

# DFS MEASUREMENT REPORT

## FCC 15.407 WLAN 802.11a/n/ac/ax

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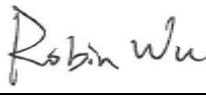
**FCC ID:** LNQWEB7200  
**Applicant:** Actiontec Electronics Inc  
**Application Type:** Certification  
**Product:** WiFi 6 Extender  
**Model No.:** WEB7200  
**Brand Name:** Actiontec  
**FCC Classification:** Unlicensed National Information Infrastructure (NII)  
**FCC Rule Part(s):** Part 15 Subpart E - 15.407 Section (h)(2)  
KDB 905462 D02v02, KDB 905462 D04v01  
**Test Date:** April 21 ~ 25, 2021

Reviewed By:



Sunny Sun

Approved By:



Robin Wu



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 (Suzhou) Co., Ltd.

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## Revision History

| Report No.    | Version | Description    | Issue Date | Note  |
|---------------|---------|----------------|------------|-------|
| 2102RSU047-U4 | Rev. 01 | Initial Report | 07-08-2021 | Valid |
|               |         |                |            |       |

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#### 1.4. Product Information

|                       |  |
|-----------------------|--|
| Product Name          | WiFi 6 Extender  |
| Model No.             | WEB7200  |
| Brand Name            | Actiontec  |
| Operating Temperature | 0 ~ 40°C   |
| Wi-Fi Specification   | 802.11a/b/g/n/ac/ax  |
| Antenna Information   | Refer to section 1.6   |
| Accessories           |  |
| AC/DC Adapter 1#      | Model: MS-V1500R120-018H0-US<br>Input: 100-240V ~ 50/60Hz, 0.6A MAX<br>Output: 12V, 1.5A |
| AC/DC Adapter 2#      | Model: RD1201500-C55-153MG<br>Input: 100-240V ~ 50-60Hz 0.6A<br>Output: 12V, 1.5A        |
| AC/DC Adapter 3#      | Model: ADS024T-W 120150<br>Input: 100-240V ~ 50-60Hz 0.6A<br>Output: 12V, 1.5A           |

#### 1.5. Radio Specification under Test

|  |  |
|--|--|
| Frequency Range                            | For 802.11a/n-HT20/ac-VHT20/ax-HE20:<br>5260~5320MHz, 5500~5720MHz<br>For 802.11n-HT40/ac-VHT40/ax-HE40:<br>5270~5310MHz, 5510~5710MHz<br>For 802.11ac-VHT80/ax-HE80:<br>5290MHz, 5530MHz, 5610MHz, 5690MHz                          |
| Type of Modulation                         | 802.11a/n/ac: OFDM<br>802.11ax: OFDMA  |
| Data Rate                                  | 802.11a: 6/9/12/18/24/36/48/54Mbps<br>802.11n: up to 300Mbps<br>802.11ac: up to 866.6Mbps<br>802.11ax: up to 1201Mbps  |
| Power-on cycle                             | Requires 67.16 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. |

## 1.6. Description of Available Antennas

| Antenna Type              | Ant Port | Frequency Band (GHz) | T <sub>x</sub> Paths | Antenna Gain (dBi) | Directional Gain (dBi) |         |
|---------------------------|----------|----------------------|----------------------|--------------------|------------------------|---------|
|                           |          |                      |                      |                    | For Power              | For PSD |
| PCB Antenna               | DB1      | 2.4 ~ 2.5            | 2                    | 4.56               | 4.56                   | 7.57    |
|                           | DB2      | 5.1 ~ 5.85           |                      | 4.32               | 4.32                   | 7.33    |
| Onboard Metal DFS Antenna | DFS      | 5.1 ~ 5.85           | N/A                  | 4.32               | --                     | --      |

Remark:

1. The EUT supports Cyclic Delay Diversity (CDD) mode.
2. The information of EUT was provided by the manufacturer, and the accuracy of the information shall be the responsibility of the manufacturer.
3. Onboard Metal DFS Antenna only for receive to detect radar signals.

## 1.7. DFS Band Carrier Frequencies Operation

802.11a/n-HT20/ac-VHT20/ax-HE20

| 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/ax-HE40

| 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  | 142     | 5710 MHz  | --      | --        |

802.11ac-VHT80/ax-HE80

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

**1.8. Test Mode**

|           |                                 |
|-----------|---------------------------------|
| Test Mode | Mode 1: Operating under AP mode |
|-----------|---------------------------------|

**1.9. Test Environment Condition**

|                   |            |
|-------------------|------------|
| Ambient Temp.     | 15 ~ 35°C  |
| Relative Humidity | 20 ~ 75%RH |



## 2. DFS DETECTION THRESHOLDS AND RADAR TEST WAVEFORMS

### 2.1. Applicability

The following table from FCC KDB 905462 D02 NII 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**

## 2.2. DFS Devices Requirements

**Per FCC KDB 905462 D02 NII 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.

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**

### 2.3. 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 $\geq$ 200 milliwatt  | -64 dBm                          |
| EIRP < 200 milliwatt and 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.

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.

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**

## 2.4. 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  | $\text{Roundup} \left\{ \begin{array}{l} \left( \frac{1}{360} \right) \cdot \\ \left( \frac{19 \cdot 10^6}{\text{PRI}_{\mu\text{sec}}} \right) \end{array} \right\}$ | 60%  | 30                       |
|  |                    | Test B: 15 unique PRI values randomly selected within the range of 518-3066 μsec, with a minimum increment of 1 μsec, excluding PRI values selected in Test A |  |  |                          |
| 2  | 1-5                | 150-230   | 23-29  | 60%  | 30                       |
| 3  | 6-10               | 200-500   | 16-18  | 60%  | 30                       |
| 4  | 11-20              | 200-500   | 12-16  | 60%  | 30                       |
| Aggregate (Radar Types 1-4)  |                    |   |  | 80%  | 120                      |
| Note: 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                       |

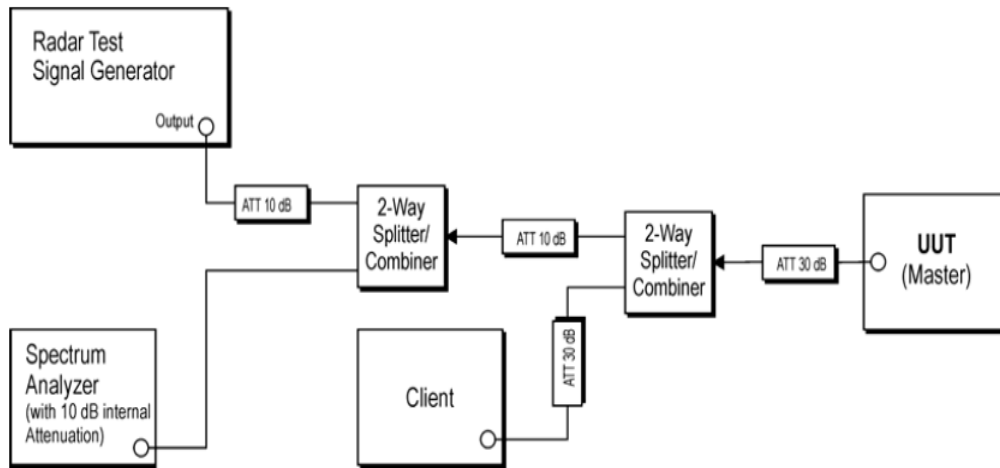
**Table 3-8: Parameters for Frequency Hopping Radar Waveforms**

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.

## 2.5. Conducted Test Setup

The FCC KDB 905462 D02 NII 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**

### 3. TEST EQUIPMENT CALIBRATION DATE

Dynamic Frequency Selection (DFS) (WZ-SR4)

| Instrument                  | Manufacturer | Type No. | Asset No.   | Cali. Interval | Cali. Due Date |
|-----------------------------|--------------|----------|-------------|----------------|----------------|
| EXA Signal Analyzer         | KEYSIGHT     | N9010B   | MRTSUE06457 | 1 year         | 2021/07/02     |
| Signal Analyzer             | R&S          | FSV40    | MRTSUE06218 | 1 year         | 2022/04/13     |
| ESG Vector Signal Generator | Agilent      | E4438C   | MRTSUE06026 | 1 year         | 2021/10/22     |
| Vector Signal Generator     | R&S          | SMBV100A | MRTSUE06279 | 1 year         | 2022/04/13     |
| Thermohyrometer             | Testo        | 608-H1   | MRTSUE06402 | 1 year         | 2021/07/26     |

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                |
| R&S Pulse Sequencer DFS | V 2.0   | R&S          | DFS Test Software                |



## 4. TEST RESULT

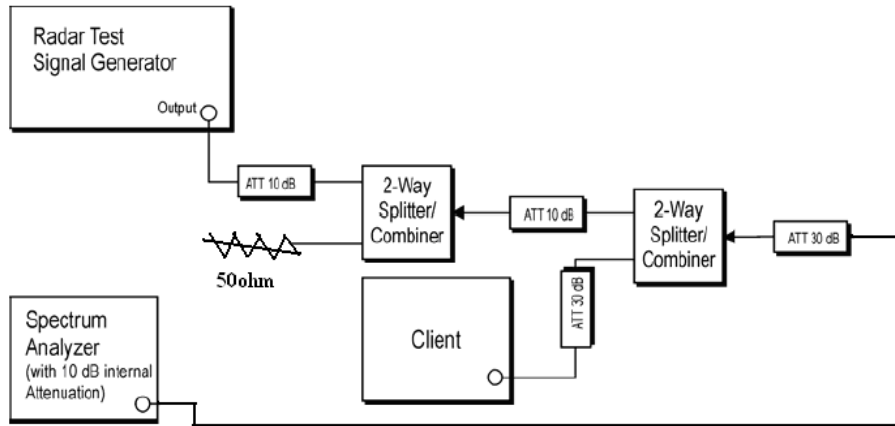
### 4.1. Summary

| Parameter  | Limit           | Test Result | Reference   |
|--|-----------------|-------------|-------------|
| NII Detection Bandwidth Measurement  | Refer Table 3-3 | Pass        | Section 4.4 |
| Initial Channel Availability Check Time  | Refer Table 3-3 | Pass        | Section 4.5 |
| Radar Burst at the Beginning of the Channel Availability Check Time            | Refer Table 3-3 | Pass        | Section 4.6 |
| Radar Burst at the End of the Channel Availability Check Time                  | Refer Table 3-3 | Pass        | Section 4.7 |
| In-Service Monitoring for Channel Move Time, Channel Closing Transmission Time | Refer Table 3-3 | Pass        | Section 4.8 |
| Non-Occupancy Period   | Refer Table 3-3 | Pass        | Section 4.8 |
| Statistical Performance Check  | Refer Table 3-3 | Pass        | Section 4.9 |

## 4.2. Radar Waveform Calibration

### 4.2.1. Calibration Setup

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



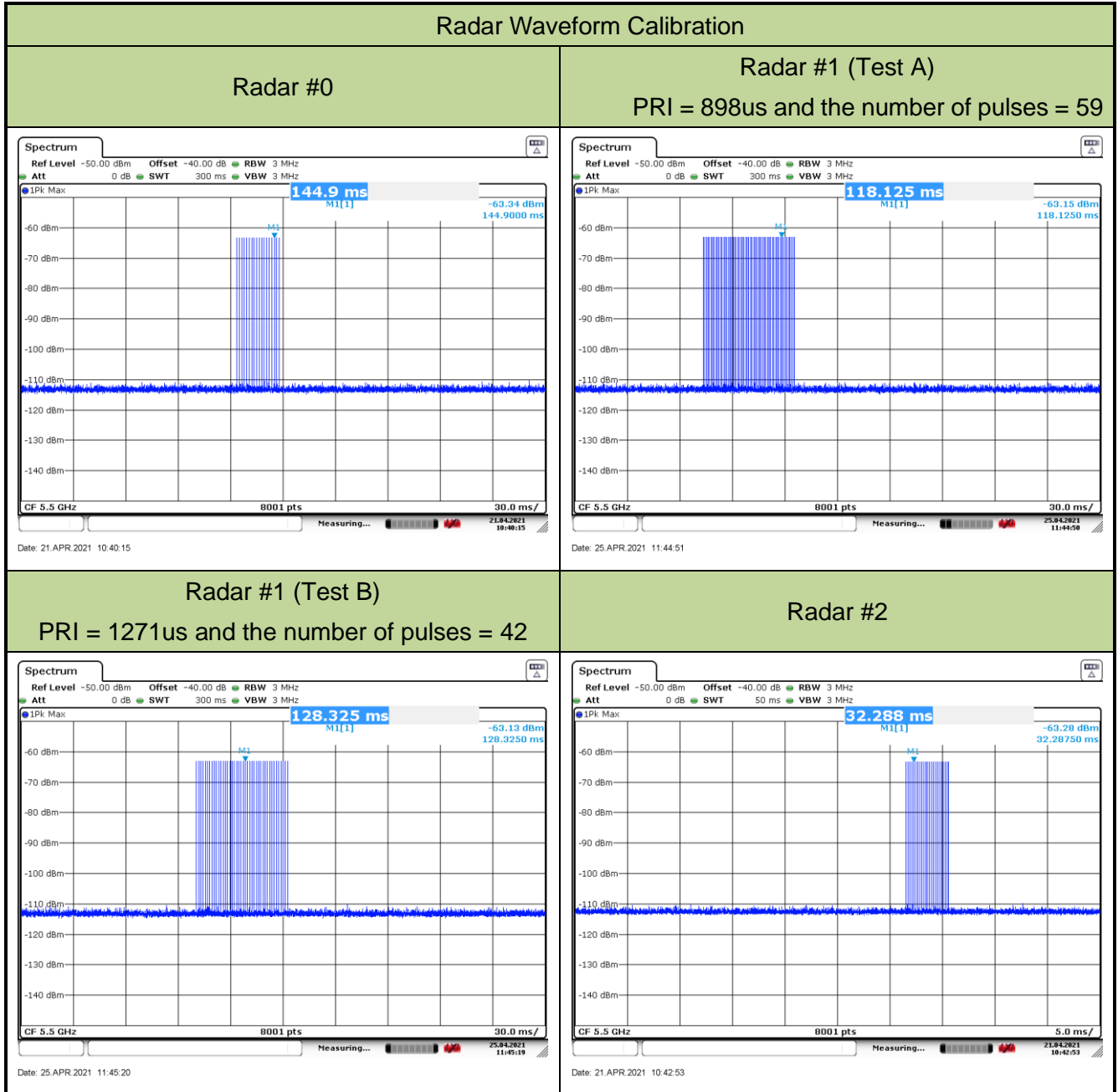
**Figure 3-2: Conducted Test Setup**

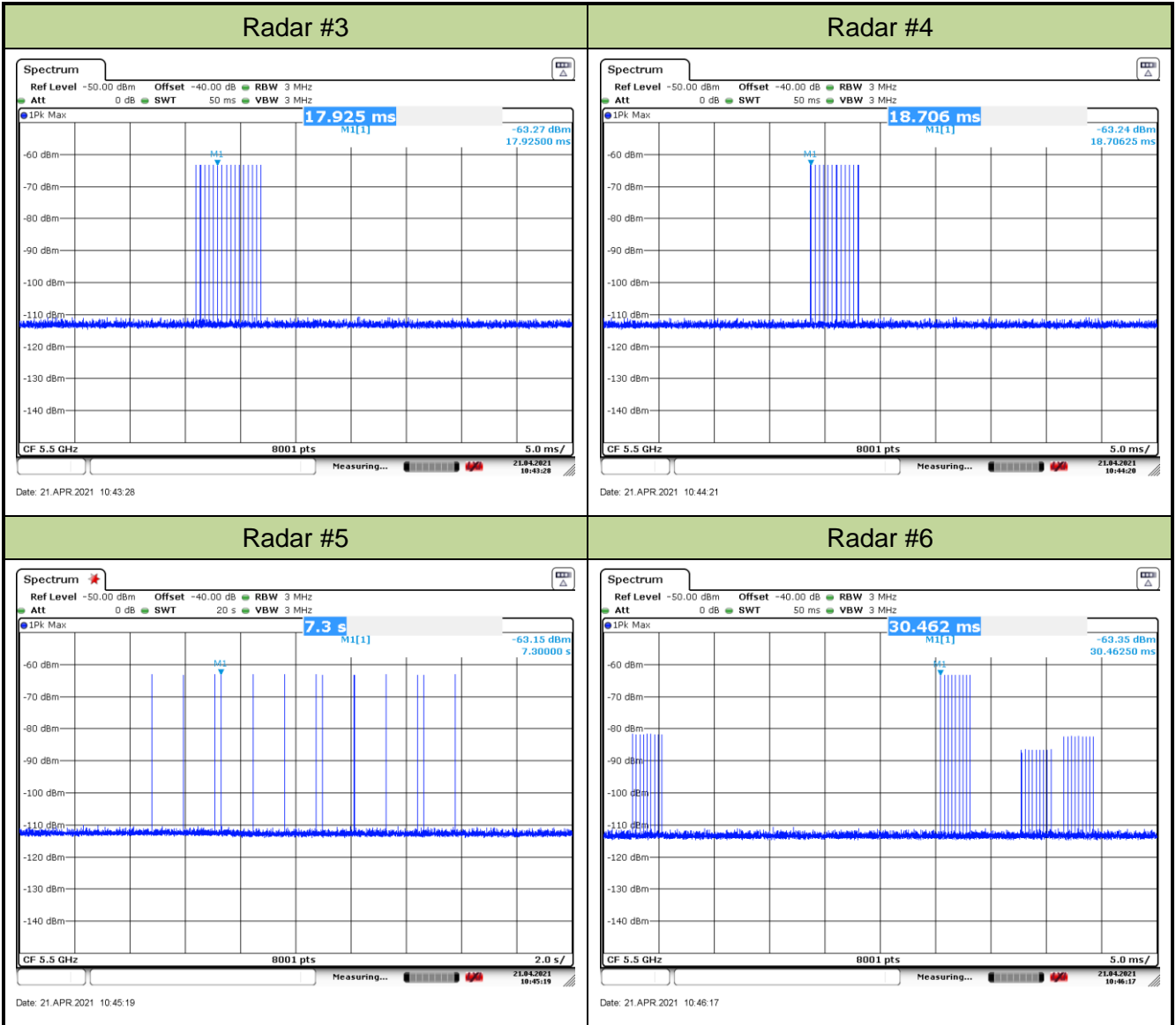
### 4.2.2. Calibration Procedure

The Interference Radar Detection Threshold Level is  $(-64\text{dBm}) + (0) [\text{dBi}] + 1 \text{ dB} = -63 \text{ dBm}$  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  $(-64\text{dBm}) + (0) [\text{dBi}] + 1 \text{ dB} = -63\text{dBm}$ . Capture the spectrum analyzer plots on short pulse radar types, long pulse radar type and hopping radar waveform.

### 4.2.3. Cablibration Result

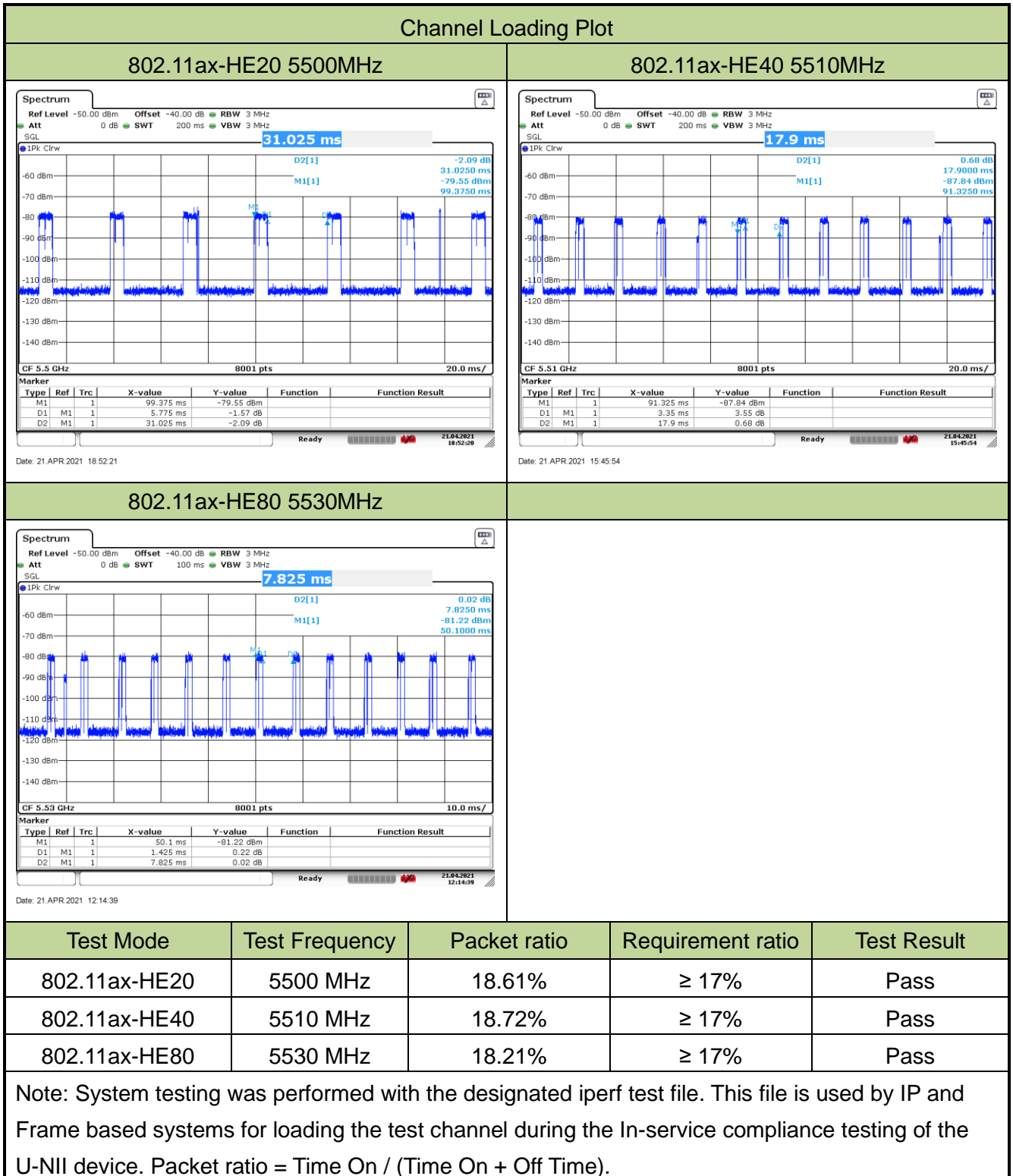
|           |                            |               |            |
|-----------|----------------------------|---------------|------------|
| Product   | WiFi 6 Extender            | Test Engineer | Jake Lan   |
| Test Site | WZ-SR4                     | Test Date     | 2021/04/21 |
| Test Item | Radar Waveform Calibration |               |            |





#### 4.2.4. Channel Loading Test Result

|           |                 |               |            |
|-----------|-----------------|---------------|------------|
| Product   | WiFi 6 Extender | Test Engineer | Jake Lan   |
| Test Site | WZ-SR4          | Test Date     | 2021/04/21 |
| Test Item | Channel Loading |               |            |



### **4.3. NII Detection Bandwidth Measurement**

#### **4.3.1. Test Limit**

Minimum 100% of the NII 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.

#### **4.3.2. 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:  $\text{U-NII Detection Bandwidth} = \text{FH} - \text{FL}$
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.

### 4.3.3. Test Result

|           |  |               |            |
|-----------|--|---------------|------------|
| Product   | WiFi 6 Extender                                    | Test Engineer | Jake Lan   |
| Test Site | WZ-SR4   | Test Date     | 2021/04/21 |
| Test Item | Detection Bandwidth (802.11ax-HE20 mode - 5500MHz) |               |            |

| Radar Frequency (MHz) | DFS Detection Trials (1=Detection, 0= No Detection) |   |   |   |   |   |   |   |   |    | Detection Rate (%) |
|-----------------------|---|---|---|---|---|---|---|---|---|----|--------------------|
|                       | 1   | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |                    |
| 5490                  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0%                 |
| 5490.4 FL             | 1   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 100%               |
| 5491                  | 1   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 100%               |
| 5492                  | 1   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 100%               |
| 5493                  | 1   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 100%               |
| 5494                  | 1   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 100%               |
| 5495                  | 1   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 100%               |
| 5500                  | 1   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 100%               |
| 5505                  | 1   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 100%               |
| 5506                  | 1   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 100%               |
| 5507                  | 1   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 100%               |
| 5508                  | 1   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 100%               |
| 5509                  | 1   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 100%               |
| 5509.6 FH             | 1   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 100%               |
| 5510                  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0%                 |

Note 1: All NII channels for this device have identical Channel bandwidths. Therefore, all DFS testing was done at 5500MHz. The 99% channel bandwidth is 19.03MHz. (See the 99% BW section of the RF report for further measurement details).

Note 2: Detection Bandwidth = FH - FL = 5509.6MHz – 5490.4MHz = 19.2MHz.

Note 3: NII Detection Bandwidth Min. Limit (MHz): 19.03MHz x 100% = 19.03MHz.



|           |  |               |            |
|-----------|--|---------------|------------|
| Product   | WiFi 6 Extender                                    | Test Engineer | Jake Lan   |
| Test Site | WZ-SR4   | Test Date     | 2021/04/21 |
| Test Item | Detection Bandwidth (802.11ax-HE40 mode - 5510MHz) |               |            |

| Radar Frequency (MHz) | DFS Detection Trials (1=Detection, 0= No Detection) |   |   |   |   |   |   |   |   |    | Detection Rate (%) |
|-----------------------|---|---|---|---|---|---|---|---|---|----|--------------------|
|                       | 1   | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |                    |
| 5490                  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0%                 |
| 5491 FL               | 1   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 100%               |
| 5492                  | 1   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 100%               |
| 5493                  | 1   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 100%               |
| 5494                  | 1   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 100%               |
| 5495                  | 1   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 100%               |
| 5500                  | 1   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 100%               |
| 5505                  | 1   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 100%               |
| 5510                  | 1   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 100%               |
| 5515                  | 1   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 100%               |
| 5520                  | 1   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 100%               |
| 5525                  | 1   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 100%               |
| 5526                  | 1   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 100%               |
| 5527                  | 1   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 100%               |
| 5528                  | 1   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 100%               |
| 5529 FH               | 1   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 100%               |
| 5530                  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0%                 |

Note 1: All NII channels for this device have identical Channel bandwidths. Therefore, all DFS testing was done at 5510MHz. The 99% channel bandwidth is 37.54MHz. (See the 99% BW section of the RF report for further measurement details).

Note 2: Detection Bandwidth = FH - FL = 5529MHz - 5491MHz = 38MHz.

Note 3: NII Detection Bandwidth Min. Limit (MHz): $37.54\text{MHz} \times 100\% = 37.54\text{MHz}$ .

|           |  |               |            |
|-----------|--|---------------|------------|
| Product   | WiFi 6 Extender                                    | Test Engineer | Jake Lan   |
| Test Site | WZ-SR4   | Test Date     | 2021/04/21 |
| Test Item | Detection Bandwidth (802.11ax-HE80 mode - 5530MHz) |               |            |

| Radar Frequency (MHz) | DFS Detection Trials (1=Detection, 0= No Detection) |   |   |   |   |   |   |   |   |    | Detection Rate (%) |
|-----------------------|---|---|---|---|---|---|---|---|---|----|--------------------|
|                       | 1   | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |                    |
| 5490                  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0%                 |
| 5491 FL               | 1   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 100%               |
| 5492                  | 1   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 100%               |
| 5493                  | 1   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 100%               |
| 5494                  | 1   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 100%               |
| 5495                  | 1   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 100%               |
| 5500                  | 1   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 100%               |
| 5505                  | 1   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 100%               |
| 5510                  | 1   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 100%               |
| 5515                  | 1   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 100%               |
| 5520                  | 1   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 100%               |
| 5525                  | 1   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 100%               |
| 5530                  | 1   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 100%               |
| 5535                  | 1   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 100%               |
| 5540                  | 1   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 100%               |
| 5545                  | 1   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 100%               |
| 5550                  | 1   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 100%               |
| 5555                  | 1   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 100%               |
| 5560                  | 1   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 100%               |
| 5565                  | 1   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 100%               |
| 5566                  | 1   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 100%               |
| 5567                  | 1   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 100%               |
| 5568                  | 1   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 100%               |
| 5569 FH               | 1   | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1  | 100%               |
| 5570                  | 0   | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  | 0%                 |

Note 1: All NII channels for this device have identical Channel bandwidths. Therefore, all DFS testing was done at 5530MHz. The 99% channel bandwidth is 76.66MHz. (See the 99% BW section of the RF report for further measurement details).

Note 2: Detection Bandwidth = FH - FL = 5569MHz - 5491MHz = 78MHz.

Note 3: NII Detection Bandwidth Min. Limit (MHz): 76.66MHz x 100% = 76.66MHz.

#### **4.4. Initial Channel Availability Check Time Measurement**

##### **4.4.1. Test Limit**

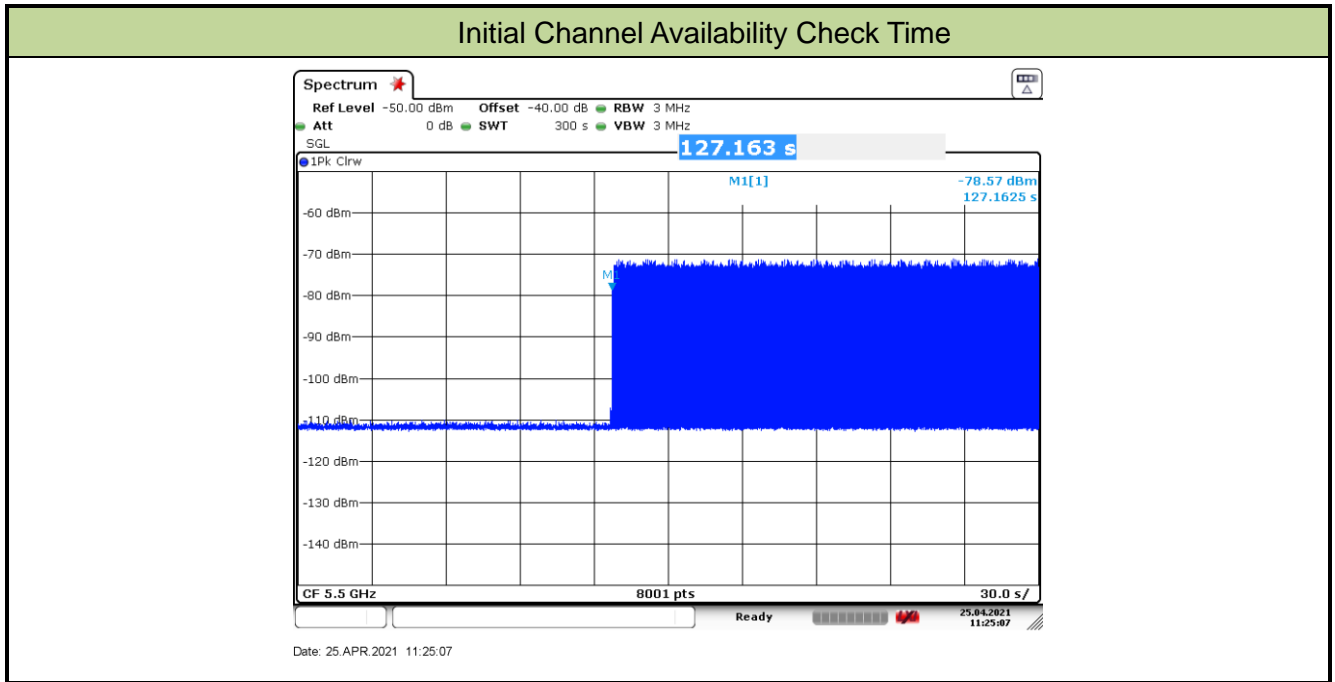
The EUT shall perform a Channel Availability Check to ensure that there is no radar operating on the channel. After power-up sequence, receive at least 1 minute on the intended operating frequency.

##### **4.4.2. 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.

4.4.3. Test Result

|           |  |               |            |
|-----------|--|---------------|------------|
| Product   | WiFi 6 Extender  | Test Engineer | Jake Lan   |
| Test Site | WZ-SR4   | Test Date     | 2021/04/25 |
| Test Item | Initial Channel Availability Check Time (802.11ax-HE20 mode - 5500MHz) |               |            |



Note: The EUT does not transmit any beacon or data transmissions until at least 1 minute after the completion of the power-on cycle (67.16 sec). Initial beacons/data transmissions are indicated by marker 1 (127.16sec).

