

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

Test Mode: U-NII 2C &amp; TM 1 &amp; 5 500 MHz

**Results of Conducted Emission**

DTNC

Date 2023-04-28

|                |              |               |              |
|----------------|--------------|---------------|--------------|
| Order No.      |              | Reference No. |              |
| Model No.      | Z7 Main Unit | Power Supply  |              |
| Serial No.     |              | Temp/Humi.    | 21 'C / 43 % |
| Test Condition | WLAN 5.5G    | Operator      | S.M.Gil      |
| Memo           | 802.11a_5500 |               |              |

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

| 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  | 0.15344       | 33.71        | 18.03         | 10.01            | 43.72        | 28.04         | 65.81        | 55.81         | 22.09        | 27.77         | N     |
| 2  | 0.42638       | 31.64        | 25.64         | 10.00            | 41.64        | 35.64         | 57.32        | 47.32         | 15.68        | 11.68         | N     |
| 3  | 1.04980       | 29.60        | 18.70         | 10.01            | 39.61        | 28.71         | 56.00        | 46.00         | 16.39        | 17.29         | N     |
| 4  | 1.00960       | 29.62        | 18.11         | 10.01            | 39.63        | 28.12         | 56.00        | 46.00         | 16.37        | 17.88         | N     |
| 5  | 6.83420       | 14.12        | 8.55          | 10.24            | 24.36        | 18.79         | 60.00        | 50.00         | 35.64        | 31.21         | N     |
| 6  | 18.37800      | 13.31        | 7.82          | 10.55            | 23.86        | 18.37         | 60.00        | 50.00         | 36.14        | 31.63         | N     |
| 7  | 0.15427       | 33.47        | 17.78         | 9.91             | 43.38        | 27.69         | 65.77        | 55.77         | 22.39        | 28.08         | L     |
| 8  | 0.42290       | 33.44        | 21.89         | 9.89             | 43.33        | 31.78         | 57.39        | 47.39         | 14.06        | 15.61         | L     |
| 9  | 0.82462       | 27.82        | 16.12         | 9.90             | 37.72        | 26.02         | 56.00        | 46.00         | 18.28        | 19.98         | L     |
| 10 | 1.83540       | 27.07        | 16.12         | 10.04            | 37.11        | 26.16         | 56.00        | 46.00         | 18.89        | 19.84         | L     |
| 11 | 5.14060       | 18.46        | 7.12          | 10.10            | 28.56        | 17.22         | 60.00        | 50.00         | 31.44        | 32.78         | L     |
| 12 | 17.42320      | 18.55        | 6.09          | 10.36            | 28.91        | 16.45         | 60.00        | 50.00         | 31.09        | 33.55         | L     |

**AC Power-Line Conducted Emissions (Graph)**

Test Mode: U-NII 3 &amp; TM 1 &amp; 5 745 MHz

**Results of Conducted Emission**

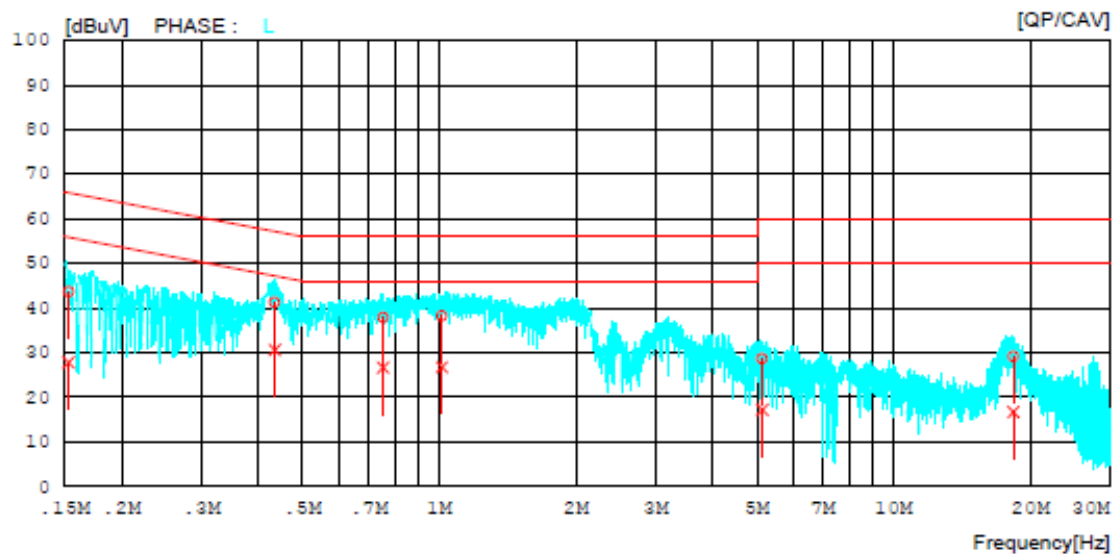
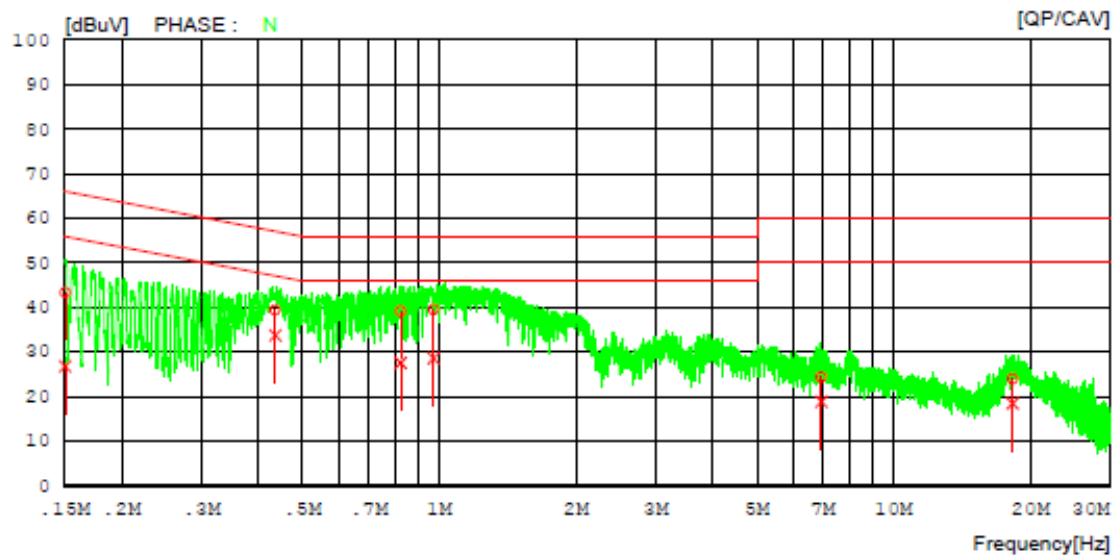
DTNC

Date 2023-04-28

Order No.  
Model No. Z7 Main Unit  
Serial No.  
Test Condition WLAN 5.7G  
Memo 802.11a\_5745

Reference No.  
Power Supply  
Temp/Humi. 21 °C / 43 %  
Operator S.M.Gil

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



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

Test Mode: U-NII 3 &amp; TM 1 &amp; 5 745 MHz

**Results of Conducted Emission**

DTNC

Date 2023-04-28

Order No.  
Model No.  
Serial No.  
Test ConditionZ7 Main Unit  
  
WLAN 5.7GReference No.  
Power Supply  
Temp/Humi.  
Operator21 'C / 43 %  
S.M.Gil

Memo 802.11a\_5745

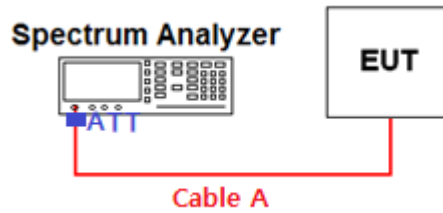
LIMIT : FCC P15.207 AV  
FCC P15.207 QP

| 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  | 0.15025       | 33.33        | 16.85         | 10.01            | 43.34        | 26.86         | 65.99        | 55.99         | 22.65        | 29.13         | N     |
| 2  | 0.43566       | 29.45        | 23.77         | 10.00            | 39.45        | 33.77         | 57.14        | 47.14         | 17.69        | 13.37         | N     |
| 3  | 0.82221       | 29.11        | 17.57         | 10.00            | 39.11        | 27.57         | 56.00        | 46.00         | 16.89        | 18.43         | N     |
| 4  | 0.97120       | 29.47        | 18.59         | 10.01            | 39.48        | 28.60         | 56.00        | 46.00         | 16.52        | 17.40         | N     |
| 5  | 6.93360       | 14.15        | 8.61          | 10.24            | 24.39        | 18.85         | 60.00        | 50.00         | 35.61        | 31.15         | N     |
| 6  | 18.29440      | 13.49        | 7.94          | 10.55            | 24.04        | 18.49         | 60.00        | 50.00         | 35.96        | 31.51         | N     |
| 7  | 0.15288       | 33.75        | 17.85         | 9.91             | 43.66        | 27.76         | 65.84        | 55.84         | 22.18        | 28.08         | L     |
| 8  | 0.43412       | 31.29        | 20.69         | 9.90             | 41.19        | 30.59         | 57.17        | 47.17         | 15.98        | 16.58         | L     |
| 9  | 0.75292       | 27.90        | 16.72         | 9.89             | 37.79        | 26.61         | 56.00        | 46.00         | 18.21        | 19.39         | L     |
| 10 | 1.01340       | 28.16        | 16.70         | 10.01            | 38.17        | 26.71         | 56.00        | 46.00         | 17.83        | 19.29         | L     |
| 11 | 5.13840       | 18.50        | 7.10          | 10.10            | 28.60        | 17.20         | 60.00        | 50.00         | 31.40        | 32.80         | L     |
| 12 | 18.34840      | 18.80        | 6.36          | 10.35            | 29.15        | 16.71         | 60.00        | 50.00         | 30.85        | 33.29         | L     |

## 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**

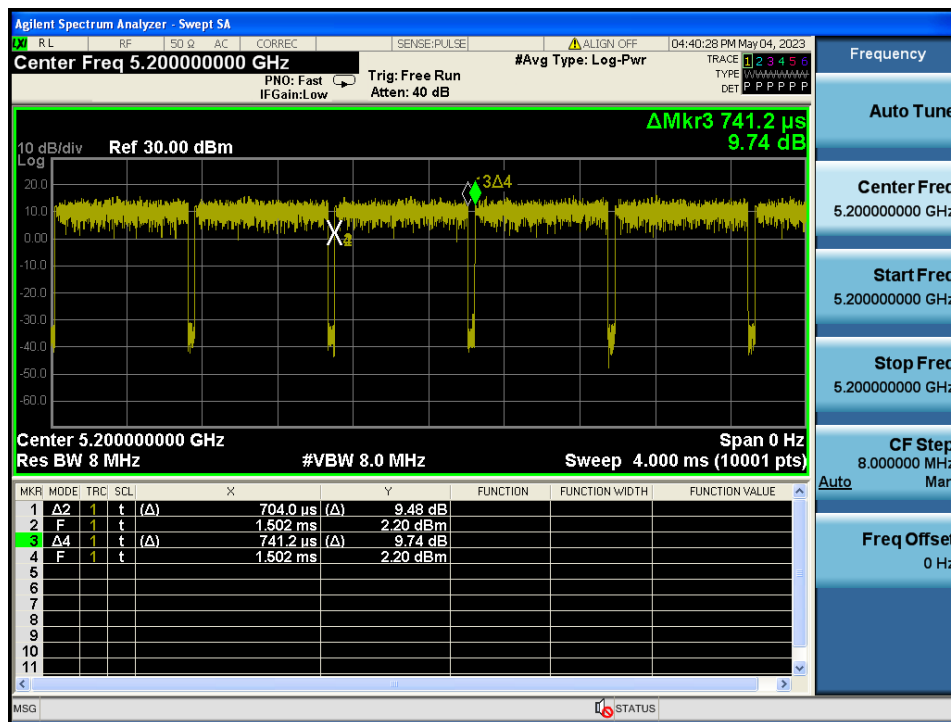
1. Set the center frequency of the spectrum analyzer to the center frequency of the transmission.
2. Set RBW  $\geq$  EBW if possible; otherwise, set RBW to the largest available value.
3. Set VBW  $\geq$  RBW. Set detector = peak.
4. Note : The zero-span measurement method shall not be used unless both **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)

