# DFS MEASUREMENT REPORT

## FCC PART 15 Subpart E WLAN 802.11b/g/n

| | |
|---|---|
| **FCC ID:** | 2AD8UFZCWO2CA1 |
| **APPLICANT:** | Nokia Solutions and Networks, OY |
| **Application Type:** | Certification |
| **Product:** | AC220 Wi-Fi AP OD directional antenna US<br>AC220 Wi-Fi AP OD external antenna US<br>AC220 Wi-Fi AP OD small omni antenna US |
| **Model No.:** | WO2C-AC220 |
| **Brand Name:** | NOKIA |
| **FCC Classification:** | Unlicensed National Information Infrastructure (UNII) |
| **FCC Rule Part(s):** | Part 15 Subpart E - 15.407 Section (h)(2)<br>KDB 905462 D02v02, KDB 905462 D04v01 |
| **Type of Device:** | ☒ Master Device<br>☐ Client Device (No radar detection)<br>☐ Client Device with radar detection |
| **Test Date:** | August 08 ~ October 22, 2017 |

Reviewed By : Paddy Chen
( Sunny Sun )

Approved By : Marlin Chen
( Marlin Chen )

ACCREDITED
TESTING LABORATORY
CERTIFICATE #3628.01

The test results relate only to the samples tested.
This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in KDB 905462 D02v02. Test results reported herein relate only to the item(s) tested.
The test report shall not be reproduced except in full without the written approval of MRT Technology (Taiwan) Co., Ltd.

# Revision History

| Report No. | Version | Description | Issue Date | Note |
|---|---|---|---|---|
| 1707TW0110-U5 | Rev. 01 | Initial Report | 12-02-2017 | Valid |
| | | | | |

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## §2.1033 General Information

| | |
|---|---|
| **Applicant:** | Nokia Solutions and Networks, OY |
| **Applicant Address:** | 1455 W Shure Drive, Arlington Heights, IL 60004 |
| **Manufacturer:** | Nokia Solutions and Networks, OY |
| **Manufacturer Address:** | 1455 W Shure Drive, Arlington Heights, IL 60004 |
| **Test Site:** | MRT Technology (Taiwan) Co., Ltd |
| **Test Site Address:** | No. 38, Fuxing Second Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C) |
| **MRT Registration No.:** | 153292 |
| **FCC Rule Part(s):** | Part 15 Subpart E - 15.407 Section (h)(2) |
| **Test Device Serial No.:** | CNCKK2S0PL ☐ Production ☒ Pre-Production ☐ Engineering |

**Test Facility / Accreditations**

**Measurements were performed at MRT Laboratory located in Fuxing Rd., Taoyuan, Taiwan ( R.O.C )**

- **MRT facility is a FCC registered (Reg. No. 153292) test facility with the site description report on file and is designated by the FCC as an Accredited Test Film.**
- **MRT facility is an IC registered (MRT Reg. No. 21723-1) test laboratory with the site description on file at Industry Canada.**
- **MRT Lab is accredited to ISO 17025 by the American Association for Laboratory Accreditation (TAF) under the American Association for Laboratory Accreditation Program (TAF Cert. No. 3261) in EMC, Telecommunications and Radio testing for FCC, Industry Taiwan, EU and TELEC Rules.**

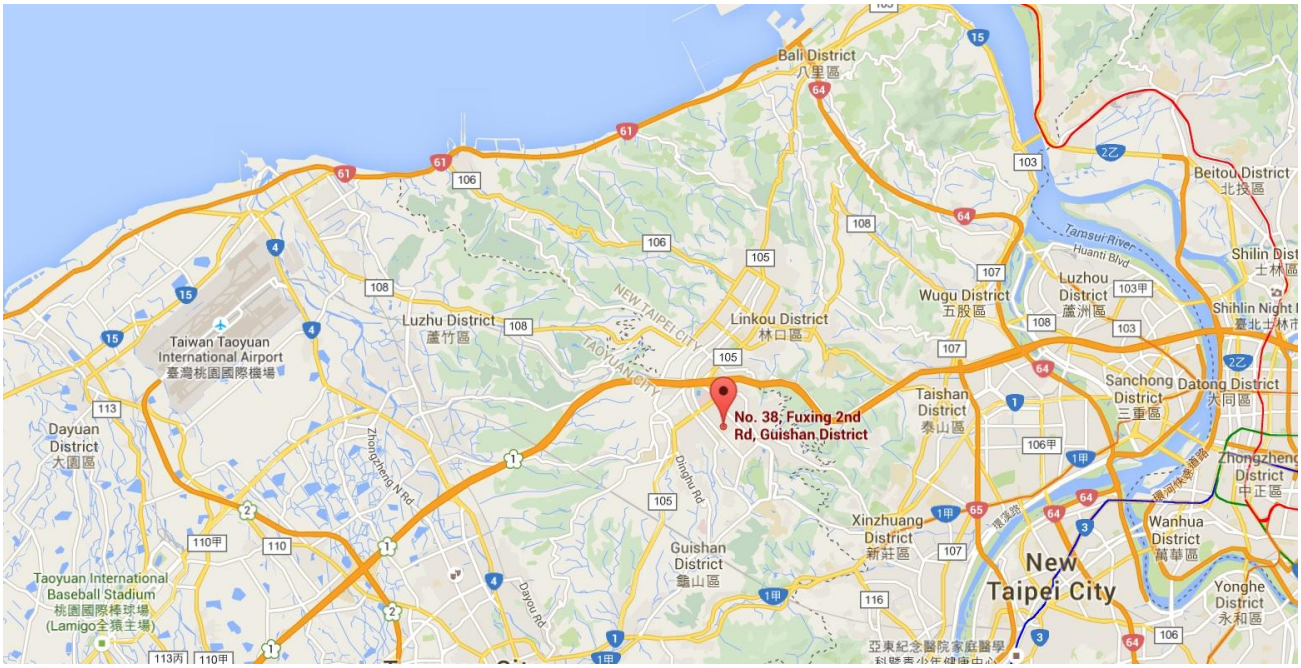
# 1. INTRODUCTION

## 1.1. Scope

Measurement and determination of electromagnetic emissions (EMC) of radio frequency devices including intentional and/or unintentional radiators for compliance with the technical rules and regulations of the Federal Communications Commission and the Industry Canada Certification and Engineering Bureau.

## 1.2. MRT Test Location

The map below shows the location of the MRT LABORATORY, its proximity to the Taoyuan City. These measurement tests were conducted at the MRT Technology (Taiwan) Co., Ltd. Facility located at No.38, Fuxing 2nd Rd., Guishan Dist., Taoyuan City 33377, Taiwan (R.O.C).



# 2. PRODUCT INFORMATION

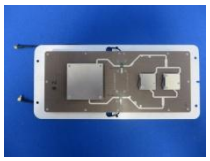
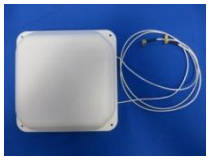
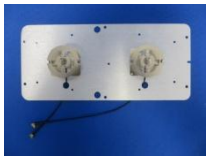
## 2.1. Equipment Description

| | |
|---|---|
| Product Name: | AC220 Wi-Fi AP OD directional antenna US<br>AC220 Wi-Fi AP OD external antenna US<br>AC220 Wi-Fi AP OD small omni antenna US |
| Model No.: | WO2C-AC220 |
| Brand Name: | NOKIA |
| Wi-Fi Specification: | 802.11a/b/g/n/ac |
| Frequency Range | **2.4GHz:**<br>For 802.11b/g/n-HT20: 2412 ~ 2462 MHz<br>For 802.11n-HT40: 2422 ~ 2452 MHz<br>**5GHz:**<br>For 802.11a/n-HT20/ac-VHT20:5180~5320MHz, 5500~5720MHz, 5745~5825MHz<br>For 802.11n-HT40/ac-VHT40:5190~5310MHz, 5510~5710MHz, 5755~5795MHz<br>For 802.11ac-VHT80:5210MHz, 5290MHz, 5530MHz, 5610MHz, 5690MHz, 5775MHz |
| Type of Modulation | 802.11b: DSSS, 802.11a/g/n/ac: OFDM |
| Modulation Type | CCK, DQPSK, DBPSK for DSSS<br>16QAM, 64QAM, 256QAM, QPSK, BPSK for OFDM |
| Power-on cycle | Requires 91.9 seconds to complete its power-on cycle |
| Uniform Spreading (For DFS Frequency Band) | For the 5250-5350MHz, 5470-5725 MHz bands, the Master device provides, on aggregate, uniform loading of the spectrum across all devices by selecting an operating channel among the available channels using a random algorithm. |

Note: The model difference as below:

- when the device has been connected the Galtronics Directional antenna, the product name is “AC220 Wi-Fi AP OD directional antenna US”;
- when the device has been connected the PCTEL antenna, the product name is “AC220 Wi-Fi AP OD external antenna US”;
- when the device has been connected the Galtronics Small Omni antenna, the product name is “AC220 Wi-Fi AP OD small omni antenna US”;

## 2.2. Description of Available Antennas

| Antenna | Manufacture | Frequency Band (MHz) | Antenna Type | Part Number |
|---|---|---|---|---|
|  | Galtronics | 2412 ~ 2472<br>5150 ~ 5250<br>5725 ~ 5850 | Directional Antenna | 02078140-06561U2 |
|  | PCTEL, Inc. | 2412 ~ 2472<br>5150 ~ 5850 | Panel Antenna | FPMI2458-DP2RPSMA |
|  | Galtronics | 2412 ~ 2472 | Small Omni Antenna | 02078140-06561U1 |

| Antenna Type | Frequency Band (MHz) | TX Paths | Per Chain Max Antenna Gain (dBi) | | Beam Forming Directional Gain (dBi) | CDD Directional Gain (dBi) | |
|---|---|---|---|---|---|---|---|
| | | | Ant 1 | Ant 2 | | For Power | For PSD |
| Directional Antenna | 2412 ~ 2462 | 2 | 9.00 | 9.00 | 12.01 | 9.00 | 12.01 |
| | 5150 ~ 5250 | 2 | 11.00 | 11.00 | 14.01 | 11.00 | 14.01 |
| | 5150 ~ 5250 30° elevation angle | 2 | 3.00 | 3.00 | 6.01 | 3.00 | N/A |
| | 5250 ~ 5350 | 2 | 11.00 | 11.00 | 14.01 | 11.00 | 14.01 |
| | 5470 ~ 5725 | 2 | 10.50 | 10.50 | 13.51 | 10.50 | 13.51 |
| | 5725 ~ 5850 | 2 | 10.00 | 10.00 | 13.01 | 10.00 | 13.01 |
| Panel Antenna | 2412 ~ 2462 | 2 | 6.00 | 6.00 | 9.01 | 6.00 | 9.01 |
| | 5150 ~ 5250 | 2 | 5.00 | 5.00 | 8.01 | 5.00 | 8.01 |
| | 5150 ~ 5250 30° elevation angle | 2 | 2.27 | 2.27 | 5.28 | 2.27 | N/A |
| | 5250 ~ 5350 | 2 | 5.00 | 5.00 | 8.01 | 5.00 | 8.01 |
| | 5470 ~ 5725 | 2 | 5.00 | 5.00 | 8.01 | 5.00 | 8.01 |
| | 5725 ~ 5850 | 2 | 5.00 | 5.00 | 8.01 | 5.00 | 8.01 |
| Small Omni Antenna | 2412 ~ 2462 | 2 | 5.25 | 5.25 | 8.26 | 5.25 | 8.26 |
| | 5150 ~ 5250 | 2 | 6.50 | 6.50 | 9.51 | 6.50 | 9.51 |
| | 5150 ~ 5250 30° elevation angle | 2 | -1.25 | -1.25 | 1.76 | -1.25 | N/A |
| | 5250 ~ 5350 | 2 | 6.50 | 6.50 | 9.51 | 6.50 | 9.51 |
| | 5470 ~ 5725 | 2 | 6.50 | 6.50 | 9.51 | 6.50 | 9.51 |
| | 5725 ~ 5850 | 2 | 6.50 | 6.50 | 9.51 | 6.50 | 9.51 |

Note:

1. The EUT supports Cyclic Delay Diversity (CDD) mode, and CDD signals are correlated.
   For CDD transmissions, directional gain is calculated as follows, $N_{ANT} = 2$, $N_{SS} = 1$.
   1) If all antennas have the same gain, $G_{ANT}$, Directional gain = $G_{ANT}$ + Array Gain, where Array Gain is as follows.
   - For power spectral density (PSD) measurements on all devices,
     Array Gain = 10 log ($N_{ANT}$/ $N_{SS}$) dB = 3.01;
   - For power measurements on IEEE 802.11 devices,
     Array Gain = 0 dB for $N_{ANT} \leq 4$;
   2) If antenna gains are not equal, the user may use either of the following methods to calculate directional gain, provided that each transmit antenna is driven by only one spatial stream:
   - Directional gain may be calculated by using the formulas applicable to equal gain antennas with $G_{ANT}$ set equal to the gain of the antenna having the highest gain;

- $DirectionalGain = 10 \cdot \log \left[ \frac{\sum_{j=1}^{N_{SS}} \left\{ \sum_{k=1}^{N_{ANT}} g_{j,k} \right\}^2}{N_{ANT}} \right]$

  $g_{j,k} = 10^{G_k/20}$ if the kth antenna is being fed by spatial stream j, or zero if it is not;

  $G_k$ is the gain in dBi of the kth antenna.

2. The EUT also supports Beam Forming mode, and the Beam Forming support 802.11n, not include 802.11a/ac.

   Correlated signals include, but are not limited to, signals transmitted in any of the following modes:

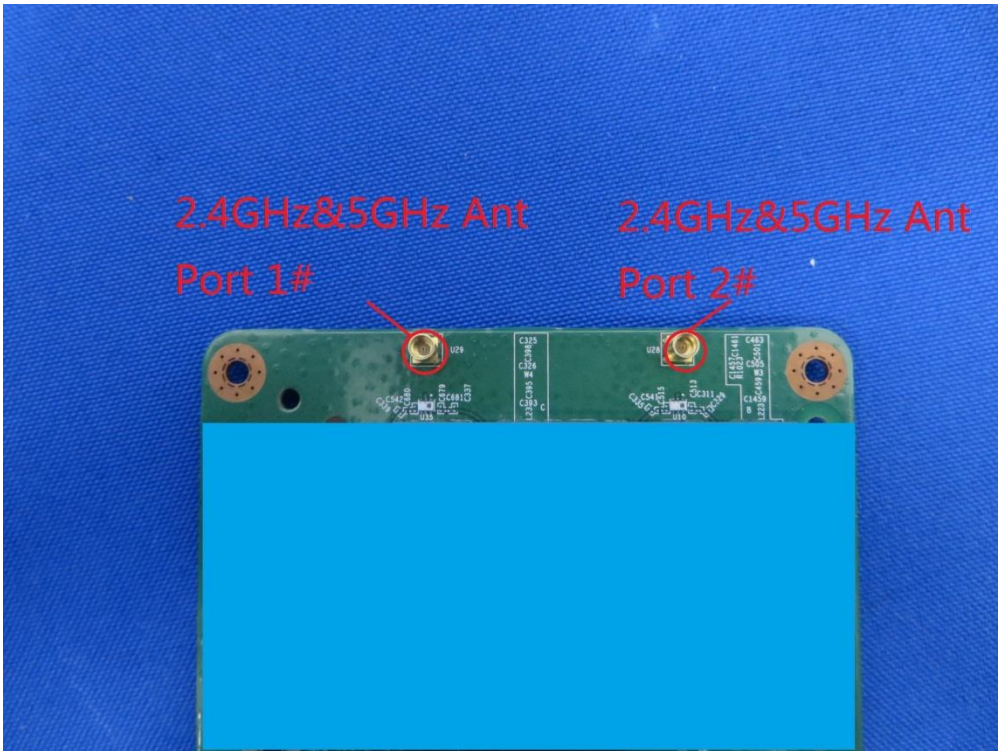
   - Any transmit Beam Forming mode, whether fixed or adaptive (e.g., phased array modes, closed loop MIMO modes, Transmitter Adaptive Antenna modes, Maximum Ratio Transmission (MRT) modes, and Statistical Eigen Beam Forming (EBF) modes).

   Unequal antenna gains, with equal transmit powers. For antenna gains given by $G_1$, $G_2$, …, $G_N$ dBi.

   - transmit signals are correlated, then
   - Directional gain = $10*\log[(10^{G1/20} + 10^{G2/20} + \ldots + 10^{GN/20})^2/N_{ANT}]$ dBi [Note the “20”s in the denominator of each exponent and the square of the sum of terms; the object is to combine the signal levels coherently.]

## 2.3. Description of Antenna RF Port

| Antenna RF Port | | | | |
|---|---|---|---|---|
| -- | 2.4GHz RF Port | | 5GHz RF Port | |
| Software Control Port | Ant 1 | Ant 2 | Ant 1 | Ant 2 |



## 2.4. DFS Band Carrier Frequencies Operation

802.11 a/n-HT20/ac-VHT20 Center Working Frequency of Each Channel

| Channel | Frequency | Channel | Frequency | Channel | Frequency |
|---|---|---|---|---|---|
| 52 | 5260 MHz | 56 | 5280 MHz | 60 | 5300 MHz |
| 64 | 5320 MHz | 100 | 5500 MHz | 104 | 5520 MHz |
| 108 | 5540 MHz | 112 | 5560 MHz | 116 | 5580 MHz |
| 120 | 5600 MHz | 124 | 5620 MHz | 128 | 5640 MHz |
| 132 | 5660 MHz | 136 | 5680 MHz | 140 | 5700 MHz |
| 144 | 5720 MHz | -- | -- | -- | -- |

802.11n-HT40/ ac-VHT40 Center Working Frequency of Each Channel

| Channel | Frequency | Channel | Frequency | Channel | Frequency |
|---|---|---|---|---|---|
| 54 | 5270 MHz | 62 | 5310 MHz | 102 | 5510 MHz |
| 110 | 5550 MHz | 118 | 5590 MHz | 126 | 5630 MHz |
| 134 | 5670 MHz | -- | -- | -- | -- |

802.11ac-VHT80 Center Working Frequency of Each Channel

| Channel | Frequency | Channel | Frequency | Channel | Frequency |
|---|---|---|---|---|---|
| 58 | 5290 MHz | 106 | 5530 MHz | 122 | 5610 MHz |
| 138 | 5690 MHz | -- | -- | -- | -- |

Note: The device can't operate in 5600~5650 MHz band in Canada (The frequency of blue font).

## 2.5. Test Mode

| | |
|---|---|
| Test Mode | Mode 1: Communication with Notebook |

# 3. DFS DETECTION THRESHOLDS AND RADAR TEST WAVEFORMS

## 3.1. Applicability

The following table from FCC KDB 905462 D02 UNII DFS Compliance Procedures New Rules v02 lists the applicable requirements for the DFS testing.

| Requirement | Operational Mode | | |
|---|---|---|---|
| | Master | Client Without Radar Detection | Client With Radar Detection |
| Non-Occupancy Period | Yes | Not required | Yes |
| DFS Detection Threshold | Yes | Not required | Yes |
| Channel Availability Check Time | Yes | Not required | Not required |
| U-NII Detection Bandwidth | Yes | Not required | Yes |

**Table 3-1: Applicability of DFS Requirements Prior to Use of a Channel**

| Requirement | Operational Mode | |
|---|---|---|
| | Master Device or Client With Radar Detection | Client Without Radar Detection |
| DFS Detection Threshold | Yes | Not required |
| Channel Closing Transmission Time | Yes | Yes |
| Channel Move Time | Yes | Yes |
| U-NII Detection Bandwidth | Yes | Not required |

| Additional requirements for devices with multiple bandwidth modes | Master Device or Client with Radar Detection | Client Without Radar Detection |
|---|---|---|
| U-NII Detection Bandwidth and Statistical Performance Check | All BW modes must be tested | Not required |
| Channel Move Time and Channel Closing Transmission Time | Test using widest BW mode available | Test using the widest BW mode available for the link |
| All other tests | Any single BW mode | Not required |
| Note: Frequencies selected for statistical performance check should include several frequencies within the radar detection bandwidth and frequencies near the edge of the radar detection bandwidth. For 802.11 devices it is suggested to select frequencies in each of the bonded 20 MHz channels and the channel center frequency. | | |

**Table 3-2: Applicability of DFS Requirements during normal operation**

## 3.2. DFS Devices Requirements

**Per FCC KDB 905462 D02 UNII DFS Compliance Procedures New Rules v02 the following are the requirements for Master Devices:**

(a) The Master Device will use DFS in order to detect Radar Waveforms with received signal strength above the DFS Detection Threshold in the 5250 ~ 5350 MHz and 5470 ~ 5725 MHz bands. DFS is not required in the 5150 ~ 5250 MHz or 5725 ~ 5825 MHz bands.

(b) Before initiating a network on a Channel, the Master Device will perform a Channel Availability Check for a specified time duration (Channel Availability Check Time) to ensure that there is no radar system operating on the Channel, using DFS described under subsection a) above.

(c) The Master Device initiates a U-NII network by transmitting control signals that will enable other U-NII devices to Associate with the Master Device.

(d) During normal operation, the Master Device will monitor the Channel (In-Service Monitoring) to ensure that there is no radar system operating on the Channel, using DFS described under a).

(e) If the Master Device has detected a Radar Waveform during In-Service Monitoring as described under d), the Operating Channel of the U-NII network is no longer an Available Channel. The Master Device will instruct all associated Client Device(s) to stop transmitting on this Channel within the Channel Move Time. The transmissions during the Channel Move Time will be limited to the Channel Closing Transmission Time.

(f) Once the Master Device has detected a Radar Waveform it will not utilize the Channel for the duration of the Non-Occupancy Period.

(g) If the Master Device delegates the In-Service Monitoring to a Client Device, then the combination will be tested to the requirements described under d) through f) above.

**Channel Move Time and Channel Closing Transmission Time requirements are listed in the following table.**

| Parameter | Value |
|---|---|
| Non-occupancy period | Minimum 30 minutes |
| Channel Availability Check Time | 60 seconds |
| 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. |
| U-NII Detection Bandwidth | Minimum 100% of the U-NII 99% transmission power bandwidth. See Note 3. |
| 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.<br>Note 3: During the U-NII Detection Bandwidth detection test, radar type 0 should be used. For each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic. |

**Table 3-3: DFS Response Requirements**

## 3.3. DFS Detection Threshold Values

The DFS detection thresholds are defined for Master devices and Client Devices with In-service monitoring. These detection thresholds are listed in the following table.

| **Maximum Transmit Power** | **Value**<br>**(See Notes 1, 2, and 3)** |
|---|---|
| EIRP ≥ 200 milliwatt | -64 dBm |
| EIRP < 200 milliwatt and<br>power spectral density < 10 dBm/MHz | -62 dBm |
| EIRP < 200 milliwatt that do not meet the power spectral density requirement | -64 dBm |
| **Note 1:** This is the level at the input of the receiver assuming a 0 dBi receive antenna.<br>**Note 2:** Throughout these test procedures an additional 1 dB has been added to the amplitude of the test transmission waveforms to account for variations in measurement equipment. This will ensure that the test signal is at or above the detection threshold level to trigger a DFS response.<br>**Note3:** EIRP is based on the highest antenna gain. For MIMO devices refer to KDB Publication 662911 D01. | |

**Table 3-4: Detection Thresholds for Master Devices and Client Devices with Radar Detection**

## 3.4. Parameters of DFS Test Signals

This section provides the parameters for required test waveforms, minimum percentage of successful detections, and the minimum number of trials that must be used for determining DFS conformance. 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 3-6 | $\text{Roundup}\left\{\left(\frac{1}{360}\right)\cdot\left(\frac{19\cdot 10^6}{\text{PRI}_{\text{usec}}}\right)\right\}$ | 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 |
| **Note 1:** Short Pulse Radar Type 0 should be used for the detection bandwidth test, channel move time, and channel closing time tests. | | | | | |

**Table 3-5: Parameters for Short Pulse Radar Waveforms**

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 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 |

**Table 3-6: Pulse Repetition Intervals Values for Test A**

**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 |

**Table 3-7: Parameters for Long Pulse Radar Waveforms**

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.

**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 |

**Table 3-8: Parameters for Frequency Hopping Radar Waveforms**

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 – 5724MHz. 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.

## 3.5. Conducted Test Setup

The FCC KDB 905462 D02 UNII DFS Compliance Procedures New Rules v02 describes a radiated test setup and a conducted test setup. The conducted test setup was used for this testing. Figure 3-1 shows the typical test setup.

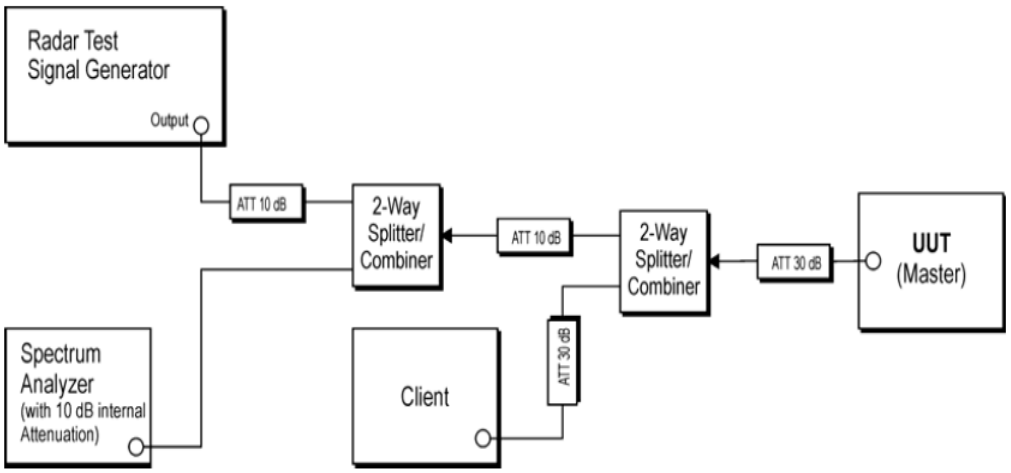



**Figure 3-1: Conducted Test Setup where UUT is a Master and Radar Test Waveforms are injected into the Masters**

# 4. TEST EQUIPMENT CALIBRATION DATE

Dynamic Frequency Selection (DFS) – TR3

| Instrument | Manufacturer | Type No. | Asset No. | Cali. Interval | Cali. Due Date |
|---|---|---|---|---|---|
| EXA Signal Analyzer | KEYSIGHT | N9010A | MRTTWA00012 | 1 year | 2018/07/10 |
| MXG X-Series Microwave Analog Signal Generator | KEYSIGHT | N5183B | MRTTWA00013 | 1 year | 2018/04/17 |
| Temperature/Humidity Meter | TFA | 35.1078.10.IT | MRTTWA00033 | 1 year | 2018/06/08 |
| Combiner | WOKEN | 0120N02208001D | MRTTWA00040 | 1 year | N/A |
| Broadband Hornantenna | SCHWARZBECK | BBHA 9120D | MRTTWA00003 | 1 year | 2018/04/05 |

Client Information

| Instrument | Manufacturer | Type No. |
|---|---|---|
| Wireless Network Adapter | Intel | 7260HMW |

| Software | Version | Manufacturer | Function |
|---|---|---|---|
| Pulse Building | N/A | Agilent | Radar Signal Generation Software |
| DFS Tool | V 6.9.2 | Agilent | DFS Test Software |

# 5. TEST RESULT

## 5.1. Summary

**Company Name:** **Nokia Solutions and Networks OY**

**FCC ID:** **2AD8UFZCWO2CA1**

| Parameter | Limit | Test Result | Reference |
|---|---|---|---|
| UNII Detection Bandwidth Measurement | Refer Table 3-3 | Pass | Section 5.4 |
| Initial Channel Availability Check Time | Refer Table 3-3 | Pass | Section 5.5 |
| Radar Burst at the Beginning of the Channel Availability Check Time | Refer Table 3-3 | Pass | Section 5.6 |
| Radar Burst at the End of the Channel Availability Check Time | Refer Table 3-3 | Pass | Section 5.7 |
| In-Service Monitoring for Channel Move Time, Channel Closing Transmission Time | Refer Table 3-3 | Pass | Section 5.8 |
| Non-Occupancy Period | Refer Table 3-3 | Pass | Section 5.8 |
| Statistical Performance Check | Refer Table 3-3 | Pass | Section 5.9 |

## 5.2. Radar Waveform Calibration

### 5.2.1. Calibration Setup

The conducted test setup was used for this calibration testing. Figure 3-2 shows the typical test setup.

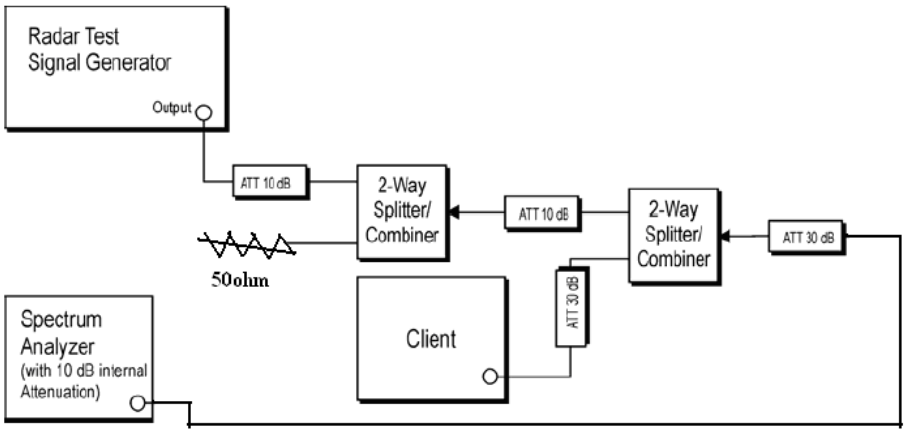


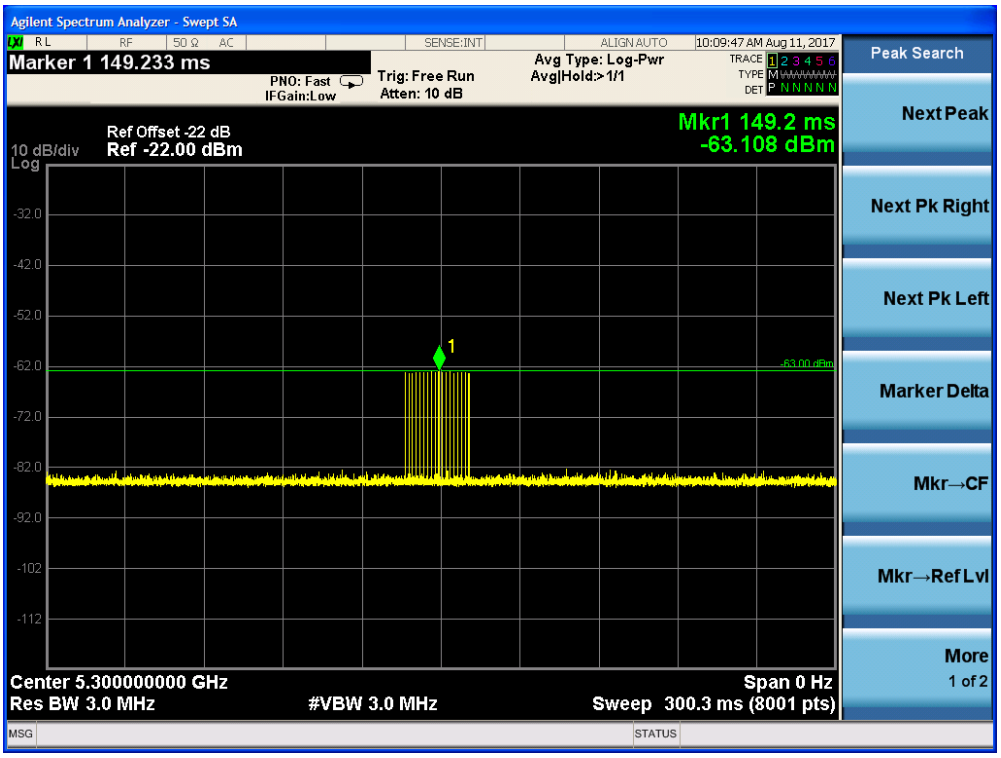

**Figure 3-2: Conducted Test Setup**

### 5.2.2. Calibration Procedure

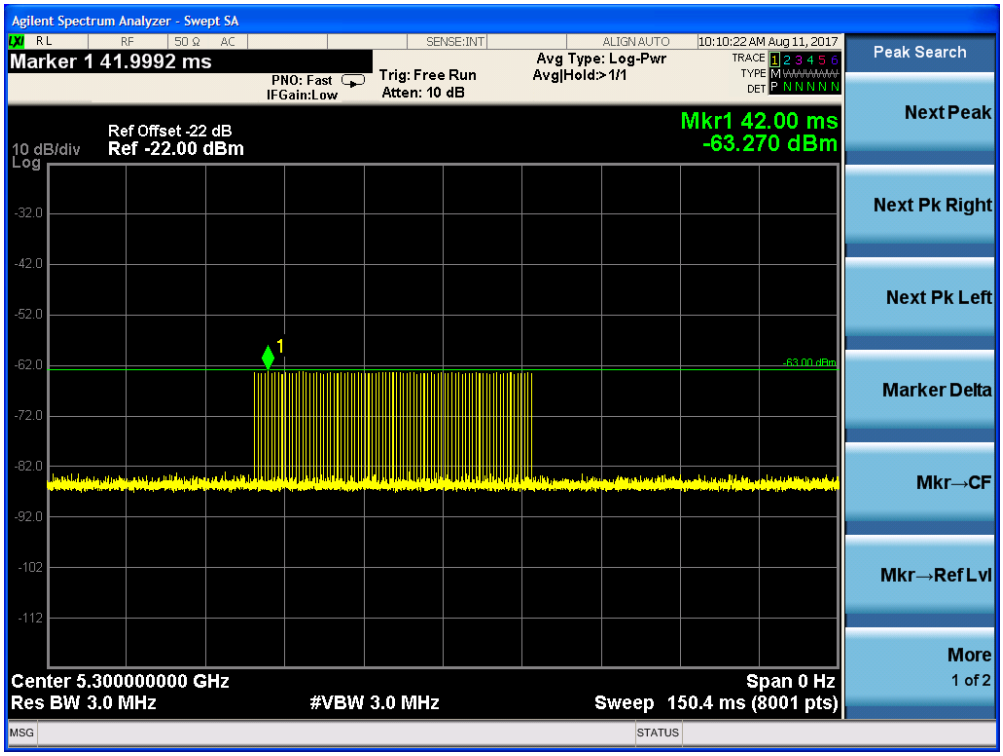
The Interference Radar Detection Threshold Level is (-64dBm) + (0) [dBi] + 1 dB= -63 dBm that had been taken into account the output power range and antenna gain. The above equipment setup was used to calibrate the conducted Radar Waveform. A vector signal generator was utilized to establish the test signal level for each radar type. During this process there were replace 50ohm terminal form Master and Client device and no transmissions by either the Master or Client Device. The spectrum analyzer was switched to the zero span (Time Domain) at the frequency of the Radar Waveform generator. Peak detection was used. The spectrum analyzer resolution bandwidth (RBW) and video bandwidth (VBW) were set to at least 3MHz. The vector signal generator amplitude was set so that the power level measured at the spectrum analyzer was (-64dBm) + (0) [dBi] + 1 dB= -63dBm. Capture the spectrum analyzer plots on short pulse radar types, long pulse radar type and hopping radar waveform.

### 5.2.3. Cablibration Result

Radar #0 DFS detection threshold level and the burst of pulses on the Channel frequency

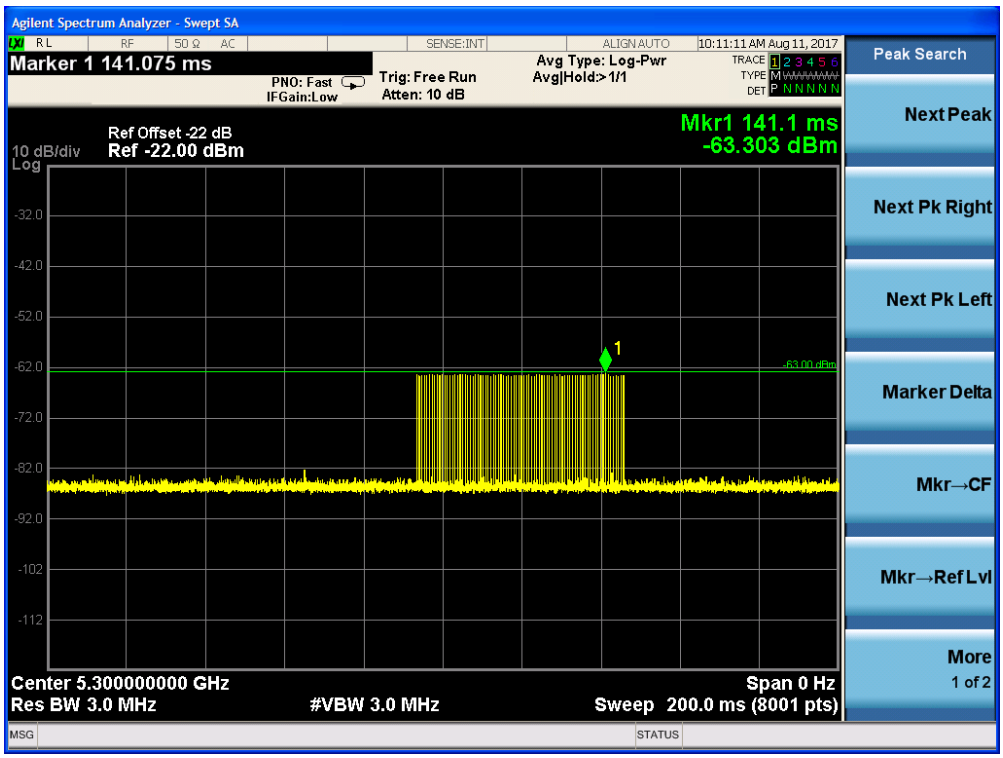



Radar #1(Test A) DFS detection threshold level and the burst of pulses on the Channel frequency



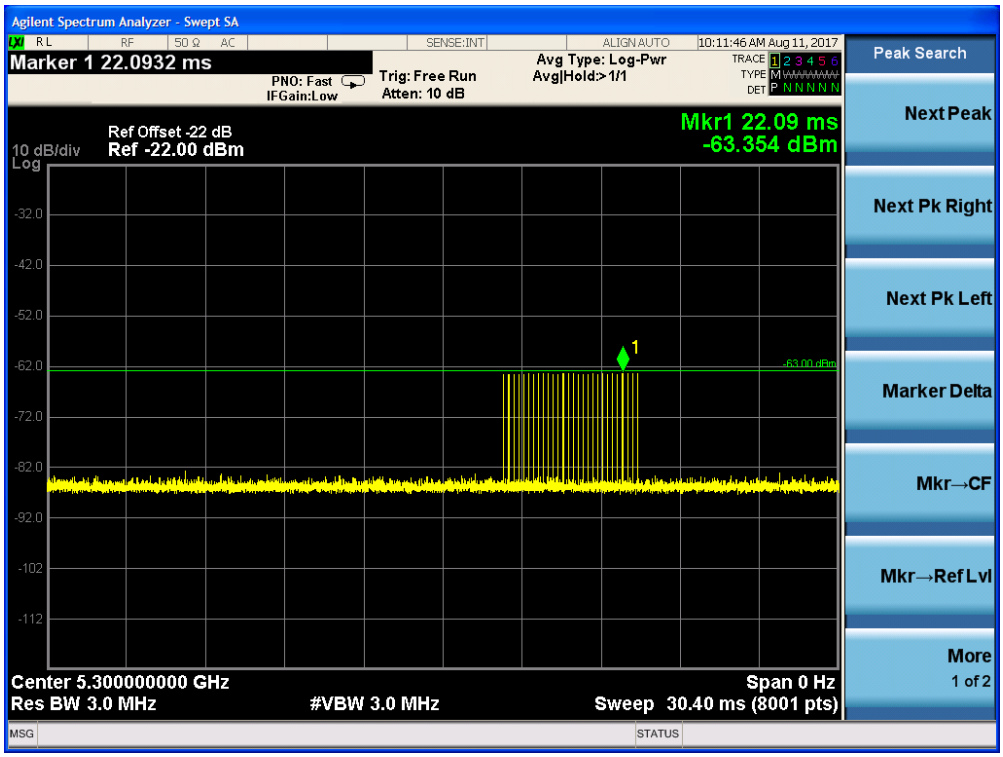

PRI = 658us and the number of pulses = 81

Radar #1(Test B) DFS detection threshold level and the burst of pulses on the Channel frequency

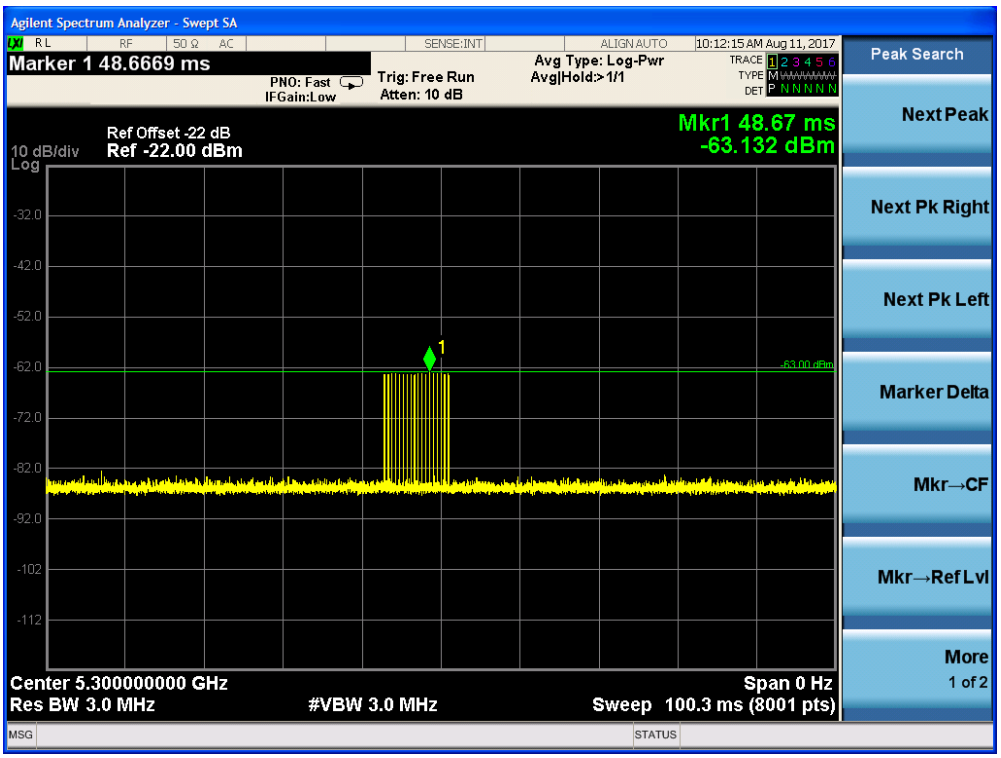



PRI = 1.071ms and the number of pulses = 50

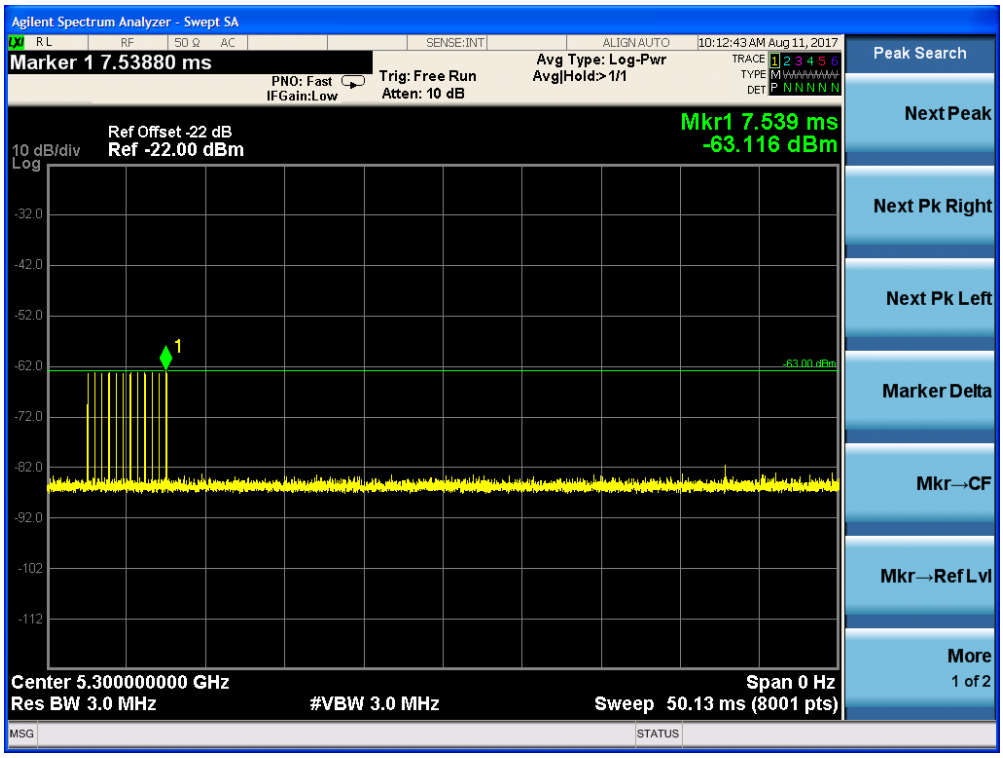
Radar #2 DFS detection threshold level and the burst of pulses on the Channel frequency



