Antenna | A.H.Systems Inc. | SAS-574 | 19/07/03 | 21/07/03 | 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 | 19/06/24 | 20/06/24 | 2005354 |
| Attenuator | SMAJK | SMAJK-2-3 | 19/06/27 | 20/06/27 | 3 |
| Attenuator | Aeroflex/Weinschel | 56-3 | 19/06/27 | 20/06/27 | Y2370 |
| Attenuator | SRTechnology | F01-B0606-01 | 19/06/27 | 20/06/27 | 13092403 |
| Attenuator | Hefei Shunze | SS5T2.92-10-40 | 19/06/27 | 20/06/27 | 16012202 |
| High Pass Filter | Wainwright Instruments | WHNX8.0/26.5-6SS | 19/06/27 | 20/06/27 | 3 |
| High Pass Filter | Wainwright Instruments | WHKX12-935-1000-15000-40SS | 19/06/24 | 20/06/24 | 8 |
| High Pass Filter | Wainwright Instruments | WHKX10-2838-3300-18000-60SS | 19/06/26 | 20/06/26 | 1 |
| Power Meter & Wide Bandwidth Sensor | Anritsu | ML2495A MA2490A | 19/06/24 | 20/06/24 | 1306007 1249001 |
| EMI Test Receiver | Rohde Schwarz | ESW44 | 19/07/30 | 20/07/30 | 101645 |
| EMI Test Receiver | Rohde Schwarz | ESCI7 | 19/01/30 | 20/01/30 | 100910 |
| PULSE LIMITER | Rohde Schwarz | ESH3-Z2 | 18/09/27 | 19/09/27 | 101333 |
| LISN | SCHWARZBECK | NNLK 8121 | 19/03/19 | 20/03/19 | 06183 |
| Cable | DTNC | Cable | 19/01/16 | 20/01/16 | M-01 |
| Cable | Junkosha | MWX315 | 19/01/16 | 20/01/16 | M-05 |
| Cable | Junkosha | MWX221 | 19/01/16 | 20/01/16 | M-06 |
| 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 |

Note 1: The measurement antennas were calibrated in accordance to the requirements of ANSI C63.5-2017
Note 2: The cable is not a regular calibration item, so it has been calibrated by DT & C itself.

# APPENDIX I

## Conducted Test set up Diagram

### ▪ Conducted 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 ≥ EBW if possible; otherwise, set RBW to the largest available value.
3. Set VBW ≥ 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* ≤ 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: CDD**

| 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 | 6Mbps | 5180 | 2.024 | 2.072 | 0.9768 | 0.10 | 24.70 |
| 802.11n (HT20) | MCS5 | 5180 | 0.267 | 0.327 | 0.8172 | 0.88 | 186.99 |
| 802.11n (HT40) | MCS0 | 5190 | 1.270 | 1.312 | 0.9680 | 0.14 | 39.37 |
| 802.11ac (VHT80) | MCS0 | 5210 | 1.170 | 1.212 | 0.9653 | 0.15 | 42.74 |

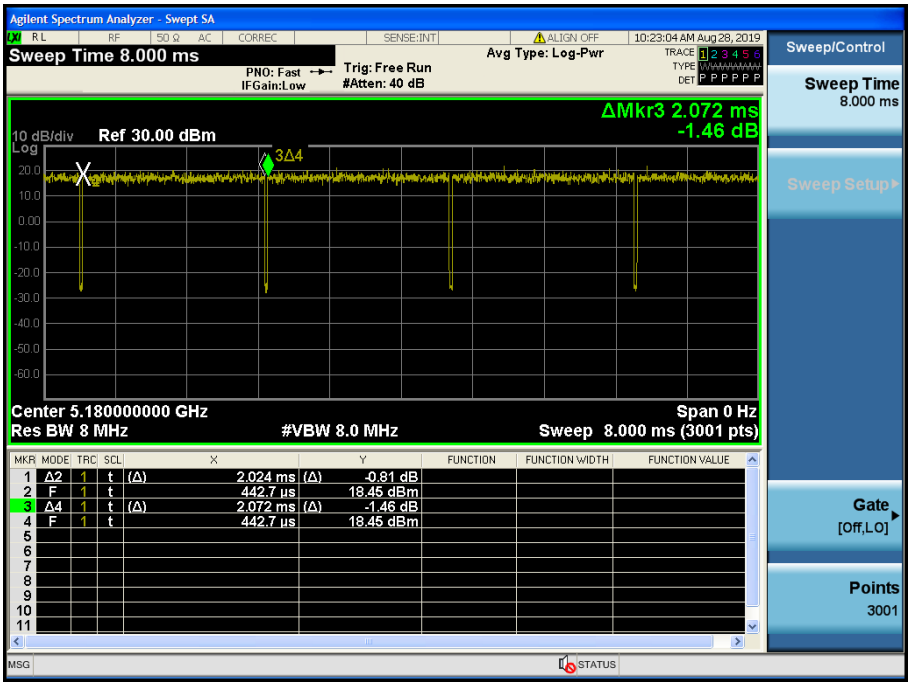
**Duty cycle: SDM**

| 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* | | |
| 802.11n (HT20) | MCS13 | 5180 | 0.155 | 0.236 | 0.6589 | 1.81 | 321.96 |
| 802.11n (HT40) | MCS8 | 5190 | 0.658 | 0.698 | 0.9427 | 0.26 | 75.99 |
| 802.11ac (VHT80) | MCS0 | 5210 | 0.610 | 0.650 | 0.9385 | 0.28 | 81.97 |

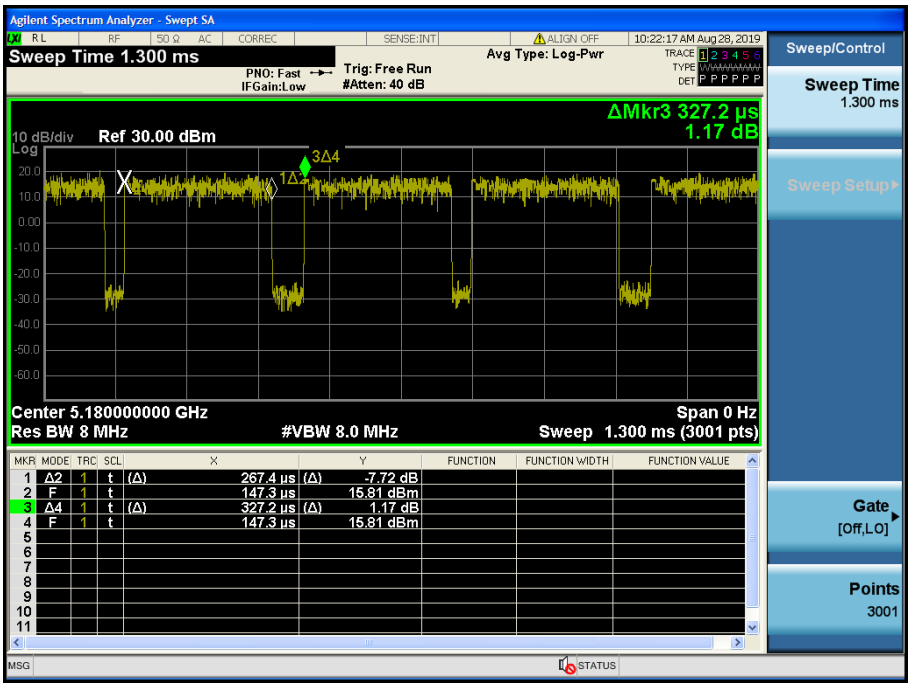
## ▣ Test Plot:

### Single Transmit

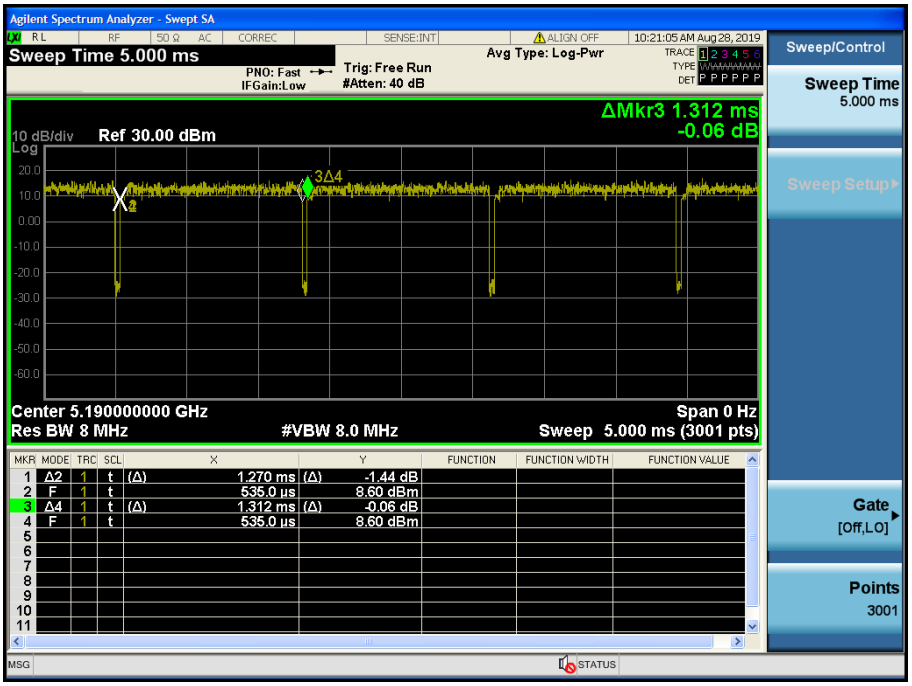
**Duty Cycle** Test Mode: 802.11a & Ch.36