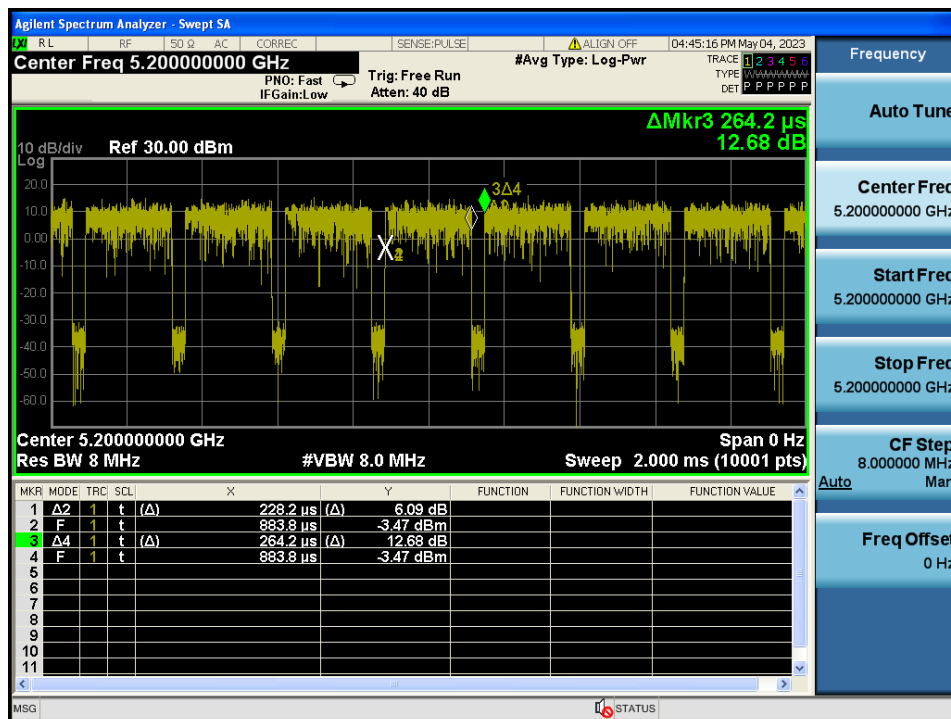
## Duty Cycle

Test Mode: TM1 & Ch.36



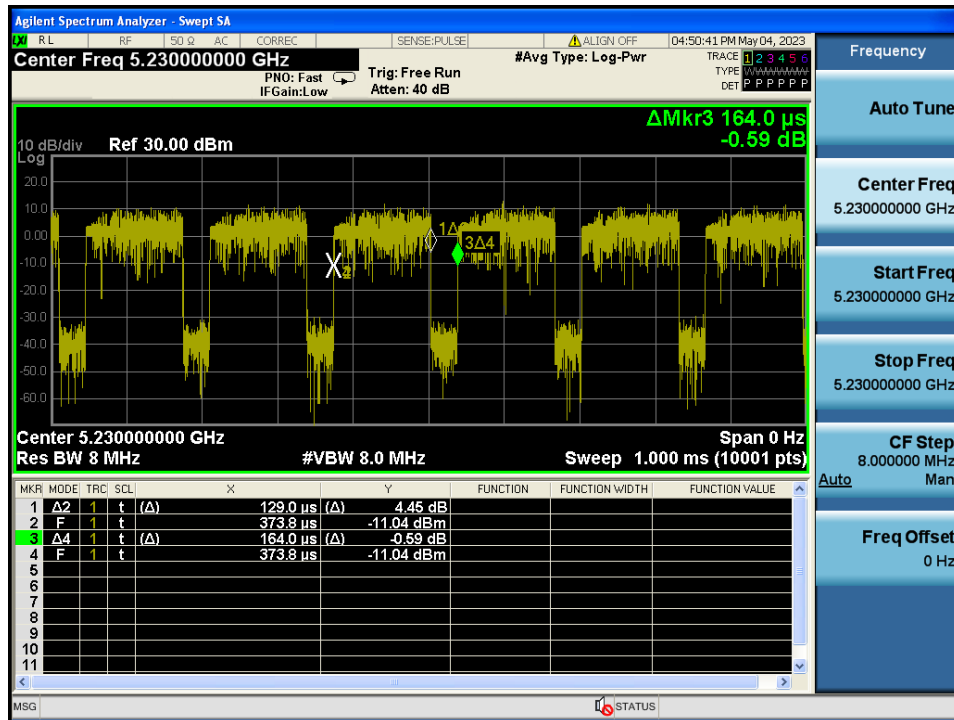
## Duty Cycle

Test Mode: TM 2 & Ch.36



## Duty Cycle

Test Mode: TM 3 &amp; Ch.38

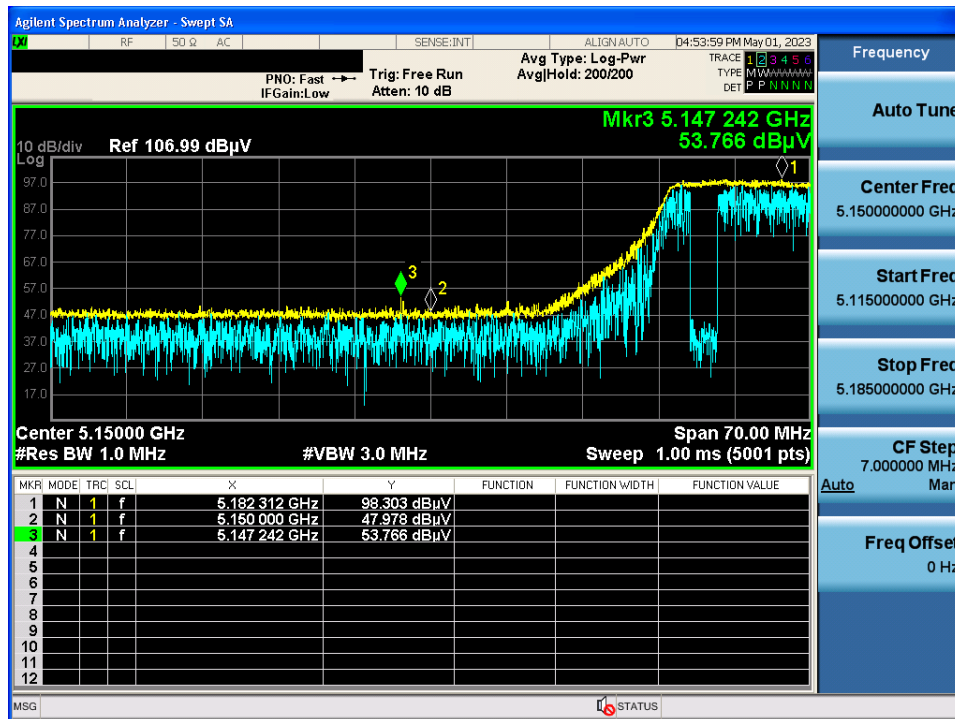


## APPENDIX III

### Unwanted Emissions (Radiated) Test Plot:

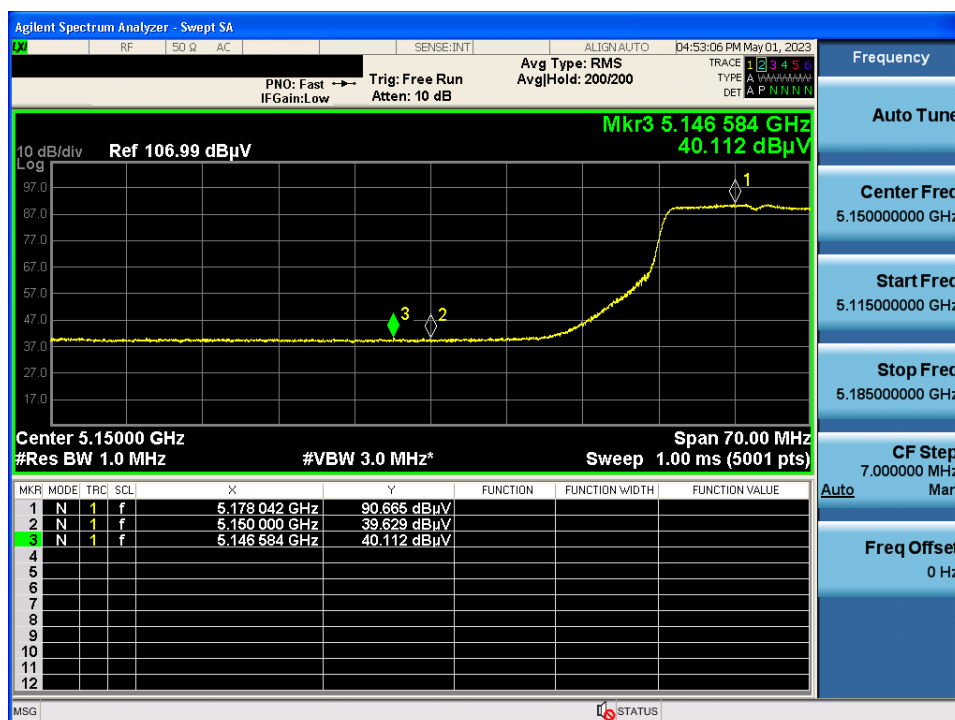
TM 1 & U-NII 1 & 5 180 & Y axis & Ver

Detector Mode : PK



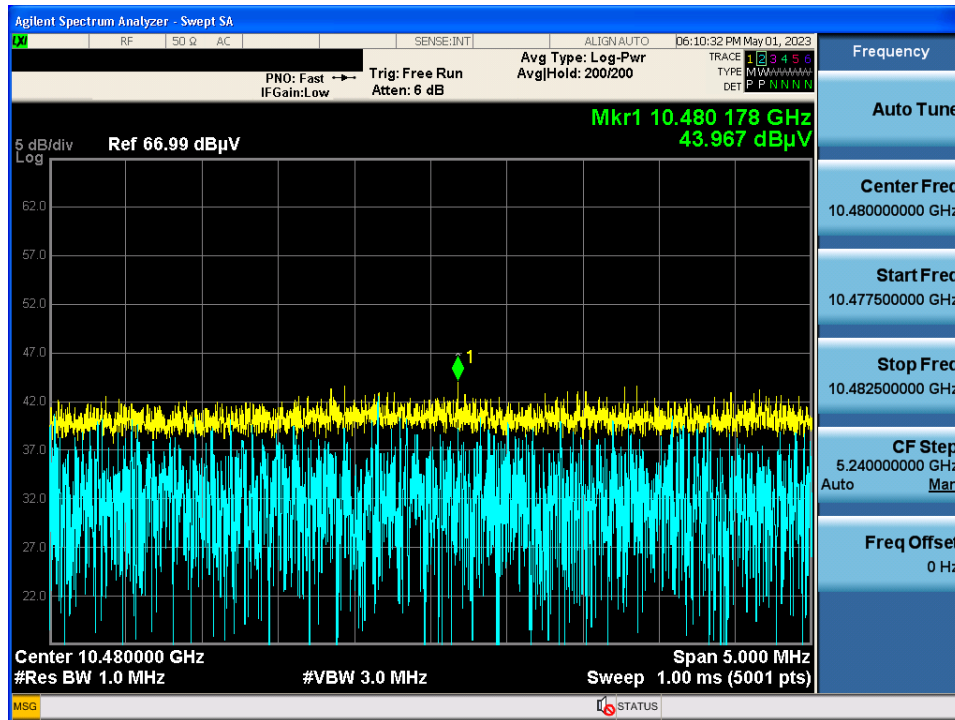
TM 1 & U-NII 1 & 5 180 & Y axis & Ver

