# RF Test Data for 2.4G WiFi (Conducted Measurements)

| General Description of EUT | |
|---|---|
| **Product Name:** | **projector** |
| **Test Model:** | **TS-3** |
| **Sample ID:** | **HC-C-202405-0346-01-02#** |
| **Environmental Conditions** | |
| **Temperature:** | **25℃** |
| **Relative Humidity:** | **55%** |
| **Test Voltage:** | **AC 120V** |
| **Test Engineer:** | **Mike Yan** |
| Note: For a more detailed features description, please refer to the report TBR-C-202405-0346-62<br>The report only show the worst case data. | |

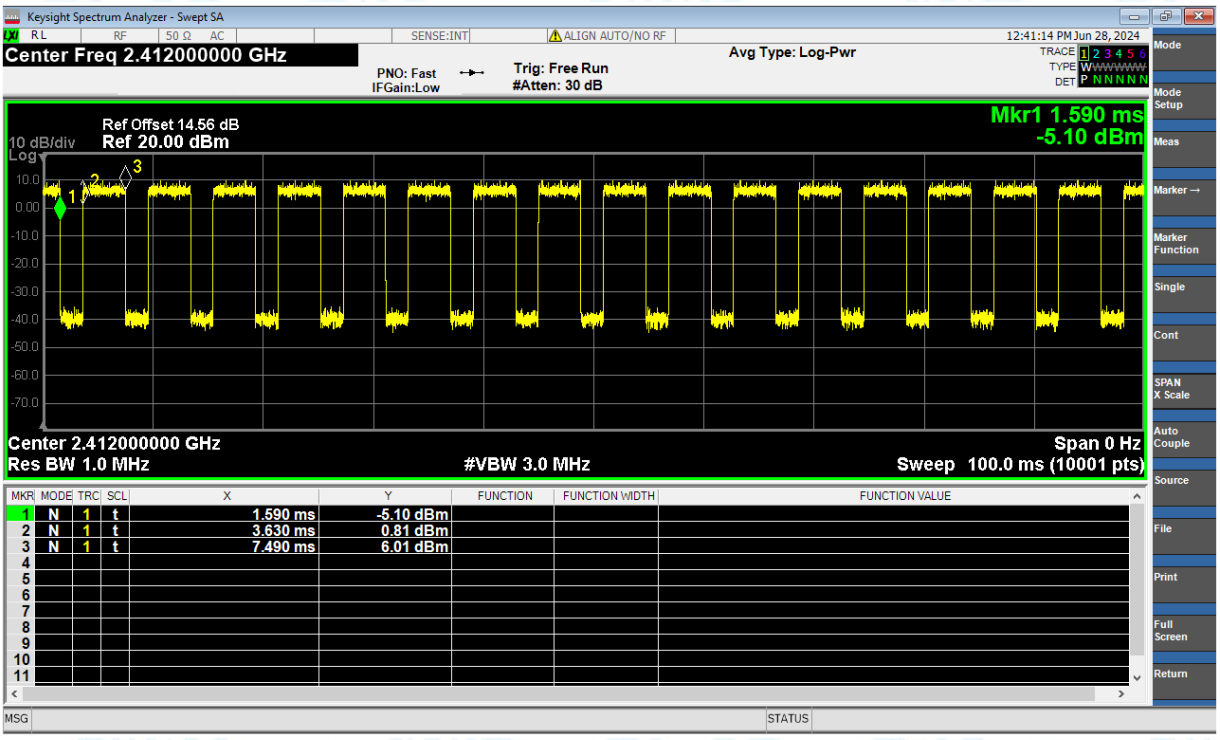
# Contents

# 1.Duty Cycle

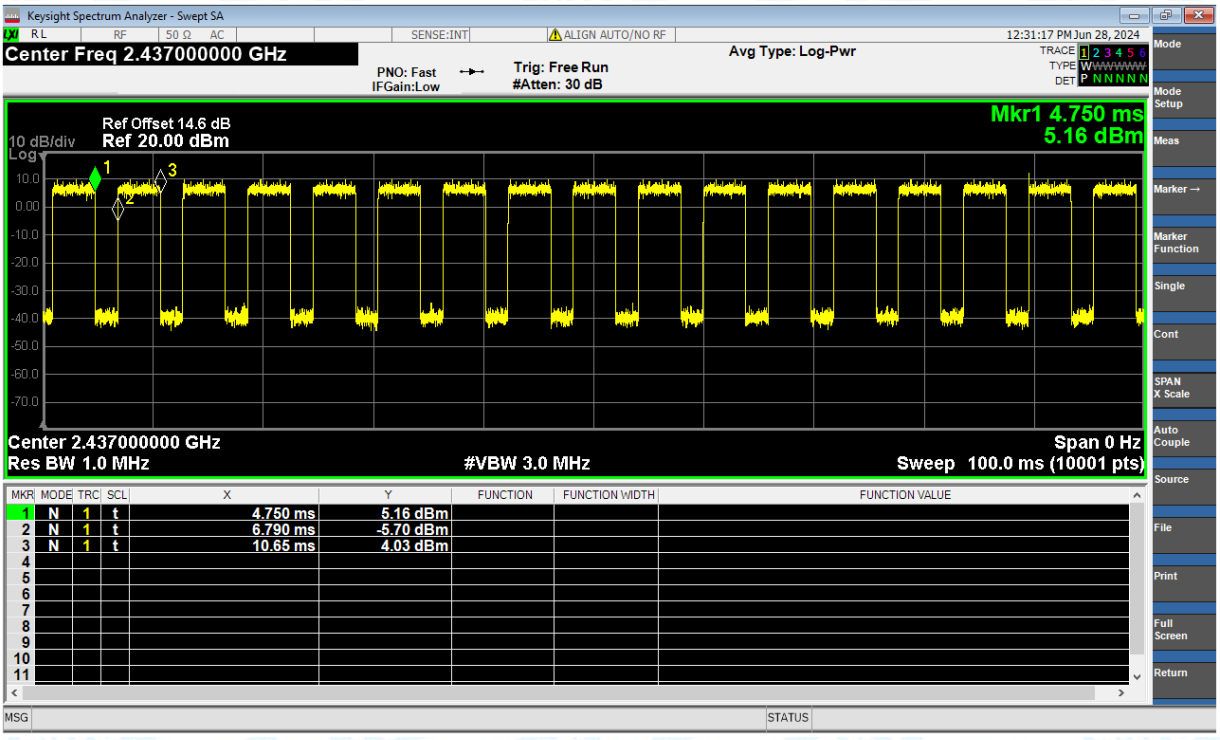
| Condition | Mode | Frequency (MHz) | Antenna | Duty Cycle (%) | Correction Factor (dB) | 1/T (kHz) |
|---|---|---|---|---|---|---|
| NVNT | ax(VHT20) | 2412 | Ant1 | 65.42 | 1.84 | 0.26 |
| NVNT | ax(VHT20) | 2437 | Ant1 | 65.42 | 1.84 | 0.26 |
| NVNT | ax(VHT20) | 2462 | Ant1 | 65.48 | 1.84 | 0.26 |
| NVNT | ax(VHT40) | 2422 | Ant1 | 49 | 3.1 | 0.51 |
| NVNT | ax(VHT40) | 2437 | Ant1 | 49 | 3.1 | 0.51 |
| NVNT | ax(VHT40) | 2452 | Ant1 | 49 | 3.1 | 0.51 |
| NVNT | b | 2412 | Ant1 | 54.95 | 2.6 | 0.08 |
| NVNT | b | 2437 | Ant1 | 54.95 | 2.6 | 0.08 |
| NVNT | b | 2462 | Ant1 | 54.95 | 2.6 | 0.08 |
| NVNT | g | 2412 | Ant1 | 65.79 | 1.82 | 2 |
| NVNT | g | 2437 | Ant1 | 65.79 | 1.82 | 2 |
| NVNT | g | 2462 | Ant1 | 67.11 | 1.73 | 1.96 |
| NVNT | n(HT20) | 2412 | Ant1 | 67.53 | 1.71 | 1.92 |
| NVNT | n(HT20) | 2437 | Ant1 | 66.23 | 1.79 | 1.96 |
| NVNT | n(HT20) | 2462 | Ant1 | 67.53 | 1.71 | 1.92 |
| NVNT | n(HT40) | 2422 | Ant1 | 50.94 | 2.93 | 3.7 |
| NVNT | n(HT40) | 2437 | Ant1 | 50.94 | 2.93 | 3.7 |
| NVNT | n(HT40) | 2452 | Ant1 | 52.83 | 2.77 | 3.57 |

