

# DFS MEASUREMENT REPORT

## FCC PART 15 Subpart E / RSS-247 Issue 2

**FCC ID:** 2AI9TOAW-AP1201

**APPLICANT:** ALE USA Inc.

**Application Type:** Certification

**Product:** OmniAccess Stellar

**Model No.:** OAW-AP1201

**Brand Name:** Alcatel-Lucent Enterprise

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

**FCC Rule Part(s):** Part 15 Subpart E – 15.407 Section (h)(2)

KDB 905462 D02v02, KDB 905462 D04v01

**IC Part(s):** RSS-247 Issue 2

**Type of Device:** Master Device

**Test Date:** August 19 ~ September 08, 2018

Reviewed By:

*Sunny Sun*  
\_\_\_\_\_  
( Sunny Sun )

Approved By:

*Robin Wu*  
\_\_\_\_\_  
( Robin Wu )



The test results relate only to the samples tested.

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

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

## Revision History

Report No.	Version	Description	Issue Date	Note
1810RSU015-U7	Rev. 01	Initial Report	10-31-2018	Valid

Note: This report is supplemented to MRT Original “1808RSU025-U7” Report updating applicant, product name and model number.

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## §2.1033 General Information

<b>Applicant:</b>	ALE USA Inc.
<b>Applicant Address:</b>	26801 West Agoura Road, Calabasas, CA 91301, United States.
<b>Manufacturer:</b>	ALE USA Inc.
<b>Manufacturer Address:</b>	26801 West Agoura Road, Calabasas, CA 91301, United States.
<b>Test Site:</b>	MRT Technology (Suzhou) Co., Ltd
<b>Test Site Address:</b>	D8 Building, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China
<b>FCC Registration No.:</b>	893164
<b>IC Registration No.:</b>	11384A-1
<b>Test Device Serial No.:</b>	N/A <input type="checkbox"/> Production <input checked="" type="checkbox"/> Pre-Production <input type="checkbox"/> Engineering

### Test Facility / Accreditations

Measurements were performed at MRT Laboratory located in Tian'edang Rd., Suzhou, China.

- MRT facility is a FCC registered (MRT Reg. No. 893164) test facility with the site description report on file and has met all the requirements specified in ANSI C63.4-2014.
- MRT facility is an IC registered (MRT Reg. No. 11384A-1) test laboratory with the site description on file at Industry Canada.
- MRT facility is a VCCI registered (R-20025, G-20034, C-20020, T-20020) test laboratory with the site description on file at VCCI Council.
- MRT Lab is accredited to ISO 17025 by the American Association for Laboratory Accreditation (A2LA) under the American Association for Laboratory Accreditation Program (A2LA Cert. No. 3628.01) in EMC, Telecommunications, Radio and SAR testing.



## 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 Taihu Lake. These measurement tests were conducted at the MRT Technology (Suzhou) Co., Ltd. Facility located at D8 Building, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China. The measurement facility compliant with the test site requirements specified in ANSI C63.4-2014.



## 2. PRODUCT INFORMATION

### 2.1. Equipment Description

Product Name:	OmniAccess Stellar
Model No.:	OAW-AP1201
Brand Name:	Alcatel-Lucent Enterprise
Wi-Fi Specification	802.11a/b/g/n/ac
Bluetooth Specification:	v5.0
Operating Temperature:	0 ~ 45 °C
Power Type:	POE input or AC adapter input
Operating Environment:	Indoor Use
<b>Accessories</b>	
Adapter 1#	Model No.: ADP-30HR B Input Power: 100 - 240V ~ 50/60Hz, 1.0A Output Power: 48VDC/0.66A
Adapter 2#	Model No.: PD-9001 GR/AT/AC Input Power: 100 - 240V ~ 50/60Hz, 0.67A Output Power: 55VDC/0.6A

### 2.2. Product Specification Subjective to this Report

Frequency Range:	For 802.11a/n-HT20/ac-VHT20: 5260~5320MHz, 5500~5720MHz For 802.11n-HT40/ac-VHT40: 5270~5310MHz, 5510~5710MHz, For 802.11ac-VHT80: 5290MHz, 5530MHz, 5610MHz, 5690MHz
Type of Modulation:	802.11a/n/ac: OFDM
Data Rate:	802.11a: 6/9/12/18/24/36/48/54Mbps 802.11n: up to 300Mbps 802.11ac: up to 866.6Mbps
Power-on cycle:	Requires 108.0 seconds to complete its power-on cycle
Uniform Spreading (For DFS Frequency Band):	For the 5250-5350MHz, 5470-5725 MHz bands, the Master device provides, on aggregate, uniform loading of the spectrum across all devices by selecting an operating channel among the available channels using a random algorithm.

Note: For other features of this EUT, test report will be issued separately.

### 2.3. Description of Available Antennas

Antenna Type	Frequency Band (GHz)	Tx Paths	Per Chain Max Antenna Gain (dBi)		Beam-Forming Directional Gain (dBi)	CDD Directional Gain(dBi)	
			Ant 0	Ant 1		For Power	For PSD
<b>Wi-Fi Internal Antenna</b>							
PCB	2412 ~ 2462	2	4.70	3.70	7.22	4.70	7.71
	5150 ~ 5250	2	3.80	3.00	6.42	3.80	6.81
	5250 ~ 5350	2	3.80	3.00	6.42	3.80	6.81
	5470 ~ 5725	2	4.60	3.80	7.22	4.60	7.61
	5725 ~ 5850	2	4.60	3.00	6.85	4.60	7.61
<b>Bluetooth Internal Antenna</b>							
PCB	2402 ~ 2480	1	3.70		--		

Note:

1. The EUT supports SISO technology for 802.11b mode only.
2. The EUT supports Cyclic Delay Diversity (CDD) mode, and CDD signals are correlated.

For CDD transmissions, directional gain is calculated as follows,  $N_{ANT} = 2$ ,  $N_{SS} = 1$ .

If all 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 =  $10 \log (N_{ANT}/ N_{SS})$  dB = 3.01;

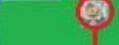
- For power measurements on IEEE 802.11 devices,

Array Gain = 0 dB for  $N_{ANT} \leq 4$ ;

If antenna gains are not equal, Directional gain may be calculated by using the formulas applicable to equal gain antennas with  $G_{ANT}$  set equal to the gain of the antenna having the highest gain.

The EUT also supports Beam Forming mode, and the Beam Forming support 802.11n/ac, not include 802.11a/b/g. The directional gain =  $10 * \log[(10^{G1/20} + 10^{G2/20} + \dots + 10^{GN/20})^2 / N_{ANT}]$  dB.

## 2.4. Description of Antenna RF Port

Antenna RF Port				
--	2.4GHz RF Port		5GHz RF Port	
Software Control Port	Ant 0	Ant 1	Ant 0	Ant 1
	 Bluetooth RF Port		 2.4GHz / 5GHz RF Port 1	 2.4GHz / 5GHz RF Port 0

## 2.5. 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
120	5600 MHz	124	5620 MHz	128	5640 MHz
132	5660 MHz	136	5680 MHz	140	5700 MHz
144	5720 MHz	--	--	--	--

802.11n-HT40/ac-VHT40

Channel	Frequency	Channel	Frequency	Channel	Frequency
54	5270 MHz	62	5310 MHz	102	5510 MHz
110	5550 MHz	118	5590 MHz	126	5630 MHz
134	5670 MHz	142	5710 MHz	--	--

802.11ac-VHT80

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

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

## 2.6. Test Mode

Test Mode	Mode 1: Communication with Notebook
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### 3. DFS DETECTION THRESHOLDS AND RADAR TEST WAVEFORMS

#### 3.1. Applicability

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

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

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

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

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

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

### 3.2. DFS Devices Requirements

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

- (a) The Master Device will use DFS in order to detect Radar Waveforms with received signal strength above the DFS Detection Threshold in the 5250 ~ 5350 MHz and 5470 ~ 5725 MHz bands. DFS is not required in the 5150 ~ 5250 MHz or 5725 ~ 5825 MHz bands.
- (b) Before initiating a network on a Channel, the Master Device will perform a Channel Availability Check for 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.

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

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

Note 3: During the U-NII Detection Bandwidth detection test, radar type 0 should be used. For each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic.

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

### **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

Note 1: This is the level at the input of the receiver assuming a 0 dBi receive antenna.

Note 2: Throughout these test procedures an additional 1 dB has been added to the amplitude of the test transmission waveforms to account for variations in measurement equipment. This will ensure that the test signal is at or above the detection threshold level to trigger a DFS response.

Note3: EIRP is based on the highest antenna gain. For MIMO devices refer to KDB Publication 662911 D01.

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

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

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

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

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

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

**Long Pulse Radar Test Waveform**

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

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

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

**Frequency Hopping Radar Test Waveform**

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

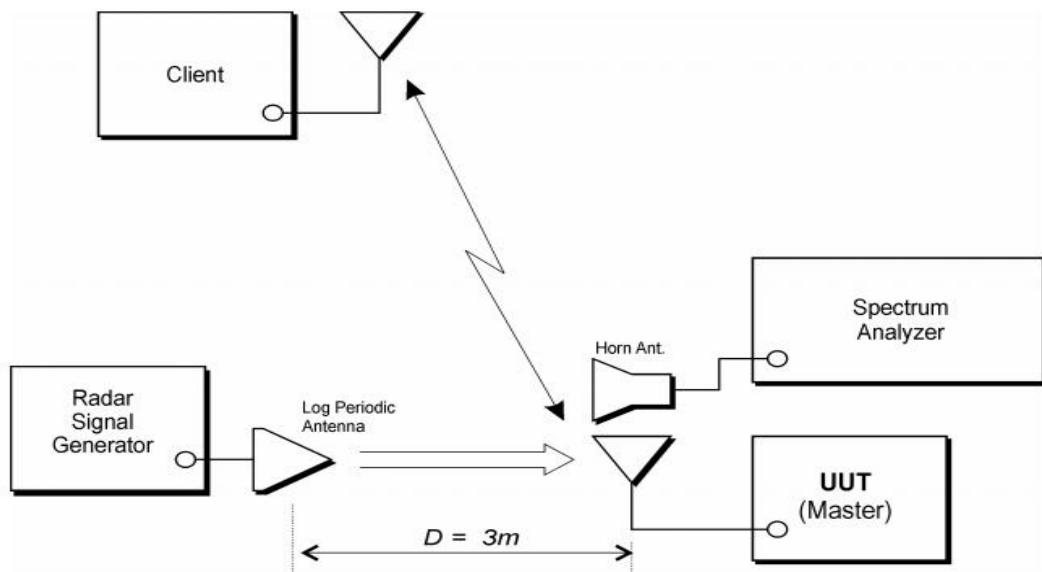
**Table 3-8: Parameters for Frequency Hopping Radar Waveforms**

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

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

### 3.5. Test Setup

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



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

#### 4. TEST EQUIPMENT CALIBRATION DATE

Dynamic Frequency Selection (DFS) - SR5

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
Spectrum Analyzer	Agilent	N9020A	MRTSUE06106	1 year	2019/04/20
Vector Signal Generator	Agilent	E4438C	MRTSUE06026	1 year	2018/12/08
Thermohygrometer	Testo	608-H1	MRTSUE06222	1 year	2018/11/21

Client Information

Instrument	Manufacturer	Type No.
Wireless Network Adapter	Intel	7260HMW

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

## 5. TEST RESULT

### 5.1. Summary

**Product Name:** OmniAccess Stellar

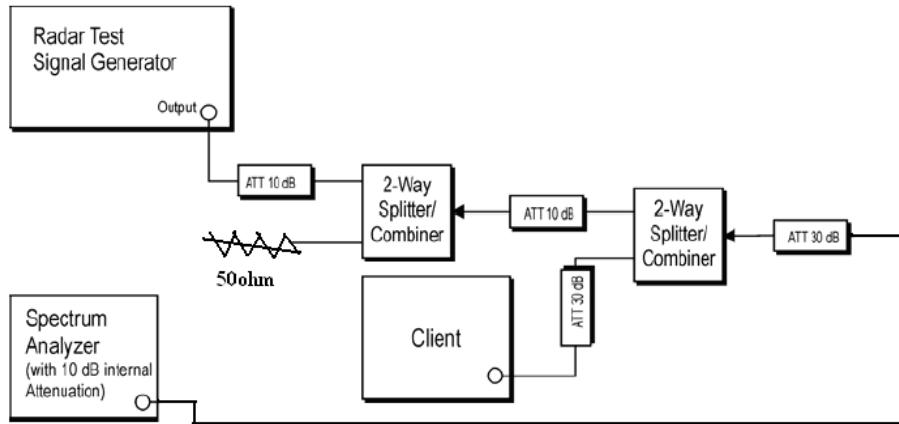
**FCC ID:** 2AI9TOAW-AP1201

Parameter	Limit	Test Result	Reference
NII Detection Bandwidth Measurement	Refer Table 3-3	Pass	Section 5.3
Initial Channel Availability Check Time	Refer Table 3-3	Pass	Section 5.4
Radar Burst at the Beginning of the Channel Availability Check Time	Refer Table 3-3	Pass	Section 5.5
Radar Burst at the End of the Channel Availability Check Time	Refer Table 3-3	Pass	Section 5.6
In-Service Monitoring for Channel Move Time, Channel Closing Transmission Time	Refer Table 3-3	Pass	Section 5.7
Non-Occupancy Period	Refer Table 3-3	Pass	Section 5.7
Statistical Performance Check	Refer Table 3-3	Pass	Section 5.8

## 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.



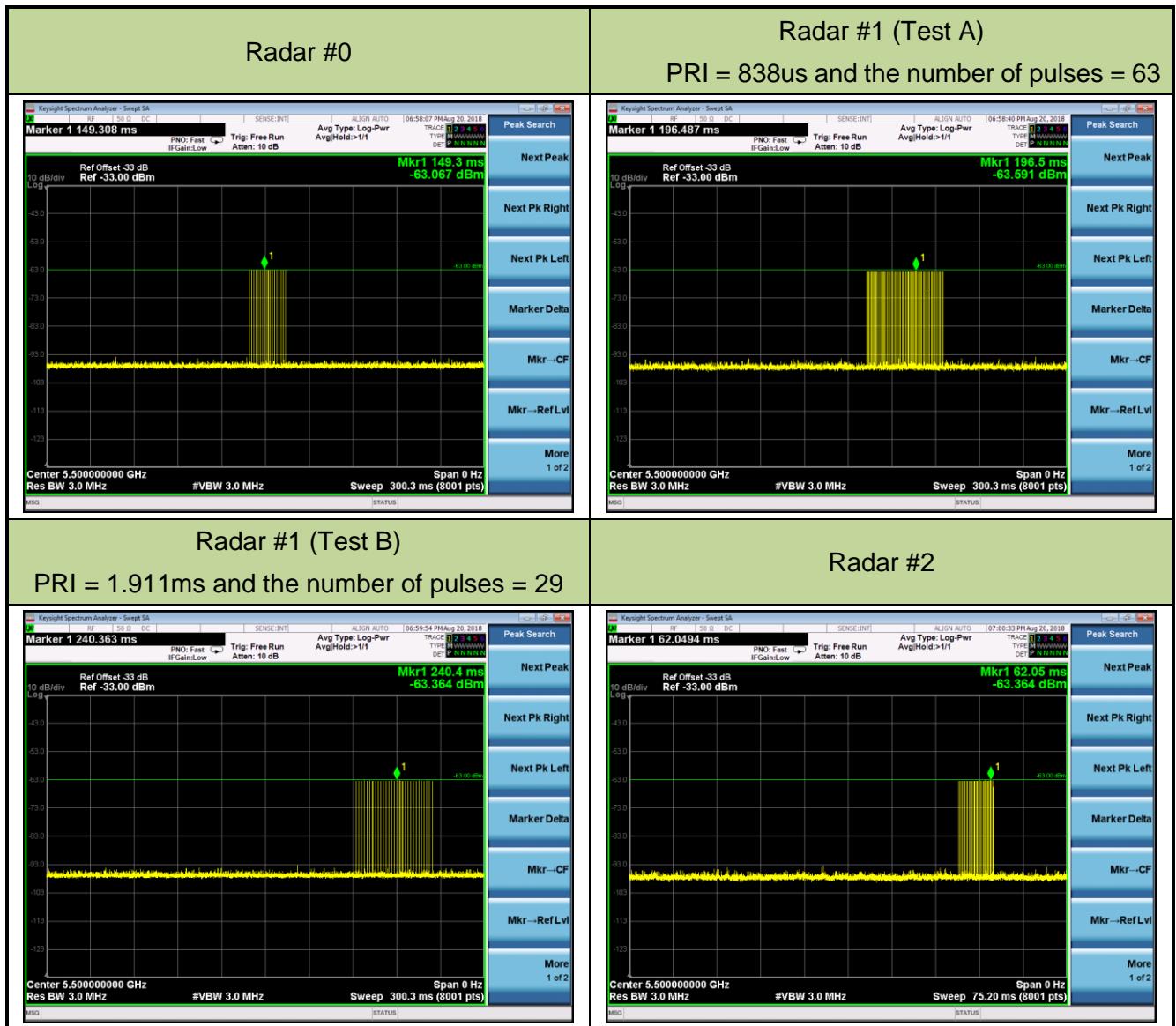
**Figure 3-2: Conducted Test Setup**

### 5.2.2. Calibration Procedure

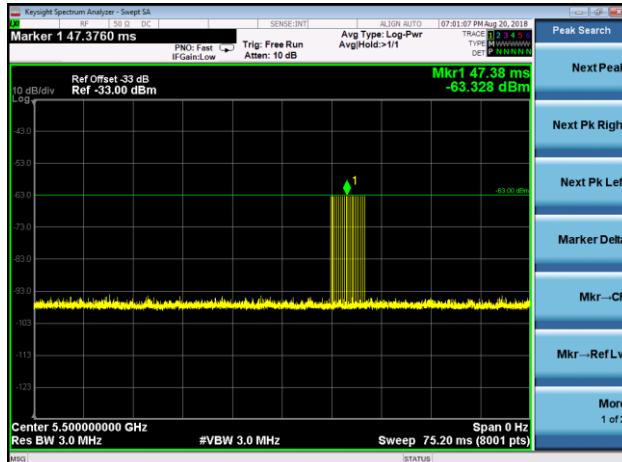
The Interference Radar Detection Threshold Level is  $(-64\text{dBm}) + (0) [\text{dBi}] + 1 \text{ dB} = -63 \text{ dBm}$  that had been taken into account the output power range and antenna gain. The above equipment setup was used to calibrate the conducted Radar Waveform. A vector signal generator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

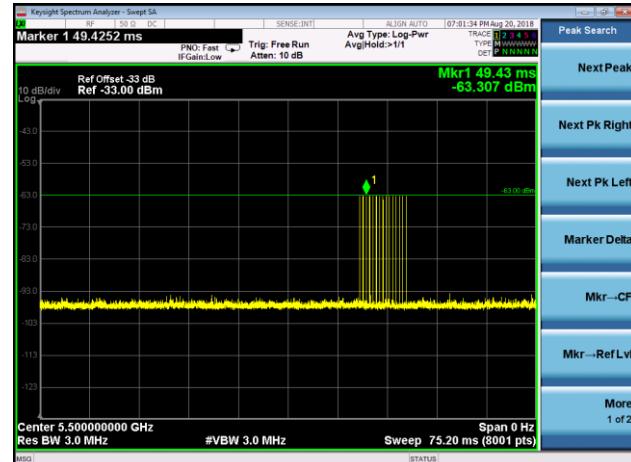
Product	OmniAccess Stellar	Temperature	27°C
Test Engineer	Amy Zhang	Relative Humidity	65%
Test Site	SR5	Test Date	2018/08/20
Test Item	Radar Waveform Calibration		



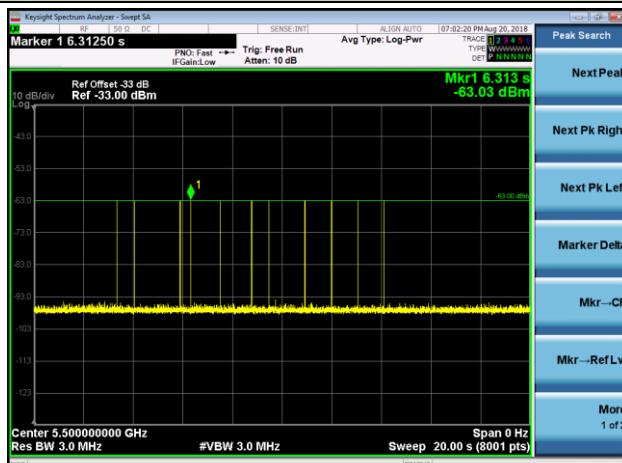
Radar #3



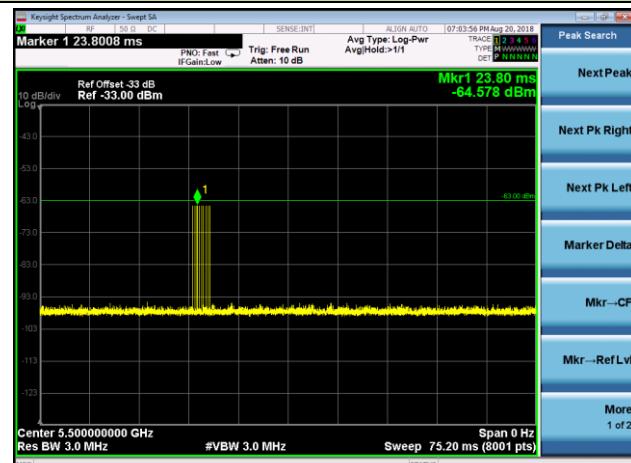
Radar #4



Radar #5



Radar #6



#### **5.2.4. Channel Loading Test Result**

Product	OmniAccess Stellar	Temperature	27°C
Test Engineer	Amy Zhang	Relative Humidity	65%
Test Site	SR5	Test Date	2018/09/04
Test Item	Channel Loading		



Test Mode	Test Frequency	Packet ratio	Requirement ratio	Test Result
802.11a	5500 MHz	31.62%	≥ 17%	Pass
802.11n-HT40	5510 MHz	35.37%	≥ 17%	Pass
802.11ac-VHT80	5530 MHz	21.12%	≥ 17%	Pass

Note: System testing was performed with the designated iperf test file. 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).

### **5.3. NII Detection Bandwidth Measurement**

#### **5.3.1. Test Limit**

Minimum 100% of the NII 99% transmission power bandwidth. During the U-NII Detection Bandwidth detection test, each frequency step the minimum percentage of detection is 90 percent.

Measurements are performed with no data traffic.

#### **5.3.2. Test Procedure**

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

7. The U-NII Detection Bandwidth is calculated as follows: U-NII Detection Bandwidth = FH – FL
8. The U-NII Detection Bandwidth must be at least 100% of the EUT transmitter 99% power, otherwise, the EUT does not comply with DFS requirements.

### 5.3.3. Test Result

Product	OmniAccess Stellar	Temperature	27°C
Test Engineer	Amy Zhang	Relative Humidity	65%
Test Site	SR5	Test Date	2018/08/24
Test Item	Detection Bandwidth (802.11a mode – 5500MHz)		

Radar Frequency (MHz)	DFS Detection Trials (1=Detection, 0= No Detection)										Detection Rate (%)
	1	2	3	4	5	6	7	8	9	10	
5490	0	0	0	0	0	0	0	0	0	0	0%
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%
5506	1	1	1	1	1	1	1	1	1	1	100%
5507	1	1	1	1	1	1	1	1	1	1	100%
5508	1	1	1	1	1	1	1	1	1	1	100%
5509 FH	1	1	1	1	1	1	1	1	1	1	100%
5510	0	0	0	0	0	0	0	0	0	0	0%

Note 1: All NII channels for this device have identical Channel bandwidths. Therefore, all DFS testing was done at 5500MHz. The 99% channel bandwidth is 16.69MHz. (See the 99% BW section of the RF report for further measurement details).

