



Appendix for 15.247

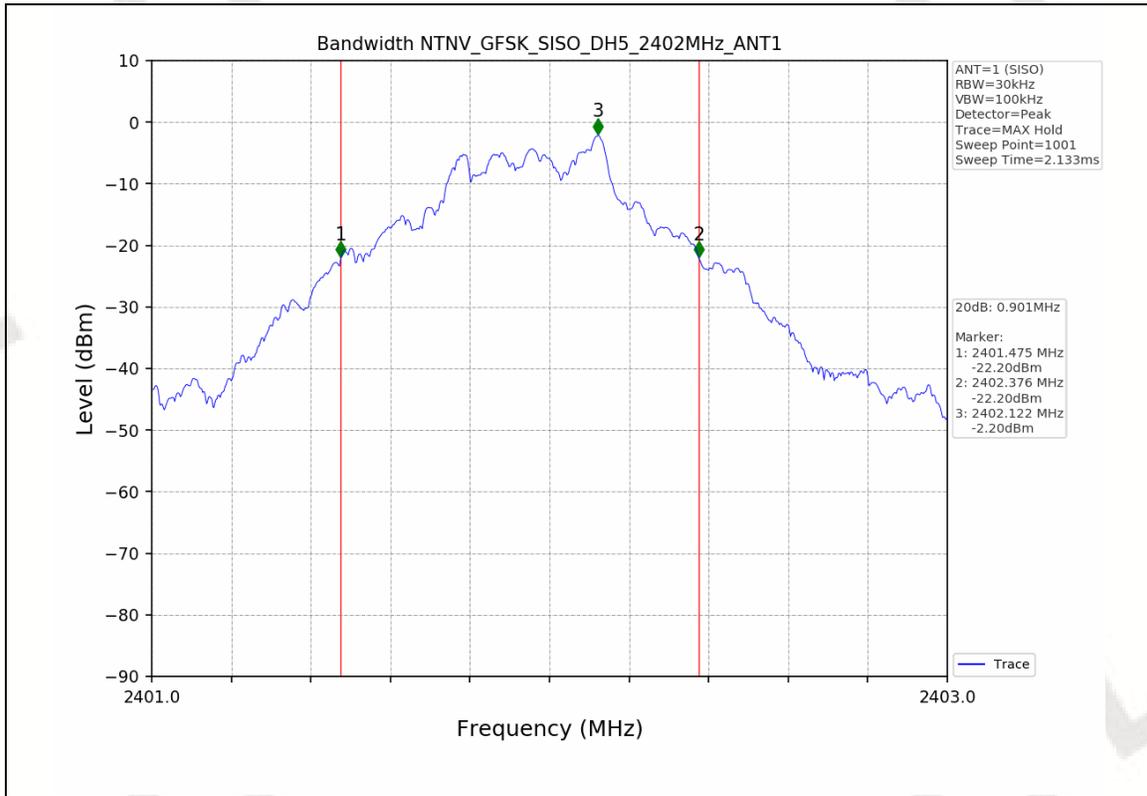
1. Bandwidth

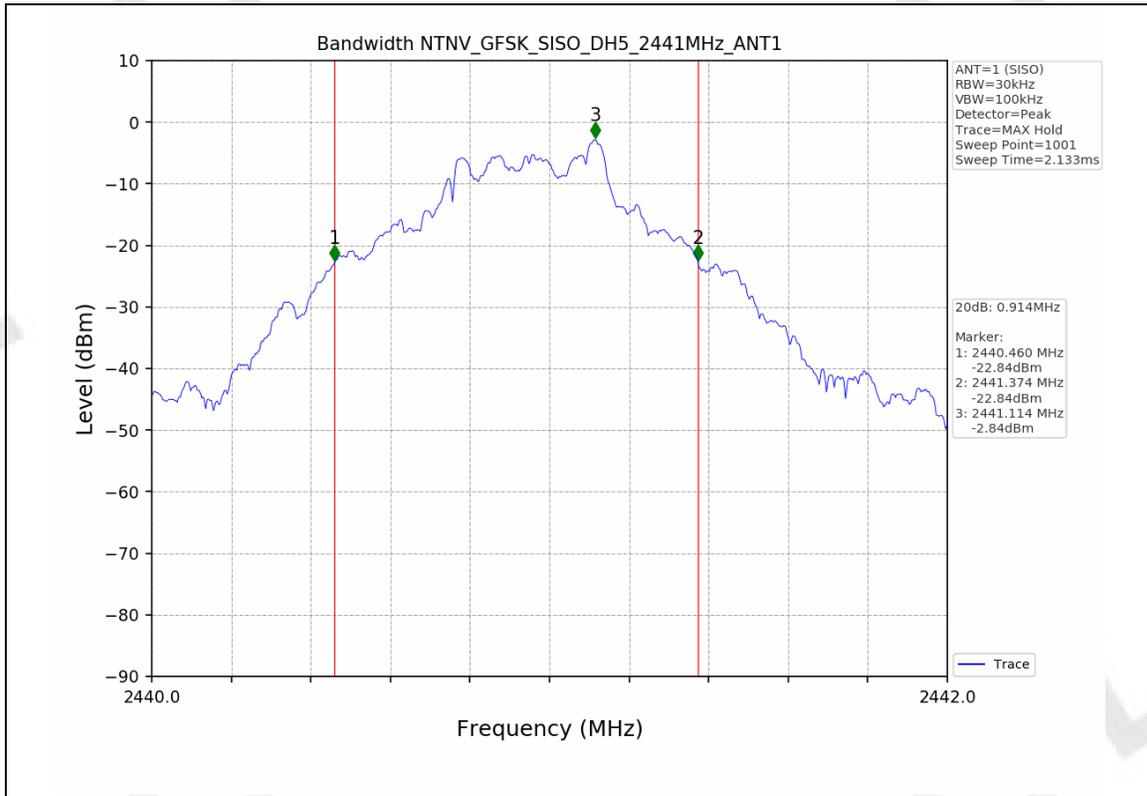
1.1 Test Result

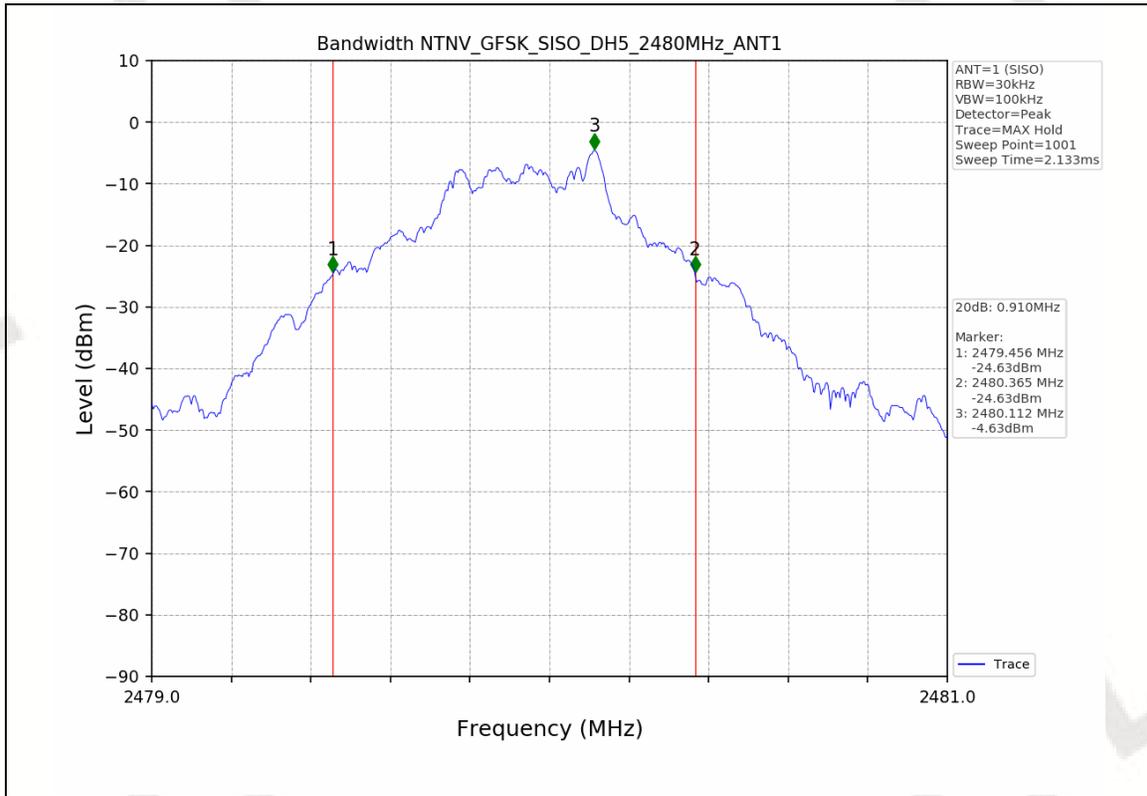
| Test Mode | Frequency (MHz) | TX Type | ANT No. | 20dB Bandwidth | Verdict |
|-----------|-----------------|---------|---------|-------------------|---------|
| | | | | Test Result (MHz) | |
| GFSK | 2402 | SISO | 1 | 0.901 | PASS |
| | 2441 | SISO | 1 | 0.914 | PASS |
| | 2480 | SISO | 1 | 0.910 | PASS |
| Pi/4DQPSK | 2402 | SISO | 1 | 1.293 | PASS |
| | 2441 | SISO | 1 | 1.297 | PASS |
| | 2480 | SISO | 1 | 1.294 | PASS |
| 8DPSK | 2402 | SISO | 1 | 1.279 | PASS |
| | 2441 | SISO | 1 | 1.276 | PASS |
| | 2480 | SISO | 1 | 1.273 | PASS |

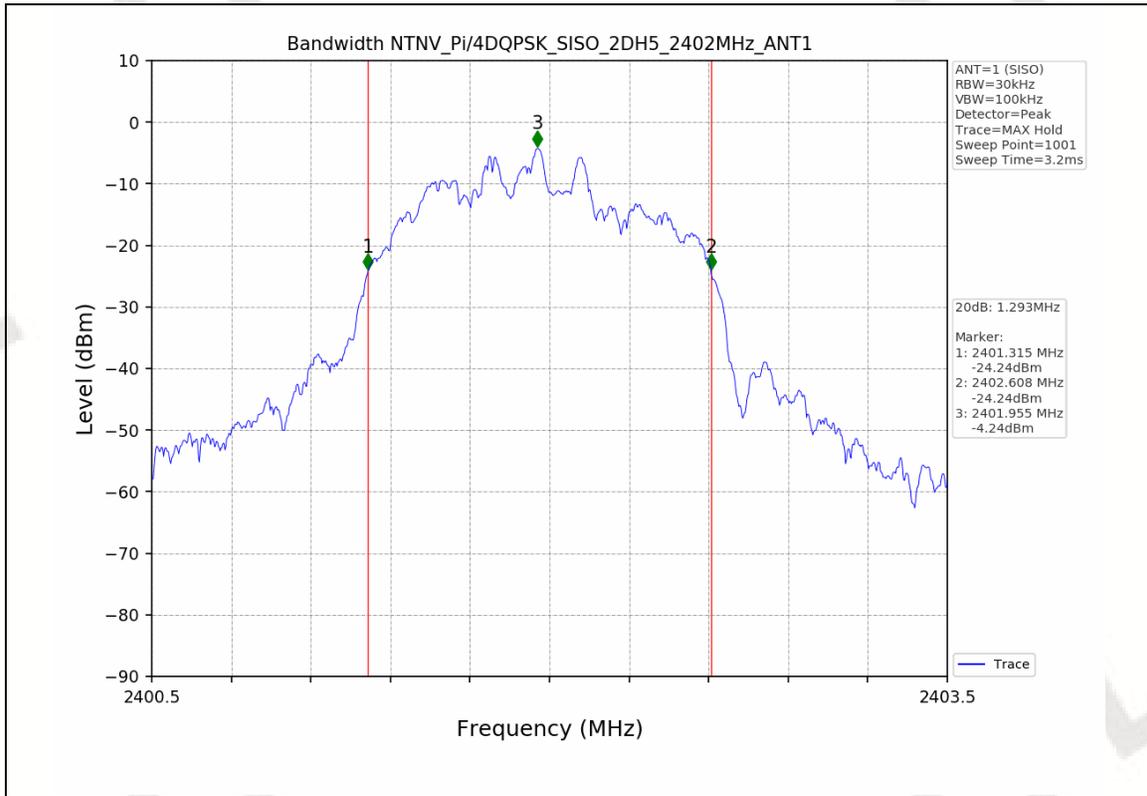
| Test Mode | Frequency (MHz) | TX Type | ANT No. | 99% Occupied Bandwidth | |
|-----------|-----------------|---------|---------|------------------------|---------------------|
| | | | | Test Result (MHz) | |
| GFSK | 2402 | SISO | 1 | 0.890 | Only for Report Use |
| | 2441 | SISO | 1 | 0.889 | Only for Report Use |
| | 2480 | SISO | 1 | 0.887 | Only for Report Use |
| Pi/4DQPSK | 2402 | SISO | 1 | 1.184 | Only for Report Use |
| | 2441 | SISO | 1 | 1.181 | Only for Report Use |
| | 2480 | SISO | 1 | 1.185 | Only for Report Use |
| 8DPSK | 2402 | SISO | 1 | 1.177 | Only for Report Use |
| | 2441 | SISO | 1 | 1.174 | Only for Report Use |
| | 2480 | SISO | 1 | 1.183 | Only for Report Use |

