

## **FCC Appendix RF Test Data for 5.5GWIFI**

**FCC ID** : 2BNXK-P-LFPO1

**Company:** : Shenzhen Limpet Technology Co., Ltd.

**EUT** : Wali Smart Pet Feeder With AI Camera

**Model Number** : P-LFP01

**Report No.** : CTA25070500603

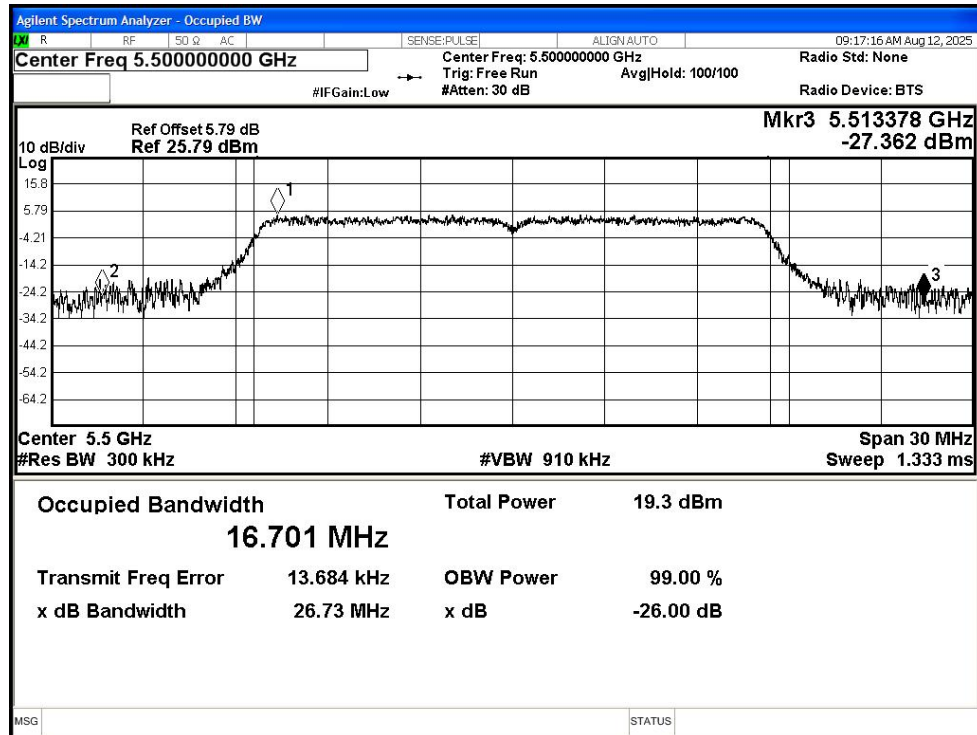
**Reviewed By** : Eric Wang

## -26dB Bandwidth

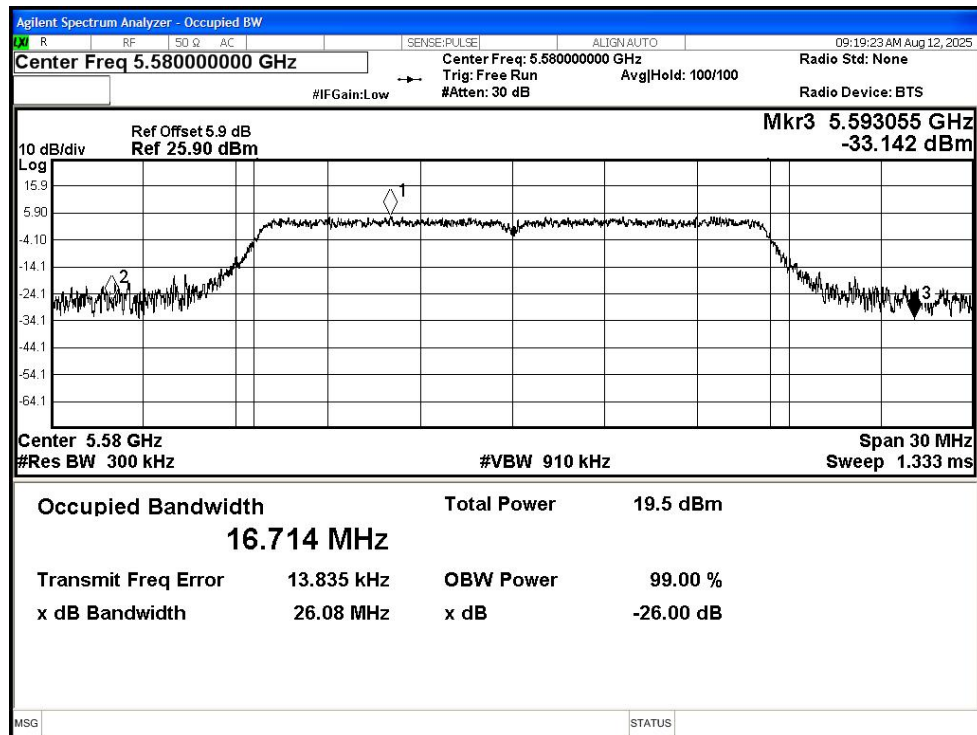
| Condition | Mode | Frequency (MHz) | Antenna | -26 dB Bandwidth (MHz) | Limit -26 dB Bandwidth (MHz) | Verdict |
|-----------|------|-----------------|---------|------------------------|------------------------------|---------|
| NVNT      | a    | 5500            | Ant1    | 26.729                 | ---                          | Pass    |
| NVNT      | a    | 5580            | Ant1    | 26.083                 | ---                          | Pass    |
| NVNT      | a    | 5700            | Ant1    | 27.445                 | ---                          | Pass    |
| NVNT      | n20  | 5500            | Ant1    | 28.89                  | ---                          | Pass    |
| NVNT      | n20  | 5580            | Ant1    | 28.274                 | ---                          | Pass    |
| NVNT      | n20  | 5700            | Ant1    | 28.129                 | ---                          | Pass    |

