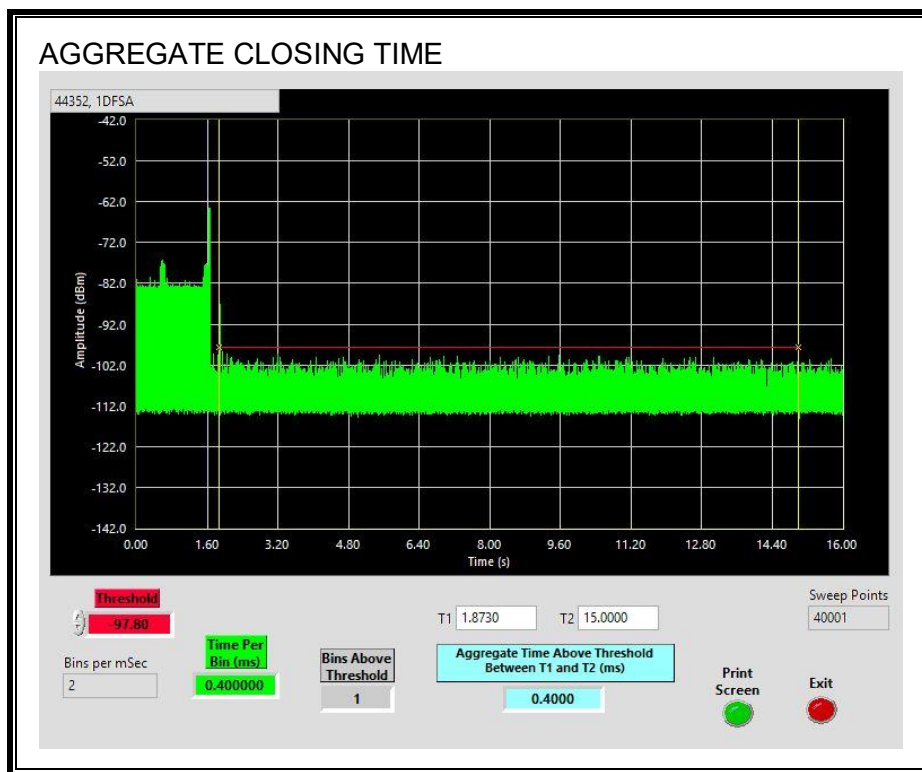






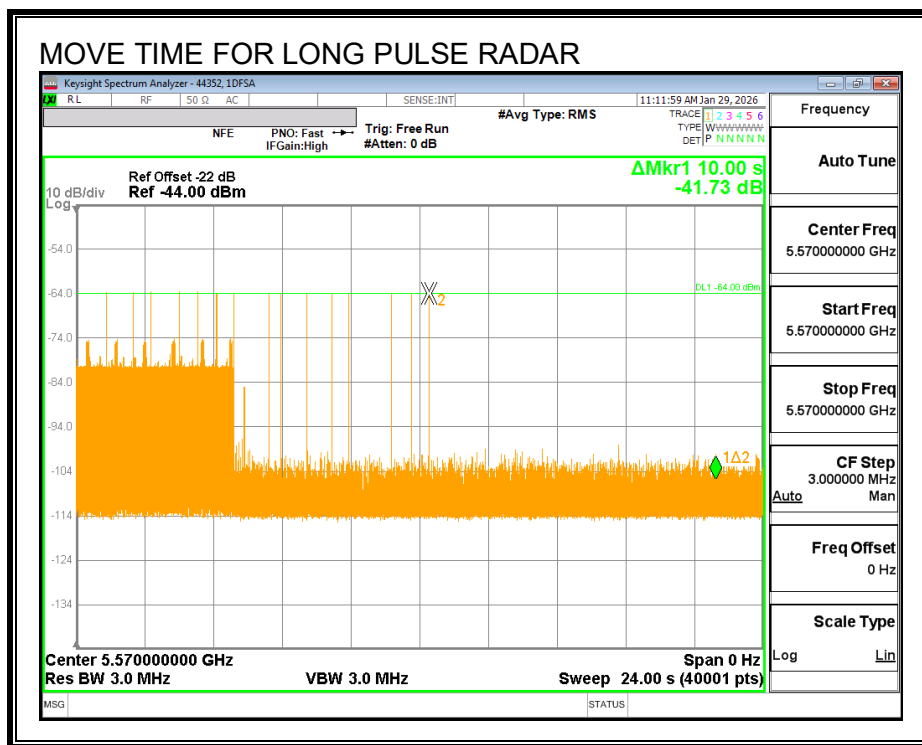
## AGGREGATE CHANNEL CLOSING TRANSMISSION TIME

Only intermittent transmissions are observed during the aggregate monitoring period.



## LONG PULSE CHANNEL MOVE TIME

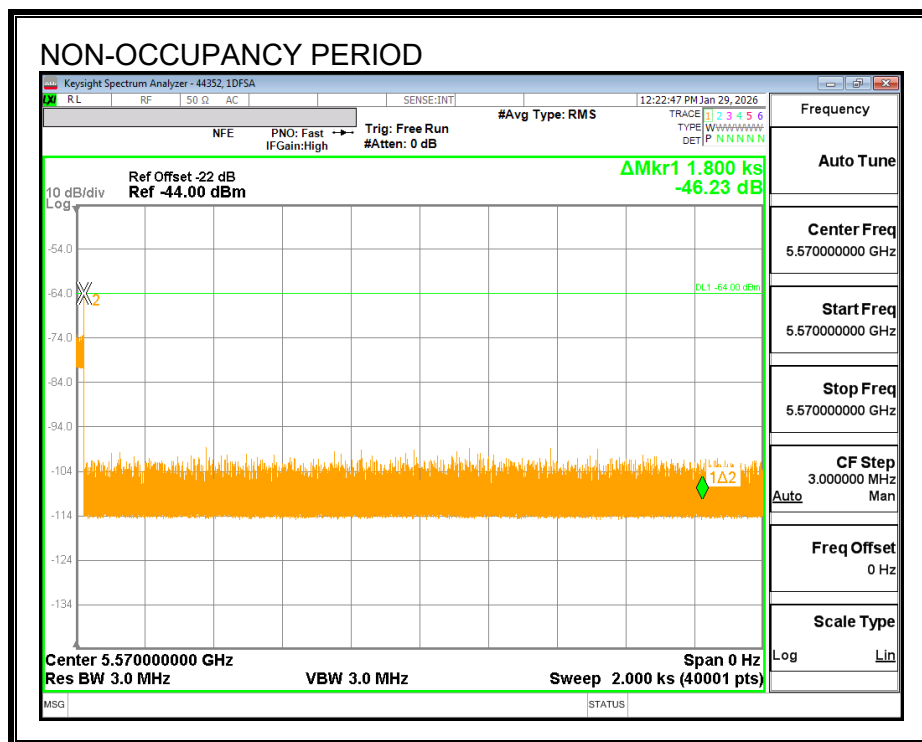
The traffic ceases prior to 10 seconds after the end of the radar waveform.



## 5.5.6. NON-OCCUPANCY PERIOD

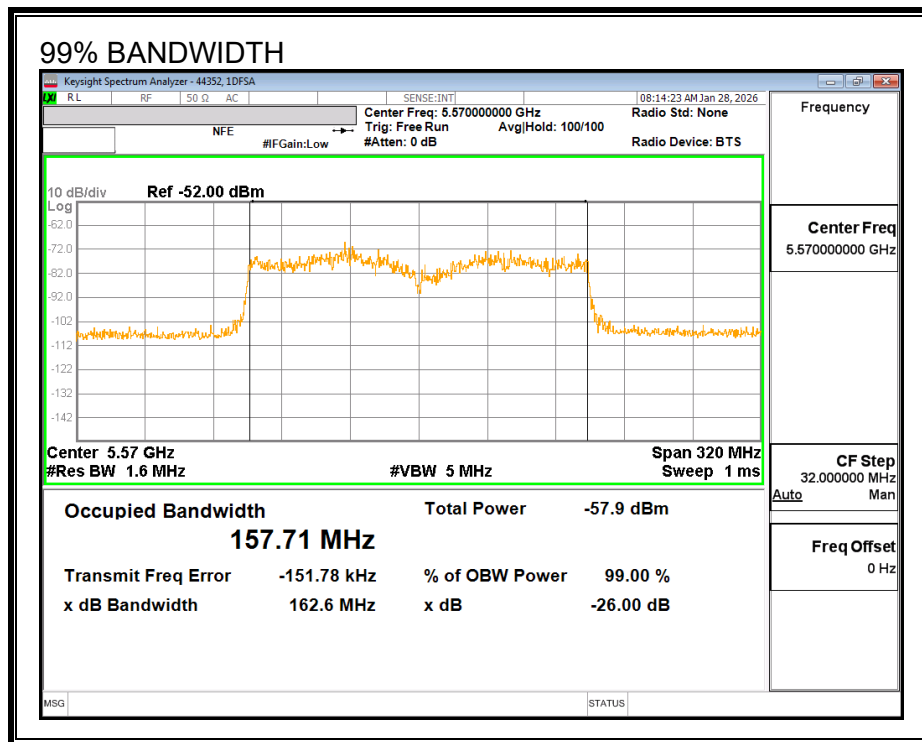
### RESULTS

No EUT transmissions were observed on the test channel during the 30-minute observation time.



## 5.5.7. DETECTION BANDWIDTH

### REFERENCE PLOT OF 99% POWER BANDWIDTH



### RESULTS

| $F_L$<br>(MHz) | $F_H$<br>(MHz) | Detection<br>Bandwidth<br>(MHz) | Applicable<br>99% Power<br>Bandwidth<br>(MHz) | Ratio of<br>Detection BW to<br>99% Power BW<br>(%) | Minimum<br>Limit<br>(%) |
|----------------|----------------|---------------------------------|-----------------------------------------------|----------------------------------------------------|-------------------------|
| 5490           | 5650           | 160                             | 157.71                                        | 101.5                                              | 100                     |

# DETECTION BANDWIDTH PROBABILITY

| DETECTION BANDWIDTH PROBABILITY RESULTS                                 |                  |                 |               |      |
|-------------------------------------------------------------------------|------------------|-----------------|---------------|------|
| Detection Bandwidth Test Results                                        |                  |                 |               |      |
| FCC Type 0 Waveform: 1 us Pulse Width, 1428 us PRI, 18 Pulses per Burst |                  |                 |               |      |
| Frequency (MHz)                                                         | Number of Trials | Number Detected | Detection (%) | Mark |
| 5489                                                                    | 2                | 0               | 0             | FL   |
| 5490                                                                    | 10               | 10              | 100           |      |
| 5495                                                                    | 10               | 10              | 100           |      |
| 5500                                                                    | 10               | 10              | 100           |      |
| 5505                                                                    | 10               | 10              | 100           |      |
| 5510                                                                    | 10               | 10              | 100           |      |
| 5515                                                                    | 10               | 10              | 100           |      |
| 5520                                                                    | 10               | 10              | 100           |      |
| 5525                                                                    | 10               | 10              | 100           |      |
| 5530                                                                    | 10               | 10              | 100           |      |
| 5535                                                                    | 10               | 10              | 100           |      |
| 5540                                                                    | 10               | 10              | 100           |      |
| 5545                                                                    | 10               | 10              | 100           |      |
| 5550                                                                    | 10               | 10              | 100           |      |
| 5555                                                                    | 10               | 10              | 100           |      |
| 5560                                                                    | 10               | 10              | 100           |      |
| 5565                                                                    | 10               | 10              | 100           |      |
| 5570                                                                    | 10               | 10              | 100           |      |
| 5575                                                                    | 10               | 10              | 100           |      |
| 5580                                                                    | 10               | 10              | 100           |      |
| 5585                                                                    | 10               | 10              | 100           |      |
| 5590                                                                    | 10               | 10              | 100           |      |
| 5595                                                                    | 10               | 10              | 100           |      |
| 5600                                                                    | 10               | 10              | 100           |      |
| 5605                                                                    | 10               | 10              | 100           |      |
| 5610                                                                    | 10               | 10              | 100           |      |
| 5615                                                                    | 10               | 10              | 100           |      |
| 5620                                                                    | 10               | 10              | 100           |      |
| 5625                                                                    | 10               | 10              | 100           |      |
| 5630                                                                    | 10               | 10              | 100           |      |
| 5635                                                                    | 10               | 10              | 100           |      |
| 5640                                                                    | 10               | 10              | 100           |      |
| 5645                                                                    | 10               | 10              | 100           |      |
| 5650                                                                    | 10               | 10              | 100           | FH   |
| 5651                                                                    | 3                | 0               | 0             |      |

## 5.5.8. IN-SERVICE MONITORING

### RESULTS

| FCC Radar Test Summary |                  |               |           |           |                     |      |        |               |                 |                               |
|------------------------|------------------|---------------|-----------|-----------|---------------------|------|--------|---------------|-----------------|-------------------------------|
| Signal Type            | Number of Trials | Detection (%) | Limit (%) | Pass/Fail | Detection Bandwidth |      | OBW    | Test Location | Employee Number | In-Service Monitoring Version |
|                        |                  |               |           |           | FL                  | FH   |        |               |                 |                               |
| FCC Short Pulse Type 1 | 30               | 100.00        | 60        | Pass      | 5490                | 5650 | 157.71 | 1DFS1         | 44352           | v2023.11.3                    |
| FCC Short Pulse Type 2 | 30               | 100.00        | 60        | Pass      | 5490                | 5650 | 157.71 | 1DFS1         | 44352           | v2023.11.3                    |
| FCC Short Pulse Type 3 | 30               | 86.67         | 60        | Pass      | 5490                | 5650 | 157.71 | 1DFS1         | 44352           | v2023.11.3                    |
| FCC Short Pulse Type 4 | 30               | 90.00         | 60        | Pass      | 5490                | 5650 | 157.71 | 1DFS1         | 44352           | v2023.11.3                    |
| Aggregate              |                  | 94.17         | 80        | Pass      |                     |      |        |               |                 |                               |
| FCC Long Pulse Type 5  | 30               | 90.00         | 80        | Pass      | 5490                | 5650 | 157.71 | 1DFS1         | 44352           | v2023.11.3                    |
| FCC Hopping Type 6     | 161              | 100.00        | 70        | Pass      | 5490                | 5650 |        | 1DFS1         | 44352           | v2023.11.3                    |

# TYPE 1 DETECTION PROBABILITY

| Data Sheet for FCC Short Pulse Radar Type 1 |                     |             |                     |               |                    |                                  |
|---------------------------------------------|---------------------|-------------|---------------------|---------------|--------------------|----------------------------------|
| Waveform                                    | Pulse Width<br>(us) | PRI<br>(us) | Pulses<br>Per Burst | Test<br>(A/B) | Frequency<br>(MHz) | Successful Detection<br>(Yes/No) |
| 1001                                        | 1                   | 3066        | 18                  | A             | 5534               | Yes                              |
| 1002                                        | 1                   | 938         | 57                  | A             | 5525               | Yes                              |
| 1003                                        | 1                   | 638         | 83                  | A             | 5555               | Yes                              |
| 1004                                        | 1                   | 878         | 61                  | A             | 5632               | Yes                              |
| 1005                                        | 1                   | 558         | 95                  | A             | 5531               | Yes                              |
| 1006                                        | 1                   | 738         | 72                  | A             | 5619               | Yes                              |
| 1007                                        | 1                   | 678         | 78                  | A             | 5599               | Yes                              |
| 1008                                        | 1                   | 618         | 86                  | A             | 5504               | Yes                              |
| 1009                                        | 1                   | 898         | 59                  | A             | 5535               | Yes                              |
| 1010                                        | 1                   | 538         | 99                  | A             | 5526               | Yes                              |
| 1011                                        | 1                   | 578         | 92                  | A             | 5635               | Yes                              |
| 1012                                        | 1                   | 518         | 102                 | A             | 5516               | Yes                              |
| 1013                                        | 1                   | 658         | 81                  | A             | 5578               | Yes                              |
| 1014                                        | 1                   | 758         | 70                  | A             | 5608               | Yes                              |
| 1015                                        | 1                   | 918         | 58                  | A             | 5501               | Yes                              |
| 1016                                        | 1                   | 984         | 54                  | B             | 5551               | Yes                              |
| 1017                                        | 1                   | 810         | 66                  | B             | 5619               | Yes                              |
| 1018                                        | 1                   | 1637        | 33                  | B             | 5615               | Yes                              |
| 1019                                        | 1                   | 1593        | 34                  | B             | 5628               | Yes                              |
| 1020                                        | 1                   | 1355        | 39                  | B             | 5559               | Yes                              |
| 1021                                        | 1                   | 1440        | 37                  | B             | 5536               | Yes                              |
| 1022                                        | 1                   | 1331        | 40                  | B             | 5520               | Yes                              |
| 1023                                        | 1                   | 2899        | 19                  | B             | 5554               | Yes                              |
| 1024                                        | 1                   | 1725        | 31                  | B             | 5513               | Yes                              |
| 1025                                        | 1                   | 875         | 61                  | B             | 5584               | Yes                              |
| 1026                                        | 1                   | 2379        | 23                  | B             | 5518               | Yes                              |
| 1027                                        | 1                   | 1658        | 32                  | B             | 5520               | Yes                              |
| 1028                                        | 1                   | 2096        | 26                  | B             | 5634               | Yes                              |
| 1029                                        | 1                   | 2858        | 19                  | B             | 5525               | Yes                              |
| 1030                                        | 1                   | 2073        | 26                  | B             | 5547               | Yes                              |

## TYPE 2 DETECTION PROBABILITY

| Data Sheet for FCC Short Pulse Radar Type 2 |                  |          |                  |                 |                               |
|---------------------------------------------|------------------|----------|------------------|-----------------|-------------------------------|
| Waveform                                    | Pulse Width (us) | PRI (us) | Pulses Per Burst | Frequency (MHz) | Successful Detection (Yes/No) |
| 2001                                        | 3.4              | 177      | 24               | 5521            | Yes                           |
| 2002                                        | 3.4              | 158      | 26               | 5531            | Yes                           |
| 2003                                        | 1.1              | 150      | 27               | 5493            | Yes                           |
| 2004                                        | 3.5              | 173      | 29               | 5552            | Yes                           |
| 2005                                        | 1.5              | 212      | 23               | 5528            | Yes                           |
| 2006                                        | 4.1              | 202      | 29               | 5575            | Yes                           |
| 2007                                        | 4.4              | 164      | 24               | 5551            | Yes                           |
| 2008                                        | 1.2              | 158      | 23               | 5549            | Yes                           |
| 2009                                        | 3.7              | 205      | 29               | 5590            | Yes                           |
| 2010                                        | 2.9              | 164      | 28               | 5523            | Yes                           |
| 2011                                        | 1.5              | 178      | 27               | 5582            | Yes                           |
| 2012                                        | 4.9              | 223      | 24               | 5565            | Yes                           |
| 2013                                        | 1.8              | 159      | 27               | 5619            | Yes                           |
| 2014                                        | 3.6              | 208      | 24               | 5504            | Yes                           |
| 2015                                        | 4.8              | 191      | 28               | 5586            | Yes                           |
| 2016                                        | 2.6              | 207      | 25               | 5508            | Yes                           |
| 2017                                        | 2.1              | 194      | 29               | 5647            | Yes                           |
| 2018                                        | 4.3              | 214      | 24               | 5587            | Yes                           |
| 2019                                        | 4                | 205      | 25               | 5553            | Yes                           |
| 2020                                        | 2.2              | 191      | 26               | 5559            | Yes                           |
| 2021                                        | 4.3              | 187      | 28               | 5583            | Yes                           |
| 2022                                        | 5                | 176      | 27               | 5650            | Yes                           |
| 2023                                        | 3.1              | 219      | 28               | 5638            | Yes                           |
| 2024                                        | 4                | 213      | 28               | 5535            | Yes                           |
| 2025                                        | 2.4              | 222      | 26               | 5556            | Yes                           |
| 2026                                        | 1.6              | 220      | 26               | 5519            | Yes                           |
| 2027                                        | 4.3              | 152      | 25               | 5556            | Yes                           |
| 2028                                        | 3.6              | 197      | 29               | 5642            | Yes                           |
| 2029                                        | 2.7              | 214      | 25               | 5617            | Yes                           |
| 2030                                        | 2.3              | 225      | 29               | 5532            | Yes                           |

### TYPE 3 DETECTION PROBABILITY

| Data Sheet for FCC Short Pulse Radar Type 3 |                  |          |                  |                 |                               |
|---------------------------------------------|------------------|----------|------------------|-----------------|-------------------------------|
| Waveform                                    | Pulse Width (us) | PRI (us) | Pulses Per Burst | Frequency (MHz) | Successful Detection (Yes/No) |
| 3001                                        | 8.1              | 300      | 17               | 5610            | Yes                           |
| 3002                                        | 5.4              | 347      | 16               | 5591            | Yes                           |
| 3003                                        | 9.9              | 309      | 17               | 5615            | Yes                           |
| 3004                                        | 7.5              | 369      | 17               | 5497            | Yes                           |
| 3005                                        | 7.1              | 343      | 18               | 5540            | Yes                           |
| 3006                                        | 10               | 298      | 16               | 5503            | No                            |
| 3007                                        | 7.5              | 285      | 17               | 5577            | Yes                           |
| 3008                                        | 8.3              | 253      | 16               | 5614            | Yes                           |
| 3009                                        | 6.1              | 386      | 17               | 5644            | Yes                           |
| 3010                                        | 7.2              | 367      | 17               | 5531            | Yes                           |
| 3011                                        | 5.1              | 395      | 16               | 5514            | No                            |
| 3012                                        | 9.2              | 388      | 18               | 5589            | Yes                           |
| 3013                                        | 5.1              | 429      | 17               | 5494            | No                            |
| 3014                                        | 6.7              | 317      | 17               | 5609            | Yes                           |
| 3015                                        | 5.5              | 371      | 16               | 5559            | Yes                           |
| 3016                                        | 5                | 405      | 17               | 5537            | No                            |
| 3017                                        | 6.5              | 472      | 16               | 5642            | Yes                           |
| 3018                                        | 8.9              | 268      | 18               | 5533            | Yes                           |
| 3019                                        | 8.2              | 480      | 18               | 5562            | Yes                           |
| 3020                                        | 5.9              | 289      | 16               | 5618            | Yes                           |
| 3021                                        | 5.5              | 264      | 18               | 5634            | Yes                           |
| 3022                                        | 8.4              | 470      | 17               | 5555            | Yes                           |
| 3023                                        | 5.9              | 457      | 16               | 5531            | Yes                           |
| 3024                                        | 6.7              | 425      | 18               | 5585            | Yes                           |
| 3025                                        | 9.6              | 307      | 16               | 5518            | Yes                           |
| 3026                                        | 5.5              | 420      | 17               | 5600            | Yes                           |
| 3027                                        | 8.6              | 315      | 18               | 5574            | Yes                           |
| 3028                                        | 7.6              | 442      | 17               | 5521            | Yes                           |
| 3029                                        | 8.6              | 349      | 16               | 5583            | Yes                           |
| 3030                                        | 7.8              | 489      | 18               | 5504            | Yes                           |

