

Appendix C: Dynamic Frequency Selection Radar Test waveform

Short Pulse Radar Type 1 - 4

Step intervals of 0.1 microsecond for Pulse Width, 1 microsecond for PRI, 1 MHz for chirp width and 1 for the number of pulses will be utilized for the random determination of specific test waveforms.

Short Pulse Radar Test Waveforms

| Radar Type | Pulse Width (μsec) | PRI (μsec) | Number of Pulses | Minimum Percentage of Successful Detection | Minimum Number of Trials |
|---|--------------------|---|--|--|--------------------------|
| 0 | 1 | 1428 | 18 | See Note 1 | See Note 1 |
| 1 | 1 | Test A: 15 unique PRI values randomly selected from the list of 23 PRI values in Table 5a | $\text{Roundup} \left\{ \begin{array}{l} \left(\frac{1}{360} \right) \cdot \\ \left(\frac{19 \cdot 10^6}{\text{PRI}_{\mu\text{sec}}} \right) \end{array} \right\}$ | 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 |
| Note 1: Short Pulse Radar Type 0 should be used for the detection bandwidth test, channel move time, and channel closing time tests. | | | | | |

A minimum of 30 unique waveforms are required for each of the Short Pulse Radar Types 2 through 4. If more than 30 waveforms are used for Short Pulse Radar Types 2 through 4, then each additional waveform must also be unique and not repeated from the previous waveforms.

Pulse Repetition Intervals Values for Test A

| Pulse Repetition Frequency Number | Pulse Repetition Frequency (Pulses Per Second) | Pulse Repetition Interval (Microseconds) |
|-----------------------------------|--|--|
| 1 | 1930.5 | 518 |
| 2 | 1858.7 | 538 |
| 3 | 1792.1 | 558 |
| 4 | 1730.1 | 578 |
| 5 | 1672.2 | 598 |
| 6 | 1618.1 | 618 |
| 7 | 1567.4 | 638 |
| 8 | 1519.8 | 658 |
| 9 | 1474.9 | 678 |
| 10 | 1432.7 | 698 |
| 11 | 1392.8 | 718 |
| 12 | 1355 | 738 |
| 13 | 1319.3 | 758 |
| 14 | 1285.3 | 778 |
| 15 | 1253.1 | 798 |
| 16 | 1222.5 | 818 |
| 17 | 1193.3 | 838 |
| 18 | 1165.6 | 858 |
| 19 | 1139 | 878 |
| 20 | 1113.6 | 898 |
| 21 | 1089.3 | 918 |
| 22 | 1066.1 | 938 |
| 23 | 326.2 | 3066 |

Long Pulse Radar - Type5

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 |

The parameters for this waveform are randomly chosen. Thirty unique waveforms are required for the Long Pulse Radar Type waveforms. If more than 30 waveforms are used for the Long Pulse Radar Type waveforms, then each additional waveform must also be unique and not repeated from the previous waveforms.

Each waveform is defined as follows:

- 1) The transmission period for the Long Pulse Radar test signal is 12 seconds.
- 2) There are a total of 8 to 20 Bursts in the 12 second period, with the number of Bursts being randomly chosen. This number is Burst Count.
- 3) Each Burst consists of 1 to 3 pulses, with the number of pulses being randomly chosen. Each Burst within the 12 second sequence may have a different number of pulses.
- 4) The pulse width is between 50 and 100 microseconds, with the pulse width being randomly chosen. Each pulse within a Burst will have the same pulse width. Pulses in different Bursts may have different pulse widths.
- 5) Each pulse has a linear frequency modulated chirp between 5 and 20 MHz, with the chirp width being randomly chosen. Each pulse within a transmission period will have the same chirp width. The chirp is centered on the pulse. For example, with a radar frequency of 5300 MHz and a 20 MHz chirped signal, the chirp starts at 5290 MHz and ends at 5310 MHz.
- 6) If more than one pulse is present in a Burst, the time between the pulses will be between 1000 and 2000 microseconds, with the time being randomly chosen. If three pulses are present in a Burst, the random time interval between the first and second pulses is chosen independently of the random time interval between the second and third pulses.
- 7) The 12 second transmission period is divided into even intervals. The number of intervals is equal to Burst Count. Each interval is of length $(12,000,000 / \text{Burst Count})$ microseconds. Each interval contains one Burst. The start time for the Burst, relative to the beginning of the interval, is between 1 and $[(12,000,000 / \text{Burst Count}) - (\text{Total Burst Length}) + (\text{One Random PRI Interval})]$ microseconds, with the start time being randomly chosen. The step interval for the start time is 1 microsecond. The start time for each Burst is chosen randomly.

LPluse_Radar_No.01

| Trial Number: | | | 1 | | | |
|----------------------------|------------------|--------------------|-------------------|-----------------------------|-----------------------------|--|
| Number of Bursts in Trial: | | | 15 | | | |
| Burst | 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 | 2 | 77.8 | 13.0 | 1665.0 | 1477.0 | 636185 |
| 2 | 1 | 51.9 | 13.0 | 1074.0 | - | 32674 |
| 3 | 1 | 63.8 | 13.0 | 1584.0 | - | 226294 |
| 4 | 3 | 96.6 | 13.0 | 1682.0 | 1786.0 | 417976 |
| 5 | 3 | 85.9 | 13.0 | 1795.0 | 1215.0 | 611152 |
| 6 | 2 | 73.7 | 13.0 | 1198.0 | 1549.0 | 8789 |
| 7 | 2 | 77.2 | 13.0 | 1837.0 | 1819.0 | 201917 |
| 8 | 2 | 68.4 | 13.0 | 1587.0 | 1114.0 | 395530 |
| 9 | 2 | 76.7 | 13.0 | 2000.0 | 1155.0 | 588564 |
| 10 | 1 | 53.2 | 13.0 | 1147.0 | - | 783794 |
| 11 | 3 | 85.7 | 13.0 | 1433.0 | 1695.0 | 177933 |
| 12 | 3 | 94.3 | 13.0 | 1670.0 | 1426.0 | 370624 |
| 13 | 2 | 77.6 | 13.0 | 1294.0 | 1671.0 | 564893 |
| 14 | 1 | 65.7 | 13.0 | 1512.0 | - | 759583 |
| 15 | 3 | 93.5 | 13.0 | 1444.0 | 1130.0 | 154262 |

LPluse_Radar_No.02

| Trial Number: | | | 2 | | | |
|----------------------------|------------------|--------------------|-------------------|-----------------------------|-----------------------------|--|
| Number of Bursts in Trial: | | | 8 | | | |
| Burst | 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 | 2 | 75.0 | 5.0 | 1880.0 | 1527.0 | 653020 |
| 2 | 3 | 99.4 | 5.0 | 1401.0 | 1262.0 | 1015643 |
| 3 | 2 | 67.4 | 5.0 | 1531.0 | 1403.0 | 1379398 |
| 4 | 2 | 73.6 | 5.0 | 1449.0 | 1041.0 | 245489 |
| 5 | 1 | 65.9 | 5.0 | 1432.0 | - | 609113 |
| 6 | 3 | 83.8 | 5.0 | 1356.0 | 1292.0 | 970852 |
| 7 | 1 | 65.5 | 5.0 | 1543.0 | - | 1335913 |
| 8 | 3 | 98.6 | 5.0 | 1548.0 | 1796.0 | 200406 |

