



DFS MEASUREMENT REPORT

FCC PART 15.407 Section h

FCC ID: H8N-WHD0110

APPLICANT: ASKEY COMPUTER CORP

Application Type: Certification

Product: Smart Gateway

Model No.: WHD0110(RoHS), WHD0111(RoHS)

Brand Name: ASKEY

FCC Classification: Unlicensed National Information Infrastructure (UNII)

FCC Rule Part(s): Part 15.407 Section h
KDB 905462 D02v01r02, KDB 905462 D04v01

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

Test Date: July 25 ~ August 17, 2015

Reviewed By : Robin Wu
(Robin Wu)

Approved By : Marlin Chen
(Marlin Chen)



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 D02v01r02. 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
1507RSU00808	Rev. 01	Initial report	10-12-2015

CONTENTS

Description	Page
Revision History	2
§2.1033 General Information	5
1. INTRODUCTION	6
1.1. Scope	6
1.2. MRT Test Location	6
2. PRODUCT INFORMATION	7
2.1. Equipment Description.....	7
2.2. Description of Available Antennas	9
2.3. Description of Antenna RF Port	10
2.4. DFS Band Working Frequencies.....	11
2.5. Test Mode	12
3. DFS DETECTION THRESHOLDS AND RADAR TEST WAVEFORMS	13
3.1. Applicability	13
3.2. DFS Devices Requirements.....	14
3.3. DFS Detection Threshold Values	15
3.4. Parameters of DFS Test Signals	16
3.5. Conducted Test Setup	19
4. TEST EQUIPMENT CALIBRATION DATE	20
5. TEST RESULT	21
5.1. Summary	21
5.2. Radar Waveform Calibration.....	22
5.2.1. Calibration Setup	22
5.2.2. Calibration Procedure	22
5.2.3. Calibration Result	23
5.3. Channel Loading Test Result	27
5.4. UNII Detection Bandwidth Measurement	29
5.4.1. Test Limit	29
5.4.2. Test Procedure	29
5.4.3. Test Result.....	30
5.5. Initial Channel Availability Check Time Measurement	36
5.5.1. Test Limit	36
5.5.2. Test Procedure	36
5.5.3. Test Result.....	37

5.6.	Radar Burst at the Beginning of the Channel Availability Check Time Measurement ..	38
5.6.1.	Test Limit	38
5.6.2.	Test Procedure	38
5.6.3.	Test Result.....	39
5.7.	Radar Burst at the End of the Channel Availability Check Time Measurement	40
5.7.1.	Test Limit	40
5.7.2.	Test Procedure	40
5.7.3.	Test Result.....	41
5.8.	In-Service Monitoring for Channel Move Time, Channel Closing Transmission Time and Non-Occupancy Period Measurement	42
5.8.1.	Test Limit	42
5.8.2.	Test Procedure Used	42
5.8.3.	Test Result.....	43
5.9.	Statistical Performance Check Measurement.....	45
5.9.1.	Test Limit	45
5.9.2.	Test Procedure	45
5.9.3.	Test Result.....	46
6.	CONCLUSION.....	120

§2.1033 General Information

Applicant:	ASKEY COMPUTER CORP
Applicant Address:	10F, No.119, JIANKANG RD., ZHONGHE DIST., NEW TAIPEI CITY 23585, TAIWAN, R.O.C.
Manufacturer:	ASKEY COMPUTER CORP
Manufacturer Address:	10F, No.119, JIANKANG RD., ZHONGHE DIST., NEW TAIPEI CITY 23585, TAIWAN, R.O.C.
Test Site:	MRT Technology (Suzhou) Co., Ltd
Test Site Address:	D8 Building, Youxin Industrial Park, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China
MRT FCC Registration No.:	809388
Model No.:	WHD0110(RoHS), WHD0111(RoHS)
FCC ID:	H8N-WHD0110
Test Device Serial No.:	N/A <input type="checkbox"/> Production <input checked="" type="checkbox"/> Pre-Production <input type="checkbox"/> Engineering
FCC Classification:	Unlicensed National Information Infrastructure (UNII)

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. 809388) test facility with the site description report on file and has met all the requirements specified in Section 2.948 of the FCC Rules.
- 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-4179, G-814, C-4664, T-2206) 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 and Radio testing for FCC, Industry Canada, EU and TELEC Rules.



1. INTRODUCTION

1.1. Scope

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

1.2. MRT Test Location

The map below shows the location of the MRT LABORATORY, its proximity to the Taihu Lake. These measurement tests were conducted at the MRT Technology (Suzhou) Co., Ltd. Facility located at D8 Building, Youxin Industrial Park, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China. The detailed description of the measurement facility was found to be in compliance with the requirements of § 2.948 according to ANSI C63.4-2009 on September 30, 2013.



2. PRODUCT INFORMATION

2.1. Equipment Description

Product Name	Smart Gateway
Model No.	WHD0110(RoHS), WHD0111(RoHS)
Operation Mode	Master Device
Frequency Range	<p><u>2.4GHz:</u></p> <p>For 802.11b/g/n-HT20: 2412 ~ 2462 MHz</p> <p>For 802.11n-HT40: 2422 ~ 2452 MHz</p> <p><u>5GHz:</u></p> <p>For 802.11a/n-HT20: 5180~5320MHz, 5500~5700MHz, 5745~5825MHz</p> <p>For 802.11ac-VHT20: 5180~5320MHz, 5500~5720MHz, 5745~5825MHz</p> <p>For 802.11n-HT40: 5190~5310MHz, 5510~5670MHz, 5755~5795MHz</p> <p>For 802.11ac-VHT40: 5190~5310MHz, 5510~5710MHz, 5755~5795MHz</p> <p>For 802.11ac-VHT80: 5210MHz, 5290MHz, 5530MHz, 5610MHz, 5690MHz, 5775MHz</p>

Maximum E.I.R.P Power	802.11a: 29.52dBm 802.11n-HT20: 28.70dBm 802.11n-HT40: 29.79dBm 802.11ac-VHT20: 30.04dBm 802.11ac-VHT40: 30.07dBm 802.11ac-VHT80: 29.25dBm
Minimum E.I.R.P Power	802.11a: 26.02dBm 802.11n-HT20: 24.66dBm 802.11n-HT40: 24.22dBm 802.11ac-VHT20: 23.53dBm 802.11ac-VHT40: 23.77dBm 802.11ac-VHT80: 26.30dBm
Type of Modulation	802.11a/n/ac: OFDM
Power-on cycle	Requires 95.49 seconds to complete its power-on cycle.
Uniform Spreading	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 1: There is a built-in hard disk with the model “WHD0110(RoHS)”, and the model “WHD0111(RoHS)” have not this configuration, and there is different heat sinks of these models. The model difference has been assessed in the EMC Test Report.

Note 2: This Bluetooth module has been certificated, and the collocation mode has been assessed in MRT test report.

2.2. Description of Available Antennas

Antenna Type	Frequency Band (MHz)	Tx Paths	Per Chain Max Antenna Gain (dBi)		CDD Directional Gain (dBi)
			Ant 0	Ant 1	
PCB Antenna	2412 ~2462	2	4.13	3.82	6.99
	5150 ~ 5250	2	3.90	3.53	6.73
	5250 ~ 5350	2	3.86	3.42	6.66
	5470 ~ 5725	2	4.10	3.65	6.89
	5725 ~ 5850	2	4.00	4.35	7.19

1. The EUT supports Cyclic Delay Diversity (CDD) technology, and that CDD technology is correlated.

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

- Unequal Antenna gains, with equal transmit powers. For Antenna gains given by G_1, G_2, \dots, G_N dBi transmit signals are correlated, then
- Directional gain = $10 \cdot \log[(10^{G_1/20} + 10^{G_2/20} + \dots + 10^{G_N/20})^2 / N_{ANT}]$ dBi [Note the “20”s in the denominator of each exponent and the square of the sum of terms; the object is to combine the signal levels coherently.]

For example: 5150 ~ 5250MHz Directional Gain = $10 \cdot \log[(10^{3.90/20} + 10^{3.53/20})^2 / 2] = 6.73$ dBi

2.3. 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
				

2.4. DFS Band Working Frequencies

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

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

802.11ac-VHT20 Center Working Frequency of Each Channel

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

802.11n-HT40 Center Working Frequency of Each Channel

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

802.11ac-VHT40 Center Working Frequency of Each Channel

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

802.11ac-VHT80 Center Working Frequency of Each Channel

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

2.5. 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 UNII DFS Compliance Procedures New Rules v01r02 lists the applicable requirements for the DFS testing.

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

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

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

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

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

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

3.2. DFS Devices Requirements

Per FCC KDB 905462 D02 UNII DFS Compliance Procedures New Rules v01r02 the following are the requirements for Master Devices:

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

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

Parameter	Value
Non-occupancy period	Minimum 30 minutes
Channel Availability Check Time	60 seconds
Channel Move Time	10 seconds See Note 1.
Channel Closing Transmission Time	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period. See Notes 1 and 2.
U-NII Detection Bandwidth	Minimum 100% of the U-NII 99% transmission power bandwidth. See Note 3.
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	$\text{Roundup} \left\{ \left(\frac{1}{360} \right) \cdot \left(\frac{19 \cdot 10^6}{\text{PRI}_{\mu\text{sec}}} \right) \right\}$	60%	30
		Test B: 15 unique PRI values randomly selected within the range of 518-3066 μsec, with a minimum increment of 1 μsec, excluding PRI values selected in Test A			
2	1-5	150-230	23-29	60%	30
3	6-10	200-500	16-18	60%	30
4	11-20	200-500	12-16	60%	30
Aggregate (Radar Types 1-4)				80%	120
Note 1: Short Pulse Radar Type 0 should be used for the detection bandwidth test, channel move time, and channel closing time tests.					

Table 3-5: Parameters for Short Pulse Radar Waveforms

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

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

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

Long Pulse Radar Test Waveform

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

Table 3-7: Parameters for Long Pulse Radar Waveforms

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

Frequency Hopping Radar Test Waveform

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

Table 3-8: Parameters for Frequency Hopping Radar Waveforms

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

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

3.5. Conducted Test Setup

The FCC KDB 905462 D02 UNII DFS Compliance Procedures New Rules v01r01 describes a radiated test setup and a conducted test setup. The conducted test setup was used for this testing.

Figure 3-1 shows the typical test setup.

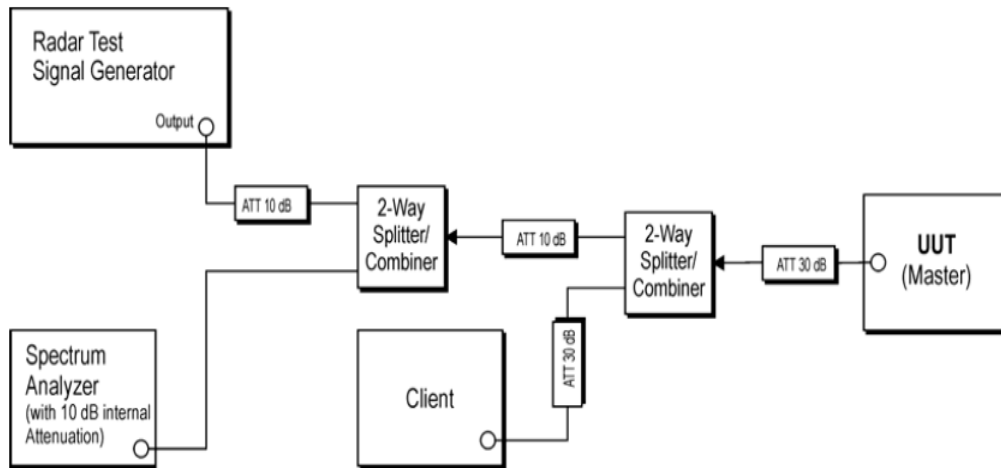


Figure 3-1: Conducted Test Setup where UUT is a Master and Radar Test Waveforms are injected into the Masters

4. TEST EQUIPMENT CALIBRATION DATE

Dynamic Frequency Selection (DFS)

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
Spectrum Analyzer	Agilent	N9020A	MRTSUE06106	1 year	2016/04/23
Vector Signal Generator	Agilent	E4438C	MRTSUE06026	1 year	2015/12/09

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

5. TEST RESULT

5.1. Summary

Company Name: ASKEY COMPUTER CORP
FCC ID: H8N-WHD0110
FCC Classification: Unlicensed National Information Infrastructure (UNII)

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

5.2. Radar Waveform Calibration

5.2.1. Calibration Setup

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

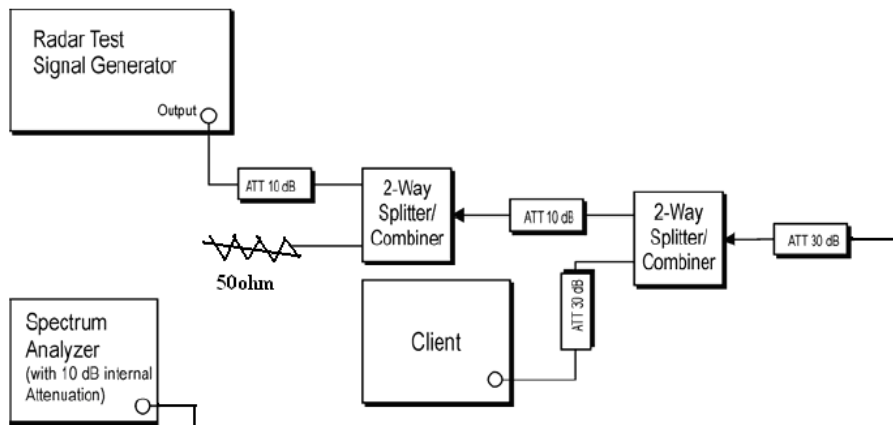


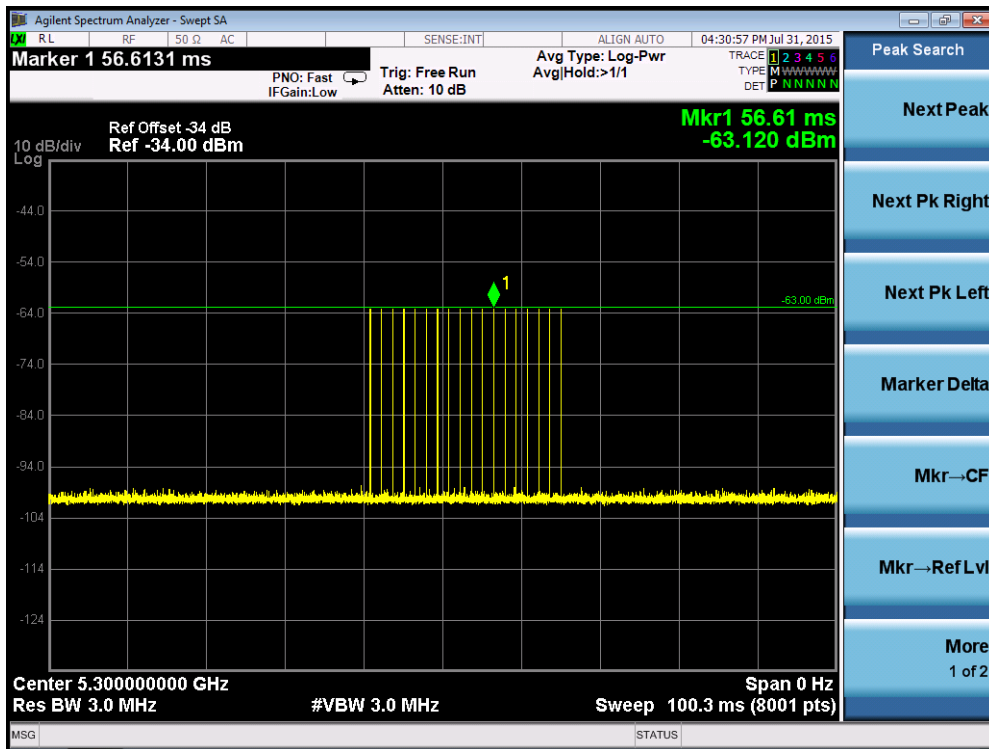
Figure 3-2: Conducted Test Setup

5.2.2. Calibration Procedure

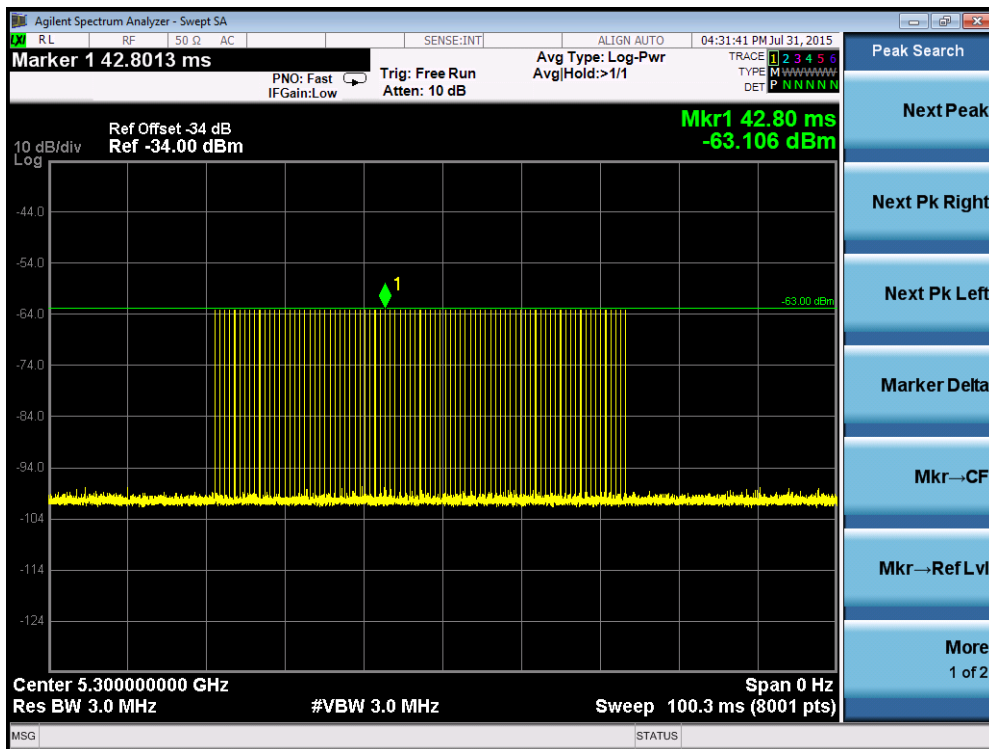
The Interference Radar Detection Threshold Level is $(-64\text{dBm}) + (0) [\text{dBi}] + 1 \text{ dB} = -63 \text{ dBm}$ that had been taken into account the output power range and antenna gain. The above equipment setup was used to calibrate the conducted Radar Waveform. A vector signal generator was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

5.2.3. Cablibration Result

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

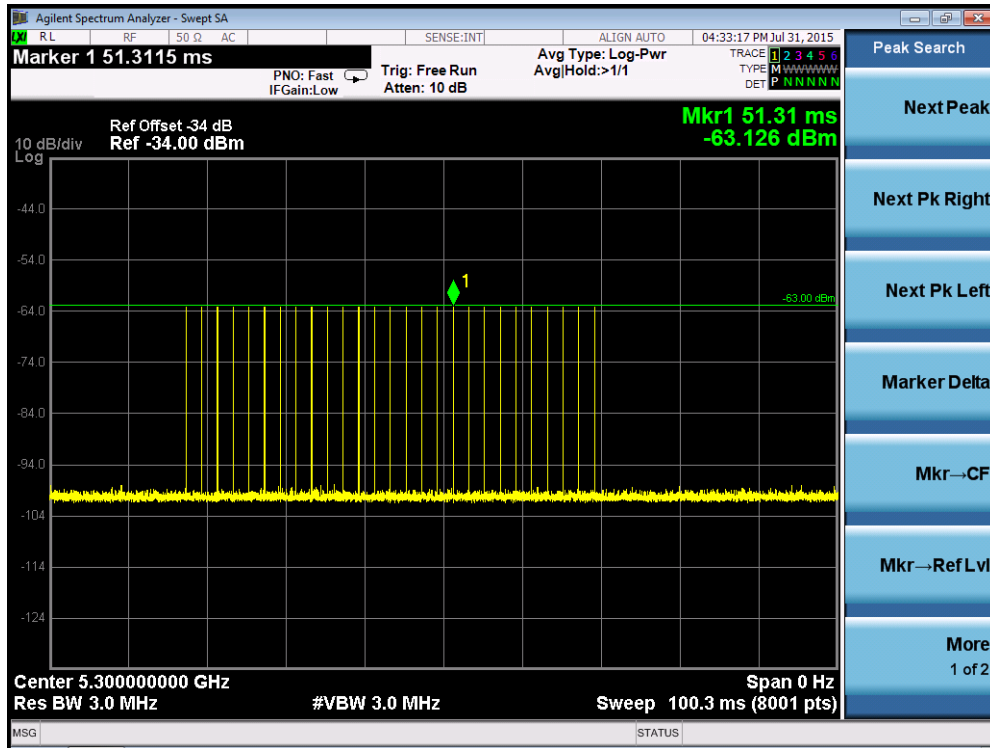


Radar #1(Test A) DFS detection threshold level and the burst of pulses on the Channel frequency



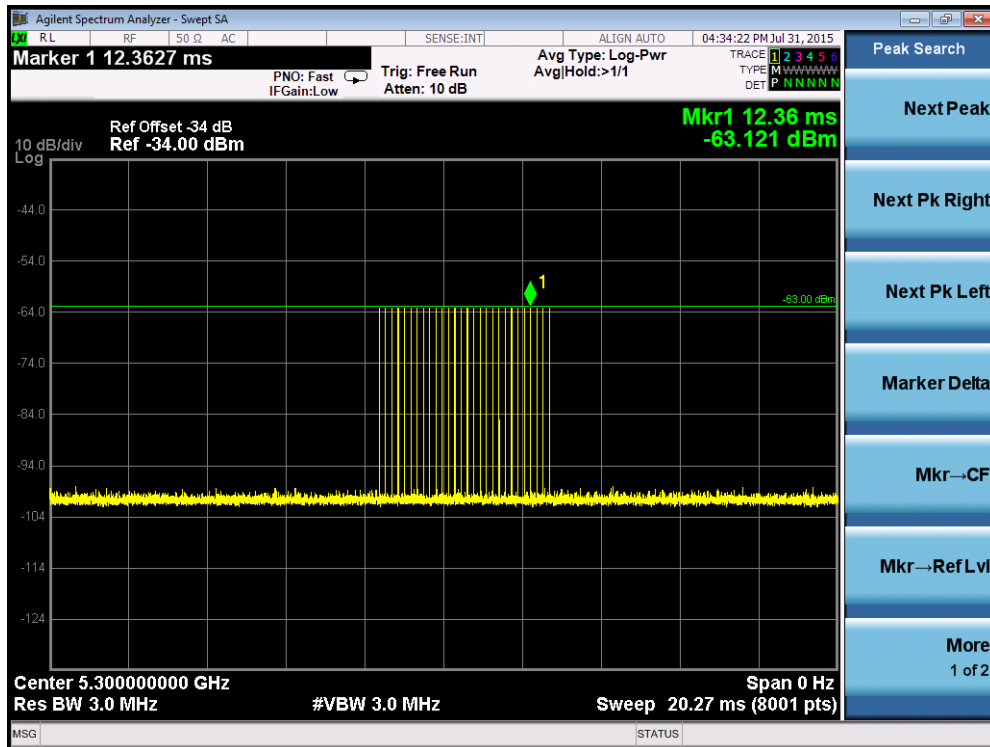
PRI = 638us and the number of pulses = 83

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

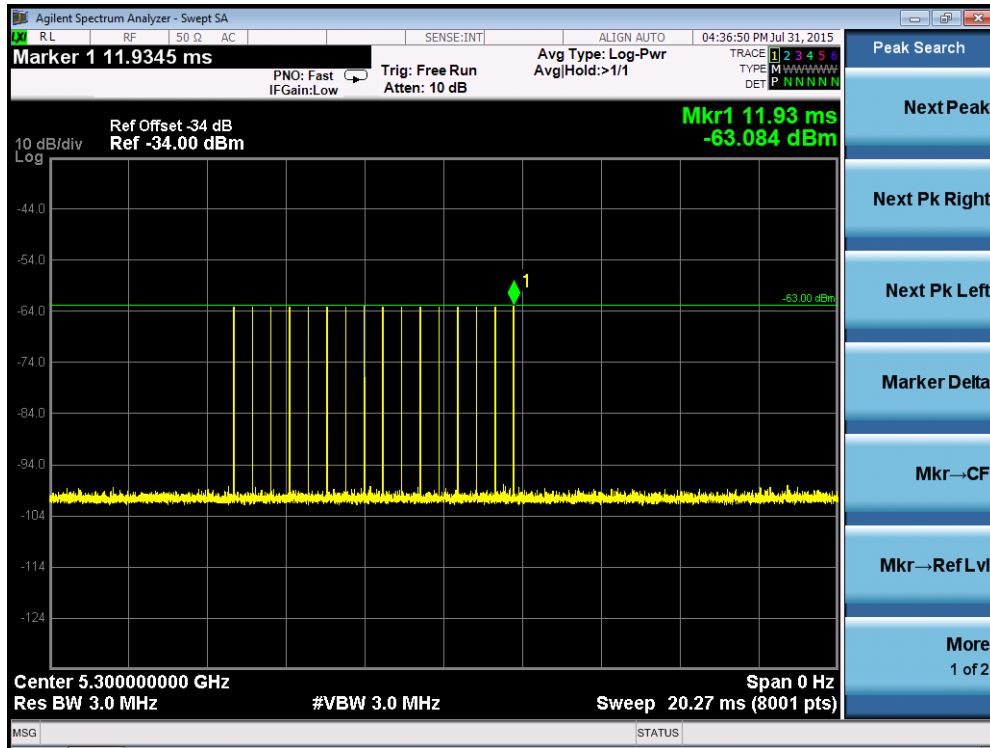


PRI = 1.971ms and the number of pulses = 27

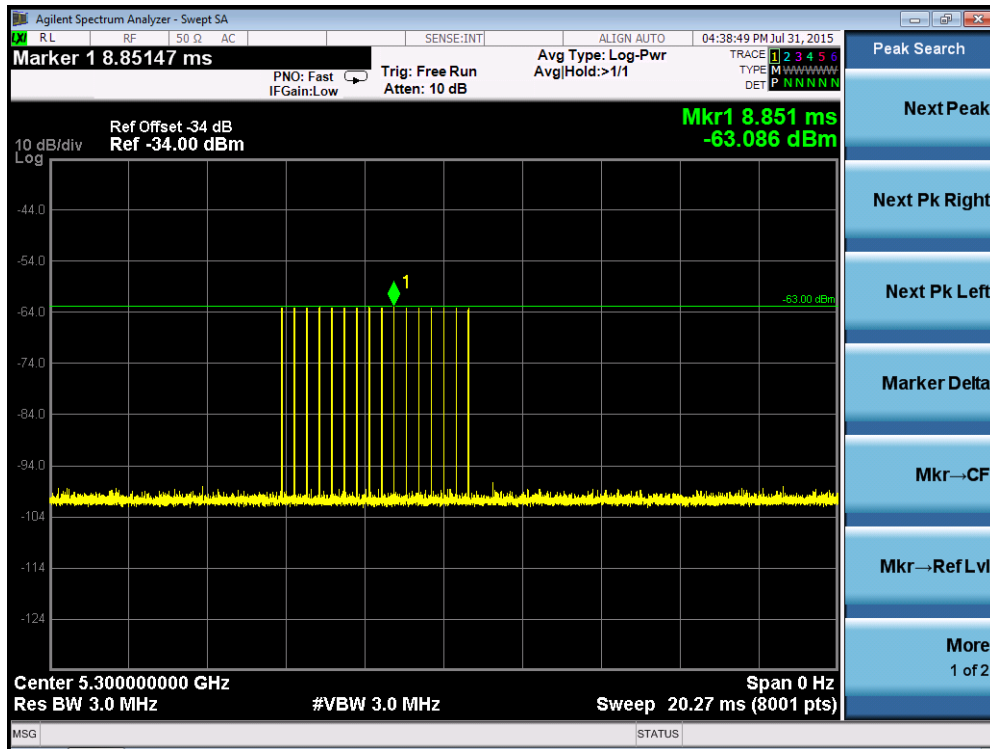
Radar #2 DFS detection threshold level and the burst of pulses on the Channel frequency



