

# DFS MEASUREMENT REPORT

## FCC PART 15.407(h)

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**FCC ID:** TE7RE450V2

**APPLICANT:** TP-Link Technologies Co., Ltd.

**Application Type:** Certification

**Product:** AC1750 Wi-Fi Range Extender

**Model No.:** RE450

**Brand Name:** TP-Link

**FCC Classification:** Unlicensed National Information Infrastructure (UNII)

**FCC Rule Part(s):** Part 15.407 Section (h)(2)

KDB 905462 D02v02, KDB 905462 D04v01

**Type of Device:**  Master Device  
 Client Device (No radar detection)  
 Client Device with radar detection

**Test Date:** May 08 ~ June 19, 2017

Reviewed By : Paddy Chen  
( Paddy Chen )

Approved By : Chenz Ker  
(Chenz Ker)



The test results relate only to the samples tested.

This equipment has been shown to be capable of compliance with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in KDB 905462 D02v02. Test results reported herein relate only to the item(s) tested.

The test report shall not be reproduced except in full without the written approval of MRT Technology (Taiwan) Co., Ltd.

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## Revision History

Report No.	Version	Description	Issue Date	Note
1706TW0118-U3	Rev. 01	Initial report	06-25-2017	Valid

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## §2.1033 General Information

<b>Applicant:</b>	TP-Link Technologies Co., Ltd.
<b>Applicant Address:</b>	Building 24 (floors 1,3,4,5) and 28 (floors1-4) Central Science and Technology Park, Shennan Rd, Nanshan, Shenzhen, China
<b>Manufacturer:</b>	TP-Link Technologies Co., Ltd.
<b>Manufacturer Address:</b>	Building 24 (floors 1,3,4,5) and 28 (floors1-4) Central Science and Technology Park, Shennan Rd, Nanshan, Shenzhen, China
<b>Test Site:</b>	MRT Technology (Taiwan) Co., Ltd
<b>Test Site Address:</b>	No. 38, Fuxing Second Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C)
<b>MRT FCC Registration No.:</b>	153292
<b>Model No.:</b>	RE450
<b>FCC ID:</b>	TE7RE450V2
<b>Test Device Serial No.:</b>	N/A <input type="checkbox"/> Production <input checked="" type="checkbox"/> Pre-Production <input type="checkbox"/> Engineering
<b>FCC Classification:</b>	Unlicensed National Information Infrastructure (UNII)

### Test Facility / Accreditations

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

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

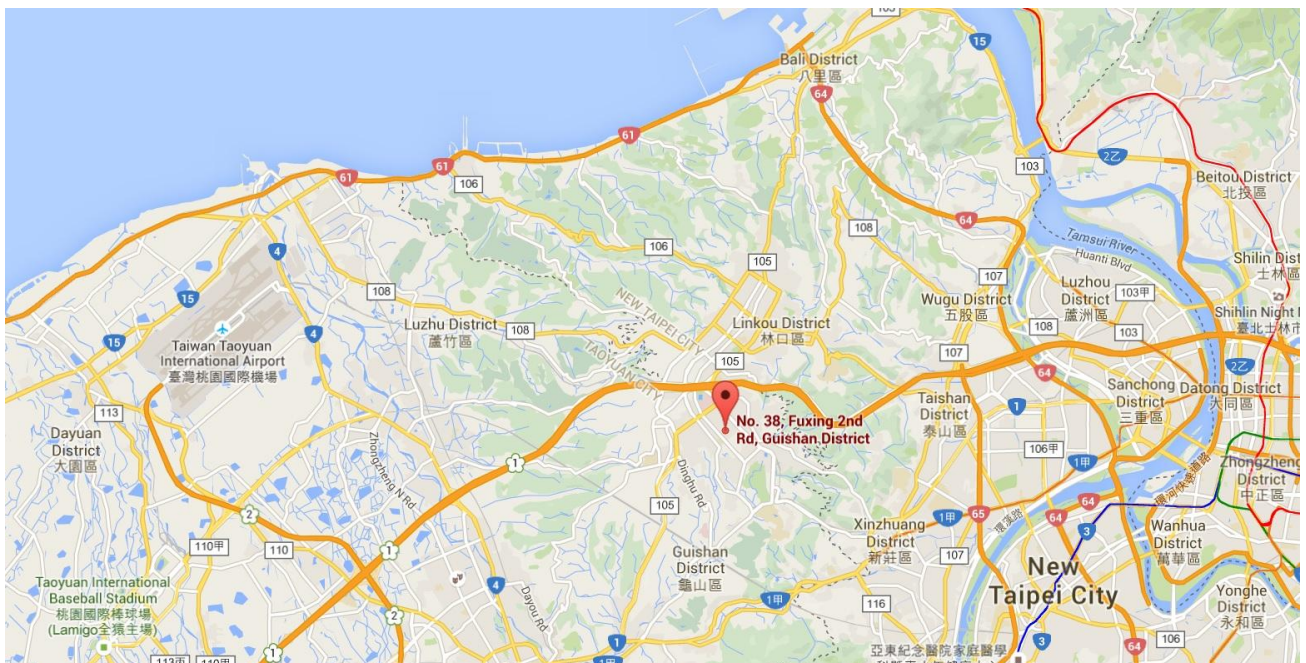
# 1. INTRODUCTION

## 1.1. Scope

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

## 1.2. MRT Test Location

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



## 2. PRODUCT INFORMATION

### 2.1. Equipment Description

Product Name	AC1750 Wi-Fi Range Extender
Model No.	RE450
Radio Type	Intentional Transceiver
Operation Mode	Master Device & Slave Device
Frequency Range	<p><b><u>2.4GHz:</u></b>            For 802.11b/g/n-HT20: 2412 ~ 2462 MHz            For 802.11n-HT40: 2422 ~ 2452 MHz</p> <p><b><u>5GHz:</u></b>            802.11a/n-HT20/ac-VHT20:            5180~5320MHz, 5500~5580, 5660~5700MHz, 5745~5825MHz            802.11n-HT40/ac-VHT40:            5190~5310MHz, 5510~5550MHz, 5670MHz, 5755~5795MHz            802.11ac-VHT80:            5210MHz, 5290MHz, 5530MHz, 5775MHz</p>
Type of Modulation	802.11a/n/ac: OFDM
Power-on cycle	Requires 34.84 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.

## 2.2. DFS Band Carrier Frequencies Operation

802.11a/n-HT20/ ac-VHT20

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
132	5660 MHz	136	5680 MHz	140	5700 MHz

802.11n-HT40/ ac-VHT40

Channel	Frequency	Channel	Frequency	Channel	Frequency
54	5270 MHz	62	5310 MHz	102	5510 MHz
110	5550 MHz	134	5670 MHz	--	--

802.11ac-VHT80 Center Working Frequency of Each Channel

Channel	Frequency	Channel	Frequency	Channel	Frequency
58	5290 MHz	106	5530 MHz	--	--

## 2.3. Description of Available Antennas

Antenna Type	Frequency Band (MHz)	TX Paths	Max Antenna Gain (dBi)	CDD Directional Gain (dBi)	
				For Power	For PSD
Omni-Directional	2412 ~ 2462	3	2.0	2.0	6.77
	5150 ~ 5850	3	2.5	2.5	7.27

Note: The EUT supports Cyclic Delay Diversity (CDD) technology for 802.11a/b/g/n/ac mode, and the transmitter output signal is correlated.

For CDD transmissions, directional gain is calculated as follows,  $N_{ANT} = 3$ ,  $N_{SS} = 1$ .

Three antennas have the same gain,  $G_{ANT}$ , Directional gain =  $G_{ANT} + \text{Array Gain}$ , where Array Gain is as follows.

- For power spectral density (PSD) measurements on all devices,  
 Array Gain =  $10 \log (N_{ANT} / N_{SS}) \text{ dB} = 4.77$ ;
- For power measurements on IEEE 802.11 devices,  
 Array Gain = 0 dB for  $N_{ANT} \leq 4$ ;



## 2.4. Description of Antenna RF Port

Antenna RF Port						
--	2.4GHz RF Port			5GHz RF Port		
Software Control Port	Chain 0	Chain 1	Chain 2	Chain 0	Chain 1	Chain 2

## 2.5. Test Mode

Test Mode	Mode 1: AP Mode
	Mode 2: Repeater Slave Mode
Mode 3: Repeater Master Mode	

### 3. DFS DETECTION THRESHOLDS AND RADAR TEST WAVEFORMS

#### 3.1. Applicability

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

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

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

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

Additional requirements for devices with multiple bandwidth modes	Master Device or Client with Radar Detection	Client Without Radar Detection
U-NII Detection Bandwidth and Statistical Performance Check	All BW modes must be tested	Not required
Channel Move Time and Channel Closing Transmission Time	Test using widest BW mode available	Test using the widest BW mode available for the link
All other tests	Any single BW mode	Not required

Note: Frequencies selected for statistical performance check should include several frequencies within the radar detection bandwidth and frequencies near the edge of the radar detection bandwidth. For 802.11 devices it is suggested to select frequencies in each of the bonded 20 MHz channels and the channel center frequency.

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

### 3.2. DFS Devices Requirements

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

- (a) The Master Device will use DFS in order to detect Radar Waveforms with received signal strength above the DFS Detection Threshold in the 5250 ~ 5350 MHz and 5470 ~ 5725 MHz bands. DFS is not required in the 5150 ~ 5250 MHz or 5725 ~ 5825 MHz bands.
- (b) Before initiating a network on a Channel, the Master Device will perform a Channel Availability Check for a specified time duration (Channel Availability Check Time) to ensure that there is no radar system operating on the Channel, using DFS described under subsection a) above.
- (c) The Master Device initiates a U-NII network by transmitting control signals that will enable other U-NII devices to Associate with the Master Device.
- (d) During normal operation, the Master Device will monitor the Channel (In-Service Monitoring) to ensure that there is no radar system operating on the Channel, using DFS described under a).
- (e) If the Master Device has detected a Radar Waveform during In-Service Monitoring as described under d), the Operating Channel of the U-NII network is no longer an Available Channel. The Master Device will instruct all associated Client Device(s) to stop transmitting on this Channel within the Channel Move Time. The transmissions during the Channel Move Time will be limited to the Channel Closing Transmission Time.
- (f) Once the Master Device has detected a Radar Waveform it will not utilize the Channel for the duration of the Non-Occupancy Period.
- (g) If the Master Device delegates the In-Service Monitoring to a Client Device, then the combination will be tested to the requirements described under d) through f) above.

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

Parameter	Value
Non-occupancy period	Minimum 30 minutes
Channel Availability Check Time	60 seconds
Channel Move Time	10 seconds See Note 1.
Channel Closing Transmission Time	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period. See Notes 1 and 2.
U-NII Detection Bandwidth	Minimum 100% of the U-NII 99% transmission power bandwidth. See Note 3.
<p>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.</p> <p>Note 2: The Channel Closing Transmission Time is comprised of 200 milliseconds starting at the</p>	

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**

### 3.3. DFS Detection Threshold Values

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

Maximum Transmit Power	Value (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
<p><b>Note 1:</b> This is the level at the input of the receiver assuming a 0 dBi receive antenna.</p> <p><b>Note 2:</b> 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.</p> <p><b>Note3:</b> EIRP is based on the highest antenna gain. For MIMO devices refer to KDB Publication 662911 D01.</p>	

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

### 3.4. Parameters of DFS Test Signals

This section provides the parameters for required test waveforms, minimum percentage of successful detections, and the minimum number of trials that must be used for determining DFS conformance. Step intervals of 0.1 microsecond for Pulse Width, 1 microsecond for PRI, 1 MHz for chirp width and 1 for the number of pulses will be utilized for the random determination of specific test waveforms.

#### Short Pulse Radar Test Waveforms

Radar Type	Pulse Width (μsec)	PRI (μsec)	Number of Pulses	Minimum Percentage of Successful Detection	Minimum Number of Trials
0	1	1428	18	See Note 1	See Note 1
1	1	Test A: 15 unique PRI values randomly selected from the list of 23 PRI values in Table 3-6	$\text{Roundup} \left\{ \left( \frac{1}{360} \right), \left( \frac{19 \cdot 10^6}{\text{PRI}_{\mu\text{sec}}} \right) \right\}$	60%	30
		Test B: 15 unique PRI values randomly selected within the range of 518-3066 μsec, with a minimum increment of 1 μsec, excluding PRI values selected in Test A			
2	1-5	150-230	23-29	60%	30
3	6-10	200-500	16-18	60%	30
4	11-20	200-500	12-16	60%	30
Aggregate (Radar Types 1-4)				80%	120
<b>Note 1:</b> Short Pulse Radar Type 0 should be used for the detection bandwidth test, channel move time, and channel closing time tests.					

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

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

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

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

### Long Pulse Radar Test Waveform

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

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

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

### Frequency Hopping Radar Test Waveform

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

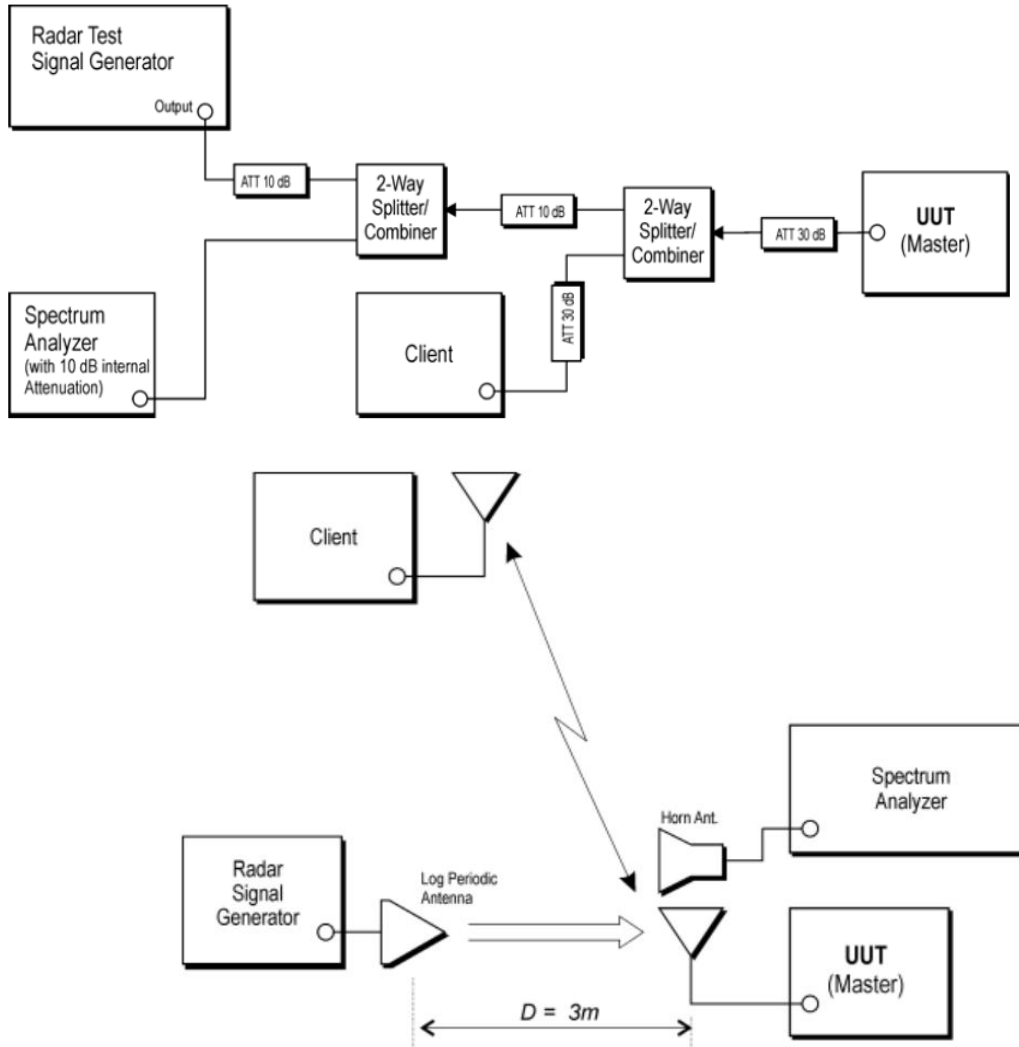
**Table 3-8: Parameters for Frequency Hopping Radar Waveforms**

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

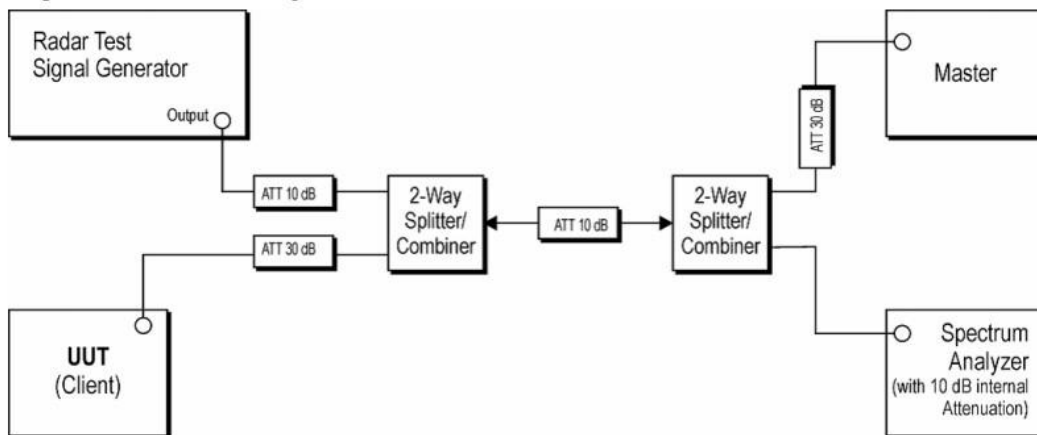
The first frequency in a hopping sequence is selected randomly from the group of 475 integer frequencies from 5250 – 5724MHz. Next, the frequency that was just chosen is removed from the group and a frequency is randomly selected from the remaining 474 frequencies in the group. This process continues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

### 3.5. Conducted and Radiated Test Setup

#### Mode 1

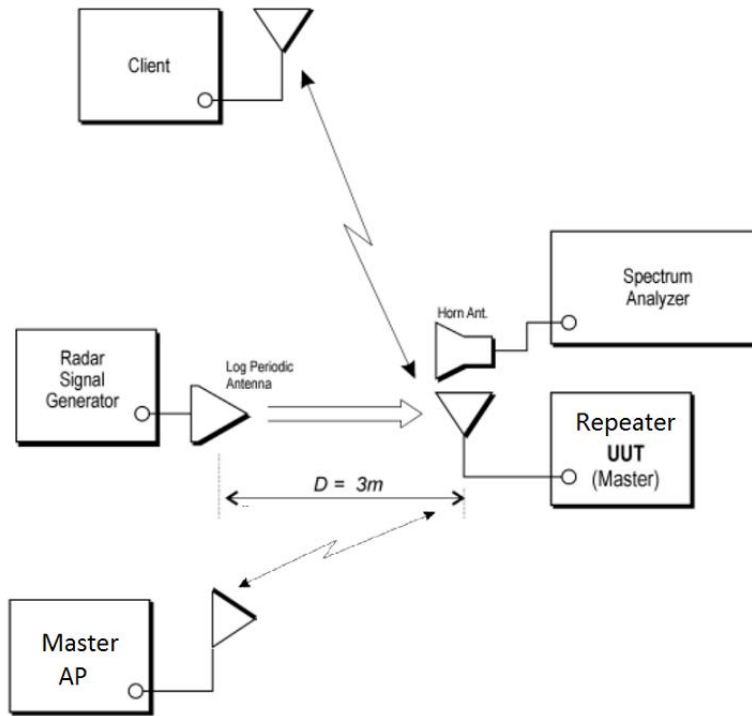


#### Mode 2





**Mode 3**



#### 4. TEST EQUIPMENT CALIBRATION DATE

Dynamic Frequency Selection (DFS) – TR4

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
Spectrum Analyzer	Agilent	N9010A	MRTTWA00012	1 year	2017/07/10
ESG Vector Signal Generator	Agilent	N5182B	MRTSUE06026	1 year	2018/04/05
Temperature/Humidity Meter	TEN BILLION	TTH-B3UP	MRTTWA00036	1 year	2018/05/10
Broad-Band Horn Antenna	Schwarzbeck	BBHA9120D	MRTTWA00003	1 year	2018/04/05
Notebook	ASUS	PRO45V	MRTSUE06180	N/A	N/A

Note: The notebook has a built-in Intel dual band wireless module (AC 7260).

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

## 5. TEST RESULT

### 5.1. Summary

**Company Name:** TP-Link Technologies Co., Ltd.

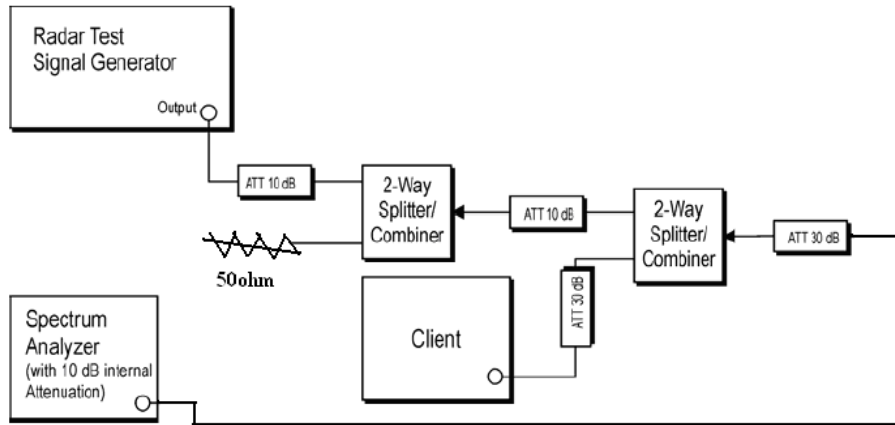
**FCC ID:** TE7RE450V2

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

## 5.2. Radar Waveform Calibration

### 5.2.1. Calibration Setup

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



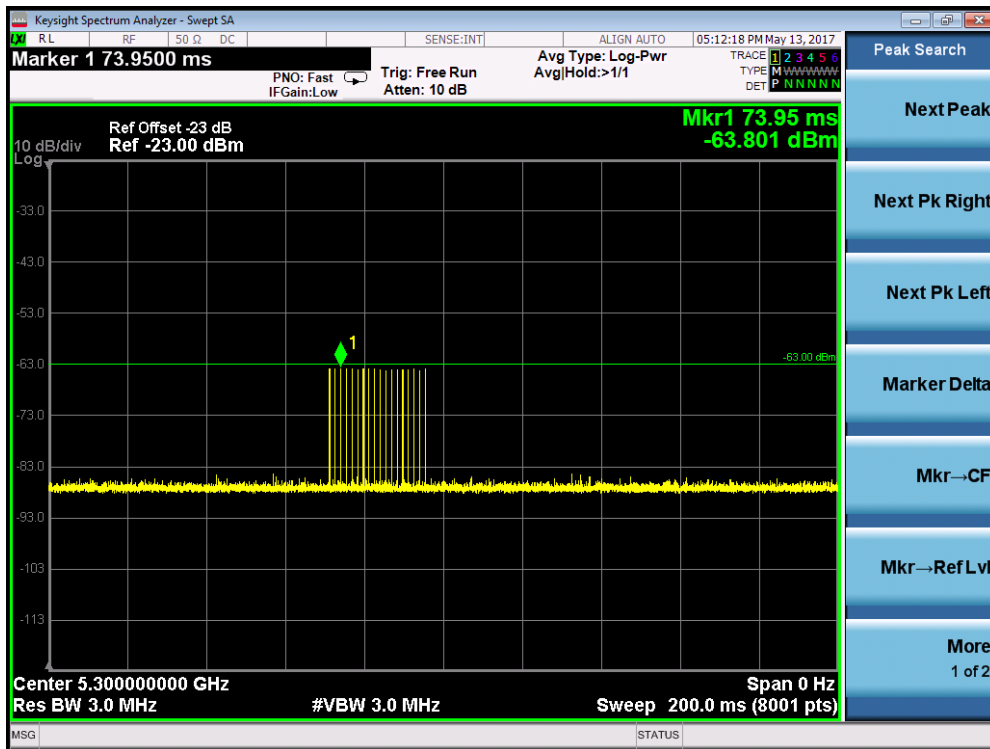
**Figure 3-2: Conducted Test Setup**

### 5.2.2. Calibration Procedure

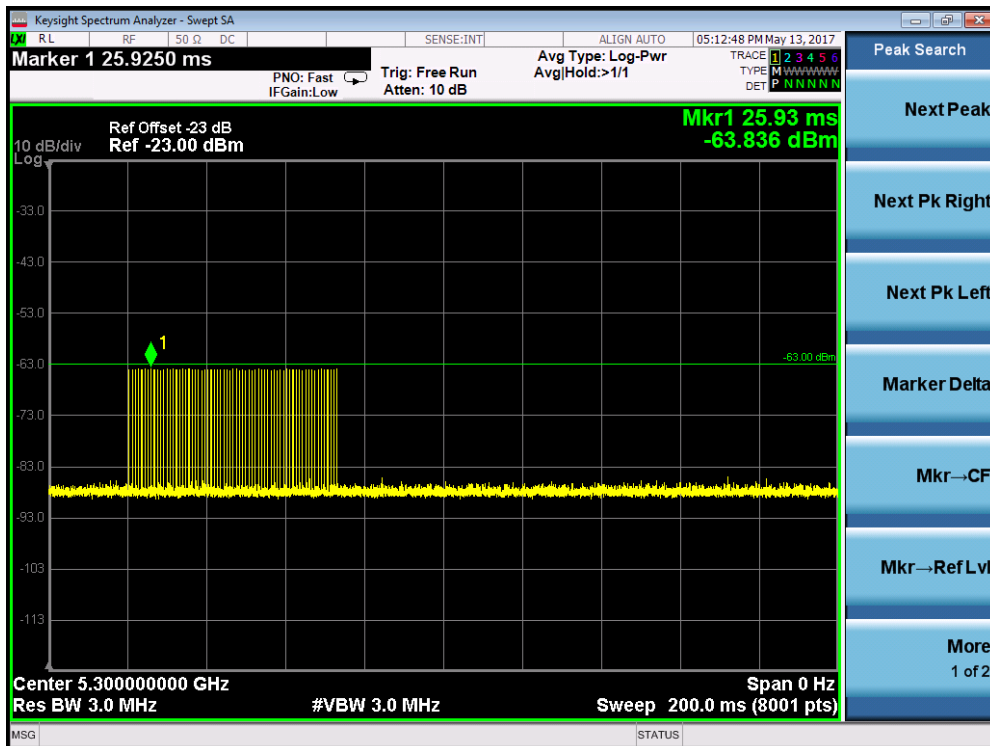
The Interference Radar Detection Threshold Level is  $(-64\text{dBm}) + (0) [\text{dBi}] + 1 \text{ dB} = -63 \text{ dBm}$  that had been taken into account the output power range and antenna gain. The above equipment setup was used to calibrate the conducted Radar Waveform. A vector signal generator 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.

### 5.2.3. Cablibration Result

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

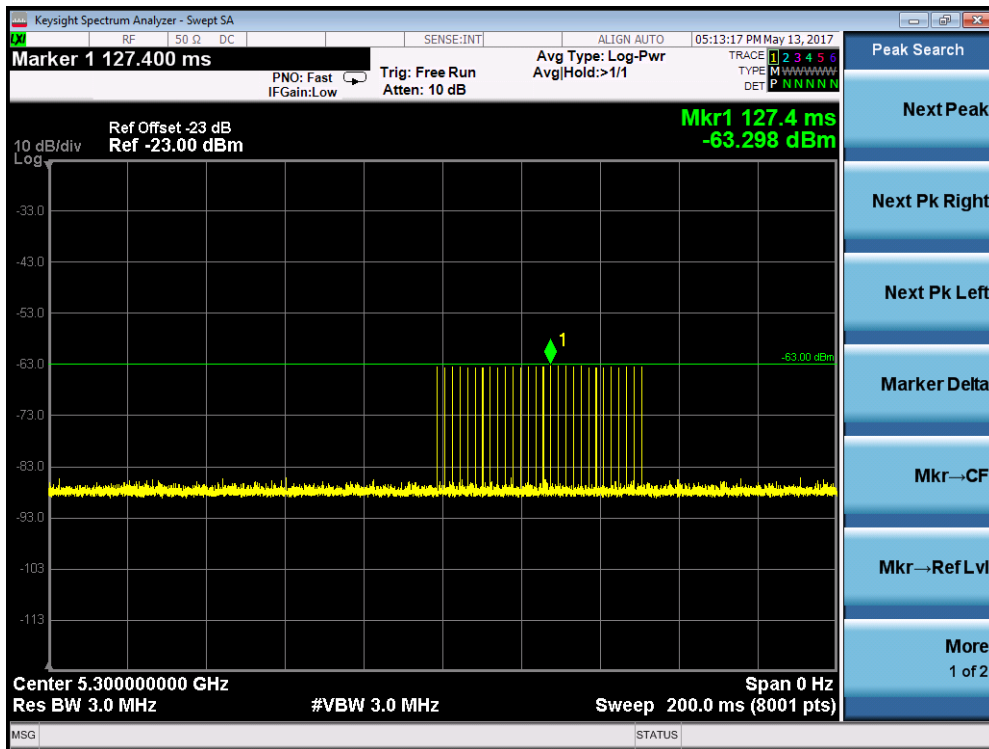


Radar #1(Test A) DFS detection threshold level and the burst of pulses on the Channel frequency



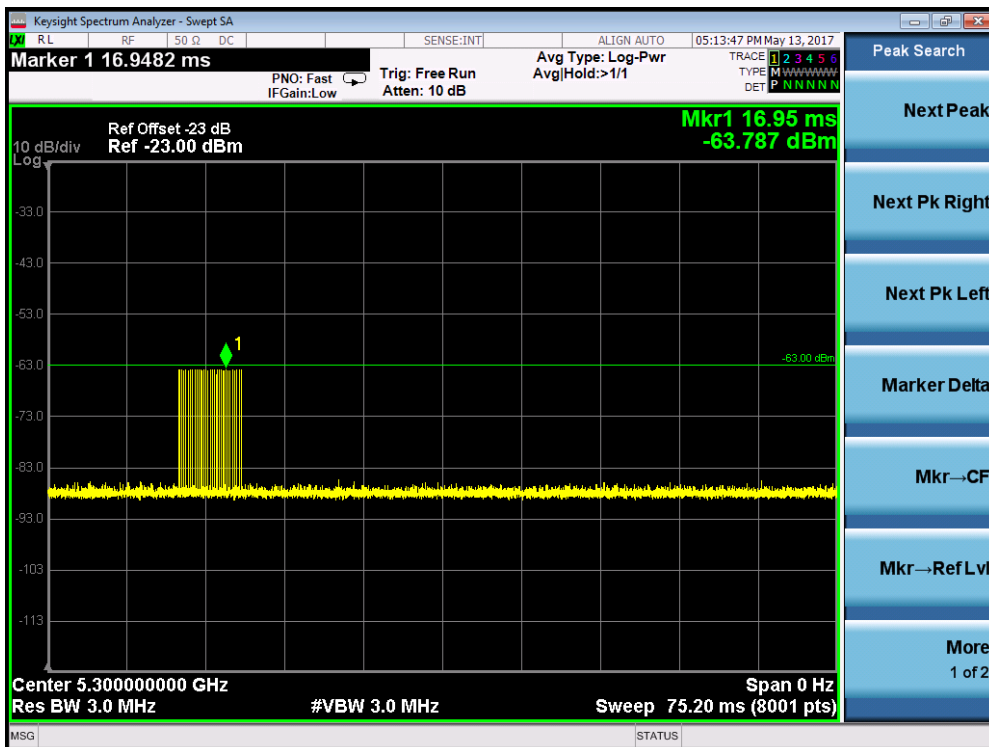
PRI = 798us and the number of pulses = 67

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

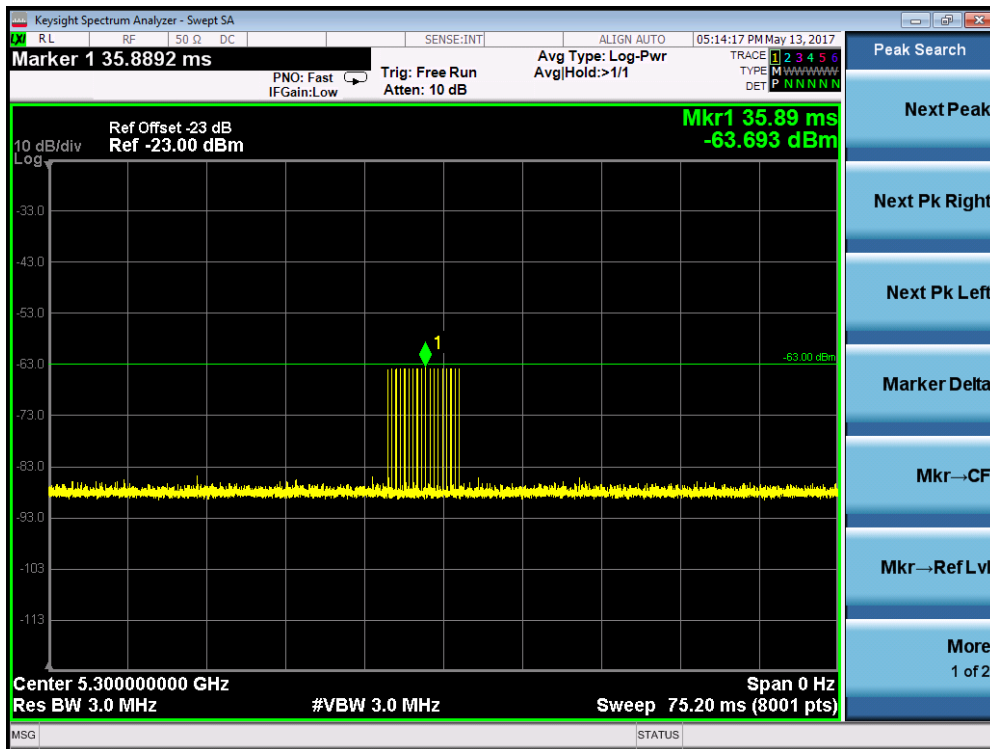


PRI = 1.891ms and the number of pulses = 28

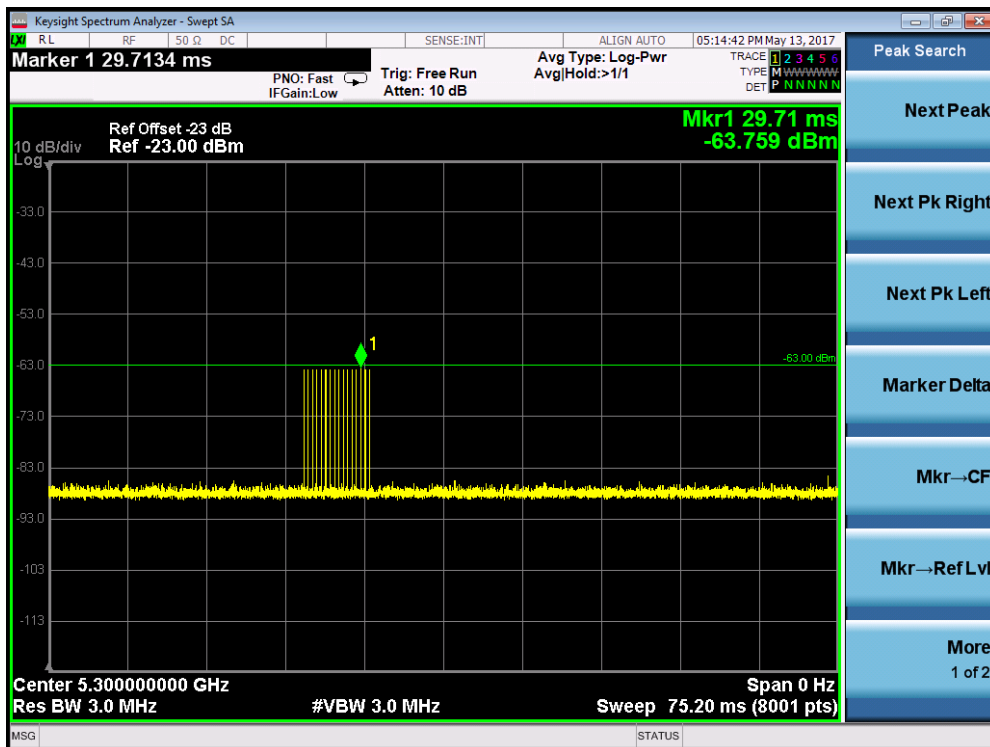
Radar #2 DFS detection threshold level and the burst of pulses on the Channel frequency



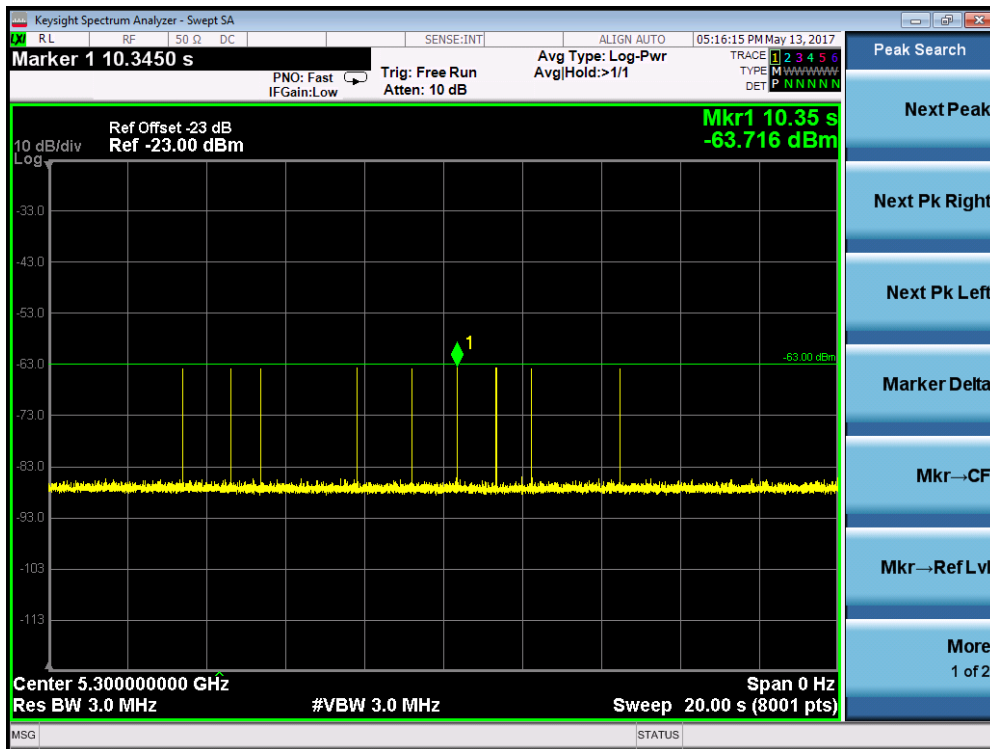
Radar #3 DFS detection threshold level and the burst of pulses on the Channel frequency



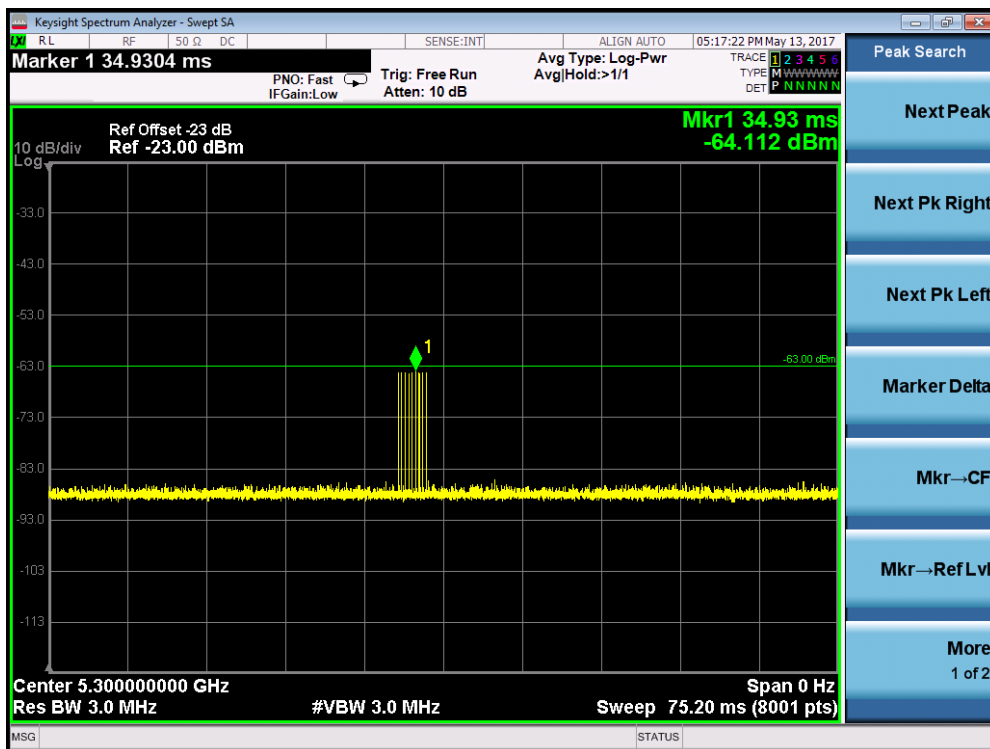
Radar #4 DFS detection threshold level and the burst of pulses on the Channel frequency



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



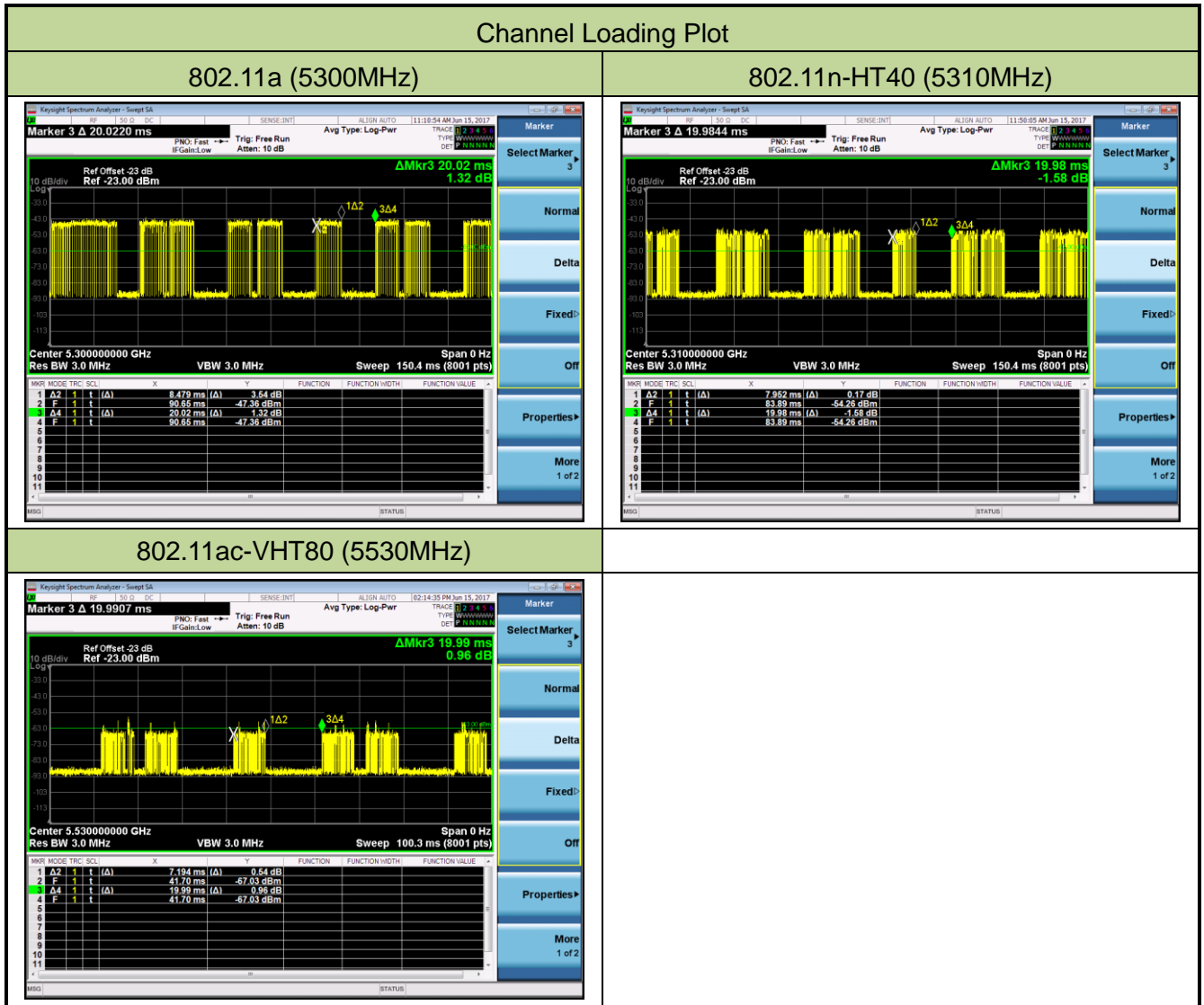
Radar #6 DFS detection threshold level and a single hop (9 pulses) on the Channel frequency within UNII detection bandwidth





### 5.2.4. Channel Loading Test Result

System testing was performed with the designated MPEG test file that streams full motion video from the AC1750 Wi-Fi Range Extender to the Client in full motion video mode using the media player with the V2.61 Codec package. This file is used by IP and Frame based systems for loading the test channel during the In-service compliance testing of the U-NII device. Packet ratio = Time On/ (Time On + Off Time).