LPluse_Radar_No.03

| Trial Number: | | | 3 | | | |
|----------------------------|------------------|--------------------|-------------------|-----------------------------|-----------------------------|--|
| Number of Bursts in Trial: | | | 11 | | | |
| Burst | 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 | 2 | 73.8 | 9.0 | 1806.0 | 1538.0 | 409565 |
| 2 | 2 | 69.5 | 9.0 | 1117.0 | 1649.0 | 673692 |
| 3 | 1 | 51.9 | 9.0 | 1651.0 | - | 938562 |
| 4 | 3 | 84.6 | 9.0 | 1976.0 | 1032.0 | 113209 |
| 5 | 3 | 95.4 | 9.0 | 1060.0 | 1903.0 | 376726 |
| 6 | 2 | 68.0 | 9.0 | 1368.0 | 1351.0 | 641212 |
| 7 | 3 | 89.6 | 9.0 | 1338.0 | 1514.0 | 903714 |
| 8 | 2 | 81.9 | 9.0 | 1022.0 | 1689.0 | 80863 |
| 9 | 3 | 88.3 | 9.0 | 1810.0 | 1330.0 | 344067 |
| 10 | 1 | 53.7 | 9.0 | 1597.0 | - | 609331 |
| 11 | 3 | 91.3 | 9.0 | 1961.0 | 1106.0 | 871542 |

LPluse_Radar_No.04

| Trial Number: | | 4 | | | | |
|----------------------------|------------------|--------------------|-------------------|-----------------------------|-----------------------------|--|
| Number of Bursts in Trial: | | 20 | | | | |
| Burst | 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 | 2 | 68.1 | 19.0 | 1339.0 | 1355.0 | 26541 |
| 2 | 1 | 58.7 | 19.0 | 1251.0 | - | 171821 |
| 3 | 2 | 75.3 | 19.0 | 1136.0 | 1640.0 | 316229 |
| 4 | 1 | 56.4 | 19.0 | 1753.0 | - | 461864 |
| 5 | 3 | 99.7 | 19.0 | 1196.0 | 1708.0 | 8677 |
| 6 | 1 | 57.7 | 19.0 | 1013.0 | - | 153995 |
| 7 | 1 | 59.5 | 19.0 | 1072.0 | - | 299238 |
| 8 | 2 | 80.0 | 19.0 | 1482.0 | 1369.0 | 443177 |
| 9 | 2 | 82.0 | 19.0 | 1993.0 | 1197.0 | 587671 |
| 10 | 2 | 82.8 | 19.0 | 1883.0 | 1005.0 | 135674 |
| 11 | 3 | 88.0 | 19.0 | 1061.0 | 1928.0 | 279928 |
| 12 | 3 | 93.2 | 19.0 | 1207.0 | 1907.0 | 424279 |
| 13 | 2 | 70.4 | 19.0 | 1526.0 | 1360.0 | 570132 |
| 14 | 3 | 95.3 | 19.0 | 1171.0 | 1955.0 | 117439 |
| 15 | 2 | 81.9 | 19.0 | 1690.0 | 1545.0 | 262502 |
| 16 | 3 | 98.5 | 19.0 | 1975.0 | 1169.0 | 406573 |
| 17 | 1 | 65.0 | 19.0 | 1767.0 | - | 553328 |
| 18 | 3 | 85.4 | 19.0 | 1011.0 | 1637.0 | 99799 |
| 19 | 3 | 91.6 | 19.0 | 1878.0 | 1445.0 | 244095 |
| 20 | 2 | 67.3 | 19.0 | 1091.0 | 1218.0 | 390012 |

LPluse_Radar_No.05

| Trial Number: | | | 5 | | | |
|----------------------------|------------------|--------------------|-------------------|-----------------------------|-----------------------------|--|
| Number of Bursts in Trial: | | | 17 | | | |
| Burst | 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 | 2 | 67.9 | 16.0 | 1320.0 | 1133.0 | 629614 |
| 2 | 1 | 62.3 | 16.0 | 1957.0 | - | 96856 |
| 3 | 1 | 53.3 | 16.0 | 1592.0 | - | 267719 |
| 4 | 3 | 90.0 | 16.0 | 1900.0 | 1153.0 | 436784 |
| 5 | 2 | 77.1 | 16.0 | 1166.0 | 1646.0 | 608289 |
| 6 | 3 | 83.9 | 16.0 | 1278.0 | 1232.0 | 75610 |
| 7 | 3 | 89.1 | 16.0 | 1240.0 | 1384.0 | 245638 |
| 8 | 2 | 81.8 | 16.0 | 1833.0 | 1676.0 | 416355 |
| 9 | 1 | 50.3 | 16.0 | 1075.0 | - | 588736 |
| 10 | 3 | 87.1 | 16.0 | 1116.0 | 1996.0 | 54571 |
| 11 | 2 | 71.3 | 16.0 | 1225.0 | 1815.0 | 225175 |
| 12 | 3 | 97.5 | 16.0 | 1884.0 | 1465.0 | 394825 |
| 13 | 3 | 90.6 | 16.0 | 1561.0 | 1040.0 | 565361 |
| 14 | 3 | 86.3 | 16.0 | 1596.0 | 1183.0 | 33643 |
| 15 | 3 | 97.6 | 16.0 | 1365.0 | 1073.0 | 203957 |
| 16 | 3 | 84.7 | 16.0 | 1021.0 | 1718.0 | 373812 |
| 17 | 3 | 99.7 | 16.0 | 1150.0 | 1244.0 | 544060 |

LPluse_Radar_No.06

| Trial Number: | | | 6 | | | |
|----------------------------|------------------|--------------------|-------------------|-----------------------------|-----------------------------|--|
| Number of Bursts in Trial: | | | 14 | | | |
| Burst | 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 | 92.9 | 12.0 | 1085.0 | 1564.0 | 15438 |
| 2 | 2 | 67.7 | 12.0 | 1744.0 | 1747.0 | 222486 |
| 3 | 1 | 65.8 | 12.0 | 1092.0 | - | 430731 |
| 4 | 1 | 56.3 | 12.0 | 1851.0 | - | 637784 |
| 5 | 1 | 53.7 | 12.0 | 1727.0 | - | 845342 |
| 6 | 3 | 83.5 | 12.0 | 1679.0 | 1930.0 | 196720 |
| 7 | 1 | 65.8 | 12.0 | 1519.0 | - | 404955 |
| 8 | 3 | 85.9 | 12.0 | 1134.0 | 1034.0 | 610711 |
| 9 | 2 | 76.3 | 12.0 | 1606.0 | 1926.0 | 818057 |
| 10 | 2 | 81.5 | 12.0 | 1891.0 | 1714.0 | 171459 |
| 11 | 3 | 89.4 | 12.0 | 1310.0 | 1594.0 | 377969 |
| 12 | 1 | 63.4 | 12.0 | 1568.0 | - | 586875 |
| 13 | 2 | 69.6 | 12.0 | 1307.0 | 1925.0 | 792834 |
| 14 | 2 | 74.5 | 12.0 | 1264.0 | 1846.0 | 146044 |