# TYPE 4 DETECTION PROBABILITY

| Data Sheet for FCC Short Pulse Radar Type 4 |                  |          |                  |                 |                               |
|---------------------------------------------|------------------|----------|------------------|-----------------|-------------------------------|
| Waveform                                    | Pulse Width (us) | PRI (us) | Pulses Per Burst | Frequency (MHz) | Successful Detection (Yes/No) |
| 4001                                        | 17.9             | 291      | 15               | 5636            | Yes                           |
| 4002                                        | 16.9             | 326      | 13               | 5603            | Yes                           |
| 4003                                        | 15.1             | 392      | 16               | 5617            | Yes                           |
| 4004                                        | 14.6             | 440      | 16               | 5624            | Yes                           |
| 4005                                        | 13.3             | 401      | 14               | 5549            | Yes                           |
| 4006                                        | 18.6             | 461      | 15               | 5650            | Yes                           |
| 4007                                        | 17.9             | 435      | 13               | 5580            | Yes                           |
| 4008                                        | 19               | 390      | 12               | 5610            | Yes                           |
| 4009                                        | 18.7             | 377      | 16               | 5546            | Yes                           |
| 4010                                        | 10.3             | 345      | 15               | 5616            | Yes                           |
| 4011                                        | 15.9             | 478      | 14               | 5562            | Yes                           |
| 4012                                        | 18               | 341      | 13               | 5598            | Yes                           |
| 4013                                        | 19.4             | 487      | 15               | 5637            | Yes                           |
| 4014                                        | 12               | 363      | 12               | 5603            | Yes                           |
| 4015                                        | 13.9             | 270      | 16               | 5608            | Yes                           |
| 4016                                        | 12.3             | 409      | 14               | 5615            | Yes                           |
| 4017                                        | 14.8             | 345      | 14               | 5626            | Yes                           |
| 4018                                        | 13.7             | 498      | 16               | 5549            | Yes                           |
| 4019                                        | 11.9             | 313      | 14               | 5533            | Yes                           |
| 4020                                        | 11.4             | 360      | 15               | 5559            | Yes                           |
| 4021                                        | 10.1             | 322      | 13               | 5615            | Yes                           |
| 4022                                        | 15.4             | 382      | 14               | 5507            | No                            |
| 4023                                        | 14.7             | 356      | 12               | 5615            | Yes                           |
| 4024                                        | 15.8             | 311      | 16               | 5510            | Yes                           |
| 4025                                        | 15.5             | 431      | 12               | 5639            | Yes                           |
| 4026                                        | 17.2             | 399      | 13               | 5537            | Yes                           |
| 4027                                        | 12.7             | 399      | 12               | 5596            | No                            |
| 4028                                        | 14.8             | 262      | 12               | 5569            | Yes                           |
| 4029                                        | 16.2             | 407      | 13               | 5518            | No                            |
| 4030                                        | 18.9             | 283      | 15               | 5610            | Yes                           |

# TYPE 5 DETECTION PROBABILITY

| Data Sheet for FCC Long Pulse Radar Type 5 |                 |                               |
|--------------------------------------------|-----------------|-------------------------------|
| Trial                                      | Frequency (MHz) | Successful Detection (Yes/No) |
| 1                                          | 5570            | Yes                           |
| 2                                          | 5570            | Yes                           |
| 3                                          | 5570            | Yes                           |
| 4                                          | 5570            | Yes                           |
| 5                                          | 5570            | Yes                           |
| 6                                          | 5570            | Yes                           |
| 7                                          | 5570            | Yes                           |
| 8                                          | 5570            | Yes                           |
| 9                                          | 5570            | Yes                           |
| 10                                         | 5570            | Yes                           |
| 11                                         | 5498            | No                            |
| 12                                         | 5494            | Yes                           |
| 13                                         | 5496            | Yes                           |
| 14                                         | 5499            | Yes                           |
| 15                                         | 5499            | Yes                           |
| 16                                         | 5497            | Yes                           |
| 17                                         | 5495            | Yes                           |
| 18                                         | 5494            | No                            |
| 19                                         | 5496            | No                            |
| 20                                         | 5494            | Yes                           |
| 21                                         | 5646            | Yes                           |
| 22                                         | 5645            | Yes                           |
| 23                                         | 5644            | Yes                           |
| 24                                         | 5646            | Yes                           |
| 25                                         | 5640            | Yes                           |
| 26                                         | 5644            | Yes                           |
| 27                                         | 5644            | Yes                           |
| 28                                         | 5646            | Yes                           |
| 29                                         | 5644            | Yes                           |
| 30                                         | 5646            | Yes                           |

Note: The Type 5 randomized parameters tested are located in Appendix A.

# TYPE 6 DETECTION PROBABILITY

| Data Sheet for FCC Hopping Radar Type 6                           |                                   |                                        |                             |                                     |
|-------------------------------------------------------------------|-----------------------------------|----------------------------------------|-----------------------------|-------------------------------------|
| 1 us Pulse Width, 333 us PRI, 9 Pulses per Burst, 1 Burst per Hop |                                   |                                        |                             |                                     |
| NTIA August 2005 Hopping Sequence                                 |                                   |                                        |                             |                                     |
| Trial                                                             | Starting Index<br>Within Sequence | Signal Generator<br>Frequency<br>(MHz) | Hops within<br>Detection BW | Successful<br>Detection<br>(Yes/No) |
| 1                                                                 | 745                               | 5490                                   | 31                          | Yes                                 |
| 2                                                                 | 1220                              | 5491                                   | 36                          | Yes                                 |
| 3                                                                 | 1695                              | 5492                                   | 38                          | Yes                                 |
| 4                                                                 | 2170                              | 5493                                   | 38                          | Yes                                 |
| 5                                                                 | 2645                              | 5494                                   | 32                          | Yes                                 |
| 6                                                                 | 3120                              | 5495                                   | 29                          | Yes                                 |
| 7                                                                 | 3595                              | 5496                                   | 33                          | Yes                                 |
| 8                                                                 | 4070                              | 5497                                   | 33                          | Yes                                 |
| 9                                                                 | 4545                              | 5498                                   | 31                          | Yes                                 |
| 10                                                                | 5020                              | 5499                                   | 27                          | Yes                                 |
| 11                                                                | 5495                              | 5500                                   | 34                          | Yes                                 |
| 12                                                                | 5970                              | 5501                                   | 37                          | Yes                                 |
| 13                                                                | 6445                              | 5502                                   | 35                          | Yes                                 |
| 14                                                                | 6920                              | 5503                                   | 31                          | Yes                                 |
| 15                                                                | 7395                              | 5504                                   | 38                          | Yes                                 |
| 16                                                                | 7870                              | 5505                                   | 40                          | Yes                                 |
| 17                                                                | 8345                              | 5506                                   | 35                          | Yes                                 |
| 18                                                                | 8820                              | 5507                                   | 32                          | Yes                                 |
| 19                                                                | 9295                              | 5508                                   | 28                          | Yes                                 |
| 20                                                                | 9770                              | 5509                                   | 32                          | Yes                                 |
| 21                                                                | 10245                             | 5510                                   | 36                          | Yes                                 |
| 22                                                                | 10720                             | 5511                                   | 31                          | Yes                                 |
| 23                                                                | 11195                             | 5512                                   | 33                          | Yes                                 |
| 24                                                                | 11670                             | 5513                                   | 35                          | Yes                                 |
| 25                                                                | 12145                             | 5514                                   | 27                          | Yes                                 |
| 26                                                                | 12620                             | 5515                                   | 37                          | Yes                                 |
| 27                                                                | 13095                             | 5516                                   | 35                          | Yes                                 |
| 28                                                                | 13570                             | 5517                                   | 32                          | Yes                                 |
| 29                                                                | 14045                             | 5518                                   | 29                          | Yes                                 |
| 30                                                                | 14520                             | 5519                                   | 41                          | Yes                                 |
| 31                                                                | 14995                             | 5520                                   | 33                          | Yes                                 |
| 32                                                                | 15470                             | 5521                                   | 40                          | Yes                                 |
| 33                                                                | 15945                             | 5522                                   | 28                          | Yes                                 |
| 34                                                                | 16420                             | 5523                                   | 32                          | Yes                                 |
| 35                                                                | 16895                             | 5524                                   | 37                          | Yes                                 |
| 36                                                                | 17370                             | 5525                                   | 34                          | Yes                                 |
| 37                                                                | 17845                             | 5526                                   | 31                          | Yes                                 |
| 38                                                                | 18320                             | 5527                                   | 29                          | Yes                                 |

**TYPE 6 DETECTION PROBABILITY (CONTINUED)**

|    |       |      |    |     |
|----|-------|------|----|-----|
| 39 | 18795 | 5528 | 33 | Yes |
| 40 | 19270 | 5529 | 29 | Yes |
| 41 | 19745 | 5530 | 31 | Yes |
| 42 | 20220 | 5531 | 33 | Yes |
| 43 | 20695 | 5532 | 34 | Yes |
| 44 | 21170 | 5533 | 40 | Yes |
| 45 | 21645 | 5534 | 36 | Yes |
| 46 | 22120 | 5535 | 38 | Yes |
| 47 | 22595 | 5536 | 32 | Yes |
| 48 | 23070 | 5537 | 32 | Yes |
| 49 | 23545 | 5538 | 36 | Yes |
| 50 | 24020 | 5539 | 35 | Yes |
| 51 | 24495 | 5540 | 30 | Yes |
| 52 | 24970 | 5541 | 28 | Yes |
| 53 | 25445 | 5542 | 34 | Yes |
| 54 | 25920 | 5543 | 38 | Yes |
| 55 | 26395 | 5544 | 29 | Yes |
| 56 | 26870 | 5545 | 27 | Yes |
| 57 | 27345 | 5546 | 29 | Yes |
| 58 | 27820 | 5547 | 40 | Yes |
| 59 | 28295 | 5548 | 24 | Yes |
| 60 | 28770 | 5549 | 37 | Yes |
| 61 | 29245 | 5550 | 32 | Yes |
| 62 | 29720 | 5551 | 29 | Yes |
| 63 | 30195 | 5552 | 34 | Yes |
| 64 | 30670 | 5553 | 36 | Yes |
| 65 | 31145 | 5554 | 38 | Yes |
| 66 | 31620 | 5555 | 31 | Yes |
| 67 | 32095 | 5556 | 33 | Yes |
| 68 | 32570 | 5557 | 31 | Yes |
| 69 | 33045 | 5558 | 32 | Yes |
| 70 | 33520 | 5559 | 31 | Yes |
| 71 | 33995 | 5560 | 44 | Yes |
| 72 | 34470 | 5561 | 32 | Yes |
| 73 | 34945 | 5562 | 34 | Yes |
| 74 | 35420 | 5563 | 33 | Yes |
| 75 | 35895 | 5564 | 35 | Yes |
| 76 | 36370 | 5565 | 36 | Yes |
| 77 | 36845 | 5566 | 35 | Yes |
| 78 | 37320 | 5567 | 33 | Yes |
| 79 | 37795 | 5568 | 34 | Yes |
| 80 | 38270 | 5569 | 31 | Yes |
| 81 | 38745 | 5570 | 41 | Yes |

**TYPE 6 DETECTION PROBABILITY (CONTINUED)**

|     |       |      |    |     |
|-----|-------|------|----|-----|
| 82  | 39220 | 5571 | 34 | Yes |
| 83  | 39695 | 5572 | 34 | Yes |
| 84  | 40170 | 5573 | 32 | Yes |
| 85  | 40645 | 5574 | 30 | Yes |
| 86  | 41120 | 5575 | 41 | Yes |
| 87  | 41595 | 5576 | 39 | Yes |
| 88  | 42070 | 5577 | 32 | Yes |
| 89  | 42545 | 5578 | 33 | Yes |
| 90  | 43020 | 5579 | 42 | Yes |
| 91  | 43495 | 5580 | 33 | Yes |
| 92  | 43970 | 5581 | 32 | Yes |
| 93  | 44445 | 5582 | 40 | Yes |
| 94  | 44920 | 5583 | 29 | Yes |
| 95  | 45395 | 5584 | 32 | Yes |
| 96  | 45870 | 5585 | 40 | Yes |
| 97  | 46345 | 5586 | 33 | Yes |
| 98  | 46820 | 5587 | 26 | Yes |
| 99  | 47295 | 5588 | 33 | Yes |
| 100 | 47770 | 5589 | 39 | Yes |
| 101 | 48245 | 5590 | 32 | Yes |
| 102 | 48720 | 5591 | 36 | Yes |
| 103 | 49195 | 5592 | 33 | Yes |
| 104 | 49670 | 5593 | 35 | Yes |
| 105 | 50145 | 5594 | 32 | Yes |
| 106 | 50620 | 5595 | 34 | Yes |
| 107 | 51095 | 5596 | 29 | Yes |
| 108 | 51570 | 5597 | 27 | Yes |
| 109 | 52045 | 5598 | 34 | Yes |
| 110 | 52520 | 5599 | 37 | Yes |
| 111 | 52995 | 5600 | 35 | Yes |
| 112 | 53470 | 5601 | 34 | Yes |
| 113 | 53945 | 5602 | 37 | Yes |
| 114 | 54420 | 5603 | 32 | Yes |
| 115 | 54895 | 5604 | 35 | Yes |
| 116 | 55370 | 5605 | 40 | Yes |
| 117 | 55845 | 5606 | 38 | Yes |
| 118 | 56320 | 5607 | 34 | Yes |
| 119 | 56795 | 5608 | 36 | Yes |
| 120 | 57270 | 5609 | 37 | Yes |
| 121 | 57745 | 5610 | 32 | Yes |
| 122 | 58220 | 5611 | 33 | Yes |
| 123 | 58695 | 5612 | 34 | Yes |
| 124 | 59170 | 5613 | 29 | Yes |

**TYPE 6 DETECTION PROBABILITY (CONTINUED)**

|     |       |      |    |     |
|-----|-------|------|----|-----|
| 125 | 59645 | 5614 | 39 | Yes |
| 126 | 60120 | 5615 | 40 | Yes |
| 127 | 60595 | 5616 | 40 | Yes |
| 128 | 61070 | 5617 | 32 | Yes |
| 129 | 61545 | 5618 | 31 | Yes |
| 130 | 62020 | 5619 | 35 | Yes |
| 131 | 62495 | 5620 | 34 | Yes |
| 132 | 62970 | 5621 | 33 | Yes |
| 133 | 63445 | 5622 | 34 | Yes |
| 134 | 63920 | 5623 | 32 | Yes |
| 135 | 64395 | 5624 | 29 | Yes |
| 136 | 64870 | 5625 | 39 | Yes |
| 137 | 65345 | 5626 | 37 | Yes |
| 138 | 284   | 5627 | 35 | Yes |
| 139 | 759   | 5628 | 28 | Yes |
| 140 | 1234  | 5629 | 36 | Yes |
| 141 | 1709  | 5630 | 39 | Yes |
| 142 | 2184  | 5631 | 39 | Yes |
| 143 | 2659  | 5632 | 31 | Yes |
| 144 | 3134  | 5633 | 31 | Yes |
| 145 | 3609  | 5634 | 32 | Yes |
| 146 | 4084  | 5635 | 32 | Yes |
| 147 | 4559  | 5636 | 31 | Yes |
| 148 | 5034  | 5637 | 25 | Yes |
| 149 | 5509  | 5638 | 32 | Yes |
| 150 | 5984  | 5639 | 35 | Yes |
| 151 | 6459  | 5640 | 32 | Yes |
| 152 | 6934  | 5641 | 30 | Yes |
| 153 | 7409  | 5642 | 36 | Yes |
| 154 | 7884  | 5643 | 40 | Yes |
| 155 | 8359  | 5644 | 37 | Yes |
| 156 | 8834  | 5645 | 35 | Yes |
| 157 | 9309  | 5646 | 32 | Yes |
| 158 | 9784  | 5647 | 31 | Yes |
| 159 | 10259 | 5648 | 35 | Yes |
| 160 | 10734 | 5649 | 31 | Yes |
| 161 | 11209 | 5650 | 32 | Yes |

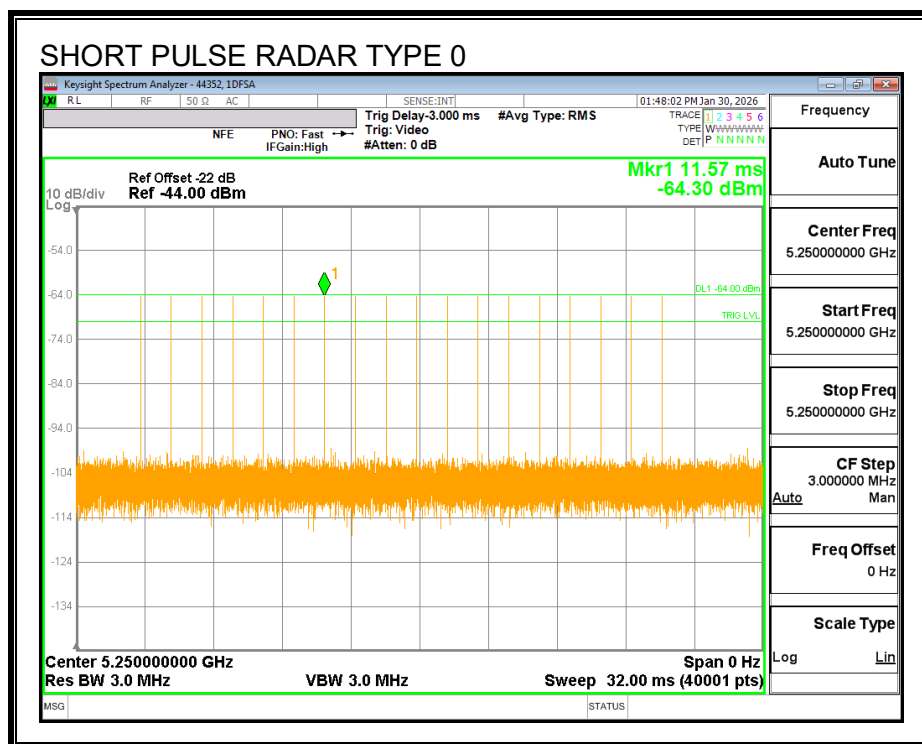
## 5.6. MASTER DEVICE CONFIGURATION RESULTS FOR 160 MHz BANDWIDTH ISED

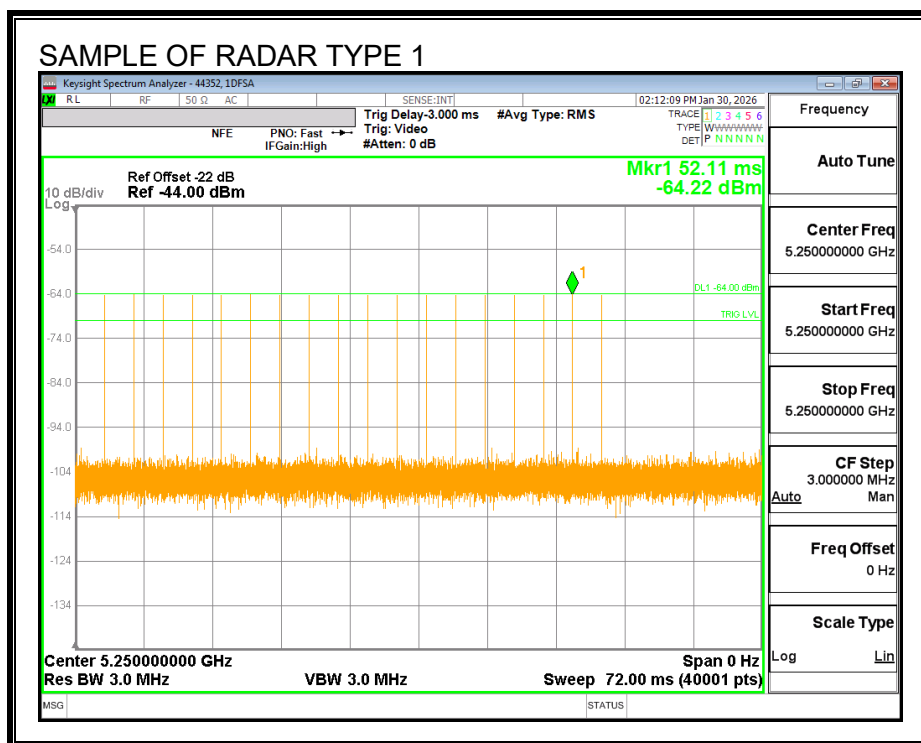
### 5.6.1. TEST CHANNEL

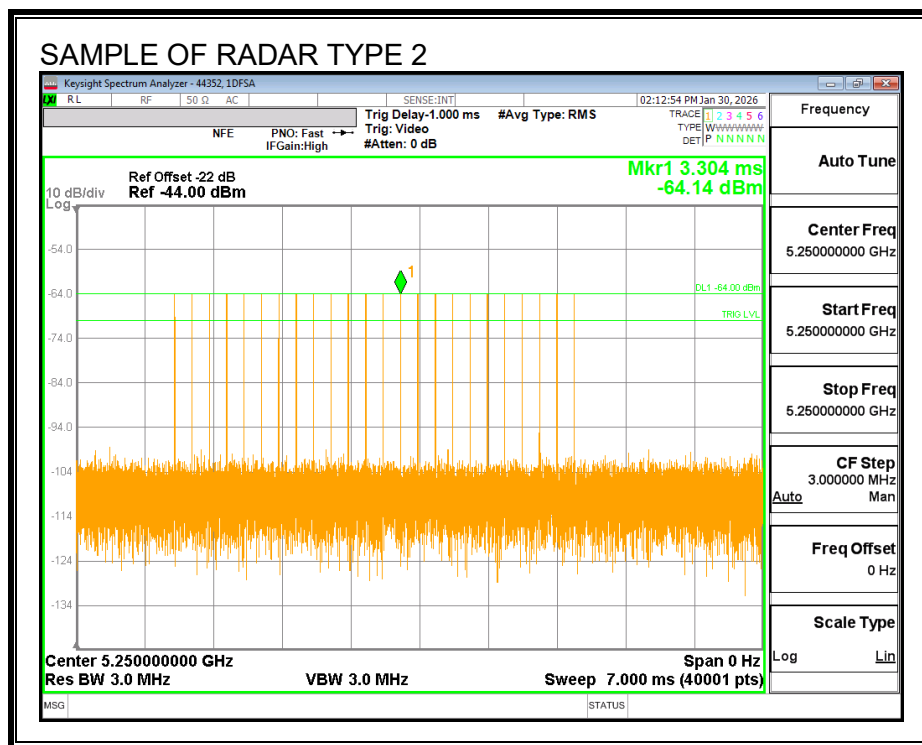
All tests were performed with the EUT set to a channel center frequency of 5250 MHz.