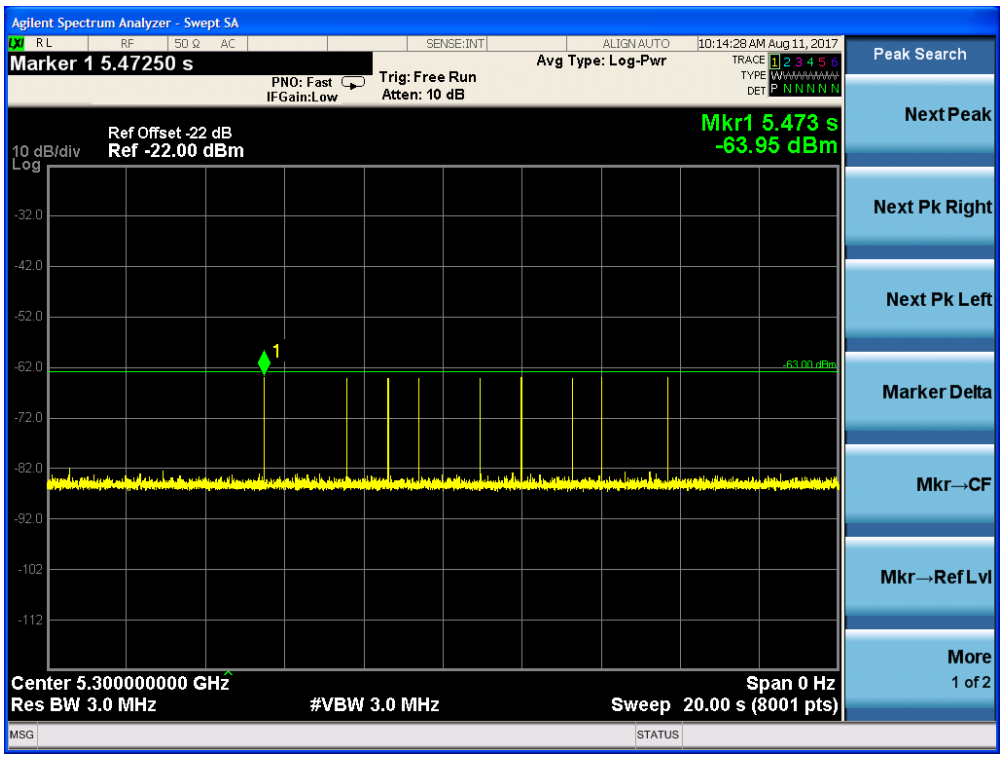
Radar #3 DFS detection threshold level and the burst of pulses on the Channel frequency



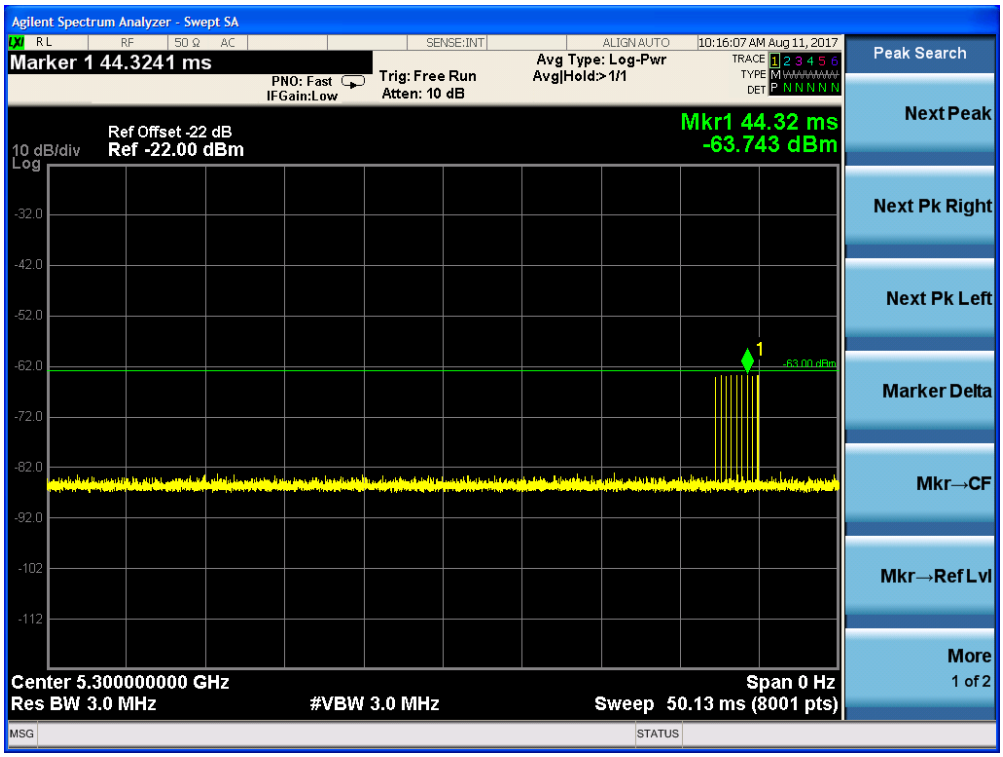

Radar #4 DFS detection threshold level and the burst of pulses on the Channel frequency



Radar #5 DFS detection threshold level and 12sec long burst on the Channel frequency

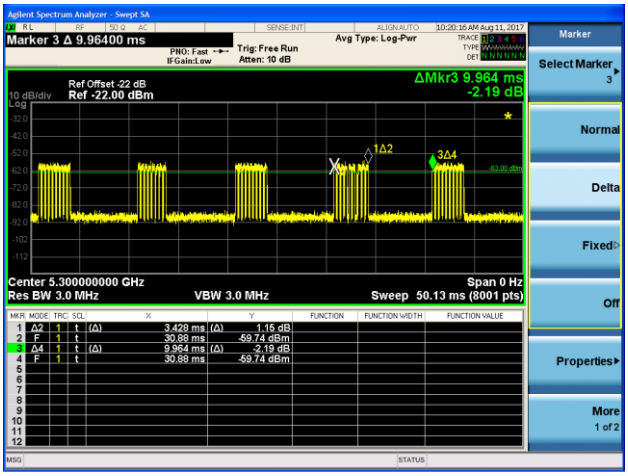
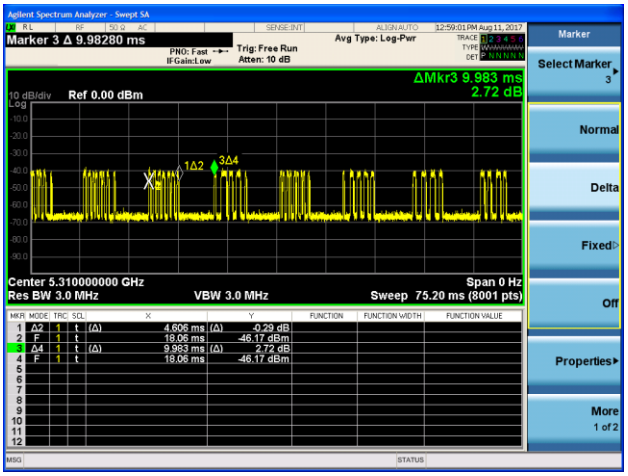
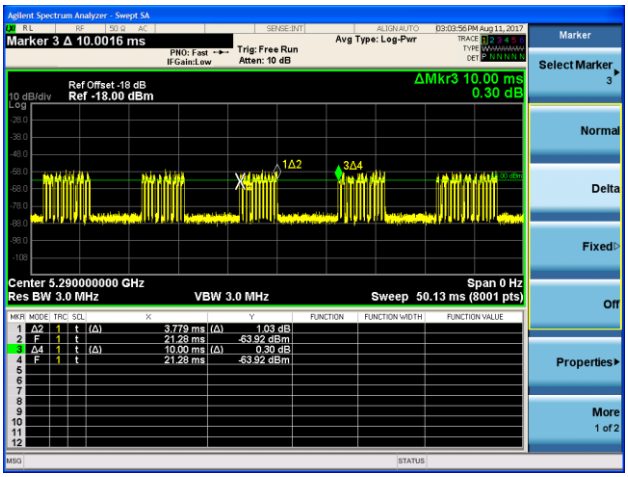



Radar #6 DFS detection threshold level and a single hop (9 pulses) on the Channel frequency within UNII detection bandwidth



### 5.2.4. Channel Loading Test Result

System testing was performed with the designated MPEG test file that streams full motion video from the EUT to the Client in full motion video mode using the media player with the V2.61 Codec package. This file is used by IP and Frame based systems for loading the test channel during the In-service compliance testing of the U-NII device. Packet ratio = Time On / (Time On + Off Time).

| Channel Loading Plot | |
|---|---|
| 802.11a 5300MHz | 802.11n-HT40 5310MHz |
|  |  |
| 802.11ac-VHT80 5290MHz | |
|  | |







| Test Mode | Test Frequency | Packet ratio | Requirement ratio | Test Result |
|---|---|---|---|---|
| 802.11a | 5300 MHz | 34.40% | ≥ 17% | Pass |
| 802.11n-HT40 | 5310 MHz | 46.14% | ≥ 17% | Pass |
| 802.11ac-VHT80 | 5290 MHz | 37.79% | ≥ 17% | Pass |

## 5.3. UNII Detection Bandwidth Measurement

### 5.3.1. Test Limit

Minimum 100% of the UNII 99% transmission power bandwidth. During the U-NII Detection Bandwidth detection test, each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic.

### 5.3.2. Test Procedure

1. Adjust the equipment to produce a single Burst of any one of the Short Pulse Radar Types 0-4 in Table 3-5 at the center frequency of the EUT Operating Channel at the specified DFS Detection Threshold level.
2. The generating equipment is configured as shown in the Conducted Test Setup above section 3.5.
3. The EUT is set up as a stand-alone device (no associated Client or Master, as appropriate) and no traffic. Frame based systems will be set to a talk/listen ratio reflecting the worst case (maximum) that is user configurable during this test.
4. Generate a single radar Burst, and note the response of the EUT. Repeat for a minimum of 10 trials. The EUT must detect the Radar Waveform using the specified U-NII Detection Bandwidth criterion shown in Table 3-5. In cases where the channel bandwidth may exceed past the DFS band edge on specific channels (i.e., 802.11ac or wideband frame based systems) select a channel that has the entire emission bandwidth within the DFS band. If this is not possible, test the detection BW to the DFS band edge.
5. Starting at the center frequency of the UUT operating Channel, increase the radar frequency in 5 MHz steps, repeating the above test sequence, until the detection rate falls below the U-NII Detection Bandwidth criterion specified in Table 3-3. Repeat this measurement in 1MHz steps at frequencies 5 MHz below where the detection rate begins to fall. Record the highest frequency (denote as FH) at which detection is greater than or equal to the U-NII Detection Bandwidth criterion. Recording the detection rate at frequencies above FH is not required to demonstrate compliance.
6. Starting at the center frequency of the EUT operating Channel, decrease the radar frequency in 1 MHz steps, repeating the above item 4 test sequence, until the detection rate falls below the U-NII Detection Bandwidth criterion. Record the lowest frequency (denote as FL) at which detection is greater than or equal to the U-NII Detection Bandwidth criterion. Recording the detection rate at frequencies below FL is not required to demonstrate compliance.
7. The U-NII Detection Bandwidth is calculated as follows: U-NII Detection Bandwidth = FH – FL
8. The U-NII Detection Bandwidth must be at least 100% of the EUT transmitter 99% power, otherwise, the EUT does not comply with DFS requirements.

### 5.3.3. Test Result

| EUT Frequency = 5300MHz for 802.11a | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Radar Frequency (MHz)** | **DFS Detection Trials (1=Detection, 0= No Detection)** | | | | | | | | | | |
| | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **Detection Rate (%)** |
| 5290 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0% |
| 5291 FL | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5292 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5293 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5294 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5295 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5300 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5305 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5306 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5307 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5308 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5309 FH | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5310 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0% |
| Detection Bandwidth = FH - FL = 5309MHz - 5291MHz = 18MHz | | | | | | | | | | | |
| EUT 99% Bandwidth = 16.57MHz (see note) | | | | | | | | | | | |
| UNII Detection Bandwidth Min. Limit (MHz): 16.57MHz x 100% = 16.57MHz | | | | | | | | | | | |

Note: All UNII channels for this device have identical Channel bandwidths. Therefore, all DFS testing was done at 5300MHz. The 99% channel bandwidth is 16.57MHz. (See the 99% BW section of the RF report for further measurement details).

| EUT Frequency = 5310MHz for 802.11n-HT40 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Radar Frequency** | **DFS Detection Trials (1=Detection, 0= No Detection)** | | | | | | | | | | |
| **(MHz)** | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **Detection Rate (%)** |
| 5290 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0% |
| 5291 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0% |
| 5292 FL | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5293 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5294 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5295 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5300 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5305 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5310 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5315 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5320 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5325 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5326 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5327 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5328 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5329 FH | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5330 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0% |
| Detection Bandwidth = FH - FL = 5329MHz - 5292MHz = 37MHz | | | | | | | | | | | |
| EUT 99% Bandwidth = 35.97MHz (see note) | | | | | | | | | | | |
| UNII Detection Bandwidth Min. Limit (MHz): 35.97MHz x 100% = 35.97MHz | | | | | | | | | | | |

Note: All UNII channels for this device have identical Channel bandwidths. Therefore, all DFS testing was done at 5310MHz. The 99% channel bandwidth is 35.97MHz. (See the 99% BW section of the RF report for further measurement details).

| EUT Frequency = 5290MHz for 802.11ac-VHT80 | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Radar Frequency (MHz) | DFS Detection Trials (1=Detection, 0= No Detection) | | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | Detection Rate (%) |
| 5250 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0% |
| 5251 FL | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5252 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5253 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5254 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5255 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5260 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5265 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5270 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5275 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5280 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5285 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5290 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5295 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5300 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5305 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5310 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5315 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5320 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5325 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5326 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5327 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5328 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5329 FH | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 100% |
| 5330 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0% |
| Detection Bandwidth = FH - FL = 5329MHz - 5251MHz = 78MHz | | | | | | | | | | | |
| EUT 99% Bandwidth = 75.82MHz (see note) | | | | | | | | | | | |
| UNII Detection Bandwidth Min. Limit (MHz): 75.82MHz x 100% = 75.82MHz | | | | | | | | | | | |

Note: All UNII channels for this device have identical Channel bandwidths. Therefore, all DFS testing was done at 5290MHz. The 99% channel bandwidth is 75.82MHz. (See the 99% BW section of the RF report for further measurement details).

## 5.4. Initial Channel Availability Check Time Measurement

### 5.4.1. Test Limit

The EUT shall perform a Channel Availability Check to ensure that there is no radar operating on the channel. After power-up sequence, receive at least 1 minute on the intended operating frequency.

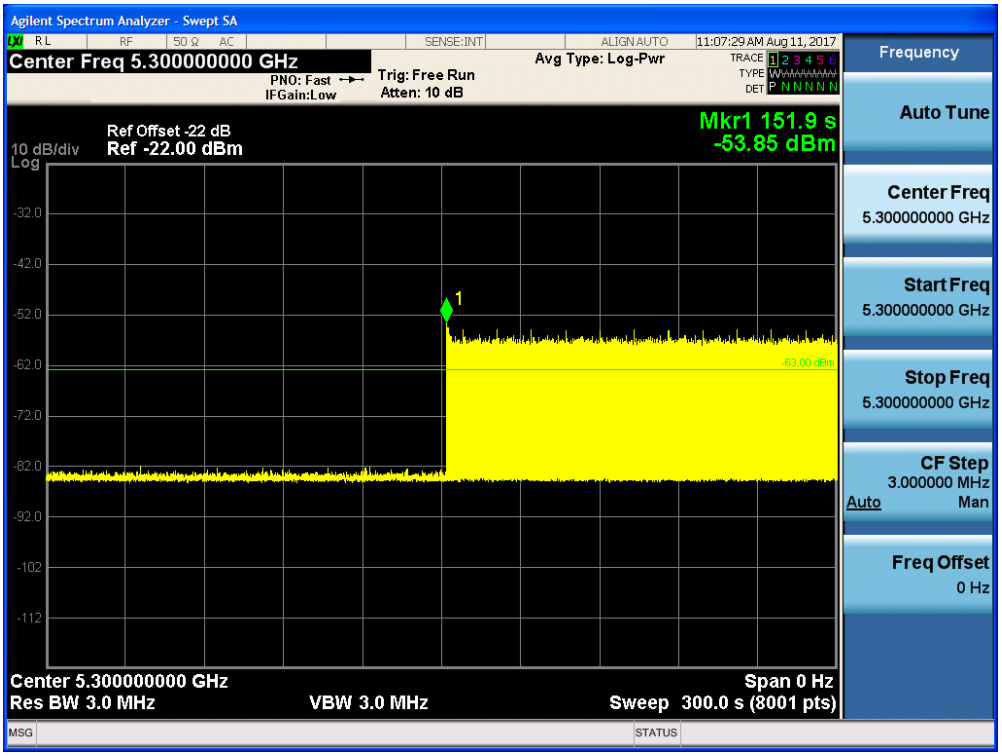
### 5.4.2. Test Procedure

1. The U-NII devices will be powered on and be instructed to operate on the appropriate U-NII Channel that must incorporate DFS functions. At the same time the EUT is powered on, the spectrum analyzer will be set to zero span mode with a 3 MHz RBW and 3 MHz VBW on the Channel occupied by the radar (Chr) with a 2.5 minute sweep time. The spectrum analyzer's sweep will be started at the same time power is applied to the U-NII device.
2. The EUT should not transmit any beacon or data transmissions until at least 1 minute after the completion of the power-on cycle.
3. Confirm that the EUT initiates transmission on the channel. Measurement system showing its nominal noise floor is marker1.

### 5.4.3. Test Result

The EUT does not transmit any beacon or data transmissions until at least 1 minute after the completion of the power-on cycle (91.9 sec). Initial beacons/data transmissions are indicated by marker 1 (151.9 sec).

Initial Channel Availability Check Time for 802.11a



## 5.5. Radar Burst at the Beginning of the Channel Availability Check Time Measurement

### 5.5.1. Test Limit

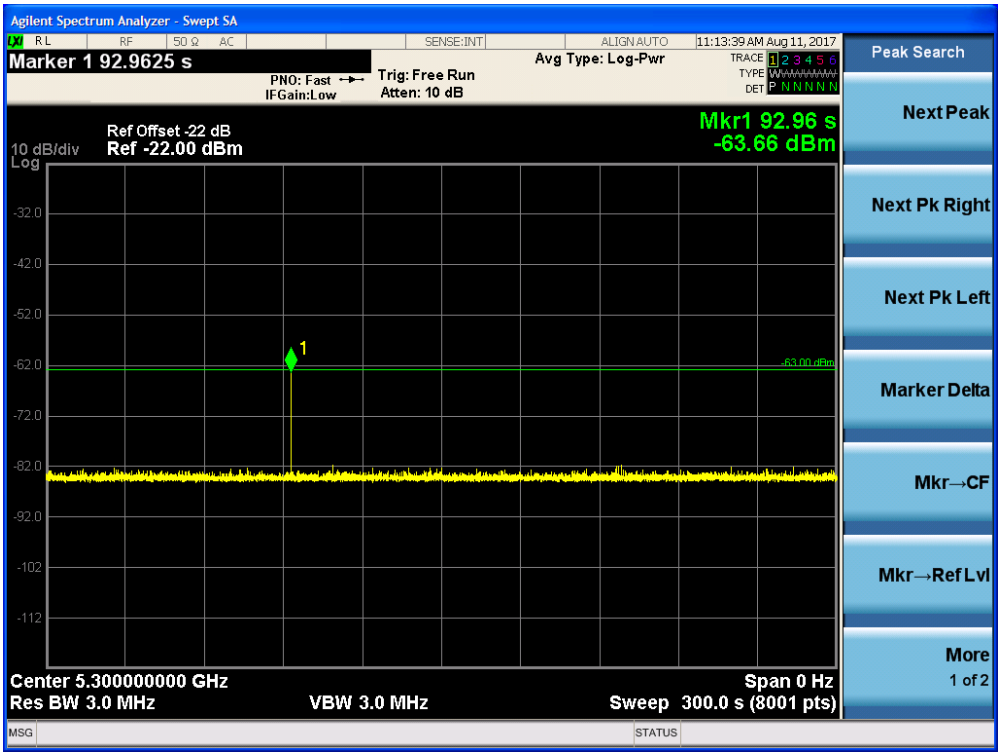
In beginning of the Channel Availability Check (CAC) Time, radar is detected on this channel, select another intended channel and perform a CAC on that channel.

### 5.5.2. Test Procedure

1. The steps below define the procedure to verify successful radar detection on the selected Channel during a period equal to the Channel Availability Check Time and avoidance of operation on that Channel when a radar Burst with a level equal to the DFS Detection Threshold + 1 dB occurs at the beginning of the Channel Availability Check Time.
2. The EUT is in completion power-up cycle (from T0 to T1). T1 denotes the instant when the EUT has completed its power-up sequence. The Channel Availability Check Time commences at instant T1 and will end no sooner than T1 + 60 seconds. A single Burst of one of Short Pulse Radar Types 0-4 at DFS Detection Threshold + 1 dB will commence within a 6 second window starting at T1.
3. Visual indication on the EUT of successful detection of the radar Burst will be recorded and reported. Observation of emissions will continue for 2.5 minutes after the radar Burst has been generated. Verify that during the 2.5 minutes measurement window no EUT transmissions occurred.

### 5.5.3. Test Result

Radar Burst at the Beginning of the Channel Availability Check Time for 802.11a



## 5.6. Radar Burst at the End of the Channel Availability Check Time Measurement

### 5.6.1. Test Limit

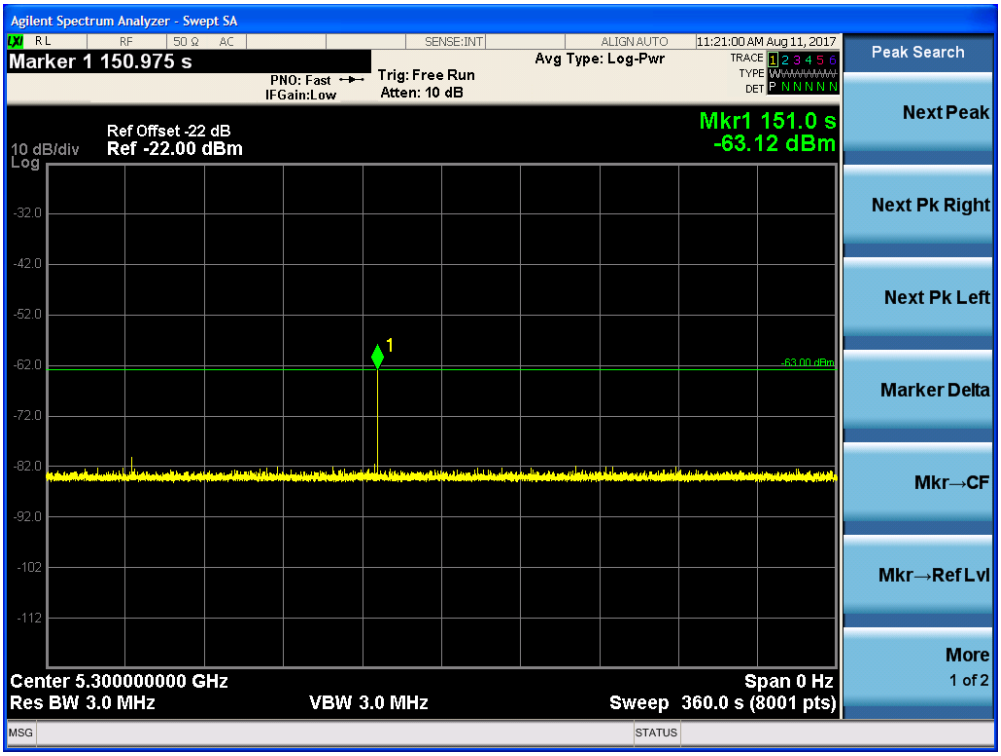
In the end of Channel Availability Check (CAC) Time, radar is detected on this channel, select another intended channel and perform a CAC on that channel.

### 5.6.2. Test Procedure

1. The steps below define the procedure to verify successful radar detection on the selected Channel during a period equal to the Channel Availability Check Time and avoidance of operation on that Channel when a radar Burst with a level equal to the DFS Detection Threshold + 1 dB occurs at the beginning of the Channel Availability Check Time.
2. The EUT is powered on at T0. T1 denotes the instant when the EUT has completed its power-up sequence. The Channel Availability Check Time commences at instant T1 and will end no sooner thanT1 + 60 seconds. A single Burst of one of Short Pulse Radar Types 0-4 at DFS Detection Threshold + 1 dB will commence within a 6 second window starting at T1+ 54 seconds.
3. Visual indication on the EUT of successful detection of the radar Burst will be recorded and reported. Observation of emissions will continue for 2.5 minutes after the radar Burst has been generated. Verify that during the 2.5 minutes measurement window no EUT transmissions occurred.

### 5.6.3. Test Result

Radar Burst at the End of the Channel Availability Check Time for 802.11a



## 5.7. In-Service Monitoring for Channel Move Time, Channel Closing Transmission Time and Non-Occupancy Period Measurement

### 5.7.1. Test Limit

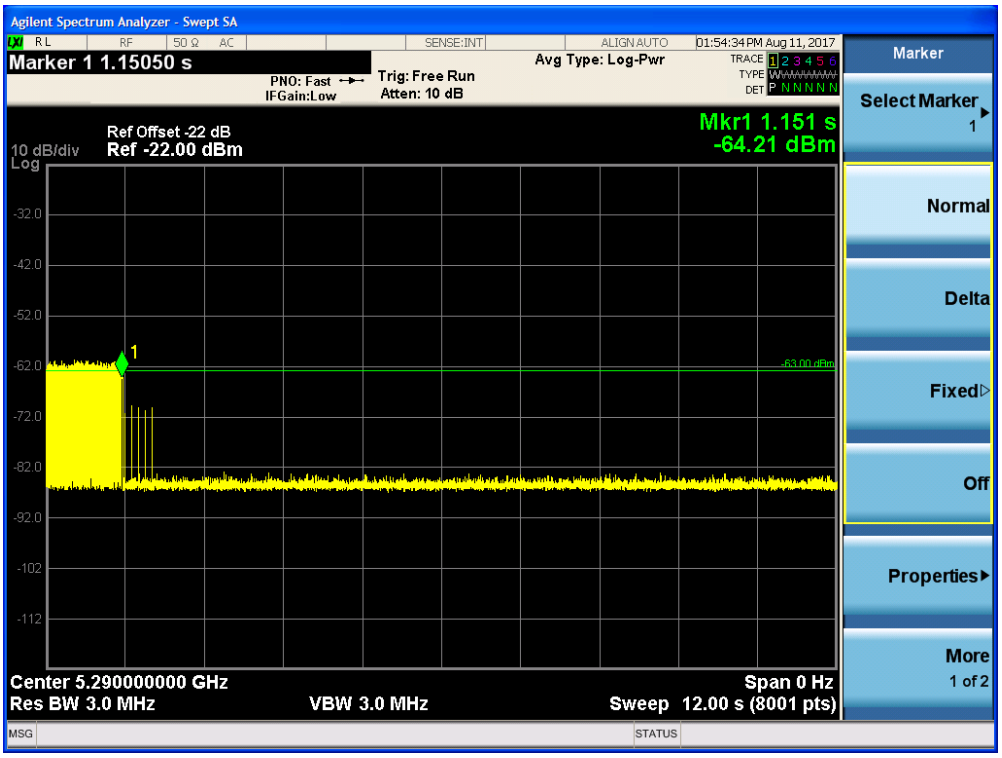
The EUT has In-Service Monitoring function to continuously monitor the radar signals. If the radar is detected, must leave the channel (Shutdown). The Channel Move Time to cease all transmissions on the current channel upon detection of a Radar Waveform above the DFS Detection Threshold within 10 sec. The total duration of Channel Closing Transmission Time is 260ms, consisting of data signals and the aggregate of control signals, by a U-NII device during the Channel Move Time. The Non-Occupancy Period time is 30 minute during which a Channel will not be utilized after a Radar Waveform is detected on that Channel.

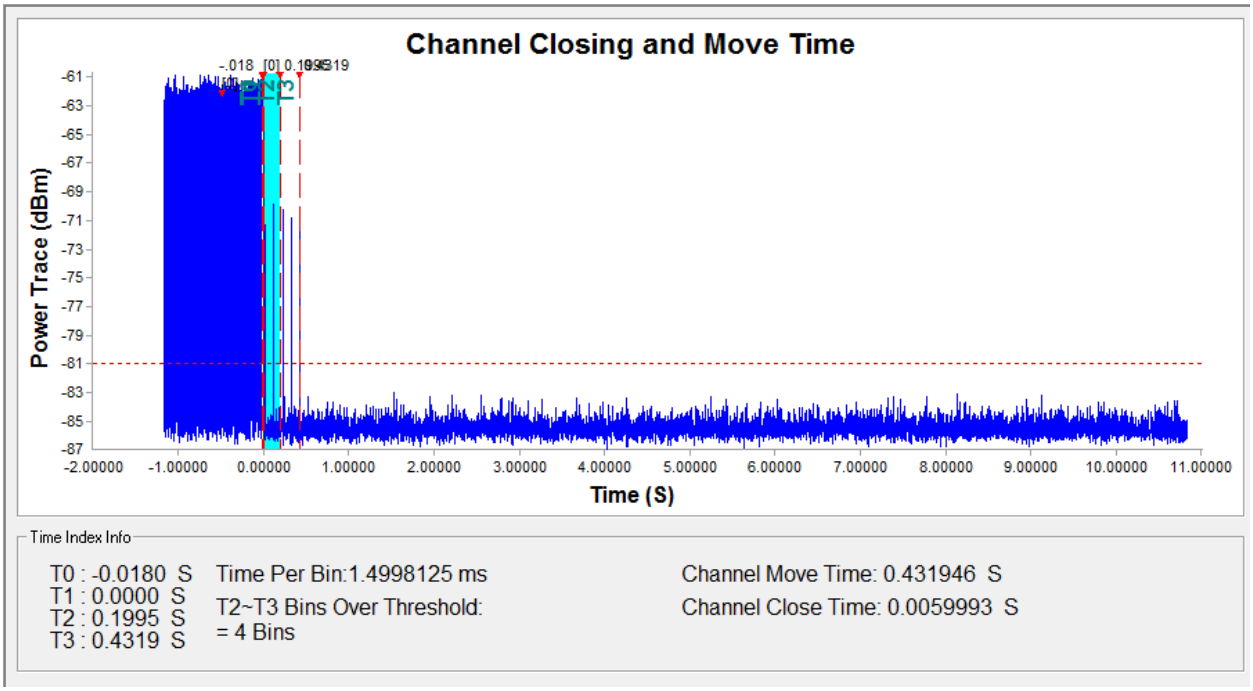
### 5.7.2. Test Procedure Used

1. The test should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0.
2. When the radar burst with a level equal to the DFS Detection Threshold + 1dB is generated on the Operating Channel of the U-NII device. A U-NII device operating as a Master Device will associate with the Client Device at Channel. Stream the MPEG test file from the Master Device to the Client Device on the selected Channel for the entire period of the test. At time T0 the Radar Waveform generator sends a Burst of pulses for each of the radar types at Detection Threshold + 1dB.
3. Observe the transmissions of the EUT at the end of the radar Burst on the Operating Channel. Measure and record the transmissions from the EUT during the observation time (Channel Move Time).
4. Measurement of the aggregate duration of the Channel Closing Transmission Time method. With the spectrum analyzer set to zero span tuned to the center frequency of the EUT operating channel at the radar simulated frequency, peak detection, and max hold, the dwell time per bin is given by: Dwell (1.5ms) = S (12 sec) / B (8000); where Dwell is the dwell time per spectrum analyzer sampling bin, S is the sweep time and B is the number of spectrum analyzer sampling bins. An upper bound of the aggregate duration of the intermittent control signals of Channel Closing Transmission Time is calculated by: C = N X Dwell; where C is the Closing Time, N is the number of spectrum analyzer sampling bins showing a U-NII transmission and Dwell is the dwell time per bin.
5. Measure the EUT for more than 30 minutes following the channel close/move time to verify that the EUT does not resume any transmissions on this Channel.

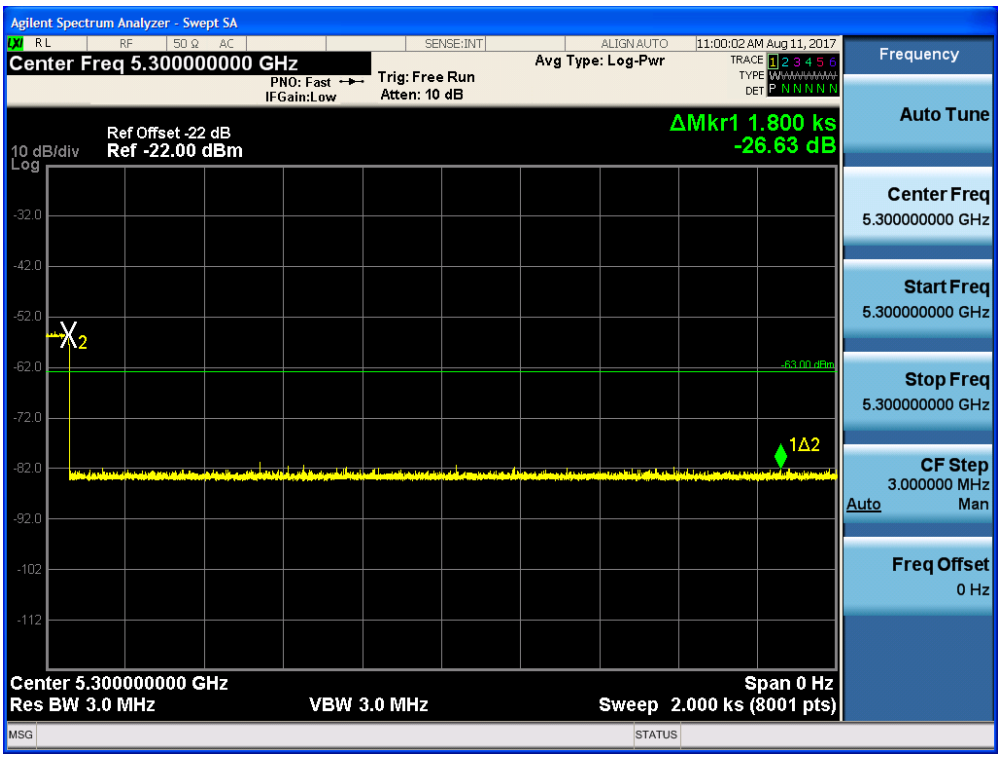
### 5.7.3. Test Result

Channel Move Time and Channel Closing Transmission Time for 802.11ac-VHT80 – 5290MHz



Non-Occupancy Period for 802.11a – 5300MHz




| Parameter | Test Result | Limit |
|---|---|---|
| | Type 0 | |
| Channel Move Time (s) | 0.432s | <10s |
| Channel Closing Transmission Time (ms) (Note) | 6.0ms | < 60ms |
| Non-Occupancy Period (min) | ≥ 30min | ≥ 30 min |

Note: 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 seconds period. The aggregate duration of control signals will not count quiet periods in between transmissions.

## 5.8. Statistical Performance Check Measurement

### 5.8.1. Test Limit

The minimum percentage of successful detection requirements found in below table when a radar burst with a level equal to the DFS Detection Threshold + 1dB is generated on the Operating Channel of the U-NII device (In- Service Monitoring).

| Radar Type | Minimum Number of Trails | Detection Probability |
|---|---|---|
| 0 | 30 | Pd > 60% |
| 1 | 30(15 of test A and 15 of test B) | Pd > 60% |
| 2 | 30 | Pd > 60% |
| 3 | 30 | Pd > 60% |
| 4 | 30 | Pd > 60% |
| Aggregate (Radar Types 1-4) | 120 | Pd > 80% |
| 5 | 30 | Pd > 80% |
| 6 | 30 | Pd > 70% |

The percentage of successful detection is calculated by:
(Total Waveform Detections / Total Waveform Trails) * 100 = Probability of Detection Radar Waveform In addition an aggregate minimum percentage of successful detection across all Short Pulse Radar Types 1-4 is required and is calculated as follows: (Pd1 + Pd2 + Pd3 + Pd4) / 4.

### 5.8.2. Test Procedure

1. Stream the MPEG test file from the Master Device to the Client Device on the test Channel for the entire period of the test.
2. At time T0 the Radar Waveform generator sends the individual waveform for each of the Radar Types 1-6, at levels equal to the DFS Detection Threshold + 1dB, on the Operating Channel.
3. Observe the transmissions of the EUT at the end of the Burst on the Operating Channel for duration greater than 10 seconds for Short Pulse Radar Types 0 to ensure detection occurs.
4. Observe the transmissions of the EUT at the end of the Burst on the Operating Channel for duration greater than 22 seconds for Long Pulse Radar Type 5 to ensure detection occurs.
5. The device can utilize a test mode to demonstrate when detection occurs to prevent the need to reset the device between trial runs.
6. The Minimum number of trails, minimum percentage of successful detection and the average minimum percentage of successful detection are found in below table.