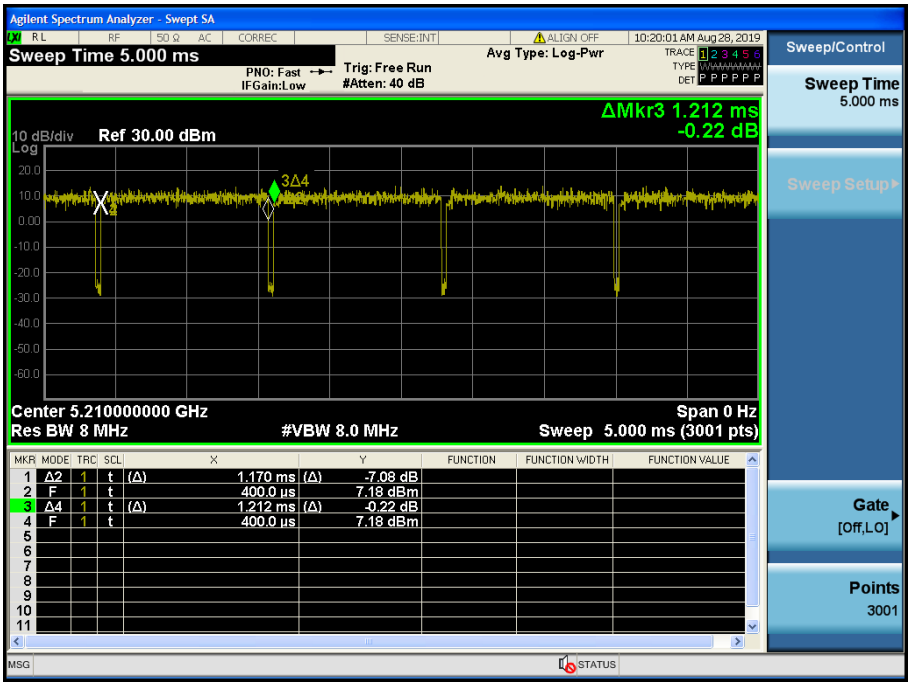

**Duty Cycle** Test Mode: 802.11n HT20 & Ch.36



**Duty Cycle** Test Mode: 802.11n HT40 & Ch.38



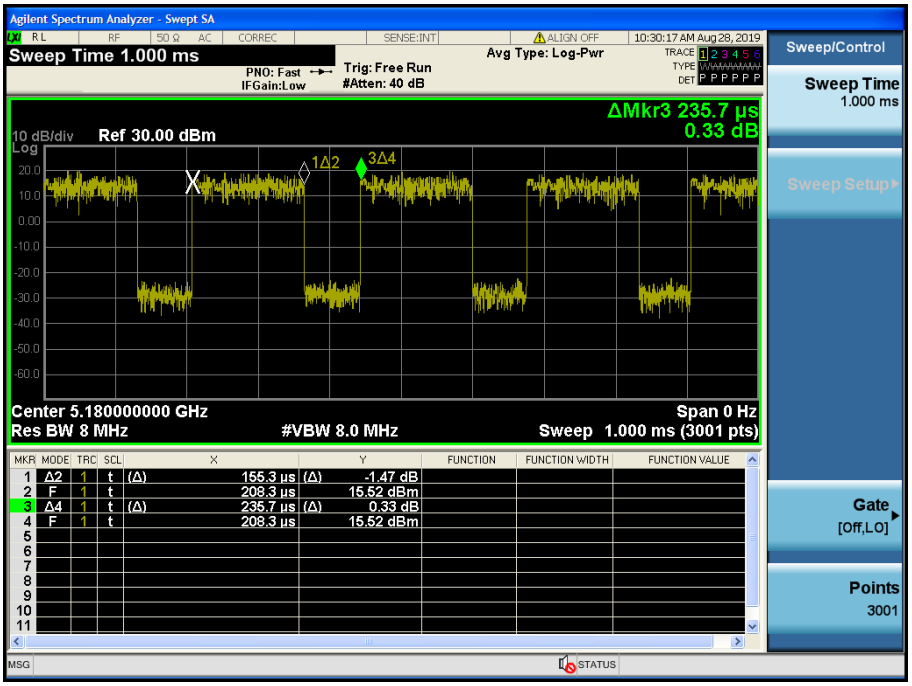

**Duty Cycle** Test Mode: 802.11ac VHT80 & Ch.42



## Multiple Transmit _ SDM

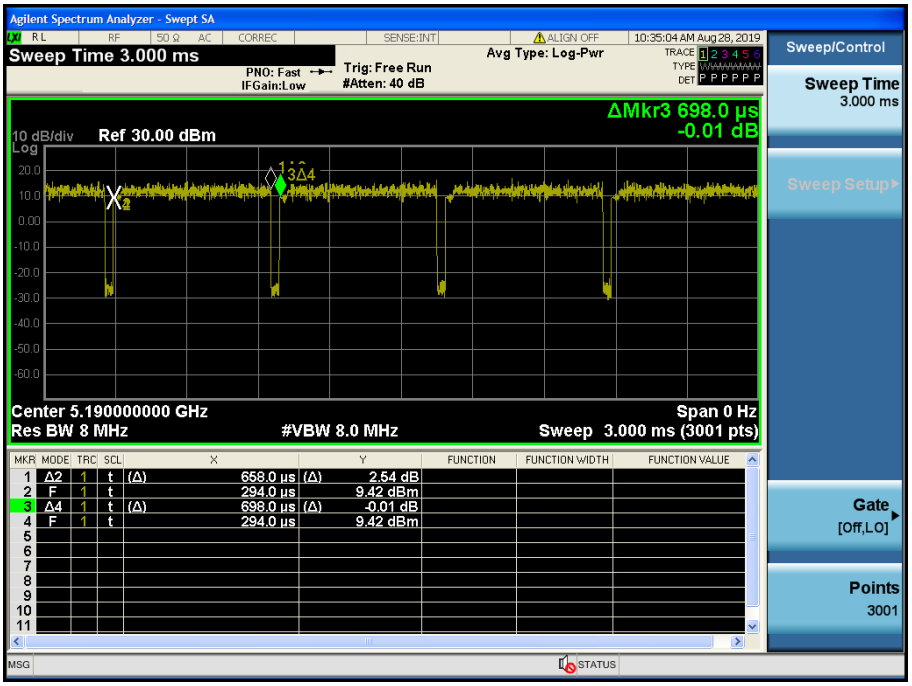
### Duty Cycle

Test Mode: 802.11n HT20 & Ch.36

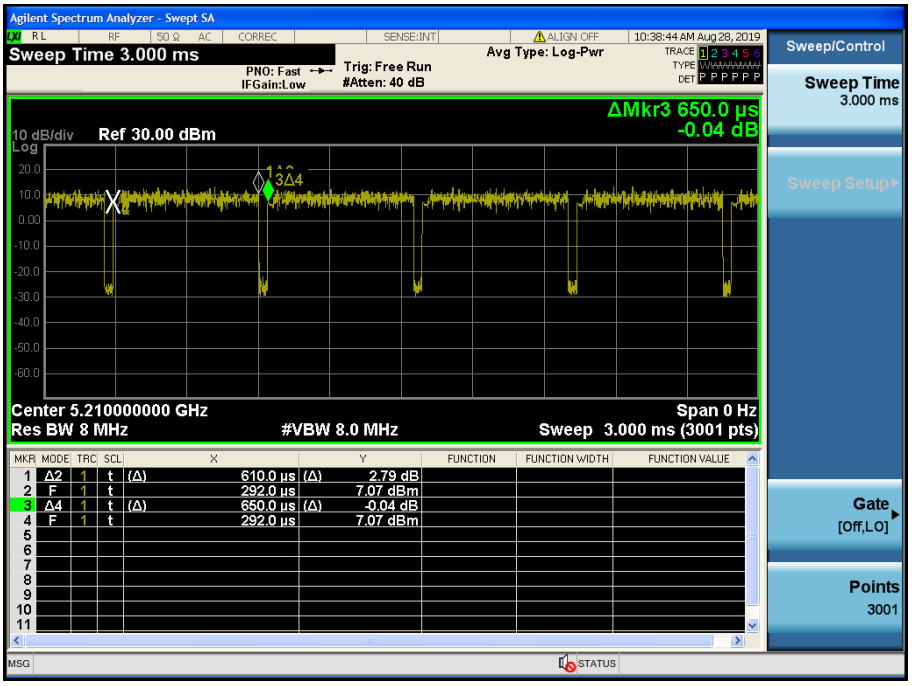



### Duty Cycle

Test Mode: 802.11n HT40 & Ch.38



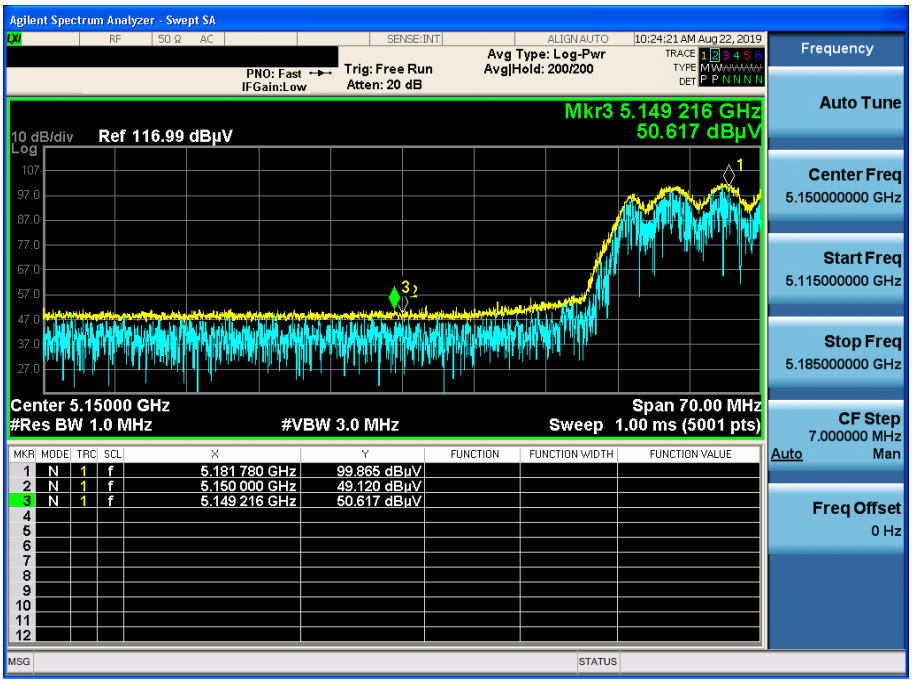
