

Appendix for 15.247

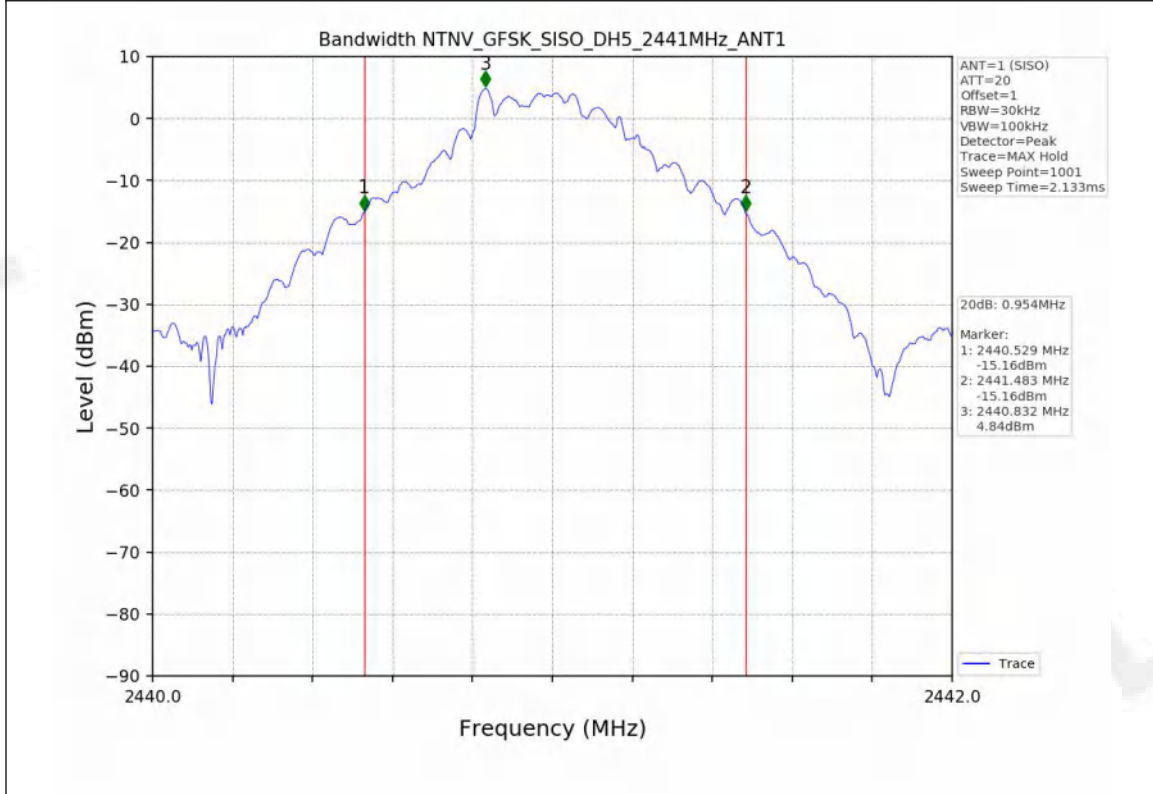
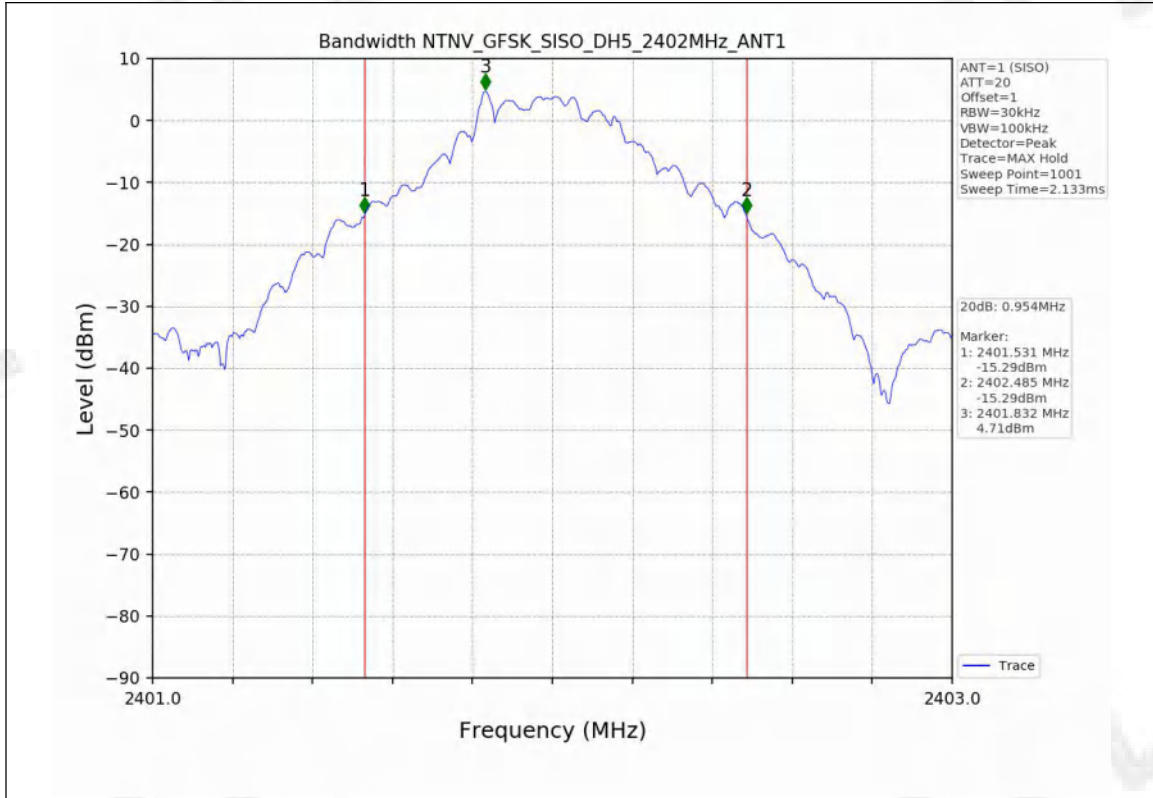
1. Bandwidth

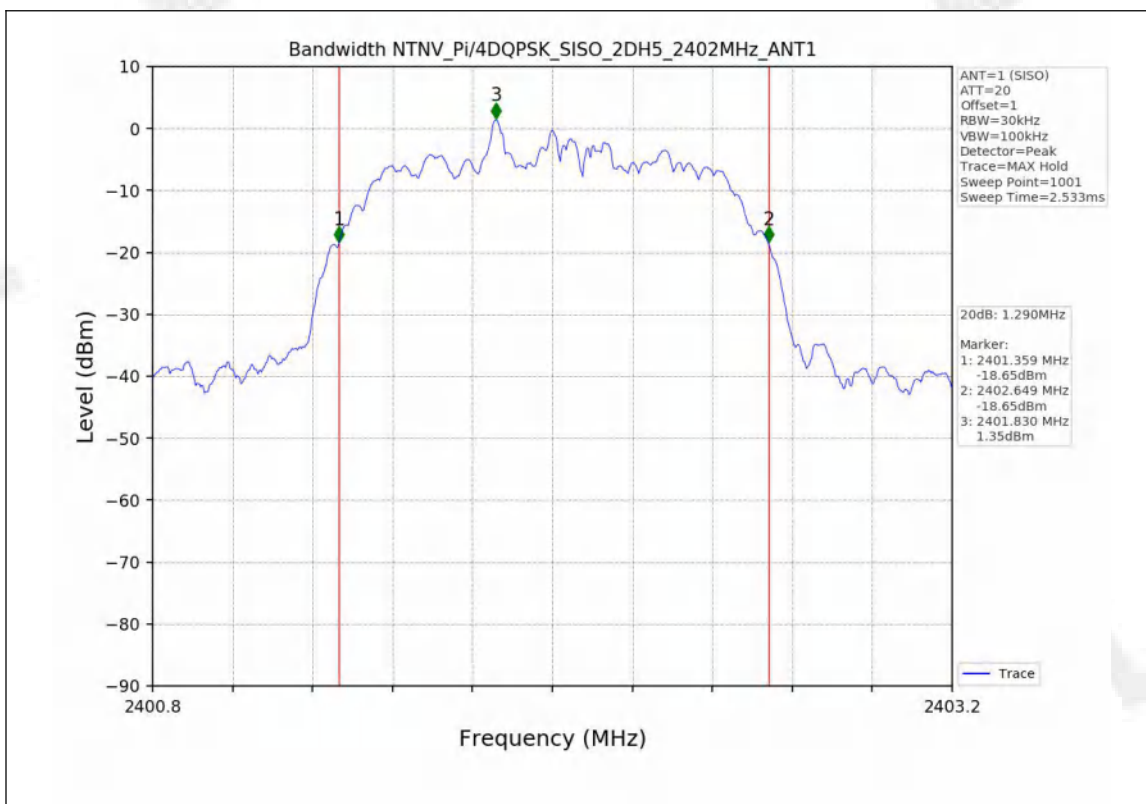
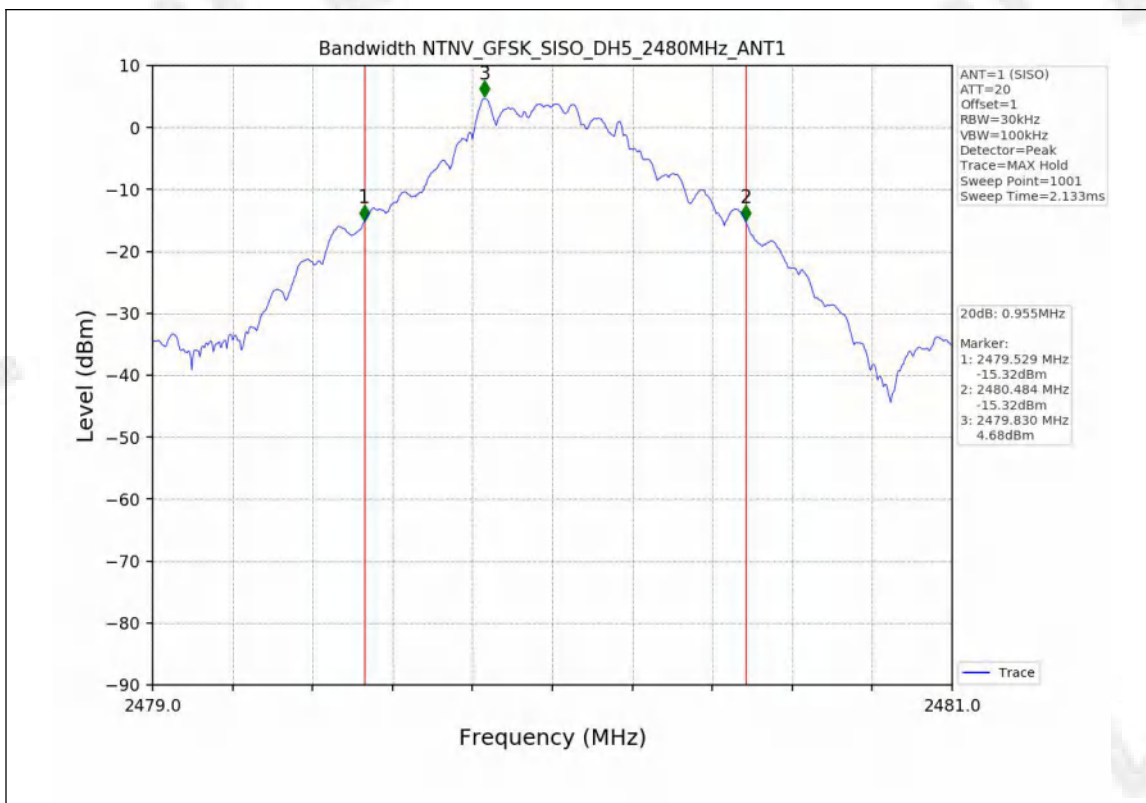
1.1 Test Result

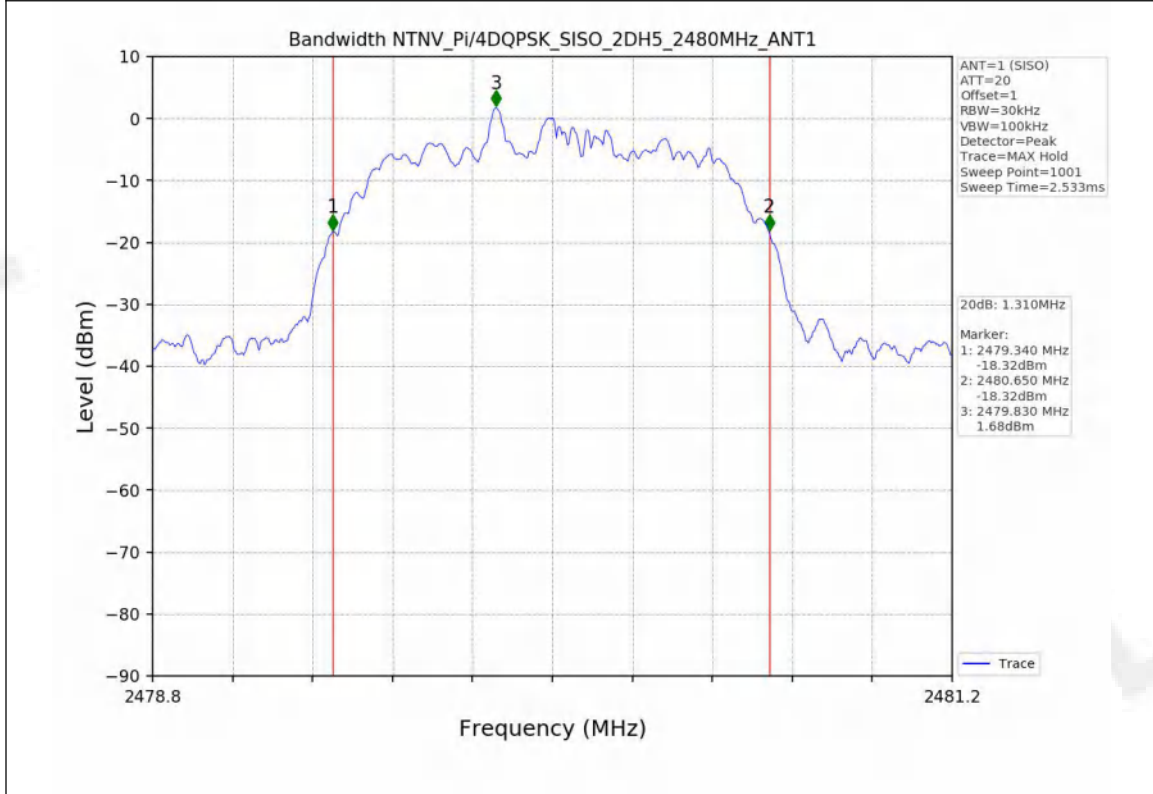
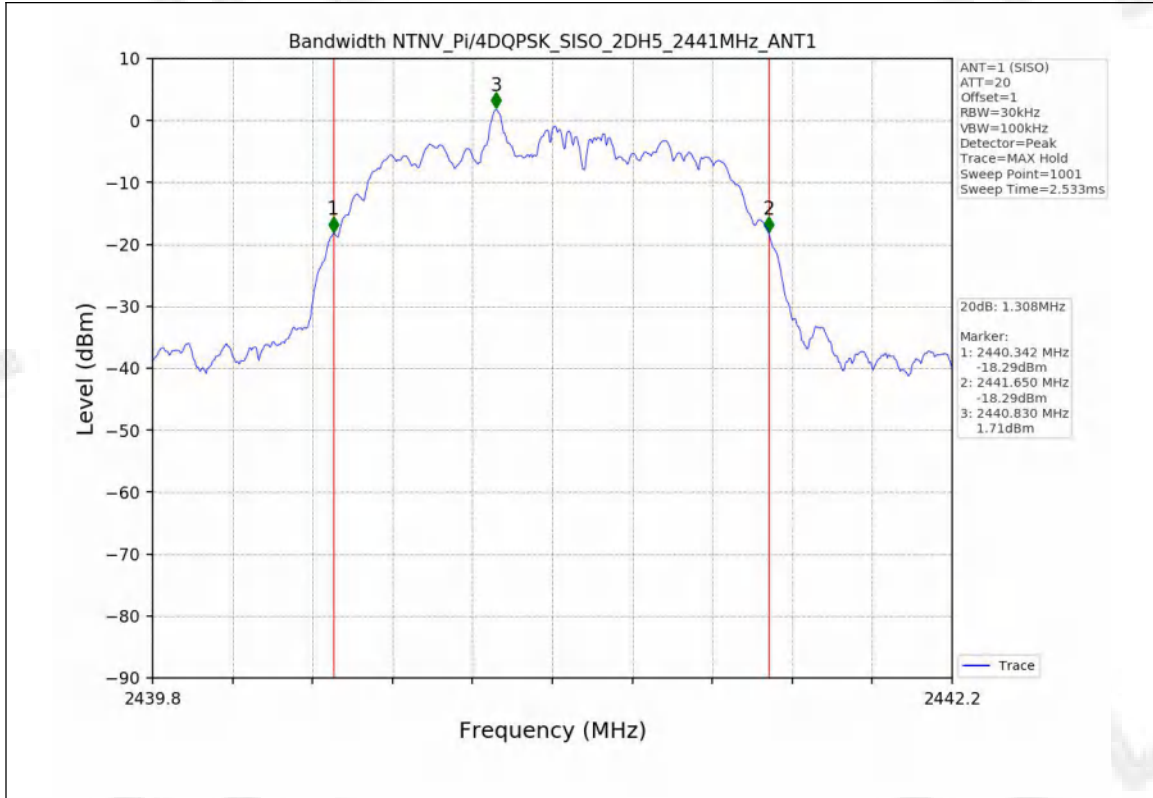
| Test Mode | Frequency (MHz) | TX Type | ANT No. | 20dB Bandwidth | Verdict |
|-----------|-----------------|---------|---------|-------------------|---------|
| | | | | Test Result (MHz) | |
| GFSK | 2402 | SISO | 1 | 0.954 | PASS |
| | 2441 | SISO | 1 | 0.954 | PASS |
| | 2480 | SISO | 1 | 0.955 | PASS |
| Pi/4DQPSK | 2402 | SISO | 1 | 1.290 | PASS |
| | 2441 | SISO | 1 | 1.308 | PASS |
| | 2480 | SISO | 1 | 1.310 | PASS |
| 8DPSK | 2402 | SISO | 1 | 1.302 | PASS |
| | 2441 | SISO | 1 | 1.293 | PASS |
| | 2480 | SISO | 1 | 1.298 | PASS |