Test Graphs

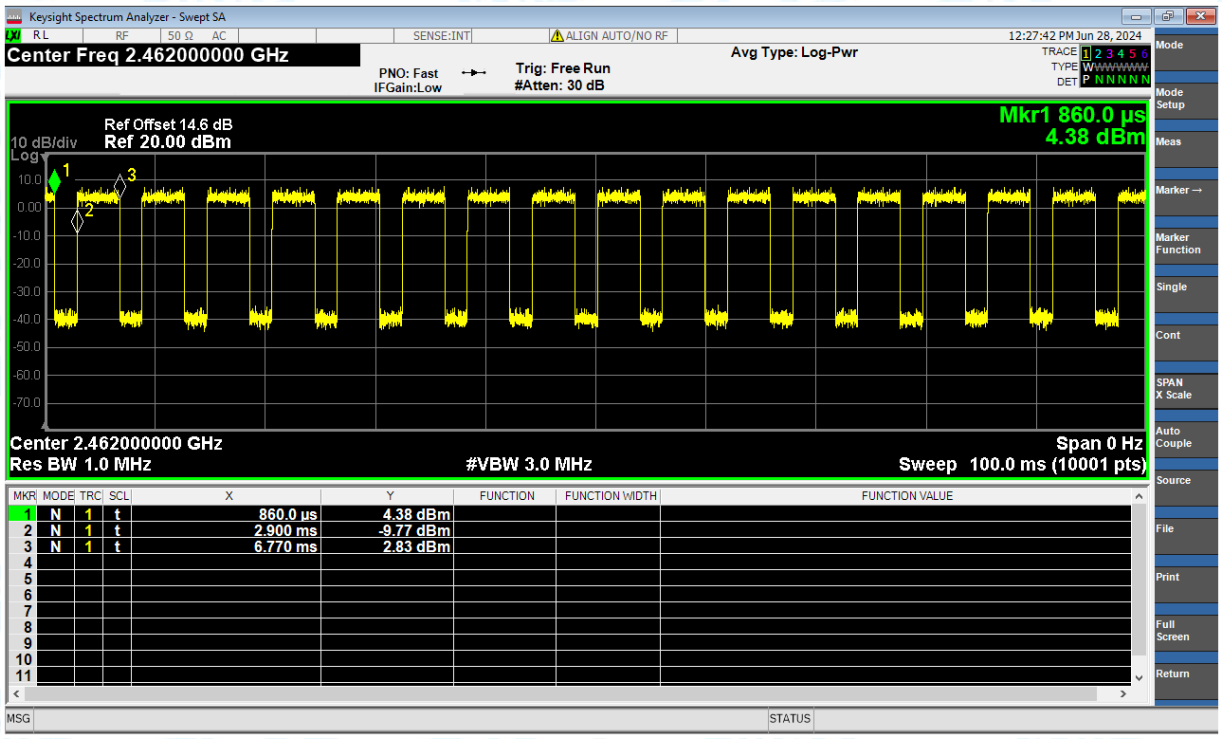
Duty Cycle NVNT ax(VHT20) 2412MHz Ant1



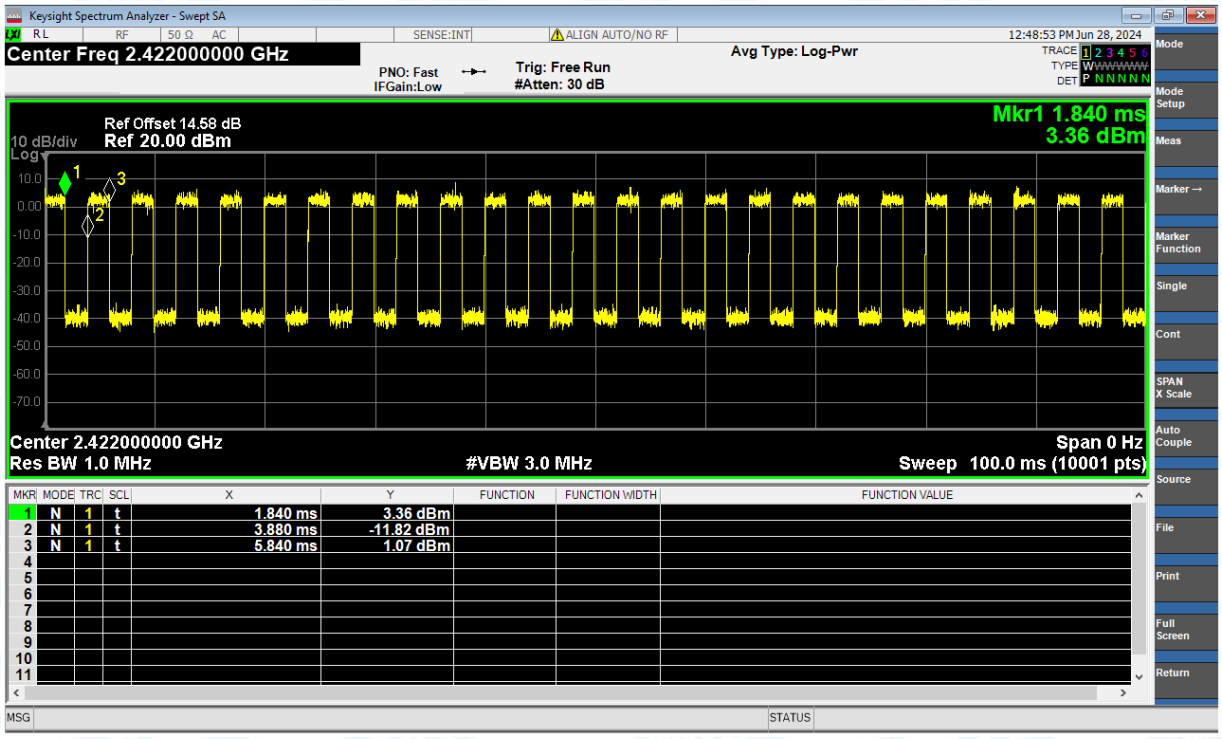

Duty Cycle NVNT ax(VHT20) 2437MHz Ant1



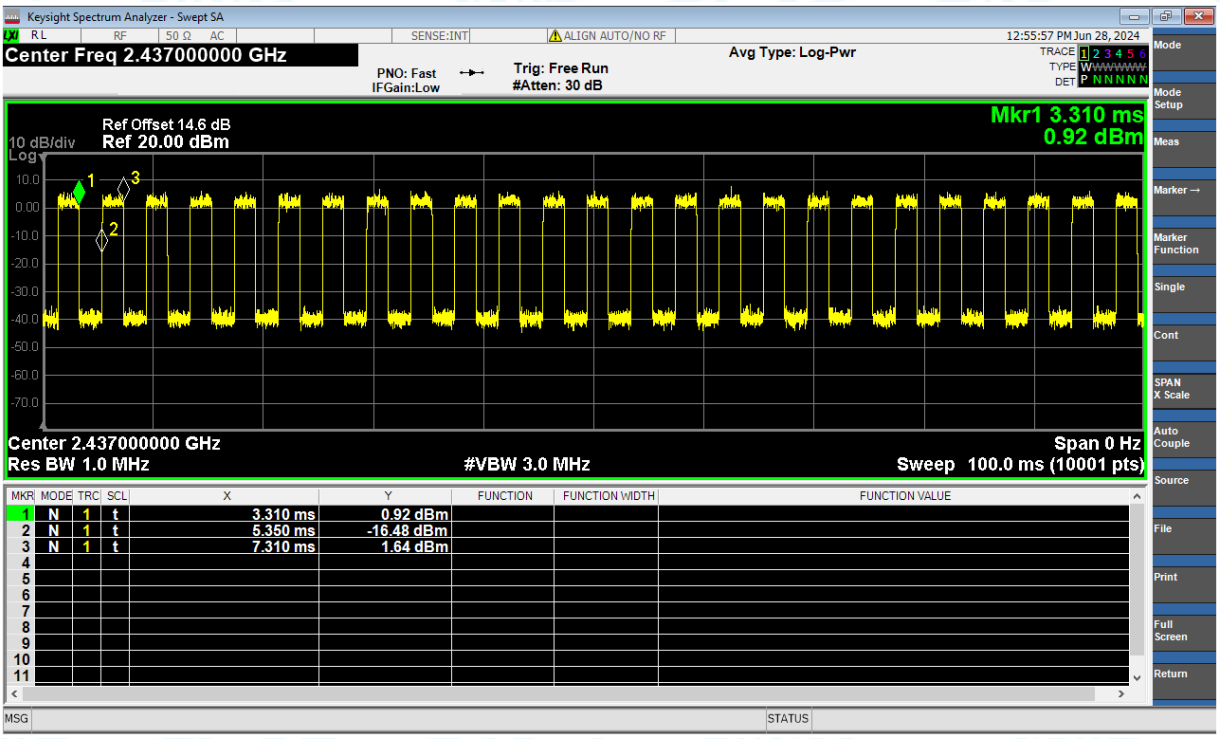
Duty Cycle NVNT ax(VHT20) 2462MHz Ant1



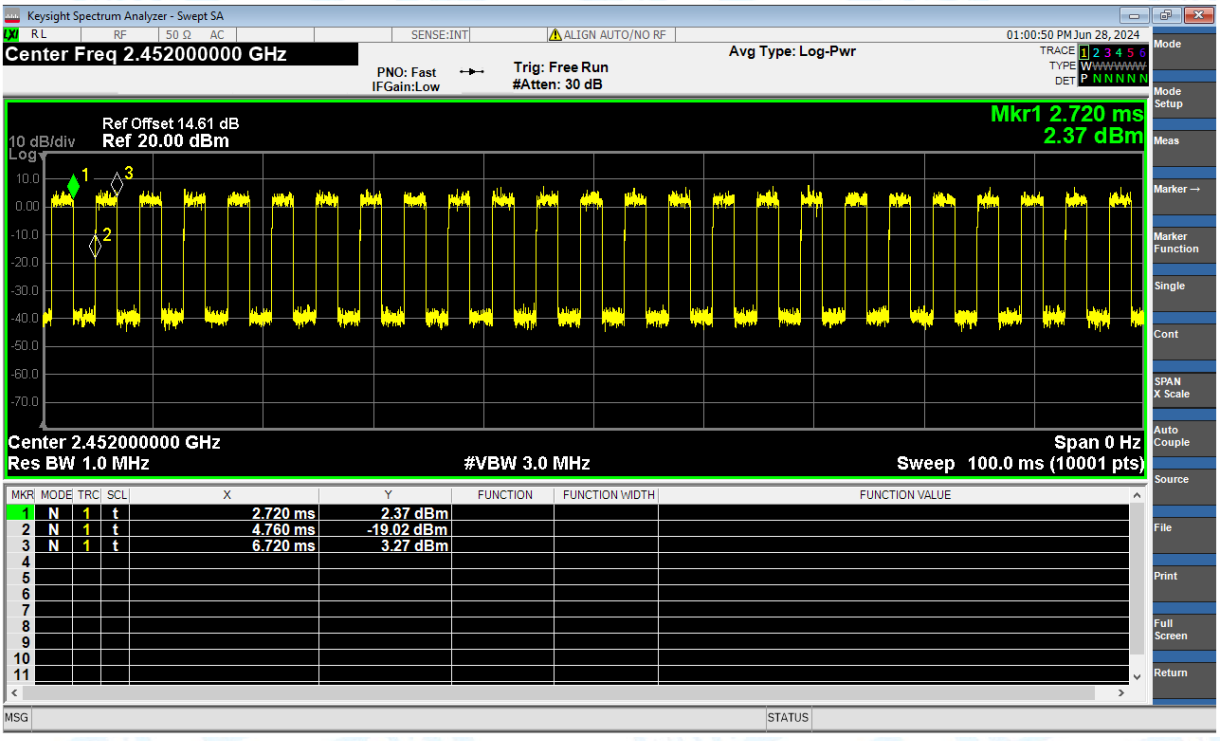

Duty Cycle NVNT ax(VHT40) 2422MHz Ant1



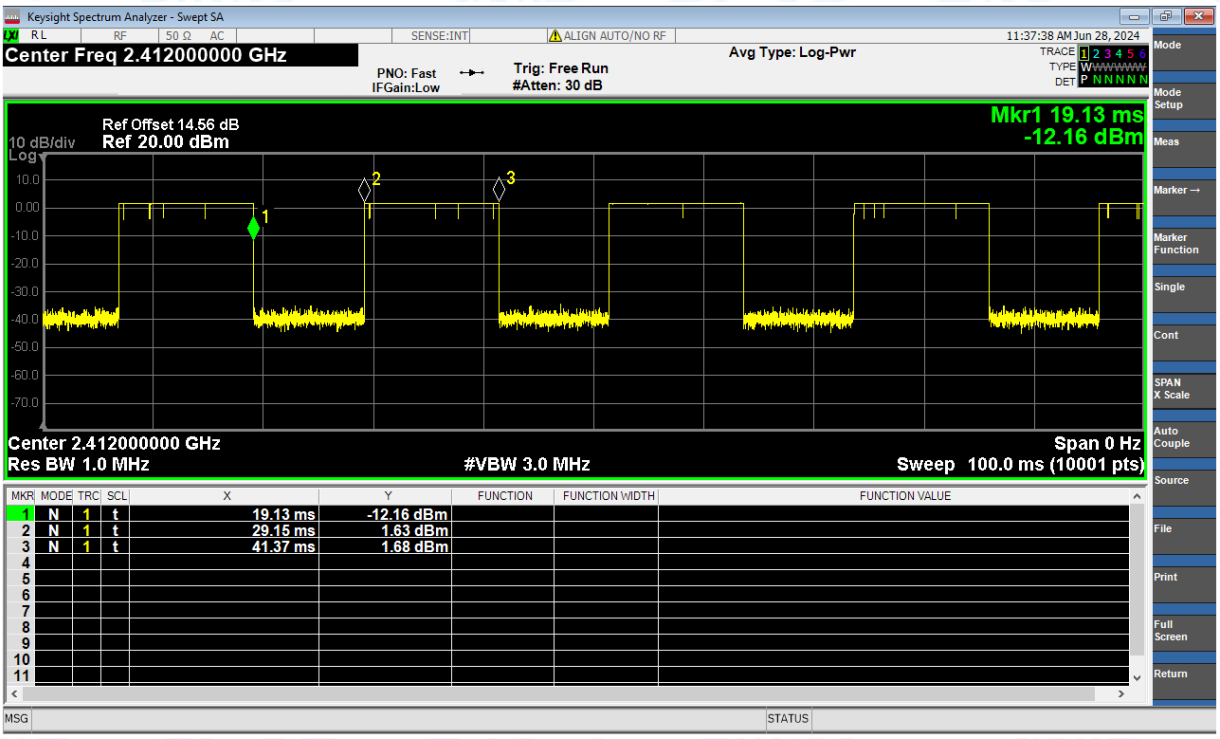
Duty Cycle NVNT ax(VHT40) 2437MHz Ant1



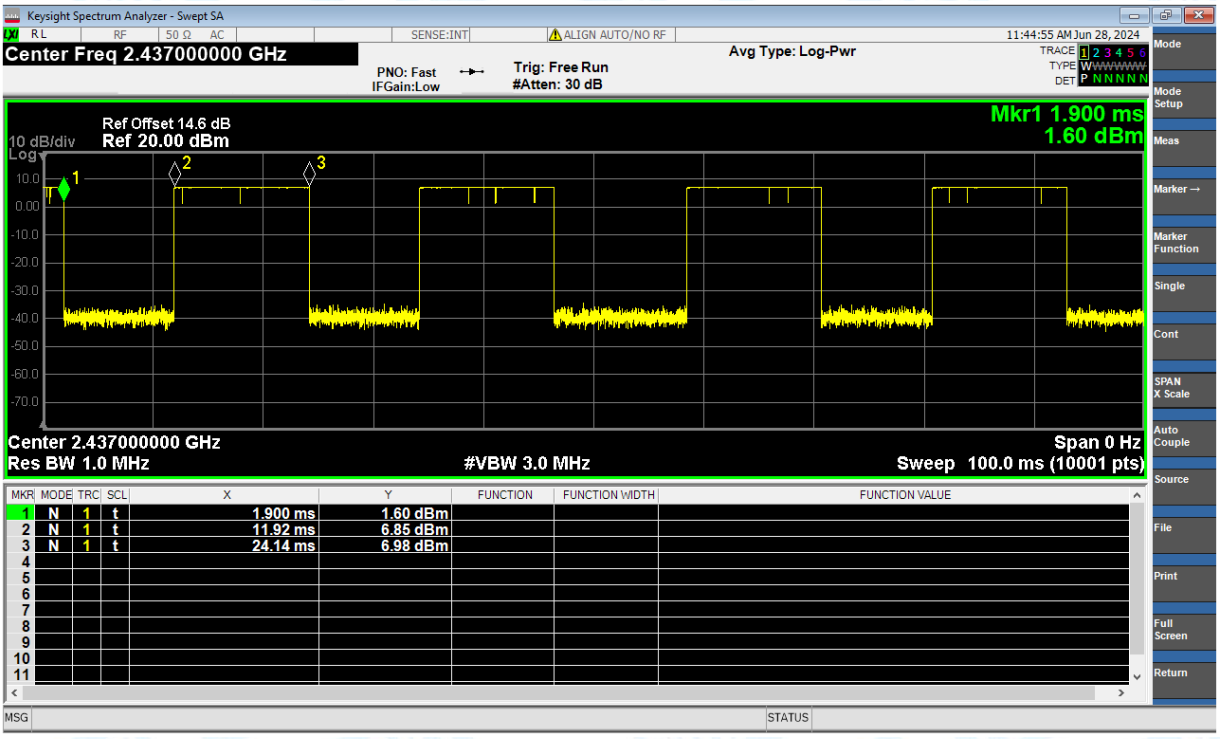

Duty Cycle NVNT ax(VHT40) 2452MHz Ant1



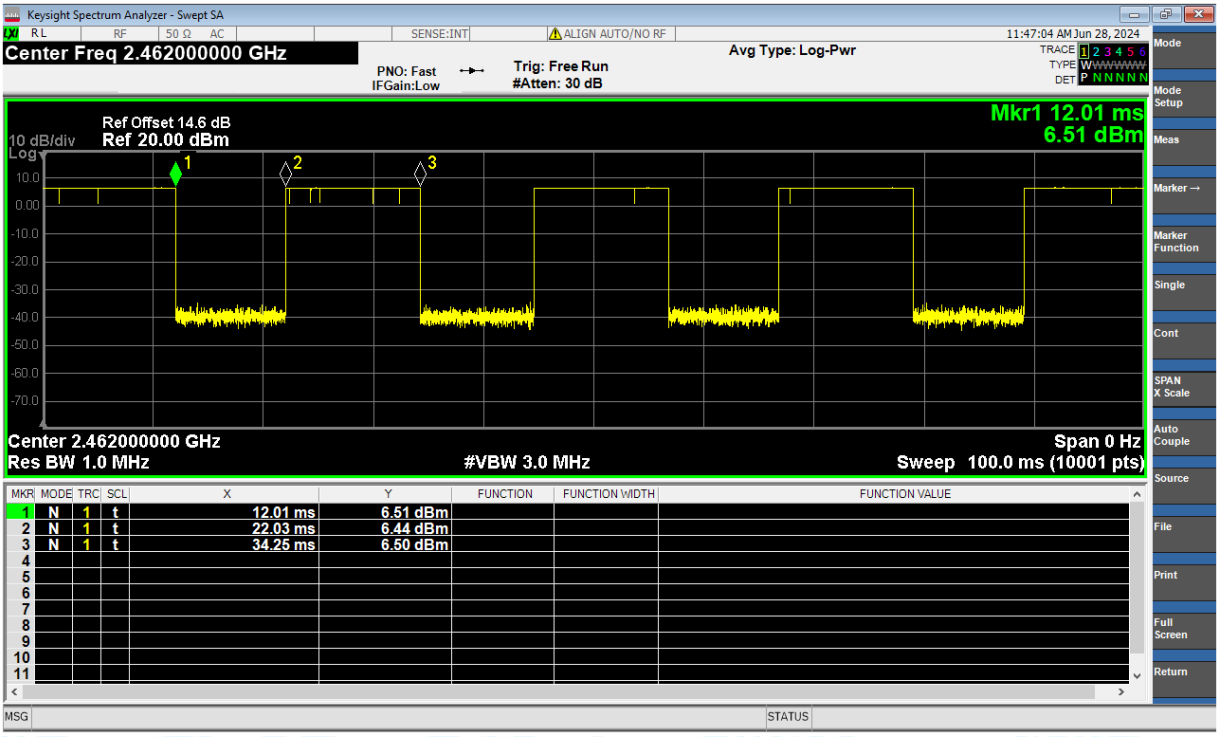
Duty Cycle NVNT b 2412MHz Ant1



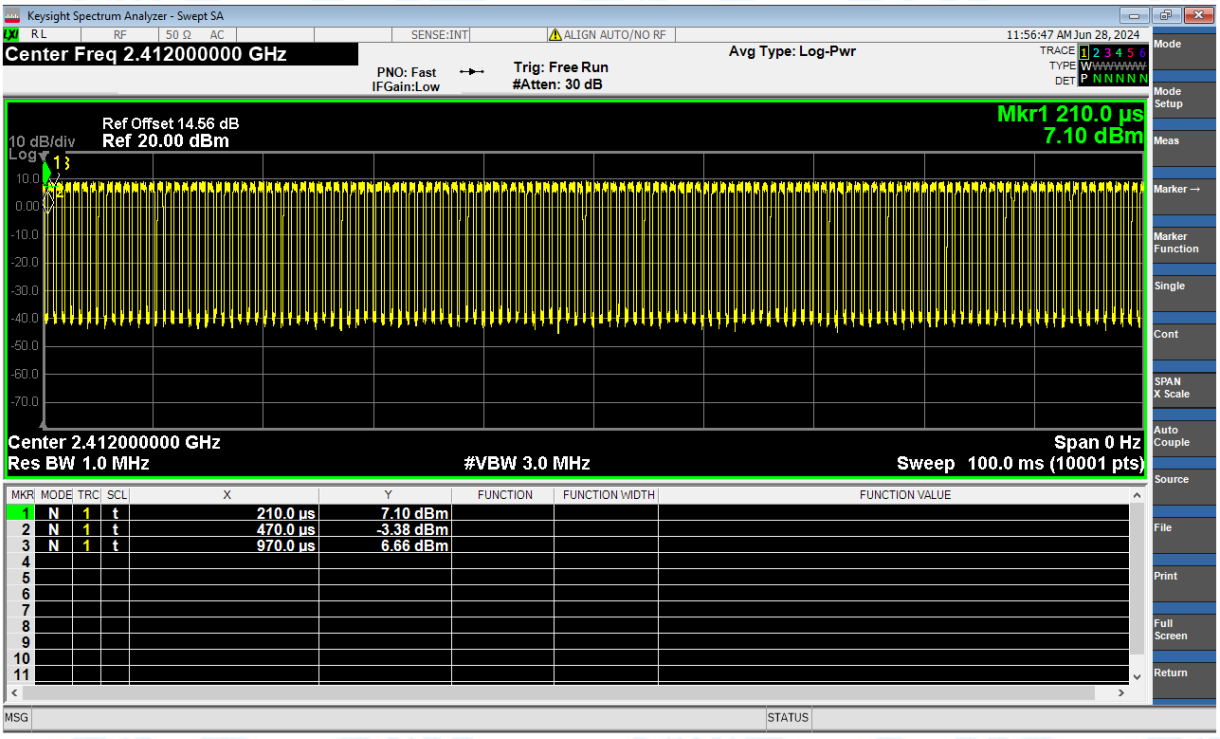

Duty Cycle NVNT b 2437MHz Ant1



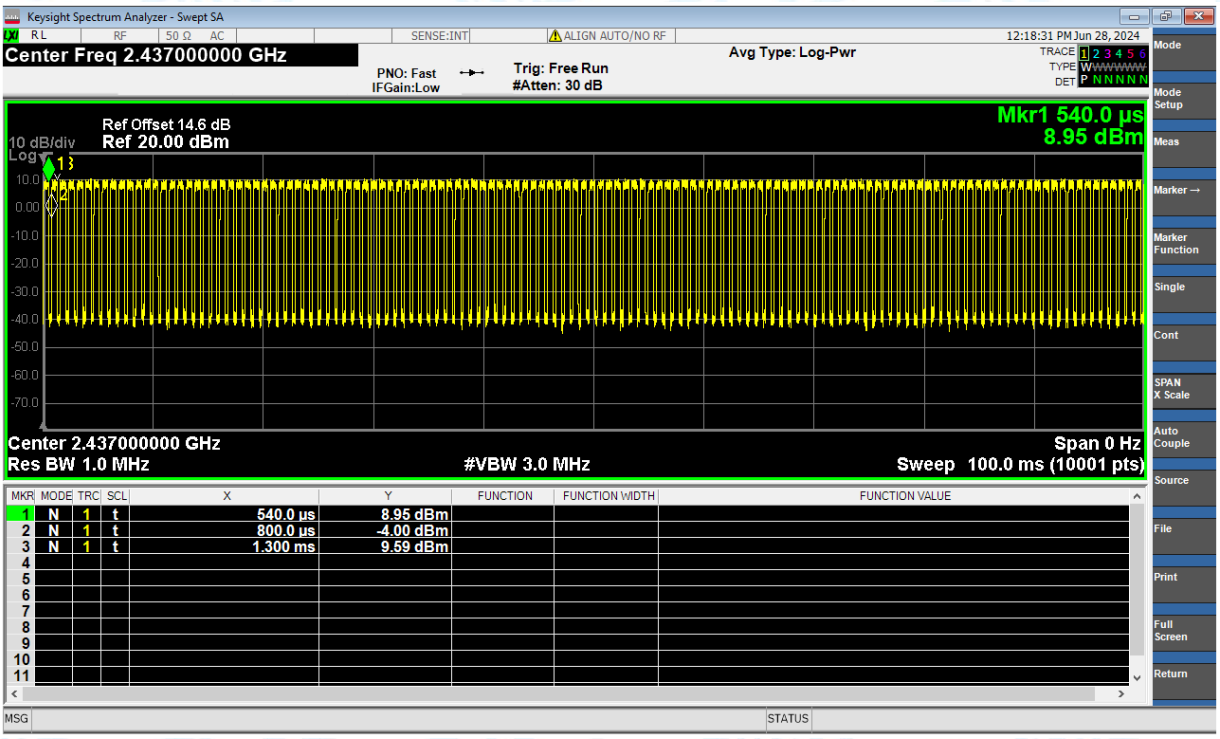
Duty Cycle NVNT b 2462MHz Ant1



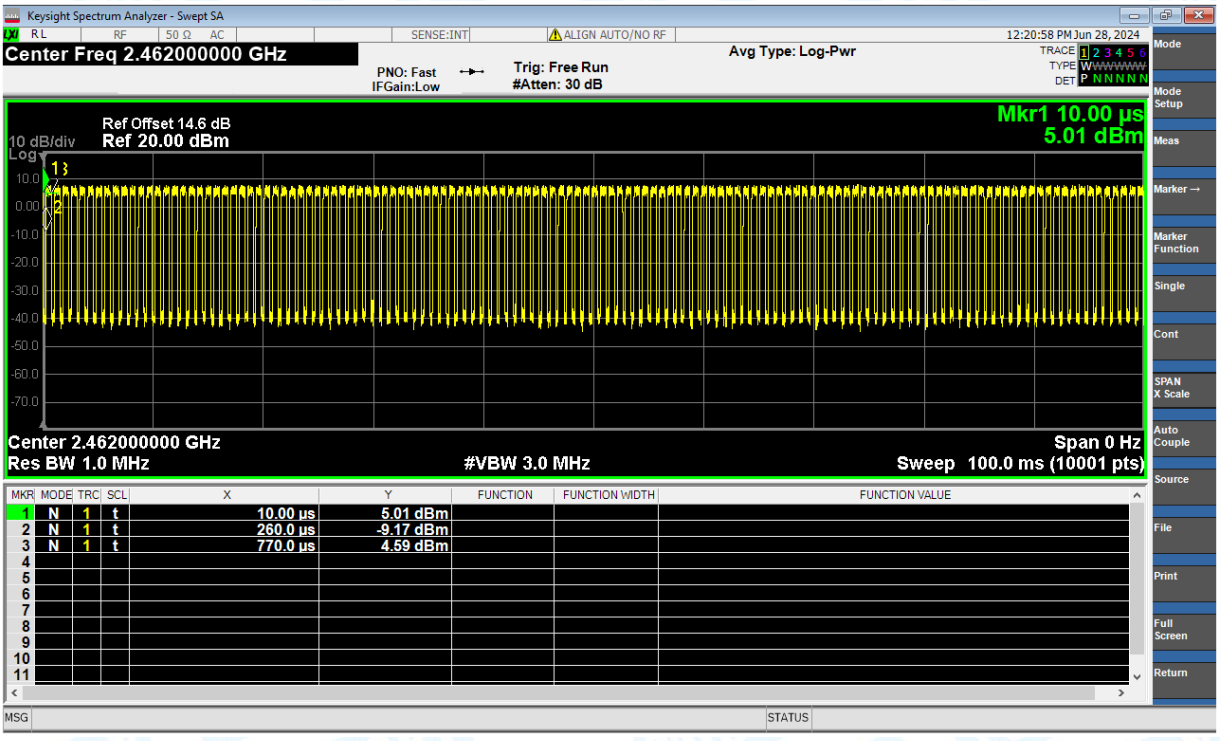

Duty Cycle NVNT g 2412MHz Ant1



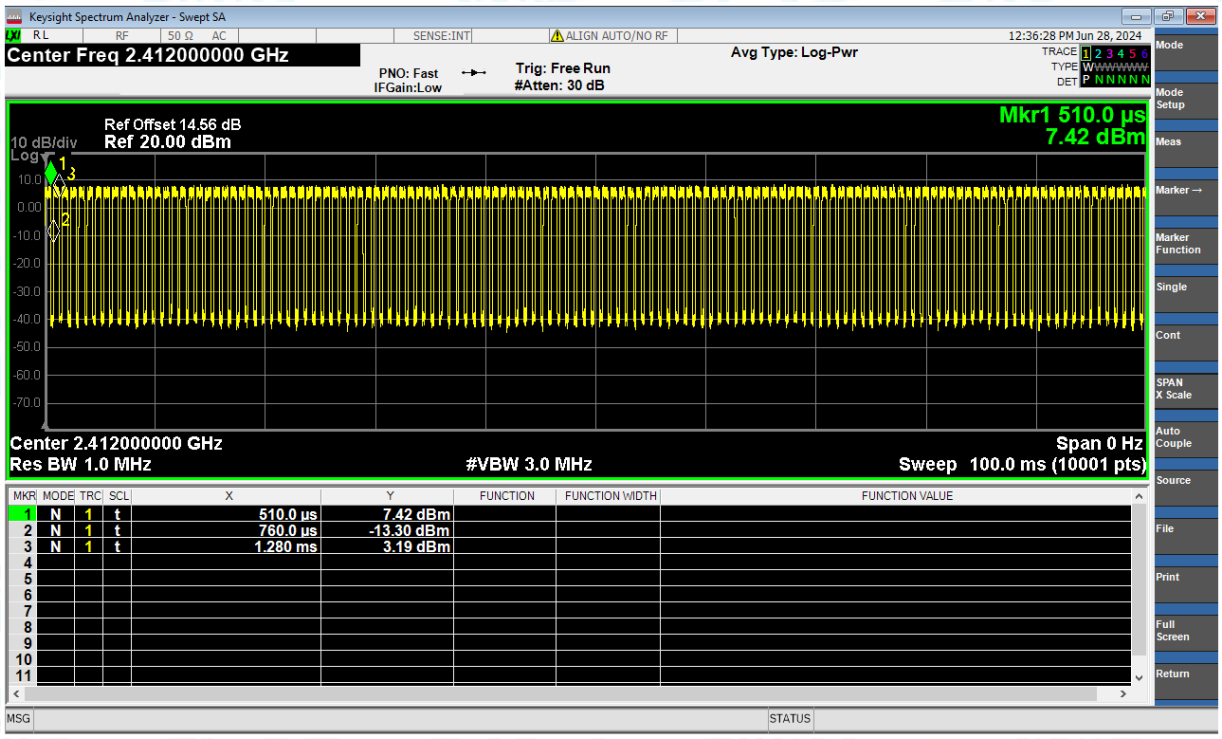
Duty Cycle NVNT g 2437MHz Ant1



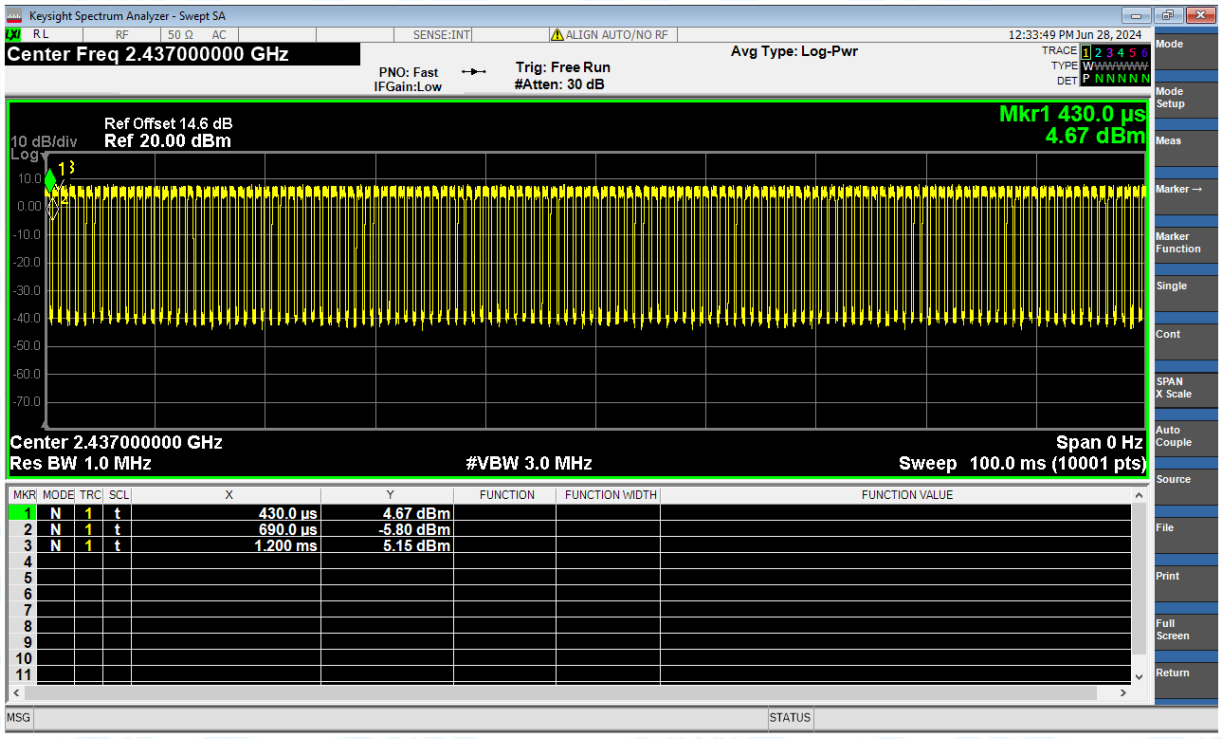

Duty Cycle NVNT g 2462MHz Ant1



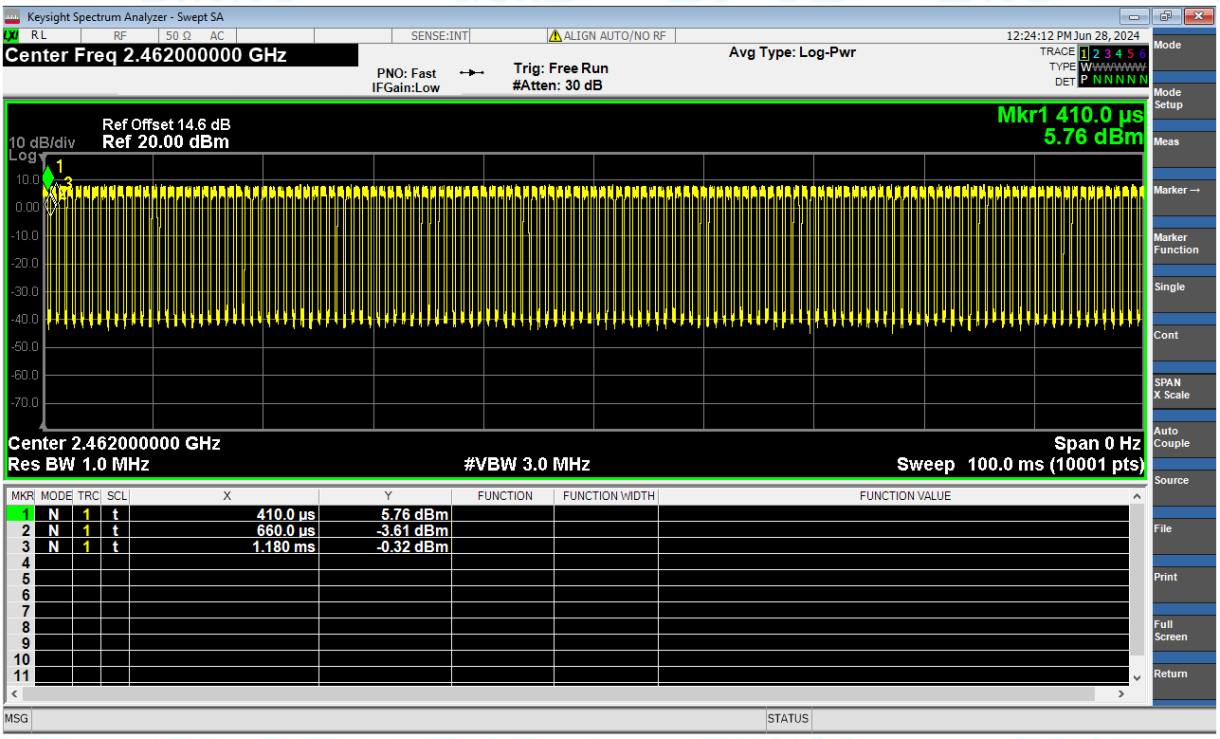
Duty Cycle NVNT n(HT20) 2412MHz Ant1



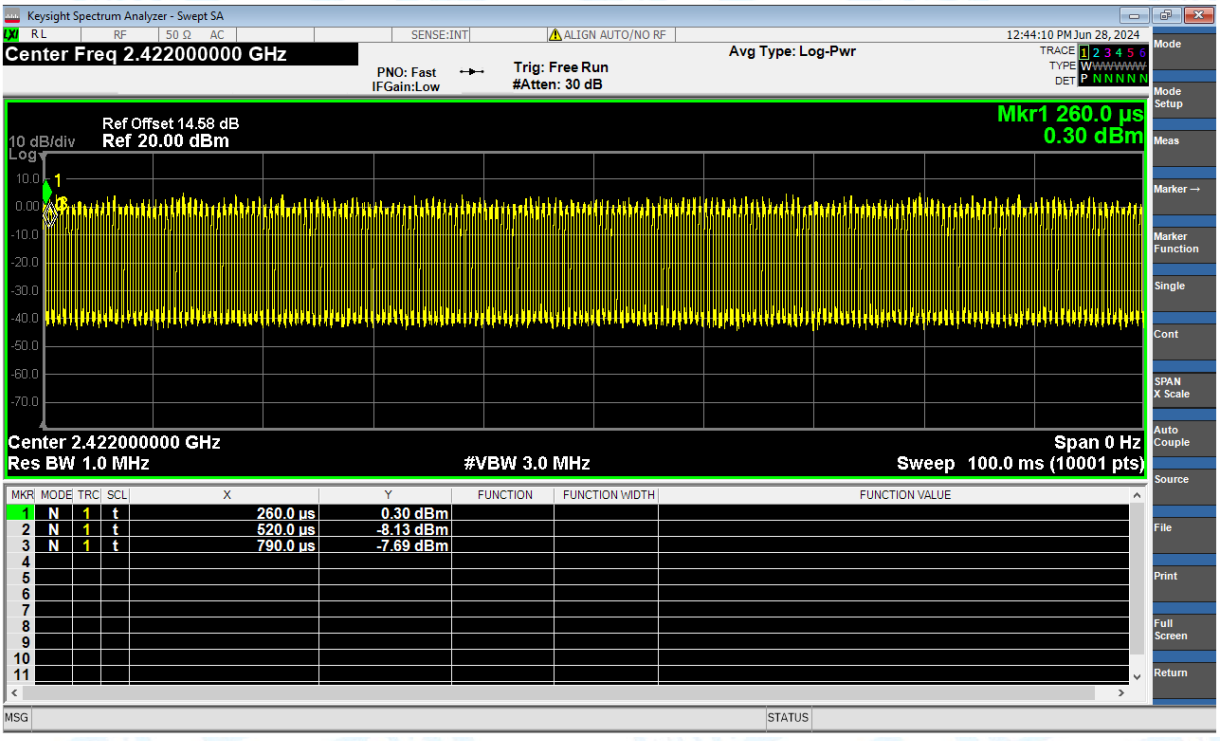

Duty Cycle NVNT n(HT20) 2437MHz Ant1



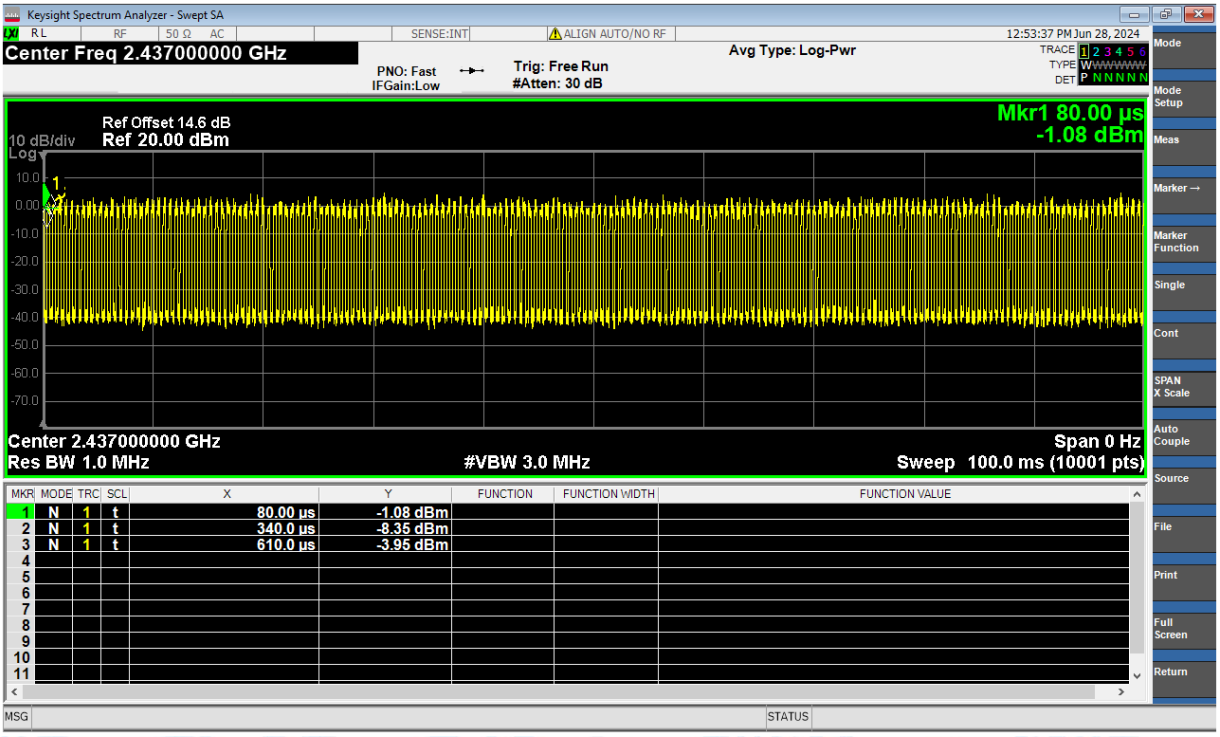
Duty Cycle NVNT n(HT20) 2462MHz Ant1



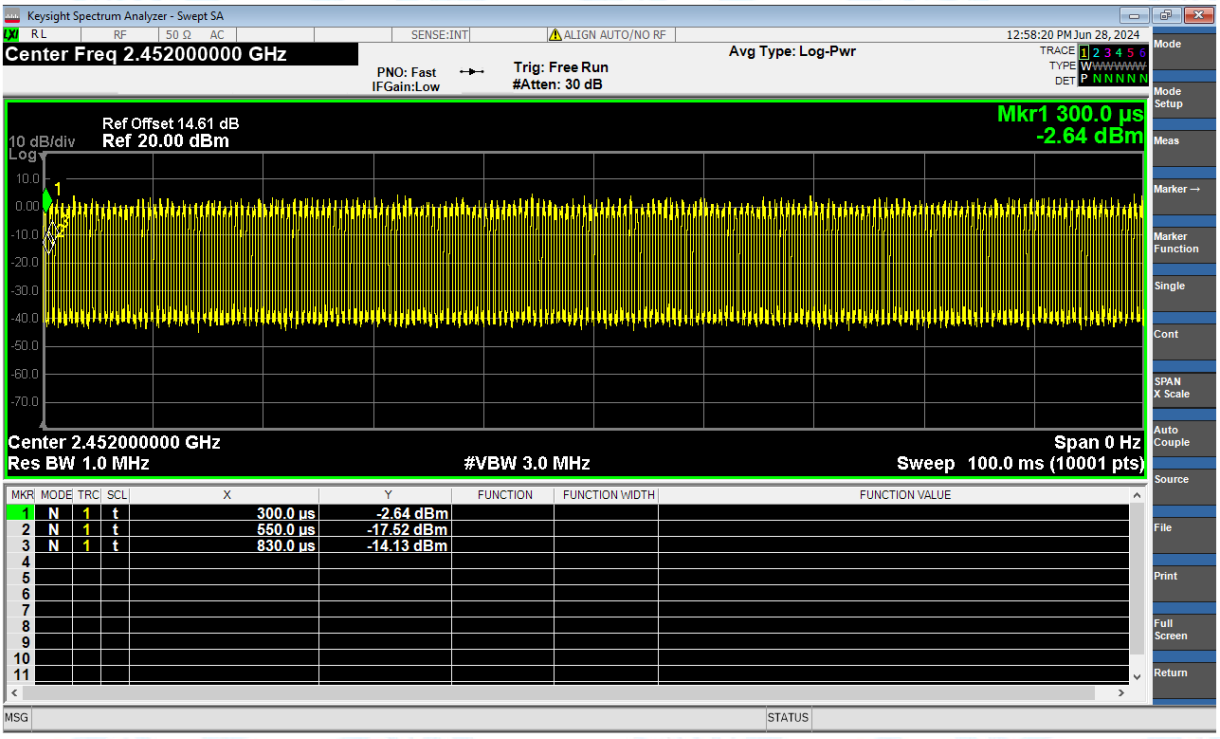

Duty Cycle NVNT n(HT40) 2422MHz Ant1



Duty Cycle NVNT n(HT40) 2437MHz Ant1




Duty Cycle NVNT n(HT40) 2452MHz Ant1



# 2.Maximum Conducted Output Power

| Condition | Mode | Frequency (MHz) | Antenna | Conducted Power (dBm) | Limit (dBm) | Verdict |
|---|---|---|---|---|---|---|
| NVNT | ax(VHT20) | 2412 | Ant1 | 14.19 | 30 | Pass |
| NVNT | ax(VHT20) | 2437 | Ant1 | 14.59 | 30 | Pass |
| NVNT | ax(VHT20) | 2462 | Ant1 | 15.05 | 30 | Pass |
| NVNT | ax(VHT40) | 2422 | Ant1 | 15.33 | 30 | Pass |
| NVNT | ax(VHT40) | 2437 | Ant1 | 15.55 | 30 | Pass |
| NVNT | ax(VHT40) | 2452 | Ant1 | 15.79 | 30 | Pass |
| NVNT | b | 2412 | Ant1 | 15.37 | 30 | Pass |
| NVNT | b | 2437 | Ant1 | 15.81 | 30 | Pass |
| NVNT | b | 2462 | Ant1 | 15.1 | 30 | Pass |
| NVNT | g | 2412 | Ant1 | 16.87 | 30 | Pass |
| NVNT | g | 2437 | Ant1 | 17.44 | 30 | Pass |
