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Report No.: 1710TW0103-U8
Report Version: V01
Issue Date: 02-13-2018

DFS MEASUREMENT REPORT

FCC PART 15 Subpart E WLAN 802.11a/n/ac

FCC ID:	Q9DAPIN0303
APPLICANT:	Hewlett Packard Enterprise Company
Application Type:	Class III Permissive Change
Product:	ACCESS POINT
Model No.:	APIN0303
Brand Name:	aruba a Hewlett Packard Enterprise company , Hewlett Packard Enterprise
FCC Classification:	Unlicensed National Information Infrastructure (UNII)
FCC Rule Part(s):	Part 15.407 Section (h)(2) KDB 905462 D02v02, KDB 905462 D04v01
Type of Device:	☒ Master Device ☐ Client Device (No radar detection) ☐ Client Device with radar detection
Test Date:	November 10, 2017 ~ February 13, 2018

Reviewed By : Paddy Chen
(Paddy Chen)

Approved By : Chenz Ker
(Chenz Ker)

Testing Laboratory
3261

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

Revision History

Report No.	Version	Description	Issue Date	Note
1710TW0103-U8	Rev. 01	Initial Report	02-13-2018	Valid

CONTENTS

Description Page

§2.1033 General Information

Applicant:	Hewlett Packard Enterprise Company
Applicant Address:	3000 Hanover St. Palo Alto, CA 94304, USA
Manufacturer:	Hewlett Packard Enterprise Company
Manufacturer Address:	3000 Hanover St. Palo Alto, CA 94304, USA
Test Site:	MRT Technology (Taiwan) Co., Ltd
Test Site Address:	No. 38, Fuxing Second Rd., Guishan Dist., Taoyuan City 333, Taiwan (R.O.C)
MRT Registration No.:	153292
FCC Rule Part(s):	Part 15.407
Model No.:	APIN0303
FCC ID:	Q9DAPIN0303
Test Device Serial No.:	CNF0K9T03Q ☐ Production ☒ Pre-Production ☐ Engineering
FCC Classification:	Unlicensed National Information Infrastructure (UNII)

Test Facility / Accreditations

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

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

TAF certificate here

Testing Laboratory
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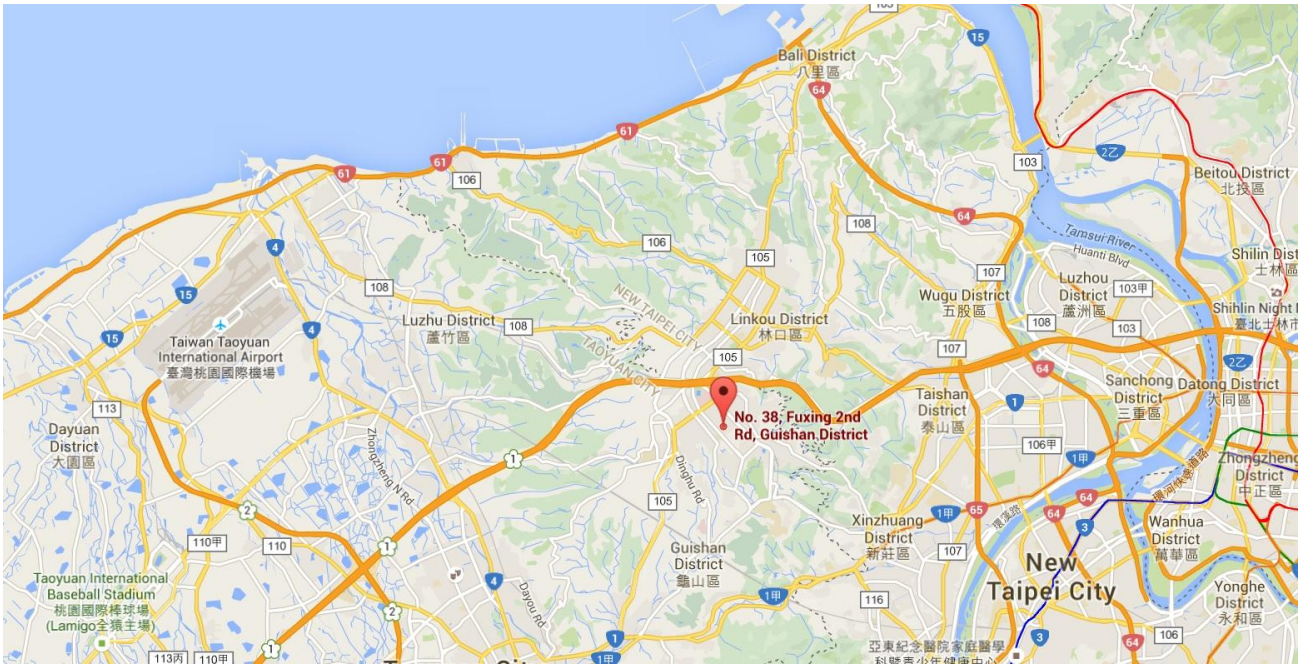
1. INTRODUCTION

1.1. Scope

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

1.2. MRT Test Location

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



2. PRODUCT INFORMATION

2.1. Equipment Description

Product Name:	ACCESS POINT
Model No.:	APIN0303
Brand Name:	aruba a Hewlett Packard Enterprise company , Hewlett Packard Enterprise
Software Version:	ArubaOS_70xx_8.3.0.0-brunello_62203
	A30x_ipq40xx.ari_8.3.0.0-brunello_cshen_62203_fcc_1207
Operating Temperature:	0 ~ 40 ℃
Power Type:	POE input
Frequency Range	**2.4GHz:** For 802.11b/g/n-HT20: 2412~2462 MHz For 802.11n-HT40: 2422~2452 MHz **5GHz:** For 802.11a/n-HT20/ac-VHT20: 5180~5320MHz, 5500~5720MHz, 5745~5825MHz For 802.11n-HT40/ac-VHT40: 5190~5310MHz, 5510~5710MHz, 5755~5795MHz For 802.11ac-VHT80: 5210MHz, 5290MHz, 5530MHz, 5610MHz, 5690MHz, 5775MHz
Type of Modulation	802.11a/n/ac: OFDM
Power-on cycle	Requires 168.4 seconds to complete its power-on cycle
Uniform Spreading (For DFS Frequency Band)	For the 5250-5350MHz, 5470-5725 MHz bands, the Master device provides, on aggregate, uniform loading of the spectrum across all devices by selecting an operating channel among the available channels using a random algorithm.

Note: The applicant provide one POE adapter (Manufacturer: MICROSEMI & Model: PD-9001GR/AT/AC) for approval testing, it is not for sale.

2.2. Description of Available Antennas

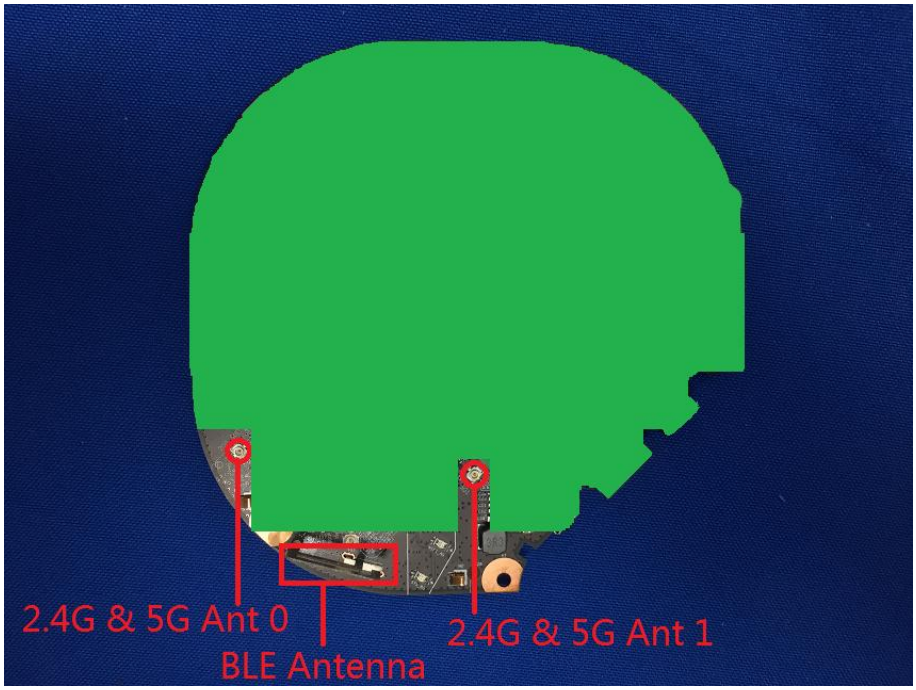
Antenna Type	Frequency Band (GHz)	TX Paths	Max Peak Gain (dBi)	Beam-Forming Directional Gain(dBi)	CDD Directional Gain(dBi)	
					For Power	For PSD
Wi-Fi Internal Antenna						
PCB	2.4	2	2.1	3.01	2.1	5.11
	5	2	5.7	3.01	5.7	8.71
Bluetooth Internal Antenna						
PCB	2.4	1	4.5	--		

Note:

1. The EUT supports Cyclic Delay Diversity (CDD) mode, and CDD signals are correlated.
   For CDD transmissions, directional gain is calculated as follows, N_{ANT} = 2, N_{SS} = 1.
   If all antennas have the same gain, G_{ANT}, Directional gain = G_{ANT} + Array Gain, where Array Gain is as follows.
   - For power spectral density (PSD) measurements on all devices,
     Array Gain = 10 log (N_{ANT}/ N_{SS}) dB = 3.01;
   - For power measurements on IEEE 802.11 devices,
     Array Gain = 0 dB for N_{ANT} Ò 4 ;
2. The EUT also supports Beam Forming mode, and the Beam Forming support 802.11n/ac, not include 802.11a/b/g.

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. Operating Frequency and Channel List

802.11a/n-HT20/ac-VHT20

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

802.11n-HT40/ac-VHT40

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

802.11ac-VHT80

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

2.5. Test Channel for this Report

Test Mode	Test Channel	Test Frequency
802.11a	60	5300 MHz
802.11n-HT40	62	5310 MHz
802.11ac-VHT80	58	5290 MHz

2.6. Test Mode

Test Mode	Mode 1: Communication with the notebook

3. DFS DETECTION THRESHOLDS AND RADAR TEST WAVEFORMS

3.1. Applicability

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

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

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

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

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

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

3.2. DFS Devices Requirements

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

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

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

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

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

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

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

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

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

Parameter	Value
Non-occupancy period	Minimum 30 minutes
Channel Availability Check Time	60 seconds
Channel Move Time	10 seconds 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 ≥ 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 (ε s e	PRI (ε s e c)	Number of Pulses	Minimum Percentage of Successful Detection	Minimum Number of Trials
0	1	1428	18	See Note 1	See Note 1
1	1	Test A: 15 unique PRI values randomly selected from the list of 23 PRI values in Table 3-6	Roundup $\left\{\left(\frac{1}{360}\right)\left(\frac{19\cdot 10^6}{PRI_{usec}}\right)\right\}$	60%	30
		Test B: 15 unique PRI values randomly selected within the range of 518-3066 ε s e c , w i minimum increment o f 1 ε s e c , 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 (ε s e	Chirp Width (MHz)	PRI (ε s e	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 (ε s e	PRI (ε s e	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 ï 5724MHz. Next, the frequency that was just chosen is removed from the group and a frequency is randomly selected from the remaining 474 frequencies in the group. This process continues until all 475 frequencies are chosen for the set. For selection of a random frequency, the frequencies remaining within the group are always treated as equally likely.

3.5. Conducted Test Setup

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

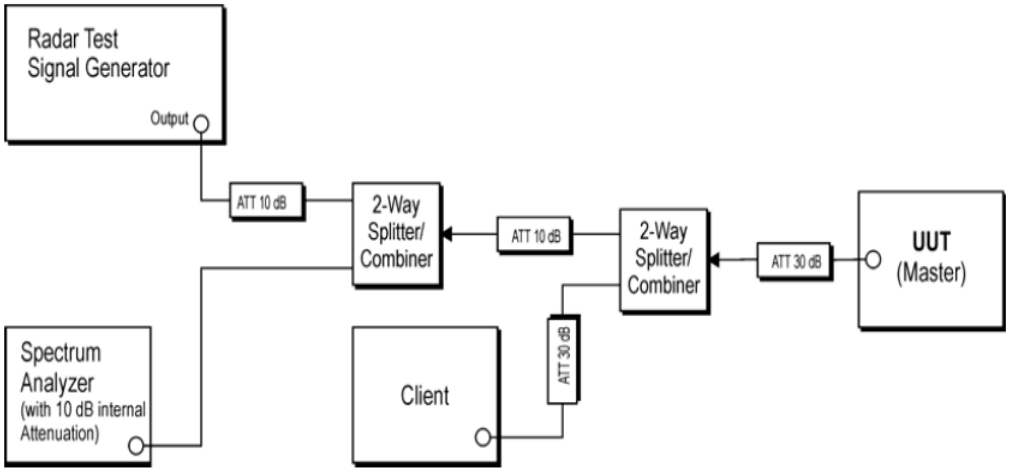


Figure 3-1: Conducted Test Setup where UUT is a Master and Radar Test Waveforms are injected into the Masters

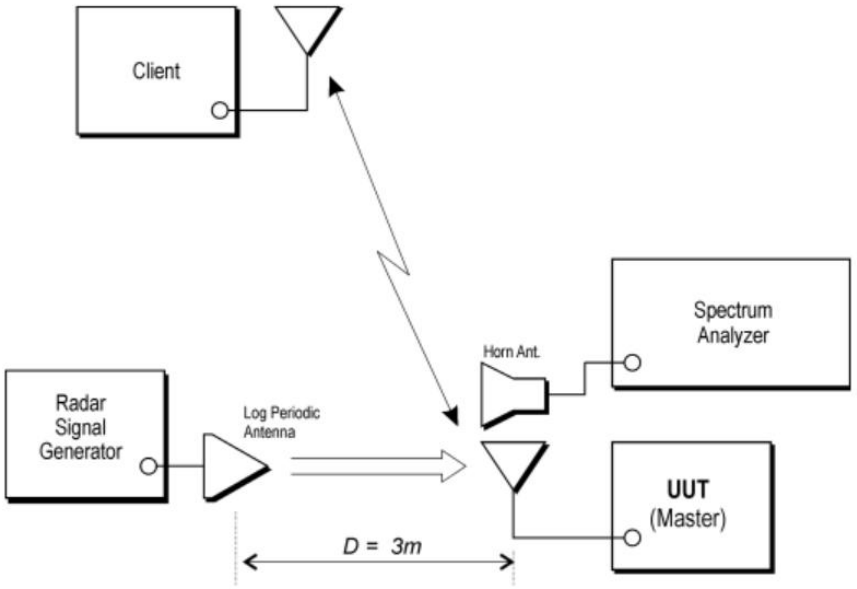


Figure 3-2: Radiated Test Setup where UUT is a Bridge or Mesh mode and Radar Test Waveforms are injected into the UUT

4. TEST EQUIPMENT CALIBRATION DATE

Dynamic Frequency Selection (DFS) ï TR4

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

Client Information

Instrument	Manufacturer	Type No.
Wireless Network Adapter	Intel	7260HMW

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

5. TEST RESULT

5.1. Summary

Company Name: **Hewlett Packard Enterprise Company**

FCC ID: **Q9DAPIN0303**

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

Note 1: Item ñStatistical Performance Checkòwas tested by radiated test method and any other items were tested by conducted test method.

Note 2: We used the worse case level -64dBm as DFS detection thresholds for all DFS testing.