Test Mode	Test Frequency	Packet ratio	Requirement ratio	Test Result
802.11a	5300 MHz	42.35%	≥ 17%	Pass
802.11n-HT40	5310 MHz	39.80%	≥ 17%	Pass
802.11ac-VHT80	5530 MHz	35.99%	≥ 17%	Pass

### 5.3. UNII Detection Bandwidth Measurement

#### 5.3.1. Test Limit

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

#### 5.3.2. Test Procedure

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

### 5.3.3. Test Result

#### Test Mode 1

EUT Frequency=5300MHz for 802.11a											
Radar Frequency (MHz)	DFS Detection Trials (1=Detection, 0= No Detection)										Detection Rate (%)
	1	2	3	4	5	6	7	8	9	10	
5290	0	0	0	0	0	0	0	0	0	0	0%
5291 FL	1	1	1	1	1	1	1	1	1	1	100%
5292	1	1	1	1	1	1	1	1	1	1	100%
5293	1	1	1	1	1	1	1	1	1	1	100%
5294	1	1	1	1	1	1	1	1	1	1	100%
5295	1	1	1	1	1	1	1	1	1	1	100%
5300	1	1	1	1	1	1	1	1	1	1	100%
5305	1	1	1	1	1	1	1	1	1	1	100%
5306	1	1	1	1	1	1	1	1	1	1	100%
5307	1	1	1	1	1	1	1	1	1	1	100%
5308	1	1	1	1	1	1	1	1	1	1	100%
5309 FH	1	1	1	1	1	1	1	1	1	1	100%
5310	0	0	0	0	0	0	0	0	0	0	0%
Detection Bandwidth = FH - FL = 5309MHz - 5291MHz = 18MHz											
EUT 99% Bandwidth = 16.62MHz (see note)											
UNII Detection Bandwidth Min. Limit (MHz): 16.62MHz x 100% = 16.62MHz											

Note: All UNII channels for this device have identical Channel bandwidths. Therefore, all DFS testing was done at 5300MHz. The 99% channel bandwidth is 16.62MHz. (See the 99% BW section of the RF report for further measurement details).

EUT Frequency=5310MHz for 802.11n-HT40											
Radar Frequency (MHz)	DFS Detection Trials (1=Detection, 0= No Detection)										Detection Rate (%)
	1	2	3	4	5	6	7	8	9	10	
5290	0	0	0	0	0	0	0	0	0	0	0%
5291	0	0	0	0	0	0	0	0	0	0	0%
5292 FL	1	1	1	1	1	1	1	1	1	1	100%
5293	1	1	1	1	1	1	1	1	1	1	100%
5294	1	1	1	1	1	1	1	1	1	1	100%
5295	1	1	1	1	1	1	1	1	1	1	100%
5295	1	1	1	1	1	1	1	1	1	1	100%
5300	1	1	1	1	1	1	1	1	1	1	100%
5305	1	1	1	1	1	1	1	1	1	1	100%
5310	1	1	1	1	1	1	1	1	1	1	100%
5315	1	1	1	1	1	1	1	1	1	1	100%
5320	1	1	1	1	1	1	1	1	1	1	100%
5325	1	1	1	1	1	1	1	1	1	1	100%
5326	1	1	1	1	1	1	1	1	1	1	100%
5327	1	1	1	1	1	1	1	1	1	1	100%
5328	1	1	1	1	1	1	1	1	1	1	100%
5329 FH	1	1	1	1	1	1	1	1	1	1	100%
5330	0	0	0	0	0	0	0	0	0	0	0%
Detection Bandwidth = FH - FL = 5329MHz - 5292MHz = 37MHz											
EUT 99% Bandwidth = 36.58MHz (see note)											
UNII Detection Bandwidth Min. Limit (MHz): 36.58MHz x 100% = 36.58MHz											

Note: All UNII channels for this device have identical Channel bandwidths. Therefore, all DFS testing was done at 5310MHz. The 99% channel bandwidth is 36.58MHz. (See the 99% BW section of the RF report for further measurement details).

EUT Frequency=5530MHz for 802.11ac-VHT80											
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%
Detection Bandwidth = FH - FL = 5569MHz - 5491MHz = 78MHz											
EUT 99% Bandwidth = 76.04MHz (see note)											
UNII Detection Bandwidth Min. Limit (MHz): 76.04MHz x 100% = 76.04MHz											

Note: All UNII channels for this device have identical Channel bandwidths. Therefore, all DFS testing was done at 5530MHz. The 99% channel bandwidth is 76.04MHz. (See the 99% BW section of the RF report for further measurement details).

**Test Mode 3**

EUT Frequency=5300MHz for 802.11a											
Radar Frequency (MHz)	DFS Detection Trials (1=Detection, 0= No Detection)										Detection Rate (%)
	1	2	3	4	5	6	7	8	9	10	
5290	0	0	0	0	0	0	0	0	0	0	0%
5291 FL	1	1	1	1	1	1	1	1	1	1	100%
5292	1	1	1	1	1	1	1	1	1	1	100%
5293	1	1	1	1	1	1	1	1	1	1	100%
5294	1	1	1	1	1	1	1	1	1	1	100%
5295	1	1	1	1	1	1	1	1	1	1	100%
5300	1	1	1	1	1	1	1	1	1	1	100%
5305	1	1	1	1	1	1	1	1	1	1	100%
5306	1	1	1	1	1	1	1	1	1	1	100%
5307	1	1	1	1	1	1	1	1	1	1	100%
5308	1	1	1	1	1	1	1	1	1	1	100%
5309 FH	1	1	1	1	1	1	1	1	1	1	100%
5310	0	0	0	0	0	0	0	0	0	0	0%
Detection Bandwidth = FH - FL = 5309MHz - 5291MHz = 18MHz											
EUT 99% Bandwidth = 16.62MHz (see note)											
UNII Detection Bandwidth Min. Limit (MHz): 16.62MHz x 100% = 16.62MHz											

Note: All UNII channels for this device have identical Channel bandwidths. Therefore, all DFS testing was done at 5300MHz. The 99% channel bandwidth is 16.62MHz. (See the 99% BW section of the RF report for further measurement details).

EUT Frequency=5310MHz for 802.11n-HT40											
Radar Frequency (MHz)	DFS Detection Trials (1=Detection, 0= No Detection)										Detection Rate (%)
	1	2	3	4	5	6	7	8	9	10	
5290	0	0	0	0	0	0	0	0	0	0	0%
5291	0	0	0	0	0	0	0	0	0	0	0%
5292 FL	1	1	1	1	1	1	1	1	1	1	100%
5293	1	1	1	1	1	1	1	1	1	1	100%
5294	1	1	1	1	1	1	1	1	1	1	100%
5295	1	1	1	1	1	1	1	1	1	1	100%
5295	1	1	1	1	1	1	1	1	1	1	100%
5300	1	1	1	1	1	1	1	1	1	1	100%
5305	1	1	1	1	1	1	1	1	1	1	100%
5310	1	1	1	1	1	1	1	1	1	1	100%
5315	1	1	1	1	1	1	1	1	1	1	100%
5320	1	1	1	1	1	1	1	1	1	1	100%
5325	1	1	1	1	1	1	1	1	1	1	100%
5326	1	1	1	1	1	1	1	1	1	1	100%
5327	1	1	1	1	1	1	1	1	1	1	100%
5328	1	1	1	1	1	1	1	1	1	1	100%
5329 FH	1	1	1	1	1	1	1	1	1	1	100%
5330	0	0	0	0	0	0	0	0	0	0	0%
Detection Bandwidth = FH - FL = 5329MHz - 5292MHz = 37MHz											
EUT 99% Bandwidth = 36.58MHz (see note)											
UNII Detection Bandwidth Min. Limit (MHz): 36.58MHz x 100% = 36.58MHz											

Note: All UNII channels for this device have identical Channel bandwidths. Therefore, all DFS testing was done at 5310MHz. The 99% channel bandwidth is 36.58MHz. (See the 99% BW section of the RF report for further measurement details).

EUT Frequency=5290MHz for 802.11ac-VHT80											
Radar Frequency (MHz)	DFS Detection Trials (1=Detection, 0= No Detection)										Detection Rate (%)
	1	2	3	4	5	6	7	8	9	10	
5250	0	0	0	0	0	0	0	0	0	0	0%
5251 FL	1	1	1	1	1	1	1	1	1	1	100%
5252	1	1	1	1	1	1	1	1	1	1	100%
5253	1	1	1	1	1	1	1	1	1	1	100%
5254	1	1	1	1	1	1	1	1	1	1	100%
5255	1	1	1	1	1	1	1	1	1	1	100%
5260	1	1	1	1	1	1	1	1	1	1	100%
5265	1	1	1	1	1	1	1	1	1	1	100%
5270	1	1	1	1	1	1	1	1	1	1	100%
5275	1	1	1	1	1	1	1	1	1	1	100%
5280	1	1	1	1	1	1	1	1	1	1	100%
5285	1	1	1	1	1	1	1	1	1	1	100%
5290	1	1	1	1	1	1	1	1	1	1	100%
5295	1	1	1	1	1	1	1	1	1	1	100%
5300	1	1	1	1	1	1	1	1	1	1	100%
5305	1	1	1	1	1	1	1	1	1	1	100%
5310	1	1	1	1	1	1	1	1	1	1	100%
5315	1	1	1	1	1	1	1	1	1	1	100%
5320	1	1	1	1	1	1	1	1	1	1	100%
5325	1	1	1	1	1	1	1	1	1	1	100%
5326	1	1	1	1	1	1	1	1	1	1	100%
5327	1	1	1	1	1	1	1	1	1	1	100%
5328	1	1	1	1	1	1	1	1	1	1	100%
5329 FH	1	1	1	1	1	1	1	1	1	1	100%
5330	0	0	0	0	0	0	0	0	0	0	0%
Detection Bandwidth = FH - FL = 5329MHz - 5251MHz = 78MHz											
EUT 99% Bandwidth = 75.68MHz (see note)											
UNII Detection Bandwidth Min. Limit (MHz): 75.68MHz x 100% = 75.68MHz											

Note: All UNII channels for this device have identical Channel bandwidths. Therefore, all DFS testing was done at 5290MHz. The 99% channel bandwidth is 75.68MHz. (See the 99% BW section of the RF report for further measurement details).



## 5.4. Initial Channel Availability Check Time Measurement

### 5.4.1. Test Limit

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

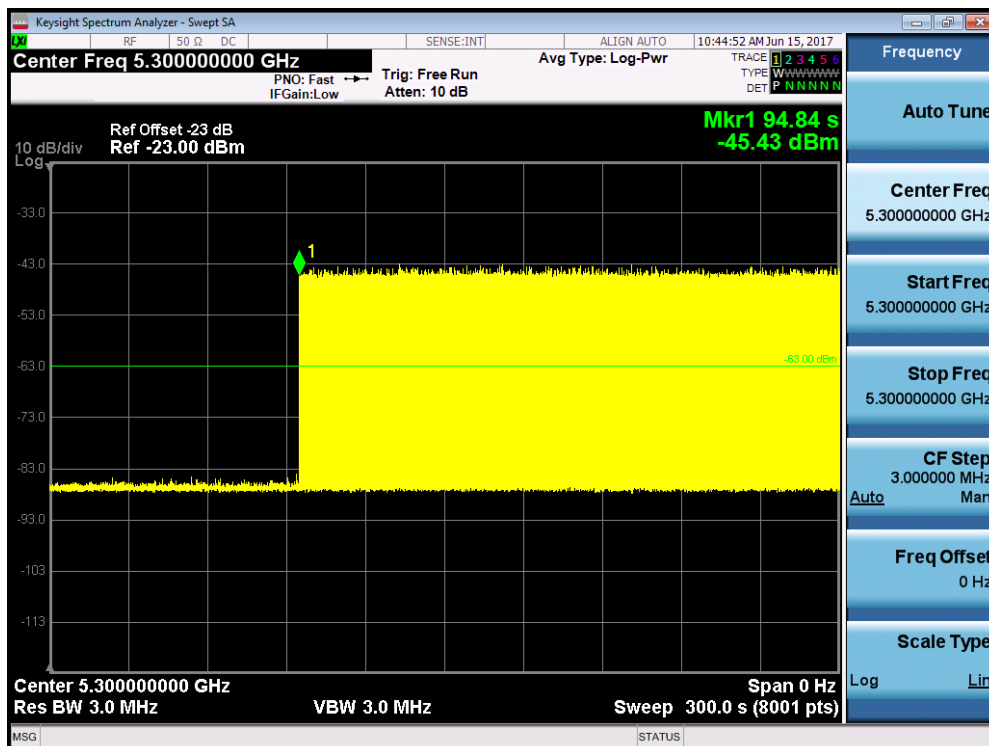
### 5.4.2. Test Procedure

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

### 5.4.3. Test Result

The EUT does not transmit any beacon or data transmissions until at least 1 minute after the completion of the power-on cycle (34.84 sec). Initial beacons/data transmissions are indicated by marker 1 (94.84 sec).

Initial Channel Availability Check Time for 802.11a



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

### **5.5.1. Test Limit**

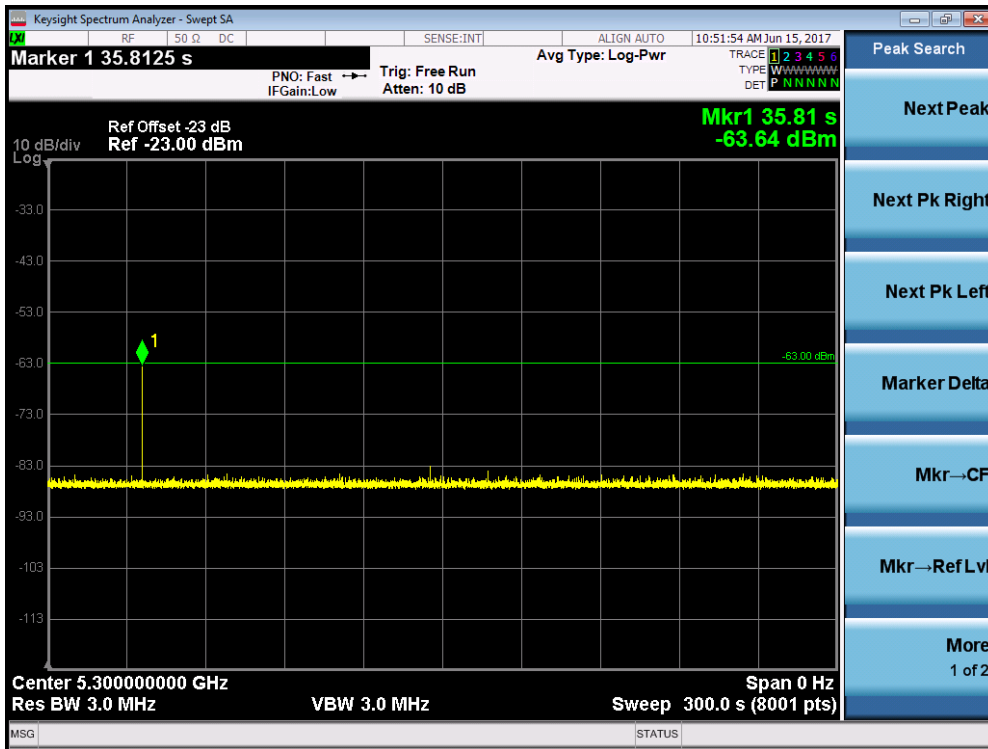
In beginning of the Channel Availability Check (CAC) Time, radar is detected on this channel, select another intended channel and perform a CAC on that channel.

### **5.5.2. Test Procedure**

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

### 5.5.3. Test Result

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



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

### **5.6.1. Test Limit**

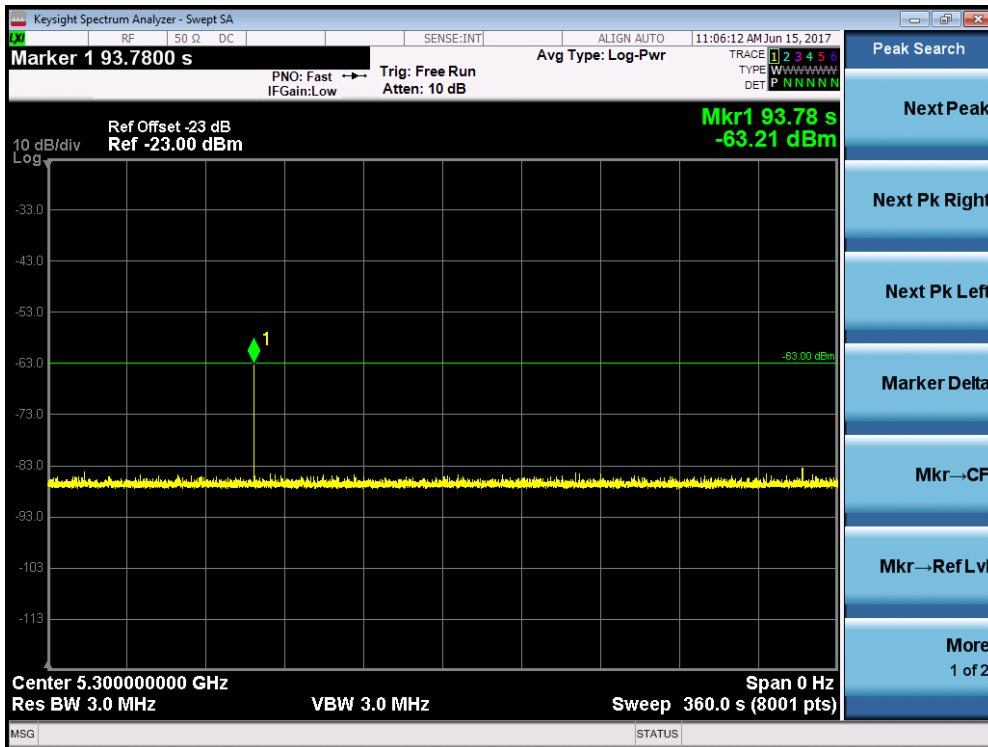
In the end of Channel Availability Check (CAC) Time, radar is detected on this channel, select another intended channel and perform a CAC on that channel.

### **5.6.2. Test Procedure**

1. The steps below define the procedure to verify successful radar detection on the selected Channel during a period equal to the Channel Availability Check Time and avoidance of operation on that Channel when a radar Burst with a level equal to the DFS Detection Threshold + 1 dB occurs at the beginning of the Channel Availability Check Time.
2. The EUT is powered on at T0. T1 denotes the instant when the EUT has completed its power-up sequence. The Channel Availability Check Time commences at instant T1 and will end no sooner 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.

### 5.6.3. Test Result

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



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

### **5.7.1. Test Limit**

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

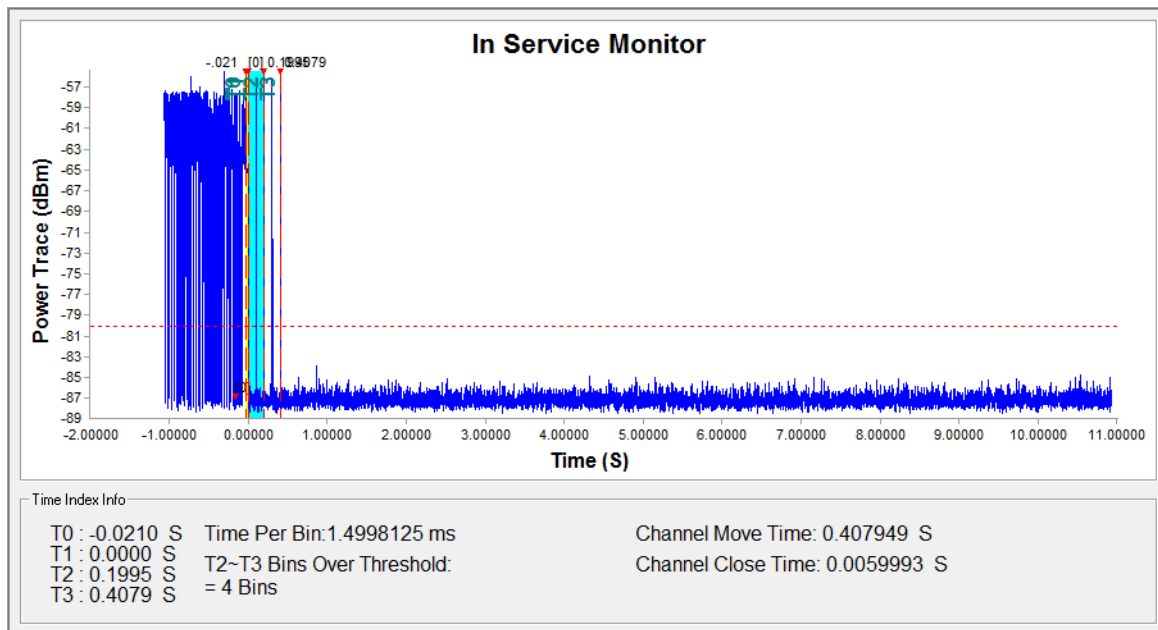
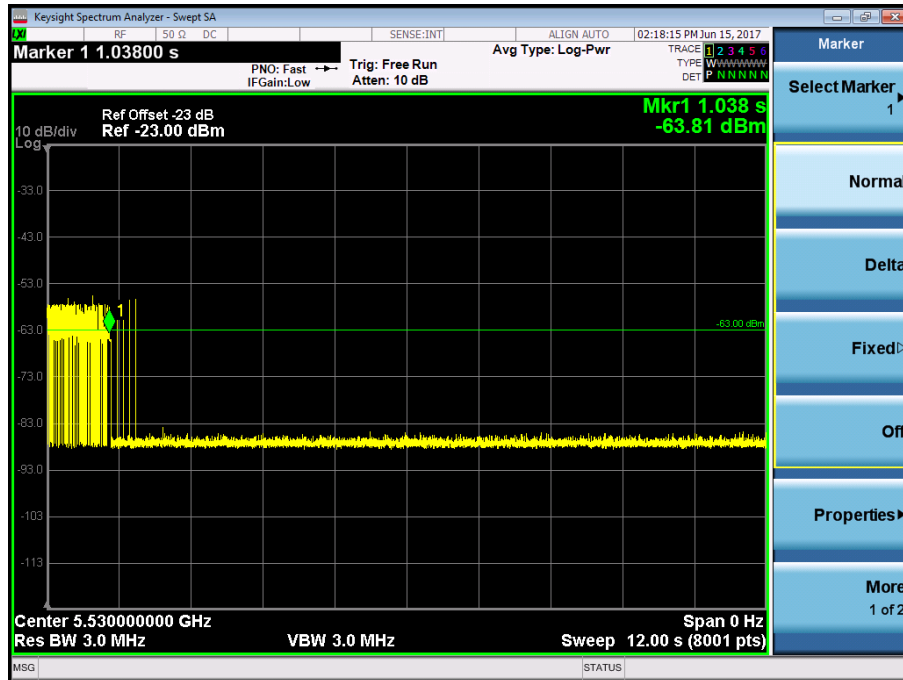
### **5.7.2. Test Procedure Used**

1. The test should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0.
2. When the radar burst with a level equal to the DFS Detection Threshold + 1dB is generated on the Operating Channel of the U-NII device. A U-NII device operating as a Master Device will associate with the Client Device at Channel. Stream the MPEG test file from the Master Device to the Client Device on the selected Channel for the entire period of the test. At time T0 the Radar Waveform generator sends a Burst of pulses for each of the radar types at Detection Threshold + 1dB.
3. Observe the transmissions of the EUT at the end of the radar Burst on the Operating Channel. Measure and record the transmissions from the EUT during the observation time (Channel Move Time).
4. Measurement of the aggregate duration of the Channel Closing Transmission Time method. With the spectrum analyzer set to zero span tuned to the center frequency of the EUT operating channel at the radar simulated frequency, peak detection, and max hold, the dwell time per bin is given by:  $Dwell (1.5ms) = S (12 \text{ sec}) / B (8000)$ ; 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.

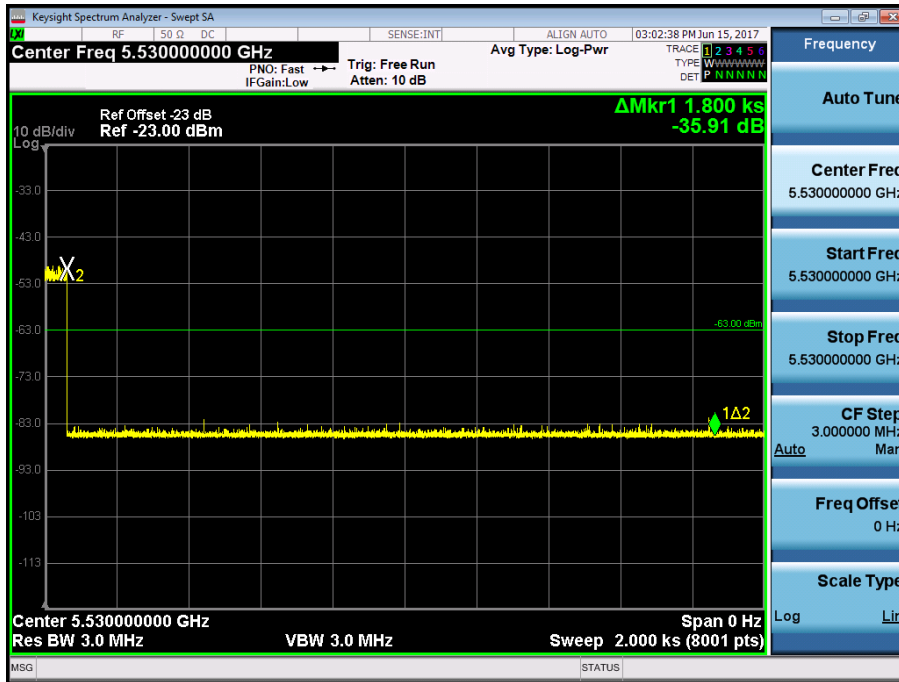
### 5.7.3. Test Result

#### Test Mode 1

Channel Move Time and Channel Closing Transmission Time for 802.11ac-VHT80 – 5530MHz



## Non-Occupancy Period for 802.11ac-VHT80 – 5530MHz



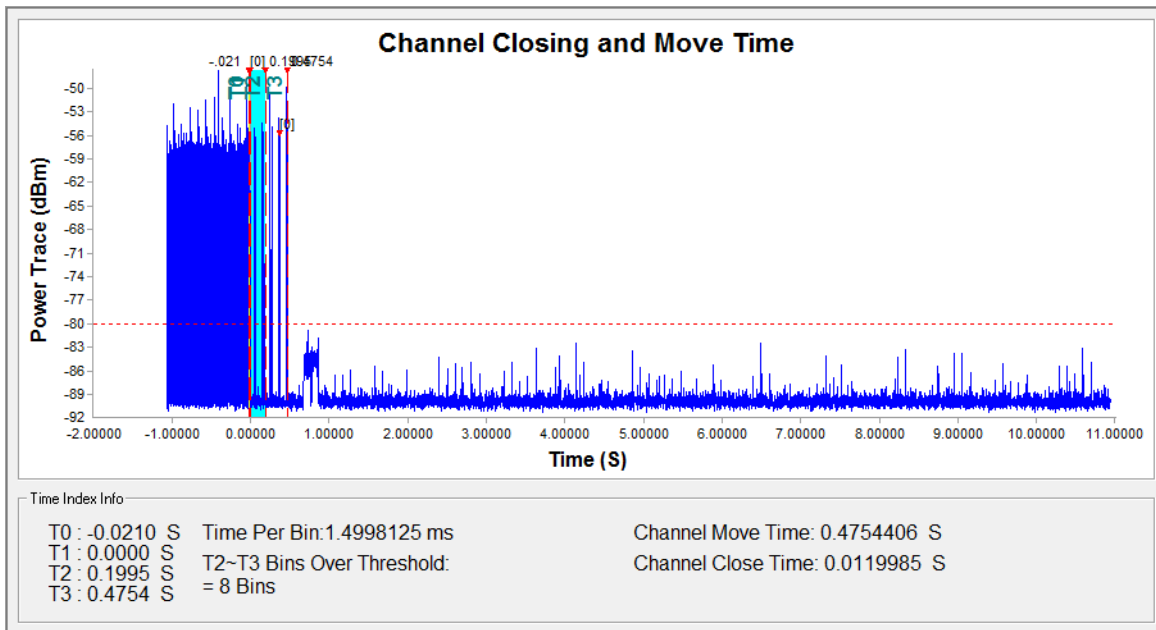
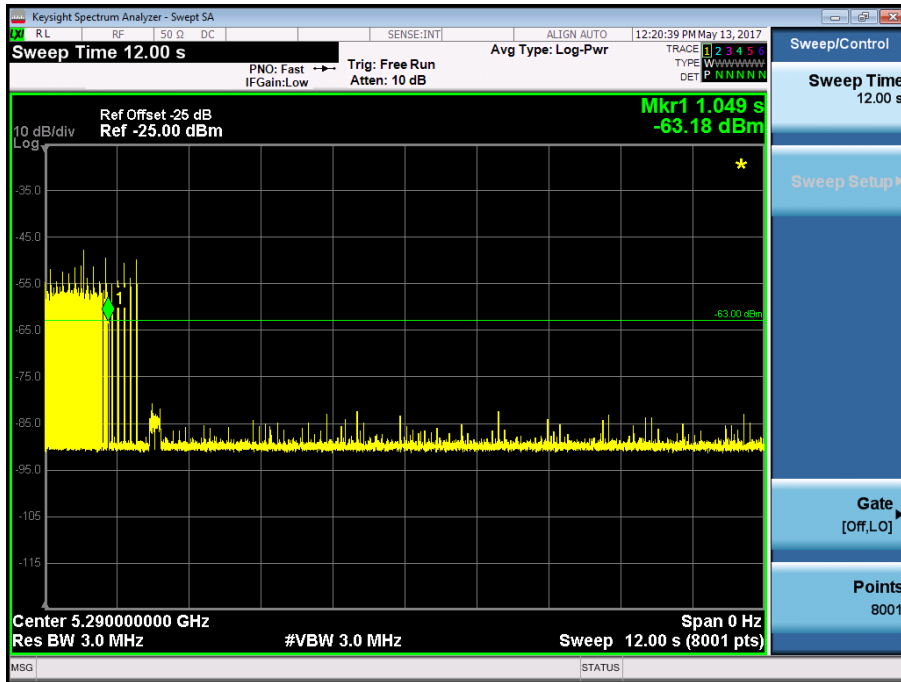
Parameter	Test Result	Limit
	Type 0	
Channel Move Time (s)	0.408s	<10s
Channel Closing Transmission Time (ms) (Note)	6.0ms	< 60ms
Non-Occupancy Period (min)	≥ 30min	≥ 30 min

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

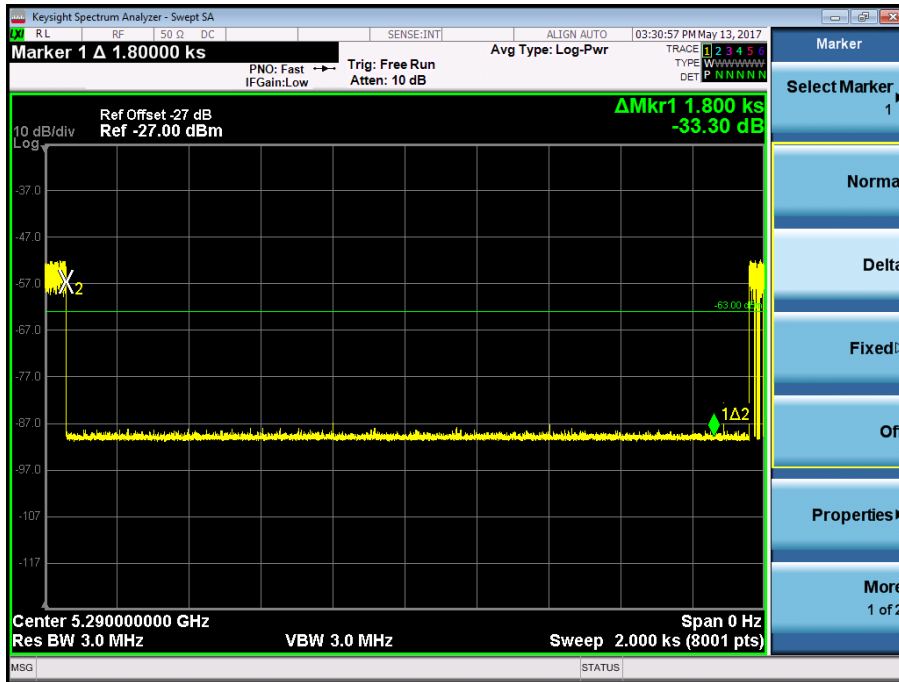


**Test Mode 2**

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



Non-Occupancy Period for 802.11ac-VHT80 – 5290MHz

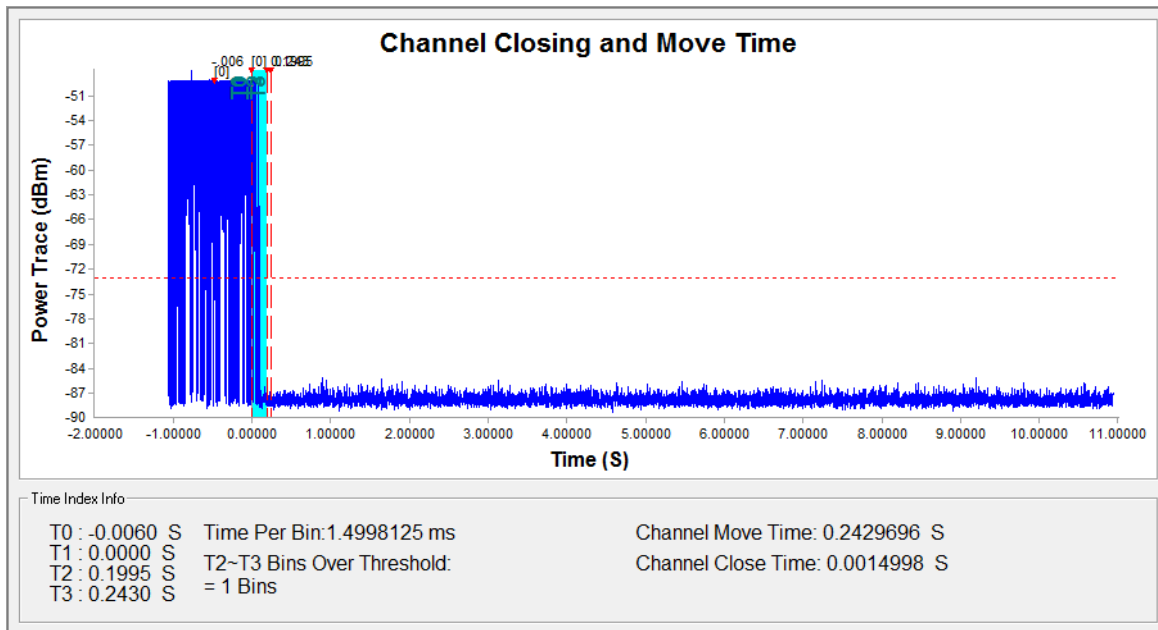
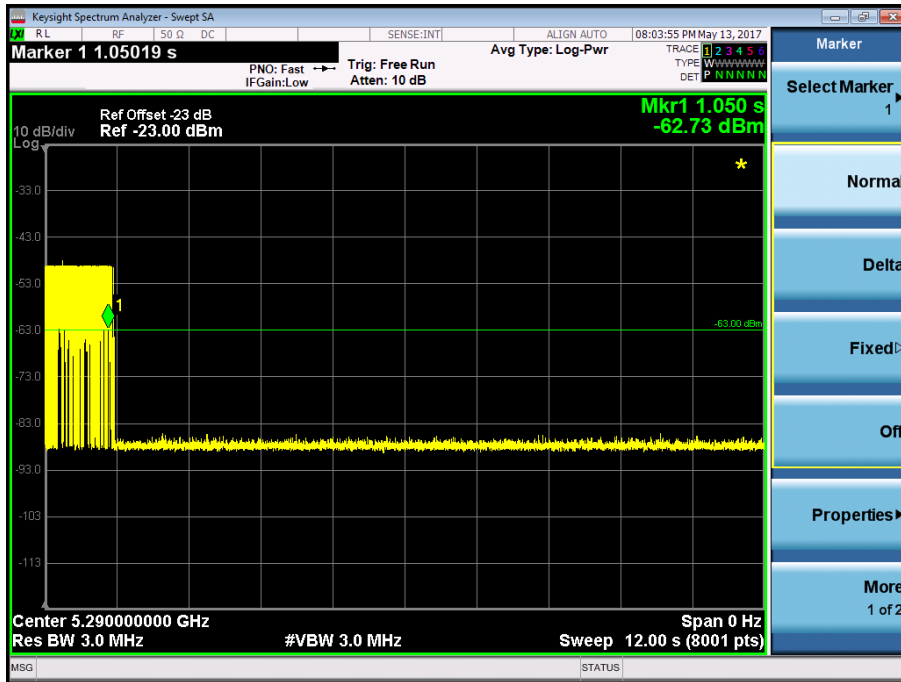


Parameter	Test Result	Limit
	Type 0	
Channel Move Time (s)	0.475s	<10s
Channel Closing Transmission Time (ms) (Note)	12.0ms	< 60ms
Non-Occupancy Period (min)	≥ 30min	≥ 30 min

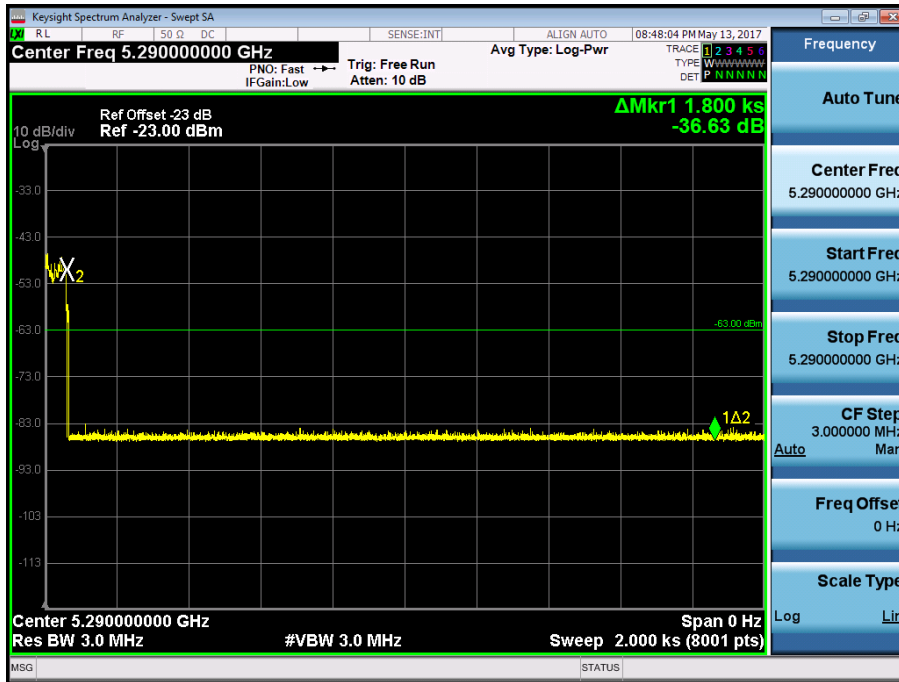
Note: The Channel Closing Transmission Time is comprised of 200 milliseconds starting at the beginning of the Channel Move Time plus any additional intermittent control signals required to facilitate a Channel move (an aggregate of 60 milliseconds) during the remainder of the 10 seconds period. The aggregate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

### Test Mode 3

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



Non-Occupancy Period for 802.11ac-VHT80 – 5290MHz



Parameter	Test Result	Limit
	Type 0	
Channel Move Time (s)	0.243s	<10s
Channel Closing Transmission Time (ms) (Note)	1.5ms	< 60ms
Non-Occupancy Period (min)	≥ 30min	≥ 30 min

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

## 5.8. Statistical Performance Check Measurement

### 5.8.1. Test Limit

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

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

The percentage of successful detection is calculated by:

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

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

### 5.8.2. Test Procedure

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

**5.8.3. Test Result**

**Test Mode 1**

Statistical Performance Check for 802.11a

Radar Type 1 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5292	1	598	89	1
2	5292	1	3066	18	1
3	5292	1	838	63	1
4	5293	1	778	68	1
5	5293	1	698	76	1
6	5293	1	718	74	1
7	5294	1	618	86	1
8	5295	1	818	65	1
9	5296	1	638	83	1
10	5297	1	578	92	1
11	5298	1	518	102	1
12	5299	1	798	67	1
13	5300	1	878	61	1
14	5300	1	858	62	1
15	5300	1	558	95	1
16	5300	1	2753	20	1
17	5300	1	3008	18	1
18	5301	1	909	59	1
19	5302	1	1118	48	1
20	5303	1	2489	22	1
21	5304	1	882	60	1
22	5305	1	703	76	1
23	5306	1	1696	32	1
24	5307	1	1671	32	1
25	5307	1	1009	53	1
26	5307	1	3023	18	1
27	5307	1	3014	18	1
28	5308	1	2183	25	1
29	5308	1	2764	20	1
30	5308	1	3036	18	1
Detection Percentage (%)					100%

## Radar Type 2 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5292	4.1	203	23	1
2	5292	3.7	202	25	1
3	5292	3.9	224	26	1
4	5293	4.9	220	25	1
5	5293	3.0	200	27	1
6	5293	3.0	204	24	1
7	5294	4.4	169	25	1
8	5295	3.3	164	26	1
9	5296	1.7	197	29	1
10	5297	4.2	188	28	1
11	5298	4.4	191	25	1
12	5299	4.8	228	25	1
13	5300	3.9	184	25	1
14	5300	3.2	176	26	1
15	5300	2.9	181	23	1
16	5300	1.7	189	27	1
17	5300	3.4	152	26	1
18	5301	4.4	169	25	1
19	5302	4.8	197	26	1
20	5303	1.5	174	23	1
21	5304	3.9	216	26	1
22	5305	2.1	188	27	1
23	5306	3.9	184	24	1
24	5307	3.2	155	26	1
25	5307	3.1	202	29	1
26	5307	4.1	161	29	1
27	5307	3.2	187	25	1
28	5308	1.9	173	28	1
29	5308	3.7	208	23	1
30	5308	1.4	209	29	1
Detection Percentage (%)					100%

Radar Type 3 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5292	6.9	458	16	1
2	5292	8.8	419	18	1
3	5292	6.8	495	17	1
4	5293	6.4	288	17	1
5	5293	7.8	334	18	1
6	5293	6.7	467	16	1
7	5294	9.8	342	16	1
8	5295	7.8	274	18	1
9	5296	7.5	266	16	1
10	5297	8.4	457	17	1
11	5298	7.2	398	17	1
12	5299	7.9	430	17	1
13	5300	9.5	344	17	1
14	5300	7.8	454	17	1
15	5300	9.7	480	17	1
16	5300	6.9	427	17	1
17	5300	9.1	427	16	1
18	5301	8.9	259	17	1
19	5302	9.5	284	18	1
20	5303	7.0	260	18	1
21	5304	7.2	359	17	1
22	5305	6.1	435	16	1
23	5306	6.5	337	17	1
24	5307	7.9	265	18	1
25	5307	10.0	475	17	1
26	5307	6.7	377	18	1
27	5307	7.8	312	16	1
28	5308	6.7	276	18	1
29	5308	6.8	253	17	1
30	5308	7.1	316	17	1
Detection Percentage (%)					100%



## Radar Type 4 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5292	15.0	432	12	1
2	5292	18.0	274	12	1
3	5292	14.9	484	16	1
4	5293	11.5	497	15	1
5	5293	16.0	411	13	1
6	5293	12.5	254	16	1
7	5294	15.3	435	13	1
8	5295	16.7	274	15	1
9	5296	18.5	294	14	1
10	5297	14.4	393	14	1
11	5298	16.2	408	16	1
12	5299	15.1	400	16	1
13	5300	12.5	322	14	1
14	5300	14.3	452	16	1
15	5300	20.0	277	16	1
16	5300	16.6	338	15	1
17	5300	12.4	496	12	1
18	5301	18.7	355	14	1
19	5302	19.8	327	15	1
20	5303	18.1	430	15	1
21	5304	13.3	350	14	1
22	5305	16.1	472	12	1
23	5306	15.3	431	14	1
24	5307	15.3	376	14	1
25	5307	13.3	416	14	1
26	5307	15.5	439	13	1
27	5307	17.5	375	13	1
28	5308	17.9	333	15	1
29	5308	11.3	311	16	1
30	5308	14.5	266	12	1
Detection Percentage (%)					100%

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

waveforms is as follows:  $\frac{P_d1 + P_d2 + P_d3 + P_d4}{4} = (100\% + 100\% + 100\% + 100\%) / 4 = 100\% (>80\%)$



Radar Type 5 - Radar Statistical Performance

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

Type 5 Radar Waveform_1										
Num of Bursts = 19										
Burst Interval (us) = 631579										
Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	40100	2	18	90	1129	1410	0	40100	0	631578
2	998510	3	18	60	1296	1400	1501	1041149	631579	1263157
3	375727	3	18	80	1173	1431	1490	1421073	1263158	1894736
4	981099	3	18	95	1498	1499	1471	2406266	1894737	2526315
5	296085	2	18	75	1648	1231	0	2706819	2526316	3157894
6	827707	2	18	50	1492	1141	0	3537405	3157895	3789473
7	601447	2	18	100	1010	1600	0	4141485	3789474	4421052
8	646404	2	18	75	1072	1899	0	4790499	4421053	5052631
9	389150	2	18	55	1376	1903	0	5182620	5052632	5684210
10	858042	2	18	75	1954	1037	0	6043941	5684211	6315789
11	608979	1	18	80	1589	0	0	6655911	6315790	6947368
12	752631	1	18	85	1370	0	0	7410131	6947369	7578947
13	243209	1	18	95	1209	0	0	7654710	7578948	8210526
14	1028537	3	18	55	1206	1418	1706	8684456	8210527	8842105
15	612692	3	18	75	1528	1089	1839	9301478	8842106	9473684
16	300751	1	18	60	1831	0	0	9606685	9473685	10105263
17	680800	3	18	80	1484	1960	1164	10289316	10105264	10736842
18	538364	3	18	100	1338	1507	1111	10831888	10736843	11368421
19	988120	3	18	55	1637	1042	1764	11823964	11368422	12000000
Total number of pulses in waveform = 42										
*****										



