



Appendix B for 5.8GWIFI Test Data

Product Name: Car Player

Test Model: A3215

Environmental Conditions

| | |
|--------------------|------------|
| Temperature: | 23.8°C |
| Relative Humidity: | 52% |
| ATM Pressure: | 101.0 kPa |
| Test Engineer: | Kevin Yang |
| Supervised by: | Baret Wu |



B1. Duty Cycle

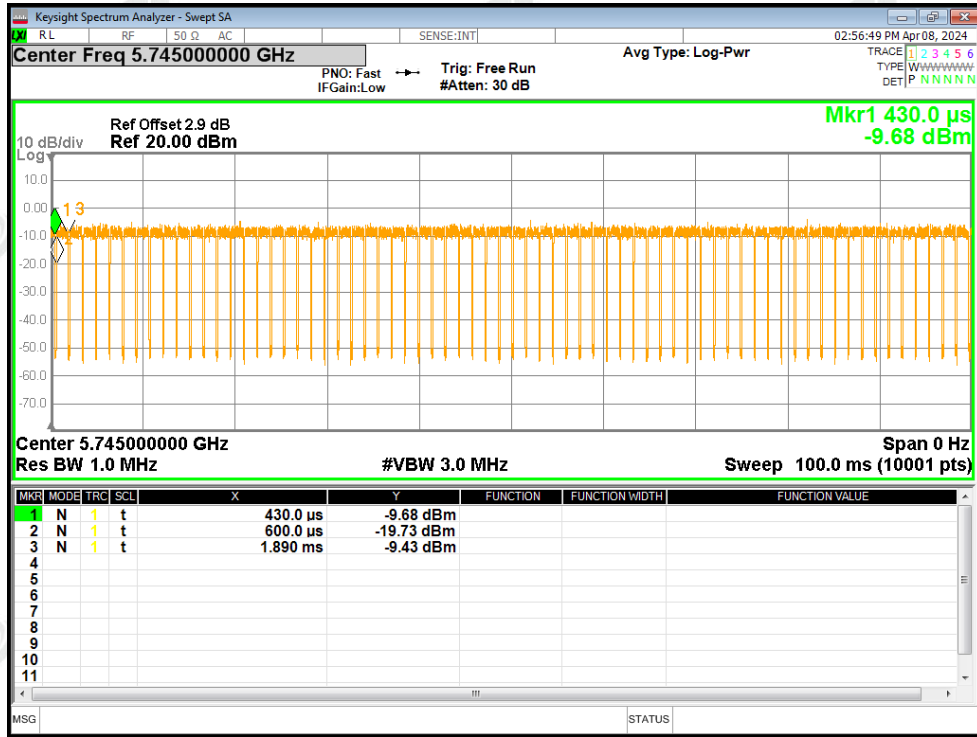
| Condition | Mode | Frequency (MHz) | Antenna | Duty Cycle (%) | Correction Factor (dB) | 1/T (kHz) |
|-----------|------|-----------------|---------|----------------|------------------------|-----------|
| NVNT | a | 5745 | Ant1 | 88.36 | 0.54 | 0.78 |
| NVNT | a | 5785 | Ant1 | 88.28 | 0.54 | 0.78 |
| NVNT | a | 5825 | Ant1 | 88.36 | 0.54 | 0.78 |
| NVNT | n20 | 5745 | Ant1 | 88.36 | 0.54 | 0.78 |
| NVNT | n20 | 5785 | Ant1 | 88.36 | 0.54 | 0.78 |
| NVNT | n20 | 5825 | Ant1 | 88.36 | 0.54 | 0.78 |
| NVNT | n40 | 5755 | Ant1 | 77.5 | 1.11 | 1.61 |
| NVNT | n40 | 5795 | Ant1 | 78.75 | 1.04 | 1.59 |



