



## Appendix B

### RF Test Data for 5.2GWIFI (Conducted Measurement)

Product Name: GPON Wi-Fi AC1200

Test Model: PBT-H510

#### Environmental Conditions

|                    |           |
|--------------------|-----------|
| Temperature:       | 23.8° C   |
| Relative Humidity: | 52.1%     |
| ATM Pressure:      | 100.0 kPa |
| Test Engineer:     | Ling Zhu  |
| Supervised by:     | Li Huan   |



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## B.1 -26dB Bandwidth

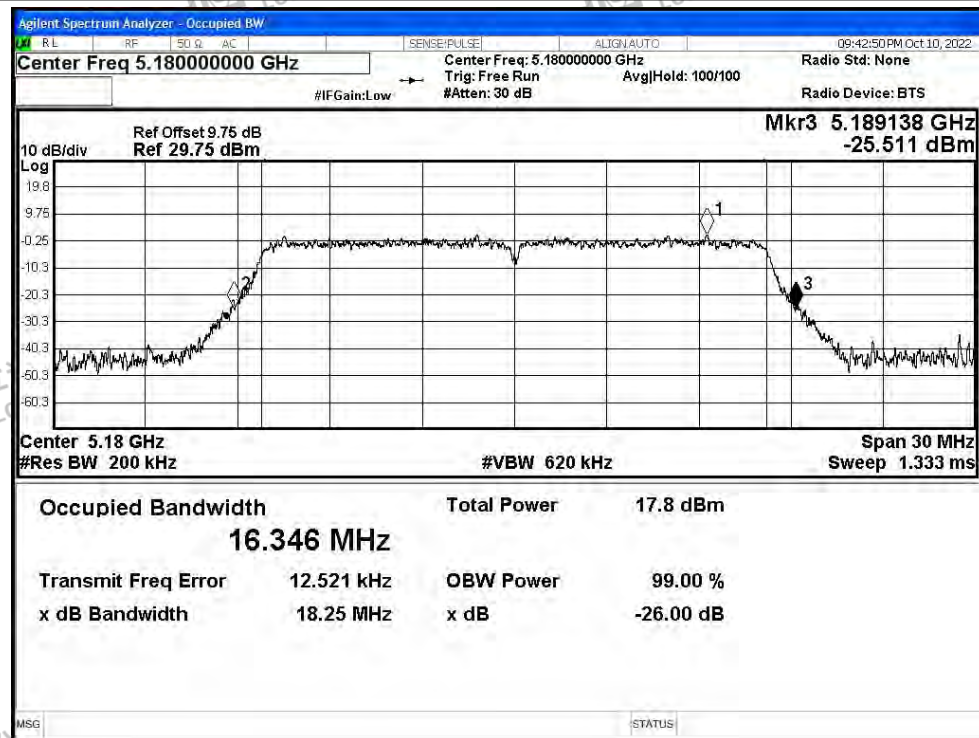
| Condition | Mode | Frequency (MHz) | Antenna | -26 dB Bandwidth (MHz) | Limit -26 dB Bandwidth (MHz) | Verdict |
|-----------|------|-----------------|---------|------------------------|------------------------------|---------|
| NVNT      | a    | 5180            | Ant0    | 18.252                 | $\geq 0.5$                   | Pass    |
| NVNT      | a    | 5200            | Ant0    | 18.446                 | $\geq 0.5$                   | Pass    |
| NVNT      | a    | 5240            | Ant0    | 18.46                  | $\geq 0.5$                   | Pass    |
| NVNT      | n20  | 5180            | Ant0    | 19.212                 | $\geq 0.5$                   | Pass    |
| NVNT      | n20  | 5200            | Ant0    | 19.18                  | $\geq 0.5$                   | Pass    |
| NVNT      | n20  | 5240            | Ant0    | 19.38                  | $\geq 0.5$                   | Pass    |
| NVNT      | n40  | 5190            | Ant0    | 41.754                 | $\geq 0.5$                   | Pass    |
| NVNT      | n40  | 5230            | Ant0    | 41.319                 | $\geq 0.5$                   | Pass    |
| NVNT      | ac20 | 5180            | Ant0    | 19.169                 | $\geq 0.5$                   | Pass    |
| NVNT      | ac20 | 5200            | Ant0    | 19.181                 | $\geq 0.5$                   | Pass    |
| NVNT      | ac20 | 5240            | Ant0    | 19.354                 | $\geq 0.5$                   | Pass    |
| NVNT      | ac40 | 5190            | Ant0    | 40.913                 | $\geq 0.5$                   | Pass    |
| NVNT      | ac40 | 5230            | Ant0    | 41.307                 | $\geq 0.5$                   | Pass    |
| NVNT      | ac80 | 5210            | Ant0    | 81.571                 | $\geq 0.5$                   | Pass    |





## Test Graphs

-26dB Bandwidth NVNT a 5180MHz Ant0

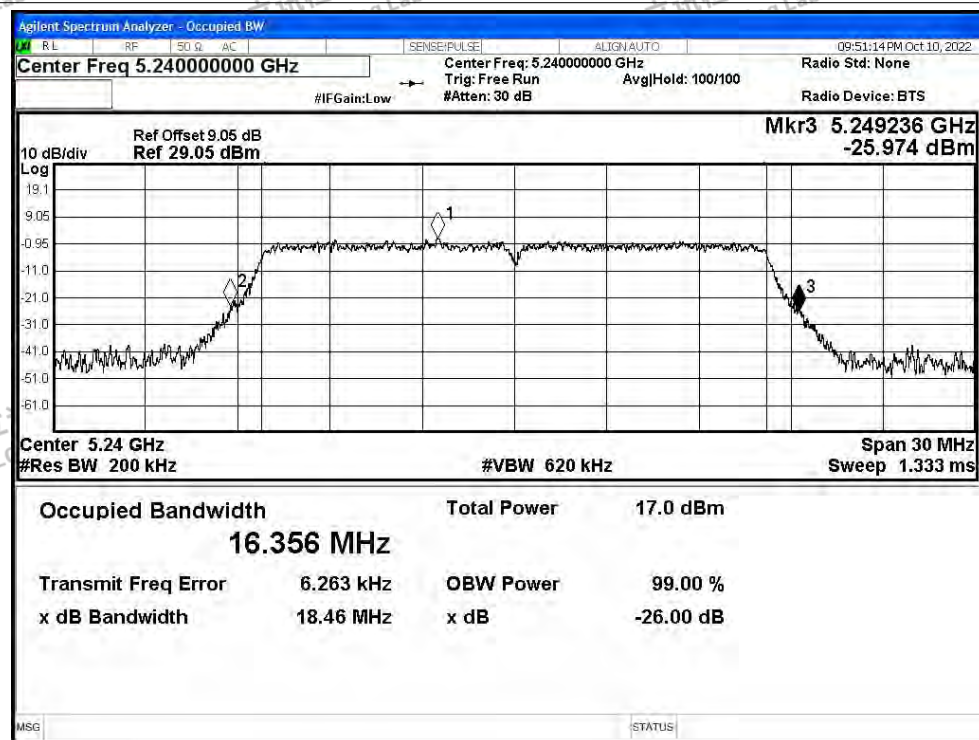


-26dB Bandwidth NVNT a 5200MHz Ant0

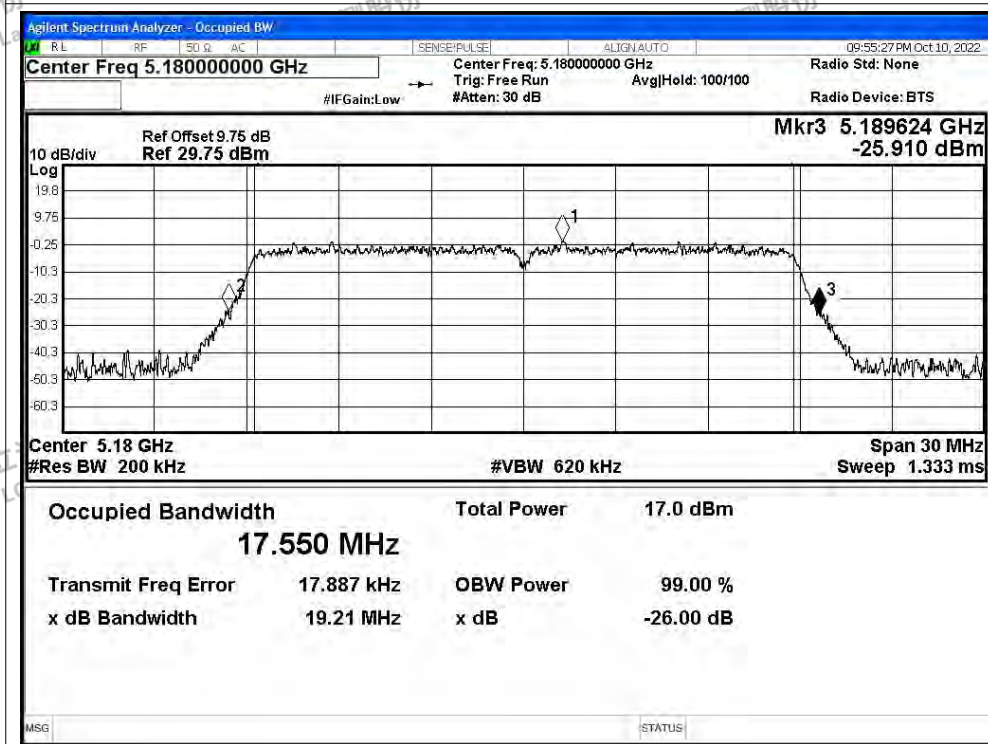




-26dB Bandwidth NVNT a 5240MHz Ant0

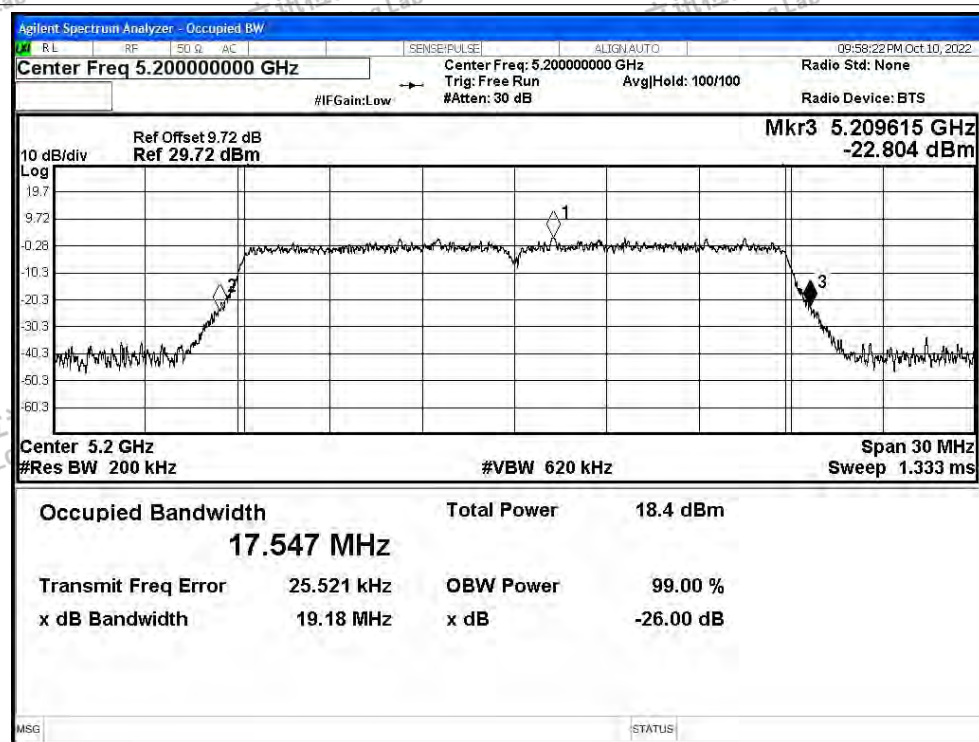


-26dB Bandwidth NVNT n20 5180MHz Ant0

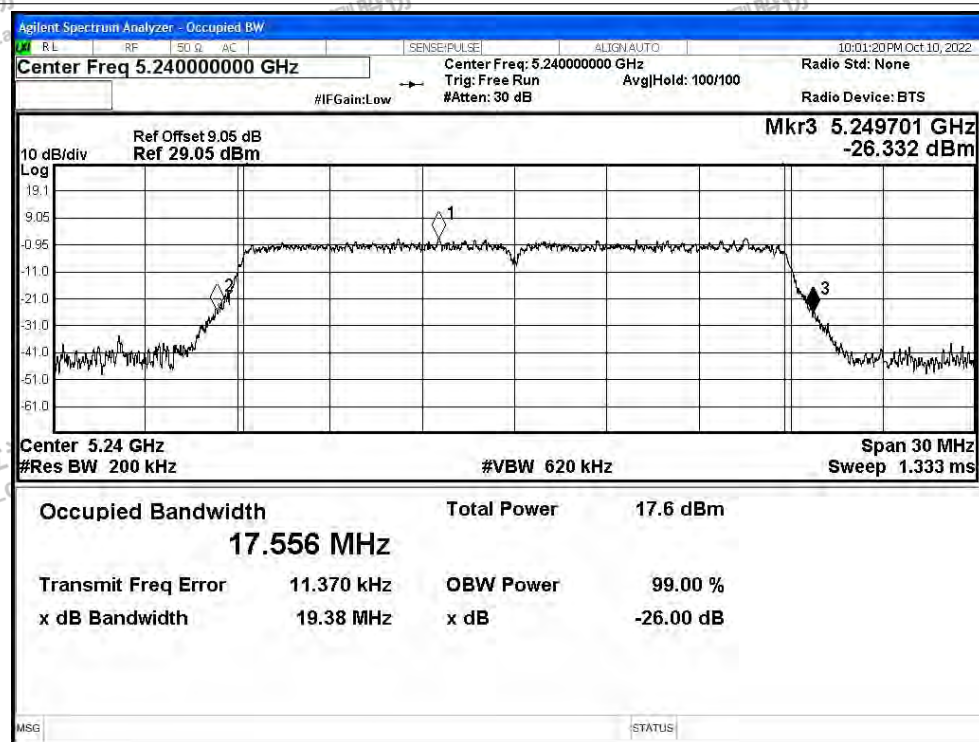




-26dB Bandwidth NVNT n20 5200MHz Ant0



-26dB Bandwidth NVNT n20 5240MHz Ant0





-26dB Bandwidth NVNT n40 5190MHz Ant0

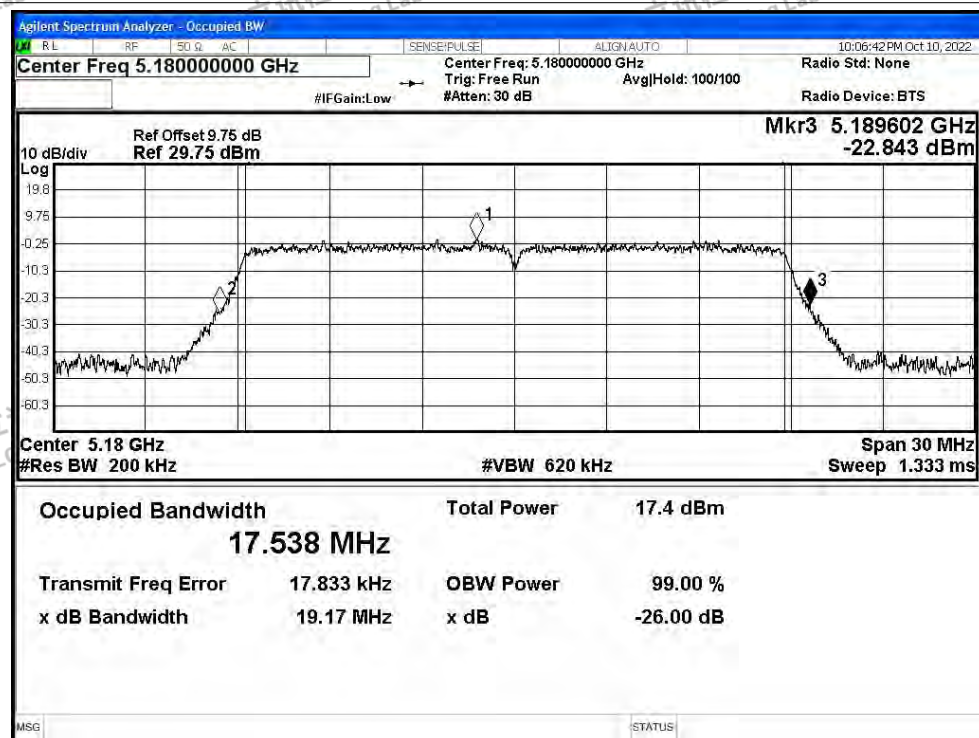


-26dB Bandwidth NVNT n40 5230MHz Ant0

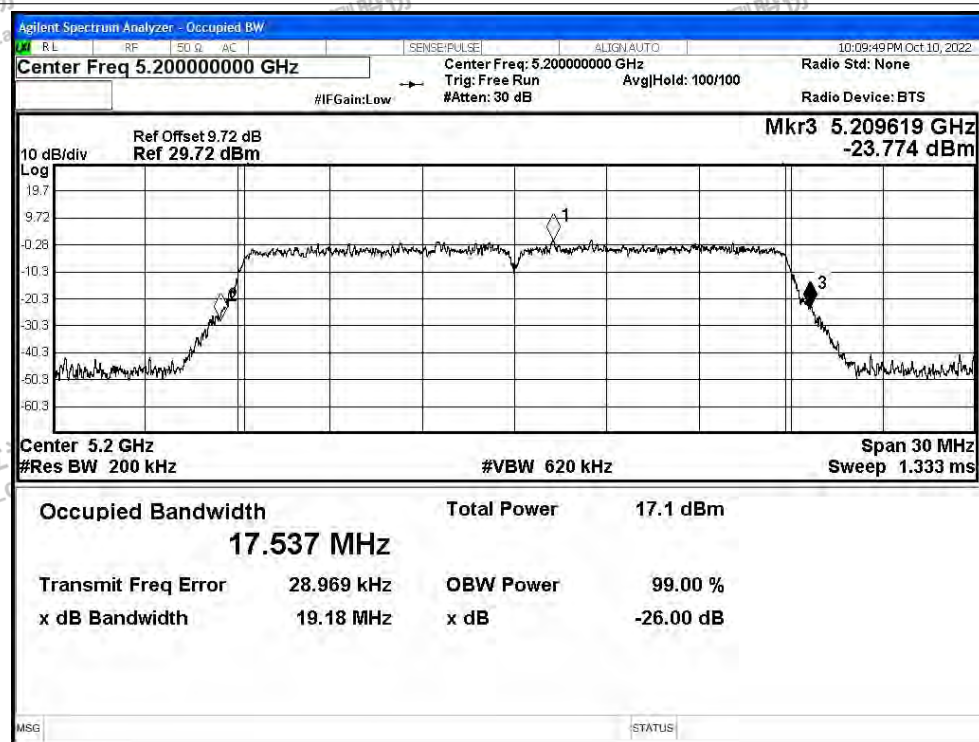




-26dB Bandwidth NVNT ac20 5180MHz Ant0

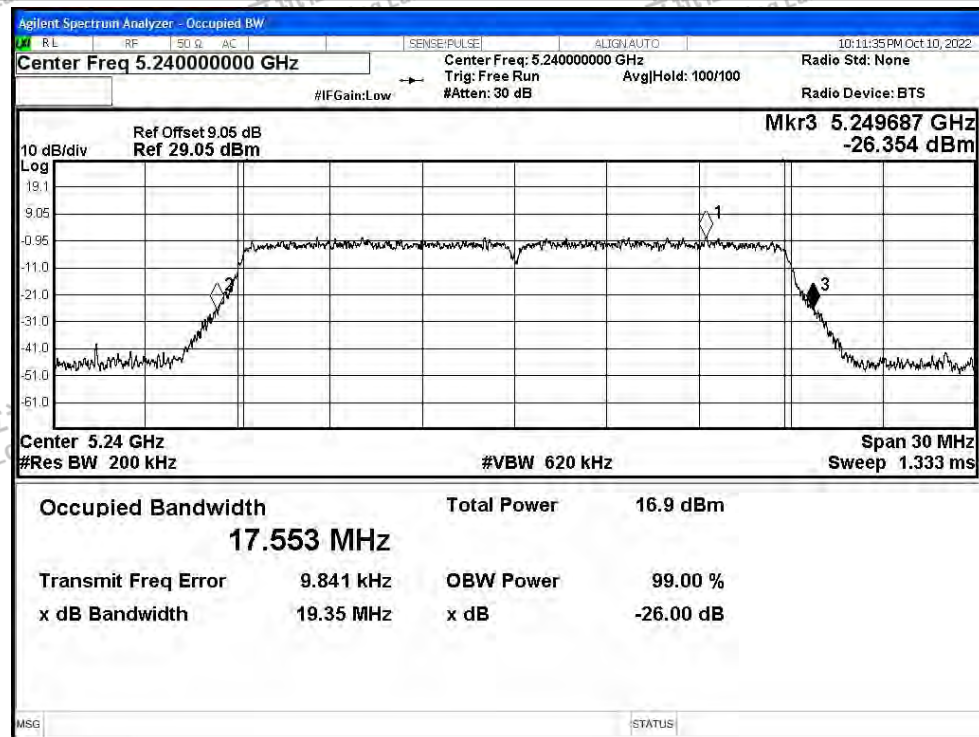


-26dB Bandwidth NVNT ac20 5200MHz Ant0

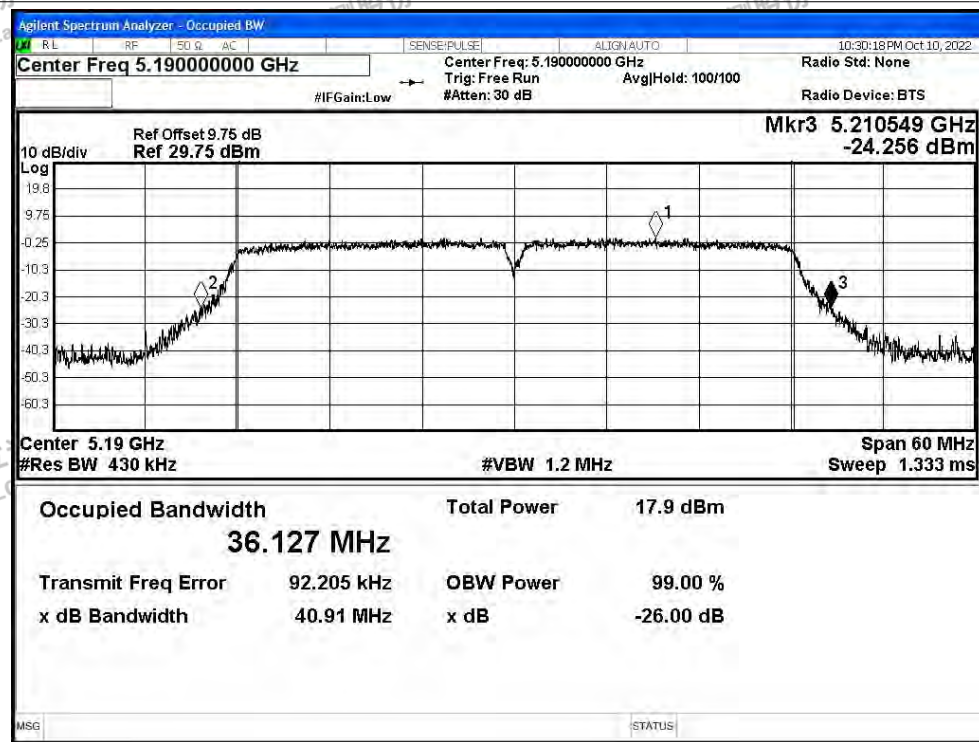




-26dB Bandwidth NVNT ac20 5240MHz Ant0

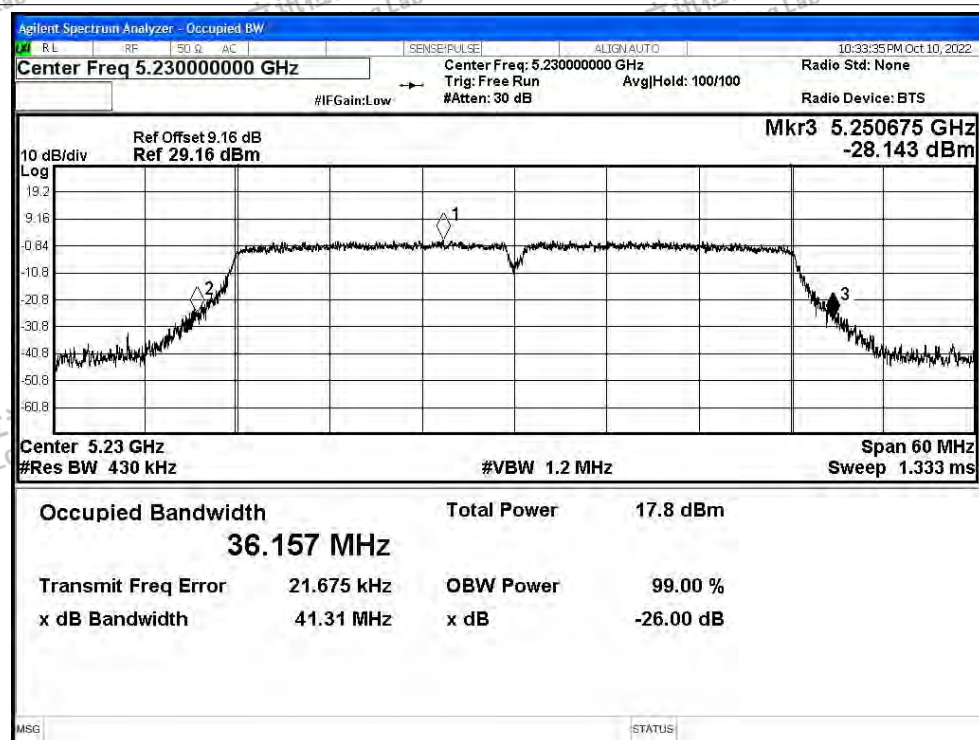


-26dB Bandwidth NVNT ac40 5190MHz Ant0

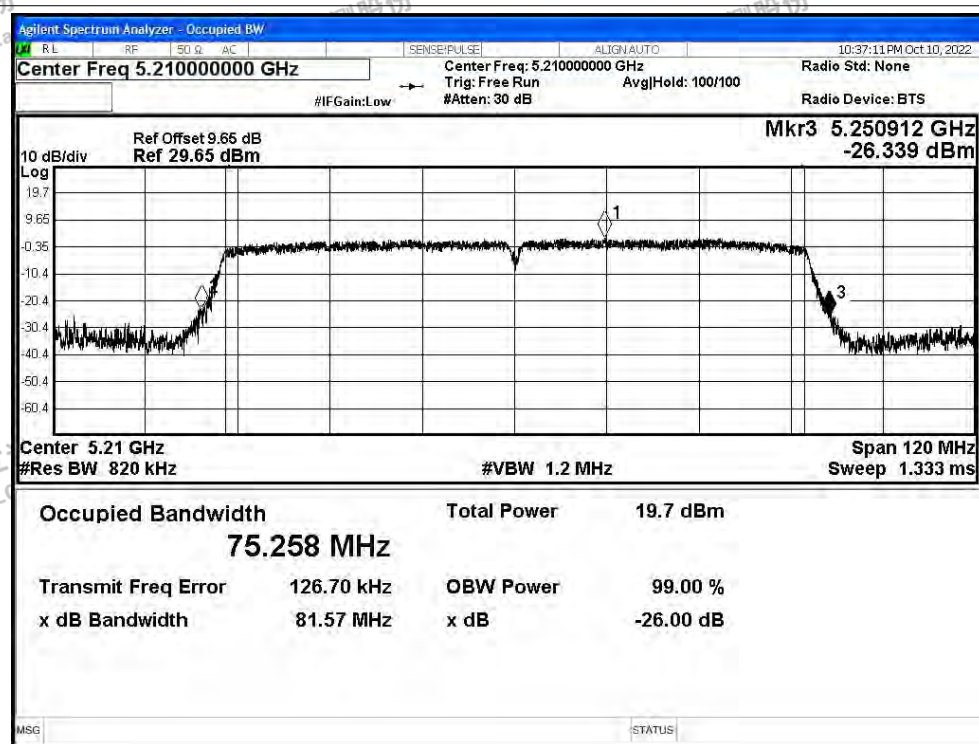




## -26dB Bandwidth NVNT ac40 5230MHz Ant0



## -26dB Bandwidth NVNT ac80 5210MHz Ant0





| Condition | Mode | Frequency (MHz) | Antenna | -26 dB Bandwidth (MHz) | Limit -26 dB Bandwidth (MHz) | Verdict |
|-----------|------|-----------------|---------|------------------------|------------------------------|---------|
| NVNT      | a    | 5180            | Ant1    | 18.491                 | $\geq 0.5$                   | Pass    |
| NVNT      | a    | 5200            | Ant1    | 18.464                 | $\geq 0.5$                   | Pass    |
| NVNT      | a    | 5240            | Ant1    | 18.466                 | $\geq 0.5$                   | Pass    |
| NVNT      | n20  | 5180            | Ant1    | 19.297                 | $\geq 0.5$                   | Pass    |
| NVNT      | n20  | 5200            | Ant1    | 19.303                 | $\geq 0.5$                   | Pass    |
| NVNT      | n20  | 5240            | Ant1    | 19.191                 | $\geq 0.5$                   | Pass    |
| NVNT      | n40  | 5190            | Ant1    | 41.245                 | $\geq 0.5$                   | Pass    |
| NVNT      | n40  | 5230            | Ant1    | 41.69                  | $\geq 0.5$                   | Pass    |
| NVNT      | ac20 | 5180            | Ant1    | 19.218                 | $\geq 0.5$                   | Pass    |
| NVNT      | ac20 | 5200            | Ant1    | 19.353                 | $\geq 0.5$                   | Pass    |
| NVNT      | ac20 | 5240            | Ant1    | 19.238                 | $\geq 0.5$                   | Pass    |
| NVNT      | ac40 | 5190            | Ant1    | 41.286                 | $\geq 0.5$                   | Pass    |
| NVNT      | ac40 | 5230            | Ant1    | 40.83                  | $\geq 0.5$                   | Pass    |
| NVNT      | ac80 | 5210            | Ant1    | 81.665                 | $\geq 0.5$                   | Pass    |