| NVNT | g | 2462 | Ant1 | 14.72 | 30 | Pass |
| NVNT | n(HT20) | 2412 | Ant1 | 14.42 | 30 | Pass |
| NVNT | n(HT20) | 2437 | Ant1 | 14.61 | 30 | Pass |
| NVNT | n(HT20) | 2462 | Ant1 | 14.94 | 30 | Pass |
| NVNT | n(HT40) | 2422 | Ant1 | 15.14 | 30 | Pass |
| NVNT | n(HT40) | 2437 | Ant1 | 15.21 | 30 | Pass |
| NVNT | n(HT40) | 2452 | Ant1 | 15.17 | 30 | Pass |

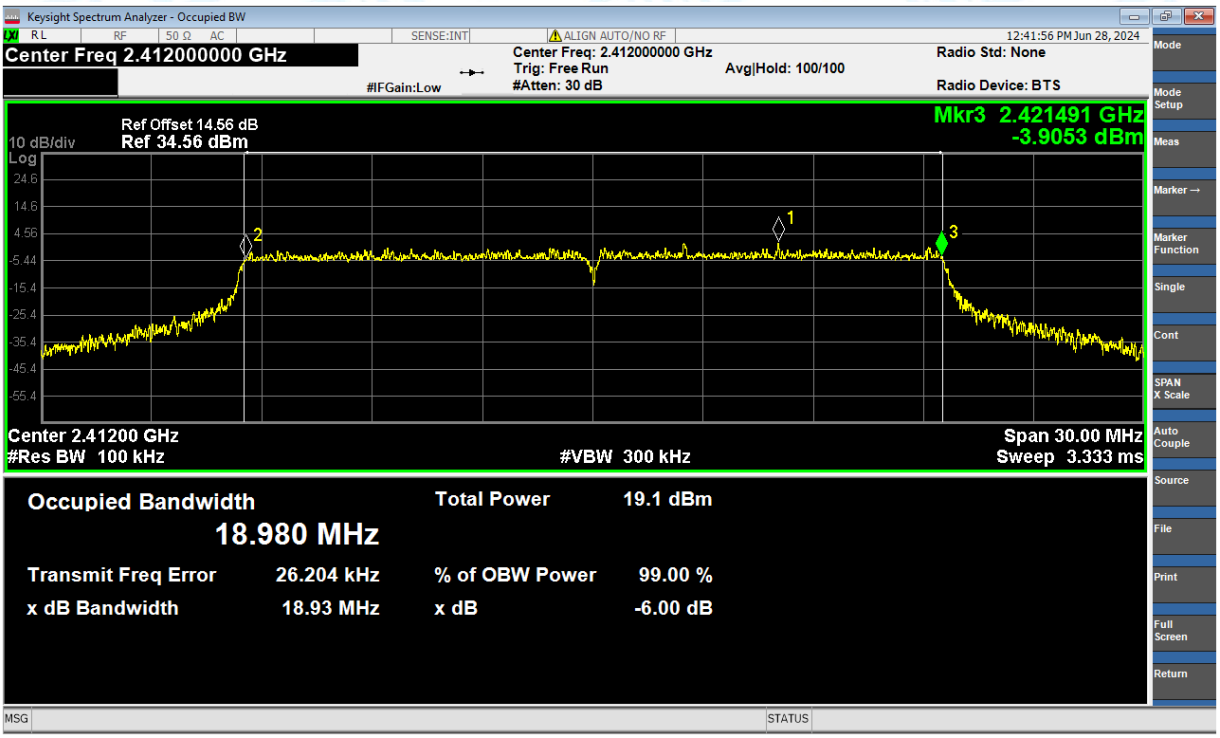
Note: The duty factor has been compensated into the result.

# 3.-6dB Bandwidth

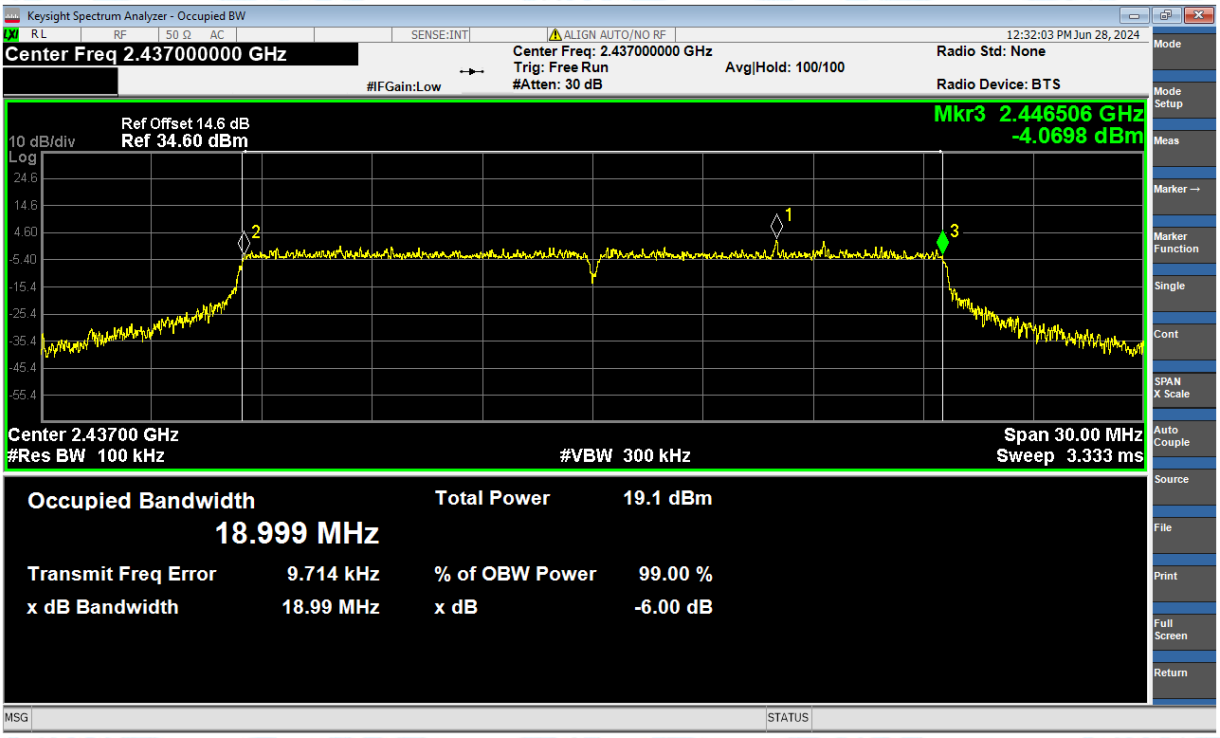
| Condition | Mode | Frequency (MHz) | Antenna | -6 dB Bandwidth (MHz) | Limit -6 dB Bandwidth (MHz) | Verdict |
|---|---|---|---|---|---|---|
| NVNT | ax(VHT20) | 2412 | Ant1 | 18.93 | 0.5 | Pass |
| NVNT | ax(VHT20) | 2437 | Ant1 | 18.99 | 0.5 | Pass |
| NVNT | ax(VHT20) | 2462 | Ant1 | 18.99 | 0.5 | Pass |
| NVNT | ax(VHT40) | 2422 | Ant1 | 37.75 | 0.5 | Pass |
| NVNT | ax(VHT40) | 2437 | Ant1 | 37.73 | 0.5 | Pass |
| NVNT | ax(VHT40) | 2452 | Ant1 | 37.86 | 0.5 | Pass |
| NVNT | b | 2412 | Ant1 | 9.06 | 0.5 | Pass |
| NVNT | b | 2437 | Ant1 | 10 | 0.5 | Pass |
| NVNT | b | 2462 | Ant1 | 9.08 | 0.5 | Pass |
| NVNT | g | 2412 | Ant1 | 16.35 | 0.5 | Pass |
| NVNT | g | 2437 | Ant1 | 16.35 | 0.5 | Pass |
| NVNT | g | 2462 | Ant1 | 16.34 | 0.5 | Pass |
| NVNT | n(HT20) | 2412 | Ant1 | 17.58 | 0.5 | Pass |
| NVNT | n(HT20) | 2437 | Ant1 | 17.59 | 0.5 | Pass |
| NVNT | n(HT20) | 2462 | Ant1 | 17.57 | 0.5 | Pass |
| NVNT | n(HT40) | 2422 | Ant1 | 36.12 | 0.5 | Pass |
| NVNT | n(HT40) | 2437 | Ant1 | 36.3 | 0.5 | Pass |
| NVNT | n(HT40) | 2452 | Ant1 | 36.29 | 0.5 | Pass |

Test Graphs

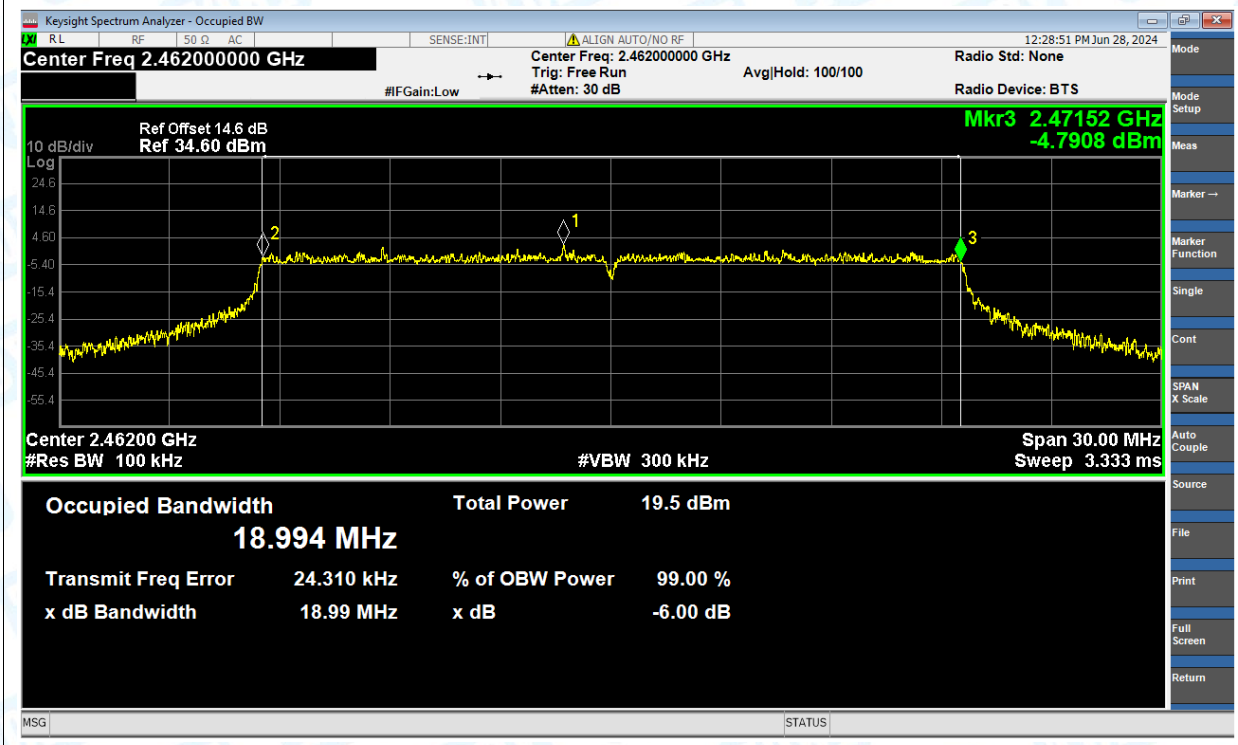
-6dB Bandwidth NVNT ax(VHT20) 2412MHz Ant1



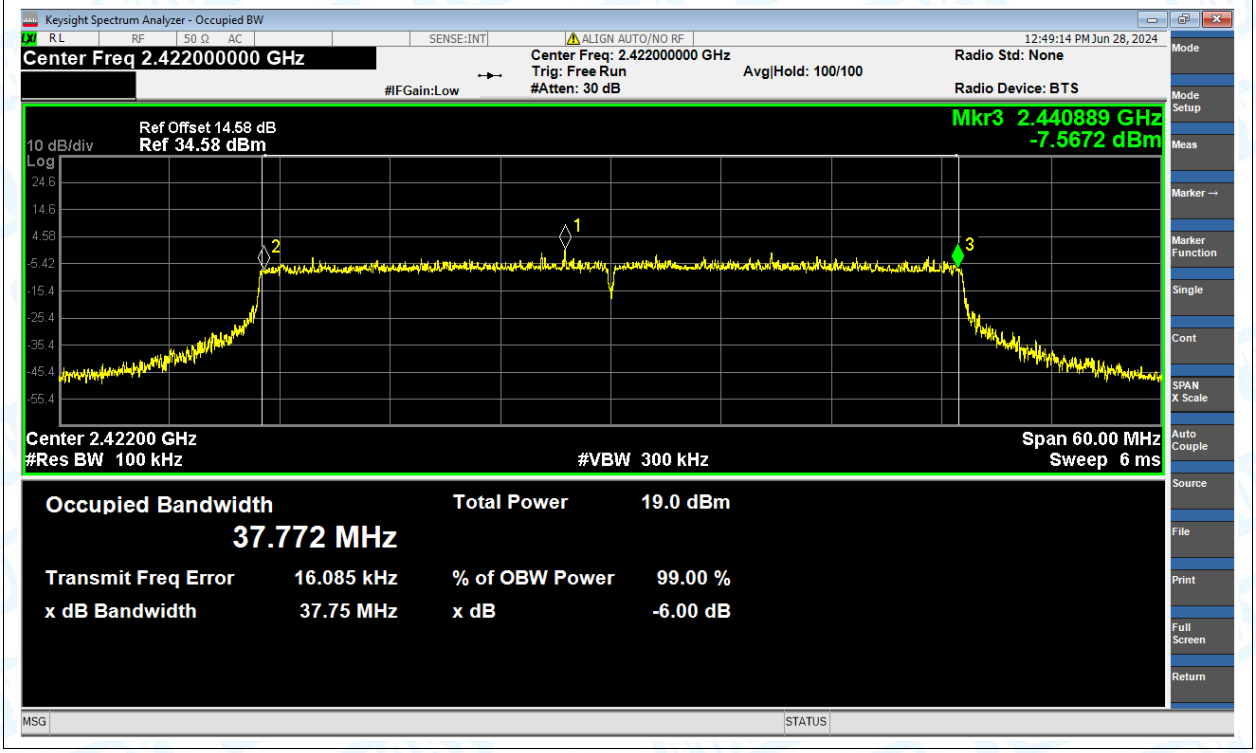

-6dB Bandwidth NVNT ax(VHT20) 2437MHz Ant1



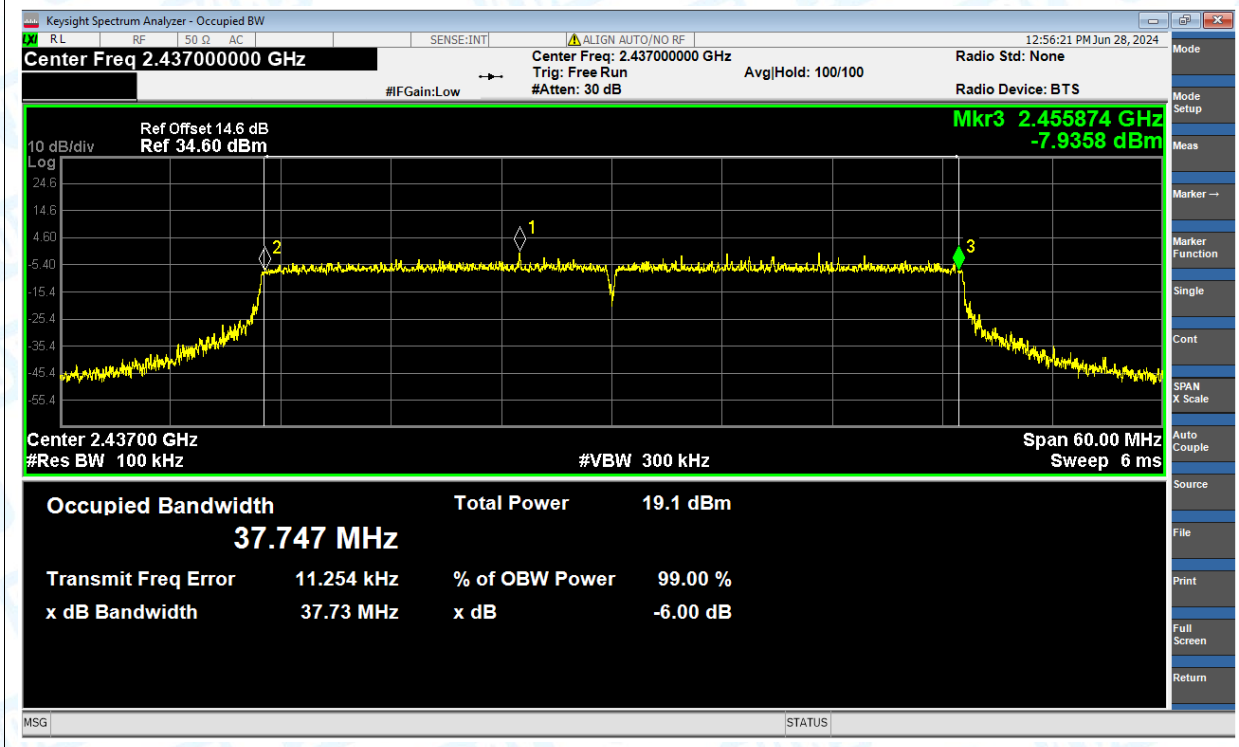
-6dB Bandwidth NVNT ax(VHT20) 2462MHz Ant1



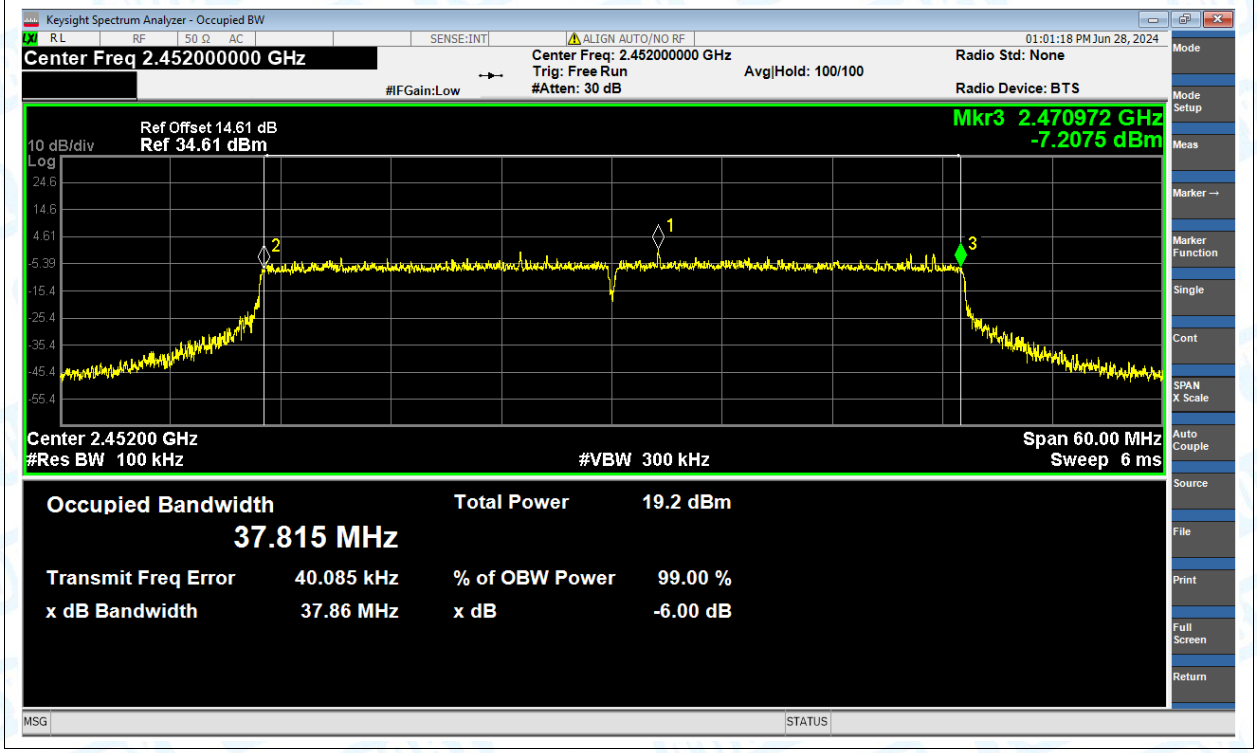

-6dB Bandwidth NVNT ax(VHT40) 2422MHz Ant1



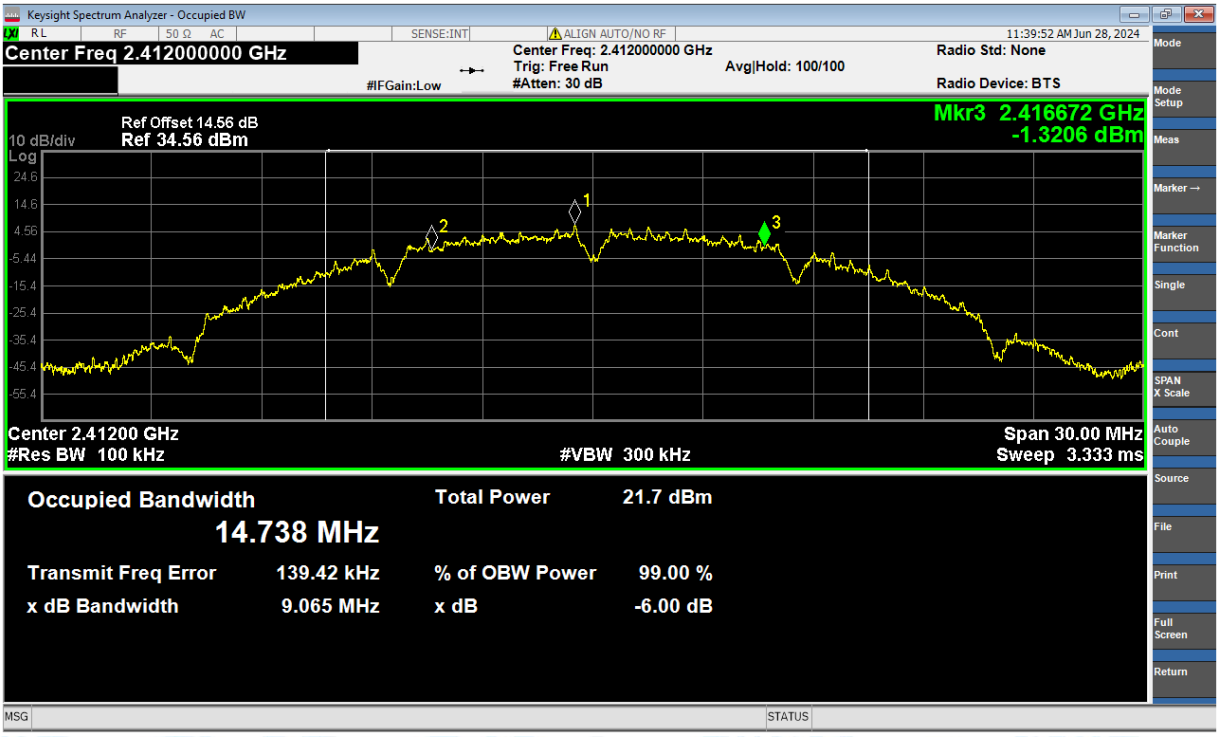
-6dB Bandwidth NVNT ax(VHT40) 2437MHz Ant1