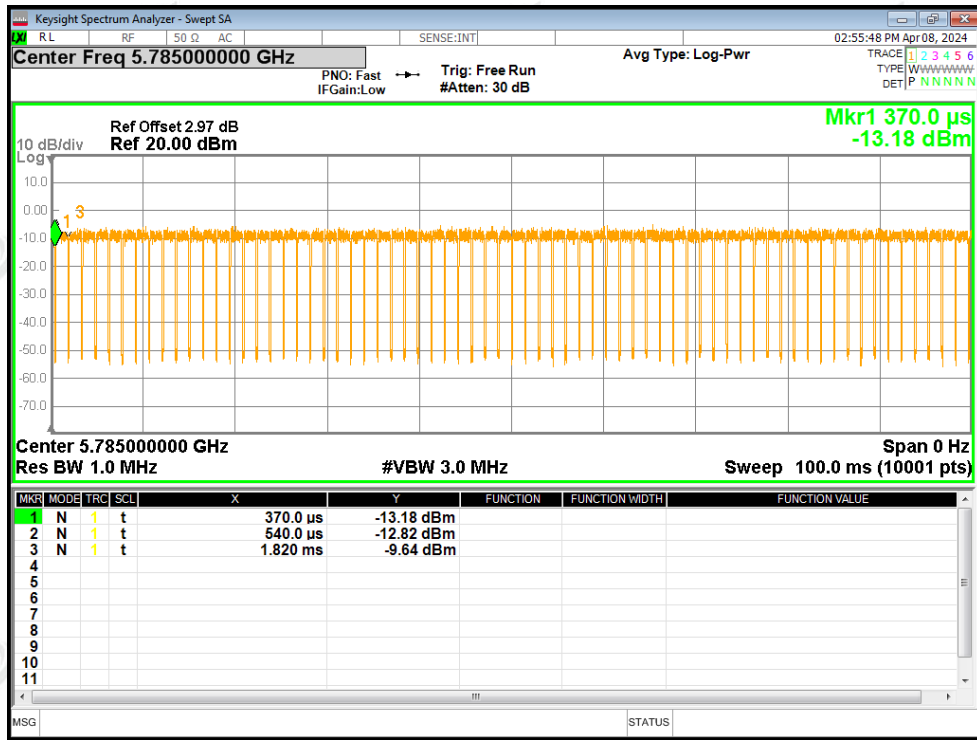


Test Graphs

Duty Cycle NVNT a 5745MHz Ant1

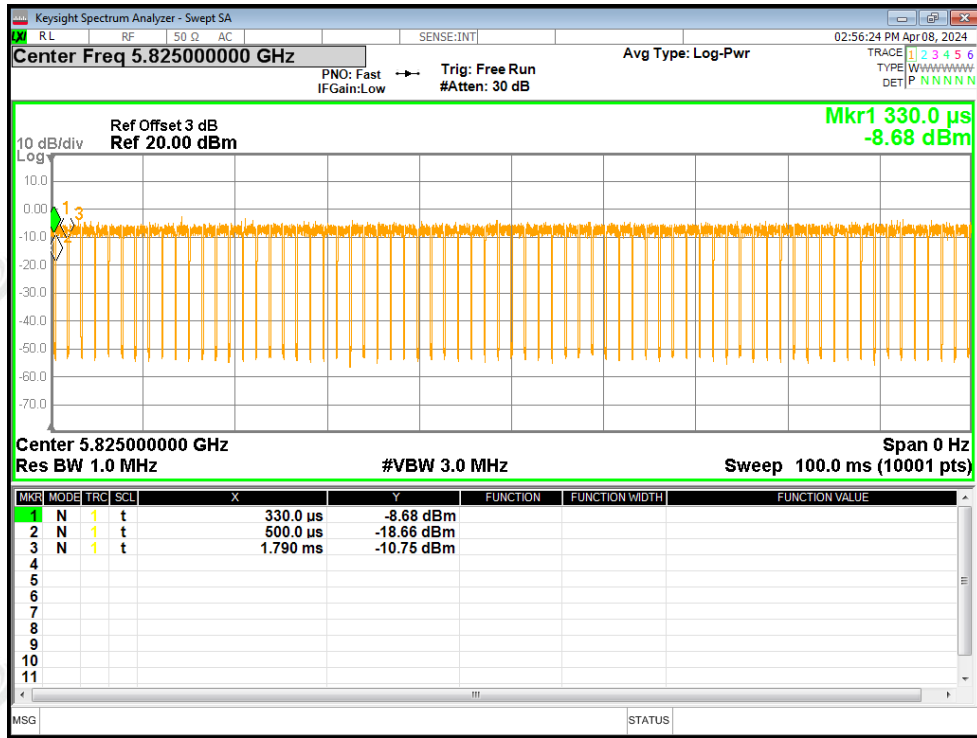


Duty Cycle NVNT a 5785MHz Ant1

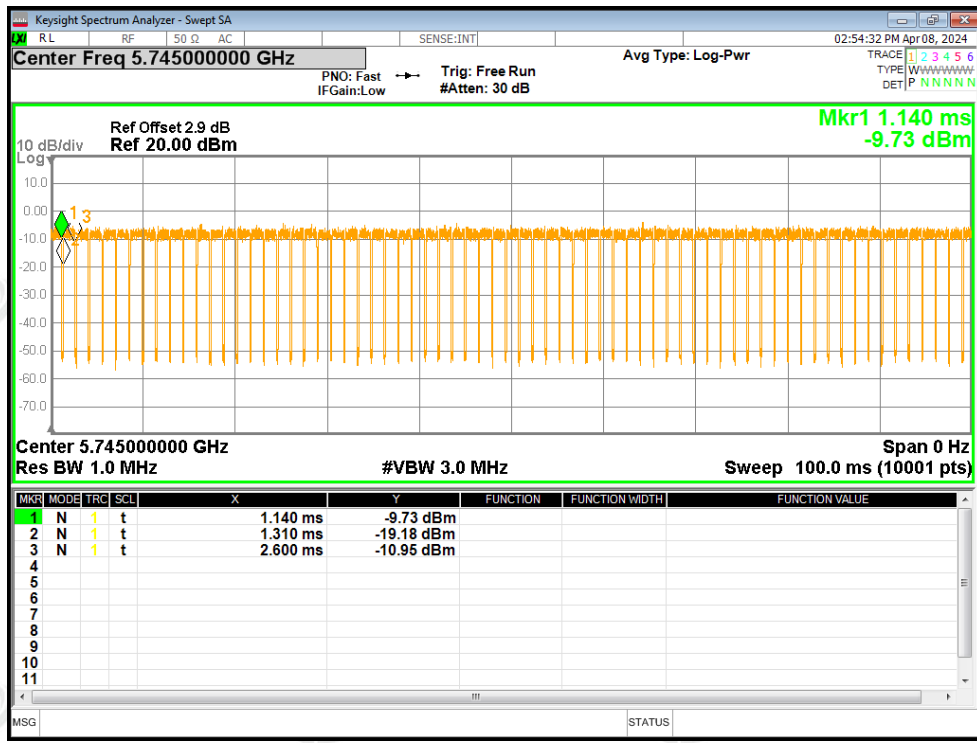




Duty Cycle NVNT a 5825MHz Ant1

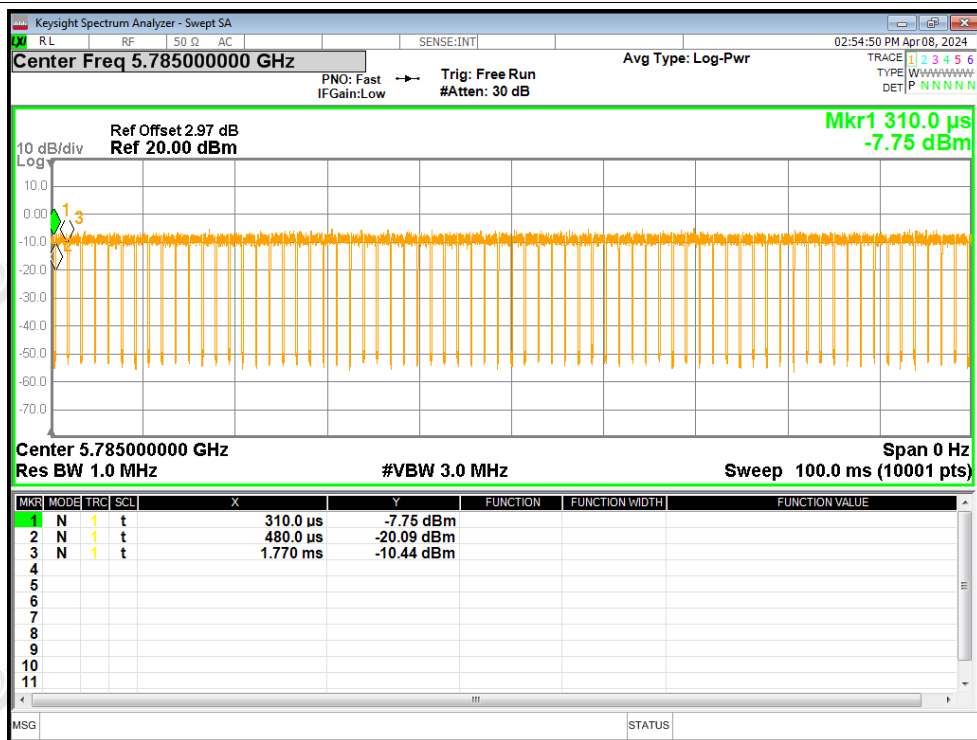


Duty Cycle NVNT n20 5745MHz Ant1

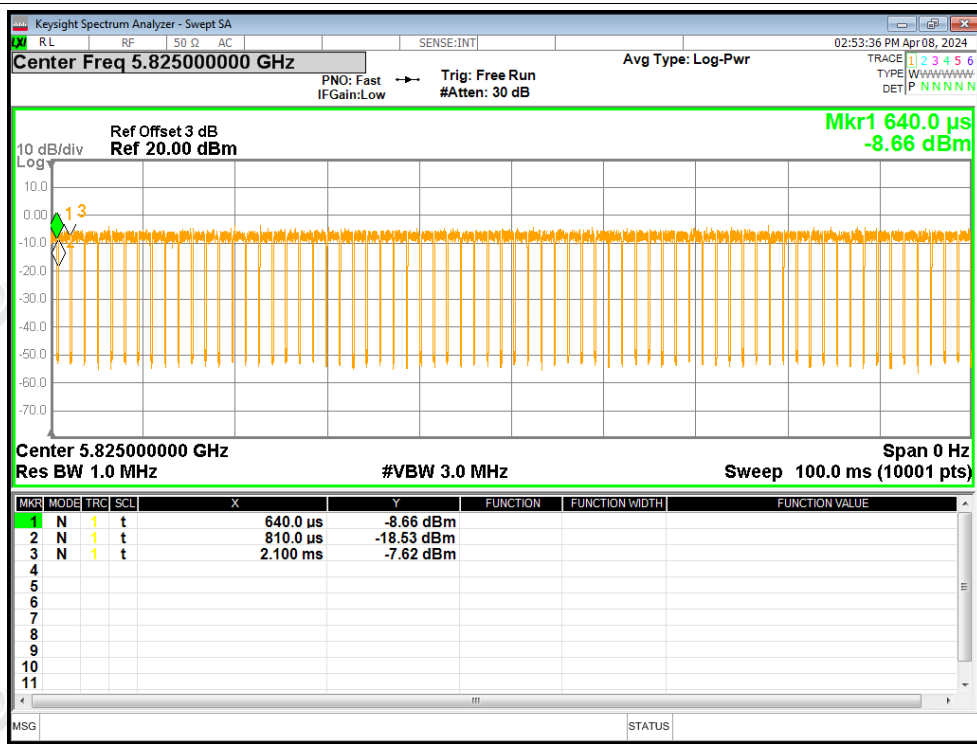




Duty Cycle NVNT n20 5785MHz Ant1

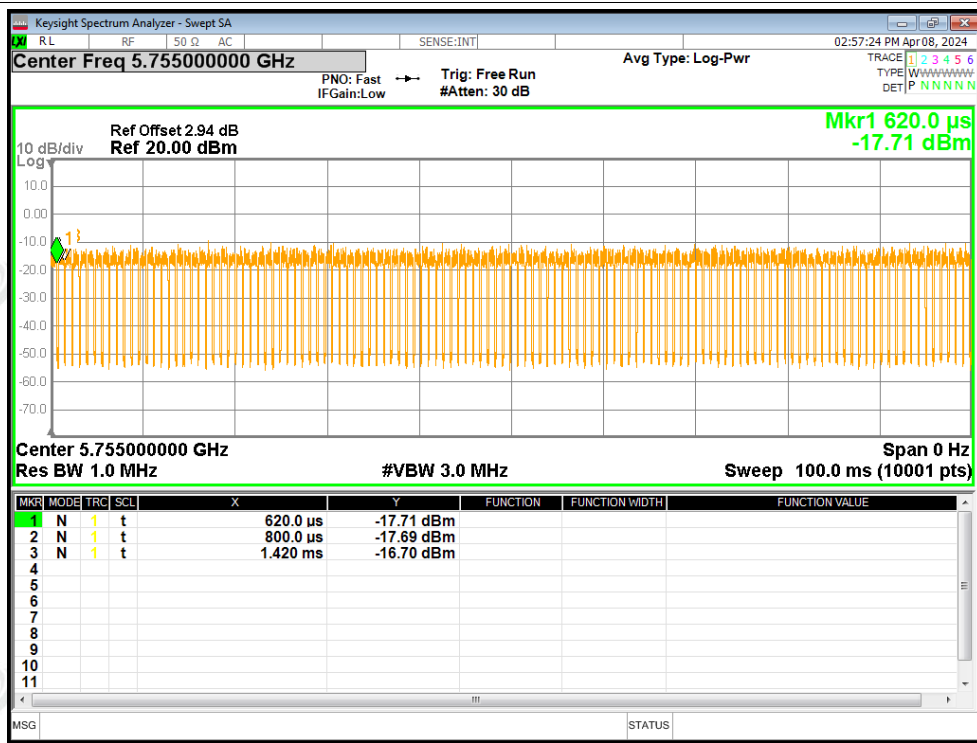


Duty Cycle NVNT n20 5825MHz Ant1

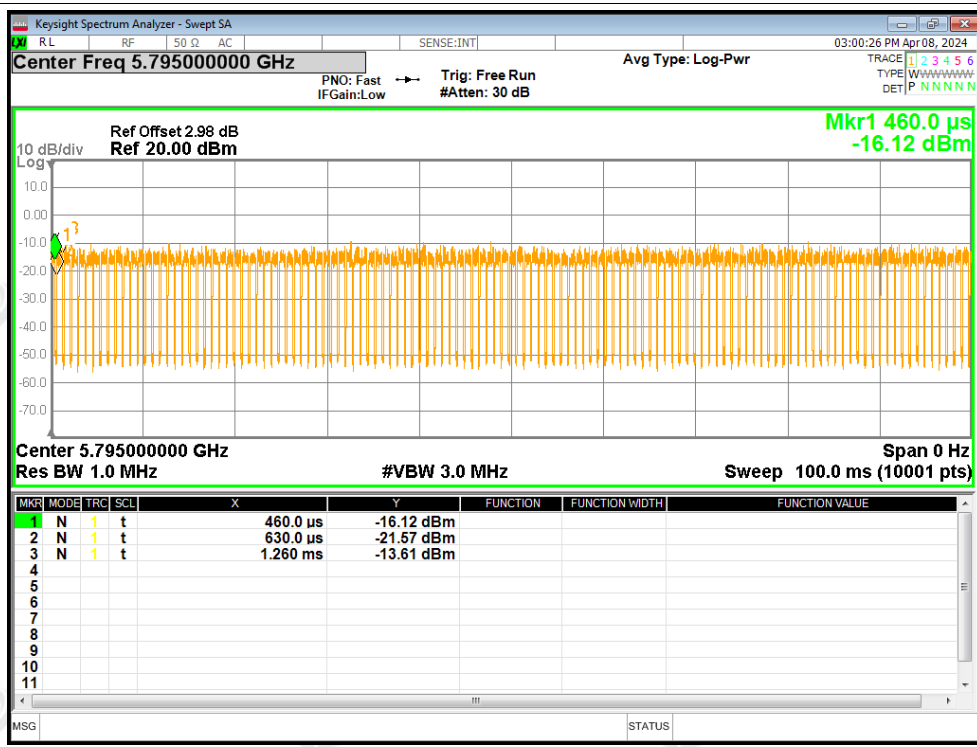




Duty Cycle NVNT n40 5755MHz Ant1



Duty Cycle NVNT n40 5795MHz Ant1





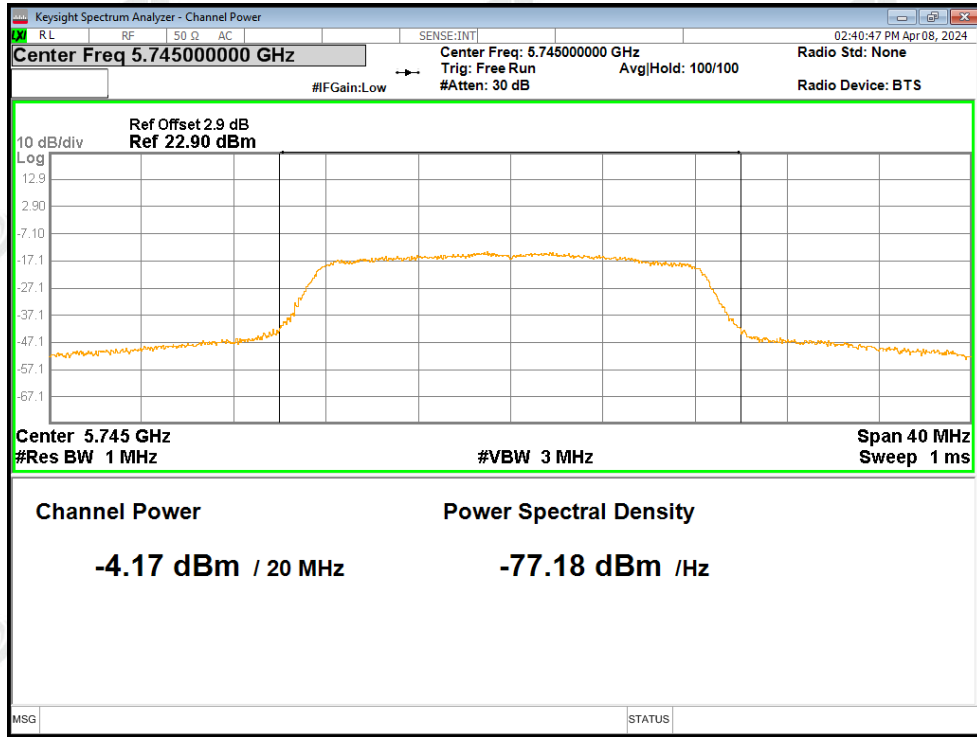
B2. Maximum Conducted Output Power

| Condition | Mode | Frequency (MHz) | Antenna | Conducted Power (dBm) | Duty Factor (dB) | Total Power (dBm) | Limit (dBm) | Verdict |
|-----------|------|-----------------|---------|-----------------------|------------------|-------------------|-------------|---------|
| NVNT | a | 5745 | Ant1 | -4.17 | 2.96 | -1.21 | 30 | Pass |
| NVNT | a | 5785 | Ant1 | -4.59 | 0 | -4.59 | 30 | Pass |
| NVNT | a | 5825 | Ant1 | -3.64 | 2.96 | -0.68 | 30 | Pass |
| NVNT | n20 | 5745 | Ant1 | -2.23 | 0 | -2.23 | 30 | Pass |
| NVNT | n20 | 5785 | Ant1 | -2.7 | 0 | -2.7 | 30 | Pass |
| NVNT | n20 | 5825 | Ant1 | -1.55 | 0.54 | -1.01 | 30 | Pass |
| NVNT | n40 | 5755 | Ant1 | -2.88 | 1.11 | -1.77 | 30 | Pass |
| NVNT | n40 | 5795 | Ant1 | -2.7 | 1.04 | -1.66 | 30 | Pass |