### Type 5 Radar Waveform\_2

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	1130683	1	12	85	1142	0	0	1130683	0	1333332
2	282571	1	12	90	1829	0	0	1414396	1333333	2666665
3	2419490	3	12	85	1829	1794	1476	3835715	2666666	3999998
4	934530	3	12	85	1869	1446	1767	4775344	3999999	5333331
5	1753440	3	12	80	1734	1850	1367	6533866	5333332	6666664
6	616388	3	12	95	1246	1899	1518	7155205	6666665	7999997
7	1298297	2	12	70	1918	1974	0	8458165	7999998	9333330
8	1676194	3	12	75	1977	1287	1802	10138251	9333331	10666663
9	1557252	1	12	100	1289	0	0	11700569	10666664	11999996

Total number of pulses in waveform = 20

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### Type 5 Radar Waveform\_3

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	1261657	3	9	75	1114	1211	1147	1261657	0	1499999
2	619937	3	9	50	1691	1483	1889	1885066	1500000	2999999
3	2543775	2	9	75	1341	1631	0	4433904	3000000	4499999
4	1299367	1	9	95	1884	0	0	5736243	4500000	5999999
5	530969	3	9	95	1391	1084	1105	6269096	6000000	7499999
6	1709981	1	9	55	1114	0	0	7982657	7500000	8999999
7	1555162	2	9	85	1120	1907	0	9538933	9000000	10499999
8	2245106	1	9	70	1065	0	0	11787066	10500000	11999999

Total number of pulses in waveform = 16

\*\*\*\*\*

### Type 5 Radar Waveform\_4

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	1251558	2	5	55	1838	1282	0	1251558	0	1499999
2	1373318	1	5	55	1498	0	0	2627996	1500000	2999999
3	572911	3	5	100	1430	1162	1537	3202405	3000000	4499999
4	1689936	3	5	75	1404	1657	1117	4896470	4500000	5999999
5	1918475	3	5	60	1029	1974	1147	6819123	6000000	7499999
6	1145418	3	5	50	1979	1486	1344	7968691	7500000	8999999
7	2019572	3	5	60	1542	1429	1674	9993072	9000000	10499999
8	1186960	1	5	90	1724	0	0	11184677	10500000	11999999

Total number of pulses in waveform = 19

\*\*\*\*\*



### Type 5 Radar Waveform\_5

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	1196839	3	14	100	1879	1118	1138	1196839	0	1499999
2	558212	3	14	95	1996	1762	1037	1759186	1500000	2999999
3	2051843	3	14	95	1734	1950	1329	3815824	3000000	4499999
4	918249	2	14	60	1933	1232	0	4739086	4500000	5999999
5	1955829	1	14	85	1267	0	0	6698080	6000000	7499999
6	1367950	2	14	65	1540	1252	0	8067297	7500000	8999999
7	2154188	1	14	80	1499	0	0	10224277	9000000	10499999
8	1020377	3	14	95	1901	1269	1097	11246153	10500000	11999999

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

### Type 5 Radar Waveform\_6

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	441409	2	17	55	1249	1895	0	441409	0	631578
2	343667	3	17	65	1058	1402	1251	788220	631579	1263157
3	580862	1	17	75	1591	0	0	1372793	1263158	1894736
4	548059	2	17	90	1666	1651	0	1922443	1894737	2526315
5	1162014	1	17	75	1147	0	0	3087774	2526316	3157894
6	400453	1	17	75	1149	0	0	3489374	3157895	3789473
7	778820	1	17	50	1335	0	0	4269343	3789474	4421052
8	493302	2	17	75	1776	1643	0	4763980	4421053	5052631
9	559437	3	17	65	1110	1234	1358	5326836	5052632	5684210
10	816228	1	17	90	1116	0	0	6146766	5684211	6315789
11	768172	1	17	75	1860	0	0	6916054	6315790	6947368
12	385555	1	17	85	1679	0	0	7303469	6947369	7578947
13	616547	1	17	90	1525	0	0	7921695	7578948	8210527
14	745376	1	17	100	1823	0	0	8688596	8210527	8842105
15	478773	1	17	50	1315	0	0	9149192	8842106	9473684
16	908312	3	17	90	1239	1280	1113	10058819	9473685	10105263
17	613324	3	17	95	1292	1619	1161	10675775	10105264	10736842
18	328726	3	17	50	1837	1857	1644	11008573	10736843	11368421
19	951754	2	17	100	1889	1071	0	11965665	11368422	12000000

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

### Type 5 Radar Waveform\_7

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	322035	1	6	70	1883	0	0	322035	0	1199999
2	1622255	3	6	100	1152	1991	1943	1946173	1200000	2399999
3	924787	1	6	75	1180	0	0	2876046	2400000	3599999
4	803771	1	6	60	1243	0	0	3680997	3600000	4799999
5	2025395	2	6	55	1845	1138	0	5707635	4800000	5999999
6	1201197	2	6	60	1475	1672	0	6911815	6000000	7199999
7	1132549	1	6	75	1173	0	0	8047511	7200000	8399999
8	1352145	1	6	85	1709	0	0	9400829	8400000	9599999
9	1274649	3	6	75	1416	1818	1415	10677187	9600000	10799999
10	967750	2	6	75	1598	1674	0	11649586	10800000	11999999

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



### Type 5 Radar Waveform\_8

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	6617	2	8	60	1127	1610	0	6617	0	631578
2	1221047	3	8	65	1871	1073	1211	1230401	631579	1263157
3	647552	3	8	60	1718	1502	1782	1881908	1263158	1894736
4	385485	2	8	65	1987	1932	0	2272395	1894737	2526315
5	701290	3	8	85	1487	1554	1237	2977604	2526316	3157894
6	186618	1	8	90	1345	0	0	3168500	3157895	3789473
7	1174063	1	8	95	1158	0	0	4343908	3789474	4421052
8	246932	3	8	60	1236	1212	1730	4691998	4421053	5052631
9	1065435	1	8	65	1176	0	0	5661611	5052632	5684210
10	451063	1	8	100	1546	0	0	6113850	5684211	6315789
11	818671	3	8	75	1596	1332	1213	6934067	6315790	6947368
12	507131	2	8	70	1619	1711	0	7445339	6947369	7578947
13	198199	3	8	85	1536	1751	1680	7646868	7578948	8210526
14	962139	2	8	65	1030	1983	0	8613974	8210527	8842105
15	561868	3	8	70	1125	1224	1221	9178855	8842106	9473684
16	748529	1	8	85	1889	0	0	9930954	9473685	10105263
17	603006	3	8	90	1830	1329	1997	10535849	10105264	10736842
18	611336	3	8	85	1643	1706	1989	11152341	10736843	11368421
19	652497	1	8	80	1031	0	0	11810176	11368422	12000000

Total number of pulses in waveform = 41  
\*\*\*\*\*

### Type 5 Radar Waveform\_9

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	299524	1	19	95	1371	0	0	299524	0	799999
2	833696	1	19	55	1409	0	0	1134591	800000	1599999
3	1229288	3	19	80	1555	1384	1514	2365288	1600000	2399999
4	1693303	1	19	70	1750	0	0	2539044	2400000	3199999
5	911109	1	19	100	1375	0	0	3451903	3200000	3999999
6	803038	1	19	95	1786	0	0	4256316	4000000	4799999
7	626934	2	19	95	1939	1190	0	4885036	4800000	5599999
8	1486877	2	19	55	1491	1028	0	6375042	5600000	6399999
9	208776	1	19	55	1836	0	0	6586337	6400000	7199999
10	1177236	2	19	100	1310	1062	0	7765409	7200000	7999999
11	278232	2	19	90	1154	1969	0	8046013	8000000	8799999
12	1224852	1	19	55	1956	0	0	9273988	8800000	9599999
13	995642	2	19	100	1452	1402	0	10271586	9600000	10399999
14	846266	2	19	50	1297	1269	0	11120706	10400000	11199999
15	430297	2	19	85	1603	1533	0	11553569	11200000	11999999

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

### Type 5 Radar Waveform\_10

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	394428	1	10	55	1317	0	0	394428	0	705881
2	453893	3	10	70	1838	1223	1121	849638	705882	1411763
3	686289	3	10	90	1584	1521	1439	1540109	1411764	2117645
4	1184800	2	10	95	1071	1394	0	2729453	2117646	2823527
5	136320	2	10	85	1128	1840	0	2868238	2823528	3529409
6	728349	1	10	95	1716	0	0	3699555	3529410	4235291
7	652383	2	10	85	1118	1371	0	4253654	4235292	4941173
8	691394	2	10	85	1596	1304	0	4947537	4941174	5647055
9	705533	2	10	50	1524	1222	0	5655970	5647056	6352937
10	963477	3	10	80	1851	1406	1849	6622193	6352938	7058819
11	904822	2	10	70	1879	1153	0	7532121	7058820	7764701
12	793072	1	10	55	1775	0	0	8328225	7764702	8470583
13	307655	1	10	60	1272	0	0	8637655	8470584	9176465
14	662733	3	10	55	1779	1841	1460	9301660	9176466	9882347
15	964774	2	10	90	1328	1635	0	10271504	9882348	10588229
16	444058	3	10	80	1790	1123	1348	10718525	10588230	11294111
17	1196097	2	10	95	1831	1398	0	11918883	11294112	11999993

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



### Type 5 Radar Waveform\_11

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	256767	3	10	75	1133	1375	1867	256767	0	599999
2	802559	2	10	60	1133	1734	0	1063701	600000	1199999
3	634139	2	10	60	1372	1761	0	1700707	1200000	1799999
4	127557	3	10	65	1012	1838	1997	1831397	1800000	2399999
5	915574	3	10	70	1693	1934	1606	2751818	2400000	2999999
6	416669	1	10	100	1868	0	0	3173720	3000000	3599999
7	599455	2	10	75	1272	1075	0	3775043	3600000	4199999
8	668906	3	10	100	1155	1099	1075	4446296	4200000	4799999
9	499958	2	10	100	1192	1524	0	4949583	4800000	5399999
10	938858	2	10	75	1871	1808	0	5891157	5400000	5999999
11	496994	1	10	95	1647	0	0	6391830	6000000	6599999
12	394131	1	10	95	1629	0	0	6787608	6600000	7199999
13	808683	1	10	70	1797	0	0	7597920	7200000	7799999
14	638086	2	10	50	1942	1581	0	8237803	7800000	8399999
15	174596	1	10	75	1120	0	0	8415922	8400000	8999999
16	818513	1	10	95	1621	0	0	9235555	9000000	9599999
17	624208	2	10	55	1811	1327	0	9861384	9600000	10199999
18	917030	1	10	55	1472	0	0	10781552	10200000	10799999
19	474540	2	10	60	1487	1560	0	11257564	10800000	11399999
20	584764	3	10	70	1249	1677	1580	11845375	11400000	11999999

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

### Type 5 Radar Waveform\_12

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	535182	1	9	100	1002	0	0	535182	0	857142
2	792766	1	9	80	1900	0	0	1328950	857143	1714285
3	739231	3	9	70	1303	1546	1622	2070081	1714286	2571428
4	754278	2	9	95	1846	1005	0	2828830	2571429	3428571
5	1313385	1	9	75	1395	0	0	4145066	3428572	4285714
6	821425	1	9	55	1213	0	0	4967886	4285715	5142857
7	557679	1	9	60	1278	0	0	5526778	5142858	6000000
8	732117	3	9	50	1131	1802	1382	6260173	6000001	6857143
9	1061541	1	9	90	1917	0	0	7326029	6857144	7714286
10	985764	1	9	95	1741	0	0	8313710	7714287	8571429
11	684155	1	9	90	1289	0	0	8999806	8571430	9428572
12	987021	1	9	60	1926	0	0	9987916	9428573	10285715
13	1062591	2	9	75	1801	1306	0	11052433	10285716	11142858
14	542906	3	9	100	1391	1586	1784	11598446	11142859	12000001

Total number of pulses in waveform = 22  
\*\*\*\*\*

### Type 5 Radar Waveform\_13

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	648733	2	5	70	1680	1805	0	648733	0	1499999
2	1504103	3	5	50	1504	1929	1649	2156321	1500000	2999999
3	929713	2	5	90	1804	1045	0	3091116	3000000	4499999
4	2424311	2	5	80	1658	1307	0	5518276	4500000	5999999
5	1766591	3	5	60	1001	1582	1819	7287832	6000000	7499999
6	1385432	2	5	70	1670	1594	0	8677666	7500000	8999999
7	1020682	3	5	55	1631	1416	1579	9701612	9000000	10499999
8	1503136	3	5	70	1661	1665	1633	11209374	10500000	11999999

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



### Type 5 Radar Waveform\_14

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	495576	1	14	100	1858	0	0	495576	0	599999
2	663706	3	14	50	1257	1508	1707	1161140	600000	1199999
3	68453	3	14	60	1717	1725	1331	1234065	1200000	1799999
4	711045	3	14	80	1903	1167	1311	1949883	1800000	2399999
5	802759	3	14	55	1513	1222	1057	2757023	2400000	2999999
6	346748	1	14	90	1990	0	0	3107563	3000000	3599999
7	766341	3	14	75	1413	1111	1371	3875894	3600000	4199999
8	446444	3	14	85	1747	1705	1616	4326233	4200000	4799999
9	587375	2	14	50	1105	1413	0	4918676	4800000	5399999
10	1066108	1	14	55	1852	0	0	5987302	5400000	5999999
11	161448	2	14	85	1790	1139	0	6150602	6000000	6599999
12	757524	2	14	90	1906	1066	0	6911055	6600000	7199999
13	650258	1	14	90	1365	0	0	7564285	7200000	7799999
14	781872	1	14	90	1826	0	0	8347522	7800000	8399999
15	99187	2	14	65	1072	1722	0	8448535	8400000	8999999
16	703474	3	14	95	1923	1555	1313	9154803	9000000	9599999
17	943286	1	14	95	1151	0	0	10102880	9600000	10199999
18	597927	1	14	55	1968	0	0	10701958	10200000	10799999
19	500507	3	14	55	1967	1284	1722	11204433	10800000	11399999
20	475526	3	14	65	1877	1080	1071	11684932	11400000	11999999

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

### Type 5 Radar Waveform\_15

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	270441	1	19	55	1252	0	0	270441	0	923076
2	656962	3	19	90	1795	1231	1028	928655	923077	1846153
3	1293614	3	19	60	1904	1903	1089	2226323	1846154	2769230
4	947228	2	19	90	1361	1874	0	3178447	2769231	3692307
5	633168	2	19	100	1708	1886	0	3814850	3692308	4615384
6	1677481	3	19	50	1477	1758	1850	5495925	4615385	5538461
7	876671	3	19	65	1134	2000	1047	6377681	5538462	6461538
8	693098	2	19	85	1432	1753	0	7074960	6461539	7384615
9	475604	3	19	55	1940	1815	1603	7553749	7384616	8307692
10	1140544	1	19	80	1568	0	0	8699651	8307693	9230769
11	927896	3	19	90	1612	1247	1703	9629115	9230770	10153846
12	681215	2	19	90	1325	1358	0	10314892	10153847	11076923
13	934236	3	19	85	1475	1269	1743	11251811	11076924	12000000

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

### Type 5 Radar Waveform\_16

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	42677	1	6	60	1474	0	0	42677	0	705881
2	878910	2	6	60	1224	1946	0	923061	705882	1411763
3	572554	2	6	50	1902	1191	0	1498785	1411764	2117645
4	999417	2	6	85	1060	1277	0	2501295	2117646	2823527
5	473839	3	6	75	1447	1122	1374	2977471	2823528	3529409
6	808747	2	6	80	1320	1198	0	3790161	3529410	4235291
7	585449	2	6	60	1637	1397	0	4378128	4235292	4941173
8	706791	1	6	55	1157	0	0	5087953	4941174	5647055
9	701503	2	6	50	1075	1292	0	5790613	5647056	6352937
10	642166	1	6	50	1170	0	0	6435146	6352938	7058819
11	946126	3	6	85	1133	1038	1762	7382442	7058820	7764701
12	957606	1	6	80	1511	0	0	8343981	7764702	8470583
13	525578	1	6	50	1392	0	0	8871070	8470584	9176465
14	1008262	1	6	85	1555	0	0	9880724	9176466	9882347
15	661816	2	6	50	1568	1502	0	10544095	9882348	10588229
16	129030	2	6	70	1470	1265	0	10676195	10588230	11294111
17	1007953	3	6	75	1028	1756	1024	11686883	11294112	11999993

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



### Type 5 Radar Waveform\_17

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	559464	1	18	70	1118	0	0	559464	0	1090908
2	1296643	2	18	100	1841	1112	0	1857225	1090909	2181817
3	1400660	3	18	95	1816	1494	1512	3260838	2181818	3272726
4	546350	3	18	80	1213	1850	1863	3812010	3272727	4363635
5	804186	1	18	65	1302	0	0	4621122	4363636	5454544
6	906125	1	18	95	1322	0	0	5528549	5454545	6545453
7	1815762	1	18	90	1575	0	0	7345633	6545454	7636362
8	962245	3	18	75	1485	1287	1165	8309453	7636363	8727271
9	432331	1	18	95	1598	0	0	8745721	8727272	9818180
10	1249588	2	18	100	1369	1253	0	9996907	9818181	10909089
11	1827675	3	18	95	1662	1539	1186	11827204	10909090	11999998

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

### Type 5 Radar Waveform\_18

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	310543	1	8	65	1038	0	0	310543	0	749999
2	1003908	2	8	65	1669	1413	0	1315489	750000	1499999
3	249243	3	8	80	1044	1496	1252	1667814	1500000	2249999
4	1332330	3	8	100	1290	1508	1280	2903936	2250000	2999999
5	245575	3	8	60	1107	1963	1763	3153589	3000000	3749999
6	852929	2	8	90	1796	1301	0	4011351	3750000	4499999
7	1080639	1	8	85	1844	0	0	5095087	4500000	5249999
8	259623	3	8	95	1093	1141	1942	5356554	5250000	5999999
9	864244	2	8	100	1103	1119	0	6224974	6000000	6749999
10	549429	1	8	100	1468	0	0	6776625	6750000	7499999
11	1325965	2	8	95	1698	1778	0	8104058	7500000	8249999
12	344766	3	8	60	1197	1586	1838	8452300	8250000	8999999
13	576015	1	8	65	1872	0	0	9032936	9000000	9749999
14	1008864	1	8	80	1021	0	0	10041672	9750000	10499999
15	1129901	2	8	80	1935	1043	0	11172594	10500000	11249999
16	468781	2	8	70	1869	1016	0	11644353	11250000	11999999

Total number of pulses in waveform = 32  
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### Type 5 Radar Waveform\_19

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	405970	2	17	75	1897	1072	0	405970	0	923076
2	1352528	3	17	50	1154	1741	1988	1761467	923077	1846153
3	238918	1	17	85	1024	0	0	2005268	1846154	2769230
4	996269	2	17	60	1290	1283	0	3002561	2769231	3692307
5	717973	1	17	95	1518	0	0	3723107	3692308	4615384
6	1129452	2	17	90	1432	1956	0	4854077	4615385	5538461
7	977828	1	17	65	1114	0	0	5835293	5538462	6461538
8	1100848	1	17	85	1365	0	0	6937255	6461539	7384615
9	1363882	1	17	90	1441	0	0	8302502	7384616	8307692
10	155721	3	17	55	1397	1403	1577	8459664	8307693	9230769
11	869898	1	17	80	1162	0	0	9333939	9230770	10153846
12	1233817	2	17	100	1704	1421	0	10568918	10153847	11076923
13	818923	2	17	75	1023	1774	0	11390966	11076924	12000000

Total number of pulses in waveform = 22  
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### Type 5 Radar Waveform\_20

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	1848	1	12	85	1227	0	0	1848	0	749999
2	857517	1	12	70	1104	0	0	860592	750000	1499999
3	693442	1	12	85	1001	0	0	1555138	1500000	2249999
4	1300242	2	12	65	1827	1323	0	2856381	2250000	2999999
5	701434	2	12	80	1627	1613	0	3560965	3000000	3749999
6	602980	3	12	55	1929	1479	1710	4167185	3750000	4499999
7	473112	3	12	50	1286	1308	1078	4645415	4500000	5249999
8	1060012	3	12	60	1316	1164	1485	5709099	5250000	5999999
9	722822	3	12	95	1350	1115	1532	6435886	6000000	6749999
10	861596	1	12	65	1256	0	0	7301479	6750000	7499999
11	588276	3	12	100	1385	1219	1345	7891011	7500000	8249999
12	757439	1	12	90	1568	0	0	8652399	8250000	8999999
13	826343	1	12	60	1951	0	0	9480310	9000000	9749999
14	633236	2	12	75	1689	1814	0	10115497	9750000	10499999
15	788311	3	12	75	1324	1854	1400	10907311	10500000	11249999
16	733240	1	12	90	1006	0	0	11645129	11250000	11999999

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

### Type 5 Radar Waveform\_21

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	296900	3	8	85	1398	1000	1854	296900	0	599999
2	833831	2	8	85	1681	1330	0	1134983	600000	1199999
3	157255	2	8	55	1607	1960	0	1295249	1200000	1799999
4	554869	1	8	100	1025	0	0	1853685	1800000	2399999
5	1020773	3	8	65	1021	1191	1601	2875483	2400000	2999999
6	575545	2	8	90	1044	1390	0	3454841	3000000	3599999
7	508503	2	8	60	1069	1273	0	3965778	3600000	4199999
8	403473	1	8	50	1700	0	0	4371593	4200000	4799999
9	932094	1	8	100	1975	0	0	5305327	4800000	5399999
10	326475	2	8	55	1020	1050	0	5633777	5400000	5999999
11	823753	2	8	50	1550	1923	0	6459600	6000000	6599999
12	461331	1	8	65	1049	0	0	6924404	6600000	7199999
13	487618	3	8	100	1937	1655	1959	7413071	7200000	7799999
14	512298	1	8	75	1694	0	0	7930920	7800000	8399999
15	609865	3	8	85	1281	1879	1268	8542479	8400000	8999999
16	826046	3	8	85	1760	1104	1668	9372953	9000000	9599999
17	322569	2	8	65	1628	1270	0	9700054	9600000	10199999
18	1074501	1	8	75	1928	0	0	10777453	10200000	10799999
19	589873	1	8	95	1850	0	0	11369254	10800000	11399999
20	74061	3	8	95	1534	1640	1799	11445165	11400000	11999999

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

### Type 5 Radar Waveform\_22

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	412460	1	14	75	1441	0	0	412460	0	1333332
2	1187265	1	14	55	1350	0	0	1601166	1333333	2666665
3	1261740	3	14	100	1906	1739	1044	2864256	2666666	3999998
4	1829732	2	14	55	1092	1264	0	4698677	3999999	5333331
5	989495	2	14	70	1509	1494	0	5690528	5333332	6666664
6	2095995	2	14	70	1091	1171	0	7789526	6666665	7999997
7	1244091	1	14	50	1028	0	0	9035879	7999998	9333330
8	909026	2	14	100	1852	1896	0	9945933	9333331	10666663
9	1891132	2	14	90	1979	1865	0	11840813	10666664	11999996

Total number of pulses in waveform = 16  
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### Type 5 Radar Waveform\_23

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	881807	1	5	75	1325	0	0	881807	0	1199999
2	1131017	3	5	95	1088	1121	1288	2014149	1200000	2399999
3	1564208	3	5	85	1235	1750	1263	3581854	2400000	3599999
4	823037	3	5	100	1469	1486	1055	4409139	3600000	4799999
5	595691	1	5	50	1976	0	0	5008840	4800000	5999999
6	1334466	3	5	60	1999	1923	1423	6345282	6000000	7199999
7	1800455	1	5	95	1566	0	0	8151082	7200000	8399999
8	434590	2	5	70	1143	1374	0	8587238	8400000	9599999
9	1163133	2	5	55	1102	1252	0	9752888	9600000	10799999
10	1512069	1	5	100	1451	0	0	11267311	10800000	11999999

Total number of pulses in waveform = 20

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### Type 5 Radar Waveform\_24

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	662425	1	12	70	1126	0	0	662425	0	749999
2	673157	3	12	95	1209	1278	1891	1336708	750000	1499999
3	250228	1	12	80	1143	0	0	1591314	1500000	2249999
4	747769	3	12	80	1514	1931	1981	2340226	2250000	2999999
5	1383107	1	12	55	1499	0	0	3728759	3000000	3749999
6	570308	2	12	90	1343	1185	0	4300566	3750000	4499999
7	743409	1	12	85	1742	0	0	5046503	4500000	5249999
8	619583	3	12	70	1722	1645	1388	5667828	5250000	5999999
9	761610	1	12	100	1765	0	0	6434193	6000000	6749999
10	889589	1	12	70	1358	0	0	7325547	6750000	7499999
11	716546	3	12	85	1724	1442	1529	8043451	7500000	8249999
12	214197	1	12	60	1537	0	0	8262343	8250000	8999999
13	1368576	1	12	95	1599	0	0	9622456	9000000	9749999
14	836906	1	12	95	1699	0	0	10460661	9750000	10499999
15	357863	3	12	70	1691	1491	1401	10820223	10500000	11249999
16	634878	1	12	95	1130	0	0	11459684	11250000	11999999

Total number of pulses in waveform = 27

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### Type 5 Radar Waveform\_25

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	27141	1	6	100	1940	0	0	27141	0	666666
2	649814	2	6	85	1336	1201	0	678895	666667	1333333
3	816851	1	6	90	1344	0	0	1498283	1333334	2000000
4	1158272	1	6	100	1890	0	0	2657899	2000001	2666667
5	345586	2	6	75	1695	1249	0	3005375	2666668	3333334
6	390876	3	6	55	1536	1662	1835	3399195	3333335	4000001
7	1256218	2	6	70	1207	1848	0	4660446	4000002	4666668
8	131009	2	6	100	1794	1246	0	4794510	4666669	5333335
9	601876	1	6	95	1481	0	0	5399426	5333336	6000002
10	1249491	3	6	50	1113	1780	1427	6650398	6000003	6666669
11	119677	2	6	55	1415	1424	0	6774395	6666670	7333336
12	606487	3	6	85	1261	1144	1105	7383721	7333337	8000003
13	1024708	2	6	70	1756	1826	0	8411939	8000004	8666670
14	280564	2	6	85	1711	1557	0	8676085	8666671	9333337
15	1303999	2	6	90	1410	1242	0	9983352	9333338	10000004
16	395489	2	6	65	1224	1986	0	10381493	10000005	10666671
17	395149	1	6	90	1949	0	0	10779852	10666672	11333338
18	583435	1	6	50	1116	0	0	11365236	11333339	12000005

Total number of pulses in waveform = 33

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### Type 5 Radar Waveform\_26

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	297988	2	18	55	1074	1427	0	297988	0	1090908
2	1655325	3	18	100	1143	1890	1253	1955814	1090909	2181817
3	431999	3	18	55	1058	1585	1154	2392099	2181818	3272726
4	1090768	1	18	55	1410	0	0	3486664	3272727	4363635
5	1600773	3	18	65	1147	1454	1897	5088847	4363636	5454544
6	779453	2	18	50	1729	1427	0	5872798	5454545	6545453
7	1452813	1	18	100	1182	0	0	7328767	6545454	7636362
8	934739	3	18	95	1181	1628	1171	8264688	7636363	8727271
9	1241678	1	18	85	1552	0	0	9510346	8727272	9818180
10	1106027	2	18	85	1409	1651	0	10617925	9818181	10909089
11	1241359	3	18	55	1850	1177	1484	11862344	10909090	11999998

Total number of pulses in waveform = 24

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### Type 5 Radar Waveform\_27

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	805435	3	9	100	1948	1419	1903	805435	0	857142
2	467022	3	9	75	1114	1367	1275	1277727	857143	1714285
3	763796	1	9	65	1751	0	0	2045279	1714286	2571428
4	577950	1	9	55	1180	0	0	2624980	2571429	3428571
5	1595569	1	9	75	1053	0	0	4221729	3428572	4285714
6	323336	2	9	55	1771	1440	0	4546118	4285715	5142857
7	936273	2	9	80	1792	1788	0	5485602	5142858	6000000
8	1215719	3	9	50	1941	1287	1443	6704901	6000001	6857143
9	883787	3	9	60	1259	1089	1077	7593359	6857144	7714286
10	753541	3	9	55	1080	1444	1117	8350325	7714287	8571429
11	242553	1	9	65	1001	0	0	8596519	8571430	9428572
12	1516356	1	9	100	1723	0	0	10113876	9428573	10285715
13	434039	3	9	95	1530	1509	1624	10549638	10285716	11142858
14	1397423	2	9	100	1625	1072	0	11951724	11142859	12000001

Total number of pulses in waveform = 29

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### Type 5 Radar Waveform\_28

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	142899	1	17	70	1086	0	0	142899	0	749999
2	883170	1	17	55	1304	0	0	1027155	750000	1499999
3	932545	3	17	70	1742	1721	1316	1961004	1500000	2249999
4	337031	2	17	75	1663	1391	0	2302814	2250000	2999999
5	1423716	3	17	95	1946	1732	1855	3729584	3000000	3749999
6	762345	1	17	60	1514	0	0	4497462	3750000	4499999
7	326821	3	17	65	1400	1275	1254	4825797	4500000	5249999
8	1091209	3	17	70	1918	1603	1447	5920935	5250000	5999999
9	763256	2	17	65	1820	1180	0	6689159	6000000	6749999
10	220636	2	17	100	1454	1575	0	6912795	6750000	7499999
11	1229611	1	17	80	1813	0	0	8145435	7500000	8249999
12	540417	2	17	90	1169	1784	0	8687665	8250000	8999999
13	811116	3	17	95	1915	1614	1780	9501734	9000000	9749999
14	471359	1	17	65	1962	0	0	9978402	9750000	10499999
15	1165760	3	17	70	1879	1833	1545	11146124	10500000	11249999
16	643314	3	17	90	1235	1930	1308	11794695	11250000	11999999

Total number of pulses in waveform = 34

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### Type 5 Radar Waveform\_29

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	412611	3	10	60	1896	1693	1602	412611	0	631578
2	300656	1	10	85	1847	0	0	718458	631579	1263157
3	1016653	2	10	65	1022	1435	0	1736958	1263158	1894736
4	661691	3	10	50	1116	1390	1052	2401106	1894737	2526315
5	292622	3	10	55	1615	1783	1771	2697286	2526316	3157894
6	709985	2	10	85	1159	1996	0	3412440	3157895	3789473
7	771008	1	10	95	1714	0	0	4186603	3789474	4421052
8	502246	2	10	55	1492	1880	0	4690563	4421053	5052631
9	852363	1	10	100	1436	0	0	5546298	5052632	5684210
10	470033	3	10	100	1225	1951	1966	6017767	5684211	6315789
11	729041	2	10	65	1624	1992	0	6751950	6315790	6947368
12	303111	1	10	95	1984	0	0	7058677	6947369	7578947
13	890253	3	10	65	1452	1558	1898	7950914	7578948	8210526
14	379480	1	10	100	1508	0	0	8335302	8210527	8842105
15	925684	2	10	100	1601	1164	0	9262494	8842106	9473684
16	256152	1	10	95	1964	0	0	9521411	9473685	10105263
17	816455	3	10	95	1105	1006	1398	10339830	10105264	10736842
18	608268	3	10	75	1109	1731	1327	10951607	10736843	11368421
19	747844	1	10	50	1732	0	0	11703618	11368422	12000000

Total number of pulses in waveform = 38  
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### Type 5 Radar Waveform\_30

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	383726	3	19	60	1829	1046	1894	383726	0	1333332
2	1129856	3	19	95	1559	1277	1248	1518351	1333333	2666665
3	2244062	2	19	80	1793	1090	0	3766497	2666666	3999998
4	1280315	2	19	100	1481	1460	0	5049695	3999999	5333331
5	587887	2	19	75	1924	1452	0	5640523	5333332	6666664
6	2207604	3	19	95	1171	1309	1232	7851503	6666665	7999997
7	1033398	1	19	70	1945	0	0	8888613	7999998	9333330
8	1071074	2	19	75	1418	1024	0	9961632	9333331	10666663
9	1425886	3	19	80	1227	1559	1352	11389960	10666664	11999996

Total number of pulses in waveform = 21  
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## Radar Type 6 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	1=Detection 0=No Detection	Trail #	Test Freq. (MHz)	1=Detection 0=No Detection
1	5292	1	16	5300	1
2	5292	1	17	5300	1
3	5292	1	18	5301	1
4	5293	1	19	5302	1
5	5293	1	20	5303	1
6	5293	1	21	5304	1
7	5294	1	22	5305	1
8	5295	1	23	5306	1
9	5296	1	24	5307	1
10	5297	1	25	5307	1
11	5298	1	26	5307	1
12	5299	1	27	5307	1
13	5300	1	28	5308	1
14	5300	1	29	5308	1
15	5300	1	30	5308	1
Detection Percentage (%)					100%

Radar waveform #1			Radar waveform #2		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
14	5283	42	1	5287	3
23	5306	69	11	5324	33
24	5285	72	25	5286	75
33	5273	99	31	5325	93
41	5295	123	38	5274	114
52	5297	156	40	5288	120
67	5307	201	59	5322	177
70	5326	210	67	5310	201
89	5288	267	70	5317	210
91	5318	273	84	5308	252
--	--	--	94	5282	282
--	--	--	97	5279	291

Radar waveform #3			Radar waveform #4		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
10	5297	30	2	5320	6
19	5272	57	7	5294	21
22	5318	66	11	5289	33
61	5317	183	14	5297	42
65	5280	195	19	5328	57
70	5310	210	20	5319	60
71	5312	213	22	5285	66
72	5329	216	28	5303	84
73	5321	219	39	5305	117
83	5322	249	45	5329	135
85	5307	255	49	5306	147
--	--	--	56	5321	168
--	--	--	63	5307	189
--	--	--	67	5288	201
--	--	--	73	5291	219
--	--	--	85	5295	255
--	--	--	87	5311	261
--	--	--	93	5292	279
--	--	--	96	5279	288
--	--	--	98	5272	294



Radar waveform #5			Radar waveform #6		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
4	5326	12	4	5278	12
16	5297	48	14	5287	42
22	5327	66	20	5282	60
40	5271	120	24	5329	72
41	5328	123	37	5298	111
42	5329	126	43	5321	129
45	5295	135	47	5327	141
54	5285	162	54	5306	162
58	5304	174	70	5320	210
79	5270	237	77	5319	231
83	5309	249	85	5305	255
96	5316	288	87	5277	261

Radar waveform #7			Radar waveform #8		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
16	5300	48	3	5301	9
41	5277	123	6	5289	18
44	5297	132	13	5305	39
46	5326	138	29	5316	87
53	5302	159	38	5277	114
57	5270	171	39	5308	117
69	5316	207	54	5329	162
79	5292	237	67	5279	201
80	5323	240	73	5291	219
99	5282	297	91	5272	273





Radar waveform #9			Radar waveform #10		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
6	5327	18	8	5307	24
30	5324	90	30	5290	90
33	5299	99	58	5317	174
44	5313	132	59	5276	177
49	5328	147	62	5327	186
50	5290	150	78	5291	234
53	5321	159	91	5304	273
58	5307	174	92	5298	276
61	5280	183	--	--	--
70	5284	210	--	--	--
72	5285	216	--	--	--
78	5279	234	--	--	--
91	5298	273	--	--	--

Radar waveform #11			Radar waveform #12		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Frequency (MHz)	Hopping Number	Pulse Start (ms)
1	5309	3	21	5328	63
2	5305	6	31	5281	93
10	5327	30	45	5284	135
19	5301	57	65	5298	195
21	5273	63	67	5308	201
22	5277	66	71	5289	213
37	5325	111	74	5311	222
38	5304	114	75	5309	225
39	5312	117	76	5302	228
43	5330	129	88	5283	264
44	5306	132	--	--	--
48	5319	144	--	--	--
55	5307	165	--	--	--
57	5282	171	--	--	--
85	5300	255	--	--	--
92	5286	276	--	--	--

Radar waveform #13			Radar waveform #14		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
8	5302	24	13	5276	39
21	5307	63	28	5294	84
25	5319	75	30	5298	90
37	5323	111	38	5274	114
42	5296	126	46	5319	138
50	5327	150	54	5281	162
53	5282	159	55	5295	165
66	5290	198	63	5305	189
82	5270	246	64	5313	192
85	5287	255	67	5282	201
--	--	--	68	5306	204
--	--	--	69	5330	207
--	--	--	72	5292	216
--	--	--	77	5289	231
--	--	--	86	5302	258
--	--	--	94	5270	282

Radar waveform #15			Radar waveform #16		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
1	5280	3	9	5317	27
5	5317	15	18	5319	54
16	5305	48	22	5309	66
17	5271	51	30	5304	90
19	5306	57	36	5291	108
36	5313	108	40	5281	120
41	5273	123	49	5323	147
57	5285	171	63	5324	189
58	5330	174	79	5275	237
69	5321	207	80	5296	240
			85	5290	255

Radar waveform #17			Radar waveform #18		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
6	5293	18	3	5311	9
7	5304	21	4	5292	12
11	5284	33	7	5321	21
24	5300	72	8	5274	24
29	5313	87	12	5276	36
30	5289	90	21	5293	63
42	5309	126	28	5313	84
51	5298	153	30	5300	90
56	5288	168	32	5312	96
61	5320	183	40	5325	120
63	5305	189	49	5295	147
75	5282	225	51	5294	153
76	5301	228	74	5320	222
88	5292	264	78	5315	234
99	5329	297	79	5301	237
--	--	--	88	5319	264
--	--	--	99	5318	297

Radar waveform #19			Radar waveform #20		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
2	5275	6	24	5323	72
6	5312	18	29	5328	87
11	5328	33	41	5280	123
12	5285	36	55	5308	165
47	5319	141	56	5327	168
50	5296	150	65	5288	195
52	5310	156	67	5319	201
54	5317	162	73	5310	219
73	5308	219	80	5285	240
74	5306	222	81	5313	243
75	5291	225	82	5325	246
--	--	--	84	5293	252
--	--	--	87	5299	261
--	--	--	96	5271	288

Radar waveform #21			Radar waveform #22		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
9	5304	27	1	5320	3
13	5270	39	3	5307	9
15	5319	45	8	5279	24
17	5276	51	30	5288	90
33	5286	99	32	5310	96
34	5277	102	33	5316	99
48	5284	144	65	5301	195
55	5272	165	70	5286	210
73	5295	219	82	5276	246
84	5296	252	85	5271	255
85	5321	255	--	--	--
96	5316	288	--	--	--



Radar waveform #23			Radar waveform #24		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
0	5312	0	2	5319	6
19	5321	57	6	5327	18
33	5324	99	11	5301	33
34	5310	102	18	5282	54
42	5329	126	26	5295	78
45	5300	135	41	5298	123
46	5314	138	43	5291	129
52	5282	156	63	5305	189
54	5330	162	67	5300	201
56	5328	168	82	5322	246
70	5311	210	90	5286	270
71	5308	213	--	--	--
74	5302	222	--	--	--
76	5290	228	--	--	--
77	5299	231	--	--	--
78	5287	234	--	--	--
90	5276	270	--	--	--

Radar waveform #25			Radar waveform #26		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
6	5303	18	6	5307	18
18	5289	54	21	5296	63
32	5297	96	22	5317	66
52	5271	156	31	5324	93
63	5301	189	37	5279	111
67	5270	201	49	5278	147
68	5284	204	52	5316	156
70	5295	210	59	5326	177
87	5313	261	62	5330	186
89	5314	267	66	5325	198
94	5312	282	74	5292	222
98	5280	294	83	5327	249
--	--	--	90	5323	270



Radar waveform #27			Radar waveform #28		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
2	5309	6	1	5274	3
11	5282	33	14	5320	42
16	5324	48	16	5324	48
20	5305	60	22	5276	66
23	5328	69	26	5270	78
29	5323	87	63	5308	189
31	5280	93	67	5285	201
35	5277	105	81	5288	243
41	5299	123	86	5314	258
53	5274	159	89	5292	267
54	5308	162	90	5321	270
59	5301	177	93	5283	279
87	5275	261	--	--	--
95	5300	285	--	--	--

Radar waveform #29			Radar waveform #30		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
8	5321	24	7	5305	21
10	5275	30	22	5324	66
19	5280	57	41	5280	123
24	5317	72	44	5277	132
32	5305	96	54	5279	162
33	5308	99	57	5323	171
34	5327	102	58	5295	174
37	5272	111	61	5278	183
49	5323	147	65	5312	195
57	5307	171	75	5296	225
61	5306	183	78	5327	234
63	5292	189	--	--	--
76	5303	228	--	--	--
80	5312	240	--	--	--
95	5301	285	--	--	--
96	5322	288	--	--	--

## Radar Statistical Performance for 802.11n-HT40

## Radar Type 1 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5293	1	758	70	1
2	5293	1	838	63	1
3	5294	1	698	76	1
4	5295	1	658	81	1
5	5296	1	818	65	1
6	5298	1	578	92	1
7	5300	1	918	58	1
8	5302	1	858	62	1
9	5304	1	798	67	1
10	5306	1	558	95	1
11	5308	1	518	102	1
12	5310	1	898	59	1
13	5310	1	878	61	1
14	5310	1	538	99	1
15	5310	1	938	57	1
16	5310	1	2952	18	1
17	5310	1	2185	25	1
18	5312	1	2579	21	1
19	5314	1	1779	30	1
20	5316	1	1819	30	1
21	5318	1	2914	19	1
22	5320	1	1349	40	1
23	5321	1	865	62	1
24	5322	1	1965	27	1
25	5323	1	1861	29	1
26	5324	1	2645	20	1
27	5325	1	671	79	1
28	5326	1	2995	18	1
29	5327	1	606	88	1
30	5327	1	614	86	1
Detection Percentage (%)					100%



## Radar Type 2 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5293	1.9	162	26	1
2	5293	1.2	211	24	1
3	5294	3.2	213	29	1
4	5295	3.0	207	29	1
5	5296	3.5	198	23	1
6	5298	3.5	164	26	1
7	5300	1.8	152	24	1
8	5302	3.3	200	27	1
9	5304	1.7	197	29	1
10	5306	2.7	224	27	1
11	5308	1.7	165	24	1
12	5310	2.4	183	26	1
13	5310	1.2	198	27	1
14	5310	1.0	214	27	1
15	5310	3.9	201	25	1
16	5310	2.3	165	28	1
17	5310	4.0	199	24	1
18	5312	3.0	221	26	1
19	5314	4.3	153	28	1
20	5316	4.4	171	27	1
21	5318	1.9	208	28	1
22	5320	3.3	171	25	1
23	5321	2.0	168	26	1
24	5322	1.3	200	23	1
25	5323	3.0	197	23	1
26	5324	3.8	194	25	1
27	5325	5.0	199	25	1
28	5326	1.0	192	23	1
29	5327	2.5	204	26	1
30	5327	4.2	186	29	1
Detection Percentage (%)					100%





## Radar Type 3 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5293	7.7	350	17	1
2	5293	6.7	426	16	1
3	5294	9.1	265	17	1
4	5295	9.6	462	16	1
5	5296	6.4	271	16	1
6	5298	6.3	267	17	1
7	5300	8.6	366	17	1
8	5302	9.8	326	18	1
9	5304	8.8	250	18	1
10	5306	8.3	424	16	1
11	5308	6.3	455	17	1
12	5310	8.9	278	18	1
13	5310	6.3	380	17	1
14	5310	7.7	493	16	1
15	5310	9.3	395	18	1
16	5310	9.4	263	16	1
17	5310	6.8	307	17	1
18	5312	7.5	331	18	1
19	5314	6.3	303	17	1
20	5316	7.3	344	17	1
21	5318	8.3	418	16	1
22	5320	8.2	353	18	1
23	5321	7.9	386	17	1
24	5322	7.2	386	17	1
25	5323	7.0	367	18	1
26	5324	9.4	422	16	1
27	5325	8.9	277	18	1
28	5326	6.6	416	18	1
29	5327	8.7	361	16	1
30	5327	7.7	274	16	1
Detection Percentage (%)					100%

## Radar Type 4 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5293	14.1	462	14	1
2	5293	13.7	427	12	1
3	5294	11.0	325	15	1
4	5295	17.6	478	13	1
5	5296	19.6	499	16	1
6	5298	17.4	258	12	1
7	5300	19.6	391	13	1
8	5302	18.5	305	13	1
9	5304	16.7	423	13	1
10	5306	13.3	423	16	1
11	5308	16.9	277	14	1
12	5310	14.0	460	16	1
13	5310	17.9	461	16	1
14	5310	15.8	456	14	1
15	5310	18.3	269	16	1
16	5310	13.0	399	12	1
17	5310	13.6	446	15	1
18	5312	18.6	495	12	1
19	5314	16.1	338	12	1
20	5316	15.1	272	16	1
21	5318	11.4	316	15	1
22	5320	13.8	422	12	1
23	5321	17.0	493	13	1
24	5322	16.2	320	15	1
25	5323	15.0	474	15	1
26	5324	12.0	356	13	1
27	5325	19.8	329	13	1
28	5326	12.8	391	12	1
29	5327	11.3	456	14	1
30	5327	16.8	327	16	1
Detection Percentage (%)					100%

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

waveforms is as follows: 
$$\frac{P_d1+P_d2+P_d3+P_d4}{4} = (100\%+100\%+100\%+100\%)/4 = 100\% (>80\%)$$



Radar Type 5 - Radar Statistical Performance

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

Type 5 Radar Waveform_1										
Num of Bursts = 12										
Burst Interval (us)= 1000000										
Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	391352	1	14	55	1815	0	0	391352	0	999999
2	1164792	3	14	95	1482	1055	1210	1557959	1000000	1999999
3	913468	3	14	55	1615	1688	1649	2475174	2000000	2999999
4	1072483	1	14	65	1117	0	0	3552589	3000000	3999999
5	509387	2	14	95	1090	1344	0	4063093	4000000	4999999
6	1730717	2	14	100	1972	1212	0	5796244	5000000	5999999
7	601748	3	14	90	1528	1746	1460	6401176	6000000	6999999
8	729732	3	14	55	2000	1723	1926	7135642	7000000	7999999
9	1809715	1	14	65	1993	0	0	8951006	8000000	8999999
10	465686	2	14	95	1733	1498	0	9418685	9000000	9999999
11	1404639	3	14	90	1903	1428	1689	10826555	10000000	10999999
12	740733	1	14	70	1092	0	0	11572308	11000000	11999999
Total number of pulses in waveform = 25										
*****										