# Test Graphs

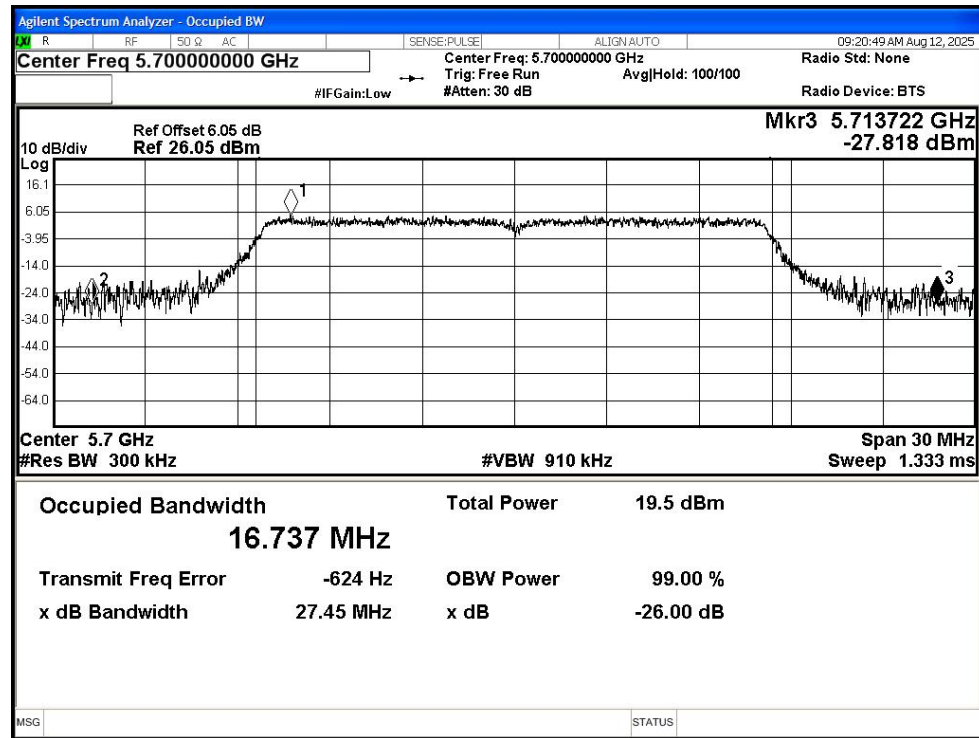
-26dB Bandwidth NVNT a 5500MHz Ant1



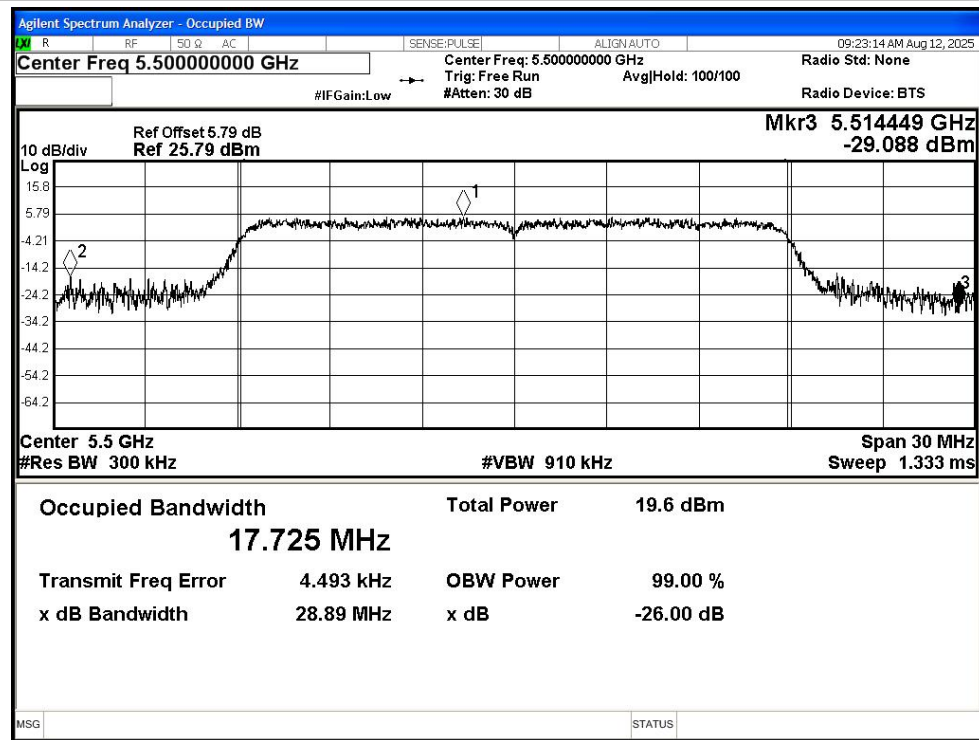
-26dB Bandwidth NVNT a 5580MHz Ant1



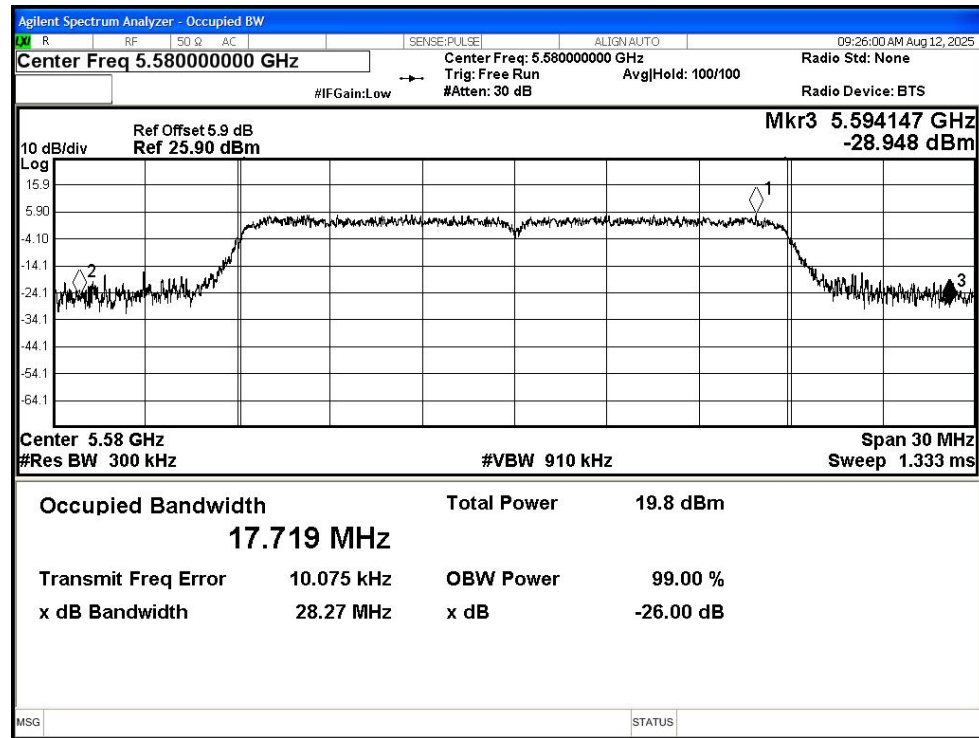
-26dB Bandwidth NVNT a 5700MHz Ant1



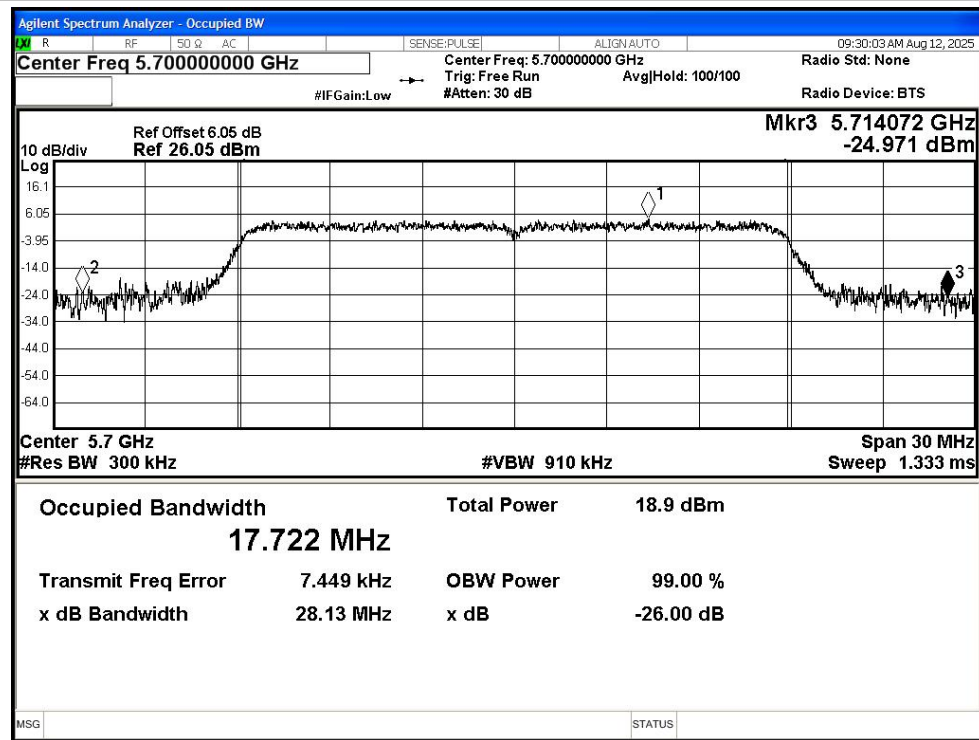
-26dB Bandwidth NVNT n20 5500MHz Ant1



-26dB Bandwidth NVNT n20 5580MHz Ant1



-26dB Bandwidth NVNT n20 5700MHz Ant1



## Maximum Conducted Output Power

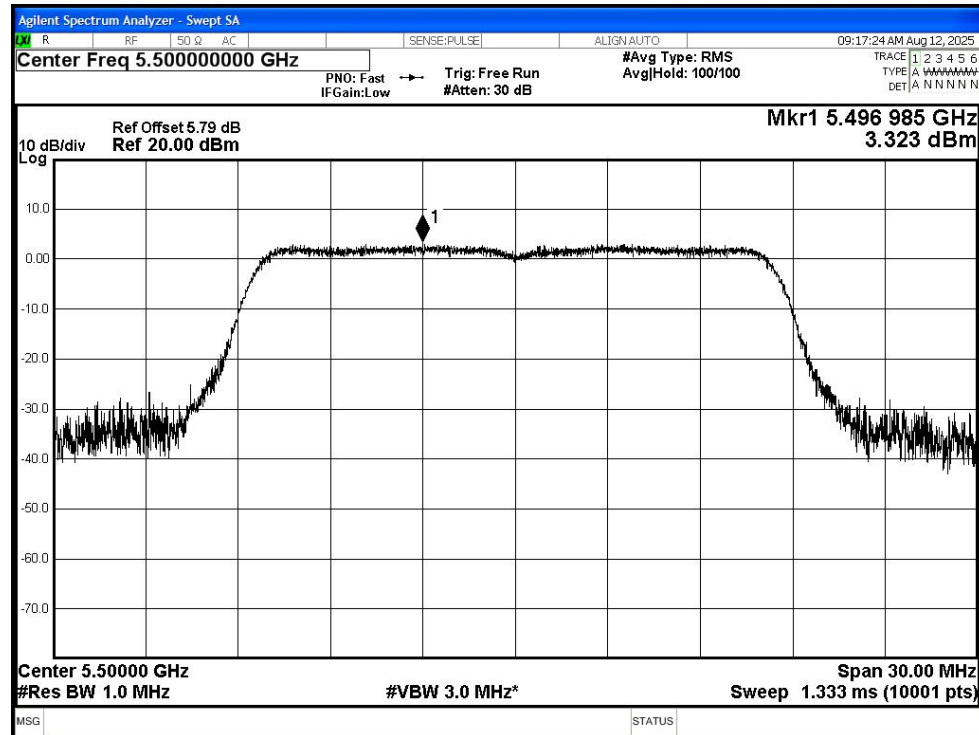
| Condition | Mode | Frequency<br>(MHz) | Antenna | Conducted Power<br>(dBm) | Duty Factor<br>(dB) | Total Power<br>(dBm) | Limit<br>(dBm) | Verdict |
|-----------|------|--------------------|---------|--------------------------|---------------------|----------------------|----------------|---------|
| NVNT      | a    | 5500               | Ant1    | 13.69                    | 0.19                | 13.88                | 24             | Pass    |
| NVNT      | a    | 5580               | Ant1    | 13.91                    | 0.19                | 14.1                 | 24             | Pass    |
| NVNT      | a    | 5700               | Ant1    | 13.95                    | 0.19                | 14.14                | 24             | Pass    |
| NVNT      | n20  | 5500               | Ant1    | 13.93                    | 0.23                | 14.16                | 24             | Pass    |
| NVNT      | n20  | 5580               | Ant1    | 14.11                    | 0.23                | <b>14.34</b>         | 24             | Pass    |
| NVNT      | n20  | 5700               | Ant1    | 13.15                    | 0.22                | 13.37                | 24             | Pass    |

## Maximum Power Spectral Density Level

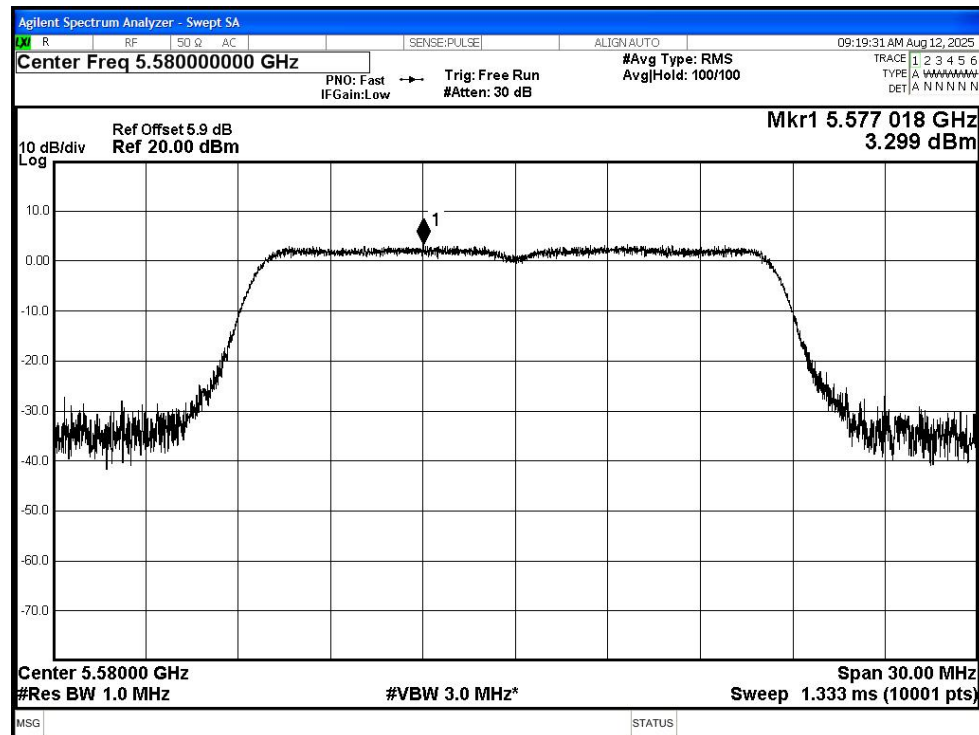
| Condition | Mode | Frequency (MHz) | Antenna | Conducted PSD (dBm/MHz) | Duty Factor (dB) | Total PSD (dBm/MHz) | Limit (dBm/MHz) | Verdict |
|-----------|------|-----------------|---------|-------------------------|------------------|---------------------|-----------------|---------|
| NVNT      | a    | 5500            | Ant1    | 3.32                    | 0.19             | 3.51                | 11              | Pass    |
| NVNT      | a    | 5580            | Ant1    | 3.3                     | 0.19             | 3.49                | 11              | Pass    |
| NVNT      | a    | 5700            | Ant1    | 3.46                    | 0.19             | 3.65                | 11              | Pass    |
| NVNT      | n20  | 5500            | Ant1    | 3.14                    | 0.23             | 3.37                | 11              | Pass    |
| NVNT      | n20  | 5580            | Ant1    | 3.26                    | 0.23             | 3.49                | 11              | Pass    |
| NVNT      | n20  | 5700            | Ant1    | 2.33                    | 0.22             | 2.55                | 11              | Pass    |