**Duty Cycle** Test Mode: 802.11ac VHT80 & Ch.42



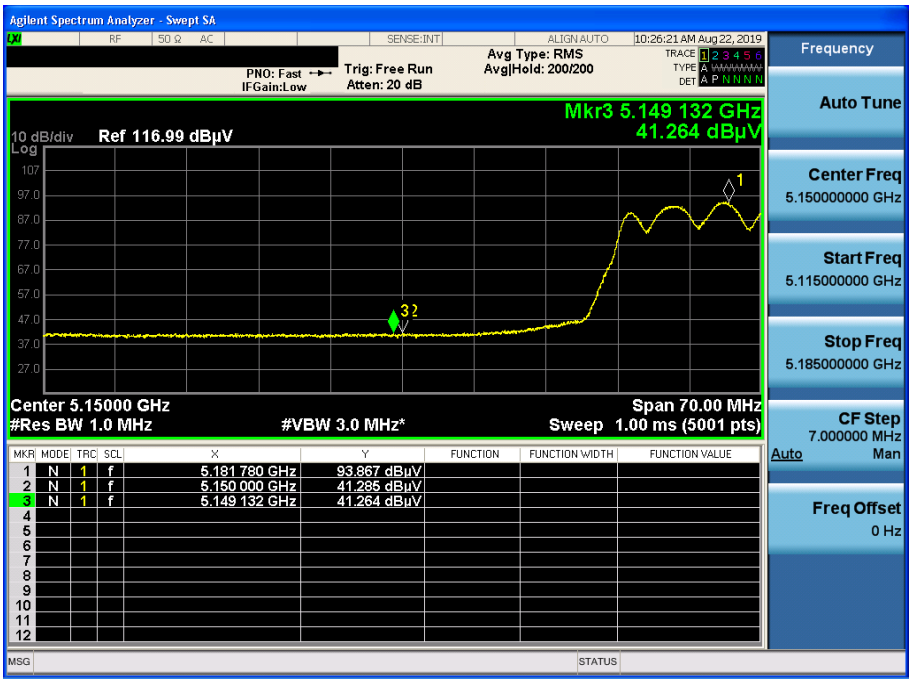
# APPENDIX III

## Unwanted Emissions (Radiated) Test Plot: MIMO(CDD)

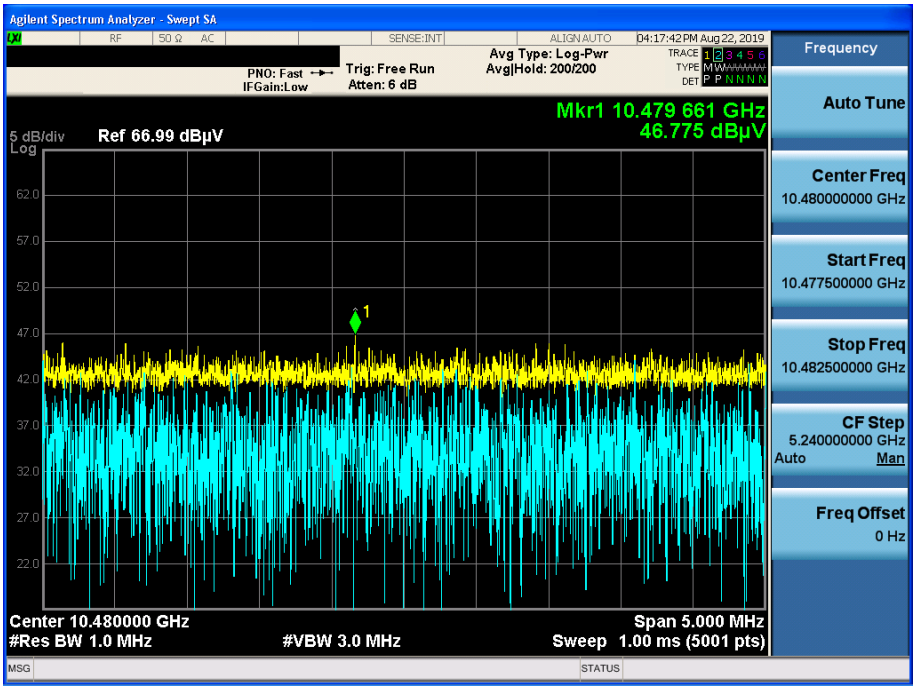
**802.11a & U-NII 1 & Ch.36 & Z axis & Ver** **Detector Mode : PK**



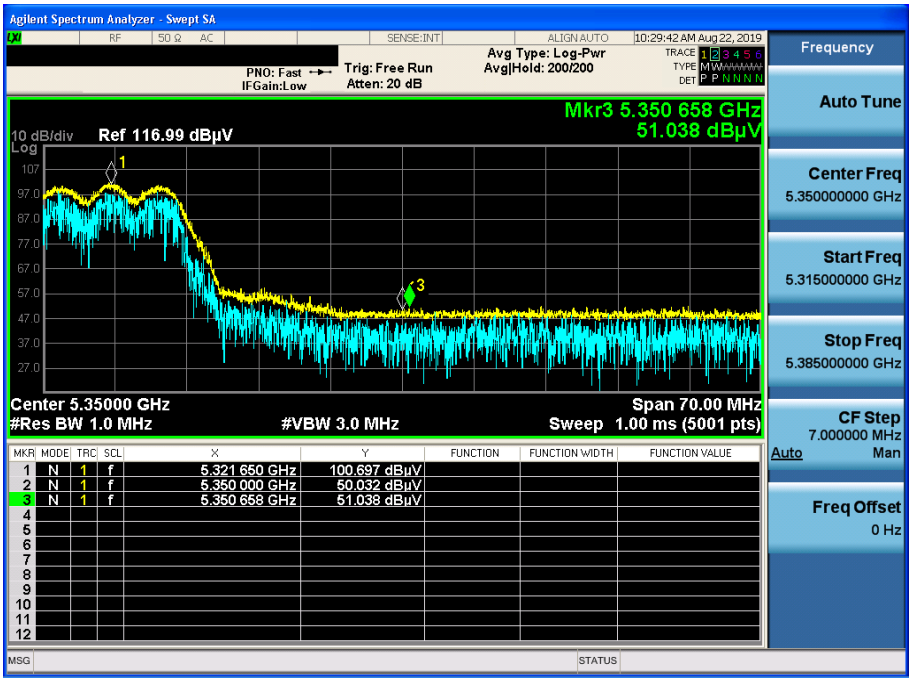

**802.11a & U-NII 1 & Ch.36 & Z axis & Ver** **Detector Mode : AV**



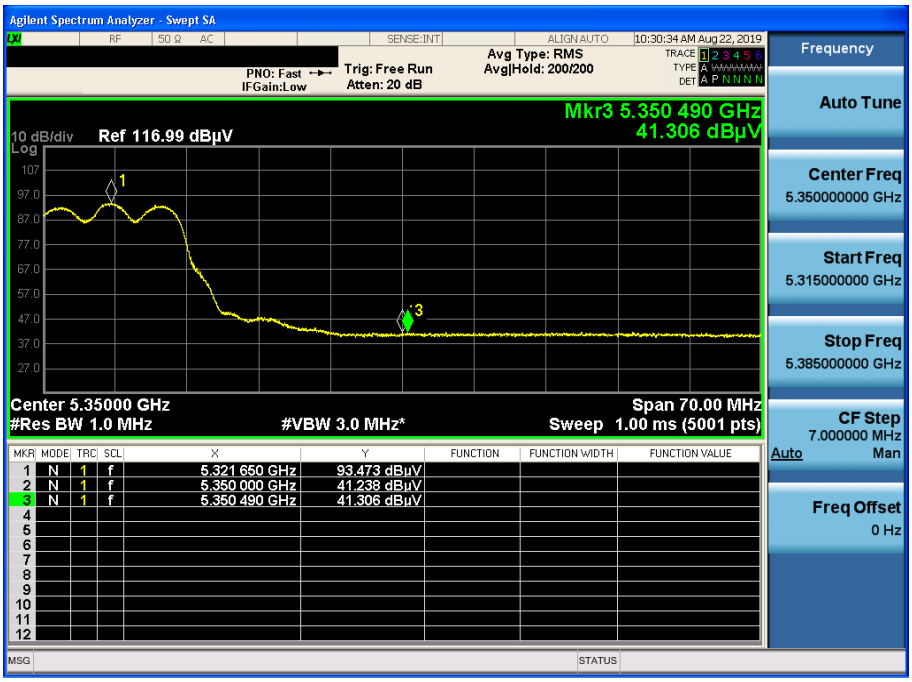
**802.11a & U-NII 1 & Ch.48 & Y axis & Ver** **Detector Mode : PK**