### Type 5 Radar Waveform\_2

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	824570	1	5	95	1912	0	0	824570	0	1090908
2	1143918	1	5	80	1813	0	0	1970400	1090909	2181817
3	338058	3	5	95	1012	1711	1811	2310271	2181818	3272726
4	1679215	3	5	90	1147	1613	1753	3994020	3272727	4363635
5	1244756	1	5	60	1044	0	0	5243289	4363636	5454544
6	578614	1	5	50	1614	0	0	5822947	5454545	6545453
7	1430222	3	5	100	1322	1537	1565	7254783	6545454	7636362
8	612022	1	5	80	1114	0	0	7871229	7636363	8727271
9	890100	3	5	50	1571	1526	1144	8762443	8727272	9818180
10	1680526	2	5	75	1928	1347	0	10447210	9818181	10909089
11	572612	2	5	70	1170	1290	0	11023097	10909090	11999998

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

### Type 5 Radar Waveform\_3

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	669107	1	10	85	1376	0	0	669107	0	923076
2	529503	3	10	65	1538	1377	1770	1199986	923077	1846153
3	735550	1	10	100	1044	0	0	1940221	1846154	2769230
4	1731662	1	10	100	1503	0	0	3672927	2769231	3692307
5	798397	1	10	55	1263	0	0	4472827	3692308	4615384
6	539662	3	10	100	1473	1898	1613	5013752	4615385	5538461
7	1117105	1	10	50	1160	0	0	6135841	5538462	6461538
8	1132301	3	10	50	1948	1919	1967	7269302	6461539	7384615
9	127039	1	10	75	1665	0	0	7402175	7384616	8307692
10	1119449	3	10	95	1407	1115	1403	8523289	8307693	9230769
11	1353807	3	10	75	1542	1354	1560	9881021	9230770	10153846
12	911536	3	10	65	1619	1852	1951	10797013	10153847	11076923
13	884799	3	10	80	1513	1982	1439	11687234	11076924	12000000

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

### Type 5 Radar Waveform\_4

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	823526	3	6	95	1566	1355	1466	623526	0	705881
2	402439	3	6	55	1612	1435	1135	1030352	705882	1411763
3	460325	2	6	100	1476	1944	0	1494859	1411764	2117645
4	969538	2	6	50	1417	1448	0	2467817	2117646	2823527
5	822343	1	6	80	1562	0	0	3293025	2823528	3529409
6	444619	3	6	100	1334	1226	1393	3739206	3529410	4235291
7	972395	2	6	50	1511	1381	0	4715554	4235292	4941173
8	234343	3	6	80	1780	1405	1995	4952789	4941174	5647055
9	1372066	1	6	80	1038	0	0	6330035	5647056	6352937
10	609104	3	6	75	1883	1258	1704	6940177	6352938	7058819
11	614733	2	6	55	1199	1876	0	7559755	7058820	7764701
12	806286	2	6	50	1671	1706	0	8369116	7764702	8470583
13	185763	1	6	80	1267	0	0	8558256	8470584	9176465
14	1225046	2	6	65	1425	1167	0	9784569	9176466	9882347
15	783322	1	6	90	1584	0	0	10570483	9882348	10588229
16	149253	2	6	80	1034	1334	0	10721320	10588230	11294111
17	895788	1	6	80	1220	0	0	11619476	11294112	11999993

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



### Type 5 Radar Waveform\_5

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	374344	3	9	65	1439	1074	1733	374344	0	749999
2	417909	2	9	100	1336	1058	0	796499	750000	1499999
3	1330298	3	9	70	1924	1328	1034	2129191	1500000	2249999
4	711992	2	9	85	1981	1127	0	2845469	2250000	2999999
5	647493	3	9	75	1598	1675	1325	3496070	3000000	3749999
6	390405	3	9	50	1731	1330	1016	3891073	3750000	4499999
7	1047379	3	9	65	1508	1255	1530	4942529	4500000	5249999
8	328506	2	9	60	1842	1223	0	5275328	5250000	5999999
9	1423031	3	9	75	1400	1323	1275	6701424	6000000	6749999
10	252266	1	9	90	1103	0	0	6957688	6750000	7499999
11	1087984	1	9	90	1201	0	0	8046775	7500000	8249999
12	821056	2	9	55	1528	1487	0	8869032	8250000	8999999
13	290816	1	9	65	1979	0	0	9162863	9000000	9749999
14	1132558	3	9	70	1206	1843	1656	10297400	9750000	10499999
15	626174	3	9	50	1975	1136	1044	10928279	10500000	11249999
16	757630	3	9	70	1562	1102	1270	11690064	11250000	11999999

Total number of pulses in waveform = 38  
\*\*\*\*\*

### Type 5 Radar Waveform\_6

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	81221	2	19	80	1462	1732	0	81221	0	999999
2	1334909	3	19	60	1472	1038	1530	1419324	1000000	1999999
3	585844	3	19	55	1424	1500	2000	2009208	2000000	2999999
4	1635244	2	19	65	1846	1436	0	3649376	3000000	3999999
5	515674	2	19	50	1391	1594	0	4168332	4000000	4999999
6	1101497	3	19	60	1525	1209	1651	5272814	5000000	5999999
7	1170464	1	19	60	1206	0	0	6447663	6000000	6999999
8	1390175	2	19	85	1860	1300	0	7839044	7000000	7999999
9	1035834	1	19	75	1396	0	0	8878038	8000000	8999999
10	1049773	3	19	90	1658	1776	1368	9929207	9000000	9999999
11	975482	2	19	80	1139	1566	0	10909491	10000000	10999999
12	610207	3	19	80	1694	1693	1076	11522393	11000000	11999999

Total number of pulses in waveform = 27  
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### Type 5 Radar Waveform\_7

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	68123	3	8	100	1217	1508	1251	68123	0	599999
2	1007669	2	8	75	1647	1908	0	1079768	600000	1199999
3	127782	3	8	90	1670	1681	1831	1211105	1200000	1799999
4	713465	3	8	80	1163	1629	1261	1929752	1800000	2399999
5	826499	3	8	75	1635	1861	1442	2760304	2400000	2999999
6	725419	1	8	65	1936	0	0	3490661	3000000	3599999
7	230365	1	8	100	1006	0	0	3722962	3600000	4199999
8	1031742	3	8	65	1097	1213	1848	4755710	4200000	4799999
9	547534	3	8	80	1792	1204	1469	5307402	4800000	5399999
10	513398	1	8	60	1425	0	0	5825205	5400000	5999999
11	603160	3	8	95	1371	1401	1821	6429790	6000000	6599999
12	297158	2	8	60	1572	1877	0	6731541	6600000	7199999
13	831583	3	8	50	1463	1767	1238	7566573	7200000	7799999
14	372395	1	8	50	1645	0	0	7943436	7800000	8399999
15	925785	2	8	95	1171	1905	0	8870866	8400000	8999999
16	175398	3	8	85	1988	1888	1916	9049340	9000000	9599999
17	568545	2	8	85	1802	1865	0	9623677	9600000	10199999
18	1086193	2	8	100	1663	1065	0	10713537	10200000	10799999
19	334254	1	8	95	1535	0	0	11050419	10800000	11399999
20	488325	3	8	75	1789	1381	1242	11510279	11400000	11999999

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



### Type 5 Radar Waveform\_8

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	354614	1	18	55	1250	0	0	354614	0	923076
2	722253	3	18	70	1877	1722	1848	1078117	923077	1846153
3	1142085	1	18	70	1806	0	0	2225649	1846154	2769230
4	672266	2	18	50	1152	1217	0	2899721	2769231	3692307
5	1450050	3	18	70	1744	1771	1371	4352140	3692308	4615384
6	670393	3	18	90	1745	1094	1983	5027419	4615385	5538461
7	862841	3	18	80	1226	1548	1739	5895082	5538462	6461538
8	920272	3	18	60	1763	1645	1395	6819867	6461539	7384615
9	1168727	2	18	95	1734	1529	0	7993397	7384616	8307692
10	1181524	3	18	70	1977	1560	1169	9178184	8307693	9230769
11	72695	3	18	95	1629	1019	1602	9255585	9230770	10153846
12	1403273	3	18	70	1792	1373	1327	10663108	10153847	11076923
13	542233	1	18	50	1205	0	0	11209833	11076924	12000000

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

### Type 5 Radar Waveform\_9

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	106637	2	12	85	1745	1457	0	106637	0	857142
2	1340187	2	12	80	1980	1488	0	1450026	857143	1714285
3	773072	1	12	85	1829	0	0	2226566	1714286	2571428
4	1085935	1	12	75	1000	0	0	3314330	2571429	3428571
5	891490	1	12	70	1702	0	0	4206820	3428572	4285714
6	434390	3	12	75	1001	1307	1022	4642912	4285715	5142857
7	1156656	1	12	50	1692	0	0	5802898	5142858	6000000
8	654823	2	12	60	1123	1330	0	6459413	6000001	6857143
9	1135874	3	12	80	1727	1284	1752	7597740	6857144	7714286
10	842008	1	12	90	1718	0	0	8444511	7714287	8571429
11	494281	1	12	90	1109	0	0	8940510	8571430	9428572
12	1168094	1	12	100	1059	0	0	10109713	9428573	10285715
13	230332	2	12	95	1627	1779	0	10341104	10285716	11142858
14	835419	2	12	65	1098	1304	0	11179929	11142859	12000001

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

### Type 5 Radar Waveform\_10

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	319810	3	17	75	1829	1961	1350	319810	0	631578
2	424603	3	17	75	1271	1416	1689	749553	631579	1263157
3	1022815	2	17	75	1474	1477	0	1776744	1263158	1894736
4	225592	3	17	55	1701	1788	1904	2005287	1894737	2526315
5	1092398	1	17	85	1161	0	0	3103058	2526316	3157894
6	405565	3	17	95	1775	1810	1735	3509784	3157895	3789473
7	755204	1	17	75	1878	0	0	4270308	3789474	4421052
8	455506	1	17	80	1311	0	0	4727692	4421053	5052631
9	459229	2	17	70	1422	1207	0	5188232	5052632	5684210
10	680160	1	17	50	1926	0	0	5871021	5684211	6315789
11	674054	2	17	70	1761	1683	0	6547001	6315790	6947368
12	1000470	2	17	95	1789	1856	0	7550915	6947369	7578947
13	269646	3	17	55	1450	1843	1953	7824206	7578948	8210526
14	683314	3	17	70	1671	1944	1432	8512776	8210527	8842105
15	368482	2	17	100	1698	1515	0	8886305	8842106	9473684
16	1064033	2	17	85	1716	1351	0	9953551	9473685	10105263
17	336508	1	17	90	1543	0	0	10293126	10105264	10736842
18	709668	2	17	85	1407	1256	0	11004337	10736843	11368421
19	692499	1	17	90	1112	0	0	11699499	11368422	12000000

Total number of pulses in waveform = 38  
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### Type 5 Radar Waveform\_11

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	628036	1	10	55	1518	0	0	628036	0	799999
2	937918	3	10	80	1727	1038	1480	1567472	800000	1599999
3	760719	1	10	55	1216	0	0	2332436	1600000	2399999
4	812736	2	10	65	1800	1811	0	3146388	2400000	3199999
5	567775	1	10	100	1555	0	0	3717774	3200000	3999999
6	728784	2	10	95	1830	1673	0	4448113	4000000	4799999
7	838050	1	10	90	1438	0	0	5289666	4800000	5599999
8	513468	1	10	85	1344	0	0	5804572	5600000	6399999
9	600322	3	10	80	1508	1046	1221	6406238	6400000	7199999
10	1440278	2	10	50	1783	1212	0	7850291	7200000	7999999
11	622764	3	10	65	1440	1275	1894	8476050	8000000	8799999
12	415196	3	10	75	1287	1798	1952	8895855	8800000	9599999
13	868538	2	10	100	1263	1633	0	9769430	9600000	10399999
14	651049	3	10	85	1721	1442	1614	10423375	10400000	11199999
15	1478605	1	10	80	1877	0	0	11906757	11200000	11999999

Total number of pulses in waveform = 29

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### Type 5 Radar Waveform\_12

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	516029	2	17	50	1949	1622	0	516029	0	599999
2	91848	3	17	70	1607	1141	1191	611448	600000	1199999
3	610228	3	17	90	1930	1694	1787	1225615	1200000	1799999
4	780756	2	17	75	1255	1955	0	2011782	1800000	2399999
5	701748	1	17	60	1737	0	0	2716740	2400000	2999999
6	390720	3	17	100	1376	1831	1579	3109197	3000000	3599999
7	855906	1	17	75	1769	0	0	3969889	3600000	4199999
8	300387	3	17	100	1745	1969	1173	4272045	4200000	4799999
9	814100	1	17	60	1961	0	0	5091032	4800000	5399999
10	491789	3	17	60	1517	1200	1587	5584782	5400000	5999999
11	778635	3	17	100	1603	1190	1435	6367721	6000000	6599999
12	742974	2	17	95	1155	1426	0	7114923	6600000	7199999
13	648650	2	17	55	1454	1109	0	7766154	7200000	7799999
14	126159	1	17	95	1880	0	0	7894876	7800000	8399999
15	937505	3	17	50	1206	1969	1833	8834261	8400000	8999999
16	261688	3	17	60	1841	1952	1045	9100957	9000000	9599999
17	931716	2	17	100	1181	1669	0	10037510	9600000	10199999
18	197523	2	17	95	1983	1308	0	10237883	10200000	10799999
19	766331	2	17	95	1806	1255	0	11007505	10800000	11399999
20	978172	1	17	75	1398	0	0	11988738	11400000	11999999

Total number of pulses in waveform = 43

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### Type 5 Radar Waveform\_13

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	512320	2	12	50	1142	1107	0	512320	0	999999
2	1190229	2	12	85	1751	1142	0	1704798	1000000	1999999
3	471804	2	12	85	1470	1631	0	2179495	2000000	2999999
4	841610	2	12	50	1735	1572	0	3024206	3000000	3999999
5	1570168	2	12	80	1776	1394	0	4597681	4000000	4999999
6	1246698	3	12	95	1849	1757	1640	5847549	5000000	5999999
7	473297	2	12	90	1539	1784	0	6326092	6000000	6999999
8	1168830	1	12	90	1362	0	0	7498245	7000000	7999999
9	1156253	3	12	55	1704	1248	1623	8655860	8000000	8999999
10	1285495	2	12	70	1240	1982	0	9945930	9000000	9999999
11	638094	2	12	60	1102	1812	0	10587246	10000000	10999999
12	708390	3	12	90	1417	1950	1308	11298550	11000000	11999999

Total number of pulses in waveform = 26

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### Type 5 Radar Waveform\_14

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	459058	1	9	75	1787	0	0	459058	0	666666
2	658946	1	9	65	1890	0	0	1119771	666667	1333333
3	440343	2	9	65	1680	1403	0	1562004	1333334	2000000
4	759843	2	9	60	1907	1768	0	2324930	2000001	2666667
5	610621	2	9	60	1922	1988	0	2939226	2666668	3333334
6	457065	3	9	80	1191	1625	1536	3400201	3333335	4000001
7	963304	3	9	65	1413	1098	1511	4367857	4000002	4666668
8	864579	2	9	55	1006	1493	0	5236458	4666669	5333335
9	556549	3	9	100	1241	1444	1416	5795506	5333336	6000002
10	853320	2	9	70	1519	1069	0	6652927	6000003	6666669
11	146972	1	9	55	1627	0	0	6802487	6666670	7333336
12	682115	1	9	90	1793	0	0	7486229	7333337	8000003
13	888361	3	9	75	1851	1417	1906	8376383	8000004	8666670
14	885514	1	9	60	1622	0	0	9267071	8666671	9333337
15	397933	1	9	85	1295	0	0	9666626	9333338	10000004
16	847292	1	9	80	1303	0	0	10615213	10000005	10666671
17	265742	2	9	90	1810	1580	0	10782258	10666672	11333338
18	1071481	3	9	80	1429	1742	1506	11857129	11333339	12000005

Total number of pulses in waveform = 34  
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### Type 5 Radar Waveform\_15

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	97265	2	5	90	1833	1969	0	97265	0	1333332
2	1685922	2	5	55	1715	1497	0	1786989	1333333	2666665
3	1987820	1	5	55	1348	0	0	3778021	2666666	3999998
4	649058	3	5	85	1189	1240	1670	4428427	3999999	5333331
5	1266724	2	5	80	1567	1251	0	5699250	5333332	6666664
6	1545759	2	5	90	1728	1211	0	7247827	6666665	7999997
7	2022981	2	5	55	1784	1771	0	9273747	7999998	9333330
8	1346383	2	5	65	1611	1756	0	10623685	9333331	10666663
9	283522	1	5	95	1881	0	0	10910574	10666664	11999996

Total number of pulses in waveform = 17  
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### Type 5 Radar Waveform\_16

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	655928	2	14	95	1272	1154	0	655928	0	749999
2	685062	2	14	75	1481	1417	0	1343416	750000	1499999
3	567450	2	14	95	1905	1218	0	1913764	1500000	2249999
4	374731	2	14	70	1991	1735	0	2291618	2250000	2999999
5	1037949	3	14	100	1799	1377	1309	3333293	3000000	3749999
6	902912	2	14	75	1658	1332	0	4240690	3750000	4499999
7	393583	1	14	75	1012	0	0	4637263	4500000	5249999
8	838824	1	14	65	1233	0	0	5477099	5250000	5999999
9	1168506	3	14	70	1094	1960	1958	6646838	6000000	6749999
10	620127	2	14	60	1783	1981	0	7271977	6750000	7499999
11	442448	1	14	50	1549	0	0	7718189	7500000	8249999
12	1173043	1	14	85	1547	0	0	8892781	8250000	8999999
13	364688	1	14	100	1866	0	0	9259016	9000000	9749999
14	1013968	3	14	80	1691	1455	1367	10274850	9750000	10499999
15	658366	2	14	100	1785	1121	0	10937729	10500000	11249999
16	679271	1	14	85	1755	0	0	11619906	11250000	11999999

Total number of pulses in waveform = 29  
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### Type 5 Radar Waveform\_17

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	287142	3	6	65	1985	1081	1094	287142	0	857142
2	1369873	1	6	90	1565	0	0	1661175	857143	1714285
3	508435	1	6	95	1335	0	0	2171175	1714286	2571428
4	425030	3	6	80	1201	1847	1737	2597540	2571429	3428571
5	1340956	3	6	95	1289	1351	1227	3943281	3428572	4285714
6	522089	3	6	85	1789	1044	1137	4469237	4285715	5142857
7	1150350	1	6	85	1872	0	0	5623557	5142858	6000000
8	1167985	1	6	100	1386	0	0	6793414	6000001	6857143
9	652819	1	6	50	1389	0	0	7447619	6857144	7714286
10	315020	3	6	50	1576	1552	1382	7764028	7714287	8571429
11	1636530	1	6	75	1406	0	0	9405068	8571430	9428572
12	277431	3	6	100	1910	1441	1800	9683905	9428573	10285715
13	1144130	3	6	65	1110	1119	1236	10833186	10285716	11142858
14	388806	2	6	65	1073	1291	0	11225457	11142859	12000001

Total number of pulses in waveform = 29  
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### Type 5 Radar Waveform\_18

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	622833	3	19	95	1401	1215	1977	622833	0	1199999
2	770751	1	19	100	1250	0	0	1398177	1200000	2399999
3	1264544	3	19	55	1165	1592	1586	2663971	2400000	3599999
4	2069564	1	19	95	1210	0	0	4737878	3600000	4799999
5	766038	2	19	80	1553	1637	0	5505126	4800000	5999999
6	1297365	2	19	60	1523	1061	0	6805681	6000000	7199999
7	600456	1	19	50	1766	0	0	7408721	7200000	8399999
8	1518412	1	19	75	1775	0	0	8928899	8400000	9599999
9	727895	1	19	80	1933	0	0	9658569	9600000	10799999
10	1992791	1	19	55	1889	0	0	11653293	10800000	11999999

Total number of pulses in waveform = 16  
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### Type 5 Radar Waveform\_19

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	386890	3	8	55	1576	1311	1265	386890	0	631578
2	393671	3	8	60	1877	1717	1187	784713	631579	1263157
3	562087	2	8	90	1534	1791	0	1351581	1263158	1894736
4	802563	3	8	70	1408	1909	1443	2157469	1894737	2526315
5	725192	3	8	90	1621	1807	1205	2887421	2526316	3157894
6	394967	2	8	55	1642	1160	0	3287021	3157895	3789473
7	906308	2	8	60	1909	1832	0	4196131	3789474	4421052
8	364899	1	8	75	1686	0	0	4664771	4421053	5052631
9	941525	1	8	75	1015	0	0	5507982	5052632	5684210
10	457717	2	8	80	1662	1402	0	5966714	5684211	6315789
11	644633	1	8	65	1742	0	0	6614411	6315790	6947368
12	780424	1	8	60	1411	0	0	7376577	6947369	7578947
13	823083	2	8	95	1483	1581	0	8201071	7578948	8210526
14	628237	2	8	80	1874	1806	0	8832372	8210527	8842105
15	593460	3	8	50	1054	1597	1491	9429512	8842106	9473684
16	86925	1	8	65	1392	0	0	9520579	9473685	10105263
17	878205	2	8	50	1026	1995	0	10105176	10105264	10736842
18	702915	3	8	90	1462	1719	1720	11106052	10736843	11368421
19	845453	3	8	95	1839	1129	1431	11956406	11368422	12000000

Total number of pulses in waveform = 40  
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### Type 5 Radar Waveform\_20

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	319108	3	18	70	1542	1821	1074	319108	0	666666
2	518213	2	18	70	1661	1997	0	841758	666667	1333333
3	1116227	3	18	50	1393	1459	1780	1961643	1333334	2000000
4	490125	3	18	90	1357	1986	1001	2456400	2000001	2666667
5	676328	1	18	65	1595	0	0	3137072	2666668	3333334
6	567094	3	18	60	1324	1296	1181	3705761	3333335	4000001
7	516665	3	18	90	1866	1088	1874	4226227	4000002	4666668
8	884825	3	18	70	1464	1758	1032	5115880	4666669	5333335
9	673114	2	18	90	1418	1519	0	5793248	5333336	6000002
10	458518	2	18	55	1257	1458	0	6254703	6000003	6666669
11	1070534	1	18	85	1286	0	0	7327952	6666670	7333336
12	462189	3	18	75	1315	1927	1861	7791427	7333337	8000003
13	519038	2	18	100	1417	1640	0	8315568	8000004	8666670
14	861973	1	18	70	1318	0	0	9180598	8666671	9333337
15	266517	2	18	80	1378	1800	0	9448433	9333338	10000004
16	900497	2	18	65	1215	1715	0	10352108	10000005	10666671
17	743221	1	18	85	1066	0	0	11098259	10666672	11333338
18	519543	2	18	60	1003	1393	0	11618868	11333339	12000005

Total number of pulses in waveform = 39  
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### Type 5 Radar Waveform\_21

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	243435	2	9	75	1555	1294	0	243435	0	1333332
2	1602697	2	9	60	1544	1089	0	1848981	1333333	2666665
3	1408064	2	9	55	1089	1908	0	3259678	2666666	3999998
4	744407	1	9	60	1791	0	0	4007082	3999999	5333331
5	2378135	2	9	70	1101	1800	0	6387008	5333332	6666664
6	673279	2	9	65	1731	1167	0	7063188	6666665	7999997
7	1037290	1	9	80	1870	0	0	8103376	7999998	9333330
8	1337410	3	9	70	1853	1594	1200	9442656	9333331	10666663
9	1607813	3	9	75	1529	1623	1507	11055116	10666664	11999996

Total number of pulses in waveform = 18  
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### Type 5 Radar Waveform\_22

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	908278	1	10	50	1738	0	0	908278	0	1333332
2	502224	3	10	85	1104	1249	1263	1412240	1333333	2666665
3	1950208	2	10	50	1355	1756	0	3366064	2666666	3999998
4	1550121	1	10	70	1179	0	0	4919296	3999999	5333331
5	561233	3	10	65	1302	1804	1777	5481708	5333332	6666664
6	2273496	1	10	75	1469	0	0	7760087	6666665	7999997
7	466780	1	10	60	1958	0	0	8228336	7999998	9333330
8	1465616	2	10	90	1142	1742	0	9695910	9333331	10666663
9	2236291	2	10	85	1532	1106	0	11935085	10666664	11999996

Total number of pulses in waveform = 16  
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### Type 5 Radar Waveform\_23

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	585712	2	5	90	1724	1095	0	585712	0	799999
2	827283	1	5	60	1551	0	0	1415814	800000	1599999
3	541245	1	5	85	1620	0	0	1958610	1600000	2399999
4	990562	3	5	60	1525	1584	1593	2950792	2400000	3199999
5	799943	3	5	70	1170	1982	1465	3755437	3200000	3999999
6	693678	2	5	60	1491	1535	0	4453732	4000000	4799999
7	1105734	1	5	75	1539	0	0	5562492	4800000	5599999
8	621756	2	5	100	1144	1828	0	6185787	5600000	6399999
9	924208	1	5	85	1814	0	0	7112967	6400000	7199999
10	115107	3	5	85	1983	1467	1418	7229888	7200000	7999999
11	1017917	3	5	100	1110	1540	1899	8252673	8000000	8799999
12	1022606	1	5	65	1606	0	0	9279828	8800000	9599999
13	575612	2	5	50	1984	1118	0	9857046	9600000	10399999
14	1185095	1	5	100	1672	0	0	11045243	10400000	11199999
15	221788	2	5	75	1645	1759	0	11268703	11200000	11999999

Total number of pulses in waveform = 28  
\*\*\*\*\*

### Type 5 Radar Waveform\_24

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	549787	3	18	55	1763	1575	1569	548787	0	749999
2	452885	2	18	100	1543	1661	0	1006579	750000	1499999
3	896873	2	18	55	1929	1527	0	1906656	1500000	2249999
4	695352	3	18	60	1911	1252	1230	2605464	2250000	2999999
5	458683	2	18	85	1259	1346	0	3068540	3000000	3749999
6	965385	3	18	60	1074	1085	1695	4036530	3750000	4499999
7	768782	2	18	70	1215	1474	0	4809166	4500000	5249999
8	725991	2	18	100	1774	1119	0	5537846	5250000	5999999
9	549742	2	18	70	1598	1740	0	6090481	6000000	6749999
10	1142147	3	18	70	1399	1130	1447	7235966	6750000	7499999
11	384318	2	18	65	1481	1564	0	7624260	7500000	8249999
12	676594	1	18	75	1871	0	0	8303899	8250000	8999999
13	898141	3	18	85	1083	1140	1849	9203911	9000000	9749999
14	774983	3	18	65	1988	1263	1544	9982966	9750000	10499999
15	1097110	2	18	70	1444	1339	0	11084871	10500000	11249999
16	267033	3	18	80	1564	1888	1292	11354687	11250000	11999999

Total number of pulses in waveform = 38  
\*\*\*\*\*

### Type 5 Radar Waveform\_25

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	205981	1	17	50	1686	0	0	205981	0	666666
2	917248	3	17	100	1347	1090	1270	1124915	666667	1333333
3	777533	3	17	85	1475	1065	1831	1906155	1333334	2000000
4	392926	3	17	50	1861	1329	1598	2303452	2000001	2666667
5	1004129	3	17	75	1175	1740	1964	3312369	2666668	3333334
6	301982	2	17	95	1501	1292	0	3618630	3333335	4000001
7	923315	3	17	70	1739	1225	1568	4544738	4000002	4666668
8	298887	1	17	95	1167	0	0	4848157	4666669	5333335
9	843643	2	17	65	1682	1773	0	5692967	5333336	6000002
10	684483	3	17	65	1228	1038	1910	6389095	6000003	6666669
11	703816	1	17	65	1407	0	0	7088897	6666670	7333336
12	823018	1	17	85	1870	0	0	7913322	7333337	8000003
13	323196	3	17	85	1061	1316	1936	8238388	8000004	8666670
14	817212	3	17	65	1283	1502	1128	9059913	8666671	9333337
15	520924	2	17	65	1058	1588	0	9584750	9333338	10000004
16	904212	3	17	60	1739	1651	1077	10491578	10000005	10666671
17	490637	2	17	55	1191	1957	0	10966682	10666672	11333338
18	977107	2	17	90	1445	1142	0	11966937	11333339	12000005

Total number of pulses in waveform = 41  
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### Type 5 Radar Waveform\_26

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	389299	2	6	90	1716	1012	0	389299	0	799999
2	1007079	3	6	75	1501	1080	1390	1399106	800000	1599999
3	630988	2	6	75	1992	1704	0	2034065	1600000	2399999
4	845082	1	6	50	1039	0	0	2882843	2400000	3199999
5	415420	2	6	50	1262	1836	0	3299302	3200000	3999999
6	721398	1	6	80	1690	0	0	4023798	4000000	4799999
7	1508174	2	6	55	1634	1324	0	5533662	4800000	5599999
8	344930	3	6	95	1201	1241	1183	5881550	5600000	6399999
9	658382	1	6	55	1642	0	0	6543557	6400000	7199999
10	1038352	1	6	65	1972	0	0	7583551	7200000	7999999
11	424678	2	6	85	1377	1204	0	8010201	8000000	8799999
12	1197413	1	6	50	1232	0	0	9210195	8800000	9599999
13	603048	3	6	85	1491	1096	1434	9814475	9600000	10399999
14	1046257	1	6	95	1672	0	0	10864713	10400000	11199999
15	394248	1	6	50	1764	0	0	11260633	11200000	11999999

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

### Type 5 Radar Waveform\_27

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	488762	3	19	80	1150	1640	2000	488762	0	749999
2	980870	1	19	90	1201	0	0	1454422	750000	1499999
3	655149	1	19	80	1042	0	0	2110772	1500000	2249999
4	226801	2	19	90	1426	1737	0	2338615	2250000	2999999
5	1383271	2	19	75	1990	1479	0	3725049	3000000	3749999
6	638108	2	19	65	1387	1470	0	4366626	3750000	4499999
7	483264	2	19	80	1959	1401	0	4852747	4500000	5249999
8	801223	3	19	90	1786	1299	1013	5657330	5250000	5999999
9	1057065	2	19	65	1261	1146	0	6718493	6000000	6749999
10	112762	1	19	70	1310	0	0	6833662	6750000	7499999
11	1331914	2	19	80	1353	1823	0	8166886	7500000	8249999
12	279739	1	19	95	1807	0	0	8449801	8250000	8999999
13	701264	2	19	100	1801	1109	0	9152872	9000000	9749999
14	1177954	2	19	70	1621	1929	0	10333736	9750000	10499999
15	367878	1	19	60	1332	0	0	10705164	10500000	11249999
16	1226406	1	19	50	1592	0	0	11932902	11250000	11999999

Total number of pulses in waveform = 28  
\*\*\*\*\*

### Type 5 Radar Waveform\_28

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	36891	1	8	100	1819	0	0	36891	0	666666
2	842201	1	8	80	1408	0	0	880911	666667	1333333
3	972307	1	8	55	1562	0	0	1854626	1333334	2000000
4	207628	1	8	50	1083	0	0	2063816	2000001	2666667
5	1133723	1	8	60	1510	0	0	3198622	2666668	3333334
6	316011	3	8	80	1737	1429	1802	3516143	3333335	4000001
7	957891	1	8	90	1754	0	0	4478802	4000002	4666668
8	465395	3	8	75	1750	1919	1501	4946951	4666669	5333335
9	913214	3	8	80	1096	1175	1645	5864335	5333336	6000002
10	439713	2	8	70	1770	1206	0	6307964	6000003	6666669
11	420445	2	8	90	1175	1388	0	6731385	6666670	7333336
12	616518	3	8	70	1096	1603	1895	7350466	7333337	8000003
13	745407	1	8	70	1833	0	0	8100467	8000004	8666670
14	603822	1	8	55	1477	0	0	8706122	8666671	9333337
15	725454	2	8	100	1113	1441	0	9433053	9333338	10000004
16	1175486	2	8	60	1012	1277	0	10611093	10000005	10666671
17	551696	3	8	55	1397	1275	1337	11165078	10666672	11333338
18	177346	2	8	80	1338	1094	0	11346433	11333339	12000005

Total number of pulses in waveform = 33  
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### Type 5 Radar Waveform\_29

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	527912	2	12	100	1289	1064	0	527912	0	749999
2	857064	1	12	100	1182	0	0	1387329	750000	1499999
3	737535	3	12	90	1572	1168	1347	2126046	1500000	2249999
4	659700	2	12	60	1697	1386	0	2789833	2250000	2999999
5	872891	1	12	80	1125	0	0	3665807	3000000	3749999
6	192755	3	12	65	1747	1130	1124	3859687	3750000	4499999
7	845804	3	12	55	1210	1721	1727	4709492	4500000	5249999
8	1061811	2	12	100	1281	1379	0	5775961	5250000	5999999
9	961218	3	12	60	1680	1750	1263	6739839	6000000	6749999
10	454272	3	12	70	1715	1325	1809	7198804	6750000	7499999
11	580228	3	12	100	1079	1776	1388	7783881	7500000	8249999
12	1080391	1	12	75	1650	0	0	8868515	8250000	8999999
13	861970	3	12	90	1344	1778	1744	9732135	9000000	9749999
14	131211	1	12	75	1879	0	0	9868212	9750000	10499999
15	819520	2	12	95	1629	1223	0	10689611	10500000	11249999
16	943710	2	12	100	1178	1418	0	11636173	11250000	11999999

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

### Type 5 Radar Waveform\_30

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	405970	2	14	75	1897	1072	0	405970	0	923076
2	1352528	3	14	50	1154	1741	1988	1761467	923077	1846153
3	238918	1	14	85	1024	0	0	2005268	1846154	2769230
4	996269	2	14	60	1290	1283	0	3002561	2769231	3692307
5	717973	1	14	95	1518	0	0	3723107	3692308	4615384
6	1129452	2	14	90	1432	1956	0	4854077	4615385	5538461
7	977828	1	14	65	1114	0	0	5835293	5538462	6461538
8	1100848	1	14	85	1365	0	0	6937255	6461539	7384615
9	1363882	1	14	90	1441	0	0	8302502	7384616	8307692
10	155721	3	14	55	1397	1403	1577	8459664	8307693	9230769
11	869898	1	14	80	1162	0	0	9333939	9230770	10153846
12	1233817	2	14	100	1704	1421	0	10568918	10153847	11076923
13	818923	2	14	75	1023	1774	0	11390966	11076924	12000000

Total number of pulses in waveform = 22  
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## Radar Type 6 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	1=Detection 0=No Detection	Trail #	Test Freq. (MHz)	1=Detection 0=No Detection
1	5293	1	16	5310	1
2	5293	1	17	5310	1
3	5294	1	18	5312	1
4	5295	1	19	5314	1
5	5296	1	20	5316	1
6	5298	1	21	5318	1
7	5300	1	22	5320	1
8	5302	1	23	5321	1
9	5304	1	24	5322	1
10	5306	1	25	5323	1
11	5308	1	26	5324	1
12	5310	1	27	5325	1
13	5310	1	28	5326	1
14	5310	1	29	5327	1
15	5310	1	30	5327	1
Detection Percentage (%)					100%

Radar waveform #1			Radar waveform #2		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
8	5327	24	5	5326	15
10	5296	30	11	5307	33
11	5287	33	21	5318	63
14	5339	42	31	5296	93
25	5320	75	33	5284	99
58	5292	174	40	5321	120
83	5289	249	48	5289	144
92	5300	276	49	5325	147
--	--	--	52	5281	156
--	--	--	60	5297	180
--	--	--	62	5313	186
--	--	--	64	5322	192
--	--	--	66	5295	198
--	--	--	74	5333	222
--	--	--	81	5328	243
--	--	--	88	5293	264
--	--	--	96	5309	288

Radar waveform #3			Radar waveform #4		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
2	5294	6	7	5332	21
3	5296	9	26	5334	78
6	5288	18	37	5326	111
11	5289	33	42	5327	126
17	5309	51	46	5339	138
21	5318	63	52	5340	156
30	5320	90	53	5336	159
36	5316	108	54	5308	162
43	5335	129	55	5324	165
51	5324	153	57	5291	171
53	5304	159	81	5288	243
55	5287	165	83	5294	249
65	5300	195	86	5306	258
70	5305	210	89	5313	267
81	5340	243	92	5300	276
91	5315	273	98	5303	294



Radar waveform #5			Radar waveform #6		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
7	5316	21	0	5298	0
9	5337	27	10	5284	30
19	5282	57	38	5281	114
22	5324	66	41	5327	123
40	5309	120	45	5310	135
41	5317	123	50	5314	150
47	5322	141	57	5299	171
54	5329	162	58	5338	174
59	5287	177	59	5303	177
64	5307	192	60	5294	180
74	5326	222	67	5312	201
76	5281	228	70	5285	210
85	5280	255	76	5329	228
96	5305	288	78	5319	234
--	--	--	81	5311	243
--	--	--	84	5328	252
--	--	--	97	5282	291

Radar waveform #7			Radar waveform #8		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
2	5336	6	18	5283	54
5	5330	15	29	5296	87
15	5322	45	44	5282	132
16	5324	48	52	5323	156
24	5302	72	67	5299	201
43	5283	129	71	5303	213
44	5288	132	75	5293	225
47	5303	141	82	5321	246
51	5310	153	83	5295	249
58	5307	174	91	5333	273
70	5298	210	93	5308	279
74	5335	222	--	--	--
82	5328	246	--	--	--
83	5317	249	--	--	--



Radar waveform #9			Radar waveform #10		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
14	5328	42	1	5284	3
18	5322	54	6	5335	18
20	5291	60	22	5307	66
30	5292	90	31	5282	93
40	5335	120	32	5293	96
44	5298	132	33	5339	99
45	5329	135	48	5280	144
50	5339	150	53	5320	159
52	5320	156	54	5300	162
53	5333	159	58	5326	174
54	5317	162	69	5340	207
58	5303	174	70	5333	210
70	5306	210	83	5296	249
73	5331	219	86	5316	258
76	5312	228	--	--	--
80	5326	240	--	--	--
83	5289	249	--	--	--
88	5327	264	--	--	--
89	5334	267	--	--	--
92	5309	276	--	--	--
94	5325	282	--	--	--
95	5300	285	--	--	--

Radar waveform #11			Radar waveform #12		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
7	5332	21	0	5282	0
15	5315	45	1	5335	3
18	5286	54	4	5280	12
24	5333	72	8	5284	24
29	5340	87	10	5337	30
31	5317	93	18	5309	54
41	5327	123	23	5292	69
46	5294	138	42	5324	126
47	5318	141	46	5294	138
55	5307	165	57	5327	171
57	5299	171	63	5330	189
66	5324	198	73	5325	219
73	5336	219	83	5329	249
80	5290	240	85	5338	255
93	5285	279	91	5304	273
--	--	--	99	5333	297

Radar waveform #13			Radar waveform #14		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
2	5322	6	15	5323	45
9	5293	27	26	5327	78
27	5333	81	30	5326	90
40	5301	120	48	5294	144
44	5311	132	49	5332	147
45	5314	135	63	5304	189
46	5286	138	66	5337	198
52	5282	156	70	5311	210
62	5302	186	74	5282	222
78	5284	234	87	5334	261
88	5296	264	--	--	--
89	5315	267	--	--	--
91	5288	273	--	--	--
96	5316	288	--	--	--

Radar waveform #15			Radar waveform #16		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
21	5327	63	2	5308	6
24	5312	72	5	5298	15
40	5299	120	17	5287	51
64	5328	192	24	5288	72
70	5326	210	33	5335	99
72	5285	216	50	5281	150
74	5323	222	59	5324	177
91	5292	273	62	5319	186
95	5335	285	67	5318	201
96	5334	288	75	5338	225
99	5297	297	90	5331	270

Radar waveform #17			Radar waveform #18		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
8	5300	24	4	5326	12
16	5330	48	7	5315	21
21	5290	63	11	5290	33
27	5298	81	15	5306	45
35	5307	105	19	5295	57
43	5289	129	35	5316	105
44	5321	132	39	5296	117
47	5316	141	55	5281	165
48	5302	144	64	5327	192
49	5283	147	67	5298	201
52	5310	156	71	5340	213
60	5295	180	74	5300	222
63	5313	189	79	5337	237
65	5338	195	98	5293	294
70	5326	210	99	5308	297
75	5319	225	--	--	--
90	5299	270	--	--	--
99	5312	297	--	--	--



Radar waveform #19			Radar waveform #20		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
3	5305	9	4	5326	12
6	5299	18	19	5336	57
14	5322	42	20	5310	60
15	5336	45	23	5307	69
19	5315	57	36	5297	108
20	5314	60	46	5328	138
22	5298	66	47	5337	141
25	5323	75	57	5289	171
28	5303	84	63	5338	189
56	5335	168	65	5287	195
64	5312	192	73	5281	219
69	5325	207	74	5308	222
73	5288	219	78	5294	234
--	--	--	83	5320	249
--	--	--	84	5318	252
--	--	--	89	5324	267
--	--	--	94	5292	282
--	--	--	99	5305	297



Radar waveform #21			Radar waveform #22		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
9	5340	27	5	5284	15
19	5303	57	26	5296	78
20	5301	60	32	5320	96
23	5280	69	56	5322	168
28	5299	84	65	5288	195
30	5330	90	67	5303	201
33	5328	99	81	5304	243
37	5287	111	91	5324	273
41	5298	123	--	--	--
55	5300	165	--	--	--
62	5339	186	--	--	--
70	5302	210	--	--	--
71	5289	213	--	--	--
82	5326	246	--	--	--
83	5308	249	--	--	--
91	5319	273	--	--	--
96	5282	288	--	--	--

Radar waveform #23			Radar waveform #24		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
3	5301	9	5	5320	15
7	5295	21	7	5337	21
12	5307	36	17	5333	51
21	5303	63	29	5284	87
29	5300	87	36	5298	108
30	5286	90	38	5323	114
32	5302	96	41	5332	123
36	5298	108	45	5308	135
56	5296	168	47	5313	141
68	5289	204	54	5328	162
81	5321	243	62	5338	186
89	5338	267	88	5306	264
93	5287	279	--	--	--



Radar waveform #25			Radar waveform #26		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
13	5339	39	0	5318	0
20	5289	60	4	5332	12
21	5286	63	16	5281	48
30	5331	90	19	5316	57
38	5303	114	29	5324	87
42	5295	126	31	5320	93
49	5302	147	36	5293	108
51	5332	153	49	5331	147
78	5310	234	63	5301	189
82	5291	246	74	5336	222
97	5326	291	90	5325	270
--	--	--	96	5330	288

Radar waveform #27			Radar waveform #28		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
4	5280	12	7	5318	21
10	5301	30	13	5314	39
31	5300	93	15	5327	45
71	5282	213	27	5297	81
73	5320	219	37	5315	111
84	5296	252	42	5326	126
96	5307	288	71	5337	213
98	5290	294	72	5317	216
--	--	--	77	5305	231
--	--	--	87	5296	261
--	--	--	98	5286	294





Radar waveform #29			Radar waveform #30		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
2	5311	6	4	5283	12
9	5327	27	13	5312	39
12	5285	36	41	5317	123
15	5302	45	46	5327	138
22	5319	66	49	5315	147
33	5312	99	52	5298	156
37	5310	111	56	5324	168
40	5298	120	60	5301	180
48	5287	144	63	5329	189
50	5304	150	66	5319	198
59	5297	177	74	5326	222
91	5290	273	83	5309	249
92	5334	276	88	5335	264
--	--	--	92	5291	276



Radar Statistical Performance for 802.11ac-VHT80

Radar Type 1 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5494	1	758	70	1
2	5495	1	838	63	1
3	5496	1	658	81	1
4	5498	1	3066	18	1
5	5502	1	798	67	1
6	5506	1	898	59	1
7	5508	1	678	78	1
8	5510	1	858	62	1
9	5510	1	718	74	1
10	5514	1	538	99	1
11	5518	1	738	72	1
12	5522	1	938	57	1
13	5526	1	598	89	1
14	5528	1	778	68	1
15	5530	1	638	83	1
16	5530	1	2136	25	1
17	5534	1	1432	37	1
18	5538	1	616	86	1
19	5542	1	1528	35	1
20	5546	1	1599	34	1
21	5548	1	887	60	1
22	5550	1	976	55	1
23	5550	1	2847	19	1
24	5554	1	3059	18	1
25	5558	1	2118	25	1
26	5560	1	620	86	1
27	5564	1	1746	31	1
28	5565	1	1519	35	1
29	5566	1	1889	28	1
30	5566	1	2066	26	1
Detection Percentage (%)					100%

## Radar Type 2 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5494	1.2	227	28	1
2	5495	4.1	195	27	1
3	5496	4.1	194	28	1
4	5498	5.0	214	26	1
5	5502	4.9	211	27	1
6	5506	4.8	190	23	1
7	5508	1.0	186	29	1
8	5510	4.2	182	26	1
9	5510	3.2	169	24	1
10	5514	4.6	165	24	1
11	5518	5.0	202	27	1
12	5522	4.9	163	23	1
13	5526	4.5	222	24	1
14	5528	1.4	195	28	1
15	5530	2.7	205	25	1
16	5530	2.0	207	23	1
17	5534	1.0	211	24	1
18	5538	3.1	223	27	1
19	5542	3.3	228	28	1
20	5546	4.7	223	27	1
21	5548	2.0	210	29	1
22	5550	1.5	195	29	1
23	5550	2.2	160	23	1
24	5554	2.4	193	26	1
25	5558	1.4	210	23	1
26	5560	2.6	151	27	1
27	5564	4.6	178	25	1
28	5565	4.5	196	26	1
29	5566	3.3	214	25	1
30	5566	3.7	216	24	1
Detection Percentage (%)					100%