# Test Graphs

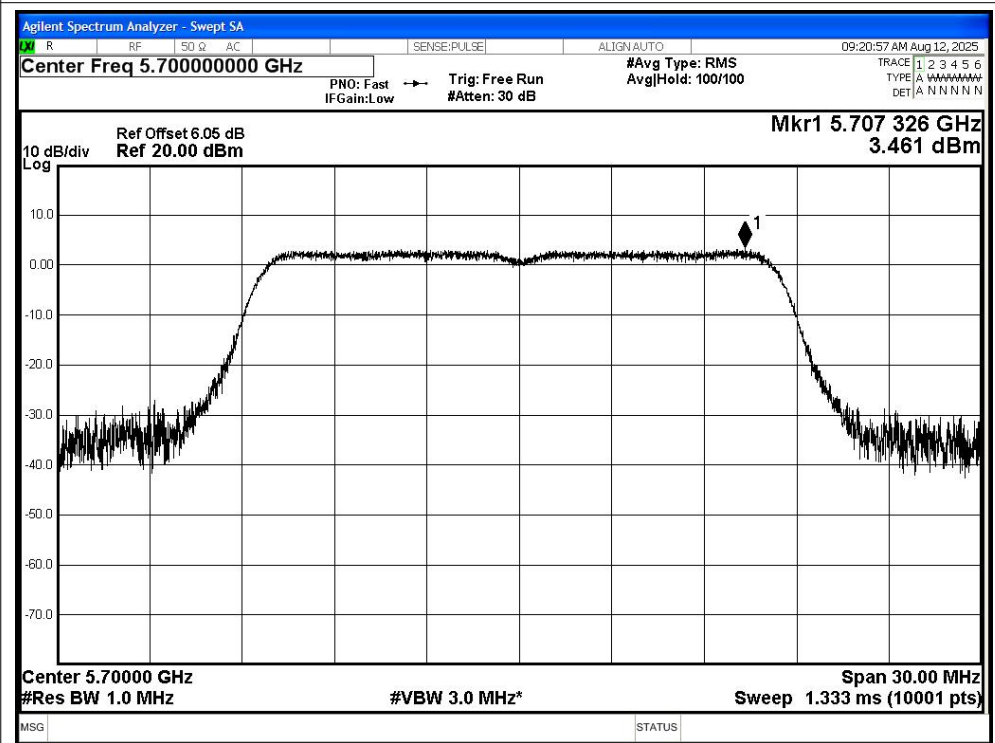
## PSD NVNT a 5500MHz Ant1



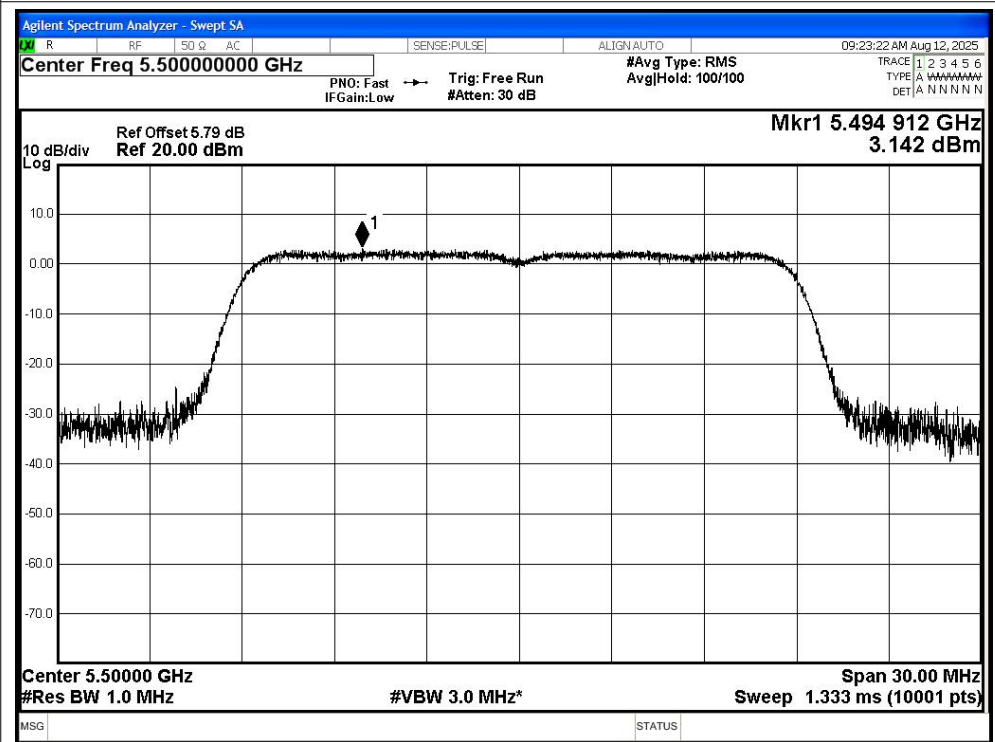
## PSD NVNT a 5580MHz Ant1



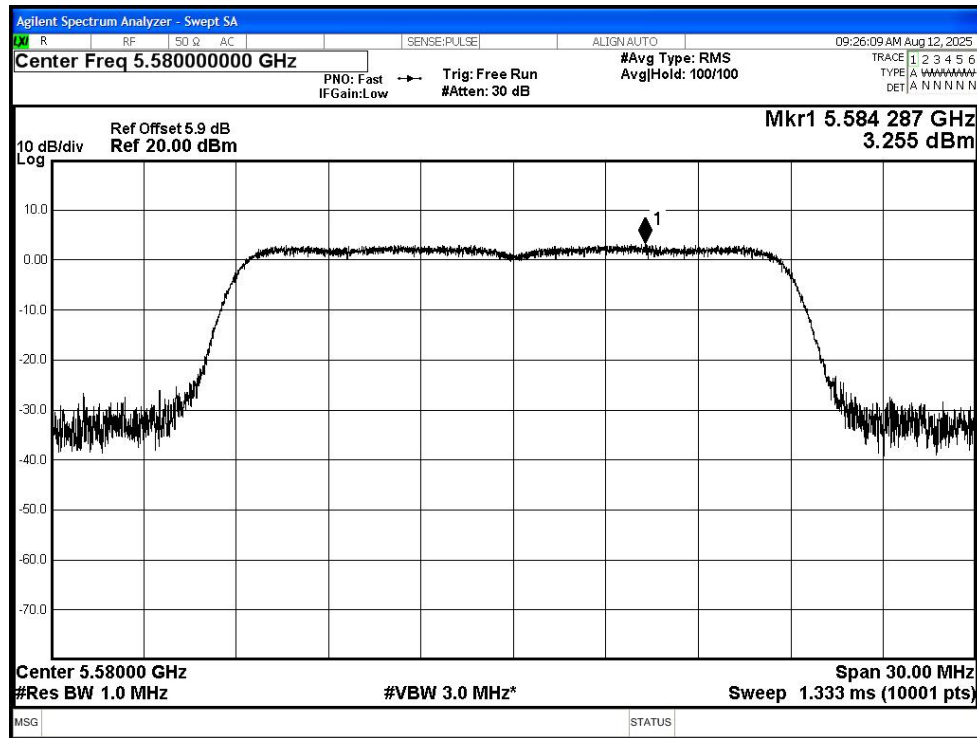
PSD NVNT a 5700MHz Ant1



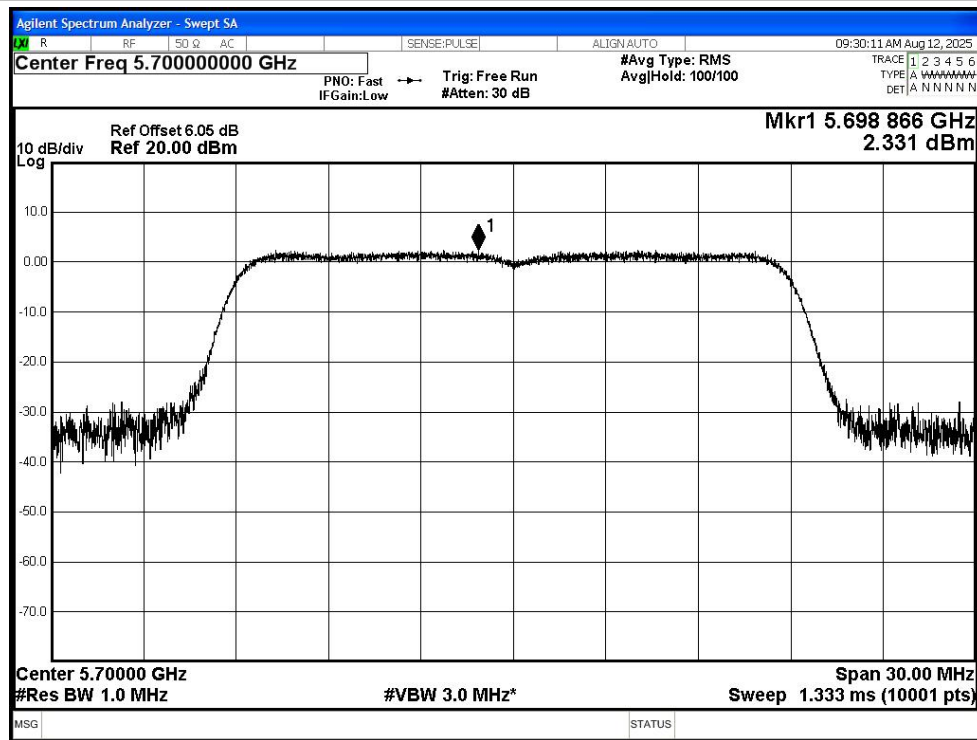
PSD NVNT n20 5500MHz Ant1



# PSD NVNT n20 5580MHz Ant1



# PSD NVNT n20 5700MHz Ant1

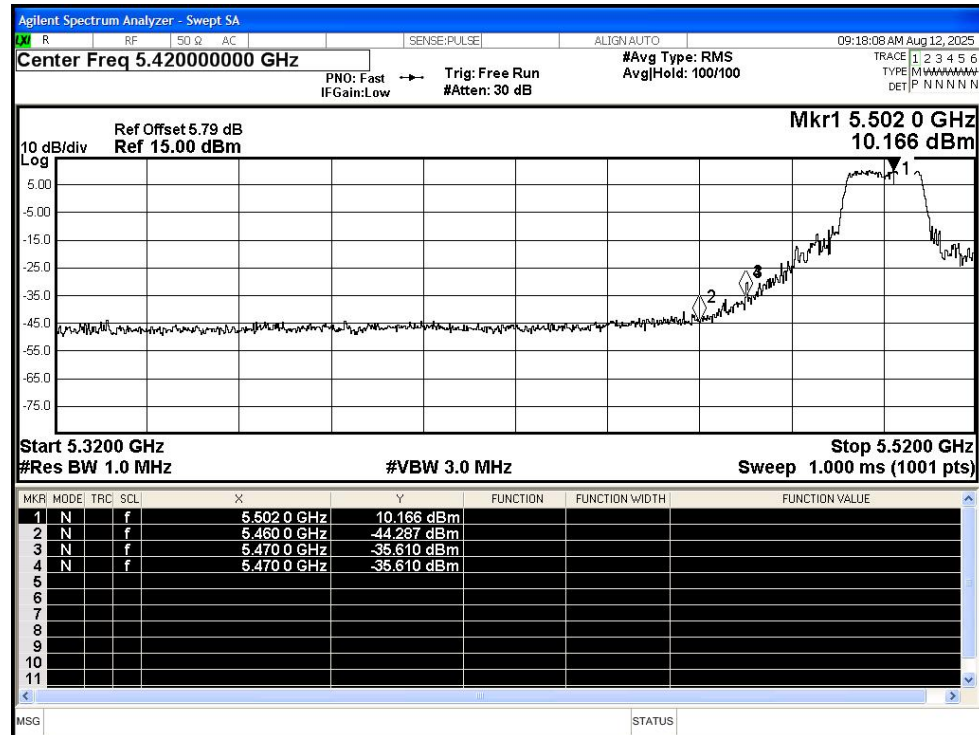


## Restrict Band

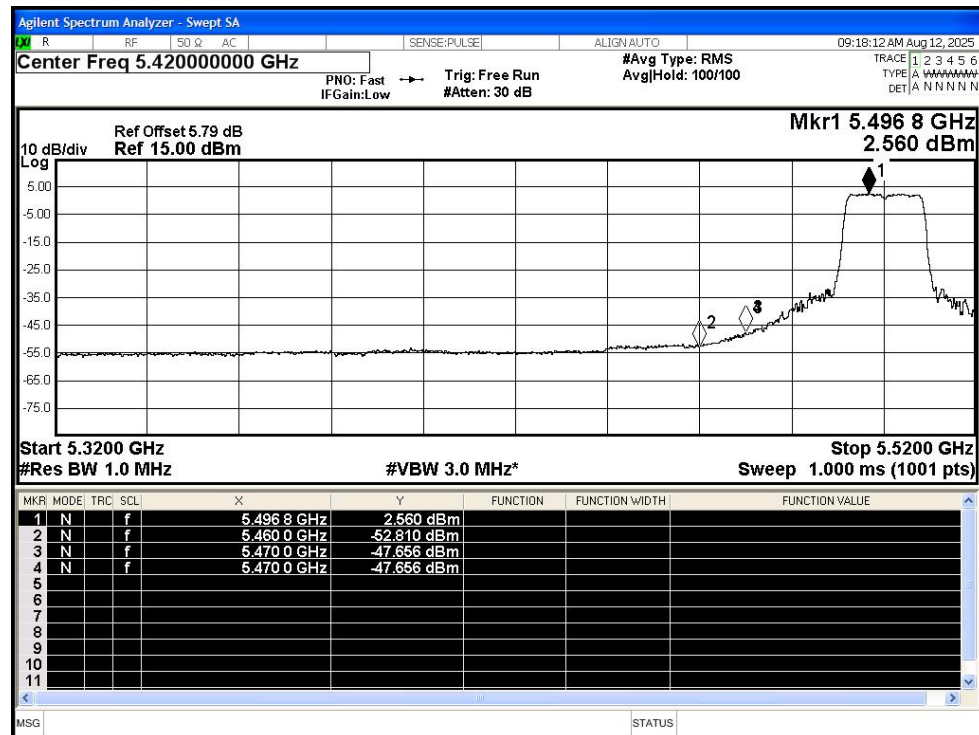
| Condition | Mode | Frequency (MHz) | Antenna | Spur Freq (MHz) | Power (dBm) | Gain (dBi) | Duty Factor (dB) | E (dBuV/m) | Detector | Limit (dBuV/m) | Verdict |
|-----------|------|-----------------|---------|-----------------|-------------|------------|------------------|------------|----------|----------------|---------|
| NVNT      | a    | 5500            | Ant1    | 5460            | -44.29      | 5.26       | -                | 56.20      | Peak     | 68.2           | Pass    |
| NVNT      | a    | 5500            | Ant1    | 5460            | -52.81      | 5.26       | 0.19             | 47.87      | Average  | 54             | Pass    |
| NVNT      | a    | 5500            | Ant1    | 5470            | -35.61      | 5.26       | -                | 64.88      | Peak     | 68.2           | Pass    |
| NVNT      | a    | 5500            | Ant1    | 5470            | -47.66      | 5.26       | 0.19             | 53.02      | Average  | 54             | Pass    |
| NVNT      | a    | 5700            | Ant1    | 5725            | -34.92      | 5.26       | -                | 65.57      | Peak     | 68.2           | Pass    |
| NVNT      | a    | 5700            | Ant1    | 5725            | -48.39      | 5.26       | 0.19             | 52.29      | Average  | 54             | Pass    |
| NVNT      | a    | 5700            | Ant1    | 5725.2          | -31.29      | 5.26       | -                | 69.20      | Peak     | 68.2           | Pass    |
| NVNT      | a    | 5700            | Ant1    | 5725.2          | -47.34      | 5.26       | 0.19             | 53.34      | Average  | 54             | Pass    |