5.2. Radar Waveform Calibration

5.2.1. Calibration Setup

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

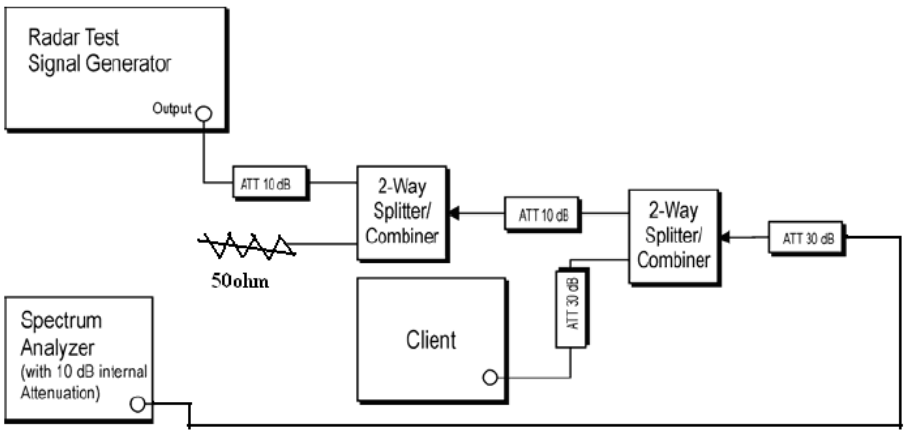


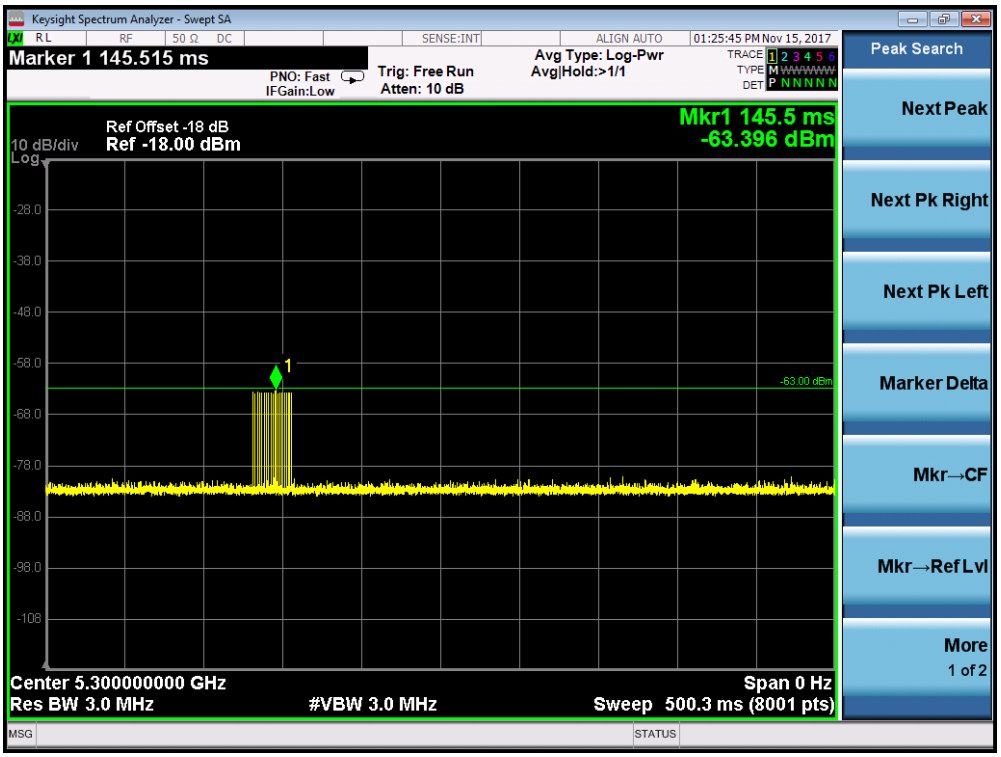
Figure 3-2: Conducted Test Setup

5.2.2. Calibration Procedure

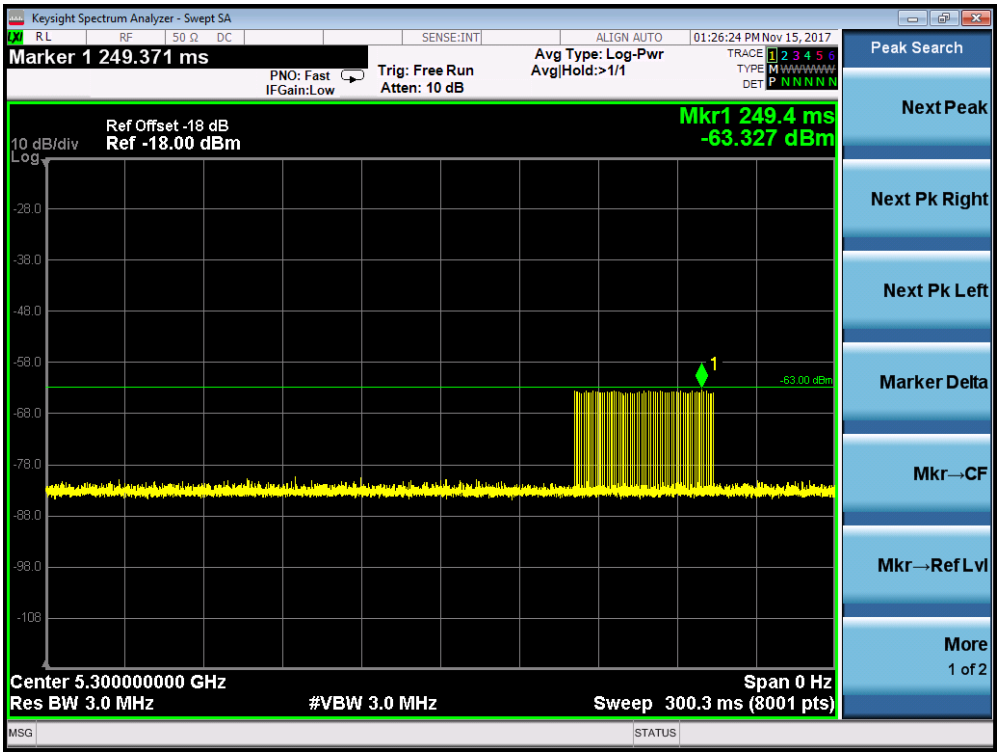
The Interference Radar Detection Threshold Level is (-64dBm) + (0) [dBi] + 1 dB= -63 dBm that had been taken into account the output power range and antenna gain. The above equipment setup was used to calibrate the conducted Radar Waveform. A vector signal generator was utilized to establish the test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

5.2.3. Cablibration Result

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

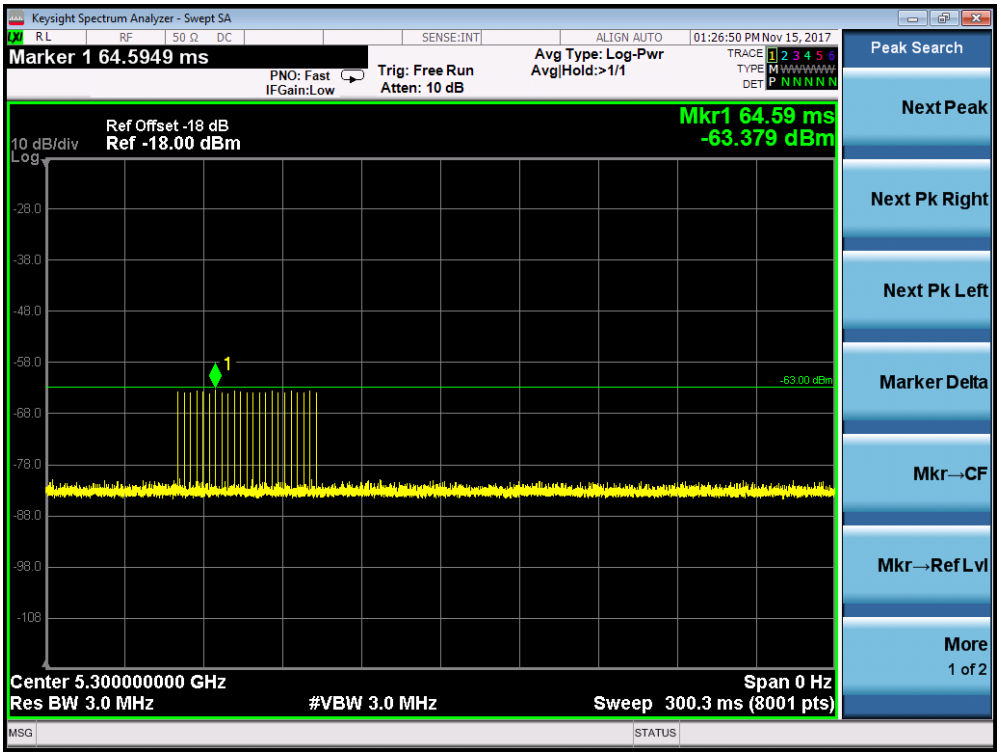


Radar #1(Test A) DFS detection threshold level and the burst of pulses on the Channel frequency



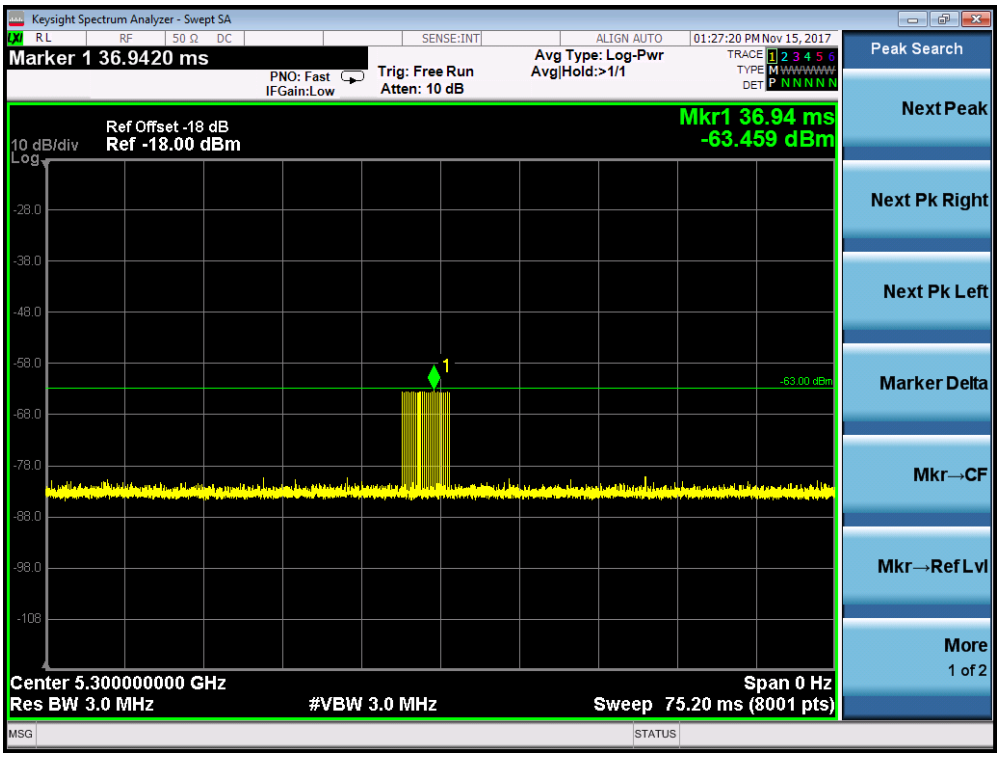
PRI = 878us and the number of pulses = 61

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

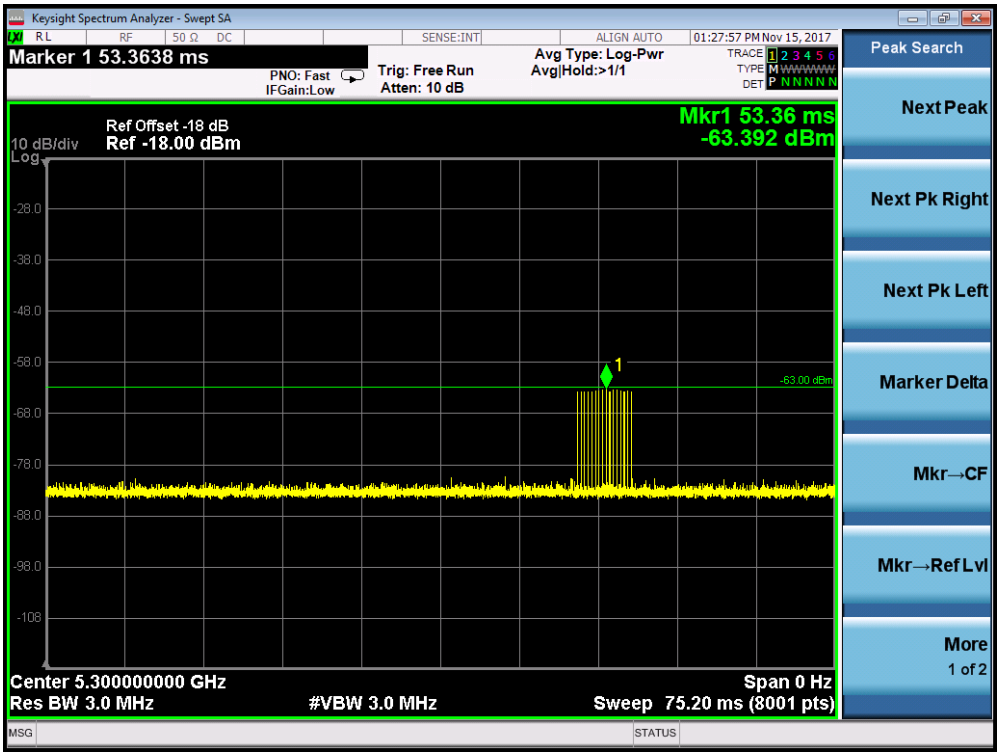


PRI = 2.351ms and the number of pulses = 23

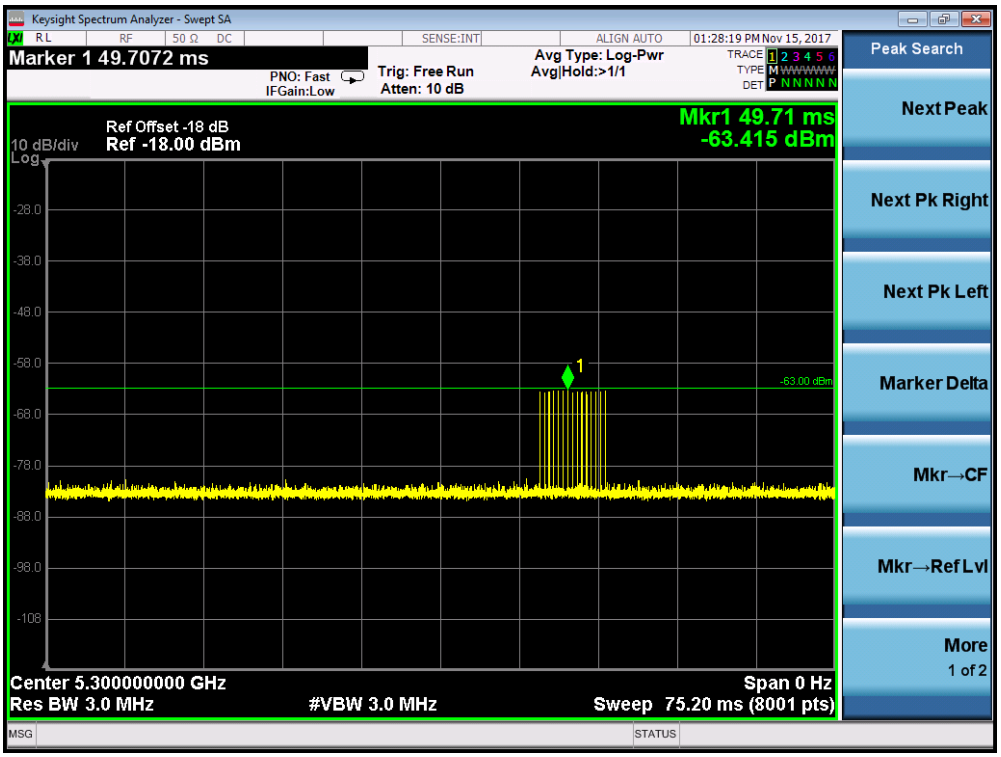
Radar #2 DFS detection threshold level and the burst of pulses on the Channel frequency