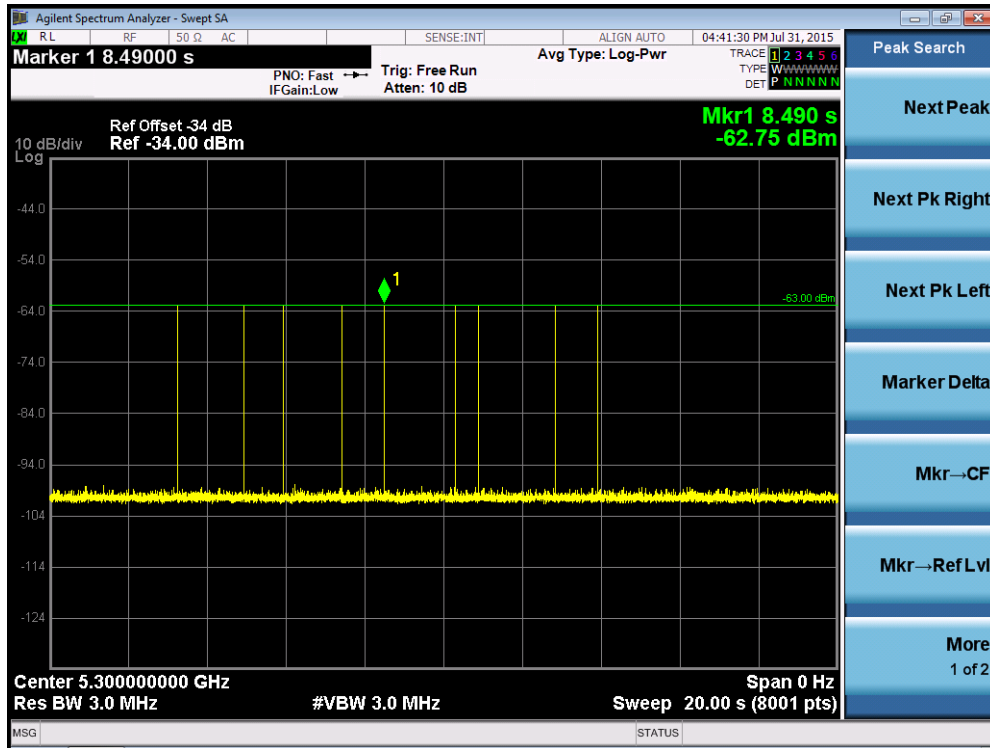
Radar #3 DFS detection threshold level and the burst of pulses on the Channel frequency



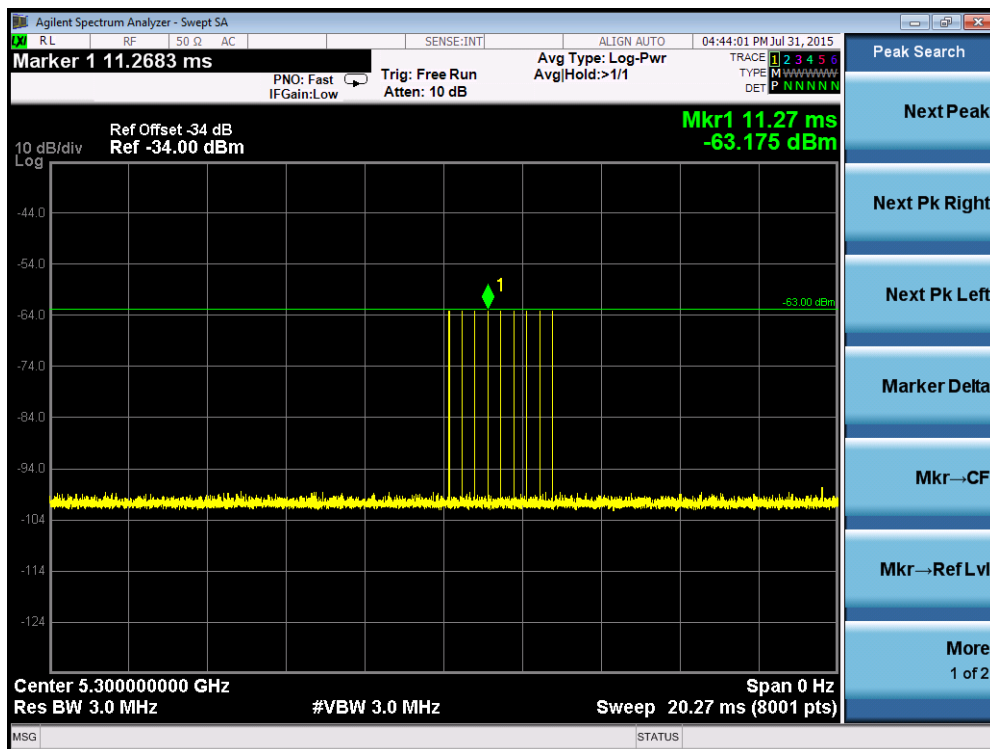
Radar #4 DFS detection threshold level and the burst of pulses on the Channel frequency



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



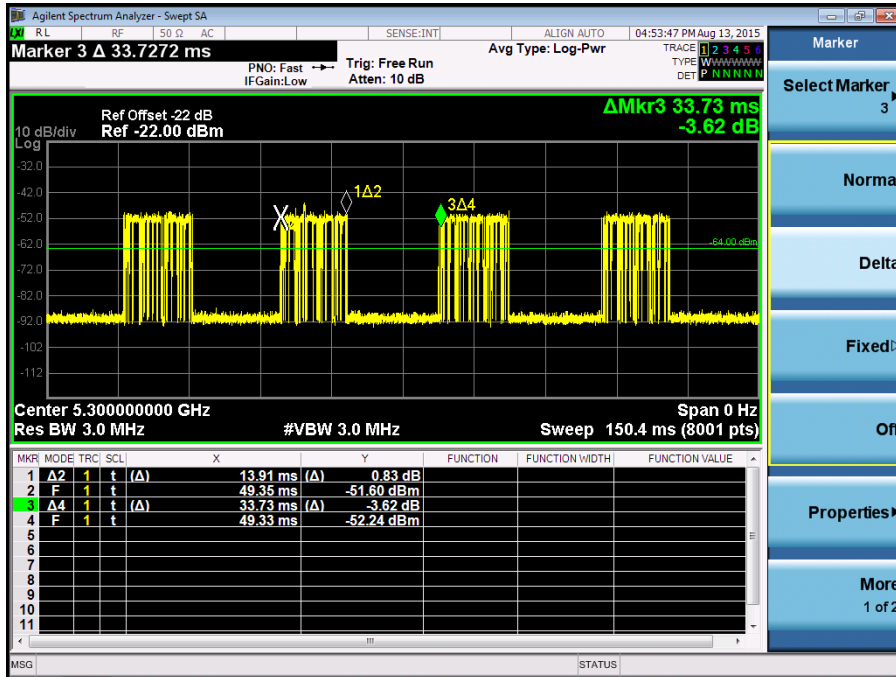
Radar #6 DFS detection threshold level and a single hop (9 pulses) on the Channel frequency within UNII detection bandwidth



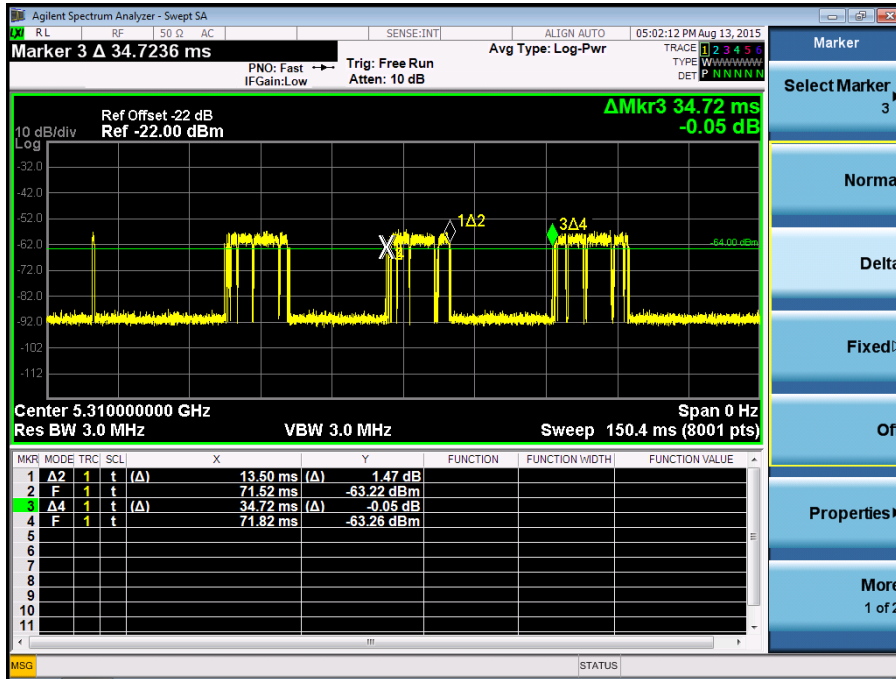
5.3. Channel Loading Test Result

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

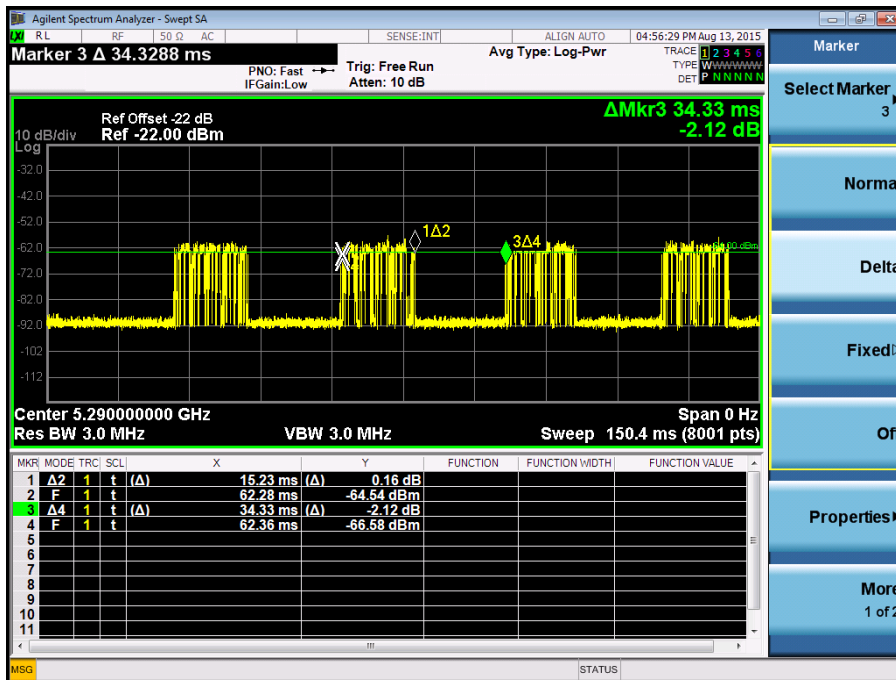
Channel Loading Plot - 802.11a-5300MHz



Channel Loading Plot - 802.11n-HT40 5310MHz



Channel Loading Plot - 802.11ac-VHT80 5290MHz



Test Mode	Packet ratio	Requirement ratio	Test Result
802.11a	41.24%	>17%	Pass
802.11n-HT40	38.88%	>17%	Pass
802.11ac-VHT80	44.36%	>17%	Pass

5.4. UNII Detection Bandwidth Measurement

5.4.1. Test Limit

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

5.4.2. 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.

5.4.3. Test Result

EUT Frequency=5300MHz for 802.11a											
Radar Frequency (MHz)	DFS Detection Trials (1=Detection, 0= No Detection)										Detection Rate (%)
	1	2	3	4	5	6	7	8	9	10	
5290	0	0	0	0	0	0	0	0	0	0	0%
5291 FL	1	1	1	1	1	1	1	1	1	1	100%
5292	1	1	1	1	1	1	1	1	1	1	100%
5293	1	1	1	1	1	1	1	1	1	1	100%
5294	1	1	1	1	1	1	1	1	1	1	100%
5295	1	1	1	1	1	1	1	1	1	1	100%
5296	1	1	1	1	1	1	1	1	1	1	100%
5297	1	1	1	1	1	1	1	1	1	1	100%
5298	1	1	1	1	1	1	1	1	1	1	100%
5299	1	1	1	1	1	1	1	1	1	1	100%
5300	1	1	1	1	1	1	1	1	1	1	100%
5301	1	1	1	1	1	1	1	1	1	1	100%
5302	1	1	1	1	1	1	1	1	1	1	100%
5303	1	1	1	1	1	1	1	1	1	1	100%
5304	1	1	1	1	1	1	1	1	1	1	100%
5305	1	1	1	1	1	1	1	1	1	1	100%
5306	1	1	1	1	1	1	1	1	1	1	100%
5307	1	1	1	1	1	1	1	1	1	1	100%
5308	1	1	1	1	1	1	1	1	1	1	100%
5309 FH	1	1	1	1	1	1	1	1	1	1	100%
5310	0	0	0	0	0	0	0	0	0	0	0%
Detection Bandwidth = FH - FL = 5309MHz - 5291MHz = 18MHz											
EUT 99% Bandwidth = 16.70MHz (see note)											
UNII Detection Bandwidth Min. Limit (MHz): 16.70MHz x 100% = 16.70MHz											

Note: All UNII channels for this device have identical Channel bandwidths. Therefore, all DFS testing was done at 5300MHz. The 99% channel bandwidth is 16.70MHz. (See the 99% BW section of the RF report for further measurement details).

EUT Frequency=5310MHz for 802.11n-HT40											
Radar Frequency (MHz)	DFS Detection Trials (1=Detection, 0= No Detection)										Detection Rate (%)
	1	2	3	4	5	6	7	8	9	10	
5290	0	0	0	0	0	0	0	0	0	0	0%
5291 FL	1	1	1	1	1	1	1	1	1	1	100%
5292	1	1	1	1	1	1	1	1	1	1	100%
5293	1	1	1	1	1	1	1	1	1	1	100%
5294	1	1	1	1	1	1	1	1	1	1	100%
5295	1	1	1	1	1	1	1	1	1	1	100%
5296	1	1	1	1	1	1	1	1	1	1	100%
5297	1	1	1	1	1	1	1	1	1	1	100%
5298	1	1	1	1	1	1	1	1	1	1	100%
5299	1	1	1	1	1	1	1	1	1	1	100%
5300	1	1	1	1	1	1	1	1	1	1	100%
5301	1	1	1	1	1	1	1	1	1	1	100%
5302	1	1	1	1	1	1	1	1	1	1	100%
5303	1	1	1	1	1	1	1	1	1	1	100%
5304	1	1	1	1	1	1	1	1	1	1	100%
5305	1	1	1	1	1	1	1	1	1	1	100%
5306	1	1	1	1	1	1	1	1	1	1	100%
5307	1	1	1	1	1	1	1	1	1	1	100%
5308	1	1	1	1	1	1	1	1	1	1	100%
5309	1	1	1	1	1	1	1	1	1	1	100%
5310	1	1	1	1	1	1	1	1	1	1	100%
5311	1	1	1	1	1	1	1	1	1	1	100%
5312	1	1	1	1	1	1	1	1	1	1	100%
5313	1	1	1	1	1	1	1	1	1	1	100%
5314	1	1	1	1	1	1	1	1	1	1	100%
5315	1	1	1	1	1	1	1	1	1	1	100%
5316	1	1	1	1	1	1	1	1	1	1	100%
5317	1	1	1	1	1	1	1	1	1	1	100%
5318	1	1	1	1	1	1	1	1	1	1	100%
5319	1	1	1	1	1	1	1	1	1	1	100%
5320	1	1	1	1	1	1	1	1	1	1	100%

5321	1	1	1	1	1	1	1	1	1	1	100%
5322	1	1	1	1	1	1	1	1	1	1	100%
5323	1	1	1	1	1	1	1	1	1	1	100%
5324	1	1	1	1	1	1	1	1	1	1	100%
5325	1	1	1	1	1	1	1	1	1	1	100%
5326	1	1	1	1	1	1	1	1	1	1	100%
5327	1	1	1	1	1	1	1	1	1	1	100%
5328	1	1	1	1	1	1	1	1	1	1	100%
5329 FH	1	1	1	1	1	1	1	1	1	1	100%
5330	0	0	0	0	0	0	0	0	0	0	0%
Detection Bandwidth = FH - FL = 5329MHz - 5291MHz = 38MHz											
EUT 99% Bandwidth = 35.96MHz (see note)											
UNII Detection Bandwidth Min. Limit (MHz): 35.96MHz x 100% = 35.96MHz											

Note: All UNII channels for this device have identical Channel bandwidths. Therefore, all DFS testing was done at 5310MHz. The 99% channel bandwidth is 35.96MHz. (See the 99% BW section of the RF report for further measurement details).

EUT Frequency=5290MHz for 802.11ac-VHT80											
Radar Frequency (MHz)	DFS Detection Trials (1=Detection, 0= No Detection)										Detection Rate (%)
	1	2	3	4	5	6	7	8	9	10	
5250	0	0	0	0	0	0	0	0	0	0	0%
5251 FL	1	1	1	1	1	1	1	1	1	1	100%
5252	1	1	1	1	1	1	1	1	1	1	100%
5253	1	1	1	1	1	1	1	1	1	1	100%
5254	1	1	1	1	1	1	1	1	1	1	100%
5255	1	1	1	1	1	1	1	1	1	1	100%
5256	1	1	1	1	1	1	1	1	1	1	100%
5257	1	1	1	1	1	1	1	1	1	1	100%
5258	1	1	1	1	1	1	1	1	1	1	100%
5259	1	1	1	1	1	1	1	1	1	1	100%
5260	1	1	1	1	1	1	1	1	1	1	100%
5261	1	1	1	1	1	1	1	1	1	1	100%
5262	1	1	1	1	1	1	1	1	1	1	100%
5263	1	1	1	1	1	1	1	1	1	1	100%
5264	1	1	1	1	1	1	1	1	1	1	100%
5265	1	1	1	1	1	1	1	1	1	1	100%
5266	1	1	1	1	1	1	1	1	1	1	100%
5267	1	1	1	1	1	1	1	1	1	1	100%
5268	1	1	1	1	1	1	1	1	1	1	100%
5269	1	1	1	1	1	1	1	1	1	1	100%
5270	1	1	1	1	1	1	1	1	1	1	100%
5271	1	1	1	1	1	1	1	1	1	1	100%
5272	1	1	1	1	1	1	1	1	1	1	100%
5273	1	1	1	1	1	1	1	1	1	1	100%
5274	1	1	1	1	1	1	1	1	1	1	100%
5275	1	1	1	1	1	1	1	1	1	1	100%
5276	1	1	1	1	1	1	1	1	1	1	100%
5277	1	1	1	1	1	1	1	1	1	1	100%
5278	1	1	1	1	1	1	1	1	1	1	100%
5279	1	1	1	1	1	1	1	1	1	1	100%
5280	1	1	1	1	1	1	1	1	1	1	100%



5281	1	1	1	1	1	1	1	1	1	1	100%
5282	1	1	1	1	1	1	1	1	1	1	100%
5283	1	1	1	1	1	1	1	1	1	1	100%
5284	1	1	1	1	1	1	1	1	1	1	100%
5285	1	1	1	1	1	1	1	1	1	1	100%
5286	1	1	1	1	1	1	1	1	1	1	100%
5287	1	1	1	1	1	1	1	1	1	1	100%
5288	1	1	1	1	1	1	1	1	1	1	100%
5289	1	1	1	1	1	1	1	1	1	1	100%
5290	1	1	1	1	1	1	1	1	1	1	100%
5291	1	1	1	1	1	1	1	1	1	1	100%
5292	1	1	1	1	1	1	1	1	1	1	100%
5293	1	1	1	1	1	1	1	1	1	1	100%
5294	1	1	1	1	1	1	1	1	1	1	100%
5295	1	1	1	1	1	1	1	1	1	1	100%
5296	1	1	1	1	1	1	1	1	1	1	100%
5297	1	1	1	1	1	1	1	1	1	1	100%
5298	1	1	1	1	1	1	1	1	1	1	100%
5299	1	1	1	1	1	1	1	1	1	1	100%
5300	1	1	1	1	1	1	1	1	1	1	100%
5301	1	1	1	1	1	1	1	1	1	1	100%
5302	1	1	1	1	1	1	1	1	1	1	100%
5303	1	1	1	1	1	1	1	1	1	1	100%
5304	1	1	1	1	1	1	1	1	1	1	100%
5305	1	1	1	1	1	1	1	1	1	1	100%
5306	1	1	1	1	1	1	1	1	1	1	100%
5307	1	1	1	1	1	1	1	1	1	1	100%
5308	1	1	1	1	1	1	1	1	1	1	100%
5309	1	1	1	1	1	1	1	1	1	1	100%
5310	1	1	1	1	1	1	1	1	1	1	100%
5311	1	1	1	1	1	1	1	1	1	1	100%
5312	1	1	1	1	1	1	1	1	1	1	100%
5313	1	1	1	1	1	1	1	1	1	1	100%
5314	1	1	1	1	1	1	1	1	1	1	100%

5315	1	1	1	1	1	1	1	1	1	1	100%
5316	1	1	1	1	1	1	1	1	1	1	100%
5317	1	1	1	1	1	1	1	1	1	1	100%
5318	1	1	1	1	1	1	1	1	1	1	100%
5319	1	1	1	1	1	1	1	1	1	1	100%
5320	1	1	1	1	1	1	1	1	1	1	100%
5321	1	1	1	1	1	1	1	1	1	1	100%
5322	1	1	1	1	1	1	1	1	1	1	100%
5323	1	1	1	1	1	1	1	1	1	1	100%
5324	1	1	1	1	1	1	1	1	1	1	100%
5325	1	1	1	1	1	1	1	1	1	1	100%
5326	1	1	1	1	1	1	1	1	1	1	100%
5327	1	1	1	1	1	1	1	1	1	1	100%
5328	1	1	1	1	1	1	1	1	1	1	100%
5329 FH	1	1	1	1	1	1	1	1	1	1	100%
5330	0	0	0	0	0	0	0	0	0	0	0%
Detection Bandwidth = FH - FL = 5329MHz - 5251MHz = 78MHz											
EUT 99% Bandwidth = 75.06MHz (see note)											
UNII Detection Bandwidth Min. Limit (MHz): 75.12MHz x 100% = 75.06MHz											

Note: All UNII channels for this device have identical Channel bandwidths. Therefore, all DFS testing was done at 5290MHz. The 99% channel bandwidth is 75.06MHz. (See the 99% BW section of the RF report for further measurement details).

5.5. Initial Channel Availability Check Time Measurement

5.5.1. 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.

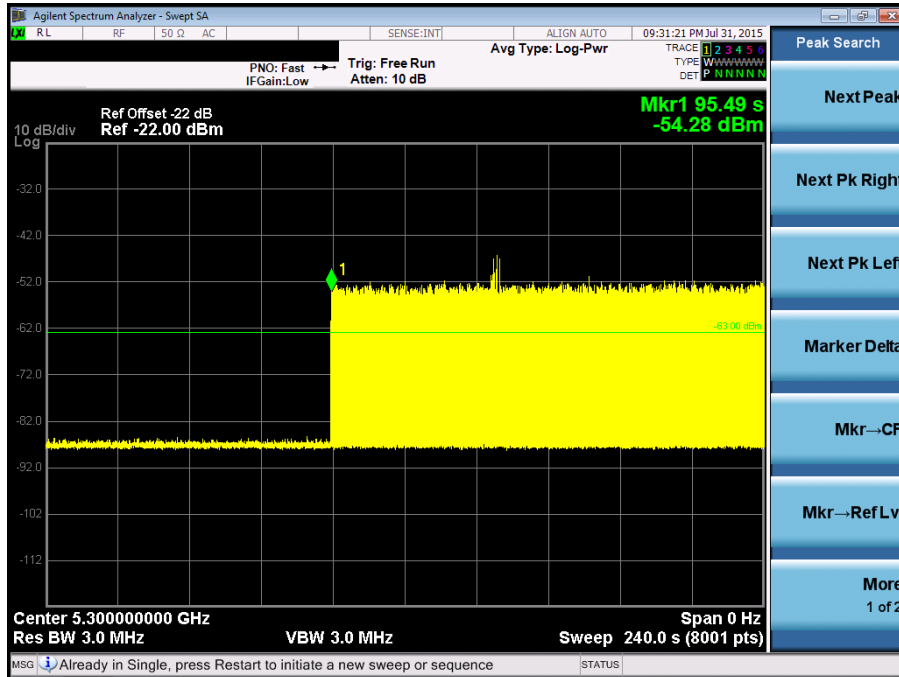
5.5.2. Test Procedure

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.