| NVNT      | a    | 5700            | Ant1    | 5735            | -42.15      | 5.26       | -                | 58.34      | Peak     | 68.2           | Pass    |
| NVNT      | a    | 5700            | Ant1    | 5735            | -53.72      | 5.26       | 0.19             | 46.96      | Average  | 54             | Pass    |
| NVNT      | n20  | 5500            | Ant1    | 5460            | -43.66      | 5.26       | -                | 56.83      | Peak     | 68.2           | Pass    |
| NVNT      | n20  | 5500            | Ant1    | 5460            | -51.94      | 5.26       | 0.23             | 48.78      | Average  | 54             | Pass    |
| NVNT      | n20  | 5500            | Ant1    | 5469.8          | -31.69      | 5.26       | -                | 68.80      | Peak     | 68.2           | Pass    |
| NVNT      | n20  | 5500            | Ant1    | 5470            | -45.82      | 5.26       | 0.23             | 54.90      | Average  | 54             | Pass    |
| NVNT      | n20  | 5500            | Ant1    | 5470            | -33.49      | 5.26       | -                | 67.00      | Peak     | 68.2           | Pass    |
| NVNT      | n20  | 5500            | Ant1    | 5470            | -45.82      | 5.26       | 0.23             | 54.90      | Average  | 54             | Pass    |
| NVNT      | n20  | 5700            | Ant1    | 5725            | -34.02      | 5.26       | -                | 66.47      | Peak     | 68.2           | Pass    |
| NVNT      | n20  | 5700            | Ant1    | 5725            | -48.07      | 5.26       | 0.22             | 52.64      | Average  | 54             | Pass    |
| NVNT      | n20  | 5700            | Ant1    | 5735            | -45.73      | 5.26       | -                | 54.76      | Peak     | 68.2           | Pass    |
| NVNT      | n20  | 5700            | Ant1    | 5735            | -54.11      | 5.26       | 0.22             | 46.60      | Average  | 54             | Pass    |