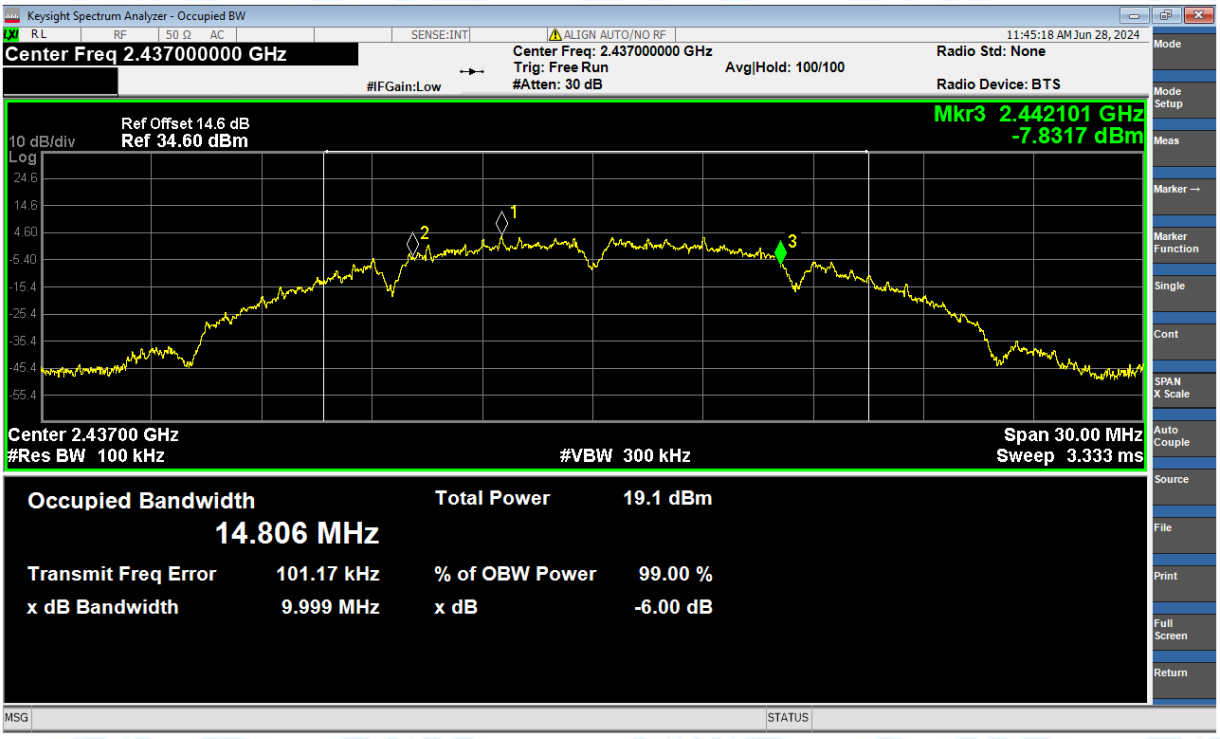

-6dB Bandwidth NVNT ax(VHT40) 2452MHz Ant1



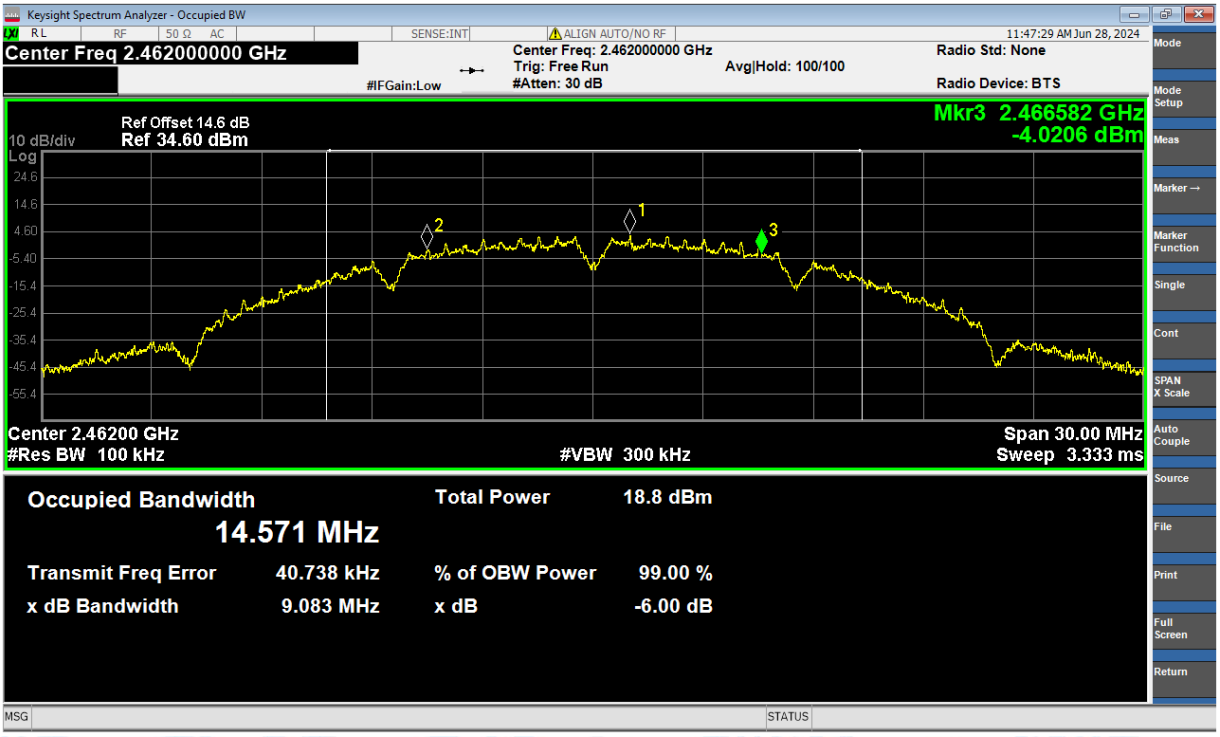
-6dB Bandwidth NVNT b 2412MHz Ant1



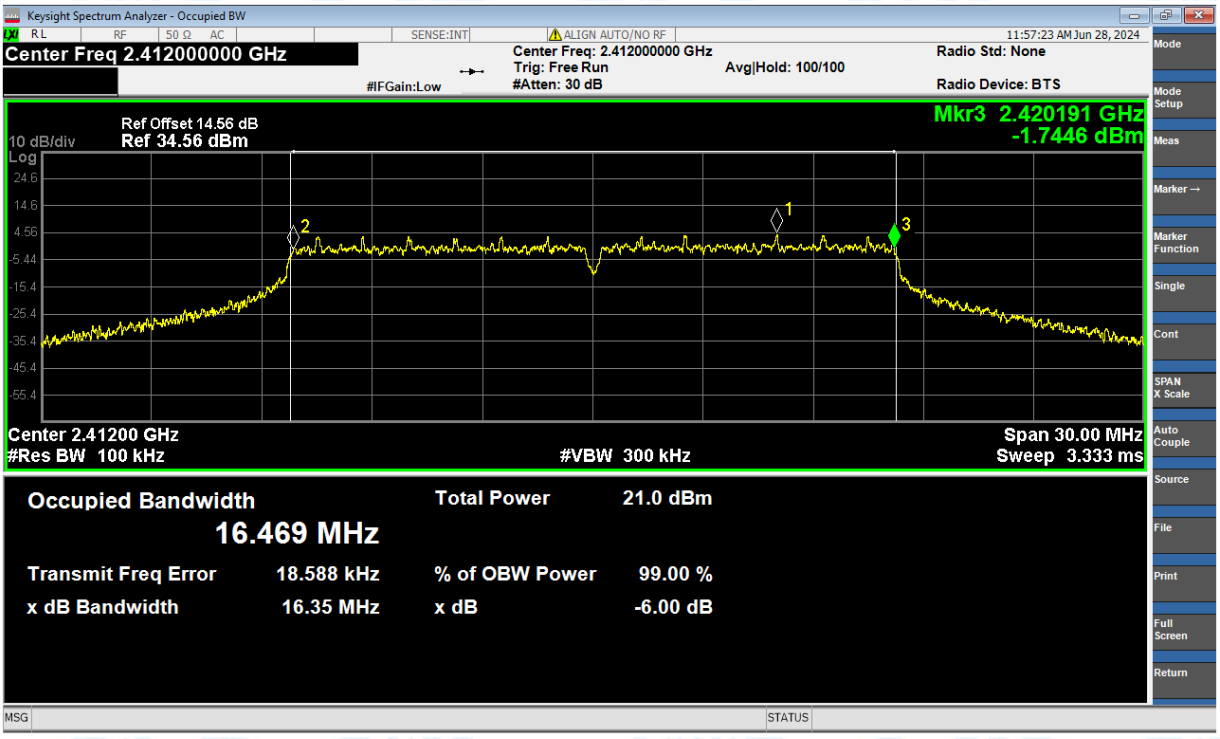

-6dB Bandwidth NVNT b 2437MHz Ant1



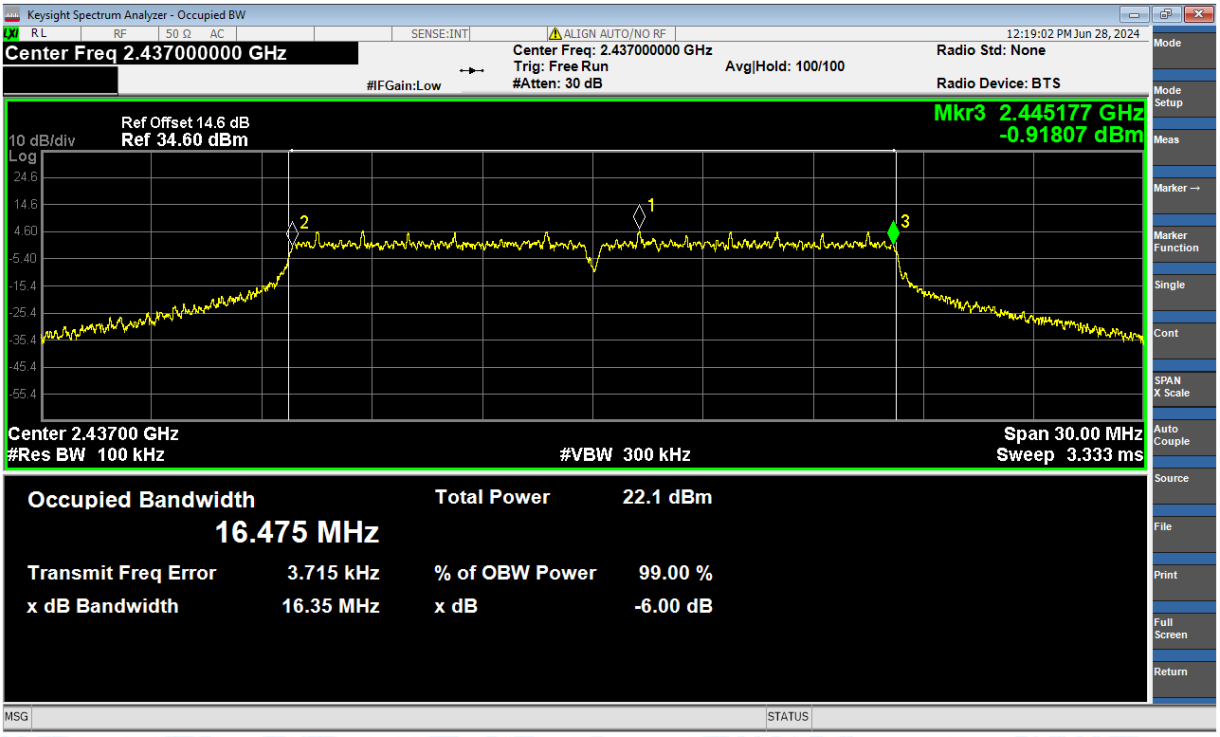
-6dB Bandwidth NVNT b 2462MHz Ant1



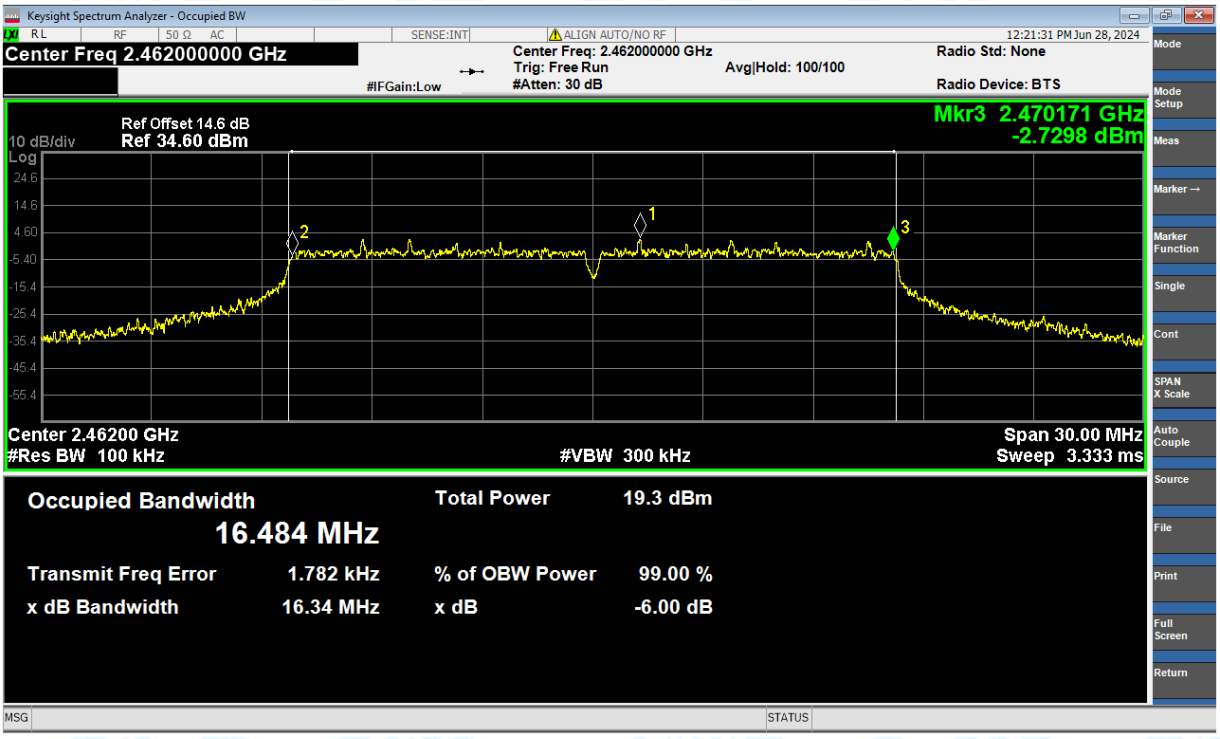

-6dB Bandwidth NVNT g 2412MHz Ant1



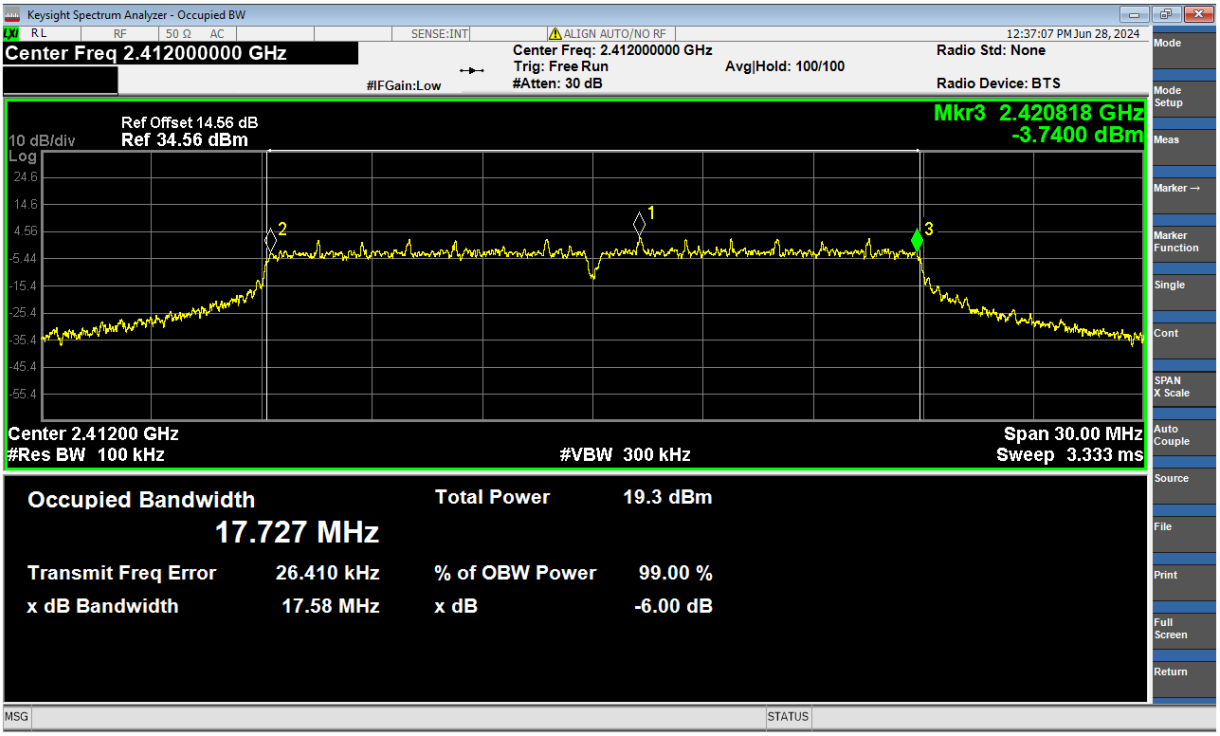
-6dB Bandwidth NVNT g 2437MHz Ant1



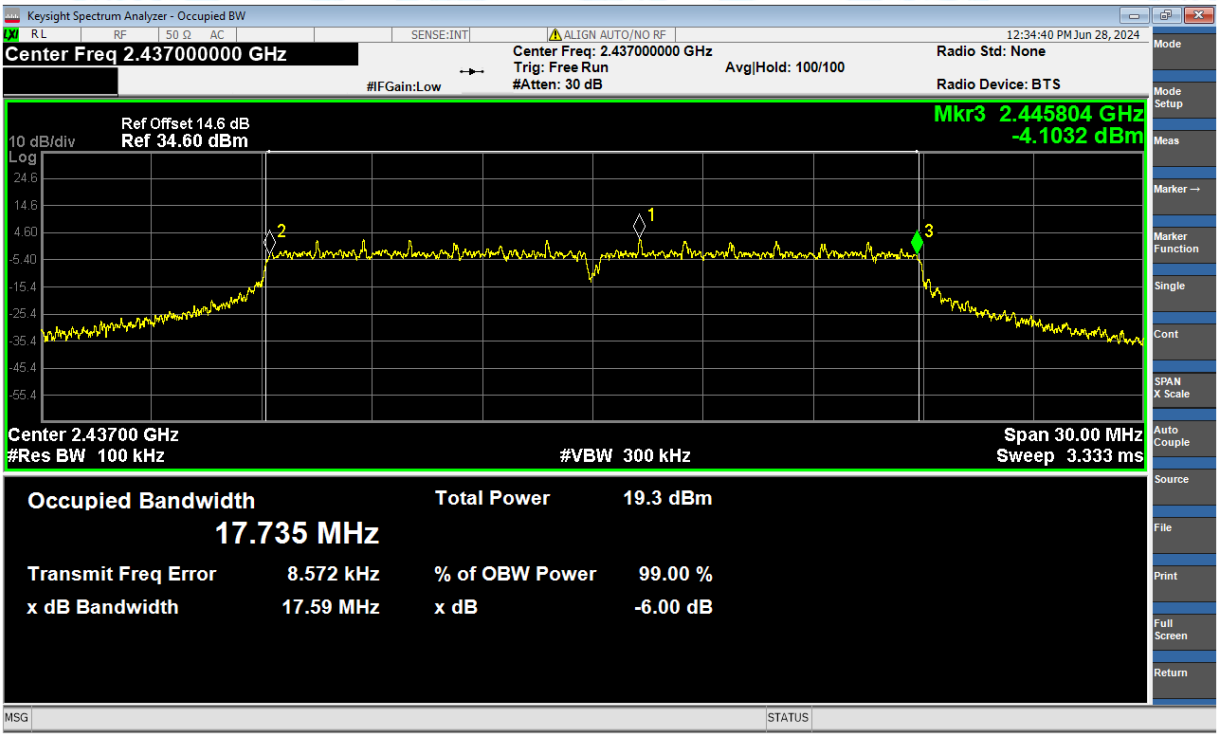

-6dB Bandwidth NVNT g 2462MHz Ant1



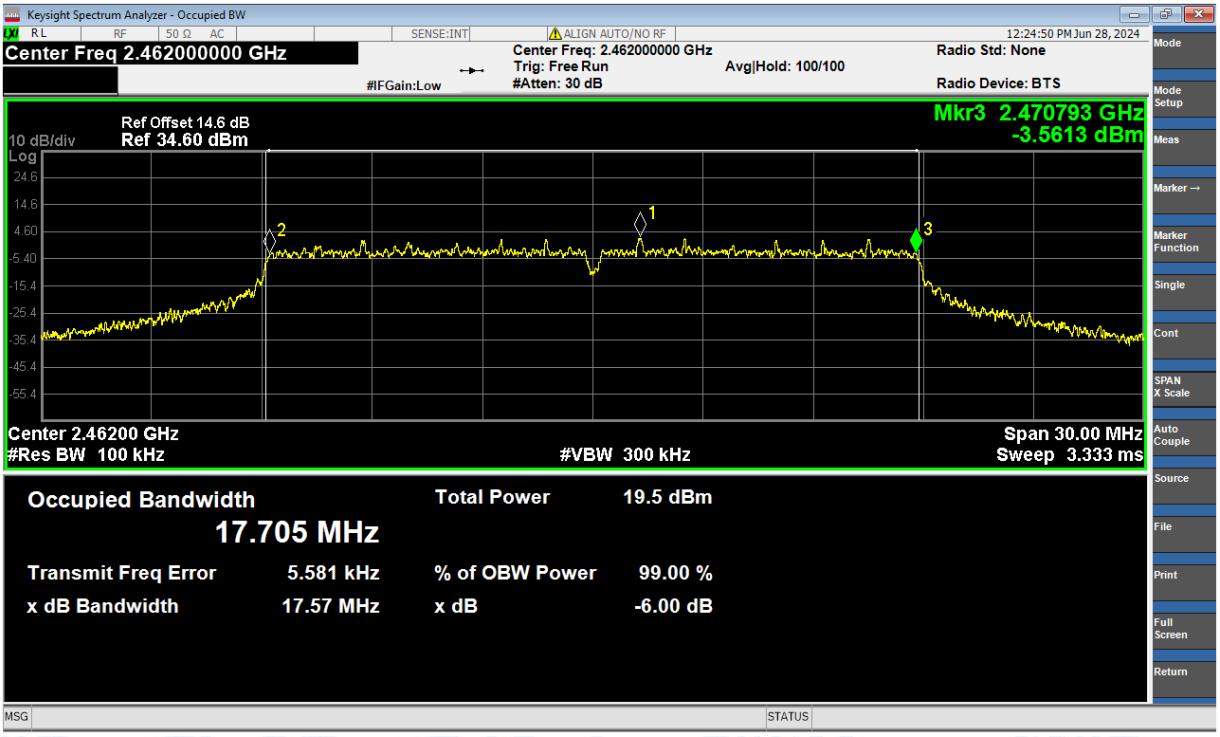
-6dB Bandwidth NVNT n(HT20) 2412MHz Ant1



