



Appendix D

RF Test Data for 5.8GWIFI (Conducted Measurement)

Product Name: Projector

Test Model: J9C

Environmental Conditions

| | |
|--------------------|------------|
| Temperature: | 23.8° C |
| Relative Humidity: | 52.1% |
| ATM Pressure: | 100.0 kPa |
| Test Engineer: | Jeson Zhou |
| Supervised by: | Nick Peng |





D.1 -6dB Bandwidth

| Condition | Mode | Frequency (MHz) | Antenna | -6 dB Bandwidth (MHz) | Limit -6 dB Bandwidth (MHz) | Verdict |
|-----------|------|-----------------|---------|-----------------------|-----------------------------|---------|
| NVNT | a | 5745 | Ant1 | 16.328 | ≥ 0.5 | Pass |
| NVNT | a | 5785 | Ant1 | 16.335 | ≥ 0.5 | Pass |
| NVNT | a | 5825 | Ant1 | 16.33 | ≥ 0.5 | Pass |
| NVNT | n20 | 5745 | Ant1 | 17.55 | ≥ 0.5 | Pass |
| NVNT | n20 | 5785 | Ant1 | 17.271 | ≥ 0.5 | Pass |
| NVNT | n20 | 5825 | Ant1 | 17.422 | ≥ 0.5 | Pass |
| NVNT | ac20 | 5745 | Ant1 | 17.526 | ≥ 0.5 | Pass |
| NVNT | ac20 | 5785 | Ant1 | 17.401 | ≥ 0.5 | Pass |
| NVNT | ac20 | 5825 | Ant1 | 17.399 | ≥ 0.5 | Pass |

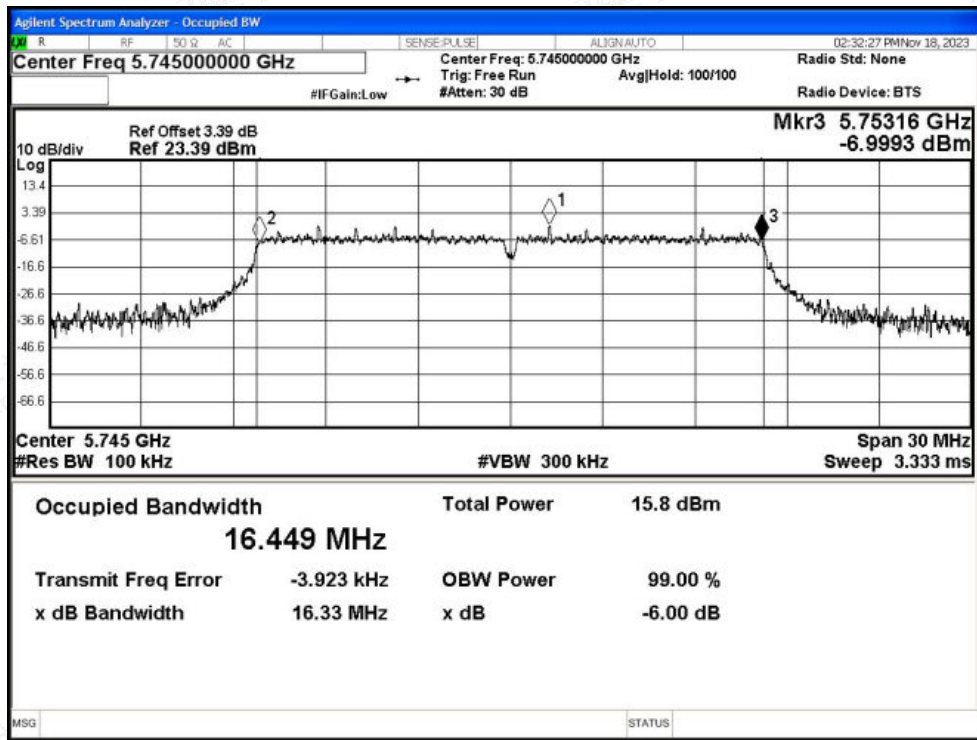


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Scan code to check authenticity