Radar Type 3 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5494	10.0	328	17	1
2	5495	8.0	368	16	1
3	5496	8.3	348	17	1
4	5498	8.9	392	18	1
5	5502	8.3	482	17	1
6	5506	9.8	280	16	1
7	5508	7.7	379	18	1
8	5510	9.7	421	16	1
9	5510	8.4	479	18	1
10	5514	8.1	391	18	1
11	5518	8.3	409	17	1
12	5522	6.2	440	16	1
13	5526	8.1	332	18	1
14	5528	7.1	342	18	1
15	5530	7.9	259	18	1
16	5530	7.4	361	16	1
17	5534	9.5	253	16	1
18	5538	10.0	469	17	1
19	5542	9.7	472	17	1
20	5546	9.0	491	17	1
21	5548	9.4	293	16	1
22	5550	6.5	278	17	1
23	5550	8.0	318	17	1
24	5554	8.6	348	17	1
25	5558	6.5	475	16	1
26	5560	8.8	282	16	1
27	5564	8.0	335	18	1
28	5565	8.9	305	17	1
29	5566	9.1	297	17	1
30	5566	6.1	409	17	1
Detection Percentage (%)					100%

## Radar Type 4 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5494	12.7	468	13	1
2	5495	14.6	442	16	1
3	5496	18.4	260	14	1
4	5498	16.9	476	13	1
5	5502	15.5	396	12	1
6	5506	12.8	376	12	1
7	5508	12.2	294	15	1
8	5510	19.1	463	12	1
9	5510	12.8	421	16	1
10	5514	11.2	432	12	1
11	5518	13.8	443	13	1
12	5522	18.1	343	15	1
13	5526	19.2	279	15	1
14	5528	11.1	497	13	1
15	5530	12.7	323	16	1
16	5530	15.3	342	13	1
17	5534	19.8	378	14	1
18	5538	17.2	268	14	1
19	5542	17.2	333	13	1
20	5546	17.9	451	14	1
21	5548	15.9	408	13	1
22	5550	16.3	480	12	1
23	5550	11.6	461	14	1
24	5554	16.6	481	15	1
25	5558	11.3	407	14	1
26	5560	13.8	341	15	1
27	5564	13.1	463	15	1
28	5565	15.0	373	15	1
29	5566	13.7	395	13	1
30	5566	14.5	451	12	1
Detection Percentage (%)					100%

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

waveforms is as follows: 
$$\frac{P_d1+P_d2+P_d3+P_d4}{4} = (100\%+100\%+100\%+100\%)/4 = 100\% (>80\%)$$



Radar Type 5 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	1=Detection 0=No Detection	Trail #	Test Freq. (MHz)	1=Detection 0=No Detection
1	5496.0	1	16	5530.0	1
2	5498.8	1	17	5530.0	1
3	5497.6	1	18	5530.0	1
4	5495.2	1	19	5530.0	1
5	5494.0	1	20	5530.0	1
6	5499.6	1	21	5564.8	1
7	5494.4	1	22	5563.2	1
8	5499.2	1	23	5564.0	1
9	5496.8	1	24	5566.0	1
10	5495.6	1	25	5560.8	1
11	5530.0	1	26	5565.6	1
12	5530.0	1	27	5562.4	1
13	5530.0	1	28	5564.4	1
14	5530.0	1	29	5560.4	1
15	5530.0	1	30	5561.2	1
Detection Percentage (%)					100%

Type 5 Radar Waveform_1										
Num of Bursts = 9										
Burst Interval (us)= 1333333										
Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	500193	1	10	75	1932	0	0	500193	0	1333332
2	2073901	1	10	60	1458	0	0	2576026	1333333	2666665
3	1386011	1	10	60	1334	0	0	3963495	2666666	3999998
4	885832	2	10	75	1688	1207	0	4850661	3999999	5333331
5	1156279	1	10	90	1243	0	0	6010435	5333332	6666664
6	979751	3	10	65	1466	1428	1620	6991429	6666665	7999997
7	1014878	2	10	80	1045	1880	0	8010821	7999998	9333330
8	1663843	3	10	55	1014	1579	1965	9677589	9333331	10666663
9	1278694	3	10	70	1330	1670	1636	10960841	10666664	11999996
Total number of pulses in waveform = 17										
*****										



### Type 5 Radar Waveform\_2

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	425701	3	17	50	1458	1290	1017	425701	0	705881
2	335463	1	17	100	1921	0	0	764929	705882	1411763
3	923922	2	17	50	1471	1999	0	1690772	1411764	2117645
4	977560	3	17	70	1382	1305	1735	2671802	2117646	2823527
5	257366	3	17	80	1616	1195	1098	2933590	2823528	3529409
6	914143	2	17	75	1444	1904	0	3851642	3529410	4235291
7	861286	2	17	65	1482	1538	0	4716276	4235292	4941173
8	342394	1	17	100	1552	0	0	5061690	4941174	5647055
9	1061278	2	17	85	1171	1016	0	6124520	5647056	6352937
10	798690	3	17	70	1233	1296	1316	6925397	6352938	7058819
11	243162	1	17	75	1229	0	0	7172404	7058820	7764701
12	663436	3	17	50	1986	1422	1538	7837069	7764702	8470583
13	1267857	1	17	55	1459	0	0	9109872	8470584	9176465
14	698000	3	17	50	1610	1045	1929	9809331	9176466	9882347
15	303490	2	17	70	1437	1664	0	10117405	9882348	10588229
16	573069	1	17	65	1757	0	0	10693575	10588230	11294111
17	621980	3	17	60	1489	1020	1799	11317312	11294112	11999993

Total number of pulses in waveform = 36  
\*\*\*\*\*

### Type 5 Radar Waveform\_3

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	248763	2	14	60	1020	1540	0	248763	0	923076
2	1011210	2	14	75	1714	1629	0	1262533	923077	1846153
3	1439443	2	14	70	1925	1031	0	2705319	1846154	2769230
4	151161	3	14	95	1809	1457	1299	2859436	2769231	3692307
5	1634462	2	14	95	1412	1966	0	4498463	3692308	4615384
6	722924	3	14	55	1027	1631	1725	5224765	4615385	5538461
7	544690	2	14	55	1466	1185	0	5773838	5538462	6461538
8	923510	1	14	70	1094	0	0	6699999	6461539	7384615
9	1599579	1	14	70	1804	0	0	8300672	7384616	8307692
10	37850	3	14	60	1111	1376	1305	8340326	8307693	9230769
11	1105458	1	14	85	1357	0	0	9449576	9230770	10153846
12	1012606	3	14	100	1212	1140	1567	10463539	10153847	11076923
13	1455454	3	14	50	1354	1936	1579	11922912	11076924	12000000

Total number of pulses in waveform = 28  
\*\*\*\*\*

### Type 5 Radar Waveform\_4

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	594275	1	8	70	1120	0	0	594275	0	666666
2	84871	1	8	70	1880	0	0	680266	666667	1333333
3	1165000	3	8	55	1270	1023	1806	1847146	1333334	2000000
4	548544	2	8	55	1539	1039	0	2399789	2000001	2666667
5	358416	3	8	65	1532	1465	1989	2760783	2666668	3333334
6	1211125	2	8	60	1311	1643	0	3976894	3333335	4000001
7	275807	2	8	50	1330	1775	0	4255655	4000002	4666668
8	627613	2	8	70	1641	1046	0	4886373	4666669	5333335
9	964704	2	8	70	1743	1047	0	5853764	5333336	6000002
10	559156	2	8	85	1278	1500	0	6415710	6000003	6666669
11	702797	1	8	95	1390	0	0	7121285	6666670	7333336
12	366239	3	8	100	1916	1780	1772	7488914	7333337	8000003
13	629136	3	8	75	1788	1074	1723	8123518	8000004	8666670
14	929985	3	8	55	1386	1273	1951	9058088	8666671	9333337
15	289260	2	8	100	1364	1471	0	9351958	9333338	10000004
16	1287380	1	8	75	1826	0	0	10642173	10000005	10666671
17	576836	1	8	85	1279	0	0	11220835	10666672	11333338
18	307626	1	8	100	1659	0	0	11529740	11333339	12000005

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



### Type 5 Radar Waveform\_5

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	241012	2	5	70	1248	1772	0	241012	0	631578
2	509462	3	5	85	1908	1812	1694	753494	631579	1263157
3	806155	1	5	85	1780	0	0	1564963	1263158	1894736
4	653294	1	5	50	1371	0	0	2220037	1894737	2526315
5	740911	3	5	100	1997	1762	1534	2962319	2526316	3157894
6	376023	3	5	85	1354	1385	1635	3343635	3157895	3789473
7	709845	3	5	100	1981	1388	1284	4057854	3789474	4421052
8	728892	3	5	80	1813	1066	1292	4791399	4421053	5052631
9	356693	3	5	80	1212	1078	1441	5152263	5052632	5684210
10	1148503	2	5	50	1090	1847	0	6304497	5684211	6315789
11	418405	3	5	55	1057	1959	1986	6725839	6315790	6947368
12	657356	2	5	80	1816	1338	0	7388197	6947369	7578947
13	664194	2	5	55	1034	1313	0	8055545	7578948	8210526
14	317432	3	5	75	1790	1815	1818	8375324	8210527	8842105
15	1007254	2	5	50	1125	1314	0	9388001	8842106	9473684
16	580732	1	5	70	1174	0	0	9971172	9473685	10105263
17	747833	3	5	70	1618	1949	1185	10720179	10105264	10736842
18	606995	2	5	55	1864	1214	0	11331926	10736843	11368421
19	229515	2	5	100	1209	1531	0	11564519	11368422	12000000

Total number of pulses in waveform = 44  
\*\*\*\*\*

### Type 5 Radar Waveform\_6

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	277546	3	19	65	1436	1056	1929	277546	0	923076
2	750663	2	19	60	1065	1341	0	1032630	923077	1846153
3	1378338	3	19	100	1978	1483	1434	2413374	1846154	2769230
4	867130	2	19	50	1908	1953	0	3285399	2769231	3692307
5	417287	3	19	65	1905	1483	1273	3706547	3692308	4615384
6	1631412	2	19	55	1506	1839	0	5342620	4615385	5538461
7	790612	2	19	60	1148	1462	0	6136577	5538462	6461538
8	805703	2	19	65	1167	1015	0	6944890	6461539	7384615
9	490639	1	19	70	1783	0	0	7437711	7384616	8307692
10	1276338	1	19	55	1002	0	0	8715832	8307693	9230769
11	591481	1	19	65	1861	0	0	9308315	9230770	10153846
12	901997	3	19	60	1132	1383	1332	10212173	10153847	11076923
13	1039923	1	19	80	1321	0	0	11255943	11076924	12000000

Total number of pulses in waveform = 26  
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### Type 5 Radar Waveform\_7

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	547600	1	6	80	1086	0	0	547600	0	799999
2	353032	3	6	95	1655	1790	1868	901718	800000	1599999
3	808213	1	6	85	1038	0	0	1715244	1600000	2399999
4	1161292	1	6	75	1439	0	0	2877574	2400000	3199999
5	855461	3	6	90	1361	1304	1370	3734474	3200000	3999999
6	933975	3	6	70	1844	1236	1996	4672484	4000000	4799999
7	418975	1	6	55	1943	0	0	5096535	4800000	5599999
8	513397	1	6	65	1077	0	0	5611875	5600000	6399999
9	1176969	3	6	85	1543	1692	1903	6789921	6400000	7199999
10	496930	2	6	85	1820	1836	0	7291989	7200000	7999999
11	788493	1	6	85	1789	0	0	8084138	8000000	8799999
12	1274598	1	6	95	1624	0	0	9360525	8800000	9599999
13	862651	3	6	75	1770	1623	1843	10224800	9600000	10399999
14	724704	2	6	90	1927	1046	0	10954740	10400000	11199999
15	626495	2	6	50	1088	1152	0	11584208	11200000	11999999

Total number of pulses in waveform = 28  
\*\*\*\*\*





### Type 5 Radar Waveform\_8

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	339854	3	18	55	1654	1134	1125	339854	0	631578
2	576278	1	18	65	1528	0	0	920045	631579	1263157
3	645229	2	18	50	1269	1944	0	1566802	1263158	1894736
4	382279	3	18	80	1154	1102	1436	1952294	1894737	2526315
5	1130361	2	18	55	1848	1247	0	3086347	2526316	3157894
6	626744	2	18	95	1932	1684	0	3716186	3157895	3789473
7	390823	1	18	60	1462	0	0	4110625	3789474	4421052
8	862222	2	18	90	1717	1603	0	4974309	4421053	5052631
9	359823	2	18	95	1237	1371	0	5337452	5052632	5684210
10	917346	2	18	70	1221	1632	0	6257406	5684211	6315789
11	264666	3	18	95	1776	1615	1898	6524925	6315790	6947368
12	759690	1	18	80	1577	0	0	7289904	6947369	7578947
13	552359	1	18	75	1633	0	0	7843840	7578948	8210526
14	539056	1	18	65	1801	0	0	8384529	8210527	8842105
15	815866	2	18	90	1096	1001	0	9202196	8842106	9473684
16	835644	1	18	65	1698	0	0	10039937	9473685	10105263
17	226926	2	18	95	1561	1490	0	10268561	10105264	10736842
18	1022884	1	18	75	1018	0	0	11294496	10736843	11368421
19	343290	1	18	70	1016	0	0	11638804	11368422	12000000

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

### Type 5 Radar Waveform\_9

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	383156	1	12	80	1133	0	0	383156	0	666666
2	457721	2	12	90	1880	1439	0	842010	666667	1333333
3	970836	3	12	65	1699	1641	1564	1816165	1333334	2000000
4	570230	3	12	80	1378	1390	1515	2391299	2000001	2666667
5	703853	1	12	95	1567	0	0	3099435	2666668	3333334
6	720566	1	12	100	1307	0	0	3821568	3333335	4000001
7	367111	3	12	85	1613	1480	1796	4189986	4000002	4666668
8	957414	3	12	55	1007	1896	1316	5152289	4666669	5333335
9	319144	2	12	90	1124	1705	0	5475652	5333336	6000002
10	1047332	2	12	80	1441	1447	0	6525813	6000003	6666669
11	249241	3	12	55	1511	1722	1389	6777942	6666670	7333336
12	740495	2	12	70	1180	1078	0	7523059	7333337	8000003
13	677300	2	12	85	1891	1739	0	8202617	8000004	8666670
14	1096861	1	12	65	1541	0	0	9303108	8666671	9333337
15	447346	2	12	85	1976	1734	0	9751995	9333338	10000004
16	564642	1	12	50	1756	0	0	10320347	10000005	10666671
17	797384	1	12	55	1535	0	0	11119487	10666672	11333338
18	605657	1	12	90	1008	0	0	11726679	11333339	12000005

Total number of pulses in waveform = 34  
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### Type 5 Radar Waveform\_10

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	265752	1	9	70	1507	0	0	265752	0	749999
2	756833	3	9	100	1601	1265	1687	1024092	750000	1499999
3	784337	3	9	95	1961	1218	1301	1812982	1500000	2249999
4	990345	1	9	70	1840	0	0	2807807	2250000	2999999
5	536166	1	9	75	1517	0	0	3345813	3000000	3749999
6	432333	2	9	50	1404	1252	0	3779663	3750000	4499999
7	933944	3	9	65	1506	1652	1599	4716263	4500000	5249999
8	1098700	2	9	95	1810	1514	0	5819720	5250000	5999999
9	219612	2	9	90	1060	1484	0	6042656	6000000	6749999
10	1083634	3	9	70	1351	1945	1051	7128834	6750000	7499999
11	672615	2	9	55	1860	1841	0	7805796	7500000	8249999
12	1064998	2	9	70	1144	1988	0	8874495	8250000	8999999
13	514030	3	9	85	1153	1547	1281	9391657	9000000	9749999
14	773597	3	9	100	1664	1010	1464	10169235	9750000	10499999
15	1036214	1	9	95	1657	0	0	11209587	10500000	11249999
16	613562	3	9	75	1502	1704	1515	11824806	11250000	11999999

Total number of pulses in waveform = 35  
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### Type 5 Radar Waveform\_11

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	225763	1	8	95	1205	0	0	225763	0	1090908
2	918755	3	8	60	1629	1961	1333	1145723	1090909	2181817
3	1772157	2	8	70	1804	1443	0	2922803	2181818	3272726
4	537243	1	8	100	1477	0	0	3463293	3272727	4363635
5	927878	1	8	75	1906	0	0	4392648	4363636	5454544
6	1918446	2	8	100	1205	1990	0	6313000	5454545	6545453
7	765890	2	8	75	1273	1249	0	7082085	6545454	7636362
8	1576246	2	8	80	1772	1071	0	8660853	7636363	8727271
9	409499	3	8	85	1127	1676	1998	9073195	8727272	9818180
10	1225632	3	8	90	1533	1835	1956	10303628	9818181	10909089
11	1087937	2	8	65	1682	1497	0	11396889	10909090	11999998

Total number of pulses in waveform = 22

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### Type 5 Radar Waveform\_12

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	585504	2	10	80	1378	1051	0	585504	0	599999
2	479685	2	10	75	1607	1387	0	1067618	600000	1199999
3	435409	1	10	65	1173	0	0	1506021	1200000	1799999
4	430976	3	10	100	1767	1213	1694	1938170	1800000	2399999
5	258137	2	10	100	1917	1862	0	2857821	2400000	2999999
6	930745	1	10	75	1156	0	0	3119737	3000000	3599999
7	743129	2	10	65	1947	1455	0	4051638	3600000	4199999
8	427757	1	10	100	1276	0	0	4798169	4200000	4799999
9	372853	3	10	95	1341	1554	1675	5227202	4800000	5399999
10	538087	1	10	55	1043	0	0	5604625	5400000	5999999
11	900766	3	10	90	1971	1379	1808	6143755	6000000	6599999
12	202129	3	10	90	1929	1242	1063	7049679	6600000	7199999
13	601564	3	10	85	1971	1155	1467	7256042	7200000	7799999
14	1037533	1	10	95	1159	0	0	7862209	7800000	8399999
15	510768	3	10	60	1965	1269	1644	8900901	8400000	8999999
16	203754	3	10	75	1941	1463	1252	9416547	9000000	9599999
17	826453	1	10	55	1928	0	0	9624967	9600000	10199999
18	695145	3	10	80	1704	1881	1640	10453348	10200000	10799999
19	371780	1	10	65	1246	0	0	11153718	10800000	11399999
20	371780	1	10	60	1809	0	0	11526744	11400000	11999999

Total number of pulses in waveform = 40

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### Type 5 Radar Waveform\_13

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	1202779	2	5	80	1759	1338	0	1202779	0	1333332
2	1150922	1	5	50	1488	0	0	2356798	1333333	2666665
3	1036419	1	5	90	1707	0	0	3394705	2666666	3999998
4	745555	1	5	85	1824	0	0	4141967	3999999	5333331
5	2120031	3	5	70	1237	1163	1828	6263822	5333332	6666664
6	563141	3	5	65	1413	1089	1252	6831191	6666665	7999997
7	2241984	3	5	65	1413	1089	1252	6831191	6666665	7999997
8	1315826	2	5	85	1421	1454	0	9076929	7999998	9333330
9	653941	1	5	100	1487	0	0	10395630	9333331	10666663
9	653941	1	5	55	1757	0	0	11051058	10666664	11999996

Total number of pulses in waveform = 15

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### Type 5 Radar Waveform\_14

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	405641	3	14	50	1164	1668	1021	405641	0	1333332
2	1948900	2	14	60	1315	1119	0	2358394	1333333	2666665
3	1025622	1	14	75	1387	0	0	3386450	2666666	3999998
4	1001621	2	14	70	1938	1483	0	4389458	3999999	5333331
5	2037560	3	14	100	1886	1078	1569	6430439	5333332	6666664
6	749738	1	14	95	1475	0	0	7184710	6666665	7999997
7	1184735	1	14	100	1823	0	0	8370920	7999998	9333330
8	1174945	3	14	60	1271	1483	1603	9547688	9333331	10666663
9	1769466	1	14	50	1110	0	0	11321511	10666664	11999996

Total number of pulses in waveform = 17  
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### Type 5 Radar Waveform\_15

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	390044	2	18	75	1283	1668	0	390044	0	999999
2	1415464	3	18	95	1356	1444	1950	1808459	1000000	1999999
3	693837	1	18	90	1570	0	0	2507046	2000000	2999999
4	873290	3	18	80	1639	1593	1255	3381906	3000000	3999999
5	1498864	2	18	60	1786	1778	0	4885257	4000000	4999999
6	909532	3	18	100	1799	1583	1315	5798353	5000000	5999999
7	983601	2	18	55	1179	1068	0	6786651	6000000	6999999
8	783429	1	18	90	1673	0	0	7572327	7000000	7999999
9	528352	1	18	60	1639	0	0	8102352	8000000	8999999
10	1868242	3	18	55	1156	1404	1982	9972233	9000000	9999999
11	383185	3	18	60	1362	1769	1006	10359960	10000000	10999999
12	1164874	3	18	50	1227	1556	1808	11528971	11000000	11999999

Total number of pulses in waveform = 27  
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### Type 5 Radar Waveform\_16

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	436118	2	6	75	1112	1690	0	436118	0	799999
2	1065536	2	6	60	1226	1775	0	1504466	800000	1599999
3	432190	3	6	70	1119	1073	1923	1939647	1600000	2399999
4	1098686	1	6	80	1861	0	0	3042448	2400000	3199999
5	157478	2	6	75	1364	1486	0	3201787	3200000	3999999
6	803614	3	6	80	1312	1103	1636	4008251	4000000	4799999
7	1365242	3	6	50	1405	1780	1805	5377554	4800000	5599999
8	343265	2	6	60	1220	1384	0	5725799	5600000	6399999
9	764735	1	6	100	1395	0	0	6493138	6400000	7199999
10	1084653	1	6	95	1491	0	0	7579186	7200000	7999999
11	1013971	3	6	70	1141	1894	1807	8594648	8000000	8799999
12	353113	1	6	60	1693	0	0	8952603	8800000	9599999
13	1212815	2	6	85	1363	1202	0	10167111	9600000	10399999
14	932730	1	6	100	1857	0	0	11102406	10400000	11199999
15	221646	1	6	90	1844	0	0	11325909	11200000	11999999

Total number of pulses in waveform = 28  
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### Type 5 Radar Waveform\_17

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	290608	3	17	70	1351	1486	1239	290608	0	1499999
2	1630765	2	17	55	1666	1851	0	1925449	1500000	2999999
3	2008969	2	17	100	1622	1422	0	3937935	3000000	4499999
4	1899008	1	17	75	1090	0	0	5839987	4500000	5999999
5	1039050	3	17	90	1041	1916	1946	6880127	6000000	7499999
6	2071121	2	17	100	1885	1992	0	8956151	7500000	8999999
7	352758	2	17	70	1341	1829	0	9312786	9000000	10499999
8	1256487	2	17	90	1193	1140	0	10572443	10500000	11999999

Total number of pulses in waveform = 17

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### Type 5 Radar Waveform\_18

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	63095	2	9	70	1726	1666	0	63095	0	631578
2	814936	2	9	65	1789	1752	0	881423	631579	1263157
3	403385	3	9	85	1990	1003	1458	1288349	1263158	1894736
4	841218	1	9	50	1803	0	0	2134018	1894737	2526315
5	763943	1	9	75	1576	0	0	2899764	2526316	3157894
6	421848	2	9	70	1637	1638	0	3323188	3157895	3789473
7	801904	1	9	60	1972	0	0	4128367	3789474	4421052
8	644934	3	9	70	1872	1099	1684	4775273	4421053	5052631
9	690901	3	9	95	1866	1406	1217	5470829	5052632	5684210
10	690758	1	9	50	1495	0	0	6166076	5684211	6315789
11	665736	3	9	90	1497	1547	1439	6833307	6315790	6947368
12	513800	3	9	80	1475	1587	1961	7351590	6947369	7578947
13	651060	2	9	90	1378	1914	0	8007673	7578948	8210526
14	290631	3	9	70	1723	1820	1017	8301596	8210527	8842105
15	552265	1	9	55	1375	0	0	8858421	8842106	9473684
16	682052	2	9	90	1375	1118	0	9541848	9473685	10105263
17	779694	2	9	70	1489	1386	0	10324035	10105264	10736842
18	727938	1	9	90	1066	0	0	11054848	10736843	11368421
19	371827	2	9	50	1579	1011	0	11427731	11368422	12000000

Total number of pulses in waveform = 38

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### Type 5 Radar Waveform\_19

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	463839	1	19	55	1638	0	0	463839	0	666666
2	427139	3	19	70	1393	1568	1185	892616	666667	1333333
3	524274	2	19	55	1849	1112	0	1421036	1333334	2000000
4	995987	3	19	95	1261	1312	1093	2419984	2000001	2666667
5	868944	1	19	60	1566	0	0	3292594	2666668	3333334
6	359476	3	19	50	1402	1053	1131	3653626	3333335	4000001
7	506991	2	19	80	1719	1569	0	4164203	4000002	4666668
8	684383	3	19	50	1032	1523	1076	4851874	4666669	5333335
9	951366	1	19	80	1472	0	0	5806871	5333336	6000002
10	453099	3	19	95	1703	1845	1867	6261442	6000003	6666669
11	513927	1	19	80	1863	0	0	6780784	6666670	7333336
12	1205768	1	19	90	1080	0	0	7988415	7333337	8000003
13	427851	2	19	90	1362	1884	0	8417346	8000004	8666670
14	370152	2	19	55	1500	1730	0	8790744	8666671	9333337
15	573498	1	19	75	1570	0	0	9367472	9333338	10000004
16	1294090	2	19	60	1044	1497	0	10663132	10000005	10666671
17	598086	2	19	90	1147	1088	0	11263759	10666672	11333338
18	398435	2	19	60	1774	1111	0	11664429	11333339	12000005

Total number of pulses in waveform = 35

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### Type 5 Radar Waveform\_20

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	1037520	2	12	95	1415	1826	0	1037520	0	1499999
2	1428404	1	12	50	1319	0	0	2469165	1500000	2999999
3	648942	1	12	90	1208	0	0	3119426	3000000	4499999
4	2081144	2	12	100	1623	1051	0	5201778	4500000	5999999
5	1679616	2	12	65	1264	1464	0	6884068	6000000	7499999
6	1238077	3	12	55	1592	1322	1876	8124873	7500000	8999999
7	1141963	3	12	60	1536	1454	1895	9271626	9000000	10499999
8	1566446	3	12	50	1748	1590	1734	10842957	10500000	11999999

Total number of pulses in waveform = 17  
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### Type 5 Radar Waveform\_21

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	99118	3	8	80	1921	1949	1149	99118	0	749999
2	712214	1	8	70	1485	0	0	816351	750000	1499999
3	1311946	2	8	85	1299	1557	0	2129782	1500000	2249999
4	498984	1	8	55	1982	0	0	2631622	2250000	2999999
5	1041893	2	8	80	1584	1881	0	3675497	3000000	3749999
6	398554	1	8	80	1479	0	0	4077516	3750000	4499999
7	441417	2	8	95	1901	1187	0	4520412	4500000	5249999
8	961758	2	8	60	1308	1423	0	5485258	5250000	5999999
9	968094	2	8	60	1408	1955	0	6456083	6000000	6749999
10	307976	3	8	70	1342	1370	1076	6767422	6750000	7499999
11	745911	3	8	70	1867	1871	1670	7517121	7500000	8249999
12	1257242	1	8	60	1579	0	0	8779771	8250000	8999999
13	602851	3	8	100	1748	1525	1565	9384201	9000000	9749999
14	795180	3	8	50	1803	1419	1264	10184219	9750000	10499999
15	557664	1	8	55	1151	0	0	10746369	10500000	11249999
16	711148	2	8	55	1840	1820	0	11458668	11250000	11999999

Total number of pulses in waveform = 32  
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### Type 5 Radar Waveform\_22

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	42844	1	12	50	1348	0	0	42844	0	599999
2	1131506	2	12	90	1829	1597	0	1175698	600000	1199999
3	513519	3	12	50	1154	1592	1444	1692643	1200000	1799999
4	316104	2	12	65	1575	1527	0	2012937	1800000	2399999
5	802659	3	12	55	1540	1284	2000	2818698	2400000	2999999
6	362006	3	12	100	1147	1853	1182	3175528	3000000	3599999
7	518496	2	12	100	1894	1122	0	3698206	3600000	4199999
8	525235	1	12	90	1924	0	0	4226457	4200000	4799999
9	599805	1	12	60	1900	0	0	4828186	4800000	5399999
10	1094585	2	12	75	1524	1725	0	5924671	5400000	5999999
11	642702	1	12	65	1469	0	0	6570622	6000000	6599999
12	95975	3	12	95	1917	1461	1738	6688056	6600000	7199999
13	919458	2	12	55	1157	1749	0	7592630	7200000	7799999
14	668588	2	12	50	1702	1891	0	8264124	7800000	8399999
15	640881	3	12	90	1213	1491	1455	8908598	8400000	8999999
16	249894	3	12	65	1064	1697	1713	9162651	9000000	9599999
17	707725	2	12	100	1038	1147	0	9874840	9600000	10199999
18	618674	3	12	75	1544	1529	1499	10495699	10200000	10799999
19	722794	3	12	90	1630	1979	1091	1123065	10800000	11399999
20	364287	3	12	60	1474	1971	1848	11582052	11400000	11999999

Total number of pulses in waveform = 45  
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### Type 5 Radar Waveform\_23

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	214963	3	10	100	1539	1663	1363	214963	0	923076
2	1564390	1	10	50	1804	0	0	1783918	923077	1846153
3	556428	3	10	90	1299	1218	1938	2342150	1846154	2769230
4	509943	3	10	95	1812	1365	1010	2856548	2769231	3692307
5	1173907	3	10	80	1512	1615	1016	4034642	3692308	4615384
6	785898	2	10	100	1586	1981	0	4824683	4615385	5538461
7	1023176	2	10	85	1292	1964	0	5851426	5538462	6461538
8	857515	3	10	90	1692	1746	1431	6712197	6461539	7384615
9	1346755	3	10	95	1758	1068	1213	8063821	7384616	8307692
10	674163	3	10	70	1324	1039	1852	8742023	8307693	9230769
11	1235446	2	10	60	1620	1403	0	9981684	9230770	10153846
12	613895	3	10	75	1045	1864	1104	10598602	10153847	11076923
13	578600	2	10	100	1344	1841	0	11181215	11076924	12000000

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

### Type 5 Radar Waveform\_24

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	363731	2	5	75	1330	1257	0	363731	0	1199999
2	1325404	2	5	65	1678	1864	0	1691722	1200000	2399999
3	929850	2	5	80	1500	1980	0	2625114	2400000	3599999
4	1939492	1	5	95	1186	0	0	4568086	3600000	4799999
5	1326512	3	5	90	1628	2000	1233	5895784	4800000	5999999
6	905269	2	5	95	1102	1266	0	6805914	6000000	7199999
7	1381867	3	5	80	1434	1890	1821	8190149	7200000	8399999
8	822639	2	5	100	1923	1051	0	9017933	8400000	9599999
9	1186298	1	5	90	1723	0	0	10207205	9600000	10799999
10	1044750	3	5	60	1708	1831	1337	11253678	10800000	11999999

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

### Type 5 Radar Waveform\_25

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	55236	2	18	70	1041	1104	0	55236	0	799999
2	959130	2	18	60	1928	1554	0	1016511	800000	1599999
3	1204221	2	18	70	1343	1492	0	2224214	1600000	2399999
4	628679	2	18	80	1667	1519	0	2855728	2400000	3199999
5	998200	3	18	95	1988	1432	1089	3857114	3200000	3999999
6	305758	2	18	85	1904	1715	0	4167381	4000000	4799999
7	1263533	2	18	80	1893	1029	0	5434533	4800000	5599999
8	921489	3	18	50	1869	1648	1672	6358944	5600000	6399999
9	303294	3	18	60	1562	1802	1020	6687427	6400000	7199999
10	1229325	1	18	60	1272	0	0	7900936	7200000	7999999
11	291677	2	18	60	1862	1908	0	8193885	8000000	8799999
12	701415	1	18	75	1649	0	0	8899070	8800000	9599999
13	1401258	3	18	70	1108	1867	1085	10301977	9600000	10399999
14	356157	1	18	90	1103	0	0	10662194	10400000	11199999
15	594983	1	18	65	1526	0	0	11258280	11200000	11999999

Total number of pulses in waveform = 30  
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### Type 5 Radar Waveform\_26

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	775278	1	6	100	1450	0	0	775278	0	999999
2	470164	3	6	55	1020	1854	1012	1246892	1000000	1999999
3	1348178	2	6	65	1506	1204	0	2598956	2000000	2999999
4	844414	2	6	50	1741	1940	0	3446080	3000000	3999999
5	1379616	2	6	100	1105	1726	0	4829377	4000000	4999999
6	468468	1	6	95	1756	0	0	5300676	5000000	5999999
7	1083168	3	6	70	1255	1291	1645	6385600	6000000	6999999
8	1225535	1	6	95	1371	0	0	7615326	7000000	7999999
9	1094049	1	6	75	1079	0	0	8710746	8000000	8999999
10	596332	2	6	55	1744	1979	0	9308157	9000000	9999999
11	1660626	2	6	60	1063	1284	0	10972506	10000000	10999999
12	491533	3	6	65	1573	1491	1530	11466386	11000000	11999999

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

### Type 5 Radar Waveform\_27

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	2352	1	14	50	1898	0	0	2352	0	999999
2	1742248	2	14	95	1036	1800	0	1746498	1000000	1999999
3	335270	2	14	60	1007	1184	0	2084604	2000000	2999999
4	1232809	1	14	90	1467	0	0	3319604	3000000	3999999
5	1089113	2	14	65	1433	1335	0	4410184	4000000	4999999
6	791410	2	14	90	1974	1537	0	5204362	5000000	5999999
7	1336609	1	14	60	1547	0	0	6544482	6000000	6999999
8	816049	3	14	55	1618	1671	1423	7362078	7000000	7999999
9	851736	1	14	55	1973	0	0	8218526	8000000	8999999
10	1003948	3	14	80	1833	1410	1796	9224447	9000000	9999999
11	1479954	3	14	55	1237	1454	0	10709440	10000000	10999999
12	1111538	3	14	50	1164	1926	1412	11823669	11000000	11999999

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

### Type 5 Radar Waveform\_28

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	405753	3	9	55	1211	1274	1024	405753	0	631578
2	510570	1	9	55	1189	0	0	919832	631579	1263157
3	965374	1	9	50	1948	0	0	1886395	1263158	1894736
4	217104	3	9	70	1030	1000	1975	2105447	1894737	2526315
5	828624	2	9	85	1096	1924	0	2938076	2526316	3157894
6	578979	2	9	95	1620	1796	0	3520075	3157895	3789473
7	888221	2	9	60	1735	1536	0	4411714	3789474	4421052
8	502638	3	9	70	1884	1049	1441	4917623	4421053	5052631
9	301477	2	9	90	1740	1053	0	5223474	5052632	5684210
10	502522	1	9	70	1161	0	0	5728789	5684211	6315789
11	841149	3	9	75	1445	1639	1475	6571099	6315790	6947368
12	628837	1	9	95	1967	0	0	7204495	6947369	7578947
13	691855	1	9	50	1851	0	0	7898317	7578948	8210526
14	501171	2	9	70	1393	1194	0	8401339	8210527	8842105
15	455705	2	9	55	1592	1003	0	8859631	8842106	9473684
16	1166162	2	9	75	1346	1125	0	10028388	9473685	10105263
17	667942	1	9	100	1411	0	0	10698801	10105264	10736842
18	279403	3	9	85	1402	1225	1849	10979615	10736843	11368421
19	980872	2	9	65	1774	1161	0	11964963	11368422	12000000

Total number of pulses in waveform = 37  
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### Type 5 Radar Waveform\_29

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	835344	3	19	70	1666	1461	1627	835344	0	923076
2	839559	2	19	50	1363	1100	0	1679657	923077	1846153
3	179163	1	19	85	1012	0	0	1861283	1846154	2769230
4	1419251	2	19	55	1902	1472	0	3281546	2769231	3692307
5	978619	3	19	75	1509	1225	1946	4263539	3692308	4615384
6	975574	3	19	90	1327	1512	1182	5243793	4615385	5538461
7	633881	1	19	70	1173	0	0	5881695	5538462	6461538
8	1113604	3	19	95	1008	1914	1387	6996472	6461539	7384615
9	1035944	2	19	100	1116	1291	0	8036725	7384616	8307692
10	414816	2	19	95	1832	1707	0	8459948	8307693	9230769
11	1364723	1	19	85	1334	0	0	9822210	9230770	10153846
12	965361	2	19	80	1933	1560	0	10788905	10153847	11076923
13	336552	2	19	85	1855	1261	0	11128950	11076924	12000000

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

### Type 5 Radar Waveform\_30

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	399353	3	17	60	1148	1118	1900	399353	0	599999
2	566183	2	17	100	1746	1530	0	969702	600000	1199999
3	802730	3	17	85	1143	1897	1214	1775708	1200000	1799999
4	81766	1	17	65	1948	0	0	1861728	1800000	2399999
5	964208	1	17	60	1260	0	0	2827884	2400000	2999999
6	495542	1	17	100	1303	0	0	3324686	3000000	3599999
7	782588	2	17	65	1383	1493	0	4108577	3600000	4199999
8	295082	2	17	100	1236	1527	0	4406535	4200000	4799999
9	980591	1	17	80	1977	0	0	5369889	4800000	5399999
10	520258	2	17	65	1088	1763	0	5892124	5400000	5999999
11	187569	2	17	80	1244	1789	0	6082544	6000000	6599999
12	928293	3	17	75	1755	1648	1267	7013870	6600000	7199999
13	755138	3	17	95	1532	1845	1646	7773678	7200000	7799999
14	315557	1	17	70	1826	0	0	8094258	7800000	8399999
15	483223	3	17	85	1312	1695	1273	8579307	8400000	8999999
16	442825	1	17	100	1034	0	0	9026412	9000000	9599999
17	673230	2	17	90	1362	1931	0	9700676	9600000	10199999
18	1071489	2	17	100	1100	1919	0	10775458	10200000	10799999
19	510479	3	17	50	1020	1464	1782	11288956	10800000	11399999
20	429568	3	17	55	1165	1881	1799	11722790	11400000	11999999

Total number of pulses in waveform = 41  
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## Radar Type 6 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	1=Detection 0=No Detection	Trail #	Test Freq. (MHz)	1=Detection 0=No Detection
1	5494	1	16	5530	1
2	5495	1	17	5534	1
3	5496	1	18	5538	1
4	5498	1	19	5542	1
5	5502	1	20	5546	1
6	5506	1	21	5548	1
7	5508	1	22	5550	1
8	5510	1	23	5550	1
9	5510	1	24	5554	1
10	5514	1	25	5558	1
11	5518	1	26	5560	1
12	5522	1	27	5564	1
13	5526	1	28	5565	1
14	5528	1	29	5566	1
15	5530	1	30	5566	1
Detection Percentage (%)					100%

Radar waveform #1			Radar waveform #2		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
11	5486	33	0	5485	0
15	5509	45	3	5495	9
19	5523	57	7	5508	21
21	5471	63	17	5474	51
29	5475	87	20	5504	60
30	5493	90	21	5489	63
37	5468	111	50	5513	150
43	5465	129	60	5466	180
48	5466	144	70	5478	210
70	5476	210	77	5506	231
76	5464	228	85	5480	255
78	5496	234	89	5516	267
80	5506	240	96	5512	288
89	5524	267	--	--	--
92	5515	276	--	--	--
96	5484	288	--	--	--



Radar waveform #3			Radar waveform #4		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
9	5521	27	9	5501	27
18	5465	54	21	5481	63
21	5480	63	31	5471	93
25	5490	75	39	5498	117
27	5477	81	42	5507	126
32	5524	96	46	5521	138
39	5503	117	55	5491	165
40	5515	120	64	5519	192
43	5508	129	71	5524	213
60	5488	180	80	5525	240
72	5484	216	86	5470	258
75	5472	225	88	5523	264
78	5479	234	89	5522	267
97	5487	291	94	5492	282
--	--	--	95	5516	285

Radar waveform #5			Radar waveform #6		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
14	5529	42	2	5519	6
41	5530	123	11	5506	33
49	5476	147	15	5524	45
65	5509	195	16	5528	48
71	5511	213	29	5507	87
83	5500	249	46	5491	138
85	5497	255	54	5492	162
93	5487	279	59	5487	177
96	5504	288	70	5476	210
--	--	--	81	5513	243
--	--	--	84	5536	252
--	--	--	88	5511	264
--	--	--	95	5529	285

Radar waveform #7			Radar waveform #8		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
1	5524	3	16	5525	48
4	5535	12	28	5531	84
14	5493	42	29	5526	87
22	5536	66	41	5534	123
26	5507	78	42	5488	126
36	5505	108	64	5482	192
37	5538	111	66	5538	198
56	5501	168	70	5504	210
74	5502	222	83	5530	249
75	5483	225	--	--	--
80	5499	240	--	--	--
85	5492	255	--	--	--
95	5527	285	--	--	--

Radar waveform #9			Radar waveform #10		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
2	5530	6	2	5514	6
6	5490	18	4	5541	12
10	5493	30	10	5485	30
12	5505	36	19	5501	57
17	5494	51	31	5513	93
23	5486	69	65	5536	195
30	5513	90	68	5538	204
40	5506	120	82	5496	246
51	5489	153	--	--	--
52	5533	156	--	--	--
54	5520	162	--	--	--
88	5510	264	--	--	--

Radar waveform #11			Radar waveform #12		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
29	5522	87	1	5541	3
33	5536	99	8	5521	24
52	5500	156	15	5540	45
64	5502	192	19	5548	57
66	5530	198	29	5536	87
70	5490	210	35	5542	105
82	5524	246	36	5520	108
83	5532	249	38	5533	114
87	5528	261	46	5543	138
89	5523	267	47	5551	141
92	5541	276	54	5535	162
--	--	--	56	5500	168
--	--	--	60	5545	180
--	--	--	63	5527	189
--	--	--	86	5496	258
--	--	--	94	5493	282



Radar waveform #13			Radar waveform #14		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
1	5498	3	4	5538	12
32	5544	96	13	5542	39
34	5532	102	14	5519	42
37	5547	111	31	5526	93
45	5528	135	32	5521	96
46	5513	138	36	5533	108
49	5509	147	37	5502	111
54	5501	162	45	5508	135
57	5549	171	50	5529	150
58	5514	174	52	5552	156
64	5554	192	56	5510	168
73	5540	219	64	5527	192
83	5529	249	68	5505	204
96	5500	288	79	5500	237
97	5508	291	82	5501	246
99	5537	297	91	5532	273
--	--	--	97	5545	291

Radar waveform #15			Radar waveform #16		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
2	5558	6	11	5530	33
28	5551	84	27	5527	81
30	5510	90	30	5532	90
31	5556	93	39	5546	117
38	5506	114	41	5513	123
68	5516	204	52	5547	156
73	5522	219	61	5549	183
74	5520	222	70	5521	210
93	5502	279	85	5558	255
95	5512	285	91	5536	273
96	5533	288	--	--	--
99	5557	297	--	--	--

Radar waveform #17			Radar waveform #18		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
0	5553	0	1	5553	3
8	5504	24	11	5561	33
15	5550	45	30	5518	90
19	5542	57	31	5521	93
21	5561	63	34	5547	102
29	5539	87	37	5515	111
38	5529	114	38	5533	114
52	5505	156	53	5509	159
55	5545	165	62	5565	186
59	5560	177	71	5511	213
67	5516	201	78	5534	234
78	5563	234	79	5539	237
81	5519	243	88	5531	264
86	5541	258	97	5552	291
92	5507	276	--	--	--

Radar waveform #19			Radar waveform #20		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
3	5543	9	0	5567	0
4	5515	12	12	5520	36
5	5519	15	24	5535	72
6	5547	18	45	5533	135
7	5555	21	52	5536	156
13	5516	39	69	5534	207
20	5553	60	80	5539	240
22	5566	66	87	5576	261
28	5525	84	89	5529	267
37	5559	111	--	--	--
47	5561	141	--	--	--
51	5532	153	--	--	--
58	5526	174	--	--	--
63	5529	189	--	--	--
79	5537	237	--	--	--
86	5572	258	--	--	--
98	5514	294	--	--	--



Radar waveform #21			Radar waveform #22		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
3	5554	9	12	5527	36
5	5579	15	16	5544	48
10	5566	30	34	5568	102
11	5539	33	63	5520	189
24	5537	72	68	5523	204
26	5530	78	71	5533	213
29	5552	87	74	5547	222
34	5572	102	86	5552	258
39	5526	117	87	5534	261
50	5574	150	96	5535	288
77	5571	231	--	--	--
80	5531	240	--	--	--
91	5564	273	--	--	--
94	5576	282	--	--	--
98	5567	294	--	--	--
99	5535	297	--	--	--



Radar waveform #23			Radar waveform #24		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
12	5520	36	6	5556	18
14	5524	42	14	5543	42
15	5572	45	17	5534	51
21	5567	63	18	5572	54
35	5547	105	23	5568	69
46	5522	138	26	5582	78
61	5531	183	28	5580	84
87	5562	261	30	5570	90
89	5541	267	32	5537	96
96	5575	288	44	5528	132
--	--	--	55	5549	165
--	--	--	70	5581	210
--	--	--	71	5546	213
--	--	--	75	5584	225
--	--	--	79	5557	237
--	--	--	83	5532	249
--	--	--	89	5577	267
--	--	--	92	5525	276

Radar waveform #25			Radar waveform #26		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
5	5563	15	1	5531	3
7	5559	21	4	5562	12
20	5565	60	6	5537	18
31	5587	93	8	5538	24
47	5571	141	18	5547	54
54	5578	162	24	5550	72
66	5569	198	29	5551	87
68	5573	204	36	5567	108
97	5575	291	37	5554	111
--	--	--	39	5588	117
--	--	--	40	5571	120
--	--	--	41	5579	123
--	--	--	42	5575	126
--	--	--	47	5544	141
--	--	--	57	5539	171
--	--	--	58	5572	174
--	--	--	66	5553	198
--	--	--	67	5533	201
--	--	--	69	5565	207
--	--	--	75	5587	225
--	--	--	77	5552	231
--	--	--	87	5556	261
--	--	--	95	5574	285
--	--	--	99	5566	297

Radar waveform #27			Radar waveform #28		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
5	5557	15	5	5585	15
25	5539	75	10	5536	30
27	5569	81	27	5557	81
52	5545	156	29	5556	87
65	5551	195	32	5544	96
73	5594	219	44	5594	132
92	5564	276	49	5566	147
--	--	--	54	5541	162
--	--	--	59	5545	177
--	--	--	62	5539	186
--	--	--	63	5550	189
--	--	--	83	5565	249
--	--	--	91	5571	273