# Test Graphs

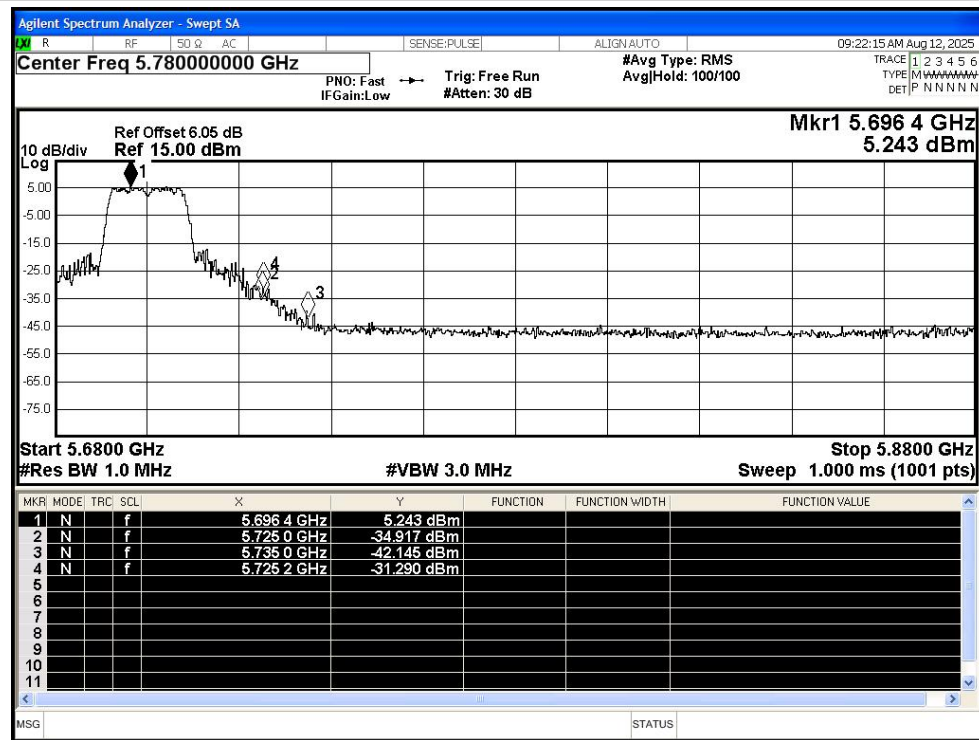
## Restrict Band NVNT a 5500MHz Ant1 Peak



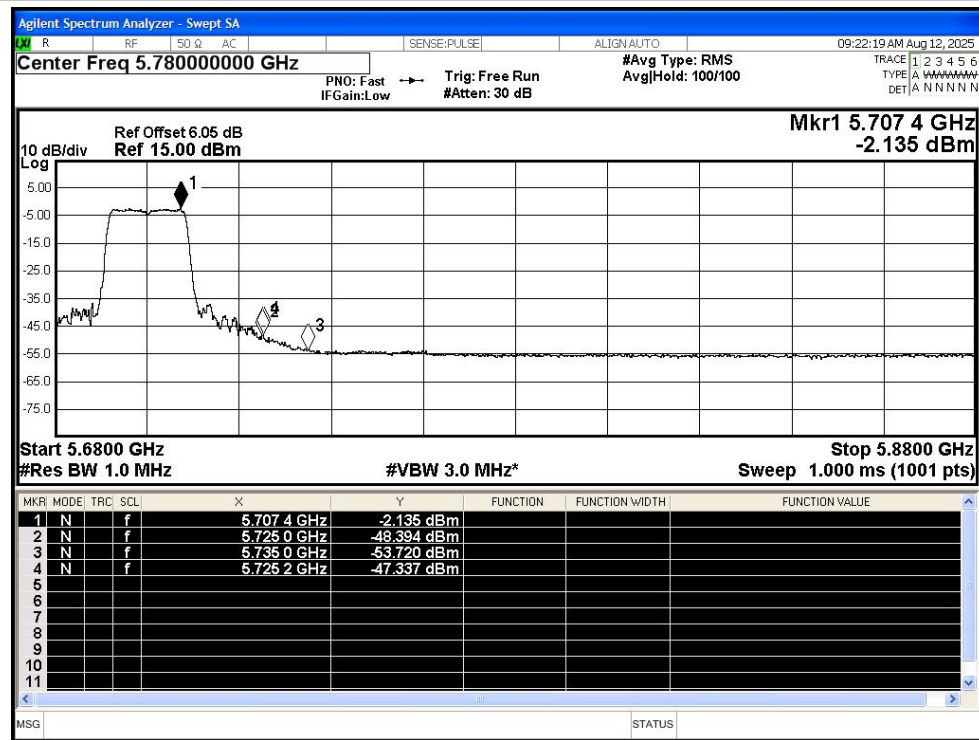
## Restrict Band NVNT a 5500MHz Ant1 Average



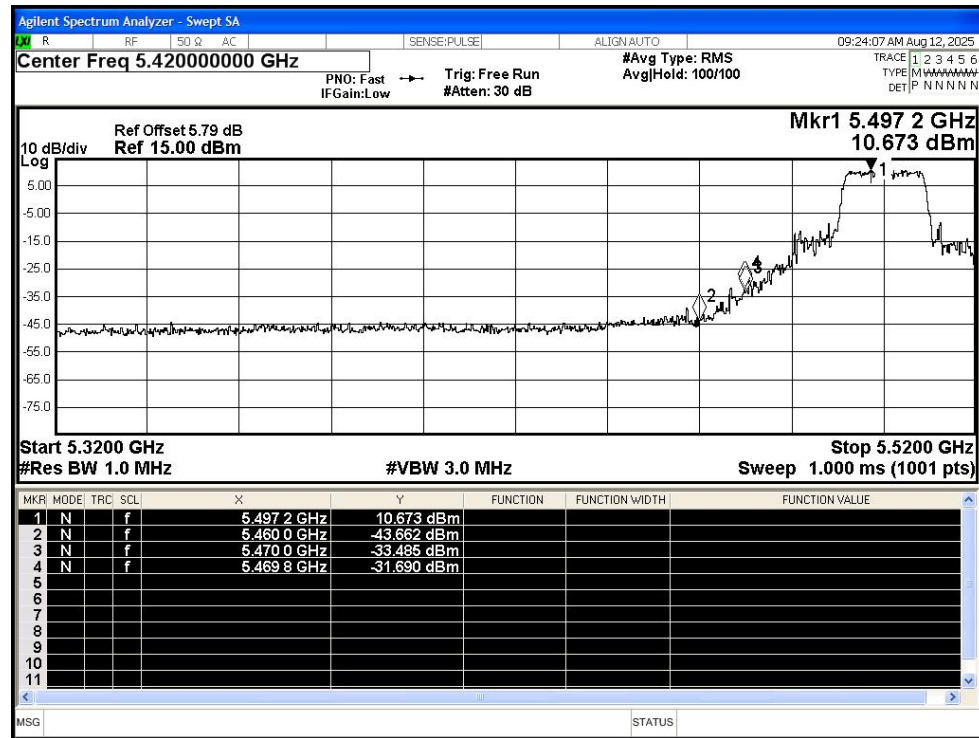
# Restrict Band NVNT a 5700MHz Ant1 Peak



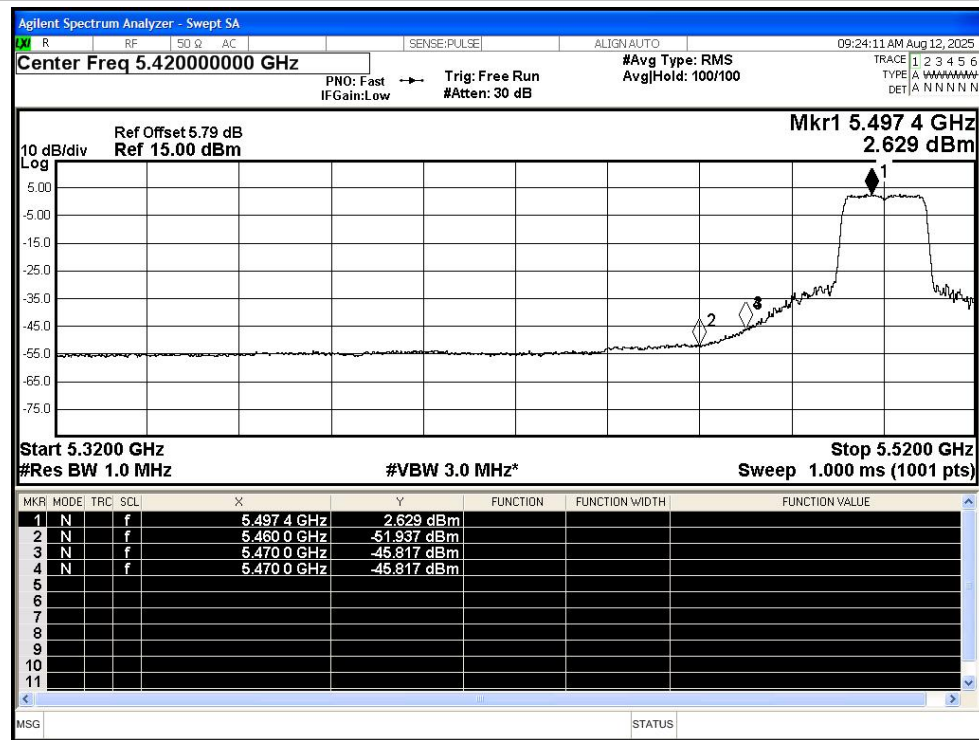
# Restrict Band NVNT a 5700MHz Ant1 Average



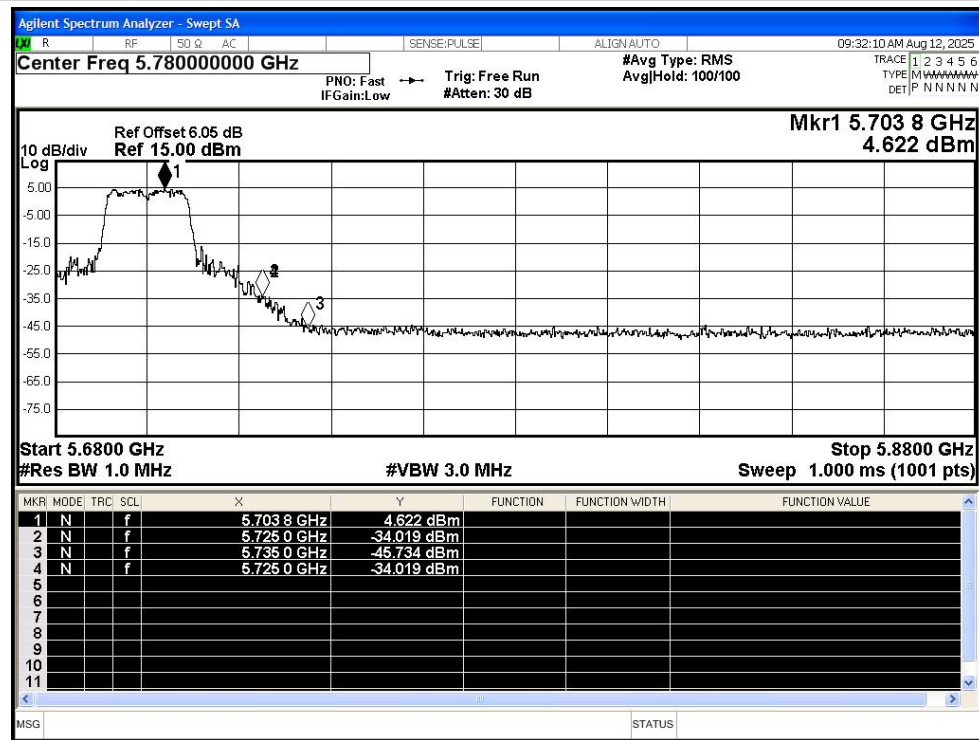
# Restrict Band NVNT n20 5500MHz Ant1 Peak