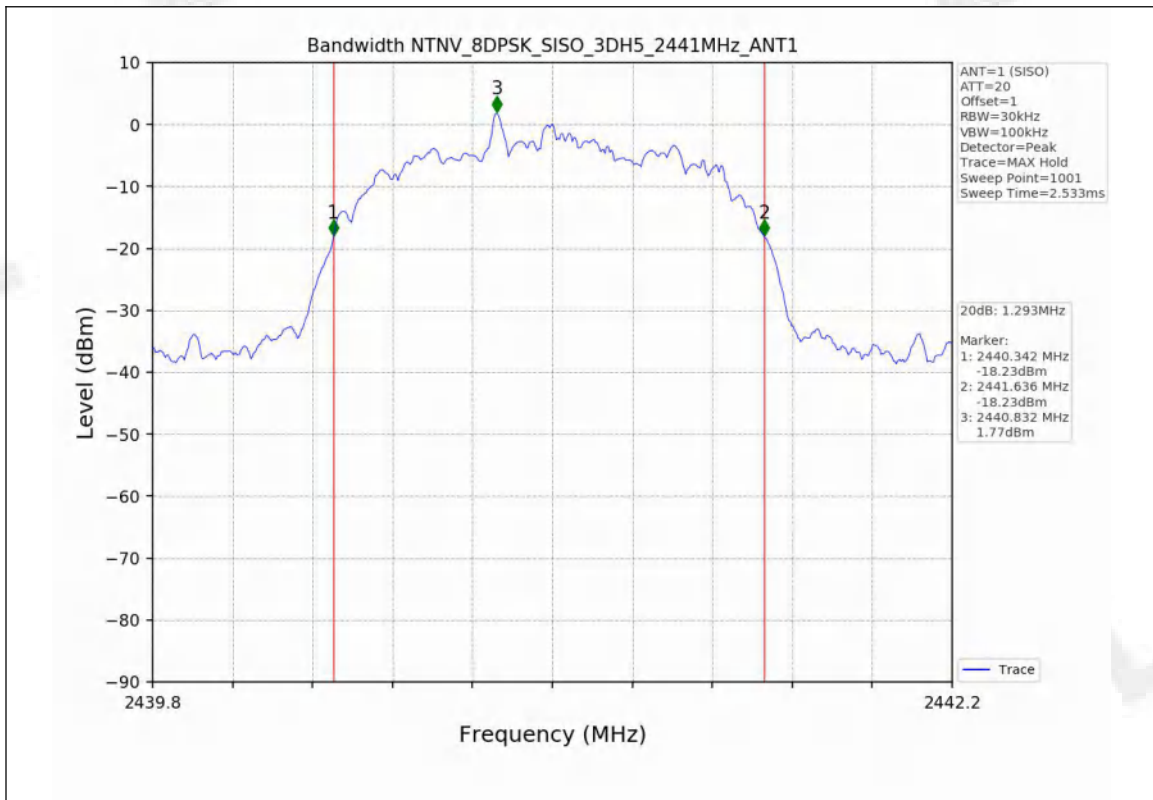
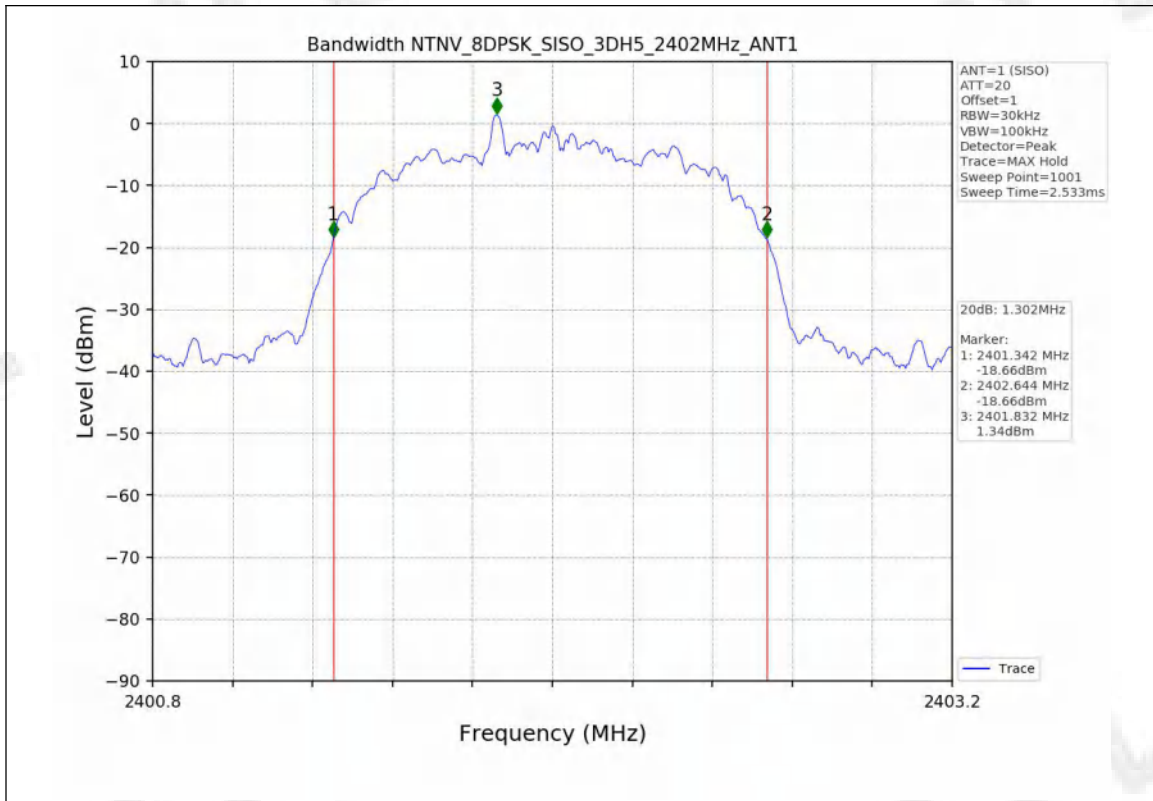
| Test Mode | Frequency (MHz) | TX Type | ANT No. | 99% Occupied Bandwidth | |
|-----------|-----------------|---------|---------|------------------------|---------------------|
| | | | | Test Result (MHz) | |
| GFSK | 2402 | SISO | 1 | 0.888 | Only for Report Use |
| | 2441 | SISO | 1 | 0.890 | Only for Report Use |
| | 2480 | SISO | 1 | 0.887 | Only for Report Use |
| Pi/4DQPSK | 2402 | SISO | 1 | 1.180 | Only for Report Use |
| | 2441 | SISO | 1 | 1.181 | Only for Report Use |
| | 2480 | SISO | 1 | 1.183 | Only for Report Use |
| 8DPSK | 2402 | SISO | 1 | 1.197 | Only for Report Use |
| | 2441 | SISO | 1 | 1.197 | Only for Report Use |
| | 2480 | SISO | 1 | 1.199 | Only for Report Use |

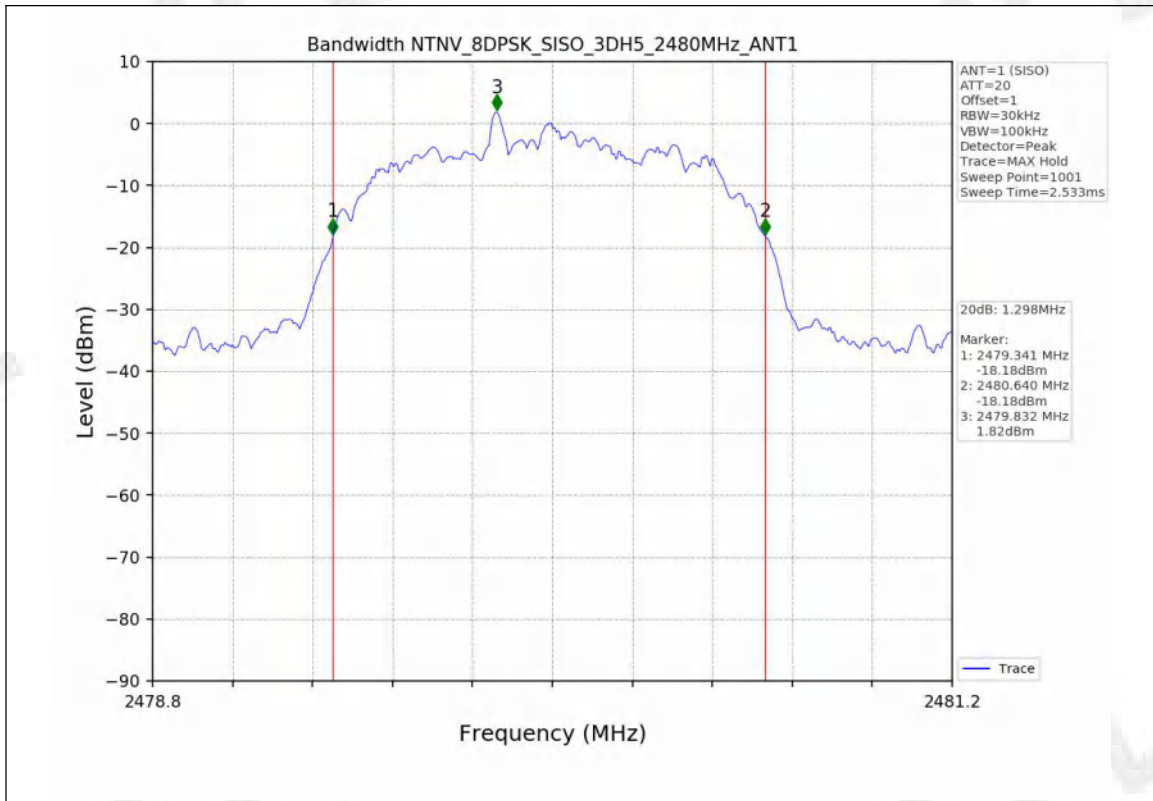
1.2 Test Graph - 20dB Bandwidth



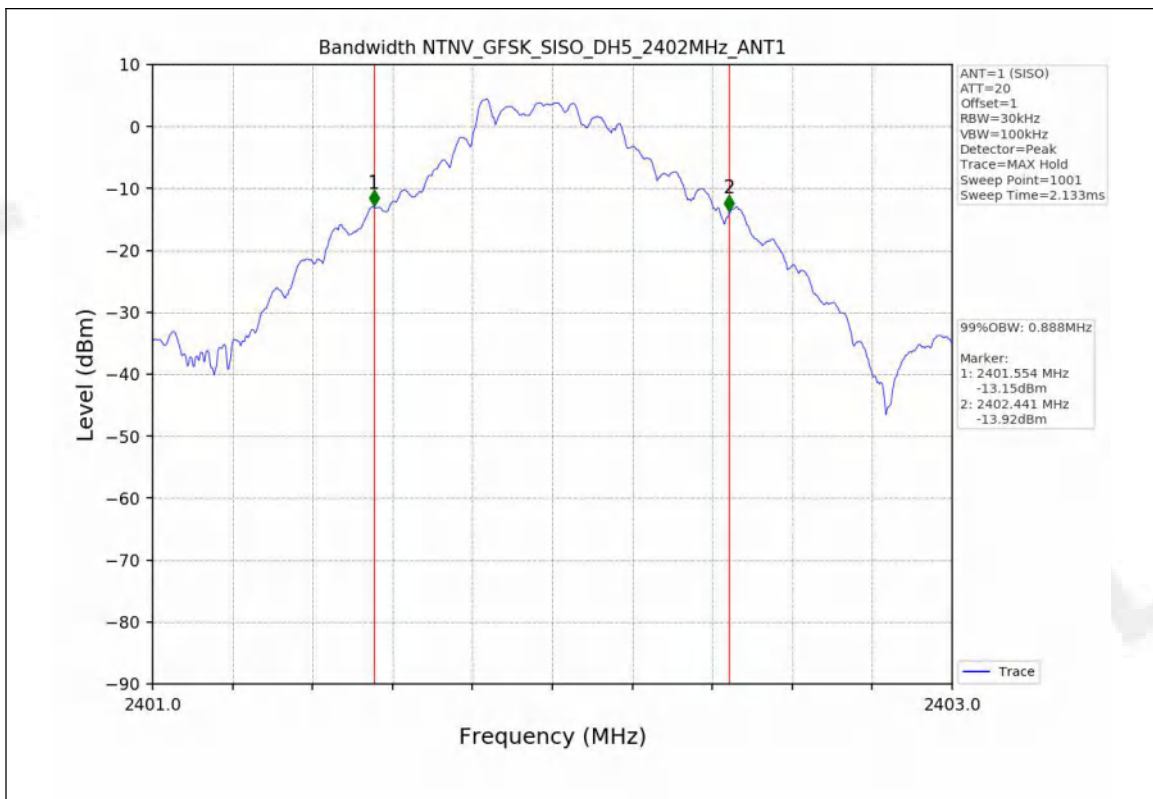


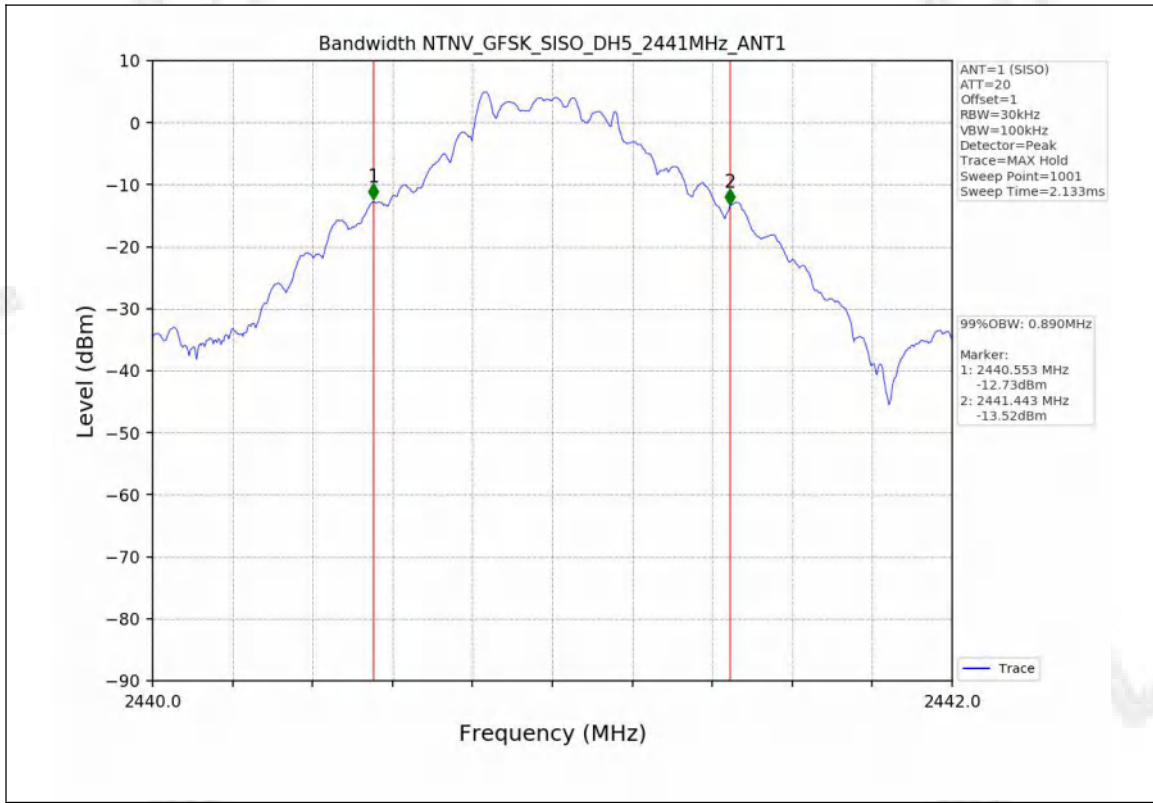


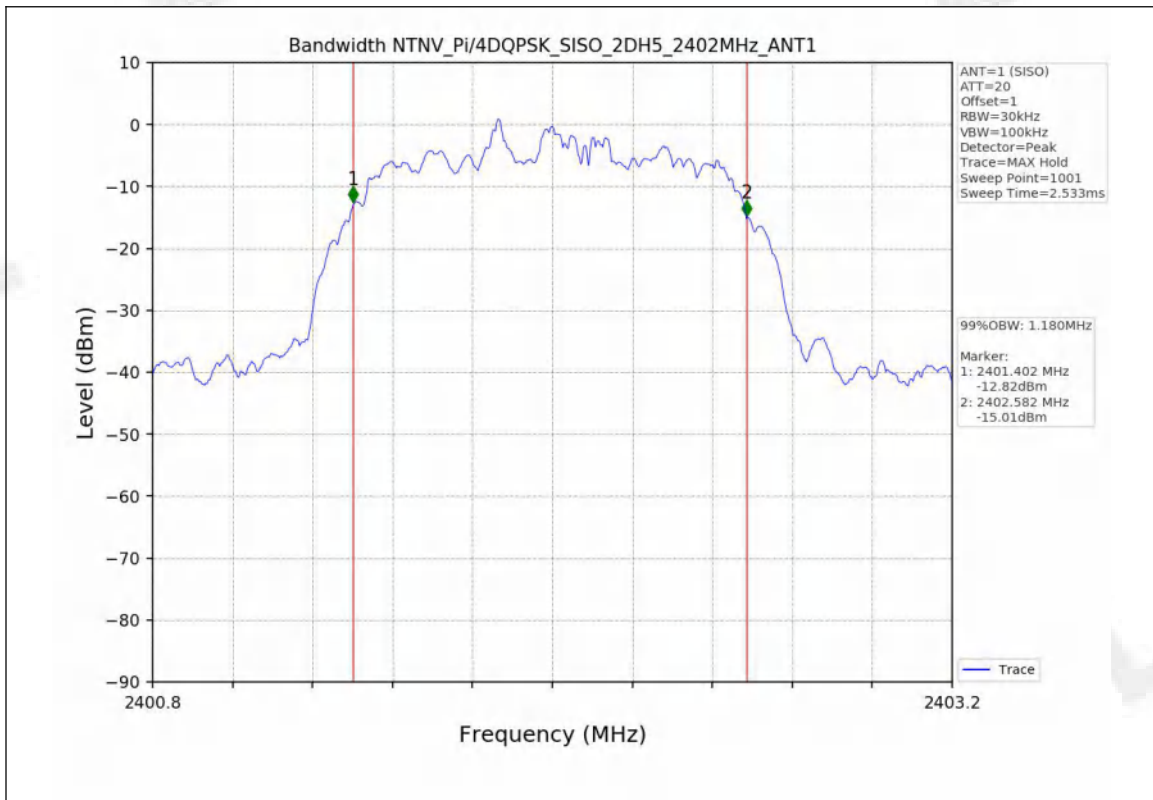
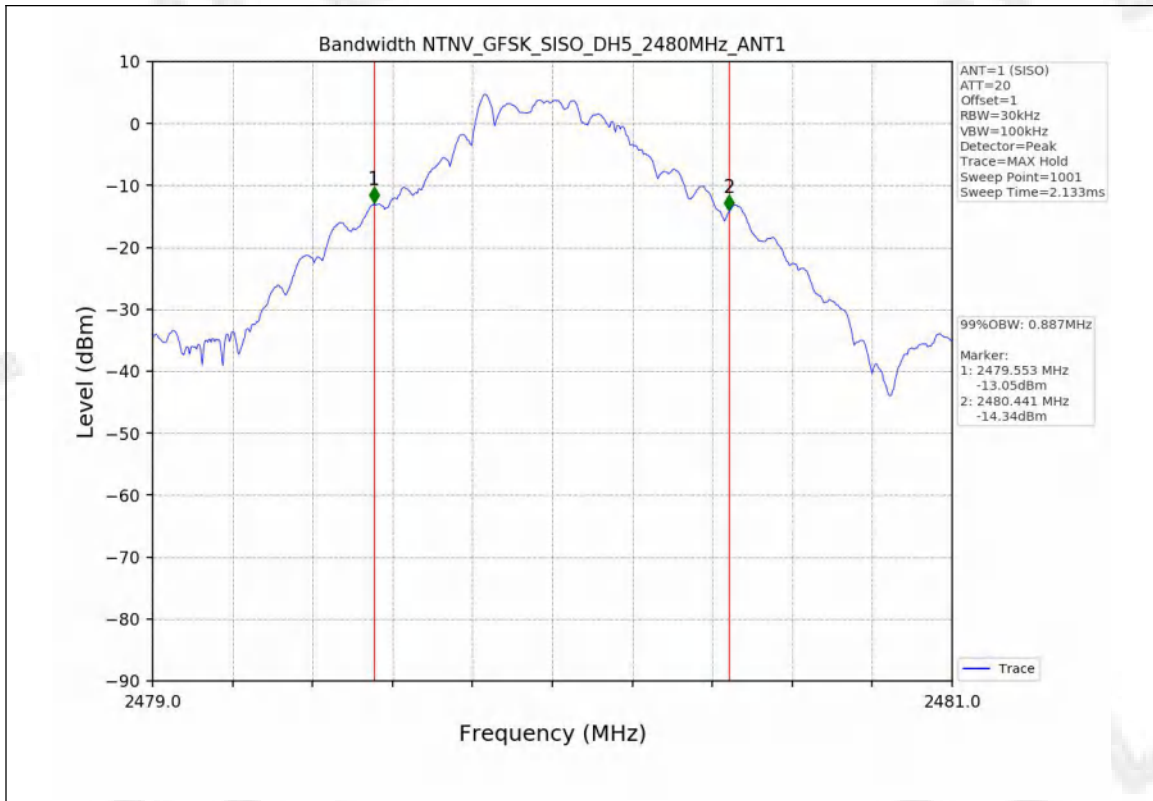