5.5.3. Test Result

The EUT does not transmit any beacon or data transmissions until at least 1 minute after the completion of the power-on cycle (35.49 sec). Initial beacons/data transmissions are indicated by marker 1 (95.49 sec).

Initial Channel Availability Check Time



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

5.6.1. Test Limit

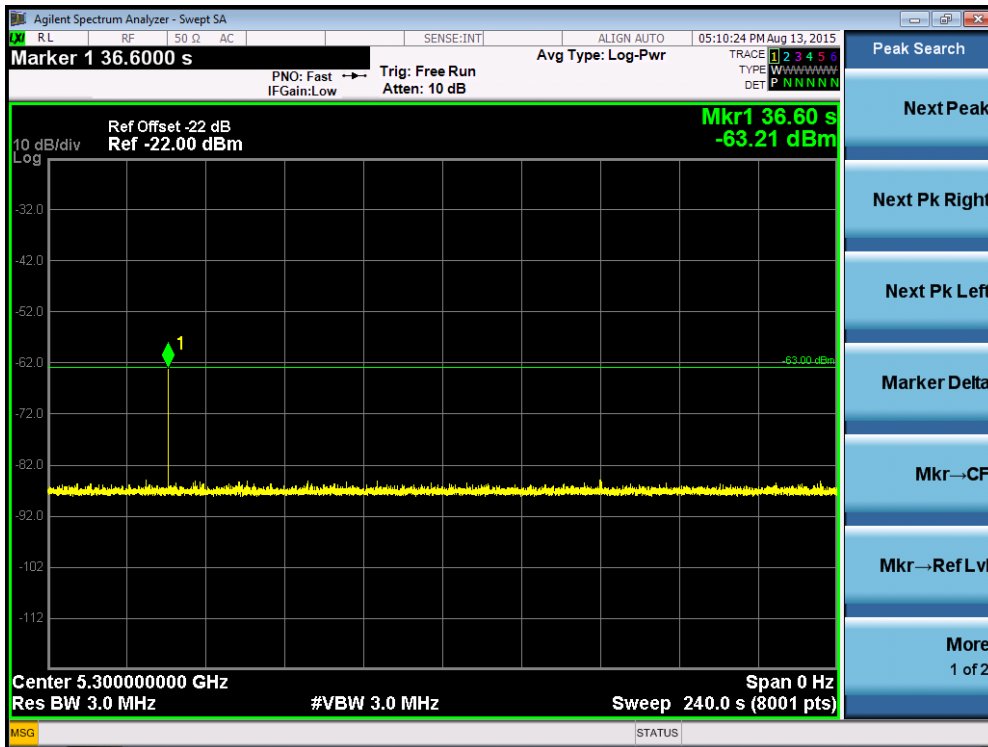
In beginning of the Channel Availability Check (CAC) Time, radar is detected on this channel, select another intended channel and perform a CAC on that channel.

5.6.2. 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 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 at 5300MHz (for 802.11a) 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 at 5300MHz (for 802.11a).

5.6.3. Test Result

Radar Burst at the Beginning of the Channel Availability Check Time for 802.11a Channel 60



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

5.7.1. Test Limit

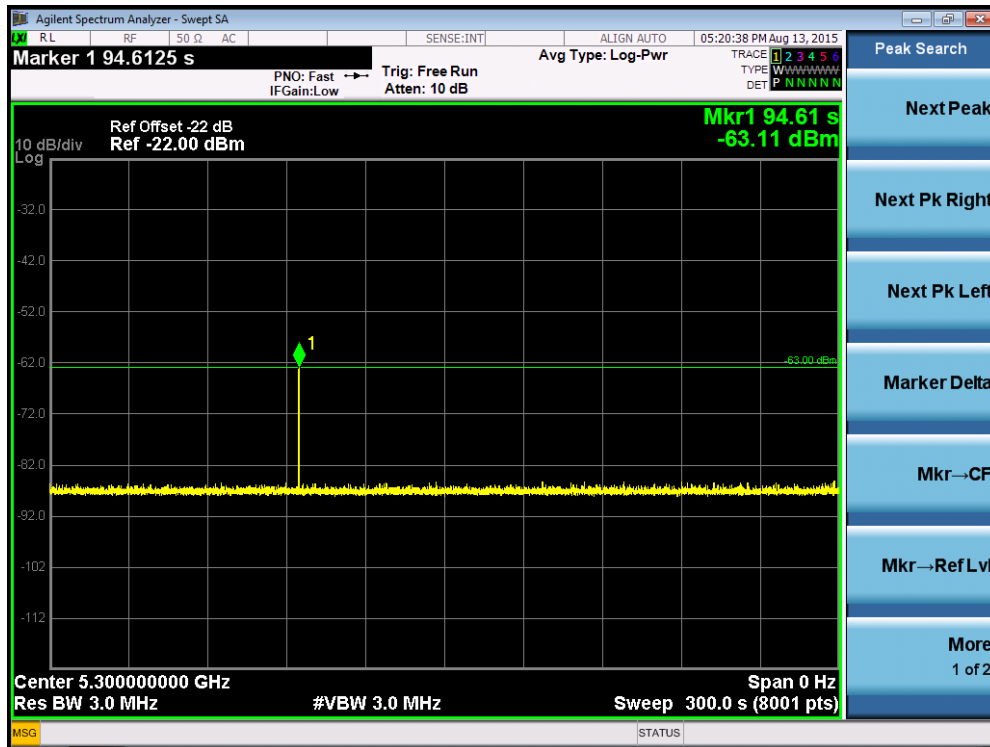
In the end of Channel Availability Check (CAC) Time, radar is detected on this channel, select another intended channel and perform a CAC on that channel.

5.7.2. 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 at 5300MHz (for 802.11a) 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 at 5300MHz (for 802.11a).

5.7.3. Test Result

Radar Burst at the End of the Channel Availability Check Time for 802.11a Channel 60



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

5.8.1. Test Limit

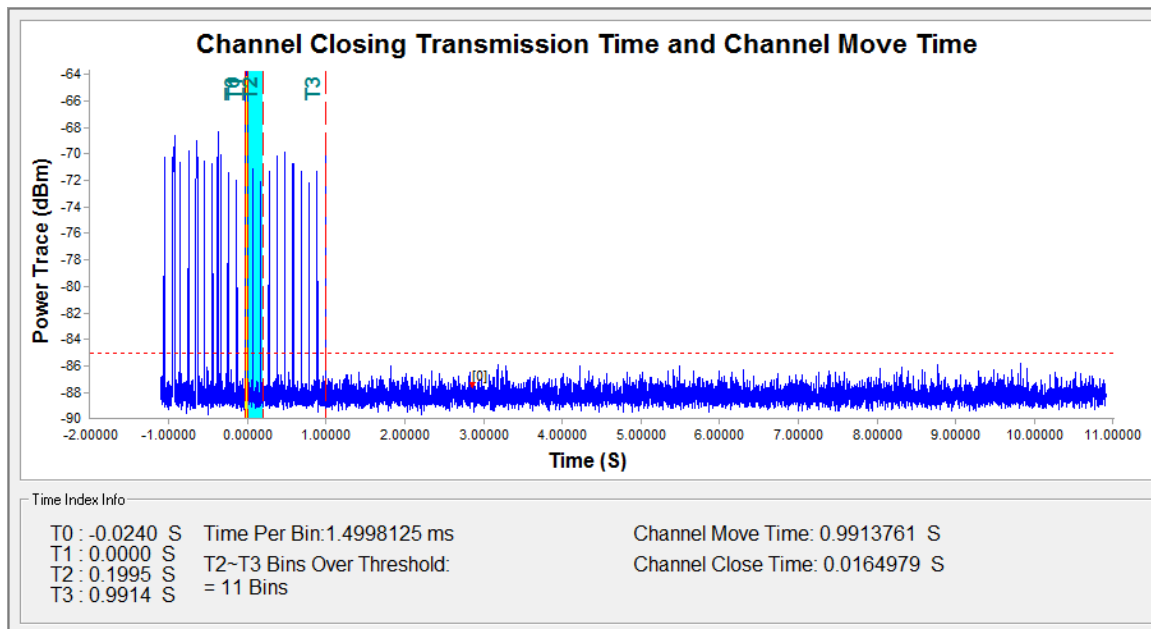
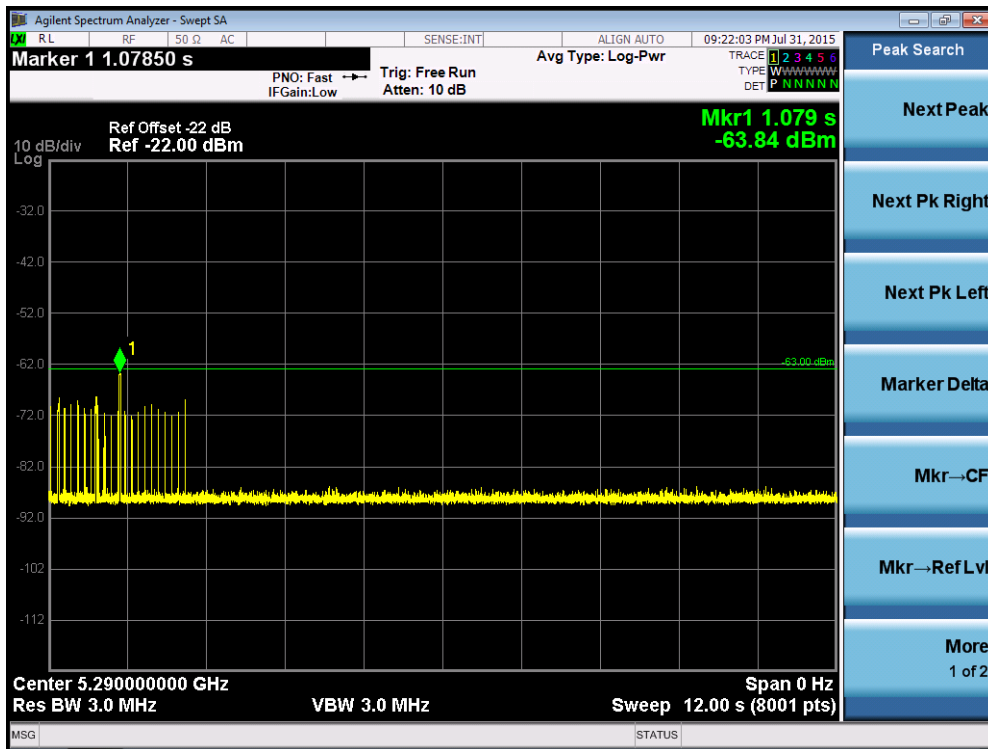
The EUT has In-Service Monitoring function to continuously monitor the radar signals. If the radar is detected, must leave the channel (Shutdown). The Channel Move Time to cease all transmissions on the current channel upon detection of a Radar Waveform above the DFS Detection Threshold within 10 sec.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

5.8.2. Test Procedure Used

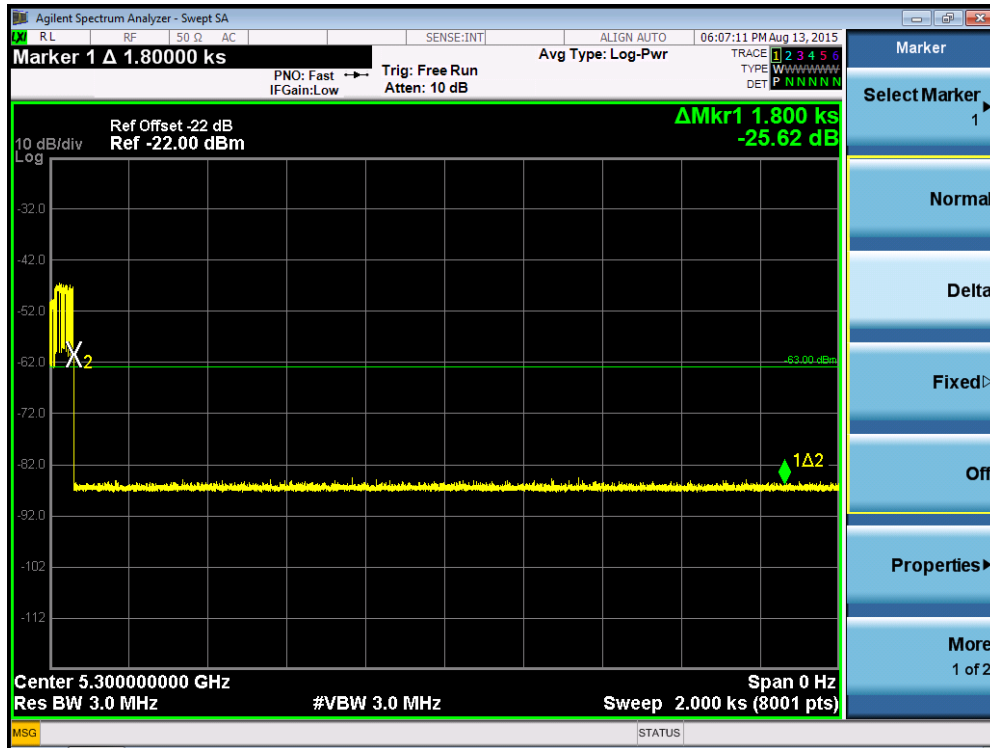
1. The test should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0.
2. When the radar burst with a level equal to the DFS Detection Threshold + 1dB is generated on the Operating Channel of the U-NII device. A U-NII device operating as a Master Device will associate with the Client Device at Channel. Stream the MPEG test file from the Master Device to the Client Device on the selected Channel for the entire period of the test. At time T0 the Radar Waveform generator sends a Burst of pulses for each of the radar types at Detection Threshold + 1dB.
3. Observe the transmissions of the EUT at the end of the radar Burst on the Operating Channel. Measure and record the transmissions from the EUT during the observation time (Channel Move Time).
4. Measurement of the aggregate duration of the Channel Closing Transmission Time method. With the spectrum analyzer set to zero span tuned to the center frequency of the EUT operating channel at the radar simulated frequency, peak detection, and max hold, the dwell time per bin is given by: $Dwell (1.5ms) = S (12 \text{ sec}) / B (8000)$; where Dwell is the dwell time per spectrum analyzer sampling bin, S is the sweep time and B is the number of spectrum analyzer sampling bins. An upper bound of the aggregate duration of the intermittent control signals of Channel Closing Transmission Time is calculated by: $80MHz: C (16.5 \text{ ms}) = N (11) \times Dwell (1.5 \text{ ms})$; 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.

5.8.3. Test Result

Channel Move Time and Channel Closing Transmission Time for 802.11ac-VHT80 Channel 58



Non-Occupancy Period for 802.11a Channel 64



Parameter	Test Result	Limit
	Radar Type 0	
Channel Move Time (s)	0.991s	<10s
Channel Closing Transmission Time (ms) (Note)	16.498ms	< 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.

5.9. Statistical Performance Check Measurement

5.9.1. Test Limit

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

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

The percentage of successful detection is calculated by:

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

Waveform In addition an aggregate minimum percentage of successful detection across all Short Pulse Radar Types 1-4 is required and is calculated as follows: $(Pd1 + Pd2 + Pd3 + Pd4) / 4$.

5.9.2. 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.

5.9.3. Test Result

Statistical Performance Check for 802.11a

Radar Type 1 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5291	1	638	83	1
2	5291	1	3066	18	1
3	5291	1	838	63	1
4	5291	1	518	102	1
5	5291	1	898	59	1
6	5291	1	618	86	1
7	5291	1	658	81	1
8	5291	1	578	92	1
9	5291	1	938	57	1
10	5291	1	918	58	1
11	5291	1	718	74	1
12	5291	1	698	76	1
13	5291	1	758	70	1
14	5291	1	678	78	1
15	5291	1	798	67	1
16	5291	1	1168	46	1
17	5291	1	881	60	1
18	5291	1	2912	19	1
19	5291	1	2998	18	1
20	5291	1	2271	24	1
21	5291	1	3038	18	1
22	5291	1	2990	18	1
23	5291	1	564	94	1
24	5291	1	882	60	1
25	5291	1	2191	25	1
26	5291	1	733	73	1
27	5291	1	2657	20	1
28	5291	1	2392	23	1
29	5291	1	2418	22	1
30	5291	1	1651	32	1
Detection Percentage (%)					100%

Radar Type 2 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5300	2.6	185	26	1
2	5300	3.4	180	25	1
3	5300	2.5	191	25	1
4	5300	4.3	179	29	1
5	5300	4.3	173	26	1
6	5300	5.0	157	26	1
7	5300	3.3	180	24	1
8	5300	4.2	151	24	1
9	5300	1.7	221	26	1
10	5300	3.2	166	27	1
11	5300	4.9	158	23	1
12	5300	1.9	226	25	1
13	5300	3.7	224	27	1
14	5300	2.5	177	23	1
15	5300	4.1	181	28	1
16	5300	5.0	209	26	1
17	5300	1.8	172	26	1
18	5300	4.5	175	26	1
19	5300	1.2	191	24	1
20	5300	1.0	157	23	1
21	5300	3.5	187	25	1
22	5300	1.5	166	26	1
23	5300	2.9	165	23	1
24	5300	4.6	210	28	1
25	5300	5.0	166	25	1
26	5300	2.9	209	25	1
27	5300	3.6	153	23	1
28	5300	2.4	195	27	1
29	5300	2.1	170	28	1
30	5300	3.6	164	24	1
Detection Percentage (%)					100%

Radar Type 3 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5309	8.0	492	16	1
2	5309	6.0	457	18	1
3	5309	7.3	275	17	1
4	5309	7.3	379	16	1
5	5309	9.4	474	17	1
6	5309	6.0	264	18	1
7	5309	7.0	350	16	1
8	5309	7.2	328	16	1
9	5309	7.2	422	17	1
10	5309	6.0	426	17	1
11	5309	7.4	446	17	1
12	5309	9.5	442	16	1
13	5309	8.1	252	16	1
14	5309	8.8	429	18	1
15	5309	6.6	480	17	1
16	5309	6.5	362	17	1
17	5309	6.1	262	16	1
18	5309	6.9	430	18	1
19	5309	7.5	465	17	1
20	5309	9.9	291	17	1
21	5309	8.9	333	16	1
22	5309	8.5	428	16	1
23	5309	10.0	286	16	1
24	5309	9.1	453	16	1
25	5309	6.8	460	17	1
26	5309	7.5	282	18	1
27	5309	7.5	294	16	1
28	5309	7.9	456	17	1
29	5309	6.9	365	16	1
30	5309	6.4	498	18	1
Detection Percentage (%)					100%

Radar Type 4 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5309	18.4	373	12	1
2	5309	18.5	428	12	1
3	5309	16.9	357	16	1
4	5309	14.8	463	12	1
5	5309	13.5	408	16	1
6	5309	17.6	408	12	1
7	5309	16.2	328	16	1
8	5309	15.2	466	14	1
9	5309	13.4	358	16	1
10	5309	17.3	345	15	1
11	5309	16.4	491	15	1
12	5309	18.5	314	15	1
13	5309	14.4	427	16	1
14	5309	16.6	458	14	1
15	5309	17.4	288	13	1
16	5309	17.3	347	15	1
17	5309	11.3	429	16	1
18	5309	12.1	468	14	1
19	5309	14.2	250	12	1
20	5309	19.5	314	12	1
21	5309	18.6	260	14	1
22	5309	14.0	334	14	1
23	5309	19.4	310	13	1
24	5309	14.5	379	13	1
25	5309	19.0	496	12	1
26	5309	18.4	264	14	1
27	5309	14.4	401	16	1
28	5309	15.6	339	16	1
29	5309	12.5	437	15	1
30	5309	14.1	294	15	1
Detection Percentage (%)					100%

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

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



Radar Type 5 - Radar Statistical Performance

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

Type 5 Radar Waveform_1										
Waveform Num = 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	216159	3	12	80	1841	1592	1446	216159	0	857142
2	1113615	2	7	50	1956	1245	0	1334653	857143	1714285
3	940445	2	16	100	1861	1599	0	2278299	1714286	2571428
4	573672	2	15	60	1633	1058	0	2855431	2571429	3428571
5	921734	1	17	60	1203	0	0	3779856	3428572	4285714
6	966344	2	8	60	1493	1662	0	4747403	4285715	5142857
7	979419	3	6	60	1858	1139	1261	5729977	5142858	6000000
8	1002882	3	15	70	1148	1808	1698	6737117	6000001	6857143
9	194526	2	19	85	1984	1041	0	6936297	6857144	7714286
10	973376	2	9	90	1168	1386	0	7912698	7714287	8571429
11	1134793	3	9	55	1657	1467	1227	9050045	8571430	9428572
12	1138867	1	9	50	1416	0	0	10193263	9428573	10285715
13	604902	2	20	50	1655	1033	0	10799581	10285716	11142858
14	758246	3	5	95	1154	1344	1111	11560515	11142859	12000001
Total number of pulses in waveform = 31										



Type 5 Radar Waveform_2

Waveform Num = 2
Num of Bursts = 11
Burst Interval (us)= 1090909

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	692061	2	18	60	1333	1739	0	692061	0	1090908
2	1355352	1	9	90	1358	0	0	2050485	1090909	2181817
3	1126570	2	14	50	1505	1653	0	3178413	2181818	3272726
4	444647	2	14	50	1513	1970	0	3626218	3272727	4363635
5	798586	1	18	50	1095	0	0	4428287	4363636	5454544
6	1225274	3	13	85	1971	1229	1710	5654656	5454545	6545453
7	1180346	3	9	100	1740	1714	1938	6839912	6545454	7636362
8	1493573	3	18	75	1735	1176	1524	8338877	7636363	8727271
9	876874	1	10	65	1683	0	0	9220186	8727272	9818180
10	869882	3	9	65	1260	1842	1551	10091751	9818181	10909089
11	1682101	1	11	95	1562	0	0	11778505	10909090	11999998

Total number of pulses in waveform = 22

Type 5 Radar Waveform_3

Waveform Num = 3
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	156822	1	15	55	1212	0	0	156822	0	799999
2	802235	3	18	100	1692	1223	1008	960269	800000	1599999
3	848844	3	6	50	1383	1716	1894	1813036	1600000	2399999
4	792544	1	15	50	1224	0	0	2610573	2400000	3199999
5	1306852	2	16	60	1510	1148	0	3918649	3200000	3999999
6	177925	1	20	50	1764	0	0	4099232	4000000	4799999
7	858380	1	16	60	1514	0	0	4959376	4800000	5599999
8	1297085	1	15	85	1359	0	0	6257975	5600000	6399999
9	901970	1	7	80	1196	0	0	7161304	6400000	7199999
10	202341	2	15	70	1499	1885	0	7364841	7200000	7999999
11	769783	3	18	100	1238	1474	1397	8138008	8000000	8799999
12	1045161	3	13	70	1775	1331	1736	9187278	8800000	9599999
13	1109844	3	20	60	1374	1667	1885	10301964	9600000	10399999
14	388706	1	7	80	1641	0	0	10695596	10400000	11199999
15	1206636	1	20	60	1925	0	0	11903873	11200000	11999999

Total number of pulses in waveform = 27

Type 5 Radar Waveform_4

Waveform Num = 4
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	538913	2	19	60	1931	1563	0	538913	0	857142
2	1027492	3	5	75	1033	1958	1707	1569899	857143	1714285
3	681578	2	17	90	1383	1248	0	2256175	1714286	2571428
4	572927	1	7	70	1946	0	0	2831733	2571429	3428571
5	738143	1	9	80	1098	0	0	3571822	3428572	4285714
6	1237969	3	18	95	1793	1331	1442	4810889	4285715	5142857
7	943820	2	16	85	1529	1859	0	5759275	5142858	6000000
8	961829	1	7	75	1366	0	0	6724492	6000001	6857143
9	461488	2	13	60	1406	1859	0	7187346	6857144	7714286
10	1144563	2	10	75	1403	1618	0	8335174	7714287	8571429
11	436147	3	7	70	1432	1869	1846	8774342	8571430	9428572
12	904765	2	19	95	1055	1117	0	9684254	9428573	10285715
13	679984	2	11	65	1147	1910	0	10366410	10285716	11142858
14	844772	2	17	60	1975	1066	0	11214239	11142859	12000001

Total number of pulses in waveform = 28



Type 5 Radar Waveform_5

Waveform Num = 5
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	510760	2	13	85	1549	1949	0	259005	0	599999
2	259005	2	6	95	1635	1823	0	773263	600000	1199999
3	861635	3	5	50	1214	1353	1765	1638356	1200000	1799999
4	609917	1	7	100	1665	0	0	2252605	1800000	2399999
5	460651	2	11	75	1483	1783	0	2714921	2400000	2999999
6	302652	1	7	100	1694	0	0	3020839	3000000	3599999
7	620900	3	11	95	1038	1517	1432	3643433	3600000	4199999
8	561233	3	7	95	1739	1106	1902	4208653	4200000	4799999
9	1093504	2	15	100	1169	1730	0	5306904	4800000	5399999
10	615142	1	6	80	1564	0	0	5924945	5400000	5999999
11	611398	3	20	75	1675	1773	1108	6537907	6000000	6599999
12	176268	1	8	70	1460	0	0	6718731	6600000	7199999
13	862362	2	9	80	1275	1409	0	7582553	7200000	7799999
14	471083	3	5	80	1976	1324	1713	8056320	7800000	8399999
15	568044	1	12	60	1372	0	0	8623977	8400000	8999999
16	822172	2	10	90	1588	1523	0	9452921	9000000	9599999
17	183873	1	9	85	1512	0	0	9639905	9600000	10199999
18	983569	1	17	70	1319	0	0	10624986	10200000	10799999
19	317228	3	10	65	1789	1867	1890	10943533	10800000	11399999
20	739208	2	7	65	1565	1030	0	11688287	11400000	11999999