Detector Mode : AV



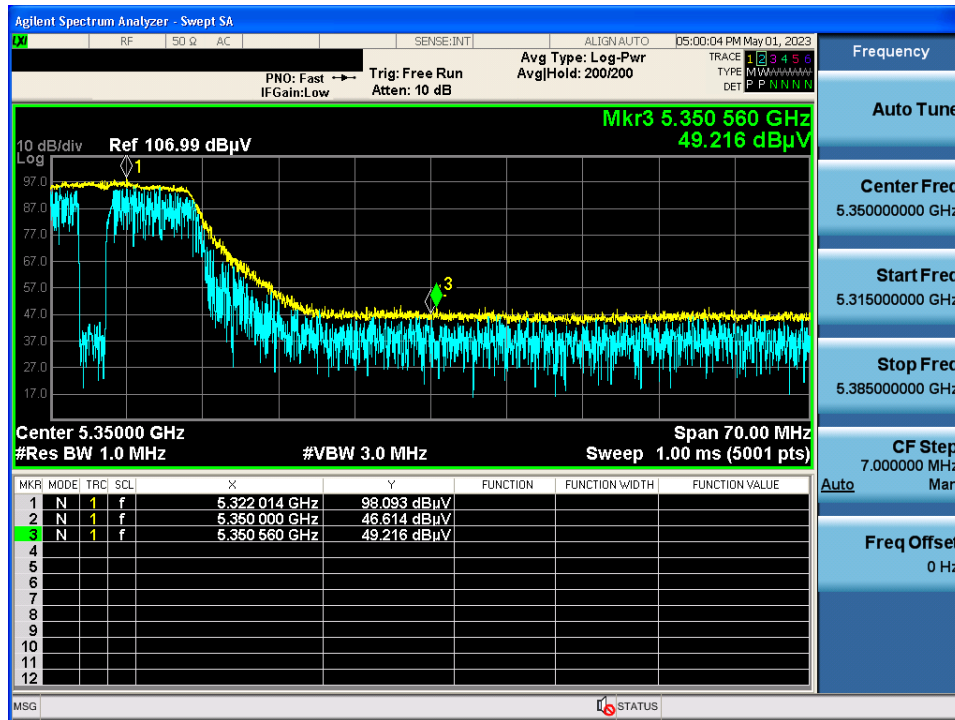
TM 1 & U-NII 1 & 5 240 & Y axis & Ver

Detector Mode : PK



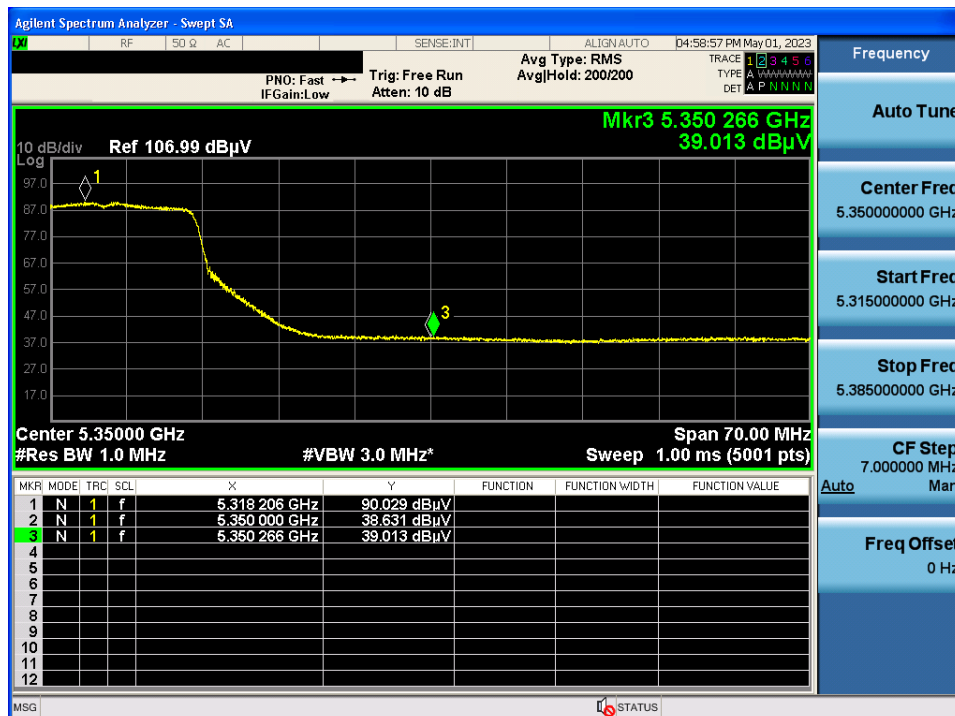
TM 1 & U-NII 2A & 5 320 & Y axis & Ver

Detector Mode : PK



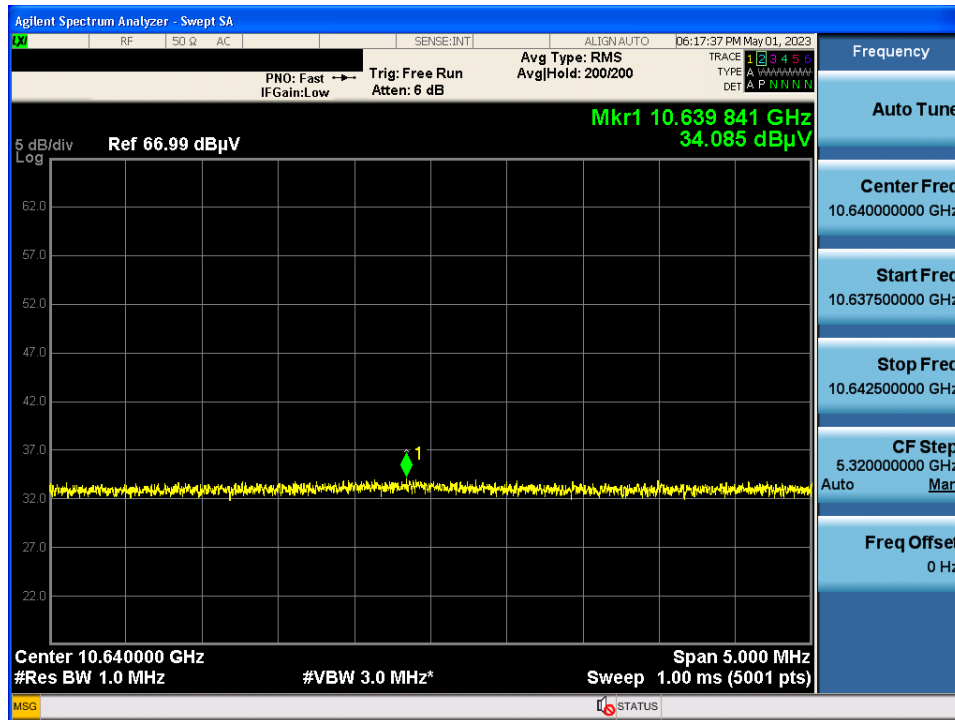
TM 1 & U-NII 2A & 5 320 & Y axis & Ver

Detector Mode : AV



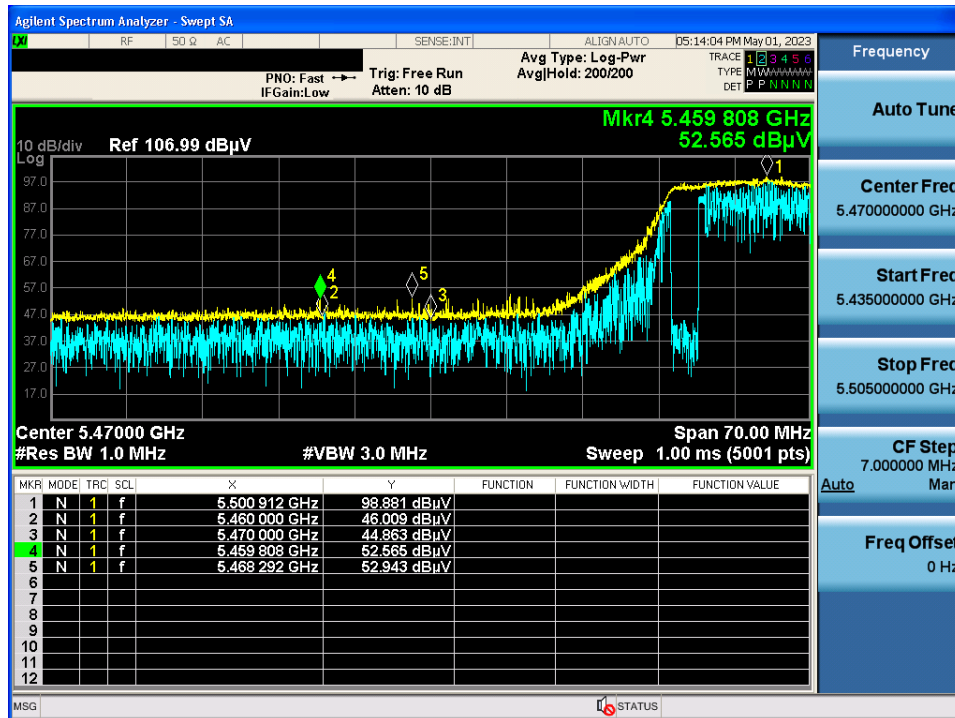
TM 1 & U-NII 2A & 5 320 & Y axis & Ver

Detector Mode : AV



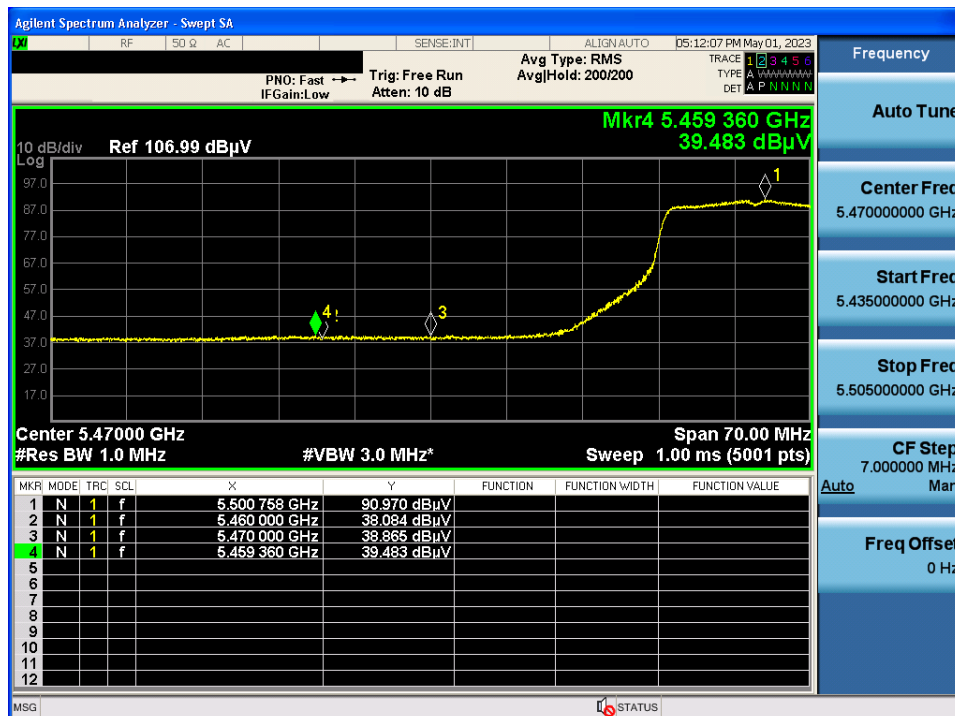