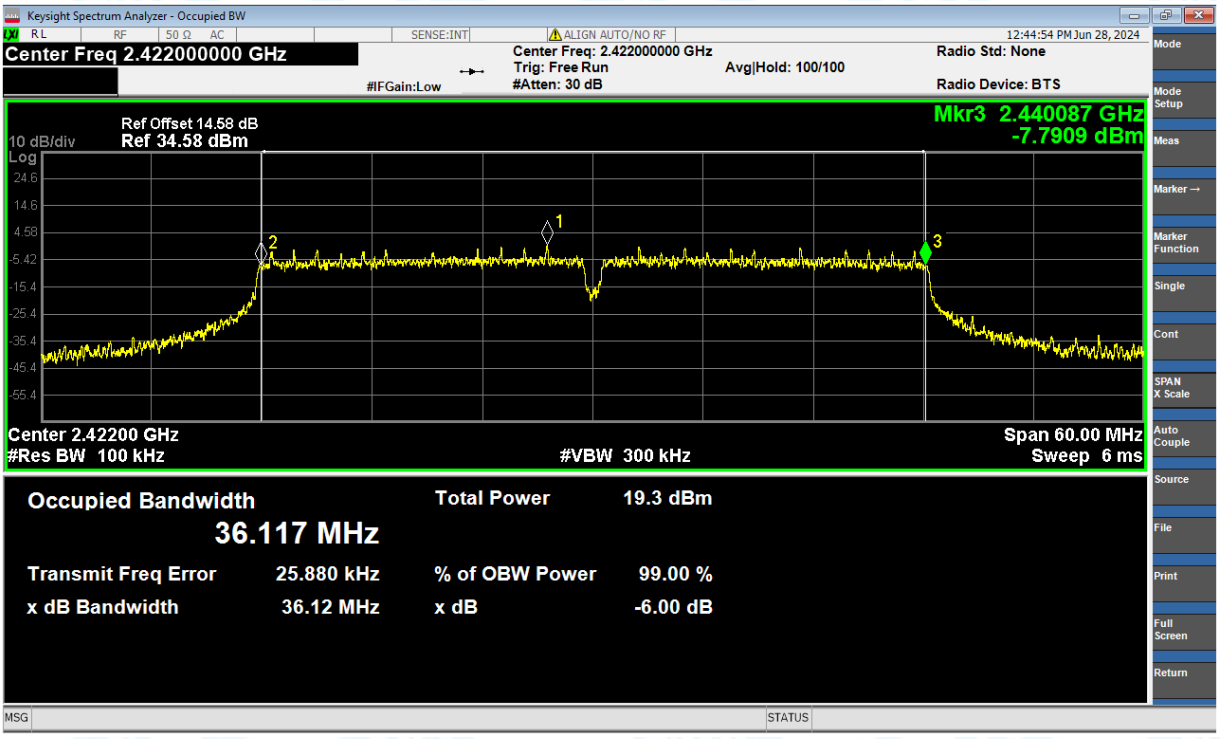

-6dB Bandwidth NVNT n(HT20) 2437MHz Ant1



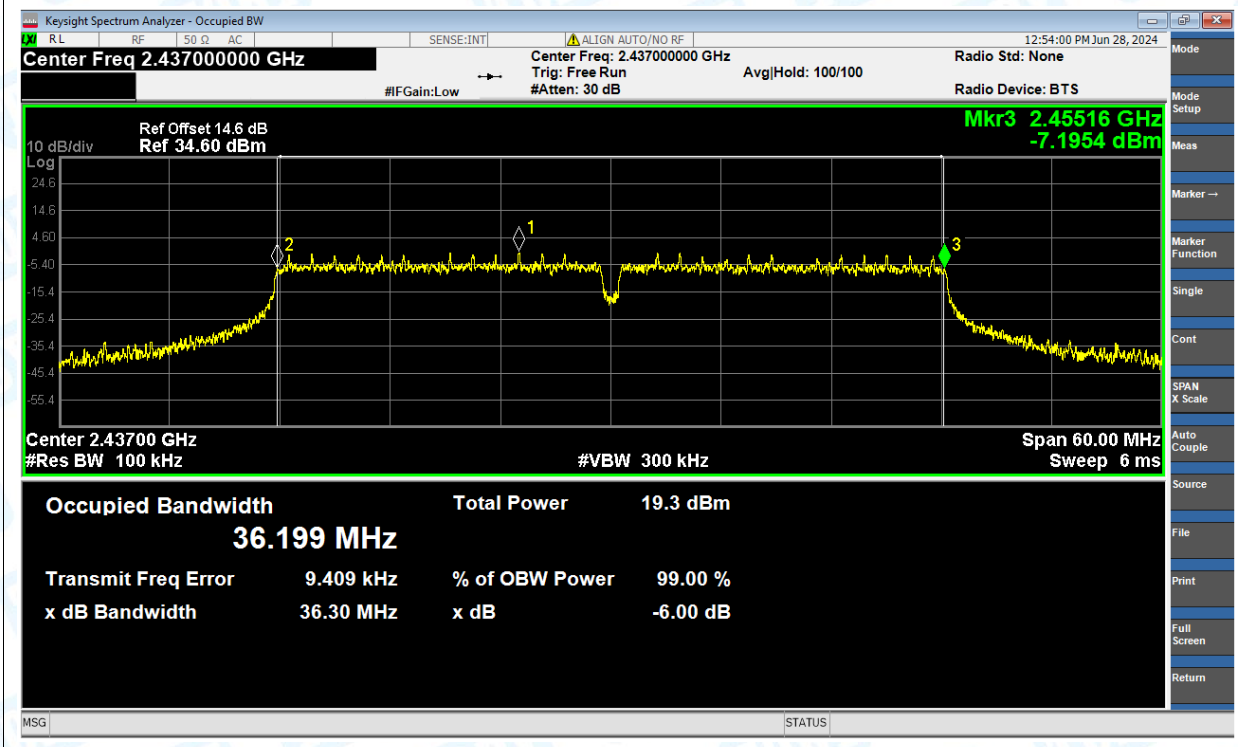
-6dB Bandwidth NVNT n(HT20) 2462MHz Ant1



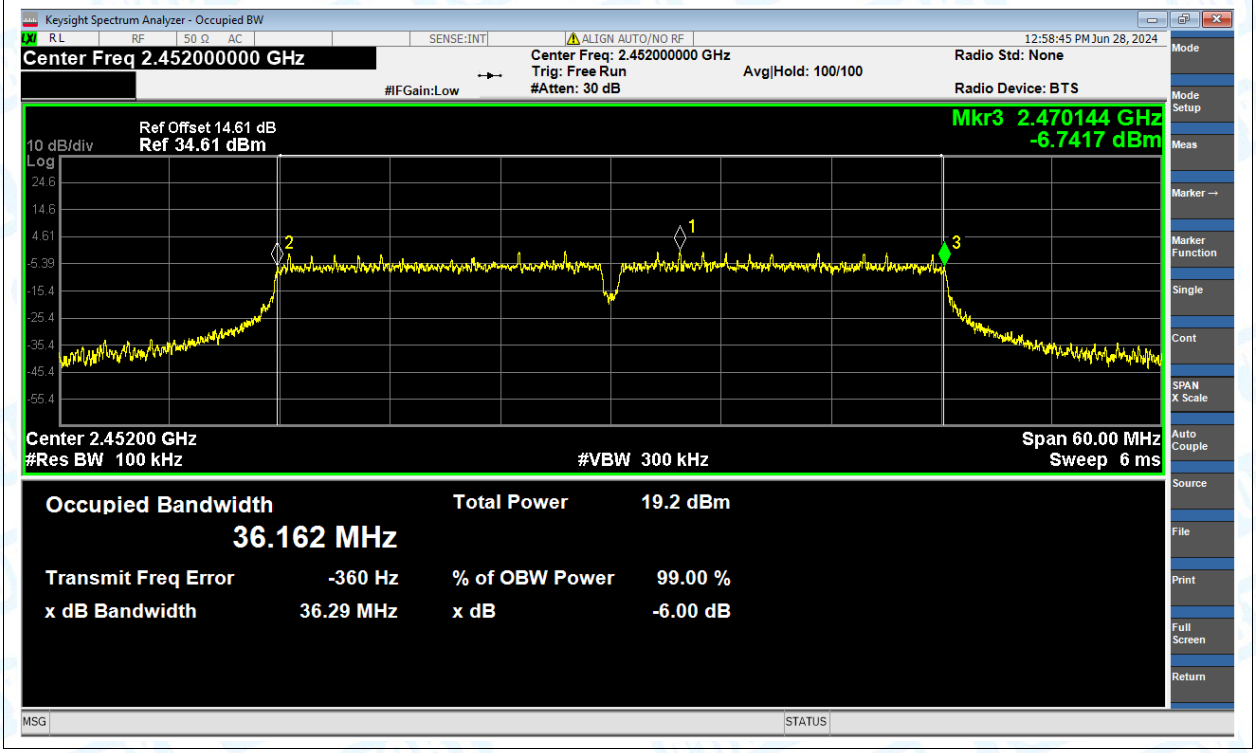

-6dB Bandwidth NVNT n(HT40) 2422MHz Ant1



-6dB Bandwidth NVNT n(HT40) 2437MHz Ant1




-6dB Bandwidth NVNT n(HT40) 2452MHz Ant1

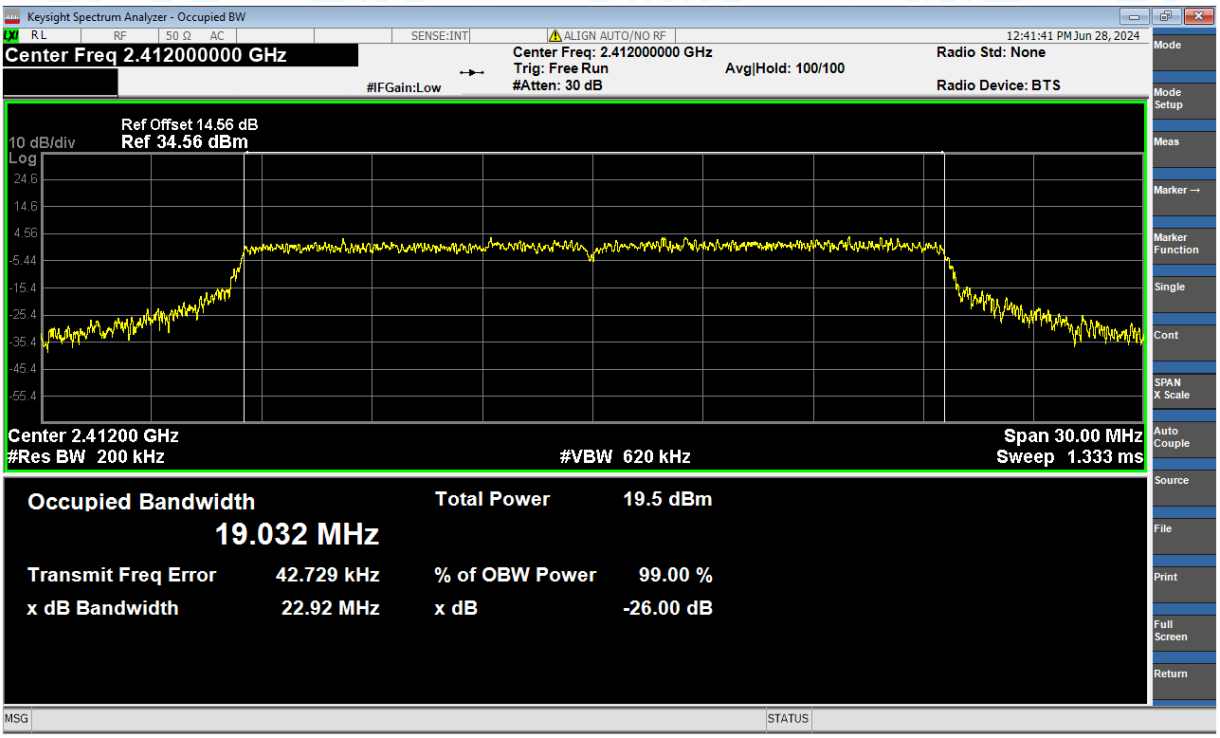


# 4.Occupied Channel Bandwidth

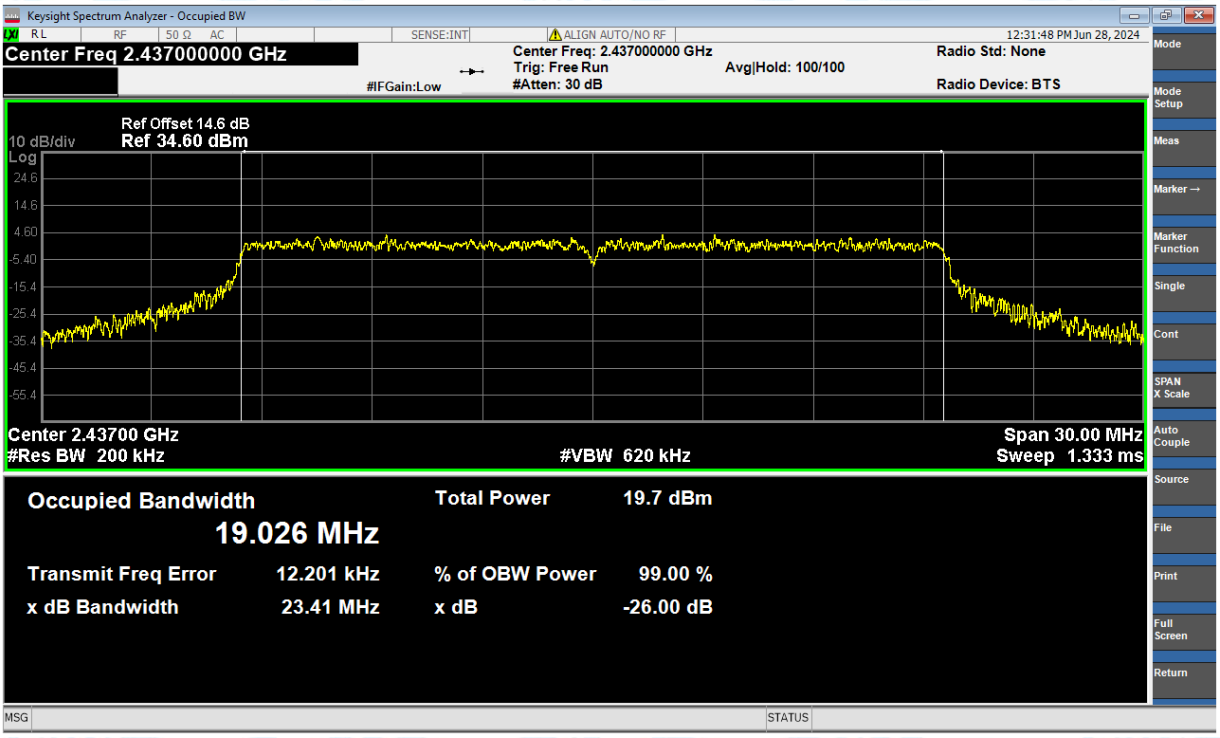
| Condition | Mode | Frequency (MHz) | Antenna | 99% OBW (MHz) |
|---|---|---|---|---|
| NVNT | ax(VHT20) | 2412 | Ant1 | 19.032 |
| NVNT | ax(VHT20) | 2437 | Ant1 | 19.026 |
| NVNT | ax(VHT20) | 2462 | Ant1 | 19.009 |
| NVNT | ax(VHT40) | 2422 | Ant1 | 37.806 |
| NVNT | ax(VHT40) | 2437 | Ant1 | 37.876 |
| NVNT | ax(VHT40) | 2452 | Ant1 | 37.919 |
| NVNT | b | 2412 | Ant1 | 14.779 |
| NVNT | b | 2437 | Ant1 | 14.818 |
| NVNT | b | 2462 | Ant1 | 14.733 |
| NVNT | g | 2412 | Ant1 | 16.604 |
| NVNT | g | 2437 | Ant1 | 16.619 |
| NVNT | g | 2462 | Ant1 | 16.63 |
| NVNT | n(HT20) | 2412 | Ant1 | 17.871 |
| NVNT | n(HT20) | 2437 | Ant1 | 17.908 |
| NVNT | n(HT20) | 2462 | Ant1 | 17.881 |
| NVNT | n(HT40) | 2422 | Ant1 | 36.297 |
| NVNT | n(HT40) | 2437 | Ant1 | 36.396 |
| NVNT | n(HT40) | 2452 | Ant1 | 36.405 |