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

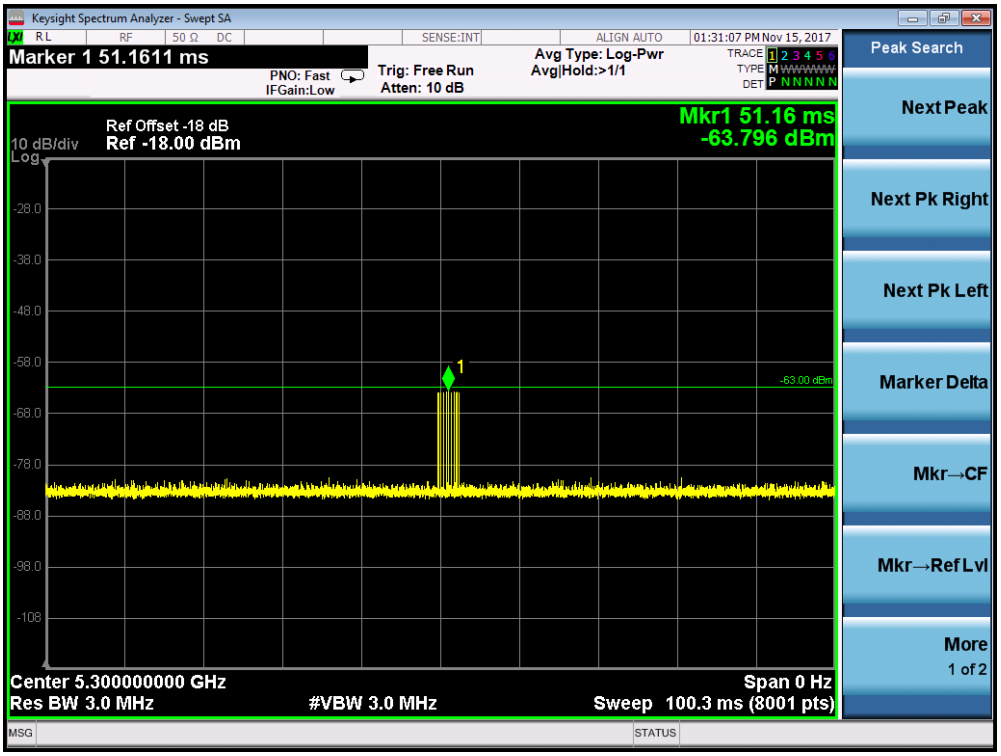


Radar #4 DFS detection threshold level and the burst of pulses on the Channel frequency



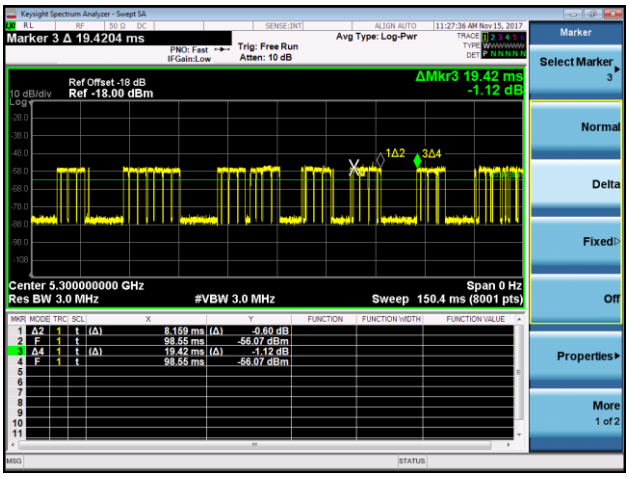
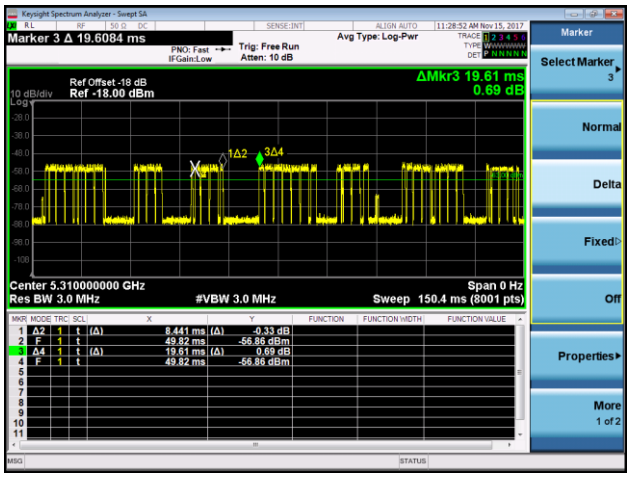
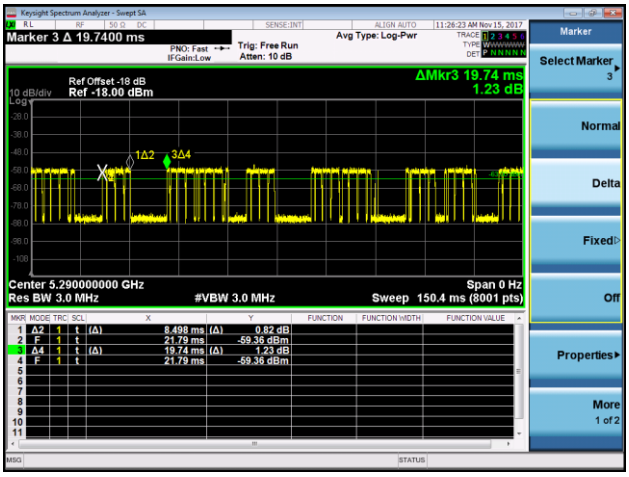
Radar #5 DFS detection threshold level and 12sec long burst on the Channel frequency

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



5.2.4. Channel Loading Test Result

Product	ACCESS POINT	Temperature	27℃
Test Engineer	Amy Zhang	Relative Humidity	65%
Test Site	TR5	Test Date	2017/11/15
Test Item	Channel Loading		

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

Test Mode	Test Frequency	Packet ratio	Requirement ratio	Test Result
802.11a	5300 MHz	42.01%	Ó17%	Pass
802.11n-HT40	5310 MHz	43.04%	Ó17%	Pass
802.11ac-VHT80	5290 MHz	43.05%	Ó17%	Pass
Note 1: High channel loading was realized using the ñperfòsoftware. Note 2: Packet ratio = Time On / (Time On + Off Time).				

5.3. UNII Detection Bandwidth Measurement

5.3.1. Test Limit

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

5.3.2. Test Procedure

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

5.3.3. Test Result

EUT Frequency = 5300MHz for 802.11a											
Radar Frequency (MHz)	DFS Detection Trials (1=Detection, 0= No Detection)										
	1	2	3	4	5	6	7	8	9	10	Detection Rate (%)
5290	0	0	0	0	0	0	0	0	0	0	0%
5291 FL	1	1	1	1	1	1	1	1	1	1	100%
5292	1	1	1	1	1	1	1	1	1	1	100%
5293	1	1	1	1	1	1	1	1	1	1	100%
5294	1	1	1	1	1	1	1	1	1	1	100%
5295	1	1	1	1	1	1	1	1	1	1	100%
5300	1	1	1	1	1	1	1	1	1	1	100%
5305	1	1	1	1	1	1	1	1	1	1	100%
5306	1	1	1	1	1	1	1	1	1	1	100%
5307	1	1	1	1	1	1	1	1	1	1	100%
5308	1	1	1	1	1	1	1	1	1	1	100%
5309 FH	1	1	1	1	1	1	1	1	1	1	100%
5310	0	0	0	0	0	0	0	0	0	0	0%
Detection Bandwidth = FH - FL = 5309MHz - 5291MHz = 18MHz											
EUT 99% Bandwidth = 16.41MHz (see note)											
UNII Detection Bandwidth Min. Limit (MHz): 16.41MHz x 100% = 16.41MHz											

Note: All UNII channels for this device have identical Channel bandwidths. Therefore, all DFS testing was done at 5300MHz. The 99% channel bandwidth is 16.41MHz. (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)**										
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**Detection Rate (%)**
5290	0	0	0	0	0	0	0	0	0	0	0%
5291	0	0	0	0	0	0	0	0	0	0	0%
5292 FL	1	1	1	1	1	1	1	1	1	1	100%
5293	1	1	1	1	1	1	1	1	1	1	100%
5294	1	1	1	1	1	1	1	1	1	1	100%
5295	1	1	1	1	1	1	1	1	1	1	100%
5295	1	1	1	1	1	1	1	1	1	1	100%
5300	1	1	1	1	1	1	1	1	1	1	100%
5305	1	1	1	1	1	1	1	1	1	1	100%
5310	1	1	1	1	1	1	1	1	1	1	100%
5315	1	1	1	1	1	1	1	1	1	1	100%
5320	1	1	1	1	1	1	1	1	1	1	100%
5325	1	1	1	1	1	1	1	1	1	1	100%
5326	1	1	1	1	1	1	1	1	1	1	100%
5327	1	1	1	1	1	1	1	1	1	1	100%
5328	1	1	1	1	1	1	1	1	1	1	100%
5329 FH	1	1	1	1	1	1	1	1	1	1	100%
5330	0	0	0	0	0	0	0	0	0	0	0%
Detection Bandwidth = FH - FL = 5329MHz - 5292MHz = 37MHz											
EUT 99% Bandwidth = 35.93MHz (see note)											
UNII Detection Bandwidth Min. Limit (MHz): 35.93MHz x 100% = 35.93MHz											

Note: All UNII channels for this device have identical Channel bandwidths. Therefore, all DFS testing was done at 5310MHz. The 99% channel bandwidth is 35.93MHz. (See the 99% BW section of the RF report for further measurement details).

EUT Frequency = 5290MHz for 802.11ac-VHT80											
Radar Frequency (MHz)	DFS Detection Trials (1=Detection, 0= No Detection)										
	1	2	3	4	5	6	7	8	9	10	Detection Rate (%)
5250	0	0	0	0	0	0	0	0	0	0	0%
5251 FL	1	1	1	1	1	1	1	1	1	1	100%
5252	1	1	1	1	1	1	1	1	1	1	100%
5253	1	1	1	1	1	1	1	1	1	1	100%
5254	1	1	1	1	1	1	1	1	1	1	100%
5255	1	1	1	1	1	1	1	1	1	1	100%
5260	1	1	1	1	1	1	1	1	1	1	100%
5265	1	1	1	1	1	1	1	1	1	1	100%
5270	1	1	1	1	1	1	1	1	1	1	100%
5275	1	1	1	1	1	1	1	1	1	1	100%
5280	1	1	1	1	1	1	1	1	1	1	100%
5285	1	1	1	1	1	1	1	1	1	1	100%
5290	1	1	1	1	1	1	1	1	1	1	100%
5295	1	1	1	1	1	1	1	1	1	1	100%
5300	1	1	1	1	1	1	1	1	1	1	100%
5305	1	1	1	1	1	1	1	1	1	1	100%
5310	1	1	1	1	1	1	1	1	1	1	100%
5315	1	1	1	1	1	1	1	1	1	1	100%
5320	1	1	1	1	1	1	1	1	1	1	100%
5325	1	1	1	1	1	1	1	1	1	1	100%
5326	1	1	1	1	1	1	1	1	1	1	100%
5327	1	1	1	1	1	1	1	1	1	1	100%
5328	1	1	1	1	1	1	1	1	1	1	100%
5329 FH	1	1	1	1	1	1	1	1	1	1	100%
5330	0	0	0	0	0	0	0	0	0	0	0%
Detection Bandwidth = FH - FL = 5329MHz - 5251MHz = 78MHz											
EUT 99% Bandwidth = 75.70MHz (see note)											
UNII Detection Bandwidth Min. Limit (MHz): 75.70MHz x 100% = 75.70MHz											

Note: All UNII channels for this device have identical Channel bandwidths. Therefore, all DFS testing was done at 5290MHz. The 99% channel bandwidth is 75.70MHz. (See the 99% BW section of the RF report for further measurement details).

5.4. Initial Channel Availability Check Time Measurement

5.4.1. Test Limit

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

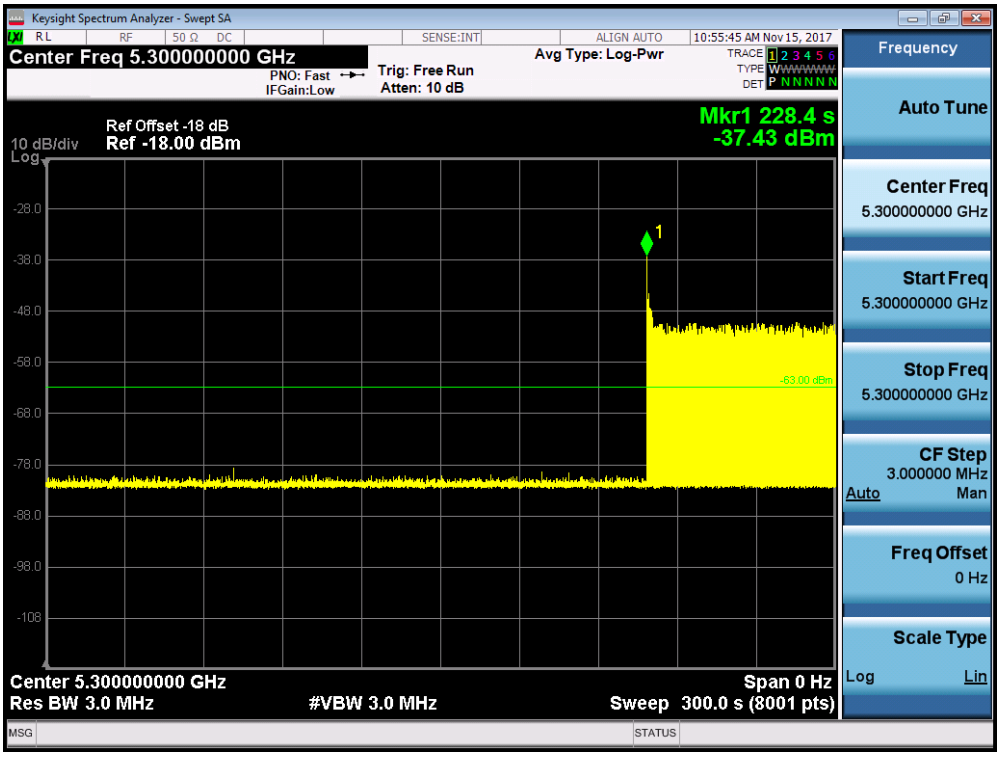
5.4.2. Test Procedure

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

5.4.3. Test Result

The EUT does not transmit any beacon or data transmissions until at least 1 minute after the completion of the power-on cycle (168.4 sec). Initial beacons/data transmissions are indicated by marker 1 (228.4 sec).

Initial Channel Availability Check Time for 802.11a



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

5.5.1. Test Limit

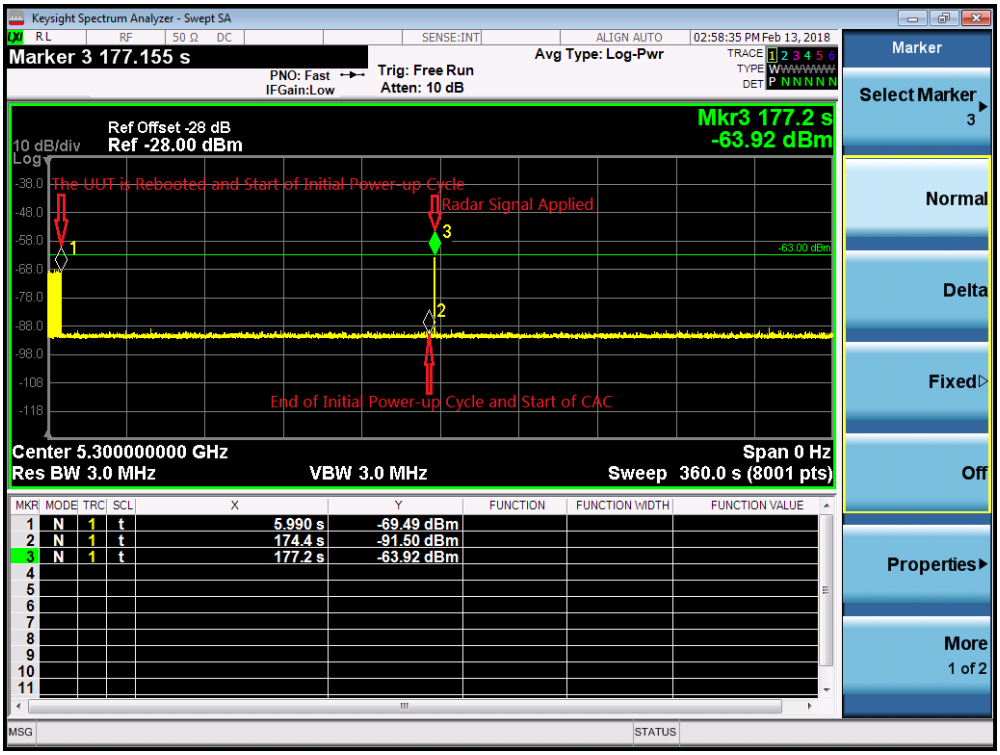
In beginning of the Channel Availability Check (CAC) Time, radar is detected on this channel, select another intended channel and perform a CAC on that channel.

5.5.2. Test Procedure

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

5.5.3. Test Result

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



Note: The trace was triggered meanwhile the device power up.