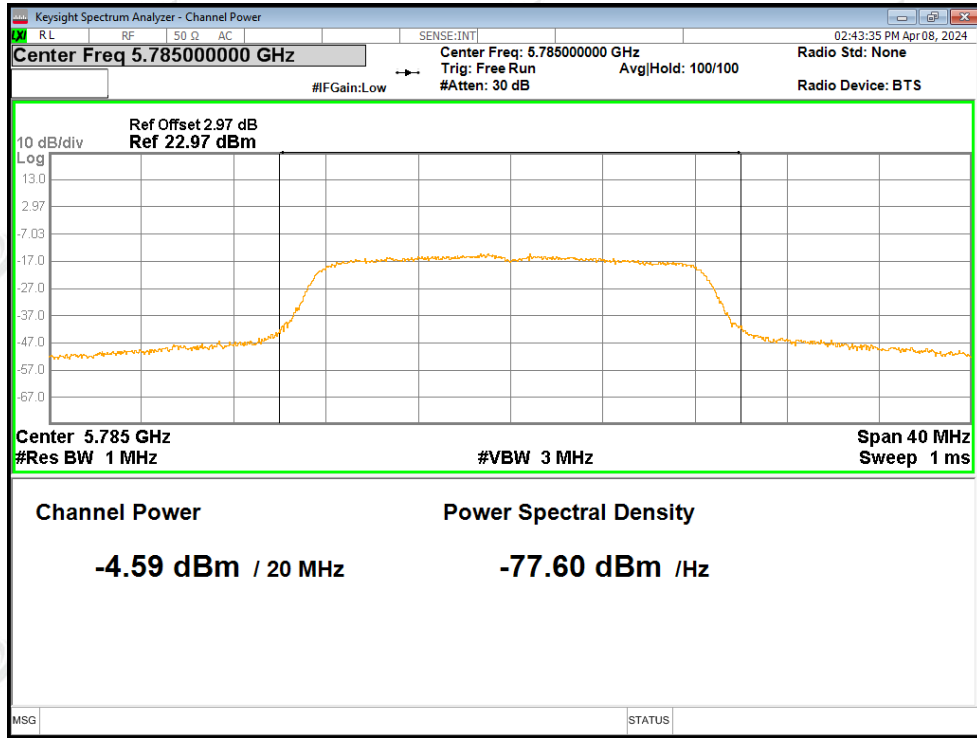


Test Graphs

Power NVNT a 5745MHz Ant1

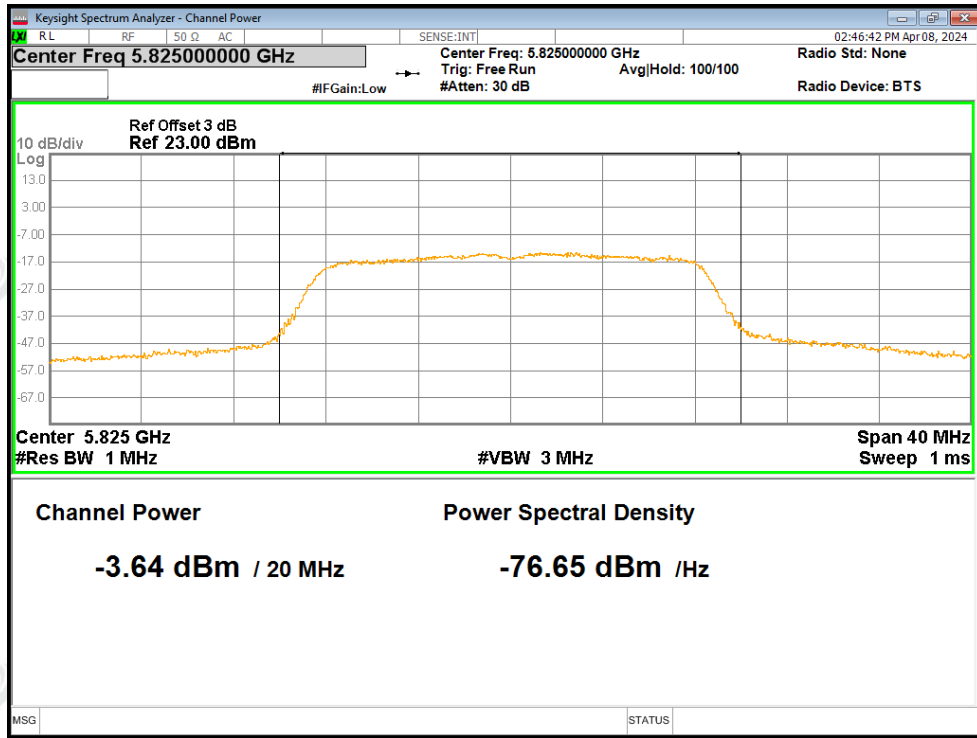


Power NVNT a 5785MHz Ant1

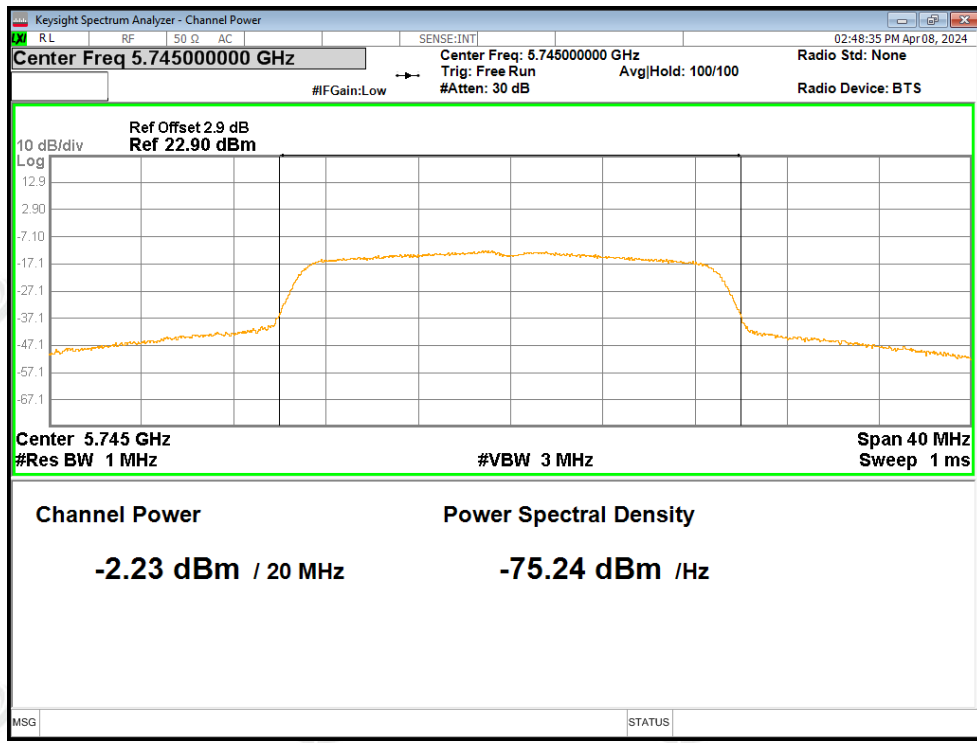




Power NVNT a 5825MHz Ant1

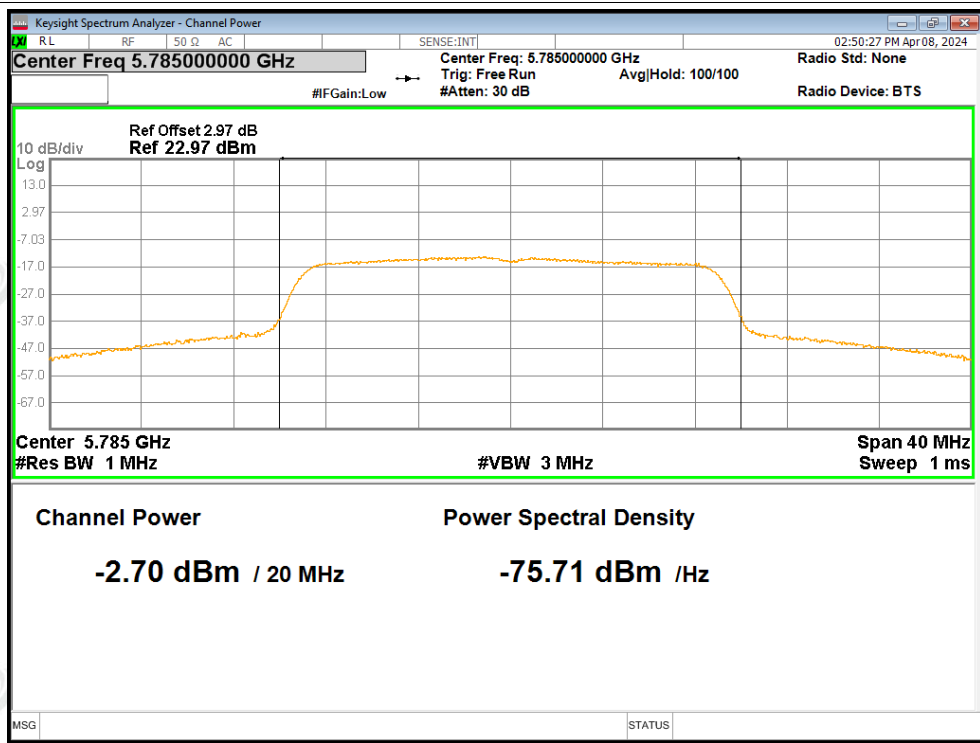


Power NVNT n20 5745MHz Ant1

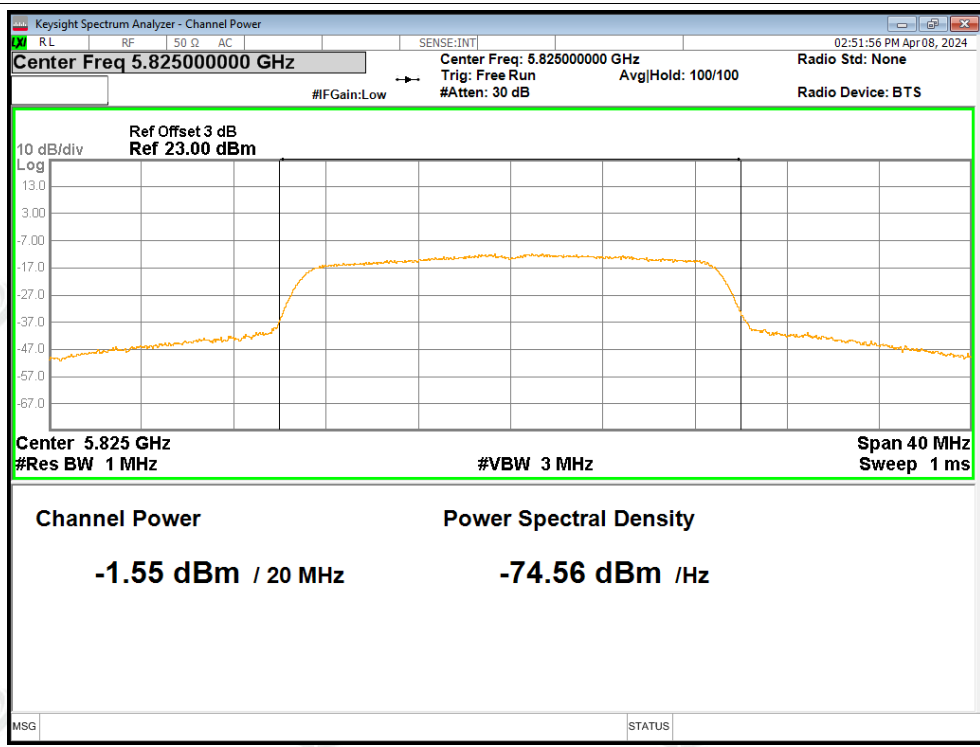




Power NVNT n20 5785MHz Ant1

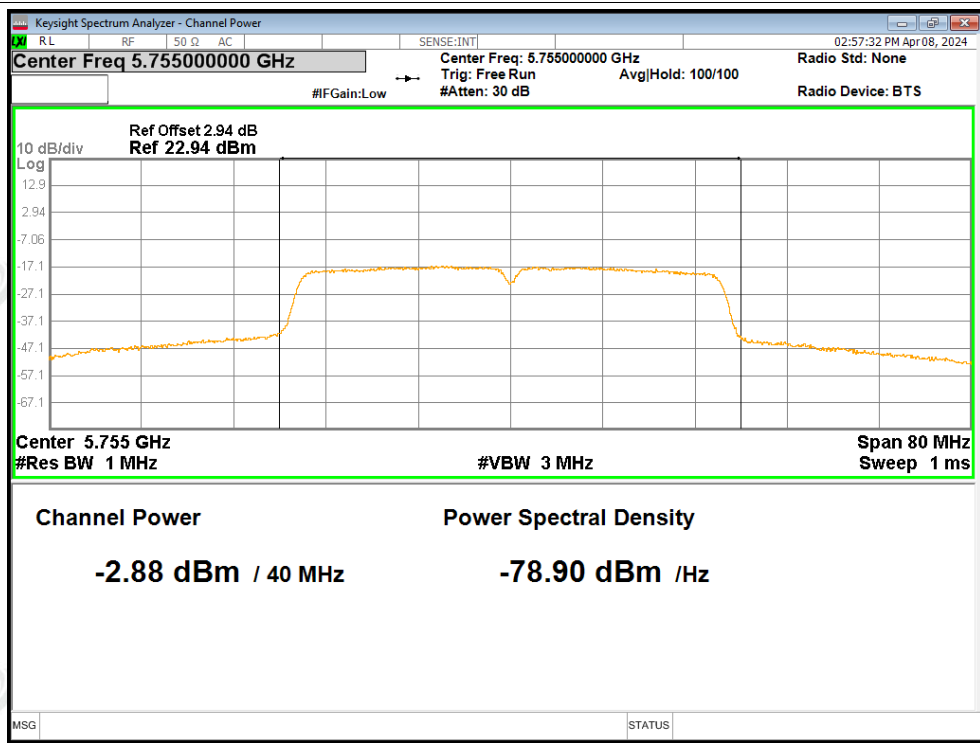


Power NVNT n20 5825MHz Ant1

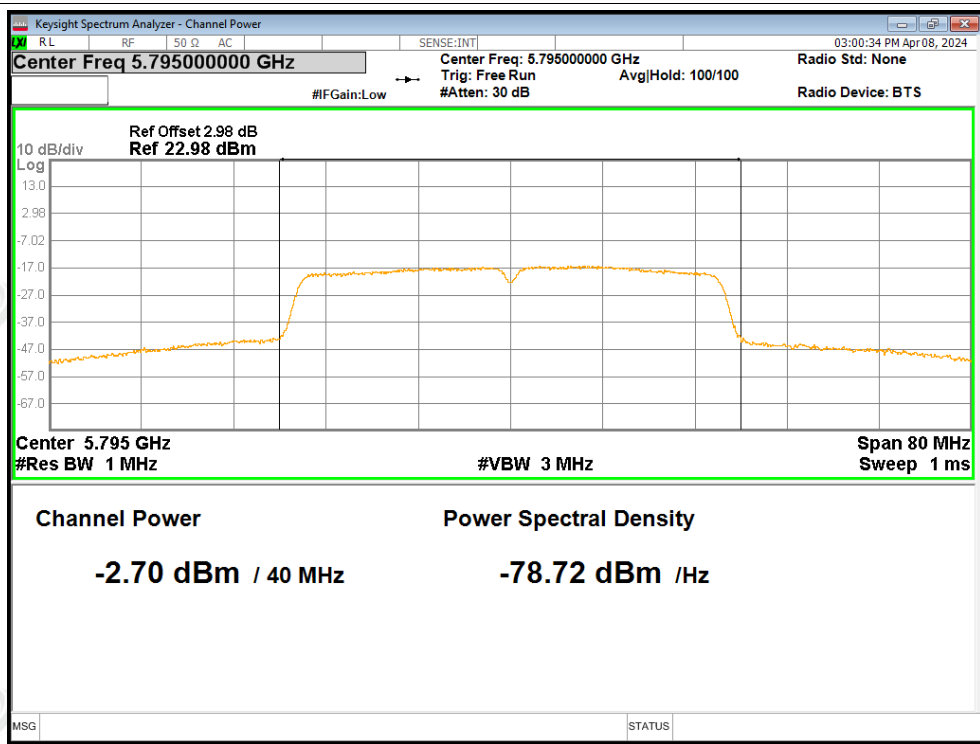




Power NVNT n40 5755MHz Ant1



Power NVNT n40 5795MHz Ant1





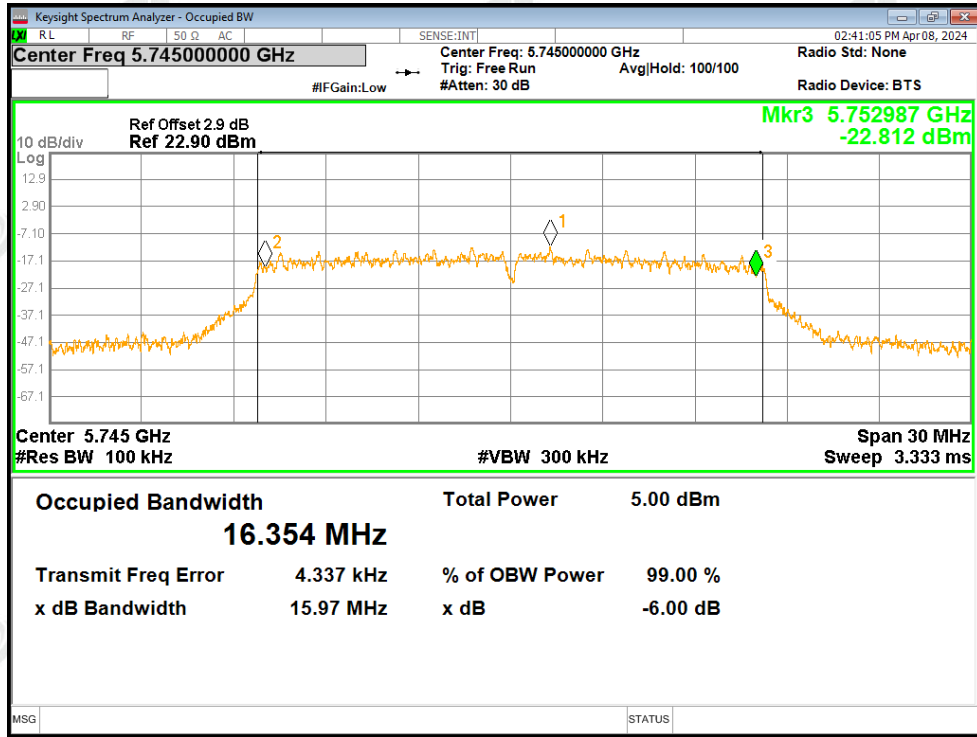
B3. -6dB Bandwidth

| Condition | Mode | Frequency (MHz) | Antenna | -6 dB Bandwidth (MHz) | Limit -6 dB Bandwidth (MHz) | Verdict |
|-----------|------|-----------------|---------|-----------------------|-----------------------------|---------|
| NVNT | a | 5745 | Ant1 | 15.966 | 0.5 | Pass |
| NVNT | a | 5785 | Ant1 | 15.572 | 0.5 | Pass |
| NVNT | a | 5825 | Ant1 | 15.437 | 0.5 | Pass |
| NVNT | n20 | 5745 | Ant1 | 15.133 | 0.5 | Pass |
| NVNT | n20 | 5785 | Ant1 | 16.691 | 0.5 | Pass |
| NVNT | n20 | 5825 | Ant1 | 15.545 | 0.5 | Pass |
| NVNT | n40 | 5755 | Ant1 | 35.298 | 0.5 | Pass |
| NVNT | n40 | 5795 | Ant1 | 32.618 | 0.5 | Pass |

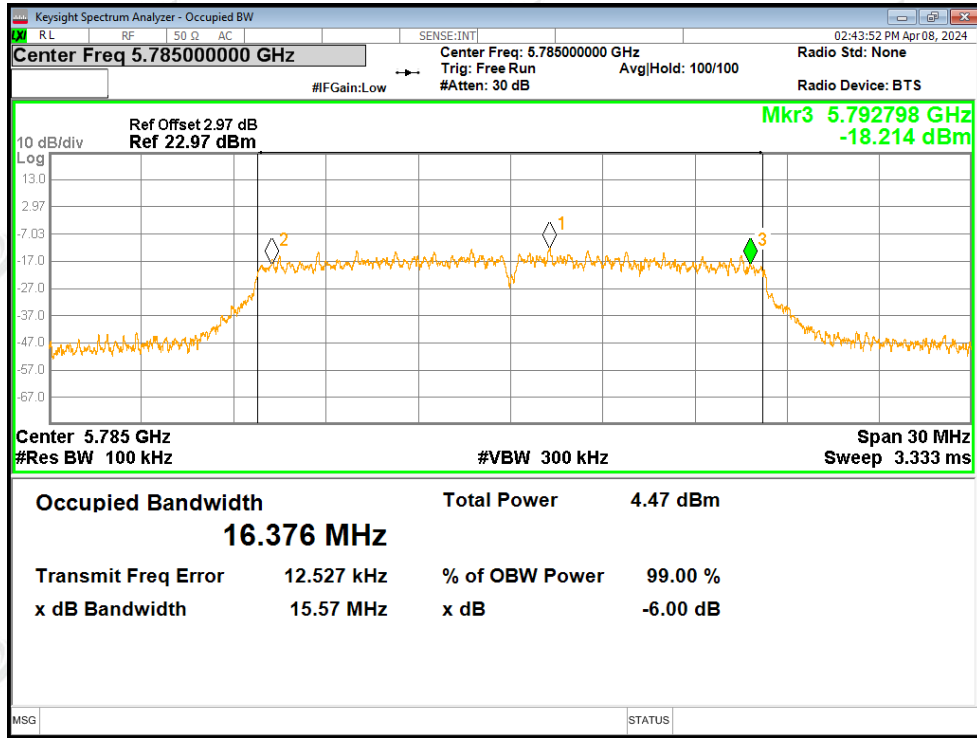


Test Graphs

-6dB Bandwidth NVNT a 5745MHz Ant1



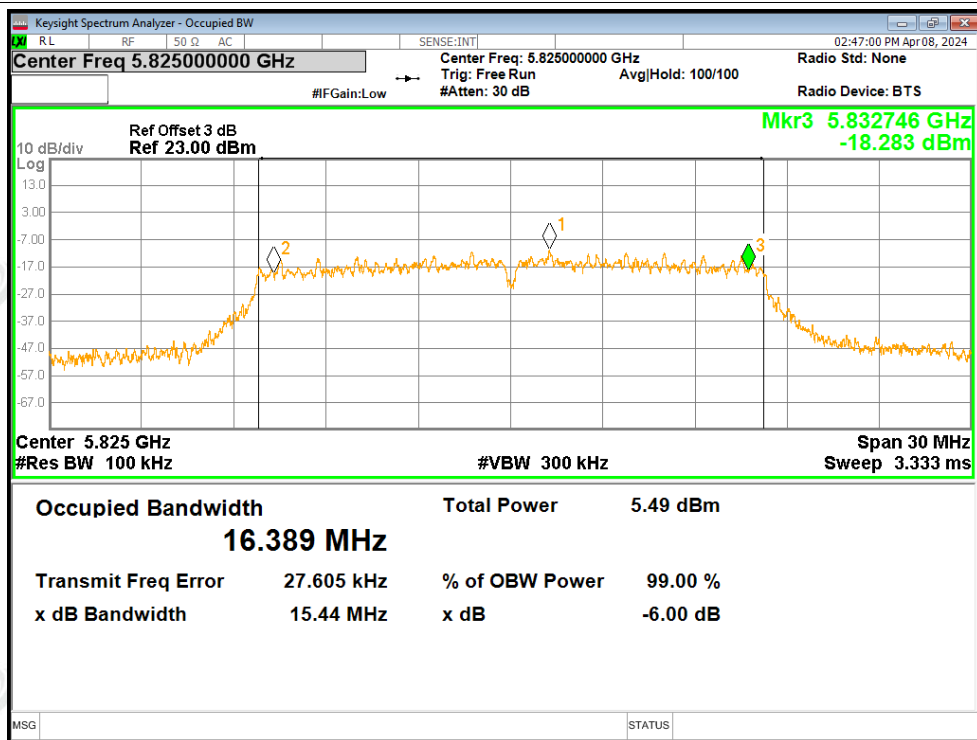
-6dB Bandwidth NVNT a 5785MHz Ant1



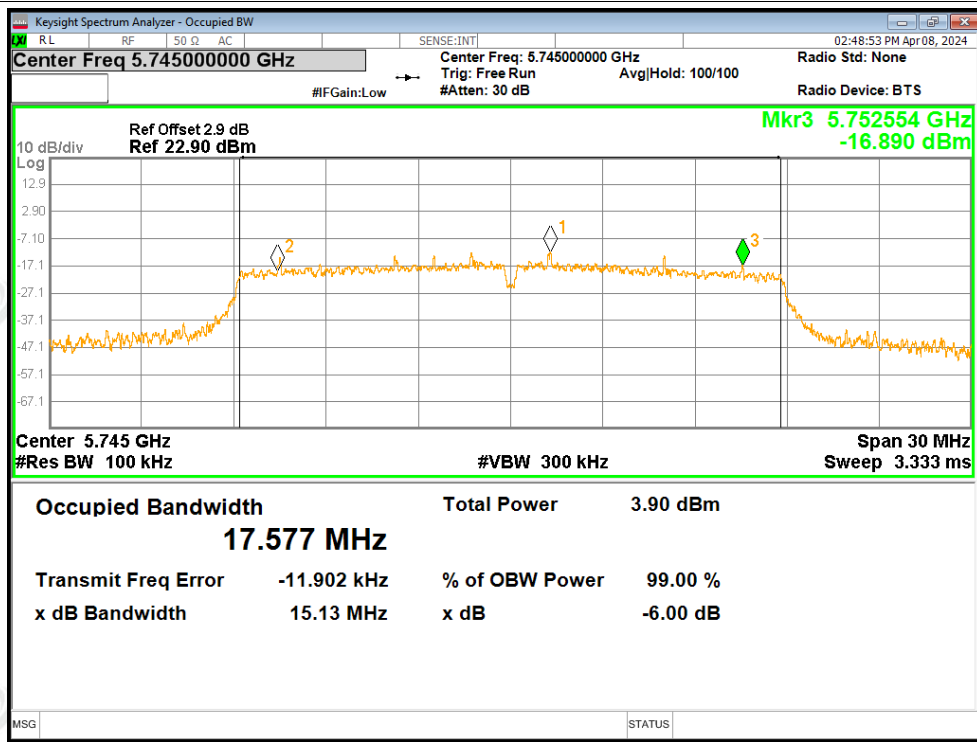


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-6dB Bandwidth NVNT a 5825MHz Ant1