LPluse_Radar_No.07

| Trial Number: | | | 7 | | | |
|----------------------------|------------------|--------------------|-------------------|-----------------------------|-----------------------------|--|
| Number of Bursts in Trial: | | | 15 | | | |
| Burst | 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 | 96.6 | 13.0 | 1182.0 | 1609.0 | 329022 |
| 2 | 3 | 96.7 | 13.0 | 1829.0 | 1799.0 | 521718 |
| 3 | 3 | 86.5 | 13.0 | 1923.0 | 1396.0 | 714222 |
| 4 | 2 | 73.3 | 13.0 | 1908.0 | 1318.0 | 112450 |
| 5 | 1 | 55.8 | 13.0 | 1688.0 | - | 306283 |
| 6 | 1 | 55.4 | 13.0 | 1145.0 | - | 500239 |
| 7 | 3 | 85.3 | 13.0 | 1336.0 | 1504.0 | 690932 |
| 8 | 2 | 79.4 | 13.0 | 1344.0 | 1893.0 | 88645 |
| 9 | 1 | 65.7 | 13.0 | 1476.0 | - | 282508 |
| 10 | 2 | 68.6 | 13.0 | 1008.0 | 1028.0 | 475842 |
| 11 | 2 | 77.7 | 13.0 | 1972.0 | 1835.0 | 667887 |
| 12 | 2 | 79.6 | 13.0 | 1882.0 | 1331.0 | 64845 |
| 13 | 3 | 94.9 | 13.0 | 1830.0 | 1070.0 | 257755 |
| 14 | 1 | 61.4 | 13.0 | 1451.0 | - | 452335 |
| 15 | 3 | 90.6 | 13.0 | 1233.0 | 1562.0 | 643395 |

LPluse_Radar_No.08

| Trial Number: | | | 8 | | | |
|----------------------------|------------------|--------------------|-------------------|-----------------------------|-----------------------------|--|
| Number of Bursts in Trial: | | | 12 | | | |
| Burst | 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 | 1 | 52.6 | 10.0 | 1210.0 | - | 51446 |
| 2 | 3 | 84.1 | 10.0 | 1314.0 | 1725.0 | 292696 |
| 3 | 3 | 97.7 | 10.0 | 1139.0 | 1868.0 | 533989 |
| 4 | 3 | 97.3 | 10.0 | 1341.0 | 1446.0 | 775564 |
| 5 | 3 | 98.8 | 10.0 | 1544.0 | 1386.0 | 21542 |
| 6 | 2 | 72.2 | 10.0 | 1771.0 | 1184.0 | 263385 |
| 7 | 2 | 67.6 | 10.0 | 1175.0 | 1027.0 | 505581 |
| 8 | 2 | 75.7 | 10.0 | 1026.0 | 1871.0 | 747058 |
| 9 | 1 | 60.9 | 10.0 | 1798.0 | - | 989976 |
| 10 | 1 | 64.2 | 10.0 | 1138.0 | - | 234024 |
| 11 | 2 | 78.8 | 10.0 | 1784.0 | 1604.0 | 475207 |
| 12 | 3 | 87.5 | 10.0 | 1511.0 | 1712.0 | 715825 |

LPluse_Radar_No.09

| Trial Number: | | | 9 | | | |
|----------------------------|------------------|--------------------|-------------------|-----------------------------|-----------------------------|--|
| Number of Bursts in Trial: | | | 14 | | | |
| Burst | 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 | 1 | 54.1 | 13.0 | 1415.0 | - | 823112 |
| 2 | 1 | 50.7 | 13.0 | 1221.0 | - | 174965 |
| 3 | 1 | 52.3 | 13.0 | 1974.0 | - | 382216 |
| 4 | 3 | 99.8 | 13.0 | 1558.0 | 1696.0 | 587395 |
| 5 | 2 | 68.4 | 13.0 | 1014.0 | 1099.0 | 796897 |
| 6 | 2 | 80.8 | 13.0 | 1736.0 | 1505.0 | 149042 |
| 7 | 1 | 62.5 | 13.0 | 1778.0 | - | 356750 |
| 8 | 2 | 74.8 | 13.0 | 1149.0 | 1204.0 | 563824 |
| 9 | 1 | 50.8 | 13.0 | 1049.0 | - | 772314 |
| 10 | 1 | 54.0 | 13.0 | 1417.0 | - | 123796 |
| 11 | 1 | 63.0 | 13.0 | 1730.0 | - | 331215 |
| 12 | 3 | 91.8 | 13.0 | 1143.0 | 1270.0 | 537402 |
| 13 | 2 | 79.3 | 13.0 | 1274.0 | 1992.0 | 744805 |
| 14 | 1 | 64.3 | 13.0 | 1937.0 | - | 98172 |

LPluse_Radar_No.10

| Trial Number: | | | 10 | | | |
|----------------------------|------------------|--------------------|-------------------|-----------------------------|-----------------------------|--|
| Number of Bursts in Trial: | | | 8 | | | |
| Burst | 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 | 1 | 63.4 | 6.0 | 1415.0 | 1043.0 | - |
| 2 | 1 | 52.0 | 6.0 | 1221.0 | 1863.0 | - |
| 3 | 3 | 97.2 | 6.0 | 1974.0 | 1973.0 | 1605 |
| 4 | 2 | 78.7 | 6.0 | 1558.0 | 1466.0 | 1743 |
| 5 | 2 | 74.2 | 6.0 | 1014.0 | 1280.0 | 1219 |
| 6 | 3 | 88.7 | 6.0 | 1736.0 | 1293.0 | 1934 |
| 7 | 1 | 54.3 | 6.0 | 1778.0 | 1991.0 | - |
| 8 | 3 | 95.4 | 6.0 | 1937.0 | 1580.0 | 1555 |