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

5.6.1. Test Limit

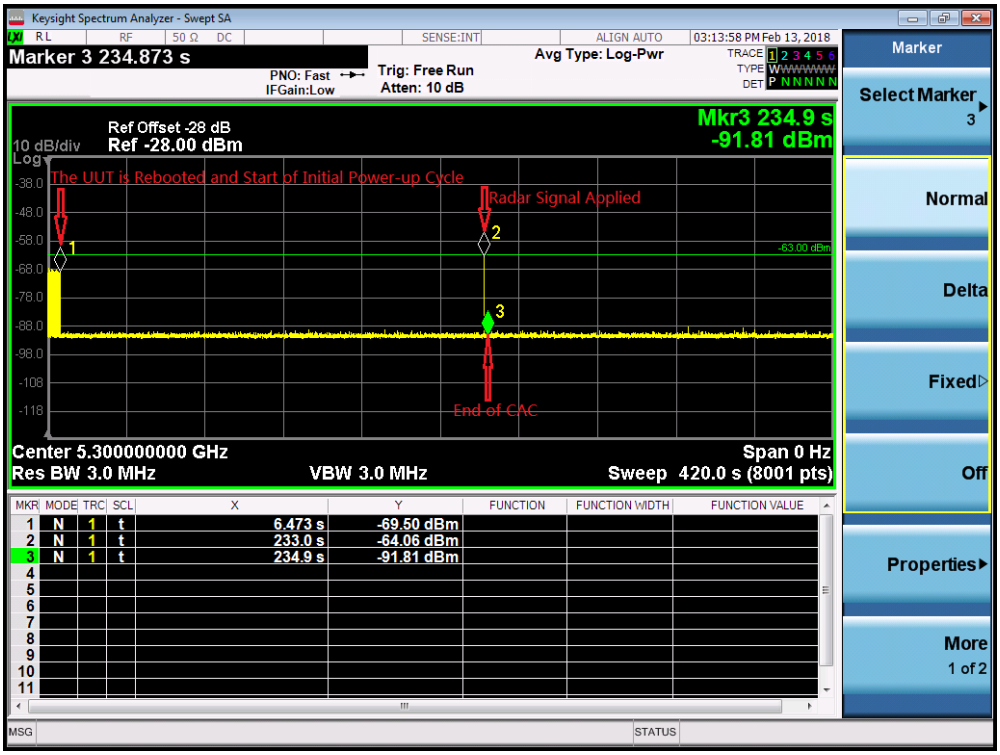
In the end of Channel Availability Check (CAC) Time, radar is detected on this channel, select another intended channel and perform a CAC on that channel.

5.6.2. Test Procedure

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

5.6.3. Test Result

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



Note: The trace was triggered meanwhile the device power up.

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

5.7.1. Test Limit

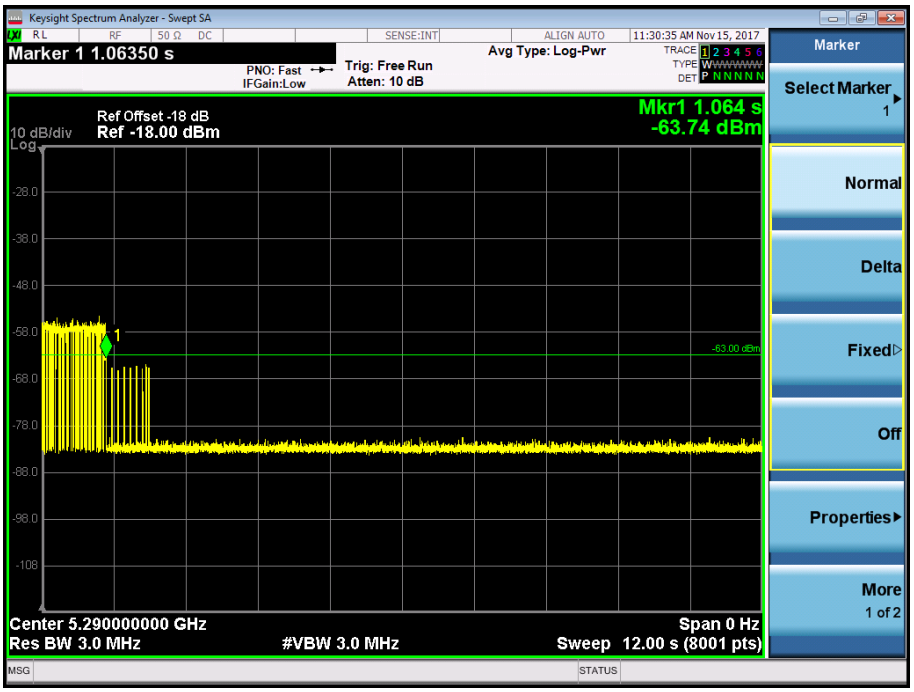
The EUT has In-Service Monitoring function to continuously monitor the radar signals. If the radar is detected, must leave the channel (Shutdown). The Channel Move Time to cease all transmissions on the current channel upon detection of a Radar Waveform above the DFS Detection Threshold within 10 sec.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

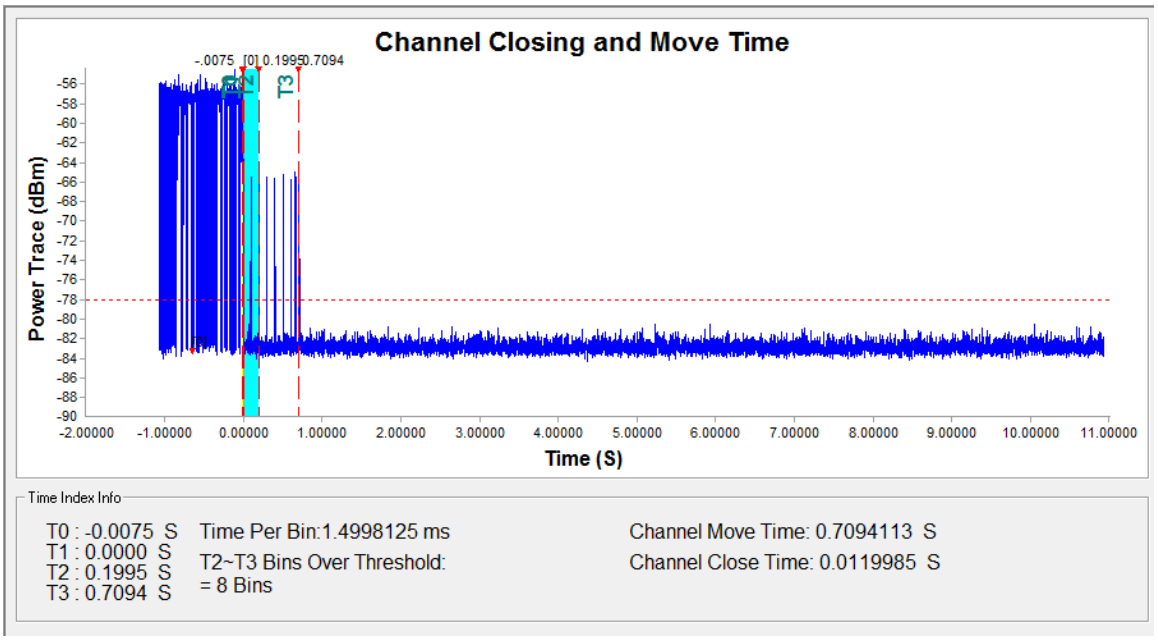
5.7.2. Test Procedure Used

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

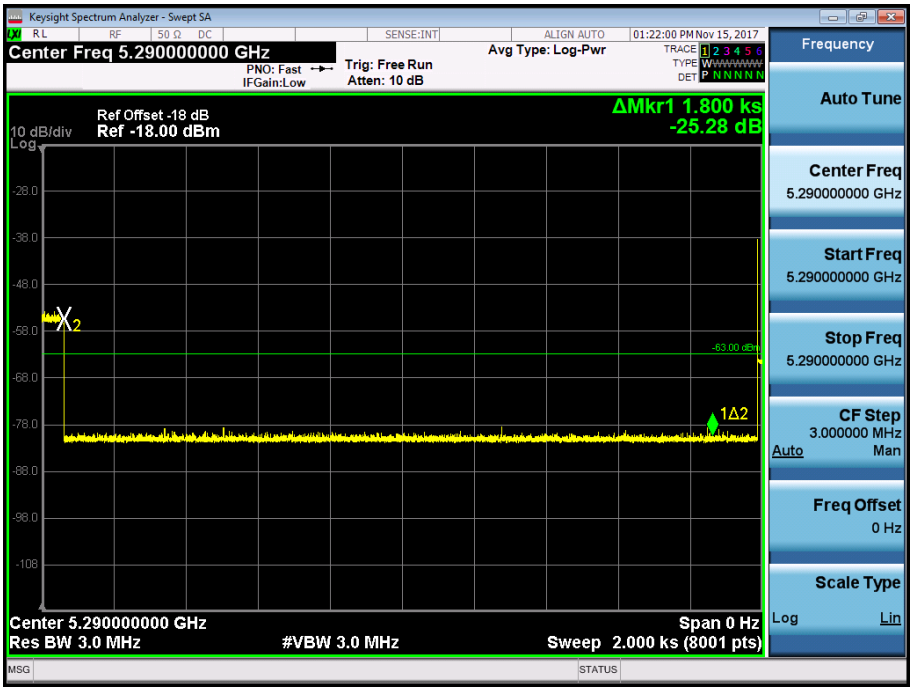
5.7.3. Test Result

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





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



Parameter	Test Result	Limit
	Type 0	
Channel Move Time (s)	0.709s	’ 10s
Channel Closing Transmission Time (ms) (Note)	12.0ms	’ 60ms
Non-Occupancy Period (min)	Ó 3 0 mi n	Ó 3 0 mi

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

5.8. Statistical Performance Check Measurement

5.8.1. Test Limit

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

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

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

5.8.2. Test Procedure

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

5.8.3. Test Result

Statistical Performance Check for 802.11a

Radar Type 1 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5308.4	1	698	76	1
2	5302.1	1	658	81	1
3	5297.3	1	518	102	1
4	5302.7	1	938	57	1
5	5291.0	1	818	65	1
6	5303.8	1	578	92	1
7	5299.5	1	738	72	1
8	5308.4	1	558	95	1
9	5292.3	1	618	86	1
10	5301.9	1	898	59	1
11	5300.0	1	798	67	1
12	5291.6	1	858	62	1
13	5307.9	1	678	78	1
14	5296.7	1	758	70	1
15	5309.0	1	838	63	1
16	5300.7	1	2600	21	1
17	5294.0	1	2632	21	1
18	5301.3	1	1025	52	1
19	5292.9	1	1245	43	1
20	5307.2	1	1283	42	1
21	5305.7	1	948	56	1
22	5295.2	1	2665	20	1
23	5293.8	1	2990	18	1
24	5305.3	1	751	71	1
25	5303.1	1	1256	43	1
26	5304.8	1	716	74	1
27	5293.4	1	1607	33	1
28	5306.8	1	1381	39	1
29	5306.1	1	1081	49	1
30	5304.4	1	1516	35	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	5295.2	1.1	191	28	1
2	5304.8	3.1	215	29	1
3	5300.7	4.0	217	25	1
4	5304.4	1.4	183	25	1
5	5296.7	3.6	166	28	1
6	5309.0	2.8	164	23	1
7	5297.3	1.7	169	28	1
8	5291.0	4.6	152	25	1
9	5301.3	1.3	154	27	1
10	5294.0	2.6	177	24	1
11	5303.1	3.5	203	29	1
12	5291.6	1.6	151	29	1
13	5303.8	3.7	227	27	1
14	5301.9	1.8	167	27	1
15	5308.4	3.2	210	28	1
16	5293.8	2.3	193	29	1
17	5305.3	1.6	192	27	1
18	5308.4	2.7	178	26	1
19	5302.1	1.0	195	27	1
20	5302.7	2.2	229	24	1
21	5292.3	3.2	159	25	1
22	5307.2	1.2	186	23	1
23	5305.7	1.7	209	28	1
24	5299.5	1.7	194	28	1
25	5293.4	3.1	217	23	1
26	5307.9	1.1	229	28	1
27	5306.8	4.8	165	29	1
28	5292.9	2.7	219	26	1
29	5306.1	3.2	169	24	1
30	5300.0	2.5	192	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	5300.0	8.3	299	16	1
2	5305.7	6.1	472	17	1
3	5308.4	8.2	478	18	1
4	5291.0	6.7	478	17	1
5	5307.9	9.8	432	16	1
6	5300.7	6.0	322	16	1
7	5305.3	6.0	395	16	1
8	5291.6	7.9	304	18	1
9	5306.1	8.0	432	18	1
10	5301.3	8.4	497	16	1
11	5299.5	9.7	314	18	1
12	5304.8	7.2	311	18	1
13	5292.3	7.7	377	17	1
14	5306.8	9.9	335	16	1
15	5308.4	9.2	498	16	1
16	5297.3	8.4	255	17	1
17	5301.9	7.6	488	18	1
18	5292.9	8.6	463	17	1
19	5302.7	8.0	258	17	1
20	5295.2	6.2	447	17	1
21	5304.4	7.0	367	18	1
22	5296.7	9.4	415	18	1
23	5303.1	7.5	405	18	1
24	5293.4	9.0	308	17	1
25	5303.8	9.0	466	18	1
26	5309.0	7.4	410	16	1
27	5302.1	7.4	312	18	1
28	5307.2	6.9	489	17	1
29	5293.8	10.0	466	17	1
30	5294.0	8.0	405	16	1
Detection Percentage (%)					100%

Radar Type 4 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5293.4	11.8	290	16	1
2	5305.3	13.8	287	15	1
3	5300.7	17.9	442	15	1
4	5307.2	13.3	312	13	1
5	5291.0	18.5	263	15	1
6	5301.3	17.6	500	13	1
7	5300.0	17.2	438	13	1
8	5304.4	19.4	361	13	1
9	5291.6	17.2	288	15	1
10	5304.8	15.7	258	15	1
11	5299.5	19.8	253	16	1
12	5292.3	17.8	494	14	1
13	5301.9	11.9	287	15	1
14	5292.9	13.3	464	16	1
15	5305.7	14.8	284	15	1
16	5308.4	18.5	251	13	1
17	5302.1	12.7	304	13	1
18	5302.7	14.3	398	13	1
19	5297.3	11.4	299	14	1
20	5293.8	18.2	302	12	1
21	5306.8	19.8	403	15	1
22	5306.1	18.0	454	12	1
23	5303.8	18.6	297	13	1
24	5307.9	11.7	322	15	1
25	5296.7	16.6	338	12	1
26	5309.0	15.0	369	15	1
27	5294.0	18.3	476	16	1
28	5308.4	16.2	461	16	1
29	5303.1	18.1	351	12	1
30	5295.2	12.8	438	12	1
Detection Percentage (%)					100%

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

Radar Type 5 - Radar Statistical Performance

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

Type 5 Radar Waveform_1

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	302341	2	12	60	1413	1576	0	302341	0	666666
2	515310	1	12	95	1080	0	0	820640	666667	1333333
3	1033492	3	12	55	1430	1642	1468	1855212	1333334	2000000
4	350772	3	12	75	1925	1898	1050	2210524	2000001	2666667
5	1103015	2	12	65	1904	1575	0	3318412	2666668	3333334
6	254026	1	12	55	1443	0	0	3575917	3333335	4000001
7	928160	1	12	50	1383	0	0	4505520	4000002	4666668
8	590159	3	12	80	1016	1737	1996	5097062	4666669	5333335
9	844133	1	12	80	1267	0	0	5945944	5333336	6000002
10	79269	3	12	55	1080	1393	1238	6026480	6000003	6666669
11	863630	2	12	100	1540	1196	0	6893821	6666670	7333336
12	727695	3	12	95	1681	1463	1848	7624252	7333337	8000003
13	814030	2	12	70	1496	1740	0	8443274	8000004	8666670
14	620919	2	12	60	1864	1678	0	9067429	8666671	9333337
15	615524	3	12	75	1248	1298	1299	9686495	9333338	10000004
16	793764	1	12	50	1783	0	0	10484104	10000005	10666671
17	211581	3	12	50	1075	1838	1361	10697468	10666672	11333338
18	1105050	1	12	50	1676	0	0	11806792	11333339	12000005