### 5.8.3. Test Result

Statistical Performance Check for 802.11a

Radar Type 1 - Radar Statistical Performance

| Trail # | Test Freq. (MHz) | Pulse Width (us) | PRI (us) | Pulses / Burst | 1=Detection 0=No Detection |
|---|---|---|---|---|---|
| 1 | 5292 | 1 | 758 | 70 | 1 |
| 2 | 5292 | 1 | 698 | 76 | 1 |
| 3 | 5292 | 1 | 578 | 92 | 1 |
| 4 | 5292 | 1 | 518 | 102 | 1 |
| 5 | 5292 | 1 | 718 | 74 | 1 |
| 6 | 5292 | 1 | 658 | 81 | 1 |
| 7 | 5292 | 1 | 678 | 78 | 1 |
| 8 | 5292 | 1 | 858 | 62 | 1 |
| 9 | 5292 | 1 | 638 | 83 | 1 |
| 10 | 5292 | 1 | 878 | 61 | 1 |
| 11 | 5300 | 1 | 738 | 72 | 1 |
| 12 | 5300 | 1 | 618 | 86 | 1 |
| 13 | 5300 | 1 | 918 | 58 | 1 |
| 14 | 5300 | 1 | 818 | 65 | 1 |
| 15 | 5300 | 1 | 778 | 68 | 1 |
| 16 | 5300 | 1 | 1287 | 42 | 1 |
| 17 | 5300 | 1 | 828 | 64 | 1 |
| 18 | 5300 | 1 | 2234 | 24 | 1 |
| 19 | 5300 | 1 | 2634 | 21 | 1 |
| 20 | 5300 | 1 | 1900 | 28 | 1 |
| 21 | 5308 | 1 | 2447 | 22 | 1 |
| 22 | 5308 | 1 | 2096 | 26 | 1 |
| 23 | 5308 | 1 | 848 | 63 | 1 |
| 24 | 5308 | 1 | 1625 | 33 | 1 |
| 25 | 5308 | 1 | 857 | 62 | 1 |
| 26 | 5308 | 1 | 527 | 101 | 1 |
| 27 | 5308 | 1 | 2043 | 26 | 1 |
| 28 | 5308 | 1 | 3010 | 18 | 1 |
| 29 | 5308 | 1 | 2208 | 24 | 1 |
| 30 | 5308 | 1 | 2160 | 25 | 1 |
| Detection Percentage (%) | | | | | 100% |

Radar Type 2 - Radar Statistical Performance

| Trail # | Test Freq. (MHz) | Pulse Width (us) | PRI (us) | Pulses / Burst | 1=Detection 0=No Detection |
|---|---|---|---|---|---|
| 1 | 5292 | 4.2 | 155 | 26 | 1 |
| 2 | 5292 | 1.6 | 225 | 26 | 1 |
| 3 | 5292 | 3.3 | 215 | 25 | 1 |
| 4 | 5292 | 4.7 | 167 | 29 | 1 |
| 5 | 5292 | 4.7 | 166 | 24 | 1 |
| 6 | 5292 | 3.2 | 180 | 24 | 1 |
| 7 | 5292 | 2.0 | 214 | 29 | 1 |
| 8 | 5292 | 4.8 | 164 | 28 | 1 |
| 9 | 5292 | 4.2 | 229 | 26 | 1 |
| 10 | 5292 | 2.9 | 208 | 25 | 1 |
| 11 | 5300 | 5.0 | 187 | 24 | 1 |
| 12 | 5300 | 4.0 | 209 | 29 | 1 |
| 13 | 5300 | 1.0 | 152 | 23 | 1 |
| 14 | 5300 | 4.9 | 212 | 26 | 1 |
| 15 | 5300 | 1.1 | 192 | 24 | 1 |
| 16 | 5300 | 3.9 | 186 | 27 | 1 |
| 17 | 5300 | 2.7 | 212 | 26 | 1 |
| 18 | 5300 | 1.5 | 192 | 24 | 1 |
| 19 | 5300 | 4.6 | 211 | 28 | 1 |
| 20 | 5300 | 4.5 | 213 | 23 | 1 |
| 21 | 5308 | 4.0 | 155 | 27 | 1 |
| 22 | 5308 | 1.1 | 179 | 28 | 1 |
| 23 | 5308 | 3.8 | 200 | 23 | 1 |
| 24 | 5308 | 4.6 | 198 | 27 | 1 |
| 25 | 5308 | 3.9 | 168 | 26 | 1 |
| 26 | 5308 | 1.8 | 191 | 23 | 1 |
| 27 | 5308 | 2.0 | 198 | 29 | 1 |
| 28 | 5308 | 2.1 | 191 | 25 | 1 |
| 29 | 5308 | 2.9 | 161 | 23 | 1 |
| 30 | 5308 | 3.6 | 204 | 29 | 1 |
| Detection Percentage (%) | | | | | 100% |

Radar Type 3 - Radar Statistical Performance

| Trail # | Test Freq. (MHz) | Pulse Width (us) | PRI (us) | Pulses / Burst | 1=Detection 0=No Detection |
|---|---|---|---|---|---|
| 1 | 5292 | 9.1 | 442 | 16 | 1 |
| 2 | 5292 | 6.3 | 300 | 18 | 1 |
| 3 | 5292 | 6.3 | 460 | 16 | 1 |
| 4 | 5292 | 10.0 | 363 | 16 | 1 |
| 5 | 5292 | 6.3 | 466 | 17 | 1 |
| 6 | 5292 | 6.3 | 464 | 17 | 1 |
| 7 | 5292 | 6.3 | 406 | 17 | 1 |
| 8 | 5292 | 6.7 | 477 | 16 | 1 |
| 9 | 5292 | 6.3 | 355 | 18 | 1 |
| 10 | 5292 | 7.8 | 447 | 17 | 1 |
| 11 | 5300 | 7.7 | 342 | 17 | 1 |
| 12 | 5300 | 7.9 | 308 | 17 | 1 |
| 13 | 5300 | 9.9 | 476 | 18 | 1 |
| 14 | 5300 | 8.6 | 313 | 17 | 1 |
| 15 | 5300 | 7.9 | 350 | 17 | 1 |
| 16 | 5300 | 6.1 | 353 | 18 | 1 |
| 17 | 5300 | 8.1 | 474 | 17 | 1 |
| 18 | 5300 | 7.1 | 382 | 16 | 1 |
| 19 | 5300 | 9.2 | 305 | 17 | 1 |
| 20 | 5300 | 7.6 | 299 | 18 | 1 |
| 21 | 5308 | 8.3 | 385 | 16 | 1 |
| 22 | 5308 | 7.0 | 358 | 17 | 1 |
| 23 | 5308 | 6.9 | 378 | 18 | 1 |
| 24 | 5308 | 9.4 | 481 | 16 | 1 |
| 25 | 5308 | 7.7 | 333 | 16 | 1 |
| 26 | 5308 | 6.8 | 278 | 17 | 1 |
| 27 | 5308 | 7.4 | 407 | 17 | 1 |
| 28 | 5308 | 6.7 | 445 | 18 | 1 |
| 29 | 5308 | 9.3 | 444 | 18 | 1 |
| 30 | 5308 | 9.0 | 461 | 16 | 1 |
| Detection Percentage (%) | | | | | 100% |

Radar Type 4 - Radar Statistical Performance

| Trail # | Test Freq. (MHz) | Pulse Width (us) | PRI (us) | Pulses / Burst | 1=Detection 0=No Detection |
|---|---|---|---|---|---|
| 1 | 5292 | 19.4 | 470 | 15 | 1 |
| 2 | 5292 | 11.7 | 268 | 15 | 1 |
| 3 | 5292 | 18.2 | 255 | 13 | 1 |
| 4 | 5292 | 12.8 | 460 | 16 | 1 |
| 5 | 5292 | 20.0 | 347 | 15 | 1 |
| 6 | 5292 | 17.2 | 326 | 14 | 1 |
| 7 | 5292 | 16.9 | 252 | 14 | 1 |
| 8 | 5292 | 18.0 | 444 | 15 | 1 |
| 9 | 5292 | 13.6 | 261 | 16 | 1 |
| 10 | 5292 | 11.3 | 384 | 15 | 1 |
| 11 | 5300 | 17.3 | 490 | 12 | 1 |
| 12 | 5300 | 17.2 | 267 | 15 | 1 |
| 13 | 5300 | 14.7 | 327 | 16 | 1 |
| 14 | 5300 | 17.2 | 316 | 13 | 1 |
| 15 | 5300 | 11.6 | 289 | 13 | 1 |
| 16 | 5300 | 13.8 | 313 | 14 | 1 |
| 17 | 5300 | 15.8 | 468 | 12 | 1 |
| 18 | 5300 | 11.8 | 435 | 14 | 1 |
| 19 | 5300 | 12.1 | 295 | 13 | 1 |
| 20 | 5300 | 18.8 | 356 | 13 | 1 |
| 21 | 5308 | 14.2 | 279 | 12 | 1 |
| 22 | 5308 | 14.1 | 455 | 14 | 1 |
| 23 | 5308 | 12.5 | 300 | 15 | 1 |
| 24 | 5308 | 14.4 | 458 | 13 | 1 |
| 25 | 5308 | 13.1 | 431 | 16 | 1 |
| 26 | 5308 | 12.2 | 269 | 14 | 1 |
| 27 | 5308 | 16.0 | 266 | 16 | 1 |
| 28 | 5308 | 13.0 | 476 | 12 | 1 |
| 29 | 5308 | 15.5 | 271 | 12 | 1 |
| 30 | 5308 | 11.7 | 345 | 16 | 1 |
| Detection Percentage (%) | | | | | 100% |

Note: In addition an average minimum percentage of successful detection across all four Short pulse radar test waveforms is as follows: $\frac{P_d1+P_d2+P_d3+P_d4}{4}$ = (100%+100%+100%+100%)/4 = 100% (>80%)

Radar Type 5 - Radar Statistical Performance

| Trail # | Test Freq. (MHz) | 1=Detection 0=No Detection | Trail # | Test Freq. (MHz) | 1=Detection 0=No Detection |
|---|---|---|---|---|---|
| 1 | 5295.6 | 1 | 16 | 5300.0 | 1 |
| 2 | 5296.8 | 1 | 17 | 5300.0 | 1 |
| 3 | 5297.6 | 1 | 18 | 5300.0 | 1 |
| 4 | 5294.0 | 1 | 19 | 5300.0 | 1 |
| 5 | 5295.2 | 1 | 20 | 5300.0 | 1 |
| 6 | 5299.2 | 1 | 21 | 5304.0 | 1 |
| 7 | 5294.4 | 1 | 22 | 5306.0 | 1 |
| 8 | 5299.6 | 1 | 23 | 5304.4 | 1 |
| 9 | 5296.0 | 1 | 24 | 5300.8 | 1 |
| 10 | 5298.8 | 1 | 25 | 5303.2 | 1 |
| 11 | 5300.0 | 1 | 26 | 5305.6 | 1 |
| 12 | 5300.0 | 1 | 27 | 5300.4 | 1 |
| 13 | 5300.0 | 1 | 28 | 5304.8 | 1 |
| 14 | 5300.0 | 1 | 29 | 5301.2 | 1 |
| 15 | 5300.0 | 1 | 30 | 5302.4 | 1 |
| Detection Percentage (%) | | | | | 100% |

**Type 5 Radar Waveform_1**

Num of Bursts = 8
Burst Interval (us)= 1500000

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| | 290608 | | | | | | | | | |
| 1 | | 3 | 9 | 70 | 1351 | 1486 | 1239 | 290608 | 0 | 1499999 |
| | 1630765 | | | | | | | | | |
| 2 | | 2 | 9 | 55 | 1666 | 1851 | 0 | 1925449 | 1500000 | 2999999 |
| | 2008969 | | | | | | | | | |
| 3 | | 2 | 9 | 100 | 1622 | 1422 | 0 | 3937935 | 3000000 | 4499999 |
| | 1899008 | | | | | | | | | |
| 4 | | 1 | 9 | 75 | 1090 | 0 | 0 | 5839987 | 4500000 | 5999999 |
| | 1039050 | | | | | | | | | |
| 5 | | 3 | 9 | 90 | 1041 | 1916 | 1946 | 6880127 | 6000000 | 7499999 |
| | 2071121 | | | | | | | | | |
| 6 | | 2 | 9 | 100 | 1885 | 1992 | 0 | 8956151 | 7500000 | 8999999 |
| | 352758 | | | | | | | | | |
| 7 | | 2 | 9 | 70 | 1341 | 1829 | 0 | 9312786 | 9000000 | 10499999 |
| | 1256487 | | | | | | | | | |
| 8 | | 2 | 9 | 90 | 1193 | 1140 | 0 | 10572443 | 10500000 | 11999999 |

Total number of pulses in waveform = 17

## Type 5 Radar Waveform_2

Num of Bursts = 20
Burst Interval (us)= 600000

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 528340 | 2 | 12 | 75 | 1370 | 1256 | 0 | 528340 | 0 | 599999 |
| 2 | 137906 | 1 | 12 | 100 | 1142 | 0 | 0 | 668872 | 600000 | 1199999 |
| 3 | 653915 | 1 | 12 | 65 | 1078 | 0 | 0 | 1323929 | 1200000 | 1799999 |
| 4 | 588057 | 3 | 12 | 55 | 1209 | 1767 | 1266 | 1913064 | 1800000 | 2399999 |
| 5 | 724064 | 2 | 12 | 80 | 1470 | 1155 | 0 | 2641370 | 2400000 | 2999999 |
| 6 | 632789 | 2 | 12 | 85 | 1093 | 1023 | 0 | 3276784 | 3000000 | 3599999 |
| 7 | 743025 | 2 | 12 | 80 | 1571 | 1245 | 0 | 4021925 | 3600000 | 4199999 |
| 8 | 291054 | 2 | 12 | 90 | 1796 | 1140 | 0 | 4315795 | 4200000 | 4799999 |
| 9 | 888274 | 3 | 12 | 95 | 1148 | 1863 | 1551 | 5207005 | 4800000 | 5399999 |
| 10 | 469124 | 2 | 12 | 55 | 1037 | 1553 | 0 | 5680691 | 5400000 | 5999999 |
| 11 | 329079 | 3 | 12 | 90 | 1994 | 1924 | 1018 | 6012360 | 6000000 | 6599999 |
| 12 | 1042210 | 2 | 12 | 85 | 1044 | 1357 | 0 | 7059506 | 6600000 | 7199999 |
| 13 | 439376 | 1 | 12 | 85 | 1576 | 0 | 0 | 7501283 | 7200000 | 7799999 |
| 14 | 768821 | 3 | 12 | 70 | 1755 | 1177 | 1781 | 8271680 | 7800000 | 8399999 |
| 15 | 324354 | 3 | 12 | 95 | 1817 | 1397 | 1202 | 8600747 | 8400000 | 8999999 |
| 16 | 969361 | 3 | 12 | 70 | 1121 | 1631 | 1634 | 9574524 | 9000000 | 9599999 |
| 17 | 574718 | 1 | 12 | 55 | 1784 | 0 | 0 | 10153628 | 9600000 | 10199999 |
| 18 | 487106 | 3 | 12 | 60 | 1464 | 1964 | 1297 | 10642518 | 10200000 | 10799999 |
| 19 | 522442 | 1 | 12 | 75 | 1982 | 0 | 0 | 11169685 | 10800000 | 11399999 |
| 20 | 263234 | 2 | 12 | 85 | 1335 | 1154 | 0 | 11434901 | 11400000 | 11999999 |

Total number of pulses in waveform = 42
**********

## Type 5 Radar Waveform_3

Num of Bursts = 8
Burst Interval (us)= 1500000

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 160704 | 2 | 14 | 90 | 1342 | 1439 | 0 | 160704 | 0 | 1499999 |
| 2 | 1424358 | 3 | 14 | 65 | 1040 | 1821 | 1406 | 1587843 | 1500000 | 2999999 |
| 3 | 1717745 | 1 | 14 | 70 | 1892 | 0 | 0 | 3309855 | 3000000 | 4499999 |
| 4 | 1947457 | 3 | 14 | 55 | 1599 | 1897 | 1675 | 5259204 | 4500000 | 5999999 |
| 5 | 2114372 | 3 | 14 | 50 | 1910 | 1553 | 1508 | 7378747 | 6000000 | 7499999 |
| 6 | 895379 | 1 | 14 | 65 | 1138 | 0 | 0 | 8279097 | 7500000 | 8999999 |
| 7 | 1392243 | 2 | 14 | 85 | 1337 | 1545 | 0 | 9672478 | 9000000 | 10499999 |
| 8 | 1481815 | 1 | 14 | 90 | 1739 | 0 | 0 | 11157175 | 10500000 | 11999999 |

Total number of pulses in waveform = 16
**********

## Type 5 Radar Waveform_4

Num of Bursts = 15
Burst Interval (us)= 800000

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 685256 | 3 | 5 | 55 | 1216 | 1968 | 1125 | 685256 | 0 | 799999 |
| 2 | 271387 | 3 | 5 | 60 | 1880 | 1722 | 1947 | 960952 | 800000 | 1599999 |
| 3 | 1367668 | 1 | 5 | 75 | 1766 | 0 | 0 | 2334169 | 1600000 | 2399999 |
| 4 | 757203 | 2 | 5 | 90 | 1714 | 1776 | 0 | 3093138 | 2400000 | 3199999 |
| 5 | 170930 | 3 | 5 | 100 | 1927 | 1907 | 1043 | 3267558 | 3200000 | 3999999 |
| 6 | 1479607 | 2 | 5 | 70 | 1689 | 1122 | 0 | 4752042 | 4000000 | 4799999 |
| 7 | 141594 | 2 | 5 | 95 | 1305 | 1898 | 0 | 4896447 | 4800000 | 5599999 |
| 8 | 975714 | 2 | 5 | 70 | 1990 | 1563 | 0 | 5875364 | 5600000 | 6399999 |
| 9 | 627932 | 3 | 5 | 90 | 1408 | 1080 | 1847 | 6506849 | 6400000 | 7199999 |
| 10 | 1458328 | 3 | 5 | 55 | 1355 | 1340 | 1579 | 7969512 | 7200000 | 7999999 |
| 11 | 174277 | 2 | 5 | 55 | 1709 | 1886 | 0 | 8148063 | 8000000 | 8799999 |
| 12 | 741808 | 1 | 5 | 55 | 1709 | 0 | 0 | 8893466 | 8800000 | 9599999 |
| 13 | 959565 | 1 | 5 | 55 | 1032 | 0 | 0 | 9854740 | 9600000 | 10399999 |
| 14 | 885475 | 1 | 5 | 50 | 1864 | 0 | 0 | 10741247 | 10400000 | 11199999 |
| 15 | 730176 | 2 | 5 | 100 | 1589 | 1154 | 0 | 11473287 | 11200000 | 11999999 |

Total number of pulses in waveform = 31
**********

## Type 5 Radar Waveform_5

Num of Bursts = 12
Burst Interval (us)= 1000000

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 957141 | 2 | 8 | 65 | 1126 | 1454 | 0 | 957141 | 0 | 999999 |
| 2 | 708241 | 2 | 8 | 90 | 1219 | 1674 | 0 | 1667962 | 1000000 | 1999999 |
| 3 | 599902 | 3 | 8 | 85 | 1172 | 1190 | 1879 | 2270757 | 2000000 | 2999999 |
| 4 | 843153 | 2 | 8 | 95 | 1268 | 1183 | 0 | 3118151 | 3000000 | 3999999 |
| 5 | 1339365 | 3 | 8 | 85 | 1712 | 1634 | 1796 | 4459967 | 4000000 | 4999999 |
| 6 | 770018 | 1 | 8 | 50 | 1564 | 0 | 0 | 5235127 | 5000000 | 5999999 |
| 7 | 1697129 | 1 | 8 | 100 | 1094 | 0 | 0 | 6933820 | 6000000 | 6999999 |
| 8 | 796722 | 1 | 8 | 60 | 1569 | 0 | 0 | 7731636 | 7000000 | 7999999 |
| 9 | 275874 | 2 | 8 | 90 | 1778 | 1896 | 0 | 8009079 | 8000000 | 8999999 |
| 10 | 1680309 | 3 | 8 | 100 | 1136 | 1525 | 1379 | 9693062 | 9000000 | 9999999 |
| 11 | 508330 | 1 | 8 | 85 | 1522 | 0 | 0 | 10205432 | 10000000 | 10999999 |
| 12 | 1643542 | 2 | 8 | 100 | 1481 | 1555 | 0 | 11850496 | 11000000 | 11999999 |

Total number of pulses in waveform = 23

## Type 5 Radar Waveform_6

Num of Bursts = 20
Burst Interval (us)= 600000

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 558331 | 2 | 18 | 55 | 1519 | 1504 | 0 | 558331 | 0 | 599999 |
| 2 | 556326 | 3 | 18 | 75 | 1683 | 1114 | 1174 | 1117680 | 600000 | 1199999 |
| 3 | 151756 | 2 | 18 | 60 | 1072 | 1007 | 0 | 1273407 | 1200000 | 1799999 |
| 4 | 557686 | 3 | 18 | 75 | 1799 | 1415 | 1014 | 1833172 | 1800000 | 2399999 |
| 5 | 1157701 | 3 | 18 | 100 | 1058 | 1896 | 1356 | 2995101 | 2400000 | 2999999 |
| 6 | 410484 | 1 | 18 | 70 | 1171 | 0 | 0 | 3409895 | 3000000 | 3599999 |
| 7 | 432059 | 2 | 18 | 65 | 1003 | 1428 | 0 | 3843125 | 3600000 | 4199999 |
| 8 | 896650 | 2 | 18 | 65 | 1377 | 1345 | 0 | 4742206 | 4200000 | 4799999 |
| 9 | 291425 | 1 | 18 | 75 | 1930 | 0 | 0 | 5036353 | 4800000 | 5399999 |
| 10 | 598500 | 1 | 18 | 75 | 1784 | 0 | 0 | 5636783 | 5400000 | 5999999 |
| 11 | 559875 | 2 | 18 | 50 | 1518 | 1397 | 0 | 6198442 | 6000000 | 6599999 |
| 12 | 769003 | 1 | 18 | 50 | 1948 | 0 | 0 | 6970360 | 6600000 | 7199999 |
| 13 | 374320 | 2 | 18 | 100 | 1110 | 1785 | 0 | 7346628 | 7200000 | 7799999 |
| 14 | 762762 | 2 | 18 | 60 | 1689 | 1850 | 0 | 8112285 | 7800000 | 8399999 |
| 15 | 725379 | 3 | 18 | 85 | 1215 | 1198 | 1559 | 8841203 | 8400000 | 8999999 |
| 16 | 158095 | 3 | 18 | 90 | 1023 | 1113 | 1360 | 9003270 | 9000000 | 9599999 |
| 17 | 821417 | 1 | 18 | 85 | 1024 | 0 | 0 | 9828183 | 9600000 | 10199999 |
| 18 | 795986 | 2 | 18 | 100 | 1682 | 1692 | 0 | 10625193 | 10200000 | 10799999 |
| 19 | 761235 | 2 | 18 | 55 | 1789 | 1383 | 0 | 11389802 | 10800000 | 11399999 |
| 20 | 523221 | 2 | 18 | 90 | 1460 | 1291 | 0 | 11916195 | 11400000 | 11999999 |

Total number of pulses in waveform = 40

## Type 5 Radar Waveform_7

Num of Bursts = 14
Burst Interval (us)= 857143

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 235366 | 3 | 6 | 65 | 1142 | 1989 | 1795 | 235366 | 0 | 857142 |
| 2 | 1339965 | 1 | 6 | 75 | 1786 | 0 | 0 | 1580257 | 857143 | 1714285 |
| 3 | 685260 | 3 | 6 | 60 | 1406 | 1316 | 1199 | 2267303 | 1714286 | 2571428 |
| 4 | 912810 | 1 | 6 | 70 | 1813 | 0 | 0 | 3184034 | 2571429 | 3428571 |
| 5 | 624424 | 3 | 6 | 55 | 1861 | 1392 | 1411 | 3810271 | 3428572 | 4285714 |
| 6 | 1130158 | 1 | 6 | 50 | 1118 | 0 | 0 | 4945093 | 4285715 | 5142857 |
| 7 | 733749 | 2 | 6 | 75 | 1484 | 1211 | 0 | 5679960 | 5142858 | 6000000 |
| 8 | 1139584 | 2 | 6 | 70 | 1331 | 1614 | 0 | 6822239 | 6000001 | 6857143 |
| 9 | 283178 | 3 | 6 | 95 | 1384 | 1394 | 1183 | 7108362 | 6857144 | 7714286 |
| 10 | 955384 | 3 | 6 | 100 | 1699 | 1781 | 1845 | 8067707 | 7714287 | 8571429 |
| 11 | 1188097 | 2 | 6 | 60 | 1402 | 1242 | 0 | 9261129 | 8571430 | 9428572 |
| 12 | 411113 | 1 | 6 | 70 | 1728 | 0 | 0 | 9674886 | 9428573 | 10285715 |
| 13 | 730176 | 3 | 6 | 60 | 1962 | 1712 | 1513 | 10406790 | 10285716 | 11142858 |
| 14 | 1460374 | 2 | 6 | 100 | 1058 | 1270 | 0 | 11872351 | 11142859 | 12000001 |

Total number of pulses in waveform = 30

## Type 5 Radar Waveform_8

Num of Bursts = 13
Burst Interval (us)= 923077

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 831476 | 2 | 19 | 55 | 1412 | 1493 | 0 | 831476 | 0 | 923076 |
| 2 | 665205 | 2 | 19 | 90 | 1037 | 1079 | 0 | 1499586 | 923077 | 1846153 |
| 3 | 706799 | 1 | 19 | 65 | 1039 | 0 | 0 | 2208501 | 1846154 | 2769230 |
| 4 | 642638 | 2 | 19 | 65 | 1220 | 1030 | 0 | 2852178 | 2769231 | 3692307 |
| 5 | 1371030 | 2 | 19 | 80 | 1133 | 1141 | 0 | 4225458 | 3692308 | 4615384 |
| 6 | 897083 | 1 | 19 | 50 | 1861 | 0 | 0 | 5124815 | 4615385 | 5538461 |
| 7 | 575783 | 3 | 19 | 85 | 1641 | 1642 | 1570 | 5702459 | 5538462 | 6461538 |
| 8 | 1639620 | 2 | 19 | 85 | 1830 | 1220 | 0 | 7346932 | 6461539 | 7384615 |
| 9 | 713957 | 3 | 19 | 60 | 1278 | 1590 | 1086 | 8063939 | 7384616 | 8307692 |
| 10 | 571054 | 1 | 19 | 65 | 1364 | 0 | 0 | 8638947 | 8307693 | 9230769 |
| 11 | 865774 | 1 | 19 | 95 | 1488 | 0 | 0 | 9506085 | 9230770 | 10153846 |
| 12 | 1136894 | 3 | 19 | 50 | 1573 | 1138 | 1579 | 10644467 | 10153847 | 11076923 |
| 13 | 451957 | 3 | 19 | 70 | 1883 | 1298 | 1893 | 11100714 | 11076924 | 12000000 |

Total number of pulses in waveform = 26

## Type 5 Radar Waveform_9

Num of Bursts = 20
Burst Interval (us)= 600000

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 496580 | 2 | 10 | 90 | 1029 | 1974 | 0 | 496580 | 0 | 599999 |
| 2 | 131122 | 2 | 10 | 95 | 1482 | 1738 | 0 | 630705 | 600000 | 1199999 |
| 3 | 813226 | 2 | 10 | 85 | 1940 | 1804 | 0 | 1447151 | 1200000 | 1799999 |
| 4 | 877964 | 1 | 10 | 90 | 1516 | 0 | 0 | 2328859 | 1800000 | 2399999 |
| 5 | 577279 | 2 | 10 | 50 | 1599 | 1544 | 0 | 2907654 | 2400000 | 2999999 |
| 6 | 623039 | 2 | 10 | 60 | 1764 | 1352 | 0 | 3533836 | 3000000 | 3599999 |
| 7 | 187986 | 3 | 10 | 65 | 1899 | 1445 | 1497 | 3724938 | 3600000 | 4199999 |
| 8 | 525878 | 2 | 10 | 75 | 1287 | 1565 | 0 | 4255657 | 4200000 | 4799999 |
| 9 | 733596 | 1 | 10 | 90 | 1178 | 0 | 0 | 4992105 | 4800000 | 5399999 |
| 10 | 875163 | 2 | 10 | 65 | 1564 | 1921 | 0 | 5868446 | 5400000 | 5999999 |
| 11 | 481590 | 3 | 10 | 50 | 1915 | 1262 | 1957 | 6353521 | 6000000 | 6599999 |
| 12 | 259832 | 3 | 10 | 55 | 1325 | 1023 | 1502 | 6618487 | 6600000 | 7199999 |
| 13 | 617937 | 2 | 10 | 75 | 1204 | 1787 | 0 | 7240274 | 7200000 | 7799999 |
| 14 | 626693 | 2 | 10 | 75 | 1062 | 1721 | 0 | 7869958 | 7800000 | 8399999 |
| 15 | 1035628 | 3 | 10 | 75 | 1387 | 1460 | 1138 | 8908369 | 8400000 | 8999999 |
| 16 | 598896 | 1 | 10 | 100 | 1177 | 0 | 0 | 9511250 | 9000000 | 9599999 |
| 17 | 111514 | 3 | 10 | 75 | 1963 | 1678 | 1405 | 9623941 | 9600000 | 10199999 |
| 18 | 1131156 | 2 | 10 | 70 | 1972 | 1126 | 0 | 10760143 | 10200000 | 10799999 |
| 19 | 387741 | 3 | 10 | 70 | 1526 | 1299 | 1788 | 11150982 | 10800000 | 11399999 |
| 20 | 827416 | 1 | 10 | 55 | 1969 | 0 | 0 | 11983011 | 11400000 | 11999999 |

Total number of pulses in waveform = 42

## Type 5 Radar Waveform_10

Num of Bursts = 16
Burst Interval (us)= 750000

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 648209 | 3 | 17 | 50 | 1401 | 1399 | 1497 | 648209 | 0 | 749999 |
| 2 | 117230 | 3 | 17 | 90 | 1847 | 1897 | 1318 | 769736 | 750000 | 1499999 |
| 3 | 1363970 | 3 | 17 | 55 | 1224 | 1563 | 1983 | 2138768 | 1500000 | 2249999 |
| 4 | 368188 | 2 | 17 | 65 | 1540 | 1246 | 0 | 2511726 | 2250000 | 2999999 |
| 5 | 755970 | 2 | 17 | 55 | 1059 | 1946 | 0 | 3270482 | 3000000 | 3749999 |
| 6 | 1090371 | 2 | 17 | 65 | 1691 | 1735 | 0 | 4363858 | 3750000 | 4499999 |
| 7 | 218827 | 1 | 17 | 50 | 1827 | 0 | 0 | 4586111 | 4500000 | 5249999 |
| 8 | 1328080 | 1 | 17 | 60 | 1289 | 0 | 0 | 5916018 | 5250000 | 5999999 |
| 9 | 594474 | 1 | 17 | 85 | 1716 | 0 | 0 | 6511781 | 6000000 | 6749999 |
| 10 | 893388 | 3 | 17 | 75 | 1909 | 1435 | 1086 | 7406885 | 6750000 | 7499999 |
| 11 | 779765 | 3 | 17 | 75 | 1479 | 1179 | 1807 | 8191080 | 7500000 | 8249999 |
| 12 | 492254 | 3 | 17 | 70 | 1525 | 1077 | 1569 | 8687799 | 8250000 | 8999999 |
| 13 | 914225 | 1 | 17 | 65 | 1731 | 0 | 0 | 9606195 | 9000000 | 9749999 |
| 14 | 782599 | 1 | 17 | 50 | 1791 | 0 | 0 | 10390525 | 9750000 | 10499999 |
| 15 | 243229 | 1 | 17 | 95 | 1407 | 0 | 0 | 10635545 | 10500000 | 11249999 |
| 16 | 693916 | 3 | 17 | 60 | 1169 | 1784 | 1901 | 11330868 | 11250000 | 11999999 |

Total number of pulses in waveform = 33

## Type 5 Radar Waveform_11

Num of Bursts = 15
Burst Interval (us)= 800000

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 472160 | 3 | 10 | 50 | 1107 | 1341 | 1807 | 472160 | 0 | 799999 |
| 2 | 612278 | 2 | 10 | 50 | 1372 | 1194 | 0 | 1088693 | 800000 | 1599999 |
| 3 | 921487 | 2 | 10 | 60 | 1564 | 1110 | 0 | 2012746 | 1600000 | 2399999 |
| 4 | 408280 | 1 | 10 | 55 | 1557 | 0 | 0 | 2423700 | 2400000 | 3199999 |
| 5 | 786804 | 2 | 10 | 95 | 1266 | 1817 | 0 | 3212061 | 3200000 | 3999999 |
| 6 | 968237 | 2 | 10 | 70 | 1019 | 1298 | 0 | 4183381 | 4000000 | 4799999 |
| 7 | 1222691 | 1 | 10 | 80 | 1225 | 0 | 0 | 5408389 | 4800000 | 5599999 |
| 8 | 472586 | 2 | 10 | 55 | 1824 | 1540 | 0 | 5882200 | 5600000 | 6399999 |
| 9 | 1134402 | 3 | 10 | 90 | 1874 | 1040 | 1280 | 7019966 | 6400000 | 7199999 |
| 10 | 706682 | 1 | 10 | 75 | 1097 | 0 | 0 | 7730842 | 7200000 | 7999999 |
| 11 | 355314 | 3 | 10 | 70 | 1411 | 1746 | 1958 | 8087253 | 8000000 | 8799999 |
| 12 | 1396018 | 3 | 10 | 85 | 1009 | 1458 | 1608 | 9488386 | 8800000 | 9599999 |
| 13 | 630035 | 2 | 10 | 95 | 1819 | 1331 | 0 | 10122496 | 9600000 | 10399999 |
| 14 | 341045 | 1 | 10 | 50 | 1612 | 0 | 0 | 10466691 | 10400000 | 11199999 |
| 15 | 761881 | 2 | 10 | 55 | 1241 | 1310 | 0 | 11230184 | 11200000 | 11999999 |

Total number of pulses in waveform = 30
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## Type 5 Radar Waveform_12

Num of Bursts = 11
Burst Interval (us)= 1090909

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 642116 | 1 | 8 | 50 | 1253 | 0 | 0 | 642116 | 0 | 1090908 |
| 2 | 721916 | 2 | 8 | 100 | 1820 | 1803 | 0 | 1365285 | 1090909 | 2181817 |
| 3 | 1406834 | 3 | 8 | 50 | 1330 | 1356 | 1208 | 2775742 | 2181818 | 3272726 |
| 4 | 1175689 | 3 | 8 | 80 | 1351 | 1672 | 1190 | 3955325 | 3272727 | 4363635 |
| 5 | 990262 | 1 | 8 | 80 | 1820 | 0 | 0 | 4949800 | 4363636 | 5454544 |
| 6 | 1146437 | 1 | 8 | 75 | 1474 | 0 | 0 | 6098057 | 5454545 | 6545453 |
| 7 | 539658 | 1 | 8 | 75 | 1483 | 0 | 0 | 6639189 | 6545454 | 7636362 |
| 8 | 1360671 | 3 | 8 | 90 | 1794 | 1234 | 1207 | 8001343 | 7636363 | 8727271 |
| 9 | 1094200 | 3 | 8 | 55 | 1178 | 1625 | 1214 | 9099778 | 8727272 | 9818180 |
| 10 | 771997 | 1 | 8 | 80 | 1317 | 0 | 0 | 9875792 | 9818181 | 10909089 |
| 11 | 1121070 | 2 | 8 | 85 | 1231 | 1359 | 0 | 10998179 | 10909090 | 11999998 |

Total number of pulses in waveform = 21
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## Type 5 Radar Waveform_13

Num of Bursts = 17
Burst Interval (us)= 705882

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 626293 | 1 | 12 | 80 | 1658 | 0 | 0 | 626293 | 0 | 705881 |
| 2 | 281108 | 3 | 12 | 70 | 1580 | 1865 | 1405 | 909059 | 705882 | 1411763 |
| 3 | 721117 | 1 | 12 | 75 | 1623 | 0 | 0 | 1635026 | 1411764 | 2117645 |
| 4 | 801194 | 2 | 12 | 65 | 1057 | 1933 | 0 | 2437843 | 2117646 | 2823527 |
| 5 | 660551 | 1 | 12 | 60 | 1295 | 0 | 0 | 3101384 | 2823528 | 3529409 |
| 6 | 1032361 | 2 | 12 | 100 | 2000 | 1003 | 0 | 4135040 | 3529410 | 4235291 |
| 7 | 322495 | 1 | 12 | 75 | 1936 | 0 | 0 | 4460538 | 4235292 | 4941173 |
| 8 | 835712 | 3 | 12 | 65 | 1865 | 1772 | 1029 | 5298186 | 4941174 | 5647055 |
| 9 | 684348 | 3 | 12 | 90 | 1893 | 1940 | 1334 | 5987200 | 5647056 | 6352937 |
| 10 | 943669 | 1 | 12 | 90 | 1046 | 0 | 0 | 6936036 | 6352938 | 7058819 |
| 11 | 712184 | 2 | 12 | 90 | 1001 | 1483 | 0 | 7649266 | 7058820 | 7764701 |
| 12 | 423396 | 1 | 12 | 85 | 1793 | 0 | 0 | 8075146 | 7764702 | 8470583 |
| 13 | 787921 | 2 | 12 | 50 | 1336 | 1038 | 0 | 8864860 | 8470584 | 9176465 |
| 14 | 950302 | 3 | 12 | 90 | 1058 | 1779 | 1493 | 9817536 | 9176466 | 9882347 |
| 15 | 124002 | 2 | 12 | 55 | 1170 | 1605 | 0 | 9945868 | 9882348 | 10588229 |
| 16 | 674957 | 1 | 12 | 50 | 1295 | 0 | 0 | 10623600 | 10588230 | 11294111 |
| 17 | 1189250 | 3 | 12 | 55 | 1499 | 1693 | 1672 | 11814145 | 11294112 | 11999993 |

Total number of pulses in waveform = 32
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## Type 5 Radar Waveform_14

Num of Bursts = 19
Burst Interval (us)= 631579

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 385868 | 1 | 18 | 95 | 1244 | 0 | 0 | 385868 | 0 | 631578 |
| 2 | 718352 | 1 | 18 | 55 | 1895 | 0 | 0 | 1105464 | 631579 | 1263157 |
| 3 | 363132 | 1 | 18 | 80 | 1708 | 0 | 0 | 1470491 | 1263158 | 1894736 |
| 4 | 962116 | 3 | 18 | 100 | 1434 | 1102 | 1735 | 2434315 | 1894737 | 2526315 |
| 5 | 319934 | 2 | 18 | 70 | 1975 | 1988 | 0 | 2758520 | 2526316 | 3157894 |
| 6 | 646299 | 2 | 18 | 60 | 1835 | 1171 | 0 | 3408782 | 3157895 | 3789473 |
| 7 | 556930 | 1 | 18 | 80 | 1327 | 0 | 0 | 3968718 | 3789474 | 4421052 |
| 8 | 774534 | 1 | 18 | 60 | 1532 | 0 | 0 | 4744579 | 4421053 | 5052631 |
| 9 | 314633 | 3 | 18 | 65 | 1636 | 1638 | 1396 | 5060744 | 5052632 | 5684210 |
| 10 | 1223272 | 3 | 18 | 60 | 1398 | 1149 | 1022 | 6288686 | 5684211 | 6315789 |
| 11 | 537489 | 2 | 18 | 95 | 1772 | 1092 | 0 | 6829744 | 6315790 | 6947368 |
| 12 | 482503 | 1 | 18 | 100 | 1141 | 0 | 0 | 7315111 | 6947369 | 7578947 |
| 13 | 608759 | 2 | 18 | 70 | 1449 | 1674 | 0 | 7925011 | 7578948 | 8210526 |
| 14 | 458349 | 3 | 18 | 95 | 1397 | 1071 | 1002 | 8386483 | 8210527 | 8842105 |
| 15 | 699291 | 2 | 18 | 75 | 1872 | 1763 | 0 | 9089244 | 8842106 | 9473684 |
| 16 | 395869 | 1 | 18 | 85 | 1757 | 0 | 0 | 9488748 | 9473685 | 10105263 |
| 17 | 751422 | 3 | 18 | 65 | 1002 | 1862 | 1933 | 10241927 | 10105264 | 10736842 |
| 18 | 972292 | 2 | 18 | 50 | 1538 | 1806 | 0 | 11219016 | 10736843 | 11368421 |
| 19 | 584568 | 3 | 18 | 80 | 1284 | 1825 | 1814 | 11806928 | 11368422 | 12000000 |

Total number of pulses in waveform = 37
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## Type 5 Radar Waveform_15

Num of Bursts = 18
Burst Interval (us)= 666667

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 643936 | 2 | 5 | 65 | 1835 | 1775 | 0 | 643936 | 0 | 666666 |
| 2 | 94282 | 3 | 5 | 90 | 1389 | 1395 | 1629 | 741828 | 666667 | 1333333 |
| 3 | 836306 | 1 | 5 | 65 | 1876 | 0 | 0 | 1582547 | 1333334 | 2000000 |
| 4 | 1069807 | 1 | 5 | 60 | 1273 | 0 | 0 | 2654230 | 2000001 | 2666667 |
| 5 | 317748 | 3 | 5 | 85 | 1541 | 1529 | 1400 | 2973251 | 2666668 | 3333334 |
| 6 | 892796 | 3 | 5 | 85 | 1670 | 1471 | 1148 | 3870517 | 3333335 | 4000001 |
| 7 | 592508 | 3 | 5 | 85 | 1746 | 1735 | 1698 | 4467314 | 4000002 | 4666668 |
| 8 | 289491 | 3 | 5 | 65 | 1240 | 1560 | 1356 | 4761984 | 4666669 | 5333335 |
| 9 | 1114883 | 3 | 5 | 75 | 1181 | 1512 | 1491 | 5881023 | 5333336 | 6000002 |
| 10 | 117923 | 2 | 5 | 90 | 1851 | 1015 | 0 | 6003130 | 6000003 | 6666669 |
| 11 | 1241002 | 2 | 5 | 70 | 1295 | 1600 | 0 | 7246998 | 6666670 | 7333336 |
| 12 | 283285 | 3 | 5 | 85 | 1308 | 1565 | 1343 | 7533178 | 7333337 | 8000003 |
| 13 | 1059110 | 3 | 5 | 70 | 1696 | 1230 | 1672 | 8596504 | 8000004 | 8666670 |
| 14 | 612347 | 2 | 5 | 85 | 1490 | 1191 | 0 | 9213449 | 8666671 | 9333337 |
| 15 | 465654 | 1 | 5 | 55 | 1596 | 0 | 0 | 9681784 | 9333338 | 10000004 |
| 16 | 768762 | 1 | 5 | 85 | 1660 | 0 | 0 | 10452142 | 10000005 | 10666671 |
| 17 | 561209 | 3 | 5 | 70 | 1369 | 1966 | 1267 | 11015011 | 10666672 | 11333338 |
| 18 | 415383 | 3 | 5 | 95 | 1323 | 1704 | 1566 | 11434996 | 11333339 | 12000005 |

Total number of pulses in waveform = 42
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## Type 5 Radar Waveform_16

Num of Bursts = 16
Burst Interval (us)= 750000

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 644439 | 1 | 17 | 100 | 1552 | 0 | 0 | 644439 | 0 | 749999 |
| 2 | 337758 | 1 | 17 | 95 | 1886 | 0 | 0 | 983749 | 750000 | 1499999 |
| 3 | 584794 | 2 | 17 | 60 | 1064 | 1034 | 0 | 1570429 | 1500000 | 2249999 |
| 4 | 895557 | 2 | 17 | 50 | 1500 | 1076 | 0 | 2468084 | 2250000 | 2999999 |
| 5 | 924337 | 3 | 17 | 85 | 1581 | 1217 | 1096 | 3394997 | 3000000 | 3749999 |
| 6 | 584637 | 3 | 17 | 75 | 1319 | 1541 | 1826 | 3983528 | 3750000 | 4499999 |
| 7 | 552307 | 1 | 17 | 80 | 1891 | 0 | 0 | 4540521 | 4500000 | 5249999 |
| 8 | 1065301 | 1 | 17 | 70 | 1871 | 0 | 0 | 5607713 | 5250000 | 5999999 |
| 9 | 700201 | 3 | 17 | 80 | 1667 | 1468 | 1323 | 6309785 | 6000000 | 6749999 |
| 10 | 1003530 | 3 | 17 | 90 | 1451 | 1126 | 1622 | 7317773 | 6750000 | 7499999 |
| 11 | 518067 | 3 | 17 | 85 | 1494 | 1255 | 1031 | 7840039 | 7500000 | 8249999 |
| 12 | 1103028 | 1 | 17 | 75 | 1204 | 0 | 0 | 8946847 | 8250000 | 8999999 |
| 13 | 111226 | 2 | 17 | 65 | 1736 | 1509 | 0 | 9059277 | 9000000 | 9749999 |
| 14 | 1069436 | 2 | 17 | 70 | 1061 | 1510 | 0 | 10131958 | 9750000 | 10499999 |
| 15 | 718724 | 3 | 17 | 90 | 1853 | 1704 | 1606 | 10853253 | 10500000 | 11249999 |
| 16 | 952959 | 1 | 17 | 95 | 1020 | 0 | 0 | 11811375 | 11250000 | 11999999 |

Total number of pulses in waveform = 32
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## Type 5 Radar Waveform_17

Num of Bursts = 8
Burst Interval (us)= 1500000

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| | 437396 | | | | | | | | | |
| 1 | | 3 | 19 | 80 | 1588 | 1257 | 1983 | 437396 | 0 | 1499999 |
| | 2238760 | | | | | | | | | |
| 2 | | 3 | 19 | 95 | 1096 | 1205 | 1780 | 2680984 | 1500000 | 2999999 |
| | 1321355 | | | | | | | | | |
| 3 | | 1 | 19 | 95 | 1264 | 0 | 0 | 4006420 | 3000000 | 4499999 |
| | 669931 | | | | | | | | | |
| 4 | | 3 | 19 | 50 | 1671 | 1948 | 1903 | 4677615 | 4500000 | 5999999 |
| | 2309023 | | | | | | | | | |
| 5 | | 3 | 19 | 95 | 1912 | 1629 | 1968 | 6992160 | 6000000 | 7499999 |
| | 1980609 | | | | | | | | | |
| 6 | | 3 | 19 | 55 | 1460 | 1211 | 1091 | 8978278 | 7500000 | 8999999 |
| | 642728 | | | | | | | | | |
| 7 | | 3 | 19 | 70 | 1140 | 1510 | 1000 | 9624768 | 9000000 | 10499999 |
| | 2281890 | | | | | | | | | |
| 8 | | 2 | 19 | 50 | 1965 | 1793 | 0 | 11910308 | 10500000 | 11999999 |

Total number of pulses in waveform = 21
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## Type 5 Radar Waveform_18

Num of Bursts = 9
Burst Interval (us)= 1333333

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1083642 | | | | | | | | | |
| 1 | | 2 | 6 | 85 | 1226 | 1723 | 0 | 1083642 | 0 | 1333332 |
| | 611933 | | | | | | | | | |
| 2 | | 3 | 6 | 60 | 1018 | 1553 | 1583 | 1698524 | 1333333 | 2666665 |
| | 2228453 | | | | | | | | | |
| 3 | | 3 | 6 | 65 | 1309 | 1203 | 1130 | 3931131 | 2666666 | 3999998 |
| | 792916 | | | | | | | | | |
| 4 | | 2 | 6 | 80 | 1532 | 1852 | 0 | 4727689 | 3999999 | 5333331 |
| | 956270 | | | | | | | | | |
| 5 | | 3 | 6 | 70 | 1909 | 1597 | 1562 | 5687343 | 5333332 | 6666664 |
| | 1833996 | | | | | | | | | |
| 6 | | 1 | 6 | 100 | 1491 | 0 | 0 | 7526407 | 6666665 | 7999997 |
| | 1645316 | | | | | | | | | |
| 7 | | 1 | 6 | 95 | 1993 | 0 | 0 | 9173214 | 7999998 | 9333330 |
| | 233733 | | | | | | | | | |
| 8 | | 3 | 6 | 75 | 1830 | 1532 | 1350 | 9408940 | 9333331 | 10666663 |
| | 2193494 | | | | | | | | | |
| 9 | | 2 | 6 | 50 | 1572 | 1328 | 0 | 11607146 | 10666664 | 11999996 |

Total number of pulses in waveform = 20
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## Type 5 Radar Waveform_19

