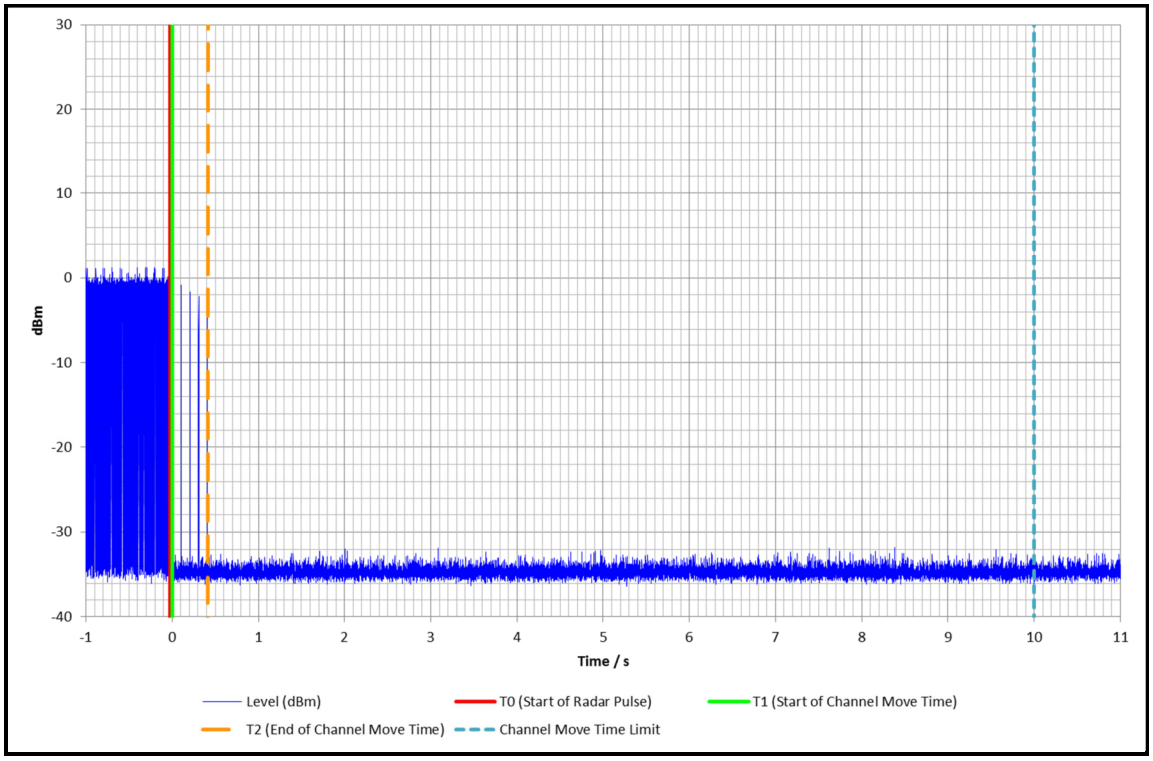
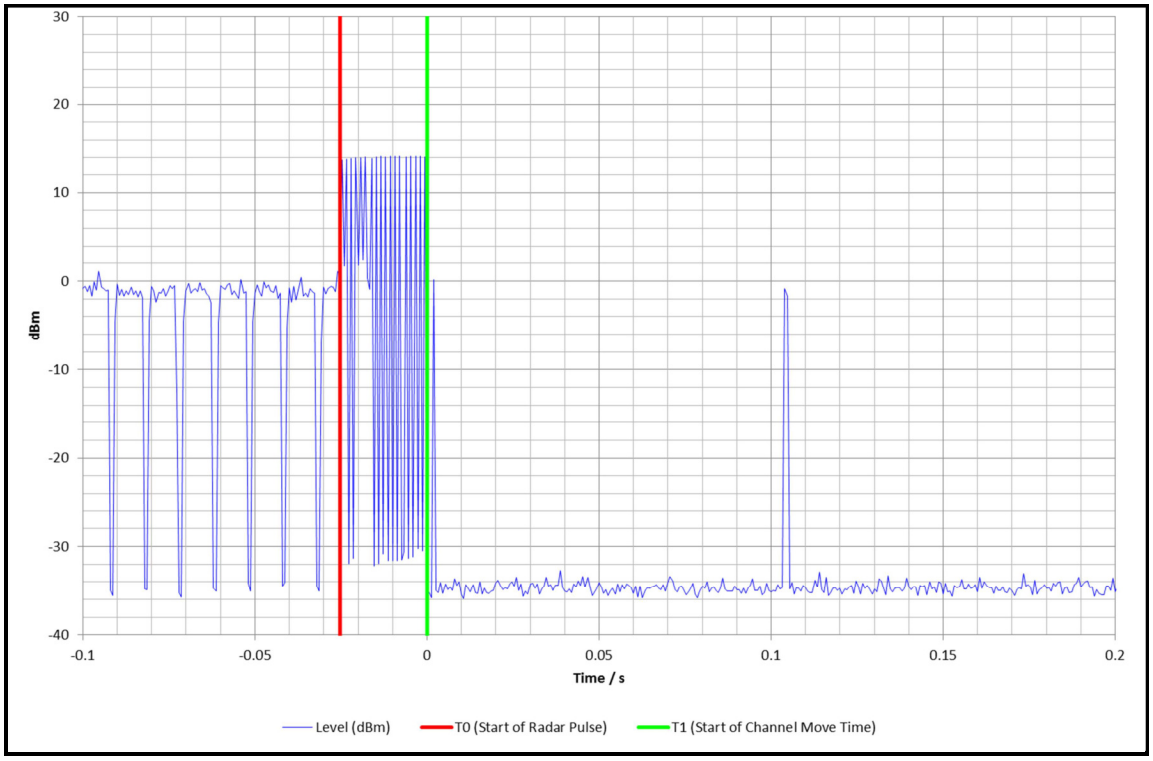
## Channel Closing Transmission Time and Channel Move Time (continued)

## Results: 40 MHz Master




Plot showing the full 10 second shutdown limit




Zoomed plot showing the first 200 ms after the end of the type 0 radar burst

## Channel Closing Transmission Time and Channel Move Time (continued)

### Results: 40 MHz Client, Radar at Master – Channel Move Time

| Channel (MHz) | Move Time (ms) | Limit (ms) | Margin (ms) | Detected |
|---|---|---|---|---|
| 5510 | 0 | 10000 | 10000 | Yes |

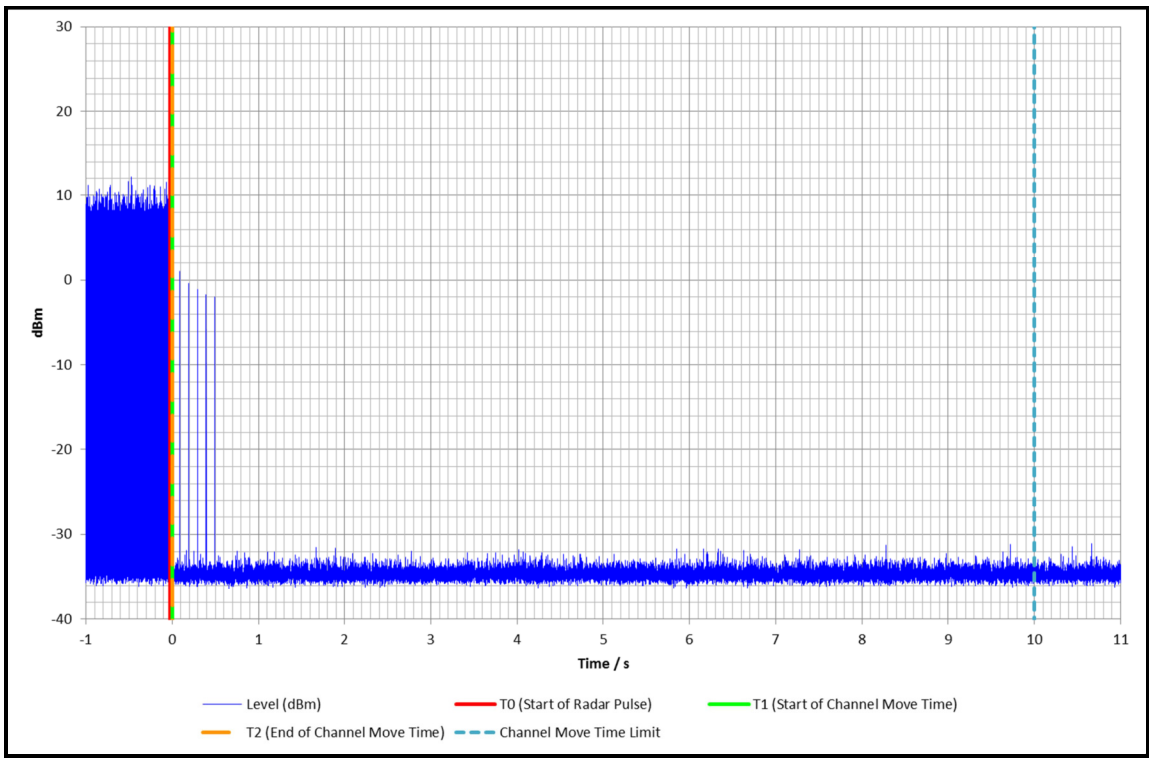
### Results: 40 MHz Client, Radar at Master – Channel Closing Transmission Time

| Channel (MHz) | Total Aggregate Tx Time (ms) | Limit (ms) | Margin (ms) | Tx Time >200 ms after end of radar (ms) | Limit (ms) | Margin (ms) |
|---|---|---|---|---|---|---|
| 5510 | 0 | 260 | 260 | 0 | 60 | 60 |

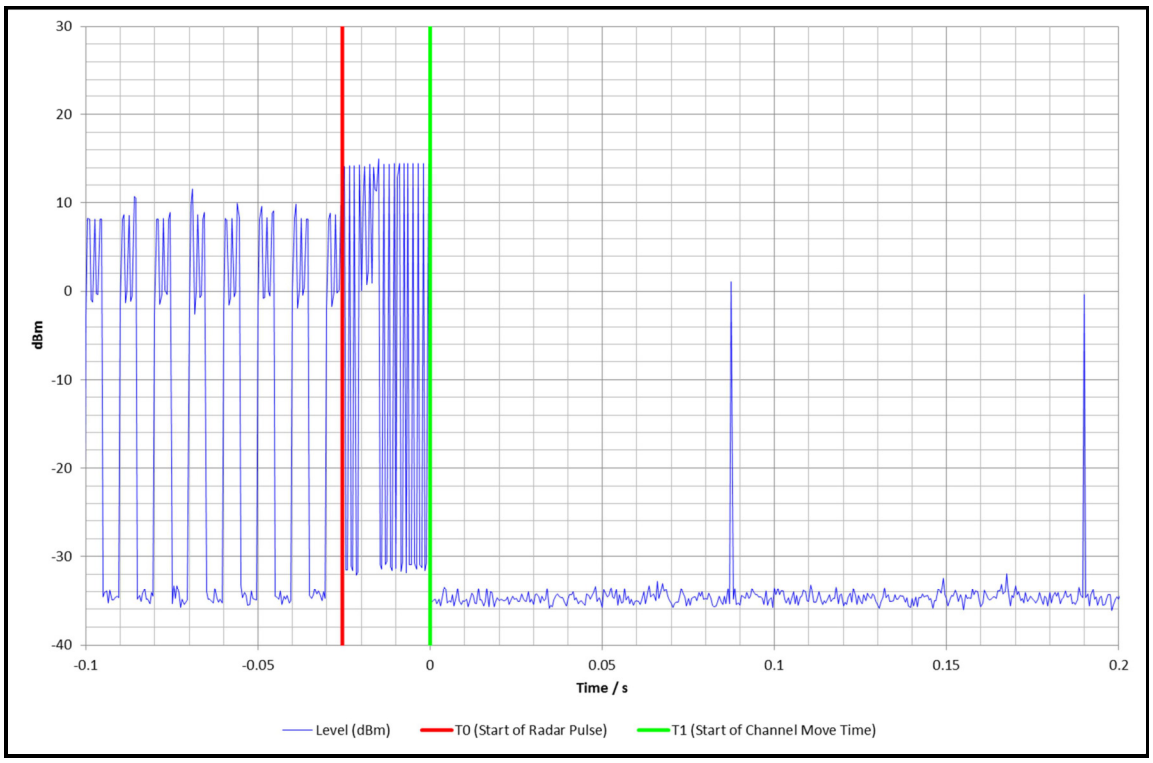
NOTE: A channel move or closing transmission time of zero occurs when the EUT shuts down before the end of the radar burst.

## Channel Closing Transmission Time and Channel Move Time (continued)

## Results: 40 MHz Client, Radar at Master




Plot showing the full 10 second shutdown limit




Zoomed plot showing the first 200 ms after the end of the type 0 radar burst

## Channel Closing Transmission Time and Channel Move Time (continued)

## Limits:

### Part 15.407(h)(2)(iii)

After a radar's presence is detected, all transmissions shall cease on the operating channel within 10 seconds. Transmissions during this period shall consist of normal traffic for a maximum of 200 ms after detection of the radar signal. In addition, intermittent management and control signals can be sent during the remaining time to facilitate vacating the operating channel.

### KDB 905462 D02 Table 4: DFS Response Requirement Values

| Parameter | Value |
|---|---|
| *Channel Move Time* | 10 seconds<br>See Note 1. |
| *Channel Closing Transmission Time* | 200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period.<br>See Notes 1 and 2. |

**Note 1:** *Channel Move Time* and the *Channel Closing Transmission Time* should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0 burst.

**Note 2:** The *Channel Closing Transmission Time* is comprised of 200 milliseconds starting at the beginning of the *Channel Move Time* plus any additional intermittent control signals required to facilitate a *Channel* move (an aggregate of 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions.

## 5.2.6. Non-occupancy Period

### Test Summary:

| | | | |
|---|---|---|---|
| **Test Engineer:** | Georgios Vrezas | **Test Date:** | 07 December 2015 |
| **Test Sample Serial Number:** | VPF7165808 | | |

| | |
|---|---|
| **FCC Reference:** | Part 15.407(h)(iv) |
| **Test Method Used:** | KDB 905462 D02 Section 7.8.3 |

### Environmental Conditions:

| | |
|---|---|
| **Temperature (°C):** | 24 |
| **Relative Humidity (%):** | 45 |

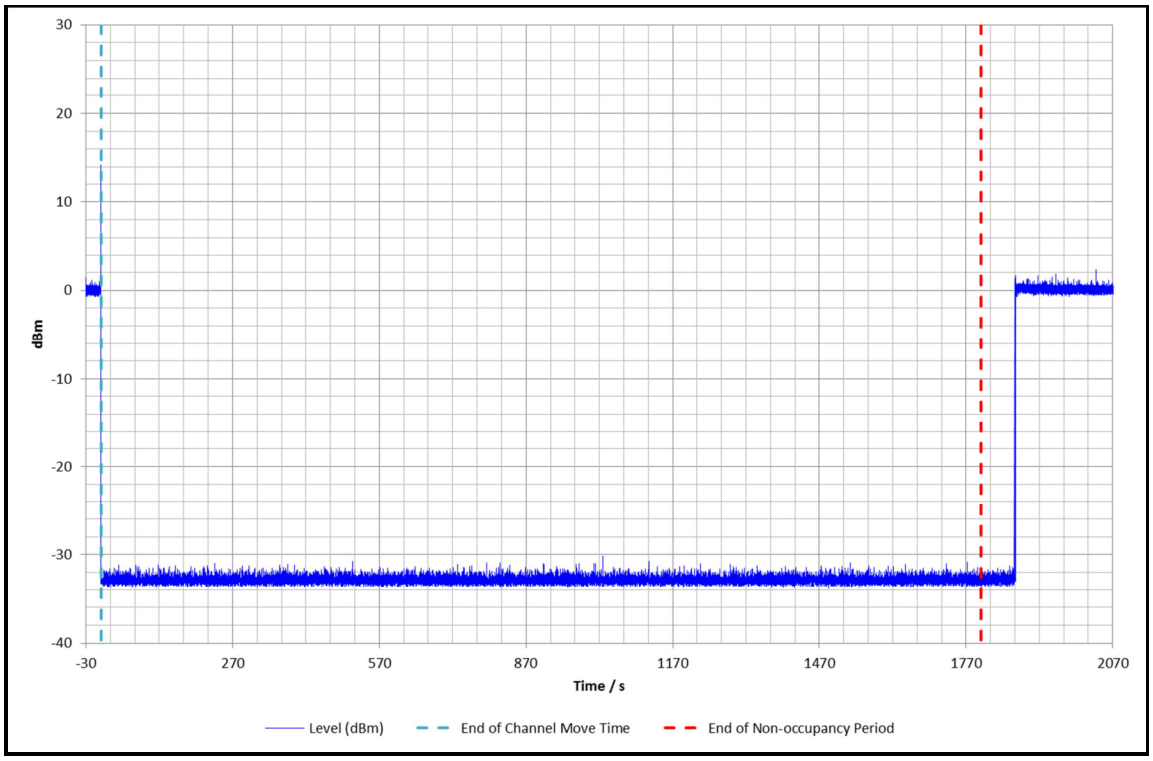
### Notes:

1. In accordance with KDB 905462 D02 Table 2, the Initial Channel Availability Check test was performed on any single bandwidth. It was therefore tested only on a 40 MHz channel bandwidth.
2. UDP test data was streamed from the Master to the Client device using iPerf3 bandwidth testing tool. The channel loading was 25.2% with a 30 Mbit/s data rate. This therefore met the channel loading requirement of >17% in KDB 905462 D02 Section 7.7(c).
3. Tests were performed using a type 0 radar and the radar detection threshold calculated in Section 4.2 of this test report.
4. Radar burst type 0 was detected and the channel was vacated for >1800 seconds, meeting the 30 minute (1800 second) non-occupancy period. During this period all emissions remained below the -27 dBm/MHz spurious limit. Channel move occurred within the channel move and channel closing time limits. Therefore the EUT complied.

## Non-occupancy Period (continued)

## Results: 40 MHz Master

| Channel (MHz) | Trial | Non-Occ (min) | Limit (min) | Margin (min) | Result |
|---|---|---|---|---|---|
| 5510 | 1 | 31.2 | 30 | 1.2 | Complied |




## Limits:

### Part 15.407(h)(2)(iv)

A channel that has been flagged as containing a radar system, either by a channel availability check or in-service monitoring, is subject to a non-occupancy period of at least 30 minutes. The non-occupancy period starts at the time when the radar system is detected.

### KDB 905462 D02 Table 4: DFS Response Requirement Values

| Parameter | Value |
|---|---|
| Non-occupancy period | Minimum 30 minutes |

## 5.2.7. Statistical Performance Check – Short Pulse Radar Types 1 - 4

### Test Summary:

| | | | |
|---|---|---|---|
| **Test Engineer:** | Georgios Vrezas | **Test Date:** | 01 December 2015 |
| **Test Sample Serial Number:** | VPF7165808 | | |

| | |
|---|---|
| **FCC Reference:** | Part 15.407(h)(2) |
| **Test Method Used:** | KDB 905462 D02 Section 7.8.4.1 and Notes below |

### Environmental Conditions:

| | |
|---|---|
| **Temperature (°C):** | 24 |
| **Relative Humidity (%):** | 45 |

### Notes:

1. In accordance with KDB 905462 D02 Table 2, the Statistical Performance Check test was performed on all supported channel bandwidths and frequencies selected within the radar detection bandwidth.
2. UDP test data was streamed from the Master to the Client device using iPerf3 bandwidth testing tool. This was set to 15 Mbit/s and 30 Mbit/s throughput rate for the 20 MHz and 40 MHz channels respectively. The channel loading was measured as 26% for 20 MHz operation and 25.2% for 40 MHz. This therefore met the channel loading requirement of >17% in KDB 905462 D02 Section 7.7(c).
3. Tests were performed using the radar detection threshold calculated in Section 4.2 of this report.
4. Parameters used for the short radar types 1, 2, 3, and 4 may be found in this test report Appendices 5, 6, 7, and 8 respectively.
5. The EUT met the required detection probability, and therefore complied with the *Statistical Performance Check – Short Pulse Radar Types 1 – 4* test.