TM 1 & U-NII 2C & 5 500 & Y axis & Ver

Detector Mode : PK



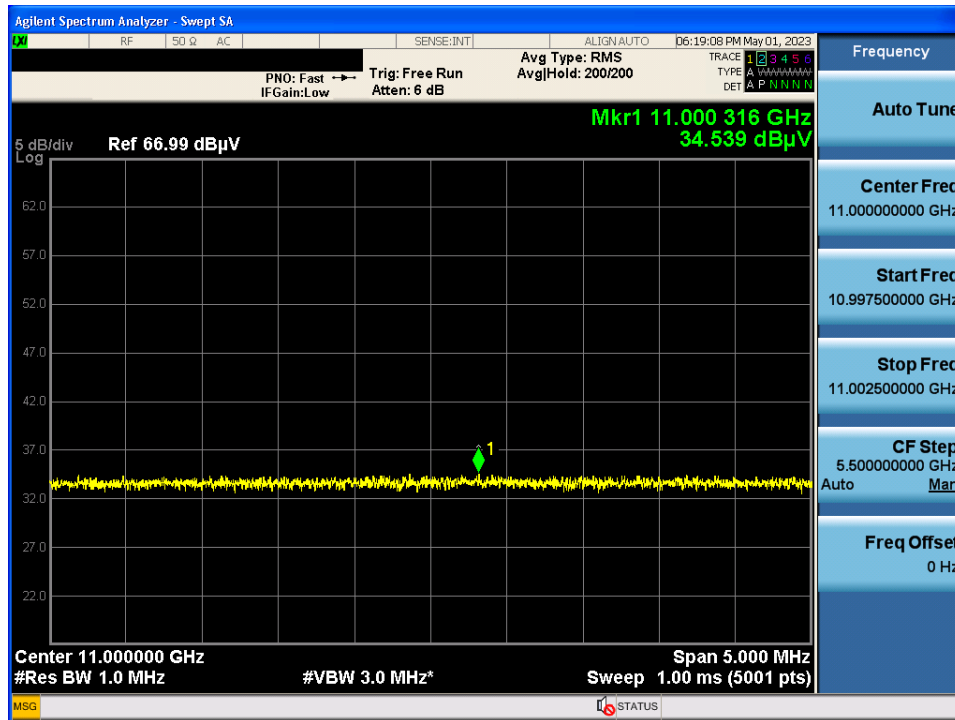
TM 1 & U-NII 2C & 5 500 & Y axis & Ver

Detector Mode : AV



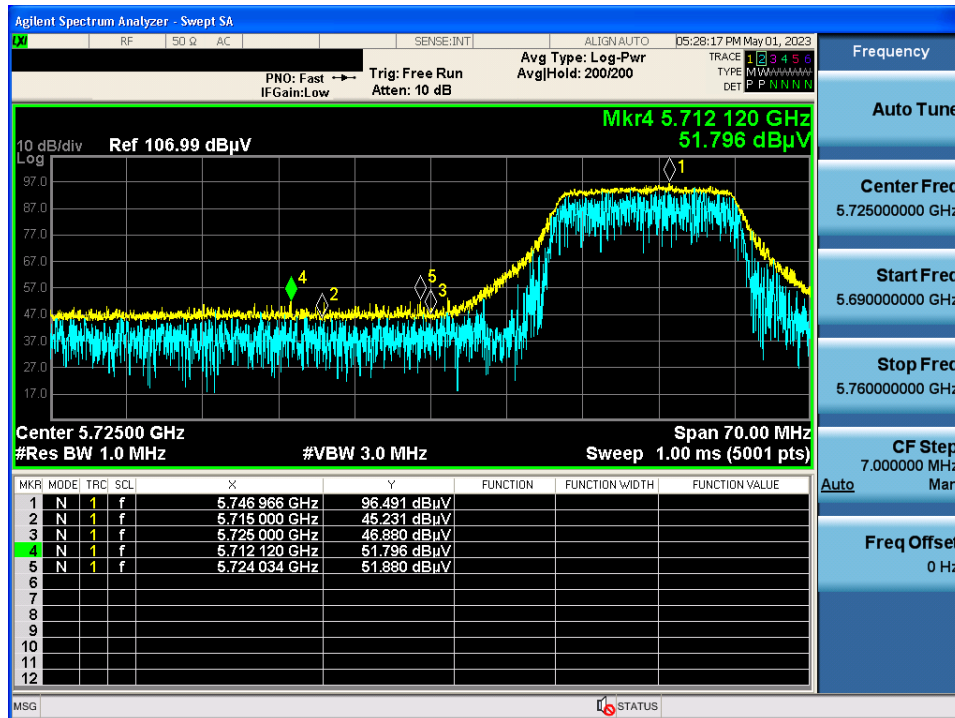
TM 1 & U-NII 2C & 5 500 & Y axis & Ver

Detector Mode : AV



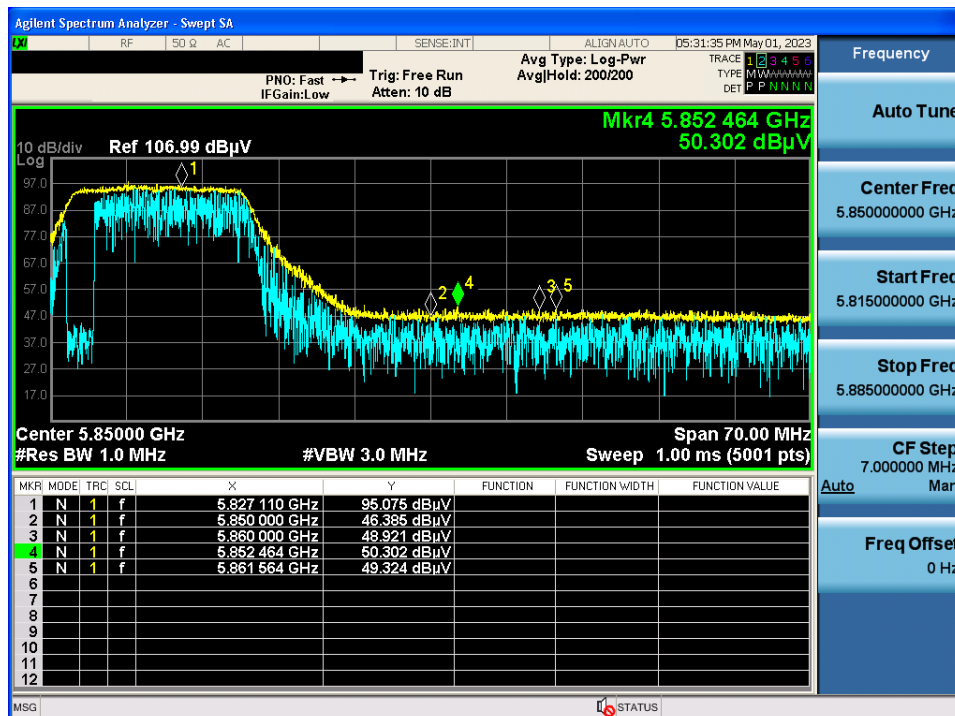
TM 1 &amp; U-NII 3 &amp; 5745 &amp; Y axis &amp; Ver

Detector Mode : PK



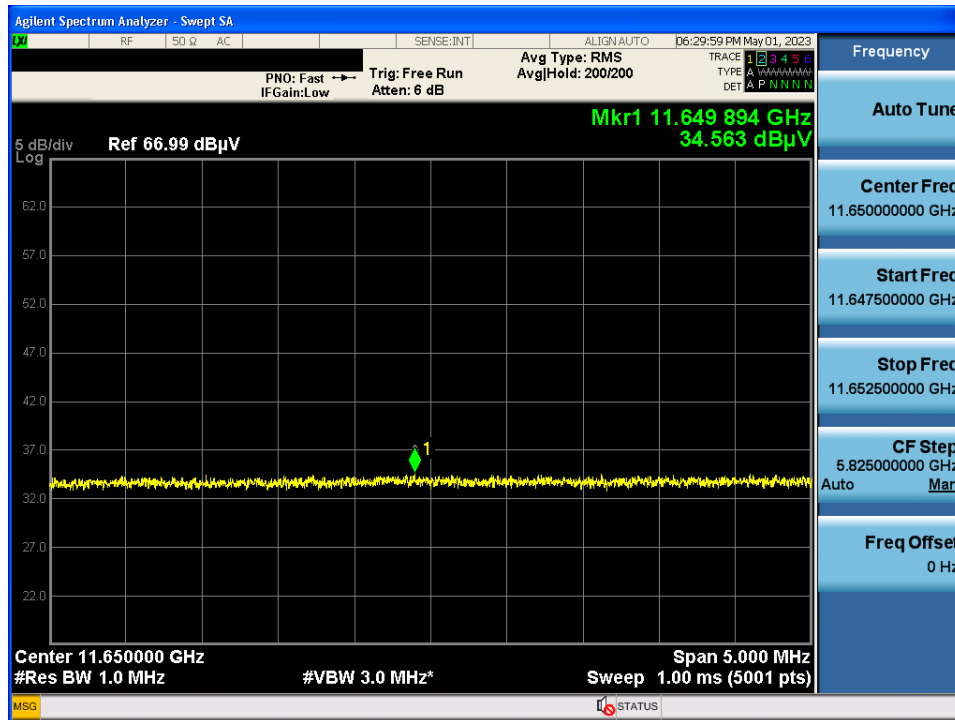
TM 1 &amp; U-NII 3 &amp; 5825 &amp; Y axis &amp; Ver