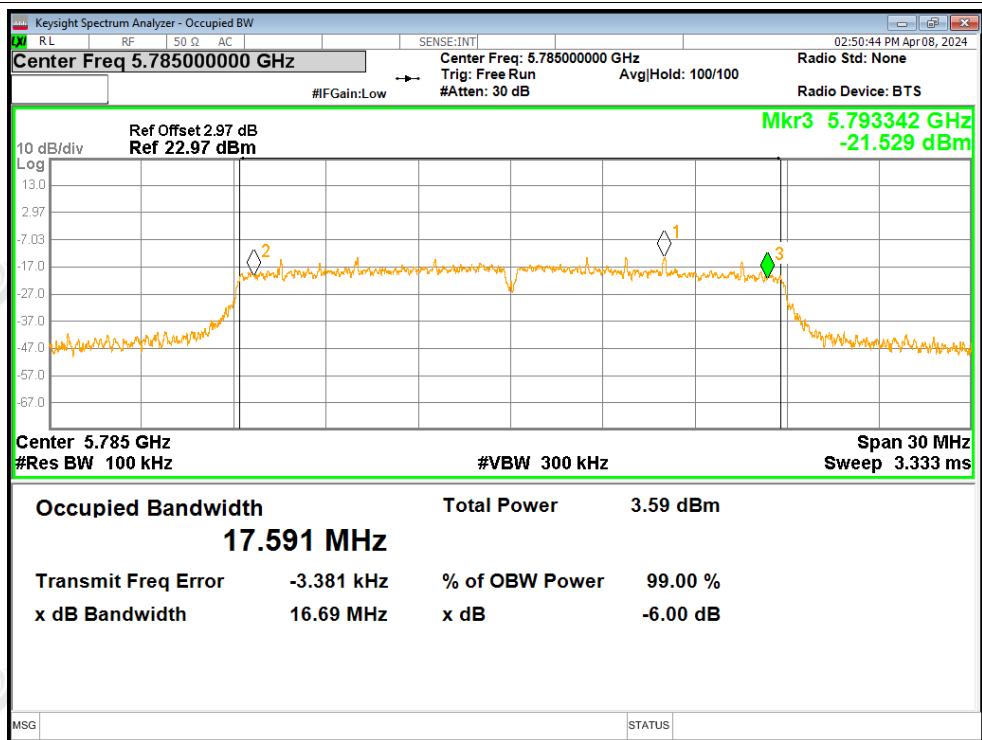


-6dB Bandwidth NVNT n20 5745MHz Ant1

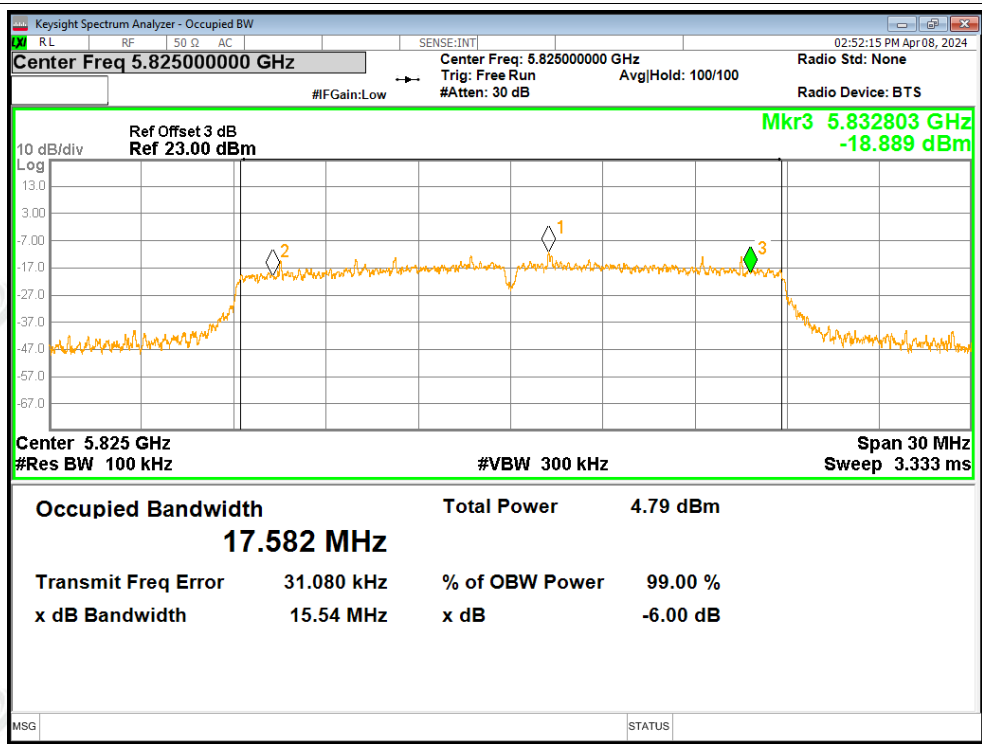




-6dB Bandwidth NVNT n20 5785MHz Ant1

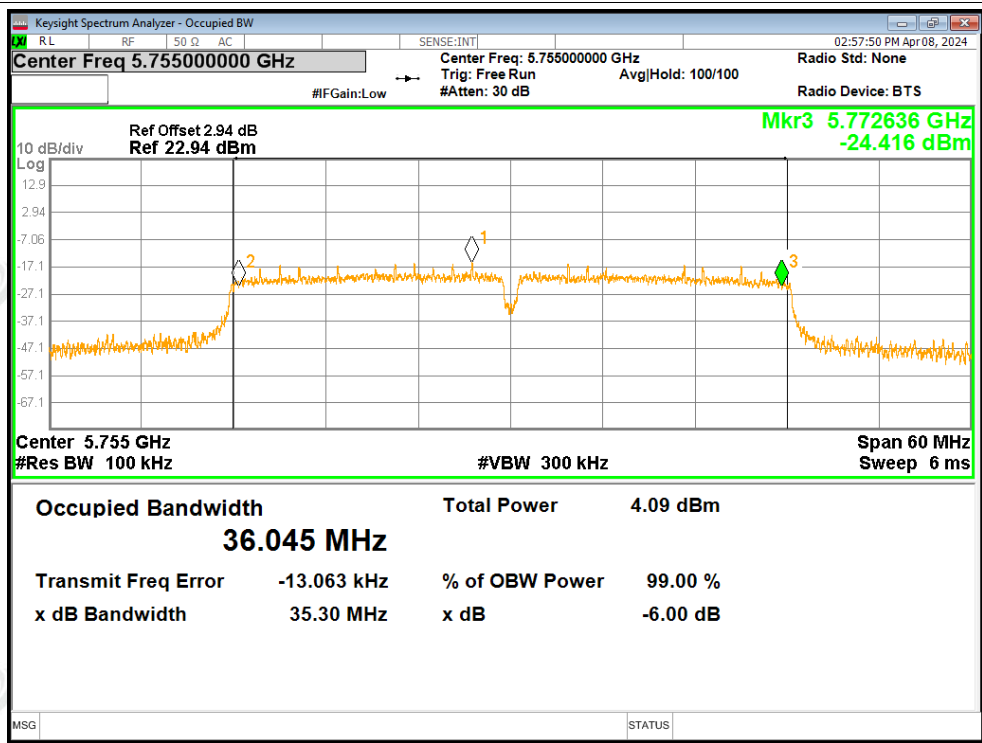


-6dB Bandwidth NVNT n20 5825MHz Ant1

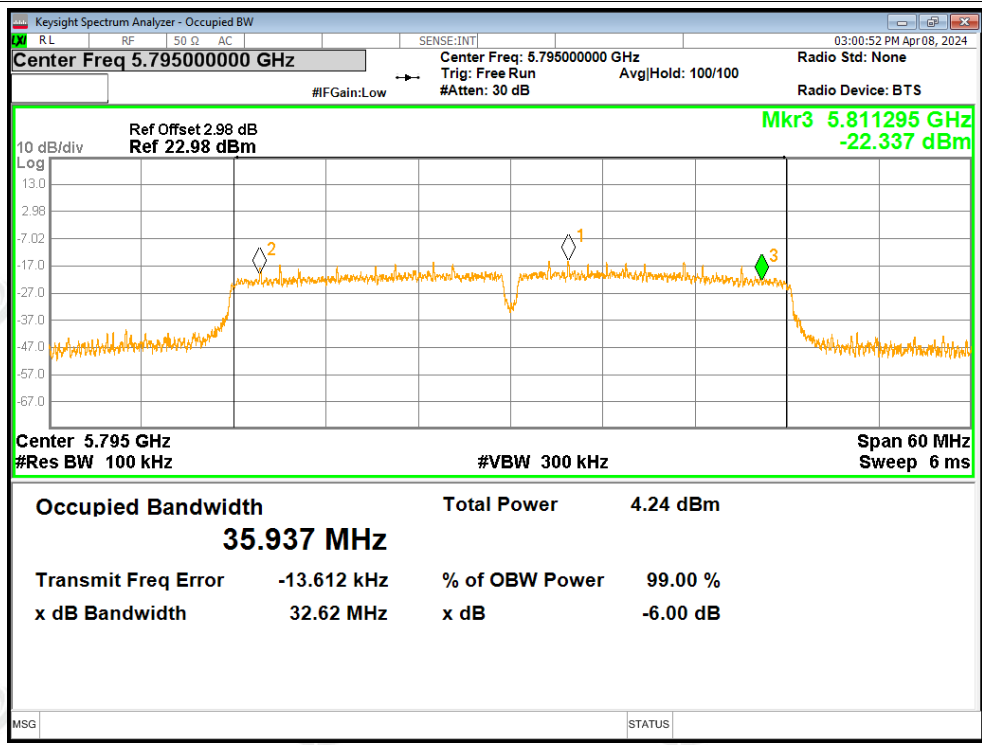




-6dB Bandwidth NVNT n40 5755MHz Ant1



-6dB Bandwidth NVNT n40 5795MHz Ant1





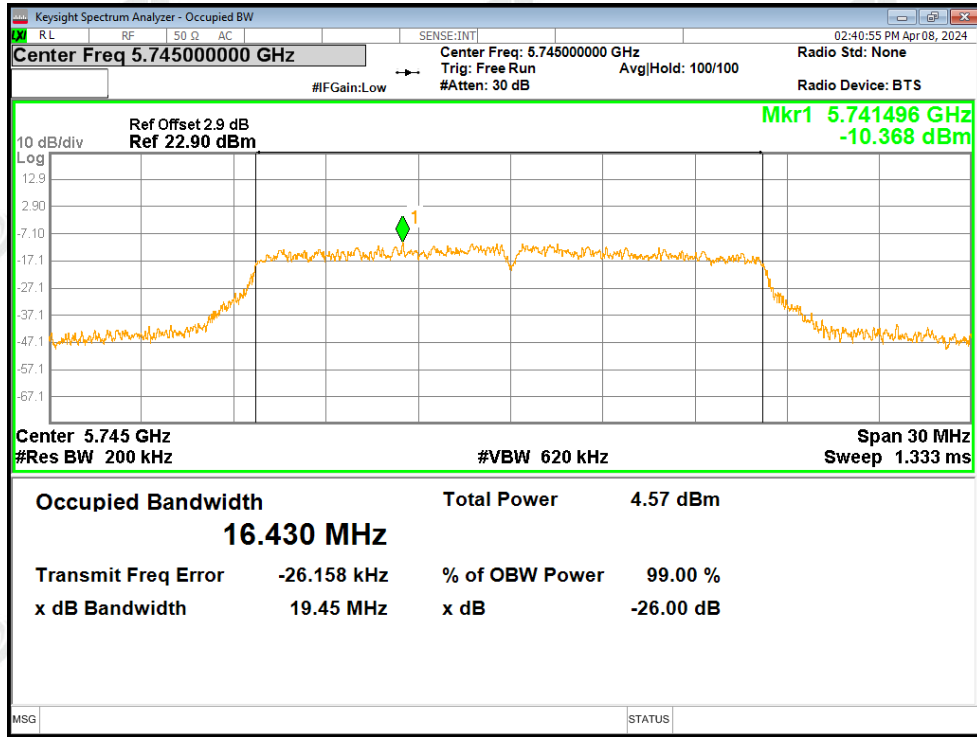
B4. Occupied Channel Bandwidth

| Condition | Mode | Frequency (MHz) | Antenna | 99% OBW (MHz) |
|-----------|------|-----------------|---------|---------------|
| NVNT | a | 5745 | Ant1 | 16.43 |
| NVNT | a | 5785 | Ant1 | 16.465 |
| NVNT | a | 5825 | Ant1 | 16.405 |
| NVNT | n20 | 5745 | Ant1 | 17.59 |
| NVNT | n20 | 5785 | Ant1 | 17.636 |
| NVNT | n20 | 5825 | Ant1 | 17.613 |
| NVNT | n40 | 5755 | Ant1 | 36.105 |
| NVNT | n40 | 5795 | Ant1 | 36.088 |