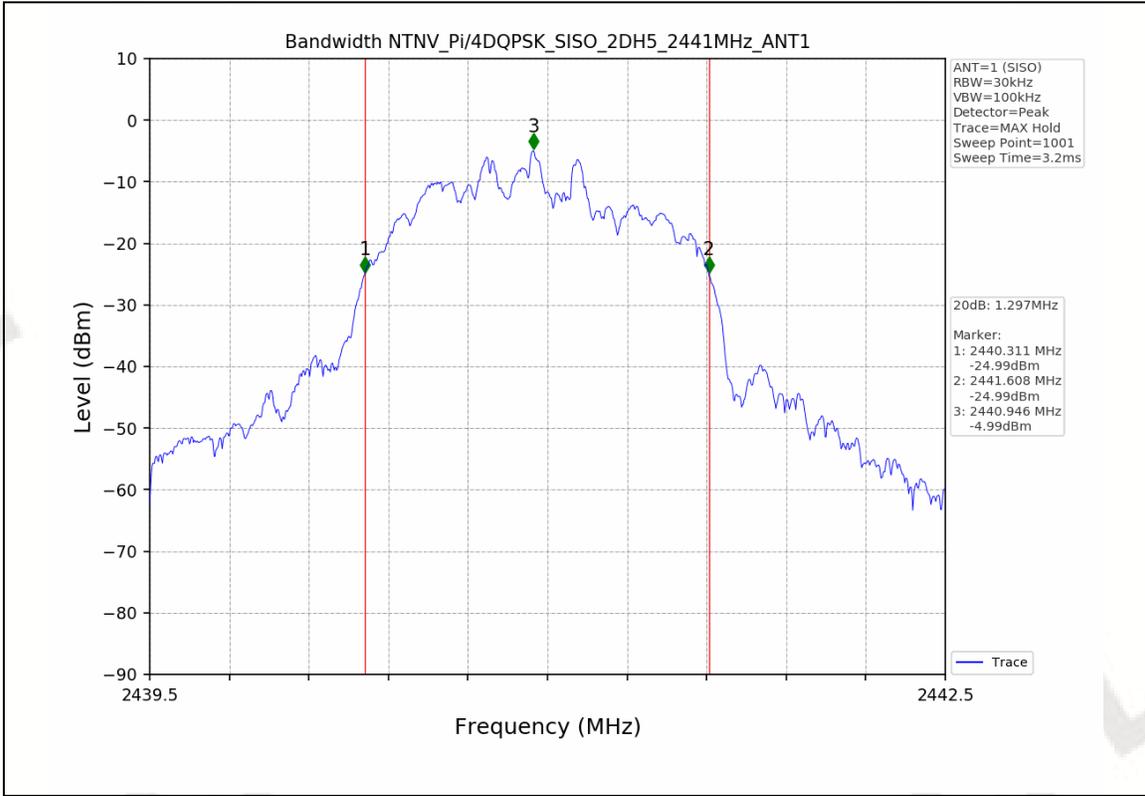
1.2 Test Graph - 20dB Bandwidth

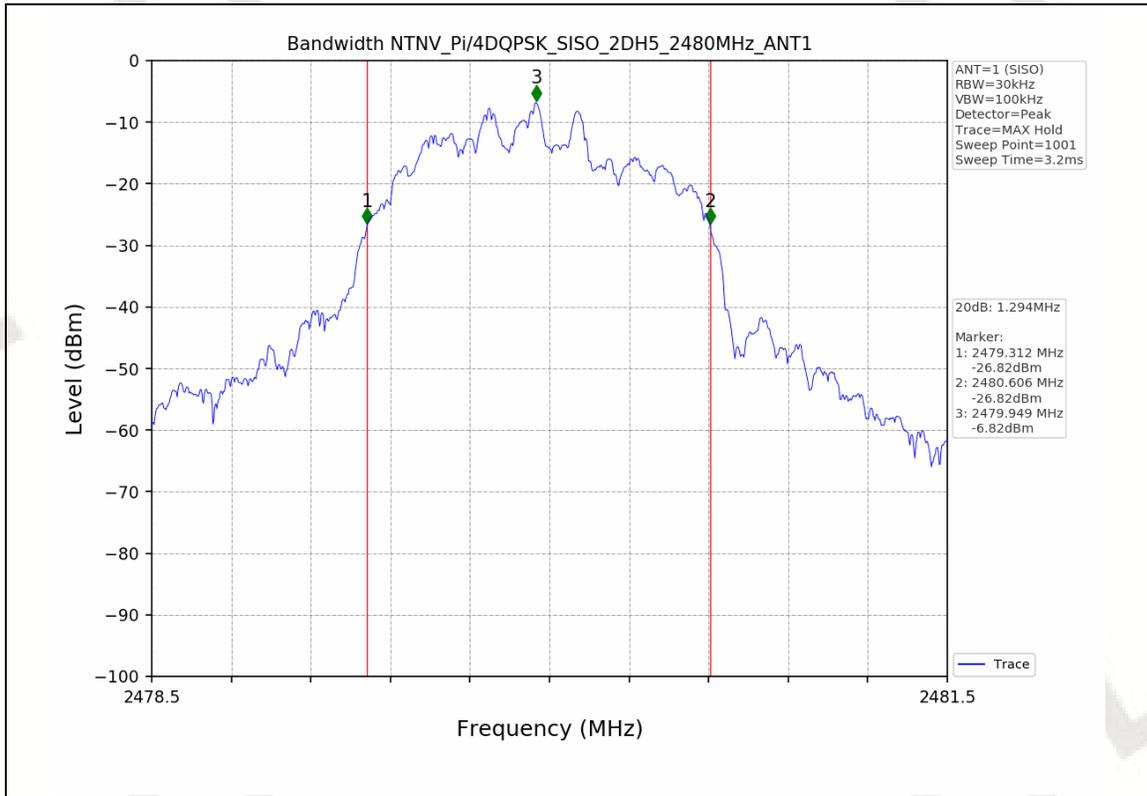


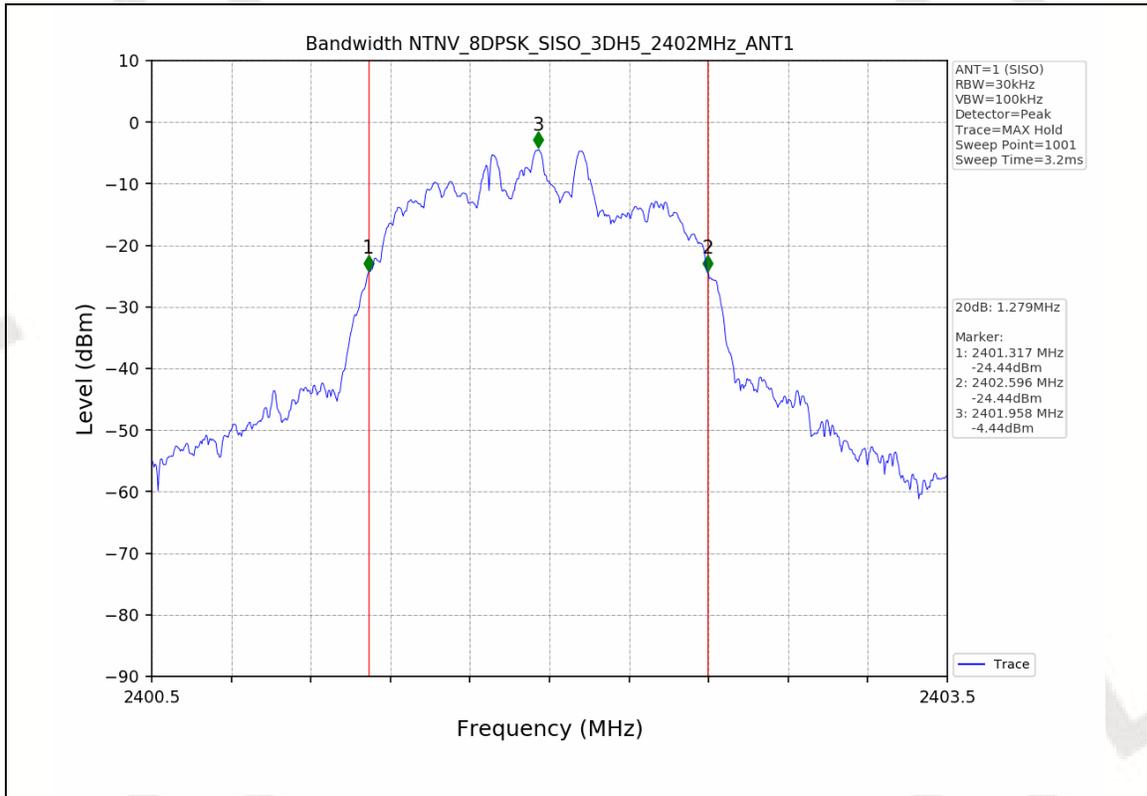


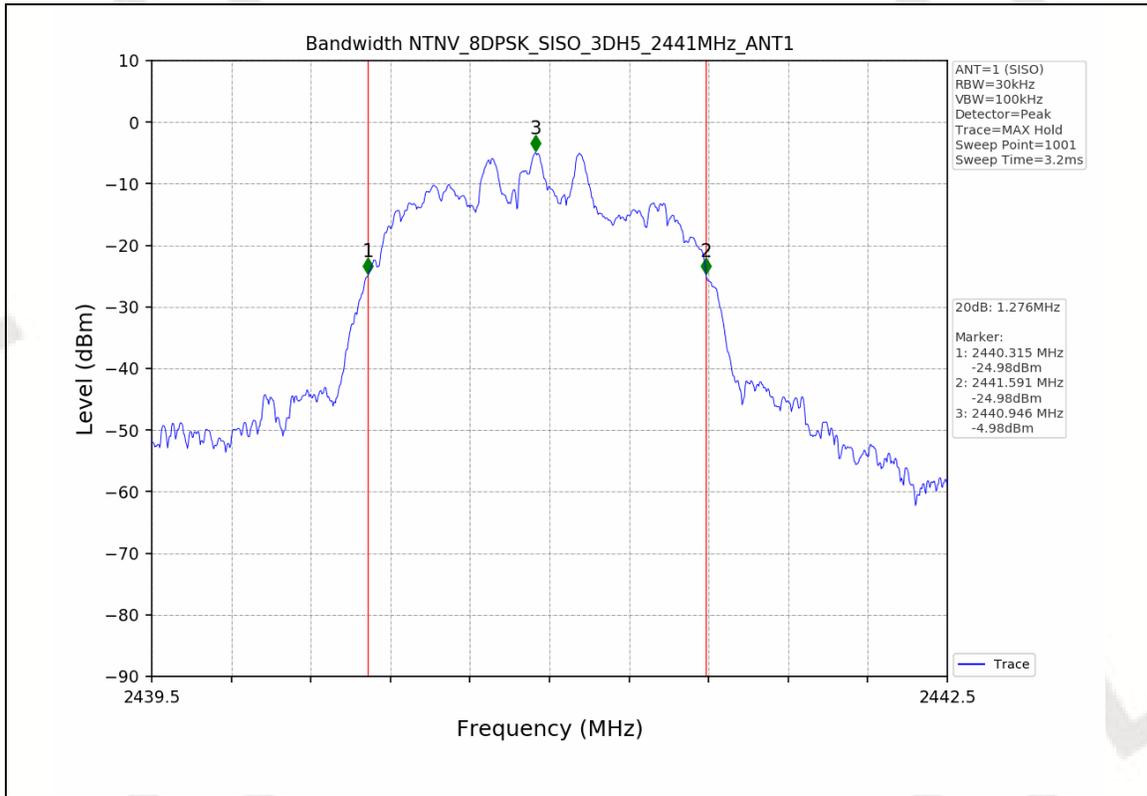


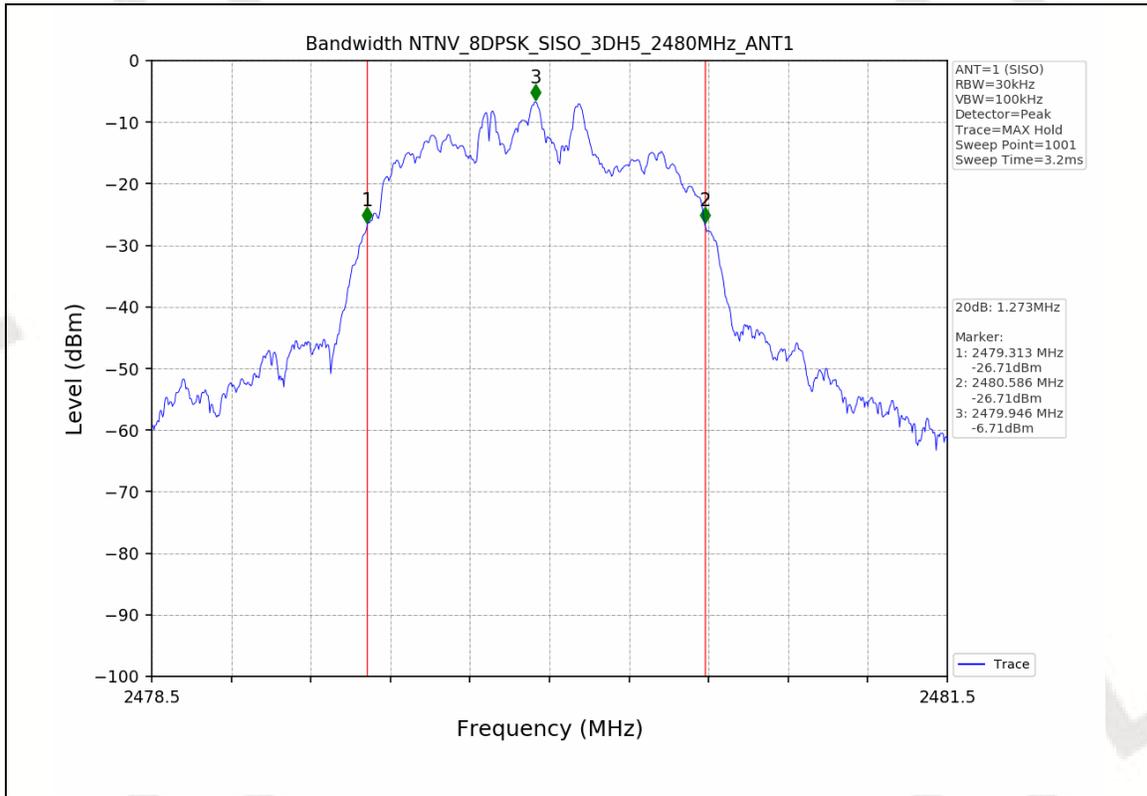




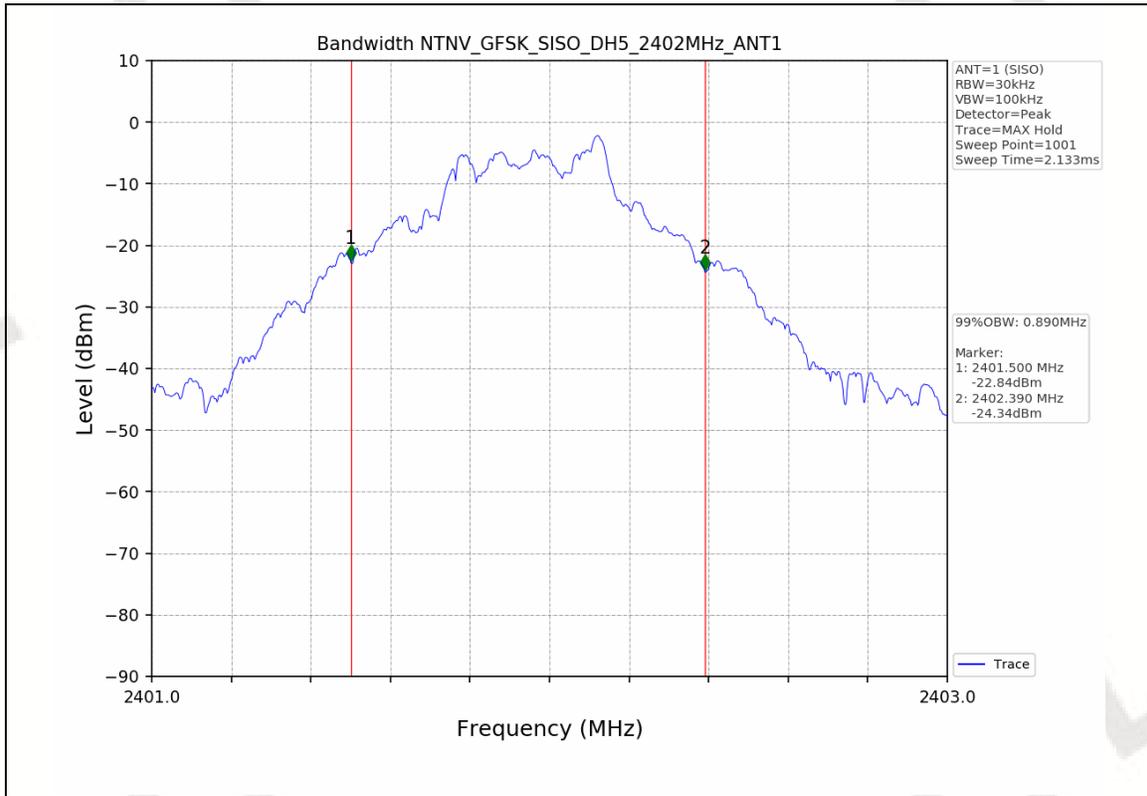


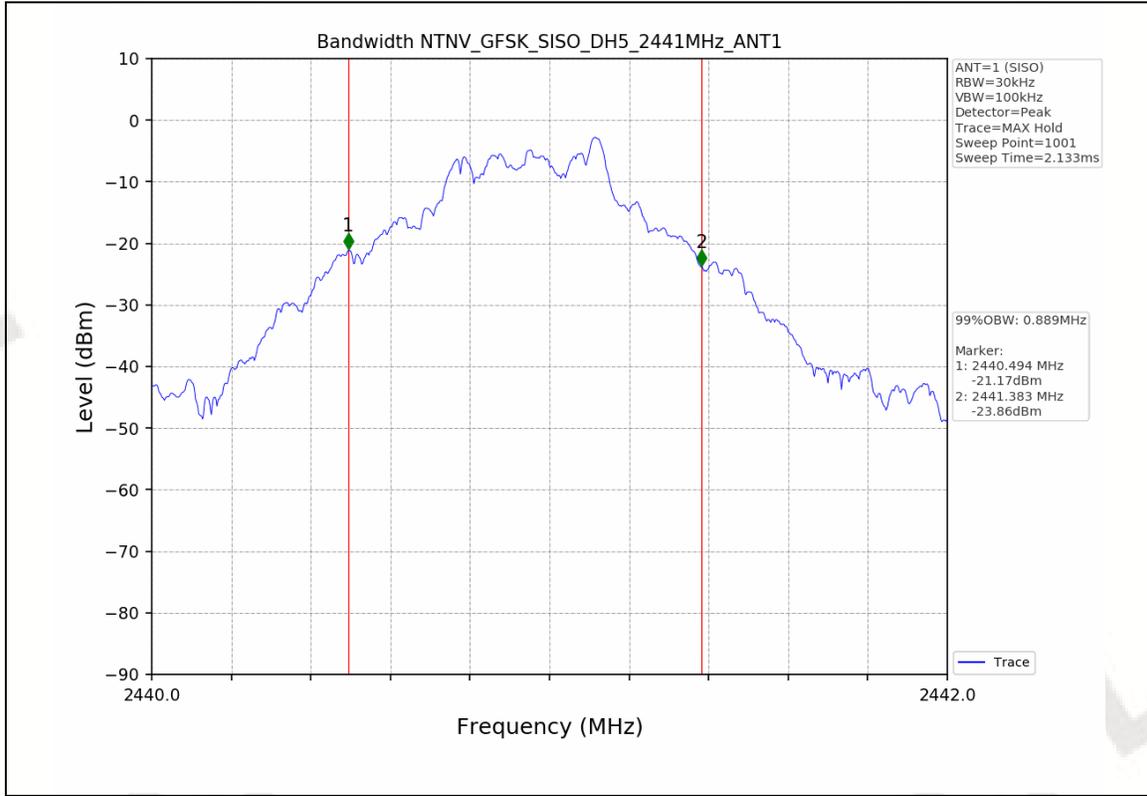


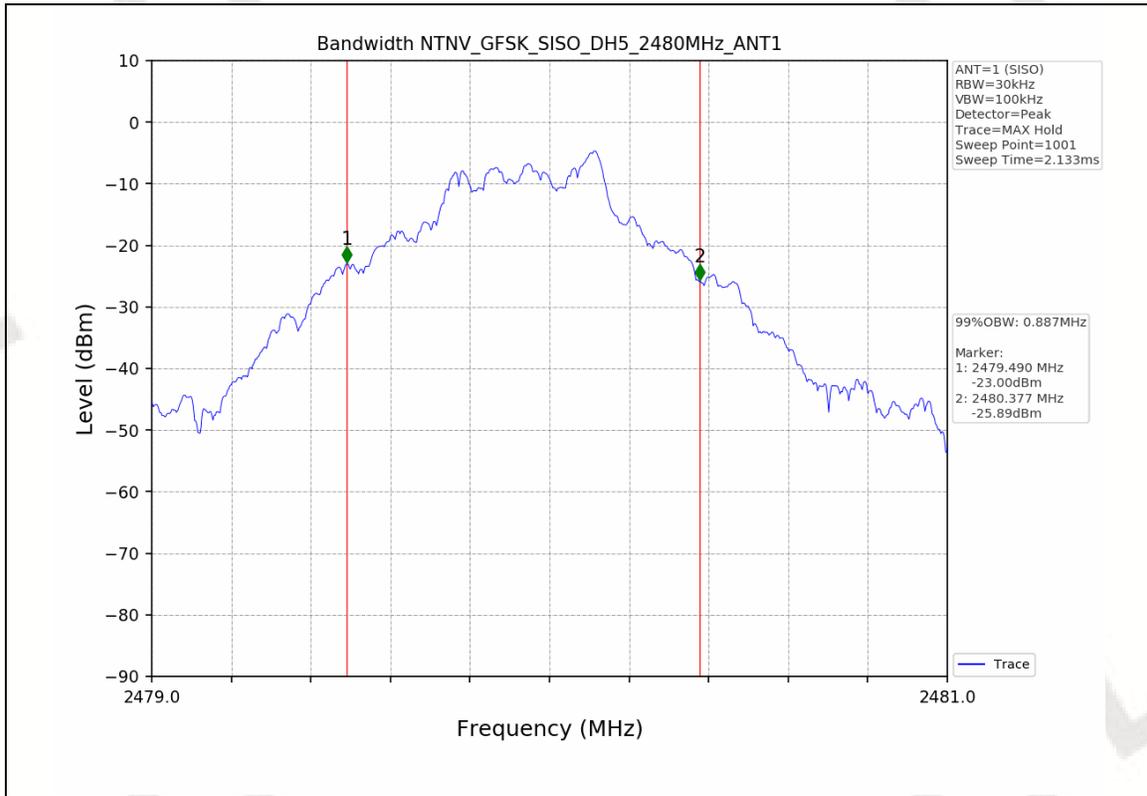


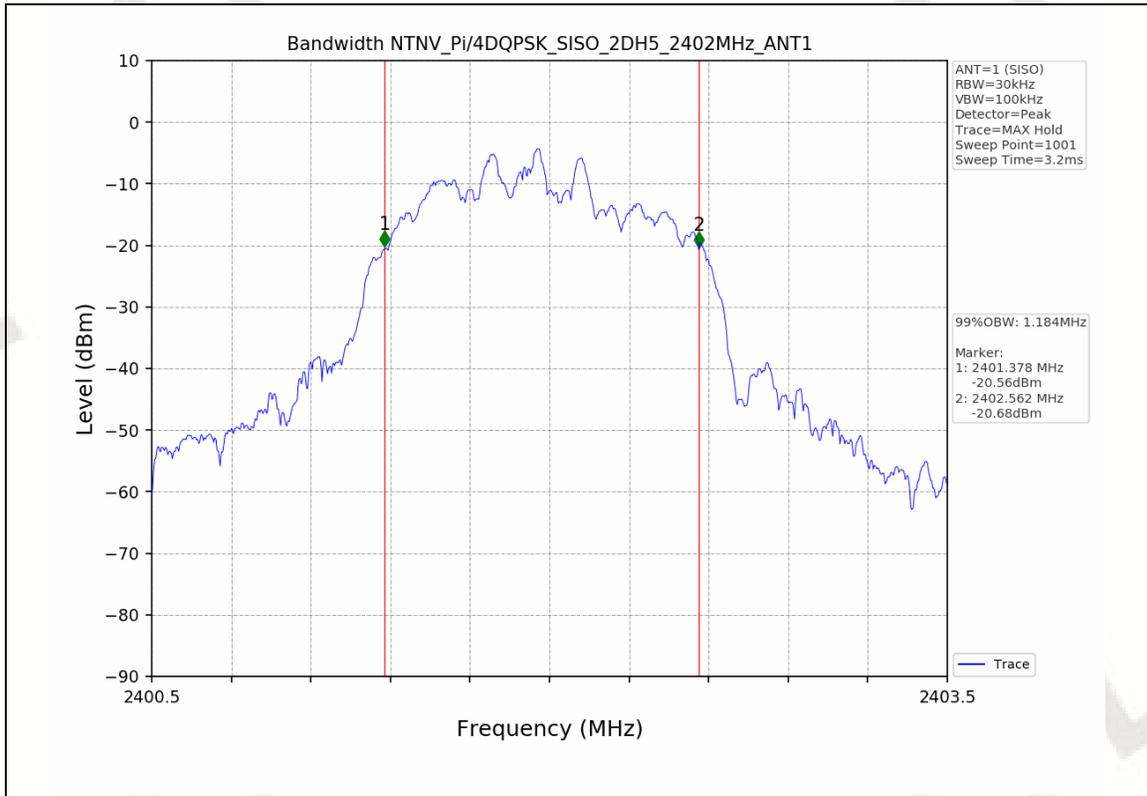


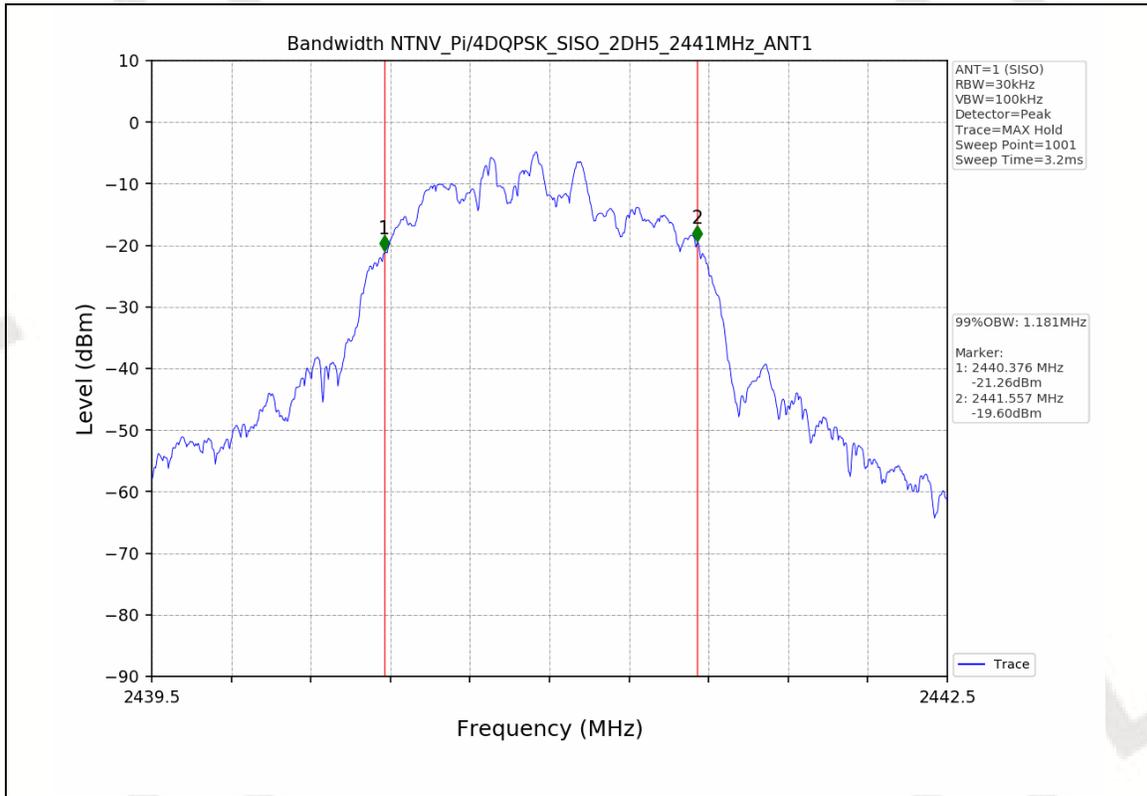
1.3 Test Graph - 99% Occupied Bandwidth

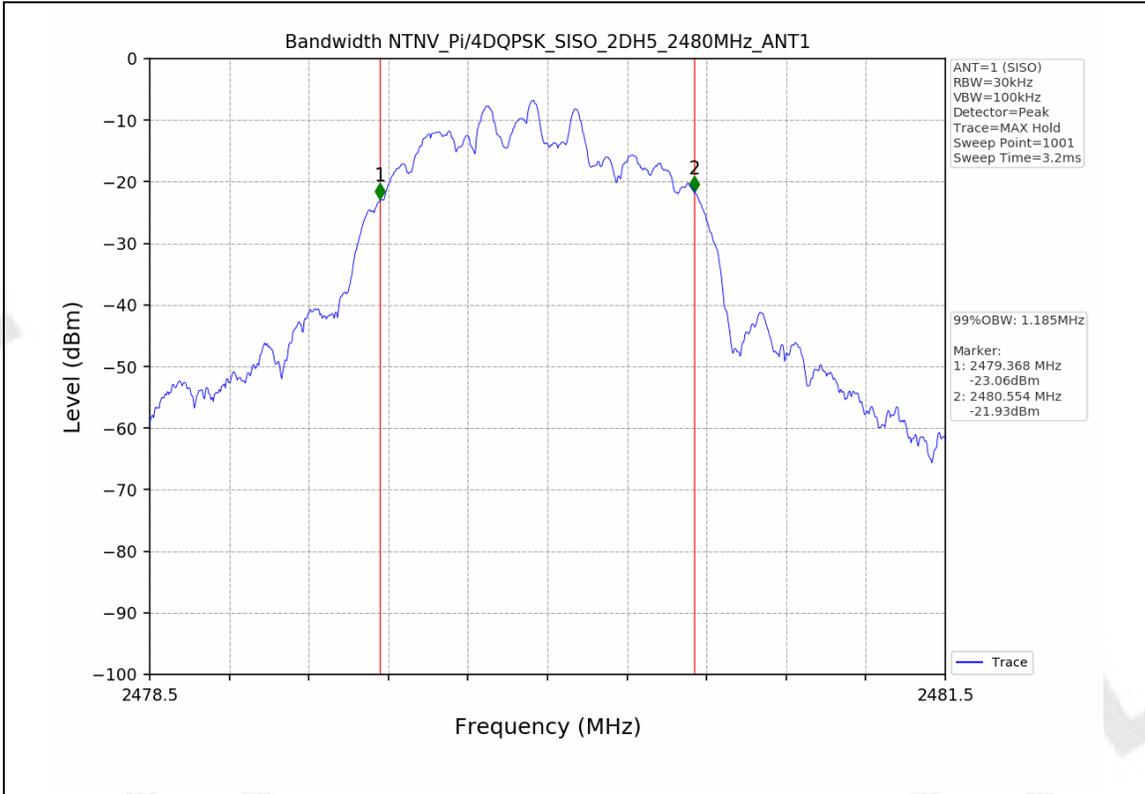


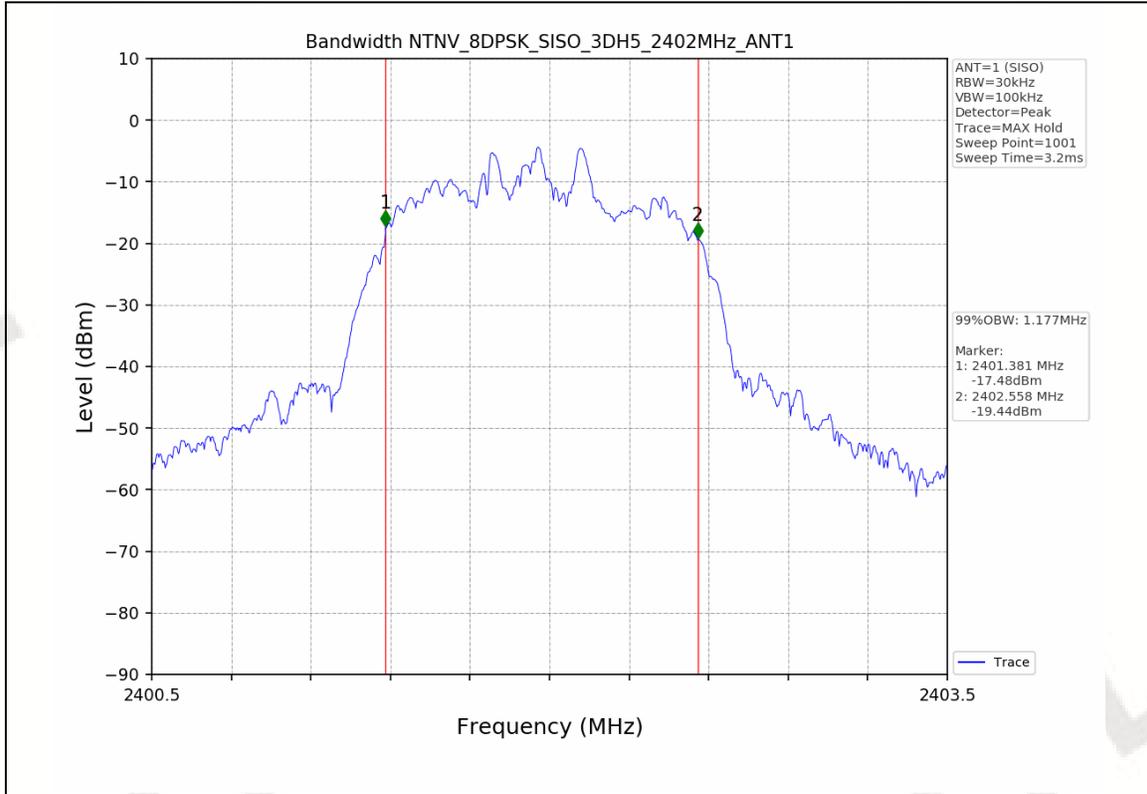


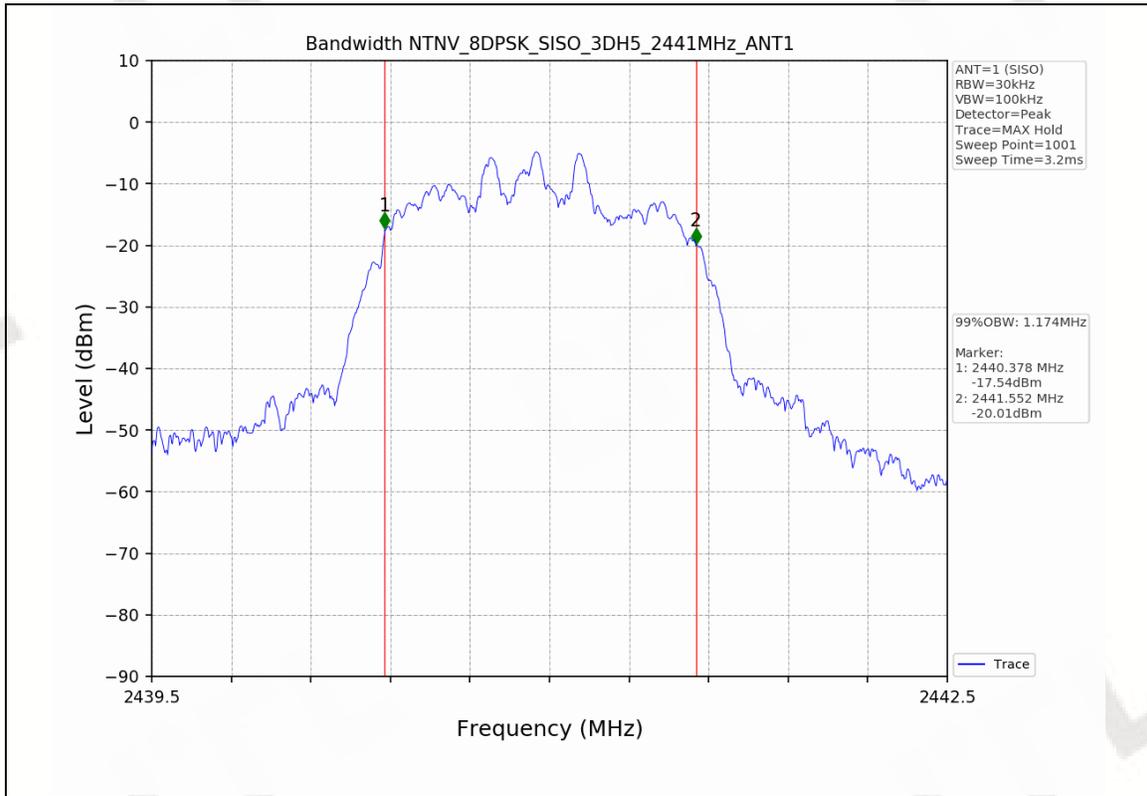


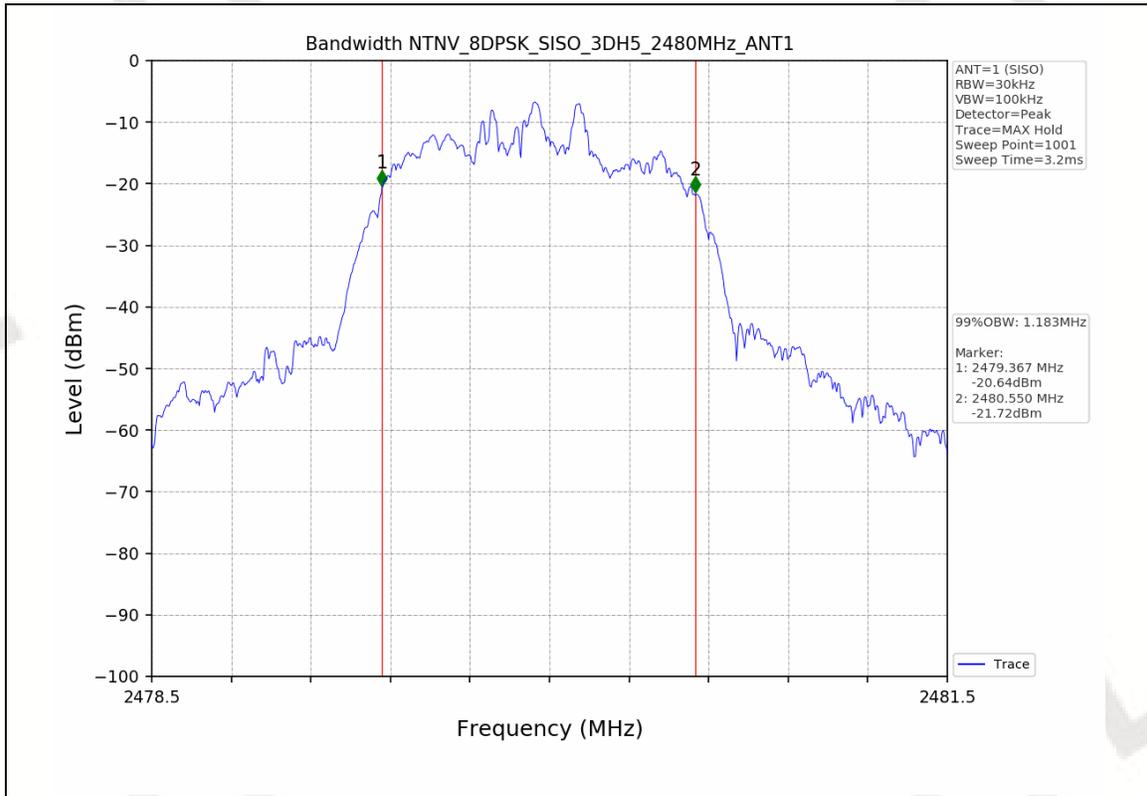










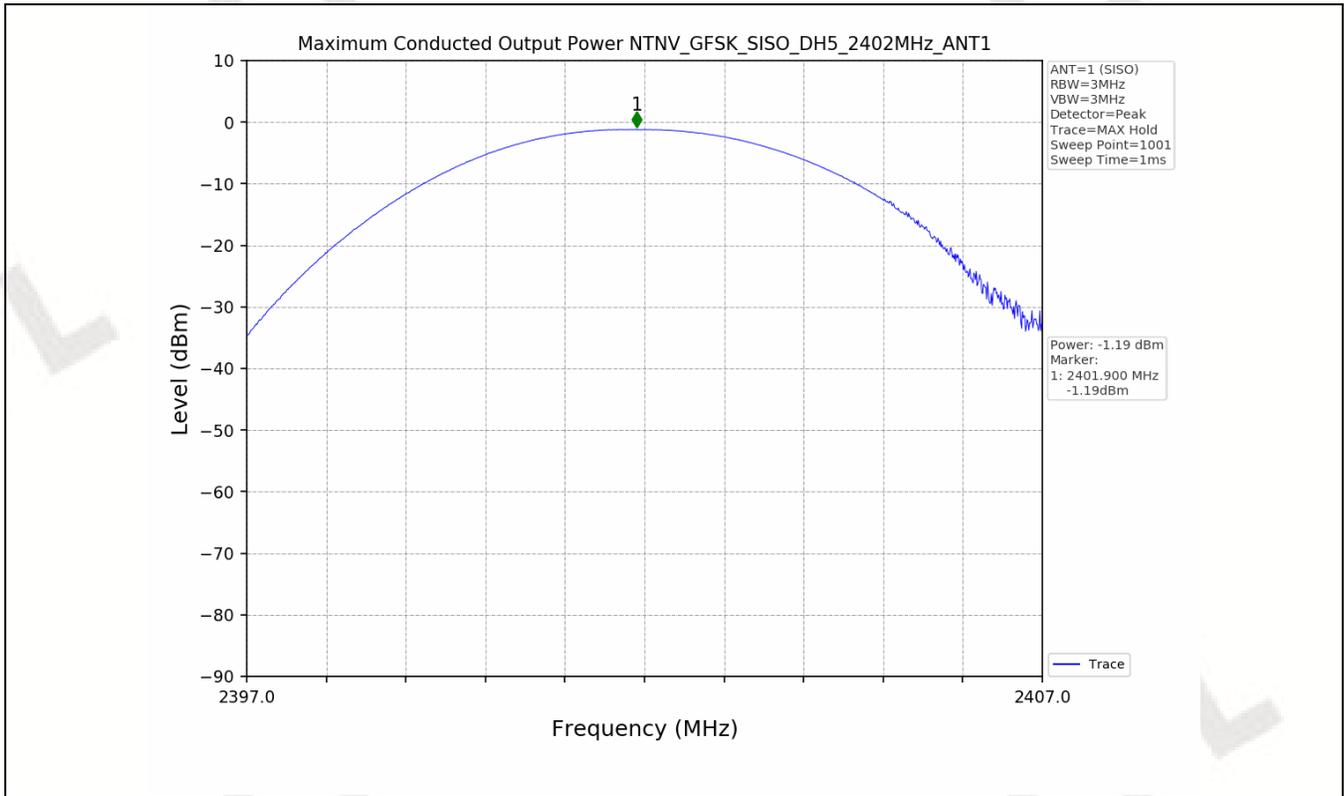


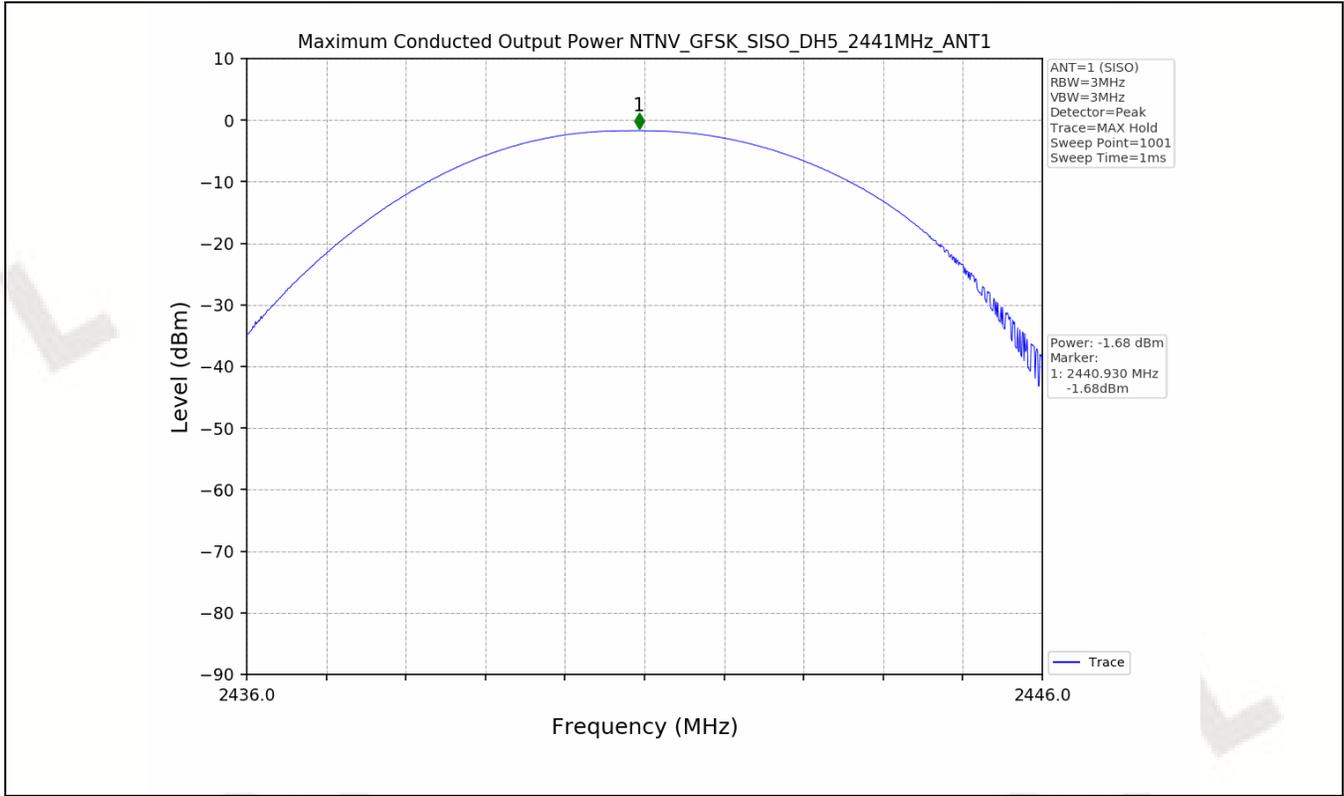