Detector Mode : PK



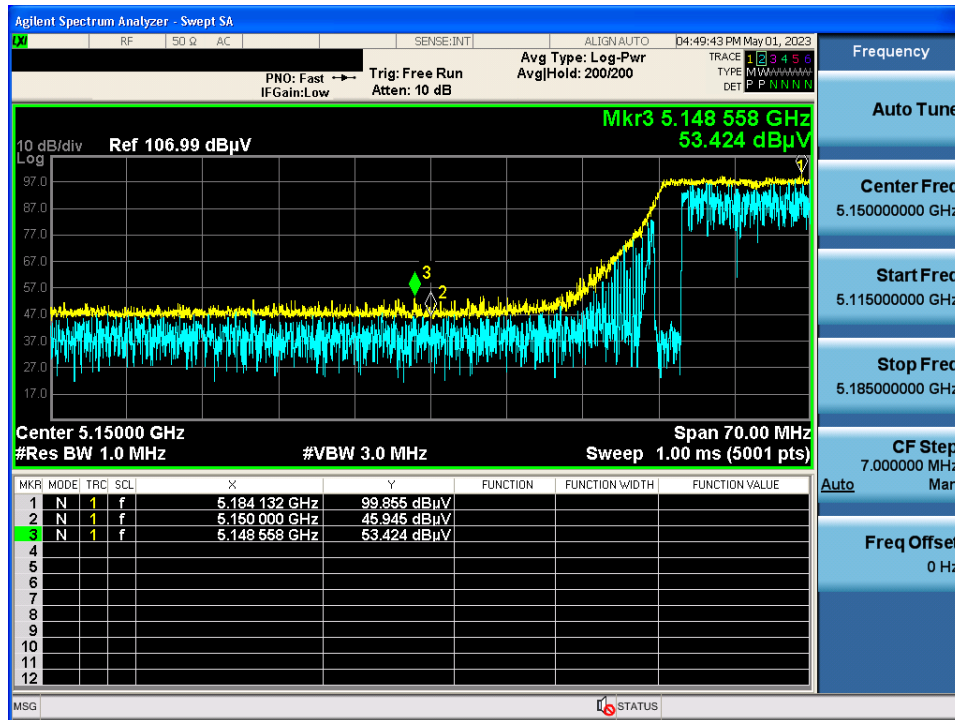
TM 1 & U-NII 3 & 5 825 & Y axis & Ver

Detector Mode : AV



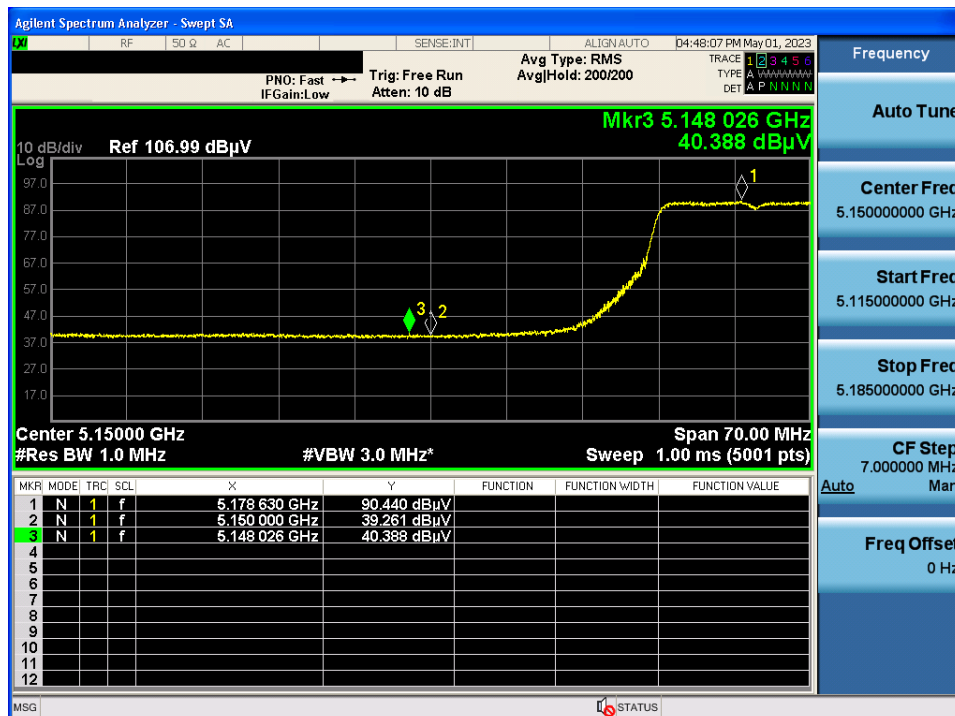
TM 2 & U-NII 1 & 5180 & Y axis & Ver

Detector Mode : PK

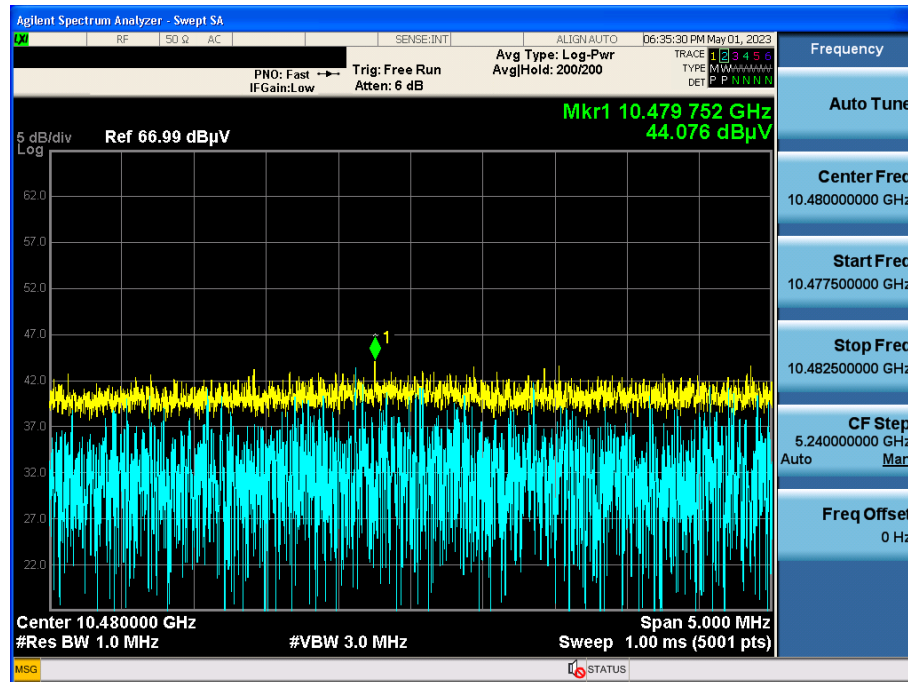


TM 2 & U-NII 1 & 5180 & Y axis & Ver

Detector Mode : AV

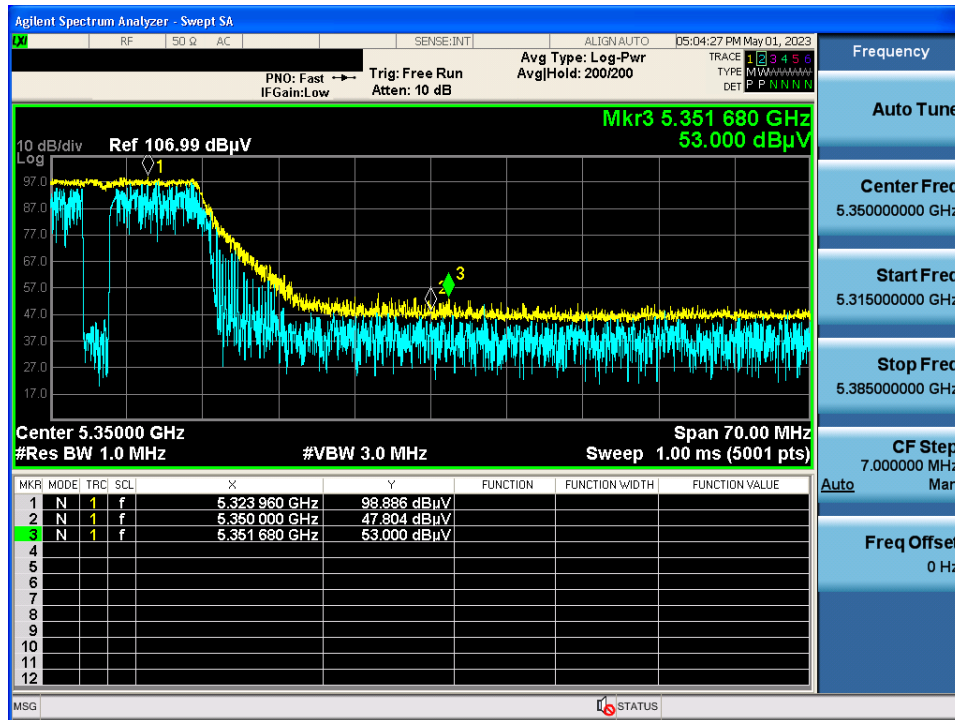


**Detector Mode : PK**



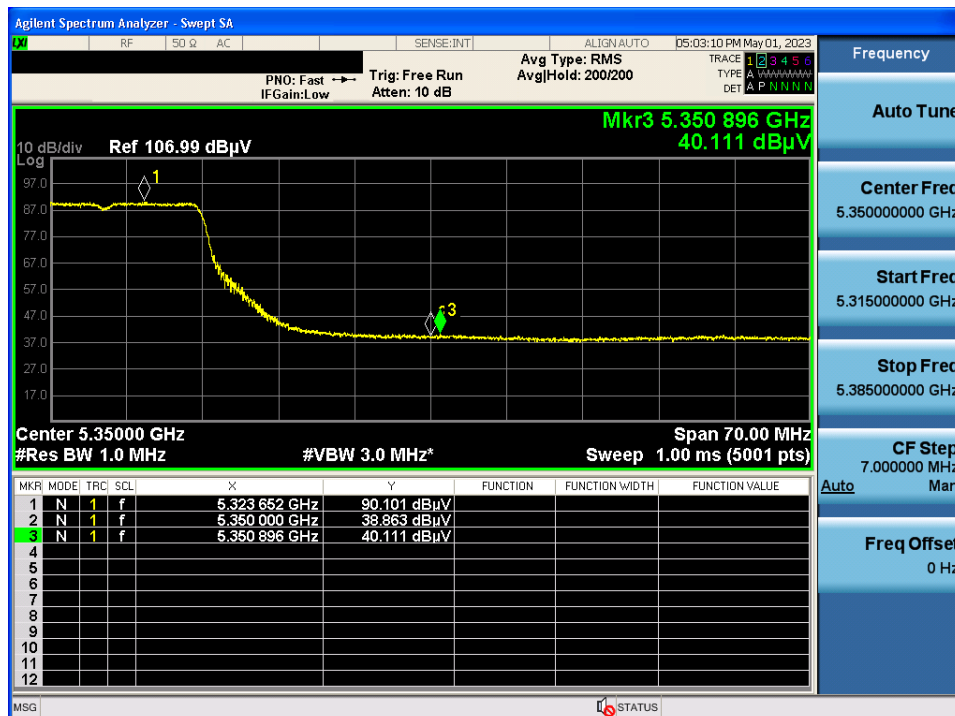
TM 2 & U-NII 2A & 5 320 & Y axis & Ver

Detector Mode : PK



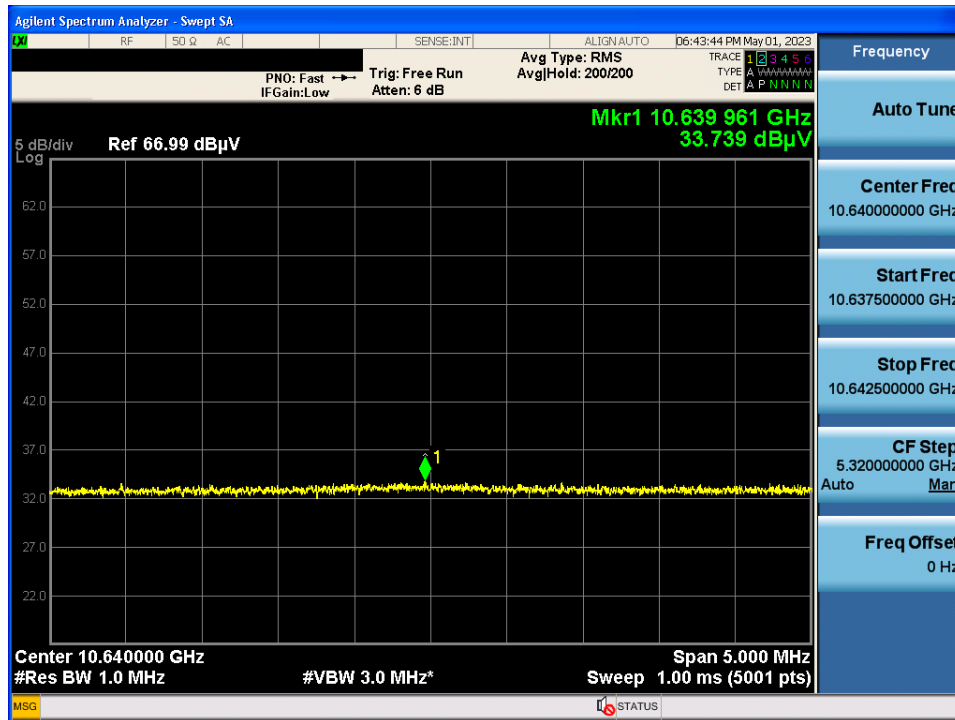
TM 2 & U-NII 2A & 5 320 & Y axis & Ver

Detector Mode : AV



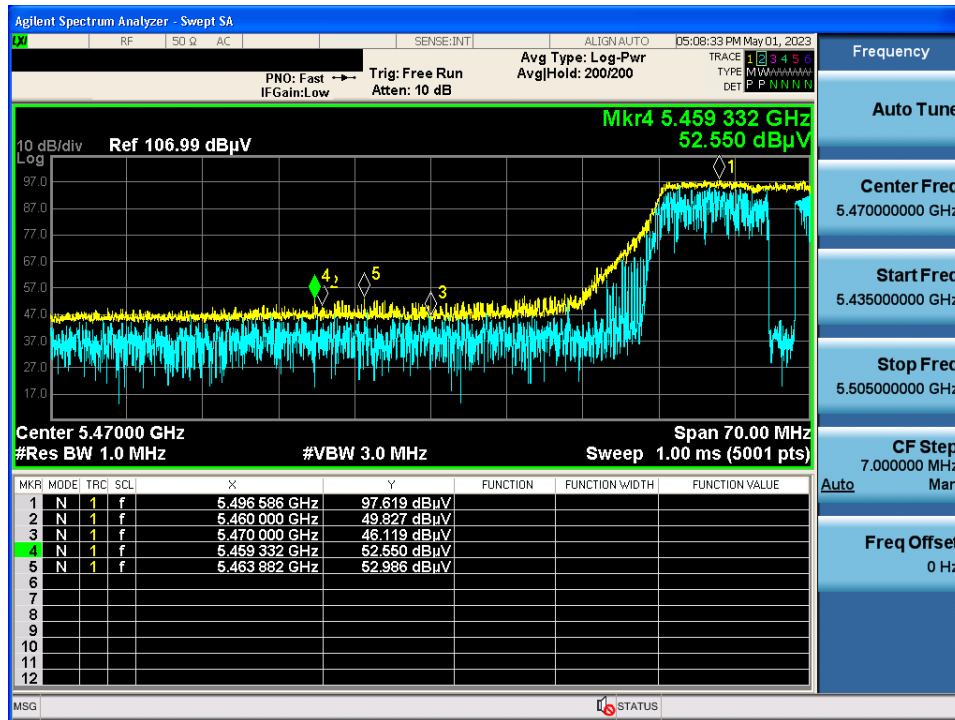
TM 2 & U-NII 2A & 5 320 & Y axis & Ver