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

### **4.5.1. Test Limit**

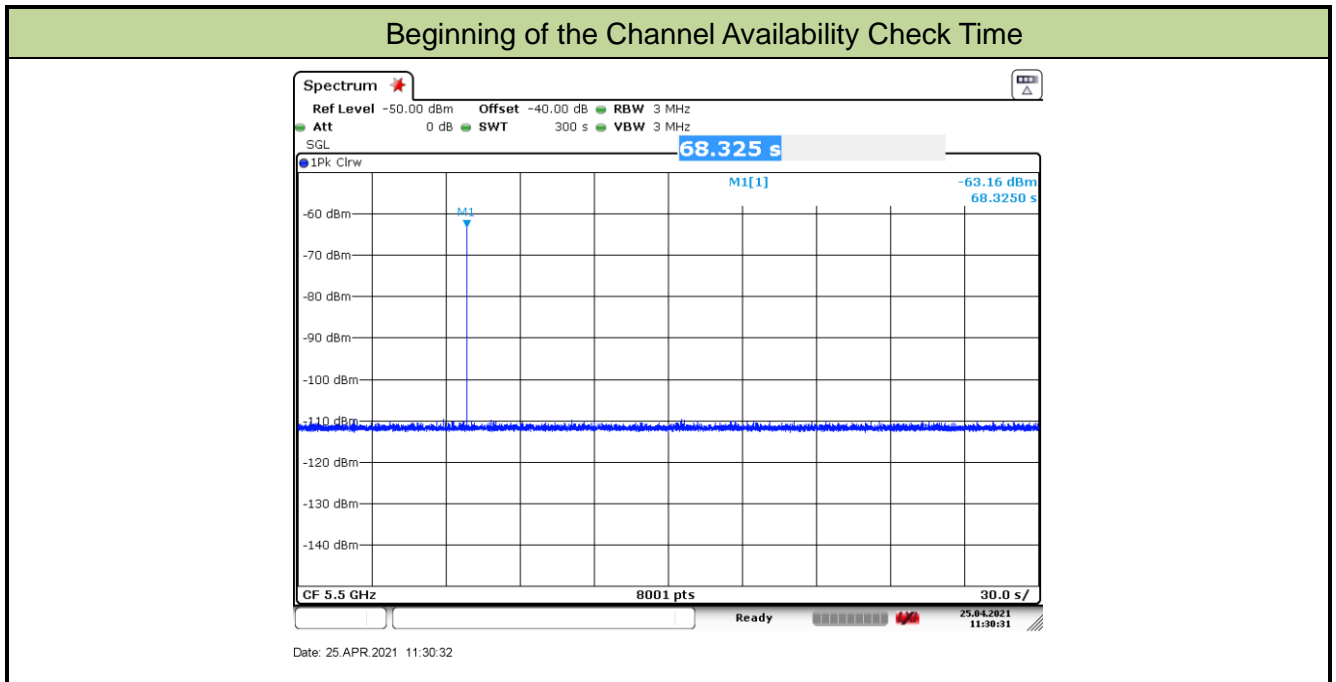
In beginning of the Channel Availability Check (CAC) Time, radar is detected on this channel, select another intended channel and perform a CAC on that channel.

### **4.5.2. 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.

4.5.3. Test Result

|           |  |               |            |
|-----------|--|---------------|------------|
| Product   | WiFi 6 Extender  | Test Engineer | Jake Lan   |
| Test Site | WZ-SR4   | Test Date     | 2021/04/25 |
| Test Item | Beginning of the Channel Availability Check Time<br>(802.11ax-HE20 mode - 5500MHz) |               |            |



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

### **4.6.1. Test Limit**

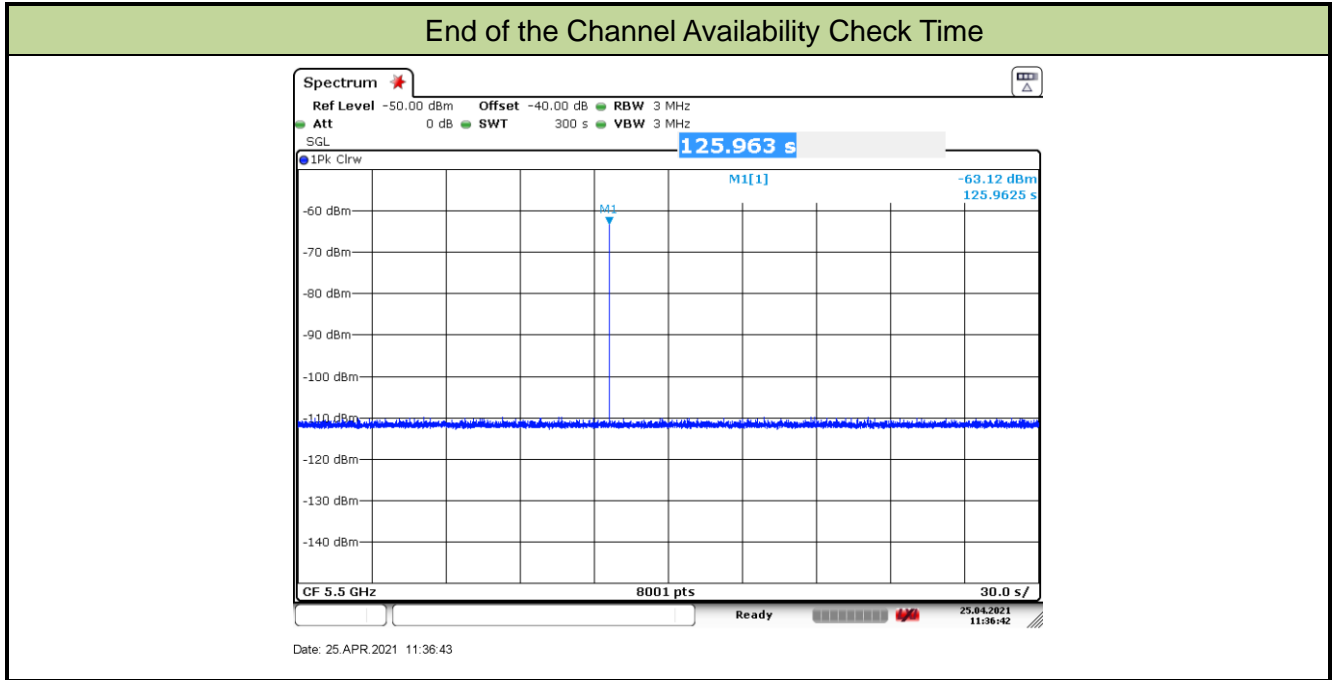
In the end of Channel Availability Check (CAC) Time, radar is detected on this channel, select another intended channel and perform a CAC on that channel.

### **4.6.2. 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 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+ 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.

4.6.3. Test Result

|           |   |               |            |
|-----------|---|---------------|------------|
| Product   | WiFi 6 Extender   | Test Engineer | Jake Lan   |
| Test Site | WZ-SR4  | Test Date     | 2021/04/25 |
| Test Item | End of the Channel Availability Check Time (802.11ax-HE20 mode - 5500MHz) |               |            |





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

### **4.7.1. Test Limit**

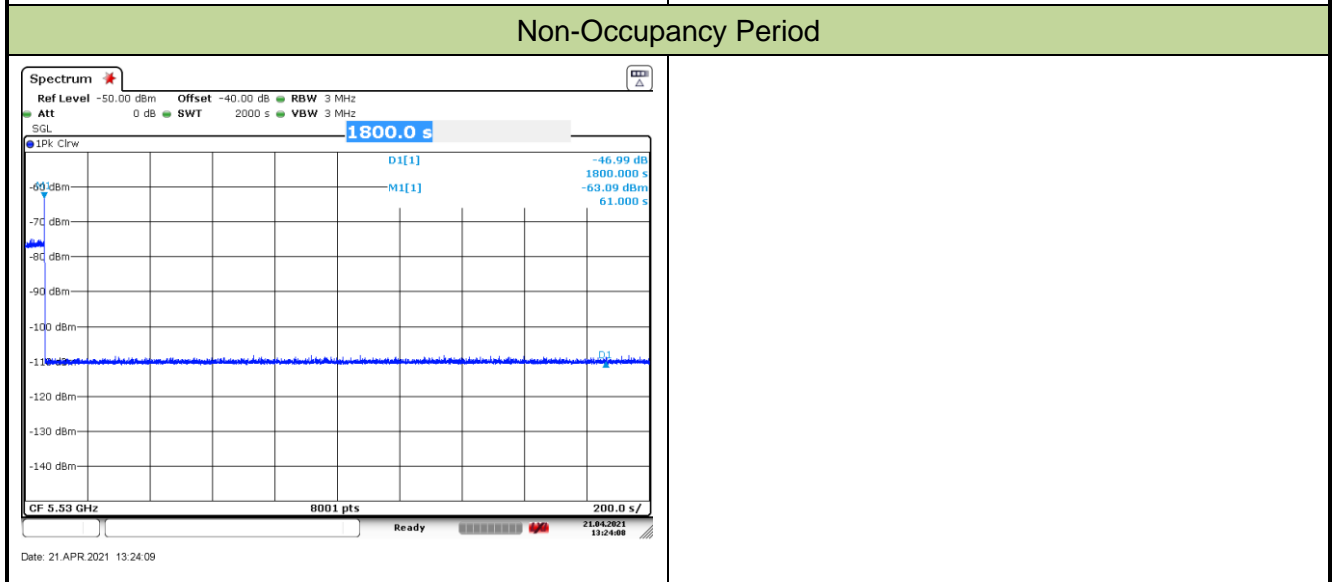
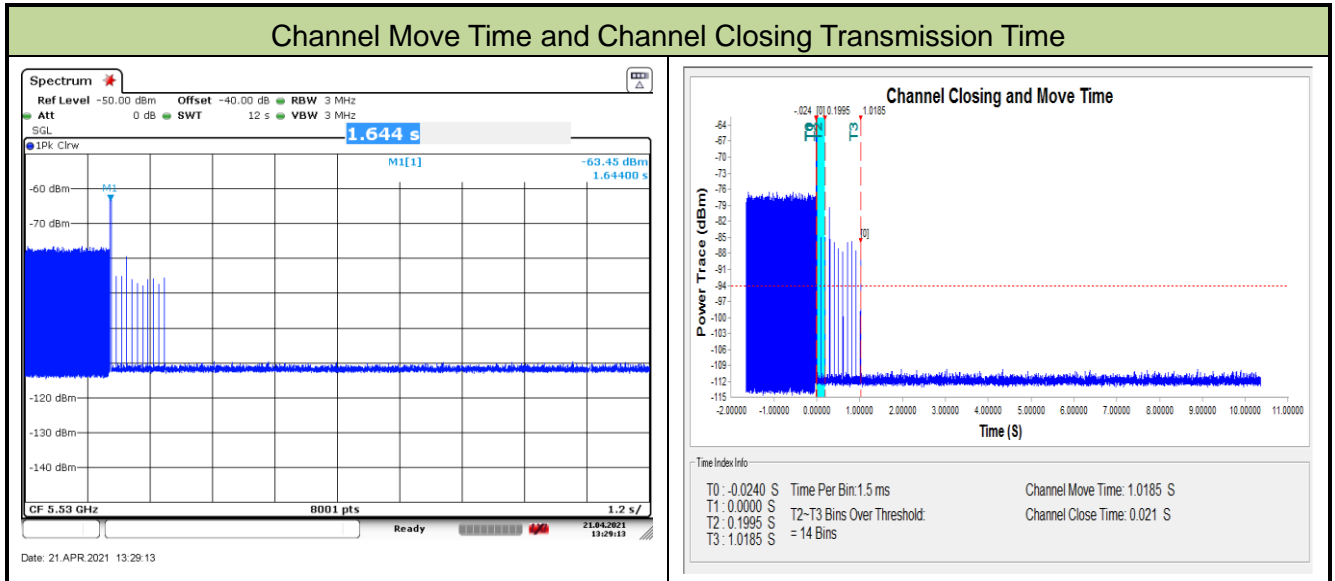
The EUT has In-Service Monitoring function to continuously monitor the radar signals. If the radar is detected, must leave the channel (Shutdown). The Channel Move Time to cease all transmissions on the current channel upon detection of a Radar Waveform above the DFS Detection Threshold within 10 sec. 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.

### **4.7.2. 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:  $Dwell (1.5ms) = S (12 \text{ sec}) / B (8000)$ ; 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:  $C = N \times Dwell$ ; 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.

### 4.7.3. Test Result

|           |   |               |            |
|-----------|---|---------------|------------|
| Product   | WiFi 6 Extender   | Test Engineer | Jake Lan   |
| Test Site | WZ-SR4  | Test Date     | 2021/04/21 |
| Test Item | Channel Move Time and Channel Closing Transmission Time<br>(802.11ax-HE80 mode - 5530MHz) |               |            |



| Parameter  | Test Result | Limit    |
|--|-------------|----------|
| Channel Move Time (s)                            | 1.019s      | <10s     |
| Channel Closing Transmission Time (ms)<br>(Note) | 21.0ms      | < 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.

## 4.8. Statistical Performance Check Measurement

### 4.8.1. 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%              |

Note: The percentage of successful detection is calculated by:

$(\text{Total Waveform Detections} / \text{Total Waveform Trails}) * 100 = \text{Probability of Detection Radar}$

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:  $(Pd1 + Pd2 + Pd3 + Pd4) / 4$ .

### 4.8.2. 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.

### 4.8.3. Test Result

|           |  |               |            |
|-----------|--|---------------|------------|
| Product   | WiFi 6 Extender  | Test Engineer | Jake Lan   |
| Test Site | WZ-SR4   | Test Date     | 2021/04/21 |
| Test Item | Radar Statistical Performance Check (802.11ax-HE20 mode - 5500MHz) |               |            |

#### Radar Type 1 - Radar Statistical Performance

| Trail # | Test Freq.<br>(MHz) | Pulse Width<br>(us) | PRI (us) | Pulses / Burst | 1=Detection<br>0=No Detection |
|---------|---------------------|---------------------|----------|----------------|-------------------------------|
| 1       | 5490.4              | 1                   | 698      | 76             | 1                             |
| 2       | 5491.2              | 1                   | 798      | 67             | 1                             |
| 3       | 5491.8              | 1                   | 558      | 95             | 1                             |
| 4       | 5509.2              | 1                   | 758      | 70             | 1                             |
| 5       | 5493.1              | 1                   | 598      | 89             | 1                             |
| 6       | 5493.8              | 1                   | 938      | 57             | 1                             |
| 7       | 5507.3              | 1                   | 3066     | 18             | 1                             |
| 8       | 5495.1              | 1                   | 898      | 59             | 1                             |
| 9       | 5495.7              | 1                   | 638      | 83             | 1                             |
| 10      | 5492.5              | 1                   | 738      | 72             | 0                             |
| 11      | 5497.0              | 1                   | 718      | 74             | 1                             |
| 12      | 5497.7              | 1                   | 578      | 92             | 1                             |
| 13      | 5500.0              | 1                   | 678      | 78             | 1                             |
| 14      | 5500.6              | 1                   | 778      | 68             | 1                             |
| 15      | 5501.2              | 1                   | 838      | 63             | 1                             |
| 16      | 5501.8              | 1                   | 1991     | 27             | 1                             |
| 17      | 5494.4              | 1                   | 2250     | 24             | 1                             |
| 18      | 5503.1              | 1                   | 1701     | 31             | 1                             |
| 19      | 5503.7              | 1                   | 1886     | 28             | 1                             |
| 20      | 5504.3              | 1                   | 2329     | 23             | 1                             |
| 21      | 5504.9              | 1                   | 1990     | 27             | 1                             |
| 22      | 5502.4              | 1                   | 1897     | 28             | 1                             |
| 23      | 5506.1              | 1                   | 2221     | 24             | 1                             |
| 24      | 5506.7              | 1                   | 1086     | 49             | 1                             |
| 25      | 5496.4              | 1                   | 1163     | 46             | 1                             |
| 26      | 5507.9              | 1                   | 2890     | 19             | 1                             |
| 27      | 5508.5              | 1                   | 1273     | 42             | 1                             |
| 28      | 5505.5              | 1                   | 656      | 81             | 1                             |
| 29      | 5499.0              | 1                   | 3058     | 18             | 1                             |

---

|                          |        |   |      |    |       |
|--------------------------|--------|---|------|----|-------|
| 30                       | 5509.6 | 1 | 2629 | 21 | 1     |
| Detection Percentage (%) |        |   |      |    | 96.7% |

## Radar Type 2 - Radar Statistical Performance

| Trail #                  | Test Freq.<br>(MHz) | Pulse Width<br>(us) | PRI (us) | Pulses / Burst | 1=Detection<br>0=No Detection |
|--------------------------|---------------------|---------------------|----------|----------------|-------------------------------|
| 1                        | 5490.4              | 3.5                 | 173      | 24             | 0                             |
| 2                        | 5491.2              | 1.7                 | 189      | 27             | 1                             |
| 3                        | 5491.8              | 2.1                 | 184      | 29             | 1                             |
| 4                        | 5509.2              | 1.5                 | 196      | 26             | 1                             |
| 5                        | 5493.1              | 3.5                 | 172      | 29             | 1                             |
| 6                        | 5493.8              | 1.7                 | 221      | 25             | 1                             |
| 7                        | 5507.3              | 3.8                 | 167      | 27             | 1                             |
| 8                        | 5495.1              | 1.2                 | 168      | 25             | 1                             |
| 9                        | 5495.7              | 2.4                 | 203      | 24             | 1                             |
| 10                       | 5492.5              | 3.9                 | 158      | 25             | 1                             |
| 11                       | 5497.0              | 1.3                 | 161      | 26             | 1                             |
| 12                       | 5497.7              | 3.3                 | 221      | 29             | 1                             |
| 13                       | 5500.0              | 3.8                 | 191      | 27             | 1                             |
| 14                       | 5500.6              | 3.2                 | 210      | 24             | 1                             |
| 15                       | 5501.2              | 2.2                 | 206      | 26             | 1                             |
| 16                       | 5501.8              | 3.8                 | 180      | 24             | 1                             |
| 17                       | 5494.4              | 5.0                 | 221      | 26             | 1                             |
| 18                       | 5503.1              | 4.9                 | 151      | 27             | 0                             |
| 19                       | 5503.7              | 3.7                 | 191      | 25             | 1                             |
| 20                       | 5504.3              | 4.5                 | 184      | 25             | 1                             |
| 21                       | 5504.9              | 2.8                 | 207      | 28             | 1                             |
| 22                       | 5502.4              | 3.1                 | 222      | 23             | 1                             |
| 23                       | 5506.1              | 3.5                 | 150      | 25             | 1                             |
| 24                       | 5506.7              | 4.3                 | 195      | 28             | 1                             |
| 25                       | 5496.4              | 1.5                 | 165      | 25             | 1                             |
| 26                       | 5507.9              | 3.4                 | 174      | 29             | 1                             |
| 27                       | 5508.5              | 3.4                 | 153      | 26             | 1                             |
| 28                       | 5505.5              | 3.4                 | 167      | 25             | 1                             |
| 29                       | 5499.0              | 4.4                 | 197      | 29             | 1                             |
| 30                       | 5509.6              | 2.2                 | 214      | 26             | 1                             |
| Detection Percentage (%) |                     |                     |          |                | 93.3%                         |

## Radar Type 3 - Radar Statistical Performance

| Trail #                  | Test Freq.<br>(MHz) | Pulse Width<br>(us) | PRI (us) | Pulses / Burst | 1=Detection<br>0=No Detection |
|--------------------------|---------------------|---------------------|----------|----------------|-------------------------------|
| 1                        | 5490.4              | 9.9                 | 435      | 18             | 0                             |
| 2                        | 5491.2              | 6.5                 | 357      | 17             | 1                             |
| 3                        | 5491.8              | 7.4                 | 385      | 17             | 1                             |
| 4                        | 5509.2              | 6.4                 | 405      | 17             | 1                             |
| 5                        | 5493.1              | 8.2                 | 309      | 17             | 1                             |
| 6                        | 5493.8              | 8.0                 | 229      | 16             | 1                             |
| 7                        | 5507.3              | 7.6                 | 441      | 17             | 1                             |
| 8                        | 5495.1              | 6.2                 | 432      | 16             | 1                             |
| 9                        | 5495.7              | 8.0                 | 442      | 17             | 1                             |
| 10                       | 5492.5              | 8.0                 | 442      | 16             | 1                             |
| 11                       | 5497.0              | 8.7                 | 401      | 16             | 1                             |
| 12                       | 5497.7              | 7.3                 | 404      | 18             | 1                             |
| 13                       | 5500.0              | 6.2                 | 428      | 18             | 1                             |
| 14                       | 5500.6              | 6.5                 | 450      | 18             | 1                             |
| 15                       | 5501.2              | 7.7                 | 317      | 17             | 1                             |
| 16                       | 5501.8              | 7.3                 | 261      | 16             | 1                             |
| 17                       | 5494.4              | 6.3                 | 362      | 17             | 1                             |
| 18                       | 5503.1              | 7.9                 | 252      | 17             | 1                             |
| 19                       | 5503.7              | 7.6                 | 220      | 17             | 0                             |
| 20                       | 5504.3              | 6.2                 | 307      | 17             | 0                             |
| 21                       | 5504.9              | 9.2                 | 494      | 17             | 1                             |
| 22                       | 5502.4              | 9.7                 | 249      | 17             | 1                             |
| 23                       | 5506.1              | 9.2                 | 346      | 16             | 0                             |
| 24                       | 5506.7              | 7.1                 | 213      | 17             | 1                             |
| 25                       | 5496.4              | 6.8                 | 369      | 16             | 1                             |
| 26                       | 5507.9              | 7.0                 | 263      | 17             | 1                             |
| 27                       | 5508.5              | 6.3                 | 365      | 17             | 0                             |
| 28                       | 5505.5              | 6.2                 | 236      | 17             | 1                             |
| 29                       | 5499.0              | 9.4                 | 250      | 17             | 1                             |
| 30                       | 5509.6              | 9.3                 | 492      | 17             | 1                             |
| Detection Percentage (%) |                     |                     |          |                | 83.3%                         |



## Radar Type 4 - Radar Statistical Performance

| Trail #                  | Test Freq.<br>(MHz) | Pulse Width<br>(us) | PRI (us) | Pulses / Burst | 1=Detection<br>0=No Detection |
|--------------------------|---------------------|---------------------|----------|----------------|-------------------------------|
| 1                        | 5490.4              | 12.3                | 246      | 14             | 1                             |
| 2                        | 5491.2              | 17.8                | 499      | 15             | 1                             |
| 3                        | 5491.8              | 14.6                | 325      | 15             | 0                             |
| 4                        | 5509.2              | 18.4                | 460      | 12             | 1                             |
| 5                        | 5493.1              | 15.2                | 438      | 14             | 0                             |
| 6                        | 5493.8              | 15.4                | 273      | 13             | 1                             |
| 7                        | 5507.3              | 17.9                | 265      | 16             | 0                             |
| 8                        | 5495.1              | 18.9                | 499      | 14             | 0                             |
| 9                        | 5495.7              | 17.4                | 309      | 14             | 1                             |
| 10                       | 5492.5              | 14.7                | 356      | 16             | 1                             |
| 11                       | 5497.0              | 16.6                | 303      | 16             | 1                             |
| 12                       | 5497.7              | 18.3                | 226      | 13             | 1                             |
| 13                       | 5500.0              | 16.2                | 478      | 14             | 1                             |
| 14                       | 5500.6              | 13.6                | 453      | 14             | 1                             |
| 15                       | 5501.2              | 14.5                | 289      | 15             | 1                             |
| 16                       | 5501.8              | 16.4                | 342      | 15             | 1                             |
| 17                       | 5494.4              | 15.5                | 274      | 15             | 1                             |
| 18                       | 5503.1              | 11.1                | 338      | 15             | 1                             |
| 19                       | 5503.7              | 16.4                | 379      | 13             | 1                             |
| 20                       | 5504.3              | 15.7                | 336      | 13             | 1                             |
| 21                       | 5504.9              | 19.7                | 409      | 14             | 1                             |
| 22                       | 5502.4              | 15.6                | 363      | 12             | 1                             |
| 23                       | 5506.1              | 17.8                | 307      | 15             | 1                             |
| 24                       | 5506.7              | 14.2                | 481      | 13             | 1                             |
| 25                       | 5496.4              | 11.9                | 316      | 12             | 1                             |
| 26                       | 5507.9              | 15.0                | 422      | 13             | 0                             |
| 27                       | 5508.5              | 12.3                | 418      | 15             | 1                             |
| 28                       | 5505.5              | 16.9                | 226      | 14             | 0                             |
| 29                       | 5499.0              | 15.0                | 201      | 12             | 0                             |
| 30                       | 5509.6              | 15.9                | 353      | 13             | 0                             |
| Detection Percentage (%) |                     |                     |          |                | 73.3%                         |

Note: In addition an average minimum percentage of successful detection across all four Short pulse radar test

waveforms is as follows:  $\frac{P_d1 + P_d2 + P_d3 + P_d4}{4} = (96.7\% + 93.3\% + 83.3\% + 73.3\%) / 4 = 86.7\% (>80\%)$

## Radar Type 5 - Radar Statistical Performance

| Trail #                  | Test Freq.<br>(MHz) | 1=Detection<br>0=No Detection | Trail # | Test Freq.<br>(MHz) | 1=Detection<br>0=No Detection |
|--------------------------|---------------------|-------------------------------|---------|---------------------|-------------------------------|
| 1                        | 5500.0              | 1                             | 16      | 5497.2              | 1                             |
| 2                        | 5500.0              | 1                             | 17      | 5494.0              | 0                             |
| 3                        | 5500.0              | 1                             | 18      | 5492.4              | 0                             |
| 4                        | 5500.0              | 1                             | 19      | 5493.2              | 1                             |
| 5                        | 5500.0              | 1                             | 20      | 5496.4              | 1                             |
| 6                        | 5500.0              | 1                             | 21      | 5507.2              | 1                             |
| 7                        | 5500.0              | 0                             | 22      | 5506.4              | 0                             |
| 8                        | 5500.0              | 1                             | 23      | 5507.2              | 1                             |
| 9                        | 5500.0              | 1                             | 24      | 5502.8              | 1                             |
| 10                       | 5500.0              | 1                             | 25      | 5503.6              | 1                             |
| 11                       | 5494.4              | 1                             | 26      | 5506.8              | 1                             |
| 12                       | 5492.4              | 1                             | 27      | 5503.6              | 1                             |
| 13                       | 5494.8              | 1                             | 28      | 5503.6              | 1                             |
| 14                       | 5498.0              | 1                             | 29      | 5502.8              | 1                             |
| 15                       | 5494.4              | 1                             | 30      | 5505.2              | 1                             |
| Detection Percentage (%) |                     |                               |         |                     | 86.7%                         |

| Type 5 Radar Waveform_1 |                  |                          |                   |                               |                               |                                       |
|-------------------------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| Burst                   | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
| 1                       | 1                | 52.3                     | 19                |                               |                               | 148.949                               |
| 2                       | 1                | 80.6                     | 19                |                               |                               | 294.32                                |
| 3                       | 3                | 70.6                     | 19                | 1926                          | 1267                          | 1112.71                               |
| 4                       | 2                | 60.8                     | 19                | 1422                          |                               | 249.85                                |
| 5                       | 1                | 90                       | 19                |                               |                               | 163.2                                 |
| 6                       | 2                | 59.6                     | 19                | 1699                          |                               | 584.84                                |
| 7                       | 2                | 75.3                     | 19                | 1892                          |                               | 1091.88                               |
| 8                       | 2                | 80.5                     | 19                | 1277                          |                               | 1005.93                               |
| 9                       | 2                | 89.4                     | 19                | 1104                          |                               | 384.7                                 |
| 10                      | 2                | 62.7                     | 19                | 1439                          |                               | 481                                   |

**Type 5 Radar Waveform\_2**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 3                | 62.4                     | 16                | 1490                          | 1055                          | 469.923                               |
| 2     | 1                | 68.1                     | 16                |                               |                               | 750.957                               |
| 3     | 1                | 93.7                     | 16                |                               |                               | 312.074                               |
| 4     | 1                | 79.1                     | 16                |                               |                               | 679.251                               |
| 5     | 1                | 81.2                     | 16                |                               |                               | 703.889                               |
| 6     | 1                | 65.6                     | 16                |                               |                               | 148.996                               |
| 7     | 2                | 52.9                     | 16                | 1080                          |                               | 272.803                               |
| 8     | 2                | 54.8                     | 16                | 1258                          |                               | 110.82                                |
| 9     | 2                | 56.7                     | 16                | 1307                          |                               | 9.697                                 |
| 10    | 1                | 50.6                     | 16                |                               |                               | 355.044                               |
| 11    | 2                | 91.1                     | 16                | 1688                          |                               | 587.021                               |
| 12    | 1                | 53                       | 16                |                               |                               | 494.619                               |
| 13    | 2                | 60.3                     | 16                | 1747                          |                               | 186.186                               |
| 14    | 2                | 78.9                     | 16                | 1796                          |                               | 629.443                               |

**Type 5 Radar Waveform\_3**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 2                | 80.9                     | 20                | 1117                          |                               | 567.61                                |
| 2     | 1                | 80.4                     | 20                |                               |                               | 332.82                                |
| 3     | 2                | 80.7                     | 20                | 1441                          |                               | 132.29                                |
| 4     | 3                | 79.4                     | 20                | 1426                          | 1240                          | 736.53                                |
| 5     | 2                | 87.6                     | 20                | 1068                          |                               | 139.62                                |
| 6     | 1                | 87.5                     | 20                |                               |                               | 323.96                                |
| 7     | 3                | 82.4                     | 20                | 1225                          | 1326                          | 587.42                                |
| 8     | 2                | 67.4                     | 20                | 1968                          |                               | 554.65                                |
| 9     | 3                | 74.7                     | 20                | 1364                          | 1654                          | 492.98                                |
| 10    | 1                | 61.4                     | 20                |                               |                               | 627.02                                |
| 11    | 3                | 91.2                     | 20                | 1973                          | 1944                          | 423.79                                |
| 12    | 2                | 83.6                     | 20                | 1705                          |                               | 670.89                                |
| 13    | 3                | 93.4                     | 20                | 1409                          | 1412                          | 395.56                                |
| 14    | 2                | 60.6                     | 20                | 1178                          |                               | 192.62                                |
| 15    | 3                | 89.8                     | 20                | 1059                          | 1588                          | 173.4                                 |
| 16    | 3                | 66.4                     | 20                | 1334                          | 1557                          | 415.7                                 |

**Type 5 Radar Waveform\_4**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 2                | 95.9                     | 5                 | 1912                          |                               | 500.475                               |
| 2     | 3                | 94.2                     | 5                 | 1607                          | 1325                          | 571.44                                |
| 3     | 2                | 61.7                     | 5                 | 1427                          |                               | 980.98                                |
| 4     | 1                | 56.5                     | 5                 |                               |                               | 226.65                                |
| 5     | 3                | 63.1                     | 5                 | 1794                          | 1298                          | 236.85                                |
| 6     | 2                | 68.4                     | 5                 | 1402                          |                               | 970.02                                |
| 7     | 3                | 65.2                     | 5                 | 1276                          | 1587                          | 923.73                                |
| 8     | 3                | 56.5                     | 5                 | 1524                          | 1317                          | 747.8                                 |
| 9     | 2                | 78.9                     | 5                 | 1090                          |                               | 965                                   |
| 10    | 2                | 96.6                     | 5                 | 1888                          |                               | 307.2                                 |

**Type 5 Radar Waveform\_5**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 2                | 82.9                     | 7                 | 1393                          |                               | 163.646                               |
| 2     | 1                | 67.8                     | 7                 |                               |                               | 264.56                                |
| 3     | 2                | 82.3                     | 7                 | 1690                          |                               | 791.5                                 |
| 4     | 2                | 52.4                     | 7                 | 1493                          |                               | 253.71                                |
| 5     | 2                | 72.4                     | 7                 | 1475                          |                               | 512.13                                |
| 6     | 2                | 86.7                     | 7                 | 1033                          |                               | 941.36                                |
| 7     | 3                | 83.3                     | 7                 | 1898                          | 1630                          | 605.02                                |
| 8     | 2                | 55.4                     | 7                 | 1977                          |                               | 645.07                                |
| 9     | 1                | 77.1                     | 7                 |                               |                               | 271.37                                |
| 10    | 2                | 76.7                     | 7                 | 1841                          |                               | 924.58                                |
| 11    | 2                | 90                       | 7                 | 1677                          |                               | 782.3                                 |
| 12    | 2                | 85                       | 7                 | 1276                          |                               | 208                                   |