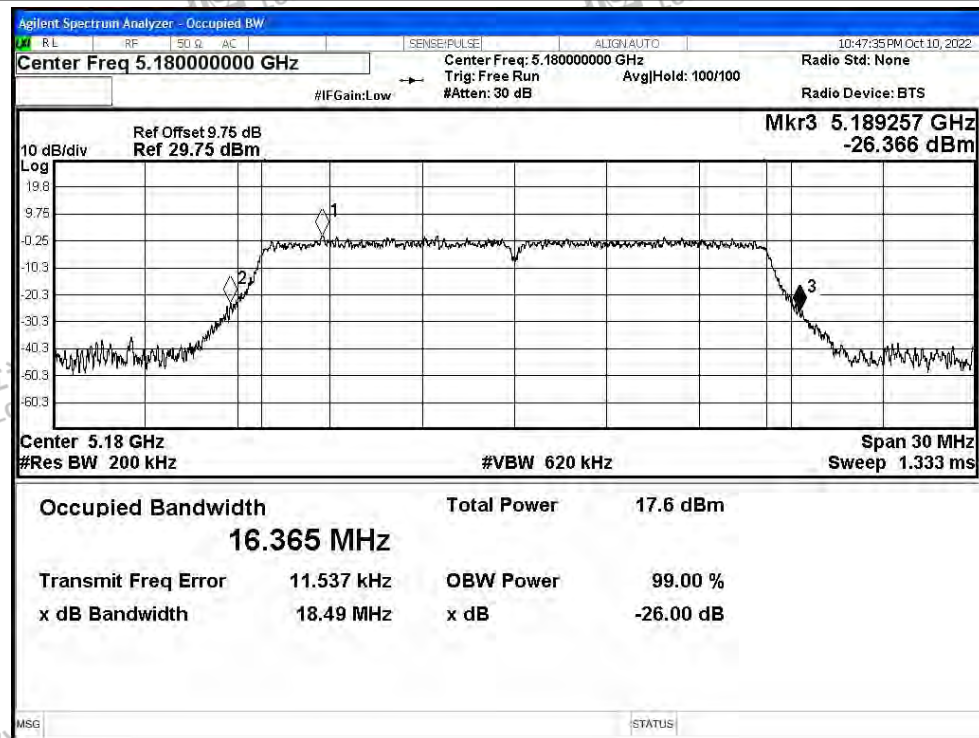


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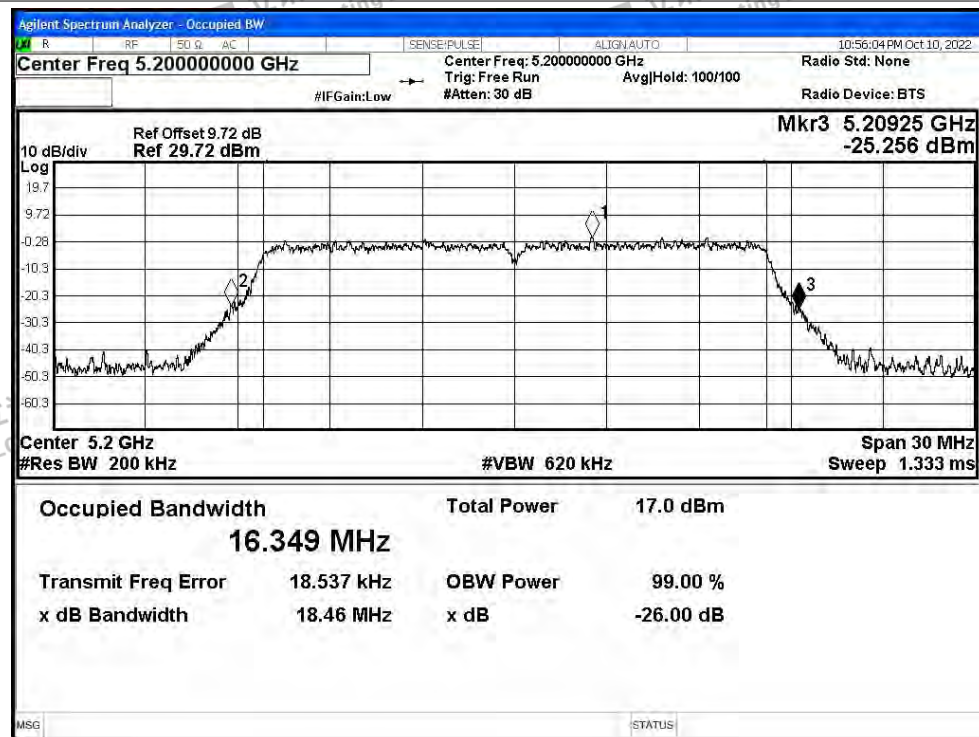


## Test Graphs

-26dB Bandwidth NVNT a 5180MHz Ant1

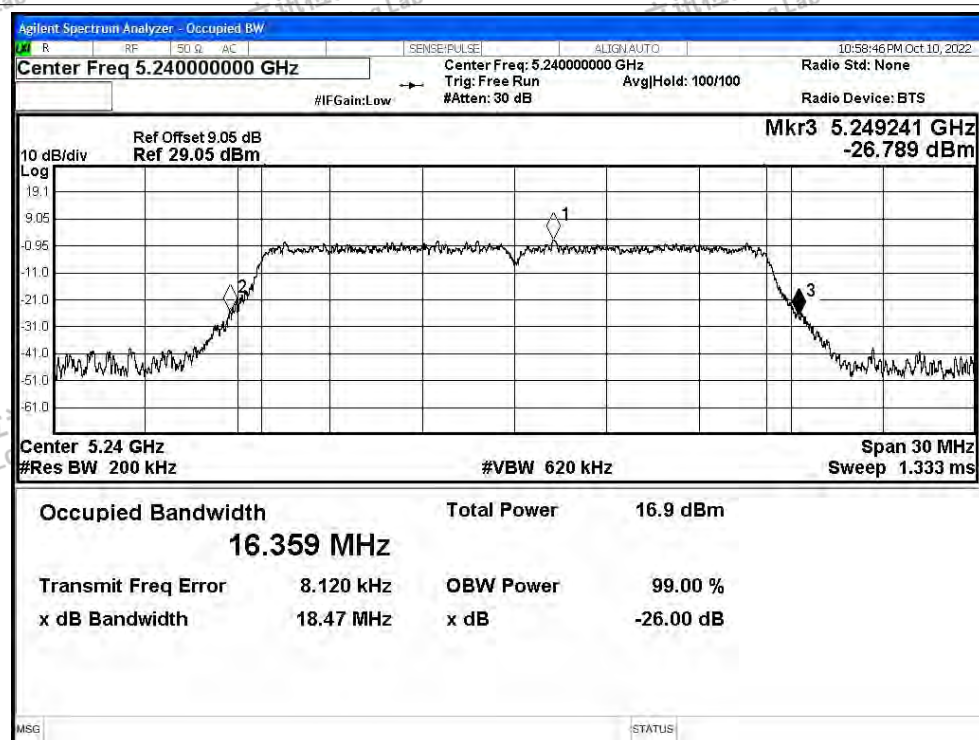


-26dB Bandwidth NVNT a 5200MHz Ant1

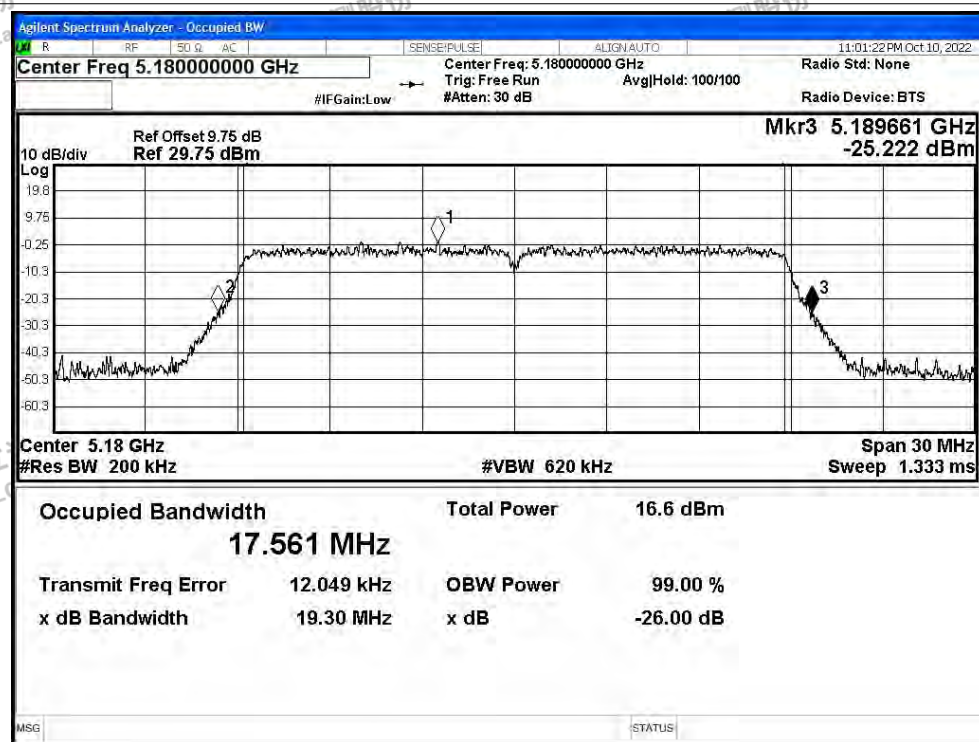




-26dB Bandwidth NVNT a 5240MHz Ant1

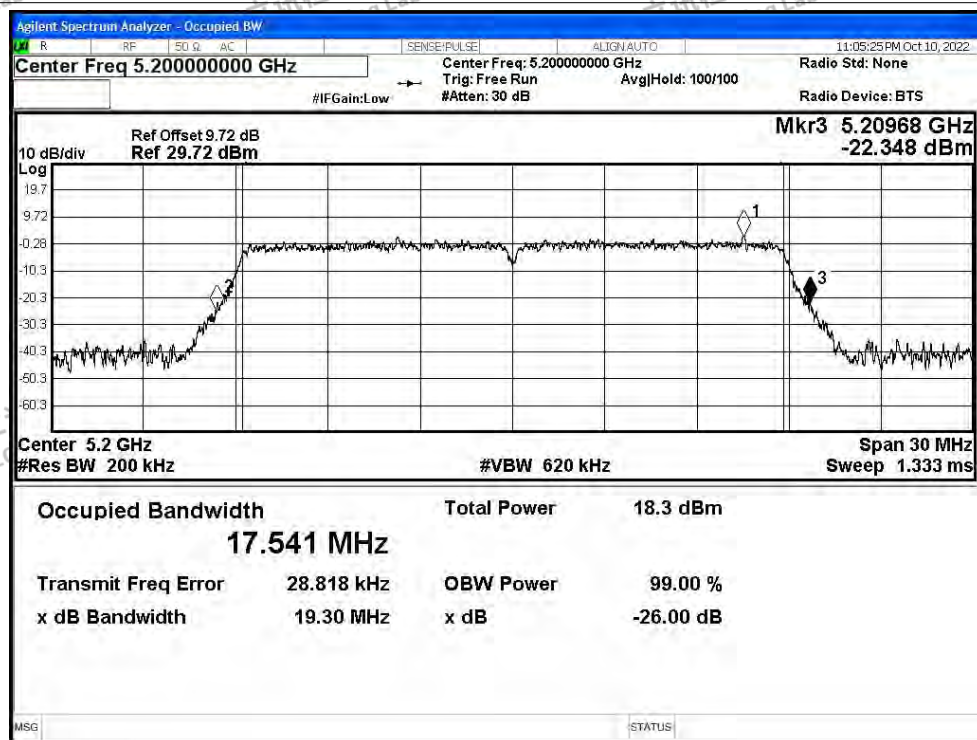


-26dB Bandwidth NVNT n20 5180MHz Ant1

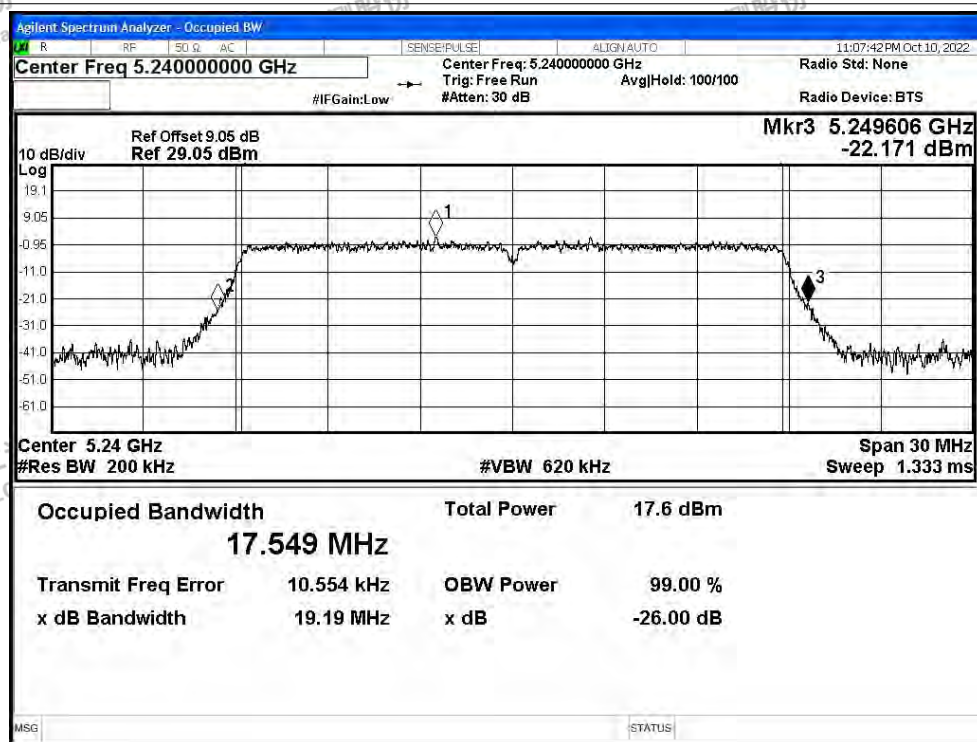




-26dB Bandwidth NVNT n20 5200MHz Ant1



-26dB Bandwidth NVNT n20 5240MHz Ant1





-26dB Bandwidth NVNT n40 5190MHz Ant1



-26dB Bandwidth NVNT n40 5230MHz Ant1

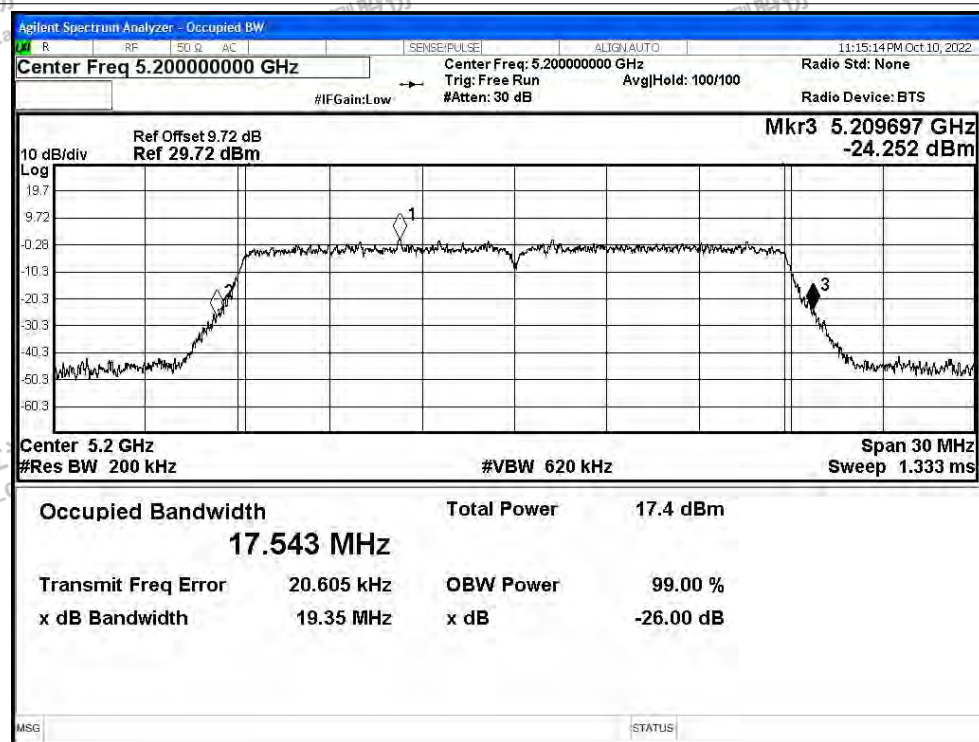




-26dB Bandwidth NVNT ac20 5180MHz Ant1



-26dB Bandwidth NVNT ac20 5200MHz Ant1

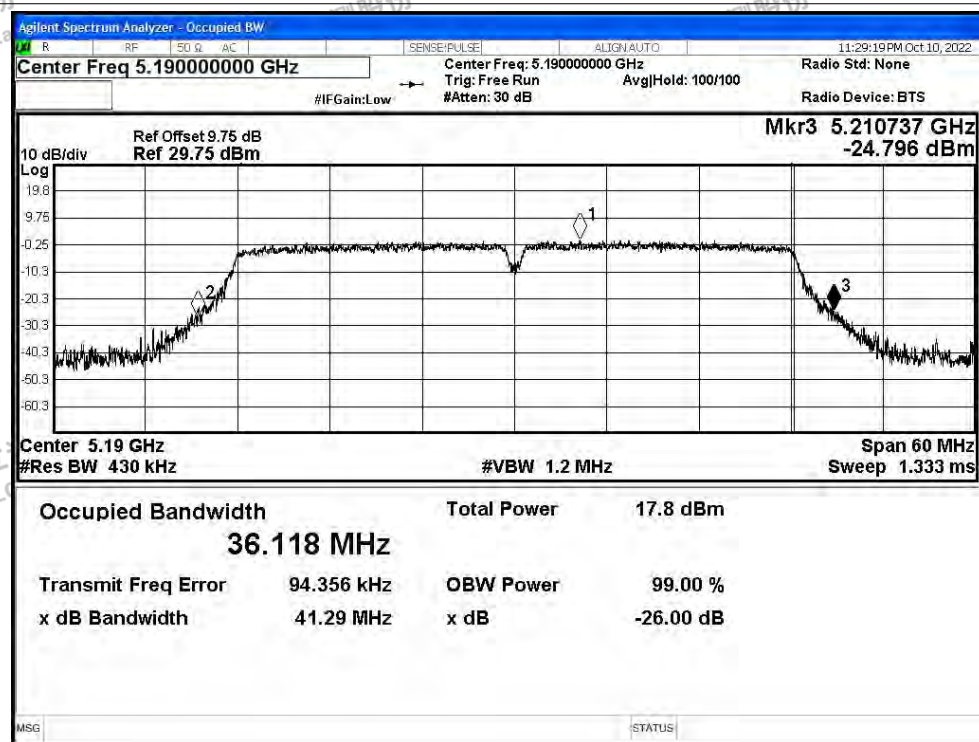




## -26dB Bandwidth NVNT ac20 5240MHz Ant1

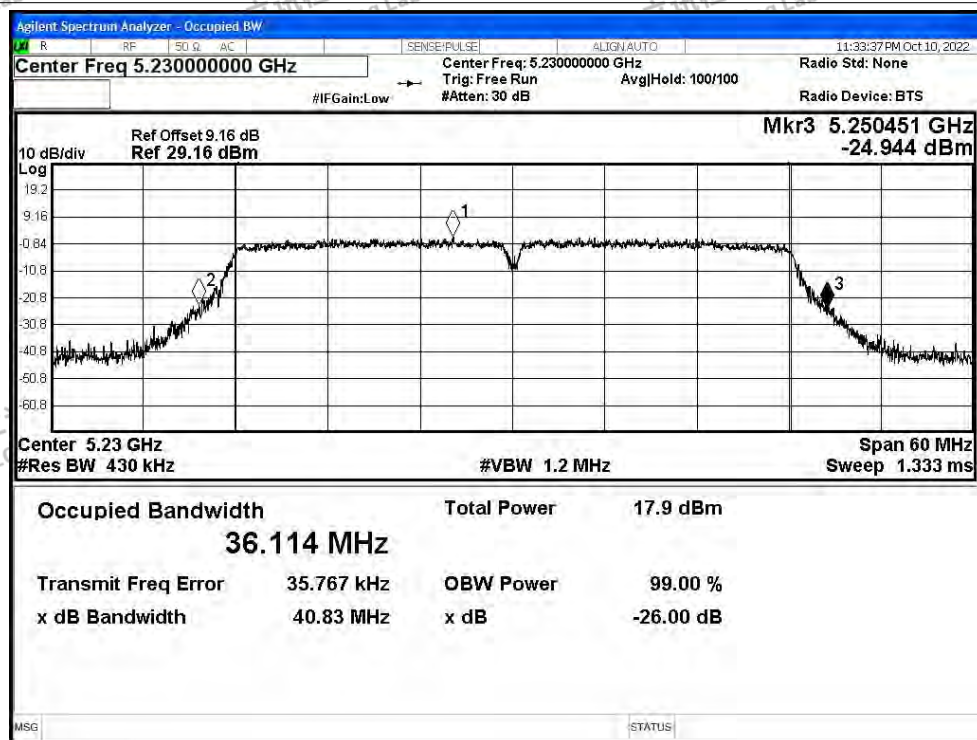


## -26dB Bandwidth NVNT ac40 5190MHz Ant1

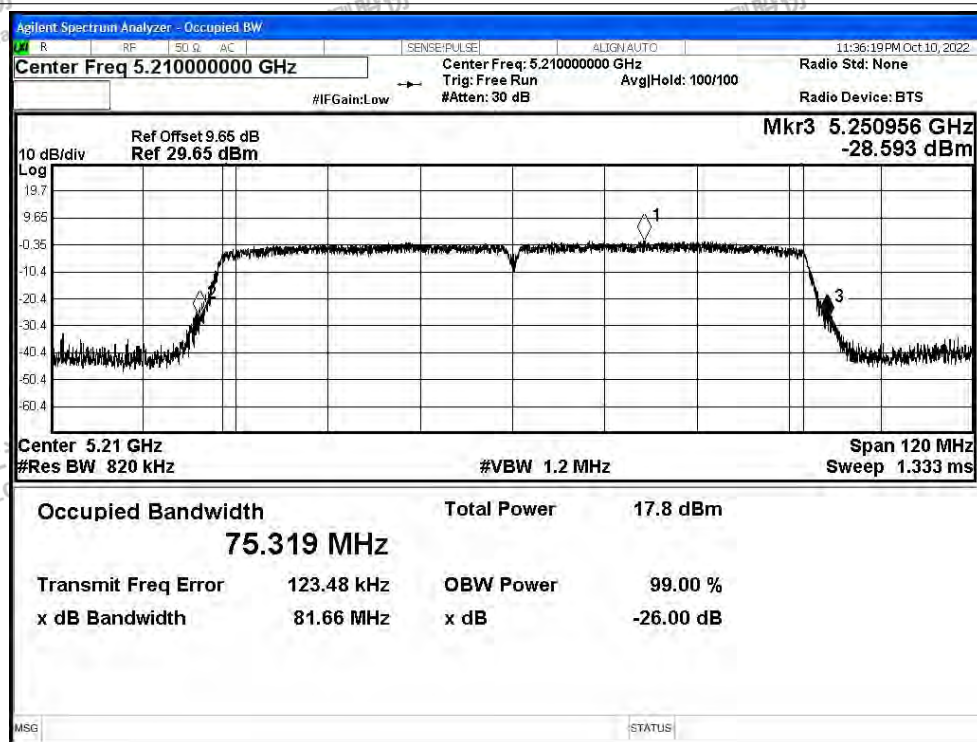




-26dB Bandwidth NVNT ac40 5230MHz Ant1



-26dB Bandwidth NVNT ac80 5210MHz Ant1





## B.2 Maximum Conducted Output Power

| Condition | Mode | Frequency (MHz) | Antenna | Conducted Power (dBm) | Duty Factor (dB) | Total Power (dBm) | Limit (dBm) | Verdict |
|-----------|------|-----------------|---------|-----------------------|------------------|-------------------|-------------|---------|
| NVNT      | a    | 5180            | Ant0    | 10.41                 | 0.52             | 10.93             | 30          | Pass    |
| NVNT      | a    | 5200            | Ant0    | 10.23                 | 0.16             | 10.39             | 30          | Pass    |
| NVNT      | a    | 5300            | Ant0    | 9.98                  | 0.29             | 10.27             | 30          | Pass    |
| NVNT      | n20  | 5180            | Ant0    | 9.76                  | 0.34             | 10.1              | 30          | Pass    |
| NVNT      | n20  | 5200            | Ant0    | 11.13                 | 0.5              | 11.63             | 30          | Pass    |
| NVNT      | n20  | 5300            | Ant0    | 10.07                 | 0.44             | 10.51             | 30          | Pass    |
| NVNT      | n40  | 5190            | Ant0    | 11.25                 | 0.66             | 11.91             | 30          | Pass    |
| NVNT      | n40  | 5230            | Ant0    | 9.75                  | 1                | 10.75             | 30          | Pass    |
| NVNT      | ac20 | 5180            | Ant0    | 10.33                 | 0.52             | 10.85             | 30          | Pass    |
| NVNT      | ac20 | 5200            | Ant0    | 9.96                  | 0.41             | 10.37             | 30          | Pass    |
| NVNT      | ac20 | 5300            | Ant0    | 9.82                  | 0.58             | 10.4              | 30          | Pass    |
| NVNT      | ac40 | 5190            | Ant0    | 10.35                 | 0.54             | 10.89             | 30          | Pass    |
| NVNT      | ac40 | 5230            | Ant0    | 10.35                 | 0.94             | 11.29             | 30          | Pass    |
| NVNT      | ac80 | 5210            | Ant0    | 9.04                  | 1.14             | 10.18             | 30          | Pass    |

| Condition | Mode | Frequency (MHz) | Antenna | Conducted Power (dBm) | Duty Factor (dB) | Total Power (dBm) | Limit (dBm) | Verdict |
|-----------|------|-----------------|---------|-----------------------|------------------|-------------------|-------------|---------|
| NVNT      | a    | 5180            | Ant1    | 10.69                 | 0.27             | 10.96             | 30          | Pass    |
| NVNT      | a    | 5200            | Ant1    | 10.01                 | 0.19             | 10.2              | 30          | Pass    |
| NVNT      | a    | 5300            | Ant1    | 9.66                  | 0.19             | 9.85              | 30          | Pass    |
| NVNT      | n20  | 5180            | Ant1    | 9.37                  | 0.36             | 9.73              | 30          | Pass    |
| NVNT      | n20  | 5200            | Ant1    | 11.01                 | 0.52             | 11.53             | 30          | Pass    |
| NVNT      | n20  | 5300            | Ant1    | 10.69                 | 0.37             | 11.06             | 30          | Pass    |
| NVNT      | n40  | 5190            | Ant1    | 9.87                  | 0.65             | 10.52             | 30          | Pass    |
| NVNT      | n40  | 5230            | Ant1    | 9.68                  | 1.05             | 10.73             | 30          | Pass    |
| NVNT      | ac20 | 5180            | Ant1    | 10.53                 | 0.47             | 11                | 30          | Pass    |
| NVNT      | ac20 | 5200            | Ant1    | 10.33                 | 0.44             | 10.77             | 30          | Pass    |
| NVNT      | ac20 | 5300            | Ant1    | 9.89                  | 0.52             | 10.41             | 30          | Pass    |
| NVNT      | ac40 | 5190            | Ant1    | 10.18                 | 0.49             | 10.67             | 30          | Pass    |
| NVNT      | ac40 | 5230            | Ant1    | 10.37                 | 0.64             | 11.01             | 30          | Pass    |
| NVNT      | ac80 | 5210            | Ant1    | 8.81                  | 1.65             | 10.46             | 30          | Pass    |





MIMO

| Condition | Mode | Frequency (MHz) | Total Power (dBm) |       |           | Limit (dBm) | Verdict |
|-----------|------|-----------------|-------------------|-------|-----------|-------------|---------|
|           |      |                 | Ant0              | Ant1  | Ant0+Ant1 |             |         |
| NVNT      | n20  | 5180            | 10.1              | 9.73  | 12.93     | 28.46       | Pass    |
| NVNT      | n20  | 5200            | 11.63             | 11.53 | 14.59     | 28.46       | Pass    |
| NVNT      | n20  | 5240            | 16.59             | 11.06 | 17.66     | 28.46       | Pass    |
| NVNT      | n40  | 5190            | 11.25             | 10.52 | 13.91     | 28.46       | Pass    |
| NVNT      | n40  | 5230            | 10.75             | 10.73 | 13.75     | 28.46       | Pass    |
| NVNT      | ac20 | 5180            | 10.85             | 11    | 13.94     | 28.46       | Pass    |
| NVNT      | ac20 | 5200            | 10.37             | 10.77 | 13.58     | 28.46       | Pass    |
| NVNT      | ac20 | 5240            | 10.4              | 10.41 | 13.42     | 28.46       | Pass    |
| NVNT      | ac40 | 5190            | 10.35             | 10.67 | 13.52     | 28.46       | Pass    |
| NVNT      | ac40 | 5230            | 10.35             | 11.01 | 13.70     | 28.46       | Pass    |
| NVNT      | ac80 | 5210            | 10.18             | 10.46 | 13.33     | 28.46       | Pass    |



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### B.3 Maximum Power Spectral Density Level

| Condition | Mode | Frequency (MHz) | Antenna | Conducted PSD (dBm) | Duty Factor (dB) | Total PSD (dBm) | Limit (dBm) | Verdict |
|-----------|------|-----------------|---------|---------------------|------------------|-----------------|-------------|---------|
| NVNT      | a    | 5180            | Ant0    | -17.33              | 0.52             | -16.81          | 17          | Pass    |
| NVNT      | a    | 5200            | Ant0    | -16.63              | 0.16             | -16.47          | 17          | Pass    |
| NVNT      | a    | 5240            | Ant0    | -19.02              | 0.29             | -18.73          | 17          | Pass    |
| NVNT      | n20  | 5180            | Ant0    | -17.93              | 0.34             | -17.59          | 17          | Pass    |
| NVNT      | n20  | 5200            | Ant0    | -18.26              | 0.5              | -17.76          | 17          | Pass    |
| NVNT      | n20  | 5240            | Ant0    | -18.75              | 0.44             | -18.31          | 17          | Pass    |
| NVNT      | n40  | 5190            | Ant0    | -21.77              | 0.66             | -21.11          | 17          | Pass    |
| NVNT      | n40  | 5230            | Ant0    | -20.6               | 1                | -19.6           | 17          | Pass    |
| NVNT      | ac20 | 5180            | Ant0    | -17.7               | 0.52             | -17.18          | 17          | Pass    |
| NVNT      | ac20 | 5200            | Ant0    | -17.24              | 0.41             | -16.83          | 17          | Pass    |
| NVNT      | ac20 | 5240            | Ant0    | -18.1               | 0.58             | -17.52          | 17          | Pass    |
| NVNT      | ac40 | 5190            | Ant0    | -21.88              | 0.54             | -21.34          | 17          | Pass    |
| NVNT      | ac40 | 5230            | Ant0    | -21.69              | 0.94             | -20.75          | 17          | Pass    |
| NVNT      | ac80 | 5210            | Ant0    | -24.77              | 1.14             | -23.63          | 17          | Pass    |

| Condition | Mode | Frequency (MHz) | Antenna | Conducted PSD (dBm) | Duty Factor (dB) | Total PSD (dBm) | Limit (dBm) | Verdict |
|-----------|------|-----------------|---------|---------------------|------------------|-----------------|-------------|---------|
| NVNT      | a    | 5180            | Ant1    | -17.73              | 0.27             | -17.46          | 17          | Pass    |
| NVNT      | a    | 5200            | Ant1    | -18.06              | 0.19             | -17.87          | 17          | Pass    |
| NVNT      | a    | 5240            | Ant1    | -19.15              | 0.19             | -18.96          | 17          | Pass    |
| NVNT      | n20  | 5180            | Ant1    | -19.48              | 0.36             | -19.12          | 17          | Pass    |
| NVNT      | n20  | 5200            | Ant1    | -16.72              | 0.52             | -16.2           | 17          | Pass    |
| NVNT      | n20  | 5240            | Ant1    | -17.99              | 0.37             | -17.62          | 17          | Pass    |
| NVNT      | n40  | 5190            | Ant1    | -22.08              | 0.65             | -21.43          | 17          | Pass    |
| NVNT      | n40  | 5230            | Ant1    | -22.94              | 1.05             | -21.89          | 17          | Pass    |
| NVNT      | ac20 | 5180            | Ant1    | -17.88              | 0.47             | -17.41          | 17          | Pass    |
| NVNT      | ac20 | 5200            | Ant1    | -18.02              | 0.44             | -17.58          | 17          | Pass    |
| NVNT      | ac20 | 5240            | Ant1    | -17.36              | 0.52             | -16.84          | 17          | Pass    |
| NVNT      | ac40 | 5190            | Ant1    | -22.41              | 0.49             | -21.92          | 17          | Pass    |
| NVNT      | ac40 | 5230            | Ant1    | -22.08              | 0.64             | -21.44          | 17          | Pass    |
| NVNT      | ac80 | 5210            | Ant1    | -27.17              | 1.65             | -25.52          | 17          | Pass    |