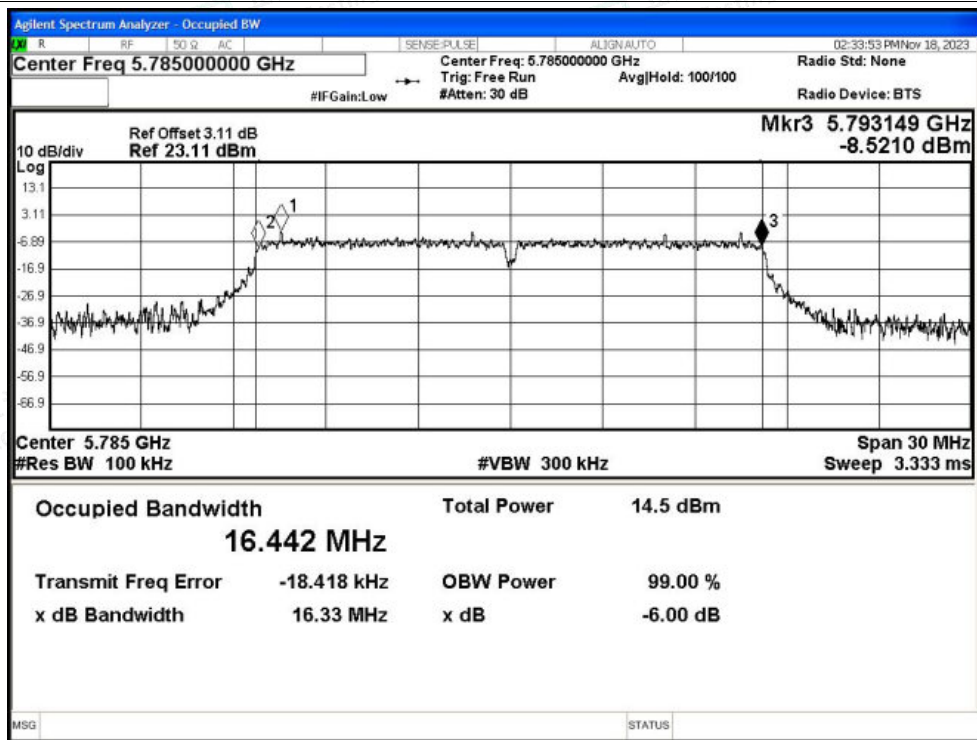


Test Graphs

-6dB Bandwidth NVNT a 5745MHz Ant1

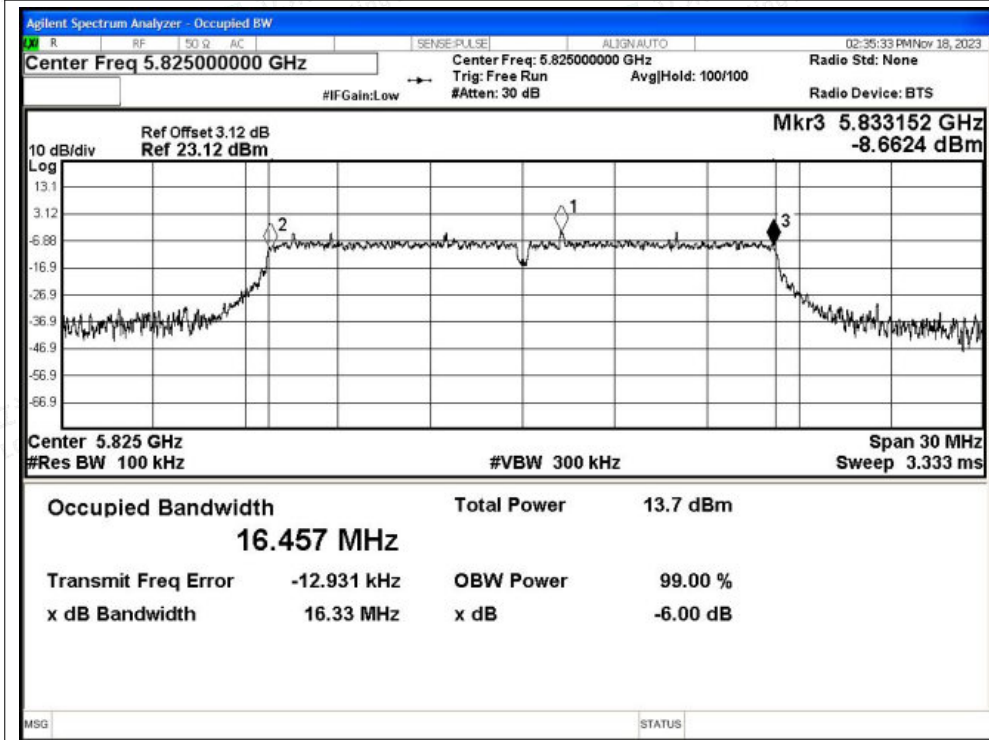


-6dB Bandwidth NVNT a 5785MHz Ant1

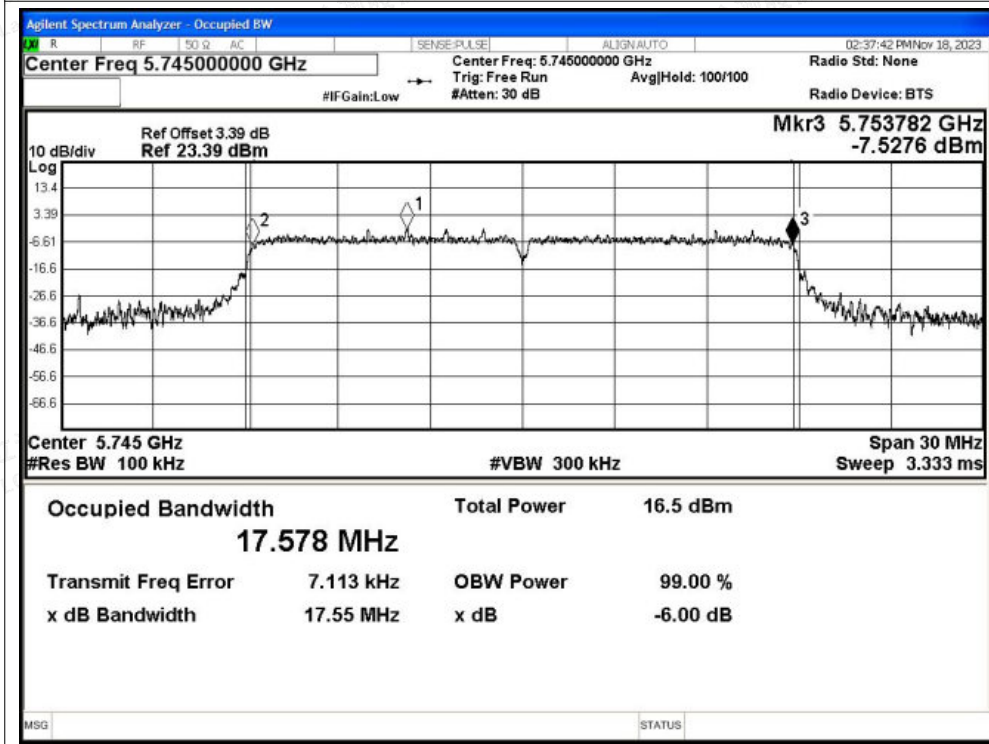




-6dB Bandwidth NVNT a 5825MHz Ant1

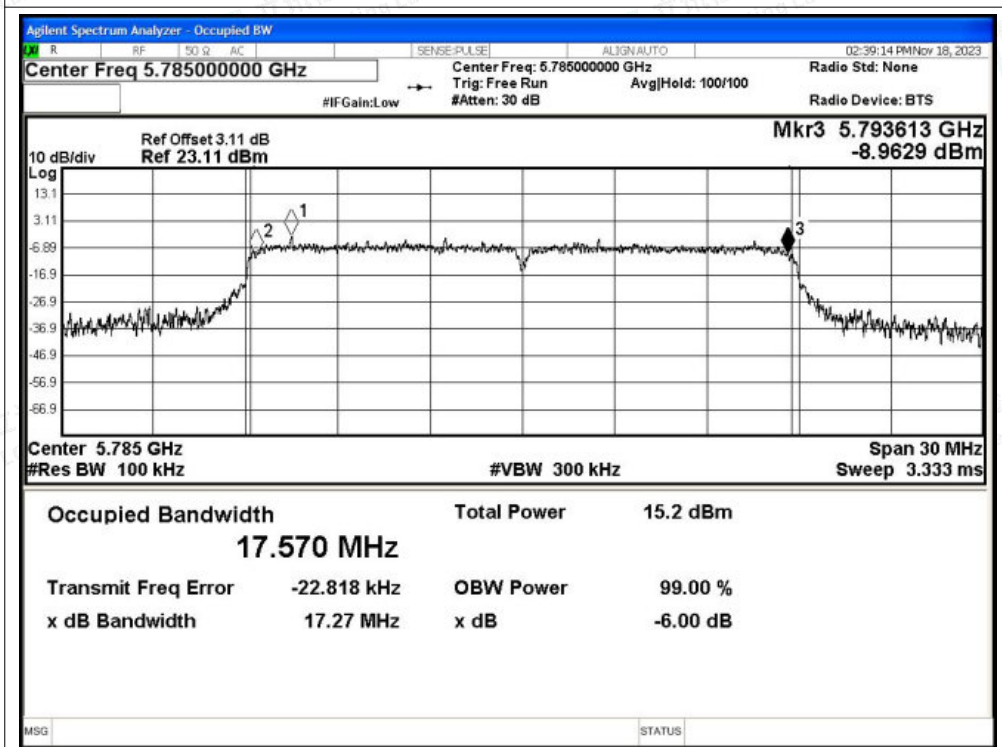


-6dB Bandwidth NVNT n20 5745MHz Ant1

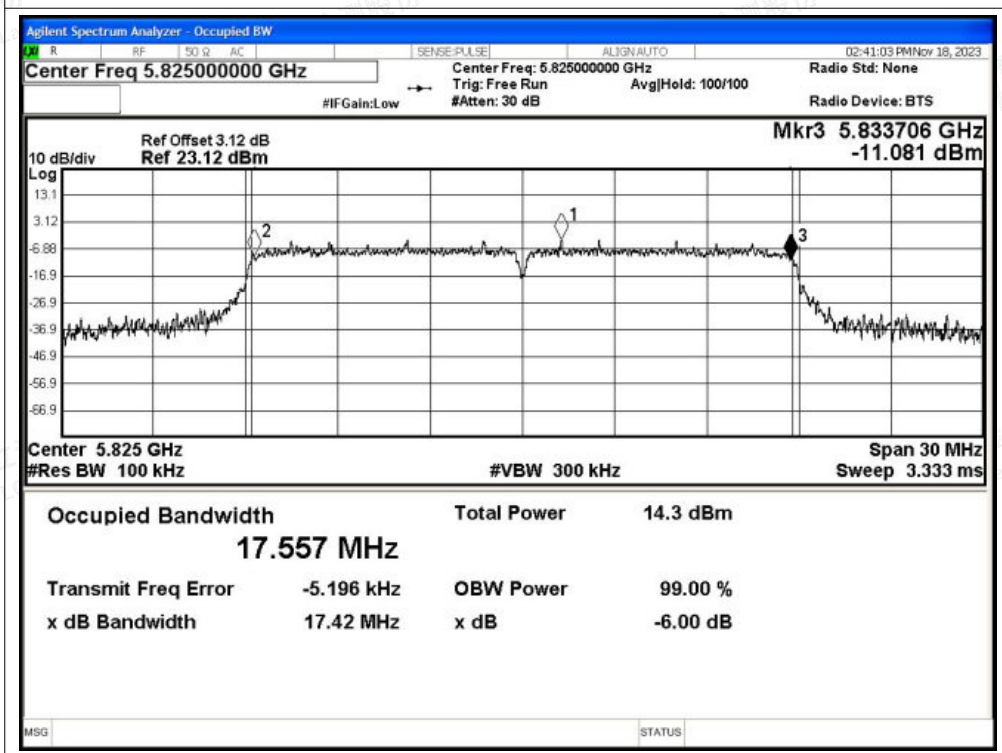




-6dB Bandwidth NVNT n20 5785MHz Ant1

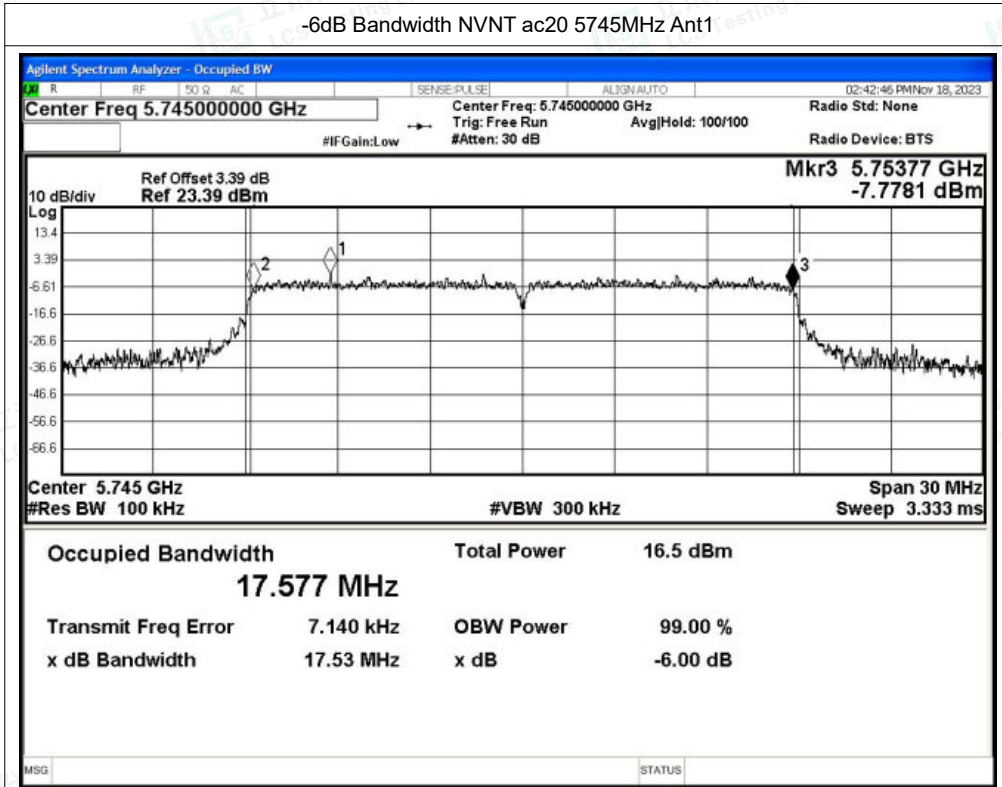


-6dB Bandwidth NVNT n20 5825MHz Ant1

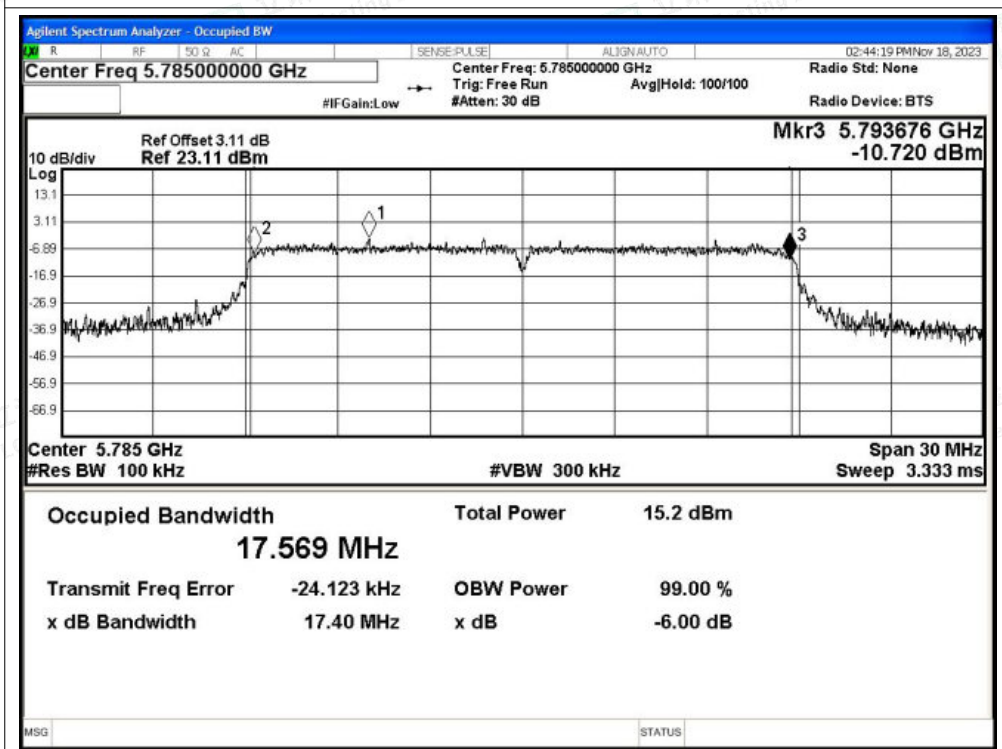




-6dB Bandwidth NVNT ac20 5745MHz Ant1

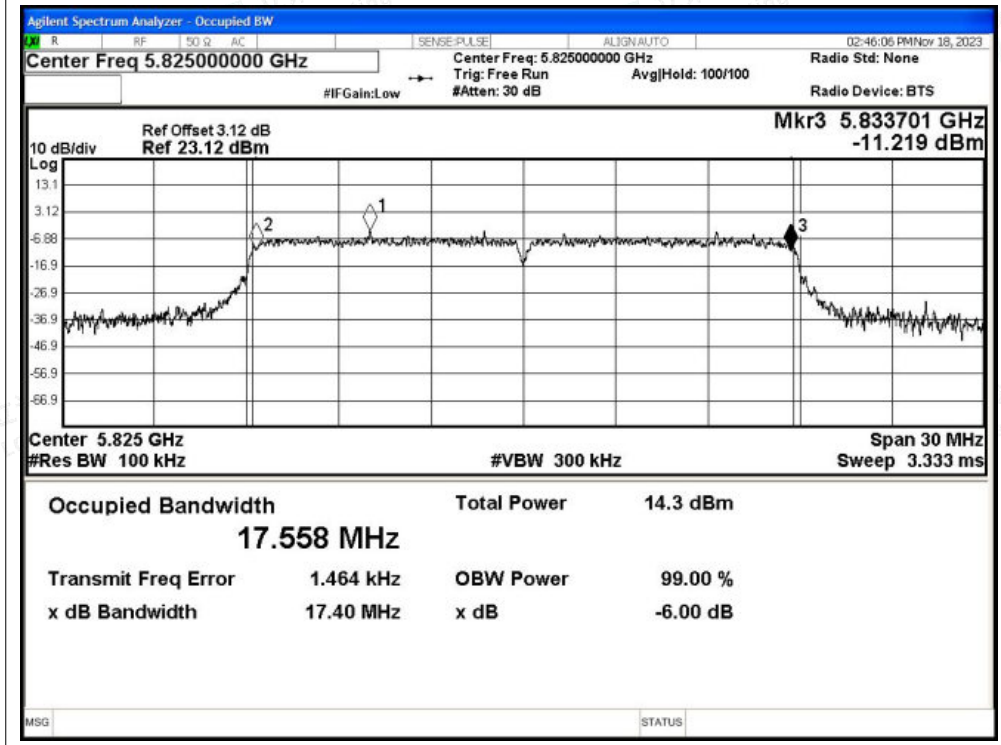


-6dB Bandwidth NVNT ac20 5785MHz Ant1





-6dB Bandwidth NVNT ac20 5825MHz Ant1





D.2 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 | 9.85 | 0.19 | 10.04 | 30 | Pass |
| NVNT | a | 5785 | Ant1 | 8.57 | 0.19 | 8.76 | 30 | Pass |
| NVNT | a | 5825 | Ant1 | 7.87 | 0.19 | 8.06 | 30 | Pass |
| NVNT | n20 | 5745 | Ant1 | 10.28 | 0.23 | 10.51 | 30 | Pass |
| NVNT | n20 | 5785 | Ant1 | 8.88 | 0.23 | 9.11 | 30 | Pass |
| NVNT | n20 | 5825 | Ant1 | 8.01 | 0.23 | 8.24 | 30 | Pass |
| NVNT | ac20 | 5745 | Ant1 | 10.17 | 0.22 | 10.39 | 30 | Pass |
| NVNT | ac20 | 5785 | Ant1 | 8.89 | 0.22 | 9.11 | 30 | Pass |
| NVNT | ac20 | 5825 | Ant1 | 7.95 | 0.22 | 8.17 | 30 | Pass |





D.3 Maximum Power Spectral Density Level

| Condition | Mode | Frequency (MHz) | Antenna | Conducted PSD (dBm/500KHz) | Duty Factor (dB) | Total PSD (dBm/500KHz) | Limit (dBm/500KHz) | Verdict |
|-----------|------|-----------------|---------|----------------------------|------------------|------------------------|--------------------|---------|
| NVNT | a | 5745 | Ant1 | -3.69 | 0.19 | -3.5 | 30 | Pass |
| NVNT | a | 5785 | Ant1 | -5.04 | 0.19 | -4.85 | 30 | Pass |
| NVNT | a | 5825 | Ant1 | -5.61 | 0.19 | -5.42 | 30 | Pass |
| NVNT | n20 | 5745 | Ant1 | -3.68 | 0.23 | -3.45 | 30 | Pass |
| NVNT | n20 | 5785 | Ant1 | -4.92 | 0.23 | -4.69 | 30 | Pass |
| NVNT | n20 | 5825 | Ant1 | -5.83 | 0.23 | -5.6 | 30 | Pass |
| NVNT | ac20 | 5745 | Ant1 | -3.62 | 0.22 | -3.4 | 30 | Pass |
| NVNT | ac20 | 5785 | Ant1 | -4.72 | 0.22 | -4.5 | 30 | Pass |
| NVNT | ac20 | 5825 | Ant1 | -5.8 | 0.22 | -5.58 | 30 | Pass |