Note 2: Detection Bandwidth = FH - FL = 5509MHz - 5491MHz = 18MHz.

Note 3: NII Detection Bandwidth Min. Limit (MHz):  $16.69\text{MHz} \times 100\% = 16.69\text{MHz}$ .

Product	OmniAccess Stellar	Temperature	27°C
Test Engineer	Amy Zhang	Relative Humidity	65%
Test Site	SR5	Test Date	2018/08/24
Test Item	Detection Bandwidth (802.11n-HT40 mode – 5510MHz)		

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

Note 1: All NII channels for this device have identical Channel bandwidths. Therefore, all DFS testing was done at 5510MHz. The 99% channel bandwidth is 36.38MHz. (See the 99% BW section of the RF report for further measurement details).

Note 2: Detection Bandwidth = FH - FL = 5529MHz - 5492MHz = 37MHz.

Note 3: NII Detection Bandwidth Min. Limit (MHz):  $36.38\text{MHz} \times 100\% = 36.38\text{MHz}$ .

Product	OmniAccess Stellar	Temperature	27°C
Test Engineer	Amy Zhang	Relative Humidity	65%
Test Site	SR5	Test Date	2018/08/25
Test Item	Detection Bandwidth (802.11ac-VHT80 mode – 5530MHz)		

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

Note 1: All NII channels for this device have identical Channel bandwidths. Therefore, all DFS testing was done at 5530MHz. The 99% channel bandwidth is 76.23MHz. (See the 99% BW section of the RF report for further measurement details).

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

Note 3: NII Detection Bandwidth Min. Limit (MHz): 76.23MHz x 100% = 76.23MHz.

## 5.4. Initial Channel Availability Check Time Measurement

### 5.4.1. Test Limit

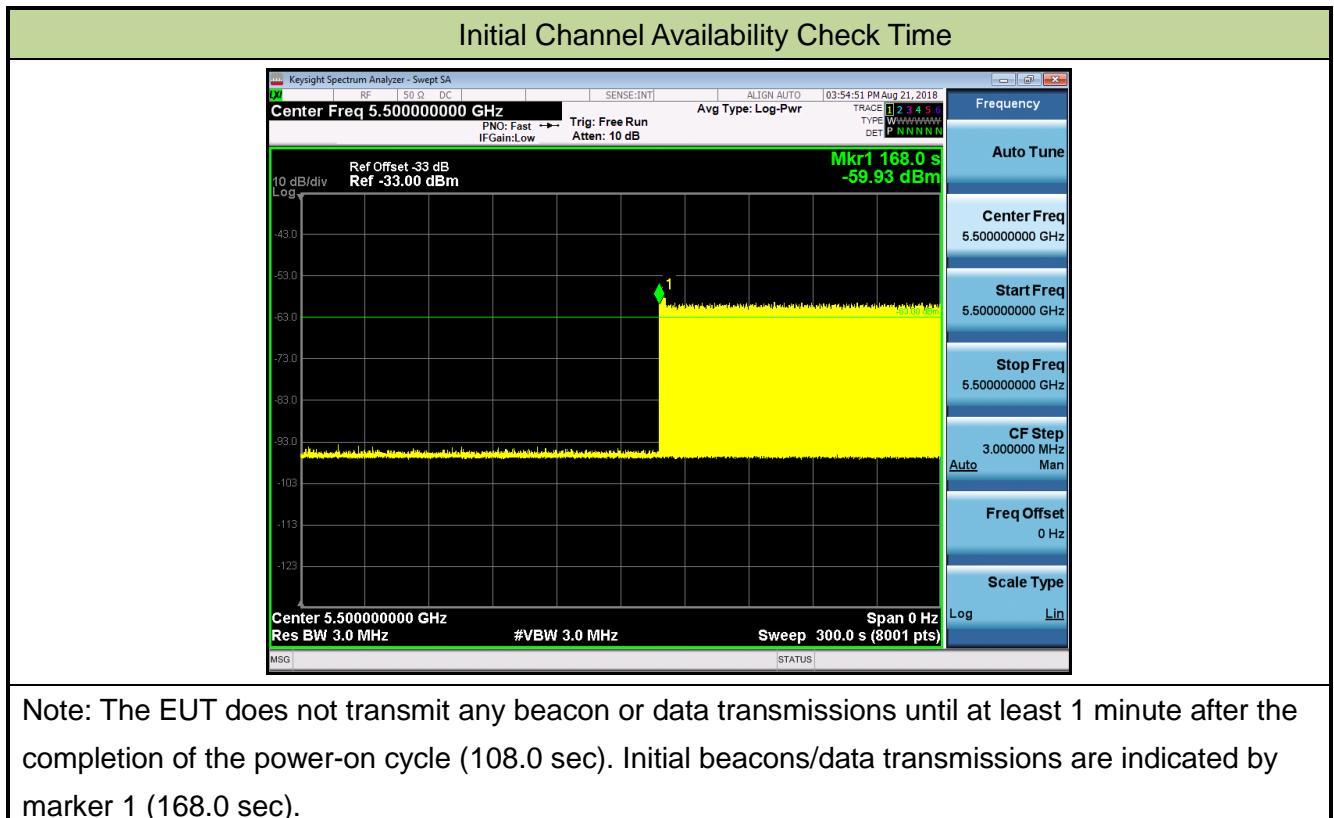
The EUT shall perform a Channel Availability Check to ensure that there is no radar operating on the channel. After power-up sequence, receive at least 1 minute on the intended operating frequency.

### 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

Product	OmniAccess Stellar	Temperature	27°C
Test Engineer	Amy Zhang	Relative Humidity	65%
Test Site	SR5	Test Date	2018/08/21
Test Item	Initial Channel Availability Check Time (802.11a mode – 5500MHz)		



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

### 5.5.1. Test Limit

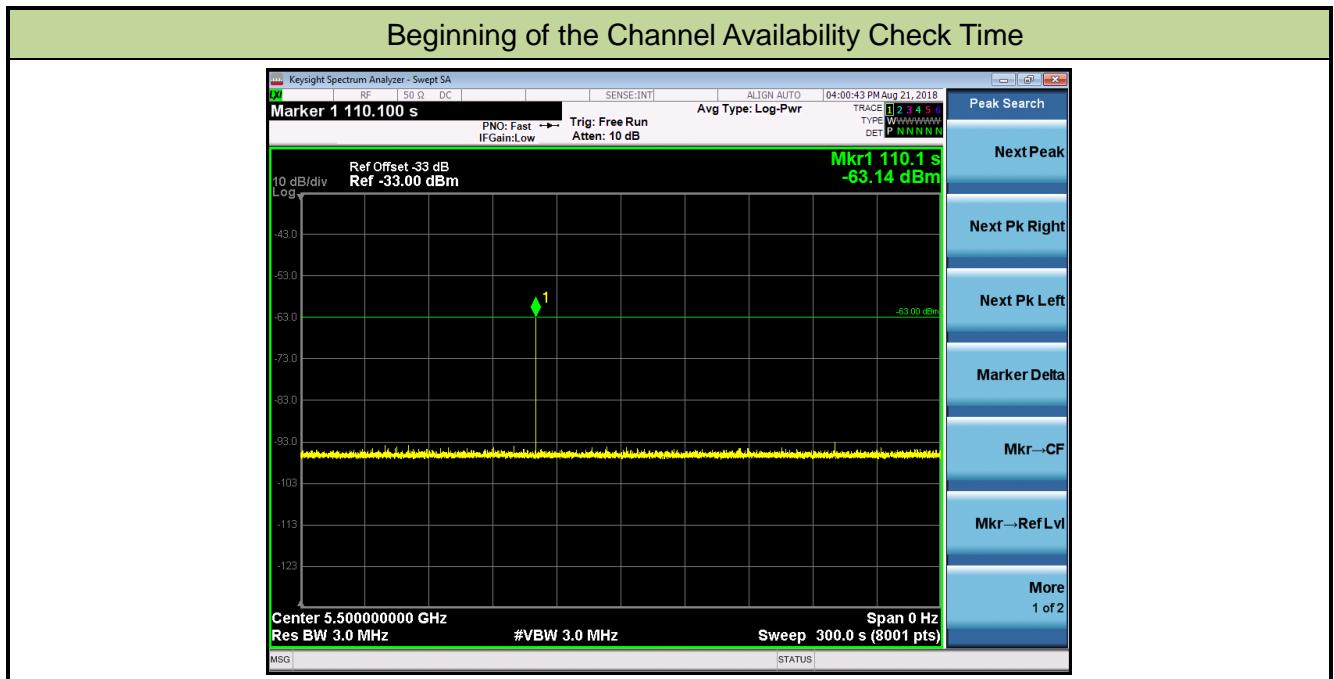
In beginning of the Channel Availability Check (CAC) Time, radar is detected on this channel, select another intended channel and perform a CAC on that channel.

### 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

Product	OmniAccess Stellar	Temperature	27°C
Test Engineer	Amy Zhang	Relative Humidity	65%
Test Site	SR5	Test Date	2018/08/21
Test Item	Beginning of the Channel Availability Check Time (802.11a mode – 5500MHz)		



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

### **5.6.1. Test Limit**

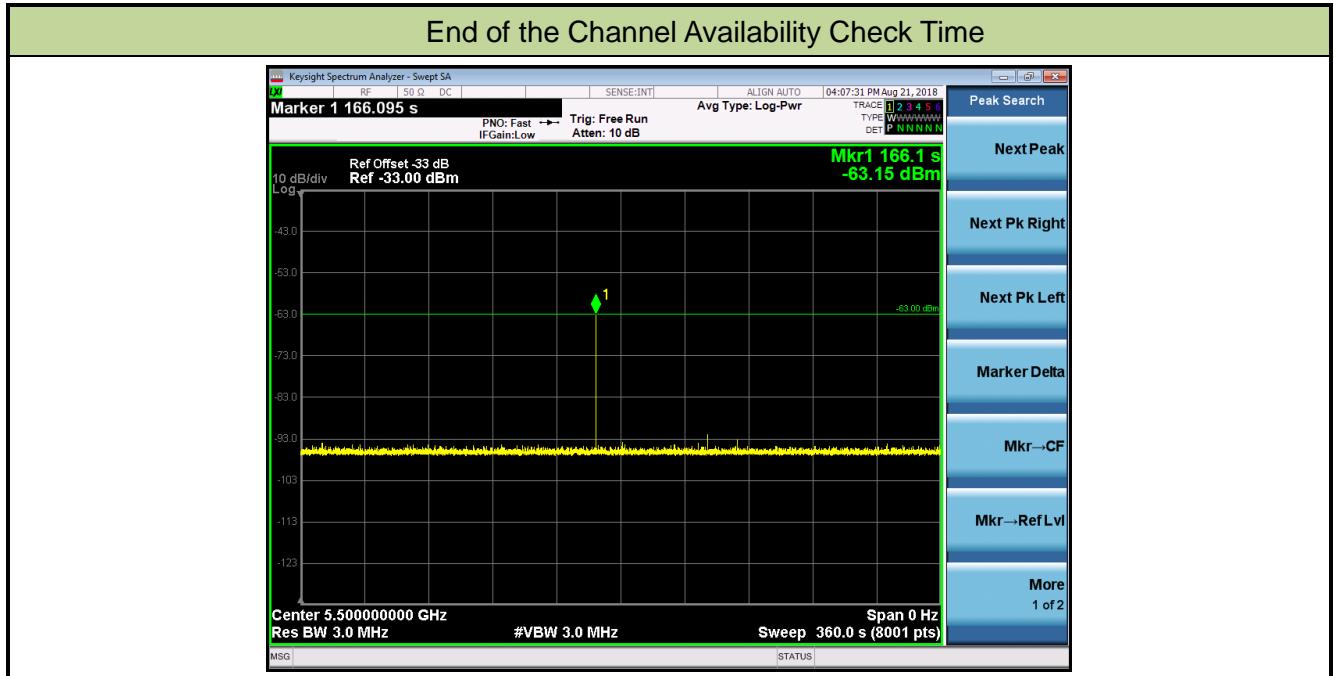
In the end of Channel Availability Check (CAC) Time, radar is detected on this channel, select another intended channel and perform a CAC on that channel.

### **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

Product	OmniAccess Stellar	Temperature	27°C
Test Engineer	Amy Zhang	Relative Humidity	65%
Test Site	SR5	Test Date	2018/08/21
Test Item	End of the Channel Availability Check Time (802.11a mode – 5500MHz)		



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

### **5.7.1. Test Limit**

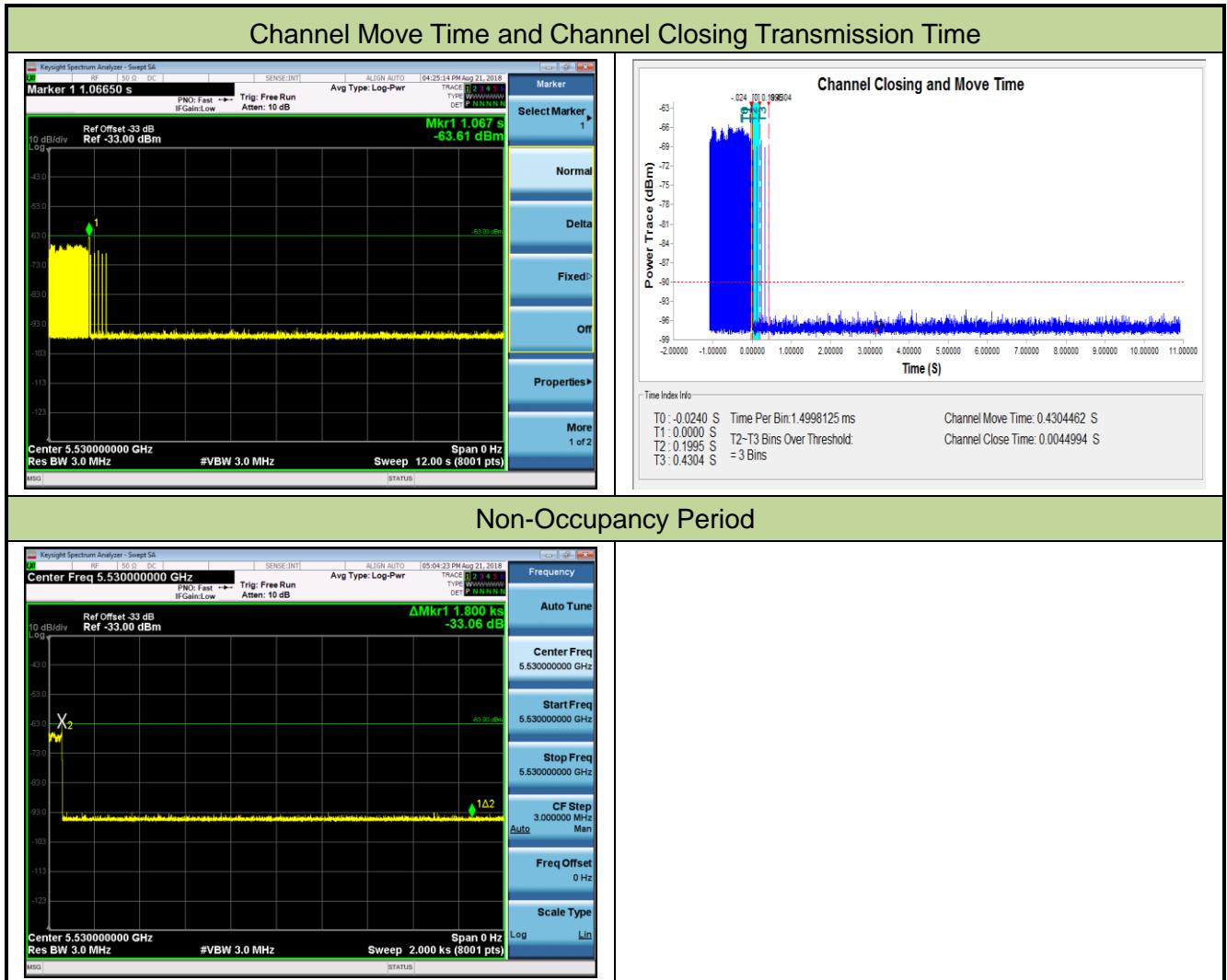
The EUT has In-Service Monitoring function to continuously monitor the radar signals. If the radar is detected, must leave the channel (Shutdown). The Channel Move Time to cease all transmissions on the current channel upon detection of a Radar Waveform above the DFS Detection Threshold within 10 sec.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

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

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

### 5.7.3. Test Result

Product	OmniAccess Stellar	Temperature	27°C
Test Engineer	Amy Zhang	Relative Humidity	65%
Test Site	SR5	Test Date	2018/08/21
Test Item	Channel Move Time and Channel Closing Transmission Time (802.11ac-VHT80 mode – 5530MHz)		



Parameter	Test Result	Limit
	Type 0	
Channel Move Time (s)	0.430s	<10s
Channel Closing Transmission Time (ms) (Note)	4.5ms	< 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%

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

### 5.8.2. Test Procedure

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

### 5.8.3. Test Result

Product	OmniAccess Stellar	Temperature	27°C
Test Engineer	Amy Zhang	Relative Humidity	65%
Test Site	SR5	Test Date	2018/08/25
Test Item	Radar Statistical Performance Check (802.11a mode – 5500MHz)		

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5491	1	618	86	1
2	5491	1	518	102	1
3	5491	1	938	57	1
4	5491	1	558	95	1
5	5491	1	858	62	1
6	5491	1	738	72	1
7	5491	1	698	76	1
8	5491	1	898	59	1
9	5491	1	3066	18	1
10	5491	1	758	70	1
11	5500	1	798	67	1
12	5500	1	838	63	1
13	5500	1	678	78	1
14	5500	1	638	83	1
15	5500	1	818	65	1
16	5500	1	2625	21	1
17	5500	1	746	71	1
18	5500	1	1276	42	1
19	5500	1	1676	32	1
20	5500	1	894	59	1
21	5509	1	881	60	1
22	5509	1	1522	35	1
23	5509	1	2427	22	1
24	5509	1	2323	23	1
25	5509	1	1525	35	1
26	5509	1	1794	30	1

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
27	5509	1	1333	40	1
28	5509	1	1226	43	1
29	5509	1	827	64	1
30	5509	1	1725	31	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	5491	5.0	178	26	1
2	5491	1.2	204	27	1
3	5491	1.7	164	26	1
4	5491	4.3	203	26	1
5	5491	5.0	225	25	1
6	5491	3.4	152	28	1
7	5491	2.8	200	27	1
8	5491	1.4	165	27	1
9	5491	2.7	201	25	1
10	5491	4.5	158	26	1
11	5500	5.0	164	26	1
12	5500	4.8	159	25	1
13	5500	2.1	206	24	1
14	5500	2.5	152	28	1
15	5500	2.6	151	23	1
16	5500	4.8	188	28	1
17	5500	4.4	203	23	1
18	5500	3.2	155	29	1
19	5500	2.5	179	28	1
20	5500	3.6	206	23	1
21	5509	4.8	196	27	1
22	5509	1.4	203	24	1
23	5509	3.3	162	23	1
24	5509	2.7	176	24	1
25	5509	4.9	185	26	1
26	5509	3.5	223	28	1
27	5509	2.2	172	26	1
28	5509	4.8	219	24	1
29	5509	2.3	195	27	1
30	5509	1.7	211	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	5491	7.1	261	17	1
2	5491	9.8	458	18	1
3	5491	10.0	220	16	1
4	5491	6.7	388	17	1
5	5491	8.0	407	16	1
6	5491	8.4	493	18	1
7	5491	7.1	294	16	1
8	5491	7.3	210	18	1
9	5491	7.1	431	16	1
10	5491	6.6	223	17	1
11	5500	7.1	393	17	1
12	5500	7.6	393	17	1
13	5500	9.7	205	17	1
14	5500	6.1	372	18	1
15	5500	7.5	226	18	1
16	5500	9.8	373	18	1
17	5500	9.3	280	16	1
18	5500	10.0	252	17	1
19	5500	9.2	491	16	1
20	5500	6.7	225	17	1
21	5509	9.4	201	17	1
22	5509	8.6	249	17	1
23	5509	9.9	263	17	1
24	5509	6.2	410	16	1
25	5509	6.2	293	18	1
26	5509	8.4	436	18	1
27	5509	8.7	343	18	1
28	5509	8.5	262	16	1
29	5509	8.0	346	18	1
30	5509	6.8	218	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	5491	16.4	310	15	1
2	5491	14.8	402	12	1
3	5491	12.3	247	13	1
4	5491	11.3	277	15	1
5	5491	13.6	242	15	1
6	5491	20.0	203	13	1
7	5491	13.8	473	15	1
8	5491	16.0	399	14	1
9	5491	12.4	348	14	1
10	5491	14.3	431	15	1
11	5500	12.7	252	12	1
12	5500	17.1	443	13	1
13	5500	11.7	229	12	1
14	5500	19.5	369	13	1
15	5500	19.1	228	13	1
16	5500	12.0	339	13	1
17	5500	18.1	236	13	1
18	5500	15.1	243	14	1
19	5500	15.4	206	16	1
20	5500	17.6	241	16	1
21	5509	11.5	347	15	1
22	5509	14.4	412	15	1
23	5509	13.3	344	13	1
24	5509	17.6	268	15	1
25	5509	18.6	429	14	1
26	5509	16.3	227	13	1
27	5509	16.7	316	16	1
28	5509	19.3	469	13	1
29	5509	14.3	253	13	1
30	5509	16.6	275	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:  $\frac{P_d\ 1 + P_d\ 2 + P_d\ 3 + P_d\ 4}{4} = (100\% + 100\% + 100\% + 100\%)/4 = 100\% (>80\%)$

## 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	5497.6	1	16	5500.0	1
2	5496.8	1	17	5500.0	1
3	5499.2	1	18	5500.0	1
4	5494.4	1	19	5500.0	1
5	5494.0	1	20	5500.0	1
6	5499.6	1	21	5504.0	1
7	5495.6	1	22	5504.4	1
8	5495.2	1	23	5500.8	1
9	5496.0	1	24	5500.4	1
10	5498.8	1	25	5506.0	1
11	5500.0	1	26	5502.4	1
12	5500.0	1	27	5505.6	1
13	5500.0	1	28	5504.8	1
14	5500.0	1	29	5503.2	1
15	5500.0	1	30	5503.2	1
Detection Percentage (%)					100%

## Type 5 Radar Waveform\_1

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	111251	3	14	95	1439	1774	1347	111251	0	1333332	
2	1443517	3	14	85	1820	1871	1907	1559328	1333333	2666665	
3	1271838	2	14	85	1032	1483	0	2836764	2666666	3999998	
4	1910494	3	14	70	1217	1653	1323	4749773	3999999	5333331	
5	809324	2	14	50	1884	1438	0	5563290	5333332	6666664	
6	1506031	3	14	80	1035	1541	1566	7072643	6666665	7999997	
7	2184241	2	14	85	1503	1995	0	9261026	7999998	9333330	
8	587374	3	14	65	1343	1584	1727	9851898	9333331	10666663	
9	1229153	1	14	75	1117	0	0	11085705	10666664	11999996	
Total number of pulses in waveform = 22											
*****											