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| Condition | Mode | Frequency (MHz) | Total PSD (dBm) |        |           | Limit (dBm) | Verdict |
|-----------|------|-----------------|-----------------|--------|-----------|-------------|---------|
|           |      |                 | Ant0            | Ant1   | Ant0+Ant1 |             |         |
| NVNT      | n20  | 5180            | -17.59          | -19.12 | -15.28    | 15.46       | Pass    |
| NVNT      | n20  | 5200            | -17.76          | -4.02  | -3.84     | 15.46       | Pass    |
| NVNT      | n20  | 5240            | -12.23          | -17.62 | -11.13    | 15.46       | Pass    |
| NVNT      | n40  | 5190            | -21.77          | -21.43 | -18.59    | 15.46       | Pass    |
| NVNT      | n40  | 5230            | -20.6           | -21.89 | -18.19    | 15.46       | Pass    |
| NVNT      | ac20 | 5180            | -17.18          | -17.41 | -14.28    | 15.46       | Pass    |
| NVNT      | ac20 | 5200            | -16.83          | -17.58 | -14.18    | 15.46       | Pass    |
| NVNT      | ac20 | 5240            | -17.52          | -16.84 | -14.16    | 15.46       | Pass    |
| NVNT      | ac40 | 5190            | -21.34          | -21.92 | -18.61    | 15.46       | Pass    |
| NVNT      | ac40 | 5230            | -20.75          | -21.44 | -18.07    | 15.46       | Pass    |
| NVNT      | ac80 | 5210            | -23.63          | -25.52 | -21.46    | 15.46       | Pass    |

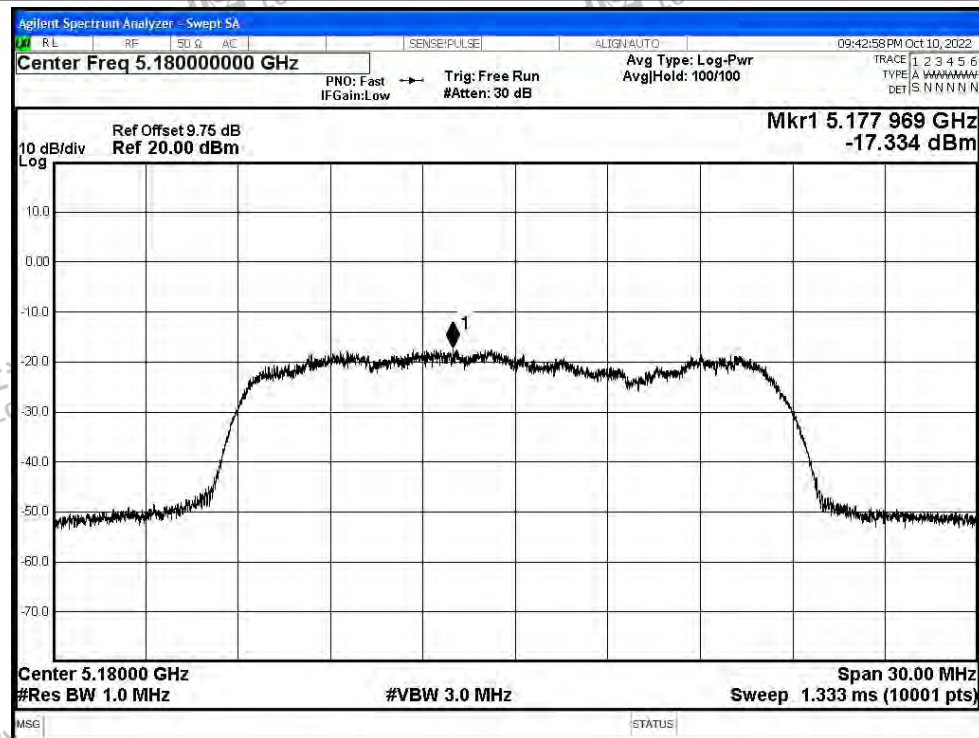


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Scan code to check authenticity