LPluse_Radar_No.11

| Trial Number: | | | 11 | | | |
|----------------------------|------------------|--------------------|-------------------|-----------------------------|-----------------------------|--|
| Number of Bursts in Trial: | | | 17 | | | |
| Burst | 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 | 2 | 73.7 | 16.0 | 1208.0 | 1497.0 | 209249 |
| 2 | 3 | 97.4 | 16.0 | 1942.0 | 1754.0 | 378386 |
| 3 | 3 | 91.7 | 16.0 | 1999.0 | 1702.0 | 548411 |
| 4 | 1 | 66.2 | 16.0 | 1393.0 | - | 17733 |
| 5 | 2 | 70.8 | 16.0 | 1968.0 | 1821.0 | 187952 |
| 6 | 1 | 52.3 | 16.0 | 1740.0 | - | 359277 |
| 7 | 2 | 78.9 | 16.0 | 1308.0 | 1984.0 | 528886 |
| 8 | 2 | 70.9 | 16.0 | 1050.0 | 1358.0 | 700166 |
| 9 | 2 | 75.6 | 16.0 | 1437.0 | 1430.0 | 167197 |
| 10 | 1 | 59.1 | 16.0 | 1697.0 | - | 338262 |
| 11 | 2 | 77.0 | 16.0 | 1397.0 | 1304.0 | 508324 |
| 12 | 2 | 67.9 | 16.0 | 1803.0 | 1083.0 | 678689 |
| 13 | 2 | 81.2 | 16.0 | 1720.0 | 1932.0 | 146031 |
| 14 | 2 | 78.7 | 16.0 | 1247.0 | 1121.0 | 316923 |
| 15 | 1 | 63.3 | 16.0 | 1634.0 | - | 488056 |
| 16 | 2 | 68.9 | 16.0 | 1849.0 | 1423.0 | 657326 |
| 17 | 1 | 59.3 | 16.0 | 1093.0 | - | 125509 |

LPluse_Radar_No.12

| Trial Number: | | 12 | | | | |
|----------------------------|------------------|--------------------|-------------------|-----------------------------|-----------------------------|--|
| Number of Bursts in Trial: | | 19 | | | | |
| Burst | 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 | 98.9 | 19.0 | 1381.0 | 1680.0 | 263736 |
| 2 | 2 | 82.3 | 19.0 | 1716.0 | 1855.0 | 416459 |
| 3 | 3 | 86.7 | 19.0 | 1211.0 | 1400.0 | 567902 |
| 4 | 3 | 89.7 | 19.0 | 1861.0 | 1068.0 | 92979 |
| 5 | 3 | 98.6 | 19.0 | 1507.0 | 1194.0 | 245155 |
| 6 | 2 | 71.1 | 19.0 | 1921.0 | 1789.0 | 397609 |
| 7 | 1 | 55.9 | 19.0 | 1947.0 | - | 551431 |
| 8 | 2 | 67.9 | 19.0 | 1350.0 | 1372.0 | 74413 |
| 9 | 3 | 84.4 | 19.0 | 1203.0 | 1107.0 | 226559 |
| 10 | 1 | 58.8 | 19.0 | 1715.0 | - | 380056 |
| 11 | 1 | 65.6 | 19.0 | 1017.0 | - | 533408 |
| 12 | 2 | 78.5 | 19.0 | 1911.0 | 1704.0 | 55547 |
| 13 | 2 | 82.3 | 19.0 | 1845.0 | 1686.0 | 207876 |
| 14 | 3 | 90.1 | 19.0 | 1938.0 | 1071.0 | 359771 |
| 15 | 3 | 90.2 | 19.0 | 1989.0 | 1089.0 | 511297 |
| 16 | 2 | 83.1 | 19.0 | 1943.0 | 1406.0 | 36803 |
| 17 | 1 | 58.8 | 19.0 | 1742.0 | - | 189652 |
| 18 | 2 | 77.0 | 19.0 | 1187.0 | 1657.0 | 341809 |
| 19 | 1 | 55.0 | 19.0 | 1012.0 | - | 495737 |

LPluse_Radar_No.13

| Trial Number: | | | 13 | | | |
|----------------------------|------------------|--------------------|-------------------|-----------------------------|-----------------------------|--|
| Number of Bursts in Trial: | | | 15 | | | |
| Burst | 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 | 1 | 58.1 | 13.0 | 1929.0 | - | 22911 |
| 2 | 1 | 52.1 | 13.0 | 1910.0 | - | 216473 |
| 3 | 1 | 59.9 | 13.0 | 1971.0 | - | 410004 |
| 4 | 1 | 60.2 | 13.0 | 1812.0 | - | 603671 |
| 5 | 3 | 95.9 | 13.0 | 1399.0 | 1906.0 | 794160 |
| 6 | 2 | 79.9 | 13.0 | 1626.0 | 1859.0 | 192251 |
| 7 | 2 | 78.5 | 13.0 | 1238.0 | 1917.0 | 385590 |
| 8 | 1 | 53.8 | 13.0 | 1763.0 | - | 579862 |
| 9 | 1 | 64.7 | 13.0 | 1800.0 | - | 773423 |
| 10 | 1 | 61.4 | 13.0 | 1390.0 | - | 168898 |
| 11 | 2 | 83.2 | 13.0 | 1692.0 | 1858.0 | 361606 |
| 12 | 3 | 84.7 | 13.0 | 1533.0 | 1677.0 | 553866 |
| 13 | 3 | 88.7 | 13.0 | 1703.0 | 1528.0 | 747241 |

LPluse_Radar_No.14

| Trial Number: | | | 14 | | | |
|----------------------------|------------------|--------------------|-------------------|-----------------------------|-----------------------------|--|
| Number of Bursts in Trial: | | | 12 | | | |
| Burst | 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 | 2 | 75.3 | 10.0 | 1994.0 | 1612.0 | 664275 |
| 2 | 1 | 56.3 | 10.0 | 1456.0 | - | 907886 |
| 3 | 2 | 67.7 | 10.0 | 1617.0 | 1185.0 | 151316 |
| 4 | 1 | 55.6 | 10.0 | 1337.0 | - | 393746 |
| 5 | 2 | 75.2 | 10.0 | 1421.0 | 1267.0 | 635093 |
| 6 | 2 | 76.3 | 10.0 | 1359.0 | 1305.0 | 876993 |
| 7 | 3 | 85.7 | 10.0 | 1547.0 | 1362.0 | 121278 |
| 8 | 3 | 98.4 | 10.0 | 1873.0 | 1550.0 | 362696 |
| 9 | 3 | 86.4 | 10.0 | 1779.0 | 1439.0 | 604342 |
| 10 | 3 | 93.6 | 10.0 | 1059.0 | 1031.0 | 846453 |
| 11 | 1 | 63.3 | 10.0 | 1328.0 | - | 91871 |
| 12 | 3 | 92.4 | 10.0 | 1412.0 | 1673.0 | 333050 |