2. Maximum Conducted Output Power

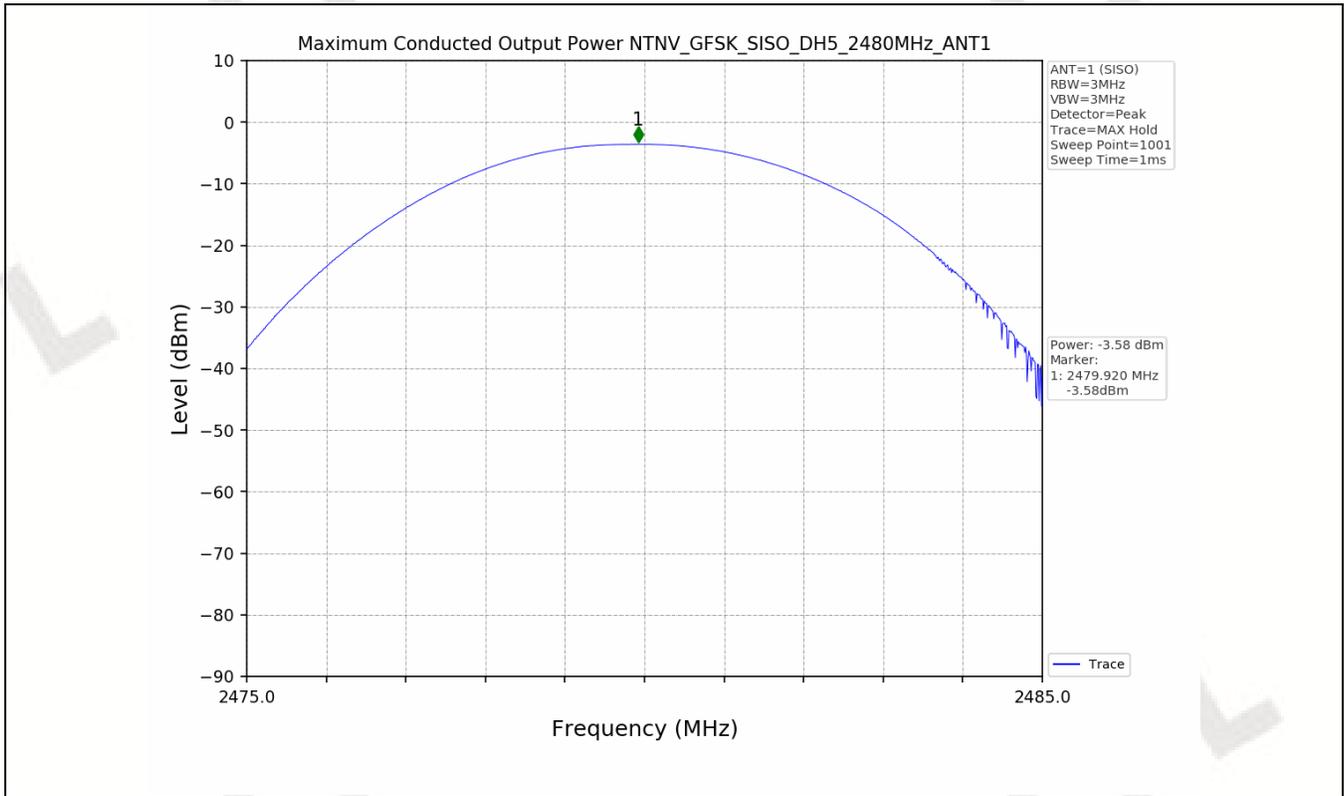
2.1 Test Result

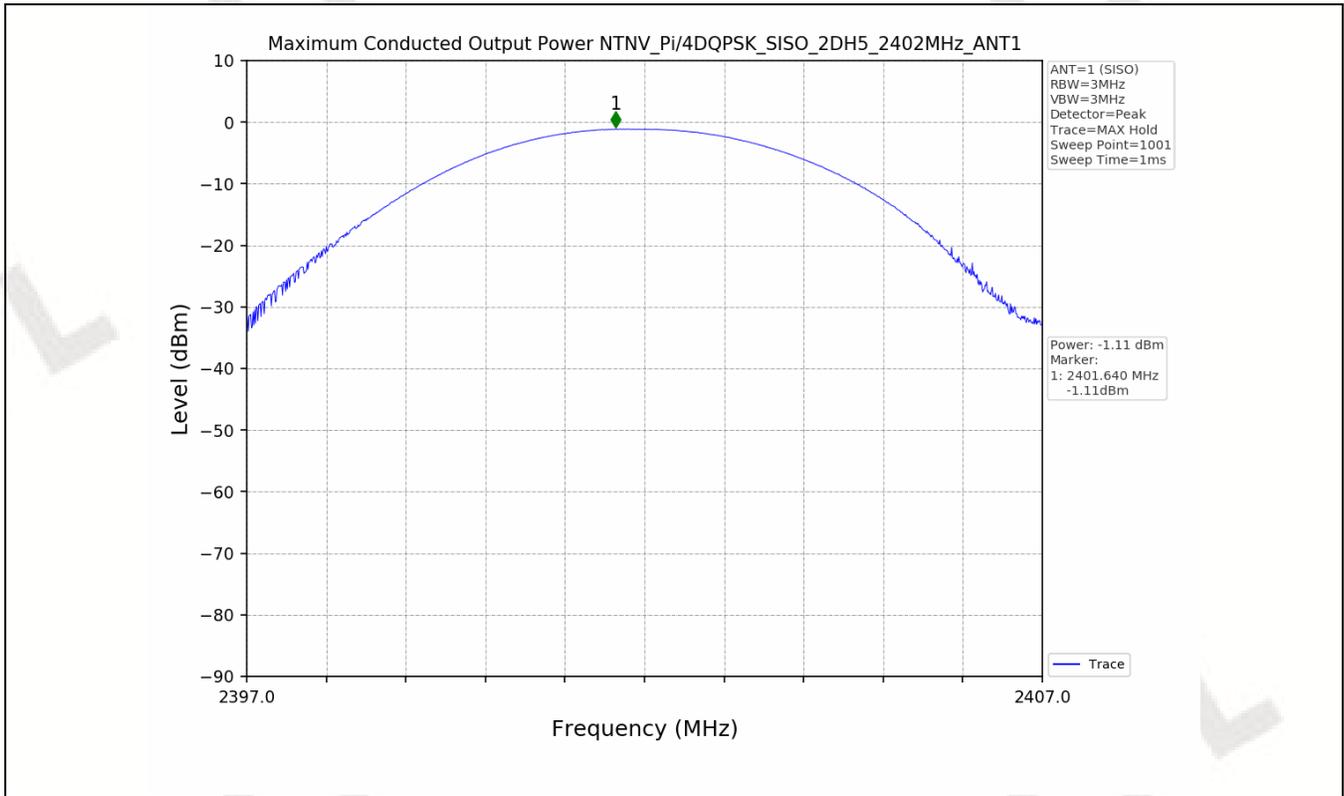
| Test Mode | Frequency (MHz) | Tx Type | Measured Peak Output Power (dBm) | Limits (dBm) | Verdict |
|-----------|-----------------|---------|----------------------------------|--------------|---------|
| | | | Ant 1 | | |
| GFSK | 2402 | SISO | -1.19 | 30 | PASS |
| | 2441 | SISO | -1.68 | 30 | PASS |
| | 2480 | SISO | -3.58 | 30 | PASS |
| Pi/4DQPSK | 2402 | SISO | -1.11 | 20.97 | PASS |
| | 2441 | SISO | -1.75 | 20.97 | PASS |
| | 2480 | SISO | -3.62 | 20.97 | PASS |
| 8DPSK | 2402 | SISO | -1.22 | 20.97 | PASS |
| | 2441 | SISO | -1.67 | 20.97 | PASS |
| | 2480 | SISO | -3.57 | 20.97 | PASS |