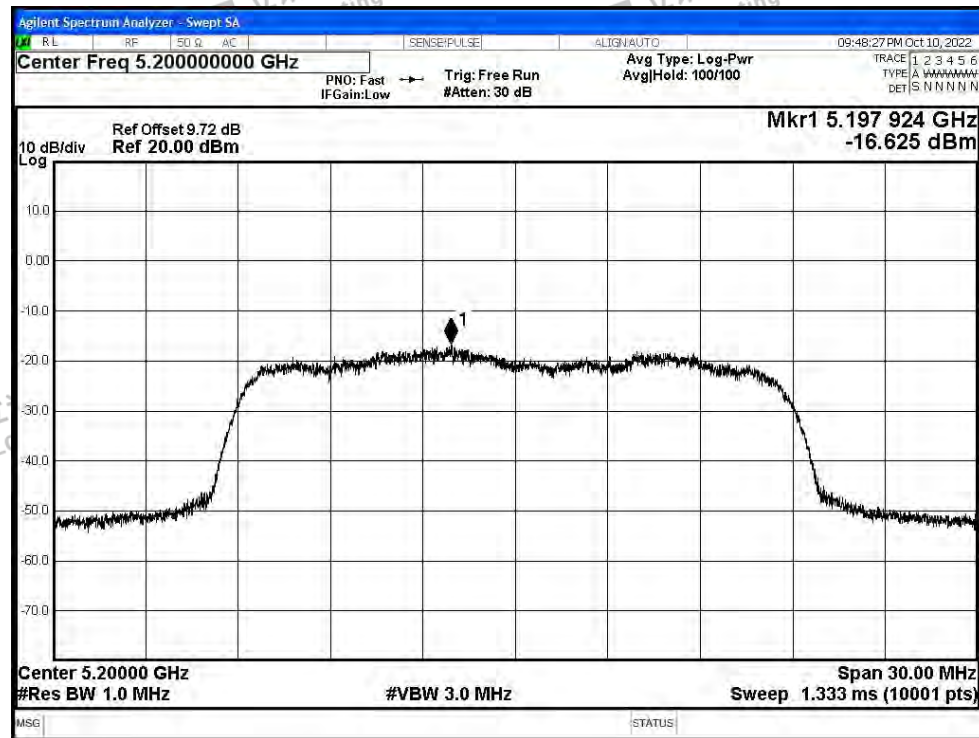


## Test Graphs

PSD NVNT a 5180MHz Ant0

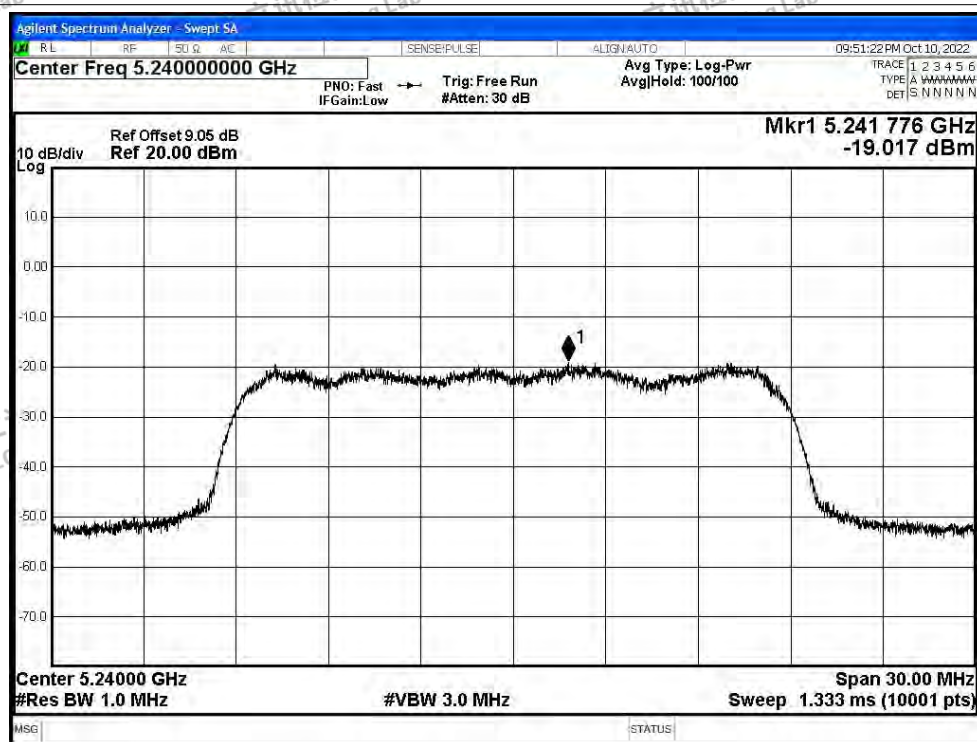


PSD NVNT a 5200MHz Ant0

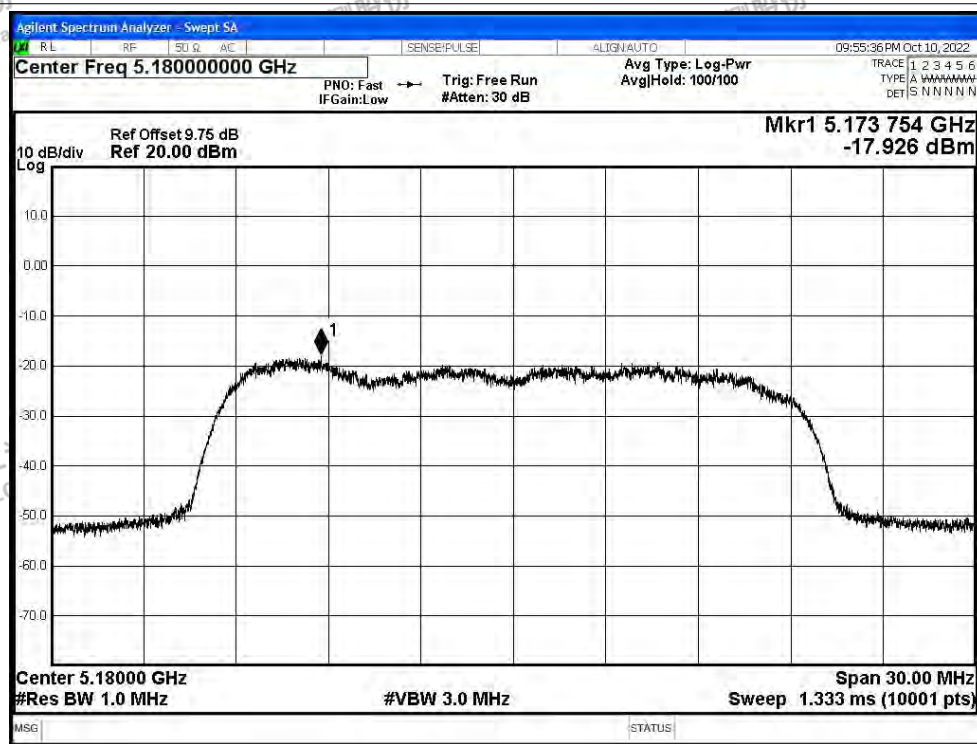




PSD NVNT a 5240MHz Ant0

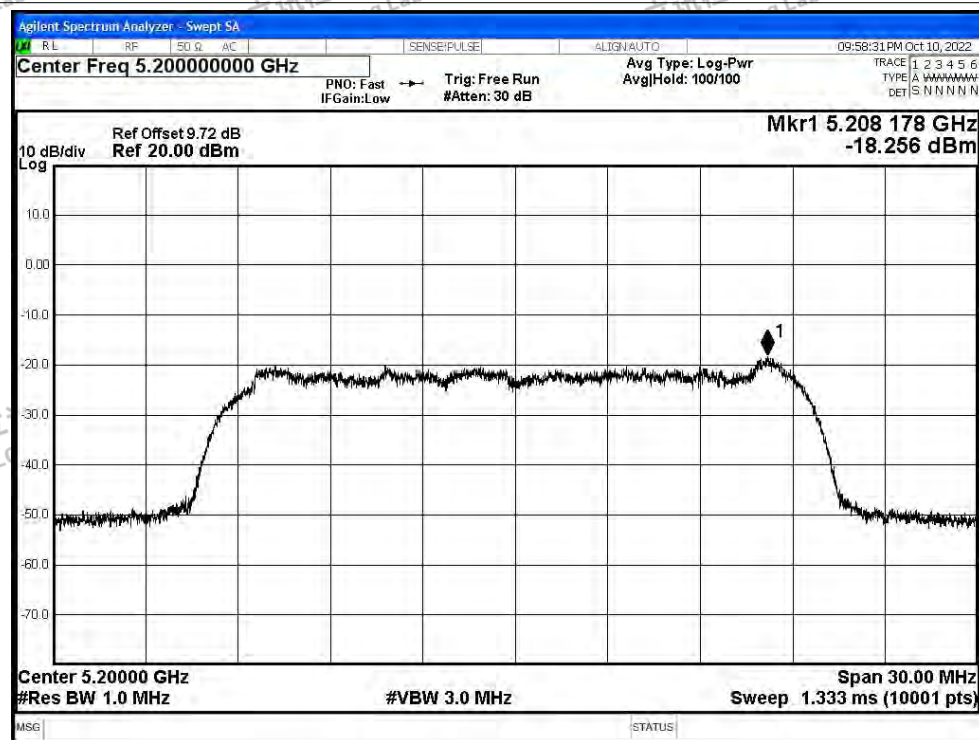


PSD NVNT n20 5180MHz Ant0

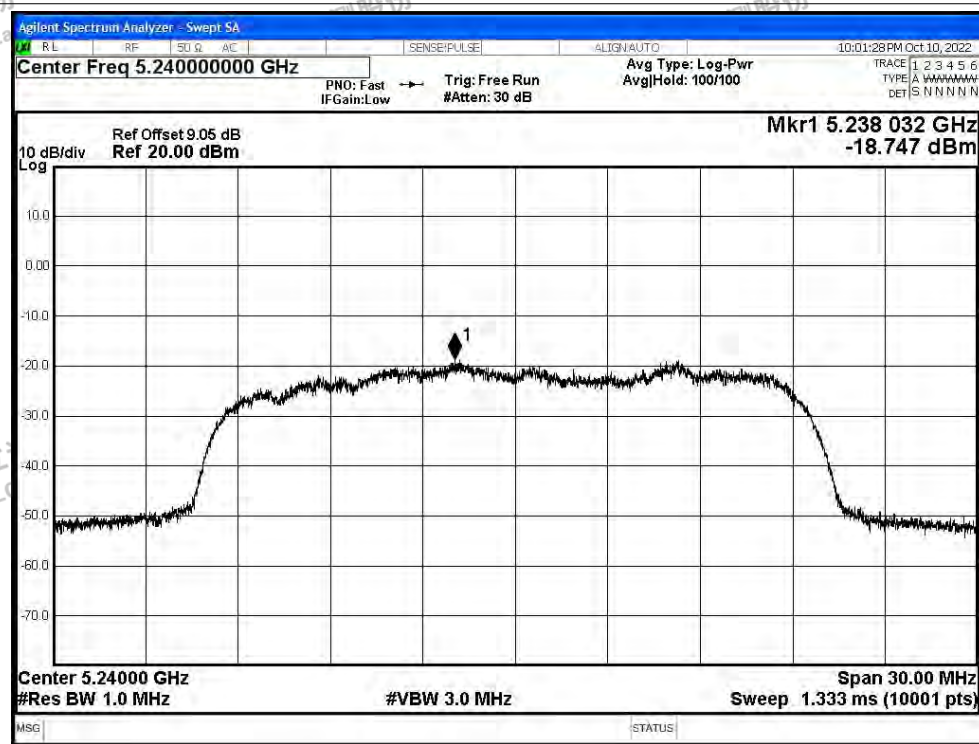




PSD NVNT n20 5200MHz Ant0

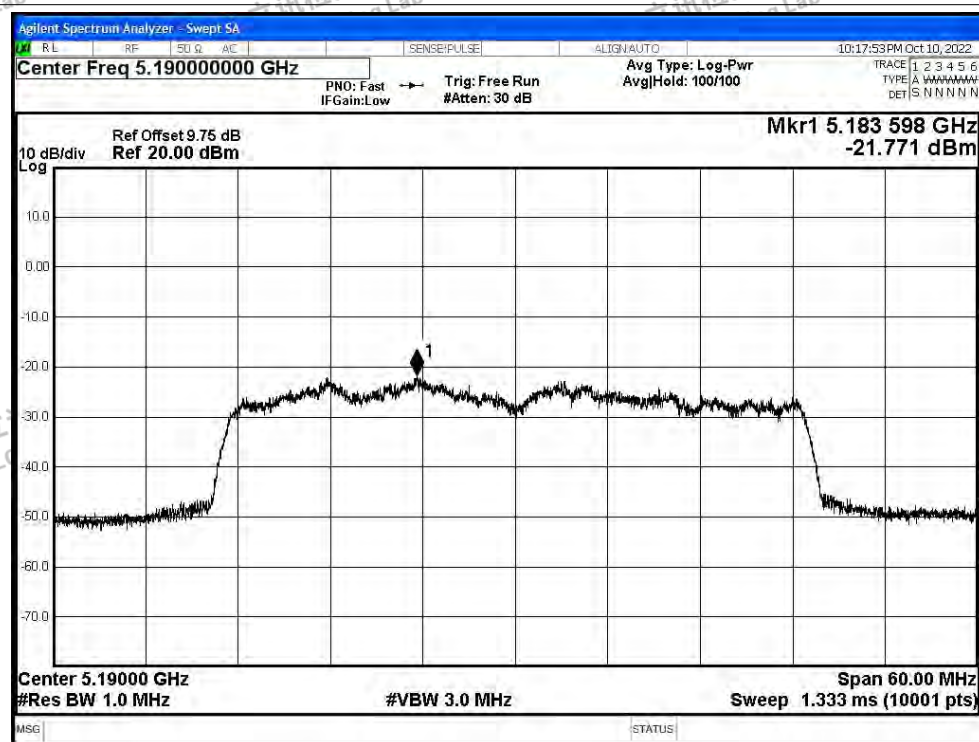


PSD NVNT n20 5240MHz Ant0

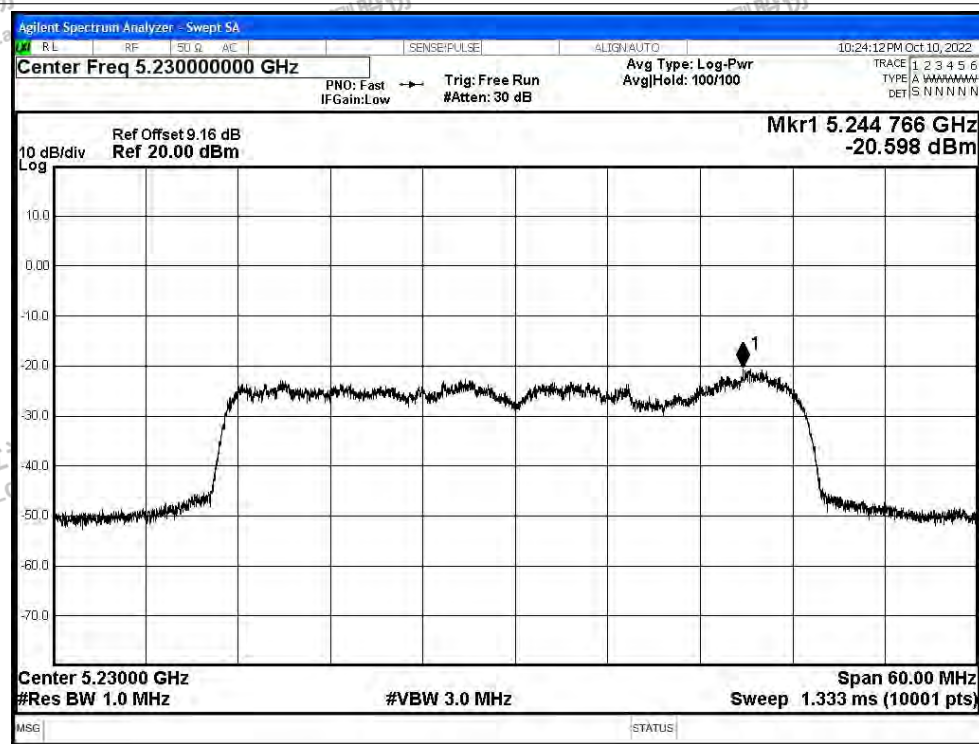




PSD NVNT n40 5190MHz Ant0

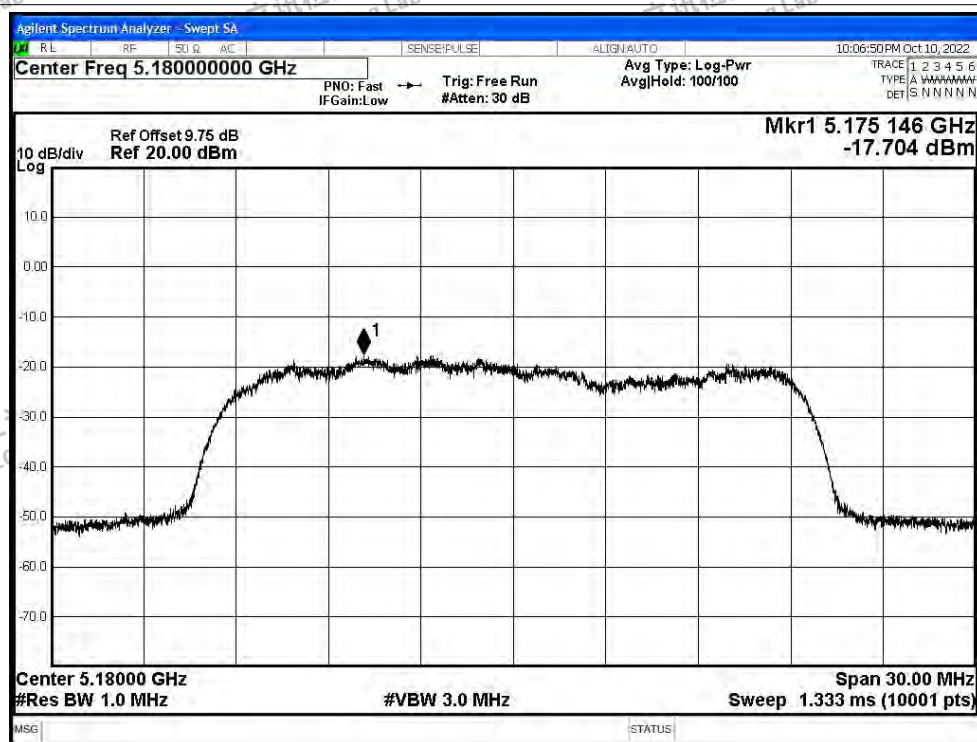


PSD NVNT n40 5230MHz Ant0

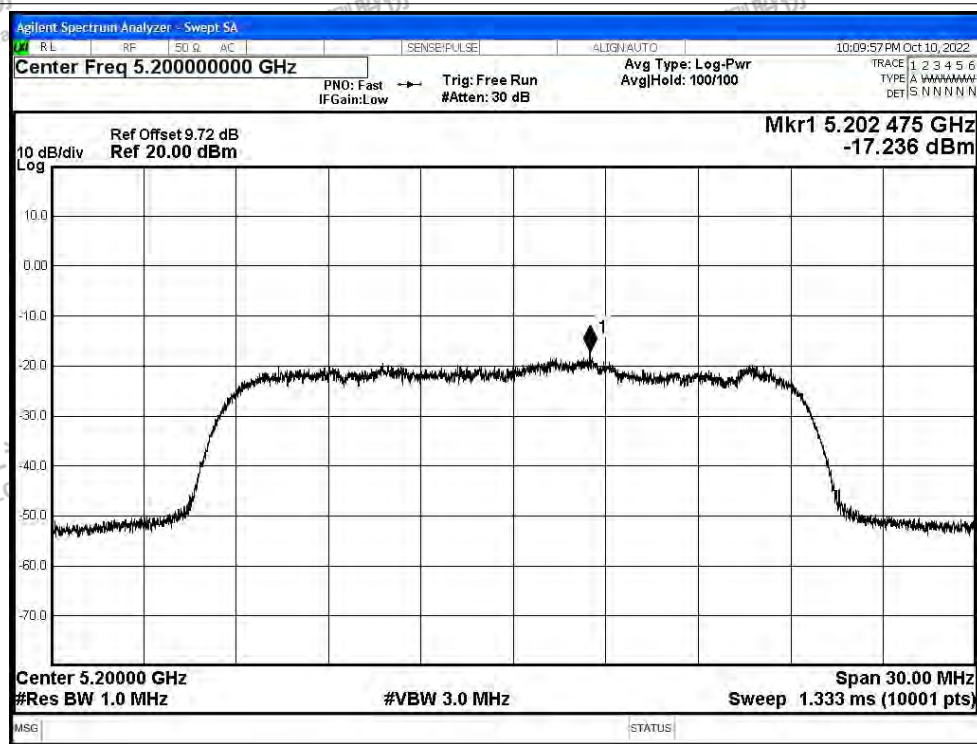




PSD NVNT ac20 5180MHz Ant0

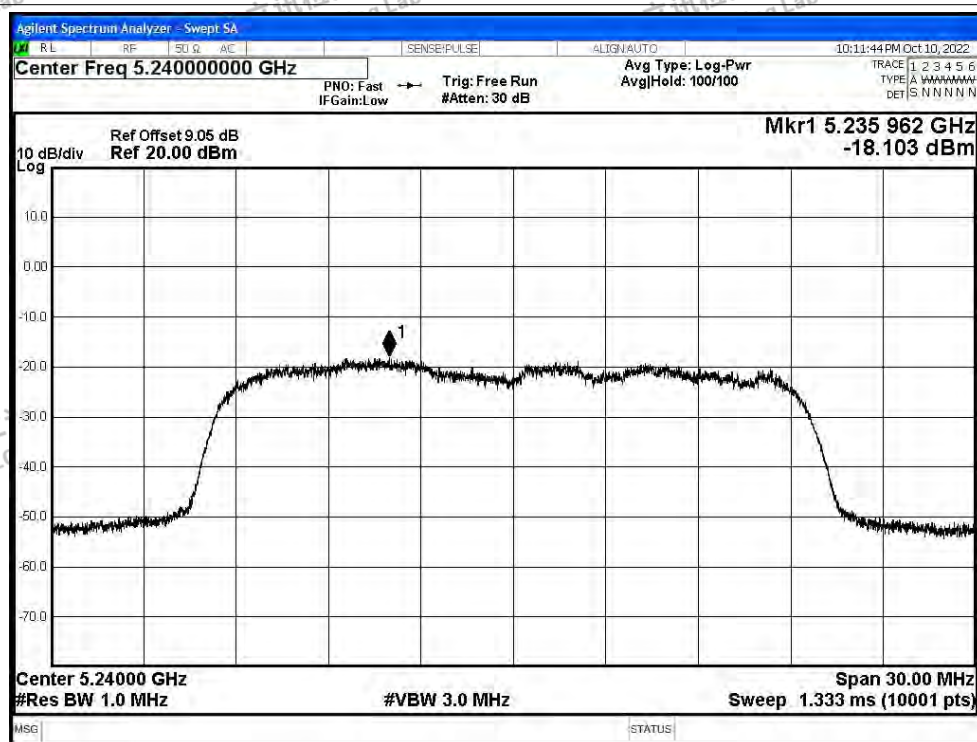


PSD NVNT ac20 5200MHz Ant0

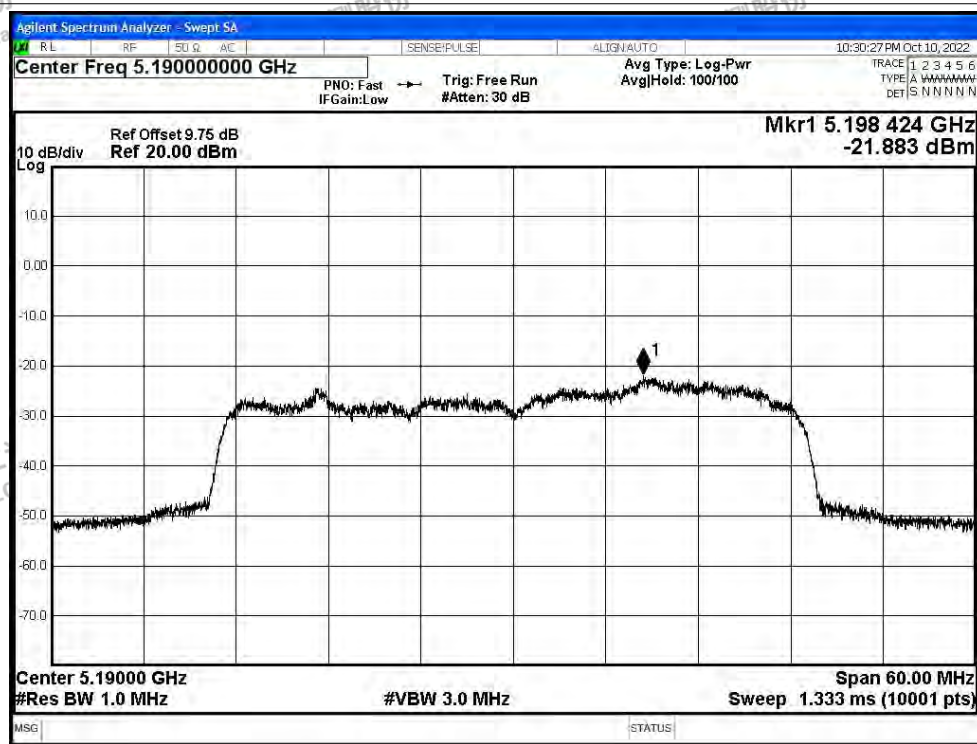




PSD NVNT ac20 5240MHz Ant0

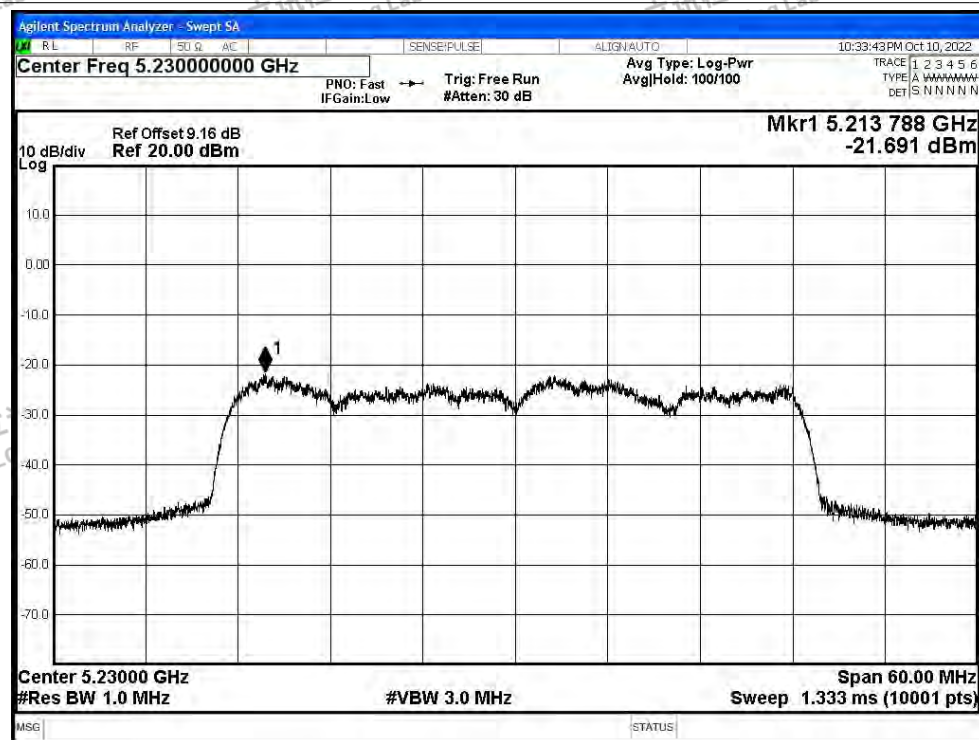


PSD NVNT ac40 5190MHz Ant0

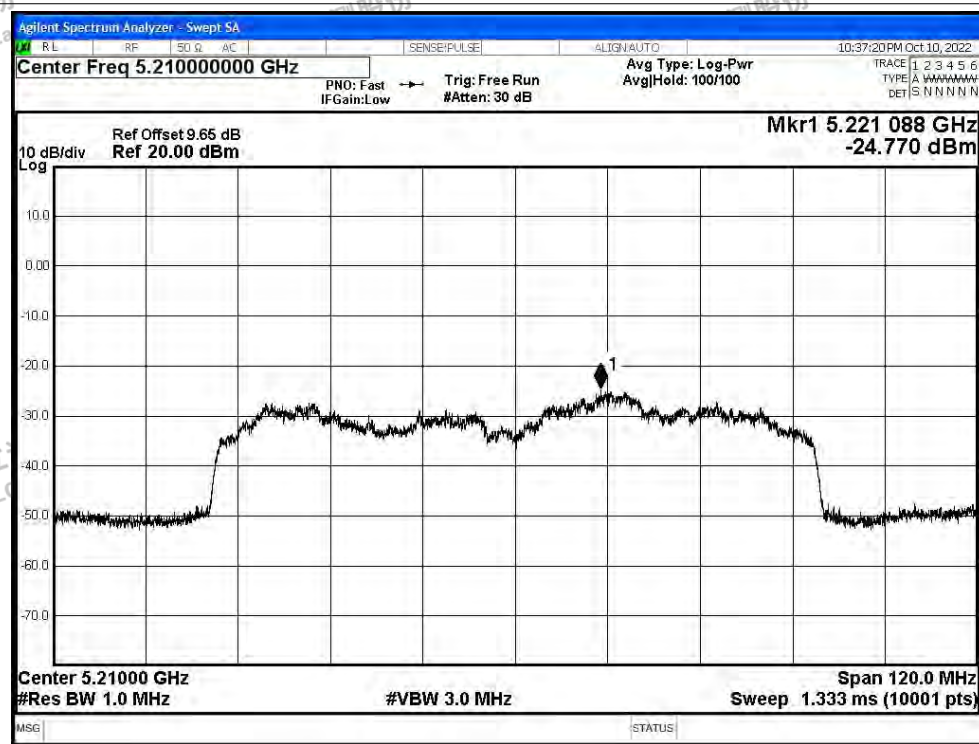




PSD NVNT ac40 5230MHz Ant0



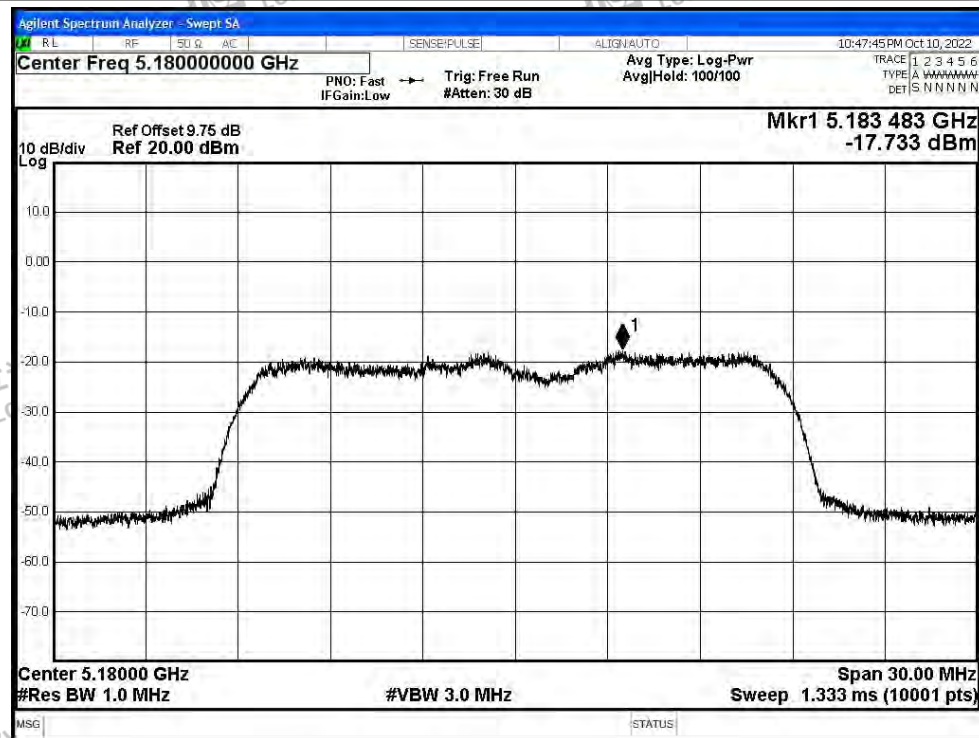
PSD NVNT ac80 5210MHz Ant0



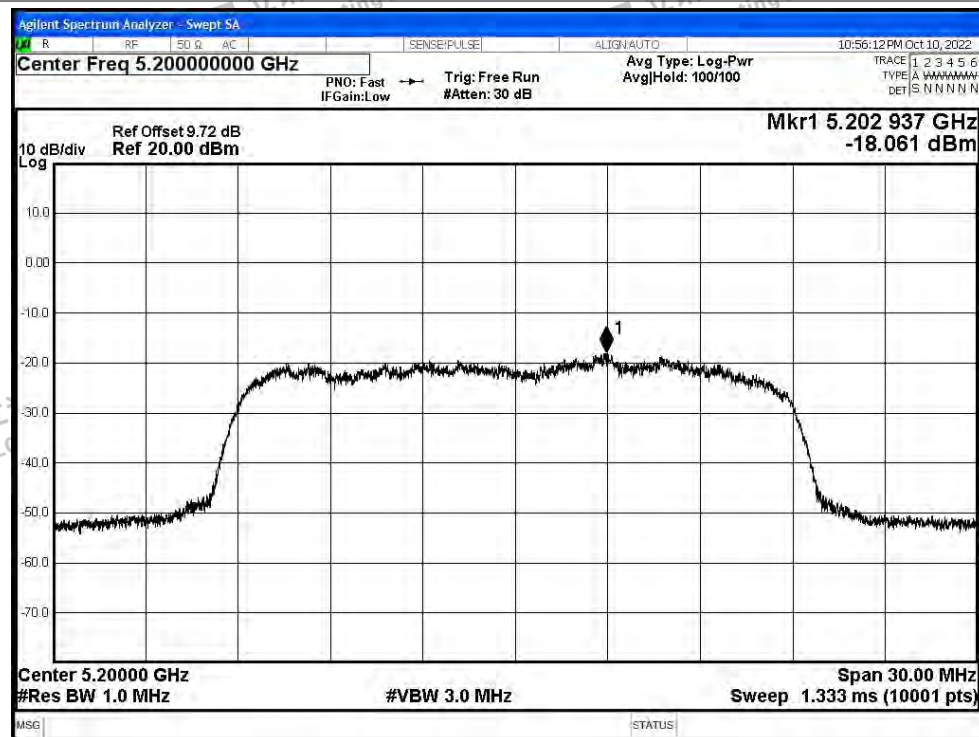


## Test Graphs

PSD NVNT a 5180MHz Ant1

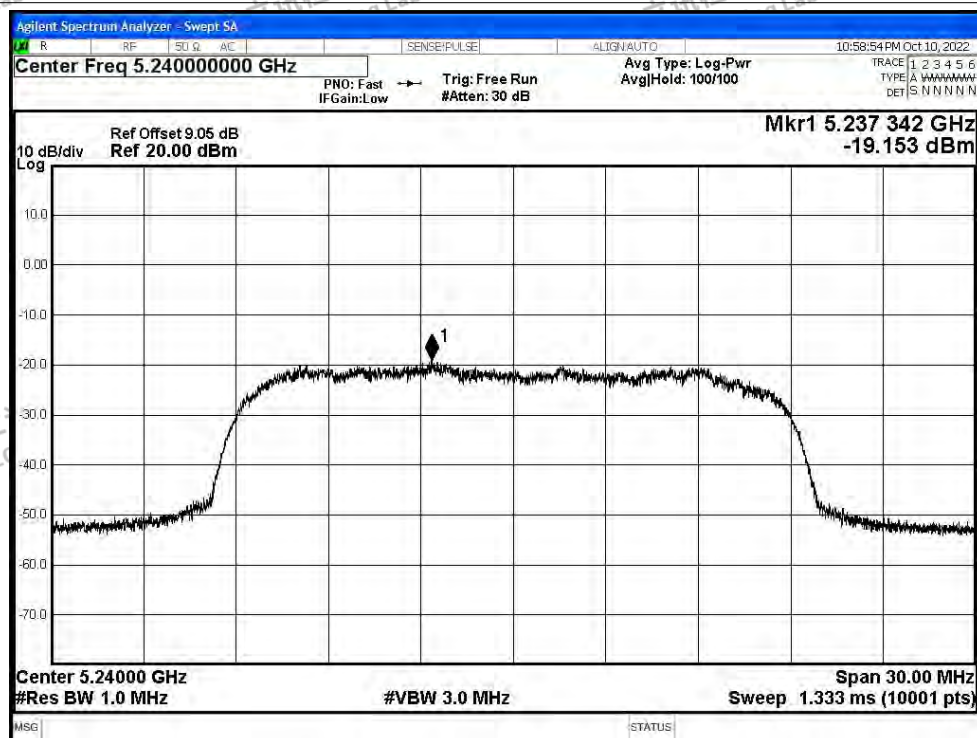


PSD NVNT a 5200MHz Ant1

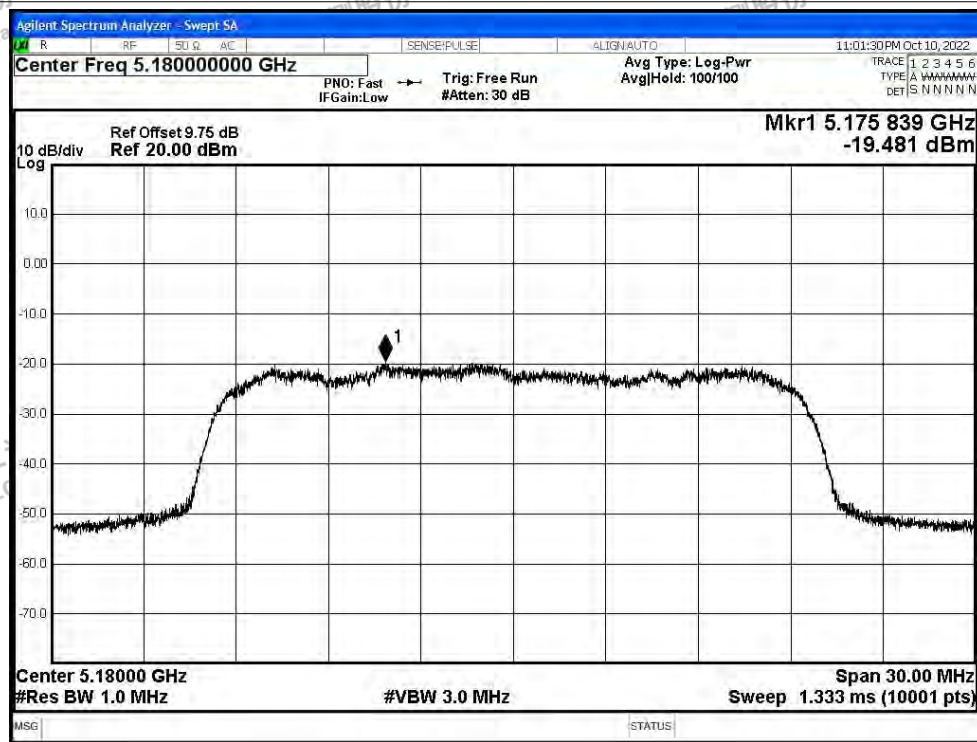




## PSD NVNT a 5240MHz Ant1

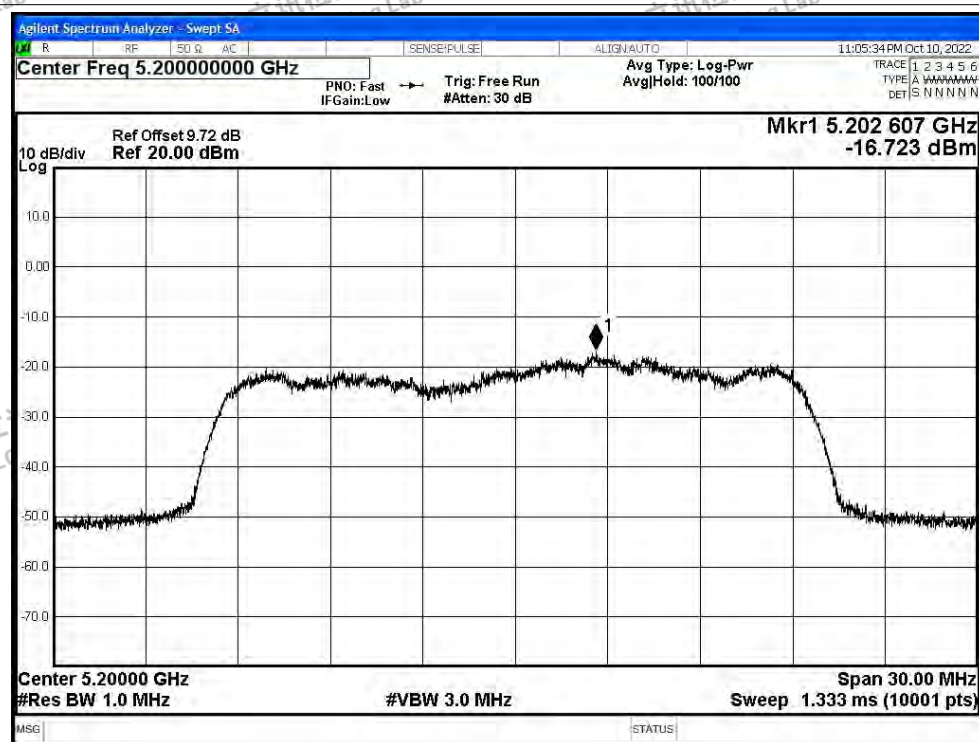


## PSD NVNT n20 5180MHz Ant1

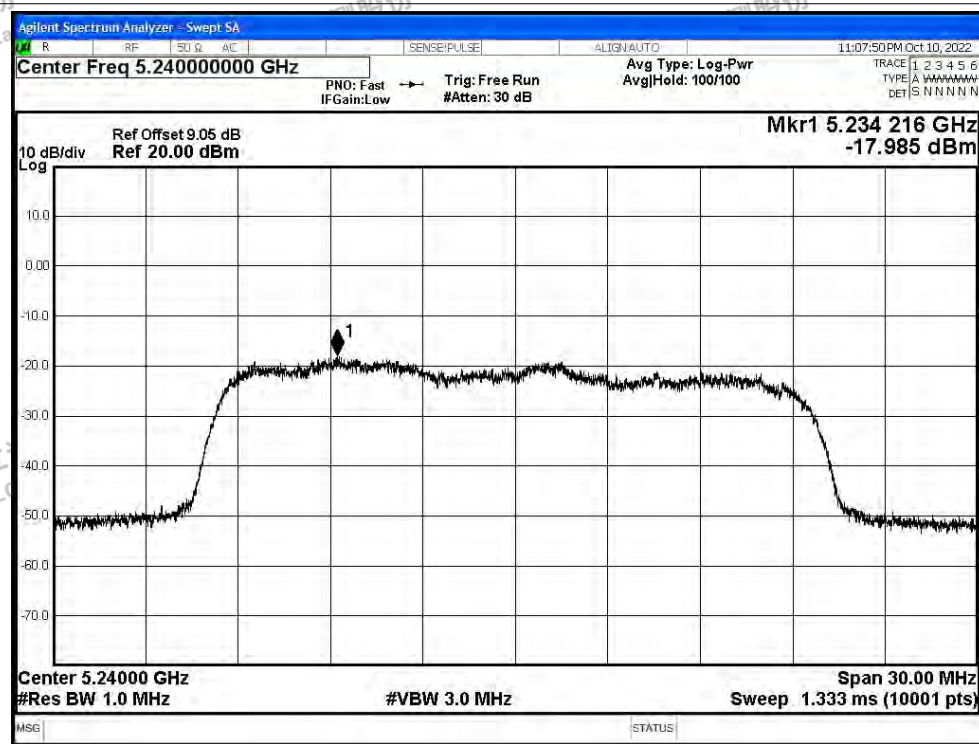




PSD NVNT n20 5200MHz Ant1

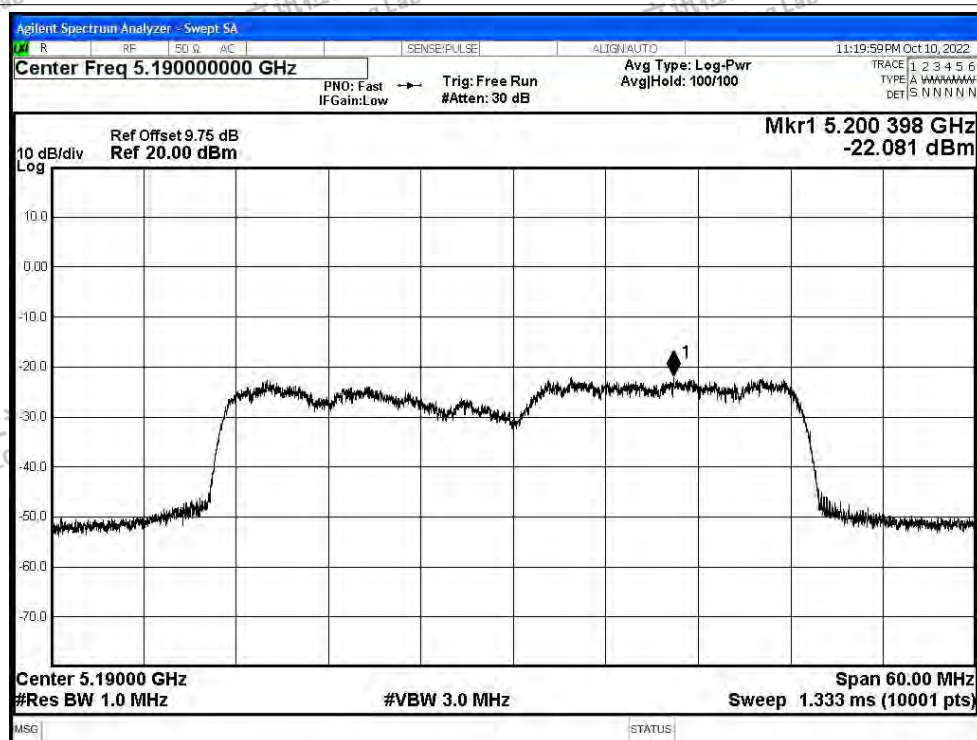


PSD NVNT n20 5240MHz Ant1

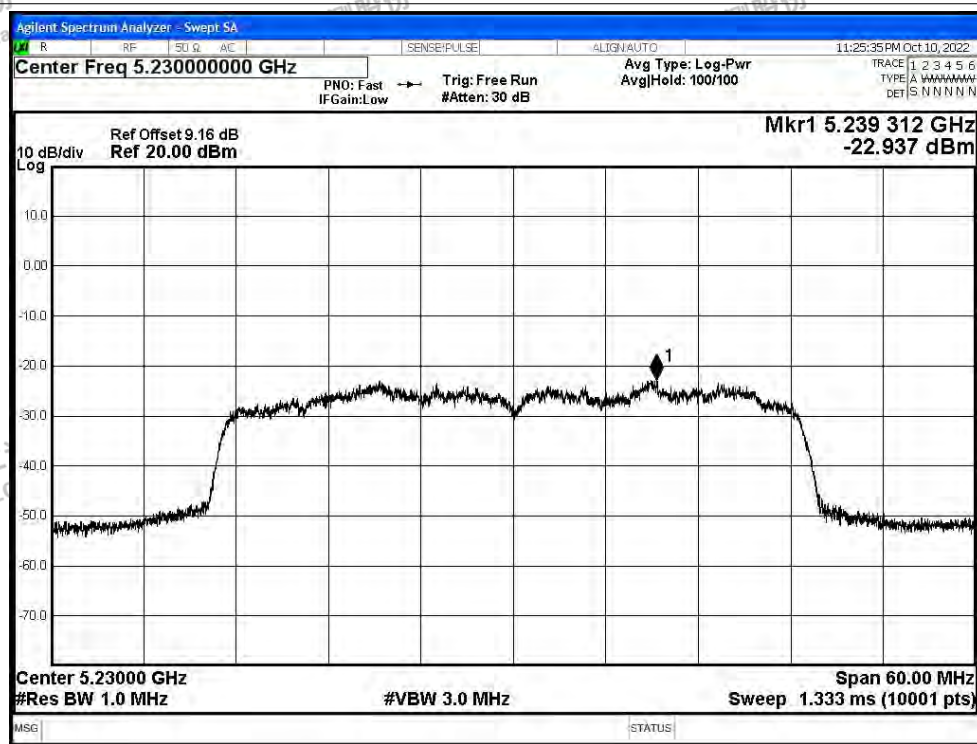


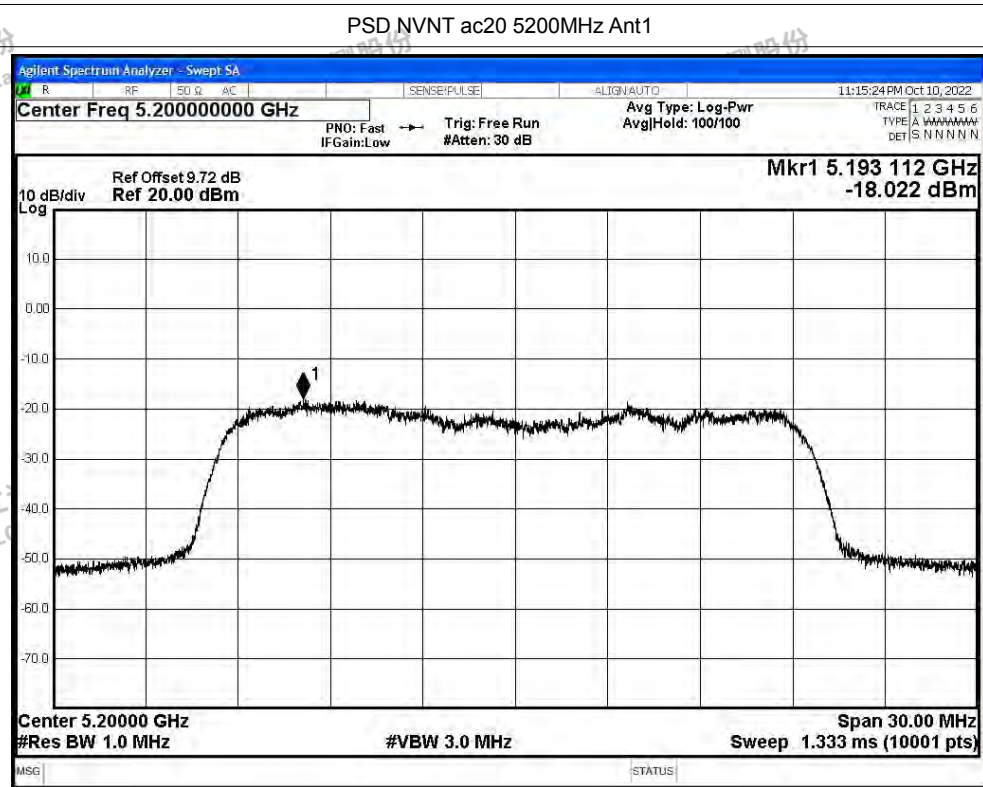
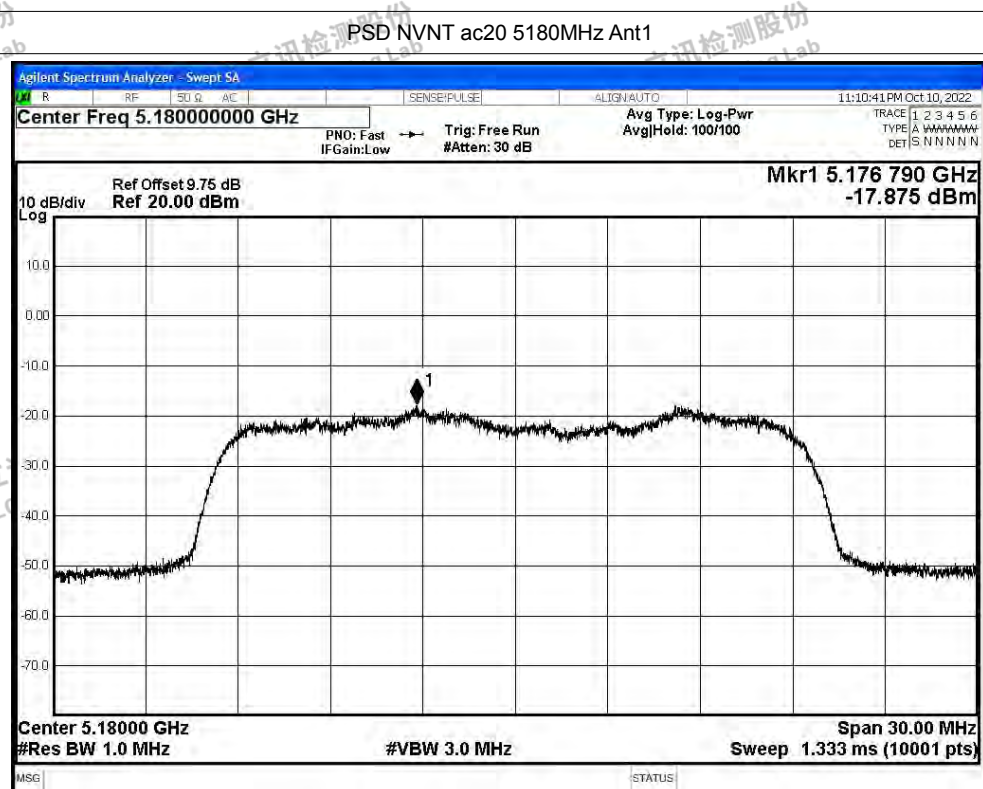