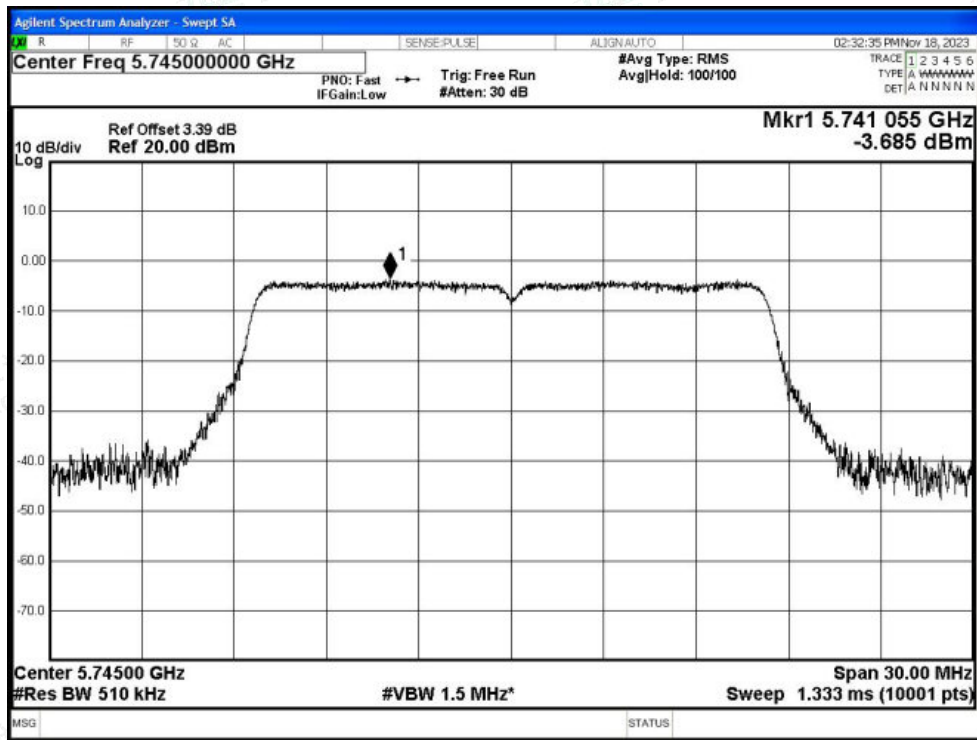


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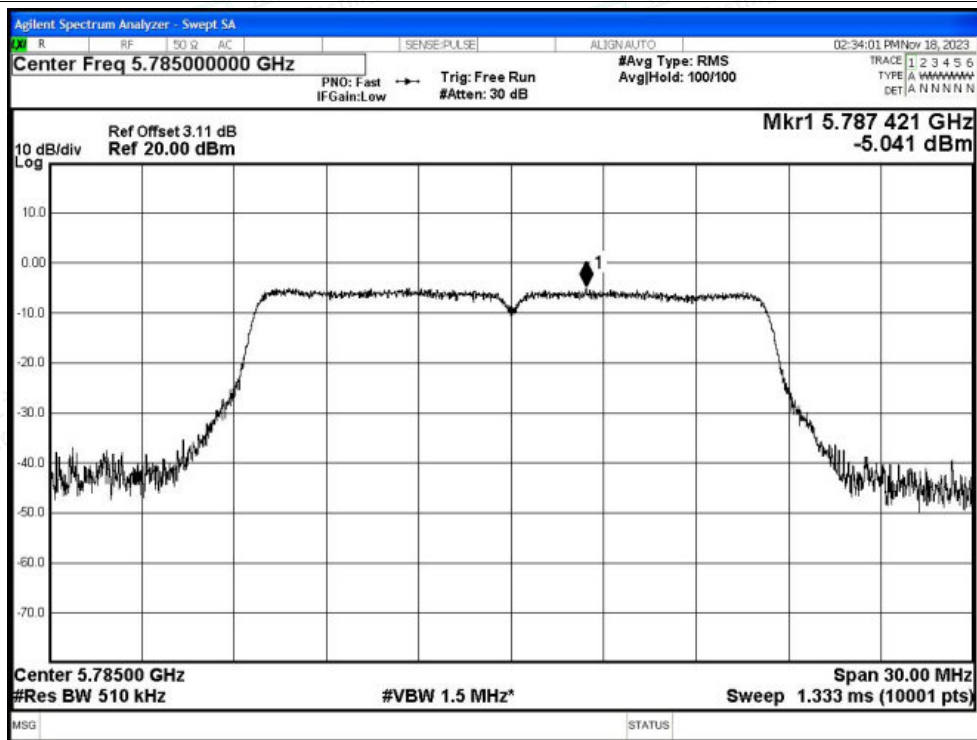