LPluse_Radar_No.15

| Trial Number: | | 15 | | | | |
|----------------------------|------------------|--------------------|-------------------|-----------------------------|-----------------------------|--|
| Number of Bursts in Trial: | | 19 | | | | |
| Burst | 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 | 93.3 | 18.0 | 1983.0 | 1912.0 | 361323 |
| 2 | 2 | 69.1 | 18.0 | 1102.0 | 1794.0 | 515261 |
| 3 | 3 | 86.9 | 18.0 | 1044.0 | 1152.0 | 39025 |
| 4 | 3 | 84.9 | 18.0 | 1894.0 | 1948.0 | 190900 |
| 5 | 2 | 72.3 | 18.0 | 1094.0 | 1916.0 | 343941 |
| 6 | 1 | 51.7 | 18.0 | 1447.0 | - | 497624 |
| 7 | 1 | 58.3 | 18.0 | 1429.0 | - | 20319 |
| 8 | 1 | 60.8 | 18.0 | 1979.0 | - | 172999 |
| 9 | 1 | 57.1 | 18.0 | 1641.0 | - | 325872 |
| 10 | 3 | 88.9 | 18.0 | 1886.0 | 1964.0 | 475841 |
| 11 | 2 | 72.0 | 18.0 | 1909.0 | 1297.0 | 1489 |
| 12 | 3 | 90.9 | 18.0 | 1261.0 | 1566.0 | 153647 |
| 13 | 1 | 59.8 | 18.0 | 1552.0 | - | 307096 |
| 14 | 2 | 70.0 | 18.0 | 1759.0 | 1291.0 | 458804 |
| 15 | 2 | 67.2 | 18.0 | 1625.0 | 1881.0 | 610798 |
| 16 | 3 | 91.2 | 18.0 | 1382.0 | 1832.0 | 134759 |
| 17 | 1 | 56.5 | 18.0 | 1483.0 | - | 288306 |
| 18 | 1 | 51.2 | 18.0 | 1237.0 | - | 441296 |
| 19 | 2 | 74.1 | 18.0 | 1471.0 | 1245.0 | 592780 |

LPluse_Radar_No.16

| Trial Number: | | | 16 | | | |
|----------------------------|------------------|--------------------|-------------------|-----------------------------|-----------------------------|--|
| Number of Bursts in Trial: | | | 14 | | | |
| Burst | 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 | 2 | 76.9 | 12.0 | 1110.0 | 1140.0 | 158286 |
| 2 | 1 | 50.2 | 12.0 | 1316.0 | - | 366024 |
| 3 | 1 | 62.9 | 12.0 | 1520.0 | - | 573452 |
| 4 | 1 | 64.7 | 12.0 | 1902.0 | - | 780619 |
| 5 | 3 | 83.8 | 12.0 | 1410.0 | 1097.0 | 132455 |
| 6 | 1 | 65.4 | 12.0 | 1944.0 | - | 340207 |
| 7 | 1 | 53.2 | 12.0 | 1024.0 | - | 548208 |
| 8 | 1 | 51.7 | 12.0 | 1603.0 | - | 755333 |
| 9 | 2 | 78.7 | 12.0 | 1804.0 | 1168.0 | 107117 |
| 10 | 2 | 72.4 | 12.0 | 1030.0 | 1343.0 | 314500 |
| 11 | 1 | 53.8 | 12.0 | 1327.0 | - | 522447 |
| 12 | 2 | 73.6 | 12.0 | 1524.0 | 1553.0 | 728517 |
| 13 | 2 | 66.7 | 12.0 | 1722.0 | 1122.0 | 81611 |
| 14 | 2 | 82.5 | 12.0 | 1404.0 | 1019.0 | 288948 |

LPluse_Radar_No.17

| Trial Number: | | 17 | | | | |
|----------------------------|------------------|--------------------|-------------------|-----------------------------|-----------------------------|--|
| Number of Bursts in Trial: | | 20 | | | | |
| Burst | 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 | 87.6 | 20.0 | 1565.0 | 1055.0 | 345766 |
| 2 | 3 | 85.2 | 20.0 | 1735.0 | 1541.0 | 490019 |
| 3 | 3 | 84.8 | 20.0 | 1534.0 | 1889.0 | 39073 |
| 4 | 2 | 77.9 | 20.0 | 1749.0 | 1460.0 | 183923 |
| 5 | 2 | 76.5 | 20.0 | 1518.0 | 1485.0 | 328777 |
| 6 | 1 | 60.9 | 20.0 | 1540.0 | - | 474728 |
| 7 | 2 | 83.0 | 20.0 | 1080.0 | 1010.0 | 21394 |
| 8 | 2 | 80.4 | 20.0 | 1824.0 | 1752.0 | 165992 |
| 9 | 2 | 67.5 | 20.0 | 1764.0 | 1181.0 | 310973 |
| 10 | 1 | 62.1 | 20.0 | 1495.0 | - | 456884 |
| 11 | 3 | 86.4 | 20.0 | 1773.0 | 1966.0 | 3515 |
| 12 | 3 | 84.3 | 20.0 | 1593.0 | 1188.0 | 147928 |
| 13 | 2 | 76.9 | 20.0 | 1226.0 | 1537.0 | 293225 |
| 14 | 3 | 95.8 | 20.0 | 1192.0 | 1298.0 | 436922 |
| 15 | 1 | 55.2 | 20.0 | 1644.0 | - | 584015 |
| 16 | 1 | 59.0 | 20.0 | 1402.0 | - | 130832 |
| 17 | 3 | 94.5 | 20.0 | 1296.0 | 1700.0 | 274684 |
| 18 | 3 | 91.9 | 20.0 | 1970.0 | 1978.0 | 418579 |
| 19 | 3 | 85.2 | 20.0 | 1732.0 | 1551.0 | 563464 |
| 20 | 2 | 69.5 | 20.0 | 1038.0 | 1224.0 | 112787 |

LPluse_Radar_No.18

| Trial Number: | | | 18 | | | |
|----------------------------|------------------|--------------------|-------------------|-----------------------------|-----------------------------|--|
| Number of Bursts in Trial: | | | 12 | | | |
| Burst | 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 | 86.4 | 10.0 | 1259.0 | 1918.0 | 429224 |
| 2 | 3 | 92.2 | 10.0 | 1598.0 | 1719.0 | 670241 |
| 3 | 2 | 80.4 | 10.0 | 1816.0 | 1899.0 | 912880 |
| 4 | 1 | 54.3 | 10.0 | 1335.0 | - | 158603 |
| 5 | 1 | 53.1 | 10.0 | 1303.0 | - | 400824 |
| 6 | 2 | 69.4 | 10.0 | 1503.0 | 1546.0 | 641915 |
| 7 | 2 | 69.1 | 10.0 | 1279.0 | 1639.0 | 883823 |
| 8 | 3 | 100.0 | 10.0 | 1375.0 | 1438.0 | 128373 |
| 9 | 2 | 79.6 | 10.0 | 1239.0 | 1705.0 | 370379 |
| 10 | 3 | 88.4 | 10.0 | 1374.0 | 1579.0 | 611194 |
| 11 | 1 | 53.3 | 10.0 | 1016.0 | - | 855665 |
| 12 | 1 | 65.3 | 10.0 | 1709.0 | - | 98897 |

