

■ Measurement Data: **Comply**

## AC Line Conducted Emissions (Graph)

Test Mode: U-NII 1 & 802.11n(HT20) & 5240 MHz

## Results of Conducted Emission

DT&amp;C

Date 2017-06-22

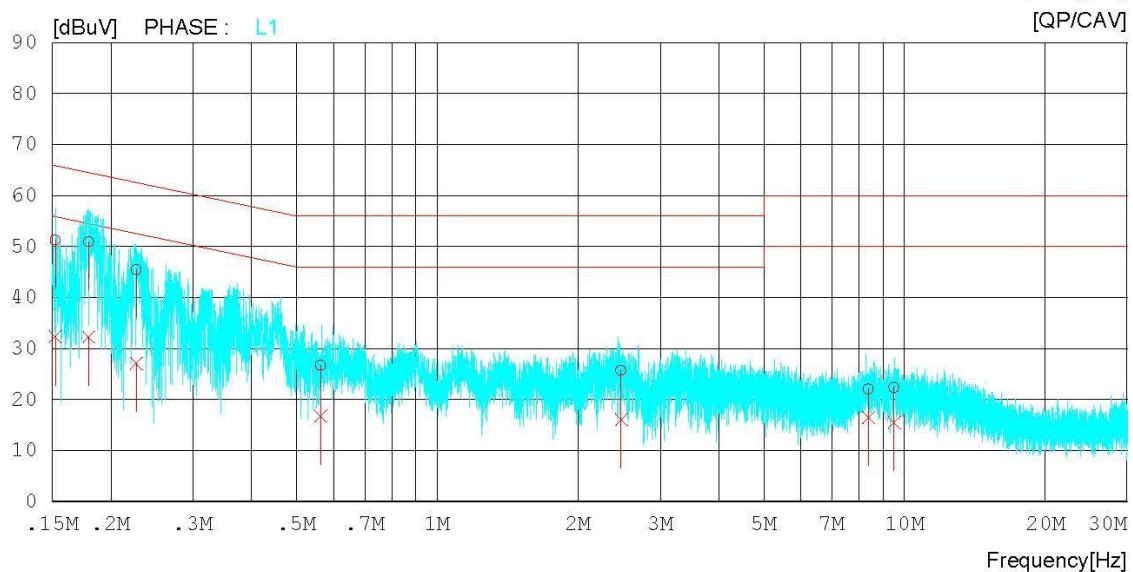
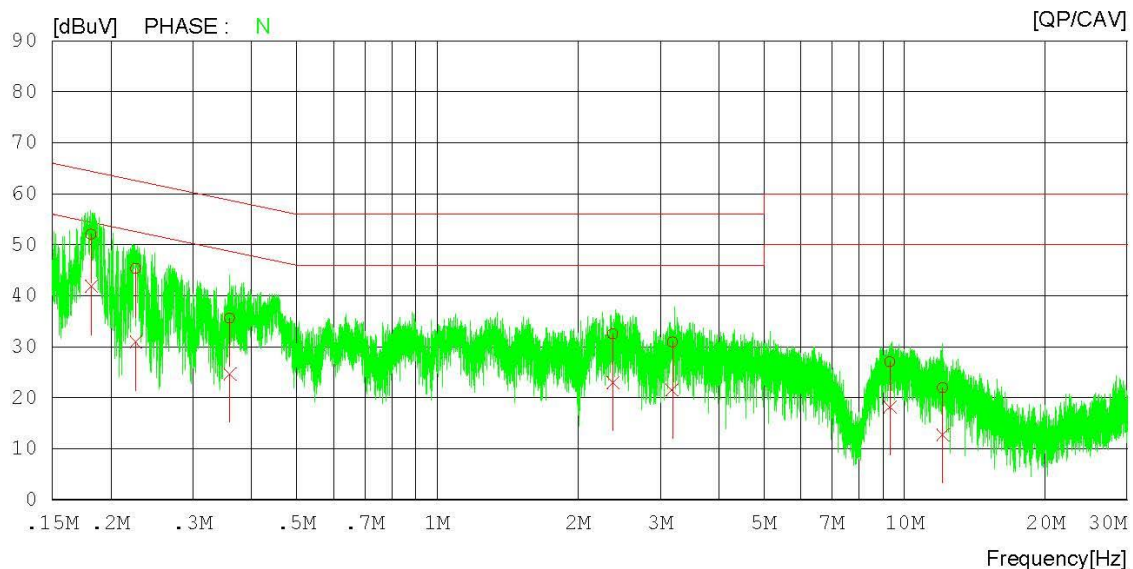
Model PM70  
Function U-NII 1  
Mode 802.11a  
Test condition

Temp/Humi.  
Power Supply  
Operator

23 'C 48 %  
AC 120 V 60 Hz  
J.W.KIM

Memo

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



## AC Line Conducted Emissions (Data List)

Test Mode: U-NII 1 & 802.11n(HT20) & 5240 MHz

## Results of Conducted Emission

DT&amp;C

Date 2017-06-22

Model PM70  
Function U-NII 1  
Mode 802.11a  
Test condition

Temp/Humi. 23 'C 48 %  
Power Supply AC 120 V 60 Hz  
Operator J.W.KIM

Memo

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

| NO | FREQ<br>[MHz] | READING |        | C.FACTOR<br>[dB] | RESULT |        | LIMIT  |        | MARGIN |        | PHASE |
|----|---------------|---------|--------|------------------|--------|--------|--------|--------|--------|--------|-------|
|    |               | QP      | CAV    |                  | QP     | CAV    | QP     | CAV    | QP     | CAV    |       |
|    |               | [dBuV]  | [dBuV] |                  | [dBuV] | [dBuV] | [dBuV] | [dBuV] | [dBuV] | [dBuV] |       |
| 1  | 0.18181       | 51.90   | 41.70  | 0.21             | 52.11  | 41.91  | 64.40  | 54.40  | 12.29  | 12.49  | N     |
| 2  | 0.22628       | 45.13   | 30.75  | 0.21             | 45.34  | 30.96  | 62.59  | 52.59  | 17.25  | 21.63  | N     |
| 3  | 0.35999       | 35.40   | 24.46  | 0.21             | 35.61  | 24.67  | 58.73  | 48.73  | 23.12  | 24.06  | N     |
| 4  | 2.37560       | 32.15   | 22.72  | 0.33             | 32.48  | 23.05  | 56.00  | 46.00  | 23.52  | 22.95  | N     |
| 5  | 3.18280       | 30.59   | 21.18  | 0.37             | 30.96  | 21.55  | 56.00  | 46.00  | 25.04  | 24.45  | N     |
| 6  | 9.31140       | 26.43   | 17.52  | 0.67             | 27.10  | 18.19  | 60.00  | 50.00  | 32.90  | 31.81  | N     |
| 7  | 12.07580      | 21.06   | 11.96  | 0.85             | 21.91  | 12.81  | 60.00  | 50.00  | 38.09  | 37.19  | N     |
| 8  | 0.15229       | 51.02   | 32.08  | 0.18             | 51.20  | 32.26  | 65.87  | 55.87  | 14.67  | 23.61  | L1    |
| 9  | 0.17952       | 50.74   | 32.05  | 0.18             | 50.92  | 32.23  | 64.51  | 54.51  | 13.59  | 22.28  | L1    |
| 10 | 0.22698       | 45.22   | 26.85  | 0.18             | 45.40  | 27.03  | 62.56  | 52.56  | 17.16  | 25.53  | L1    |
| 11 | 0.56325       | 26.41   | 16.49  | 0.21             | 26.62  | 16.70  | 56.00  | 46.00  | 29.38  | 29.30  | L1    |
| 12 | 2.47480       | 25.28   | 15.74  | 0.32             | 25.60  | 16.06  | 56.00  | 46.00  | 30.40  | 29.94  | L1    |
| 13 | 8.37040       | 21.32   | 15.81  | 0.69             | 22.01  | 16.50  | 60.00  | 50.00  | 37.99  | 33.50  | L1    |
| 14 | 9.49100       | 21.53   | 14.66  | 0.77             | 22.30  | 15.43  | 60.00  | 50.00  | 37.70  | 34.57  | L1    |

## AC Line Conducted Emissions (Graph)

Test Mode: U-NII 2A & 802.11n(HT20) & 5320 MHz

## Results of Conducted Emission

DT&amp;C

Date 2017-06-22

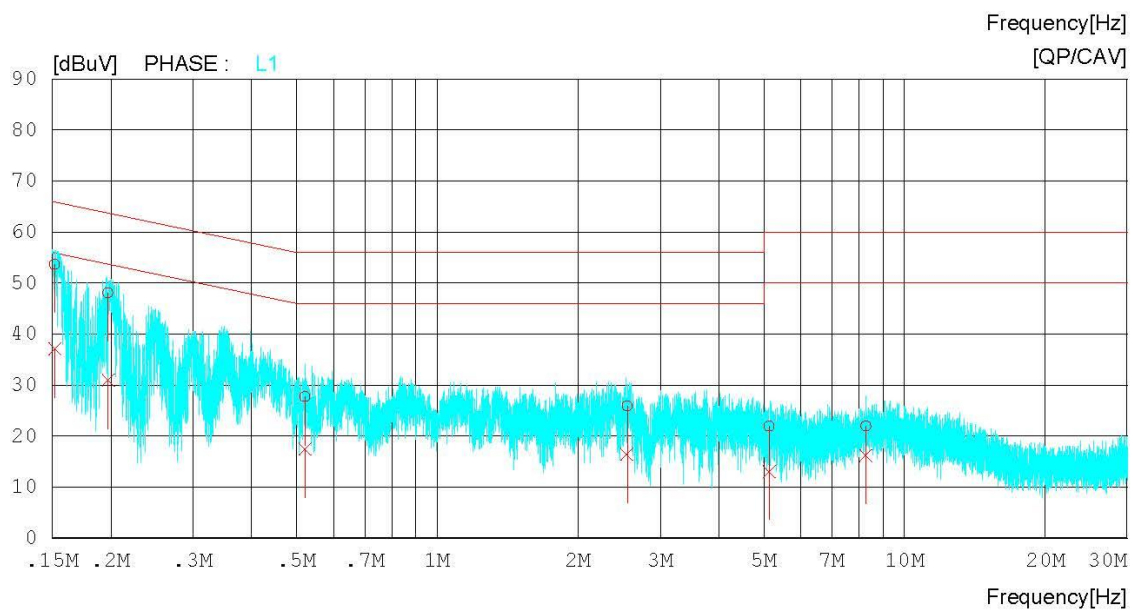
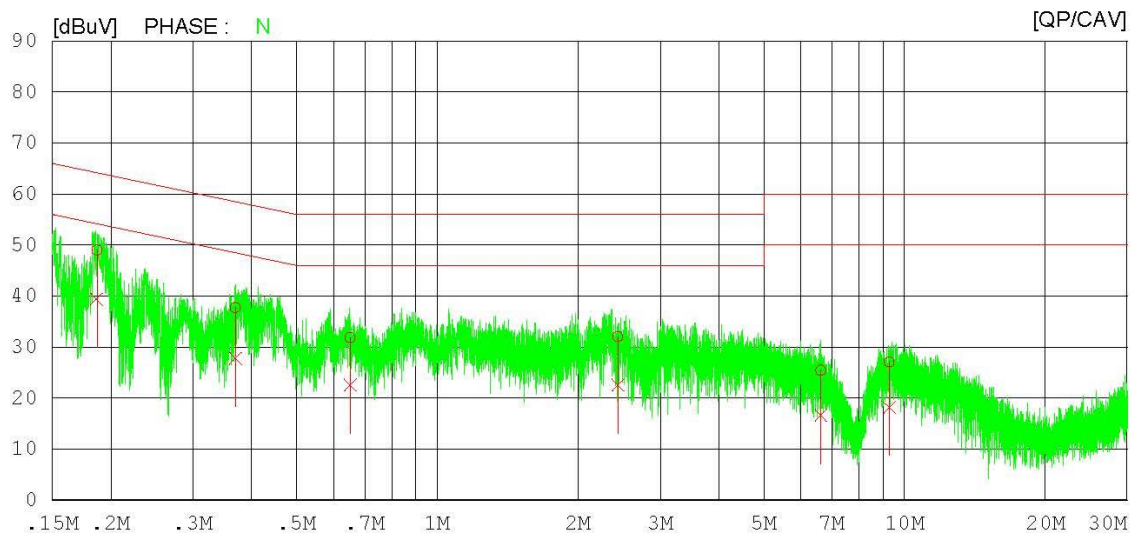
Model PM70  
Function U-NII 2A  
Mode 802.11a  
Test condition

Temp/Humi.  
Power Supply  
Operator

23 'C 48 %  
AC 120 V 60 Hz  
J.W.KIM

Memo

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



## AC Line Conducted Emissions (Data List)

Test Mode: U-NII 2A & 802.11n(HT20) & 5320 MHz

## Results of Conducted Emission

DT&amp;C

Date 2017-06-22

Model PM70  
Function U-NII 2A  
Mode 802.11a  
Test condition

Temp/Humi. 23 'C 48 %  
Power Supply AC 120 V 60 Hz  
Operator J.W.KIM

Memo

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

| NO | FREQ<br>[MHz] | READING |        | C.FACTOR<br>[dB] | RESULT |        | LIMIT  |        | MARGIN |        | PHASE |
|----|---------------|---------|--------|------------------|--------|--------|--------|--------|--------|--------|-------|
|    |               | QP      | CAV    |                  | QP     | CAV    | QP     | CAV    | QP     | CAV    |       |
|    |               | [dBuV]  | [dBuV] |                  | [dBuV] | [dBuV] | [dBuV] | [dBuV] | [dBuV] | [dBuV] |       |
| 1  | 0.18680       | 48.80   | 39.16  | 0.21             | 49.01  | 39.37  | 64.18  | 54.18  | 15.17  | 14.81  | N     |
| 2  | 0.37034       | 37.57   | 27.60  | 0.21             | 37.78  | 27.81  | 58.49  | 48.49  | 20.71  | 20.68  | N     |
| 3  | 0.65050       | 31.58   | 22.36  | 0.23             | 31.81  | 22.59  | 56.00  | 46.00  | 24.19  | 23.41  | N     |
| 4  | 2.43920       | 31.69   | 22.21  | 0.34             | 32.03  | 22.55  | 56.00  | 46.00  | 23.97  | 23.45  | N     |
| 5  | 6.62180       | 24.89   | 16.07  | 0.53             | 25.42  | 16.60  | 60.00  | 50.00  | 34.58  | 33.40  | N     |
| 6  | 9.27800       | 26.39   | 17.53  | 0.67             | 27.06  | 18.20  | 60.00  | 50.00  | 32.94  | 31.80  | N     |
| 7  | 0.15182       | 53.46   | 36.90  | 0.18             | 53.64  | 37.08  | 65.90  | 55.90  | 12.26  | 18.82  | L1    |
| 8  | 0.19756       | 47.89   | 30.71  | 0.17             | 48.06  | 30.88  | 63.71  | 53.71  | 15.65  | 22.83  | L1    |
| 9  | 0.52043       | 27.45   | 17.18  | 0.20             | 27.65  | 17.38  | 56.00  | 46.00  | 28.35  | 28.62  | L1    |
| 10 | 2.54980       | 25.48   | 16.05  | 0.32             | 25.80  | 16.37  | 56.00  | 46.00  | 30.20  | 29.63  | L1    |
| 11 | 5.13180       | 21.38   | 12.54  | 0.46             | 21.84  | 13.00  | 60.00  | 50.00  | 38.16  | 37.00  | L1    |
| 12 | 8.26880       | 21.19   | 15.46  | 0.68             | 21.87  | 16.14  | 60.00  | 50.00  | 38.13  | 33.86  | L1    |

## AC Line Conducted Emissions (Graph)

Test Mode: U-NII 2C & 802.11n(HT20) & 5700 MHz

## Results of Conducted Emission

DT&amp;C

Date 2017-06-23

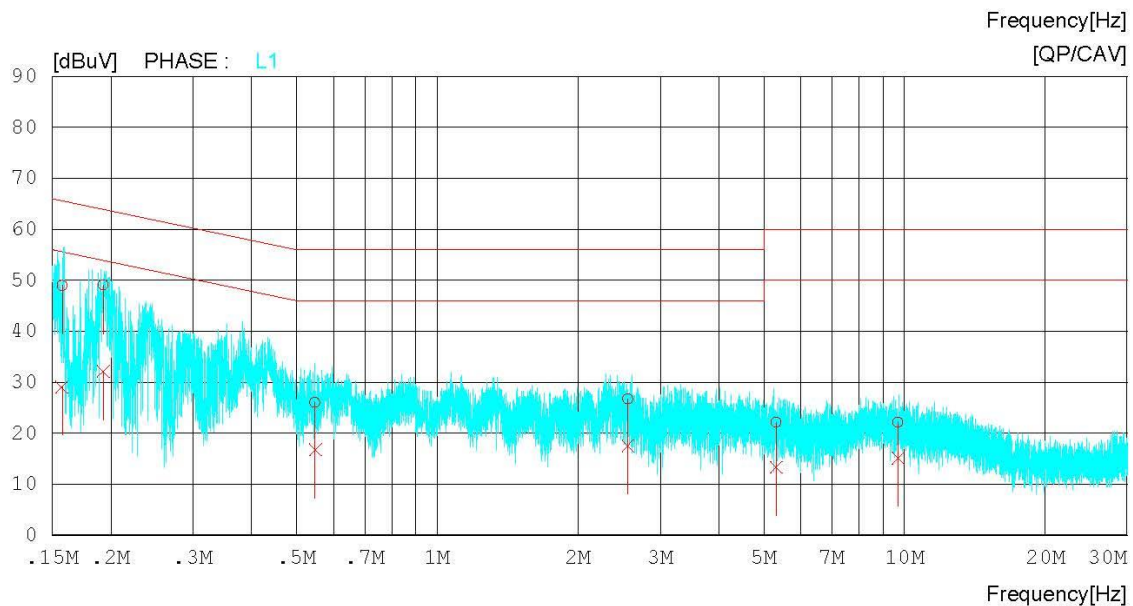
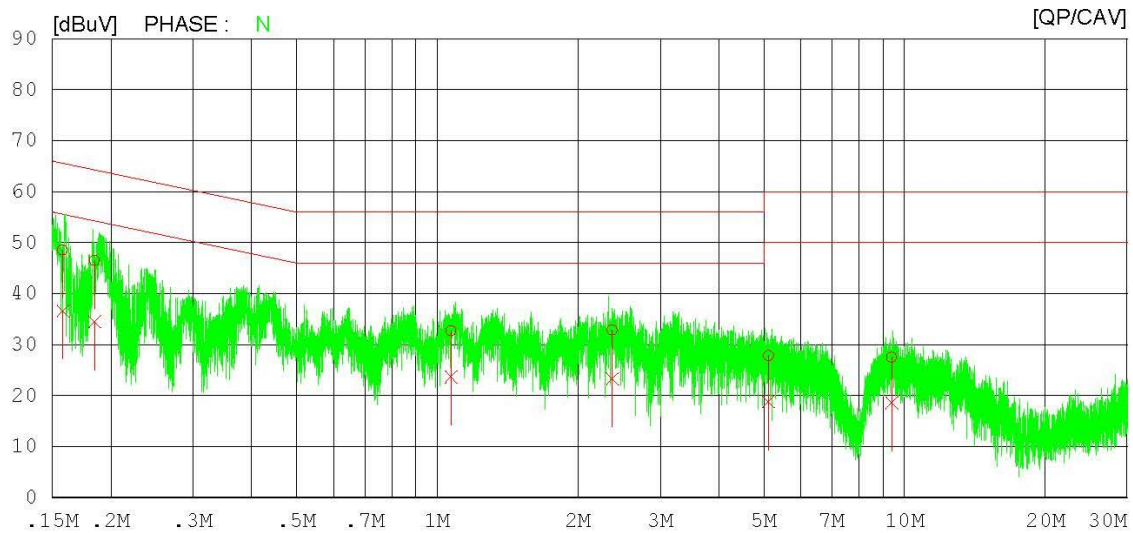
Model PM70  
Function U-NII 2C  
Mode 802.11a  
Test condition

Temp/Humi.  
Power Supply  
Operator

23 'C 48 %  
AC 120 V 60 Hz  
J.W.KIM

Memo

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



## AC Line Conducted Emissions (Data List)

Test Mode: U-NII 2C & 802.11n(HT20) & 5700 MHz

## Results of Conducted Emission

DT&amp;C

Date 2017-06-23

Model PM70  
Function U-NII 2C  
Mode 802.11a  
Test condition

Temp/Humi. 23 'C 48 %  
Power Supply AC 120 V 60 Hz  
Operator J.W.KIM

Memo

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

| NO | FREQ<br>[MHz] | READING |        | C.FACTOR<br>[dB] | RESULT |        | LIMIT  |        | MARGIN |        | PHASE |
|----|---------------|---------|--------|------------------|--------|--------|--------|--------|--------|--------|-------|
|    |               | QP      | CAV    |                  | QP     | CAV    | QP     | CAV    | QP     | CAV    |       |
|    |               | [dBuV]  | [dBuV] |                  | [dBuV] | [dBuV] | [dBuV] | [dBuV] | [dBuV] | [dBuV] |       |
| 1  | 0.15801       | 48.27   | 36.37  | 0.22             | 48.49  | 36.59  | 65.57  | 55.57  | 17.08  | 18.98  | N     |
| 2  | 0.18498       | 46.31   | 34.26  | 0.21             | 46.52  | 34.47  | 64.26  | 54.26  | 17.74  | 19.79  | N     |
| 3  | 1.07000       | 32.44   | 23.39  | 0.26             | 32.70  | 23.65  | 56.00  | 46.00  | 23.30  | 22.35  | N     |
| 4  | 2.36940       | 32.52   | 22.99  | 0.32             | 32.84  | 23.31  | 56.00  | 46.00  | 23.16  | 22.69  | N     |
| 5  | 5.11620       | 27.40   | 18.32  | 0.45             | 27.85  | 18.77  | 60.00  | 50.00  | 32.15  | 31.23  | N     |
| 6  | 9.38800       | 26.84   | 17.94  | 0.67             | 27.51  | 18.61  | 60.00  | 50.00  | 32.49  | 31.39  | N     |
| 7  | 0.15737       | 48.80   | 28.86  | 0.18             | 48.98  | 29.04  | 65.60  | 55.60  | 16.62  | 26.56  | L1    |
| 8  | 0.19262       | 48.85   | 31.89  | 0.17             | 49.02  | 32.06  | 63.92  | 53.92  | 14.90  | 21.86  | L1    |
| 9  | 0.54712       | 25.76   | 16.52  | 0.20             | 25.96  | 16.72  | 56.00  | 46.00  | 30.04  | 29.28  | L1    |
| 10 | 2.55720       | 26.38   | 17.15  | 0.32             | 26.70  | 17.47  | 56.00  | 46.00  | 29.30  | 28.53  | L1    |
| 11 | 5.31420       | 21.71   | 12.77  | 0.47             | 22.18  | 13.24  | 60.00  | 50.00  | 37.82  | 36.76  | L1    |
| 12 | 9.68820       | 21.28   | 14.30  | 0.80             | 22.08  | 15.10  | 60.00  | 50.00  | 37.92  | 34.90  | L1    |