## Statistical Performance Check – Short Pulse Radar Types 1 - 4 (continued)

## Results: 20 MHz Master - Radar Type 1

| Radar Type | Trial # | Radar frequency (MHz) | Detection |
|---|---|---|---|
| | | | Yes / No |
| 1 | 1 | 5491.045 | Yes |
| | 2 | 5491.642 | Yes |
| | 3 | 5492.239 | Yes |
| | 4 | 5492.836 | Yes |
| | 5 | 5493.433 | Yes |
| | 6 | 5494.030 | Yes |
| | 7 | 5494.627 | Yes |
| | 8 | 5495.224 | Yes |
| | 9 | 5495.821 | Yes |
| | 10 | 5496.418 | Yes |
| | 11 | 5497.015 | Yes |
| | 12 | 5497.612 | Yes |
| | 13 | 5498.209 | Yes |
| | 14 | 5498.806 | Yes |
| | 15 | 5499.403 | Yes |
| | 16 | 5500.000 | Yes |
| | 17 | 5500.597 | Yes |
| | 18 | 5501.194 | Yes |
| | 19 | 5501.791 | Yes |
| | 20 | 5502.388 | Yes |
| | 21 | 5502.985 | Yes |
| | 22 | 5503.582 | Yes |
| | 23 | 5504.179 | Yes |
| | 24 | 5504.776 | Yes |
| | 25 | 5505.373 | Yes |
| | 26 | 5505.970 | Yes |
| | 27 | 5506.567 | Yes |
| | 28 | 5507.164 | Yes |
| | 29 | 5507.761 | Yes |
| | 30 | 5508.358 | Yes |
| **EUT Test Frequency:** | | 5500 MHz | |
| **Detection Probability:** | | 100% | |

## Statistical Performance Check – Short Pulse Radar Types 1 - 4 (continued)

## Results: 20 MHz Master - Radar Type 2

| Radar Type | Trial # | Radar frequency (MHz) | Detection |
|---|---|---|---|
| | | | Yes / No |
| 2 | 1 | 5491.045 | Yes |
| | 2 | 5491.642 | No |
| | 3 | 5492.239 | Yes |
| | 4 | 5492.836 | Yes |
| | 5 | 5493.433 | Yes |
| | 6 | 5494.030 | Yes |
| | 7 | 5494.627 | Yes |
| | 8 | 5495.224 | Yes |
| | 9 | 5495.821 | Yes |
| | 10 | 5496.418 | Yes |
| | 11 | 5497.015 | Yes |
| | 12 | 5497.612 | Yes |
| | 13 | 5498.209 | Yes |
| | 14 | 5498.806 | Yes |
| | 15 | 5499.403 | No |
| | 16 | 5500.000 | No |
| | 17 | 5500.597 | Yes |
| | 18 | 5501.194 | Yes |
| | 19 | 5501.791 | Yes |
| | 20 | 5502.388 | Yes |
| | 21 | 5502.985 | Yes |
| | 22 | 5503.582 | Yes |
| | 23 | 5504.179 | No |
| | 24 | 5504.776 | Yes |
| | 25 | 5505.373 | Yes |
| | 26 | 5505.970 | No |
| | 27 | 5506.567 | No |
| | 28 | 5507.164 | Yes |
| | 29 | 5507.761 | Yes |
| | 30 | 5508.358 | Yes |
| **EUT Test Frequency:** | | 5500 MHz | |
| **Detection Probability:** | | 80% | |

## Statistical Performance Check – Short Pulse Radar Types 1 - 4 (continued)

## Results: 20 MHz Master - Radar Type 3

| Radar Type | Trial # | Radar frequency (MHz) | Detection |
|---|---|---|---|
| | | | Yes / No |
| 3 | 1 | 5491.045 | Yes |
| | 2 | 5491.642 | Yes |
| | 3 | 5492.239 | Yes |
| | 4 | 5492.836 | Yes |
| | 5 | 5493.433 | No |
| | 6 | 5494.030 | Yes |
| | 7 | 5494.627 | Yes |
| | 8 | 5495.224 | Yes |
| | 9 | 5495.821 | Yes |
| | 10 | 5496.418 | Yes |
| | 11 | 5497.015 | Yes |
| | 12 | 5497.612 | Yes |
| | 13 | 5498.209 | Yes |
| | 14 | 5498.806 | No |
| | 15 | 5499.403 | No |
| | 16 | 5500.000 | Yes |
| | 17 | 5500.597 | No |
| | 18 | 5501.194 | Yes |
| | 19 | 5501.791 | Yes |
| | 20 | 5502.388 | Yes |
| | 21 | 5502.985 | No |
| | 22 | 5503.582 | Yes |
| | 23 | 5504.179 | Yes |
| | 24 | 5504.776 | No |
| | 25 | 5505.373 | Yes |
| | 26 | 5505.970 | No |
| | 27 | 5506.567 | Yes |
| | 28 | 5507.164 | Yes |
| | 29 | 5507.761 | Yes |
| | 30 | 5508.358 | Yes |
| **EUT Test Frequency:** | | 5500 MHz | |
| **Detection Probability:** | | 76.7% | |

## Statistical Performance Check – Short Pulse Radar Types 1 - 4 (continued)

## Results: 20 MHz Master - Radar Type 4

| Radar Type | Trial # | Radar frequency (MHz) | Detection |
|---|---|---|---|
| | | | Yes / No |
| 4 | 1 | 5491.045 | Yes |
| | 2 | 5491.642 | Yes |
| | 3 | 5492.239 | Yes |
| | 4 | 5492.836 | Yes |
| | 5 | 5493.433 | No |
| | 6 | 5494.030 | Yes |
| | 7 | 5494.627 | Yes |
| | 8 | 5495.224 | No |
| | 9 | 5495.821 | Yes |
| | 10 | 5496.418 | No |
| | 11 | 5497.015 | Yes |
| | 12 | 5497.612 | No |
| | 13 | 5498.209 | Yes |
| | 14 | 5498.806 | Yes |
| | 15 | 5499.403 | Yes |
| | 16 | 5500.000 | Yes |
| | 17 | 5500.597 | No |
| | 18 | 5501.194 | Yes |
| | 19 | 5501.791 | Yes |
| | 20 | 5502.388 | No |
| | 21 | 5502.985 | Yes |
| | 22 | 5503.582 | Yes |
| | 23 | 5504.179 | Yes |
| | 24 | 5504.776 | Yes |
| | 25 | 5505.373 | No |
| | 26 | 5505.970 | Yes |
| | 27 | 5506.567 | Yes |
| | 28 | 5507.164 | Yes |
| | 29 | 5507.761 | Yes |
| | 30 | 5508.358 | Yes |
| **EUT Test Frequency:** | | 5500 MHz | |
| **Detection Probability:** | | 76.7% | |

## Statistical Performance Check – Short Pulse Radar Types 1 - 4 (continued)

## Results: 40 MHz Master - Radar Type 1

| Radar Type | Trial # | Radar frequency (MHz) | Detection |
|---|---|---|---|
| | | | Yes / No |
| 1 | 1 | 5491.310 | Yes |
| | 2 | 5492.556 | Yes |
| | 3 | 5493.802 | Yes |
| | 4 | 5495.048 | Yes |
| | 5 | 5496.294 | Yes |
| | 6 | 5497.540 | Yes |
| | 7 | 5498.786 | Yes |
| | 8 | 5500.032 | Yes |
| | 9 | 5501.278 | Yes |
| | 10 | 5502.524 | Yes |
| | 11 | 5503.770 | Yes |
| | 12 | 5505.016 | Yes |
| | 13 | 5506.262 | Yes |
| | 14 | 5507.508 | Yes |
| | 15 | 5508.754 | Yes |
| | 16 | 5510.000 | Yes |
| | 17 | 5511.246 | Yes |
| | 18 | 5512.492 | Yes |
| | 19 | 5513.738 | Yes |
| | 20 | 5514.984 | Yes |
| | 21 | 5516.230 | Yes |
| | 22 | 5517.476 | No |
| | 23 | 5518.722 | Yes |
| | 24 | 5519.968 | Yes |
| | 25 | 5521.214 | No |
| | 26 | 5522.460 | Yes |
| | 27 | 5523.706 | Yes |
| | 28 | 5524.952 | Yes |
| | 29 | 5526.198 | Yes |
| | 30 | 5527.444 | Yes |
| **EUT Test Frequency:** | | 5510 MHz | |
| **Detection Probability:** | | 93.3% | |

## Statistical Performance Check – Short Pulse Radar Types 1 - 4 (continued)

## Results: 40 MHz Master - Radar Type 2

| Radar Type | Trial # | Radar frequency (MHz) | Detection |
|---|---|---|---|
| | | | Yes / No |
| 2 | 1 | 5491.310 | No |
| | 2 | 5492.556 | Yes |
| | 3 | 5493.802 | Yes |
| | 4 | 5495.048 | Yes |
| | 5 | 5496.294 | No |
| | 6 | 5497.540 | Yes |
| | 7 | 5498.786 | Yes |
| | 8 | 5500.032 | Yes |
| | 9 | 5501.278 | Yes |
| | 10 | 5502.524 | Yes |
| | 11 | 5503.770 | No |
| | 12 | 5505.016 | No |
| | 13 | 5506.262 | Yes |
| | 14 | 5507.508 | Yes |
| | 15 | 5508.754 | Yes |
| | 16 | 5510.000 | No |
| | 17 | 5511.246 | Yes |
| | 18 | 5512.492 | Yes |
| | 19 | 5513.738 | Yes |
| | 20 | 5514.984 | Yes |
| | 21 | 5516.230 | Yes |
| | 22 | 5517.476 | Yes |
| | 23 | 5518.722 | No |
| | 24 | 5519.968 | No |
| | 25 | 5521.214 | Yes |
| | 26 | 5522.460 | Yes |
| | 27 | 5523.706 | Yes |
| | 28 | 5524.952 | Yes |
| | 29 | 5526.198 | Yes |
| | 30 | 5527.444 | Yes |
| **EUT Test Frequency:** | | 5510 MHz | |
| **Detection Probability:** | | 76.7% | |

## Statistical Performance Check – Short Pulse Radar Types 1 - 4 (continued)

## Results: 40 MHz Master - Radar Type 3

| Radar Type | Trial # | Radar frequency (MHz) | Detection |
|---|---|---|---|
| | | | Yes / No |
| 3 | 1 | 5491.310 | Yes |
| | 2 | 5492.556 | Yes |
| | 3 | 5493.802 | Yes |
| | 4 | 5495.048 | Yes |
| | 5 | 5496.294 | Yes |
| | 6 | 5497.540 | Yes |
| | 7 | 5498.786 | Yes |
| | 8 | 5500.032 | Yes |
| | 9 | 5501.278 | Yes |
| | 10 | 5502.524 | Yes |
| | 11 | 5503.770 | No |
| | 12 | 5505.016 | No |
| | 13 | 5506.262 | Yes |
| | 14 | 5507.508 | No |
| | 15 | 5508.754 | Yes |
| | 16 | 5510.000 | Yes |
| | 17 | 5511.246 | Yes |
| | 18 | 5512.492 | Yes |
| | 19 | 5513.738 | Yes |
| | 20 | 5514.984 | Yes |
| | 21 | 5516.230 | Yes |
| | 22 | 5517.476 | Yes |
| | 23 | 5518.722 | Yes |
| | 24 | 5519.968 | Yes |
| | 25 | 5521.214 | No |
| | 26 | 5522.460 | Yes |
| | 27 | 5523.706 | No |
| | 28 | 5524.952 | Yes |
| | 29 | 5526.198 | Yes |
| | 30 | 5527.444 | Yes |
| **EUT Test Frequency:** | | 5510 MHz | |
| **Detection Probability:** | | 83.3% | |

## Statistical Performance Check – Short Pulse Radar Types 1 - 4 (continued)

## Results: 40 MHz Master - Radar Type 4

| Radar Type | Trial # | Radar frequency (MHz) | Detection |
|---|---|---|---|
| | | | Yes / No |
| 4 | 1 | 5491.310 | Yes |
| | 2 | 5492.556 | Yes |
| | 3 | 5493.802 | No |
| | 4 | 5495.048 | No |
| | 5 | 5496.294 | Yes |
| | 6 | 5497.540 | Yes |
| | 7 | 5498.786 | No |
| | 8 | 5500.032 | Yes |
| | 9 | 5501.278 | Yes |
| | 10 | 5502.524 | Yes |
| | 11 | 5503.770 | Yes |
| | 12 | 5505.016 | No |
| | 13 | 5506.262 | Yes |
| | 14 | 5507.508 | Yes |
| | 15 | 5508.754 | Yes |
| | 16 | 5510.000 | No |
| | 17 | 5511.246 | Yes |
| | 18 | 5512.492 | Yes |
| | 19 | 5513.738 | No |
| | 20 | 5514.984 | Yes |
| | 21 | 5516.230 | Yes |
| | 22 | 5517.476 | Yes |
| | 23 | 5518.722 | Yes |
| | 24 | 5519.968 | No |
| | 25 | 5521.214 | Yes |
| | 26 | 5522.460 | Yes |
| | 27 | 5523.706 | No |
| | 28 | 5524.952 | Yes |
| | 29 | 5526.198 | Yes |
| | 30 | 5527.444 | Yes |
| **EUT Test Frequency:** | | 5510 MHz | |
| **Detection Probability:** | | 73.3% | |

**Statistical Performance Check – Short Pulse Radar Types 1 - 4 (continued)**

**Results: Aggregate Percentage of Successful Detection**

| Radar Type | Channel Bandwidth | |
|---|---|---|
| | 20 MHz | 40 MHz |
| Type 1 | 100.0 % | 93.3 % |
| Type 2 | 80.0 % | 76.7 % |
| Type 3 | 76.7 % | 83.3 % |
| Type 4 | 76.7 % | 73.3 % |
| Aggregate | 83.4 % | 81.7 % |

**Limits:**

**KDB 905462 D02 Table 5 – Short Pulse Radar Test Waveforms**

| Radar Type | Pulse Width (µsec) | PRI (µsec) | Number of Pulses | Minimum Percentage of Successful Detection | Minimum Number of Trials |
|---|---|---|---|---|---|
| 1 | 1 | Test A: 15 unique PRI values randomly selected from the list of 23 PRI values in Table 5a. | $Roundup\left\{\left(\frac{1}{360}\right)\times\left(\frac{19\times10^6}{PRI_{\mu sec}}\right)\right\}$ | 60% | 30 |
| | | Test B: 15 unique PRI values randomly selected within the range of 518-3066 µsec, with a minimum increment of 1 µsec, excluding PRI values selected in Test A. | | | |
| 2 | 1-5 | 150-230 | 23-29 | 60% | 30 |
| 3 | 6-10 | 200-500 | 16-18 | 60% | 30 |
| 4 | 11-20 | 200-500 | 12-16 | 60% | 30 |
| Aggregate (Radar Types 1-4) | | | | 80% | 120 |

## 5.2.8. Statistical Performance Check – Long Pulse Radar Type 5

### Test Summary:

| | | | |
|---|---|---|---|
| **Test Engineer:** | Georgios Vrezas | **Test Date:** | 01 December 2015 |
| **Test Sample Serial Number:** | VPF7165808 | | |

| | |
|---|---|
| **FCC Reference:** | Part 15.407(h)(2) |
| **Test Method Used:** | KDB 905462 D02 Section 7.8.4.2 and Notes below |

### Environmental Conditions:

| | |
|---|---|
| **Temperature (°C):** | 24 |
| **Relative Humidity (%):** | 45 |

### Notes:

1. In accordance with KDB 905462 D02 Table 2, the Statistical Performance Check test was performed on all supported channel bandwidths and frequencies selected within the radar detection bandwidth.
2. UDP test data was streamed from the Master to the Client device using iPerf3 bandwidth testing tool. This was set to 15 Mbit/s and 30 Mbit/s throughput rate for the 20 MHz and 40 MHz channels respectively. The channel loading was measured as 26% for 20 MHz operation and 25.2% for 40 MHz. This therefore met the channel loading requirement of >17% in KDB 905462 D02 Section 7.7(c).
3. Tests were performed using the radar detection threshold calculated in Section 4.2 of this test report.
4. Parameters used for the long radar type 5 can be found in Appendix 9 of this test report.
5. The centre frequency for each of the 30 trials of the Bin 5 radar, was randomly selected within 80% of the Occupied Bandwidth. See section 5.2.1 for occupied bandwidth measurements.
6. The EUT met the required detection probability, and therefore complied with the *Statistical Performance Check – Long Pulse Radar Type 5* test.

## Statistical Performance Check – Long Pulse Radar Type 5 (continued)

## Results: 20 MHz Master - Radar Type 5

| Radar Type | Trial # | Radar frequency (MHz) | Detection |
|---|---|---|---|
| | | | Yes / No |
| 5 | 1 | 5500.542 | Yes |
| | 2 | 5499.768 | Yes |
| | 3 | 5498.982 | Yes |
| | 4 | 5502.133 | Yes |
| | 5 | 5503.837 | Yes |
| | 6 | 5493.916 | Yes |
| | 7 | 5495.635 | Yes |
| | 8 | 5506.564 | Yes |
| | 9 | 5493.604 | Yes |
| | 10 | 5501.572 | Yes |
| | 11 | 5495.438 | Yes |
| | 12 | 5499.046 | Yes |
| | 13 | 5503.751 | Yes |
| | 14 | 5496.419 | Yes |
| | 15 | 5504.070 | Yes |
| | 16 | 5503.542 | Yes |
| | 17 | 5495.610 | Yes |
| | 18 | 5501.336 | Yes |
| | 19 | 5502.535 | Yes |
| | 20 | 5500.134 | Yes |
| | 21 | 5504.087 | Yes |
| | 22 | 5500.377 | Yes |
| | 23 | 5493.749 | Yes |
| | 24 | 5502.065 | Yes |
| | 25 | 5496.504 | Yes |
| | 26 | 5498.643 | Yes |
| | 27 | 5494.250 | Yes |
| | 28 | 5502.387 | Yes |
| | 29 | 5506.108 | Yes |
| | 30 | 5503.126 | Yes |
| **EUT Test Frequency:** | | 5500 MHz | |
| **Detection Probability:** | | 100% | |

## Statistical Performance Check – Long Pulse Radar Type 5 (continued)

## Results: 40 MHz Master - Radar Type 5

| Radar Type | Trial # | Radar frequency (MHz) | Detection |
|---|---|---|---|
| | | | Yes / No |
| 5 | 1 | 5502.795 | Yes |
| | 2 | 5501.678 | Yes |
| | 3 | 5505.063 | Yes |
| | 4 | 5506.549 | Yes |
| | 5 | 5500.357 | Yes |
| | 6 | 5500.077 | Yes |
| | 7 | 5496.949 | Yes |
| | 8 | 5518.162 | Yes |
| | 9 | 5520.395 | Yes |
| | 10 | 5508.498 | Yes |
| | 11 | 5505.684 | Yes |
| | 12 | 5523.936 | Yes |
| | 13 | 5513.024 | Yes |
| | 14 | 5504.989 | Yes |
| | 15 | 5498.150 | Yes |
| | 16 | 5519.857 | Yes |
| | 17 | 5521.549 | Yes |
| | 18 | 5511.631 | Yes |
| | 19 | 5511.905 | Yes |
| | 20 | 5511.962 | Yes |
| | 21 | 5523.064 | Yes |
| | 22 | 5504.418 | Yes |
| | 23 | 5503.484 | Yes |
| | 24 | 5517.530 | Yes |
| | 25 | 5501.046 | Yes |
| | 26 | 5495.348 | Yes |
| | 27 | 5518.808 | Yes |
| | 28 | 5522.530 | Yes |
| | 29 | 5500.698 | Yes |
| | 30 | 5514.949 | Yes |
| **EUT Test Frequency:** | | 5510 MHz | |
| **Detection Probability:** | | 100% | |

**Statistical Performance Check – Long Pulse Radar Type 5 (continued)**

**Limits:**

**KDB 905462 D02 Table 6 – Long Pulse Radar Test Waveform**

| Radar Type | Pulse Width (µsec) | Chirp Width (MHz) | PRI (µsec) | Number of Pulses per *Burst* | Number of *Bursts* | Minimum Percentage of Successful Detection | Minimum Number of Trials |
|---|---|---|---|---|---|---|---|
| 5 | 50-100 | 5-20 | 1000-2000 | 1-3 | 8-20 | 80% | 30 |

## 5.2.9. Statistical Performance Check – Frequency Hopping Radar Type 6

### Test Summary:

| | | | |
|---|---|---|---|
| **Test Engineer:** | Georgios Vrezas | **Test Date:** | 01 December 2015 |
| **Test Sample Serial Number:** | VPF7165808 | | |

| | |
|---|---|
| **FCC Reference:** | Part 15.407(h)(2) |
| **Test Method Used:** | KDB 905462 D02 Section 7.8.4.3 and Notes below |

### Environmental Conditions:

| | |
|---|---|
| **Temperature (°C):** | 24 |
| **Relative Humidity (%):** | 45 |

### Notes:

1. In accordance with KDB 905462 D02 Table 2, the Statistical Performance Check test was performed on all supported channel bandwidths and frequencies selected within the radar detection bandwidth.
2. UDP test data was streamed from the Master to the Client device using iPerf3 bandwidth testing tool. This was set to 15 Mbit/s and 30 Mbit/s throughput rate for the 20 MHz and 40 MHz channels respectively. The channel loading was measured as 26% for 20 MHz operation and 25.2% for 40 MHz. This therefore met the channel loading requirement of >17% in KDB 905462 D02 Section 7.7(c).
3. Tests were performed using the radar detection threshold calculated in Section 4.2 of this test report.
4. Some of the randomly generated hopping radars included no hops within the detection bandwidth of the EUT. In this case additional radars, which would produce at least one hop within the operating bandwidth of the EUT, were generated and used instead.
5. The EUT met the required detection probability, and therefore complied with the *Statistical Performance Check – Frequency Hopping Radar Type 6* test.

## Statistical Performance Check – Frequency Hopping Radar Type 6 (continued)

## Results: 20 MHz Master - Radar Type 6

| Radar Type | Trial # | Detection Yes / No | Trial # | Detection Yes / No |
|---|---|---|---|---|
| 6 | 1 | Yes | 16 | Yes |
| | 2 | Yes | 17 | Yes |
| | 3 | Yes | 18 | Yes |
| | 4 | Yes | 19 | Yes |
| | 5 | Yes | 20 | Yes |
| | 6 | Yes | 21 | Yes |
| | 7 | Yes | 22 | Yes |
| | 8 | Yes | 23 | Yes |
| | 9 | Yes | 24 | Yes |
| | 10 | Yes | 25 | Yes |
| | 11 | Yes | 26 | Yes |
| | 12 | Yes | 27 | Yes |
| | 13 | Yes | 28 | Yes |
| | 14 | Yes | 29 | Yes |
| | 15 | Yes | 30 | Yes |
| **EUT Test Frequency:** | | 5500 MHz | | |
| **Radar Frequency:** | | Hopping | | |
| **Detection Probability:** | | 100% | | |

## Results: 40 MHz Master - Radar Type 6

| Radar Type | Trial # | Detection Yes / No | Trial # | Detection Yes / No |
|---|---|---|---|---|
| 6 | 1 | Yes | 16 | Yes |
| | 2 | Yes | 17 | Yes |
| | 3 | Yes | 18 | Yes |
| | 4 | Yes | 19 | Yes |
| | 5 | Yes | 20 | Yes |
| | 6 | Yes | 21 | Yes |
| | 7 | Yes | 22 | Yes |
| | 8 | Yes | 23 | Yes |
| | 9 | Yes | 24 | Yes |
| | 10 | Yes | 25 | Yes |
| | 11 | Yes | 26 | Yes |
| | 12 | Yes | 27 | Yes |
| | 13 | Yes | 28 | Yes |
| | 14 | Yes | 29 | Yes |
| | 15 | Yes | 30 | Yes |
| **EUT Test Frequency:** | | 5510 MHz | | |
| **Radar Frequency:** | | Hopping | | |
| **Detection Probability:** | | 100% | | |

**Statistical Performance Check – Frequency Hopping Radar Type 6 (continued)**

**Limits:**

**KDB 905462 D02 Table 7 – Frequency Hopping Radar Test Waveform**

| Radar Type | Pulse Width (µsec) | PRI (µsec) | Pulses per Hop | Hopping Rate (kHz) | Hopping Sequence Length (msec) | Minimum Percentage of Successful Detection | Minimum Number of Trials |
|---|---|---|---|---|---|---|---|
| 6 | 1 | 333 | 9 | 0.333 | 300 | 70% | 30 |

# 6. Measurement Uncertainty

No measurement or test can ever be perfect and the imperfections give rise to error of measurement in the results. Consequently the result of a measurement is only an approximation to the value of the measurand (the specific quantity subject to measurement) and is only complete when accompanied by a statement of the uncertainty of the approximation.

The expression of uncertainty of a measurement result allows realistic comparison of results with reference values and limits given in specifications and standards.

The uncertainty of the result may need to be taken into account when interpreting the measurement results.

The reported expanded uncertainties below are based on a standard uncertainty multiplied by an appropriate coverage factor such that a confidence level of approximately 95% is maintained. For the purposes of this document “approximately” is interpreted as meaning “effectively” or “for most practical purposes”.

| Measurement Type | Confidence Level (%) | Calculated Uncertainty |
|---|---|---|
| DFS CAC Plot Timing | 95% | ± 918 ms |
| DFS Channel Shutdown Timing | 95% | ± 450 µs |
| DFS Non-Occupancy Timing | 95% | ± 79.25 ms |
| DFS Radar Amplitude | 95% | ± 2.17 dB |

The methods used to calculate the above uncertainties are in line with those recommended within the various measurement specifications. Where measurement specifications do not include guidelines for the evaluation of measurement uncertainty the published guidance of the appropriate accreditation body is followed.