Radar waveform #29			Radar waveform #30		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
10	5564	30	3	5579	9
14	5555	42	4	5578	12
36	5590	108	9	5580	27
40	5570	120	12	5569	36
50	5586	150	21	5585	63
66	5575	198	42	5560	126
81	5543	243	49	5555	147
88	5595	264	56	5576	168
93	5542	279	83	5556	249
99	5556	297	87	5588	261
10	5564	30	88	5583	264



**Test Mode 3**

Statistical Performance Check for 802.11a

Radar Type 1 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5292	1	658	81	1
2	5292	1	878	61	1
3	5292	1	518	102	1
4	5293	1	918	58	1
5	5293	1	598	89	1
6	5293	1	578	92	1
7	5294	1	758	70	1
8	5295	1	618	86	1
9	5296	1	718	74	1
10	5297	1	678	78	1
11	5298	1	838	63	1
12	5299	1	738	72	1
13	5300	1	698	76	1
14	5300	1	938	57	1
15	5300	1	858	62	1
16	5300	1	2916	19	1
17	5300	1	2898	19	1
18	5301	1	1996	27	1
19	5302	1	1194	45	1
20	5303	1	1003	53	1
21	5304	1	988	54	1
22	5305	1	1821	29	1
23	5306	1	2390	23	1
24	5307	1	925	58	1
25	5307	1	1006	53	1
26	5307	1	2179	25	1
27	5307	1	974	55	1
28	5308	1	1992	27	1
29	5308	1	2881	19	1
30	5308	1	1698	32	1
Detection Percentage (%)					100%

## Radar Type 2 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5292	1.0	191	25	1
2	5292	4.6	221	23	1
3	5292	1.7	176	28	1
4	5293	2.6	159	26	1
5	5293	2.4	218	29	1
6	5293	1.3	220	24	1
7	5294	1.1	191	28	1
8	5295	1.1	212	26	1
9	5296	3.0	196	23	1
10	5297	2.8	184	25	1
11	5298	3.8	160	23	1
12	5299	2.7	213	28	1
13	5300	4.5	206	29	1
14	5300	2.7	163	28	1
15	5300	3.2	204	28	1
16	5300	4.9	165	24	1
17	5300	2.6	161	24	1
18	5301	2.0	185	26	1
19	5302	4.0	166	26	1
20	5303	4.6	162	28	1
21	5304	4.2	194	29	1
22	5305	3.8	185	24	1
23	5306	1.3	170	29	1
24	5307	1.4	160	28	1
25	5307	3.3	151	27	1
26	5307	3.3	227	29	1
27	5307	1.3	191	23	1
28	5308	4.9	224	23	1
29	5308	2.0	228	27	1
30	5308	1.6	180	29	1
Detection Percentage (%)					100%



## Radar Type 3 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5292	7.4	328	17	1
2	5292	6.5	296	17	1
3	5292	8.6	466	17	1
4	5293	7.7	466	17	1
5	5293	7.5	438	17	1
6	5293	8.8	268	16	1
7	5294	8.3	352	18	1
8	5295	9.5	475	18	1
9	5296	9.6	401	17	1
10	5297	7.5	395	18	1
11	5298	9.4	300	16	1
12	5299	7.4	271	16	1
13	5300	6.0	395	16	1
14	5300	9.8	278	16	1
15	5300	8.1	298	18	1
16	5300	9.0	434	17	1
17	5300	6.9	286	16	1
18	5301	9.8	377	16	1
19	5302	9.4	379	18	1
20	5303	6.1	378	18	1
21	5304	7.8	345	17	1
22	5305	7.1	382	17	1
23	5306	6.7	483	16	1
24	5307	9.3	388	18	1
25	5307	9.7	251	18	1
26	5307	7.9	341	17	1
27	5307	9.6	384	17	1
28	5308	8.4	473	17	1
29	5308	7.5	458	17	1
30	5308	9.3	440	17	1
Detection Percentage (%)					100%

## Radar Type 4 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5292	18.3	411	14	1
2	5292	17.3	395	13	1
3	5292	17.2	433	12	1
4	5293	11.0	421	13	1
5	5293	12.1	285	14	1
6	5293	13.1	261	13	1
7	5294	17.6	396	12	1
8	5295	19.6	358	12	1
9	5296	13.7	414	14	1
10	5297	15.3	405	14	1
11	5298	14.4	400	12	1
12	5299	13.2	490	16	1
13	5300	18.8	435	15	1
14	5300	14.4	400	16	1
15	5300	13.9	317	12	1
16	5300	12.2	338	12	1
17	5300	15.6	345	14	1
18	5301	11.6	263	15	1
19	5302	18.8	351	16	1
20	5303	11.3	253	15	1
21	5304	17.2	489	12	1
22	5305	18.5	263	14	1
23	5306	14.5	262	12	1
24	5307	14.4	422	12	1
25	5307	12.8	433	14	1
26	5307	17.6	469	13	1
27	5307	18.0	259	13	1
28	5308	17.5	463	16	1
29	5308	13.3	262	12	1
30	5308	14.8	323	15	1
Detection Percentage (%)					100%

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

waveforms is as follows:  $\frac{P_d1 + P_d2 + P_d3 + P_d4}{4} = (100\% + 100\% + 100\% + 100\%) / 4 = 100\% (>80\%)$





Radar Type 5 - Radar Statistical Performance

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

Type 5 Radar Waveform_1										
Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	30480	18	18	80	1848	1159	0	30480	0	666666
2	1133391	2	18	70	1009	1861	0	1166878	666667	1333333
3	722870	3	18	90	1973	1178	1562	1892618	1333334	2000000
4	194556	2	18	100	1639	1635	0	2091887	2000001	2666667
5	1027703	2	18	85	1403	1542	0	3122864	2666668	3333334
6	543823	1	18	55	1687	0	0	3669632	3333335	4000001
7	396889	1	18	85	1044	0	0	4068208	4000002	4666668
8	1180719	3	18	50	1816	1555	1897	5249971	4666669	5333335
9	364725	3	18	85	1519	1301	1154	5619964	5333336	6000002
10	473617	3	18	95	1467	1349	1640	6097555	6000003	6666669
11	641840	3	18	85	1986	1610	1973	6743851	6666670	7333336
12	1162137	1	18	70	1530	0	0	7911557	7333337	8000003
13	445491	1	18	95	1401	0	0	8358578	8000004	8666670
14	486642	2	18	70	1574	1668	0	8846621	8666671	9333337
15	815877	3	18	95	1564	1629	1474	9665740	9333338	10000004
16	667702	2	18	90	1031	1432	0	10338109	10000005	10666671
17	950092	3	18	80	1067	1152	1229	11290664	10666672	11333338
18	353503	1	18	75	1553	0	0	11647615	11333339	12000005
Total number of pulses in waveform = 38										
*****										



### Type 5 Radar Waveform\_2

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	244555	1	12	50	1361	0	0	244555	0	857142
2	860388	2	12	90	1340	1317	0	1106304	857143	1714285
3	873818	2	12	60	1073	1609	0	1982779	1714286	2571428
4	1002757	3	12	100	1343	1408	1463	2988218	2571429	3428571
5	646711	1	12	50	1187	0	0	3639143	3428572	4285714
6	1361594	2	12	65	1344	1136	0	5001924	4285715	5142857
7	684880	2	12	50	1072	1806	0	5689284	5142858	6000000
8	915295	2	12	50	1333	1465	0	6607457	6000001	6857143
9	928366	3	12	65	1962	1883	1930	7538621	6857144	7714286
10	264375	3	12	60	1497	1965	1932	7808771	7714287	8571429
11	1379124	3	12	60	1411	1681	1973	9193289	8571430	9428572
12	1037192	3	12	85	1470	1210	1068	10235546	9428573	10285715
13	723657	3	12	95	1939	1845	1111	10962951	10285716	11142858
14	247023	3	12	60	1420	1775	1513	11214869	11142859	12000001

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

### Type 5 Radar Waveform\_3

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	525394	2	9	65	1816	1049	0	525394	0	705881
2	457634	3	9	95	1796	1898	1202	985893	705882	1411763
3	841439	2	9	85	1516	1221	0	1832228	1411764	2117645
4	597324	3	9	90	1363	1291	1427	2432289	2117646	2823527
5	853811	2	9	90	1683	1532	0	3290181	2823528	3529409
6	298456	1	9	60	1681	0	0	3591852	3529410	4235291
7	786706	3	9	100	1684	1960	1152	4380239	4235292	4941173
8	1078487	1	9	70	1730	0	0	5463522	4941174	5647055
9	513649	1	9	90	1095	0	0	5978901	5647056	6352937
10	645222	1	9	70	1787	0	0	6625218	6352938	7058819
11	928218	2	6	60	1346	1019	0	7555223	7058820	7764701
12	303735	3	9	65	1057	1165	1314	7861323	7764702	8470583
13	949211	3	9	55	1337	1640	1012	8814070	8470584	9176465
14	499557	3	9	90	1734	1681	1509	9317616	9176466	9882347
15	887407	1	9	50	1467	0	0	10209947	9882348	10588229
16	677963	3	9	1295	1223	1949	10889377	10889377	10588230	11294111
17	680154	2	9	60	1224	1347	0	11573998	11294112	11999993

Total number of pulses in waveform = 36  
\*\*\*\*\*

### Type 5 Radar Waveform\_4

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	539749	3	5	50	1758	1571	1196	539749	0	631578
2	230388	1	5	75	1069	0	0	774602	631579	1263157
3	927407	3	5	65	1635	1319	1498	1703078	1263158	1894736
4	624468	2	5	65	1548	1635	0	2331988	1894737	2526315
5	623497	3	5	95	1266	1785	1209	2958668	2526316	3157894
6	595355	3	5	50	1748	1360	1490	3558283	3157895	3789473
7	325848	1	5	80	1557	0	0	3888729	3789474	4421052
8	702271	3	5	70	1217	1176	1118	4592557	4421053	5052631
9	691893	2	5	95	1698	1298	0	5287961	5052632	5684210
10	798038	3	5	80	1019	1686	1031	6088995	5684211	6315789
11	563355	3	5	100	1465	1218	1885	6656086	6315790	6947368
12	706890	1	5	50	1268	0	0	7367544	6947369	7578947
13	675592	1	5	80	1648	0	0	8044404	7578948	8210526
14	186277	3	5	60	1543	1114	1239	8232329	8210527	8842105
15	1190193	1	5	65	1327	0	0	9426418	8842106	9473684
16	456550	2	5	55	1248	1280	0	9884295	9473685	10105263
17	545015	3	5	75	1104	1589	1968	10431838	10105264	10736842
18	591858	1	5	80	1211	0	0	11028357	10736843	11368421
19	641099	1	5	70	1017	0	0	11670667	11368422	12000000

Total number of pulses in waveform = 40  
\*\*\*\*\*



### Type 5 Radar Waveform\_5

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	606941	1	14	95	1657	0	0	606941	0	666666
2	452184	1	14	50	1840	0	0	1060782	666667	1333333
3	394444	3	14	95	1349	1091	1875	1457066	1333334	2000000
4	881191	1	14	50	1734	0	0	2342572	2000001	2666667
5	745141	3	14	65	1288	1480	1842	3089447	2666668	3333334
6	877819	2	14	95	1972	1946	0	3971876	3333335	4000001
7	127833	2	14	90	1295	1657	0	4103627	4000002	4666668
8	992199	3	14	55	1239	1256	1434	5098778	4666669	5333335
9	607946	2	14	55	1388	1730	0	5710653	5333336	6000002
10	418927	2	14	75	1907	1661	0	6132698	6000003	6666669
11	680924	3	14	75	1612	1813	1806	6817190	6666670	7333336
12	1144867	1	14	55	1695	0	0	7967288	7333337	8000003
13	208340	3	14	70	1217	1929	1417	8177323	8000004	8666670
14	1004908	1	14	90	1559	0	0	9186794	8666671	9333337
15	299756	3	14	70	1447	1532	1476	9488109	9333338	10000004
16	853869	2	14	80	1730	1194	0	10346433	10000005	10666671
17	940916	1	14	60	1117	0	0	11290273	10666672	11333338
18	278237	3	14	80	1550	1873	1132	11569627	11333339	12000005

Total number of pulses in waveform = 37  
\*\*\*\*\*

### Type 5 Radar Waveform\_6

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	134260	2	17	95	1016	1539	0	134260	0	705881
2	662072	1	17	80	1945	0	0	798887	705882	1411763
3	1164729	1	17	75	1876	0	0	1965561	1411764	2117645
4	842203	1	17	50	1452	0	0	2809640	2117646	2823527
5	332231	2	17	50	1901	1657	0	3143323	2823528	3529409
6	565716	3	17	70	1717	1019	1313	3712597	3529410	4235291
7	1153398	2	17	60	1189	1097	0	4870044	4235292	4941173
8	622243	1	17	85	1776	0	0	5494573	4941174	5647055
9	300958	2	17	80	1062	1372	0	5797307	5647056	6352937
10	649044	1	17	85	1970	0	0	6448785	6352938	7058819
11	1278271	3	17	80	1688	1833	1884	7729026	7058820	7764701
12	116173	3	17	80	1765	1928	1683	7850604	7764702	8470583
13	881469	2	17	50	1118	1333	0	8737449	8470584	9176465
14	1065567	2	17	65	1811	1021	0	9805467	9176466	9882347
15	244290	2	17	90	1731	1562	0	10052589	9882348	10588229
16	1196945	3	17	55	1949	1050	1226	11252827	10588230	11294111
17	52453	3	17	70	1682	1904	1568	11309505	11294112	11999993

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

### Type 5 Radar Waveform\_7

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	360001	2	6	80	1969	1144	0	360001	0	666666
2	789732	1	6	65	1890	0	0	1152846	666667	1333333
3	202924	1	6	75	1368	0	0	1357660	1333334	2000000
4	961639	1	6	85	1176	0	0	2320657	2000001	2666667
5	383257	2	6	80	1033	1910	0	2705090	2666668	3333334
6	1073826	3	6	65	1422	1636	1080	3781859	3333335	4000001
7	560625	2	6	100	1216	1797	0	4346622	4000002	4666668
8	600773	3	6	80	1447	1221	1274	4950408	4666669	5333335
9	911729	3	6	65	1968	1706	1996	5866079	5333336	6000002
10	552026	3	6	55	1427	1970	1846	6423775	6000003	6666669
11	324847	1	6	85	1481	0	0	6753865	6666670	7333336
12	1067124	1	6	70	1266	0	0	7822470	7333337	8000003
13	645026	2	6	75	1938	1716	0	8468752	8000004	8666670
14	291244	3	6	50	1121	1760	1671	8763650	8666671	9333337
15	748147	1	6	70	1845	0	0	9516349	9333338	10000004
16	1010041	1	6	95	1018	0	0	10528235	10000005	10666671
17	186834	1	6	95	1932	0	0	10716087	10666672	11333338
18	781867	1	6	65	1858	0	0	11499886	11333339	12000005

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



### Type 5 Radar Waveform\_8

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	318998	1	8	60	1932	0	0	318998	0	999999
2	983360	3	8	50	1921	1321	1791	1304290	1000000	1999999
3	1413099	1	8	50	1832	0	0	2722422	2000000	2999999
4	807669	3	8	60	1932	1706	1134	3531923	3000000	3999999
5	1029085	2	8	70	1937	1094	0	4565780	4000000	4999999
6	611147	3	8	95	1004	1036	1187	5179958	5000000	5999999
7	1184237	1	8	50	1789	0	0	6367422	6000000	6999999
8	703982	3	8	60	1303	1425	1914	7073193	7000000	7999999
9	1848972	1	8	75	1272	0	0	8926807	8000000	8999999
10	960578	3	8	85	1874	1676	1025	9888657	9000000	9999999
11	1086616	3	8	65	1358	1751	1784	10979848	10000000	10999999
12	220008	2	8	75	1918	1143	0	11204749	11000000	11999999

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

### Type 5 Radar Waveform\_9

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	535366	1	19	55	1631	0	0	535366	0	799999
2	689683	3	19	75	1448	1604	1229	1206680	800000	1599999
3	1169813	3	19	90	1179	1076	1119	2380774	1600000	2399999
4	745098	3	19	85	1982	1843	1866	3129246	2400000	3199999
5	166198	2	19	70	1373	1013	0	3301135	3200000	3999999
6	813479	2	19	50	1139	1507	0	4117000	4000000	4799999
7	1102431	1	19	65	1306	0	0	5222077	4800000	5599999
8	1119759	2	19	100	1311	1421	0	6343142	5600000	6399999
9	447168	3	19	90	1768	1917	1220	6793042	6400000	7199999
10	609987	3	19	50	1955	1527	1187	7407934	7200000	7999999
11	843390	1	19	65	1445	0	0	8255993	8000000	8799999
12	688912	2	19	90	1300	1799	0	8956350	8800000	9599999
13	892155	2	19	85	1896	1698	0	9851604	9600000	10399999
14	926239	1	19	70	1611	0	0	10781437	10400000	11199999
15	1029669	1	19	60	1881	0	0	11812717	11200000	11999999

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

### Type 5 Radar Waveform\_10

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	929330	3	10	75	1001	1621	1581	929330	0	999999
2	295709	1	10	60	1269	0	0	1229242	1000000	1999999
3	1090736	2	10	80	1352	1263	0	2321247	2000000	2999999
4	1535456	2	10	70	1131	1149	0	3859318	3000000	3999999
5	158776	2	10	50	1906	1441	0	4020374	4000000	4999999
6	1773835	2	10	55	1056	1230	0	5797556	5000000	5999999
7	535808	1	10	75	1164	0	0	6335650	6000000	6999999
8	737123	1	10	95	1386	0	0	7073937	7000000	7999999
9	1574160	2	10	90	1011	1657	0	8649483	8000000	8999999
10	878950	1	10	50	1245	0	0	9531101	9000000	9999999
11	1231317	1	10	50	1306	0	0	10763663	10000000	10999999
12	1081628	1	10	85	1815	0	0	11846597	11000000	11999999

Total number of pulses in waveform = 19  
\*\*\*\*\*



### Type 5 Radar Waveform\_11

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	444455	1	10	60	1478	0	0	444455	0	857142
2	1232737	1	10	75	1279	0	0	1678670	857143	1714285
3	320608	2	10	60	1081	1177	0	2000557	1714286	2571428
4	1191315	3	10	95	1314	1272	1044	3194130	2571429	3428571
5	330177	3	10	95	1165	1968	1030	3527937	3428572	4285714
6	1338447	3	10	60	1553	1047	1118	4870547	4285715	5142857
7	1014383	1	10	95	1189	0	0	5888648	5142858	6000000
8	510387	3	10	80	1101	1971	1394	6400224	6000001	6857143
9	1029128	3	10	75	1826	1746	1540	7433818	6857144	7714286
10	823112	1	10	80	1022	0	0	8262042	7714287	8571429
11	697390	3	10	50	1771	1431	1675	8960454	8571430	9428572
12	1194571	1	10	65	1762	0	0	10159902	9428573	10285715
13	756246	3	10	80	1104	1876	1751	10917910	10285716	11142858
14	586093	2	10	70	1029	1802	0	11508734	11142859	12000001

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

### Type 5 Radar Waveform\_12

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	1276637	3	9	55	1114	1988	1359	1276637	0	1333332
2	1123001	3	9	55	1195	1175	1573	2404099	1333333	2666665
3	1264897	2	9	75	1545	1338	0	3672939	2666666	3999998
4	674540	1	9	100	1486	0	0	4350362	3999999	5333331
5	2037797	2	9	70	1987	1138	0	6389645	5333332	6666664
6	1240827	2	9	95	1597	1296	0	7633597	6666665	7999997
7	808763	1	9	50	1480	0	0	8445253	7999998	9333330
8	1188842	3	9	70	1119	1436	1746	9635575	9333331	10666663
9	2121689	3	9	55	1042	1764	1041	11761565	10666664	11999996

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

### Type 5 Radar Waveform\_13

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	137139	1	5	75	1351	0	0	137139	0	749999
2	803977	3	5	55	1222	1122	1713	942467	750000	1499999
3	1119818	1	5	50	1740	0	0	2066342	1500000	2249999
4	310138	3	5	50	1581	1502	1948	2378220	2250000	2999999
5	1167666	1	5	80	1120	0	0	3550917	3000000	3749999
6	256102	1	5	65	1517	0	0	3808139	3750000	4499999
7	720596	3	5	55	1781	1087	1832	4530252	4500000	5249999
8	1205068	3	5	55	1388	1963	1427	5740018	5250000	5999999
9	495743	2	5	85	1603	1418	0	6240539	6000000	6749999
10	761155	2	5	70	1749	1425	0	7004715	6750000	7499999
11	668897	1	5	90	1291	0	0	7676786	7500000	8249999
12	1161035	3	5	70	1114	1866	1967	8839112	8250000	8999999
13	750768	2	5	60	1863	1532	0	9594827	9000000	9749999
14	796888	1	5	65	1189	0	0	10395110	9750000	10499999
15	574866	1	5	70	1526	0	0	10971165	10500000	11249999
16	301464	1	5	90	1184	0	0	11274155	11250000	11999999

Total number of pulses in waveform = 29  
\*\*\*\*\*



### Type 5 Radar Waveform\_14

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	808520	1	14	55	1798	0	0	808520	0	923076
2	762801	1	14	55	1875	0	0	1573119	923077	1846153
3	759972	1	14	85	1627	0	0	2334966	1846154	2769230
4	451580	3	14	95	1609	1925	1726	2788173	2769231	3692307
5	1385463	1	14	65	1164	0	0	4178896	3692308	4615384
6	1025946	3	14	55	1935	1918	1590	5206006	4615385	5538461
7	364744	2	14	70	1290	1278	0	5576193	5538462	6461538
8	1676938	1	14	80	1688	0	0	7255699	6461539	7384615
9	368908	3	14	75	1754	1454	1119	7626295	7384616	8307692
10	1546365	1	14	85	1830	0	0	9176987	8307693	9230769
11	321468	3	14	80	1639	1972	1797	9500285	9230770	10153846
12	837873	2	14	65	1984	1106	0	10343566	10153847	11076923
13	1441631	3	14	90	1192	1947	1160	11788287	11076924	12000000

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

### Type 5 Radar Waveform\_15

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	416975	3	19	70	1478	1554	1067	416975	0	857142
2	1183681	3	19	70	1568	1798	1355	1604755	857143	1714285
3	550868	3	19	90	1109	1010	1022	2160344	1714286	2571428
4	1087642	2	19	95	1561	1048	0	3251127	2571429	3428571
5	523581	2	19	70	1665	1186	0	3777317	3428572	4285714
6	939000	1	19	100	1557	0	0	4719168	4285715	5142857
7	488452	3	19	95	1884	1352	1501	5209177	5142858	6000000
8	805718	1	19	85	1233	0	0	6019632	6000001	6857143
9	895848	2	19	60	1681	1353	0	6916713	6857144	7714286
10	885430	2	19	65	1967	1665	0	7805177	7714287	8571429
11	1543937	2	19	50	1814	1304	0	9352646	8571430	9428572
12	224772	2	19	70	1379	1225	0	9580536	9428573	10285715
13	1079135	1	19	70	1100	0	0	10662275	10285716	11142858
14	1245012	1	19	75	1216	0	0	11908387	11142859	12000001

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

### Type 5 Radar Waveform\_16

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	113569	2	6	60	1388	1817	0	113569	0	999999
2	1319701	2	6	75	1360	1868	0	1436475	1000000	1999999
3	630203	3	6	70	1717	1396	1426	2069906	2000000	2999999
4	1770943	1	6	90	1749	0	0	3845388	3000000	3999999
5	454193	1	6	80	1668	0	0	4301330	4000000	4999999
6	1288962	1	6	90	1719	0	0	5691960	5000000	5999999
7	972015	1	6	50	1701	0	0	6666694	6000000	6999999
8	983075	3	6	100	1320	1487	1511	7550470	7000000	7999999
9	956867	1	6	70	1031	0	0	8511655	8000000	8999999
10	1321852	1	6	95	1712	0	0	9834538	9000000	9999999
11	196907	2	6	90	1918	1453	0	10033157	10000000	10999999
12	969561	3	6	85	1981	1390	1216	11006089	11000000	11999999

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



### Type 5 Radar Waveform\_17

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	703028	1	18	90	1051	0	0	703028	0	705881
2	139564	2	18	60	1586	1882	0	843643	705882	1411763
3	1109081	2	18	65	1456	1376	0	1956192	1411764	2117645
4	506744	2	18	50	1622	1569	0	2465768	2117646	2823527
5	927132	2	18	80	1873	1368	0	3396091	2823528	3529409
6	645470	1	18	100	1334	0	0	4044802	3529410	4235291
7	567066	3	18	90	1638	1375	1452	4613202	4235292	4941173
8	875370	3	18	100	1482	1031	1478	5493037	4941174	5647055
9	474598	1	18	60	1351	0	0	5971626	5647056	6352937
10	1035716	3	18	65	1495	1112	1625	7008693	6352938	7058819
11	147064	2	18	55	1264	1674	0	7159989	7058820	7764701
12	1107619	1	18	85	1894	0	0	8270546	7764702	8470583
13	396184	1	18	75	1176	0	0	8670624	8470584	9176465
14	590806	2	18	60	1137	1868	0	9262606	9176466	9882347
15	1250981	3	18	100	1463	1033	1071	10516592	9882348	10588229
16	185843	1	18	55	1814	0	0	10706002	10588230	11294111
17	1189928	3	18	90	1536	1095	1777	11897744	11294112	11999993

Total number of pulses in waveform = 33  
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### Type 5 Radar Waveform\_18

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	310543	1	8	65	1038	0	0	310543	0	749999
2	1003908	2	8	65	1669	1413	0	1315489	750000	1499999
3	249243	3	8	80	1044	1496	1252	1667814	1500000	2249999
4	1332330	3	8	100	1290	290936	1280	290936	2250000	2999999
5	245575	3	8	60	1107	1963	1763	3153589	3000000	3749999
6	852929	2	8	90	1796	1301	0	4011351	3750000	4499999
7	1080639	1	8	85	1844	0	0	5095087	4500000	5249999
8	259623	3	8	95	1093	1141	1942	5356554	5250000	5999999
9	864244	2	8	100	1103	1119	0	6224974	6000000	6749999
10	549429	1	8	100	1468	0	0	6776625	6750000	7499999
11	1325965	2	8	95	1698	1778	0	8104058	7500000	8249999
12	344766	3	8	60	1197	1586	1838	8452300	8250000	8999999
13	576015	1	8	65	1872	0	0	9032936	9000000	9749999
14	1006864	1	8	80	1021	0	0	10041672	9750000	10499999
15	1129901	2	8	80	1935	1043	0	11172594	10500000	11249999
16	468781	2	8	70	1869	1016	0	11644353	11250000	11999999

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

### Type 5 Radar Waveform\_19

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	388040	1	17	70	1122	0	0	388040	0	1499999
2	1463045	2	17	70	1166	1713	0	1852207	1500000	2999999
3	2141112	1	17	80	1646	0	0	3996198	3000000	4499999
4	1391018	2	17	55	1496	1668	0	5388862	4500000	5999999
5	950037	1	17	85	1713	0	0	6342063	6000000	7499999
6	2145235	1	17	70	1868	0	0	8489011	7500000	8999999
7	1951407	2	17	85	1323	1533	0	10442286	9000000	10499999
8	1494352	1	17	75	1571	0	0	11939494	10500000	11999999

Total number of pulses in waveform = 11  
\*\*\*\*\*



### Type 5 Radar Waveform\_20

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	529844	1	12	65	1454	0	0	529844	0	599999
2	257909	3	12	80	1028	1152	1084	789207	600000	1199999
3	501264	3	12	55	1884	1336	1095	1293735	1200000	1799999
4	534502	3	12	80	1538	1712	1018	1832552	1800000	2399999
5	563229	3	12	85	1310	1232	1256	2400049	2400000	2999999
6	917920	3	12	80	1347	1810	1018	3321767	3000000	3599999
7	639949	3	12	75	1908	1666	1649	3965891	3600000	4199999
8	601107	3	12	50	1644	1253	1570	4572221	4200000	4799999
9	500388	1	12	85	1389	0	0	5077076	4800000	5399999
10	854333	3	12	60	1560	1941	1952	5932798	5400000	5999999
11	563023	3	12	50	1192	1295	1438	6501274	6000000	6599999
12	462832	2	12	85	1280	1894	0	6968031	6600000	7199999
13	797018	3	12	70	1333	1256	1343	7768223	7200000	7799999
14	309071	1	12	55	1705	0	0	8081226	7800000	8399999
15	780945	1	12	85	1587	0	0	8863876	8400000	8999999
16	580616	3	12	50	1179	1184	1599	9446079	9000000	9599999
17	721626	1	12	90	1215	0	0	10171667	9600000	10199999
18	106292	3	12	75	1024	1794	1079	10279174	10200000	10799999
19	802463	1	12	50	1136	0	0	11085534	10800000	11399999
20	694231	1	12	85	1758	0	0	11780901	11400000	11999999

Total number of pulses in waveform = 48  
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### Type 5 Radar Waveform\_21

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	614717	2	8	65	1591	1019	0	614717	0	749999
2	733321	1	8	65	1689	0	0	1350648	750000	1499999
3	513842	2	8	65	1617	1713	0	1866179	1500000	2249999
4	757989	2	8	75	1724	1028	0	2627498	2250000	2999999
5	1038895	1	8	70	1449	0	0	3669145	3000000	3749999
6	641222	2	8	60	1572	1517	0	4311816	3750000	4499999
7	374701	3	8	70	1736	1481	1873	4689606	4500000	5249999
8	882142	1	8	50	1194	0	0	5576838	5250000	5999999
9	438643	1	8	70	1510	0	0	6016675	6000000	6749999
10	925083	2	8	100	1047	1688	0	6943268	6750000	7499999
11	1291613	3	8	70	1389	1453	1468	8237616	7500000	8249999
12	551996	1	8	95	1226	0	0	8793922	8250000	8999999
13	854243	3	8	85	1278	1661	1969	9649391	9000000	9749999
14	786126	1	8	80	1835	0	0	10440425	9750000	10499999
15	251853	3	8	50	1202	1003	1347	10694113	10500000	11249999
16	948925	1	8	100	1267	0	0	11646590	11250000	11999999

Total number of pulses in waveform = 29  
\*\*\*\*\*

### Type 5 Radar Waveform\_22

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	451395	1	14	60	1412	0	0	451395	0	857142
2	1011963	3	14	100	1445	1451	1226	1464770	857143	1714285
3	416666	1	14	55	1115	0	0	1885558	1714286	2571428
4	977224	1	14	50	1470	0	0	2863897	2571429	3428571
5	1021547	2	14	75	1779	1764	0	3886914	3428572	4285714
6	668631	2	14	65	1977	1066	0	4559088	4285715	5142857
7	1279793	3	14	75	1819	1169	1495	5841924	5142858	6000000
8	456283	2	14	85	1312	1338	0	6302690	6000001	6857143
9	1016769	1	14	65	1030	0	0	7322109	6857144	7714286
10	750847	2	14	95	1669	1595	0	8073986	7714287	8571429
11	1123905	1	14	65	1974	0	0	9201155	8571430	9428572
12	252153	1	14	95	1691	0	0	9455282	9428573	10285715
13	1544646	2	14	80	1397	1266	0	11001619	10285716	11142858
14	656731	2	14	55	1250	1253	0	11661013	11142859	12000001

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





### Type 5 Radar Waveform\_23

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	662615	3	5	60	1987	1838	1227	662615	0	999999
2	870059	1	5	50	1399	0	0	1537726	1000000	1999999
3	1171170	2	5	55	1435	1875	0	2710295	2000000	2999999
4	1210694	1	5	100	1160	0	0	3924299	3000000	3999999
5	202436	1	5	60	1711	0	0	4127895	4000000	4999999
6	1300259	1	5	90	1106	0	0	5429865	5000000	5999999
7	1281816	2	5	80	1803	1771	0	6712787	6000000	6999999
8	632848	1	5	75	1249	0	0	7349209	7000000	7999999
9	1396149	1	5	100	1210	0	0	8746607	8000000	8999999
10	291864	2	5	50	1576	1391	0	9039681	9000000	9999999
11	1897612	2	5	90	1331	1254	0	10940260	10000000	10999999
12	1052096	3	5	95	1486	1208	1688	11994941	11000000	11999999

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

### Type 5 Radar Waveform\_24

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	351954	1	12	50	1197	0	0	351954	0	749999
2	688499	2	12	70	1044	1932	0	1041650	750000	1499999
3	769727	1	12	50	1541	0	0	1814353	1500000	2249999
4	1015647	2	12	60	1547	1040	0	2831541	2250000	2999999
5	166855	1	12	75	1275	0	0	3000983	3000000	3749999
6	801638	2	12	80	1903	1426	0	3803896	3750000	4499999
7	1338359	2	12	70	1264	1315	0	5145584	4500000	5249999
8	739135	2	12	55	1803	1572	0	5887298	5250000	5999999
9	121543	1	12	50	1169	0	0	6012216	6000000	6749999
10	1085905	1	12	50	1177	0	0	7099290	6750000	7499999
11	486193	1	12	80	1688	0	0	7586660	7500000	8249999
12	787398	2	12	50	1993	1766	0	8375746	8250000	8999999
13	780497	3	12	80	1837	1489	1107	9150002	9000000	9749999
14	630762	3	12	75	1075	1173	1908	9795197	9750000	10499999
15	972478	1	12	50	1639	0	0	10771831	10500000	11249999
16	969836	1	12	95	1321	0	0	11743306	11250000	11999999

Total number of pulses in waveform = 25  
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### Type 5 Radar Waveform\_25

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	27141	1	6	100	1940	0	0	27141	0	666666
2	649814	2	6	85	1336	1201	0	678895	666667	1333333
3	816851	1	6	90	1344	0	0	1498283	1333334	2000000
4	1158272	1	6	100	1890	0	0	2657899	2000001	2666667
5	345586	2	6	75	1695	1249	0	3005375	2666668	3333334
6	390876	3	6	55	1536	1662	1835	3399195	3333335	4000001
7	1256218	2	6	70	1207	1848	0	4660446	4000002	4666668
8	131009	2	6	100	1794	1246	0	4794510	4666669	5333335
9	601876	1	6	95	1481	0	0	5399426	5333336	6000002
10	1249491	3	6	50	1113	1780	1427	6650398	6000003	6666669
11	119677	2	6	55	1415	1424	0	6774395	6666670	7333336
12	606487	3	6	85	1261	1144	1105	7383721	7333337	8000003
13	1024708	2	6	70	1756	1826	0	8411939	8000004	8666670
14	280564	2	6	85	1711	1557	0	8676085	8666671	9333337
15	1303999	2	6	90	1410	1242	0	9983352	9333338	10000004
16	395489	2	6	65	1224	1986	0	10381493	10000005	10666671
17	395149	1	6	90	1949	0	0	10779852	10666672	11333338
18	583435	1	6	50	1116	0	0	11365236	11333339	12000005

Total number of pulses in waveform = 33  
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### Type 5 Radar Waveform\_26

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	747849	2	18	65	1870	1061	0	747849	0	1333332
2	1011154	3	18	50	1727	1344	1524	1761934	1333333	2666665
3	1662306	2	18	100	1086	1349	0	3428835	2666666	3999998
4	789165	1	18	85	1303	0	0	4220435	3999999	5333331
5	2298039	2	18	95	1359	1688	0	6519777	5333332	6666664
6	640289	2	18	60	1989	1393	0	7163113	6666665	7999997
7	2036978	1	18	60	1702	0	0	9203473	7999998	9333330
8	1248938	1	18	75	1604	0	0	10454113	9333331	10666663
9	1209207	3	18	60	1515	1618	1292	11664924	10666664	11999996

Total number of pulses in waveform = 17  
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### Type 5 Radar Waveform\_27

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	426356	1	9	60	1803	0	0	426356	0	1499999
2	1485587	1	9	75	1540	0	0	1913746	1500000	2999999
3	1134472	1	9	70	1259	0	0	3049758	3000000	4499999
4	2086425	1	9	75	1912	0	0	5137442	4500000	5999999
5	1285161	1	9	90	1763	0	0	6424515	6000000	7499999
6	1102636	3	9	95	1785	1159	1050	7528914	7500000	8999999
7	1625796	1	9	65	1397	0	0	9158704	9000000	10499999
8	2502004	3	9	75	1606	1423	1820	11662105	10500000	11999999

Total number of pulses in waveform = 12  
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### Type 5 Radar Waveform\_28

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	68911	3	17	100	1847	1061	1706	68911	0	749999
2	1303210	2	17	100	1791	1883	0	1376735	750000	1499999
3	419518	1	17	75	1209	0	0	1799927	1500000	2249999
4	893073	2	17	60	1619	1025	0	2694209	2250000	2999999
5	861410	1	17	65	1750	0	0	3558263	3000000	3749999
6	344517	3	17	95	1470	1984	1502	3904530	3750000	4499999
7	663313	3	17	95	1749	1117	1496	4572799	4500000	5249999
8	812107	2	17	100	1290	1451	0	5389268	5250000	5999999
9	1023072	1	17	70	1950	0	0	6415081	6000000	6749999
10	455280	1	17	55	1516	0	0	6872311	6750000	7499999
11	1244746	3	17	100	1434	1406	1160	8118573	7500000	8249999
12	377464	1	17	100	1147	0	0	8500037	8250000	8999999
13	542554	3	17	80	1864	1028	1313	9043738	9000000	9749999
14	1028448	1	17	70	1537	0	0	10076391	9750000	10499999
15	596993	2	17	65	1839	1703	0	10674921	10500000	11249999
16	934335	1	17	50	1079	0	0	11612798	11250000	11999999

Total number of pulses in waveform = 30  
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### Type 5 Radar Waveform\_29

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	801567	3	10	95	1756	1319	1599	801567	0	1499999
2	1778646	2	10	90	1037	1220	0	2584887	1500000	2999999
3	1091171	2	10	90	1453	1037	0	3678315	3000000	4499999
4	1086169	2	10	90	1717	1751	0	4766974	4500000	5999999
5	2298764	3	10	65	1523	1484	1896	7069206	6000000	7499999
6	636283	1	10	70	1285	0	0	7710392	7500000	8999999
7	1925219	3	10	55	1064	1270	1055	9636896	9000000	10499999
8	2163311	1	10	70	1633	0	0	11803596	10500000	11999999

Total number of pulses in waveform = 17  
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### Type 5 Radar Waveform\_30

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	766481	2	19	100	1701	1375	0	766481	0	1333332
2	1339217	3	19	80	1706	1966	1361	2108774	1333333	2666665
3	1879978	3	19	85	1074	1699	1453	3993785	2666666	3999998
4	396355	3	19	70	1090	1366	1370	4394366	3999999	5333331
5	1617113	2	19	80	1678	1180	0	6015305	5333332	6666664
6	1437084	1	19	85	1183	0	0	7455247	6666665	7999997
7	578776	2	19	80	1366	1198	0	8035206	7999998	9333330
8	1845609	2	19	65	1626	1306	0	9883379	9333331	10666663
9	1782224	1	19	75	1025	0	0	11668535	10666664	11999996

Total number of pulses in waveform = 19  
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## Radar Type 6 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	1=Detection 0=No Detection	Trail #	Test Freq. (MHz)	1=Detection 0=No Detection
1	5292	1	16	5300	1
2	5292	1	17	5300	1
3	5292	1	18	5301	1
4	5293	1	19	5302	1
5	5293	1	20	5303	1
6	5293	1	21	5304	1
7	5294	1	22	5305	1
8	5295	1	23	5306	1
9	5296	1	24	5307	1
10	5297	1	25	5307	1
11	5298	1	26	5307	1
12	5299	1	27	5307	1
13	5300	1	28	5308	1
14	5300	1	29	5308	1
15	5300	1	30	5308	1
Detection Percentage (%)					100%



Radar waveform #1			Radar waveform #2		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
0	5267	0	10	5319	30
5	5292	15	12	5283	36
16	5298	48	36	5314	108
23	5309	69	39	5298	117
46	5281	138	54	5307	162
51	5316	153	61	5274	183
63	5278	189	66	5273	198
71	5295	213	67	5306	201
72	5308	216	93	5293	279
92	5294	276	98	5310	294

Radar waveform #3			Radar waveform #4		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
2	5314	6	1	5316	3
7	5300	21	4	5313	12
8	5320	24	8	5307	24
10	5312	30	24	5266	72
18	5304	54	32	5305	96
25	5267	75	34	5283	102
30	5299	90	39	5312	117
39	5269	117	49	5310	147
60	5307	180	67	5291	201
65	5272	195	81	5314	243
66	5308	198	85	5279	255
74	5315	222	86	5288	258
78	5311	234	90	5298	270
82	5287	246	--	--	--
89	5316	267	--	--	--
96	5318	288	--	--	--



Radar waveform #5			Radar waveform #6		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
0	5316	0	2	5312	6
14	5273	42	3	5316	9
16	5314	48	8	5321	24
33	5320	99	16	5322	48
36	5297	108	26	5281	78
39	5268	117	35	5309	105
45	5263	135	46	5282	138
49	5301	147	52	5271	156
54	5274	162	62	5308	186
55	5280	165	65	5311	195
62	5302	186	75	5278	225
64	5289	192	76	5286	228
67	5304	201	77	5299	231
68	5265	204	85	5294	255
73	5285	219	--	--	--
75	5266	225	--	--	--
77	5271	231	--	--	--
86	5278	258	--	--	--
89	5308	267	--	--	--
94	5290	282	--	--	--
96	5317	288	--	--	--

Radar waveform #7			Radar waveform #8		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
4	5283	12	4	5276	12
8	5271	24	15	5296	45
9	5323	27	18	5280	54
11	5290	33	27	5310	81
24	5319	72	35	5315	105
30	5291	90	41	5287	123
36	5298	108	45	5293	135
47	5300	141	57	5299	171
72	5279	216	64	5266	192
76	5265	228	73	5289	219
80	5274	240	75	5297	225
86	5311	258	78	5275	234
88	5318	264	--	--	--
89	5277	267	--	--	--
97	5293	291	--	--	--

Radar waveform #9			Radar waveform #10		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
2	5314	6	0	5268	0
3	5303	9	1	5314	3
16	5274	48	31	5277	93
23	5270	69	34	5282	102
28	5309	84	35	5321	105
30	5281	90	44	5318	132
33	5308	99	51	5327	153
35	5321	105	69	5280	207
45	5273	135	80	5279	240
50	5304	150	88	5292	264
51	5307	153	90	5286	270
59	5287	177	94	5273	282
64	5278	192	--	--	--
70	5294	210	--	--	--
91	5302	273	--	--	--



Radar waveform #11			Radar waveform #12		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Frequency (MHz)	Hopping Number	Pulse Start (ms)
10	5318	30	6	5280	18
17	5273	51	9	5274	27
25	5325	75	11	5317	33
26	5278	78	16	5304	48
37	5324	111	22	5277	66
42	5312	126	23	5305	69
49	5307	147	31	5297	93
53	5297	159	36	5327	108
70	5322	210	59	5311	177
--	--	--	60	5291	180
--	--	--	70	5329	210
--	--	--	78	5281	234
--	--	--	84	5314	252
--	--	--	90	5308	270

Radar waveform #13			Radar waveform #14		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
3	5283	9	0	5284	0
6	5272	18	4	5321	12
10	5302	30	15	5308	45
19	5270	57	16	5293	48
20	5285	60	20	5289	60
27	5325	81	30	5298	90
29	5301	87	52	5277	156
34	5282	102	55	5329	165
47	5319	141	58	5290	174
69	5277	207	60	5303	180
71	5281	213	61	5271	183
80	5273	240	69	5307	207
87	5323	261	74	5312	222
91	5306	273	99	5314	297
93	5322	279	--	--	--
99	5299	297	--	--	--



Radar waveform #15			Radar waveform #16		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
2	5298	6	2	5305	6
3	5279	9	7	5324	21
4	5270	12	11	5326	33
8	5318	24	12	5303	36
23	5272	69	13	5290	39
28	5319	84	19	5301	57
38	5314	114	26	5274	78
59	5308	177	29	5281	87
69	5322	207	33	5288	99
72	5299	216	58	5325	174
73	5324	219	65	5280	195
75	5300	225	67	5330	201
76	5288	228	73	5327	219
--	--	--	76	5315	228
--	--	--	82	5311	246
--	--	--	84	5289	252
--	--	--	86	5293	258
--	--	--	92	5273	276

Radar waveform #17			Radar waveform #18		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
9	5309	27	4	5314	12
25	5325	75	10	5326	30
29	5310	87	31	5320	93
33	5302	99	40	5306	120
51	5279	153	41	5298	123
52	5294	156	50	5273	150
58	5321	174	56	5328	168
86	5322	258	59	5310	177
99	5306	297	82	5316	246
--	--	--	83	5272	249
--	--	--	96	5278	288
--	--	--	97	5281	291
--	--	--	98	5294	294

Radar waveform #19			Radar waveform #20		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
32	5300	96	24	5332	72
46	5277	138	33	5283	99
56	5326	168	40	5276	120
64	5320	192	59	5327	177
65	5322	195	73	5304	219
72	5280	216	92	5319	276
78	5298	234	--	--	--
87	5328	261	--	--	--

Radar waveform #21			Radar waveform #22		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
11	5286	33	16	5295	48
14	5328	42	17	5329	51
22	5330	66	26	5312	78
54	5312	162	29	5275	87
60	5315	180	32	5315	96
63	5277	189	34	5287	102
66	5275	198	40	5319	120
69	5298	207	56	5305	168
93	5309	279	61	5292	183
96	5284	288	74	5293	222
--	--	--	77	5308	231
--	--	--	79	5280	237
--	--	--	97	5288	291

Radar waveform #23			Radar waveform #24		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
4	5305	12	3	5288	9
6	5311	18	5	5336	15
8	5295	24	6	5281	18
21	5322	63	7	5317	21
22	5299	66	8	5296	24
24	5309	72	14	5330	42
29	5284	87	36	5329	108
31	5323	93	39	5323	117
44	5300	132	43	5327	129
52	5285	156	60	5312	180
54	5286	162	61	5302	183
74	5331	222	64	5277	192
76	5310	228	67	5279	201
96	5315	288	70	5304	210
--	--	--	76	5311	228