## AC Line Conducted Emissions (Graph)

Test Mode: U-NII 3 & 802.11n(HT20) & 5825 MHz

## Results of Conducted Emission

DT&amp;C

Date 2017-06-23

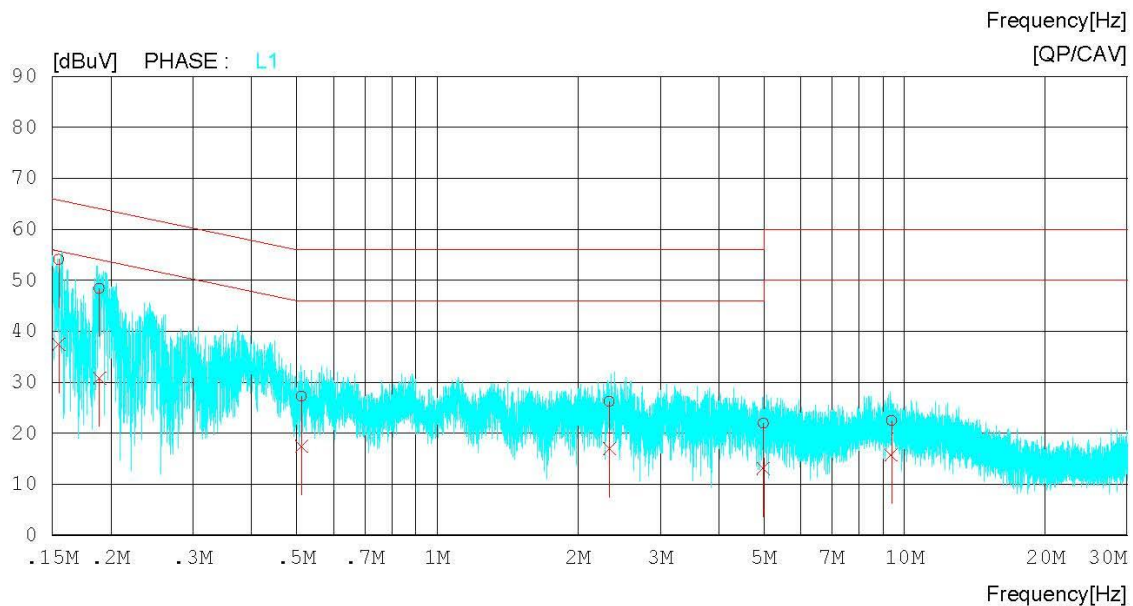
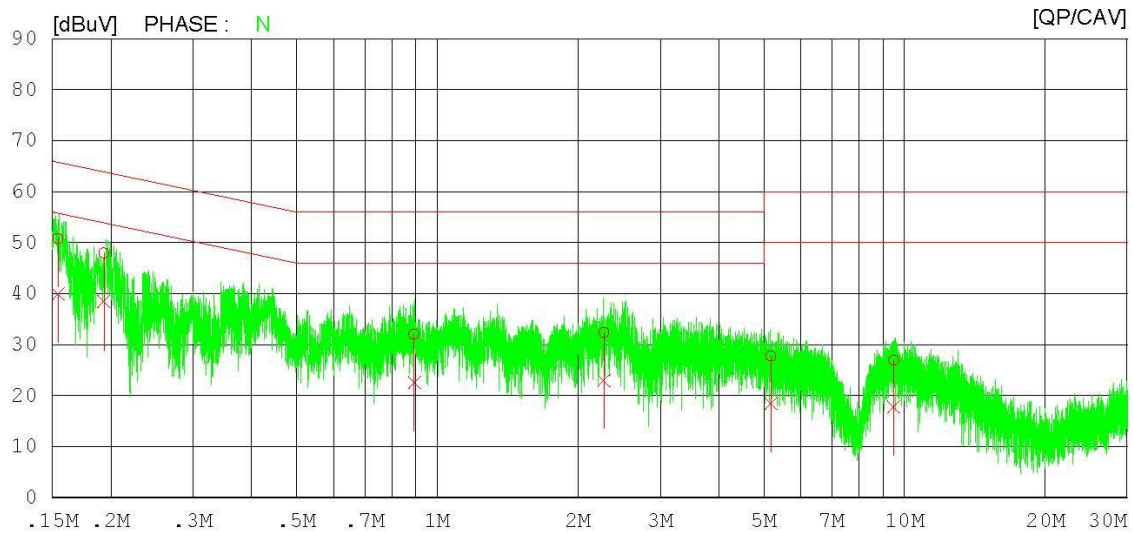
Model PM70  
Function U-NII 3  
Mode 802.11a  
Test condition

Temp/Humi.  
Power Supply  
Operator

23 'C 48 %  
AC 120 V 60 Hz  
J.W.KIM

Memo

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



## AC Line Conducted Emissions (Data List)

Test Mode: U-NII 3 & 802.11n(HT20) & 5825 MHz

## Results of Conducted Emission

DT&amp;C

Date 2017-06-23

Model PM70  
Function U-NII 3  
Mode 802.11a  
Test condition

Temp/Humi. 23 'C 48 %  
Power Supply AC 120 V 60 Hz  
Operator J.W.KIM

Memo

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

| NO | FREQ<br>[MHz] | READING      |               | C.FACTOR<br>[dB] | RESULT       |               | LIMIT        |               | MARGIN       |               | PHASE |
|----|---------------|--------------|---------------|------------------|--------------|---------------|--------------|---------------|--------------|---------------|-------|
|    |               | QP<br>[dBuV] | CAV<br>[dBuV] |                  | QP<br>[dBuV] | CAV<br>[dBuV] | QP<br>[dBuV] | CAV<br>[dBuV] | QP<br>[dBuV] | CAV<br>[dBuV] |       |
| 1  | 0.15453       | 50.62        | 39.74         | 0.22             | 50.84        | 39.96         | 65.75        | 55.75         | 14.91        | 15.79         | N     |
| 2  | 0.19314       | 47.80        | 38.25         | 0.20             | 48.00        | 38.45         | 63.90        | 53.90         | 15.90        | 15.45         | N     |
| 3  | 0.89250       | 31.85        | 22.31         | 0.24             | 32.09        | 22.55         | 56.00        | 46.00         | 23.91        | 23.45         | N     |
| 4  | 2.27380       | 32.09        | 22.62         | 0.32             | 32.41        | 22.94         | 56.00        | 46.00         | 23.59        | 23.06         | N     |
| 5  | 5.18480       | 27.26        | 18.00         | 0.45             | 27.71        | 18.45         | 60.00        | 50.00         | 32.29        | 31.55         | N     |
| 6  | 9.47800       | 26.26        | 17.13         | 0.68             | 26.94        | 17.81         | 60.00        | 50.00         | 33.06        | 32.19         | N     |
| 7  | 0.15502       | 53.85        | 37.21         | 0.18             | 54.03        | 37.39         | 65.73        | 55.73         | 11.70        | 18.34         | L1    |
| 8  | 0.18921       | 48.23        | 30.63         | 0.17             | 48.40        | 30.80         | 64.07        | 54.07         | 15.67        | 23.27         | L1    |
| 9  | 0.51222       | 27.04        | 17.21         | 0.20             | 27.24        | 17.41         | 56.00        | 46.00         | 28.76        | 28.59         | L1    |
| 10 | 2.33760       | 25.87        | 16.63         | 0.30             | 26.17        | 16.93         | 56.00        | 46.00         | 29.83        | 29.07         | L1    |
| 11 | 4.98600       | 21.47        | 12.65         | 0.45             | 21.92        | 13.10         | 56.00        | 46.00         | 34.08        | 32.90         | L1    |
| 12 | 9.37540       | 21.64        | 14.94         | 0.77             | 22.41        | 15.71         | 60.00        | 50.00         | 37.59        | 34.29         | L1    |

## 7.8 Occupied Bandwidth

### ■ Test Requirements, RSS-Gen[6.6]

When the occupied bandwidth limit is not stated in the applicable RSS or reference measurement method, the transmitted signal bandwidth shall be reported as the 99% emission bandwidth, as calculated or measured.

### ■ Test Configuration

Refer to the APPENDIX I.

### ■ Test Procedure

- The transmitter shall be operated at its maximum carrier power measured under normal test conditions.
- The span of the analyzer shall be set to capture all products of the modulation process, including the emission skirts.
- The resolution bandwidth (RBW) shall be in the range of 1% to 5% of the occupied bandwidth (OBW) and video bandwidth (VBW) shall be approximately 3x RBW.

### ■ Test Result : **Comply**

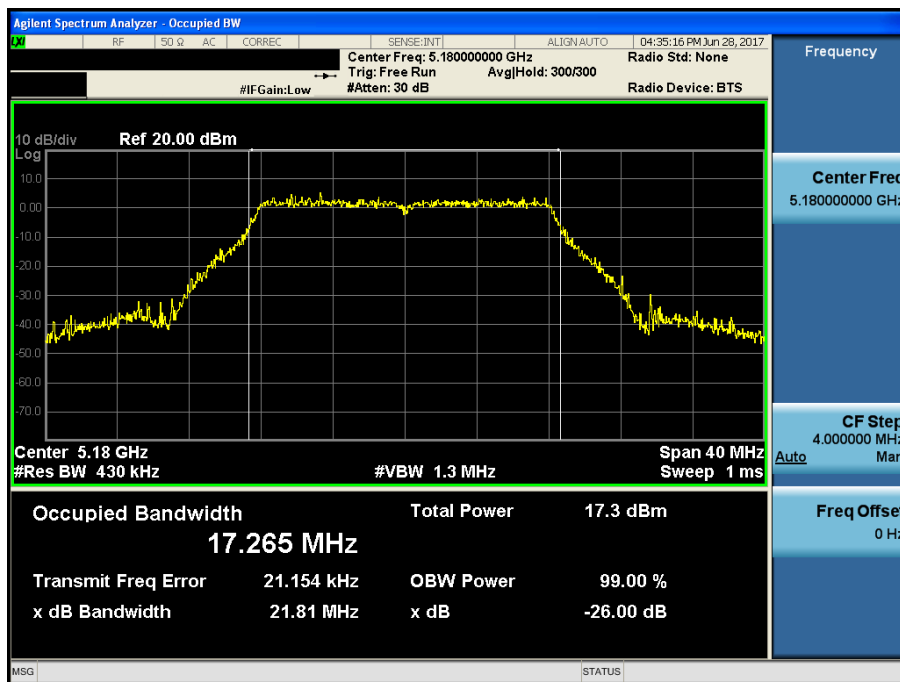
#### Multiple transmit

| Mode         | Bands    | Channel | Frequency [MHz] | Test Result [MHz] |
|--------------|----------|---------|-----------------|-------------------|
| 802.11a      | U-NII 1  | 36      | 5180            | 17.265            |
|              |          | 40      | 5200            | 17.331            |
|              |          | 48      | 5240            | 17.345            |
|              | U-NII 2A | 52      | 5260            | 17.332            |
|              |          | 60      | 5300            | 17.276            |
|              |          | 64      | 5320            | 17.292            |
|              | U-NII 2C | 100     | 5500            | 17.292            |
|              |          | 116     | 5580            | 17.346            |
|              |          | 140     | 5700            | 17.346            |
|              | U-NII 3  | 149     | 5745            | 17.273            |
|              |          | 157     | 5785            | 17.266            |
|              |          | 165     | 5825            | 17.280            |
| 802.11n HT20 | U-NII 1  | 36      | 5180            | 18.195            |
|              |          | 40      | 5200            | 18.276            |
|              |          | 48      | 5240            | 18.269            |
|              | U-NII 2A | 52      | 5260            | 18.234            |
|              |          | 60      | 5300            | 18.198            |
|              |          | 64      | 5320            | 18.214            |
|              | U-NII 2C | 100     | 5500            | 18.203            |
|              |          | 116     | 5580            | 18.222            |
|              |          | 140     | 5700            | 18.269            |
|              | U-NII 3  | 149     | 5745            | 18.205            |
|              |          | 157     | 5785            | 18.166            |
|              |          | 165     | 5825            | 18.272            |
| 802.11n HT40 | U-NII 1  | 38      | 5190            | 36.289            |
|              |          | 46      | 5230            | 36.320            |
|              | U-NII 2A | 54      | 5270            | 36.321            |
|              |          | 62      | 5310            | 36.220            |
|              | U-NII 2C | 102     | 5510            | 36.274            |
|              |          | 110     | 5550            | 36.393            |
|              |          | 134     | 5670            | 36.181            |
|              | U-NII 3  | 151     | 5755            | 36.333            |
|              |          | 159     | 5795            | 36.348            |