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

Type 5 Radar Waveform_2

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	998075	1	17	80	1275	0	0	998075	0	1090908
2	311930	3	17	95	1807	1291	1123	1311280	1090909	2181817
3	1522796	3	17	60	1287	1820	1942	2838297	2181818	3272726
4	534220	3	17	100	1569	1203	1670	3377566	3272727	4363635
5	1006524	2	17	55	1145	1081	0	4388532	4363636	5454544
6	1987314	2	17	70	1941	1563	0	6378072	5454545	6545453
7	182035	3	17	70	1394	1254	1491	6563611	6545454	7636362
8	1688123	3	17	75	1491	1843	1152	8255873	7636363	8727271
9	1175686	3	17	80	1020	1893	1408	9436045	8727272	9818180
10	446492	3	17	70	1506	1085	1435	9886858	9818181	10909089
11	1165378	2	17	95	1402	1093	0	11056262	10909090	11999998

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

Type 5 Radar Waveform_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	993353	1	9	50	1098	0	0	993353	0	1090908
2	99287	3	9	90	1039	1552	1777	1093738	1090909	2181817
3	2114859	1	9	50	1485	0	0	3212965	2181818	3272726
4	190307	3	9	75	1578	1285	1282	3404757	3272727	4363635
5	1003981	2	9	95	1516	1177	0	4412883	4363636	5454544
6	1086745	3	9	90	1806	1398	1490	5502321	5454545	6545453
7	1702714	2	9	65	1122	1788	0	7209729	6545454	7636362
8	593566	3	9	100	1911	1441	1481	7806205	7636363	8727271
9	1263205	3	9	80	1030	1931	1520	9074243	8727272	9818180
10	1284092	3	9	90	1344	1563	1218	10362816	9818181	10909089
11	669413	2	9	60	1809	1643	0	11036354	10909090	11999998

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

Type 5 Radar Waveform_4

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	804099	3	14	65	1031	1500	1222	804099	0	1333332
2	1794554	1	14	50	1947	0	0	2602406	1333333	2666665
3	302490	1	14	70	1723	0	0	2906843	2666666	3999998
4	1283548	3	14	55	1381	1356	1880	4192114	3999999	5333331
5	2331992	1	14	75	1799	0	0	6528723	5333332	6666664
6	582800	2	14	85	1191	1022	0	7113322	6666665	7999997
7	1871728	1	14	55	1275	0	0	8987263	7999998	9333330
8	1045261	1	14	50	1562	0	0	10033799	9333331	10666663
9	801479	3	14	65	1815	1849	1770	10836840	10666664	11999996

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

Type 5 Radar Waveform_5

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	113539	1	5	55	1584	0	0	113539	0	1499999
2	1462744	3	5	85	1277	1232	1237	1577867	1500000	2999999
3	1428979	3	5	95	1776	1080	1984	3010592	3000000	4499999
4	1648948	1	5	55	1981	0	0	4664380	4500000	5999999
5	1455846	2	5	70	1526	1397	0	6122207	6000000	7499999
6	2030939	1	5	80	1309	0	0	8156069	7500000	8999999
7	1876798	2	5	75	1807	1675	0	10034176	9000000	10499999
8	486962	3	5	80	1624	1436	1146	10524620	10500000	11999999

Total number of pulses in waveform = 16

Type 5 Radar Waveform_6

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	831593	3	10	80	1274	1576	1146	831593	0	1199999
2	1479701	1	10	50	1128	0	0	2315290	1200000	2399999
3	897352	2	10	90	1076	1742	0	3213770	2400000	3599999
4	1183724	3	10	50	1761	1143	1987	4400312	3600000	4799999
5	1373321	2	10	80	1967	1790	0	5778524	4800000	5999999
6	383210	1	10	75	1994	0	0	6165491	6000000	7199999
7	1850819	3	10	50	1473	1630	1274	8018304	7200000	8399999
8	951936	2	10	80	1692	1779	0	8974617	8400000	9599999
9	1307572	3	10	65	1848	1727	1764	10285660	9600000	10799999
10	1350951	2	10	65	1086	1681	0	11641950	10800000	11999999

Total number of pulses in waveform = 22

Type 5 Radar Waveform_7

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	256447	3	6	80	1399	1138	1462	256447	0	857142
2	1262258	1	6	95	1649	0	0	1522704	857143	1714285
3	712564	3	6	100	1092	1087	1279	2236917	1714286	2571428
4	579289	2	6	60	1107	1113	0	2819664	2571429	3428571
5	956086	2	6	70	1074	1623	0	3777970	3428572	4285714
6	1353853	2	6	55	1375	1888	0	5134520	4285715	5142857
7	430103	3	6	95	1722	1321	1144	5567886	5142858	6000000
8	1058600	3	6	100	1883	1881	1401	6630673	6000001	6857143
9	686629	3	6	90	1581	1620	1001	7322467	6857144	7714286
10	663517	1	6	85	1180	0	0	7990186	7714287	8571429
11	824147	3	6	95	1838	1642	1302	8815513	8571430	9428572
12	845197	3	6	55	1119	1934	1586	9665492	9428573	10285715
13	654241	2	6	70	1638	1881	0	10324372	10285716	11142858
14	1025974	2	6	60	1390	1364	0	11353865	11142859	12000001

Total number of pulses in waveform = 33

Type 5 Radar Waveform_8

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	913366	1	19	100	1809	0	0	913366	0	999999
2	448332	1	19	80	1555	0	0	1363507	1000000	1999999
3	1509514	3	19	70	1533	1068	1981	2874576	2000000	2999999
4	667603	3	19	65	1381	1177	1257	3546761	3000000	3999999
5	931627	1	19	100	1133	0	0	4482203	4000000	4999999
6	982945	2	19	75	1672	1165	0	5466281	5000000	5999999
7	1166696	1	19	80	1417	0	0	6635814	6000000	6999999
8	1124340	1	19	85	1081	0	0	7761571	7000000	7999999
9	387015	1	19	90	1139	0	0	8149667	8000000	8999999
10	1146891	2	19	75	1995	1073	0	9297697	9000000	9999999
11	1582906	2	19	90	1778	1614	0	10883671	10000000	10999999
12	770861	2	19	55	1991	1979	0	11657924	11000000	11999999

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

Type 5 Radar Waveform_9

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	388722	1	18	75	1917	0	0	388722	0	1333332
2	2163507	2	18	80	1674	1347	0	2554146	1333333	2666665
3	797171	1	18	85	1015	0	0	3354338	2666666	3999998
4	1668726	3	18	80	1097	1036	1286	5024079	3999999	5333331
5	1124801	1	18	90	1164	0	0	6152299	5333332	6666664
6	614522	2	18	70	1744	1726	0	6767985	6666665	7999997
7	1919640	2	18	65	1291	1895	0	8691095	7999998	9333330
8	1055880	1	18	95	1145	0	0	9750161	9333331	10666663
9	2160900	3	18	85	1606	1124	1366	11912206	10666664	11999996

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

Type 5 Radar Waveform_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	677130	1	8	90	1535	0	0	677130	0	799999
2	902405	2	8	50	1897	1607	0	1581070	800000	1599999
3	443723	2	8	75	1462	1978	0	2028297	1600000	2399999
4	1038505	1	8	70	1507	0	0	3070242	2400000	3199999
5	898804	3	8	70	1308	1380	1821	3970553	3200000	3999999
6	214270	3	8	70	1180	1122	1841	4189332	4000000	4799999
7	1108760	3	8	80	1551	1620	1080	5302235	4800000	5599999
8	973378	2	8	50	1568	1100	0	6279864	5600000	6399999
9	200213	1	8	85	1873	0	0	6482745	6400000	7199999
10	1025719	3	8	100	1787	1143	1940	7510337	7200000	7999999
11	933596	1	8	60	1560	0	0	8448803	8000000	8799999
12	427232	3	8	100	1985	1876	1514	8877595	8800000	9599999
13	1244142	2	8	80	1761	1406	0	10127112	9600000	10399999
14	797262	2	8	65	1188	1243	0	10927541	10400000	11199999
15	942093	2	8	55	1849	1702	0	11872065	11200000	11999999

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

Type 5 Radar Waveform_11

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	728764	1	8	75	1930	0	0	728764	0	999999
2	468357	2	8	70	1286	1111	0	1199051	1000000	1999999
3	1206607	2	8	90	1919	1440	0	2408055	2000000	2999999
4	1287668	2	8	75	1070	1309	0	3699082	3000000	3999999
5	384258	2	8	50	1947	1911	0	4085719	4000000	4999999
6	1186916	1	8	75	1407	0	0	5276493	5000000	5999999
7	1393315	2	8	70	1518	1675	0	6671215	6000000	6999999
8	450527	3	8	90	1890	1552	1433	7124935	7000000	7999999
9	1444363	1	8	50	1384	0	0	8574173	8000000	8999999
10	1222831	2	8	75	1149	1226	0	9798388	9000000	9999999
11	911343	2	8	85	1060	1938	0	10712106	10000000	10999999
12	645663	2	8	75	1989	1166	0	11360767	11000000	11999999

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

Type 5 Radar Waveform_12

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	162350	1	10	80	1564	0	0	162350	0	1499999
2	1496274	3	10	80	1161	1273	1793	1660188	1500000	2999999
3	2226731	1	10	75	1163	0	0	3891146	3000000	4499999
4	635903	1	10	95	1672	0	0	4528212	4500000	5999999
5	1802182	2	10	100	1915	1477	0	6332066	6000000	7499999
6	2362325	2	10	90	1199	1433	0	8697783	7500000	8999999
7	520833	3	10	60	1487	1907	1241	9221248	9000000	10499999
8	1386560	2	10	55	1362	1298	0	10612443	10500000	11999999

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

Type 5 Radar Waveform_13

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	64771	3	14	100	1443	1974	1180	64771	0	666666
2	1197325	3	14	100	1011	1915	1228	1266693	666667	1333333
3	511466	3	14	50	1034	1437	1952	1782313	1333334	2000000
4	806893	2	14	55	1224	1547	0	2593629	2000001	2666667
5	73918	1	14	75	1921	0	0	2670318	2666668	3333334
6	1068094	3	14	80	1152	1869	1418	3740333	3333335	4000001
7	529446	3	14	75	1908	1697	1471	4274218	4000002	4666668
8	1041168	3	14	55	1818	1660	1565	5320462	4666669	5333335
9	247909	3	14	80	1076	1444	1837	5573414	5333336	6000002
10	768883	1	14	100	1662	0	0	6346654	6000003	6666669
11	463217	3	14	100	1727	1018	1291	6811533	6666670	7333336
12	526633	2	14	85	1989	1433	0	7342202	7333337	8000003
13	888250	2	14	80	1898	1242	0	8233874	8000004	8666670
14	1015247	1	14	85	1137	0	0	9252261	8666671	9333337
15	383283	3	14	85	1006	1004	1355	9636681	9333338	10000004
16	411759	1	14	65	1016	0	0	10051805	10000005	10666671
17	1092615	2	14	60	1304	1790	0	11145436	10666672	11333338
18	304460	3	14	55	1971	1831	1349	11452990	11333339	12000005

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

Type 5 Radar Waveform_14

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	558976	3	5	90	1206	1211	1882	558976	0	749999
2	928986	3	5	60	1386	1353	1222	1492261	750000	1499999
3	628474	2	5	95	1361	1131	0	2124696	1500000	2249999
4	248921	1	5	60	1956	0	0	2376109	2250000	2999999
5	933846	2	5	85	1176	1907	0	3311911	3000000	3749999
6	736014	3	5	50	1805	1364	1887	4051008	3750000	4499999
7	1081021	2	5	50	1335	1585	0	5137085	4500000	5249999
8	289620	2	5	60	1312	1117	0	5429625	5250000	5999999
9	585471	1	5	60	1665	0	0	6017525	6000000	6749999
10	1199137	1	5	60	1750	0	0	7218327	6750000	7499999
11	524156	1	5	90	1314	0	0	7744233	7500000	8249999
12	1035532	3	5	70	1040	1743	1121	8781079	8250000	8999999
13	503535	1	5	80	1190	0	0	9288518	9000000	9749999
14	462322	2	5	85	1998	1619	0	9752030	9750000	10499999
15	918446	1	5	50	1552	0	0	10674093	10500000	11249999
16	917059	1	5	80	1942	0	0	11592704	11250000	11999999

Total number of pulses in waveform = 29

Type 5 Radar Waveform_15

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	731073	3	17	80	1649	1772	1096	731073	0	999999
2	357661	3	17	55	1749	1978	1029	1093251	1000000	1999999
3	1695020	3	17	90	1046	1846	1454	2793027	2000000	2999999
4	253657	3	17	90	1311	1327	1741	3051030	3000000	3999999
5	1317501	2	17	90	1060	1900	0	4372910	4000000	4999999
6	943363	3	17	85	1261	1445	1176	5319233	5000000	5999999
7	1255445	1	17	55	1032	0	0	6578560	6000000	6999999
8	715043	3	17	80	1470	1498	1725	7294635	7000000	7999999
9	1578472	1	17	90	1657	0	0	8877800	8000000	8999999
10	412457	1	17	55	1887	0	0	9291914	9000000	9999999
11	1173855	3	17	90	1013	1888	1685	10467656	10000000	10999999
12	787729	1	17	100	1095	0	0	11259971	11000000	11999999

Total number of pulses in waveform = 27

Type 5 Radar Waveform_16

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	465116	2	19	60	1306	1674	0	465116	0	666666
2	642427	1	19	85	1787	0	0	1110523	666667	1333333
3	547756	3	19	75	1828	1592	1573	1660066	1333334	2000000
4	381148	1	19	55	1960	0	0	2046207	2000001	2666667
5	624523	2	19	85	1861	1761	0	2672690	2666668	3333334
6	1302404	1	19	85	1209	0	0	3978716	3333335	4000001
7	217729	2	19	60	1866	1089	0	4197654	4000002	4666668
8	853493	2	19	50	1650	1262	0	5054102	4666669	5333335
9	643777	1	19	75	1921	0	0	5700791	5333336	6000002
10	709605	3	19	75	1077	1930	1795	6412317	6000003	6666669
11	628740	3	19	60	1134	1760	1359	7045859	6666670	7333336
12	369949	2	19	100	1541	1074	0	7420061	7333337	8000003
13	917131	1	19	60	1116	0	0	8339807	8000004	8666670
14	364269	1	19	50	1384	0	0	8705192	8666671	9333337
15	1023040	2	19	75	1164	1228	0	9729616	9333338	10000004
16	527833	3	19	75	1128	1272	1528	10259841	10000005	10666671
17	474774	3	19	85	1253	1662	1124	10738543	10666672	11333338
18	941553	3	19	80	1800	1541	1246	11684135	11333339	12000005

Total number of pulses in waveform = 36

Type 5 Radar Waveform_17

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	248509	1	18	80	1998	0	0	248509	0	799999
2	968953	2	18	75	1902	1769	0	1219460	800000	1599999
3	1022169	1	18	55	1230	0	0	2245300	1600000	2399999
4	403923	3	18	60	1487	1515	1842	2650453	2400000	3199999
5	912931	2	18	85	1345	1135	0	3568228	3200000	3999999
6	960386	3	18	90	1801	1528	1379	4531094	4000000	4799999
7	932741	2	18	75	1705	1064	0	5468543	4800000	5599999
8	732433	2	18	100	1180	1844	0	6203745	5600000	6399999
9	240784	2	18	80	1700	1660	0	6447553	6400000	7199999
10	794156	3	18	95	1042	1167	1803	7245069	7200000	7999999
11	899839	1	18	70	1997	0	0	8148920	8000000	8799999
12	796789	3	18	95	1041	1759	1019	8947706	8800000	9599999
13	950814	1	18	60	1667	0	0	9902339	9600000	10399999
14	1157558	1	18	90	1835	0	0	11061564	10400000	11199999
15	775647	1	18	70	1860	0	0	11839046	11200000	11999999

Total number of pulses in waveform = 28

Type 5 Radar Waveform_18

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	704452	1	6	85	1111	0	0	704452	0	705881
2	37736	3	6	90	1753	1540	1557	743299	705882	1411763
3	897410	3	6	75	1399	1167	1038	1645559	1411764	2117645
4	948189	2	6	90	1485	1983	0	2597352	2117646	2823527
5	381823	1	6	90	1874	0	0	2982643	2823528	3529409
6	1142824	2	6	90	1064	1721	0	4127341	3529410	4235291
7	625647	1	6	90	1825	0	0	4755773	4235292	4941173
8	314258	1	6	50	1330	0	0	5071856	4941174	5647055
9	944767	3	6	60	1410	1711	1794	6017953	5647056	6352937
10	375259	2	6	90	1644	1618	0	6398127	6352938	7058819
11	1098740	1	6	50	1762	0	0	7500129	7058820	7764701
12	354454	3	6	70	1855	1664	1202	7856345	7764702	8470583
13	1278762	2	6	65	1341	1361	0	9139828	8470584	9176465
14	221065	2	6	60	1217	1140	0	9363595	9176466	9882347
15	1004615	3	6	65	1267	1733	1139	10370567	9882348	10588229
16	227728	1	6	100	1227	0	0	10602434	10588230	11294111
17	1362169	2	6	60	1839	1031	0	11965830	11294112	11999993