Test Graphs

PSD NVNT a 5745MHz Ant1

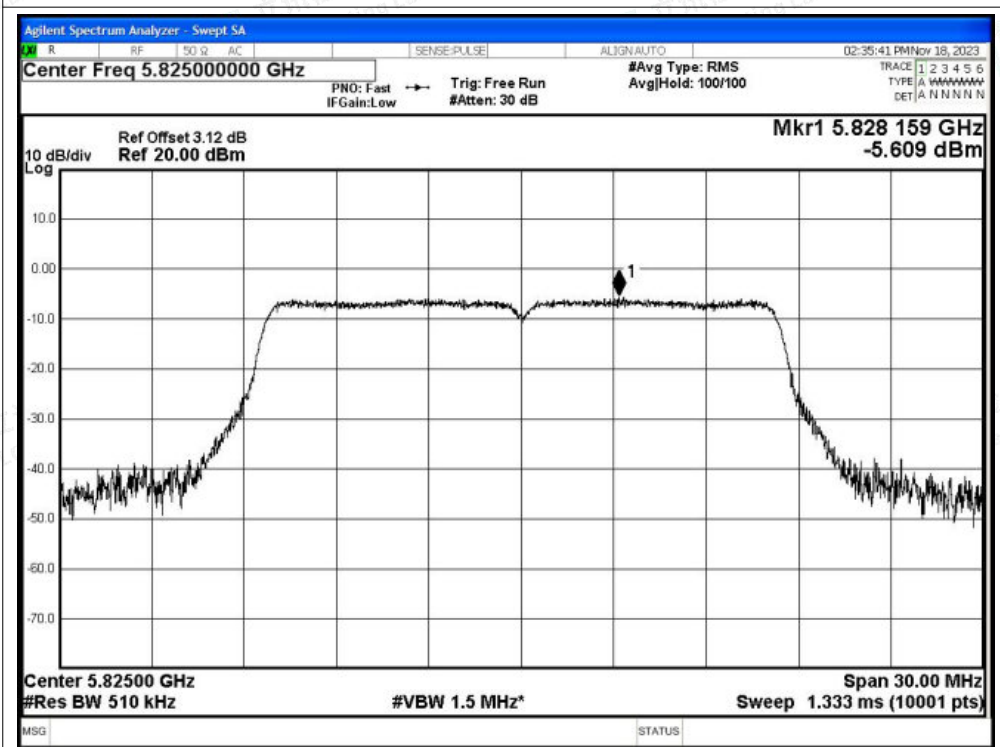


PSD NVNT a 5785MHz Ant1

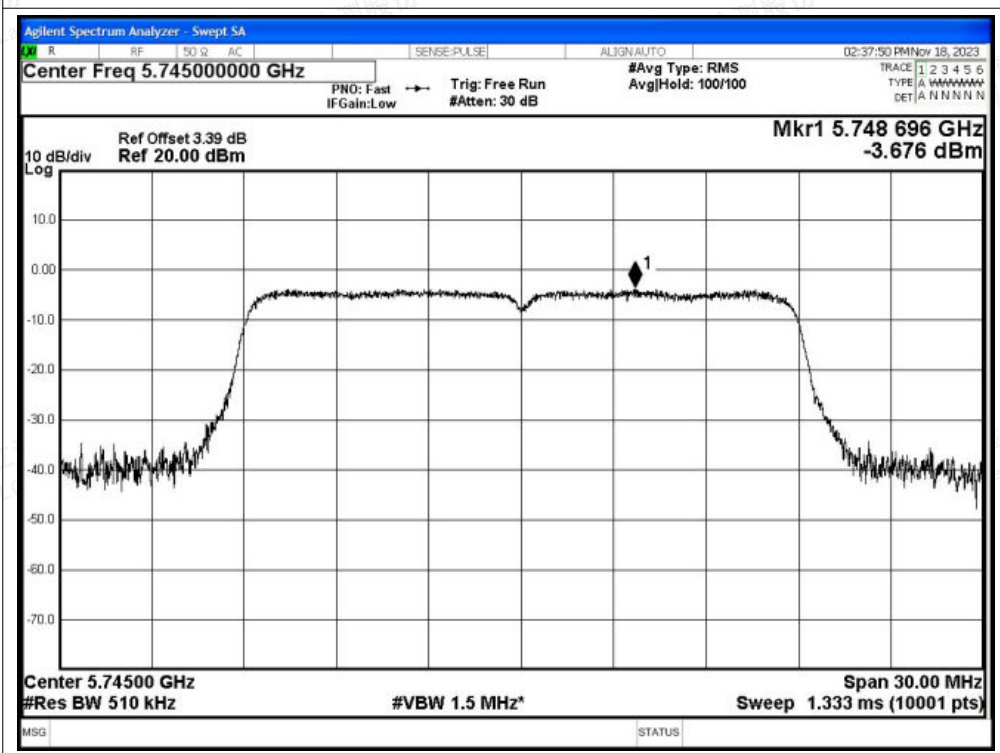




PSD NVNT a 5825MHz Ant1

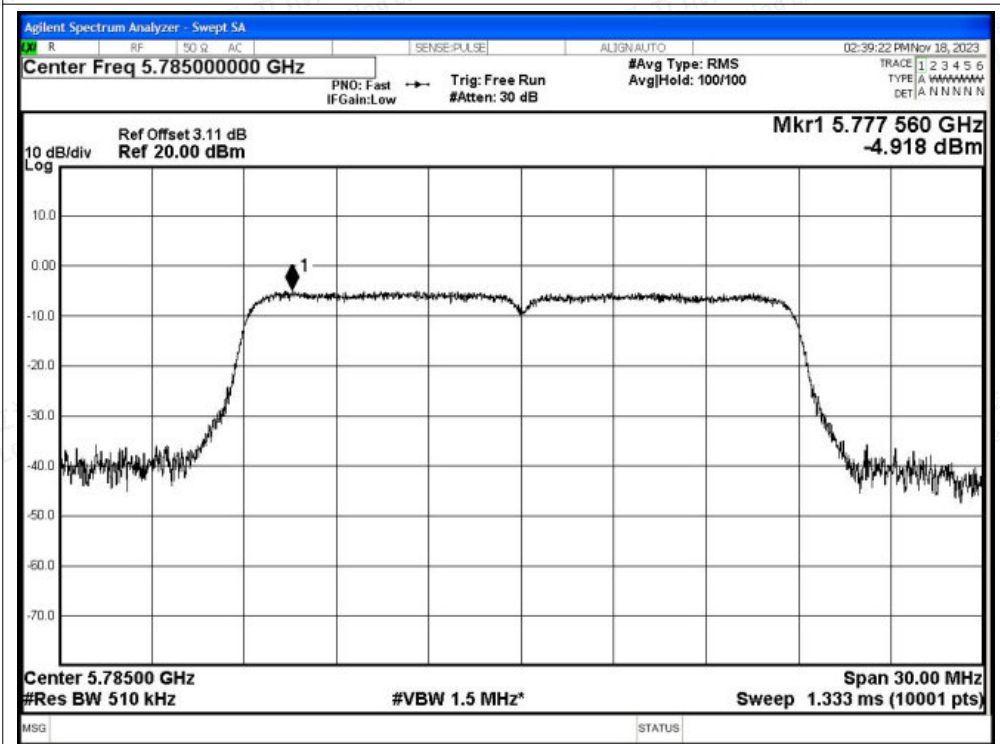


PSD NVNT n20 5745MHz Ant1

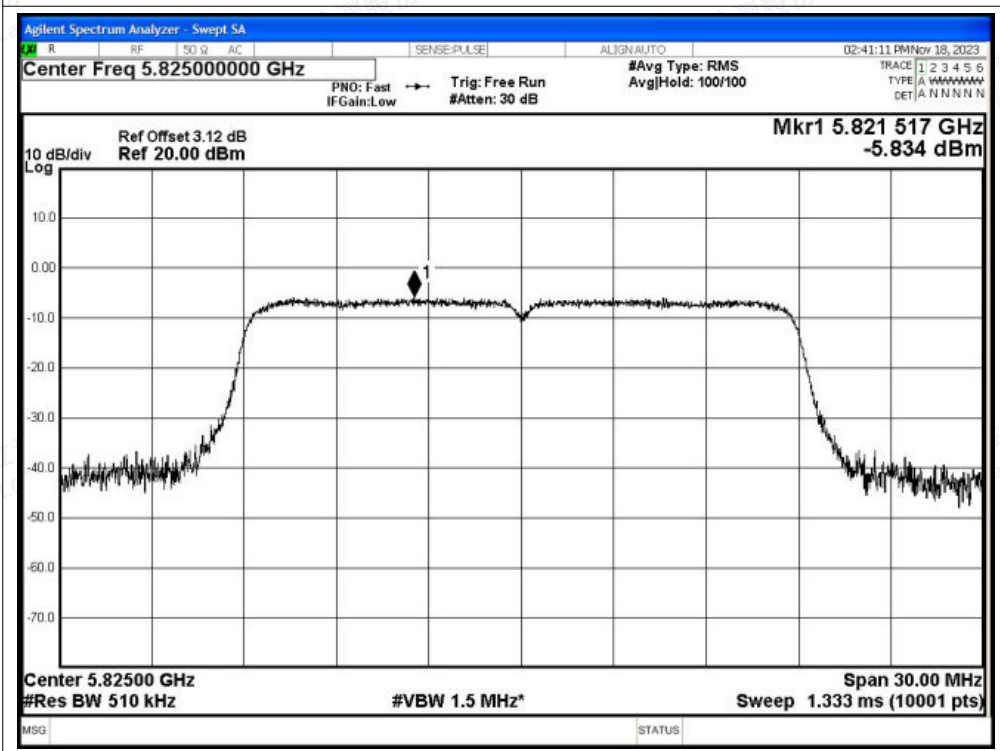




PSD NVNT n20 5785MHz Ant1

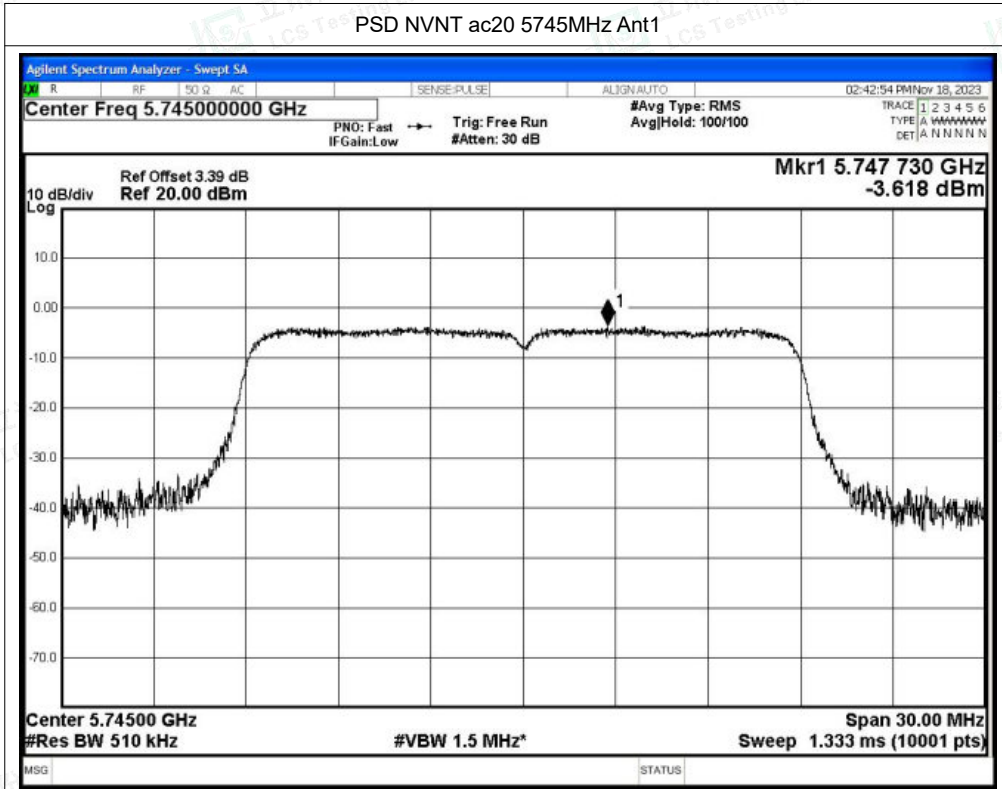


PSD NVNT n20 5825MHz Ant1

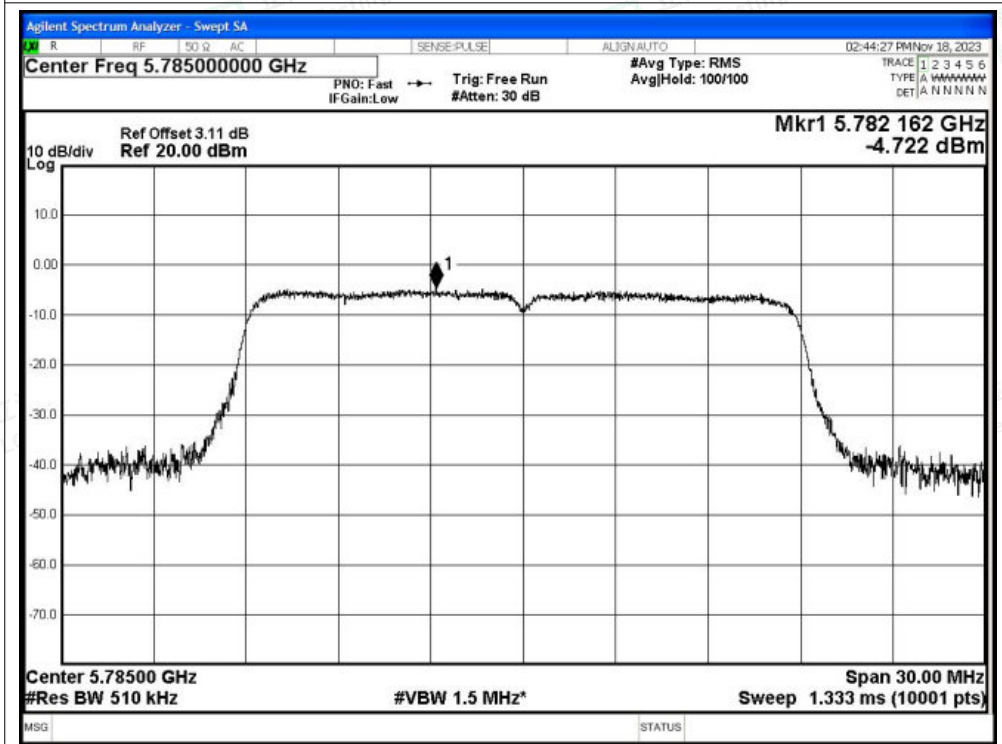


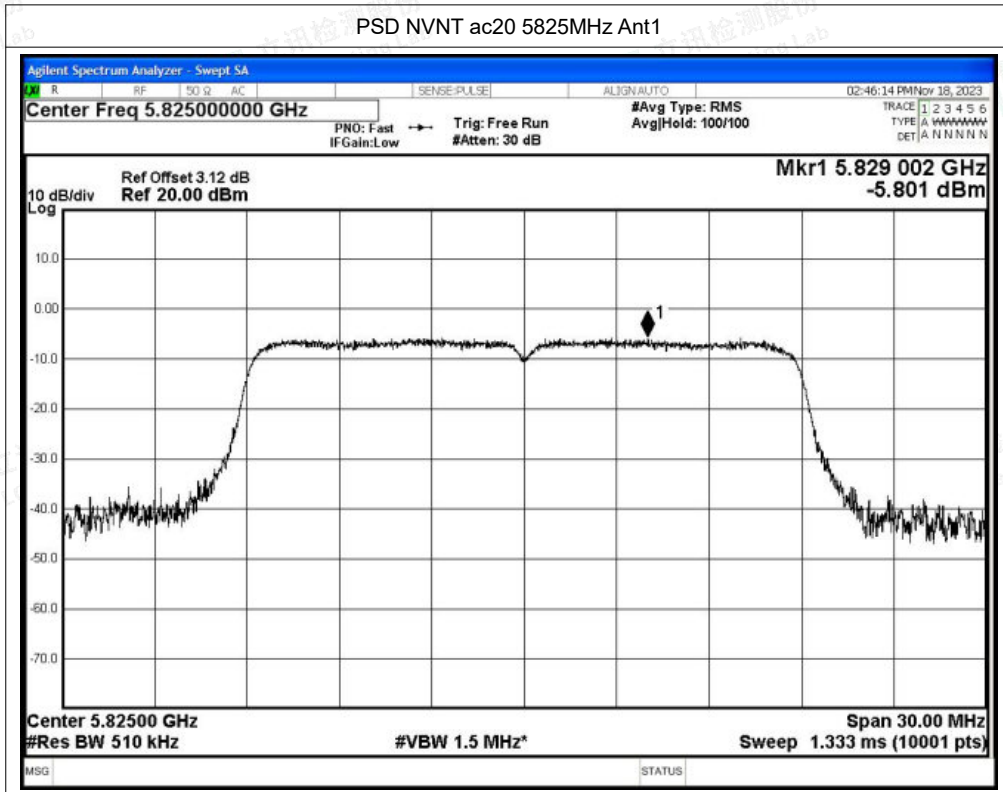


PSD NVNT ac20 5745MHz Ant1



PSD NVNT ac20 5785MHz Ant1







D.4 Restrict Band

| Condition | Mode | Frequency (MHz) | Antenna | Spur Freq (MHz) | Power (dBm) | Gain (dBi) | EIRP Power (dBm) | Detector | Limit (dBm) | Verdict |
|-----------|------|-----------------|---------|-----------------|-------------|------------|------------------|----------|-------------|---------|
| NVNT | a | 5745 | Ant1 | 5650 | -49.2 | 2.31 | -46.89 | Peak | -27 | Pass |
| NVNT | a | 5745 | Ant1 | 5650 | -56.55 | 2.31 | -54.24 | Average | -27 | Pass |
| NVNT | a | 5745 | Ant1 | 5700 | -47.97 | 2.31 | -45.66 | Peak | 10 | Pass |
| NVNT | a | 5745 | Ant1 | 5700 | -54.61 | 2.31 | -52.3 | Average | 10 | Pass |
| NVNT | a | 5745 | Ant1 | 5720 | -34.46 | 2.31 | -32.15 | Peak | 15.6 | Pass |
| NVNT | a | 5745 | Ant1 | 5720 | -45.78 | 2.31 | -43.47 | Average | 15.6 | Pass |
| NVNT | a | 5745 | Ant1 | 5725 | -23.05 | 2.31 | -20.74 | Peak | 27 | Pass |
| NVNT | a | 5745 | Ant1 | 5725 | -40.25 | 2.31 | -37.94 | Average | 27 | Pass |
| NVNT | a | 5825 | Ant1 | 5850 | -37.2 | 2.31 | -34.89 | Peak | 27 | Pass |
| NVNT | a | 5825 | Ant1 | 5850 | -48.54 | 2.31 | -46.23 | Average | 27 | Pass |
| NVNT | a | 5825 | Ant1 | 5855 | -41.61 | 2.31 | -39.3 | Peak | 15.6 | Pass |
| NVNT | a | 5825 | Ant1 | 5855 | -52.35 | 2.31 | -50.04 | Average | 15.6 | Pass |
| NVNT | a | 5825 | Ant1 | 5875 | -49.96 | 2.31 | -47.65 | Peak | 10 | Pass |
| NVNT | a | 5825 | Ant1 | 5875 | -56.04 | 2.31 | -53.73 | Average | 10 | Pass |
| NVNT | a | 5825 | Ant1 | 5925 | -47.62 | 2.31 | -45.31 | Peak | -27 | Pass |
| NVNT | a | 5825 | Ant1 | 5925 | -56.26 | 2.31 | -53.95 | Average | -27 | Pass |
| NVNT | n20 | 5745 | Ant1 | 5650 | -47.88 | 2.31 | -45.57 | Peak | -27 | Pass |
| NVNT | n20 | 5745 | Ant1 | 5650 | -56.25 | 2.31 | -53.94 | Average | -27 | Pass |
| NVNT | n20 | 5745 | Ant1 | 5700 | -46.57 | 2.31 | -44.26 | Peak | 10 | Pass |
| NVNT | n20 | 5745 | Ant1 | 5700 | -54.47 | 2.31 | -52.16 | Average | 10 | Pass |
| NVNT | n20 | 5745 | Ant1 | 5720 | -28.67 | 2.31 | -26.36 | Peak | 15.6 | Pass |
| NVNT | n20 | 5745 | Ant1 | 5720 | -43.2 | 2.31 | -40.89 | Average | 15.6 | Pass |
| NVNT | n20 | 5745 | Ant1 | 5725 | -25.5 | 2.31 | -23.19 | Peak | 27 | Pass |
| NVNT | n20 | 5745 | Ant1 | 5725 | -36.36 | 2.31 | -34.05 | Average | 27 | Pass |
| NVNT | n20 | 5825 | Ant1 | 5850 | -34.71 | 2.31 | -32.4 | Peak | 27 | Pass |
| NVNT | n20 | 5825 | Ant1 | 5850 | -46.7 | 2.31 | -44.39 | Average | 27 | Pass |
| NVNT | n20 | 5825 | Ant1 | 5855 | -39.79 | 2.31 | -37.48 | Peak | 15.6 | Pass |
| NVNT | n20 | 5825 | Ant1 | 5855 | -51.54 | 2.31 | -49.23 | Average | 15.6 | Pass |
| NVNT | n20 | 5825 | Ant1 | 5875 | -48.88 | 2.31 | -46.57 | Peak | 10 | Pass |
| NVNT | n20 | 5825 | Ant1 | 5875 | -56.04 | 2.31 | -53.73 | Average | 10 | Pass |
| NVNT | n20 | 5825 | Ant1 | 5925 | -50.46 | 2.31 | -48.15 | Peak | -27 | Pass |
| NVNT | n20 | 5825 | Ant1 | 5925 | -56.27 | 2.31 | -53.96 | Average | -27 | Pass |
| NVNT | ac20 | 5745 | Ant1 | 5650 | -47.26 | 2.31 | -44.95 | Peak | -27 | Pass |
| NVNT | ac20 | 5745 | Ant1 | 5650 | -56.22 | 2.31 | -53.91 | Average | -27 | Pass |
| NVNT | ac20 | 5745 | Ant1 | 5700 | -47.38 | 2.31 | -45.07 | Peak | 10 | Pass |
| NVNT | ac20 | 5745 | Ant1 | 5700 | -54.46 | 2.31 | -52.15 | Average | 10 | Pass |
| NVNT | ac20 | 5745 | Ant1 | 5720 | -28.37 | 2.31 | -26.06 | Peak | 15.6 | Pass |





| | | | | | | | | | | |
|------|------|------|------|------|--------|------|--------|---------|------|------|
| NVNT | ac20 | 5745 | Ant1 | 5720 | -44.14 | 2.31 | -41.83 | Average | 15.6 | Pass |
| NVNT | ac20 | 5745 | Ant1 | 5725 | -25.92 | 2.31 | -23.61 | Peak | 27 | Pass |
| NVNT | ac20 | 5745 | Ant1 | 5725 | -38.07 | 2.31 | -35.76 | Average | 27 | Pass |
| NVNT | ac20 | 5825 | Ant1 | 5850 | -34.99 | 2.31 | -32.68 | Peak | 27 | Pass |
| NVNT | ac20 | 5825 | Ant1 | 5850 | -48.12 | 2.31 | -45.81 | Average | 27 | Pass |
| NVNT | ac20 | 5825 | Ant1 | 5855 | -42.35 | 2.31 | -40.04 | Peak | 15.6 | Pass |
| NVNT | ac20 | 5825 | Ant1 | 5855 | -52.76 | 2.31 | -50.45 | Average | 15.6 | Pass |
| NVNT | ac20 | 5825 | Ant1 | 5875 | -49.06 | 2.31 | -46.75 | Peak | 10 | Pass |
| NVNT | ac20 | 5825 | Ant1 | 5875 | -56.08 | 2.31 | -53.77 | Average | 10 | Pass |
| NVNT | ac20 | 5825 | Ant1 | 5925 | -50.15 | 2.31 | -47.84 | Peak | -27 | Pass |
| NVNT | ac20 | 5825 | Ant1 | 5925 | -56.31 | 2.31 | -54 | Average | -27 | Pass |