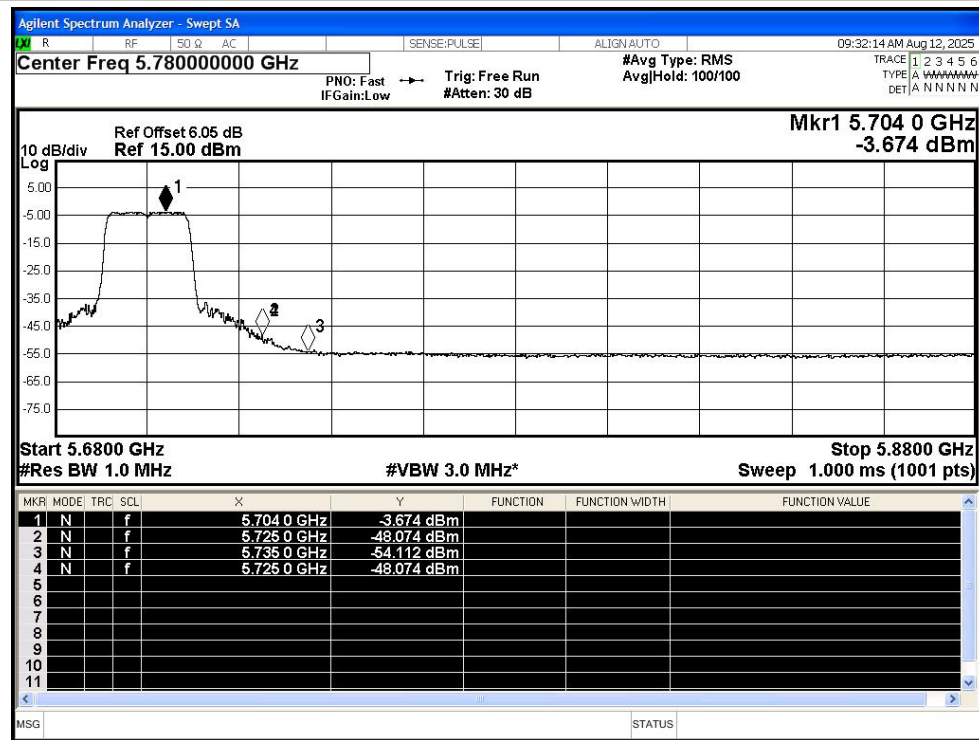
# Restrict Band NVNT n20 5500MHz Ant1 Average



# Restrict Band NVNT n20 5700MHz Ant1 Peak



# Restrict Band NVNT n20 5700MHz Ant1 Average

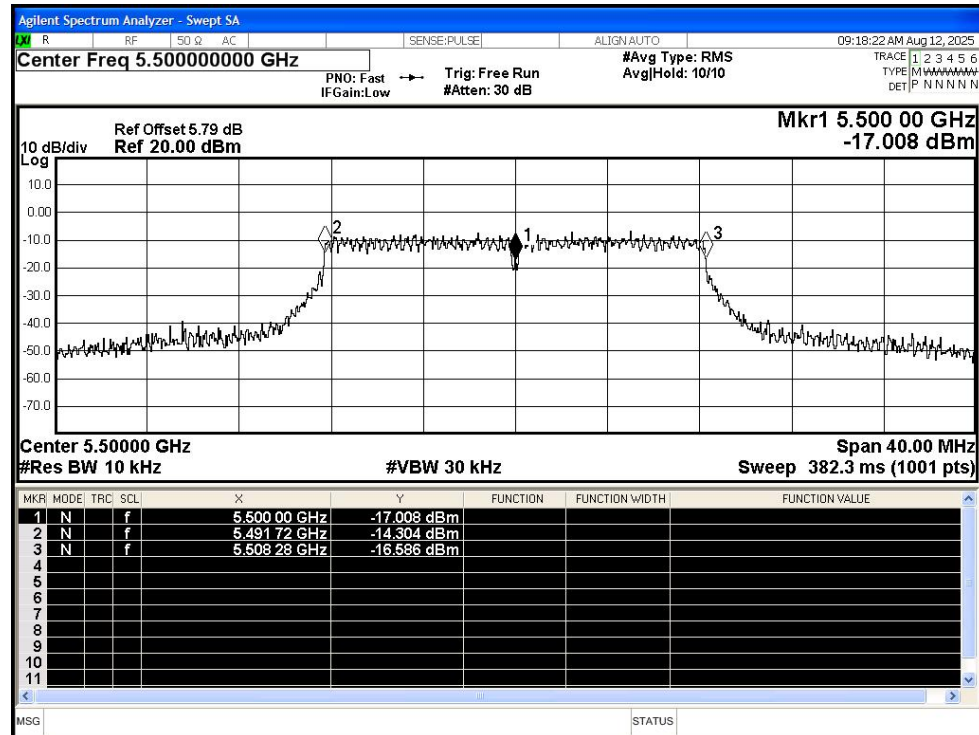


## Frequency Stability

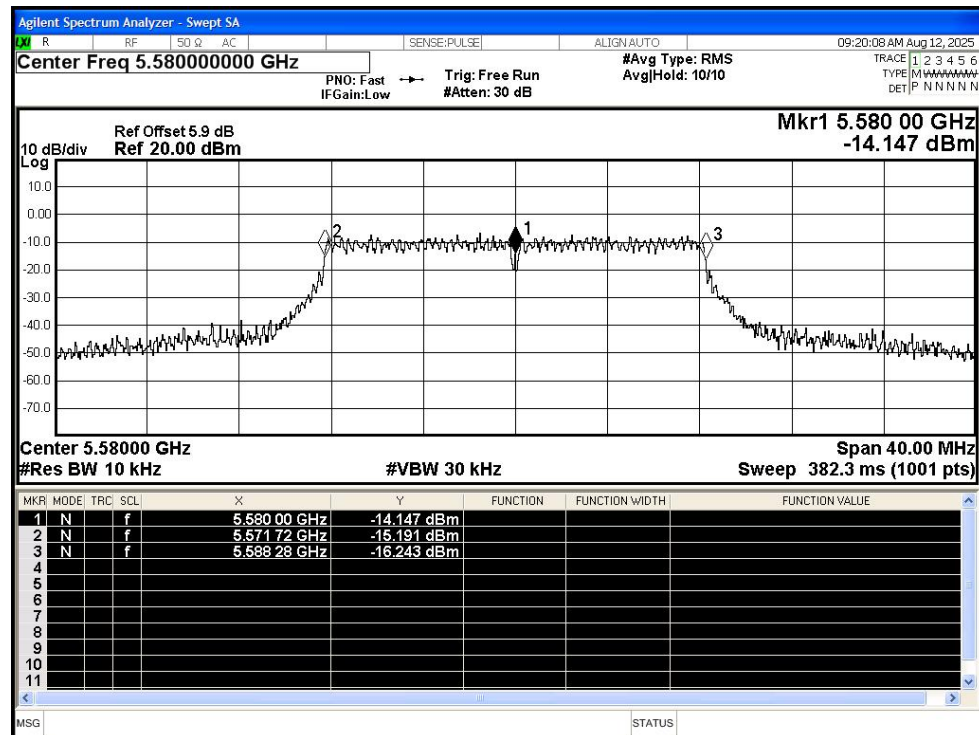
| Condition | Mode | Frequency (MHz) | Antenna | Measured Frequency (MHz) | Frequency Error (Hz) | Deviation (ppm) | Limit (ppm) | Verdict |
|-----------|------|-----------------|---------|--------------------------|----------------------|-----------------|-------------|---------|
| NVNT      | a    | 5500            | Ant1    | 5500                     | 0                    | 0               | 25          | Pass    |
| NVNT      | a    | 5580            | Ant1    | 5580                     | 0                    | 0               | 25          | Pass    |
| NVNT      | a    | 5700            | Ant1    | 5699.98                  | -20000               | -3.51           | 25          | Pass    |
| NVNT      | n20  | 5500            | Ant1    | 5500                     | 0                    | 0               | 25          | Pass    |
| NVNT      | n20  | 5580            | Ant1    | 5580.02                  | 20000                | 3.58            | 25          | Pass    |
| NVNT      | n20  | 5700            | Ant1    | 5700                     | 0                    | 0               | 25          | Pass    |