Num of Bursts = 15
Burst Interval (us)= 800000

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| | 638258 | | | | | | | | | |
| 1 | | 3 | 14 | 65 | 1542 | 1925 | 1397 | 638258 | 0 | 799999 |
| | 199432 | | | | | | | | | |
| 2 | | 1 | 14 | 100 | 1001 | 0 | 0 | 842554 | 800000 | 1599999 |
| | 1460508 | | | | | | | | | |
| 3 | | 2 | 14 | 85 | 1560 | 1274 | 0 | 2304063 | 1600000 | 2399999 |
| | 583052 | | | | | | | | | |
| 4 | | 2 | 14 | 55 | 1115 | 1298 | 0 | 2889949 | 2400000 | 3199999 |
| | 560223 | | | | | | | | | |
| 5 | | 1 | 14 | 80 | 1604 | 0 | 0 | 3452585 | 3200000 | 3999999 |
| | 840661 | | | | | | | | | |
| 6 | | 3 | 14 | 75 | 1667 | 1953 | 1541 | 4294850 | 4000000 | 4799999 |
| | 583207 | | | | | | | | | |
| 7 | | 1 | 14 | 60 | 1886 | 0 | 0 | 4883218 | 4800000 | 5599999 |
| | 918033 | | | | | | | | | |
| 8 | | 2 | 14 | 80 | 1622 | 1358 | 0 | 5803137 | 5600000 | 6399999 |
| | 827028 | | | | | | | | | |
| 9 | | 1 | 14 | 85 | 1997 | 0 | 0 | 6633145 | 6400000 | 7199999 |
| | 1024569 | | | | | | | | | |
| 10 | | 2 | 14 | 60 | 1210 | 1600 | 0 | 7659711 | 7200000 | 7999999 |
| | 703654 | | | | | | | | | |
| 11 | | 3 | 14 | 100 | 1131 | 1367 | 1562 | 8366175 | 8000000 | 8799999 |
| | 577360 | | | | | | | | | |
| 12 | | 3 | 14 | 95 | 1947 | 1506 | 1952 | 8947595 | 8800000 | 9599999 |
| | 1065678 | | | | | | | | | |
| 13 | | 3 | 14 | 55 | 1701 | 1169 | 1993 | 10018678 | 9600000 | 10399999 |
| | 1121773 | | | | | | | | | |
| 14 | | 3 | 14 | 60 | 1322 | 1073 | 1036 | 11145314 | 10400000 | 11199999 |
| | 780392 | | | | | | | | | |
| 15 | | 2 | 14 | 80 | 1369 | 1910 | 0 | 11929137 | 11200000 | 11999999 |

Total number of pulses in waveform = 32
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## Type 5 Radar Waveform_20

Num of Bursts = 12
Burst Interval (us)= 1000000

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 73550 | 2 | 9 | 65 | 1184 | 1650 | 0 | 73550 | 0 | 999999 |
| 2 | 1232205 | 3 | 9 | 55 | 1264 | 1597 | 1043 | 1308589 | 1000000 | 1999999 |
| 3 | 811953 | 3 | 9 | 70 | 1317 | 1644 | 1097 | 2124446 | 2000000 | 2999999 |
| 4 | 1185426 | 3 | 9 | 50 | 1792 | 1168 | 1748 | 3313930 | 3000000 | 3999999 |
| 5 | 1604020 | 2 | 9 | 90 | 1401 | 1610 | 0 | 4922658 | 4000000 | 4999999 |
| 6 | 255731 | 2 | 9 | 85 | 1279 | 1061 | 0 | 5181400 | 5000000 | 5999999 |
| 7 | 993609 | 1 | 9 | 70 | 1986 | 0 | 0 | 6177349 | 6000000 | 6999999 |
| 8 | 1355359 | 1 | 9 | 85 | 1148 | 0 | 0 | 7534694 | 7000000 | 7999999 |
| 9 | 1200316 | 3 | 9 | 50 | 1135 | 1151 | 1943 | 8736158 | 8000000 | 8999999 |
| 10 | 960785 | 3 | 9 | 90 | 1858 | 1615 | 1722 | 9701172 | 9000000 | 9999999 |
| 11 | 1023621 | 2 | 9 | 75 | 1456 | 1934 | 0 | 10729988 | 10000000 | 10999999 |
| 12 | 363892 | 3 | 9 | 65 | 1403 | 1749 | 1194 | 11097270 | 11000000 | 11999999 |

Total number of pulses in waveform = 28
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## Type 5 Radar Waveform_21

Num of Bursts = 20
Burst Interval (us)= 600000

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 13190 | 2 | 10 | 90 | 1369 | 1256 | 0 | 13190 | 0 | 599999 |
| 2 | 1055160 | 3 | 10 | 90 | 1669 | 1815 | 1345 | 1070975 | 600000 | 1199999 |
| 3 | 696270 | 2 | 10 | 80 | 1197 | 1222 | 0 | 1772074 | 1200000 | 1799999 |
| 4 | 319748 | 1 | 10 | 80 | 1331 | 0 | 0 | 2094241 | 1800000 | 2399999 |
| 5 | 385860 | 1 | 10 | 85 | 1471 | 0 | 0 | 2481432 | 2400000 | 2999999 |
| 6 | 660720 | 1 | 10 | 85 | 1577 | 0 | 0 | 3143623 | 3000000 | 3599999 |
| 7 | 959817 | 2 | 10 | 95 | 1961 | 1085 | 0 | 4105017 | 3600000 | 4199999 |
| 8 | 644953 | 1 | 10 | 50 | 1471 | 0 | 0 | 4753016 | 4200000 | 4799999 |
| 9 | 260755 | 2 | 10 | 85 | 1104 | 1628 | 0 | 5015242 | 4800000 | 5399999 |
| 10 | 800694 | 3 | 10 | 80 | 1581 | 1291 | 1968 | 5818668 | 5400000 | 5999999 |
| 11 | 493739 | 2 | 10 | 100 | 1005 | 1320 | 0 | 6317247 | 6000000 | 6599999 |
| 12 | 426654 | 2 | 10 | 55 | 1712 | 1371 | 0 | 6746226 | 6600000 | 7199999 |
| 13 | 625041 | 2 | 10 | 95 | 1239 | 1469 | 0 | 7374350 | 7200000 | 7799999 |
| 14 | 567420 | 1 | 10 | 60 | 1176 | 0 | 0 | 7944478 | 7800000 | 8399999 |
| 15 | 936716 | 2 | 10 | 70 | 1186 | 1972 | 0 | 8882370 | 8400000 | 8999999 |
| 16 | 143295 | 2 | 10 | 55 | 1789 | 1340 | 0 | 9028823 | 9000000 | 9599999 |
| 17 | 769263 | 1 | 10 | 100 | 1797 | 0 | 0 | 9801215 | 9600000 | 10199999 |
| 18 | 872699 | 3 | 10 | 55 | 1031 | 1674 | 1681 | 10675711 | 10200000 | 10799999 |
| 19 | 229009 | 1 | 10 | 85 | 1961 | 0 | 0 | 10909106 | 10800000 | 11399999 |
| 20 | 1027713 | 1 | 10 | 70 | 1778 | 0 | 0 | 11938780 | 11400000 | 11999999 |

Total number of pulses in waveform = 35
**********

## Type 5 Radar Waveform_22

Num of Bursts = 8
Burst Interval (us)= 1500000

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 957583 | 2 | 5 | 55 | 1361 | 1300 | 0 | 957583 | 0 | 1499999 |
| 2 | 1112640 | 2 | 5 | 90 | 1352 | 1669 | 0 | 2072884 | 1500000 | 2999999 |
| 3 | 2187749 | 3 | 5 | 55 | 1691 | 1984 | 1322 | 4263654 | 3000000 | 4499999 |
| 4 | 851195 | 1 | 5 | 70 | 1411 | 0 | 0 | 5119846 | 4500000 | 5999999 |
| 5 | 1020934 | 3 | 5 | 100 | 1148 | 1773 | 1221 | 6142191 | 6000000 | 7499999 |
| 6 | 1568471 | 1 | 5 | 65 | 1297 | 0 | 0 | 7714804 | 7500000 | 8999999 |
| 7 | 1489760 | 1 | 5 | 70 | 1973 | 0 | 0 | 9205861 | 9000000 | 10499999 |
| 8 | 2012708 | 2 | 5 | 55 | 1256 | 1432 | 0 | 11220542 | 10500000 | 11999999 |

Total number of pulses in waveform = 15
**********

## Type 5 Radar Waveform_23

Num of Bursts = 12
Burst Interval (us)= 1000000

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 790214 | 3 | 9 | 100 | 1853 | 1774 | 1249 | 790214 | 0 | 999999 |
| 2 | 445069 | 1 | 9 | 70 | 1912 | 0 | 0 | 1240159 | 1000000 | 1999999 |
| 3 | 1093180 | 3 | 9 | 90 | 1896 | 1774 | 1618 | 2335251 | 2000000 | 2999999 |
| 4 | 665379 | 2 | 9 | 85 | 1722 | 1813 | 0 | 3005918 | 3000000 | 3999999 |
| 5 | 1554028 | 2 | 9 | 65 | 1880 | 1046 | 0 | 4563481 | 4000000 | 4999999 |
| 6 | 924174 | 3 | 9 | 75 | 1732 | 1006 | 1503 | 5490581 | 5000000 | 5999999 |
| 7 | 1056002 | 3 | 9 | 80 | 1986 | 1309 | 1716 | 6550824 | 6000000 | 6999999 |
| 8 | 806392 | 1 | 9 | 60 | 1033 | 0 | 0 | 7362227 | 7000000 | 7999999 |
| 9 | 1353340 | 2 | 9 | 65 | 1215 | 1423 | 0 | 8716600 | 8000000 | 8999999 |
| 10 | 1236986 | 1 | 9 | 70 | 1821 | 0 | 0 | 9956224 | 9000000 | 9999999 |
| 11 | 903349 | 3 | 9 | 100 | 1979 | 1633 | 1397 | 10861394 | 10000000 | 10999999 |
| 12 | 1079994 | 2 | 9 | 70 | 1316 | 1670 | 0 | 11946397 | 11000000 | 11999999 |

Total number of pulses in waveform = 26
**********

## Type 5 Radar Waveform_24

Num of Bursts = 19
Burst Interval (us)= 631579

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 522327 | 2 | 18 | 60 | 1053 | 1918 | 0 | 522327 | 0 | 631578 |
| 2 | 357073 | 1 | 18 | 90 | 1542 | 0 | 0 | 882371 | 631579 | 1263157 |
| 3 | 851469 | 2 | 18 | 50 | 1981 | 1426 | 0 | 1735382 | 1263158 | 1894736 |
| 4 | 556146 | 1 | 18 | 65 | 1237 | 0 | 0 | 2294935 | 1894737 | 2526315 |
| 5 | 573357 | 2 | 18 | 65 | 1776 | 1360 | 0 | 2869529 | 2526316 | 3157894 |
| 6 | 405161 | 2 | 18 | 70 | 1631 | 1950 | 0 | 3277826 | 3157895 | 3789473 |
| 7 | 1026491 | 2 | 18 | 90 | 1255 | 1720 | 0 | 4307898 | 3789474 | 4421052 |
| 8 | 444785 | 1 | 18 | 70 | 1422 | 0 | 0 | 4755658 | 4421053 | 5052631 |
| 9 | 828123 | 1 | 18 | 70 | 1105 | 0 | 0 | 5585203 | 5052632 | 5684210 |
| 10 | 441249 | 1 | 18 | 60 | 1760 | 0 | 0 | 6027557 | 5684211 | 6315789 |
| 11 | 291927 | 2 | 18 | 95 | 1452 | 1467 | 0 | 6321244 | 6315790 | 6947368 |
| 12 | 742401 | 1 | 18 | 55 | 1552 | 0 | 0 | 7066564 | 6947369 | 7578947 |
| 13 | 564148 | 1 | 18 | 75 | 1463 | 0 | 0 | 7632264 | 7578948 | 8210526 |
| 14 | 812942 | 3 | 18 | 85 | 1559 | 1339 | 1815 | 8446669 | 8210527 | 8842105 |
| 15 | 788983 | 2 | 18 | 95 | 1478 | 1542 | 0 | 9240365 | 8842106 | 9473684 |
| 16 | 297538 | 3 | 18 | 85 | 1222 | 1546 | 1789 | 9540923 | 9473685 | 10105263 |
| 17 | 695260 | 3 | 18 | 75 | 1287 | 1108 | 1896 | 10240740 | 10105264 | 10736842 |
| 18 | 844377 | 3 | 18 | 60 | 1984 | 1759 | 1040 | 11089408 | 10736843 | 11368421 |
| 19 | 744387 | 1 | 18 | 75 | 1742 | 0 | 0 | 11838578 | 11368422 | 12000000 |

Total number of pulses in waveform = 34
**********

## Type 5 Radar Waveform_25

Num of Bursts = 11
Burst Interval (us)= 1090909

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 536606 | 2 | 12 | 75 | 1840 | 1513 | 0 | 536606 | 0 | 1090908 |
| 2 | 1059057 | 3 | 12 | 55 | 1946 | 1037 | 1773 | 1599016 | 1090909 | 2181817 |
| 3 | 1364575 | 3 | 12 | 55 | 1282 | 1126 | 1024 | 2968347 | 2181818 | 3272726 |
| 4 | 1264722 | 2 | 12 | 60 | 1178 | 1315 | 0 | 4236501 | 3272727 | 4363635 |
| 5 | 177333 | 3 | 12 | 60 | 1419 | 1454 | 1260 | 4416327 | 4363636 | 5454544 |
| 6 | 1325127 | 1 | 12 | 70 | 1818 | 0 | 0 | 5745587 | 5454545 | 6545453 |
| 7 | 1409243 | 2 | 12 | 70 | 1008 | 1312 | 0 | 7156648 | 6545454 | 7636362 |
| 8 | 1352819 | 1 | 12 | 90 | 1093 | 0 | 0 | 8511787 | 7636363 | 8727271 |
| 9 | 399704 | 1 | 12 | 70 | 1538 | 0 | 0 | 8912584 | 8727272 | 9818180 |
| 10 | 1899674 | 3 | 12 | 95 | 1708 | 1790 | 1404 | 10813796 | 9818181 | 10909089 |
| 11 | 752590 | 2 | 12 | 60 | 1707 | 1559 | 0 | 11571288 | 10909090 | 11999998 |

Total number of pulses in waveform = 23
**********

## Type 5 Radar Waveform_26

Num of Bursts = 12
Burst Interval (us)= 1000000

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 434384 | 1 | 6 | 70 | 1549 | 0 | 0 | 434384 | 0 | 999999 |
| 2 | 807372 | 1 | 6 | 65 | 1962 | 0 | 0 | 1243305 | 1000000 | 1999999 |
| 3 | 754889 | 1 | 6 | 65 | 1353 | 0 | 0 | 2000156 | 2000000 | 2999999 |
| 4 | 1111836 | 2 | 6 | 85 | 1430 | 1128 | 0 | 3113345 | 3000000 | 3999999 |
| 5 | 1294795 | 3 | 6 | 70 | 1399 | 1076 | 1077 | 4410698 | 4000000 | 4999999 |
| 6 | 911809 | 1 | 6 | 90 | 1343 | 0 | 0 | 5326059 | 5000000 | 5999999 |
| 7 | 785701 | 2 | 6 | 75 | 1816 | 1571 | 0 | 6113103 | 6000000 | 6999999 |
| 8 | 1364886 | 2 | 6 | 75 | 1147 | 1074 | 0 | 7481376 | 7000000 | 7999999 |
| 9 | 918320 | 2 | 6 | 75 | 1826 | 1633 | 0 | 8401917 | 8000000 | 8999999 |
| 10 | 1363907 | 3 | 6 | 85 | 1134 | 1356 | 1660 | 9769283 | 9000000 | 9999999 |
| 11 | 769496 | 2 | 6 | 75 | 1361 | 1336 | 0 | 10542929 | 10000000 | 10999999 |
| 12 | 1446662 | 1 | 6 | 50 | 1208 | 0 | 0 | 11992288 | 11000000 | 11999999 |

Total number of pulses in waveform = 21
**********

## Type 5 Radar Waveform_27

Num of Bursts = 16
Burst Interval (us)= 750000

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 624370 | 2 | 19 | 55 | 1196 | 1463 | 0 | 624370 | 0 | 749999 |
| 2 | 271272 | 2 | 19 | 85 | 1879 | 1441 | 0 | 898301 | 750000 | 1499999 |
| 3 | 661881 | 2 | 19 | 50 | 1509 | 1578 | 0 | 1563502 | 1500000 | 2249999 |
| 4 | 1204787 | 3 | 19 | 75 | 1573 | 1124 | 1605 | 2771376 | 2250000 | 2999999 |
| 5 | 829695 | 3 | 19 | 100 | 1746 | 1943 | 1952 | 3605373 | 3000000 | 3749999 |
| 6 | 845554 | 2 | 19 | 55 | 1020 | 1875 | 0 | 4456568 | 3750000 | 4499999 |
| 7 | 499061 | 1 | 19 | 85 | 1820 | 0 | 0 | 4958524 | 4500000 | 5249999 |
| 8 | 830316 | 3 | 19 | 90 | 1027 | 1955 | 1969 | 5790660 | 5250000 | 5999999 |
| 9 | 246379 | 2 | 19 | 60 | 1348 | 1886 | 0 | 6041990 | 6000000 | 6749999 |
| 10 | 967878 | 1 | 19 | 100 | 1096 | 0 | 0 | 7013102 | 6750000 | 7499999 |
| 11 | 690339 | 3 | 19 | 80 | 1965 | 1865 | 1700 | 7704537 | 7500000 | 8249999 |
| 12 | 931681 | 1 | 19 | 50 | 1423 | 0 | 0 | 8641748 | 8250000 | 8999999 |
| 13 | 880001 | 3 | 19 | 100 | 1310 | 1142 | 1670 | 9523172 | 9000000 | 9749999 |
| 14 | 263433 | 3 | 19 | 90 | 1565 | 1037 | 1071 | 9790727 | 9750000 | 10499999 |
| 15 | 1081567 | 2 | 19 | 70 | 1141 | 1486 | 0 | 10875967 | 10500000 | 11249999 |
| 16 | 1047010 | 2 | 19 | 70 | 1669 | 1440 | 0 | 11925604 | 11250000 | 11999999 |

Total number of pulses in waveform = 35
**********

## Type 5 Radar Waveform_28

Num of Bursts = 16
Burst Interval (us)= 750000

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 172750 | 1 | 8 | 55 | 1886 | 0 | 0 | 172750 | 0 | 749999 |
| 2 | 616928 | 1 | 8 | 90 | 1488 | 0 | 0 | 791564 | 750000 | 1499999 |
| 3 | 848896 | 3 | 8 | 50 | 1536 | 1316 | 1974 | 1641948 | 1500000 | 2249999 |
| 4 | 1066083 | 2 | 8 | 70 | 1459 | 1084 | 0 | 2712857 | 2250000 | 2999999 |
| 5 | 509398 | 3 | 8 | 65 | 1011 | 1496 | 1550 | 3224798 | 3000000 | 3749999 |
| 6 | 1141477 | 3 | 8 | 95 | 1879 | 1590 | 1499 | 4370332 | 3750000 | 4499999 |
| 7 | 801700 | 1 | 8 | 100 | 1609 | 0 | 0 | 5177000 | 4500000 | 5249999 |
| 8 | 171638 | 2 | 8 | 95 | 1287 | 1329 | 0 | 5350247 | 5250000 | 5999999 |
| 9 | 1159652 | 1 | 8 | 75 | 1361 | 0 | 0 | 6512515 | 6000000 | 6749999 |
| 10 | 330769 | 1 | 8 | 70 | 1686 | 0 | 0 | 6844645 | 6750000 | 7499999 |
| 11 | 678081 | 2 | 8 | 70 | 1122 | 1427 | 0 | 7524412 | 7500000 | 8249999 |
| 12 | 1124325 | 3 | 8 | 80 | 1474 | 1597 | 1725 | 8651286 | 8250000 | 8999999 |
| 13 | 1007130 | 2 | 8 | 80 | 1263 | 1895 | 0 | 9663212 | 9000000 | 9749999 |
| 14 | 501133 | 3 | 8 | 80 | 1356 | 1719 | 1485 | 10167503 | 9750000 | 10499999 |
| 15 | 1072458 | 2 | 8 | 100 | 1586 | 1591 | 0 | 11244521 | 10500000 | 11249999 |
| 16 | 468740 | 1 | 8 | 65 | 1104 | 0 | 0 | 11716438 | 11250000 | 11999999 |

Total number of pulses in waveform = 31
**********

## Type 5 Radar Waveform_29

Num of Bursts = 12
Burst Interval (us)= 1000000

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 222811 | 3 | 17 | 70 | 1003 | 1851 | 1740 | 222811 | 0 | 999999 |
| 2 | 1018146 | 1 | 17 | 90 | 1014 | 0 | 0 | 1245551 | 1000000 | 1999999 |
| 3 | 1713601 | 2 | 17 | 85 | 1552 | 1784 | 0 | 2960166 | 2000000 | 2999999 |
| 4 | 870663 | 1 | 17 | 75 | 1613 | 0 | 0 | 3834165 | 3000000 | 3999999 |
| 5 | 1001413 | 2 | 17 | 75 | 1548 | 1403 | 0 | 4837191 | 4000000 | 4999999 |
| 6 | 847745 | 3 | 17 | 55 | 1570 | 1762 | 1368 | 5687887 | 5000000 | 5999999 |
| 7 | 348657 | 1 | 17 | 90 | 1364 | 0 | 0 | 6041244 | 6000000 | 6999999 |
| 8 | 1343687 | 2 | 17 | 70 | 1534 | 1271 | 0 | 7386295 | 7000000 | 7999999 |
| 9 | 752263 | 3 | 17 | 100 | 1951 | 1670 | 1118 | 8141363 | 8000000 | 8999999 |
| 10 | 929733 | 2 | 17 | 65 | 1147 | 1809 | 0 | 9075835 | 9000000 | 9999999 |
| 11 | 1597865 | 2 | 17 | 100 | 1095 | 1181 | 0 | 10676656 | 10000000 | 10999999 |
| 12 | 654184 | 2 | 17 | 80 | 1087 | 1481 | 0 | 11333116 | 11000000 | 11999999 |

Total number of pulses in waveform = 24

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## Type 5 Radar Waveform_30

Num of Bursts = 12
Burst Interval (us)= 1000000

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 957953 | 1 | 14 | 70 | 1364 | 0 | 0 | 957953 | 0 | 999999 |
| 2 | 134082 | 2 | 14 | 90 | 1890 | 1328 | 0 | 1093399 | 1000000 | 1999999 |
| 3 | 1890890 | 1 | 14 | 65 | 1875 | 0 | 0 | 2987507 | 2000000 | 2999999 |
| 4 | 728687 | 1 | 14 | 95 | 1248 | 0 | 0 | 3718069 | 3000000 | 3999999 |
| 5 | 1011053 | 3 | 14 | 100 | 1633 | 1193 | 1214 | 4730370 | 4000000 | 4999999 |
| 6 | 1163700 | 2 | 14 | 75 | 1043 | 1806 | 0 | 5898110 | 5000000 | 5999999 |
| 7 | 507071 | 3 | 14 | 95 | 1958 | 1233 | 1489 | 6408030 | 6000000 | 6999999 |
| 8 | 1518327 | 3 | 14 | 60 | 1338 | 1652 | 1367 | 7931037 | 7000000 | 7999999 |
| 9 | 1014209 | 1 | 14 | 50 | 1174 | 0 | 0 | 8949603 | 8000000 | 8999999 |
| 10 | 61234 | 1 | 14 | 100 | 1569 | 0 | 0 | 9012011 | 9000000 | 9999999 |
| 11 | 1755806 | 3 | 14 | 75 | 1546 | 1793 | 1339 | 10769386 | 10000000 | 10999999 |
| 12 | 731085 | 2 | 14 | 70 | 1743 | 1938 | 0 | 11505149 | 11000000 | 11999999 |

Total number of pulses in waveform = 23

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Radar Type 6 - Radar Statistical Performance

| Trail # | Test Freq. (MHz) | 1=Detection 0=No Detection | Trail # | Test Freq. (MHz) | 1=Detection 0=No Detection |
|---|---|---|---|---|---|
| 1 | 5292 | 1 | 16 | 5300 | 1 |
| 2 | 5292 | 1 | 17 | 5300 | 1 |
| 3 | 5292 | 1 | 18 | 5300 | 1 |
| 4 | 5292 | 1 | 19 | 5300 | 1 |
| 5 | 5292 | 1 | 20 | 5300 | 1 |
| 6 | 5292 | 1 | 21 | 5308 | 1 |
| 7 | 5292 | 1 | 22 | 5308 | 1 |
| 8 | 5292 | 1 | 23 | 5308 | 1 |
| 9 | 5292 | 1 | 24 | 5308 | 1 |
| 10 | 5292 | 1 | 25 | 5308 | 1 |
| 11 | 5300 | 1 | 26 | 5308 | 1 |
| 12 | 5300 | 1 | 27 | 5308 | 1 |
| 13 | 5300 | 1 | 28 | 5308 | 1 |
| 14 | 5300 | 1 | 29 | 5308 | 1 |
| 15 | 5300 | 1 | 30 | 5308 | 1 |
| Detection Percentage (%) | | | | | 100% |

| Radar waveform #1 | | | Radar waveform #2 | | |
|---|---|---|---|---|---|
| Hopping Number | Frequency (MHz) | Pulse Start (ms) | Hopping Number | Frequency (MHz) | Pulse Start (ms) |
| 6 | 5303 | 18 | 1 | 5282 | 3 |
| 11 | 5316 | 33 | 5 | 5306 | 15 |
| 19 | 5285 | 57 | 6 | 5318 | 18 |
| 24 | 5322 | 72 | 10 | 5262 | 30 |
| 35 | 5270 | 105 | 12 | 5310 | 36 |
| 37 | 5283 | 111 | 13 | 5292 | 39 |
| 49 | 5273 | 147 | 15 | 5276 | 45 |
| 55 | 5320 | 165 | 20 | 5319 | 60 |
| 56 | 5311 | 168 | 29 | 5264 | 87 |
| 65 | 5268 | 195 | 32 | 5316 | 96 |
| 66 | 5271 | 198 | 42 | 5277 | 126 |
| 68 | 5301 | 204 | 45 | 5293 | 135 |
| 75 | 5302 | 225 | 48 | 5291 | 144 |
| 76 | 5307 | 228 | 55 | 5289 | 165 |
| 78 | 5274 | 234 | 75 | 5300 | 225 |
| 79 | 5278 | 237 | 98 | 5322 | 294 |
| 81 | 5267 | 243 | -- | -- | -- |

| Radar waveform #3 | | | Radar waveform #4 | | |
|---|---|---|---|---|---|
| Hopping Number | Frequency (MHz) | Pulse Start (ms) | Hopping Number | Frequency (MHz) | Pulse Start (ms) |
| 6 | 5267 | 18 | 9 | 5322 | 27 |
| 7 | 5293 | 21 | 31 | 5309 | 93 |
| 14 | 5316 | 42 | 44 | 5316 | 132 |
| 16 | 5302 | 48 | 47 | 5263 | 141 |
| 24 | 5272 | 72 | 53 | 5291 | 159 |
| 26 | 5283 | 78 | 58 | 5273 | 174 |
| 34 | 5278 | 102 | 59 | 5268 | 177 |
| 35 | 5301 | 105 | 66 | 5265 | 198 |
| 40 | 5298 | 120 | 72 | 5267 | 216 |
| 47 | 5287 | 141 | 77 | 5292 | 231 |
| 65 | 5306 | 195 | 99 | 5278 | 297 |
| 86 | 5299 | 258 | -- | -- | -- |
| 95 | 5266 | 285 | -- | -- | -- |

| Radar waveform #5 | | | Radar waveform #6 | | |
|---|---|---|---|---|---|
| Hopping Number | Frequency (MHz) | Pulse Start (ms) | Hopping Number | Frequency (MHz) | Pulse Start (ms) |
| 3 | 5318 | 9 | 7 | 5318 | 21 |
| 10 | 5316 | 30 | 12 | 5300 | 36 |
| 17 | 5284 | 51 | 15 | 5298 | 45 |
| 30 | 5266 | 90 | 29 | 5265 | 87 |
| 36 | 5296 | 108 | 34 | 5284 | 102 |
| 38 | 5285 | 114 | 49 | 5315 | 147 |
| 40 | 5288 | 120 | 58 | 5309 | 174 |
| 62 | 5293 | 186 | 66 | 5314 | 198 |
| 64 | 5274 | 192 | 70 | 5295 | 210 |
| 67 | 5317 | 201 | 78 | 5299 | 234 |
| 80 | 5301 | 240 | 87 | 5285 | 261 |
| 91 | 5276 | 273 | 96 | 5281 | 288 |
| 92 | 5310 | 276 | -- | -- | -- |
| 93 | 5290 | 279 | -- | -- | -- |
| 97 | 5297 | 291 | -- | -- | -- |
| 99 | 5294 | 297 | -- | -- | -- |

| Radar waveform #7 | | | Radar waveform #8 | | |
|---|---|---|---|---|---|
| Hopping Number | Frequency (MHz) | Pulse Start (ms) | Hopping Number | Frequency (MHz) | Pulse Start (ms) |
| 5 | 5308 | 15 | 14 | 5280 | 42 |
| 8 | 5315 | 24 | 20 | 5310 | 60 |
| 16 | 5298 | 48 | 22 | 5282 | 66 |
| 19 | 5291 | 57 | 26 | 5271 | 78 |
| 50 | 5307 | 150 | 30 | 5289 | 90 |
| 51 | 5292 | 153 | 34 | 5262 | 102 |
| 53 | 5309 | 159 | 36 | 5314 | 108 |
| 55 | 5314 | 165 | 44 | 5318 | 132 |
| 59 | 5269 | 177 | 45 | 5295 | 135 |
| 63 | 5286 | 189 | 64 | 5267 | 192 |
| 72 | 5294 | 216 | 77 | 5307 | 231 |
| 83 | 5279 | 249 | 90 | 5315 | 270 |
| 84 | 5266 | 252 | -- | -- | -- |
| 85 | 5295 | 255 | -- | -- | -- |
| 90 | 5311 | 270 | -- | -- | -- |
| 96 | 5317 | 288 | -- | -- | -- |

| Radar waveform #9 | | | Radar waveform #10 | | |
|---|---|---|---|---|---|
| Hopping Number | Frequency (MHz) | Pulse Start (ms) | Hopping Number | Frequency (MHz) | Pulse Start (ms) |
| 9 | 5319 | 27 | 4 | 5281 | 12 |
| 12 | 5298 | 36 | 9 | 5297 | 27 |
| 13 | 5265 | 39 | 17 | 5315 | 51 |
| 14 | 5318 | 42 | 19 | 5312 | 57 |
| 21 | 5279 | 63 | 22 | 5288 | 66 |
| 30 | 5268 | 90 | 23 | 5286 | 69 |
| 59 | 5294 | 177 | 26 | 5311 | 78 |
| 62 | 5304 | 186 | 46 | 5292 | 138 |
| 69 | 5299 | 207 | 47 | 5296 | 141 |
| 78 | 5314 | 234 | 64 | 5318 | 192 |
| 82 | 5285 | 246 | 66 | 5322 | 198 |
| 92 | 5305 | 276 | 70 | 5276 | 210 |
| 96 | 5312 | 288 | 71 | 5277 | 213 |
| -- | -- | -- | 75 | 5283 | 225 |
| -- | -- | -- | 83 | 5305 | 249 |
| -- | -- | -- | 99 | 5284 | 297 |

| Radar waveform #11 | | | Radar waveform #12 | | |
|---|---|---|---|---|---|
| Hopping Number | Frequency (MHz) | Pulse Start (ms) | Frequency (MHz) | Hopping Number | Pulse Start (ms) |
| 14 | 5293 | 42 | 1 | 5318 | 3 |
| 24 | 5280 | 72 | 13 | 5274 | 39 |
| 27 | 5275 | 81 | 19 | 5284 | 57 |
| 41 | 5330 | 123 | 23 | 5314 | 69 |
| 66 | 5319 | 198 | 28 | 5320 | 84 |
| 74 | 5314 | 222 | 33 | 5272 | 99 |
| 75 | 5329 | 225 | 54 | 5326 | 162 |
| 78 | 5305 | 234 | 55 | 5310 | 165 |
| 79 | 5270 | 237 | 61 | 5285 | 183 |
| 81 | 5318 | 243 | 65 | 5287 | 195 |
| 87 | 5316 | 261 | 74 | 5302 | 222 |
| 91 | 5324 | 273 | 80 | 5319 | 240 |
| 96 | 5303 | 288 | 82 | 5306 | 246 |
| -- | -- | -- | 93 | 5325 | 279 |
| -- | -- | -- | 95 | 5282 | 285 |

| Radar waveform #13 | | | Radar waveform #14 | | |
|---|---|---|---|---|---|
| Hopping Number | Frequency (MHz) | Pulse Start (ms) | Hopping Number | Frequency (MHz) | Pulse Start (ms) |
| 1 | 5300 | 3 | 1 | 5318 | 3 |
| 12 | 5307 | 36 | 4 | 5278 | 12 |
| 14 | 5280 | 42 | 8 | 5320 | 24 |
| 19 | 5326 | 57 | 13 | 5314 | 39 |
| 32 | 5273 | 96 | 18 | 5281 | 54 |
| 35 | 5320 | 105 | 34 | 5330 | 102 |
| 36 | 5287 | 108 | 44 | 5276 | 132 |
| 54 | 5285 | 162 | 45 | 5272 | 135 |
| 57 | 5291 | 171 | 46 | 5283 | 138 |
| 61 | 5313 | 183 | 48 | 5312 | 144 |
| 74 | 5322 | 222 | 53 | 5298 | 159 |
| 75 | 5295 | 225 | 57 | 5287 | 171 |
| 83 | 5310 | 249 | 69 | 5284 | 207 |
| 89 | 5294 | 267 | 71 | 5303 | 213 |
| 90 | 5328 | 270 | 86 | 5311 | 258 |

| Radar waveform #15 | | | Radar waveform #16 | | |
|---|---|---|---|---|---|
| Hopping Number | Frequency (MHz) | Pulse Start (ms) | Hopping Number | Frequency (MHz) | Pulse Start (ms) |
| 13 | 5303 | 39 | 4 | 5285 | 12 |
| 17 | 5315 | 51 | 7 | 5325 | 21 |
| 51 | 5281 | 153 | 16 | 5277 | 48 |
| 65 | 5309 | 195 | 17 | 5272 | 51 |
| 79 | 5286 | 237 | 34 | 5321 | 102 |
| 81 | 5310 | 243 | 47 | 5322 | 141 |
| -- | -- | -- | 58 | 5288 | 174 |
| -- | -- | -- | 61 | 5300 | 183 |
| -- | -- | -- | 63 | 5297 | 189 |
| -- | -- | -- | 68 | 5294 | 204 |
| -- | -- | -- | 73 | 5301 | 219 |
| -- | -- | -- | 74 | 5282 | 222 |
| -- | -- | -- | 88 | 5274 | 264 |

| Radar waveform #17 | | | Radar waveform #18 | | |
|---|---|---|---|---|---|
| Hopping Number | Frequency (MHz) | Pulse Start (ms) | Hopping Number | Frequency (MHz) | Pulse Start (ms) |
| 0 | 5283 | 0 | 1 | 5293 | 3 |
| 2 | 5289 | 6 | 11 | 5302 | 33 |
| 15 | 5327 | 45 | 15 | 5325 | 45 |
| 34 | 5295 | 102 | 26 | 5326 | 78 |
| 40 | 5278 | 120 | 29 | 5289 | 87 |
| 45 | 5328 | 135 | 36 | 5288 | 108 |
| 48 | 5326 | 144 | 37 | 5330 | 111 |
| 51 | 5281 | 153 | 40 | 5304 | 120 |
| 59 | 5271 | 177 | 45 | 5272 | 135 |
| 62 | 5292 | 186 | 57 | 5328 | 171 |
| 69 | 5293 | 207 | 65 | 5327 | 195 |
| 76 | 5277 | 228 | 76 | 5305 | 228 |
| 82 | 5286 | 246 | 78 | 5277 | 234 |
| 86 | 5305 | 258 | 92 | 5310 | 276 |
| 97 | 5316 | 291 | -- | -- | -- |
| 98 | 5313 | 294 | -- | -- | -- |

| Radar waveform #19 | | | Radar waveform #20 | | |
|---|---|---|---|---|---|
| Hopping Number | Frequency (MHz) | Pulse Start (ms) | Hopping Number | Frequency (MHz) | Pulse Start (ms) |
| 7 | 5273 | 21 | 0 | 5279 | 0 |
| 16 | 5327 | 48 | 7 | 5330 | 21 |
| 30 | 5324 | 90 | 24 | 5318 | 72 |
| 33 | 5319 | 99 | 29 | 5320 | 87 |
| 44 | 5272 | 132 | 56 | 5296 | 168 |
| 60 | 5311 | 180 | 64 | 5299 | 192 |
| 69 | 5313 | 207 | 70 | 5311 | 210 |
| 71 | 5274 | 213 | 90 | 5274 | 270 |
| 74 | 5321 | 222 | 91 | 5272 | 273 |
| 75 | 5279 | 225 | 94 | 5329 | 282 |
| 85 | 5270 | 255 | 95 | 5307 | 285 |
| 92 | 5286 | 276 | -- | -- | -- |
| 98 | 5309 | 294 | -- | -- | -- |

| Radar waveform #21 | | | Radar waveform #22 | | |
|---|---|---|---|---|---|
| Hopping Number | Frequency (MHz) | Pulse Start (ms) | Hopping Number | Frequency (MHz) | Pulse Start (ms) |
| 29 | 5333 | 87 | 4 | 5312 | 12 |
| 30 | 5281 | 90 | 27 | 5292 | 81 |
| 36 | 5335 | 108 | 33 | 5336 | 99 |
| 40 | 5303 | 120 | 35 | 5320 | 105 |
| 43 | 5326 | 129 | 40 | 5310 | 120 |
| 47 | 5314 | 141 | 59 | 5280 | 177 |
| 71 | 5324 | 213 | 66 | 5326 | 198 |
| 81 | 5329 | 243 | 71 | 5307 | 213 |
| 91 | 5285 | 273 | 76 | 5282 | 228 |
| -- | -- | -- | 81 | 5309 | 243 |
| -- | -- | -- | 83 | 5322 | 249 |
| -- | -- | -- | 86 | 5330 | 258 |
| -- | -- | -- | 89 | 5323 | 267 |
| -- | -- | -- | 90 | 5286 | 270 |
| -- | -- | -- | 97 | 5334 | 291 |
| -- | -- | -- | 99 | 5301 | 297 |

| Radar waveform #23 | | | Radar waveform #24 | | |
|---|---|---|---|---|---|
| Hopping Number | Frequency (MHz) | Pulse Start (ms) | Hopping Number | Frequency (MHz) | Pulse Start (ms) |
| 2 | 5305 | 6 | 12 | 5296 | 36 |
| 5 | 5334 | 15 | 20 | 5314 | 60 |
| 6 | 5317 | 18 | 27 | 5319 | 81 |
| 8 | 5321 | 24 | 28 | 5304 | 84 |
| 19 | 5278 | 57 | 31 | 5283 | 93 |
| 21 | 5283 | 63 | 37 | 5278 | 111 |
| 25 | 5287 | 75 | 43 | 5332 | 129 |
| 31 | 5332 | 93 | 51 | 5302 | 153 |
| 35 | 5295 | 105 | 65 | 5334 | 195 |
| 47 | 5338 | 141 | 84 | 5338 | 252 |
| 58 | 5309 | 174 | 87 | 5299 | 261 |
| 69 | 5293 | 207 | 92 | 5331 | 276 |
| 79 | 5335 | 237 | 96 | 5290 | 288 |

| Radar waveform #25 | | | Radar waveform #26 | | |
|---|---|---|---|---|---|
| Hopping Number | Frequency (MHz) | Pulse Start (ms) | Hopping Number | Frequency (MHz) | Pulse Start (ms) |
| 18 | 5331 | 54 | 6 | 5335 | 18 |
| 22 | 5302 | 66 | 9 | 5308 | 27 |
| 24 | 5283 | 72 | 13 | 5316 | 39 |
| 46 | 5286 | 138 | 17 | 5298 | 51 |
| 54 | 5310 | 162 | 22 | 5325 | 66 |
| -- | -- | -- | 25 | 5289 | 75 |
| -- | -- | -- | 37 | 5337 | 111 |
| -- | -- | -- | 53 | 5286 | 159 |
| -- | -- | -- | 60 | 5280 | 180 |
| -- | -- | -- | 71 | 5320 | 213 |
| -- | -- | -- | 78 | 5314 | 234 |
| -- | -- | -- | 85 | 5326 | 255 |
| -- | -- | -- | 89 | 5332 | 267 |
| -- | -- | -- | 92 | 5333 | 276 |
| -- | -- | -- | 97 | 5294 | 291 |
| -- | -- | -- | 99 | 5282 | 297 |

| Radar waveform #27 | | | Radar waveform #28 | | |
|---|---|---|---|---|---|
| Hopping Number | Frequency (MHz) | Pulse Start (ms) | Hopping Number | Frequency (MHz) | Pulse Start (ms) |
| 1 | 5309 | 3 | 0 | 5290 | 0 |
| 6 | 5312 | 18 | 1 | 5331 | 3 |
| 12 | 5299 | 36 | 6 | 5335 | 18 |
| 15 | 5305 | 45 | 11 | 5309 | 33 |
| 16 | 5320 | 48 | 14 | 5308 | 42 |
| 67 | 5295 | 201 | 32 | 5294 | 96 |
| 71 | 5318 | 213 | 52 | 5314 | 156 |
| 73 | 5319 | 219 | 55 | 5323 | 165 |
| 75 | 5326 | 225 | 56 | 5318 | 168 |
| 85 | 5298 | 255 | 61 | 5326 | 183 |
| 88 | 5288 | 264 | 74 | 5312 | 222 |
| 96 | 5317 | 288 | 96 | 5315 | 288 |
| 99 | 5292 | 297 | -- | -- | -- |

| Radar waveform #29 | | | Radar waveform #30 | | |
|---|---|---|---|---|---|
| Hopping Number | Frequency (MHz) | Pulse Start (ms) | Hopping Number | Frequency (MHz) | Pulse Start (ms) |
| 3 | 5282 | 9 | 2 | 5279 | 6 |
| 17 | 5329 | 51 | 4 | 5309 | 12 |
| 23 | 5302 | 69 | 8 | 5296 | 24 |
| 25 | 5293 | 75 | 15 | 5311 | 45 |
| 75 | 5298 | 225 | 35 | 5292 | 105 |
| 78 | 5328 | 234 | 54 | 5326 | 162 |
| 79 | 5331 | 237 | 57 | 5337 | 171 |
| 85 | 5325 | 255 | 63 | 5280 | 189 |
| 91 | 5314 | 273 | 66 | 5299 | 198 |
| 96 | 5299 | 288 | 67 | 5322 | 201 |
| -- | -- | -- | 73 | 5305 | 219 |
| -- | -- | -- | 75 | 5327 | 225 |
| -- | -- | -- | 77 | 5302 | 231 |
| -- | -- | -- | 80 | 5314 | 240 |
| -- | -- | -- | 84 | 5328 | 252 |
| -- | -- | -- | 87 | 5334 | 261 |
| -- | -- | -- | 97 | 5316 | 291 |