### 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	728782	1	12	80	1071	0	0	728782	0	857142
2	691264	3	12	65	1865	1676	1856	1421117	857143	1714285
3	1008036	2	12	100	1580	1532	0	2434550	1714286	2571428
4	243712	2	12	75	1365	1036	0	2681374	2571429	3428571
5	930030	3	12	65	1001	1415	1498	3613805	3428572	4285714
6	891805	2	12	95	1085	1130	0	4509524	4285715	5142857
7	1422027	3	12	80	1590	1642	1529	5933766	5142858	6000000
8	585330	3	12	95	1863	1865	1299	6523857	6000001	6857143
9	455431	3	12	90	1329	2000	1101	6984315	6857144	7714286
10	1134441	3	12	50	1720	1030	1470	8123186	7714287	8571429
11	747229	1	12	60	1893	0	0	8874635	8571430	9428572
12	603115	1	12	55	1406	0	0	9479643	9428573	10285715
13	1362081	3	12	90	1271	1746	1648	10843130	10285716	11142858
14	730600	2	12	80	1907	1494	0	11578395	11142859	12000001
Total number of pulses in waveform = 32										
*****										

### 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	73192	1	18	100	1149	0	0	73192	0	705881
2	798956	1	18	95	1022	0	0	873297	705882	1411763
3	719973	1	18	65	1708	0	0	1594292	1411764	2117645
4	1176577	3	18	60	1683	1763	1222	2772577	2117646	2823527
5	736701	3	18	50	1414	1044	1509	3513946	2823528	3529409
6	18194	1	18	65	1469	0	0	3536107	3529410	4235291
7	1046505	1	18	75	1150	0	0	4584081	4235292	4941173
8	907479	3	18	50	1133	1393	1885	5492710	4941174	5647055
9	223688	2	18	60	1766	1001	0	5720309	5647056	6352937
10	1125170	1	18	75	1657	0	0	6848746	6352938	7058819
11	449926	1	18	60	1084	0	0	7300329	7058820	7764701
12	1001239	1	18	70	1776	0	0	8302652	7764702	8470583
13	297733	2	18	75	1495	1758	0	8602161	8470584	9176465
14	613328	2	18	75	1933	1770	0	9218742	9176466	9882347
15	1287316	2	18	80	1767	1358	0	10509761	9882348	10588229
16	565982	2	18	100	1399	1255	0	11078368	10588230	11294111
17	275394	1	18	65	1199	0	0	11356916	11294112	11999993
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	24166	2	6	75	1698	1552	0	24166	0	666666
2	720132	3	6	95	1295	1714	1066	747548	1333333	1333333
3	990142	3	6	55	1510	1018	1120	1741765	1333334	2000000
4	630009	2	6	70	1184	1776	0	2375422	2000001	2666667
5	355417	3	6	50	1972	1704	1293	2733799	2666668	3333334
6	855050	1	6	85	1309	0	0	3693818	3333335	4000001
7	780353	3	6	75	1188	1685	1202	4376480	4000002	4666668
8	802097	3	6	50	1062	1957	1520	5181652	4666669	5333335
9	450323	1	6	90	1357	0	0	5636514	5333336	6000002
10	541554	3	6	95	1032	1951	1571	6179425	6000003	6666669
11	893612	2	6	85	1873	1859	0	7077591	6666670	7333336
12	562188	2	6	65	1818	1696	0	7643511	7333337	8000003
13	497571	3	6	85	1327	1481	1544	8144596	8000004	8666670
14	745314	1	6	90	1299	0	0	8894262	8666671	9333337
15	912093	3	6	55	1369	1814	1922	9807654	9333338	10000004
16	838622	2	6	95	1877	1596	0	10651281	10000005	10666671
17	196758	2	6	80	1555	1340	0	10861512	10666672	11333338
18	490087	1	6	90	1560	0	0	11344494	11333339	12000005
Total number of pulses in waveform = 40										
*****										

### Type 5 Radar Waveform\_5

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	1260105	2	5	100	1389	1091	0	282362	0	857142
2	635975	1	5	85	1733	0	0	1544947	857143	1714285
3	684051	1	5	55	1367	0	0	2182655	1714286	2571428
4	615174	2	5	100	1832	1424	0	2868073	2571429	3428571
5	1104594	3	5	95	1491	1496	1360	3486503	3428572	4285714
6	1157639	1	5	100	1174	0	0	4595444	4285715	5142857
7	625082	3	5	75	1828	1986	1143	5754257	5142858	6000000
8	885712	1	5	55	1573	0	0	6384296	6000001	6857143
9	950170	2	5	85	1396	1034	0	7271581	6857144	7714286
10	1077678	3	5	50	1738	1610	1330	8224181	7714287	8571429
11	257205	1	5	65	1214	0	0	9306537	8571430	9428572
12	850796	3	5	65	1922	1513	1007	9564956	9428573	10285715
13	1384118	2	5	80	1516	1481	0	10420194	10285716	11142858
14		2	5	100	1921	1250	0	11807309	11142859	12000001

Total number of pulses in waveform = 27

### 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	1019107	3	19	70	1800	1348	1282	302722	0	705881
2	87113	1	19	85	1802	0	0	1326259	705882	1411763
3	1234309	1	19	70	1076	0	0	1415174	1411764	2117645
4	736692	2	19	70	1605	1509	0	2650559	2117646	2823527
5	458584	1	19	55	1115	0	0	3390365	2823528	3529409
6	1024703	3	19	70	1873	1601	1857	3850064	3529410	4235291
7	325416	2	19	75	1974	1450	0	4880098	4235292	4941173
8	1106409	1	19	50	1164	0	0	5208938	4941174	5647055
9	157348	3	19	55	1933	1412	1077	6316511	5647056	6352937
10	1199035	1	19	50	1909	0	0	6478781	6352938	7058819
11	297446	1	19	75	1181	0	0	7673725	7058820	7764701
12	1146314	3	19	75	1148	1388	1462	7978352	7764702	8470583
13	715377	1	19	50	1169	0	0	9128664	8470584	9176465
14	188321	1	19	60	1220	0	0	9845210	9176466	9882347
15	1115463	1	19	95	1887	0	0	10034751	9882348	10588229
16	405245	1	19	55	1522	0	0	11152101	10588230	11294111
17		19	60	1522	0	0	11558868	11294112	11999993	

Total number of pulses in waveform = 27

### 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	152277	1	9	65	1789	0	0	152277	0	599999
2	536384	3	9	65	1880	1368	1569	690450	600000	1199999
3	956331	1	9	100	1389	0	0	1651598	1200000	1799999
4	147649	1	9	50	1241	0	0	1800636	1800000	2399999
5	796829	1	9	70	1741	0	0	2598706	2400000	2999999
6	849266	1	9	50	1884	0	0	3449713	3000000	3599999
7	245579	1	9	50	1432	0	0	3697176	3600000	4199999
8	670262	2	9	100	1887	1738	0	4368870	4200000	4799999
9	653056	2	9	100	1248	1659	0	5025551	4800000	5399999
10	423245	1	9	60	1584	0	0	5451703	5400000	5999999
11	574920	3	9	55	1723	1331	1381	6028207	6000000	6599999
12	718801	1	9	100	1086	0	0	6751443	6600000	7199999
13	592527	3	9	65	1898	1167	1554	7345056	7200000	7799999
14	791525	1	9	60	1015	0	0	8141200	7800000	8399999
15	654871	2	9	100	1199	1154	0	8797086	8400000	8999999
16	416852	2	9	60	1384	1656	0	9216291	9000000	9599999
17	510206	2	9	55	1754	1355	0	9729537	9600000	10199999
18	624968	1	9	60	1875	0	0	10357214	10200000	10799999
19	1034445	1	9	90	1981	0	0	11393534	10800000	11399999
20	362962	3	9	65	1020	1137	1122	11768477	11400000	11999999

Total number of pulses in waveform = 33

### Type 5 Radar Waveform\_8

Type 5 Radar Waveform_8											
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	926560	3	8	85	1351	1145	1031	169441	0	666666	
2	593754	3	8	70	1430	1579	1784	1099528	666667	1333333	
3	356659	1	8	100	1002	0	0	1698075	1333334	2000000	
4	1235216	1	8	75	1666	0	0	2055736	2000001	2666667	
5	308318	2	8	100	1945	1186	0	3292618	2666668	3333334	
6	459987	3	8	100	1491	1293	1264	3604067	3333335	4000001	
7	1216728	1	8	80	1287	0	0	4068102	4000002	4666668	
8	264323	3	8	90	1134	1165	1994	5286117	4666669	5333335	
9	930053	1	8	50	1657	0	0	5554733	5333336	6000002	
10	310806	3	8	80	1341	1772	1242	6486443	6000003	6666669	
11	1014339	3	8	90	1689	1392	1952	6801604	6666670	7333336	
12	224016	3	8	55	1503	1018	1684	7820976	7333337	8000003	
13	885915	2	8	75	1687	1421	0	8049197	8000004	8666670	
14	411281	1	8	75	0	0	0	8938486	8666671	9333337	
15	802281	2	8	80	1072	1878	0	9351188	9333338	10000004	
16	1104436	1	8	60	1910	0	0	10166419	10000005	10666671	
17	692999	1	8	100	1101	0	0	11262765	10666672	11333338	
18	2	8	85	1697	1622	0	11966865	11333339	12000005		

### Type 5 Radar Waveform\_9

Type 5 Radar Waveform_9											
Num of Bursts = 19 Burst Interval (us)= 631579											
Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)	
1	753214	1	10	60	1733	0	0	227457	0	631578	
2	727595	3	10	60	1868	1948	1819	982404	631579	1263157	
3	636635	1	10	85	1500	0	0	1715634	1263158	1894736	
4	561837	2	10	90	1463	1028	0	2353769	1894737	2526315	
5	409338	1	10	70	1275	0	0	2918097	2526316	3157894	
6	875372	3	10	60	1985	1614	1837	3328710	3157895	3789473	
7	709084	2	10	90	1565	1157	0	4209518	3789474	4421052	
8	579551	2	10	75	1928	1236	0	4921324	4421053	5052631	
9	582573	2	10	85	1512	1520	0	5504039	5052632	5684210	
10	749083	2	10	70	1347	1091	0	6089644	5684211	6315789	
11	233967	1	10	90	1804	0	0	6841165	6315790	6947368	
12	840925	3	10	60	1609	1817	1252	7076936	6947369	7578947	
13	780423	1	10	80	1690	0	0	7922539	7578948	8210526	
14	148107	2	10	85	1927	1209	0	8704652	8210527	8842105	
15	1153902	1	10	80	1594	0	0	8855895	8842106	9473684	
16	176848	1	10	75	1147	0	0	10011391	9473685	10105263	
17	777522	2	10	65	1364	1495	0	10189386	10105264	10736842	
18	768808	2	10	85	1873	1588	0	10969767	10736843	11368421	
19	1	10	85	1161	0	0	11742036	11368422	12000000		

### Type 5 Radar Waveform\_10

Type 5 Radar Waveform_10											
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	935952	1	17	55	1679	0	0	935952	0	1090908	
2	964935	2	17	65	1034	1648	0	1902566	1090909	2181817	
3	468616	3	17	75	1321	1119	1208	2373864	2181818	3272726	
4	1611954	2	17	70	1958	1934	0	3989466	3272727	4363635	
5	447842	3	17	75	1394	1560	1347	4441200	4363636	5454544	
6	1247370	3	17	85	1221	1145	1205	5692871	5454545	6545453	
7	1887348	2	17	55	1425	1892	0	7583790	6545454	7636362	
8	184832	3	17	55	1268	1602	1484	7771939	7636363	8727271	
9	1590384	2	17	70	1469	1585	0	9366677	8727272	9818180	
10	474020	1	17	50	1903	0	0	9843751	9818181	10909089	
11	1073906	3	17	95	1876	1312	1875	10919560	10909090	11999998	

### Type 5 Radar Waveform\_11

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	589863	1	18	60	1798	0	0	589863	0	999999
2	528039	1	18	100	1603	0	0	1113700	1000000	1999999
3	1839171	2	18	80	1903	1977	0	2960474	2000000	2999999
4	441186	2	18	100	1454	1888	0	3405540	3000000	3999999
5	1510946	1	18	50	1133	0	0	4919828	4000000	4999999
6	1049630	3	18	95	1516	1680	1413	5970591	5000000	5999999
7	295106	3	18	75	1405	1793	1036	6270306	6000000	6999999
8	828266	1	18	90	1399	0	0	7102806	7000000	7999999
9	1642120	3	18	80	1026	1855	1824	8746325	8000000	8999999
10	739814	3	18	70	1363	1175	1437	9490844	9000000	9999999
11	713899	3	18	75	1581	1147	1453	10208718	10000000	10999999
12	1496431	3	18	100	1428	1049	1485	11709330	11000000	11999999

Total number of pulses in waveform = 26

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### Type 5 Radar Waveform\_12

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	60173	1	12	65	1327	0	0	60173	0	749999
2	939985	2	12	100	1483	1616	0	1001485	750000	1499999
3	848673	1	12	75	1191	0	0	1853257	1500000	2249999
4	742139	1	12	90	1740	0	0	2596587	2250000	2999999
5	595892	2	12	80	1777	1522	0	3194219	3000000	3749999
6	1097055	2	12	80	1865	1540	0	4294573	3750000	4499999
7	935405	2	12	85	1499	1609	0	5233383	4500000	5249999
8	655867	1	12	100	1373	0	0	5892358	5250000	5999999
9	471551	3	12	55	1250	1639	1607	6365282	6000000	6749999
10	1118315	3	12	50	1898	1885	1874	7488093	6750000	7499999
11	1791113	2	12	80	1810	1591	0	7672863	7500000	8249999
12	936894	1	12	75	1308	0	0	8613158	8250000	8999999
13	1040596	1	12	95	1903	0	0	9655062	9000000	9749999
14	331705	3	12	95	1874	1807	1362	9988670	9750000	10499999
15	1117335	2	12	50	1036	1998	0	11111048	10500000	11249999
16	350958	3	12	55	1049	1119	1346	11465040	11250000	11999999

Total number of pulses in waveform = 30

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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	140394	3	5	95	1199	1091	1220	140394	0	1333332
2	2208305	2	5	90	1232	1462	0	2352209	1333333	2666665
3	1422331	1	5	50	1077	0	0	3777234	2666666	3999998
4	1401356	1	5	90	1589	0	0	5179667	3999999	5333331
5	482709	2	5	50	1779	1061	0	5663965	5333332	6666664
6	1809282	1	5	55	1626	0	0	7476087	6666665	7999997
7	639593	3	5	100	1037	1735	1447	8117306	7999998	9333330
8	1246971	1	5	65	1485	0	0	9368496	9333331	10666663
9	1707784	1	5	75	1099	0	0	11077765	10666664	11999996

Total number of pulses in waveform = 15

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### Type 5 Radar Waveform\_14

Type 5 Radar Waveform_14											
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	774583	1	17	65	1671	0	0	774583	0	799999	
2	340048	1	17	55	1908	0	0	1116302	800000	1599999	
3	1070657	2	17	60	1572	1885	0	2188867	1600000	2399999	
4	865674	3	17	100	1129	1314	1017	3057998	2400000	3199999	
5	177664	2	17	70	1188	1398	0	3239122	3200000	3999999	
6	762267	3	17	50	1297	1724	1487	4003975	4000000	4799999	
7	1405047	1	17	80	1013	0	0	5413530	4800000	5599999	
8	488149	2	17	65	1141	1600	0	5902692	5600000	6399999	
9	610096	2	17	100	1958	1145	0	6515529	6400000	7199999	
10	1438128	3	17	55	1384	1974	1705	7956760	7200000	7999999	
11	714746	1	17	65	1466	0	0	8676569	8000000	8799999	
12	743093	2	17	85	1796	1468	0	9421128	8800000	9599999	
13	201036	3	17	85	1091	1938	1683	9625428	9600000	10399999	
14	873628	3	17	80	1298	1149	1859	10503768	10400000	11199999	
15	996158	2	17	60	1337	1264	0	11504232	11200000	11999999	
Total number of pulses in waveform = 31											
*****											

### Type 5 Radar Waveform\_15

Type 5 Radar Waveform_15											
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	499118	3	19	75	1214	1238	1772	499118	0	631578	
2	555078	2	19	80	1644	1996	0	1058420	631579	1263157	
3	289139	2	19	55	1531	1566	0	1351199	1263158	1894736	
4	575834	1	19	100	1375	0	0	1930130	1894737	2526315	
5	960676	2	19	80	1069	1570	0	2892181	2526316	3157894	
6	264083	2	19	85	1420	1870	0	3158903	3157895	3789473	
7	700923	1	19	85	1607	0	0	3863116	3789474	4421052	
8	1088767	1	19	90	1639	0	0	4953490	4421053	5052631	
9	173801	1	19	75	1956	0	0	5128990	5052632	5684210	
10	1173697	3	19	65	1570	1926	1511	6304583	5684211	6315789	
11	106248	1	19	75	1593	0	0	6415838	6315790	6947368	
12	848810	2	19	100	1586	1027	0	7266241	6947369	7578947	
13	633126	3	19	100	1699	1191	1378	7901979	7578948	8210526	
14	432980	3	19	90	1369	1194	1394	8339227	8210527	8842105	
15	541893	1	19	80	1090	0	0	8884877	8842106	9473684	
16	636838	3	19	65	1907	1142	1618	9522806	9473685	10105263	
17	895026	3	19	80	1170	1698	1224	10422498	10105264	10736842	
18	705063	2	19	95	1707	1919	0	11131653	10736843	11368421	
19	257370	2	19	55	1155	1907	0	11392649	11368422	12000000	
Total number of pulses in waveform = 38											
*****											

### Type 5 Radar Waveform\_16

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	127043	2	10	75	1733	1989	0	127043	0	749999	
2	1064885	3	10	65	1031	1113	1607	1195650	750000	1499999	
3	1020825	1	10	95	1463	0	0	2220226	1500000	2249999	
4	337654	3	10	95	1842	1810	1884	2559343	2250000	2999999	
5	790624	2	10	85	1580	1615	0	3355503	3000000	3749999	
6	774264	2	10	90	1457	1689	0	4132962	3750000	4499999	
7	794537	2	10	50	1991	1607	0	4930645	4500000	5249999	
8	479657	2	10	65	1049	1975	0	5413900	5250000	5939999	
9	623771	2	10	95	1216	1813	0	6040695	6000000	6749999	
10	1222249	3	10	50	1473	1017	1891	7265973	6750000	7499999	
11	806135	1	10	90	1175	0	0	8076489	7500000	8249999	
12	834859	3	10	60	1242	1218	1514	8912523	8250000	8999999	
13	544941	1	10	70	1626	0	0	9461438	9000000	9749999	
14	490346	2	10	90	1478	1146	0	10178503	9750000	10499999	
15	715439	3	10	70	1065	1256	1004	10671473	10500000	11249999	
16	638793	3	10	55	1834	1151	1030	11310591	11250000	11999999	
Total number of pulses in waveform = 35											
*****											

### 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	856285	1	8	75	1747	0	0	856285	0	923076
2	875211	2	8	65	1308	1381	0	1733243	923077	1846153
3	635894	2	8	85	1050	1298	0	2371826	1846154	2769230
4	1102290	2	8	75	1881	1333	0	3476464	2769231	3692307
5	934916	1	8	95	1550	0	0	4414594	3692308	4615384
6	1037398	3	8	85	1826	1626	1315	5453542	4615385	5538461
7	851424	1	8	55	1366	0	0	6309733	5538462	6461538
8	528258	3	8	50	1488	1237	1442	6839357	6461539	7384615
9	1325744	3	8	55	1294	1764	1838	8169268	7384616	8307692
10	905131	1	8	95	1333	0	0	9079295	8307693	9230769
11	867904	1	8	50	1490	0	0	9948532	9230770	10153846
12	808952	3	8	55	1519	1351	1979	10758974	10153847	11076923
13	761934	1	8	95	1650	0	0	11525757	11076924	12000000

Total number of pulses in waveform = 24

### Type 5 Radar Waveform\_18

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	910064	3	6	90	1976	1614	1356	910064	0	1090908
2	455990	1	6	55	1386	0	0	1371000	1090909	2181817
3	1863320	3	6	60	1874	1479	1830	3235706	2181818	3272726
4	684594	3	6	70	1321	1184	1635	3925483	3272727	4363635
5	1385825	2	6	95	1839	1920	0	5315448	4363636	5454544
6	1003522	2	6	65	1421	1872	0	6322729	5454545	6545453
7	645668	2	6	85	1891	1354	1550	6971690	6545454	7636362
8	732664	3	6	75	1669	0	0	7709149	7636363	8727271
9	1469513	1	6	75	1958	1547	1549	9180331	8727272	9818180
10	1547316	3	6	75	1375	1298	0	10732701	9818181	10909089
11	836977	2	6	75	1730	0	0	11572351	10909090	11999998

Total number of pulses in waveform = 24

### 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	396379	2	14	95	1844	1470	0	396379	0	666666
2	774993	1	14	80	1021	0	0	1174686	666667	1333333
3	333143	2	14	55	1868	1499	0	1508850	1333334	2000000
4	813795	3	14	65	1202	1892	1769	2326012	2000001	2666667
5	538474	3	14	50	1259	1811	1307	2869349	2666668	3333334
6	1086070	1	14	85	1510	0	0	3959796	3333335	4000001
7	244908	1	14	90	1704	0	0	4206214	4000002	4666668
8	1016683	1	14	85	1621	0	0	5224601	4666669	5333335
9	290270	3	14	95	1382	1579	1973	5516492	5333336	6000002
10	628792	2	14	70	1936	1758	0	6150218	6000003	6666669
11	1015042	1	14	60	1773	0	0	7168954	6666670	7333336
12	229848	2	14	80	1934	1251	0	7400575	7333337	8000003
13	886710	1	14	65	1471	0	0	8290470	8000004	8666670
14	806744	2	14	65	1747	1116	0	9098685	8666671	9333337
15	243252	3	14	80	1688	1533	1553	9344800	9333338	10000004
16	753400	2	14	85	1527	1435	0	10102974	10000005	10666671
17	1206935	2	14	85	1475	1438	0	11312871	10666672	11333338
18	118609	2	14	90	1789	1667	0	11434393	11333339	12000005

Total number of pulses in waveform = 34

### Type 5 Radar Waveform\_20

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	76854	2	9	100	1491	1325	0	76854	0	1090908
2	1923217	1	9	85	1591	0	0	2002887	1090909	2181817
3	1167290	3	9	70	1158	1247	1342	3171768	2181818	3272726
4	1103530	3	9	60	1243	1794	1114	4279045	3272727	4363635
5	432760	1	9	100	1160	0	0	4715956	4363636	5454544
6	918552	3	9	80	1431	1789	1206	5635668	5454545	6545453
7	1487647	2	9	55	1458	1703	0	7127741	6545454	7636362
8	1404973	3	9	95	1464	1264	1498	8535875	7636363	8727271
9	928753	3	9	65	1199	1429	1701	9468854	8727272	9818180
10	1035922	1	9	80	1132	0	0	10509105	9818181	10909089
11	1098307	1	9	85	1637	0	0	11608544	10909090	11999998