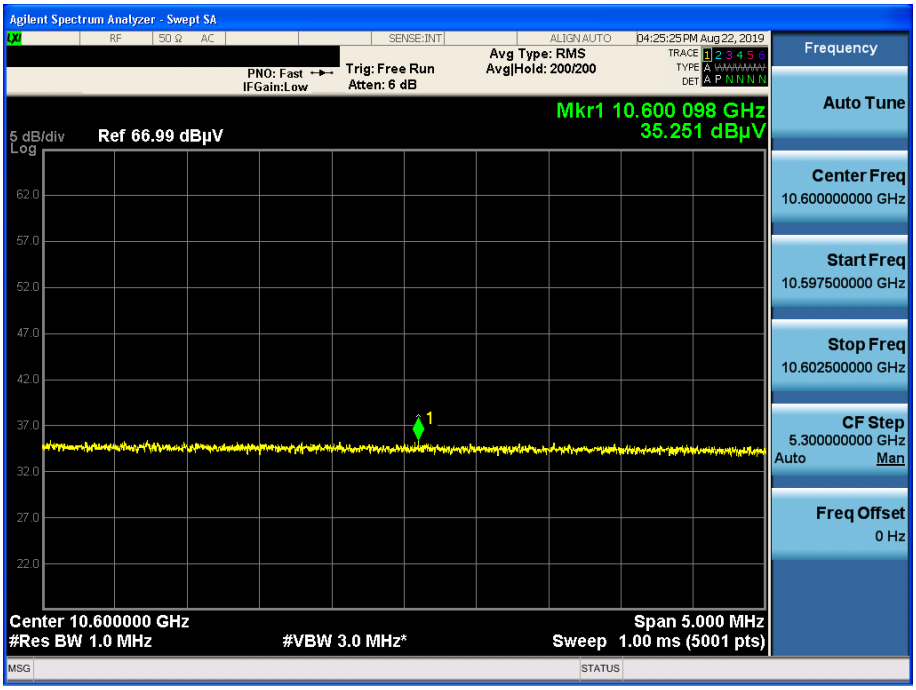
**802.11a & U-NII 2A & Ch.64 & Z axis & Ver** **Detector Mode : PK**



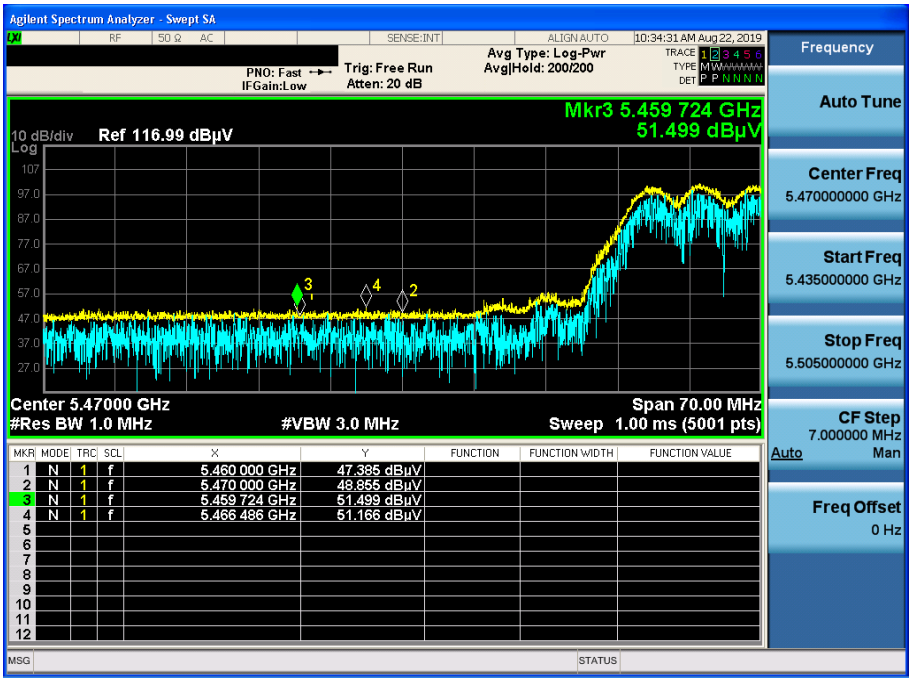

**802.11a & U-NII 2A & Ch.64 & Z axis & Ver** **Detector Mode : AV**



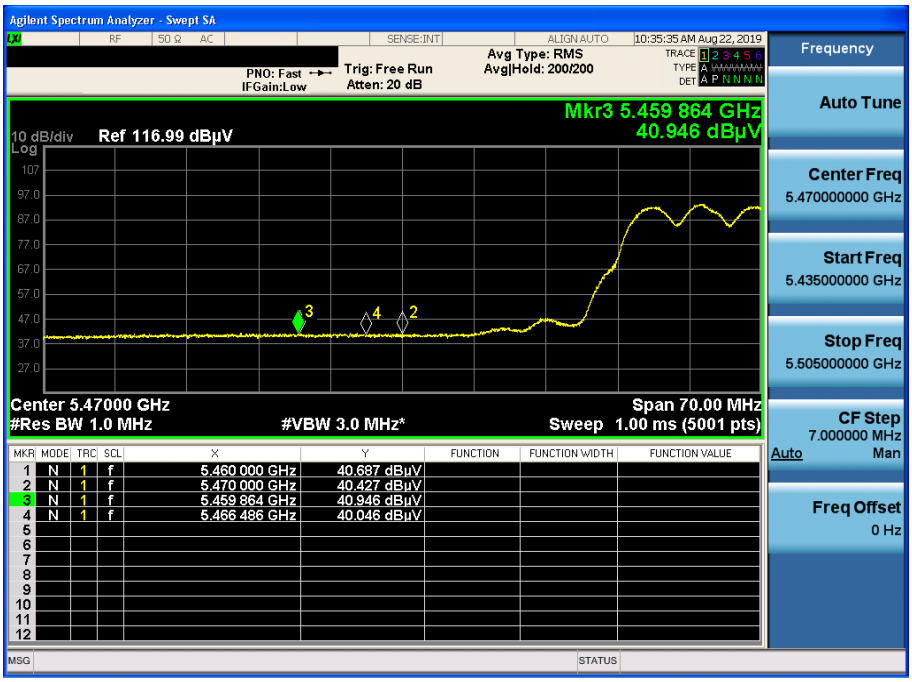
**802.11a & U-NII 2A & Ch.60 & Y axis & Ver** **Detector Mode : AV**