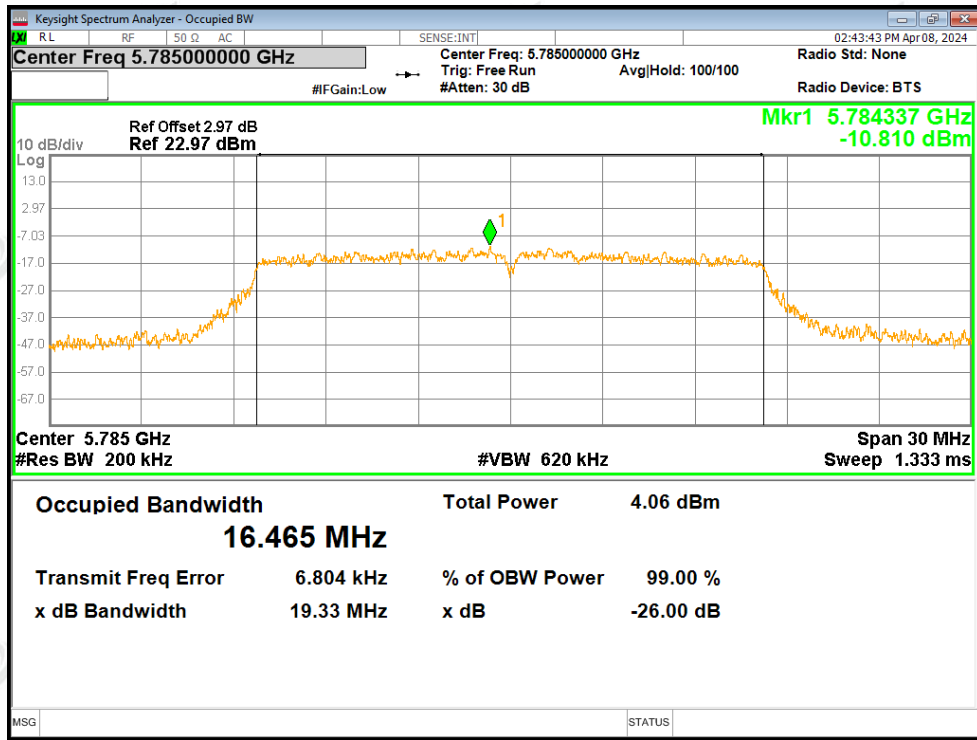


Test Graphs

OBW NVNT a 5745MHz Ant1

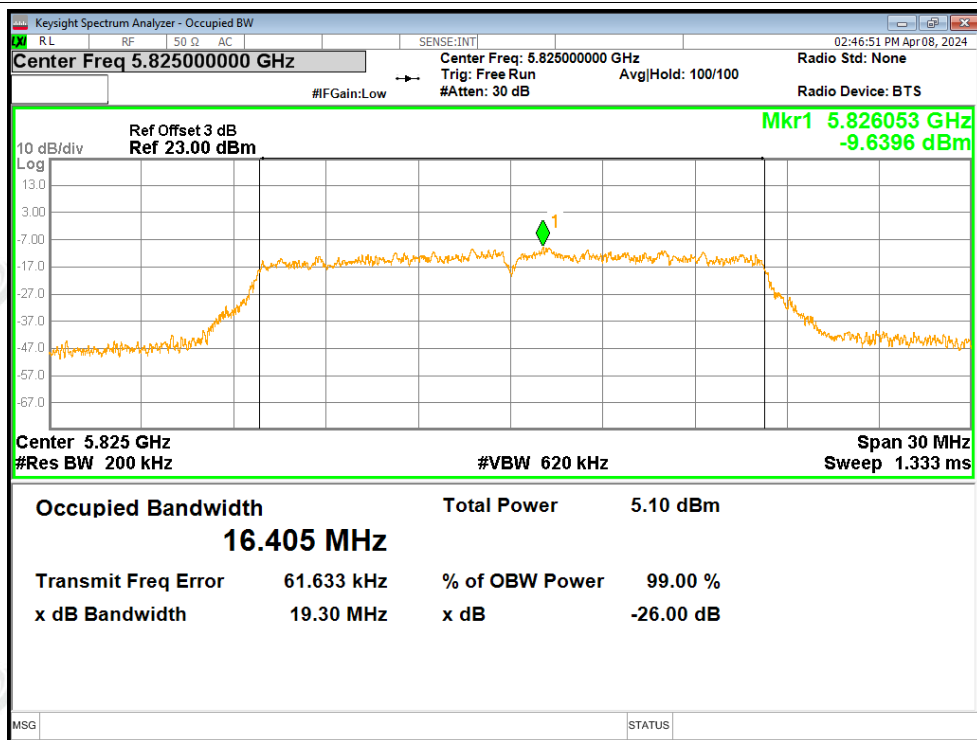


OBW NVNT a 5785MHz Ant1

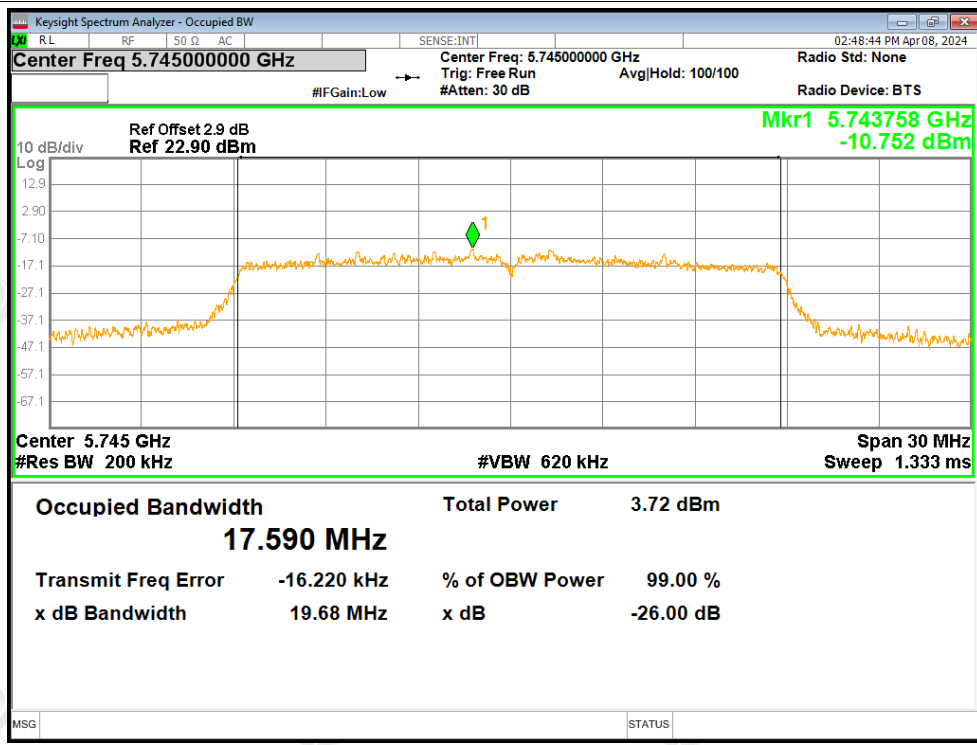




OBW NVNT a 5825MHz Ant1

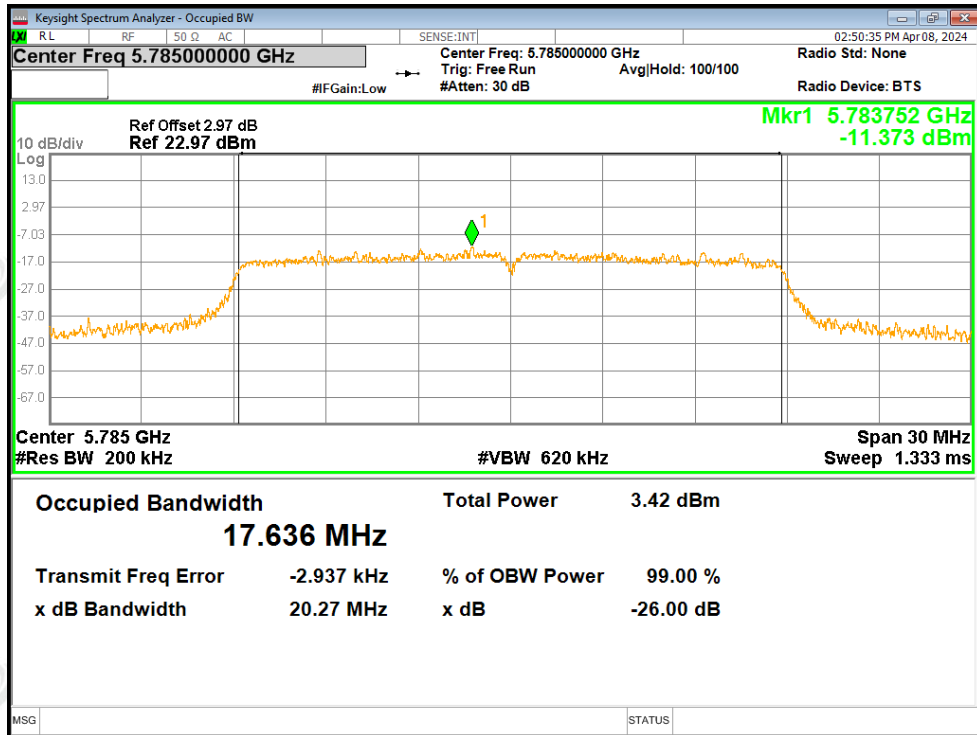


OBW NVNT n20 5745MHz Ant1

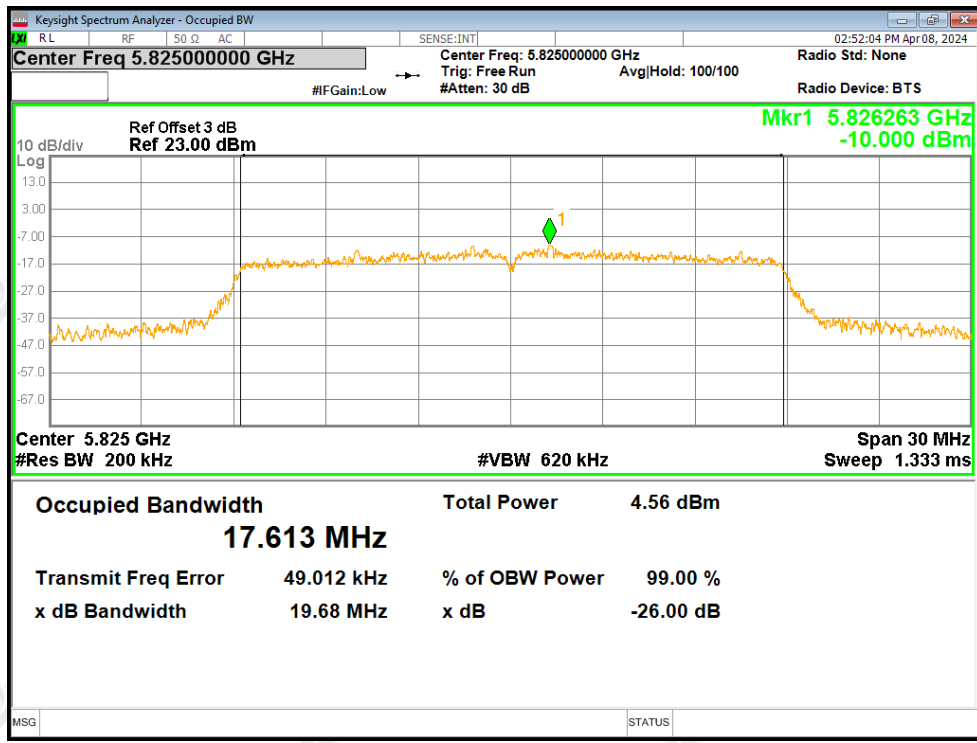




OBW NVNT n20 5785MHz Ant1

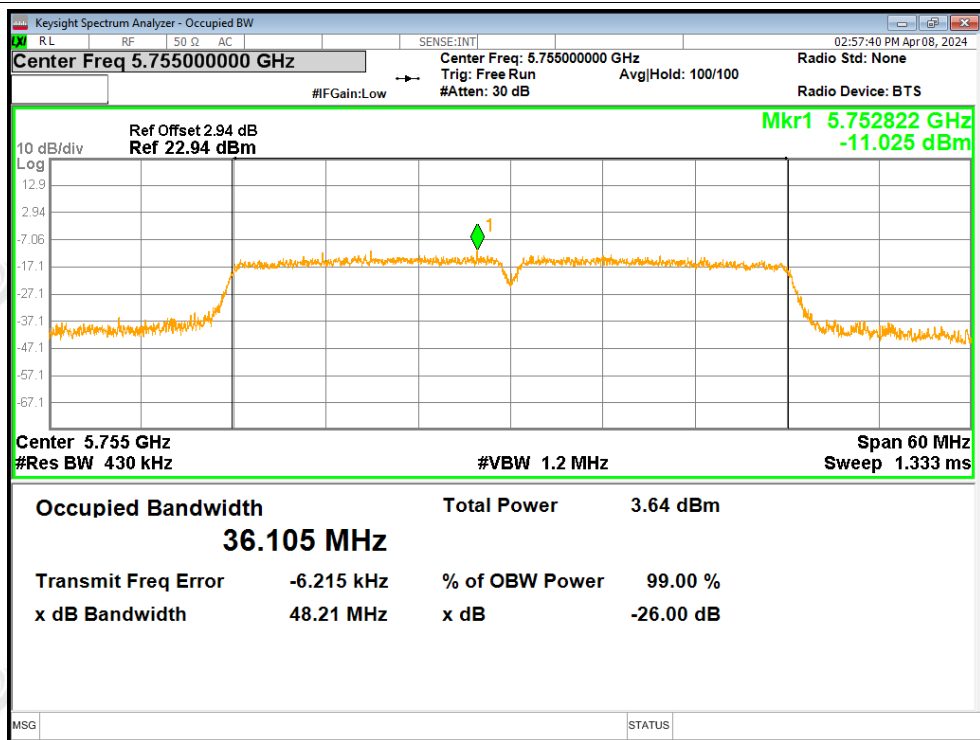


OBW NVNT n20 5825MHz Ant1

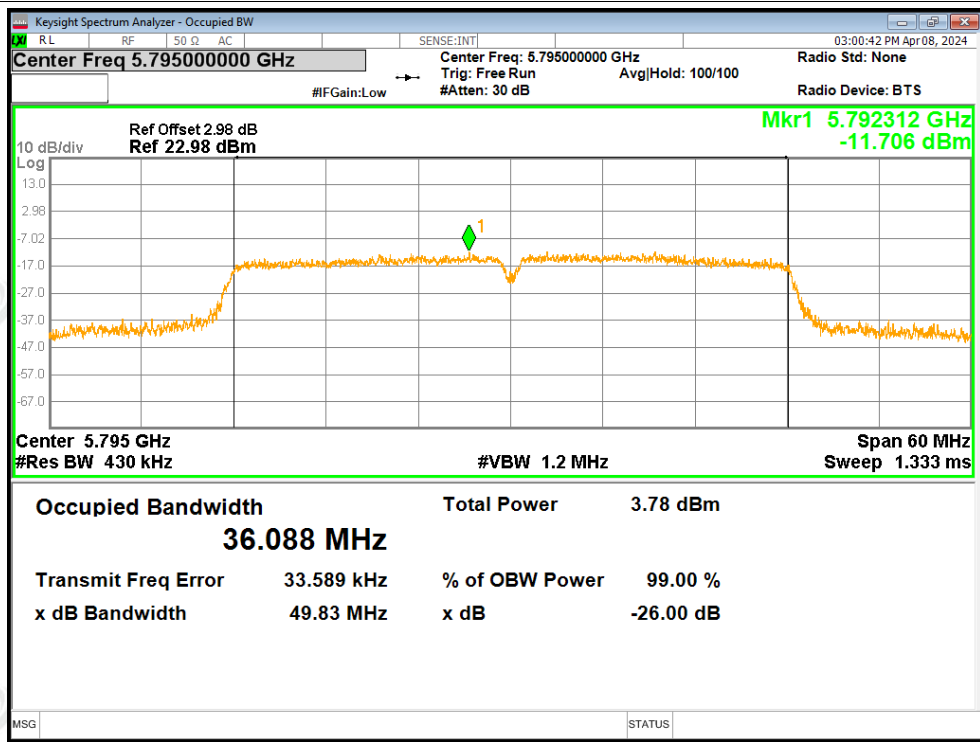




OBW NVNT n40 5755MHz Ant1



OBW NVNT n40 5795MHz Ant1





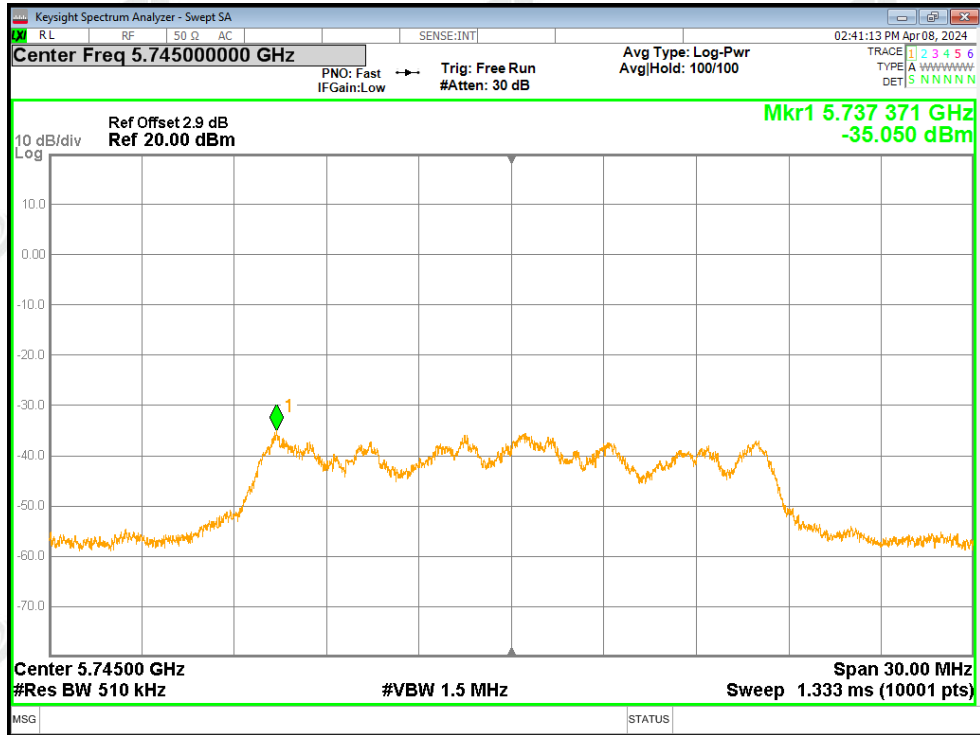
B5. Maximum Power Spectral Density Level

| Condition | Mode | Frequency (MHz) | Antenna | Conducted PSD (dBm) | Duty Factor (dB) | Total PSD (dBm) | Limit (dBm) | Verdict |
|-----------|------|-----------------|---------|---------------------|------------------|-----------------|-------------|---------|
| NVNT | a | 5745 | Ant1 | -35.05 | 2.96 | -32.09 | 30 | Pass |
| NVNT | a | 5785 | Ant1 | -34.49 | 0 | -34.49 | 30 | Pass |
| NVNT | a | 5825 | Ant1 | -35.29 | 2.96 | -32.33 | 30 | Pass |
| NVNT | n20 | 5745 | Ant1 | -21.24 | 0 | -21.24 | 30 | Pass |
| NVNT | n20 | 5785 | Ant1 | -21.42 | 0 | -21.42 | 30 | Pass |
| NVNT | n20 | 5825 | Ant1 | -20.43 | 0.54 | -19.89 | 30 | Pass |
| NVNT | n40 | 5755 | Ant1 | -27.05 | 1.11 | -25.94 | 30 | Pass |
| NVNT | n40 | 5795 | Ant1 | -26.76 | 1.04 | -25.72 | 30 | Pass |