## RESULT PLOTS

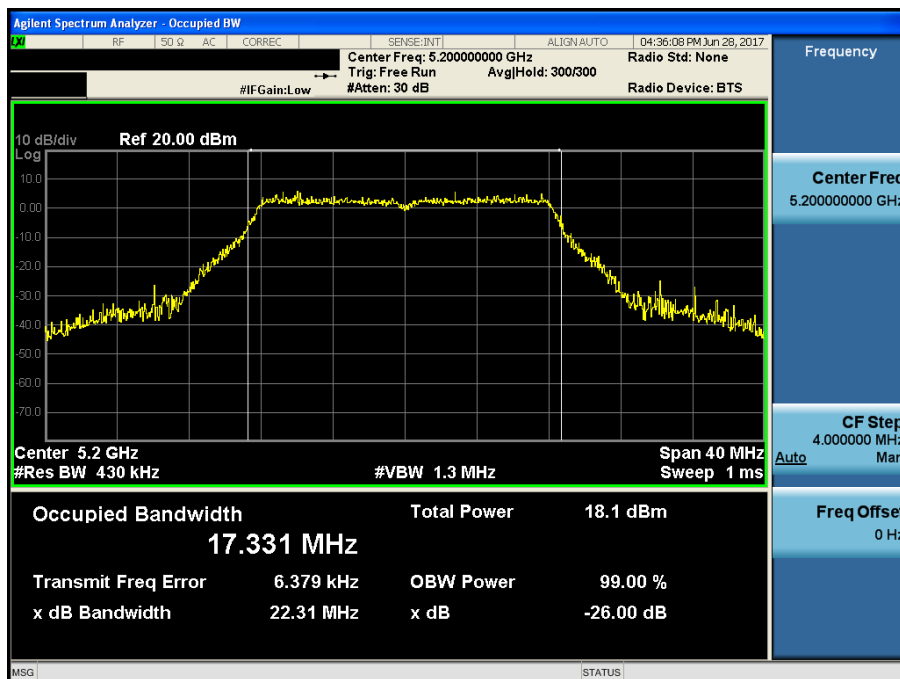
### Occupied Bandwidth 99%

Test Mode: 802.11a &amp; Ch.36



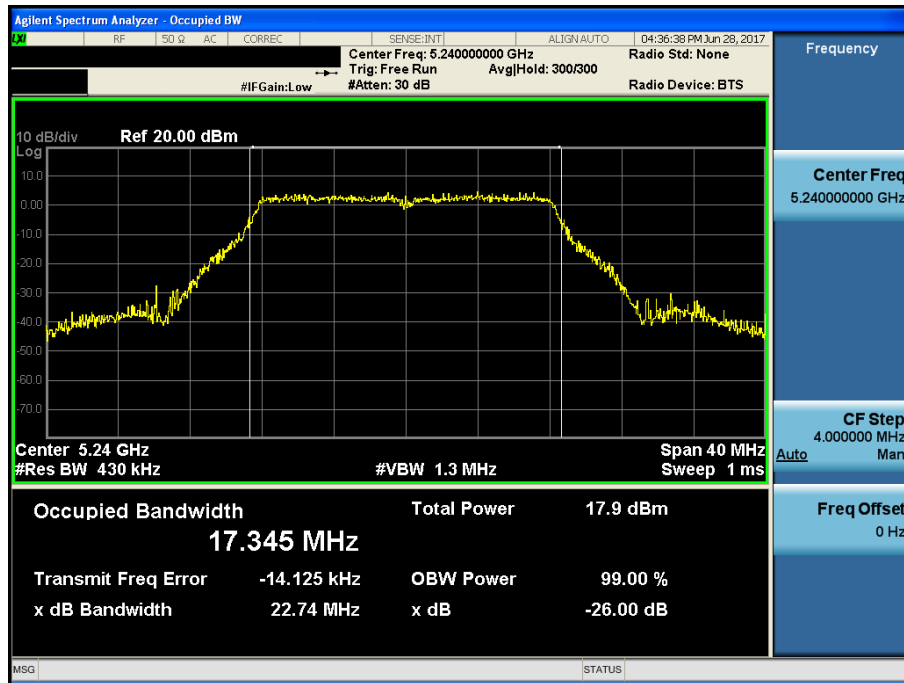
### Occupied Bandwidth 99%

Test Mode: 802.11a &amp; Ch.40



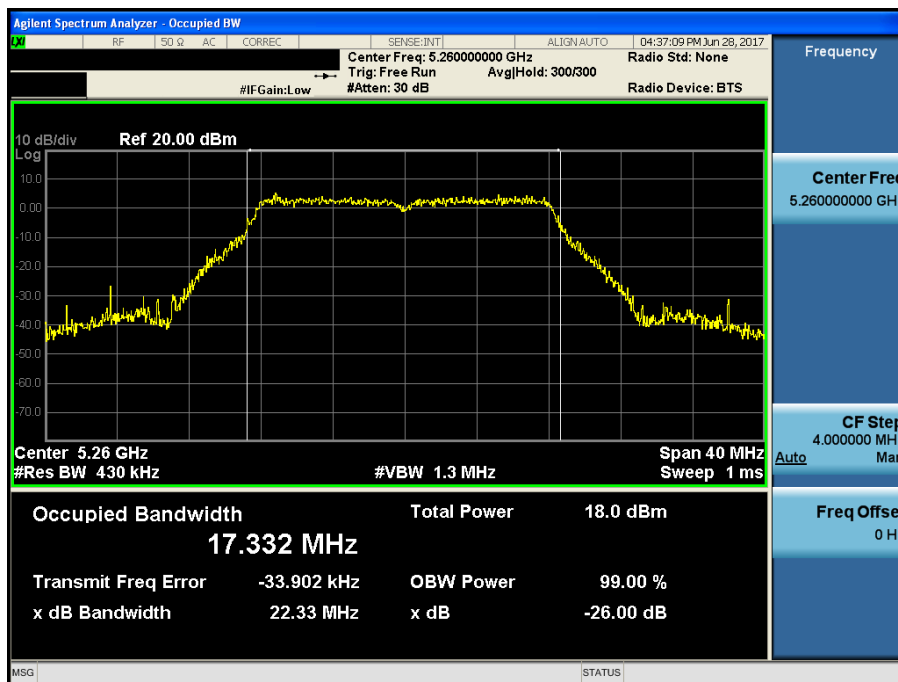
# Occupied Bandwidth 99%

Test Mode: 802.11a & Ch.48



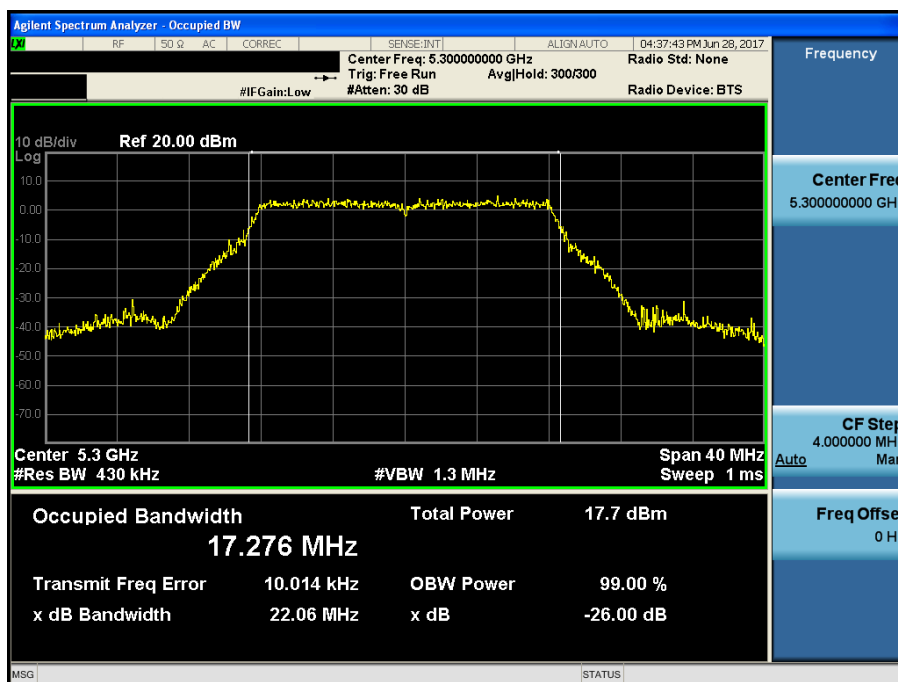
## Occupied Bandwidth 99%

Test Mode: 802.11a &amp; Ch.52



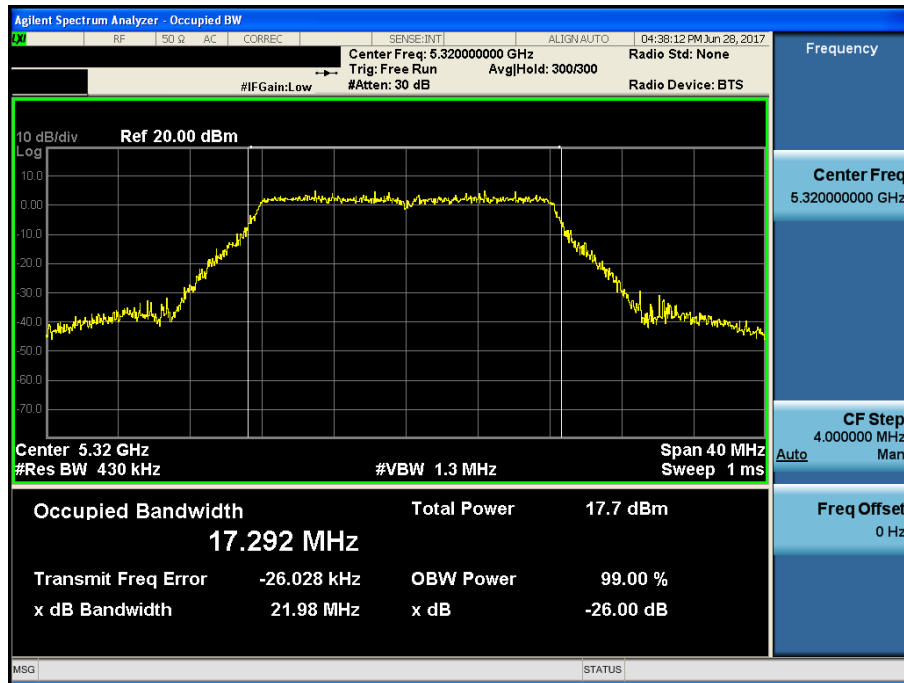
## Occupied Bandwidth 99%

Test Mode: 802.11a &amp; Ch.60



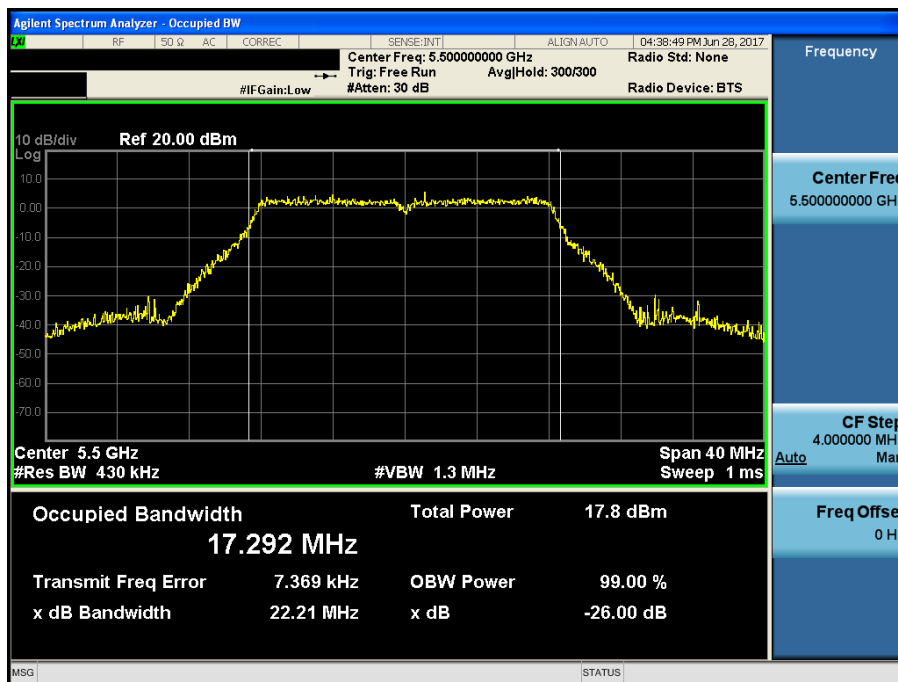
# Occupied Bandwidth 99%

Test Mode: 802.11a & Ch.64



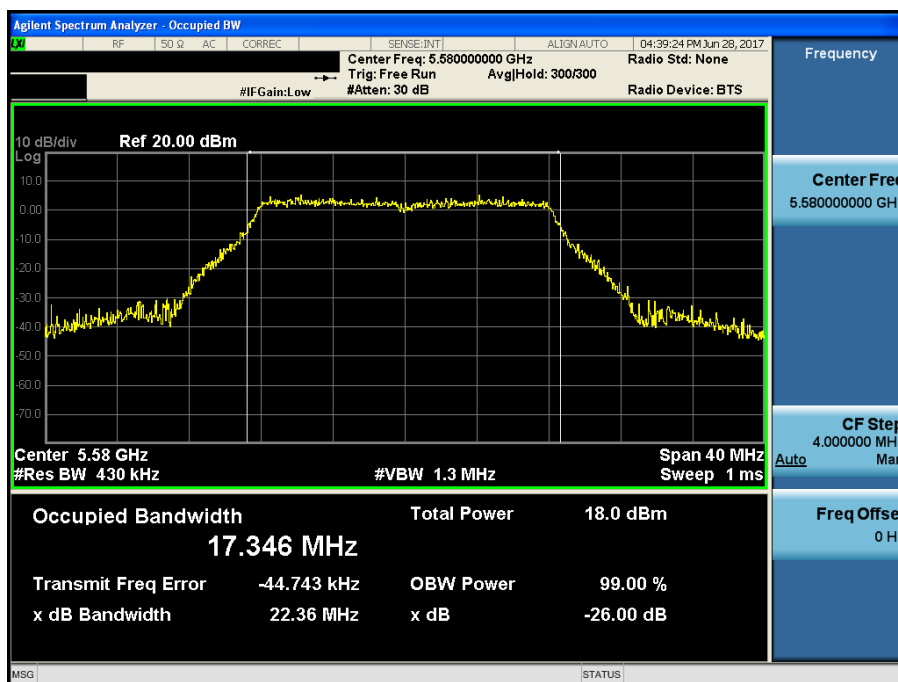
## Occupied Bandwidth 99%

Test Mode: 802.11a & Ch.100



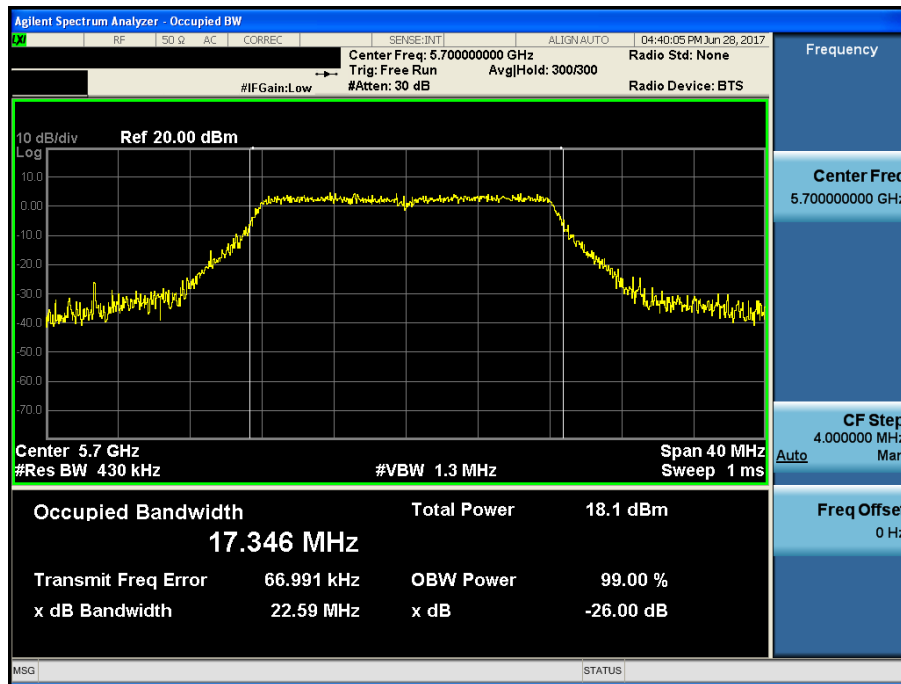
## Occupied Bandwidth 99%

Test Mode: 802.11a & Ch.116



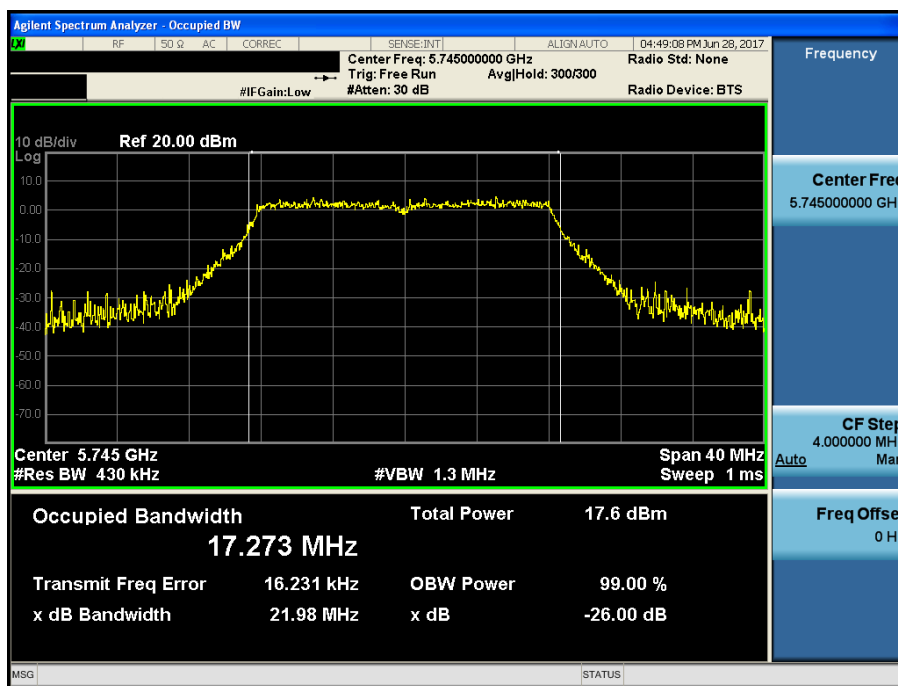
# Occupied Bandwidth 99%

Test Mode: 802.11a & Ch.140



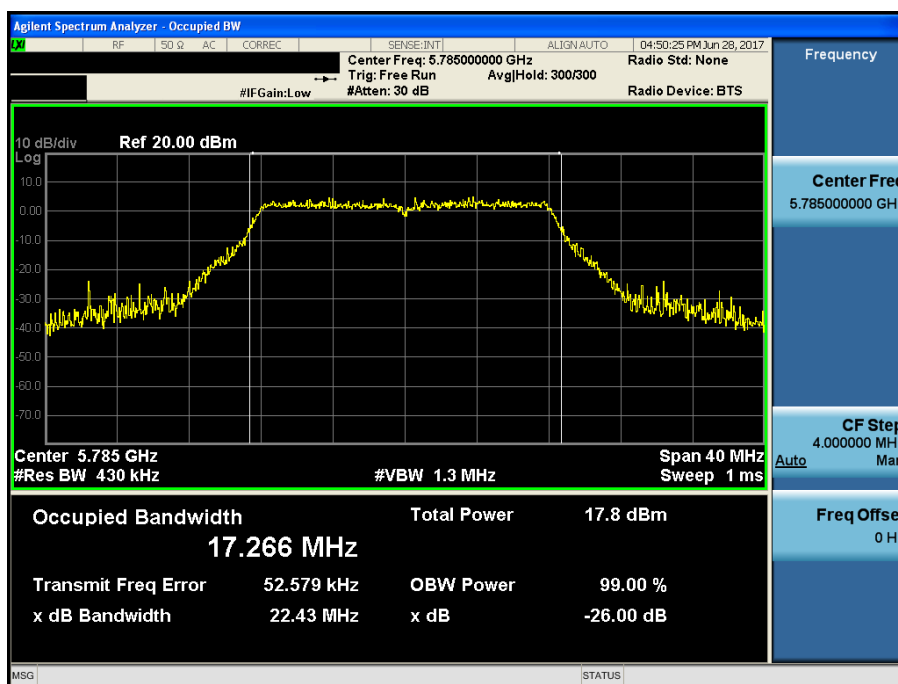
## Occupied Bandwidth 99%

Test Mode: 802.11a &amp; Ch.149



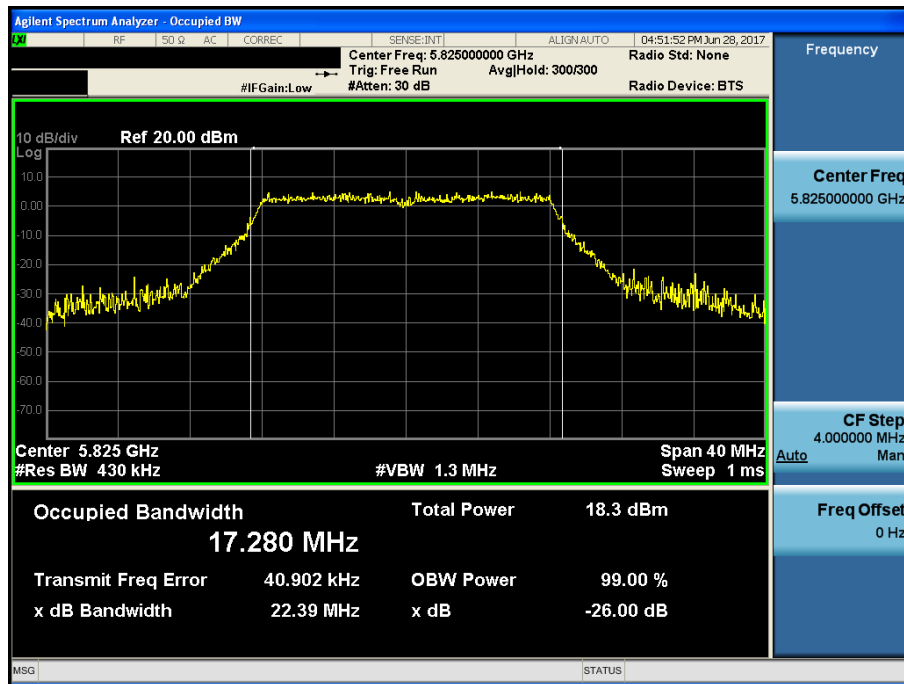
## Occupied Bandwidth 99%

Test Mode: 802.11a &amp; Ch.157



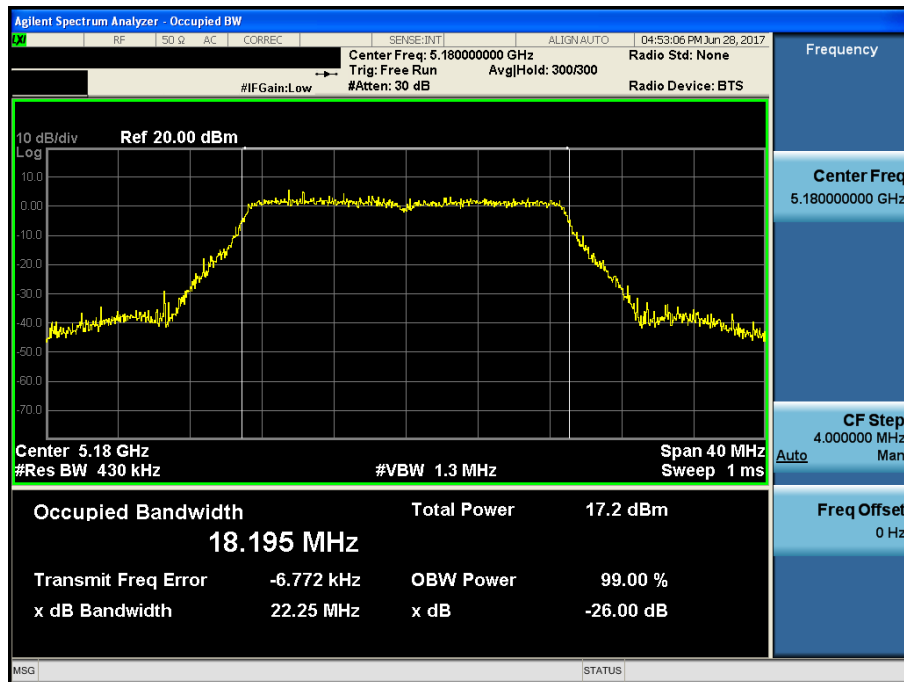
# Occupied Bandwidth 99%

Test Mode: 802.11a & Ch.165



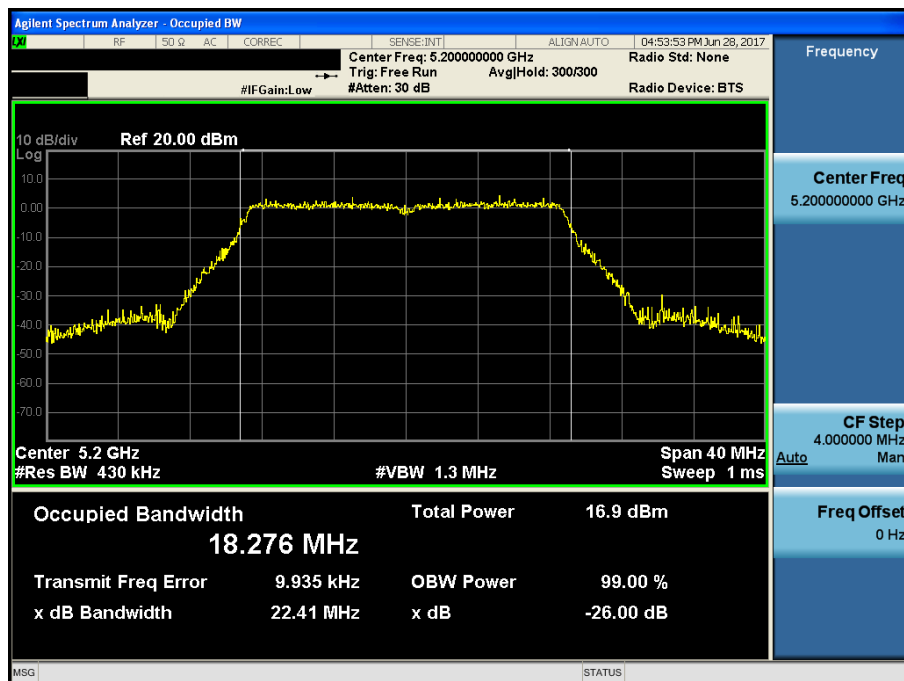
## Occupied Bandwidth 99%

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



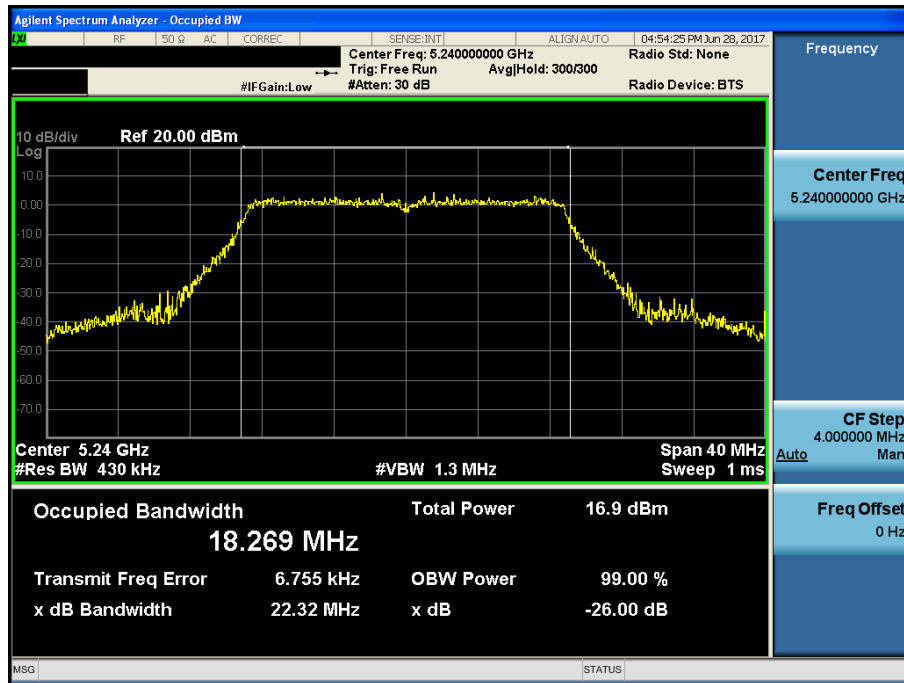
## Occupied Bandwidth 99%

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



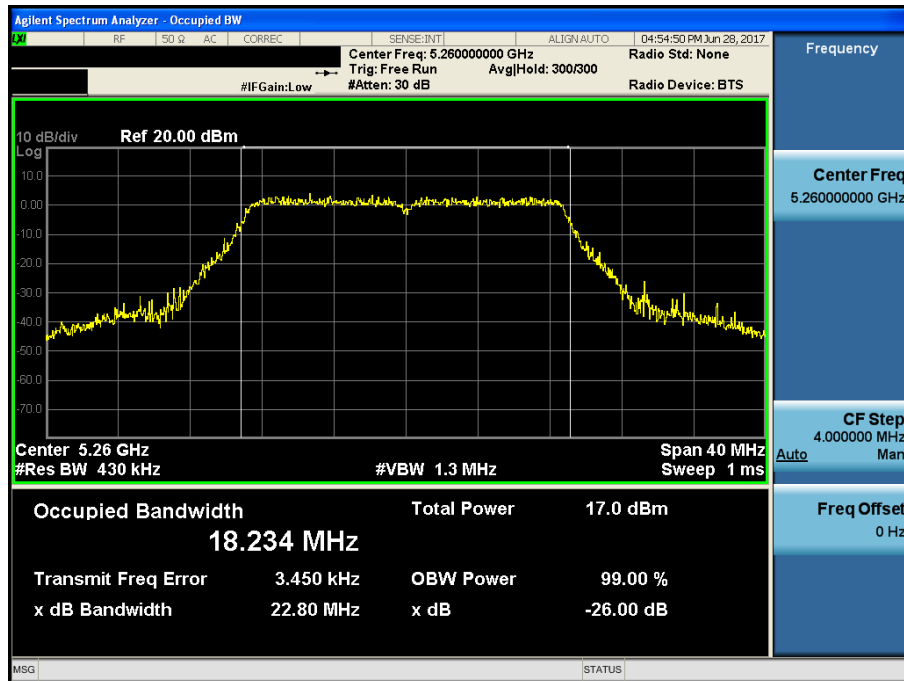
# Occupied Bandwidth 99%

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



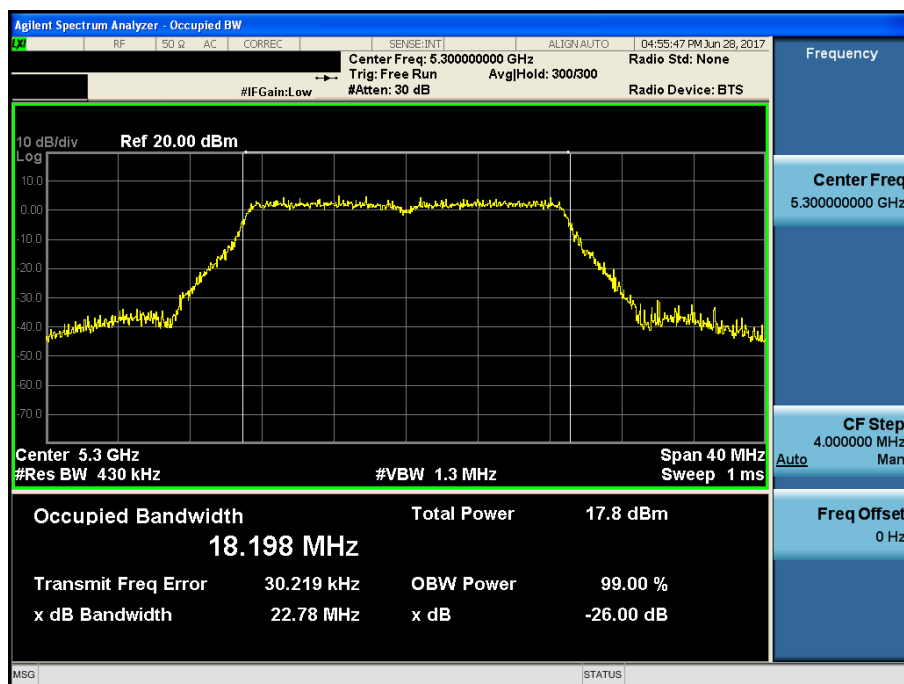
## Occupied Bandwidth 99%

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



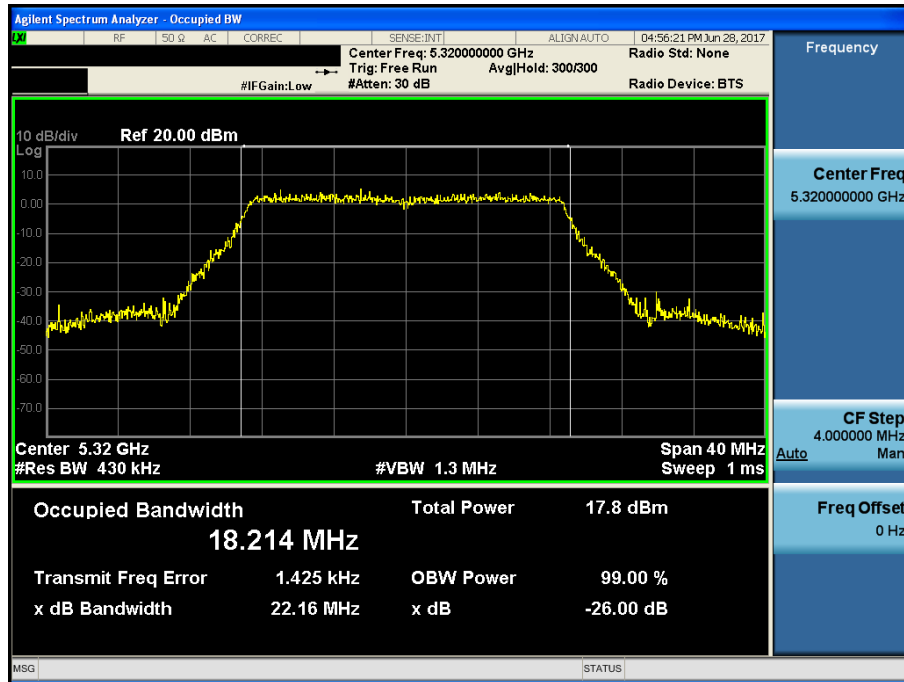
## Occupied Bandwidth 99%

Test Mode: 802.11n HT20 &amp; Ch.60



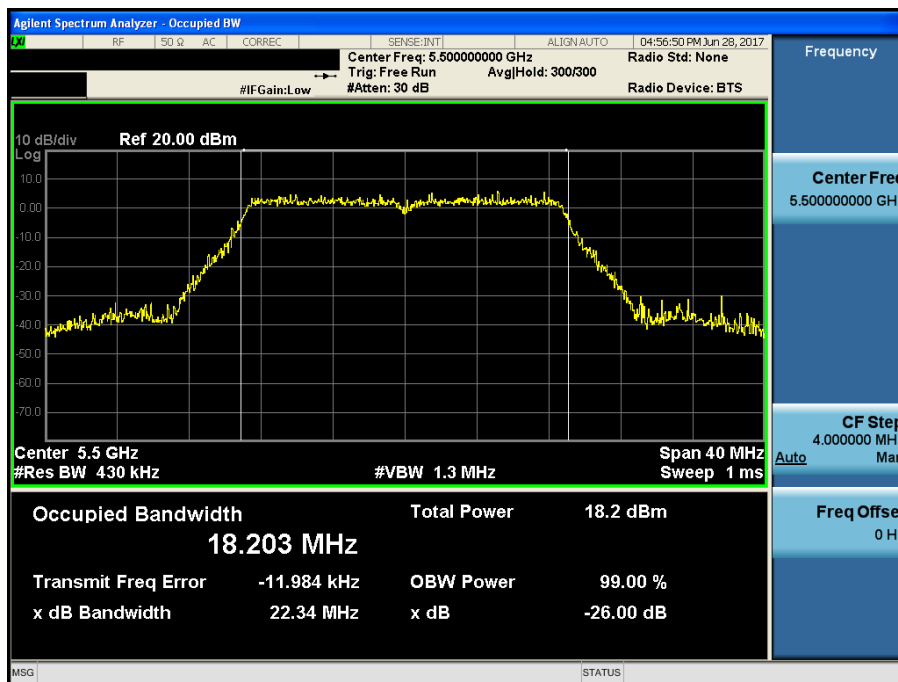
## Occupied Bandwidth 99%

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



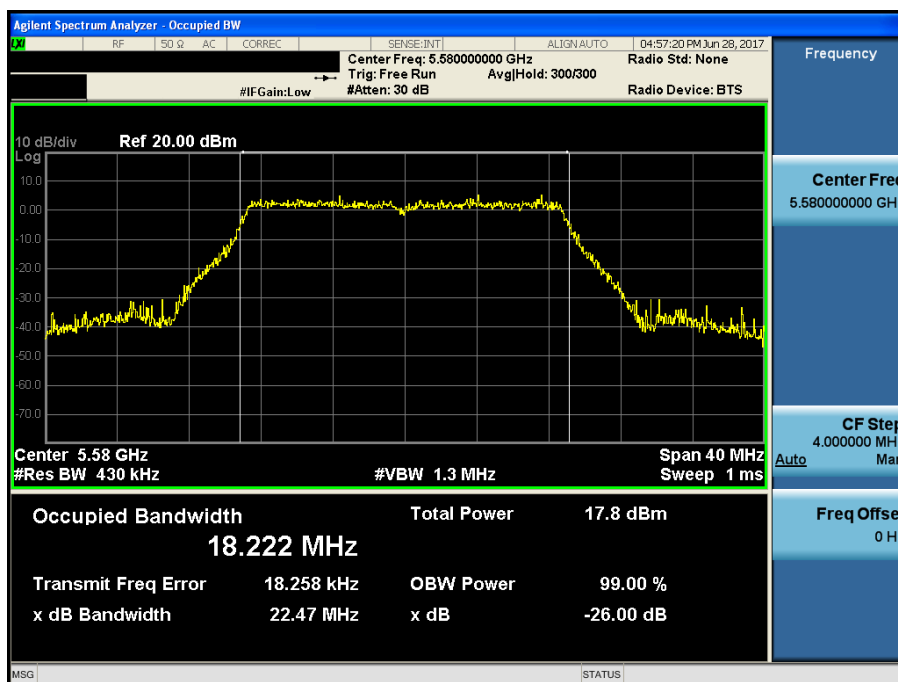
# Occupied Bandwidth 99%

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



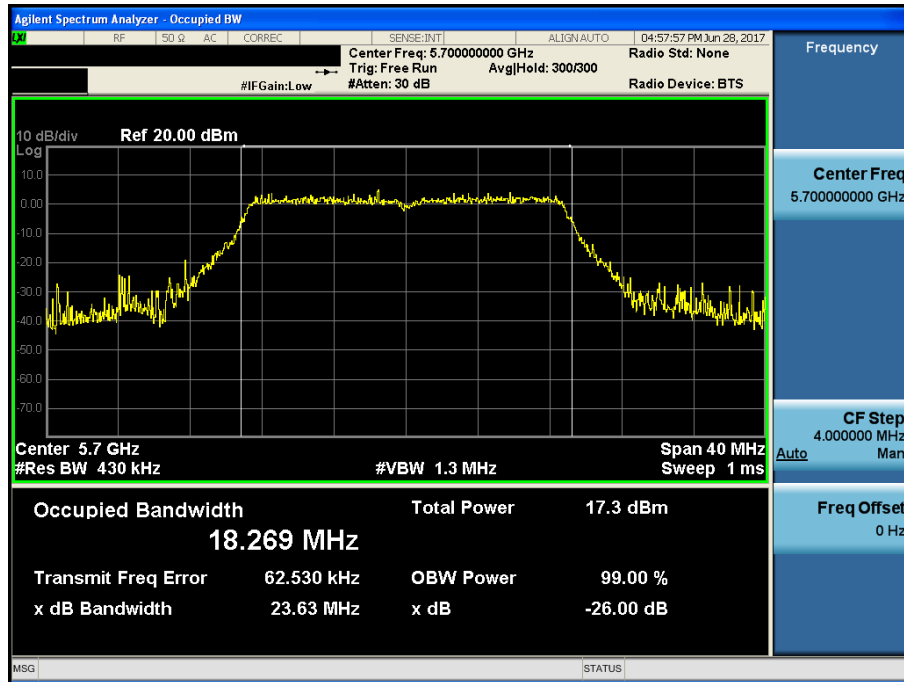
# Occupied Bandwidth 99%

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



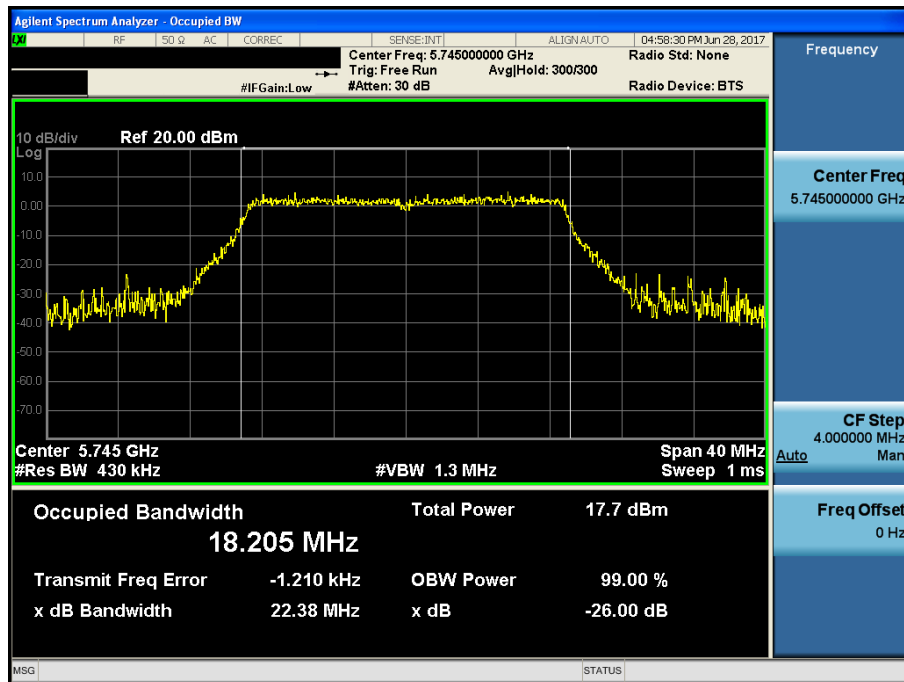
## Occupied Bandwidth 99%

Test Mode: 802.11n(HT20) & Ch.140



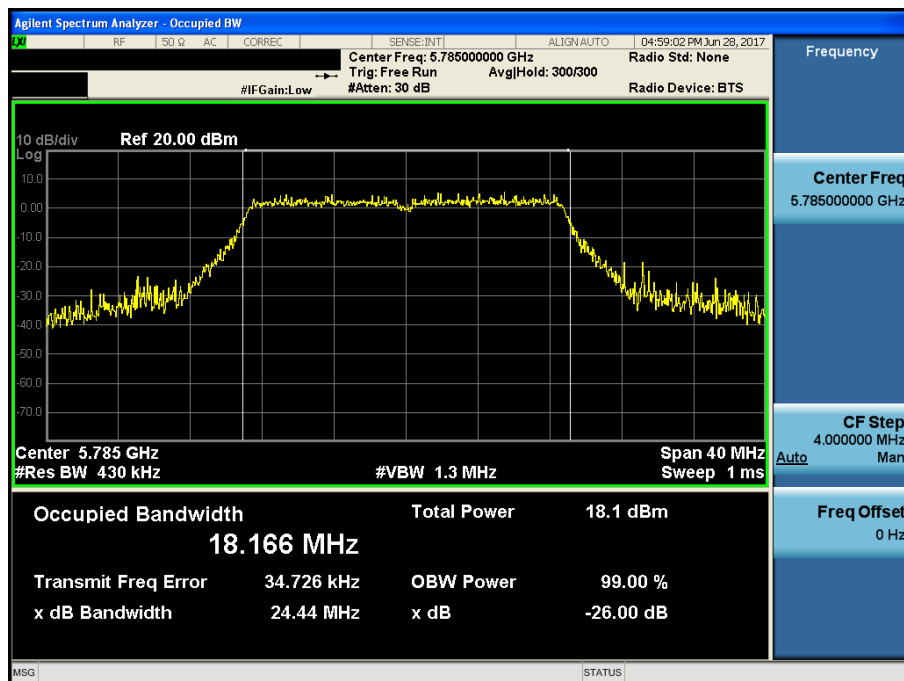
## Occupied Bandwidth 99%

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



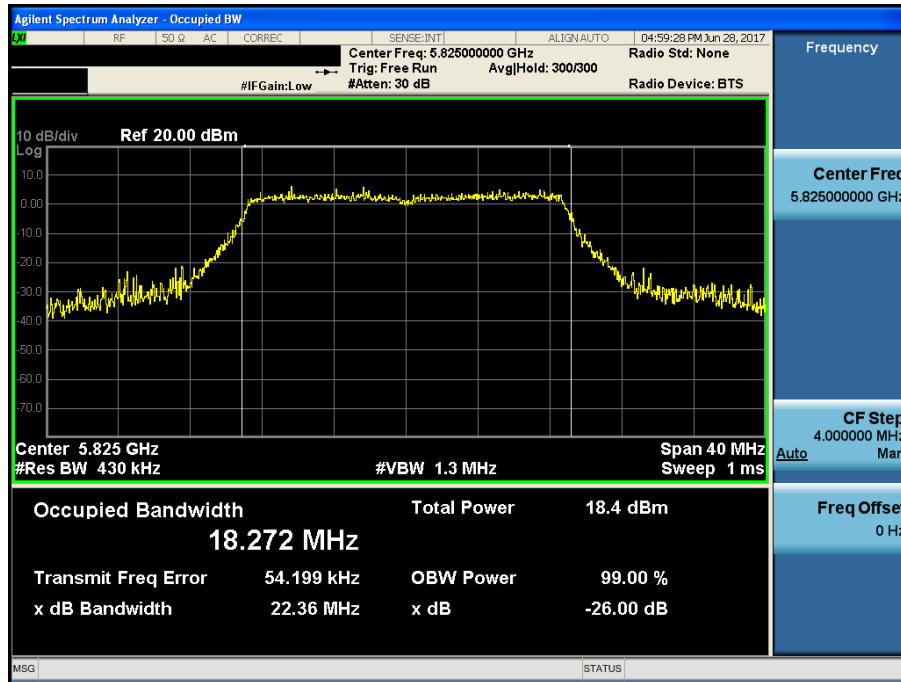
## Occupied Bandwidth 99%

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



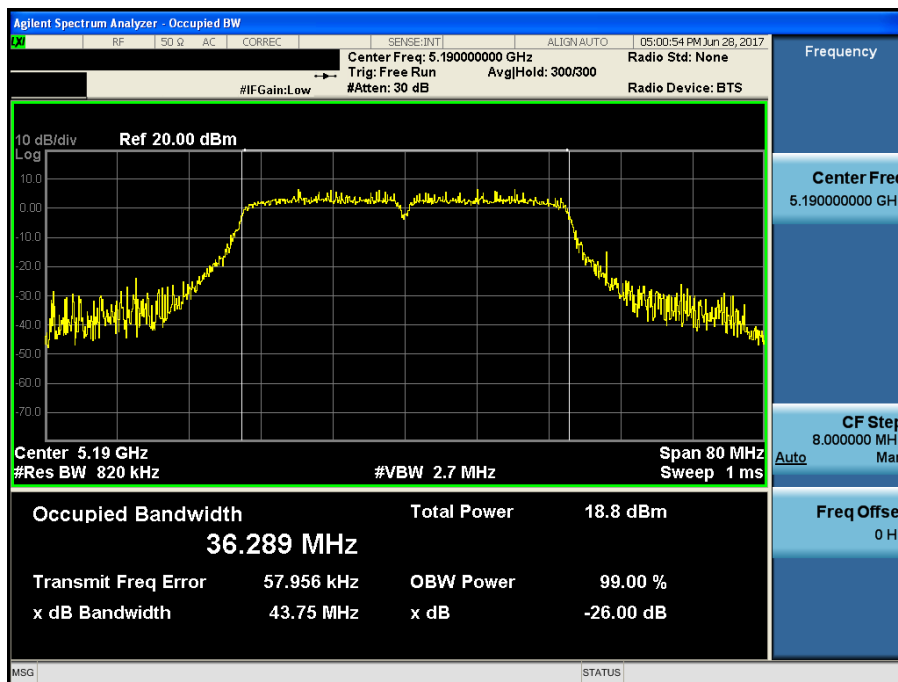
# Occupied Bandwidth 99%

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



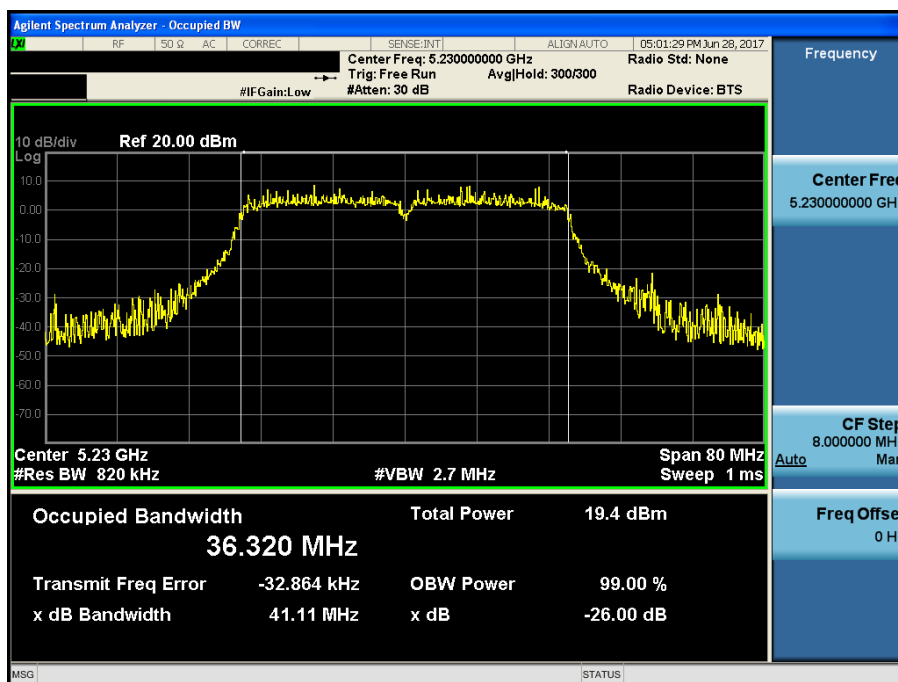
## Occupied Bandwidth 99%

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



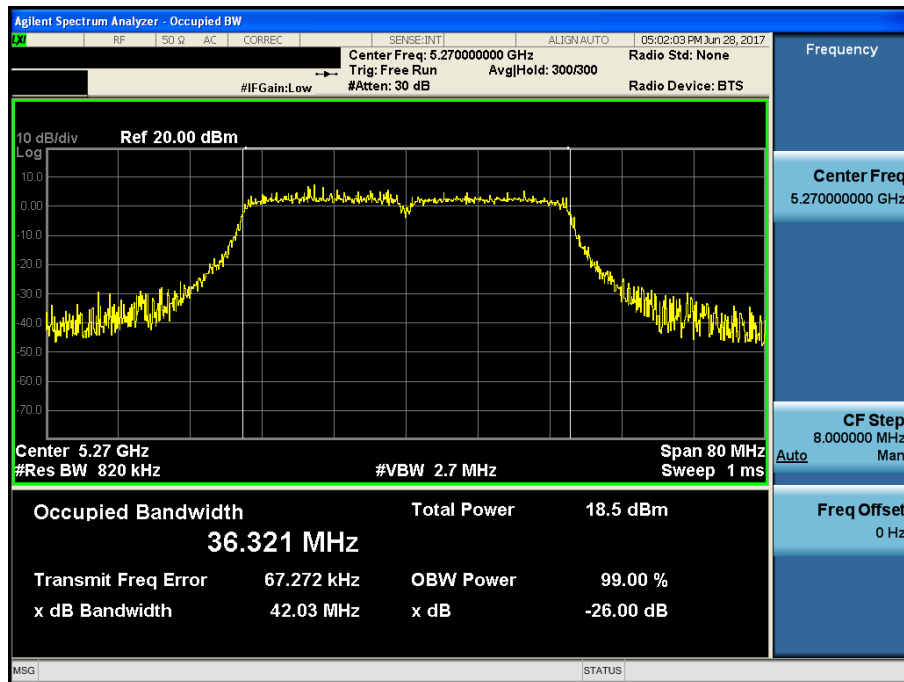
## Occupied Bandwidth 99%

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



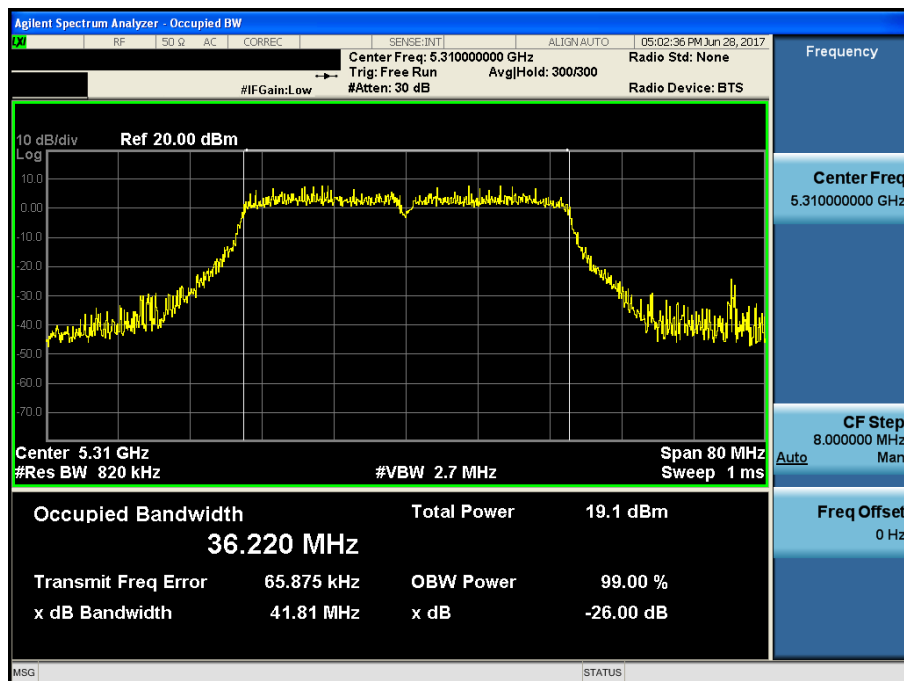
## Occupied Bandwidth 99%

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



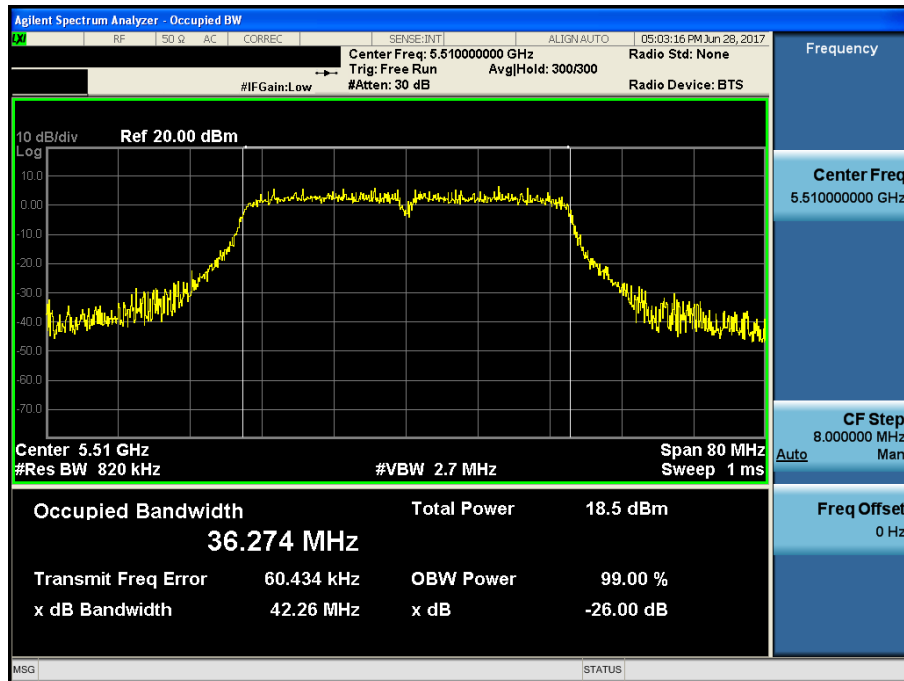
## Occupied Bandwidth 99%

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



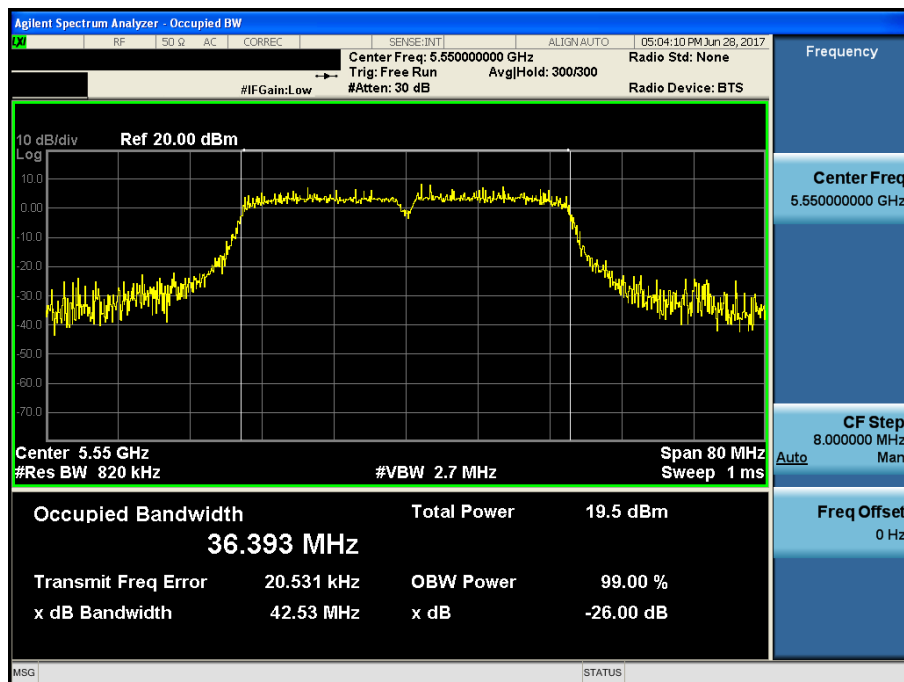
## Occupied Bandwidth 99%

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