# 7. Report Revision History

| Version Number | Revision Details | | |
|---|---|---|---|
| | Page No(s) | Clause | Details |
| 1.0 | - | - | Initial Version |
| 2.0 | - | - | Model Name updated<br>Section 3.2 added |
| 3.0 | - | - | Model number updated,<br>Sections 3.1, 3.2, 3.3, 3.6 & 3.7 updated |
| 4.0 | - | - | Model number on front page amended |

# Appendix 1. Test Equipment Used

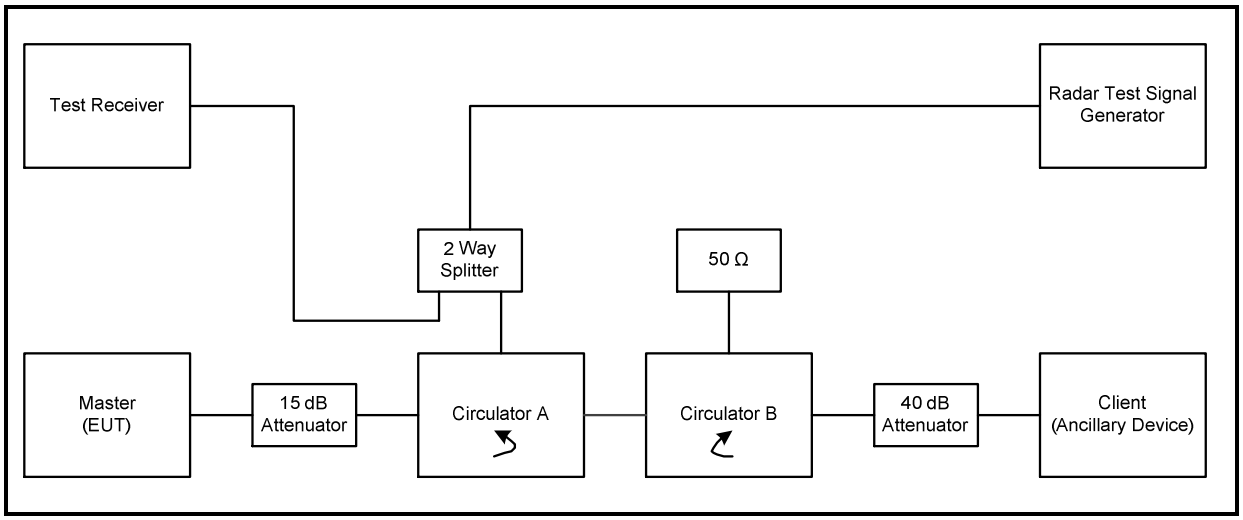
| Asset No. | Instrument | Manufacturer | Type No. | Serial No. | Date Calibration Due | Cal. Interval (Months) |
|---|---|---|---|---|---|---|
| M1659 | Thermohygrometer | JM Handelspunkt | 30.5015.13 | None stated | 23 Apr 2016 | 12 |
| M1631 | DFS Test System | Aeroflex | PXI 3000 | 300110/291 | 09 Jul 2017 | 24 |
| M1886 | Test Receiver | Rohde & Schwarz | ESU26 | 100554 | 21 May 2016 | 12 |
| M1585 | Network Analyser | Agilent | E5071C | MY46110256 | 30 Jul 2016 | 24 |
| A030 | Step Attenuator | Narda | 445-69 | 01544 | Calibrated before use | - |
| A090 | Step Attenuator | Narda | 743-60 | 01057 | Calibrated before use | - |
| A2119 | Power Splitter | Mini-Circuits | ZN2PD-63-S+ | SUU12701203 | Calibrated before use | - |
| A2182 | Coaxial Circulator | AtlanTecRF | ACC-20130-SF-SF-SF | 120409231 | Calibrated before use | - |
| A2183 | Coaxial Circulator | AtlanTecRF | ACC-20130-SF-SF-SF | 120409232 | Calibrated before use | - |
| A1317 | 50Ω Termination | Narda | 376BNM | 0103 | Calibrated before use | - |
| A2494 | 50Ω Termination | Narda | TA06W5-F | 082013#2 | Calibrated before use | - |
| M122 | Multimeter | Fluke | 77 | 64910017 | 22 Apr 2016 | 12 |
| S021 | DC Power Supply | Thurlby Thandar Instruments | CPX200 | 061034 | Calibrated before use | - |

**NB** In accordance with UKAS requirements all the measurement equipment is on a calibration schedule.

# Appendix 2. Monitoring Methods Diagrams

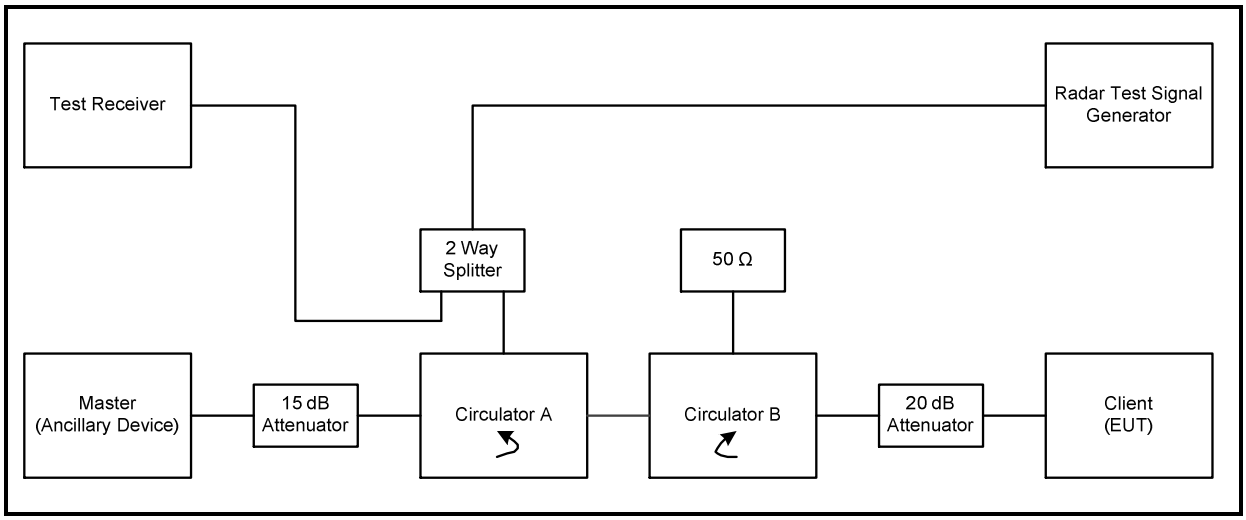
All tests were performed as conducted measurements using the setups as shown below. The detecting device always receives the radar via a direct (non-isolated) port of any circulator or splitter to ensure impedance variations do not affect the radar amplitude in accordance with KDB 905462 D02 Section 7.2, point (2).

**Setup Diagram – EUT as Master with Radar Injection at Master**




Note: Circulator A directs the radar pulse towards the EUT (Master). Circulator B provides the same transmit path loss in both directions between the Master and Client devices. The EUT will appear larger than the ancillary device, and smaller than the radar at the Spectrum Analyser. The radar will be larger at the EUT than at the ancillary device. For some tests an additional 10 dB attenuator was added between the 2-way splitter and circulator A, and the calibration adjusted, to change the relative radar level on the analyser.

## Setup Diagram – EUT as Client, Radar Injection at Master




Note: Similarly to the set-up above, circulator A again directs the radar towards the radar detecting device. Circulator B provides the same transmit path loss in both directions between the Master and Client devices whilst also attenuating any radar heading in the direction of the EUT. Due to the different attenuation settings the EUT (Client) will appear larger than the Master device, and smaller than the radar at the Spectrum Analyser. The radar level is recalibrated to account for the different attenuation settings in the radar path.

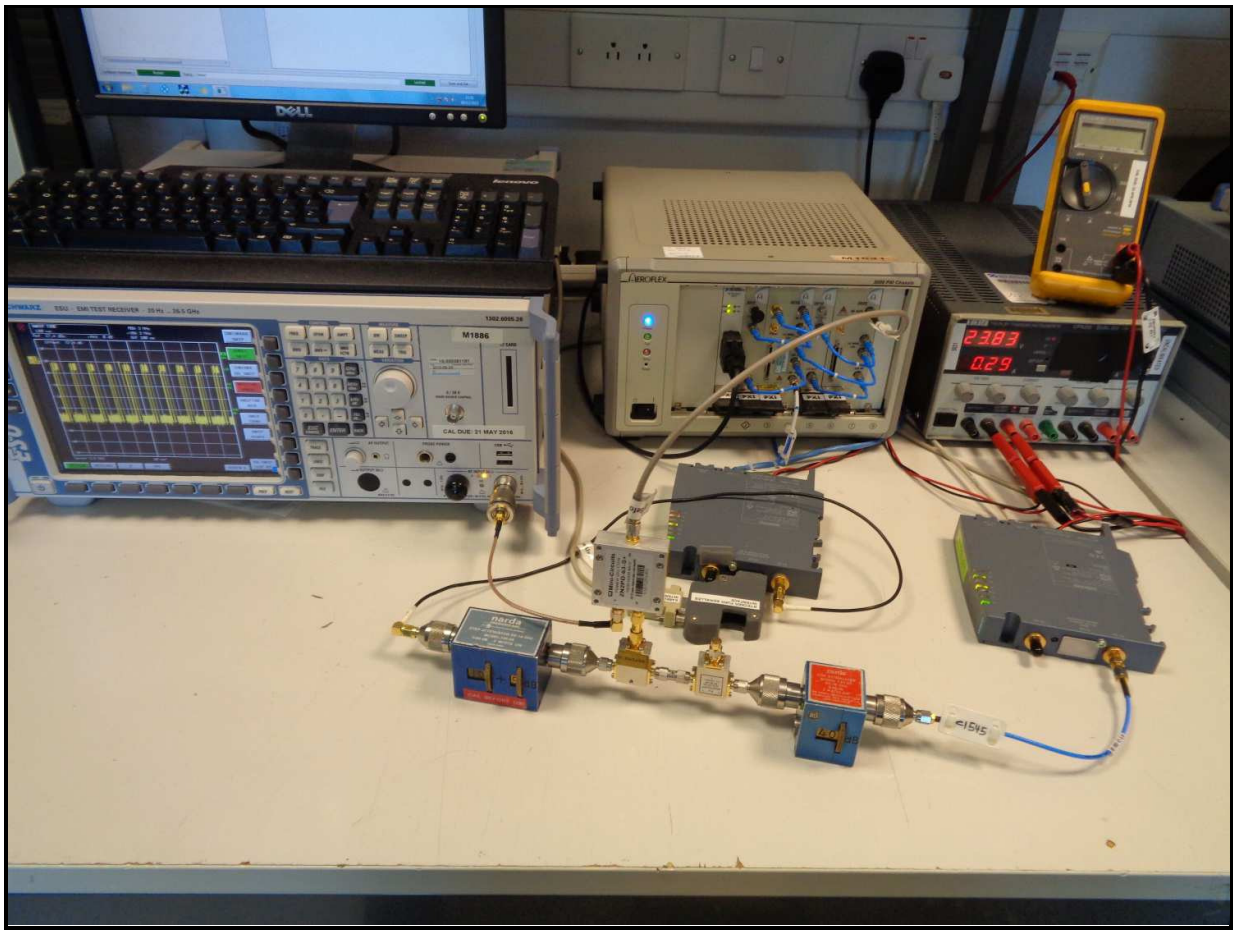
# Appendix 3. Radar Type 1-6 Calibration and Verification Data

All radar types were generated and produced by an Aeroflex DFS test system. The radar pulse generation of this system has previously been verified by the FCC (see Appendix 4 of this test report).

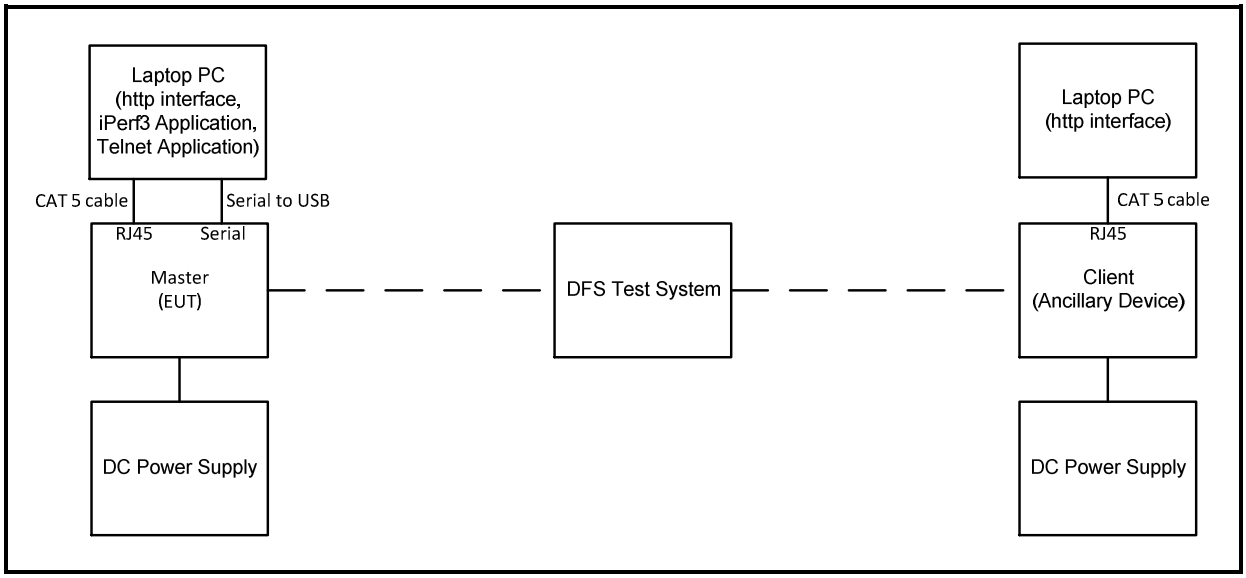
The radar amplitude was calibrated using the setup diagram shown below. The spectrum analyser was replaced by a 50Ω load. The EUT was replaced by a spectrum analyser. The Aeroflex DFS test system was then set to transmit a CW signal used to calibrate the radar level. The output level was adjusted to give the correct level into the EUT, as calculated in Section 4.2 of this report, before the tests were performed.

An additional check was then made using the above calibrated level and a 1 µsec pulse of a type 0 radar. Maximum spectrum analyser RBW/VBW setting was used for this to avoid pulse desensitisation effects of the very short burst time. This level was then used for all radar types during testing.

## Equipment Setup Photograph – Conducted Method

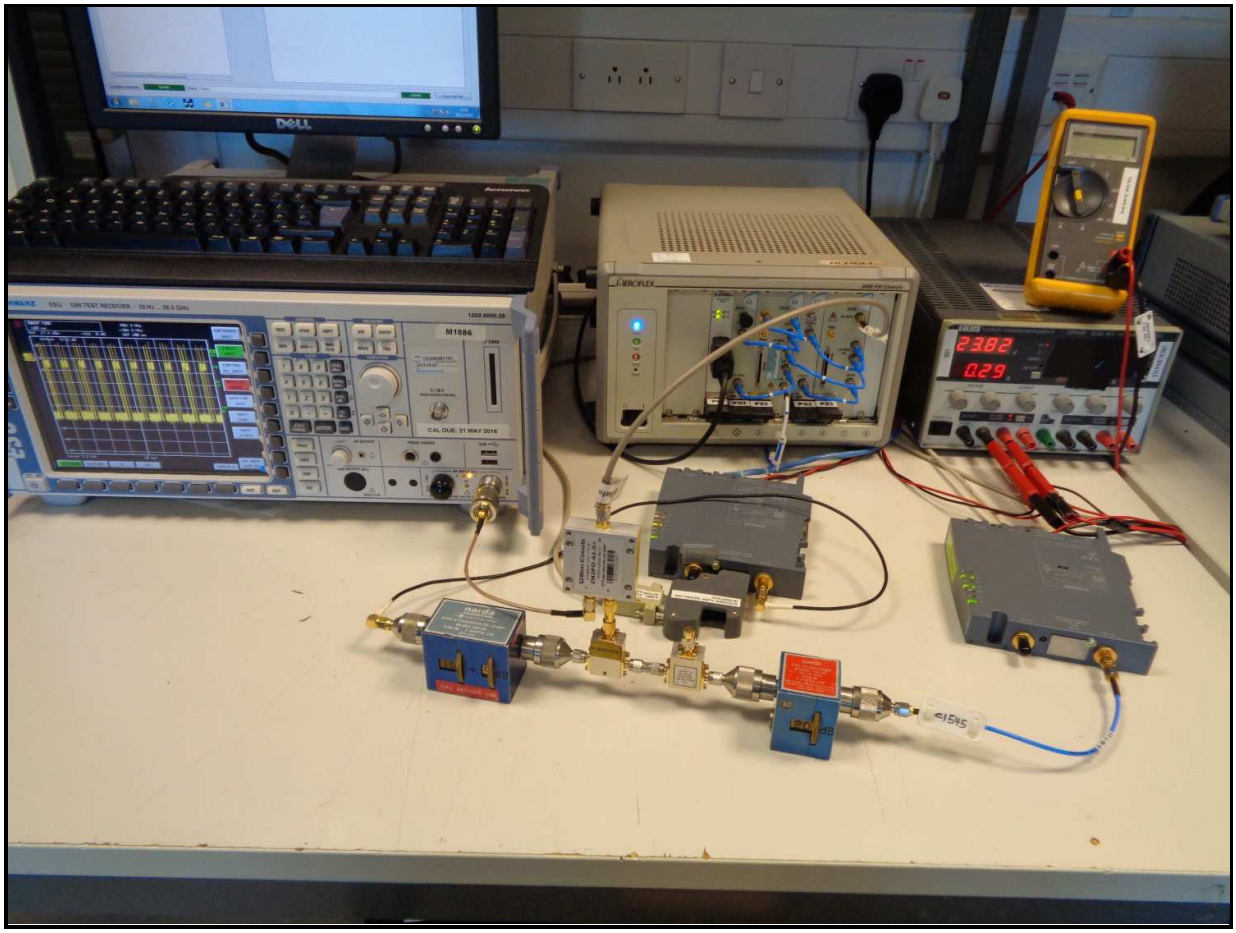


Test set-up photo showing EUT as Master with Radar Injection at Master

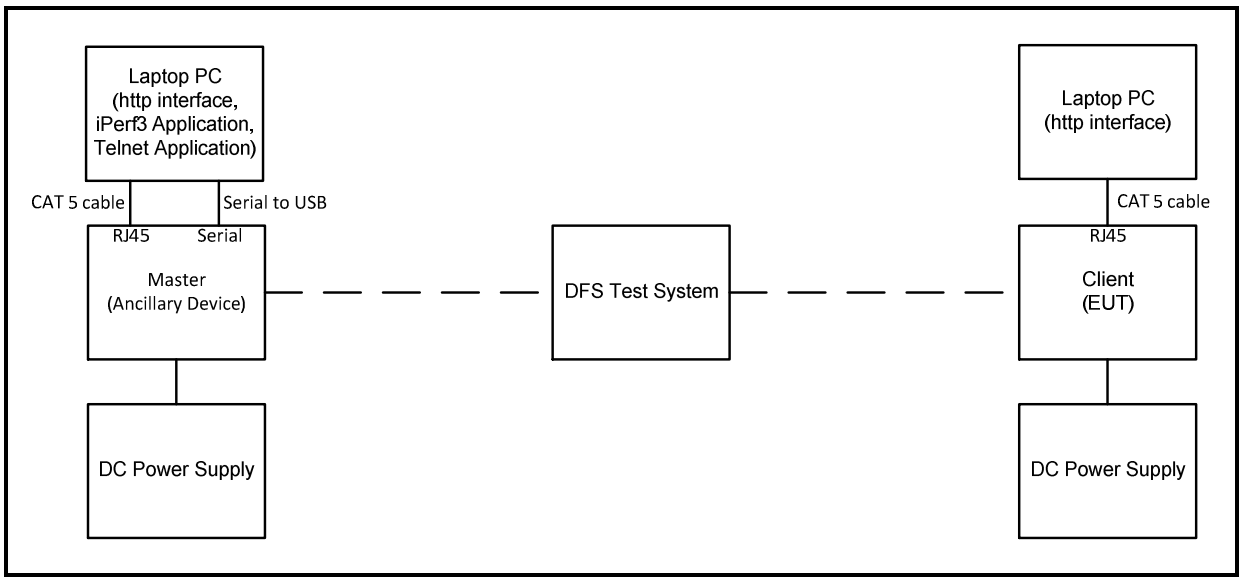



Test set-up block diagram showing EUT as Master with Radar Injection at Master

## Equipment Setup Photograph – Conducted Method (continued)



Test set-up photo showing EUT as Client with Radar Injection at Master

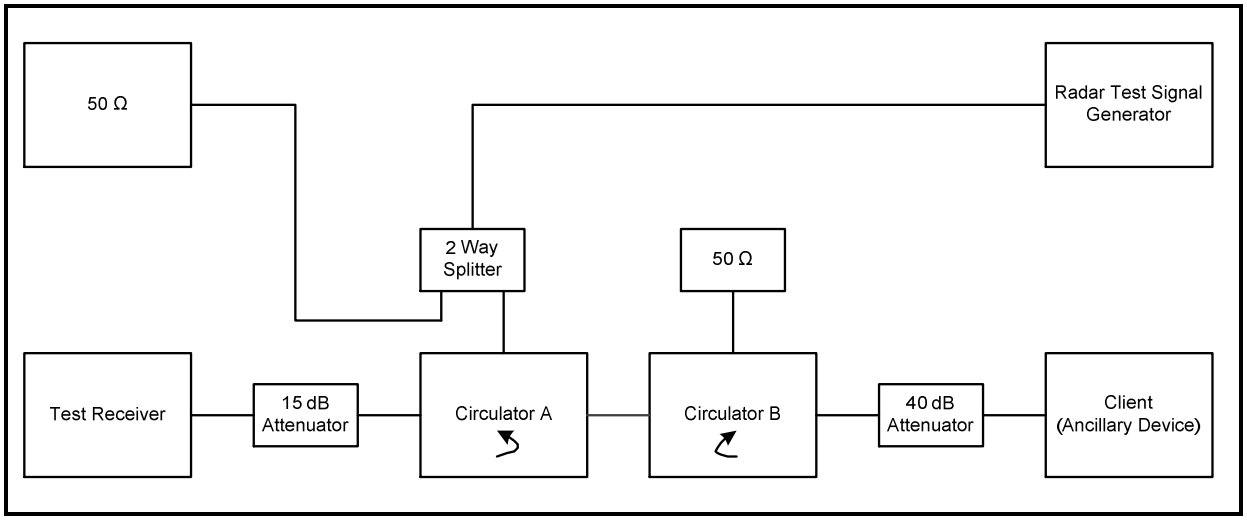



Test set-up block diagram showing EUT as Client with Radar Injection at Master

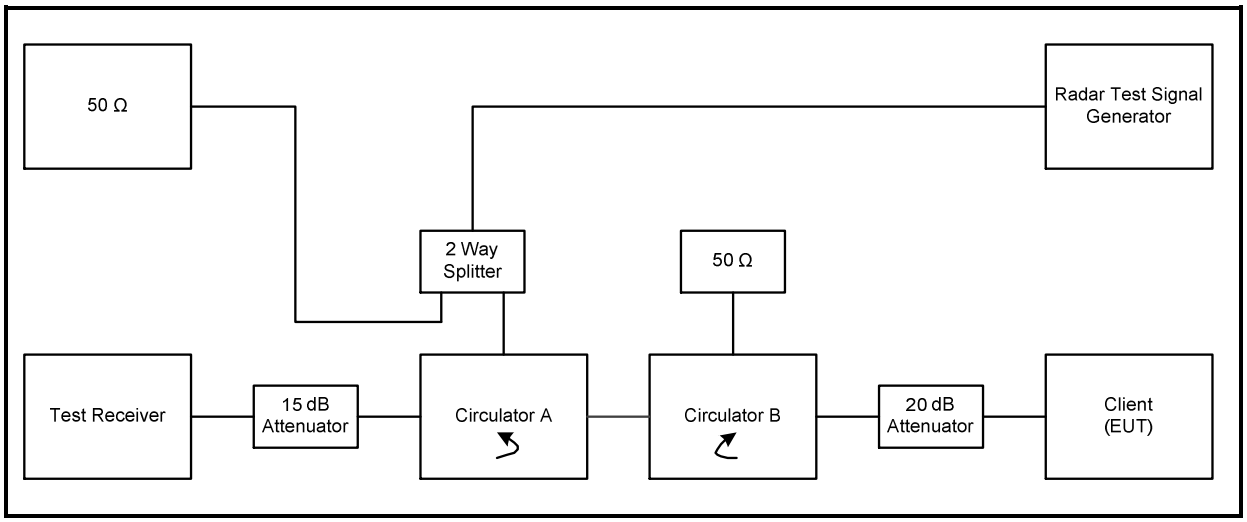
## Equipment Setup for Calibration Block Diagram – Conducted Method

Calibration was performed using the setups as shown below.