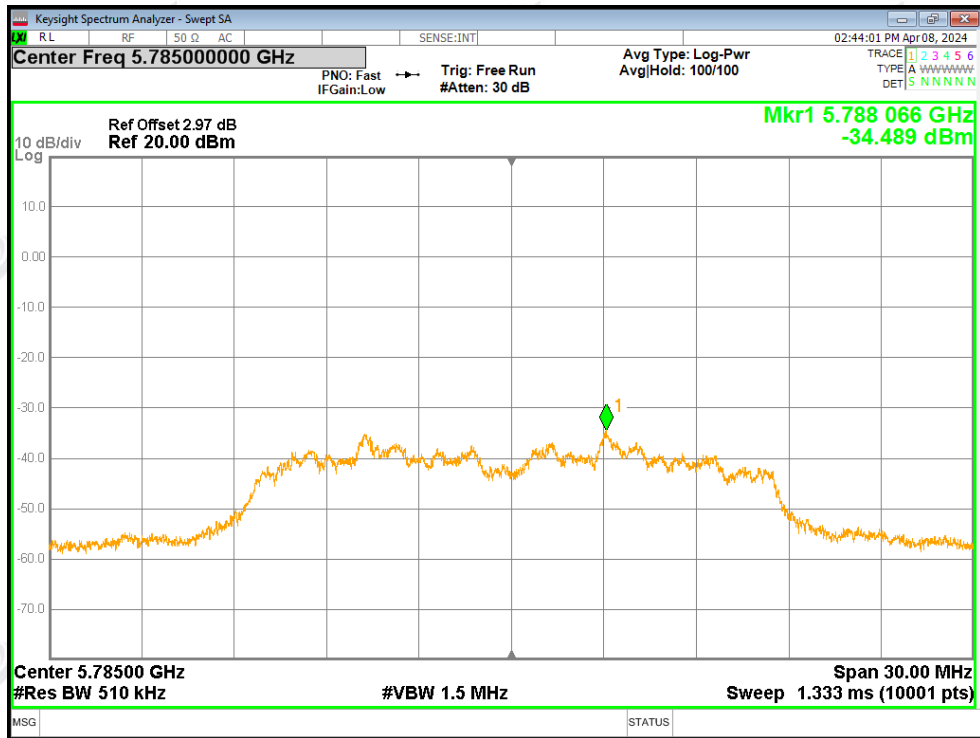


Test Graphs

PSD NVNT a 5745MHz Ant1

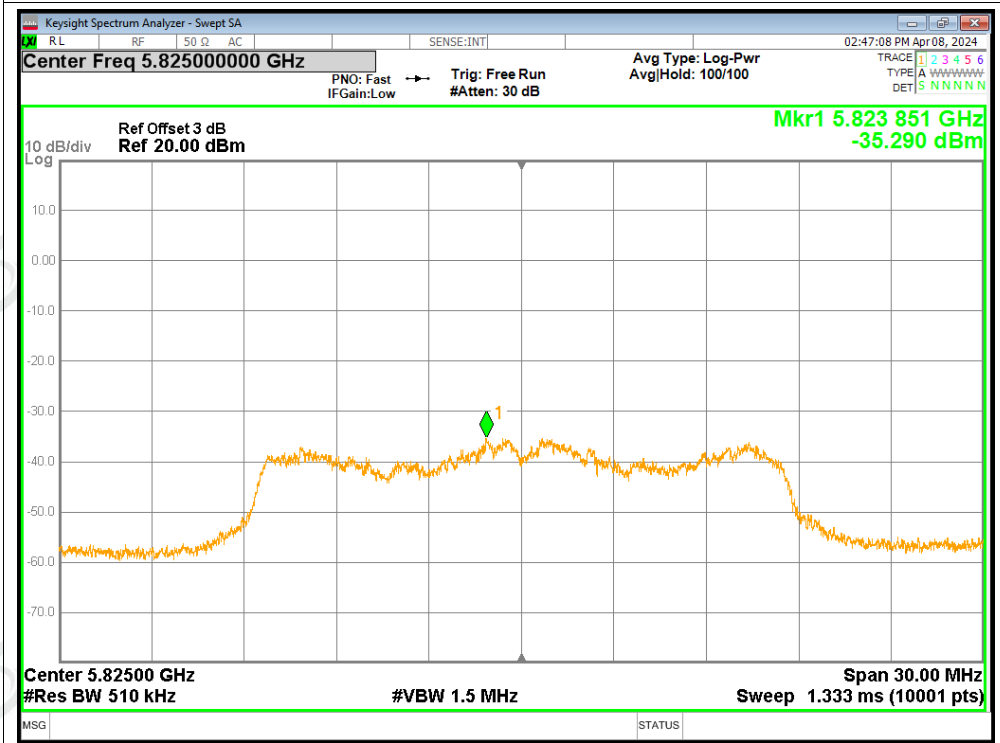


PSD NVNT a 5785MHz Ant1

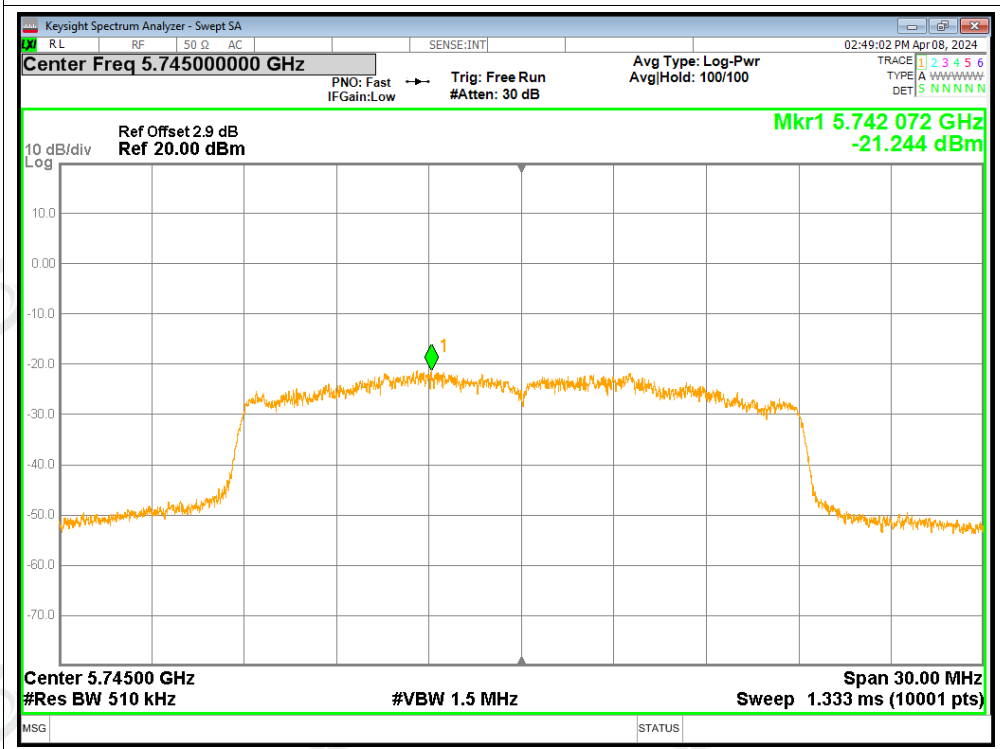




PSD NVNT a 5825MHz Ant1

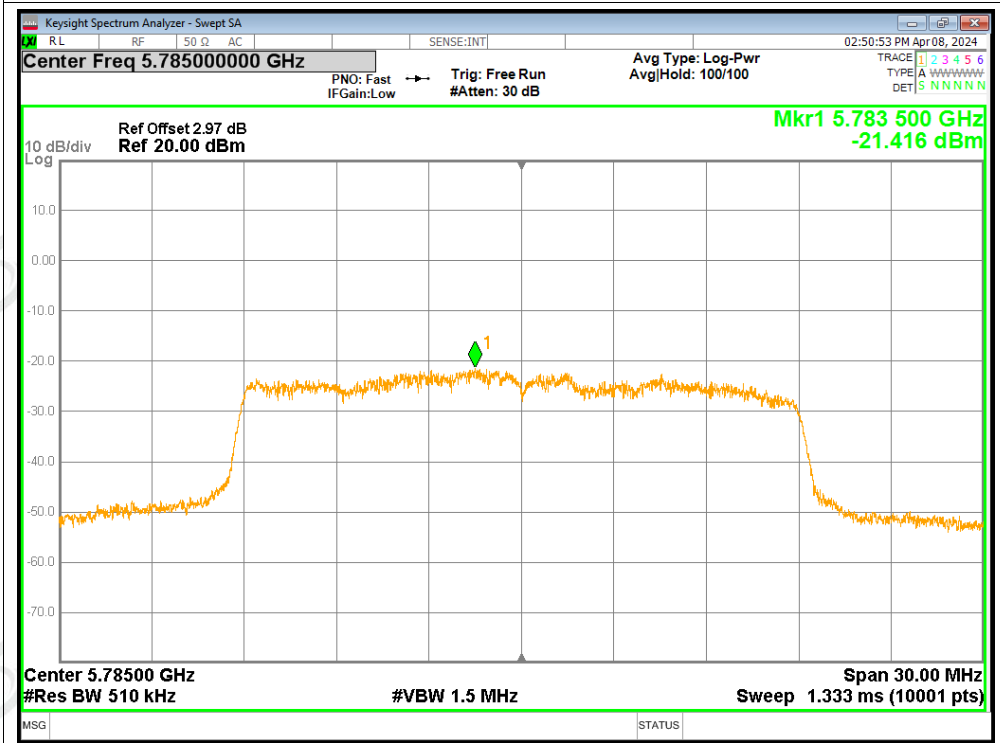


PSD NVNT n20 5745MHz Ant1

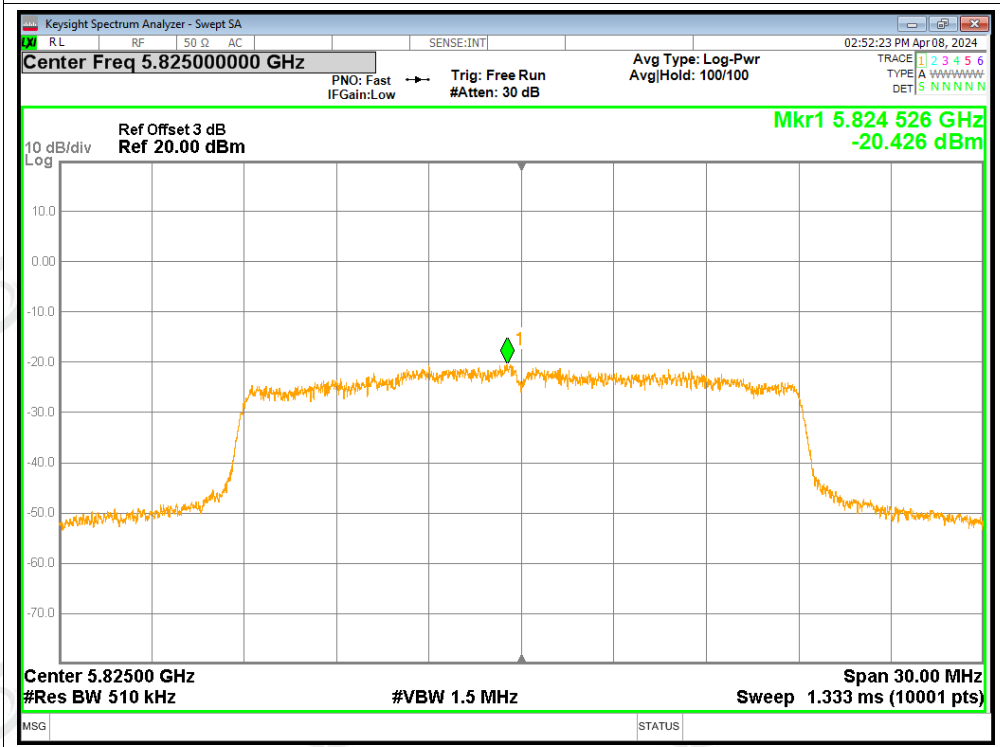




PSD NVNT n20 5785MHz Ant1

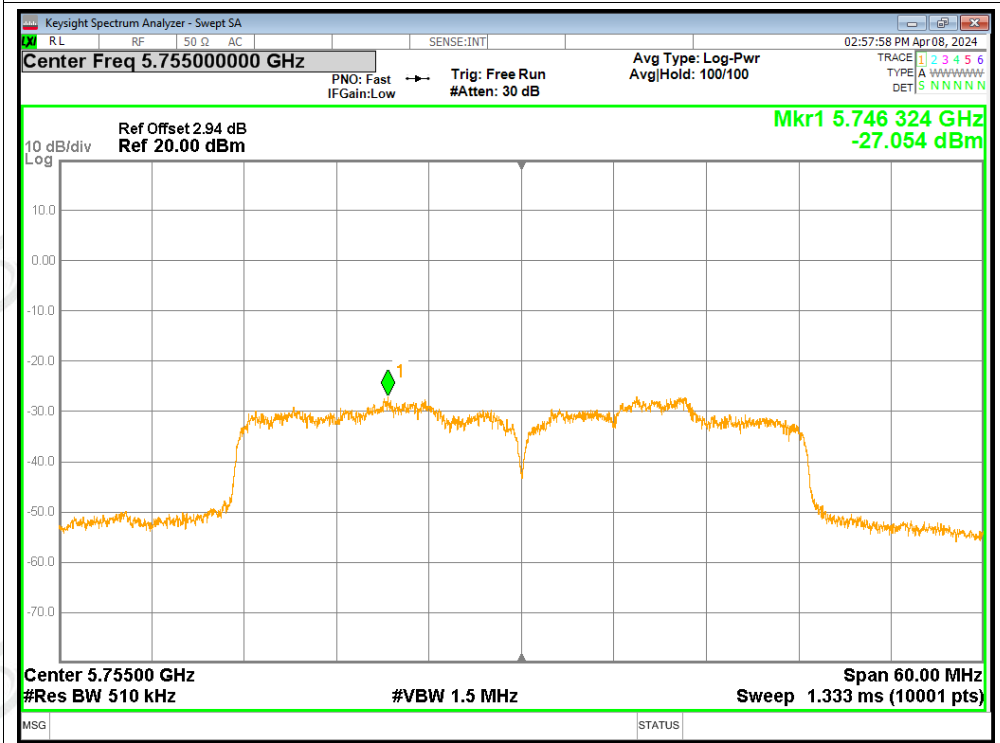


PSD NVNT n20 5825MHz Ant1

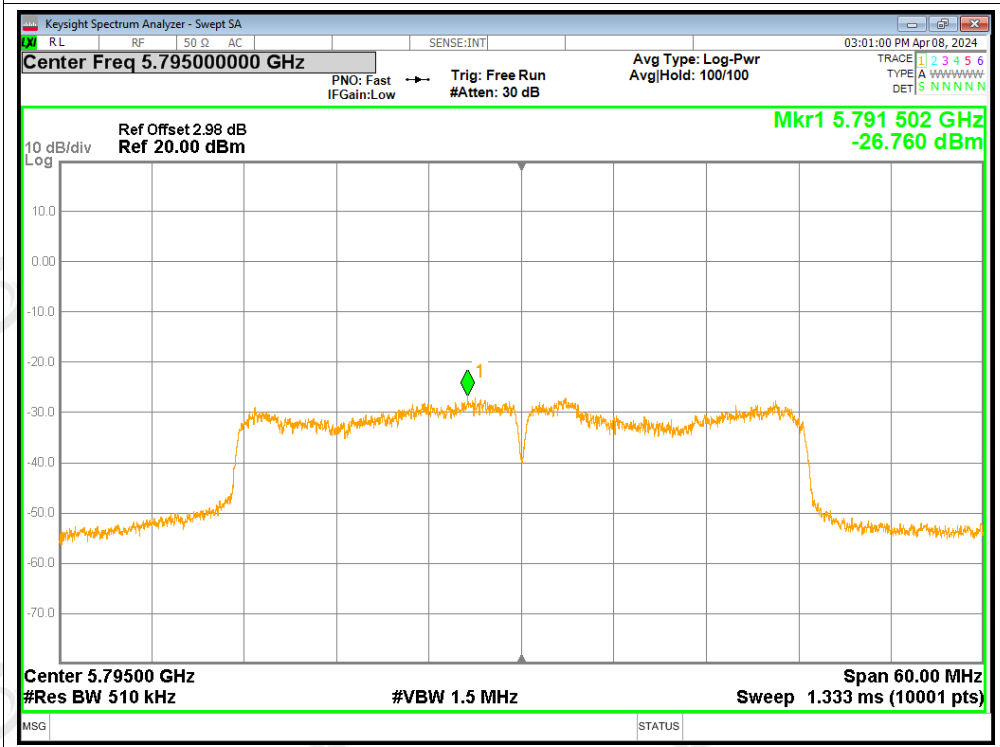




PSD NVNT n40 5755MHz Ant1



PSD NVNT n40 5795MHz Ant1





B6. Band Edge

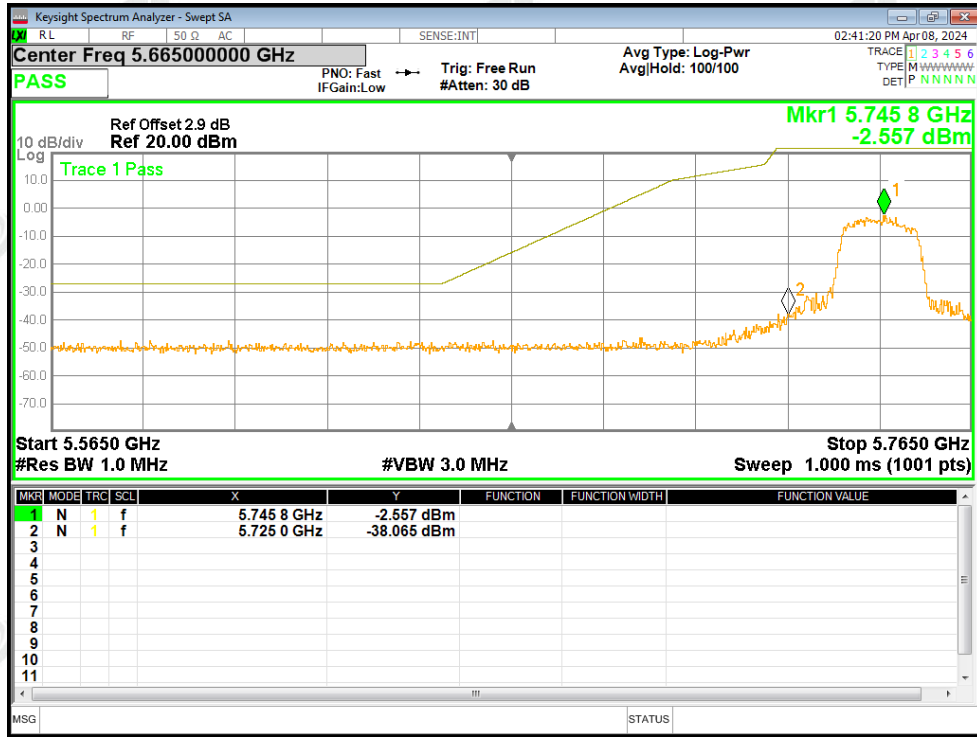
| Condition | Mode | Frequency (MHz) | Antenna | Max Value (dBm) | Limit (dBm) | Verdict |
|-----------|------|-----------------|---------|-----------------|-------------|---------|
| NVNT | a | 5745 | Ant1 | -38.06 | | Pass |
| NVNT | a | 5825 | Ant1 | -41.92 | | Pass |
| NVNT | n20 | 5745 | Ant1 | -36.26 | | Pass |
| NVNT | n20 | 5825 | Ant1 | -45.49 | | Pass |
| NVNT | n40 | 5755 | Ant1 | -32.61 | | Pass |
| NVNT | n40 | 5795 | Ant1 | -45.52 | | Pass |