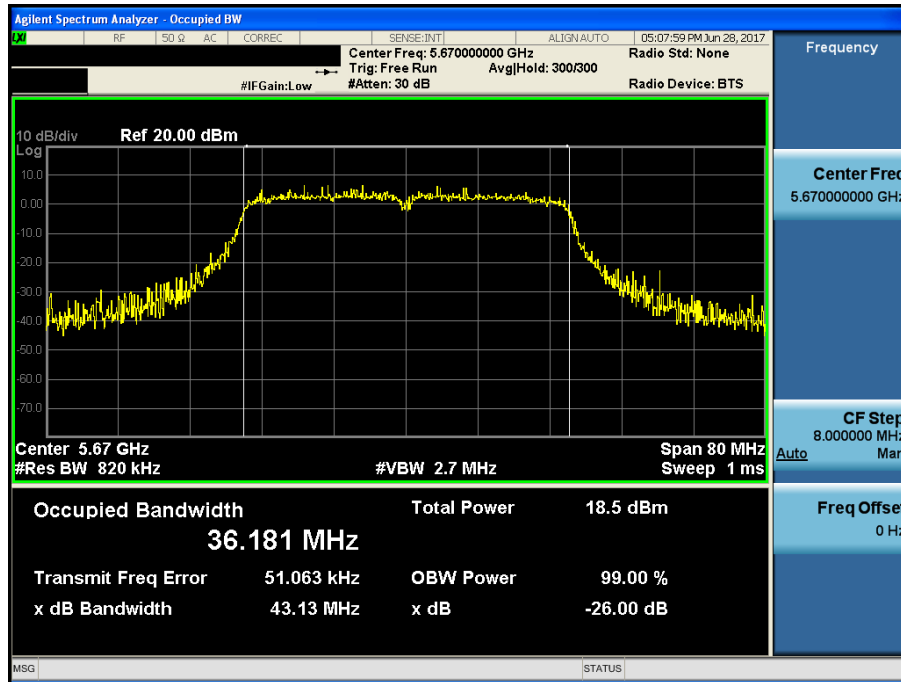
## Occupied Bandwidth 99%

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



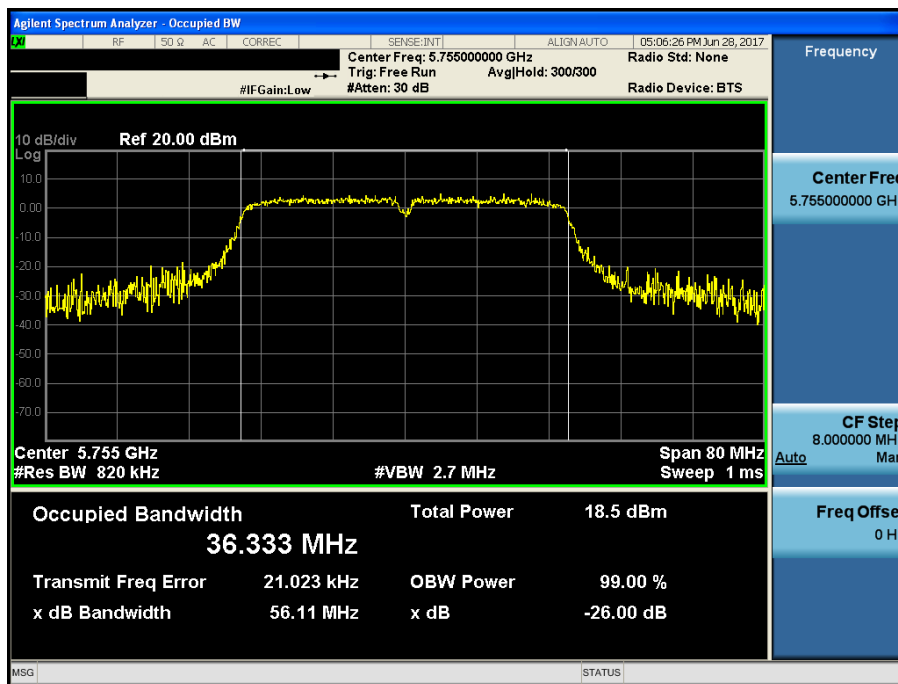
# Occupied Bandwidth 99%

Test Mode: 802.11n(HT40) & Ch.134



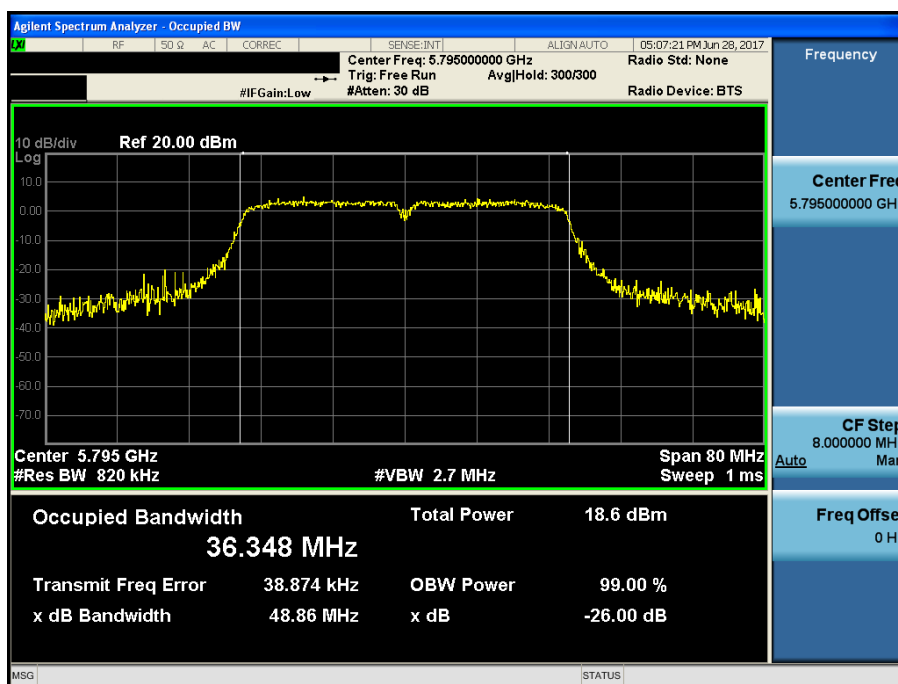
# Occupied Bandwidth 99%

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



# Occupied Bandwidth 99%

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



## 8. LIST OF TEST EQUIPMENT

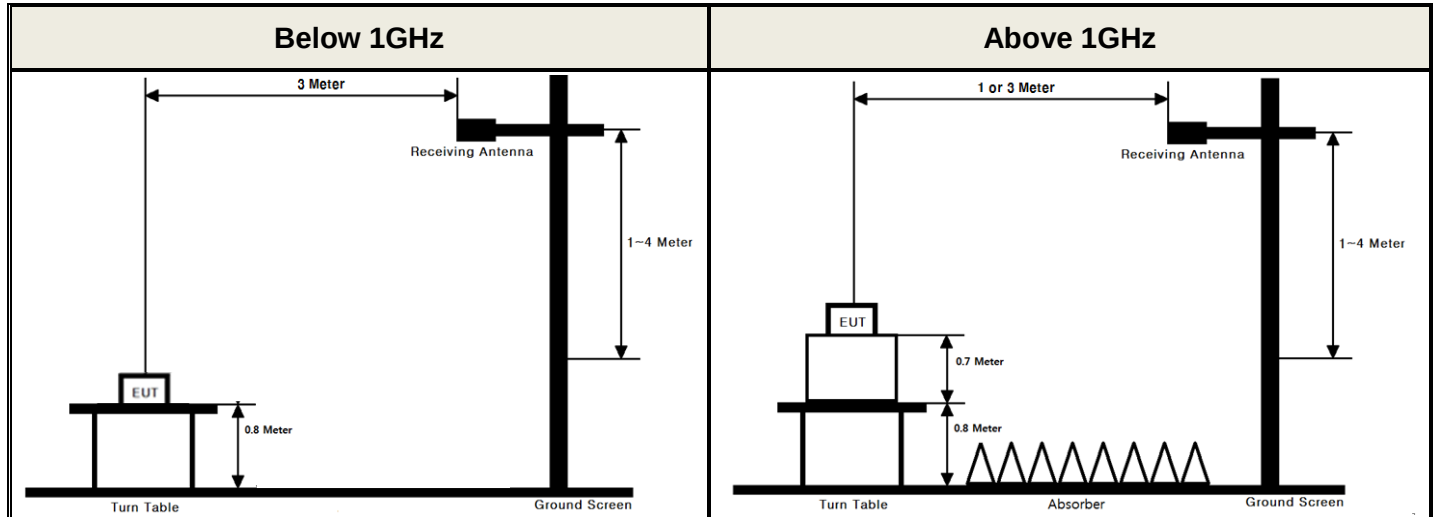
| Type                                | Manufacturer           | Model                      | Cal.Date<br>(yy/mm/dd) | Next.Cal.Date<br>(yy/mm/dd) | S/N              |
|-------------------------------------|------------------------|----------------------------|------------------------|-----------------------------|------------------|
| Spectrum Analyzer                   | Agilent Technologies   | N9020A                     | 16/09/09               | 17/09/09                    | MY50200834       |
| Spectrum Analyzer                   | Agilent Technologies   | N9030A                     | 16/10/18               | 17/10/18                    | MY53310140       |
| Digital Multimeter                  | Agilent Technologies   | 34401A                     | 17/01/04               | 18/01/04                    | US36099541       |
| DC Power Supply                     | Agilent Technologies   | 66332A                     | 16/09/08               | 17/09/08                    | US37473305       |
| Signal Generator                    | Rohde Schwarz          | SMBV100A                   | 17/01/04               | 18/01/04                    | 255571           |
| Signal Generator                    | Rohde Schwarz          | SMF100A                    | 17/04/21               | 18/04/21                    | 102341           |
| Attenuator(10dB)                    | Hefei Shunze           | SS5T2.92-10-40             | 17/01/11               | 18/01/11                    | 16012202         |
| Thermohygrometer                    | BODYCOM                | BJ5478                     | 17/04/11               | 18/04/11                    | 120612-2         |
| Loop Antenna                        | Schwarzbeck            | FMZB1513                   | 16/04/22               | 18/04/22                    | 1513-128         |
| BILOG Antenna                       | SCHWARZBECK            | VULB9160                   | 16/11/11               | 18/11/11                    | 3151             |
| Horn Antenna                        | ETS-LINDGREN           | 3117                       | 16/05/03               | 18/05/03                    | 00140394         |
| Horn Antenna                        | A.H.Systems Inc.       | SAS-574                    | 17/04/25               | 19/04/25                    | 154              |
| PreAmplifier                        | Agilent Technologies   | 8449B                      | 16/10/19               | 17/10/19                    | 3008A02108       |
| PreAmplifier                        | A.H.Systems Inc.       | PAM-1840VH                 | 16/12/04               | 17/12/04                    | 163              |
| Temp & Humi Test Chamber            | SJ Science             | SJ-TH-S50                  | 17/01/25               | 18/01/25                    | SJ-TH-S50-140205 |