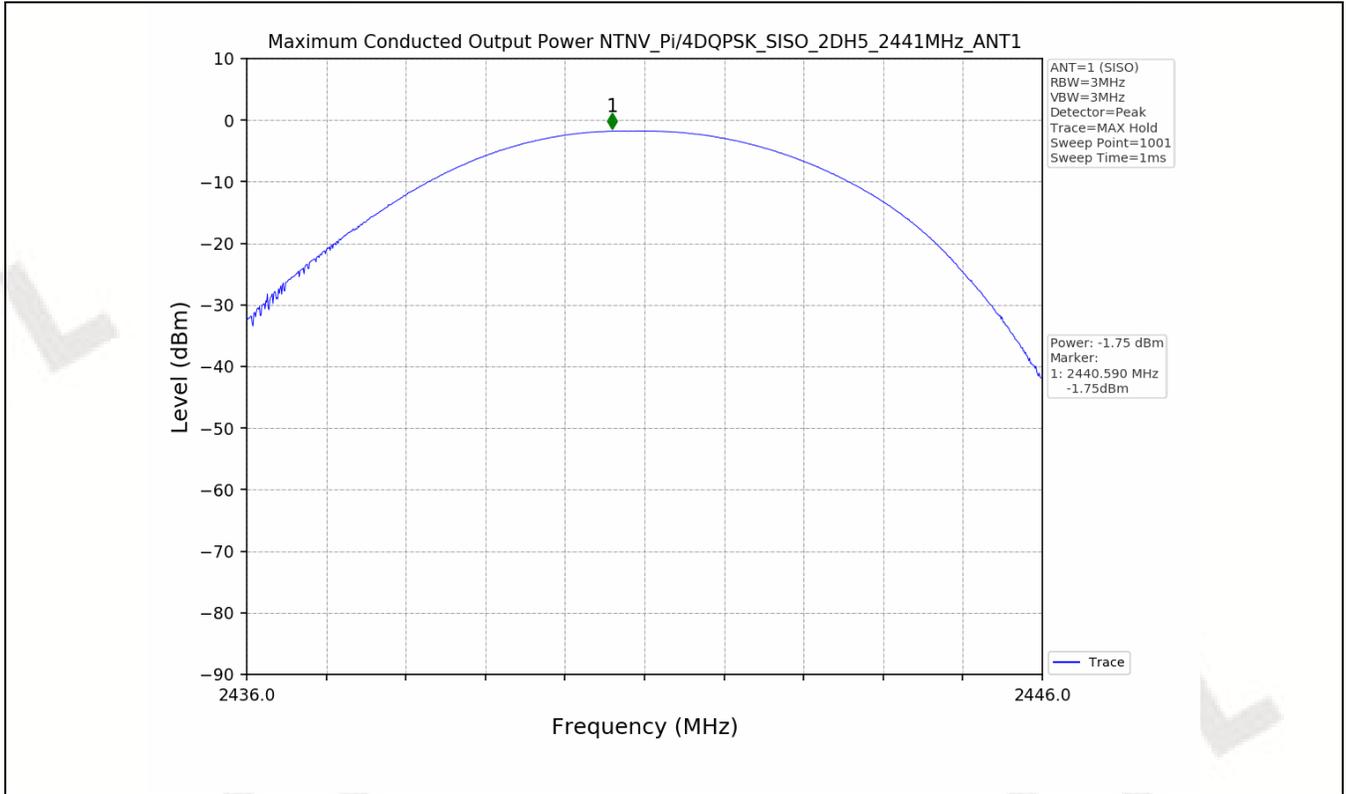
2.2 Test Graph

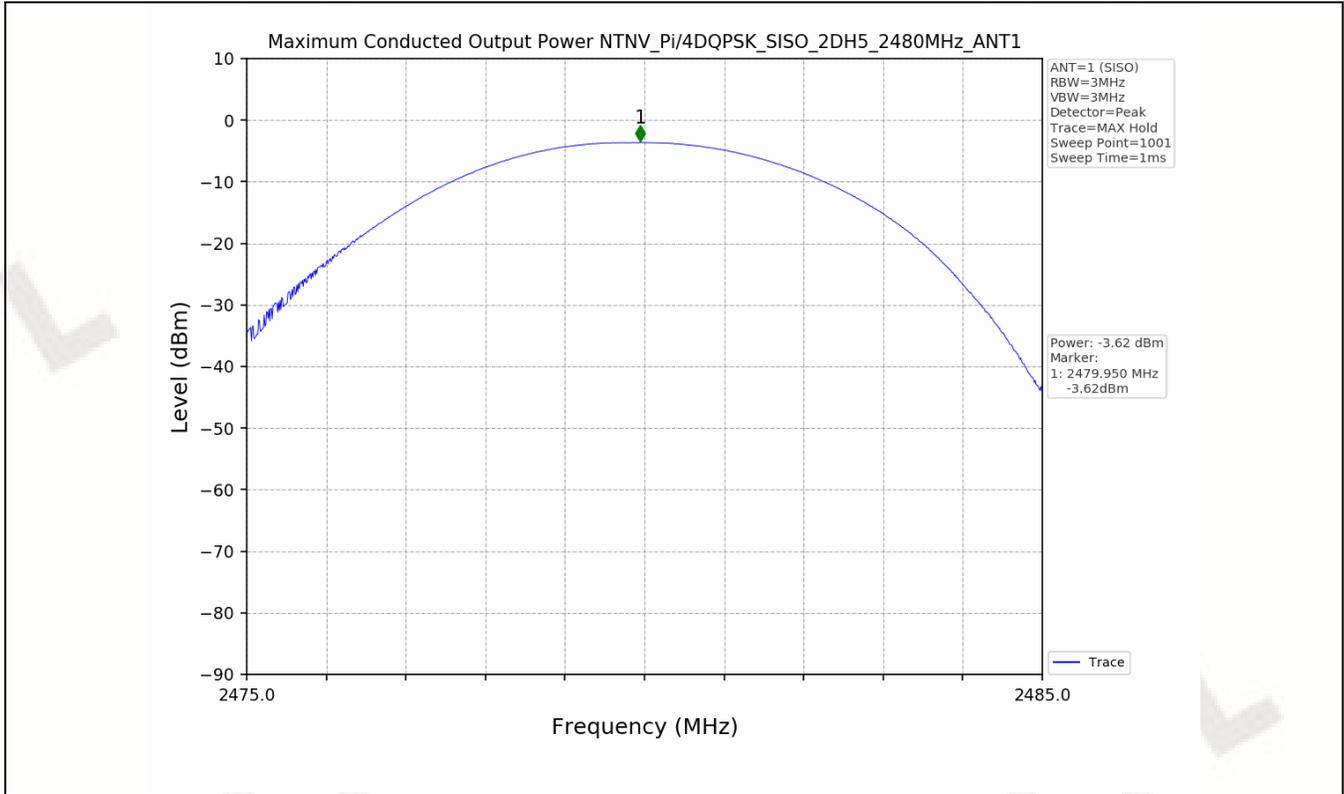


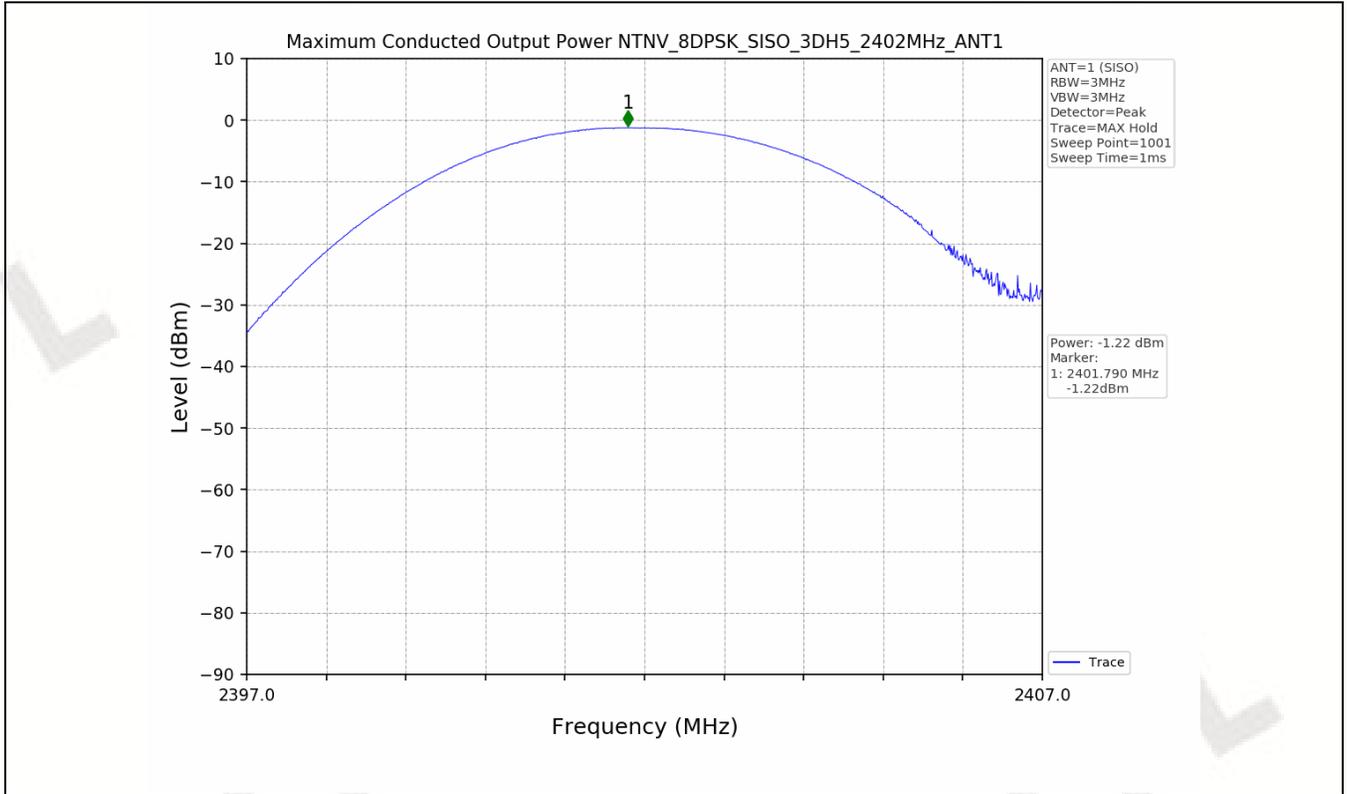


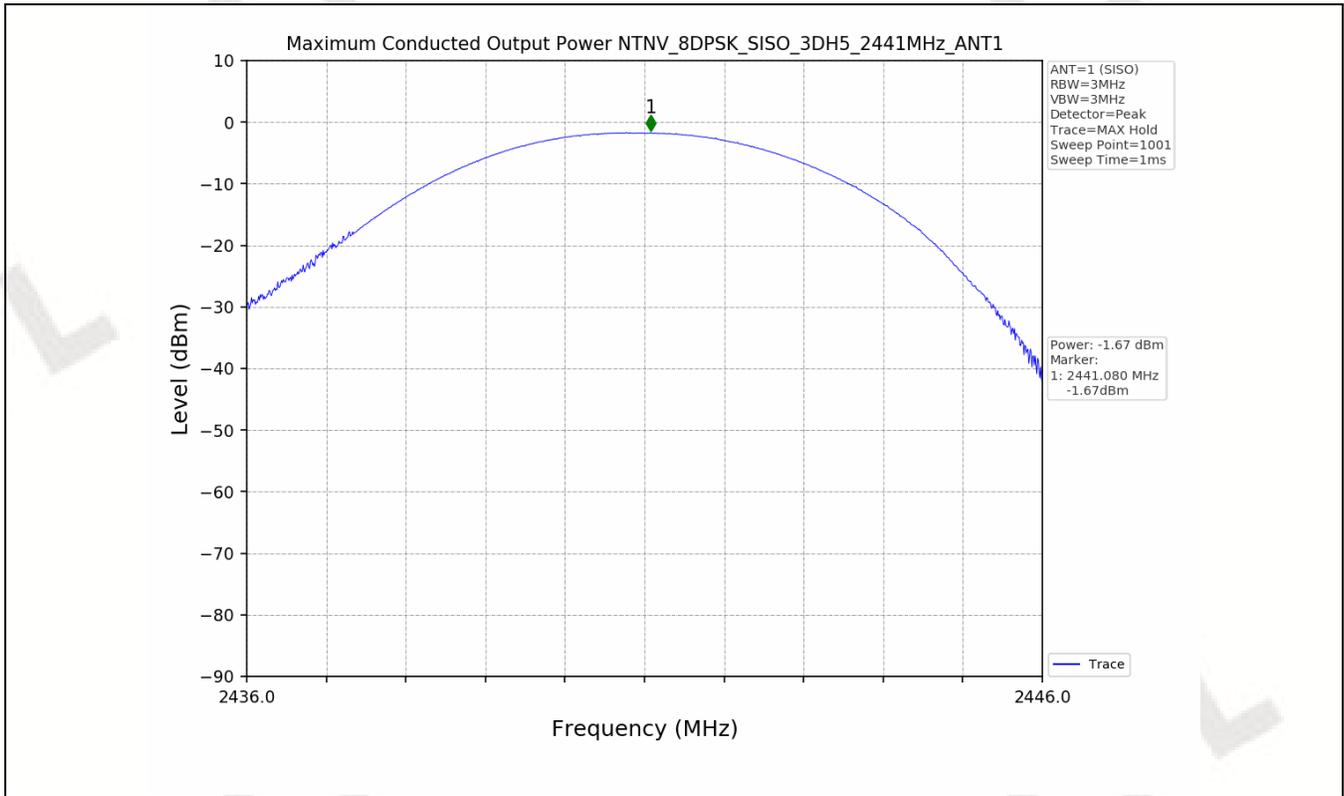


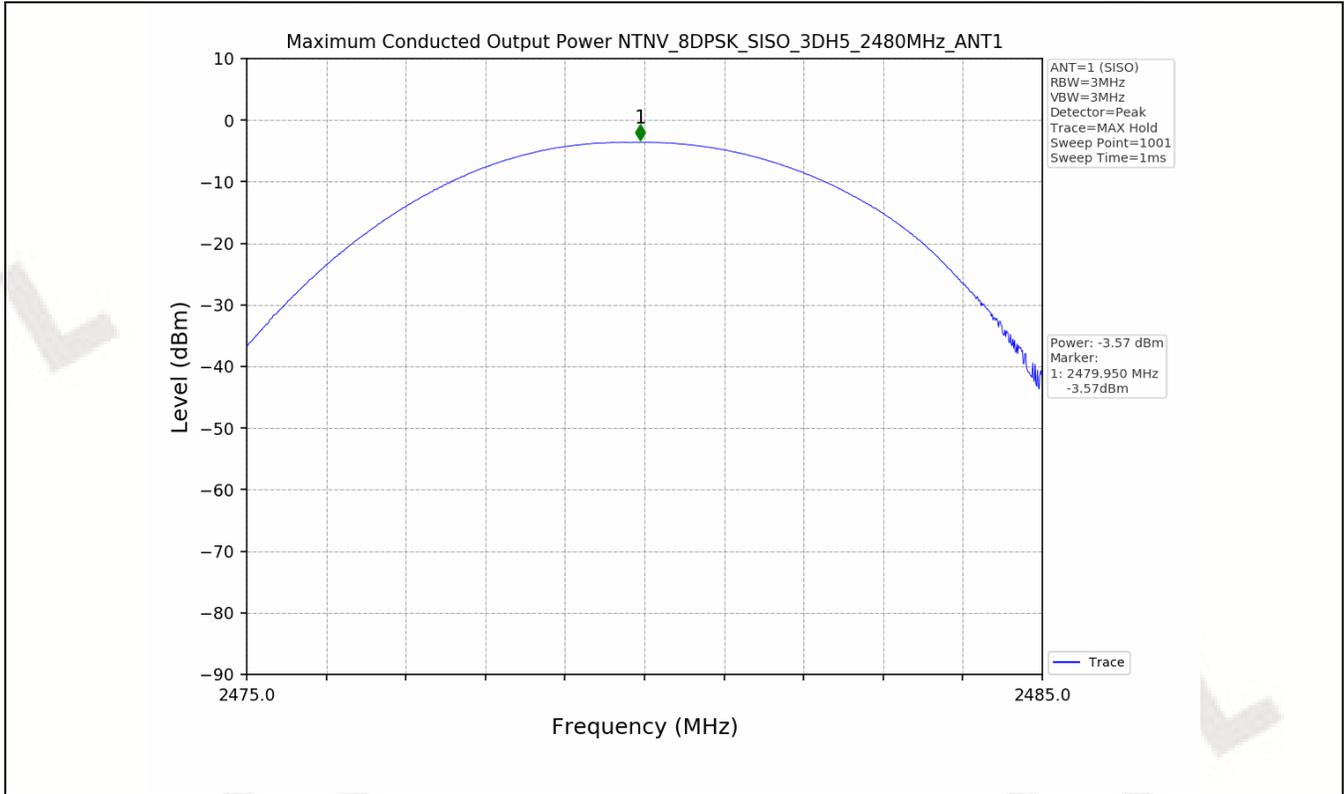










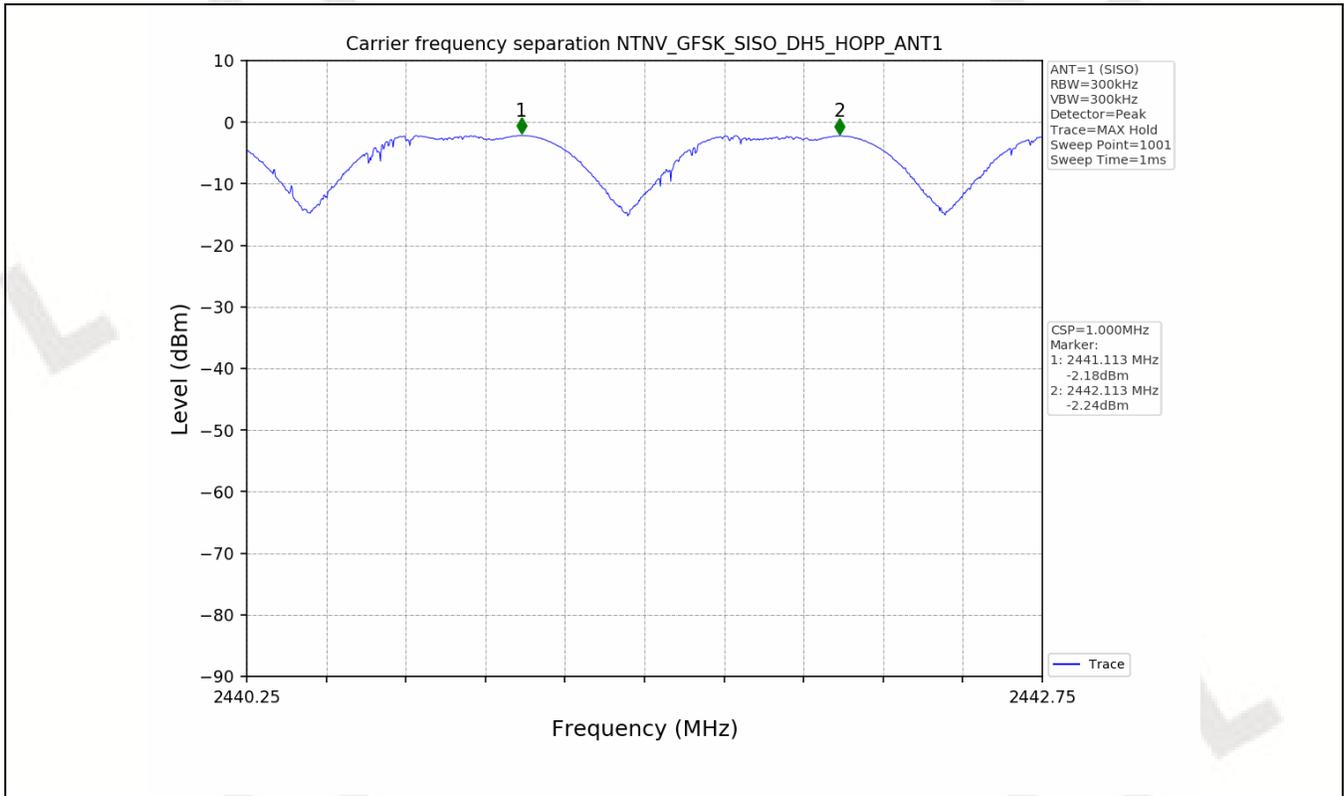


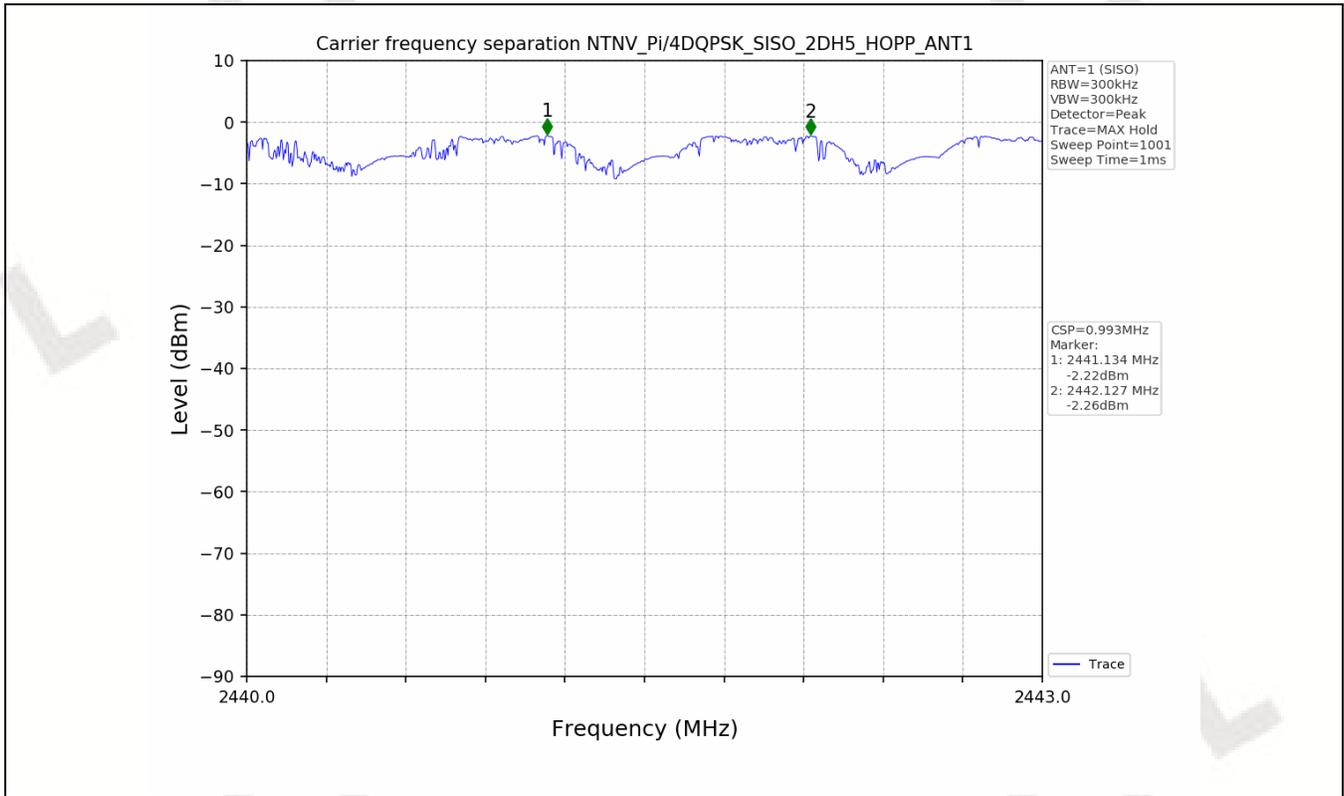
3. Carrier frequency separation

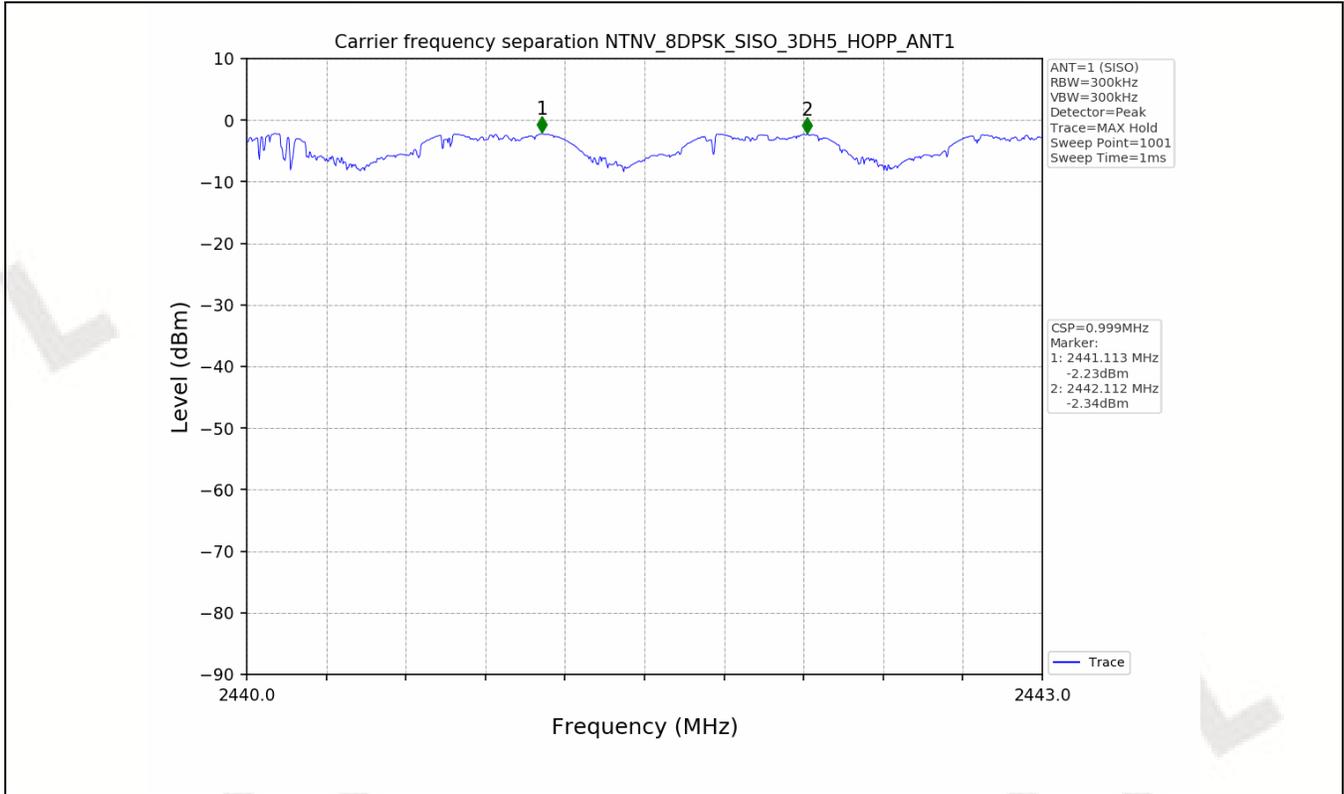
3.1 Test Result

| Test Mode | TX Type | ANT No. | Channel Separation (MHz) | 20dB Bandwidth (MHz) | Limits (MHz) | Verdict |
|-----------|---------|---------|--------------------------|----------------------|--------------|---------|