PSD NVNT n40 5190MHz Ant1



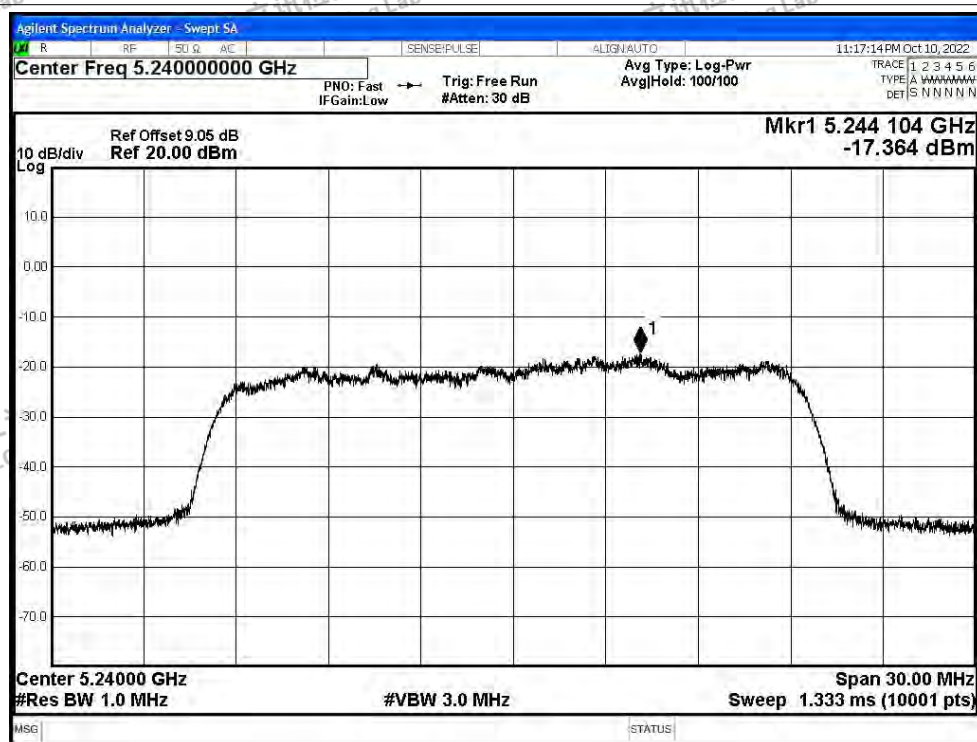
PSD NVNT n40 5230MHz Ant1



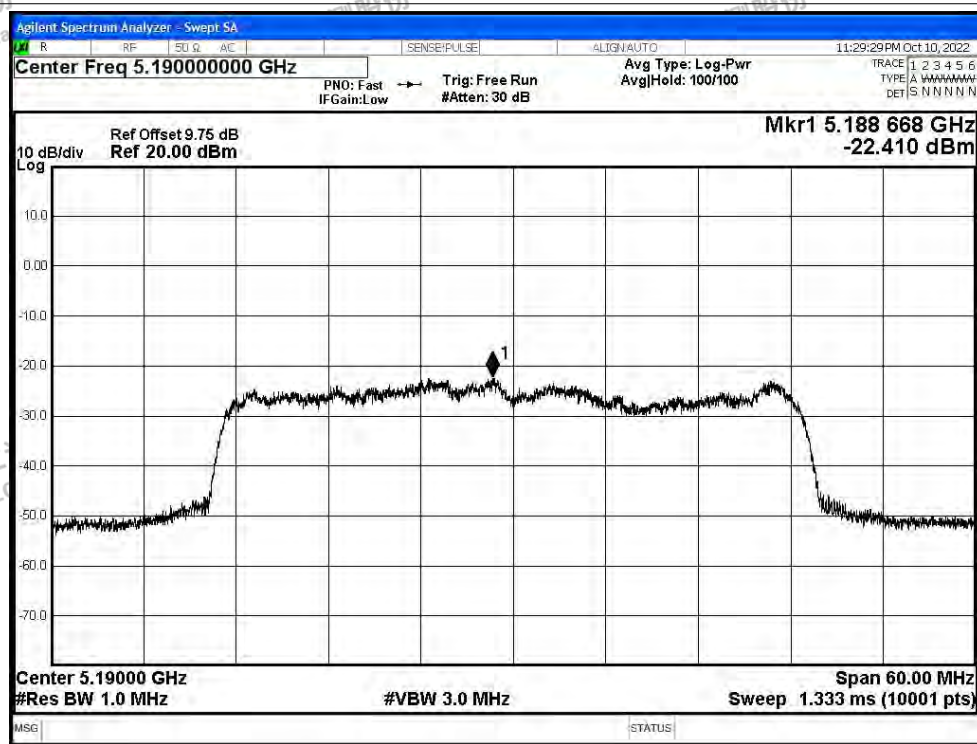




PSD NVNT ac20 5240MHz Ant1

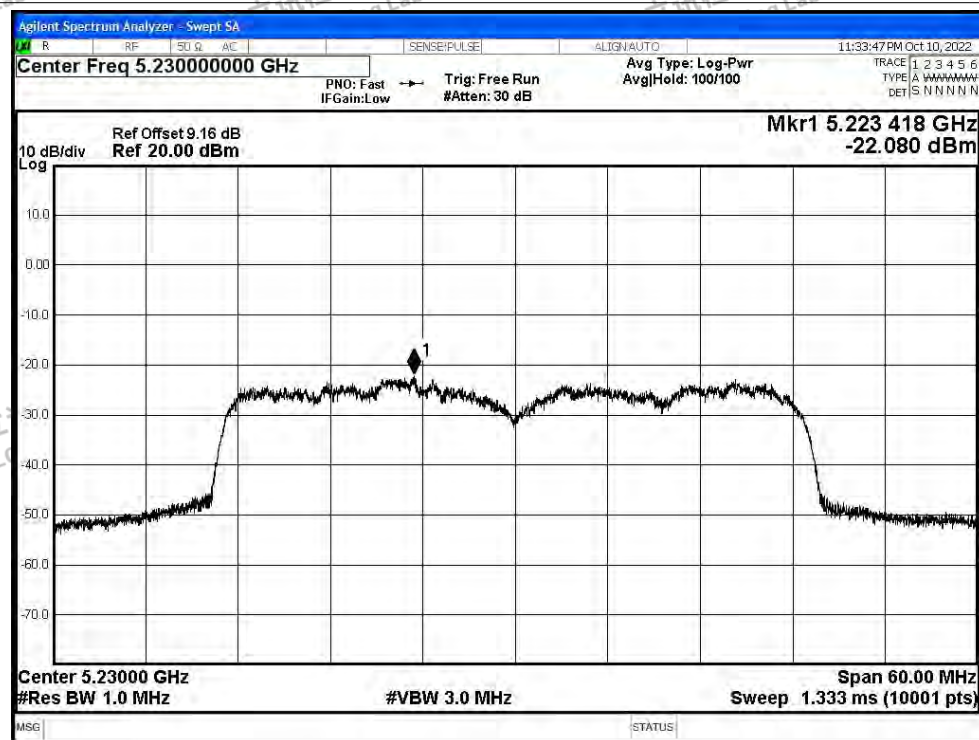


PSD NVNT ac40 5190MHz Ant1

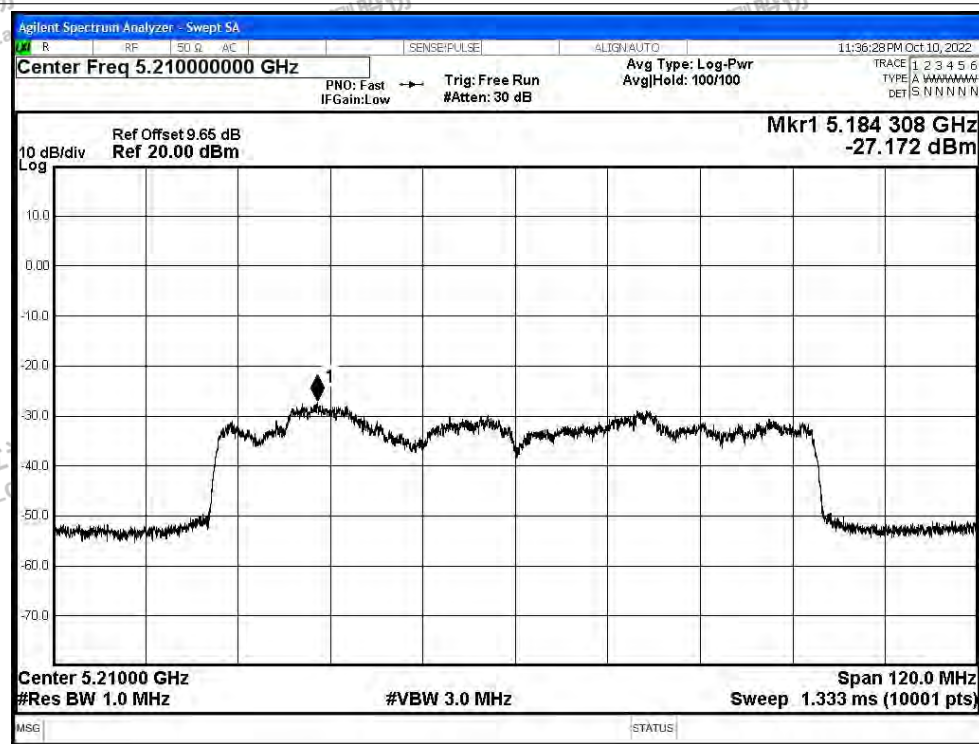




PSD NVNT ac40 5230MHz Ant1



PSD NVNT ac80 5210MHz Ant1





## B.4 Restrict Band

| Condition | Mode | Frequency<br>(MHz) | Spur Freq<br>(MHz) | Power<br>(dBm) | Gain<br>(dBi) | E<br>(dBuV/m) | Detector | Limit<br>(dBuV/m) | Verdict |
|-----------|------|--------------------|--------------------|----------------|---------------|---------------|----------|-------------------|---------|
| NVNT      | a    | 5180               | 4500               | -42.97         | 4.56          | 56.82         | Peak     | 68.2              | Pass    |
| NVNT      | a    | 5180               | 4500               | -53.55         | 4.56          | 46.24         | Average  | 54                | Pass    |
| NVNT      | a    | 5180               | 5090.8             | -40.14         | 4.56          | 59.65         | Peak     | 68.2              | Pass    |
| NVNT      | a    | 5180               | 5149.6             | -51.33         | 4.56          | 48.46         | Average  | 54                | Pass    |
| NVNT      | a    | 5180               | 5150               | -40.91         | 4.56          | 58.88         | Peak     | 68.2              | Pass    |
| NVNT      | a    | 5180               | 5150               | -51.43         | 4.56          | 48.36         | Average  | 54                | Pass    |
| NVNT      | a    | 5240               | 5350               | -44.36         | 4.56          | 55.43         | Peak     | 68.2              | Pass    |
| NVNT      | a    | 5240               | 5350               | -53.41         | 4.56          | 46.38         | Average  | 54                | Pass    |
| NVNT      | a    | 5240               | 5386.8             | -40.76         | 4.56          | 59.03         | Peak     | 68.2              | Pass    |
| NVNT      | a    | 5240               | 5395.44            | -52.49         | 4.56          | 47.30         | Average  | 54                | Pass    |
| NVNT      | a    | 5240               | 5460               | -43.6          | 4.56          | 56.19         | Peak     | 68.2              | Pass    |
| NVNT      | a    | 5240               | 5460               | -53.27         | 4.56          | 46.52         | Average  | 54                | Pass    |
| NVNT      | n20  | n20-MIMO           | 4500               | -46.08         | 7.54          | 56.69         | Peak     | 68.2              | Pass    |
| NVNT      | n20  | n20-MIMO           | 4500               | -56.41         | 7.54          | 46.36         | Average  | 54                | Pass    |
| NVNT      | n20  | n20-MIMO           | 5132.8             | -42.24         | 7.54          | 60.53         | Peak     | 68.2              | Pass    |
| NVNT      | n20  | n20-MIMO           | 5139.1             | -53.26         | 7.54          | 49.51         | Average  | 54                | Pass    |
| NVNT      | n20  | n20-MIMO           | 5150               | -44.27         | 7.54          | 58.5          | Peak     | 68.2              | Pass    |
| NVNT      | n20  | n20-MIMO           | 5150               | -53.27         | 7.54          | 49.5          | Average  | 54                | Pass    |
| NVNT      | n20  | n20-MIMO           | 5350               | -45.56         | 7.54          | 57.21         | Peak     | 68.2              | Pass    |
| NVNT      | n20  | n20-MIMO           | 5350               | -55.64         | 7.54          | 47.13         | Average  | 54                | Pass    |
| NVNT      | n20  | n20-MIMO           | 5442.96            | -43.42         | 7.54          | 59.35         | Peak     | 68.2              | Pass    |
| NVNT      | n20  | n20-MIMO           | 5353.68            | -55.29         | 7.54          | 47.48         | Average  | 54                | Pass    |
| NVNT      | n20  | n20-MIMO           | 5460               | -45.66         | 7.54          | 57.11         | Peak     | 68.2              | Pass    |
| NVNT      | n20  | n20-MIMO           | 5460               | -56.02         | 7.54          | 46.75         | Average  | 54                | Pass    |
| NVNT      | n40  | n40-MIMO           | 4500               | -45.48         | 7.54          | 57.29         | Peak     | 68.2              | Pass    |
| NVNT      | n40  | n40-MIMO           | 4500               | -56.05         | 7.54          | 46.72         | Average  | 54                | Pass    |
| NVNT      | n40  | n40-MIMO           | 5130.72            | -41.22         | 7.54          | 61.55         | Peak     | 68.2              | Pass    |
| NVNT      | n40  | n40-MIMO           | 5146.05            | -52.45         | 7.54          | 50.32         | Average  | 54                | Pass    |
| NVNT      | n40  | n40-MIMO           | 5150               | -43.59         | 7.54          | 59.18         | Peak     | 68.2              | Pass    |
| NVNT      | n40  | n40-MIMO           | 5150               | -52.62         | 7.54          | 50.15         | Average  | 54                | Pass    |
| NVNT      | n40  | n40-MIMO           | 5350               | -47.26         | 7.54          | 55.51         | Peak     | 68.2              | Pass    |
| NVNT      | n40  | n40-MIMO           | 5350               | -55.19         | 7.54          | 47.58         | Average  | 54                | Pass    |
| NVNT      | n40  | n40-MIMO           | 5433.27            | -43.08         | 7.54          | 59.69         | Peak     | 68.2              | Pass    |
| NVNT      | n40  | n40-MIMO           | 5352.27            | -55.04         | 7.54          | 47.73         | Average  | 54                | Pass    |
| NVNT      | n40  | n40-MIMO           | 5460               | -45.65         | 7.54          | 57.12         | Peak     | 68.2              | Pass    |
| NVNT      | n40  | n40-MIMO           | 5460               | -55.73         | 7.54          | 47.04         | Average  | 54                | Pass    |
| NVNT      | ac20 | ac20-MIMO          | 4500               | -46.06         | 7.54          | 56.71         | Peak     | 68.2              | Pass    |



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|      |      |           |         |        |      |       |         |      |      |
|------|------|-----------|---------|--------|------|-------|---------|------|------|
| NVNT | ac20 | ac20-MIMO | 4500    | -56.15 | 7.54 | 46.62 | Average | 54   | Pass |
| NVNT | ac20 | ac20-MIMO | 5085.2  | -41.56 | 7.54 | 61.21 | Peak    | 68.2 | Pass |
| NVNT | ac20 | ac20-MIMO | 5139.1  | -53.28 | 7.54 | 49.49 | Average | 54   | Pass |
| NVNT | ac20 | ac20-MIMO | 5150    | -42.31 | 7.54 | 60.46 | Peak    | 68.2 | Pass |
| NVNT | ac20 | ac20-MIMO | 5150    | -53.37 | 7.54 | 49.4  | Average | 54   | Pass |
| NVNT | ac20 | ac20-MIMO | 5350    | -45.34 | 7.54 | 57.43 | Peak    | 68.2 | Pass |
| NVNT | ac20 | ac20-MIMO | 5350    | -55.42 | 7.54 | 47.35 | Average | 54   | Pass |
| NVNT | ac20 | ac20-MIMO | 5403.36 | -42.75 | 7.54 | 60.02 | Peak    | 68.2 | Pass |
| NVNT | ac20 | ac20-MIMO | 5404.32 | -55.32 | 7.54 | 47.45 | Average | 54   | Pass |
| NVNT | ac20 | ac20-MIMO | 5460    | -46.57 | 7.54 | 56.2  | Peak    | 68.2 | Pass |
| NVNT | ac20 | ac20-MIMO | 5460    | -56.06 | 7.54 | 46.71 | Average | 54   | Pass |
| NVNT | ac40 | ac40-MIMO | 4500    | -47.31 | 7.54 | 55.46 | Peak    | 68.2 | Pass |
| NVNT | ac40 | ac40-MIMO | 4500    | -56.22 | 7.54 | 46.55 | Average | 54   | Pass |
| NVNT | ac40 | ac40-MIMO | 5095.68 | -41.46 | 7.54 | 61.31 | Peak    | 68.2 | Pass |
| NVNT | ac40 | ac40-MIMO | 5148.97 | -52.54 | 7.54 | 50.23 | Average | 54   | Pass |
| NVNT | ac40 | ac40-MIMO | 5150    | -42.94 | 7.54 | 59.83 | Peak    | 68.2 | Pass |
| NVNT | ac40 | ac40-MIMO | 5150    | -52.6  | 7.54 | 50.17 | Average | 54   | Pass |
| NVNT | ac40 | ac40-MIMO | 5350    | -46.48 | 7.54 | 56.29 | Peak    | 68.2 | Pass |
| NVNT | ac40 | ac40-MIMO | 5350    | -55.04 | 7.54 | 47.73 | Average | 54   | Pass |
| NVNT | ac40 | ac40-MIMO | 5453.25 | -42.21 | 7.54 | 60.56 | Peak    | 68.2 | Pass |
| NVNT | ac40 | ac40-MIMO | 5351.73 | -54.8  | 7.54 | 47.97 | Average | 54   | Pass |
| NVNT | ac40 | ac40-MIMO | 5460    | -45.98 | 7.54 | 56.79 | Peak    | 68.2 | Pass |
| NVNT | ac40 | ac40-MIMO | 5460    | -55.59 | 7.54 | 47.18 | Average | 54   | Pass |
| NVNT | ac80 | ac80-MIMO | 5350    | -45.96 | 7.54 | 56.81 | Peak    | 68.2 | Pass |
| NVNT | ac80 | ac80-MIMO | 5350    | -54.74 | 7.54 | 48.03 | Average | 54   | Pass |
| NVNT | ac80 | ac80-MIMO | 5440.53 | -42.49 | 7.54 | 60.28 | Peak    | 68.2 | Pass |
| NVNT | ac80 | ac80-MIMO | 5370.9  | -53.99 | 7.54 | 48.78 | Average | 54   | Pass |
| NVNT | ac80 | ac80-MIMO | 5460    | -45.75 | 7.54 | 57.02 | Peak    | 68.2 | Pass |
| NVNT | ac80 | ac80-MIMO | 5460    | -55.32 | 7.54 | 47.45 | Average | 54   | Pass |
| NVNT | ac80 | ac80-MIMO | 4500    | -47.11 | 7.54 | 55.66 | Peak    | 68.2 | Pass |
| NVNT | ac80 | ac80-MIMO | 4500    | -56.08 | 7.54 | 46.69 | Average | 54   | Pass |
| NVNT | ac80 | ac80-MIMO | 5137.53 | -40.15 | 7.54 | 62.62 | Peak    | 68.2 | Pass |
| NVNT | ac80 | ac80-MIMO | 5149.38 | -50.97 | 7.54 | 51.8  | Average | 54   | Pass |
| NVNT | ac80 | ac80-MIMO | 5150    | -41.42 | 7.54 | 61.35 | Peak    | 68.2 | Pass |
| NVNT | ac80 | ac80-MIMO | 5150    | -51.02 | 7.54 | 51.75 | Average | 54   | Pass |

Note: 802.11a mode, only show the worst set of antenna data.

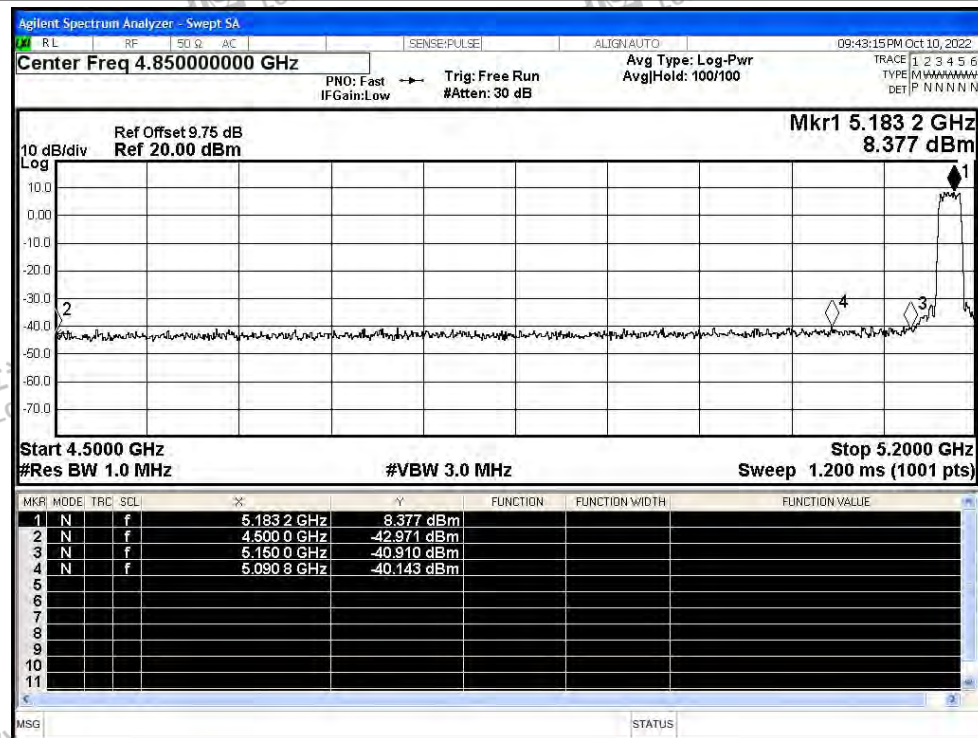


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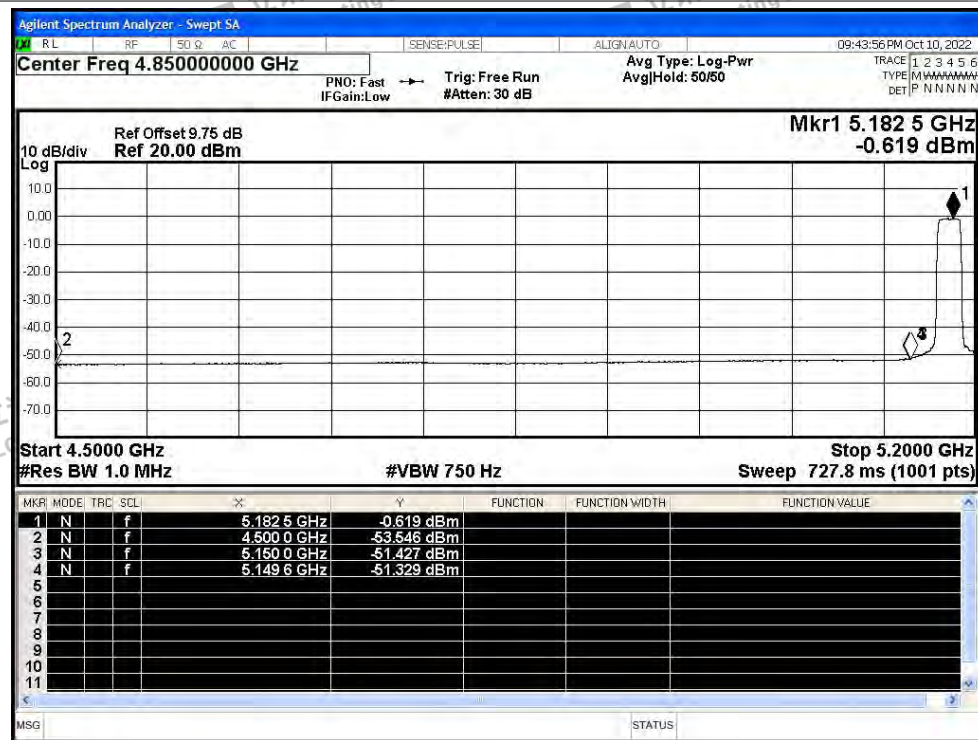