### EUT as Master with Radar Injection at Master



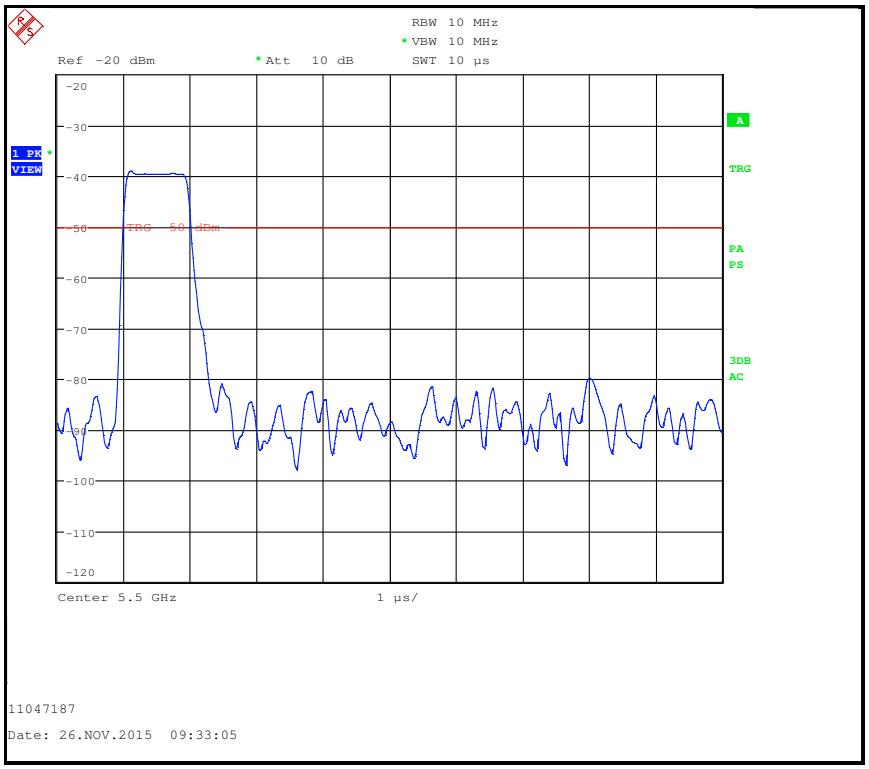

### EUT as Client with Radar Injection at Master



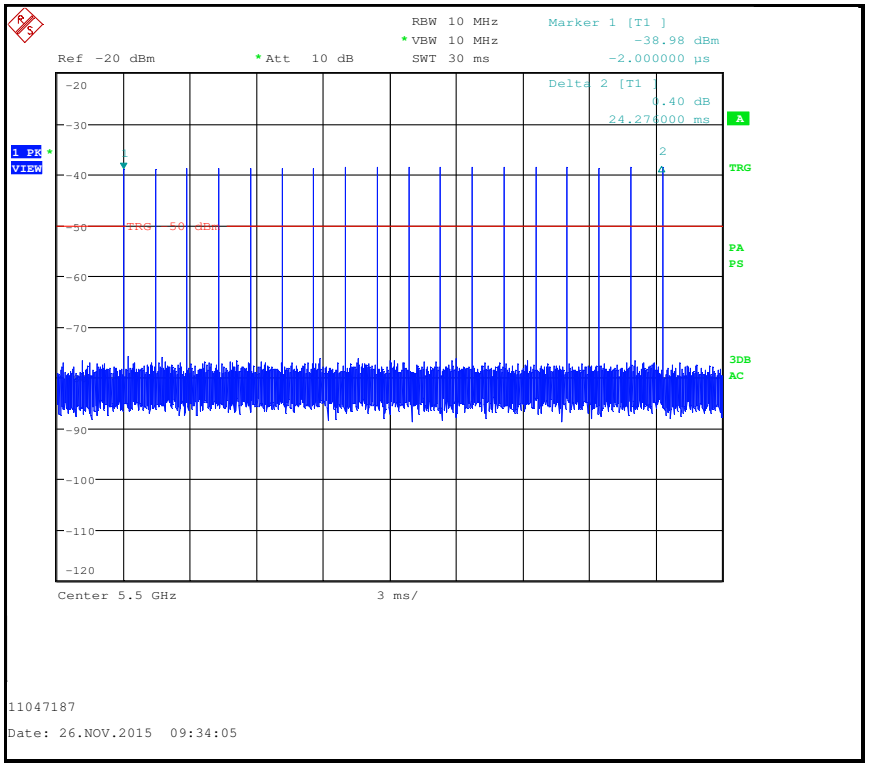
## Radar Verification

The test system and its waveform generation has been validated by the FCC as an 'approved' device (see Appendix 4 of this test report), therefore full analysis of each radar is not necessary. However, below are sample plots for each of the radar types. Note the full timing plots of all the pulses in the waveform may give slightly inaccurate amplitudes. They are therefore accurate only as timing plots for an example radar overview.

## Radar Type 0

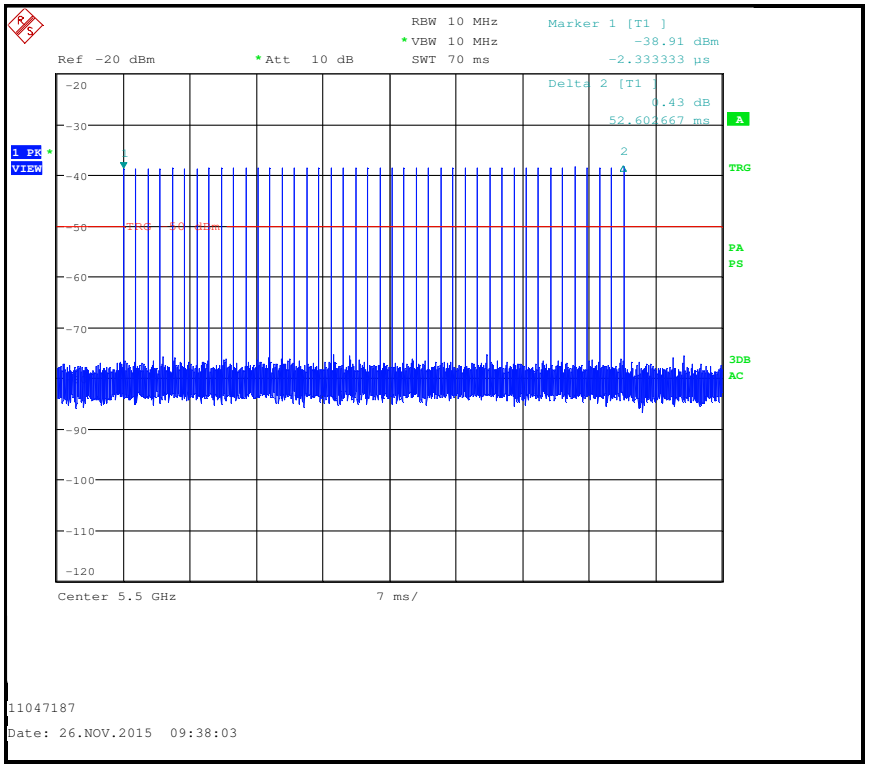



Radar Type 0 – single 1 µsec pulse



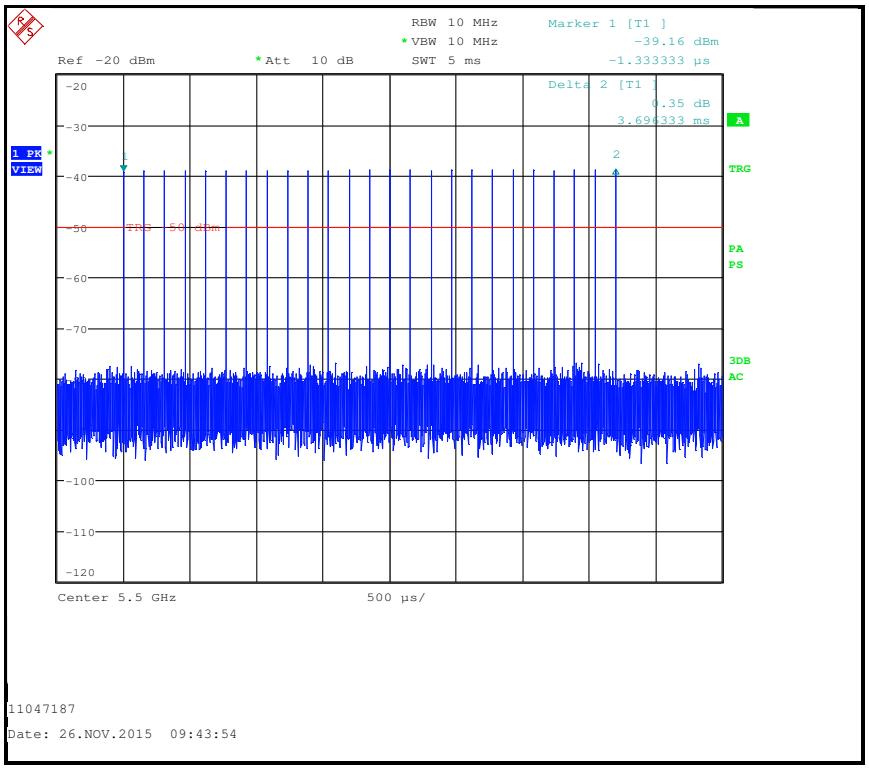

Radar Type 0 – full 18 pulse waveform

## Radar Type 1



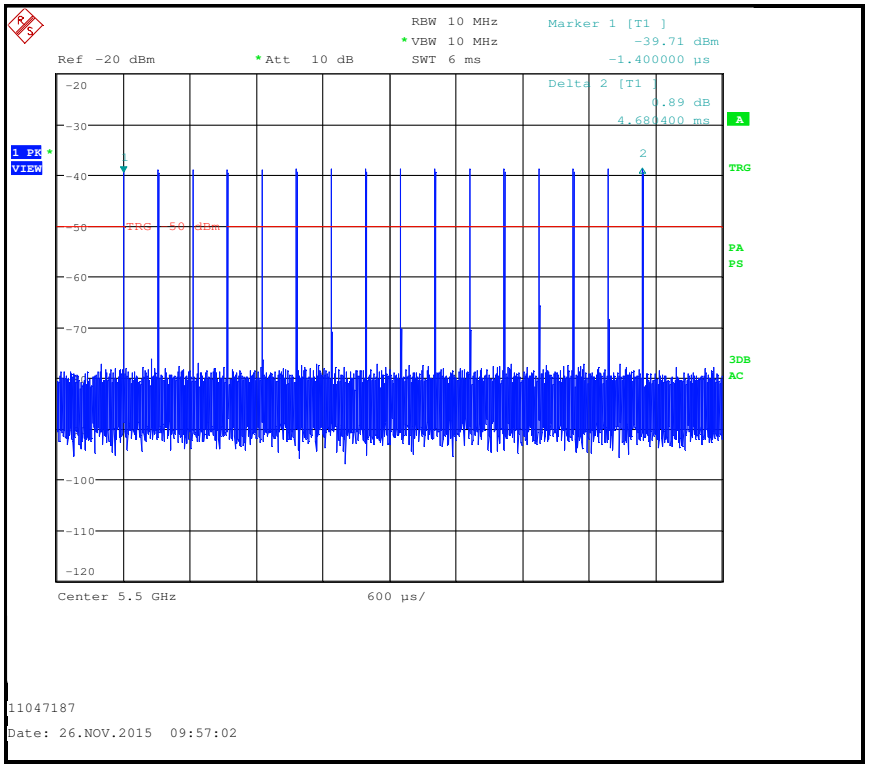

Radar Type 1 – 1 µsec pulse width, 1283 µsec PRI, 42 pulses

## Radar Type 2



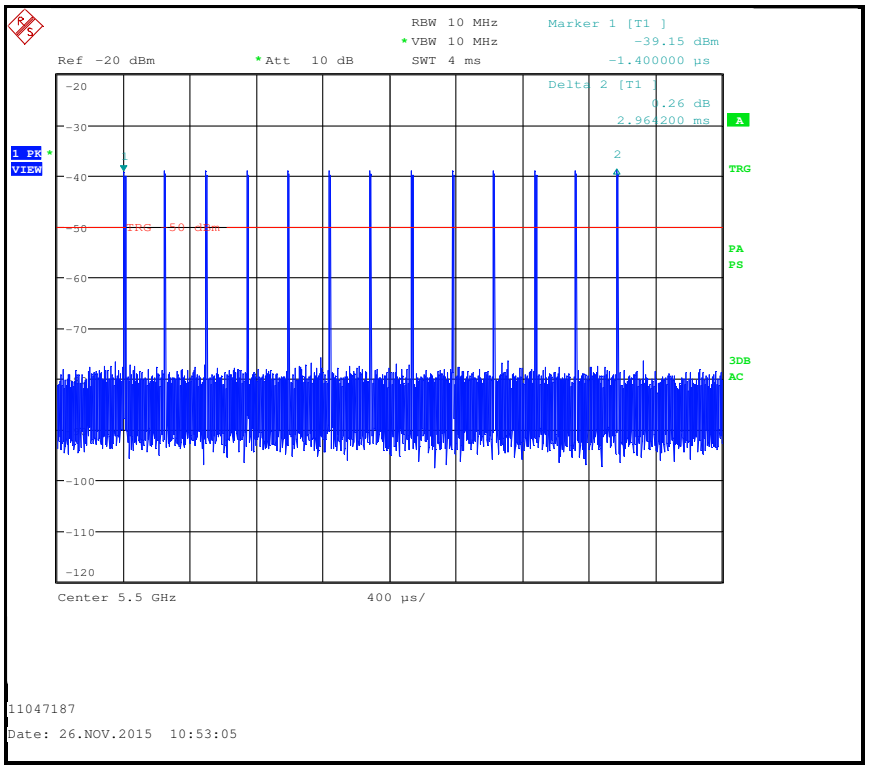

Radar Type 2 – 1 µsec pulse width, 154 µsec PRI, 25 pulses

## Radar Type 3



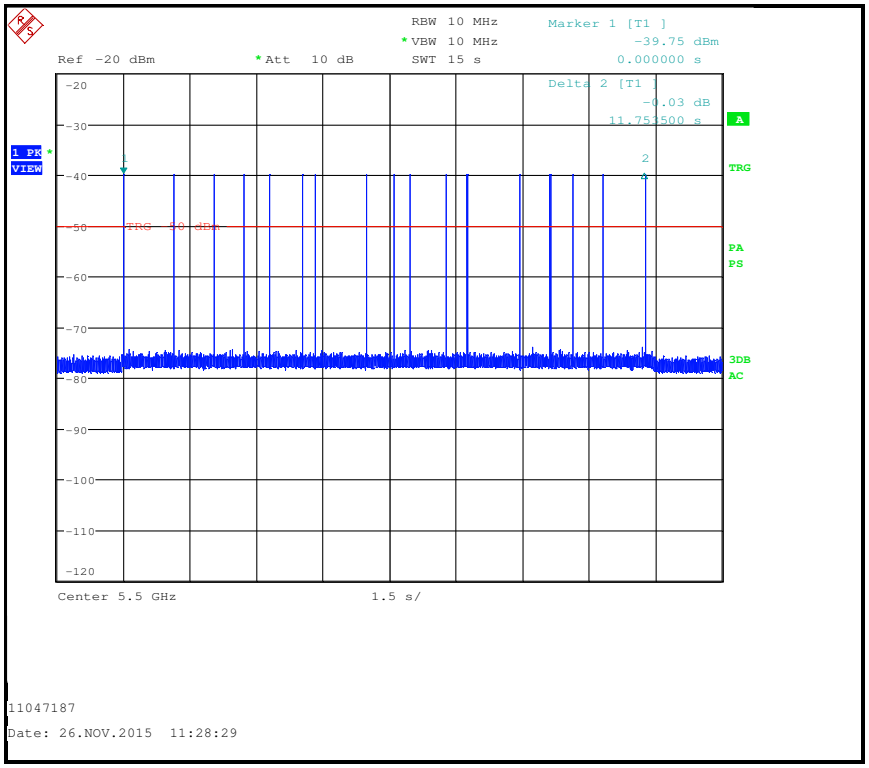

Radar Type 3 – 6 µsec pulse width, 312 µsec PRI, 16 pulses

## Radar Type 4




Radar Type 4 – 11.6 µsec pulse width, 247 µsec PRI, 13 pulses

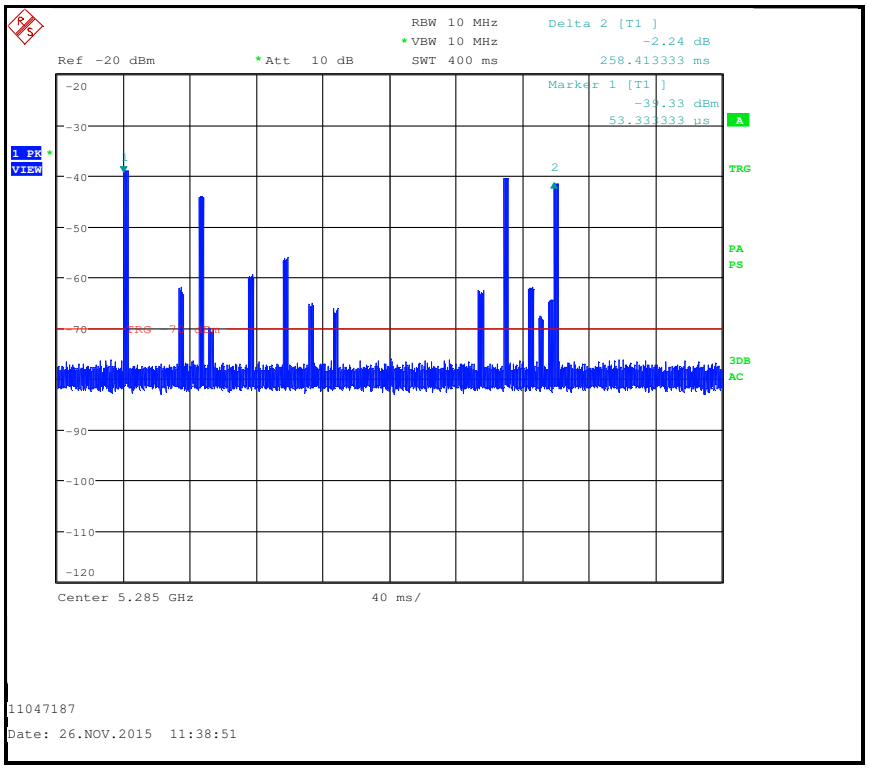
## Radar Type 5 (Long)




Long Radar Type 5

| Burst Segment | Number of Pulses | Pulse Width (µsec) | Chirp Width (MHz) | Pulse 1-to-2 Spacing (µsec) | Pulse 2-to-3 Spacing (µsec) | Starting Location Within Interval (µsec) |
|---|---|---|---|---|---|---|
| 1 | 3 | 65 | 16 | 1476 | 1932 | 50325 |
| 2 | 2 | 58 | 11 | 1400 | - | 481399 |
| 3 | 3 | 55 | 9 | 1994 | 1926 | 682588 |
| 4 | 1 | 58 | 7 | - | - | 655458 |
| 5 | 2 | 66 | 20 | 1027 | - | 510550 |
| 6 | 2 | 75 | 10 | 1042 | - | 545434 |
| 7 | 2 | 73 | 11 | 1440 | - | 125876 |
| 8 | 2 | 63 | 15 | 1479 | - | 579159 |
| 9 | 3 | 64 | 20 | 1521 | 1451 | 498543 |
| 10 | 2 | 52 | 20 | 1845 | - | 143729 |
| 11 | 1 | 87 | 18 | - | - | 256829 |
| 12 | 3 | 87 | 12 | 1207 | 1457 | 23605 |
| 13 | 3 | 67 | 15 | 1091 | 1413 | 497642 |
| 14 | 3 | 91 | 14 | 1710 | 1472 | 484799 |
| 15 | 2 | 60 | 9 | 1369 | - | 305488 |
| 16 | 2 | 50 | 8 | 1446 | - | 253219 |
| 17 | 1 | 79 | 10 | - | - | 508736 |

## Radar Type 6 (Hopping)




Hopping Radar Pulse 6 (Centre Frequency adjusted to first hop frequency)

| | |
|---|---|
| **Hopping sequence (MHz):** | 5285, 5397, 5400, 5596, 5322, 5659, 5614, 5722, 5644, 5565, 5505, 5305, 5537, 5490, 5613, 5279, 5419, 5316, 5478, 5345, 5405, 5667, 5512, 5383, 5331, 5270, 5464, 5627, 5674, 5389, 5696, 5444, 5295, 5510, 5599, 5520, 5541, 5258, 5670, 5326, 5463, 5521, 5313, 5551, 5481, 5713, 5533, 5511, 5366, 5375, 5626, 5665, 5716, 5647, 5653, 5534, 5526, 5532, 5702, 5430, 5662, 5555, 5640, 5567, 5467, 5399, 5410, 5623, 5499, 5470, 5329, 5264, 5395, 5448, 5557, 5575, 5281, 5656, 5558, 5319, 5504, 5304, 5582, 5314, 5718, 5259, 5280, 5388, 5632, 5606, 5472, 5638, 5496, 5384, 5350, 5600, 5406, 5515, 5636, 5507 |

# Appendix 4. Test platform confirmation email

From: Andrew Leimer [mailto:Andrew.Leimer@fcc.gov]
Sent: Friday, September 23, 2011 4:24 PM
To: Chisham, Steve
Cc: Carey, Tim; Hack, Barry; Rashmi Doshi; Joe Dichoso
Subject: RE: Certification for Aeroflex DFS solution

Hello Steve,
The Aeroflex "DXI based DFS test solution" system used for DFS alternative radar signal generation has been approved by the FCC and NTIA.
This approval permits the system to be used by labs in the testing of DFS devices for equipment authorization Certification. It is recommended that applicants that use your system for testing include a statement in the Test Report or a Letter Exhibit stating that the system has FCC and NTIA approval. This E-mail is your record of this approval.
Note that the appropriate term for your system is Approved as the term Certification is reserved for devices gaining equipment authorization through the FCC or a TCB.