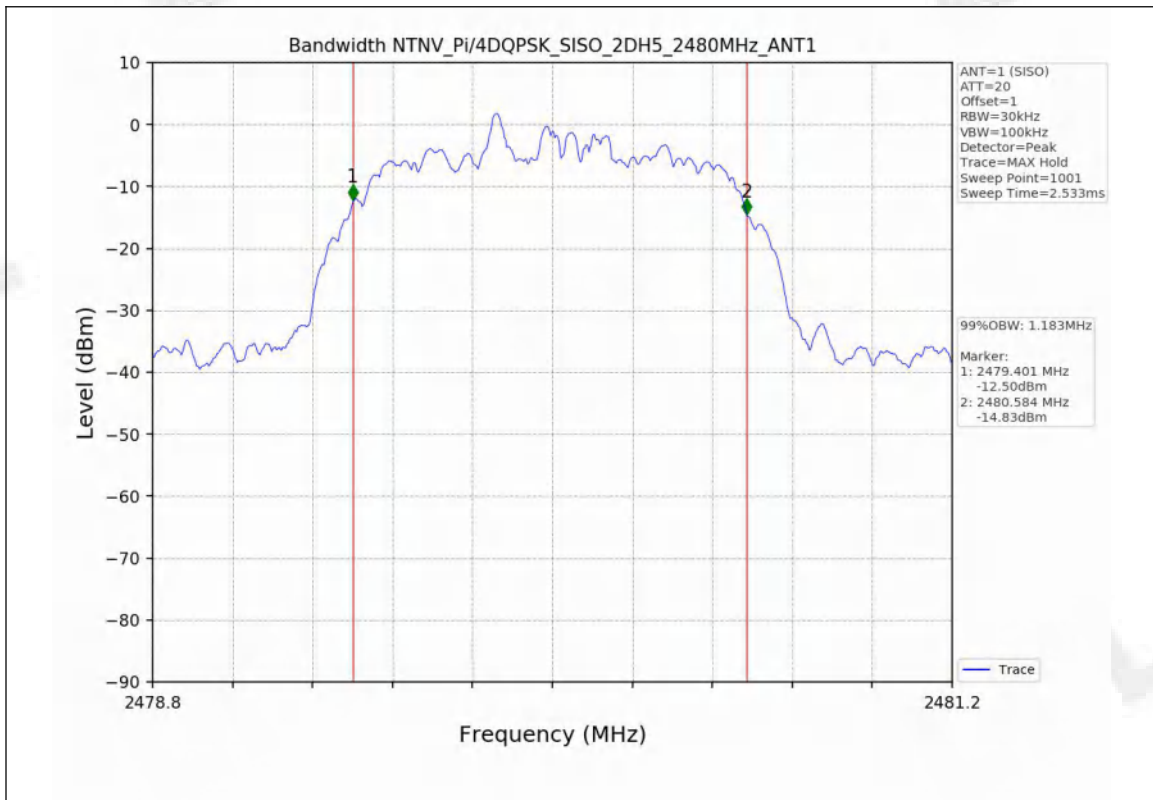
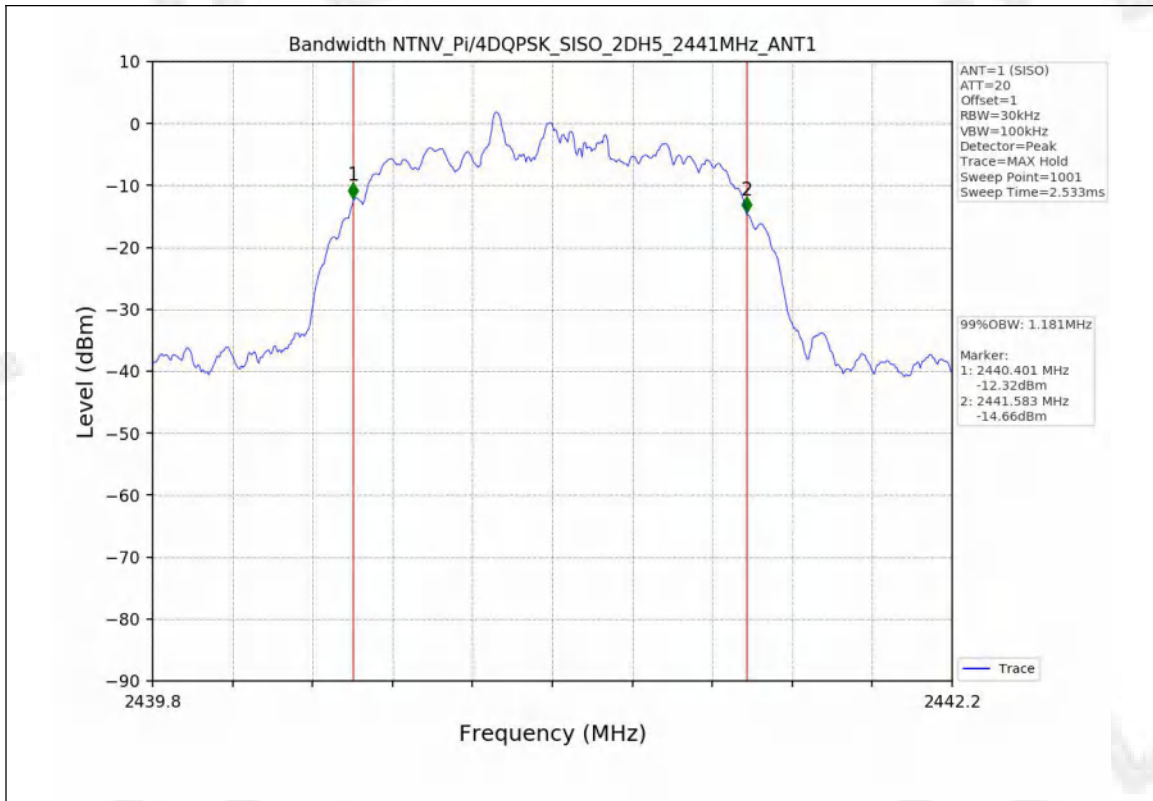


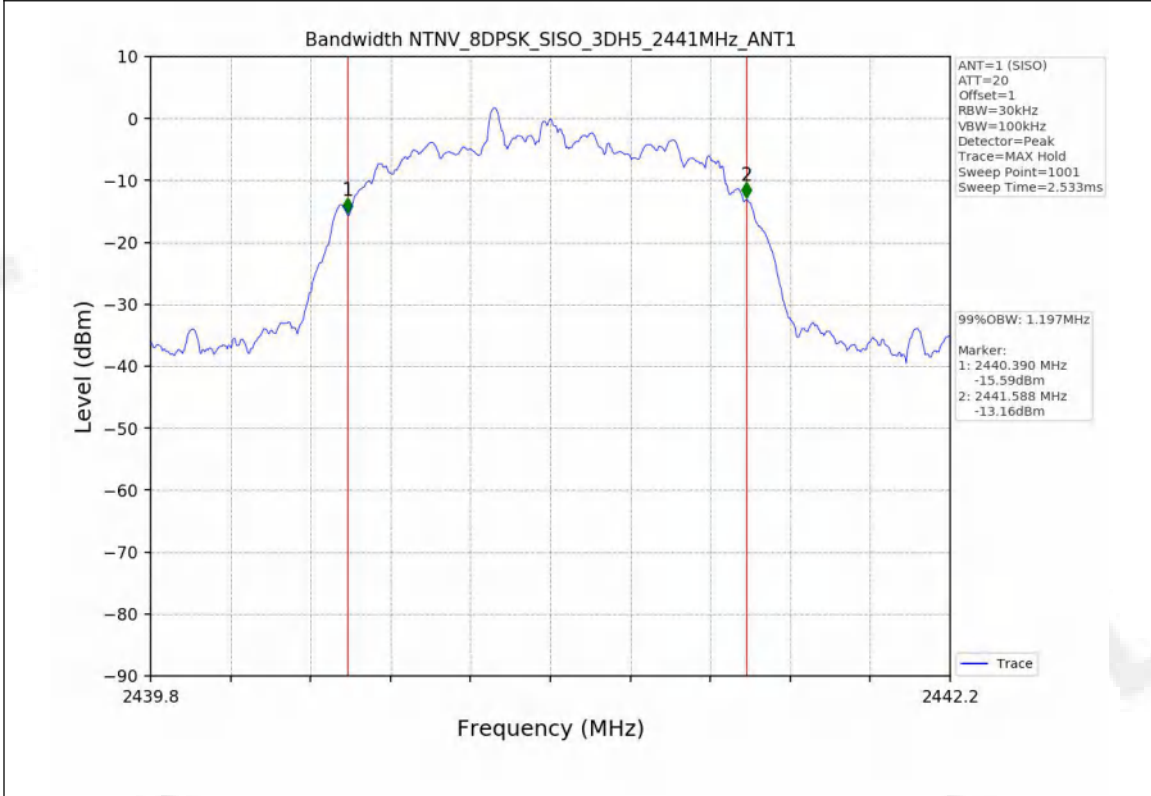
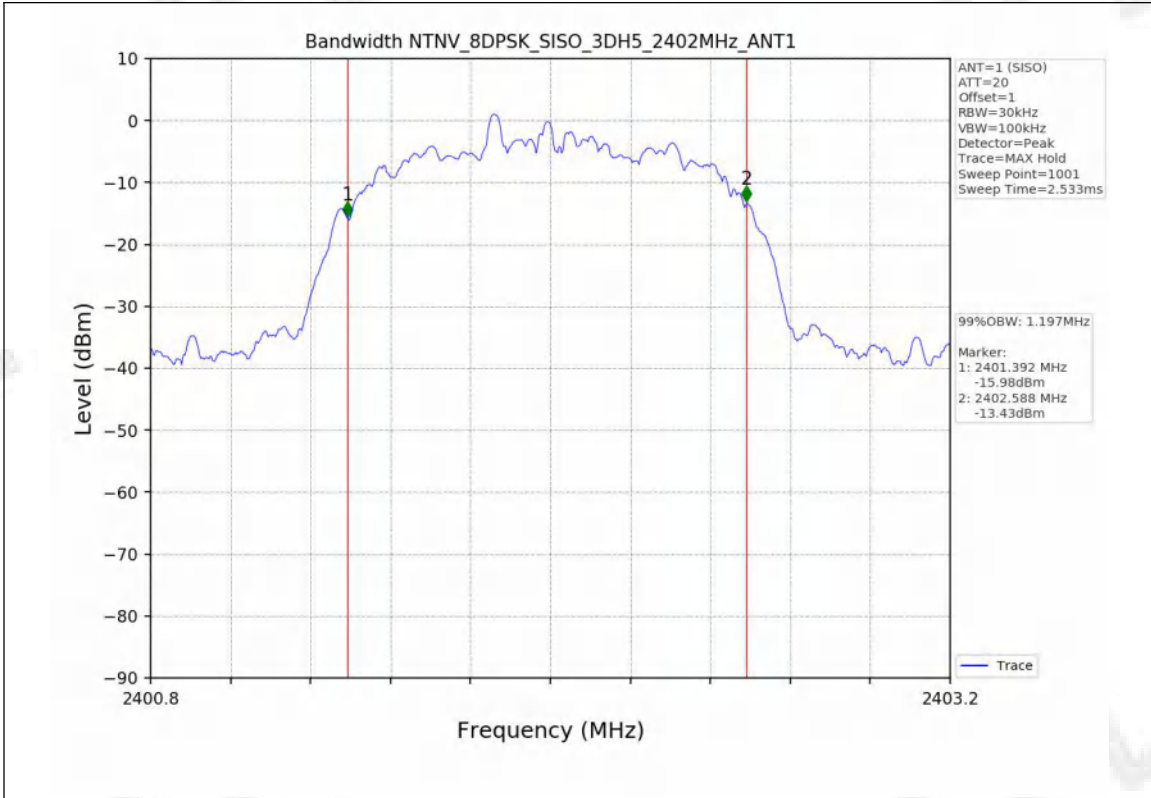
1.3 Test Graph - 99% Occupied Bandwidth

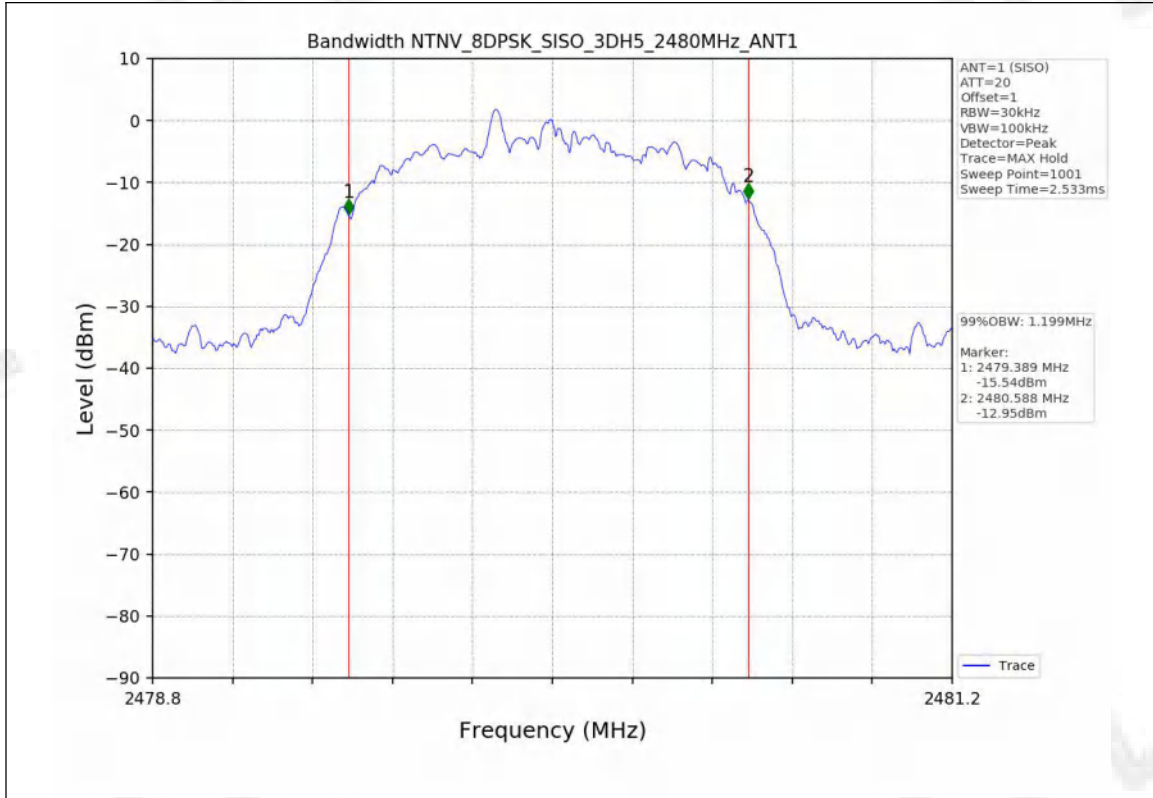










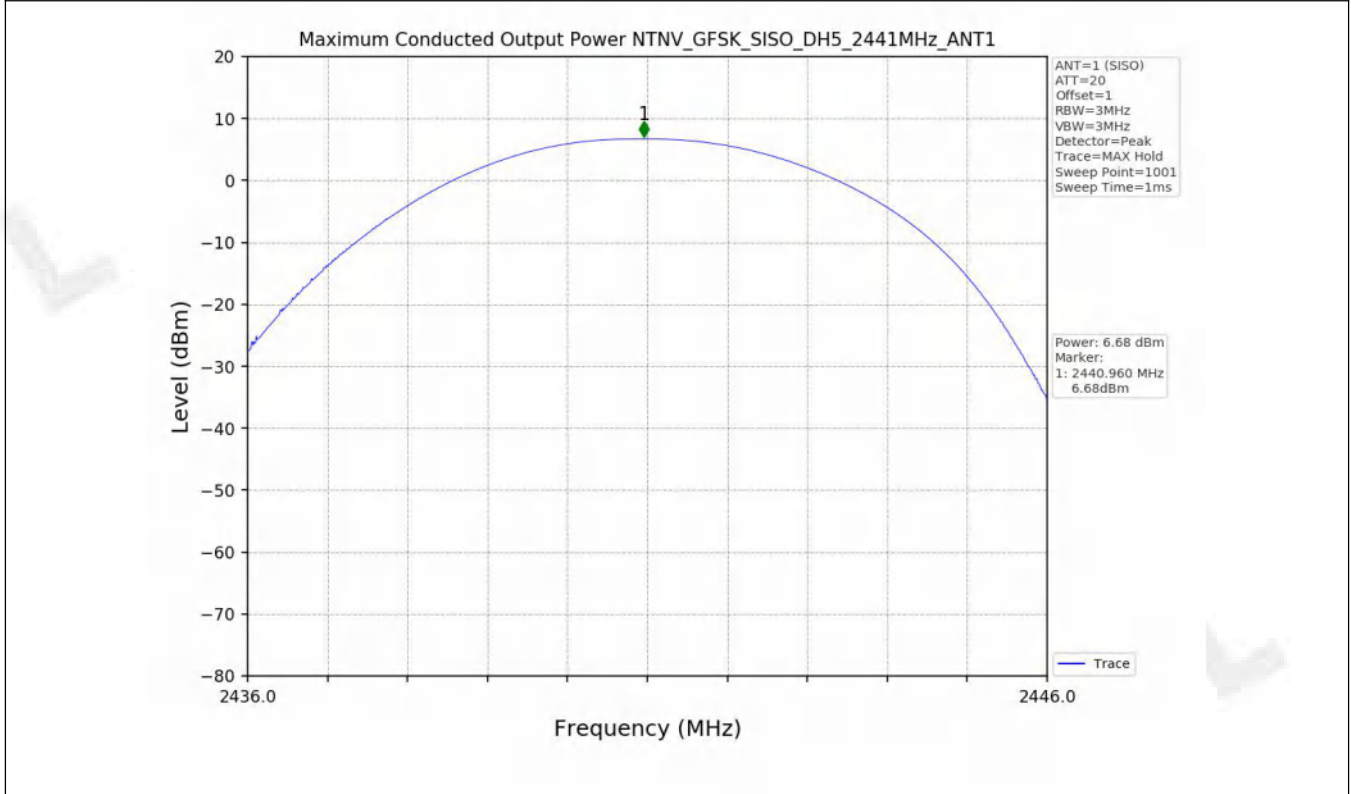
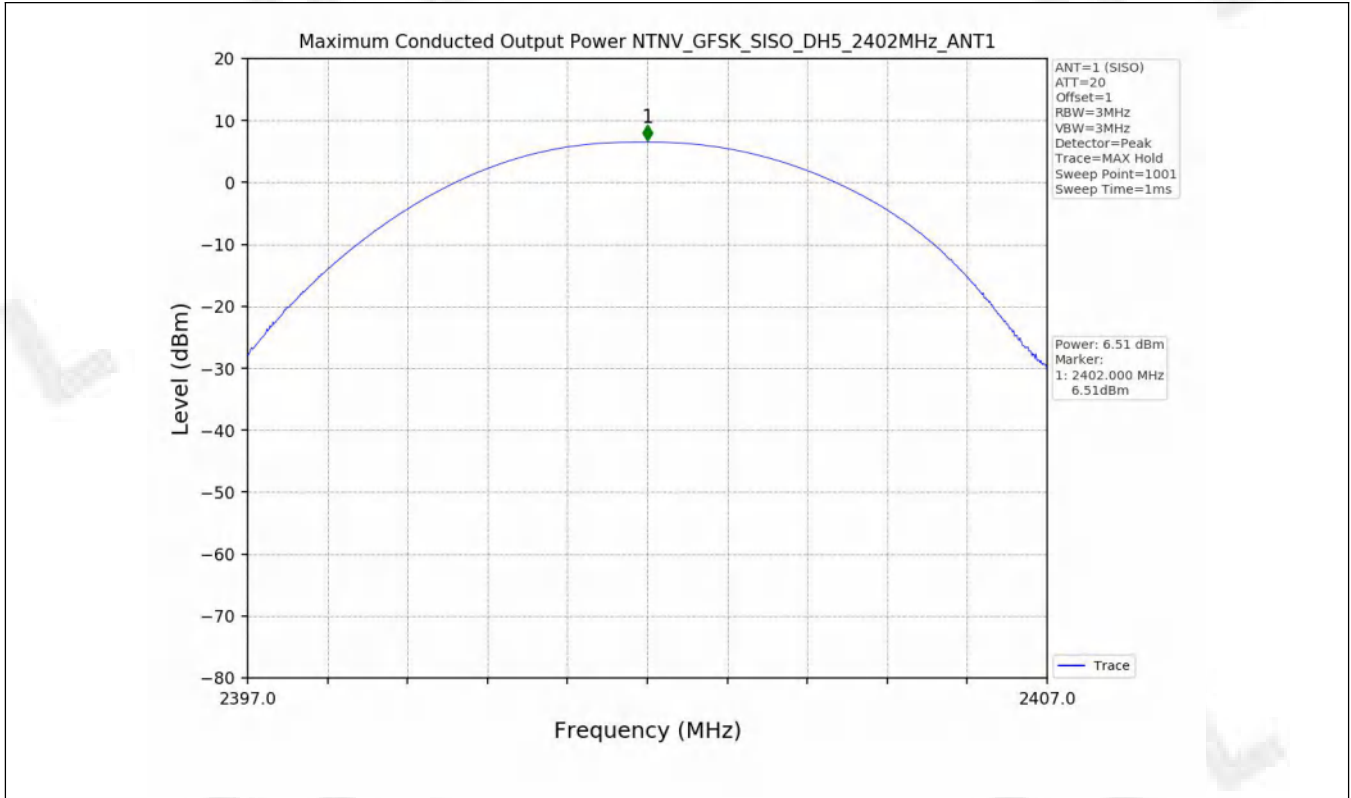