Radar Statistical Performance for 802.11n-HT40

Radar Type 1 - Radar Statistical Performance

| Trail # | Test Freq. (MHz) | Pulse Width (us) | PRI (us) | Pulses / Burst | 1=Detection 0=No Detection |
|---|---|---|---|---|---|
| 1 | 5292 | 1 | 878 | 61 | 1 |
| 2 | 5292 | 1 | 698 | 76 | 1 |
| 3 | 5292 | 1 | 598 | 89 | 1 |
| 4 | 5292 | 1 | 818 | 65 | 1 |
| 5 | 5300 | 1 | 718 | 74 | 1 |
| 6 | 5300 | 1 | 678 | 78 | 1 |
| 7 | 5300 | 1 | 858 | 62 | 1 |
| 8 | 5300 | 1 | 778 | 68 | 1 |
| 9 | 5308 | 1 | 3066 | 18 | 1 |
| 10 | 5308 | 1 | 918 | 58 | 1 |
| 11 | 5308 | 1 | 558 | 95 | 1 |
| 12 | 5308 | 1 | 898 | 59 | 1 |
| 13 | 5310 | 1 | 798 | 67 | 1 |
| 14 | 5310 | 1 | 538 | 99 | 1 |
| 15 | 5310 | 1 | 838 | 63 | 1 |
| 16 | 5310 | 1 | 2398 | 23 | 1 |
| 17 | 5310 | 1 | 1756 | 31 | 1 |
| 18 | 5310 | 1 | 2992 | 18 | 1 |
| 19 | 5312 | 1 | 808 | 66 | 1 |
| 20 | 5312 | 1 | 553 | 96 | 1 |
| 21 | 5312 | 1 | 1833 | 29 | 1 |
| 22 | 5312 | 1 | 1699 | 32 | 1 |
| 23 | 5320 | 1 | 702 | 76 | 1 |
| 24 | 5320 | 1 | 567 | 94 | 1 |
| 25 | 5320 | 1 | 2105 | 26 | 1 |
| 26 | 5320 | 1 | 2994 | 18 | 1 |
| 27 | 5328 | 1 | 2923 | 19 | 1 |
| 28 | 5328 | 1 | 2450 | 22 | 1 |
| 29 | 5328 | 1 | 1269 | 42 | 1 |
| 30 | 5328 | 1 | 2232 | 24 | 1 |
| Detection Percentage (%) | | | | | 100% |

Radar Type 2 - Radar Statistical Performance

| Trail # | Test Freq. (MHz) | Pulse Width (us) | PRI (us) | Pulses / Burst | 1=Detection 0=No Detection |
|---|---|---|---|---|---|
| 1 | 5292 | 4.1 | 158 | 28 | 1 |
| 2 | 5292 | 2.6 | 221 | 23 | 1 |
| 3 | 5292 | 1.9 | 184 | 27 | 1 |
| 4 | 5292 | 2.9 | 163 | 24 | 1 |
| 5 | 5300 | 1.6 | 160 | 29 | 1 |
| 6 | 5300 | 3.6 | 214 | 24 | 1 |
| 7 | 5300 | 4.0 | 183 | 27 | 1 |
| 8 | 5300 | 4.7 | 152 | 29 | 1 |
| 9 | 5308 | 4.7 | 150 | 26 | 1 |
| 10 | 5308 | 4.3 | 173 | 26 | 1 |
| 11 | 5308 | 3.2 | 160 | 29 | 1 |
| 12 | 5308 | 1.1 | 185 | 29 | 1 |
| 13 | 5310 | 4.2 | 202 | 26 | 1 |
| 14 | 5310 | 1.2 | 175 | 23 | 1 |
| 15 | 5310 | 3.7 | 184 | 28 | 1 |
| 16 | 5310 | 2.9 | 182 | 23 | 1 |
| 17 | 5310 | 2.6 | 185 | 23 | 1 |
| 18 | 5310 | 4.9 | 218 | 25 | 1 |
| 19 | 5312 | 4.4 | 226 | 29 | 1 |
| 20 | 5312 | 2.8 | 158 | 29 | 1 |
| 21 | 5312 | 2.0 | 214 | 29 | 1 |
| 22 | 5312 | 1.9 | 165 | 27 | 1 |
| 23 | 5320 | 2.4 | 184 | 24 | 1 |
| 24 | 5320 | 4.2 | 168 | 28 | 1 |
| 25 | 5320 | 4.8 | 227 | 27 | 1 |
| 26 | 5320 | 1.7 | 194 | 28 | 1 |
| 27 | 5328 | 3.4 | 199 | 27 | 1 |
| 28 | 5328 | 3.9 | 184 | 29 | 1 |
| 29 | 5328 | 4.4 | 172 | 25 | 1 |
| 30 | 5328 | 4.3 | 185 | 25 | 1 |
| Detection Percentage (%) | | | | | 100% |

Radar Type 3 - Radar Statistical Performance

| Trail # | Test Freq. (MHz) | Pulse Width (us) | PRI (us) | Pulses / Burst | 1=Detection 0=No Detection |
|---|---|---|---|---|---|
| 1 | 5292 | 6.8 | 307 | 16 | 1 |
| 2 | 5292 | 9.5 | 435 | 17 | 1 |
| 3 | 5292 | 6.6 | 414 | 16 | 1 |
| 4 | 5292 | 8.9 | 324 | 18 | 1 |
| 5 | 5300 | 6.8 | 495 | 17 | 1 |
| 6 | 5300 | 7.7 | 430 | 17 | 1 |
| 7 | 5300 | 9.0 | 463 | 17 | 1 |
| 8 | 5300 | 6.1 | 258 | 17 | 1 |
| 9 | 5308 | 8.5 | 499 | 17 | 1 |
| 10 | 5308 | 7.6 | 359 | 16 | 1 |
| 11 | 5308 | 8.5 | 279 | 17 | 1 |
| 12 | 5308 | 8.2 | 291 | 18 | 1 |
| 13 | 5310 | 6.8 | 408 | 18 | 1 |
| 14 | 5310 | 6.3 | 279 | 17 | 1 |
| 15 | 5310 | 8.1 | 483 | 16 | 1 |
| 16 | 5310 | 7.5 | 485 | 17 | 1 |
| 17 | 5310 | 7.6 | 309 | 17 | 1 |
| 18 | 5310 | 6.1 | 397 | 18 | 1 |
| 19 | 5312 | 6.9 | 356 | 18 | 1 |
| 20 | 5312 | 9.5 | 440 | 18 | 1 |
| 21 | 5312 | 6.5 | 260 | 18 | 1 |
| 22 | 5312 | 8.3 | 277 | 18 | 1 |
| 23 | 5320 | 6.8 | 289 | 17 | 1 |
| 24 | 5320 | 8.0 | 492 | 17 | 1 |
| 25 | 5320 | 8.0 | 355 | 18 | 1 |
| 26 | 5320 | 7.7 | 297 | 16 | 1 |
| 27 | 5328 | 6.5 | 337 | 17 | 1 |
| 28 | 5328 | 8.3 | 436 | 16 | 1 |
| 29 | 5328 | 8.9 | 351 | 18 | 1 |
| 30 | 5328 | 9.5 | 400 | 17 | 1 |
| Detection Percentage (%) | | | | | 100% |

Radar Type 4 - Radar Statistical Performance

| Trail # | Test Freq. (MHz) | Pulse Width (us) | PRI (us) | Pulses / Burst | 1=Detection 0=No Detection |
|---|---|---|---|---|---|
| 1 | 5292 | 16.6 | 406 | 13 | 1 |
| 2 | 5292 | 13.2 | 363 | 14 | 1 |
| 3 | 5292 | 19.7 | 413 | 16 | 1 |
| 4 | 5292 | 15.1 | 472 | 13 | 1 |
| 5 | 5300 | 16.3 | 255 | 16 | 1 |
| 6 | 5300 | 12.6 | 435 | 12 | 1 |
| 7 | 5300 | 14.5 | 350 | 13 | 1 |
| 8 | 5300 | 11.5 | 296 | 16 | 1 |
| 9 | 5308 | 18.7 | 293 | 13 | 1 |
| 10 | 5308 | 19.2 | 425 | 14 | 1 |
| 11 | 5308 | 18.1 | 320 | 13 | 1 |
| 12 | 5308 | 17.0 | 258 | 12 | 1 |
| 13 | 5310 | 15.3 | 497 | 14 | 1 |
| 14 | 5310 | 16.4 | 320 | 14 | 1 |
| 15 | 5310 | 20.0 | 316 | 12 | 1 |
| 16 | 5310 | 12.7 | 288 | 13 | 1 |
| 17 | 5310 | 18.2 | 400 | 16 | 1 |
| 18 | 5310 | 11.8 | 331 | 14 | 1 |
| 19 | 5312 | 13.2 | 467 | 16 | 1 |
| 20 | 5312 | 19.3 | 383 | 13 | 1 |
| 21 | 5312 | 19.6 | 434 | 13 | 1 |
| 22 | 5312 | 19.8 | 449 | 15 | 1 |
| 23 | 5320 | 17.8 | 394 | 16 | 1 |
| 24 | 5320 | 19.8 | 290 | 15 | 1 |
| 25 | 5320 | 11.8 | 313 | 15 | 1 |
| 26 | 5320 | 11.3 | 431 | 12 | 1 |
| 27 | 5328 | 17.0 | 480 | 14 | 1 |
| 28 | 5328 | 17.6 | 267 | 13 | 1 |
| 29 | 5328 | 18.8 | 282 | 13 | 1 |
| 30 | 5328 | 12.9 | 418 | 15 | 1 |
| Detection Percentage (%) | | | | | 100% |

Note: In addition an average minimum percentage of successful detection across all four Short pulse radar test waveforms is as follows: $\frac{P_d1+P_d2+P_d3+P_d4}{4}$ = (100%+100%+100%+100%)/4 = 100% (>80%)

Radar Type 5 - Radar Statistical Performance

| Trail # | Test Freq. (MHz) | 1=Detection 0=No Detection | Trail # | Test Freq. (MHz) | 1=Detection 0=No Detection |
|---|---|---|---|---|---|
| 1 | 5295.6 | 1 | 16 | 5310.0 | 1 |
| 2 | 5296.8 | 1 | 17 | 5310.0 | 1 |
| 3 | 5297.6 | 1 | 18 | 5310.0 | 1 |
| 4 | 5294.0 | 1 | 19 | 5310.0 | 1 |
| 5 | 5295.2 | 1 | 20 | 5310.0 | 1 |
| 6 | 5299.2 | 1 | 21 | 5324.0 | 1 |
| 7 | 5294.4 | 1 | 22 | 5326.0 | 1 |
| 8 | 5299.6 | 1 | 23 | 5324.4 | 1 |
| 9 | 5296.0 | 1 | 24 | 5320.8 | 1 |
| 10 | 5298.8 | 1 | 25 | 5323.2 | 1 |
| 11 | 5310.0 | 1 | 26 | 5325.6 | 1 |
| 12 | 5310.0 | 1 | 27 | 5320.4 | 1 |
| 13 | 5310.0 | 1 | 28 | 5324.8 | 1 |
| 14 | 5310.0 | 1 | 29 | 5321.2 | 1 |
| 15 | 5310.0 | 1 | 30 | 5322.4 | 1 |
| Detection Percentage (%) | | | | | 100% |

**Type 5 Radar Waveform_1**

Num of Bursts = 10
Burst Interval (us)= 1200000

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 156232 | 1 | 9 | 70 | 1053 | 0 | 0 | 156232 | 0 | 1199999 |
| 2 | 1768117 | 1 | 9 | 70 | 1870 | 0 | 0 | 1925402 | 1200000 | 2399999 |
| 3 | 1038868 | 1 | 9 | 100 | 1795 | 0 | 0 | 2966140 | 2400000 | 3599999 |
| 4 | 1412518 | 1 | 9 | 65 | 1284 | 0 | 0 | 4380453 | 3600000 | 4799999 |
| 5 | 931683 | 2 | 9 | 50 | 1436 | 1901 | 0 | 5313420 | 4800000 | 5999999 |
| 6 | 1361008 | 1 | 9 | 80 | 1979 | 0 | 0 | 6677765 | 6000000 | 7199999 |
| 7 | 1147488 | 3 | 9 | 75 | 1982 | 1700 | 1780 | 7827232 | 7200000 | 8399999 |
| 8 | 953702 | 1 | 9 | 100 | 1432 | 0 | 0 | 8786396 | 8400000 | 9599999 |
| 9 | 1562848 | 1 | 9 | 100 | 1292 | 0 | 0 | 10350676 | 9600000 | 10799999 |
| 10 | 1025930 | 1 | 9 | 60 | 1845 | 0 | 0 | 11377898 | 10800000 | 11999999 |

Total number of pulses in waveform = 13

**********

## Type 5 Radar Waveform_2

Num of Bursts = 19
Burst Interval (us)= 631579

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 498252 | 2 | 12 | 95 | 1681 | 1160 | 0 | 498252 | 0 | 631578 |
| 2 | 660989 | 1 | 12 | 50 | 1742 | 0 | 0 | 1162082 | 631579 | 1263157 |
| 3 | 586587 | 2 | 12 | 95 | 1504 | 1855 | 0 | 1750411 | 1263158 | 1894736 |
| 4 | 265584 | 1 | 12 | 90 | 1249 | 0 | 0 | 2019354 | 1894737 | 2526315 |
| 5 | 834683 | 3 | 12 | 80 | 1570 | 1855 | 1997 | 2855286 | 2526316 | 3157894 |
| 6 | 517051 | 1 | 12 | 100 | 1722 | 0 | 0 | 3377759 | 3157895 | 3789473 |
| 7 | 598654 | 2 | 12 | 95 | 1717 | 1876 | 0 | 3978135 | 3789474 | 4421052 |
| 8 | 483979 | 1 | 12 | 50 | 1326 | 0 | 0 | 4465707 | 4421053 | 5052631 |
| 9 | 836307 | 1 | 12 | 95 | 1612 | 0 | 0 | 5303340 | 5052632 | 5684210 |
| 10 | 709699 | 1 | 12 | 65 | 1870 | 0 | 0 | 6014651 | 5684211 | 6315789 |
| 11 | 458532 | 1 | 12 | 85 | 1087 | 0 | 0 | 6475053 | 6315790 | 6947368 |
| 12 | 1015456 | 3 | 12 | 60 | 1192 | 1044 | 1634 | 7491596 | 6947369 | 7578947 |
| 13 | 369288 | 3 | 12 | 70 | 1528 | 1017 | 1085 | 7864754 | 7578948 | 8210526 |
| 14 | 549555 | 1 | 12 | 50 | 1381 | 0 | 0 | 8417939 | 8210527 | 8842105 |
| 15 | 1036301 | 1 | 12 | 75 | 1192 | 0 | 0 | 9455621 | 8842106 | 9473684 |
| 16 | 606317 | 1 | 12 | 95 | 1429 | 0 | 0 | 10063130 | 9473685 | 10105263 |
| 17 | 602591 | 2 | 12 | 55 | 1749 | 1030 | 0 | 10667150 | 10105264 | 10736842 |
| 18 | 112087 | 3 | 12 | 90 | 1027 | 1885 | 1141 | 10782016 | 10736843 | 11368421 |
| 19 | 1046824 | 2 | 12 | 65 | 1156 | 1017 | 0 | 11832893 | 11368422 | 12000000 |

Total number of pulses in waveform = 32
**********

## Type 5 Radar Waveform_3

Num of Bursts = 8
Burst Interval (us)= 1500000

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1384907 | 1 | 14 | 80 | 1787 | 0 | 0 | 1384907 | 0 | 1499999 |
| 2 | 1456138 | 2 | 14 | 100 | 1961 | 1910 | 0 | 2842832 | 1500000 | 2999999 |
| 3 | 1600862 | 2 | 14 | 55 | 1556 | 1234 | 0 | 4447565 | 3000000 | 4499999 |
| 4 | 1393281 | 3 | 14 | 50 | 1802 | 1460 | 1776 | 5843636 | 4500000 | 5999999 |
| 5 | 1588003 | 2 | 14 | 65 | 1469 | 1732 | 0 | 7436677 | 6000000 | 7499999 |
| 6 | 941724 | 3 | 14 | 85 | 1869 | 1878 | 1357 | 8381602 | 7500000 | 8999999 |
| 7 | 953701 | 1 | 14 | 75 | 1989 | 0 | 0 | 9340407 | 9000000 | 10499999 |
| 8 | 1904856 | 3 | 14 | 95 | 1606 | 1984 | 1839 | 11247252 | 10500000 | 11999999 |

Total number of pulses in waveform = 17
**********

## Type 5 Radar Waveform_4

Num of Bursts = 15
Burst Interval (us)= 800000

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 5940 | 1 | 5 | 55 | 1355 | 0 | 0 | 5940 | 0 | 799999 |
| 2 | 1001505 | 3 | 5 | 55 | 1740 | 1474 | 1882 | 1008800 | 800000 | 1599999 |
| 3 | 1373568 | 3 | 5 | 100 | 1244 | 1745 | 1031 | 2387464 | 1600000 | 2399999 |
| 4 | 665371 | 1 | 5 | 95 | 1936 | 0 | 0 | 3056855 | 2400000 | 3199999 |
| 5 | 153264 | 3 | 5 | 90 | 1196 | 1089 | 1134 | 3212055 | 3200000 | 3999999 |
| 6 | 1377839 | 3 | 5 | 80 | 1977 | 1114 | 1527 | 4593313 | 4000000 | 4799999 |
| 7 | 673123 | 3 | 5 | 85 | 1575 | 1924 | 1099 | 5271054 | 4800000 | 5599999 |
| 8 | 805814 | 3 | 5 | 50 | 1413 | 1972 | 1328 | 6081466 | 5600000 | 6399999 |
| 9 | 686953 | 2 | 5 | 80 | 1381 | 1548 | 0 | 6773132 | 6400000 | 7199999 |
| 10 | 553176 | 2 | 5 | 50 | 1041 | 1922 | 0 | 7329237 | 7200000 | 7999999 |
| 11 | 1063338 | 2 | 5 | 80 | 1008 | 1895 | 0 | 8395538 | 8000000 | 8799999 |
| 12 | 868529 | 1 | 5 | 65 | 1887 | 0 | 0 | 9266970 | 8800000 | 9599999 |
| 13 | 769245 | 1 | 5 | 95 | 1928 | 0 | 0 | 10038102 | 9600000 | 10399999 |
| 14 | 1053146 | 1 | 5 | 70 | 1015 | 0 | 0 | 11093176 | 10400000 | 11199999 |
| 15 | 635822 | 2 | 5 | 90 | 1836 | 1866 | 0 | 11730013 | 11200000 | 11999999 |

Total number of pulses in waveform = 31
**********

## Type 5 Radar Waveform_5

Num of Bursts = 8
Burst Interval (us)= 1500000

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 503446 | 3 | 8 | 60 | 1394 | 1993 | 1685 | 503446 | 0 | 1499999 |
| 2 | 2202378 | 2 | 8 | 85 | 1274 | 1913 | 0 | 2710896 | 1500000 | 2999999 |
| 3 | 439278 | 2 | 8 | 75 | 1175 | 1408 | 0 | 3153361 | 3000000 | 4499999 |
| 4 | 2140407 | 1 | 8 | 85 | 1146 | 0 | 0 | 5296351 | 4500000 | 5999999 |
| 5 | 1774226 | 1 | 8 | 85 | 1937 | 0 | 0 | 7071723 | 6000000 | 7499999 |
| 6 | 1602956 | 3 | 8 | 95 | 1318 | 1438 | 1641 | 8676616 | 7500000 | 8999999 |
| 7 | 967114 | 3 | 8 | 75 | 1249 | 1185 | 1087 | 9648127 | 9000000 | 10499999 |
| 8 | 1962882 | 3 | 8 | 100 | 1375 | 1763 | 1055 | 11614530 | 10500000 | 11999999 |

Total number of pulses in waveform = 18

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## Type 5 Radar Waveform_6

Num of Bursts = 8
Burst Interval (us)= 1500000

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 91651 | 1 | 18 | 95 | 1002 | 0 | 0 | 91651 | 0 | 1499999 |
| 2 | 2092933 | 3 | 18 | 65 | 1376 | 1537 | 1651 | 2185586 | 1500000 | 2999999 |
| 3 | 2063165 | 3 | 18 | 60 | 1762 | 1384 | 1911 | 4253315 | 3000000 | 4499999 |
| 4 | 987064 | 2 | 18 | 100 | 1517 | 1164 | 0 | 5245436 | 4500000 | 5999999 |
| 5 | 2218750 | 1 | 18 | 70 | 1700 | 0 | 0 | 7466867 | 6000000 | 7499999 |
| 6 | 355071 | 2 | 18 | 100 | 1006 | 1403 | 0 | 7823638 | 7500000 | 8999999 |
| 7 | 1355928 | 3 | 18 | 75 | 1035 | 1383 | 1948 | 9181975 | 9000000 | 10499999 |
| 8 | 1643388 | 3 | 18 | 60 | 1767 | 1686 | 1612 | 10829729 | 10500000 | 11999999 |

Total number of pulses in waveform = 18

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## Type 5 Radar Waveform_7

Num of Bursts = 12
Burst Interval (us)= 1000000

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 564915 | 2 | 6 | 85 | 1739 | 1913 | 0 | 564915 | 0 | 999999 |
| 2 | 679115 | 1 | 6 | 95 | 1222 | 0 | 0 | 1247682 | 1000000 | 1999999 |
| 3 | 1434587 | 1 | 6 | 50 | 1730 | 0 | 0 | 2683491 | 2000000 | 2999999 |
| 4 | 688866 | 3 | 6 | 60 | 1668 | 1540 | 1441 | 3374087 | 3000000 | 3999999 |
| 5 | 1006251 | 1 | 6 | 80 | 1581 | 0 | 0 | 4384987 | 4000000 | 4999999 |
| 6 | 761594 | 3 | 6 | 65 | 1129 | 1266 | 1681 | 5148162 | 5000000 | 5999999 |
| 7 | 1135298 | 1 | 6 | 75 | 1762 | 0 | 0 | 6287536 | 6000000 | 6999999 |
| 8 | 754507 | 2 | 6 | 65 | 1930 | 1463 | 0 | 7043805 | 7000000 | 7999999 |
| 9 | 1489726 | 3 | 6 | 75 | 1781 | 1630 | 1257 | 8536924 | 8000000 | 8999999 |
| 10 | 503688 | 1 | 6 | 100 | 1772 | 0 | 0 | 9045280 | 9000000 | 9999999 |
| 11 | 1465735 | 3 | 6 | 90 | 1902 | 1638 | 1875 | 10512787 | 10000000 | 10999999 |
| 12 | 1163945 | 2 | 6 | 100 | 1889 | 1032 | 0 | 11682147 | 11000000 | 11999999 |

Total number of pulses in waveform = 23

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## Type 5 Radar Waveform_8

Num of Bursts = 19
Burst Interval (us)= 631579

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 454882 | 3 | 19 | 85 | 1525 | 1428 | 1831 | 454882 | 0 | 631578 |
| 2 | 556438 | 2 | 19 | 90 | 1790 | 1455 | 0 | 1016104 | 631579 | 1263157 |
| 3 | 326361 | 3 | 19 | 90 | 1659 | 1721 | 1065 | 1345710 | 1263158 | 1894736 |
| 4 | 548368 | 2 | 19 | 60 | 1065 | 1799 | 0 | 1898523 | 1894737 | 2526315 |
| 5 | 881879 | 2 | 19 | 95 | 1648 | 1419 | 0 | 2783266 | 2526316 | 3157894 |
| 6 | 690116 | 2 | 19 | 85 | 1364 | 1892 | 0 | 3476449 | 3157895 | 3789473 |
| 7 | 443821 | 2 | 19 | 85 | 1456 | 1198 | 0 | 3923526 | 3789474 | 4421052 |
| 8 | 1063549 | 2 | 19 | 100 | 1814 | 1942 | 0 | 4989729 | 4421053 | 5052631 |
| 9 | 351955 | 2 | 19 | 95 | 1316 | 1824 | 0 | 5345440 | 5052632 | 5684210 |
| 10 | 921588 | 3 | 19 | 55 | 1793 | 1254 | 1974 | 6270168 | 5684211 | 6315789 |
| 11 | 186534 | 2 | 19 | 75 | 1528 | 1660 | 0 | 6461723 | 6315790 | 6947368 |
| 12 | 579983 | 3 | 19 | 100 | 1312 | 1953 | 1296 | 7044894 | 6947369 | 7578947 |
| 13 | 811272 | 3 | 19 | 70 | 1718 | 1802 | 1609 | 7860727 | 7578948 | 8210526 |
| 14 | 368700 | 3 | 19 | 50 | 1845 | 1860 | 1435 | 8234556 | 8210527 | 8842105 |
| 15 | 1075466 | 3 | 19 | 90 | 1282 | 1753 | 1694 | 9315162 | 8842106 | 9473684 |
| 16 | 381839 | 1 | 19 | 95 | 1232 | 0 | 0 | 9701730 | 9473685 | 10105263 |
| 17 | 789450 | 1 | 19 | 70 | 1459 | 0 | 0 | 10492412 | 10105264 | 10736842 |
| 18 | 861422 | 3 | 19 | 90 | 1629 | 1419 | 1520 | 11355293 | 10736843 | 11368421 |
| 19 | 286708 | 3 | 19 | 80 | 1356 | 1315 | 1151 | 11646569 | 11368422 | 12000000 |

Total number of pulses in waveform = 45

## Type 5 Radar Waveform_9

Num of Bursts = 19
Burst Interval (us)= 631579

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 167656 | 2 | 10 | 50 | 1947 | 1818 | 0 | 167656 | 0 | 631578 |
| 2 | 899852 | 3 | 10 | 65 | 1400 | 1861 | 1802 | 1071273 | 631579 | 1263157 |
| 3 | 615364 | 3 | 10 | 55 | 1637 | 1667 | 1897 | 1691700 | 1263158 | 1894736 |
| 4 | 724724 | 2 | 10 | 70 | 1573 | 1992 | 0 | 2421625 | 1894737 | 2526315 |
| 5 | 371681 | 1 | 10 | 90 | 1681 | 0 | 0 | 2796871 | 2526316 | 3157894 |
| 6 | 409266 | 1 | 10 | 90 | 1733 | 0 | 0 | 3207818 | 3157895 | 3789473 |
| 7 | 671873 | 3 | 10 | 80 | 1252 | 1447 | 1994 | 3881424 | 3789474 | 4421052 |
| 8 | 907478 | 3 | 10 | 90 | 1552 | 1200 | 1341 | 4793595 | 4421053 | 5052631 |
| 9 | 794934 | 3 | 10 | 60 | 1374 | 1428 | 1382 | 5592622 | 5052632 | 5684210 |
| 10 | 703462 | 2 | 10 | 65 | 1970 | 1445 | 0 | 6300268 | 5684211 | 6315789 |
| 11 | 329391 | 3 | 10 | 65 | 1388 | 1608 | 1620 | 6633074 | 6315790 | 6947368 |
| 12 | 734014 | 1 | 10 | 85 | 1589 | 0 | 0 | 7371704 | 6947369 | 7578947 |
| 13 | 273428 | 1 | 10 | 55 | 1111 | 0 | 0 | 7646721 | 7578948 | 8210526 |
| 14 | 939298 | 3 | 10 | 95 | 1749 | 1424 | 1411 | 8587130 | 8210527 | 8842105 |
| 15 | 378022 | 1 | 10 | 85 | 1138 | 0 | 0 | 8969736 | 8842106 | 9473684 |
| 16 | 910912 | 3 | 10 | 80 | 1814 | 1323 | 1178 | 9881786 | 9473685 | 10105263 |
| 17 | 443914 | 2 | 10 | 75 | 1195 | 1648 | 0 | 10330015 | 10105264 | 10736842 |
| 18 | 629535 | 3 | 10 | 60 | 1815 | 1958 | 1307 | 10962393 | 10736843 | 11368421 |
| 19 | 672279 | 2 | 10 | 60 | 1680 | 1024 | 0 | 11639752 | 11368422 | 12000000 |

Total number of pulses in waveform = 42

## Type 5 Radar Waveform_10

Num of Bursts = 13
Burst Interval (us)= 923077

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 733677 | 3 | 17 | 95 | 1070 | 1899 | 1666 | 733677 | 0 | 923076 |
| 2 | 389118 | 2 | 17 | 65 | 1484 | 1946 | 0 | 1127430 | 923077 | 1846153 |
| 3 | 933842 | 2 | 17 | 95 | 1602 | 1163 | 0 | 2064702 | 1846154 | 2769230 |
| 4 | 1179533 | 1 | 17 | 90 | 1337 | 0 | 0 | 3247000 | 2769231 | 3692307 |
| 5 | 545105 | 3 | 17 | 80 | 1661 | 1710 | 1980 | 3793442 | 3692308 | 4615384 |
| 6 | 1388513 | 2 | 17 | 75 | 1180 | 1252 | 0 | 5187306 | 4615385 | 5538461 |
| 7 | 582541 | 3 | 17 | 65 | 1912 | 1490 | 1984 | 5772279 | 5538462 | 6461538 |
| 8 | 785279 | 3 | 17 | 80 | 1213 | 1504 | 1498 | 6562944 | 6461539 | 7384615 |
| 9 | 1597154 | 3 | 17 | 55 | 1174 | 1909 | 1987 | 8164313 | 7384616 | 8307692 |
| 10 | 166455 | 1 | 17 | 100 | 1622 | 0 | 0 | 8335838 | 8307693 | 9230769 |
| 11 | 966620 | 1 | 17 | 55 | 1736 | 0 | 0 | 9304080 | 9230770 | 10153846 |
| 12 | 1705446 | 2 | 17 | 90 | 1441 | 1507 | 0 | 11011262 | 10153847 | 11076923 |
| 13 | 489479 | 3 | 17 | 70 | 1449 | 1690 | 1639 | 11503689 | 11076924 | 12000000 |

Total number of pulses in waveform = 29

## Type 5 Radar Waveform_11

Num of Bursts = 11
Burst Interval (us)= 1090909

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 577296 | 1 | 10 | 75 | 1202 | 0 | 0 | 577296 | 0 | 1090908 |
| 2 | 526493 | 1 | 10 | 50 | 1049 | 0 | 0 | 1104991 | 1090909 | 2181817 |
| 3 | 1759794 | 1 | 10 | 55 | 1370 | 0 | 0 | 2865834 | 2181818 | 3272726 |
| 4 | 1017216 | 2 | 10 | 60 | 1660 | 1740 | 0 | 3884420 | 3272727 | 4363635 |
| 5 | 1319513 | 1 | 10 | 95 | 1843 | 0 | 0 | 5207333 | 4363636 | 5454544 |
| 6 | 629863 | 2 | 10 | 55 | 1954 | 1470 | 0 | 5839039 | 5454545 | 6545453 |
| 7 | 810604 | 2 | 10 | 65 | 1212 | 1854 | 0 | 6653067 | 6545454 | 7636362 |
| 8 | 1825072 | 1 | 10 | 95 | 1758 | 0 | 0 | 8481205 | 7636363 | 8727271 |
| 9 | 486411 | 1 | 10 | 85 | 1360 | 0 | 0 | 8969374 | 8727272 | 9818180 |
| 10 | 1529767 | 1 | 10 | 55 | 1545 | 0 | 0 | 10500501 | 9818181 | 10909089 |
| 11 | 602279 | 2 | 10 | 65 | 1055 | 1857 | 0 | 11104325 | 10909090 | 11999998 |

Total number of pulses in waveform = 15
**********

## Type 5 Radar Waveform_12

Num of Bursts = 17
Burst Interval (us)= 705882

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 609104 | 2 | 8 | 50 | 1428 | 1349 | 0 | 609104 | 0 | 705881 |
| 2 | 626583 | 1 | 8 | 55 | 1353 | 0 | 0 | 1238464 | 705882 | 1411763 |
| 3 | 788681 | 3 | 8 | 65 | 1258 | 1377 | 1550 | 2028498 | 1411764 | 2117645 |
| 4 | 156184 | 1 | 8 | 80 | 1499 | 0 | 0 | 2188867 | 2117646 | 2823527 |
| 5 | 858394 | 2 | 8 | 55 | 1079 | 1642 | 0 | 3048760 | 2823528 | 3529409 |
| 6 | 987590 | 2 | 8 | 100 | 1639 | 1797 | 0 | 4039071 | 3529410 | 4235291 |
| 7 | 840390 | 2 | 8 | 85 | 1724 | 1032 | 0 | 4882897 | 4235292 | 4941173 |
| 8 | 638353 | 1 | 8 | 85 | 1996 | 0 | 0 | 5524006 | 4941174 | 5647055 |
| 9 | 377834 | 1 | 8 | 65 | 1504 | 0 | 0 | 5903836 | 5647056 | 6352937 |
| 10 | 934773 | 2 | 8 | 100 | 1330 | 1827 | 0 | 6840113 | 6352938 | 7058819 |
| 11 | 738048 | 2 | 8 | 55 | 1487 | 1146 | 0 | 7581318 | 7058820 | 7764701 |
| 12 | 204716 | 1 | 8 | 75 | 1439 | 0 | 0 | 7788667 | 7764702 | 8470583 |
| 13 | 1313856 | 1 | 8 | 75 | 1081 | 0 | 0 | 9103962 | 8470584 | 9176465 |
| 14 | 370559 | 3 | 8 | 50 | 1316 | 1017 | 1060 | 9475602 | 9176466 | 9882347 |
| 15 | 662792 | 1 | 8 | 85 | 1137 | 0 | 0 | 10141787 | 9882348 | 10588229 |
| 16 | 953671 | 2 | 8 | 70 | 1744 | 1055 | 0 | 11096595 | 10588230 | 11294111 |
| 17 | 645690 | 3 | 8 | 55 | 1957 | 1006 | 1478 | 11745084 | 11294112 | 11999993 |

Total number of pulses in waveform = 30
**********

## Type 5 Radar Waveform_13

Num of Bursts = 13
Burst Interval (us)= 923077

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 809108 | 2 | 12 | 80 | 1781 | 1663 | 0 | 809108 | 0 | 923076 |
| 2 | 131317 | 1 | 12 | 75 | 1509 | 0 | 0 | 943869 | 923077 | 1846153 |
| 3 | 936275 | 2 | 12 | 100 | 1094 | 1092 | 0 | 1881653 | 1846154 | 2769230 |
| 4 | 1108529 | 2 | 12 | 95 | 1004 | 1339 | 0 | 2992368 | 2769231 | 3692307 |
| 5 | 1235048 | 2 | 12 | 100 | 1662 | 1442 | 0 | 4229759 | 3692308 | 4615384 |
| 6 | 632506 | 3 | 12 | 70 | 1631 | 1513 | 1311 | 4865369 | 4615385 | 5538461 |
| 7 | 975704 | 1 | 12 | 90 | 1632 | 0 | 0 | 5845528 | 5538462 | 6461538 |
| 8 | 1118719 | 2 | 12 | 95 | 1873 | 1236 | 0 | 6965879 | 6461539 | 7384615 |
| 9 | 1296632 | 1 | 12 | 50 | 1013 | 0 | 0 | 8265620 | 7384616 | 8307692 |
| 10 | 705629 | 3 | 12 | 65 | 1955 | 1384 | 1230 | 8972262 | 8307693 | 9230769 |
| 11 | 923085 | 3 | 12 | 95 | 1525 | 1310 | 1852 | 9899916 | 9230770 | 10153846 |
| 12 | 1036104 | 1 | 12 | 70 | 1471 | 0 | 0 | 10940707 | 10153847 | 11076923 |
| 13 | 344817 | 2 | 12 | 100 | 1404 | 1555 | 0 | 11286995 | 11076924 | 12000000 |

Total number of pulses in waveform = 25
**********

## Type 5 Radar Waveform_14

Num of Bursts = 19
Burst Interval (us)= 631579

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 373127 | 2 | 18 | 95 | 1254 | 1603 | 0 | 373127 | 0 | 631578 |
| 2 | 566525 | 2 | 18 | 75 | 1311 | 1931 | 0 | 942509 | 631579 | 1263157 |
| 3 | 352246 | 3 | 18 | 100 | 1064 | 1552 | 1362 | 1297997 | 1263158 | 1894736 |
| 4 | 762958 | 3 | 18 | 100 | 1479 | 1966 | 1967 | 2064933 | 1894737 | 2526315 |
| 5 | 730236 | 2 | 18 | 80 | 1214 | 1127 | 0 | 2800581 | 2526316 | 3157894 |
| 6 | 571147 | 3 | 18 | 50 | 1675 | 1054 | 1101 | 3374069 | 3157895 | 3789473 |
| 7 | 429766 | 2 | 18 | 75 | 1987 | 1235 | 0 | 3807665 | 3789474 | 4421052 |
| 8 | 1111274 | 3 | 18 | 65 | 1150 | 1647 | 1960 | 4922161 | 4421053 | 5052631 |
| 9 | 242041 | 2 | 18 | 95 | 1090 | 1459 | 0 | 5168959 | 5052632 | 5684210 |
| 10 | 664554 | 2 | 18 | 55 | 1373 | 1255 | 0 | 5836052 | 5684211 | 6315789 |
| 11 | 622768 | 3 | 18 | 100 | 1309 | 1116 | 1027 | 6461458 | 6315790 | 6947368 |
| 12 | 871489 | 3 | 18 | 80 | 1667 | 1353 | 1201 | 7336399 | 6947369 | 7578947 |
| 13 | 614367 | 2 | 18 | 65 | 1409 | 1684 | 0 | 7954987 | 7578948 | 8210526 |
| 14 | 836263 | 1 | 18 | 85 | 1308 | 0 | 0 | 8794343 | 8210527 | 8842105 |
| 15 | 574132 | 2 | 18 | 60 | 1592 | 1129 | 0 | 9369783 | 8842106 | 9473684 |
| 16 | 589183 | 3 | 18 | 60 | 1848 | 1312 | 1320 | 9961687 | 9473685 | 10105263 |
| 17 | 153769 | 3 | 18 | 75 | 1485 | 1252 | 1004 | 10119936 | 10105264 | 10736842 |
| 18 | 829430 | 3 | 18 | 50 | 1151 | 1554 | 1509 | 10953107 | 10736843 | 11368421 |
| 19 | 662244 | 1 | 18 | 85 | 1273 | 0 | 0 | 11619565 | 11368422 | 12000000 |

Total number of pulses in waveform = 45
**********

## Type 5 Radar Waveform_15

Num of Bursts = 10
Burst Interval (us)= 1200000

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 282297 | 3 | 5 | 80 | 1242 | 1554 | 1244 | 282297 | 0 | 1199999 |
| 2 | 1686085 | 1 | 5 | 95 | 1889 | 0 | 0 | 1972422 | 1200000 | 2399999 |
| 3 | 1480285 | 3 | 5 | 65 | 1008 | 1741 | 1982 | 3454596 | 2400000 | 3599999 |
| 4 | 1184176 | 2 | 5 | 75 | 1462 | 1381 | 0 | 4643503 | 3600000 | 4799999 |
| 5 | 398161 | 2 | 5 | 95 | 1217 | 1338 | 0 | 5044507 | 4800000 | 5999999 |
| 6 | 1825491 | 1 | 5 | 80 | 1150 | 0 | 0 | 6872553 | 6000000 | 7199999 |
| 7 | 1003397 | 2 | 5 | 90 | 1185 | 1629 | 0 | 7877100 | 7200000 | 8399999 |
| 8 | 1705879 | 3 | 5 | 65 | 1030 | 1289 | 1371 | 9585793 | 8400000 | 9599999 |
| 9 | 272948 | 1 | 5 | 70 | 1853 | 0 | 0 | 9862431 | 9600000 | 10799999 |
| 10 | 1182437 | 3 | 5 | 95 | 1745 | 1934 | 1827 | 11046721 | 10800000 | 11999999 |

Total number of pulses in waveform = 21
**********

## Type 5 Radar Waveform_16

Num of Bursts = 12
Burst Interval (us)= 1000000

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 457000 | 2 | 17 | 75 | 1216 | 1058 | 0 | 457000 | 0 | 999999 |
| 2 | 1423394 | 2 | 17 | 55 | 1276 | 1460 | 0 | 1882668 | 1000000 | 1999999 |
| 3 | 579726 | 1 | 17 | 85 | 1977 | 0 | 0 | 2465130 | 2000000 | 2999999 |
| 4 | 535748 | 3 | 17 | 50 | 1288 | 1435 | 1494 | 3002855 | 3000000 | 3999999 |
| 5 | 1163141 | 3 | 17 | 55 | 1762 | 1051 | 1092 | 4170213 | 4000000 | 4999999 |
| 6 | 1680990 | 2 | 17 | 95 | 1808 | 1990 | 0 | 5855108 | 5000000 | 5999999 |
| 7 | 423515 | 3 | 17 | 100 | 1496 | 1112 | 1807 | 6282421 | 6000000 | 6999999 |
| 8 | 1370064 | 2 | 17 | 70 | 1644 | 1675 | 0 | 7656900 | 7000000 | 7999999 |
| 9 | 1312366 | 2 | 17 | 55 | 1118 | 1640 | 0 | 8972585 | 8000000 | 8999999 |
| 10 | 359435 | 3 | 17 | 90 | 1784 | 1790 | 1457 | 9334778 | 9000000 | 9999999 |
| 11 | 795692 | 1 | 17 | 65 | 1385 | 0 | 0 | 10135501 | 10000000 | 10999999 |
| 12 | 1376560 | 3 | 17 | 90 | 1976 | 1441 | 1577 | 11513446 | 11000000 | 11999999 |

Total number of pulses in waveform = 27
**********

## Type 5 Radar Waveform_17

Num of Bursts = 16
Burst Interval (us)= 750000

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 548362 | 2 | 19 | 60 | 1754 | 1602 | 0 | 548362 | 0 | 749999 |
| 2 | 447327 | 3 | 19 | 65 | 1633 | 1102 | 1198 | 999045 | 750000 | 1499999 |
| 3 | 525151 | 3 | 19 | 60 | 1624 | 1454 | 1981 | 1528129 | 1500000 | 2249999 |
| 4 | 804231 | 3 | 19 | 100 | 1504 | 1198 | 1653 | 2337419 | 2250000 | 2999999 |
| 5 | 1080889 | 3 | 19 | 65 | 1569 | 1189 | 1435 | 3422663 | 3000000 | 3749999 |
| 6 | 919499 | 3 | 19 | 75 | 1046 | 1986 | 1920 | 4346355 | 3750000 | 4499999 |
| 7 | 846963 | 1 | 19 | 100 | 1555 | 0 | 0 | 5198270 | 4500000 | 5249999 |
| 8 | 277625 | 2 | 19 | 65 | 1223 | 1950 | 0 | 5477450 | 5250000 | 5999999 |
| 9 | 870550 | 2 | 19 | 85 | 1435 | 1166 | 0 | 6351173 | 6000000 | 6749999 |
| 10 | 604714 | 2 | 19 | 70 | 1050 | 1337 | 0 | 6958488 | 6750000 | 7499999 |
| 11 | 860772 | 3 | 19 | 90 | 1389 | 1654 | 1709 | 7821647 | 7500000 | 8249999 |
| 12 | 576538 | 1 | 19 | 65 | 1758 | 0 | 0 | 8402937 | 8250000 | 8999999 |
| 13 | 964152 | 2 | 19 | 50 | 1844 | 1299 | 0 | 9368847 | 9000000 | 9749999 |
| 14 | 1100770 | 2 | 19 | 70 | 1157 | 1646 | 0 | 10472760 | 9750000 | 10499999 |
| 15 | 747377 | 2 | 19 | 70 | 1329 | 1951 | 0 | 11222940 | 10500000 | 11249999 |
| 16 | 702832 | 3 | 19 | 70 | 1898 | 1056 | 1588 | 11929052 | 11250000 | 11999999 |

Total number of pulses in waveform = 37

## Type 5 Radar Waveform_18

Num of Bursts = 13
Burst Interval (us)= 923077

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 202866 | 3 | 6 | 85 | 1869 | 1409 | 1360 | 202866 | 0 | 923076 |
| 2 | 885251 | 1 | 6 | 85 | 1950 | 0 | 0 | 1092755 | 923077 | 1846153 |
| 3 | 904965 | 1 | 6 | 80 | 1085 | 0 | 0 | 1999670 | 1846154 | 2769230 |
| 4 | 830218 | 2 | 6 | 60 | 1594 | 1275 | 0 | 2830973 | 2769231 | 3692307 |
| 5 | 1024194 | 3 | 6 | 100 | 1919 | 1707 | 1431 | 3858036 | 3692308 | 4615384 |
| 6 | 1116155 | 2 | 6 | 90 | 1618 | 1759 | 0 | 4979248 | 4615385 | 5538461 |
| 7 | 1382141 | 1 | 6 | 60 | 1983 | 0 | 0 | 6364766 | 5538462 | 6461538 |
| 8 | 379040 | 2 | 6 | 65 | 1301 | 1258 | 0 | 6745789 | 6461539 | 7384615 |
| 9 | 1105941 | 1 | 6 | 100 | 1353 | 0 | 0 | 7854289 | 7384616 | 8307692 |
| 10 | 843458 | 1 | 6 | 65 | 1620 | 0 | 0 | 8699100 | 8307693 | 9230769 |
| 11 | 1082581 | 3 | 6 | 60 | 1375 | 1537 | 1971 | 9783301 | 9230770 | 10153846 |
| 12 | 512831 | 3 | 6 | 100 | 1842 | 1572 | 1627 | 10301015 | 10153847 | 11076923 |
| 13 | 1593020 | 1 | 6 | 75 | 1246 | 0 | 0 | 11899076 | 11076924 | 12000000 |