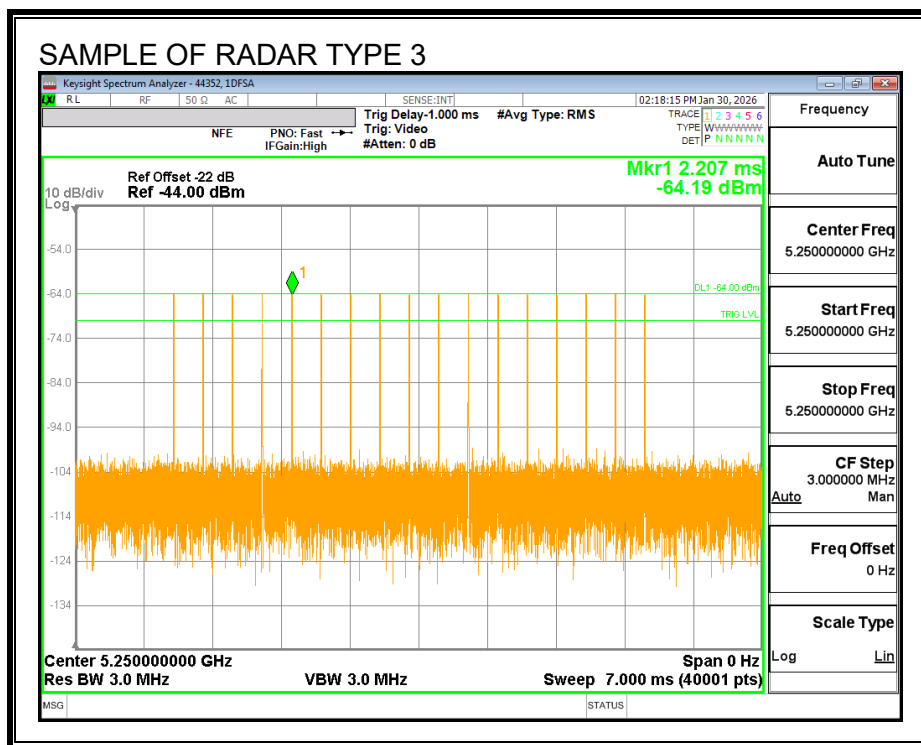
### 5.6.2. RADAR WAVEFORMS AND TRAFFIC

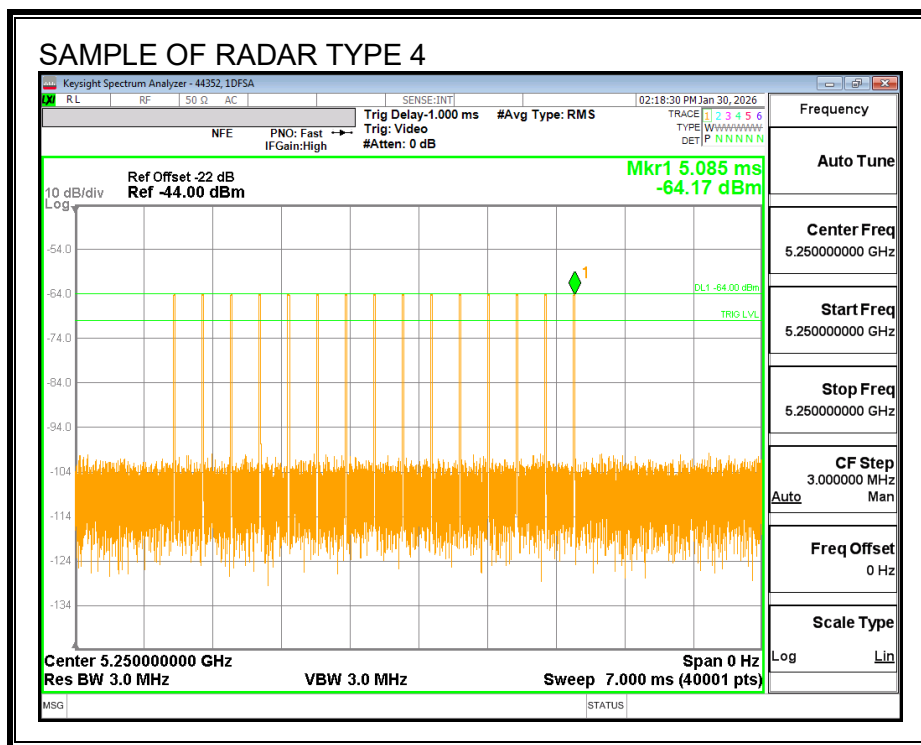
#### RADAR WAVEFORMS

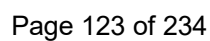


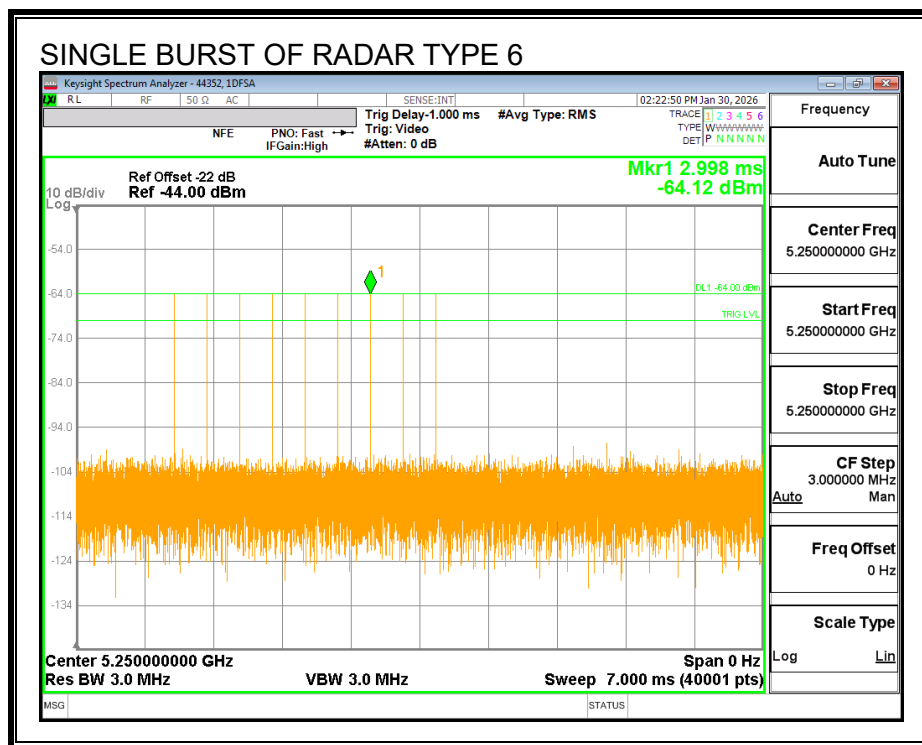




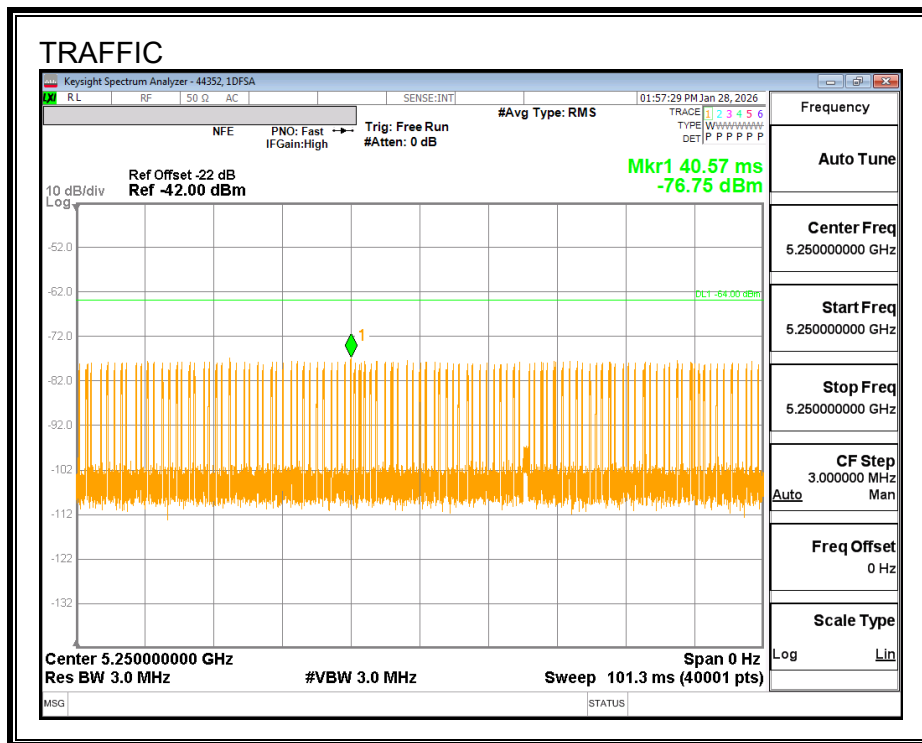




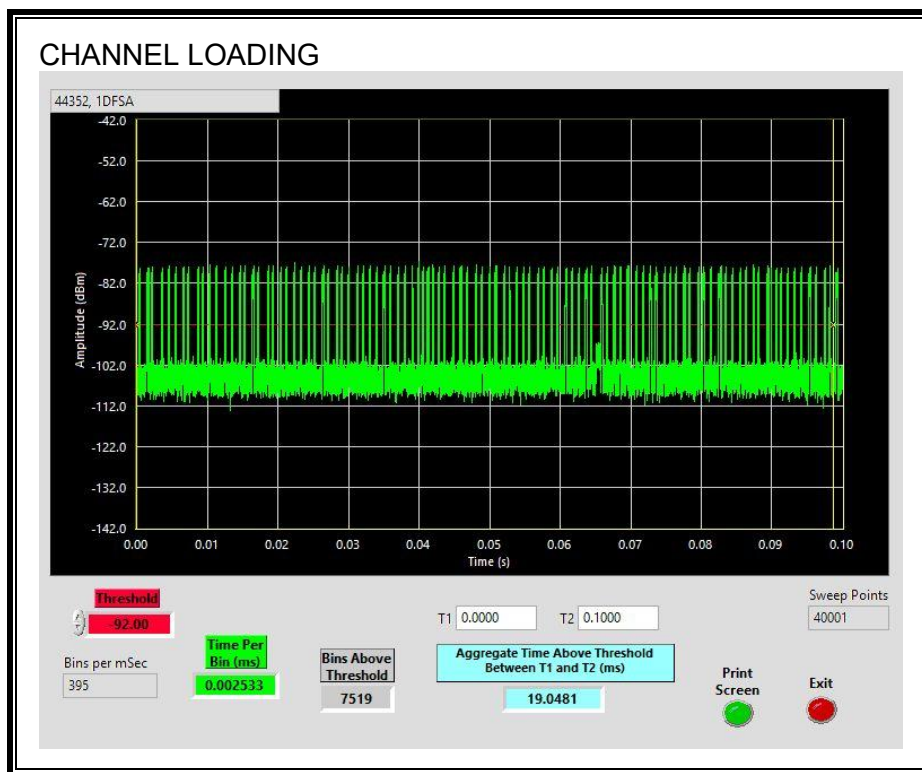




**TRAFFIC**



## CHANNEL LOADING



The level of traffic loading on the channel by the EUT is 19.0481%.

### **5.6.3. CHANNEL AVAILABILITY CHECK TIME**

#### **PROCEDURE TO DETERMINE INITIAL POWER-UP CYCLE TIME**

A link was established on channel then a software command was issued to the EUT to restart radio. The time from the cessation of traffic to the re-initialization of traffic was measured as the time required for the EUT to complete the total power-up cycle. The time to complete the initial power-up period is 60 seconds less than this total power-up time.

#### **PROCEDURE FOR TIMING OF RADAR BURST**

A link was established on channel then a software command was issued to the EUT to restart radio. A radar signal was triggered within 0 to 6 seconds after the initial power-up period, and transmissions on the channel were monitored on the spectrum analyzer.

The Non-Occupancy list was cleared. A link was established on channel then a software command was issued to the EUT to restart radio. A radar signal was triggered within 54 to 60 seconds after the initial power-up period, and transmissions on the channel were monitored on the spectrum analyzer.

## **QUANTITATIVE RESULTS**

### **No Radar Triggered**

| Timing of Reboot (sec) | Timing of Start of Traffic (sec) | Total Power-up Cycle Time (sec) | Initial Power-up Cycle Time (sec) |
|------------------------|----------------------------------|---------------------------------|-----------------------------------|
| 15.45                  | 126.2                            | 110.8                           | 50.8                              |

### **Radar Near Beginning of CAC**

| Timing of Reboot (sec) | Timing of Radar Burst (sec) | Radar Relative to Reboot (sec) | Radar Relative to Start of CAC (sec) |
|------------------------|-----------------------------|--------------------------------|--------------------------------------|
| 15.45                  | 66.4                        | 51.0                           | 0.2                                  |

### **Radar Near End of CAC**

| Timing of Reboot (sec) | Timing of Radar Burst (sec) | Radar Relative to Reboot (sec) | Radar Relative to Start of CAC (sec) |
|------------------------|-----------------------------|--------------------------------|--------------------------------------|
| 15.44                  | 124.8                       | 109.4                          | 58.6                                 |

## **QUALITATIVE RESULTS**

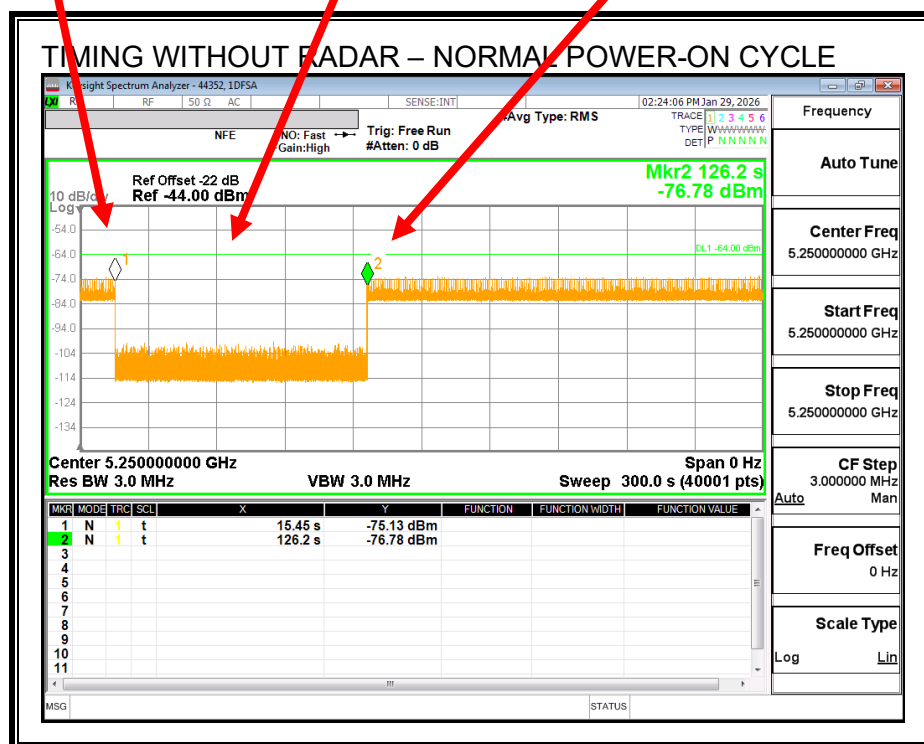
| Timing of Radar Burst         | Display on Control Computer  | Spectrum Analyzer Display                                                                 |
|-------------------------------|------------------------------|-------------------------------------------------------------------------------------------|
| No Radar Triggered            | EUT marks Channel as active  | Transmissions begin on channel after completion of the initial power-up cycle and the CAC |
| Within 0 to 6 second window   | EUT indicates radar detected | No transmissions on channel                                                               |
| Within 54 to 60 second window | EUT indicates radar detected | No transmissions on channel                                                               |

## TIMING WITHOUT RADAR DURING CAC

AP is rebooted  
Traffic ceases  
Start of Initial Power-up cycle

End of Initial Power-up cycle  
Start of CAC

End of CAC  
Traffic is Initiated



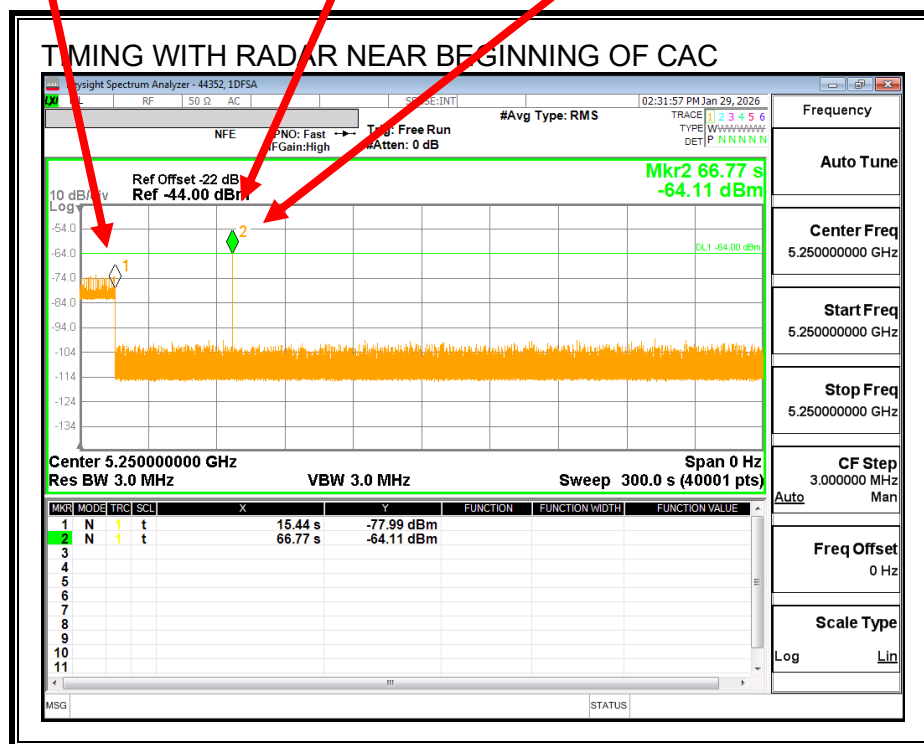
Transmissions begin on channel after completion of the initial power-up cycle and the CAC.

# TIMING WITH RADAR NEAR BEGINNING OF CAC

AP is rebooted  
Traffic ceases  
Start of Initial Power-up cycle

End of Initial Power-up cycle  
Start of CAC

Radar Signal Applied



No EUT transmissions were observed after the radar signal.

## TIMING WITH RADAR NEAR END OF CAC

AP is rebooted

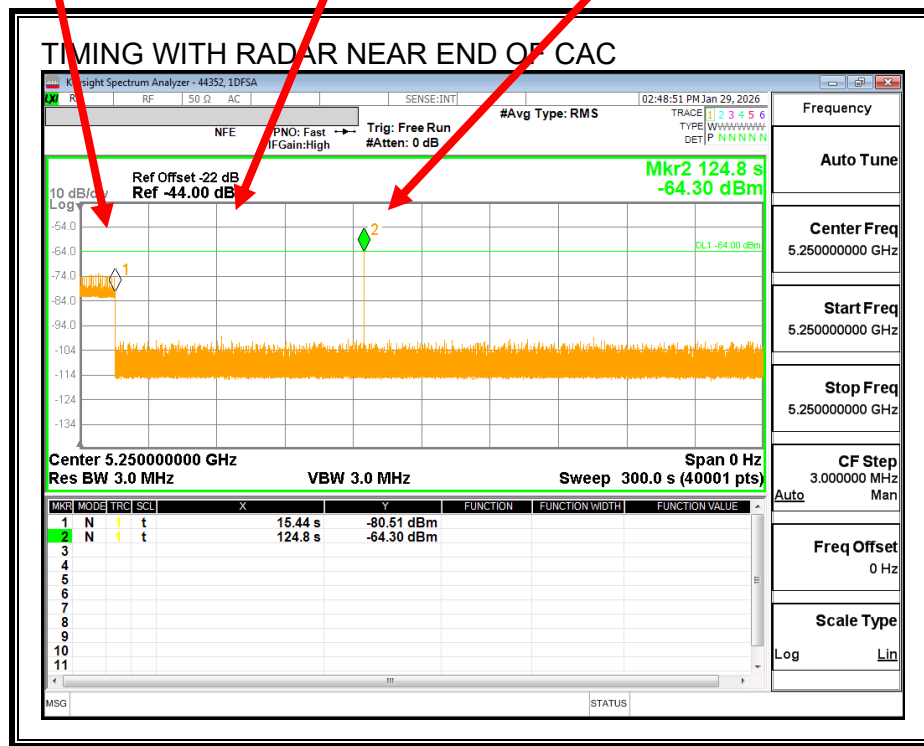
Traffic ceases

Start of Initial Power-up cycle

End of Initial Power-up cycle

Start of CAC

Radar Signal Applied



No EUT transmissions were observed after the radar signal.

#### 5.6.4. OVERLAPPING CHANNEL TESTS

##### RESULTS

The channel spacing is not less than the channel bandwidth therefore the EUT does not have an overlapping channel plan.

These tests are not applicable.

#### 5.6.5. MOVE AND CLOSING TIME

##### REPORTING NOTES

The reference marker is set at the end of last radar pulse.

The delta marker is set at the end of the last WLAN transmission following the radar pulse. This delta is the channel move time.

The aggregate channel closing transmission time is calculated as follows:

Aggregate Transmission Time =  
(Number of analyzer bins showing transmission) \* (dwell time per bin)

The observation period over which the aggregate time is calculated begins at (Reference Marker + 200 msec) and ends no earlier than (Reference Marker + 10 sec).

##### RESULTS

| Channel Move Time<br>(sec) | Limit<br>(sec) |
|----------------------------|----------------|
| 0.3272                     | 10             |

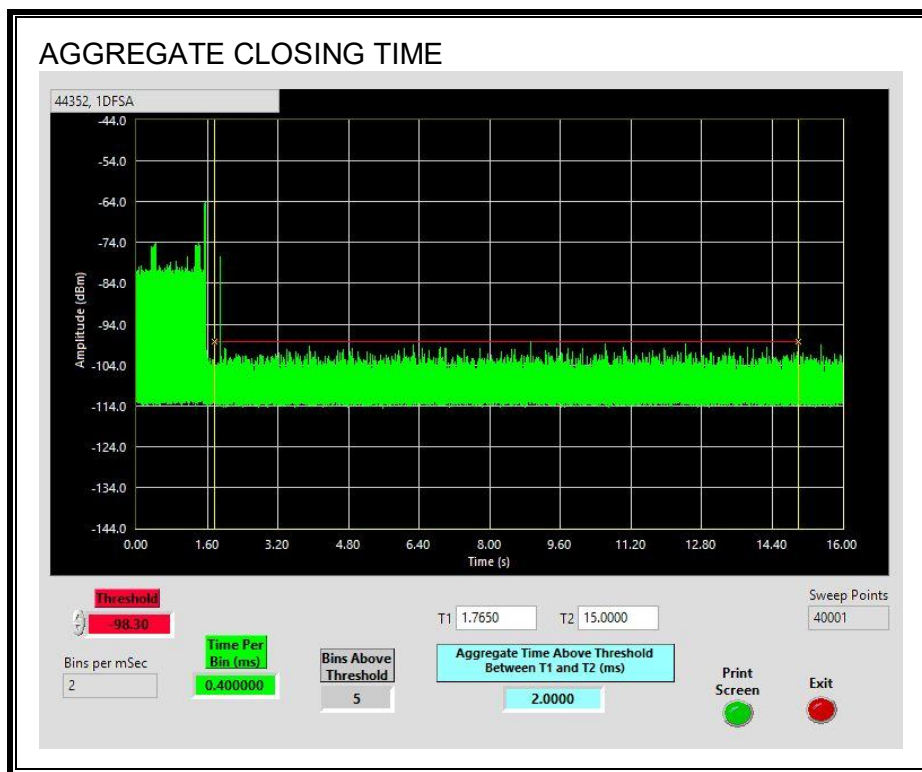
| Aggregate Channel Closing Transmission Time<br>(msec) | Limit<br>(msec) |
|-------------------------------------------------------|-----------------|
| 2                                                     | 60              |





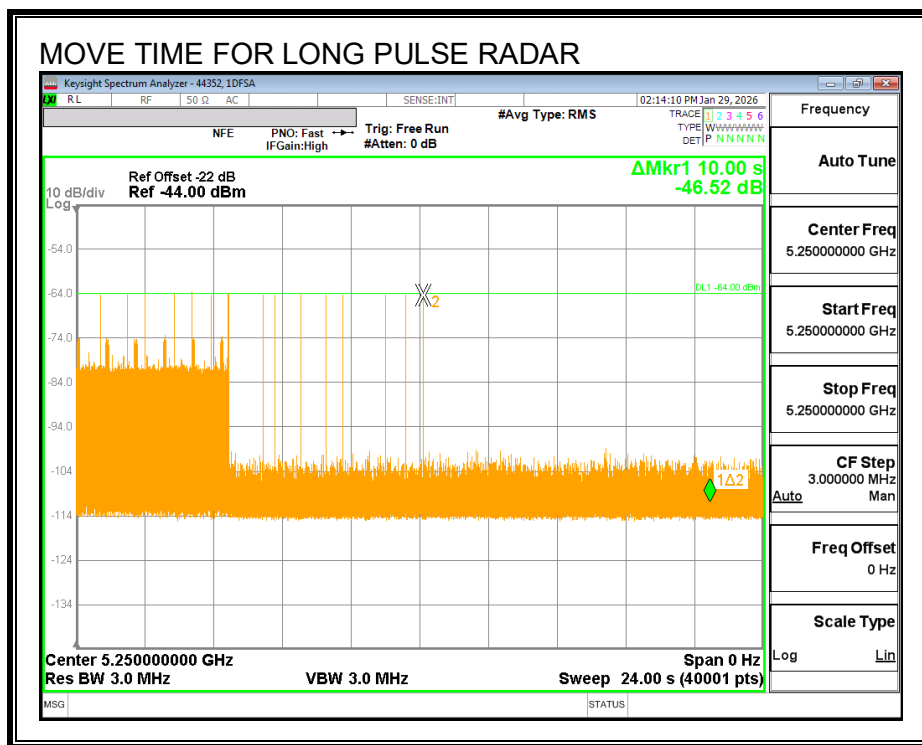
## AGGREGATE CHANNEL CLOSING TRANSMISSION TIME

Only intermittent transmissions are observed during the aggregate monitoring period.