| GFSK | SISO | 1 | 1.000 | 0.914 | ≥0.914 | PASS |
| Pi/4DQPSK | SISO | 1 | 0.993 | 1.297 | ≥0.865 | PASS |
| 8DPSK | SISO | 1 | 0.999 | 1.279 | ≥0.853 | PASS |

3.2 Test Graph





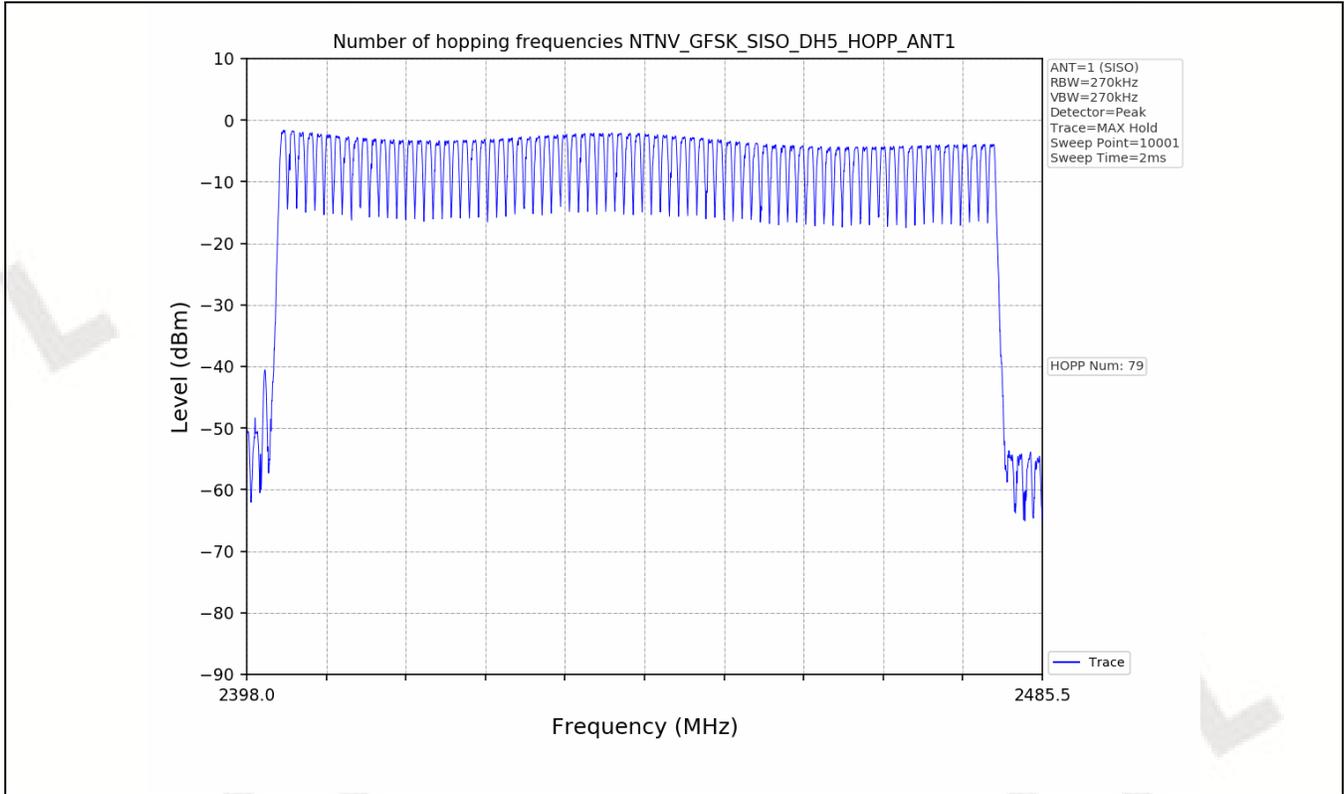


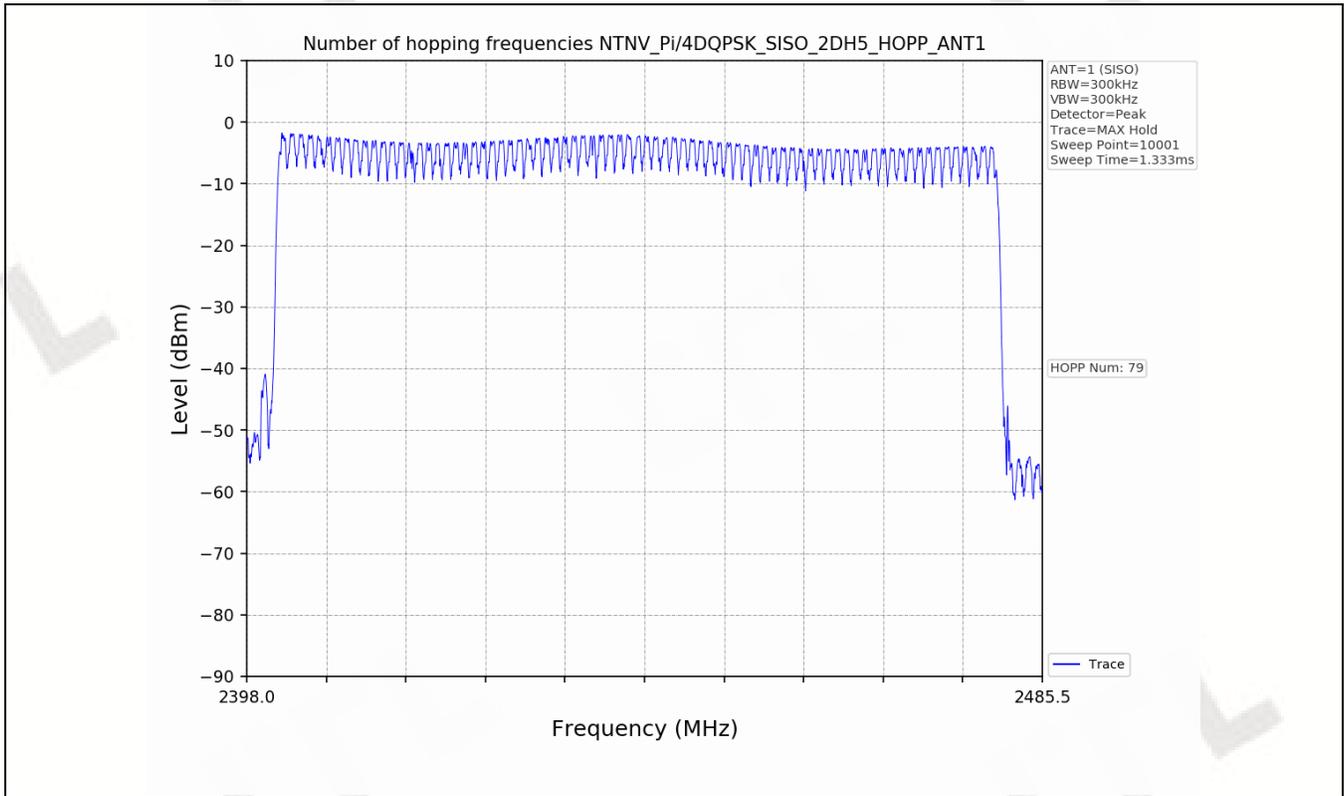
4. Number of hopping frequencies

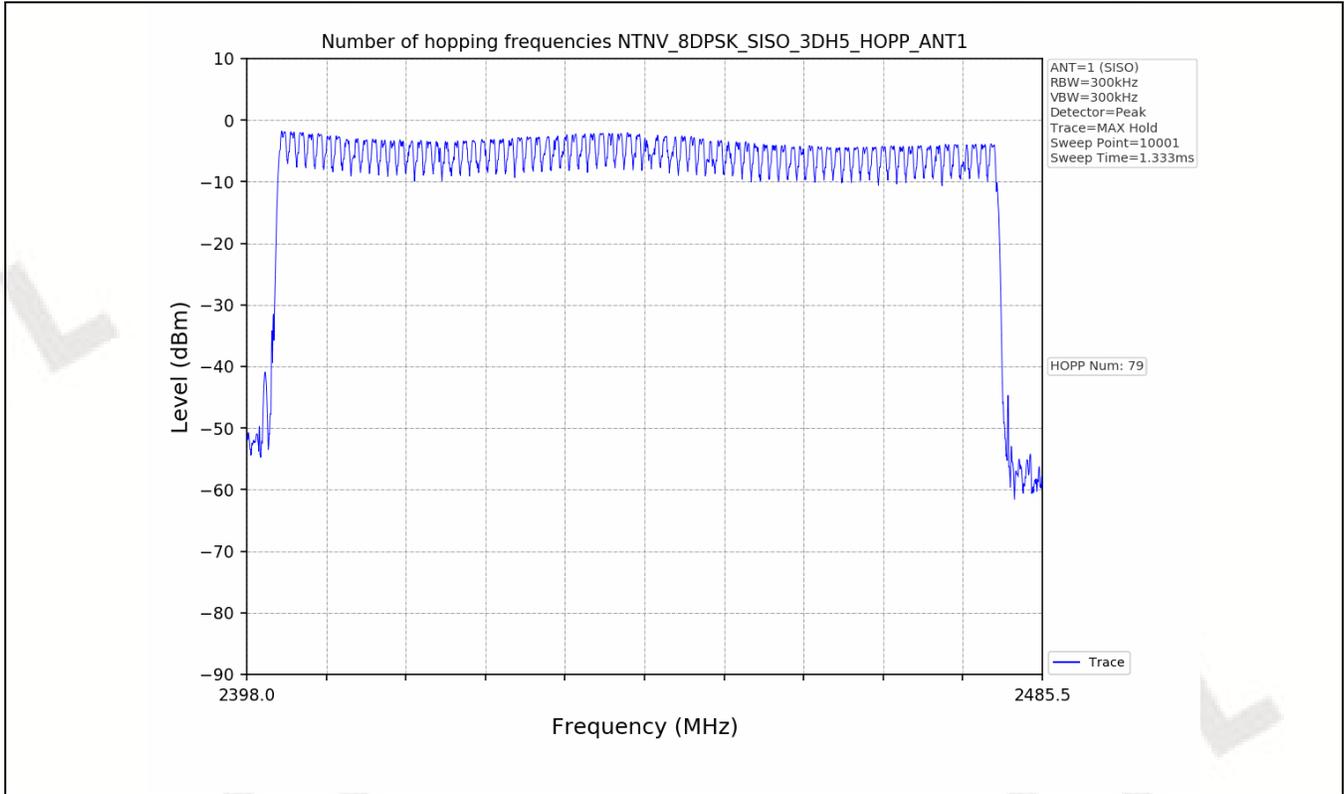
4.1 Test Result

| Test Mode | TX Type | ANT No. | Num of Hopping Frequencies | Limits | Verdict |
|-----------|---------|---------|----------------------------|--------|---------|
| GFSK | SISO | 1 | 79 | ≥15 | PASS |
| Pi/4DQPSK | SISO | 1 | 79 | ≥15 | PASS |
| 8DPSK | SISO | 1 | 79 | ≥15 | PASS |