Total number of pulses in waveform = 24

## Type 5 Radar Waveform_19

Num of Bursts = 8
Burst Interval (us)= 1500000

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 268861 | 2 | 14 | 85 | 1684 | 1569 | 0 | 268861 | 0 | 1499999 |
| 2 | 2397183 | 2 | 14 | 100 | 1307 | 1431 | 0 | 2669297 | 1500000 | 2999999 |
| 3 | 541237 | 1 | 14 | 100 | 1843 | 0 | 0 | 3213272 | 3000000 | 4499999 |
| 4 | 2302878 | 1 | 14 | 80 | 1979 | 0 | 0 | 5517993 | 4500000 | 5999999 |
| 5 | 1624457 | 3 | 14 | 75 | 1524 | 1989 | 1485 | 7144429 | 6000000 | 7499999 |
| 6 | 1253231 | 1 | 14 | 85 | 1327 | 0 | 0 | 8402658 | 7500000 | 8999999 |
| 7 | 1961028 | 3 | 14 | 80 | 1879 | 1089 | 1433 | 10365013 | 9000000 | 10499999 |
| 8 | 1159825 | 2 | 14 | 95 | 1139 | 1876 | 0 | 11529239 | 10500000 | 11999999 |

Total number of pulses in waveform = 15

## Type 5 Radar Waveform_20

Num of Bursts = 11
Burst Interval (us)= 1090909

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 895864 | 3 | 9 | 90 | 1839 | 1084 | 1581 | 895864 | 0 | 1090908 |
| 2 | 1261345 | 2 | 9 | 100 | 1598 | 1930 | 0 | 2161713 | 1090909 | 2181817 |
| 3 | 49985 | 3 | 9 | 55 | 1199 | 1839 | 1988 | 2215226 | 2181818 | 3272726 |
| 4 | 1337024 | 2 | 9 | 100 | 1842 | 1006 | 0 | 3557276 | 3272727 | 4363635 |
| 5 | 955706 | 3 | 9 | 80 | 1900 | 1997 | 1181 | 4515830 | 4363636 | 5454544 |
| 6 | 1834653 | 3 | 9 | 85 | 1257 | 1688 | 1623 | 6355561 | 5454545 | 6545453 |
| 7 | 1174618 | 1 | 9 | 95 | 1239 | 0 | 0 | 7534747 | 6545454 | 7636362 |
| 8 | 345381 | 2 | 9 | 50 | 1512 | 1497 | 0 | 7881367 | 7636363 | 8727271 |
| 9 | 1018588 | 3 | 9 | 75 | 1193 | 1407 | 1510 | 8902964 | 8727272 | 9818180 |
| 10 | 1292180 | 3 | 9 | 60 | 1068 | 1295 | 1865 | 10199254 | 9818181 | 10909089 |
| 11 | 1032847 | 2 | 9 | 100 | 1473 | 1918 | 0 | 11236329 | 10909090 | 11999998 |

Total number of pulses in waveform = 27

## Type 5 Radar Waveform_21

Num of Bursts = 17
Burst Interval (us)= 705882

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 454309 | 2 | 10 | 95 | 1198 | 1043 | 0 | 454309 | 0 | 705881 |
| 2 | 446364 | 2 | 10 | 80 | 1102 | 1227 | 0 | 902914 | 705882 | 1411763 |
| 3 | 728037 | 2 | 10 | 85 | 1475 | 1809 | 0 | 1633280 | 1411764 | 2117645 |
| 4 | 1107012 | 2 | 10 | 85 | 1005 | 1396 | 0 | 2743576 | 2117646 | 2823527 |
| 5 | 651049 | 1 | 10 | 60 | 1250 | 0 | 0 | 3397026 | 2823528 | 3529409 |
| 6 | 669013 | 1 | 10 | 95 | 1427 | 0 | 0 | 4067289 | 3529410 | 4235291 |
| 7 | 754212 | 1 | 10 | 55 | 1084 | 0 | 0 | 4822928 | 4235292 | 4941173 |
| 8 | 665201 | 2 | 10 | 50 | 1654 | 1432 | 0 | 5489213 | 4941174 | 5647055 |
| 9 | 711491 | 2 | 10 | 80 | 1513 | 1871 | 0 | 6203790 | 5647056 | 6352937 |
| 10 | 257489 | 2 | 10 | 90 | 1197 | 1011 | 0 | 6464663 | 6352938 | 7058819 |
| 11 | 884411 | 3 | 10 | 65 | 1916 | 1757 | 1598 | 7351282 | 7058820 | 7764701 |
| 12 | 610257 | 2 | 10 | 55 | 1182 | 1127 | 0 | 7966810 | 7764702 | 8470583 |
| 13 | 826454 | 1 | 10 | 90 | 1901 | 0 | 0 | 8795573 | 8470584 | 9176465 |
| 14 | 872124 | 3 | 10 | 60 | 1404 | 1388 | 1541 | 9669598 | 9176466 | 9882347 |
| 15 | 407059 | 2 | 10 | 55 | 1983 | 1032 | 0 | 10080990 | 9882348 | 10588229 |
| 16 | 1138516 | 1 | 10 | 60 | 1525 | 0 | 0 | 11222521 | 10588230 | 11294111 |
| 17 | 685208 | 1 | 10 | 95 | 1334 | 0 | 0 | 11909254 | 11294112 | 11999993 |

Total number of pulses in waveform = 30

## Type 5 Radar Waveform_22

Num of Bursts = 16
Burst Interval (us)= 750000

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 586560 | 2 | 5 | 60 | 1843 | 1690 | 0 | 586560 | 0 | 749999 |
| 2 | 246851 | 2 | 5 | 90 | 1068 | 1024 | 0 | 836944 | 750000 | 1499999 |
| 3 | 1228664 | 2 | 5 | 100 | 1391 | 1830 | 0 | 2067700 | 1500000 | 2249999 |
| 4 | 363277 | 1 | 5 | 100 | 1562 | 0 | 0 | 2434198 | 2250000 | 2999999 |
| 5 | 718300 | 1 | 5 | 65 | 1469 | 0 | 0 | 3154060 | 3000000 | 3749999 |
| 6 | 1225691 | 3 | 5 | 60 | 1650 | 1300 | 1607 | 4381220 | 3750000 | 4499999 |
| 7 | 587209 | 3 | 5 | 100 | 1113 | 1153 | 1123 | 4972986 | 4500000 | 5249999 |
| 8 | 530916 | 3 | 5 | 60 | 1040 | 1755 | 1238 | 5507291 | 5250000 | 5999999 |
| 9 | 925363 | 1 | 5 | 50 | 1052 | 0 | 0 | 6436687 | 6000000 | 6749999 |
| 10 | 741263 | 2 | 5 | 75 | 1629 | 1107 | 0 | 7179002 | 6750000 | 7499999 |
| 11 | 959811 | 3 | 5 | 70 | 1238 | 1717 | 1814 | 8141549 | 7500000 | 8249999 |
| 12 | 228504 | 3 | 5 | 55 | 1921 | 1486 | 1869 | 8374822 | 8250000 | 8999999 |
| 13 | 932499 | 3 | 5 | 80 | 1998 | 1362 | 1982 | 9312597 | 9000000 | 9749999 |
| 14 | 752339 | 3 | 5 | 60 | 1469 | 1820 | 1304 | 10070278 | 9750000 | 10499999 |
| 15 | 553805 | 3 | 5 | 90 | 1241 | 1304 | 1004 | 10628676 | 10500000 | 11249999 |
| 16 | 736684 | 1 | 5 | 75 | 1554 | 0 | 0 | 11368909 | 11250000 | 11999999 |

Total number of pulses in waveform = 36

## Type 5 Radar Waveform_23

Num of Bursts = 8
Burst Interval (us)= 1500000

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 896343 | 2 | 9 | 70 | 1400 | 1593 | 0 | 896343 | 0 | 1499999 |
| 2 | 1164200 | 3 | 9 | 100 | 1092 | 1949 | 1609 | 2063536 | 1500000 | 2999999 |
| 3 | 1660654 | 2 | 9 | 65 | 1101 | 1841 | 0 | 3728840 | 3000000 | 4499999 |
| 4 | 1944155 | 1 | 9 | 75 | 1281 | 0 | 0 | 5675937 | 4500000 | 5999999 |
| 5 | 1319220 | 1 | 9 | 70 | 1596 | 0 | 0 | 6996438 | 6000000 | 7499999 |
| 6 | 1369957 | 3 | 9 | 80 | 1491 | 1632 | 1226 | 8367991 | 7500000 | 8999999 |
| 7 | 1096387 | 2 | 9 | 60 | 1184 | 1172 | 0 | 9468727 | 9000000 | 10499999 |
| 8 | 1057179 | 2 | 9 | 80 | 1703 | 1673 | 0 | 10528262 | 10500000 | 11999999 |

Total number of pulses in waveform = 16
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## Type 5 Radar Waveform_24

Num of Bursts = 11
Burst Interval (us)= 1090909

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 5933 | 3 | 18 | 100 | 1498 | 1088 | 1679 | 5933 | 0 | 1090908 |
| 2 | 2079229 | 1 | 18 | 95 | 1639 | 0 | 0 | 2089427 | 1090909 | 2181817 |
| 3 | 477642 | 1 | 18 | 90 | 1910 | 0 | 0 | 2568708 | 2181818 | 3272726 |
| 4 | 1783087 | 1 | 18 | 100 | 1236 | 0 | 0 | 4353705 | 3272727 | 4363635 |
| 5 | 217660 | 3 | 18 | 65 | 1795 | 1423 | 1877 | 4572601 | 4363636 | 5454544 |
| 6 | 1863329 | 1 | 18 | 100 | 1989 | 0 | 0 | 6441025 | 5454545 | 6545453 |
| 7 | 576710 | 1 | 18 | 70 | 1297 | 0 | 0 | 7019724 | 6545454 | 7636362 |
| 8 | 1032210 | 1 | 18 | 65 | 1211 | 0 | 0 | 8053231 | 7636363 | 8727271 |
| 9 | 1169590 | 1 | 18 | 70 | 1496 | 0 | 0 | 9224032 | 8727272 | 9818180 |
| 10 | 596994 | 1 | 18 | 70 | 1465 | 0 | 0 | 9822522 | 9818181 | 10909089 |
| 11 | 1721748 | 3 | 18 | 75 | 1678 | 1337 | 1439 | 11545735 | 10909090 | 11999998 |

Total number of pulses in waveform = 17
**********

## Type 5 Radar Waveform_25

Num of Bursts = 9
Burst Interval (us)= 1333333

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 268554 | 1 | 12 | 85 | 1527 | 0 | 0 | 268554 | 0 | 1333332 |
| 2 | 1785040 | 1 | 12 | 90 | 1643 | 0 | 0 | 2055121 | 1333333 | 2666665 |
| 3 | 1007034 | 1 | 12 | 50 | 1079 | 0 | 0 | 3063798 | 2666666 | 3999998 |
| 4 | 1925744 | 1 | 12 | 90 | 1167 | 0 | 0 | 4990621 | 3999999 | 5333331 |
| 5 | 1481335 | 2 | 12 | 70 | 1559 | 1561 | 0 | 6473123 | 5333332 | 6666664 |
| 6 | 1151752 | 3 | 12 | 90 | 1680 | 1176 | 1460 | 7627995 | 6666665 | 7999997 |
| 7 | 1634690 | 1 | 12 | 55 | 1418 | 0 | 0 | 9267001 | 7999998 | 9333330 |
| 8 | 1198360 | 2 | 12 | 95 | 1220 | 1757 | 0 | 10466779 | 9333331 | 10666663 |
| 9 | 451385 | 3 | 12 | 75 | 1311 | 1823 | 1016 | 10921141 | 10666664 | 11999996 |

Total number of pulses in waveform = 15
**********

## Type 5 Radar Waveform_26

Num of Bursts = 9
Burst Interval (us)= 1333333

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 795275 | 3 | 6 | 95 | 1602 | 1124 | 1527 | 795275 | 0 | 1333332 |
| 2 | 905384 | 3 | 6 | 85 | 1278 | 1541 | 1507 | 1704912 | 1333333 | 2666665 |
| 3 | 1522242 | 1 | 6 | 70 | 1520 | 0 | 0 | 3231480 | 2666666 | 3999998 |
| 4 | 948630 | 3 | 6 | 95 | 1986 | 1927 | 1577 | 4181630 | 3999999 | 5333331 |
| 5 | 1966008 | 1 | 6 | 65 | 1522 | 0 | 0 | 6153128 | 5333332 | 6666664 |
| 6 | 1765828 | 2 | 6 | 55 | 1144 | 1085 | 0 | 7920478 | 6666665 | 7999997 |
| 7 | 1244356 | 1 | 6 | 60 | 1671 | 0 | 0 | 9167063 | 7999998 | 9333330 |
| 8 | 1407492 | 3 | 6 | 85 | 1075 | 1974 | 1301 | 10576226 | 9333331 | 10666663 |
| 9 | 762954 | 1 | 6 | 100 | 1427 | 0 | 0 | 11343530 | 10666664 | 11999996 |

Total number of pulses in waveform = 18
**********

## Type 5 Radar Waveform_27

Num of Bursts = 19
Burst Interval (us)= 631579

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 93032 | 2 | 19 | 70 | 1308 | 1191 | 0 | 93032 | 0 | 631578 |
| 2 | 870313 | 1 | 19 | 80 | 1408 | 0 | 0 | 965844 | 631579 | 1263157 |
| 3 | 416879 | 1 | 19 | 90 | 1954 | 0 | 0 | 1384131 | 1263158 | 1894736 |
| 4 | 761287 | 2 | 19 | 65 | 1385 | 1366 | 0 | 2147372 | 1894737 | 2526315 |
| 5 | 490348 | 1 | 19 | 85 | 1147 | 0 | 0 | 2640471 | 2526316 | 3157894 |
| 6 | 710144 | 2 | 19 | 100 | 1941 | 1267 | 0 | 3351762 | 3157895 | 3789473 |
| 7 | 623856 | 2 | 19 | 60 | 1177 | 1309 | 0 | 3978826 | 3789474 | 4421052 |
| 8 | 970981 | 1 | 19 | 50 | 1563 | 0 | 0 | 4952293 | 4421053 | 5052631 |
| 9 | 172750 | 1 | 19 | 70 | 1900 | 0 | 0 | 5126606 | 5052632 | 5684210 |
| 10 | 712686 | 1 | 19 | 65 | 1832 | 0 | 0 | 5841192 | 5684211 | 6315789 |
| 11 | 619169 | 3 | 19 | 50 | 1898 | 1603 | 1245 | 6462193 | 6315790 | 6947368 |
| 12 | 862962 | 3 | 19 | 55 | 1965 | 1931 | 1242 | 7329901 | 6947369 | 7578947 |
| 13 | 542016 | 3 | 19 | 80 | 1621 | 1030 | 1542 | 7877055 | 7578948 | 8210526 |
| 14 | 469578 | 1 | 19 | 55 | 1116 | 0 | 0 | 8350826 | 8210527 | 8842105 |
| 15 | 526956 | 3 | 19 | 70 | 1175 | 1749 | 1993 | 8878898 | 8842106 | 9473684 |
| 16 | 1153744 | 2 | 19 | 60 | 1607 | 1462 | 0 | 10037559 | 9473685 | 10105263 |
| 17 | 452634 | 1 | 19 | 90 | 1599 | 0 | 0 | 10493262 | 10105264 | 10736842 |
| 18 | 456466 | 2 | 19 | 85 | 1804 | 1853 | 0 | 10951327 | 10736843 | 11368421 |
| 19 | 566411 | 1 | 19 | 85 | 1973 | 0 | 0 | 11521395 | 11368422 | 12000000 |

Total number of pulses in waveform = 33
**********

## Type 5 Radar Waveform_28

Num of Bursts = 18
Burst Interval (us)= 666667

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 399206 | 2 | 8 | 95 | 1540 | 1967 | 0 | 399206 | 0 | 666666 |
| 2 | 321652 | 3 | 8 | 100 | 1062 | 1758 | 1527 | 724365 | 666667 | 1333333 |
| 3 | 1171944 | 2 | 8 | 80 | 1083 | 1557 | 0 | 1900656 | 1333334 | 2000000 |
| 4 | 422225 | 3 | 8 | 95 | 1955 | 1086 | 1705 | 2325521 | 2000001 | 2666667 |
| 5 | 773631 | 1 | 8 | 90 | 1203 | 0 | 0 | 3103898 | 2666668 | 3333334 |
| 6 | 531007 | 1 | 8 | 70 | 1493 | 0 | 0 | 3636108 | 3333335 | 4000001 |
| 7 | 864340 | 2 | 8 | 50 | 1208 | 1980 | 0 | 4501941 | 4000002 | 4666668 |
| 8 | 642544 | 1 | 8 | 80 | 1808 | 0 | 0 | 5147673 | 4666669 | 5333335 |
| 9 | 352156 | 1 | 8 | 65 | 1957 | 0 | 0 | 5501637 | 5333336 | 6000002 |
| 10 | 1098426 | 2 | 8 | 60 | 1914 | 1062 | 0 | 6602020 | 6000003 | 6666669 |
| 11 | 96548 | 2 | 8 | 55 | 1413 | 1853 | 0 | 6701544 | 6666670 | 7333336 |
| 12 | 818578 | 1 | 8 | 85 | 1971 | 0 | 0 | 7523388 | 7333337 | 8000003 |
| 13 | 921586 | 3 | 8 | 65 | 1521 | 1244 | 1293 | 8446945 | 8000004 | 8666670 |
| 14 | 488223 | 2 | 8 | 100 | 1734 | 1331 | 0 | 8939226 | 8666671 | 9333337 |
| 15 | 993116 | 2 | 8 | 70 | 1667 | 1245 | 0 | 9935407 | 9333338 | 10000004 |
| 16 | 324297 | 1 | 8 | 100 | 1785 | 0 | 0 | 10262616 | 10000005 | 10666671 |
| 17 | 826931 | 1 | 8 | 95 | 1649 | 0 | 0 | 11091332 | 10666672 | 11333338 |
| 18 | 486955 | 1 | 8 | 85 | 1658 | 0 | 0 | 11579936 | 11333339 | 12000005 |

Total number of pulses in waveform = 31
**********

## Type 5 Radar Waveform_29

Num of Bursts = 16
Burst Interval (us)= 750000

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 318163 | 2 | 17 | 55 | 1794 | 1583 | 0 | 318163 | 0 | 749999 |
| 2 | 656155 | 3 | 17 | 75 | 1126 | 1742 | 1358 | 977695 | 750000 | 1499999 |
| 3 | 744066 | 2 | 17 | 50 | 1350 | 1341 | 0 | 1725987 | 1500000 | 2249999 |
| 4 | 619373 | 2 | 17 | 80 | 1055 | 1208 | 0 | 2348051 | 2250000 | 2999999 |
| 5 | 701648 | 2 | 17 | 85 | 1111 | 1030 | 0 | 3051962 | 3000000 | 3749999 |
| 6 | 1137372 | 2 | 17 | 95 | 1504 | 1250 | 0 | 4191475 | 3750000 | 4499999 |
| 7 | 417499 | 1 | 17 | 70 | 1293 | 0 | 0 | 4611728 | 4500000 | 5249999 |
| 8 | 905808 | 2 | 17 | 60 | 1131 | 1275 | 0 | 5518829 | 5250000 | 5999999 |
| 9 | 918235 | 3 | 17 | 50 | 1981 | 1307 | 1400 | 6439470 | 6000000 | 6749999 |
| 10 | 704216 | 2 | 17 | 90 | 1878 | 1449 | 0 | 7148374 | 6750000 | 7499999 |
| 11 | 965760 | 1 | 17 | 55 | 1785 | 0 | 0 | 8117461 | 7500000 | 8249999 |
| 12 | 795970 | 2 | 17 | 85 | 1089 | 2000 | 0 | 8915216 | 8250000 | 8999999 |
| 13 | 346395 | 2 | 17 | 90 | 1648 | 1063 | 0 | 9264700 | 9000000 | 9749999 |
| 14 | 619889 | 2 | 17 | 75 | 1060 | 1620 | 0 | 9887300 | 9750000 | 10499999 |
| 15 | 726013 | 3 | 17 | 95 | 1803 | 1916 | 1602 | 10615993 | 10500000 | 11249999 |
| 16 | 1218141 | 2 | 17 | 60 | 1367 | 1882 | 0 | 11839455 | 11250000 | 11999999 |

Total number of pulses in waveform = 33

## Type 5 Radar Waveform_30

Num of Bursts = 17
Burst Interval (us)= 705882

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 447119 | 1 | 14 | 70 | 1694 | 0 | 0 | 447119 | 0 | 705881 |
| 2 | 530370 | 1 | 14 | 100 | 1803 | 0 | 0 | 979183 | 705882 | 1411763 |
| 3 | 457510 | 3 | 14 | 60 | 1194 | 1650 | 1239 | 1438496 | 1411764 | 2117645 |
| 4 | 903356 | 2 | 14 | 70 | 1535 | 1509 | 0 | 2345935 | 2117646 | 2823527 |
| 5 | 843242 | 3 | 14 | 60 | 1319 | 1924 | 1653 | 3192221 | 2823528 | 3529409 |
| 6 | 617896 | 2 | 14 | 60 | 1000 | 1119 | 0 | 3815013 | 3529410 | 4235291 |
| 7 | 588068 | 1 | 14 | 50 | 1472 | 0 | 0 | 4405200 | 4235292 | 4941173 |
| 8 | 630000 | 3 | 14 | 95 | 1188 | 1898 | 1612 | 5036672 | 4941174 | 5647055 |
| 9 | 840148 | 3 | 14 | 60 | 1815 | 1951 | 1217 | 5881518 | 5647056 | 6352937 |
| 10 | 602740 | 2 | 14 | 50 | 1770 | 1825 | 0 | 6489241 | 6352938 | 7058819 |
| 11 | 1225613 | 1 | 14 | 95 | 1115 | 0 | 0 | 7718449 | 7058820 | 7764701 |
| 12 | 126485 | 1 | 14 | 60 | 1343 | 0 | 0 | 7846049 | 7764702 | 8470583 |
| 13 | 833133 | 2 | 14 | 95 | 1233 | 1278 | 0 | 8680525 | 8470584 | 9176465 |
| 14 | 1121475 | 2 | 14 | 60 | 1497 | 1597 | 0 | 9804511 | 9176466 | 9882347 |
| 15 | 492571 | 2 | 14 | 95 | 1711 | 1137 | 0 | 10300176 | 9882348 | 10588229 |
| 16 | 815462 | 3 | 14 | 100 | 1381 | 1128 | 1495 | 11118486 | 10588230 | 11294111 |
| 17 | 406062 | 2 | 14 | 85 | 1989 | 1170 | 0 | 11528552 | 11294112 | 11999993 |

Total number of pulses in waveform = 34

Radar Type 6 - Radar Statistical Performance

| Trail # | Test Freq. (MHz) | 1=Detection 0=No Detection | Trail # | Test Freq. (MHz) | 1=Detection 0=No Detection |
|---|---|---|---|---|---|
| 1 | 5292 | 1 | 16 | 5310 | 1 |
| 2 | 5292 | 1 | 17 | 5310 | 1 |
| 3 | 5292 | 1 | 18 | 5310 | 1 |
| 4 | 5292 | 1 | 19 | 5312 | 1 |
| 5 | 5300 | 1 | 20 | 5312 | 1 |
| 6 | 5300 | 1 | 21 | 5312 | 1 |
| 7 | 5300 | 1 | 22 | 5312 | 1 |
| 8 | 5300 | 1 | 23 | 5320 | 1 |
| 9 | 5308 | 1 | 24 | 5320 | 1 |
| 10 | 5308 | 1 | 25 | 5320 | 1 |
| 11 | 5308 | 1 | 26 | 5320 | 1 |
| 12 | 5308 | 1 | 27 | 5328 | 1 |
| 13 | 5310 | 1 | 28 | 5328 | 1 |
| 14 | 5310 | 1 | 29 | 5328 | 1 |
| 15 | 5310 | 1 | 30 | 5328 | 1 |
| Detection Percentage (%) | | | | | 100% |

| Radar waveform #1 | | | Radar waveform #2 | | |
|---|---|---|---|---|---|
| Hopping Number | Frequency (MHz) | Pulse Start (ms) | Hopping Number | Frequency (MHz) | Pulse Start (ms) |
| 3 | 5275 | 9 | 4 | 5302 | 12 |
| 6 | 5286 | 18 | 5 | 5314 | 15 |
| 8 | 5317 | 24 | 16 | 5277 | 48 |
| 9 | 5321 | 27 | 24 | 5266 | 72 |
| 11 | 5296 | 33 | 38 | 5262 | 114 |
| 18 | 5278 | 54 | 43 | 5321 | 129 |
| 19 | 5309 | 57 | 67 | 5296 | 201 |
| 47 | 5266 | 141 | 78 | 5298 | 234 |
| 63 | 5314 | 189 | 80 | 5319 | 240 |
| 77 | 5316 | 231 | 81 | 5278 | 243 |
| 79 | 5295 | 237 | 99 | 5273 | 297 |
| 88 | 5313 | 264 | -- | -- | -- |
| 94 | 5290 | 282 | -- | -- | -- |
| 97 | 5277 | 291 | -- | -- | -- |

| Radar waveform #3 | | | Radar waveform #4 | | |
|---|---|---|---|---|---|
| Hopping Number | Frequency (MHz) | Pulse Start (ms) | Hopping Number | Frequency (MHz) | Pulse Start (ms) |
| 12 | 5300 | 36 | 6 | 5264 | 18 |
| 14 | 5291 | 42 | 15 | 5273 | 45 |
| 15 | 5316 | 45 | 25 | 5299 | 75 |
| 16 | 5310 | 48 | 36 | 5319 | 108 |
| 23 | 5271 | 69 | 40 | 5269 | 120 |
| 33 | 5294 | 99 | 44 | 5283 | 132 |
| 38 | 5263 | 114 | 55 | 5312 | 165 |
| 42 | 5299 | 126 | 60 | 5313 | 180 |
| 48 | 5297 | 144 | 61 | 5290 | 183 |
| 56 | 5296 | 168 | 66 | 5275 | 198 |
| 64 | 5306 | 192 | 68 | 5307 | 204 |
| 69 | 5269 | 207 | 71 | 5286 | 213 |
| 72 | 5293 | 216 | 72 | 5276 | 216 |
| 73 | 5268 | 219 | 82 | 5278 | 246 |
| 77 | 5287 | 231 | 84 | 5294 | 252 |
| 81 | 5304 | 243 | 93 | 5310 | 279 |
| 95 | 5321 | 285 | 94 | 5268 | 282 |

| Radar waveform #5 | | | Radar waveform #6 | | |
|---|---|---|---|---|---|
| Hopping Number | Frequency (MHz) | Pulse Start (ms) | Hopping Number | Frequency (MHz) | Pulse Start (ms) |
| 11 | 5315 | 33 | 17 | 5271 | 51 |
| 17 | 5296 | 51 | 19 | 5266 | 57 |
| 33 | 5322 | 99 | 22 | 5281 | 66 |
| 71 | 5275 | 213 | 31 | 5319 | 93 |
| 72 | 5276 | 216 | 37 | 5286 | 111 |
| 76 | 5321 | 228 | 42 | 5283 | 126 |
| 79 | 5282 | 237 | 62 | 5290 | 186 |
| 83 | 5288 | 249 | 66 | 5292 | 198 |
| 96 | 5291 | 288 | 80 | 5279 | 240 |
| 98 | 5266 | 294 | 94 | 5298 | 282 |

| Radar waveform #7 | | | Radar waveform #8 | | |
|---|---|---|---|---|---|
| Hopping Number | Frequency (MHz) | Pulse Start (ms) | Hopping Number | Frequency (MHz) | Pulse Start (ms) |
| 5 | 5321 | 15 | 2 | 5324 | 6 |
| 17 | 5291 | 51 | 5 | 5316 | 15 |
| 22 | 5272 | 66 | 9 | 5329 | 27 |
| 23 | 5323 | 69 | 10 | 5300 | 30 |
| 33 | 5297 | 99 | 12 | 5279 | 36 |
| 55 | 5286 | 165 | 15 | 5328 | 45 |
| 67 | 5316 | 201 | 17 | 5277 | 51 |
| 69 | 5294 | 207 | 30 | 5273 | 90 |
| 77 | 5330 | 231 | 58 | 5313 | 174 |
| 83 | 5308 | 249 | 62 | 5312 | 186 |
| 98 | 5270 | 294 | 63 | 5281 | 189 |
| -- | -- | -- | 76 | 5322 | 228 |
| -- | -- | -- | 85 | 5302 | 255 |
| -- | -- | -- | 94 | 5305 | 282 |
| -- | -- | -- | 98 | 5285 | 294 |

| Radar waveform #9 | | | Radar waveform #10 | | |
|---|---|---|---|---|---|
| Hopping Number | Frequency (MHz) | Pulse Start (ms) | Hopping Number | Frequency (MHz) | Pulse Start (ms) |
| 9 | 5304 | 27 | 2 | 5277 | 6 |
| 26 | 5330 | 78 | 32 | 5276 | 96 |
| 30 | 5316 | 90 | 36 | 5324 | 108 |
| 38 | 5278 | 114 | 49 | 5295 | 147 |
| 42 | 5309 | 126 | 52 | 5273 | 156 |
| 63 | 5328 | 189 | 72 | 5306 | 216 |
| 71 | 5317 | 213 | 76 | 5327 | 228 |
| 97 | 5306 | 291 | 81 | 5286 | 243 |
| 99 | 5281 | 297 | 89 | 5311 | 267 |
| -- | -- | -- | 93 | 5282 | 279 |
| -- | -- | -- | 97 | 5328 | 291 |

| Radar waveform #11 | | | Radar waveform #12 | | |
|---|---|---|---|---|---|
| Hopping Number | Frequency (MHz) | Pulse Start (ms) | Hopping Number | Frequency (MHz) | Pulse Start (ms) |
| 0 | 5305 | 0 | 8 | 5322 | 24 |
| 6 | 5307 | 18 | 13 | 5317 | 39 |
| 22 | 5313 | 66 | 15 | 5271 | 45 |
| 26 | 5306 | 78 | 29 | 5298 | 87 |
| 31 | 5294 | 93 | 30 | 5316 | 90 |
| 44 | 5304 | 132 | 53 | 5327 | 159 |
| 47 | 5303 | 141 | 55 | 5315 | 165 |
| 60 | 5280 | 180 | 66 | 5272 | 198 |
| 70 | 5326 | 210 | 76 | 5302 | 228 |
| 77 | 5291 | 231 | 79 | 5278 | 237 |
| 79 | 5296 | 237 | 80 | 5289 | 240 |
| 82 | 5317 | 246 | 93 | 5307 | 279 |
| 83 | 5330 | 249 | -- | -- | -- |
| 87 | 5295 | 261 | -- | -- | -- |
| 92 | 5309 | 276 | -- | -- | -- |
| 95 | 5285 | 285 | -- | -- | -- |

| Radar waveform #13 | | | Radar waveform #14 | | |
|---|---|---|---|---|---|
| Hopping Number | Frequency (MHz) | Pulse Start (ms) | Hopping Number | Frequency (MHz) | Pulse Start (ms) |
| 1 | 5327 | 3 | 18 | 5333 | 54 |
| 3 | 5320 | 9 | 19 | 5326 | 57 |
| 5 | 5318 | 15 | 32 | 5285 | 96 |
| 8 | 5313 | 24 | 43 | 5332 | 129 |
| 9 | 5319 | 27 | 45 | 5281 | 135 |
| 11 | 5321 | 33 | 50 | 5320 | 150 |
| 23 | 5315 | 69 | 53 | 5335 | 159 |
| 31 | 5307 | 93 | 70 | 5314 | 210 |
| 37 | 5336 | 111 | 72 | 5302 | 216 |
| 55 | 5333 | 165 | 78 | 5330 | 234 |
| 57 | 5306 | 171 | 80 | 5305 | 240 |
| 72 | 5284 | 216 | 86 | 5315 | 258 |
| 76 | 5299 | 228 | 95 | 5316 | 285 |
| 86 | 5287 | 258 | 97 | 5297 | 291 |
| 98 | 5317 | 294 | -- | -- | -- |
| 99 | 5282 | 297 | -- | -- | -- |

| Radar waveform #15 | | | Radar waveform #16 | | |
|---|---|---|---|---|---|
| Hopping Number | Frequency (MHz) | Pulse Start (ms) | Hopping Number | Frequency (MHz) | Pulse Start (ms) |
| 12 | 5298 | 36 | 3 | 5287 | 9 |
| 16 | 5340 | 48 | 7 | 5303 | 21 |
| 17 | 5314 | 51 | 9 | 5327 | 27 |
| 19 | 5316 | 57 | 13 | 5332 | 39 |
| 22 | 5302 | 66 | 30 | 5339 | 90 |
| 27 | 5294 | 81 | 34 | 5326 | 102 |
| 28 | 5285 | 84 | 36 | 5310 | 108 |
| 41 | 5336 | 123 | 41 | 5294 | 123 |
| 46 | 5291 | 138 | 60 | 5298 | 180 |
| 68 | 5324 | 204 | 71 | 5280 | 213 |
| 92 | 5327 | 276 | 90 | 5309 | 270 |
| -- | -- | -- | 91 | 5331 | 273 |
| -- | -- | -- | 92 | 5329 | 276 |

| Radar waveform #17 | | | Radar waveform #18 | | |
|---|---|---|---|---|---|
| Hopping Number | Frequency (MHz) | Pulse Start (ms) | Hopping Number | Frequency (MHz) | Pulse Start (ms) |
| 4 | 5309 | 12 | 2 | 5300 | 6 |
| 9 | 5330 | 27 | 10 | 5327 | 30 |
| 18 | 5315 | 54 | 14 | 5308 | 42 |
| 33 | 5326 | 99 | 20 | 5326 | 60 |
| 41 | 5338 | 123 | 22 | 5286 | 66 |
| 55 | 5334 | 165 | 39 | 5330 | 117 |
| 56 | 5283 | 168 | 45 | 5309 | 135 |
| 62 | 5316 | 186 | 52 | 5324 | 156 |
| 73 | 5312 | 219 | 59 | 5302 | 177 |
| 96 | 5305 | 288 | 65 | 5303 | 195 |
| -- | -- | -- | 74 | 5301 | 222 |
| -- | -- | -- | 79 | 5338 | 237 |
| -- | -- | -- | 86 | 5322 | 258 |

| Radar waveform #19 | | | Radar waveform #20 | | |
|---|---|---|---|---|---|
| Hopping Number | Frequency (MHz) | Pulse Start (ms) | Hopping Number | Frequency (MHz) | Pulse Start (ms) |
| 17 | 5317 | 51 | 5 | 5343 | 15 |
| 30 | 5348 | 90 | 11 | 5300 | 33 |
| 40 | 5318 | 120 | 14 | 5306 | 42 |
| 42 | 5304 | 126 | 20 | 5303 | 60 |
| 58 | 5337 | 174 | 26 | 5318 | 78 |
| 67 | 5336 | 201 | 29 | 5336 | 87 |
| 81 | 5300 | 243 | 30 | 5313 | 90 |
| 87 | 5340 | 261 | 55 | 5327 | 165 |
| 88 | 5311 | 264 | 62 | 5292 | 186 |
| 95 | 5349 | 285 | 63 | 5345 | 189 |
| -- | -- | -- | 64 | 5295 | 192 |
| -- | -- | -- | 77 | 5297 | 231 |
| -- | -- | -- | 80 | 5320 | 240 |
| -- | -- | -- | 84 | 5323 | 252 |
| -- | -- | -- | 87 | 5342 | 261 |
| -- | -- | -- | 91 | 5349 | 273 |
| -- | -- | -- | 93 | 5302 | 279 |

| Radar waveform #21 | | | Radar waveform #22 | | |
|---|---|---|---|---|---|
| Hopping Number | Frequency (MHz) | Pulse Start (ms) | Hopping Number | Frequency (MHz) | Pulse Start (ms) |
| 3 | 5293 | 9 | 5 | 5349 | 15 |
| 18 | 5344 | 54 | 6 | 5337 | 18 |
| 20 | 5337 | 60 | 9 | 5305 | 27 |
| 28 | 5340 | 84 | 14 | 5302 | 42 |
| 33 | 5290 | 99 | 15 | 5318 | 45 |
| 34 | 5341 | 102 | 23 | 5346 | 69 |
| 36 | 5342 | 108 | 32 | 5340 | 96 |
| 43 | 5303 | 129 | 35 | 5298 | 105 |
| 55 | 5326 | 165 | 47 | 5306 | 141 |
| 76 | 5310 | 228 | 48 | 5333 | 144 |
| 77 | 5336 | 231 | 50 | 5317 | 150 |
| 89 | 5302 | 267 | 57 | 5321 | 171 |
| 93 | 5319 | 279 | 69 | 5311 | 207 |
| 94 | 5307 | 282 | 70 | 5334 | 210 |
| -- | -- | -- | 75 | 5342 | 225 |
| -- | -- | -- | 91 | 5348 | 273 |

| Radar waveform #23 | | | Radar waveform #24 | | |
|---|---|---|---|---|---|
| Hopping Number | Frequency (MHz) | Pulse Start (ms) | Hopping Number | Frequency (MHz) | Pulse Start (ms) |
| 5 | 5321 | 15 | 7 | 5329 | 21 |
| 18 | 5316 | 54 | 9 | 5323 | 27 |
| 20 | 5300 | 60 | 11 | 5290 | 33 |
| 32 | 5346 | 96 | 27 | 5316 | 81 |
| 49 | 5340 | 147 | 38 | 5301 | 114 |
| 54 | 5306 | 162 | 40 | 5326 | 120 |
| 66 | 5302 | 198 | 59 | 5295 | 177 |
| 72 | 5334 | 216 | 64 | 5341 | 192 |
| 77 | 5341 | 231 | 66 | 5342 | 198 |
| 80 | 5327 | 240 | 74 | 5331 | 222 |
| 88 | 5342 | 264 | 79 | 5337 | 237 |
| 91 | 5307 | 273 | 82 | 5327 | 246 |
| 98 | 5349 | 294 | 86 | 5349 | 258 |

| Radar waveform #25 | | | Radar waveform #26 | | |
|---|---|---|---|---|---|
| Hopping Number | Frequency (MHz) | Pulse Start (ms) | Hopping Number | Frequency (MHz) | Pulse Start (ms) |
| 8 | 5336 | 24 | 5 | 5354 | 15 |
| 10 | 5318 | 30 | 12 | 5307 | 36 |
| 15 | 5310 | 45 | 15 | 5322 | 45 |
| 17 | 5300 | 51 | 19 | 5334 | 57 |
| 24 | 5301 | 72 | 25 | 5350 | 75 |
| 29 | 5322 | 87 | 50 | 5312 | 150 |
| 43 | 5347 | 129 | 54 | 5313 | 162 |
| 58 | 5348 | 174 | 57 | 5344 | 171 |
| 73 | 5355 | 219 | 67 | 5327 | 201 |
| 90 | 5309 | 270 | 71 | 5319 | 213 |
| -- | -- | -- | 72 | 5347 | 216 |
| -- | -- | -- | 77 | 5323 | 231 |
| -- | -- | -- | 97 | 5314 | 291 |

| Radar waveform #27 | | | Radar waveform #28 | | |
|---|---|---|---|---|---|
| Hopping Number | Frequency (MHz) | Pulse Start (ms) | Hopping Number | Frequency (MHz) | Pulse Start (ms) |
| 0 | 5308 | 0 | 0 | 5313 | 0 |
| 2 | 5344 | 6 | 3 | 5345 | 9 |
| 4 | 5328 | 12 | 29 | 5337 | 87 |
| 6 | 5357 | 18 | 40 | 5318 | 120 |
| 7 | 5337 | 21 | 48 | 5355 | 144 |
| 22 | 5305 | 66 | 49 | 5320 | 147 |
| 29 | 5300 | 87 | 52 | 5327 | 156 |
| 36 | 5333 | 108 | 59 | 5338 | 177 |
| 41 | 5302 | 123 | 65 | 5301 | 195 |
| 56 | 5304 | 168 | 89 | 5312 | 267 |
| 75 | 5323 | 225 | -- | -- | -- |
| 82 | 5307 | 246 | -- | -- | -- |
| 87 | 5318 | 261 | -- | -- | -- |
| 89 | 5311 | 267 | -- | -- | -- |
| 92 | 5350 | 276 | -- | -- | -- |
| 97 | 5347 | 291 | -- | -- | -- |

| Radar waveform #27 | | | Radar waveform #28 | | |
|---|---|---|---|---|---|
| Hopping Number | Frequency (MHz) | Pulse Start (ms) | Hopping Number | Frequency (MHz) | Pulse Start (ms) |
| 2 | 5357 | 6 | 4 | 5329 | 12 |
| 9 | 5345 | 27 | 12 | 5298 | 36 |
| 17 | 5346 | 51 | 16 | 5350 | 48 |
| 18 | 5323 | 54 | 19 | 5323 | 57 |
| 36 | 5324 | 108 | 37 | 5306 | 111 |
| 37 | 5312 | 111 | 39 | 5305 | 117 |
| 39 | 5336 | 117 | 41 | 5316 | 123 |
| 46 | 5343 | 138 | 44 | 5332 | 132 |
| 57 | 5330 | 171 | 46 | 5347 | 138 |
| 58 | 5356 | 174 | 49 | 5325 | 147 |
| 74 | 5332 | 222 | 57 | 5301 | 171 |
| 76 | 5322 | 228 | 59 | 5342 | 177 |
| 83 | 5350 | 249 | 65 | 5303 | 195 |
| 85 | 5301 | 255 | 74 | 5338 | 222 |
| 91 | 5339 | 273 | 82 | 5353 | 246 |
| 92 | 5302 | 276 | -- | -- | -- |

Radar Statistical Performance for 802.11ac-VHT80

Radar Type 1 - Radar Statistical Performance

| Trail # | Test Freq. (MHz) | Pulse Width (us) | PRI (us) | Pulses / Burst | 1=Detection 0=No Detection |
|---|---|---|---|---|---|
| 1 | 5252 | 1 | 798 | 67 | 1 |
| 2 | 5252 | 1 | 698 | 76 | 1 |
| 3 | 5260 | 1 | 578 | 92 | 1 |
| 4 | 5260 | 1 | 758 | 70 | 1 |
| 5 | 5268 | 1 | 918 | 58 | 1 |
| 6 | 5268 | 1 | 538 | 99 | 1 |
| 7 | 5270 | 1 | 898 | 59 | 1 |
| 8 | 5270 | 1 | 738 | 72 | 1 |
| 9 | 5272 | 1 | 3066 | 18 | 1 |
| 10 | 5272 | 1 | 718 | 74 | 1 |
| 11 | 5280 | 1 | 938 | 57 | 1 |
| 12 | 5280 | 1 | 678 | 78 | 1 |
| 13 | 5288 | 1 | 838 | 63 | 1 |
| 14 | 5288 | 1 | 818 | 65 | 1 |
| 15 | 5290 | 1 | 518 | 102 | 1 |
| 16 | 5290 | 1 | 1583 | 34 | 1 |
| 17 | 5292 | 1 | 2696 | 20 | 1 |
| 18 | 5292 | 1 | 1050 | 51 | 1 |
| 19 | 5300 | 1 | 1760 | 30 | 1 |
| 20 | 5300 | 1 | 2398 | 23 | 1 |
| 21 | 5308 | 1 | 2089 | 26 | 1 |
| 22 | 5308 | 1 | 2352 | 23 | 1 |
| 23 | 5310 | 1 | 2644 | 20 | 1 |
| 24 | 5310 | 1 | 1169 | 46 | 1 |
| 25 | 5312 | 1 | 976 | 55 | 1 |
| 26 | 5312 | 1 | 1678 | 32 | 1 |
| 27 | 5320 | 1 | 2231 | 24 | 1 |
| 28 | 5320 | 1 | 1715 | 31 | 1 |
| 29 | 5328 | 1 | 932 | 57 | 1 |
| 30 | 5328 | 1 | 2476 | 22 | 1 |
| Detection Percentage (%) | | | | | 100% |