LPluse_Radar_No.19

| Trial Number: | | | 19 | | | |
|----------------------------|------------------|--------------------|-------------------|-----------------------------|-----------------------------|--|
| Number of Bursts in Trial: | | | 14 | | | |
| Burst | 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 | 1 | 55.3 | 12.0 | 1920.0 | - | 292143 |
| 2 | 1 | 58.3 | 12.0 | 1797.0 | - | 499633 |
| 3 | 2 | 72.3 | 12.0 | 1610.0 | 1039.0 | 706377 |
| 4 | 3 | 84.8 | 12.0 | 1131.0 | 1761.0 | 58989 |
| 5 | 2 | 82.5 | 12.0 | 1875.0 | 1431.0 | 266161 |
| 6 | 1 | 63.3 | 12.0 | 1095.0 | - | 474469 |
| 7 | 2 | 80.0 | 12.0 | 1119.0 | 1913.0 | 680544 |
| 8 | 3 | 90.3 | 12.0 | 1660.0 | 1853.0 | 33519 |
| 9 | 3 | 91.1 | 12.0 | 1539.0 | 1783.0 | 240319 |
| 10 | 3 | 96.6 | 12.0 | 1525.0 | 1036.0 | 447400 |
| 11 | 2 | 82.7 | 12.0 | 1710.0 | 1990.0 | 654516 |
| 12 | 1 | 50.7 | 12.0 | 1234.0 | - | 8083 |
| 13 | 2 | 78.4 | 12.0 | 1047.0 | 1109.0 | 215435 |
| 14 | 3 | 99.5 | 12.0 | 1299.0 | 1965.0 | 421325 |

LPluse_Radar_No.20

| Trial Number: | | | 20 | | | |
|----------------------------|------------------|--------------------|-------------------|-----------------------------|-----------------------------|--|
| Number of Bursts in Trial: | | | 12 | | | |
| Burst | 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 | 88.6 | 10.0 | 1501.0 | 1067.0 | 733725 |
| 2 | 1 | 57.4 | 10.0 | 1723.0 | - | 977882 |
| 3 | 3 | 96.6 | 10.0 | 1086.0 | 1658.0 | 221197 |
| 4 | 2 | 69.7 | 10.0 | 1751.0 | 1945.0 | 462915 |
| 5 | 2 | 77.9 | 10.0 | 1642.0 | 1317.0 | 705071 |
| 6 | 1 | 62.0 | 10.0 | 1866.0 | - | 947923 |
| 7 | 3 | 88.4 | 10.0 | 1997.0 | 1077.0 | 191373 |
| 8 | 3 | 97.3 | 10.0 | 1790.0 | 1896.0 | 432561 |
| 9 | 3 | 96.2 | 10.0 | 1391.0 | 1787.0 | 674004 |
| 10 | 3 | 95.4 | 10.0 | 1020.0 | 1892.0 | 915842 |
| 11 | 1 | 54.8 | 10.0 | 1084.0 | - | 162176 |
| 12 | 2 | 80.4 | 10.0 | 1850.0 | 1436.0 | 403553 |

LPluse_Radar_No.21

| Trial Number: | | | 21 | | | |
|----------------------------|------------------|--------------------|-------------------|-----------------------------|-----------------------------|--|
| Number of Bursts in Trial: | | | 16 | | | |
| Burst | 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 | 2 | 74.7 | 15.0 | 1619.0 | 1611.0 | 483470 |
| 2 | 1 | 57.1 | 15.0 | 1560.0 | - | 666072 |
| 3 | 3 | 91.9 | 15.0 | 1392.0 | 1475.0 | 98810 |
| 4 | 2 | 83.1 | 15.0 | 1809.0 | 1772.0 | 279914 |
| 5 | 1 | 50.7 | 15.0 | 1003.0 | - | 462536 |
| 6 | 2 | 79.2 | 15.0 | 1574.0 | 1600.0 | 642324 |
| 7 | 1 | 58.7 | 15.0 | 1186.0 | - | 76831 |
| 8 | 2 | 71.0 | 15.0 | 1521.0 | 1567.0 | 257785 |
| 9 | 2 | 79.0 | 15.0 | 1777.0 | 1960.0 | 438554 |
| 10 | 2 | 68.5 | 15.0 | 1284.0 | 1428.0 | 620397 |
| 11 | 2 | 73.5 | 15.0 | 1904.0 | 1352.0 | 54310 |
| 12 | 2 | 70.5 | 15.0 | 1864.0 | 1115.0 | 235506 |
| 13 | 2 | 76.6 | 15.0 | 1045.0 | 1300.0 | 417036 |
| 14 | 2 | 81.2 | 15.0 | 1160.0 | 1675.0 | 597974 |
| 15 | 1 | 61.8 | 15.0 | 1277.0 | - | 32086 |
| 16 | 3 | 94.9 | 15.0 | 1450.0 | 1206.0 | 212751 |

LPluse_Radar_No.22

| Trial Number: | | | 22 | | | |
|----------------------------|------------------|--------------------|-------------------|-----------------------------|-----------------------------|--|
| Number of Bursts in Trial: | | | 12 | | | |
| Burst | 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 | 2 | 78.5 | 9.0 | 1653.0 | 1698.0 | 526149 |
| 2 | 3 | 89.8 | 9.0 | 1174.0 | 1962.0 | 767135 |
| 3 | 1 | 59.4 | 9.0 | 1982.0 | - | 12955 |
| 4 | 2 | 79.6 | 9.0 | 1633.0 | 1890.0 | 254612 |
| 5 | 2 | 76.0 | 9.0 | 1112.0 | 1811.0 | 496588 |
| 6 | 1 | 53.6 | 9.0 | 1144.0 | - | 739728 |
| 7 | 2 | 80.9 | 9.0 | 1220.0 | 1053.0 | 980872 |
| 8 | 1 | 61.6 | 9.0 | 1724.0 | - | 225249 |
| 9 | 1 | 53.4 | 9.0 | 1901.0 | - | 467279 |
| 10 | 1 | 59.9 | 9.0 | 1379.0 | - | 709720 |
| 11 | 1 | 60.4 | 9.0 | 1453.0 | - | 951847 |
| 12 | 3 | 91.4 | 9.0 | 1768.0 | 1726.0 | 194839 |