Total number of pulses in waveform = 23

### Type 5 Radar Waveform\_21

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	313386	3	10	70	1436	1919	1320	313386	0	631578
2	449572	3	10	50	1097	1894	1332	767633	631579	1263157
3	896521	3	10	75	1164	1982	1265	1668477	1263158	1894736
4	361092	2	10	95	1652	1142	0	2033980	1894737	2526315
5	984576	2	10	95	1872	1197	0	3021350	2526316	3157894
6	307061	1	10	85	1273	0	0	3331480	3157895	3789473
7	551357	2	10	80	1142	1616	0	3884110	3789474	4421052
8	861477	1	10	100	1728	0	0	4748345	4421053	5052631
9	682808	3	10	75	1929	1286	1616	5432881	5052632	5684210
10	311004	1	10	60	1864	0	0	5748716	6315790	6315789
11	663847	3	10	65	1760	1450	1904	6414427	6315790	6947368
12	751530	3	10	70	1735	1918	1889	7171071	6947369	7578947
13	970160	3	10	100	1062	1730	1825	8146773	7578948	8210526
14	257963	2	10	55	1691	1724	0	8409362	8210527	8842105
15	637698	3	10	70	1117	1271	1570	9050476	8842106	9473684
16	807989	1	10	75	1918	0	0	9862423	9473685	10105263
17	418907	1	10	70	1622	0	0	10283248	10105264	10736842
18	595716	3	10	50	1214	1313	1389	10880586	10736843	11368421
19	819130	3	10	60	1128	1165	1612	11703632	11368422	12000000

Total number of pulses in waveform = 43

### 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	271144	2	9	90	1888	1731	0	271144	0	599999
2	437945	1	9	70	1807	0	0	712408	600000	1199999
3	689795	1	9	60	1051	0	0	1304010	1200000	1799999
4	950139	1	9	70	1522	0	0	2255200	1800000	2399999
5	474203	3	9	60	1762	1364	1779	2730925	2400000	2999999
6	714286	1	9	50	1487	0	0	3450116	3000000	3599999
7	202213	3	9	65	1155	1996	1201	3653816	3600000	4199999
8	1033404	3	9	55	1953	1337	1034	4691572	4200000	4799999
9	632541	2	9	85	1719	1765	0	5328437	4800000	5399999
10	130901	3	9	90	1448	1901	1382	5462822	5400000	5999999
11	1120405	2	9	95	1062	1222	0	6587958	6000000	6599999
12	160754	2	9	55	1996	1006	0	6750996	6600000	7199999
13	932917	2	9	90	1066	1036	0	7686915	7200000	7799999
14	407760	3	9	60	1981	1653	1262	8096777	7800000	8399999
15	379101	3	9	95	1626	1212	1910	8480774	8400000	8999999
16	1064104	2	9	80	1876	1129	0	9549626	9000000	9599999
17	617856	2	9	80	1111	1716	0	10170187	9600000	10199999
18	585517	1	9	80	1865	0	0	10758531	10200000	10799999
19	231775	1	9	75	1178	0	0	10992171	10800000	11399999
20	750172	3	9	70	1074	1701	1385	11743521	11400000	11999999

Total number of pulses in waveform = 41

### Type 5 Radar Waveform\_23

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	697073	3	18	55	1796	1956	1484	223634	0	705881
2	711923	1	18	80	1208	0	0	925943	705882	1411763
3	1074999	3	18	75	1556	1055	1791	1639074	1411764	2117645
4	733700	1	18	100	1976	0	0	2718475	2117646	2823527
5	756928	2	18	100	1512	1729	0	3454151	2823528	3529409
6	494325	2	18	70	1500	1129	0	4214320	3529410	4235291
7	590452	1	18	50	1576	0	0	4711274	4235292	4941173
8	603040	2	18	70	1416	1510	0	5303302	4941174	5647055
9	691568	1	18	55	1833	0	0	5909268	5647056	6352937
10	544917	2	18	50	1704	1657	0	6602669	6352938	7058819
11	1037316	1	18	100	1486	0	0	7150947	7058820	7764701
12	555264	3	18	70	1939	1879	1478	8189749	7764702	8470583
13	562022	3	18	95	1549	1281	1127	8750309	8470584	9176465
14	1005497	2	18	100	1350	1537	0	9316288	9176466	9822347
15	816609	1	18	55	1542	0	0	10324672	9822348	10588229
16	234591	3	18	90	1382	1264	1858	11142823	10588230	11294111
17	2	18	90	1619	1416	0	11381918	11294112	11999993	
*****										
Total number of pulses in waveform = 33										

### Type 5 Radar Waveform\_24

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	522995	3	19	50	1427	1860	1753	522995	0	1199999
2	1146145	2	19	85	1310	1063	0	1674180	1200000	2399999
3	1499922	1	19	50	1729	0	0	3176475	2400000	3599999
4	1183892	3	19	60	1947	1610	1699	4362096	3600000	4799999
5	1610884	3	19	50	1840	1051	1322	5978236	4800000	5999999
6	541165	1	19	95	1107	0	0	6523614	6000000	7199999
7	973651	1	19	90	1830	0	0	7498372	7200000	8399999
8	1836617	3	19	95	1464	1933	1607	9336819	8400000	9599999
9	665934	2	19	80	1749	1269	0	10007757	9600000	10799999
10	1233315	2	19	85	1949	1276	0	11244090	10800000	11999999
*****										
Total number of pulses in waveform = 21										

### Type 5 Radar Waveform\_25

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	804959	2	5	80	1685	1226	0	804959	0	1199999
2	1085810	1	5	55	1109	0	0	1893680	1200000	2399999
3	1422578	2	5	95	1504	1116	0	3317367	2400000	3599999
4	1136517	1	5	55	1433	0	0	4456504	3600000	4799999
5	406058	1	5	75	1733	0	0	4863995	4800000	5999999
6	2208572	1	5	55	1655	0	0	7074300	6000000	7199999
7	1228647	3	5	85	1237	1774	1415	8304602	7200000	8399999
8	1209704	2	5	95	1692	1766	0	9518732	8400000	9599999
9	349530	1	5	85	1865	0	0	9871720	9600000	10799999
10	1102210	3	5	90	1308	1886	1732	10975795	10800000	11999999
*****										
Total number of pulses in waveform = 17										

### Type 5 Radar Waveform\_26

Type 5 Radar Waveform_26										
Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	17392	2	14	70	1598	1663	0	17392	0	857142
2	936843	3	14	60	1931	1729	1001	957496	857143	1714285
3	848837	1	14	85	1981	0	0	1810994	1714286	2571428
4	1595366	1	14	75	1733	0	0	3408341	2571429	3428571
5	316535	1	14	90	1544	0	0	3726609	3428572	4285714
6	1174794	3	14	100	1715	1902	1288	4902947	4285715	5142857
7	498557	1	14	100	1271	0	0	5406409	5142858	6000000
8	781045	1	14	55	1742	0	0	6188725	6000001	6857143
9	864055	3	14	90	1730	1554	1673	7054522	6857144	7714286
10	925671	3	14	55	1062	1505	1033	7985150	7714287	8571429
11	743331	2	14	80	1732	1362	0	8732081	8571430	9428572
12	1419135	3	14	50	1988	1738	1502	10154310	9428573	10285715
13	526661	3	14	65	1372	1901	1123	10686199	10285716	11142858
14	966888	1	14	100	1702	0	0	111657483	11142859	12000001
Total number of pulses in waveform = 28										
*****										

### Type 5 Radar Waveform\_27

Type 5 Radar Waveform_27										
Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	851865	3	6	70	1480	1950	1303	851865	0	1333332
2	955050	2	6	70	1478	1452	0	1811648	1333333	2666665
3	950951	2	6	85	1797	1084	0	2765529	2666666	3999998
4	1456904	2	6	60	1159	1088	0	4225314	3999999	5333331
5	2325317	3	6	60	1366	1768	1602	6552878	5333332	6666664
6	350296	3	6	100	1808	1499	1055	6907910	6666665	7999997
7	1555661	2	6	55	1067	1570	0	8467933	7999998	9333330
8	1442459	2	6	95	1166	1970	0	9913029	9333331	10666663
9	1525248	2	6	50	1135	1889	0	11441413	10666664	11999996
Total number of pulses in waveform = 21										
*****										

### Type 5 Radar Waveform\_28

Type 5 Radar Waveform_28										
Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	592192	2	8	95	1227	1618	0	592192	0	857142
2	774548	3	8	70	1018	1055	1818	1369585	857143	1714285
3	407761	3	8	85	1455	1072	1849	1781237	1714286	2571428
4	1216025	2	8	50	1936	1961	0	3001638	2571429	3428571
5	442605	1	8	100	1399	0	0	3448140	3428572	4285714
6	961542	3	8	80	1898	1379	1146	4411081	4285715	5142857
7	779533	2	8	95	1067	1942	0	5195037	5142858	6000000
8	1057688	1	8	65	1163	0	0	6255734	6000001	6857143
9	1419529	3	8	85	1158	1227	1843	7676426	6857144	7714286
10	586268	2	8	75	1614	1628	0	8266922	7714287	8571429
11	1023008	2	8	90	1705	1939	0	9293172	8571430	9428572
12	532315	3	8	60	1412	1277	1319	9829131	9428573	10285715
13	674130	2	8	55	1892	1662	0	10507269	10285716	11142858
14	1409236	3	8	95	1427	1835	1774	11920059	11142859	12000001
Total number of pulses in waveform = 32										
*****										

**Type 5 Radar Waveform\_29**

Type 5 Radar Waveform_29											
Num of Bursts = 18 Burst Interval (us)= 6666667											
Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)	
1	598960	2	17	85	1205	1309	0	238642	0	666666	
2	709309	3	17	50	1733	1155	1412	840116	666667	1333333	
3	541707	1	17	85	1115	0	0	1553725	1333334	2000000	
4	816816	2	17	85	1434	1940	0	2096547	2000001	2666667	
5	982281	2	17	90	1978	1565	0	2916737	2666668	3333334	
6	424500	3	17	50	1406	1961	1017	3912561	3333335	4000001	
7	652151	2	17	55	1440	1088	0	4341445	4000002	4666668	
8	443048	1	17	60	1542	0	0	4996124	4666669	5333335	
9	982760	2	17	85	1776	1821	0	5440714	5333336	6000002	
10	448904	2	17	60	1273	1140	0	6427071	6000003	6666669	
11	815050	1	17	90	1801	0	0	6878388	6666670	7333336	
12	754177	3	17	75	1735	1322	1207	7695239	7333337	8000003	
13	862198	3	17	80	1938	1563	1751	8453680	8000004	8666670	
14	631609	1	17	65	1295	0	0	9321130	8666671	9333337	
15	438068	1	17	75	1956	0	0	9954034	9333338	10000004	
16	522548	1	17	70	1365	0	0	10394058	10000005	10666671	
17	1011908	2	17	75	1540	1535	0	10917971	10666672	11333338	
18		2	17	80	1978	1102	0	11932854	11333339	12000005	

Total number of pulses in waveform = 94

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**Type 5 Radar Waveform\_30**

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	40074	2	12	55	1060	1781	0	40074	0	1499999	
2	2247313	1	12	50	1071	0	0	2290228	1500000	2999999	
3	1671373	3	12	100	1170	1902	1375	3962672	3000000	4499999	
4	971776	3	12	80	1874	1874	1277	4938895	4500000	5999999	
5	1074317	1	12	80	1673	0	0	6018237	6000000	7499999	
6	2396112	2	12	95	1254	1704	0	8416022	7500000	8999999	
7	1928645	2	12	90	1190	1815	0	10347625	9000000	10499999	
8	331378	3	12	50	1174	1581	1828	10682008	10500000	11999999	

Total number of pulses in waveform = 17

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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	5491	1	16	5500	1
2	5491	1	17	5500	1
3	5491	1	18	5500	1
4	5491	1	19	5500	1
5	5491	1	20	5500	1
6	5491	1	21	5509	1
7	5491	1	22	5509	1
8	5491	1	23	5509	1
9	5491	1	24	5509	1
10	5491	1	25	5509	1
11	5500	1	26	5509	1
12	5500	1	27	5509	1
13	5500	1	28	5509	1
14	5500	1	29	5509	1
15	5500	1	30	5509	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	5528	33	5	5514	15
35	5495	105	14	5528	42
41	5519	123	15	5496	45
46	5471	138	22	5474	66
67	5473	201	43	5527	129
72	5509	216	48	5481	144
87	5523	261	55	5530	165
--	--	--	59	5477	177
--	--	--	83	5529	249
--	--	--	91	5482	273

Radar waveform #3			Radar waveform #4		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
4	5527	12	0	5499	0
6	5504	18	3	5497	9
9	5514	27	6	5508	18
14	5490	42	12	5503	36
26	5474	78	34	5523	102
32	5492	96	36	5475	108
33	5471	99	38	5500	114
36	5529	108	48	5480	144
42	5524	126	56	5502	168
49	5501	147	99	5515	297
51	5530	153	--	--	--
58	5494	174	--	--	--
61	5489	183	--	--	--
74	5499	222	--	--	--
75	5477	225	--	--	--
91	5493	273	--	--	--
97	5523	291	--	--	--

Radar waveform #5			Radar waveform #6		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
13	5497	39	5	5526	15
26	5525	78	11	5471	33
47	5482	141	13	5496	39
62	5505	186	18	5518	54
85	5483	255	27	5513	81
--	--	--	30	5494	90
--	--	--	38	5476	114
--	--	--	42	5487	126
--	--	--	57	5500	171
--	--	--	59	5504	177
--	--	--	60	5488	180
--	--	--	61	5524	183
--	--	--	68	5511	204
--	--	--	84	5502	252
--	--	--	85	5507	255
--	--	--	86	5474	258

Radar waveform #7			Radar waveform #8		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
0	5483	0	1	5487	3
3	5514	9	6	5526	18
7	5491	21	8	5488	24
21	5482	63	13	5523	39
24	5474	72	20	5481	60
27	5510	81	23	5524	69
39	5478	117	39	5530	117
50	5487	150	42	5495	126
55	5511	165	51	5527	153
60	5517	180	86	5499	258
76	5488	228	93	5491	279
78	5504	234	98	5472	294
79	5530	237	--	--	--
81	5497	243	--	--	--
82	5496	246	--	--	--
87	5494	261	--	--	--
91	5480	273	--	--	--
92	5498	276	--	--	--

Radar waveform #9			Radar waveform #10		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
7	5523	21	0	5484	0
18	5527	54	15	5491	45
23	5488	69	19	5523	57
24	5493	72	21	5473	63
27	5530	81	27	5478	81
28	5474	84	33	5483	99
36	5511	108	47	5494	141
44	5512	132	49	5482	147
51	5519	153	61	5475	183
70	5528	210	71	5517	213
--	--	--	74	5486	222
--	--	--	80	5520	240

Radar waveform #11			Radar waveform #12		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Frequency (MHz)	Hopping Number	Pulse Start (ms)
6	5501	18	3	5472	9
9	5508	27	9	5506	27
17	5510	51	32	5494	96
20	5526	60	37	5514	111
25	5477	75	39	5476	117
33	5473	99	48	5482	144
37	5530	111	49	5509	147
48	5512	144	50	5484	150
63	5500	189	64	5499	192
67	5513	201	75	5495	225
68	5524	204	79	5524	237
69	5474	207	84	5483	252
70	5528	210	86	5522	258
74	5518	222	90	5491	270
79	5516	237	93	5502	279
81	5515	243	--	--	--
87	5475	261	--	--	--
94	5529	282	--	--	--

Radar waveform #13			Radar waveform #14		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
0	5519	0	0	5510	0
1	5503	3	5	5484	15
2	5475	6	7	5501	21
14	5489	42	11	5475	33
18	5507	54	12	5529	36
24	5505	72	14	5483	42
40	5530	120	32	5490	96
42	5502	126	36	5528	108
50	5527	150	40	5524	120
51	5482	153	49	5489	147
54	5516	162	77	5477	231
68	5504	204	78	5507	234
72	5483	216	87	5500	261
89	5471	267	93	5481	279
--	--	--	95	5502	285

Radar waveform #15			Radar waveform #16		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
0	5478	0	6	5511	18
16	5474	48	8	5484	24
18	5486	54	12	5523	36
19	5493	57	13	5525	39
21	5515	63	27	5502	81
22	5489	66	29	5513	87
25	5497	75	31	5520	93
36	5527	108	39	5495	117
37	5488	111	49	5515	147
49	5503	147	50	5496	150
58	5491	174	53	5485	159
66	5487	198	74	5501	222
72	5475	216	75	5529	225
91	5525	273	86	5471	258
97	5510	291	--	--	--

Radar waveform #17			Radar waveform #18		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
2	5522	6	7	5491	21
9	5497	27	8	5505	24
17	5502	51	51	5475	153
19	5490	57	53	5477	159
28	5504	84	54	5474	162
35	5485	105	61	5530	183
48	5530	144	67	5510	201
72	5507	216	72	5513	216
85	5529	255	74	5484	222
--	--	--	85	5515	255
--	--	--	92	5488	276
--	--	--	95	5500	285
--	--	--	96	5504	288
--	--	--	99	5523	297

Radar waveform #19			Radar waveform #20		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
11	5474	33	2	5495	6
14	5479	42	4	5507	12
18	5500	54	16	5512	48
22	5485	66	21	5510	63
27	5471	81	22	5498	66
30	5472	90	24	5473	72
32	5495	96	25	5509	75
36	5518	108	36	5485	108
51	5506	153	40	5478	120
53	5475	159	57	5494	171
54	5512	162	59	5502	177
59	5525	177	61	5528	183
71	5488	213	62	5471	186
74	5477	222	80	5522	240
79	5501	237	97	5472	291
89	5480	267	--	--	--
90	5524	270	--	--	--

Radar waveform #21			Radar waveform #22		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
9	5485	27	35	5498	105
16	5525	48	49	5489	147
21	5512	63	53	5488	159
31	5471	93	56	5508	168
43	5517	129	59	5529	177
56	5516	168	61	5482	183
61	5475	183	77	5472	231
84	5507	252	83	5470	249
89	5496	267	91	5503	273
98	5513	294	93	5490	279
99	5482	297	--	--	--

Radar waveform #23			Radar waveform #24		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
0	5507	0	0	5494	0
29	5509	87	8	5518	24
37	5506	111	9	5473	27
40	5512	120	10	5525	30
42	5482	126	21	5502	63
43	5508	129	23	5526	69
44	5479	132	42	5480	126
46	5500	138	49	5513	147
54	5477	162	51	5470	153
58	5485	174	56	5512	168
68	5502	204	58	5511	174
73	5491	219	75	5520	225
77	5487	231	83	5486	249
78	5486	234	84	5476	252
80	5484	240	86	5495	258
81	5515	243	--	--	--
91	5480	273	--	--	--
92	5505	276	--	--	--
94	5526	282	--	--	--
95	5528	285	--	--	--
99	5483	297	--	--	--

Radar waveform #25			Radar waveform #26		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
0	5507	0	1	5514	3
2	5513	6	2	5493	6
19	5498	57	19	5478	57
36	5474	108	22	5511	66
38	5476	114	25	5479	75
39	5512	117	38	5513	114
40	5502	120	44	5473	132
41	5489	123	61	5470	183
43	5479	129	68	5509	204
51	5514	153	71	5507	213
62	5526	186	73	5471	219
70	5520	210	76	5499	228
75	5471	225	83	5492	249
77	5518	231	86	5501	258
78	5486	234	94	5488	282
82	5509	246	--	--	--

Radar waveform #27			Radar waveform #28		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
0	5477	0	3	5477	9
2	5514	6	6	5516	18
3	5529	9	12	5495	36
4	5498	12	18	5478	54
6	5475	18	62	5482	186
16	5508	48	65	5493	195
26	5487	78	71	5530	213
54	5493	162	81	5522	243
63	5485	189	84	5485	252
71	5513	213	94	5491	282
74	5494	222	96	5525	288
90	5523	270	--	--	--
98	5519	294	--	--	--

Radar waveform #29			Radar waveform #30		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
10	5530	30	0	5493	0
22	5472	66	4	5511	12
23	5481	69	6	5499	18
28	5493	84	7	5507	21
34	5497	102	10	5517	30
44	5526	132	15	5478	45
50	5482	150	20	5501	60
56	5518	168	42	5487	126
58	5522	174	53	5500	159
62	5488	186	56	5524	168
65	5509	195	60	5470	180
--	--	--	77	5486	231
--	--	--	89	5497	267

Product	OmniAccess Stellar	Temperature	27°C
Test Engineer	Amy Zhang	Relative Humidity	65%
Test Site	SR5	Test Date	2018/08/26
Test Item	Radar Statistical Performance Check (802.11n-HT40 mode – 5510MHz)		

#### Radar Type 1 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5492	1	558	95	1
2	5492	1	738	72	1
3	5492	1	678	78	1
4	5492	1	858	62	1
5	5500	1	758	70	1
6	5500	1	638	83	1
7	5500	1	938	57	1
8	5500	1	778	68	1
9	5508	1	718	74	1
10	5508	1	518	102	1
11	5508	1	798	67	1
12	5508	1	538	98	1
13	5510	1	878	61	1
14	5510	1	838	63	1
15	5510	1	818	65	1
16	5510	1	2773	20	1
17	5510	1	1871	29	1
18	5510	1	2397	22	1
19	5512	1	2640	20	1
20	5512	1	1638	33	1
21	5512	1	2229	24	1
22	5512	1	1186	45	1
23	5520	1	2431	22	1
24	5520	1	1204	44	1
25	5520	1	1603	33	1
26	5520	1	773	69	1

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
27	5529	1	2665	20	1
28	5529	1	1836	29	1
29	5529	1	916	58	1
30	5529	1	711	75	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	5492	4.6	208	27	1
2	5492	4.2	222	29	1
3	5492	4.8	229	29	1
4	5492	1.6	225	25	1
5	5500	1.5	228	27	1
6	5500	2.4	224	28	1
7	5500	4.0	197	26	1
8	5500	1.0	219	24	1
9	5508	3.4	209	24	1
10	5508	1.0	185	27	1
11	5508	2.3	191	27	1
12	5508	1.0	171	24	1
13	5510	3.0	220	28	1
14	5510	4.6	151	27	1
15	5510	1.4	182	27	1
16	5510	1.7	205	26	1
17	5510	1.3	214	24	1
18	5510	4.6	157	26	1
19	5512	2.3	154	28	1
20	5512	2.9	222	24	1
21	5512	1.6	158	28	1
22	5512	2.8	151	25	1
23	5520	4.4	211	24	1
24	5520	1.4	191	27	1
25	5520	1.6	152	24	1
26	5520	2.9	230	26	1
27	5529	1.4	222	24	1
28	5529	3.7	200	29	1
29	5529	3.6	190	28	1
30	5529	4.2	202	27	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	5492	7.1	397	17	1
2	5492	10.0	372	17	1
3	5492	7.4	314	16	1
4	5492	7.3	407	18	1
5	5500	9.5	334	17	1
6	5500	9.4	359	18	1
7	5500	9.7	284	18	1
8	5500	7.2	381	16	1
9	5508	7.3	367	17	1
10	5508	7.8	465	16	1
11	5508	8.7	411	18	1
12	5508	7.0	320	18	1
13	5510	9.1	397	17	1
14	5510	8.2	344	17	1
15	5510	6.9	257	17	1
16	5510	9.3	475	17	1
17	5510	6.5	359	16	1
18	5510	8.8	464	17	1
19	5512	7.2	431	17	1
20	5512	7.6	432	17	1
21	5512	9.7	449	17	1
22	5512	8.0	287	17	1
23	5520	8.3	221	18	1
24	5520	7.2	320	16	1
25	5520	7.0	385	17	1
26	5520	7.5	498	18	1
27	5529	6.9	265	17	1
28	5529	7.8	382	16	1
29	5529	7.3	377	17	1
30	5529	7.3	202	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	5492	17.5	211	15	1
2	5492	14.2	218	12	1
3	5492	14.9	337	15	1
4	5492	12.6	335	14	1
5	5500	14.1	416	14	1
6	5500	16.6	202	14	1
7	5500	18.8	390	15	1
8	5500	17.9	395	16	1
9	5508	11.9	220	13	1
10	5508	17.4	201	14	1
11	5508	14.0	326	13	1
12	5508	12.0	440	14	1
13	5510	16.0	298	12	1
14	5510	19.3	303	13	1
15	5510	16.9	434	15	1
16	5510	15.1	316	13	1
17	5510	11.9	209	15	1
18	5510	11.6	203	13	1
19	5512	14.3	234	14	1
20	5512	14.9	203	15	1
21	5512	11.5	346	16	1
22	5512	16.0	365	12	1
23	5520	16.2	383	16	1
24	5520	15.0	472	15	1
25	5520	15.6	267	14	1
26	5520	17.9	219	14	1
27	5529	19.8	270	14	1
28	5529	13.5	276	14	1
29	5529	12.2	223	14	1
30	5529	19.9	313	14	1
Detection Percentage (%)					100%