**Type 5 Radar Waveform\_6**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 2                | 64.5                     | 8                 | 1480                          |                               | 257.208                               |
| 2     | 1                | 78.5                     | 8                 |                               |                               | 628.07                                |
| 3     | 1                | 68.2                     | 8                 |                               |                               | 452.86                                |
| 4     | 2                | 69.7                     | 8                 | 1155                          |                               | 21.04                                 |
| 5     | 3                | 60.2                     | 8                 | 1200                          | 1911                          | 619.59                                |
| 6     | 2                | 86.6                     | 8                 | 1656                          |                               | 175.2                                 |
| 7     | 2                | 56.2                     | 8                 | 1477                          |                               | 494.9                                 |
| 8     | 3                | 64.7                     | 8                 | 1504                          | 1038                          | 747.74                                |
| 9     | 3                | 59.3                     | 8                 | 1776                          | 1948                          | 589.79                                |
| 10    | 2                | 75.4                     | 8                 | 1525                          |                               | 209.25                                |
| 11    | 3                | 95.1                     | 8                 | 1442                          | 1220                          | 296.66                                |
| 12    | 1                | 92.2                     | 8                 |                               |                               | 481.19                                |
| 13    | 2                | 84.9                     | 8                 | 1628                          |                               | 390.09                                |
| 14    | 1                | 79.2                     | 8                 |                               |                               | 4.8                                   |
| 15    | 1                | 78.8                     | 8                 |                               |                               | 27.9                                  |

**Type 5 Radar Waveform\_7**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 1                | 96.3                     | 7                 |                               |                               | 426.799                               |
| 2     | 3                | 68.4                     | 7                 | 1633                          | 1336                          | 1122                                  |
| 3     | 1                | 66                       | 7                 |                               |                               | 10.86                                 |
| 4     | 2                | 95.7                     | 7                 | 1946                          |                               | 220.22                                |
| 5     | 2                | 73.1                     | 7                 | 1678                          |                               | 582.62                                |
| 6     | 2                | 80                       | 7                 | 1813                          |                               | 749.56                                |
| 7     | 3                | 52                       | 7                 | 1120                          | 1893                          | 333.32                                |
| 8     | 3                | 55.8                     | 7                 | 1864                          | 1700                          | 151.3                                 |

**Type 5 Radar Waveform\_8**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 Spacing ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-----------------------------------|-------------------------------|---------------------------------------|
| 1     | 3                | 78.7                     | 20                | 1003                              | 1963                          | 141.207                               |
| 2     | 2                | 52.4                     | 20                | 1370                              |                               | 782.8                                 |
| 3     | 3                | 73.6                     | 20                | 1772                              | 1337                          | 54.35                                 |
| 4     | 3                | 86.9                     | 20                | 1448                              | 1672                          | 0.56                                  |
| 5     | 2                | 64.1                     | 20                | 1614                              |                               | 0.67                                  |
| 6     | 2                | 66.4                     | 20                | 1943                              |                               | 86.77                                 |
| 7     | 3                | 50.9                     | 20                | 1091                              | 1470                          | 707.73                                |
| 8     | 2                | 72.7                     | 20                | 1641                              |                               | 400.66                                |
| 9     | 3                | 82.9                     | 20                | 1107                              | 1238                          | 76.13                                 |
| 10    | 2                | 91.4                     | 20                | 1047                              |                               | 586.43                                |
| 11    | 2                | 50.3                     | 20                | 1675                              |                               | 320.04                                |
| 12    | 3                | 97.1                     | 20                | 1898                              | 1845                          | 270.35                                |
| 13    | 2                | 62.8                     | 20                | 1359                              |                               | 355.95                                |
| 14    | 2                | 61.3                     | 20                | 1207                              |                               | 727.1                                 |
| 15    | 3                | 87.1                     | 20                | 1863                              | 1001                          | 606.8                                 |

**Type 5 Radar Waveform\_9**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 2                | 77.2                     | 9                 | 1806                          |                               | 146.402                               |
| 2     | 2                | 77.5                     | 9                 | 1526                          |                               | 211.641                               |
| 3     | 3                | 98                       | 9                 | 1509                          | 1979                          | 48.537                                |
| 4     | 3                | 93.7                     | 9                 | 1930                          | 1143                          | 169.01                                |
| 5     | 2                | 90.3                     | 9                 | 1663                          |                               | 470.163                               |
| 6     | 2                | 88                       | 9                 | 1059                          |                               | 596.207                               |
| 7     | 1                | 58.7                     | 9                 |                               |                               | 653.38                                |
| 8     | 1                | 81.2                     | 9                 |                               |                               | 456.573                               |
| 9     | 2                | 69.6                     | 9                 | 1723                          |                               | 310.367                               |
| 10    | 2                | 92.1                     | 9                 | 1577                          |                               | 204.22                                |
| 11    | 2                | 59.4                     | 9                 | 1917                          |                               | 583.443                               |
| 12    | 2                | 60                       | 9                 | 1283                          |                               | 70.477                                |
| 13    | 3                | 90.8                     | 9                 | 1507                          | 1593                          | 479.53                                |
| 14    | 1                | 98.2                     | 9                 |                               |                               | 39.073                                |
| 15    | 2                | 62.2                     | 9                 | 1796                          |                               | 246.767                               |
| 16    | 2                | 76.2                     | 9                 | 1640                          |                               | 177.9                                 |
| 17    | 2                | 88.7                     | 9                 | 1715                          |                               | 341.533                               |
| 18    | 1                | 93.3                     | 9                 |                               |                               | 243.367                               |

**Type 5 Radar Waveform\_10**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 2                | 66                       | 14                | 1785                          |                               | 187.401                               |
| 2     | 3                | 76.9                     | 14                | 1745                          | 1744                          | 38.91                                 |
| 3     | 2                | 76.7                     | 14                | 1880                          |                               | 74.25                                 |
| 4     | 2                | 70.8                     | 14                | 1824                          |                               | 858.6                                 |
| 5     | 3                | 60.7                     | 14                | 1606                          | 1401                          | 23.95                                 |
| 6     | 1                | 70.3                     | 14                |                               |                               | 98.26                                 |
| 7     | 2                | 60.7                     | 14                | 1835                          |                               | 197.47                                |
| 8     | 2                | 87.1                     | 14                | 1755                          |                               | 304.92                                |
| 9     | 2                | 95.8                     | 14                | 1551                          |                               | 68.87                                 |
| 10    | 1                | 79.1                     | 14                |                               |                               | 15.96                                 |
| 11    | 1                | 51.5                     | 14                |                               |                               | 178.5                                 |
| 12    | 3                | 86.8                     | 14                | 1867                          | 1401                          | 734.6                                 |

| Type 5 Radar Waveform_11 |                  |                          |                   |                               |                               |                                       |
|--------------------------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| Burst                    | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
| 1                        | 2                | 58.8                     | 10                | 1938                          |                               | 192.48                                |
| 2                        | 1                | 54.2                     | 10                |                               |                               | 583.303                               |
| 3                        | 2                | 80                       | 10                | 1711                          |                               | 5.307                                 |
| 4                        | 1                | 65.8                     | 10                |                               |                               | 624.48                                |
| 5                        | 2                | 85.8                     | 10                | 1834                          |                               | 657.703                               |
| 6                        | 3                | 80.2                     | 10                | 1719                          | 1487                          | 278.957                               |
| 7                        | 1                | 95.5                     | 10                |                               |                               | 31.98                                 |
| 8                        | 3                | 68.1                     | 10                | 1292                          | 1172                          | 130.153                               |
| 9                        | 2                | 96.7                     | 10                | 1315                          |                               | 128.507                               |
| 10                       | 2                | 98.5                     | 10                | 1289                          |                               | 394.25                                |
| 11                       | 2                | 54.2                     | 10                | 1265                          |                               | 82.523                                |
| 12                       | 2                | 64.4                     | 10                | 1335                          |                               | 631.327                               |
| 13                       | 2                | 98.2                     | 10                | 1558                          |                               | 297.76                                |
| 14                       | 1                | 53.3                     | 10                |                               |                               | 478.803                               |
| 15                       | 2                | 76.7                     | 10                | 1910                          |                               | 3.887                                 |
| 16                       | 2                | 71.4                     | 10                | 1205                          |                               | 380.2                                 |
| 17                       | 3                | 90.3                     | 10                | 1525                          | 1706                          | 61.933                                |
| 18                       | 3                | 58.4                     | 10                | 1704                          | 1708                          | 322.867                               |

| Type 5 Radar Waveform_12 |                  |                          |                   |                               |                               |                                       |
|--------------------------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| Burst                    | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
| 1                        | 2                | 91.9                     | 5                 | 1424                          |                               | 206.13                                |
| 2                        | 2                | 73.6                     | 5                 | 1442                          |                               | 317.38                                |
| 3                        | 2                | 62.1                     | 5                 | 1313                          |                               | 868.4                                 |
| 4                        | 1                | 55.5                     | 5                 |                               |                               | 59.8                                  |
| 5                        | 2                | 62.3                     | 5                 | 1564                          |                               | 977.73                                |
| 6                        | 3                | 87.1                     | 5                 | 1372                          | 1230                          | 712.44                                |
| 7                        | 2                | 97.2                     | 5                 | 1409                          |                               | 57.45                                 |
| 8                        | 3                | 68.8                     | 5                 | 1203                          | 1209                          | 197.72                                |
| 9                        | 3                | 56.1                     | 5                 | 1049                          | 1183                          | 180.11                                |
| 10                       | 3                | 54.3                     | 5                 | 1800                          | 1649                          | 760.02                                |
| 11                       | 1                | 97.3                     | 5                 |                               |                               | 123.5                                 |
| 12                       | 1                | 74.9                     | 5                 |                               |                               | 86.5                                  |

| Type 5 Radar Waveform_13 |                  |                          |                   |                               |                               |                                       |
|--------------------------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| Burst                    | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
| 1                        | 3                | 74                       | 11                | 1231                          | 1235                          | 567.016                               |
| 2                        | 2                | 62.6                     | 11                | 1607                          |                               | 678.14                                |
| 3                        | 3                | 60.2                     | 11                | 1234                          | 1421                          | 611.46                                |
| 4                        | 1                | 67.4                     | 11                |                               |                               | 1143.37                               |
| 5                        | 2                | 68.5                     | 11                | 1626                          |                               | 872.84                                |
| 6                        | 2                | 58.5                     | 11                | 1206                          |                               | 986.96                                |
| 7                        | 1                | 82.4                     | 11                |                               |                               | 1182.05                               |
| 8                        | 2                | 84.3                     | 11                | 1869                          |                               | 847.64                                |
| 9                        | 1                | 91.6                     | 11                |                               |                               | 713.6                                 |
| 10                       | 1                | 73.2                     | 11                |                               |                               | 206.7                                 |

**Type 5 Radar Waveform\_14**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 2                | 92.2                     | 19                | 1335                          |                               | 909.612                               |
| 2     | 3                | 59.6                     | 19                | 1731                          | 1734                          | 333.043                               |
| 3     | 2                | 64.6                     | 19                | 1745                          |                               | 359.886                               |
| 4     | 3                | 71                       | 19                | 1073                          | 1185                          | 688.569                               |
| 5     | 3                | 53.2                     | 19                | 1330                          | 1099                          | 34.622                                |
| 6     | 1                | 51.2                     | 19                |                               |                               | 66.265                                |
| 7     | 2                | 81.7                     | 19                | 1069                          |                               | 500.568                               |
| 8     | 3                | 89.3                     | 19                | 1927                          | 1703                          | 670.492                               |
| 9     | 3                | 70.9                     | 19                | 1005                          | 1999                          | 357.185                               |
| 10    | 2                | 92.8                     | 19                | 1598                          |                               | 726.808                               |
| 11    | 2                | 61                       | 19                | 1716                          |                               | 77.151                                |
| 12    | 2                | 51.3                     | 19                | 1673                          |                               | 667.954                               |
| 13    | 3                | 98.1                     | 19                | 1816                          | 1035                          | 872.477                               |

**Type 5 Radar Waveform\_15**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 2                | 64.7                     | 10                | 1435                          |                               | 615.413                               |
| 2     | 1                | 59.7                     | 10                |                               |                               | 861.663                               |
| 3     | 2                | 60.8                     | 10                | 2000                          |                               | 768.206                               |
| 4     | 2                | 72.7                     | 10                | 1810                          |                               | 807.099                               |
| 5     | 2                | 71.1                     | 10                | 1183                          |                               | 867.782                               |
| 6     | 1                | 71.6                     | 10                |                               |                               | 497.525                               |
| 7     | 2                | 74.9                     | 10                | 1631                          |                               | 208.098                               |
| 8     | 1                | 70.1                     | 10                |                               |                               | 710.212                               |
| 9     | 2                | 78.7                     | 10                | 1970                          |                               | 758.845                               |
| 10    | 2                | 65.9                     | 10                | 1342                          |                               | 176.238                               |
| 11    | 2                | 75.7                     | 10                | 1460                          |                               | 100.081                               |
| 12    | 3                | 90.9                     | 10                | 1353                          | 1845                          | 647.754                               |
| 13    | 2                | 86.8                     | 10                | 1191                          |                               | 885.177                               |

**Type 5 Radar Waveform\_16**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 1                | 76                       | 17                |                               |                               | 224.364                               |
| 2     | 3                | 94.3                     | 17                | 1030                          | 1219                          | 237.257                               |
| 3     | 1                | 56.5                     | 17                |                               |                               | 73.974                                |
| 4     | 1                | 97.1                     | 17                |                               |                               | 370.591                               |
| 5     | 1                | 74.7                     | 17                |                               |                               | 102.989                               |
| 6     | 1                | 67.3                     | 17                |                               |                               | 176.376                               |
| 7     | 2                | 55.7                     | 17                | 1949                          |                               | 449.753                               |
| 8     | 1                | 52.2                     | 17                |                               |                               | 310.94                                |
| 9     | 2                | 63.8                     | 17                | 1820                          |                               | 673.167                               |
| 10    | 1                | 95.3                     | 17                |                               |                               | 290.154                               |
| 11    | 2                | 57                       | 17                | 1430                          |                               | 166.221                               |
| 12    | 2                | 72.3                     | 17                | 1416                          |                               | 702.429                               |
| 13    | 3                | 87.6                     | 17                | 1519                          | 1413                          | 701.386                               |
| 14    | 2                | 68.6                     | 17                | 1269                          |                               | 121.643                               |

| Type 5 Radar Waveform_17 |                  |                          |                   |                               |                               |                                       |
|--------------------------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| Burst                    | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
| 1                        | 3                | 94.6                     | 9                 | 1482                          | 1865                          | 996.618                               |
| 2                        | 2                | 79.1                     | 9                 | 1234                          |                               | 1003.457                              |
| 3                        | 1                | 67.9                     | 9                 |                               |                               | 95.393                                |
| 4                        | 2                | 80.5                     | 9                 | 1572                          |                               | 271.55                                |
| 5                        | 1                | 80.4                     | 9                 |                               |                               | 281.927                               |
| 6                        | 1                | 51.3                     | 9                 |                               |                               | 885.723                               |
| 7                        | 2                | 63.7                     | 9                 | 1056                          |                               | 936.59                                |
| 8                        | 2                | 52.6                     | 9                 | 1735                          |                               | 45.297                                |
| 9                        | 2                | 68.1                     | 9                 | 1738                          |                               | 179.133                               |
| Type 5 Radar Waveform_18 |                  |                          |                   |                               |                               |                                       |
| Burst                    | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
| 1                        | 1                | 70.5                     | 5                 |                               |                               | 893.182                               |
| 2                        | 3                | 67.6                     | 5                 | 1387                          | 1304                          | 198.227                               |
| 3                        | 2                | 79.6                     | 5                 | 1972                          |                               | 965.223                               |
| 4                        | 2                | 66                       | 5                 | 1024                          |                               | 464.57                                |
| 5                        | 2                | 62.4                     | 5                 | 1199                          |                               | 478.077                               |
| 6                        | 2                | 83.3                     | 5                 | 1182                          |                               | 451.763                               |
| 7                        | 1                | 93.6                     | 5                 |                               |                               | 994.37                                |
| 8                        | 1                | 72                       | 5                 |                               |                               | 907.967                               |
| 9                        | 1                | 52.4                     | 5                 |                               |                               | 941.033                               |
| Type 5 Radar Waveform_19 |                  |                          |                   |                               |                               |                                       |
| Burst                    | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
| 1                        | 2                | 63.8                     | 7                 | 1064                          |                               | 685.051                               |
| 2                        | 3                | 60.7                     | 7                 | 1254                          | 1858                          | 468.278                               |
| 3                        | 1                | 61                       | 7                 |                               |                               | 676.835                               |
| 4                        | 2                | 92.2                     | 7                 | 1692                          |                               | 89.013                                |
| 5                        | 3                | 89.2                     | 7                 | 1296                          | 1031                          | 13.051                                |
| 6                        | 1                | 95.9                     | 7                 |                               |                               | 453.498                               |
| 7                        | 2                | 80.2                     | 7                 | 1412                          |                               | 304.266                               |
| 8                        | 3                | 52.3                     | 7                 | 1043                          | 1718                          | 248.574                               |
| 9                        | 3                | 71.2                     | 7                 | 1066                          | 1130                          | 370.611                               |
| 10                       | 2                | 57.4                     | 7                 | 1578                          |                               | 15.789                                |
| 11                       | 3                | 82.3                     | 7                 | 1072                          | 1232                          | 485.036                               |
| 12                       | 3                | 58.7                     | 7                 | 1891                          | 1780                          | 685.074                               |
| 13                       | 2                | 92.1                     | 7                 | 1693                          |                               | 336.472                               |
| 14                       | 2                | 50.9                     | 7                 | 1348                          |                               | 441.569                               |
| 15                       | 3                | 63.9                     | 7                 | 1647                          | 1239                          | 336.047                               |
| 16                       | 3                | 89.2                     | 7                 | 1981                          | 1903                          | 98.965                                |
| 17                       | 3                | 83.1                     | 7                 | 1595                          | 1171                          | 87.682                                |



**Type 5 Radar Waveform\_20**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 1                | 99.2                     | 15                |                               |                               | 1112.32                               |
| 2     | 2                | 55.6                     | 15                | 1781                          |                               | 764.49                                |
| 3     | 3                | 75.5                     | 15                | 1462                          | 1964                          | 206.84                                |
| 4     | 1                | 88                       | 15                |                               |                               | 822.23                                |
| 5     | 2                | 84.1                     | 15                | 1287                          |                               | 732.41                                |
| 6     | 3                | 54.7                     | 15                | 1074                          | 1060                          | 986.04                                |
| 7     | 3                | 79.8                     | 15                | 1788                          | 1924                          | 224.42                                |
| 8     | 3                | 51.1                     | 15                | 1827                          | 1055                          | 409                                   |
| 9     | 3                | 67.5                     | 15                | 1060                          | 1473                          | 690.8                                 |
| 10    | 2                | 60.7                     | 15                | 1872                          |                               | 297                                   |

**Type 5 Radar Waveform\_21**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 3                | 79.7                     | 6                 | 1441                          | 1520                          | 627.256                               |
| 2     | 1                | 72                       | 6                 |                               |                               | 162.077                               |
| 3     | 3                | 76.7                     | 6                 | 1030                          | 1570                          | 767.774                               |
| 4     | 2                | 91.9                     | 6                 | 1225                          |                               | 128.611                               |
| 5     | 3                | 98.6                     | 6                 | 1827                          | 1106                          | 491.549                               |
| 6     | 2                | 69                       | 6                 | 1161                          |                               | 424.376                               |
| 7     | 3                | 80.2                     | 6                 | 1130                          | 1189                          | 19.463                                |
| 8     | 1                | 51                       | 6                 |                               |                               | 61.15                                 |
| 9     | 2                | 70.4                     | 6                 | 1188                          |                               | 421.547                               |
| 10    | 2                | 91.7                     | 6                 | 1124                          |                               | 802.534                               |
| 11    | 1                | 86.9                     | 6                 |                               |                               | 222.731                               |
| 12    | 3                | 89.8                     | 6                 | 1768                          | 1030                          | 624.829                               |
| 13    | 2                | 80.5                     | 6                 | 1495                          |                               | 223.086                               |
| 14    | 2                | 98.3                     | 6                 | 1943                          |                               | 13.543                                |

**Type 5 Radar Waveform\_22**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 3                | 77.6                     | 8                 | 1626                          | 1161                          | 162.596                               |
| 2     | 2                | 94.6                     | 8                 | 1353                          |                               | 208.53                                |
| 3     | 1                | 81.8                     | 8                 |                               |                               | 133.23                                |
| 4     | 3                | 94.2                     | 8                 | 1877                          | 1422                          | 207.48                                |
| 5     | 2                | 98.5                     | 8                 | 1314                          |                               | 329.4                                 |
| 6     | 2                | 72.9                     | 8                 | 1881                          |                               | 1129.24                               |
| 7     | 2                | 52.9                     | 8                 | 1598                          |                               | 803.27                                |
| 8     | 2                | 63                       | 8                 | 1065                          |                               | 8.13                                  |
| 9     | 1                | 80.7                     | 8                 |                               |                               | 232.88                                |
| 10    | 3                | 80.4                     | 8                 | 1103                          | 1634                          | 1010.4                                |

**Type 5 Radar Waveform\_23**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 3                | 71.5                     | 6                 | 1920                          | 1825                          | 556.477                               |
| 2     | 2                | 96.8                     | 6                 | 1156                          |                               | 1158.11                               |
| 3     | 3                | 50.6                     | 6                 | 1736                          | 1222                          | 164.93                                |
| 4     | 2                | 67.8                     | 6                 | 1392                          |                               | 1105.95                               |
| 5     | 1                | 73.3                     | 6                 |                               |                               | 926.72                                |
| 6     | 1                | 86.5                     | 6                 |                               |                               | 1055.61                               |
| 7     | 3                | 63.8                     | 6                 | 1285                          | 1210                          | 730.66                                |
| 8     | 1                | 62.5                     | 6                 |                               |                               | 939.98                                |
| 9     | 2                | 63.9                     | 6                 | 1816                          |                               | 533.2                                 |
| 10    | 2                | 89.8                     | 6                 | 1047                          |                               | 508.8                                 |

**Type 5 Radar Waveform\_24**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 2                | 87.8                     | 17                | 1134                          |                               | 535.198                               |
| 2     | 3                | 99.3                     | 17                | 1528                          | 1891                          | 648.988                               |
| 3     | 2                | 61.8                     | 17                | 1394                          |                               | 368.165                               |
| 4     | 1                | 67.6                     | 17                |                               |                               | 649.723                               |
| 5     | 3                | 73                       | 17                | 1564                          | 1482                          | 563.151                               |
| 6     | 3                | 56.4                     | 17                | 1961                          | 1168                          | 349.688                               |
| 7     | 1                | 74.3                     | 17                |                               |                               | 268.376                               |
| 8     | 2                | 71.5                     | 17                | 1685                          |                               | 102.924                               |
| 9     | 1                | 62.1                     | 17                |                               |                               | 201.401                               |
| 10    | 2                | 73.4                     | 17                | 1761                          |                               | 385.989                               |
| 11    | 1                | 66.6                     | 17                |                               |                               | 220.246                               |
| 12    | 2                | 75.4                     | 17                | 1676                          |                               | 638.784                               |
| 13    | 3                | 87.8                     | 17                | 1702                          | 1942                          | 354.512                               |
| 14    | 3                | 91.7                     | 17                | 1712                          | 1424                          | 658.739                               |
| 15    | 2                | 85.7                     | 17                | 1234                          |                               | 615.747                               |
| 16    | 1                | 71.9                     | 17                |                               |                               | 348.165                               |
| 17    | 3                | 83.7                     | 17                | 1570                          | 1211                          | 292.082                               |

**Type 5 Radar Waveform\_25**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 1                | 80.5                     | 15                |                               |                               | 141.253                               |
| 2     | 1                | 64.8                     | 15                |                               |                               | 87.572                                |
| 3     | 3                | 68.9                     | 15                | 1832                          | 1192                          | 322.1                                 |
| 4     | 3                | 94.3                     | 15                | 1805                          | 1468                          | 154.5                                 |
| 5     | 1                | 71                       | 15                |                               |                               | 514.51                                |
| 6     | 2                | 72                       | 15                | 1731                          |                               | 672.12                                |
| 7     | 2                | 79.7                     | 15                | 1347                          |                               | 720.39                                |
| 8     | 2                | 72.6                     | 15                | 1964                          |                               | 196.75                                |
| 9     | 3                | 83.7                     | 15                | 1982                          | 1727                          | 439.53                                |
| 10    | 2                | 50.2                     | 15                | 1820                          |                               | 392.51                                |
| 11    | 3                | 83.9                     | 15                | 1755                          | 1293                          | 454.03                                |
| 12    | 3                | 58.4                     | 15                | 1980                          | 1728                          | 283.95                                |
| 13    | 3                | 77.7                     | 15                | 1381                          | 1273                          | 168.01                                |
| 14    | 3                | 74.1                     | 15                | 1257                          | 1978                          | 629.8                                 |
| 15    | 3                | 87.3                     | 15                | 1821                          | 1882                          | 445.7                                 |
| 16    | 1                | 91.3                     | 15                |                               |                               | 665                                   |

**Type 5 Radar Waveform\_26**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 1                | 56.7                     | 7                 |                               |                               | 345.202                               |
| 2     | 2                | 82.2                     | 7                 | 1594                          |                               | 549.073                               |
| 3     | 2                | 68.1                     | 7                 | 1957                          |                               | 693.696                               |
| 4     | 2                | 63.9                     | 7                 | 1355                          |                               | 336.809                               |
| 5     | 2                | 80                       | 7                 | 1811                          |                               | 526.452                               |
| 6     | 1                | 61.9                     | 7                 |                               |                               | 3.995                                 |
| 7     | 3                | 97.6                     | 7                 | 1375                          | 1329                          | 215.418                               |
| 8     | 2                | 94.7                     | 7                 | 1182                          |                               | 669.692                               |
| 9     | 1                | 68.7                     | 7                 |                               |                               | 536.665                               |
| 10    | 2                | 58.5                     | 7                 | 1068                          |                               | 787.528                               |
| 11    | 2                | 93.9                     | 7                 | 1333                          |                               | 509.111                               |
| 12    | 2                | 94                       | 7                 | 1747                          |                               | 868.754                               |
| 13    | 2                | 69.8                     | 7                 | 1261                          |                               | 185.277                               |

**Type 5 Radar Waveform\_27**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 2                | 72.6                     | 15                | 1256                          |                               | 594.15                                |
| 2     | 2                | 72.2                     | 15                | 1864                          |                               | 135.71                                |
| 3     | 2                | 87.7                     | 15                | 1942                          |                               | 774.71                                |
| 4     | 1                | 62.6                     | 15                |                               |                               | 1151.04                               |
| 5     | 2                | 64.2                     | 15                | 1378                          |                               | 1037.97                               |
| 6     | 2                | 90.6                     | 15                | 1243                          |                               | 623.61                                |
| 7     | 2                | 89.2                     | 15                | 1088                          |                               | 345.04                                |
| 8     | 2                | 77.2                     | 15                | 1222                          |                               | 815.59                                |
| 9     | 3                | 96                       | 15                | 1058                          | 1855                          | 662.7                                 |
| 10    | 2                | 55                       | 15                | 1306                          |                               | 1146.8                                |

**Type 5 Radar Waveform\_28**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 2                | 95                       | 15                | 1362                          |                               | 886.887                               |
| 2     | 2                | 60.6                     | 15                | 1910                          |                               | 317.887                               |
| 3     | 2                | 87.4                     | 15                | 1440                          |                               | 698.583                               |
| 4     | 3                | 56.5                     | 15                | 1683                          | 1314                          | 636.96                                |
| 5     | 2                | 91.7                     | 15                | 1344                          |                               | 780.367                               |
| 6     | 2                | 85.6                     | 15                | 1386                          |                               | 583.143                               |
| 7     | 1                | 52.4                     | 15                |                               |                               | 1202.91                               |
| 8     | 2                | 86.2                     | 15                | 1964                          |                               | 892.867                               |
| 9     | 2                | 92.8                     | 15                | 1211                          |                               | 1148.033                              |

| Type 5 Radar Waveform_29 |                  |                          |                   |                               |                               |                                       |
|--------------------------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| Burst                    | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
| 1                        | 2                | 74.7                     | 17                | 1441                          |                               | 1085.8                                |
| 2                        | 2                | 52.5                     | 17                | 1225                          |                               | 191.65                                |
| 3                        | 2                | 81.8                     | 17                | 1229                          |                               | 138.74                                |
| 4                        | 3                | 69.7                     | 17                | 1497                          | 1653                          | 1060.56                               |
| 5                        | 2                | 58.1                     | 17                | 1734                          |                               | 59.84                                 |
| 6                        | 2                | 61.7                     | 17                | 1467                          |                               | 609.56                                |
| 7                        | 2                | 85                       | 17                | 1302                          |                               | 240.8                                 |
| 8                        | 3                | 86.6                     | 17                | 1950                          | 1619                          | 452.14                                |
| 9                        | 2                | 86.3                     | 17                | 1265                          |                               | 791.1                                 |
| 10                       | 2                | 73                       | 17                | 1236                          |                               | 1019.2                                |
| Type 5 Radar Waveform_30 |                  |                          |                   |                               |                               |                                       |
| Burst                    | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
| 1                        | 1                | 98.1                     | 11                |                               |                               | 24.192                                |
| 2                        | 1                | 72.9                     | 11                |                               |                               | 460.627                               |
| 3                        | 3                | 66.4                     | 11                | 1407                          | 1341                          | 66.024                                |
| 4                        | 1                | 61.3                     | 11                |                               |                               | 725.841                               |
| 5                        | 2                | 60.2                     | 11                | 1803                          |                               | 25.409                                |
| 6                        | 3                | 64.5                     | 11                | 1887                          | 1800                          | 313.496                               |
| 7                        | 1                | 78.7                     | 11                |                               |                               | 108.113                               |
| 8                        | 2                | 82                       | 11                | 1095                          |                               | 695.13                                |
| 9                        | 3                | 81.2                     | 11                | 1925                          | 1283                          | 687.947                               |
| 10                       | 3                | 53                       | 11                | 1355                          | 1608                          | 688.714                               |
| 11                       | 2                | 80.7                     | 11                | 1965                          |                               | 337.651                               |
| 12                       | 2                | 70.5                     | 11                | 1579                          |                               | 827.629                               |
| 13                       | 1                | 91.7                     | 11                |                               |                               | 315.486                               |
| 14                       | 1                | 62.3                     | 11                |                               |                               | 669.743                               |