Radar Type 2 - Radar Statistical Performance

| Trail # | Test Freq. (MHz) | Pulse Width (us) | PRI (us) | Pulses / Burst | 1=Detection 0=No Detection |
|---|---|---|---|---|---|
| 1 | 5252 | 3.5 | 211 | 29 | 1 |
| 2 | 5252 | 1.8 | 208 | 23 | 1 |
| 3 | 5260 | 4.3 | 165 | 23 | 1 |
| 4 | 5260 | 1.9 | 180 | 27 | 1 |
| 5 | 5268 | 5.0 | 230 | 23 | 1 |
| 6 | 5268 | 1.7 | 218 | 24 | 1 |
| 7 | 5270 | 3.4 | 226 | 23 | 1 |
| 8 | 5270 | 3.4 | 230 | 26 | 1 |
| 9 | 5272 | 3.3 | 208 | 23 | 1 |
| 10 | 5272 | 4.7 | 213 | 28 | 1 |
| 11 | 5280 | 4.6 | 197 | 25 | 1 |
| 12 | 5280 | 4.8 | 204 | 29 | 1 |
| 13 | 5288 | 1.9 | 171 | 27 | 1 |
| 14 | 5288 | 1.3 | 181 | 24 | 1 |
| 15 | 5290 | 1.5 | 161 | 27 | 1 |
| 16 | 5290 | 2.2 | 173 | 26 | 1 |
| 17 | 5292 | 3.5 | 154 | 25 | 1 |
| 18 | 5292 | 3.5 | 165 | 25 | 1 |
| 19 | 5300 | 3.6 | 155 | 23 | 1 |
| 20 | 5300 | 4.1 | 159 | 28 | 1 |
| 21 | 5308 | 3.3 | 220 | 28 | 1 |
| 22 | 5308 | 4.6 | 150 | 28 | 1 |
| 23 | 5310 | 3.1 | 208 | 29 | 1 |
| 24 | 5310 | 1.6 | 162 | 29 | 1 |
| 25 | 5312 | 4.8 | 184 | 28 | 1 |
| 26 | 5312 | 2.3 | 222 | 25 | 1 |
| 27 | 5320 | 3.1 | 176 | 23 | 1 |
| 28 | 5320 | 1.6 | 158 | 29 | 1 |
| 29 | 5328 | 3.0 | 217 | 23 | 1 |
| 30 | 5328 | 1.0 | 222 | 29 | 1 |
| Detection Percentage (%) | | | | | 100% |

Radar Type 3 - Radar Statistical Performance

| Trail # | Test Freq. (MHz) | Pulse Width (us) | PRI (us) | Pulses / Burst | 1=Detection 0=No Detection |
|---|---|---|---|---|---|
| 1 | 5252 | 6.5 | 487 | 17 | 1 |
| 2 | 5252 | 6.2 | 494 | 16 | 1 |
| 3 | 5260 | 9.9 | 255 | 17 | 1 |
| 4 | 5260 | 9.7 | 310 | 17 | 1 |
| 5 | 5268 | 7.5 | 365 | 16 | 1 |
| 6 | 5268 | 7.7 | 295 | 17 | 1 |
| 7 | 5270 | 7.6 | 335 | 17 | 1 |
| 8 | 5270 | 7.7 | 456 | 16 | 1 |
| 9 | 5272 | 9.2 | 326 | 16 | 1 |
| 10 | 5272 | 8.4 | 284 | 16 | 1 |
| 11 | 5280 | 9.2 | 337 | 17 | 1 |
| 12 | 5280 | 6.9 | 272 | 16 | 1 |
| 13 | 5288 | 7.4 | 304 | 16 | 1 |
| 14 | 5288 | 9.3 | 292 | 17 | 1 |
| 15 | 5290 | 8.8 | 425 | 16 | 1 |
| 16 | 5290 | 9.1 | 317 | 18 | 1 |
| 17 | 5292 | 9.1 | 410 | 18 | 1 |
| 18 | 5292 | 8.1 | 281 | 16 | 1 |
| 19 | 5300 | 9.9 | 378 | 17 | 1 |
| 20 | 5300 | 8.4 | 326 | 18 | 1 |
| 21 | 5308 | 8.0 | 370 | 18 | 1 |
| 22 | 5308 | 8.6 | 346 | 17 | 1 |
| 23 | 5310 | 6.1 | 355 | 16 | 1 |
| 24 | 5310 | 9.5 | 414 | 16 | 1 |
| 25 | 5312 | 9.4 | 294 | 16 | 1 |
| 26 | 5312 | 9.8 | 411 | 18 | 1 |
| 27 | 5320 | 7.5 | 278 | 18 | 1 |
| 28 | 5320 | 8.5 | 471 | 18 | 1 |
| 29 | 5328 | 6.9 | 296 | 17 | 1 |
| 30 | 5328 | 8.1 | 272 | 18 | 1 |
| Detection Percentage (%) | | | | | 100% |

Radar Type 4 - Radar Statistical Performance

| Trail # | Test Freq. (MHz) | Pulse Width (us) | PRI (us) | Pulses / Burst | 1=Detection 0=No Detection |
|---|---|---|---|---|---|
| 1 | 5252 | 15.0 | 491 | 16 | 1 |
| 2 | 5252 | 16.9 | 382 | 13 | 1 |
| 3 | 5260 | 19.1 | 288 | 14 | 1 |
| 4 | 5260 | 20.0 | 399 | 15 | 1 |
| 5 | 5268 | 11.4 | 355 | 12 | 1 |
| 6 | 5268 | 14.5 | 350 | 13 | 1 |
| 7 | 5270 | 17.7 | 407 | 12 | 1 |
| 8 | 5270 | 13.4 | 303 | 13 | 1 |
| 9 | 5272 | 13.0 | 382 | 15 | 1 |
| 10 | 5272 | 14.9 | 327 | 12 | 1 |
| 11 | 5280 | 19.6 | 413 | 15 | 1 |
| 12 | 5280 | 11.4 | 272 | 16 | 1 |
| 13 | 5288 | 12.4 | 480 | 15 | 1 |
| 14 | 5288 | 12.4 | 313 | 15 | 1 |
| 15 | 5290 | 16.2 | 370 | 16 | 1 |
| 16 | 5290 | 19.4 | 496 | 13 | 1 |
| 17 | 5292 | 14.5 | 309 | 14 | 1 |
| 18 | 5292 | 14.8 | 284 | 15 | 1 |
| 19 | 5300 | 14.6 | 267 | 15 | 1 |
| 20 | 5300 | 12.6 | 385 | 14 | 1 |
| 21 | 5308 | 18.9 | 469 | 12 | 1 |
| 22 | 5308 | 17.0 | 414 | 13 | 1 |
| 23 | 5310 | 16.6 | 384 | 15 | 1 |
| 24 | 5310 | 18.9 | 352 | 15 | 1 |
| 25 | 5312 | 19.6 | 451 | 14 | 1 |
| 26 | 5312 | 14.9 | 475 | 15 | 1 |
| 27 | 5320 | 11.6 | 331 | 15 | 1 |
| 28 | 5320 | 13.6 | 461 | 12 | 1 |
| 29 | 5328 | 17.1 | 320 | 16 | 1 |
| 30 | 5328 | 16.9 | 345 | 14 | 1 |
| Detection Percentage (%) | | | | | 100% |

Note: In addition an average minimum percentage of successful detection across all four Short pulse radar test waveforms is as follows: $\frac{P_d1+P_d2+P_d3+P_d4}{4}$ = (100%+100%+100%+100%)/4 = 100% (>80%)

Radar Type 5 - Radar Statistical Performance

| Trail # | Test Freq. (MHz) | 1=Detection 0=No Detection | Trail # | Test Freq. (MHz) | 1=Detection 0=No Detection |
|---|---|---|---|---|---|
| 1 | 5255.6 | 1 | 16 | 5290.0 | 1 |
| 2 | 5256.8 | 1 | 17 | 5290.0 | 1 |
| 3 | 5257.6 | 1 | 18 | 5290.0 | 1 |
| 4 | 5254.0 | 1 | 19 | 5290.0 | 1 |
| 5 | 5255.2 | 1 | 20 | 5290.0 | 1 |
| 6 | 5259.2 | 1 | 21 | 5324.0 | 1 |
| 7 | 5254.4 | 1 | 22 | 5326.0 | 1 |
| 8 | 5259.6 | 1 | 23 | 5324.4 | 1 |
| 9 | 5256.0 | 1 | 24 | 5320.8 | 1 |
| 10 | 5258.8 | 1 | 25 | 5323.2 | 1 |
| 11 | 5290.0 | 1 | 26 | 5325.6 | 1 |
| 12 | 5290.0 | 1 | 27 | 5320.4 | 1 |
| 13 | 5290.0 | 1 | 28 | 5324.8 | 1 |
| 14 | 5290.0 | 1 | 29 | 5321.2 | 1 |
| 15 | 5290.0 | 1 | 30 | 5322.4 | 1 |
| Detection Percentage (%) | | | | | 100% |

**Type 5 Radar Waveform_1**

Num of Bursts = 8
Burst Interval (us)= 1500000

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1113788 | | | | | | | | | |
| 1 | | 1 | 9 | 55 | 1512 | 0 | 0 | 1113788 | 0 | 1499999 |
| | 1332876 | | | | | | | | | |
| 2 | | 3 | 9 | 65 | 1643 | 1633 | 1988 | 2448176 | 1500000 | 2999999 |
| | 953664 | | | | | | | | | |
| 3 | | 2 | 9 | 55 | 1324 | 1239 | 0 | 3407104 | 3000000 | 4499999 |
| | 2007507 | | | | | | | | | |
| 4 | | 1 | 9 | 70 | 1870 | 0 | 0 | 5417174 | 4500000 | 5999999 |
| | 1114965 | | | | | | | | | |
| 5 | | 2 | 9 | 55 | 1965 | 1025 | 0 | 6534009 | 6000000 | 7499999 |
| | 2184631 | | | | | | | | | |
| 6 | | 1 | 9 | 55 | 1799 | 0 | 0 | 8721630 | 7500000 | 8999999 |
| | 1636886 | | | | | | | | | |
| 7 | | 3 | 9 | 100 | 1087 | 1567 | 1823 | 10360315 | 9000000 | 10499999 |
| | 1381725 | | | | | | | | | |
| 8 | | 1 | 9 | 65 | 1651 | 0 | 0 | 11746517 | 10500000 | 11999999 |

Total number of pulses in waveform = 14
**********

## Type 5 Radar Waveform_2

Num of Bursts = 18
Burst Interval (us)= 666667

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 162903 | 3 | 12 | 70 | 1413 | 1740 | 1287 | 162903 | 0 | 666666 |
| 2 | 719169 | 1 | 12 | 75 | 1059 | 0 | 0 | 886512 | 666667 | 1333333 |
| 3 | 698773 | 2 | 12 | 80 | 1836 | 1881 | 0 | 1586344 | 1333334 | 2000000 |
| 4 | 1016578 | 1 | 12 | 80 | 1243 | 0 | 0 | 2606639 | 2000001 | 2666667 |
| 5 | 535362 | 2 | 12 | 70 | 1419 | 1920 | 0 | 3143244 | 2666668 | 3333334 |
| 6 | 412655 | 2 | 12 | 65 | 1008 | 1661 | 0 | 3559238 | 3333335 | 4000001 |
| 7 | 864727 | 3 | 12 | 50 | 1722 | 1946 | 1590 | 4426634 | 4000002 | 4666668 |
| 8 | 537707 | 3 | 12 | 95 | 1983 | 1391 | 1379 | 4969599 | 4666669 | 5333335 |
| 9 | 970898 | 1 | 12 | 60 | 1748 | 0 | 0 | 5945250 | 5333336 | 6000002 |
| 10 | 500893 | 2 | 12 | 70 | 1065 | 1176 | 0 | 6447891 | 6000003 | 6666669 |
| 11 | 244265 | 2 | 12 | 50 | 1649 | 1718 | 0 | 6694397 | 6666670 | 7333336 |
| 12 | 665180 | 3 | 12 | 100 | 1087 | 1852 | 1174 | 7362944 | 7333337 | 8000003 |
| 13 | 1189544 | 3 | 12 | 75 | 1912 | 1215 | 1632 | 8556601 | 8000004 | 8666670 |
| 14 | 229022 | 2 | 12 | 95 | 1497 | 1798 | 0 | 8790382 | 8666671 | 9333337 |
| 15 | 799475 | 2 | 12 | 75 | 1417 | 1028 | 0 | 9593152 | 9333338 | 10000004 |
| 16 | 626995 | 2 | 12 | 70 | 1958 | 1873 | 0 | 10222592 | 10000005 | 10666671 |
| 17 | 919545 | 2 | 12 | 70 | 1065 | 1292 | 0 | 11145968 | 10666672 | 11333338 |
| 18 | 828683 | 3 | 12 | 60 | 1370 | 1018 | 1499 | 11977008 | 11333339 | 12000005 |

Total number of pulses in waveform = 39
**********

## Type 5 Radar Waveform_3

Num of Bursts = 14
Burst Interval (us)= 857143

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 667704 | 2 | 14 | 60 | 1961 | 1503 | 0 | 667704 | 0 | 857142 |
| 2 | 878320 | 2 | 14 | 85 | 1642 | 1121 | 0 | 1549488 | 857143 | 1714285 |
| 3 | 873512 | 1 | 14 | 80 | 1826 | 0 | 0 | 2425763 | 1714286 | 2571428 |
| 4 | 731789 | 3 | 14 | 55 | 1981 | 1275 | 1149 | 3159378 | 2571429 | 3428571 |
| 5 | 661402 | 1 | 14 | 60 | 1066 | 0 | 0 | 3825185 | 3428572 | 4285714 |
| 6 | 608885 | 2 | 14 | 50 | 1773 | 1041 | 0 | 4435136 | 4285715 | 5142857 |
| 7 | 948729 | 2 | 14 | 75 | 1420 | 1781 | 0 | 5386679 | 5142858 | 6000000 |
| 8 | 751751 | 3 | 14 | 55 | 1721 | 1314 | 1763 | 6141631 | 6000001 | 6857143 |
| 9 | 1045282 | 2 | 14 | 90 | 1035 | 1289 | 0 | 7191711 | 6857144 | 7714286 |
| 10 | 1371156 | 3 | 14 | 90 | 1549 | 1231 | 1988 | 8565191 | 7714287 | 8571429 |
| 11 | 826295 | 1 | 14 | 70 | 1927 | 0 | 0 | 9396254 | 8571430 | 9428572 |
| 12 | 571163 | 1 | 14 | 75 | 1960 | 0 | 0 | 9969344 | 9428573 | 10285715 |
| 13 | 931314 | 2 | 14 | 80 | 1396 | 1786 | 0 | 10902618 | 10285716 | 11142858 |
| 14 | 1081387 | 2 | 14 | 65 | 1867 | 1432 | 0 | 11987187 | 11142859 | 12000001 |

Total number of pulses in waveform = 27
**********

## Type 5 Radar Waveform_4

Num of Bursts = 19
Burst Interval (us)= 631579

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 401761 | 1 | 5 | 75 | 1983 | 0 | 0 | 401761 | 0 | 631578 |
| 2 | 419477 | 3 | 5 | 60 | 1703 | 1739 | 1748 | 823221 | 631579 | 1263157 |
| 3 | 927972 | 1 | 5 | 85 | 1284 | 0 | 0 | 1756383 | 1263158 | 1894736 |
| 4 | 566879 | 1 | 5 | 90 | 1957 | 0 | 0 | 2324546 | 1894737 | 2526315 |
| 5 | 404199 | 2 | 5 | 95 | 1827 | 1946 | 0 | 2730702 | 2526316 | 3157894 |
| 6 | 860688 | 1 | 5 | 70 | 1893 | 0 | 0 | 3595163 | 3157895 | 3789473 |
| 7 | 596272 | 1 | 5 | 80 | 1074 | 0 | 0 | 4193328 | 3789474 | 4421052 |
| 8 | 272475 | 3 | 5 | 95 | 1716 | 1053 | 1680 | 4466877 | 4421053 | 5052631 |
| 9 | 905898 | 2 | 5 | 95 | 1318 | 1605 | 0 | 5377224 | 5052632 | 5684210 |
| 10 | 639228 | 2 | 5 | 75 | 1491 | 1572 | 0 | 6019375 | 5684211 | 6315789 |
| 11 | 554532 | 2 | 5 | 100 | 1995 | 1398 | 0 | 6576970 | 6315790 | 6947368 |
| 12 | 544153 | 2 | 5 | 60 | 1943 | 1395 | 0 | 7124516 | 6947369 | 7578947 |
| 13 | 711202 | 1 | 5 | 80 | 1620 | 0 | 0 | 7839056 | 7578948 | 8210526 |
| 14 | 878049 | 2 | 5 | 70 | 1431 | 1667 | 0 | 8718725 | 8210527 | 8842105 |
| 15 | 300986 | 1 | 5 | 75 | 1060 | 0 | 0 | 9022809 | 8842106 | 9473684 |
| 16 | 515098 | 1 | 5 | 70 | 1310 | 0 | 0 | 9538967 | 9473685 | 10105263 |
| 17 | 663385 | 1 | 5 | 100 | 1490 | 0 | 0 | 10203662 | 10105264 | 10736842 |
| 18 | 1108811 | 2 | 5 | 90 | 1610 | 1120 | 0 | 11313963 | 10736843 | 11368421 |
| 19 | 144751 | 3 | 5 | 75 | 2000 | 1361 | 1341 | 11461444 | 11368422 | 12000000 |

Total number of pulses in waveform = 32
**********

## Type 5 Radar Waveform_5

Num of Bursts = 17
Burst Interval (us)= 705882

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 636198 | 1 | 8 | 90 | 1002 | 0 | 0 | 636198 | 0 | 705881 |
| 2 | 82844 | 3 | 8 | 90 | 1418 | 1151 | 1395 | 720044 | 705882 | 1411763 |
| 3 | 1080852 | 1 | 8 | 80 | 1223 | 0 | 0 | 1804860 | 1411764 | 2117645 |
| 4 | 923553 | 3 | 8 | 90 | 1066 | 1656 | 1288 | 2729636 | 2117646 | 2823527 |
| 5 | 334540 | 2 | 8 | 100 | 1078 | 1471 | 0 | 3068186 | 2823528 | 3529409 |
| 6 | 968668 | 3 | 8 | 75 | 1932 | 1620 | 1147 | 4039403 | 3529410 | 4235291 |
| 7 | 539343 | 3 | 8 | 75 | 1388 | 1117 | 1868 | 4583445 | 4235292 | 4941173 |
| 8 | 476119 | 3 | 8 | 70 | 1984 | 1380 | 1996 | 5063937 | 4941174 | 5647055 |
| 9 | 1179075 | 1 | 8 | 60 | 1165 | 0 | 0 | 6248372 | 5647056 | 6352937 |
| 10 | 801255 | 3 | 8 | 100 | 1637 | 1243 | 1689 | 7050792 | 6352938 | 7058819 |
| 11 | 381183 | 3 | 8 | 90 | 1085 | 1582 | 1935 | 7436544 | 7058820 | 7764701 |
| 12 | 588217 | 1 | 8 | 65 | 1487 | 0 | 0 | 8029363 | 7764702 | 8470583 |
| 13 | 548948 | 1 | 8 | 50 | 1199 | 0 | 0 | 8579798 | 8470584 | 9176465 |
| 14 | 1158666 | 1 | 8 | 55 | 1910 | 0 | 0 | 9739663 | 9176466 | 9882347 |
| 15 | 490016 | 2 | 8 | 75 | 1398 | 1999 | 0 | 10231589 | 9882348 | 10588229 |
| 16 | 480290 | 3 | 8 | 95 | 1710 | 1865 | 1360 | 10715276 | 10588230 | 11294111 |
| 17 | 1056671 | 1 | 8 | 90 | 1649 | 0 | 0 | 11776882 | 11294112 | 11999993 |

Total number of pulses in waveform = 35

## Type 5 Radar Waveform_6

Num of Bursts = 20
Burst Interval (us)= 600000

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 251831 | 2 | 18 | 60 | 1651 | 1037 | 0 | 251831 | 0 | 599999 |
| 2 | 695401 | 2 | 18 | 80 | 1789 | 1699 | 0 | 949920 | 600000 | 1199999 |
| 3 | 533288 | 2 | 18 | 70 | 1959 | 1525 | 0 | 1486696 | 1200000 | 1799999 |
| 4 | 900185 | 2 | 18 | 65 | 1635 | 1489 | 0 | 2390365 | 1800000 | 2399999 |
| 5 | 301275 | 3 | 18 | 70 | 1257 | 1729 | 1315 | 2694764 | 2400000 | 2999999 |
| 6 | 486646 | 1 | 18 | 60 | 1937 | 0 | 0 | 3185711 | 3000000 | 3599999 |
| 7 | 855975 | 2 | 18 | 60 | 1820 | 1772 | 0 | 4043623 | 3600000 | 4199999 |
| 8 | 454089 | 1 | 18 | 90 | 1695 | 0 | 0 | 4501304 | 4200000 | 4799999 |
| 9 | 780019 | 3 | 18 | 60 | 1793 | 1386 | 1369 | 5283018 | 4800000 | 5399999 |
| 10 | 325601 | 1 | 18 | 95 | 1325 | 0 | 0 | 5613167 | 5400000 | 5999999 |
| 11 | 474698 | 3 | 18 | 75 | 1365 | 1652 | 1373 | 6089190 | 6000000 | 6599999 |
| 12 | 662490 | 3 | 18 | 100 | 1126 | 1041 | 1238 | 6756070 | 6600000 | 7199999 |
| 13 | 792450 | 1 | 18 | 50 | 1568 | 0 | 0 | 7551925 | 7200000 | 7799999 |
| 14 | 491993 | 1 | 18 | 85 | 1963 | 0 | 0 | 8045486 | 7800000 | 8399999 |
| 15 | 645526 | 1 | 18 | 80 | 1490 | 0 | 0 | 8692975 | 8400000 | 8999999 |
| 16 | 773093 | 3 | 18 | 55 | 1057 | 1882 | 1204 | 9467558 | 9000000 | 9599999 |
| 17 | 656463 | 2 | 18 | 100 | 1494 | 1081 | 0 | 10128164 | 9600000 | 10199999 |
| 18 | 298009 | 2 | 18 | 65 | 1084 | 1592 | 0 | 10428748 | 10200000 | 10799999 |
| 19 | 447977 | 1 | 18 | 90 | 1539 | 0 | 0 | 10879401 | 10800000 | 11399999 |
| 20 | 1109552 | 3 | 18 | 85 | 1284 | 1601 | 1341 | 11990492 | 11400000 | 11999999 |

Total number of pulses in waveform = 39

## Type 5 Radar Waveform_7

Num of Bursts = 19
Burst Interval (us)= 631579

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 514313 | 2 | 6 | 80 | 1281 | 1610 | 0 | 514313 | 0 | 631578 |
| 2 | 407989 | 2 | 6 | 90 | 1448 | 1814 | 0 | 925193 | 631579 | 1263157 |
| 3 | 674232 | 3 | 6 | 65 | 1543 | 1336 | 1855 | 1602687 | 1263158 | 1894736 |
| 4 | 774043 | 3 | 6 | 90 | 1307 | 1643 | 1950 | 2381464 | 1894737 | 2526315 |
| 5 | 354329 | 3 | 6 | 55 | 1396 | 1617 | 1363 | 2740693 | 2526316 | 3157894 |
| 6 | 415946 | 2 | 6 | 50 | 1193 | 1367 | 0 | 3161015 | 3157895 | 3789473 |
| 7 | 1110965 | 3 | 6 | 85 | 1414 | 1511 | 1022 | 4274540 | 3789474 | 4421052 |
| 8 | 701397 | 2 | 6 | 60 | 1591 | 1778 | 0 | 4979884 | 4421053 | 5052631 |
| 9 | 462634 | 3 | 6 | 70 | 1787 | 1574 | 1734 | 5445887 | 5052632 | 5684210 |
| 10 | 615609 | 1 | 6 | 95 | 1578 | 0 | 0 | 6066591 | 5684211 | 6315789 |
| 11 | 624092 | 1 | 6 | 55 | 1969 | 0 | 0 | 6692261 | 6315790 | 6947368 |
| 12 | 636417 | 3 | 6 | 85 | 1250 | 1588 | 1413 | 7330647 | 6947369 | 7578947 |
| 13 | 431026 | 2 | 6 | 55 | 1195 | 1617 | 0 | 7765924 | 7578948 | 8210526 |
| 14 | 962485 | 2 | 6 | 90 | 1008 | 1205 | 0 | 8731221 | 8210527 | 8842105 |
| 15 | 198499 | 3 | 6 | 90 | 1200 | 1368 | 1498 | 8931933 | 8842106 | 9473684 |
| 16 | 652876 | 1 | 6 | 95 | 1207 | 0 | 0 | 9588875 | 9473685 | 10105263 |
| 17 | 1137543 | 2 | 6 | 70 | 1796 | 1351 | 0 | 10727625 | 10105264 | 10736842 |
| 18 | 433391 | 1 | 6 | 75 | 1441 | 0 | 0 | 11164163 | 10736843 | 11368421 |
| 19 | 596557 | 2 | 6 | 95 | 1561 | 1607 | 0 | 11762161 | 11368422 | 12000000 |

Total number of pulses in waveform = 41

## Type 5 Radar Waveform_8

Num of Bursts = 15
Burst Interval (us)= 800000

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 684592 | 3 | 19 | 100 | 1584 | 1200 | 1547 | 684592 | 0 | 799999 |
| 2 | 838936 | 1 | 19 | 75 | 1165 | 0 | 0 | 1527859 | 800000 | 1599999 |
| 3 | 346737 | 3 | 19 | 90 | 1494 | 1982 | 1419 | 1875761 | 1600000 | 2399999 |
| 4 | 906405 | 1 | 19 | 75 | 1526 | 0 | 0 | 2787061 | 2400000 | 3199999 |
| 5 | 442380 | 3 | 19 | 90 | 1686 | 1986 | 1422 | 3230967 | 3200000 | 3999999 |
| 6 | 840321 | 2 | 19 | 75 | 1189 | 1919 | 0 | 4076382 | 4000000 | 4799999 |
| 7 | 1375745 | 1 | 19 | 100 | 1855 | 0 | 0 | 5455235 | 4800000 | 5599999 |
| 8 | 604164 | 2 | 19 | 75 | 1830 | 1931 | 0 | 6061254 | 5600000 | 6399999 |
| 9 | 764093 | 1 | 19 | 70 | 1537 | 0 | 0 | 6829108 | 6400000 | 7199999 |
| 10 | 1006048 | 3 | 19 | 60 | 1860 | 1376 | 1198 | 7836693 | 7200000 | 7999999 |
| 11 | 432017 | 1 | 19 | 90 | 1402 | 0 | 0 | 8273144 | 8000000 | 8799999 |
| 12 | 968277 | 1 | 19 | 70 | 1814 | 0 | 0 | 9242823 | 8800000 | 9599999 |
| 13 | 666713 | 1 | 19 | 85 | 1762 | 0 | 0 | 9911350 | 9600000 | 10399999 |
| 14 | 704044 | 1 | 19 | 75 | 1283 | 0 | 0 | 10617156 | 10400000 | 11199999 |
| 15 | 620757 | 3 | 19 | 90 | 1269 | 1615 | 1894 | 11239196 | 11200000 | 11999999 |

Total number of pulses in waveform = 27

## Type 5 Radar Waveform_9

Num of Bursts = 18
Burst Interval (us)= 666667

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 447884 | 1 | 10 | 70 | 1923 | 0 | 0 | 447884 | 0 | 666666 |
| 2 | 660213 | 2 | 10 | 95 | 1418 | 1783 | 0 | 1110020 | 666667 | 1333333 |
| 3 | 321710 | 2 | 10 | 80 | 1360 | 1351 | 0 | 1434931 | 1333334 | 2000000 |
| 4 | 1119369 | 2 | 10 | 65 | 1037 | 1451 | 0 | 2557011 | 2000001 | 2666667 |
| 5 | 174767 | 1 | 10 | 65 | 1221 | 0 | 0 | 2734266 | 2666668 | 3333334 |
| 6 | 844583 | 2 | 10 | 70 | 1104 | 1855 | 0 | 3580070 | 3333335 | 4000001 |
| 7 | 720962 | 3 | 10 | 75 | 1228 | 1742 | 1811 | 4303991 | 4000002 | 4666668 |
| 8 | 939702 | 3 | 10 | 80 | 1804 | 1184 | 1047 | 5248474 | 4666669 | 5333335 |
| 9 | 710040 | 3 | 10 | 60 | 1474 | 1765 | 1841 | 5962549 | 5333336 | 6000002 |
| 10 | 492608 | 1 | 10 | 70 | 1084 | 0 | 0 | 6460237 | 6000003 | 6666669 |
| 11 | 801288 | 2 | 10 | 90 | 1738 | 1818 | 0 | 7262609 | 6666670 | 7333336 |
| 12 | 225265 | 3 | 10 | 80 | 1700 | 1234 | 1609 | 7491430 | 7333337 | 8000003 |
| 13 | 881115 | 1 | 10 | 70 | 1262 | 0 | 0 | 8377088 | 8000004 | 8666670 |
| 14 | 822443 | 2 | 10 | 100 | 1862 | 1084 | 0 | 9200793 | 8666671 | 9333337 |
| 15 | 629280 | 1 | 10 | 80 | 1457 | 0 | 0 | 9833019 | 9333338 | 10000004 |
| 16 | 446701 | 1 | 10 | 55 | 1802 | 0 | 0 | 10281177 | 10000005 | 10666671 |
| 17 | 812277 | 2 | 10 | 70 | 1671 | 1564 | 0 | 11095256 | 10666672 | 11333338 |
| 18 | 736068 | 3 | 10 | 65 | 1776 | 1163 | 1985 | 11834559 | 11333339 | 12000005 |

Total number of pulses in waveform = 35

## Type 5 Radar Waveform_10

Num of Bursts = 12
Burst Interval (us)= 1000000

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 801921 | 3 | 17 | 80 | 1980 | 1749 | 1389 | 801921 | 0 | 999999 |
| 2 | 763551 | 3 | 17 | 90 | 1338 | 1431 | 1623 | 1570590 | 1000000 | 1999999 |
| 3 | 605582 | 2 | 17 | 80 | 1173 | 1554 | 0 | 2180564 | 2000000 | 2999999 |
| 4 | 1222299 | 3 | 17 | 100 | 1012 | 1527 | 1663 | 3405590 | 3000000 | 3999999 |
| 5 | 977300 | 1 | 17 | 100 | 1991 | 0 | 0 | 4387092 | 4000000 | 4999999 |
| 6 | 946019 | 1 | 17 | 55 | 1247 | 0 | 0 | 5335102 | 5000000 | 5999999 |
| 7 | 1027185 | 2 | 17 | 65 | 1634 | 1177 | 0 | 6363534 | 6000000 | 6999999 |
| 8 | 1015416 | 3 | 17 | 75 | 1845 | 1087 | 1378 | 7381761 | 7000000 | 7999999 |
| 9 | 1250090 | 3 | 17 | 50 | 1751 | 1741 | 1116 | 8636161 | 8000000 | 8999999 |
| 10 | 1191509 | 1 | 17 | 90 | 1010 | 0 | 0 | 9832278 | 9000000 | 9999999 |
| 11 | 1144470 | 1 | 17 | 70 | 1606 | 0 | 0 | 10977758 | 10000000 | 10999999 |
| 12 | 290853 | 3 | 17 | 50 | 1209 | 1817 | 1220 | 11270217 | 11000000 | 11999999 |

Total number of pulses in waveform = 26

## Type 5 Radar Waveform_11

Num of Bursts = 16
Burst Interval (us)= 750000

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 435005 | 1 | 10 | 55 | 1155 | 0 | 0 | 435005 | 0 | 749999 |
| 2 | 739624 | 2 | 10 | 55 | 1950 | 1929 | 0 | 1175784 | 750000 | 1499999 |
| 3 | 671041 | 1 | 10 | 80 | 1290 | 0 | 0 | 1850704 | 1500000 | 2249999 |
| 4 | 664893 | 1 | 10 | 95 | 1589 | 0 | 0 | 2516887 | 2250000 | 2999999 |
| 5 | 534138 | 1 | 10 | 50 | 1145 | 0 | 0 | 3052614 | 3000000 | 3749999 |
| 6 | 1234945 | 3 | 10 | 95 | 1734 | 1939 | 1900 | 4288704 | 3750000 | 4499999 |
| 7 | 816682 | 3 | 10 | 65 | 1750 | 1977 | 1838 | 5110959 | 4500000 | 5249999 |
| 8 | 599629 | 2 | 10 | 95 | 1067 | 1963 | 0 | 5716153 | 5250000 | 5999999 |
| 9 | 500522 | 2 | 10 | 100 | 1752 | 1886 | 0 | 6219705 | 6000000 | 6749999 |
| 10 | 1249125 | 1 | 10 | 70 | 1774 | 0 | 0 | 7472468 | 6750000 | 7499999 |
| 11 | 321077 | 1 | 10 | 100 | 1891 | 0 | 0 | 7795319 | 7500000 | 8249999 |
| 12 | 905761 | 2 | 10 | 55 | 1213 | 1475 | 0 | 8702971 | 8250000 | 8999999 |
| 13 | 440123 | 3 | 10 | 80 | 1655 | 1098 | 1268 | 9145782 | 9000000 | 9749999 |
| 14 | 1009011 | 1 | 10 | 75 | 1724 | 0 | 0 | 10158814 | 9750000 | 10499999 |
| 15 | 869426 | 3 | 10 | 50 | 1667 | 1048 | 1216 | 11029964 | 10500000 | 11249999 |
| 16 | 362098 | 2 | 10 | 55 | 1658 | 1700 | 0 | 11395993 | 11250000 | 11999999 |

Total number of pulses in waveform = 29
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## Type 5 Radar Waveform_12

Num of Bursts = 17
Burst Interval (us)= 705882

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 678636 | 3 | 8 | 80 | 1530 | 1162 | 1701 | 678636 | 0 | 705881 |
| 2 | 207025 | 3 | 8 | 60 | 1839 | 1484 | 1554 | 890054 | 705882 | 1411763 |
| 3 | 824064 | 2 | 8 | 75 | 1442 | 1567 | 0 | 1718995 | 1411764 | 2117645 |
| 4 | 574432 | 3 | 8 | 80 | 1044 | 1337 | 1265 | 2296436 | 2117646 | 2823527 |
| 5 | 892682 | 2 | 8 | 80 | 1034 | 1069 | 0 | 3192764 | 2823528 | 3529409 |
| 6 | 362311 | 2 | 8 | 55 | 1419 | 1970 | 0 | 3557178 | 3529410 | 4235291 |
| 7 | 1001499 | 1 | 8 | 60 | 1812 | 0 | 0 | 4562066 | 4235292 | 4941173 |
| 8 | 727556 | 3 | 8 | 60 | 1872 | 1378 | 1079 | 5291434 | 4941174 | 5647055 |
| 9 | 368550 | 1 | 8 | 55 | 1076 | 0 | 0 | 5664313 | 5647056 | 6352937 |
| 10 | 1282478 | 3 | 8 | 90 | 1854 | 1862 | 1088 | 6947867 | 6352938 | 7058819 |
| 11 | 674923 | 3 | 8 | 100 | 1977 | 1246 | 1236 | 7627594 | 7058820 | 7764701 |
| 12 | 143558 | 2 | 8 | 70 | 1693 | 1678 | 0 | 7775611 | 7764702 | 8470583 |
| 13 | 858610 | 3 | 8 | 55 | 1262 | 1661 | 1866 | 8637592 | 8470584 | 9176465 |
| 14 | 684333 | 2 | 8 | 75 | 1940 | 1181 | 0 | 9326714 | 9176466 | 9882347 |
| 15 | 979880 | 3 | 8 | 85 | 1676 | 1122 | 1309 | 10309715 | 9882348 | 10588229 |
| 16 | 575458 | 3 | 8 | 55 | 1481 | 1017 | 1007 | 10889280 | 10588230 | 11294111 |
| 17 | 853566 | 2 | 8 | 95 | 1594 | 1670 | 0 | 11746351 | 11294112 | 11999993 |

Total number of pulses in waveform = 41
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## Type 5 Radar Waveform_13

Num of Bursts = 12
Burst Interval (us)= 1000000

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 980896 | 1 | 12 | 70 | 1986 | 0 | 0 | 980896 | 0 | 999999 |
| 2 | 811171 | 2 | 12 | 65 | 1097 | 1233 | 0 | 1794053 | 1000000 | 1999999 |
| 3 | 205481 | 3 | 12 | 75 | 1175 | 1521 | 1239 | 2001864 | 2000000 | 2999999 |
| 4 | 1832063 | 2 | 12 | 80 | 1197 | 1982 | 0 | 3837862 | 3000000 | 3999999 |
| 5 | 912708 | 2 | 12 | 100 | 1038 | 1963 | 0 | 4753749 | 4000000 | 4999999 |
| 6 | 875311 | 1 | 12 | 95 | 1341 | 0 | 0 | 5632061 | 5000000 | 5999999 |
| 7 | 667959 | 2 | 12 | 100 | 1705 | 1633 | 0 | 6301361 | 6000000 | 6999999 |
| 8 | 1561469 | 1 | 12 | 95 | 1671 | 0 | 0 | 7866168 | 7000000 | 7999999 |
| 9 | 693223 | 1 | 12 | 90 | 1634 | 0 | 0 | 8561062 | 8000000 | 8999999 |
| 10 | 677934 | 1 | 12 | 65 | 1260 | 0 | 0 | 9240630 | 9000000 | 9999999 |
| 11 | 1104173 | 2 | 12 | 100 | 1041 | 1527 | 0 | 10346063 | 10000000 | 10999999 |
| 12 | 1562136 | 2 | 12 | 100 | 1965 | 1944 | 0 | 11910767 | 11000000 | 11999999 |

Total number of pulses in waveform = 20
**********

## Type 5 Radar Waveform_14

Num of Bursts = 9
Burst Interval (us)= 1333333

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 7734 | 1 | 18 | 60 | 1598 | 0 | 0 | 7734 | 0 | 1333332 |
| 2 | 1576930 | 1 | 18 | 70 | 1856 | 0 | 0 | 1586262 | 1333333 | 2666665 |
| 3 | 1998481 | 1 | 18 | 75 | 1864 | 0 | 0 | 3586599 | 2666666 | 3999998 |
| 4 | 753536 | 2 | 18 | 75 | 1944 | 1293 | 0 | 4341999 | 3999999 | 5333331 |
| 5 | 2012826 | 1 | 18 | 65 | 1372 | 0 | 0 | 6358062 | 5333332 | 6666664 |
| 6 | 1182917 | 3 | 18 | 65 | 1875 | 1094 | 1124 | 7542351 | 6666665 | 7999997 |
| 7 | 1345859 | 1 | 18 | 70 | 1472 | 0 | 0 | 8892303 | 7999998 | 9333330 |
| 8 | 826838 | 2 | 18 | 60 | 1427 | 1364 | 0 | 9720613 | 9333331 | 10666663 |
| 9 | 1823194 | 3 | 18 | 80 | 1792 | 1914 | 1583 | 11546598 | 10666664 | 11999996 |

Total number of pulses in waveform = 15
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## Type 5 Radar Waveform_15

Num of Bursts = 16
Burst Interval (us)= 750000

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 138059 | 2 | 5 | 100 | 1377 | 1822 | 0 | 138059 | 0 | 749999 |
| 2 | 672769 | 3 | 5 | 85 | 1633 | 1403 | 1768 | 814027 | 750000 | 1499999 |
| 3 | 766230 | 2 | 5 | 95 | 1440 | 1019 | 0 | 1585061 | 1500000 | 2249999 |
| 4 | 1309822 | 2 | 5 | 100 | 1007 | 1021 | 0 | 2897342 | 2250000 | 2999999 |
| 5 | 120902 | 2 | 5 | 65 | 1927 | 1430 | 0 | 3020272 | 3000000 | 3749999 |
| 6 | 1207179 | 1 | 5 | 100 | 1873 | 0 | 0 | 4230808 | 3750000 | 4499999 |
| 7 | 833939 | 1 | 5 | 55 | 1338 | 0 | 0 | 5066620 | 4500000 | 5249999 |
| 8 | 352420 | 1 | 5 | 55 | 1554 | 0 | 0 | 5420378 | 5250000 | 5999999 |
| 9 | 855586 | 2 | 5 | 50 | 1091 | 1030 | 0 | 6277518 | 6000000 | 6749999 |
| 10 | 1050105 | 1 | 5 | 100 | 1467 | 0 | 0 | 7329744 | 6750000 | 7499999 |
| 11 | 517914 | 3 | 5 | 50 | 1660 | 1902 | 1592 | 7849125 | 7500000 | 8249999 |
| 12 | 911047 | 2 | 5 | 80 | 1606 | 1560 | 0 | 8765326 | 8250000 | 8999999 |
| 13 | 699327 | 1 | 5 | 80 | 1690 | 0 | 0 | 9467819 | 9000000 | 9749999 |
| 14 | 467279 | 3 | 5 | 80 | 1498 | 1500 | 1083 | 9936788 | 9750000 | 10499999 |
| 15 | 1271031 | 3 | 5 | 70 | 1586 | 1187 | 1238 | 11211900 | 10500000 | 11249999 |
| 16 | 373853 | 3 | 5 | 55 | 1325 | 1830 | 1034 | 11589764 | 11250000 | 11999999 |

Total number of pulses in waveform = 32
**********

## Type 5 Radar Waveform_16

Num of Bursts = 9
Burst Interval (us)= 1333333

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 973299 | 3 | 17 | 95 | 1594 | 1452 | 1889 | 973299 | 0 | 1333332 |
| 2 | 1367071 | 1 | 17 | 100 | 1295 | 0 | 0 | 2345305 | 1333333 | 2666665 |
| 3 | 1586561 | 1 | 17 | 90 | 1708 | 0 | 0 | 3933161 | 2666666 | 3999998 |
| 4 | 1071888 | 2 | 17 | 55 | 1913 | 1527 | 0 | 5006757 | 3999999 | 5333331 |
| 5 | 1118753 | 1 | 17 | 60 | 1333 | 0 | 0 | 6128950 | 5333332 | 6666664 |
| 6 | 867315 | 3 | 17 | 55 | 1416 | 1929 | 1379 | 6997598 | 6666665 | 7999997 |
| 7 | 1215175 | 2 | 17 | 70 | 1748 | 1060 | 0 | 8217497 | 7999998 | 9333330 |
| 8 | 1290225 | 3 | 17 | 70 | 1918 | 1158 | 1418 | 9510530 | 9333331 | 10666663 |
| 9 | 1205479 | 1 | 17 | 50 | 1703 | 0 | 0 | 10720503 | 10666664 | 11999996 |