**802.11a & U-NII 2C & Ch.100 & Z axis & Ver** **Detector Mode : PK**

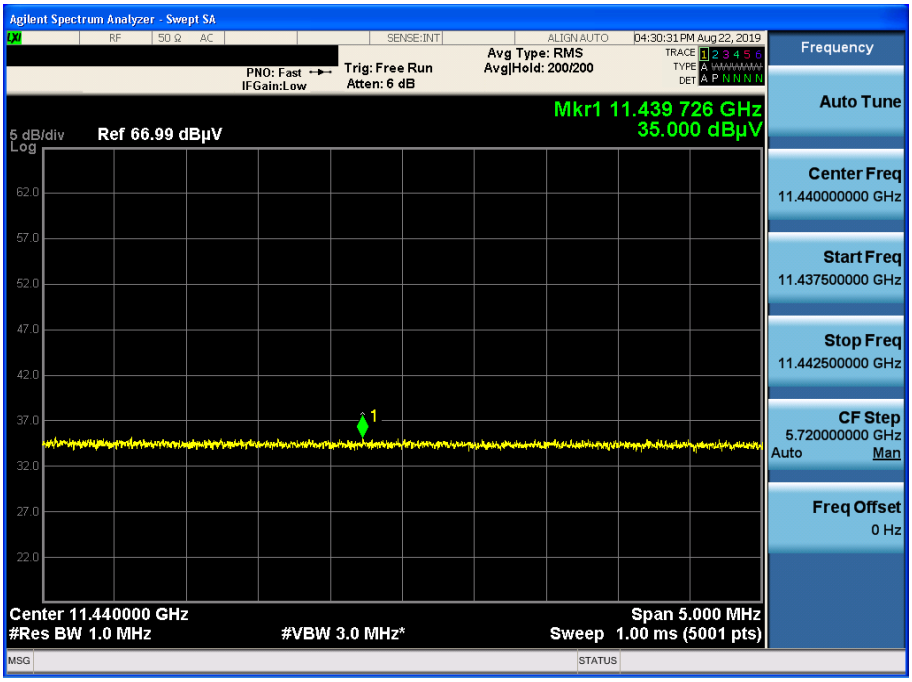



**802.11a & U-NII 2C & Ch.100 & Z axis & Ver** **Detector Mode : AV**

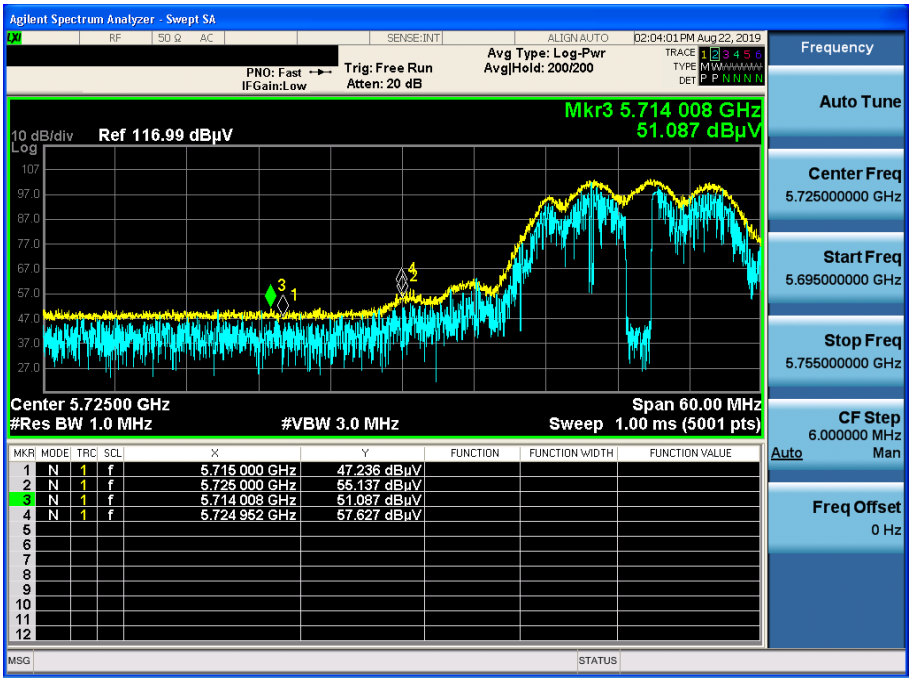


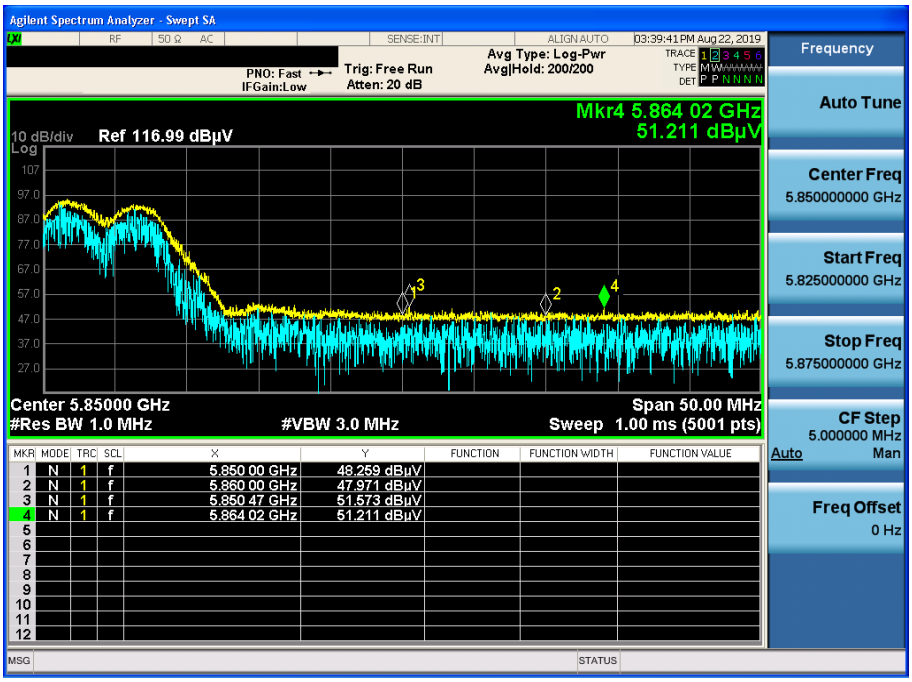
**802.11a & U-NII 2C & Ch.144 & Y axis & Ver** **Detector Mode : AV**



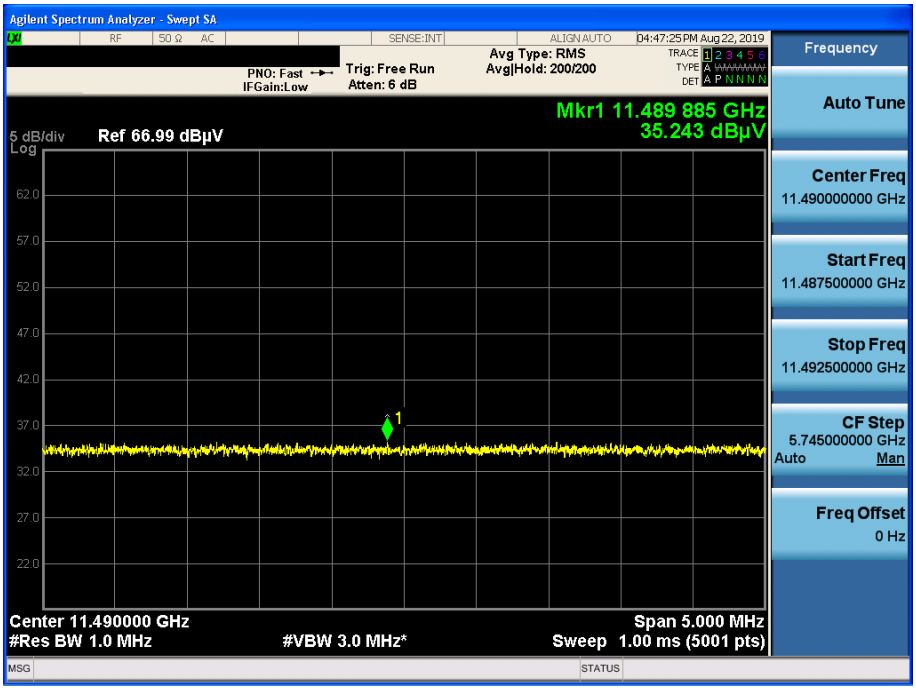
**802.11a & U-NII 3 & Ch.149 & Z axis & Ver** **Detector Mode : PK**