## Radar Type 6 - Radar Statistical Performance

| Trail #                  | 1=Detection<br>0=No Detection | Trail # | 1=Detection<br>0=No Detection |
|--------------------------|-------------------------------|---------|-------------------------------|
| 1                        | 1                             | 16      | 1                             |
| 2                        | 1                             | 17      | 1                             |
| 3                        | 1                             | 18      | 1                             |
| 4                        | 1                             | 19      | 1                             |
| 5                        | 1                             | 20      | 1                             |
| 6                        | 1                             | 21      | 0                             |
| 7                        | 1                             | 22      | 1                             |
| 8                        | 1                             | 23      | 1                             |
| 9                        | 1                             | 24      | 1                             |
| 10                       | 1                             | 25      | 1                             |
| 11                       | 1                             | 26      | 1                             |
| 12                       | 1                             | 27      | 1                             |
| 13                       | 1                             | 28      | 1                             |
| 14                       | 1                             | 29      | 1                             |
| 15                       | 1                             | 30      | 1                             |
| Detection Percentage (%) |                               |         | 96.7%                         |

| Radar waveform #1 |                 |                  | Radar waveform #2 |                 |                  |
|-------------------|-----------------|------------------|-------------------|-----------------|------------------|
| Hopping Number    | Frequency (MHz) | Pulse Start (ms) | Hopping Number    | Frequency (MHz) | Pulse Start (ms) |
| 16                | 5496            | 48               | 5                 | 5493            | 15               |
| 27                | 5506            | 81               | 91                | 5509            | 273              |
| 49                | 5507            | 147              | 96                | 5502            | 288              |
| 51                | 5494            | 153              | --                | --              | --               |
| 64                | 5509            | 192              | --                | --              | --               |
| 76                | 5490            | 228              | --                | --              | --               |

| Radar waveform #3 |                 |                  | Radar waveform #4 |                 |                  |
|-------------------|-----------------|------------------|-------------------|-----------------|------------------|
| Hopping Number    | Frequency (MHz) | Pulse Start (ms) | Hopping Number    | Frequency (MHz) | Pulse Start (ms) |
| 3                 | 5500            | 9                | 8                 | 5498            | 24               |
| 10                | 5503            | 30               | 10                | 5496            | 30               |
| 18                | 5491            | 54               | 12                | 5505            | 36               |
| 54                | 5499            | 162              | 14                | 5492            | 42               |
| 74                | 5504            | 222              | 16                | 5510            | 48               |
| 89                | 5508            | 267              | 17                | 5495            | 51               |
| 94                | 5509            | 282              | 18                | 5503            | 54               |
| --                | --              | --               | 47                | 5499            | 141              |
| --                | --              | --               | 72                | 5508            | 216              |
| --                | --              | --               | 74                | 5501            | 222              |

| Radar waveform #5 |                 |                  | Radar waveform #6 |                 |                  |
|-------------------|-----------------|------------------|-------------------|-----------------|------------------|
| Hopping Number    | Frequency (MHz) | Pulse Start (ms) | Hopping Number    | Frequency (MHz) | Pulse Start (ms) |
| 26                | 5493            | 78               | 8                 | 5506            | 24               |
| 37                | 5499            | 111              | 33                | 5503            | 99               |
| 64                | 5500            | 192              | 39                | 5495            | 117              |
| 78                | 5492            | 234              | 98                | 5500            | 294              |
| 83                | 5506            | 249              | --                | --              | --               |

| Radar waveform #7 |                 |                  | Radar waveform #8 |                 |                  |
|-------------------|-----------------|------------------|-------------------|-----------------|------------------|
| Hopping Number    | Frequency (MHz) | Pulse Start (ms) | Hopping Number    | Frequency (MHz) | Pulse Start (ms) |
| 57                | 5493            | 171              | 8                 | 5503            | 24               |
| 79                | 5499            | 237              | 37                | 5502            | 111              |
| 87                | 5501            | 261              | 74                | 5505            | 222              |
| 90                | 5496            | 270              | --                | --              | --               |

| Radar waveform #9 |                 |                  | Radar waveform #10 |                 |                  |
|-------------------|-----------------|------------------|--------------------|-----------------|------------------|
| Hopping Number    | Frequency (MHz) | Pulse Start (ms) | Hopping Number     | Frequency (MHz) | Pulse Start (ms) |
| 26                | 5504            | 78               | 51                 | 5509            | 153              |
| 54                | 5490            | 162              | 76                 | 5499            | 228              |
| --                | --              | --               | 89                 | 5493            | 267              |
| --                | --              | --               | 97                 | 5504            | 291              |

| Radar waveform #11 |                 |                  | Radar waveform #12 |                 |                  |
|--------------------|-----------------|------------------|--------------------|-----------------|------------------|
| Hopping Number     | Frequency (MHz) | Pulse Start (ms) | Hopping Number     | Frequency (MHz) | Pulse Start (ms) |
| 26                 | 5506            | 78               | 7                  | 5494            | 21               |
| 51                 | 5505            | 153              | 11                 | 5490            | 33               |
| 87                 | 5508            | 261              | 32                 | 5507            | 96               |
| --                 | --              | --               | 72                 | 5506            | 216              |
| --                 | --              | --               | 73                 | 5508            | 219              |

| Radar waveform #13 |                 |                  | Radar waveform #14 |                 |                  |
|--------------------|-----------------|------------------|--------------------|-----------------|------------------|
| Hopping Number     | Frequency (MHz) | Pulse Start (ms) | Hopping Number     | Frequency (MHz) | Pulse Start (ms) |
| 12                 | 5506            | 36               | 26                 | 5504            | 78               |
| 30                 | 5508            | 90               | 70                 | 5495            | 210              |
| 69                 | 5491            | 207              | --                 | --              | --               |
| 74                 | 5493            | 222              | --                 | --              | --               |
| 86                 | 5507            | 258              | --                 | --              | --               |
| 98                 | 5494            | 294              | --                 | --              | --               |
| 100                | 5499            | 300              | --                 | --              | --               |

| Radar waveform #15 |                 |                  | Radar waveform #16 |                 |                  |
|--------------------|-----------------|------------------|--------------------|-----------------|------------------|
| Hopping Number     | Frequency (MHz) | Pulse Start (ms) | Hopping Number     | Frequency (MHz) | Pulse Start (ms) |
| 53                 | 5505            | 159              | 15                 | 5493            | 45               |
| 73                 | 5507            | 219              | 16                 | 5504            | 48               |
| 78                 | 5495            | 234              | 20                 | 5503            | 60               |
| 79                 | 5506            | 237              | 33                 | 5494            | 99               |
| --                 | --              | --               | 75                 | 5505            | 225              |
| --                 | --              | --               | 91                 | 5492            | 273              |

| Radar waveform #17 |                 |                  | Radar waveform #18 |                 |                  |
|--------------------|-----------------|------------------|--------------------|-----------------|------------------|
| Hopping Number     | Frequency (MHz) | Pulse Start (ms) | Hopping Number     | Frequency (MHz) | Pulse Start (ms) |
| 15                 | 5490            | 45               | 4                  | 5495            | 12               |
| 42                 | 5506            | 126              | 59                 | 5505            | 177              |
| --                 | --              | --               | 60                 | 5492            | 180              |
| --                 | --              | --               | 89                 | 5510            | 267              |
| --                 | --              | --               | 95                 | 5494            | 285              |

| Radar waveform #19 |                 |                  | Radar waveform #20 |                 |                  |
|--------------------|-----------------|------------------|--------------------|-----------------|------------------|
| Hopping Number     | Frequency (MHz) | Pulse Start (ms) | Hopping Number     | Frequency (MHz) | Pulse Start (ms) |
| 10                 | 5496            | 30               | 2                  | 5490            | 6                |
| 35                 | 5509            | 105              | 31                 | 5499            | 93               |
| 63                 | 5507            | 189              | 55                 | 5492            | 165              |
| 94                 | 5504            | 282              | 71                 | 5507            | 213              |
| --                 | --              | --               | 78                 | 5502            | 234              |
| --                 | --              | --               | 80                 | 5498            | 240              |



| Radar waveform #21 |                 |                  | Radar waveform #22 |                 |                  |
|--------------------|-----------------|------------------|--------------------|-----------------|------------------|
| Hopping Number     | Frequency (MHz) | Pulse Start (ms) | Hopping Number     | Frequency (MHz) | Pulse Start (ms) |
| 2                  | 5506            | 6                | 4                  | 5502            | 48               |
| --                 | --              | --               | 10                 | 5504            | 120              |
| --                 | --              | --               | 41                 | 5510            | 492              |
| --                 | --              | --               | 44                 | 5491            | 528              |
| --                 | --              | --               | 54                 | 5506            | 648              |
| --                 | --              | --               | 64                 | 5494            | 768              |
| --                 | --              | --               | 88                 | 5493            | 1056             |
| --                 | --              | --               | 89                 | 5507            | 1068             |

| Radar waveform #23 |                 |                  | Radar waveform #24 |                 |                  |
|--------------------|-----------------|------------------|--------------------|-----------------|------------------|
| Hopping Number     | Frequency (MHz) | Pulse Start (ms) | Hopping Number     | Frequency (MHz) | Pulse Start (ms) |
| 23                 | 5507            | 69               | 10                 | 5503            | 30               |
| 25                 | 5502            | 75               | 26                 | 5504            | 78               |
| 42                 | 5494            | 126              | 46                 | 5491            | 138              |
| 74                 | 5506            | 222              | 52                 | 5496            | 156              |
| --                 | --              | --               | 59                 | 5500            | 177              |
| --                 | --              | --               | 78                 | 5505            | 234              |
| --                 | --              | --               | 84                 | 5498            | 252              |
| --                 | --              | --               | 98                 | 5495            | 294              |

| Radar waveform #25 |                 |                  | Radar waveform #26 |                 |                  |
|--------------------|-----------------|------------------|--------------------|-----------------|------------------|
| Hopping Number     | Frequency (MHz) | Pulse Start (ms) | Hopping Number     | Frequency (MHz) | Pulse Start (ms) |
| 6                  | 5504            | 18               | 2                  | 5504            | 6                |
| 27                 | 5494            | 81               | 17                 | 5499            | 51               |
| 38                 | 5491            | 114              | 18                 | 5506            | 54               |
| 48                 | 5505            | 144              | 21                 | 5502            | 63               |
| 73                 | 5501            | 219              | 37                 | 5510            | 111              |
| 96                 | 5493            | 288              | 38                 | 5494            | 114              |
| --                 | --              | --               | 67                 | 5491            | 201              |

| Radar waveform #27 |                 |                  | Radar waveform #28 |                 |                  |
|--------------------|-----------------|------------------|--------------------|-----------------|------------------|
| Hopping Number     | Frequency (MHz) | Pulse Start (ms) | Hopping Number     | Frequency (MHz) | Pulse Start (ms) |
| 27                 | 5498            | 81               | 14                 | 5493            | 42               |
| 39                 | 5502            | 117              | 41                 | 5492            | 123              |
| 47                 | 5506            | 141              | 71                 | 5510            | 213              |
| 62                 | 5499            | 186              | 75                 | 5494            | 225              |
| 85                 | 5501            | 255              | 89                 | 5499            | 267              |
| 94                 | 5510            | 282              | --                 | --              | --               |

| Radar waveform #29 |                 |                  | Radar waveform #30 |                 |                  |
|--------------------|-----------------|------------------|--------------------|-----------------|------------------|
| Hopping Number     | Frequency (MHz) | Pulse Start (ms) | Hopping Number     | Frequency (MHz) | Pulse Start (ms) |
| 9                  | 5501            | 27               | 16                 | 5492            | 48               |
| 50                 | 5506            | 150              | 58                 | 5508            | 174              |
| 55                 | 5499            | 165              | 68                 | 5495            | 204              |
| 70                 | 5510            | 210              | 71                 | 5504            | 213              |
| 81                 | 5505            | 243              | 80                 | 5507            | 240              |



|           |  |               |            |
|-----------|--|---------------|------------|
| Product   | WiFi 6 Extender  | Test Engineer | Jake Lan   |
| Test Site | WZ-SR4   | Test Date     | 2021/04/21 |
| Test Item | Radar Statistical Performance Check (802.11ax-HE40 mode - 5510MHz) |               |            |
| Test Mode | AP mode  |               |            |

Radar Type 1 - Radar Statistical Performance

| Trail # | Test Freq.<br>(MHz) | Pulse Width<br>(us) | PRI (us) | Pulses / Burst | 1=Detection<br>0=No Detection |
|---------|---------------------|---------------------|----------|----------------|-------------------------------|
| 1       | 5491.0              | 1                   | 938      | 57             | 1                             |
| 2       | 5492.3              | 1                   | 818      | 65             | 1                             |
| 3       | 5493.6              | 1                   | 758      | 70             | 1                             |
| 4       | 5494.9              | 1                   | 858      | 62             | 1                             |
| 5       | 5496.2              | 1                   | 678      | 78             | 1                             |
| 6       | 5497.6              | 1                   | 658      | 81             | 1                             |
| 7       | 5498.9              | 1                   | 578      | 92             | 1                             |
| 8       | 5500.2              | 1                   | 798      | 67             | 1                             |
| 9       | 5501.5              | 1                   | 718      | 74             | 1                             |
| 10      | 5502.8              | 1                   | 918      | 58             | 1                             |
| 11      | 5504.1              | 1                   | 898      | 59             | 1                             |
| 12      | 5505.4              | 1                   | 878      | 61             | 1                             |
| 13      | 5506.7              | 1                   | 598      | 89             | 1                             |
| 14      | 5508.0              | 1                   | 778      | 68             | 1                             |
| 15      | 5510.0              | 1                   | 738      | 72             | 1                             |
| 16      | 5511.3              | 1                   | 599      | 88             | 1                             |
| 17      | 5512.5              | 1                   | 885      | 60             | 1                             |
| 18      | 5513.8              | 1                   | 2464     | 22             | 1                             |
| 19      | 5515.0              | 1                   | 2262     | 24             | 1                             |
| 20      | 5516.3              | 1                   | 2486     | 22             | 1                             |
| 21      | 5517.6              | 1                   | 2710     | 20             | 1                             |
| 22      | 5518.8              | 1                   | 788      | 67             | 1                             |
| 23      | 5520.1              | 1                   | 2724     | 20             | 1                             |
| 24      | 5521.3              | 1                   | 2337     | 23             | 1                             |
| 25      | 5522.6              | 1                   | 2708     | 20             | 1                             |
| 26      | 5523.9              | 1                   | 2537     | 21             | 1                             |
| 27      | 5525.1              | 1                   | 1168     | 46             | 1                             |
| 28      | 5526.4              | 1                   | 982      | 54             | 1                             |
| 29      | 5527.6              | 1                   | 771      | 69             | 1                             |

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|                          |        |   |     |    |        |
|--------------------------|--------|---|-----|----|--------|
| 30                       | 5529.0 | 1 | 775 | 68 | 1      |
| Detection Percentage (%) |        |   |     |    | 100.0% |

## Radar Type 2 - Radar Statistical Performance

| Trail #                  | Test Freq.<br>(MHz) | Pulse Width<br>(us) | PRI (us) | Pulses / Burst | 1=Detection<br>0=No Detection |
|--------------------------|---------------------|---------------------|----------|----------------|-------------------------------|
| 1                        | 5491.0              | 3.7                 | 175      | 28             | 1                             |
| 2                        | 5492.3              | 2.2                 | 150      | 23             | 1                             |
| 3                        | 5493.6              | 4.2                 | 176      | 27             | 1                             |
| 4                        | 5494.9              | 3.0                 | 220      | 28             | 1                             |
| 5                        | 5496.2              | 1.3                 | 210      | 26             | 1                             |
| 6                        | 5497.6              | 1.9                 | 194      | 26             | 1                             |
| 7                        | 5498.9              | 1.2                 | 156      | 27             | 1                             |
| 8                        | 5500.2              | 4.2                 | 217      | 27             | 1                             |
| 9                        | 5501.5              | 3.0                 | 193      | 28             | 1                             |
| 10                       | 5502.8              | 1.5                 | 220      | 28             | 1                             |
| 11                       | 5504.1              | 2.7                 | 184      | 24             | 0                             |
| 12                       | 5505.4              | 1.9                 | 184      | 28             | 0                             |
| 13                       | 5506.7              | 4.8                 | 158      | 24             | 1                             |
| 14                       | 5508.0              | 2.2                 | 228      | 28             | 1                             |
| 15                       | 5510.0              | 3.9                 | 177      | 27             | 1                             |
| 16                       | 5511.3              | 3.5                 | 204      | 27             | 1                             |
| 17                       | 5512.5              | 3.5                 | 219      | 25             | 1                             |
| 18                       | 5513.8              | 4.0                 | 184      | 25             | 0                             |
| 19                       | 5515.0              | 2.9                 | 202      | 25             | 1                             |
| 20                       | 5516.3              | 2.2                 | 192      | 24             | 1                             |
| 21                       | 5517.6              | 3.9                 | 192      | 26             | 1                             |
| 22                       | 5518.8              | 4.0                 | 203      | 23             | 1                             |
| 23                       | 5520.1              | 4.5                 | 170      | 28             | 1                             |
| 24                       | 5521.3              | 3.9                 | 211      | 23             | 1                             |
| 25                       | 5522.6              | 4.6                 | 165      | 26             | 1                             |
| 26                       | 5523.9              | 3.6                 | 172      | 28             | 1                             |
| 27                       | 5525.1              | 4.2                 | 163      | 24             | 1                             |
| 28                       | 5526.4              | 4.5                 | 172      | 28             | 1                             |
| 29                       | 5527.6              | 3.8                 | 180      | 26             | 0                             |
| 30                       | 5529.0              | 4.5                 | 215      | 24             | 1                             |
| Detection Percentage (%) |                     |                     |          |                | 86.7%                         |

## Radar Type 3 - Radar Statistical Performance

| Trail #                  | Test Freq.<br>(MHz) | Pulse Width<br>(us) | PRI (us) | Pulses / Burst | 1=Detection<br>0=No Detection |
|--------------------------|---------------------|---------------------|----------|----------------|-------------------------------|
| 1                        | 5491.0              | 8.2                 | 258      | 16             | 1                             |
| 2                        | 5492.3              | 10.0                | 325      | 17             | 1                             |
| 3                        | 5493.6              | 8.1                 | 320      | 18             | 1                             |
| 4                        | 5494.9              | 9.3                 | 354      | 16             | 1                             |
| 5                        | 5496.2              | 10.0                | 207      | 16             | 0                             |
| 6                        | 5497.6              | 6.2                 | 412      | 17             | 0                             |
| 7                        | 5498.9              | 9.2                 | 310      | 16             | 1                             |
| 8                        | 5500.2              | 9.2                 | 259      | 17             | 1                             |
| 9                        | 5501.5              | 8.3                 | 366      | 17             | 1                             |
| 10                       | 5502.8              | 7.8                 | 214      | 17             | 1                             |
| 11                       | 5504.1              | 10.0                | 327      | 17             | 0                             |
| 12                       | 5505.4              | 8.2                 | 294      | 17             | 1                             |
| 13                       | 5506.7              | 9.4                 | 446      | 18             | 1                             |
| 14                       | 5508.0              | 9.1                 | 369      | 18             | 1                             |
| 15                       | 5510.0              | 6.4                 | 282      | 18             | 0                             |
| 16                       | 5511.3              | 7.8                 | 249      | 17             | 1                             |
| 17                       | 5512.5              | 7.7                 | 233      | 18             | 1                             |
| 18                       | 5513.8              | 6.3                 | 476      | 16             | 1                             |
| 19                       | 5515.0              | 6.6                 | 367      | 17             | 0                             |
| 20                       | 5516.3              | 7.9                 | 270      | 16             | 1                             |
| 21                       | 5517.6              | 6.0                 | 316      | 17             | 1                             |
| 22                       | 5518.8              | 6.2                 | 280      | 16             | 1                             |
| 23                       | 5520.1              | 6.2                 | 451      | 17             | 1                             |
| 24                       | 5521.3              | 8.5                 | 457      | 17             | 1                             |
| 25                       | 5522.6              | 7.9                 | 483      | 17             | 1                             |
| 26                       | 5523.9              | 8.1                 | 238      | 16             | 1                             |
| 27                       | 5525.1              | 7.5                 | 238      | 16             | 1                             |
| 28                       | 5526.4              | 9.1                 | 200      | 17             | 1                             |
| 29                       | 5527.6              | 9.6                 | 393      | 16             | 1                             |
| 30                       | 5529.0              | 6.6                 | 227      | 17             | 1                             |
| Detection Percentage (%) |                     |                     |          |                | 83.3%                         |

## Radar Type 4 - Radar Statistical Performance

| Trail #                  | Test Freq.<br>(MHz) | Pulse Width<br>(us) | PRI (us) | Pulses / Burst | 1=Detection<br>0=No Detection |
|--------------------------|---------------------|---------------------|----------|----------------|-------------------------------|
| 1                        | 5491.0              | 16.8                | 363      | 14             | 1                             |
| 2                        | 5492.3              | 16.4                | 439      | 14             | 1                             |
| 3                        | 5493.6              | 16.9                | 377      | 13             | 1                             |
| 4                        | 5494.9              | 17.0                | 493      | 13             | 1                             |
| 5                        | 5496.2              | 11.8                | 300      | 14             | 0                             |
| 6                        | 5497.6              | 15.1                | 380      | 15             | 1                             |
| 7                        | 5498.9              | 14.3                | 307      | 13             | 1                             |
| 8                        | 5500.2              | 16.2                | 217      | 12             | 1                             |
| 9                        | 5501.5              | 19.9                | 296      | 15             | 1                             |
| 10                       | 5502.8              | 11.2                | 271      | 13             | 1                             |
| 11                       | 5504.1              | 13.9                | 364      | 14             | 1                             |
| 12                       | 5505.4              | 17.3                | 318      | 16             | 0                             |
| 13                       | 5506.7              | 13.8                | 398      | 12             | 1                             |
| 14                       | 5508.0              | 13.7                | 267      | 15             | 1                             |
| 15                       | 5510.0              | 12.3                | 223      | 14             | 1                             |
| 16                       | 5511.3              | 17.3                | 423      | 15             | 1                             |
| 17                       | 5512.5              | 19.4                | 261      | 13             | 1                             |
| 18                       | 5513.8              | 12.1                | 316      | 13             | 1                             |
| 19                       | 5515.0              | 15.8                | 379      | 13             | 1                             |
| 20                       | 5516.3              | 11.2                | 240      | 13             | 1                             |
| 21                       | 5517.6              | 16.6                | 320      | 14             | 0                             |
| 22                       | 5518.8              | 19.6                | 390      | 14             | 0                             |
| 23                       | 5520.1              | 12.1                | 284      | 14             | 1                             |
| 24                       | 5521.3              | 19.0                | 496      | 12             | 1                             |
| 25                       | 5522.6              | 14.8                | 473      | 14             | 1                             |
| 26                       | 5523.9              | 12.9                | 423      | 14             | 1                             |
| 27                       | 5525.1              | 19.9                | 444      | 14             | 1                             |
| 28                       | 5526.4              | 15.5                | 352      | 14             | 0                             |
| 29                       | 5527.6              | 15.3                | 425      | 15             | 1                             |
| 30                       | 5529.0              | 15.9                | 250      | 12             | 0                             |
| Detection Percentage (%) |                     |                     |          |                | 80%                           |

Note: In addition an average minimum percentage of successful detection across all four Short pulse radar test

waveforms is as follows: 
$$\frac{P_d1+P_d2+P_d3+P_d4}{4} = (100.0\%+86.7\%+83.3\%+80.0\%)/4 =87.5\% (>80\%)$$

## Radar Type 5 - Radar Statistical Performance

| Trail #                  | Test Freq.<br>(MHz) | 1=Detection<br>0=No Detection | Trail # | Test Freq.<br>(MHz) | 1=Detection<br>0=No Detection |
|--------------------------|---------------------|-------------------------------|---------|---------------------|-------------------------------|
| 1                        | 5510.0              | 1                             | 16      | 5496.6              | 1                             |
| 2                        | 5510.0              | 1                             | 17      | 5493.0              | 1                             |
| 3                        | 5510.0              | 1                             | 18      | 5493.8              | 1                             |
| 4                        | 5510.0              | 1                             | 19      | 5495.4              | 0                             |
| 5                        | 5510.0              | 1                             | 20      | 5493.0              | 1                             |
| 6                        | 5510.0              | 1                             | 21      | 5527.0              | 0                             |
| 7                        | 5510.0              | 1                             | 22      | 5525.8              | 1                             |
| 8                        | 5510.0              | 1                             | 23      | 5521.4              | 1                             |
| 9                        | 5510.0              | 1                             | 24      | 5524.2              | 1                             |
| 10                       | 5510.0              | 1                             | 25      | 5522.2              | 1                             |
| 11                       | 5493.0              | 1                             | 26      | 5527.0              | 1                             |
| 12                       | 5493.8              | 1                             | 27      | 5522.6              | 1                             |
| 13                       | 5497.8              | 1                             | 28      | 5527.0              | 1                             |
| 14                       | 5493.4              | 1                             | 29      | 5526.2              | 1                             |
| 15                       | 5497.0              | 1                             | 30      | 5522.6              | 1                             |
| Detection Percentage (%) |                     |                               |         |                     | 93.3%                         |

| Type 5 Radar Waveform_1 |                  |                          |                   |                               |                               |                                       |
|-------------------------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| Burst                   | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
| 1                       | 2                | 96.3                     | 16                | 1877                          |                               | 895.542                               |
| 2                       | 2                | 89.5                     | 16                | 1437                          |                               | 638.27                                |
| 3                       | 1                | 80                       | 16                |                               |                               | 101.71                                |
| 4                       | 1                | 66.6                     | 16                |                               |                               | 111.66                                |
| 5                       | 3                | 61.5                     | 16                | 1925                          | 1388                          | 182.73                                |
| 6                       | 1                | 78.6                     | 16                |                               |                               | 583.71                                |
| 7                       | 2                | 77.5                     | 16                | 1380                          |                               | 315.62                                |
| 8                       | 3                | 97.2                     | 16                | 1027                          | 1021                          | 90.67                                 |
| 9                       | 2                | 78.3                     | 16                | 1413                          |                               | 43.98                                 |
| 10                      | 1                | 69.5                     | 16                |                               |                               | 792.36                                |
| 11                      | 2                | 55.6                     | 16                | 1834                          |                               | 931.8                                 |
| 12                      | 2                | 58                       | 16                | 1592                          |                               | 104                                   |



**Type 5 Radar Waveform\_2**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 3                | 75.9                     | 14                | 1181                          | 1174                          | 1059.4                                |
| 2     | 1                | 93.8                     | 14                |                               |                               | 422.511                               |
| 3     | 2                | 85                       | 14                | 1780                          |                               | 60.322                                |
| 4     | 2                | 78.7                     | 14                | 1091                          |                               | 370.423                               |
| 5     | 1                | 89                       | 14                |                               |                               | 987.854                               |
| 6     | 2                | 79.8                     | 14                | 1544                          |                               | 373.415                               |
| 7     | 1                | 71.3                     | 14                |                               |                               | 49.765                                |
| 8     | 1                | 71.8                     | 14                |                               |                               | 207.516                               |
| 9     | 1                | 50.1                     | 14                |                               |                               | 124.947                               |
| 10    | 1                | 98.6                     | 14                |                               |                               | 488.818                               |
| 11    | 3                | 97.1                     | 14                | 1452                          | 1715                          | 643.309                               |

**Type 5 Radar Waveform\_3**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 2                | 73.2                     | 7                 | 1147                          |                               | 427.112                               |
| 2     | 2                | 59                       | 7                 | 1159                          |                               | 117.81                                |
| 3     | 2                | 57.6                     | 7                 | 1717                          |                               | 292.72                                |
| 4     | 2                | 80.3                     | 7                 | 1594                          |                               | 816.79                                |
| 5     | 3                | 86.3                     | 7                 | 1884                          | 1520                          | 268.93                                |
| 6     | 3                | 80.1                     | 7                 | 1107                          | 1828                          | 1131                                  |
| 7     | 2                | 52.3                     | 7                 | 1218                          |                               | 741.2                                 |
| 8     | 2                | 75                       | 7                 | 1986                          |                               | 565.13                                |
| 9     | 3                | 78.1                     | 7                 | 1011                          | 1408                          | 276.69                                |
| 10    | 2                | 88.8                     | 7                 | 1629                          |                               | 700.5                                 |

**Type 5 Radar Waveform\_4**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 2                | 91.9                     | 8                 | 1618                          |                               | 260.57                                |
| 2     | 3                | 80.5                     | 8                 | 1025                          | 1211                          | 520.281                               |
| 3     | 2                | 79.5                     | 8                 | 1621                          |                               | 197.842                               |
| 4     | 2                | 73.4                     | 8                 | 1496                          |                               | 610.533                               |
| 5     | 1                | 92.8                     | 8                 |                               |                               | 543.304                               |
| 6     | 2                | 77.7                     | 8                 | 1169                          |                               | 505.155                               |
| 7     | 1                | 91.7                     | 8                 |                               |                               | 268.936                               |
| 8     | 2                | 50.8                     | 8                 | 1408                          |                               | 267.397                               |
| 9     | 3                | 95.7                     | 8                 | 1032                          | 1157                          | 481.048                               |
| 10    | 2                | 55.8                     | 8                 | 1281                          |                               | 477.099                               |
| 11    | 2                | 82.8                     | 8                 | 1736                          |                               | 46.311                                |
| 12    | 1                | 79.4                     | 8                 |                               |                               | 427.052                               |
| 13    | 1                | 66                       | 8                 |                               |                               | 472.473                               |
| 14    | 2                | 86.7                     | 8                 | 1574                          |                               | 623.764                               |
| 15    | 2                | 63.9                     | 8                 | 1972                          |                               | 427.345                               |
| 16    | 1                | 62                       | 8                 |                               |                               | 234.446                               |
| 17    | 2                | 78.5                     | 8                 | 1417                          |                               | 270.137                               |
| 18    | 1                | 92.5                     | 8                 |                               |                               | 90.358                                |
| 19    | 3                | 71.3                     | 8                 | 1334                          | 1751                          | 408.679                               |

**Type 5 Radar Waveform\_5**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 1                | 95.5                     | 10                |                               |                               | 502.216                               |
| 2     | 1                | 70.8                     | 10                |                               |                               | 275.79                                |
| 3     | 3                | 90.5                     | 10                | 1130                          | 1756                          | 617.02                                |
| 4     | 2                | 97.5                     | 10                | 1393                          |                               | 226.08                                |
| 5     | 2                | 97.8                     | 10                | 1806                          |                               | 174.99                                |
| 6     | 1                | 86.4                     | 10                |                               |                               | 380.79                                |
| 7     | 1                | 84.1                     | 10                |                               |                               | 700.86                                |
| 8     | 2                | 57                       | 10                | 1684                          |                               | 565.56                                |
| 9     | 2                | 63                       | 10                | 1446                          |                               | 723.49                                |
| 10    | 2                | 95.5                     | 10                | 1088                          |                               | 699.66                                |
| 11    | 1                | 64.7                     | 10                |                               |                               | 396.14                                |
| 12    | 2                | 52.2                     | 10                | 1333                          |                               | 223.59                                |
| 13    | 1                | 85.2                     | 10                |                               |                               | 186.16                                |
| 14    | 3                | 60.9                     | 10                | 1515                          | 1496                          | 72.16                                 |
| 15    | 1                | 96.1                     | 10                |                               |                               | 586.1                                 |
| 16    | 2                | 63.6                     | 10                | 1215                          |                               | 704.2                                 |

**Type 5 Radar Waveform\_6**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 2                | 60.5                     | 19                | 1529                          |                               | 1016.71                               |
| 2     | 2                | 83.1                     | 19                | 1564                          |                               | 1274.74                               |
| 3     | 3                | 91.4                     | 19                | 1155                          | 1665                          | 669.09                                |
| 4     | 2                | 89.6                     | 19                | 1943                          |                               | 1106.26                               |
| 5     | 2                | 98.7                     | 19                | 1845                          |                               | 270.63                                |
| 6     | 2                | 91                       | 19                | 1067                          |                               | 682.2                                 |
| 7     | 2                | 52                       | 19                | 1511                          |                               | 1427                                  |
| 8     | 3                | 80.8                     | 19                | 1128                          | 1267                          | 838.2                                 |

**Type 5 Radar Waveform\_7**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 2                | 93.6                     | 9                 | 1410                          |                               | 527.008                               |
| 2     | 2                | 54.3                     | 9                 | 1145                          |                               | 281.073                               |
| 3     | 2                | 77.4                     | 9                 | 1433                          |                               | 448.286                               |
| 4     | 2                | 95.5                     | 9                 | 1419                          |                               | 804.299                               |
| 5     | 2                | 97.8                     | 9                 | 1541                          |                               | 653.272                               |
| 6     | 3                | 57.2                     | 9                 | 1287                          | 1356                          | 742.135                               |
| 7     | 2                | 92.8                     | 9                 | 1215                          |                               | 562.878                               |
| 8     | 2                | 93.5                     | 9                 | 1016                          |                               | 306.842                               |
| 9     | 2                | 85.6                     | 9                 | 1545                          |                               | 138.835                               |
| 10    | 2                | 63.7                     | 9                 | 1750                          |                               | 285.358                               |
| 11    | 3                | 50.3                     | 9                 | 1247                          | 1678                          | 90.961                                |
| 12    | 2                | 90.3                     | 9                 | 1640                          |                               | 793.954                               |
| 13    | 1                | 50.9                     | 9                 |                               |                               | 71.977                                |

**Type 5 Radar Waveform\_8**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 Spacing ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-----------------------------------|-------------------------------|---------------------------------------|
| 1     | 1                | 51.4                     | 12                |                                   |                               | 1260.32                               |
| 2     | 2                | 94.8                     | 12                | 1877                              |                               | 1202.337                              |
| 3     | 2                | 76.4                     | 12                | 1321                              |                               | 378.403                               |
| 4     | 3                | 68.6                     | 12                | 1456                              | 1595                          | 382.06                                |
| 5     | 1                | 83.4                     | 12                |                                   |                               | 1251.157                              |
| 6     | 2                | 83.2                     | 12                | 1705                              |                               | 55.283                                |
| 7     | 1                | 80.5                     | 12                |                                   |                               | 249.19                                |
| 8     | 2                | 90.7                     | 12                | 1715                              |                               | 453.857                               |
| 9     | 2                | 53.9                     | 12                | 1626                              |                               | 859.633                               |