Test Graphs

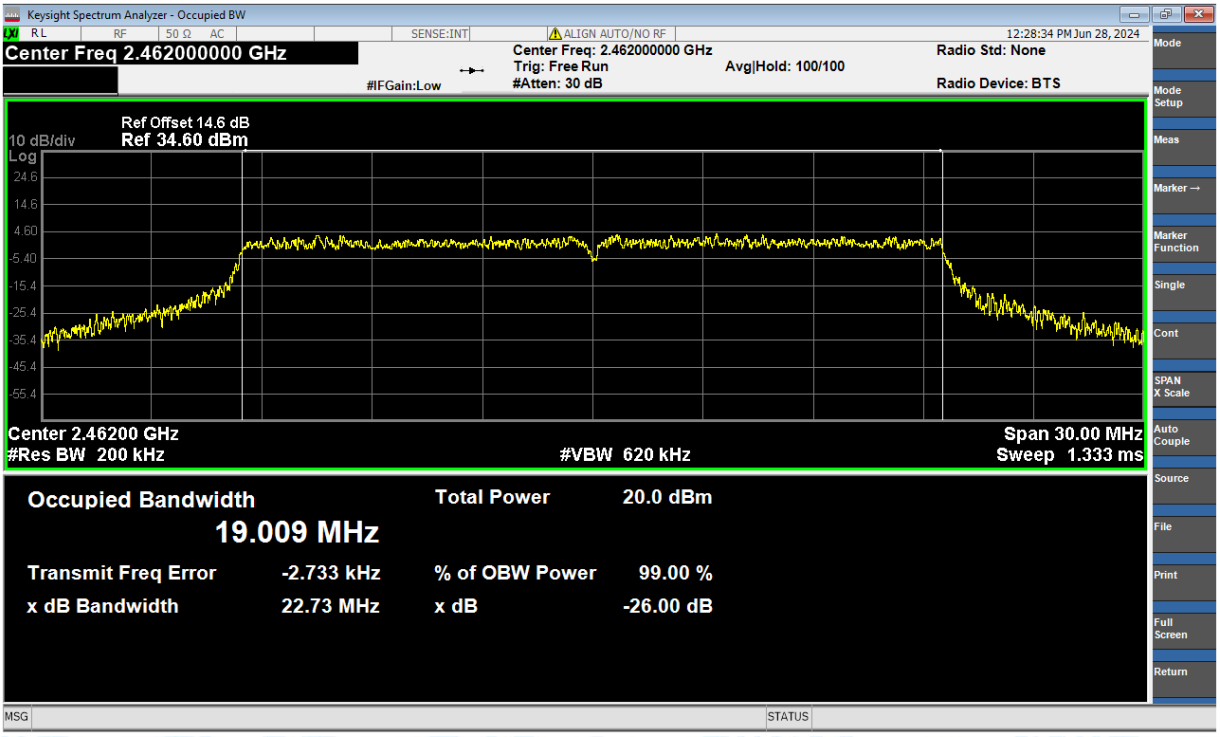
OBW NVNT ax(VHT20) 2412MHz Ant1



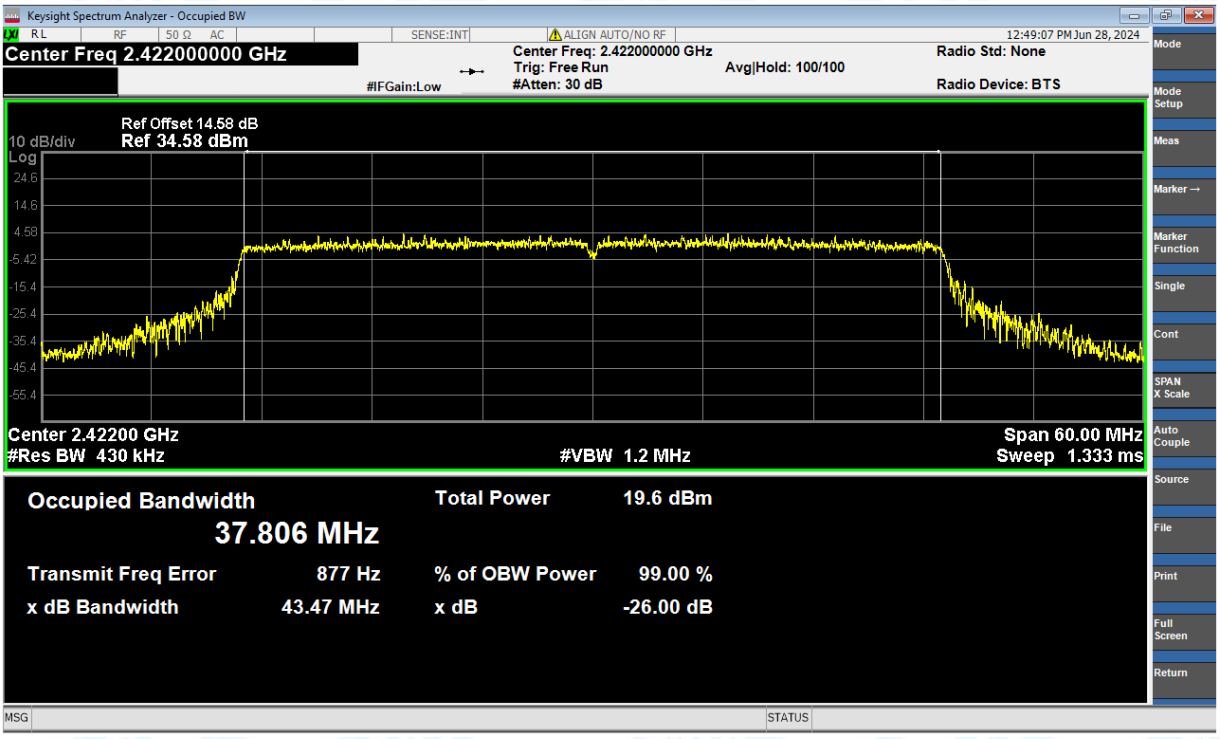

OBW NVNT ax(VHT20) 2437MHz Ant1



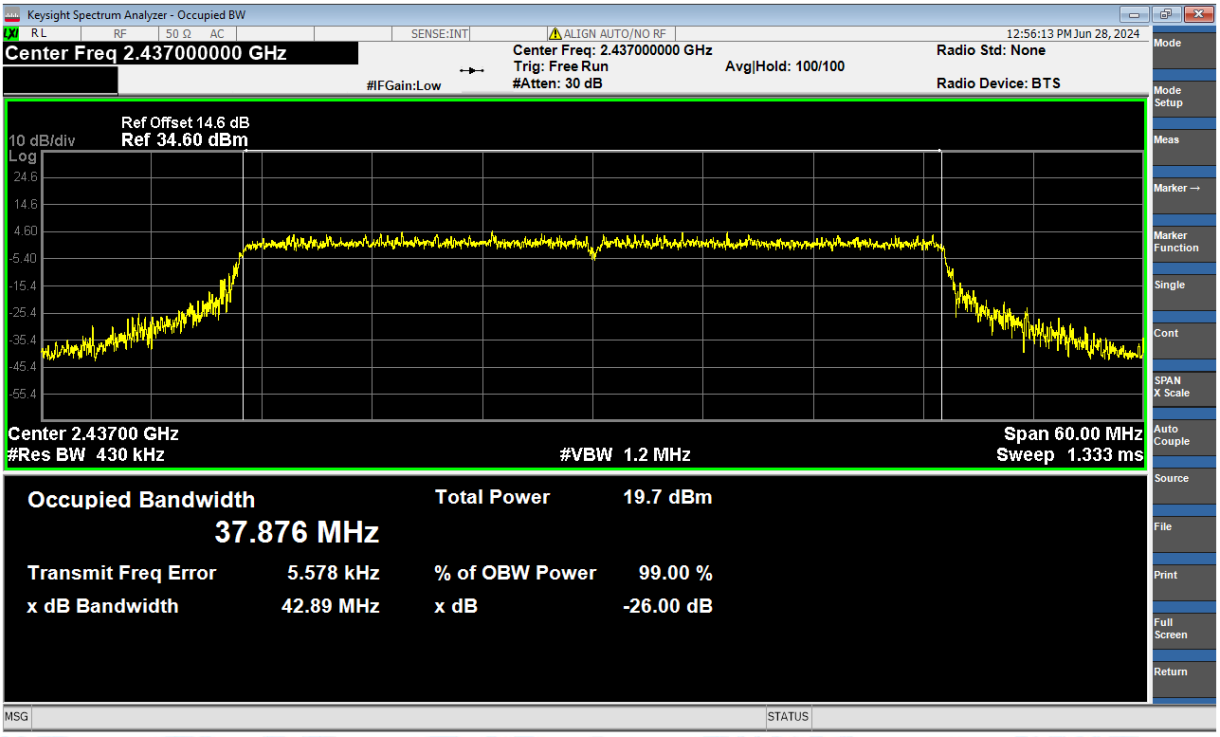
OBW NVNT ax(VHT20) 2462MHz Ant1



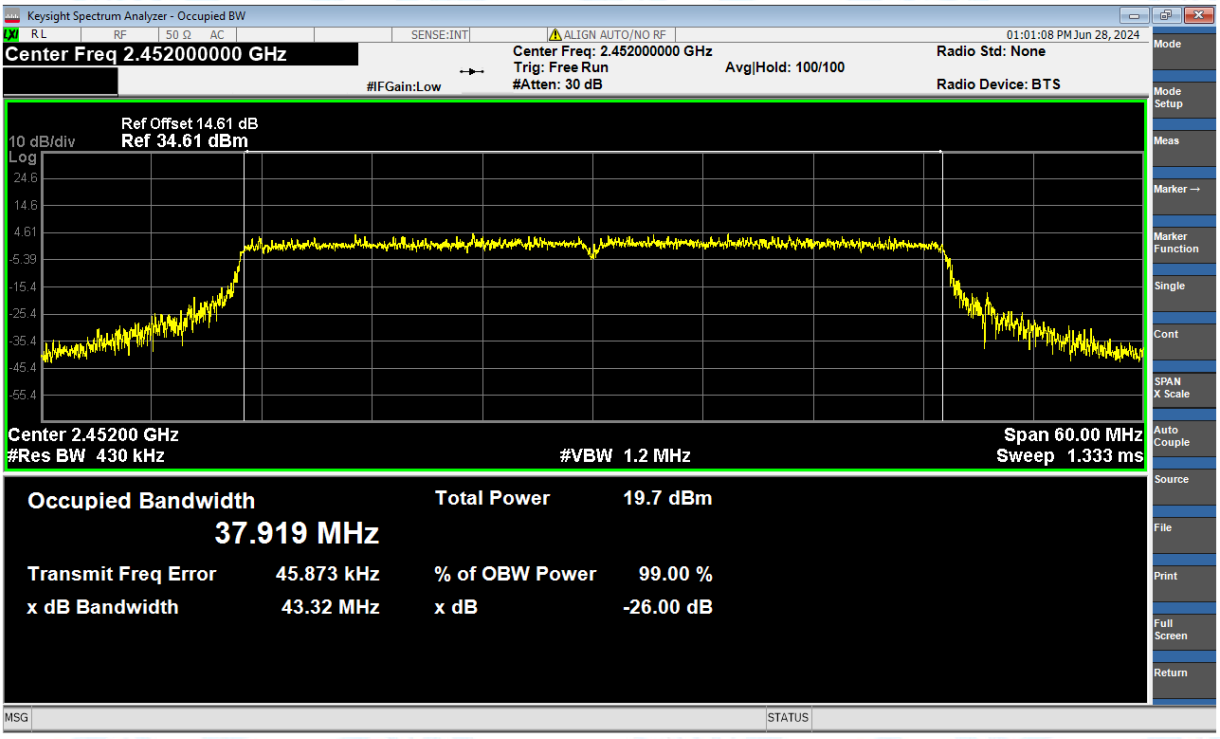

OBW NVNT ax(VHT40) 2422MHz Ant1



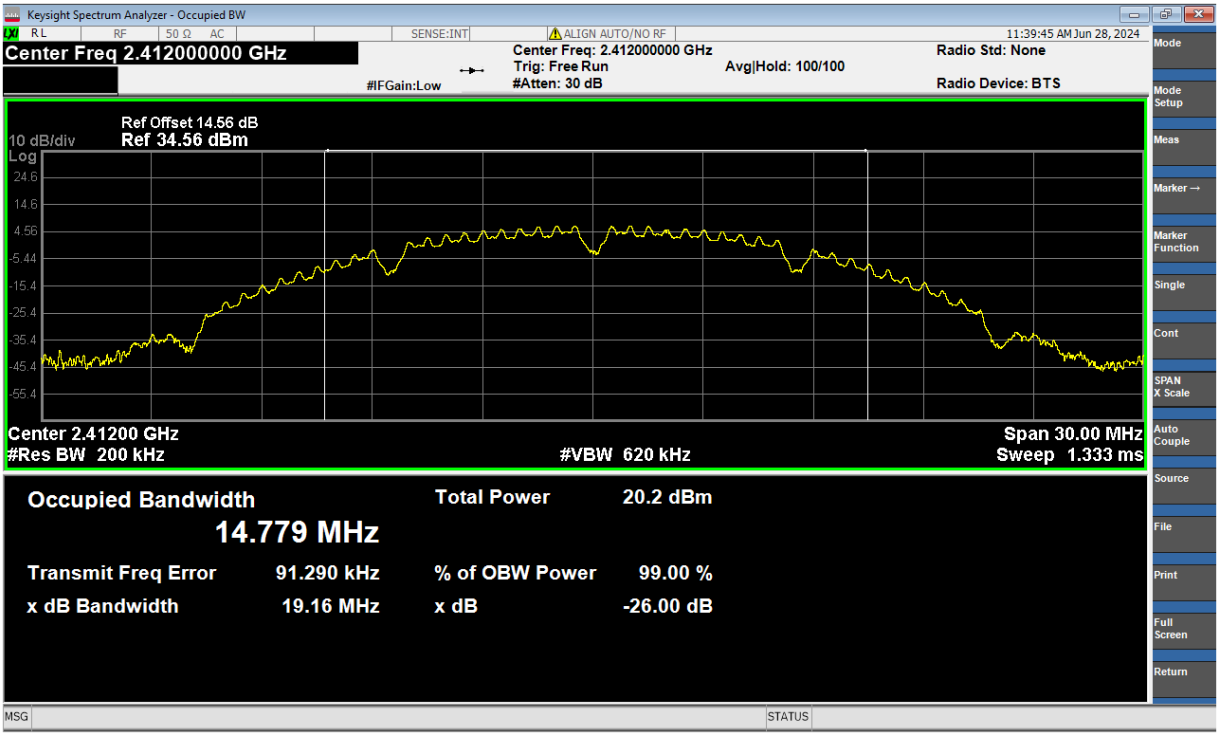
OBW NVNT ax(VHT40) 2437MHz Ant1



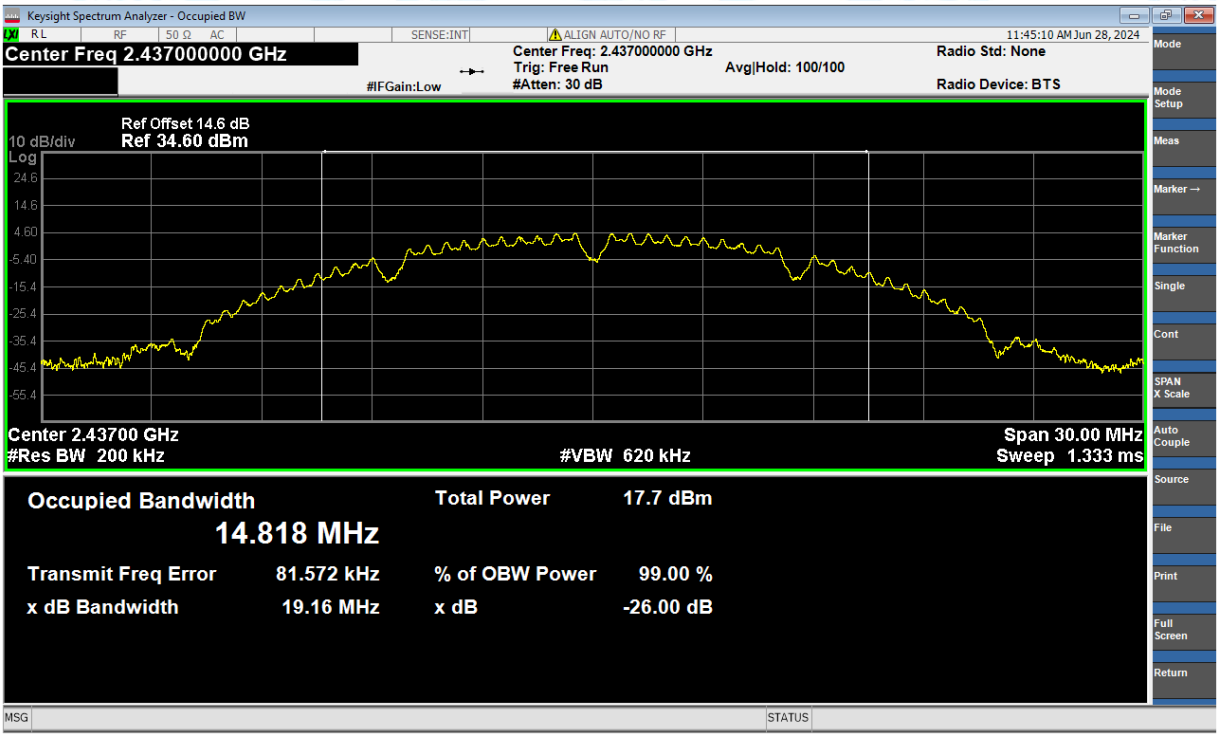

OBW NVNT ax(VHT40) 2452MHz Ant1



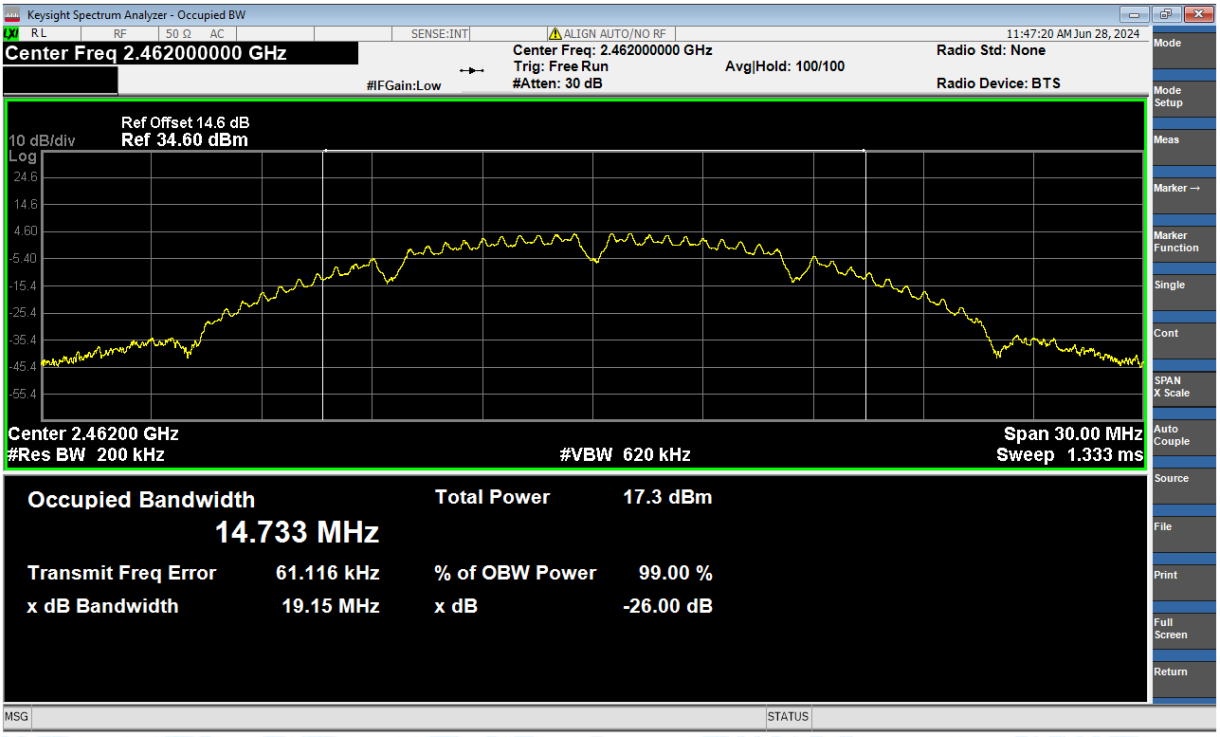
OBW NVNT b 2412MHz Ant1



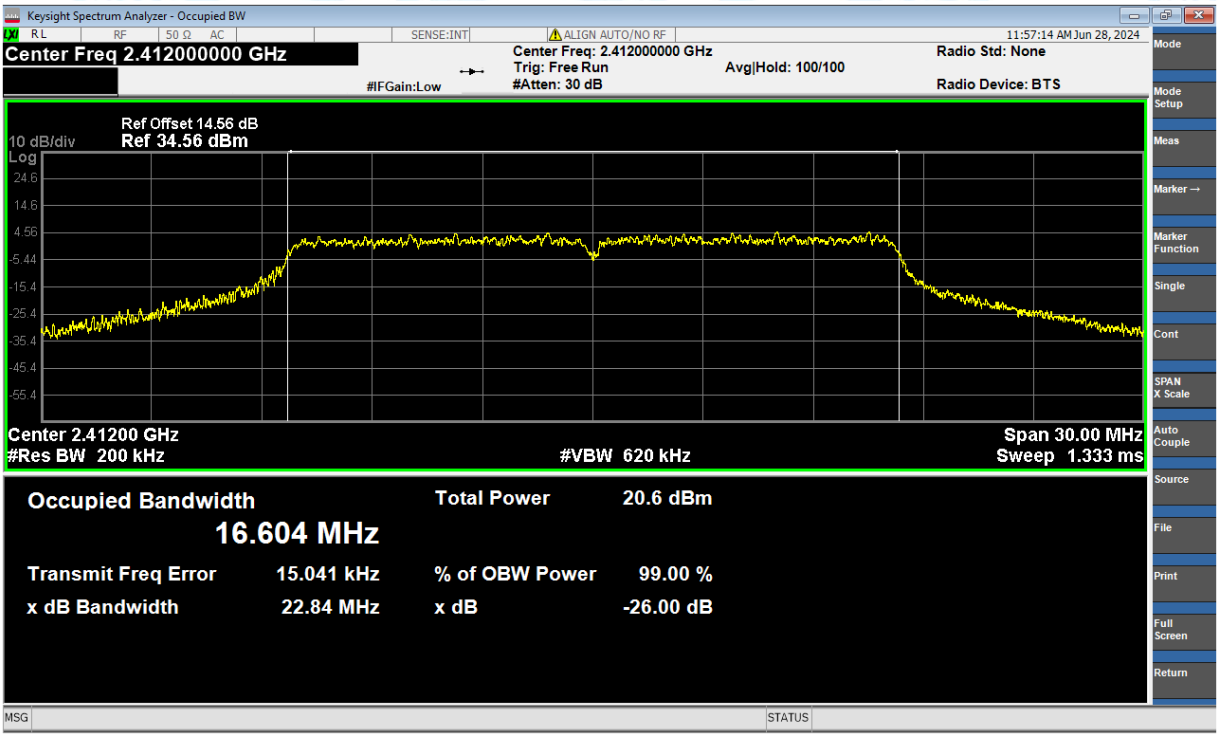

OBW NVNT b 2437MHz Ant1



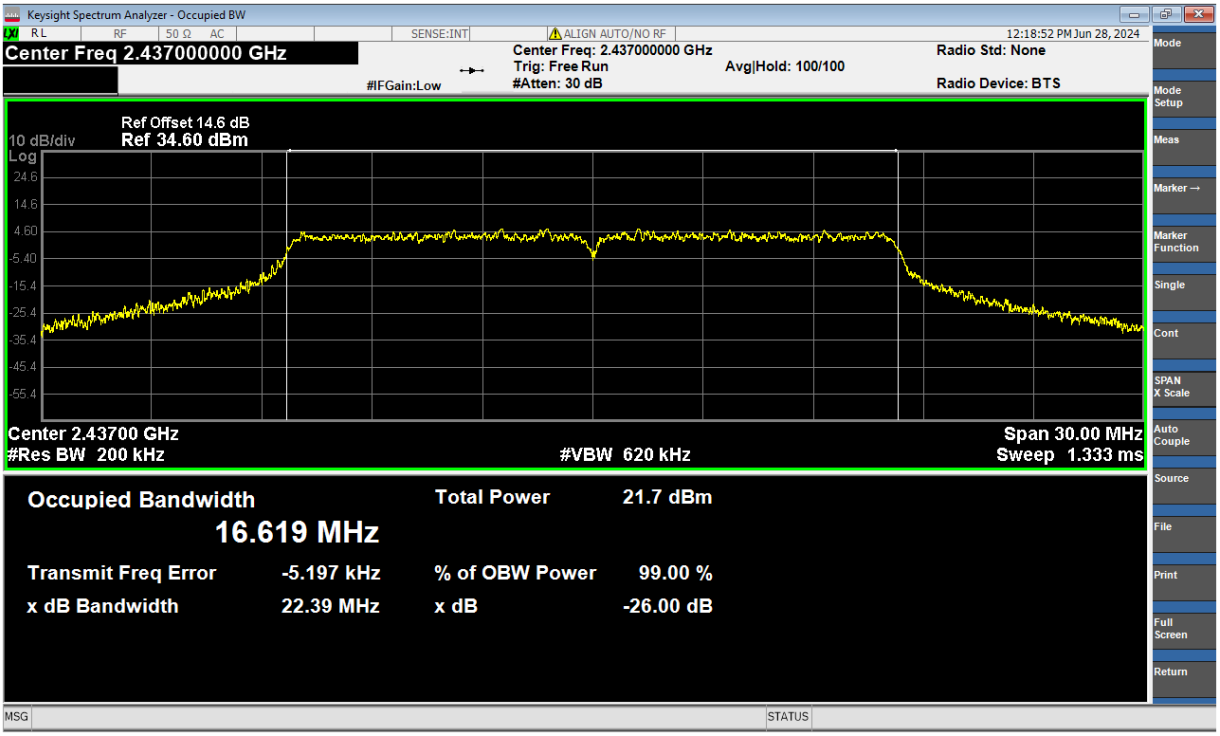
OBW NVNT b 2462MHz Ant1



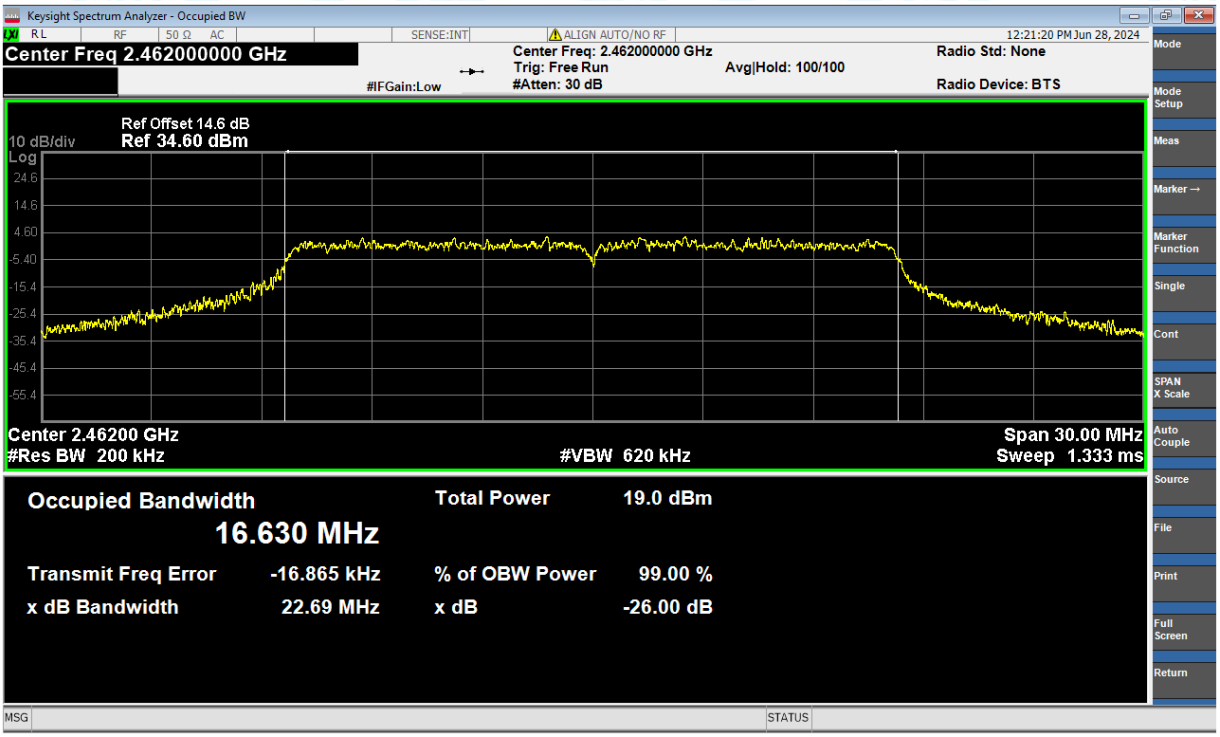

OBW NVNT g 2412MHz Ant1



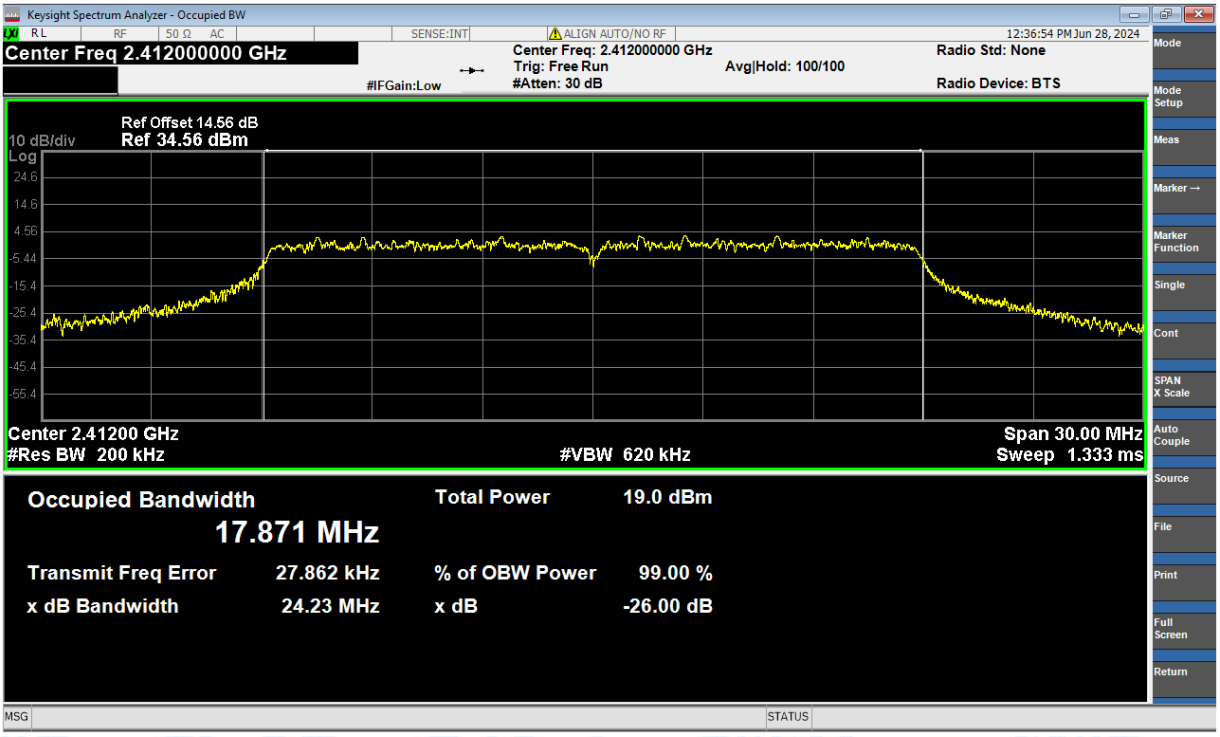
OBW NVNT g 2437MHz Ant1



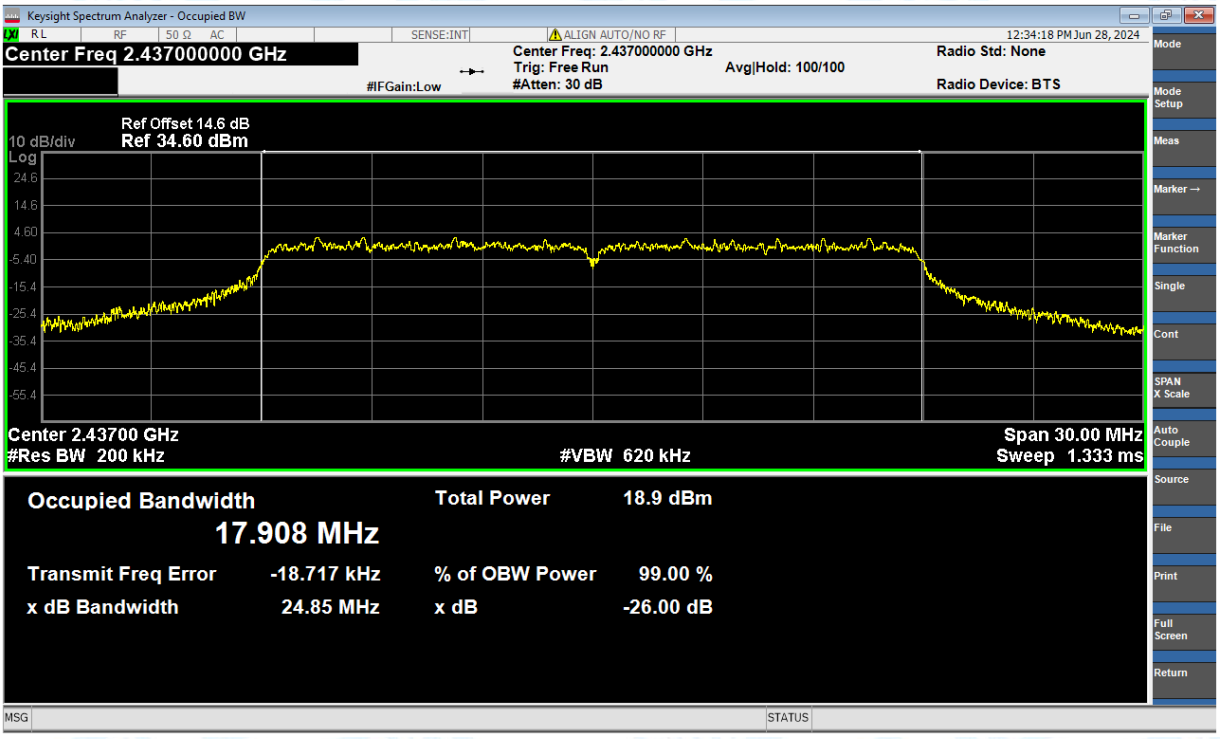

OBW NVNT g 2462MHz Ant1



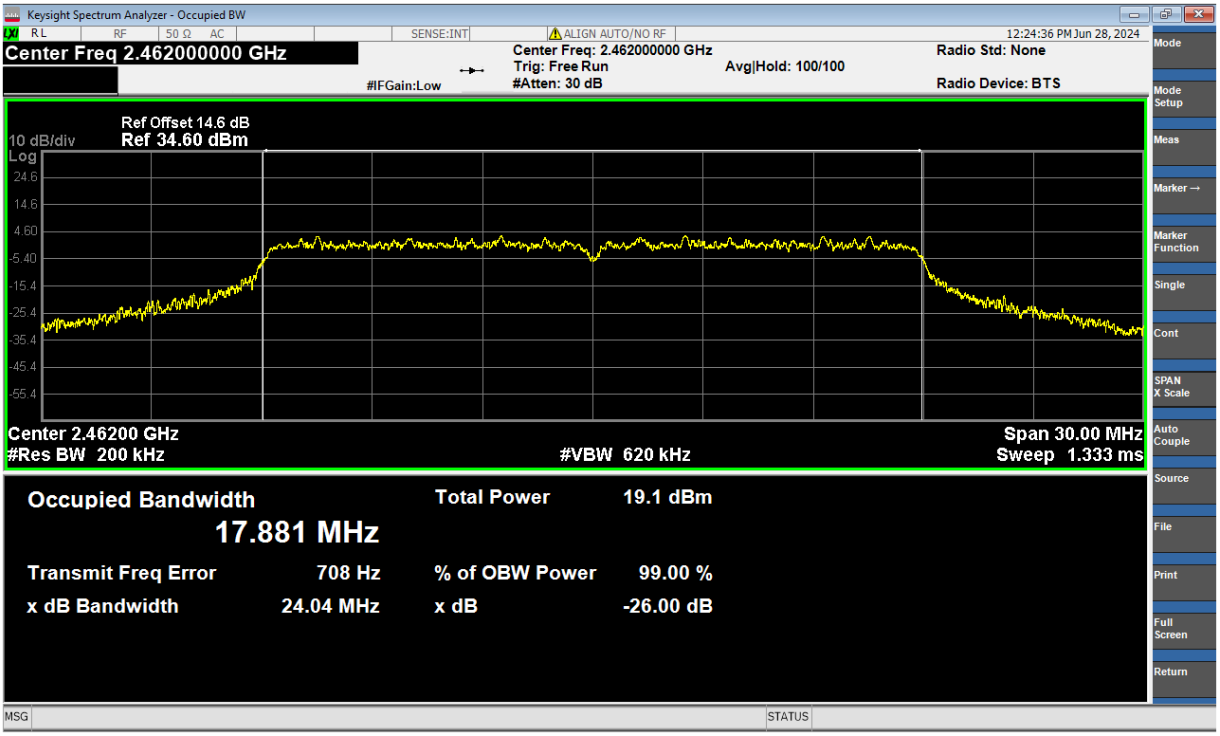
OBW NVNT n(HT20) 2412MHz Ant1



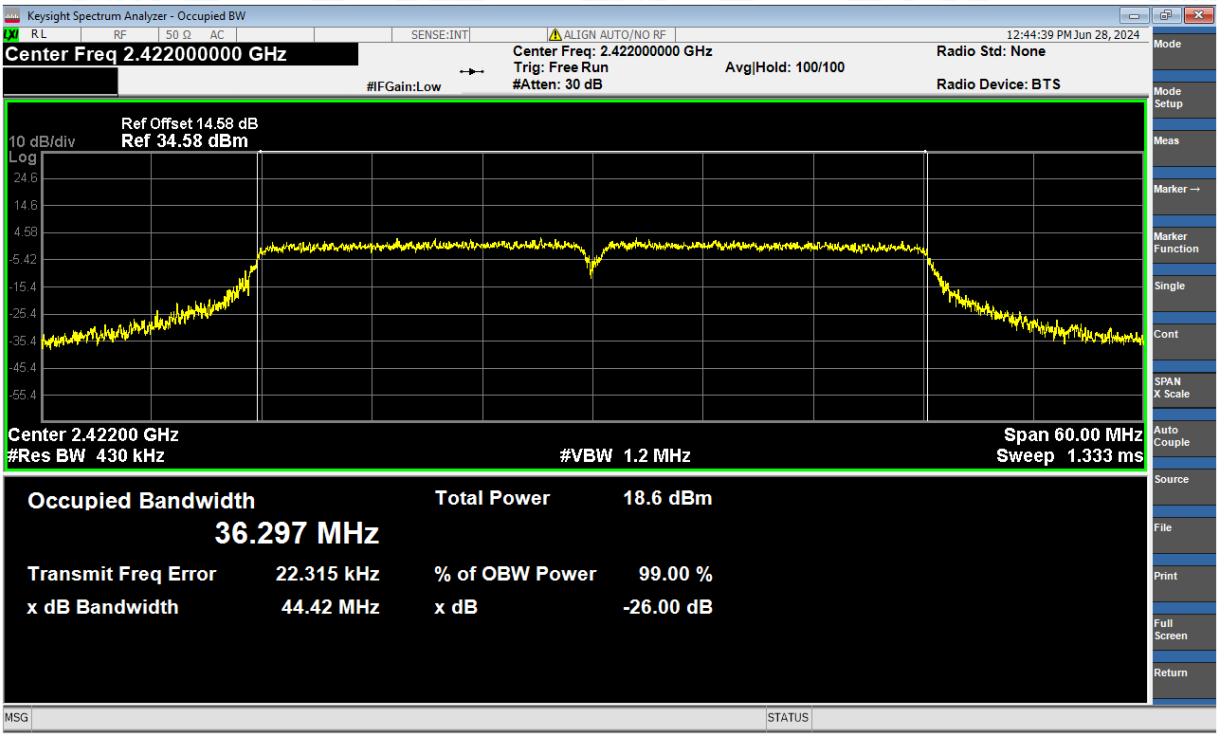

OBW NVNT n(HT20) 2437MHz Ant1



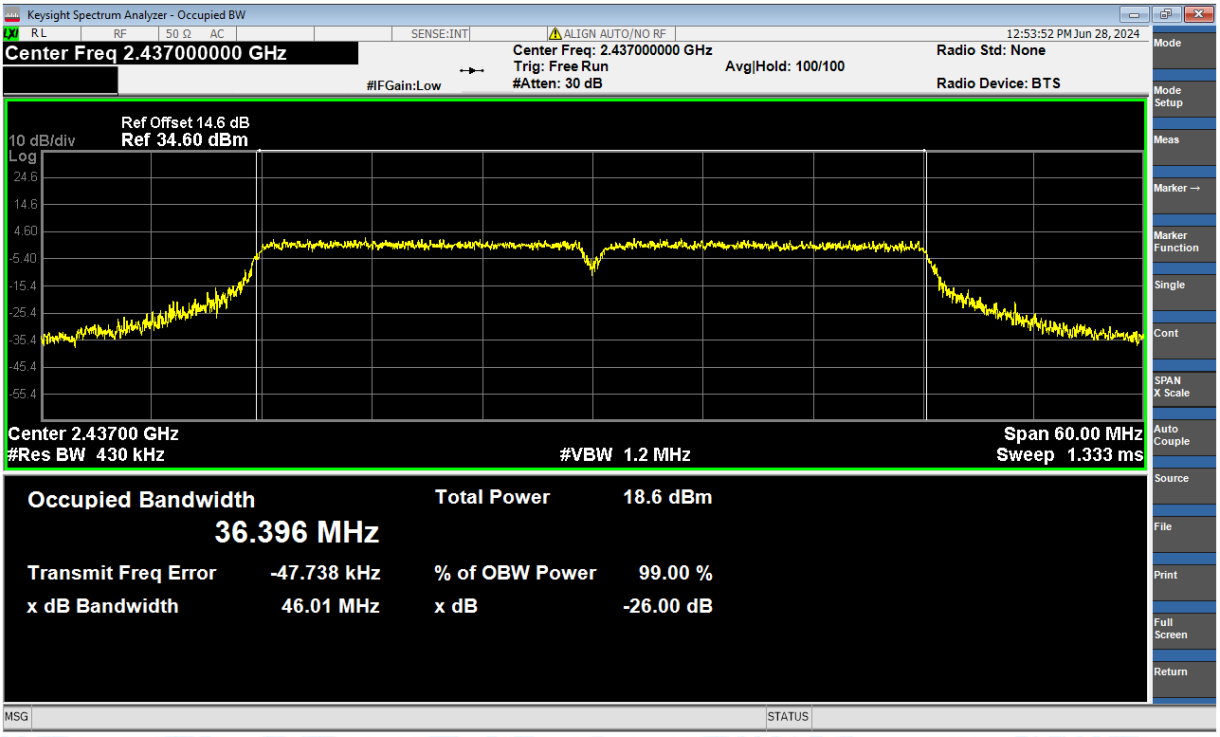
OBW NVNT n(HT20) 2462MHz Ant1



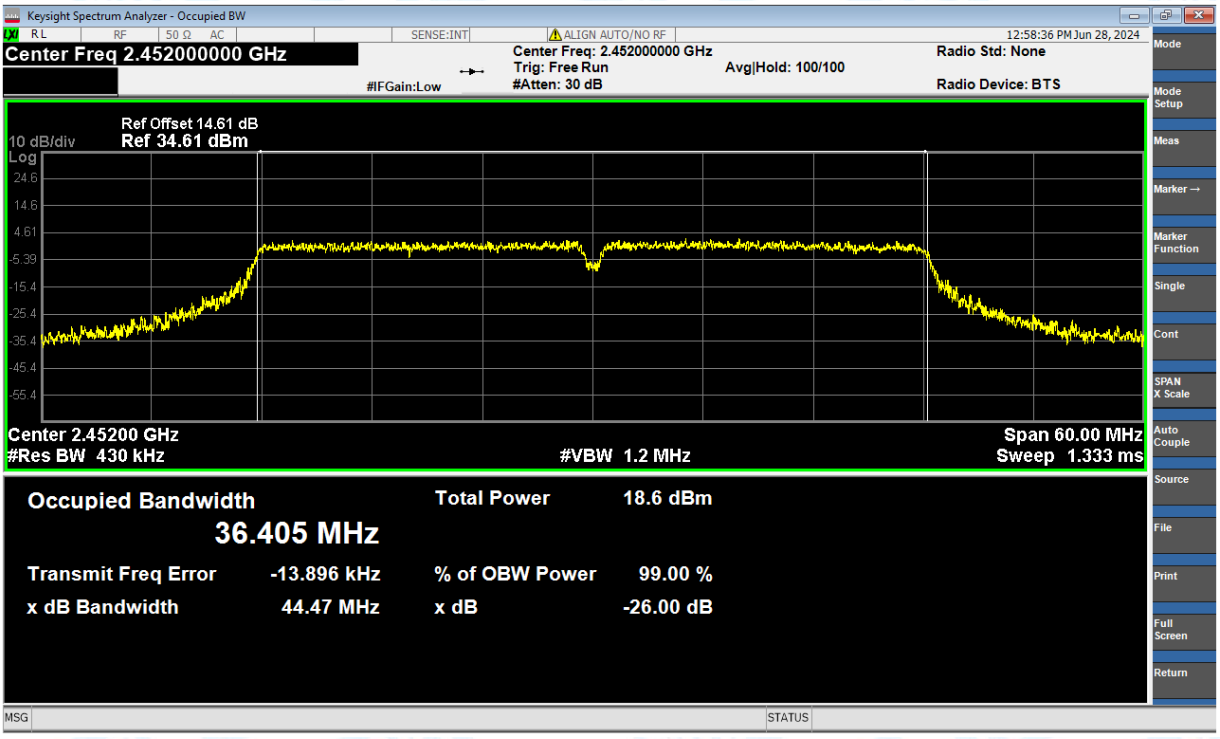

OBW NVNT n(HT40) 2422MHz Ant1



OBW NVNT n(HT40) 2437MHz Ant1




OBW NVNT n(HT40) 2452MHz Ant1