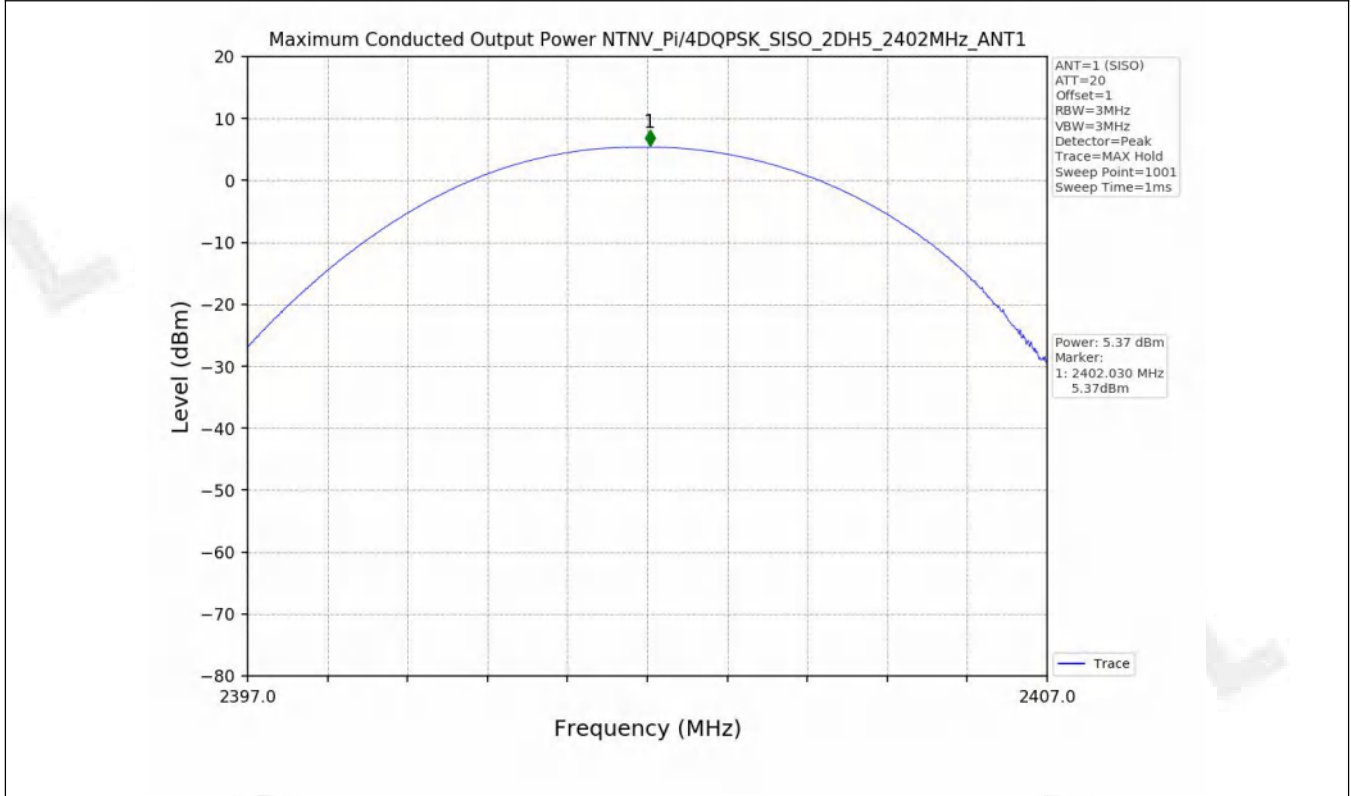
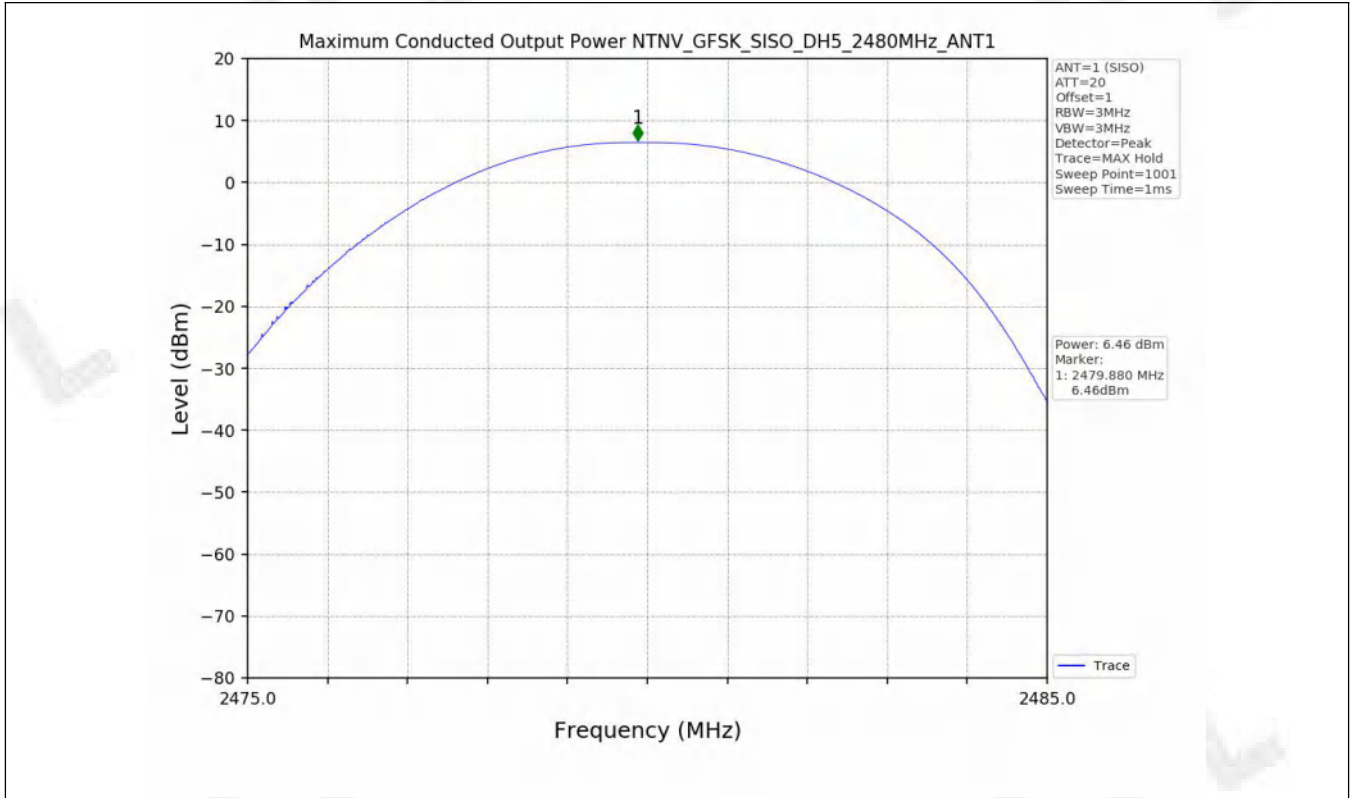
2. Maximum Conducted Output Power

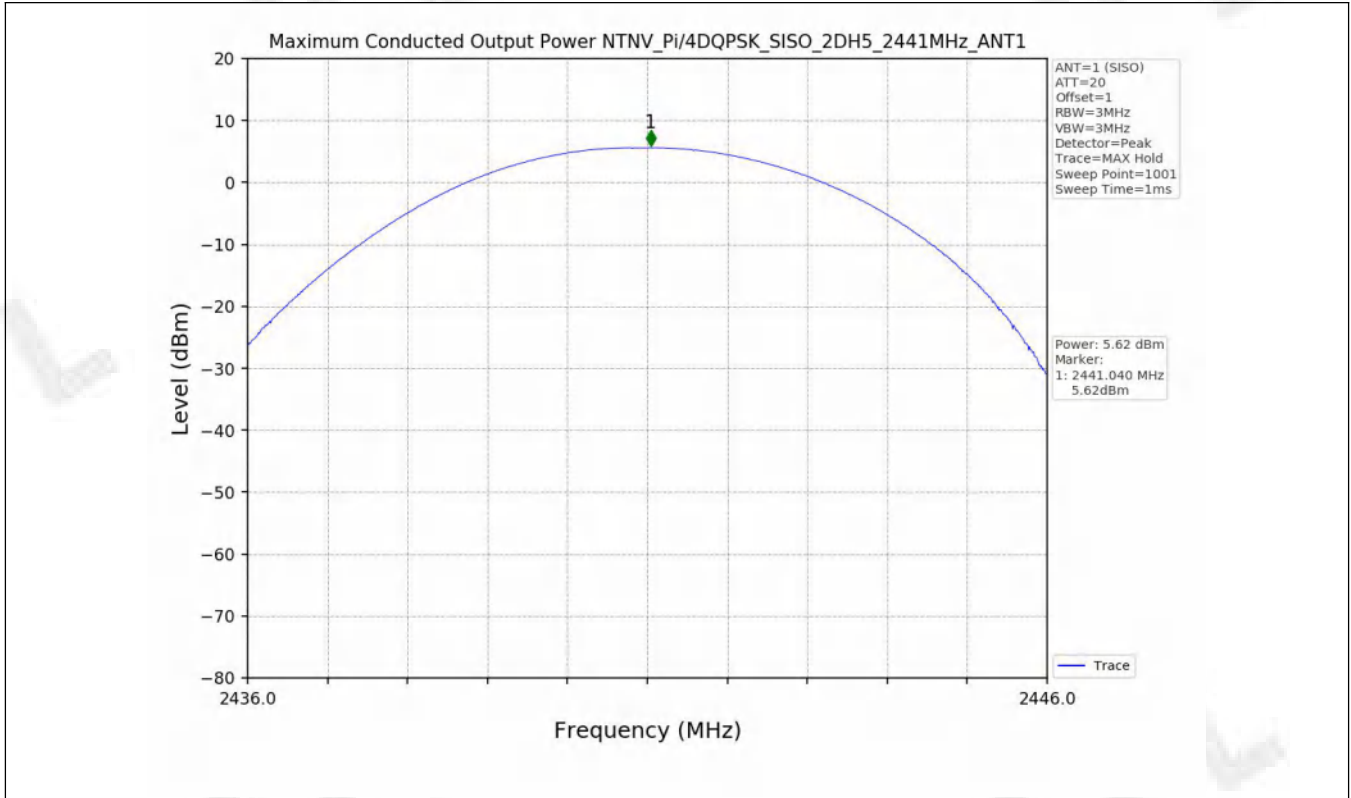
2.1 Test Result

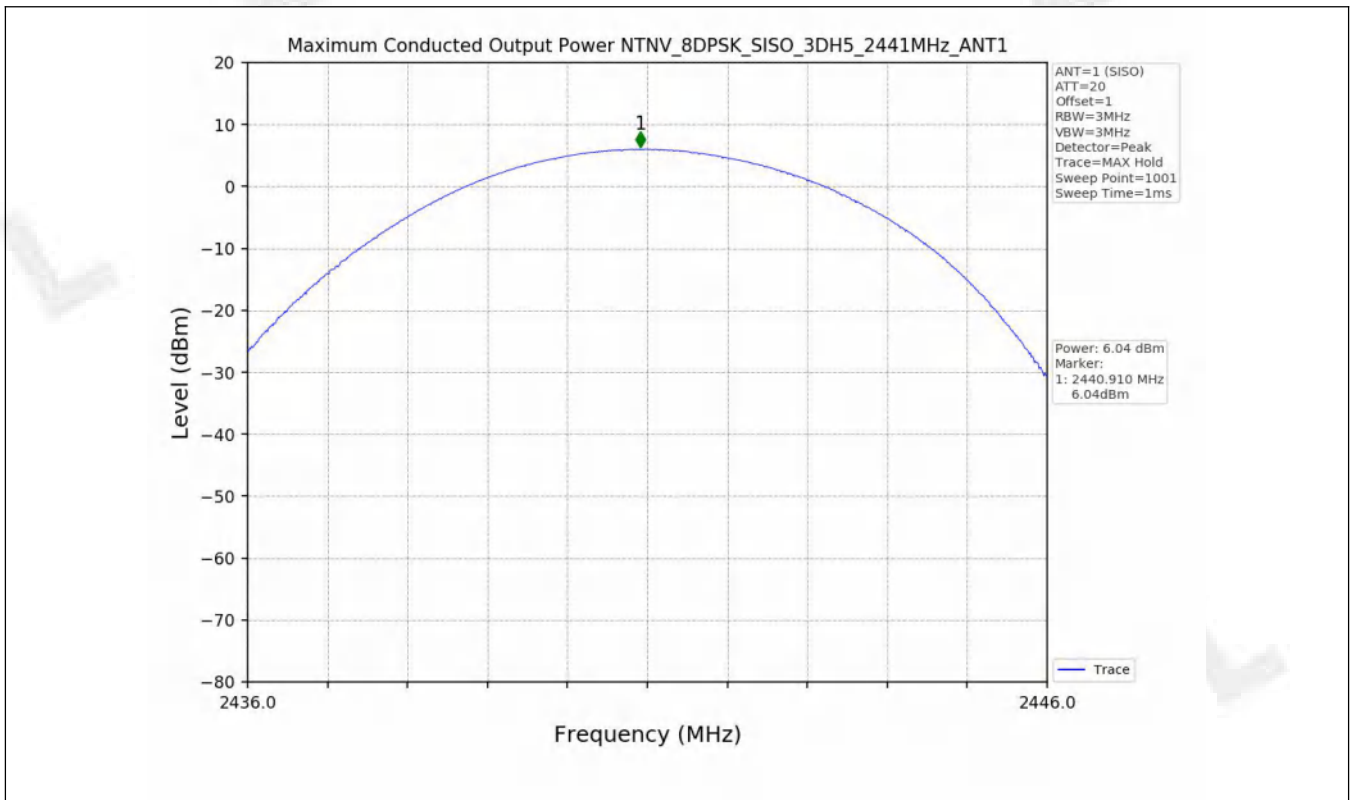
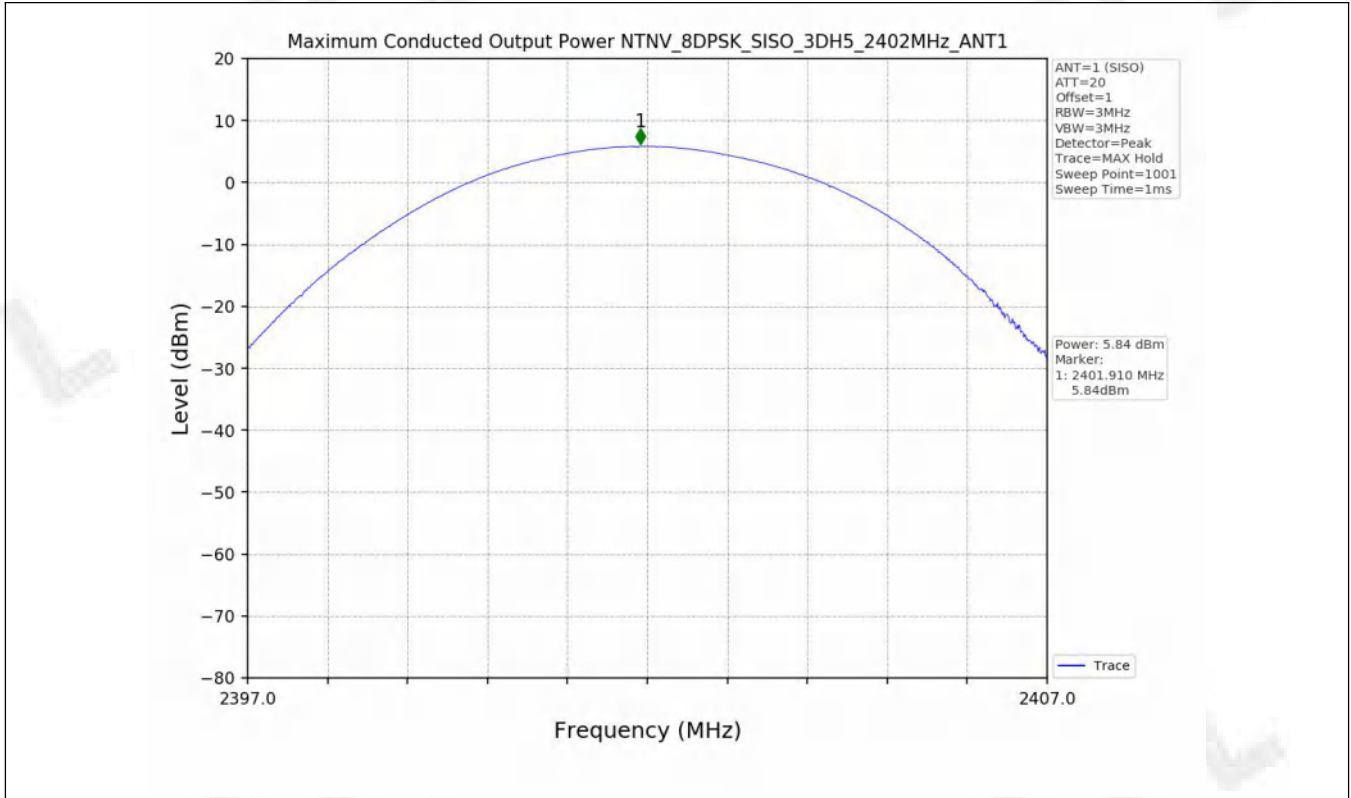
| Test Mode | Frequency (MHz) | Tx Type | Measured Peak Output Power (dBm) | Limits (dBm) | Verdict |
|-----------|-----------------|---------|----------------------------------|--------------|---------|
| | | | Ant 1 | | |
| GFSK | 2402 | SISO | 6.51 | 30 | PASS |
| | 2441 | SISO | 6.68 | 30 | PASS |
| | 2480 | SISO | 6.46 | 30 | PASS |
| Pi/4DQPSK | 2402 | SISO | 5.37 | 20.97 | PASS |
| | 2441 | SISO | 5.62 | 20.97 | PASS |
| | 2480 | SISO | 5.49 | 20.97 | PASS |
| 8DPSK | 2402 | SISO | 5.84 | 20.97 | PASS |
| | 2441 | SISO | 6.04 | 20.97 | PASS |
| | 2480 | SISO | 5.89 | 20.97 | PASS |