## Test Graphs

## Restrict Band NVNT a 5180MHz Peak

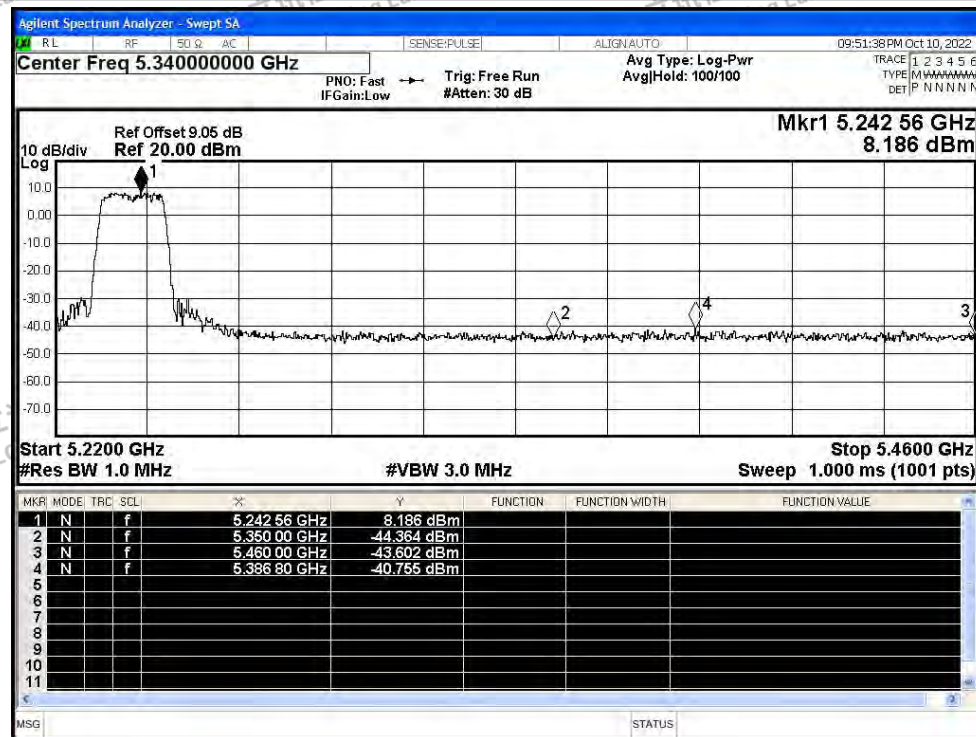


## Restrict Band NVNT a 5180MHz Average

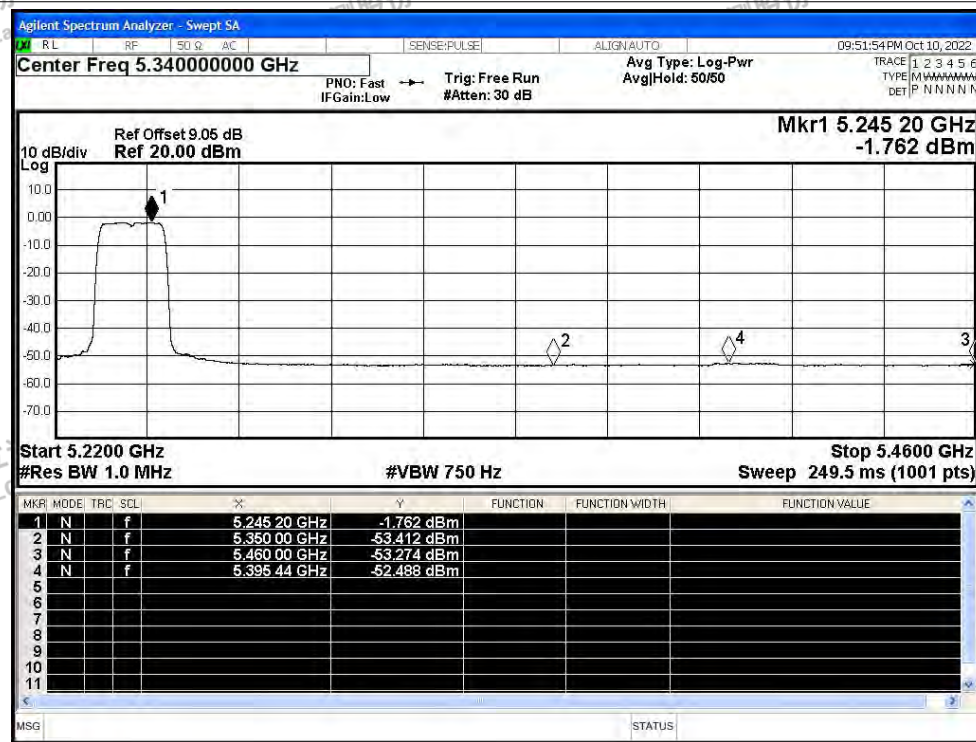




## Restrict Band NVNT a 5240MHz Peak

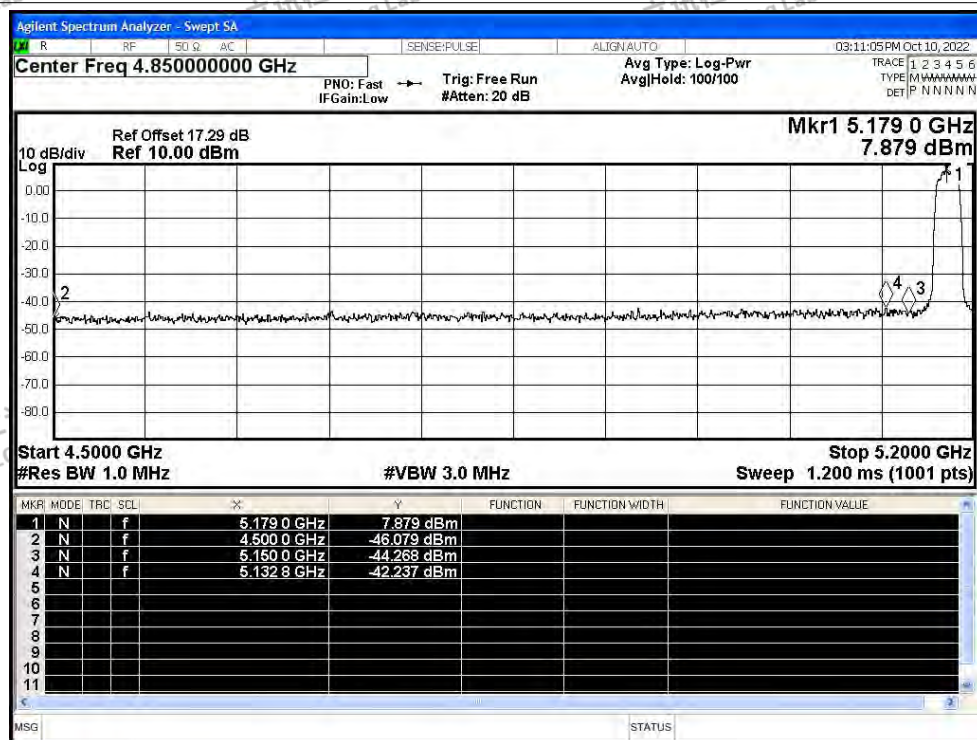


## Restrict Band NVNT a 5240MHz Average

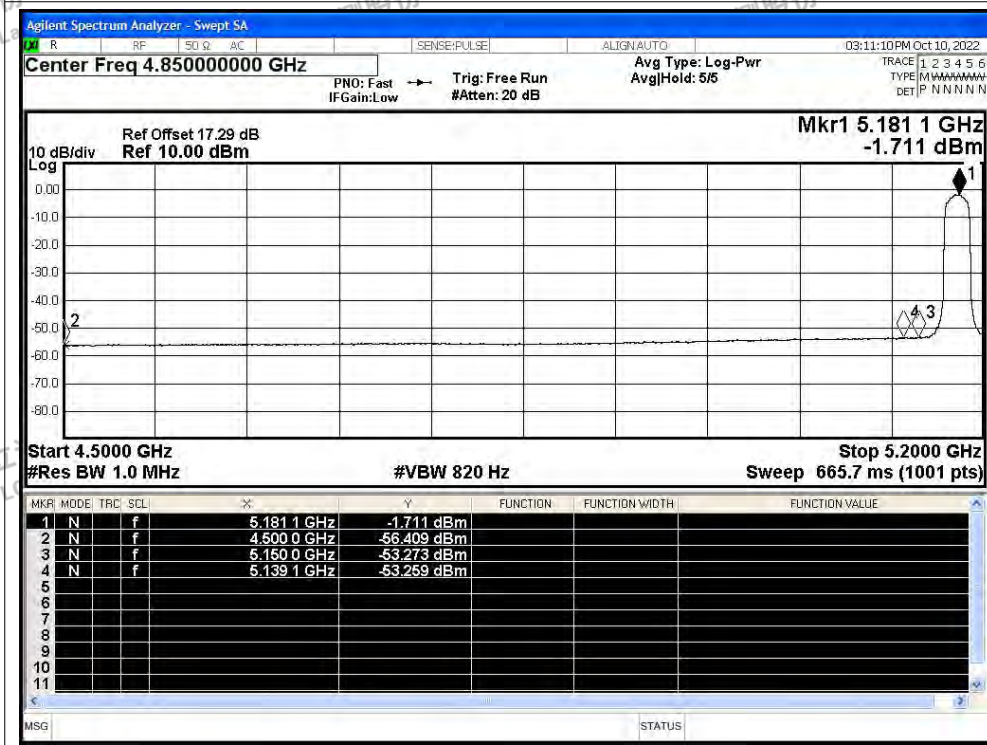




## Restrict Band NVNT n20-MIMO 5180MHz Ant1 Peak

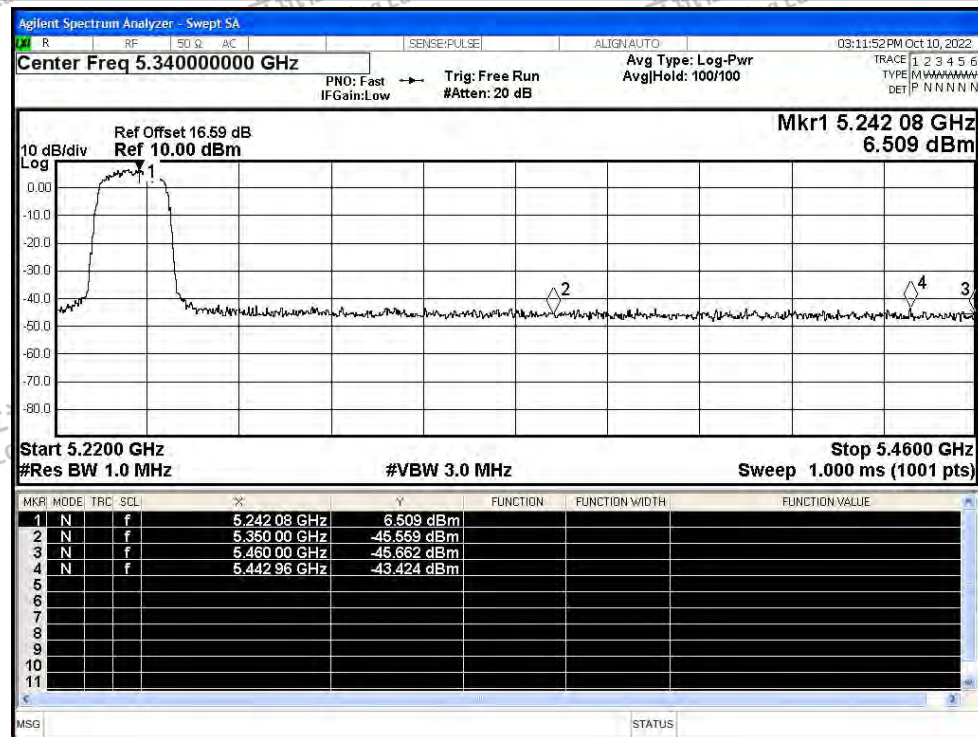


## Restrict Band NVNT n20-MIMO 5180MHz Ant1 Average

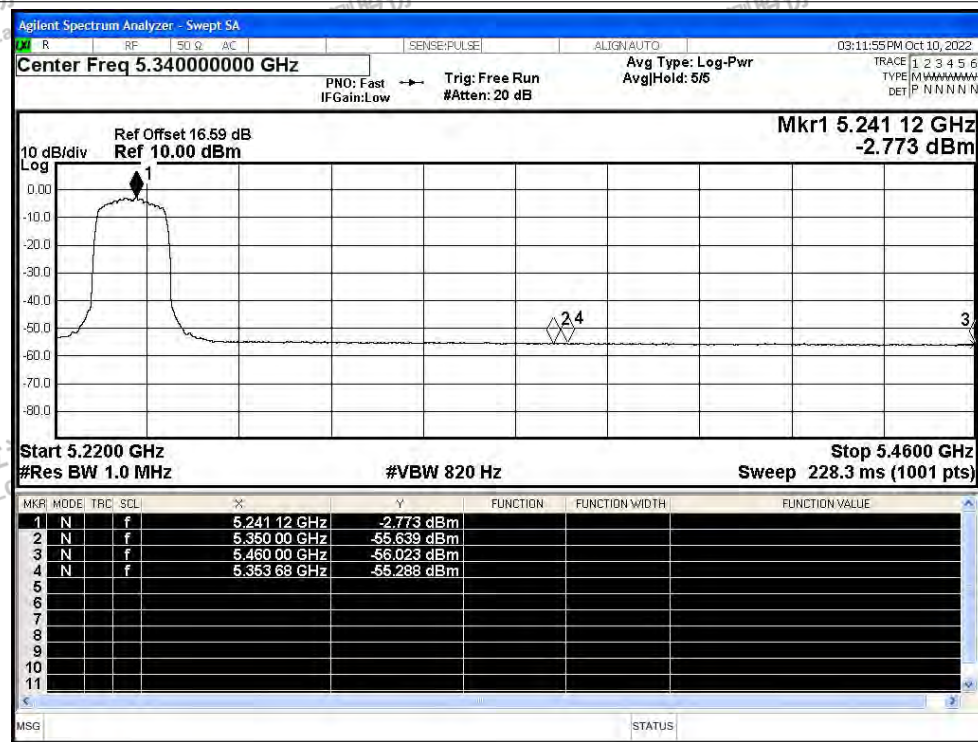




## Restrict Band NVNT n20-MIMO 5240MHz Ant1 Peak



## Restrict Band NVNT n20-MIMO 5240MHz Ant1 Average



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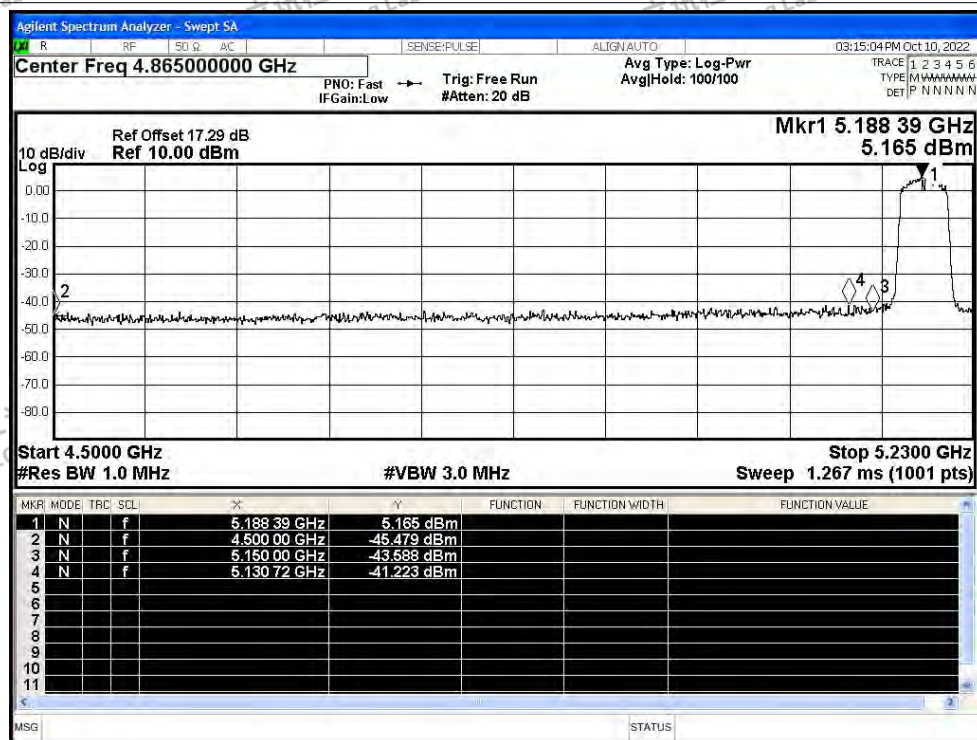
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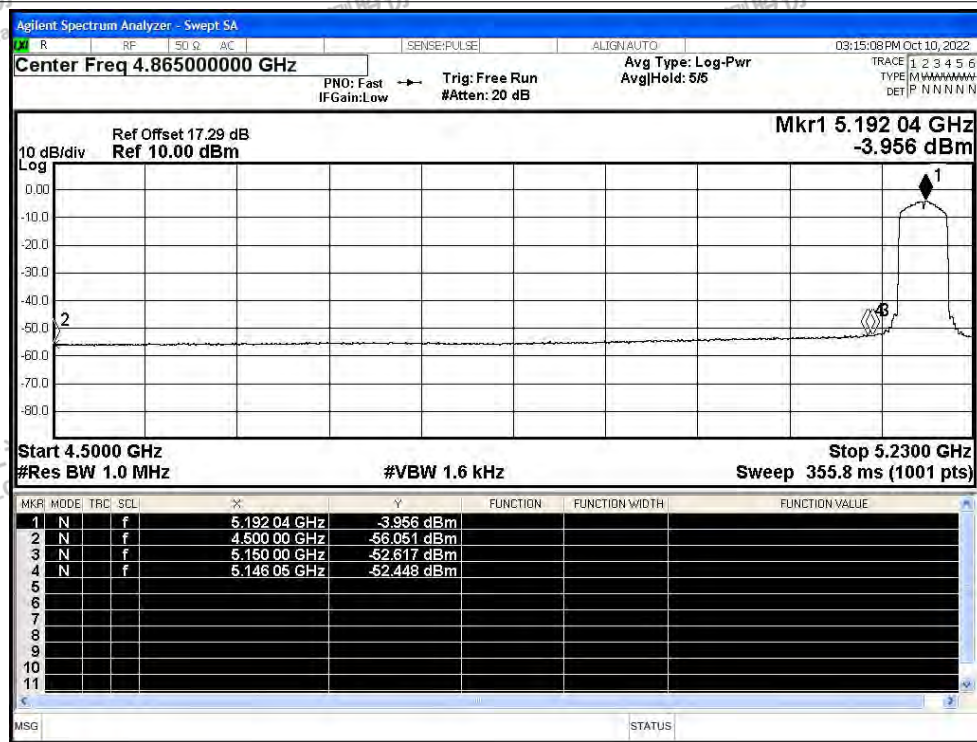
Scan code to check authenticity



## Restrict Band NVNT n40-MIMO 5190MHz Ant1 Peak

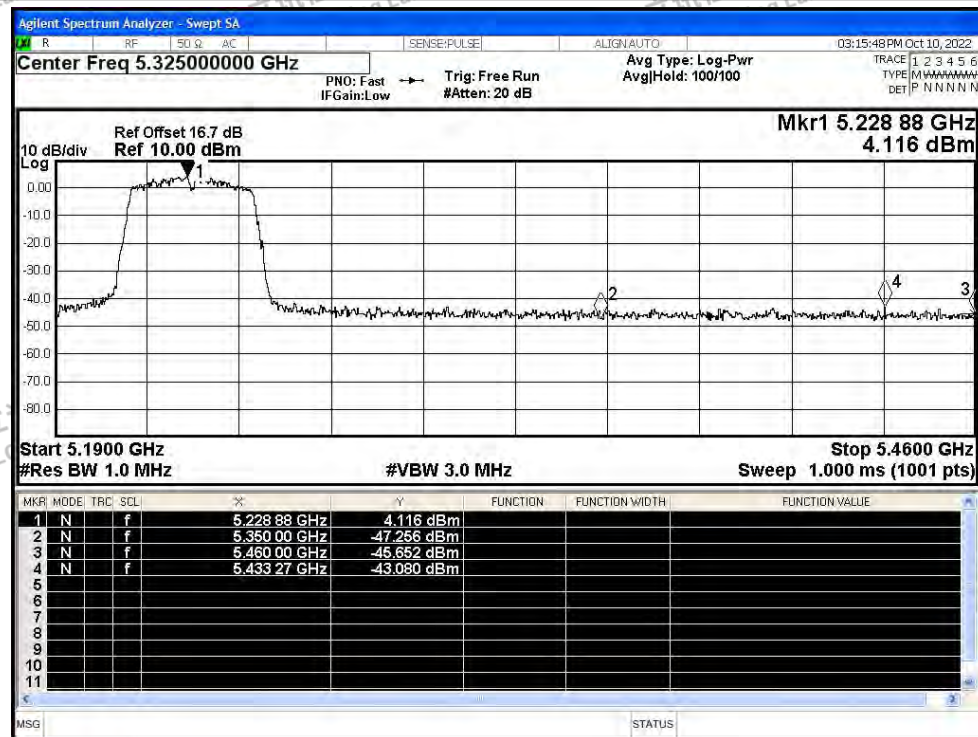


## Restrict Band NVNT n40-MIMO 5190MHz Ant1 Average

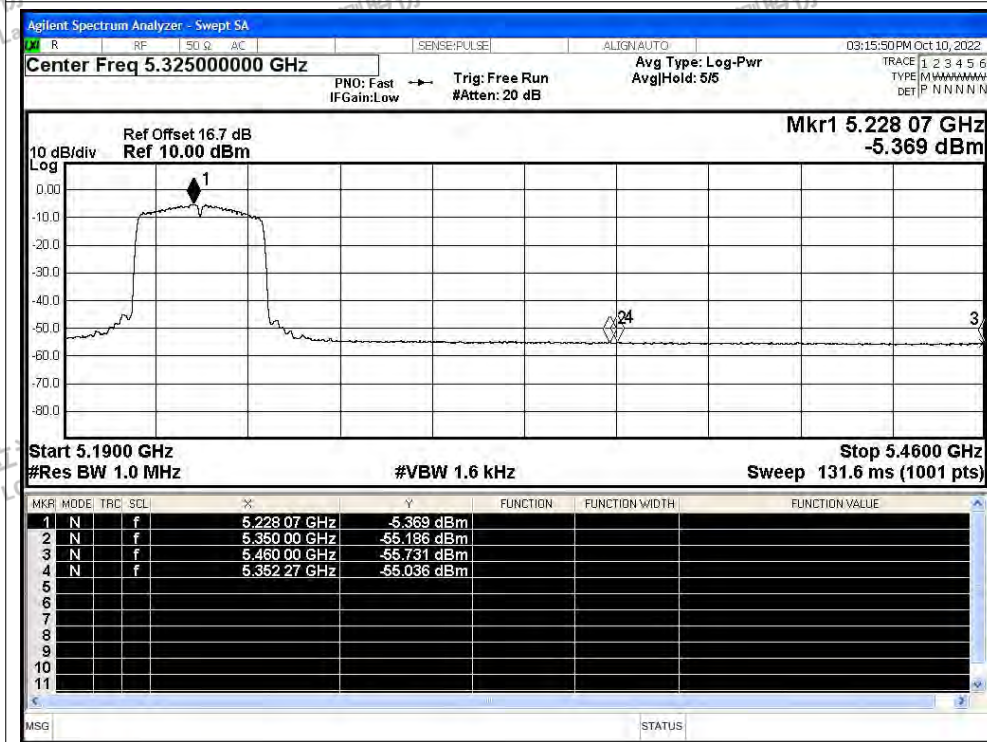




## Restrict Band NVNT n40-MIMO 5230MHz Ant1 Peak



## Restrict Band NVNT n40-MIMO 5230MHz Ant1 Average



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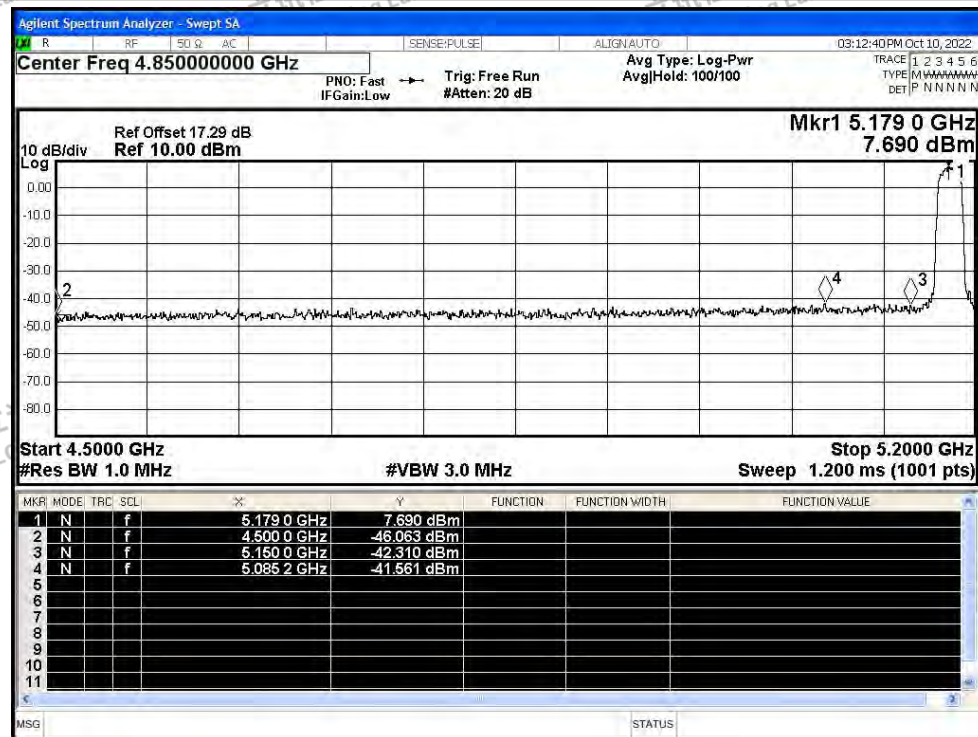
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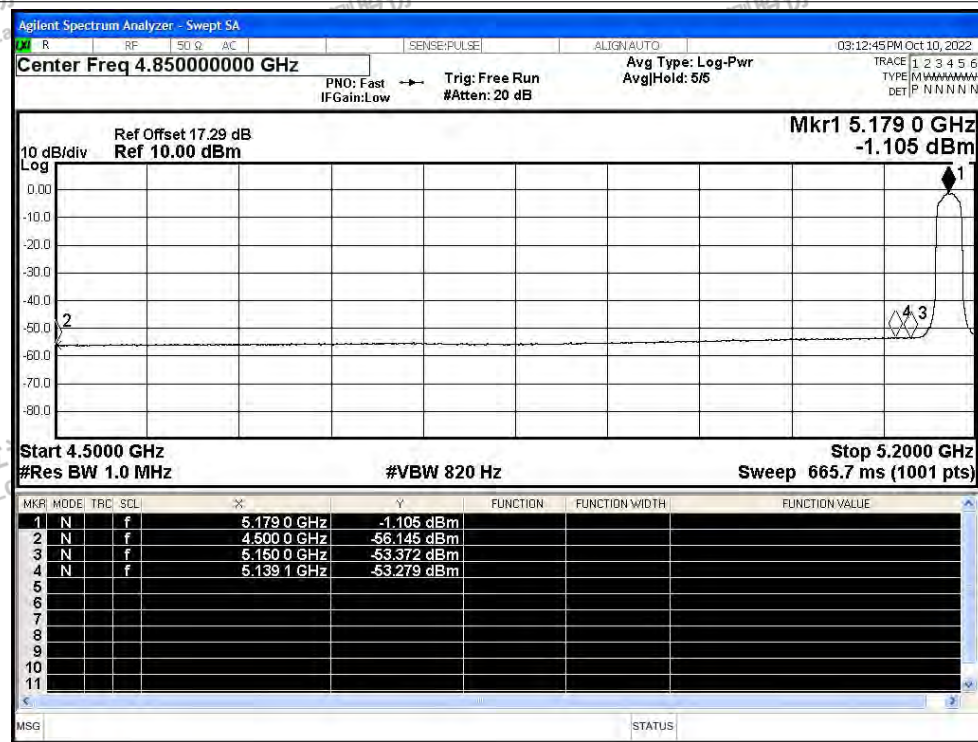
Scan code to check authenticity