**Type 5 Radar Waveform\_9**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 2                | 71.5                     | 13                | 1642                          |                               | 647.884                               |
| 2     | 2                | 91.9                     | 13                | 1961                          |                               | 549.657                               |
| 3     | 2                | 92.1                     | 13                | 1550                          |                               | 96.793                                |
| 4     | 1                | 68.6                     | 13                |                               |                               | 135.19                                |
| 5     | 3                | 90                       | 13                | 1913                          | 1242                          | 810.637                               |
| 6     | 3                | 65.7                     | 13                | 1715                          | 1723                          | 428.213                               |
| 7     | 2                | 72.5                     | 13                | 1350                          |                               | 241.75                                |
| 8     | 2                | 79.1                     | 13                | 1661                          |                               | 815.667                               |
| 9     | 2                | 79.7                     | 13                | 1897                          |                               | 1213.033                              |

**Type 5 Radar Waveform\_10**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 1                | 95.2                     | 5                 |                               |                               | 70.717                                |
| 2     | 2                | 70.6                     | 5                 | 1077                          |                               | 67.547                                |
| 3     | 2                | 51.5                     | 5                 | 1828                          |                               | 542.432                               |
| 4     | 1                | 51                       | 5                 |                               |                               | 484.713                               |
| 5     | 2                | 57.8                     | 5                 | 1499                          |                               | 511.784                               |
| 6     | 1                | 81.8                     | 5                 |                               |                               | 488.605                               |
| 7     | 3                | 82.6                     | 5                 | 1723                          | 1364                          | 321.316                               |
| 8     | 2                | 52.8                     | 5                 | 1752                          |                               | 210.137                               |
| 9     | 1                | 80.4                     | 5                 |                               |                               | 360.728                               |
| 10    | 2                | 54.3                     | 5                 | 1877                          |                               | 281.779                               |
| 11    | 2                | 74.5                     | 5                 | 1837                          |                               | 186.091                               |
| 12    | 1                | 88.2                     | 5                 |                               |                               | 506.672                               |
| 13    | 2                | 98.1                     | 5                 | 1518                          |                               | 370.853                               |
| 14    | 2                | 70.4                     | 5                 | 1060                          |                               | 95.084                                |
| 15    | 2                | 97                       | 5                 | 1778                          |                               | 413.455                               |
| 16    | 3                | 88.1                     | 5                 | 1275                          | 1799                          | 622.316                               |
| 17    | 3                | 73.5                     | 5                 | 1773                          | 1724                          | 579.937                               |
| 18    | 1                | 62.3                     | 5                 |                               |                               | 186.358                               |
| 19    | 3                | 81.1                     | 5                 | 1206                          | 1745                          | 190.979                               |

**Type 5 Radar Waveform\_11**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 2                | 54                       | 5                 | 1107                          |                               | 238.695                               |
| 2     | 3                | 57.9                     | 5                 | 1546                          | 1638                          | 1152.44                               |
| 3     | 2                | 96                       | 5                 | 1405                          |                               | 925.73                                |
| 4     | 2                | 61.1                     | 5                 | 1141                          |                               | 1053.12                               |
| 5     | 2                | 87.6                     | 5                 | 1417                          |                               | 980.91                                |
| 6     | 2                | 90.8                     | 5                 | 1012                          |                               | 635.02                                |
| 7     | 2                | 80.3                     | 5                 | 1078                          |                               | 1161.04                               |
| 8     | 3                | 50                       | 5                 | 1254                          | 1525                          | 577.95                                |
| 9     | 2                | 60.2                     | 5                 | 1934                          |                               | 611.4                                 |
| 10    | 2                | 80.9                     | 5                 | 1967                          |                               | 897.5                                 |

**Type 5 Radar Waveform\_12**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 2                | 50.4                     | 7                 | 1156                          |                               | 70.987                                |
| 2     | 1                | 83.7                     | 7                 |                               |                               | 980.31                                |
| 3     | 2                | 63                       | 7                 | 1949                          |                               | 131.42                                |
| 4     | 1                | 80.6                     | 7                 |                               |                               | 39.53                                 |
| 5     | 2                | 67.6                     | 7                 | 1078                          |                               | 928.77                                |
| 6     | 1                | 64.6                     | 7                 |                               |                               | 328.56                                |
| 7     | 2                | 68.5                     | 7                 | 1010                          |                               | 754.73                                |
| 8     | 2                | 91.9                     | 7                 | 1966                          |                               | 825.45                                |
| 9     | 2                | 85.2                     | 7                 | 1904                          |                               | 803.66                                |
| 10    | 2                | 53.7                     | 7                 | 1748                          |                               | 643.69                                |
| 11    | 2                | 85.8                     | 7                 | 1770                          |                               | 423.4                                 |
| 12    | 2                | 59.3                     | 7                 | 1080                          |                               | 897                                   |

**Type 5 Radar Waveform\_13**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 3                | 58.4                     | 17                | 1751                          | 1497                          | 222.172                               |
| 2     | 2                | 76.6                     | 17                | 1018                          |                               | 358.07                                |
| 3     | 2                | 68.3                     | 17                | 1028                          |                               | 440.91                                |
| 4     | 3                | 82.2                     | 17                | 1749                          | 1040                          | 470.39                                |
| 5     | 1                | 99.1                     | 17                |                               |                               | 271.06                                |
| 6     | 1                | 68.6                     | 17                |                               |                               | 474.75                                |
| 7     | 2                | 81.8                     | 17                | 1718                          |                               | 442.27                                |
| 8     | 2                | 75.5                     | 17                | 1078                          |                               | 593.81                                |
| 9     | 1                | 91.7                     | 17                |                               |                               | 782.88                                |
| 10    | 1                | 75.4                     | 17                |                               |                               | 603.05                                |
| 11    | 1                | 93.3                     | 17                |                               |                               | 146.87                                |
| 12    | 2                | 100                      | 17                | 1804                          |                               | 656.72                                |
| 13    | 2                | 66.3                     | 17                | 1726                          |                               | 464.6                                 |
| 14    | 2                | 57.7                     | 17                | 1340                          |                               | 563.8                                 |
| 15    | 2                | 55.4                     | 17                | 1882                          |                               | 500.2                                 |



| Type 5 Radar Waveform_14 |                  |                     |                   |                         |                         |                                       |
|--------------------------|------------------|---------------------|-------------------|-------------------------|-------------------------|---------------------------------------|
| Burst                    | Number of Pulses | Pulse Width (μ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (μsec) | Pulse 2-to-3 PRI (μsec) | Start Location Within Interval (msec) |
| 1                        | 3                | 97.2                | 6                 | 1295                    | 1370                    | 336.886                               |
| 2                        | 2                | 52.8                | 6                 | 1555                    |                         | 459.063                               |
| 3                        | 3                | 59.7                | 6                 | 1670                    | 1244                    | 171.147                               |
| 4                        | 2                | 66.7                | 6                 | 1490                    |                         | 495.17                                |
| 5                        | 2                | 87.6                | 6                 | 1516                    |                         | 460.923                               |
| 6                        | 1                | 52.3                | 6                 |                         |                         | 307.907                               |
| 7                        | 2                | 71.2                | 6                 | 1147                    |                         | 99.78                                 |
| 8                        | 2                | 83.7                | 6                 | 1601                    |                         | 652.963                               |
| 9                        | 2                | 55.9                | 6                 | 1641                    |                         | 108.757                               |
| 10                       | 1                | 51.4                | 6                 |                         |                         | 514.12                                |
| 11                       | 2                | 65.4                | 6                 | 1508                    |                         | 172.233                               |
| 12                       | 2                | 82.3                | 6                 | 1917                    |                         | 313.147                               |
| 13                       | 3                | 54.3                | 6                 | 1764                    | 1041                    | 379.54                                |
| 14                       | 1                | 83.7                | 6                 |                         |                         | 127.903                               |
| 15                       | 2                | 80.8                | 6                 | 1771                    |                         | 268.417                               |
| 16                       | 3                | 54.2                | 6                 | 1697                    | 1068                    | 134.3                                 |
| 17                       | 2                | 82.3                | 6                 | 1164                    |                         | 637.133                               |
| 18                       | 2                | 53.4                | 6                 | 1333                    |                         | 196.767                               |

| Type 5 Radar Waveform_15 |                  |                     |                   |                         |                         |                                       |
|--------------------------|------------------|---------------------|-------------------|-------------------------|-------------------------|---------------------------------------|
| Burst                    | Number of Pulses | Pulse Width (μ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (μsec) | Pulse 2-to-3 PRI (μsec) | Start Location Within Interval (msec) |
| 1                        | 2                | 82.5                | 15                | 1032                    |                         | 11.327                                |
| 2                        | 1                | 97.3                | 15                |                         |                         | 176.769                               |
| 3                        | 1                | 60.2                | 15                |                         |                         | 413.09                                |
| 4                        | 1                | 53.3                | 15                |                         |                         | 0.3                                   |
| 5                        | 2                | 78.9                | 15                | 1196                    |                         | 517.85                                |
| 6                        | 2                | 77.4                | 15                | 1301                    |                         | 650.66                                |
| 7                        | 1                | 59.7                | 15                |                         |                         | 392.92                                |
| 8                        | 2                | 53.6                | 15                | 1803                    |                         | 558.49                                |
| 9                        | 2                | 79.6                | 15                | 1250                    |                         | 127.29                                |
| 10                       | 3                | 66.6                | 15                | 1410                    | 1420                    | 89                                    |
| 11                       | 2                | 83.8                | 15                | 1689                    |                         | 91.38                                 |
| 12                       | 2                | 98                  | 15                | 1595                    |                         | 548.17                                |
| 13                       | 2                | 98.2                | 15                | 1367                    |                         | 569.68                                |
| 14                       | 2                | 82.4                | 15                | 1315                    |                         | 228.95                                |
| 15                       | 2                | 95.8                | 15                | 1418                    |                         | 191                                   |
| 16                       | 2                | 74.4                | 15                | 1818                    |                         | 508                                   |

| Type 5 Radar Waveform_16 |                  |                     |                   |                         |                         |                                       |
|--------------------------|------------------|---------------------|-------------------|-------------------------|-------------------------|---------------------------------------|
| Burst                    | Number of Pulses | Pulse Width (μ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (μsec) | Pulse 2-to-3 PRI (μsec) | Start Location Within Interval (msec) |
| 1                        | 1                | 84.9                | 14                |                         |                         | 292.595                               |
| 2                        | 2                | 73.4                | 14                | 1928                    |                         | 480.983                               |
| 3                        | 2                | 92.9                | 14                | 1692                    |                         | 483.457                               |
| 4                        | 1                | 99.6                | 14                |                         |                         | 501.48                                |
| 5                        | 1                | 87.4                | 14                |                         |                         | 109.523                               |
| 6                        | 2                | 75.1                | 14                | 1397                    |                         | 415.257                               |
| 7                        | 2                | 70.7                | 14                | 1938                    |                         | 368.13                                |
| 8                        | 2                | 53.5                | 14                | 1109                    |                         | 617.073                               |
| 9                        | 3                | 60.6                | 14                | 1947                    | 1329                    | 224.487                               |
| 10                       | 2                | 55.9                | 14                | 1348                    |                         | 365.74                                |
| 11                       | 3                | 58.4                | 14                | 1547                    | 1008                    | 246.153                               |
| 12                       | 2                | 72.1                | 14                | 1072                    |                         | 275.197                               |
| 13                       | 3                | 74.6                | 14                | 1156                    | 1835                    | 208.93                                |
| 14                       | 3                | 77.3                | 14                | 1656                    | 1258                    | 98.993                                |
| 15                       | 3                | 58                  | 14                | 1781                    | 1241                    | 525.007                               |
| 16                       | 2                | 51.9                | 14                | 1188                    |                         | 44.4                                  |
| 17                       | 1                | 78.1                | 14                |                         |                         | 647.433                               |
| 18                       | 2                | 92.8                | 14                | 1920                    |                         | 139.667                               |

**Type 5 Radar Waveform\_17**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 2                | 91.3                     | 5                 | 1660                          |                               | 323.036                               |
| 2     | 1                | 51.6                     | 5                 |                               |                               | 638.52                                |
| 3     | 2                | 96.3                     | 5                 | 1928                          |                               | 360.16                                |
| 4     | 2                | 94.9                     | 5                 | 1976                          |                               | 598.12                                |
| 5     | 2                | 94.1                     | 5                 | 1648                          |                               | 290.15                                |
| 6     | 2                | 97.8                     | 5                 | 1637                          |                               | 225.4                                 |
| 7     | 1                | 85.5                     | 5                 |                               |                               | 105.6                                 |
| 8     | 2                | 71.3                     | 5                 | 1557                          |                               | 359.87                                |
| 9     | 1                | 95.2                     | 5                 |                               |                               | 441.07                                |
| 10    | 1                | 92                       | 5                 |                               |                               | 779.01                                |
| 11    | 2                | 51.6                     | 5                 | 1192                          |                               | 529.94                                |
| 12    | 3                | 92.3                     | 5                 | 1274                          | 1758                          | 516.03                                |
| 13    | 1                | 59.3                     | 5                 |                               |                               | 680.2                                 |
| 14    | 3                | 72.2                     | 5                 | 1032                          | 1518                          | 79.5                                  |
| 15    | 2                | 72.1                     | 5                 | 1591                          |                               | 437.1                                 |

**Type 5 Radar Waveform\_18**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 1                | 64.3                     | 7                 |                               |                               | 115.156                               |
| 2     | 3                | 69.7                     | 7                 | 1036                          | 1396                          | 200.874                               |
| 3     | 2                | 97.7                     | 7                 | 1676                          |                               | 408.437                               |
| 4     | 3                | 75.7                     | 7                 | 1862                          | 1478                          | 534.05                                |
| 5     | 1                | 71.5                     | 7                 |                               |                               | 99.083                                |
| 6     | 2                | 60.4                     | 7                 | 1438                          |                               | 603.067                               |
| 7     | 2                | 62.4                     | 7                 | 1968                          |                               | 647.06                                |
| 8     | 1                | 51.9                     | 7                 |                               |                               | 348.873                               |
| 9     | 3                | 80.1                     | 7                 | 1337                          | 1017                          | 130.417                               |
| 10    | 1                | 91.8                     | 7                 |                               |                               | 198.84                                |
| 11    | 1                | 87.4                     | 7                 |                               |                               | 302.543                               |
| 12    | 3                | 94.2                     | 7                 | 1128                          | 1496                          | 89.547                                |
| 13    | 3                | 68.4                     | 7                 | 1638                          | 1977                          | 276.11                                |
| 14    | 3                | 70.4                     | 7                 | 1805                          | 1705                          | 133.943                               |
| 15    | 2                | 83.1                     | 7                 | 1872                          |                               | 465.467                               |
| 16    | 2                | 71.3                     | 7                 | 1440                          |                               | 498.2                                 |
| 17    | 2                | 87.3                     | 7                 | 1673                          |                               | 223.933                               |
| 18    | 2                | 83.7                     | 7                 | 1924                          |                               | 350.767                               |

**Type 5 Radar Waveform\_19**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 2                | 89.2                     | 11                | 1874                          |                               | 845.656                               |
| 2     | 1                | 58                       | 11                |                               |                               | 1175.317                              |
| 3     | 2                | 59.5                     | 11                | 1736                          |                               | 592.483                               |
| 4     | 3                | 96.9                     | 11                | 1350                          | 1387                          | 627.74                                |
| 5     | 2                | 92.2                     | 11                | 1439                          |                               | 495.897                               |
| 6     | 2                | 61.9                     | 11                | 1104                          |                               | 916.843                               |
| 7     | 2                | 91.8                     | 11                | 1717                          |                               | 836.01                                |
| 8     | 1                | 50.2                     | 11                |                               |                               | 1292.667                              |
| 9     | 2                | 76                       | 11                | 1493                          |                               | 1219.533                              |

**Type 5 Radar Waveform\_20**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 2                | 84.9                     | 5                 | 1567                          |                               | 363.459                               |
| 2     | 3                | 53.2                     | 5                 | 1338                          | 1783                          | 0.404                                 |
| 3     | 3                | 51.9                     | 5                 | 1825                          | 1970                          | 190.19                                |
| 4     | 2                | 62.3                     | 5                 | 1425                          |                               | 740.11                                |
| 5     | 2                | 91.5                     | 5                 | 1665                          |                               | 551.64                                |
| 6     | 2                | 94.3                     | 5                 | 1660                          |                               | 517.52                                |
| 7     | 2                | 94.8                     | 5                 | 1426                          |                               | 108.45                                |
| 8     | 1                | 88.8                     | 5                 |                               |                               | 94.44                                 |
| 9     | 3                | 62                       | 5                 | 1329                          | 1785                          | 690.81                                |
| 10    | 2                | 93.1                     | 5                 | 1237                          |                               | 619.98                                |
| 11    | 2                | 78.7                     | 5                 | 1243                          |                               | 369.19                                |
| 12    | 1                | 79.7                     | 5                 |                               |                               | 74.11                                 |
| 13    | 2                | 81.8                     | 5                 | 1241                          |                               | 516.35                                |
| 14    | 2                | 96.3                     | 5                 | 1855                          |                               | 367.3                                 |
| 15    | 2                | 82.4                     | 5                 | 1598                          |                               | 562.9                                 |
| 16    | 2                | 89.1                     | 5                 | 1443                          |                               | 265.3                                 |

**Type 5 Radar Waveform\_21**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 3                | 92.5                     | 5                 | 1639                          | 1741                          | 271.017                               |
| 2     | 2                | 62.7                     | 5                 | 1180                          |                               | 827.5                                 |
| 3     | 2                | 54.6                     | 5                 | 1830                          |                               | 802.18                                |
| 4     | 1                | 91.4                     | 5                 |                               |                               | 410.05                                |
| 5     | 1                | 62.2                     | 5                 |                               |                               | 930.8                                 |
| 6     | 3                | 51.1                     | 5                 | 1798                          | 1311                          | 995.73                                |
| 7     | 2                | 77.5                     | 5                 | 1669                          |                               | 806.1                                 |
| 8     | 1                | 67.6                     | 5                 |                               |                               | 1457                                  |

**Type 5 Radar Waveform\_22**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 2                | 66.5                     | 8                 | 1221                          |                               | 885.373                               |
| 2     | 3                | 95.5                     | 8                 | 1096                          | 1363                          | 848.421                               |
| 3     | 1                | 91.7                     | 8                 |                               |                               | 422.962                               |
| 4     | 1                | 61.9                     | 8                 |                               |                               | 777.773                               |
| 5     | 1                | 86                       | 8                 |                               |                               | 192.984                               |
| 6     | 1                | 58                       | 8                 |                               |                               | 647.775                               |
| 7     | 2                | 83.8                     | 8                 | 1812                          |                               | 1022.925                              |
| 8     | 1                | 88.5                     | 8                 |                               |                               | 992.956                               |
| 9     | 2                | 98.8                     | 8                 | 1640                          |                               | 37.907                                |
| 10    | 3                | 68.2                     | 8                 | 1376                          | 1991                          | 767.718                               |
| 11    | 2                | 59.9                     | 8                 | 1695                          |                               | 101.609                               |

**Type 5 Radar Waveform\_23**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 3                | 72.2                     | 19                | 1743                          | 1100                          | 922.98                                |
| 2     | 2                | 50.3                     | 19                | 1027                          |                               | 863.6                                 |
| 3     | 1                | 91.1                     | 19                |                               |                               | 694.5                                 |
| 4     | 1                | 95.6                     | 19                |                               |                               | 653.66                                |
| 5     | 2                | 74                       | 19                | 1117                          |                               | 331.66                                |
| 6     | 3                | 78.9                     | 19                | 1923                          | 1234                          | 517.93                                |
| 7     | 2                | 90.7                     | 19                | 1393                          |                               | 759.85                                |
| 8     | 2                | 99.9                     | 19                | 1867                          |                               | 710.75                                |
| 9     | 2                | 72                       | 19                | 1946                          |                               | 872.56                                |
| 10    | 2                | 50.1                     | 19                | 1166                          |                               | 296.78                                |
| 11    | 1                | 97.9                     | 19                |                               |                               | 232.2                                 |
| 12    | 1                | 85.2                     | 19                |                               |                               | 506.2                                 |

**Type 5 Radar Waveform\_24**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 3                | 85.3                     | 12                | 1732                          | 1495                          | 20.914                                |
| 2     | 3                | 71.1                     | 12                | 1066                          | 1413                          | 233.806                               |
| 3     | 2                | 85.1                     | 12                | 1442                          |                               | 376.557                               |
| 4     | 1                | 50.1                     | 12                |                               |                               | 144.02                                |
| 5     | 3                | 90.8                     | 12                | 1743                          | 1171                          | 522.183                               |
| 6     | 2                | 51.2                     | 12                | 1791                          |                               | 4.417                                 |
| 7     | 3                | 74.3                     | 12                | 1795                          | 1938                          | 195.78                                |
| 8     | 1                | 80.9                     | 12                |                               |                               | 182.763                               |
| 9     | 3                | 57.2                     | 12                | 1618                          | 1024                          | 657.277                               |
| 10    | 2                | 72                       | 12                | 1330                          |                               | 298.57                                |
| 11    | 1                | 57.5                     | 12                |                               |                               | 490.243                               |
| 12    | 3                | 93                       | 12                | 1050                          | 1864                          | 527.837                               |
| 13    | 3                | 98.3                     | 12                | 1709                          | 1934                          | 373.69                                |
| 14    | 3                | 82.9                     | 12                | 1618                          | 1854                          | 69.123                                |
| 15    | 1                | 85.9                     | 12                |                               |                               | 60.687                                |
| 16    | 2                | 86                       | 12                | 1015                          |                               | 369.2                                 |
| 17    | 3                | 81.5                     | 12                | 1858                          | 1225                          | 38.433                                |
| 18    | 1                | 58.3                     | 12                |                               |                               | 654.567                               |

**Type 5 Radar Waveform\_25**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 1                | 74.4                     | 17                |                               |                               | 542.969                               |
| 2     | 2                | 80.6                     | 17                | 1637                          |                               | 265.746                               |
| 3     | 2                | 61.8                     | 17                | 1026                          |                               | 342.612                               |
| 4     | 2                | 67                       | 17                | 1188                          |                               | 338.273                               |
| 5     | 3                | 52.4                     | 17                | 1023                          | 1900                          | 361.734                               |
| 6     | 2                | 54                       | 17                | 1628                          |                               | 436.965                               |
| 7     | 2                | 54.2                     | 17                | 1764                          |                               | 337.976                               |
| 8     | 1                | 96.8                     | 17                |                               |                               | 467.797                               |
| 9     | 3                | 85.8                     | 17                | 1667                          | 1525                          | 416.428                               |
| 10    | 2                | 80.8                     | 17                | 1840                          |                               | 258.069                               |
| 11    | 1                | 79.9                     | 17                |                               |                               | 570.451                               |
| 12    | 2                | 75.6                     | 17                | 1384                          |                               | 488.322                               |
| 13    | 2                | 95.1                     | 17                | 1570                          |                               | 412.703                               |
| 14    | 3                | 76.8                     | 17                | 1461                          | 1062                          | 481.924                               |
| 15    | 2                | 71.5                     | 17                | 1428                          |                               | 251.015                               |
| 16    | 2                | 53.6                     | 17                | 1975                          |                               | 91.856                                |
| 17    | 2                | 61.1                     | 17                | 1688                          |                               | 279.837                               |
| 18    | 2                | 74.9                     | 17                | 1535                          |                               | 12.858                                |
| 19    | 2                | 55.4                     | 17                | 1545                          |                               | 119.179                               |



**Type 5 Radar Waveform\_26**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 2                | 95.1                     | 5                 | 1709                          |                               | 230.691                               |
| 2     | 2                | 62.3                     | 5                 | 1376                          |                               | 617.72                                |
| 3     | 2                | 71.5                     | 5                 | 1833                          |                               | 370.19                                |
| 4     | 1                | 85.7                     | 5                 |                               |                               | 29.36                                 |
| 5     | 1                | 92.9                     | 5                 |                               |                               | 349.85                                |
| 6     | 1                | 56.4                     | 5                 |                               |                               | 720.15                                |
| 7     | 2                | 78.8                     | 5                 | 1903                          |                               | 612.05                                |
| 8     | 2                | 51.8                     | 5                 | 1501                          |                               | 540.44                                |
| 9     | 2                | 82.6                     | 5                 | 1581                          |                               | 542.67                                |
| 10    | 1                | 82.1                     | 5                 |                               |                               | 54.21                                 |
| 11    | 2                | 94.4                     | 5                 | 1671                          |                               | 157.82                                |
| 12    | 2                | 53.1                     | 5                 | 1032                          |                               | 344.11                                |
| 13    | 3                | 80.1                     | 5                 | 1151                          | 1484                          | 715.55                                |
| 14    | 3                | 99.3                     | 5                 | 1351                          | 1692                          | 480.3                                 |
| 15    | 2                | 65.3                     | 5                 | 1339                          |                               | 526.6                                 |
| 16    | 2                | 99.7                     | 5                 | 1927                          |                               | 571.4                                 |

**Type 5 Radar Waveform\_27**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 2                | 55.6                     | 16                | 1681                          |                               | 524.6                                 |
| 2     | 1                | 94                       | 16                |                               |                               | 312.088                               |
| 3     | 3                | 85.1                     | 16                | 1035                          | 1514                          | 531.475                               |
| 4     | 3                | 58.2                     | 16                | 1769                          | 1343                          | 666.723                               |
| 5     | 1                | 60.5                     | 16                |                               |                               | 343.951                               |
| 6     | 2                | 62.3                     | 16                | 1662                          |                               | 667.928                               |
| 7     | 1                | 59.6                     | 16                |                               |                               | 487.636                               |
| 8     | 1                | 51.8                     | 16                |                               |                               | 306.694                               |
| 9     | 2                | 85.4                     | 16                | 1579                          |                               | 639.241                               |
| 10    | 2                | 54.6                     | 16                | 1119                          |                               | 349.529                               |
| 11    | 1                | 85.8                     | 16                |                               |                               | 80.446                                |
| 12    | 3                | 80.1                     | 16                | 1998                          | 1126                          | 22.444                                |
| 13    | 1                | 73.7                     | 16                |                               |                               | 377.442                               |
| 14    | 1                | 54.2                     | 16                |                               |                               | 506.529                               |
| 15    | 1                | 58.2                     | 16                |                               |                               | 149.747                               |
| 16    | 2                | 53.4                     | 16                | 1446                          |                               | 70.565                                |
| 17    | 2                | 87.2                     | 16                | 1639                          |                               | 51.582                                |

**Type 5 Radar Waveform\_28**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 2                | 52.5                     | 5                 | 1488                          |                               | 427.57                                |
| 2     | 1                | 80.2                     | 5                 |                               |                               | 302.568                               |
| 3     | 1                | 72.1                     | 5                 |                               |                               | 443.165                               |
| 4     | 2                | 87.8                     | 5                 | 1436                          |                               | 365.883                               |
| 5     | 2                | 93.3                     | 5                 | 1895                          |                               | 146.541                               |
| 6     | 1                | 68.5                     | 5                 |                               |                               | 538.088                               |
| 7     | 2                | 51.2                     | 5                 | 1924                          |                               | 478.486                               |
| 8     | 2                | 54.9                     | 5                 | 1416                          |                               | 586.074                               |
| 9     | 2                | 77.5                     | 5                 | 1855                          |                               | 42.091                                |
| 10    | 1                | 98.2                     | 5                 |                               |                               | 78.889                                |
| 11    | 2                | 73.2                     | 5                 | 1221                          |                               | 96.336                                |
| 12    | 3                | 57.8                     | 5                 | 1229                          | 1578                          | 640.584                               |
| 13    | 2                | 66.7                     | 5                 | 1367                          |                               | 482.512                               |
| 14    | 1                | 50.1                     | 5                 |                               |                               | 530.739                               |
| 15    | 2                | 72.7                     | 5                 | 1731                          |                               | 469.247                               |
| 16    | 3                | 88.1                     | 5                 | 1026                          | 1190                          | 72.165                                |
| 17    | 2                | 61.4                     | 5                 | 1284                          |                               | 52.582                                |

| Type 5 Radar Waveform_29 |                  |                          |                   |                               |                               |                                       |
|--------------------------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| Burst                    | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
| 1                        | 3                | 81.4                     | 7                 | 1213                          |                               | 438.356                               |
| 2                        | 2                | 96.2                     | 7                 | 1853                          |                               | 546.29                                |
| 3                        | 2                | 51                       | 7                 | 1368                          |                               | 231.05                                |
| 4                        | 1                | 99.5                     | 7                 |                               |                               | 258                                   |
| 5                        | 2                | 59.2                     | 7                 | 1793                          |                               | 166.97                                |
| 6                        | 1                | 55.2                     | 7                 |                               |                               | 82.6                                  |
| 7                        | 2                | 77.9                     | 7                 | 1043                          |                               | 289.31                                |
| 8                        | 1                | 94.2                     | 7                 |                               |                               | 309.45                                |
| 9                        | 2                | 56.7                     | 7                 | 1041                          |                               | 591.61                                |
| 10                       | 3                | 70.9                     | 7                 | 1666                          | 1097                          | 444.22                                |
| 11                       | 3                | 74.9                     | 7                 | 1168                          | 1872                          | 455.1                                 |
| 12                       | 3                | 90                       | 7                 | 1565                          | 1288                          | 393.44                                |
| 13                       | 2                | 83.1                     | 7                 | 1764                          |                               | 567.96                                |
| 14                       | 1                | 71.7                     | 7                 |                               |                               | 122.33                                |
| 15                       | 2                | 55.7                     | 7                 | 1510                          |                               | 313.01                                |
| 16                       | 2                | 100                      | 7                 | 1989                          |                               | 522.58                                |
| 17                       | 2                | 81.9                     | 7                 | 1552                          |                               | 269.98                                |
| 18                       | 2                | 93.7                     | 7                 | 1997                          |                               | 89.5                                  |
| 19                       | 3                | 96.2                     | 7                 | 1360                          | 1627                          | 168.7                                 |
| 20                       | 1                | 95.3                     | 7                 |                               |                               | 190.5                                 |

| Type 5 Radar Waveform_30 |                  |                          |                   |                               |                               |                                       |
|--------------------------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| Burst                    | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
| 1                        | 3                | 83.5                     | 16                | 1802                          | 1048                          | 563.755                               |
| 2                        | 3                | 93.8                     | 16                | 1377                          | 1189                          | 1047.391                              |
| 3                        | 2                | 84.7                     | 16                | 1435                          |                               | 702.522                               |
| 4                        | 3                | 64.8                     | 16                | 1909                          | 1558                          | 667.133                               |
| 5                        | 2                | 62.4                     | 16                | 1802                          |                               | 292.924                               |
| 6                        | 2                | 64.5                     | 16                | 1844                          |                               | 398.415                               |
| 7                        | 3                | 56.4                     | 16                | 1568                          | 1953                          | 286.135                               |
| 8                        | 2                | 67.9                     | 16                | 1400                          |                               | 375.556                               |
| 9                        | 3                | 53.4                     | 16                | 1824                          | 1680                          | 254.227                               |
| 10                       | 2                | 53.2                     | 16                | 1309                          |                               | 718.418                               |
| 11                       | 1                | 69.3                     | 16                |                               |                               | 480.609                               |