| Low Noise Pre Amplifier             | tsj                    | MLA-010K01-B01-27          | 17/03/06               | 18/03/06                    | 1844539          |
| EMI TEST RECEIVER                   | Rohde Schwarz          | ESR7                       | 17/02/16               | 18/02/16                    | 101061           |
| EMI TEST RECEIVER                   | Rohde Schwarz          | ESCI                       | 17/02/18               | 18/02/18                    | 100364           |
| Highpass Filter                     | Wainwright Instruments | WHNX6-6320-8000-26500-40CC | 16/09/13               | 17/09/13                    | 1                |
| Power Meter & Wide Bandwidth Sensor | Anritsu                | ML2495A                    | 17/04/11               | 18/04/11                    | 1306007          |
| Power Meter & Wide Bandwidth Sensor | Anritsu                | MA2490A                    | 17/04/11               | 18/04/11                    | 1249001          |
| ARTIFICIAL MAINS NETWORK            | ROHDE&SCHWARZ          | ESH2-Z5                    | 16/09/08               | 17/09/08                    | 828739/006       |
| SINGLE-PHASE MASTER                 | NF                     | 4420                       | 16/09/08               | 17/09/08                    | 3049354420023    |

Note: The measurement antennas were calibrated in accordance to the requirements of ANSI C63.5-2006.

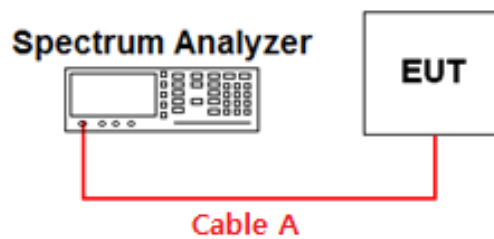
## APPENDIX I

### Test set up diagrams

#### ▪ Radiated Measurement



#### ▪ Conducted Measurement



## APPENDIX II

### Duty Cycle Information

#### ■ Test Procedure

**Duty Cycle** [ $X = \text{On Time} / (\text{On} + \text{Off time})$ ] is measured using Measurement Procedure of **KDB789033 D02 V01**

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.

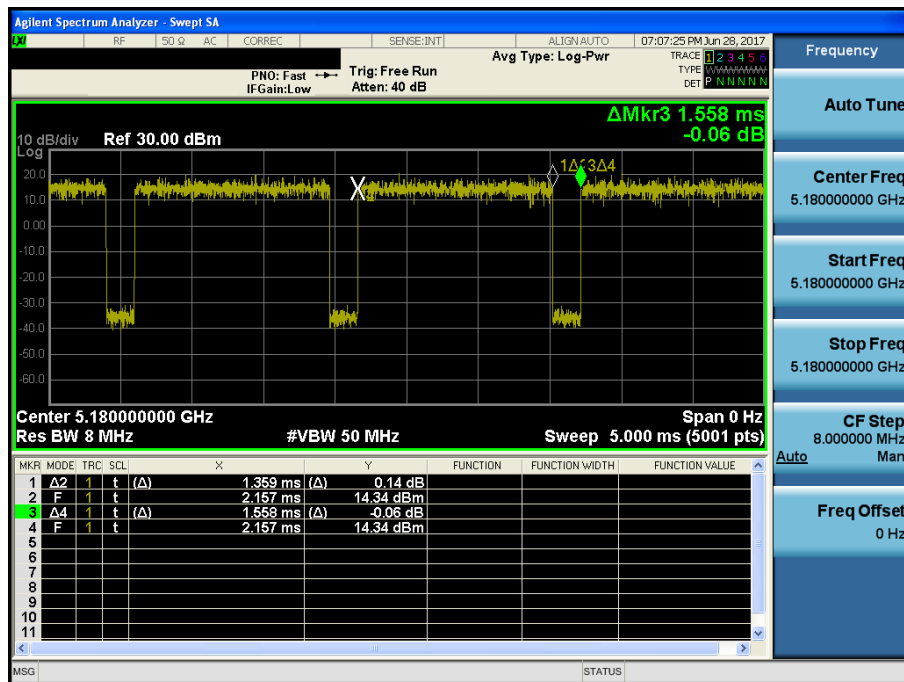
( $T = \text{On time}$  of the above table since the EUT operates with above fixed Duty Cycle and it is the minimum On time)

#### ■ Test Results:

| Mode           | Channel | Tested Frequency [MHz] | Maximum Achievable Duty Cycle ( $x = \text{On} / (\text{On} + \text{Off})$ ) |                 |      | Duty Cycle Correction Factor [dB] | 1/T [Hz] |
|----------------|---------|------------------------|------------------------------------------------------------------------------|-----------------|------|-----------------------------------|----------|
|                |         |                        | On Time [ms]                                                                 | On+OffTime [ms] | $x$  |                                   |          |
| 802.11a        | 36      | 5180                   | 1.359                                                                        | 1.558           | 0.87 | 0.61                              | 735.84   |
| 802.11n (HT20) | 36      | 5180                   | 1.272                                                                        | 1.470           | 0.86 | 0.66                              | 786.17   |
| 802.11n (HT40) | 38      | 5190                   | 0.631                                                                        | 0.832           | 0.75 | 1.25                              | 1584.29  |