Radar waveform #25			Radar waveform #26		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
2	5316	6	7	5327	21
12	5283	36	15	5316	45
19	5327	57	23	5318	69
24	5310	72	24	5329	72
27	5290	81	30	5310	90
60	5323	180	40	5288	120
69	5292	207	45	5301	135
71	5280	213	51	5312	153
73	5300	219	73	5282	219
87	5288	261	74	5298	222
97	5303	291	75	5323	225
--	--	--	76	5319	228
--	--	--	79	5286	237
--	--	--	84	5305	252
--	--	--	86	5333	258
--	--	--	87	5278	261

Radar waveform #27			Radar waveform #28		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
6	5281	18	3	5289	9
7	5331	21	12	5290	36
12	5298	36	20	5333	60
18	5299	54	26	5310	78
25	5327	75	40	5295	120
30	5290	90	56	5279	168
34	5336	102	60	5297	180
50	5303	150	63	5330	189
61	5321	183	77	5296	231
62	5296	186	82	5312	246
72	5289	216	83	5322	249
75	5324	225	86	5286	258
76	5307	228	90	5303	270
79	5313	237	93	5298	279
81	5319	243	--	--	--
99	5317	297	--	--	--

Radar waveform #29			Radar waveform #30		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
2	5332	6	6	5281	18
5	5283	15	7	5331	21
9	5329	27	12	5298	36
24	5296	72	18	5299	54
26	5295	78	25	5327	75
50	5313	150	30	5290	90
55	5314	165	34	5336	102
62	5312	186	50	5303	150
63	5287	189	61	5321	183
65	5315	195	62	5296	186
66	5300	198	72	5289	216
67	5279	201	75	5324	225
75	5337	225	76	5307	228
96	5322	288	79	5313	237
97	5336	291	81	5319	243
--	--	--	99	5317	297



## Radar Statistical Performance for 802.11n-HT40

## Radar Type 1 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5293	1	898	59	1
2	5293	1	878	61	1
3	5294	1	3066	18	1
4	5295	1	718	74	1
5	5296	1	938	57	1
6	5298	1	658	81	1
7	5300	1	598	89	1
8	5302	1	558	95	1
9	5304	1	578	92	1
10	5306	1	538	99	1
11	5308	1	838	63	1
12	5310	1	798	67	1
13	5310	1	818	65	1
14	5310	1	758	70	1
15	5310	1	518	102	1
16	5310	1	1726	31	1
17	5310	1	1406	38	1
18	5312	1	2668	20	1
19	5314	1	744	71	1
20	5316	1	694	77	1
21	5318	1	1602	33	1
22	5320	1	1776	30	1
23	5321	1	665	80	1
24	5322	1	2979	18	1
25	5323	1	1645	33	1
26	5324	1	529	100	1
27	5325	1	1256	43	1
28	5326	1	2949	18	1
29	5327	1	2624	21	1
30	5327	1	949	56	1
Detection Percentage (%)					100%



## Radar Type 2 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5293	3.9	206	29	1
2	5293	2.9	191	29	1
3	5294	1.2	211	26	1
4	5295	1.8	159	24	1
5	5296	1.4	198	27	1
6	5298	2.4	154	27	1
7	5300	1.2	203	23	1
8	5302	1.3	177	24	1
9	5304	1.7	158	26	1
10	5306	4.0	184	26	1
11	5308	4.8	166	27	1
12	5310	4.3	217	25	1
13	5310	3.8	212	28	1
14	5310	1.5	222	23	1
15	5310	1.0	204	29	1
16	5310	4.0	202	23	1
17	5310	2.6	163	27	1
18	5312	4.8	207	28	1
19	5314	3.7	210	24	1
20	5316	2.9	229	23	1
21	5318	1.7	187	28	1
22	5320	3.3	215	24	1
23	5321	4.9	189	29	1
24	5322	1.1	150	28	1
25	5323	1.8	150	23	1
26	5324	3.6	164	24	1
27	5325	3.6	156	29	1
28	5326	4.4	172	27	1
29	5327	2.9	223	23	1
30	5327	1.1	158	28	1
Detection Percentage (%)					100%

## Radar Type 3 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5293	8.8	281	18	1
2	5293	6.2	286	16	1
3	5294	9.9	283	18	1
4	5295	6.4	261	16	1
5	5296	6.0	448	18	1
6	5298	7.4	462	18	1
7	5300	6.6	412	18	1
8	5302	6.8	491	17	1
9	5304	6.1	452	17	1
10	5306	6.2	472	16	1
11	5308	7.2	456	16	1
12	5310	7.7	328	17	1
13	5310	6.1	400	16	1
14	5310	6.0	304	16	1
15	5310	6.7	413	18	1
16	5310	7.5	284	17	1
17	5310	8.6	411	17	1
18	5312	6.7	452	16	1
19	5314	7.9	382	18	1
20	5316	7.5	451	16	1
21	5318	9.9	361	17	1
22	5320	8.8	326	16	1
23	5321	9.5	356	18	1
24	5322	8.6	392	16	1
25	5323	8.5	397	17	1
26	5324	8.3	469	18	1
27	5325	7.7	483	17	1
28	5326	6.6	448	18	1
29	5327	7.5	483	16	1
30	5327	7.9	336	17	1
Detection Percentage (%)					100%

## Radar Type 4 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5293	17.0	467	14	1
2	5293	12.7	456	12	1
3	5294	13.6	310	16	1
4	5295	17.3	429	16	1
5	5296	20.0	357	16	1
6	5298	12.9	432	13	1
7	5300	19.6	326	13	1
8	5302	14.5	436	13	1
9	5304	13.5	287	15	1
10	5306	19.8	417	14	1
11	5308	14.8	430	14	1
12	5310	12.5	383	13	1
13	5310	14.1	271	13	1
14	5310	12.5	409	14	1
15	5310	16.6	391	13	1
16	5310	16.3	494	15	1
17	5310	14.0	322	16	1
18	5312	13.0	399	12	1
19	5314	19.5	367	13	1
20	5316	15.7	492	16	1
21	5318	14.8	290	15	1
22	5320	14.2	410	15	1
23	5321	13.0	356	15	1
24	5322	14.9	329	13	1
25	5323	14.9	343	12	1
26	5324	14.7	270	13	1
27	5325	16.2	328	16	1
28	5326	19.0	450	12	1
29	5327	19.0	267	14	1
30	5327	16.5	410	16	1
Detection Percentage (%)					100%

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

waveforms is as follows: 
$$\frac{P_d1 + P_d2 + P_d3 + P_d4}{4} = (100\% + 100\% + 100\% + 100\%) / 4 = 100\% (>80\%)$$



Radar Type 5 - Radar Statistical Performance

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

Type 5 Radar Waveform_1										
-----										
Num of Bursts = 12										
Burst Interval (us)= 1000000										
Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	724235	2	14	95	1908	1852	0	724235	0	999999
2	531632	3	14	95	1416	1899	1245	1259627	1000000	1999999
3	1216297	3	14	100	1253	1595	1841	2480484	2000000	2999999
4	633217	3	14	55	1644	1397	1083	3118390	3000000	3999999
5	1263634	3	14	85	1968	1734	1961	4386148	4000000	4999999
6	671109	3	14	65	1244	1595	1358	5062920	5000000	5999999
7	1746021	2	14	65	1545	1120	0	6813138	6000000	6999999
8	861095	2	14	55	1676	1259	0	7676898	7000000	7999999
9	711544	2	14	65	1620	1871	0	8391377	8000000	8999999
10	1547130	1	14	95	1815	0	0	9941998	9000000	9999999
11	681043	1	14	55	1750	0	0	10624856	10000000	10999999
12	639362	2	14	90	1069	1717	0	11265968	11000000	11999999
Total number of pulses in waveform = 27										
*****										



### Type 5 Radar Waveform\_2

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	297083	3	5	60	1060	1679	1950	297083	0	666666
2	839091	3	5	80	1524	1968	1107	1140863	666667	1333333
3	436149	2	5	80	1960	1989	0	1581611	1333334	2000000
4	578196	3	5	90	1295	1915	1672	2163756	2000001	2666667
5	866475	3	5	65	1721	1874	1150	3035113	2666668	3333334
6	670863	1	5	50	1853	0	0	3710721	3333335	4000001
7	643877	1	5	55	1098	0	0	4356451	4000002	4666668
8	425339	2	5	80	1641	1896	0	4782888	4666669	5333335
9	777668	3	5	100	1450	1680	1183	5564093	5333336	6000002
10	746193	1	5	70	1113	0	0	6314579	6000003	6666669
11	413390	3	5	80	1507	1639	1548	6729082	6666670	7333336
12	1128880	1	5	80	1010	0	0	7862656	7333337	8000003
13	599807	2	5	55	1115	1826	0	8463473	8000004	8666670
14	841638	1	5	90	1092	0	0	9308052	8666671	9333337
15	489531	3	5	75	1746	1853	1678	9798675	9333338	10000004
16	302741	1	5	85	1559	0	0	10106693	10000005	10666671
17	971649	1	5	70	1428	0	0	11079901	10666672	11333338
18	641055	3	5	100	1070	1549	1518	11722384	11333339	12000005

Total number of pulses in waveform = 37  
\*\*\*\*\*

### Type 5 Radar Waveform\_3

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	441366	1	10	100	1109	0	0	441366	0	1199999
2	1309007	1	10	75	1086	0	0	1751482	1200000	2399999
3	1274632	1	10	80	1449	0	0	3027200	2400000	3599999
4	1661975	1	10	90	1897	0	0	4690624	3600000	4799999
5	939112	3	10	95	1454	1675	1310	5631633	4800000	5999999
6	402125	1	10	70	1489	0	0	6038197	6000000	7199999
7	1626520	2	10	70	1817	1075	0	7666206	7200000	8399999
8	1790994	2	10	65	1934	1797	0	9460092	8400000	9599999
9	803005	1	10	95	1294	0	0	10266828	9600000	10799999
10	1311618	3	10	80	1165	1971	1072	11579740	10800000	11999999

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

### Type 5 Radar Waveform\_4

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	13237	2	6	60	1858	1087	0	13237	0	1090908
2	1257493	1	6	55	1197	0	0	1273675	1090909	2181817
3	1735090	3	6	60	1064	1710	1476	3009962	2181818	3272726
4	1029764	1	6	65	1836	0	0	4043976	3272727	4363635
5	1033567	2	6	60	1708	1007	0	5079379	4363636	5454544
6	967664	3	6	65	1467	1030	1551	6049758	5454545	6545453
7	1133857	1	6	100	1076	0	0	7187663	6545454	7636362
8	833371	1	6	65	1906	0	0	8022110	7636363	8727271
9	1600695	2	6	75	1617	1125	0	9624711	8727272	9818180
10	781433	2	6	70	1837	1072	0	10408886	9818181	10909089
11	1009647	2	6	55	1389	1317	0	11421442	10909090	11999998

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



### Type 5 Radar Waveform\_5

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	539389	1	9	55	1062	0	0	539389	0	631578
2	595250	3	9	70	1316	1422	1692	1135681	631579	1263157
3	517957	2	9	90	1333	1250	0	1658068	1263158	1894736
4	330833	2	9	70	1158	1153	0	1991484	1894737	2526315
5	726308	1	9	60	1354	0	0	2720103	2526316	3157894
6	673586	3	9	80	1086	1996	1820	3395043	3157895	3789473
7	697328	2	9	80	1431	1544	0	4097273	3789474	4421052
8	758981	1	9	95	1909	0	0	4859229	4421053	5052631
9	365986	2	9	80	1922	1270	0	5227124	5052632	5684210
10	485500	1	9	60	1389	0	0	5715816	5684211	6315789
11	852101	1	9	55	1000	0	0	6569306	6315790	6947368
12	947384	2	9	50	1108	1218	0	7517690	6947369	7578947
13	664372	3	9	100	1768	1821	1233	8184388	7578948	8210526
14	575597	3	9	90	1862	1874	1137	8764807	8210527	8842105
15	548482	3	9	60	1957	1967	1027	9318162	8842106	9473684
16	296270	1	9	55	1608	0	0	9619383	9473685	10105263
17	792147	1	9	100	1003	0	0	10413138	10105264	10736842
18	806559	1	9	55	1217	0	0	11220700	10736843	11368421
19	406061	1	9	90	1595	0	0	11627978	11368422	12000000

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

### Type 5 Radar Waveform\_6

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	145875	1	19	95	1156	0	0	145875	0	1333332
2	1299586	3	19	100	1076	1003	1857	1446617	1333333	2666665
3	1299011	3	19	75	1881	1046	1432	2749564	2666666	3999998
4	1535348	2	19	70	1146	1068	0	4289271	3999999	5333331
5	1177494	1	19	60	1764	0	0	5468979	5333332	6666664
6	2022179	1	19	95	1881	0	0	7492922	6666665	7999997
7	1696664	1	19	60	1035	0	0	9191467	7999998	9333330
8	1414718	1	19	55	1845	0	0	10607220	9333331	10666663
9	312442	1	19	65	1752	0	0	10921507	10666664	11999996

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

### Type 5 Radar Waveform\_7

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	79017	2	8	55	1712	1955	0	79017	0	1499999
2	1561110	2	8	50	1119	1149	0	1643794	1500000	2999999
3	1683548	3	8	65	1620	1084	1859	3329610	3000000	4499999
4	2068353	2	8	75	1895	1141	0	5402526	4500000	5999999
5	1463063	2	8	95	1943	1636	0	6868625	6000000	7499999
6	1109987	1	8	65	1179	0	0	7982191	7500000	8999999
7	1336627	3	8	85	1259	1898	1724	9319997	9000000	10499999
8	1921636	1	8	50	1697	0	0	11246514	10500000	11999999

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



### Type 5 Radar Waveform\_8

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	18969	3	18	70	1591	1921	1345	18969	0	799999
2	871286	2	18	55	1033	1555	0	895112	800000	1599999
3	1313281	3	18	95	1196	1682	1277	2210981	1600000	2399999
4	441040	1	18	90	1905	0	0	2656176	2400000	3199999
5	1160751	2	18	85	1271	1277	0	3818832	3200000	3999999
6	217608	1	18	70	1620	0	0	4038988	4000000	4799999
7	1053277	2	18	50	1977	1881	0	5093885	4800000	5599999
8	1146895	2	18	75	1379	1015	0	6244638	5600000	6399999
9	426910	1	18	75	1188	0	0	6673942	6400000	7199999
10	659123	2	18	95	1338	1737	0	7334253	7200000	7999999
11	801825	2	18	85	1424	1503	0	8139153	8000000	8799999
12	981819	2	18	60	1031	1281	0	9123899	8800000	9599999
13	1181494	3	18	65	1006	1124	1948	10307705	9600000	10399999
14	595042	1	18	85	1272	0	0	10906825	10400000	11199999
15	720762	1	18	65	1432	0	0	11628859	11200000	11999999

Total number of pulses in waveform = 28  
\*\*\*\*\*

### Type 5 Radar Waveform\_9

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	811733	3	12	95	1793	1144	1879	811733	0	1090908
2	1325848	2	12	70	1437	1215	0	2142397	1090909	2181817
3	821617	2	12	60	1754	1761	0	2966666	2181818	3272726
4	995185	2	12	65	1017	1358	0	3965366	3272727	4363635
5	885601	1	12	80	1725	0	0	4853342	4363636	5454544
6	843889	2	12	85	1351	1728	0	5698956	5454545	6545453
7	1910329	3	12	85	1284	1253	1050	7612364	6545454	7636362
8	784352	3	12	95	1641	1782	1982	8400303	7636363	8727271
9	464159	1	12	75	1795	0	0	8869867	8727272	9818180
10	1855420	1	12	65	1219	0	0	10727082	9818181	10909089
11	418987	1	12	70	1699	0	0	11147288	10909090	11999998

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

### Type 5 Radar Waveform\_10

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	1149172	1	17	80	1857	0	0	1149172	0	1199999
2	891907	1	17	75	1838	0	0	2042936	1200000	2399999
3	466308	1	17	90	1318	0	0	2511082	2400000	3599999
4	1298212	3	17	85	1798	1028	1721	3810612	3600000	4799999
5	1546812	1	17	85	1574	0	0	5361971	4800000	5999999
6	836631	1	17	55	1155	0	0	6200176	6000000	7199999
7	1750376	2	17	80	1306	1729	0	7951707	7200000	8399999
8	791076	2	17	90	1896	1464	0	8745818	8400000	9599999
9	874822	2	17	55	1461	1859	0	9624000	9600000	10799999
10	1449735	2	17	70	1514	1338	0	11077075	10800000	11999999

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



### Type 5 Radar Waveform\_11

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	628036	1	10	55	1518	0	0	628036	0	799999
2	937918	3	10	80	1727	1038	1480	1567472	800000	1599999
3	760719	1	10	55	1216	0	0	2332436	1600000	2399999
4	812736	2	10	65	1800	1811	0	3146388	2400000	3199999
5	567775	1	10	100	1555	0	0	3717774	3200000	3999999
6	728784	2	10	95	1830	1673	0	4448113	4000000	4799999
7	838050	1	10	90	1438	0	0	5289666	4800000	5599999
8	513468	1	10	85	1344	0	0	5804572	5600000	6399999
9	600322	3	10	80	1508	1046	1221	6406238	6400000	7199999
10	1440278	2	10	50	1783	1212	0	7850291	7200000	7999999
11	622764	3	10	65	1440	1275	1894	8476050	8000000	8799999
12	415196	3	10	75	1287	1798	1952	8895855	8800000	9599999
13	868538	2	10	100	1263	1633	0	9769430	9600000	10399999
14	651049	3	10	85	1721	1442	1614	10423375	10400000	11199999
15	1478605	1	10	80	1877	0	0	11906757	11200000	11999999

Total number of pulses in waveform = 29  
\*\*\*\*\*

### Type 5 Radar Waveform\_12

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	697463	2	17	95	1322	1580	0	697463	0	799999
2	740629	3	17	65	1196	1589	1327	1440994	800000	1599999
3	291899	3	17	80	1548	1448	1320	1737005	1600000	2399999
4	1325493	2	17	80	1833	1696	0	3066814	2400000	3199999
5	207608	1	17	85	1015	0	0	3277951	3200000	3999999
6	796031	1	17	80	1993	0	0	4074997	4000000	4799999
7	1082661	1	17	85	1564	0	0	5159651	4800000	5599999
8	705620	3	17	90	1707	1163	1345	5866835	5600000	6399999
9	601952	1	17	70	1670	0	0	6473002	6400000	7199999
10	737611	3	17	75	1127	1154	1371	7212283	7200000	7999999
11	1234651	2	17	60	1395	1815	0	8450586	8000000	8799999
12	1135696	1	17	60	1376	0	0	9589492	8800000	9599999
13	576156	1	17	85	1462	0	0	10167024	9600000	10399999
14	671016	2	17	100	1853	1796	0	10839502	10400000	11199999
15	1048947	2	17	60	1810	1538	0	11892098	11200000	11999999

Total number of pulses in waveform = 28  
\*\*\*\*\*

### Type 5 Radar Waveform\_13

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	447589	1	12	85	1330	0	0	447589	0	1333332
2	1384932	3	12	55	1358	1491	1963	1833851	1333333	2666665
3	1753108	2	12	80	1076	1676	0	3591771	2666666	3999998
4	1388482	2	12	100	1773	1604	0	4983005	3999999	5333331
5	1617574	1	12	100	1506	0	0	6603956	5333332	6666664
6	1012230	3	12	80	1721	1427	1585	7617692	6666665	7999997
7	1488516	1	12	85	1461	0	0	9110941	7999998	9333330
8	1058825	3	12	60	1212	1171	1441	10171227	9333331	10666663
9	1134251	3	12	65	1887	1662	1741	11309302	10666664	11999996

Total number of pulses in waveform = 19  
\*\*\*\*\*





### Type 5 Radar Waveform\_14

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	216626	2	9	70	1406	1160	0	216626	0	1090908
2	1410952	3	9	55	1050	1854	1117	1630144	1090909	2181817
3	1422424	1	9	65	1418	0	0	3056589	2181818	3272726
4	1175119	3	9	85	1151	1287	1360	4233126	3272727	4363635
5	139171	2	9	50	1864	1036	0	4376095	4363636	5454544
6	1988073	2	9	60	1252	1545	0	6367068	5454545	6545453
7	542319	3	9	70	1135	1921	1012	6912184	6545454	7636362
8	884809	3	9	70	1093	1788	1002	7801061	7636363	8727271
9	1267356	1	9	85	1148	0	0	9072300	8727272	9818180
10	1353341	2	9	50	1758	1156	0	10426789	9818181	10909089
11	1141453	1	9	55	1354	0	0	11571156	10909090	1199998

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

### Type 5 Radar Waveform\_15

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	285080	3	5	75	1575	1064	1382	285080	0	1090908
2	891477	2	5	95	1357	1200	0	1180578	1090909	2181817
3	1438508	1	5	80	1039	0	0	2621643	2181818	3272726
4	1455233	1	5	90	1911	0	0	4077915	3272727	4363635
5	1343370	3	5	90	1569	1143	1530	5423196	4363636	5454544
6	933765	1	5	60	1177	0	0	6361203	5454545	6545453
7	977811	3	5	70	1003	1515	1138	7340191	6545454	7636362
8	639132	3	5	65	1772	1899	1724	7982979	7636363	8727271
9	975223	1	5	65	1160	0	0	8963597	8727272	9818180
10	1168769	2	5	100	1637	1799	0	10133526	9818181	10909089
11	1110841	2	5	55	1632	1450	0	11247803	10909090	1199998

Total number of pulses in waveform = 22  
\*\*\*\*\*

### Type 5 Radar Waveform\_16

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	441606	3	14	60	1972	1592	1898	441606	0	666666
2	875677	3	14	55	1602	1049	1043	1322745	666667	1333333
3	570826	2	14	70	1654	1806	0	1897265	1333334	2000000
4	692243	3	14	75	1701	1855	1006	2692968	2000001	2666667
5	258251	2	14	85	1026	1413	0	2855781	2666668	3333334
6	766854	2	14	55	1378	1923	0	3625074	3333335	4000001
7	1008370	3	14	90	1134	1947	1869	4636745	4000002	4666668
8	39625	1	14	95	1353	0	0	4681320	4666669	5333335
9	697951	1	14	90	1900	0	0	5380624	5333336	6000002
10	1185228	3	14	65	1116	1688	1122	6568752	6000003	6666669
11	123853	1	14	55	1550	0	0	6696431	6666670	7333336
12	1116182	1	14	75	1352	0	0	7814163	7333337	8000003
13	555036	3	14	75	1913	1528	1501	8370551	8000004	8666670
14	914334	1	14	70	1475	0	0	9289827	8666671	9333337
15	503211	1	14	50	1570	0	0	9794513	9333338	10000004
16	422643	2	14	100	1840	1238	0	10218726	10000005	10666671
17	484932	3	14	55	1804	1460	1196	10706736	10666672	11333338
18	1263221	3	14	65	1428	1804	1081	11974417	11333339	12000005

Total number of pulses in waveform = 38  
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### Type 5 Radar Waveform\_17

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	710068	1	6	50	1749	0	0	710068	0	923076
2	484822	3	6	90	1569	1763	1744	1196639	923077	1846153
3	1024722	2	6	50	1643	1301	0	2226437	1846154	2769230
4	691165	3	6	65	1031	1034	1891	2920546	2769231	3692307
5	1449582	2	6	70	1204	1185	0	4374084	3692308	4615384
6	774646	3	6	100	1113	1948	1858	5151119	4615385	5538461
7	1199119	3	6	70	1557	1279	1945	6355157	5538462	6461538
8	263391	3	6	80	1151	1539	1350	6623329	6461539	7384615
9	1661551	2	6	90	1837	1666	0	8288920	7384616	8307692
10	197402	2	6	60	1892	1943	0	8488825	8307693	9230769
11	843304	2	6	100	1183	1081	0	9336964	9230770	10153846
12	1012674	3	6	70	1081	1873	1667	10351902	10153847	11076923
13	1253890	2	6	90	1681	1872	0	11610413	11076924	12000000

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

### Type 5 Radar Waveform\_18

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	190734	1	19	55	1545	0	0	190734	0	631578
2	865636	2	19	60	1429	1046	0	1057915	631579	1263157
3	355507	1	19	55	1434	0	0	1415897	1263158	1894736
4	887498	1	19	50	1332	0	0	2304829	1894737	2526315
5	387847	1	19	70	1007	0	0	2694008	2526316	3157894
6	1027805	1	19	50	1998	0	0	3722620	3157895	3789473
7	445204	2	19	90	1190	1604	0	4169822	3789474	4421052
8	390783	1	19	65	1943	0	0	4563399	4421053	5052631
9	815106	3	19	50	1148	1161	1452	5380448	5052632	5684210
10	870648	3	19	75	1638	1467	1023	6254857	5684211	6315789
11	219533	2	19	85	1641	1267	0	6478518	6315790	6947368
12	684676	1	19	50	1586	0	0	7166102	6947369	7578947
13	584586	2	19	65	1656	1837	0	7752284	7578948	8210526
14	635829	1	19	90	1164	0	0	8391606	8210527	8842105
15	500549	3	19	100	1087	1980	1340	8893319	8842106	9473684
16	821862	2	19	90	1995	1246	0	9719588	9473685	10105263
17	957821	3	19	70	1808	1948	1739	10680650	10105264	10736842
18	177579	1	19	85	1697	0	0	10863724	10736843	11368421
19	612636	3	19	55	1736	1054	1494	11478057	11368422	12000000

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

### Type 5 Radar Waveform\_19

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	52760	1	8	50	1014	0	0	52760	0	666666
2	624600	3	8	80	1681	1465	1780	678374	666667	1333333
3	1237900	1	8	50	1513	0	0	1921200	1333334	2000000
4	469786	2	8	50	1723	1058	0	2392499	2000001	2666667
5	642610	2	8	70	1950	1869	0	3037890	2666668	3333334
6	437404	3	8	55	1387	1522	1578	3479113	3333335	4000001
7	516887	1	8	70	1762	0	0	4000487	4000002	4666668
8	892694	3	8	100	1739	1852	1186	4894943	4666669	5333335
9	972544	3	8	70	1782	1377	1206	5872264	5333336	6000002
10	241239	3	8	70	1762	1590	1919	6117868	6000003	6666669
11	604749	2	8	85	1959	1277	0	6727888	6666670	7333336
12	915923	3	8	60	1912	1670	1532	7647047	7333337	8000003
13	968730	1	8	75	1137	0	0	8620891	8000004	8666670
14	169041	3	8	100	1796	1548	1053	8791069	8666671	9333337
15	1017172	1	8	55	1855	0	0	9812638	9333338	10000004
16	837190	1	8	50	1747	0	0	10651683	10000005	10666671
17	399998	2	8	90	1025	1272	0	11053428	10666672	11333338
18	940318	3	8	65	1563	1019	1138	11996043	11333339	12000005

Total number of pulses in waveform = 38  
\*\*\*\*\*



### Type 5 Radar Waveform\_20

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	301295	1	18	100	1633	0	0	301295	0	705881
2	1023030	2	18	85	1794	1184	0	1325958	705882	1411763
3	293253	2	18	100	1110	1536	0	1622189	1411764	2117645
4	587911	3	18	90	1427	1372	1806	2212746	2117646	2823527
5	760883	3	18	60	1622	1608	1948	2978234	2823528	3529409
6	924596	3	18	70	1567	1769	1039	3908008	3529410	4235291
7	707135	1	18	50	1234	0	0	4619518	4235292	4941173
8	911377	1	18	50	1705	0	0	5532129	4941174	5647055
9	731642	1	18	85	1815	0	0	6265476	5647056	6352937
10	534901	1	18	95	1705	0	0	6802192	6352938	7058819
11	479375	3	18	60	1150	1207	1220	7283272	7058820	7764701
12	489288	2	18	60	1808	1433	0	7776137	7764702	8470583
13	866463	1	18	75	1793	0	0	8645841	8470584	9176465
14	877735	2	18	80	1425	1353	0	9525369	9176466	9882347
15	1022349	2	18	100	1229	1051	0	10550496	9882348	10588229
16	101727	3	18	80	1008	1607	1470	10654503	10588230	11294111
17	751086	1	18	50	1348	0	0	11409674	11294112	11999993

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

### Type 5 Radar Waveform\_21

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	130000	1	9	70	1303	0	0	130000	0	923076
2	1022766	1	9	95	1455	0	0	1154069	923077	1846153
3	862785	3	9	70	1492	1490	1141	2018309	1846154	2769230
4	1189830	1	9	90	1243	0	0	3212262	2769231	3692307
5	653740	1	9	65	1864	0	0	3867245	3692308	4615384
6	1085494	2	9	85	1637	1223	0	4954603	4615385	5538461
7	617721	2	9	65	1197	1917	0	5575184	5538462	6461538
8	1698235	2	9	85	1441	1723	0	7276533	6461539	7384615
9	779846	2	9	70	1216	1397	0	8059543	7384616	8307692
10	1122171	3	9	70	1318	1678	1013	9184327	8307693	9230769
11	574176	3	9	90	1900	1429	1834	9762512	9230770	10153846
12	401679	2	9	65	1551	1891	0	10169354	10153847	11076923
13	1726381	3	9	65	1300	1351	1388	11899177	11076924	12000000

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

### Type 5 Radar Waveform\_22

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	507842	1	10	80	1235	0	0	507842	0	1499999
2	1413913	2	10	50	1828	1899	0	1922990	1500000	2999999
3	2045660	3	10	50	1108	1126	1777	3972377	3000000	4499999
4	815841	3	10	75	1003	1737	1863	4792229	4500000	5999999
5	1211231	1	10	75	1310	0	0	6008063	6000000	7499999
6	1695439	2	10	50	1657	1504	0	7704812	7500000	8999999
7	1477650	2	10	100	1149	1579	0	9185623	9000000	10499999
8	1363623	1	10	60	1269	0	0	10551974	10500000	11999999

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



### Type 5 Radar Waveform\_23

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	378150	1	5	85	1760	0	0	378150	0	1333332
2	1978353	2	5	100	1976	1638	0	2358263	1333333	2666665
3	1173362	2	5	65	1351	1490	0	3535239	2666666	3999998
4	1649602	2	5	60	1573	1680	0	5187682	3999999	5333331
5	1194075	1	5	65	1350	0	0	6385010	5333332	6666664
6	810716	2	5	60	1089	1582	0	7197076	6666665	7999997
7	969358	1	5	75	1060	0	0	8169105	7999998	9333330
8	1320769	1	5	80	1120	0	0	9490934	9333331	10666663
9	2257144	3	5	85	1331	1897	1332	11749198	10666664	11999996

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

### Type 5 Radar Waveform\_24

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	71252	2	18	75	1997	1099	0	71252	0	1090908
2	1780970	3	18	95	1705	1694	1499	1855318	1090909	2181817
3	465219	2	18	50	1033	1397	0	2325435	2181818	3272726
4	1408577	1	18	100	1811	0	0	3736442	3272727	4363635
5	823673	3	18	85	1753	1212	1079	4561926	4363636	5454544
6	1415240	2	18	60	1963	1048	0	5981210	5454545	6545453
7	1455110	1	18	60	1294	0	0	7439331	6545454	7636362
8	653218	3	18	70	1537	1807	1586	8093843	7636363	8727271
9	829270	2	18	50	1444	1814	0	8928043	8727272	9818180
10	970477	1	18	70	1057	0	0	9901778	9818181	10909089
11	1757851	3	18	55	1987	1254	1973	11660686	10909090	11999998

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

### Type 5 Radar Waveform\_25

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	752878	2	17	90	1447	1393	0	752878	0	1333332
2	876952	1	17	95	1778	0	0	1632670	1333333	2666665
3	1480829	2	17	65	1994	1412	0	3115277	2666666	3999998
4	1013402	3	17	55	1197	1172	1319	4132085	3999999	5333331
5	1870752	3	17	95	1528	1630	1910	6006525	5333332	6666664
6	736770	3	17	60	1319	1701	1929	6748363	6666665	7999997
7	2004592	2	17	50	1463	1013	0	8757904	7999998	9333330
8	1565076	3	17	95	1275	1264	1625	10325456	9333331	10666663
9	675451	1	17	100	1286	0	0	11005071	10666664	11999996

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



### Type 5 Radar Waveform\_26

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	619814	3	6	75	1522	1744	1037	619814	0	1333332
2	1650402	3	6	55	1205	1796	1137	2274519	1333333	2666665
3	1585177	2	6	95	1167	1026	0	3863834	2666666	3999998
4	1030025	2	6	75	1333	1961	0	4896052	3999999	5333331
5	1450286	3	6	50	1921	1739	1598	6349632	5333332	6666664
6	1372602	3	6	60	1008	1252	1792	7727492	6666665	7999997
7	1454038	2	6	50	1355	1101	0	9185582	7999998	9333330
8	421306	2	6	55	1384	1818	0	9609344	9333331	10666663
9	2136246	2	6	100	1145	1887	0	11748792	10666664	11999996

Total number of pulses in waveform = 22  
\*\*\*\*\*

### Type 5 Radar Waveform\_27

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	124067	3	19	70	1847	1794	1496	124067	0	631578
2	1087920	2	19	80	1343	1695	0	1217124	631579	1263157
3	137463	2	19	70	1258	1766	0	1357625	1263158	1894736
4	891731	3	19	85	1693	1359	1555	2252380	1894737	2526315
5	482125	1	19	75	1313	0	0	2739112	2526316	3157894
6	432767	2	19	55	1600	1210	0	3173192	3157895	3789473
7	795551	3	19	50	1174	1965	1213	3971553	3789474	4421052
8	925237	2	19	75	1034	1426	0	4901142	4421053	5052631
9	614211	2	19	50	1113	1540	0	5517813	5052632	5684210
10	632786	2	19	50	1388	1524	0	6153252	5684211	6315789
11	687804	2	19	80	1699	1438	0	6843968	6315790	6947368
12	336867	3	19	75	1213	1930	1638	7183972	6947369	7578947
13	681397	1	19	70	1679	0	0	7870150	7578948	8210526
14	638542	2	19	65	1695	1525	0	8510371	8210527	8842105
15	845733	3	19	60	1329	1236	1875	9359324	8842106	9473684
16	718937	2	19	70	1136	1478	0	10082701	9473685	10105263
17	89264	2	19	65	1073	1354	0	10174579	10105264	10736842
18	723854	1	19	75	1452	0	0	10900865	10736843	11368421
19	605773	1	19	70	1486	0	0	11508090	11368422	12000000

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

### Type 5 Radar Waveform\_28

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	902688	2	8	80	1937	1767	0	902688	0	923076
2	903796	1	8	100	1061	0	0	1810188	923077	1846153
3	527819	1	8	50	1815	0	0	2339068	1846154	2769230
4	1192655	2	8	65	1073	1085	0	3533538	2769231	3692307
5	1073160	1	8	95	1792	0	0	4608856	3692308	4615384
6	807281	1	8	50	1922	0	0	5417929	4615385	5538461
7	693020	2	8	100	1246	1860	0	6112871	5538462	6461538
8	603681	2	8	90	1426	1377	0	6719658	6461539	7384615
9	1370039	3	8	80	1359	1674	1476	8092500	7384616	8307692
10	856822	3	8	50	1914	1278	1675	8953831	8307693	9230769
11	535261	3	8	85	1340	1394	1206	9493959	9230770	10153846
12	660950	1	8	50	1791	0	0	10158849	10153847	11076923
13	1142306	3	8	70	1612	1580	1392	11302946	11076924	12000000

Total number of pulses in waveform = 25  
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### Type 5 Radar Waveform\_29

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	812458	2	12	85	1079	1505	0	812458	0	857142
2	341405	2	12	75	1197	1408	0	1156447	857143	1714285
3	931196	2	12	60	1231	1987	0	2090248	1714286	2571428
4	739731	1	12	50	1388	0	0	2833197	2571429	3428571
5	1156761	3	12	60	1244	1401	1654	3991346	3428572	4285714
6	392173	2	12	90	1104	1334	0	4387818	4285715	5142857
7	1576399	1	12	95	1832	0	0	5966655	5142858	6000000
8	745001	3	12	50	1449	1372	1106	6713488	6000001	6857143
9	626937	2	12	75	1436	1366	0	7344352	6857144	7714286
10	580070	1	12	70	1876	0	0	7927224	7714287	8571429
11	721260	1	12	65	1838	0	0	8650360	8571430	9428572
12	1106209	2	12	55	1039	1158	0	9758407	9428573	10285715
13	809231	1	12	90	1265	0	0	10569835	10285716	11142858
14	1417844	1	12	90	1876	0	0	11988944	11142859	12000001

Total number of pulses in waveform = 24  
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### Type 5 Radar Waveform\_30

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	756880	3	14	60	1272	1375	1175	756880	0	857142
2	694018	1	14	60	1236	0	0	1454720	857143	1714285
3	1074867	3	14	95	1796	1099	1869	2530823	1714286	2571428
4	807054	1	14	75	1766	0	0	3342641	2571429	3428571
5	492599	2	14	95	1667	1316	0	3837006	3428572	4285714
6	843164	1	14	95	1751	0	0	4683153	4285715	5142857
7	881500	1	14	70	1482	0	0	5566404	5142858	6000000
8	994374	2	14	85	1517	1179	0	6562260	6000001	6857143
9	579503	1	14	100	1700	0	0	7144459	6857144	7714286
10	1222863	2	14	95	1979	1062	0	8369022	7714287	8571429
11	497274	3	14	75	1746	1536	1889	8869337	8571430	9428572
12	772920	2	14	70	1266	1037	0	9647428	9428573	10285715
13	688640	2	14	90	1298	1919	0	10338371	10285716	11142858
14	1546285	2	14	90	1128	1433	0	11887873	11142859	12000001

Total number of pulses in waveform = 26  
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Radar Type 6 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	1=Detection 0=No Detection	Trail #	Test Freq. (MHz)	1=Detection 0=No Detection
1	5293	1	16	5310	1
2	5293	1	17	5310	1
3	5294	1	18	5312	1
4	5295	1	19	5314	1
5	5296	1	20	5316	1
6	5298	1	21	5318	1
7	5300	1	22	5320	1
8	5302	1	23	5321	1
9	5304	1	24	5322	1
10	5306	1	25	5323	1
11	5308	1	26	5324	1
12	5310	1	27	5325	1
13	5310	1	28	5326	1
14	5310	1	29	5327	1
15	5310	1	30	5327	1
Detection Percentage (%)					100%

Radar waveform #1			Radar waveform #2		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
5	5305	15	7	5278	21
9	5290	27	10	5289	30
15	5278	45	21	5309	63
23	5324	69	23	5292	69
30	5304	90	25	5316	75
31	5322	93	45	5304	135
34	5300	102	59	5277	177
40	5269	120	68	5279	204
47	5289	141	78	5299	234
49	5315	147	81	5305	243
53	5276	159	91	5313	273
60	5306	180	93	5294	279
73	5284	219	94	5302	282
74	5267	222	97	5272	291
78	5319	234	99	5282	297
85	5285	255	--	--	--
89	5294	267	--	--	--





Radar waveform #3			Radar waveform #4		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
0	5283	0	11	5280	33
19	5316	57	25	5318	75
20	5289	60	26	5320	78
33	5321	99	27	5265	81
37	5287	111	39	5267	117
41	5323	123	40	5300	120
42	5266	126	47	5305	141
44	5278	132	53	5290	159
48	5272	144	54	5273	162
57	5292	171	58	5277	174
70	5318	210	62	5282	186
71	5322	213	70	5299	210
81	5299	243	73	5309	219
87	5324	261	76	5296	228
--	--	--	77	5285	231
--	--	--	84	5284	252
--	--	--	86	5270	258



Radar waveform #5			Radar waveform #6		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
1	5325	3	7	5312	21
7	5271	21	9	5316	27
15	5285	45	14	5293	42
19	5324	57	31	5321	93
21	5318	63	39	5294	117
23	5322	69	41	5278	123
27	5291	81	43	5326	129
30	5273	90	52	5299	156
43	5305	129	53	5290	159
53	5269	159	65	5315	195
72	5280	216	68	5320	204
80	5297	240	70	5268	210
81	5323	243	73	5306	219
83	5300	249	--	--	--
93	5321	279	--	--	--
96	5320	288	--	--	--
98	5272	294	--	--	--

Radar waveform #7			Radar waveform #8		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
0	5295	0	19	5274	57
13	5300	39	24	5322	72
31	5287	93	27	5299	81
35	5274	105	30	5306	90
47	5296	141	41	5324	123
50	5292	150	43	5308	129
75	5291	225	47	5310	141
78	5323	234	48	5325	144
95	5314	285	55	5315	165
--	--	--	74	5317	222
--	--	--	79	5302	237
--	--	--	86	5320	258
--	--	--	99	5296	297



Radar waveform #9			Radar waveform #10		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
9	5285	27	5	5312	15
14	5330	42	6	5330	18
24	5275	72	11	5283	33
43	5322	129	20	5296	60
54	5280	162	22	5299	66
60	5303	180	30	5332	90
63	5296	189	33	5278	99
68	5309	204	38	5314	114
69	5315	207	49	5298	147
79	5331	237	51	5310	153
91	5334	273	58	5284	174
98	5316	294	60	5297	180
--	--	--	63	5281	189
--	--	--	83	5280	249
--	--	--	94	5317	282

Radar waveform #11			Radar waveform #12		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
2	5295	6	1	5321	3
3	5336	9	8	5320	24
9	5332	27	9	5319	27
27	5329	81	63	5314	189
30	5290	90	65	5291	15
32	5282	96	77	5308	231
36	5289	108	79	5305	237
37	5325	111	85	5302	255
48	5280	144	89	5288	269
51	5313	153	92	5337	276
56	5319	168	99	5281	297
71	5335	213	--	--	--
73	5333	219	--	--	--
80	5331	240	--	--	--
98	5312	294	--	--	--

Radar waveform #13			Radar waveform #14		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
3	5320	9	5	5283	15
6	5284	18	9	5289	27
11	5280	33	20	5294	60
13	5317	39	32	5308	96
14	5338	42	45	5335	135
33	5327	99	51	5337	153
47	5285	141	52	5316	156
52	5282	156	66	5307	198
54	5315	162	67	5319	201
75	5319	225	70	5306	210
82	5316	246	73	5322	219
86	5288	258	91	5317	273
--	--	--	92	5300	276
--	--	--	98	5284	294

Radar waveform #15			Radar waveform #16		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
0	5338	0	4	5318	12
21	5291	63	7	5284	21
26	5300	78	21	5321	63
27	5302	81	24	5294	72
33	5283	99	25	5328	75
37	5334	111	34	5315	102
63	5330	189	36	5300	108
70	5316	210	37	5326	111
83	5306	249	45	5332	135
84	5339	252	50	5306	150
--	--	--	51	5333	153
--	--	--	55	5288	165
--	--	--	74	5287	222
--	--	--	79	5280	237
--	--	--	91	5296	273
--	--	--	96	5285	288
--	--	--	98	5290	294

Radar waveform #17			Radar waveform #18		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
1	5308	3	0	5331	0
4	5304	12	21	5318	63
8	5285	24	23	5307	69
9	5280	27	30	5328	90
17	5282	51	46	5306	138
31	5297	93	52	5312	156
37	5290	111	60	5298	180
41	5340	123	79	5284	237
49	5309	147	81	5304	243
50	5291	150	90	5282	270
53	5337	159	92	5289	276
62	5323	186	97	5291	291
79	5303	237	--	--	--
87	5307	261	--	--	--
94	5288	282	--	--	--
96	5284	288	--	--	--
98	5295	294	--	--	--



Radar waveform #19			Radar waveform #20		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
9	5338	27	5	5304	15
25	5334	75	18	5289	54
33	5322	99	23	5308	69
55	5331	165	33	5302	99
57	5294	171	39	5287	117
61	5339	183	40	5341	120
66	5341	198	55	5333	165
74	5327	222	66	5314	198
76	5305	228	68	5346	204
87	5301	261	71	5330	213
89	5332	267	77	5315	231
90	5312	270	81	5318	243
--	--	--	84	5328	252
--	--	--	88	5300	264
--	--	--	96	5317	288

Radar waveform #21			Radar waveform #22		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
5	5301	15	6	5348	18
23	5295	69	14	5291	42
32	5348	96	20	5341	60
34	5325	102	23	5301	69
37	5328	111	26	5345	78
39	5312	117	31	5340	93
41	5305	123	33	5330	99
51	5331	153	42	5343	126
56	5338	168	48	5320	144
72	5319	216	51	5344	153
99	5341	297	52	5337	156
--	--	--	65	5321	195
--	--	--	69	5308	207
--	--	--	86	5331	258
--	--	--	95	5318	285

Radar waveform #23			Radar waveform #24		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
3	5312	9	1	5294	3
13	5347	39	5	5326	15
15	5292	45	19	5317	57
18	5331	54	27	5328	81
24	5345	72	29	5346	87
26	5307	78	32	5347	96
27	5334	81	38	5306	114
41	5296	123	53	5301	159
48	5303	144	60	5304	180
75	5323	225	63	5332	189
89	5348	267	83	5299	249
90	5302	270	86	5337	258
92	5298	276	89	5331	267
93	5351	279			

Radar waveform #25			Radar waveform #26		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
2	5310	6	1	5351	3
7	5333	21	6	5301	18
8	5326	24	9	5327	27
19	5305	57	18	5337	54
20	5328	60	29	5294	87
37	5324	111	34	5346	102
53	5335	159	36	5322	108
60	5325	180	42	5313	126
65	5323	195	50	5323	150
67	5313	201	57	5342	171
70	5342	210	58	5297	174
71	5336	213	59	5299	177
84	5329	252	80	5326	240
--	--	--	83	5340	249
--	--	--	87	5305	261
--	--	--	90	5315	270



Radar waveform #27			Radar waveform #28		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
2	5308	6	12	5315	36
6	5303	18	14	5302	42
9	5315	27	15	5307	45
10	5349	30	28	5347	84
17	5322	51	42	5352	126
18	5325	54	51	5322	153
25	5326	75	65	5335	195
33	5295	99	70	5348	210
34	5317	102	83	5299	249
36	5347	108	86	5340	258
37	5334	111	--	--	--
53	5313	159	--	--	--
75	5332	225	--	--	--
77	5344	231	--	--	--
80	5351	240	--	--	--
87	5341	261	--	--	--
93	5298	279	--	--	--
98	5297	294	--	--	--