Regards,
Andy Leimer

FCC/OET/EACB

# Appendix 5. Statistical Performance Check– Radar Type 1 Trial Records

## 20 MHz Master

| Radar Type 1 | | | |
|---|---|---|---|
| **Trial #** | **'Test A' Pulse Repetition Frequency Number** | **Pulse Repetition Frequency (Pulses/s)** | **Pulse Repetition Interval (μsec)** |
| 1 | N/A - 'Test B' Radar | 951.5 | 1051 |
| 2 | N/A - 'Test B' Radar | 878.0 | 1139 |
| 3 | N/A - 'Test B' Radar | 781.3 | 1280 |
| 4 | N/A - 'Test B' Radar | 466.2 | 2145 |
| 5 | N/A - 'Test B' Radar | 458.7 | 2180 |
| 6 | N/A - 'Test B' Radar | 419.5 | 2384 |
| 7 | N/A - 'Test B' Radar | 411.2 | 2432 |
| 8 | N/A - 'Test B' Radar | 393.4 | 2542 |
| 9 | N/A - 'Test B' Radar | 391.1 | 2557 |
| 10 | N/A - 'Test B' Radar | 346.0 | 2890 |
| 11 | N/A - 'Test B' Radar | 329.2 | 3038 |
| 12 | 23 | 326.2 | 3066 |
| 13 | 1 | 1930.5 | 518 |
| 14 | 4 | 1730.1 | 578 |
| 15 | 5 | 1672.2 | 598 |
| 16 | 6 | 1618.1 | 618 |
| 17 | 8 | 1519.8 | 658 |
| 18 | N/A - 'Test B' Radar | 1477.1 | 677 |
| 19 | 9 | 1474.9 | 678 |
| 20 | 10 | 1432.7 | 698 |
| 21 | N/A - 'Test B' Radar | 1426.5 | 701 |
| 22 | 11 | 1392.8 | 718 |
| 23 | 12 | 1355.0 | 738 |
| 24 | 13 | 1319.3 | 758 |
| 25 | 14 | 1285.3 | 778 |
| 26 | 17 | 1193.3 | 838 |
| 27 | N/A - 'Test B' Radar | 1179.2 | 848 |
| 28 | 18 | 1165.5 | 858 |
| 29 | N/A - 'Test B' Radar | 1118.6 | 894 |
| 30 | 22 | 1066.1 | 938 |

## 40 MHz Master

| Radar Type 1 | | | |
|---|---|---|---|
| **Trial #** | **'Test A' Pulse Repetition Frequency Number** | **Pulse Repetition Frequency (Pulses/s)** | **Pulse Repetition Interval (µsec)** |
| 1 | N/A - 'Test B' Radar | 806.5 | 1240 |
| 2 | N/A - 'Test B' Radar | 605.0 | 1653 |
| 3 | N/A - 'Test B' Radar | 532.2 | 1879 |
| 4 | N/A - 'Test B' Radar | 522.5 | 1914 |
| 5 | N/A - 'Test B' Radar | 495.0 | 2020 |
| 6 | N/A - 'Test B' Radar | 472.1 | 2118 |
| 7 | N/A - 'Test B' Radar | 467.1 | 2141 |
| 8 | N/A - 'Test B' Radar | 444.0 | 2252 |
| 9 | N/A - 'Test B' Radar | 381.1 | 2624 |
| 10 | N/A - 'Test B' Radar | 357.3 | 2799 |
| 11 | N/A - 'Test B' Radar | 326.5 | 3063 |
| 12 | 23 | 326.2 | 3066 |
| 13 | 2 | 1858.7 | 538 |
| 14 | 4 | 1730.1 | 578 |
| 15 | N/A - 'Test B' Radar | 1636.7 | 611 |
| 16 | 6 | 1618.1 | 618 |
| 17 | 7 | 1567.4 | 638 |
| 18 | 8 | 1519.8 | 658 |
| 19 | N/A - 'Test B' Radar | 1508.3 | 663 |
| 20 | 9 | 1474.9 | 678 |
| 21 | 10 | 1432.7 | 698 |
| 22 | 11 | 1392.8 | 718 |
| 23 | N/A - 'Test B' Radar | 1358.7 | 736 |
| 24 | 12 | 1355.0 | 738 |
| 25 | 13 | 1319.3 | 758 |
| 26 | 14 | 1285.3 | 778 |
| 27 | 18 | 1165.5 | 858 |
| 28 | 19 | 1139.0 | 878 |
| 29 | 22 | 1066.1 | 938 |
| 30 | N/A - 'Test B' Radar | 1061.6 | 942 |

# Appendix 6. Statistical Performance Check– Radar Type 2 Trial Records

## 20 MHz Master

| Radar Type 2 | | | |
|---|---|---|---|
| **Trial #** | **Number Pulses per Burst** | **Pulse Width (µsec)** | **PRI (µsec)** |
| 1 | 25 | 1.0 | 172 |
| 2 | 29 | 1.1 | 189 |
| 3 | 28 | 1.3 | 217 |
| 4 | 29 | 1.7 | 207 |
| 5 | 25 | 1.7 | 224 |
| 6 | 24 | 1.8 | 150 |
| 7 | 24 | 1.9 | 200 |
| 8 | 26 | 2.0 | 182 |
| 9 | 29 | 2.1 | 189 |
| 10 | 23 | 2.2 | 197 |
| 11 | 24 | 2.3 | 163 |
| 12 | 27 | 2.3 | 185 |
| 13 | 29 | 2.4 | 165 |
| 14 | 26 | 2.5 | 198 |
| 15 | 25 | 2.5 | 225 |
| 16 | 24 | 2.9 | 184 |
| 17 | 27 | 2.9 | 202 |
| 18 | 29 | 3.0 | 192 |
| 19 | 27 | 3.2 | 165 |
| 20 | 25 | 3.3 | 211 |
| 21 | 26 | 3.4 | 161 |
| 22 | 27 | 3.5 | 205 |
| 23 | 29 | 3.6 | 154 |
| 24 | 29 | 3.8 | 223 |
| 25 | 29 | 3.9 | 197 |
| 26 | 28 | 4.1 | 194 |
| 27 | 24 | 4.2 | 187 |
| 28 | 27 | 4.3 | 171 |
| 29 | 27 | 4.6 | 189 |
| 30 | 28 | 4.7 | 173 |

## 40 MHz Master

| Radar Type 2 | | | |
|---|---|---|---|
| **Trial #** | **Number Pulses per Burst** | **Pulse Width (µsec)** | **PRI (µsec)** |
| 1 | 24 | 1.1 | 174 |
| 2 | 27 | 1.1 | 202 |
| 3 | 29 | 1.2 | 203 |
| 4 | 23 | 1.2 | 205 |
| 5 | 28 | 1.6 | 179 |
| 6 | 27 | 1.8 | 213 |
| 7 | 29 | 2.1 | 155 |
| 8 | 25 | 2.1 | 178 |
| 9 | 25 | 2.2 | 209 |
| 10 | 26 | 2.3 | 153 |
| 11 | 28 | 2.3 | 202 |
| 12 | 29 | 2.7 | 155 |
| 13 | 26 | 2.8 | 191 |
| 14 | 23 | 2.9 | 151 |
| 15 | 29 | 3.1 | 154 |
| 16 | 23 | 3.2 | 156 |
| 17 | 29 | 3.4 | 188 |
| 18 | 29 | 3.7 | 159 |
| 19 | 24 | 3.7 | 176 |
| 20 | 24 | 3.7 | 227 |
| 21 | 27 | 4.0 | 160 |
| 22 | 29 | 4.0 | 225 |
| 23 | 27 | 4.2 | 228 |
| 24 | 23 | 4.3 | 165 |
| 25 | 29 | 4.4 | 209 |
| 26 | 27 | 4.5 | 160 |
| 27 | 23 | 4.5 | 161 |
| 28 | 25 | 4.6 | 196 |
| 29 | 29 | 4.8 | 189 |
| 30 | 23 | 4.8 | 215 |

# Appendix 7. Statistical Performance Check– Radar Type 3 Trial Records

## 20 MHz Master

| Radar Type 3 | | | |
|---|---|---|---|
| **Trial #** | **Number Pulses per Burst** | **Pulse Width (µsec)** | **PRI (µsec)** |
| 1 | 16 | 10.0 | 273 |
| 2 | 17 | 10.0 | 321 |
| 3 | 17 | 6.0 | 408 |
| 4 | 17 | 6.4 | 318 |
| 5 | 16 | 6.5 | 477 |
| 6 | 18 | 6.9 | 212 |
| 7 | 16 | 6.9 | 353 |
| 8 | 16 | 7.0 | 247 |
| 9 | 16 | 7.0 | 275 |
| 10 | 18 | 7.0 | 356 |
| 11 | 18 | 7.0 | 487 |
| 12 | 17 | 8.0 | 426 |
| 13 | 16 | 8.3 | 251 |
| 14 | 16 | 8.4 | 442 |
| 15 | 16 | 8.5 | 311 |
| 16 | 17 | 8.6 | 367 |
| 17 | 18 | 8.7 | 330 |
| 18 | 17 | 8.7 | 386 |
| 19 | 16 | 8.8 | 239 |
| 20 | 17 | 9.2 | 318 |
| 21 | 16 | 9.2 | 356 |
| 22 | 18 | 9.2 | 365 |
| 23 | 16 | 9.3 | 371 |
| 24 | 16 | 9.3 | 385 |
| 25 | 16 | 9.3 | 432 |
| 26 | 18 | 9.4 | 278 |
| 27 | 18 | 9.6 | 328 |
| 28 | 17 | 9.7 | 222 |
| 29 | 16 | 9.9 | 406 |
| 30 | 17 | 9.9 | 463 |

## 40 MHz Master

| Radar Type 3 | | | |
|---|---|---|---|
| **Trial #** | **Number Pulses per Burst** | **Pulse Width (µsec)** | **PRI (µsec)** |
| 1 | 18 | 6.0 | 321 |
| 2 | 17 | 6.0 | 420 |
| 3 | 18 | 6.1 | 235 |
| 4 | 16 | 6.1 | 422 |
| 5 | 18 | 6.5 | 332 |
| 6 | 17 | 6.6 | 284 |
| 7 | 18 | 6.7 | 209 |
| 8 | 18 | 7.1 | 397 |
| 9 | 17 | 7.1 | 474 |
| 10 | 17 | 7.2 | 209 |
| 11 | 18 | 7.4 | 223 |
| 12 | 18 | 7.6 | 257 |
| 13 | 17 | 7.8 | 278 |
| 14 | 18 | 7.8 | 309 |
| 15 | 18 | 7.8 | 455 |
| 16 | 18 | 7.9 | 322 |
| 17 | 17 | 7.9 | 498 |
| 18 | 16 | 8.0 | 269 |
| 19 | 16 | 8.0 | 346 |
| 20 | 18 | 8.6 | 441 |
| 21 | 17 | 9.0 | 440 |
| 22 | 17 | 9.1 | 286 |
| 23 | 16 | 9.1 | 342 |
| 24 | 18 | 9.4 | 296 |
| 25 | 17 | 9.4 | 360 |
| 26 | 17 | 9.4 | 414 |
| 27 | 17 | 9.5 | 440 |
| 28 | 16 | 9.8 | 320 |
| 29 | 17 | 9.8 | 356 |
| 30 | 18 | 9.8 | 440 |

# Appendix 8. Statistical Performance Check– Radar Type 4 Trial Records

## 20 MHz Master

| Radar Type 4 | | | |
|---|---|---|---|
| **Trial #** | **Number Pulses per Burst** | **Pulse Width (µsec)** | **PRI (µsec)** |
| 1 | 13 | 11.0 | 382 |
| 2 | 15 | 11.1 | 457 |
| 3 | 15 | 11.3 | 230 |
| 4 | 13 | 11.3 | 368 |
| 5 | 15 | 11.8 | 339 |
| 6 | 16 | 11.9 | 261 |
| 7 | 15 | 12.7 | 206 |
| 8 | 12 | 12.7 | 272 |
| 9 | 15 | 12.7 | 435 |
| 10 | 15 | 13.0 | 217 |
| 11 | 15 | 13.3 | 489 |
| 12 | 12 | 13.7 | 341 |
| 13 | 14 | 13.7 | 364 |
| 14 | 16 | 14.0 | 236 |
| 15 | 12 | 14.1 | 273 |
| 16 | 13 | 14.7 | 387 |
| 17 | 13 | 14.9 | 463 |
| 18 | 14 | 15.1 | 411 |
| 19 | 14 | 16.0 | 251 |
| 20 | 13 | 16.5 | 315 |
| 21 | 14 | 16.9 | 477 |
| 22 | 13 | 17.0 | 475 |
| 23 | 14 | 17.1 | 489 |
| 24 | 12 | 18.6 | 378 |
| 25 | 12 | 18.9 | 447 |
| 26 | 14 | 19.1 | 207 |
| 27 | 14 | 19.1 | 421 |
| 28 | 16 | 19.2 | 401 |
| 29 | 12 | 19.6 | 359 |
| 30 | 14 | 19.6 | 437 |

## 40 MHz Master

| Radar Type 4 | | | |
|---|---|---|---|
| **Trial #** | **Number Pulses per Burst** | **Pulse Width (µsec)** | **PRI (µsec)** |
| 1 | 15 | 11.6 | 239 |
| 2 | 14 | 11.7 | 247 |
| 3 | 14 | 11.7 | 295 |
| 4 | 16 | 12.5 | 362 |
| 5 | 12 | 13.3 | 487 |
| 6 | 16 | 13.8 | 435 |
| 7 | 13 | 13.9 | 323 |
| 8 | 13 | 14.0 | 216 |
| 9 | 15 | 14.0 | 253 |
| 10 | 16 | 14.1 | 477 |
| 11 | 16 | 14.4 | 490 |
| 12 | 14 | 14.7 | 353 |
| 13 | 15 | 14.9 | 282 |
| 14 | 16 | 15.1 | 227 |
| 15 | 15 | 15.2 | 368 |
| 16 | 12 | 15.4 | 311 |
| 17 | 14 | 15.5 | 257 |
| 18 | 13 | 15.5 | 488 |
| 19 | 12 | 16.0 | 406 |
| 20 | 16 | 16.1 | 246 |
| 21 | 12 | 16.7 | 304 |
| 22 | 15 | 16.8 | 499 |
| 23 | 13 | 16.9 | 432 |
| 24 | 15 | 17.6 | 229 |
| 25 | 12 | 18.1 | 230 |
| 26 | 13 | 18.7 | 352 |
| 27 | 14 | 19.3 | 448 |
| 28 | 16 | 19.6 | 283 |
| 29 | 15 | 19.7 | 215 |
| 30 | 16 | 19.7 | 383 |

# Appendix 9. Statistical Performance Check– Radar Type 5 Trial Records

## 20 MHz Master - Trial 1

| Burst Segment | Number of Pulses | Pulse Width (µsec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (µsec) | Pulse 2-to-3 PRI (µsec) | Starting Location Within Interval (µsec) |
|---|---|---|---|---|---|---|
| 1 | 3 | 91 | 5 | 1039 | 1118 | 577016 |
| 2 | 1 | 53 | 9 | - | - | 202822 |
| 3 | 1 | 51 | 20 | - | - | 206933 |
| 4 | 1 | 71 | 7 | - | - | 897702 |
| 5 | 3 | 96 | 6 | 1153 | 1760 | 839668 |
| 6 | 1 | 88 | 11 | - | - | 494144 |
| 7 | 3 | 88 | 11 | 1601 | 1717 | 860718 |
| 8 | 1 | 64 | 14 | - | - | 317398 |
| 9 | 1 | 84 | 12 | - | - | 450840 |
| 10 | 3 | 100 | 14 | 1623 | 1969 | 334782 |
| 11 | 1 | 59 | 7 | - | - | 61323 |
| 12 | 1 | 93 | 9 | - | - | 719388 |
| 13 | 1 | 54 | 17 | - | - | 340625 |

## 20 MHz Master - Trial 2

| Burst Segment | Number of Pulses | Pulse Width (µsec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (µsec) | Pulse 2-to-3 PRI (µsec) | Starting Location Within Interval (µsec) |
|---|---|---|---|---|---|---|
| 1 | 2 | 58 | 13 | 1805 | - | 717186 |
| 2 | 1 | 50 | 19 | - | - | 902317 |
| 3 | 3 | 92 | 17 | 1102 | 1432 | 686026 |
| 4 | 1 | 89 | 9 | - | - | 696745 |
| 5 | 3 | 50 | 8 | 1717 | 1563 | 378982 |
| 6 | 1 | 93 | 15 | - | - | 581323 |
| 7 | 1 | 76 | 14 | - | - | 922401 |
| 8 | 2 | 99 | 10 | 1310 | - | 195480 |
| 9 | 3 | 65 | 20 | 1452 | 1481 | 396503 |
| 10 | 2 | 65 | 8 | 1428 | - | 725297 |
| 11 | 2 | 64 | 17 | 1139 | - | 641090 |

**20 MHz Master - Trial 3**

| Burst Segment | Number of Pulses | Pulse Width (µsec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (µsec) | Pulse 2-to-3 PRI (µsec) | Starting Location Within Interval (µsec) |
|---|---|---|---|---|---|---|
| 1 | 1 | 72 | 20 | - | - | 497829 |
| 2 | 2 | 73 | 11 | 1379 | - | 664498 |
| 3 | 1 | 63 | 19 | - | - | 730000 |
| 4 | 2 | 65 | 5 | 1596 | - | 403134 |
| 5 | 1 | 92 | 14 | - | - | 814698 |
| 6 | 2 | 60 | 5 | 1067 | - | 467932 |
| 7 | 3 | 53 | 19 | 1735 | 1426 | 279841 |
| 8 | 1 | 83 | 18 | - | - | 379695 |
| 9 | 3 | 78 | 18 | 1577 | 1073 | 947520 |
| 10 | 1 | 54 | 11 | - | - | 595939 |
| 11 | 3 | 68 | 12 | 1689 | 1408 | 883487 |

**20 MHz Master - Trial 4**

| Burst Segment | Number of Pulses | Pulse Width (µsec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (µsec) | Pulse 2-to-3 PRI (µsec) | Starting Location Within Interval (µsec) |
|---|---|---|---|---|---|---|
| 1 | 3 | 78 | 6 | 1751 | 1416 | 216326 |
| 2 | 1 | 70 | 9 | - | - | 477825 |
| 3 | 2 | 92 | 15 | 1468 | - | 566831 |
| 4 | 2 | 83 | 18 | 1804 | - | 330668 |
| 5 | 1 | 74 | 19 | - | - | 212989 |
| 6 | 1 | 82 | 13 | - | - | 333092 |
| 7 | 2 | 81 | 8 | 1327 | - | 432587 |
| 8 | 2 | 77 | 6 | 1771 | - | 420509 |
| 9 | 1 | 63 | 18 | - | - | 123284 |
| 10 | 3 | 59 | 12 | 1247 | 1741 | 55244 |
| 11 | 1 | 96 | 17 | - | - | 575998 |
| 12 | 2 | 67 | 13 | 1178 | - | 474616 |
| 13 | 3 | 81 | 17 | 1787 | 1553 | 550653 |
| 14 | 3 | 72 | 9 | 1225 | 1158 | 657480 |
| 15 | 3 | 84 | 5 | 1566 | 1545 | 447489 |
| 16 | 1 | 86 | 15 | - | - | 585266 |
| 17 | 3 | 96 | 12 | 1319 | 1703 | 578068 |

**20 MHz Master - Trial 5**

| Burst Segment | Number of Pulses | Pulse Width (µsec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (µsec) | Pulse 2-to-3 PRI (µsec) | Starting Location Within Interval (µsec) |
|---|---|---|---|---|---|---|
| 1 | 3 | 63 | 20 | 1354 | 1442 | 896893 |
| 2 | 3 | 77 | 12 | 1280 | 1391 | 69133 |
| 3 | 3 | 61 | 5 | 1583 | 1144 | 426648 |
| 4 | 1 | 87 | 9 | - | - | 55019 |
| 5 | 3 | 72 | 12 | 1992 | 1968 | 687840 |
| 6 | 3 | 67 | 8 | 1080 | 1868 | 4171 |
| 7 | 2 | 98 | 7 | 1580 | - | 227475 |
| 8 | 3 | 54 | 5 | 1072 | 1357 | 631186 |
| 9 | 2 | 96 | 14 | 1856 | - | 294875 |
| 10 | 1 | 93 | 12 | - | - | 83272 |
| 11 | 1 | 83 | 14 | - | - | 511736 |
| 12 | 3 | 73 | 5 | 1223 | 1665 | 117888 |
| 13 | 1 | 65 | 8 | - | - | 698271 |

**20 MHz Master - Trial 6**

| Burst Segment | Number of Pulses | Pulse Width (µsec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (µsec) | Pulse 2-to-3 PRI (µsec) | Starting Location Within Interval (µsec) |
|---|---|---|---|---|---|---|
| 1 | 1 | 71 | 14 | - | - | 152966 |
| 2 | 2 | 82 | 8 | 1987 | - | 245663 |
| 3 | 3 | 91 | 6 | 1359 | 1894 | 386057 |
| 4 | 1 | 69 | 14 | - | - | 548961 |
| 5 | 3 | 94 | 11 | 1617 | 1681 | 559101 |
| 6 | 3 | 94 | 10 | 1945 | 1310 | 263985 |
| 7 | 2 | 58 | 19 | 1787 | - | 639441 |
| 8 | 3 | 82 | 19 | 1449 | 1960 | 474970 |
| 9 | 1 | 91 | 6 | - | - | 269014 |
| 10 | 2 | 66 | 6 | 1083 | - | 471475 |
| 11 | 3 | 71 | 19 | 1827 | 1681 | 558644 |
| 12 | 3 | 71 | 18 | 1774 | 1852 | 29477 |
| 13 | 1 | 68 | 10 | - | - | 638778 |
| 14 | 2 | 55 | 15 | 1310 | - | 520492 |
| 15 | 3 | 66 | 18 | 1189 | 1171 | 569349 |
| 16 | 2 | 71 | 5 | 1538 | - | 177639 |
| 17 | 3 | 82 | 16 | 1012 | 1235 | 62323 |

**20 MHz Master - Trial 7**

| Burst Segment | Number of Pulses | Pulse Width (µsec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (µsec) | Pulse 2-to-3 PRI (µsec) | Starting Location Within Interval (µsec) |
|---|---|---|---|---|---|---|
| 1 | 1 | 93 | 8 | - | - | 56300 |
| 2 | 3 | 55 | 15 | 1177 | 1435 | 971963 |
| 3 | 2 | 60 | 8 | 1474 | - | 1029438 |
| 4 | 3 | 99 | 6 | 1062 | 1637 | 678807 |
| 5 | 3 | 65 | 5 | 1825 | 1235 | 796813 |
| 6 | 1 | 70 | 15 | - | - | 468255 |
| 7 | 3 | 68 | 5 | 1528 | 1458 | 692647 |
| 8 | 3 | 83 | 17 | 1555 | 1994 | 497153 |
| 9 | 3 | 97 | 18 | 1315 | 1779 | 118163 |