4.2 Test Graph





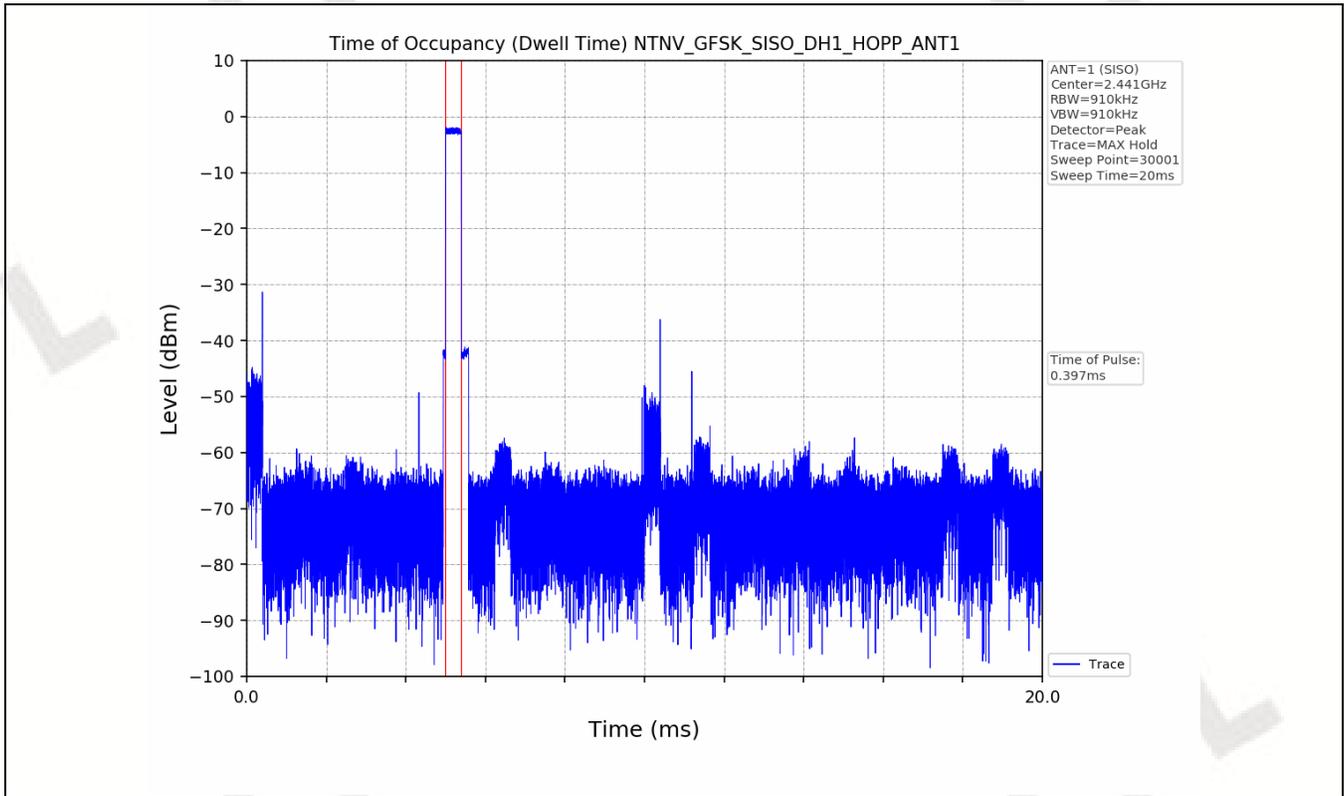


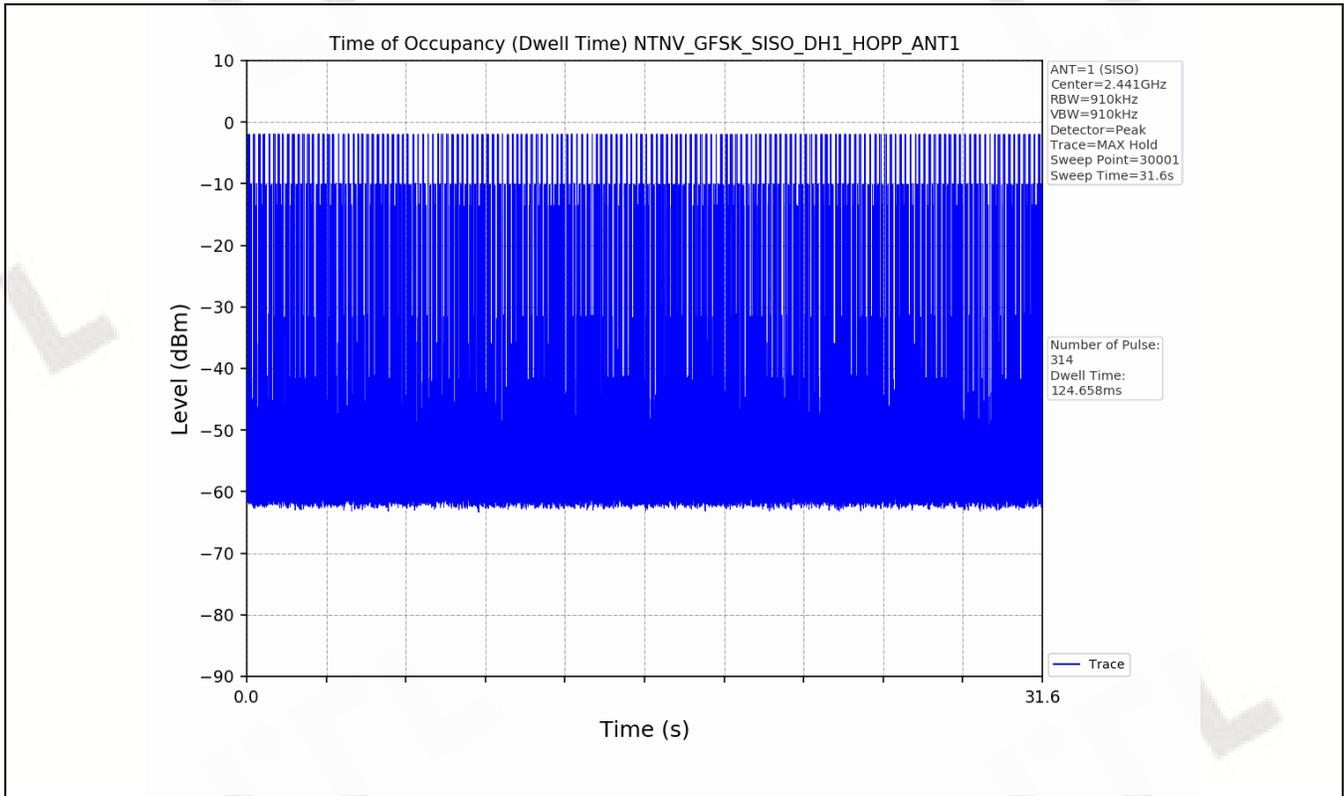
5. Time of Occupancy (Dwell Time)

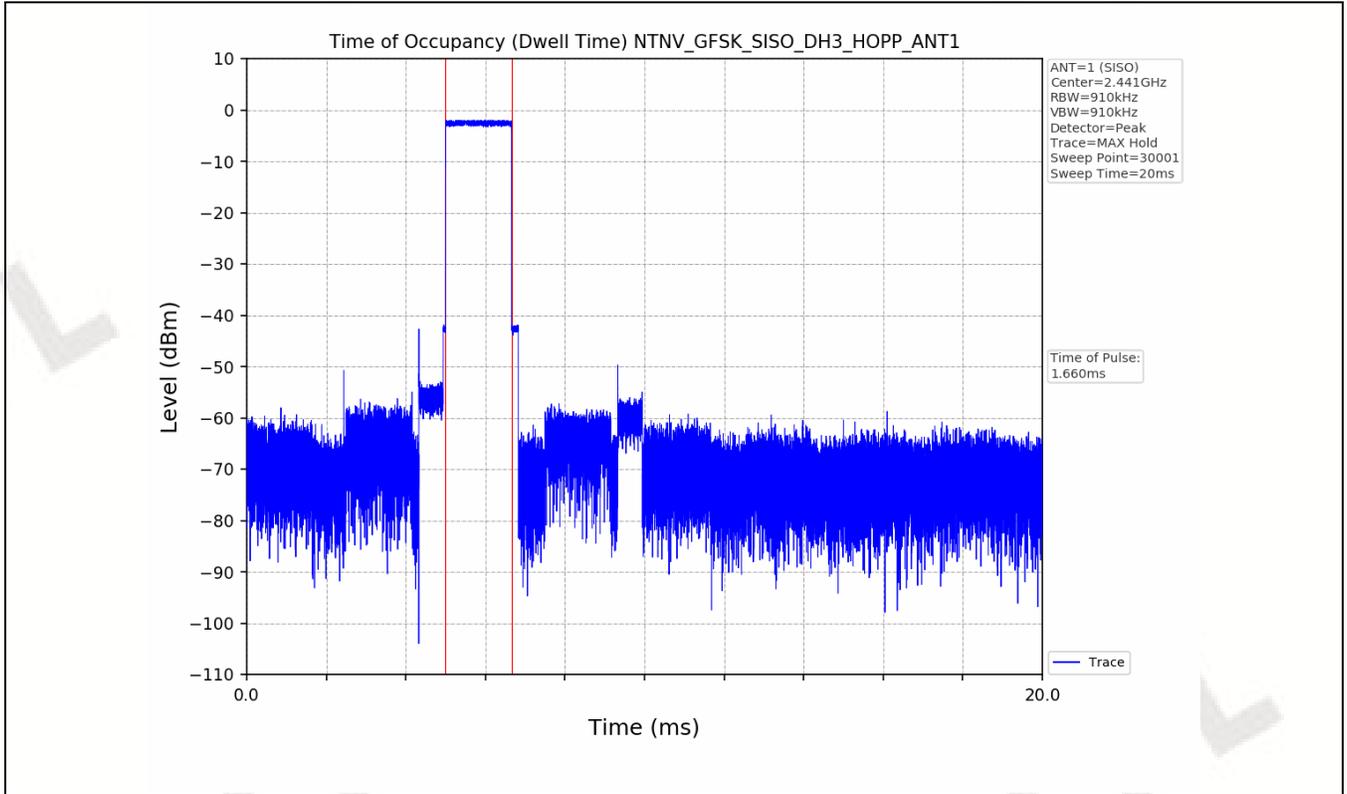
5.1 Test Result

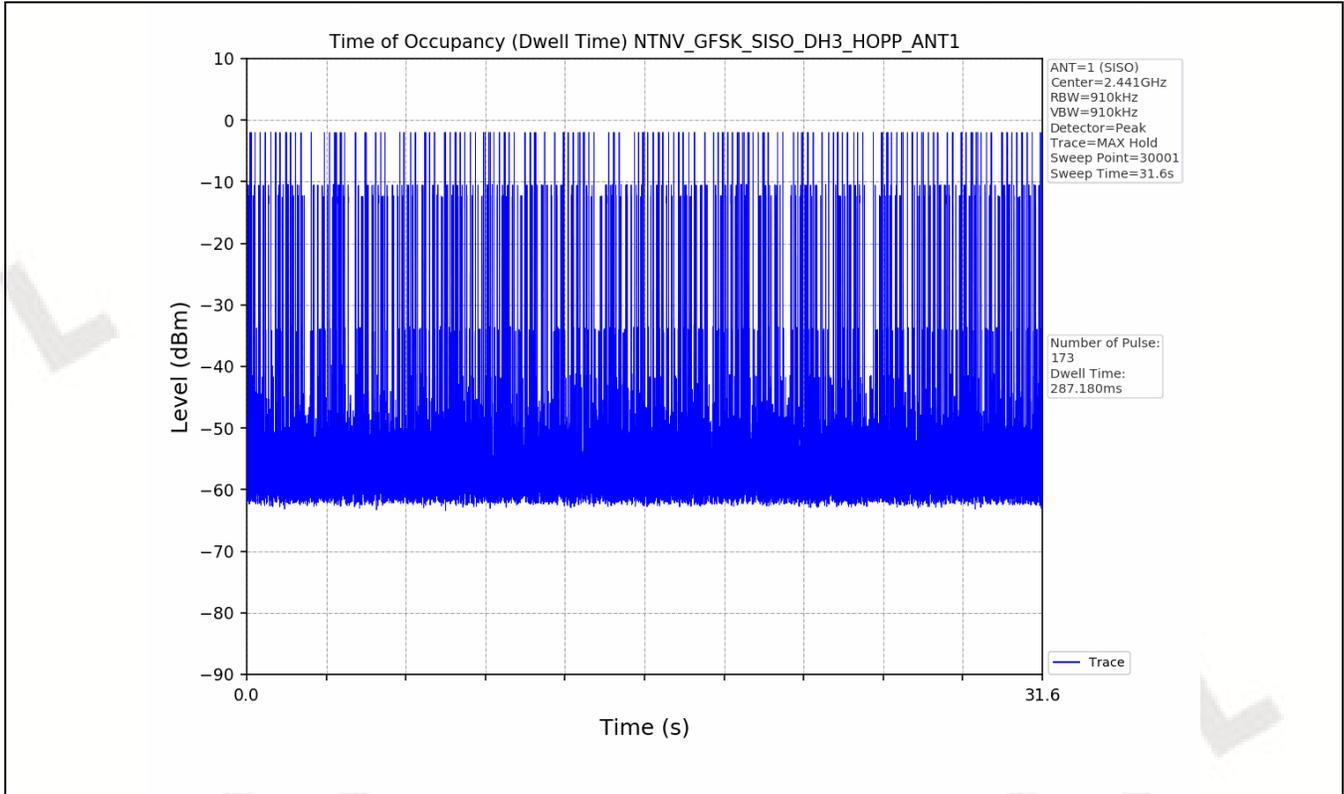
| Test Mode | Packet Type | TX Type | ANT No. | Duration of Single Pulse (ms) | Observation Period (s) | Num of Pulse in Observation Period | Dwell Time (ms) | Limits (ms) | Verdict |
|------------|-------------|---------|---------|-------------------------------|------------------------|------------------------------------|-----------------|-------------|---------|
| GFSK | DH1 | SISO | 1 | 0.397 | 31.6 | 314 | 124.658 | ≤400 | PASS |
| | DH3 | SISO | 1 | 1.660 | 31.6 | 173 | 287.180 | ≤400 | PASS |
| | DH5 | SISO | 1 | 0.861 | 31.6 | 98 | 84.378 | ≤400 | PASS |
| Pi/4DQ PSK | 2DH1 | SISO | 1 | 0.406 | 31.6 | 314 | 127.484 | ≤400 | PASS |
| | 2DH3 | SISO | 1 | 0.634 | 31.6 | 174 | 110.316 | ≤400 | PASS |
| | 2DH5 | SISO | 1 | 3.038 | 31.6 | 120 | 364.560 | ≤400 | PASS |
| 8DPSK | 3DH1 | SISO | 1 | 0.406 | 31.6 | 314 | 127.484 | ≤400 | PASS |
| | 3DH3 | SISO | 1 | 0.290 | 31.6 | 169 | 49.010 | ≤400 | PASS |
| | 3DH5 | SISO | 1 | 3.136 | 31.6 | 108 | 338.688 | ≤400 | PASS |