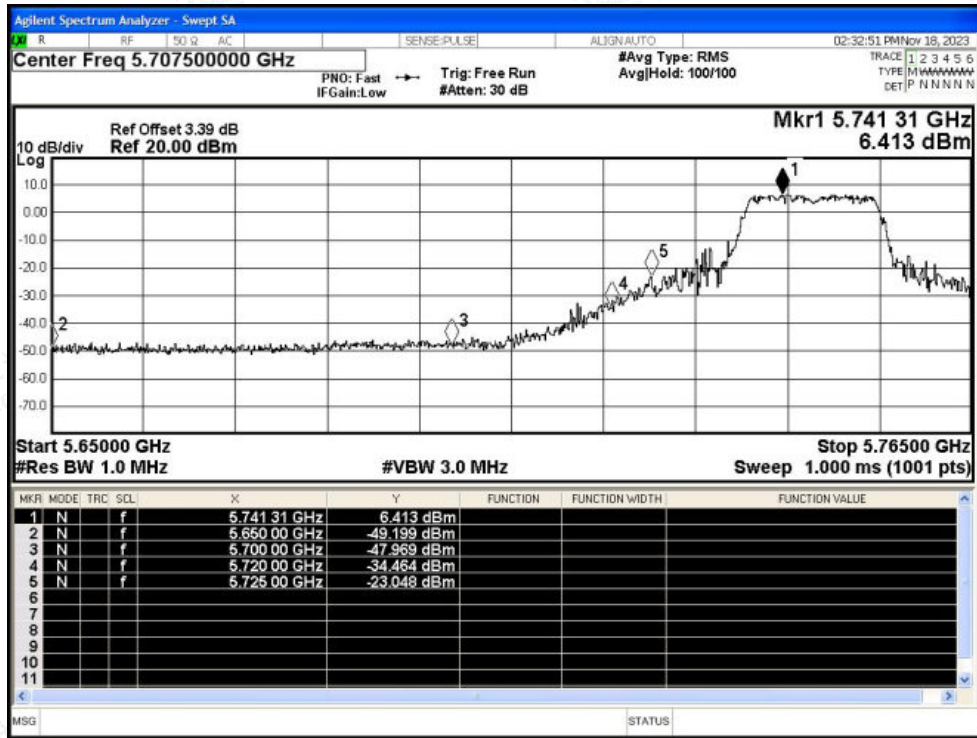


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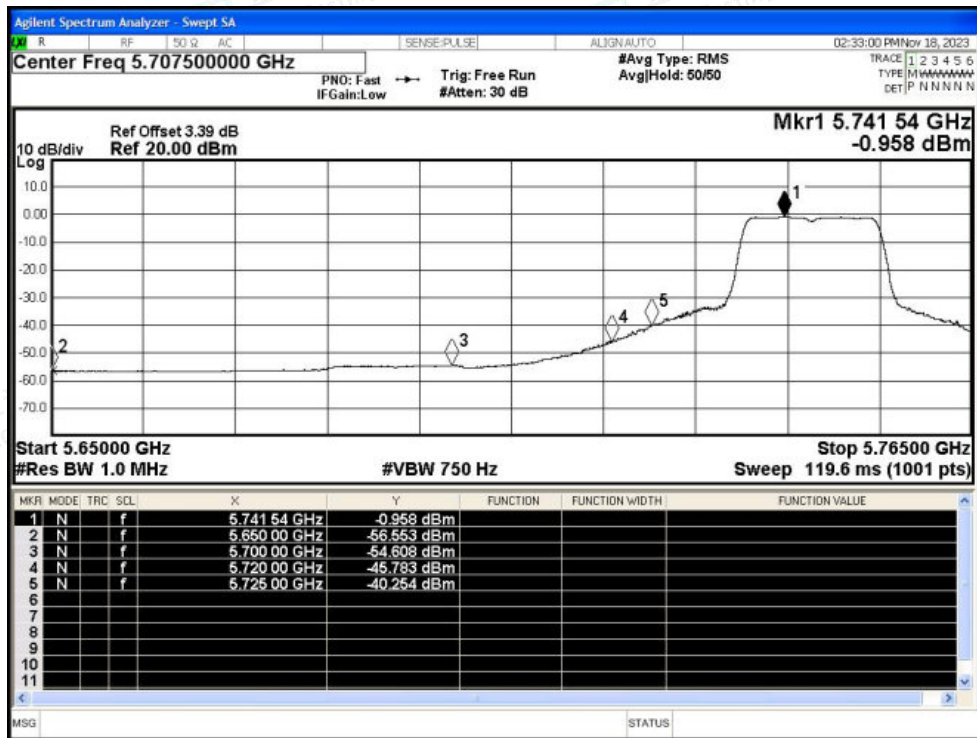