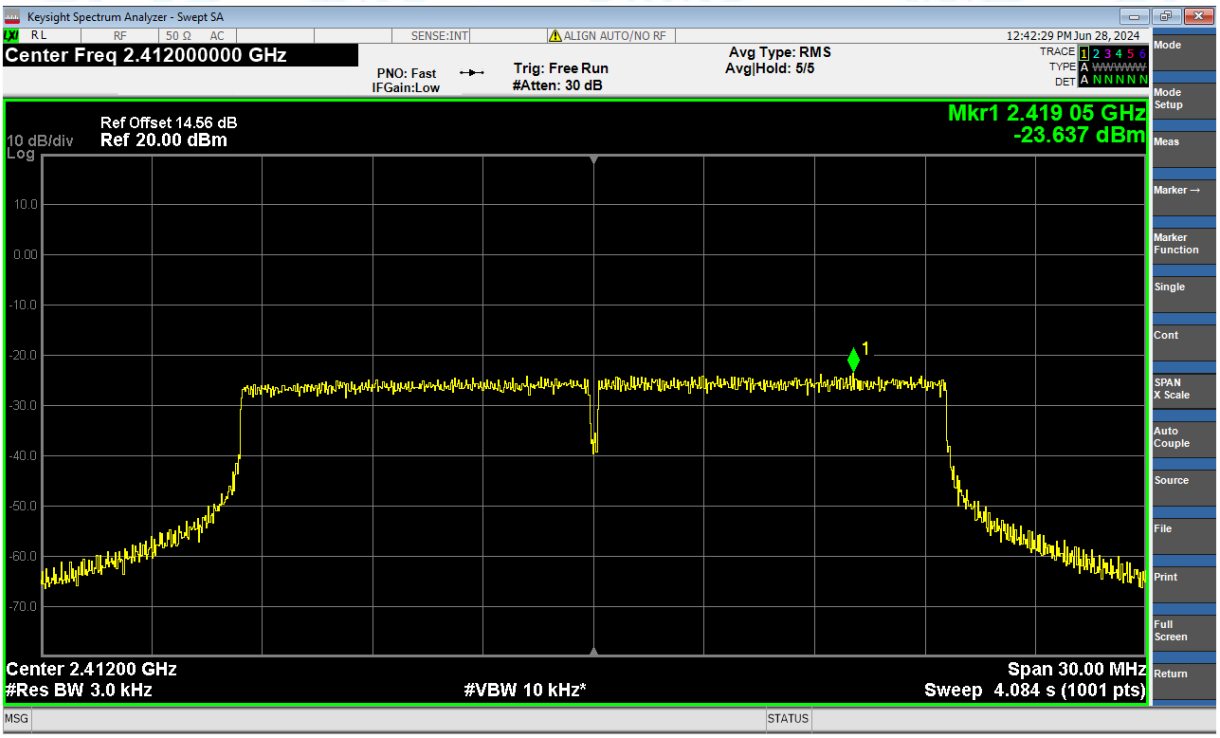
# 5.Maximum Power Spectral Density Level

| Condition | Mode | Frequency (MHz) | Antenna | Max PSD (dBm) | Limit (dBm) | Verdict |
|---|---|---|---|---|---|---|
| NVNT | ax(VHT20) | 2412 | Ant1 | -23.637 | 8 | Pass |
| NVNT | ax(VHT20) | 2437 | Ant1 | -23.838 | 8 | Pass |
| NVNT | ax(VHT20) | 2462 | Ant1 | -23.347 | 8 | Pass |
| NVNT | ax(VHT40) | 2422 | Ant1 | -28.777 | 8 | Pass |
| NVNT | ax(VHT40) | 2437 | Ant1 | -28.612 | 8 | Pass |
| NVNT | ax(VHT40) | 2452 | Ant1 | -28.416 | 8 | Pass |
| NVNT | b | 2412 | Ant1 | -20.063 | 8 | Pass |
| NVNT | b | 2437 | Ant1 | -19.757 | 8 | Pass |
| NVNT | b | 2462 | Ant1 | -20.44 | 8 | Pass |
| NVNT | g | 2412 | Ant1 | -20.722 | 8 | Pass |
| NVNT | g | 2437 | Ant1 | -20.012 | 8 | Pass |
| NVNT | g | 2462 | Ant1 | -22.86 | 8 | Pass |
| NVNT | n(HT20) | 2412 | Ant1 | -22.157 | 8 | Pass |
| NVNT | n(HT20) | 2437 | Ant1 | -22.529 | 8 | Pass |
| NVNT | n(HT20) | 2462 | Ant1 | -22.545 | 8 | Pass |
| NVNT | n(HT40) | 2422 | Ant1 | -25.995 | 8 | Pass |
| NVNT | n(HT40) | 2437 | Ant1 | -26.771 | 8 | Pass |
| NVNT | n(HT40) | 2452 | Ant1 | -26.609 | 8 | Pass |

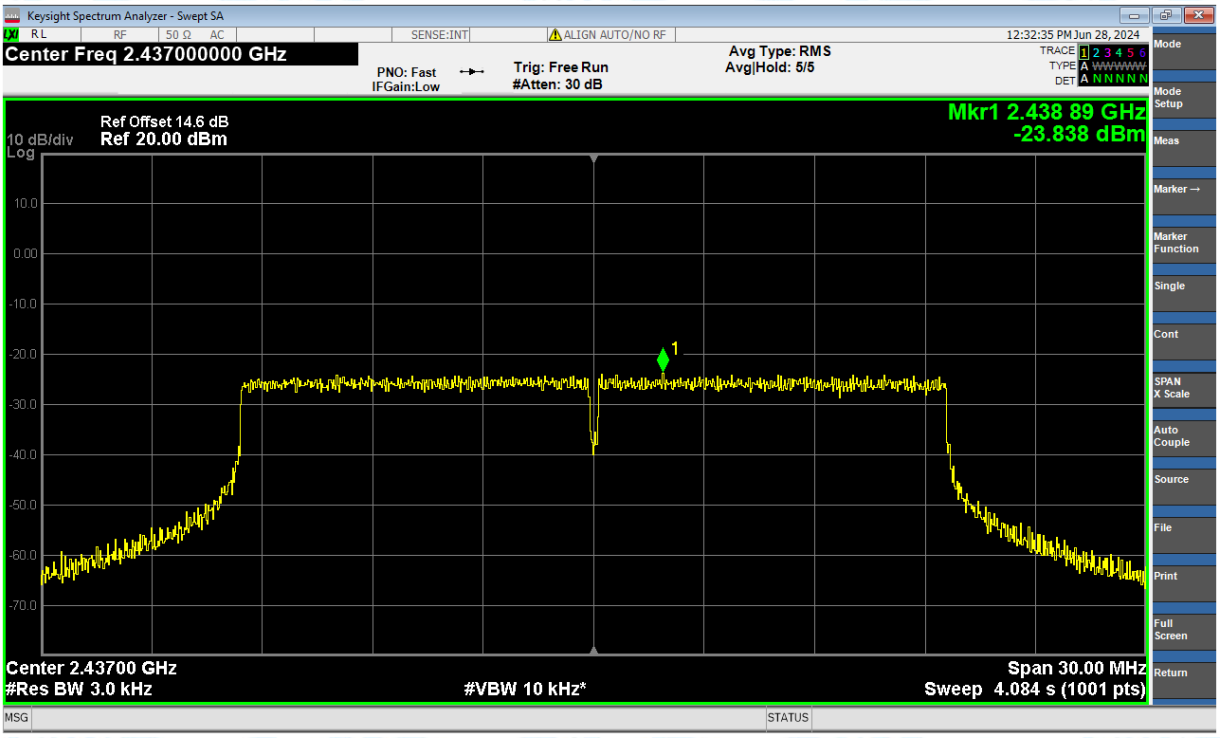
Note: The duty factor has been compensated into the result.