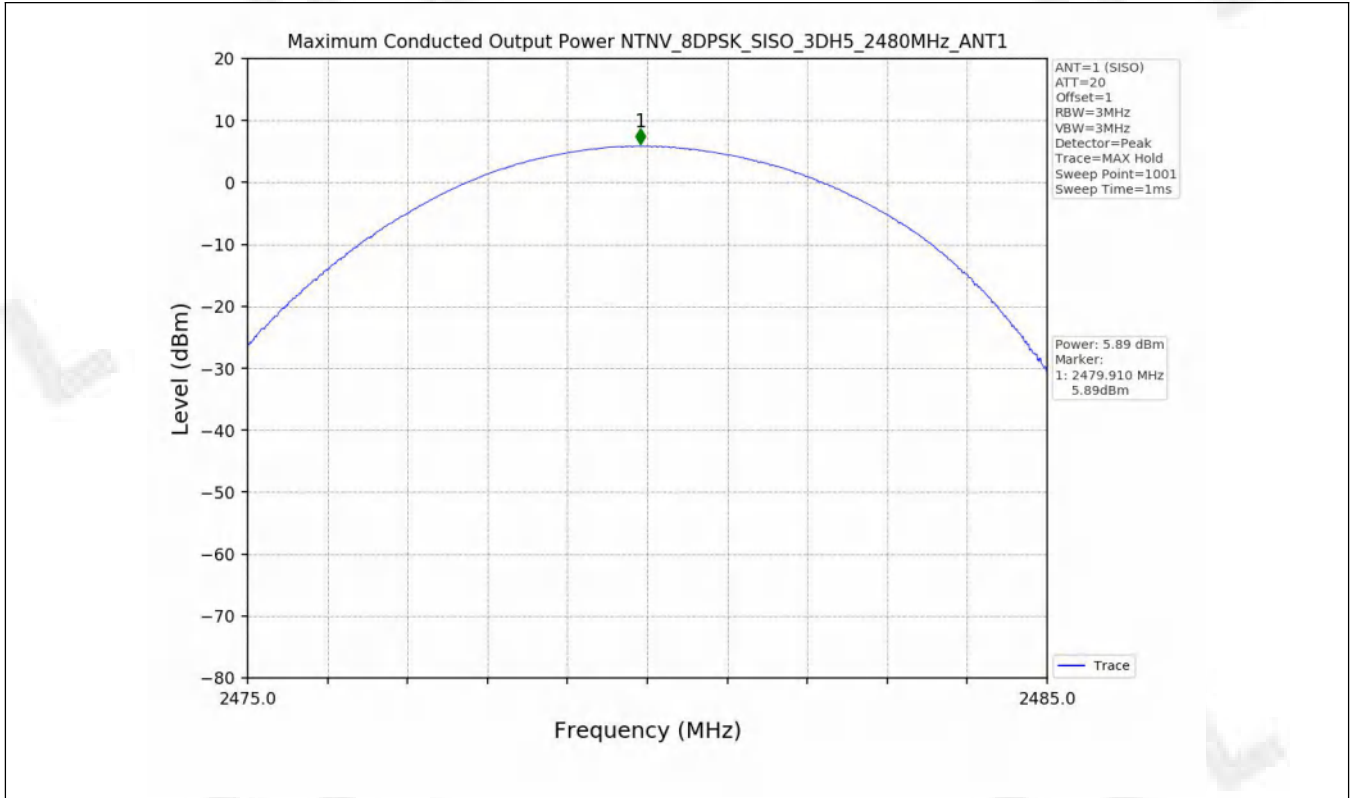
2.2 Test Graph









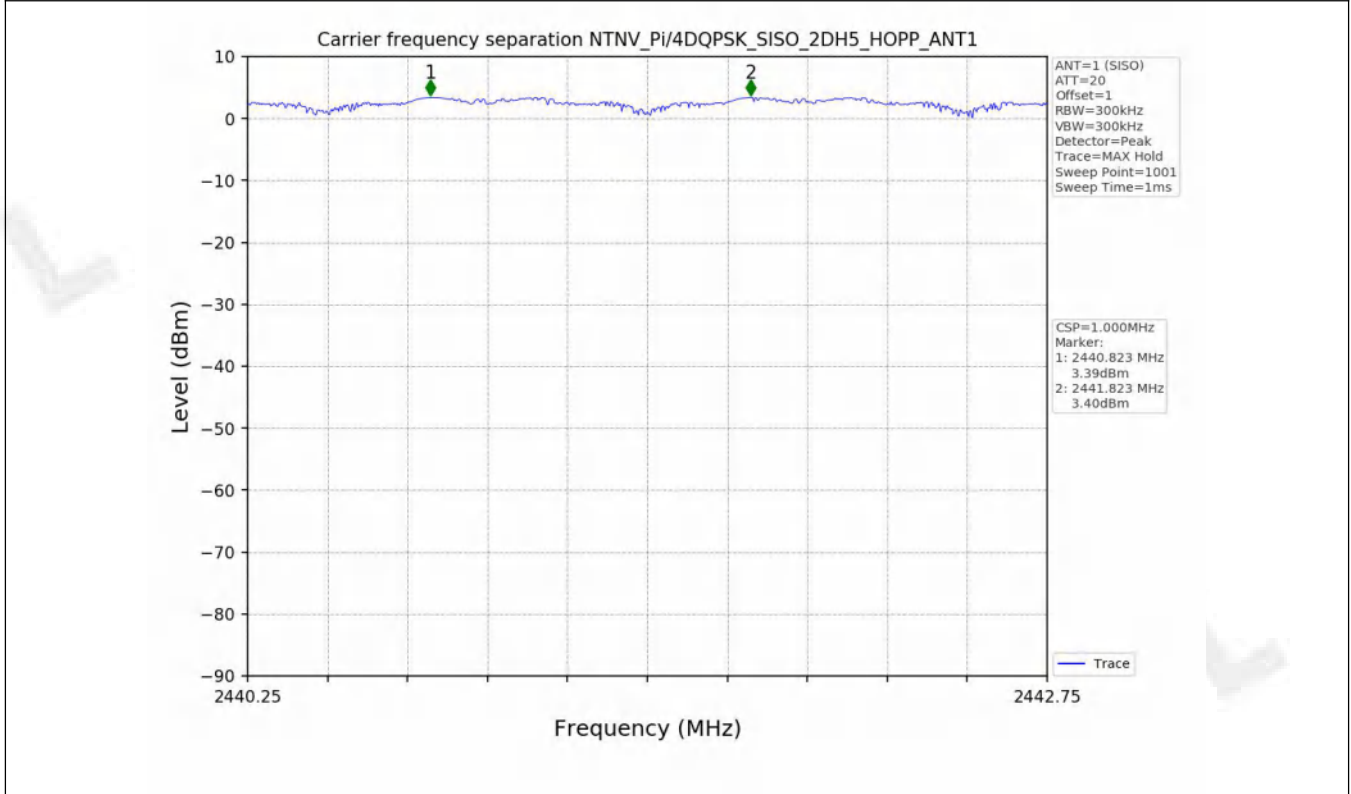
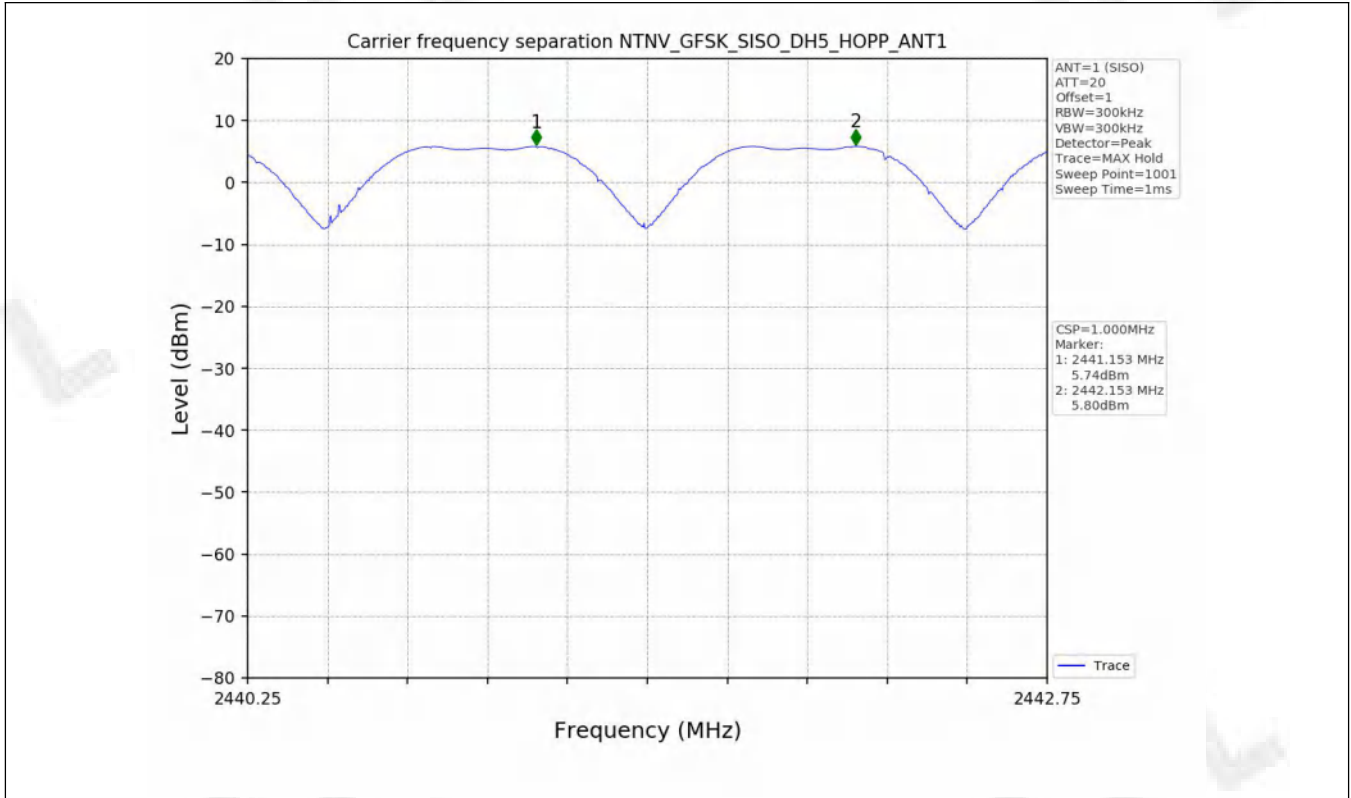


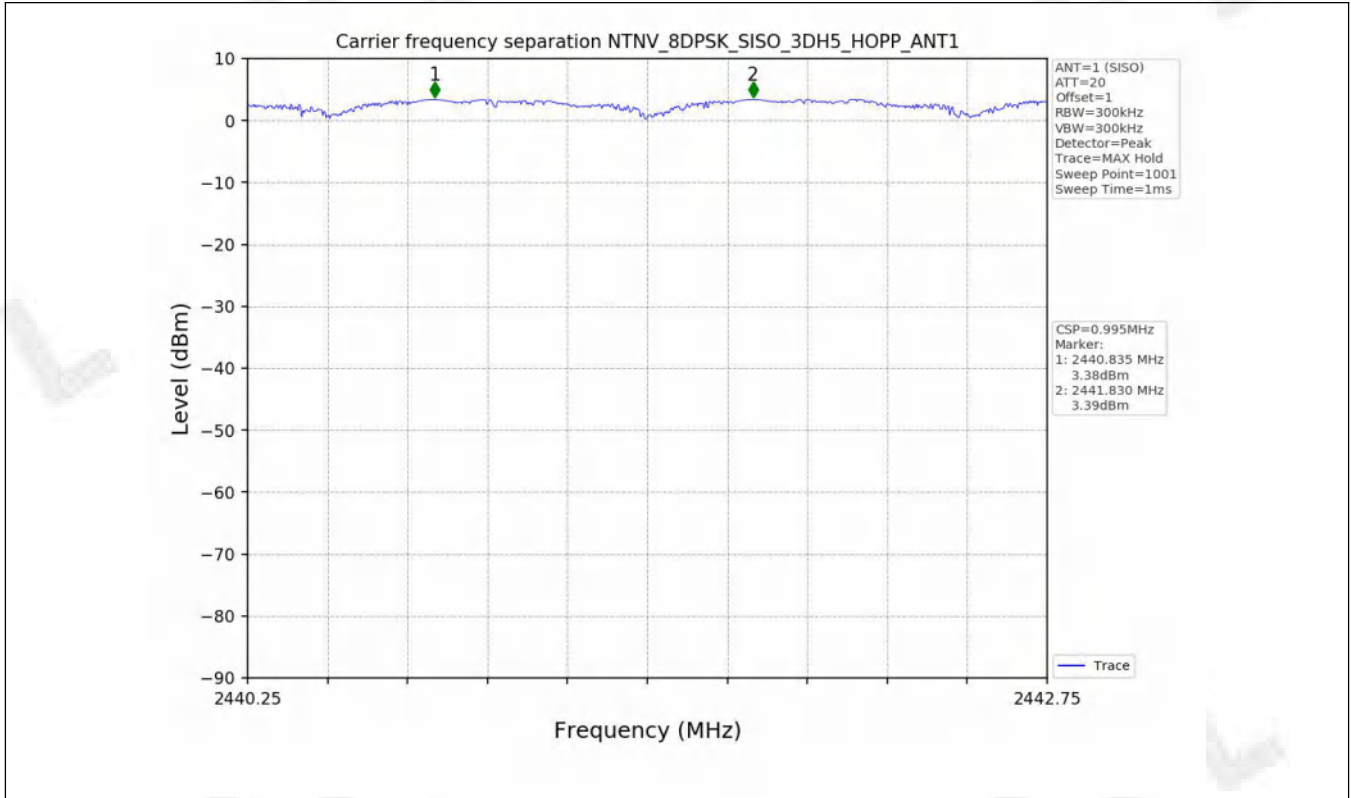
3. Carrier frequency separation

3.1 Test Result

| Test Mode | TX Type | ANT No. | Channel Separation (MHz) | 20dB Bandwidth (MHz) | Limits (MHz) | Verdict |
|-----------|---------|---------|--------------------------|----------------------|--------------|---------|
| GFSK | SISO | 1 | 1.000 | 0.955 | ≥0.955 | PASS |
| π/4DQPSK | SISO | 1 | 1.000 | 1.310 | ≥0.873 | PASS |
| 8DPSK | SISO | 1 | 0.995 | 1.302 | ≥0.868 | PASS |

3.2 Test Graph



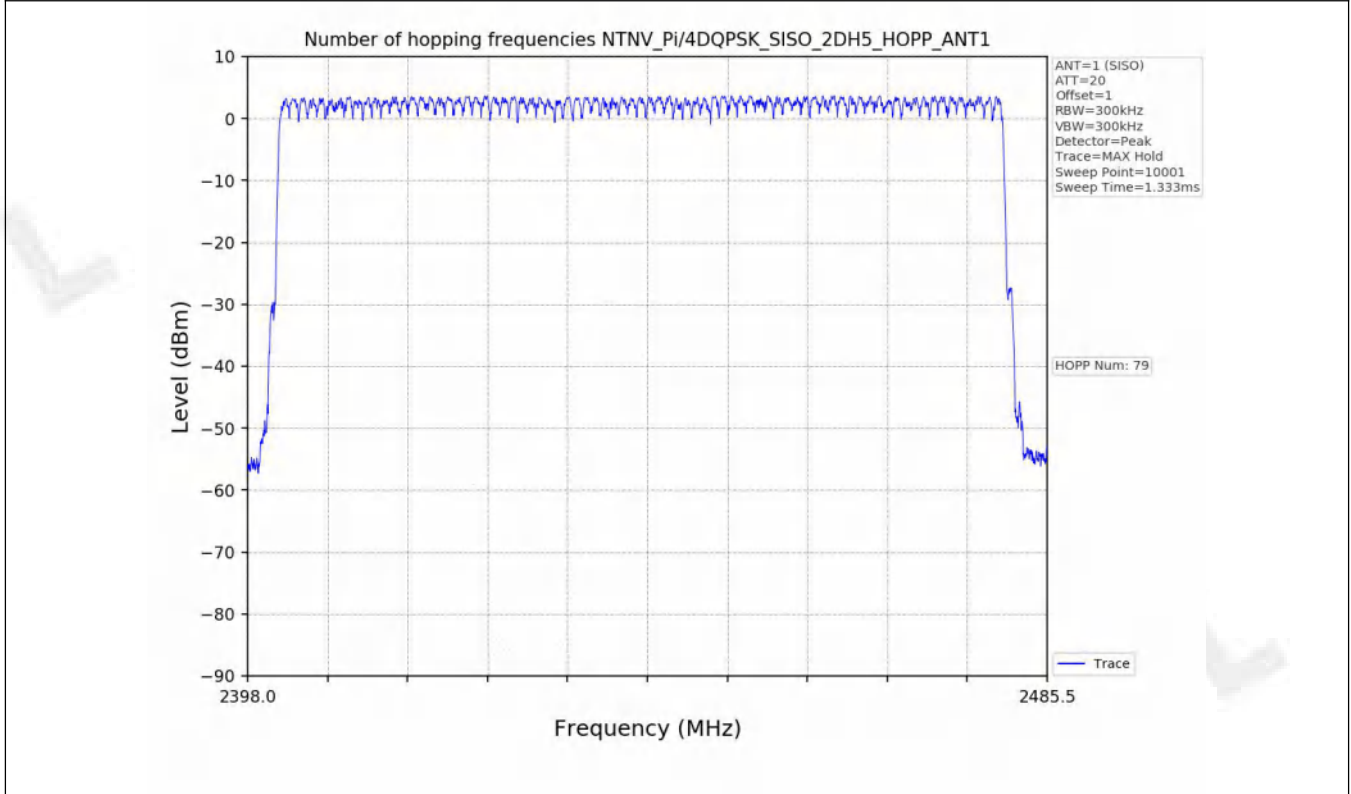
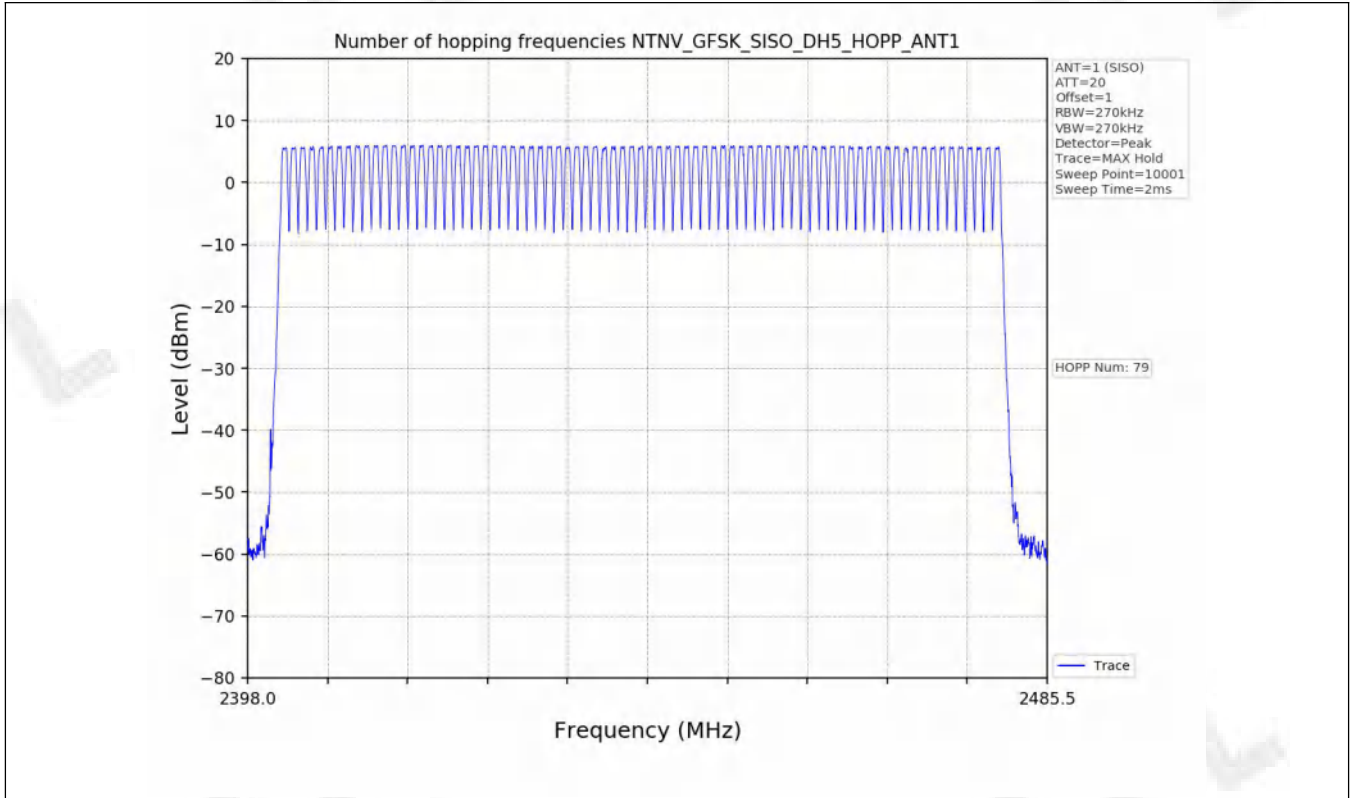