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

waveforms is as follows:  $\frac{P_d\ 1 + P_d\ 2 + P_d\ 3 + P_d\ 4}{4} = (100\%+100\%+100\%+100\%)/4 = 100\% (>80\%)$

## 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	5497.6	1	16	5510.0	1
2	5499.2	1	17	5510.0	1
3	5496.8	1	18	5510.0	1
4	5495.6	1	19	5510.0	1
5	5494.4	1	20	5510.0	1
6	5495.2	1	21	5520.4	1
7	5498.8	1	22	5524.4	1
8	5494.0	1	23	5526.0	1
9	5496.0	1	24	5523.2	1
10	5499.6	1	25	5520.8	1
11	5510.0	1	26	5524.8	1
12	5510.0	1	27	5522.4	1
13	5510.0	1	28	5525.6	1
14	5510.0	1	29	5521.2	1
15	5510.0	1	30	5524.0	1
Detection Percentage (%)					5296.8

## Type 5 Radar Waveform\_1

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	533023	1	14	75	1460	0	0	533023	0	857142	
2	943430	2	14	75	1364	1708	0	1477913	857143	1714285	
3	867243	2	14	60	1449	1641	0	2348228	1714286	2571428	
4	1062991	3	14	55	1293	1602	1756	3414309	2571429	3428571	
5	237292	2	14	95	1142	1545	0	3656252	3428572	4285714	
6	737479	1	14	70	1336	0	0	4396418	4285715	5142857	
7	1304421	3	14	55	1919	1084	1359	5702175	5142858	6000000	
8	405286	1	14	50	1878	0	0	6111823	6000001	6857143	
9	980442	3	14	100	1268	1732	1076	7094143	6857144	7714286	
10	1348838	2	14	55	1269	1818	0	8447057	7714287	8571429	
11	142322	3	14	70	1167	1135	1752	8592466	8571430	9428572	
12	1597731	3	14	70	1634	1293	1672	10194251	9428573	10285715	
13	406726	3	14	90	1350	1574	1848	10605576	10285716	11142858	
14	781215	1	14	70	1831	0	0	11391563	11142859	12000001	
Total number of pulses in waveform = 30											
*****											

### Type 5 Radar Waveform\_2

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	59260	2	18	100	1171	1253	0	59260	0	923076
2	1104942	3	18	70	1431	1651	1721	1166626	923077	1846153
3	1327440	2	18	80	1752	1807	0	2498869	1846154	2769230
4	526878	2	18	95	1447	1648	0	3029306	2769231	3692307
5	1353560	3	18	100	1408	1532	1202	4385961	3692308	4615384
6	695446	2	18	55	1040	1376	0	5085549	4615385	5538461
7	1036288	1	18	70	1466	0	0	6124253	5538462	6461538
8	690711	2	18	95	1636	1431	0	6816430	6461539	7384615
9	1452231	3	18	75	1410	1036	1660	8271728	7384616	8307692
10	646097	2	18	60	1142	1781	0	8921931	8307693	9230769
11	404508	1	18	65	1614	0	0	9329362	9230770	10153846
12	889294	3	18	90	1081	1647	1581	10220270	10153847	11076923
13	891510	1	18	75	1429	0	0	11116089	11076924	12000000

Total number of pulses in waveform = 27

### Type 5 Radar Waveform\_3

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	105207	2	12	60	1913	1048	0	105207	0	857142
2	1394862	3	12	100	1684	1774	1203	1503030	857143	1714285
3	230676	3	12	55	1496	1431	1766	1738367	1714286	2571428
4	830918	2	12	50	1533	1013	0	2573978	2571429	3428571
5	976783	1	12	90	1071	0	0	3553307	3428572	4285714
6	1236396	3	12	50	1687	1353	1142	4790774	4285715	5142857
7	513946	1	12	70	1302	0	0	5308902	5142858	6000000
8	1035435	1	12	55	1489	0	0	6345639	6000001	6857143
9	558209	2	12	65	1940	1186	0	6905337	6857144	7714286
10	1468593	1	12	85	1603	0	0	8377056	7714287	8571429
11	339022	3	12	70	1511	1346	1516	8717681	8571430	9428572
12	1049980	1	12	80	1200	0	0	9772034	9428573	10285715
13	662561	2	12	55	1107	1800	0	10435795	10285716	11142858
14	1000572	3	12	50	1435	1306	1067	11439274	11142859	12000001

Total number of pulses in waveform = 28

### 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	597818	2	9	55	1844	1678	0	597818	0	705881
2	486831	1	9	85	1856	0	0	1088171	705882	1411763
3	398696	3	9	60	1315	1193	1567	1482723	1411764	2117645
4	1109572	2	9	55	1485	1262	0	2602370	2117646	2823527
5	777456	2	9	90	1942	1456	0	3382573	2823528	3529409
6	663951	1	9	80	1707	0	0	4049922	3529410	4235291
7	495634	2	9	60	1047	1366	0	4547263	4235292	4941173
8	505023	3	9	60	1816	1209	1347	5054699	4941174	5647055
9	662581	2	9	50	1091	1596	0	5721652	5647056	6352937
10	1153449	2	9	100	1986	1544	0	6877788	6352938	7058819
11	685997	3	9	80	1570	1492	1173	7567315	7058820	7764701
12	800841	2	9	70	1540	1391	0	8372391	7764702	8470583
13	464378	1	9	95	1018	0	0	8839700	8470584	9176465
14	416118	2	9	55	1769	1224	0	9256836	9176466	9882347
15	918864	1	9	85	1402	0	0	10178693	9882348	10588229
16	642367	2	9	100	1495	1526	0	10822462	10588230	11294111
17	887265	2	9	75	1358	1667	0	11712748	11294112	11999993

Total number of pulses in waveform = 33

### 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	987033	1	6	55	1116	0	0	987033	0	1499999
2	1351787	2	6	55	1897	1344	0	2339936	1500000	2999999
3	1632597	2	6	90	1775	1824	0	3975774	3000000	4499999
4	2014854	3	6	80	1500	1817	1047	5994227	4500000	5999999
5	652399	2	6	80	1499	1180	0	6650990	6000000	7499999
6	1982319	3	6	70	1029	1098	1529	8635988	7500000	8999999
7	877604	1	6	50	1527	0	0	9517248	9000000	10499999
8	2301190	3	6	70	1056	1927	1057	11819965	10500000	11999999

Total number of pulses in waveform = 17

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### Type 5 Radar Waveform\_6

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	209374	2	8	90	1363	1698	0	209374	0	1199999
2	1660727	3	8	75	1877	1196	1935	1873162	1200000	2399999
3	635589	2	8	65	1755	1655	0	2513759	2400000	3599999
4	1754977	1	8	60	1711	0	0	4272146	3600000	4799999
5	776150	3	8	70	1227	1896	1717	5050007	4800000	5999999
6	1444082	2	8	65	1828	1929	0	6498929	6000000	7199999
7	1860720	3	8	80	1595	1620	1242	8363406	7200000	8399999
8	324993	3	8	70	1776	1252	1885	8692856	8400000	9599999
9	996373	1	8	65	1336	0	0	9694142	9600000	10799999
10	1262160	1	8	80	1349	0	0	10957638	10800000	11999999

Total number of pulses in waveform = 21

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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	546421	1	17	60	1829	0	0	546421	0	599999
2	435827	2	17	90	1138	1863	0	984077	600000	1199999
3	297577	1	17	50	1071	0	0	1284655	1200000	1799999
4	651165	2	17	80	1344	1843	0	1936891	1800000	2399999
5	596446	3	17	95	1544	1879	1593	2536524	2400000	2999999
6	927897	1	17	100	1011	0	0	3469437	3000000	3599999
7	578285	3	17	70	1800	1969	1496	4048733	3600000	4199999
8	632771	2	17	70	1266	1360	0	4686769	4200000	4799999
9	583994	3	17	70	1522	1496	1520	5273379	4800000	5399999
10	436265	2	17	65	1365	1657	0	5714172	5400000	5999999
11	488708	2	17	70	1189	1179	0	6205902	6000000	6599999
12	712186	3	17	50	1108	1379	1248	6920456	6600000	7199999
13	434029	1	17	100	1973	0	0	7358220	7200000	7799999
14	700608	3	17	75	1189	1093	1986	8060801	7800000	8399999
15	422401	3	17	55	1392	1764	1956	8487470	8400000	8999999
16	792367	1	17	85	1167	0	0	9284949	9000000	9599999
17	572899	3	17	65	1106	1522	1730	9859015	9600000	10199999
18	639864	1	17	50	1655	0	0	10503227	10200000	10799999
19	722431	3	17	50	1134	1170	1335	11227313	10800000	11399999
20	648749	3	17	100	1849	1766	1395	11879701	11400000	11999999

Total number of pulses in waveform = 43

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### 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	258984	1	5	85	1998	0	0	258984	0	749999
2	991985	2	5	90	1548	1182	0	1252967	750000	1499999
3	904791	1	5	100	1972	0	0	2160488	1500000	2249999
4	201945	2	5	70	1195	1766	0	2364405	2250000	2999999
5	1028652	2	5	80	1833	1976	0	3396018	3000000	3749999
6	570372	2	5	50	1658	1006	0	3970199	3750000	4499999
7	998016	2	5	65	1735	1064	0	4970879	4500000	5249999
8	451842	3	5	60	1789	1435	1298	5425520	5250000	5999999
9	1058857	1	5	70	1310	0	0	6488899	6000000	6749999
10	361523	1	5	75	1538	0	0	6851732	6750000	7499999
11	947072	1	5	90	1982	0	0	7800342	7500000	8249999
12	752395	3	5	65	1570	1299	1452	8554719	8250000	8999999
13	755831	3	5	85	1556	1692	1539	9314871	9000000	9749999
14	891652	3	5	100	1156	1316	1955	10211310	9750000	10499999
15	758261	1	5	50	1158	0	0	10973998	10500000	11249999
16	752718	3	5	55	1088	1480	1330	11727874	11250000	11999999

Total number of pulses in waveform = 31

### 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	709327	1	10	55	1287	0	0	709327	0	799999
2	873128	3	10	55	1196	1352	1684	1583742	800000	1599999
3	556618	1	10	65	1152	0	0	2144592	1600000	2399999
4	900133	1	10	90	1832	0	0	3045877	2400000	3199999
5	559264	3	10	100	1539	1620	1683	3606973	3200000	3999999
6	940735	1	10	80	1811	0	0	4552550	4000000	4799999
7	954011	2	10	65	1953	1091	0	5508372	4800000	5599999
8	212842	3	10	55	1927	1318	1133	5724258	5600000	6399999
9	982455	2	10	70	1395	1958	0	6711091	6400000	7199999
10	845931	3	10	100	1638	1968	1015	7560375	7200000	7999999
11	783957	2	10	55	1369	1310	0	8353953	8000000	8799999
12	1161858	2	10	80	1471	1311	0	9518490	8800000	9599999
13	399633	3	10	60	1251	1604	1497	9920905	9600000	10399999
14	869419	2	10	65	1891	1364	0	10794676	10400000	11199999
15	440486	2	10	100	1546	1934	0	11238417	11200000	11999999

Total number of pulses in waveform = 31

### 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	62747	2	19	100	1786	1827	0	62747	0	631578
2	877140	2	19	65	1894	1829	0	943500	631579	1263157
3	944438	1	19	65	1794	0	0	1891661	1263158	1894736
4	540230	3	19	55	1495	1158	1162	2433685	1894737	2526315
5	328655	2	19	80	1533	1074	0	2766155	2526316	3157894
6	825018	1	19	85	1755	0	0	3593780	3157895	3789473
7	299176	1	19	70	1688	0	0	3894711	3789474	4421052
8	708881	1	19	85	1874	0	0	4605280	4421053	5052631
9	501659	1	19	70	1853	0	0	5108813	5052632	5684210
10	640561	1	19	85	1279	0	0	5751227	5684211	6315789
11	921779	1	19	95	1391	0	0	6674285	6315790	6947368
12	754915	2	19	90	1112	1184	0	7430591	6947369	7578947
13	570288	1	19	90	1255	0	0	8003175	7578948	8210526
14	469983	3	19	65	1345	1920	1823	8474413	8210527	8842105
15	816401	1	19	80	1060	0	0	9295902	8842106	9473684
16	227965	1	19	60	1892	0	0	9524927	9473685	10105263
17	976286	1	19	65	1476	1580	1869	10503105	10105264	10736842
18	441278	3	19	75	1549	0	0	10949308	10736843	11368421
19	684524	1	19	75	1343	1494	1324	11635381	11368422	12000000

Total number of pulses in waveform = 31

### Type 5 Radar Waveform\_11

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	293361	1	18	50	1360	0	0	369468	0	599999
2	811686	3	18	85	1073	1904	1610	654169	600000	1199999
3	535364	1	18	70	1015	0	0	1470442	1200000	1799999
4	461614	2	18	80	1069	1746	0	2006811	1800000	2399999
5	1031589	3	18	90	1945	1259	1258	2471240	2400000	2999999
6	204300	3	18	75	1240	1160	1254	3607291	3000000	3599999
7	967471	1	18	100	1316	0	0	3715245	3600000	4199999
8	205273	3	18	50	1615	1808	1747	4684032	4200000	4799999
9	1019604	2	18	85	1762	1405	0	4894475	4800000	5399999
10	151723	1	18	90	1004	0	0	5917246	5400000	5999999
11	584642	1	18	55	1353	0	0	6069973	6000000	6599999
12	892946	2	18	85	1868	1423	0	6655968	6600000	7199999
13	499695	1	18	70	1299	0	0	7552204	7200000	7799999
14	800436	1	18	55	1813	0	0	8063198	7800000	8399999
15	264126	2	18	100	1486	1217	0	8856447	8400000	8999999
16	768515	1	18	55	1235	0	0	9122276	9000000	9599999
17	538852	3	18	60	1707	1987	1970	9892026	9600000	10199999
18	645151	3	18	50	1262	1255	1176	10436542	10200000	10799999
19	970943	3	18	100	1544	1227	1869	10985386	10800000	11399999
20		2	18	65	1775	1589	0	11960969	11400000	11999999
*****										
Total number of pulses in waveform = 39										

### Type 5 Radar Waveform\_12

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	1194015	2	17	90	1521	1504	0	1194015	0	1499999
2	924466	1	17	85	1156	0	0	2121506	1500000	2999999
3	1174644	3	17	55	1196	1842	1747	3297306	3000000	4499999
4	2182934	1	17	95	1158	0	0	5485025	4500000	5999999
5	627669	1	17	50	1630	0	0	6113852	6000000	7499999
6	2156146	1	17	60	1356	0	0	8271628	7500000	8999999
7	1483531	3	17	50	1414	1302	1901	9756515	9000000	10499999
8	1609516	3	17	80	1752	1521	1112	11370648	10500000	11999999
*****										
Total number of pulses in waveform = 15										

### Type 5 Radar Waveform\_13

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	478650	3	6	85	1834	1262	1178	478650	0	631578
2	667279	1	6	50	1045	0	0	1150203	631579	1263157
3	423086	3	6	55	1030	1961	1968	1574334	1263158	1894736
4	882599	2	6	85	1158	1086	0	2441892	1894737	2526315
5	524818	2	6	85	1898	1151	0	2968954	2526316	3157894
6	223335	1	6	50	1563	0	0	3195338	3157895	3789473
7	843590	1	6	85	1352	0	0	4040491	3789474	4421052
8	518889	3	6	50	1100	1521	1661	4560732	4421053	5052631
9	596265	1	6	95	1757	0	0	5161279	5052632	5684210
10	825142	2	6	80	1435	1173	0	5988178	5684211	6315789
11	693730	1	6	100	1410	0	0	6684516	6315790	6947368
12	588220	1	6	85	1870	0	0	7274146	6947369	7578947
13	453224	1	6	95	1297	0	0	7729240	7578948	8210526
14	732105	2	6	65	1645	1612	0	8462642	8210527	8842105
15	896651	2	6	65	1980	1435	0	9362550	8842106	9473684
16	637687	1	6	80	1443	0	0	10003652	9473685	10105263
17	147466	2	6	95	1177	1941	0	10152561	10105264	10736842
18	852730	1	6	100	1425	0	0	11008409	10736843	11368421
19	687555	3	6	50	1338	1332	1592	11697389	11368422	12000000
*****										
Total number of pulses in waveform = 33										

**Type 5 Radar Waveform\_14**

Type 5 Radar Waveform_14											
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	213506	1	8	75	1318	0	0	213506	0	749999	
2	1105333	2	8	60	1776	1679	0	1320156	750000	1499999	
3	629680	3	8	65	1391	1880	1894	1953291	1500000	2249999	
4	900889	2	8	90	1910	1542	0	2859345	2250000	2999999	
5	247759	2	8	100	1114	1075	0	3110556	3000000	3749999	
6	815315	2	8	90	1538	1821	0	3928060	3750000	4499999	
7	1004366	1	8	55	1587	0	0	4935735	4500000	5249999	
8	444370	2	8	70	1643	1350	0	5381742	5250000	5999999	
9	766951	2	8	95	1296	1178	0	6151686	6000000	6749999	
10	860271	1	8	50	1797	0	0	7014431	6750000	7499999	
11	1196220	2	8	85	1846	1532	0	8212448	7500000	8249999	
12	728324	1	8	75	1256	0	0	8944150	8250000	8999999	
13	354713	1	8	95	1849	0	0	9300119	9000000	9749999	
14	607166	3	8	95	1841	1951	1487	9909134	9750000	10499999	
15	891131	1	8	70	1523	0	0	10805544	10500000	11249999	
16	995958	2	8	90	1643	1997	0	11803025	11250000	11999999	
Total number of pulses in waveform = 28											
*****											

**Type 5 Radar Waveform\_15**

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	244411	1	9	100	1778	0	0	244411	0	1090908	
2	1273998	3	9	60	1437	1228	1958	1520187	1090909	2181817	
3	818001	2	9	70	1441	1992	0	2342811	2181818	3272726	
4	1854154	3	9	60	1831	1204	1240	4200398	3272727	4363635	
5	1208008	1	9	75	1736	0	0	5412681	4363636	5454544	
6	829943	1	9	100	1463	0	0	6244360	5454545	6545453	
7	793865	1	9	90	1202	0	0	7039688	6545454	7636362	
8	1199223	2	9	60	1195	1084	0	8240113	7636363	8727271	
9	1148077	2	9	65	1984	1205	0	9390469	8727272	9818180	
10	678293	2	9	55	1054	1974	0	10071951	9818181	10909089	
11	1305001	1	9	65	1017	0	0	11379980	10909090	11999998	
Total number of pulses in waveform = 19											
*****											

**Type 5 Radar Waveform\_16**

Type 5 Radar Waveform_16											
Num of Bursts = 9 Burst Interval (us)= 1333333											
Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)	
1	171705	2	12	75	1435	1327	0	171705	0	1333332	
2	2022463	1	12	90	1930	0	0	2196930	1333333	2666665	
3	644665	1	12	100	1710	0	0	2843525	2666666	3999998	
4	1564285	3	12	60	1251	1735	1336	4409520	3999999	5333331	
5	1153998	1	12	65	1949	0	0	5567840	5333332	6666664	
6	1699147	1	12	100	1662	0	0	7268936	6666665	7999997	
7	1018612	1	12	75	1356	0	0	8289210	7999998	9333330	
8	1919486	2	12	65	1385	1043	0	10210052	9333331	10666663	
9	480710	2	12	95	1131	1759	0	10693190	10666664	11999996	
Total number of pulses in waveform = 14											
*****											

### Type 5 Radar Waveform\_17

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
Num of Bursts = 17 Burst Interval (us)= 705882										
1	908881	1	19	55	1114	0	0	190105	0	705881
2	416806	2	19	85	1103	1450	0	1100100	705882	1411763
3	6838569	3	19	100	1027	1085	1305	1519459	1411764	2117645
4	1085876	1	19	100	1026	0	0	2211445	2117646	2823527
5	404440	1	19	75	1913	0	0	3298347	2823528	3529409
6	1169460	2	19	90	1907	1558	0	3704700	3529410	4235291
7	383873	1	19	65	1045	0	0	4877625	4235292	4941173
8	595317	1	19	100	1846	0	0	5262543	4941174	5647055
9	501997	2	19	90	1876	1929	0	5859706	5647056	6352937
10	1298971	2	19	75	1838	1429	0	6365508	6352938	7058819
11	247636	2	19	95	1706	1548	0	7667746	7058820	7764701
12	871651	1	19	80	1927	0	0	7918636	7764702	8470583
13	402660	1	19	50	1658	0	0	8792214	8470584	9176465
14	987162	3	19	95	1067	1852	1792	9196532	9176466	9882347
15	700750	2	19	100	1677	1966	0	10188405	9882348	10588229
16	786228	3	19	95	1748	1623	1724	10892798	10588230	11294111
17	3	19	90	1492	1289	1588	0	11684121	11294112	11999993
Total number of pulses in waveform = 31										
*****										

### Type 5 Radar Waveform\_18

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
Num of Bursts = 12 Burst Interval (us)= 1000000										
1	1520675	2	5	75	1780	1476	0	5293	0	999999
2	488774	1	5	65	1874	0	0	1529224	1000000	1999999
3	1500631	1	5	80	1805	0	0	2019872	2000000	2999999
4	1212419	1	5	80	1662	0	0	3522308	3000000	3999999
5	663216	3	5	80	1487	1096	1608	4736389	4000000	4999999
6	727768	1	5	55	1450	0	0	5403796	5000000	5999999
7	1314693	1	5	60	1653	0	0	6133014	6000000	6999999
8	1051224	2	5	75	1493	1728	0	7449360	7000000	7999999
9	1188443	3	5	55	1165	1937	1522	8503805	8000000	8999999
10	628973	1	5	80	1701	0	0	9696872	9000000	9999999
11	716504	2	5	85	1086	1880	0	10327546	10000000	10999999
12	3	5	65	1285	1869	1972	0	11047016	11000000	11999999
Total number of pulses in waveform = 21										
*****										

### Type 5 Radar Waveform\_19

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
Num of Bursts = 13 Burst Interval (us)= 923077										
1	690384	3	10	75	1934	1823	1975	690384	0	923076
2	1030639	2	10	55	1636	1131	0	1726755	923077	1846153
3	270132	2	10	65	1230	1419	0	1999654	1846154	2769230
4	1153729	3	10	100	1656	1341	1180	3156032	2769231	3692307
5	1232392	1	10	100	1570	0	0	4392601	3692308	4615384
6	526180	3	10	80	1628	1607	1587	4920351	4615385	5538461
7	665658	3	10	50	1828	1524	1602	5590831	5538462	6461538
8	1772114	1	10	55	1124	0	0	7367899	6461539	7384615
9	445390	3	10	95	1774	1896	1600	7814413	7384616	8307692
10	1306179	2	10	90	1164	1189	0	9125862	8307693	9230769
11	643142	2	10	60	1621	1952	0	9771357	9230770	10153846
12	636440	1	10	95	1912	0	0	10411370	10153847	11076923
13	1232099	2	10	70	1521	1856	0	11645381	11076924	12000000
Total number of pulses in waveform = 28										
*****										