## Restrict Band NVNT ac20-MIMO 5180MHz Ant1 Peak

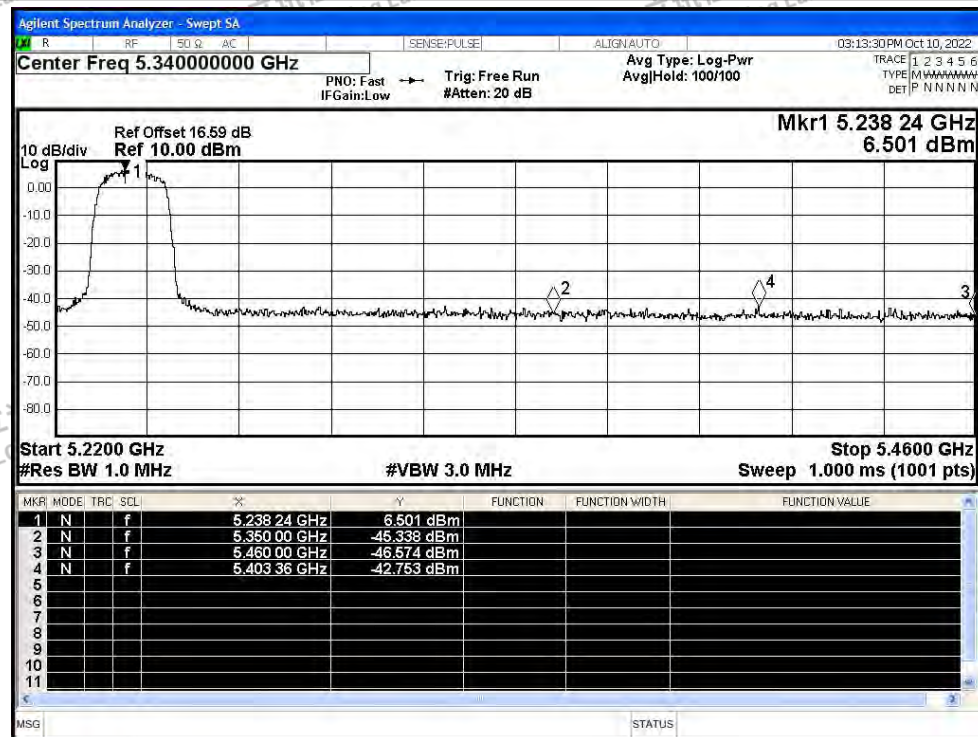


## Restrict Band NVNT ac20-MIMO 5180MHz Ant1 Average

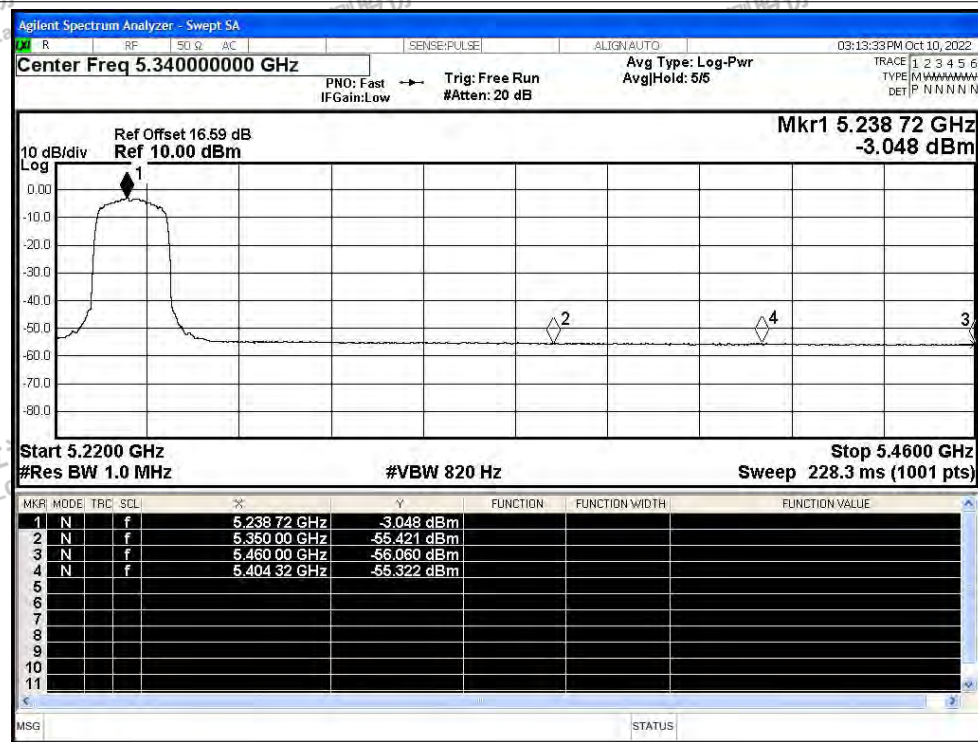




## Restrict Band NVNT ac20-MIMO 5240MHz Ant1 Peak

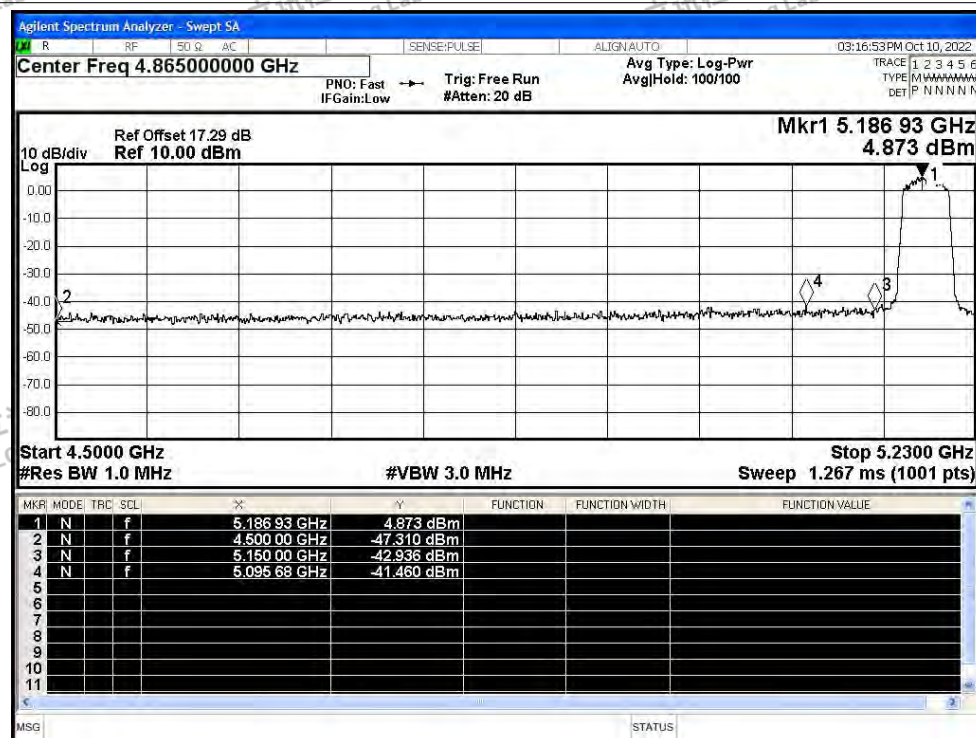


## Restrict Band NVNT ac20-MIMO 5240MHz Ant1 Average

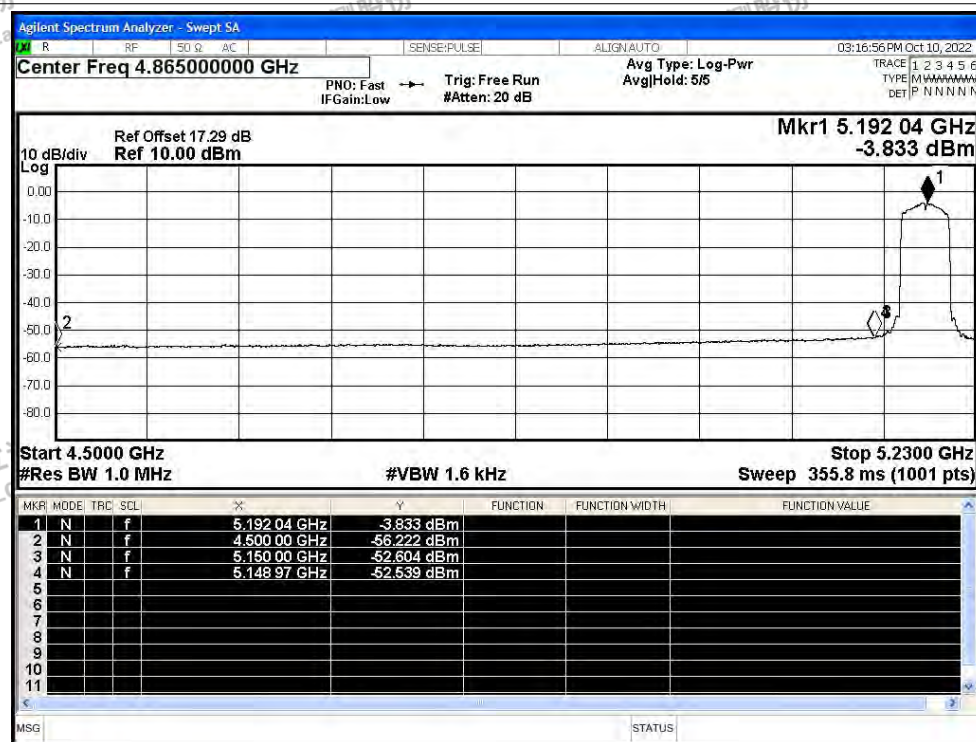




## Restrict Band NVNT ac40-MIMO 5190MHz Ant1 Peak

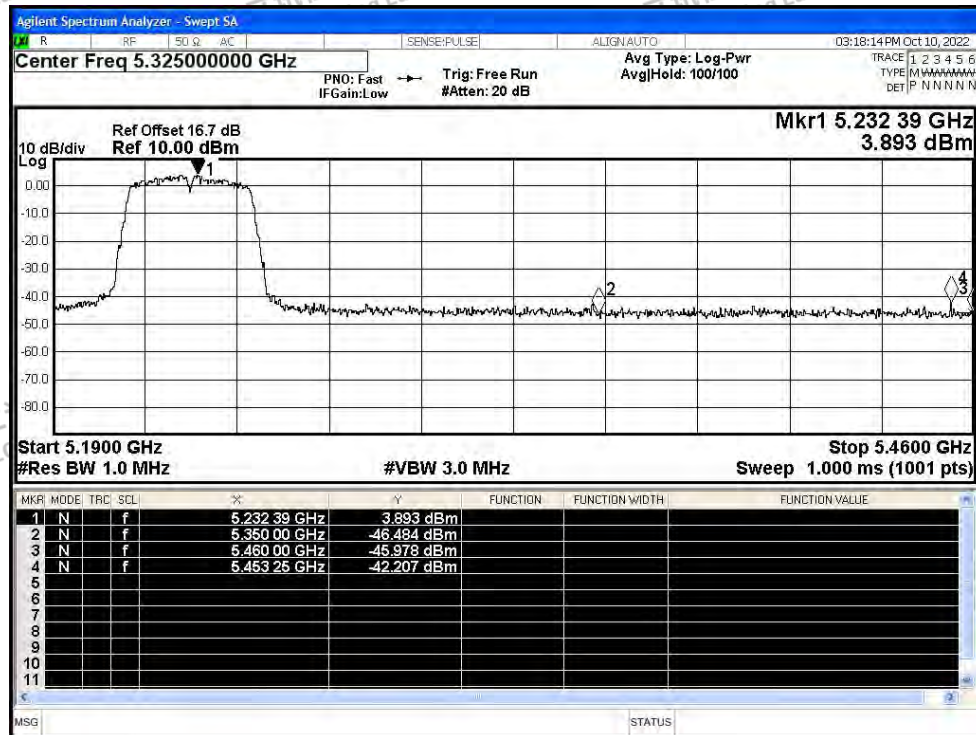


## Restrict Band NVNT ac40-MIMO 5190MHz Ant1 Average

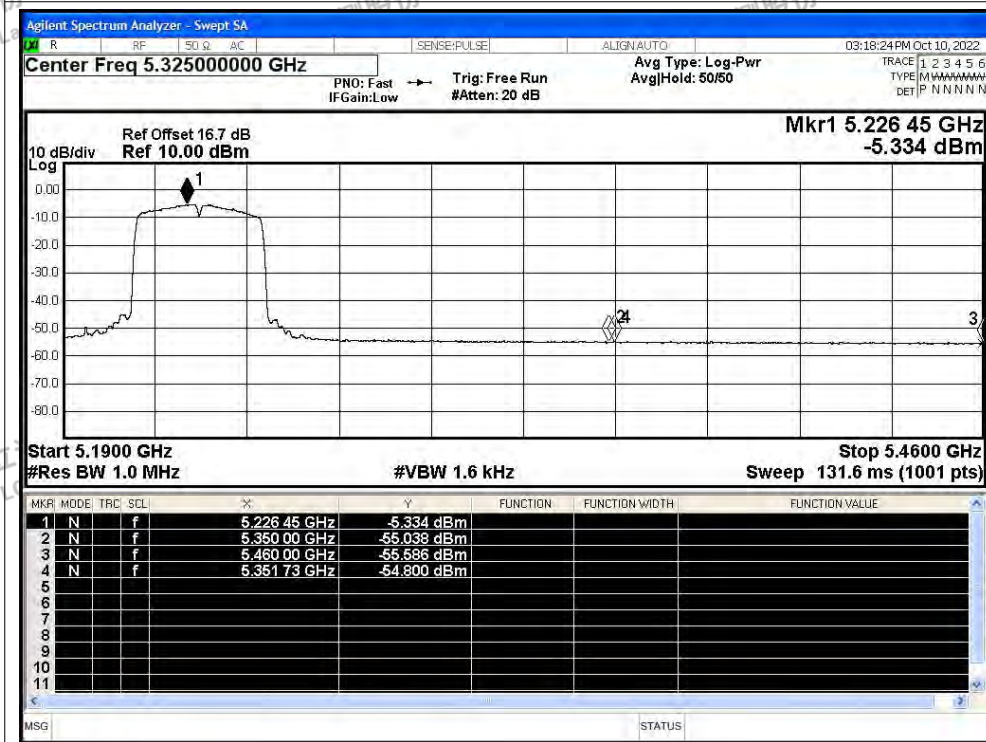




## Restrict Band NVNT ac40-MIMO 5230MHz Ant1 Peak

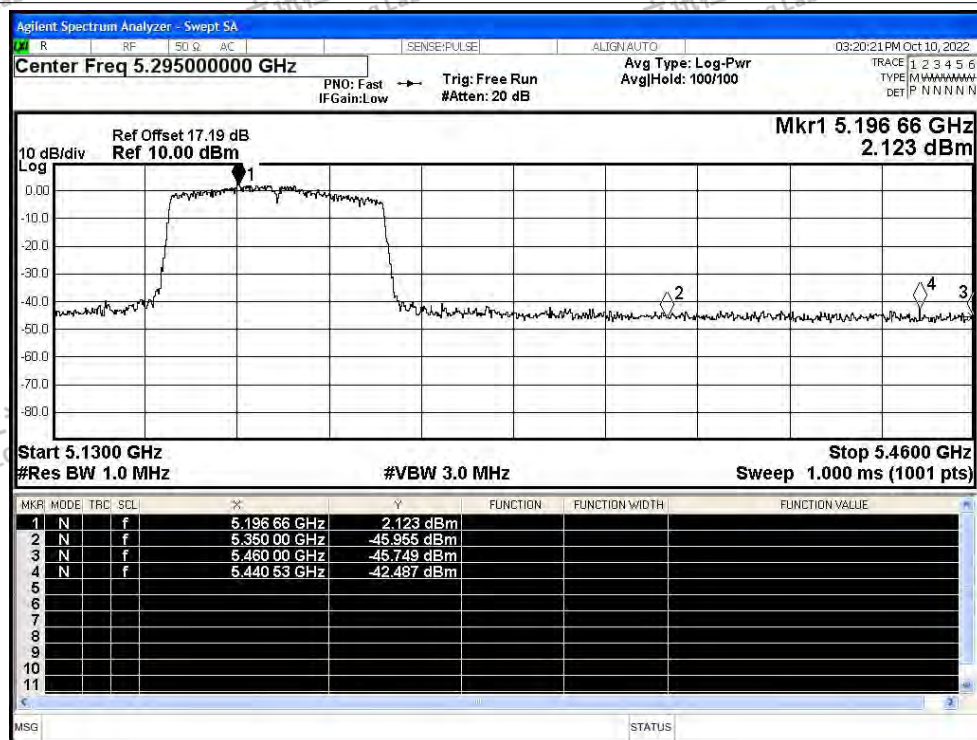


## Restrict Band NVNT ac40-MIMO 5230MHz Ant1 Average

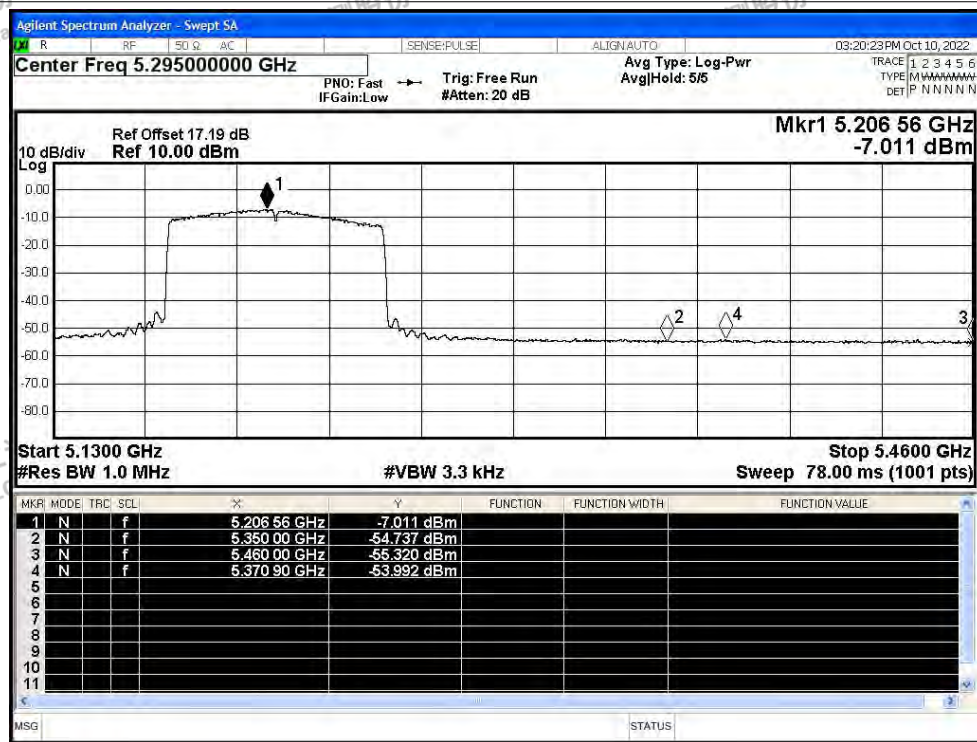




## Restrict Band NVNT ac80-MIMO 5210MHz Ant1 Peak

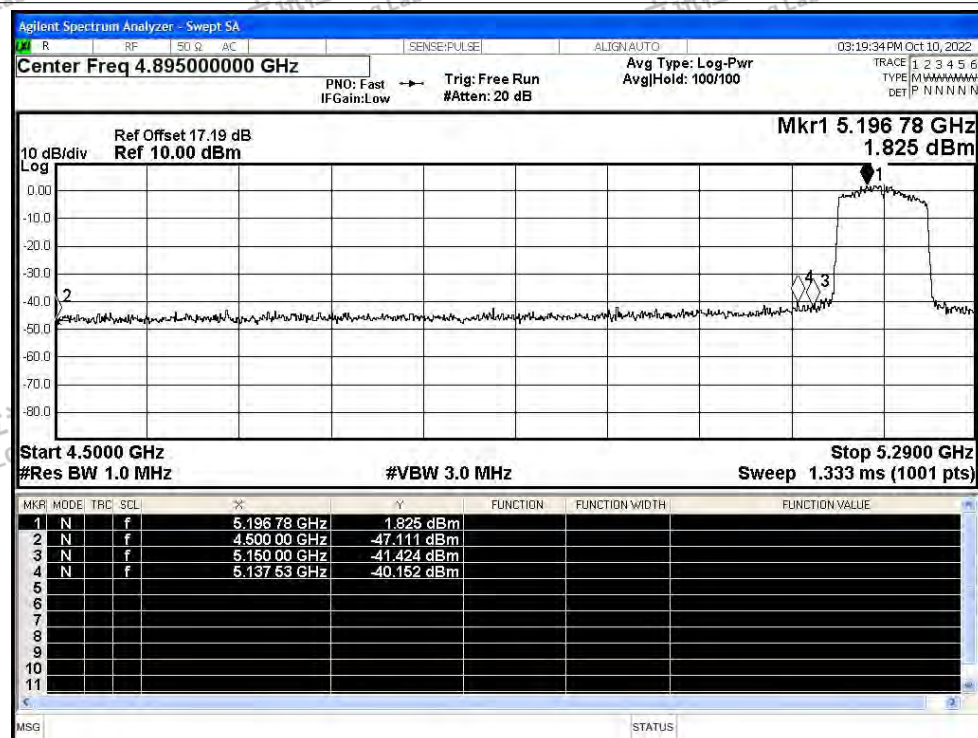


## Restrict Band NVNT ac80-MIMO 5210MHz Ant1 Average

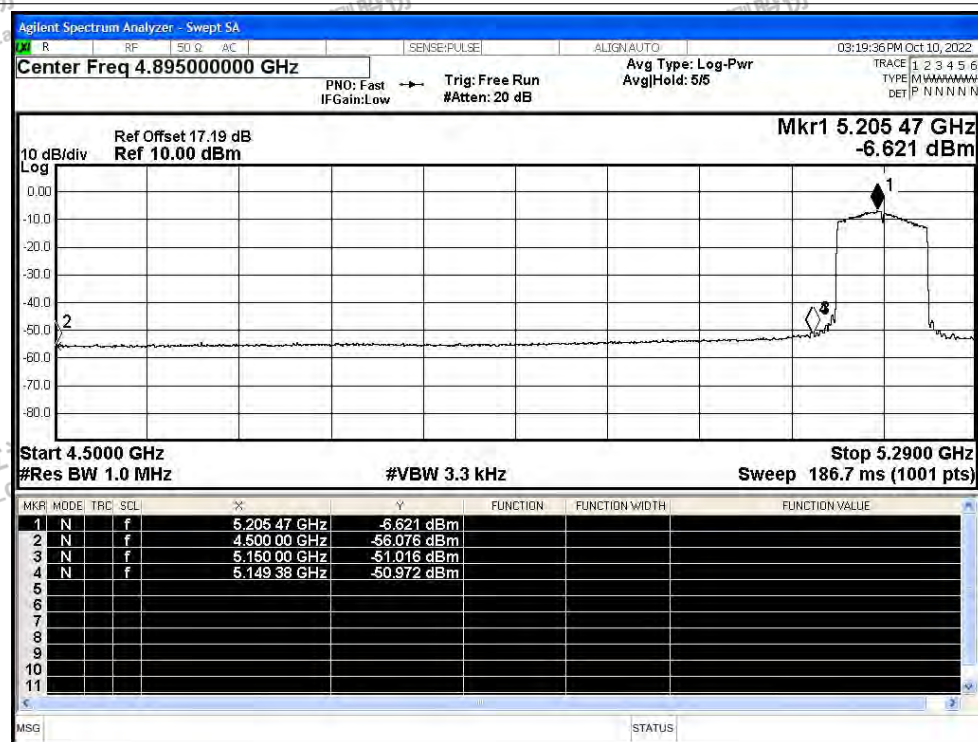




## Restrict Band NVNT ac80-MIMO 5210MHz Ant1 Peak



## Restrict Band NVNT ac80-MIMO 5210MHz Ant1 Average





## B.5 Frequency Stability

| Condition | Mode | Frequency (MHz) | Antenna | Measured Frequency (MHz) | Frequency Error (Hz) | Deviation (ppm) | Limit (ppm) | Verdict |
|-----------|------|-----------------|---------|--------------------------|----------------------|-----------------|-------------|---------|
| NVNT      | a    | 5180            | Ant0    | 5180                     | 0                    | 0               | 25          | Pass    |
| NVNT      | a    | 5200            | Ant0    | 5200                     | 0                    | 0               | 25          | Pass    |
| NVNT      | a    | 5240            | Ant0    | 5239.98                  | -20000               | -3.82           | 25          | Pass    |
| NVNT      | n20  | 5180            | Ant0    | 5180                     | 0                    | 0               | 25          | Pass    |
| NVNT      | n20  | 5200            | Ant0    | 5200                     | 0                    | 0               | 25          | Pass    |
| NVNT      | n20  | 5240            | Ant0    | 5240                     | 0                    | 0               | 25          | Pass    |
| NVNT      | n40  | 5190            | Ant0    | 5190                     | 0                    | 0               | 25          | Pass    |
| NVNT      | n40  | 5230            | Ant0    | 5230                     | 0                    | 0               | 25          | Pass    |
| NVNT      | ac20 | 5180            | Ant0    | 5179.98                  | -20000               | -3.86           | 25          | Pass    |
| NVNT      | ac20 | 5200            | Ant0    | 5200                     | 0                    | 0               | 25          | Pass    |
| NVNT      | ac20 | 5240            | Ant0    | 5240                     | 0                    | 0               | 25          | Pass    |
| NVNT      | ac40 | 5190            | Ant0    | 5190                     | 0                    | 0               | 25          | Pass    |
| NVNT      | ac40 | 5230            | Ant0    | 5229.96                  | -40000               | -7.65           | 25          | Pass    |
| NVNT      | ac80 | 5210            | Ant0    | 5209.92                  | -80000               | -15.36          | 25          | Pass    |

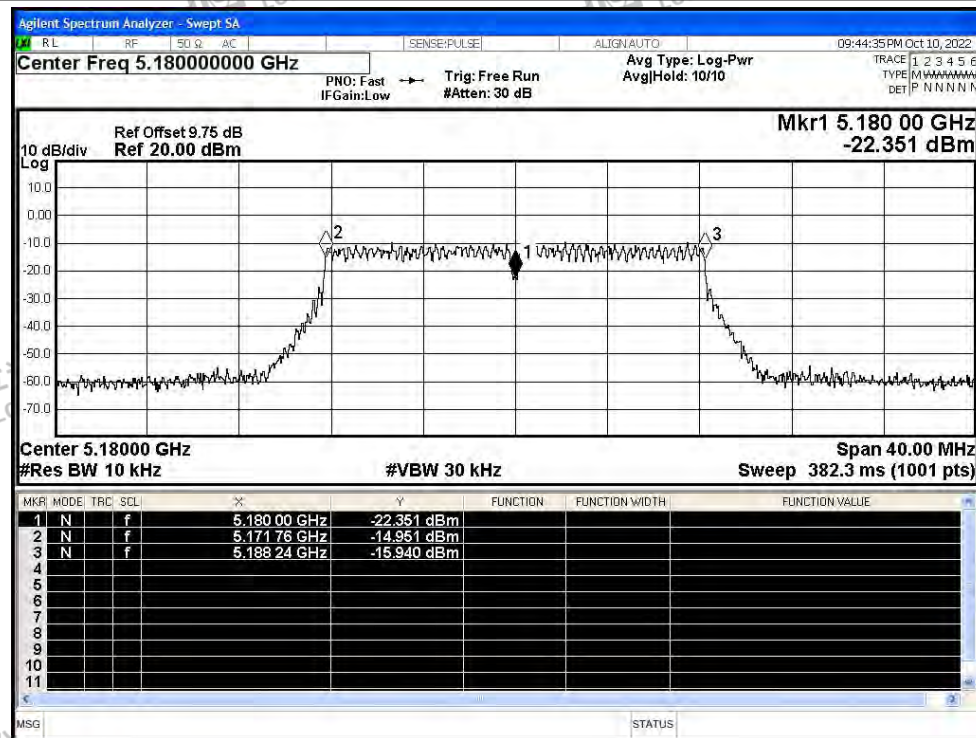


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Scan code to check authenticity

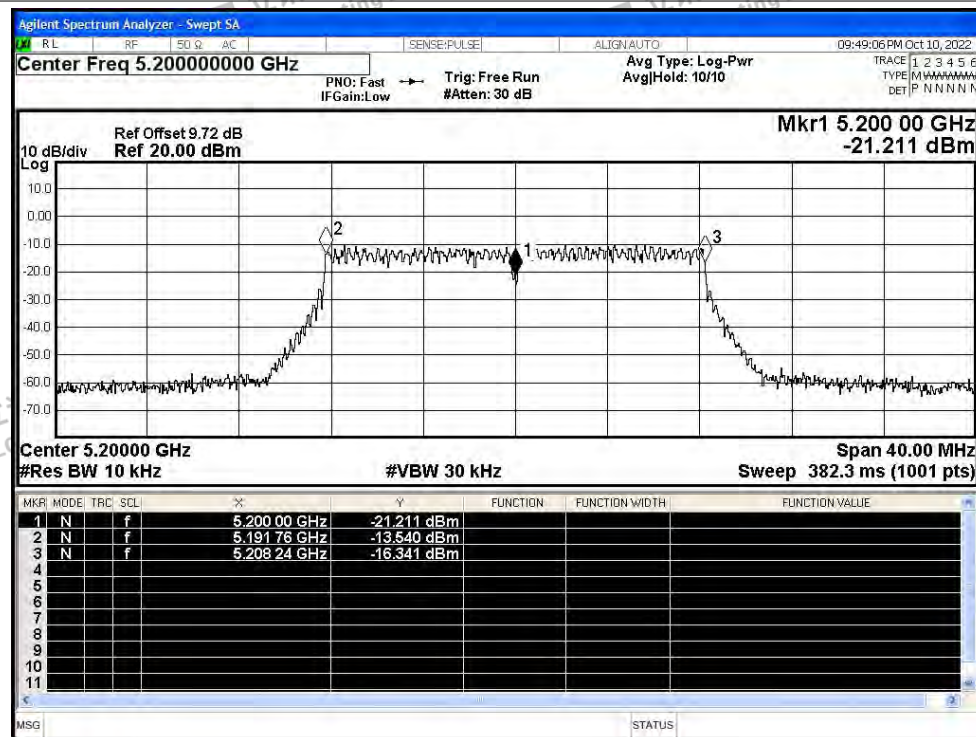


## Test Graphs

Freq. Stability NVNT a 5180MHz Ant0

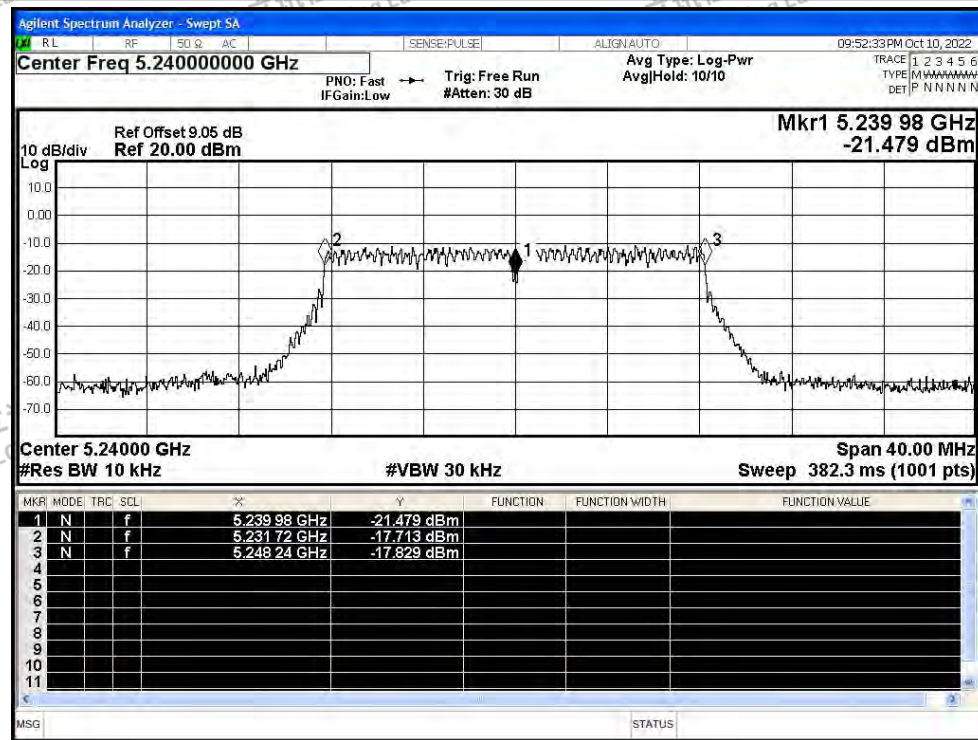


Freq. Stability NVNT a 5200MHz Ant0

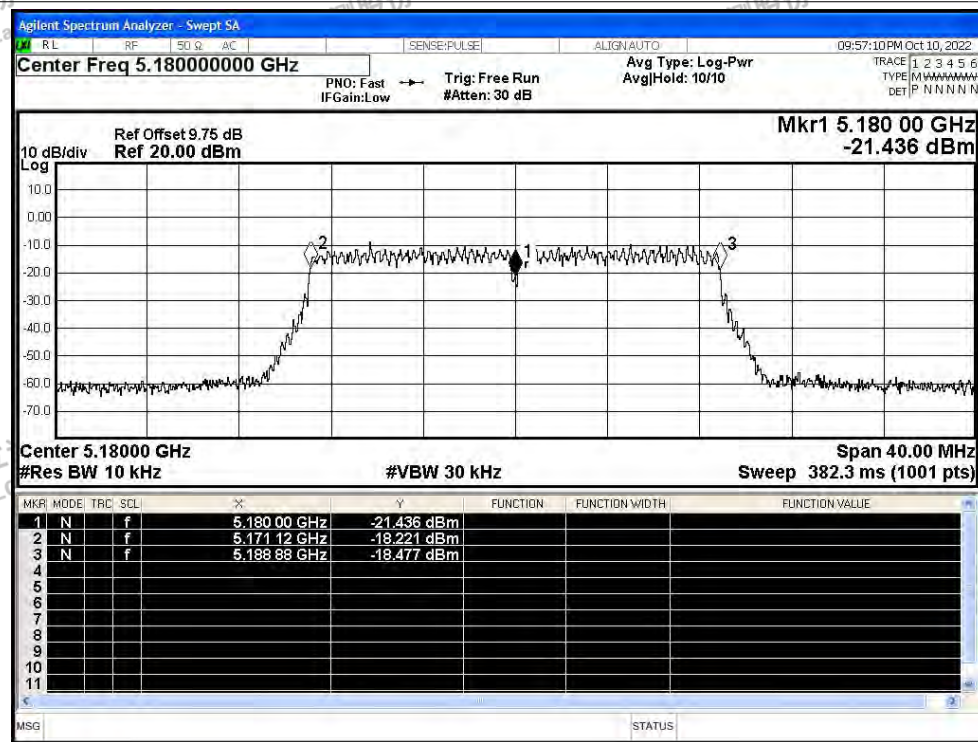




## Freq. Stability NVNT a 5240MHz Ant0

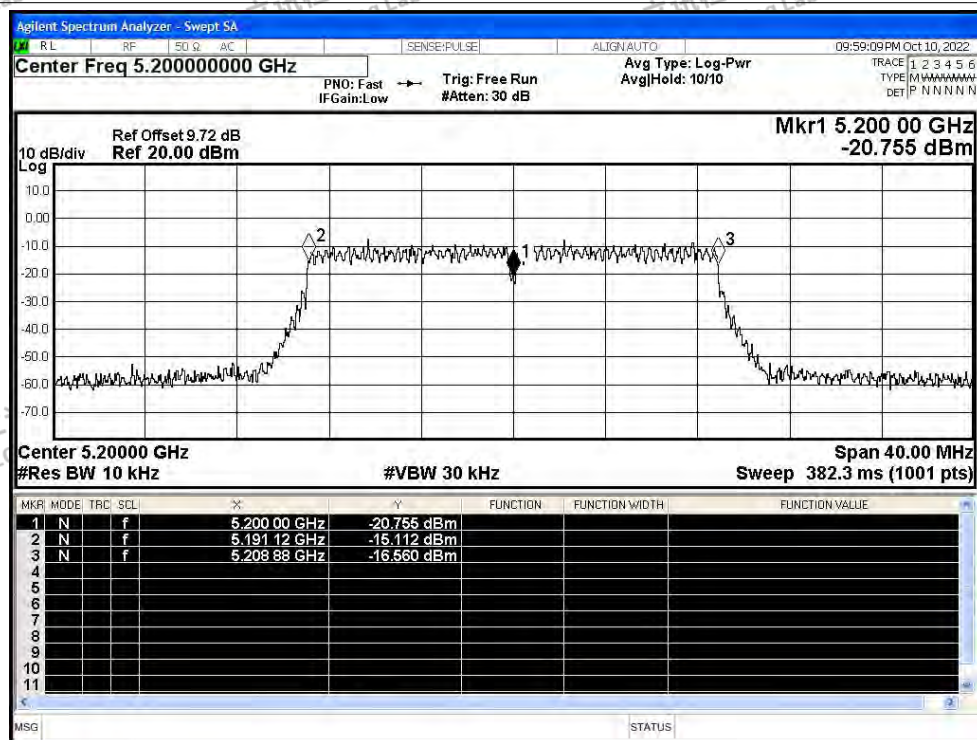


## Freq. Stability NVNT n20 5180MHz Ant0

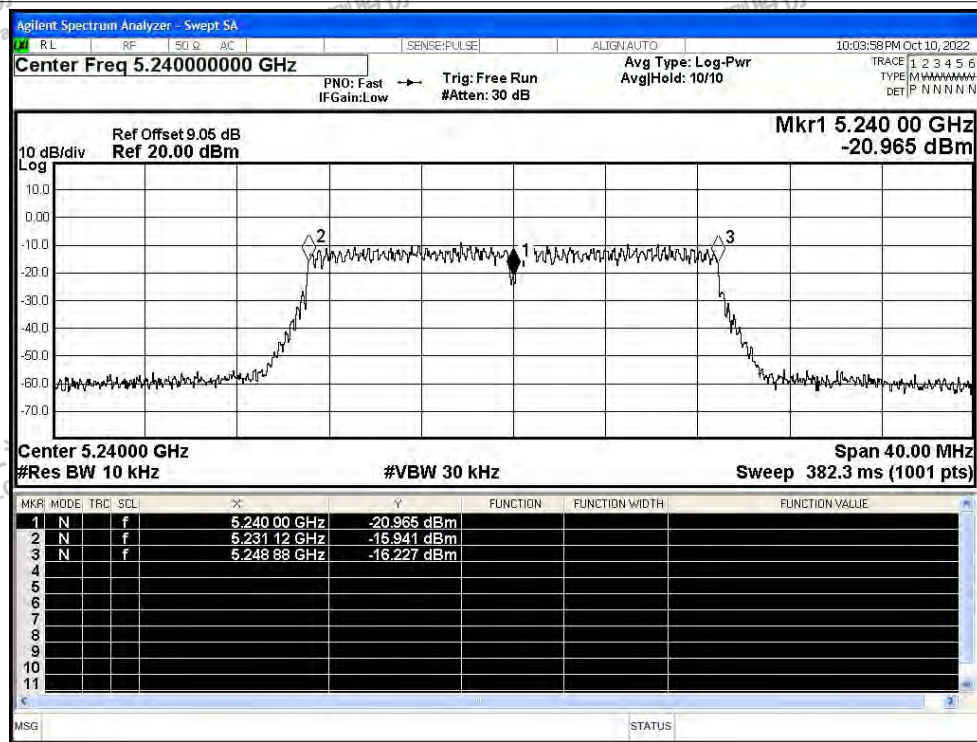




## Freq. Stability NVNT n20 5200MHz Ant0



## Freq. Stability NVNT n20 5240MHz Ant0



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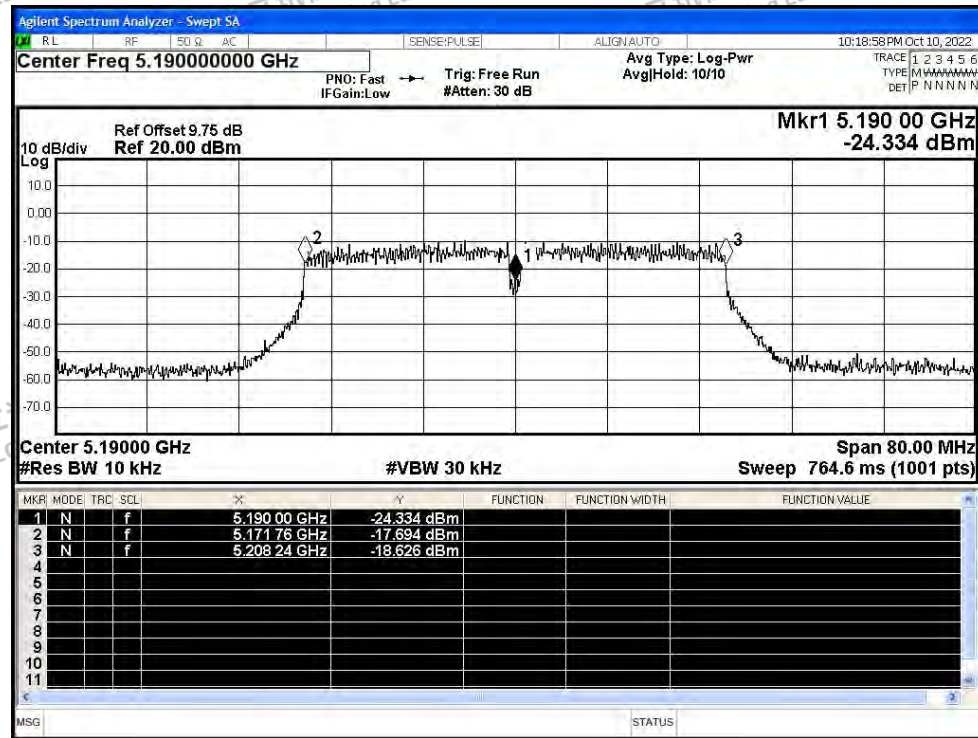
Add: 101, 201 Bldg A &amp; 301 Bldg C, Juji Industrial Park Yabianxueziwei, Shajing Street, Baoan District, Shenzhen, 518000, China

Tel: +(86) 0755-82591330 | E-mail: webmaster@lcs-cert.com | Web: www.lcs-cert.com