Total number of pulses in waveform = 39

Type 5 Radar Waveform_6

Waveform Num = 6
Num of Bursts = 8
Burst Interval (us)= 1500000

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	379679	1	7	100	1265	0	0	379679	0	1499999
2	2087457	2	5	55	1194	1017	0	2468401	1500000	2999999
3	1615069	2	11	50	1799	1327	0	4085681	3000000	4499999
4	1870146	1	10	80	1419	0	0	5958953	4500000	5999999
5	843836	2	14	55	1660	1994	0	6804208	6000000	7499999
6	1709714	2	12	95	1544	1123	0	8517576	7500000	8999999
7	1876018	3	19	60	1051	1294	1967	10396261	9000000	10499999
8	244101	2	5	85	1259	1220	0	10644674	10500000	11999999

Total number of pulses in waveform = 15

Type 5 Radar Waveform_7

Waveform Num = 7
Num of Bursts = 10
Burst Interval (us)= 1200000

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	988677	3	11	50	1355	1957	1637	988677	0	1199999
2	1123357	2	20	80	1200	1676	0	2116983	1200000	2399999
3	460042	2	13	100	1296	1032	0	2579901	2400000	3599999
4	2079671	3	9	60	1624	1579	1286	4661900	3600000	4799999
5	137679	2	18	60	1391	1695	0	4804068	4800000	5999999
6	2006695	2	15	85	1013	1794	0	6813849	6000000	7199999
7	933574	1	19	85	1444	0	0	7750230	7200000	8399999
8	1437989	3	10	90	1039	1538	1303	9189663	8400000	9599999
9	1339738	1	6	80	1808	0	0	10533281	9600000	10799999
10	1270626	1	18	65	1573	0	0	11805715	10800000	11999999

Total number of pulses in waveform = 20



Type 5 Radar Waveform_8

Waveform Num = 8
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	228858	3	12	100	1049	1653	1643	228858	0	1090908
2	864099	1	8	70	1147	0	0	1097302	1090909	2181817
3	1734520	2	16	100	1139	1317	0	2832969	2181818	3272726
4	503133	1	5	100	1054	0	0	3338558	3272727	4363635
5	1737644	1	10	85	1875	0	0	5077256	4363636	5454544
6	541318	1	12	65	1370	0	0	5620449	5454545	6545453
7	1374966	2	9	85	1736	1317	0	6996785	6545454	7636362
8	1367934	3	7	65	1732	1725	1885	8367772	7636363	8727271
9	983179	2	19	80	1819	1155	0	9356293	8727272	9818180
10	518535	2	6	60	1662	1373	0	9877802	9818181	10909089
11	2078098	2	18	55	1061	1018	0	11958935	10909090	11999988

Total number of pulses in waveform = 20

Type 5 Radar Waveform_9

Waveform Num = 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	207801	2	18	95	1328	1276	0	207801	0	631578
2	537614	2	14	80	1176	1175	0	748019	631579	1263157
3	910961	3	18	55	1726	1470	1335	1661331	1263158	1894736
4	279635	2	10	75	1272	1787	0	1945397	1894737	2526315
5	676373	2	19	90	1847	1643	0	2624829	2526316	3157894
6	979864	2	9	95	1928	1656	0	3608183	3157895	3789473
7	570087	3	9	70	1603	1094	1391	4181854	3789474	4421052
8	675437	1	11	55	1864	0	0	4861379	4421053	5052631
9	298259	3	9	60	1071	1130	1704	5161502	5052632	5684210
10	600330	3	10	60	1887	1788	1736	5765737	5684211	6315789
11	1087177	3	14	60	1402	1008	1334	6858325	6315790	6947368
12	432233	3	7	95	1488	1429	1848	7294302	6947369	7578947
13	514550	2	16	70	1037	1028	0	7813617	7578948	8210526
14	854029	3	15	70	1548	1573	1885	8669711	8210527	8842105
15	516918	1	6	95	1761	0	0	9191635	8842106	9473684
16	590594	3	11	50	1441	1917	1533	9783990	9473685	10105263
17	558042	2	20	65	1640	1446	0	10346923	10105264	10736842
18	633870	1	19	80	1311	0	0	10983879	10736843	11368421
19	673193	2	7	85	1572	1087	0	11658383	11368422	12000000

Total number of pulses in waveform = 43

Type 5 Radar Waveform_10

Waveform Num = 10
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	488848	2	14	95	1027	1191	0	488848	0	799999
2	828681	2	10	80	1474	1745	0	1319747	800000	1599999
3	960449	1	11	55	1935	0	0	2283415	1600000	2399999
4	514306	1	16	80	1226	0	0	2799656	2400000	3199999
5	974783	3	8	60	1152	1368	1797	3775665	3200000	3999999
6	698012	3	20	100	1699	1784	1705	4477994	4000000	4799999
7	489160	2	11	65	1597	1777	0	4972342	4800000	5599999
8	1310718	3	5	75	1013	1514	1430	6286434	5600000	6399999
9	389631	3	16	70	1812	1669	1626	6680022	6400000	7199999
10	696596	3	7	95	1744	1468	1000	7381725	7200000	7999999
11	967887	1	12	80	1852	0	0	8353824	8000000	8799999
12	507851	3	5	85	1550	1100	1702	8863527	8800000	9599999
13	1465263	2	14	90	1688	1659	0	10333142	9600000	10399999
14	424104	1	14	75	1609	0	0	10760593	10400000	11199999
15	582819	3	13	80	1850	1547	1452	11345021	11200000	11999999

Total number of pulses in waveform = 33



Type 5 Radar Waveform_11

Waveform Num = 11
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	99507	2	8	55	1770	1468	0	99507	0	705881
2	1014384	1	8	70	1934	0	0	1117129	705882	1411763
3	899092	2	18	55	1431	1950	0	2018155	1411764	2117645
4	329719	3	19	65	1894	1851	1169	2351255	2117646	2823527
5	515446	2	14	55	1143	1504	0	2871615	2823528	3529409
6	796797	3	15	85	1601	1132	1549	3671059	3529410	4235291
7	1133536	3	7	80	1205	1885	1412	4808877	4235292	4941173
8	492501	2	13	65	1629	1741	0	5305880	4941174	5647055
9	972115	1	11	90	1532	0	0	6281365	5647056	6352937
10	378014	3	20	50	1547	1357	1120	6660911	6352938	7058819
11	1075514	1	20	95	1112	0	0	7740449	7058820	7764701
12	548860	3	10	65	1348	1278	1147	8290421	7764702	8470583
13	212873	3	5	70	1888	1767	1915	8507067	8470584	9176465
14	859648	1	6	80	1774	0	0	9372285	9176466	9882347
15	1205644	3	11	75	1759	1531	1236	10579703	9882348	10588229
16	288254	1	7	50	1771	0	0	10872483	10588230	11294111
17	1109417	3	18	60	1005	1362	1784	11983671	11294112	11999993

Total number of pulses in waveform = 37

Type 5 Radar Waveform_12

Waveform Num = 12
Num of Bursts = 8
Burst Interval (us)= 1500000

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	333234	2	16	70	1473	1504	0	333234	0	1499999
2	2499663	2	7	95	1216	1007	0	2835874	1500000	2999999
3	1154208	3	13	75	1359	1318	1110	3992305	3000000	4499999
4	886696	2	11	70	1241	1273	0	4882788	4500000	5999999
5	1326697	3	17	55	1040	1202	1361	6211999	6000000	7499999
6	1454491	2	7	100	1103	1577	0	7670093	7500000	8999999
7	1897205	2	8	90	1458	1230	0	9569978	9000000	10499999
8	2131843	3	17	70	1207	1332	1399	11704509	10500000	11999999

Total number of pulses in waveform = 19

Type 5 Radar Waveform_13

Waveform Num = 13
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	434900	1	12	55	1298	0	0	434900	0	631578
2	277368	3	19	55	1390	1280	1746	713566	631579	1263157
3	548048	1	15	85	1412	0	0	1266030	1263158	1894736
4	889510	3	17	50	1915	1048	1171	2156952	1894737	2526315
5	849911	1	15	85	1294	0	0	3010997	2526316	3157894
6	314961	3	9	85	1145	1499	1145	3327152	3157895	3789473
7	970132	1	12	80	1980	0	0	4301073	3789474	4421052
8	152322	1	17	90	1002	0	0	4455375	4421053	5052631
9	758245	3	18	55	1961	1373	1741	5214622	5052632	5684210
10	913861	2	7	55	1220	1707	0	6133558	5684211	6315789
11	695185	2	9	65	1898	1319	0	6831670	6315790	6947368
12	315120	3	17	70	1385	1881	1939	7150007	6947369	7578947
13	578829	3	13	75	1409	1351	1463	7734041	7578948	8210526
14	700620	3	8	75	1057	1440	1905	8438884	8210527	8842105
15	983208	2	11	85	1632	1418	0	9426494	8842106	9473684
16	495614	1	13	100	1967	0	0	9925158	9473685	10105263
17	247393	2	20	65	1444	1097	0	10174518	10105264	10736842
18	654457	2	9	60	1856	1620	0	10831516	10736843	11368421
19	1021160	3	8	60	1820	1909	1612	11856152	11368422	12000000

Total number of pulses in waveform = 40



Type 5 Radar Waveform_14

Waveform Num = 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	389966	3	8	75	1849	1044	1033	389966	0	749999
2	881556	1	17	65	1376	0	0	1275448	750000	1499999
3	520875	3	15	75	1191	1124	1227	1797699	1500000	2249999
4	870226	3	7	60	1525	1243	1072	2671467	2250000	2999999
5	800319	2	16	60	1614	1651	0	3475626	3000000	3749999
6	453595	1	12	60	1674	0	0	3932486	3750000	4499999
7	1100243	2	12	55	1221	1278	0	5034403	4500000	5249999
8	676630	1	19	80	1479	0	0	5713532	5250000	5999999
9	924460	3	16	100	1167	1568	1027	6639471	6000000	6749999
10	283126	1	12	90	1648	0	0	6926359	6750000	7499999
11	912265	1	17	85	1016	0	0	7840272	7500000	8249999
12	970199	3	19	80	1525	1801	1602	8811487	8250000	8999999
13	760985	1	12	75	1156	0	0	9577400	9000000	9749999
14	632273	2	8	100	1856	1927	0	10210829	9750000	10499999
15	776690	1	17	85	1758	0	0	10991302	10500000	11249999
16	359556	2	10	50	1851	1274	0	11352616	11250000	11999999

Total number of pulses in waveform = 30

Type 5 Radar Waveform_15

Waveform Num = 15
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	17464	3	19	55	1906	1971	1030	17464	0	599999
2	688843	3	8	95	1136	1787	1873	711214	600000	1199999
3	872972	2	7	50	1418	1077	0	1588982	1200000	1799999
4	776772	3	18	70	1038	1638	1083	2368249	1800000	2399999
5	319821	3	17	90	1113	1112	1376	2691829	2400000	2999999
6	671441	2	9	1063	1657	0	0	3366871	3000000	3599999
7	499876	3	19	50	1134	1918	1789	3869467	3600000	4199999
8	537648	3	6	90	1138	1252	1563	4411956	4200000	4799999
9	643276	3	12	100	1081	1092	1091	5059185	4800000	5399999
10	385749	1	6	70	1602	0	0	5448198	5400000	5999999
11	909593	3	11	90	1649	1882	1005	6359393	6000000	6599999
12	746162	2	8	85	1620	1669	0	7110091	6600000	7199999
13	131559	2	12	80	1996	1715	0	7244939	7200000	7799999
14	950159	1	13	90	1163	0	0	8198808	7800000	8399999
15	555634	3	5	50	1871	1863	1618	8755605	8400000	8999999
16	528190	2	15	75	1591	1190	0	9289147	9000000	9599999
17	613030	2	7	1092	1579	0	0	9904958	9600000	10199999
18	765557	1	12	90	1113	0	0	10673186	10200000	10799999
19	298181	3	8	90	1541	1640	1419	10972480	10800000	11399999
20	581568	3	7	100	1099	1553	1230	11558648	11400000	11999999

Total number of pulses in waveform = 48

Type 5 Radar Waveform_16

Waveform Num = 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	1278396	3	7	100	1132	1865	1564	1278396	0	1333332
2	296569	3	9	50	1459	1332	1377	1579526	1333333	2666665
3	1266620	1	15	85	1835	0	0	2850314	2666666	3999998
4	2100897	3	18	95	1009	1575	1717	4953046	3999999	5333331
5	1673362	2	14	65	1157	1613	0	6630709	5333332	6666664
6	491739	2	14	95	1835	1181	0	7125218	6666665	7999997
7	1068368	2	18	55	1374	1550	0	8196602	7999998	9333330
8	1982294	3	6	100	1183	1741	1595	10181820	9333331	10666663
9	928597	1	12	100	1316	0	0	11114936	10666664	11999996

Total number of pulses in waveform = 20



Type 5 Radar Waveform_17

Waveform Num = 17
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	205865	2	9	100	1172	1988	0	205865	0	1333332
2	2216226	1	18	60	1517	0	0	2425251	1333333	2666665
3	969462	2	20	70	1512	1840	0	3396230	2666666	3999998
4	1002844	2	16	75	1001	1960	0	4402426	3999999	5333331
5	1818260	1	6	70	1009	0	0	6223647	5333332	6666664
6	1587501	3	5	95	1131	1897	1814	7812157	6666665	7999997
7	607516	1	15	85	1270	0	0	8424515	7999998	9333330
8	1552416	2	19	80	1039	1381	0	9978201	9333331	10666663
9	990070	1	13	50	1551	0	0	10970691	10666664	11999996

Total number of pulses in waveform = 15

Type 5 Radar Waveform_18

Waveform Num = 18
Num of Bursts = 17
Burst Interval (us)= 705882

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	375769	1	20	50	1638	0	0	375769	0	705881
2	963571	3	19	60	1712	1133	1358	1340978	705882	1411763
3	445021	2	20	100	1655	1700	0	1790202	1411764	2117645
4	839961	2	15	95	1943	1298	0	2633518	2117646	2823527
5	325966	3	11	75	1642	1742	1157	2962725	2823528	3529409
6	767798	3	9	95	1157	1670	1259	3735064	3529410	4235291
7	1068168	1	5	95	1793	0	0	4807318	4235292	4941173
8	691193	1	11	90	1637	0	0	5500304	4941174	5647055
9	761805	3	17	90	1002	1766	1257	6263746	5647056	6352937
10	117207	2	13	55	1765	1210	0	6384978	6352938	7058819
11	785914	1	6	95	1065	0	0	7173867	7058820	7764701
12	1051743	2	9	75	1355	1692	0	8226675	7764702	8470583
13	722419	3	14	55	1269	1468	1153	8952141	8470584	9176465
14	479275	1	8	60	1736	0	0	9435306	9176466	9882347
15	1070154	3	10	65	1650	1817	1388	10507196	9882348	10588229
16	267410	2	16	75	1680	1175	0	10779461	10588230	11294111
17	1089122	2	6	70	1536	1279	0	11871438	11294112	11999993

Total number of pulses in waveform = 35

Type 5 Radar Waveform_19

Waveform Num = 19
Num of Bursts = 11
Burst Interval (us)= 1090909

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	120583	2	18	55	1736	1608	0	120583	0	1090908
2	1341859	3	11	95	1899	1098	1076	1465736	1090909	2181817
3	1301801	1	13	100	1881	0	0	2771660	2181818	3272726
4	502062	2	5	80	1894	1410	0	3275603	3272727	4363635
5	1508208	3	7	65	1083	1142	1275	4787115	4363636	5454544
6	1170667	1	9	90	1705	0	0	5961282	5454545	6545453
7	1334059	1	18	55	1932	0	0	7297046	6545454	7636362
8	922854	1	8	75	1842	0	0	8221832	7636363	8727271
9	589585	2	5	100	1754	1066	0	8813259	8727272	9818180
10	1599355	1	19	55	1246	0	0	10415434	9818181	10909089
11	1501286	1	10	70	1102	0	0	11917966	10909090	11999998

Total number of pulses in waveform = 18



Type 5 Radar Waveform_20

Waveform Num = 20
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	816394	3	11	95	1310	1293	1642	816394	0	923076
2	539786	3	8	85	1653	1261	1310	1360425	923077	1846153
3	1200119	1	15	100	1073	0	0	2564768	1846154	2769230
4	844150	1	18	50	1670	0	0	3409991	2769231	3692307
5	807490	1	10	90	1167	0	0	4219151	3692308	4615384
6	822375	3	7	70	1847	1961	1742	5042693	4615385	5538461
7	1097996	3	10	75	1185	1173	1736	6146239	5538462	6461538
8	528270	2	19	95	1551	1468	0	6678603	6461539	7384615
9	1239146	1	6	50	1079	0	0	7920768	7384616	8307692
10	1030948	1	13	95	1671	0	0	8952795	8307693	9230769
11	833042	3	12	70	1383	1704	1333	9787508	9230770	10153846
12	551219	2	7	100	1101	1950	0	10343147	10153847	11076923
13	1592772	3	8	80	1094	1597	1262	11938970	11076924	12000000

Total number of pulses in waveform = 27

Type 5 Radar Waveform_21

Waveform Num = 21
Num of Bursts = 9
Burst Interval (us)= 1333333

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	786138	3	13	90	1349	1204	1826	786138	0	1333332
2	1790176	3	7	50	1180	1742	1680	2580693	1333333	2666665
3	355120	1	6	60	1657	0	0	2940415	2666666	3999998
4	1215330	2	18	60	1458	1377	0	4157402	3999999	5333331
5	1446277	2	13	95	1831	1866	0	5606514	5333332	6666664
6	1077634	1	11	95	1319	0	0	6687845	6666665	7999997
7	2074220	1	10	90	1191	0	0	8763384	7999998	9333330
8	1333981	1	17	90	1075	0	0	10098556	9333331	10666663
9	1492148	3	15	75	1556	1697	1381	11591779	10666664	11999996

Total number of pulses in waveform = 17

Type 5 Radar Waveform_22

Waveform Num = 22
Num of Bursts = 14
Burst Interval (us)= 857143

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	729742	1	13	80	1710	0	0	729742	0	857142
2	149018	2	16	65	1416	1873	0	880470	857143	1714285
3	845657	3	10	55	1080	1153	1737	1729416	1714286	2571428
4	1653875	3	15	85	1869	1271	1247	3387261	2571429	3428571
5	334129	2	9	60	1682	1795	0	3725777	3428572	4285714
6	602729	3	13	100	1807	1044	1102	4331983	4285715	5142857
7	1350163	2	7	65	1068	1116	0	5686099	5142858	6000000
8	850069	1	8	80	1930	0	0	6538352	6000001	6857143
9	981175	3	17	85	1523	1745	1535	7521457	6857144	7714286
10	739816	2	20	90	1741	1709	0	8266081	7714287	8571429
11	880146	3	11	55	1763	1982	1686	9149677	8571430	9428572
12	466497	3	16	100	1576	1194	1662	9621605	9428573	10285715
13	1486990	3	15	55	1838	1376	1024	11113027	10285716	11142858
14	320381	2	13	70	1689	1890	0	11437646	11142859	12000001

Total number of pulses in waveform = 33



Type 5 Radar Waveform_23

Waveform Num = 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	592803	2	6	50	1396	1706	0	592803	0	1499999
2	1850839	2	10	85	1611	1156	0	2446744	1500000	2999999
3	1016510	2	15	95	1097	1626	0	3466021	3000000	4499999
4	2413155	2	5	80	1751	1856	0	5881899	4500000	5999999
5	1331554	1	14	95	1664	0	0	7217060	6000000	7499999
6	549481	3	13	80	1657	1553	1902	7768205	7500000	8999999
7	2444470	1	8	75	1644	0	0	10217787	9000000	10499999
8	1388731	3	15	55	1182	1735	1827	11608162	10500000	11999999

Total number of pulses in waveform = 16

Type 5 Radar Waveform_24

Waveform Num = 24
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	820473	1	20	95	1621	0	0	820473	0	999999
2	258932	3	8	65	1470	1049	1539	1081026	1000000	1999999
3	1114533	2	5	50	1648	1683	0	2199617	2000000	2999999
4	1281504	1	7	65	1077	0	0	3484452	3000000	3999999
5	568470	3	15	70	1234	1284	1879	4053999	4000000	4999999
6	1339753	1	5	55	1368	0	0	5398149	5000000	5999999
7	1533831	2	9	85	1057	1832	0	6933348	6000000	6999999
8	889679	2	12	60	1354	1050	0	7825916	7000000	7999999
9	1166630	2	20	50	1651	1056	0	8994950	8000000	8999999
10	162969	3	13	70	1335	1990	1114	9160626	9000000	9999999
11	1308899	3	9	75	1795	1992	1027	10473964	10000000	10999999
12	686528	1	20	50	1692	0	0	11165306	11000000	11999999

Total number of pulses in waveform = 24

Type 5 Radar Waveform_25

Waveform Num = 25
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	277222	1	19	80	1384	0	0	277222	0	599999
2	564885	1	10	55	1122	0	0	843491	600000	1199999
3	463920	3	9	70	1974	1876	1428	1308533	1200000	1799999
4	892858	1	10	65	1404	0	0	2206669	1800000	2399999
5	641267	1	6	50	1459	0	0	2849340	2400000	2999999
6	465547	2	9	50	1560	1677	0	3316346	3000000	3599999
7	686640	3	8	65	1251	1118	1033	4006223	3600000	4199999
8	763804	3	20	85	1118	1183	1649	4773429	4200000	4799999
9	374384	3	20	90	1432	1119	1275	5151763	4800000	5399999
10	527456	3	16	100	1449	1110	1485	5683045	5400000	5999999
11	711976	2	15	60	1439	1139	0	6399065	6000000	6599999
12	582083	3	20	75	1825	1159	1748	6983776	6600000	7199999
13	520807	2	12	90	1966	1373	0	7509315	7200000	7799999
14	395430	1	11	90	1287	0	0	7908084	7800000	8399999
15	701334	2	12	60	1503	1562	0	8610705	8400000	8999999
16	679251	1	6	50	1233	0	0	9293021	9000000	9599999
17	825488	2	6	95	1705	1851	0	10119742	9600000	10199999
18	335516	1	11	90	1455	0	0	10458814	10200000	10799999
19	603358	2	12	75	1514	1260	0	11063627	10800000	11399999
20	568049	1	9	55	1275	0	0	11634450	11400000	11999999

Total number of pulses in waveform = 38



Type 5 Radar Waveform_26

Waveform Num = 26
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	173459	1	5	80	1308	0	0	173459	0	1199999
2	1761124	3	6	60	1923	1721	1443	1935891	1200000	2399999
3	1413803	1	9	85	1677	0	0	3354781	2400000	3599999
4	780884	1	18	100	1058	0	0	4137342	3600000	4799999
5	1427955	2	18	95	1603	1448	0	5566355	4800000	5999999
6	1022678	3	8	90	1626	1219	1183	6592084	6000000	7199999
7	766137	2	19	55	1786	1707	0	7362249	7200000	8399999
8	1552841	2	6	50	1565	1133	0	8918583	8400000	9599999
9	1389508	1	18	70	1846	0	0	10310789	9600000	10799999
10	1398451	1	19	60	1119	0	0	11711086	10800000	11999999

Total number of pulses in waveform = 17

Type 5 Radar Waveform_27

Waveform Num = 27
Num of Bursts = 12
Burst Interval (us)= 1000000

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	640500	2	13	95	1607	1650	0	640500	0	999999
2	443568	1	19	100	1198	0	0	1087325	1000000	1999999
3	1412645	1	15	55	1987	0	0	2501168	2000000	2999999
4	1427261	1	7	55	1715	0	0	3930416	3000000	3999999
5	346971	3	16	55	1357	1733	1584	4279102	4000000	4999999
6	1357219	3	16	60	1905	1876	1362	5640995	5000000	5999999
7	485116	3	20	65	1122	1321	1539	6131254	6000000	6999999
8	1844183	2	19	70	1660	1452	0	7979419	7000000	7999999
9	734740	1	9	55	1753	0	0	8717271	8000000	8999999
10	369985	3	20	100	1792	1635	1263	9089009	9000000	9999999
11	1363029	3	8	95	1443	1755	1239	10456728	10000000	10999999
12	1264648	3	10	55	1007	1981	1617	11725813	11000000	11999999

Total number of pulses in waveform = 26

Type 5 Radar Waveform_28

Waveform Num = 28
Num of Bursts = 13
Burst Interval (us)= 923077

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	129830	1	16	90	1457	0	0	129830	0	923076
2	816834	1	18	90	1904	0	0	948121	923077	1846153
3	1635477	3	12	55	1957	1516	1489	2585502	1846154	2769230
4	398002	2	16	85	1623	1819	0	2988466	2769231	3692307
5	1276867	3	10	50	1418	1082	1866	4268775	3692308	4615384
6	384035	3	10	100	1729	1211	1614	4657176	4615385	5538461
7	1065525	1	16	90	1311	0	0	5727255	5538462	6461538
8	1421696	3	8	95	1071	1878	1289	7150262	6461539	7384615
9	604837	3	12	60	1116	1332	1716	7759337	7384616	8307692
10	1037391	3	16	90	1644	1997	1792	8800892	8307693	9230769
11	557852	3	12	70	1043	1908	1792	9364177	9230770	10153846
12	1048664	3	18	100	1016	1590	1256	10417584	10153847	11076923
13	1351778	2	11	90	1814	1738	0	11773224	11076924	12000000

Total number of pulses in waveform = 31



Type 5 Radar Waveform_29

Waveform Num = 29
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	638310	3	10	70	1276	1590	1298	638310	0	705881
2	382567	3	7	75	1806	1533	1928	1025041	705882	1411763
3	467981	2	17	50	1495	1019	0	1498289	1411764	2117645
4	728264	3	11	100	1761	1007	1671	2229067	2117646	2823527
5	667418	1	17	75	1856	0	0	2900924	2823528	3529409
6	1053619	1	12	75	1490	0	0	3956399	3529410	4235291
7	831109	1	19	50	1739	0	0	4788998	4235292	4941173
8	374056	3	17	80	1090	1758	1082	5164793	4941174	5647055
9	797423	2	11	75	1015	1402	0	5966146	5647056	6352937
10	400303	2	11	80	1722	1143	0	6368866	6352938	7058819
11	1146395	2	19	65	1448	1678	0	7518126	7058820	7764701
12	398849	3	20	75	1517	1686	1363	7920101	7764702	8470583
13	974630	2	8	100	1696	1428	0	8899297	8470584	9176465
14	615505	1	19	65	1557	0	0	9517926	9176466	9882347
15	1019523	2	9	90	1169	1800	0	10539006	9882348	10588229
16	59690	2	14	80	1550	1110	0	10601665	10588230	11294111
17	1056628	3	18	55	1834	1393	1147	11660953	11294112	11999993