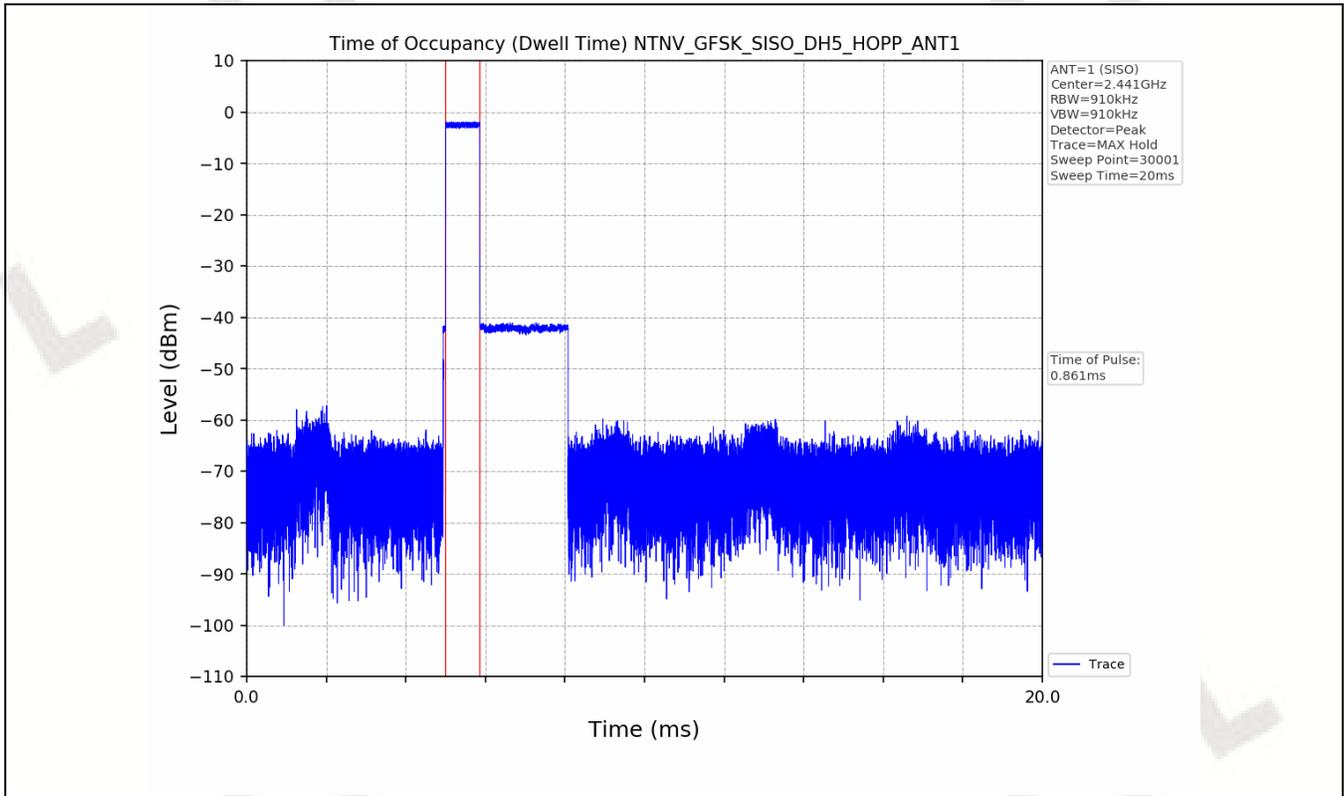
5.2 Test Graph

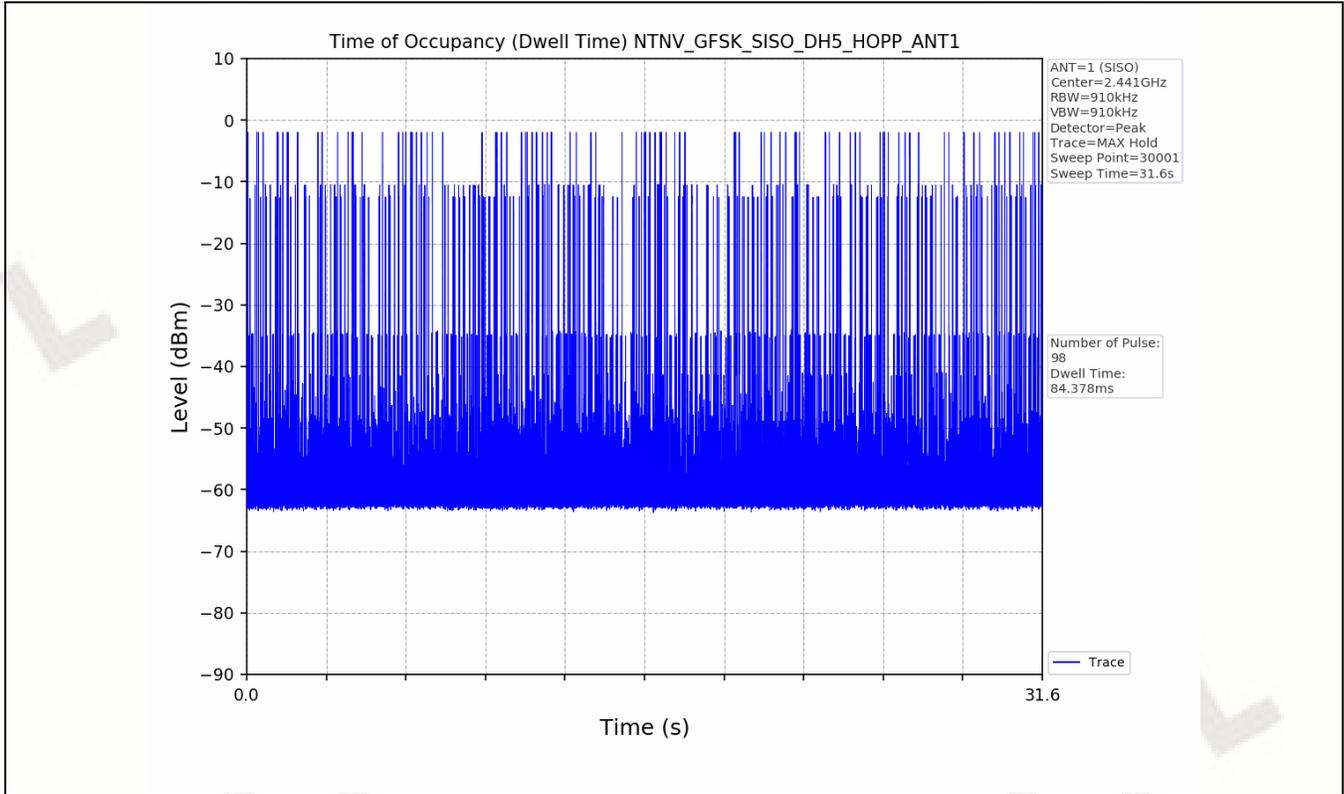


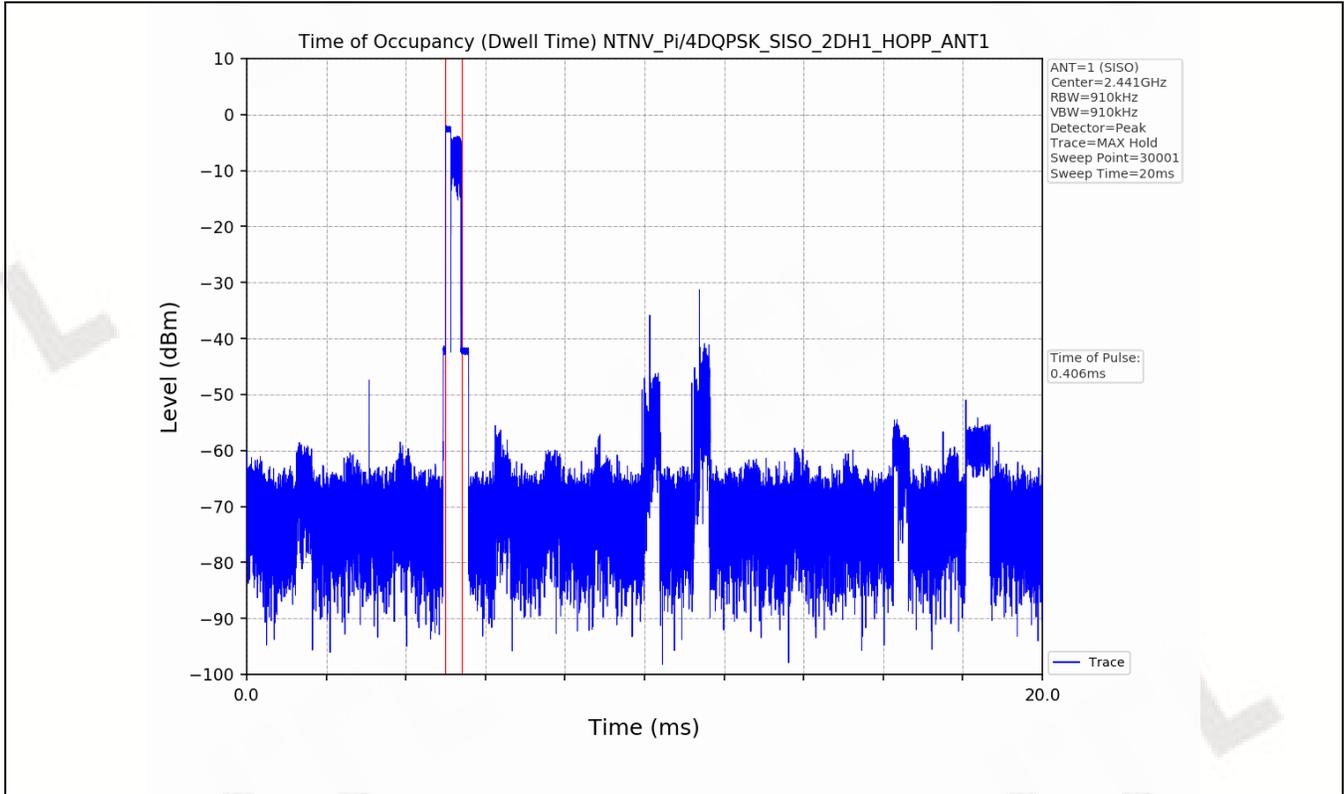


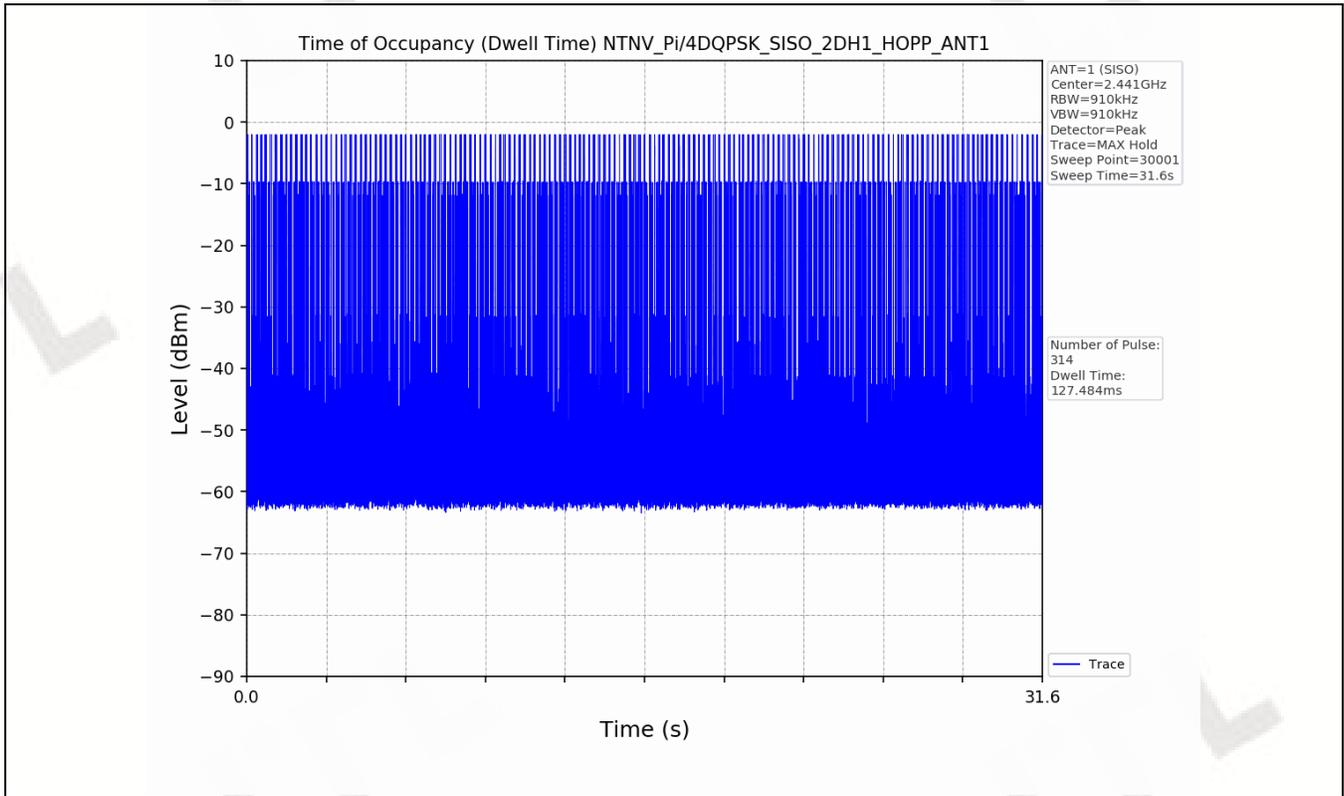


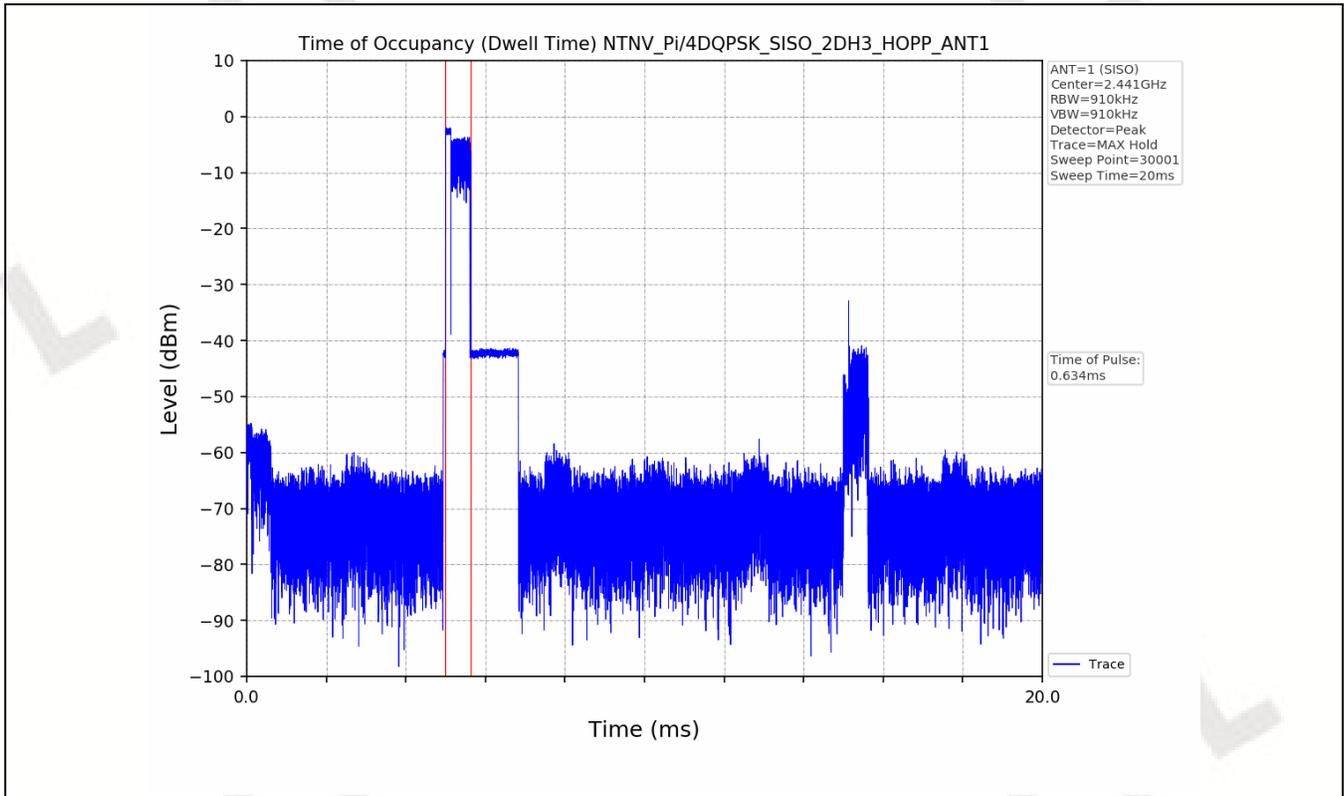


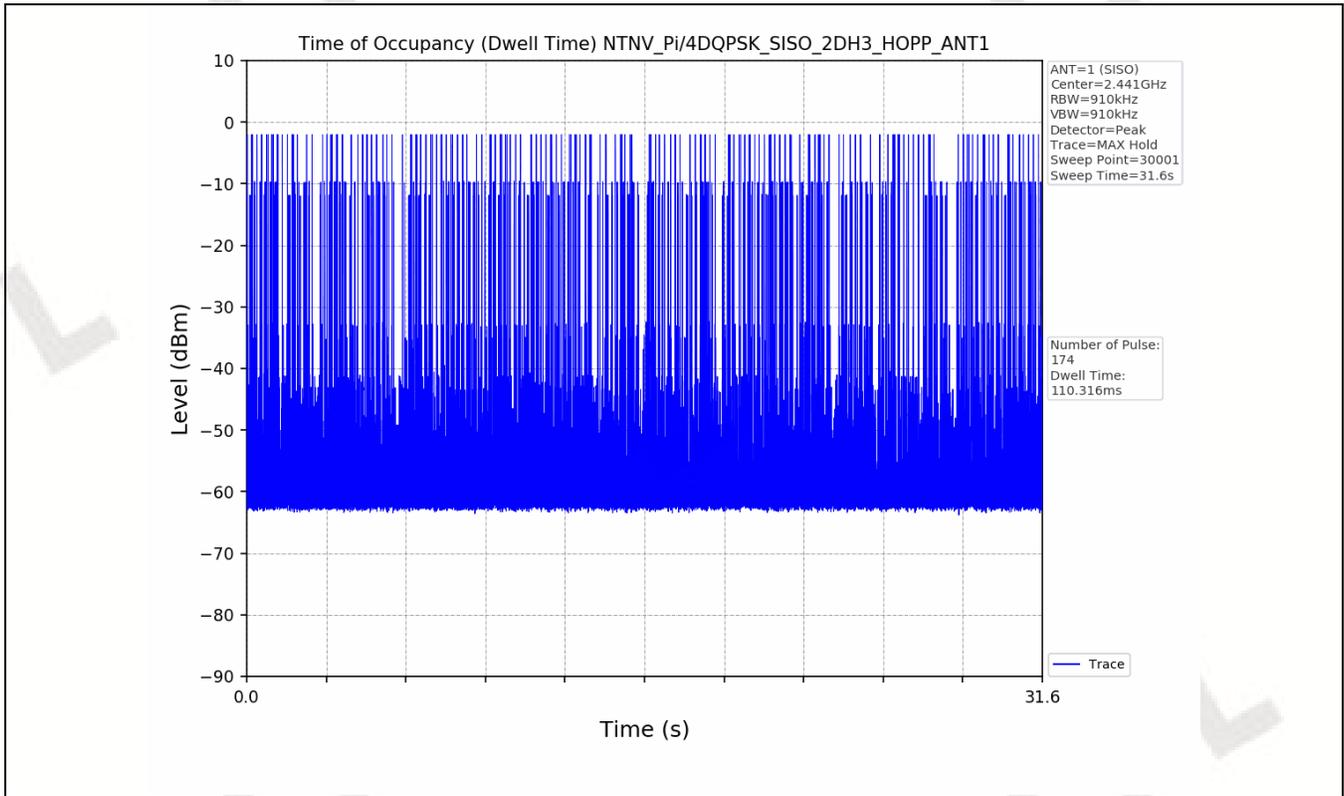


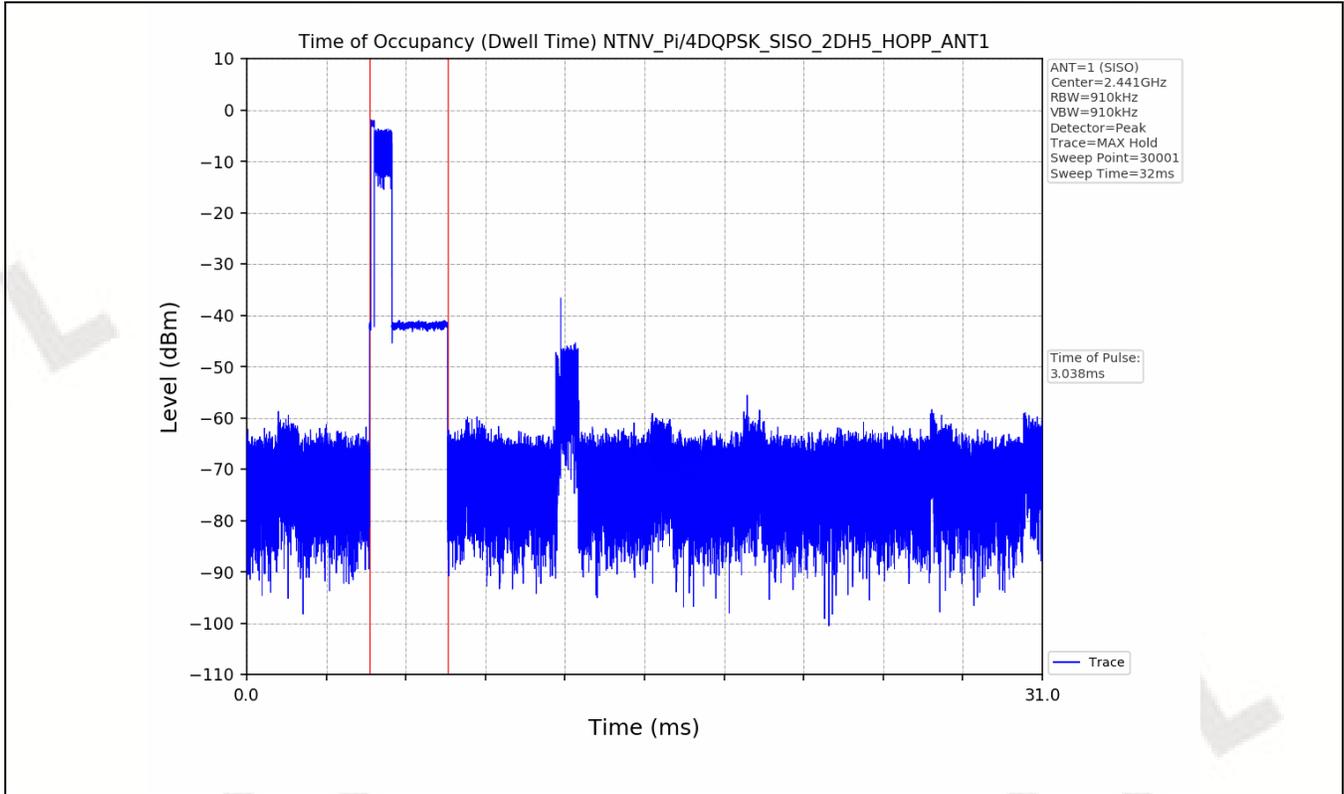


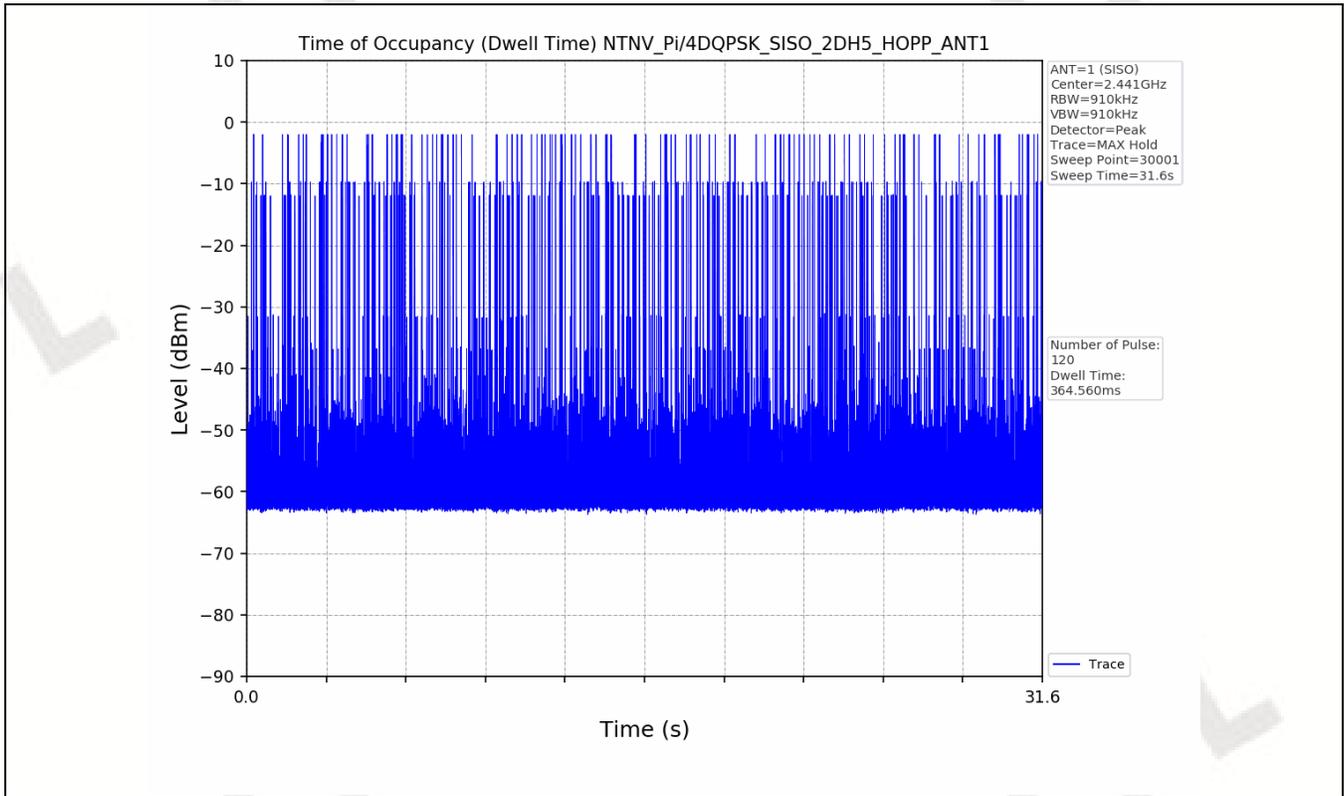


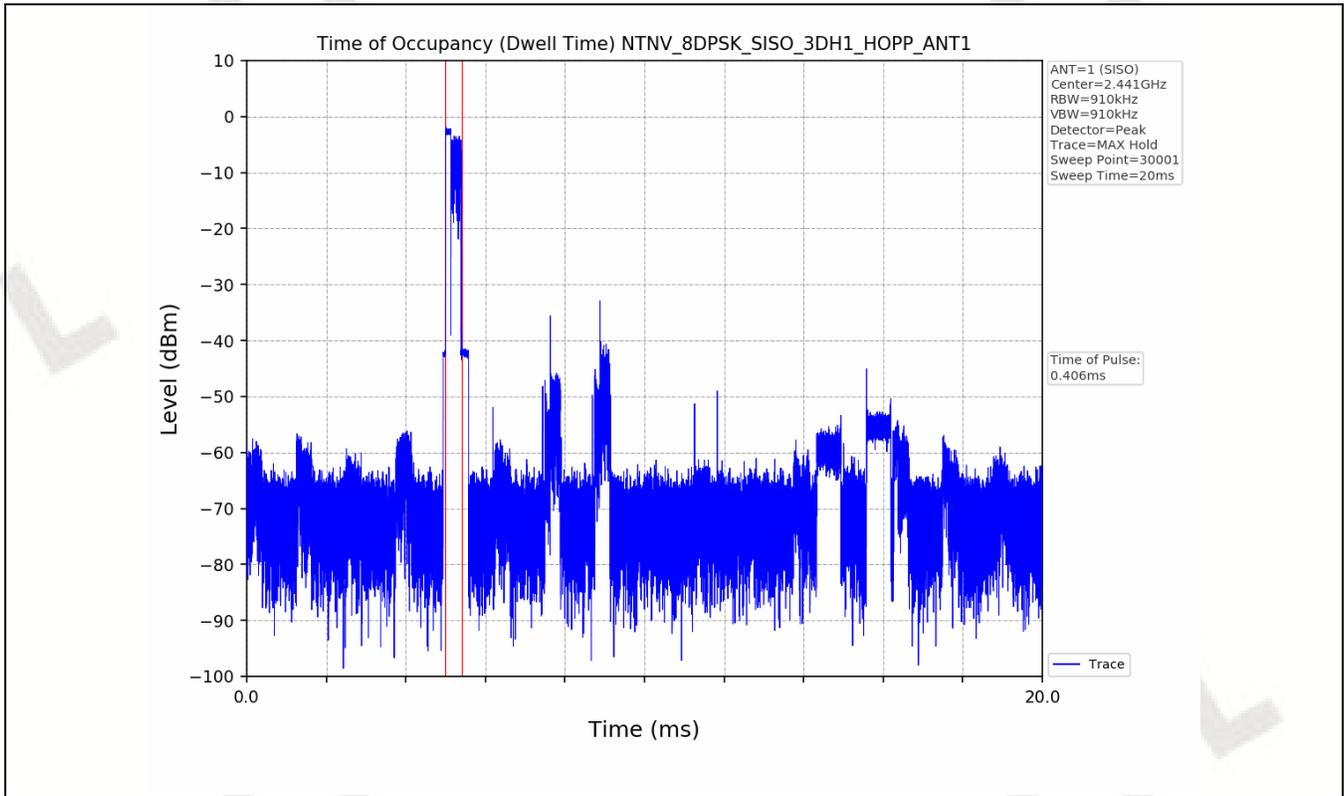


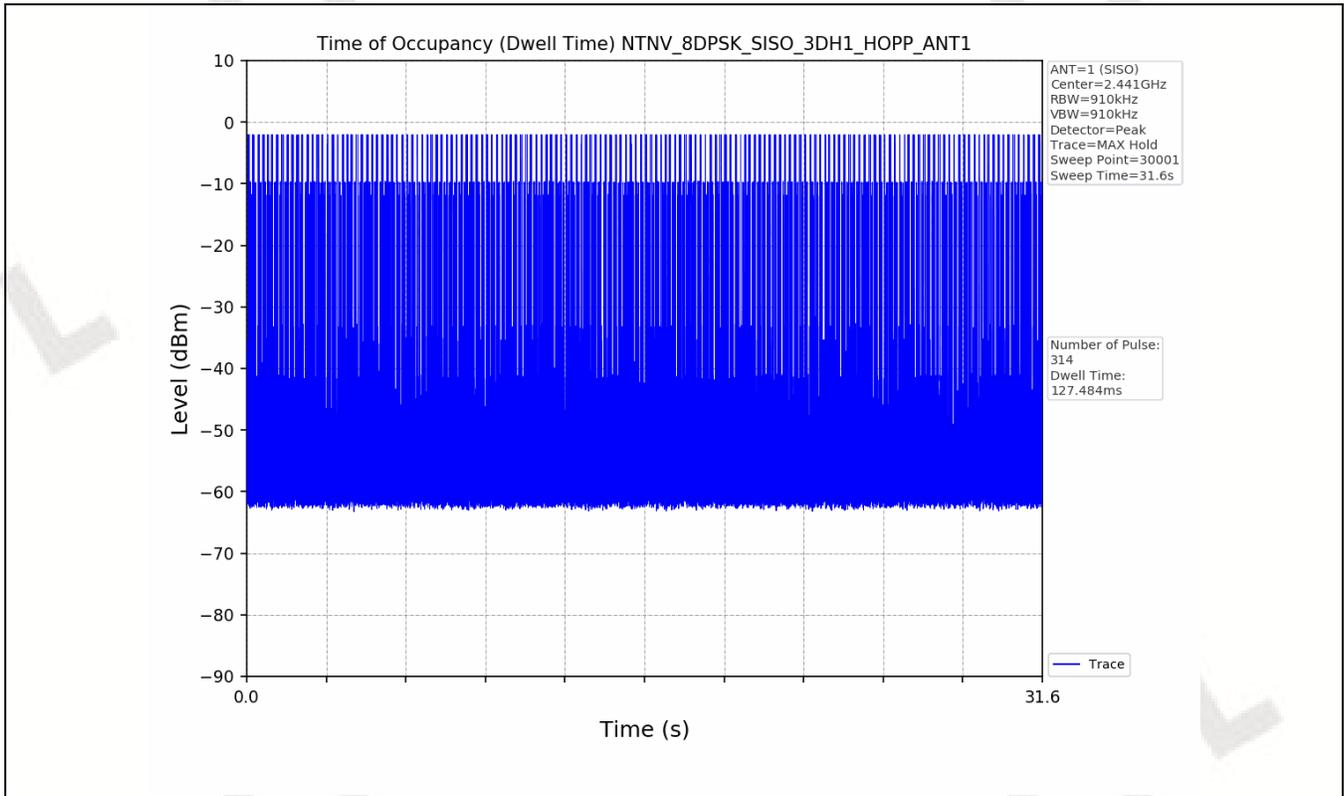


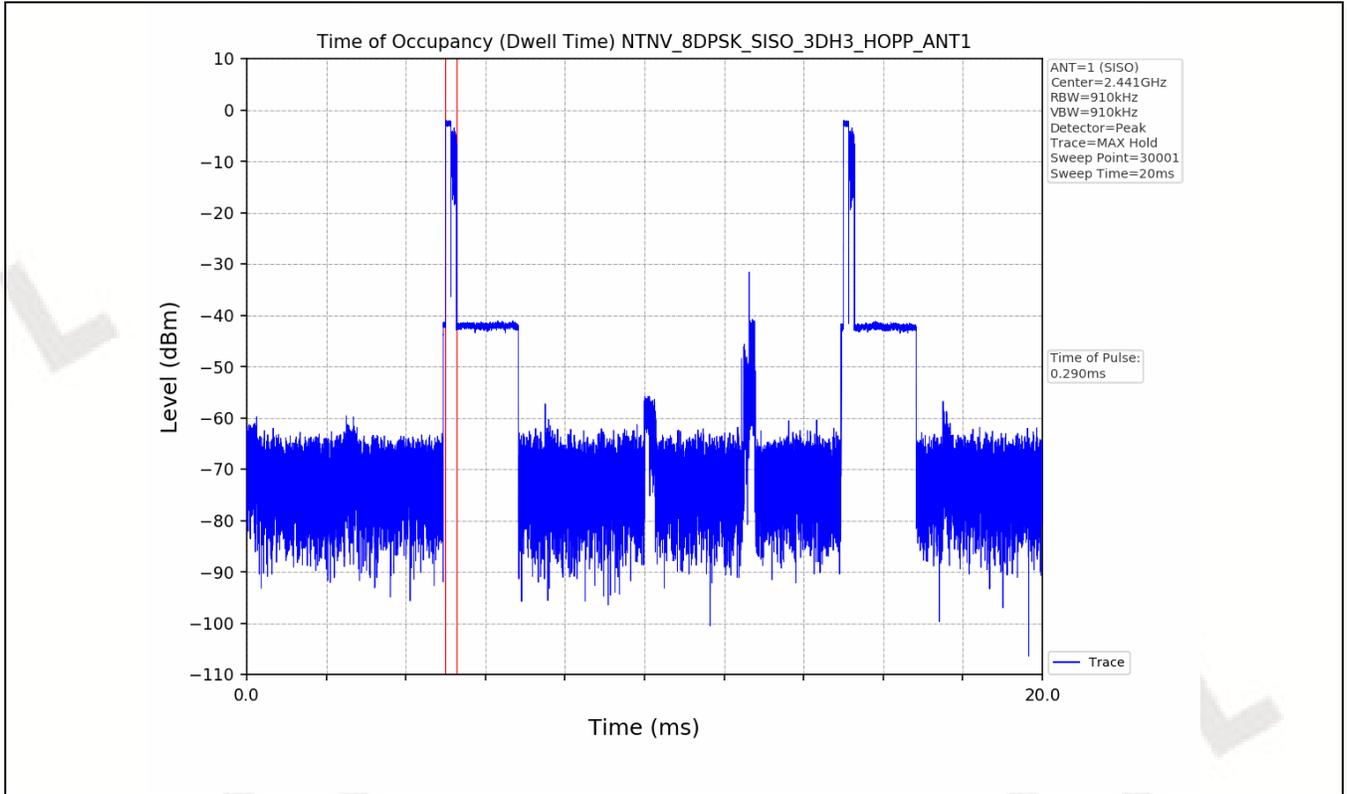


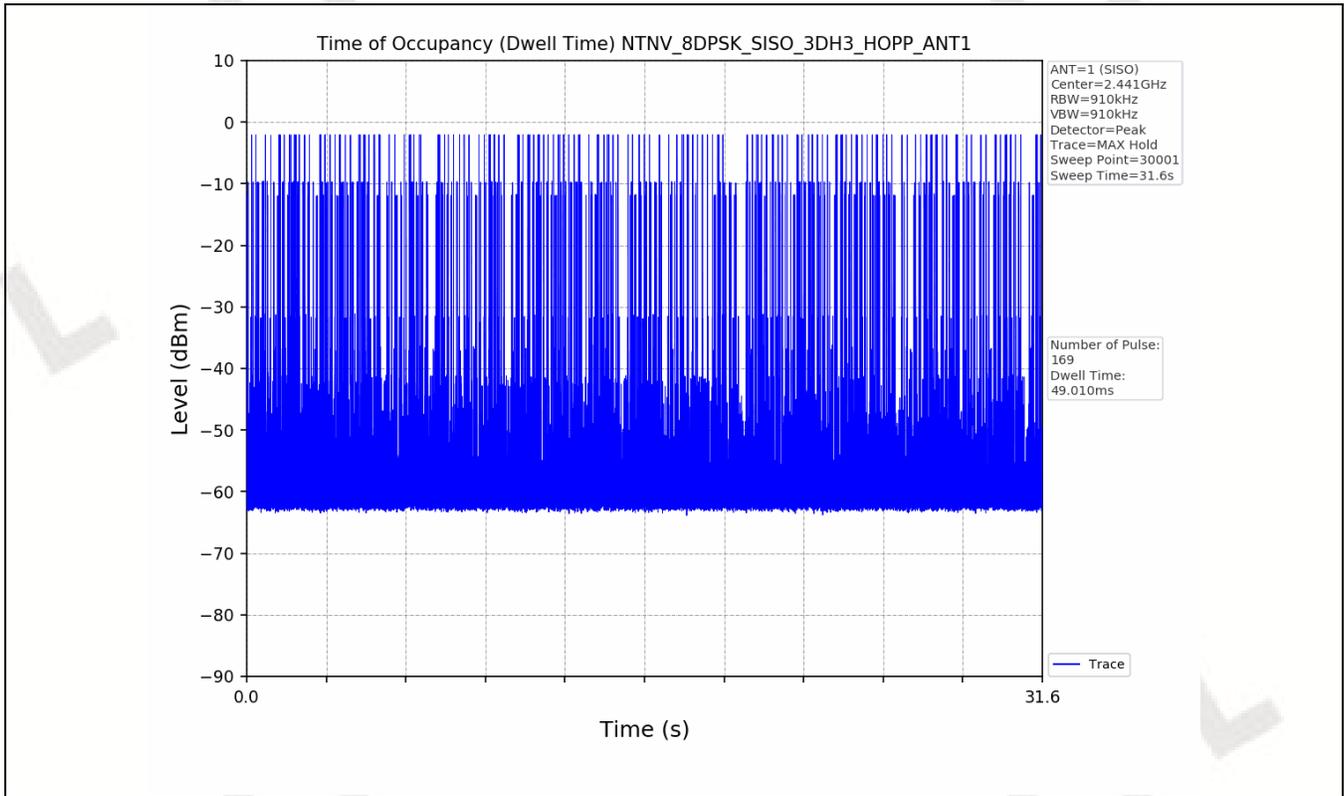


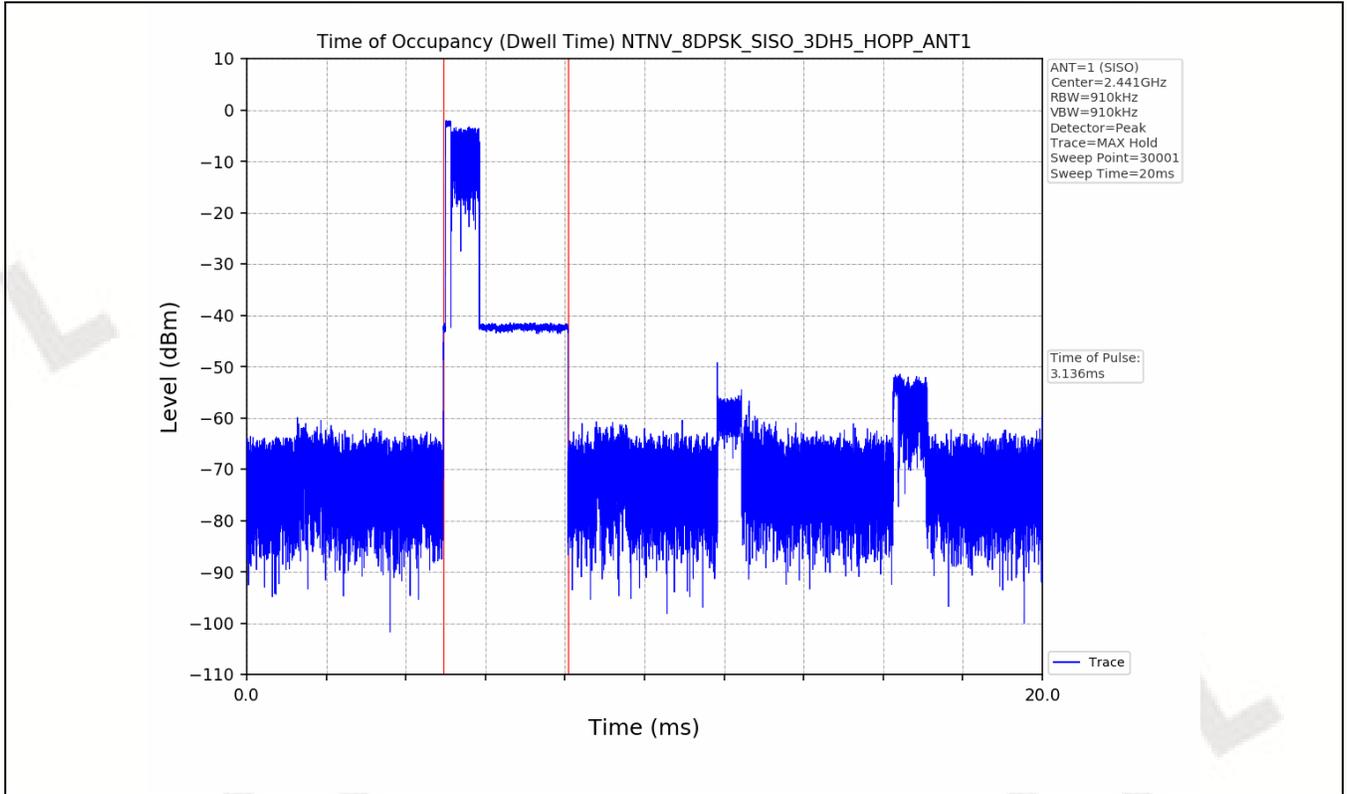


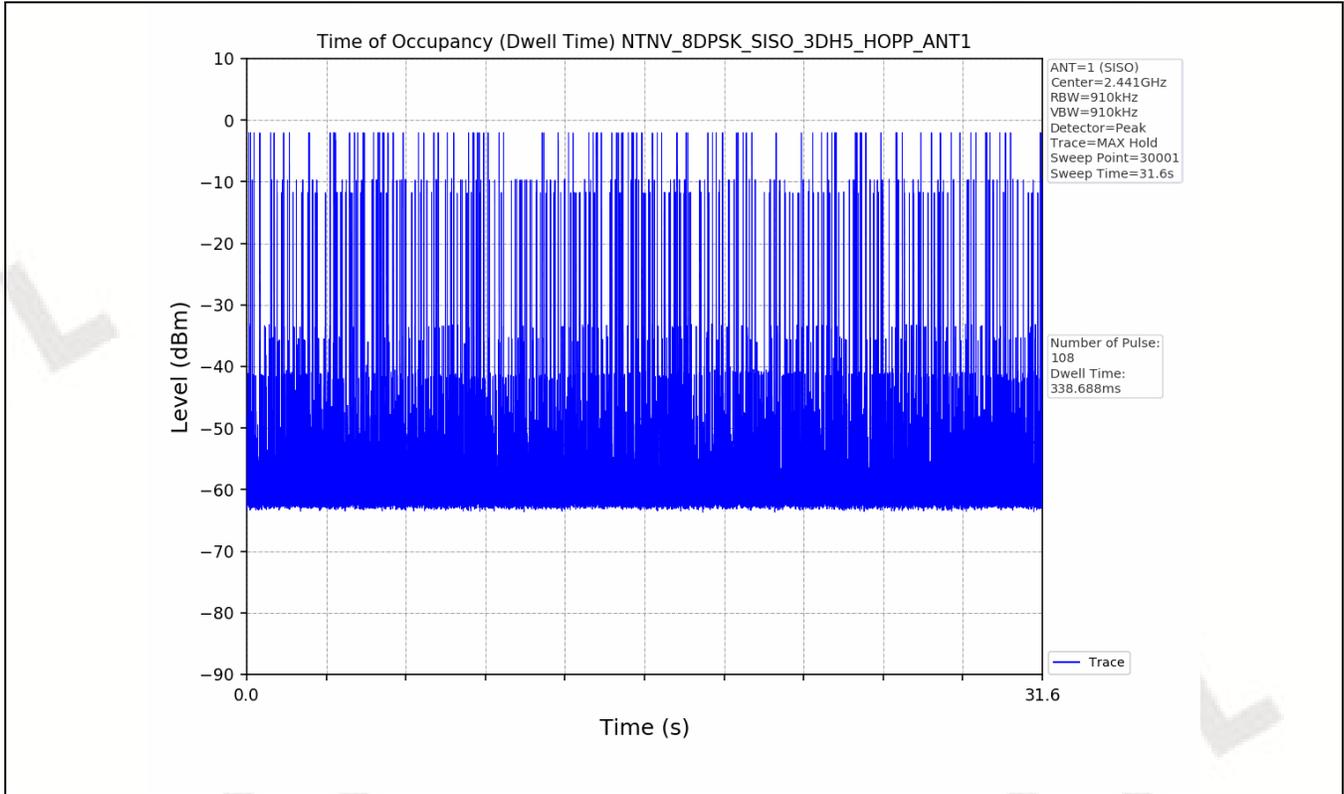












6. Unwanted Emissions in Non-restricted Frequency Bands

6.1 Test Result

| Test Mode | Frequency (MHz) | TX Type | ANT No. | Spurious Conducted Emission (dBm) | Limits (dBm) | Verdict |
|-----------|-----------------|---------|---------|-----------------------------------|--------------|---------|
| GFSK | 2402 | SISO | 1 | Refer to test graph | -21.78 | PASS |
| | 2441 | SISO | 1 | Refer to test graph | -21.78 | PASS |
| | 2480 | SISO | 1 | Refer to test graph | -21.78 | PASS |
| | Hopping | SISO | 1 | Refer to test graph | -21.78 | PASS |
| Pi/4DQPSK | 2402 | SISO | 1 | Refer to test graph | -21.73 | PASS |
| | 2441 | SISO | 1 | Refer to test graph | -21.73 | PASS |
| | 2480 | SISO | 1 | Refer to test graph | -21.73 | PASS |
| | Hopping | SISO | 1 | Refer to test graph | -21.73 | PASS |
| 8DPSK | 2402 | SISO | 1 | Refer to test graph | -21.80 | PASS |
| | 2441 | SISO | 1 | Refer to test graph | -21.80 | PASS |
| | 2480 | SISO | 1 | Refer to test graph | -21.80 | PASS |
| | Hopping | SISO | 1 | Refer to test graph | -21.80 | PASS |

6.2 Test Graph