## Radar Type 6 - Radar Statistical Performance

| Trail #                  | 1=Detection<br>0=No Detection | Trail # | 1=Detection<br>0=No Detection |
|--------------------------|-------------------------------|---------|-------------------------------|
| 1                        | 1                             | 16      | 1                             |
| 2                        | 1                             | 17      | 1                             |
| 3                        | 1                             | 18      | 1                             |
| 4                        | 1                             | 19      | 1                             |
| 5                        | 1                             | 20      | 1                             |
| 6                        | 1                             | 21      | 1                             |
| 7                        | 1                             | 22      | 1                             |
| 8                        | 1                             | 23      | 1                             |
| 9                        | 1                             | 24      | 1                             |
| 10                       | 1                             | 25      | 1                             |
| 11                       | 1                             | 26      | 1                             |
| 12                       | 1                             | 27      | 1                             |
| 13                       | 1                             | 28      | 1                             |
| 14                       | 1                             | 29      | 1                             |
| 15                       | 1                             | 30      | 1                             |
| Detection Percentage (%) |                               |         | 100.0%                        |

| Radar waveform #1 |                 |                  | Radar waveform #2 |                 |                  |
|-------------------|-----------------|------------------|-------------------|-----------------|------------------|
| Hopping Number    | Frequency (MHz) | Pulse Start (ms) | Hopping Number    | Frequency (MHz) | Pulse Start (ms) |
| 3                 | 5527            | 9                | 14                | 5498            | 42               |
| 28                | 5493            | 84               | 22                | 5500            | 66               |
| 33                | 5498            | 99               | 26                | 5491            | 78               |
| 53                | 5500            | 159              | 31                | 5509            | 93               |
| 62                | 5502            | 186              | 64                | 5499            | 192              |
| 64                | 5512            | 192              | 68                | 5510            | 204              |
| 73                | 5517            | 219              | 69                | 5530            | 207              |
| 85                | 5529            | 255              | 75                | 5521            | 225              |
| 93                | 5509            | 279              | 76                | 5514            | 228              |
| 94                | 5522            | 282              | 98                | 5503            | 294              |

| Radar waveform #3 |                 |                  | Radar waveform #4 |                 |                  |
|-------------------|-----------------|------------------|-------------------|-----------------|------------------|
| Hopping Number    | Frequency (MHz) | Pulse Start (ms) | Hopping Number    | Frequency (MHz) | Pulse Start (ms) |
| 7                 | 5522            | 21               | 12                | 5519            | 36               |
| 9                 | 5507            | 27               | 18                | 5494            | 54               |
| 11                | 5517            | 33               | 36                | 5525            | 108              |
| 25                | 5519            | 75               | 48                | 5518            | 144              |
| 53                | 5529            | 159              | 55                | 5512            | 165              |
| 57                | 5528            | 171              | 60                | 5523            | 180              |
| 81                | 5521            | 243              | 72                | 5522            | 216              |
| 88                | 5496            | 264              | 83                | 5507            | 249              |
| --                | --              | --               | 85                | 5530            | 255              |
| --                | --              | --               | 99                | 5495            | 297              |

| Radar waveform #5 |                 |                  | Radar waveform #6 |                 |                  |
|-------------------|-----------------|------------------|-------------------|-----------------|------------------|
| Hopping Number    | Frequency (MHz) | Pulse Start (ms) | Hopping Number    | Frequency (MHz) | Pulse Start (ms) |
| 2                 | 5505            | 6                | 23                | 5522            | 69               |
| 12                | 5523            | 36               | 28                | 5517            | 84               |
| 13                | 5519            | 39               | 48                | 5520            | 144              |
| 16                | 5507            | 48               | 58                | 5525            | 174              |
| 20                | 5516            | 60               | 59                | 5524            | 177              |
| 34                | 5524            | 102              | 66                | 5511            | 198              |
| 39                | 5493            | 117              | 69                | 5506            | 207              |
| 40                | 5527            | 120              | 73                | 5496            | 219              |
| 55                | 5502            | 165              | 77                | 5513            | 231              |
| 61                | 5495            | 183              | 80                | 5529            | 240              |
| 63                | 5512            | 189              | 91                | 5530            | 273              |
| 94                | 5526            | 282              | --                | --              | --               |

| Radar waveform #7 |                 |                  | Radar waveform #8 |                 |                  |
|-------------------|-----------------|------------------|-------------------|-----------------|------------------|
| Hopping Number    | Frequency (MHz) | Pulse Start (ms) | Hopping Number    | Frequency (MHz) | Pulse Start (ms) |
| 12                | 5506            | 36               | 7                 | 5506            | 21               |
| 30                | 5497            | 90               | 29                | 5520            | 87               |
| 54                | 5504            | 162              | 53                | 5511            | 159              |
| 61                | 5495            | 183              | 55                | 5530            | 165              |
| 67                | 5496            | 201              | 69                | 5522            | 207              |
| 73                | 5493            | 219              | 77                | 5515            | 231              |
| 84                | 5502            | 252              | 79                | 5507            | 237              |
| 87                | 5505            | 261              | 80                | 5527            | 240              |
| 93                | 5525            | 279              | 82                | 5505            | 246              |
| 98                | 5509            | 294              | 88                | 5500            | 264              |

| Radar waveform #9 |                 |                  | Radar waveform #10 |                 |                  |
|-------------------|-----------------|------------------|--------------------|-----------------|------------------|
| Hopping Number    | Frequency (MHz) | Pulse Start (ms) | Hopping Number     | Frequency (MHz) | Pulse Start (ms) |
| 1                 | 5517            | 3                | 5                  | 5516            | 15               |
| 9                 | 5518            | 27               | 35                 | 5523            | 105              |
| 42                | 5523            | 126              | 57                 | 5503            | 171              |
| 53                | 5494            | 159              | 59                 | 5501            | 177              |
| 54                | 5513            | 162              | 79                 | 5528            | 237              |
| 56                | 5504            | 168              | 80                 | 5490            | 240              |
| 69                | 5499            | 207              | --                 | --              | --               |
| 78                | 5506            | 234              | --                 | --              | --               |
| 79                | 5514            | 237              | --                 | --              | --               |
| 99                | 5490            | 297              | --                 | --              | --               |

| Radar waveform #11 |                 |                  | Radar waveform #12 |                 |                  |
|--------------------|-----------------|------------------|--------------------|-----------------|------------------|
| Hopping Number     | Frequency (MHz) | Pulse Start (ms) | Hopping Number     | Frequency (MHz) | Pulse Start (ms) |
| 3                  | 5502            | 9                | 12                 | 5528            | 36               |
| 5                  | 5496            | 15               | 13                 | 5522            | 39               |
| 18                 | 5498            | 54               | 34                 | 5496            | 102              |
| 43                 | 5513            | 129              | 44                 | 5490            | 132              |
| 46                 | 5503            | 138              | 58                 | 5505            | 174              |
| 56                 | 5505            | 168              | 78                 | 5527            | 234              |
| 79                 | 5512            | 237              | 97                 | 5518            | 291              |
| 96                 | 5524            | 288              | --                 | --              | --               |

| Radar waveform #13 |                 |                  | Radar waveform #14 |                 |                  |
|--------------------|-----------------|------------------|--------------------|-----------------|------------------|
| Hopping Number     | Frequency (MHz) | Pulse Start (ms) | Hopping Number     | Frequency (MHz) | Pulse Start (ms) |
| 4                  | 5529            | 12               | 6                  | 5516            | 18               |
| 19                 | 5509            | 57               | 14                 | 5521            | 42               |
| 22                 | 5496            | 66               | 17                 | 5495            | 51               |
| 37                 | 5499            | 111              | 36                 | 5499            | 108              |
| 38                 | 5523            | 114              | 38                 | 5504            | 114              |
| 68                 | 5520            | 204              | 50                 | 5520            | 150              |
| 69                 | 5500            | 207              | 60                 | 5497            | 180              |
| 80                 | 5493            | 240              | 65                 | 5491            | 195              |
| 94                 | 5525            | 282              | 75                 | 5498            | 225              |
| --                 | --              | --               | 81                 | 5496            | 243              |
| --                 | --              | --               | 84                 | 5508            | 252              |

| Radar waveform #15 |                 |                  | Radar waveform #16 |                 |                  |
|--------------------|-----------------|------------------|--------------------|-----------------|------------------|
| Hopping Number     | Frequency (MHz) | Pulse Start (ms) | Hopping Number     | Frequency (MHz) | Pulse Start (ms) |
| 19                 | 5497            | 57               | 3                  | 5510            | 9                |
| 27                 | 5527            | 81               | 5                  | 5509            | 15               |
| 29                 | 5514            | 87               | 22                 | 5514            | 66               |
| 31                 | 5518            | 93               | 37                 | 5500            | 111              |
| 32                 | 5493            | 96               | 45                 | 5516            | 135              |
| 45                 | 5501            | 135              | 50                 | 5501            | 150              |
| 48                 | 5496            | 144              | 56                 | 5492            | 168              |
| 55                 | 5510            | 165              | 82                 | 5496            | 246              |
| 76                 | 5491            | 228              | 90                 | 5517            | 270              |
| 92                 | 5530            | 276              | --                 | --              | --               |
| 97                 | 5511            | 291              | --                 | --              | --               |

| Radar waveform #17 |                 |                  | Radar waveform #18 |                 |                  |
|--------------------|-----------------|------------------|--------------------|-----------------|------------------|
| Hopping Number     | Frequency (MHz) | Pulse Start (ms) | Hopping Number     | Frequency (MHz) | Pulse Start (ms) |
| 16                 | 5500            | 48               | 21                 | 5502            | 63               |
| 22                 | 5494            | 66               | 30                 | 5516            | 90               |
| 31                 | 5528            | 93               | 38                 | 5523            | 114              |
| 46                 | 5513            | 138              | 61                 | 5521            | 183              |
| 48                 | 5507            | 144              | 67                 | 5519            | 201              |
| 52                 | 5495            | 156              | 81                 | 5496            | 243              |
| 62                 | 5503            | 186              | 86                 | 5528            | 258              |
| 69                 | 5499            | 207              | 95                 | 5495            | 285              |
| 74                 | 5529            | 222              | --                 | --              | --               |
| 87                 | 5524            | 261              | --                 | --              | --               |
| 100                | 5527            | 300              | --                 | --              | --               |

| Radar waveform #19 |                 |                  | Radar waveform #20 |                 |                  |
|--------------------|-----------------|------------------|--------------------|-----------------|------------------|
| Hopping Number     | Frequency (MHz) | Pulse Start (ms) | Hopping Number     | Frequency (MHz) | Pulse Start (ms) |
| 8                  | 5491            | 24               | 22                 | 5528            | 66               |
| 11                 | 5513            | 33               | 71                 | 5514            | 213              |
| 19                 | 5530            | 57               | 82                 | 5516            | 246              |
| 26                 | 5497            | 78               | 94                 | 5530            | 282              |
| 30                 | 5519            | 90               | 97                 | 5526            | 291              |
| 45                 | 5527            | 135              | --                 | --              | --               |
| 73                 | 5523            | 219              | --                 | --              | --               |
| 75                 | 5515            | 225              | --                 | --              | --               |
| 89                 | 5522            | 267              | --                 | --              | --               |
| 92                 | 5503            | 276              | --                 | --              | --               |
| 99                 | 5525            | 297              | --                 | --              | --               |



| Radar waveform #21 |                 |                  | Radar waveform #22 |                 |                  |
|--------------------|-----------------|------------------|--------------------|-----------------|------------------|
| Hopping Number     | Frequency (MHz) | Pulse Start (ms) | Hopping Number     | Frequency (MHz) | Pulse Start (ms) |
| 13                 | 5508            | 39               | 20                 | 5517            | 60               |
| 22                 | 5500            | 66               | 36                 | 5529            | 108              |
| 41                 | 5495            | 123              | 37                 | 5525            | 111              |
| 58                 | 5513            | 174              | 40                 | 5499            | 120              |
| 60                 | 5505            | 180              | 47                 | 5506            | 141              |
| 63                 | 5507            | 189              | 57                 | 5513            | 171              |
| 66                 | 5522            | 198              | 98                 | 5528            | 294              |
| 92                 | 5528            | 276              | --                 | --              | --               |
| 99                 | 5523            | 297              | --                 | --              | --               |

| Radar waveform #23 |                 |                  | Radar waveform #24 |                 |                  |
|--------------------|-----------------|------------------|--------------------|-----------------|------------------|
| Hopping Number     | Frequency (MHz) | Pulse Start (ms) | Hopping Number     | Frequency (MHz) | Pulse Start (ms) |
| 8                  | 5496            | 24               | 12                 | 5496            | 36               |
| 31                 | 5510            | 93               | 32                 | 5503            | 96               |
| 36                 | 5501            | 108              | 43                 | 5491            | 129              |
| 37                 | 5520            | 111              | 44                 | 5518            | 132              |
| 94                 | 5519            | 282              | 45                 | 5514            | 135              |
| --                 | --              | --               | 61                 | 5510            | 183              |
| --                 | --              | --               | 85                 | 5515            | 255              |
| --                 | --              | --               | 95                 | 5529            | 285              |
| --                 | --              | --               | 96                 | 5509            | 288              |

| Radar waveform #25 |                 |                  | Radar waveform #26 |                 |                  |
|--------------------|-----------------|------------------|--------------------|-----------------|------------------|
| Hopping Number     | Frequency (MHz) | Pulse Start (ms) | Hopping Number     | Frequency (MHz) | Pulse Start (ms) |
| 10                 | 5491            | 30               | 1                  | 5491            | 3                |
| 14                 | 5495            | 42               | 18                 | 5529            | 54               |
| 40                 | 5524            | 120              | 19                 | 5520            | 57               |
| 44                 | 5505            | 132              | 20                 | 5495            | 60               |
| 52                 | 5508            | 156              | 25                 | 5527            | 75               |
| 70                 | 5490            | 210              | 26                 | 5528            | 78               |
| 82                 | 5509            | 246              | 50                 | 5504            | 150              |
| 98                 | 5515            | 294              | 57                 | 5515            | 171              |
| --                 | --              | --               | 60                 | 5508            | 180              |
| --                 | --              | --               | 70                 | 5501            | 210              |
| --                 | --              | --               | 75                 | 5503            | 225              |
| --                 | --              | --               | 88                 | 5522            | 264              |
| --                 | --              | --               | 90                 | 5511            | 270              |

| Radar waveform #27 |                 |                  | Radar waveform #28 |                 |                  |
|--------------------|-----------------|------------------|--------------------|-----------------|------------------|
| Hopping Number     | Frequency (MHz) | Pulse Start (ms) | Hopping Number     | Frequency (MHz) | Pulse Start (ms) |
| 2                  | 5493            | 6                | 52                 | 5500            | 156              |
| 11                 | 5520            | 33               | 60                 | 5508            | 180              |
| 16                 | 5513            | 48               | 80                 | 5492            | 240              |
| 20                 | 5530            | 60               | 82                 | 5519            | 246              |
| 43                 | 5508            | 129              | 86                 | 5526            | 258              |
| 46                 | 5529            | 138              | 90                 | 5493            | 270              |
| 54                 | 5525            | 162              | 98                 | 5522            | 294              |
| 61                 | 5518            | 183              | --                 | --              | --               |
| 64                 | 5514            | 192              | --                 | --              | --               |
| 87                 | 5494            | 261              | --                 | --              | --               |

| Radar waveform #29 |                 |                  | Radar waveform #30 |                 |                  |
|--------------------|-----------------|------------------|--------------------|-----------------|------------------|
| Hopping Number     | Frequency (MHz) | Pulse Start (ms) | Hopping Number     | Frequency (MHz) | Pulse Start (ms) |
| 12                 | 5524            | 36               | 6                  | 5495            | 18               |
| 34                 | 5490            | 102              | 11                 | 5490            | 33               |
| 37                 | 5529            | 111              | 13                 | 5523            | 39               |
| 44                 | 5498            | 132              | 29                 | 5527            | 87               |
| 69                 | 5491            | 207              | 42                 | 5497            | 126              |
| 71                 | 5520            | 213              | 58                 | 5525            | 174              |
| 80                 | 5525            | 240              | 68                 | 5503            | 204              |
| --                 | --              | --               | 70                 | 5524            | 210              |

|           |  |               |            |
|-----------|--|---------------|------------|
| Product   | WiFi 6 Extender  | Test Engineer | Jake Lan   |
| Test Site | WZ-SR4   | Test Date     | 2021/04/21 |
| Test Item | Radar Statistical Performance Check (802.11ax-HE80 mode – 5530MHz) |               |            |
| Test Mode | AP mode  |               |            |

## Radar Type 1 - Radar Statistical Performance

| Trail # | Test Freq.<br>(MHz) | Pulse Width<br>(us) | PRI (us) | Pulses / Burst | 1=Detection<br>0=No Detection |
|---------|---------------------|---------------------|----------|----------------|-------------------------------|
| 1       | 5491.0              | 1                   | 678      | 78             | 1                             |
| 2       | 5493.7              | 1                   | 3066     | 18             | 1                             |
| 3       | 5496.4              | 1                   | 778      | 68             | 1                             |
| 4       | 5499.1              | 1                   | 858      | 62             | 1                             |
| 5       | 5501.8              | 1                   | 878      | 61             | 1                             |
| 6       | 5504.5              | 1                   | 618      | 86             | 1                             |
| 7       | 5507.1              | 1                   | 578      | 92             | 1                             |
| 8       | 5509.8              | 1                   | 698      | 76             | 1                             |
| 9       | 5512.5              | 1                   | 538      | 98             | 1                             |
| 10      | 5515.2              | 1                   | 918      | 58             | 1                             |
| 11      | 5517.9              | 1                   | 638      | 83             | 1                             |
| 12      | 5520.6              | 1                   | 818      | 65             | 1                             |
| 13      | 5523.3              | 1                   | 718      | 74             | 1                             |
| 14      | 5526.0              | 1                   | 738      | 72             | 1                             |
| 15      | 5530.0              | 1                   | 838      | 63             | 1                             |
| 16      | 5532.7              | 1                   | 1232     | 43             | 1                             |
| 17      | 5535.4              | 1                   | 3060     | 18             | 1                             |
| 18      | 5538.1              | 1                   | 2521     | 21             | 1                             |
| 19      | 5540.8              | 1                   | 908      | 59             | 1                             |
| 20      | 5543.5              | 1                   | 1542     | 35             | 1                             |
| 21      | 5546.1              | 1                   | 2307     | 23             | 1                             |
| 22      | 5548.8              | 1                   | 1718     | 31             | 1                             |
| 23      | 5551.5              | 1                   | 871      | 61             | 1                             |
| 24      | 5554.2              | 1                   | 1468     | 36             | 1                             |
| 25      | 5556.9              | 1                   | 2082     | 26             | 1                             |
| 26      | 5559.6              | 1                   | 2551     | 21             | 1                             |
| 27      | 5562.3              | 1                   | 2594     | 21             | 1                             |
| 28      | 5565.0              | 1                   | 967      | 55             | 1                             |
| 29      | 5567.7              | 1                   | 1273     | 42             | 1                             |

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|                          |        |   |      |    |        |
|--------------------------|--------|---|------|----|--------|
| 30                       | 5569.0 | 1 | 2350 | 23 | 1      |
| Detection Percentage (%) |        |   |      |    | 100.0% |

## Radar Type 2 - Radar Statistical Performance

| Trail #                  | Test Freq.<br>(MHz) | Pulse Width<br>(us) | PRI (us) | Pulses / Burst | 1=Detection<br>0=No Detection |
|--------------------------|---------------------|---------------------|----------|----------------|-------------------------------|
| 1                        | 5491.0              | 3.9                 | 226      | 28             | 1                             |
| 2                        | 5493.7              | 3.0                 | 205      | 29             | 1                             |
| 3                        | 5496.4              | 4.7                 | 176      | 27             | 1                             |
| 4                        | 5499.1              | 3.5                 | 177      | 24             | 0                             |
| 5                        | 5501.8              | 3.2                 | 165      | 28             | 1                             |
| 6                        | 5504.5              | 3.4                 | 181      | 24             | 1                             |
| 7                        | 5507.1              | 2.0                 | 228      | 26             | 0                             |
| 8                        | 5509.8              | 1.0                 | 179      | 28             | 1                             |
| 9                        | 5512.5              | 4.3                 | 226      | 29             | 1                             |
| 10                       | 5515.2              | 3.6                 | 183      | 25             | 1                             |
| 11                       | 5517.9              | 1.2                 | 176      | 23             | 1                             |
| 12                       | 5520.6              | 4.6                 | 227      | 27             | 1                             |
| 13                       | 5523.3              | 2.3                 | 203      | 23             | 1                             |
| 14                       | 5526.0              | 3.6                 | 187      | 28             | 1                             |
| 15                       | 5530.0              | 3.9                 | 165      | 25             | 1                             |
| 16                       | 5532.7              | 2.4                 | 199      | 23             | 1                             |
| 17                       | 5535.4              | 4.5                 | 229      | 29             | 1                             |
| 18                       | 5538.1              | 3.7                 | 172      | 24             | 0                             |
| 19                       | 5540.8              | 1.4                 | 208      | 28             | 1                             |
| 20                       | 5543.5              | 4.7                 | 150      | 26             | 1                             |
| 21                       | 5546.1              | 1.3                 | 184      | 23             | 1                             |
| 22                       | 5548.8              | 2.5                 | 185      | 27             | 0                             |
| 23                       | 5551.5              | 3.9                 | 172      | 28             | 1                             |
| 24                       | 5554.2              | 4.2                 | 189      | 27             | 1                             |
| 25                       | 5556.9              | 3.3                 | 188      | 25             | 1                             |
| 26                       | 5559.6              | 4.2                 | 186      | 26             | 1                             |
| 27                       | 5562.3              | 4.1                 | 223      | 27             | 1                             |
| 28                       | 5565.0              | 4.5                 | 188      | 27             | 1                             |
| 29                       | 5567.7              | 4.8                 | 173      | 25             | 1                             |
| 30                       | 5569.0              | 2.7                 | 225      | 29             | 1                             |
| Detection Percentage (%) |                     |                     |          |                | 86.7%                         |

## Radar Type 3 - Radar Statistical Performance

| Trail #                  | Test Freq.<br>(MHz) | Pulse Width<br>(us) | PRI (us) | Pulses / Burst | 1=Detection<br>0=No Detection |
|--------------------------|---------------------|---------------------|----------|----------------|-------------------------------|
| 1                        | 5491.0              | 6.5                 | 405      | 16             | 1                             |
| 2                        | 5493.7              | 9.3                 | 426      | 18             | 1                             |
| 3                        | 5496.4              | 8.5                 | 235      | 17             | 1                             |
| 4                        | 5499.1              | 6.4                 | 380      | 17             | 1                             |
| 5                        | 5501.8              | 8.0                 | 481      | 17             | 1                             |
| 6                        | 5504.5              | 6.2                 | 446      | 16             | 1                             |
| 7                        | 5507.1              | 7.9                 | 475      | 17             | 1                             |
| 8                        | 5509.8              | 6.4                 | 408      | 18             | 1                             |
| 9                        | 5512.5              | 7.7                 | 248      | 18             | 1                             |
| 10                       | 5515.2              | 8.6                 | 421      | 17             | 1                             |
| 11                       | 5517.9              | 6.5                 | 250      | 16             | 1                             |
| 12                       | 5520.6              | 8.9                 | 364      | 17             | 1                             |
| 13                       | 5523.3              | 7.9                 | 247      | 17             | 1                             |
| 14                       | 5526.0              | 9.4                 | 274      | 18             | 1                             |
| 15                       | 5530.0              | 8.4                 | 309      | 17             | 1                             |
| 16                       | 5532.7              | 8.5                 | 436      | 17             | 1                             |
| 17                       | 5535.4              | 9.2                 | 248      | 17             | 1                             |
| 18                       | 5538.1              | 7.4                 | 474      | 18             | 1                             |
| 19                       | 5540.8              | 6.7                 | 233      | 16             | 0                             |
| 20                       | 5543.5              | 7.6                 | 345      | 17             | 1                             |
| 21                       | 5546.1              | 7.2                 | 486      | 17             | 1                             |
| 22                       | 5548.8              | 9.6                 | 384      | 17             | 1                             |
| 23                       | 5551.5              | 7.5                 | 245      | 17             | 1                             |
| 24                       | 5554.2              | 9.2                 | 313      | 16             | 1                             |
| 25                       | 5556.9              | 6.2                 | 494      | 17             | 1                             |
| 26                       | 5559.6              | 7.1                 | 435      | 16             | 1                             |
| 27                       | 5562.3              | 8.2                 | 321      | 17             | 1                             |
| 28                       | 5565.0              | 7.5                 | 214      | 16             | 1                             |
| 29                       | 5567.7              | 7.6                 | 268      | 16             | 1                             |
| 30                       | 5569.0              | 6.1                 | 239      | 16             | 1                             |
| Detection Percentage (%) |                     |                     |          |                | 96.7%                         |

## Radar Type 4 - Radar Statistical Performance

| Trail #                  | Test Freq.<br>(MHz) | Pulse Width<br>(us) | PRI (us) | Pulses / Burst | 1=Detection<br>0=No Detection |
|--------------------------|---------------------|---------------------|----------|----------------|-------------------------------|
| 1                        | 5491.0              | 12.5                | 291      | 13             | 1                             |
| 2                        | 5493.7              | 19.3                | 356      | 14             | 1                             |
| 3                        | 5496.4              | 14.2                | 275      | 13             | 1                             |
| 4                        | 5499.1              | 16.6                | 206      | 12             | 1                             |
| 5                        | 5501.8              | 18.6                | 409      | 14             | 1                             |
| 6                        | 5504.5              | 17.1                | 216      | 13             | 1                             |
| 7                        | 5507.1              | 14.9                | 219      | 13             | 1                             |
| 8                        | 5509.8              | 19.7                | 418      | 13             | 1                             |
| 9                        | 5512.5              | 15.8                | 418      | 14             | 1                             |
| 10                       | 5515.2              | 19.5                | 233      | 14             | 1                             |
| 11                       | 5517.9              | 13.4                | 305      | 14             | 1                             |
| 12                       | 5520.6              | 11.3                | 406      | 15             | 1                             |
| 13                       | 5523.3              | 16.6                | 292      | 16             | 0                             |
| 14                       | 5526.0              | 16.0                | 366      | 16             | 1                             |
| 15                       | 5530.0              | 15.7                | 337      | 16             | 1                             |
| 16                       | 5532.7              | 12.7                | 255      | 13             | 0                             |
| 17                       | 5535.4              | 18.1                | 474      | 13             | 1                             |
| 18                       | 5538.1              | 14.3                | 322      | 16             | 1                             |
| 19                       | 5540.8              | 12.9                | 456      | 12             | 0                             |
| 20                       | 5543.5              | 13.1                | 303      | 13             | 1                             |
| 21                       | 5546.1              | 15.3                | 376      | 13             | 1                             |
| 22                       | 5548.8              | 12.1                | 301      | 14             | 1                             |
| 23                       | 5551.5              | 16.1                | 372      | 14             | 1                             |
| 24                       | 5554.2              | 20                  | 317      | 16             | 1                             |
| 25                       | 5556.9              | 16                  | 466      | 15             | 1                             |
| 26                       | 5559.6              | 16.5                | 417      | 12             | 1                             |
| 27                       | 5562.3              | 17.7                | 279      | 16             | 1                             |
| 28                       | 5565.0              | 11.7                | 422      | 12             | 1                             |
| 29                       | 5567.7              | 13.0                | 471      | 16             | 1                             |
| 30                       | 5569.0              | 11.6                | 326      | 13             | 1                             |
| Detection Percentage (%) |                     |                     |          |                | 90.0%                         |

Note: In addition an average minimum percentage of successful detection across all four Short pulse radar test

waveforms is as follows:  $\frac{P_d1+P_d2+P_d3+P_d4}{4} = (100.0\%+86.7\%+96.7\%+90.0\%)/4 = 93.4\% (>80\%)$



## Radar Type 5 - Radar Statistical Performance

| Trail #                  | Test Freq.<br>(MHz) | 1=Detection<br>0=No Detection | Trail # | Test Freq.<br>(MHz) | 1=Detection<br>0=No Detection |
|--------------------------|---------------------|-------------------------------|---------|---------------------|-------------------------------|
| 1                        | 5530.0              | 1                             | 16      | 5496.2              | 1                             |
| 2                        | 5530.0              | 1                             | 17      | 5495.4              | 1                             |
| 3                        | 5530.0              | 1                             | 18      | 5495.4              | 1                             |
| 4                        | 5530.0              | 1                             | 19      | 5495.8              | 1                             |
| 5                        | 5530.0              | 1                             | 20      | 5493.4              | 1                             |
| 6                        | 5530.0              | 1                             | 21      | 5564.2              | 1                             |
| 7                        | 5530.0              | 1                             | 22      | 5563.0              | 1                             |
| 8                        | 5530.0              | 1                             | 23      | 5562.6              | 1                             |
| 9                        | 5530.0              | 1                             | 24      | 5565.8              | 1                             |
| 10                       | 5530.0              | 1                             | 25      | 5567.0              | 1                             |
| 11                       | 5494.2              | 1                             | 26      | 5564.2              | 1                             |
| 12                       | 5499.0              | 1                             | 27      | 5561.8              | 1                             |
| 13                       | 5495.4              | 1                             | 28      | 5565.4              | 1                             |
| 14                       | 5495.8              | 1                             | 29      | 5567.0              | 1                             |
| 15                       | 5493.0              | 1                             | 30      | 5564.2              | 1                             |
| Detection Percentage (%) |                     |                               |         |                     | 100.0%                        |

| Type 5 Radar Waveform_1 |                  |                          |                   |                               |                               |                                       |
|-------------------------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| Burst                   | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
| 1                       | 1                | 56                       | 8                 |                               |                               | 432.379                               |
| 2                       | 2                | 51.1                     | 8                 | 1988                          |                               | 97.867                                |
| 3                       | 3                | 85                       | 8                 | 1052                          | 1626                          | 260.87                                |
| 4                       | 1                | 80.1                     | 8                 |                               |                               | 244.79                                |
| 5                       | 1                | 76.7                     | 8                 |                               |                               | 563.23                                |
| 6                       | 1                | 61.7                     | 8                 |                               |                               | 58.63                                 |
| 7                       | 1                | 66.5                     | 8                 |                               |                               | 424.78                                |
| 8                       | 2                | 92                       | 8                 | 1952                          |                               | 212.69                                |
| 9                       | 1                | 90.2                     | 8                 |                               |                               | 506.48                                |
| 10                      | 2                | 68.2                     | 8                 | 1089                          |                               | 567.54                                |
| 11                      | 2                | 89.5                     | 8                 | 1278                          |                               | 190.96                                |
| 12                      | 1                | 91.8                     | 8                 |                               |                               | 488.45                                |
| 13                      | 1                | 67.5                     | 8                 |                               |                               | 566.45                                |
| 14                      | 2                | 63.7                     | 8                 | 1568                          |                               | 236.29                                |
| 15                      | 3                | 83.3                     | 8                 | 1579                          | 1944                          | 141.67                                |
| 16                      | 2                | 71                       | 8                 | 1261                          |                               | 12.94                                 |
| 17                      | 2                | 82.4                     | 8                 | 1274                          |                               | 507.1                                 |
| 18                      | 2                | 99.9                     | 8                 | 1465                          |                               | 433.1                                 |
| 19                      | 2                | 63                       | 8                 | 1708                          |                               | 72.4                                  |
| 20                      | 1                | 99.7                     | 8                 |                               |                               | 124.1                                 |

**Type 5 Radar Waveform\_2**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 1                | 58.1                     | 18                |                               |                               | 356.674                               |
| 2     | 2                | 84.9                     | 18                | 1092                          |                               | 1007.88                               |
| 3     | 1                | 57.4                     | 18                |                               |                               | 469.31                                |
| 4     | 3                | 83.8                     | 18                | 1133                          | 1047                          | 838.55                                |
| 5     | 2                | 94.1                     | 18                | 1329                          |                               | 1333.22                               |
| 6     | 3                | 78.4                     | 18                | 1667                          | 1079                          | 254.25                                |
| 7     | 2                | 64.4                     | 18                | 1682                          |                               | 18.67                                 |
| 8     | 2                | 52.9                     | 18                | 1686                          |                               | 498.8                                 |

**Type 5 Radar Waveform\_3**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 3                | 66                       | 15                | 1749                          | 1278                          | 592.121                               |
| 2     | 3                | 65                       | 15                | 1109                          | 1905                          | 876.801                               |
| 3     | 2                | 94.7                     | 15                | 1916                          |                               | 666.902                               |
| 4     | 2                | 88.1                     | 15                | 1295                          |                               | 833.183                               |
| 5     | 2                | 56.5                     | 15                | 1421                          |                               | 301.684                               |
| 6     | 2                | 63.8                     | 15                | 1314                          |                               | 742.855                               |
| 7     | 3                | 97.2                     | 15                | 1720                          | 1150                          | 249.515                               |
| 8     | 1                | 53.6                     | 15                |                               |                               | 1017.556                              |
| 9     | 2                | 95.9                     | 15                | 1751                          |                               | 513.947                               |
| 10    | 2                | 73.2                     | 15                | 1011                          |                               | 41.888                                |
| 11    | 2                | 73.2                     | 15                | 1742                          |                               | 807.509                               |