## LONG PULSE CHANNEL MOVE TIME

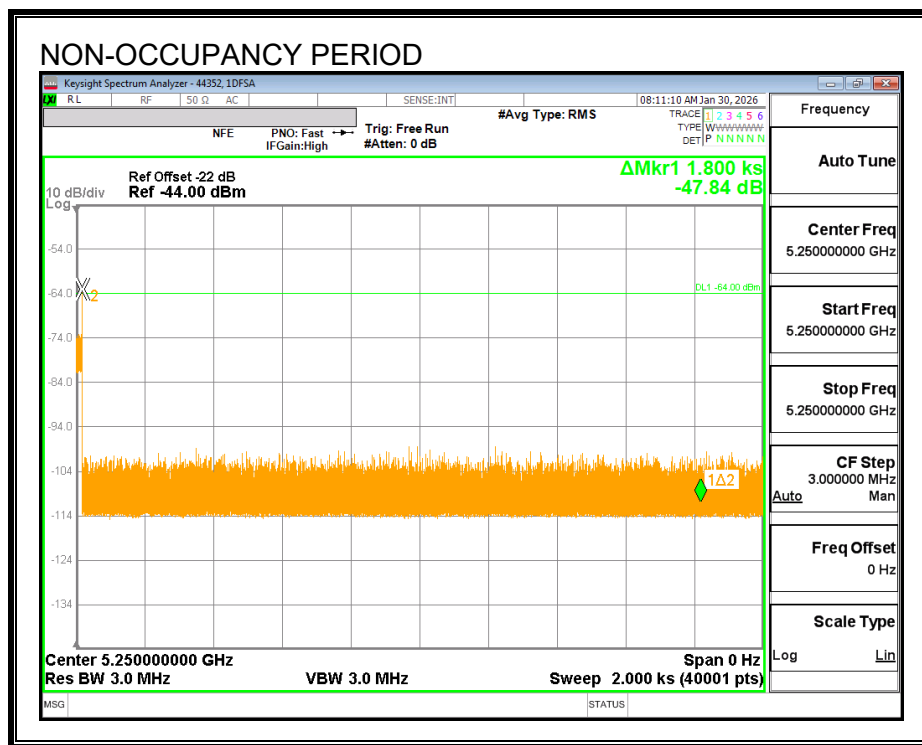
The traffic ceases prior to 10 seconds after the end of the radar waveform.



## 5.6.6. NON-OCCUPANCY PERIOD

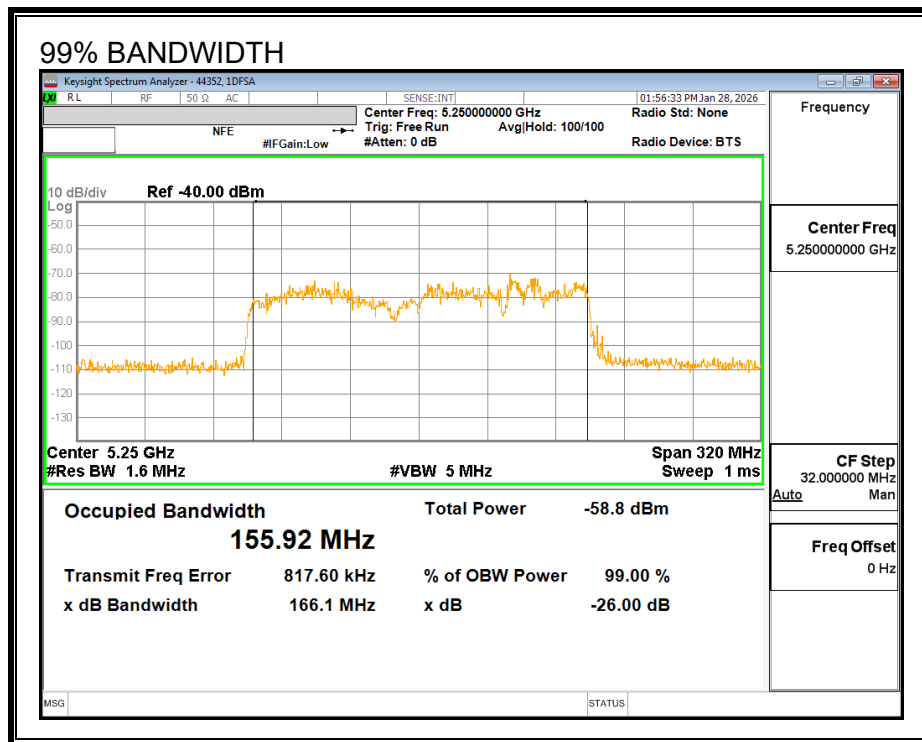
### RESULTS

No EUT transmissions were observed on the test channel during the 30-minute observation time.



## 5.6.7. DETECTION BANDWIDTH

### REFERENCE PLOT OF 99% POWER BANDWIDTH



### RESULTS

| F <sub>L</sub><br>(MHz) | F <sub>H</sub><br>(MHz) | Detection<br>Bandwidth<br>(MHz) | Applicable<br>99% Power<br>Bandwidth<br>(MHz) | Ratio of<br>Detection BW to<br>99% Power BW<br>(%) | Minimum<br>Limit<br>(%) |
|-------------------------|-------------------------|---------------------------------|-----------------------------------------------|----------------------------------------------------|-------------------------|
| 5250                    | 5330                    | 80                              | 77.96                                         | 102.6                                              | 100                     |

**Note:** Channels that occupy frequencies below the 5250 MHz to 5350 MHz band are not subject to the requirements related to DFS. Therefore, only the portion of the 99% power Bandwidth residing in the 5250 MHz to 5350 MHz band has been taken into consideration for the Detection Bandwidth requirement.

**Applicable 99% Power Bandwidth = (Measured 99% Power Bandwidth)/2**

# DETECTION BANDWIDTH PROBABILITY

| DETECTION BANDWIDTH PROBABILITY RESULTS                                 |                  |                 |               |      |
|-------------------------------------------------------------------------|------------------|-----------------|---------------|------|
| Detection Bandwidth Test Results                                        |                  |                 |               |      |
| FCC Type 0 Waveform: 1 us Pulse Width, 1428 us PRI, 18 Pulses per Burst |                  |                 |               |      |
| Frequency (MHz)                                                         | Number of Trials | Number Detected | Detection (%) | Mark |
| 5249                                                                    | 2                | 0               | 0             | FL   |
| 5250                                                                    | 10               | 10              | 100           |      |
| 5255                                                                    | 10               | 10              | 100           |      |
| 5260                                                                    | 10               | 10              | 100           |      |
| 5265                                                                    | 10               | 10              | 100           |      |
| 5270                                                                    | 10               | 10              | 100           |      |
| 5275                                                                    | 10               | 10              | 100           |      |
| 5280                                                                    | 10               | 10              | 100           |      |
| 5285                                                                    | 10               | 10              | 100           |      |
| 5290                                                                    | 10               | 10              | 100           |      |
| 5295                                                                    | 10               | 10              | 100           |      |
| 5300                                                                    | 10               | 10              | 100           |      |
| 5305                                                                    | 10               | 10              | 100           |      |
| 5310                                                                    | 10               | 10              | 100           |      |
| 5315                                                                    | 10               | 10              | 100           |      |
| 5320                                                                    | 10               | 10              | 100           | FH   |
| 5325                                                                    | 10               | 10              | 100           |      |
| 5330                                                                    | 10               | 10              | 100           |      |
| 5331                                                                    | 2                | 0               | 0             |      |

## 5.6.8. IN-SERVICE MONITORING

### RESULTS

| FCC Radar Test Summary |                  |               |           |           |                     |      |       |               |                 |                               |
|------------------------|------------------|---------------|-----------|-----------|---------------------|------|-------|---------------|-----------------|-------------------------------|
| Signal Type            | Number of Trials | Detection (%) | Limit (%) | Pass/Fail | Detection Bandwidth |      | OBW   | Test Location | Employee Number | In-Service Monitoring Version |
|                        |                  |               |           |           | FL                  | FH   |       |               |                 |                               |
| FCC Short Pulse Type 1 | 30               | 100.00        | 60        | Pass      | 5250                | 5330 | 77.96 | 1DFS1         | 44352           | v2023.11.3                    |
| FCC Short Pulse Type 2 | 30               | 96.67         | 60        | Pass      | 5250                | 5330 | 77.96 | 1DFS1         | 44352           | v2023.11.3                    |
| FCC Short Pulse Type 3 | 30               | 66.67         | 60        | Pass      | 5250                | 5330 | 77.96 | 1DFS1         | 44352           | v2023.11.3                    |
| FCC Short Pulse Type 4 | 30               | 90.00         | 60        | Pass      | 5250                | 5330 | 77.96 | 1DFS1         | 44352           | v2023.11.3                    |
| Aggregate              |                  | 88.33         | 80        | Pass      |                     |      |       |               |                 |                               |
| FCC Long Pulse Type 5  | 30               | 93.33         | 80        | Pass      | 5250                | 5330 | 77.96 | 1DFS1         | 44352           | v2023.11.3                    |
| FCC Hopping Type 6     | 81               | 100.00        | 70        | Pass      | 5250                | 5330 |       | 1DFS1         | 44352           | v2023.11.3                    |

# TYPE 1 DETECTION PROBABILITY

| Data Sheet for FCC Short Pulse Radar Type 1 |                     |             |                     |               |                    |                                  |
|---------------------------------------------|---------------------|-------------|---------------------|---------------|--------------------|----------------------------------|
| Waveform                                    | Pulse Width<br>(us) | PRI<br>(us) | Pulses<br>Per Burst | Test<br>(A/B) | Frequency<br>(MHz) | Successful Detection<br>(Yes/No) |
| 1001                                        | 1                   | 3066        | 18                  | A             | 5269               | Yes                              |
| 1002                                        | 1                   | 938         | 57                  | A             | 5291               | Yes                              |
| 1003                                        | 1                   | 638         | 83                  | A             | 5282               | Yes                              |
| 1004                                        | 1                   | 878         | 61                  | A             | 5297               | Yes                              |
| 1005                                        | 1                   | 558         | 95                  | A             | 5304               | Yes                              |
| 1006                                        | 1                   | 738         | 72                  | A             | 5307               | Yes                              |
| 1007                                        | 1                   | 678         | 78                  | A             | 5326               | Yes                              |
| 1008                                        | 1                   | 618         | 86                  | A             | 5300               | Yes                              |
| 1009                                        | 1                   | 898         | 59                  | A             | 5269               | Yes                              |
| 1010                                        | 1                   | 538         | 99                  | A             | 5280               | Yes                              |
| 1011                                        | 1                   | 578         | 92                  | A             | 5285               | Yes                              |
| 1012                                        | 1                   | 518         | 102                 | A             | 5282               | Yes                              |
| 1013                                        | 1                   | 658         | 81                  | A             | 5306               | Yes                              |
| 1014                                        | 1                   | 758         | 70                  | A             | 5319               | Yes                              |
| 1015                                        | 1                   | 918         | 58                  | A             | 5271               | Yes                              |
| 1016                                        | 1                   | 984         | 54                  | B             | 5318               | Yes                              |
| 1017                                        | 1                   | 810         | 66                  | B             | 5330               | Yes                              |
| 1018                                        | 1                   | 1637        | 33                  | B             | 5293               | Yes                              |
| 1019                                        | 1                   | 1593        | 34                  | B             | 5312               | Yes                              |
| 1020                                        | 1                   | 1355        | 39                  | B             | 5252               | Yes                              |
| 1021                                        | 1                   | 1440        | 37                  | B             | 5319               | Yes                              |
| 1022                                        | 1                   | 1331        | 40                  | B             | 5250               | Yes                              |
| 1023                                        | 1                   | 2899        | 19                  | B             | 5270               | Yes                              |
| 1024                                        | 1                   | 1725        | 31                  | B             | 5271               | Yes                              |
| 1025                                        | 1                   | 875         | 61                  | B             | 5296               | Yes                              |
| 1026                                        | 1                   | 2379        | 23                  | B             | 5271               | Yes                              |
| 1027                                        | 1                   | 1658        | 32                  | B             | 5311               | Yes                              |
| 1028                                        | 1                   | 2096        | 26                  | B             | 5294               | Yes                              |
| 1029                                        | 1                   | 2858        | 19                  | B             | 5285               | Yes                              |
| 1030                                        | 1                   | 2073        | 26                  | B             | 5327               | Yes                              |

## TYPE 2 DETECTION PROBABILITY

| Data Sheet for FCC Short Pulse Radar Type 2 |                  |          |                  |                 |                               |
|---------------------------------------------|------------------|----------|------------------|-----------------|-------------------------------|
| Waveform                                    | Pulse Width (us) | PRI (us) | Pulses Per Burst | Frequency (MHz) | Successful Detection (Yes/No) |
| 2001                                        | 3.4              | 177      | 24               | 5272            | Yes                           |
| 2002                                        | 3.4              | 158      | 26               | 5316            | Yes                           |
| 2003                                        | 1.1              | 150      | 27               | 5275            | Yes                           |
| 2004                                        | 3.5              | 173      | 29               | 5309            | Yes                           |
| 2005                                        | 1.5              | 212      | 23               | 5257            | Yes                           |
| 2006                                        | 4.1              | 202      | 29               | 5330            | No                            |
| 2007                                        | 4.4              | 164      | 24               | 5305            | Yes                           |
| 2008                                        | 1.2              | 158      | 23               | 5257            | Yes                           |
| 2009                                        | 3.7              | 205      | 29               | 5286            | Yes                           |
| 2010                                        | 2.9              | 164      | 28               | 5308            | Yes                           |
| 2011                                        | 1.5              | 178      | 27               | 5261            | Yes                           |
| 2012                                        | 4.9              | 223      | 24               | 5295            | Yes                           |
| 2013                                        | 1.8              | 159      | 27               | 5279            | Yes                           |
| 2014                                        | 3.6              | 208      | 24               | 5292            | Yes                           |
| 2015                                        | 4.8              | 191      | 28               | 5266            | Yes                           |
| 2016                                        | 2.6              | 207      | 25               | 5322            | Yes                           |
| 2017                                        | 2.1              | 194      | 29               | 5251            | Yes                           |
| 2018                                        | 4.3              | 214      | 24               | 5288            | Yes                           |
| 2019                                        | 4                | 205      | 25               | 5298            | Yes                           |
| 2020                                        | 2.2              | 191      | 26               | 5304            | Yes                           |
| 2021                                        | 4.3              | 187      | 28               | 5293            | Yes                           |
| 2022                                        | 5                | 176      | 27               | 5317            | Yes                           |
| 2023                                        | 3.1              | 219      | 28               | 5275            | Yes                           |
| 2024                                        | 4                | 213      | 28               | 5274            | Yes                           |
| 2025                                        | 2.4              | 222      | 26               | 5325            | Yes                           |
| 2026                                        | 1.6              | 220      | 26               | 5280            | Yes                           |
| 2027                                        | 4.3              | 152      | 25               | 5252            | Yes                           |
| 2028                                        | 3.6              | 197      | 29               | 5270            | Yes                           |
| 2029                                        | 2.7              | 214      | 25               | 5271            | Yes                           |
| 2030                                        | 2.3              | 225      | 29               | 5262            | Yes                           |

### TYPE 3 DETECTION PROBABILITY

| Data Sheet for FCC Short Pulse Radar Type 3 |                  |          |                  | Run 1           |                               |
|---------------------------------------------|------------------|----------|------------------|-----------------|-------------------------------|
| Waveform                                    | Pulse Width (us) | PRI (us) | Pulses Per Burst | Frequency (MHz) | Successful Detection (Yes/No) |
| 3001                                        | 8.1              | 300      | 17               | 5282            | Yes                           |
| 3002                                        | 5.4              | 347      | 16               | 5253            | No                            |
| 3003                                        | 9.9              | 309      | 17               | 5329            | No                            |
| 3004                                        | 7.5              | 369      | 17               | 5289            | Yes                           |
| 3005                                        | 7.1              | 343      | 18               | 5293            | Yes                           |
| 3006                                        | 10               | 298      | 16               | 5291            | Yes                           |
| 3007                                        | 7.5              | 285      | 17               | 5262            | Yes                           |
| 3008                                        | 8.3              | 253      | 16               | 5307            | Yes                           |
| 3009                                        | 6.1              | 386      | 17               | 5253            | No                            |
| 3010                                        | 7.2              | 367      | 17               | 5274            | Yes                           |
| 3011                                        | 5.1              | 395      | 16               | 5316            | No                            |
| 3012                                        | 9.2              | 388      | 18               | 5277            | Yes                           |
| 3013                                        | 5.1              | 429      | 17               | 5280            | No                            |
| 3014                                        | 6.7              | 317      | 17               | 5277            | Yes                           |
| 3015                                        | 5.5              | 371      | 16               | 5271            | No                            |
| 3016                                        | 5                | 405      | 17               | 5261            | No                            |
| 3017                                        | 6.5              | 472      | 16               | 5264            | Yes                           |
| 3018                                        | 8.9              | 268      | 18               | 5316            | Yes                           |
| 3019                                        | 8.2              | 480      | 18               | 5305            | Yes                           |
| 3020                                        | 5.9              | 289      | 16               | 5330            | No                            |
| 3021                                        | 5.5              | 264      | 18               | 5309            | No                            |
| 3022                                        | 8.4              | 470      | 17               | 5288            | Yes                           |
| 3023                                        | 5.9              | 457      | 16               | 5319            | Yes                           |
| 3024                                        | 6.7              | 425      | 18               | 5295            | Yes                           |
| 3025                                        | 9.6              | 307      | 16               | 5284            | Yes                           |
| 3026                                        | 5.5              | 420      | 17               | 5304            | No                            |
| 3027                                        | 8.6              | 315      | 18               | 5272            | Yes                           |
| 3028                                        | 7.6              | 442      | 17               | 5286            | Yes                           |
| 3029                                        | 8.6              | 349      | 16               | 5267            | Yes                           |
| 3030                                        | 7.8              | 489      | 18               | 5328            | Yes                           |

# TYPE 4 DETECTION PROBABILITY

| Data Sheet for FCC Short Pulse Radar Type 4 |                  |          |                  |                 |                               |
|---------------------------------------------|------------------|----------|------------------|-----------------|-------------------------------|
| Waveform                                    | Pulse Width (us) | PRI (us) | Pulses Per Burst | Frequency (MHz) | Successful Detection (Yes/No) |
| 4001                                        | 17.9             | 291      | 15               | 5286            | Yes                           |
| 4002                                        | 16.9             | 326      | 13               | 5323            | Yes                           |
| 4003                                        | 15.1             | 392      | 16               | 5323            | Yes                           |
| 4004                                        | 14.6             | 440      | 16               | 5305            | Yes                           |
| 4005                                        | 13.3             | 401      | 14               | 5319            | No                            |
| 4006                                        | 18.6             | 461      | 15               | 5287            | Yes                           |
| 4007                                        | 17.9             | 435      | 13               | 5323            | Yes                           |
| 4008                                        | 19               | 390      | 12               | 5262            | Yes                           |
| 4009                                        | 18.7             | 377      | 16               | 5260            | Yes                           |
| 4010                                        | 10.3             | 345      | 15               | 5302            | Yes                           |
| 4011                                        | 15.9             | 478      | 14               | 5269            | Yes                           |
| 4012                                        | 18               | 341      | 13               | 5303            | Yes                           |
| 4013                                        | 19.4             | 487      | 15               | 5261            | Yes                           |
| 4014                                        | 12               | 363      | 12               | 5313            | No                            |
| 4015                                        | 13.9             | 270      | 16               | 5265            | Yes                           |
| 4016                                        | 12.3             | 409      | 14               | 5270            | Yes                           |
| 4017                                        | 14.8             | 345      | 14               | 5286            | Yes                           |
| 4018                                        | 13.7             | 498      | 16               | 5307            | Yes                           |
| 4019                                        | 11.9             | 313      | 14               | 5294            | Yes                           |
| 4020                                        | 11.4             | 360      | 15               | 5253            | Yes                           |
| 4021                                        | 10.1             | 322      | 13               | 5324            | Yes                           |
| 4022                                        | 15.4             | 382      | 14               | 5315            | Yes                           |
| 4023                                        | 14.7             | 356      | 12               | 5289            | Yes                           |
| 4024                                        | 15.8             | 311      | 16               | 5286            | Yes                           |
| 4025                                        | 15.5             | 431      | 12               | 5326            | No                            |
| 4026                                        | 17.2             | 399      | 13               | 5262            | Yes                           |
| 4027                                        | 12.7             | 399      | 12               | 5294            | Yes                           |
| 4028                                        | 14.8             | 262      | 12               | 5279            | Yes                           |
| 4029                                        | 16.2             | 407      | 13               | 5272            | Yes                           |
| 4030                                        | 18.9             | 283      | 15               | 5266            | Yes                           |

# TYPE 5 DETECTION PROBABILITY

| Data Sheet for FCC Long Pulse Radar Type 5 |                 |                               |
|--------------------------------------------|-----------------|-------------------------------|
| Trial                                      | Frequency (MHz) | Successful Detection (Yes/No) |
| 1                                          | 5290            | Yes                           |
| 2                                          | 5290            | Yes                           |
| 3                                          | 5290            | Yes                           |
| 4                                          | 5290            | Yes                           |
| 5                                          | 5290            | Yes                           |
| 6                                          | 5290            | Yes                           |
| 7                                          | 5290            | Yes                           |
| 8                                          | 5290            | Yes                           |
| 9                                          | 5290            | Yes                           |
| 10                                         | 5290            | Yes                           |
| 11                                         | 5258            | Yes                           |
| 12                                         | 5254            | Yes                           |
| 13                                         | 5256            | Yes                           |
| 14                                         | 5259            | Yes                           |
| 15                                         | 5259            | Yes                           |
| 16                                         | 5257            | Yes                           |
| 17                                         | 5255            | Yes                           |
| 18                                         | 5254            | Yes                           |
| 19                                         | 5256            | Yes                           |
| 20                                         | 5254            | Yes                           |
| 21                                         | 5327            | No                            |
| 22                                         | 5325            | Yes                           |
| 23                                         | 5324            | Yes                           |
| 24                                         | 5326            | No                            |
| 25                                         | 5321            | Yes                           |
| 26                                         | 5325            | Yes                           |
| 27                                         | 5324            | Yes                           |
| 28                                         | 5327            | Yes                           |
| 29                                         | 5325            | Yes                           |
| 30                                         | 5326            | Yes                           |

Note: The Type 5 randomized parameters tested are located in Appendix A.