Total number of pulses in waveform = 36

Type 5 Radar Waveform_30

Waveform Num = 30
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	140271	3	17	100	1484	1284	1445	140271	0	666666
2	1083046	2	5	70	1021	1046	0	1227530	666667	1333333
3	298808	2	8	55	1846	1048	0	1528405	1333334	2000000
4	569588	1	6	70	1291	0	0	2100887	2000001	2666667
5	615252	2	7	100	1888	1490	0	2717430	2666668	3333334
6	759022	1	20	100	1793	0	0	3479830	3333335	4000001
7	658057	3	9	65	1541	1247	1720	4139680	4000002	4666668
8	637893	3	9	100	1465	1492	1994	4782081	4666669	5333335
9	910472	1	5	95	1567	0	0	5697504	5333336	6000002
10	922339	1	10	70	1967	0	0	6621410	6000003	6666669
11	132692	2	12	55	1197	1944	0	6756069	6666670	7333336
12	850316	3	8	65	1653	1562	1193	7609526	7333337	8000003
13	492163	3	5	50	1210	1402	1693	8106097	8000004	8666670
14	683569	3	13	80	1651	1053	1639	8793971	8666671	9333337
15	1187772	2	15	60	1254	1768	0	9986086	9333338	10000004
16	137857	2	7	80	1285	1417	0	10126965	10000005	10666671
17	1168884	1	19	95	1490	0	0	11298551	10666672	11333338
18	494398	2	11	90	1683	1914	0	11794439	11333339	12000005

Total number of pulses in waveform = 37

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	5291	1	16	5291	1
2	5291	1	17	5291	1
3	5291	1	18	5291	1
4	5291	1	19	5291	1
5	5291	1	20	5291	1
6	5291	1	21	5291	1
7	5291	1	22	5291	1
8	5291	1	23	5291	1
9	5291	1	24	5291	1
10	5291	1	25	5291	1
11	5291	1	26	5291	1
12	5291	1	27	5291	1
13	5291	1	28	5291	1
14	5291	1	29	5291	1
15	5291	1	30	5291	1
Detection Percentage (%)					100%

Radar waveform #1			Radar waveform #2		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
8	5263	24	6	5278	18
9	5274	27	24	5292	72
11	5303	33	29	5264	87
16	5286	48	30	5302	90
23	5316	69	49	5271	147
35	5301	105	61	5261	183
38	5277	114	75	5321	225
39	5279	117	77	5305	231
40	5312	120	78	5268	234
49	5285	147	96	5269	288
50	5300	150	--	--	--
63	5314	189	--	--	--
78	5292	234	--	--	--
80	5269	240	--	--	--
90	5302	270	--	--	--

Radar waveform #3			Radar waveform #4		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
7	5315	21	8	5286	24
12	5271	36	13	5314	39
16	5293	48	16	5261	48
26	5312	78	20	5270	60
29	5263	87	28	5289	84
40	5300	120	33	5281	99
47	5262	141	41	5317	123
70	5302	210	51	5288	153
89	5279	267	54	5308	162
90	5276	270	57	5321	171
--	--	--	82	5290	246
--	--	--	86	5309	258
--	--	--	90	5274	270

Radar waveform #5			Radar waveform #6		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
10	5299	30	0	5284	0
17	5289	51	5	5279	15
18	5311	54	11	5321	33
25	5264	75	16	5276	48
26	5283	78	22	5304	66
50	5271	150	26	5268	78
51	5262	153	28	5267	84
59	5279	177	31	5314	93
62	5314	186	36	5266	108
81	5312	243	79	5303	237
85	5295	255	80	5310	240
87	5290	261	81	5291	243
--	--	--	83	5295	249
--	--	--	89	5287	267
--	--	--	96	5264	288

Radar waveform #7			Radar waveform #8		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
1	5269	3	7	5282	21
16	5291	48	11	5275	33
17	5320	51	22	5306	66
27	5298	81	44	5321	132
28	5275	84	60	5313	180
34	5268	102	62	5268	186
36	5304	108	63	5297	189
37	5286	111	64	5278	192
40	5317	120	65	5267	195
54	5264	162	66	5295	198
65	5309	195	68	5274	204
75	5262	225	72	5304	216
95	5306	285	75	5303	225
--	--	--	84	5271	252
--	--	--	91	5301	273
--	--	--	97	5281	291
--	--	--	98	5269	294

Radar waveform #9			Radar waveform #10		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
3	5318	9	11	5275	33
7	5288	21	13	5277	39
22	5319	66	19	5308	57
34	5302	102	25	5318	75
37	5269	111	27	5309	81
48	5278	144	35	5310	105
52	5312	156	39	5271	117
62	5308	186	52	5296	156
65	5282	195	53	5315	159
84	5273	252	57	5301	171
95	5289	285	58	5268	174
98	5293	294	71	5285	213
--	--	--	83	5294	249
--	--	--	88	5264	264
--	--	--	90	5290	270

Radar waveform #11			Radar waveform #12		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Frequency (MHz)	Hopping Number	Pulse Start (ms)
4	5312	12	1	5321	3
6	5307	18	5	5316	15
14	5270	42	11	5264	33
17	5308	51	14	5276	42
20	5317	60	31	5302	93
36	5300	108	49	5303	147
52	5316	156	51	5271	153
56	5319	168	66	5266	198
67	5305	201	71	5273	213
74	5311	222	75	5312	225
91	5293	273	86	5291	258
92	5277	276	87	5308	261
94	5264	282	89	5272	267

Radar waveform #13			Radar waveform #14		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
17	5269	51	4	5296	12
18	5318	54	15	5298	45
40	5277	120	30	5312	90
45	5289	135	43	5283	129
52	5303	156	61	5276	183
74	5306	222	73	5309	219
84	5301	252	78	5299	234
97	5309	291	87	5319	261
99	5294	297	--	--	--

Radar waveform #15			Radar waveform #16		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
9	5301	27	7	5266	21
17	5263	51	16	5314	48
21	5314	63	34	5262	102
25	5288	75	49	5317	147
27	5277	81	58	5296	174
28	5292	84	61	5272	183
38	5278	114	68	5301	204
39	5312	117	69	5271	207
43	5306	129	70	5283	210
48	5308	144	86	5308	258
50	5296	150	87	5287	261
51	5321	153	98	5309	294
59	5280	177	--	--	--
60	5281	180	--	--	--
66	5304	198	--	--	--
76	5317	228	--	--	--
86	5272	258	--	--	--
97	5310	291	--	--	--

Radar waveform #17			Radar waveform #18		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
0	5302	0	1	5279	3
1	5318	3	8	5316	24
6	5282	18	13	5280	39
7	5266	21	21	5293	63
14	5290	42	35	5283	105
21	5321	63	36	5286	108
40	5303	120	39	5320	117
45	5306	135	44	5269	132
46	5301	138	49	5278	147
56	5309	168	53	5282	159
57	5287	171	57	5312	171
65	5261	195	59	5276	177
71	5265	213	62	5287	186
87	5317	261	93	5295	279
93	5291	279	97	5303	291
--	--	--	98	5261	294

Radar waveform #19			Radar waveform #20		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
0	5302	0	4	5297	12
11	5290	33	13	5304	39
13	5267	39	17	5279	51
22	5315	66	22	5281	66
38	5275	114	49	5283	147
41	5313	123	50	5268	150
59	5317	177	53	5282	159
60	5280	180	55	5319	165
62	5266	186	64	5303	192
63	5308	189	81	5314	243
66	5281	198	93	5262	279
72	5262	216	--	--	--
74	5294	222	--	--	--
86	5297	258	--	--	--
91	5306	273	--	--	--

Radar waveform #21			Radar waveform #22		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
10	5296	30	1	5291	3
13	5261	39	3	5287	9
20	5319	60	28	5319	84
22	5278	66	37	5269	111
30	5302	90	47	5321	141
50	5308	150	88	5318	264
54	5298	162	91	5276	273
55	5270	165	95	5296	285
61	5303	183	97	5290	291
66	5290	198	--	--	--
67	5300	201	--	--	--
74	5294	222	--	--	--
93	5310	279	--	--	--

Radar waveform #23			Radar waveform #24		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
14	5291	42	1	5268	3
18	5309	54	2	5281	6
36	5321	108	4	5295	12
50	5279	150	13	5306	39
59	5267	177	22	5279	66
60	5298	180	27	5275	81
62	5289	186	29	5298	87
70	5300	210	36	5273	108
73	5319	219	44	5282	132
80	5263	240	46	5287	138
94	5307	282	60	5267	180
--	--	--	78	5286	234

Radar waveform #25			Radar waveform #26		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
1	5270	3	0	5278	0
20	5309	60	9	5286	27
38	5285	114	28	5312	84
40	5278	120	30	5303	90
47	5272	141	40	5283	120
52	5296	156	49	5294	147
55	5302	165	57	5289	171
58	5283	174	71	5307	213
70	5295	210	79	5290	237
71	5299	213	87	5272	261
81	5263	243	89	5316	267
83	5292	249	93	5310	279
99	5277	297	95	5308	285
--	--	--	98	5276	294

Radar waveform #27			Radar waveform #28		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
1	5306	3	0	5307	0
2	5312	6	34	5308	102
3	5263	9	39	5268	117
22	5268	66	41	5285	123
30	5280	90	48	5262	144
32	5267	96	49	5311	147
33	5317	99	59	5297	177
43	5283	129	61	5265	183
52	5277	156	72	5305	216
53	5318	159	80	5263	240
64	5301	192	86	5267	258
65	5282	195	88	5289	264
66	5279	198	94	5299	282
71	5290	213	98	5303	294
77	5262	231	--	--	--
79	5299	237	--	--	--
84	5295	252	--	--	--
97	5314	291	--	--	--

Radar waveform #29			Radar waveform #30		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
4	5310	12	1	5267	3
20	5315	60	18	5298	54
23	5267	69	20	5316	60
26	5275	78	38	5264	114
27	5276	81	52	5261	156
35	5263	105	57	5276	171
38	5297	114	66	5266	198
73	5269	219	72	5294	216
83	5291	249	78	5302	234
87	5314	261	89	5268	267
88	5282	264	--	--	--

Radar Statistical Performance for 802.11n-HT40

Radar Type 1 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5291	1	758	70	1
2	5291	1	578	92	1
3	5291	1	598	89	1
4	5291	1	798	67	1
5	5291	1	918	58	1
6	5291	1	858	62	1
7	5291	1	738	72	1
8	5291	1	518	102	1
9	5291	1	538	99	1
10	5291	1	698	76	1
11	5291	1	838	63	1
12	5291	1	678	78	1
13	5291	1	618	86	1
14	5291	1	938	57	1
15	5291	1	558	95	1
16	5291	1	1309	41	1
17	5291	1	2870	19	1
18	5291	1	2342	23	1
19	5291	1	3066	18	1
20	5291	1	892	60	1
21	5291	1	834	64	1
22	5291	1	1983	27	1
23	5291	1	2836	19	1
24	5291	1	1379	39	1
25	5291	1	782	68	1
26	5291	1	1169	46	1
27	5291	1	2724	20	1
28	5291	1	681	78	1
29	5291	1	2822	19	1
30	5291	1	2957	18	1
Detection Percentage (%)					100%

Radar Type 2 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5300	2.2	202	28	1
2	5300	3.9	167	27	1
3	5300	3.6	222	27	1
4	5300	1.9	210	28	1
5	5300	2.8	171	26	1
6	5300	1.5	164	28	1
7	5300	1.8	214	29	1
8	5300	4.4	194	24	1
9	5300	1.4	183	25	1
10	5300	4.3	165	25	1
11	5300	4.0	219	26	1
12	5300	2.6	194	28	1
13	5300	1.4	220	25	1
14	5300	4.5	164	28	1
15	5300	3.3	219	27	1
16	5300	3.1	212	24	1
17	5300	4.0	208	25	1
18	5300	4.0	206	26	1
19	5300	3.0	179	24	1
20	5300	3.5	152	26	1
21	5300	1.4	208	28	1
22	5300	1.9	212	25	1
23	5300	4.8	161	24	1
24	5300	1.9	219	28	1
25	5300	3.9	191	24	1
26	5300	1.3	191	23	1
27	5300	1.3	221	25	1
28	5300	2.4	207	25	1
29	5300	3.7	220	25	1
30	5300	1.4	193	25	1
Detection Percentage (%)					100%

Radar Type 3 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5309	8.6	286	16	1
2	5309	9.5	309	17	1
3	5309	6.7	470	17	1
4	5309	6.8	477	16	1
5	5309	7.7	344	17	1
6	5309	6.3	289	17	1
7	5309	8.2	462	16	1
8	5309	6.2	479	16	1
9	5309	8.0	491	16	1
10	5309	9.4	380	17	1
11	5309	6.6	293	17	1
12	5309	7.4	270	16	1
13	5309	7.8	268	18	1
14	5309	8.4	494	17	1
15	5309	6.9	288	18	1
16	5309	9.0	264	18	1
17	5309	6.9	492	16	1
18	5309	9.7	271	18	1
19	5309	9.9	411	18	1
20	5309	7.3	355	18	1
21	5309	7.1	465	16	1
22	5309	8.2	303	18	1
23	5309	6.4	442	17	1
24	5309	8.4	297	18	1
25	5309	6.7	489	16	1
26	5309	7.1	432	16	1
27	5309	7.9	457	17	1
28	5309	7.3	429	17	1
29	5309	8.1	348	16	1
30	5309	9.4	423	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	5328	14.6	260	15	1
2	5328	14.4	302	16	1
3	5328	14.3	446	16	1
4	5328	17.8	261	14	1
5	5328	16.9	257	13	1
6	5328	11.4	474	15	1
7	5328	14.6	383	16	1
8	5328	12.6	388	14	1
9	5328	12.2	417	16	1
10	5328	17.5	398	12	1
11	5328	16.6	500	16	1
12	5328	12.1	413	12	1
13	5328	11.0	297	15	1
14	5328	19.0	291	16	1
15	5328	11.8	312	16	1
16	5328	16.7	334	12	1
17	5328	12.7	452	12	1
18	5328	14.7	424	15	1
19	5328	20.0	310	15	1
20	5328	12.9	410	16	1
21	5328	15.5	476	14	1
22	5328	14.3	258	16	1
23	5328	11.6	444	14	1
24	5328	19.5	317	13	1
25	5328	11.5	330	15	1
26	5328	15.7	443	16	1
27	5328	13.5	311	14	1
28	5328	14.3	351	13	1
29	5328	15.4	415	14	1
30	5328	17.9	280	13	1
Detection Percentage (%)					100%

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

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



Radar Type 5 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	1=Detection 0=No Detection	Trail #	Test Freq. (MHz)	1=Detection 0=No Detection
1	5295	1	16	5310	1
2	5296	1	17	5311	1
3	5297	1	18	5312	1
4	5298	1	19	5313	1
5	5299	1	20	5314	1
6	5300	1	21	5315	1
7	5301	1	22	5316	1
8	5302	1	23	5317	1
9	5303	1	24	5318	1
10	5304	1	25	5319	1
11	5305	1	26	5320	1
12	5306	1	27	5321	1
13	5307	1	28	5322	1
14	5308	1	29	5323	1
15	5309	1	30	5324	1
Detection Percentage (%)					100%

Type 5 Radar Waveform_1										
Waveform Num = 1										
Num of Bursts = 10										
Burst Interval (us) = 1200000										
Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	644840	1	16	100	1205	0	0	644840	0	1199999
2	1687351	1	7	90	1299	0	0	2333396	1200000	2399999
3	730322	3	5	60	1342	1266	1332	3065017	2400000	3599999
4	1005847	3	16	85	1647	1365	1803	4074804	3600000	4799999
5	1489089	3	6	55	1094	1574	1585	5568708	4800000	5999999
6	1597266	3	18	50	1718	1816	1844	7170227	6000000	7199999
7	667628	2	14	85	1944	1955	0	7843233	7200000	8399999
8	1675560	3	17	85	1747	1290	1669	9522692	8400000	9599999
9	1036758	2	7	50	1124	1419	0	10564156	9600000	10799999
10	1416249	1	15	75	1784	0	0	11982948	10800000	11999999
Total number of pulses in waveform = 22										



Type 5 Radar Waveform_2

Waveform Num = 2
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	412292	1	12	80	1516	0	0	412292	0	799999
2	766125	2	5	85	1376	1128	0	1179933	800000	1599999
3	840696	1	7	65	1672	0	0	2023133	1600000	2399999
4	605120	3	13	55	1354	1071	1575	2629925	2400000	3199999
5	682349	3	11	80	1944	1742	1812	3316274	3200000	3999999
6	1115653	3	17	95	1378	1864	1990	4437425	4000000	4799999
7	1011661	3	13	95	1578	1938	1801	5454318	4800000	5599999
8	403122	2	15	80	1071	1328	0	5862757	5600000	6399999
9	982775	1	11	100	1724	0	0	6847931	6400000	7199999
10	702575	3	18	95	1505	1926	1653	7552230	7200000	7999999
11	1170203	2	9	65	1829	1699	0	8727517	8000000	8799999
12	560770	2	6	80	1598	1574	0	9291815	8800000	9599999
13	423035	3	19	65	1470	1246	1606	9718022	9600000	10399999
14	1474149	2	8	100	1664	1568	0	11196493	10400000	11199999
15	699950	3	9	70	1534	1958	1198	11899675	11200000	11999999

Total number of pulses in waveform = 34

Type 5 Radar Waveform_3

Waveform Num = 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	635466	2	17	50	1860	1268	0	635466	0	705881
2	758773	2	7	95	1257	1388	0	1397367	705882	1411763
3	430794	3	19	70	1753	1520	1110	1830806	1411764	2117645
4	800908	2	18	50	1128	1320	0	2636097	2117646	2823527
5	592558	1	14	55	1639	0	0	3231103	2823528	3529409
6	906902	2	18	95	1757	1242	0	4139644	3529410	4235291
7	202224	1	11	65	1185	0	0	4344867	4235292	4941173
8	827128	3	14	95	1648	1467	1058	5173180	4941174	5647055
9	715203	3	7	85	1638	1675	1461	5892556	5647056	6352937
10	1131352	1	19	100	1721	0	0	7028682	6352938	7058819
11	634147	3	7	65	1662	1675	1000	7664550	7058820	7764701
12	142043	3	7	100	1114	1790	1055	7810930	7764702	8470583
13	1098225	2	17	80	1520	1595	0	8913114	8470584	9176465
14	637234	1	8	50	1120	0	0	9553463	9176466	9882347
15	822477	3	14	50	1921	1371	1931	10377060	9882348	10588229
16	864518	2	15	80	1254	1296	0	11246801	10588230	11294111
17	119758	2	16	55	1615	1123	0	11369109	11294112	11999993

Total number of pulses in waveform = 36

Type 5 Radar Waveform_4

Waveform Num = 4
Num of Bursts = 12
Burst Interval (us) = 1000000

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	607592	3	8	50	1620	1570	1690	607592	0	999999
2	792540	2	18	95	1266	1074	0	1405012	1000000	1999999
3	1172912	1	8	85	1267	0	0	2580264	2000000	2999999
4	1009047	3	11	90	1775	1654	1421	3590578	3000000	3999999
5	765724	2	9	85	1598	1106	0	4361152	4000000	4999999
6	1628557	3	7	75	1618	1166	1200	5992413	5000000	5999999
7	137483	1	17	80	1609	0	0	6133880	6000000	6999999
8	1456733	1	10	70	1376	0	0	7592222	7000000	7999999
9	420904	2	16	55	1570	1091	0	8014502	8000000	8999999
10	1949298	3	11	50	1412	1476	2000	9966461	9000000	9999999
11	38746	2	11	100	1845	1503	0	10010095	10000000	10999999
12	1284995	2	17	90	1528	1492	0	11298438	11000000	11999999

Total number of pulses in waveform = 25



Type 5 Radar Waveform_5

Waveform Num = 5
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	800307	3	6	75	1813	1357	1362	67631	0	599999
2	816764	2	14	95	1945	1154	0	872470	600000	1199999
3	500258	1	17	85	1304	0	0	1692333	1200000	1799999
4	538929	2	65	9	1994	1306	0	2193895	1800000	2399999
5	749083	3	15	85	1782	1936	1670	2736124	2400000	2999999
6	610517	2	19	75	1241	1231	0	3490595	3000000	3599999
7	494602	3	9	80	1684	1547	1321	4103584	3600000	4199999
8	479636	3	8	75	1066	1269	1360	4602738	4200000	4799999
9	898243	3	19	70	1274	1422	1632	5086069	4800000	5399999
10	516140	1	9	85	1004	0	0	5988640	5400000	5999999
11	629434	1	9	95	1373	0	0	6505784	6000000	6599999
12	241436	3	13	95	1467	1717	1567	7136591	6600000	7199999
13	976113	1	16	75	1701	0	0	7382778	7200000	7799999
14	515307	3	19	50	1844	1659	1273	8360592	7800000	8399999
15	572698	2	7	60	1332	1014	0	8880675	8400000	8999999
16	717672	2	14	60	1745	1297	0	9455719	9000000	9599999
17	112893	3	19	100	1446	1874	1373	10176433	9600000	10199999
18	999870	2	11	100	1564	1785	0	10294019	10200000	10799999
19	574359	1	11	85	1402	0	0	11297238	10800000	11399999
20		1	16	55	1108	0	0	11872999	11400000	11999999

Total number of pulses in waveform = 42

Type 5 Radar Waveform_6

Waveform Num = 6
Num of Bursts = 9
Burst Interval (us)= 1333333

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	1280166	2	14	80	1162	1451	0	1280166	0	1333332
2	215007	3	8	70	1977	1889	1387	1497786	1333333	2666665
3	2486960	2	13	100	1103	1399	0	3989999	2666666	3999998
4	713358	2	9	65	1110	1945	0	4705859	3999999	5333331
5	1469983	3	18	50	1419	1803	1483	6178897	5333332	6666664
6	1307876	2	20	85	1221	1754	0	7491478	6666665	7999997
7	756021	1	9	100	1155	0	0	8250474	7999998	9333330
8	1554081	3	19	70	1247	1194	1295	9805710	9333331	10666663
9	1391399	2	15	65	1522	1860	0	11200845	10666664	11999996

Total number of pulses in waveform = 20

Type 5 Radar Waveform_7

Waveform Num = 7
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	1061504	1	20	60	1416	0	0	1061504	0	1090908
2	960604	2	5	65	1362	1253	0	2023524	1090909	2181817
3	1004566	2	7	100	1762	1062	0	3030705	2181818	3272726
4	1195238	3	19	95	1842	1032	1608	4228767	3272727	4363635
5	693147	3	5	90	1117	1721	1312	4926396	4363636	5454544
6	618571	2	20	85	1665	1697	0	5549117	5454545	6545453
7	1526358	2	8	100	1932	1459	0	7078837	6545454	7636362
8	629304	3	11	70	1709	1997	1651	7711532	7636363	8727271
9	2041333	3	17	85	1727	1744	1810	9758222	8727272	9818180
10	438596	2	10	95	1250	1045	0	10202099	9818181	10909089
11	1040999	3	5	70	1044	1491	1911	11245393	10909090	11999998

Total number of pulses in waveform = 26



Type 5 Radar Waveform_8

Waveform Num = 8
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	835522	2	10	95	1511	1363	0	835522	0	857142
2	689813	2	16	95	1198	1093	0	1528209	857143	1714285
3	739950	1	6	75	1639	0	0	2270450	1714286	2571428
4	558418	3	12	55	1199	1696	1719	2830507	2571429	3428571
5	1396298	1	6	55	1602	0	0	4231419	3428572	4285714
6	574235	1	12	80	1927	0	0	4807256	4285715	5142857
7	868150	2	12	60	1207	1565	0	5677333	5142858	6000000
8	1084887	2	12	90	1412	1442	0	6764992	6000001	6857143
9	107129	3	9	75	1659	1598	1111	6874975	6857144	7714286
10	1214686	2	17	90	1154	1518	0	8094029	7714287	8571429
11	731818	3	17	70	1839	1868	1066	8828519	8571430	9428572
12	764600	1	16	75	1312	0	0	9597892	9428573	10285715
13	833963	3	8	85	1951	1592	1460	10433167	10285716	11142858
14	793506	1	16	65	1087	0	0	11231676	11142859	12000001

Total number of pulses in waveform = 27

Type 5 Radar Waveform_9

Waveform Num = 9
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	49403	3	11	100	1212	1136	1278	49403	0	999999
2	1767463	1	7	70	1521	0	0	1820492	1000000	1999999
3	361657	1	19	55	1659	0	0	2183670	2000000	2999999
4	975699	3	16	60	1765	1384	1751	3161028	3000000	3999999
5	1048310	3	17	100	1434	1309	1741	4214238	4000000	4999999
6	1259271	3	6	50	1497	1724	1502	5477993	5000000	5999999
7	652526	2	13	75	1562	1365	0	6135242	6000000	6999999
8	1184954	3	20	55	1092	1377	1662	7323123	7000000	7999999
9	889083	3	13	100	1160	1248	1634	8216337	8000000	8999999
10	964304	1	10	60	1181	0	0	9184683	9000000	9999999
11	1404315	3	6	60	1331	1503	1313	10590179	10000000	10999999
12	1035382	2	11	50	1484	1231	0	11629708	11000000	11999999

Total number of pulses in waveform = 28

Type 5 Radar Waveform_10

Waveform Num = 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	27433	1	13	90	1595	0	0	27433	0	631578
2	642591	1	5	75	1667	0	0	671619	631579	1263157
3	943035	3	13	70	1188	1918	1614	1616321	1263158	1894736
4	511305	2	10	55	1824	1681	0	2132346	1894737	2526315
5	913638	3	6	55	1606	1943	1146	3049489	2526316	3157894
6	403629	1	20	60	1296	0	0	3457813	3157895	3789473
7	616668	2	8	75	1892	1420	0	4075777	3789474	4421052
8	703041	2	12	100	1561	1627	0	4782130	4421053	5052631
9	713193	3	20	55	1105	1995	1838	5498511	5052632	5684210
10	443122	1	12	70	1987	0	0	5946571	5684211	6315789
11	378153	1	10	65	1108	0	0	6326711	6315790	6947368
12	1066081	2	16	70	1855	1548	0	7393900	6947369	7578947
13	501002	3	18	100	1011	1780	1789	7898305	7578948	8210526
14	829620	1	13	55	1743	0	0	8732505	8210527	8842105
15	187362	3	17	75	1163	1749	1356	8921610	8842106	9473684
16	943798	3	7	100	1270	1983	1057	9869676	9473685	10105263
17	824281	1	14	70	1563	0	0	10698267	10105264	10736842
18	158781	3	13	65	1467	1600	1330	10858611	10736843	11368421
19	720941	1	16	50	1341	0	0	11583949	11368422	12000000