**20 MHz Master - Trial 8**

| Burst Segment | Number of Pulses | Pulse Width (µsec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (µsec) | Pulse 2-to-3 PRI (µsec) | Starting Location Within Interval (µsec) |
|---|---|---|---|---|---|---|
| 1 | 3 | 96 | 7 | 1451 | 1595 | 89049 |
| 2 | 2 | 60 | 8 | 1440 | - | 358698 |
| 3 | 2 | 89 | 17 | 1379 | - | 567747 |
| 4 | 3 | 61 | 20 | 1315 | 1409 | 205833 |
| 5 | 2 | 65 | 6 | 1517 | - | 431175 |
| 6 | 2 | 53 | 20 | 1920 | - | 577567 |
| 7 | 1 | 85 | 20 | - | - | 309894 |
| 8 | 2 | 96 | 11 | 1402 | - | 635382 |
| 9 | 1 | 73 | 8 | - | - | 176163 |
| 10 | 1 | 60 | 14 | - | - | 336534 |
| 11 | 1 | 100 | 6 | - | - | 588084 |
| 12 | 3 | 65 | 11 | 1465 | 1868 | 259455 |
| 13 | 1 | 76 | 6 | - | - | 101994 |
| 14 | 1 | 76 | 16 | - | - | 256014 |
| 15 | 1 | 90 | 20 | - | - | 217278 |
| 16 | 3 | 91 | 13 | 1413 | 1100 | 587215 |
| 17 | 1 | 52 | 20 | - | - | 213925 |

**20 MHz Master - Trial 9**

| Burst Segment | Number of Pulses | Pulse Width (µsec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (µsec) | Pulse 2-to-3 PRI (µsec) | Starting Location Within Interval (µsec) |
|---|---|---|---|---|---|---|
| 1 | 3 | 97 | 5 | 1827 | 1988 | 189388 |
| 2 | 2 | 77 | 20 | 1630 | - | 319909 |
| 3 | 1 | 95 | 17 | - | - | 98483 |
| 4 | 1 | 85 | 13 | - | - | 443042 |
| 5 | 1 | 92 | 13 | - | - | 494786 |
| 6 | 1 | 64 | 9 | - | - | 216249 |
| 7 | 1 | 80 | 8 | - | - | 488049 |
| 8 | 2 | 89 | 13 | 1151 | - | 125514 |
| 9 | 1 | 85 | 16 | - | - | 27001 |
| 10 | 3 | 63 | 20 | 1678 | 1410 | 291852 |
| 11 | 2 | 81 | 19 | 1606 | - | 323150 |
| 12 | 2 | 62 | 7 | 1164 | - | 255705 |
| 13 | 1 | 99 | 13 | - | - | 418464 |
| 14 | 3 | 59 | 20 | 1742 | 1817 | 87136 |
| 15 | 2 | 68 | 15 | 1955 | - | 2107 |
| 16 | 1 | 93 | 16 | - | - | 250082 |
| 17 | 2 | 79 | 7 | 1632 | - | 471260 |
| 18 | 2 | 87 | 9 | 1988 | - | 413724 |
| 19 | 1 | 57 | 14 | - | - | 214835 |
| 20 | 3 | 55 | 9 | 1142 | 1003 | 52453 |

**20 MHz Master - Trial 10**

| Burst Segment | Number of Pulses | Pulse Width (µsec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (µsec) | Pulse 2-to-3 PRI (µsec) | Starting Location Within Interval (µsec) |
|---|---|---|---|---|---|---|
| 1 | 1 | 61 | 18 | - | - | 226184 |
| 2 | 3 | 64 | 20 | 1983 | 1602 | 460849 |
| 3 | 2 | 77 | 17 | 1598 | - | 733026 |
| 4 | 3 | 66 | 17 | 1064 | 1223 | 788736 |
| 5 | 3 | 52 | 12 | 2000 | 1958 | 5551 |
| 6 | 3 | 93 | 16 | 1858 | 1856 | 516913 |
| 7 | 3 | 62 | 10 | 1286 | 1368 | 726896 |
| 8 | 2 | 87 | 9 | 1386 | - | 130042 |
| 9 | 3 | 80 | 18 | 1760 | 1868 | 116473 |
| 10 | 3 | 69 | 20 | 1865 | 1596 | 317933 |
| 11 | 1 | 68 | 9 | - | - | 839271 |
| 12 | 1 | 54 | 7 | - | - | 739981 |
| 13 | 3 | 89 | 20 | 1867 | 1355 | 436746 |
| 14 | 3 | 99 | 19 | 1723 | 1480 | 547620 |

**20 MHz Master - Trial 11**

| Burst Segment | Number of Pulses | Pulse Width (µsec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (µsec) | Pulse 2-to-3 PRI (µsec) | Starting Location Within Interval (µsec) |
|---|---|---|---|---|---|---|
| 1 | 3 | 91 | 11 | 1127 | 1246 | 34408 |
| 2 | 3 | 90 | 12 | 1916 | 1741 | 240164 |
| 3 | 3 | 58 | 19 | 1103 | 1872 | 45102 |
| 4 | 2 | 57 | 13 | 1469 | - | 724331 |
| 5 | 2 | 99 | 11 | 1356 | - | 366913 |
| 6 | 3 | 73 | 8 | 1384 | 1955 | 643546 |
| 7 | 1 | 78 | 18 | - | - | 681340 |
| 8 | 1 | 51 | 11 | - | - | 47961 |
| 9 | 1 | 94 | 8 | - | - | 451630 |
| 10 | 2 | 67 | 17 | 1858 | - | 32281 |
| 11 | 2 | 91 | 12 | 1042 | - | 342158 |
| 12 | 3 | 88 | 7 | 1842 | 1687 | 206330 |
| 13 | 3 | 50 | 16 | 1357 | 1347 | 50333 |
| 14 | 3 | 68 | 8 | 1019 | 1018 | 499049 |
| 15 | 3 | 73 | 9 | 1044 | 1453 | 318508 |

**20 MHz Master - Trial 12**

| Burst Segment | Number of Pulses | Pulse Width (µsec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (µsec) | Pulse 2-to-3 PRI (µsec) | Starting Location Within Interval (µsec) |
|---|---|---|---|---|---|---|
| 1 | 1 | 85 | 6 | - | - | 270035 |
| 2 | 2 | 78 | 12 | 1766 | - | 534675 |
| 3 | 2 | 55 | 16 | 1196 | - | 220716 |
| 4 | 1 | 61 | 8 | - | - | 103939 |
| 5 | 3 | 61 | 11 | 1448 | 1387 | 387324 |
| 6 | 1 | 83 | 8 | - | - | 468240 |
| 7 | 2 | 58 | 18 | 1294 | - | 481514 |
| 8 | 3 | 84 | 13 | 1713 | 1582 | 92105 |
| 9 | 3 | 94 | 9 | 1043 | 1719 | 79926 |
| 10 | 1 | 91 | 9 | - | - | 376468 |
| 11 | 1 | 53 | 19 | - | - | 383893 |
| 12 | 1 | 75 | 14 | - | - | 200253 |
| 13 | 2 | 70 | 19 | 1375 | - | 457662 |
| 14 | 1 | 84 | 17 | - | - | 517766 |
| 15 | 3 | 64 | 15 | 1595 | 1517 | 385885 |
| 16 | 1 | 52 | 10 | - | - | 77831 |
| 17 | 2 | 84 | 12 | 1689 | - | 520383 |
| 18 | 3 | 57 | 10 | 1095 | 1980 | 431588 |
| 19 | 2 | 71 | 6 | 1238 | - | 134319 |

**20 MHz Master - Trial 13**

| Burst Segment | Number of Pulses | Pulse Width (µsec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (µsec) | Pulse 2-to-3 PRI (µsec) | Starting Location Within Interval (µsec) |
|---|---|---|---|---|---|---|
| 1 | 1 | 71 | 7 | - | - | 133785 |
| 2 | 2 | 97 | 9 | 1407 | - | 653401 |
| 3 | 2 | 50 | 16 | 1454 | - | 1032743 |
| 4 | 2 | 92 | 11 | 1162 | - | 777566 |
| 5 | 1 | 86 | 6 | - | - | 549487 |
| 6 | 2 | 92 | 14 | 1811 | - | 159530 |
| 7 | 2 | 93 | 14 | 1357 | - | 364554 |
| 8 | 2 | 89 | 15 | 1186 | - | 14083 |
| 9 | 1 | 87 | 7 | - | - | 338453 |
| 10 | 1 | 66 | 7 | - | - | 759756 |

**20 MHz Master - Trial 14**

| Burst Segment | Number of Pulses | Pulse Width (µsec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (µsec) | Pulse 2-to-3 PRI (µsec) | Starting Location Within Interval (µsec) |
|---|---|---|---|---|---|---|
| 1 | 1 | 56 | 16 | - | - | 32121 |
| 2 | 3 | 80 | 8 | 1457 | 1164 | 715411 |
| 3 | 2 | 63 | 17 | 1118 | - | 130343 |
| 4 | 1 | 85 | 5 | - | - | 483569 |
| 5 | 2 | 50 | 6 | 1914 | - | 490931 |
| 6 | 2 | 55 | 19 | 1830 | - | 325892 |
| 7 | 3 | 57 | 11 | 1205 | 1949 | 516865 |
| 8 | 3 | 80 | 18 | 1629 | 1768 | 76301 |
| 9 | 3 | 81 | 15 | 1615 | 1739 | 206356 |
| 10 | 2 | 50 | 8 | 1592 | - | 220410 |
| 11 | 2 | 61 | 15 | 1031 | - | 165227 |
| 12 | 1 | 84 | 18 | - | - | 510317 |
| 13 | 2 | 51 | 10 | 1819 | - | 100569 |
| 14 | 1 | 91 | 11 | - | - | 131048 |
| 15 | 2 | 94 | 11 | 1878 | - | 230607 |
| 16 | 1 | 74 | 8 | - | - | 31254 |

**20 MHz Master - Trial 15**

| Burst Segment | Number of Pulses | Pulse Width (µsec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (µsec) | Pulse 2-to-3 PRI (µsec) | Starting Location Within Interval (µsec) |
|---|---|---|---|---|---|---|
| 1 | 3 | 64 | 18 | 1219 | 1204 | 630846 |
| 2 | 3 | 100 | 10 | 1660 | 1779 | 386836 |
| 3 | 1 | 90 | 6 | - | - | 547182 |
| 4 | 3 | 62 | 18 | 1480 | 1670 | 340269 |
| 5 | 1 | 92 | 17 | - | - | 537100 |
| 6 | 3 | 81 | 19 | 1593 | 1556 | 739138 |
| 7 | 1 | 52 | 20 | - | - | 295185 |
| 8 | 2 | 90 | 7 | 1975 | - | 146651 |
| 9 | 1 | 75 | 17 | - | - | 297016 |
| 10 | 3 | 87 | 14 | 1790 | 1579 | 54030 |
| 11 | 1 | 68 | 13 | - | - | 717788 |
| 12 | 2 | 54 | 20 | 1466 | - | 365629 |
| 13 | 3 | 66 | 6 | 1730 | 1104 | 589396 |
| 14 | 2 | 54 | 18 | 1694 | - | 133822 |
| 15 | 1 | 54 | 19 | - | - | 213073 |
| 16 | 2 | 98 | 11 | 1437 | - | 604589 |

**20 MHz Master - Trial 16**

| Burst Segment | Number of Pulses | Pulse Width (µsec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (µsec) | Pulse 2-to-3 PRI (µsec) | Starting Location Within Interval (µsec) |
|---|---|---|---|---|---|---|
| 1 | 1 | 92 | 10 | - | - | 312259 |
| 2 | 1 | 81 | 12 | - | - | 55844 |
| 3 | 2 | 65 | 13 | 1337 | - | 403955 |
| 4 | 1 | 94 | 5 | - | - | 461002 |
| 5 | 2 | 80 | 12 | 1654 | - | 466921 |
| 6 | 1 | 70 | 19 | - | - | 92256 |
| 7 | 2 | 64 | 10 | 1427 | - | 395819 |
| 8 | 2 | 83 | 13 | 1642 | - | 290280 |
| 9 | 3 | 60 | 17 | 1166 | 1996 | 592388 |
| 10 | 1 | 69 | 14 | - | - | 492791 |
| 11 | 2 | 93 | 11 | 1566 | - | 113099 |
| 12 | 3 | 92 | 10 | 1322 | 1523 | 438744 |
| 13 | 3 | 80 | 7 | 1143 | 1203 | 430142 |
| 14 | 1 | 82 | 5 | - | - | 407104 |
| 15 | 1 | 69 | 11 | - | - | 171622 |
| 16 | 2 | 94 | 12 | 1473 | - | 395844 |
| 17 | 2 | 85 | 17 | 1092 | - | 448723 |
| 18 | 2 | 94 | 17 | 1238 | - | 534783 |
| 19 | 3 | 66 | 8 | 1119 | 1751 | 475355 |
| 20 | 2 | 81 | 5 | 1793 | - | 163187 |

**20 MHz Master - Trial 17**

| Burst Segment | Number of Pulses | Pulse Width (µsec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (µsec) | Pulse 2-to-3 PRI (µsec) | Starting Location Within Interval (µsec) |
|---|---|---|---|---|---|---|
| 1 | 3 | 80 | 7 | 1241 | 1472 | 15806 |
| 2 | 1 | 82 | 19 | - | - | 583553 |
| 3 | 3 | 83 | 20 | 1029 | 1153 | 768896 |
| 4 | 2 | 76 | 10 | 1913 | - | 1405473 |
| 5 | 3 | 64 | 10 | 1973 | 1268 | 963612 |
| 6 | 2 | 98 | 9 | 1418 | - | 1019767 |
| 7 | 2 | 77 | 20 | 1176 | - | 1423886 |
| 8 | 2 | 57 | 18 | 1528 | - | 911143 |

**20 MHz Master - Trial 18**

| Burst Segment | Number of Pulses | Pulse Width (µsec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (µsec) | Pulse 2-to-3 PRI (µsec) | Starting Location Within Interval (µsec) |
|---|---|---|---|---|---|---|
| 1 | 1 | 73 | 13 | - | - | 247381 |
| 2 | 3 | 82 | 6 | 1191 | 1499 | 692077 |
| 3 | 2 | 54 | 5 | 1319 | - | 1174304 |
| 4 | 1 | 60 | 10 | - | - | 1184460 |
| 5 | 3 | 81 | 20 | 1185 | 1272 | 629210 |
| 6 | 1 | 99 | 14 | - | - | 1368547 |
| 7 | 2 | 73 | 11 | 1330 | - | 1111367 |
| 8 | 3 | 96 | 12 | 1103 | 1923 | 1267551 |

**20 MHz Master - Trial 19**

| Burst Segment | Number of Pulses | Pulse Width (µsec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (µsec) | Pulse 2-to-3 PRI (µsec) | Starting Location Within Interval (µsec) |
|---|---|---|---|---|---|---|
| 1 | 1 | 96 | 8 | - | - | 17683 |
| 2 | 2 | 98 | 18 | 1166 | - | 150518 |
| 3 | 3 | 75 | 16 | 1935 | 1388 | 227330 |
| 4 | 1 | 63 | 16 | - | - | 408875 |
| 5 | 2 | 76 | 9 | 1122 | - | 626495 |
| 6 | 3 | 89 | 9 | 1364 | 1879 | 518285 |
| 7 | 1 | 72 | 20 | - | - | 509483 |
| 8 | 2 | 52 | 20 | 1244 | - | 619831 |
| 9 | 1 | 56 | 11 | - | - | 425410 |
| 10 | 2 | 99 | 15 | 1395 | - | 222466 |
| 11 | 2 | 82 | 7 | 1359 | - | 173455 |
| 12 | 1 | 67 | 17 | - | - | 502989 |
| 13 | 1 | 52 | 15 | - | - | 437480 |
| 14 | 2 | 64 | 11 | 1844 | - | 32318 |
| 15 | 3 | 56 | 18 | 1309 | 1302 | 7979 |
| 16 | 3 | 76 | 13 | 1129 | 1605 | 433906 |
| 17 | 1 | 66 | 10 | - | - | 573129 |
| 18 | 3 | 62 | 15 | 1742 | 1168 | 479248 |
| 19 | 2 | 87 | 9 | 1742 | - | 121316 |

**20 MHz Master - Trial 20**

| Burst Segment | Number of Pulses | Pulse Width (µsec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (µsec) | Pulse 2-to-3 PRI (µsec) | Starting Location Within Interval (µsec) |
|---|---|---|---|---|---|---|
| 1 | 2 | 81 | 6 | 1260 | - | 587818 |
| 2 | 3 | 93 | 9 | 1504 | 1283 | 333116 |
| 3 | 1 | 80 | 16 | - | - | 633504 |
| 4 | 1 | 59 | 6 | - | - | 203671 |
| 5 | 3 | 65 | 17 | 1722 | 1046 | 773661 |
| 6 | 1 | 95 | 5 | - | - | 661414 |
| 7 | 1 | 52 | 13 | - | - | 820003 |
| 8 | 2 | 55 | 19 | 1020 | - | 345202 |
| 9 | 1 | 55 | 12 | - | - | 103608 |
| 10 | 2 | 74 | 19 | 1464 | - | 144038 |
| 11 | 2 | 56 | 9 | 1547 | - | 149189 |
| 12 | 2 | 74 | 5 | 1643 | - | 902355 |

**20 MHz Master - Trial 21**

| Burst Segment | Number of Pulses | Pulse Width (µsec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (µsec) | Pulse 2-to-3 PRI (µsec) | Starting Location Within Interval (µsec) |
|---|---|---|---|---|---|---|
| 1 | 2 | 74 | 5 | 1818 | - | 908240 |
| 2 | 2 | 61 | 17 | 1354 | - | 224120 |
| 3 | 2 | 86 | 8 | 1848 | - | 7362 |
| 4 | 1 | 62 | 8 | - | - | 572632 |
| 5 | 1 | 57 | 9 | - | - | 1436835 |
| 6 | 2 | 96 | 11 | 1562 | - | 1354990 |
| 7 | 1 | 67 | 11 | - | - | 685748 |
| 8 | 1 | 98 | 18 | - | - | 922533 |

**20 MHz Master - Trial 22**

| Burst Segment | Number of Pulses | Pulse Width (µsec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (µsec) | Pulse 2-to-3 PRI (µsec) | Starting Location Within Interval (µsec) |
|---|---|---|---|---|---|---|
| 1 | 2 | 75 | 5 | 1258 | - | 200563 |
| 2 | 1 | 100 | 17 | - | - | 624199 |
| 3 | 1 | 85 | 7 | - | - | 650759 |
| 4 | 1 | 91 | 9 | - | - | 1004439 |
| 5 | 3 | 58 | 13 | 1577 | 1913 | 299460 |
| 6 | 3 | 66 | 17 | 1006 | 1717 | 286505 |
| 7 | 3 | 61 | 20 | 1390 | 1044 | 864667 |
| 8 | 3 | 69 | 20 | 1004 | 1203 | 1442639 |

**20 MHz Master - Trial 23**

| Burst Segment | Number of Pulses | Pulse Width (µsec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (µsec) | Pulse 2-to-3 PRI (µsec) | Starting Location Within Interval (µsec) |
|---|---|---|---|---|---|---|
| 1 | 2 | 67 | 18 | 1760 | - | 439727 |
| 2 | 1 | 81 | 8 | - | - | 260447 |
| 3 | 1 | 85 | 6 | - | - | 361939 |
| 4 | 3 | 65 | 7 | 1934 | 1381 | 77190 |
| 5 | 1 | 79 | 16 | - | - | 624906 |
| 6 | 3 | 88 | 11 | 1654 | 1122 | 662345 |
| 7 | 3 | 96 | 20 | 1565 | 1888 | 317168 |
| 8 | 3 | 99 | 14 | 1164 | 1889 | 77851 |
| 9 | 3 | 67 | 8 | 1296 | 1303 | 420107 |
| 10 | 3 | 70 | 8 | 1042 | 1623 | 74303 |
| 11 | 3 | 55 | 17 | 1508 | 1150 | 3850 |
| 12 | 1 | 73 | 12 | - | - | 232519 |
| 13 | 2 | 55 | 16 | 1521 | - | 445507 |
| 14 | 1 | 72 | 8 | - | - | 275788 |
| 15 | 1 | 60 | 7 | - | - | 439419 |
| 16 | 2 | 82 | 11 | 1451 | - | 618940 |

**20 MHz Master - Trial 24**

| Burst Segment | Number of Pulses | Pulse Width (µsec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (µsec) | Pulse 2-to-3 PRI (µsec) | Starting Location Within Interval (µsec) |
|---|---|---|---|---|---|---|
| 1 | 3 | 84 | 15 | 1296 | 1870 | 583763 |
| 2 | 3 | 83 | 10 | 1821 | 1560 | 640645 |
| 3 | 2 | 81 | 15 | 1695 | - | 54164 |
| 4 | 2 | 89 | 20 | 1502 | - | 639878 |
| 5 | 3 | 84 | 11 | 1885 | 1512 | 346965 |
| 6 | 2 | 94 | 16 | 1554 | - | 247192 |
| 7 | 2 | 89 | 14 | 1002 | - | 545667 |
| 8 | 3 | 82 | 18 | 1668 | 1086 | 252911 |
| 9 | 3 | 62 | 17 | 1559 | 1902 | 449025 |
| 10 | 2 | 92 | 15 | 1860 | - | 215715 |
| 11 | 3 | 85 | 20 | 1890 | 1985 | 244032 |
| 12 | 1 | 63 | 12 | - | - | 57471 |
| 13 | 1 | 80 | 17 | - | - | 564301 |
| 14 | 1 | 85 | 9 | - | - | 482682 |
| 15 | 1 | 57 | 18 | - | - | 583426 |
| 16 | 2 | 94 | 7 | 1096 | - | 633737 |
| 17 | 2 | 86 | 10 | 1895 | - | 587844 |
| 18 | 2 | 65 | 5 | 1938 | - | 17509 |

**20 MHz Master - Trial 25**

| Burst Segment | Number of Pulses | Pulse Width (µsec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (µsec) | Pulse 2-to-3 PRI (µsec) | Starting Location Within Interval (µsec) |
|---|---|---|---|---|---|---|
| 1 | 3 | 63 | 13 | 1406 | 1607 | 175958 |
| 2 | 3 | 83 | 20 | 1713 | 1841 | 587206 |
| 3 | 1 | 55 | 13 | - | - | 426069 |
| 4 | 2 | 95 | 6 | 1108 | - | 439366 |
| 5 | 3 | 71 | 15 | 1543 | 1163 | 114396 |
| 6 | 1 | 54 | 12 | - | - | 503378 |
| 7 | 1 | 83 | 10 | - | - | 514174 |
| 8 | 3 | 79 | 11 | 1268 | 1323 | 39686 |
| 9 | 2 | 54 | 8 | 1782 | - | 438968 |
| 10 | 1 | 89 | 10 | - | - | 480808 |
| 11 | 3 | 56 | 18 | 1918 | 1196 | 584346 |
| 12 | 3 | 97 | 18 | 1444 | 1103 | 405576 |
| 13 | 2 | 76 | 18 | 1717 | - | 190538 |
| 14 | 3 | 63 | 15 | 1122 | 1062 | 368772 |
| 15 | 3 | 52 | 8 | 1791 | 1176 | 508510 |
| 16 | 3 | 57 | 11 | 1767 | 1281 | 391318 |
| 17 | 3 | 63 | 16 | 1134 | 1878 | 6157 |
| 18 | 2 | 78 | 18 | 1219 | - | 231990 |
| 19 | 3 | 79 | 10 | 1064 | 1415 | 36889 |
| 20 | 2 | 85 | 15 | 1759 | - | 302439 |