# Test Graphs

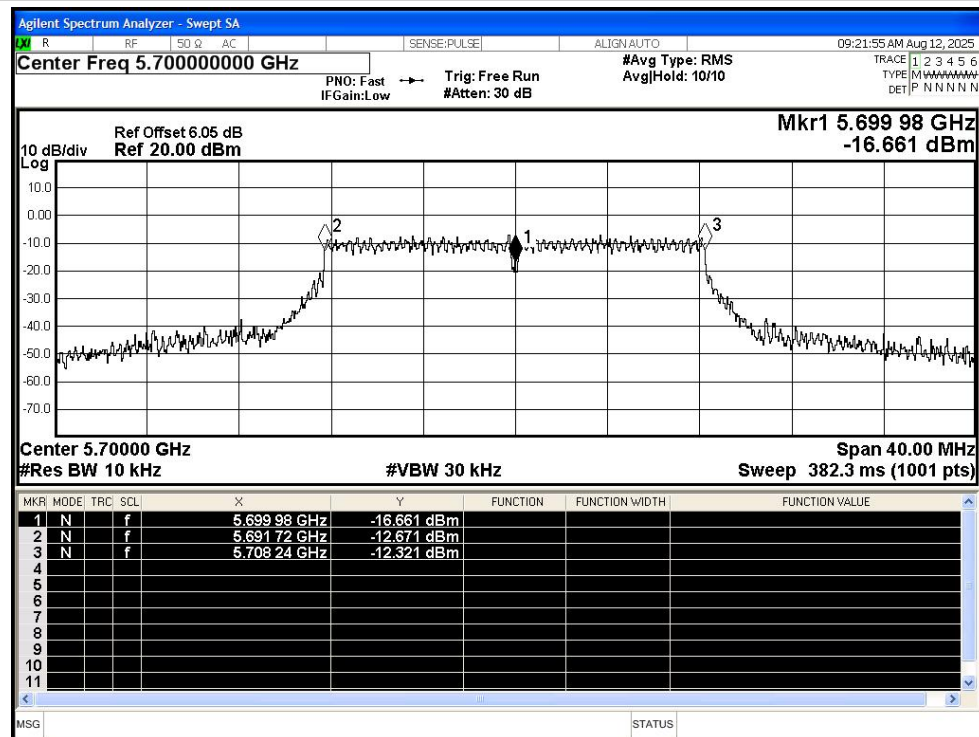
## Freq. Stability NVNT a 5500MHz Ant1



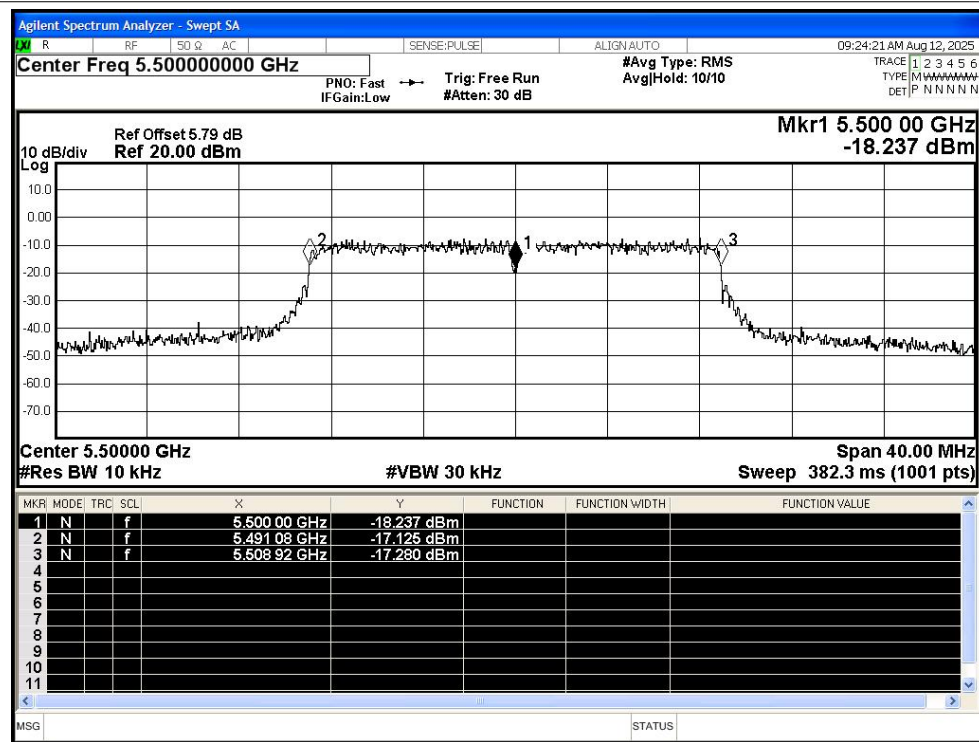
## Freq. Stability NVNT a 5580MHz Ant1



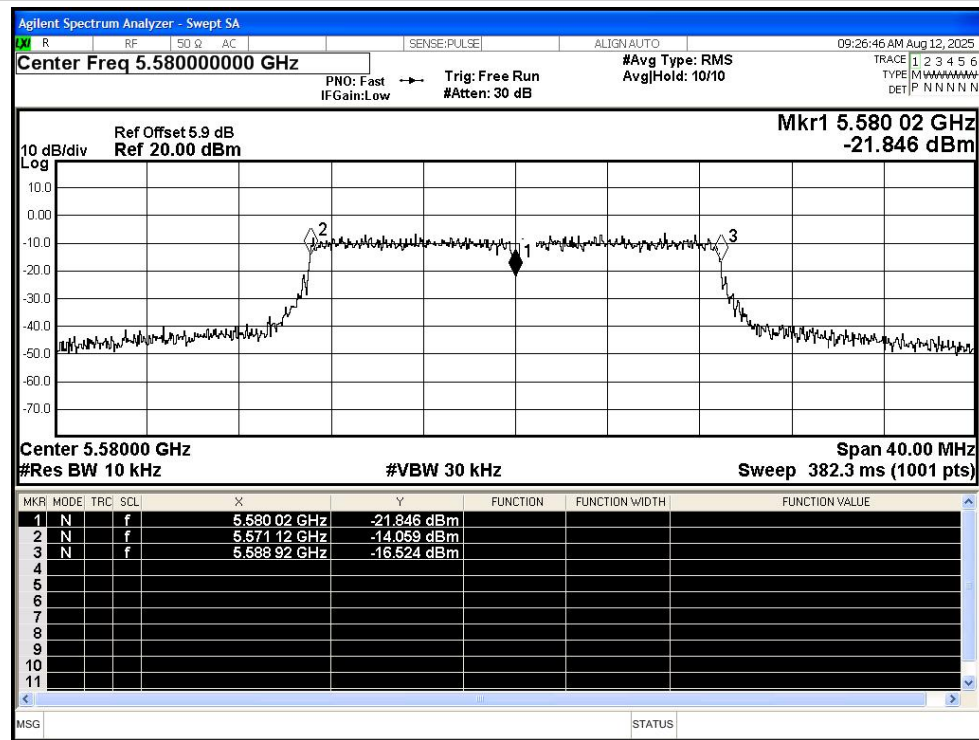
# Freq. Stability NVNT a 5700MHz Ant1



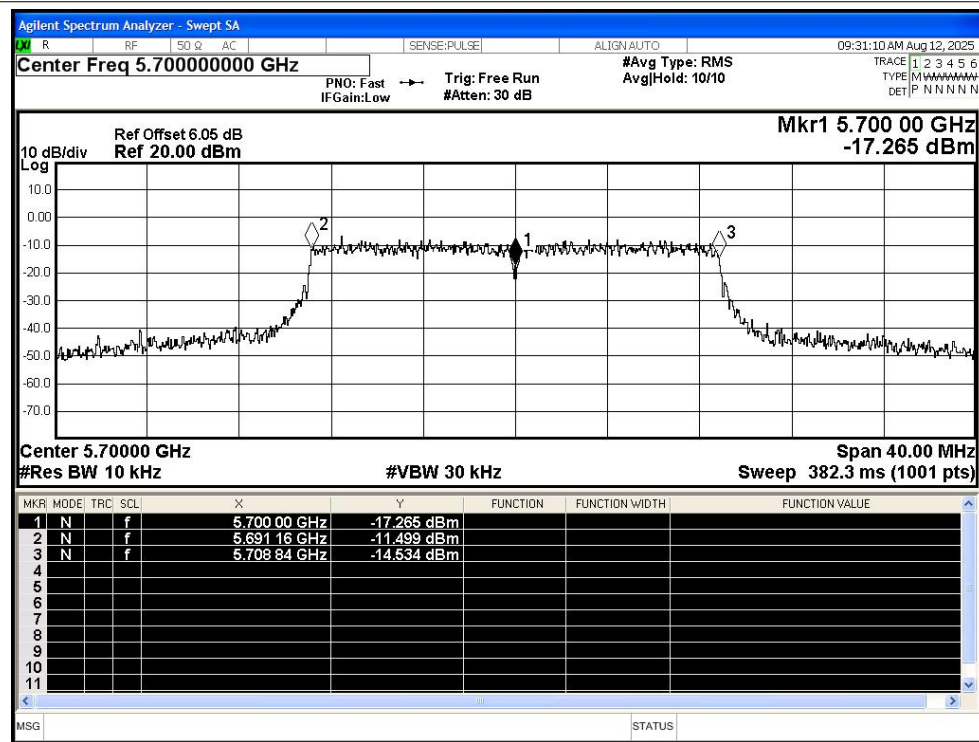
# Freq. Stability NVNT n20 5500MHz Ant1



# Freq. Stability NVNT n20 5580MHz Ant1



# Freq. Stability NVNT n20 5700MHz Ant1

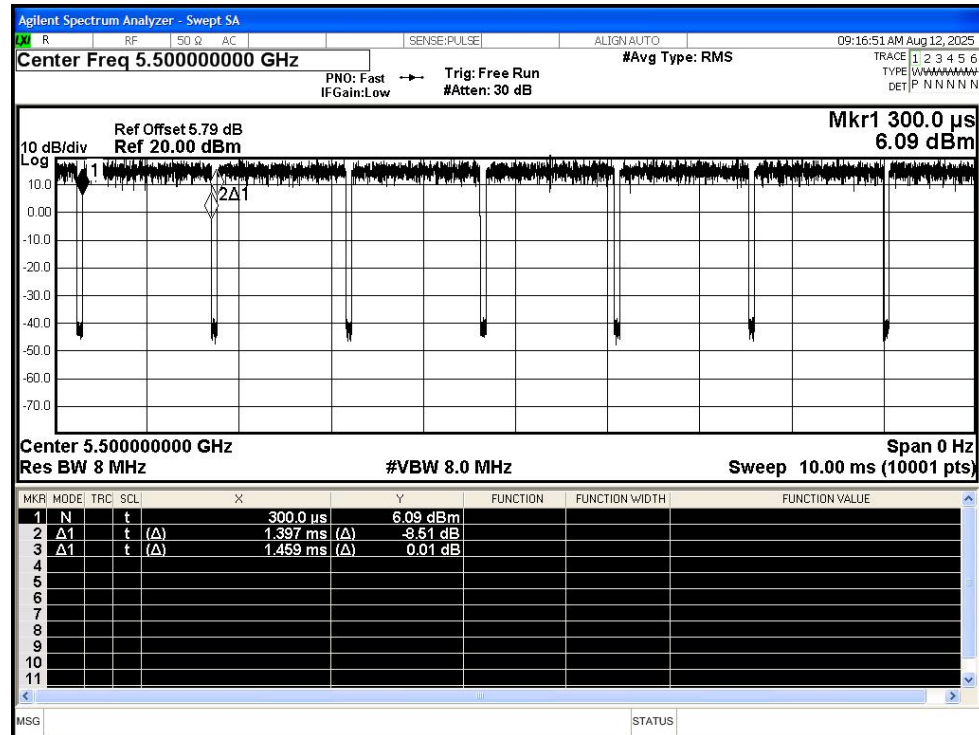


## Duty Cycle

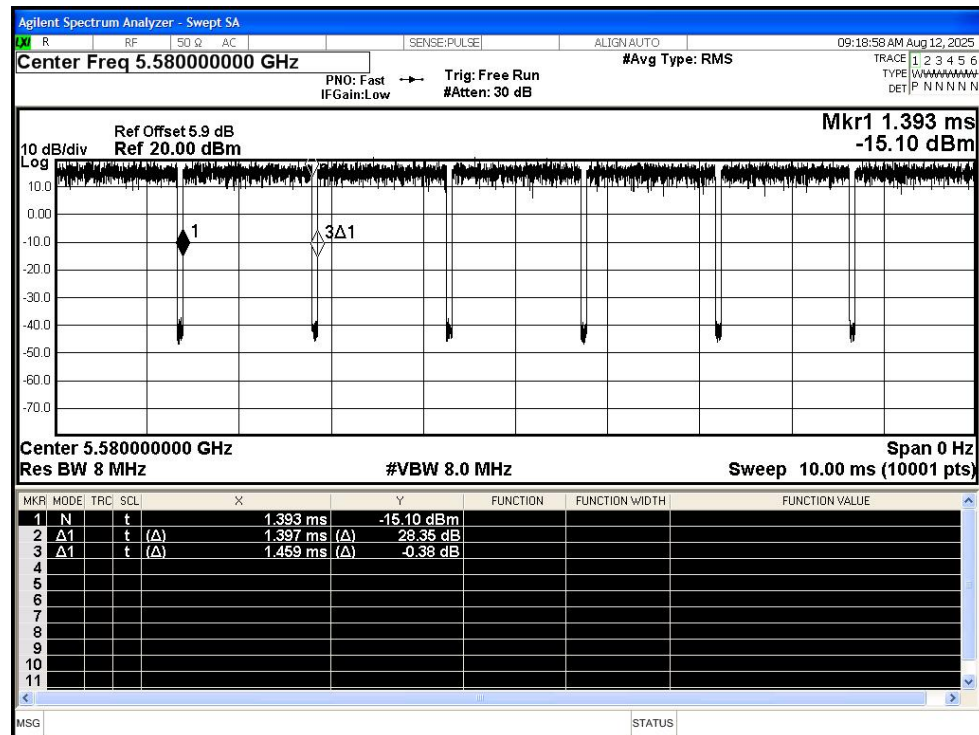
| Condition | Mode | Frequency (MHz) | Antenna | Duty Cycle (%) | Correction Factor (dB) | 1/T (kHz) |
|-----------|------|-----------------|---------|----------------|------------------------|-----------|
| NVNT      | a    | 5500            | Ant1    | 95.75          | 0.19                   | 0.72      |