Total number of pulses in waveform = 37



Type 5 Radar Waveform_11

Waveform Num = 11
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	323647	2	15	85	1648	1170	0	323647	0	705881
2	699520	3	13	70	1980	1494	1412	1025985	705882	1411763
3	630545	2	8	100	1069	1963	0	1661416	1411764	2117645
4	497674	3	9	80	1067	1246	1048	2162122	2117646	2823527
5	1357533	2	20	75	1970	1287	0	3523016	2823528	3529409
6	194528	1	15	55	1125	0	0	3720801	3529410	4235291
7	734621	2	8	85	1366	1608	0	4456547	4235292	4941173
8	956376	3	13	55	1095	1935	1163	5415897	4941174	5647055
9	629610	1	8	70	1561	0	0	6049700	5647056	6352937
10	989943	2	8	55	1611	1484	0	7041204	6352938	7058819
11	275962	2	7	55	1295	1121	0	7320261	7058820	7764701
12	920822	2	10	50	1818	1682	0	8243499	7764702	8470583
13	447554	2	6	85	1476	1483	0	8694553	8470584	9176465
14	1153523	1	15	70	1385	0	0	9851035	9176466	9882347
15	497419	3	15	95	1524	1093	1291	10349839	9882348	10588229
16	771373	2	19	55	1585	1934	0	11125120	10588230	11294111
17	472826	1	11	85	1496	0	0	11601465	11294112	11999993

Total number of pulses in waveform = 34

Type 5 Radar Waveform_12

Waveform Num = 12
Num of Bursts = 17
Burst Interval (us) = 705882

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	695131	1	11	90	1927	0	0	695131	0	705881
2	407654	1	9	100	1416	0	0	1104712	705882	1411763
3	905658	3	6	85	1753	1677	1165	2011786	1411764	2117645
4	681139	2	18	90	1367	1615	0	2697520	2117646	2823527
5	689240	1	19	55	1270	0	0	3389742	2823528	3529409
6	769040	2	5	60	1570	1851	0	4160052	3529410	4235291
7	593275	2	5	65	1119	1948	0	4756748	4235292	4941173
8	347842	2	7	95	1190	1155	0	5107657	4941174	5647055
9	1085317	2	18	60	1939	1838	0	6195319	5647056	6352937
10	298686	3	13	100	1159	1012	1125	6497782	6352938	7058819
11	892097	2	12	70	1566	1229	0	7393175	7058820	7764701
12	1048663	1	5	60	1517	0	0	8444633	7764702	8470583
13	561916	2	14	80	1686	1303	0	9008066	8470584	9176465
14	551853	2	16	80	1086	1301	0	9562908	9176466	9882347
15	697671	2	19	75	1845	1059	0	10262966	9882348	10588229
16	881356	2	18	60	1929	1954	0	11147226	10588230	11294111
17	682737	3	6	85	1032	1235	1551	11833846	11294112	11999993

Total number of pulses in waveform = 33

Type 5 Radar Waveform_13

Waveform Num = 13
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	239153	3	20	55	1776	1012	1700	239153	0	631578
2	995713	1	6	85	1825	0	0	1239354	631579	1263157
3	553370	2	11	70	1093	1636	0	1794549	1263158	1894736
4	310427	2	7	65	1277	1842	0	2107705	1894737	2526315
5	793381	3	15	70	1427	1218	1105	2904205	2526316	3157894
6	827581	3	12	65	1279	1908	1111	3735536	3157895	3789473
7	161930	1	14	60	1316	0	0	3901764	3789474	4421052
8	836534	1	15	70	1088	0	0	4739614	4421053	5052631
9	632784	3	5	70	1003	1413	1244	5373486	5052632	5684210
10	568233	2	5	60	1069	1422	0	5945379	5684211	6315789
11	773419	3	15	90	1293	1698	1617	6721289	6315790	6947368
12	491311	2	6	65	1134	1895	0	7217208	6947369	7578947
13	555934	1	10	75	1884	0	0	7776171	7578948	8210526
14	692473	2	15	70	1766	1293	0	8470528	8210527	8842105
15	615250	2	7	60	1718	1014	0	9088837	8842106	9473684
16	845470	2	8	85	1371	1956	0	9937039	9473685	10105263
17	190858	2	20	65	1621	1176	0	10131224	10105264	10736842
18	648135	1	16	70	1020	0	0	10782156	10736843	11368421
19	908143	3	18	65	1390	1261	1430	11691319	11368422	12000000

Total number of pulses in waveform = 39



Type 5 Radar Waveform_14

Waveform Num = 14
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	849566	2	9	85	1022	1658	0	849566	0	999999
2	1131419	3	5	65	1402	1286	1042	1983665	1000000	1999999
3	118097	1	10	80	1020	0	0	2105492	2000000	2999999
4	1044994	3	15	65	1803	1074	1458	3151506	3000000	3999999
5	1105204	1	12	75	1683	0	0	4261045	4000000	4999999
6	926301	3	19	55	1730	1695	1145	5189029	5000000	5999999
7	961400	2	19	90	1065	1241	0	6154999	6000000	6999999
8	1719073	1	16	80	1453	0	0	7876378	7000000	7999999
9	224534	3	13	55	1673	1402	1536	8102365	8000000	8999999
10	1530750	3	13	100	1831	1896	1968	9637726	9000000	9999999
11	772929	3	13	90	1071	1242	1787	10416350	10000000	10999999
12	876240	2	15	70	1274	1071	0	11296690	11000000	11999999

Total number of pulses in waveform = 27

Type 5 Radar Waveform_15

Waveform Num = 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	909896	1	14	70	1964	0	0	909896	0	1090908
2	1118770	1	16	90	1060	0	0	2030630	1090909	2181817
3	735532	1	20	75	1170	0	0	2767222	2181818	3272726
4	1150458	2	8	70	1753	1449	0	3918850	3272727	4363635
5	809856	1	12	90	1420	0	0	4731908	4363636	5454544
6	1584189	1	9	85	1744	0	0	6317517	5454545	6545453
7	1136926	3	6	85	1876	1489	1252	7456187	6545454	7636362
8	794499	2	20	95	1745	1310	0	8255303	7636363	8727271
9	1435923	2	20	60	1623	1334	0	9694281	8727272	9818180
10	892460	1	5	100	1756	0	0	10589698	9818181	10909089
11	907806	3	20	90	1729	1938	1378	11499260	10909090	11999998

Total number of pulses in waveform = 18

Type 5 Radar Waveform_16

Waveform Num = 16
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	161160	2	15	85	1928	1258	0	161160	0	923076
2	1410530	2	18	80	1710	1808	0	1574876	923077	1846153
3	694573	2	13	80	1970	1437	0	2272967	1846154	2769230
4	1189108	3	14	60	1844	1980	1217	3465482	2769231	3692307
5	1100609	3	9	90	1597	1817	1982	4571132	3692308	4615384
6	112217	3	11	100	1033	1442	1115	4688745	4615385	5538461
7	1520823	1	7	100	1876	0	0	6213158	5538462	6461538
8	1020304	3	18	70	1920	1058	1190	7235338	6461539	7384615
9	787831	3	20	55	1297	1838	1179	8027337	7384616	8307692
10	858031	1	12	75	1418	0	0	8889682	8307693	9230769
11	1246268	2	18	100	1114	1103	0	10137368	9230770	10153846
12	583054	1	12	80	1680	0	0	10722639	10153847	11076923
13	902164	1	9	90	1495	0	0	11626483	11076924	12000000

Total number of pulses in waveform = 27



Type 5 Radar Waveform_17

```

Waveform Num = 17
Num of Bursts = 20
Burst Interval (us)= 600000

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Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	653441	3	19	100	1281	1999	1548	286939	0	599999
2	286939	3	10	80	1695	1603	1261	945208	600000	1199999
3	312929	2	11	55	1477	1507	0	1262696	1200000	1799999
4	375724	2	13	90	1638	1500	0	2141404	1800000	2399999
5	344793	1	10	60	1614	0	0	2489335	2400000	2999999
6	541071	3	11	75	1915	1311	1536	3032020	3000000	3599999
7	959172	2	14	50	1169	1960	0	3995954	3600000	4199999
8	257412	2	12	85	1864	1324	0	4256495	4200000	4799999
9	1127519	1	12	75	1526	0	0	5387202	4800000	5399999
10	432047	1	14	50	1286	0	0	5820775	5400000	5999999
11	493433	2	8	100	1701	1830	0	6315494	6000000	6599999
12	459390	3	13	95	1565	1966	1816	6778415	6600000	7199999
13	439632	1	8	100	1312	0	0	7223394	7200000	7799999
14	1027215	1	14	50	1385	0	0	8251921	7800000	8399999
15	375001	2	7	50	1923	1700	0	8628307	8400000	8999999
16	373688	3	8	55	1272	1469	1995	9005618	9000000	9599999
17	656853	2	12	60	1653	1513	0	9667207	9600000	10199999
18	696134	2	19	70	1136	1907	0	10366507	10200000	10799999
19	702375	1	9	50	1801	0	0	11071925	10800000	11399999
20	798313	3	7	90	1058	1128	1457	11872039	11400000	11999999

Total number of pulses in waveform = 40

Type 5 Radar Waveform_18

```

Waveform Num = 19
Num of Bursts = 11
Burst Interval (us)= 1090909

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Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	224479	2	13	70	1577	1539	0	224479	0	1090908
2	1023663	3	5	85	1458	1425	1327	1251258	1090909	2181817
3	937713	1	12	90	1191	0	0	2193181	2181818	3272726
4	1386014	1	8	95	1489	0	0	3580386	3272727	4363635
5	1307559	2	8	90	1847	1806	0	4889434	4363636	5454544
6	1188676	3	10	65	1055	1184	1211	6081763	5454545	6545453
7	1257768	1	20	80	1627	0	0	7342981	6545454	7636362
8	376432	3	15	70	1586	1169	1275	7721040	7636363	8727271
9	1283099	1	7	75	1972	0	0	9008169	8727272	9818180
10	912104	2	16	65	1213	1883	0	9922245	9818181	10909089
11	1319536	2	7	85	1718	1570	0	11244877	10909090	11999998

Total number of pulses in waveform = 21

Type 5 Radar Waveform_19

```

Waveform Num = 19
Num of Bursts = 11
Burst Interval (us)= 1090909

```

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	224479	2	13	70	1577	1539	0	224479	0	1090908
2	1023663	3	5	85	1458	1425	1327	1251258	1090909	2181817
3	937713	1	12	90	1191	0	0	2193181	2181818	3272726
4	1386014	1	8	95	1489	0	0	3580386	3272727	4363635
5	1307559	2	8	90	1847	1806	0	4889434	4363636	5454544
6	1188676	3	10	65	1055	1184	1211	6081763	5454545	6545453
7	1257768	1	20	80	1627	0	0	7342981	6545454	7636362
8	376432	3	15	70	1586	1169	1275	7721040	7636363	8727271
9	1283099	1	7	75	1972	0	0	9008169	8727272	9818180
10	912104	2	16	65	1213	1883	0	9922245	9818181	10909089
11	1319536	2	7	85	1718	1570	0	11244877	10909090	11999998

Total number of pulses in waveform = 21



Type 5 Radar Waveform_20

Waveform Num = 20
Num of Bursts = 8
Burst Interval (us)= 1500000

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	1169654	1	5	50	1101	0	0	1169654	0	1499999
2	1572826	1	16	60	1707	0	0	2743581	1500000	2999999
3	1547598	2	6	90	1132	1721	0	4292886	3000000	4499999
4	1195126	1	18	50	1609	0	0	5490865	4500000	5999999
5	1595810	1	19	90	1740	0	0	7088284	6000000	7499999
6	1077361	3	5	55	1523	1209	1415	8167385	7500000	8999999
7	1956056	1	18	80	1547	0	0	10127588	9000000	10499999
8	996204	1	14	70	1925	0	0	11125339	10500000	11999999

Total number of pulses in waveform = 11

Type 5 Radar Waveform_21

Waveform Num = 21
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	512828	3	6	90	1656	1580	1126	512828	0	1090908
2	1646151	2	18	90	1503	1801	0	2163341	1090909	2181817
3	1096564	3	17	75	1667	1101	1579	3263209	2181818	3272726
4	638933	2	16	65	1036	1808	0	3906489	3272727	4363635
5	483496	3	6	75	1222	1973	1298	4392829	4363636	5454544
6	2021697	2	13	85	1311	1793	0	6419019	5454545	6545453
7	758798	1	5	95	1878	0	0	7180921	6545454	7636362
8	1155927	3	9	55	1098	1061	1999	8338726	7636363	8727271
9	591726	2	19	70	1966	1532	0	8934610	8727272	9818180
10	1361615	3	5	65	1123	1196	1654	10299723	9818181	10909089
11	635710	1	6	60	1732	0	0	10939406	10909090	11999998

Total number of pulses in waveform = 25

Type 5 Radar Waveform_22

Waveform Num = 22
Num of Bursts = 16
Burst Interval (us)= 750000

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	360145	3	15	50	1600	1780	1803	360145	0	749999
2	900783	3	10	60	1229	1967	1332	1266111	750000	1499999
3	384032	3	8	100	1578	1623	1813	1654671	1500000	2249999
4	808411	1	13	95	1856	0	0	2468096	2250000	2999999
5	1221962	1	20	75	1905	0	0	3691914	3000000	3749999
6	765220	3	8	95	1556	1303	1866	4459039	3750000	4499999
7	84088	3	13	65	1474	1253	1475	4547852	4500000	5249999
8	835742	3	20	70	1453	1087	1463	5387796	5250000	5999999
9	862996	2	16	60	1152	1069	0	6254795	6000000	6749999
10	1055065	3	17	65	1274	1279	1363	7312081	6750000	7499999
11	236127	3	8	95	1765	1915	1952	7552124	7500000	8249999
12	1262229	3	16	80	1399	1804	1971	8819985	8250000	8999999
13	789880	1	12	55	1965	0	0	9615039	9000000	9749999
14	826114	1	5	75	1985	0	0	10443118	9750000	10499999
15	557219	3	20	50	1294	1451	1463	11002322	10500000	11249999
16	809666	1	7	50	1055	0	0	11816196	11250000	11999999

Total number of pulses in waveform = 37



Type 5 Radar Waveform_23

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Waveform Num = 23
Num of Bursts = 17
Burst Interval (us)= 705882

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Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	576164	2	13	70	1834	1488	0	576164	0	705881
2	169137	3	16	75	1804	1977	1536	748623	705882	1411763
3	1046233	2	16	65	1652	1086	0	1800173	1411764	2117645
4	626408	1	11	85	1835	0	0	2429319	2117646	2823527
5	551955	2	14	100	1572	1229	0	2983109	2823528	3529409
6	1039382	1	8	75	1001	0	0	4025292	3529410	4235291
7	771520	3	18	50	1218	1681	1762	4797813	4235292	4941173
8	410696	3	17	75	1019	1455	1973	5213170	4941174	5647055
9	495465	3	19	75	1680	1710	1816	5713082	5647056	6352937
10	1138856	3	8	50	1355	1124	1809	6857144	6352938	7058819
11	315898	1	6	90	1301	0	0	7177330	7058820	7764701
12	1101273	3	15	85	1576	1415	1829	8279904	7764702	8470583
13	729769	3	18	85	1717	1222	1539	9014493	8470584	9176465
14	348500	2	12	80	1097	1038	0	9367471	9176466	9882347
15	764112	3	5	90	1715	1541	1077	10133718	9882348	10588229
16	665464	1	19	65	1026	0	0	10803515	10588230	11294111
17	692336	2	13	75	1575	1007	0	11496877	11294112	11999993

Total number of pulses in waveform = 38

Type 5 Radar Waveform_24

```

Waveform Num = 24
Num of Bursts = 13
Burst Interval (us)= 923077

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Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	715158	2	13	80	1269	1906	0	715158	0	923076
2	850902	1	8	50	1770	0	0	1569235	923077	1846153
3	512886	3	11	100	1525	1841	1425	2083891	1846154	2769230
4	879560	2	14	55	1795	1231	0	2968242	2769231	3692307
5	760035	1	6	50	1872	0	0	3731303	3692308	4615384
6	922870	1	20	50	1211	0	0	4656045	4615385	5538461
7	883833	2	7	70	1275	1379	0	5541089	5538462	6461538
8	1333354	1	9	70	1304	0	0	6877097	6461539	7384615
9	1348474	3	11	80	1694	1551	1272	8226875	7384616	8307692
10	134100	2	11	50	1457	1283	0	8365492	8307693	9230769
11	1502221	2	6	95	1202	1791	0	9870453	9230770	10153846
12	1149306	3	15	80	1816	1096	1710	11022752	10153847	11076923
13	207397	3	5	75	1966	1428	1684	11234771	11076924	12000000

Total number of pulses in waveform = 26

Type 5 Radar Waveform_25

```

Waveform Num = 25
Num of Bursts = 11
Burst Interval (us)= 1090909

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Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	891880	3	8	75	1079	1874	1492	891880	0	1090908
2	418703	3	5	95	1060	1001	1454	1315028	1090909	2181817
3	1324072	3	18	95	1367	1407	1070	2642615	2181818	3272726
4	1641194	1	8	70	1564	0	0	4287653	3272727	4363635
5	966995	1	15	60	1912	0	0	5256212	4363636	5454544
6	312051	2	8	100	1964	1789	0	5570175	5454545	6545453
7	1805468	3	11	55	1004	1241	1397	7379396	6545454	7636362
8	281607	3	5	65	1073	1772	1902	7664645	7636363	8727271
9	1591979	2	20	85	1898	1697	0	9261371	8727272	9818180
10	1584872	2	15	65	1510	1098	0	10849838	9818181	10909089
11	309860	3	17	80	1740	1921	1320	11162306	10909090	11999998

Total number of pulses in waveform = 26



Type 5 Radar Waveform_26

Waveform Num = 26
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	530574	1	12	75	1745	0	0	530574	0	923076
2	901629	3	16	70	1131	1195	1845	1433948	923077	1846153
3	1300223	3	8	50	1892	1914	1249	2738347	1846154	2769230
4	318956	3	17	60	1807	1403	1884	3062358	2769231	3692307
5	1121785	1	14	70	1675	0	0	4189237	3692308	4615384
6	678320	1	9	60	1934	0	0	4869232	4615385	5538461
7	1358178	1	20	90	1593	0	0	6229344	5538462	6461538
8	651065	2	19	50	1352	1302	0	6882002	6461539	7384615
9	673438	1	20	75	1020	0	0	7558094	7384616	8307692
10	1653536	1	9	55	1515	0	0	9212650	8307693	9230769
11	131670	3	20	100	1214	1430	1940	9345835	9230770	10153846
12	1362742	3	12	55	1809	1187	1609	10713161	10153847	11076923
13	1169772	1	6	90	1968	0	0	11887538	11076924	12000000

Total number of pulses in waveform = 24

Type 5 Radar Waveform_27

Waveform Num = 27
Num of Bursts = 16
Burst Interval (us)= 750000

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	174522	3	8	80	1257	1801	1574	174522	0	749999
2	816527	3	11	90	1686	1134	1276	995681	750000	1499999
3	636489	3	10	60	1040	1246	1226	1636266	1500000	2249999
4	1241973	2	19	100	1316	1573	0	2881751	2250000	2999999
5	469499	2	14	75	1914	1802	0	3354139	3000000	3749999
6	396977	2	6	60	1768	1994	0	3754832	3750000	4499999
7	1143210	2	20	60	1002	1115	0	4901804	4500000	5249999
8	460460	3	20	85	1851	1367	1769	5364381	5250000	5999999
9	1368467	3	17	95	1119	1707	1630	6737835	6000000	6749999
10	263299	3	13	55	1466	1733	1918	7005590	6750000	7499999
11	1179488	1	6	60	1116	0	0	8190195	7500000	8249999
12	750562	3	9	80	1889	1641	1416	8941873	8250000	8999999
13	725227	1	6	75	1908	0	0	9672046	9000000	9749999
14	513971	2	15	70	1012	1884	0	10187925	9750000	10499999
15	797461	2	5	55	1088	1321	0	10988282	10500000	11249999
16	968402	1	14	95	1991	0	0	11959093	11250000	11999999

Total number of pulses in waveform = 36

Type 5 Radar Waveform_28

Waveform Num = 28
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	1181388	3	7	90	1997	1307	1319	1181388	0	1333332
2	1231933	1	19	75	1474	0	0	2417944	1333333	2666665
3	694825	1	13	60	1782	0	0	3114243	2666666	3999998
4	1711433	3	10	80	1340	1534	1305	4827458	3999999	5333331
5	1755418	3	12	70	1435	1858	1568	6587055	5333332	6666664
6	640674	3	9	60	1192	1689	1084	7232590	6666665	7999997
7	1610735	1	19	70	1556	0	0	8847290	7999998	9333330
8	724655	3	14	95	1328	1619	1021	9573501	9333331	10666663
9	2063817	1	7	90	1327	0	0	11641286	10666664	11999996

Total number of pulses in waveform = 19



Type 5 Radar Waveform_29

Waveform Num = 29
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	866627	2	13	55	1081	1892	0	866627	0	1090908
2	1207752	2	17	90	1622	1792	0	2077352	1090909	2181817
3	1039772	2	12	75	1584	1585	0	3120538	2181818	3272726
4	153868	2	9	80	1200	1032	0	3277575	3272727	4363635
5	2008399	2	10	95	1990	1603	0	5288206	4363636	5454544
6	859106	1	7	50	1200	0	0	6150905	5454545	6545453
7	949790	1	8	70	1570	0	0	7101895	6545454	7636362
8	1530339	3	5	80	1289	1991	1831	8633804	7636363	8727271
9	126378	2	6	75	1325	1288	0	8765293	8727272	9818180
10	1874841	1	14	100	1134	0	0	10642747	9818181	10909089
11	646770	3	13	80	1032	1451	1505	11290651	10909090	11999998

Total number of pulses in waveform = 21

Type 5 Radar Waveform_30

Waveform Num = 30
Num of Bursts = 9
Burst Interval (us)= 1333333

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	862209	2	10	95	1641	1764	0	862209	0	1333332
2	1695328	1	8	75	1936	0	0	2560942	1333333	2666665
3	240181	2	20	100	1144	1110	0	2803059	2666666	3999998
4	2231046	1	19	60	1072	0	0	5036359	3999999	5333331
5	786334	2	11	75	1467	1802	0	5823765	5333332	6666664
6	1543893	2	18	95	1895	1029	0	7370927	6666665	7999997
7	1861536	1	14	65	1307	0	0	9235387	7999998	9333330
8	346901	3	11	80	1922	1401	1117	9583595	9333331	10666663
9	1185572	1	11	65	1108	0	0	10773607	10666664	11999996

Total number of pulses in waveform = 15

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	5328	1	16	5328	1
2	5328	1	17	5328	1
3	5328	1	18	5328	1
4	5328	1	19	5328	1
5	5328	1	20	5328	1
6	5328	1	21	5328	1
7	5328	1	22	5328	1
8	5328	1	23	5328	1
9	5328	1	24	5328	1
10	5328	1	25	5328	1
11	5328	1	26	5328	1
12	5328	1	27	5328	1
13	5328	1	28	5328	1
14	5328	1	29	5328	1
15	5328	1	30	5328	1
Detection Percentage (%)					100%

Radar waveform #1			Radar waveform #2		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
4	5315	12	13	5327	39
7	5330	21	23	5319	69
11	5331	33	46	5336	138
14	5320	42	50	5359	150
35	5337	105	57	5351	171
53	5322	159	65	5353	195
61	5325	183	83	5304	249
72	5358	216	86	5303	258
90	5351	270	99	5330	297
92	5327	276	--	--	--
96	5306	288	--	--	--

Radar waveform #3			Radar waveform #4		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
15	5317	45	6	5313	18
23	5310	69	9	5308	27
25	5338	75	33	5331	99
30	5309	90	36	5324	108
31	5335	93	45	5305	135
32	5323	96	48	5333	144
38	5299	114	51	5351	153
46	5325	138	71	5300	213
52	5351	156	78	5301	234
54	5326	162	87	5316	261
56	5350	168	96	5328	288
64	5318	192	--	--	--
69	5348	207	--	--	--
81	5344	243	--	--	--
84	5358	252	--	--	--

Radar waveform #5			Radar waveform #6		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
1	5329	3	7	5343	21
3	5336	9	8	5321	24
4	5328	12	20	5353	60
6	5342	18	33	5330	99
10	5348	30	35	5322	105
14	5347	42	38	5350	114
18	5332	54	51	5356	153
23	5314	69	81	5333	243
71	5358	213	99	5303	297
77	5299	231	--	--	--
78	5310	234	--	--	--
79	5352	237	--	--	--
89	5308	267	--	--	--
97	5324	291	--	--	--

Radar waveform #7			Radar waveform #8		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
4	5305	12	3	5308	9
6	5337	18	23	5350	69
9	5348	27	26	5313	78
10	5306	30	28	5355	84
22	5351	66	29	5305	87
25	5339	75	32	5309	96
26	5307	78	35	5302	105
37	5302	111	47	5327	141
38	5331	114	50	5330	150
47	5323	141	53	5348	159
54	5313	162	54	5359	162
58	5320	174	56	5353	168
83	5338	249	57	5356	171
92	5328	276	71	5329	213
93	5310	279	73	5332	219
--	--	--	75	5345	225
--	--	--	77	5328	231
--	--	--	78	5318	234
--	--	--	86	5326	258
--	--	--	90	5337	270
--	--	--	97	5343	291
--	--	--	98	5301	294
--	--	--	99	5317	297

Radar waveform #9			Radar waveform #10		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
6	5353	18	12	5315	36
13	5355	39	40	5351	120
18	5337	54	43	5328	129
20	5309	60	62	5307	186
22	5358	66	98	5325	294
33	5315	99	99	5331	297
41	5332	123	--	--	--
43	5314	129	--	--	--
48	5339	144	--	--	--
54	5356	162	--	--	--
56	5306	168	--	--	--
58	5341	174	--	--	--
59	5335	177	--	--	--
64	5354	192	--	--	--
78	5342	234	--	--	--
89	5350	267	--	--	--
93	5299	279	--	--	--
96	5316	288	--	--	--