# TYPE 6 DETECTION PROBABILITY

| Data Sheet for FCC Hopping Radar Type 6                           |                                   |                                        |                             |                                     |
|-------------------------------------------------------------------|-----------------------------------|----------------------------------------|-----------------------------|-------------------------------------|
| 1 us Pulse Width, 333 us PRI, 9 Pulses per Burst, 1 Burst per Hop |                                   |                                        |                             |                                     |
| NTIA August 2005 Hopping Sequence                                 |                                   |                                        |                             |                                     |
| Trial                                                             | Starting Index<br>Within Sequence | Signal Generator<br>Frequency<br>(MHz) | Hops within<br>Detection BW | Successful<br>Detection<br>(Yes/No) |
| 1                                                                 | 763                               | 5250                                   | 18                          | Yes                                 |
| 2                                                                 | 1238                              | 5251                                   | 22                          | Yes                                 |
| 3                                                                 | 1713                              | 5252                                   | 15                          | Yes                                 |
| 4                                                                 | 2188                              | 5253                                   | 12                          | Yes                                 |
| 5                                                                 | 2663                              | 5254                                   | 22                          | Yes                                 |
| 6                                                                 | 3138                              | 5255                                   | 20                          | Yes                                 |
| 7                                                                 | 3613                              | 5256                                   | 16                          | Yes                                 |
| 8                                                                 | 4088                              | 5257                                   | 13                          | Yes                                 |
| 9                                                                 | 4563                              | 5258                                   | 21                          | Yes                                 |
| 10                                                                | 5038                              | 5259                                   | 16                          | Yes                                 |
| 11                                                                | 5513                              | 5260                                   | 16                          | Yes                                 |
| 12                                                                | 5988                              | 5261                                   | 19                          | Yes                                 |
| 13                                                                | 6463                              | 5262                                   | 16                          | Yes                                 |
| 14                                                                | 6938                              | 5263                                   | 17                          | Yes                                 |
| 15                                                                | 7413                              | 5264                                   | 12                          | Yes                                 |
| 16                                                                | 7888                              | 5265                                   | 20                          | Yes                                 |
| 17                                                                | 8363                              | 5266                                   | 16                          | Yes                                 |
| 18                                                                | 8838                              | 5267                                   | 13                          | Yes                                 |
| 19                                                                | 9313                              | 5268                                   | 14                          | Yes                                 |
| 20                                                                | 9788                              | 5269                                   | 20                          | Yes                                 |
| 21                                                                | 10263                             | 5270                                   | 18                          | Yes                                 |
| 22                                                                | 10738                             | 5271                                   | 16                          | Yes                                 |
| 23                                                                | 11213                             | 5272                                   | 13                          | Yes                                 |
| 24                                                                | 11688                             | 5273                                   | 13                          | Yes                                 |
| 25                                                                | 12163                             | 5274                                   | 21                          | Yes                                 |
| 26                                                                | 12638                             | 5275                                   | 16                          | Yes                                 |
| 27                                                                | 13113                             | 5276                                   | 21                          | Yes                                 |
| 28                                                                | 13588                             | 5277                                   | 13                          | Yes                                 |
| 29                                                                | 14063                             | 5278                                   | 17                          | Yes                                 |
| 30                                                                | 14538                             | 5279                                   | 16                          | Yes                                 |
| 31                                                                | 15013                             | 5280                                   | 18                          | Yes                                 |
| 32                                                                | 15488                             | 5281                                   | 12                          | Yes                                 |
| 33                                                                | 15963                             | 5282                                   | 14                          | Yes                                 |
| 34                                                                | 16438                             | 5283                                   | 18                          | Yes                                 |
| 35                                                                | 16913                             | 5284                                   | 19                          | Yes                                 |
| 36                                                                | 17388                             | 5285                                   | 19                          | Yes                                 |
| 37                                                                | 17863                             | 5286                                   | 16                          | Yes                                 |
| 38                                                                | 18338                             | 5287                                   | 15                          | Yes                                 |

**TYPE 6 DETECTION PROBABILITY (CONTINUED)**

|    |       |      |    |     |
|----|-------|------|----|-----|
| 39 | 18813 | 5288 | 17 | Yes |
| 40 | 19288 | 5289 | 19 | Yes |
| 41 | 19763 | 5290 | 16 | Yes |
| 42 | 20238 | 5291 | 13 | Yes |
| 43 | 20713 | 5292 | 20 | Yes |
| 44 | 21188 | 5293 | 17 | Yes |
| 45 | 21663 | 5294 | 13 | Yes |
| 46 | 22138 | 5295 | 13 | Yes |
| 47 | 22613 | 5296 | 14 | Yes |
| 48 | 23088 | 5297 | 19 | Yes |
| 49 | 23563 | 5298 | 15 | Yes |
| 50 | 24038 | 5299 | 16 | Yes |
| 51 | 24513 | 5300 | 16 | Yes |
| 52 | 24988 | 5301 | 21 | Yes |
| 53 | 25463 | 5302 | 24 | Yes |
| 54 | 25938 | 5303 | 20 | Yes |
| 55 | 26413 | 5304 | 24 | Yes |
| 56 | 26888 | 5305 | 22 | Yes |
| 57 | 27363 | 5306 | 14 | Yes |
| 58 | 27838 | 5307 | 14 | Yes |
| 59 | 28313 | 5308 | 20 | Yes |
| 60 | 28788 | 5309 | 18 | Yes |
| 61 | 29263 | 5310 | 12 | Yes |
| 62 | 29738 | 5311 | 14 | Yes |
| 63 | 30213 | 5312 | 19 | Yes |
| 64 | 30688 | 5313 | 16 | Yes |
| 65 | 31163 | 5314 | 15 | Yes |
| 66 | 31638 | 5315 | 19 | Yes |
| 67 | 32113 | 5316 | 20 | Yes |
| 68 | 32588 | 5317 | 16 | Yes |
| 69 | 33063 | 5318 | 16 | Yes |
| 70 | 33538 | 5319 | 19 | Yes |
| 71 | 34013 | 5320 | 17 | Yes |
| 72 | 34488 | 5321 | 19 | Yes |
| 73 | 34963 | 5322 | 17 | Yes |
| 74 | 35438 | 5323 | 13 | Yes |
| 75 | 35913 | 5324 | 13 | Yes |
| 76 | 36388 | 5325 | 18 | Yes |
| 77 | 36863 | 5326 | 19 | Yes |
| 78 | 37338 | 5327 | 21 | Yes |
| 79 | 37813 | 5328 | 21 | Yes |
| 80 | 38288 | 5329 | 14 | Yes |
| 81 | 38763 | 5330 | 15 | Yes |

## **5.7. BRIDGE MODE RESULTS**

Per KDB 905462 D02, Section 5.1 (footnote 2):

Networks Access Points with Bridge and/or MESH modes of operation are permitted to operate in the DFS bands but must employ a DFS function. The functionality of the Bridge mode as specified in §15.403(a) must be validated in the DFS test report. Devices operating as relays where they act as master and client must also employ DFS function for the master. The method used to validate the functionality must be documented and validation data must be documented. Bridge mode can be validated by performing a test statistical performance check (Section 7.8.4) on any one of the radar types. This is an abbreviated test to verify DFS functionality. MESH mode operational methodology must be submitted in the application for certification for evaluation by the FCC.

This device does not support Bridge Mode therefore this test was not performed.

## **5.8. APPLICABLE TESTS FOR CLIENT DEVICE CONFIGURATION**

### **5.8.1. APPLICABILITY OF MASTER DEVICE CONFIGURATION TEST RESULTS**

The EUT is identical for the two configurations: Master Device, and Client with Radar Detection. Therefore the performance of the EUT in the Client Device configuration, when the Client detects a radar signal, is represented by the above tests of the Master Device Configuration.

### **5.8.2. ADDITIONAL APPLICABLE TESTS OF CLIENT DEVICE**

**Per KDB 905462 D02 section 5.1.2, clause c):**

“If a Client Device is performing In-Service Monitoring and detects a Radar Waveform above the DFS Detection Threshold, it will inform the Master Device. This is equivalent to the Master Device detecting the Radar Waveform and d) through f) of section 5.1.1 apply”.

Therefore the following two test conditions must be performed to demonstrate compliance:

Channel shutdown tests to measure the performance of the Client Device configuration, in response to the detection of a radar signal by the Master Device, are applicable.

Channel shutdown tests to measure the performance of the Master Device configuration, in response to the detection of a radar signal by the Client Device, are applicable.

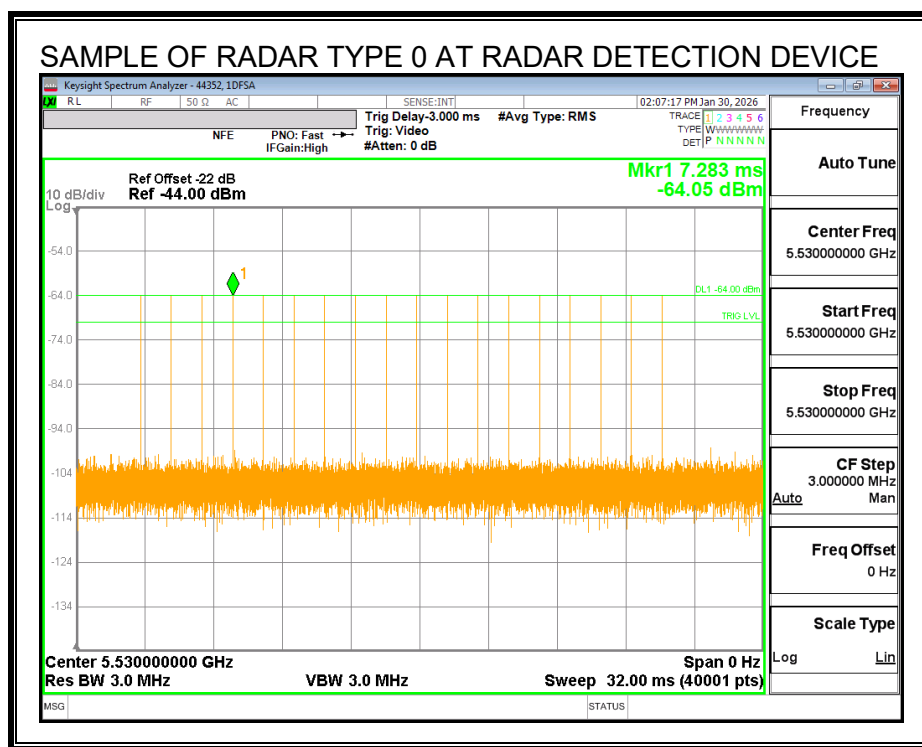
## 5.9. CLIENT DEVICE CONFIGURATION RESULTS FOR 80 MHz BANDWIDTH

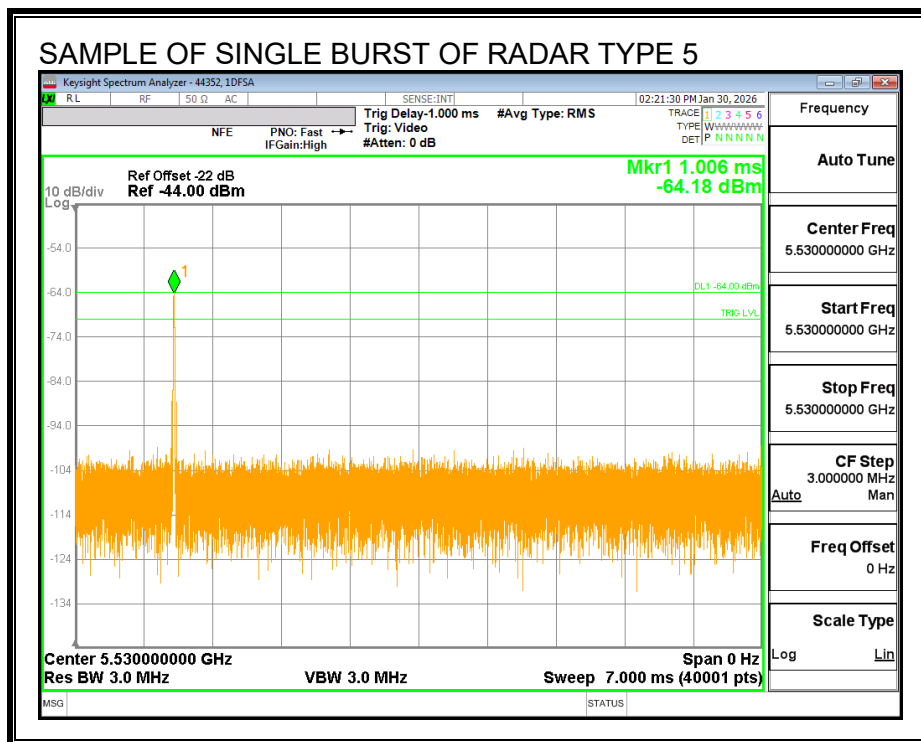
### 5.9.1. TEST CHANNEL

All tests were performed at a channel center frequency of 5530 MHz.

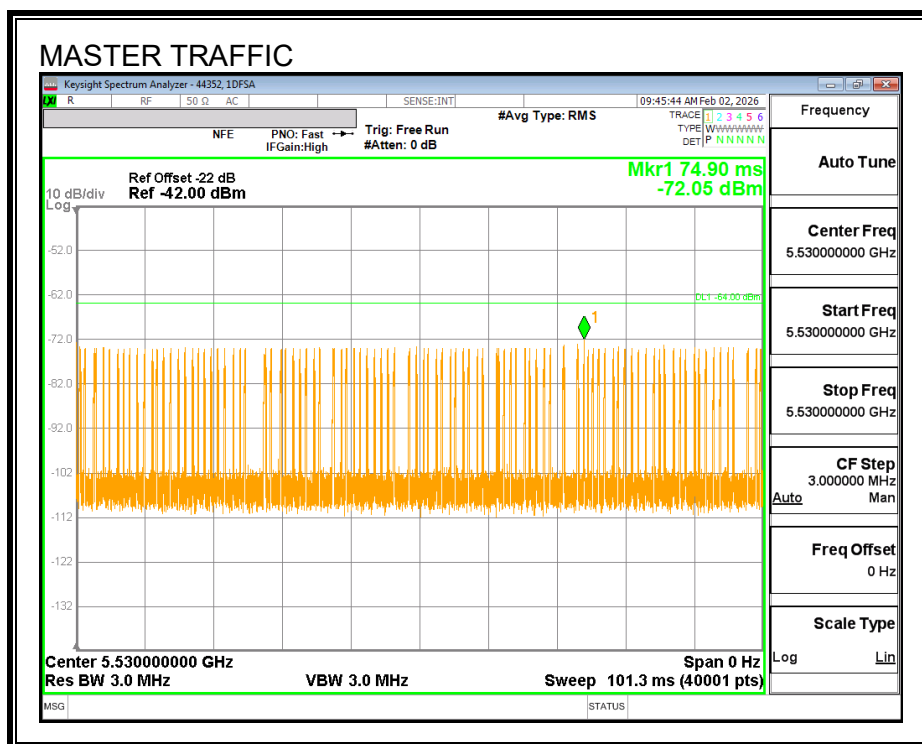
### 5.9.2. RADAR WAVEFORM AND TRAFFIC

#### RADAR WAVEFORM

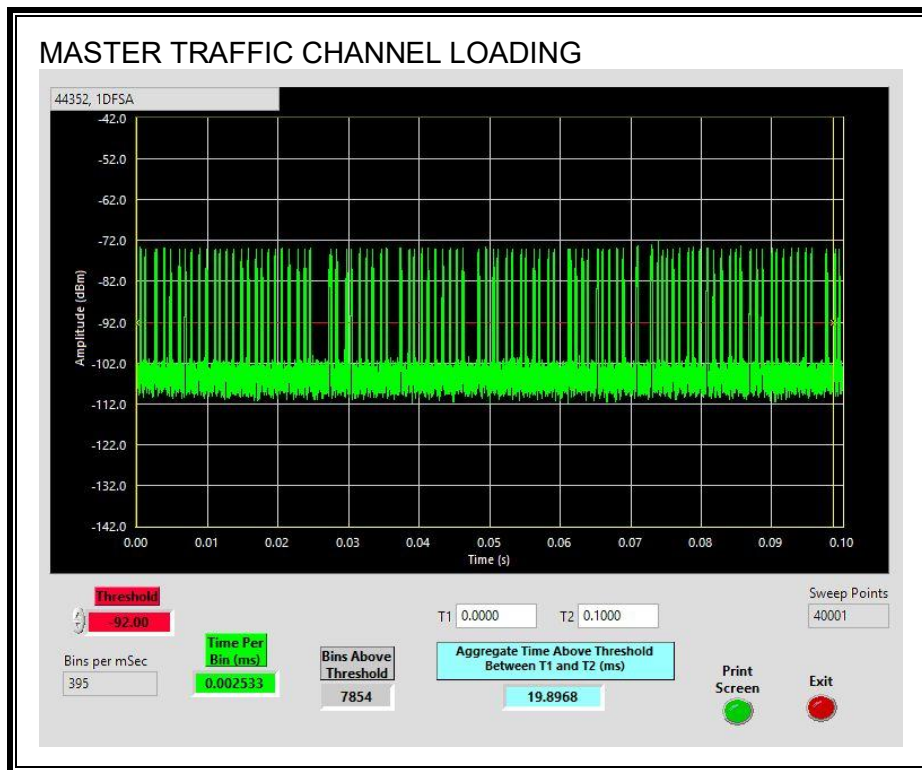




**TRAFFIC**

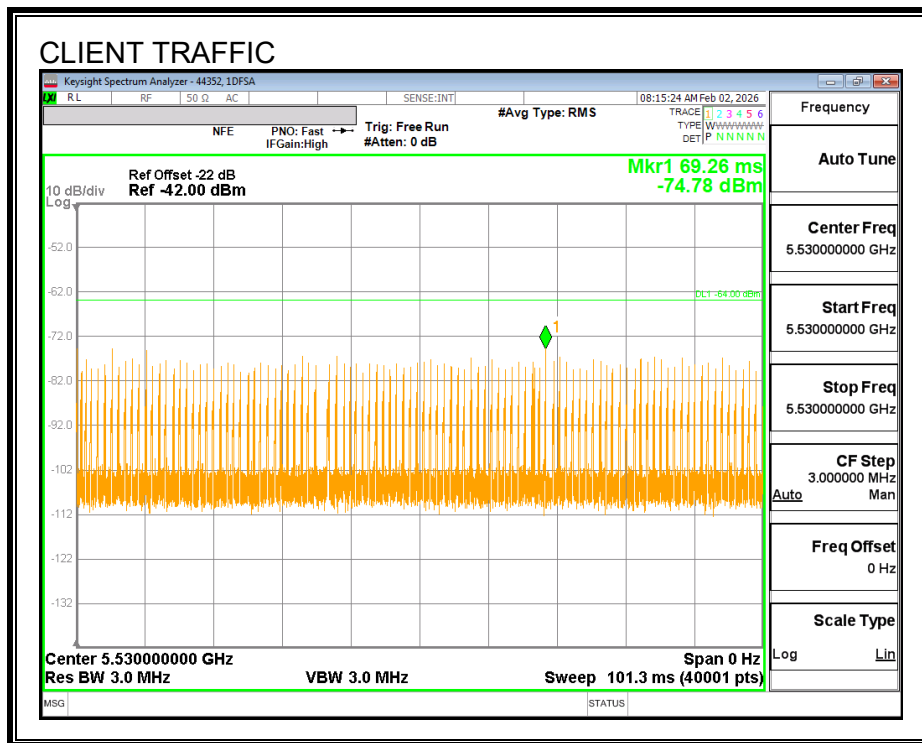


## CHANNEL LOADING

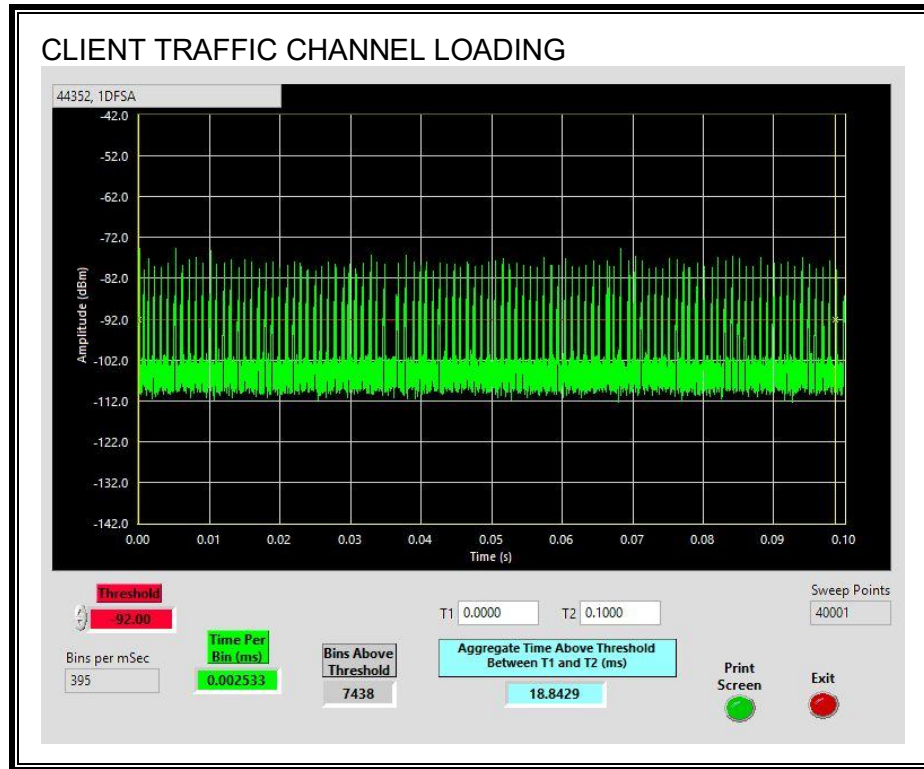


The level of traffic loading on the channel by the EUT is 19.8968%.

**TRAFFIC**



## CHANNEL LOADING



The level of traffic loading on the channel by the EUT is 18.8429%.

### 5.9.3. MOVE AND CLOSING TIME OF CLIENT DEVICE IN RESPONSE TO DETECTION BY MASTER DEVICE

#### **REPORTING NOTES**

The reference marker is set at the end of last radar pulse.

The delta marker is set at the end of the last WLAN transmission following the radar pulse. This delta is the channel move time.