Total number of pulses in waveform = 33

Type 5 Radar Waveform_19

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	94658	2	9	70	1544	1011	0	94658	0	923076
2	1015951	1	9	55	1231	0	0	1113164	923077	1846153
3	1401528	2	9	90	1836	1188	0	2515923	1846154	2769230
4	379198	3	9	100	1637	1318	1115	2898145	2769231	3692307
5	836747	3	9	85	1511	1245	1500	3738962	3692308	4615384
6	1127643	2	9	95	1235	1372	0	4870861	4615385	5538461
7	674935	1	9	75	1322	0	0	5548403	5538462	6461538
8	1652344	1	9	55	1147	0	0	7202069	6461539	7384615
9	672620	1	9	55	1783	0	0	7875836	7384616	8307692
10	449536	2	9	85	1269	1145	0	8327155	8307693	9230769
11	1301464	2	9	95	1975	1331	0	9631033	9230770	10153846
12	1105279	3	9	70	1572	1682	1830	10739618	10153847	11076923
13	559746	2	9	65	1646	1511	0	11304448	11076924	12000000

Total number of pulses in waveform = 25

Type 5 Radar Waveform_20

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	466785	2	12	90	1138	1083	0	466785	0	666666
2	776789	3	12	65	1082	1382	1282	1245795	666667	1333333
3	304388	1	12	65	1676	0	0	1553929	1333334	2000000
4	486798	1	12	90	1728	0	0	2042403	2000001	2666667
5	953416	1	12	65	1596	0	0	2997547	2666668	3333334
6	589422	2	12	55	1240	1775	0	3588565	3333335	4000001
7	827552	1	12	55	1966	0	0	4419132	4000002	4666668
8	446734	2	12	60	1947	1864	0	4867832	4666669	5333335
9	470822	2	12	80	1817	1670	0	5342465	5333336	6000002
10	820722	3	12	60	1826	1722	1991	6166674	6000003	6666669
11	972552	2	12	100	1139	1433	0	7144765	6666670	7333336
12	254502	1	12	60	1456	0	0	7401839	7333337	8000003
13	638620	3	12	70	1097	1436	1388	8041915	8000004	8666670
14	1242455	1	12	65	1029	0	0	9288291	8666671	9333337
15	502856	1	12	90	1590	0	0	9792176	9333338	10000004
16	384775	1	12	75	1909	0	0	10178541	10000005	10666671
17	642868	2	12	85	1131	1306	0	10823318	10666672	11333338
18	1012979	1	12	90	1396	0	0	11838734	11333339	12000005

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

Type 5 Radar Waveform_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	377105	1	8	100	1763	0	0	377105	0	1090908
2	1793643	2	8	65	1247	1714	0	2172511	1090909	2181817
3	530956	1	8	65	1389	0	0	2706428	2181818	3272726
4	916239	2	8	65	1674	1363	0	3624056	3272727	4363635
5	966419	1	8	100	1129	0	0	4593512	4363636	5454544
6	1492283	1	8	50	1608	0	0	6086924	5454545	6545453
7	1507992	3	8	75	1277	1116	1373	7596524	6545454	7636362
8	36134	1	8	75	1775	0	0	7636424	7636363	8727271
9	1768298	2	8	55	1734	1014	0	9406497	8727272	9818180
10	1359459	1	8	85	1533	0	0	10768704	9818181	10909089
11	799276	1	8	100	1485	0	0	11569513	10909090	11999998

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

Type 5 Radar Waveform_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	359903	3	12	65	1556	1987	1206	359903	0	799999
2	1070796	3	12	50	1202	1812	1755	1435448	800000	1599999
3	318236	2	12	60	1304	1512	0	1758453	1600000	2399999
4	1052327	1	12	65	1761	0	0	2813596	2400000	3199999
5	759131	2	12	55	1526	1645	0	3574488	3200000	3999999
6	627187	1	12	90	1032	0	0	4204846	4000000	4799999
7	950688	1	12	85	1713	0	0	5156566	4800000	5599999
8	1129025	1	12	65	1443	0	0	6287304	5600000	6399999
9	809074	3	12	65	1427	1293	1405	7097821	6400000	7199999
10	310382	1	12	65	1604	0	0	7412328	7200000	7999999
11	967653	3	12	55	1655	1184	1759	8381585	8000000	8799999
12	484573	1	12	80	1652	0	0	8870756	8800000	9599999
13	1505268	1	12	50	1271	0	0	10377676	9600000	10399999
14	756352	1	12	75	1915	0	0	11135299	10400000	11199999
15	464349	3	12	50	1928	1912	1309	11601563	11200000	11999999

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

Type 5 Radar Waveform_23

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	399393	3	10	70	1935	1811	1039	399393	0	857142
2	500213	3	10	100	1154	1934	1394	904391	857143	1714285
3	940295	2	10	100	1768	1437	0	1849168	1714286	2571428
4	1140945	1	10	85	1931	0	0	2993318	2571429	3428571
5	756011	1	10	75	1520	0	0	3751260	3428572	4285714
6	831552	2	10	80	1691	1520	0	4584332	4285715	5142857
7	901452	1	10	85	1794	0	0	5488995	5142858	6000000
8	571487	3	10	65	1656	1230	1216	6062276	6000001	6857143
9	1110088	1	10	100	1420	0	0	7176466	6857144	7714286
10	1151355	1	10	50	1849	0	0	8329241	7714287	8571429
11	357267	1	10	60	1432	0	0	8688357	8571430	9428572
12	1160115	3	10	80	1484	1530	1343	9849904	9428573	10285715
13	1104473	3	10	95	1164	1099	1115	10958734	10285716	11142858
14	233479	1	10	60	1950	0	0	11195591	11142859	12000001

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

Type 5 Radar Waveform_24

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	1011825	1	19	55	1462	0	0	1011825	0	1333332
2	1277422	3	19	50	1680	1368	1996	2290709	1333333	2666665
3	845574	2	19	75	1182	1897	0	3141327	2666666	3999998
4	2003439	2	19	50	1523	1697	0	5147845	3999999	5333331
5	1109488	1	19	55	1173	0	0	6260553	5333332	6666664
6	1055290	2	19	55	1145	1504	0	7317016	6666665	7999997
7	802393	1	19	65	1614	0	0	8122058	7999998	9333330
8	2360545	2	19	90	1419	1415	0	10484217	9333331	10666663
9	692628	2	19	90	1357	1818	0	11179679	10666664	11999996

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

Type 5 Radar Waveform_25

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	359519	2	5	65	1064	1729	0	359519	0	1499999
2	1686078	2	5	90	1456	1266	0	2048390	1500000	2999999
3	1184756	1	5	95	1111	0	0	3235868	3000000	4499999
4	2453056	3	5	50	1938	1838	1915	5690035	4500000	5999999
5	1024892	2	5	70	1873	1560	0	6720618	6000000	7499999
6	1039318	3	5	90	1788	1436	1859	7763369	7500000	8999999
7	2565390	2	5	55	1889	1290	0	10333842	9000000	10499999
8	1613152	1	5	60	1673	0	0	11950173	10500000	11999999

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

Type 5 Radar Waveform_26

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	292344	2	14	90	1814	1506	0	292344	0	1090908
2	1612953	3	14	100	1809	1154	1800	1908617	1090909	2181817
3	853917	2	14	85	1498	1634	0	2767297	2181818	3272726
4	863598	2	14	80	1373	1501	0	3634027	3272727	4363635
5	1775612	2	14	65	1687	1237	0	5412513	4363636	5454544
6	105998	1	14	65	1488	0	0	5521435	5454545	6545453
7	1982412	3	14	100	1081	1721	1824	7505335	6545454	7636362
8	484812	1	14	100	1614	0	0	7994773	7636363	8727271
9	987992	3	14	100	1324	1942	1059	8984379	8727272	9818180
10	860852	3	14	55	1611	1910	1986	9849556	9818181	10909089
11	1777102	2	14	65	1766	1491	0	11632165	10909090	11999998

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

Type 5 Radar Waveform_27

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	743441	1	18	65	1169	0	0	743441	0	923076
2	898756	3	18	95	1582	1164	1780	1643366	923077	1846153
3	396297	2	18	55	1541	1622	0	2044189	1846154	2769230
4	1211920	2	18	60	1408	1247	0	3259272	2769231	3692307
5	597363	2	18	65	1297	1619	0	3859290	3692308	4615384
6	1328874	2	18	55	1169	1215	0	5191080	4615385	5538461
7	452192	3	18	75	1608	1970	1026	5645656	5538462	6461538
8	1025389	1	18	55	1774	0	0	6675649	6461539	7384615
9	1532109	1	18	85	1964	0	0	8209532	7384616	8307692
10	474406	1	18	60	1627	0	0	8685902	8307693	9230769
11	1369241	3	18	95	1720	1438	1090	10056770	9230770	10153846
12	366819	2	18	70	1304	1453	0	10427837	10153847	11076923
13	1478727	3	18	80	1567	1129	1249	11909321	11076924	12000000

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

Type 5 Radar Waveform_28

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	838024	1	6	85	1730	0	0	838024	0	923076
2	907422	2	6	65	1051	1451	0	1747176	923077	1846153
3	462462	1	6	90	1483	0	0	2212140	1846154	2769230
4	1355334	1	6	95	1214	0	0	3568957	2769231	3692307
5	254520	1	6	55	1853	0	0	3824691	3692308	4615384
6	1196325	2	6	65	1516	1153	0	5022869	4615385	5538461
7	1096288	3	6	55	1943	1155	1964	6121826	5538462	6461538
8	1165153	1	6	90	1041	0	0	7292041	6461539	7384615
9	956058	3	6	70	1012	1091	1468	8249140	7384616	8307692
10	713762	2	6	95	1662	1462	0	8966473	8307693	9230769
11	761317	1	6	95	1593	0	0	9730914	9230770	10153846
12	523678	3	6	90	1653	1007	1335	10256185	10153847	11076923
13	827289	3	6	65	1725	1687	1427	11087469	11076924	12000000

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

Type 5 Radar Waveform_29

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	116800	2	17	50	1741	1250	0	116800	0	799999
2	1381521	3	17	100	1199	1107	1755	1501312	800000	1599999
3	605248	3	17	95	1948	1455	1492	2110621	1600000	2399999
4	546512	2	17	95	1198	1409	0	2662028	2400000	3199999
5	1151353	2	17	60	1783	1604	0	3815988	3200000	3999999
6	433702	2	17	50	1477	1952	0	4253077	4000000	4799999
7	614378	2	17	50	1289	1917	0	4870884	4800000	5599999
8	877708	2	17	80	1102	1659	0	5751798	5600000	6399999
9	1083518	3	17	65	1133	1143	1881	6838077	6400000	7199999
10	699880	2	17	70	1089	1211	0	7542114	7200000	7999999
11	938530	3	17	75	1870	1837	1030	8482944	8000000	8799999
12	473251	1	17	85	1972	0	0	8960932	8800000	9599999
13	1204126	1	17	100	1656	0	0	10167030	9600000	10399999
14	375758	2	17	60	1432	1541	0	10544444	10400000	11199999
15	971889	1	17	80	1950	0	0	11519306	11200000	11999999

Total number of pulses in waveform = 31
++

Type 5 Radar Waveform_30

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	532988	2	9	90	1704	1304	0	532988	0	631578
2	557741	1	9	85	1887	0	0	1093737	631579	1263157
3	787643	1	9	60	1064	0	0	1883267	1263158	1894736
4	94796	2	9	50	1946	1060	0	1979127	1894737	2526315
5	671995	2	9	100	1113	1026	0	2654128	2526316	3157894
6	1084418	2	9	60	1005	1296	0	3740685	3157895	3789473
7	261788	2	9	95	1727	1208	0	4004774	3789474	4421052
8	478725	2	9	65	1154	1836	0	4486434	4421053	5052631
9	650540	1	9	100	1060	0	0	5139964	5052632	5684210
10	867618	2	9	65	1946	1757	0	6008642	5684211	6315789
11	914650	2	9	75	1691	1875	0	6926995	6315790	6947368
12	506795	3	9	85	1472	1118	1359	7437356	6947369	7578947
13	403288	1	9	80	1080	0	0	7844593	7578948	8210526
14	660728	1	9	95	1070	0	0	8506401	8210527	8842105
15	551131	2	9	55	1558	1774	0	9058602	8842106	9473684
16	453645	3	9	55	1792	1510	1194	9515579	9473685	10105263
17	605512	2	9	65	1214	1955	0	10125587	10105264	10736842
18	809654	1	9	70	1342	0	0	10938410	10736843	11368421
19	1009491	2	9	60	1084	1970	0	11949243	11368422	12000000

Total number of pulses in waveform = 34
++

Radar Type 6 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	1=Detection 0=No Detection	Trail #	Test Freq. (MHz)	1=Detection 0=No Detection
1	5302.7	1	16	5292.9	1
2	5306.1	1	17	5300.0	1
3	5307.2	1	18	5301.3	1
4	5293.4	1	19	5291.0	1
5	5308.4	1	20	5306.8	1
6	5301.9	1	21	5309.0	1
7	5294.0	1	22	5292.3	1
8	5296.7	1	23	5303.8	1
9	5305.7	1	24	5307.9	1
10	5297.3	1	25	5295.2	1
11	5293.8	1	26	5308.4	1
12	5304.4	1	27	5291.6	1
13	5302.1	1	28	5304.8	1
14	5300.7	1	29	5305.3	1
15	5303.1	1	30	5299.5	1
Detection Percentage (%)					100%

Radar waveform #1			Radar waveform #2		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
7	5307	21	10	5274	30
10	5321	30	25	5272	75
12	5267	36	27	5289	81
13	5303	39	28	5308	84
15	5266	45	35	5306	105
32	5285	96	41	5309	123
34	5317	102	69	5304	207
36	5298	108	70	5291	210
49	5293	147	73	5297	219
73	5301	219	79	5292	237
80	5289	240	83	5319	249
81	5312	243	--	--	--
89	5300	267	--	--	--
94	5302	282	--	--	--
97	5273	291	--	--	--

Radar waveform #3			Radar waveform #4		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
0	5292	0	12	5293	36
3	5267	9	13	5271	39
23	5320	69	23	5298	69
26	5304	78	30	5308	90
34	5306	102	38	5270	114
37	5305	111	42	5280	126
41	5311	123	57	5291	171
47	5264	141	65	5267	195
49	5315	147	71	5281	213
58	5270	174	76	5307	228
66	5285	198	77	5306	231
69	5281	207	86	5299	258
74	5276	222	87	5314	261
78	5299	234	88	5322	264
81	5310	243	98	5275	294
90	5277	270	--	--	--

Radar waveform #5			Radar waveform #6		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
10	5284	30	4	5287	12
11	5270	33	7	5293	21
12	5311	36	13	5312	39
22	5312	66	26	5291	78
35	5325	105	28	5324	84
36	5308	108	30	5276	90
56	5313	168	44	5285	132
58	5306	174	64	5320	192
61	5322	183	66	5323	198
63	5316	189	85	5292	255
68	5281	204	87	5279	261
75	5265	225	--	--	--

Radar waveform #7			Radar waveform #8		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
40	5323	120	0	5291	0
44	5319	132	1	5294	3
52	5289	156	11	5285	33
54	5305	162	19	5286	57
64	5269	192	21	5313	63
72	5276	216	22	5269	66
73	5283	219	30	5308	90
79	5292	237	33	5273	99
91	5314	273	47	5305	141
--	--	--	63	5324	189
--	--	--	69	5310	207
--	--	--	76	5290	228
--	--	--	80	5297	240
--	--	--	88	5292	264
--	--	--	94	5312	282

Radar waveform #9			Radar waveform #10		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
2	5273	6	0	5276	0
7	5308	21	24	5295	72
28	5318	84	35	5303	105
40	5321	120	36	5289	108
42	5295	126	42	5269	126
60	5326	180	45	5314	135
61	5322	183	48	5277	144
63	5298	189	64	5274	192
65	5285	195	71	5319	213
96	5313	288	78	5275	234
97	5296	291	82	5309	246
--	--	--	85	5273	255
--	--	--	96	5311	288