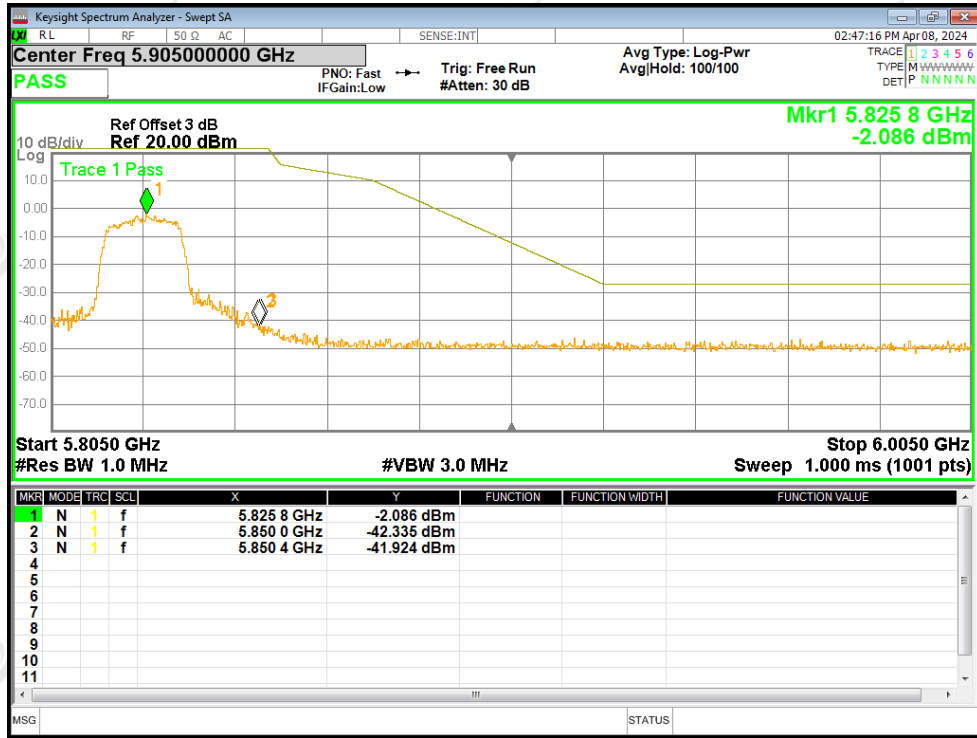


Test Graphs

Band Edge NVNT a 5745MHz Low Ant1

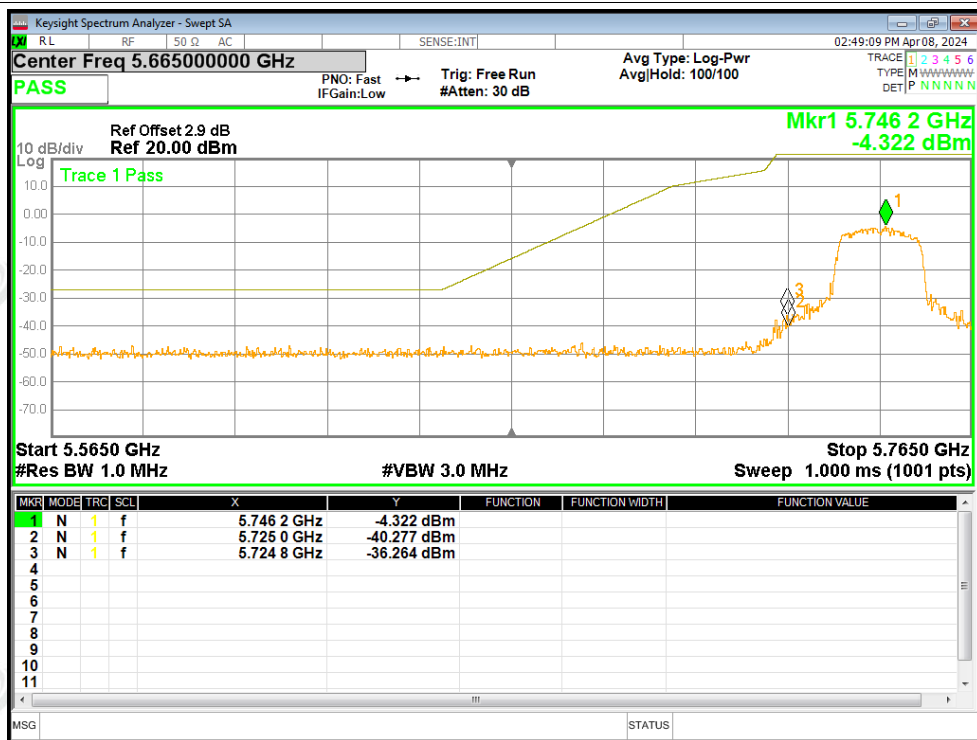


Band Edge NVNT a 5825MHz High Ant1

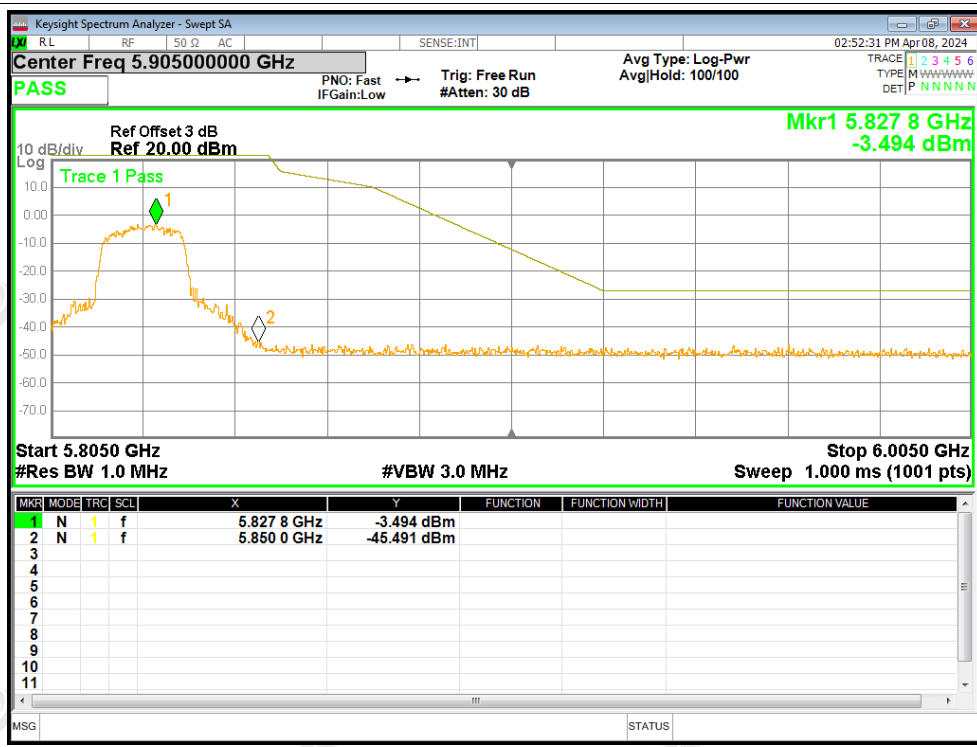




Band Edge NVNT n20 5745MHz Low Ant1

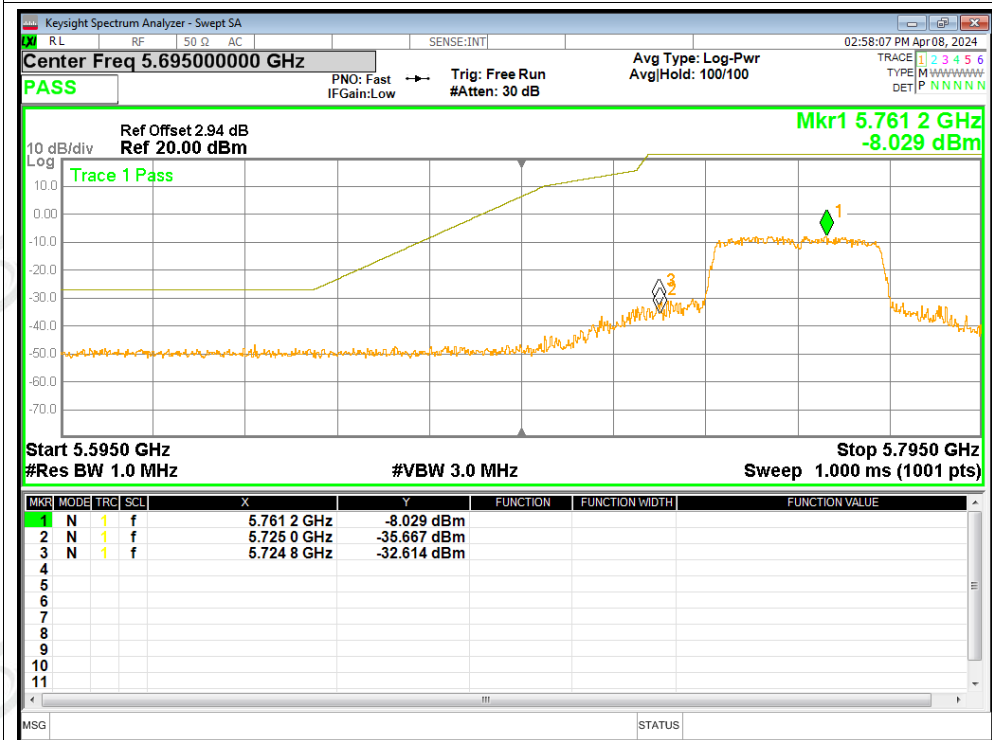


Band Edge NVNT n20 5825MHz High Ant1

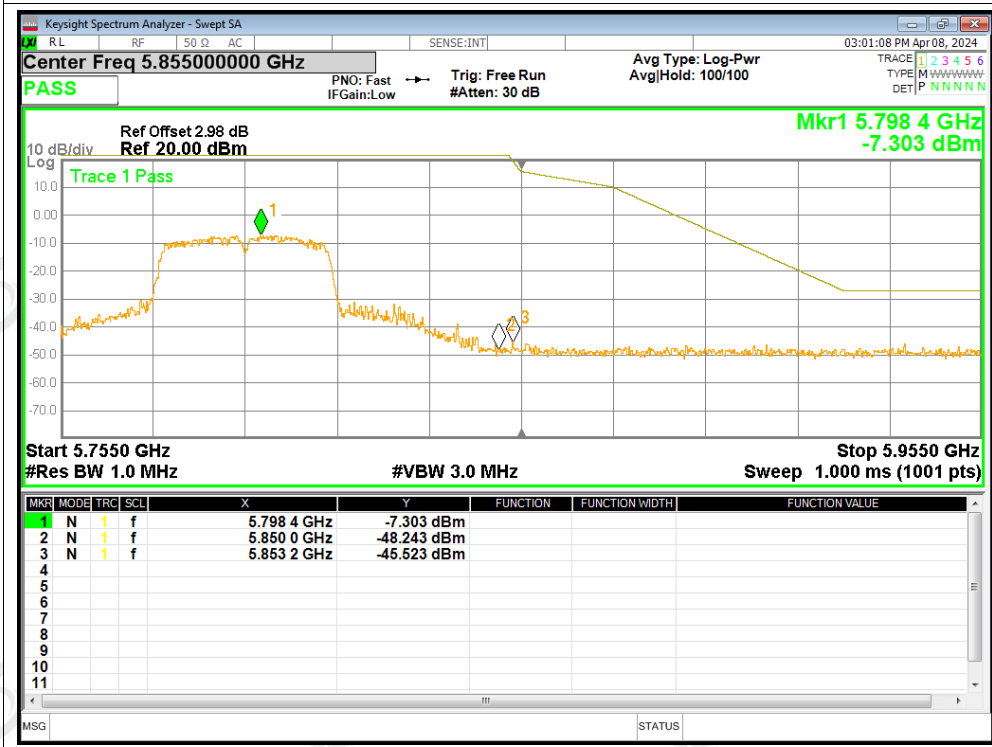




Band Edge NVNT n40 5755MHz Low Ant1



Band Edge NVNT n40 5795MHz High Ant1





B7. Frequency Stability

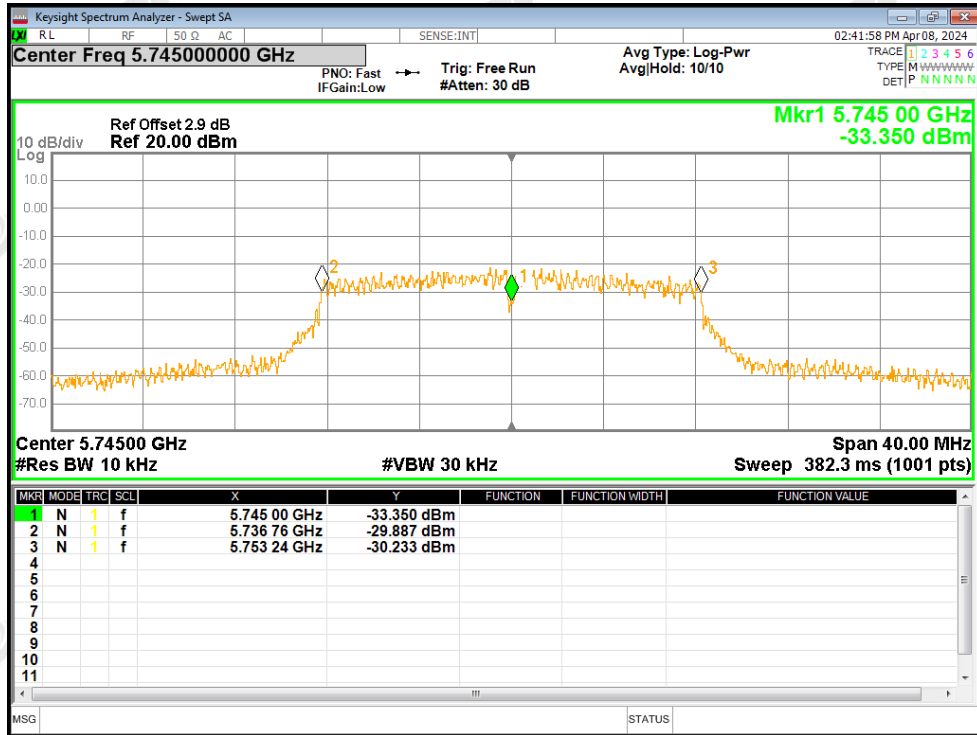
| Mode | Frequency (MHz) | Antenna | Frequency Error (Hz) | Deviation (ppm) | Limit (ppm) | Verdict |
|------|-----------------|---------|----------------------|-----------------|------------------------|---------|
| a | 5745 | Ant1 | 0 | 0 | Within 5745-5825MHz | Pass |
| a | 5785 | Ant1 | -20000 | -3.46 | | Pass |
| a | 5825 | Ant1 | -20000 | -3.43 | | Pass |
| n20 | 5745 | Ant1 | -20000 | -3.48 | | Pass |
| n20 | 5785 | Ant1 | 20000 | 3.46 | | Pass |
| n20 | 5825 | Ant1 | 0 | 0 | | Pass |
| n40 | 5755 | Ant1 | 0 | 0 | Within 5755-5795MHz | Pass |
| n40 | 5795 | Ant1 | 0 | 0 | | Pass |

Note: Test temperature: -20° to + 70°. At room temperature, the test results are the worst, only reflecting the test results graphs at room temperature.