The aggregate channel closing transmission time is calculated as follows:

Aggregate Transmission Time =  
(Number of analyzer bins showing transmission) \* (dwell time per bin)

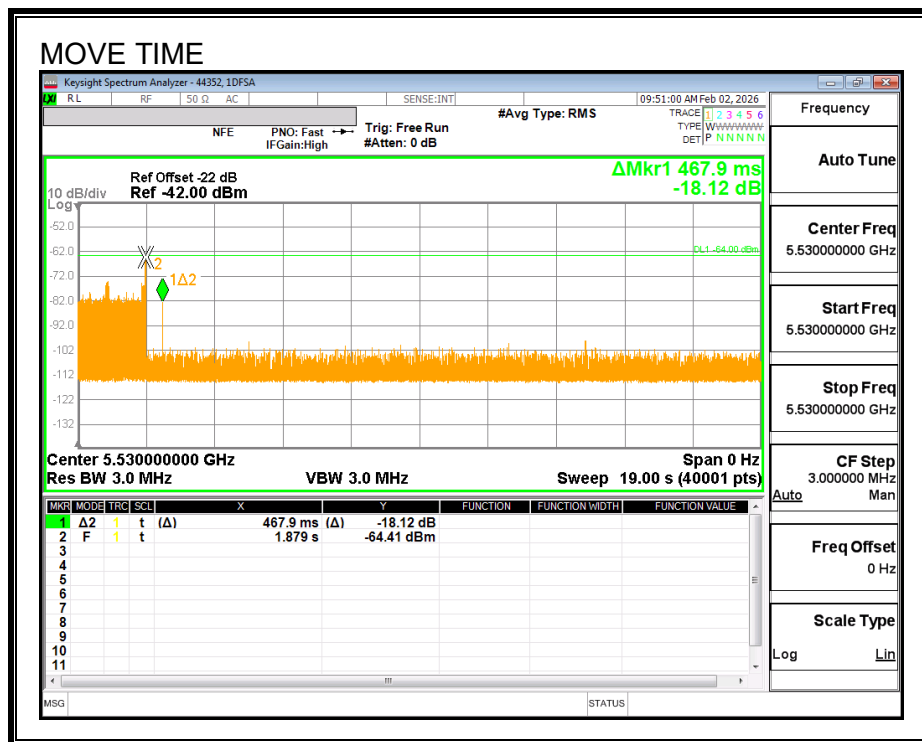
The observation period over which the aggregate time is calculated begins at (Reference Marker + 200 msec) and ends no earlier than (Reference Marker + 10 sec).

#### **RESULTS**

| Channel Move Time<br>(sec) | Limit<br>(sec) |
|----------------------------|----------------|
| 0.4679                     | 10             |

| Aggregate Channel Closing Transmission Time<br>(msec) | Limit<br>(msec) |
|-------------------------------------------------------|-----------------|
| 0.475                                                 | 60              |

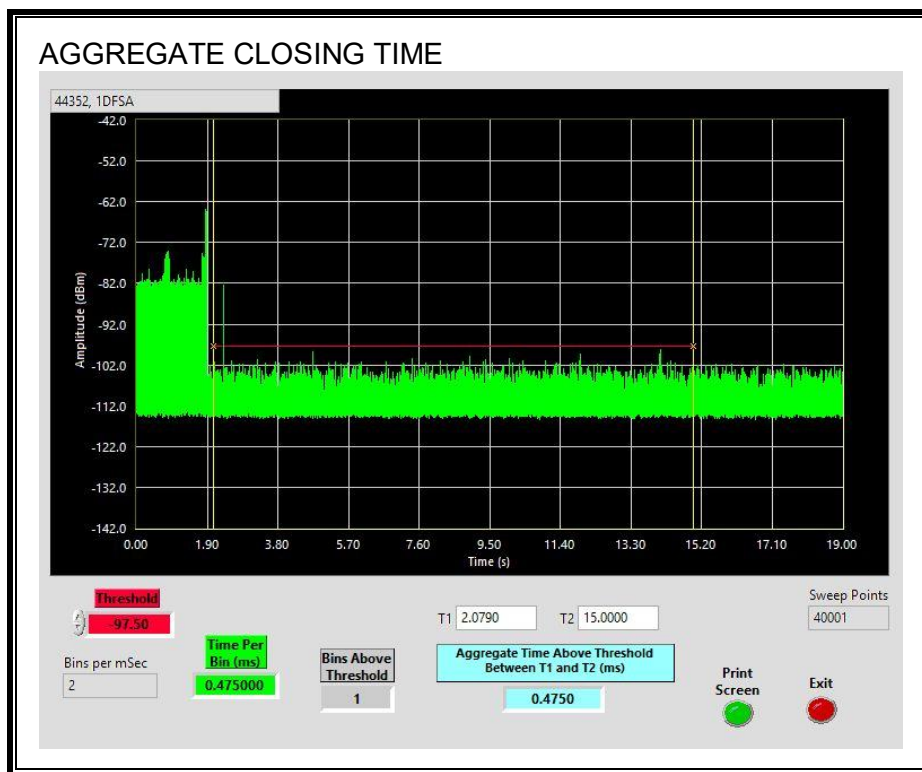
## MOVE TIME





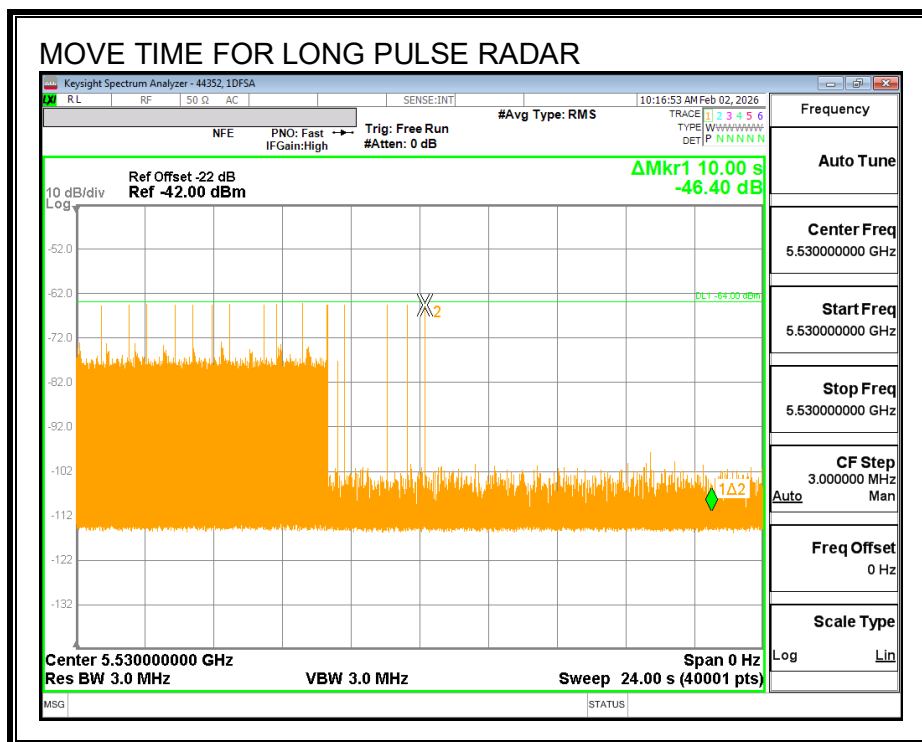
## AGGREGATE CHANNEL CLOSING TRANSMISSION TIME

Only intermittent transmissions are observed during the aggregate monitoring period.



## LONG PULSE CHANNEL MOVE TIME

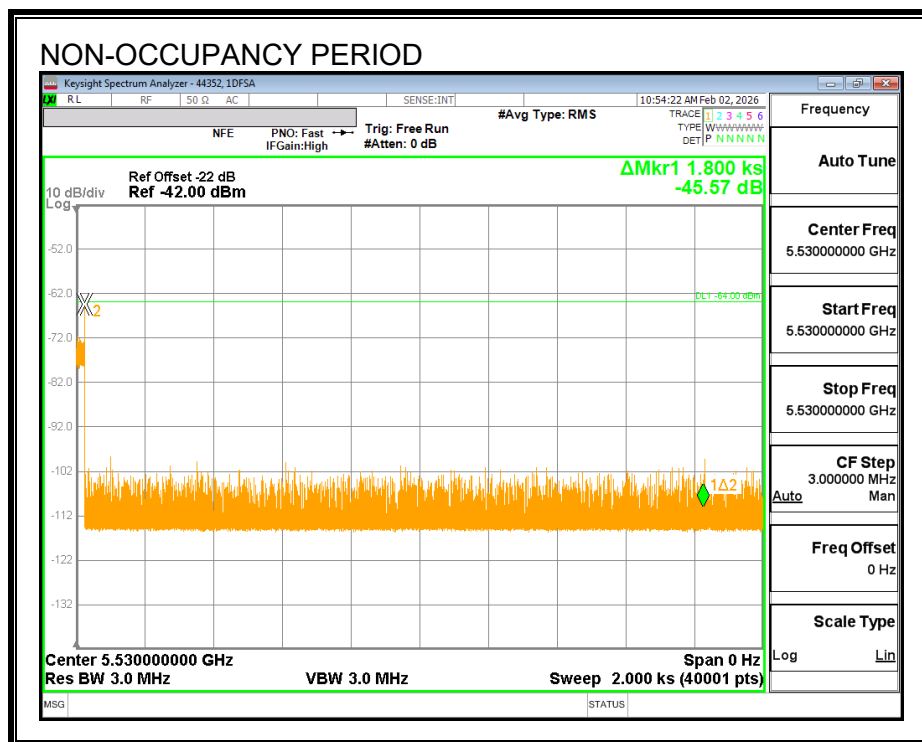
The traffic ceases prior to 10 seconds after the end of the radar waveform.



## 5.9.4. NON-OCCUPANCY PERIOD OF CLIENT IN RESPONSE TO DETECTION BY MASTER DEVICE

### RESULTS

No EUT transmissions were observed on the test channel during the 30-minute observation time.



### 5.9.5. MOVE AND CLOSING TIME OF MASTER DEVICE IN RESPONSE TO DETECTION BY CLIENT DEVICE

#### REPORTING NOTES

The reference marker is set at the end of last radar pulse.

The delta marker is set at the end of the last WLAN transmission following the radar pulse. This delta is the channel move time.

The aggregate channel closing transmission time is calculated as follows:

Aggregate Transmission Time =  
(Number of analyzer bins showing transmission) \* (dwell time per bin)

The observation period over which the aggregate time is calculated begins at (Reference Marker + 200 msec) and ends no earlier than (Reference Marker + 10 sec).

#### RESULTS

| Channel Move Time<br>(sec) | Limit<br>(sec) |
|----------------------------|----------------|
| 0.000                      | 10             |

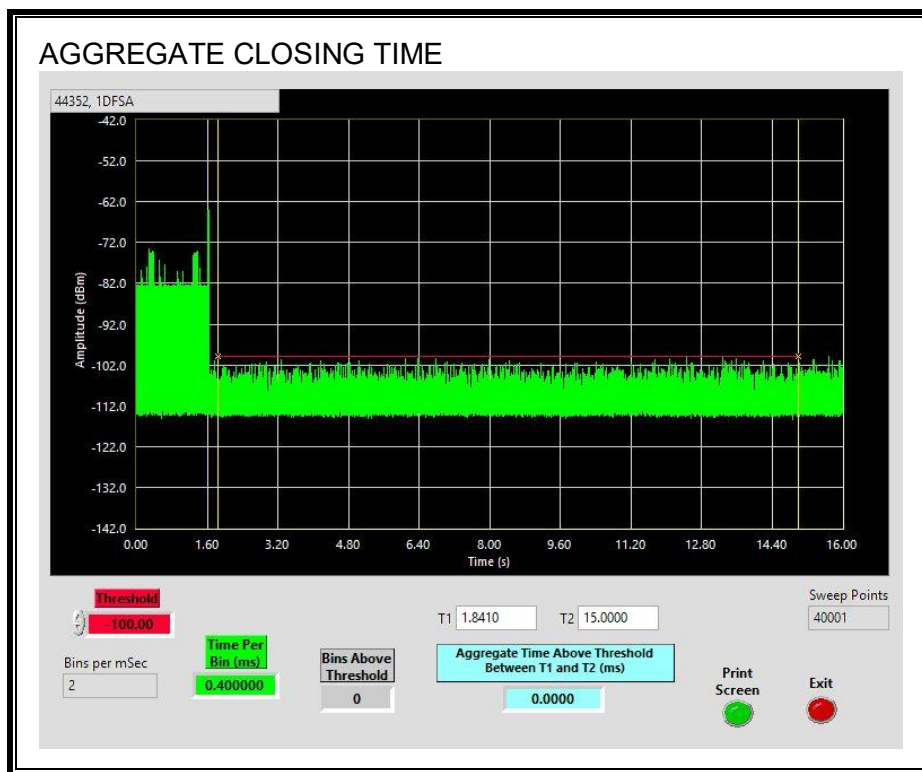
| Aggregate Channel Closing Transmission Time<br>(msec) | Limit<br>(msec) |
|-------------------------------------------------------|-----------------|
| 0.0                                                   | 60              |





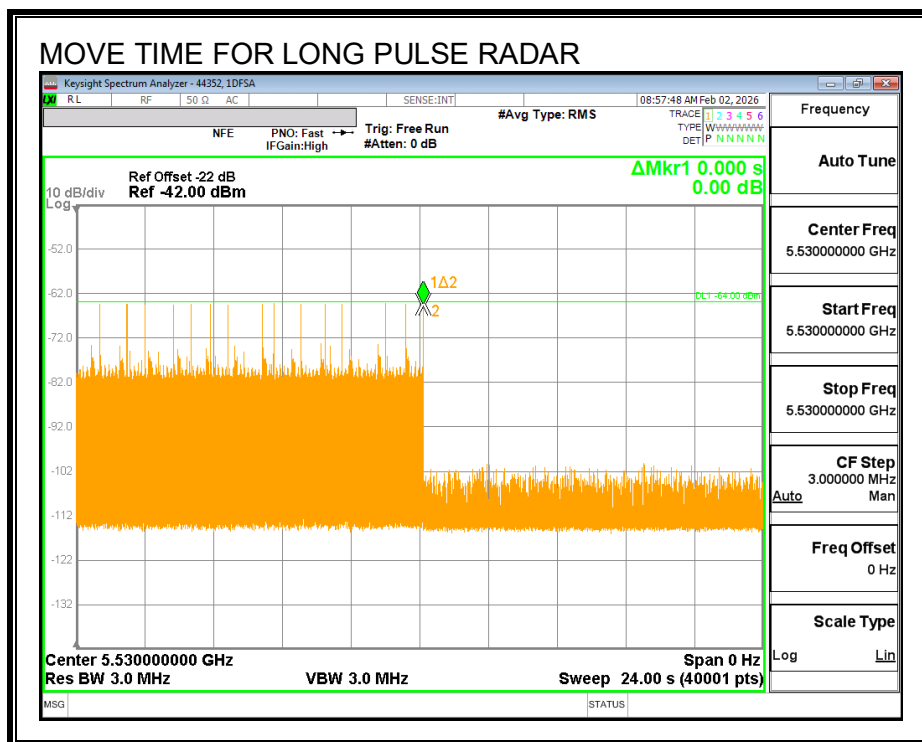
## AGGREGATE CHANNEL CLOSING TRANSMISSION TIME

No transmissions are observed during the aggregate monitoring period.



## LONG PULSE CHANNEL MOVE TIME

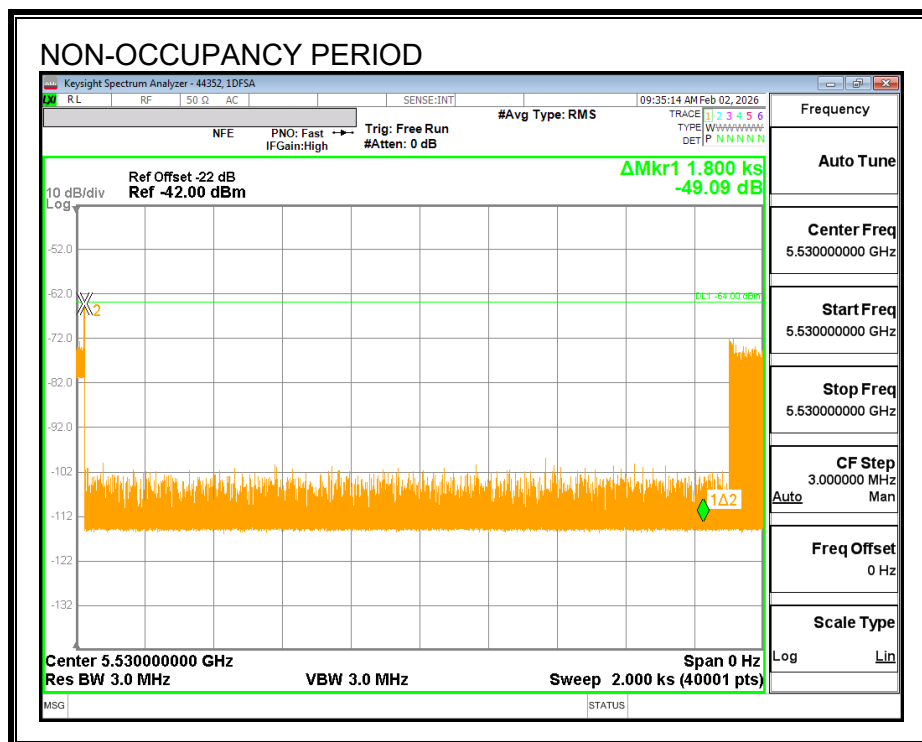
The traffic ceases prior to 10 seconds after the end of the radar waveform.



## 5.9.6. NON-OCCUPANCY PERIOD OF MASTER DEVICE IN RESPONSE TO DETECTION BY CLIENT DEVICE

### RESULTS

No EUT transmissions were observed on the test channel during the 30-minute observation time. After the 30-minute non-occupancy period the Master & Client Device performed a new CAC, then resumed transmissions upon detecting no radar during this CAC period.



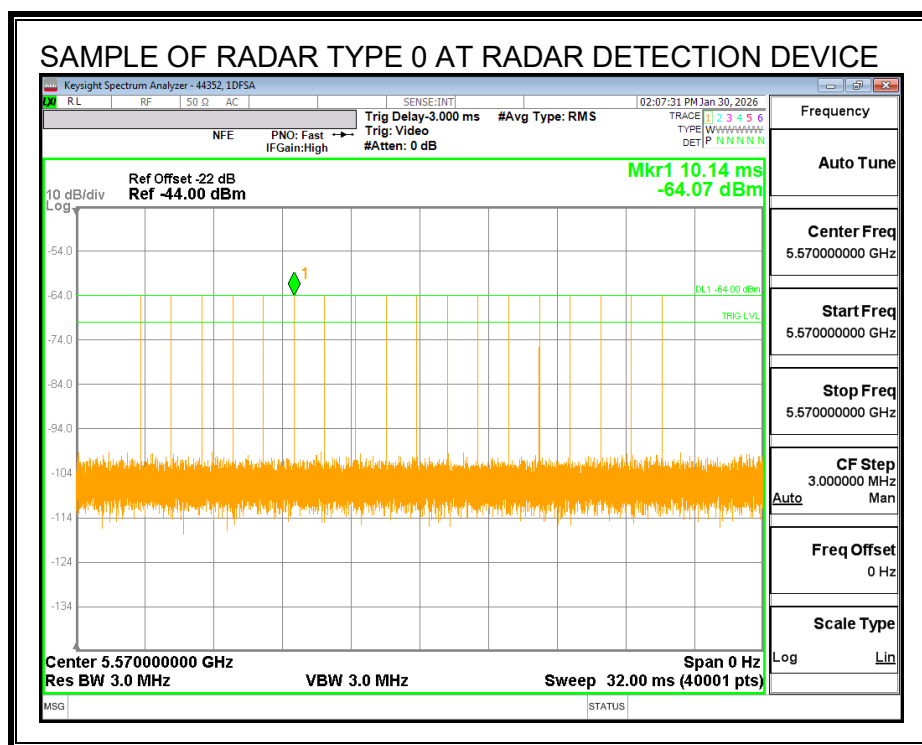
## 5.10. CLIENT DEVICE CONFIGURATION RESULTS FOR 160 MHz BANDWIDTH

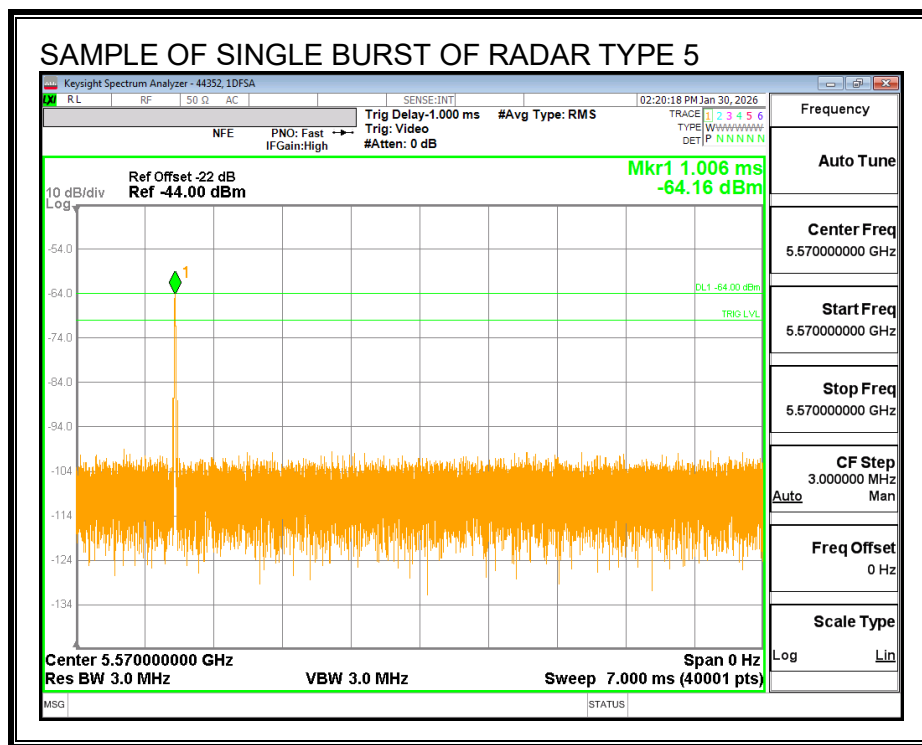
### 5.10.1. TEST CHANNEL

All tests were performed at a channel center frequency of 5570 MHz.