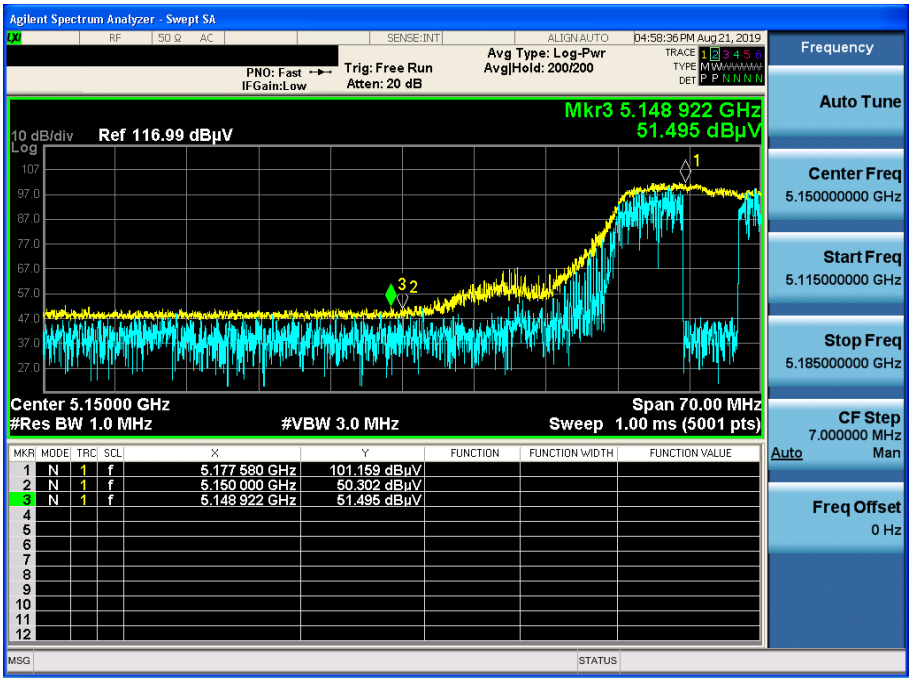

**802.11a & U-NII 3 & Ch.165 & Z axis & Ver** **Detector Mode : PK**



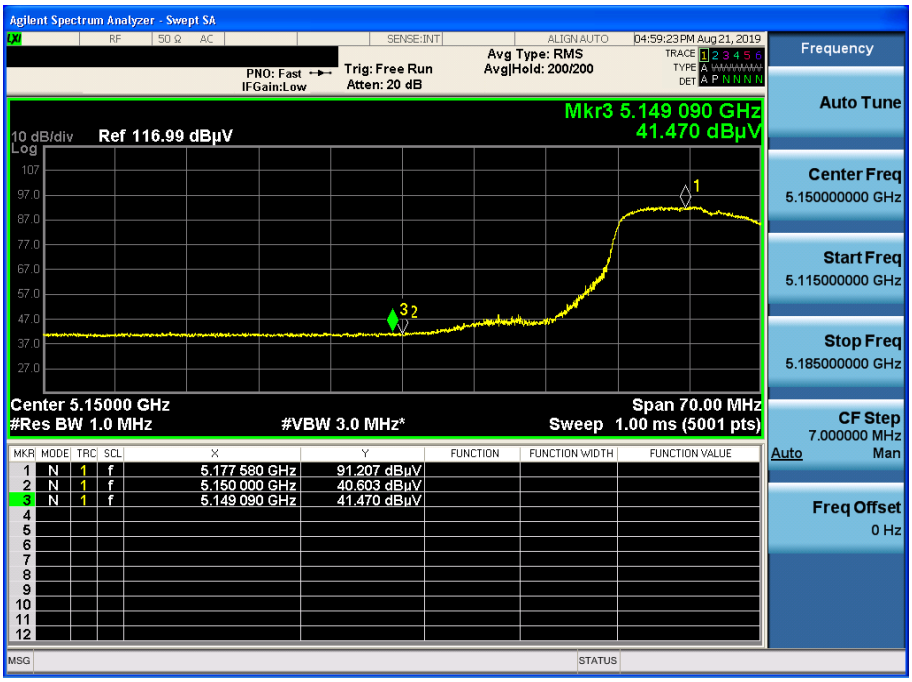
**802.11a & U-NII 3 & Ch.149 & Y axis & Ver** **Detector Mode : AV**



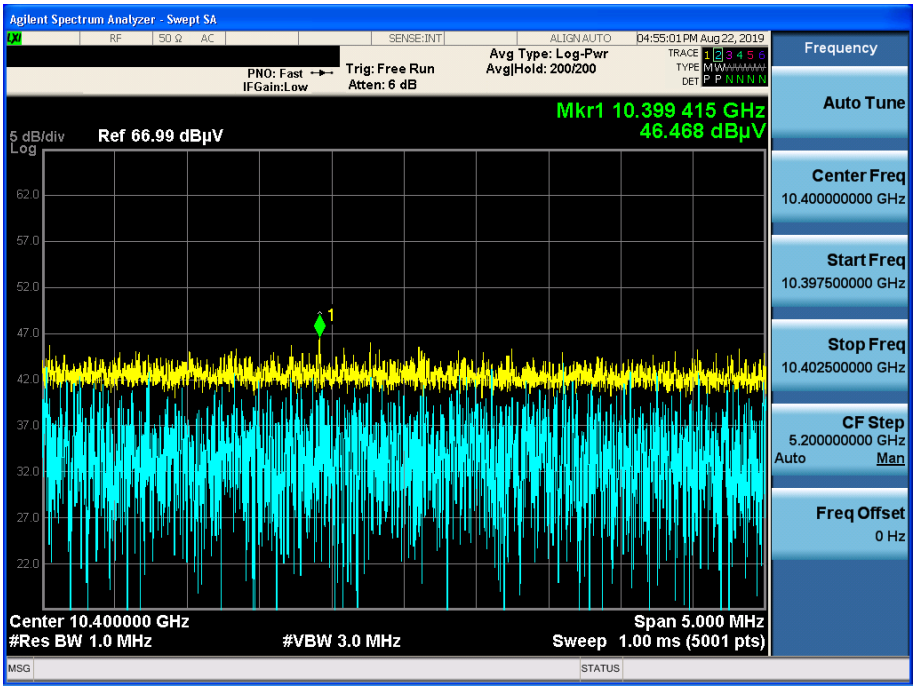
**802.11n(HT20) & U-NII 1 & Ch.36 & Z axis & Ver Detector Mode : PK**



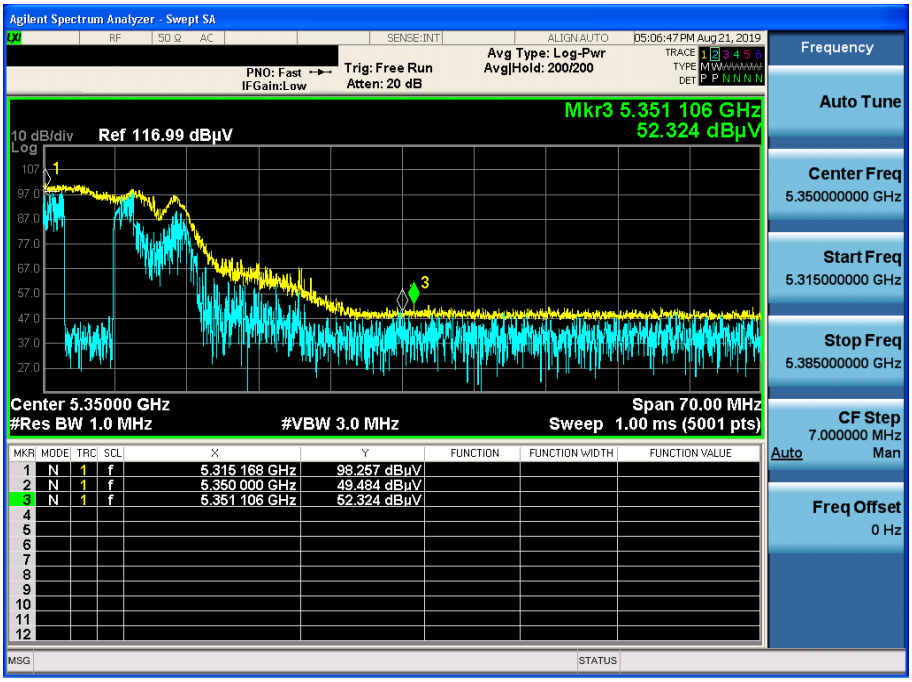

**802.11n(HT20) & U-NII 1 & Ch.36 & Z axis & Ver Detector Mode : AV**



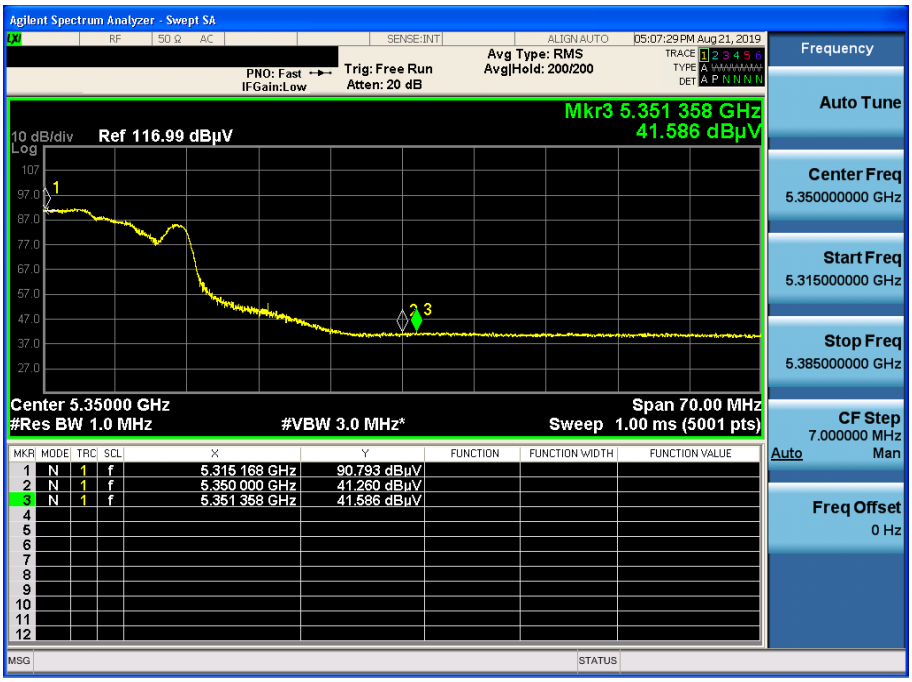
**802.11n(HT20) & U-NII 1 & Ch.40 & Y axis & Ver Detector Mode : PK**



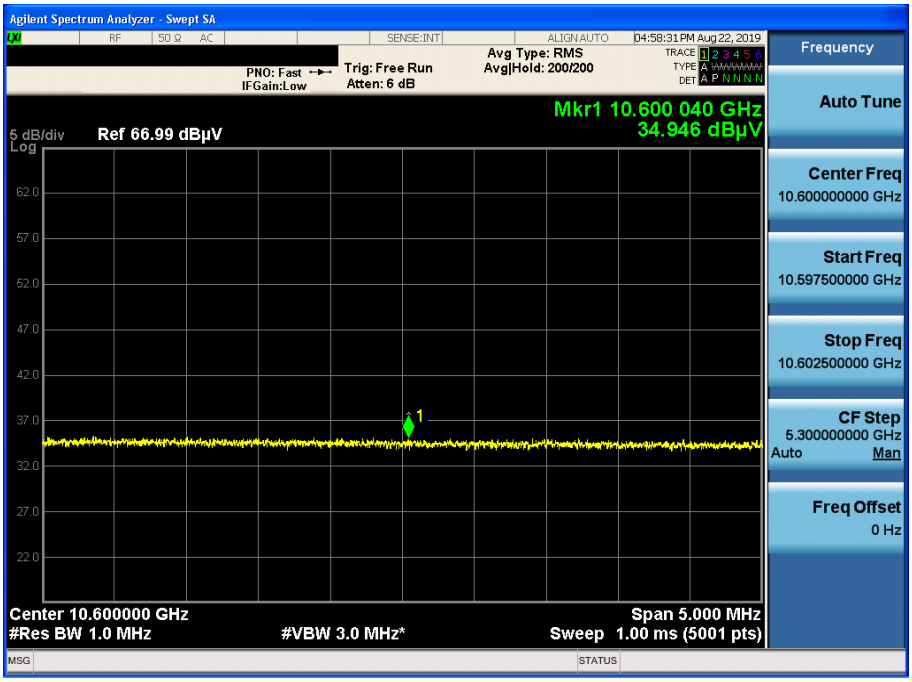
**802.11n(HT20) & U-NII 2A & Ch.64 & Z axis & Ver Detector Mode : PK**