Radar waveform #11			Radar waveform #12		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Frequency (MHz)	Hopping Number	Pulse Start (ms)
15	5330	45	3	5287	9
16	5282	48	11	5326	33
19	5314	57	17	5286	51
24	5293	72	19	5282	57
43	5329	129	20	5295	60
53	5278	159	27	5305	81
56	5288	168	33	5313	99
57	5284	171	55	5321	165
62	5291	186	57	5296	171
82	5289	246	58	5311	174
87	5305	261	65	5283	195
--	--	--	81	5328	243
--	--	--	85	5329	255
--	--	--	87	5312	261
--	--	--	92	5315	276

Radar waveform #13			Radar waveform #14		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
5	5272	15	0	5327	0
21	5316	63	5	5313	15
31	5294	93	8	5321	24
33	5277	99	10	5304	30
37	5273	111	22	5276	66
39	5283	117	40	5274	120
56	5290	168	52	5289	156
60	5305	180	86	5300	258
70	5300	210	87	5324	261
83	5301	249	93	5308	279
92	5297	276	--	--	--
93	5280	279	--	--	--

Radar waveform #15			Radar waveform #16		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
21	5315	63	1	5289	3
57	5298	171	12	5307	36
58	5329	174	24	5319	72
61	5313	183	36	5315	108
71	5316	213	48	5291	144
77	5321	231	49	5320	147
93	5310	279	54	5329	162
--	--	--	58	5304	174
--	--	--	60	5300	180
--	--	--	65	5297	195
--	--	--	83	5282	249
--	--	--	94	5306	282
--	--	--	97	5287	291

Radar waveform #17			Radar waveform #18		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
22	5304	66	13	5301	39
30	5278	90	27	5305	81
38	5295	114	31	5320	93
43	5294	129	40	5311	120
55	5284	165	43	5302	129
79	5271	237	56	5325	168
83	5286	249	57	5284	171
88	5314	264	61	5319	183
95	5296	285	81	5312	243
97	5272	291	83	5300	249
98	5302	294	--	--	--

Radar waveform #19			Radar waveform #20		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
4	5291	12	2	5312	6
7	5315	21	15	5289	45
18	5303	54	26	5328	78
30	5312	90	28	5313	84
36	5287	108	32	5277	96
41	5309	123	39	5308	117
54	5278	162	54	5310	162
61	5301	183	74	5298	222
63	5306	189	77	5288	231
66	5285	198	84	5284	252
75	5279	225	88	5290	264
81	5322	243	98	5326	294
99	5286	297	--	--	--

Radar waveform #21			Radar waveform #22		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
42	5274	126	5	5291	15
47	5311	141	11	5302	33
51	5282	153	13	5296	39
64	5273	192	19	5299	57
65	5320	195	23	5298	69
69	5271	207	25	5272	75
70	5317	210	27	5280	81
78	5290	234	29	5292	87
80	5300	240	34	5314	102
83	5291	249	46	5281	138
90	5284	270	59	5320	177
--	--	--	65	5325	195
--	--	--	67	5312	201
--	--	--	74	5326	222
--	--	--	80	5275	240
--	--	--	83	5278	249

Radar waveform #23			Radar waveform #24		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
0	5279	0	15	5285	45
9	5288	27	24	5294	72
10	5333	30	30	5320	90
14	5321	42	31	5298	93
21	5274	63	32	5295	96
23	5315	69	39	5309	117
32	5301	96	63	5328	189
42	5332	126	66	5292	198
67	5295	201	72	5329	216
71	5286	213	94	5315	282
74	5307	222	95	5283	285
77	5282	231	--	--	--
78	5326	234	--	--	--
80	5305	240	--	--	--
83	5283	249	--	--	--
84	5320	252	--	--	--

Radar waveform #25			Radar waveform #26		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
1	5300	3	22	5291	66
4	5283	12	25	5334	75
9	5303	27	33	5312	99
22	5316	66	63	5293	189
24	5324	72	81	5303	243
27	5332	81	96	5317	288
30	5280	90	97	5306	291
49	5309	147	--	--	--
50	5281	150	--	--	--
55	5329	165	--	--	--
68	5315	204	--	--	--
73	5321	219	--	--	--
82	5311	246	--	--	--
83	5291	249	--	--	--
86	5289	258	--	--	--
91	5294	273	--	--	--

Radar waveform #27			Radar waveform #28		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
4	5292	12	6	5307	18
6	5296	18	16	5295	48
11	5307	33	28	5329	84
12	5305	36	42	5312	126
21	5288	63	43	5331	129
22	5297	66	54	5324	162
23	5315	69	58	5297	174
25	5298	75	68	5286	204
30	5332	90	73	5284	219
42	5306	126	77	5325	231
53	5330	159	91	5289	273
63	5323	189	92	5321	276
81	5310	243	99	5303	297
83	5303	249	--	--	--
97	5327	291	--	--	--

Radar waveform #29			Radar waveform #30		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
3	5294	9	5	5324	15
13	5283	39	8	5292	24
24	5320	72	16	5328	48
28	5311	84	18	5325	54
34	5289	102	26	5278	78
41	5328	123	57	5330	171
43	5284	129	87	5291	261
48	5307	144	92	5300	276
61	5290	183	96	5297	288
78	5293	234	99	5286	297
91	5303	273	--	--	--

Radar Statistical Performance for 802.11n-HT40

Radar Type 1 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5292.0	1	658	81	1
2	5293.4	1	798	67	1
3	5294.6	1	578	92	1
4	5295.2	1	518	102	1
5	5296.3	1	598	89	1
6	5297.7	1	698	76	1
7	5298.5	1	738	72	1
8	5299.8	1	618	86	1
9	5300.1	1	858	62	1
10	5301.9	1	3066	18	1
11	5302.4	1	778	68	1
12	5303.5	1	898	59	1
13	5304.9	1	878	61	1
14	5305.3	1	758	70	1
15	5306.8	1	918	58	1
16	5307.3	1	1845	29	1
17	5308.5	1	2484	22	1
18	5309.3	1	1965	27	1
19	5310.4	1	1946	28	1
20	5311.9	1	2564	21	1
21	5313.3	1	2013	27	1
22	5315.7	1	2551	21	1
23	5317.3	1	2729	20	1
24	5319.6	1	1462	37	1
25	5321.2	1	2609	21	1
26	5323.9	1	1079	49	1
27	5325.3	1	1249	43	1
28	5327.6	1	2319	23	1
29	5328.3	1	2196	25	1
30	5329.0	1	2854	19	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	5308.5	2.6	187	29	1
2	5321.2	1.3	208	25	1
3	5328.3	2.7	208	26	1
4	5293.4	4.6	167	29	1
5	5319.6	4.9	178	25	1
6	5307.3	2.4	163	23	1
7	5292.0	4.1	180	26	1
8	5323.9	4.4	193	24	1
9	5300.1	3.4	198	29	1
10	5294.6	4.1	171	27	1
11	5306.8	1.8	162	23	1
12	5301.9	2.0	159	27	1
13	5309.3	2.4	215	27	1
14	5305.3	3.0	159	28	1
15	5295.2	4.8	199	25	1
16	5310.4	1.1	209	27	1
17	5302.4	3.5	216	24	1
18	5317.3	4.0	202	27	1
19	5299.8	2.3	190	23	1
20	5315.7	4.0	219	25	1
21	5303.5	1.4	160	27	1
22	5313.3	4.8	209	24	1
23	5304.9	2.4	156	24	1
24	5296.3	4.8	176	26	1
25	5329.0	3.2	216	26	1
26	5325.3	2.1	224	28	1
27	5297.7	4.1	150	27	1
28	5327.6	2.5	162	25	1
29	5298.5	2.8	172	24	1
30	5311.9	3.4	152	23	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	5310.4	7.8	296	16	1
2	5302.4	6.0	476	18	1
3	5327.6	6.4	476	17	1
4	5293.4	8.0	476	17	1
5	5328.3	8.4	336	18	1
6	5303.5	8.4	421	18	1
7	5301.9	7.9	466	18	1
8	5309.3	7.1	306	16	1
9	5294.6	6.1	421	17	1
10	5304.9	8.3	371	18	1
11	5295.2	7.5	458	18	1
12	5311.9	6.8	408	16	1
13	5292.0	7.3	494	18	1
14	5305.3	9.8	391	18	1
15	5313.3	8.1	272	18	1
16	5300.1	8.1	426	17	1
17	5321.2	6.2	322	16	1
18	5299.8	6.1	281	17	1
19	5323.9	9.4	385	17	1
20	5325.3	7.1	281	16	1
21	5306.8	9.8	484	16	1
22	5315.7	6.1	491	16	1
23	5296.3	8.1	314	16	1
24	5317.3	6.1	478	16	1
25	5307.3	9.0	418	16	1
26	5319.6	9.1	338	16	1
27	5298.5	8.7	374	16	1
28	5308.5	8.8	288	18	1
29	5329.0	7.2	487	16	1
30	5297.7	8.4	422	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	5300.1	17.8	494	14	1
2	5313.3	12.6	483	13	1
3	5301.9	14.1	470	16	1
4	5317.3	14.0	403	15	1
5	5292.0	18.3	466	13	1
6	5315.7	13.3	446	13	1
7	5303.5	13.1	497	12	1
8	5299.8	13.4	331	15	1
9	5311.9	18.2	426	12	1
10	5302.4	12.1	409	12	1
11	5319.6	12.7	393	15	1
12	5293.4	13.2	290	15	1
13	5321.2	13.3	499	12	1
14	5304.9	12.0	465	14	1
15	5310.4	18.8	487	13	1
16	5294.6	11.5	338	12	1
17	5323.9	13.1	459	16	1
18	5305.3	15.2	465	13	1
19	5325.3	14.0	267	16	1
20	5295.2	15.3	397	15	1
21	5306.8	16.3	318	16	1
22	5309.3	17.9	371	14	1
23	5298.5	19.9	297	12	1
24	5329.0	11.5	259	13	1
25	5307.3	18.1	392	12	1
26	5327.6	19.1	258	16	1
27	5296.3	11.3	343	13	1
28	5308.5	11.1	435	13	1
29	5328.3	14.5	354	13	1
30	5297.7	12.9	316	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	5295.6	1	16	5310.0	1
2	5296.8	1	17	5310.0	1
3	5298.8	1	18	5310.0	1
4	5294.0	1	19	5310.0	1
5	5295.2	1	20	5310.0	1
6	5297.6	1	21	5324.8	1
7	5294.4	1	22	5324.4	1
8	5299.6	1	23	5321.2	1
9	5296.0	1	24	5323.2	1
10	5299.2	1	25	5326.0	1
11	5310.0	1	26	5322.4	1
12	5310.0	1	27	5320.4	1
13	5310.0	1	28	5325.6	1
14	5310.0	1	29	5320.8	1
15	5310.0	1	30	5324.0	1
Detection Percentage (%)					100%

Type 5 Radar Waveform_1

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	482828	3	9	80	1282	1397	1328	482828	0	749999
2	923274	2	9	60	1560	1357	0	1410109	750000	1499999
3	498599	1	9	100	1988	0	0	1911625	1500000	2249999
4	712640	3	9	90	1410	1438	1061	2626253	2250000	2999999
5	628938	3	9	60	1624	1998	1093	3259100	3000000	3749999
6	1088481	2	9	65	1568	1223	0	4352296	3750000	4499999
7	329054	2	9	75	1366	1014	0	4684141	4500000	5249999
8	1267237	2	9	95	1619	1748	0	5953758	5250000	5999999
9	311494	2	9	85	1505	1412	0	6268619	6000000	6749999
10	696596	3	9	70	1882	1019	1705	6968132	6750000	7499999
11	1082579	3	9	50	1907	1515	1312	8055317	7500000	8249999
12	325030	3	9	75	1876	1652	1837	8385081	8250000	8999999
13	734683	1	9	55	1314	0	0	9125129	9000000	9749999
14	918473	1	9	90	1014	0	0	10044916	9750000	10499999
15	960471	3	9	90	1064	1069	1075	11006401	10500000	11249999
16	758594	3	6	55	1062	1131	1782	11768203	11250000	11999999

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

Type 5 Radar Waveform_2

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	217948	1	12	80	1329	0	0	217948	0	923076
2	709286	1	12	90	1174	0	0	928563	923077	1846153
3	1714205	1	12	95	1236	0	0	2643942	1846154	2769230
4	230474	1	12	55	1685	0	0	2875652	2769231	3692307
5	1026286	2	12	90	1804	1706	0	3903623	3692308	4615384
6	1031275	1	12	80	1199	0	0	4938408	4615385	5538461
7	640445	3	12	80	1784	1457	1714	5580052	5538462	6461538
8	1115142	3	12	100	1418	1948	1871	6700149	6461539	7384615
9	1395675	2	12	85	1699	1719	0	8101061	7384616	8307692
10	415841	3	12	80	1969	1176	1979	8520320	8307693	9230769
11	722095	3	12	100	1762	1853	1595	9247539	9230770	10153846
12	1812602	3	12	65	1235	1148	1623	11065351	10153847	11076923
13	162074	1	12	80	1375	0	0	11231431	11076924	12000000

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

Type 5 Radar Waveform_3

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	168243	1	17	85	1801	0	0	168243	0	923076
2	803243	3	17	65	1871	1029	1176	973287	923077	1846153
3	1291076	3	17	90	1754	1727	1616	2268439	1846154	2769230
4	1081873	2	17	80	1191	1869	0	3355409	2769231	3692307
5	1087151	2	17	60	1524	1318	0	4445620	3692308	4615384
6	1010729	3	17	80	1900	1119	1502	5459191	4615385	5538461
7	519428	3	17	100	1768	1721	1140	5983140	5538462	6461538
8	1102862	2	17	60	1235	1482	0	7090631	6461539	7384615
9	445533	2	17	100	1710	1502	0	7538881	7384616	8307692
10	1243795	3	17	100	1351	1948	1597	8785888	8307693	9230769
11	466125	2	17	85	1815	1941	0	9256909	9230770	10153846
12	972202	1	17	85	1984	0	0	10232867	10153847	11076923
13	1535204	1	17	85	1760	0	0	11770055	11076924	12000000

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

Type 5 Radar Waveform_4

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	197309	3	5	70	1572	1865	1548	197309	0	799999
2	1204641	2	5	80	1166	1156	0	1406935	800000	1599999
3	312822	2	5	85	1723	1401	0	1722079	1600000	2399999
4	1472811	1	5	100	1502	0	0	3198014	2400000	3199999
5	443491	2	5	60	1572	1612	0	3643007	3200000	3999999
6	613321	3	5	85	1663	1274	1150	4259512	4000000	4799999
7	986135	2	5	55	1532	1703	0	5249734	4800000	5599999
8	788300	2	5	65	1171	1725	0	6041269	5600000	6399999
9	491959	3	5	75	1563	1285	1545	6536124	6400000	7199999
10	1308585	1	5	70	1300	0	0	7849102	7200000	7999999
11	580461	3	5	55	1542	1480	1316	8430863	8000000	8799999
12	1025850	2	5	75	1526	1594	0	9461051	8800000	9599999
13	434218	1	5	100	1434	0	0	9898389	9600000	10399999
14	976064	2	5	85	1245	1982	0	10875887	10400000	11199999
15	998885	2	5	95	1246	1751	0	11877999	11200000	11999999

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

Type 5 Radar Waveform_5

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	746332	2	8	50	1271	1292	0	746332	0	1199999
2	553071	1	8	65	1194	0	0	1301966	1200000	2399999
3	1125603	2	8	60	1772	1193	0	2428763	2400000	3599999
4	1442714	3	8	70	1656	1607	1959	3874442	3600000	4799999
5	1186850	2	8	85	1460	1993	0	5066514	4800000	5999999
6	1704157	3	8	75	1139	1959	1184	6774124	6000000	7199999
7	1155409	1	8	85	1053	0	0	7933815	7200000	8399999
8	835386	2	8	100	1142	1226	0	8770254	8400000	9599999
9	1020026	1	8	50	1769	0	0	9792648	9600000	10799999
10	1543863	3	8	60	1014	1944	1959	11338280	10800000	11999999

Total number of pulses in waveform = 20

****

Type 5 Radar Waveform_6

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	306689	2	14	95	1845	1827	0	306689	0	1199999
2	1339699	2	14	55	1729	1293	0	1650060	1200000	2399999
3	1671413	3	14	100	1933	1985	1270	3324495	2400000	3599999
4	1437265	1	14	75	1187	0	0	4766948	3600000	4799999
5	45850	1	14	85	1236	0	0	4813985	4800000	5999999
6	2113905	1	14	85	1044	0	0	6929126	6000000	7199999
7	1239448	1	14	85	1158	0	0	8169618	7200000	8399999
8	439198	1	14	65	1468	0	0	8609974	8400000	9599999
9	1556526	2	14	60	1081	1227	0	10167968	9600000	10799999
10	1367141	2	14	90	1851	1695	0	11537417	10800000	11999999