**Type 5 Radar Waveform\_4**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 3                | 94.1                     | 13                | 1479                          | 1065                          | 31.749                                |
| 2     | 2                | 89.5                     | 13                | 1825                          |                               | 362.727                               |
| 3     | 1                | 94.5                     | 13                |                               |                               | 481.904                               |
| 4     | 1                | 58.8                     | 13                |                               |                               | 283.151                               |
| 5     | 3                | 68.9                     | 13                | 1156                          | 1227                          | 145.639                               |
| 6     | 2                | 56.2                     | 13                | 1230                          |                               | 843.916                               |
| 7     | 2                | 73.5                     | 13                | 1386                          |                               | 816.553                               |
| 8     | 2                | 92.9                     | 13                | 1341                          |                               | 771.37                                |
| 9     | 1                | 72.2                     | 13                |                               |                               | 202.407                               |
| 10    | 1                | 82.5                     | 13                |                               |                               | 647.784                               |
| 11    | 3                | 84.9                     | 13                | 1236                          | 1693                          | 351.871                               |
| 12    | 1                | 65.7                     | 13                |                               |                               | 27.909                                |
| 13    | 3                | 52.1                     | 13                | 1340                          | 1795                          | 668.186                               |
| 14    | 3                | 53.6                     | 13                | 1815                          | 1329                          | 509.443                               |

**Type 5 Radar Waveform\_5**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 3                | 61.3                     | 20                | 1231                          | 1117                          | 1006.92                               |
| 2     | 2                | 80.1                     | 20                | 1060                          |                               | 759.13                                |
| 3     | 2                | 50.2                     | 20                | 1656                          |                               | 348.11                                |
| 4     | 2                | 89.3                     | 20                | 1266                          |                               | 336.55                                |
| 5     | 2                | 70.4                     | 20                | 1622                          |                               | 544.87                                |
| 6     | 3                | 67.1                     | 20                | 1537                          | 1306                          | 602.62                                |
| 7     | 1                | 71.6                     | 20                |                               |                               | 1112.61                               |
| 8     | 2                | 73.8                     | 20                | 1650                          |                               | 411.11                                |
| 9     | 3                | 76.2                     | 20                | 1797                          | 1597                          | 961.4                                 |
| 10    | 2                | 98.7                     | 20                | 1359                          |                               | 571.1                                 |

**Type 5 Radar Waveform\_6**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 2                | 66.8                     | 14                | 1954                          |                               | 311.933                               |
| 2     | 2                | 90                       | 14                | 1740                          |                               | 603.067                               |
| 3     | 2                | 77.6                     | 14                | 1494                          |                               | 818.174                               |
| 4     | 2                | 76.8                     | 14                | 1771                          |                               | 782.511                               |
| 5     | 2                | 86.1                     | 14                | 1898                          |                               | 482.589                               |
| 6     | 2                | 58.9                     | 14                | 1455                          |                               | 494.086                               |
| 7     | 1                | 91.7                     | 14                |                               |                               | 88.053                                |
| 8     | 2                | 79.1                     | 14                | 1434                          |                               | 476.66                                |
| 9     | 2                | 52.8                     | 14                | 1086                          |                               | 691.487                               |
| 10    | 1                | 75.6                     | 14                |                               |                               | 756.814                               |
| 11    | 3                | 55.9                     | 14                | 1975                          | 1070                          | 537.401                               |
| 12    | 2                | 51.3                     | 14                | 1807                          |                               | 736.229                               |
| 13    | 3                | 70.5                     | 14                | 1255                          | 1657                          | 61.286                                |
| 14    | 3                | 71.8                     | 14                | 1331                          | 1905                          | 104.443                               |

**Type 5 Radar Waveform\_7**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 3                | 63.6                     | 13                | 1997                          | 1335                          | 129.275                               |
| 2     | 2                | 91                       | 13                | 1724                          |                               | 563.81                                |
| 3     | 2                | 73.7                     | 13                | 1347                          |                               | 276.36                                |
| 4     | 3                | 55.5                     | 13                | 1637                          | 1488                          | 225.33                                |
| 5     | 1                | 80.4                     | 13                |                               |                               | 211.52                                |
| 6     | 2                | 71                       | 13                | 1090                          |                               | 589.02                                |
| 7     | 2                | 52.9                     | 13                | 1650                          |                               | 337.41                                |
| 8     | 3                | 96.3                     | 13                | 1491                          | 1139                          | 468.54                                |
| 9     | 1                | 57.4                     | 13                |                               |                               | 371.94                                |
| 10    | 2                | 99.8                     | 13                | 1856                          |                               | 562.39                                |
| 11    | 2                | 79.4                     | 13                | 1697                          |                               | 208.04                                |
| 12    | 1                | 60                       | 13                |                               |                               | 475.41                                |
| 13    | 2                | 55.1                     | 13                | 1725                          |                               | 329.05                                |
| 14    | 3                | 87.7                     | 13                | 1775                          | 1675                          | 10.77                                 |
| 15    | 1                | 79.7                     | 13                |                               |                               | 412.1                                 |
| 16    | 2                | 77.4                     | 13                | 1831                          |                               | 424.17                                |
| 17    | 2                | 72.4                     | 13                | 1289                          |                               | 505.5                                 |
| 18    | 2                | 64.1                     | 13                | 1548                          |                               | 342.5                                 |
| 19    | 2                | 61.1                     | 13                | 1061                          |                               | 365.8                                 |
| 20    | 2                | 50.3                     | 13                | 1782                          |                               | 335.5                                 |

**Type 5 Radar Waveform\_8**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 Spacing ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-----------------------------------|-------------------------------|---------------------------------------|
| 1     | 2                | 81.6                     | 8                 | 1943                              |                               | 361.174                               |
| 2     | 2                | 74.8                     | 8                 | 1719                              |                               | 374.277                               |
| 3     | 1                | 92.5                     | 8                 |                                   |                               | 450.563                               |
| 4     | 2                | 90.6                     | 8                 | 1592                              |                               | 300.27                                |
| 5     | 2                | 88.8                     | 8                 | 1202                              |                               | 931.137                               |
| 6     | 2                | 78.3                     | 8                 | 1834                              |                               | 947.893                               |
| 7     | 3                | 91.8                     | 8                 | 1653                              | 1790                          | 917.22                                |
| 8     | 3                | 66.9                     | 8                 | 1851                              | 1684                          | 815.667                               |
| 9     | 2                | 58.8                     | 8                 | 1350                              |                               | 1240.233                              |

**Type 5 Radar Waveform\_9**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 3                | 55.1                     | 12                | 1512                          | 1026                          | 585.81                                |
| 2     | 2                | 68.5                     | 12                | 1927                          |                               | 574.027                               |
| 3     | 1                | 53.6                     | 12                |                               |                               | 437.194                               |
| 4     | 2                | 81.6                     | 12                | 1297                          |                               | 303.101                               |
| 5     | 2                | 52.2                     | 12                | 1614                          |                               | 259.099                               |
| 6     | 1                | 67.2                     | 12                |                               |                               | 259.816                               |
| 7     | 1                | 54.5                     | 12                |                               |                               | 633.653                               |
| 8     | 1                | 89.5                     | 12                |                               |                               | 189.36                                |
| 9     | 2                | 95.6                     | 12                | 1105                          |                               | 532.487                               |
| 10    | 2                | 62.2                     | 12                | 1151                          |                               | 451.544                               |
| 11    | 3                | 61.3                     | 12                | 1999                          | 1283                          | 74.381                                |
| 12    | 2                | 64.2                     | 12                | 1482                          |                               | 253.809                               |
| 13    | 3                | 69.5                     | 12                | 1517                          | 1824                          | 758.386                               |
| 14    | 2                | 57.7                     | 12                | 1899                          |                               | 834.743                               |

**Type 5 Radar Waveform\_10**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 2                | 70.3                     | 15                | 1270                          |                               | 54.485                                |
| 2     | 3                | 91.4                     | 15                | 1486                          | 1291                          | 499.35                                |
| 3     | 2                | 65.4                     | 15                | 1683                          |                               | 231.01                                |
| 4     | 1                | 77.2                     | 15                |                               |                               | 143.55                                |
| 5     | 2                | 89.1                     | 15                | 1719                          |                               | 406.91                                |
| 6     | 1                | 80.8                     | 15                |                               |                               | 662.93                                |
| 7     | 2                | 66.1                     | 15                | 1323                          |                               | 409.78                                |
| 8     | 1                | 62.3                     | 15                |                               |                               | 618.54                                |
| 9     | 2                | 97.7                     | 15                | 1609                          |                               | 566.59                                |
| 10    | 2                | 76                       | 15                | 1709                          |                               | 409.98                                |
| 11    | 2                | 100                      | 15                | 1663                          |                               | 616.69                                |
| 12    | 3                | 80                       | 15                | 1225                          | 1984                          | 224.37                                |
| 13    | 1                | 93                       | 15                |                               |                               | 199.87                                |
| 14    | 3                | 53.9                     | 15                | 1953                          | 1887                          | 241.29                                |
| 15    | 3                | 84.1                     | 15                | 1414                          | 1829                          | 330.7                                 |
| 16    | 3                | 80.1                     | 15                | 1040                          | 1747                          | 560.3                                 |

**Type 5 Radar Waveform\_11**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 2                | 97.5                     | 8                 | 1332                          |                               | 350.061                               |
| 2     | 2                | 80.5                     | 8                 | 1045                          |                               | 499.55                                |
| 3     | 1                | 82.1                     | 8                 |                               |                               | 255.97                                |
| 4     | 3                | 52.6                     | 8                 | 1438                          | 1966                          | 716.47                                |
| 5     | 1                | 74.6                     | 8                 |                               |                               | 739.88                                |
| 6     | 2                | 80                       | 8                 | 1549                          |                               | 120.6                                 |
| 7     | 2                | 51.3                     | 8                 | 1465                          |                               | 233.58                                |
| 8     | 1                | 95.3                     | 8                 |                               |                               | 416.64                                |
| 9     | 3                | 87.5                     | 8                 | 1784                          | 1090                          | 346.46                                |
| 10    | 3                | 60.5                     | 8                 | 1114                          | 1176                          | 454.58                                |
| 11    | 3                | 82.9                     | 8                 | 1185                          | 1027                          | 629.64                                |
| 12    | 3                | 76.7                     | 8                 | 1856                          | 1244                          | 560.88                                |
| 13    | 3                | 53.9                     | 8                 | 1756                          | 1848                          | 530.93                                |
| 14    | 2                | 52.9                     | 8                 | 1087                          |                               | 231.74                                |
| 15    | 1                | 74                       | 8                 |                               |                               | 10.5                                  |
| 16    | 2                | 84.5                     | 8                 | 1274                          |                               | 79.9                                  |

**Type 5 Radar Waveform\_12**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 2                | 92.4                     | 20                | 1176                          |                               | 717.553                               |
| 2     | 1                | 98.4                     | 20                |                               |                               | 578.8                                 |
| 3     | 2                | 61.7                     | 20                | 1942                          |                               | 559.78                                |
| 4     | 2                | 76.8                     | 20                | 1797                          |                               | 345.83                                |
| 5     | 2                | 73.4                     | 20                | 1454                          |                               | 450.27                                |
| 6     | 2                | 54.9                     | 20                | 1078                          |                               | 146.33                                |
| 7     | 2                | 82.2                     | 20                | 1245                          |                               | 723.13                                |
| 8     | 3                | 71.4                     | 20                | 1958                          | 1730                          | 295.53                                |
| 9     | 2                | 74.5                     | 20                | 1128                          |                               | 445.15                                |
| 10    | 2                | 62.6                     | 20                | 1112                          |                               | 637.38                                |
| 11    | 3                | 70.4                     | 20                | 1969                          | 1716                          | 41.74                                 |
| 12    | 2                | 85.4                     | 20                | 1898                          |                               | 317.3                                 |
| 13    | 1                | 72.2                     | 20                |                               |                               | 748.7                                 |
| 14    | 3                | 53.2                     | 20                | 1186                          | 1798                          | 253.4                                 |
| 15    | 1                | 64.9                     | 20                |                               |                               | 207.9                                 |

**Type 5 Radar Waveform\_13**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 2                | 58.9                     | 11                | 1121                          |                               | 532.612                               |
| 2     | 1                | 99.5                     | 11                |                               |                               | 166.65                                |
| 3     | 1                | 99.7                     | 11                |                               |                               | 301.092                               |
| 4     | 2                | 79.1                     | 11                | 1740                          |                               | 578.073                               |
| 5     | 2                | 96.2                     | 11                | 1109                          |                               | 194.554                               |
| 6     | 3                | 81.7                     | 11                | 1291                          | 1289                          | 269.185                               |
| 7     | 2                | 67.7                     | 11                | 1473                          |                               | 399.996                               |
| 8     | 2                | 70.1                     | 11                | 1364                          |                               | 341.367                               |
| 9     | 3                | 79                       | 11                | 1644                          | 1779                          | 161.648                               |
| 10    | 1                | 52.9                     | 11                |                               |                               | 178.359                               |
| 11    | 2                | 55.1                     | 11                | 1020                          |                               | 496.501                               |
| 12    | 3                | 71.1                     | 11                | 1940                          | 1911                          | 75.172                                |
| 13    | 2                | 62.3                     | 11                | 1775                          |                               | 460.483                               |
| 14    | 3                | 77                       | 11                | 1141                          | 1317                          | 278.064                               |
| 15    | 3                | 58.1                     | 11                | 1796                          | 1178                          | 571.075                               |
| 16    | 3                | 73.9                     | 11                | 1512                          | 1430                          | 309.406                               |
| 17    | 2                | 89.4                     | 11                | 1443                          |                               | 198.137                               |
| 18    | 1                | 73.3                     | 11                |                               |                               | 345.958                               |
| 19    | 3                | 55.5                     | 11                | 1958                          | 1928                          | 223.079                               |

**Type 5 Radar Waveform\_14**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 1                | 91.4                     | 12                |                               |                               | 732.886                               |
| 2     | 2                | 66.4                     | 12                | 1965                          |                               | 220.847                               |
| 3     | 1                | 98.8                     | 12                |                               |                               | 653.83                                |
| 4     | 1                | 62.5                     | 12                |                               |                               | 523.07                                |
| 5     | 3                | 79.9                     | 12                | 1018                          | 1627                          | 669.94                                |
| 6     | 2                | 67.5                     | 12                | 1463                          |                               | 519.27                                |
| 7     | 1                | 79.5                     | 12                |                               |                               | 414.65                                |
| 8     | 1                | 77.5                     | 12                |                               |                               | 130.99                                |
| 9     | 2                | 74.2                     | 12                | 1324                          |                               | 312.87                                |
| 10    | 1                | 78.4                     | 12                |                               |                               | 451.46                                |
| 11    | 1                | 95                       | 12                |                               |                               | 106.93                                |
| 12    | 3                | 79.3                     | 12                | 1720                          | 1148                          | 474.4                                 |
| 13    | 2                | 50.5                     | 12                | 1412                          |                               | 95.67                                 |
| 14    | 2                | 71.3                     | 12                | 1380                          |                               | 209.09                                |
| 15    | 2                | 98.5                     | 12                | 1141                          |                               | 392.1                                 |
| 16    | 1                | 69.1                     | 12                |                               |                               | 742.6                                 |

**Type 5 Radar Waveform\_15**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 2                | 58.3                     | 5                 | 1980                          |                               | 807.465                               |
| 2     | 3                | 56.4                     | 5                 | 1292                          | 1292                          | 389.053                               |
| 3     | 2                | 64.3                     | 5                 | 1327                          |                               | 53.676                                |
| 4     | 1                | 74.2                     | 5                 |                               |                               | 648.049                               |
| 5     | 3                | 78.4                     | 5                 | 1549                          | 1169                          | 284.602                               |
| 6     | 2                | 93.1                     | 5                 | 1846                          |                               | 119.365                               |
| 7     | 2                | 92.4                     | 5                 | 1307                          |                               | 886.978                               |
| 8     | 2                | 94.4                     | 5                 | 1986                          |                               | 395.912                               |
| 9     | 2                | 87.3                     | 5                 | 1093                          |                               | 729.435                               |
| 10    | 3                | 83.9                     | 5                 | 1713                          | 1965                          | 42.978                                |
| 11    | 3                | 55.2                     | 5                 | 1983                          | 1338                          | 697.751                               |
| 12    | 3                | 75                       | 5                 | 1584                          | 1357                          | 446.054                               |
| 13    | 2                | 67                       | 5                 | 1106                          |                               | 757.277                               |

**Type 5 Radar Waveform\_16**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 1                | 88.7                     | 13                |                               |                               | 875.925                               |
| 2     | 3                | 78.5                     | 13                | 1959                          | 1988                          | 592.75                                |
| 3     | 1                | 98.9                     | 13                |                               |                               | 976.33                                |
| 4     | 3                | 58.3                     | 13                | 1799                          | 1476                          | 1003.65                               |
| 5     | 3                | 66.6                     | 13                | 1811                          | 1429                          | 572.09                                |
| 6     | 3                | 62.1                     | 13                | 1251                          | 1644                          | 635.24                                |
| 7     | 2                | 69.7                     | 13                | 1956                          |                               | 1079.3                                |
| 8     | 2                | 82.4                     | 13                | 1267                          |                               | 74.34                                 |
| 9     | 1                | 61.6                     | 13                |                               |                               | 21.66                                 |
| 10    | 2                | 66.5                     | 13                | 1295                          |                               | 927.7                                 |

## Type 5 Radar Waveform\_17

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 2                | 97.2                     | 11                | 1945                          |                               | 285.159                               |
| 2     | 1                | 58.8                     | 11                |                               |                               | 431.703                               |
| 3     | 2                | 74.7                     | 11                | 1195                          |                               | 896.716                               |
| 4     | 1                | 67.4                     | 11                |                               |                               | 311.429                               |
| 5     | 1                | 54.1                     | 11                |                               |                               | 209.432                               |
| 6     | 3                | 55.3                     | 11                | 1831                          | 1103                          | 321.465                               |
| 7     | 2                | 80.7                     | 11                | 1418                          |                               | 457.428                               |
| 8     | 1                | 99.1                     | 11                |                               |                               | 525.722                               |
| 9     | 2                | 70.5                     | 11                | 1206                          |                               | 706.085                               |
| 10    | 1                | 85.5                     | 11                |                               |                               | 715.908                               |
| 11    | 3                | 58.4                     | 11                | 1996                          | 1257                          | 899.031                               |
| 12    | 2                | 81.1                     | 11                | 1939                          |                               | 441.354                               |
| 13    | 2                | 71.7                     | 11                | 1733                          |                               | 509.077                               |

## Type 5 Radar Waveform\_18

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 3                | 94.5                     | 11                | 1752                          | 1132                          | 569.824                               |
| 2     | 3                | 91.7                     | 11                | 1742                          | 1327                          | 485.121                               |
| 3     | 2                | 80                       | 11                | 1502                          |                               | 240.362                               |
| 4     | 3                | 75.5                     | 11                | 1610                          | 2000                          | 201.763                               |
| 5     | 1                | 80                       | 11                |                               |                               | 461.114                               |
| 6     | 1                | 61.6                     | 11                |                               |                               | 319.565                               |
| 7     | 2                | 78.3                     | 11                | 1157                          |                               | 252.136                               |
| 8     | 3                | 69.5                     | 11                | 1656                          | 1652                          | 266.177                               |
| 9     | 2                | 78.4                     | 11                | 1251                          |                               | 431.578                               |
| 10    | 1                | 89.8                     | 11                |                               |                               | 496.919                               |
| 11    | 2                | 96.7                     | 11                | 1087                          |                               | 556.521                               |
| 12    | 3                | 53.4                     | 11                | 1595                          | 1548                          | 179.892                               |
| 13    | 2                | 51.7                     | 11                | 1945                          |                               | 164.413                               |
| 14    | 3                | 65.7                     | 11                | 1317                          | 1359                          | 620.724                               |
| 15    | 1                | 91.8                     | 11                |                               |                               | 404.035                               |
| 16    | 1                | 66.1                     | 11                |                               |                               | 226.586                               |
| 17    | 2                | 94.9                     | 11                | 1150                          |                               | 443.737                               |
| 18    | 3                | 57.3                     | 11                | 1935                          | 1772                          | 239.758                               |
| 19    | 3                | 85.5                     | 11                | 1168                          | 1660                          | 255.679                               |

## Type 5 Radar Waveform\_19

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 3                | 50.4                     | 12                | 1036                          | 1565                          | 148.733                               |
| 2     | 3                | 79.3                     | 12                | 1674                          | 1574                          | 412.503                               |
| 3     | 2                | 62.5                     | 12                | 1183                          |                               | 529.287                               |
| 4     | 1                | 81.6                     | 12                |                               |                               | 579.98                                |
| 5     | 2                | 81.9                     | 12                | 1545                          |                               | 523.183                               |
| 6     | 2                | 82.8                     | 12                | 1778                          |                               | 198.257                               |
| 7     | 3                | 58.4                     | 12                | 1543                          | 1514                          | 2.95                                  |
| 8     | 2                | 61.9                     | 12                | 1102                          |                               | 542.353                               |
| 9     | 3                | 79.3                     | 12                | 1459                          | 1788                          | 511.997                               |
| 10    | 1                | 55.6                     | 12                |                               |                               | 289.73                                |
| 11    | 1                | 99.9                     | 12                |                               |                               | 152.093                               |
| 12    | 3                | 89.5                     | 12                | 1026                          | 1569                          | 586.007                               |
| 13    | 2                | 59.5                     | 12                | 1735                          |                               | 378.88                                |
| 14    | 1                | 98.1                     | 12                |                               |                               | 202.353                               |
| 15    | 3                | 50                       | 12                | 1346                          | 1385                          | 627.207                               |
| 16    | 3                | 79                       | 12                | 1663                          | 1865                          | 552.4                                 |
| 17    | 3                | 73                       | 12                | 1439                          | 1059                          | 51.533                                |
| 18    | 3                | 70.5                     | 12                | 1190                          | 1834                          | 23.367                                |

**Type 5 Radar Waveform\_20**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 2                | 80.9                     | 6                 | 1548                          |                               | 92.308                                |
| 2     | 2                | 79.8                     | 6                 | 1887                          |                               | 811.733                               |
| 3     | 2                | 95.7                     | 6                 | 1367                          |                               | 751.376                               |
| 4     | 2                | 54.4                     | 6                 | 1656                          |                               | 185.569                               |
| 5     | 3                | 73                       | 6                 | 1680                          | 1091                          | 563.592                               |
| 6     | 3                | 52.8                     | 6                 | 1759                          | 1034                          | 755.125                               |
| 7     | 1                | 61.1                     | 6                 |                               |                               | 312.268                               |
| 8     | 3                | 81.8                     | 6                 | 1754                          | 1023                          | 309.822                               |
| 9     | 1                | 78.5                     | 6                 |                               |                               | 495.435                               |
| 10    | 2                | 52.9                     | 6                 | 1095                          |                               | 109.708                               |
| 11    | 3                | 63.8                     | 6                 | 1266                          | 1792                          | 841.531                               |
| 12    | 3                | 79.1                     | 6                 | 1302                          | 1939                          | 342.554                               |
| 13    | 2                | 66.4                     | 6                 | 1405                          |                               | 670.577                               |

**Type 5 Radar Waveform\_21**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 2                | 69.3                     | 12                | 1449                          |                               | 679.61                                |
| 2     | 2                | 51.7                     | 12                | 1837                          |                               | 288.31                                |
| 3     | 2                | 99.7                     | 12                | 1157                          |                               | 424.02                                |
| 4     | 2                | 70.7                     | 12                | 1047                          |                               | 519.94                                |
| 5     | 3                | 51.7                     | 12                | 1415                          | 1039                          | 277.04                                |
| 6     | 1                | 77.4                     | 12                |                               |                               | 433.79                                |
| 7     | 3                | 80.3                     | 12                | 1144                          | 1681                          | 582.99                                |
| 8     | 2                | 74.5                     | 12                | 1252                          |                               | 351.73                                |
| 9     | 2                | 79.6                     | 12                | 1395                          |                               | 610.71                                |
| 10    | 2                | 56                       | 12                | 1141                          |                               | 43.55                                 |
| 11    | 3                | 85.6                     | 12                | 1398                          | 1716                          | 684.53                                |
| 12    | 3                | 52.5                     | 12                | 1220                          | 1517                          | 674.17                                |
| 13    | 2                | 96.4                     | 12                | 1909                          |                               | 135.18                                |
| 14    | 1                | 97.5                     | 12                |                               |                               | 248.4                                 |
| 15    | 3                | 70.3                     | 12                | 1970                          | 1335                          | 106.8                                 |

**Type 5 Radar Waveform\_22**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 2                | 97.3                     | 15                | 1436                          |                               | 200.677                               |
| 2     | 1                | 82                       | 15                |                               |                               | 128.898                               |
| 3     | 2                | 93.7                     | 15                | 1289                          |                               | 102.545                               |
| 4     | 2                | 74.9                     | 15                | 1187                          |                               | 647.433                               |
| 5     | 2                | 88.7                     | 15                | 1964                          |                               | 589.931                               |
| 6     | 2                | 75.5                     | 15                | 1062                          |                               | 473.448                               |
| 7     | 2                | 77.8                     | 15                | 1653                          |                               | 69.706                                |
| 8     | 3                | 63.6                     | 15                | 1608                          | 1208                          | 16.134                                |
| 9     | 1                | 53.2                     | 15                |                               |                               | 431.151                               |
| 10    | 3                | 96.3                     | 15                | 1809                          | 1799                          | 131.119                               |
| 11    | 1                | 85.7                     | 15                |                               |                               | 499.756                               |
| 12    | 1                | 91.7                     | 15                |                               |                               | 396.774                               |
| 13    | 1                | 92.6                     | 15                |                               |                               | 4.262                                 |
| 14    | 3                | 99                       | 15                | 1002                          | 1441                          | 352.469                               |
| 15    | 3                | 73.2                     | 15                | 1089                          | 1695                          | 639.747                               |
| 16    | 2                | 54.8                     | 15                | 1376                          |                               | 161.365                               |
| 17    | 2                | 57.8                     | 15                | 1281                          |                               | 0.782                                 |



| Type 5 Radar Waveform_23 |                  |                          |                   |                               |                               |                                       |
|--------------------------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| Burst                    | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
| 1                        | 1                | 64.1                     | 16                |                               |                               | 296.138                               |
| 2                        | 2                | 63.8                     | 16                | 1333                          |                               | 607.58                                |
| 3                        | 1                | 54.2                     | 16                |                               |                               | 265.46                                |
| 4                        | 1                | 73.1                     | 16                |                               |                               | 511.5                                 |
| 5                        | 2                | 79.2                     | 16                | 1358                          |                               | 677.39                                |
| 6                        | 2                | 50.5                     | 16                | 1763                          |                               | 50.14                                 |
| 7                        | 2                | 94.9                     | 16                | 1094                          |                               | 242.73                                |
| 8                        | 1                | 98                       | 16                |                               |                               | 196.45                                |
| 9                        | 3                | 62.1                     | 16                | 1139                          | 1004                          | 247.74                                |
| 10                       | 1                | 73.2                     | 16                |                               |                               | 204.59                                |
| 11                       | 2                | 80.6                     | 16                | 1029                          |                               | 472.92                                |
| 12                       | 2                | 74.7                     | 16                | 1102                          |                               | 610.66                                |
| 13                       | 1                | 62.7                     | 16                |                               |                               | 59.23                                 |
| 14                       | 2                | 90.6                     | 16                | 1083                          |                               | 528.6                                 |
| 15                       | 2                | 72.9                     | 16                | 1544                          |                               | 110.9                                 |
| 16                       | 2                | 87.6                     | 16                | 1608                          |                               | 11.4                                  |

| Type 5 Radar Waveform_24 |                  |                          |                   |                               |                               |                                       |
|--------------------------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| Burst                    | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
| 1                        | 2                | 82.9                     | 8                 | 1593                          |                               | 161.666                               |
| 2                        | 1                | 94.4                     | 8                 |                               |                               | 259.024                               |
| 3                        | 1                | 84.6                     | 8                 |                               |                               | 316.85                                |
| 4                        | 2                | 84.8                     | 8                 | 1621                          |                               | 432.47                                |
| 5                        | 2                | 98.4                     | 8                 | 1673                          |                               | 107.06                                |
| 6                        | 1                | 74.1                     | 8                 |                               |                               | 525.29                                |
| 7                        | 3                | 62.3                     | 8                 | 1149                          | 1672                          | 206.88                                |
| 8                        | 2                | 75.1                     | 8                 | 1571                          |                               | 531.32                                |
| 9                        | 2                | 81.5                     | 8                 | 1918                          |                               | 32.72                                 |
| 10                       | 1                | 98.3                     | 8                 |                               |                               | 540.13                                |
| 11                       | 3                | 96.2                     | 8                 | 1636                          | 1728                          | 475.51                                |
| 12                       | 1                | 78.2                     | 8                 |                               |                               | 89.39                                 |
| 13                       | 1                | 60.7                     | 8                 |                               |                               | 445.78                                |
| 14                       | 3                | 67.4                     | 8                 | 1478                          | 1117                          | 217.61                                |
| 15                       | 3                | 56                       | 8                 | 1280                          | 1250                          | 404.49                                |
| 16                       | 2                | 93.1                     | 8                 | 1583                          |                               | 25.17                                 |
| 17                       | 1                | 55.6                     | 8                 |                               |                               | 481.4                                 |
| 18                       | 2                | 62.6                     | 8                 | 1089                          |                               | 30.8                                  |
| 19                       | 1                | 88.6                     | 8                 |                               |                               | 560.8                                 |
| 20                       | 2                | 61.3                     | 8                 | 1257                          |                               | 3.2                                   |

| Type 5 Radar Waveform_25 |                  |                          |                   |                               |                               |                                       |
|--------------------------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| Burst                    | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
| 1                        | 1                | 57.7                     | 5                 |                               |                               | 83.482                                |
| 2                        | 2                | 90.3                     | 5                 | 1880                          |                               | 178.868                               |
| 3                        | 1                | 90.9                     | 5                 |                               |                               | 284.19                                |
| 4                        | 3                | 66.2                     | 5                 | 1725                          | 1632                          | 140.23                                |
| 5                        | 3                | 75.4                     | 5                 | 1709                          | 1079                          | 89.16                                 |
| 6                        | 3                | 56.7                     | 5                 | 1206                          | 1278                          | 137.27                                |
| 7                        | 2                | 72.3                     | 5                 | 1520                          |                               | 546.05                                |
| 8                        | 1                | 97.1                     | 5                 |                               |                               | 251.86                                |
| 9                        | 3                | 76.2                     | 5                 | 1077                          | 1362                          | 120.32                                |
| 10                       | 3                | 56.9                     | 5                 | 1042                          | 1125                          | 214.45                                |
| 11                       | 1                | 87.8                     | 5                 |                               |                               | 313.1                                 |
| 12                       | 3                | 99.9                     | 5                 | 1438                          | 1430                          | 42.61                                 |
| 13                       | 3                | 75.8                     | 5                 | 1512                          | 1124                          | 114.41                                |
| 14                       | 1                | 58.6                     | 5                 |                               |                               | 50.43                                 |
| 15                       | 1                | 74.2                     | 5                 |                               |                               | 566.33                                |
| 16                       | 2                | 88.7                     | 5                 | 1624                          |                               | 20.54                                 |
| 17                       | 1                | 97.6                     | 5                 |                               |                               | 46.09                                 |
| 18                       | 1                | 84.5                     | 5                 |                               |                               | 58.4                                  |
| 19                       | 2                | 68.7                     | 5                 | 1846                          |                               | 296.3                                 |
| 20                       | 2                | 52.9                     | 5                 | 1435                          |                               | 163                                   |

**Type 5 Radar Waveform\_26**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 1                | 99.6                     | 12                |                               |                               | 37.601                                |
| 2     | 2                | 58.9                     | 12                | 1088                          |                               | 461.303                               |
| 3     | 3                | 52.6                     | 12                | 1084                          | 1489                          | 50.406                                |
| 4     | 2                | 61.4                     | 12                | 1015                          |                               | 590.499                               |
| 5     | 2                | 75.9                     | 12                | 1753                          |                               | 652.642                               |
| 6     | 3                | 52.6                     | 12                | 1734                          | 1098                          | 106.975                               |
| 7     | 1                | 61.3                     | 12                |                               |                               | 472.578                               |
| 8     | 1                | 76                       | 12                |                               |                               | 436.262                               |
| 9     | 1                | 64.1                     | 12                |                               |                               | 424.025                               |
| 10    | 1                | 65.3                     | 12                |                               |                               | 599.678                               |
| 11    | 2                | 72.8                     | 12                | 1424                          |                               | 492.951                               |
| 12    | 1                | 74.3                     | 12                |                               |                               | 648.654                               |
| 13    | 1                | 92.2                     | 12                |                               |                               | 798.977                               |