Detector Mode : AV



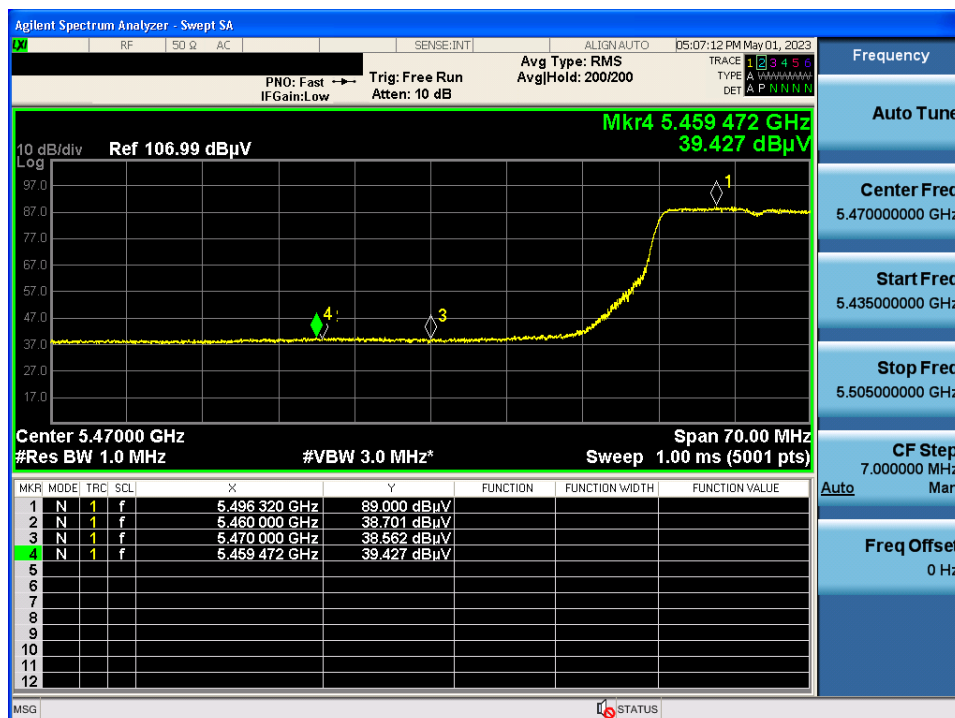
TM 2 & U-NII 2C & 5 500 & Y axis & Ver

Detector Mode : PK



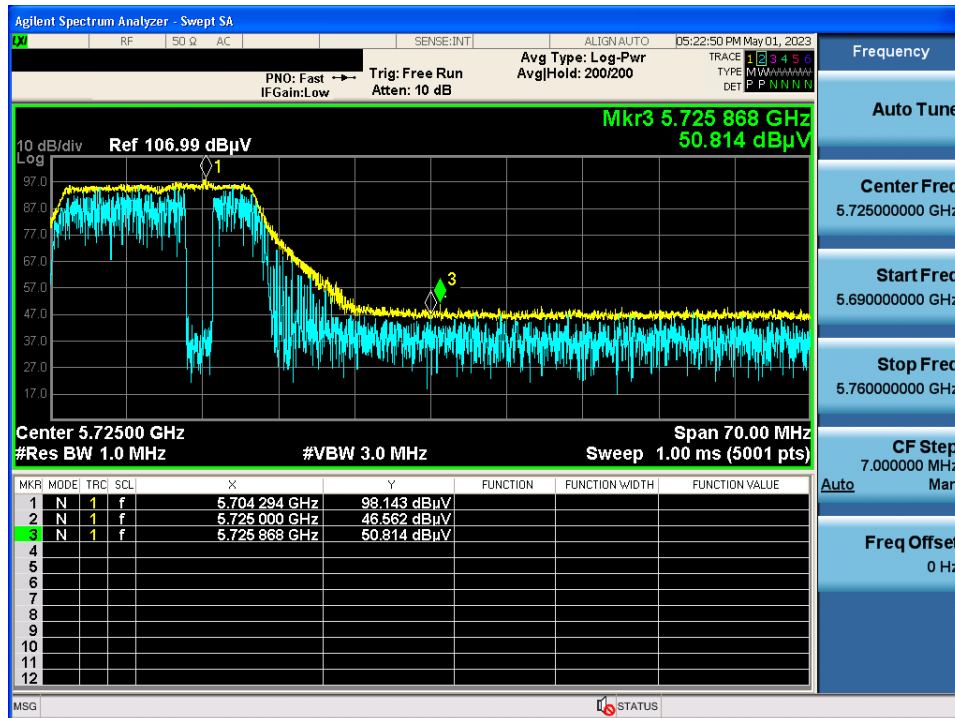
TM 2 & U-NII 2C & 5 500 & Y axis & Ver

Detector Mode : AV



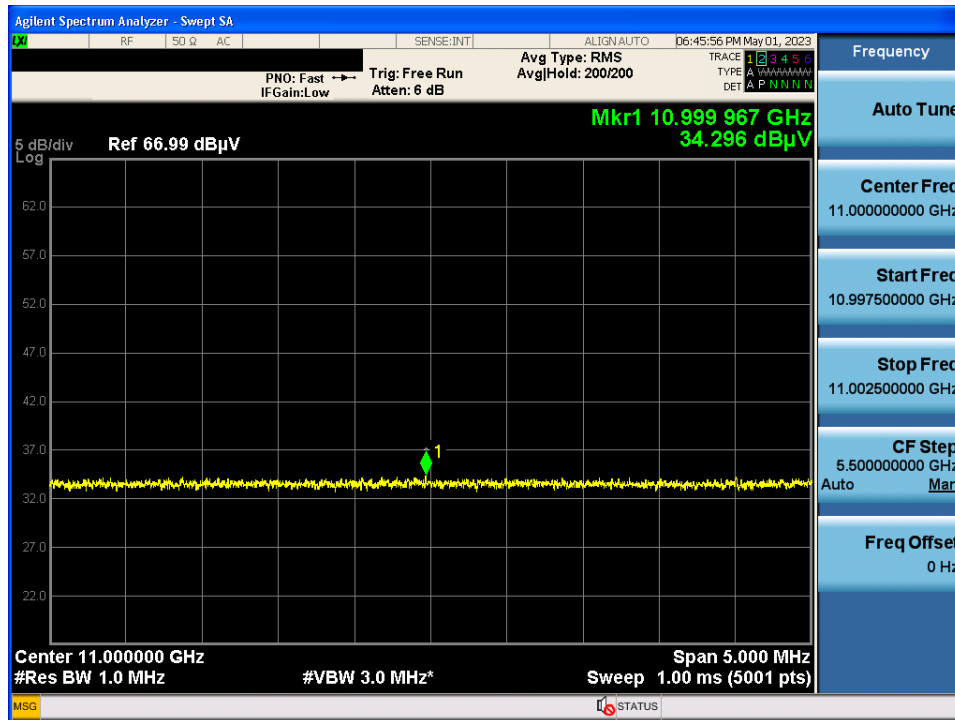
TM 2 & U-NII 2C & 5 720 & Y axis & Ver

Detector Mode : PK



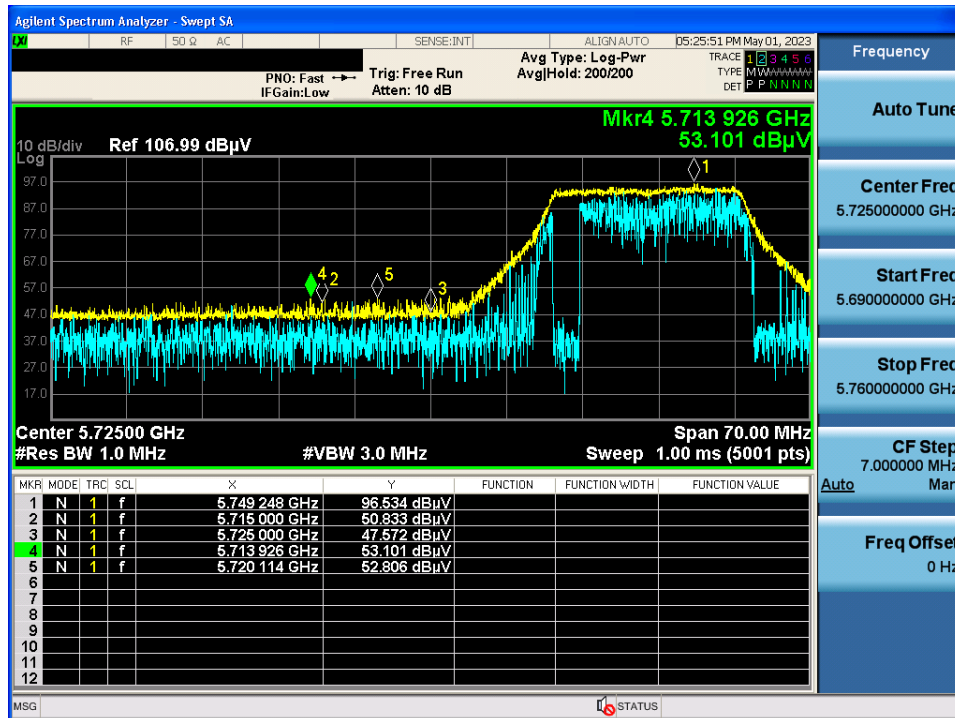
TM 2 & U-NII 2C & 5 500 & Y axis & Ver

Detector Mode : AV



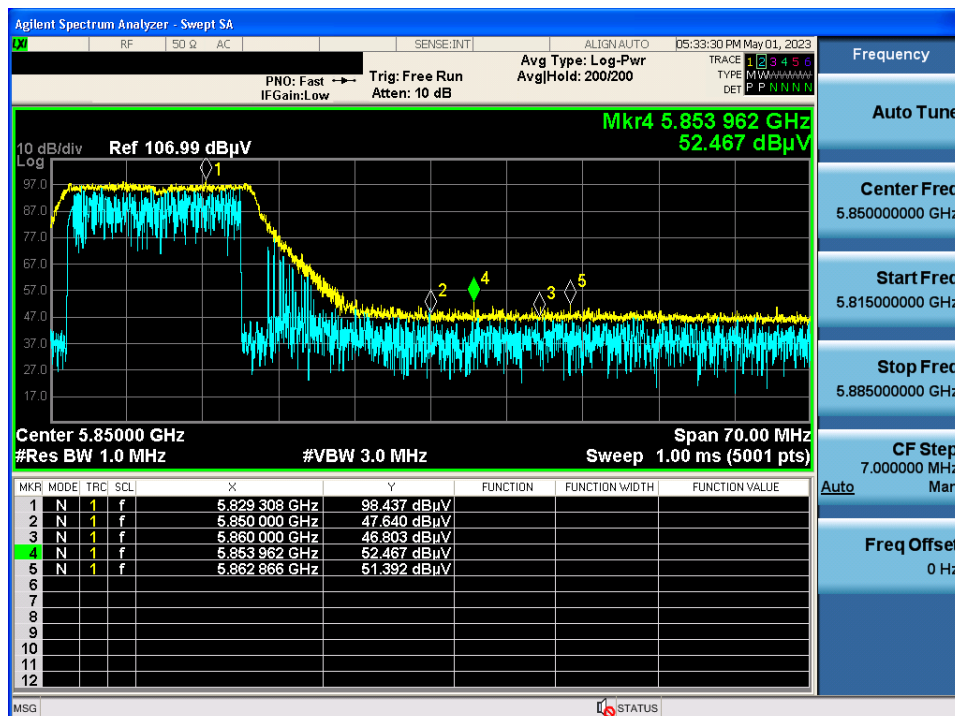
TM 2 &amp; U-NII 3 &amp; 5745 &amp; Y axis &amp; Ver

Detector Mode : PK



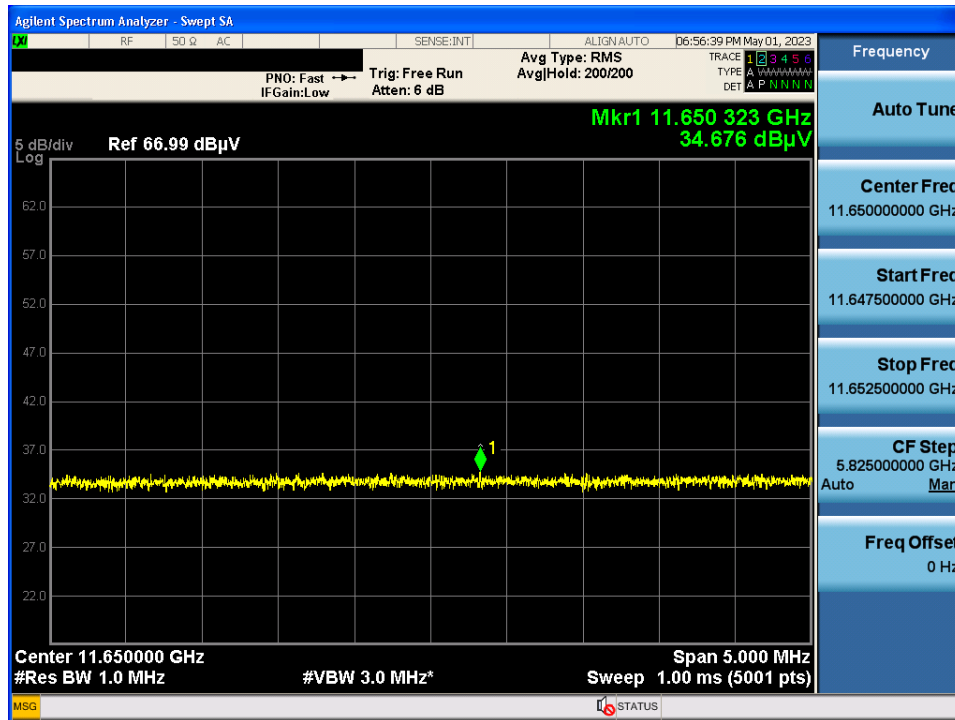
TM 2 &amp; U-NII 3 &amp; 5825 &amp; Y axis &amp; Ver