Radar waveform #11			Radar waveform #12		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
1	5327	3	15	5355	45
6	5302	18	18	5306	54
14	5311	42	23	5325	69
24	5356	72	42	5324	126
27	5330	81	51	5352	153
33	5308	99	52	5350	156
38	5340	114	70	5309	210
43	5305	129	72	5332	216
54	5352	162	76	5354	228
75	5307	225	78	5353	234
83	5318	249	80	5342	240
87	5319	261	94	5318	282
91	5333	273	95	5302	285
95	5325	285	--	--	--
99	5338	297	--	--	--

Radar waveform #13			Radar waveform #14		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
2	5302	6	8	5302	24
10	5354	30	13	5323	39
30	5346	90	41	5359	123
38	5305	114	48	5332	144
42	5318	126	53	5313	159
67	5317	201	54	5338	162
69	5348	207	64	5312	192
73	5301	219	66	5345	198
79	5344	237	71	5358	213
88	5328	264	74	5301	222
91	5324	273	85	5318	255
93	5316	279	89	5337	267
94	5325	282	91	5341	273
96	5333	288	95	5336	285
98	5343	294	--	--	--

Radar waveform #15			Radar waveform #16		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
4	5322	12	1	5337	3
9	5354	27	5	5303	15
13	5318	39	28	5351	84
15	5314	45	30	5310	90
27	5328	81	35	5352	105
42	5315	126	37	5336	111
56	5348	168	43	5312	129
64	5331	192	59	5327	177
69	5344	207	60	5311	180
80	5308	240	64	5313	192
87	5336	261	85	5335	255
99	5329	297	87	5325	261
--	--	--	96	5320	288

Radar waveform #17			Radar waveform #18		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
5	5349	15	12	5357	36
33	5319	99	17	5317	51
37	5352	111	25	5303	75
44	5326	132	28	5342	84
51	5304	153	36	5316	108
55	5310	165	38	5320	114
56	5328	168	39	5330	117
65	5313	195	67	5349	201
72	5345	216	72	5355	216
73	5316	219	74	5326	222
78	5318	234	76	5344	228
82	5299	246	83	5312	249
84	5302	252	97	5339	291
89	5358	267	--	--	--
93	5339	279	--	--	--

Radar waveform #19			Radar waveform #20		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
20	5348	60	0	5326	0
22	5320	66	19	5346	57
35	5323	105	27	5329	81
50	5325	150	42	5328	126
61	5355	183	44	5308	132
69	5330	207	56	5343	168
74	5319	222	57	5331	171
76	5300	228	59	5353	177
78	5322	234	62	5301	186
79	5354	237	64	5335	192
97	5327	291	81	5317	243
--	--	--	82	5319	246
--	--	--	83	5344	249
--	--	--	84	5345	252
--	--	--	87	5350	261
--	--	--	96	5327	288

Radar waveform #21			Radar waveform #22		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
1	5358	3	6	5300	18
4	5301	12	36	5333	108
30	5337	90	38	5310	114
40	5324	120	40	5306	120
47	5314	141	46	5317	138
48	5340	144	52	5346	156
61	5318	183	56	5353	168
72	5311	216	66	5314	198
78	5300	234	67	5308	201
79	5342	237	76	5323	228
81	5341	243	78	5301	234
89	5348	267	84	5303	252
93	5310	279	88	5334	264
95	5356	285	90	5312	270

Radar waveform #23			Radar waveform #24		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
12	5325	36	12	5311	36
21	5307	63	23	5332	69
35	5303	105	27	5335	81
47	5332	141	29	5304	87
58	5347	174	32	5316	96
63	5342	189	74	5333	222
64	5333	192	82	5352	246
65	5338	195	95	5345	285
78	5317	234	97	5354	291
84	5315	252	99	5331	297
93	5334	279	--	--	--
94	5337	282	--	--	--

Radar waveform #25			Radar waveform #26		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
17	5355	51	2	5358	6
21	5315	63	33	5316	99
22	5301	66	54	5349	162
26	5318	78	59	5342	177
34	5322	102	60	5310	180
39	5345	117	75	5315	225
44	5342	132	94	5338	282
46	5329	138	--	--	--
56	5313	168	--	--	--
58	5353	174	--	--	--
59	5339	177	--	--	--
66	5341	198	--	--	--
87	5299	261	--	--	--
91	5324	273	--	--	--
93	5352	279	--	--	--

Radar waveform #27			Radar waveform #28		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
12	5324	36	5	5346	15
16	5320	48	24	5341	72
27	5308	81	29	5355	87
32	5301	96	33	5347	99
40	5312	120	38	5343	114
42	5333	126	55	5353	165
53	5352	159	58	5351	174
77	5353	231	83	5326	249
81	5337	243	93	5304	279
91	5315	273	98	5316	294
92	5341	276	--	--	--
93	5313	279	--	--	--
95	5351	285	--	--	--

Radar waveform #29			Radar waveform #30		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
5	5346	15	3	5312	9
24	5341	72	14	5302	42
29	5355	87	20	5335	60
33	5347	99	40	5336	120
38	5343	114	63	5348	189
55	5353	165	73	5352	219
58	5351	174	74	5316	222
83	5326	249	80	5347	240
93	5304	279	81	5325	243
98	5316	294	82	5308	246
--	--	--	84	5334	252

Radar Statistical Performance for 802.11ac-VHT80

Radar Type 1 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5253	1	718	74	1
2	5253	1	878	61	1
3	5253	1	578	92	1
4	5253	1	818	65	1
5	5253	1	778	68	1
6	5253	1	758	70	1
7	5253	1	598	89	1
8	5253	1	918	58	1
9	5253	1	858	62	1
10	5253	1	798	67	1
11	5253	1	658	81	1
12	5253	1	678	78	1
13	5253	1	538	99	1
14	5253	1	638	83	1
15	5253	1	618	86	1
16	5253	1	2564	21	1
17	5253	1	2819	19	1
18	5253	1	1930	28	1
19	5253	1	1359	39	1
20	5253	1	1148	46	1
21	5253	1	728	73	1
22	5253	1	765	69	1
23	5253	1	2864	19	1
24	5253	1	2411	22	1
25	5253	1	1047	51	1
26	5253	1	1156	46	1
27	5253	1	2193	25	1
28	5253	1	648	82	1
29	5253	1	797	67	1
30	5253	1	667	80	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	5270	5.0	182	26	1
2	5270	4.9	170	24	1
3	5270	3.1	206	24	1
4	5270	4.8	165	27	1
5	5270	4.2	214	27	1
6	5270	2.1	167	24	1
7	5270	2.6	169	28	1
8	5270	2.9	167	28	1
9	5270	4.6	172	23	1
10	5270	1.3	215	29	1
11	5270	4.0	201	23	1
12	5270	3.4	153	26	1
13	5270	1.7	225	24	1
14	5270	4.7	162	24	1
15	5270	1.5	186	26	1
16	5270	3.9	164	23	1
17	5270	3.6	203	26	1
18	5270	3.6	195	29	1
19	5270	3.8	165	28	1
20	5270	2.1	220	28	1
21	5270	1.0	150	29	1
22	5270	2.1	215	27	1
23	5270	4.2	229	29	1
24	5270	1.0	155	27	1
25	5270	1.7	185	27	1
26	5270	3.5	185	25	1
27	5270	3.6	174	29	1
28	5270	3.8	196	25	1
29	5270	1.7	169	26	1
30	5270	1.2	181	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	5289	8.6	449	16	1
2	5289	9.7	405	16	1
3	5289	6.6	406	18	1
4	5289	10.0	253	16	1
5	5289	7.2	343	17	1
6	5289	8.5	291	17	1
7	5289	7.4	303	17	1
8	5289	8.3	438	17	1
9	5289	9.9	455	16	1
10	5289	8.6	461	18	1
11	5289	8.8	449	18	1
12	5289	9.5	400	17	1
13	5289	9.9	345	17	1
14	5289	6.2	447	16	1
15	5289	6.6	346	18	1
16	5289	6.7	307	18	1
17	5289	8.3	344	18	1
18	5289	6.2	346	16	1
19	5289	7.2	280	18	1
20	5289	9.3	354	18	1
21	5289	7.8	424	18	1
22	5289	7.3	308	17	1
23	5289	7.7	461	16	1
24	5289	9.2	291	16	1
25	5289	7.8	335	17	1
26	5289	8.3	408	17	1
27	5289	6.3	251	18	1
28	5289	6.7	414	17	1
29	5289	7.8	361	18	1
30	5289	8.7	347	18	1
Detection Percentage (%)					100%

Radar Type 4 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5310	16.4	407	13	1
2	5310	19.1	402	12	1
3	5310	18.8	372	15	1
4	5310	15.9	340	12	1
5	5310	14.8	345	12	1
6	5310	12.4	482	14	1
7	5310	18.8	361	15	1
8	5310	14.8	470	16	1
9	5310	12.3	443	16	1
10	5310	17.2	374	12	1
11	5310	14.5	262	12	1
12	5310	17.1	320	16	1
13	5310	17.6	289	13	1
14	5310	18.5	395	12	1
15	5310	18.9	413	16	1
16	5310	18.7	455	16	1
17	5310	19.9	260	13	1
18	5310	13.9	341	15	1
19	5310	14.8	448	15	1
20	5310	11.5	493	15	1
21	5310	11.5	340	14	1
22	5310	17.3	455	13	1
23	5310	13.5	466	13	1
24	5310	13.0	276	13	1
25	5310	17.4	494	15	1
26	5310	17.5	357	13	1
27	5310	16.6	462	12	1
28	5310	11.6	386	15	1
29	5310	18.5	311	15	1
30	5310	18.4	414	15	1
Detection Percentage (%)					100%

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

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



Radar Type 5 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	1=Detection 0=No Detection	Trail #	Test Freq. (MHz)	1=Detection 0=No Detection
1	5260	1	16	5292	1
2	5262	1	17	5294	1
3	5264	1	18	5296	1
4	5266	1	19	5298	1
5	5268	1	20	5300	1
6	5270	1	21	5302	1
7	5272	1	22	5304	1
8	5274	1	23	5306	1
9	5276	1	24	5308	1
10	5278	1	25	5310	1
11	5280	1	26	5312	1
12	5282	1	27	5314	1
13	5284	1	28	5316	1
14	5286	1	29	5318	1
15	5290	1	30	5320	1
Detection Percentage (%)					100%

Type 5 Radar Waveform_1										
Waveform Num = 1										
Num of Bursts = 18										
Burst Interval (us)= 666667										
Burst #	Off Time (us)	# Pulses	Chirp (MHz)	FW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	375977	3	20	50	1653	1617	1678	375977	0	666666
2	697354	3	12	85	1665	1161	1114	1078279	666667	1333333
3	529789	3	15	95	1745	1608	1780	1612008	1333334	2000000
4	607519	3	7	60	1416	1107	1054	2224660	2000001	2666667
5	630577	2	11	60	1773	1794	0	2858814	2666668	3333334
6	698180	1	7	100	1882	0	0	3560561	3333335	4000001
7	470702	2	11	85	1993	1681	0	4033145	4000002	4666668
8	1294578	1	9	70	1764	0	0	5331397	4666669	5333335
9	499453	1	16	85	1674	0	0	5832614	5333336	6000002
10	792483	3	8	100	1829	1142	1754	6626771	6000003	6666669
11	452351	1	5	60	1551	0	0	7083847	6666670	7333336
12	896797	2	12	95	1138	1099	0	7982195	7333337	8000003
13	306125	3	7	100	1037	1136	1536	8290557	8000004	8666670
14	729463	3	18	100	1646	1185	1331	9023729	8666671	9333337
15	642645	1	20	55	1833	0	0	9670536	9333338	10000004
16	412576	2	5	95	1677	1631	0	10084945	10000005	10666671
17	674353	2	20	55	1423	1238	0	10762606	10666672	11333338
18	613452	3	11	100	1574	1108	1942	11378719	11333339	12000005
Total number of pulses in waveform = 39										



Type 5 Radar Waveform_2

Waveform Num = 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	1317805	2	19	70	1597	1482	0	1317805	0	1333332
2	994759	3	20	90	1345	1809	1675	2315643	1333333	2666665
3	1619440	1	14	60	1611	0	0	3939912	2666666	3999998
4	86884	3	9	80	1189	1416	1174	4028407	3999999	5333331
5	1565301	3	11	95	1995	1769	1127	5597487	5333332	6666664
6	1658994	3	10	50	1644	1149	1566	7261372	6666665	7999997
7	1198996	2	8	100	1127	1595	0	8464727	7999998	9333330
8	1207731	1	16	95	1610	0	0	9675180	9333331	10666663
9	2096643	3	10	65	1359	1293	1392	11773433	10666664	11999996

Total number of pulses in waveform = 21

Type 5 Radar Waveform_3

Waveform Num = 3
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	804475	2	13	75	1446	1854	0	804475	0	1090908
2	364236	1	7	50	1959	0	0	1172011	1090909	2181817
3	1213217	1	11	60	1710	0	0	2387187	2181818	3272726
4	1097728	3	11	65	1986	1553	1691	3486625	3272727	4363635
5	1940213	2	13	75	1838	1778	0	5432068	4363636	5454544
6	1095161	2	6	80	1847	1910	0	6530845	5454545	6545453
7	712186	2	20	60	1038	1825	0	7246788	6545454	7636362
8	1113727	3	16	60	1970	1285	1378	8363378	7636363	8727271
9	1283852	1	12	100	1495	0	0	9651863	8727272	9818180
10	219242	2	15	50	1902	1568	0	9872600	9818181	10909089
11	1933549	3	15	90	1133	1617	1541	11809619	10909090	11999998

Total number of pulses in waveform = 22

Type 5 Radar Waveform_4

Waveform Num = 4
Num of Bursts = 19
Burst Interval (us)= 631579

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	566511	3	16	70	1385	1617	1779	566511	0	631578
2	189736	1	10	50	1215	0	0	761028	631579	1263157
3	692877	1	14	50	1566	0	0	1454820	1263158	1894736
4	661515	3	13	65	1418	1332	1370	2117901	1894737	2526315
5	902639	3	8	90	1865	1189	1522	3024660	2526316	3157894
6	346192	2	20	70	1829	1032	0	3375428	3157895	3789473
7	489300	2	14	95	1713	1139	0	3867589	3789474	4421052
8	634623	3	12	60	1102	1646	1959	4505064	4421053	5052631
9	1114850	2	11	80	1965	1162	0	5624621	5052632	5684210
10	374427	1	5	65	1630	0	0	6002175	5684211	6315789
11	695351	3	15	80	1594	1983	1645	6699156	6315790	6947368
12	478979	2	8	95	1999	1137	0	7183357	6947369	7578947
13	707812	3	6	90	1493	1354	1512	7894305	7578948	8210526
14	542295	1	19	55	1893	0	0	8440959	8210527	8842105
15	529232	3	19	95	1037	1355	1350	8972084	8842106	9473684
16	1010923	1	12	95	1549	0	0	9986749	9473685	10105263
17	420334	1	15	80	1568	0	0	10408632	10105264	10736842
18	789359	2	13	50	1659	1640	0	11199559	10736843	11368421
19	712730	1	11	60	1845	0	0	11915588	11368422	12000000

Total number of pulses in waveform = 38



Type 5 Radar Waveform_5

Waveform Num = 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	1391096	2	6	90	1158	1317	0	1391096	0	1499999
2	649580	3	11	70	1311	1937	1212	2043151	1500000	2999999
3	1568095	2	12	60	1022	1054	0	3615706	3000000	4499999
4	1055522	1	18	85	1498	0	0	4673304	4500000	5999999
5	2369889	2	15	95	1555	1677	0	7044691	6000000	7499999
6	1042816	2	6	95	1718	1879	0	8090739	7500000	8999999
7	913922	1	20	90	1956	0	0	9008258	9000000	10499999
8	2395393	3	7	90	1023	1950	1789	11405607	10500000	11999999

Total number of pulses in waveform = 16

Type 5 Radar Waveform_6

Waveform Num = 6
Num of Bursts = 13
Burst Interval (us)= 923077

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	535514	2	13	95	1547	1282	0	535514	0	923076
2	878410	2	12	75	1141	1209	0	1416753	923077	1846153
3	1222717	2	20	65	1876	1867	0	2641820	1846154	2769230
4	827575	1	20	70	1554	0	0	3473138	2769231	3692307
5	602242	1	7	65	1258	0	0	4076934	3692308	4615384
6	1173583	3	11	60	1418	1358	1035	5251775	4615385	5538461
7	1128635	1	12	75	1065	0	0	6384221	5538462	6461538
8	569700	2	16	80	1030	1314	0	6954986	6461539	7384615
9	757768	3	12	80	1027	1594	1759	7715098	7384616	8307692
10	1402359	1	19	80	1104	0	0	9121837	8307693	9230769
11	805342	2	17	85	1807	1883	0	9928283	9230770	10153846
12	872420	2	6	55	1946	1997	0	10804393	10153847	11076923
13	402517	1	12	65	1664	0	0	11210853	11076924	12000000

Total number of pulses in waveform = 23

Type 5 Radar Waveform_7

Waveform Num = 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	548406	1	19	85	1146	0	0	548406	0	599999
2	445928	1	6	85	1071	0	0	995480	600000	1199999
3	785022	3	8	60	1088	1920	1750	1781573	1200000	1799999
4	463613	1	14	95	1006	0	0	2249944	1800000	2399999
5	679158	2	11	85	1330	1160	0	2930108	2400000	2999999
6	435172	3	5	95	1858	1133	1177	3367770	3000000	3599999
7	669061	1	10	85	1998	0	0	4040999	3600000	4199999
8	375045	3	12	100	1853	1680	1691	4418042	4200000	4799999
9	915301	2	13	80	1457	1165	0	5338567	4800000	5399999
10	113917	1	17	85	1526	0	0	5455106	5400000	5999999
11	1131864	1	11	55	1933	0	0	6588486	6000000	6599999
12	252923	3	9	50	1156	1298	1808	6843342	6600000	7199999
13	451812	2	11	100	1505	1684	0	7299416	7200000	7799999
14	683255	2	18	70	1077	1781	0	7985860	7800000	8399999
15	796789	3	14	75	1465	1803	1563	8785507	8400000	8999999
16	681758	1	7	95	1928	0	0	9472096	9000000	9599999
17	441562	2	16	80	1668	1463	0	9915586	9600000	10199999
18	323675	2	7	50	1801	1319	0	10242392	10200000	10799999
19	941256	1	15	85	1348	0	0	11186768	10800000	11399999
20	665960	1	14	75	1359	0	0	11854076	11400000	11999999

Total number of pulses in waveform = 36



Type 5 Radar Waveform_8

Waveform Num = 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	503822	2	14	75	1584	1185	0	503822	0	666666
2	365030	2	10	100	1523	1248	0	871621	666667	1333333
3	754879	2	16	80	1657	1087	0	1629271	1333334	2000000
4	377917	3	18	50	1091	1720	1116	2009932	2000001	2666667
5	718786	1	8	100	1653	0	0	2732645	2666668	3333334
6	1026060	2	9	75	1033	1511	0	3760358	3333335	4000001
7	703495	2	11	85	1442	1450	0	4466397	4000002	4666668
8	772322	2	19	55	1750	1357	0	5241611	4666669	5333335
9	102484	1	11	70	1076	0	0	5347202	5333336	6000002
10	683715	1	12	80	1528	0	0	6031993	6000003	6666669
11	832752	3	11	95	1360	1803	1694	6866273	6666670	7333336
12	462491	3	15	80	1355	1628	1601	7333621	7333337	8000003
13	700544	3	15	85	1106	1297	1889	8038749	8000004	8666670
14	931567	2	16	90	1800	1880	0	8974608	8666671	9333337
15	661801	2	18	75	1001	1223	0	9640089	9333338	10000004
16	453968	3	19	75	1503	1862	1997	10096281	10000005	10666671
17	1191164	2	18	80	1048	1146	0	11292807	10666672	11333338
18	455603	1	14	65	1343	0	0	11750604	11333339	12000005

Total number of pulses in waveform = 37

Type 5 Radar Waveform_9

Waveform Num = 9
 Num of Bursts = 11
 Burst Interval (us) = 1090909

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	423000	1	10	65	1480	0	0	423000	0	1090908
2	930501	2	10	100	1947	1237	0	1354981	1090909	2181817
3	1166402	3	19	95	1847	1714	1170	2524567	2181818	3272726
4	1112286	1	11	65	1067	0	0	3641584	3272727	4363635
5	1751503	2	13	75	1228	1470	0	5394154	4363636	5454544
6	606849	2	10	55	1904	1843	0	6003701	5454545	6545453
7	682719	1	8	75	1251	0	0	6690167	6545454	7636362
8	1723510	2	5	80	1909	1269	0	8414928	7636363	8727271
9	937489	3	18	80	1820	1455	1774	9355595	8727272	9818180
10	776603	2	9	55	1832	1736	0	10137247	9818181	10909089
11	1157630	3	8	65	1821	1135	1863	11298445	10909090	11999998

Total number of pulses in waveform = 22

Type 5 Radar Waveform_10

Waveform Num = 10
 Num of Bursts = 16
 Burst Interval (us) = 750000

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	68671	2	10	90	1126	1556	0	68671	0	749999
2	1206125	3	7	50	1054	1957	1219	1277478	750000	1499999
3	408981	3	9	60	1639	1179	1179	1690689	1500000	2249999
4	1082311	3	10	55	1784	1103	1145	2776997	2250000	2999999
5	638606	3	19	80	1984	1275	1380	3419635	3000000	3749999
6	347492	1	15	75	1967	0	0	3771766	3750000	4499999
7	927988	1	8	90	1245	0	0	4701721	4500000	5249999
8	1120738	3	17	90	1086	1555	1207	5823704	5250000	5999999
9	327598	2	11	95	1248	1823	0	6155150	6000000	6749999
10	1335684	1	14	60	1896	0	0	7493905	6750000	7499999
11	258035	3	10	60	1052	1037	1241	7753836	7500000	8249999
12	596859	2	6	80	1273	1984	0	8354025	8250000	8999999
13	859633	3	18	55	1274	1980	1535	9216915	9000000	9749999
14	616482	2	15	55	1906	1987	0	9838186	9750000	10499999
15	1400939	3	5	65	1306	1671	1287	11243018	10500000	11249999
16	563330	1	7	70	1653	0	0	11810612	11250000	11999999

Total number of pulses in waveform = 36



Type 5 Radar Waveform_11

Waveform Num = 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	161341	3	14	65	1062	1235	1527	161341	0	999999
2	1244310	3	6	95	1587	1653	1119	1409475	1000000	1999999
3	1425430	2	5	95	1047	1352	0	2839264	2000000	2999999
4	655409	2	10	50	1354	1511	0	3497072	3000000	3999999
5	1025736	1	17	85	1647	0	0	4525673	4000000	4999999
6	852258	1	20	60	1365	0	0	5379578	5000000	5999999
7	1587905	1	14	80	1628	0	0	6968848	6000000	6999999
8	873880	1	8	95	1115	0	0	7844356	7000000	7999999
9	1140723	3	13	90	1524	1932	1073	8986194	8000000	8999999
10	334324	3	7	85	1615	1830	1180	9325047	9000000	9999999
11	1502113	3	15	65	1328	1091	1756	10831785	10000000	10999999
12	984356	2	19	50	1299	1758	0	11820316	11000000	11999999

Total number of pulses in waveform = 25

Type 5 Radar Waveform_12

Waveform Num = 12
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	181711	1	13	70	1652	0	0	181711	0	1199999
2	1929766	2	6	75	1244	1309	0	2113129	1200000	2399999
3	1322239	1	16	55	1176	0	0	3437921	2400000	3599999
4	445093	3	14	70	1100	1890	1887	3884190	3600000	4799999
5	1622538	3	20	50	1168	1389	1589	5511605	4800000	5999999
6	721001	1	8	80	1282	0	0	6236752	6000000	7199999
7	1409831	1	13	80	1420	0	0	7647865	7200000	8399999
8	1569693	1	5	60	1917	0	0	9218978	8400000	9599999
9	413951	1	8	95	1537	0	0	9634846	9600000	10799999
10	1641761	1	18	100	1560	0	0	11278144	10800000	11999999

Total number of pulses in waveform = 15

Type 5 Radar Waveform_13

Waveform Num = 13
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	891800	2	16	60	1607	1571	0	891800	0	1199999
2	651833	2	9	90	1447	1449	0	1546811	1200000	2399999
3	1159873	1	13	95	1169	0	0	2709580	2400000	3599999
4	2034914	1	15	85	1032	0	0	4745663	3600000	4799999
5	926909	1	19	100	1180	0	0	5673604	4800000	5999999
6	566794	1	10	100	1539	0	0	6241578	6000000	7199999
7	1701921	1	16	55	1145	0	0	7945038	7200000	8399999
8	1065002	2	19	100	1689	1935	0	9011185	8400000	9599999
9	1226712	2	7	65	1130	1747	0	10241521	9600000	10799999
10	754399	2	10	70	1686	1621	0	10998797	10800000	11999999

Total number of pulses in waveform = 15



Type 5 Radar Waveform_14

Waveform Num = 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	324162	3	16	90	1437	1789	1719	324162	0	799999
2	638969	2	8	95	1618	1153	0	968076	800000	1599999
3	1307175	1	5	90	1026	0	0	2278022	1600000	2399999
4	663401	1	7	100	1862	0	0	2942449	2400000	3199999
5	457942	3	9	95	1507	1339	1095	3402253	3200000	3999999
6	1018857	3	6	100	1511	1751	1149	4425051	4000000	4799999
7	555757	3	5	90	1316	1660	1264	4985219	4800000	5599999
8	1237021	3	9	75	1908	1407	1519	6226480	5600000	6399999
9	451274	3	19	50	1322	1481	1658	6682588	6400000	7199999
10	519333	1	12	95	1781	0	0	7206382	7200000	7999999
11	835587	3	9	100	1105	1042	1991	8043750	8000000	8799999
12	1425017	2	13	100	1112	1149	0	9472905	8800000	9599999
13	832691	1	14	65	1074	0	0	10307857	9600000	10399999
14	774531	1	16	85	1729	0	0	11083462	10400000	11199999
15	342972	1	6	100	1389	0	0	11428163	11200000	11999999