Test Graphs

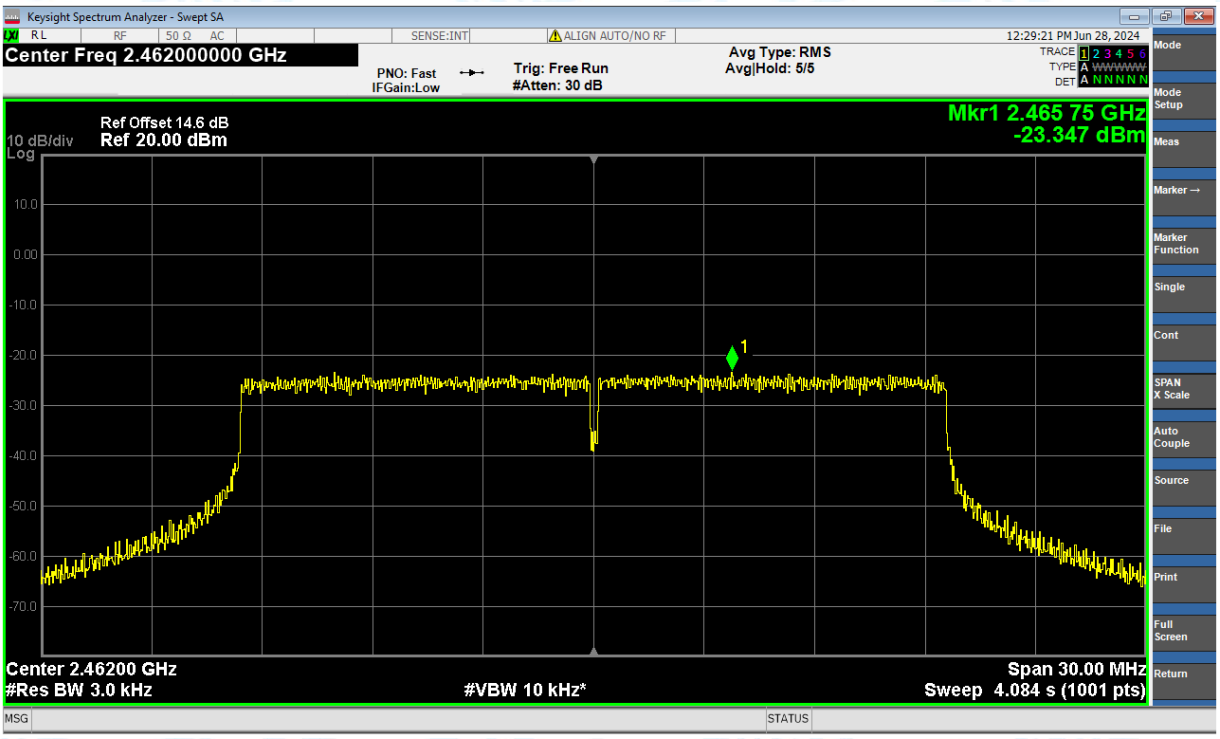
PSD NVNT ax(VHT20) 2412MHz Ant1



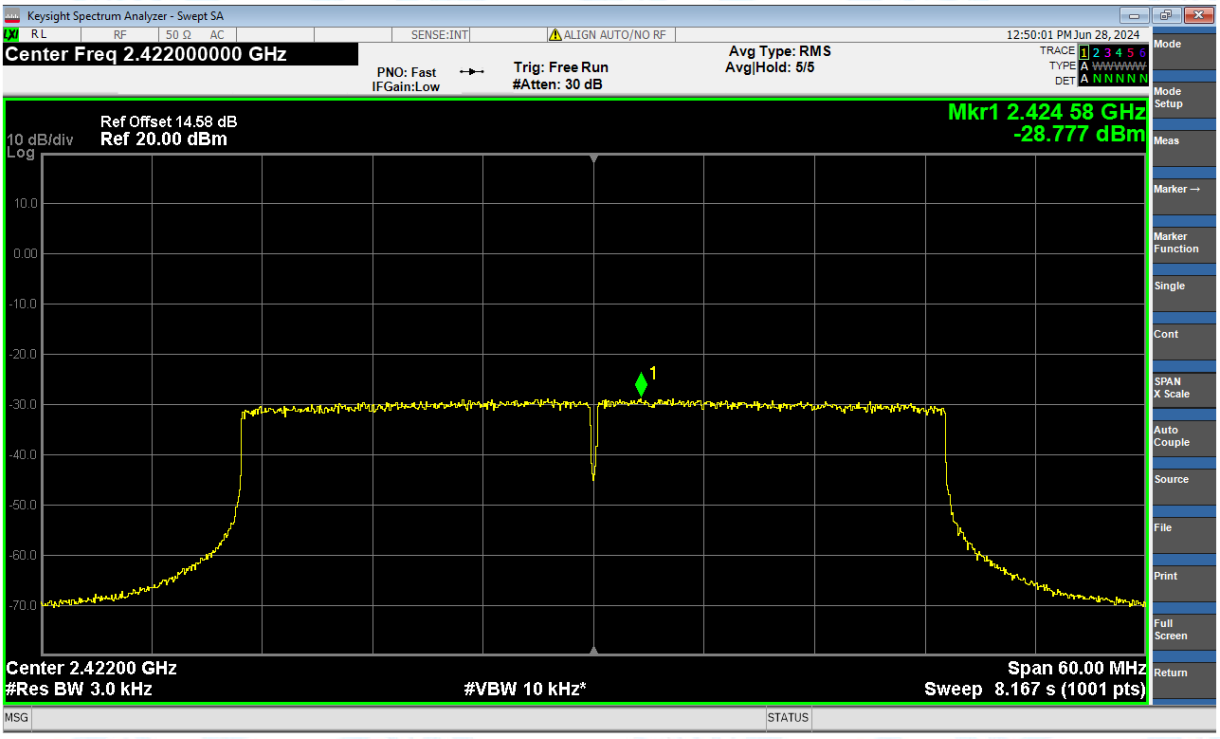

PSD NVNT ax(VHT20) 2437MHz Ant1



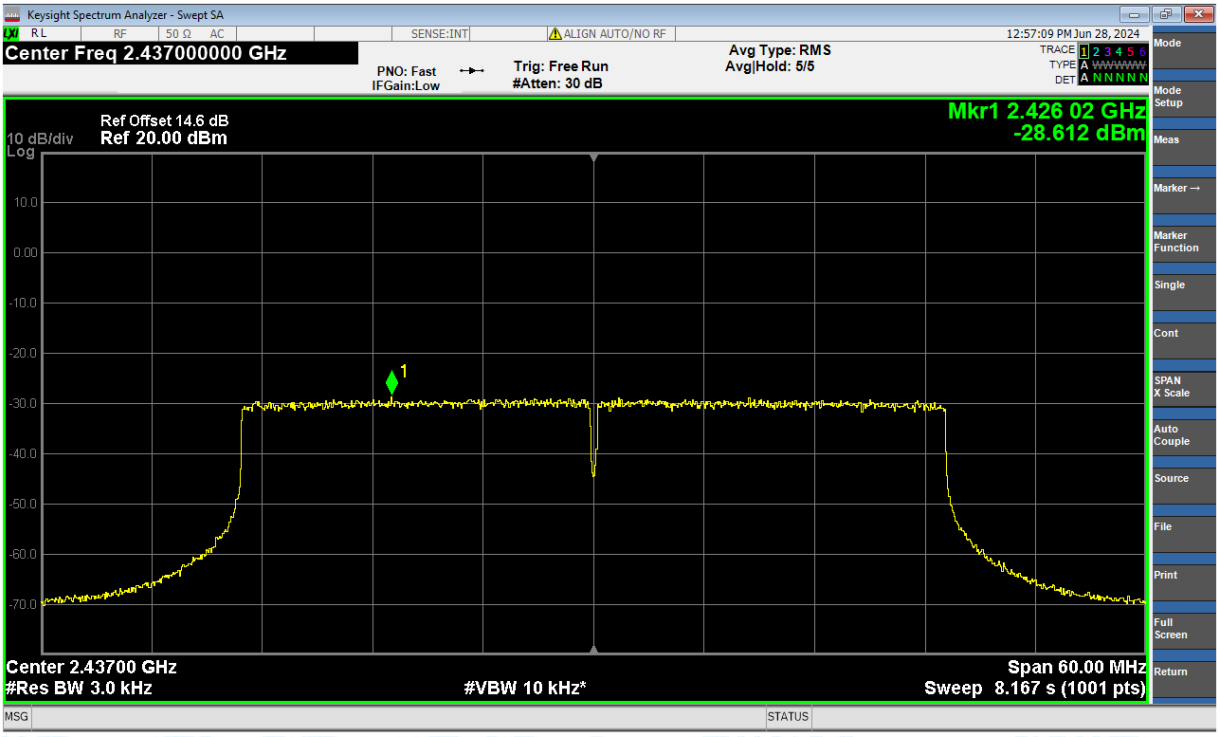
PSD NVNT ax(VHT20) 2462MHz Ant1



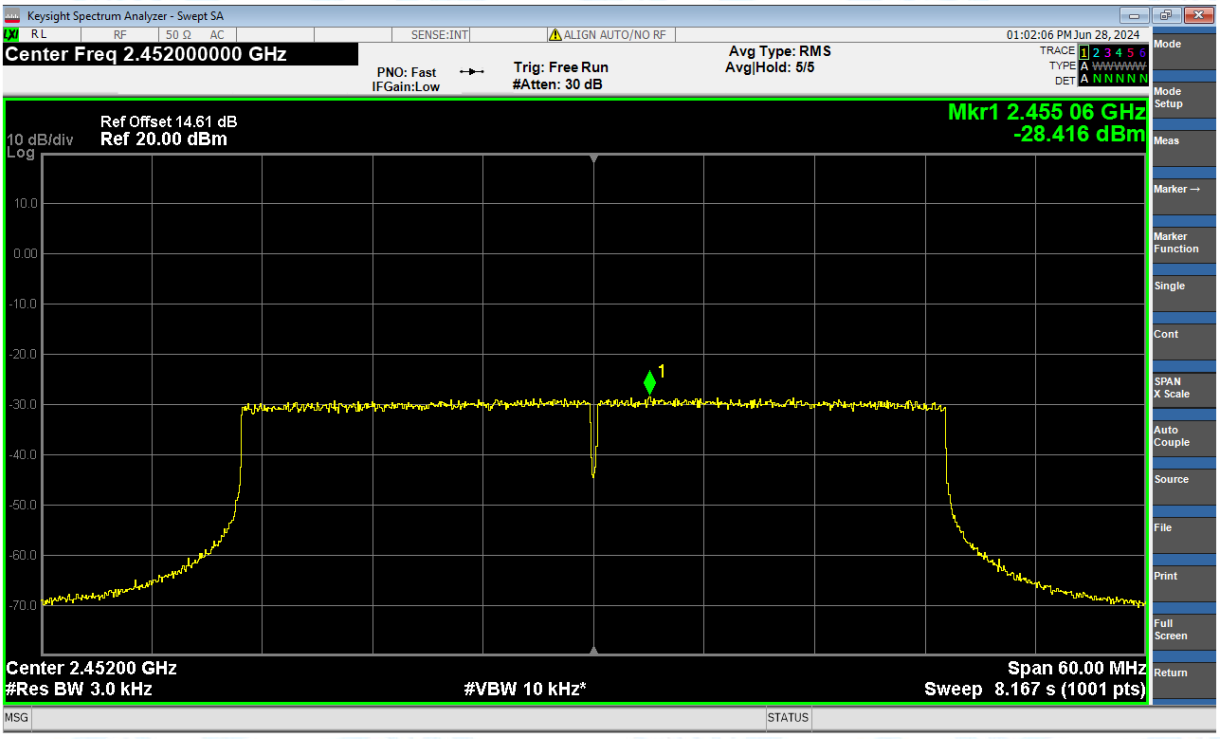

PSD NVNT ax(VHT40) 2422MHz Ant1



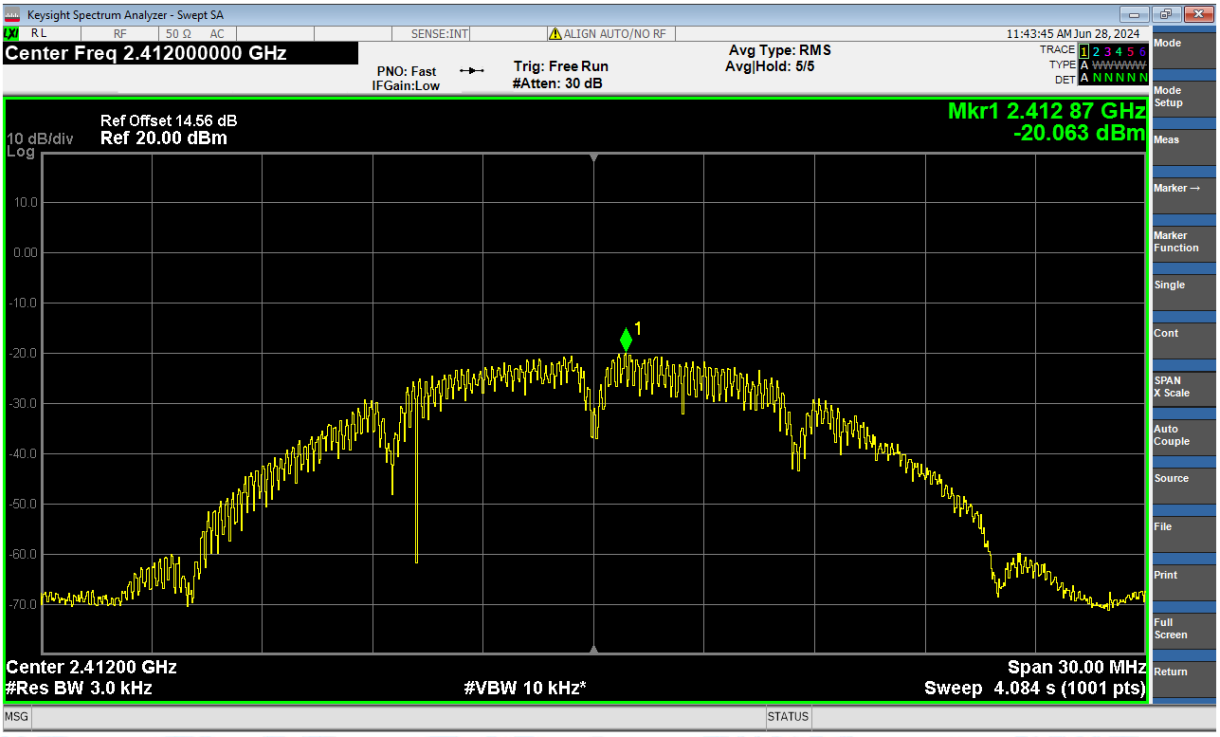
PSD NVNT ax(VHT40) 2437MHz Ant1



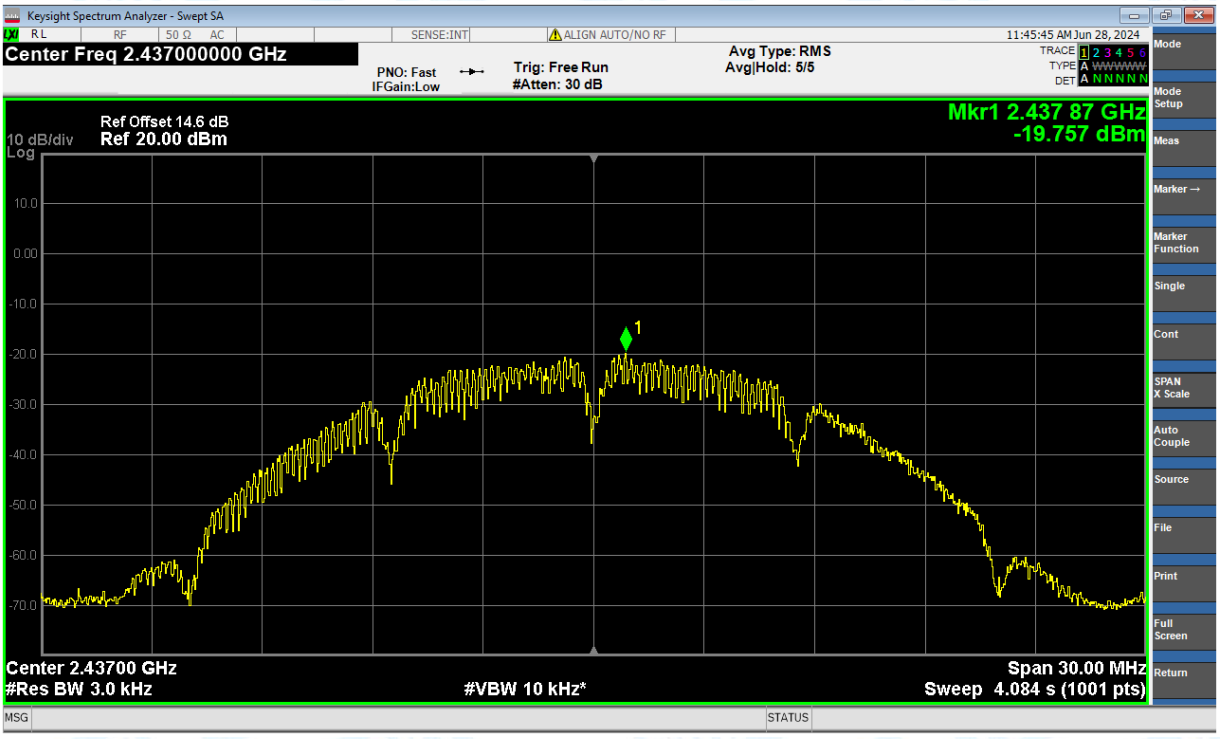

PSD NVNT ax(VHT40) 2452MHz Ant1



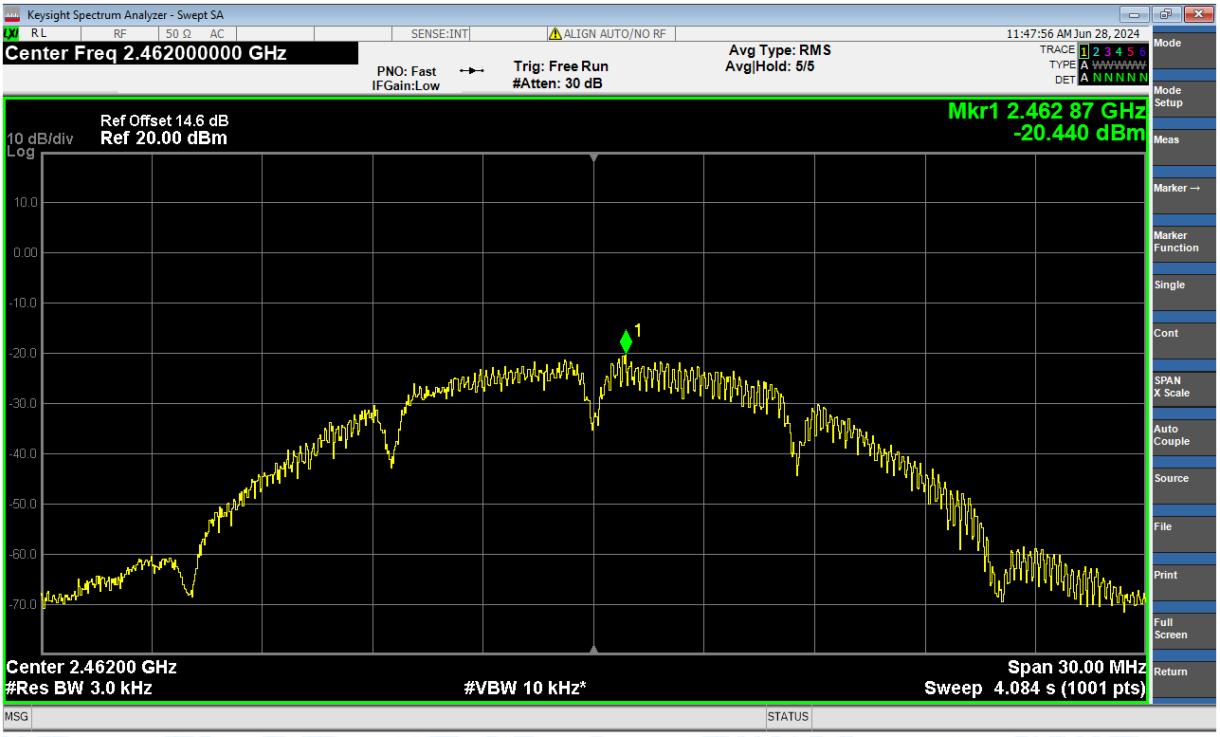
PSD NVNT b 2412MHz Ant1



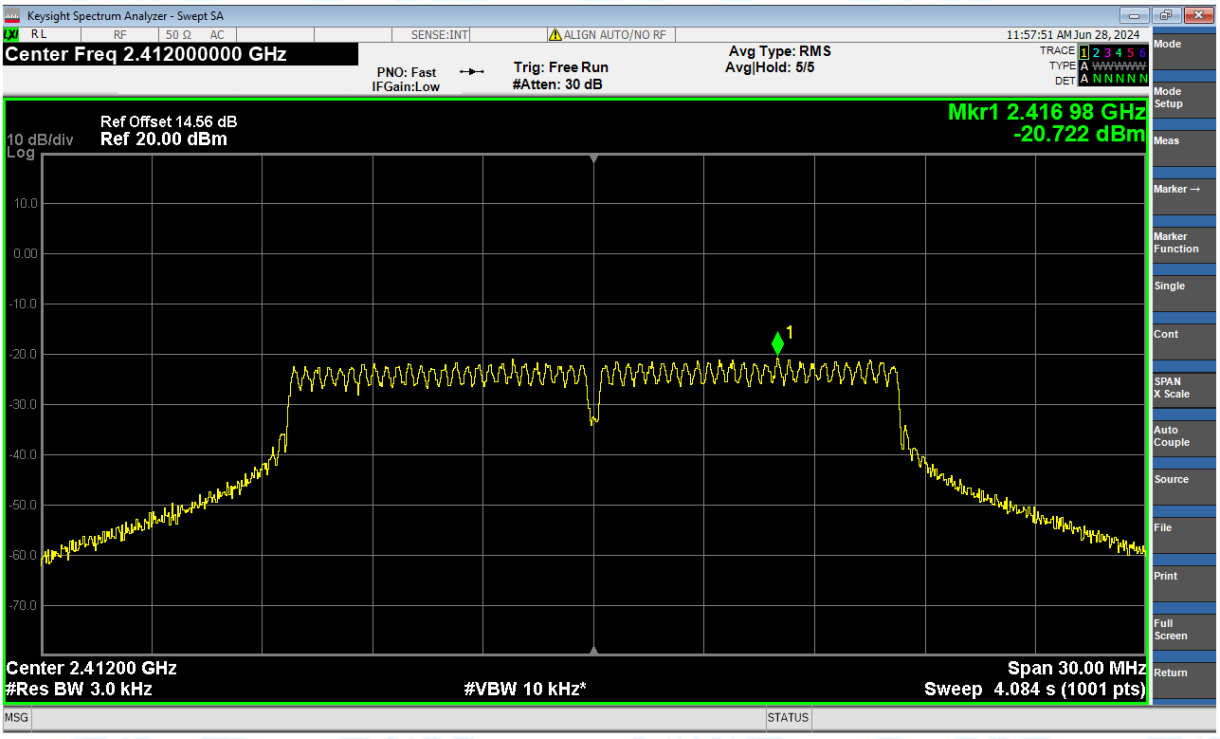

PSD NVNT b 2437MHz Ant1



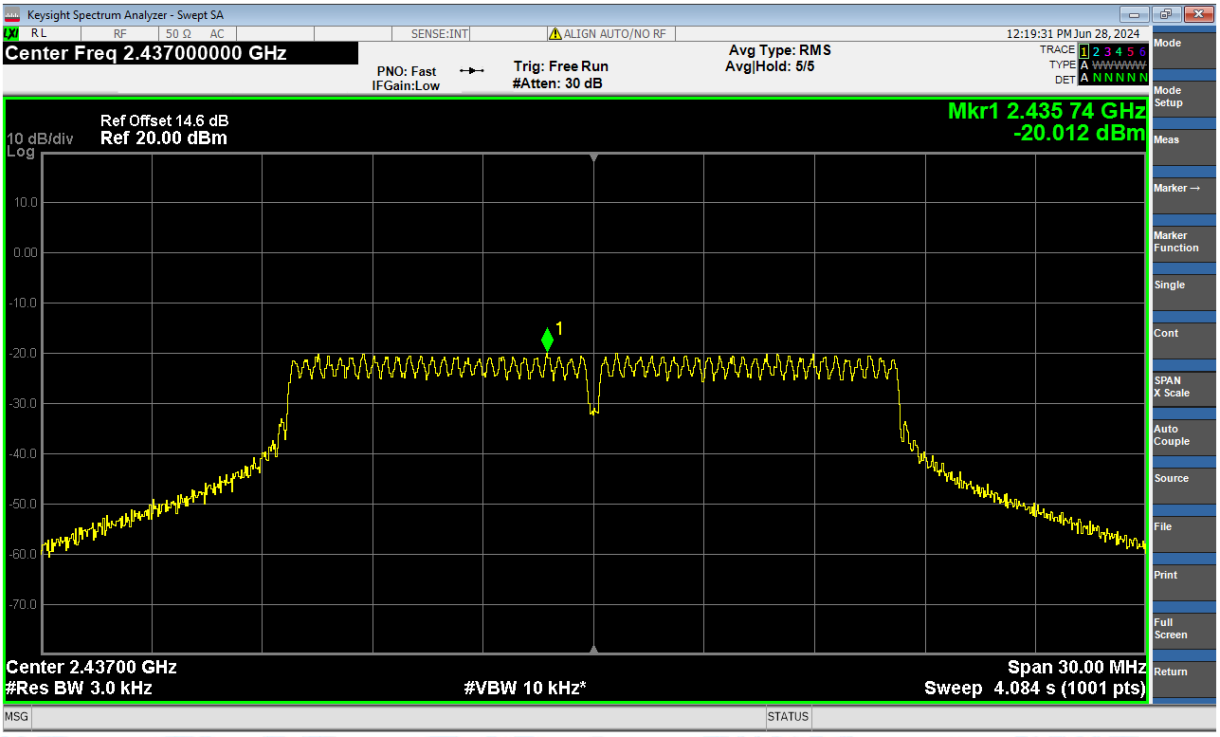
PSD NVNT b 2462MHz Ant1



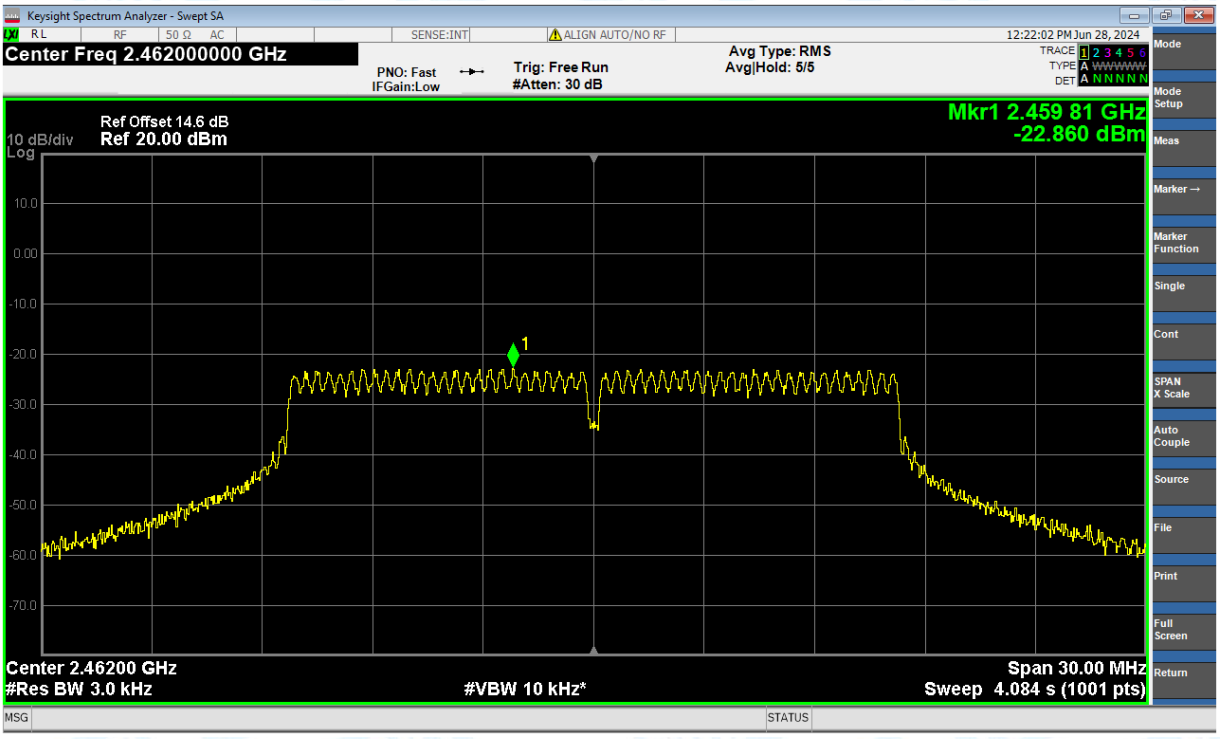

PSD NVNT g 2412MHz Ant1



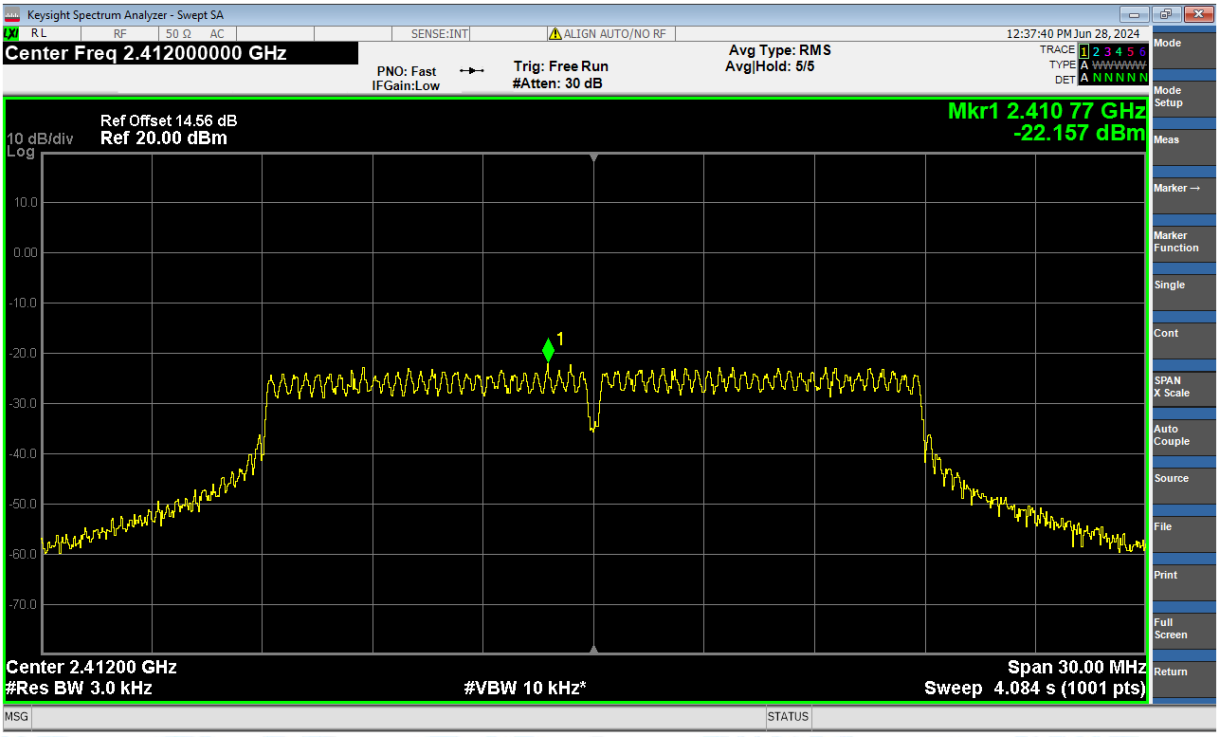
PSD NVNT g 2437MHz Ant1



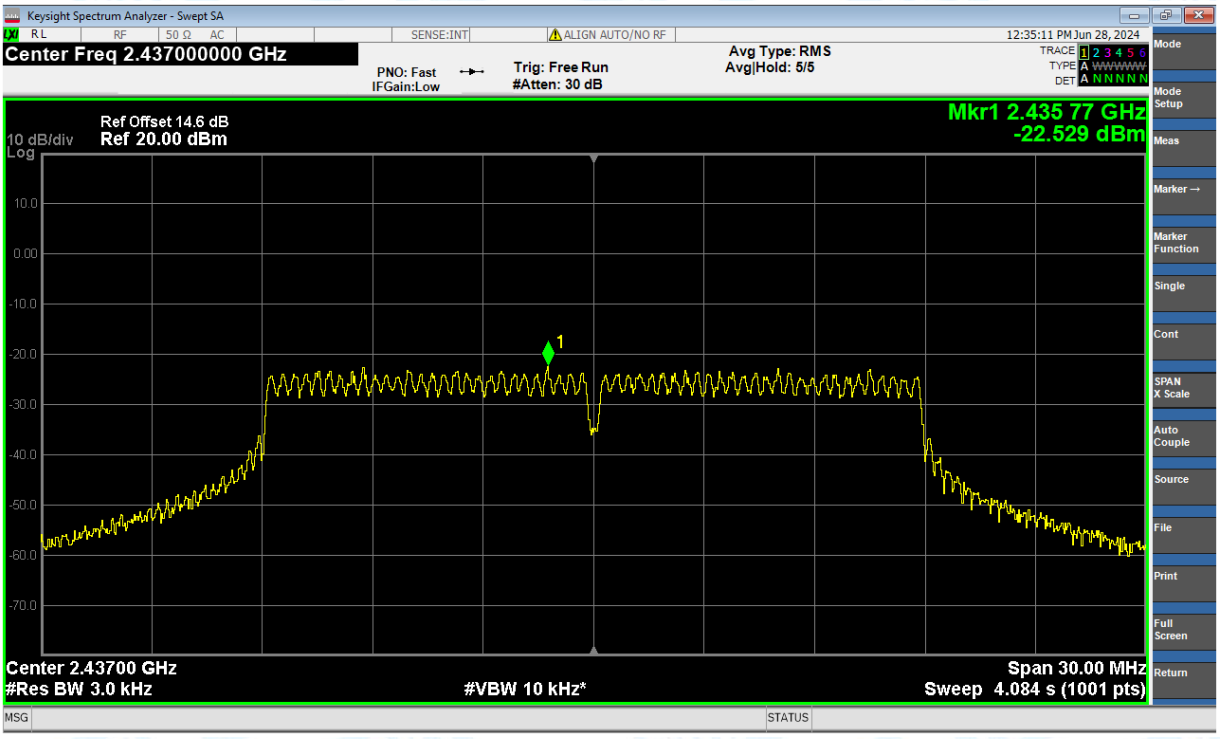

PSD NVNT g 2462MHz Ant1



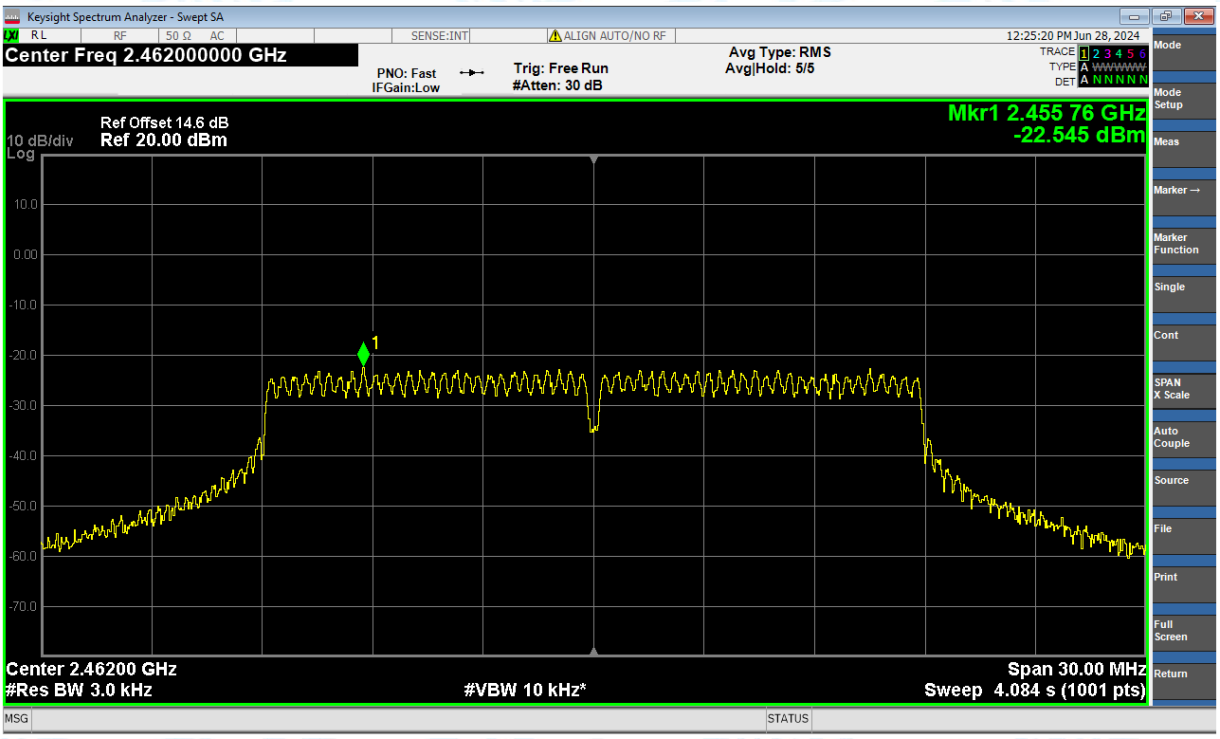
PSD NVNT n(HT20) 2412MHz Ant1




PSD NVNT n(HT20) 2437MHz Ant1



PSD NVNT n(HT20) 2462MHz Ant1




PSD NVNT n(HT40) 2422MHz Ant1