**20 MHz Master - Trial 26**

| Burst Segment | Number of Pulses | Pulse Width (µsec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (µsec) | Pulse 2-to-3 PRI (µsec) | Starting Location Within Interval (µsec) |
|---|---|---|---|---|---|---|
| 1 | 3 | 99 | 8 | 1681 | 1077 | 71729 |
| 2 | 1 | 85 | 19 | - | - | 390308 |
| 3 | 3 | 58 | 12 | 1570 | 1828 | 506580 |
| 4 | 2 | 73 | 12 | 1793 | - | 701408 |
| 5 | 2 | 65 | 8 | 1811 | - | 1048817 |
| 6 | 2 | 53 | 19 | 1072 | - | 801881 |
| 7 | 3 | 60 | 7 | 1873 | 1172 | 917421 |
| 8 | 1 | 79 | 13 | - | - | 691453 |
| 9 | 2 | 74 | 15 | 1709 | - | 277434 |

**20 MHz Master - Trial 27**

| Burst Segment | Number of Pulses | Pulse Width (µsec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (µsec) | Pulse 2-to-3 PRI (µsec) | Starting Location Within Interval (µsec) |
|---|---|---|---|---|---|---|
| 1 | 3 | 61 | 7 | 1043 | 1216 | 208048 |
| 2 | 3 | 80 | 8 | 1653 | 1973 | 692722 |
| 3 | 1 | 83 | 8 | - | - | 637744 |
| 4 | 3 | 85 | 20 | 1947 | 1327 | 555419 |
| 5 | 2 | 85 | 10 | 1881 | - | 788032 |
| 6 | 1 | 100 | 7 | - | - | 541672 |
| 7 | 2 | 80 | 7 | 1549 | - | 673234 |
| 8 | 3 | 51 | 11 | 1636 | 1498 | 430571 |
| 9 | 2 | 76 | 16 | 1460 | - | 233831 |
| 10 | 3 | 64 | 16 | 1635 | 1942 | 588324 |
| 11 | 1 | 64 | 7 | - | - | 463105 |
| 12 | 2 | 86 | 10 | 1273 | - | 349702 |
| 13 | 2 | 52 | 20 | 1466 | - | 213584 |
| 14 | 1 | 55 | 11 | - | - | 34405 |
| 15 | 3 | 65 | 10 | 1448 | 1787 | 35950 |

**20 MHz Master - Trial 28**

| Burst Segment | Number of Pulses | Pulse Width (µsec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (µsec) | Pulse 2-to-3 PRI (µsec) | Starting Location Within Interval (µsec) |
|---|---|---|---|---|---|---|
| 1 | 3 | 93 | 14 | 1136 | 1984 | 352961 |
| 2 | 2 | 87 | 17 | 1340 | - | 1210748 |
| 3 | 2 | 63 | 9 | 1306 | - | 67210 |
| 4 | 2 | 53 | 20 | 1611 | - | 725165 |
| 5 | 1 | 59 | 8 | - | - | 985806 |
| 6 | 3 | 85 | 18 | 1637 | 1405 | 1082674 |
| 7 | 2 | 55 | 12 | 1473 | - | 1145940 |
| 8 | 3 | 56 | 12 | 1331 | 1496 | 318897 |
| 9 | 3 | 97 | 8 | 1711 | 1120 | 979646 |

**20 MHz Master - Trial 29**

| Burst Segment | Number of Pulses | Pulse Width (µsec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (µsec) | Pulse 2-to-3 PRI (µsec) | Starting Location Within Interval (µsec) |
|---|---|---|---|---|---|---|
| 1 | 1 | 99 | 11 | - | - | 722362 |
| 2 | 2 | 80 | 16 | 1670 | - | 341711 |
| 3 | 2 | 53 | 14 | 1723 | - | 84826 |
| 4 | 2 | 76 | 11 | 1298 | - | 702393 |
| 5 | 3 | 72 | 9 | 1226 | 1606 | 522747 |
| 6 | 1 | 65 | 13 | - | - | 227303 |
| 7 | 3 | 51 | 17 | 1953 | 1317 | 325996 |
| 8 | 2 | 71 | 15 | 1669 | - | 729437 |
| 9 | 3 | 59 | 10 | 1739 | 1377 | 644956 |
| 10 | 3 | 57 | 10 | 1400 | 1776 | 352607 |
| 11 | 1 | 96 | 5 | - | - | 815380 |
| 12 | 3 | 89 | 8 | 1319 | 1286 | 144262 |
| 13 | 2 | 70 | 10 | 1291 | - | 533630 |
| 14 | 2 | 86 | 19 | 1100 | - | 661266 |

**20 MHz Master - Trial 30**

| Burst Segment | Number of Pulses | Pulse Width (µsec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (µsec) | Pulse 2-to-3 PRI (µsec) | Starting Location Within Interval (µsec) |
|---|---|---|---|---|---|---|
| 1 | 3 | 54 | 9 | 1956 | 1487 | 171180 |
| 2 | 3 | 67 | 7 | 1220 | 1865 | 162443 |
| 3 | 2 | 74 | 5 | 1257 | - | 322246 |
| 4 | 3 | 82 | 11 | 1350 | 1567 | 434494 |
| 5 | 3 | 98 | 10 | 1086 | 1131 | 274762 |
| 6 | 2 | 70 | 9 | 1003 | - | 587167 |
| 7 | 1 | 91 | 17 | - | - | 746795 |
| 8 | 1 | 78 | 10 | - | - | 732631 |
| 9 | 1 | 98 | 13 | - | - | 141438 |
| 10 | 3 | 90 | 14 | 1148 | 1287 | 181358 |
| 11 | 2 | 68 | 9 | 1401 | - | 375142 |
| 12 | 2 | 50 | 6 | 1143 | - | 542893 |
| 13 | 3 | 87 | 18 | 1565 | 1214 | 621464 |
| 14 | 1 | 61 | 12 | - | - | 325908 |
| 15 | 2 | 54 | 5 | 1373 | - | 333248 |
| 16 | 2 | 62 | 17 | 1618 | - | 211316 |

**40 MHz Master - Trial 1**

| Burst Segment | Number of Pulses | Pulse Width (µsec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (µsec) | Pulse 2-to-3 PRI (µsec) | Starting Location Within Interval (µsec) |
|---|---|---|---|---|---|---|
| 1 | 3 | 87 | 6 | 1908 | 1900 | 1216729 |
| 2 | 2 | 79 | 11 | 1854 | - | 627266 |
| 3 | 1 | 95 | 14 | - | - | 1091487 |
| 4 | 2 | 94 | 6 | 1232 | - | 764734 |
| 5 | 1 | 80 | 10 | - | - | 252951 |
| 6 | 1 | 99 | 14 | - | - | 1188539 |
| 7 | 1 | 92 | 5 | - | - | 638404 |
| 8 | 1 | 72 | 12 | - | - | 589629 |

**40 MHz Master - Trial 2**

| Burst Segment | Number of Pulses | Pulse Width (µsec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (µsec) | Pulse 2-to-3 PRI (µsec) | Starting Location Within Interval (µsec) |
|---|---|---|---|---|---|---|
| 1 | 1 | 89 | 19 | - | - | 879689 |
| 2 | 1 | 53 | 6 | - | - | 1427070 |
| 3 | 1 | 82 | 9 | - | - | 1237379 |
| 4 | 1 | 59 | 13 | - | - | 172172 |
| 5 | 2 | 97 | 9 | 1376 | - | 1357423 |
| 6 | 2 | 97 | 8 | 1719 | - | 525995 |
| 7 | 2 | 92 | 20 | 1924 | - | 674175 |
| 8 | 1 | 67 | 14 | - | - | 957546 |

**40 MHz Master - Trial 3**

| Burst Segment | Number of Pulses | Pulse Width (µsec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (µsec) | Pulse 2-to-3 PRI (µsec) | Starting Location Within Interval (µsec) |
|---|---|---|---|---|---|---|
| 1 | 1 | 97 | 19 | - | - | 577396 |
| 2 | 1 | 61 | 8 | - | - | 353732 |
| 3 | 1 | 99 | 6 | - | - | 706792 |
| 4 | 2 | 65 | 13 | 1510 | - | 221006 |
| 5 | 1 | 54 | 14 | - | - | 931441 |
| 6 | 3 | 94 | 18 | 1473 | 1275 | 1042722 |
| 7 | 1 | 59 | 7 | - | - | 534915 |
| 8 | 2 | 78 | 9 | 1800 | - | 807450 |
| 9 | 1 | 88 | 6 | - | - | 751149 |
| 10 | 2 | 80 | 19 | 1752 | - | 256707 |
| 11 | 3 | 68 | 15 | 1389 | 1940 | 979837 |

**40 MHz Master - Trial 4**

| Burst Segment | Number of Pulses | Pulse Width (µsec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (µsec) | Pulse 2-to-3 PRI (µsec) | Starting Location Within Interval (µsec) |
|---|---|---|---|---|---|---|
| 1 | 2 | 53 | 11 | 1627 | - | 56129 |
| 2 | 1 | 52 | 20 | - | - | 258892 |
| 3 | 1 | 56 | 7 | - | - | 477056 |
| 4 | 2 | 54 | 8 | 1511 | - | 791072 |
| 5 | 2 | 72 | 19 | 1407 | - | 107311 |
| 6 | 1 | 89 | 6 | - | - | 599033 |
| 7 | 2 | 96 | 9 | 1733 | - | 255164 |
| 8 | 1 | 58 | 6 | - | - | 483108 |
| 9 | 3 | 58 | 15 | 1923 | 1703 | 148295 |
| 10 | 2 | 69 | 12 | 1754 | - | 273907 |
| 11 | 3 | 93 | 7 | 1171 | 1597 | 438802 |
| 12 | 2 | 71 | 6 | 1966 | - | 184299 |

**40 MHz Master - Trial 5**

| Burst Segment | Number of Pulses | Pulse Width (µsec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (µsec) | Pulse 2-to-3 PRI (µsec) | Starting Location Within Interval (µsec) |
|---|---|---|---|---|---|---|
| 1 | 3 | 74 | 13 | 1068 | 1983 | 218628 |
| 2 | 3 | 95 | 9 | 1486 | 1608 | 222600 |
| 3 | 2 | 55 | 14 | 1742 | - | 468300 |
| 4 | 3 | 87 | 17 | 1024 | 1842 | 583619 |
| 5 | 3 | 87 | 6 | 1135 | 1816 | 505477 |
| 6 | 3 | 50 | 13 | 1654 | 1324 | 468309 |
| 7 | 2 | 59 | 6 | 1447 | - | 18482 |
| 8 | 2 | 93 | 20 | 1184 | - | 152322 |
| 9 | 3 | 92 | 12 | 1863 | 1716 | 427806 |
| 10 | 1 | 62 | 11 | - | - | 520374 |
| 11 | 1 | 78 | 18 | - | - | 212132 |
| 12 | 3 | 60 | 5 | 1091 | 1556 | 296483 |
| 13 | 1 | 85 | 5 | - | - | 228622 |
| 14 | 1 | 78 | 15 | - | - | 335278 |
| 15 | 3 | 58 | 7 | 1872 | 1744 | 276309 |
| 16 | 3 | 63 | 15 | 1953 | 1088 | 41976 |
| 17 | 3 | 64 | 8 | 1500 | 1647 | 548161 |
| 18 | 2 | 87 | 14 | 1817 | - | 343619 |
| 19 | 3 | 71 | 16 | 1150 | 1120 | 515481 |

**40 MHz Master - Trial 6**

| Burst Segment | Number of Pulses | Pulse Width (µsec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (µsec) | Pulse 2-to-3 PRI (µsec) | Starting Location Within Interval (µsec) |
|---|---|---|---|---|---|---|
| 1 | 3 | 57 | 5 | 1555 | 1535 | 327244 |
| 2 | 2 | 61 | 18 | 1403 | - | 564534 |
| 3 | 2 | 78 | 6 | 1002 | - | 651690 |
| 4 | 2 | 91 | 12 | 1513 | - | 952806 |
| 5 | 1 | 61 | 19 | - | - | 1282528 |
| 6 | 3 | 81 | 11 | 1457 | 1030 | 385202 |
| 7 | 3 | 73 | 13 | 1233 | 1936 | 64853 |
| 8 | 2 | 88 | 20 | 1843 | - | 558379 |
| 9 | 1 | 97 | 10 | - | - | 1283924 |

**40 MHz Master - Trial 7**

| Burst Segment | Number of Pulses | Pulse Width (µsec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (µsec) | Pulse 2-to-3 PRI (µsec) | Starting Location Within Interval (µsec) |
|---|---|---|---|---|---|---|
| 1 | 2 | 89 | 19 | 1170 | - | 371680 |
| 2 | 2 | 65 | 11 | 1448 | - | 1007264 |
| 3 | 1 | 80 | 15 | - | - | 680840 |
| 4 | 1 | 89 | 17 | - | - | 123611 |
| 5 | 2 | 57 | 5 | 1872 | - | 72325 |
| 6 | 2 | 58 | 6 | 1466 | - | 730936 |
| 7 | 1 | 61 | 9 | - | - | 652748 |
| 8 | 3 | 82 | 7 | 1634 | 1532 | 936313 |
| 9 | 3 | 56 | 7 | 1104 | 1786 | 12431 |
| 10 | 3 | 89 | 6 | 1370 | 1583 | 706176 |
| 11 | 1 | 91 | 16 | - | - | 883296 |

**40 MHz Master - Trial 8**

| Burst Segment | Number of Pulses | Pulse Width (µsec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (µsec) | Pulse 2-to-3 PRI (µsec) | Starting Location Within Interval (µsec) |
|---|---|---|---|---|---|---|
| 1 | 2 | 85 | 12 | 1000 | - | 333859 |
| 2 | 1 | 82 | 6 | - | - | 277805 |
| 3 | 2 | 75 | 14 | 1015 | - | 530865 |
| 4 | 2 | 62 | 19 | 1165 | - | 599851 |
| 5 | 1 | 98 | 6 | - | - | 65982 |
| 6 | 2 | 69 | 20 | 1095 | - | 105167 |
| 7 | 2 | 98 | 12 | 1910 | - | 226627 |
| 8 | 2 | 81 | 19 | 1046 | - | 1031588 |
| 9 | 3 | 97 | 13 | 1988 | 1554 | 457222 |
| 10 | 2 | 59 | 6 | 1928 | - | 1147235 |

**40 MHz Master - Trial 9**

| Burst Segment | Number of Pulses | Pulse Width (µsec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (µsec) | Pulse 2-to-3 PRI (µsec) | Starting Location Within Interval (µsec) |
|---|---|---|---|---|---|---|
| 1 | 2 | 83 | 8 | 1804 | - | 232137 |
| 2 | 2 | 82 | 20 | 1611 | - | 287681 |
| 3 | 1 | 77 | 12 | - | - | 262970 |
| 4 | 1 | 80 | 11 | - | - | 533861 |
| 5 | 3 | 85 | 8 | 1064 | 1495 | 518341 |
| 6 | 2 | 98 | 13 | 1673 | - | 38587 |
| 7 | 1 | 95 | 7 | - | - | 120090 |
| 8 | 1 | 80 | 18 | - | - | 666231 |
| 9 | 2 | 59 | 7 | 1291 | - | 48687 |
| 10 | 1 | 68 | 18 | - | - | 890718 |
| 11 | 2 | 63 | 8 | 1858 | - | 718605 |
| 12 | 2 | 54 | 9 | 1219 | - | 257794 |
| 13 | 1 | 81 | 9 | - | - | 270749 |

**40 MHz Master - Trial 10**

| Burst Segment | Number of Pulses | Pulse Width (µsec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (µsec) | Pulse 2-to-3 PRI (µsec) | Starting Location Within Interval (µsec) |
|---|---|---|---|---|---|---|
| 1 | 3 | 98 | 11 | 1427 | 1931 | 248750 |
| 2 | 1 | 84 | 10 | - | - | 521341 |
| 3 | 1 | 70 | 16 | - | - | 239535 |
| 4 | 1 | 91 | 7 | - | - | 434754 |
| 5 | 2 | 72 | 9 | 1444 | - | 110017 |
| 6 | 2 | 69 | 6 | 1863 | - | 10450 |
| 7 | 1 | 83 | 6 | - | - | 45916 |
| 8 | 3 | 59 | 10 | 1100 | 1844 | 555523 |
| 9 | 3 | 77 | 9 | 1587 | 1898 | 589898 |
| 10 | 3 | 55 | 11 | 1868 | 1080 | 277567 |
| 11 | 1 | 95 | 17 | - | - | 511571 |
| 12 | 3 | 76 | 17 | 1982 | 1044 | 512949 |
| 13 | 2 | 61 | 10 | 1669 | - | 461957 |
| 14 | 3 | 75 | 13 | 1078 | 1038 | 580372 |
| 15 | 1 | 91 | 20 | - | - | 93461 |
| 16 | 3 | 77 | 8 | 1664 | 1273 | 402797 |
| 17 | 3 | 97 | 18 | 1641 | 1196 | 177049 |
| 18 | 1 | 74 | 17 | - | - | 199362 |
| 19 | 3 | 95 | 5 | 1995 | 1069 | 135396 |
| 20 | 1 | 61 | 18 | - | - | 364260 |

**40 MHz Master - Trial 11**

| Burst Segment | Number of Pulses | Pulse Width (µsec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (µsec) | Pulse 2-to-3 PRI (µsec) | Starting Location Within Interval (µsec) |
|---|---|---|---|---|---|---|
| 1 | 3 | 52 | 12 | 1815 | 1083 | 502171 |
| 2 | 3 | 50 | 20 | 1574 | 1318 | 485088 |
| 3 | 1 | 78 | 9 | - | - | 317216 |
| 4 | 1 | 79 | 15 | - | - | 292561 |
| 5 | 1 | 64 | 16 | - | - | 68602 |
| 6 | 1 | 89 | 20 | - | - | 54819 |
| 7 | 2 | 66 | 20 | 1847 | - | 419347 |
| 8 | 3 | 60 | 19 | 1363 | 1826 | 71093 |
| 9 | 2 | 67 | 12 | 1813 | - | 477789 |
| 10 | 2 | 55 | 18 | 1436 | - | 498162 |
| 11 | 3 | 60 | 15 | 1171 | 1144 | 528103 |
| 12 | 2 | 67 | 11 | 1494 | - | 198640 |
| 13 | 3 | 81 | 14 | 1665 | 1596 | 296352 |
| 14 | 1 | 69 | 10 | - | - | 241685 |
| 15 | 1 | 60 | 12 | - | - | 93951 |
| 16 | 1 | 78 | 12 | - | - | 598123 |
| 17 | 2 | 60 | 19 | 1551 | - | 186587 |
| 18 | 3 | 55 | 10 | 1675 | 1522 | 604243 |
| 19 | 3 | 78 | 20 | 1332 | 1798 | 430973 |

**40 MHz Master - Trial 12**

| Burst Segment | Number of Pulses | Pulse Width (µsec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (µsec) | Pulse 2-to-3 PRI (µsec) | Starting Location Within Interval (µsec) |
|---|---|---|---|---|---|---|
| 1 | 3 | 57 | 7 | 1072 | 1008 | 338001 |
| 2 | 1 | 70 | 14 | - | - | 271 |
| 3 | 1 | 51 | 5 | - | - | 196664 |
| 4 | 1 | 69 | 18 | - | - | 202363 |
| 5 | 2 | 63 | 10 | 1843 | - | 387336 |
| 6 | 1 | 90 | 14 | - | - | 297831 |
| 7 | 2 | 91 | 7 | 1870 | - | 467778 |
| 8 | 2 | 69 | 15 | 1325 | - | 552339 |
| 9 | 2 | 60 | 11 | 1468 | - | 625658 |
| 10 | 1 | 55 | 7 | - | - | 460707 |
| 11 | 2 | 84 | 15 | 1171 | - | 110602 |
| 12 | 1 | 69 | 11 | - | - | 294801 |
| 13 | 1 | 80 | 19 | - | - | 194746 |
| 14 | 2 | 52 | 11 | 1585 | - | 299404 |
| 15 | 1 | 76 | 13 | - | - | 446463 |
| 16 | 2 | 85 | 14 | 1329 | - | 62043 |
| 17 | 3 | 90 | 11 | 1705 | 1436 | 71315 |

**40 MHz Master - Trial 13**

| Burst Segment | Number of Pulses | Pulse Width (µsec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (µsec) | Pulse 2-to-3 PRI (µsec) | Starting Location Within Interval (µsec) |
|---|---|---|---|---|---|---|
| 1 | 1 | 87 | 20 | - | - | 869235 |
| 2 | 1 | 92 | 9 | - | - | 50166 |
| 3 | 3 | 80 | 16 | 1880 | 1216 | 1029256 |
| 4 | 2 | 51 | 9 | 1713 | - | 1308957 |
| 5 | 2 | 54 | 18 | 1057 | - | 1288249 |
| 6 | 2 | 92 | 20 | 1400 | - | 842059 |
| 7 | 3 | 68 | 7 | 1803 | 1132 | 453635 |
| 8 | 1 | 73 | 19 | - | - | 561918 |
| 9 | 1 | 62 | 13 | - | - | 880483 |

**40 MHz Master - Trial 14**

| Burst Segment | Number of Pulses | Pulse Width (µsec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (µsec) | Pulse 2-to-3 PRI (µsec) | Starting Location Within Interval (µsec) |
|---|---|---|---|---|---|---|
| 1 | 3 | 86 | 6 | 1314 | 1622 | 1137594 |
| 2 | 1 | 100 | 12 | - | - | 687462 |
| 3 | 1 | 61 | 15 | - | - | 15367 |
| 4 | 1 | 58 | 18 | - | - | 1316948 |
| 5 | 2 | 99 | 8 | 1567 | - | 116056 |
| 6 | 1 | 72 | 5 | - | - | 863823 |
| 7 | 2 | 64 | 15 | 1406 | - | 856355 |
| 8 | 1 | 51 | 20 | - | - | 1262263 |

**40 MHz Master - Trial 15**

| Burst Segment | Number of Pulses | Pulse Width (µsec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (µsec) | Pulse 2-to-3 PRI (µsec) | Starting Location Within Interval (µsec) |
|---|---|---|---|---|---|---|
| 1 | 2 | 89 | 18 | 1870 | - | 258972 |
| 2 | 3 | 67 | 6 | 1124 | 1638 | 314231 |
| 3 | 3 | 62 | 12 | 1359 | 1116 | 478420 |
| 4 | 3 | 70 | 15 | 1029 | 1882 | 404276 |
| 5 | 1 | 88 | 16 | - | - | 548767 |
| 6 | 1 | 74 | 5 | - | - | 465871 |
| 7 | 1 | 62 | 12 | - | - | 157345 |
| 8 | 1 | 77 | 6 | - | - | 607597 |
| 9 | 3 | 87 | 5 | 1308 | 1408 | 90668 |
| 10 | 2 | 52 | 8 | 1047 | - | 320694 |
| 11 | 2 | 60 | 14 | 1194 | - | 482281 |
| 12 | 3 | 60 | 16 | 1117 | 1667 | 654308 |
| 13 | 1 | 80 | 6 | - | - | 690371 |
| 14 | 2 | 80 | 17 | 1218 | - | 182492 |
| 15 | 2 | 79 | 20 | 1551 | - | 643700 |
| 16 | 1 | 79 | 7 | - | - | 38862 |
| 17 | 1 | 83 | 13 | - | - | 2944 |

**40 MHz Master - Trial 16**

| Burst Segment | Number of Pulses | Pulse Width (µsec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (µsec) | Pulse 2-to-3 PRI (µsec) | Starting Location Within Interval (µsec) |
|---|---|---|---|---|---|---|
| 1 | 2 | 72 | 12 | 1049 | - | 1165433 |
| 2 | 2 | 95 | 18 | 1994 | - | 290100 |
| 3 | 3 | 72 | 11 | 1194 | 1430 | 1051016 |
| 4 | 3 | 63 | 5 | 1789 | 1872 | 1431829 |
| 5 | 1 | 51 | 9 | - | - | 985948 |
| 6 | 1 | 51 | 15 | - | - | 1332815 |
| 7 | 1 | 69 | 9 | - | - | 866943 |
| 8 | 2 | 77 | 20 | 1553 | - | 8787 |