Test Graphs

Restrict Band NVNT a 5745MHz Ant1 Peak

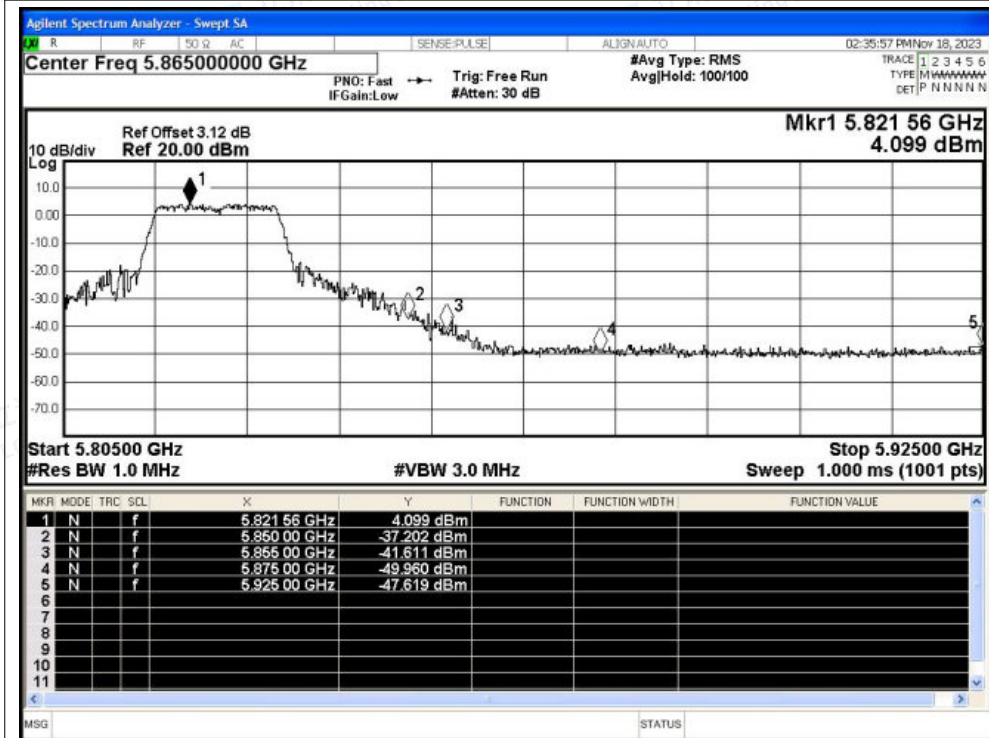


Restrict Band NVNT a 5745MHz Ant1 Average

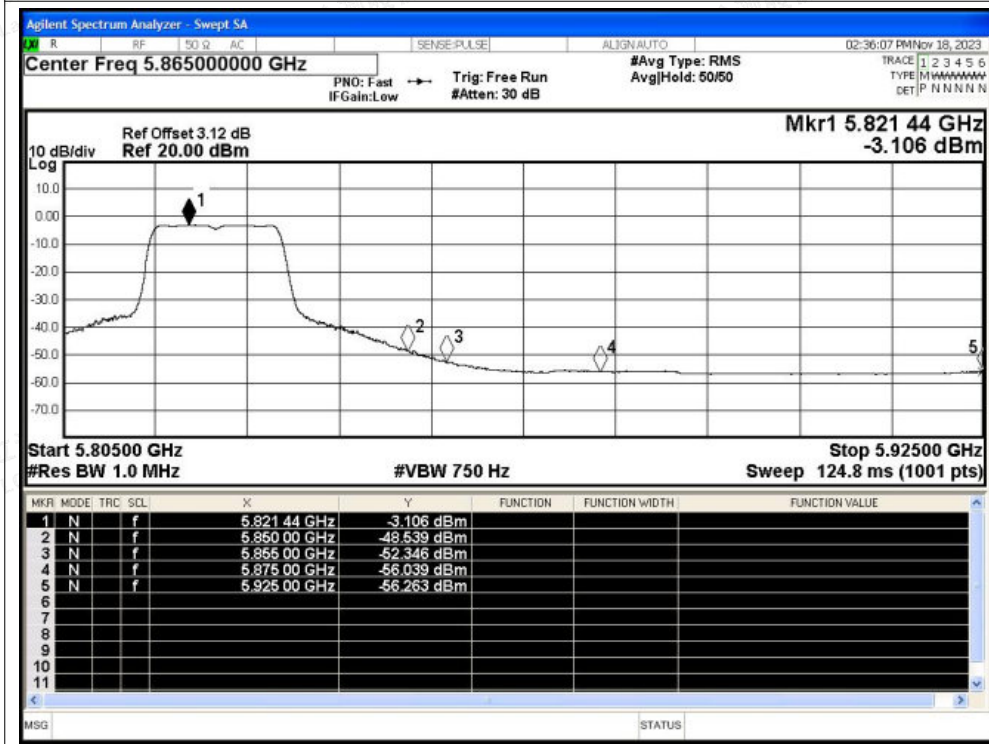




Restrict Band NVNT a 5825MHz Ant1 Peak

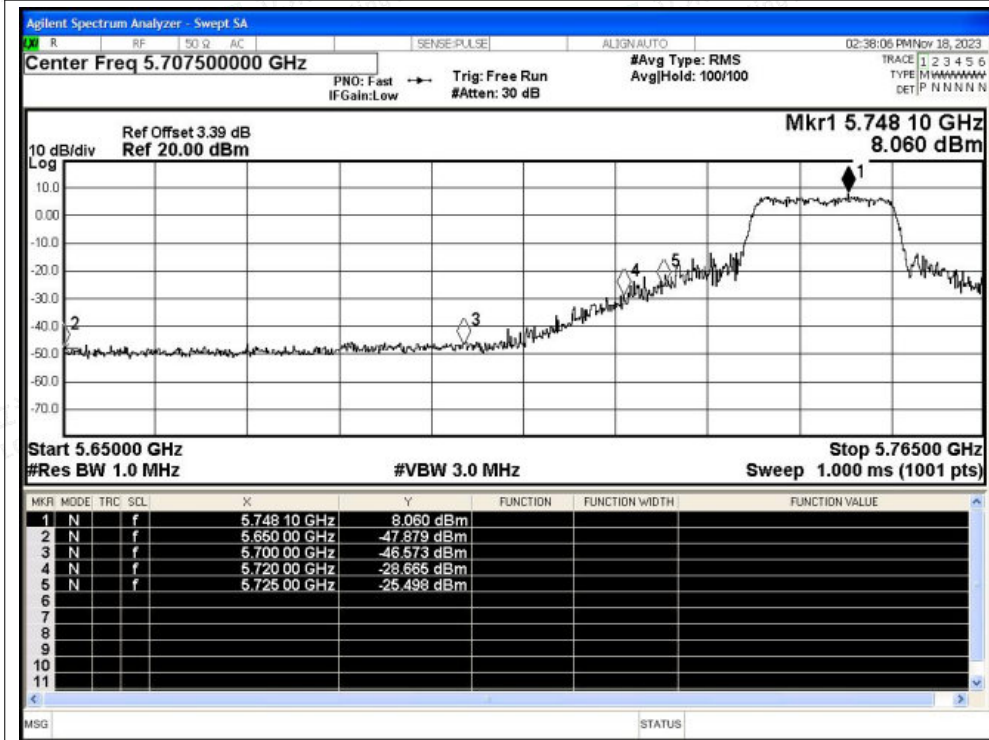


Restrict Band NVNT a 5825MHz Ant1 Average

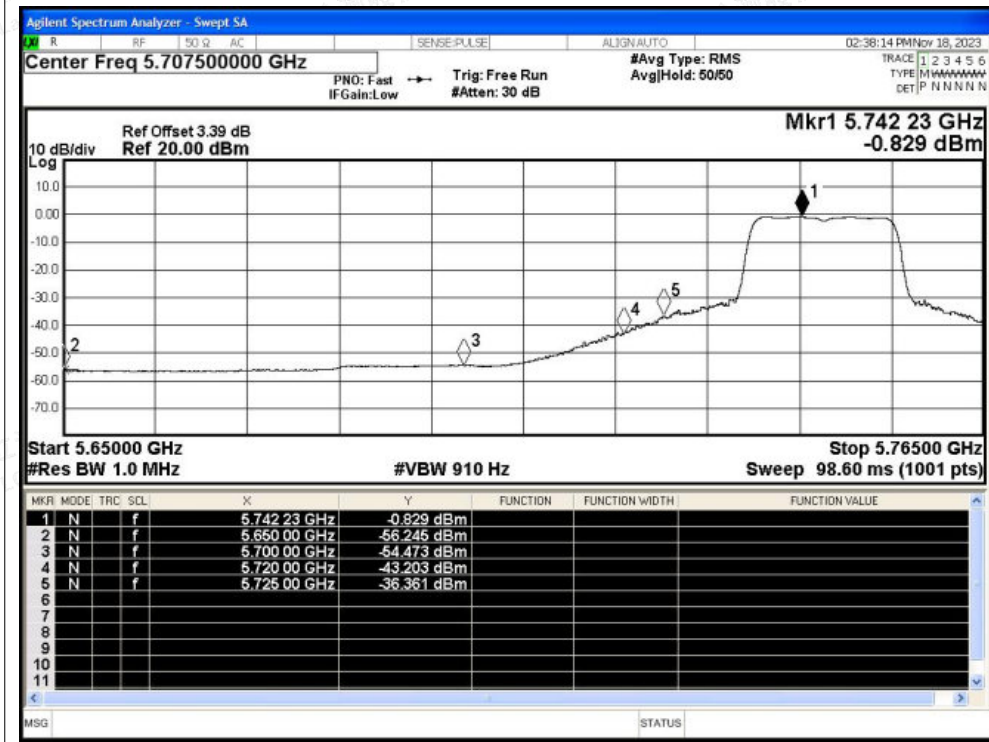




Restrict Band NVNT n20 5745MHz Ant1 Peak

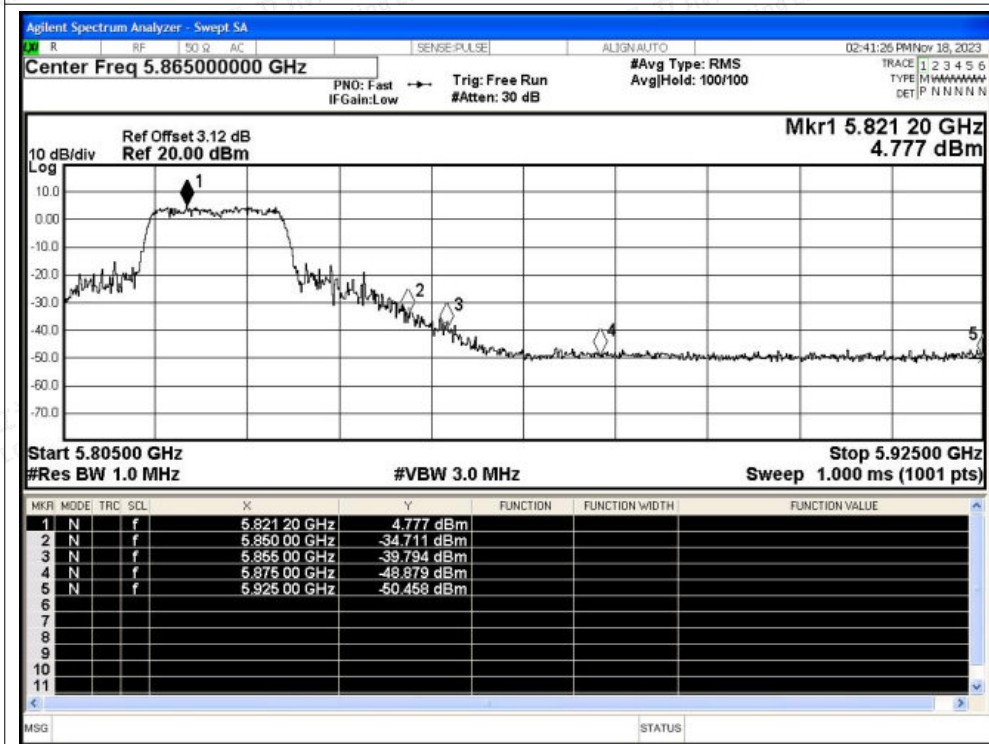


Restrict Band NVNT n20 5745MHz Ant1 Average

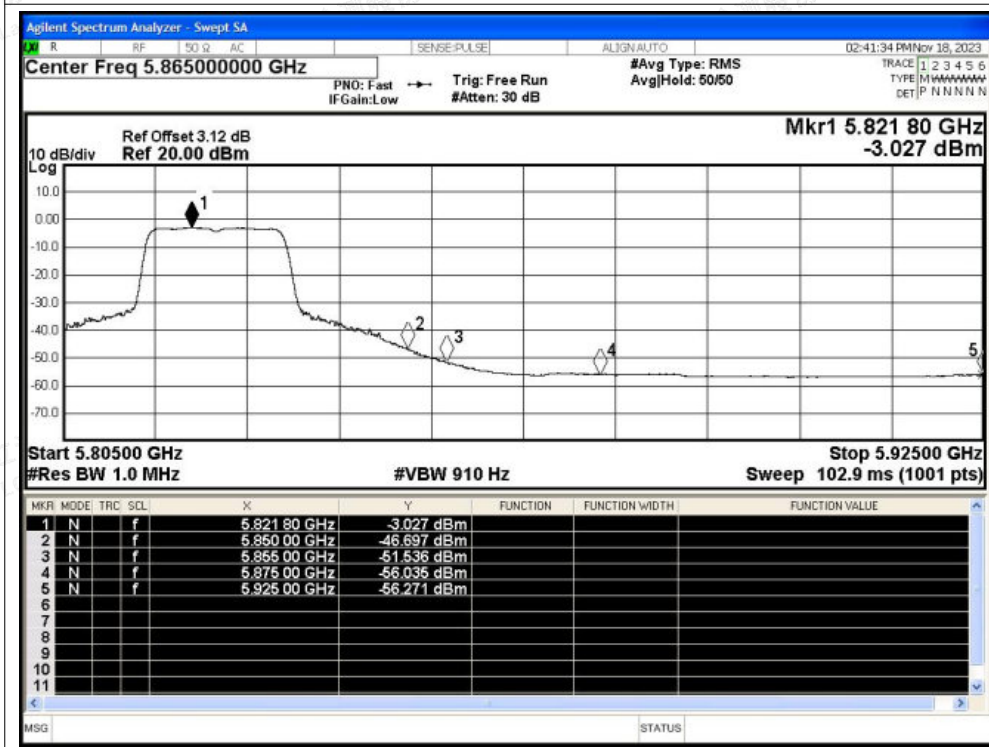




Restrict Band NVNT n20 5825MHz Ant1 Peak

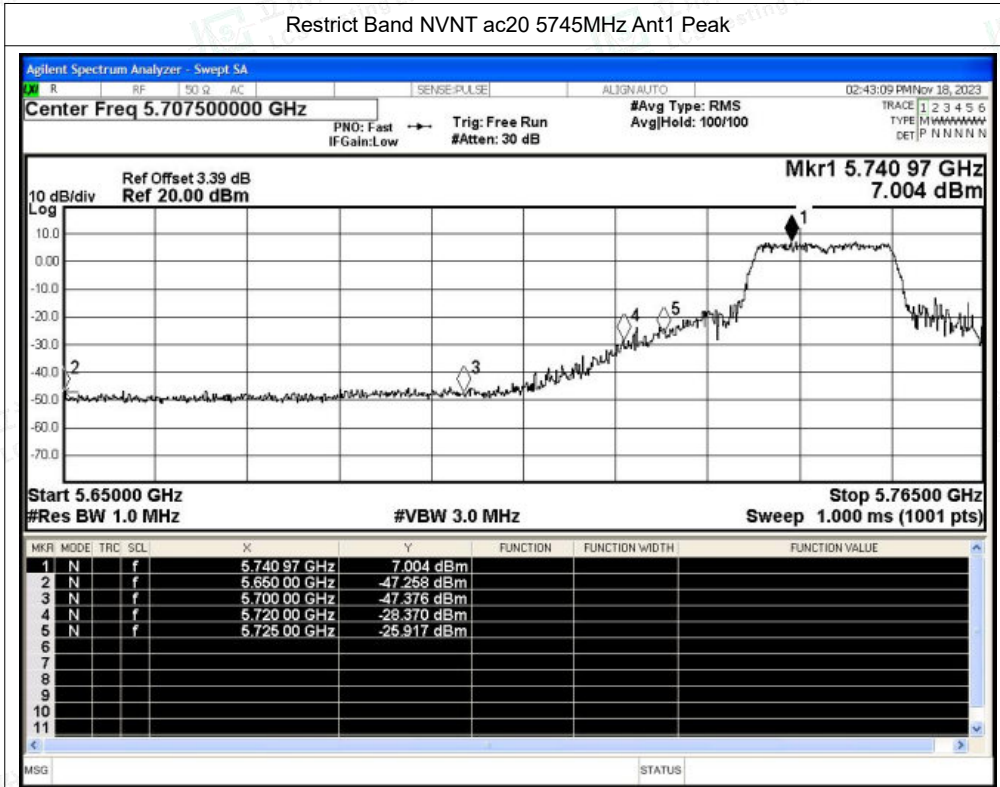


Restrict Band NVNT n20 5825MHz Ant1 Average

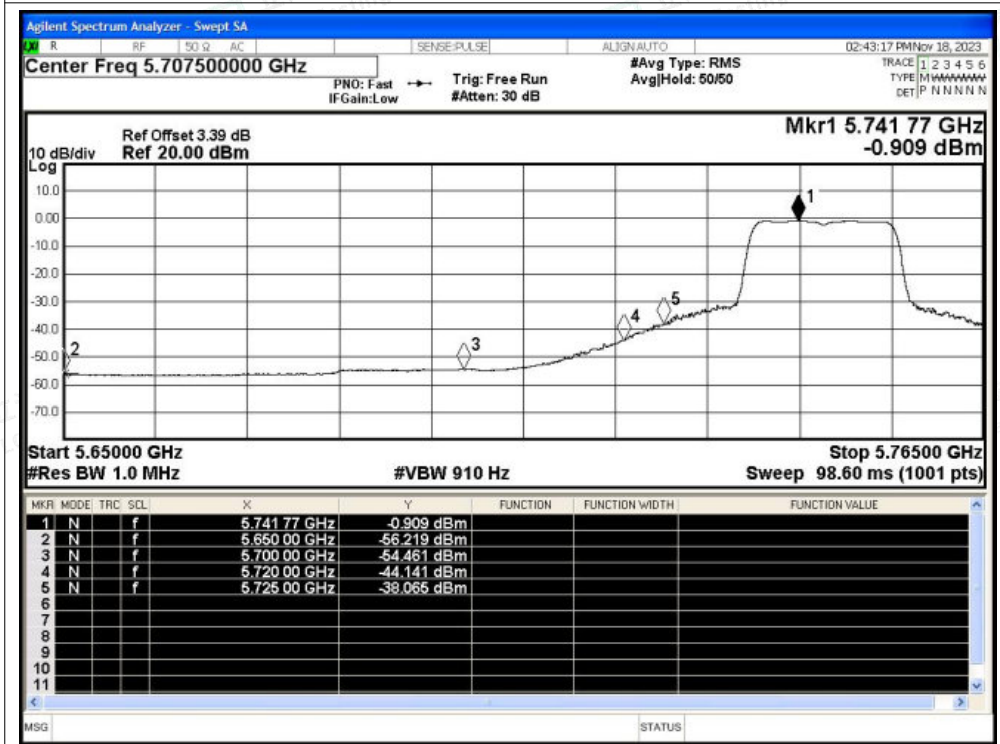




Restrict Band NVNT ac20 5745MHz Ant1 Peak

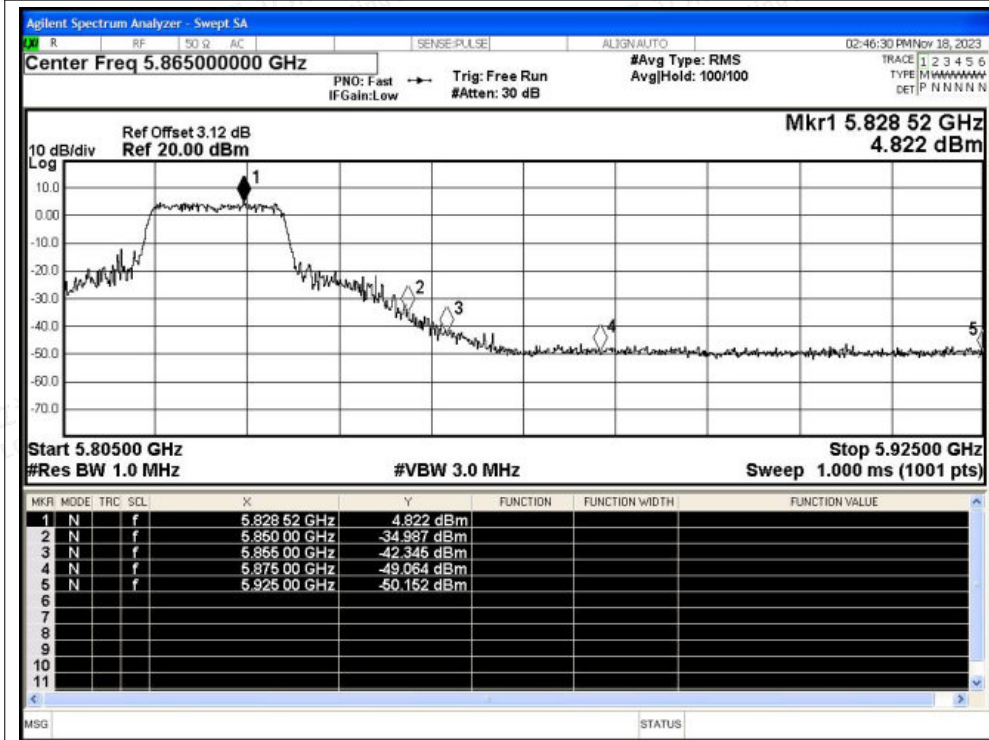


Restrict Band NVNT ac20 5745MHz Ant1 Average

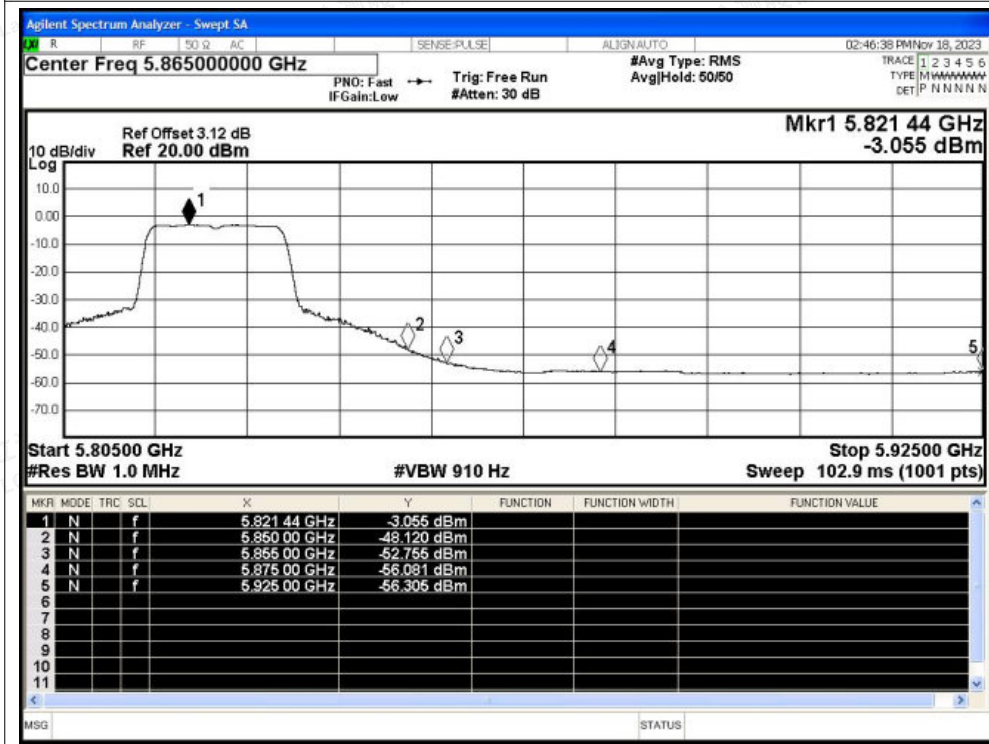




Restrict Band NVNT ac20 5825MHz Ant1 Peak



Restrict Band NVNT ac20 5825MHz Ant1 Average





D.5 Frequency Stability

| Condition | Mode | Frequency (MHz) | Antenna | Measured Frequency (MHz) | Frequency Error (Hz) | Deviation (ppm) | Limit (ppm) | Verdict |
|-----------|------|-----------------|---------|--------------------------|----------------------|-----------------|-------------|---------|
| NVNT | ac20 | 5745 | Ant1 | 5744.98 | -20000 | -3.48 | 25 | Pass |
| NVNT | ac20 | 5785 | Ant1 | 5784.98 | -20000 | -3.46 | 25 | Pass |
| NVNT | ac20 | 5825 | Ant1 | 5824.96 | -40000 | -6.87 | 25 | Pass |