**Type 5 Radar Waveform\_27**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 2                | 92.4                     | 18                | 1516                          |                               | 498.581                               |
| 2     | 2                | 55.9                     | 18                | 1750                          |                               | 613.56                                |
| 3     | 1                | 59                       | 18                |                               |                               | 232.49                                |
| 4     | 2                | 80.5                     | 18                | 1052                          |                               | 90.42                                 |
| 5     | 2                | 89.9                     | 18                | 1922                          |                               | 765.65                                |
| 6     | 2                | 82.1                     | 18                | 1181                          |                               | 737.67                                |
| 7     | 3                | 98.9                     | 18                | 1641                          | 1707                          | 52.81                                 |
| 8     | 3                | 60.6                     | 18                | 1488                          | 1959                          | 472.78                                |
| 9     | 2                | 84.7                     | 18                | 1480                          |                               | 565.6                                 |
| 10    | 3                | 87.7                     | 18                | 1809                          | 1386                          | 766.22                                |
| 11    | 3                | 74.7                     | 18                | 1219                          | 1121                          | 293.49                                |
| 12    | 2                | 82.7                     | 18                | 1881                          |                               | 91.75                                 |
| 13    | 2                | 61.7                     | 18                | 1257                          |                               | 388.16                                |
| 14    | 3                | 75.1                     | 18                | 1268                          | 1771                          | 786.9                                 |
| 15    | 2                | 61.8                     | 18                | 1598                          |                               | 623.7                                 |

**Type 5 Radar Waveform\_28**

| Burst | Number of Pulses | Pulse Width ( $\mu$ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI ( $\mu$ sec) | Pulse 2-to-3 PRI ( $\mu$ sec) | Start Location Within Interval (msec) |
|-------|------------------|--------------------------|-------------------|-------------------------------|-------------------------------|---------------------------------------|
| 1     | 3                | 88.6                     | 9                 | 1666                          | 1826                          | 276.656                               |
| 2     | 1                | 60.3                     | 9                 |                               |                               | 403.491                               |
| 3     | 2                | 53.4                     | 9                 | 1203                          |                               | 204.172                               |
| 4     | 2                | 74.9                     | 9                 | 1809                          |                               | 277.423                               |
| 5     | 2                | 77.2                     | 9                 | 1831                          |                               | 212.514                               |
| 6     | 3                | 77.8                     | 9                 | 1126                          | 1980                          | 285.855                               |
| 7     | 2                | 62.3                     | 9                 | 1393                          |                               | 480.056                               |
| 8     | 2                | 69                       | 9                 | 1772                          |                               | 585.457                               |
| 9     | 3                | 59                       | 9                 | 1277                          | 1103                          | 270.558                               |
| 10    | 2                | 74.4                     | 9                 | 1310                          |                               | 387.329                               |
| 11    | 2                | 56.9                     | 9                 | 1048                          |                               | 576.101                               |
| 12    | 2                | 91.1                     | 9                 | 1399                          |                               | 605.492                               |
| 13    | 1                | 54.4                     | 9                 |                               |                               | 325.053                               |
| 14    | 2                | 57.9                     | 9                 | 1357                          |                               | 284.234                               |
| 15    | 2                | 73.6                     | 9                 | 1066                          |                               | 222.695                               |
| 16    | 2                | 72.2                     | 9                 | 1738                          |                               | 48.166                                |
| 17    | 2                | 84.6                     | 9                 | 1569                          |                               | 92.537                                |
| 18    | 1                | 93                       | 9                 |                               |                               | 220.558                               |
| 19    | 1                | 96.8                     | 9                 |                               |                               | 408.979                               |

**Type 5 Radar Waveform\_29**

| Burst | Number of Pulses | Pulse Width (μ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (μsec) | Pulse 2-to-3 PRI (μsec) | Start Location Within Interval (msec) |
|-------|------------------|---------------------|-------------------|-------------------------|-------------------------|---------------------------------------|
| 1     | 2                | 86.7                | 5                 | 1267                    |                         | 373.517                               |
| 2     | 2                | 71.4                | 5                 | 1987                    |                         | 595.281                               |
| 3     | 2                | 89.1                | 5                 | 1194                    |                         | 112.352                               |
| 4     | 3                | 82.4                | 5                 | 1552                    | 1350                    | 351.543                               |
| 5     | 2                | 77.6                | 5                 | 1797                    |                         | 68.334                                |
| 6     | 2                | 63.1                | 5                 | 1401                    |                         | 109.715                               |
| 7     | 3                | 98.6                | 5                 | 1190                    | 1856                    | 514.126                               |
| 8     | 1                | 99.4                | 5                 |                         |                         | 275.347                               |
| 9     | 2                | 54.5                | 5                 | 1923                    |                         | 245.478                               |
| 10    | 1                | 63.1                | 5                 |                         |                         | 428.109                               |
| 11    | 2                | 96.3                | 5                 | 1485                    |                         | 10.281                                |
| 12    | 2                | 69.9                | 5                 | 1117                    |                         | 465.962                               |
| 13    | 2                | 54.5                | 5                 | 1196                    |                         | 89.923                                |
| 14    | 3                | 66.3                | 5                 | 1611                    | 1019                    | 568.054                               |
| 15    | 3                | 81.6                | 5                 | 1777                    | 1482                    | 170.905                               |
| 16    | 2                | 58                  | 5                 | 1202                    |                         | 244.456                               |
| 17    | 1                | 58.3                | 5                 |                         |                         | 308.837                               |
| 18    | 1                | 74.8                | 5                 |                         |                         | 203.258                               |
| 19    | 2                | 88.5                | 5                 | 1923                    |                         | 580.179                               |

**Type 5 Radar Waveform\_30**

| Burst | Number of Pulses | Pulse Width (μ sec) | Chirp Width (MHz) | Pulse 1-to-2 PRI (μsec) | Pulse 2-to-3 PRI (μsec) | Start Location Within Interval (msec) |
|-------|------------------|---------------------|-------------------|-------------------------|-------------------------|---------------------------------------|
| 1     | 2                | 56.7                | 12                | 1169                    |                         | 415.186                               |
| 2     | 2                | 89.9                | 12                | 1713                    |                         | 575.651                               |
| 3     | 2                | 61.6                | 12                | 1813                    |                         | 234.692                               |
| 4     | 2                | 62.1                | 12                | 1490                    |                         | 460.873                               |
| 5     | 1                | 64.5                | 12                |                         |                         | 574.644                               |
| 6     | 2                | 84.5                | 12                | 1613                    |                         | 320.695                               |
| 7     | 2                | 61                  | 12                | 1574                    |                         | 411.866                               |
| 8     | 2                | 55.1                | 12                | 1710                    |                         | 96.917                                |
| 9     | 2                | 51.5                | 12                | 1475                    |                         | 436.558                               |
| 10    | 1                | 70.8                | 12                |                         |                         | 397.299                               |
| 11    | 2                | 79                  | 12                | 1255                    |                         | 576.151                               |
| 12    | 3                | 88.1                | 12                | 1898                    | 1775                    | 347.032                               |
| 13    | 1                | 93                  | 12                |                         |                         | 457.873                               |
| 14    | 2                | 86.5                | 12                | 1632                    |                         | 134.144                               |
| 15    | 2                | 64.5                | 12                | 1005                    |                         | 399.285                               |
| 16    | 2                | 85.8                | 12                | 1790                    |                         | 205.766                               |
| 17    | 2                | 98.4                | 12                | 1618                    |                         | 198.937                               |
| 18    | 1                | 82.8                | 12                |                         |                         | 546.258                               |
| 19    | 1                | 75.7                | 12                |                         |                         | 310.479                               |

## Radar Type 6 - Radar Statistical Performance

| Trail #                  | 1=Detection<br>0=No Detection | Trail # | 1=Detection<br>0=No Detection |
|--------------------------|-------------------------------|---------|-------------------------------|
| 1                        | 1                             | 16      | 1                             |
| 2                        | 1                             | 17      | 1                             |
| 3                        | 1                             | 18      | 1                             |
| 4                        | 1                             | 19      | 1                             |
| 5                        | 1                             | 20      | 1                             |
| 6                        | 1                             | 21      | 1                             |
| 7                        | 1                             | 22      | 1                             |
| 8                        | 1                             | 23      | 1                             |
| 9                        | 1                             | 24      | 1                             |
| 10                       | 1                             | 25      | 1                             |
| 11                       | 1                             | 26      | 1                             |
| 12                       | 1                             | 27      | 1                             |
| 13                       | 1                             | 28      | 1                             |
| 14                       | 0                             | 29      | 0                             |
| 15                       | 1                             | 30      | 1                             |
| Detection Percentage (%) |                               |         | 93.3%                         |

| Radar waveform #1 |                 |                  | Radar waveform #2 |                 |                  |
|-------------------|-----------------|------------------|-------------------|-----------------|------------------|
| Hopping Number    | Frequency (MHz) | Pulse Start (ms) | Hopping Number    | Frequency (MHz) | Pulse Start (ms) |
| 3                 | 5497            | 9                | 2                 | 5478            | 6                |
| 12                | 5509            | 36               | 3                 | 5498            | 9                |
| 20                | 5463            | 60               | 21                | 5512            | 63               |
| 25                | 5503            | 75               | 26                | 5520            | 78               |
| 28                | 5521            | 84               | 28                | 5522            | 84               |
| 33                | 5493            | 99               | 33                | 5540            | 99               |
| 36                | 5519            | 108              | 53                | 5464            | 159              |
| 37                | 5476            | 111              | 56                | 5501            | 168              |
| 39                | 5495            | 117              | 57                | 5487            | 171              |
| 41                | 5501            | 123              | 65                | 5530            | 195              |
| 42                | 5469            | 126              | 67                | 5532            | 201              |
| 46                | 5517            | 138              | 69                | 5513            | 207              |
| 53                | 5464            | 159              | 84                | 5507            | 252              |
| 54                | 5502            | 162              | 85                | 5484            | 255              |
| 58                | 5474            | 174              | 86                | 5508            | 258              |
| 61                | 5462            | 183              | 87                | 5502            | 261              |
| 81                | 5499            | 243              | 92                | 5473            | 276              |
| 90                | 5530            | 270              | --                | --              | --               |
| 96                | 5538            | 288              | --                | --              | --               |
| 99                | 5539            | 297              | --                | --              | --               |

| Radar waveform #3 |                 |                  | Radar waveform #4 |                 |                  |
|-------------------|-----------------|------------------|-------------------|-----------------|------------------|
| Hopping Number    | Frequency (MHz) | Pulse Start (ms) | Hopping Number    | Frequency (MHz) | Pulse Start (ms) |
| 1                 | 5497            | 3                | 1                 | 5472            | 3                |
| 4                 | 5472            | 12               | 2                 | 5465            | 6                |
| 12                | 5501            | 36               | 12                | 5511            | 36               |
| 34                | 5539            | 102              | 17                | 5468            | 51               |
| 35                | 5526            | 105              | 18                | 5481            | 54               |
| 43                | 5492            | 129              | 29                | 5480            | 87               |
| 52                | 5519            | 156              | 33                | 5496            | 99               |
| 57                | 5484            | 171              | 34                | 5485            | 102              |
| 58                | 5525            | 174              | 35                | 5500            | 105              |
| 69                | 5529            | 207              | 42                | 5469            | 126              |
| 90                | 5489            | 270              | 43                | 5494            | 129              |
| --                | --              | --               | 47                | 5487            | 141              |
| --                | --              | --               | 49                | 5493            | 147              |
| --                | --              | --               | 57                | 5540            | 171              |
| --                | --              | --               | 63                | 5529            | 189              |
| --                | --              | --               | 70                | 5517            | 210              |
| --                | --              | --               | 72                | 5518            | 216              |
| --                | --              | --               | 74                | 5476            | 222              |
| --                | --              | --               | 76                | 5535            | 228              |
| --                | --              | --               | 77                | 5466            | 231              |
| --                | --              | --               | 79                | 5503            | 237              |
| --                | --              | --               | 82                | 5524            | 246              |
| --                | --              | --               | 92                | 5483            | 276              |

| Radar waveform #5 |                 |                  | Radar waveform #6 |                 |                  |
|-------------------|-----------------|------------------|-------------------|-----------------|------------------|
| Hopping Number    | Frequency (MHz) | Pulse Start (ms) | Hopping Number    | Frequency (MHz) | Pulse Start (ms) |
| 1                 | 5533            | 3                | 18                | 5522            | 54               |
| 2                 | 5529            | 6                | 27                | 5526            | 81               |
| 8                 | 5519            | 24               | 33                | 5535            | 99               |
| 19                | 5479            | 57               | 48                | 5499            | 144              |
| 23                | 5534            | 69               | 54                | 5462            | 162              |
| 26                | 5520            | 78               | 59                | 5464            | 177              |
| 49                | 5499            | 147              | 67                | 5509            | 201              |
| 53                | 5506            | 159              | 73                | 5520            | 219              |
| 67                | 5496            | 201              | 85                | 5465            | 255              |
| 79                | 5470            | 237              | 86                | 5521            | 258              |
| 84                | 5532            | 252              | 91                | 5486            | 273              |
| 91                | 5467            | 273              | 96                | 5506            | 288              |
| 96                | 5482            | 288              | --                | --              | --               |

| Radar waveform #7 |                 |                  | Radar waveform #8 |                 |                  |
|-------------------|-----------------|------------------|-------------------|-----------------|------------------|
| Hopping Number    | Frequency (MHz) | Pulse Start (ms) | Hopping Number    | Frequency (MHz) | Pulse Start (ms) |
| 13                | 5529            | 39               | 32                | 5526            | 96               |
| 14                | 5486            | 42               | 39                | 5498            | 117              |
| 16                | 5502            | 48               | 40                | 5501            | 120              |
| 24                | 5479            | 72               | 41                | 5531            | 123              |
| 34                | 5467            | 102              | 52                | 5484            | 156              |
| 36                | 5488            | 108              | 55                | 5464            | 165              |
| 39                | 5478            | 117              | 56                | 5479            | 168              |
| 49                | 5477            | 147              | 60                | 5474            | 180              |
| 53                | 5470            | 159              | 66                | 5461            | 198              |
| 57                | 5505            | 171              | 74                | 5460            | 222              |
| 60                | 5496            | 180              | 75                | 5472            | 225              |
| 63                | 5532            | 189              | 78                | 5524            | 234              |
| 64                | 5537            | 192              | 83                | 5506            | 249              |
| 65                | 5461            | 195              | 85                | 5522            | 255              |
| 77                | 5469            | 231              | 92                | 5490            | 276              |
| 79                | 5487            | 237              | 96                | 5502            | 288              |
| 83                | 5504            | 249              | --                | --              | --               |
| 92                | 5536            | 276              | --                | --              | --               |
| 98                | 5490            | 294              | --                | --              | --               |



| Radar waveform #9 |                 |                  | Radar waveform #10 |                 |                  |
|-------------------|-----------------|------------------|--------------------|-----------------|------------------|
| Hopping Number    | Frequency (MHz) | Pulse Start (ms) | Hopping Number     | Frequency (MHz) | Pulse Start (ms) |
| 1                 | 5474            | 3                | 2                  | 5494            | 6                |
| 12                | 5485            | 36               | 5                  | 5480            | 15               |
| 13                | 5490            | 39               | 6                  | 5464            | 18               |
| 18                | 5501            | 54               | 7                  | 5540            | 21               |
| 21                | 5507            | 63               | 37                 | 5502            | 111              |
| 58                | 5465            | 174              | 46                 | 5506            | 138              |
| 61                | 5538            | 183              | 52                 | 5531            | 156              |
| 63                | 5468            | 189              | 57                 | 5470            | 171              |
| 67                | 5491            | 201              | 72                 | 5469            | 216              |
| 70                | 5526            | 210              | 98                 | 5491            | 294              |
| 82                | 5479            | 246              | --                 | --              | --               |
| 92                | 5513            | 276              | --                 | --              | --               |

| Radar waveform #11 |                 |                  | Radar waveform #12 |                 |                  |
|--------------------|-----------------|------------------|--------------------|-----------------|------------------|
| Hopping Number     | Frequency (MHz) | Pulse Start (ms) | Hopping Number     | Frequency (MHz) | Pulse Start (ms) |
| 10                 | 5471            | 30               | 4                  | 5477            | 12               |
| 15                 | 5489            | 45               | 32                 | 5540            | 96               |
| 18                 | 5494            | 54               | 33                 | 5475            | 99               |
| 20                 | 5513            | 60               | 43                 | 5476            | 129              |
| 37                 | 5477            | 111              | 47                 | 5500            | 141              |
| 46                 | 5534            | 138              | 52                 | 5519            | 156              |
| 48                 | 5498            | 144              | 63                 | 5506            | 189              |
| 49                 | 5536            | 147              | 64                 | 5522            | 192              |
| 63                 | 5491            | 189              | 75                 | 5516            | 225              |
| 71                 | 5481            | 213              | 77                 | 5518            | 231              |
| 76                 | 5516            | 228              | 78                 | 5525            | 234              |
| 84                 | 5472            | 252              | 85                 | 5480            | 255              |
| 89                 | 5483            | 267              | 90                 | 5487            | 270              |
| 91                 | 5460            | 273              | 94                 | 5509            | 282              |
| 93                 | 5465            | 279              | 95                 | 5530            | 285              |
| 94                 | 5487            | 282              | 98                 | 5538            | 294              |
| 95                 | 5478            | 285              | --                 | --              | --               |
| 96                 | 5469            | 288              | --                 | --              | --               |

| Radar waveform #13 |                 |                  | Radar waveform #14 |                 |                  |
|--------------------|-----------------|------------------|--------------------|-----------------|------------------|
| Hopping Number     | Frequency (MHz) | Pulse Start (ms) | Hopping Number     | Frequency (MHz) | Pulse Start (ms) |
| 1                  | 5483            | 3                | 1                  | 5531            | 3                |
| 12                 | 5510            | 36               | 10                 | 5523            | 30               |
| 16                 | 5520            | 48               | 13                 | 5536            | 39               |
| 17                 | 5495            | 51               | 17                 | 5490            | 51               |
| 28                 | 5536            | 84               | 23                 | 5475            | 69               |
| 29                 | 5535            | 87               | 31                 | 5512            | 93               |
| 36                 | 5467            | 108              | 38                 | 5520            | 114              |
| 37                 | 5519            | 111              | 49                 | 5480            | 147              |
| 41                 | 5499            | 123              | 55                 | 5540            | 165              |
| 53                 | 5500            | 159              | 71                 | 5465            | 213              |
| 55                 | 5492            | 165              | 72                 | 5525            | 216              |
| 57                 | 5494            | 171              | 80                 | 5535            | 240              |
| 62                 | 5540            | 186              | 81                 | 5482            | 243              |
| 72                 | 5502            | 216              | 89                 | 5481            | 267              |
| 83                 | 5478            | 249              | --                 | --              | --               |
| 87                 | 5479            | 261              | --                 | --              | --               |
| 91                 | 5530            | 273              | --                 | --              | --               |
| 93                 | 5507            | 279              | --                 | --              | --               |

| Radar waveform #15 |                 |                  | Radar waveform #16 |                 |                  |
|--------------------|-----------------|------------------|--------------------|-----------------|------------------|
| Hopping Number     | Frequency (MHz) | Pulse Start (ms) | Hopping Number     | Frequency (MHz) | Pulse Start (ms) |
| 1                  | 5489            | 3                | 6                  | 5538            | 18               |
| 18                 | 5491            | 54               | 9                  | 5534            | 27               |
| 22                 | 5540            | 66               | 13                 | 5474            | 39               |
| 34                 | 5495            | 102              | 15                 | 5462            | 45               |
| 44                 | 5516            | 132              | 17                 | 5508            | 51               |
| 52                 | 5510            | 156              | 26                 | 5485            | 78               |
| 56                 | 5505            | 168              | 33                 | 5466            | 99               |
| 76                 | 5479            | 228              | 36                 | 5531            | 108              |
| 87                 | 5466            | 261              | 38                 | 5487            | 114              |
| 97                 | 5498            | 291              | 39                 | 5464            | 117              |
| --                 | --              | --               | 43                 | 5516            | 129              |
| --                 | --              | --               | 46                 | 5519            | 138              |
| --                 | --              | --               | 56                 | 5491            | 168              |
| --                 | --              | --               | 64                 | 5481            | 192              |
| --                 | --              | --               | 72                 | 5463            | 216              |
| --                 | --              | --               | 73                 | 5482            | 219              |
| --                 | --              | --               | 79                 | 5527            | 237              |
| --                 | --              | --               | 84                 | 5460            | 252              |
| --                 | --              | --               | 91                 | 5509            | 273              |
| --                 | --              | --               | 92                 | 5497            | 276              |

| Radar waveform #17 |                 |                  | Radar waveform #18 |                 |                  |
|--------------------|-----------------|------------------|--------------------|-----------------|------------------|
| Hopping Number     | Frequency (MHz) | Pulse Start (ms) | Hopping Number     | Frequency (MHz) | Pulse Start (ms) |
| 1                  | 5514            | 3                | 7                  | 5491            | 21               |
| 2                  | 5482            | 6                | 10                 | 5482            | 30               |
| 9                  | 5473            | 27               | 11                 | 5518            | 33               |
| 11                 | 5488            | 33               | 14                 | 5502            | 42               |
| 17                 | 5538            | 51               | 17                 | 5512            | 51               |
| 29                 | 5463            | 87               | 26                 | 5530            | 78               |
| 32                 | 5503            | 96               | 27                 | 5470            | 81               |
| 34                 | 5467            | 102              | 29                 | 5534            | 87               |
| 35                 | 5505            | 105              | 30                 | 5510            | 90               |
| 37                 | 5493            | 111              | 39                 | 5480            | 117              |
| 40                 | 5516            | 120              | 42                 | 5487            | 126              |
| 48                 | 5474            | 144              | 47                 | 5498            | 141              |
| 58                 | 5528            | 174              | 61                 | 5529            | 183              |
| 59                 | 5536            | 177              | 62                 | 5515            | 186              |
| 61                 | 5461            | 183              | 65                 | 5504            | 195              |
| 72                 | 5504            | 216              | 68                 | 5532            | 204              |
| 74                 | 5468            | 222              | 78                 | 5490            | 234              |
| 75                 | 5524            | 225              | 83                 | 5539            | 249              |
| 82                 | 5535            | 246              | 84                 | 5508            | 252              |
| 90                 | 5507            | 270              | 90                 | 5488            | 270              |
| 96                 | 5509            | 288              | 97                 | 5517            | 291              |
| 98                 | 5534            | 294              | --                 | --              | --               |
| 100                | 5506            | 300              | --                 | --              | --               |

| Radar waveform #19 |                 |                  | Radar waveform #20 |                 |                  |
|--------------------|-----------------|------------------|--------------------|-----------------|------------------|
| Hopping Number     | Frequency (MHz) | Pulse Start (ms) | Hopping Number     | Frequency (MHz) | Pulse Start (ms) |
| 14                 | 5502            | 42               | 9                  | 5469            | 27               |
| 16                 | 5494            | 48               | 15                 | 5499            | 45               |
| 17                 | 5528            | 51               | 21                 | 5521            | 63               |
| 21                 | 5465            | 63               | 59                 | 5532            | 177              |
| 28                 | 5524            | 84               | 60                 | 5504            | 180              |
| 31                 | 5527            | 93               | 65                 | 5492            | 195              |
| 70                 | 5480            | 210              | 68                 | 5501            | 204              |
| 72                 | 5484            | 216              | 73                 | 5523            | 219              |
| 76                 | 5532            | 228              | 79                 | 5525            | 237              |
| 77                 | 5515            | 231              | 81                 | 5537            | 243              |
| 86                 | 5535            | 258              | 86                 | 5466            | 258              |
| 89                 | 5536            | 267              | 90                 | 5517            | 270              |
| 96                 | 5517            | 288              | 91                 | 5519            | 273              |
| 97                 | 5492            | 291              | --                 | --              | --               |

| Radar waveform #21 |                 |                  | Radar waveform #22 |                 |                  |
|--------------------|-----------------|------------------|--------------------|-----------------|------------------|
| Hopping Number     | Frequency (MHz) | Pulse Start (ms) | Hopping Number     | Frequency (MHz) | Pulse Start (ms) |
| 2                  | 5480            | 6                | 13                 | 5506            | 39               |
| 4                  | 5540            | 12               | 14                 | 5469            | 42               |
| 16                 | 5494            | 48               | 22                 | 5504            | 66               |
| 27                 | 5523            | 81               | 35                 | 5477            | 105              |
| 29                 | 5469            | 87               | 40                 | 5462            | 120              |
| 34                 | 5536            | 102              | 44                 | 5527            | 132              |
| 48                 | 5491            | 144              | 45                 | 5512            | 135              |
| 59                 | 5511            | 177              | 46                 | 5508            | 138              |
| 65                 | 5505            | 195              | 48                 | 5540            | 144              |
| 73                 | 5528            | 219              | 52                 | 5486            | 156              |
| 75                 | 5518            | 225              | 63                 | 5535            | 189              |
| 77                 | 5492            | 231              | 65                 | 5498            | 195              |
| 80                 | 5485            | 240              | 72                 | 5494            | 216              |
| 84                 | 5467            | 252              | 76                 | 5534            | 228              |
| 85                 | 5521            | 255              | 91                 | 5463            | 273              |
| 86                 | 5487            | 258              | 95                 | 5499            | 285              |
| 87                 | 5522            | 261              | --                 | --              | --               |
| 89                 | 5482            | 267              | --                 | --              | --               |
| 93                 | 5539            | 279              | --                 | --              | --               |
| 100                | 5481            | 300              | --                 | --              | --               |

| Radar waveform #23 |                 |                  | Radar waveform #24 |                 |                  |
|--------------------|-----------------|------------------|--------------------|-----------------|------------------|
| Hopping Number     | Frequency (MHz) | Pulse Start (ms) | Hopping Number     | Frequency (MHz) | Pulse Start (ms) |
| 12                 | 5500            | 36               | 17                 | 5480            | 51               |
| 25                 | 5497            | 75               | 20                 | 5478            | 60               |
| 26                 | 5526            | 78               | 21                 | 5502            | 63               |
| 27                 | 5496            | 81               | 24                 | 5485            | 72               |
| 29                 | 5519            | 87               | 26                 | 5539            | 78               |
| 32                 | 5470            | 96               | 29                 | 5511            | 87               |
| 41                 | 5516            | 123              | 30                 | 5512            | 90               |
| 52                 | 5528            | 156              | 35                 | 5493            | 105              |
| 55                 | 5520            | 165              | 47                 | 5517            | 141              |
| 57                 | 5508            | 171              | 54                 | 5537            | 162              |
| 61                 | 5471            | 183              | 58                 | 5500            | 174              |
| 67                 | 5490            | 201              | 62                 | 5474            | 186              |
| 74                 | 5476            | 222              | 66                 | 5526            | 198              |
| 75                 | 5523            | 225              | 68                 | 5488            | 204              |
| 78                 | 5507            | 234              | 69                 | 5536            | 207              |
| 87                 | 5540            | 261              | 70                 | 5509            | 210              |
| 97                 | 5510            | 291              | 75                 | 5507            | 225              |
| 100                | 5465            | 300              | 76                 | 5463            | 228              |
| --                 | --              | --               | 92                 | 5469            | 276              |
| --                 | --              | --               | 99                 | 5467            | 297              |

| Radar waveform #25 |                 |                  | Radar waveform #26 |                 |                  |
|--------------------|-----------------|------------------|--------------------|-----------------|------------------|
| Hopping Number     | Frequency (MHz) | Pulse Start (ms) | Hopping Number     | Frequency (MHz) | Pulse Start (ms) |
| 12                 | 5519            | 36               | 1                  | 5517            | 3                |
| 18                 | 5461            | 54               | 13                 | 5507            | 39               |
| 22                 | 5493            | 66               | 28                 | 5490            | 84               |
| 28                 | 5530            | 84               | 34                 | 5470            | 102              |
| 30                 | 5507            | 90               | 36                 | 5499            | 108              |
| 37                 | 5479            | 111              | 38                 | 5522            | 114              |
| 43                 | 5521            | 129              | 45                 | 5529            | 135              |
| 48                 | 5513            | 144              | 57                 | 5485            | 171              |
| 73                 | 5500            | 219              | 59                 | 5540            | 177              |
| 79                 | 5510            | 237              | 60                 | 5472            | 180              |
| 83                 | 5508            | 249              | 73                 | 5494            | 219              |
| 87                 | 5499            | 261              | 75                 | 5478            | 225              |
| 91                 | 5480            | 273              | 77                 | 5501            | 231              |
| 93                 | 5523            | 279              | 78                 | 5508            | 234              |
| 94                 | 5528            | 282              | 86                 | 5463            | 258              |
| 98                 | 5481            | 294              | 96                 | 5516            | 288              |
| 100                | 5538            | 300              | 97                 | 5483            | 291              |
| --                 | --              | --               | 99                 | 5481            | 297              |



| Radar waveform #27 |                 |                  | Radar waveform #28 |                 |                  |
|--------------------|-----------------|------------------|--------------------|-----------------|------------------|
| Hopping Number     | Frequency (MHz) | Pulse Start (ms) | Hopping Number     | Frequency (MHz) | Pulse Start (ms) |
| 3                  | 5511            | 9                | 7                  | 5484            | 21               |
| 9                  | 5527            | 27               | 12                 | 5471            | 36               |
| 12                 | 5526            | 36               | 13                 | 5498            | 39               |
| 13                 | 5501            | 39               | 19                 | 5483            | 57               |
| 33                 | 5518            | 99               | 23                 | 5536            | 69               |
| 36                 | 5478            | 108              | 24                 | 5528            | 72               |
| 37                 | 5470            | 111              | 30                 | 5460            | 90               |
| 39                 | 5513            | 117              | 39                 | 5512            | 117              |
| 48                 | 5497            | 144              | 45                 | 5492            | 135              |
| 59                 | 5521            | 177              | 48                 | 5502            | 144              |
| 61                 | 5516            | 183              | 56                 | 5469            | 168              |
| 66                 | 5522            | 198              | 59                 | 5519            | 177              |
| 67                 | 5460            | 201              | 60                 | 5479            | 180              |
| 69                 | 5502            | 207              | 67                 | 5485            | 201              |
| 87                 | 5509            | 261              | 74                 | 5501            | 222              |
| 99                 | 5512            | 297              | 84                 | 5494            | 252              |
| --                 | --              | --               | 91                 | 5467            | 273              |
| --                 | --              | --               | 93                 | 5514            | 279              |
| --                 | --              | --               | 95                 | 5503            | 285              |

| Radar waveform #29 |                 |                  | Radar waveform #30 |                 |                  |
|--------------------|-----------------|------------------|--------------------|-----------------|------------------|
| Hopping Number     | Frequency (MHz) | Pulse Start (ms) | Hopping Number     | Frequency (MHz) | Pulse Start (ms) |
| 6                  | 5494            | 18               | 6                  | 5478            | 18               |
| 7                  | 5522            | 21               | 11                 | 5468            | 33               |
| 11                 | 5508            | 33               | 18                 | 5513            | 54               |
| 25                 | 5475            | 75               | 24                 | 5501            | 72               |
| 29                 | 5471            | 87               | 26                 | 5505            | 78               |
| 36                 | 5497            | 108              | 28                 | 5489            | 84               |
| 37                 | 5464            | 111              | 34                 | 5493            | 102              |
| 38                 | 5512            | 114              | 44                 | 5477            | 132              |
| 39                 | 5506            | 117              | 70                 | 5518            | 210              |
| 59                 | 5530            | 177              | 74                 | 5495            | 222              |
| 64                 | 5531            | 192              | --                 | --              | --               |
| 65                 | 5532            | 195              | --                 | --              | --               |
| 66                 | 5509            | 198              | --                 | --              | --               |
| 72                 | 5515            | 216              | --                 | --              | --               |
| 79                 | 5473            | 237              | --                 | --              | --               |
| 90                 | 5477            | 270              | --                 | --              | --               |
| 99                 | 5489            | 297              | --                 | --              | --               |

## 5. CONCLUSION

The data collected relate only the item(s) tested and show that the device is compliance with FCC Rules.

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The End

## **Appendix A - Test Setup Photograph**

Refer to "2102RSU047-UT" file.

## **Appendix B - EUT Photograph**

Refer to "2102RSU047-UE" file.