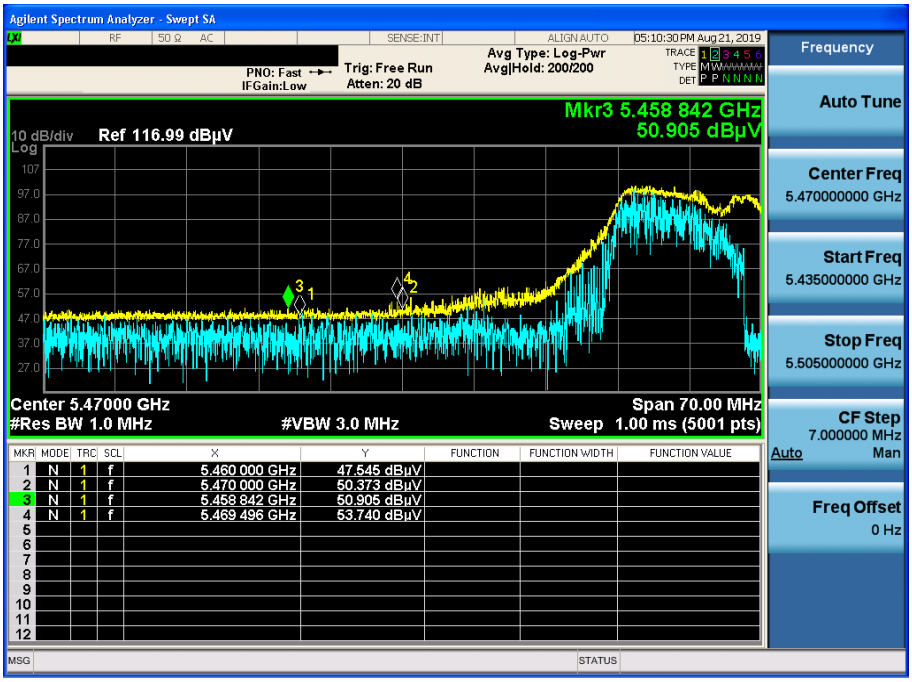

**802.11n(HT20) & U-NII 2A & Ch.64 & Z axis & Ver Detector Mode : AV**



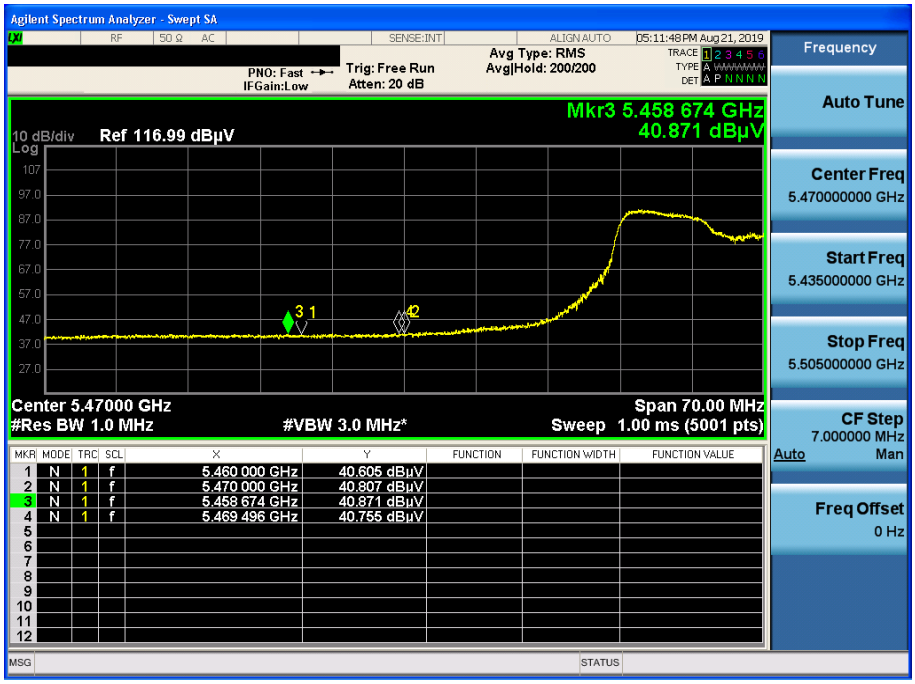
**802.11n(HT20) & U-NII 2A & Ch.60 & Y axis & Ver Detector Mode : AV**



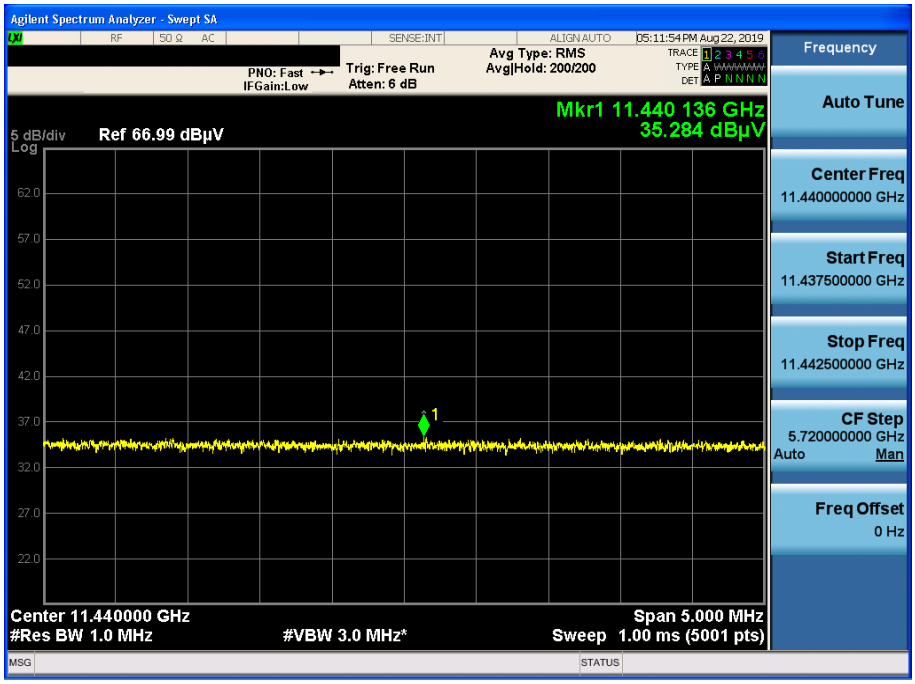
**802.11n(HT20) & U-NII 2C & Ch.100 & Z axis & Ver Detector Mode : PK**