### 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)
	688341									
1	972246	1	14	70	1549	0	0	688341	0	1333332
2	1461088	2	14	95	1243	1345	0	1662136	1333333	2666665
3	1483186	3	14	85	1019	1231	1315	3125812	2666666	3999998
4	1650633	1	14	85	1124	0	0	4612563	3999999	5333331
5	1111650	1	14	90	1441	0	0	6264320	5333332	6666664
6	827171	2	14	85	1896	1621	0	7377411	6666665	7999997
7	1894789	1	14	100	1938	0	0	8208099	7999998	9333330
8	1391712	3	14	55	1204	1898	1401	10104826	9333331	10666663
9		2	14	95	1390	1634	0	11501041	10666664	11999996
Total number of pulses in waveform = 16										
*****										

### Type 5 Radar Waveform\_21

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	329450	2	19	55	1996	1076	0	329450	0	631579
2	607164	1	19	55	1565	0	0	9396386	631579	1263157
3	339951	3	19	70	1531	1452	1265	1281202	1263158	1894736
4	999457	1	19	60	1271	0	0	2284907	1894737	2526315
5	819570	2	19	60	1162	1854	0	3106748	2526316	3157894
6	67388	1	19	60	1538	0	0	3176152	3157895	3789473
7	879850	3	19	100	1120	1447	1801	4057540	3789474	4421052
8	371186	2	19	95	1867	1135	0	4433094	4421053	5052631
9	801507	3	19	100	1517	1832	1361	5237603	5052632	5684210
10	1055758	1	19	90	1191	0	0	6298071	5684211	6315789
11	307774	1	19	100	1180	0	0	6607036	6315790	6947368
12	506964	2	19	65	1977	1481	0	7115180	6947369	7578947
13	555264	1	19	80	1825	0	0	7673902	7578948	8210526
14	773209	2	19	90	1146	1343	0	8448936	8210527	8842105
15	869063	1	19	75	1782	0	0	9320488	8842106	9473684
16	410381	2	19	60	1856	1952	0	9732651	9473685	10105263
17	936071	2	19	95	1502	1879	0	10672530	10105264	10736842
18	467460	2	19	100	1745	1202	0	11143371	10736843	11368421
19	245397	2	19	50	1094	1760	0	11391715	11368422	12000000
Total number of pulses in waveform = 34										
*****										

### Type 5 Radar Waveform\_22

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	581511	2	9	90	1273	1292	0	581511	0	1199999
2	905493	2	9	75	1668	1385	0	1489569	1200000	2399999
3	1951742	2	9	65	1820	1699	0	3444364	2400000	3599999
4	1131467	1	9	70	1259	0	0	4579350	3600000	4799999
5	392805	1	9	60	1458	0	0	4973414	4800000	5999999
6	1038549	1	9	50	1495	0	0	6013421	6000000	7199999
7	1281117	3	9	95	1890	1889	1540	7296033	7200000	8399999
8	1913868	2	9	90	1926	1864	0	9215220	8400000	9599999
9	1208612	2	9	75	1583	1856	0	10427622	9600000	10799999
10	1410442	3	9	75	1845	1176	1278	11841503	10800000	11999999
Total number of pulses in waveform = 19										
*****										

### Type 5 Radar Waveform\_23

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	205397	3	5	80	1787	1773	1543	585679	0	599999
2	881843	2	5	85	1852	1129	0	7961179	600000	1199999
3	362126	2	5	60	1818	1964	0	1680703	1200000	1799999
4	697220	2	5	60	1745	1950	0	2046611	1800000	2399999
5	341550	2	5	55	1321	1369	0	2747526	2400000	2999999
6	609069	1	5	60	1088	0	0	3091766	3000000	3599999
7	604462	3	5	100	1687	1839	1287	3701923	3600000	4199999
8	859914	1	5	60	1995	0	0	4311198	4200000	4799999
9	327414	1	5	80	1708	0	0	5173107	4800000	5399999
10	1040393	1	5	85	1010	0	0	5502229	5400000	5999999
11	135745	1	5	55	1201	0	0	6543632	6000000	6599999
12	761234	2	5	95	1913	1870	0	6680578	6600000	7199999
13	732673	2	5	55	1495	1429	0	7445595	7200000	7799999
14	614479	1	5	90	1231	0	0	8181192	7800000	8399999
15	672101	2	5	85	1471	1892	0	87965902	8400000	8999999
16	526662	1	5	55	1612	0	0	9472366	9000000	9599999
17	214540	2	5	75	1123	1756	0	10000640	9600000	10199999
18	612026	1	5	80	1649	0	0	10218059	10200000	10799999
19	1084741	1	5	100	1520	0	0	10831734	10800000	11399999
20		2	5	60	1998	1746	0	11917995	11400000	11999999
*****										
Total number of pulses in waveform = 33										

### Type 5 Radar Waveform\_24

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	937826	1	12	80	1475	0	0	937826	0	999999
2	795563	1	12	90	1398	0	0	1734864	1000000	1999999
3	631578	2	12	60	1509	1562	0	2367840	2000000	2999999
4	1084624	3	12	60	1156	1028	1611	3455535	3000000	3999999
5	1499868	2	12	75	1762	1657	0	4959198	4000000	4999999
6	652848	1	12	60	1273	0	0	5615465	5000000	5999999
7	1147266	3	12	70	1190	1736	1686	6764004	6000000	6999999
8	966612	3	12	90	1783	1238	1405	7735228	7000000	7999999
9	487546	3	12	65	1815	1259	1303	8227200	8000000	8999999
10	882853	3	12	60	1214	1792	1075	9114430	9000000	9999999
11	1429188	2	12	55	1311	1203	0	10547699	10000000	10999999
12	1020196	1	12	65	1496	0	0	11570409	11000000	11999999
*****										
Total number of pulses in waveform = 25										

### Type 5 Radar Waveform\_25

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	519760	1	18	60	1121	0	0	519760	0	1199999
2	1477319	2	18	55	1145	1308	0	1998200	1200000	2399999
3	1019819	3	18	95	1808	1414	1940	3020472	2400000	3599999
4	785593	3	18	60	1498	1912	1302	3811227	3600000	4799999
5	1026005	2	18	70	1312	1704	0	4841944	4800000	5999999
6	1155602	1	18	65	1588	0	0	6000562	6000000	7199999
7	1212299	2	18	65	1190	1108	0	7214449	7200000	8399999
8	1257287	3	18	90	1888	1889	1439	8474034	8400000	9599999
9	1451268	2	18	75	1046	1979	0	9930518	9600000	10799999
10	1870051	3	18	70	1473	1826	1226	11803594	10800000	11999999
*****										
Total number of pulses in waveform = 22										

### Type 5 Radar Waveform\_26

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	351148	2	8	80	1809	1386	0	351148	0	749999
2	934280	2	8	75	1824	1301	0	1288623	750000	1499999
3	528705	1	8	70	1439	0	0	1820453	1500000	2249999
4	438256	1	8	75	1527	0	0	2260148	2250000	2999999
5	758084	3	8	80	1762	1793	1328	3019759	3000000	3749999
6	1053826	2	8	75	1166	1595	0	4078468	3750000	4499999
7	683168	2	8	60	1628	1647	0	4764397	4500000	5249999
8	1164274	2	8	55	1193	1267	0	5931946	5250000	5999999
9	727296	1	8	70	1855	0	0	6661702	6000000	6749999
10	162154	2	8	55	1871	1230	0	6825711	6750000	7499999
11	704515	1	8	85	1684	0	0	7533327	7500000	8249999
12	1153598	3	8	85	1918	1436	1759	8688609	8250000	8999999
13	635775	2	8	50	1636	1964	0	9529497	9000000	9749999
14	922018	3	8	85	1860	1357	1936	10255115	9750000	10499999
15	924066	3	8	85	1432	1873	1758	11184334	10500000	11249999
16	354332	3	8	55	1610	1972	1874	11543729	11250000	11999999

Total number of pulses in waveform = 33

### Type 5 Radar Waveform\_27

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	587406	3	14	60	1265	1594	1369	587406	0	1333332
2	1112337	3	14	90	1341	1863	1129	1703971	1333333	2666665
3	1199138	3	14	55	1088	1062	1523	2907442	2666666	3999998
4	1502479	2	14	100	1626	1384	0	4413594	3999999	5333331
5	2021136	3	14	85	1778	1390	1287	6437740	5333332	6666664
6	866767	1	14	85	1622	0	0	7308962	6666665	7999997
7	1515843	2	14	50	1431	1481	0	8826427	7999998	9333330
8	1679740	3	14	80	1999	1474	1925	10509079	9333331	10666663
9	870739	1	14	85	1236	0	0	11385216	10666664	11999996

Total number of pulses in waveform = 21

### 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	113057	3	6	85	1393	1609	1193	113057	0	631578
2	1032884	3	6	55	1787	1950	1918	1150136	631579	1263157
3	715182	1	6	100	1960	0	0	1870973	1263158	1894736
4	394265	3	6	90	1384	1033	1790	2267798	1894737	2526315
5	383004	2	6	95	1155	1401	0	2655009	2526316	3157894
6	870826	1	6	85	1236	0	0	3528391	3157895	3789473
7	381718	3	6	100	1216	1783	1419	3911345	3789474	4421052
8	889651	3	6	100	1063	1237	1137	4805414	4421053	5052631
9	6257931	2	6	80	1605	1232	0	5434642	5052632	5684210
10	580530	3	6	60	1932	1931	1349	6018009	5684211	6315789
11	540373	2	6	90	1150	1606	0	6563594	6315790	6947368
12	692467	1	6	90	1381	0	0	7268817	6947369	7578947
13	736811	2	6	55	1616	1789	0	7997009	7578948	8210526
14	317902	1	6	95	1873	0	0	8318316	8210527	8842105
15	584647	3	6	100	1955	1051	1865	8904836	8842106	9473684
16	1122868	2	6	60	1158	1876	0	10032565	9473685	10105263
17	92548	1	6	65	1215	0	0	10128147	10105264	10736842
18	709932	1	6	50	1357	0	0	10839294	10736843	11368421
19	750670	3	6	80	1050	1325	1162	11591321	11368422	12000000

Total number of pulses in waveform = 40

**Type 5 Radar Waveform\_29**

Type 5 Radar Waveform_29											
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	545210	2	17	50	1655	1288	0	545210	0	666666	
2	139323	1	17	80	1970	0	0	687476	666667	1333333	
3	687317	2	17	80	1194	1407	0	1376763	1333334	2000000	
4	11578009	1	17	85	1623	0	0	2537173	2000001	2666667	
5	404780	1	17	90	1378	0	0	2943576	2666668	3333334	
6	618492	2	17	85	1126	1296	0	3563446	3333335	4000001	
7	510508	2	17	70	1984	1778	0	4076376	4000002	4666668	
8	643651	2	17	85	1943	1573	0	4723789	4666669	5333335	
9	910852	1	17	85	1418	0	0	5638157	5333336	6000002	
10	900024	3	17	85	1828	1621	1892	6539599	6000003	6666669	
11	186564	3	17	50	1754	1912	1878	6731504	6666670	7333336	
12	1029723	3	17	65	1746	1237	1306	7766771	7333337	8000003	
13	506489	2	17	95	1746	1312	0	8277549	8000004	8666670	
14	744709	2	17	60	1139	1932	0	9025316	8666671	9333337	
15	461475	1	17	90	1421	0	0	9489862	9333338	10000004	
16	929931	2	17	65	1030	1005	0	10421214	10000005	10666671	
17	542104	1	17	75	1217	0	0	10965353	10666672	11333338	
18	418149	1	17	60	1379	0	0	11384719	11333339	12000005	

**Type 5 Radar Waveform\_30**

Type 5 Radar Waveform_30											
Num of Bursts = 12 Burst Interval (us)= 1000000											
Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)	
1	757886	2	10	70	1700	1897	0	757886	0	999999	
2	533914	3	10	60	1789	1763	1641	1295397	1000000	1999999	
3	1617461	2	10	70	1967	1961	0	2918051	2000000	2999999	
4	573103	2	10	80	1859	1256	0	3495082	3000000	3999999	
5	894800	2	10	100	1801	1589	0	4392997	4000000	4999999	
6	1311767	3	10	65	1686	1491	1385	5708154	5000000	5999999	
7	450902	3	10	95	1591	1264	1410	6163618	6000000	6999999	
8	1816193	1	10	95	1545	0	0	7984076	7000000	7999999	
9	40540	2	10	55	1855	1558	0	8026161	8000000	8999999	
10	1867450	2	10	90	1962	1564	0	9897024	9000000	9999999	
11	490924	2	10	100	1131	1707	0	10391474	10000000	10999999	
12	1246618	3	10	80	1306	1904	1517	11640930	11000000	11999999	

## 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	5492	1	16	5510	1
2	5492	1	17	5510	1
3	5492	1	18	5510	1
4	5492	1	19	5512	1
5	5500	1	20	5512	1
6	5500	1	21	5512	1
7	5500	1	22	5512	1
8	5500	1	23	5520	1
9	5508	1	24	5520	1
10	5508	1	25	5520	1
11	5508	1	26	5520	1
12	5508	1	27	5529	1
13	5510	1	28	5529	1
14	5510	1	29	5529	1
15	5510	1	30	5529	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	5486	15	1	5522	3
9	5499	27	22	5500	66
14	5521	42	23	5495	69
21	5504	63	25	5539	75
23	5529	69	42	5511	126
28	5524	84	48	5483	144
31	5538	93	50	5534	150
49	5495	147	59	5484	177
85	5489	255	68	5531	204
89	5539	267	69	5514	207
--	--	--	72	5488	216
--	--	--	79	5509	237
--	--	--	83	5524	249
--	--	--	99	5489	297

Radar waveform #3			Radar waveform #4		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
3	5503	9	0	5505	0
12	5492	36	12	5480	36
14	5495	42	13	5517	39
44	5525	132	17	5506	51
49	5523	147	22	5492	66
54	5537	162	23	5522	69
63	5507	189	35	5529	105
75	5513	225	48	5501	144
87	5508	261	55	5514	165
88	5533	264	60	5531	180
97	5506	291	80	5503	240
--	--	--	81	5539	243
--	--	--	93	5509	279
--	--	--	98	5536	294

Radar waveform #5			Radar waveform #6		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
6	5496	18	1	5529	3
7	5526	21	4	5488	12
12	5495	36	23	5480	69
17	5513	51	27	5497	81
24	5498	72	55	5496	165
37	5538	111	56	5514	168
51	5485	153	62	5487	186
69	5520	207	66	5483	198
74	5534	222	69	5502	207
85	5502	255	73	5494	219
88	5540	264	81	5508	243
89	5531	267	84	5495	252
--	--	--	86	5540	258
--	--	--	98	5504	294

Radar waveform #7			Radar waveform #8		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
0	5508	0	0	5485	0
5	5502	15	9	5532	27
6	5488	18	14	5493	42
23	5505	69	16	5509	48
24	5511	72	17	5484	51
26	5520	78	30	5533	90
27	5481	81	55	5526	165
28	5526	84	61	5512	183
29	5509	87	71	5488	213
45	5516	135	73	5496	219
46	5501	138	77	5498	231
57	5533	171	78	5514	234
66	5519	198	87	5505	261
68	5521	204	88	5539	264
83	5494	249	97	5506	291
90	5483	270	--	--	--
91	5487	273	--	--	--
97	5540	291	--	--	--

Radar waveform #9			Radar waveform #10		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
0	5502	0	16	5537	48
5	5480	15	20	5491	60
9	5526	27	26	5518	78
11	5528	33	29	5486	87
24	5511	72	38	5496	114
44	5493	132	44	5514	132
51	5531	153	50	5495	150
62	5521	186	56	5519	168
67	5492	201	64	5522	192
86	5515	258	76	5489	228
87	5499	261	89	5484	267
--	--	--	92	5532	276

Radar waveform #11			Radar waveform #12		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
0	5490	0	2	5497	6
1	5539	3	22	5527	66
8	5513	24	27	5482	81
22	5527	66	31	5536	93
33	5511	99	33	5530	99
35	5506	105	44	5519	132
48	5531	144	69	5520	207
55	5487	165	80	5521	240
63	5515	189	83	5489	249
75	5516	225	84	5492	252
82	5526	246	94	5524	282
85	5492	255	--	--	--
94	5518	282	--	--	--

Radar waveform #13			Radar waveform #14		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
1	5508	3	0	5487	0
14	5520	42	14	5496	42
51	5513	153	18	5498	54
55	5532	165	29	5488	87
57	5493	171	35	5528	105
58	5510	174	36	5486	108
74	5485	222	37	5481	111
82	5519	246	39	5502	117
92	5521	276	42	5525	126
97	5495	291	48	5510	144
--	--	--	51	5508	153
--	--	--	53	5485	159
--	--	--	57	5512	171
--	--	--	58	5494	174
--	--	--	63	5529	189
--	--	--	64	5489	192
--	--	--	70	5527	210
--	--	--	73	5492	219
--	--	--	79	5493	237
--	--	--	94	5495	282

Radar waveform #15			Radar waveform #16		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
1	5502	3	7	5506	21
14	5493	42	9	5530	27
18	5522	54	18	5516	54
25	5530	75	28	5508	84
28	5494	84	34	5539	102
73	5487	219	36	5484	108
76	5509	228	42	5524	126
77	5533	231	45	5496	135
79	5537	237	50	5522	150
80	5483	240	55	5537	165
95	5535	285	57	5509	171
--	--	--	59	5487	177
--	--	--	84	5498	252
--	--	--	86	5536	258
--	--	--	90	5490	270

Radar waveform #17			Radar waveform #18		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
8	5508	24	4	5526	12
19	5497	57	12	5529	36
22	5491	66	16	5484	48
29	5480	87	34	5490	102
39	5500	117	38	5495	114
43	5503	129	41	5519	123
58	5512	174	46	5527	138
61	5499	183	48	5539	144
83	5516	249	59	5535	177
92	5521	276	63	5504	189
95	5482	285	77	5511	231
--	--	--	81	5537	243
--	--	--	84	5523	252
--	--	--	95	5512	285
--	--	--	97	5538	291

Radar waveform #19			Radar waveform #20		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
0	5533	0	5	5487	15
6	5502	18	8	5513	24
22	5489	66	10	5500	30
23	5493	69	15	5536	45
24	5540	72	20	5504	60
25	5528	75	33	5524	99
28	5480	84	44	5514	132
47	5486	141	53	5493	159
57	5527	171	77	5537	231
62	5507	186	86	5480	258
65	5526	195	--	--	--
81	5529	243	--	--	--
88	5488	264	--	--	--
90	5484	270	--	--	--
92	5518	276	--	--	--
96	5497	288	--	--	--

Radar waveform #21			Radar waveform #22		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
6	5507	18	2	5508	6
10	5506	30	11	5491	33
12	5529	36	21	5514	63
25	5489	75	24	5517	72
31	5534	93	25	5504	75
40	5497	120	29	5533	87
41	5491	123	39	5481	117
62	5493	186	40	5480	120
66	5496	198	51	5521	153
67	5492	201	55	5509	165
80	5502	240	56	5515	168
86	5522	258	65	5486	195
95	5482	285	85	5532	255
--	--	--	87	5489	261
--	--	--	91	5499	273
--	--	--	95	5530	285
--	--	--	98	5497	294

Radar waveform #23			Radar waveform #24		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
7	5537	21	16	5537	48
10	5517	30	19	5518	57
13	5494	39	21	5500	63
15	5527	45	23	5532	69
16	5536	48	36	5508	108
22	5496	66	44	5514	132
28	5528	84	68	5491	204
43	5482	129	73	5489	219
66	5510	198	76	5526	228
69	5504	207	88	5506	264
84	5522	252	95	5493	285
88	5480	264	--	--	--
94	5485	282	--	--	--
97	5498	291	--	--	--

Radar waveform #25			Radar waveform #26		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
1	5483	3	0	5538	0
25	5480	75	2	5531	6
29	5524	87	5	5528	15
30	5536	90	15	5484	45
44	5514	132	23	5524	69
45	5504	135	32	5516	96
55	5518	165	53	5533	159
69	5521	207	55	5518	165
73	5501	219	59	5500	177
76	5522	228	60	5496	180
87	5485	261	62	5513	186
--	--	--	71	5535	213
--	--	--	72	5497	216
--	--	--	76	5502	228
--	--	--	84	5521	252
--	--	--	88	5529	264
--	--	--	90	5525	270

Radar waveform #27			Radar waveform #28		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
8	5505	24	5	5515	15
19	5497	57	10	5490	30
22	5480	66	12	5522	36
35	5537	105	16	5532	48
37	5534	111	17	5531	51
39	5523	117	18	5536	54
44	5508	132	20	5514	60
62	5495	186	38	5492	114
63	5492	189	55	5538	165
67	5540	201	58	5528	174
70	5538	210	78	5533	234
75	5491	225	84	5494	252
79	5482	237	87	5530	261
96	5539	288	96	5495	288
97	5500	291	99	5502	297
99	5532	297	--	--	--

Radar waveform #29			Radar waveform #30		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
9	5513	27	17	5507	51
25	5502	75	24	5526	72
26	5484	78	36	5495	108
38	5508	114	37	5540	111
40	5536	120	39	5534	117
49	5518	147	61	5519	183
54	5526	162	63	5505	189
64	5500	192	64	5498	192
66	5524	198	72	5524	216
68	5480	204	75	5496	225
76	5519	228	82	5486	246
92	5520	276	96	5533	288
99	5492	297	--	--	--

Product	OmniAccess Stellar	Temperature	27°C
Test Engineer	Amy Zhang	Relative Humidity	65%
Test Site	SR5	Test Date	2018/08/27
Test Item	Radar Statistical Performance Check (802.11ac-VHT80 mode – 5530MHz)		

Radar Type 1 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5491	1	3066	18	1
2	5491	1	738	72	1
3	5500	1	658	81	1
4	5500	1	538	98	1
5	5509	1	698	76	1
6	5509	1	838	63	1
7	5510	1	618	86	1
8	5510	1	818	65	1
9	5511	1	778	68	1
10	5511	1	718	74	1
11	5520	1	918	58	1
12	5520	1	638	83	1
13	5529	1	758	70	1
14	5529	1	518	102	1
15	5530	1	558	95	1
16	5530	1	2306	23	1
17	5531	1	3003	18	1
18	5531	1	2368	23	1
19	5540	1	1033	52	1
20	5540	1	1872	29	1
21	5549	1	2778	19	1
22	5549	1	2156	25	1
23	5550	1	1590	34	1
24	5550	1	1844	29	1
25	5551	1	540	98	1
26	5551	1	1331	40	1

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
27	5560	1	2429	22	1
28	5560	1	1712	31	1
29	5569	1	2867	19	1
30	5569	1	2479	22	1
Detection Percentage (%)					100%