LPluse_Radar_No.23

| Trial Number: | | | 23 | | | |
|----------------------------|------------------|--------------------|-------------------|-----------------------------|-----------------------------|--|
| Number of Bursts in Trial: | | | 20 | | | |
| Burst | 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 | 2 | 77.0 | 20.0 | 1191.0 | 1363.0 | 261858 |
| 2 | 1 | 58.1 | 20.0 | 1248.0 | - | 407646 |
| 3 | 1 | 62.1 | 20.0 | 1836.0 | - | 552319 |
| 4 | 2 | 76.9 | 20.0 | 1334.0 | 1236.0 | 99107 |
| 5 | 2 | 80.0 | 20.0 | 1914.0 | 1852.0 | 243514 |
| 6 | 1 | 52.0 | 20.0 | 1701.0 | - | 389464 |
| 7 | 3 | 88.6 | 20.0 | 1693.0 | 1995.0 | 531093 |
| 8 | 2 | 72.9 | 20.0 | 1922.0 | 1387.0 | 81159 |
| 9 | 3 | 98.5 | 20.0 | 1839.0 | 1746.0 | 225245 |
| 10 | 1 | 57.9 | 20.0 | 1193.0 | - | 371906 |
| 11 | 3 | 95.9 | 20.0 | 1659.0 | 1870.0 | 514197 |
| 12 | 1 | 53.5 | 20.0 | 1162.0 | - | 63561 |
| 13 | 3 | 92.0 | 20.0 | 1745.0 | 1654.0 | 207510 |
| 14 | 1 | 57.3 | 20.0 | 1834.0 | - | 353638 |
| 15 | 2 | 70.5 | 20.0 | 1684.0 | 1586.0 | 497515 |
| 16 | 2 | 70.0 | 20.0 | 1042.0 | 1664.0 | 45553 |
| 17 | 3 | 84.0 | 20.0 | 1765.0 | 1630.0 | 189821 |
| 18 | 2 | 76.1 | 20.0 | 1557.0 | 1057.0 | 335330 |
| 19 | 3 | 93.2 | 20.0 | 1985.0 | 1018.0 | 478825 |
| 20 | 3 | 96.8 | 20.0 | 1760.0 | 1614.0 | 27594 |

LPluse_Radar_No.24

| Trial Number: | | | 24 | | | |
|----------------------------|------------------|--------------------|-------------------|-----------------------------|-----------------------------|--|
| Number of Bursts in Trial: | | | 14 | | | |
| Burst | 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 | 1 | 50.1 | 12.0 | 1841.0 | - | 247117 |
| 2 | 3 | 93.5 | 12.0 | 1590.0 | 1081.0 | 453362 |
| 3 | 2 | 68.8 | 12.0 | 1707.0 | 1577.0 | 660875 |
| 4 | 1 | 56.3 | 12.0 | 1056.0 | - | 14140 |
| 5 | 3 | 86.0 | 12.0 | 1953.0 | 1108.0 | 220734 |
| 6 | 2 | 75.2 | 12.0 | 1572.0 | 1536.0 | 428367 |
| 7 | 1 | 54.4 | 12.0 | 1517.0 | - | 636681 |
| 8 | 2 | 71.1 | 12.0 | 1329.0 | 1243.0 | 843157 |
| 9 | 2 | 76.2 | 12.0 | 1940.0 | 1770.0 | 195585 |
| 10 | 2 | 80.2 | 12.0 | 1098.0 | 1209.0 | 403231 |
| 11 | 2 | 79.7 | 12.0 | 1588.0 | 1214.0 | 610202 |
| 12 | 3 | 90.9 | 12.0 | 1615.0 | 1862.0 | 815229 |
| 13 | 2 | 68.7 | 12.0 | 1377.0 | 1441.0 | 170267 |
| 14 | 2 | 67.4 | 12.0 | 1872.0 | 1313.0 | 377306 |

LPluse_Radar_No.25

| Trial Number: | | | 25 | | | |
|----------------------------|------------------|--------------------|-------------------|-----------------------------|-----------------------------|--|
| Number of Bursts in Trial: | | | 13 | | | |
| Burst | 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 | 94.0 | 11.0 | 1643.0 | 1748.0 | 628071 |
| 2 | 2 | 70.8 | 11.0 | 1177.0 | 1201.0 | 853391 |
| 3 | 1 | 56.3 | 11.0 | 1006.0 | - | 156223 |
| 4 | 3 | 96.7 | 11.0 | 1230.0 | 1163.0 | 378734 |
| 5 | 3 | 90.6 | 11.0 | 1217.0 | 1582.0 | 601331 |
| 6 | 2 | 74.5 | 11.0 | 1569.0 | 1281.0 | 825462 |
| 7 | 3 | 92.6 | 11.0 | 1065.0 | 1669.0 | 128265 |
| 8 | 3 | 89.0 | 11.0 | 1493.0 | 1135.0 | 351161 |
| 9 | 3 | 96.5 | 11.0 | 1607.0 | 1822.0 | 573425 |
| 10 | 2 | 70.5 | 11.0 | 1141.0 | 1178.0 | 798431 |
| 11 | 3 | 94.0 | 11.0 | 1009.0 | 1629.0 | 100737 |
| 12 | 1 | 55.8 | 11.0 | 1290.0 | - | 324661 |
| 13 | 3 | 87.7 | 11.0 | 1435.0 | 1963.0 | 546278 |

LPluse_Radar_No.26

| Trial Number: | | | 26 | | | |
|----------------------------|------------------|--------------------|-------------------|-----------------------------|-----------------------------|--|
| Number of Bursts in Trial: | | | 8 | | | |
| Burst | 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 | 2 | 68.6 | 5.0 | 1306.0 | 1161.0 | 1253842 |
| 2 | 2 | 83.1 | 5.0 | 1420.0 | 1315.0 | 119486 |
| 3 | 1 | 60.9 | 5.0 | 1687.0 | - | 482958 |
| 4 | 2 | 77.7 | 5.0 | 1776.0 | 1158.0 | 845641 |
| 5 | 2 | 77.4 | 5.0 | 1793.0 | 1510.0 | 1208428 |
| 6 | 2 | 66.8 | 5.0 | 1576.0 | 1323.0 | 74748 |
| 7 | 1 | 63.7 | 5.0 | 1333.0 | - | 438300 |
| 8 | 3 | 91.2 | 5.0 | 1409.0 | 1681.0 | 800152 |

LPluse_Radar_No.27

| Trial Number: | | 27 | | | | |
|----------------------------|------------------|--------------------|-------------------|-----------------------------|-----------------------------|--|
| Number of Bursts in Trial: | | 17 | | | | |
| Burst | 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 | 83.6 | 16.0 | 1632.0 | 1195.0 | 545865 |
| 2 | 3 | 89.4 | 16.0 | 1173.0 | 1627.0 | 14067 |
| 3 | 1 | 55.8 | 16.0 | 1532.0 | - | 184953 |
| 4 | 3 | 90.9 | 16.0 | 1981.0 | 1554.0 | 353759 |
| 5 | 1 | 54.7 | 16.0 | 1825.0 | - | 526388 |
| 6 | 3 | 97.7 | 16.0 | 1734.0 | 1202.0 | 694806 |
| 7 | 2 | 67.5 | 16.0 | 1571.0 | 1434.0 | 163568 |
| 8 | 3 | 96.7 | 16.0 | 1589.0 | 1469.0 | 333410 |
| 9 | 2 | 68.3 | 16.0 | 1750.0 | 1954.0 | 504006 |
| 10 | 2 | 78.3 | 16.0 | 1591.0 | 1082.0 | 675297 |
| 11 | 1 | 55.0 | 16.0 | 1427.0 | - | 142890 |
| 12 | 3 | 84.9 | 16.0 | 1129.0 | 1936.0 | 312479 |
| 13 | 2 | 74.6 | 16.0 | 1959.0 | 1856.0 | 482953 |
| 14 | 1 | 63.3 | 16.0 | 1885.0 | - | 655022 |
| 15 | 3 | 99.8 | 16.0 | 1035.0 | 1515.0 | 121457 |
| 16 | 1 | 63.6 | 16.0 | 1647.0 | - | 292606 |
| 17 | 3 | 87.3 | 16.0 | 1931.0 | 1051.0 | 461322 |