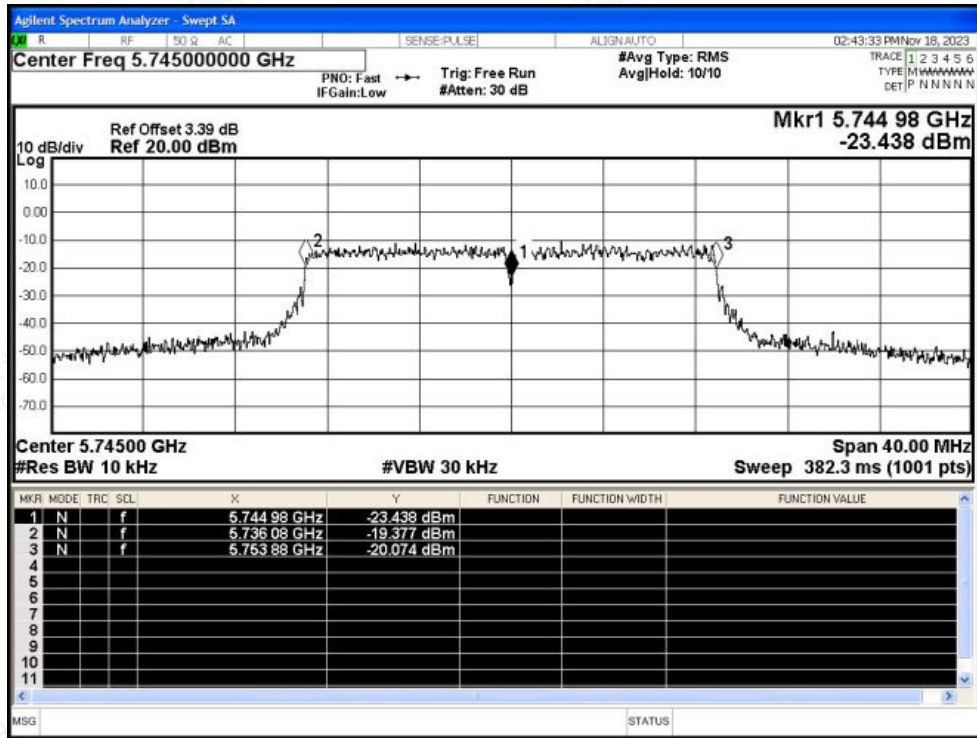


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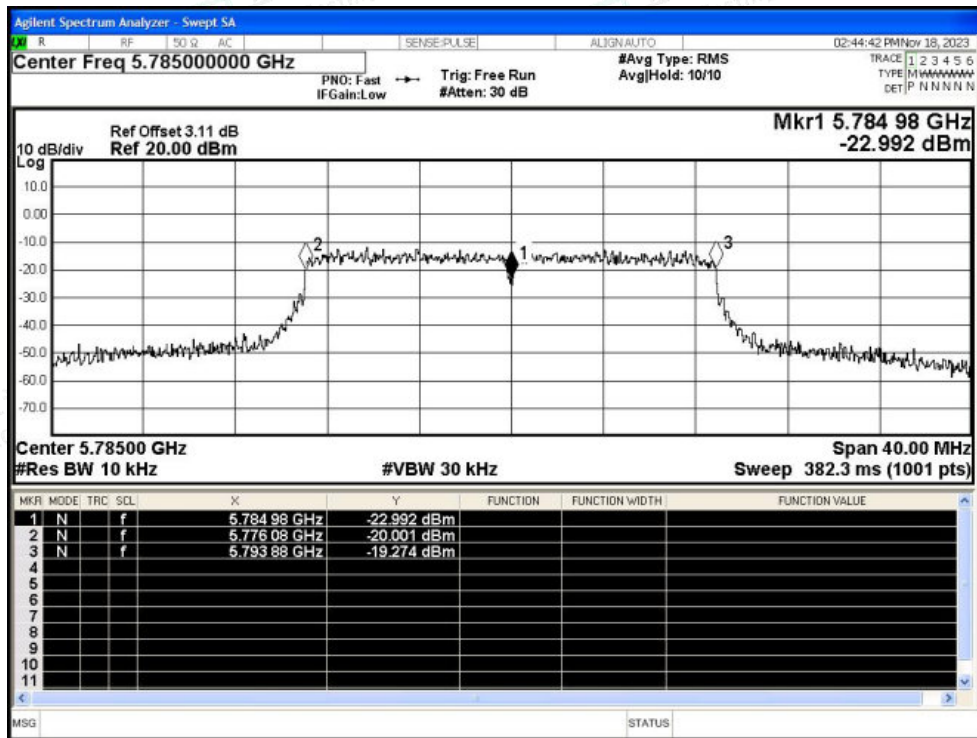


Test Graphs

Freq. Stability NVNT ac20 5745MHz Ant1

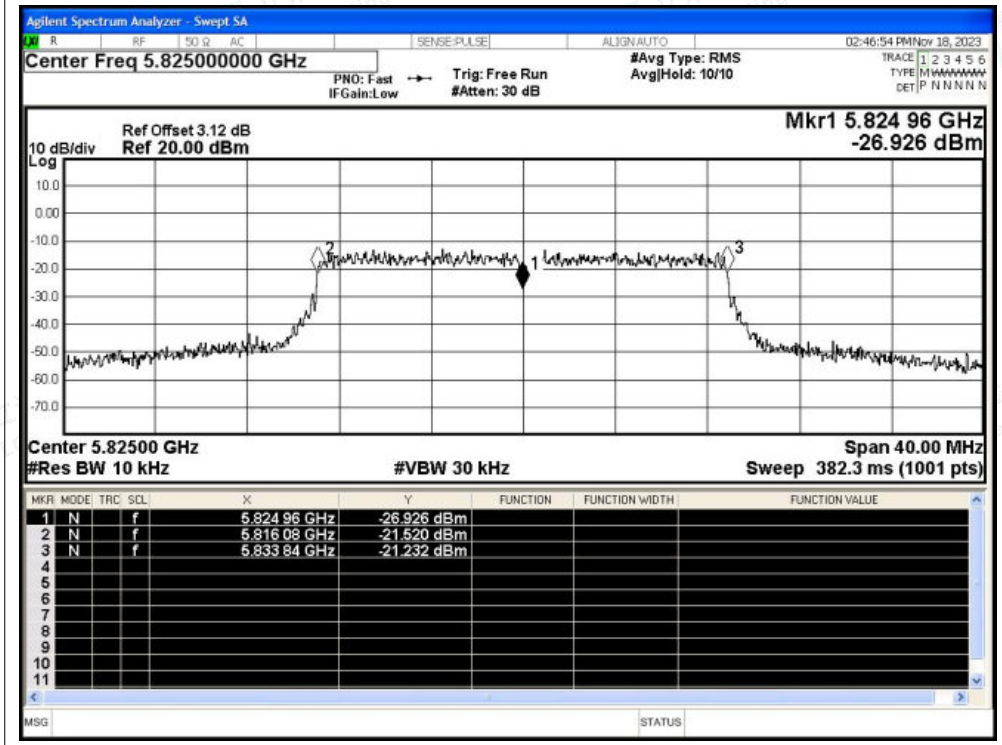


Freq. Stability NVNT ac20 5785MHz Ant1





Freq. Stability NVNT ac20 5825MHz Ant1





D.6 Duty Cycle

| Condition | Mode | Frequency (MHz) | Antenna | Duty Cycle (%) | Correction Factor (dB) | 1/T (kHz) |
|-----------|------|-----------------|---------|----------------|------------------------|-----------|
| NVNT | a | 5745 | Ant1 | 95.68 | 0.19 | 0.72 |
| NVNT | a | 5785 | Ant1 | 95.68 | 0.19 | 0.72 |
| NVNT | a | 5825 | Ant1 | 95.68 | 0.19 | 0.72 |
| NVNT | n20 | 5745 | Ant1 | 94.94 | 0.23 | 0.85 |
| NVNT | n20 | 5785 | Ant1 | 94.94 | 0.23 | 0.85 |
| NVNT | n20 | 5825 | Ant1 | 94.94 | 0.23 | 0.85 |
| NVNT | ac20 | 5745 | Ant1 | 95.04 | 0.22 | 0.84 |
| NVNT | ac20 | 5785 | Ant1 | 94.96 | 0.22 | 0.84 |
| NVNT | ac20 | 5825 | Ant1 | 95.04 | 0.22 | 0.84 |

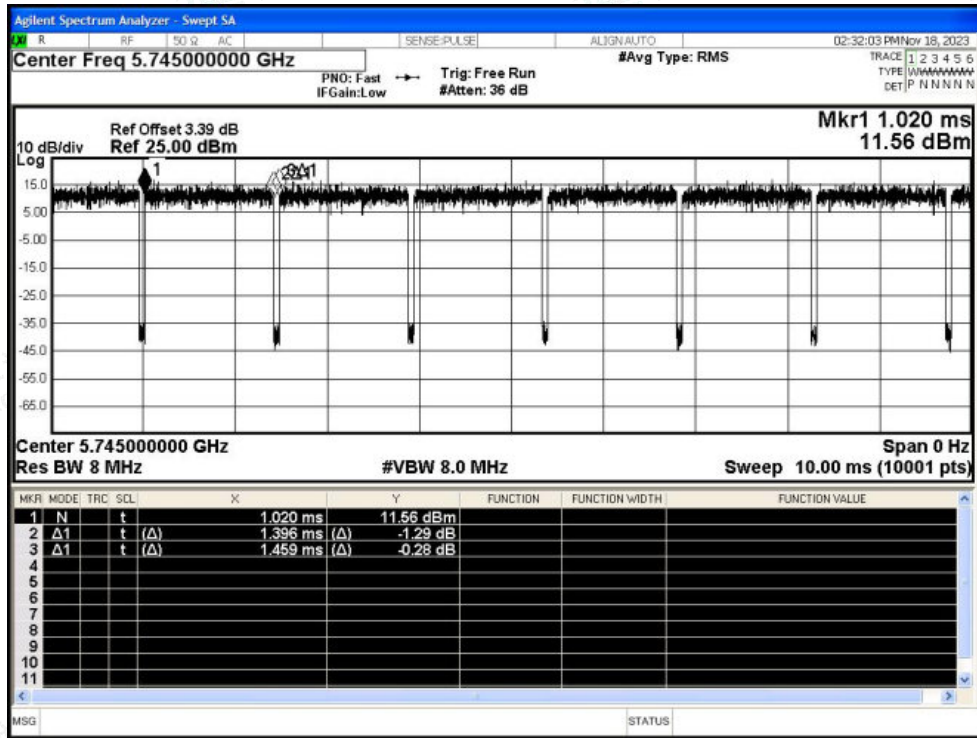


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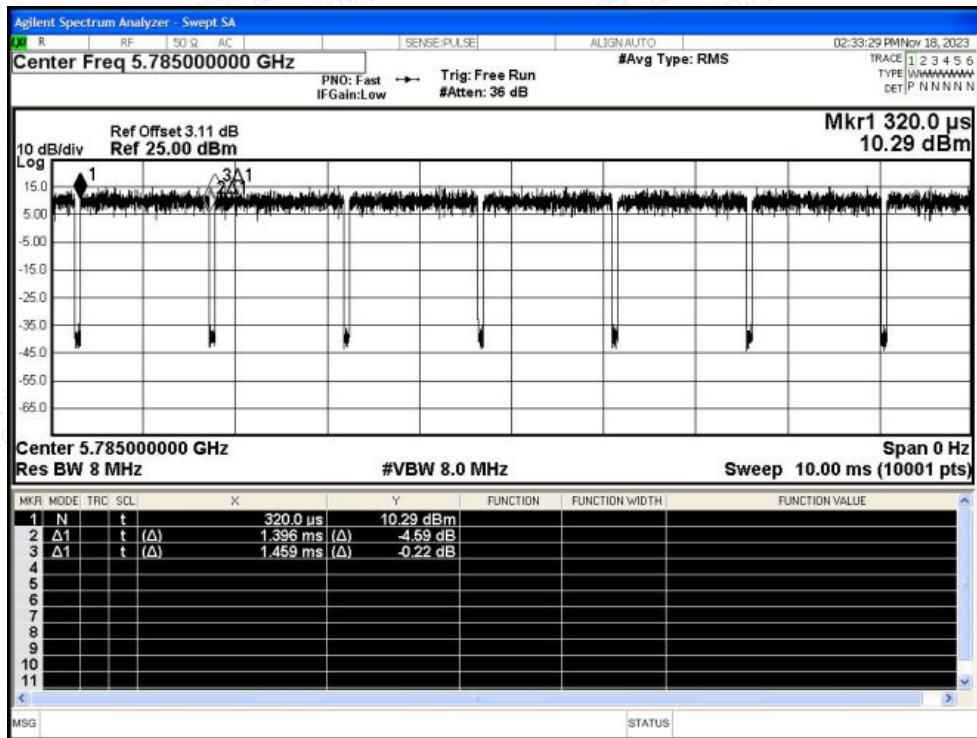