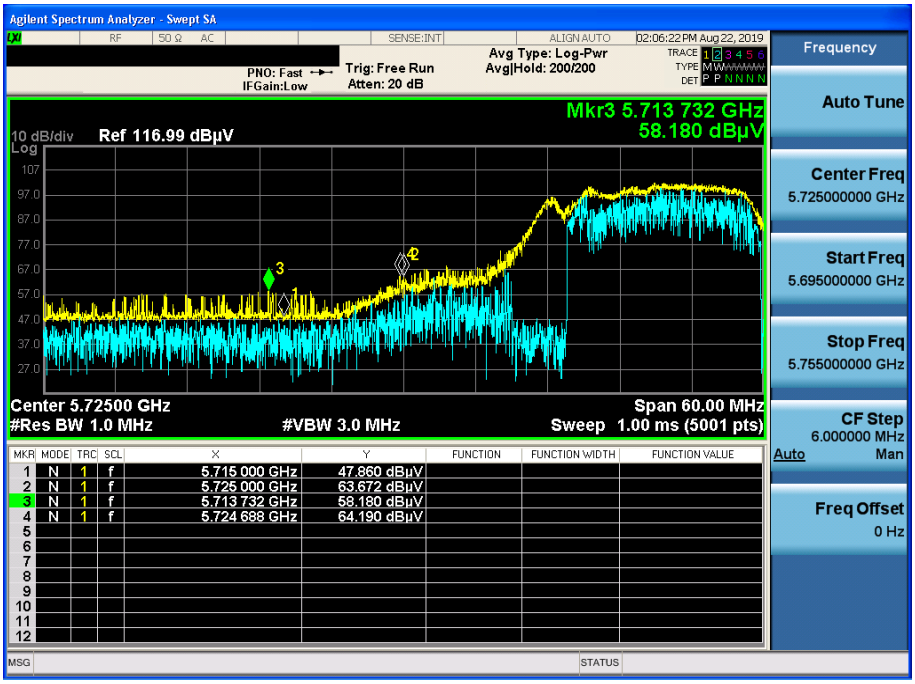

**802.11n(HT20) & U-NII 2C & Ch.100 & Z axis & Ver Detector Mode : AV**



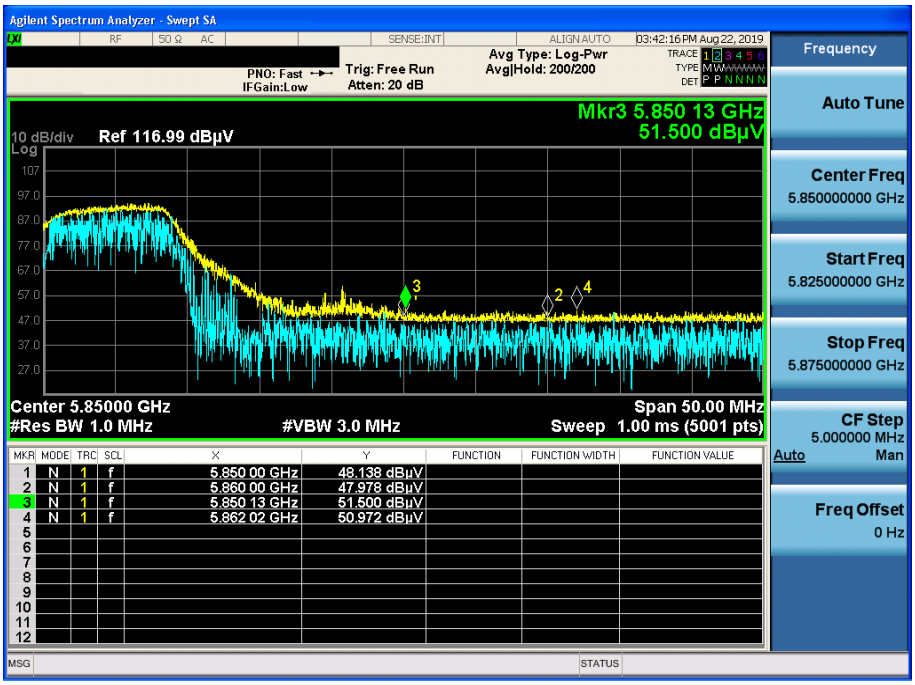
**802.11n(HT20) & U-NII 2C & Ch.144 & Y axis & Ver Detector Mode : AV**



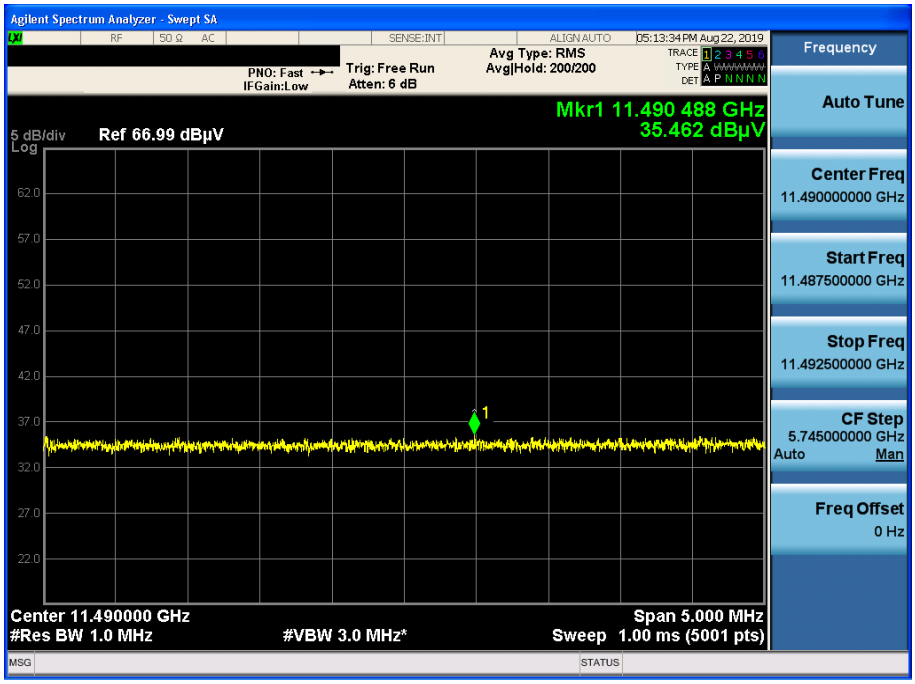
**802.11n(HT20) & U-NII 3 & Ch.149 & Z axis & Ver Detector Mode : PK**



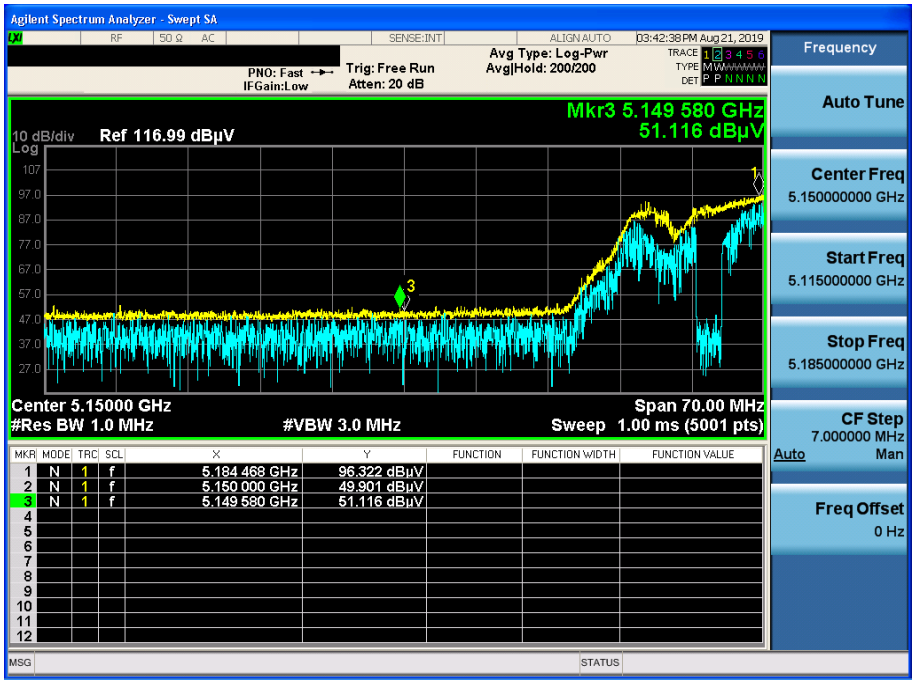

**802.11n(HT20) & U-NII 3 & Ch.165 & Z axis & Ver Detector Mode : PK**



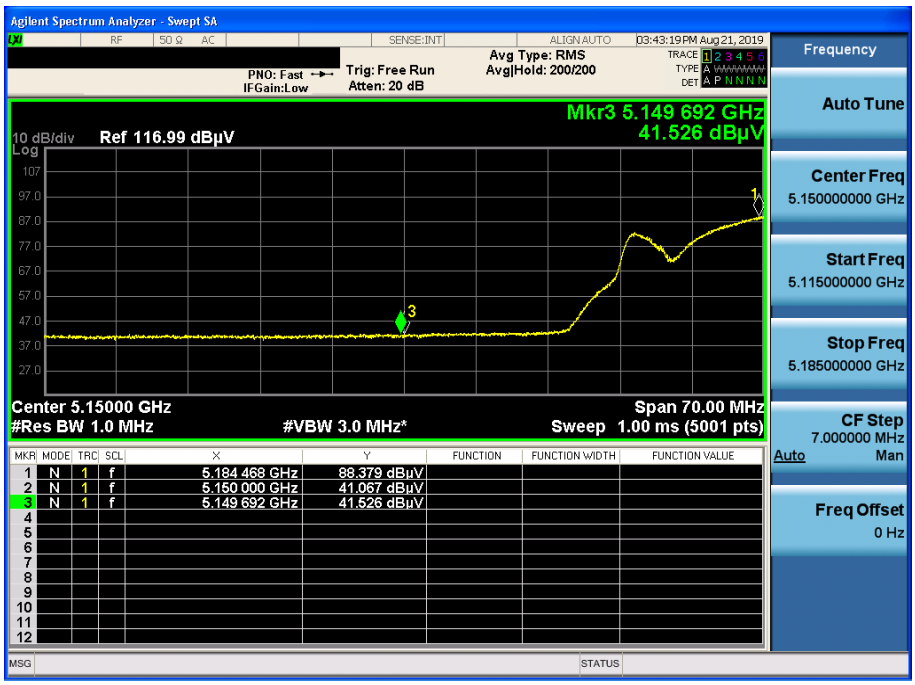
**802.11n(HT20) & U-NII 3 & Ch.149 & Y axis & Ver Detector Mode : AV**



**802.11n(HT40) & U-NII 1 & Ch.38 & Z axis & Ver Detector Mode : PK**




**802.11n(HT40) & U-NII 1 & Ch.38 & Z axis & Ver Detector Mode : AV**



**802.11n(HT40) & U-NII 1 & Ch.46 & Y axis & Ver Detector Mode : PK**