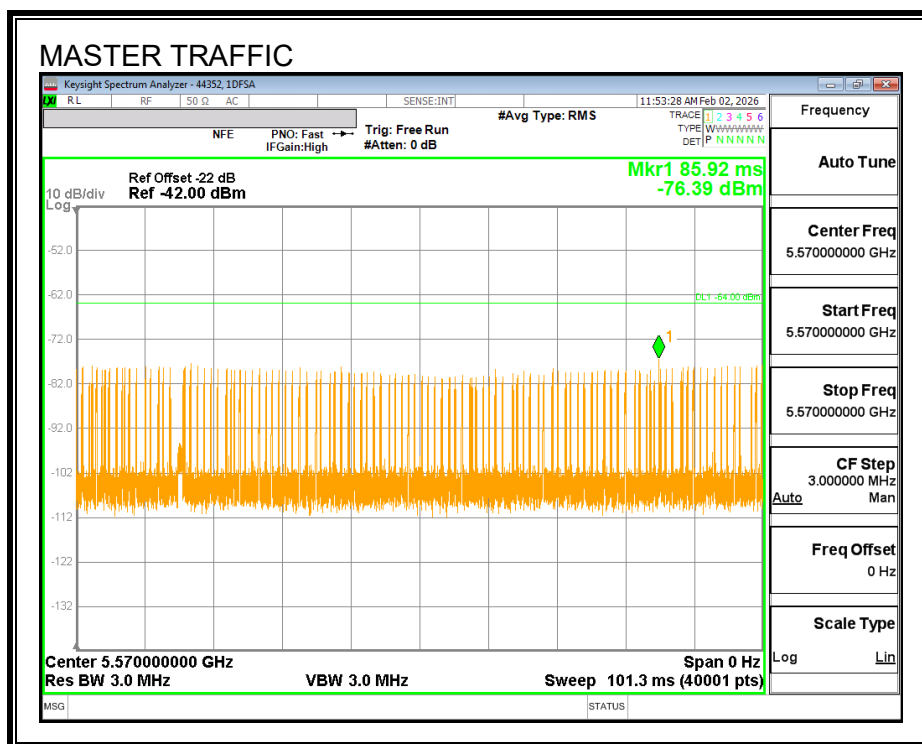
### 5.10.2. RADAR WAVEFORM AND TRAFFIC

#### RADAR WAVEFORM

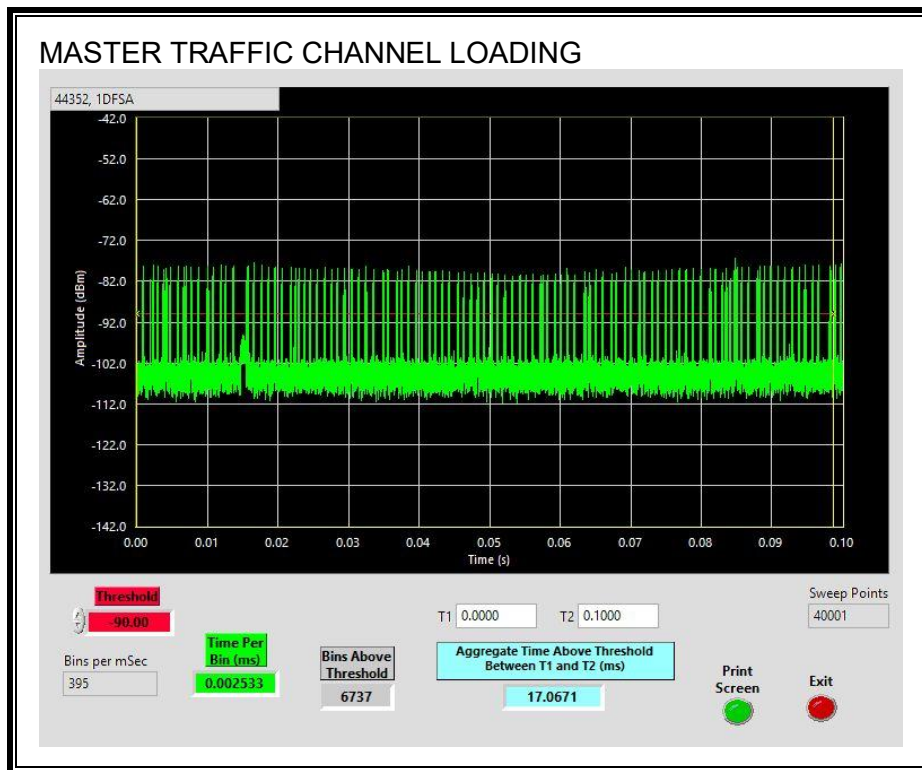




**TRAFFIC**

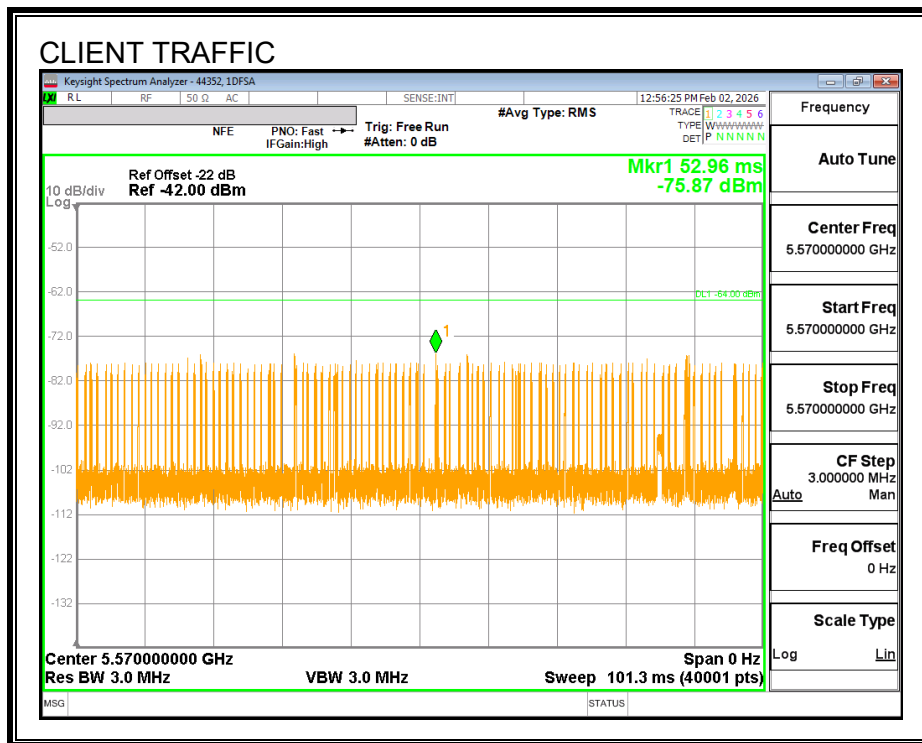


## CHANNEL LOADING

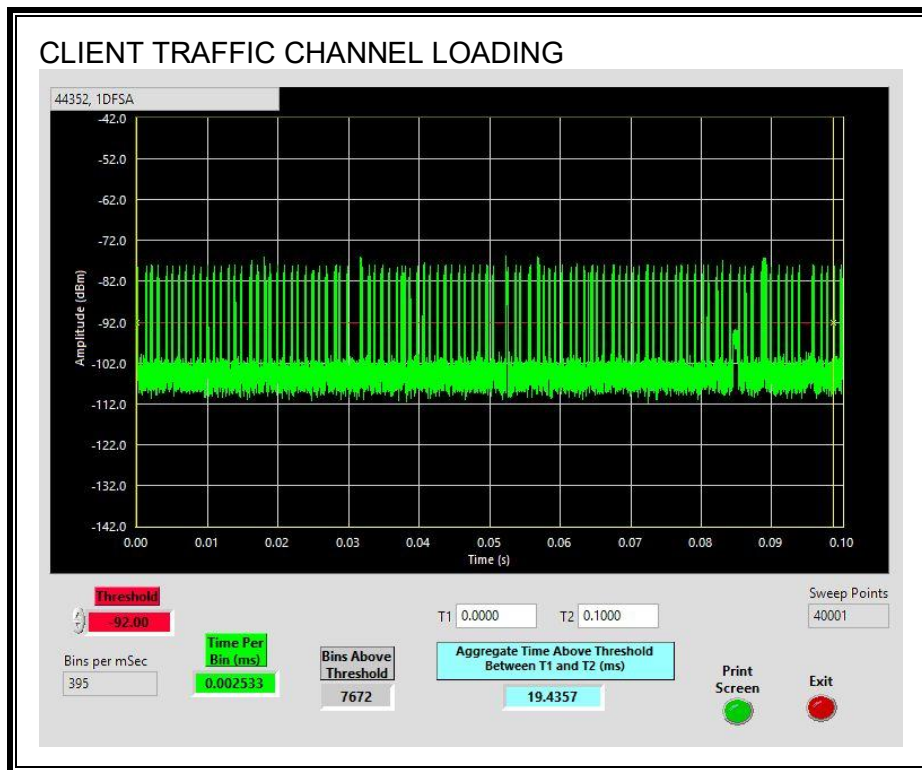


The level of traffic loading on the channel by the EUT is 17.0671%.

**TRAFFIC**



## CHANNEL LOADING



The level of traffic loading on the channel by the EUT is 19.4357%.

### 5.10.3. MOVE AND CLOSING TIME OF CLIENT DEVICE IN RESPONSE TO DETECTION BY MASTER DEVICE

#### **REPORTING NOTES**

The reference marker is set at the end of last radar pulse.

The delta marker is set at the end of the last WLAN transmission following the radar pulse. This delta is the channel move time.

The aggregate channel closing transmission time is calculated as follows:

Aggregate Transmission Time =  
(Number of analyzer bins showing transmission) \* (dwell time per bin)

The observation period over which the aggregate time is calculated begins at (Reference Marker + 200 msec) and ends no earlier than (Reference Marker + 10 sec).

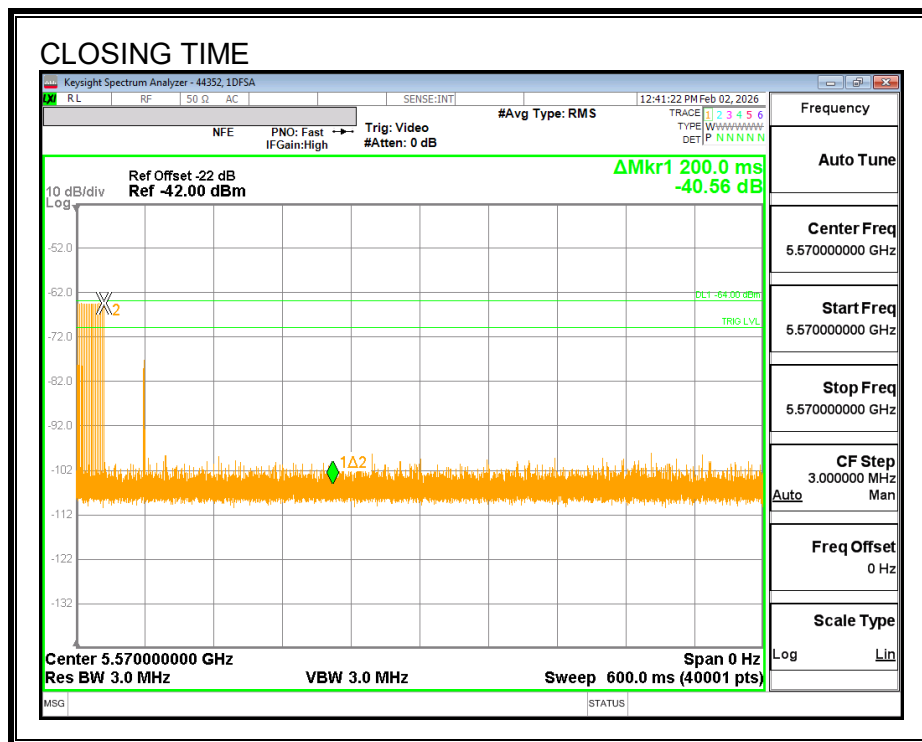
#### **RESULTS**

| Channel Move Time<br>(sec) | Limit<br>(sec) |
|----------------------------|----------------|
| 0.1316                     | 10             |

| Aggregate Channel Closing Transmission Time<br>(msec) | Limit<br>(msec) |
|-------------------------------------------------------|-----------------|
| 0                                                     | 60              |

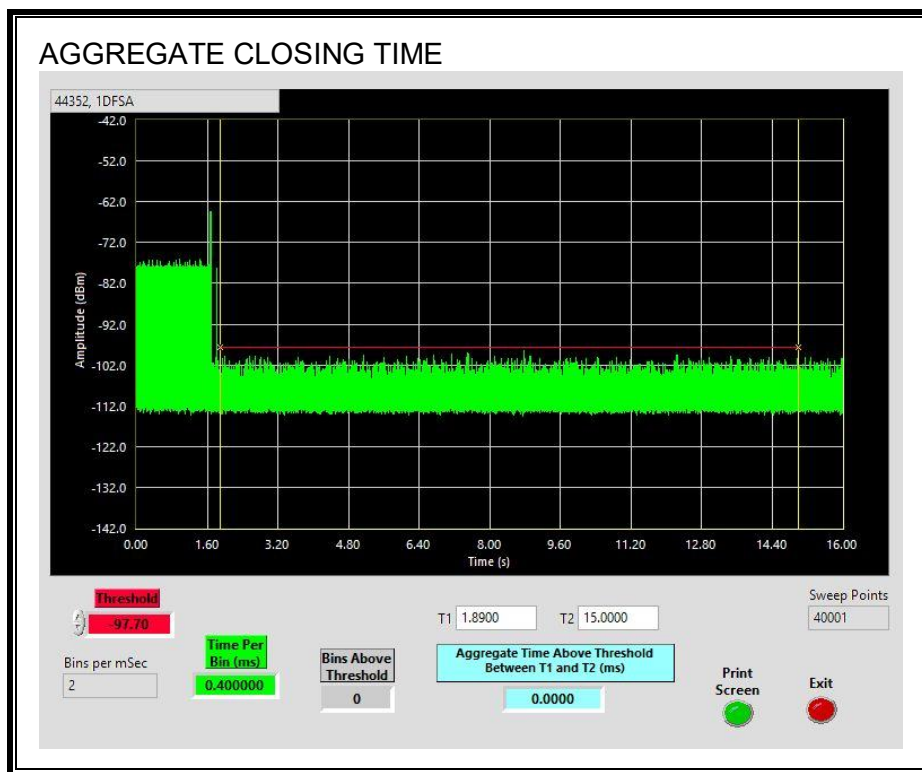


**CHANNEL CLOSING TIME**



## AGGREGATE CHANNEL CLOSING TRANSMISSION TIME

No transmissions are observed during the aggregate monitoring period.

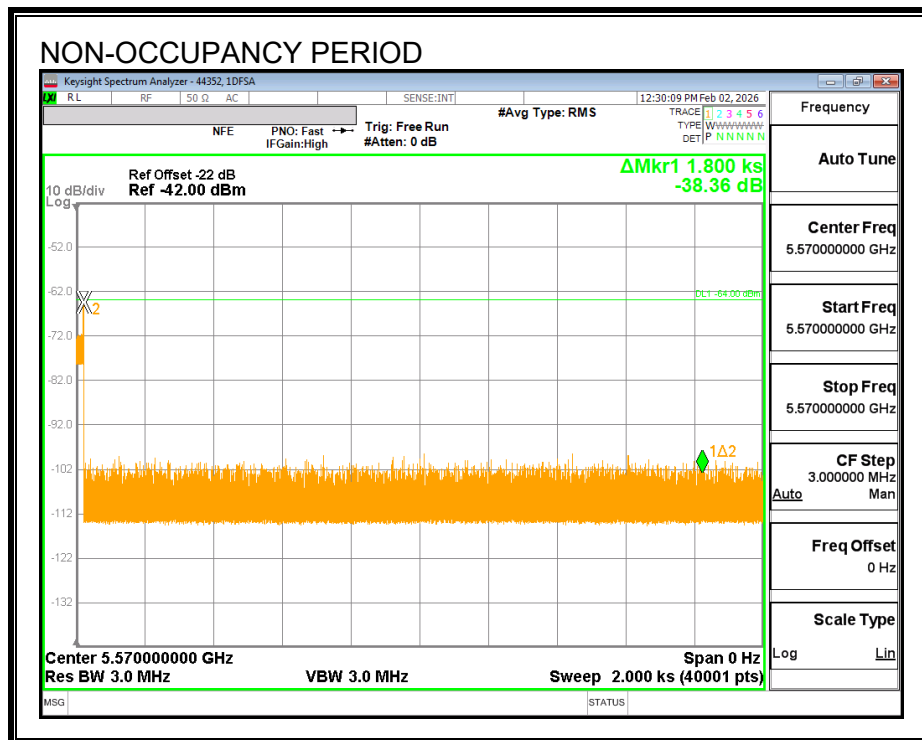




## 5.10.4. NON-OCCUPANCY PERIOD OF CLIENT IN RESPONSE TO DETECTION BY MASTER DEVICE

### RESULTS

No EUT transmissions were observed on the test channel during the 30-minute observation time.



### 5.10.5. MOVE AND CLOSING TIME OF MASTER DEVICE IN RESPONSE TO DETECTION BY CLIENT DEVICE

#### REPORTING NOTES

The reference marker is set at the end of last radar pulse.

The delta marker is set at the end of the last WLAN transmission following the radar pulse. This delta is the channel move time.

The aggregate channel closing transmission time is calculated as follows:

Aggregate Transmission Time =  
(Number of analyzer bins showing transmission) \* (dwell time per bin)

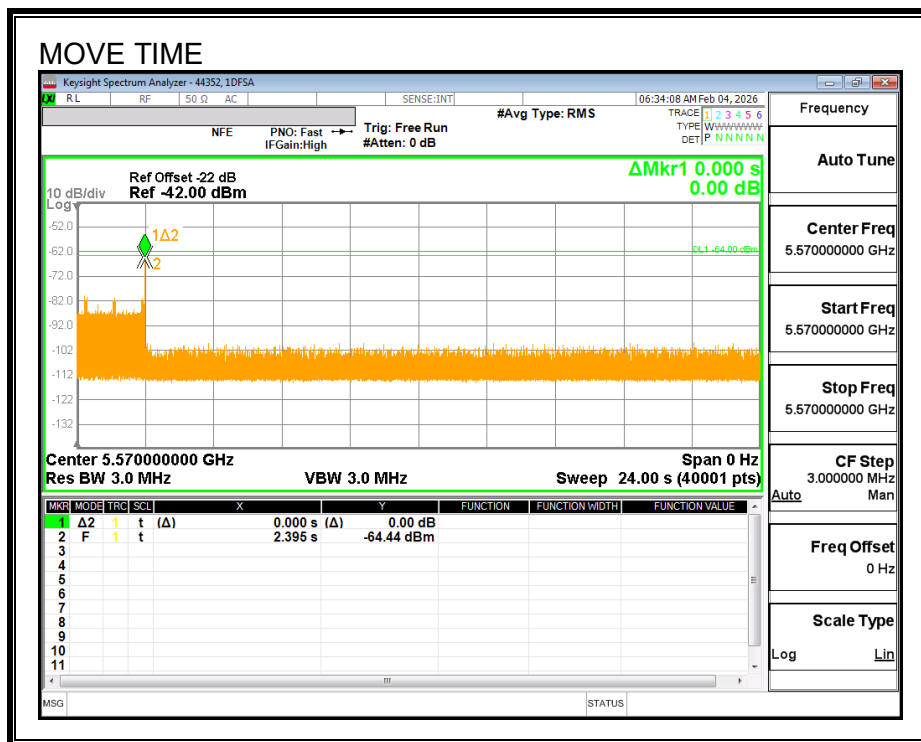
The observation period over which the aggregate time is calculated begins at (Reference Marker + 200 msec) and ends no earlier than (Reference Marker + 10 sec).

#### RESULTS

| Channel Move Time<br>(sec) | Limit<br>(sec) |
|----------------------------|----------------|
| 0                          | 10             |

| Aggregate Channel Closing Transmission Time<br>(msec) | Limit<br>(msec) |
|-------------------------------------------------------|-----------------|
| 0                                                     | 60              |

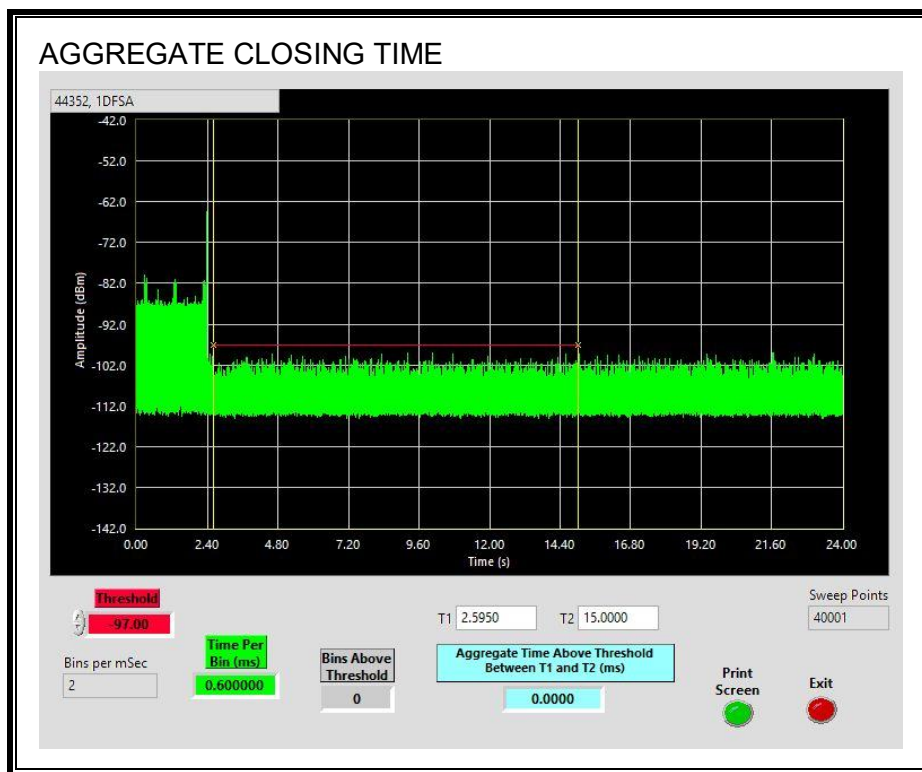
**MOVE TIME**





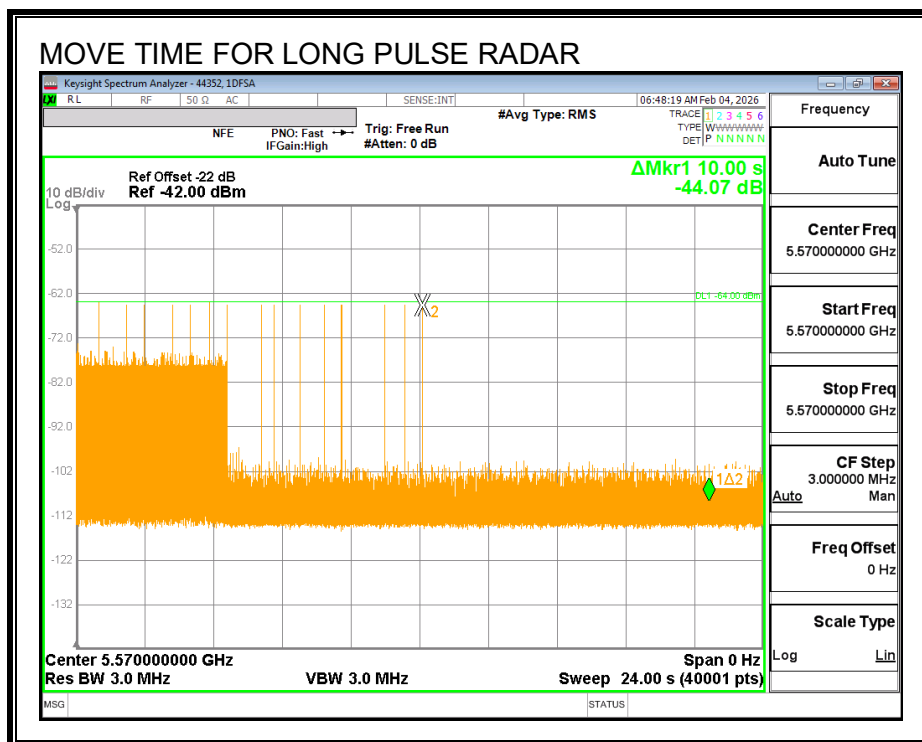
### AGGREGATE CHANNEL CLOSING TRANSMISSION TIME

No transmissions are observed during the aggregate monitoring period.



## LONG PULSE CHANNEL MOVE TIME

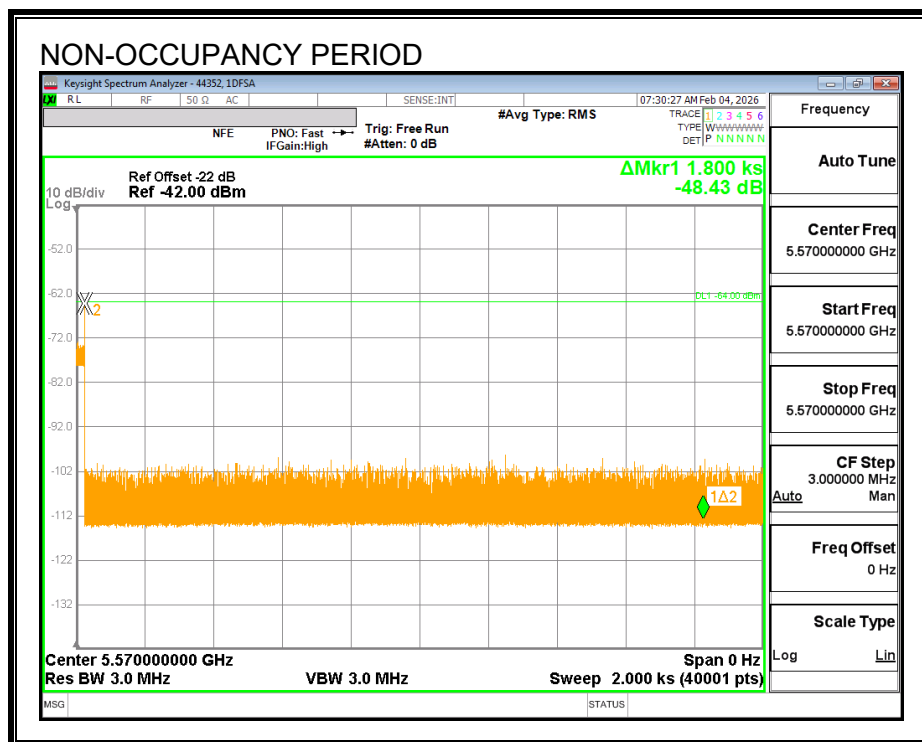
The traffic ceases prior to 10 seconds after the end of the radar waveform.