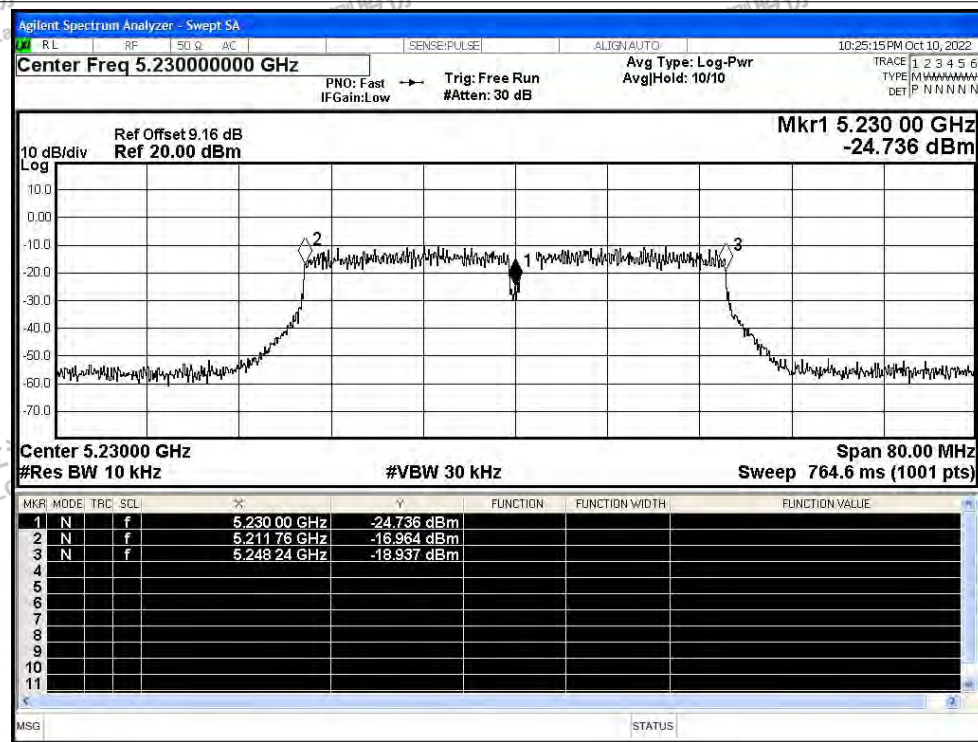
Scan code to check authenticity



## Freq. Stability NVNT n40 5190MHz Ant0

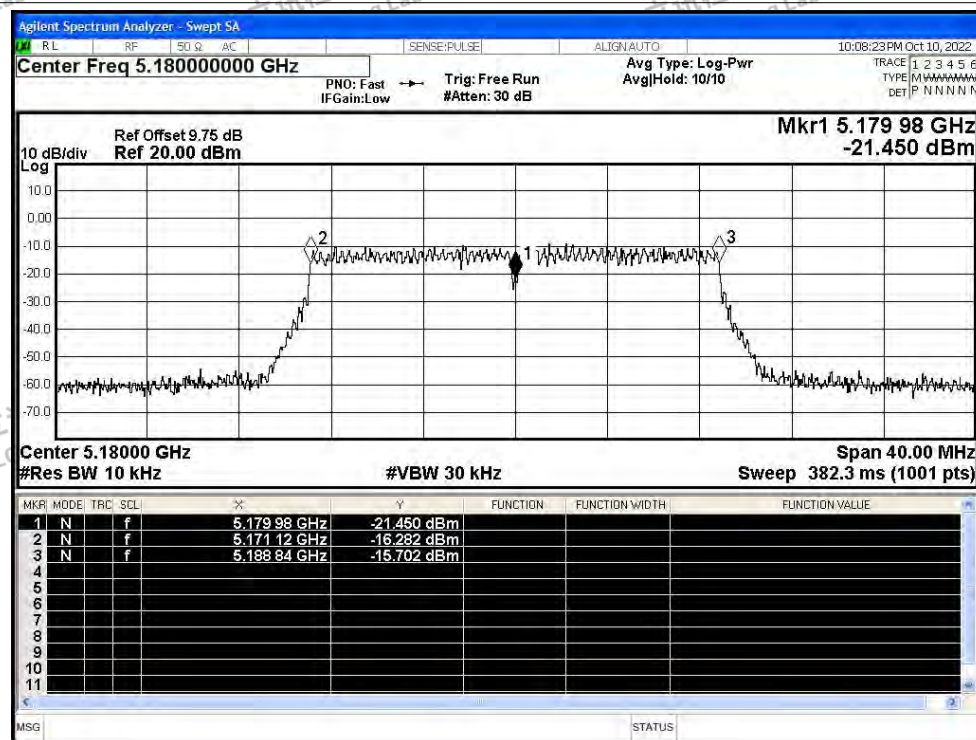


## Freq. Stability NVNT n40 5230MHz Ant0

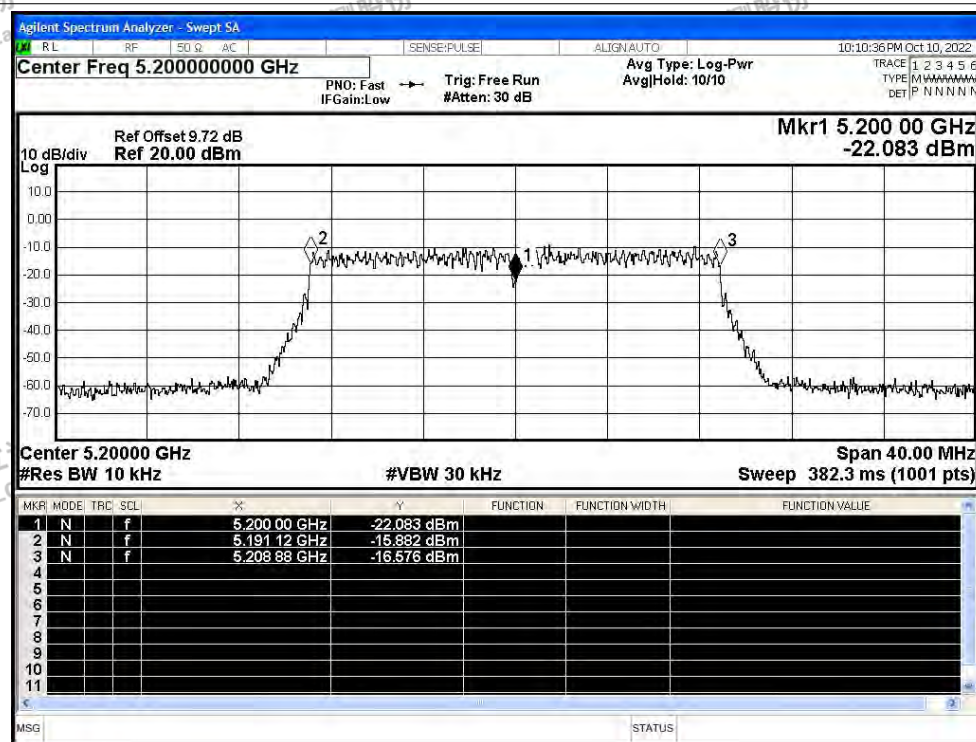




## Freq. Stability NVNT ac20 5180MHz Ant0

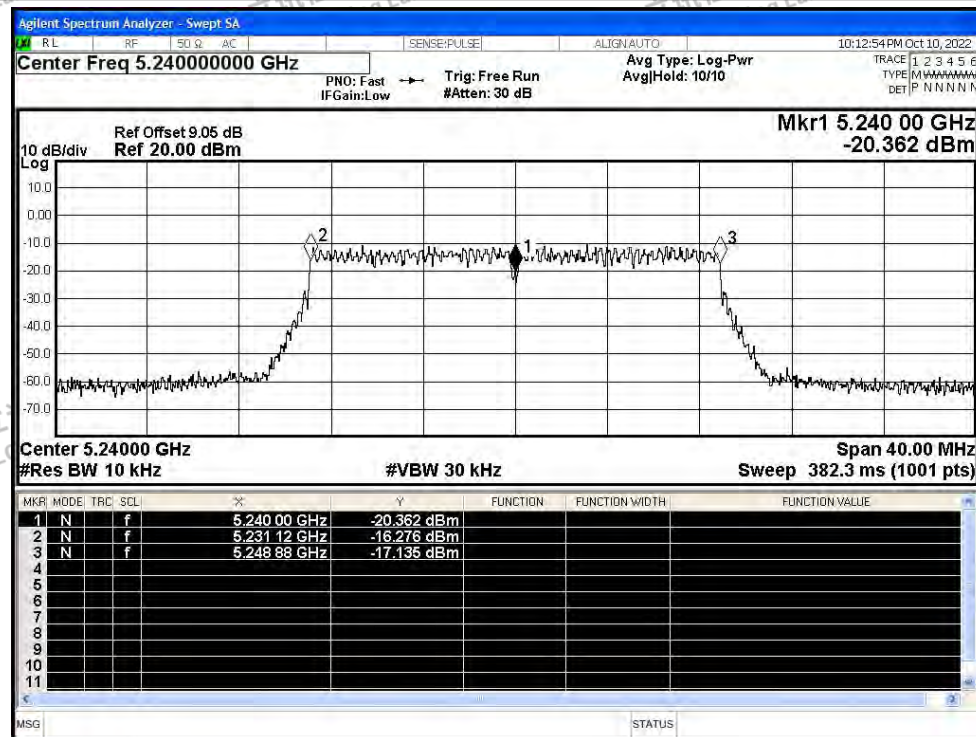


## Freq. Stability NVNT ac20 5200MHz Ant0

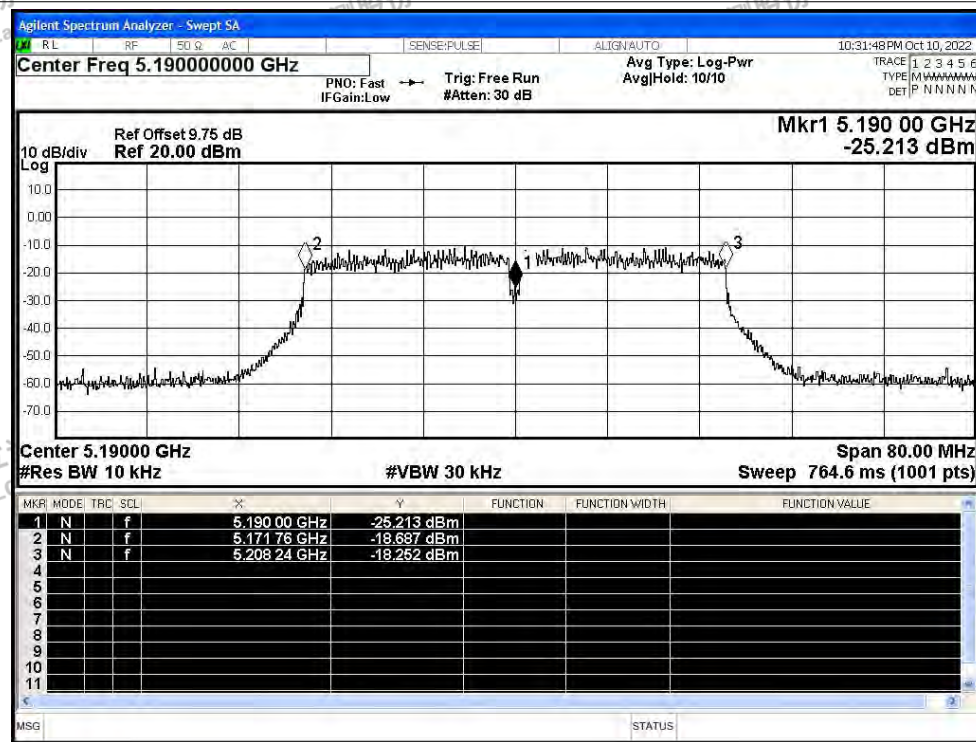




## Freq. Stability NVNT ac20 5240MHz Ant0

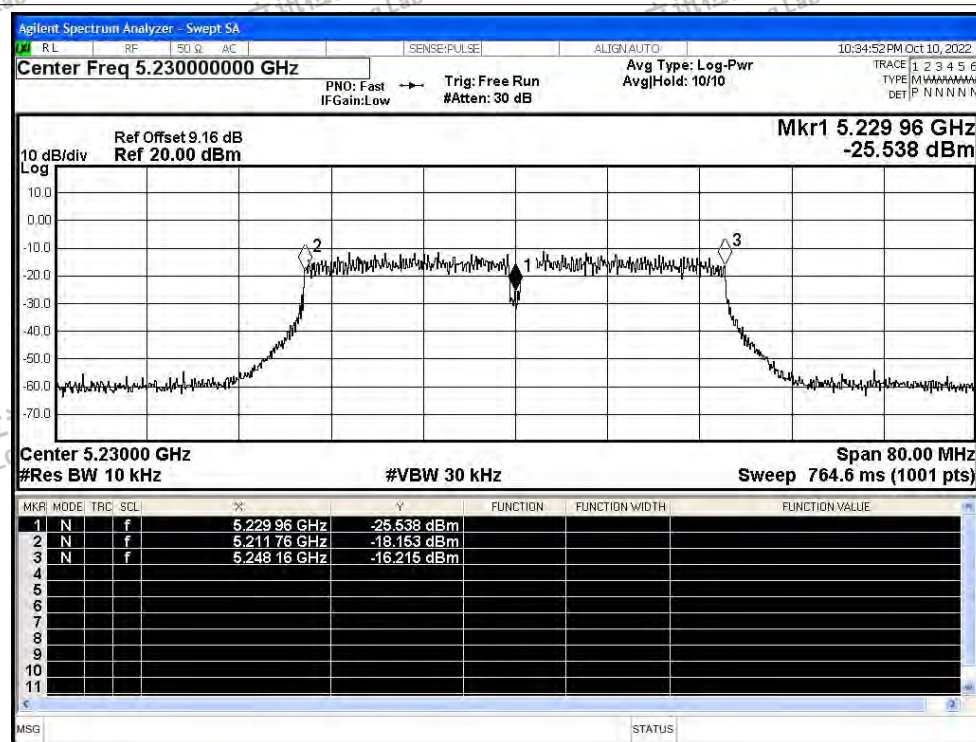


## Freq. Stability NVNT ac40 5190MHz Ant0

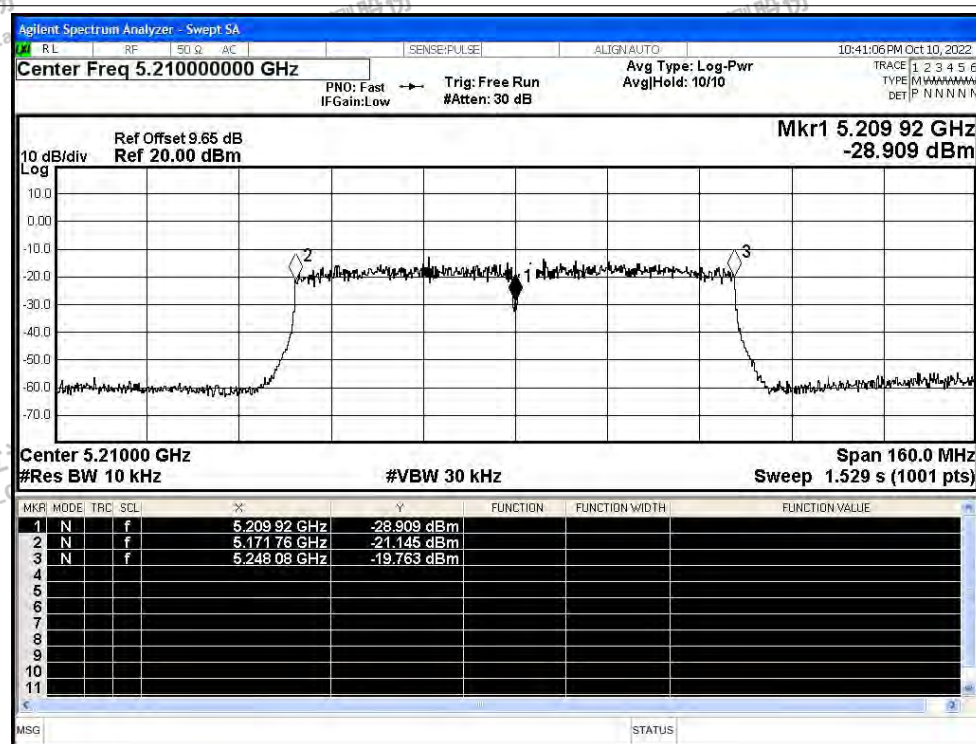




## Freq. Stability NVNT ac40 5230MHz Ant0



## Freq. Stability NVNT ac80 5210MHz Ant0





| Condition | Mode | Frequency (MHz) | Antenna | Measured Frequency (MHz) | Frequency Error (Hz) | Deviation (ppm) | Limit (ppm) | Verdict |
|-----------|------|-----------------|---------|--------------------------|----------------------|-----------------|-------------|---------|
| NVNT      | a    | 5180            | Ant1    | 5179.98                  | -20000               | -3.86           | 25          | Pass    |
| NVNT      | a    | 5200            | Ant1    | 5199.98                  | -20000               | -3.85           | 25          | Pass    |
| NVNT      | a    | 5240            | Ant1    | 5239.98                  | -20000               | -3.82           | 25          | Pass    |
| NVNT      | n20  | 5180            | Ant1    | 5180                     | 0                    | 0               | 25          | Pass    |
| NVNT      | n20  | 5200            | Ant1    | 5200                     | 0                    | 0               | 25          | Pass    |
| NVNT      | n20  | 5240            | Ant1    | 5239.98                  | -20000               | -3.82           | 25          | Pass    |
| NVNT      | n40  | 5190            | Ant1    | 5190                     | 0                    | 0               | 25          | Pass    |
| NVNT      | n40  | 5230            | Ant1    | 5230                     | 0                    | 0               | 25          | Pass    |
| NVNT      | ac20 | 5180            | Ant1    | 5180                     | 0                    | 0               | 25          | Pass    |
| NVNT      | ac20 | 5200            | Ant1    | 5200                     | 0                    | 0               | 25          | Pass    |
| NVNT      | ac20 | 5240            | Ant1    | 5239.96                  | -40000               | -7.63           | 25          | Pass    |
| NVNT      | ac40 | 5190            | Ant1    | 5190                     | 0                    | 0               | 25          | Pass    |
| NVNT      | ac40 | 5230            | Ant1    | 5230                     | 0                    | 0               | 25          | Pass    |
| NVNT      | ac80 | 5210            | Ant1    | 5209.92                  | -80000               | -15.36          | 25          | Pass    |

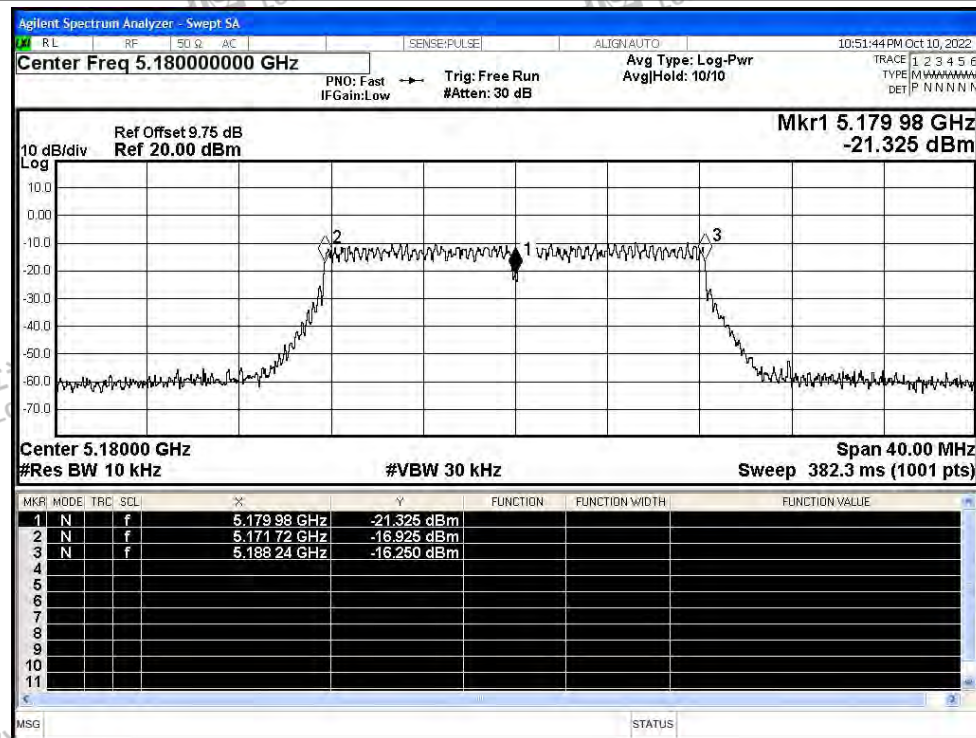


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Scan code to check authenticity

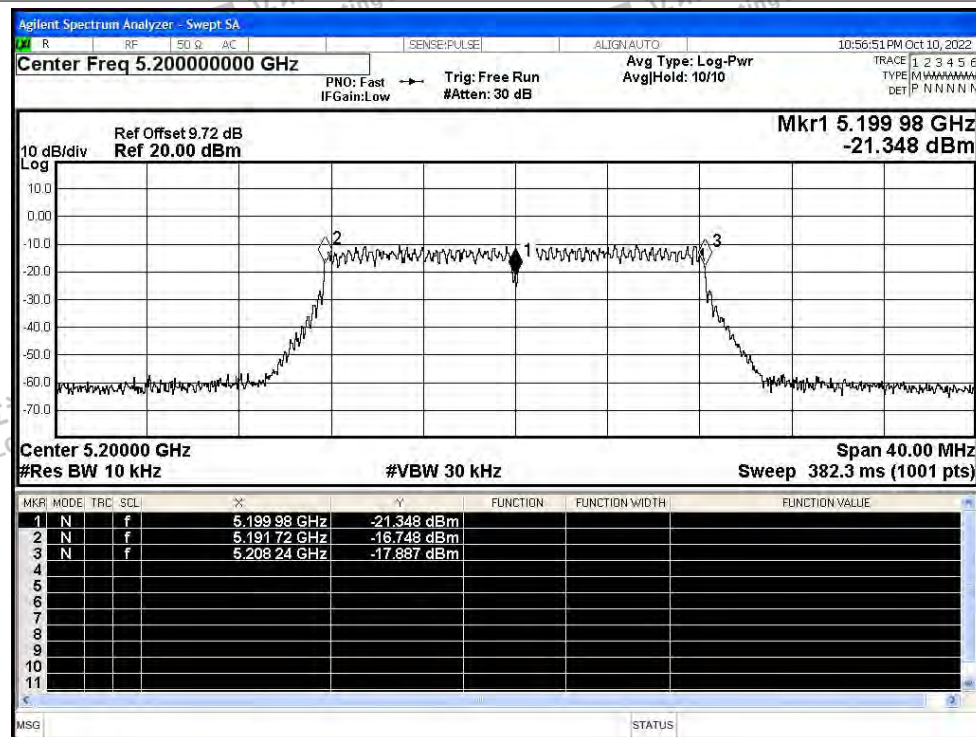


## Test Graphs

Freq. Stability NVNT a 5180MHz Ant1

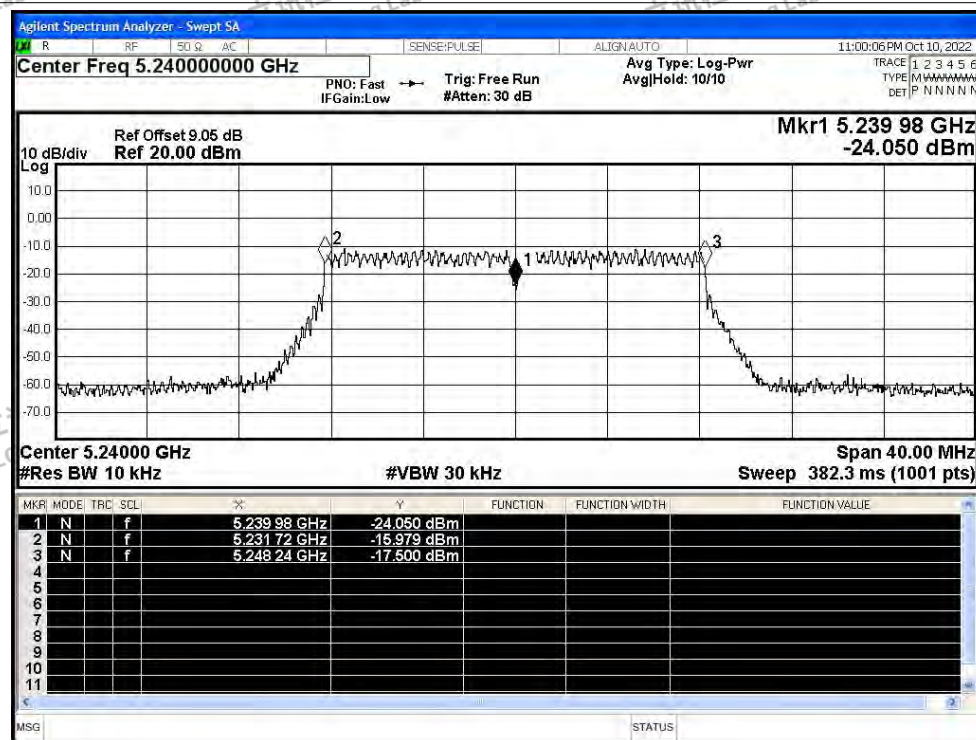


Freq. Stability NVNT a 5200MHz Ant1

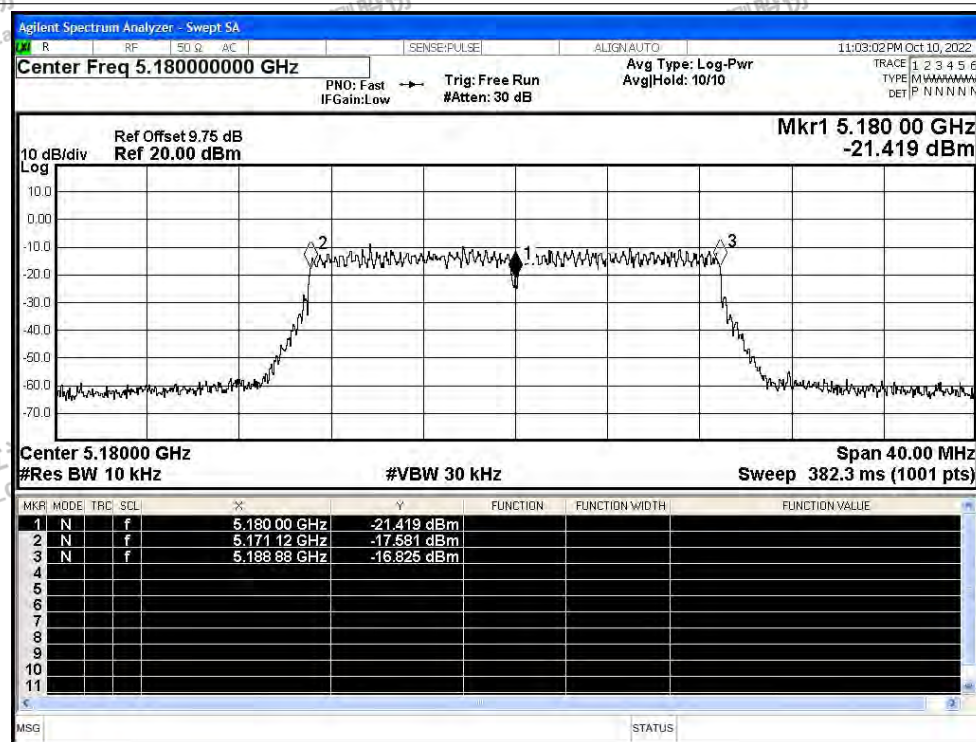




## Freq. Stability NVNT a 5240MHz Ant1

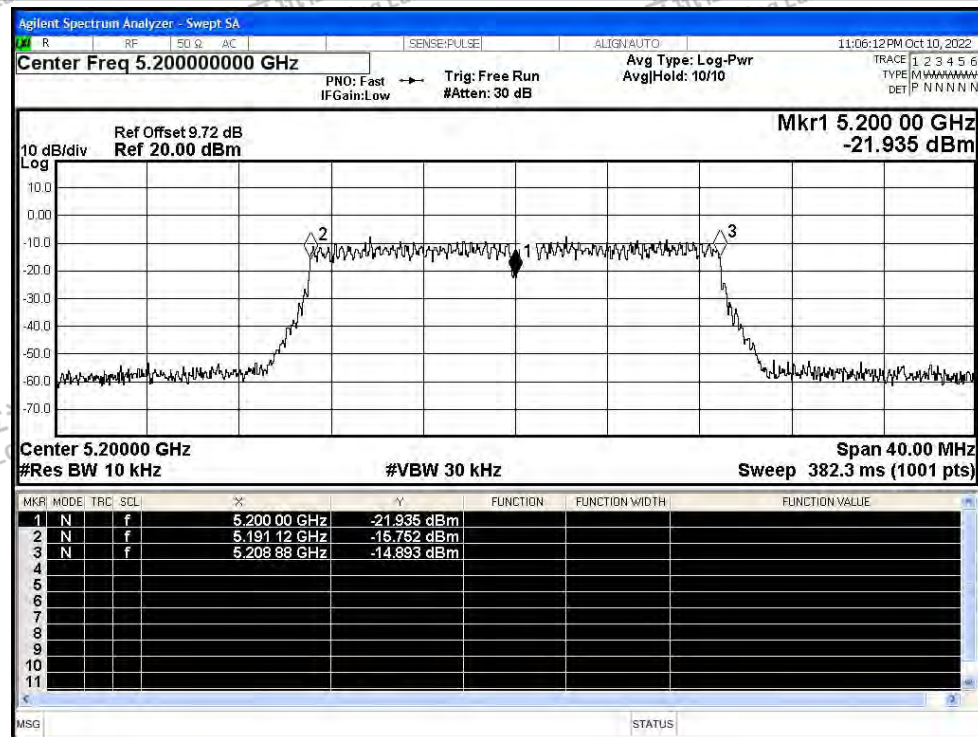


## Freq. Stability NVNT n20 5180MHz Ant1

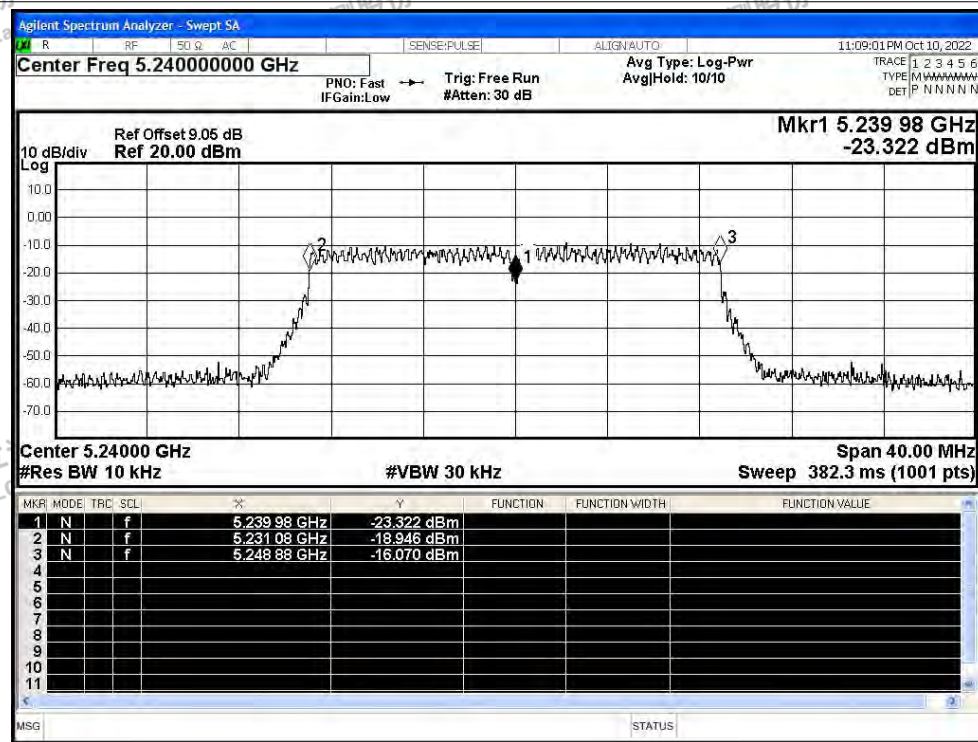




## Freq. Stability NVNT n20 5200MHz Ant1

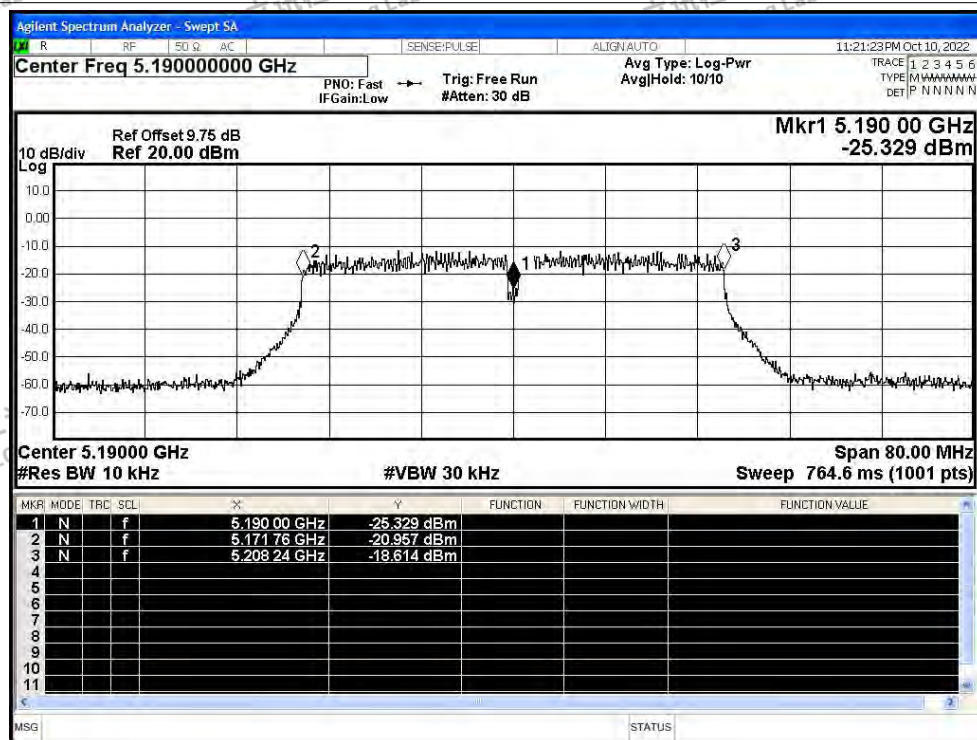


## Freq. Stability NVNT n20 5240MHz Ant1





## Freq. Stability NVNT n40 5190MHz Ant1



## Freq. Stability NVNT n40 5230MHz Ant1