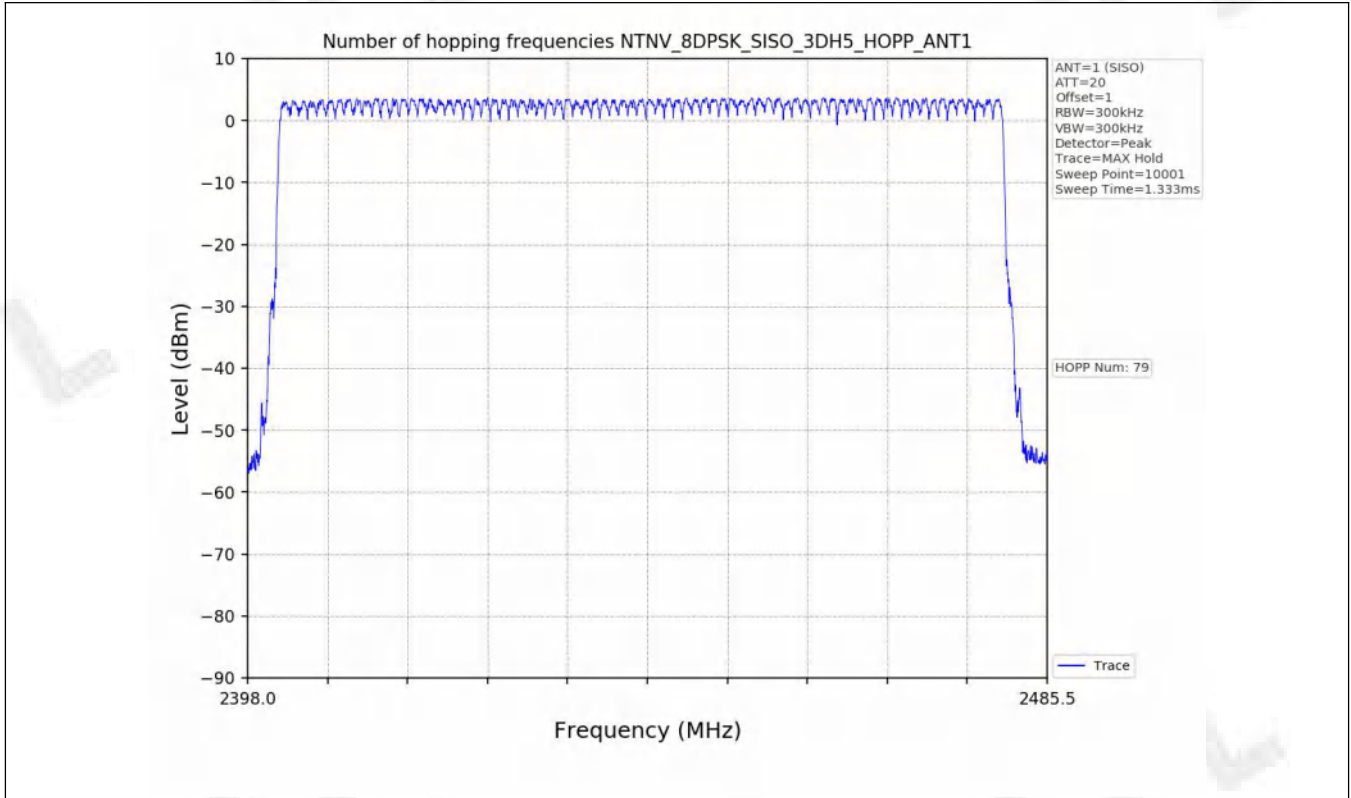
4. Number of hopping frequencies

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



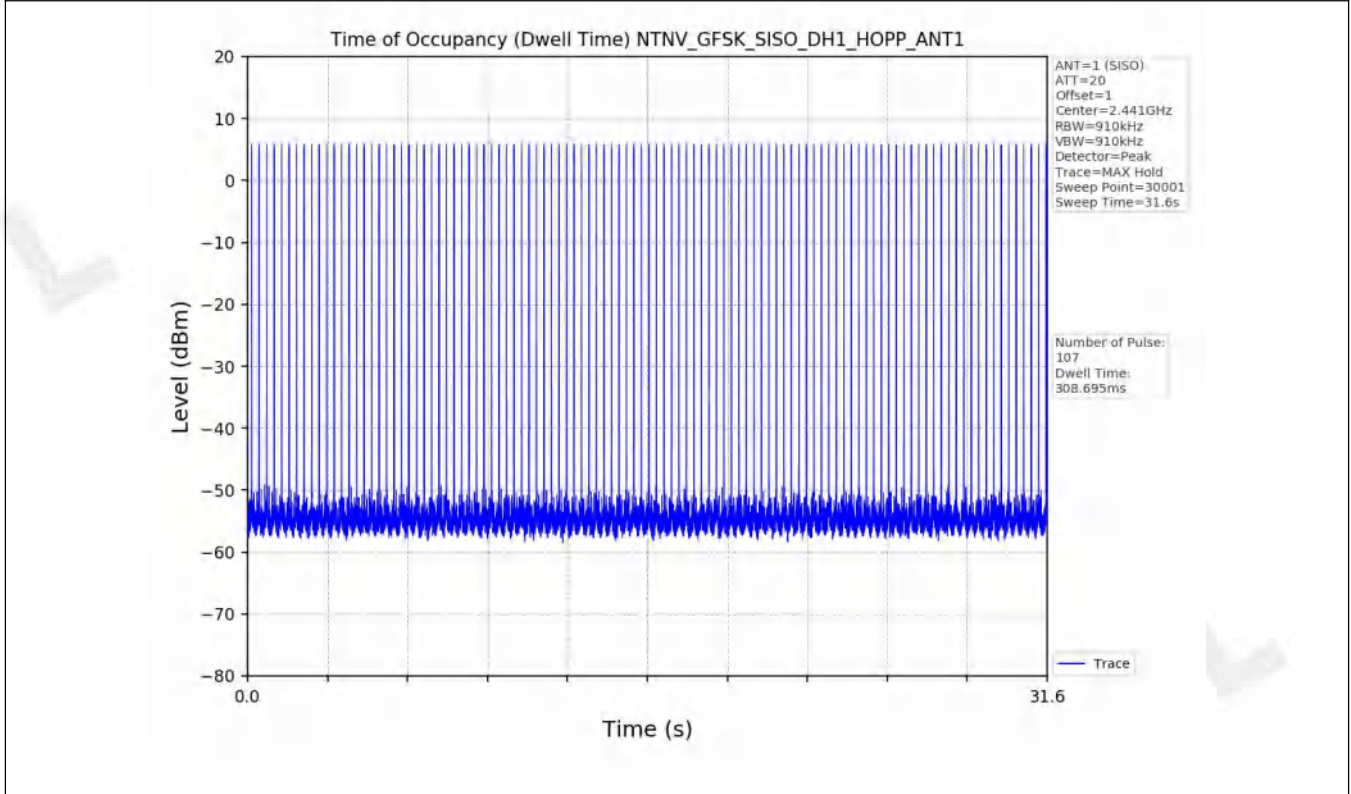
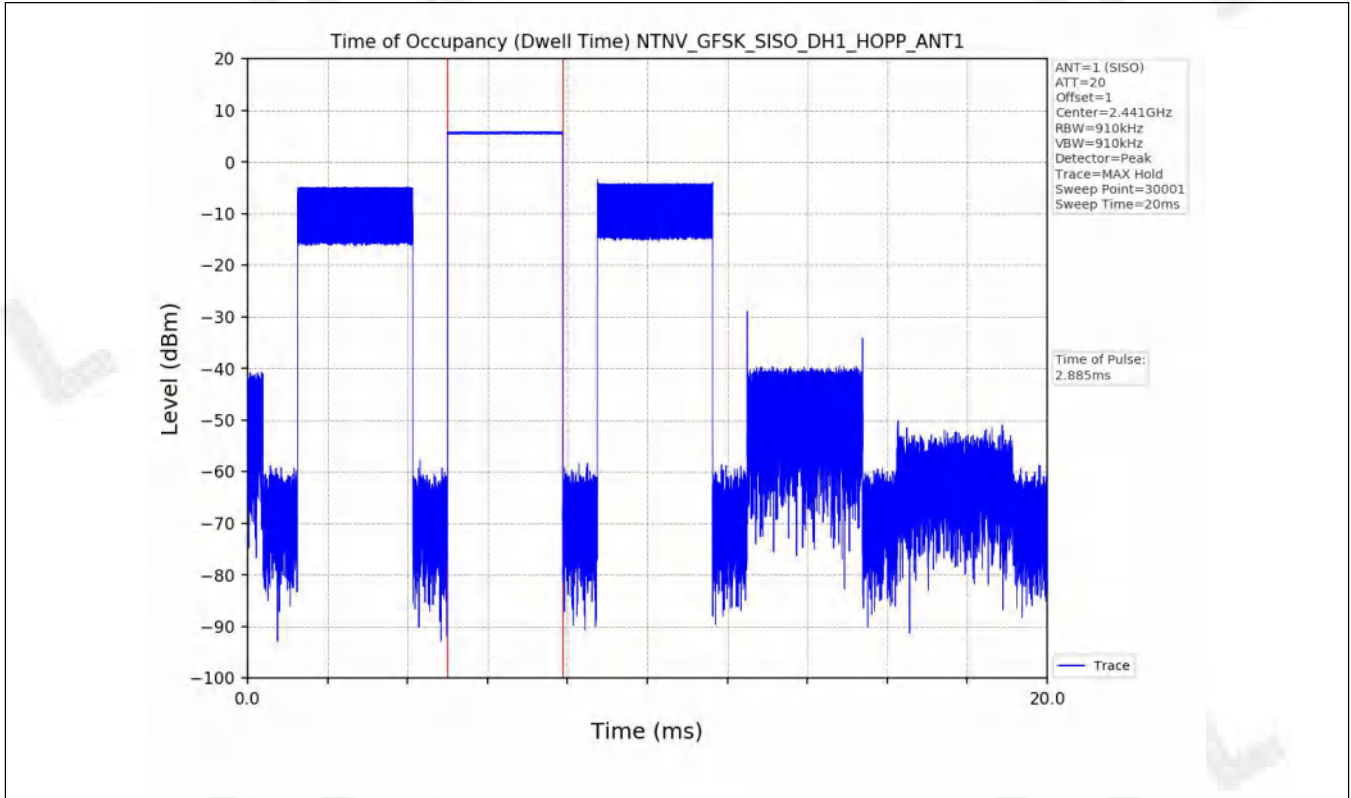


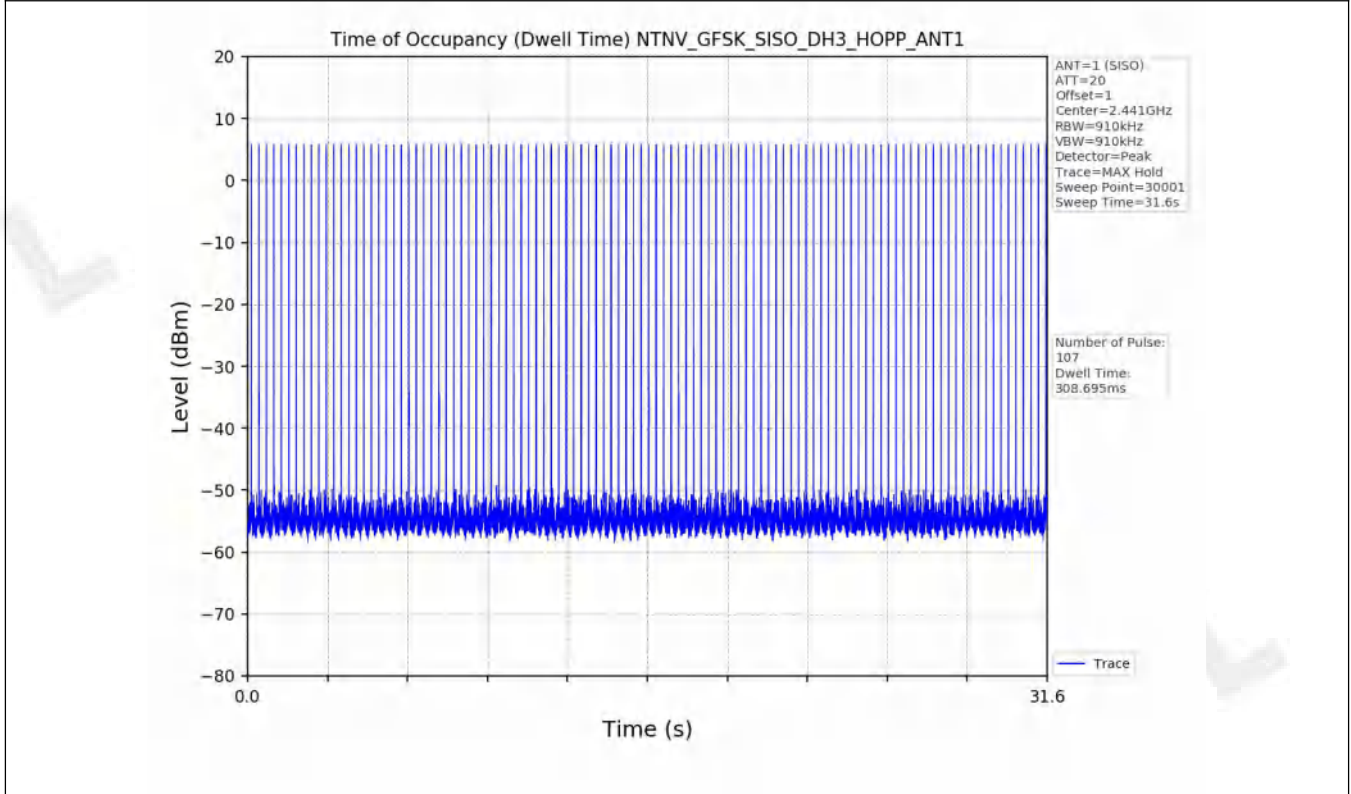
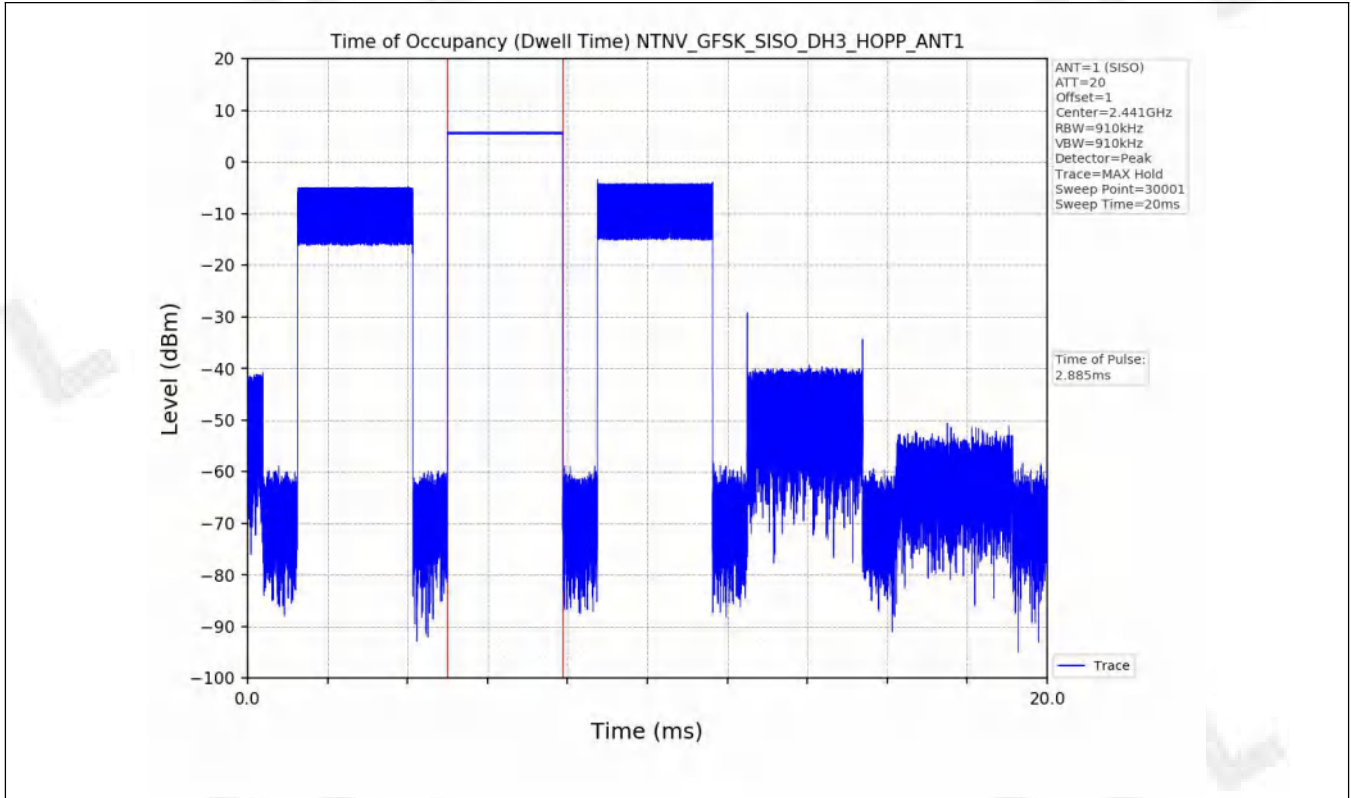
5. Time of Occupancy (Dwell Time)

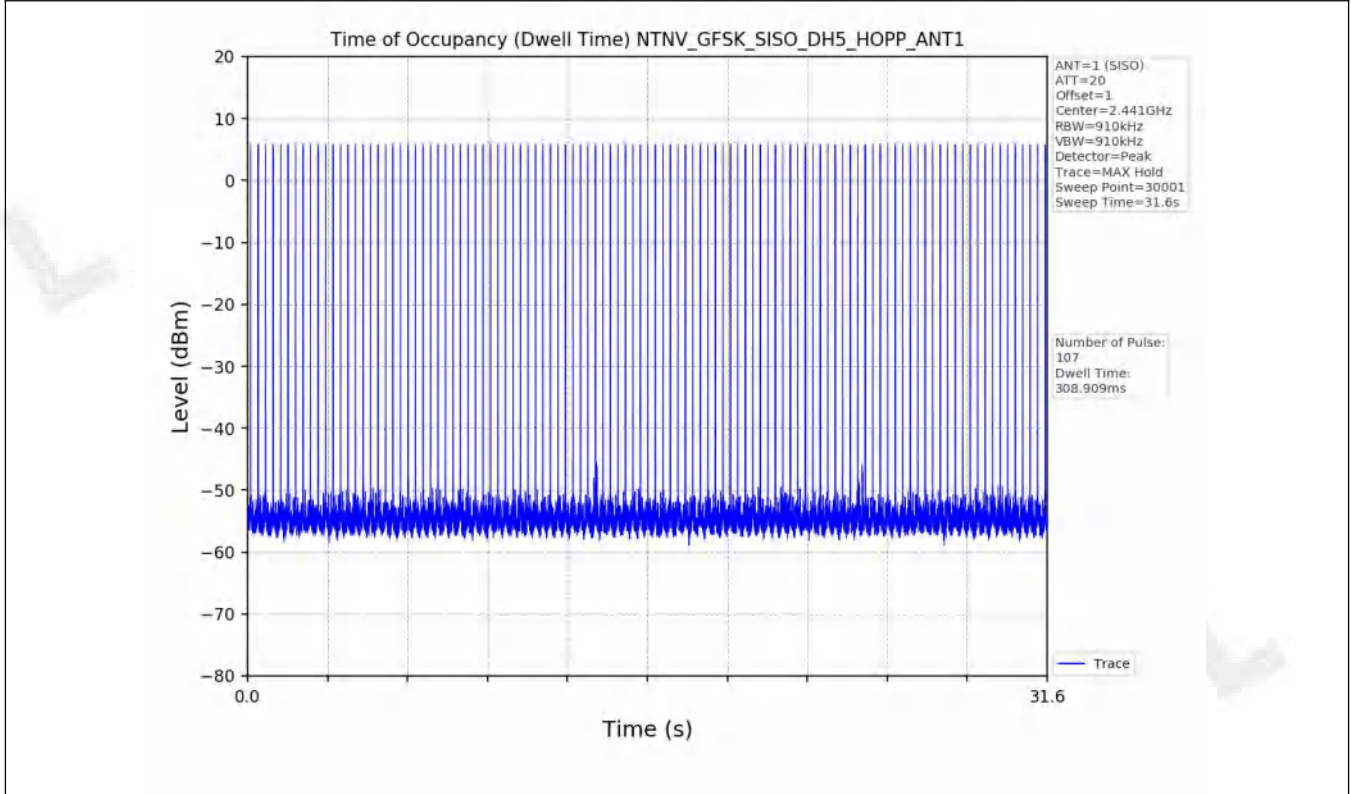
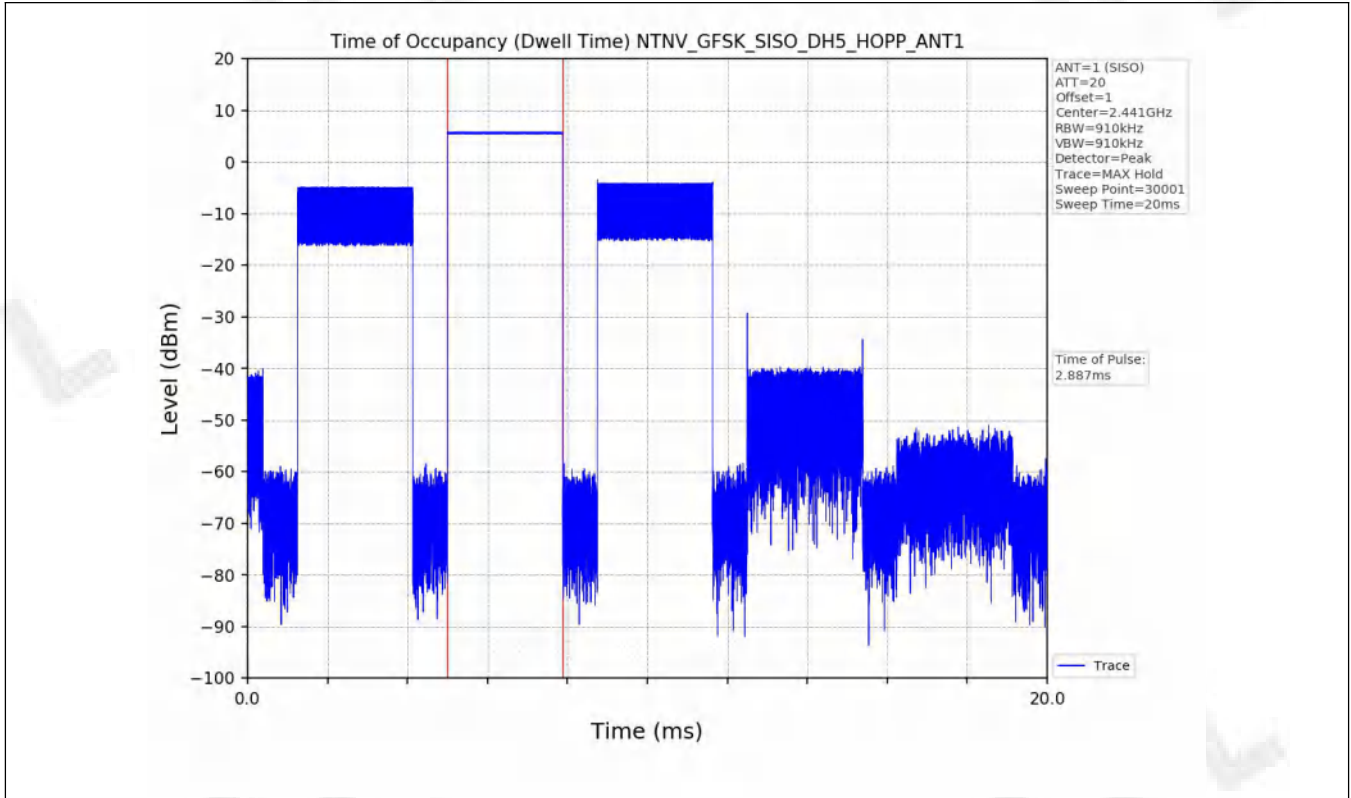
5.1 Test Result