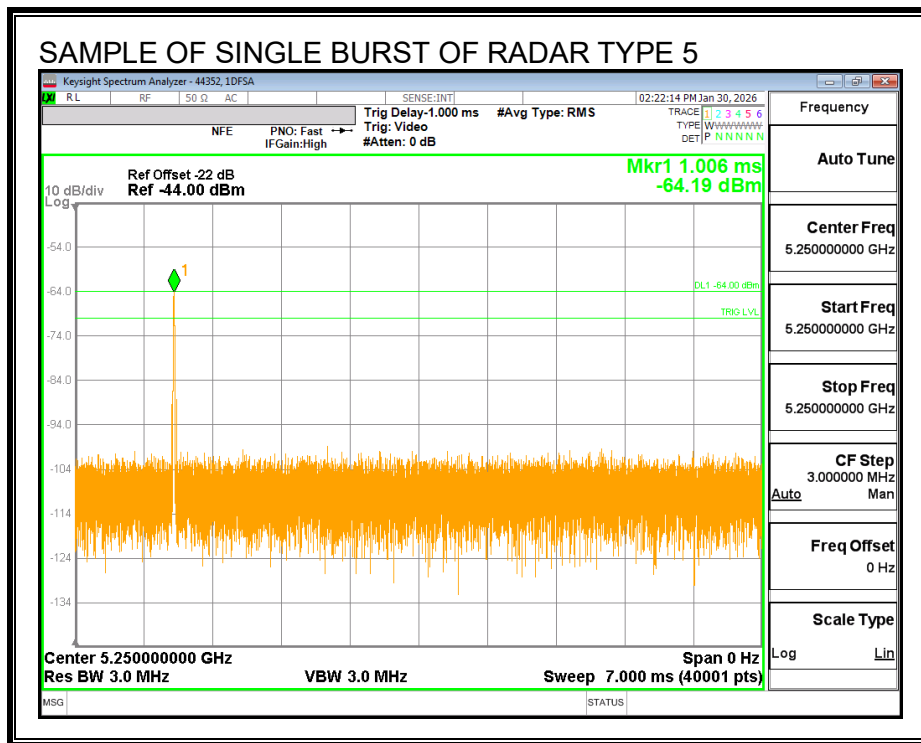
## 5.10.6. NON-OCCUPANCY PERIOD OF MASTER DEVICE IN RESPONSE TO DETECTION BY CLIENT DEVICE

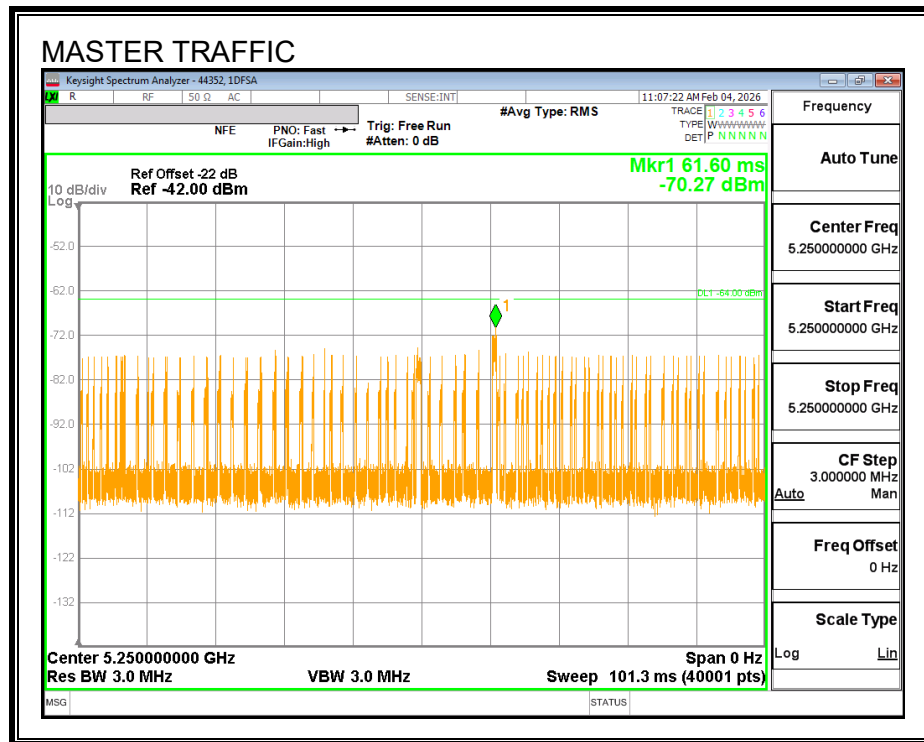
### RESULTS

No EUT transmissions were observed on the test channel during the 30-minute observation time.

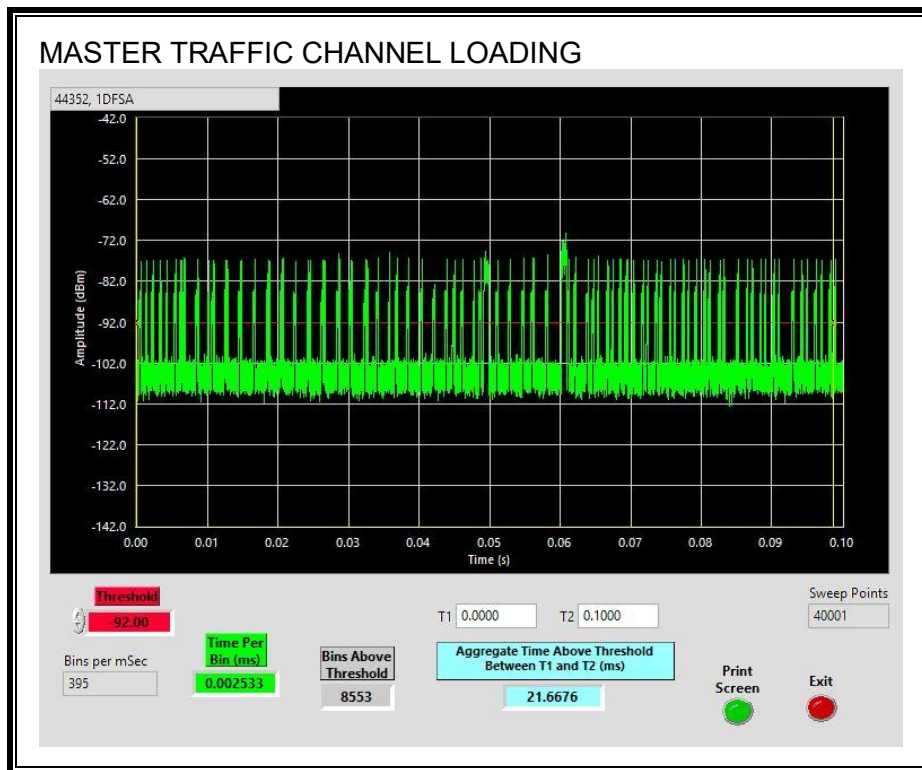






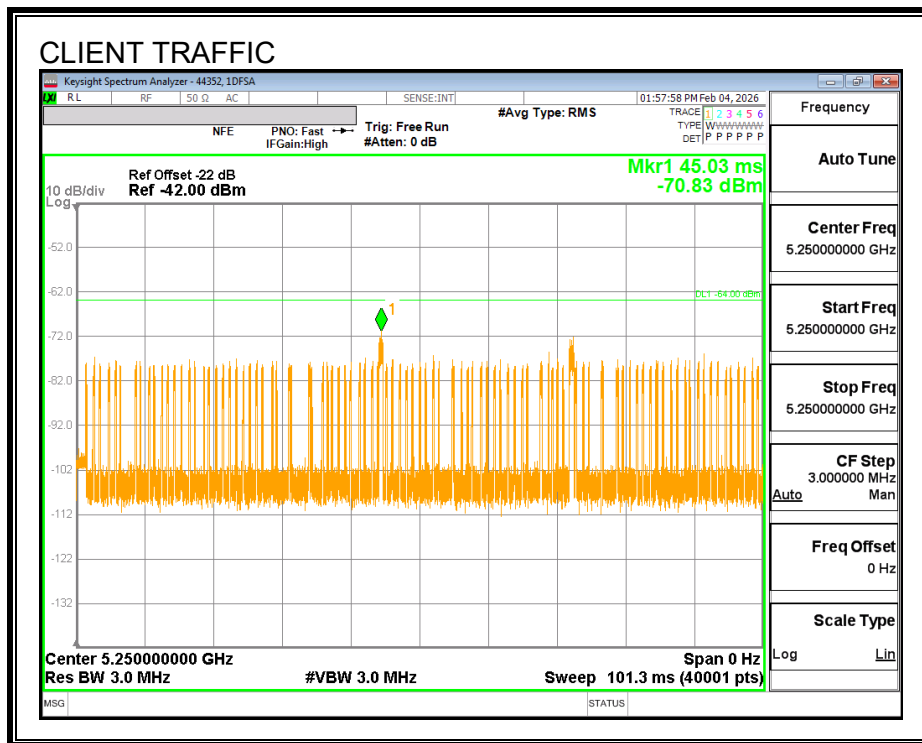


## CHANNEL LOADING

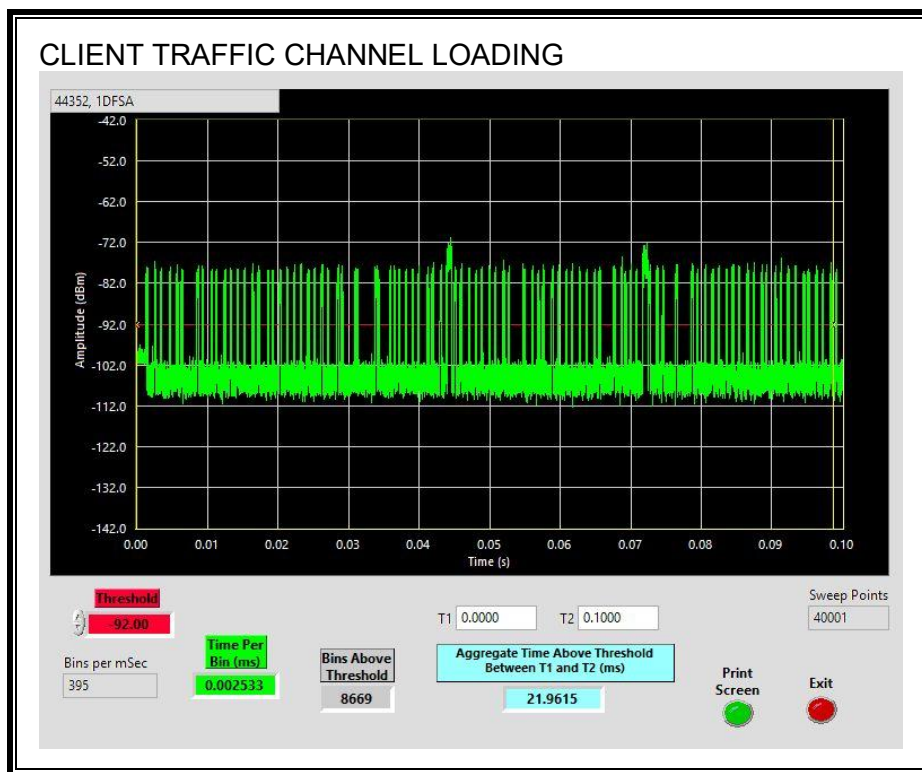


The level of traffic loading on the channel by the EUT is 21.6676%.

**TRAFFIC**



## CHANNEL LOADING



The level of traffic loading on the channel by the EUT is 21.9615%.

### 5.11.3. MOVE AND CLOSING TIME OF CLIENT DEVICE IN RESPONSE TO DETECTION BY MASTER DEVICE

#### **REPORTING NOTES**

The reference marker is set at the end of last radar pulse.

The delta marker is set at the end of the last WLAN transmission following the radar pulse. This delta is the channel move time.

The aggregate channel closing transmission time is calculated as follows:

Aggregate Transmission Time =  
(Number of analyzer bins showing transmission) \* (dwell time per bin)

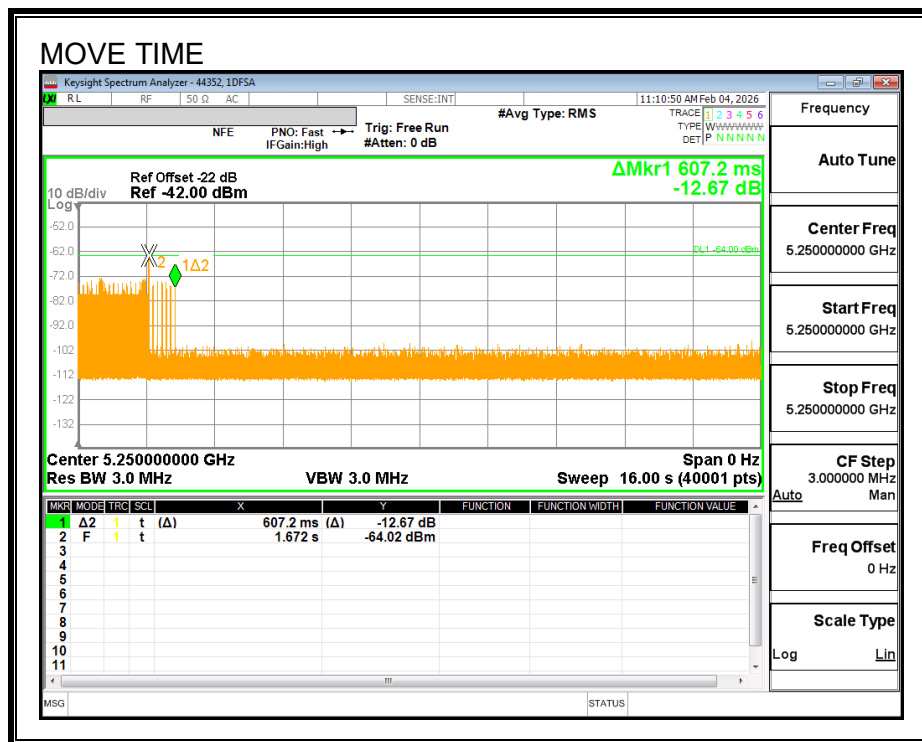
The observation period over which the aggregate time is calculated begins at (Reference Marker + 200 msec) and ends no earlier than (Reference Marker + 10 sec).

#### **RESULTS**

| Channel Move Time<br>(sec) | Limit<br>(sec) |
|----------------------------|----------------|
| 0.6072                     | 10             |

| Aggregate Channel Closing Transmission Time<br>(msec) | Limit<br>(msec) |
|-------------------------------------------------------|-----------------|
| 7.2                                                   | 60              |

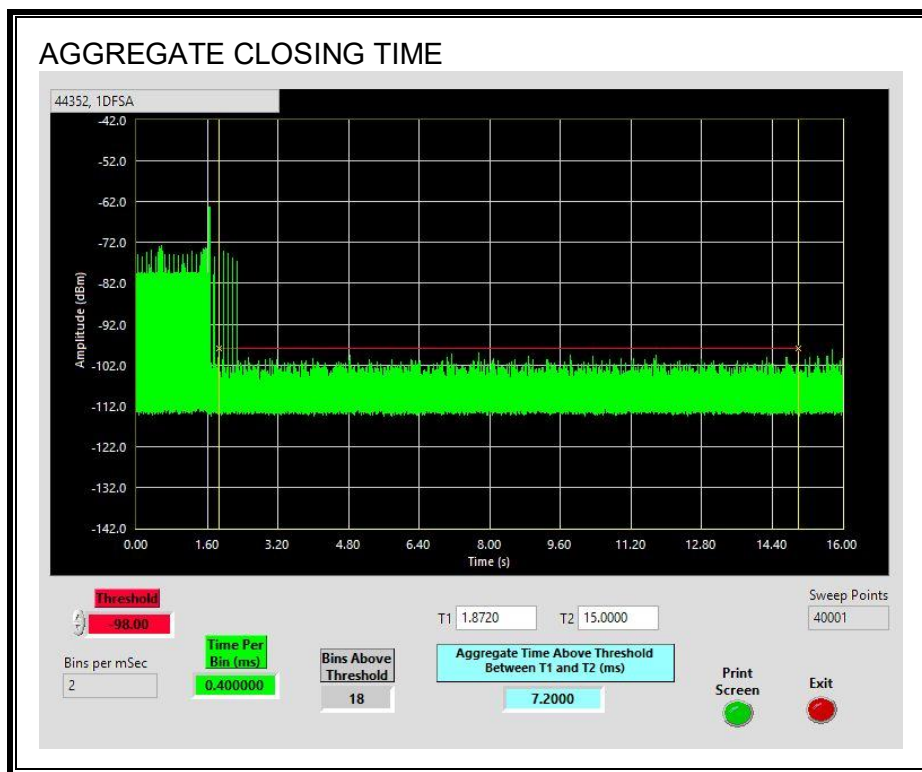
**MOVE TIME**





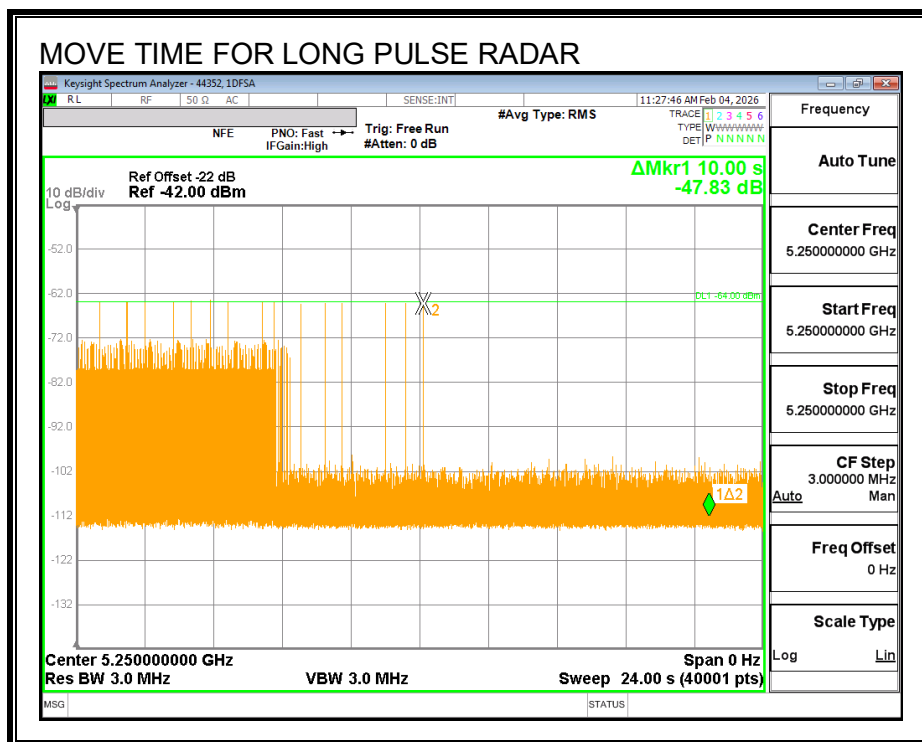
## AGGREGATE CHANNEL CLOSING TRANSMISSION TIME

Only intermittent transmissions are observed during the aggregate monitoring period.



## LONG PULSE CHANNEL MOVE TIME

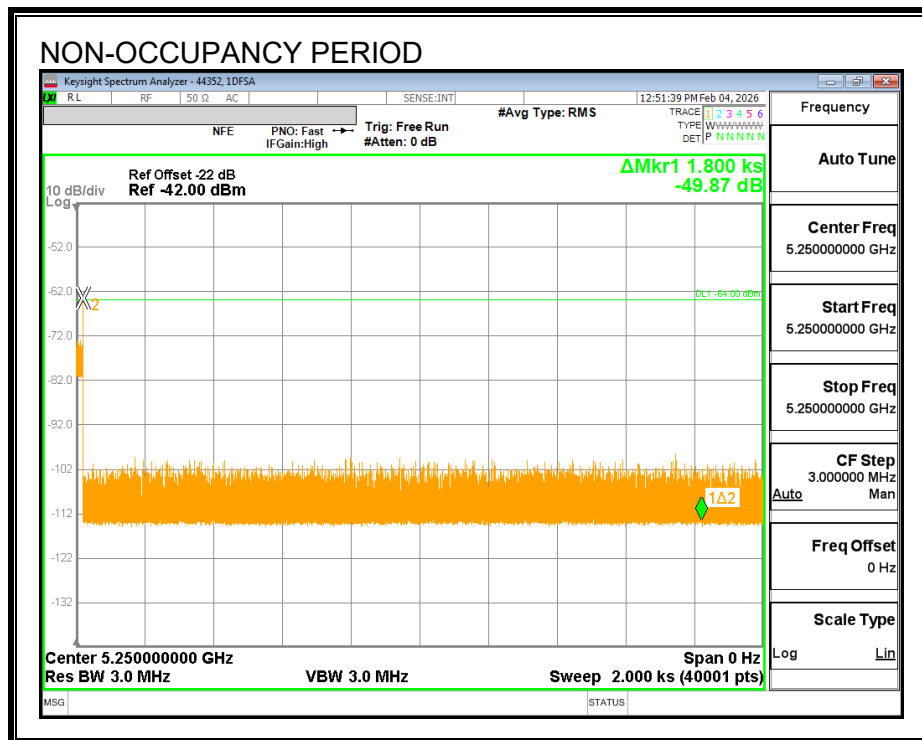
The traffic ceases prior to 10 seconds after the end of the radar waveform.



## 5.11.4. NON-OCCUPANCY PERIOD OF CLIENT IN RESPONSE TO DETECTION BY MASTER DEVICE

### RESULTS

No EUT transmissions were observed on the test channel during the 30-minute observation time.



### 5.11.5. MOVE AND CLOSING TIME OF MASTER DEVICE IN RESPONSE TO DETECTION BY CLIENT DEVICE

#### **REPORTING NOTES**

The reference marker is set at the end of last radar pulse.

The delta marker is set at the end of the last WLAN transmission following the radar pulse. This delta is the channel move time.

The aggregate channel closing transmission time is calculated as follows:

Aggregate Transmission Time =  
(Number of analyzer bins showing transmission) \* (dwell time per bin)

The observation period over which the aggregate time is calculated begins at (Reference Marker + 200 msec) and ends no earlier than (Reference Marker + 10 sec).

#### **RESULTS**

| Channel Move Time<br>(sec) | Limit<br>(sec) |
|----------------------------|----------------|
| 1.068                      | 10             |

| Aggregate Channel Closing Transmission Time<br>(msec) | Limit<br>(msec) |
|-------------------------------------------------------|-----------------|
| 9.2                                                   | 60              |