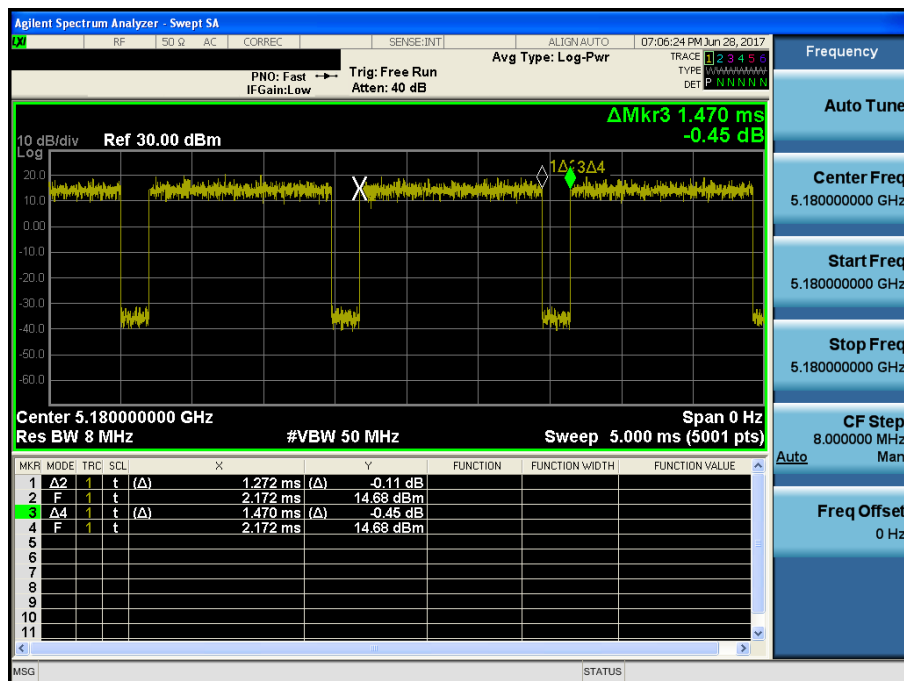
## Duty Cycle

Test Mode: 802.11a &amp; Ch.36



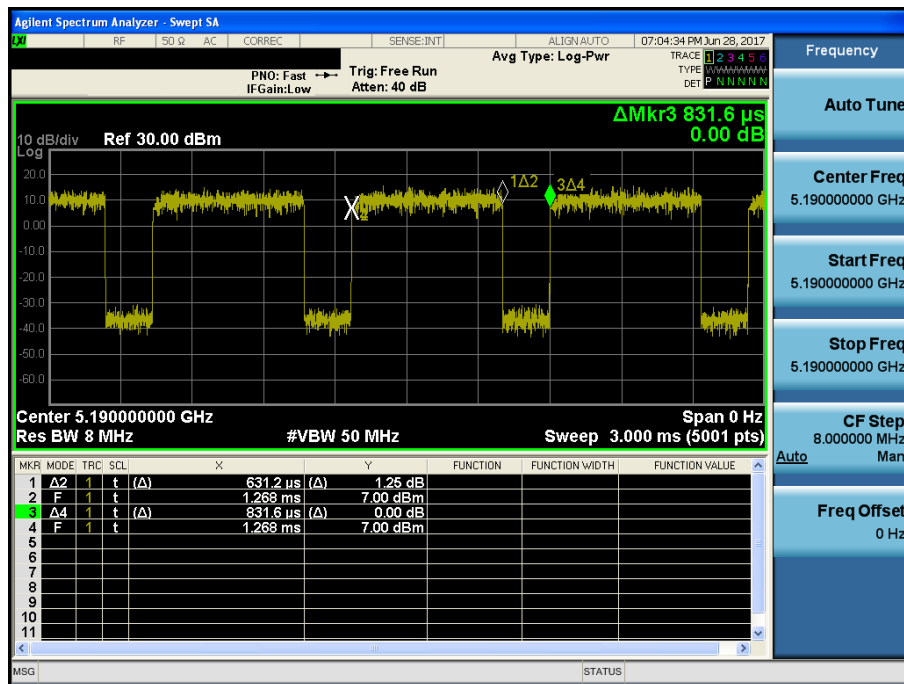
## Duty Cycle

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



# Duty Cycle

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

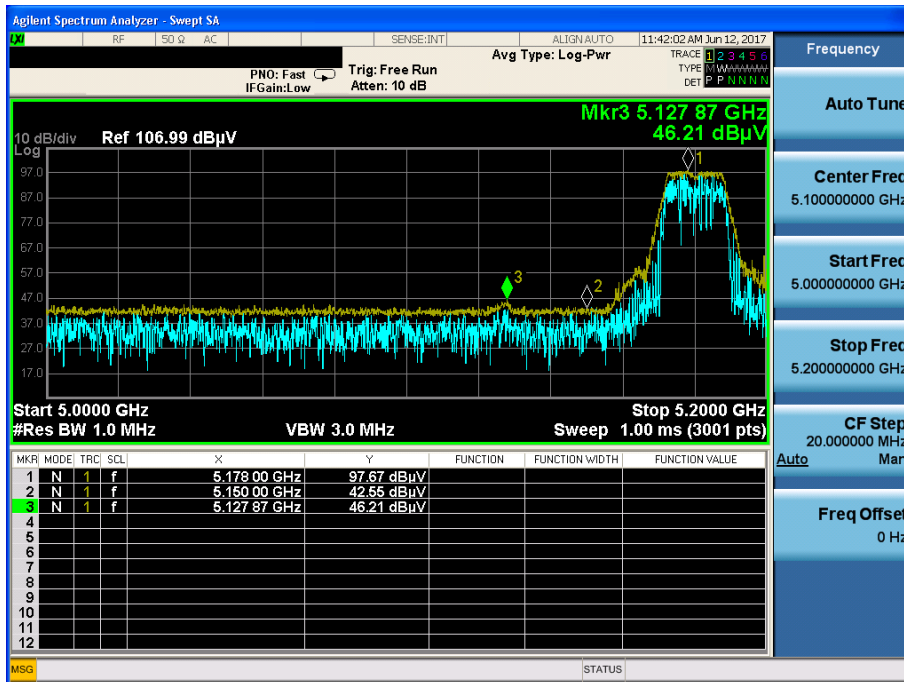


## APPENDIX III

## Unwanted Emissions (Radiated) Test Plot

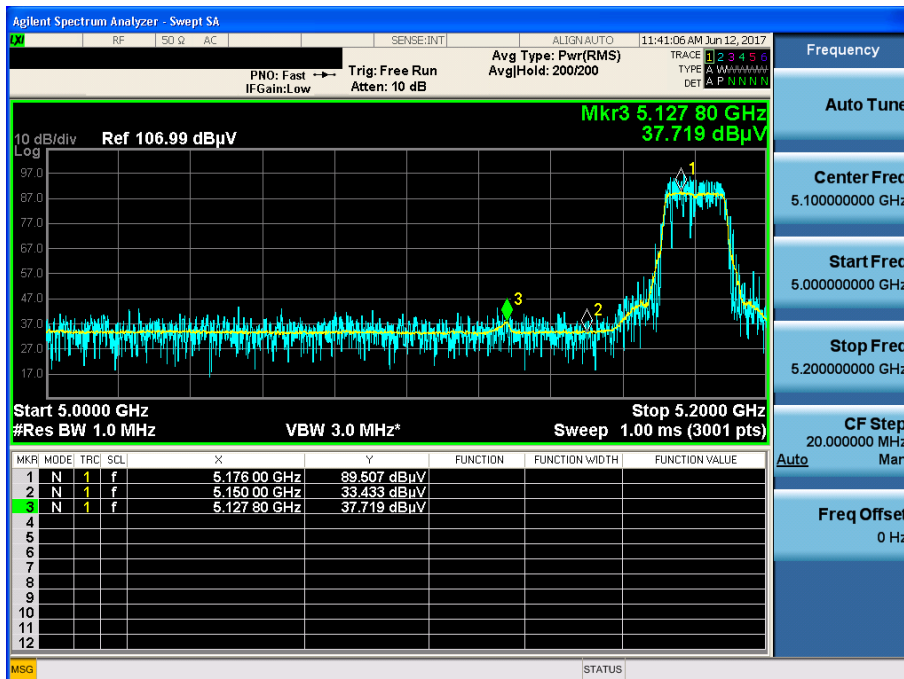
802.11a &amp; U-NII 1 &amp; Ch.36 &amp; X axis &amp; Hor

Detector Mode : PK



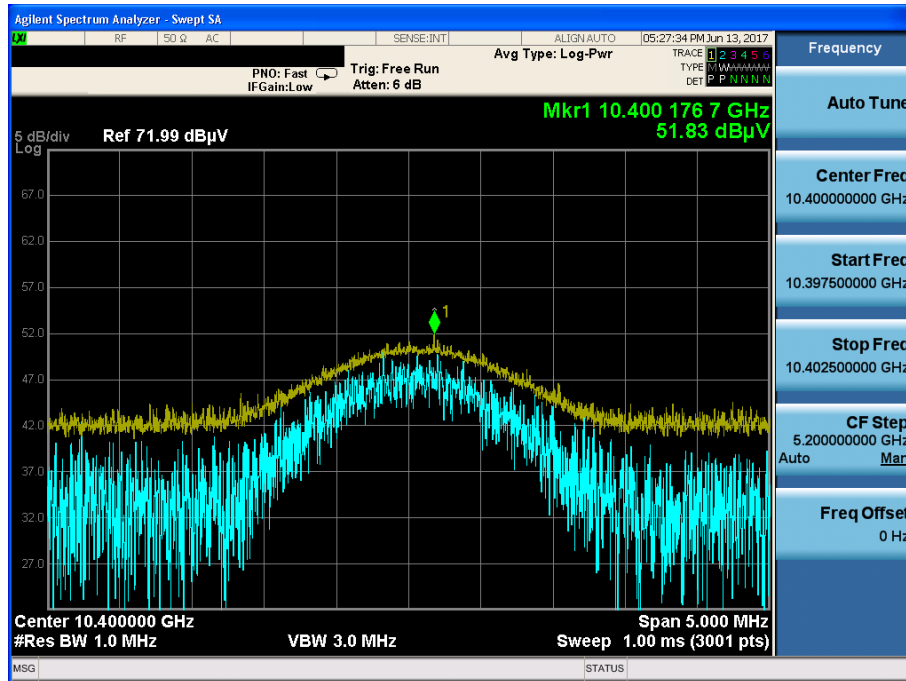
802.11a &amp; U-NII 1 &amp; Ch.36 &amp; X axis &amp; Hor

Detector Mode : AV



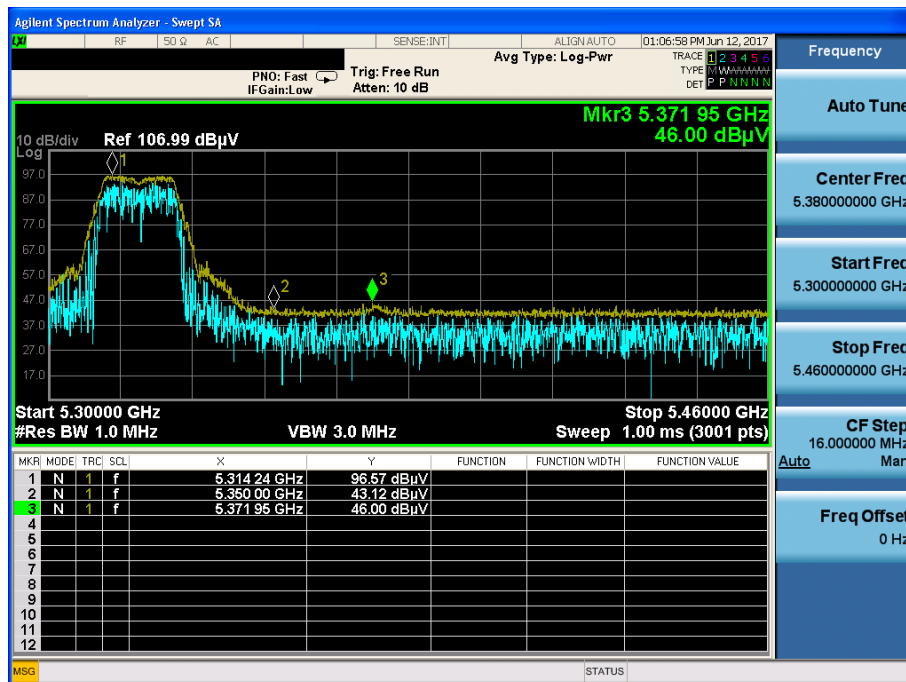
802.11a & U-NII 1 & Ch.40 & Y axis & Hor

Detector Mode : PK



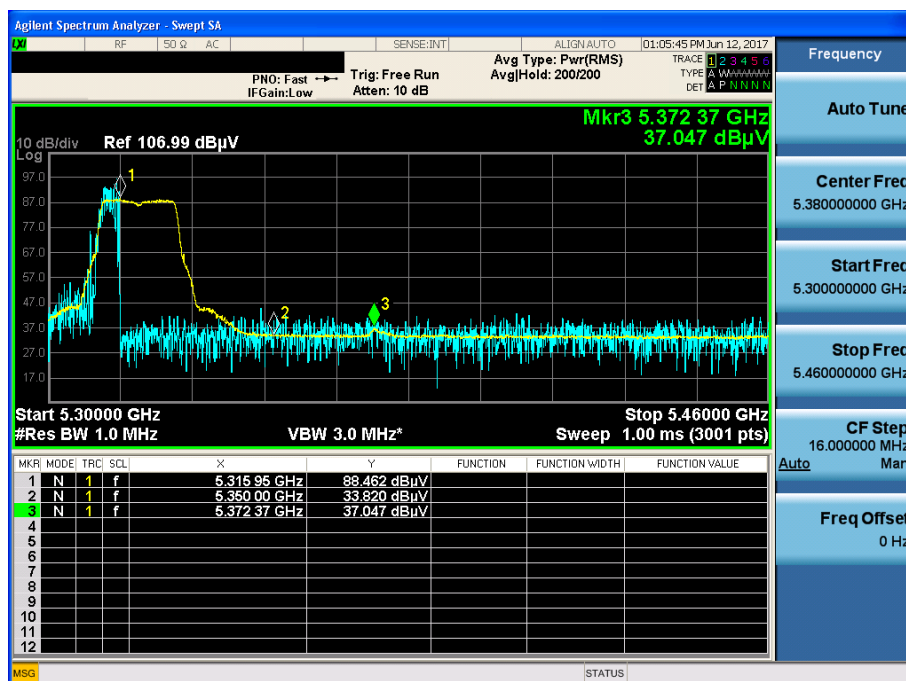
802.11a &amp; U-NII 2A &amp; Ch.64 &amp; X axis &amp; Hor

Detector Mode : PK



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

Detector Mode : AV

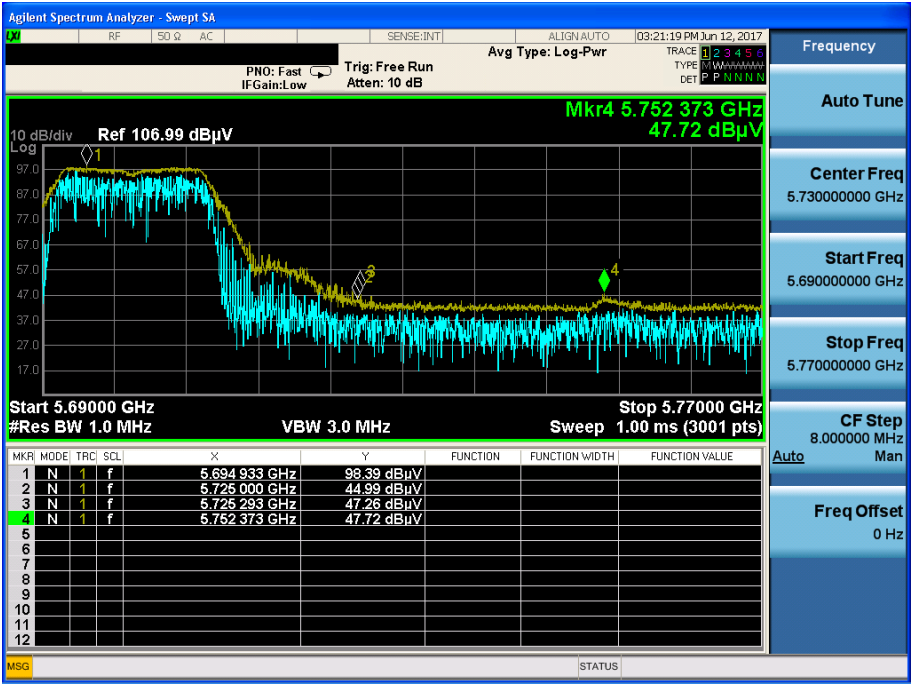






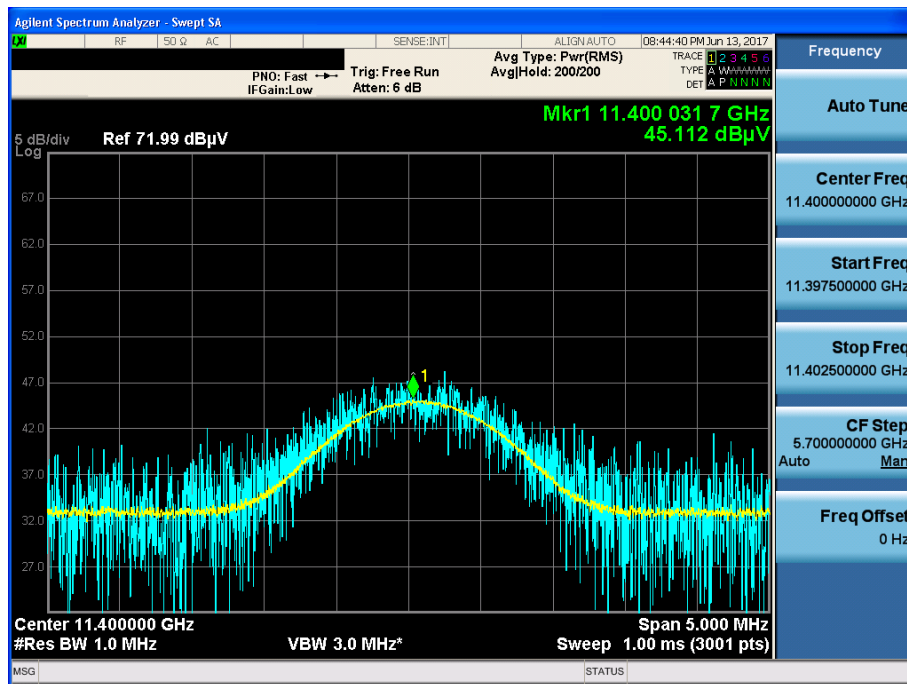
802.11a & U-NII 2C & Ch.140 & Z axis & Hor

Detector Mode : PK



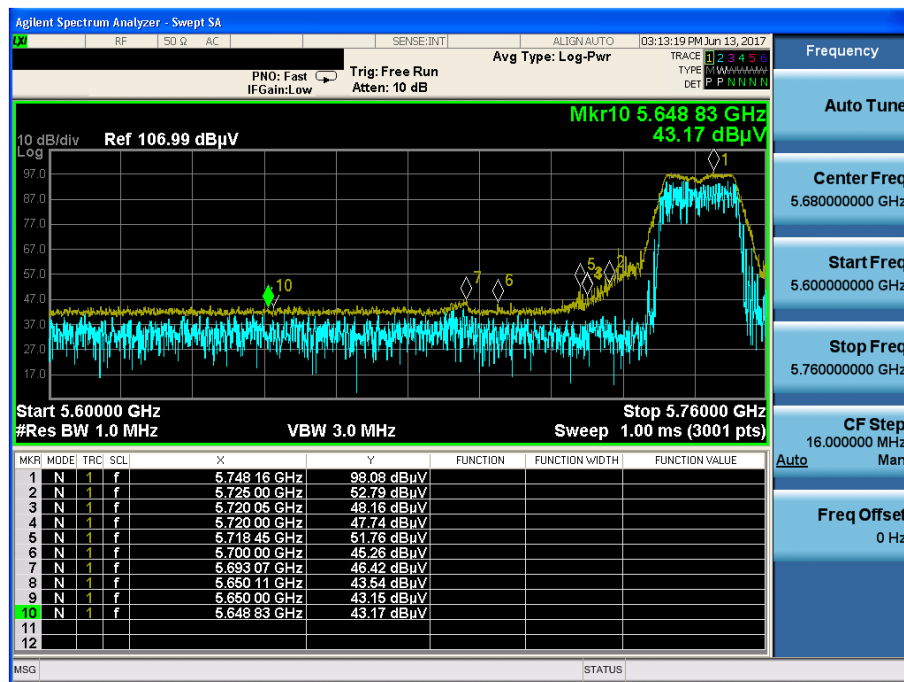
802.11a & U-NII 2C & Ch.140 & Z axis & Ver

Detector Mode : AV



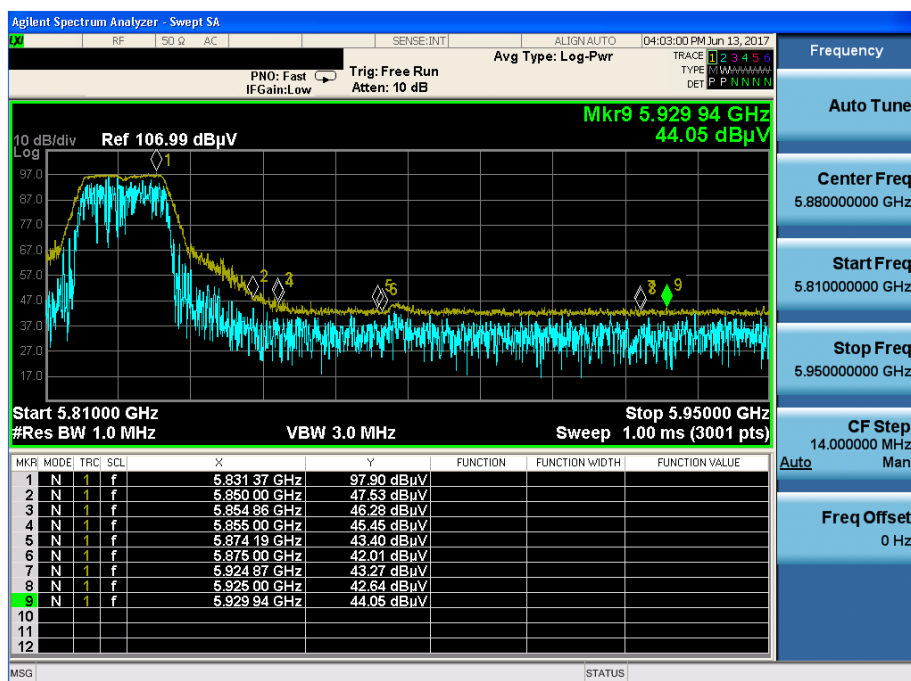
802.11a &amp; U-NII 3 &amp; Ch.149 &amp; Z axis &amp; Hor

Detector Mode : PK

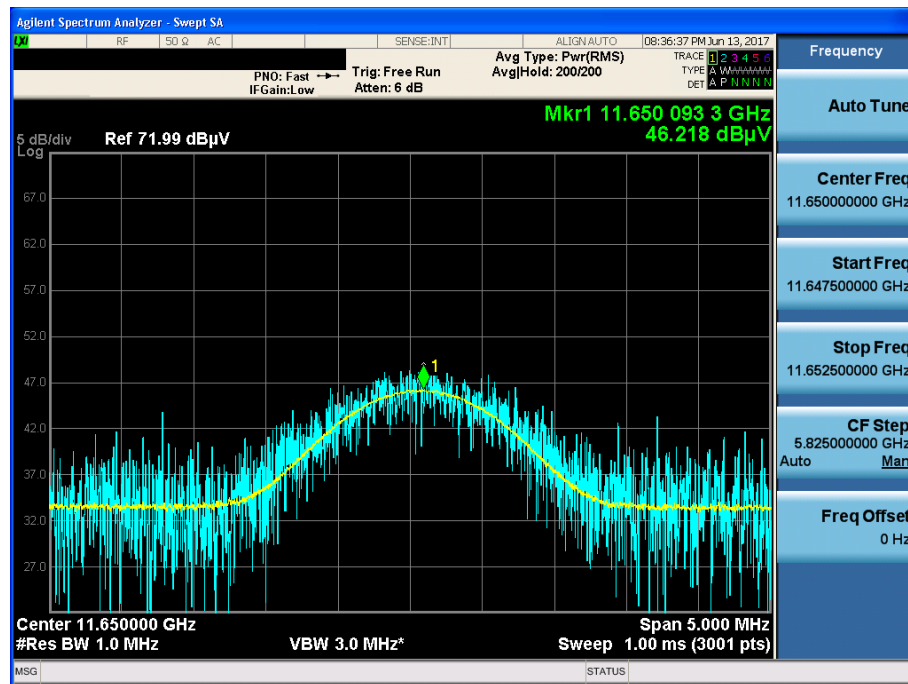


802.11a &amp; U-NII 3 &amp; Ch.165 &amp; Z axis &amp; Hor

Detector Mode : PK

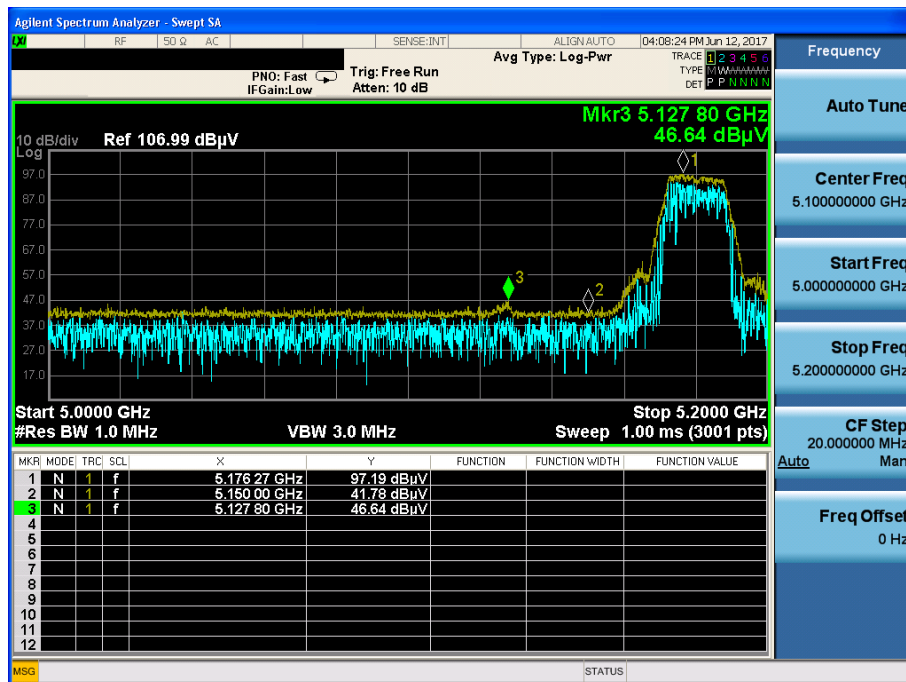


**Detector Mode : AV**



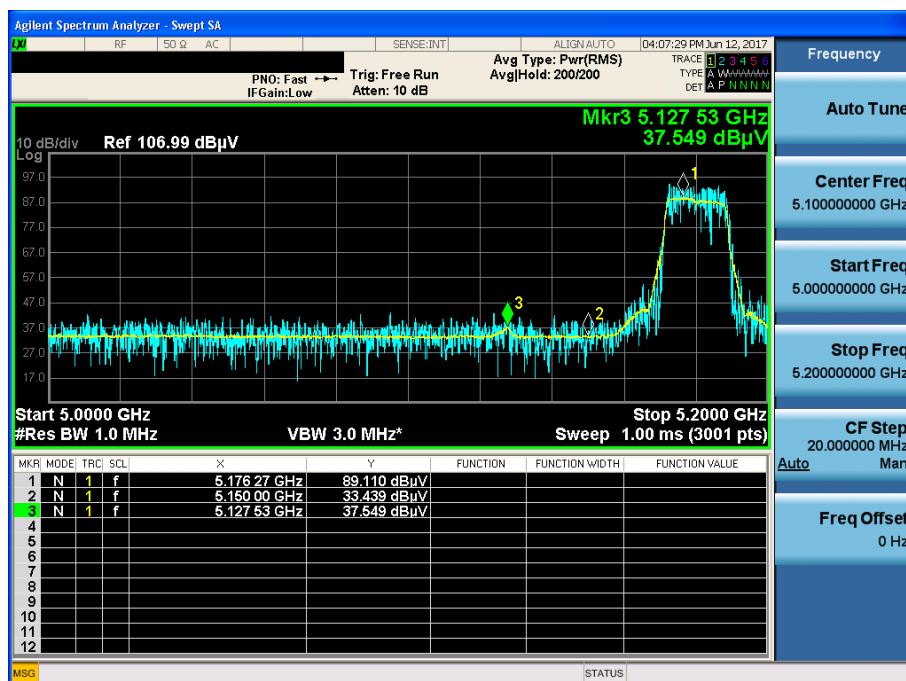
802.11n(HT20) &amp; U-NII 1 &amp; Ch.36 &amp; X axis &amp; Hor