## Radar Type 2 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5491	3.7	184	25	1
2	5491	3.9	220	28	1
3	5500	1.6	182	26	1
4	5500	2.2	161	26	1
5	5509	5.0	228	29	1
6	5509	1.9	189	24	1
7	5510	2.3	155	26	1
8	5510	4.9	222	25	1
9	5511	1.5	209	27	1
10	5511	1.4	218	25	1
11	5520	3.7	161	28	1
12	5520	1.3	220	24	1
13	5529	2.3	209	29	1
14	5529	1.0	173	25	1
15	5530	4.9	226	27	1
16	5530	3.7	191	29	1
17	5531	1.4	157	26	1
18	5531	2.6	228	25	1
19	5540	5.0	206	26	1
20	5540	3.4	217	23	1
21	5549	1.0	205	25	1
22	5549	2.5	197	24	1
23	5550	1.1	206	26	1
24	5550	2.8	178	27	1
25	5551	1.8	172	23	1
26	5551	1.8	221	25	1
27	5560	2.7	191	26	1
28	5560	3.9	186	26	1
29	5569	2.2	175	24	1
30	5569	4.8	185	27	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	5491	6.7	444	16	1
2	5491	10.0	355	16	1
3	5500	9.6	233	17	1
4	5500	6.9	406	16	1
5	5509	8.1	230	17	1
6	5509	7.0	366	16	1
7	5510	6.4	289	16	1
8	5510	7.6	289	17	1
9	5511	8.2	411	17	1
10	5511	7.5	293	17	1
11	5520	7.6	220	17	1
12	5520	6.1	371	16	1
13	5529	6.1	434	17	1
14	5529	9.1	439	17	1
15	5530	7.9	491	17	1
16	5530	9.2	281	17	1
17	5531	9.8	486	18	1
18	5531	6.8	449	17	1
19	5540	6.4	296	18	1
20	5540	8.2	325	18	1
21	5549	8.8	382	18	1
22	5549	9.0	331	17	1
23	5550	9.3	459	18	1
24	5550	6.6	366	16	1
25	5551	9.1	466	18	1
26	5551	7.1	354	16	1
27	5560	8.6	339	18	1
28	5560	9.1	262	17	1
29	5569	7.8	211	17	1
30	5569	7.0	393	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	5491	14.7	399	16	1
2	5491	18.3	484	16	1
3	5500	18.2	290	14	1
4	5500	14.3	264	16	1
5	5509	11.6	434	13	1
6	5509	12.1	427	16	1
7	5510	19.1	210	12	1
8	5510	19.1	416	12	1
9	5511	12.3	212	14	1
10	5511	12.5	224	14	1
11	5520	13.4	281	13	1
12	5520	11.7	215	12	1
13	5529	19.7	202	13	1
14	5529	19.1	405	13	1
15	5530	11.9	430	14	1
16	5530	16.6	426	13	1
17	5531	14.4	492	14	1
18	5531	13.7	472	14	1
19	5540	17.8	218	15	1
20	5540	14.0	224	14	1
21	5549	19.1	430	16	1
22	5549	13.8	357	13	1
23	5550	16.4	376	13	1
24	5550	17.4	468	14	1
25	5551	15.6	276	13	1
26	5551	11.9	321	14	1
27	5560	12.9	207	13	1
28	5560	11.8	461	15	1
29	5569	17.9	270	16	1
30	5569	12.7	259	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:  $\frac{P_d\ 1 + P_d\ 2 + P_d\ 3 + P_d\ 4}{4} = (100\%+100\%+100\%+100\%)/4 = 100\% (>80\%)$

## 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	5494.0	1	16	5530.0	1
2	5499.6	1	17	5530.0	1
3	5498.8	1	18	5530.0	1
4	5495.2	1	19	5530.0	1
5	5495.6	1	20	5530.0	1
6	5499.2	1	21	5562.4	1
7	5496.0	1	22	5560.8	1
8	5497.6	1	23	5560.4	1
9	5494.4	1	24	5563.2	1
10	5496.8	1	25	5566.0	1
11	5530.0	1	26	5564.8	1
12	5530.0	1	27	5565.6	1
13	5530.0	1	28	5561.2	1
14	5530.0	1	29	5564.0	1
15	5530.0	1	30	5564.4	1
Detection Percentage (%)					100%

## Type 5 Radar Waveform\_1

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	551375	1	5	90	1478	0	0	551375	0	1333332	
2	1397215	2	5	60	1621	1899	0	1950068	1333333	2666665	
3	1587861	3	5	95	1455	1480	1338	3541449	2666666	3999998	
4	1232749	3	5	50	1408	1000	1704	4778471	3999999	5333331	
5	711255	2	5	60	1378	1361	0	5493838	5333332	6666664	
6	1936897	3	5	55	1161	1111	1446	7433474	6666665	7999997	
7	1160843	3	5	50	1172	1810	1221	8598035	7999998	9333330	
8	1175742	1	5	85	1754	0	0	9777980	9333331	10666663	
9	1349395	1	5	50	1462	0	0	11129129	10666664	11999996	
Total number of pulses in waveform = 19											
*****											

### 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	1292735	1	19	70	1751	0	0	1292735	0	1333332
2	743079	3	19	100	1659	1553	1635	2037565	1333333	2666665
3	1880444	1	19	100	1923	0	0	3922856	2666666	3999998
4	462424	1	19	75	1386	0	0	4387203	3999999	5333331
5	1287386	2	19	60	1777	1512	0	5675975	5333332	6666664
6	1841602	3	19	75	1340	1075	1676	7520866	6666665	7999997
7	1757891	3	19	95	1541	1245	1420	9282848	7999998	9333330
8	838114	1	19	75	1848	0	0	10125168	9333331	10666663
9	818271	2	19	90	1639	1091	0	10945287	10666664	11999996

Total number of pulses in waveform = 17

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### 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	463949	1	17	70	1801	0	0	463949	0	1199999
2	735615	2	17	95	1743	1282	0	1201365	1200000	2399999
3	1408751	1	17	90	1166	0	0	2613141	2400000	3599999
4	1021965	1	17	75	1960	0	0	3636272	3600000	4799999
5	1697257	1	17	95	1116	0	0	5335489	4800000	5999999
6	1318487	2	17	60	1787	1574	0	6655092	6000000	7199999
7	970647	1	17	80	1327	0	0	7629100	7200000	8399999
8	982715	3	17	55	1195	1558	1269	8613142	8400000	9599999
9	1397057	1	17	95	1715	0	0	10014221	9600000	10799999
10	1754578	1	17	80	1296	0	0	11770514	10800000	11999999

Total number of pulses in waveform = 14

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### Type 5 Radar Waveform\_4

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	744723	3	8	55	1211	1007	1114	744723	0	749999
2	496615	3	8	55	1358	1167	1900	1244670	750000	1499999
3	981645	1	8	90	1575	0	0	2230740	1500000	2249999
4	340441	2	8	50	1831	1996	0	2572756	2250000	2999999
5	514475	3	8	90	1366	1136	1140	3091058	3000000	3749999
6	1074334	2	8	75	1541	1774	0	4169034	3750000	4499999
7	805823	2	8	75	1460	1694	0	4978172	4500000	5249999
8	596311	1	8	85	1526	0	0	5577637	5250000	5999999
9	1089427	2	8	70	1637	1188	0	6668590	6000000	6749999
10	465864	2	8	60	1969	1149	0	7137279	6750000	7499999
11	542122	1	8	85	1097	0	0	7682519	7500000	8249999
12	1017482	1	8	85	1841	0	0	8701098	8250000	8999999
13	759115	2	8	60	1799	1054	0	9462054	9000000	9749999
14	389049	2	8	50	1755	1595	0	9853956	9750000	10499999
15	1311563	1	8	85	1162	0	0	11168869	10500000	11249999
16	399561	1	8	95	1326	0	0	11569592	11250000	11999999

Total number of pulses in waveform = 29

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### Type 5 Radar Waveform\_5

Type 5 Radar Waveform_5										
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	685796	2	9	50	1151	1213	0	685796	0	857142
2	709627	3	9	100	1001	1498	1314	1397787	857143	1714285
3	1075912	1	9	65	1038	0	0	2477512	1714286	2571428
4	156049	3	9	65	1531	1558	1943	2634599	2571429	3428571
5	1191536	3	9	80	1508	1268	1947	3831167	3428572	4285714
6	1175151	3	9	55	1320	1318	1652	5011041	4285715	5142857
7	194604	1	9	80	1252	0	0	5209935	5142858	6000000
8	1312550	1	9	95	1427	0	0	6523737	6000001	6857143
9	366244	3	9	100	1757	1515	1732	6891408	6857144	7714286
10	1254150	3	9	95	1116	1584	1393	8105062	7714287	8571429
11	1027677	3	9	55	1296	1568	1436	9182332	8571430	9428572
12	608624	2	9	55	1614	1227	0	9795256	9428573	10285715
13	492444	2	9	55	1072	1757	0	10290541	10285716	11142858
14	918066	2	9	70	1104	1342	0	11211436	11142859	12000001

Total number of pulses in waveform = 32

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### Type 5 Radar Waveform\_6

Type 5 Radar Waveform_6										
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	61557	2	18	65	1698	1359	0	61557	0	857142
2	1017739	3	18	60	1496	1311	1541	1082403	857143	1714285
3	660078	2	18	75	1877	1211	0	1746829	1714286	2571428
4	1602320	1	18	75	1878	0	0	3352237	2571429	3428571
5	639284	3	18	55	1516	1886	1051	3993399	3428572	4285714
6	499665	3	18	65	1328	1776	1212	4497517	4285715	5142857
7	1357501	1	18	95	1345	0	0	5859334	5142858	6000000
8	648195	3	18	75	1258	1028	1066	6508274	6000001	6857143
9	1094495	1	18	60	1134	0	0	7606721	6857144	7714286
10	113637	1	18	60	1787	0	0	7721492	7714287	8571429
11	1456510	1	18	65	1876	0	0	9179789	8571430	9428572
12	419992	1	18	80	1223	0	0	9601657	9428573	10285715
13	1246795	1	18	60	1179	0	0	10849675	10285716	11142858
14	988233	1	18	60	1227	0	0	11839087	11142859	12000001

Total number of pulses in waveform = 24

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### Type 5 Radar Waveform\_7

Type 5 Radar Waveform_7										
Num of Bursts = 12 Burst Interval (us)= 1000000										
Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	59283	3	10	95	1008	1771	1429	59283	0	999999
2	1840045	1	10	70	1277	0	0	1903536	1000000	1999999
3	773583	2	10	60	1998	1886	0	2678396	2000000	2999999
4	1073875	1	10	95	1550	0	0	3755255	3000000	3999999
5	529159	3	10	90	1025	1182	1117	4285964	4000000	4999999
6	1626330	1	10	70	1499	0	0	5915618	5000000	5999999
7	301389	1	10	65	1984	0	0	6218506	6000000	6999999
8	1658488	1	10	50	1090	0	0	7878978	7000000	7999999
9	664943	2	10	60	1633	1846	0	8545011	8000000	8999999
10	830208	1	10	55	1746	0	0	9378698	9000000	9999999
11	1275015	1	10	75	1683	0	0	10655459	10000000	10999999
12	439625	2	10	80	1309	1739	0	11096767	11000000	11999999

Total number of pulses in waveform = 19

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### Type 5 Radar Waveform\_8

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	1180050	3	14	100	1939	1155	1627	1180050	0	1499999
2	936473	3	14	95	1503	1320	1367	2121244	1500000	2999999
3	1459050	2	14	55	1902	1396	0	3584484	3000000	4499999
4	943886	2	14	100	1852	1761	0	4531668	4500000	5999999
5	2322853	1	14	80	1102	0	0	6858134	6000000	7499999
6	1804490	1	14	85	1138	0	0	8663726	7500000	8999999
7	356244	2	14	55	1864	1412	0	9021108	9000000	10499999
8	1770336	2	14	55	1128	1547	0	10794720	10500000	11999999

Total number of pulses in waveform = 16

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### Type 5 Radar Waveform\_9

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	460395	1	6	55	1914	0	0	460395	0	631578
2	745885	1	6	60	1021	0	0	1208194	631579	1263157
3	668479	1	6	60	1833	0	0	1877694	1263158	1894736
4	468132	1	6	55	1921	0	0	2347659	1894737	2526315
5	791636	2	6	80	1949	1248	0	3141216	2526316	3157894
6	375226	3	6	65	1809	1457	1354	3519639	3157895	3789473
7	828617	3	6	60	1691	1661	1505	4352876	3789474	4421052
8	396340	2	6	85	1247	1916	0	4754073	4421053	5052631
9	473849	3	6	95	1086	1791	1111	5231085	5052632	5684210
10	656140	1	6	65	1606	0	0	5891213	5684211	6315789
11	650608	2	6	75	1483	1445	0	6543427	6315790	6947368
12	559696	2	6	65	1361	1375	0	7106051	6947369	7578947
13	1060539	3	6	70	1716	1314	1800	8169326	7578948	8210526
14	153910	2	6	50	1856	1593	0	8328066	8210527	8842105
15	517241	1	6	55	1766	0	0	8848756	8842106	9473684
16	805667	2	6	65	1799	1129	0	9656189	9473685	10105263
17	671816	1	6	95	1720	0	0	10330933	10105264	10736842
18	425132	1	6	95	1399	0	0	10757785	10736843	11368421
19	842263	2	6	100	1639	1356	0	11601447	11368422	12000000

Total number of pulses in waveform = 34

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### 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	502674	2	12	55	1669	1810	0	502674	0	999999
2	1468936	2	12	60	1777	1465	0	1975089	1000000	1999999
3	657557	2	12	55	1934	1848	0	2635888	2000000	2999999
4	1275504	1	12	100	1725	0	0	3915174	3000000	3999999
5	706441	2	12	75	1392	1923	0	4623340	4000000	4999999
6	645162	3	12	55	1432	1263	1102	5271817	5000000	5999999
7	1580750	2	12	65	1348	1439	0	6856364	6000000	6999999
8	479866	3	12	75	1525	1559	1929	7339017	7000000	7999999
9	1253788	3	12	95	1889	1630	1039	8597818	8000000	8999999
10	747098	2	12	90	1084	1962	0	9349474	9000000	9999999
11	1420951	2	12	50	1607	1503	0	10773471	10000000	10999999
12	755404	1	12	80	1539	0	0	11531985	11000000	11999999

Total number of pulses in waveform = 25

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### Type 5 Radar Waveform\_11

Type 5 Radar Waveform_11											
Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)	
1	3801275	2	12	80	1264	1364	0	381275	0	666666	
2	755792	3	12	80	1835	1957	1847	764630	666667	1333333	
3	822092	1	12	80	1058	0	0	1525461	1333334	2000000	
4	563123	1	12	50	1265	0	0	2348611	2000001	2666667	
5	783429	3	12	55	1031	1284	1450	2912999	2666668	3333334	
6	878550	3	12	75	1620	1859	1276	3700193	3333335	4000001	
7	197617	1	12	65	1081	0	0	4583498	4000002	4666668	
8	1085972	3	12	95	1994	1012	1735	4782196	4666669	5333335	
9	649610	1	12	80	1848	0	0	5872909	5333336	6000002	
10	718736	1	12	60	1767	0	0	6524367	6000003	6666669	
11	333113	3	12	60	1065	1615	1412	7244870	6666670	7333336	
12	796774	2	12	55	1081	1692	0	7582075	7333337	8000003	
13	907343	3	12	60	1881	1880	1429	8381622	8000004	8666670	
14	42295	2	12	80	1722	1416	0	9294155	8666671	9333337	
15	1071891	3	12	50	1722	1757	1781	9339588	9333338	10000004	
16	257770	2	12	70	1553	1546	0	10416739	10000005	10666671	
17	1142248	2	12	100	1524	1921	0	10677608	10666672	11333338	
18		3	12	60	1814	1872	1080	11823301	11333339	12000005	

### Type 5 Radar Waveform\_12

Type 5 Radar Waveform_12											
Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)	
1	829073	2	5	55	1585	1416	0	829073	0	1499999	
2	1175345	3	5	85	1497	1232	1324	2007419	1500000	2999999	
3	1483545	3	5	100	1188	1245	1859	3495017	3000000	4499999	
4	1778758	1	5	70	1326	0	0	5278037	4500000	5999999	
5	1590703	2	5	75	1589	1437	0	6870066	6000000	7499999	
6	1315074	1	5	60	1839	0	0	8188166	7500000	8999999	
7	2067811	2	5	75	1558	1451	0	10257816	9000000	10499999	
8	1237938	1	5	95	1521	0	0	11498763	10500000	11999999	

Total number of pulses in waveform = 15

### Type 5 Radar Waveform\_13

Type 5 Radar Waveform_13											
Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)	
1	333827	3	8	100	1972	1384	1644	333827	0	599999	
2	700020	1	8	65	1822	0	0	1038847	600000	1199999	
3	292028	2	8	55	1418	1075	0	1332697	1200000	1799999	
4	765891	2	8	100	1535	1000	0	2101081	1800000	2399999	
5	454681	3	8	55	1952	1246	1149	2658197	2400000	2999999	
6	904535	3	8	75	1239	1471	1778	3467079	3000000	3699999	
7	275385	1	8	55	1077	0	0	3746952	3600000	4199999	
8	623461	2	8	80	1768	1885	0	4371490	4200000	4799999	
9	706076	3	8	55	1189	1303	1353	5081219	4800000	5399999	
10	448759	1	8	100	1569	0	0	5533823	5400000	5999999	
11	766462	3	8	60	1951	1440	1433	6301854	6000000	6599999	
12	509104	3	8	50	1721	1184	1352	6815782	6600000	7199999	
13	413342	1	8	65	1615	0	0	7233381	7200000	7799999	
14	588780	2	8	55	1955	1510	0	7823776	7800000	8399999	
15	1046988	1	8	80	1271	0	0	8874229	8400000	8999999	
16	360441	2	8	75	1499	1603	0	9235941	9000000	9599999	
17	576115	2	8	55	1395	1328	0	9815158	9600000	10199999	
18	536564	1	8	100	1829	0	0	10354445	10200000	10799999	
19	759939	1	8	90	1462	0	0	11116213	10800000	11399999	
20	297697	1	8	95	1831	0	0	11415372	11400000	11999999	

Total number of pulses in waveform = 38

### Type 5 Radar Waveform\_14

Type 5 Radar Waveform_14											
Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)	
1	916330	1	10	100	1702	0	0	916330	0	923076	
2	747360	1	10	50	1934	0	0	1665392	923077	1846153	
3	1037823	3	10	55	1459	1342	1822	2705149	1846154	2769230	
4	917334	1	10	80	1640	0	0	3627106	2769231	3692307	
5	878187	2	10	70	1436	1658	0	4506933	3692308	4615384	
6	538811	2	10	60	1305	1319	0	5048838	4615385	5538461	
7	1296315	3	10	80	1584	1775	1598	6347777	5538462	6461538	
8	395720	3	10	100	1720	1864	1653	6748454	6461539	7384615	
9	1050810	1	10	95	1688	0	0	7804501	7384616	8307692	
10	542898	2	10	75	1661	1346	0	8349087	8307693	9230769	
11	1363074	2	10	50	1143	1520	0	9715168	9230770	10153846	
12	608090	1	10	50	1947	0	0	10325921	10153847	11076923	
13	853561	1	10	65	1792	0	0	11181429	11076924	12000000	
Total number of pulses in waveform = 23											
*****											

### Type 5 Radar Waveform\_15

Type 5 Radar Waveform_15											
Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)	
1	229106	3	17	95	1013	1985	1414	229106	0	799999	
2	865029	2	17	60	1146	1552	0	1098547	800000	1599999	
3	836284	3	17	85	1545	1498	1486	1937529	1600000	2399999	
4	669867	2	17	90	1477	1689	0	2611925	2400000	3199999	
5	873413	1	17	95	1382	0	0	34828504	3200000	3999999	
6	1176128	3	17	50	1964	1941	1190	4666014	4000000	4799999	
7	248662	3	17	90	1807	1389	1726	4919771	4800000	5599999	
8	997991	2	17	80	1237	1807	0	5922684	5600000	6399999	
9	907054	1	17	90	1277	0	0	6832782	6400000	7199999	
10	973423	1	17	65	1729	0	0	7807482	7200000	7999999	
11	832031	3	17	50	1962	1421	1204	8641242	8000000	8799999	
12	471415	3	17	95	1748	1121	1231	9117244	8800000	9599999	
13	986834	3	17	65	1304	1058	1171	10108178	9600000	10399999	
14	1075362	1	17	60	1777	0	0	11187073	10400000	11199999	
15	627527	1	17	85	1396	0	0	11816377	11200000	11999999	
Total number of pulses in waveform = 32											
*****											

### Type 5 Radar Waveform\_16

Type 5 Radar Waveform_16											
Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)	
1	798699	2	19	90	1506	1518	0	798699	0	1499999	
2	1879840	2	19	65	1113	1877	0	2681563	1500000	2999999	
3	1613962	1	19	100	1642	0	0	4298515	3000000	4499999	
4	1663037	3	19	80	1842	1037	1584	5963194	4500000	5999999	
5	581731	2	19	50	1630	1777	0	6549388	6000000	7499999	
6	2008835	3	19	75	1911	1026	1218	8561630	7500000	8999999	
7	1226373	3	19	50	1809	1502	1336	9792158	9000000	10499999	
8	2024828	2	19	65	1221	1177	0	11821633	10500000	11999999	
Total number of pulses in waveform = 18											
*****											

### Type 5 Radar Waveform\_17

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	343199	1	9	80	1473	0	0	343199	0	857142
2	670500	2	9	95	1400	1443	0	1015172	857143	1714285
3	1247474	2	9	85	1729	1519	0	2265489	1714286	2571428
4	709708	2	9	90	1651	1477	0	2978445	2571429	3428571
5	636975	1	9	75	1966	0	0	3618548	3428572	4285714
6	1046475	1	9	70	1976	0	0	4666989	4285715	5142857
7	1230259	2	9	75	1215	1728	0	5899224	5142858	6000000
8	878099	2	9	70	1291	1089	0	6780266	6000001	6857143
9	755160	2	9	95	1448	1353	0	7537806	6857144	7714286
10	914557	1	9	80	1546	0	0	8455164	7714287	8571429
11	244101	3	9	60	1839	1694	1050	8700811	8571430	9428572
12	1200364	2	9	65	1640	1708	0	9905758	9428573	10285715
13	565195	2	9	85	1886	1208	0	10474301	10285716	11142858
14	726419	2	9	90	1209	1394	0	11203814	11142859	12000001
*****										
Total number of pulses in waveform = 25										

### Type 5 Radar Waveform\_18

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	233215	1	14	95	1570	0	0	233215	0	631578
2	865714	3	14	95	1771	1613	1207	1100499	631579	1263157
3	629055	1	14	50	1062	0	0	1734145	1263158	1894736
4	747484	3	14	55	1252	1574	1860	2482691	1894737	2526315
5	164086	3	14	85	1016	1333	1478	2651463	2526316	3157894
6	617894	1	14	70	1468	0	0	3273184	3157895	3789473
7	918459	2	14	90	1387	1709	0	4193111	3789474	4421052
8	747867	2	14	90	1783	1313	0	4944074	4421053	5052631
9	650116	3	14	95	1196	1240	1923	5697286	5052632	5684210
10	232644	3	14	55	1765	1963	1789	6834289	5684211	6315789
11	999142	2	14	75	1285	1101	0	6838948	6315790	6947368
12	292203	1	14	95	1737	0	0	7133537	6947369	7578947
13	958954	3	14	100	1944	1055	1239	8094228	7578948	8210526
14	375482	2	14	100	1014	1263	0	8473948	8210527	8842105
15	427536	3	14	95	1154	1456	1372	8903761	8842106	9473684
16	1143517	3	14	60	1883	1673	1337	10051260	9473685	10105263
17	537988	2	14	85	1860	1811	0	10594141	10105264	10736842
18	275138	3	14	65	1842	1874	1936	10872950	10736843	11368421
19	942154	1	14	100	1101	0	0	11820756	11368422	12000000
*****										
Total number of pulses in waveform = 42										