Total number of pulses in waveform = 31

Type 5 Radar Waveform_15

Waveform Num = 15
Num of Bursts = 14
Burst Interval (us)= 857143

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	431477	2	14	65	1951	1512	0	431477	0	857142
2	990120	3	7	50	1083	1250	1254	1425060	857143	1714285
3	862195	2	20	90	1479	1389	0	2290842	1714286	2571428
4	897470	2	7	55	1277	1162	0	3191180	2571429	3428571
5	787270	2	18	60	1497	1825	0	3980889	3428572	4285714
6	365714	2	7	100	1287	1547	0	4349925	4285715	5142857
7	1151196	3	10	65	1171	1689	1147	5503955	5142858	6000000
8	573516	2	11	85	1501	1880	0	6081478	6000001	6857143
9	1096729	3	7	75	1626	1181	1530	7181588	6857144	7714286
10	923735	1	11	100	1744	0	0	8109660	7714287	8571429
11	853348	2	20	70	1784	1249	0	8964752	8571430	9428572
12	700124	3	10	100	1102	1639	1632	9667909	9428573	10285715
13	841727	1	6	90	1396	0	0	10514009	10285716	11142858
14	1286788	2	9	90	1882	1070	0	11802193	11142859	12000001

Total number of pulses in waveform = 30

Type 5 Radar Waveform_16

Waveform Num = 16
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	554642	1	20	90	1457	0	0	554642	0	631578
2	177991	1	11	1495	0	0	0	734090	631579	1263157
3	758132	2	7	50	1217	1207	0	1493717	1263158	1894736
4	770150	1	17	55	1333	0	0	2266291	1894737	2526315
5	280706	3	19	80	1110	1446	1211	2548330	2526316	3157894
6	630429	3	9	75	1130	1845	1957	3182526	3157895	3789473
7	991509	3	10	90	1191	1152	1116	4178967	3789474	4421052
8	557829	1	6	80	1681	0	0	4740255	4421053	5052631
9	554487	2	9	95	1722	1938	0	5296423	5052632	5684210
10	648464	3	6	75	1877	1595	1424	5948547	5684211	6315789
11	957152	2	8	50	1682	1018	0	6910595	6315790	6947368
12	602998	2	5	65	1031	1481	0	7516293	6947369	7578947
13	499608	1	13	85	1552	0	0	8018413	7578948	8210526
14	423315	3	6	90	1762	1062	1148	8443280	8210527	8842105
15	775831	3	11	80	1632	1362	1836	9223083	8842106	9473684
16	588742	1	15	85	1164	0	0	9816655	9473685	10105263
17	705836	2	8	70	1221	1298	0	10523655	10105264	10736842
18	663632	3	10	50	1173	1269	1143	11189806	10736843	11368421
19	625024	1	16	70	1506	0	0	11818415	11368422	12000000

Total number of pulses in waveform = 38



Type 5 Radar Waveform_17

Waveform Num = 17
Num of Bursts = 11
Burst Interval (us)= 1090909

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	1447379	3	7	100	1219	1897	1397	261997	0	1090908
2	783193	3	20	70	1648	1362	1571	1713889	1090909	2181817
3	1502237	2	13	50	1460	1532	0	2501663	2181818	3272726
4	702217	2	5	100	1072	1446	0	4006892	3272727	4363635
5	1167681	3	17	95	1791	1559	1911	4711627	4363636	5454544
6	1436837	2	8	85	1759	1077	0	5884569	5454545	6545453
7	1216614	3	19	65	1039	1248	1717	7324242	6545454	7636362
8	486700	2	9	55	1993	1978	0	8544860	7636363	8727271
9	1375239	1	15	65	1093	0	0	9035531	8727272	9818180
10	707661	2	14	65	1345	1590	0	10411863	9818181	10909089
11		3	6	80	1819	1467	1892	11122459	10909090	11999998

Total number of pulses in waveform = 26

Type 5 Radar Waveform_18

Waveform Num = 18
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	1427152	1	16	50	1585	0	0	1427152	0	1499999
2	1488176	2	16	80	1936	1555	0	2916913	1500000	2999999
3	931463	1	13	95	1023	0	0	3851867	3000000	4499999
4	1701806	3	12	95	1132	1635	1504	5554696	4500000	5999999
5	1542586	3	13	85	1674	1824	1308	7101553	6000000	7499999
6	972876	3	5	85	1922	1596	1511	8079235	7500000	8999999
7	1299349	2	12	80	1148	1184	0	9383613	9000000	10499999
8	1174307	3	19	75	1994	1724	1283	10560252	10500000	11999999

Total number of pulses in waveform = 18

Type 5 Radar Waveform_19

Waveform Num = 19
Num of Bursts = 11
Burst Interval (us)= 1090909

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	386415	3	14	90	1199	1082	1776	386415	0	1090908
2	1001030	2	8	90	1427	1669	0	1391502	1090909	2181817
3	858191	3	11	80	1995	1665	1566	2252789	2181818	3272726
4	1037583	1	14	85	1724	0	0	3295598	3272727	4363635
5	1692379	3	16	65	1308	1603	1865	4989701	4363636	5454544
6	913807	1	18	70	1797	0	0	5908284	5454545	6545453
7	914794	2	15	60	1426	1319	0	6824875	6545454	7636362
8	1622084	2	15	50	1499	1023	0	8449704	7636363	8727271
9	775558	1	5	100	1112	0	0	9227784	8727272	9818180
10	1201643	3	15	60	1361	1875	1449	10430539	9818181	10909089
11	1439468	1	10	100	1725	0	0	11874692	10909090	11999998

Total number of pulses in waveform = 22



Type 5 Radar Waveform_20

Waveform Num = 20
Num of Bursts = 15
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	640755	2	18	95	1921	1289	0	640755	0	749999
2	516519	2	19	75	1180	1180	0	1160484	750000	1499999
3	1055928	1	17	80	1884	0	0	2218772	1500000	2249999
4	573206	3	20	95	1893	1535	1076	2793862	2250000	2999999
5	367954	3	9	95	1209	1829	1522	3166320	3000000	3749999
6	837521	2	15	80	1755	1926	0	4008401	3750000	4499999
7	974724	2	11	75	1490	1584	0	4986806	4500000	5249999
8	394169	1	17	95	1598	0	0	5384049	5250000	5999999
9	729336	3	6	85	1898	1061	1434	6114983	6000000	6749999
10	765745	1	13	70	1437	0	0	6885121	6750000	7499999
11	1252074	1	16	50	1075	0	0	8138632	7500000	8249999
12	766014	3	11	100	1699	1445	1353	8905721	8250000	8999999
13	238715	2	9	75	1718	1286	0	9148933	9000000	9749999
14	1135236	1	12	65	1567	0	0	10287173	9750000	10499999
15	265750	2	7	90	1163	1067	0	10554490	10500000	11249999
16	1247027	1	11	60	1654	0	0	11803747	11250000	11999999

Total number of pulses in waveform = 30

Type 5 Radar Waveform_21

Waveform Num = 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	607255	2	5	80	1305	1997	0	607255	0	631578
2	608383	1	19	70	1313	0	0	1218940	631579	1263157
3	85481	1	19	60	1575	0	0	1305734	1263158	1894736
4	1012324	3	9	85	1473	1534	1232	2319633	1894737	2526315
5	472898	1	19	100	1320	0	0	2796770	2526316	3157894
6	496901	3	13	50	1819	1075	1622	3294991	3157895	3789473
7	1011957	1	18	65	1616	0	0	4311464	3789474	4421052
8	667377	2	13	70	1254	1336	0	4980457	4421053	5052631
9	562590	1	16	55	1236	0	0	5545637	5052632	5684210
10	213306	1	8	55	1200	0	0	5760179	5684211	6315789
11	1125929	2	20	100	1137	1008	0	6887308	6315790	6947368
12	278655	3	13	90	1451	1357	1865	7168108	6947369	7578947
13	928360	3	20	75	1579	1140	1078	8101141	7578948	8210526
14	648907	2	10	60	1339	1588	0	8753845	8210527	8842105
15	483141	1	11	50	1770	0	0	9239913	8842106	9473684
16	844019	2	16	60	1136	1342	0	10085702	9473685	10105263
17	220516	1	20	75	1786	0	0	10308696	10105264	10736842
18	692800	2	12	75	1699	1268	0	11003282	10736843	11368421
19	671482	1	18	85	1923	0	0	11677731	11368422	12000000

Total number of pulses in waveform = 33

Type 5 Radar Waveform_22

Waveform Num = 22
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	784349	3	16	80	1105	1553	1798	784349	0	799999
2	330016	2	12	65	1086	1493	0	1118821	800000	1599999
3	742177	3	9	50	1689	1064	1922	1863577	1600000	2399999
4	687652	2	5	80	1167	1770	0	2555904	2400000	3199999
5	1068346	3	16	80	1661	1357	1104	3627187	3200000	3999999
6	521667	2	16	55	1183	1652	0	4152976	4000000	4799999
7	976557	3	6	80	1465	1834	1941	5132368	4800000	5599999
8	526459	1	16	70	1841	0	0	5664067	5600000	6399999
9	1119092	2	13	65	1973	1774	0	6785000	6400000	7199999
10	618520	2	19	60	1158	1261	0	7407267	7200000	7999999
11	735716	1	10	55	1273	0	0	8145402	8000000	8799999
12	779394	1	20	65	1377	0	0	8926069	8800000	9599999
13	866890	3	16	90	1034	1694	1785	9794336	9600000	10399999
14	1162528	3	12	95	1849	1798	1646	10961377	10400000	11199999
15	751484	2	15	80	1557	1244	0	11718154	11200000	11999999

Total number of pulses in waveform = 33



Type 5 Radar Waveform_23

Waveform Num = 23
Num of Bursts = 15
Burst Interval (us)= 800000

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	700134	3	9	70	1916	1647	1321	700134	0	799999
2	700631	3	12	95	1712	1683	1506	1405649	800000	1599999
3	372167	1	15	55	1349	0	0	1782717	1600000	2399999
4	1396231	1	15	95	1508	0	0	3180297	2400000	3199999
5	442555	1	20	60	1443	0	0	3624360	3200000	3999999
6	758830	3	16	60	1204	1812	1672	4384633	4000000	4799999
7	909741	2	17	50	1884	1019	0	5299062	4800000	5599999
8	827123	3	5	75	1093	1326	1777	6129088	5600000	6399999
9	494454	1	6	65	1940	0	0	6627738	6400000	7199999
10	1209038	2	16	55	1970	1466	0	7838716	7200000	7999999
11	346867	1	16	95	1047	0	0	8189019	8000000	8799999
12	1366681	2	7	90	1598	1049	0	9556747	8200000	9599999
13	704033	3	15	70	1528	1534	1051	10263427	9600000	10399999
14	593757	3	5	95	1246	1728	1228	10861297	10400000	11199999
15	444820	3	20	50	1580	1584	1153	11310319	11200000	11999999

Total number of pulses in waveform = 32

Type 5 Radar Waveform_24

Waveform Num = 24
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	1237164	2	18	70	1081	1136	0	1237164	0	1499999
2	287832	2	9	55	1276	1875	0	1527213	1500000	2999999
3	2282577	3	12	60	1495	1667	1670	3812941	3000000	4499999
4	779809	3	13	75	1890	1520	1314	4597582	4500000	5999999
5	1548057	3	6	80	1513	1647	1503	6150363	6000000	7499999
6	2102987	3	16	55	1056	1662	1340	8258013	7500000	8999999
7	1422113	2	5	100	1151	1510	0	9684184	9000000	10499999
8	1904196	3	20	60	1173	1841	1649	11591041	10500000	11999999

Total number of pulses in waveform = 21

Type 5 Radar Waveform_25

Waveform Num = 25
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	157774	3	11	75	1905	1155	1688	157774	0	923076
2	1167413	2	17	60	1432	1707	0	1329935	923077	1846153
3	1310428	1	16	85	1888	0	0	2643502	1846154	2769230
4	986444	1	9	50	1851	0	0	3631834	2769231	3692307
5	667919	2	9	100	1944	1236	0	4301604	3692308	4615384
6	1008336	1	9	60	1015	0	0	5313120	4615385	5538461
7	528988	3	8	90	1945	1975	1536	5843123	5538462	6461538
8	1208718	1	18	70	1460	0	0	7057297	6461539	7384615
9	884287	1	13	55	1890	0	0	7943044	7384616	8307692
10	1228477	3	15	95	1696	1233	1661	9173411	8307693	9230769
11	588445	2	14	95	1706	1407	0	9766446	9230770	10153846
12	957937	2	10	80	1000	1355	0	10727496	10153847	11076923
13	395710	3	16	60	1360	1919	1374	11125561	11076924	12000000

Total number of pulses in waveform = 25



Type 5 Radar Waveform_26

Waveform Num = 26
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	1105764	3	17	100	1585	1372	1132	1105764	0	1199999
2	623722	1	9	55	1280	0	0	1733575	1200000	2399999
3	1811996	3	15	50	1485	1268	1407	3546851	2400000	3599999
4	634540	1	9	50	1927	0	0	4185551	3600000	4799999
5	1488736	2	20	95	1427	1759	0	5676214	4800000	5999999
6	656826	2	14	80	1688	1506	0	6336226	6000000	7199999
7	1037060	1	19	95	1457	0	0	7376480	7200000	8399999
8	1560124	3	16	95	1517	1396	1540	8938061	8400000	9599999
9	719908	2	13	100	1221	1931	0	9662422	9600000	10799999
10	2191032	2	5	55	1929	1795	0	11856606	10800000	11999999

Total number of pulses in waveform = 20

Type 5 Radar Waveform_27

Waveform Num = 27
Num of Bursts = 8
Burst Interval (us)= 1500000

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	1334931	1	17	60	1754	0	0	1334931	0	1499999
2	726629	3	10	50	1964	1748	1598	2063314	1500000	2999999
3	1487281	1	12	100	1844	0	0	3555905	3000000	4499999
4	1561654	3	11	100	1954	1575	1475	5119403	4500000	5999999
5	1530625	3	6	60	1352	1865	1965	6655032	6000000	7499999
6	1708416	2	10	80	1162	1556	0	8368630	7500000	8999999
7	639129	1	9	85	1792	0	0	9010477	9000000	10499999
8	2429109	2	6	100	1570	1864	0	11441378	10500000	11999999

Total number of pulses in waveform = 16

Type 5 Radar Waveform_28

Waveform Num = 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	444965	2	17	80	1777	1801	0	444965	0	631578
2	382972	3	10	60	1394	1111	1667	831515	631579	1263157
3	988522	1	13	60	1512	0	0	1824209	1263158	1894736
4	592657	1	19	55	1382	0	0	2418378	1894737	2526315
5	710597	1	11	85	1342	0	0	3130357	2526316	3157894
6	466961	2	12	90	1162	1349	0	3598660	3157895	3789473
7	727434	3	20	60	1106	1586	1156	4328605	3789474	4421052
8	399375	1	17	75	1536	0	0	4731828	4421053	5052631
9	443076	1	16	90	1951	0	0	5176440	5052632	5684210
10	540829	2	7	85	1852	1391	0	5719220	5684211	6315789
11	748610	3	17	100	1157	1121	1798	6471073	6315790	6947368
12	770440	3	15	65	1778	1225	1157	7245589	6947369	7578947
13	513374	2	14	95	1097	1525	0	7763123	7578948	8210526
14	770019	2	7	65	1872	1972	0	8535764	8210527	8842105
15	538191	2	20	95	1555	1783	0	9077799	8842106	9473684
16	420445	2	14	65	1133	1115	0	9501582	9473685	10105263
17	768675	3	8	75	1310	1293	1267	10272505	10105264	10736842
18	1067889	2	14	75	1294	1378	0	11344264	10736843	11368421
19	479501	1	14	65	1782	0	0	11826437	11368422	12000000

Total number of pulses in waveform = 37



Type 5 Radar Waveform_29

Waveform Num = 29
Num of Bursts = 19
Burst Interval (us) = 631579

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	78431	2	11	95	1546	1431	0	78431	0	631578
2	664135	2	5	85	1541	1660	0	745543	631579	1263157
3	716362	3	20	70	1988	1610	1835	1465106	1263158	1894736
4	853332	1	8	95	1831	0	0	2323871	1894737	2526315
5	335125	1	20	70	1027	0	0	2660827	2526316	3157894
6	577747	2	5	80	1307	1320	0	3239601	3157895	3789473
7	929592	3	8	95	1341	1313	1743	4171820	3789474	4421052
8	320448	3	15	60	1815	1461	1153	4496665	4421053	5052631
9	1086207	1	6	75	1764	0	0	5587301	5052632	5684210
10	629951	1	13	85	1021	0	0	6219016	5684211	6315789
11	306871	3	20	85	1407	1449	1834	6526908	6315790	6947368
12	721406	1	16	75	1188	0	0	7253004	6947369	7578947
13	429855	1	11	100	1697	0	0	7684047	7578948	8210526
14	543880	3	14	95	1453	1482	1407	8229624	8210527	8842105
15	968501	2	8	65	1124	1332	0	9202467	8842106	9473684
16	367497	2	12	55	1756	1101	0	9572420	9473685	10105263
17	591266	2	10	80	1878	1574	0	10166543	10105264	10736842
18	656188	3	19	70	1049	1754	1346	10826183	10736843	11368421
19	946426	3	5	85	1792	1977	1396	11776758	11368422	12000000

Total number of pulses in waveform = 39

Type 5 Radar Waveform_30

Waveform Num = 30
Num of Bursts = 9
Burst Interval (us) = 1333333

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	516406	2	17	60	1204	1109	0	516406	0	1333332
2	1165989	1	12	100	1944	0	0	1684708	1333333	2666665
3	1463479	1	16	65	1199	0	0	3150131	2666666	3999998
4	1081358	2	13	85	1989	1634	0	4232688	3999999	5333331
5	1218525	2	5	75	1446	1192	0	5454836	5333332	6666664
6	1782992	3	6	60	1804	1954	1675	7240466	6666665	7999997
7	1017858	1	9	70	1368	0	0	8263757	7999998	9333330
8	1527357	2	15	75	1216	1515	0	9792482	9333331	10666663
9	1398602	1	16	100	1947	0	0	11193815	10666664	11999996

Total number of pulses in waveform = 15

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	5328	1	16	5328	1
2	5328	1	17	5328	1
3	5328	1	18	5328	1
4	5328	1	19	5328	1
5	5328	1	20	5328	1
6	5328	1	21	5328	1
7	5328	1	22	5328	1
8	5328	1	23	5328	1
9	5328	1	24	5328	1
10	5328	1	25	5328	1
11	5328	1	26	5328	1
12	5328	1	27	5328	1
13	5328	1	28	5328	1
14	5328	1	29	5328	1
15	5328	1	30	5328	1
Detection Percentage (%)					100%

Radar waveform #1			Radar waveform #2		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
14	5316	42	14	5345	42
17	5327	51	19	5299	57
20	5299	60	23	5337	69
22	5343	66	26	5340	78
38	5350	114	28	5353	84
40	5321	120	47	5339	141
63	5337	189	48	5327	144
74	5306	222	54	5321	162
75	5312	225	63	5329	189
77	5338	231	92	5320	276
84	5346	252	94	5323	282
88	5334	264	98	5355	294
94	5352	282	--	--	--
99	5348	297	--	--	--

Radar waveform #3			Radar waveform #4		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
2	5317	6	6	5331	18
3	5314	9	26	5325	78
30	5342	90	30	5321	90
41	5305	123	34	5304	102
42	5299	126	42	5322	126
45	5328	135	49	5352	147
51	5320	153	59	5300	177
53	5323	159	77	5314	231
70	5356	210	83	5341	249
85	5329	255	84	5345	252
97	5358	291	93	5323	279

Radar waveform #5			Radar waveform #6		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
2	5344	6	11	5305	33
8	5311	24	23	5338	69
9	5345	27	26	5334	78
16	5299	48	32	5331	96
18	5313	54	43	5301	129
20	5317	60	51	5312	153
32	5351	96	59	5344	177
43	5323	129	81	5355	243
45	5342	135	82	5308	246
49	5337	147	85	5304	255
53	5357	159	97	5303	291
62	5330	186	--	--	--
66	5300	198	--	--	--
99	5348	297	--	--	--

Radar waveform #7			Radar waveform #8		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
28	5351	84	3	5334	9
48	5331	144	5	5350	15
54	5356	162	8	5348	24
57	5301	171	9	5314	27
63	5302	189	14	5336	42
67	5355	201	15	5319	45
70	5344	210	24	5337	72
72	5313	216	27	5335	81
75	5298	225	45	5313	135
97	5314	291	64	5352	192
99	5324	297	68	5322	204
--	--	--	70	5304	210

Radar waveform #9			Radar waveform #10		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
10	5301	30	11	5345	33
20	5344	60	16	5311	48
25	5330	75	20	5358	60
49	5347	147	36	5310	108
52	5326	156	40	5303	120
53	5313	159	44	5317	132
56	5348	168	48	5302	144
64	5311	192	49	5320	147
74	5356	222	55	5348	165
80	5310	240	98	5357	294
94	5354	282	--	--	--

Radar waveform #11			Radar waveform #12		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
0	5307	0	0	5326	0
5	5347	15	8	5332	24
8	5312	24	13	5357	39
10	5302	30	28	5331	84
15	5323	45	30	5308	90
38	5350	114	39	5324	117
40	5314	120	49	5334	147
50	5343	150	54	5316	162
57	5333	171	60	5319	180
62	5304	186	67	5339	201
64	5327	192	68	5353	204
75	5345	225	77	5302	231
82	5349	246	79	5358	237
86	5325	258	88	5333	264
87	5346	261	91	5310	273
88	5340	264	95	5346	285
90	5315	270	96	5325	288
--	--	--	98	5340	294

Radar waveform #13			Radar waveform #14		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
6	5320	18	9	5347	27
11	5325	33	42	5307	126
12	5319	36	46	5325	138
15	5331	45	54	5323	162
27	5301	81	55	5315	165
28	5338	84	70	5334	210
44	5322	132	76	5348	228
54	5355	162	89	5331	267
60	5339	180	98	5316	294
61	5348	183	--	--	--
67	5358	201	--	--	--
71	5326	213	--	--	--
74	5312	222	--	--	--
89	5314	267	--	--	--
94	5323	282	--	--	--

Radar waveform #15			Radar waveform #16		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
0	5341	0	0	5319	0
7	5329	21	19	5298	57
10	5312	30	22	5356	66
37	5352	111	35	5335	105
47	5327	141	36	5321	108
69	5349	207	42	5317	126
71	5342	213	50	5303	150
81	5357	243	60	5353	180
94	5304	282	67	5301	201
--	--	--	76	5314	228
--	--	--	82	5350	246
--	--	--	84	5337	252
--	--	--	87	5299	261
--	--	--	99	5357	297

Radar waveform #17			Radar waveform #18		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
10	5341	30	7	5311	21
14	5317	42	11	5322	33
23	5312	69	19	5331	57
27	5352	81	21	5310	63
40	5298	120	23	5339	69
47	5315	141	25	5307	75
49	5332	147	29	5313	87
51	5307	153	38	5318	114
59	5300	177	39	5325	117
60	5301	180	51	5350	153
66	5313	198	56	5348	168
71	5334	213	--	--	--
84	5326	252	--	--	--
89	5351	267	--	--	--
97	5355	291	--	--	--

Radar waveform #19			Radar waveform #20		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
20	5302	60	7	5341	21
21	5351	63	8	5358	24
24	5306	72	13	5327	39
27	5349	81	18	5342	54
38	5310	114	27	5318	81
48	5333	144	35	5310	105
54	5356	162	37	5330	111
66	5305	198	48	5309	144
67	5352	201	57	5302	171
83	5323	249	65	5331	195
86	5345	258	84	5350	252
94	5330	282	--	--	--

Radar waveform #21			Radar waveform #22		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
5	5321	15	2	5327	6
15	5303	45	9	5323	27
37	5330	111	24	5322	72
40	5309	120	31	5304	93
41	5342	123	35	5310	105
59	5337	177	46	5333	138
69	5343	207	48	5338	144
74	5311	222	54	5316	162
78	5353	234	76	5303	228
85	5328	255	77	5344	231
87	5320	261	80	5355	240
--	--	--	92	5307	276
--	--	--	95	5312	285

Radar waveform #23			Radar waveform #24		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
6	5340	18	13	5353	39
18	5323	54	16	5342	48
27	5339	81	29	5341	87
48	5329	144	51	5317	153
50	5352	150	59	5311	177
54	5351	162	93	5299	279
58	5345	174	94	5334	282
59	5319	177	98	5357	294
66	5353	198	13	5353	39
72	5321	216	--	--	--
81	5335	243	--	--	--
96	5307	288	--	--	--

Radar waveform #25			Radar waveform #26		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
32	5331	96	0	5355	0
39	5330	117	3	5304	9
41	5344	123	20	5331	60
43	5338	129	27	5345	81
48	5306	144	30	5305	90
68	5335	204	32	5315	96
77	5319	231	36	5329	108
93	5300	279	38	5310	114
--	--	--	47	5349	141
--	--	--	61	5301	183
--	--	--	65	5330	195
--	--	--	68	5338	204
--	--	--	81	5337	243
--	--	--	83	5356	249
--	--	--	86	5354	258

Radar waveform #27			Radar waveform #28		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
21	5328	63	12	5313	36
24	5336	72	24	5330	72
26	5356	78	45	5336	135
28	5307	84	70	5319	210
53	5333	159	80	5318	240
60	5311	180	96	5350	288
63	5318	189	12	5313	36
68	5305	204	24	5330	72
81	5335	243	45	5336	135
85	5323	255	70	5319	210
--	--	--	80	5318	240
--	--	--	96	5350	288

Radar waveform #29			Radar waveform #30		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
15	5325	45	1	5353	3
24	5337	72	34	5341	102
26	5341	78	40	5315	120
27	5322	81	45	5316	135
43	5301	129	46	5329	138
62	5313	186	52	5305	156
63	5336	189	55	5335	165
75	5317	225	61	5333	183
76	5315	228	62	5299	186
79	5356	237	67	5344	201
97	5342	291	--	--	--

6. CONCLUSION

The data collected relate only the item(s) tested and show that the **Smart Gateway FCC ID:**

H8N-WHD0110 is in compliance with Part 15E Section h of the FCC Rules.

————— The End —————