Detector Mode : PK



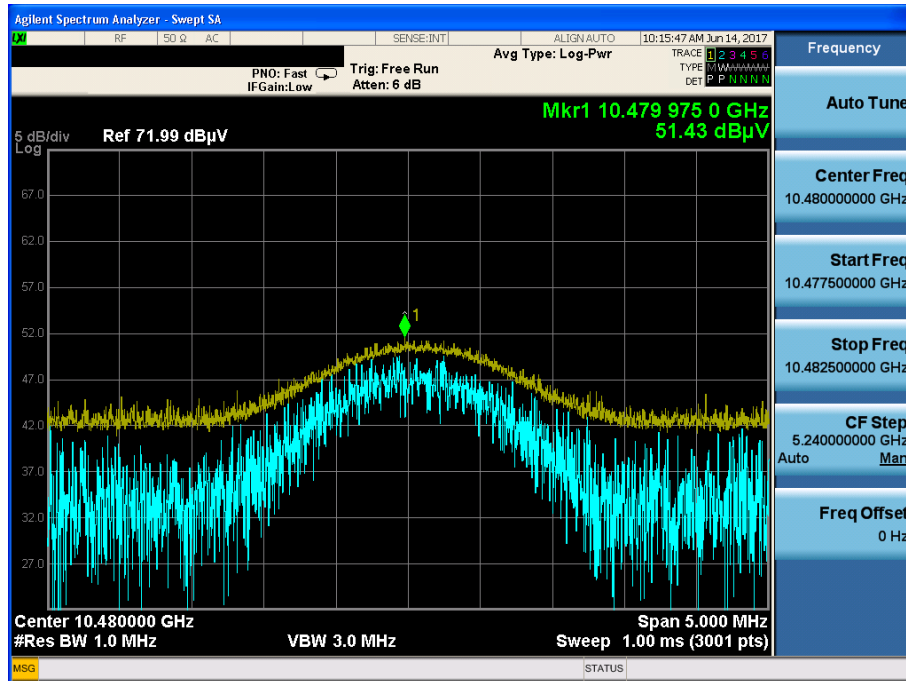
802.11n(HT20) &amp; U-NII 1 &amp; Ch.36 &amp; X axis &amp; Hor

Detector Mode : AV

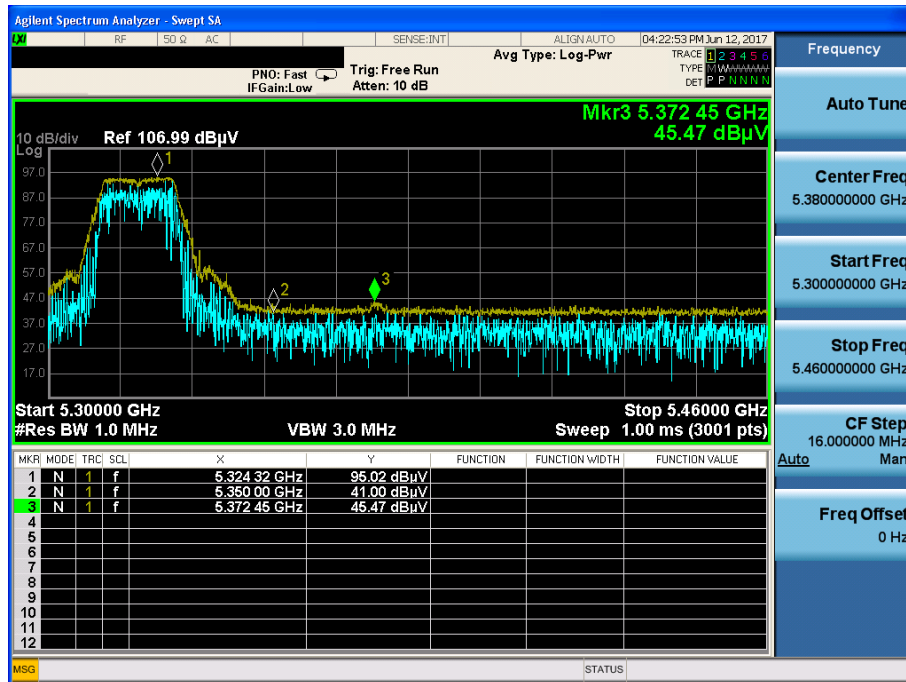


802.11n(HT20) & U-NII 1 & Ch.48 & Y axis & Hor

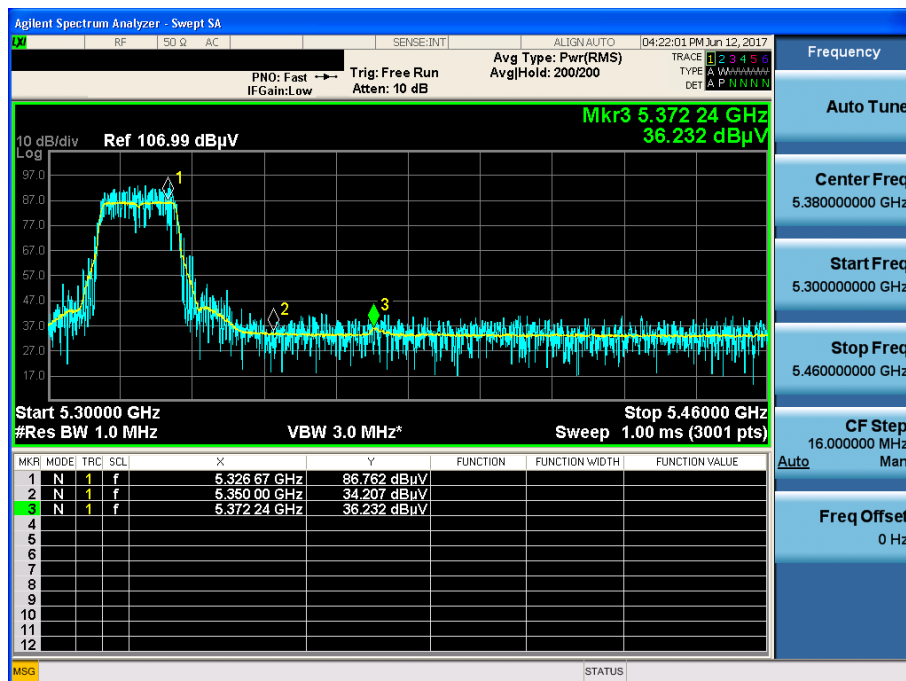
Detector Mode : PK



**Detector Mode : PK**

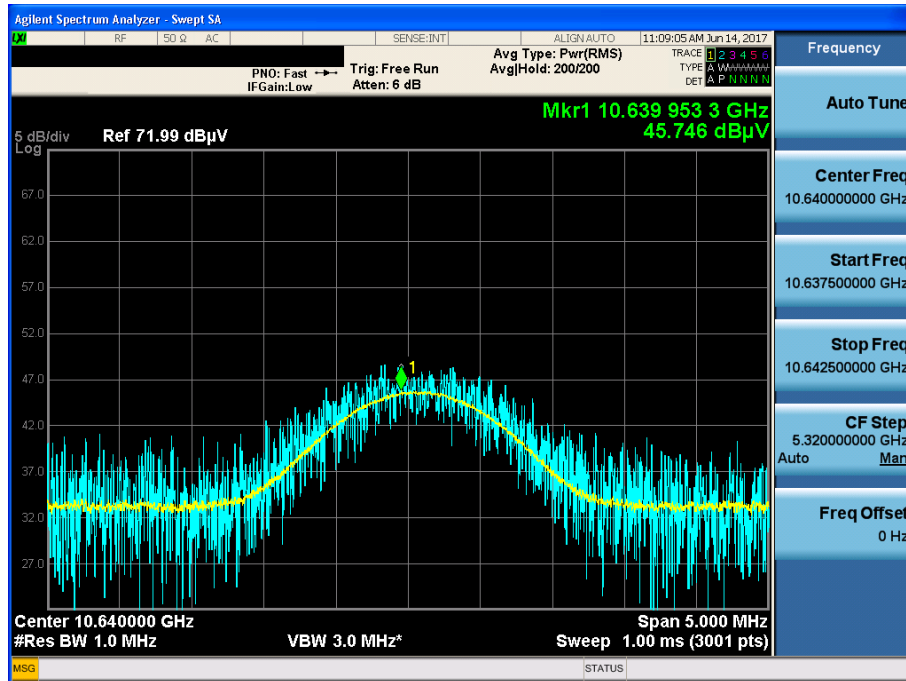


**Detector Mode : AV**

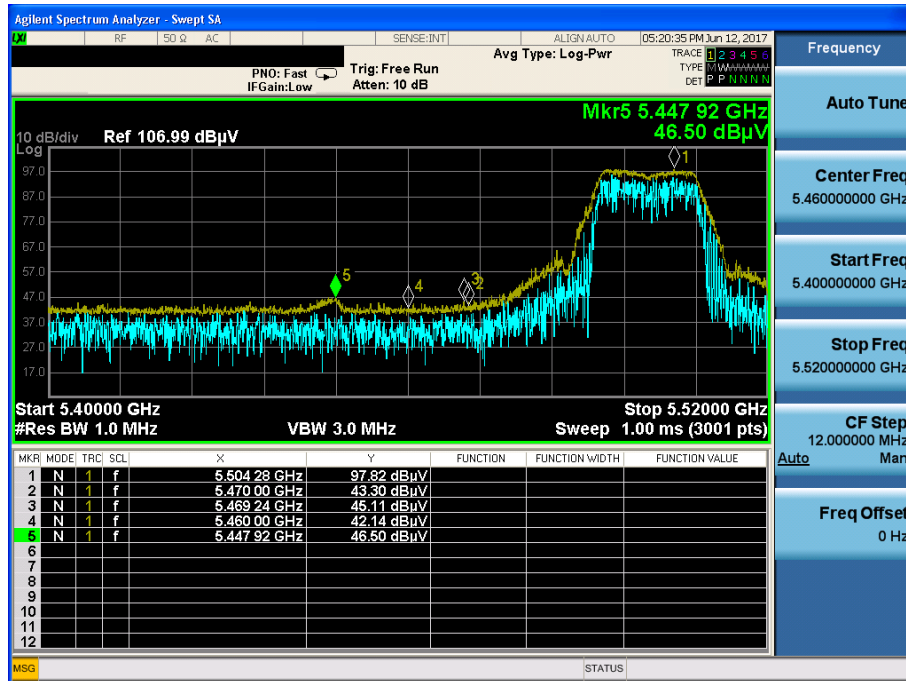


802.11n(HT20) &amp; U-NII 2A &amp; Ch.64 &amp; Y axis &amp; Hor

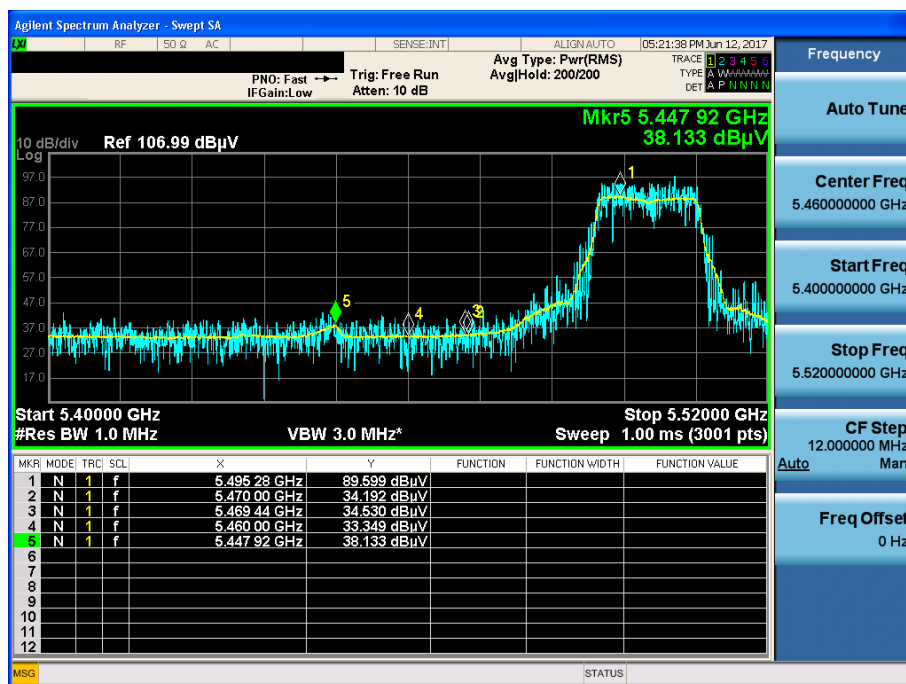
Detector Mode : AV



**Detector Mode : PK**



**Detector Mode : AV**



**Detector Mode : PK**

Agilent Spectrum Analyzer - Swept SA

REF: 106.99 dBμV

Trig: Free Run  
Atten: 10 dB

Avg Type: Log-Pwr

Trace 1: 2 3 4 5 6  
Type: FWHM  
Det: P

Frequency

Auto Tune

Center Freq  
5.730000000 GHz

Start Freq  
5.690000000 GHz

Stop Freq  
5.770000000 GHz

CF Step  
8.000000 MHz

Freq Offset  
0 Hz

10 dB/div  
Log

Start 5.69000 GHz  
#Res BW 1.0 MHz

VBW 3.0 MHz

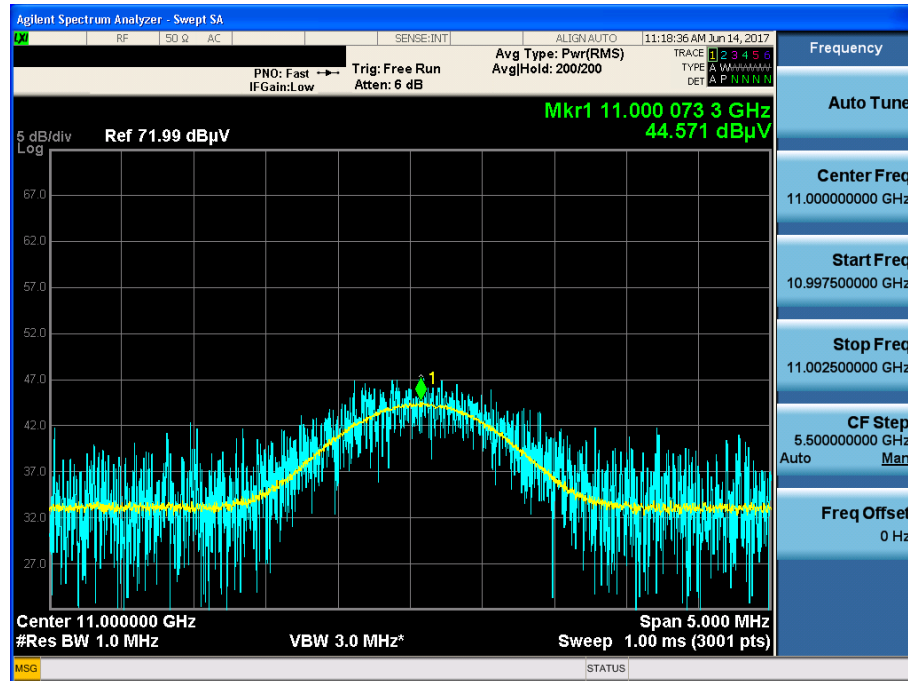
Stop 5.77000 GHz  
Sweep 1.0 ms (3001 pts)

| MRK | MODE | TRC | SCL | X             | Y          | FUNCTION | FUNCTION WIDTH | FUNCTION VALUE |
|-----|------|-----|-----|---------------|------------|----------|----------------|----------------|
| 1   | N    | 1   | f   | 5.696 027 GHz | 98.17 dBμV |          |                |                |
| 2   | N    | 1   | f   | 5.725 000 GHz | 42.78 dBμV |          |                |                |
| 3   | N    | 1   | f   | 5.725 267 GHz | 45.24 dBμV |          |                |                |
| 4   | N    | 1   | f   | 5.752 880 GHz | 46.09 dBμV |          |                |                |
| 5   |      |     |     |               |            |          |                |                |
| 6   |      |     |     |               |            |          |                |                |
| 7   |      |     |     |               |            |          |                |                |
| 8   |      |     |     |               |            |          |                |                |
| 9   |      |     |     |               |            |          |                |                |
| 10  |      |     |     |               |            |          |                |                |
| 11  |      |     |     |               |            |          |                |                |
| 12  |      |     |     |               |            |          |                |                |

MSG

STATUS

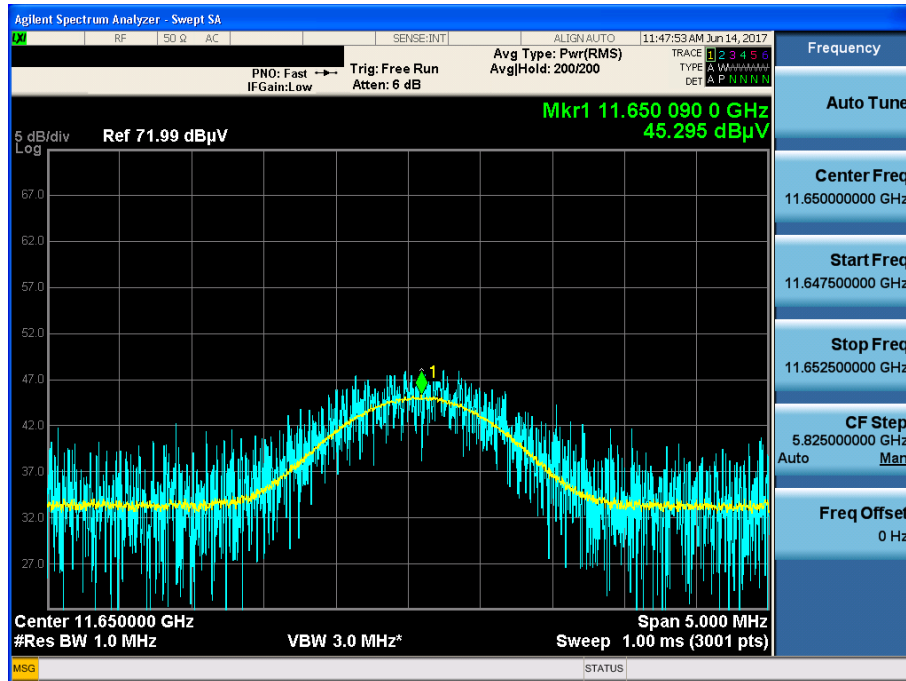
**Detector Mode : AV**





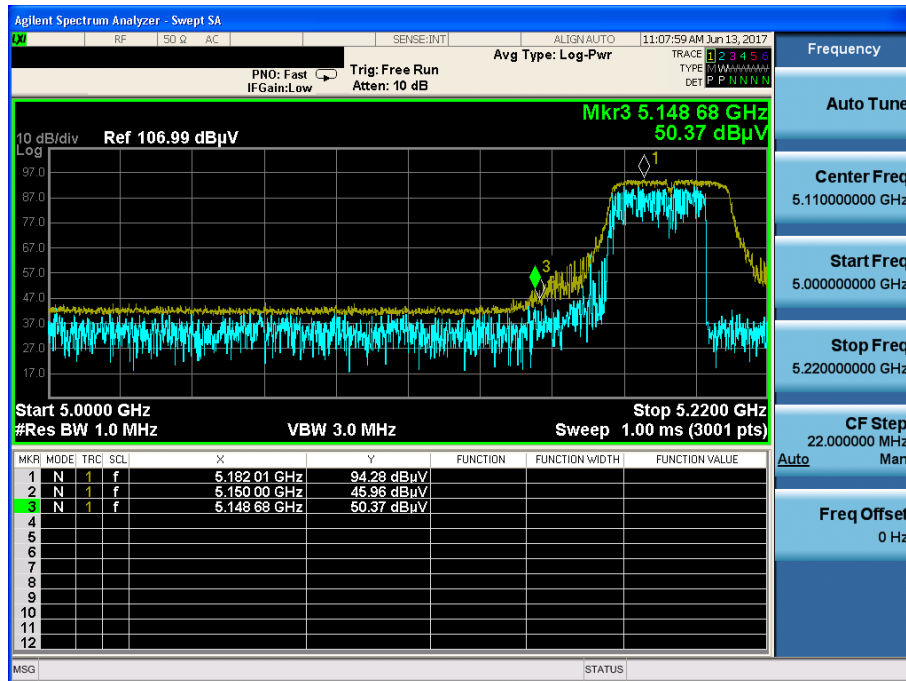
802.11n(HT20) & U-NII 3 & Ch.165 & Z axis & Ver