Test Graphs

Duty Cycle NVNT a 5745MHz Ant1

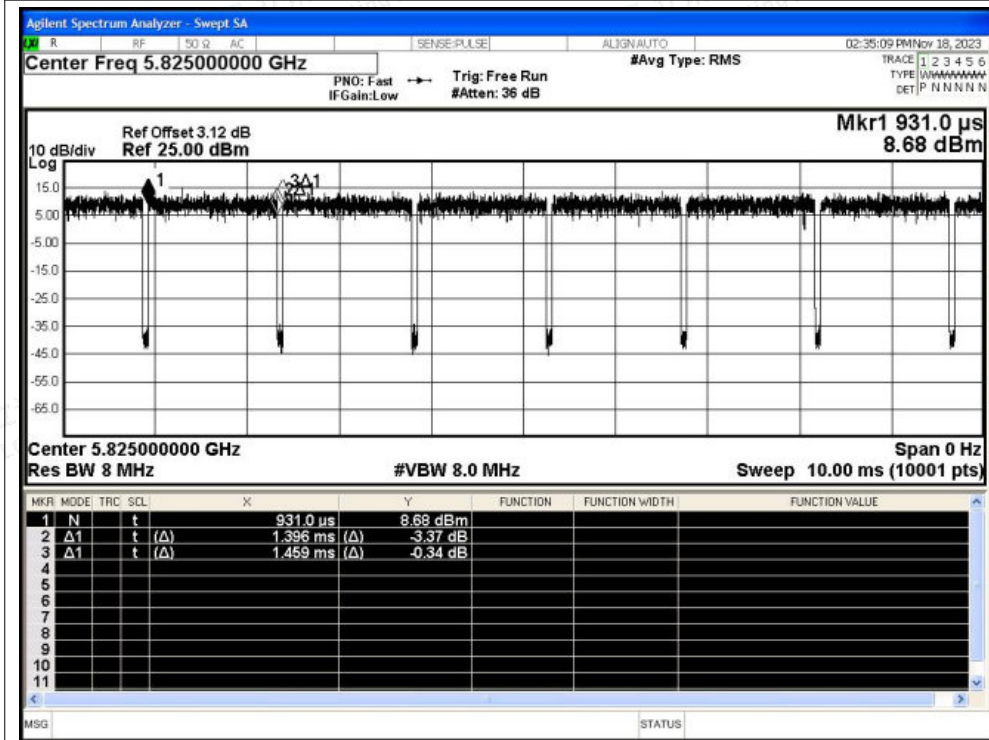


Duty Cycle NVNT a 5785MHz Ant1

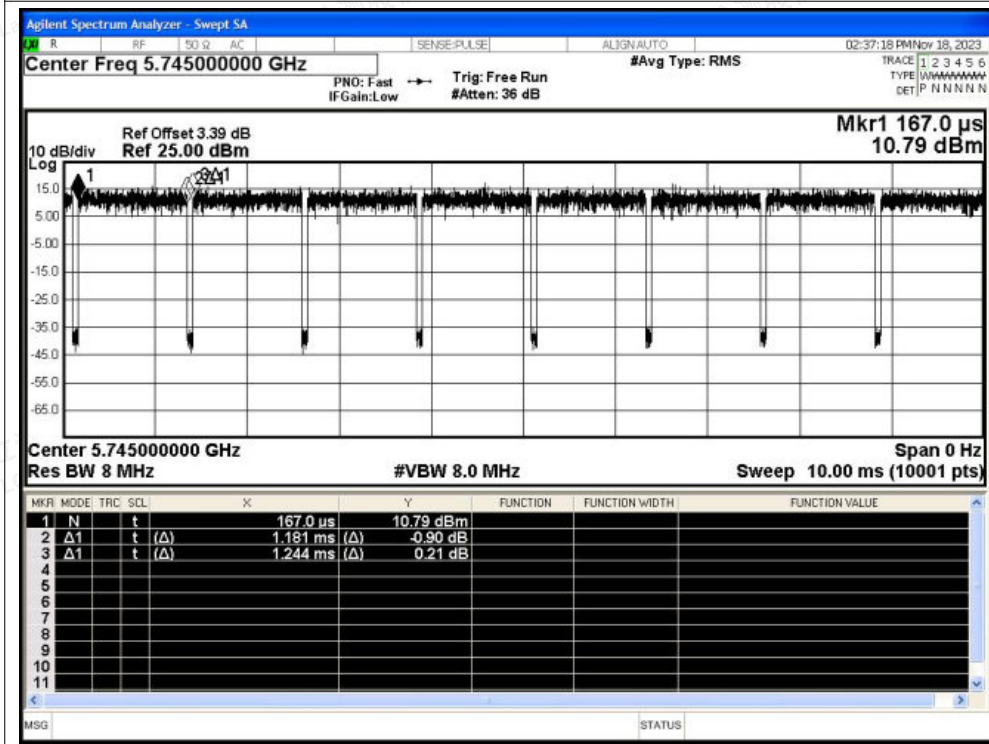




Duty Cycle NVNT a 5825MHz Ant1

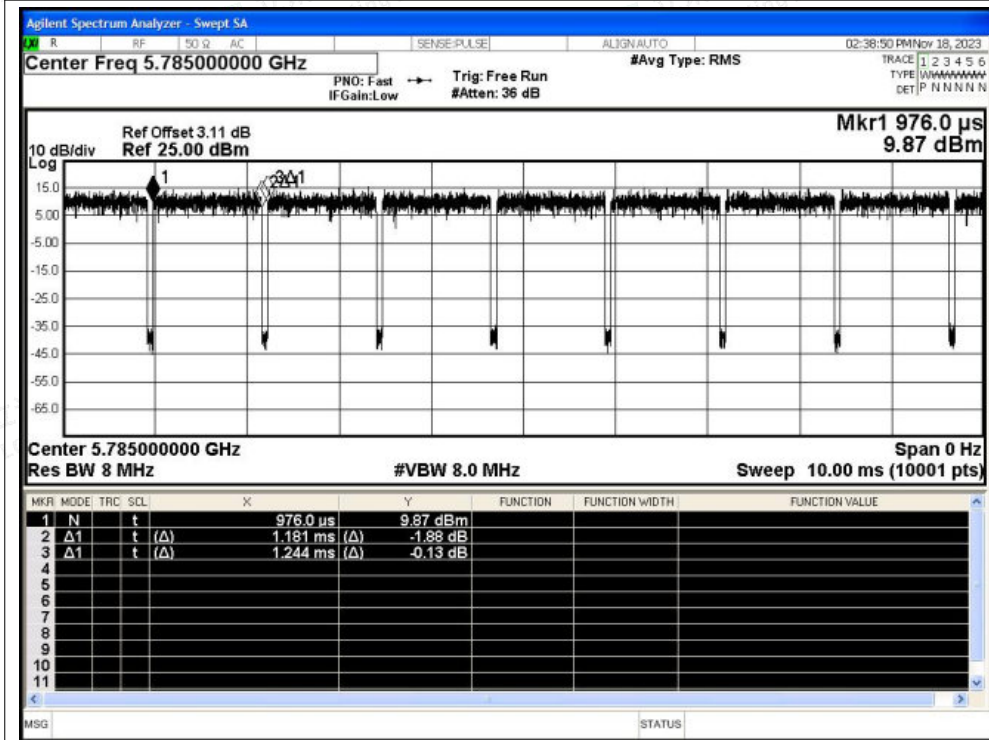


Duty Cycle NVNT n20 5745MHz Ant1

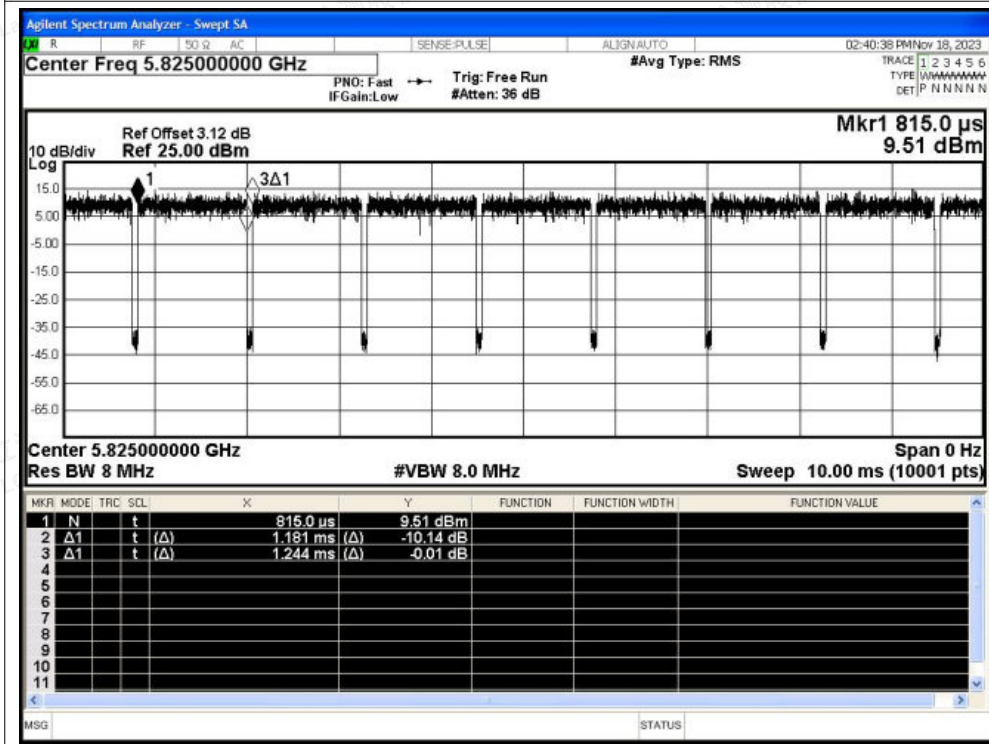




Duty Cycle NVNT n20 5785MHz Ant1

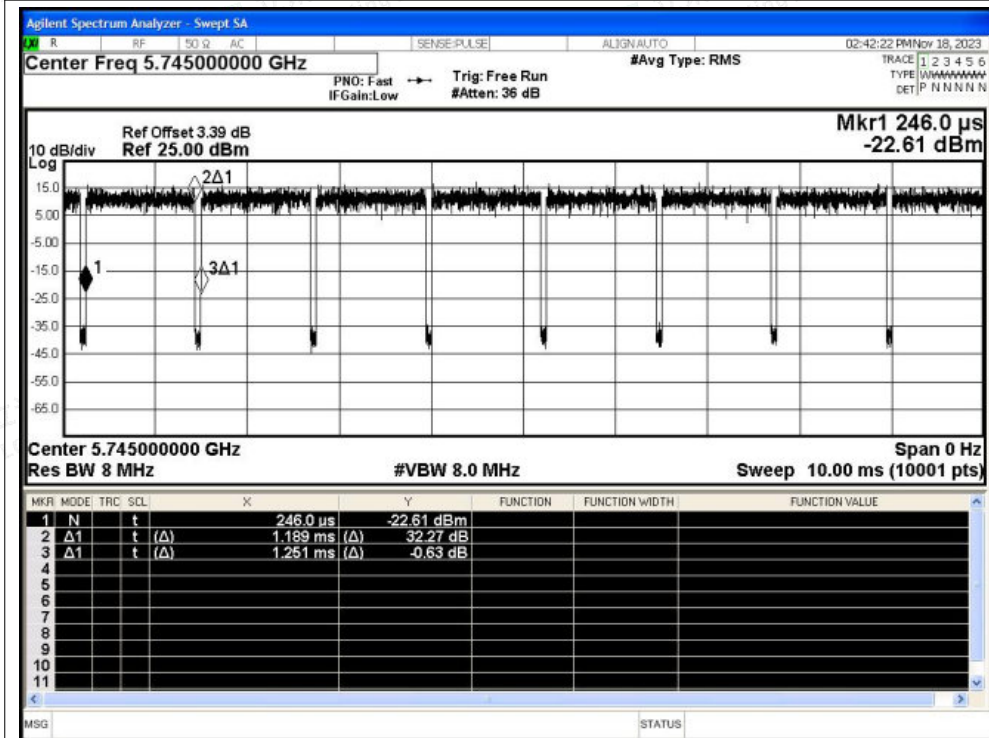


Duty Cycle NVNT n20 5825MHz Ant1

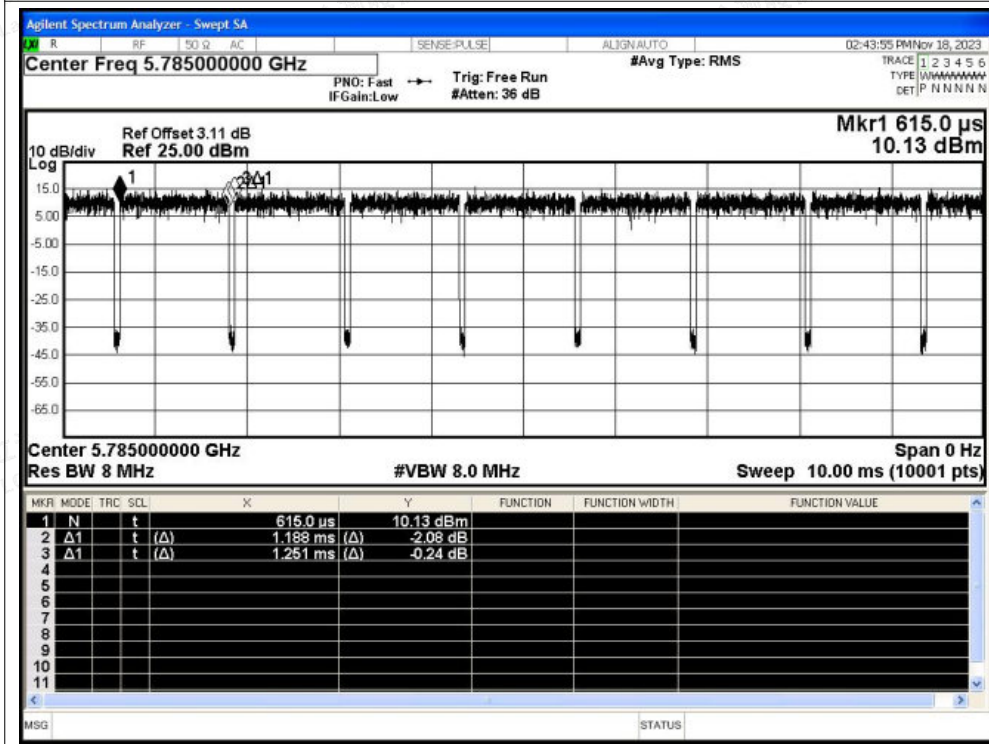




Duty Cycle NVNT ac20 5745MHz Ant1



Duty Cycle NVNT ac20 5785MHz Ant1





Duty Cycle NVNT ac20 5825MHz Ant1