**40 MHz Master - Trial 17**

| Burst Segment | Number of Pulses | Pulse Width (µsec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (µsec) | Pulse 2-to-3 PRI (µsec) | Starting Location Within Interval (µsec) |
|---|---|---|---|---|---|---|
| 1 | 2 | 87 | 14 | 1754 | - | 438094 |
| 2 | 2 | 81 | 11 | 1737 | - | 248620 |
| 3 | 1 | 70 | 13 | - | - | 152068 |
| 4 | 1 | 76 | 7 | - | - | 288577 |
| 5 | 3 | 56 | 9 | 1861 | 1211 | 73405 |
| 6 | 1 | 77 | 7 | - | - | 580440 |
| 7 | 2 | 95 | 16 | 1367 | - | 180791 |
| 8 | 1 | 71 | 7 | - | - | 268444 |
| 9 | 2 | 70 | 17 | 1030 | - | 570827 |
| 10 | 1 | 64 | 14 | - | - | 437689 |
| 11 | 3 | 53 | 11 | 1104 | 1351 | 407275 |
| 12 | 3 | 95 | 12 | 1502 | 1527 | 331802 |
| 13 | 2 | 54 | 10 | 1805 | - | 574163 |
| 14 | 3 | 82 | 20 | 1135 | 1269 | 555095 |
| 15 | 1 | 57 | 15 | - | - | 601 |
| 16 | 3 | 54 | 12 | 1562 | 1932 | 368677 |
| 17 | 2 | 84 | 6 | 1397 | - | 323190 |

**40 MHz Master - Trial 18**

| Burst Segment | Number of Pulses | Pulse Width (µsec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (µsec) | Pulse 2-to-3 PRI (µsec) | Starting Location Within Interval (µsec) |
|---|---|---|---|---|---|---|
| 1 | 1 | 79 | 10 | - | - | 618792 |
| 2 | 3 | 80 | 19 | 1941 | 1327 | 387913 |
| 3 | 1 | 100 | 12 | - | - | 512779 |
| 4 | 2 | 74 | 14 | 1283 | - | 324183 |
| 5 | 3 | 84 | 14 | 1821 | 1796 | 17730 |
| 6 | 3 | 80 | 20 | 1010 | 1400 | 191493 |
| 7 | 2 | 68 | 9 | 1504 | - | 286768 |
| 8 | 3 | 75 | 18 | 1414 | 1238 | 579496 |
| 9 | 3 | 74 | 18 | 1468 | 1101 | 231484 |
| 10 | 3 | 53 | 6 | 1797 | 1991 | 398490 |
| 11 | 3 | 78 | 17 | 1575 | 1752 | 783795 |
| 12 | 1 | 99 | 19 | - | - | 741581 |
| 13 | 1 | 91 | 15 | - | - | 135852 |
| 14 | 1 | 64 | 16 | - | - | 75329 |
| 15 | 2 | 100 | 16 | 1957 | - | 721423 |

**40 MHz Master - Trial 19**

| Burst Segment | Number of Pulses | Pulse Width (µsec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (µsec) | Pulse 2-to-3 PRI (µsec) | Starting Location Within Interval (µsec) |
|---|---|---|---|---|---|---|
| 1 | 3 | 78 | 18 | 1305 | 1059 | 931957 |
| 2 | 1 | 72 | 11 | - | - | 856153 |
| 3 | 2 | 98 | 14 | 1189 | - | 743608 |
| 4 | 3 | 70 | 9 | 1797 | 1747 | 227909 |
| 5 | 1 | 92 | 19 | - | - | 153302 |
| 6 | 2 | 68 | 20 | 1378 | - | 997352 |
| 7 | 3 | 96 | 15 | 1416 | 1643 | 196560 |
| 8 | 1 | 85 | 19 | - | - | 995588 |
| 9 | 2 | 90 | 11 | 1782 | - | 742515 |
| 10 | 1 | 84 | 13 | - | - | 349573 |
| 11 | 2 | 80 | 12 | 1159 | - | 156922 |
| 12 | 1 | 95 | 16 | - | - | 908086 |

**40 MHz Master - Trial 20**

| Burst Segment | Number of Pulses | Pulse Width (µsec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (µsec) | Pulse 2-to-3 PRI (µsec) | Starting Location Within Interval (µsec) |
|---|---|---|---|---|---|---|
| 1 | 2 | 79 | 9 | 1065 | - | 556399 |
| 2 | 1 | 76 | 9 | - | - | 240676 |
| 3 | 2 | 77 | 16 | 1699 | - | 499954 |
| 4 | 3 | 56 | 11 | 1643 | 1049 | 249216 |
| 5 | 3 | 97 | 18 | 1648 | 1840 | 545522 |
| 6 | 2 | 88 | 12 | 1300 | - | 1005216 |
| 7 | 2 | 62 | 13 | 1452 | - | 557019 |
| 8 | 1 | 87 | 20 | - | - | 940469 |
| 9 | 1 | 95 | 13 | - | - | 1310732 |

**40 MHz Master - Trial 21**

| Burst Segment | Number of Pulses | Pulse Width (µsec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (µsec) | Pulse 2-to-3 PRI (µsec) | Starting Location Within Interval (µsec) |
|---|---|---|---|---|---|---|
| 1 | 3 | 95 | 6 | 1358 | 1029 | 459202 |
| 2 | 1 | 84 | 16 | - | - | 125734 |
| 3 | 2 | 88 | 15 | 1225 | - | 4933 |
| 4 | 3 | 89 | 17 | 1881 | 1793 | 48947 |
| 5 | 2 | 57 | 19 | 1383 | - | 545457 |
| 6 | 3 | 83 | 10 | 1961 | 1068 | 284215 |
| 7 | 3 | 93 | 5 | 1521 | 1269 | 259582 |
| 8 | 2 | 81 | 13 | 1799 | - | 342703 |
| 9 | 2 | 97 | 15 | 1645 | - | 340612 |
| 10 | 3 | 99 | 12 | 1096 | 1620 | 126586 |
| 11 | 3 | 65 | 16 | 1144 | 1976 | 138732 |
| 12 | 1 | 79 | 10 | - | - | 506616 |
| 13 | 1 | 54 | 19 | - | - | 544983 |
| 14 | 1 | 74 | 12 | - | - | 251490 |
| 15 | 1 | 63 | 9 | - | - | 183236 |
| 16 | 3 | 89 | 20 | 1716 | 1175 | 116423 |
| 17 | 3 | 69 | 13 | 1972 | 1809 | 432654 |
| 18 | 1 | 87 | 17 | - | - | 83120 |

**40 MHz Master - Trial 22**

| Burst Segment | Number of Pulses | Pulse Width (µsec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (µsec) | Pulse 2-to-3 PRI (µsec) | Starting Location Within Interval (µsec) |
|---|---|---|---|---|---|---|
| 1 | 1 | 80 | 19 | - | - | 431971 |
| 2 | 3 | 62 | 18 | 1760 | 1828 | 299167 |
| 3 | 2 | 75 | 6 | 1764 | - | 319977 |
| 4 | 3 | 73 | 10 | 1960 | 1151 | 238593 |
| 5 | 1 | 92 | 19 | - | - | 880013 |
| 6 | 1 | 57 | 9 | - | - | 235087 |
| 7 | 3 | 72 | 16 | 1346 | 1962 | 68810 |
| 8 | 3 | 68 | 17 | 1229 | 1539 | 142619 |
| 9 | 3 | 67 | 18 | 1190 | 1882 | 388160 |
| 10 | 1 | 73 | 16 | - | - | 612547 |
| 11 | 2 | 91 | 20 | 1156 | - | 205842 |
| 12 | 3 | 50 | 13 | 1498 | 1094 | 509892 |
| 13 | 2 | 56 | 19 | 1782 | - | 138259 |

**40 MHz Master - Trial 23**

| Burst Segment | Number of Pulses | Pulse Width (µsec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (µsec) | Pulse 2-to-3 PRI (µsec) | Starting Location Within Interval (µsec) |
|---|---|---|---|---|---|---|
| 1 | 3 | 84 | 13 | 1647 | 1088 | 559487 |
| 2 | 3 | 65 | 15 | 1979 | 1717 | 95333 |
| 3 | 3 | 97 | 18 | 1510 | 1036 | 39676 |
| 4 | 3 | 68 | 17 | 1852 | 1892 | 460092 |
| 5 | 1 | 87 | 12 | - | - | 801296 |
| 6 | 2 | 61 | 20 | 1408 | - | 974476 |
| 7 | 1 | 76 | 17 | - | - | 264839 |
| 8 | 1 | 66 | 11 | - | - | 1303035 |
| 9 | 3 | 77 | 17 | 1298 | 1443 | 882038 |

**40 MHz Master - Trial 24**

| Burst Segment | Number of Pulses | Pulse Width (µsec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (µsec) | Pulse 2-to-3 PRI (µsec) | Starting Location Within Interval (µsec) |
|---|---|---|---|---|---|---|
| 1 | 3 | 100 | 6 | 1846 | 1892 | 1034235 |
| 2 | 1 | 92 | 17 | - | - | 267215 |
| 3 | 2 | 68 | 20 | 1395 | - | 1136205 |
| 4 | 2 | 50 | 9 | 1340 | - | 709847 |
| 5 | 2 | 52 | 9 | 1019 | - | 929896 |
| 6 | 2 | 70 | 20 | 1315 | - | 123999 |
| 7 | 1 | 93 | 6 | - | - | 387821 |
| 8 | 3 | 73 | 7 | 1128 | 1517 | 1269071 |
| 9 | 3 | 84 | 20 | 1999 | 1663 | 1295543 |

**40 MHz Master - Trial 25**

| Burst Segment | Number of Pulses | Pulse Width (µsec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (µsec) | Pulse 2-to-3 PRI (µsec) | Starting Location Within Interval (µsec) |
|---|---|---|---|---|---|---|
| 1 | 2 | 100 | 6 | 1795 | - | 911779 |
| 2 | 1 | 56 | 16 | - | - | 636957 |
| 3 | 3 | 53 | 7 | 1398 | 1383 | 334437 |
| 4 | 2 | 85 | 7 | 1505 | - | 266919 |
| 5 | 3 | 76 | 11 | 1336 | 1876 | 728060 |
| 6 | 2 | 77 | 16 | 1047 | - | 288308 |
| 7 | 2 | 86 | 6 | 1813 | - | 876599 |
| 8 | 1 | 65 | 5 | - | - | 689136 |
| 9 | 3 | 78 | 7 | 1770 | 1059 | 902580 |
| 10 | 1 | 79 | 14 | - | - | 145477 |
| 11 | 1 | 93 | 7 | - | - | 631998 |
| 12 | 3 | 52 | 14 | 1734 | 1920 | 182258 |
| 13 | 3 | 79 | 20 | 1642 | 1372 | 656480 |

**40 MHz Master - Trial 26**

| Burst Segment | Number of Pulses | Pulse Width (µsec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (µsec) | Pulse 2-to-3 PRI (µsec) | Starting Location Within Interval (µsec) |
|---|---|---|---|---|---|---|
| 1 | 1 | 79 | 11 | - | - | 256586 |
| 2 | 2 | 54 | 17 | 1352 | - | 115325 |
| 3 | 2 | 82 | 9 | 1895 | - | 619503 |
| 4 | 3 | 97 | 14 | 1750 | 1467 | 183251 |
| 5 | 1 | 67 | 17 | - | - | 322935 |
| 6 | 2 | 69 | 18 | 1030 | - | 325779 |
| 7 | 2 | 77 | 11 | 1346 | - | 513069 |
| 8 | 3 | 50 | 8 | 1880 | 1902 | 690098 |
| 9 | 2 | 66 | 14 | 1711 | - | 897049 |
| 10 | 2 | 51 | 13 | 1901 | - | 610579 |
| 11 | 2 | 95 | 19 | 1514 | - | 355085 |
| 12 | 3 | 91 | 5 | 1767 | 1017 | 216343 |
| 13 | 3 | 100 | 13 | 1808 | 1230 | 856773 |

**40 MHz Master - Trial 27**

| Burst Segment | Number of Pulses | Pulse Width (µsec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (µsec) | Pulse 2-to-3 PRI (µsec) | Starting Location Within Interval (µsec) |
|---|---|---|---|---|---|---|
| 1 | 3 | 91 | 16 | 1705 | 1849 | 713874 |
| 2 | 3 | 86 | 16 | 1044 | 1376 | 54497 |
| 3 | 2 | 67 | 7 | 1691 | - | 166570 |
| 4 | 2 | 75 | 18 | 1171 | - | 799816 |
| 5 | 1 | 57 | 6 | - | - | 884194 |
| 6 | 2 | 84 | 10 | 1057 | - | 901975 |
| 7 | 3 | 76 | 15 | 1646 | 1085 | 950762 |
| 8 | 3 | 52 | 8 | 1715 | 1680 | 267538 |
| 9 | 3 | 84 | 16 | 1663 | 1901 | 596826 |
| 10 | 1 | 69 | 7 | - | - | 736516 |
| 11 | 1 | 58 | 6 | - | - | 629429 |
| 12 | 2 | 80 | 20 | 1201 | - | 128175 |

**40 MHz Master - Trial 28**

| Burst Segment | Number of Pulses | Pulse Width (µsec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (µsec) | Pulse 2-to-3 PRI (µsec) | Starting Location Within Interval (µsec) |
|---|---|---|---|---|---|---|
| 1 | 2 | 57 | 15 | 1529 | - | 666069 |
| 2 | 3 | 52 | 16 | 1468 | 1602 | 304077 |
| 3 | 1 | 75 | 13 | - | - | 416242 |
| 4 | 2 | 70 | 8 | 1615 | - | 72225 |
| 5 | 1 | 84 | 16 | - | - | 7200 |
| 6 | 2 | 76 | 14 | 1456 | - | 393620 |
| 7 | 1 | 54 | 20 | - | - | 586274 |
| 8 | 1 | 80 | 15 | - | - | 53319 |
| 9 | 1 | 100 | 8 | - | - | 555370 |
| 10 | 2 | 96 | 13 | 1431 | - | 981622 |
| 11 | 3 | 77 | 8 | 1094 | 1191 | 741008 |
| 12 | 2 | 52 | 10 | 1996 | - | 400664 |

**40 MHz Master - Trial 29**

| Burst Segment | Number of Pulses | Pulse Width (µsec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (µsec) | Pulse 2-to-3 PRI (µsec) | Starting Location Within Interval (µsec) |
|---|---|---|---|---|---|---|
| 1 | 1 | 57 | 6 | - | - | 440566 |
| 2 | 2 | 68 | 13 | 1317 | - | 397126 |
| 3 | 1 | 97 | 17 | - | - | 308314 |
| 4 | 1 | 61 | 11 | - | - | 387660 |
| 5 | 2 | 88 | 7 | 1576 | - | 330905 |
| 6 | 3 | 50 | 8 | 1299 | 1916 | 251015 |
| 7 | 2 | 77 | 20 | 1607 | - | 169316 |
| 8 | 2 | 54 | 18 | 1090 | - | 724863 |
| 9 | 1 | 78 | 5 | - | - | 85460 |
| 10 | 2 | 74 | 14 | 1425 | - | 511688 |
| 11 | 3 | 76 | 7 | 1539 | 1890 | 182721 |
| 12 | 1 | 52 | 15 | - | - | 224236 |
| 13 | 1 | 67 | 5 | - | - | 334051 |
| 14 | 1 | 96 | 5 | - | - | 166426 |
| 15 | 1 | 78 | 20 | - | - | 104427 |
| 16 | 2 | 65 | 13 | 1227 | - | 143770 |

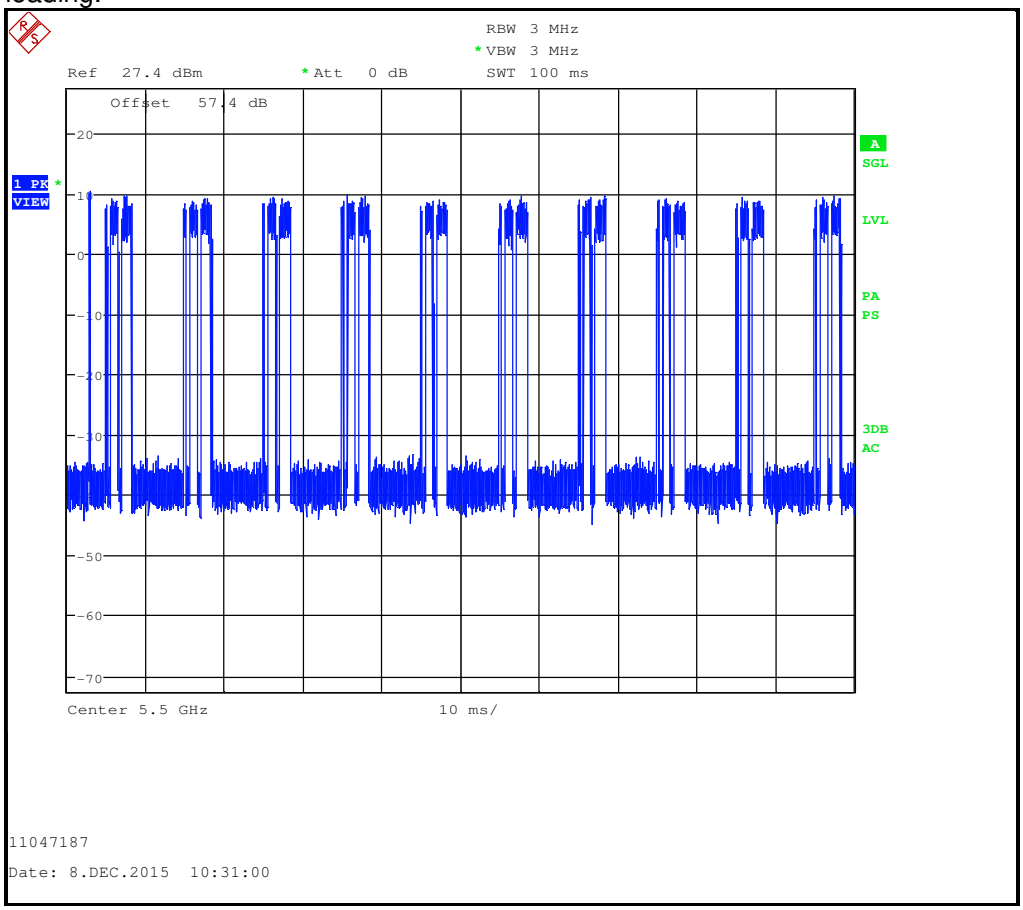
**40 MHz Master - Trial 30**

| Burst Segment | Number of Pulses | Pulse Width (µsec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (µsec) | Pulse 2-to-3 PRI (µsec) | Starting Location Within Interval (µsec) |
|---|---|---|---|---|---|---|
| 1 | 2 | 100 | 10 | 1402 | - | 1089787 |
| 2 | 2 | 98 | 18 | 1216 | - | 1320352 |
| 3 | 1 | 68 | 5 | - | - | 504685 |
| 4 | 2 | 78 | 20 | 1624 | - | 246104 |
| 5 | 1 | 93 | 8 | - | - | 603257 |
| 6 | 1 | 65 | 18 | - | - | 934054 |
| 7 | 3 | 57 | 18 | 1991 | 1663 | 70135 |
| 8 | 1 | 79 | 15 | - | - | 1255970 |
| 9 | 3 | 76 | 11 | 1504 | 1367 | 931079 |

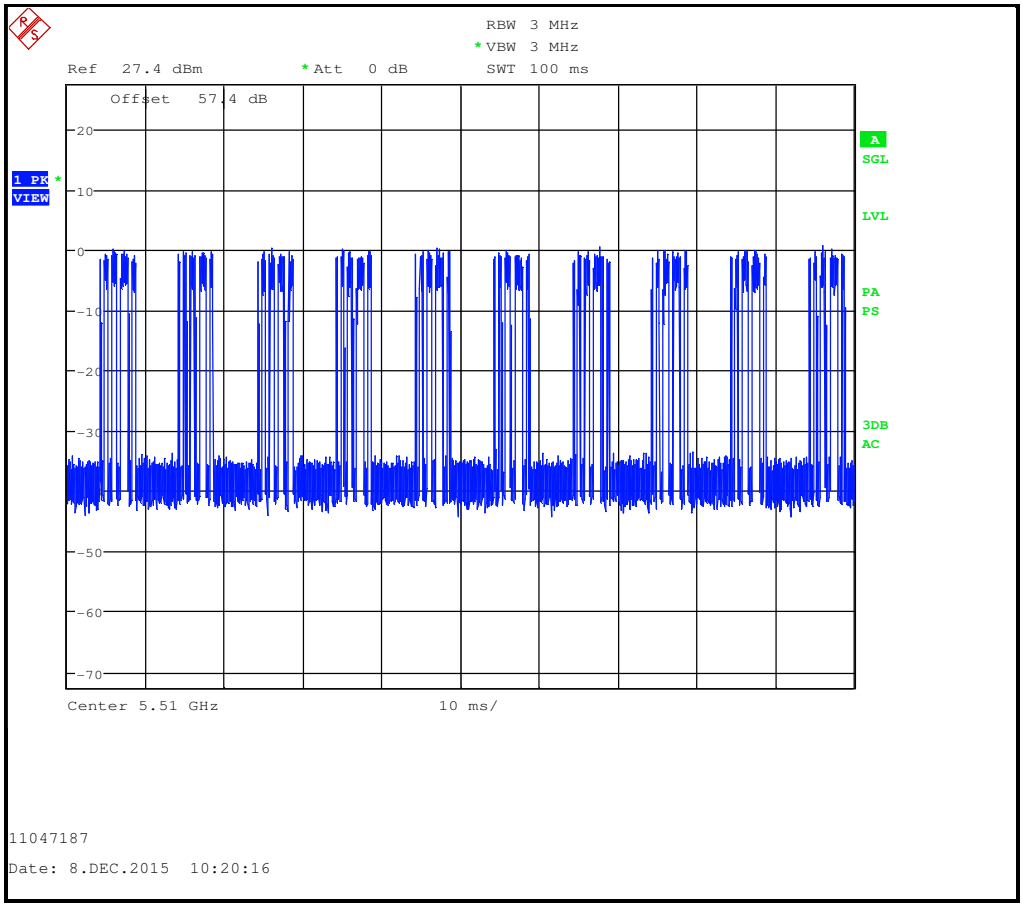
# Appendix 10. Channel Loading

UDP data was transmitted from the EUT to the companion device. 100 ms of transmissions showing both the EUT and companion device were then captured on a spectrum analyser in the time domain. The spectrum analyser was set to 30,001 sweep points giving a sample size accuracy of 3.333 µs. The data points were then exported as an ASCII file and each sample determined to be either transmissions from the EUT or companion device (channel loading) or idle. The duty cycle was then calculated from this ratio.

Included below are spectrum analyser plots from which the raw data was extracted to calculate the channel loading.




26% Channel Loading at 20 MHz Bandwidth




25.2% Channel Loading at 40 MHz Bandwidth

**--- END OF REPORT ---**