Detector Mode : AV



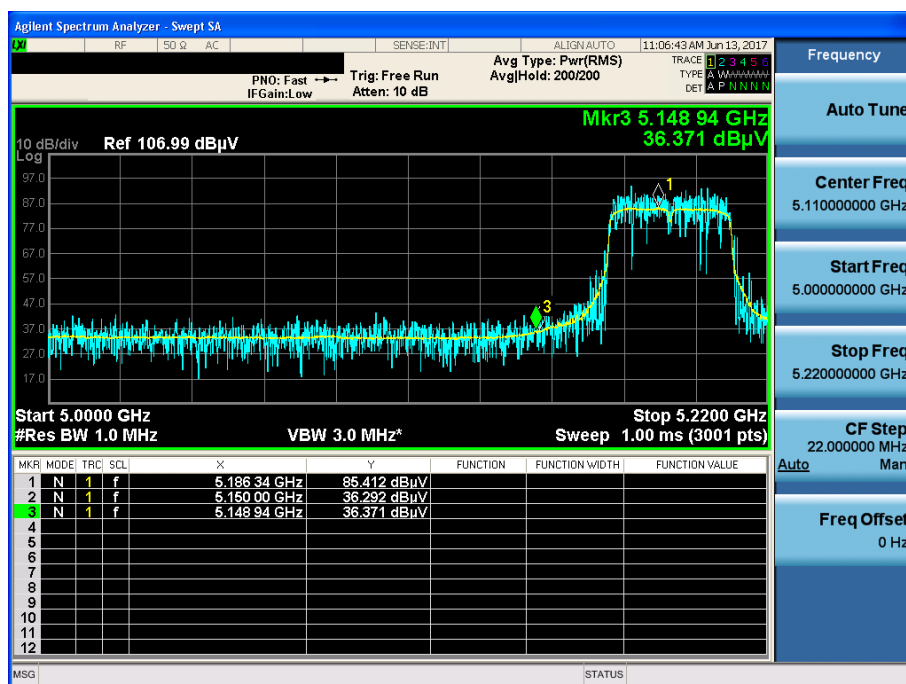
802.11n(HT40) &amp; U-NII 1 &amp; Ch.38 &amp; X axis &amp; Hor

Detector Mode : PK

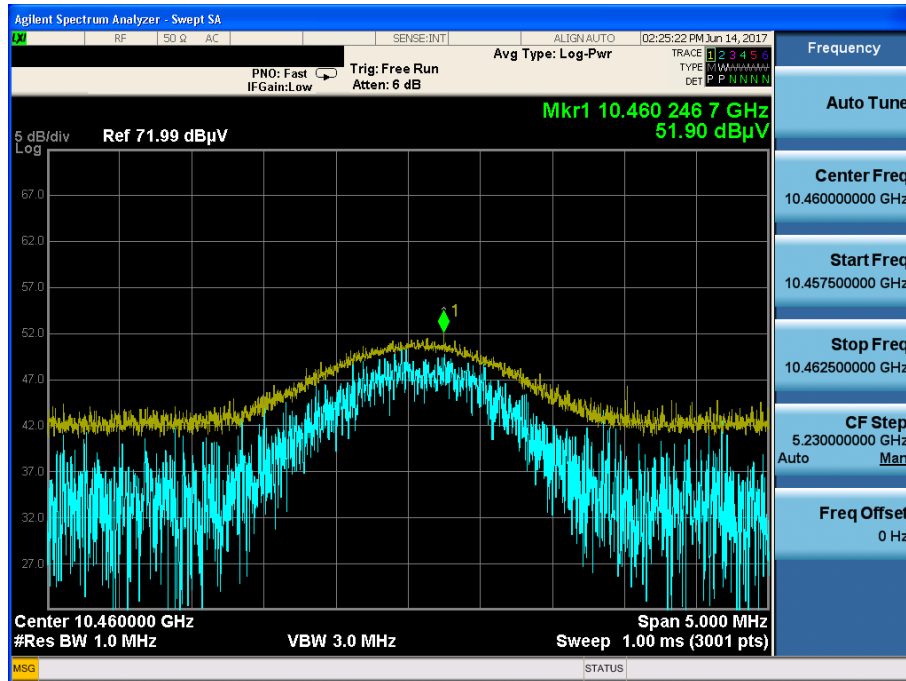


802.11n(HT40) &amp; U-NII 1 &amp; Ch.38 &amp; X axis &amp; Hor

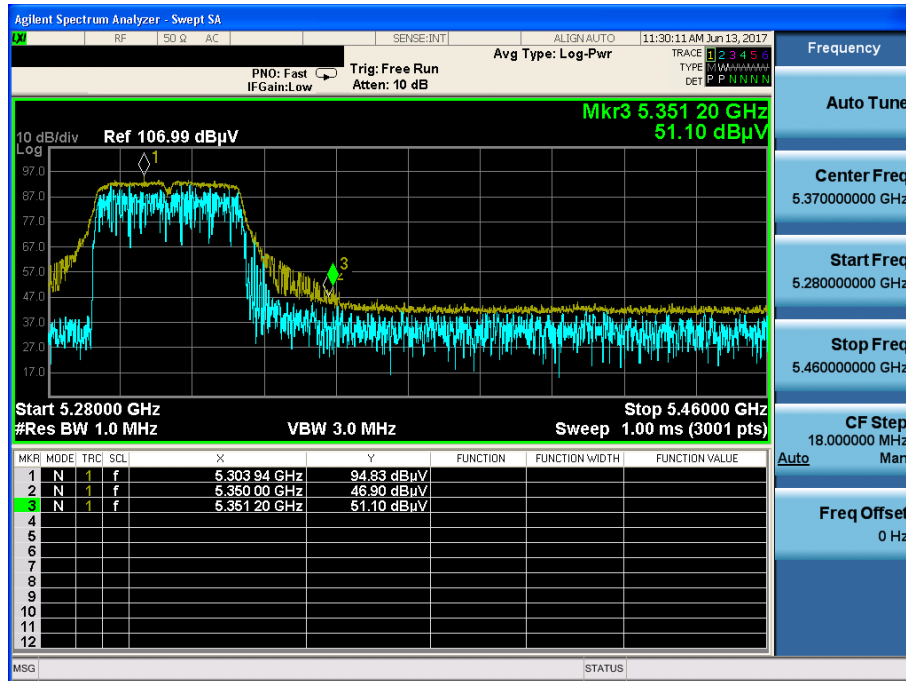
Detector Mode : AV



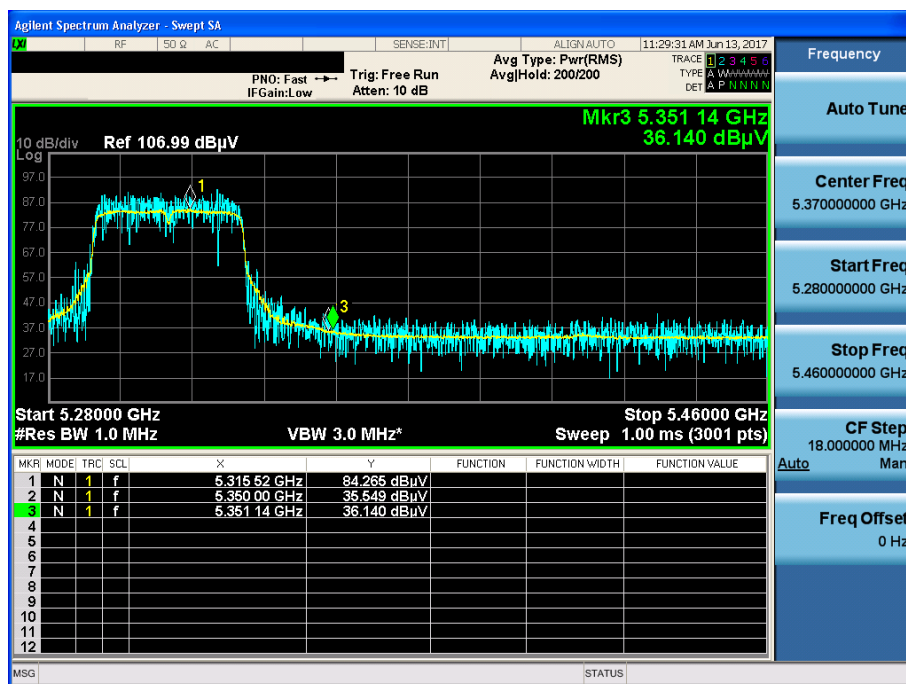
**Detector Mode : PK**



**Detector Mode : PK**

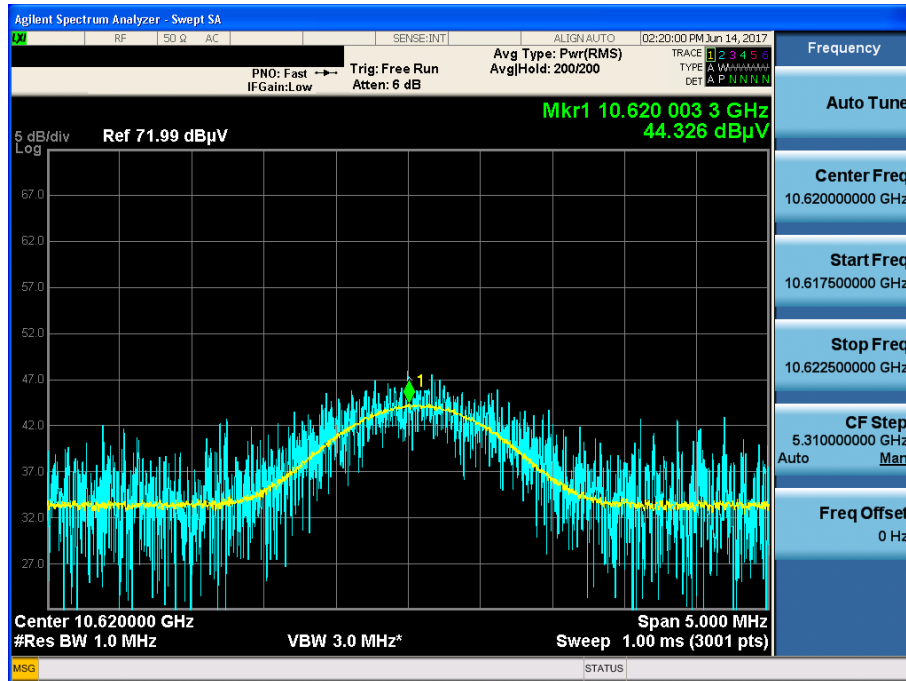


**Detector Mode : AV**



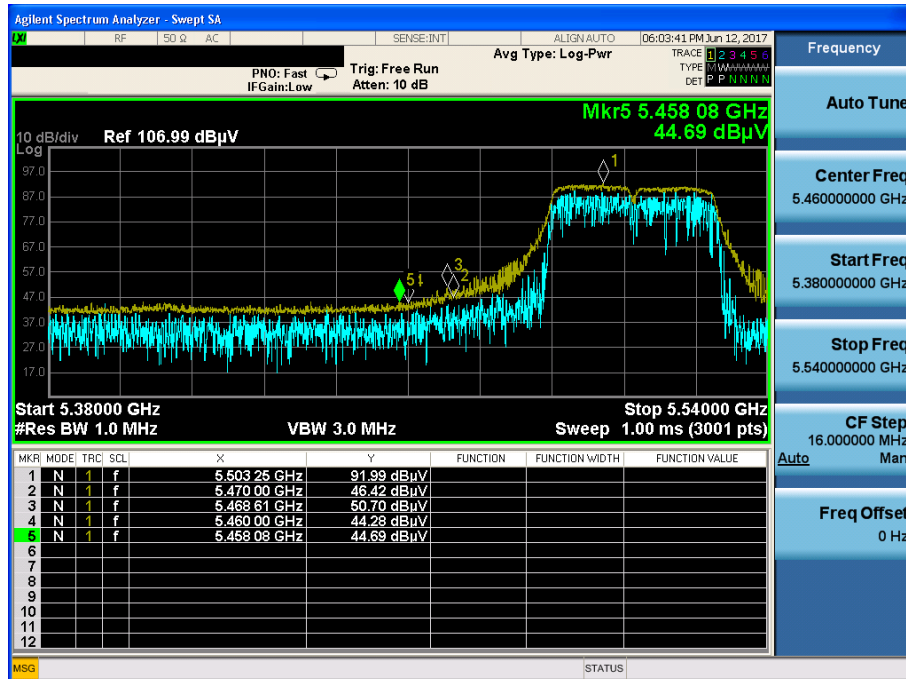
802.11n(HT40) & U-NII 2A & Ch.62 & Y axis & Hor

Detector Mode : AV



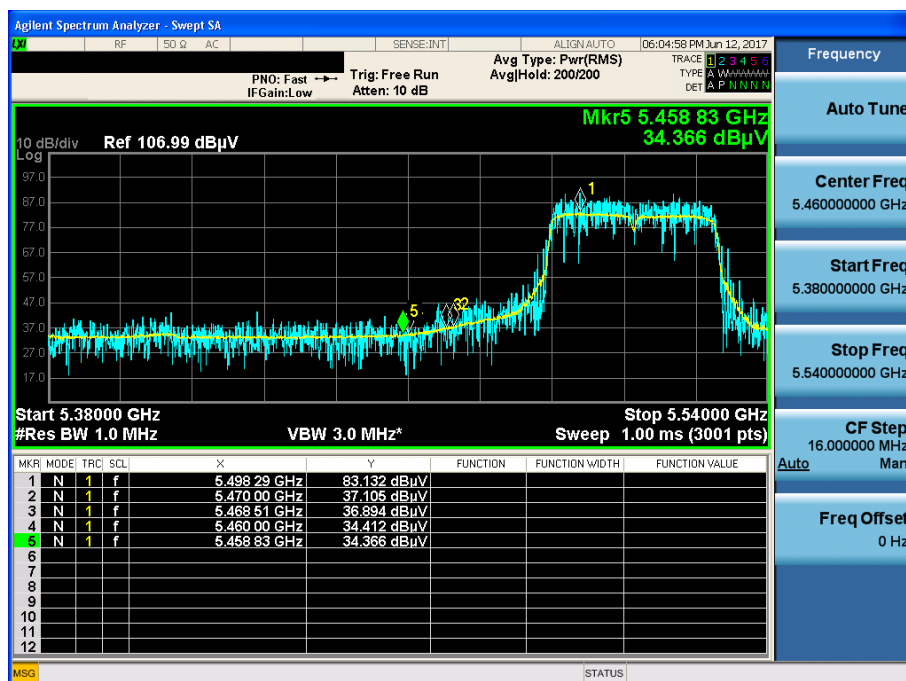
802.11n(HT40) &amp; U-NII 2C &amp; Ch.102 &amp; Z axis &amp; Hor

Detector Mode : PK



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

Detector Mode : AV



**Detector Mode : PK**

Agilent Spectrum Analyzer - Swept SA

RF SQ AC SENSE:INT ALIGN: AUTO 06:24:07 PM Jun 12, 2017

PNO: Fast Trig: Free Run Avg Type: Log-Pwr

IFGain:Low Atten: 10 dB

TRACE 1 2 3 4 5 6

TYPE P P P P P P

DET P P P P P P

Frequency

Auto Tune

Center Freq 5.72000000 GHz

Start Freq 5.65000000 GHz

Stop Freq 5.79000000 GHz

CF Stop 14.000000 MHz

Freq Offset 0 Hz

10 dB/div Ref 106.99 dBμV

Log

Start 5.65000 GHz Stop 5.79000 GHz

#Res BW 1.0 MHz VBW 3.0 MHz Sweep 1.0 ms (3001 pts)

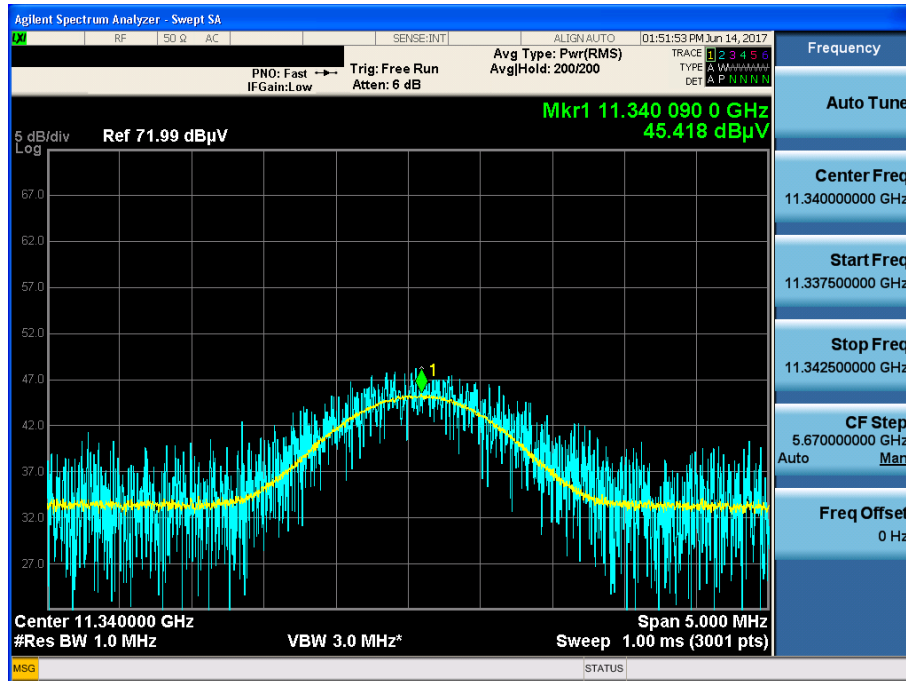
| MRK | MODE | TRC | SCL | X            | Y          | FUNCTION | FUNCTION WIDTH | FUNCTION VALUE |
|-----|------|-----|-----|--------------|------------|----------|----------------|----------------|
| 1   | N    | 1   | f   | 5.673 33 GHz | 96.28 dBμV |          |                |                |
| 2   | N    | 1   | f   | 5.725 00 GHz | 42.31 dBμV |          |                |                |
| 3   | N    | 1   | f   | 5.730 27 GHz | 45.85 dBμV |          |                |                |
| 4   | N    | 1   | f   | 5.776 47 GHz | 45.19 dBμV |          |                |                |
| 5   |      |     |     |              |            |          |                |                |
| 6   |      |     |     |              |            |          |                |                |
| 7   |      |     |     |              |            |          |                |                |
| 8   |      |     |     |              |            |          |                |                |
| 9   |      |     |     |              |            |          |                |                |
| 10  |      |     |     |              |            |          |                |                |
| 11  |      |     |     |              |            |          |                |                |
| 12  |      |     |     |              |            |          |                |                |

MSG

STATUS

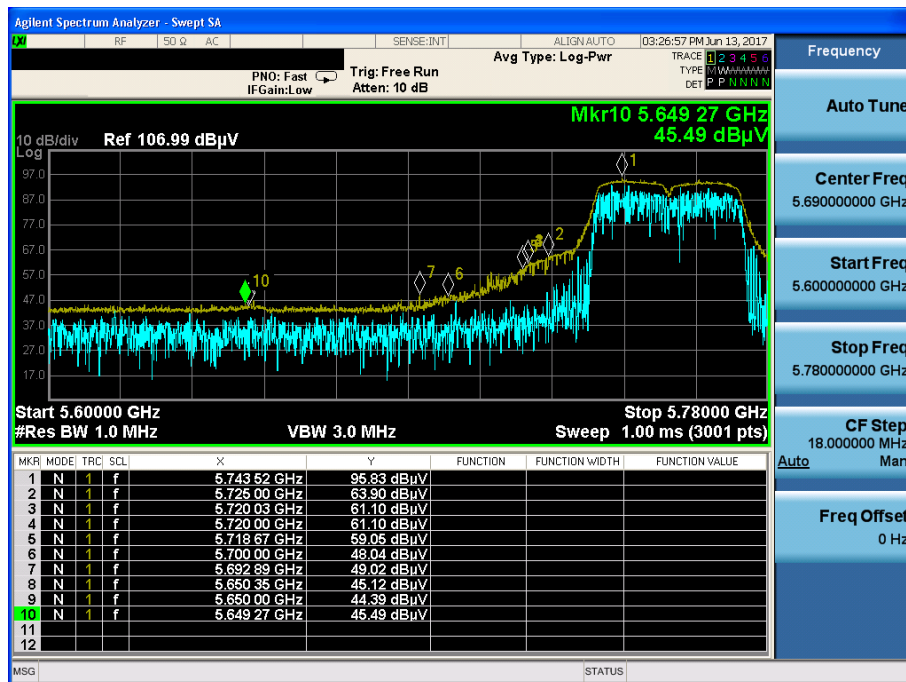
802.11n(HT40) &amp; U-NII 2C &amp; Ch.134 &amp; Z axis &amp; Ver

Detector Mode : AV



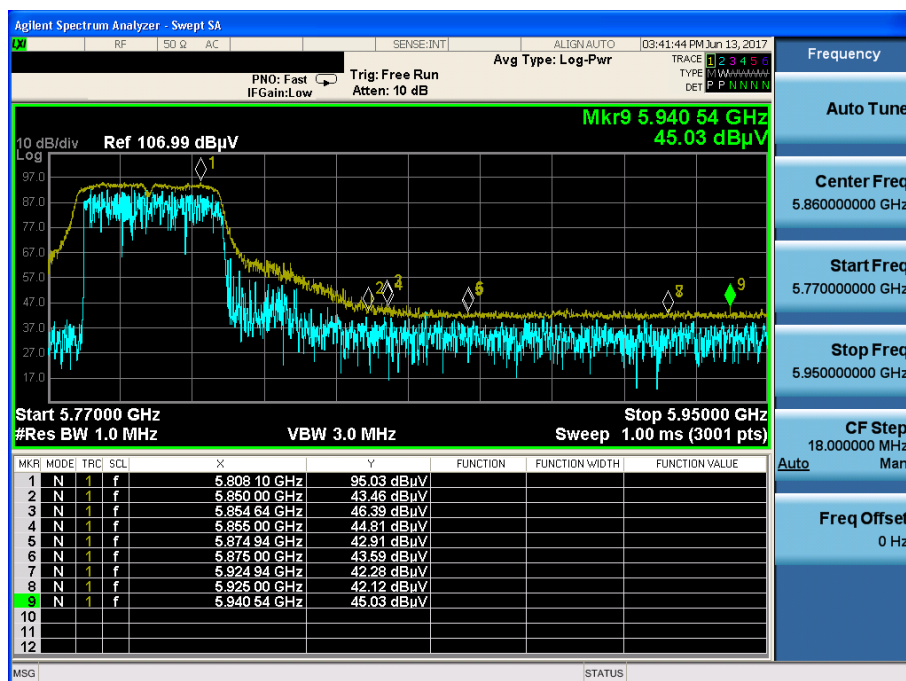
802.11n(HT40) &amp; U-NII 3 &amp; Ch.151 &amp; Z axis &amp; Hor

Detector Mode : PK



802.11n(HT40) &amp; U-NII 3 &amp; Ch.159 &amp; Z axis &amp; Hor

Detector Mode : PK



802.11n(HT40) & U-NII 3 & Ch.151 & Z axis & Ver

Detector Mode : AV