Detector Mode : PK



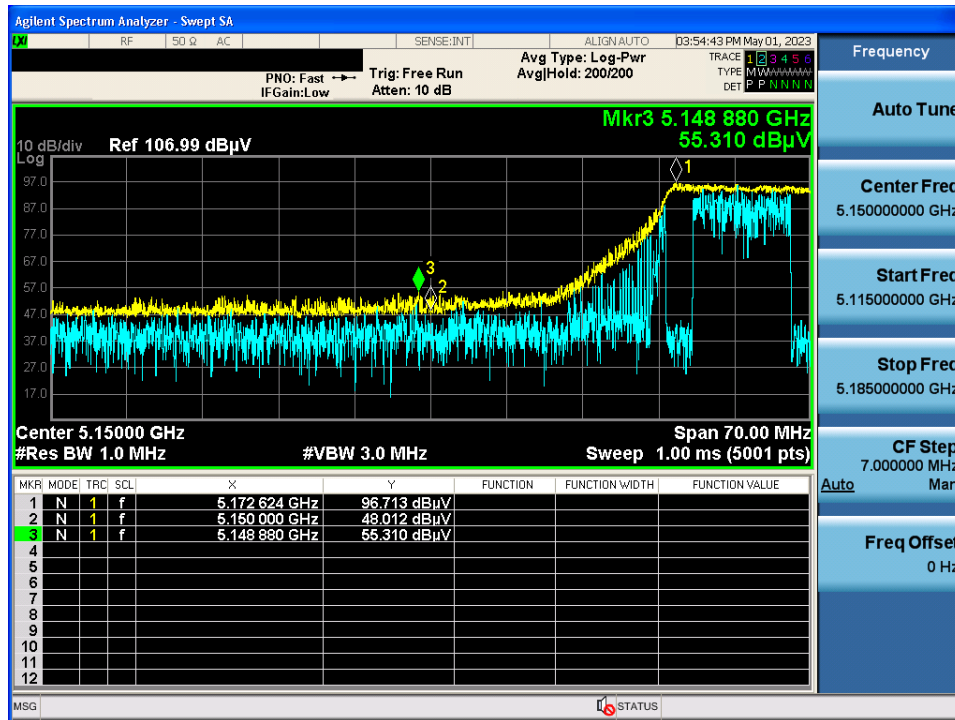
TM 2 &amp; U-NII 3 &amp; 5 825 &amp; Y axis &amp; Ver

Detector Mode : AV



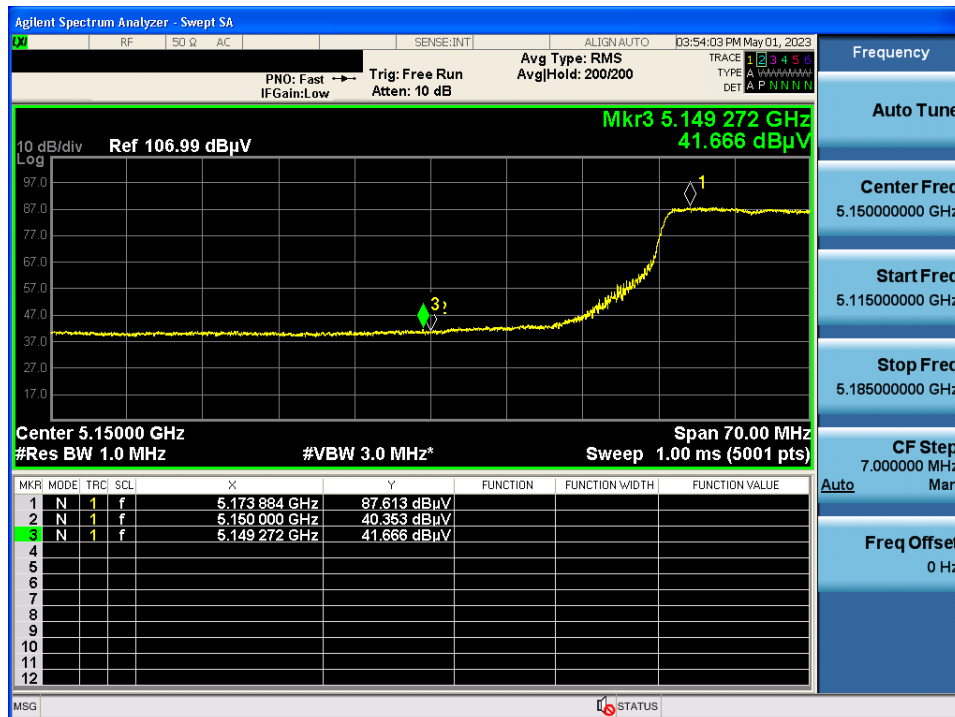
TM 3 & U-NII 1 & 5 190 & Y axis & Ver

Detector Mode : PK

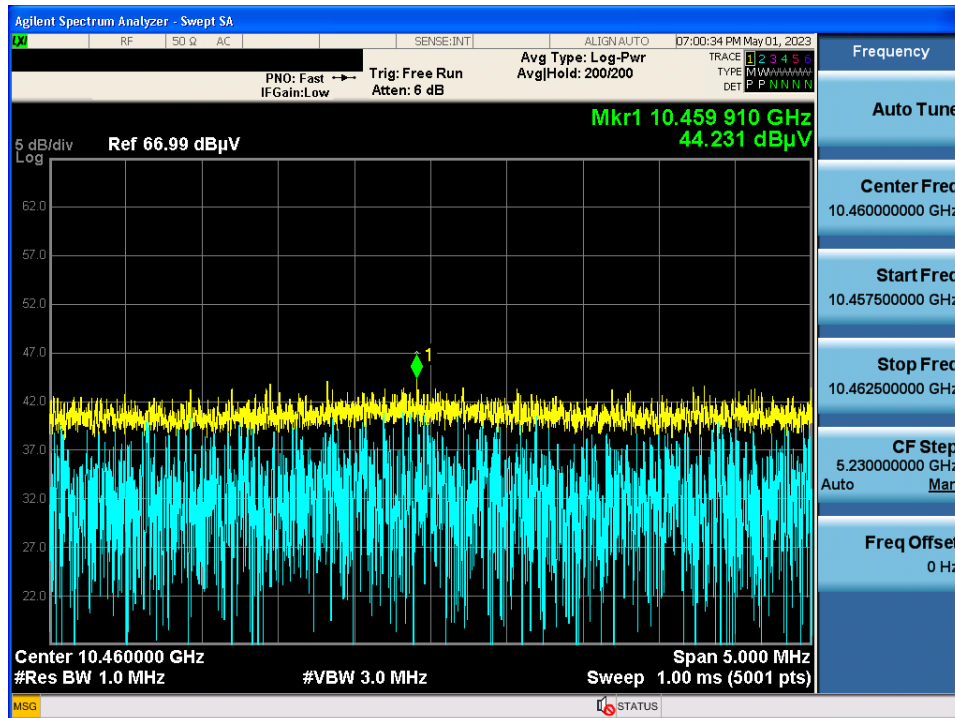


TM 3 & U-NII 1 & 5 190 & Y axis & Ver

Detector Mode : AV

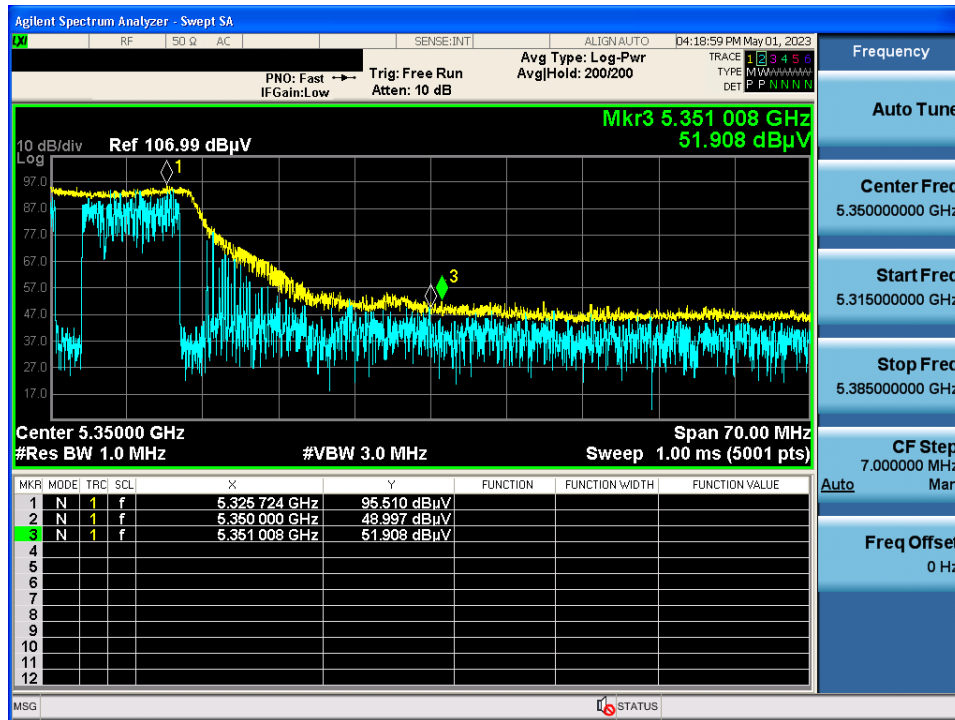


**Detector Mode : PK**



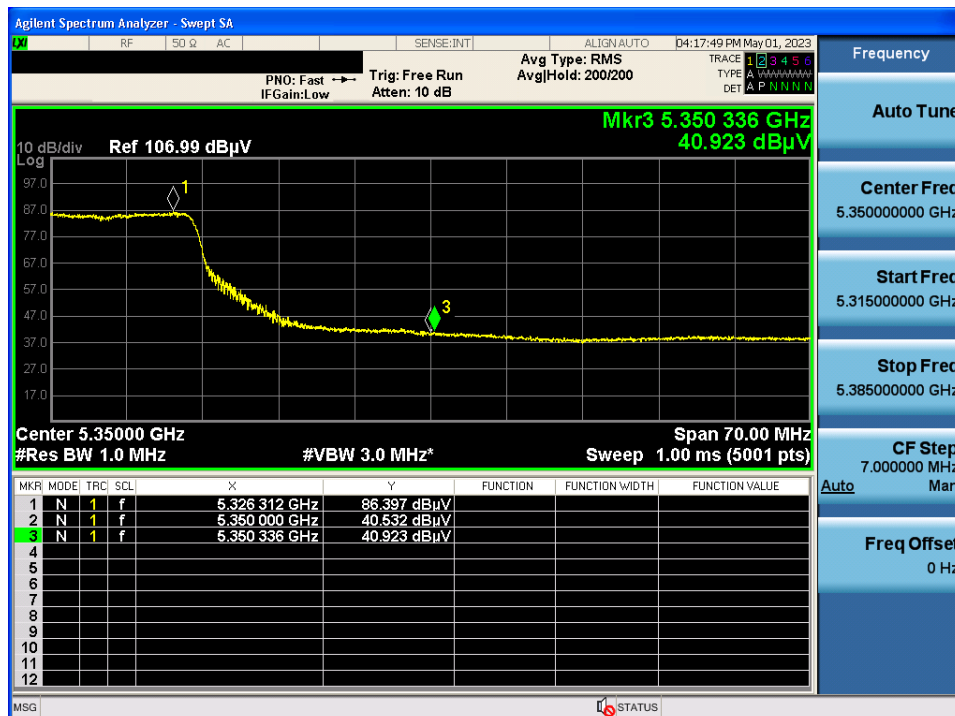
TM 3 &amp; U-NII 2A &amp; 5 310 &amp; Y axis &amp; Ver

Detector Mode : PK



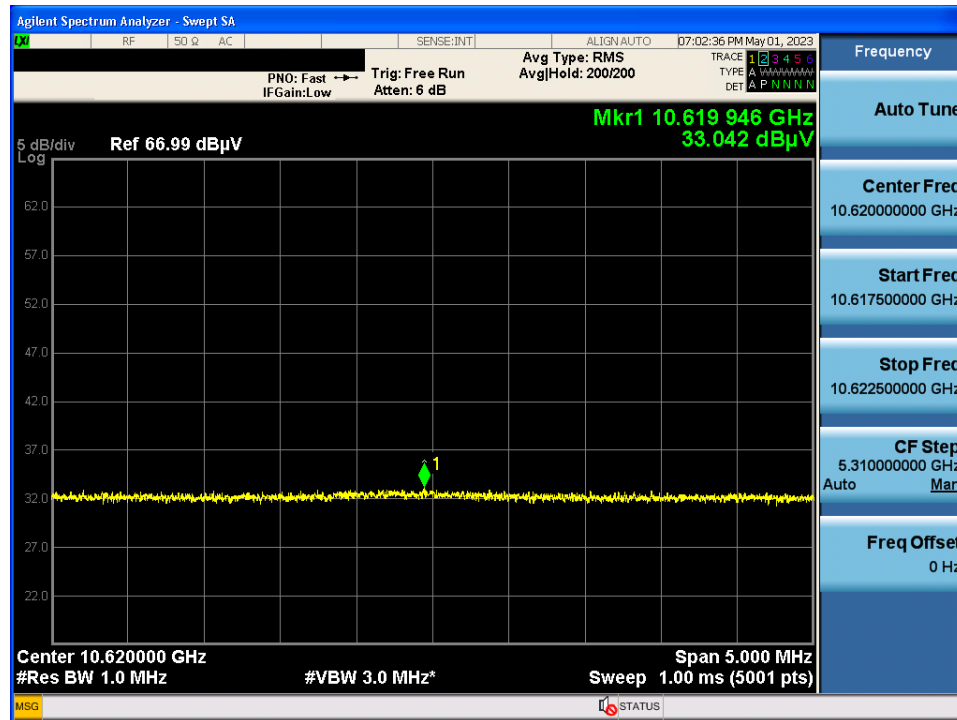
TM 3 &amp; U-NII 2A &amp; 5 310 &amp; Y axis &amp; Ver