Radar waveform #29			Radar waveform #30		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
6	5344	18	4	5304	12
27	5314	81	7	5343	21
29	5331	87	14	5342	42
32	5322	96	20	5339	60
37	5321	111	32	5351	96
40	5308	120	35	5314	105
44	5351	132	39	5338	117
51	5300	153	40	5303	120
57	5337	171	66	5319	198
60	5299	180	69	5300	207
64	5336	192	70	5341	210
76	5347	228	87	5333	261
82	5302	246	94	5322	282
89	5326	267	99	5320	297
94	5296	282	--	--	--
98	5297	294	--	--	--
99	5312	297	--	--	--

## Radar Statistical Performance for 802.11ac-VHT80

## Radar Type 1 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5253	1	618	86	1
2	5256	1	918	58	1
3	5259	1	678	78	1
4	5262	1	898	59	1
5	5265	1	938	57	1
6	5268	1	858	62	1
7	5271	1	718	74	1
8	5274	1	658	81	1
9	5277	1	558	95	1
10	5280	1	3066	18	1
11	5283	1	698	76	1
12	5286	1	638	83	1
13	5289	1	798	67	1
14	5290	1	778	68	1
15	5290	1	598	89	1
16	5292	1	1672	32	1
17	5295	1	1130	47	1
18	5298	1	2149	25	1
19	5301	1	1709	31	1
20	5304	1	2890	19	1
21	5307	1	995	54	1
22	5309	1	2941	18	1
23	5311	1	936	57	1
24	5313	1	2506	22	1
25	5315	1	2382	23	1
26	5316	1	1487	36	1
27	5319	1	2350	23	1
28	5322	1	666	80	1
29	5325	1	2609	21	1
30	5327	1	2225	24	1
Detection Percentage (%)					100%

## Radar Type 2 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5253	4.3	220	29	1
2	5256	1.3	166	27	1
3	5259	3.0	195	23	1
4	5262	3.9	171	27	1
5	5265	1.4	173	28	1
6	5268	1.8	177	27	1
7	5271	3.9	179	23	1
8	5274	3.3	230	24	1
9	5277	3.1	158	28	1
10	5280	3.4	178	27	1
11	5283	2.1	215	23	1
12	5286	5.0	163	24	1
13	5289	4.1	192	29	1
14	5290	4.8	160	28	1
15	5290	1.4	228	25	1
16	5292	4.3	222	23	1
17	5295	4.2	200	28	1
18	5298	4.3	157	28	1
19	5301	1.5	168	26	1
20	5304	4.6	209	24	1
21	5307	2.9	200	26	1
22	5309	3.2	217	25	1
23	5311	2.2	170	26	1
24	5313	3.5	199	23	1
25	5315	3.0	196	23	1
26	5316	4.3	199	24	1
27	5319	3.3	211	28	1
28	5322	2.0	220	27	1
29	5325	1.9	196	26	1
30	5327	4.4	197	28	1
Detection Percentage (%)					100%

## Radar Type 3 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5253	9.8	280	16	1
2	5256	6.7	446	17	1
3	5259	10.0	358	16	1
4	5262	9.9	456	16	1
5	5265	6.5	443	16	1
6	5268	7.3	466	17	1
7	5271	8.3	431	18	1
8	5274	6.6	474	17	1
9	5277	6.1	408	18	1
10	5280	6.1	456	18	1
11	5283	9.4	271	16	1
12	5286	9.8	423	17	1
13	5289	6.3	395	16	1
14	5290	8.4	461	18	1
15	5290	9.3	426	16	1
16	5292	7.7	489	17	1
17	5295	9.8	416	18	1
18	5298	8.0	318	17	1
19	5301	6.0	331	17	1
20	5304	9.6	408	18	1
21	5307	8.8	407	16	1
22	5309	7.7	399	16	1
23	5311	8.3	289	16	1
24	5313	6.1	463	18	1
25	5315	7.4	422	17	1
26	5316	6.1	462	18	1
27	5319	6.8	456	16	1
28	5322	10.0	392	18	1
29	5325	6.6	341	18	1
30	5327	9.6	354	17	1
Detection Percentage (%)					100%

## Radar Type 4 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5253	14.2	383	14	1
2	5256	16.7	421	12	1
3	5259	17.1	439	12	1
4	5262	16.0	405	16	1
5	5265	13.8	443	13	1
6	5268	14.0	308	15	1
7	5271	14.1	324	15	1
8	5274	12.8	359	16	1
9	5277	11.3	443	14	1
10	5280	20.0	456	16	1
11	5283	17.7	302	13	1
12	5286	16.1	477	14	1
13	5289	12.9	491	14	1
14	5290	11.2	452	13	1
15	5290	14.9	321	14	1
16	5292	12.4	315	16	1
17	5295	16.3	355	12	1
18	5298	17.0	270	16	1
19	5301	19.6	359	15	1
20	5304	16.1	263	13	1
21	5307	18.2	350	12	1
22	5309	19.7	298	13	1
23	5311	13.9	342	14	1
24	5313	14.9	329	13	1
25	5315	13.8	255	14	1
26	5316	12.8	303	15	1
27	5319	13.3	448	12	1
28	5322	11.7	311	16	1
29	5325	18.9	331	15	1
30	5327	17.3	494	16	1
Detection Percentage (%)					100%

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

waveforms is as follows: 
$$\frac{P_d1+P_d2+P_d3+P_d4}{4} = (100\%+100\%+100\%+100\%)/4 = 100\% (>80\%)$$



Radar Type 5 - Radar Statistical Performance

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

Type 5 Radar Waveform_1											
Num of Bursts = 20											
Burst Interval (us) = 600000											
Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)	
1	524179	3	10	80	1607	1421	1701	524179	0	599999	
2	120598	3	10	100	1639	1466	1667	649506	600000	1199999	
3	1126865	3	10	90	1683	1880	1644	1780023	1200000	1799999	
4	245398	1	10	95	1073	0	0	2030628	1800000	2399999	
5	642237	1	10	95	1520	0	0	2673938	2400000	2999999	
6	327887	2	10	90	1888	1960	0	3003345	3000000	3599999	
7	758488	1	10	95	1262	0	0	3765681	3600000	4199999	
8	617325	1	10	85	1137	0	0	4384268	4200000	4799999	
9	438097	3	10	90	1865	1933	1376	4823502	4800000	5399999	
10	1004402	1	10	60	1884	0	0	5833078	5400000	5999999	
11	250980	1	10	100	1320	0	0	6085942	6000000	6599999	
12	820666	3	10	60	1192	1199	1762	6907928	6600000	7199999	
13	545512	2	10	85	1588	1922	0	7457593	7200000	7799999	
14	514678	1	10	60	1563	0	0	7975781	7800000	8399999	
15	705776	3	10	95	1096	1748	1967	8683120	8400000	8999999	
16	707264	2	10	95	1069	1682	0	9395195	9000000	9599999	
17	323666	3	10	60	1425	1337	1910	9721612	9600000	10199999	
18	1043052	2	10	95	1977	1638	0	10769336	10200000	10799999	
19	232685	3	10	60	1742	1790	1029	11005636	10800000	11399999	
20	790948	3	10	75	1457	1114	1206	11801045	11400000	11999999	
Total number of pulses in waveform = 42											
*****											



### Type 5 Radar Waveform\_2

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	82461	2	17	95	1314	1799	0	82461	0	1199999
2	1945674	1	17	65	1768	0	0	2031248	1200000	2399999
3	1058282	2	17	70	1413	1701	0	3091298	2400000	3599999
4	1541940	3	17	75	1884	1819	1013	4636352	3600000	4799999
5	1087405	3	17	80	1355	1792	1247	5728473	4800000	5999999
6	507128	3	17	85	1715	1980	1445	6239995	6000000	7199999
7	1888552	2	17	95	1871	1825	0	8133687	7200000	8399999
8	561054	1	17	70	1931	0	0	8698437	8400000	9599999
9	2096633	2	17	55	1347	1626	0	10797001	9600000	10799999
10	612052	3	17	70	1723	1772	1123	11412026	10800000	11999999

Total number of pulses in waveform = 22  
\*\*\*\*\*

### Type 5 Radar Waveform\_3

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	1134911	1	14	70	1037	0	0	1134911	0	1199999
2	352836	1	14	60	1933	0	0	1488784	1200000	2399999
3	971539	2	14	75	1995	1740	0	2462256	2400000	3599999
4	1293437	2	14	100	1175	1267	0	3759428	3600000	4799999
5	1304585	3	14	60	1769	1908	1831	5066455	4800000	5999999
6	1965984	3	14	70	1428	1430	1326	7037947	6000000	7199999
7	1213616	3	14	95	1893	1772	1905	8255747	7200000	8399999
8	638469	3	14	80	1905	1973	1650	8899786	8400000	9599999
9	948832	2	14	55	1833	1873	0	9854146	9600000	10799999
10	1547615	1	14	65	1310	0	0	11405467	10800000	11999999

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

### Type 5 Radar Waveform\_4

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	362109	1	8	55	1185	0	0	362109	0	999999
2	1396267	3	8	55	1103	1152	1479	1759561	1000000	1999999
3	1004233	1	8	75	1024	0	0	2767528	2000000	2999999
4	1024766	2	8	95	1712	1644	0	3793318	3000000	3999999
5	312012	1	8	85	1486	0	0	4108686	4000000	4999999
6	1619093	3	8	65	1371	1264	1452	5729265	5000000	5999999
7	767647	1	8	90	1182	0	0	6500999	6000000	6999999
8	914962	1	8	60	1593	0	0	7417143	7000000	7999999
9	1235760	1	8	55	1597	0	0	8654496	8000000	8999999
10	1281801	2	8	75	1446	1633	0	9837894	9000000	9999999
11	151058	2	8	70	1140	1795	0	10092031	10000000	10999999
12	1344229	3	8	90	1053	1264	1437	11439195	11000000	11999999

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





### Type 5 Radar Waveform\_5

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	540418	2	5	85	1608	1190	0	540418	0	705881
2	340048	2	5	60	1486	1855	0	883264	705882	1411763
3	577623	2	5	90	1110	1343	0	1464228	1411764	2117645
4	657015	1	5	80	1435	0	0	2123696	2117646	2823527
5	838569	2	5	50	1655	1266	0	2963700	2823528	3529409
6	792047	1	5	85	1781	0	0	3758668	3529410	4235291
7	602312	2	5	55	1333	1387	0	4362761	4235292	4941173
8	781253	3	5	85	1991	1844	1906	5146734	4941174	5647055
9	883141	1	5	90	1129	0	0	6035616	5647056	6352937
10	482214	3	5	85	1343	1126	1783	6518959	6352938	7058819
11	723735	1	5	65	1983	0	0	7246946	7058820	7764701
12	978751	2	5	85	1664	1290	0	8227680	7764702	8470583
13	257798	1	5	85	1592	0	0	8488432	8470584	9176465
14	958636	1	5	75	1795	0	0	9448660	9176466	9882347
15	518916	2	5	70	1365	1162	0	9969371	9882348	10588229
16	836071	2	5	90	1893	1902	0	10807969	10588230	11294111
17	1142153	3	5	100	1875	1405	1830	11953917	11294112	11999993

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

### Type 5 Radar Waveform\_6

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	319880	1	19	60	1218	0	0	319880	0	705881
2	662589	1	19	95	1152	0	0	983687	705882	1411763
3	612830	3	19	65	1691	1465	1499	1597669	1411764	2117645
4	1040732	2	19	75	1270	1857	0	2643066	2117646	2823527
5	668982	3	19	90	1943	1837	1692	3315165	2823528	3529409
6	380796	2	19	80	1833	1503	0	3701433	3529410	4235291
7	903387	3	19	50	1243	1134	1137	4608156	4235292	4941173
8	350174	3	19	65	1095	1218	1272	4961844	4941174	5647055
9	1096265	2	19	85	1404	1129	0	6051694	5647056	6352937
10	374050	1	19	55	1196	0	0	6438277	6352938	7058819
11	1259902	3	19	50	1573	1097	1328	7699375	7058820	7764701
12	508749	1	19	75	1527	0	0	8212122	7764702	8470583
13	559586	2	19	85	1536	1094	0	8773235	8470584	9176465
14	612805	1	19	60	1545	0	0	9388670	9176466	9882347
15	801117	3	19	85	1982	1543	1039	10191332	9882348	10588229
16	718470	1	19	95	1434	0	0	10914366	10588230	11294111
17	982120	3	19	85	1127	1442	1079	11897920	11294112	11999993

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

### Type 5 Radar Waveform\_7

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	628138	1	6	95	1955	0	0	628138	0	749999
2	575432	1	6	90	1511	0	0	1205525	750000	1499999
3	539999	1	6	75	1767	0	0	1747035	1500000	2249999
4	903008	2	6	60	1956	1051	0	2651810	2250000	2999999
5	819053	3	6	95	1585	1999	1064	3473870	3000000	3749999
6	861700	2	6	50	1216	1608	0	4340218	3750000	4499999
7	747761	2	6	75	1805	1454	0	5090803	4500000	5249999
8	195917	3	6	50	1588	1277	1169	5289979	5250000	5999999
9	1392814	2	6	60	1405	1313	0	6686827	6000000	6749999
10	553538	1	6	50	1251	0	0	7243083	6750000	7499999
11	928038	1	6	70	1824	0	0	8172372	7500000	8249999
12	111245	2	6	90	1158	1329	0	8285441	8250000	8999999
13	1299531	2	6	65	1914	1718	0	9587459	9000000	9749999
14	350479	3	6	55	1321	1062	1927	9941570	9750000	10499999
15	747861	3	6	75	1266	1842	1309	10693741	10500000	11249999
16	794866	2	6	85	1059	1451	0	11493024	11250000	11999999

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



### Type 5 Radar Waveform\_8

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	277281	3	18	100	1601	1066	1955	277281	0	749999
2	512167	1	18	90	1648	0	0	794070	750000	1499999
3	1352041	2	18	60	1257	1220	0	2147759	1500000	2249999
4	622708	1	18	50	1931	0	0	2772944	2250000	2999999
5	899488	1	18	65	1722	0	0	3674363	3000000	3749999
6	315443	3	18	65	1052	1411	1570	3991528	3750000	4499999
7	697776	2	18	95	1299	1561	0	4693337	4500000	5249999
8	1137489	2	18	70	1527	1444	0	5833686	5250000	5999999
9	561565	3	18	75	1729	1624	1767	6398222	6000000	6749999
10	1020968	2	18	85	1975	1242	0	7424310	6750000	7499999
11	310528	3	18	80	1075	1179	1752	7738055	7500000	8249999
12	660861	3	18	55	1210	1361	1258	8402922	8250000	8999999
13	849298	2	18	60	1996	1013	0	9256049	9000000	9749999
14	501596	2	18	60	1229	1947	0	9760654	9750000	10499999
15	982363	1	18	65	1522	0	0	10746193	10500000	11249999
16	1116903	2	18	100	1628	1890	0	11864618	11250000	11999999

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

### Type 5 Radar Waveform\_9

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	967616	3	12	90	1861	1371	1535	967616	0	1090908
2	504321	2	12	50	1210	1344	0	1476704	1090909	2181817
3	916588	3	12	80	1193	1760	1891	2395846	2181818	3272726
4	1362282	2	12	95	1364	1837	0	3762972	3272727	4363635
5	634334	2	12	80	1312	1382	0	4400507	4363636	5454544
6	2100027	3	12	80	1501	1537	1775	6503228	5454545	6545453
7	903369	3	12	100	1549	1113	1698	7411410	6545454	7636362
8	412771	3	12	85	1208	1682	1417	7828541	7636363	8727271
9	1063187	3	12	60	1621	1366	1905	8896035	8727272	9818180
10	1458500	1	12	95	1781	0	0	10359427	9818181	10909089
11	1408883	1	12	95	1861	0	0	11770091	10909090	11999998

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

### Type 5 Radar Waveform\_10

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	89980	3	9	70	1768	1025	1940	89980	0	1199999
2	1958386	1	9	95	1767	0	0	2053099	1200000	2399999
3	1530000	2	9	65	1900	1111	0	3584866	2400000	3599999
4	392800	3	9	85	1687	1980	1072	3980677	3600000	4799999
5	1571084	3	9	55	1318	1980	1697	5556500	4800000	5999999
6	604450	1	9	70	1113	0	0	6165945	6000000	7199999
7	1907043	1	9	100	1435	0	0	8074101	7200000	8399999
8	1335227	3	9	65	1132	1979	1570	9410763	8400000	9599999
9	1089138	2	9	70	1184	1254	0	10504582	9600000	10799999
10	611943	1	9	100	1036	0	0	11118963	10800000	11999999

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



### Type 5 Radar Waveform\_11

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	989938	1	8	70	1657	0	0	989938	0	1499999
2	564348	2	8	55	1361	1359	0	1555943	1500000	2999999
3	2457993	1	8	50	1361	0	0	4016656	3000000	4499999
4	1913479	3	8	70	1338	1929	1647	5931496	4500000	5999999
5	580590	3	8	60	1068	1048	1163	6517000	6000000	7499999
6	1582556	1	8	95	1334	0	0	8102835	7500000	8999999
7	1113513	3	8	90	1415	1894	1720	9217682	9000000	10499999
8	2454101	1	8	85	1762	0	0	11676812	10500000	11999999

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

### Type 5 Radar Waveform\_12

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	973381	3	10	50	1429	1398	1441	973381	0	1499999
2	1164192	2	10	100	1761	1162	0	2141841	1500000	2999999
3	1450368	1	10	95	1818	0	0	3595132	3000000	4499999
4	1564978	3	10	85	1081	1591	1041	5161928	4500000	5999999
5	1129643	3	10	70	1755	1589	1053	6295284	6000000	7499999
6	2134305	3	10	60	1823	1610	1628	8433986	7500000	8999999
7	899063	3	10	75	1412	1641	1701	9338110	9000000	10499999
8	2140090	3	10	60	1732	1881	1195	11482954	10500000	11999999

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

### Type 5 Radar Waveform\_13

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	155276	1	5	100	1390	0	0	155276	0	599999
2	681090	1	5	55	1333	0	0	837756	600000	1199999
3	448814	3	5	55	1642	1577	1768	1287903	1200000	1799999
4	1066855	2	5	100	1671	1974	0	2359745	1800000	2399999
5	414530	1	5	80	1491	0	0	2777920	2400000	2999999
6	307492	2	5	65	1830	1420	0	3086903	3000000	3599999
7	619378	3	5	55	1275	1923	1492	3709531	3600000	4199999
8	1064750	1	5	95	1793	0	0	4778971	4200000	4799999
9	24612	2	5	65	1995	1049	0	4805376	4800000	5399999
10	787595	3	5	95	1340	1692	1419	5596015	5400000	5999999
11	758772	1	5	90	1792	0	0	6359238	6000000	6599999
12	617974	1	5	95	1772	0	0	6979004	6600000	7199999
13	738056	2	5	100	1968	1248	0	7718832	7200000	7799999
14	623315	1	5	95	1728	0	0	8345363	7800000	8399999
15	105613	3	5	100	1251	1481	1232	8452704	8400000	8999999
16	1047275	3	5	75	1579	1402	1069	9503943	9000000	9599999
17	202586	2	5	70	1856	1895	0	9710579	9600000	10199999
18	763884	1	5	60	1926	0	0	10478214	10200000	10799999
19	420560	2	5	55	1147	1470	0	10900700	10800000	11399999
20	786177	3	5	60	1835	1563	1304	11689494	11400000	11999999

Total number of pulses in waveform = 38  
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### Type 5 Radar Waveform\_14

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	516779	3	14	90	1212	1086	1012	516779	0	666666
2	774459	1	14	100	1998	0	0	1294548	666667	1333333
3	323148	2	14	65	1502	1708	0	1619694	1333334	2000000
4	547736	2	14	65	1099	1485	0	2170640	2000001	2666667
5	1021670	3	14	70	1078	1893	1884	3194894	2666668	3333334
6	337567	3	14	50	1061	1152	1126	3537316	3333335	4000001
7	472046	2	14	65	1657	1731	0	4012691	4000002	4666668
8	656840	1	14	100	1761	0	0	4672919	4666669	5333335
9	979728	1	14	90	1689	0	0	5654408	5333336	6000002
10	874094	3	14	85	1627	1995	1708	6530171	6000003	6666669
11	680159	3	14	80	1611	1456	1147	7215660	6666670	7333336
12	233710	1	14	70	1164	0	0	7453584	7333337	8000003
13	684337	1	14	65	1784	0	0	8139085	8000004	8666670
14	725587	3	14	70	1085	1151	1139	8866456	8666671	9333337
15	905265	2	14	85	1470	1331	0	9775096	9333338	10000004
16	324966	2	14	60	1433	1033	0	10102853	10000005	10666671
17	898867	3	14	90	1743	1040	1699	11004186	10666672	11333338
18	988153	2	14	65	1429	1179	0	11996821	11333339	12000005

Total number of pulses in waveform = 38  
\*\*\*\*\*

### Type 5 Radar Waveform\_15

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	13484	2	18	95	1247	1710	0	13484	0	666666
2	953585	3	18	85	1304	1889	1810	970026	666667	1333333
3	517376	3	18	65	1618	1988	1709	1492405	1333334	2000000
4	1106839	3	18	60	1885	1777	1131	2604559	2000001	2666667
5	643924	1	18	70	1699	0	0	3253276	2666668	3333334
6	458355	3	18	60	1200	1938	1071	3713230	3333335	4000001
7	855311	2	18	50	1790	1892	0	4572750	4000002	4666668
8	602824	3	18	85	1182	1247	1063	5179256	4666669	5333335
9	720877	2	18	80	1017	1624	0	5903625	5333336	6000002
10	434711	3	18	70	1064	1601	1941	6340977	6000003	6666669
11	823494	3	18	95	1323	1901	1128	7169077	6666670	7333336
12	414982	2	18	100	1335	1435	0	7588411	7333337	8000003
13	837697	3	18	55	1594	1409	1581	8428876	8000004	8666670
14	815471	2	18	75	1741	1024	0	9248933	8666671	9333337
15	445699	2	18	55	1481	1615	0	9697397	9333338	10000004
16	552103	2	18	65	1398	1914	0	10252596	10000005	10666671
17	607483	1	18	65	1760	0	0	10863391	10666672	11333338
18	486650	3	18	95	1920	1508	1933	11351801	11333339	12000005

Total number of pulses in waveform = 43  
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### Type 5 Radar Waveform\_16

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	173372	1	6	85	1281	0	0	173372	0	999999
2	1287687	1	6	90	1267	0	0	1462340	1000000	1999999
3	904257	3	6	70	1400	1635	1403	2367864	2000000	2999999
4	719204	2	6	65	1123	1780	0	3091506	3000000	3999999
5	1846866	3	6	55	1244	1893	1702	4941275	4000000	4999999
6	100341	2	6	60	1487	1773	0	5046455	5000000	5999999
7	1840668	2	6	60	1400	1409	0	6890383	6000000	6999999
8	238969	1	6	80	1767	0	0	7132161	7000000	7999999
9	1607329	1	6	100	1008	0	0	8741257	8000000	8999999
10	650083	1	6	90	1403	0	0	9392348	9000000	9999999
11	809393	3	6	100	1137	1898	1756	10203144	10000000	10999999
12	1784429	2	6	95	1067	1348	0	11992364	11000000	11999999

Total number of pulses in waveform = 22  
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### Type 5 Radar Waveform\_17

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	136857	2	17	55	1295	1955	0	136857	0	1090908
2	1865058	1	17	90	1960	0	0	2005165	1090909	2181817
3	1179736	1	17	100	1459	0	0	3186861	2181818	3272726
4	773897	3	17	95	1399	1655	1986	3962217	3272727	4363635
5	699444	3	17	60	1173	1437	1131	4666701	4363636	5454544
6	1687778	1	17	55	1307	0	0	6358220	5454545	6545453
7	739217	2	17	85	1598	1529	0	7098744	6545454	7636362
8	1494632	3	17	80	1496	1615	1785	8596503	7636363	8727271
9	732729	1	17	90	1669	0	0	9334128	8727272	9818180
10	1403703	1	17	95	1721	0	0	10739500	9818181	10909089
11	1014112	1	17	65	1875	0	0	11755333	10909090	11999998

Total number of pulses in waveform = 19  
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### Type 5 Radar Waveform\_18

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	58859	2	9	50	1935	1961	0	58859	0	705881
2	688155	1	9	65	1387	0	0	750910	705882	1411763
3	931598	3	9	75	1633	1522	1487	1683895	1411764	2117645
4	1049026	1	9	50	1798	0	0	2737563	2117646	2823527
5	672656	3	9	50	1014	1322	1002	3412017	2823528	3529409
6	489884	2	9	85	1685	1738	0	3905239	3529410	4235291
7	372411	3	9	95	1875	1831	1650	4281073	4235292	4941173
8	961613	2	9	70	1038	1088	0	5248042	4941174	5647055
9	938394	2	9	100	1683	1879	0	6188562	5647056	6352937
10	191062	3	9	50	1815	1174	1690	6383186	6352938	7058819
11	1162881	1	9	75	1024	0	0	7550746	7058820	7764701
12	434136	3	9	100	1649	1729	1605	7985906	7764702	8470583
13	1088804	1	9	65	1894	0	0	9079693	8470584	9176465
14	671465	2	9	55	1849	1518	0	9753052	9176466	9882347
15	812155	3	9	85	1795	1708	1047	10568574	9882348	10588229
16	478616	3	9	95	1870	1289	1447	11051740	10588230	11294111
17	281956	1	9	75	1695	0	0	11338302	11294112	11999993

Total number of pulses in waveform = 36  
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### Type 5 Radar Waveform\_19

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	817358	1	19	50	1992	0	0	817358	0	1090908
2	824877	1	19	50	1178	0	0	1644227	1090909	2181817
3	1275931	1	19	50	1457	0	0	2921336	2181818	3272726
4	393569	1	19	80	1223	0	0	3316362	3272727	4363635
5	1056939	3	19	75	1651	1851	1046	4374524	4363636	5454544
6	1791693	2	19	55	1747	1073	0	6170765	5454545	6545453
7	805010	3	19	85	1793	1218	1253	6978595	6545454	7636362
8	1051713	2	19	100	1504	1560	0	8034572	7636363	8727271
9	1549834	3	19	60	1190	1193	1757	9587470	8727272	9818180
10	870189	1	19	90	1018	0	0	10461799	9818181	10909089
11	561519	1	19	95	1017	0	0	11024336	10909090	11999998

Total number of pulses in waveform = 19  
\*\*\*\*\*



### Type 5 Radar Waveform\_20

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	355212	3	12	60	1714	1661	1173	355212	0	1333332
2	1542330	1	12	90	1662	0	0	1902090	1333333	2666665
3	872948	1	12	65	1434	0	0	2776700	2666666	3999998
4	2063996	3	12	55	1631	1885	1265	4842130	3999999	5333331
5	521791	1	12	95	1298	0	0	5368702	5333332	6666664
6	1669571	1	12	80	1851	0	0	7039571	6666665	7999997
7	1736721	3	12	80	1131	1973	1173	8778143	7999998	9333330
8	662254	3	12	60	1713	1126	1579	9444674	9333331	10666663
9	1459001	1	12	55	1146	0	0	10908093	10666664	11999996

Total number of pulses in waveform = 17  
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### Type 5 Radar Waveform\_21

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	67465	2	8	50	1116	1446	0	67465	0	705881
2	996270	3	8	90	1280	1729	1802	1066297	705882	1411763
3	918824	1	8	55	1972	0	0	1989932	1411764	2117645
4	791786	2	8	70	1915	1543	0	2783690	2117646	2823527
5	692510	1	8	100	1116	0	0	3479658	2823528	3529409
6	686583	3	8	85	1494	1688	1682	4167357	3529410	4235291
7	750459	3	8	100	1578	1757	1327	4922680	4235292	4941173
8	527685	3	8	70	1890	1886	1811	5455027	4941174	5647055
9	246024	2	8	90	1671	1386	0	5706638	5647056	6352937
10	920395	2	8	65	1968	1536	0	6630090	6352938	7058819
11	978776	3	8	90	1462	1689	1899	7612370	7058820	7764701
12	549943	3	8	90	1665	1723	1436	8167363	7764702	8470583
13	739765	2	8	100	1500	1407	0	8911952	8470584	9176465
14	282740	3	8	70	1944	1930	1373	9197699	9176466	9882347
15	877960	2	8	55	1549	1129	0	10080806	9882348	10588229
16	760297	1	8	60	1954	0	0	10849781	10588230	11294111
17	798913	2	8	95	1599	1196	0	11644648	11294112	11999993

Total number of pulses in waveform = 38  
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### Type 5 Radar Waveform\_22

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	1026358	1	12	85	1276	0	0	1026358	0	1499999
2	1966423	3	12	90	1320	1791	1439	2994057	1500000	2999999
3	1135071	3	12	55	1584	1424	1333	4133678	3000000	4499999
4	1517969	3	12	65	1742	1843	1712	5655988	4500000	5999999
5	953408	1	12	75	1915	0	0	6614693	6000000	7499999
6	2036284	1	12	100	1095	0	0	8652892	7500000	8999999
7	1547168	3	12	70	1639	1000	1877	10201155	9000000	10499999
8	1607314	1	12	70	1198	0	0	11812985	10500000	11999999

Total number of pulses in waveform = 16  
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### Type 5 Radar Waveform\_23

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	788326	2	10	95	1153	1558	0	788326	0	1499999
2	1528192	1	10	65	1496	0	0	2319229	1500000	2999999
3	1925669	3	10	95	1039	1578	1495	4246394	3000000	4499999
4	270185	2	10	100	1045	1994	0	4520691	4500000	5999999
5	2428872	3	10	85	1338	1304	1886	6952602	6000000	7499999
6	695548	1	10	90	1729	0	0	7652678	7500000	8999999
7	1404166	2	10	90	1765	1931	0	9058573	9000000	10499999
8	1578630	3	10	95	1998	1934	1303	10640899	10500000	11999999

Total number of pulses in waveform = 17

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### Type 5 Radar Waveform\_24

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	448854	2	5	80	1410	1108	0	448854	0	1090908
2	1284584	1	5	95	1435	0	0	1735956	1090909	2181817
3	662786	2	5	85	1576	1572	0	2400177	2181818	3272726
4	994563	1	5	100	1075	0	0	3397888	3272727	4363635
5	1850788	1	5	50	1556	0	0	5249751	4363636	5454544
6	668540	1	5	75	1401	0	0	5919847	5454545	6545453
7	1585431	2	5	100	1792	1457	0	7506679	6545454	7636362
8	339715	1	5	60	1310	0	0	7849643	7636363	8727271
9	1130991	1	5	95	1512	0	0	8981944	8727272	9818180
10	1103593	3	5	90	1013	1383	1332	10087049	9818181	10909089
11	1034066	2	5	70	1712	1494	0	11124843	10909090	11999998

Total number of pulses in waveform = 17

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### Type 5 Radar Waveform\_25

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	446955	1	18	60	1589	0	0	446955	0	705881
2	581524	3	18	75	1486	1025	1855	1030068	705882	1411763
3	745496	1	18	100	1000	0	0	1779930	1411764	2117645
4	759261	2	18	55	1361	1547	0	2540191	2117646	2823527
5	822520	1	18	60	1694	0	0	3365619	2823528	3529409
6	344732	2	18	90	1286	1142	0	3712045	3529410	4235291
7	656193	1	18	65	1725	0	0	4370666	4235292	4941173
8	727953	3	18	50	1395	1054	1621	5100344	4941174	5647055
9	781374	3	18	100	1479	1495	1034	5885788	5647056	6352937
10	1062702	2	18	50	1238	1563	0	6952498	6352938	7058819
11	135836	2	18	75	1112	1616	0	7091135	7058820	7764701
12	1157123	3	18	50	1695	1607	1234	8250986	7764702	8470583
13	756482	3	18	60	1069	1186	1697	9012004	8470584	9176465
14	769050	1	18	65	1561	0	0	9785006	9176466	9882347
15	702605	3	18	55	1407	1914	1049	10489172	9882348	10588229
16	610367	1	18	50	1614	0	0	11103909	10588230	11294111
17	343541	3	18	100	1012	1262	1258	11449064	11294112	11999993

Total number of pulses in waveform = 35

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### Type 5 Radar Waveform\_26

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	9168	3	6	50	1980	1179	1740	9168	0	631578
2	844408	1	6	90	1094	0	0	858475	631579	1263157
3	791393	3	6	65	1384	1716	1627	1650962	1263158	1894736
4	487533	1	6	75	1504	0	0	2143222	1894737	2526315
5	573722	3	6	85	1713	1704	1487	2718448	2526316	3157894
6	618505	1	6	80	1976	0	0	3341857	3157895	3789473
7	767476	3	6	80	1423	1208	1822	4111309	3789474	4421052
8	834466	2	6	70	1475	1346	0	4950228	4421053	5052631
9	686478	1	6	100	1357	0	0	5638527	5052632	5684210
10	100420	1	6	100	1999	0	0	5740304	5684211	6315789
11	742499	2	6	65	1612	1069	0	6484802	6315790	6947368
12	963260	1	6	100	1911	0	0	7450743	6947369	7578947
13	177501	1	6	65	1891	0	0	7630155	7578948	8210526
14	936025	2	6	65	1721	1190	0	8568071	8210527	8842105
15	665476	1	6	65	1417	0	0	9236458	8842106	9473684
16	709493	2	6	50	1518	1431	0	9947368	9473685	10105263
17	603203	2	6	50	1946	1026	0	10553520	10105264	10736842
18	570429	1	6	100	1115	0	0	11126921	10736843	11368421
19	665438	1	6	55	1390	0	0	11793474	11368422	12000000

Total number of pulses in waveform = 32  
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### Type 5 Radar Waveform\_27

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	371146	3	14	90	1206	1363	1779	371146	0	666666
2	684457	1	14	70	1733	0	0	1059951	666667	1333333
3	729505	3	14	50	1827	1971	1304	1791189	1333334	2000000
4	805616	1	14	50	1216	0	0	2601907	2000001	2666667
5	463790	1	14	60	1033	0	0	3056913	2666668	3333334
6	669506	2	14	100	1513	1674	0	3727452	3333335	4000001
7	412754	2	14	100	1120	1055	0	4143393	4000002	4666668
8	939457	1	14	60	1890	0	0	5085025	4666669	5333335
9	876303	1	14	70	1663	0	0	5963218	5333336	6000002
10	694684	2	14	70	1825	1869	0	6659445	6000003	6666669
11	265211	1	14	70	1171	0	0	6928350	6666670	7333336
12	729892	1	14	80	1026	0	0	7659413	7333337	8000003
13	967173	1	14	70	1129	0	0	8627612	8000004	8666670
14	264154	3	14	100	1961	1198	1480	8892895	8666671	9333337
15	698048	2	14	90	1210	1015	0	9595582	9333338	10000004
16	620029	1	14	55	1102	0	0	10217806	10000005	10666671
17	1039982	3	14	100	1830	1096	1896	11258920	10666672	11333338
18	510210	1	14	95	1282	0	0	11773952	11333339	12000005

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

### Type 5 Radar Waveform\_28

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	395292	1	9	100	1607	0	0	395292	0	1090908
2	1421629	2	9	85	1719	1613	0	1818528	1090909	2181817
3	1306125	3	9	70	1432	1475	1956	3127985	2181818	3272726
4	896508	2	9	55	1362	1550	0	4029356	3272727	4363635
5	1098950	1	9	100	1323	0	0	5131218	4363636	5454544
6	1275370	2	9	85	1698	1694	0	6407911	5454545	6545453
7	738342	2	9	75	1638	1316	0	7149645	6545454	7636362
8	1499164	1	9	100	1985	0	0	8651763	7636363	8727271
9	414403	2	9	100	1841	1855	0	9068151	8727272	9818180
10	746885	2	9	80	1569	1210	0	9818732	9818181	10909089
11	1445669	3	9	60	1189	1554	1730	11267180	10909090	11999998

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





### Type 5 Radar Waveform\_29

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	182012	1	19	95	1614	0	0	182012	0	857142
2	1321790	2	19	55	1199	1220	0	1505416	857143	1714285
3	554158	3	19	100	1081	1754	1000	2061993	1714286	2571428
4	644167	3	19	90	1684	1329	1939	2709995	2571429	3428571
5	1222940	1	19	60	1721	0	0	3937887	3428572	4285714
6	720258	1	19	100	1599	0	0	4659866	4285715	5142857
7	1110307	3	19	85	1794	1322	1677	5771772	5142858	6000000
8	269101	2	19	90	1724	1500	0	6045666	6000001	6857143
9	1605499	2	19	90	1180	1647	0	7654389	6857144	7714286
10	110319	1	19	65	1772	0	0	7767535	7714287	8571429
11	1080550	1	19	65	1450	0	0	8849857	8571430	9428572
12	798525	1	19	75	1756	0	0	9649832	9428573	10285715
13	1306554	1	19	80	1059	0	0	10958142	10285716	11142858
14	696742	2	19	80	1494	1253	0	11655943	11142859	12000001

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

### Type 5 Radar Waveform\_30

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	1076123	3	17	75	1705	1579	1064	1076123	0	1499999
2	1761933	1	17	60	1671	0	0	2842404	1500000	2999999
3	1606903	3	17	50	1814	1545	1031	4450978	3000000	4499999
4	857998	2	17	85	1754	1435	0	5313366	4500000	5999999
5	920358	3	17	95	1129	1539	1416	6236913	6000000	7499999
6	2196451	3	17	55	1702	1285	1854	8437448	7500000	8999999
7	1902034	2	17	70	1404	1777	0	10344323	9000000	10499999
8	788637	1	17	55	1206	0	0	11136141	10500000	11999999

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

## Radar Type 6 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	1=Detection 0=No Detection	Trail #	Test Freq. (MHz)	1=Detection 0=No Detection
1	5253	1	16	5292	1
2	5256	1	17	5295	1
3	5259	1	18	5298	1
4	5262	1	19	5301	1
5	5265	1	20	5304	1
6	5268	1	21	5307	1
7	5271	1	22	5309	1
8	5274	1	23	5311	1
9	5277	1	24	5313	1
10	5280	1	25	5315	1
11	5283	1	26	5316	1
12	5286	1	27	5319	1
13	5289	1	28	5322	1
14	5290	1	29	5325	1
15	5290	1	30	5327	1
Detection Percentage (%)					100%

Radar waveform #1			Radar waveform #2		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
2	5288	6	8	5320	24
3	5312	9	9	5305	27
5	5293	15	13	5263	39
11	5317	33	15	5281	45
22	5289	66	23	5270	69
27	5306	81	24	5291	72
48	5271	144	27	5295	81
50	5283	150	35	5313	105
65	5295	195	46	5265	138
69	5272	207	48	5287	144
73	5299	219	58	5306	174
85	5261	255	60	5275	180
86	5285	258	75	5269	225
88	5320	264	76	5273	228
89	5292	267	79	5285	237
97	5290	291	85	5272	255
--	--	--	88	5277	264
--	--	--	90	5311	270



Radar waveform #3			Radar waveform #4		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
2	5303	6	17	5290	51
11	5294	33	38	5311	114
31	5304	93	44	5297	132
40	5271	120	47	5289	141
43	5314	129	52	5285	156
48	5275	144	55	5280	165
49	5264	147	73	5301	219
57	5309	171	76	5274	228
72	5284	216	82	5319	246
91	5260	273	84	5291	252
2	5303	6	89	5269	267
11	5294	33	92	5284	276
--	--	--	95	5313	285
--	--	--	97	5292	291
--	--	--	99	5309	297

Radar waveform #5			Radar waveform #6		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
33	5297	99	5	5309	15
35	5285	105	7	5265	21
39	5280	117	10	5299	30
75	5294	225	14	5273	42
85	5267	255	17	5267	51
90	5302	270	18	5287	54
96	5277	288	41	5281	123
--	--	--	47	5286	141
--	--	--	59	5261	177
--	--	--	66	5298	198
--	--	--	76	5300	228
--	--	--	91	5314	273
--	--	--	95	5317	285
--	--	--	97	5312	291

Radar waveform #7			Radar waveform #8		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
2	5283	6	10	5293	30
8	5263	24	12	5279	36
26	5268	78	17	5312	51
37	5275	111	22	5283	66
44	5306	132	29	5275	87
45	5305	135	36	5308	108
53	5267	159	52	5320	156
69	5271	207	53	5319	159
74	5296	222	73	5303	219
75	5280	225	80	5288	240
97	5285	291	99	5294	297



Radar waveform #9			Radar waveform #10		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
18	5276	54	2	5304	6
25	5264	75	3	5281	9
38	5274	114	5	5299	15
42	5265	126	22	5293	66
63	5287	189	27	5278	81
79	5291	237	28	5306	84
92	5288	276	29	5270	87
96	5290	288	31	5302	93
--	--	--	35	5272	105
--	--	--	39	5268	117
--	--	--	44	5267	132
--	--	--	52	5263	156
--	--	--	63	5265	189
--	--	--	72	5287	216
--	--	--	73	5314	219
--	--	--	84	5289	252

Radar waveform #11			Radar waveform #12		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
1	5314	3	1	5268	3
2	5275	6	10	5278	30
5	5288	15	11	5262	33
10	5302	30	23	5301	69
15	5307	45	25	5298	75
33	5318	99	34	5297	102
42	5261	126	37	5316	111
63	5286	189	46	5296	138
75	5316	225	52	5314	156
92	5313	276	55	5288	165
93	5282	279	56	5282	168
--	--	--	65	5300	195
--	--	--	98	5270	294

Radar waveform #13			Radar waveform #14		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
0	5301	0	18	5280	54
4	5288	12	24	5293	72
17	5298	51	36	5283	108
20	5310	60	48	5295	144
23	5304	69	49	5269	147
31	5294	93	61	5307	183
33	5272	99	73	5317	219
44	5261	132	78	5294	234
56	5309	168	83	5264	249
59	5311	177	--	--	--
62	5314	186	--	--	--
65	5320	195	--	--	--
66	5290	198	--	--	--
70	5281	210	--	--	--
71	5296	213	--	--	--
73	5303	219	--	--	--
85	5280	255	--	--	--



Radar waveform #15			Radar waveform #16		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
5	5304	15	1	5272	3
6	5296	18	5	5299	15
33	5290	99	8	5276	24
41	5320	123	15	5285	45
48	5308	144	18	5306	54
49	5301	147	35	5269	105
53	5317	159	41	5263	123
56	5272	168	59	5307	177
70	5299	210	65	5277	195
72	5307	216	70	5304	210
76	5297	228	80	5294	240
80	5310	240	--	--	--
85	5295	255	--	--	--
92	5280	276	--	--	--

Radar waveform #17			Radar waveform #18		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
6	5292	18	7	5274	21
10	5317	30	18	5311	54
18	5277	54	53	5303	159
21	5261	63	55	5262	165
30	5266	90	58	5301	174
31	5320	93	59	5302	177
37	5310	111	61	5285	183
41	5293	123	65	5295	195
54	5285	162	72	5283	216
55	5268	165	74	5291	222
61	5284	183	79	5260	237
64	5267	192	--	--	--
65	5291	195	--	--	--
92	5314	276	--	--	--
95	5295	285	--	--	--





Radar waveform #19			Radar waveform #20		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
10	5261	30	7	5272	21
18	5267	54	19	5274	57
31	5293	93	26	5307	78
64	5300	192	56	5278	168
70	5316	210	66	5270	198
71	5302	213	72	5320	216
72	5279	216	78	5306	234
73	5292	219	92	5318	276
92	5305	276	--	--	--
93	5283	279	--	--	--
99	5307	297	--	--	--

Radar waveform #21			Radar waveform #22		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
1	5281	3	8	5262	24
18	5275	54	27	5316	81
24	5277	72	29	5303	87
26	5314	78	32	5285	96
67	5304	201	53	5273	159
69	5267	207	57	5305	171
71	5305	213	58	5270	174
75	5303	225	65	5265	195
91	5319	273	82	5307	246
95	5315	285	83	5263	249
98	5301	294	89	5266	267
--	--	--	93	5260	279

Radar waveform #23			Radar waveform #24		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
34	5316	102	1	5305	3
36	5268	108	6	5276	18
40	5295	120	8	5275	24
43	5284	129	12	5286	36
83	5307	249	13	5290	39
87	5290	261	24	5267	72
90	5305	270	25	5280	75
--	--	--	27	5284	81
--	--	--	43	5271	129
--	--	--	62	5269	186
--	--	--	67	5309	201
--	--	--	72	5264	216

Radar waveform #25			Radar waveform #26		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
16	5275	48	12	5286	36
22	5304	66	13	5294	39
27	5298	81	18	5303	54
28	5280	84	27	5289	81
31	5290	93	29	5266	87
36	5286	108	30	5297	90
46	5262	138	33	5310	99
63	5281	189	37	5282	111
67	5306	201	48	5264	144
75	5310	225	63	5273	189
78	5307	234	74	5307	222
79	5287	237	75	5309	225
90	5285	270	80	5312	240
--	--	--	82	5268	246
--	--	--	85	5320	255
--	--	--	92	5265	276
--	--	--	99	5302	297

Radar waveform #27			Radar waveform #28		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
2	5280	6	3	5263	9
10	5282	30	13	5319	39
12	5318	36	16	5317	48
38	5287	114	50	5312	150
47	5286	141	65	5270	195
50	5268	150	69	5304	207
61	5295	183	71	5314	213
69	5276	207	73	5264	219
80	5270	240	76	5273	228
96	5311	288	79	5283	237

Radar waveform #29			Radar waveform #30		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
12	5320	36	15	5278	45
24	5309	72	16	5280	48
33	5268	99	20	5285	60
68	5300	204	26	5290	78
70	5284	210	32	5281	96
75	5282	225	38	5320	114
--	--	--	64	5266	192
--	--	--	77	5302	231
--	--	--	85	5293	255
--	--	--	89	5318	267
--	--	--	90	5265	270

## 6. CONCLUSION

The data collected relate only the item(s) tested and show that the **AC1750 Wi-Fi Range Extender, Model No.: RE450, FCC ID: TE7RE450V2** is in compliance with Part 15E of the FCC Rules.

————— The End —————