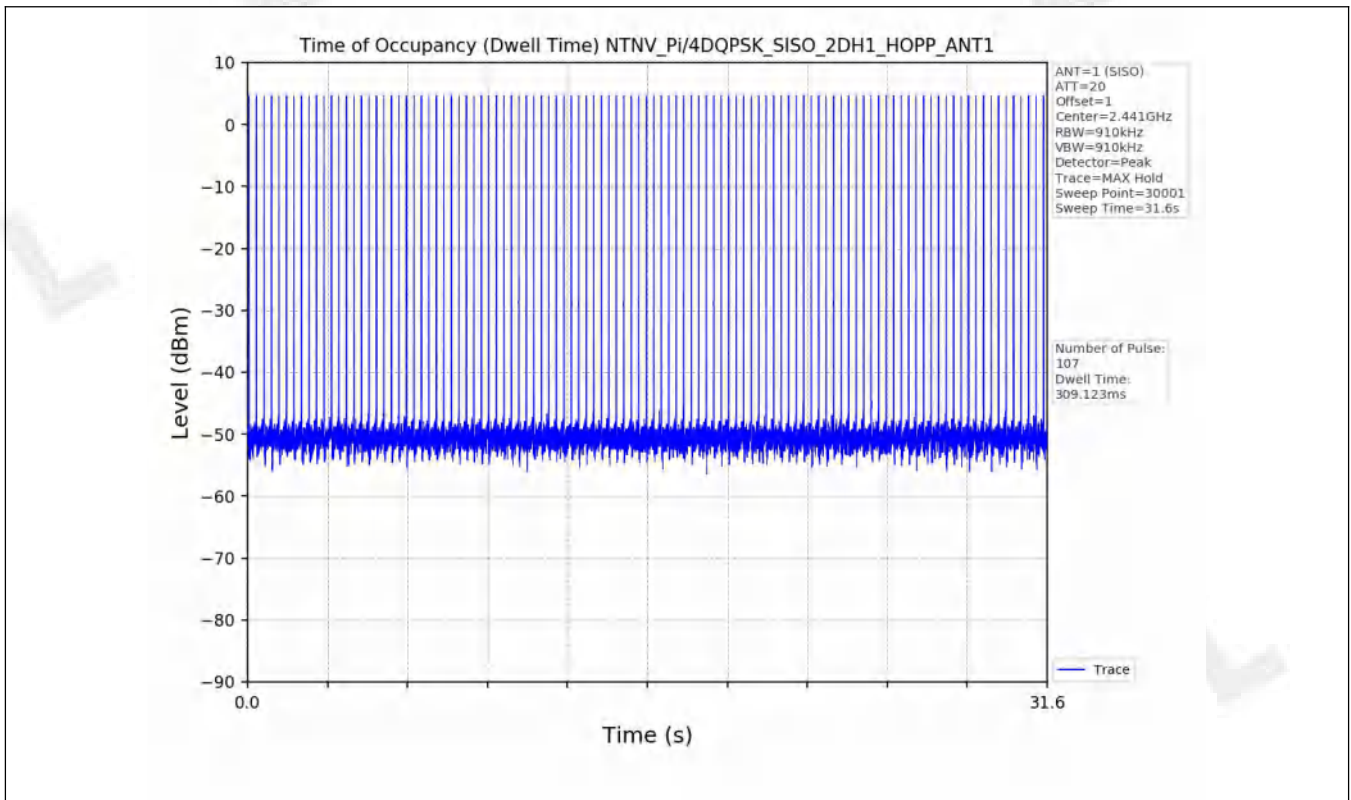
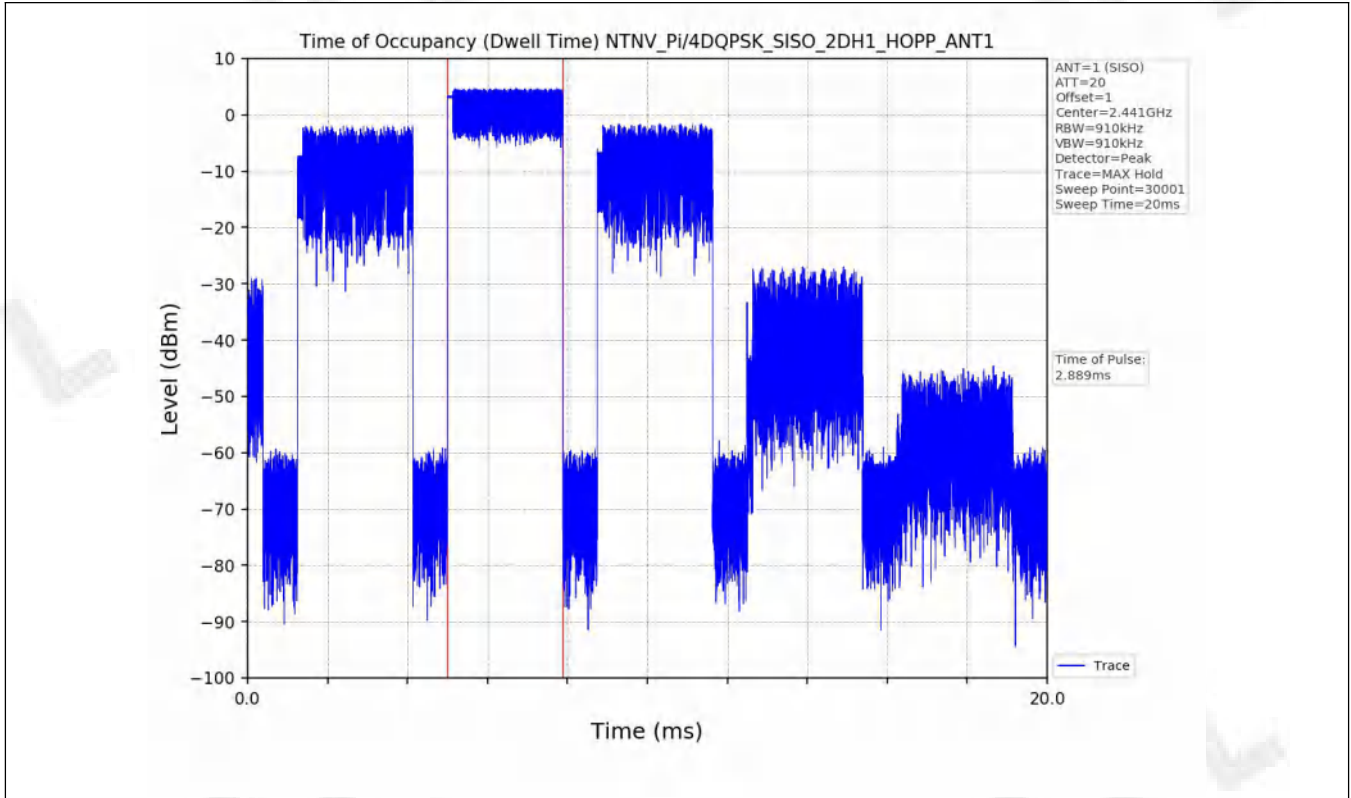
| Test Mode | Packet Type | TX Type | ANT No. | Duration of Single Pulse (ms) | Observation Period (s) | Num of Pulse in Observation Period | Dwell Time (ms) | Limits (ms) | Verdict |
|-----------|-------------|---------|---------|-------------------------------|------------------------|------------------------------------|-----------------|-------------|---------|
| GFSK | DH1 | SISO | 1 | 2.885 | 31.6 | 107 | 308.695 | ≤400 | PASS |
| | DH3 | SISO | 1 | 2.885 | 31.6 | 107 | 308.695 | ≤400 | PASS |
| | DH5 | SISO | 1 | 2.887 | 31.6 | 107 | 308.909 | ≤400 | PASS |
| Pi/4DQPSK | 2DH1 | SISO | 1 | 2.889 | 31.6 | 107 | 309.123 | ≤400 | PASS |
| | 2DH3 | SISO | 1 | 2.889 | 31.6 | 107 | 309.123 | ≤400 | PASS |
| | 2DH5 | SISO | 1 | 2.889 | 31.6 | 106 | 306.234 | ≤400 | PASS |
| 8DPSK | 3DH1 | SISO | 1 | 2.891 | 31.6 | 107 | 309.337 | ≤400 | PASS |
| | 3DH3 | SISO | 1 | 2.891 | 31.6 | 107 | 309.337 | ≤400 | PASS |
| | 3DH5 | SISO | 1 | 2.891 | 31.6 | 106 | 306.446 | ≤400 | PASS |

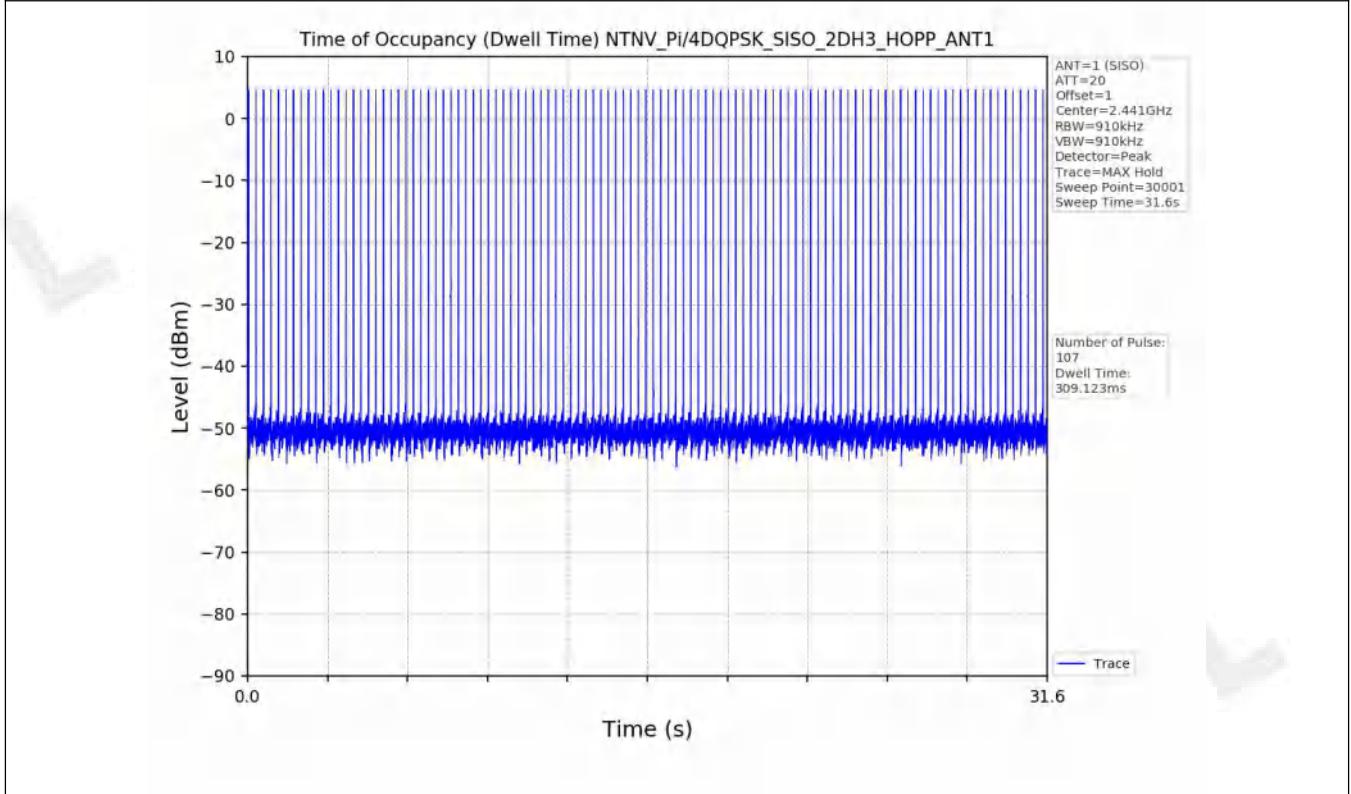
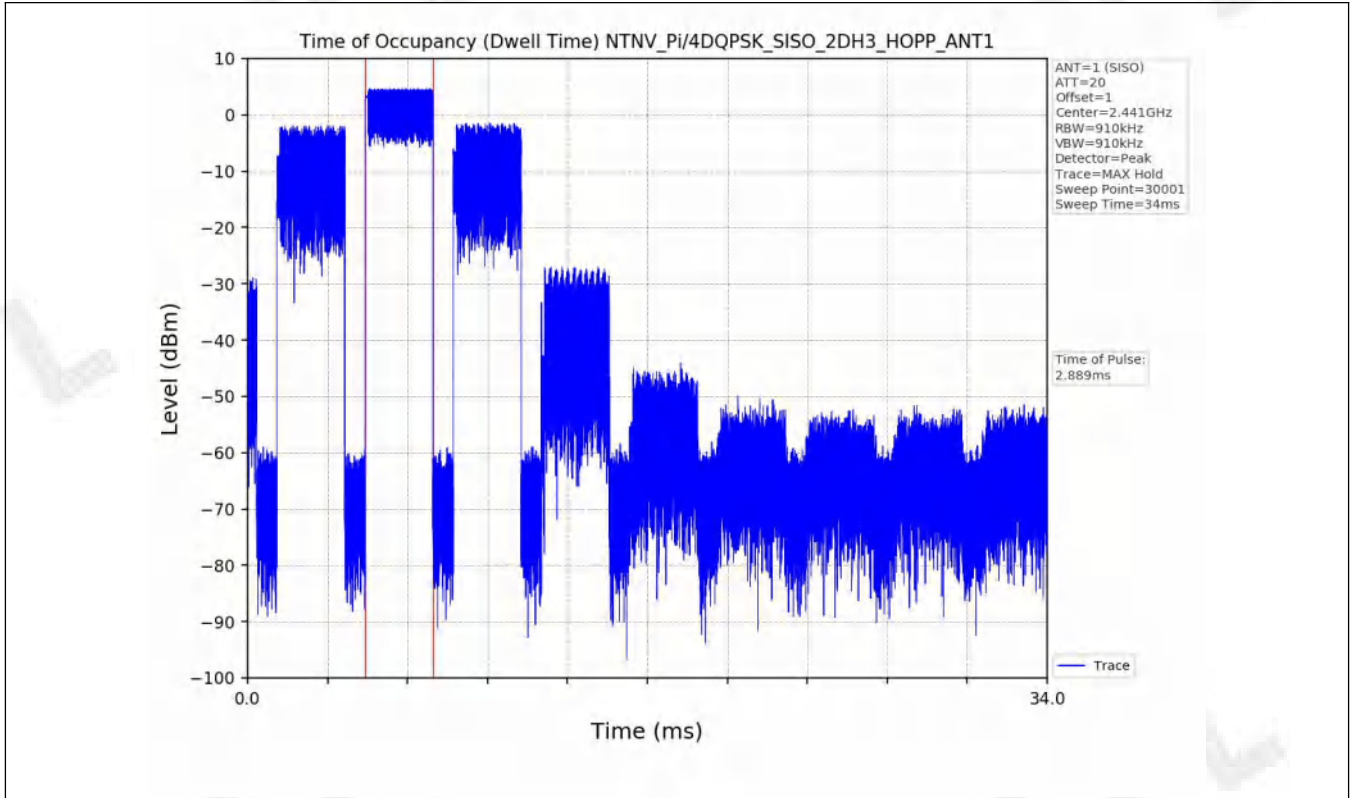
5.2 Test Graph

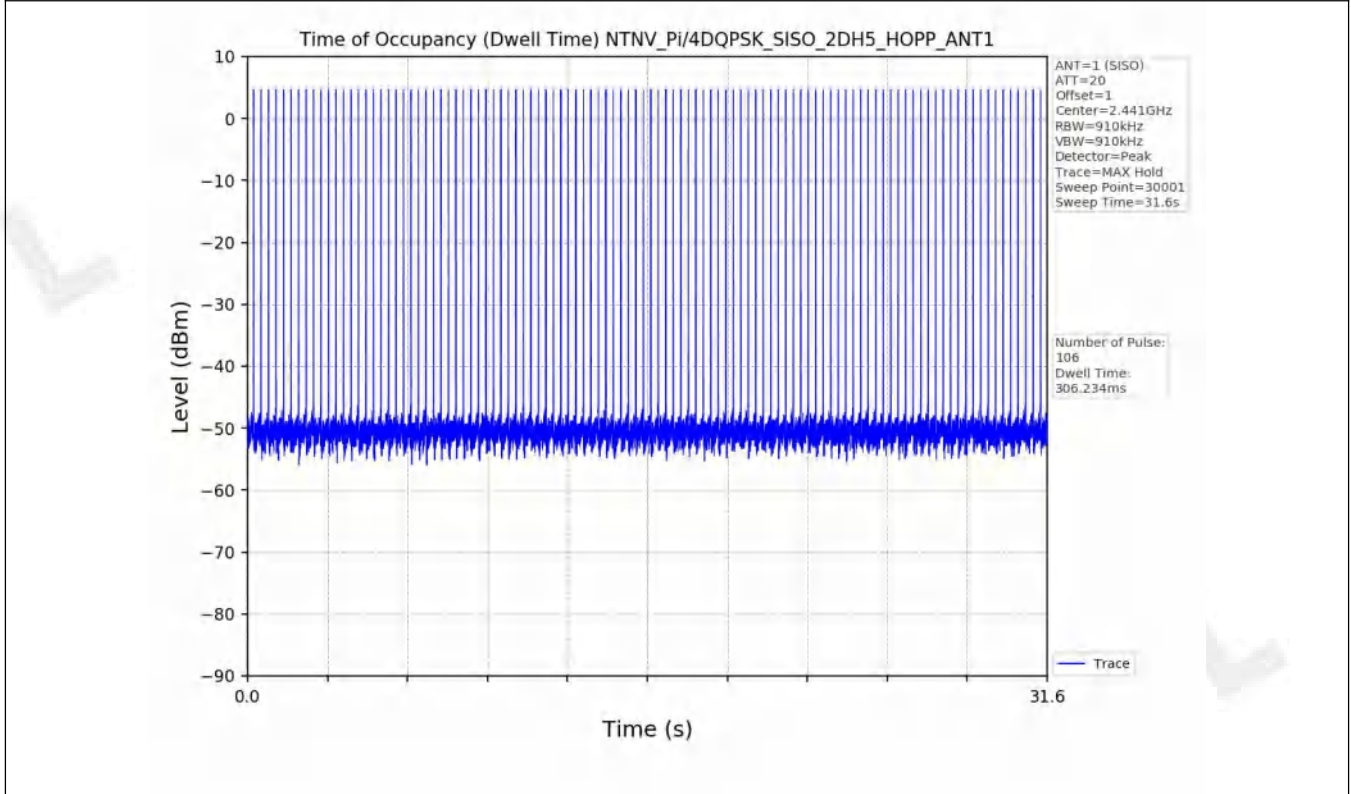
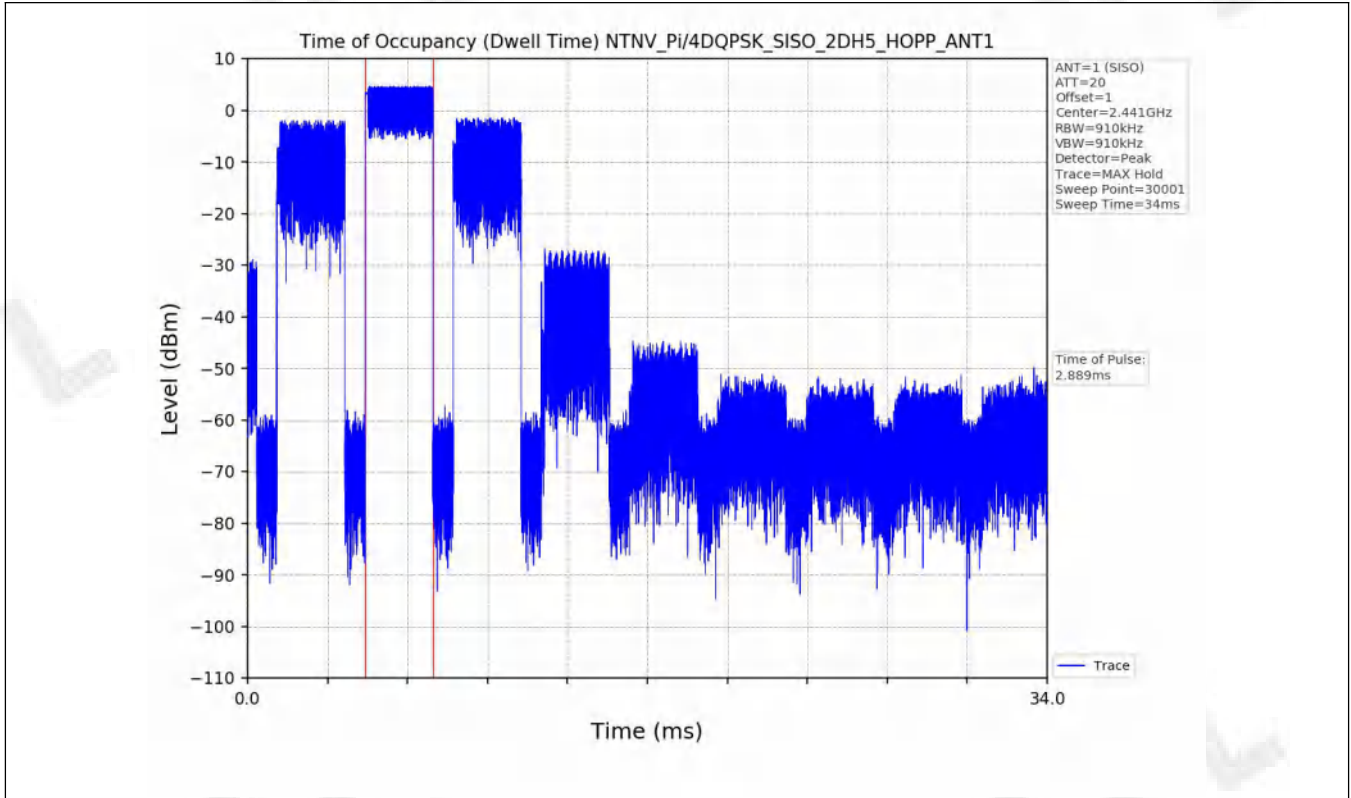