### Type 5 Radar Waveform\_19

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	398647	1	18	90	1655	0	0	395647	0	699999
2	642678	2	18	60	1112	1886	0	1039980	600000	1199999
3	348308	2	18	60	1813	1052	0	1391286	1200000	1799999
4	979140	3	18	55	1194	1995	1098	2373291	1800000	2399999
5	520035	3	18	65	1363	1895	1238	2897613	2400000	2999999
6	192839	3	18	80	1373	1066	1437	3094948	3000000	3699999
7	996866	3	18	55	1526	1936	1407	4095680	3600000	4199999
8	552213	1	18	50	1128	0	0	4652762	4200000	4799999
9	561770	3	18	55	1655	1331	1628	5215660	4800000	5399999
10	554307	3	18	65	1126	1953	1467	5774581	5400000	5999999
11	589594	3	18	90	1486	1438	1375	6368721	6000000	6599999
12	486752	2	18	75	1264	1313	0	6859772	6600000	7199999
13	501461	2	18	85	1298	1935	0	7363810	7200000	7799999
14	522388	1	18	75	1361	0	0	7889431	7800000	8399999
15	909565	1	18	75	1654	0	0	8800357	8400000	8999999
16	685626	3	18	90	1858	1320	1926	9487637	9000000	9699999
17	556112	3	18	70	1389	1758	1583	10048853	9600000	10199999
18	700289	3	18	60	1998	1391	1613	10753872	10200000	10799999
19	597681	2	18	75	1584	1720	0	113656555	10800000	11399999
20	327928	2	18	75	1174	1805	0	11687787	11400000	11999999
*****										
Total number of pulses in waveform = 46										

### Type 5 Radar Waveform\_20

Type 5 Radar Waveform_20											
Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)	
1	607192	3	6	55	1517	1693	1309	607192	0	666666	
2	688603	2	6	55	1036	1350	0	1300114	666667	1333333	
3	613286	3	6	75	1623	1077	1686	1915786	1333334	2000000	
4	606018	2	6	55	1565	1449	0	2526190	2000001	2666667	
5	514461	2	6	70	1599	1247	0	3043665	2666668	3333334	
6	662524	3	6	95	1618	1449	1066	3709035	3333335	4000001	
7	796806	3	6	90	1034	1867	1875	4509974	4000002	4666668	
8	333480	1	6	90	1262	0	0	4848230	4666669	5333335	
9	1098560	3	6	70	1863	1762	1797	5948052	5333336	6000002	
10	555508	2	6	50	1528	1320	0	6508982	6000003	6666669	
11	604125	1	6	90	1511	0	0	7115955	6666670	7333336	
12	782278	2	6	60	1014	1212	0	7899744	7333337	8000003	
13	308035	1	6	60	1237	0	0	8210005	8000004	8666670	
14	891764	2	6	75	1738	1671	0	9102996	8666671	9333337	
15	440516	1	6	80	1892	0	0	9546921	9333338	10000004	
16	591587	1	6	65	1060	0	0	10140400	10000005	10666671	
17	849422	3	6	95	1279	1529	1625	10990882	10666672	11333338	
18	689259	2	6	75	1397	1545	0	11684574	11333339	12000005	
Total number of pulses in waveform = 37											
*****											

### Type 5 Radar Waveform\_21

Type 5 Radar Waveform_21											
Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)	
1	33725	2	14	80	1594	1081	0	33725	0	705881	
2	687825	1	14	80	1766	0	0	724225	705882	1411763	
3	1181575	1	14	65	1655	0	0	1907566	1411764	2117645	
4	571077	1	14	55	1013	0	0	2480298	2117646	2823527	
5	425113	3	14	50	1971	1253	1310	2906424	2823528	3529409	
6	621534	3	14	85	1063	1863	1883	3532492	3529410	4235291	
7	769416	3	14	50	1320	1642	1209	4306717	4235292	4941173	
8	1219610	1	14	55	1455	0	0	5530498	4941174	5647055	
9	536286	2	14	90	1337	1509	0	6068239	5647056	6352937	
10	486121	3	14	70	1237	1393	1070	6557206	6352938	7058819	
11	848376	3	14	55	1498	1975	1299	7409282	7058820	7764701	
12	429052	1	14	70	1555	0	0	7843106	7764702	8470583	
13	1152789	1	14	65	1282	0	0	8997450	8470584	9176465	
14	262414	2	14	70	1996	1831	0	9261146	9176466	9882347	
15	1182527	2	14	55	1762	1047	0	10447500	9882348	10588229	
16	471503	3	14	55	1232	1976	1876	10921812	10588230	11294111	
17	741199	3	14	50	1343	1924	1245	11668095	11294112	11999993	
Total number of pulses in waveform = 35											
*****											

### Type 5 Radar Waveform\_22

Type 5 Radar Waveform_22											
Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)	
1	354567	3	18	70	1911	1284	1793	354567	0	631578	
2	491978	3	18	85	1391	1390	1388	851533	631579	1263157	
3	436470	3	18	85	1563	1827	1044	1292172	1263158	1894736	
4	1153683	1	18	95	1426	0	0	2450289	1894737	2526315	
5	611619	1	18	75	1459	0	0	3063334	2526316	3157894	
6	252736	2	18	50	1188	1802	0	3317529	3157895	3789473	
7	938377	3	18	75	1973	1202	1166	4258896	3789474	4421052	
8	496080	1	18	95	1801	0	0	4759317	4421053	5052631	
9	314298	1	18	80	1771	0	0	5075416	5052632	5684210	
10	977888	3	18	90	1833	1214	1790	6055075	5684211	6315789	
11	840190	2	18	100	1259	1394	0	6900102	6315790	6947368	
12	198113	3	18	100	1020	1972	1993	7100868	6947369	7578947	
13	999701	3	18	90	1825	1805	1570	8105554	7578948	8210526	
14	413645	1	18	95	1432	0	0	8524399	8210527	8842105	
15	657088	1	18	50	1162	0	0	9182919	8842106	9473684	
16	898533	3	18	60	1187	1498	1831	10082614	9473685	10105263	
17	141757	1	18	80	1950	0	0	10228887	10105264	10736842	
18	943827	2	18	80	1734	1159	0	11174664	10736843	11368421	
19	626270	2	18	90	1031	1109	0	11803827	11368422	12000000	
Total number of pulses in waveform = 39											
*****											

### 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	1471690	2	19	85	1290	1892	0	1471690	0	1499999
2	80289	1	19	70	1055	0	0	1555161	1500000	2999999
3	2649275	1	19	50	1911	0	0	4205491	3000000	4499999
4	1555750	3	19	50	1859	1741	1770	5763152	4500000	5999999
5	806579	2	19	85	1301	1067	0	6575101	6000000	7499999
6	2174551	2	19	65	1830	1763	0	8752020	7500000	8999999
7	302401	2	19	85	1863	1074	0	9058014	9000000	10499999
8	2856485	1	19	65	1554	0	0	11917436	10500000	11999999

Total number of pulses in waveform = 14

### Type 5 Radar Waveform\_24

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	461009	3	12	75	1141	1458	1112	461009	0	599999
2	5177113	2	12	60	1825	1453	0	782433	600000	1199999
3	451027	3	12	60	1235	1453	1477	1236738	1200000	1799999
4	614879	1	12	85	1186	0	0	1855782	1800000	2399999
5	702535	1	12	80	1008	0	0	2559503	2400000	2999999
6	471325	2	12	65	1871	1519	0	3031836	3000000	3599999
7	724667	3	12	65	1800	1540	1949	3759893	3600000	4199999
8	927014	2	12	55	1507	1885	0	4692196	4200000	4799999
9	211667	3	12	90	1441	1361	1485	4907255	4800000	5399999
10	923243	3	12	70	1550	1547	1402	5834775	5400000	5999999
11	419085	3	12	75	1861	1204	1977	6258359	6000000	6599999
12	820846	1	12	90	1047	0	0	7084247	6600000	7199999
13	544107	1	12	85	1693	0	0	7629401	7200000	7799999
14	186896	1	12	90	1464	0	0	7816990	7800000	8399999
15	984725	3	12	70	1828	1384	1061	8893179	8400000	8999999
16	234116	3	12	65	1138	1391	1287	9041565	9000000	9599999
17	965044	3	12	60	1367	1061	1524	10010428	9600000	10199999
18	475211	3	12	95	1056	1604	1629	10489591	10200000	10799999
19	808527	1	12	75	1822	0	0	11302407	10800000	11399999
20	463402	1	12	80	1605	0	0	11767631	11400000	11999999

Total number of pulses in waveform = 43

### Type 5 Radar Waveform\_25

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	54986	2	5	55	1420	1276	0	54986	0	857142
2	846151	2	5	55	1289	1271	0	903833	857143	1714285
3	1465543	1	5	100	1809	0	0	2372536	1714286	2571428
4	718025	2	5	70	1380	1902	0	3092370	2571429	3428571
5	728634	3	5	75	1984	1639	1632	3824286	3428572	4285714
6	1229730	2	5	80	1786	1567	0	5059271	4285715	5142857
7	549462	1	5	100	1994	0	0	5612086	5142858	6000000
8	609981	2	5	75	1910	1248	0	6224061	6000001	6857143
9	994329	1	5	80	1941	0	0	7221548	6857144	7714286
10	1281559	1	5	100	1999	1624	1024	8505048	7714287	8571429
11	442592	3	5	80	1345	0	0	8952287	8571430	9428572
12	621758	3	5	50	1574	1992	1390	9575390	9428573	10285715
13	916167	1	5	95	1329	0	0	10496513	10285716	11142858
14	1419555	3	5	100	1848	1017	1521	11917397	11142859	12000001

Total number of pulses in waveform = 27

### Type 5 Radar Waveform\_26

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	487771	3	8	80	1148	1923	1636	487771	0	1499999
2	1325058	3	8	85	1727	1107	1138	1817536	1500000	2999999
3	1362349	2	8	90	1732	1946	0	3183857	3000000	4499999
4	2226459	2	8	75	1781	1520	0	5413994	4500000	5999999
5	1286158	2	8	75	1663	1782	0	6703453	6000000	7499999
6	1680685	3	8	55	1444	1749	1018	8387583	7500000	8999999
7	756511	3	8	90	1157	1723	1567	9148305	9000000	10499999
8	1683604	1	8	90	1892	0	0	10836356	10500000	11999999

Total number of pulses in waveform = 19

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### Type 5 Radar Waveform\_27

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	470054	1	6	80	1581	0	0	470054	0	923076
2	1214193	2	6	90	1873	1043	0	1685828	923077	1846153
3	504201	3	6	55	1328	1892	1518	2192945	1846154	2769230
4	1260883	2	6	85	1688	1657	0	3458566	2769231	3692307
5	459095	3	6	100	1175	1856	1541	3921006	3692308	4615384
6	1086473	1	6	80	1823	0	0	5012051	4615385	5538461
7	1231232	1	6	80	1666	0	0	6245106	5538462	6461538
8	537993	2	6	100	1734	1539	0	6784765	6461539	7384615
9	747712	2	6	95	1075	1704	0	7535750	7384616	8307692
10	1624581	2	6	60	1133	1802	0	9163110	8307693	9230769
11	915689	2	6	55	1671	1977	0	10081734	9230770	10153846
12	923448	1	6	70	1533	0	0	11008830	10153847	11076923
13	490288	1	6	100	1152	0	0	11500651	11076924	12000000

Total number of pulses in waveform = 23

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### Type 5 Radar Waveform\_28

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	367828	3	17	85	1165	1187	1769	367828	0	705881
2	796837	2	17	65	1795	1314	0	1168786	705882	1411763
3	687925	1	17	75	1204	0	0	1859820	1411764	2117645
4	354409	3	17	80	1356	1647	1413	2215433	2117646	2823527
5	970918	1	17	95	1056	0	0	3190767	2823528	3529409
6	616226	3	17	75	1178	1968	1849	3808049	3529410	4235291
7	754652	2	17	85	1270	1527	0	4567696	4235292	4941173
8	485694	1	17	95	1302	0	0	5056187	4941174	5647055
9	1285191	1	17	55	1727	0	0	6342680	5647056	6352937
10	372175	3	17	85	1544	1362	1996	6716582	6352938	7058819
11	750646	2	17	90	1746	1138	0	7472130	7058820	7764701
12	506399	3	17	95	1425	1479	1805	7981413	7764702	8470583
13	948311	2	17	80	1858	1823	0	8934433	8470584	9176465
14	810172	2	17	70	1823	1996	0	9748286	9176466	9882347
15	167133	2	17	100	1162	1258	0	9919238	9882348	10588229
16	1205742	1	17	85	1532	0	0	11127400	10588230	11294111
17	255404	2	17	60	1114	1871	0	11384336	11294112	11999993

Total number of pulses in waveform = 34

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### Type 5 Radar Waveform\_29

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	720140	3	10	95	1805	1564	1567	720140	0	799999
2	415107	1	10	95	1288	0	0	1140183	800000	1599999
3	1076385	2	10	50	1076	1413	0	2217856	1600000	2399999
4	660781	3	10	65	1023	1990	1665	2881126	2400000	3199999
5	1059258	3	10	60	1155	1464	1701	3945062	3200000	3999999
6	805634	1	10	55	1371	0	0	4755016	4000000	4799999
7	684788	1	10	75	1547	0	0	5441175	4800000	5599999
8	253795	3	10	95	1376	1138	1107	5696517	5600000	6399999
9	959461	1	10	55	1555	0	0	6659599	6400000	7199999
10	1319468	2	10	90	1908	1987	0	7980622	7200000	7999999
11	647820	3	10	80	1780	1972	1099	8632337	8000000	8799999
12	550723	3	10	100	1327	1941	1916	9187911	8800000	9599999
13	722694	2	10	60	1152	1592	0	9915789	9600000	10399999
14	525156	1	10	50	1322	0	0	10443689	10400000	11199999
15	1208703	3	10	75	1694	1141	1538	11653714	11200000	11999999
Total number of pulses in waveform = 32										
*****										

### Type 5 Radar Waveform\_30

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	696855	2	9	85	1581	1786	0	696855	0	857142
2	423521	3	9	90	1944	1465	1845	1123743	857143	1714285
3	1120633	3	9	55	1804	1824	1264	2249630	1714286	2571428
4	421834	3	9	100	1948	1965	1690	2676356	2571429	3428571
5	894557	1	9	75	1153	0	0	3576516	3428572	4285714
6	1476266	2	9	70	1781	1305	0	5053935	4285715	5142857
7	257529	2	9	75	1886	1493	0	5314550	5142858	6000000
8	1371955	3	9	75	1362	1216	1948	6689884	6000001	6857143
9	632952	1	9	85	1899	0	0	7327362	6857144	7714286
10	1038782	3	9	90	1227	1030	1025	8368043	7714287	8571429
11	695664	2	9	50	1179	1479	0	9066989	8571430	9428572
12	1079519	3	9	55	1327	1582	1508	10149166	9428573	10285715
13	696919	3	9	60	1905	1051	1052	10850502	10285716	11142858
14	794552	1	9	60	1771	0	0	11649062	11142859	12000001
Total number of pulses in waveform = 32										
*****										

## 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	5491	1	16	5530	1
2	5491	1	17	5531	1
3	5500	1	18	5531	1
4	5500	1	19	5540	1
5	5509	1	20	5540	1
6	5509	1	21	5549	1
7	5510	1	22	5549	1
8	5510	1	23	5550	1
9	5511	1	24	5550	1
10	5511	1	25	5551	1
11	5520	1	26	5551	1
12	5520	1	27	5560	1
13	5529	1	28	5560	1
14	5529	1	29	5569	1
15	5530	1	30	5569	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	5494	0	0	5526	0
2	5537	6	10	5516	30
3	5502	9	13	5537	39
11	5482	33	15	5525	45
13	5519	39	16	5522	48
16	5529	48	20	5520	60
20	5488	60	21	5489	63
28	5522	84	33	5508	99
57	5506	171	36	5535	108
58	5513	174	37	5490	111
60	5512	180	52	5483	156
64	5517	192	59	5524	177
67	5534	201	63	5517	189
99	5484	297	67	5487	201
--	--	--	83	5538	249

Radar waveform #3			Radar waveform #4		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
7	5488	21	2	5529	6
26	5485	78	5	5488	15
37	5516	111	7	5480	21
38	5535	114	15	5486	45
54	5480	162	25	5499	75
58	5502	174	26	5533	78
62	5528	186	32	5497	96
66	5520	198	42	5525	126
70	5511	210	49	5498	147
84	5508	252	72	5523	216
85	5496	255	82	5492	246
87	5521	261	85	5481	255
--	--	--	94	5503	282

Radar waveform #5			Radar waveform #6		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
1	5527	3	4	5494	12
7	5487	21	6	5503	18
21	5537	63	7	5484	21
26	5503	78	28	5504	84
38	5483	114	42	5495	126
46	5521	138	55	5534	165
47	5493	141	59	5535	177
49	5489	147	69	5523	207
71	5529	213	79	5528	237
78	5484	234	81	5488	243

Radar waveform #7			Radar waveform #8		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
3	5480	9	3	5501	9
5	5502	15	11	5503	33
7	5531	21	18	5493	54
21	5516	63	31	5509	93
23	5482	69	37	5514	111
38	5507	114	40	5540	120
61	5534	183	42	5495	126
62	5503	186	59	5491	177
63	5511	189	67	5532	201
69	5540	207	--	--	--
75	5514	225	--	--	--
76	5524	228	--	--	--
81	5532	243	--	--	--

Radar waveform #9			Radar waveform #10		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
19	5527	57	3	5534	9
29	5507	87	10	5514	30
30	5505	90	11	5487	33
40	5510	120	23	5499	69
43	5491	129	28	5506	84
58	5536	174	30	5505	90
59	5502	177	37	5480	111
89	5512	267	53	5501	159
94	5538	282	55	5538	165
--	--	--	72	5502	216
--	--	--	78	5520	234
--	--	--	81	5490	243
--	--	--	84	5539	252

Radar waveform #11			Radar waveform #12		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
14	5535	42	5	5502	15
17	5489	51	6	5482	18
27	5532	81	16	5509	48
37	5485	111	19	5533	57
53	5514	159	26	5538	78
57	5522	171	29	5485	87
58	5523	174	30	5511	90
76	5494	228	34	5507	102
78	5487	234	42	5487	126
82	5483	246	54	5515	162
83	5526	249	59	5492	177
91	5530	273	65	5493	195
97	5517	291	67	5480	201
--	--	--	69	5514	207
--	--	--	71	5512	213
--	--	--	72	5537	216
--	--	--	76	5526	228
--	--	--	80	5481	240
--	--	--	81	5494	243
--	--	--	83	5488	249

Radar waveform #13			Radar waveform #14		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
2	5520	6	8	5484	24
7	5533	21	13	5523	39
24	5499	72	18	5534	54
29	5492	87	37	5495	111
33	5539	99	43	5508	129
36	5535	108	48	5518	144
40	5509	120	52	5485	156
42	5493	126	55	5501	165
52	5489	156	60	5525	180
63	5521	189	63	5515	189
65	5480	195	66	5538	198
83	5529	249	71	5497	213
86	5494	258	75	5505	225
90	5491	270	77	5517	231
92	5526	276	86	5536	258
95	5522	285	91	5488	273
--	--	--	93	5529	279

Radar waveform #15			Radar waveform #16		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
4	5502	12	13	5488	39
11	5489	33	30	5480	90
17	5532	51	36	5527	108
22	5488	66	41	5504	123
28	5540	84	63	5491	189
40	5536	120	68	5503	204
43	5486	129	74	5536	222
53	5485	159	77	5481	231
55	5504	165	85	5519	255
67	5511	201	88	5501	264
86	5493	258	--	--	--
87	5531	261	--	--	--
91	5517	273	--	--	--
97	5534	291	--	--	--

Radar waveform #17			Radar waveform #18		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
3	5531	9	1	5494	3
36	5516	108	8	5488	24
60	5537	180	12	5484	36
76	5491	228	17	5508	51
91	5483	273	25	5510	75
96	5528	288	32	5531	96
98	5508	294	46	5506	138
--	--	--	60	5532	180
--	--	--	65	5537	195
--	--	--	69	5480	207
--	--	--	72	5489	216
--	--	--	76	5520	228
--	--	--	80	5501	240
--	--	--	88	5492	264
--	--	--	90	5538	270
--	--	--	92	5490	276

Radar waveform #19			Radar waveform #20		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
2	5488	6	4	5521	12
5	5513	15	24	5492	72
10	5526	30	28	5504	84
16	5522	48	29	5488	87
26	5481	78	30	5493	90
27	5483	81	39	5509	117
34	5506	102	45	5535	135
44	5531	132	56	5518	168
60	5515	180	74	5512	222
74	5537	222	79	5506	237
82	5484	246	84	5513	252
89	5508	267	86	5482	258
95	5535	285	--	--	--
97	5494	291	--	--	--
98	5539	294	--	--	--

Radar waveform #21			Radar waveform #22		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
19	5531	57	4	5487	12
20	5525	60	11	5534	33
21	5540	63	23	5480	69
23	5507	69	31	5490	93
27	5533	81	34	5499	102
36	5505	108	37	5520	111
37	5526	111	41	5536	123
40	5491	120	42	5489	126
41	5493	123	43	5510	129
45	5503	135	45	5529	135
56	5523	168	48	5492	144
82	5517	246	60	5500	180
88	5510	264	75	5497	225
92	5536	276	99	5503	297

Radar waveform #23			Radar waveform #24		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
7	5516	21	5	5482	15
15	5497	45	9	5488	27
20	5508	60	15	5525	45
53	5511	159	30	5527	90
57	5504	171	38	5538	114
64	5495	192	59	5504	177
94	5503	282	68	5492	204
96	5485	288	69	5518	207
98	5517	294	73	5506	219
99	5499	297	74	5530	222
--	--	--	75	5486	225

Radar waveform #25			Radar waveform #26		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
6	5507	18	32	5480	96
12	5486	36	37	5482	111
13	5489	39	44	5494	132
21	5495	63	46	5504	138
26	5521	78	56	5525	168
32	5483	96	61	5500	183
56	5527	168	62	5534	186
57	5525	171	75	5505	225
68	5510	204	83	5519	249
79	5480	237	91	5516	273
86	5539	258	--	--	--
96	5481	288	--	--	--
98	5524	294	--	--	--

Radar waveform #27			Radar waveform #28		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
0	5531	0	0	5512	0
3	5500	9	4	5519	12
4	5540	12	6	5483	18
28	5480	84	10	5502	30
41	5522	123	12	5481	36
44	5488	132	14	5484	42
68	5489	204	15	5523	45
73	5496	219	17	5487	51
77	5490	231	19	5525	57
--	--	--	20	5508	60
--	--	--	26	5486	78
--	--	--	31	5514	93
--	--	--	48	5526	144
--	--	--	53	5485	159
--	--	--	57	5521	171
--	--	--	64	5480	192
--	--	--	69	5516	207
--	--	--	72	5492	216
--	--	--	88	5494	264
--	--	--	89	5527	267
--	--	--	95	5489	285
--	--	--	97	5537	291

Radar waveform #29			Radar waveform #30		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
2	5520	6	6	5534	18
8	5485	24	15	5509	45
17	5494	51	30	5512	90
22	5523	66	35	5495	105
25	5519	75	47	5486	141
31	5517	93	48	5537	144
32	5496	96	63	5520	189
40	5528	120	65	5519	195
58	5513	174	85	5491	255
79	5498	237	87	5526	261
84	5488	252	89	5510	267
97	5508	291	90	5493	270
99	5526	297	--	--	--

## 6. CONCLUSION

The data collected relate only the item(s) tested and show that the **OmniAccess Stellar, FCC ID: 2AI9TOAW-AP1201** is in compliance with FCC Rules & ISED Rules.

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The End

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## Appendix A – Test Setup Photograph

Refer to “1808RSU025-UT” file.

## Appendix B – EUT Photograph

Refer to “1808RSU025-UE” file.