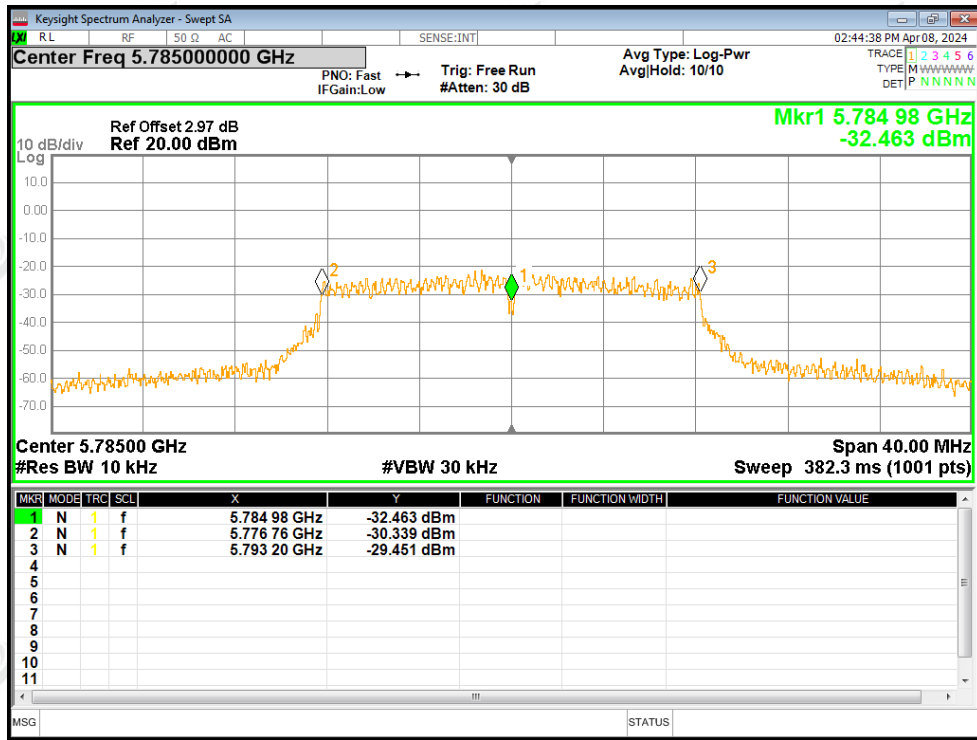


Test Graphs

Freq. Stability NVNT a 5745MHz Ant1

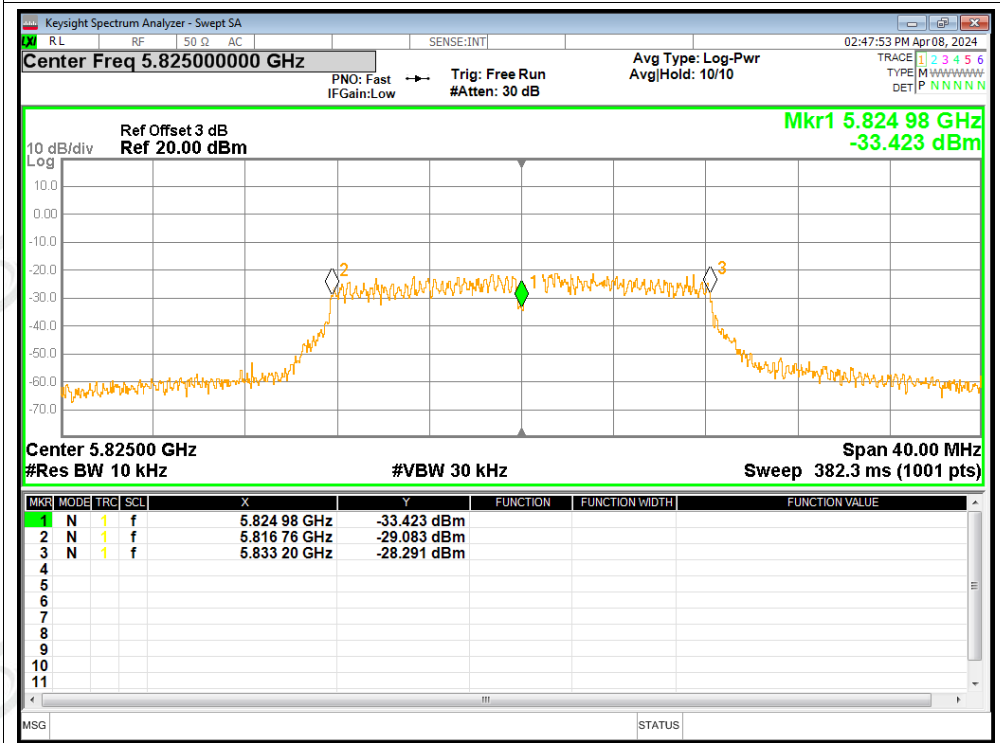


Freq. Stability NVNT a 5785MHz Ant1

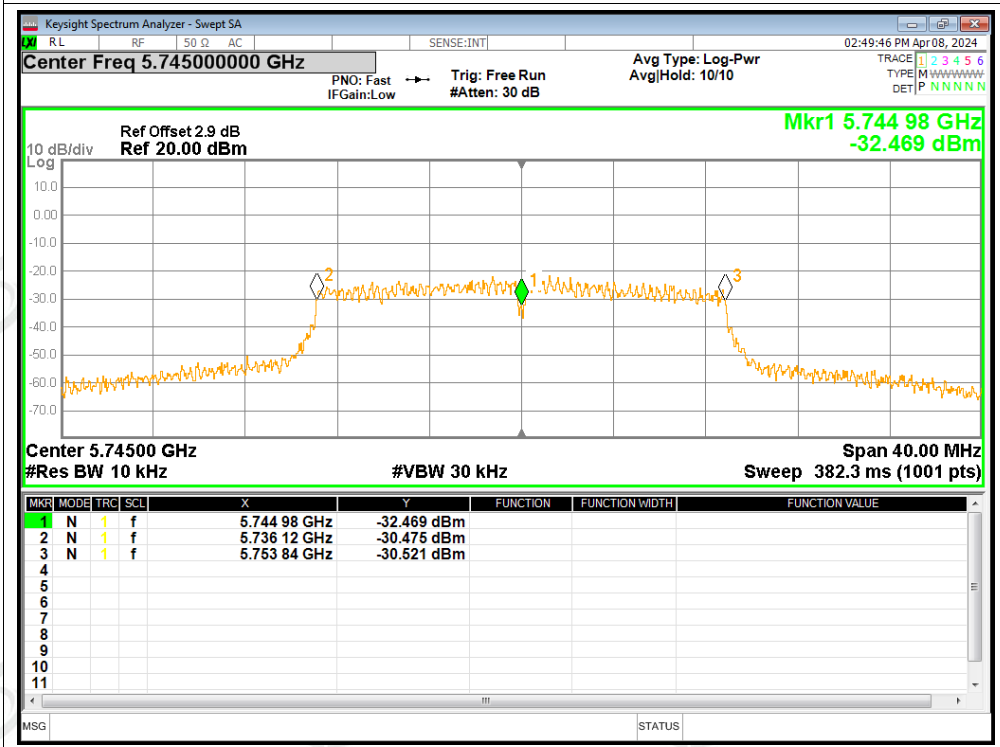




Freq. Stability NVNT a 5825MHz Ant1

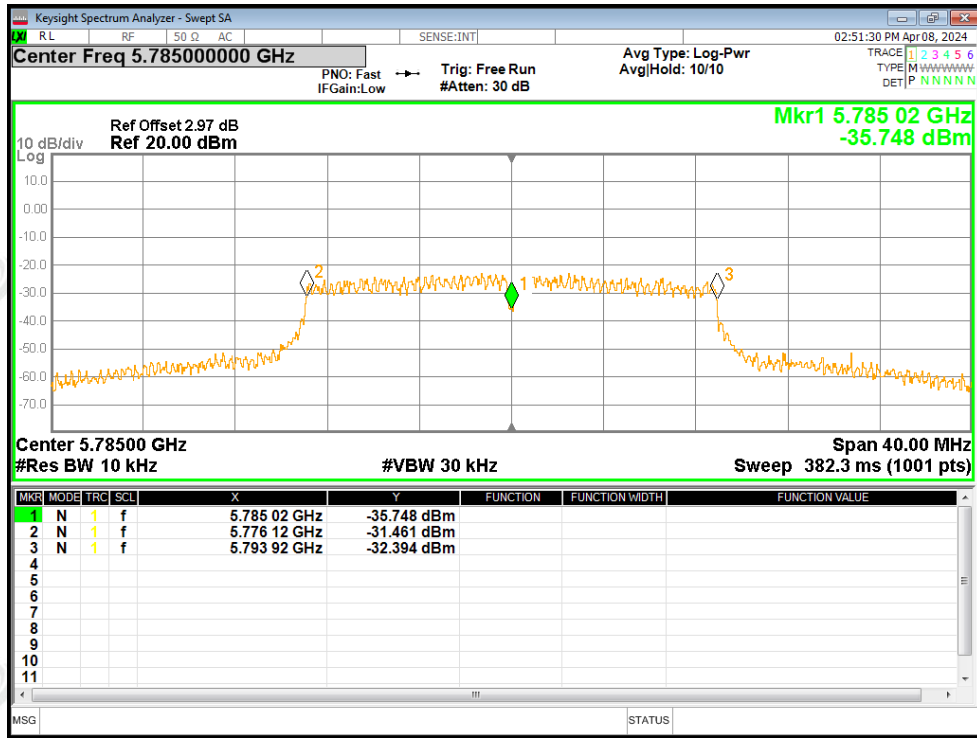


Freq. Stability NVNT n20 5745MHz Ant1

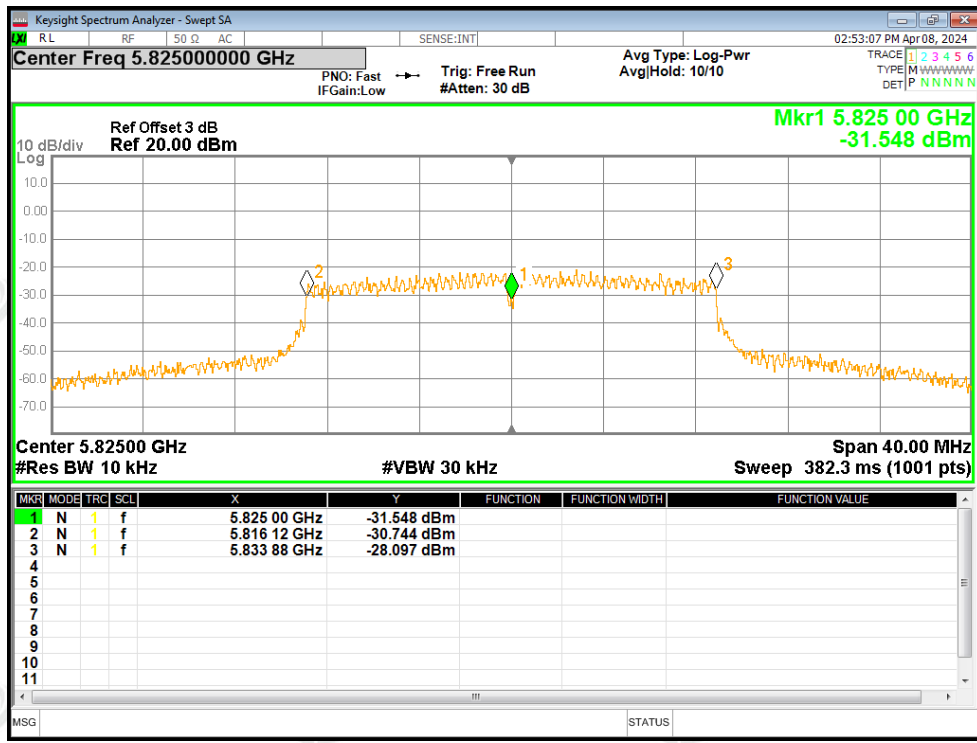




Freq. Stability NVNT n20 5785MHz Ant1

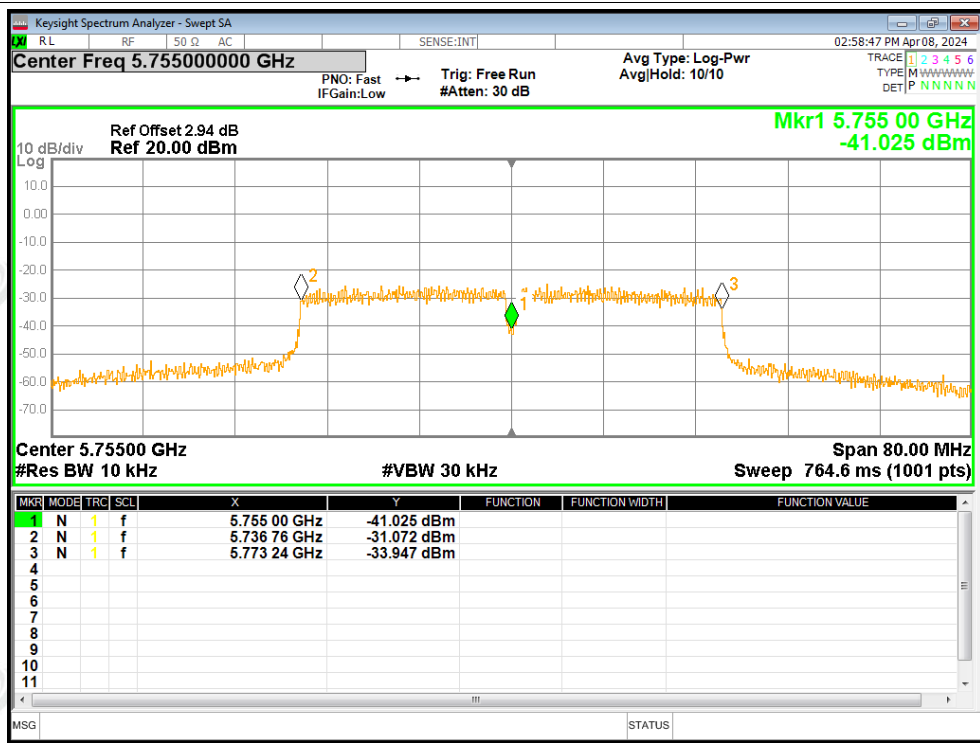


Freq. Stability NVNT n20 5825MHz Ant1

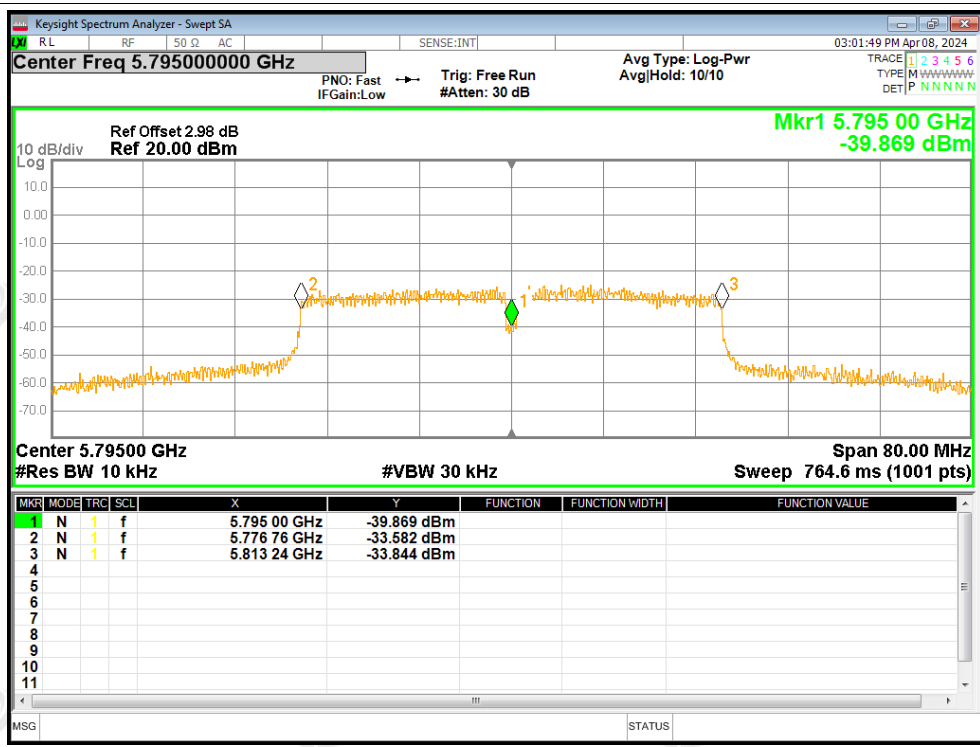




Freq. Stability NVNT n40 5755MHz Ant1



Freq. Stability NVNT n40 5795MHz Ant1





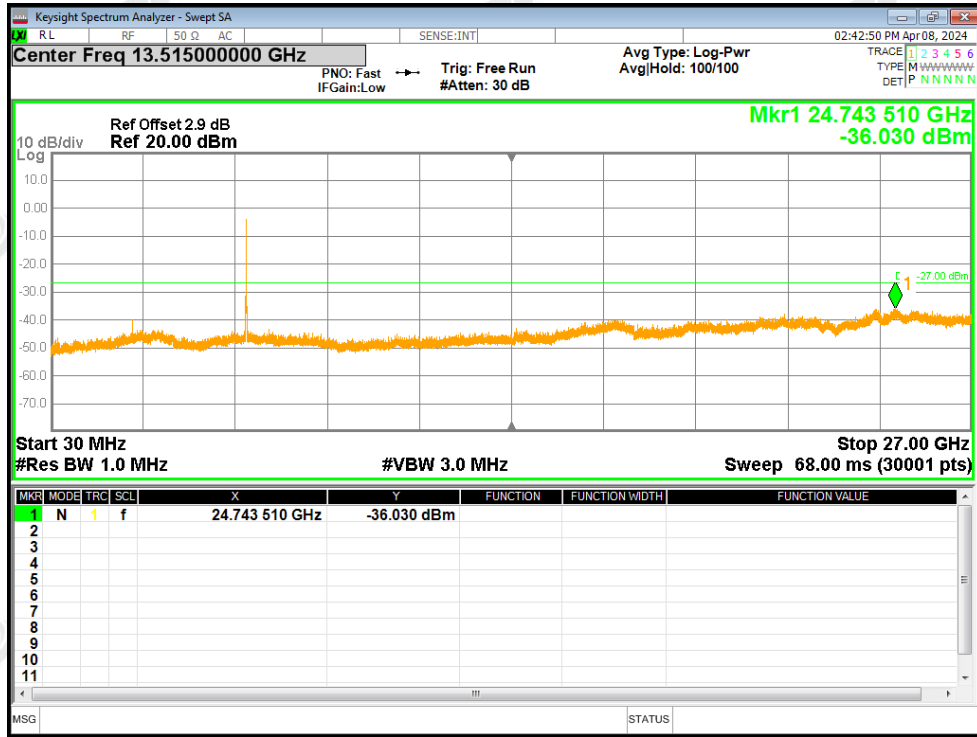
B8. Conducted RF Spurious Emission

| Condition | Mode | Frequency (MHz) | Antenna | Max Value (dBc) | Limit (dBc) | Verdict |
|-----------|------|-----------------|---------|-----------------|-------------|---------|
| NVNT | a | 5745 | Ant1 | -36.02 | -27 | Pass |
| NVNT | a | 5785 | Ant1 | -32.94 | -27 | Pass |
| NVNT | a | 5825 | Ant1 | -35.83 | -27 | Pass |
| NVNT | n20 | 5745 | Ant1 | -35.64 | -27 | Pass |
| NVNT | n20 | 5785 | Ant1 | -33.53 | -27 | Pass |
| NVNT | n20 | 5825 | Ant1 | -34.34 | -27 | Pass |
| NVNT | n40 | 5755 | Ant1 | -34.91 | -27 | Pass |
| NVNT | n40 | 5795 | Ant1 | -35.89 | -27 | Pass |

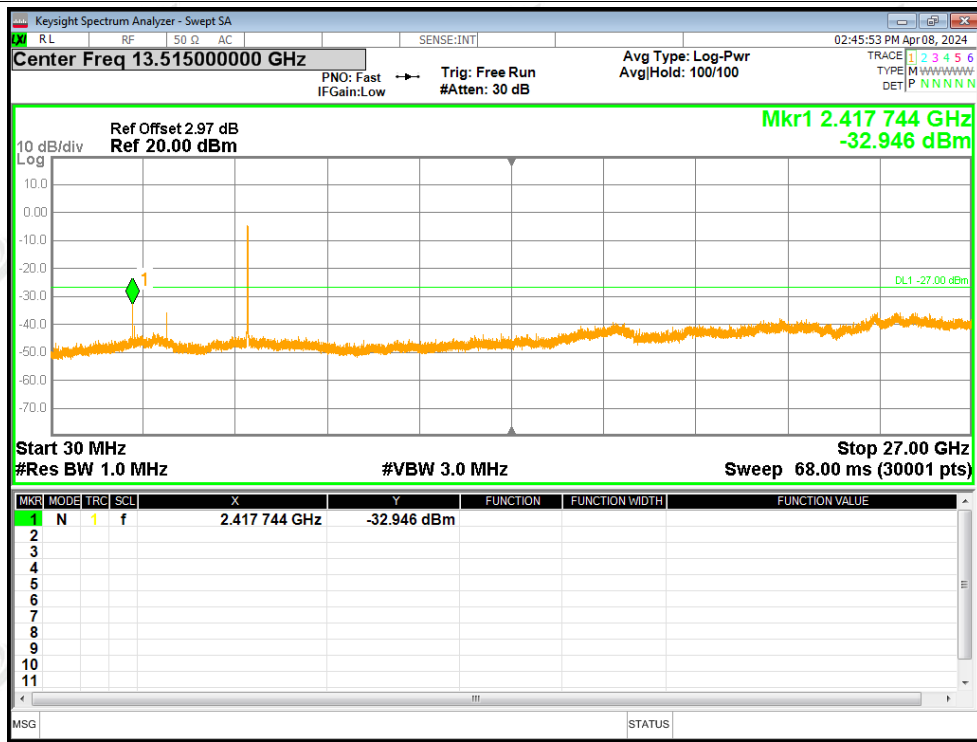


Test Graphs

Tx. Spurious NVNT a 5745MHz Ant1 Emission

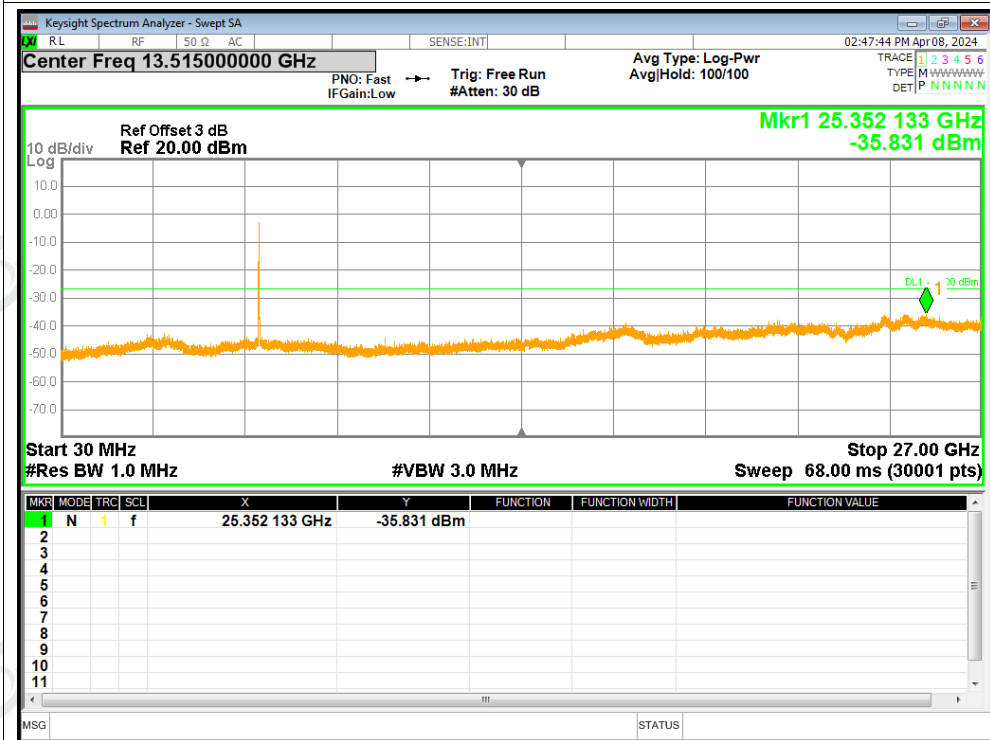


Tx. Spurious NVNT a 5785MHz Ant1 Emission

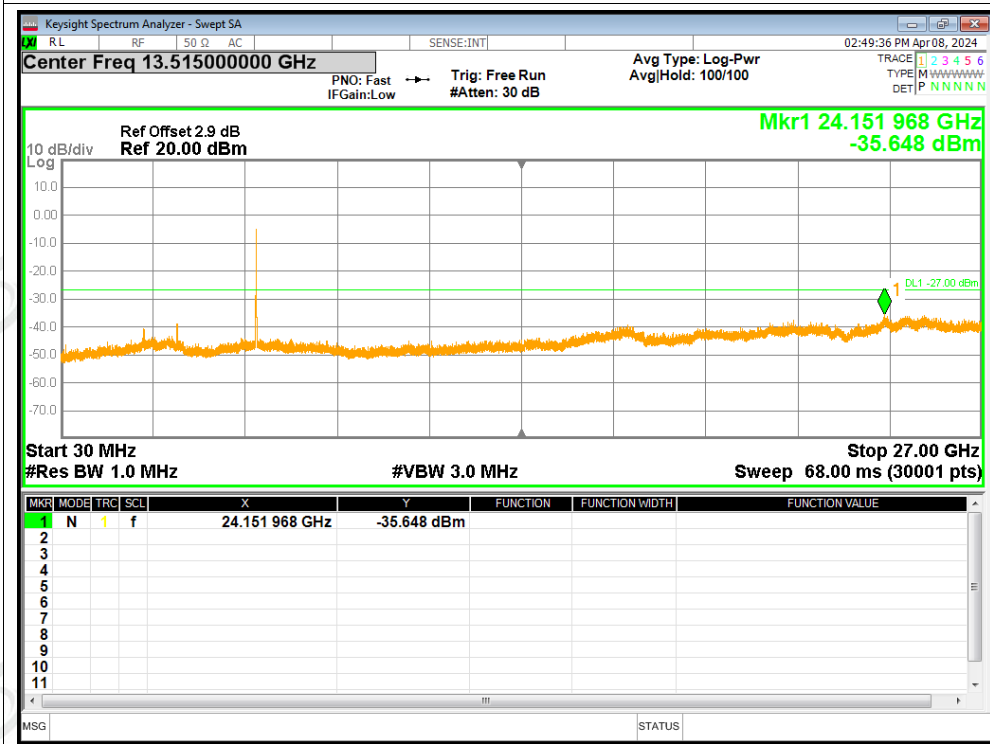




Tx. Spurious NVNT a 5825MHz Ant1 Emission

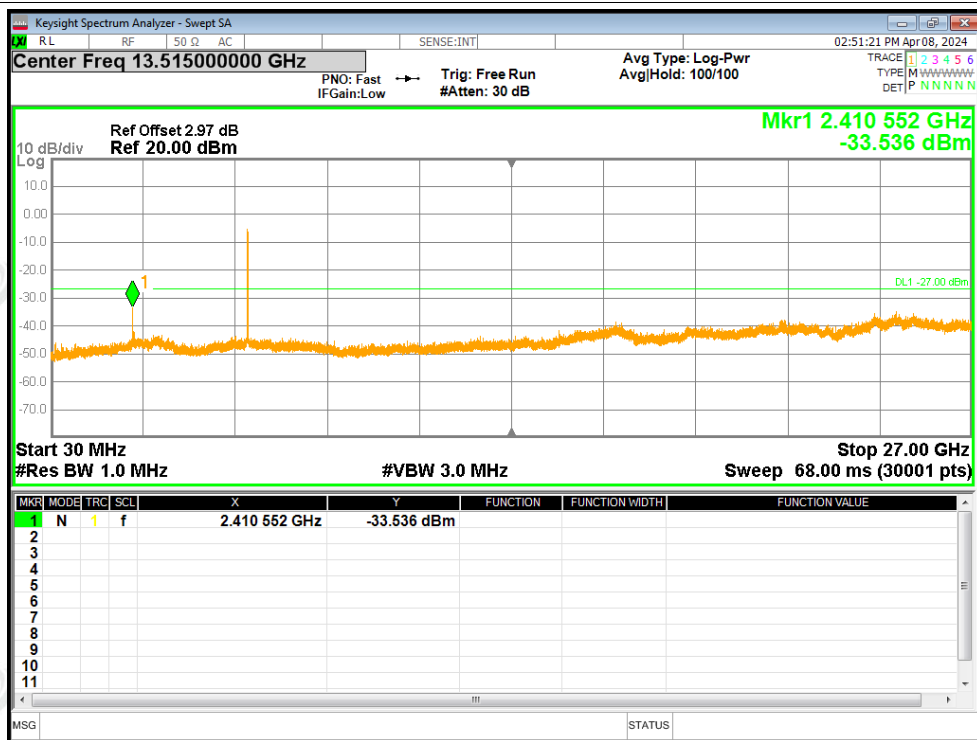


Tx. Spurious NVNT n20 5745MHz Ant1 Emission

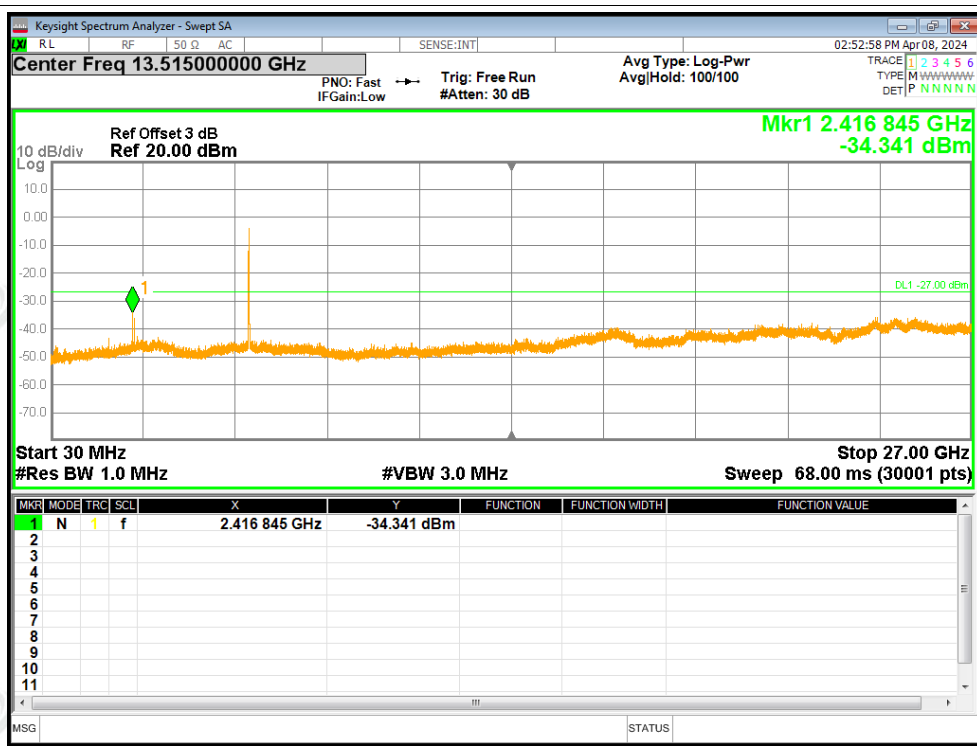




Tx. Spurious NVNT n20 5785MHz Ant1 Emission

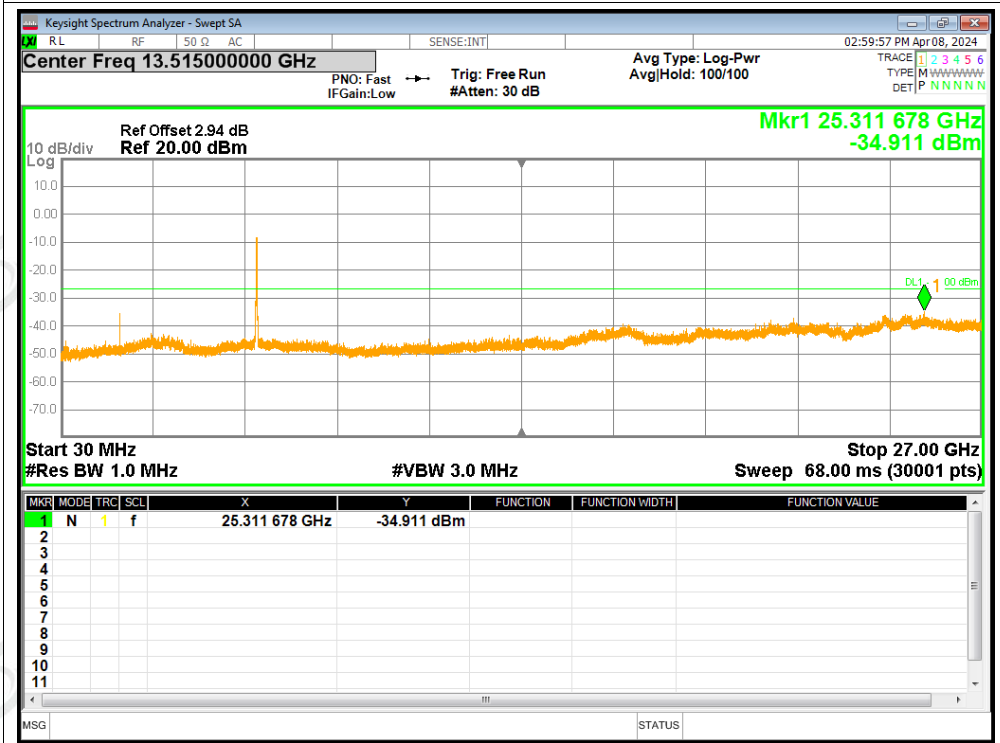


Tx. Spurious NVNT n20 5825MHz Ant1 Emission





Tx. Spurious NVNT n40 5755MHz Ant1 Emission



Tx. Spurious NVNT n40 5795MHz Ant1 Emission