Total number of pulses in waveform = 17
**********

## Type 5 Radar Waveform_17

Num of Bursts = 11
Burst Interval (us)= 1090909

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 88231 | 1 | 19 | 60 | 1571 | 0 | 0 | 88231 | 0 | 1090908 |
| 2 | 1036036 | 1 | 19 | 100 | 1232 | 0 | 0 | 1125838 | 1090909 | 2181817 |
| 3 | 1354758 | 2 | 19 | 60 | 1925 | 1558 | 0 | 2481828 | 2181818 | 3272726 |
| 4 | 1479207 | 2 | 19 | 95 | 1367 | 1145 | 0 | 3964518 | 3272727 | 4363635 |
| 5 | 950107 | 2 | 19 | 80 | 1608 | 1786 | 0 | 4917137 | 4363636 | 5454544 |
| 6 | 657108 | 3 | 19 | 100 | 1456 | 1097 | 1878 | 5577639 | 5454545 | 6545453 |
| 7 | 1423331 | 2 | 19 | 60 | 1897 | 1689 | 0 | 7005401 | 6545454 | 7636362 |
| 8 | 1249730 | 1 | 19 | 95 | 1796 | 0 | 0 | 8258717 | 7636363 | 8727271 |
| 9 | 1118350 | 2 | 19 | 75 | 1548 | 1110 | 0 | 9378863 | 8727272 | 9818180 |
| 10 | 872686 | 3 | 19 | 75 | 1821 | 1434 | 1075 | 10254207 | 9818181 | 10909089 |
| 11 | 1312174 | 2 | 19 | 55 | 1464 | 1557 | 0 | 11570711 | 10909090 | 11999998 |

Total number of pulses in waveform = 21
**********

## Type 5 Radar Waveform_18

Num of Bursts = 10
Burst Interval (us)= 1200000

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 576132 | 3 | 6 | 95 | 1517 | 1539 | 1549 | 576132 | 0 | 1199999 |
| 2 | 931054 | 1 | 6 | 80 | 1500 | 0 | 0 | 1511791 | 1200000 | 2399999 |
| 3 | 1495473 | 3 | 6 | 100 | 1420 | 1429 | 1835 | 3008764 | 2400000 | 3599999 |
| 4 | 1771448 | 1 | 6 | 80 | 1115 | 0 | 0 | 4784896 | 3600000 | 4799999 |
| 5 | 15090 | 3 | 6 | 60 | 1871 | 1352 | 1994 | 4801101 | 4800000 | 5999999 |
| 6 | 2277915 | 2 | 6 | 70 | 1918 | 1224 | 0 | 7084233 | 6000000 | 7199999 |
| 7 | 835492 | 3 | 6 | 100 | 1255 | 1622 | 1853 | 7922867 | 7200000 | 8399999 |
| 8 | 761498 | 3 | 6 | 60 | 1061 | 1211 | 1373 | 8689095 | 8400000 | 9599999 |
| 9 | 2101910 | 1 | 6 | 95 | 1444 | 0 | 0 | 10794650 | 9600000 | 10799999 |
| 10 | 375105 | 3 | 6 | 75 | 1654 | 1428 | 1495 | 11171199 | 10800000 | 11999999 |

Total number of pulses in waveform = 23
**********

## Type 5 Radar Waveform_19

Num of Bursts = 9
Burst Interval (us)= 1333333

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 172594 | 2 | 14 | 100 | 1553 | 1493 | 0 | 172594 | 0 | 1333332 |
| 2 | 1287547 | 2 | 14 | 65 | 1919 | 1763 | 0 | 1463187 | 1333333 | 2666665 |
| 3 | 1640751 | 3 | 14 | 75 | 1732 | 1452 | 1517 | 3107620 | 2666666 | 3999998 |
| 4 | 1565033 | 3 | 14 | 90 | 1479 | 1912 | 1100 | 4677354 | 3999999 | 5333331 |
| 5 | 1256636 | 1 | 14 | 60 | 1457 | 0 | 0 | 5938481 | 5333332 | 6666664 |
| 6 | 789450 | 2 | 14 | 85 | 1152 | 1703 | 0 | 6729388 | 6666665 | 7999997 |
| 7 | 1653833 | 2 | 14 | 55 | 1824 | 1885 | 0 | 8386076 | 7999998 | 9333330 |
| 8 | 1649342 | 1 | 14 | 50 | 1575 | 0 | 0 | 10039127 | 9333331 | 10666663 |
| 9 | 671935 | 1 | 14 | 100 | 1613 | 0 | 0 | 10712637 | 10666664 | 11999996 |

Total number of pulses in waveform = 17
**********

## Type 5 Radar Waveform_20

Num of Bursts = 10
Burst Interval (us)= 1200000

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 539090 | 3 | 9 | 60 | 1082 | 1794 | 1319 | 539090 | 0 | 1199999 |
| 2 | 837323 | 3 | 9 | 50 | 1022 | 1849 | 1589 | 1380608 | 1200000 | 2399999 |
| 3 | 2199588 | 3 | 9 | 65 | 1894 | 1279 | 1480 | 3584656 | 2400000 | 3599999 |
| 4 | 1105928 | 2 | 9 | 90 | 1244 | 1274 | 0 | 4695237 | 3600000 | 4799999 |
| 5 | 1141628 | 3 | 9 | 70 | 1798 | 1740 | 1506 | 5839383 | 4800000 | 5999999 |
| 6 | 891637 | 2 | 9 | 60 | 1198 | 1174 | 0 | 6736064 | 6000000 | 7199999 |
| 7 | 1388386 | 2 | 9 | 85 | 1078 | 1306 | 0 | 8126822 | 7200000 | 8399999 |
| 8 | 359684 | 2 | 9 | 85 | 1568 | 1834 | 0 | 8488890 | 8400000 | 9599999 |
| 9 | 1987296 | 2 | 9 | 60 | 1116 | 1213 | 0 | 10479588 | 9600000 | 10799999 |
| 10 | 340949 | 2 | 9 | 95 | 1276 | 1406 | 0 | 10822866 | 10800000 | 11999999 |

Total number of pulses in waveform = 24
**********

## Type 5 Radar Waveform_21

Num of Bursts = 18
Burst Interval (us)= 666667

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 592798 | 1 | 10 | 85 | 1003 | 0 | 0 | 592798 | 0 | 666666 |
| 2 | 697751 | 1 | 10 | 95 | 1280 | 0 | 0 | 1291552 | 666667 | 1333333 |
| 3 | 235843 | 3 | 10 | 75 | 1258 | 1944 | 1026 | 1528675 | 1333334 | 2000000 |
| 4 | 852700 | 1 | 10 | 50 | 1226 | 0 | 0 | 2385603 | 2000001 | 2666667 |
| 5 | 482221 | 1 | 10 | 100 | 1902 | 0 | 0 | 2869050 | 2666668 | 3333334 |
| 6 | 483708 | 3 | 10 | 55 | 1796 | 1836 | 1763 | 3354660 | 3333335 | 4000001 |
| 7 | 1089744 | 2 | 10 | 60 | 1932 | 1074 | 0 | 4449799 | 4000002 | 4666668 |
| 8 | 875993 | 3 | 10 | 50 | 1189 | 1509 | 1122 | 5328798 | 4666669 | 5333335 |
| 9 | 469314 | 3 | 10 | 100 | 1432 | 1264 | 1716 | 5801932 | 5333336 | 6000002 |
| 10 | 456569 | 1 | 10 | 60 | 1286 | 0 | 0 | 6262913 | 6000003 | 6666669 |
| 11 | 505535 | 3 | 10 | 100 | 1243 | 1168 | 1743 | 6769734 | 6666670 | 7333336 |
| 12 | 760270 | 3 | 10 | 85 | 1803 | 1798 | 1493 | 7534158 | 7333337 | 8000003 |
| 13 | 772853 | 2 | 10 | 90 | 1028 | 1599 | 0 | 8312105 | 8000004 | 8666670 |
| 14 | 591163 | 3 | 10 | 65 | 1317 | 1816 | 1446 | 8905895 | 8666671 | 9333337 |
| 15 | 750572 | 2 | 10 | 50 | 1247 | 1006 | 0 | 9661046 | 9333338 | 10000004 |
| 16 | 362790 | 3 | 10 | 95 | 1208 | 1852 | 1144 | 10026089 | 10000005 | 10666671 |
| 17 | 1210243 | 3 | 10 | 90 | 1460 | 1742 | 1848 | 11240536 | 10666672 | 11333338 |
| 18 | 677865 | 1 | 10 | 70 | 1844 | 0 | 0 | 11923451 | 11333339 | 12000005 |

Total number of pulses in waveform = 39
**********

## Type 5 Radar Waveform_22

Num of Bursts = 8
Burst Interval (us)= 1500000

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 129792 | 1 | 5 | 50 | 1061 | 0 | 0 | 129792 | 0 | 1499999 |
| 2 | 1932243 | 2 | 5 | 75 | 1802 | 1923 | 0 | 2063096 | 1500000 | 2999999 |
| 3 | 987905 | 1 | 5 | 60 | 1849 | 0 | 0 | 3054726 | 3000000 | 4499999 |
| 4 | 2593861 | 2 | 5 | 70 | 1563 | 1810 | 0 | 5650436 | 4500000 | 5999999 |
| 5 | 1804315 | 3 | 5 | 55 | 1756 | 1753 | 1251 | 7458124 | 6000000 | 7499999 |
| 6 | 670951 | 1 | 5 | 65 | 1330 | 0 | 0 | 8133835 | 7500000 | 8999999 |
| 7 | 2227110 | 1 | 5 | 70 | 1413 | 0 | 0 | 10362275 | 9000000 | 10499999 |
| 8 | 719215 | 1 | 5 | 50 | 1685 | 0 | 0 | 11082903 | 10500000 | 11999999 |

Total number of pulses in waveform = 12
**********

## Type 5 Radar Waveform_23

Num of Bursts = 16
Burst Interval (us)= 750000

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 405996 | 3 | 9 | 50 | 1204 | 1212 | 1019 | 405996 | 0 | 749999 |
| 2 | 506385 | 3 | 9 | 85 | 1086 | 1541 | 1423 | 915816 | 750000 | 1499999 |
| 3 | 865562 | 3 | 9 | 55 | 1170 | 1974 | 1633 | 1785428 | 1500000 | 2249999 |
| 4 | 981649 | 1 | 9 | 55 | 1623 | 0 | 0 | 2771854 | 2250000 | 2999999 |
| 5 | 301057 | 1 | 9 | 95 | 1799 | 0 | 0 | 3074534 | 3000000 | 3749999 |
| 6 | 1259165 | 3 | 9 | 65 | 1776 | 1720 | 1645 | 4335498 | 3750000 | 4499999 |
| 7 | 478033 | 1 | 9 | 75 | 1716 | 0 | 0 | 4818672 | 4500000 | 5249999 |
| 8 | 1089727 | 2 | 9 | 85 | 1936 | 1065 | 0 | 5910115 | 5250000 | 5999999 |
| 9 | 374576 | 3 | 9 | 85 | 1469 | 1562 | 1968 | 6287692 | 6000000 | 6749999 |
| 10 | 823374 | 1 | 9 | 95 | 1237 | 0 | 0 | 7116065 | 6750000 | 7499999 |
| 11 | 420776 | 2 | 9 | 95 | 1779 | 1542 | 0 | 7538078 | 7500000 | 8249999 |
| 12 | 1226256 | 3 | 9 | 65 | 1585 | 1107 | 1286 | 8767655 | 8250000 | 8999999 |
| 13 | 495670 | 1 | 9 | 50 | 1408 | 0 | 0 | 9267303 | 9000000 | 9749999 |
| 14 | 526793 | 3 | 9 | 75 | 1157 | 1930 | 1950 | 9795504 | 9750000 | 10499999 |
| 15 | 1405189 | 2 | 9 | 80 | 1693 | 1221 | 0 | 11205730 | 10500000 | 11249999 |
| 16 | 349817 | 3 | 9 | 70 | 1202 | 1425 | 1513 | 11558461 | 11250000 | 11999999 |

Total number of pulses in waveform = 35

## Type 5 Radar Waveform_24

Num of Bursts = 15
Burst Interval (us)= 800000

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 462964 | 2 | 18 | 60 | 1101 | 1106 | 0 | 462964 | 0 | 799999 |
| 2 | 1065384 | 1 | 18 | 70 | 1586 | 0 | 0 | 1530555 | 800000 | 1599999 |
| 3 | 291831 | 3 | 18 | 75 | 1513 | 1366 | 1885 | 1823972 | 1600000 | 2399999 |
| 4 | 890797 | 3 | 18 | 60 | 1889 | 1509 | 1202 | 2719533 | 2400000 | 3199999 |
| 5 | 637390 | 1 | 18 | 70 | 1491 | 0 | 0 | 3361523 | 3200000 | 3999999 |
| 6 | 705909 | 2 | 18 | 90 | 1033 | 1769 | 0 | 4068923 | 4000000 | 4799999 |
| 7 | 1152743 | 2 | 18 | 50 | 1922 | 1092 | 0 | 5224468 | 4800000 | 5599999 |
| 8 | 989824 | 3 | 18 | 70 | 1190 | 1123 | 1301 | 6217306 | 5600000 | 6399999 |
| 9 | 811971 | 2 | 18 | 100 | 1266 | 1229 | 0 | 7032891 | 6400000 | 7199999 |
| 10 | 470406 | 2 | 18 | 80 | 1716 | 1603 | 0 | 7505792 | 7200000 | 7999999 |
| 11 | 601132 | 3 | 18 | 70 | 1421 | 1751 | 1017 | 8110243 | 8000000 | 8799999 |
| 12 | 1197817 | 3 | 18 | 100 | 1960 | 1863 | 1568 | 9312249 | 8800000 | 9599999 |
| 13 | 812213 | 2 | 18 | 50 | 1567 | 1988 | 0 | 10129853 | 9600000 | 10399999 |
| 14 | 1063813 | 1 | 18 | 55 | 1281 | 0 | 0 | 11197221 | 10400000 | 11199999 |
| 15 | 313075 | 1 | 18 | 90 | 1761 | 0 | 0 | 11511577 | 11200000 | 11999999 |

Total number of pulses in waveform = 31

## Type 5 Radar Waveform_25

Num of Bursts = 15
Burst Interval (us)= 800000

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 376727 | 1 | 12 | 55 | 1634 | 0 | 0 | 376727 | 0 | 799999 |
| 2 | 816480 | 3 | 12 | 100 | 1192 | 1584 | 1835 | 1194841 | 800000 | 1599999 |
| 3 | 551631 | 1 | 12 | 70 | 1036 | 0 | 0 | 1751083 | 1600000 | 2399999 |
| 4 | 874931 | 2 | 12 | 100 | 1294 | 1647 | 0 | 2627050 | 2400000 | 3199999 |
| 5 | 1088595 | 3 | 12 | 85 | 1873 | 1733 | 1439 | 3718586 | 3200000 | 3999999 |
| 6 | 1030245 | 2 | 12 | 70 | 1991 | 1900 | 0 | 4753876 | 4000000 | 4799999 |
| 7 | 196409 | 2 | 12 | 95 | 1833 | 1323 | 0 | 4954176 | 4800000 | 5599999 |
| 8 | 1117746 | 3 | 12 | 80 | 1208 | 1832 | 1143 | 6075078 | 5600000 | 6399999 |
| 9 | 630758 | 1 | 12 | 100 | 1371 | 0 | 0 | 6710019 | 6400000 | 7199999 |
| 10 | 761006 | 1 | 12 | 70 | 1193 | 0 | 0 | 7472396 | 7200000 | 7999999 |
| 11 | 956251 | 3 | 12 | 70 | 1965 | 1926 | 1711 | 8429840 | 8000000 | 8799999 |
| 12 | 1045375 | 3 | 12 | 100 | 1370 | 1091 | 1628 | 9480817 | 8800000 | 9599999 |
| 13 | 653025 | 3 | 12 | 70 | 1489 | 1896 | 1545 | 10137931 | 9600000 | 10399999 |
| 14 | 293376 | 3 | 12 | 85 | 1460 | 1173 | 1202 | 10436237 | 10400000 | 11199999 |
| 15 | 1017384 | 2 | 12 | 80 | 1439 | 1570 | 0 | 11457456 | 11200000 | 11999999 |

Total number of pulses in waveform = 33

## Type 5 Radar Waveform_26

Num of Bursts = 9
Burst Interval (us)= 1333333

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 894048 | 2 | 6 | 75 | 1506 | 1901 | 0 | 894048 | 0 | 1333332 |
| 2 | 747522 | 3 | 6 | 85 | 1015 | 1388 | 1536 | 1644977 | 1333333 | 2666665 |
| 3 | 1794034 | 3 | 6 | 85 | 1204 | 1739 | 1545 | 3442950 | 2666666 | 3999998 |
| 4 | 890906 | 1 | 6 | 85 | 1074 | 0 | 0 | 4338344 | 3999999 | 5333331 |
| 5 | 2276788 | 3 | 6 | 65 | 1872 | 1297 | 1936 | 6616206 | 5333332 | 6666664 |
| 6 | 156105 | 3 | 6 | 60 | 1180 | 1668 | 1996 | 6777416 | 6666665 | 7999997 |
| 7 | 1456818 | 1 | 6 | 65 | 1189 | 0 | 0 | 8239078 | 7999998 | 9333330 |
| 8 | 1886617 | 1 | 6 | 90 | 1627 | 0 | 0 | 10126884 | 9333331 | 10666663 |
| 9 | 940868 | 1 | 6 | 55 | 1410 | 0 | 0 | 11069379 | 10666664 | 11999996 |

Total number of pulses in waveform = 18
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## Type 5 Radar Waveform_27

Num of Bursts = 18
Burst Interval (us)= 666667

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 486830 | 2 | 19 | 55 | 1095 | 1548 | 0 | 486830 | 0 | 666666 |
| 2 | 517661 | 3 | 19 | 55 | 1793 | 1297 | 1334 | 1007134 | 666667 | 1333333 |
| 3 | 796636 | 1 | 19 | 55 | 1442 | 0 | 0 | 1808194 | 1333334 | 2000000 |
| 4 | 400367 | 3 | 19 | 75 | 1489 | 1889 | 1271 | 2210003 | 2000001 | 2666667 |
| 5 | 595037 | 3 | 19 | 55 | 1250 | 1597 | 1987 | 2809689 | 2666668 | 3333334 |
| 6 | 579535 | 1 | 19 | 55 | 1021 | 0 | 0 | 3394058 | 3333335 | 4000001 |
| 7 | 744303 | 1 | 19 | 85 | 1592 | 0 | 0 | 4139382 | 4000002 | 4666668 |
| 8 | 1136838 | 3 | 19 | 70 | 1400 | 1590 | 1369 | 5277812 | 4666669 | 5333335 |
| 9 | 193310 | 3 | 19 | 50 | 1233 | 1945 | 1549 | 5475481 | 5333336 | 6000002 |
| 10 | 577706 | 3 | 19 | 85 | 1871 | 1575 | 1092 | 6057914 | 6000003 | 6666669 |
| 11 | 746490 | 1 | 19 | 90 | 1814 | 0 | 0 | 6808942 | 6666670 | 7333336 |
| 12 | 961901 | 1 | 19 | 100 | 1469 | 0 | 0 | 7772657 | 7333337 | 8000003 |
| 13 | 463829 | 3 | 19 | 50 | 1484 | 1318 | 1547 | 8237955 | 8000004 | 8666670 |
| 14 | 670309 | 2 | 19 | 80 | 1349 | 1061 | 0 | 8912613 | 8666671 | 9333337 |
| 15 | 1028242 | 2 | 19 | 85 | 1668 | 1721 | 0 | 9943265 | 9333338 | 10000004 |
| 16 | 454091 | 1 | 19 | 65 | 1048 | 0 | 0 | 10400745 | 10000005 | 10666671 |
| 17 | 467707 | 2 | 19 | 80 | 1817 | 1778 | 0 | 10869500 | 10666672 | 11333338 |
| 18 | 1003304 | 1 | 19 | 85 | 1258 | 0 | 0 | 11876399 | 11333339 | 12000005 |

Total number of pulses in waveform = 36
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## Type 5 Radar Waveform_28

Num of Bursts = 16
Burst Interval (us)= 750000

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 326965 | 3 | 8 | 75 | 1242 | 1923 | 1232 | 326965 | 0 | 749999 |
| 2 | 956874 | 3 | 8 | 65 | 1723 | 1789 | 1270 | 1288236 | 750000 | 1499999 |
| 3 | 463438 | 3 | 8 | 90 | 1943 | 1605 | 1203 | 1756456 | 1500000 | 2249999 |
| 4 | 799881 | 1 | 8 | 85 | 1409 | 0 | 0 | 2561088 | 2250000 | 2999999 |
| 5 | 746372 | 1 | 8 | 75 | 1593 | 0 | 0 | 3308869 | 3000000 | 3749999 |
| 6 | 692850 | 1 | 8 | 70 | 1824 | 0 | 0 | 4003312 | 3750000 | 4499999 |
| 7 | 1129125 | 2 | 8 | 90 | 1910 | 1860 | 0 | 5134261 | 4500000 | 5249999 |
| 8 | 465315 | 2 | 8 | 55 | 1485 | 1705 | 0 | 5603346 | 5250000 | 5999999 |
| 9 | 942034 | 2 | 8 | 85 | 1089 | 1234 | 0 | 6548570 | 6000000 | 6749999 |
| 10 | 225217 | 2 | 8 | 65 | 1388 | 1382 | 0 | 6776110 | 6750000 | 7499999 |
| 11 | 1451688 | 3 | 8 | 100 | 1391 | 1857 | 1032 | 8230568 | 7500000 | 8249999 |
| 12 | 503893 | 1 | 8 | 90 | 1625 | 0 | 0 | 8738741 | 8250000 | 8999999 |
| 13 | 709999 | 3 | 8 | 80 | 1521 | 1796 | 1978 | 9450365 | 9000000 | 9749999 |
| 14 | 996528 | 2 | 8 | 55 | 1705 | 1454 | 0 | 10452188 | 9750000 | 10499999 |
| 15 | 167238 | 1 | 8 | 70 | 1333 | 0 | 0 | 10622585 | 10500000 | 11249999 |
| 16 | 705931 | 2 | 8 | 60 | 1523 | 1376 | 0 | 11329849 | 11250000 | 11999999 |

Total number of pulses in waveform = 32
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## Type 5 Radar Waveform_29

Num of Bursts = 8
Burst Interval (us)= 1500000

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 634301 | 2 | 17 | 90 | 1742 | 1077 | 0 | 634301 | 0 | 1499999 |
| 2 | 1302662 | 1 | 17 | 75 | 1072 | 0 | 0 | 1939782 | 1500000 | 2999999 |
| 3 | 1833158 | 1 | 17 | 50 | 1494 | 0 | 0 | 3774012 | 3000000 | 4499999 |
| 4 | 787014 | 2 | 17 | 50 | 1784 | 1078 | 0 | 4562520 | 4500000 | 5999999 |
| 5 | 1854976 | 1 | 17 | 75 | 1689 | 0 | 0 | 6420358 | 6000000 | 7499999 |
| 6 | 2027579 | 2 | 17 | 80 | 1614 | 1787 | 0 | 8449626 | 7500000 | 8999999 |
| 7 | 972177 | 2 | 17 | 90 | 1089 | 1194 | 0 | 9425204 | 9000000 | 10499999 |
| 8 | 1659052 | 3 | 17 | 95 | 1951 | 1103 | 1458 | 11086539 | 10500000 | 11999999 |

Total number of pulses in waveform = 14

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## Type 5 Radar Waveform_30

Num of Bursts = 13
Burst Interval (us)= 923077

| Burst # | Off Time (us) | # Pulses | Chirp (MHz) | PW (us) | Pulse 1 Pri(us) | Pulse 2 Pri(us) | Pulse 3 Pri(us) | Start Loc (us) | Start Burst Interval(us) | End Burst Interval(us) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 669976 | 1 | 14 | 80 | 1393 | 0 | 0 | 669976 | 0 | 923076 |
| 2 | 550111 | 2 | 14 | 55 | 1318 | 1042 | 0 | 1221480 | 923077 | 1846153 |
| 3 | 1394274 | 1 | 14 | 50 | 1431 | 0 | 0 | 2618114 | 1846154 | 2769230 |
| 4 | 871352 | 2 | 14 | 65 | 1202 | 1109 | 0 | 3490897 | 2769231 | 3692307 |
| 5 | 871339 | 2 | 14 | 80 | 1541 | 1005 | 0 | 4364547 | 3692308 | 4615384 |
| 6 | 745045 | 2 | 14 | 95 | 1583 | 1037 | 0 | 5112138 | 4615385 | 5538461 |
| 7 | 980327 | 2 | 14 | 100 | 1163 | 1717 | 0 | 6095085 | 5538462 | 6461538 |
| 8 | 1150913 | 3 | 14 | 95 | 1328 | 1999 | 1808 | 7248878 | 6461539 | 7384615 |
| 9 | 346569 | 2 | 14 | 100 | 1863 | 1262 | 0 | 7600582 | 7384616 | 8307692 |
| 10 | 1491914 | 2 | 14 | 50 | 1106 | 1438 | 0 | 9095621 | 8307693 | 9230769 |
| 11 | 752724 | 2 | 14 | 80 | 1069 | 1504 | 0 | 9850889 | 9230770 | 10153846 |
| 12 | 408183 | 2 | 14 | 70 | 1236 | 1992 | 0 | 10261645 | 10153847 | 11076923 |
| 13 | 1674993 | 3 | 14 | 60 | 1971 | 1116 | 1627 | 11939866 | 11076924 | 12000000 |

Total number of pulses in waveform = 26

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Radar Type 6 - Radar Statistical Performance

| Trail # | Test Freq. (MHz) | 1=Detection 0=No Detection | Trail # | Test Freq. (MHz) | 1=Detection 0=No Detection |
|---|---|---|---|---|---|
| 1 | 5252 | 1 | 16 | 5290 | 1 |
| 2 | 5252 | 1 | 17 | 5292 | 1 |
| 3 | 5260 | 1 | 18 | 5292 | 1 |
| 4 | 5260 | 1 | 19 | 5300 | 1 |
| 5 | 5268 | 1 | 20 | 5300 | 1 |
| 6 | 5268 | 1 | 21 | 5308 | 1 |
| 7 | 5270 | 1 | 22 | 5308 | 1 |
| 8 | 5270 | 1 | 23 | 5310 | 1 |
| 9 | 5272 | 1 | 24 | 5310 | 1 |
| 10 | 5272 | 1 | 25 | 5312 | 1 |
| 11 | 5280 | 1 | 26 | 5312 | 1 |
| 12 | 5280 | 1 | 27 | 5320 | 1 |
| 13 | 5288 | 1 | 28 | 5320 | 1 |
| 14 | 5288 | 1 | 29 | 5328 | 1 |
| 15 | 5290 | 1 | 30 | 5328 | 1 |
| Detection Percentage (%) | | | | | 100% |

| Radar waveform #1 | | | Radar waveform #2 | | |
|---|---|---|---|---|---|
| Hopping Number | Frequency (MHz) | Pulse Start (ms) | Hopping Number | Frequency (MHz) | Pulse Start (ms) |
| 7 | 5279 | 21 | 2 | 5278 | 6 |
| 18 | 5264 | 54 | 7 | 5265 | 21 |
| 35 | 5268 | 105 | 9 | 5262 | 27 |
| 44 | 5250 | 132 | 74 | 5273 | 222 |
| 61 | 5266 | 183 | 78 | 5272 | 234 |
| 64 | 5257 | 192 | -- | -- | -- |
| 68 | 5262 | 204 | -- | -- | -- |
| 88 | 5253 | 264 | -- | -- | -- |
| 98 | 5251 | 294 | -- | -- | -- |

| Radar waveform #3 | | | Radar waveform #4 | | |
|---|---|---|---|---|---|
| Hopping Number | Frequency (MHz) | Pulse Start (ms) | Hopping Number | Frequency (MHz) | Pulse Start (ms) |
| 4 | 5259 | 12 | 5 | 5271 | 15 |
| 12 | 5287 | 36 | 6 | 5281 | 18 |
| 17 | 5257 | 51 | 9 | 5287 | 27 |
| 21 | 5267 | 63 | 42 | 5289 | 126 |
| 22 | 5263 | 66 | 61 | 5276 | 183 |
| 26 | 5252 | 78 | 88 | 5274 | 264 |
| 27 | 5276 | 81 | 98 | 5290 | 294 |
| 37 | 5253 | 111 | -- | -- | -- |
| 53 | 5269 | 159 | -- | -- | -- |
| 60 | 5251 | 180 | -- | -- | -- |
| 64 | 5271 | 192 | -- | -- | -- |
| 67 | 5284 | 201 | -- | -- | -- |
| 68 | 5264 | 204 | -- | -- | -- |
| 82 | 5283 | 246 | -- | -- | -- |
| 96 | 5258 | 288 | -- | -- | -- |

| Radar waveform #5 | | | Radar waveform #6 | | |
|---|---|---|---|---|---|
| Hopping Number | Frequency (MHz) | Pulse Start (ms) | Hopping Number | Frequency (MHz) | Pulse Start (ms) |
| 0 | 5276 | 0 | 16 | 5295 | 48 |
| 3 | 5295 | 9 | 57 | 5252 | 171 |
| 6 | 5282 | 18 | 92 | 5251 | 276 |
| 25 | 5267 | 75 | 93 | 5253 | 279 |
| 39 | 5286 | 117 | 95 | 5287 | 285 |
| 48 | 5271 | 144 | -- | -- | -- |
| 53 | 5254 | 159 | -- | -- | -- |
| 98 | 5283 | 294 | -- | -- | -- |

| Radar waveform #7 | | | Radar waveform #8 | | |
|---|---|---|---|---|---|
| Hopping Number | Frequency (MHz) | Pulse Start (ms) | Hopping Number | Frequency (MHz) | Pulse Start (ms) |
| 3 | 5282 | 9 | 16 | 5270 | 48 |
| 5 | 5278 | 15 | 35 | 5292 | 105 |
| 6 | 5277 | 18 | 52 | 5267 | 156 |
| 19 | 5286 | 57 | 56 | 5289 | 168 |
| 27 | 5298 | 81 | 71 | 5288 | 213 |
| 52 | 5287 | 156 | 81 | 5265 | 243 |
| 57 | 5269 | 171 | 85 | 5291 | 255 |
| 84 | 5299 | 252 | 97 | 5259 | 291 |
| 92 | 5276 | 276 | -- | -- | -- |
| 99 | 5264 | 297 | -- | -- | -- |

| Radar waveform #9 | | | Radar waveform #10 | | |
|---|---|---|---|---|---|
| Hopping Number | Frequency (MHz) | Pulse Start (ms) | Hopping Number | Frequency (MHz) | Pulse Start (ms) |
| 7 | 5281 | 21 | 2 | 5251 | 6 |
| 12 | 5272 | 36 | 5 | 5253 | 15 |
| 14 | 5275 | 42 | 15 | 5281 | 45 |
| 43 | 5266 | 129 | 17 | 5293 | 51 |
| 48 | 5264 | 144 | 28 | 5284 | 84 |
| 56 | 5268 | 168 | 32 | 5286 | 96 |
| 62 | 5270 | 186 | 37 | 5294 | 111 |
| 78 | 5277 | 234 | 40 | 5257 | 120 |
| 84 | 5252 | 252 | 51 | 5264 | 153 |
| 92 | 5284 | 276 | 54 | 5266 | 162 |
| 96 | 5276 | 288 | 60 | 5258 | 180 |
| -- | -- | -- | 67 | 5256 | 201 |
| -- | -- | -- | 69 | 5276 | 207 |
| -- | -- | -- | 70 | 5282 | 210 |
| -- | -- | -- | 77 | 5296 | 231 |
| -- | -- | -- | 81 | 5289 | 243 |
| -- | -- | -- | 86 | 5269 | 258 |
| -- | -- | -- | 91 | 5270 | 273 |

| Radar waveform #11 | | | Radar waveform #12 | | |
|---|---|---|---|---|---|
| Hopping Number | Frequency (MHz) | Pulse Start (ms) | Hopping Number | Frequency (MHz) | Pulse Start (ms) |
| 8 | 5251 | 24 | 16 | 5281 | 48 |
| 10 | 5280 | 30 | 41 | 5251 | 123 |
| 12 | 5309 | 36 | 43 | 5289 | 129 |
| 31 | 5302 | 93 | 51 | 5256 | 153 |
| 43 | 5257 | 129 | 53 | 5295 | 159 |
| 45 | 5282 | 135 | 57 | 5290 | 171 |
| 48 | 5281 | 144 | 66 | 5298 | 198 |
| 49 | 5297 | 147 | 75 | 5282 | 225 |
| 68 | 5293 | 204 | 79 | 5259 | 237 |
| 69 | 5286 | 207 | 81 | 5305 | 243 |
| 76 | 5264 | 228 | 84 | 5252 | 252 |
| 88 | 5287 | 264 | 89 | 5279 | 267 |
| 98 | 5288 | 294 | 90 | 5266 | 270 |
| -- | -- | -- | 94 | 5250 | 282 |

| Radar waveform #13 | | | Radar waveform #14 | | |
|---|---|---|---|---|---|
| Hopping Number | Frequency (MHz) | Pulse Start (ms) | Hopping Number | Frequency (MHz) | Pulse Start (ms) |
| 1 | 5308 | 3 | 2 | 5310 | 6 |
| 3 | 5306 | 9 | 4 | 5299 | 12 |
| 9 | 5317 | 27 | 12 | 5264 | 36 |
| 29 | 5276 | 87 | 23 | 5295 | 69 |
| 34 | 5280 | 102 | 25 | 5275 | 75 |
| 50 | 5268 | 150 | 41 | 5274 | 123 |
| 74 | 5310 | 222 | 67 | 5313 | 201 |
| 81 | 5273 | 243 | 70 | 5292 | 210 |
| 85 | 5283 | 255 | 74 | 5290 | 222 |
| 93 | 5285 | 279 | 76 | 5293 | 228 |
| 94 | 5298 | 282 | 79 | 5278 | 237 |
| 95 | 5304 | 285 | 99 | 5317 | 297 |
| 96 | 5295 | 288 | -- | -- | -- |

| Radar waveform #15 | | | Radar waveform #16 | | |
|---|---|---|---|---|---|
| Hopping Number | Frequency (MHz) | Pulse Start (ms) | Hopping Number | Frequency (MHz) | Pulse Start (ms) |
| 4 | 5291 | 12 | 6 | 5263 | 18 |
| 8 | 5296 | 24 | 14 | 5296 | 42 |
| 18 | 5295 | 54 | 28 | 5298 | 84 |
| 19 | 5308 | 57 | 39 | 5315 | 117 |
| 21 | 5307 | 63 | 50 | 5267 | 150 |
| 23 | 5310 | 69 | 53 | 5274 | 159 |
| 33 | 5285 | 99 | 56 | 5288 | 168 |
| 34 | 5261 | 102 | 63 | 5280 | 189 |
| 37 | 5284 | 111 | 64 | 5268 | 192 |
| 49 | 5301 | 147 | 70 | 5294 | 210 |
| 65 | 5289 | 195 | 74 | 5302 | 222 |
| 69 | 5264 | 207 | -- | -- | -- |
| 71 | 5313 | 213 | -- | -- | -- |
| 74 | 5316 | 222 | -- | -- | -- |
| 79 | 5269 | 237 | -- | -- | -- |
| 82 | 5273 | 246 | -- | -- | -- |
| 95 | 5300 | 285 | -- | -- | -- |

| Radar waveform #17 | | | Radar waveform #18 | | |
|---|---|---|---|---|---|
| Hopping Number | Frequency (MHz) | Pulse Start (ms) | Hopping Number | Frequency (MHz) | Pulse Start (ms) |
| 16 | 5284 | 48 | 0 | 5270 | 0 |
| 20 | 5319 | 60 | 23 | 5263 | 69 |
| 27 | 5285 | 81 | 28 | 5313 | 84 |
| 42 | 5296 | 126 | 32 | 5280 | 96 |
| 47 | 5302 | 141 | 35 | 5286 | 105 |
| 49 | 5301 | 147 | 39 | 5269 | 117 |
| 66 | 5293 | 198 | 51 | 5277 | 153 |
| 67 | 5295 | 201 | 54 | 5283 | 162 |
| 68 | 5270 | 204 | 58 | 5322 | 174 |
| 70 | 5269 | 210 | 68 | 5300 | 204 |
| 90 | 5310 | 270 | 69 | 5303 | 207 |
| 98 | 5320 | 294 | 74 | 5308 | 222 |
| -- | -- | -- | 94 | 5289 | 282 |
| -- | -- | -- | 96 | 5317 | 288 |

| Radar waveform #19 | | | Radar waveform #20 | | |
|---|---|---|---|---|---|
| Hopping Number | Frequency (MHz) | Pulse Start (ms) | Hopping Number | Frequency (MHz) | Pulse Start (ms) |
| 3 | 5318 | 9 | 0 | 5303 | 0 |
| 8 | 5271 | 24 | 19 | 5310 | 57 |
| 9 | 5306 | 27 | 20 | 5324 | 60 |
| 10 | 5319 | 30 | 35 | 5319 | 105 |
| 18 | 5272 | 54 | 36 | 5302 | 108 |
| 48 | 5327 | 144 | 43 | 5317 | 129 |
| 65 | 5282 | 195 | 47 | 5327 | 141 |
| 73 | 5326 | 219 | 65 | 5284 | 195 |
| 94 | 5301 | 282 | 70 | 5304 | 210 |
| 99 | 5322 | 297 | 75 | 5278 | 225 |
| -- | -- | -- | 97 | 5306 | 291 |

| Radar waveform #21 | | | Radar waveform #22 | | |
|---|---|---|---|---|---|
| Hopping Number | Frequency (MHz) | Pulse Start (ms) | Hopping Number | Frequency (MHz) | Pulse Start (ms) |
| 12 | 5290 | 36 | 0 | 5313 | 0 |
| 18 | 5280 | 54 | 5 | 5307 | 15 |
| 22 | 5313 | 66 | 8 | 5332 | 24 |
| 29 | 5301 | 87 | 19 | 5297 | 57 |
| 39 | 5284 | 117 | 20 | 5327 | 60 |
| 50 | 5322 | 150 | 21 | 5287 | 63 |
| 59 | 5295 | 177 | 40 | 5309 | 120 |
| 63 | 5323 | 189 | 48 | 5317 | 144 |
| 65 | 5304 | 195 | 66 | 5336 | 198 |
| 77 | 5311 | 231 | 85 | 5337 | 255 |
| 78 | 5329 | 234 | -- | -- | -- |
| 83 | 5279 | 249 | -- | -- | -- |

| Radar waveform #23 | | | Radar waveform #24 | | |
|---|---|---|---|---|---|
| Hopping Number | Frequency (MHz) | Pulse Start (ms) | Hopping Number | Frequency (MHz) | Pulse Start (ms) |
| 21 | 5286 | 63 | 10 | 5281 | 30 |
| 30 | 5319 | 90 | 14 | 5334 | 42 |
| 43 | 5340 | 129 | 17 | 5320 | 51 |
| 50 | 5305 | 150 | 31 | 5292 | 93 |
| 51 | 5292 | 153 | 35 | 5336 | 105 |
| 74 | 5290 | 222 | 43 | 5290 | 129 |
| 76 | 5324 | 228 | 44 | 5297 | 132 |
| 86 | 5334 | 258 | 56 | 5285 | 168 |
| 91 | 5316 | 273 | 63 | 5305 | 189 |
| 92 | 5326 | 276 | 78 | 5291 | 234 |
| 93 | 5315 | 279 | 80 | 5333 | 240 |
| 94 | 5323 | 282 | 86 | 5321 | 258 |
| 97 | 5303 | 291 | 87 | 5287 | 261 |

| Radar waveform #25 | | | Radar waveform #26 | | |
|---|---|---|---|---|---|
| Hopping Number | Frequency (MHz) | Pulse Start (ms) | Hopping Number | Frequency (MHz) | Pulse Start (ms) |
| 6 | 5310 | 18 | 11 | 5302 | 33 |
| 7 | 5333 | 21 | 13 | 5336 | 39 |
| 17 | 5283 | 51 | 14 | 5287 | 42 |
| 19 | 5331 | 57 | 16 | 5311 | 48 |
| 30 | 5306 | 90 | 18 | 5289 | 54 |
| 43 | 5292 | 129 | 21 | 5333 | 63 |
| 49 | 5293 | 147 | 26 | 5284 | 78 |
| 53 | 5291 | 159 | 28 | 5299 | 84 |
| 59 | 5328 | 177 | 42 | 5285 | 126 |
| 71 | 5295 | 213 | 43 | 5296 | 129 |
| 82 | 5301 | 246 | 59 | 5330 | 177 |
| 86 | 5297 | 258 | 66 | 5340 | 198 |
| 89 | 5282 | 267 | 80 | 5321 | 240 |
| 97 | 5314 | 291 | 94 | 5323 | 282 |
| 99 | 5296 | 297 | -- | -- | -- |

| Radar waveform #27 | | | Radar waveform #28 | | |
|---|---|---|---|---|---|
| Hopping Number | Frequency (MHz) | Pulse Start (ms) | Hopping Number | Frequency (MHz) | Pulse Start (ms) |
| 2 | 5293 | 6 | 5 | 5341 | 15 |
| 13 | 5339 | 39 | 27 | 5344 | 81 |
| 17 | 5327 | 51 | 37 | 5311 | 111 |
| 19 | 5318 | 57 | 38 | 5312 | 114 |
| 20 | 5320 | 60 | 47 | 5338 | 141 |
| 23 | 5302 | 69 | 62 | 5335 | 186 |
| 37 | 5298 | 111 | 63 | 5328 | 189 |
| 39 | 5326 | 117 | 69 | 5291 | 207 |
| 43 | 5303 | 129 | 73 | 5349 | 219 |
| 45 | 5294 | 135 | 76 | 5309 | 228 |
| 48 | 5346 | 144 | 77 | 5331 | 231 |
| 49 | 5336 | 147 | 83 | 5308 | 249 |
| 62 | 5313 | 186 | 88 | 5313 | 264 |
| 71 | 5291 | 213 | -- | -- | -- |
| 79 | 5345 | 237 | -- | -- | -- |
| 85 | 5349 | 255 | -- | -- | -- |
| 91 | 5332 | 273 | -- | -- | -- |
| 93 | 5306 | 279 | -- | -- | -- |

| Radar waveform #29 | | | Radar waveform #30 | | |
|---|---|---|---|---|---|
| Hopping Number | Frequency (MHz) | Pulse Start (ms) | Hopping Number | Frequency (MHz) | Pulse Start (ms) |
| 3 | 5326 | 9 | 7 | 5346 | 21 |
| 5 | 5305 | 15 | 9 | 5322 | 27 |
| 20 | 5315 | 60 | 12 | 5335 | 36 |
| 27 | 5330 | 81 | 20 | 5354 | 60 |
| 34 | 5344 | 102 | 25 | 5331 | 75 |
| 48 | 5311 | 144 | 40 | 5357 | 120 |
| 49 | 5321 | 147 | 53 | 5321 | 159 |
| 52 | 5327 | 156 | 56 | 5320 | 168 |
| 54 | 5329 | 162 | 64 | 5298 | 192 |
| 69 | 5333 | 207 | 67 | 5337 | 201 |
| -- | -- | -- | 69 | 5323 | 207 |
| -- | -- | -- | 75 | 5348 | 225 |
| -- | -- | -- | 78 | 5306 | 234 |
| -- | -- | -- | 81 | 5356 | 243 |
| -- | -- | -- | 86 | 5350 | 258 |
| -- | -- | -- | 90 | 5325 | 270 |
| -- | -- | -- | 93 | 5327 | 279 |

# 6. CONCLUSION

The data collected relate only the item(s) tested and show that the **AC220 Wi-Fi AP OD directional antenna US, AC220 Wi-Fi AP OD external antenna US, AC220 Wi-Fi AP OD small omni antenna US FCC ID: 2AD8UFZCWO2CA1, Model Number: WO2C-AC220** is in compliance with Part 15E of the FCC Rules.

The End