LPluse_Radar_No.28

| Trial Number: | | 28 | | | | |
|----------------------------|------------------|--------------------|-------------------|-----------------------------|-----------------------------|--|
| Number of Bursts in Trial: | | 19 | | | | |
| Burst | 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 | 85.6 | 19.0 | 1946.0 | 1078.0 | 565136 |
| 2 | 2 | 68.6 | 19.0 | 1029.0 | 1780.0 | 89970 |
| 3 | 1 | 54.2 | 19.0 | 1111.0 | - | 243121 |
| 4 | 1 | 61.2 | 19.0 | 1104.0 | - | 396034 |
| 5 | 3 | 97.1 | 19.0 | 1157.0 | 1969.0 | 546225 |
| 6 | 3 | 98.3 | 19.0 | 1142.0 | 1699.0 | 70998 |
| 7 | 1 | 62.4 | 19.0 | 1655.0 | - | 224093 |
| 8 | 2 | 80.2 | 19.0 | 1126.0 | 1769.0 | 376127 |
| 9 | 3 | 87.5 | 19.0 | 1216.0 | 1448.0 | 527806 |
| 10 | 3 | 85.8 | 19.0 | 1847.0 | 1348.0 | 52247 |
| 11 | 3 | 88.1 | 19.0 | 1023.0 | 1124.0 | 204582 |
| 12 | 1 | 65.3 | 19.0 | 1848.0 | - | 357941 |
| 13 | 1 | 52.5 | 19.0 | 1470.0 | - | 510977 |
| 14 | 1 | 52.3 | 19.0 | 1312.0 | - | 33698 |
| 15 | 2 | 74.1 | 19.0 | 1915.0 | 1200.0 | 186023 |
| 16 | 1 | 54.9 | 19.0 | 1479.0 | - | 339327 |
| 17 | 2 | 76.2 | 19.0 | 1376.0 | 1502.0 | 491053 |
| 18 | 1 | 60.4 | 19.0 | 1758.0 | - | 14858 |
| 19 | 2 | 81.5 | 19.0 | 1491.0 | 1103.0 | 167387 |

LPluse_Radar_No.29

| Trial Number: | | | 29 | | | |
|----------------------------|------------------|--------------------|-------------------|-----------------------------|-----------------------------|--|
| Number of Bursts in Trial: | | | 12 | | | |
| Burst | 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 | 1 | 50.5 | 10.0 | 1857.0 | - | 507709 |
| 2 | 1 | 55.7 | 10.0 | 1246.0 | - | 750249 |
| 3 | 3 | 85.8 | 10.0 | 1774.0 | 1002.0 | 989003 |
| 4 | 2 | 76.9 | 10.0 | 1125.0 | 1474.0 | 235634 |
| 5 | 2 | 75.1 | 10.0 | 1254.0 | 1052.0 | 477675 |
| 6 | 3 | 92.3 | 10.0 | 1180.0 | 1486.0 | 718312 |
| 7 | 2 | 78.1 | 10.0 | 1301.0 | 1757.0 | 960895 |
| 8 | 3 | 92.2 | 10.0 | 1898.0 | 1252.0 | 205370 |
| 9 | 3 | 89.0 | 10.0 | 1260.0 | 1706.0 | 446940 |
| 10 | 2 | 70.9 | 10.0 | 1578.0 | 1620.0 | 689225 |
| 11 | 1 | 63.1 | 10.0 | 1782.0 | - | 932305 |
| 12 | 1 | 55.3 | 10.0 | 1522.0 | - | 176231 |

LPluse_Radar_No.30

| Trial Number: | | | 30 | | | |
|----------------------------|------------------|--------------------|-------------------|-----------------------------|-----------------------------|--|
| Number of Bursts in Trial: | | | 18 | | | |
| Burst | 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 | 83.4 | 17.0 | 1454.0 | 1205.0 | 277485 |
| 2 | 3 | 97.3 | 17.0 | 1319.0 | 1826.0 | 437880 |
| 3 | 3 | 90.4 | 17.0 | 1079.0 | 1986.0 | 598445 |
| 4 | 3 | 91.8 | 17.0 | 1563.0 | 1151.0 | 97088 |
| 5 | 3 | 98.2 | 17.0 | 1876.0 | 1977.0 | 257251 |
| 6 | 1 | 59.5 | 17.0 | 1952.0 | - | 419893 |
| 7 | 2 | 80.0 | 17.0 | 1253.0 | 1137.0 | 580724 |
| 8 | 3 | 86.5 | 17.0 | 1054.0 | 1128.0 | 77366 |
| 9 | 3 | 91.1 | 17.0 | 1105.0 | 1599.0 | 238032 |
| 10 | 3 | 93.5 | 17.0 | 1867.0 | 1373.0 | 398605 |
| 11 | 1 | 60.7 | 17.0 | 1033.0 | - | 562025 |
| 12 | 2 | 67.2 | 17.0 | 1288.0 | 1405.0 | 57684 |
| 13 | 1 | 61.8 | 17.0 | 1585.0 | - | 219083 |
| 14 | 2 | 79.4 | 17.0 | 1933.0 | 1667.0 | 379234 |
| 15 | 2 | 81.4 | 17.0 | 1096.0 | 1464.0 | 540896 |
| 16 | 1 | 65.7 | 17.0 | 1496.0 | - | 37916 |
| 17 | 2 | 76.0 | 17.0 | 1733.0 | 1255.0 | 198794 |
| 18 | 2 | 81.0 | 17.0 | 1326.0 | 1668.0 | 359754 |

Frequency Hopping Radar - Type6

Long Pulse 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 | 1 | 9 | 0.333 | 300 | 70% | 30 |

For the Frequency Hopping Radar Type, the same Burst parameters are used for each waveform. The hopping sequence is different for each waveform and a 100-length segment is selected from the hopping sequence defined by the following algorithm:

The first frequency in a hopping sequence is selected randomly from the group of 475 integer frequencies from 5250 – 5724 MHz. Next, the frequency that was just chosen is removed from the group and a frequency is randomly selected from the remaining 474 frequencies in the group. This process continues until all 475 frequencies are chosen for the set. For selection of a random frequency, the frequencies remaining within the group are always treated as equally likely.