| NVNT      | a    | 5580            | Ant1    | 95.75          | 0.19                   | 0.72      |
| NVNT      | a    | 5700            | Ant1    | 95.68          | 0.19                   | 0.72      |
| NVNT      | n20  | 5500            | Ant1    | 94.94          | 0.23                   | 0.85      |
| NVNT      | n20  | 5580            | Ant1    | 94.94          | 0.23                   | 0.85      |
| NVNT      | n20  | 5700            | Ant1    | 95.02          | 0.22                   | 0.85      |

# Test Graphs

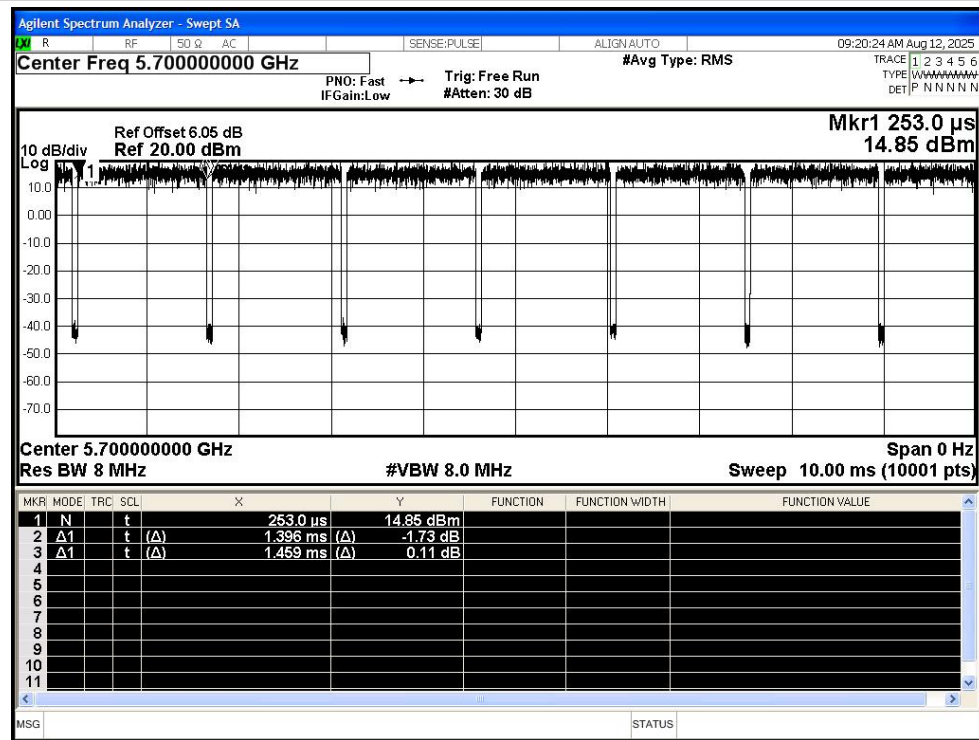
## Duty Cycle NVNT a 5500MHz Ant1



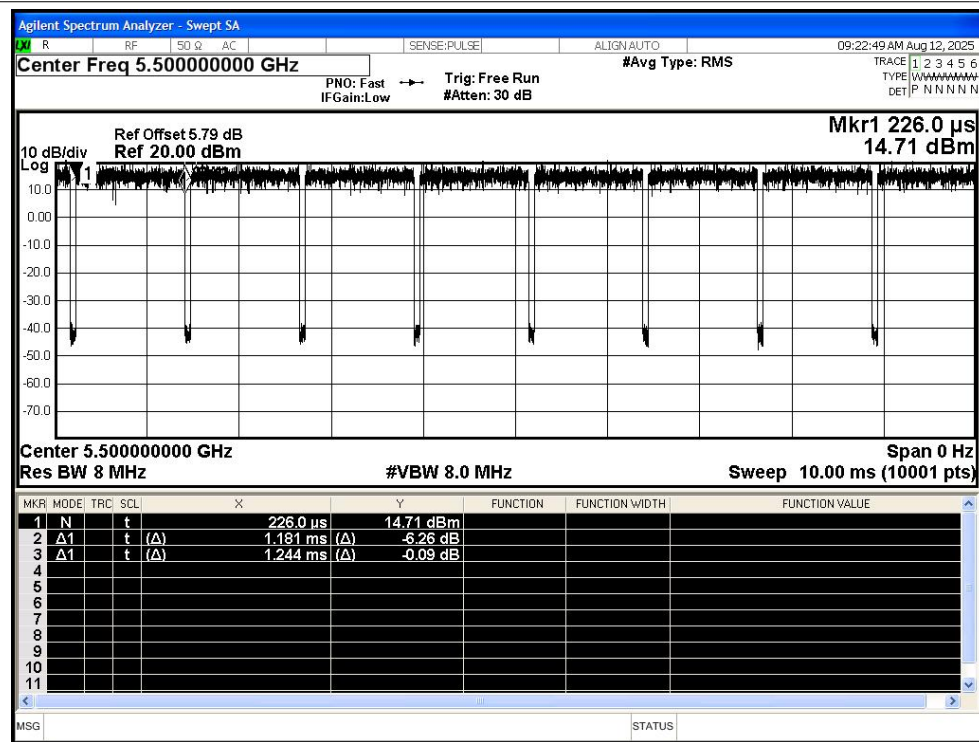
## Duty Cycle NVNT a 5580MHz Ant1



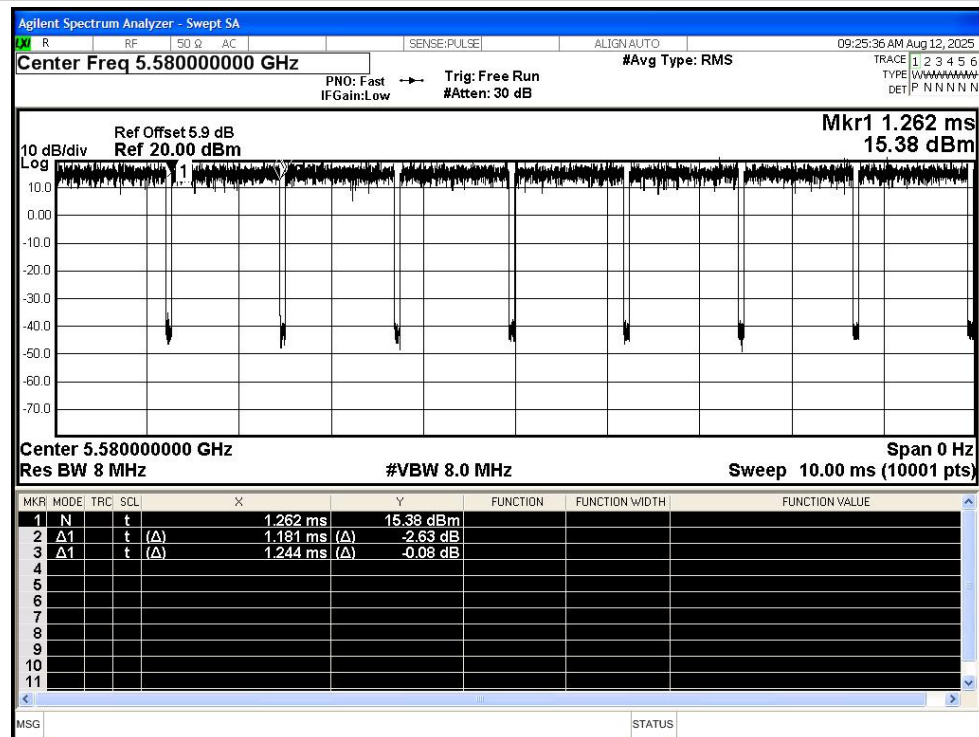
# Duty Cycle NVNT a 5700MHz Ant1



# Duty Cycle NVNT n20 5500MHz Ant1



# Duty Cycle NVNT n20 5580MHz Ant1



# Duty Cycle NVNT n20 5700MHz Ant1