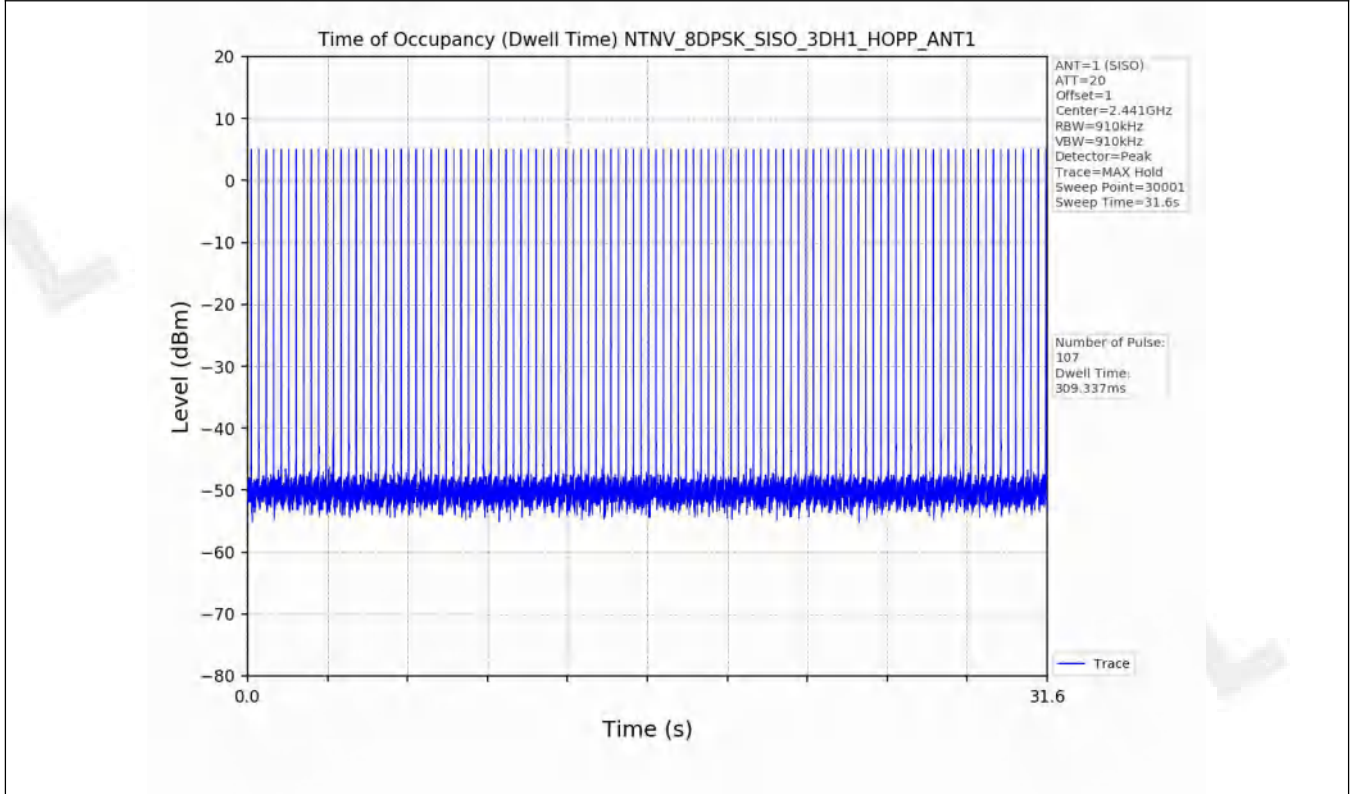
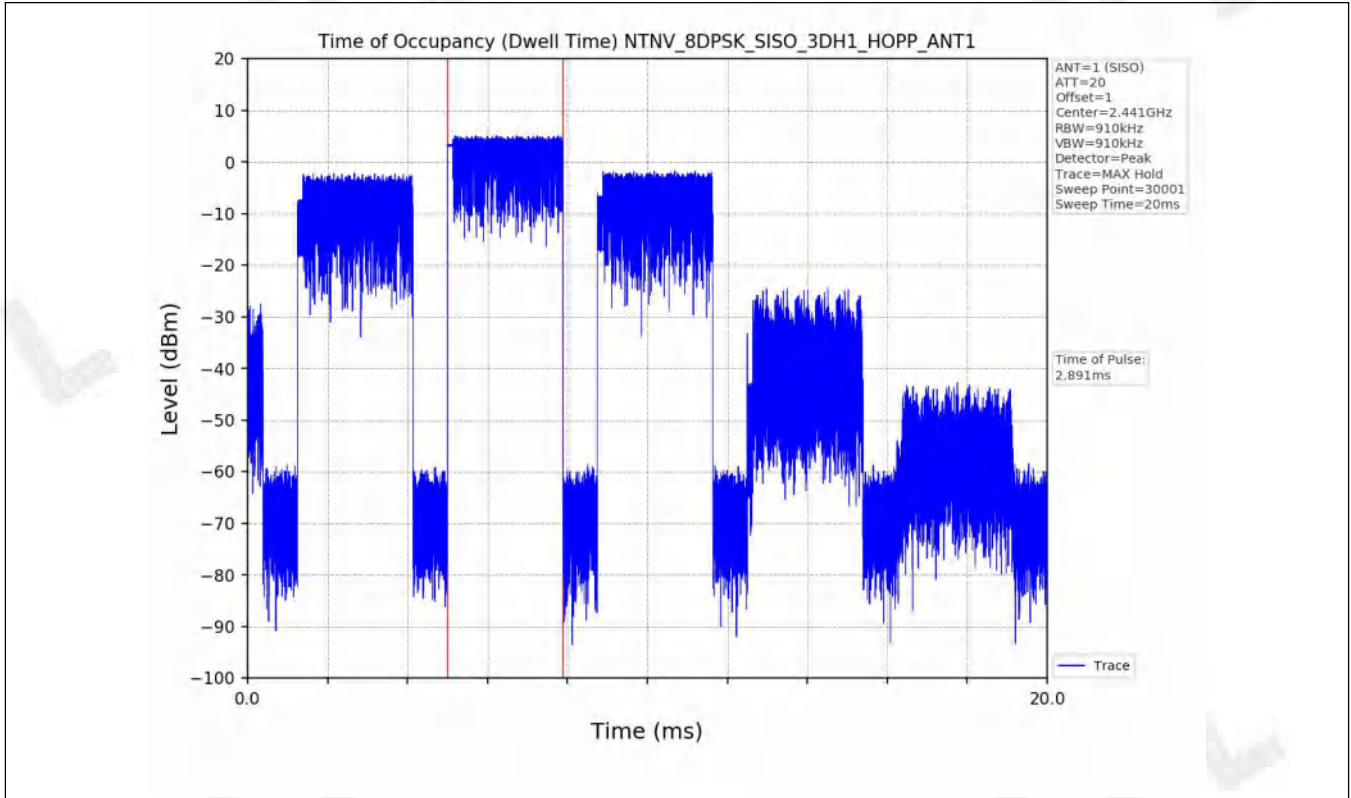


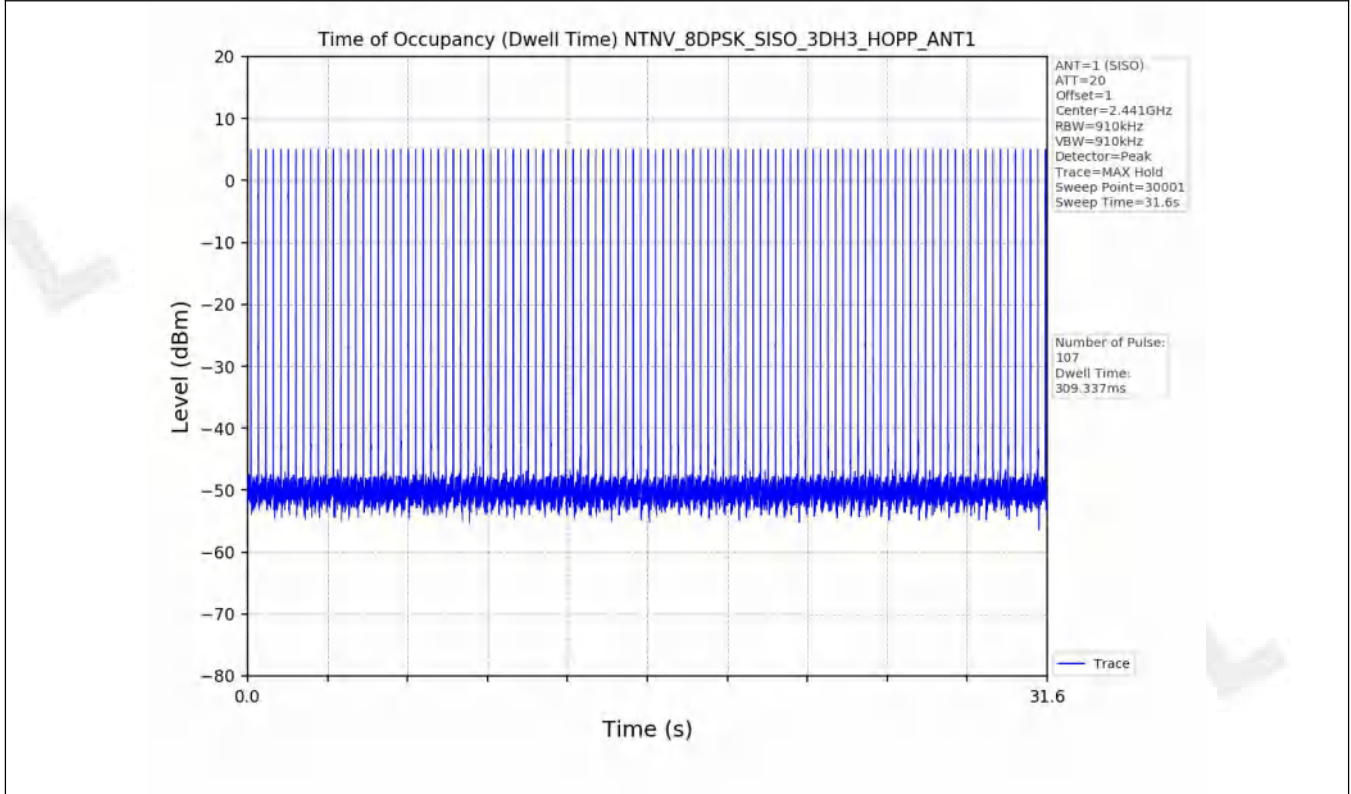
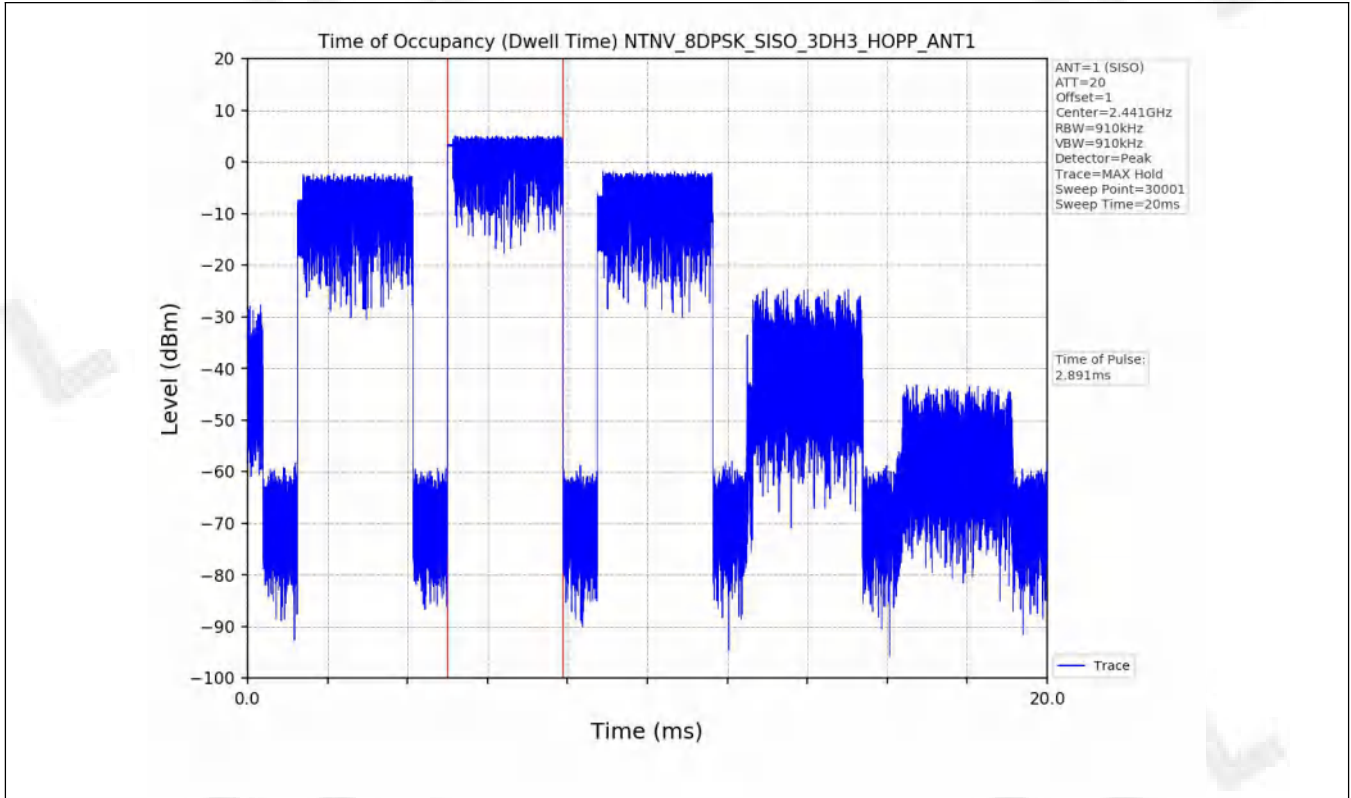


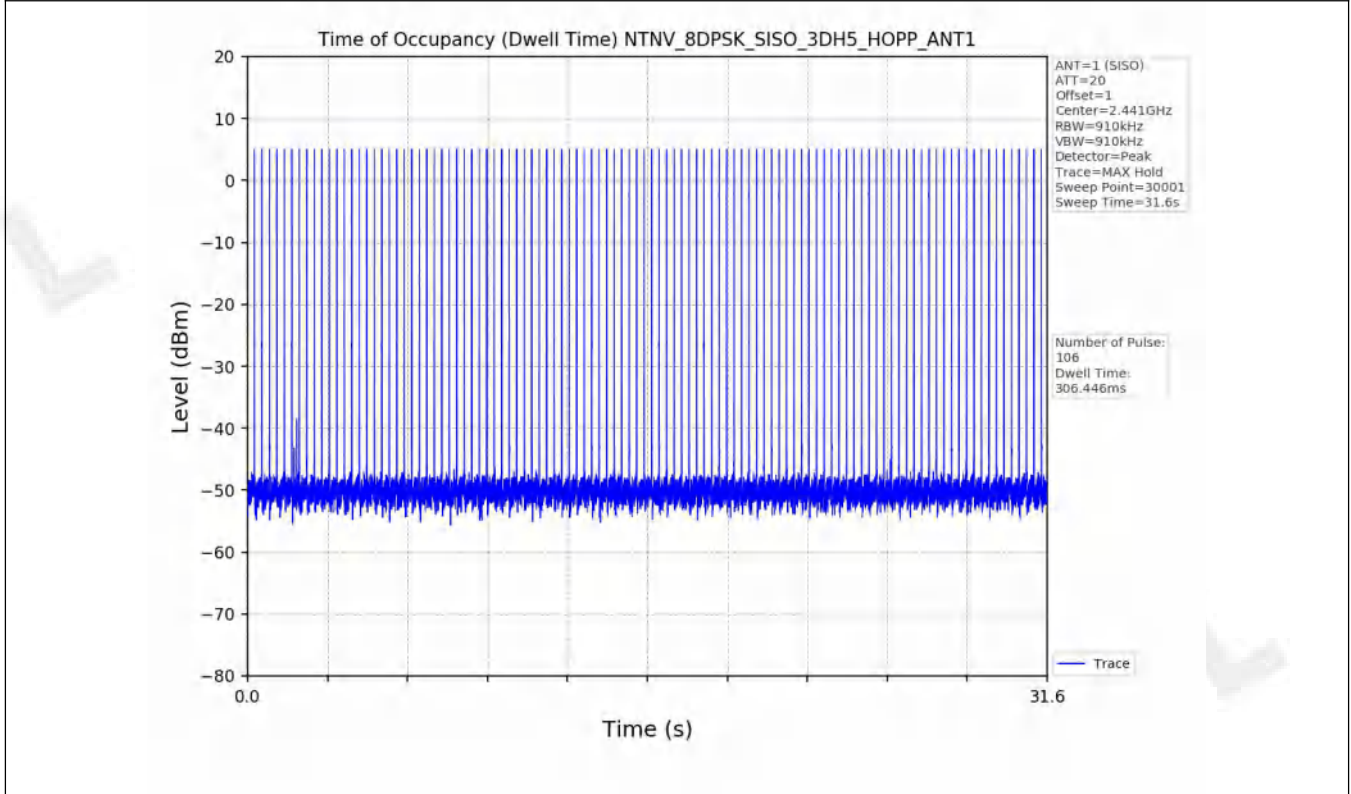
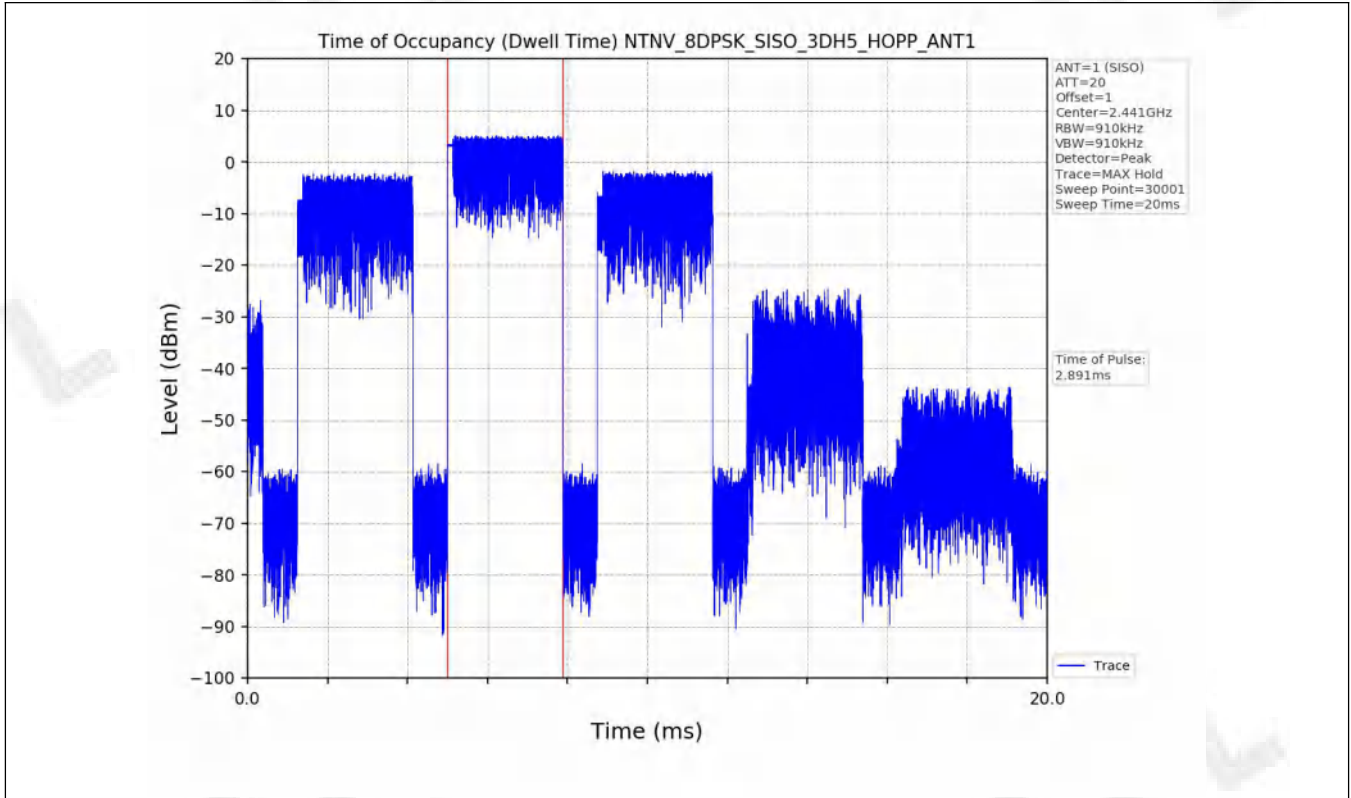












6. Unwanted Emissions in Non-restricted Frequency Bands

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 | -13.41 | PASS |
| | 2441 | SISO | 1 | Refer to test graph | -13.41 | PASS |
| | 2480 | SISO | 1 | Refer to test graph | -13.41 | PASS |
| | Hopping | SISO | 1 | Refer to test graph | -13.41 | PASS |
| Pi/4DQPSK | 2402 | SISO | 1 | Refer to test graph | -16.57 | PASS |
| | 2441 | SISO | 1 | Refer to test graph | -16.57 | PASS |
| | 2480 | SISO | 1 | Refer to test graph | -16.57 | PASS |
| | Hopping | SISO | 1 | Refer to test graph | -16.57 | PASS |
| 8DPSK | 2402 | SISO | 1 | Refer to test graph | -16.56 | PASS |
| | 2441 | SISO | 1 | Refer to test graph | -16.56 | PASS |
| | 2480 | SISO | 1 | Refer to test graph | -16.56 | PASS |
| | Hopping | SISO | 1 | Refer to test graph | -16.56 | PASS |

6.2 Test Graph