Detector Mode : AV



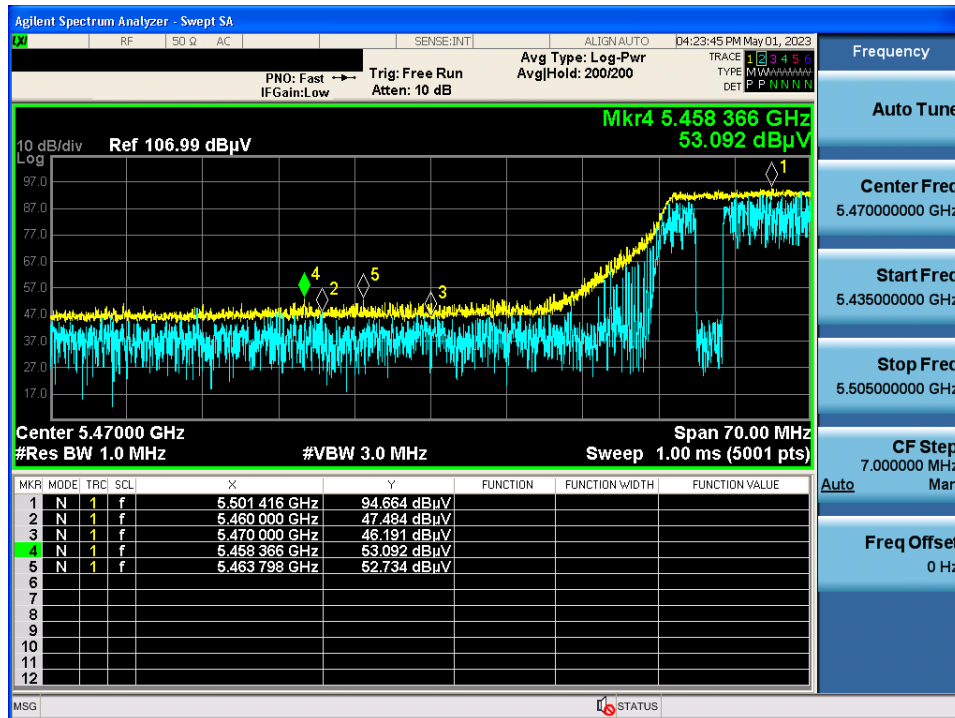
TM 3 & U-NII 2A & 5 310 & Y axis & Ver

Detector Mode : AV



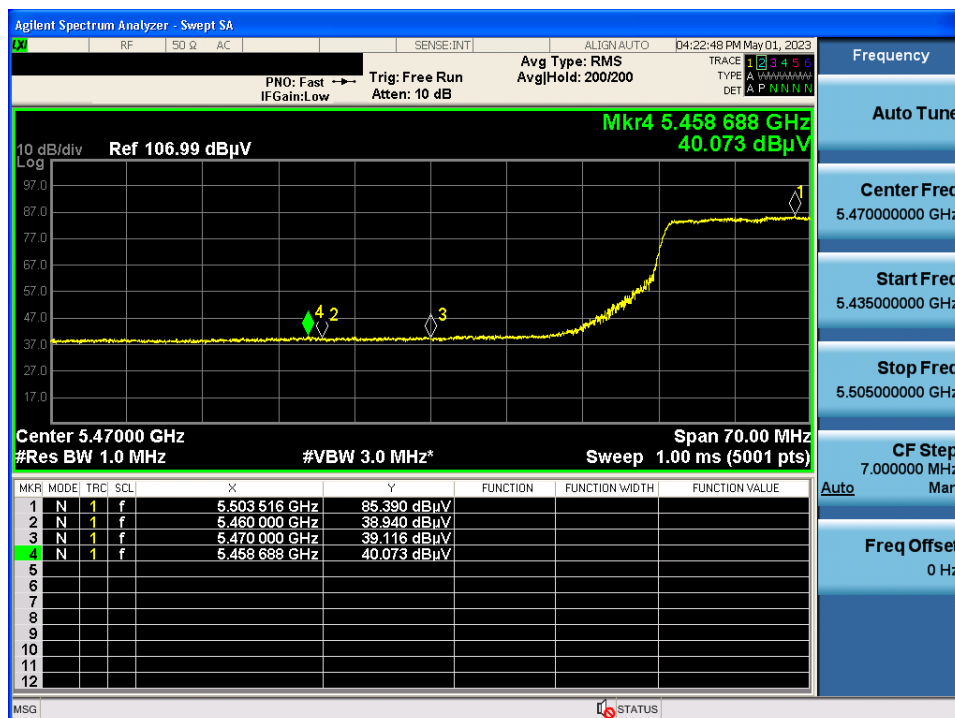
TM 3 &amp; U-NII 2C &amp; 5 510 &amp; Y axis &amp; Ver

Detector Mode : PK



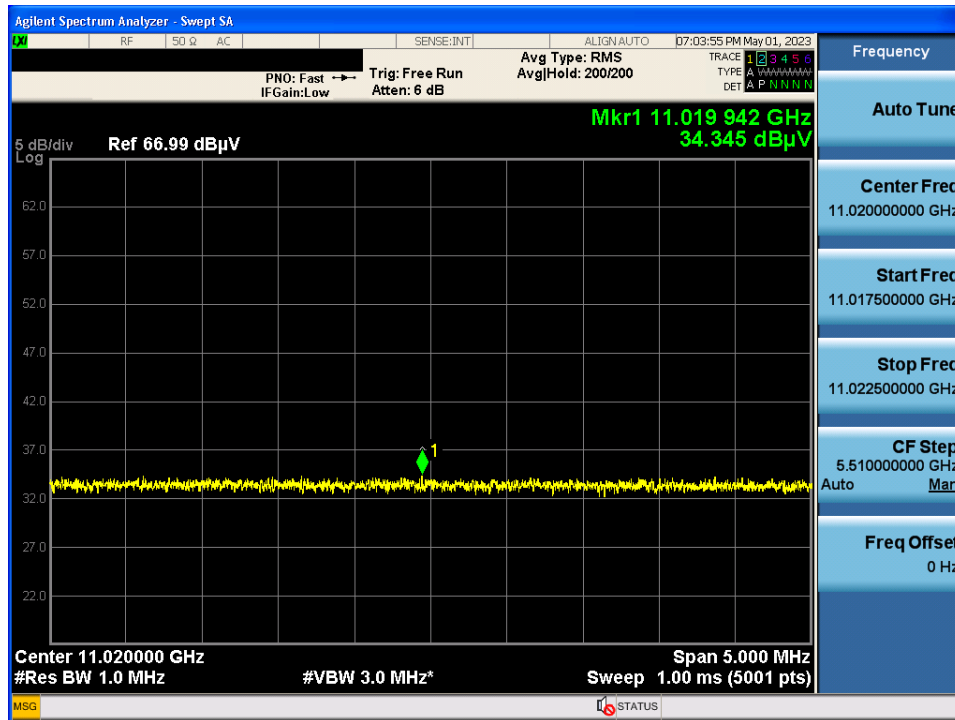
TM 3 &amp; U-NII 2C &amp; 5 510 &amp; Y axis &amp; Ver

Detector Mode : AV



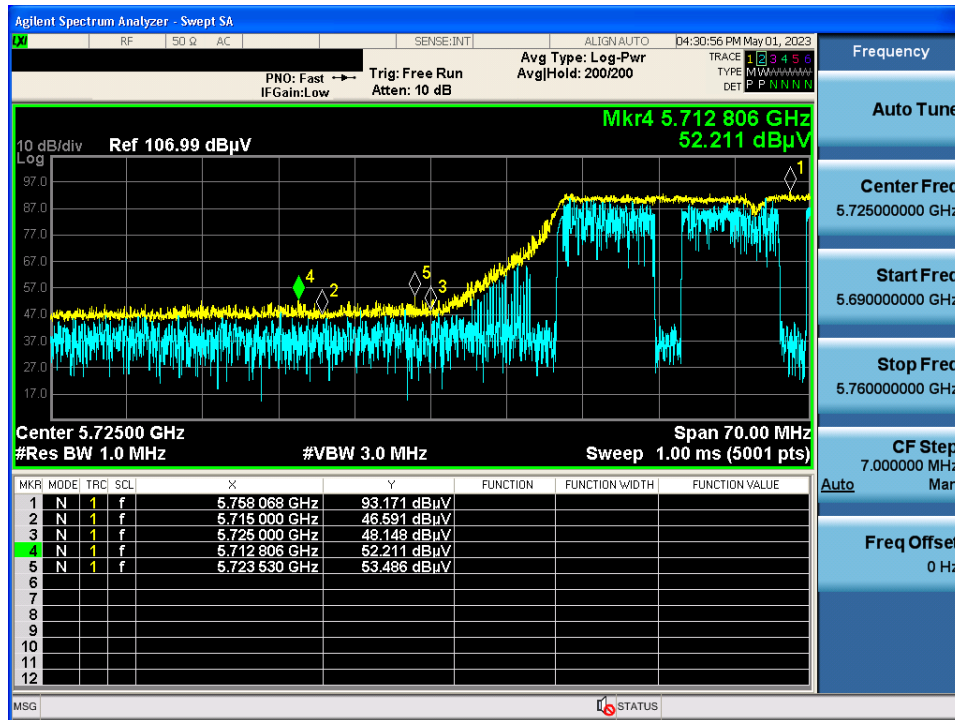
TM 3 & U-NII 2C & 5 510 & Y axis & Ver

Detector Mode : AV



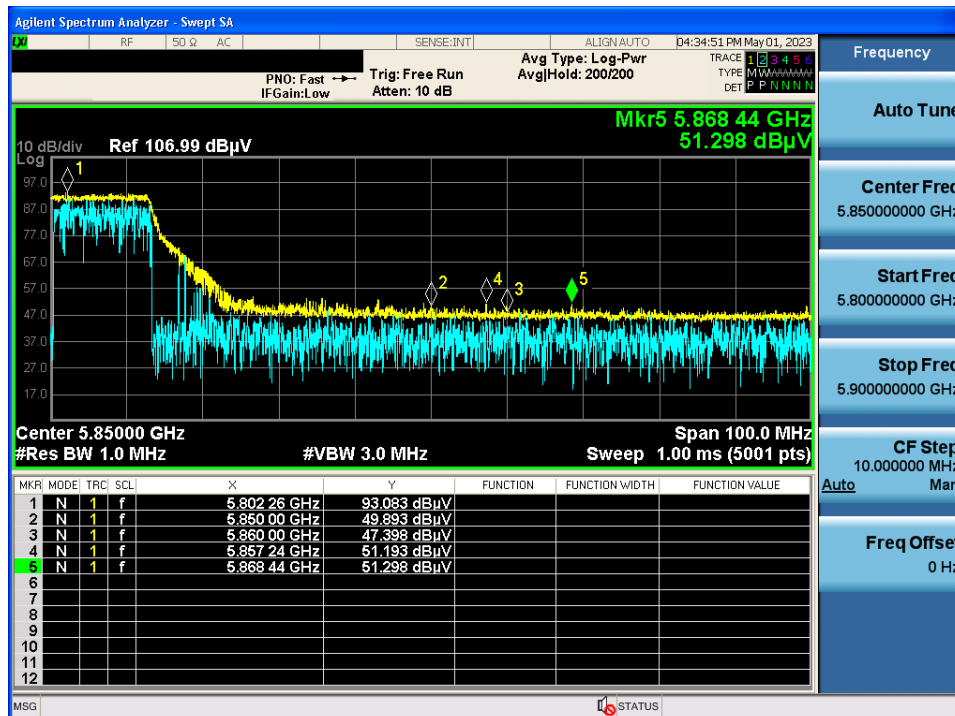
TM 3 & U-NII 3 & 5 755 & Y axis & Ver

Detector Mode : PK



TM 3 & U-NII 3 & 5 795 & Y axis & Ver

Detector Mode : PK



TM 3 & U-NII 3 & 5 755 & Y axis & Ver

Detector Mode : AV