Total number of pulses in waveform = 16

****

Type 5 Radar Waveform_7

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	19675	1	6	75	1197	0	0	19675	0	799999
2	1077218	3	6	85	1963	1900	1256	1098090	800000	1599999
3	1023886	2	6	70	1611	1537	0	2127095	1600000	2399999
4	732783	1	6	75	1290	0	0	2863026	2400000	3199999
5	706905	3	6	50	1793	1822	1878	3571221	3200000	3999999
6	573952	3	6	65	1974	1340	1698	4150666	4000000	4799999
7	1141429	1	6	65	1108	0	0	5297107	4800000	5599999
8	907124	2	6	50	1274	1504	0	6205339	5600000	6399999
9	477855	1	6	60	1451	0	0	6685972	6400000	7199999
10	637809	2	6	55	1033	1142	0	7325232	7200000	7999999
11	837618	3	6	100	1109	1076	1747	8165025	8000000	8799999
12	1155303	3	6	80	1138	1556	1172	9324260	8800000	9599999
13	818966	2	6	95	1554	1816	0	10147092	9600000	10399999
14	892416	3	6	85	1422	1966	1856	11042878	10400000	11199999
15	341138	2	6	85	1350	1437	0	11389260	11200000	11999999

Total number of pulses in waveform = 32

****

Type 5 Radar Waveform_8

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	133905	1	19	90	1623	0	0	133905	0	666666
2	1017658	2	19	90	1510	1957	0	1153186	666667	1333333
3	713155	3	19	70	1248	1960	1948	1869808	1333334	2000000
4	282941	1	19	60	1904	0	0	2157905	2000001	2666667
5	1142340	3	19	75	1864	1392	1565	3302149	2666668	3333334
6	159091	2	19	75	1357	1974	0	3466061	3333335	4000001
7	1178217	1	19	75	1427	0	0	4647609	4000002	4666668
8	506655	3	19	70	1434	1526	1255	5156691	4666669	5333335
9	476326	1	19	70	1783	0	0	5636232	5333336	6000002
10	986380	2	19	75	1723	1103	0	6624395	6000003	6666669
11	703137	1	19	65	1792	0	0	7330358	6666670	7333336
12	483249	3	19	55	1129	1453	1503	7815399	7333337	8000003
13	760753	2	19	95	1895	1294	0	8580237	8000004	8666670
14	730569	3	19	100	1313	1340	1703	9313995	8666671	9333337
15	676910	1	19	75	1680	0	0	9995261	9333338	10000004
16	93394	2	19	80	1016	1172	0	10090335	10000005	10666671
17	674754	2	19	50	1238	1316	0	10767277	10666672	11333338
18	915140	2	19	85	1964	1477	0	11684971	11333339	12000005

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

Type 5 Radar Waveform_9

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	36800	2	10	85	1124	1743	0	36800	0	749999
2	1360563	1	10	55	1862	0	0	1400230	750000	1499999
3	249158	1	10	70	1079	0	0	1651250	1500000	2249999
4	851901	1	10	80	1360	0	0	2504230	2250000	2999999
5	1054393	2	10	60	1244	1228	0	3559983	3000000	3749999
6	644965	2	10	55	1346	1910	0	4207420	3750000	4499999
7	472836	2	10	80	1095	1995	0	4683512	4500000	5249999
8	1122582	2	10	50	1913	1330	0	5809184	5250000	5999999
9	399504	3	10	65	1014	1700	1487	6211931	6000000	6749999
10	1102187	2	10	65	1684	1995	0	7318319	6750000	7499999
11	367707	3	10	85	1057	1277	1074	7689705	7500000	8249999
12	825515	1	10	65	1725	0	0	8518628	8250000	8999999
13	797014	2	10	60	1216	1105	0	9317367	9000000	9749999
14	1076392	2	10	85	1257	1366	0	10396080	9750000	10499999
15	246602	1	10	50	1748	0	0	10645305	10500000	11249999
16	612039	3	10	70	1768	1743	1572	11259092	11250000	11999999

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

Type 5 Radar Waveform_10

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	639658	2	18	70	1542	1105	0	639658	0	1499999
2	1426859	2	18	80	1545	1922	0	2069164	1500000	2999999
3	2188105	3	18	75	1977	1644	1040	4260736	3000000	4499999
4	1677404	3	18	85	1860	1476	1657	5942801	4500000	5999999
5	935021	3	18	50	1709	1110	1028	6882815	6000000	7499999
6	1503378	3	18	50	1892	1173	1069	8390040	7500000	8999999
7	1345475	1	18	100	1728	0	0	9739649	9000000	10499999
8	1032306	3	18	50	1822	1956	1756	10773683	10500000	11999999

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

Type 5 Radar Waveform_11

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	1090134	3	9	65	1721	1126	1696	1090134	0	1333332
2	1491203	2	9	60	1564	1081	0	2585880	1333333	2666665
3	336608	1	9	95	1609	0	0	2925133	2666666	3999998
4	1261301	1	9	100	1944	0	0	4188043	3999999	5333331
5	2464969	1	9	75	1118	0	0	6654956	5333332	6666664
6	259441	2	9	80	1022	1384	0	6915515	6666665	7999997
7	1413465	1	9	70	1199	0	0	8331386	7999998	9333330
8	1735506	1	9	80	1645	0	0	10068091	9333331	10666663
9	1246474	2	9	65	1972	1076	0	11316210	10666664	11999996

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

Type 5 Radar Waveform_12

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	549687	2	17	95	1391	1585	0	549687	0	923076
2	649293	1	17	60	1626	0	0	1201956	923077	1846153
3	1154369	2	17	90	1918	1896	0	2357951	1846154	2769230
4	774823	3	17	100	1935	1207	1415	3136588	2769231	3692307
5	607993	2	17	80	1684	1152	0	3749138	3692308	4615384
6	1172852	3	17	65	1869	1854	1571	4924826	4615385	5538461
7	937782	2	17	60	1446	1324	0	5867902	5538462	6461538
8	1206849	3	17	50	1124	1730	1690	7077521	6461539	7384615
9	646344	2	17	70	1589	1013	0	7728409	7384616	8307692
10	1472744	1	17	55	1236	0	0	9203755	8307693	9230769
11	280310	1	17	95	1744	0	0	9485301	9230770	10153846
12	673104	2	17	100	1025	1420	0	10160149	10153847	11076923
13	1058746	3	17	50	1761	1232	1886	11221340	11076924	12000000

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

Type 5 Radar Waveform_13

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	372381	2	12	90	1112	1228	0	372381	0	999999
2	796265	2	12	100	1045	1925	0	1170986	1000000	1999999
3	1314772	1	12	85	1343	0	0	2488728	2000000	2999999
4	1490322	2	12	70	1361	1076	0	3980393	3000000	3999999
5	131344	1	12	60	1528	0	0	4114174	4000000	4999999
6	1822920	1	12	70	1030	0	0	5938622	5000000	5999999
7	768447	2	12	85	1942	1752	0	6708099	6000000	6999999
8	1217876	3	12	70	1072	1043	1656	7929669	7000000	7999999
9	162637	3	12	80	1300	1985	1018	8096077	8000000	8999999
10	1220823	1	12	65	1831	0	0	9321203	9000000	9999999
11	1049851	2	12	75	1671	1328	0	10372885	10000000	10999999
12	1346541	2	12	70	1533	1206	0	11722425	11000000	11999999

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

Type 5 Radar Waveform_14

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	234878	3	8	95	1914	1958	1790	234878	0	705881
2	740761	3	8	85	1193	1040	1584	981301	705882	1411763
3	644283	2	8	75	1273	1977	0	1629401	1411764	2117645
4	537601	2	8	65	1305	1030	0	2170252	2117646	2823527
5	664150	1	8	85	1885	0	0	2836737	2823528	3529409
6	728379	1	8	90	1260	0	0	3567001	3529410	4235291
7	1015576	2	8	50	1228	1743	0	4583837	4235292	4941173
8	751166	1	8	65	1028	0	0	5337974	4941174	5647055
9	550289	3	8	60	1797	1852	1792	5889291	5647056	6352937
10	632158	2	8	50	1348	1125	0	6526890	6352938	7058819
11	1184737	3	8	90	1069	1622	1152	7714100	7058820	7764701
12	390040	2	8	80	1850	1530	0	8107983	7764702	8470583
13	689544	1	8	55	1445	0	0	8800907	8470584	9176465
14	857838	2	8	100	1370	1268	0	9660190	9176466	9882347
15	428034	2	8	75	1197	1656	0	10090862	9882348	10588229
16	821322	1	8	90	1493	0	0	10915037	10588230	11294111
17	652711	1	8	100	1649	0	0	11569241	11294112	11999993

Total number of pulses in waveform = 32

Type 5 Radar Waveform_15

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	649414	3	5	80	1798	1743	1493	649414	0	705881
2	61016	1	5	65	1494	0	0	715464	705882	1411763
3	1339097	3	5	80	1718	1932	1836	2056055	1411764	2117645
4	523858	3	5	50	1966	1716	1211	2585399	2117646	2823527
5	424010	3	5	100	1252	1574	1043	3014302	2823528	3529409
6	600307	3	5	50	1316	1710	1456	3618478	3529410	4235291
7	822745	1	5	60	1690	0	0	4445705	4235292	4941173
8	934435	2	5	75	1170	1025	0	5381830	4941174	5647055
9	602237	1	5	85	1403	0	0	5986262	5647056	6352937
10	562853	3	5	90	1002	1661	1639	6550518	6352938	7058819
11	510502	1	5	65	1647	0	0	7065322	7058820	7764701
12	1078046	1	5	50	1017	0	0	8145015	7764702	8470583
13	837229	3	5	65	1182	1983	1530	8983261	8470584	9176465
14	456868	2	5	100	1465	1594	0	9444824	9176466	9882347
15	582006	3	5	75	1622	1971	1083	10029889	9882348	10588229
16	1242608	2	5	70	1069	1785	0	11277173	10588230	11294111
17	604391	1	5	100	1772	0	0	11884418	11294112	11999993

Total number of pulses in waveform = 36

Type 5 Radar Waveform_16

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	482262	3	19	75	1500	1886	1132	482262	0	1333332
2	1393966	1	19	80	1732	0	0	1880746	1333333	2666665
3	1239608	2	19	70	1496	1314	0	3122086	2666666	3999998
4	2145242	1	19	85	1061	0	0	5270138	3999999	5333331
5	226799	1	19	55	1373	0	0	5497998	5333332	6666664
6	1244626	2	19	75	1825	1368	0	6743997	6666665	7999997
7	2510094	1	19	50	1127	0	0	9257284	7999998	9333330
8	778163	3	19	55	1662	1458	1799	10036574	9333331	10666663
9	779622	1	19	100	1148	0	0	10821115	10666664	11999996

Total number of pulses in waveform = 15

Type 5 Radar Waveform_17

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	412177	3	6	100	1158	1793	1891	412177	0	1499999
2	1873362	1	6	75	1704	0	0	2290381	1500000	2999999
3	1411709	2	6	65	1816	1500	0	3703794	3000000	4499999
4	1066655	1	6	60	1623	0	0	4773765	4500000	5999999
5	2109263	3	6	85	1396	1534	1362	6884651	6000000	7499999
6	1510024	2	6	55	1941	1229	0	8398967	7500000	8999999
7	2004921	3	6	95	1670	1989	1361	10407058	9000000	10499999
8	1155092	1	6	90	1870	0	0	11567170	10500000	11999999

Total number of pulses in waveform = 16

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Type 5 Radar Waveform_18

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	338977	3	18	75	1478	1193	1170	338977	0	1090908
2	771194	2	18	55	1644	1854	0	1114012	1090909	2181817
3	1438273	1	18	80	1456	0	0	2555783	2181818	3272726
4	1648575	2	18	75	1898	1970	0	4205814	3272727	4363635
5	663672	3	18	70	1367	1439	1191	4873354	4363636	5454544
6	1120125	3	18	95	1354	1236	1834	5997476	5454545	6545453
7	891005	2	18	70	1489	1380	0	6892905	6545454	7636362
8	778619	2	18	65	1617	1633	0	7674393	7636363	8727271
9	1385775	3	18	100	1433	1731	1467	9063418	8727272	9818180
10	1321657	3	18	95	1988	1236	1267	10389706	9818181	10909089
11	956807	2	18	95	1225	1032	0	11351004	10909090	11999998

Total number of pulses in waveform = 26

****

Type 5 Radar Waveform_19

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	117432	1	14	65	1210	0	0	117432	0	999999
2	1793176	3	14	65	1429	1643	1790	1911818	1000000	1999999
3	544301	1	14	70	1925	0	0	2460981	2000000	2999999
4	986956	1	14	50	1624	0	0	3449862	3000000	3999999
5	1455045	3	14	90	1359	1354	1089	4906531	4000000	4999999
6	480881	3	14	100	1307	1736	1821	5391214	5000000	5999999
7	1368447	2	14	70	1172	1750	0	6764525	6000000	6999999
8	777796	1	14	80	1196	0	0	7545243	7000000	7999999
9	926393	2	14	50	1025	1238	0	8472832	8000000	8999999
10	1514977	2	14	100	1991	1933	0	9990072	9000000	9999999
11	377165	1	14	60	1682	0	0	10371161	10000000	10999999
12	1619941	2	19	50	1799	1231	0	11992784	11000000	11999999

Total number of pulses in waveform = 22

****

Type 5 Radar Waveform_20

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	1068724	2	10	55	1245	1708	0	1068724	0	1333332
2	1184264	1	10	50	1007	0	0	2255941	1333333	2666665
3	1124465	2	10	85	1015	1774	0	3381413	2666666	3999998
4	1305554	3	10	85	1868	1831	1397	4689756	3999999	5333331
5	1141465	1	10	95	1841	0	0	5836317	5333332	6666664
6	970113	3	10	50	1297	1911	1806	6808271	6666665	7999997
7	1785764	3	10	90	1767	1209	1352	8599049	7999998	9333330
8	1823782	3	10	55	1725	1429	1220	10427159	9333331	10666663
9	1480683	1	10	95	1697	0	0	11912216	10666664	11999996

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

Type 5 Radar Waveform_21

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	447090	2	8	100	1981	1966	0	447090	0	999999
2	711984	2	8	55	1021	1765	0	1163021	1000000	1999999
3	1676100	1	8	100	1160	0	0	2841907	2000000	2999999
4	766552	1	8	70	1754	0	0	3609619	3000000	3999999
5	918951	1	8	100	1305	0	0	4530324	4000000	4999999
6	1273183	1	8	85	1333	0	0	5804812	5000000	5999999
7	789957	2	8	100	1415	1789	0	6596102	6000000	6999999
8	663749	1	8	100	1705	0	0	7263055	7000000	7999999
9	789718	1	8	80	1199	0	0	8054478	8000000	8999999
10	1219487	1	8	75	1514	0	0	9275164	9000000	9999999
11	1138729	3	8	70	1851	1911	1888	10415407	10000000	10999999
12	749778	2	8	75	1942	1862	0	11170835	11000000	11999999

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

Type 5 Radar Waveform_22

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	784755	3	9	75	1928	1948	1844	784755	0	1090908
2	888239	1	9	70	1024	0	0	1678714	1090909	2181817
3	1455318	3	9	70	1691	1344	1348	3135056	2181818	3272726
4	681812	2	9	85	1356	1039	0	3821251	3272727	4363635
5	1512627	3	9	70	1209	1593	1379	5336273	4363636	5454544
6	580381	2	9	70	1819	1347	0	5920835	5454545	6545453
7	1094940	2	9	90	1506	1378	0	7018941	6545454	7636362
8	867312	1	9	95	1700	0	0	7889137	7636363	8727271
9	1012456	3	9	60	1375	1957	1206	8903293	8727272	9818180
10	1650418	1	9	80	1656	0	0	10558249	9818181	10909089
11	815456	2	9	55	1915	1735	0	11375361	10909090	11999998

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

Type 5 Radar Waveform_23

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	631998	3	17	65	1746	1571	1553	631998	0	1499999
2	1488844	3	17	70	1092	1065	1030	2125712	1500000	2999999
3	1071475	2	17	60	1761	1181	0	3200374	3000000	4499999
4	2359174	1	17	85	1399	0	0	5562490	4500000	5999999
5	1215391	1	17	80	1092	0	0	6779280	6000000	7499999
6	2127836	2	17	65	1719	1776	0	8908208	7500000	8999999
7	1173710	1	17	50	1204	0	0	10085413	9000000	10499999
8	824443	3	17	65	1859	1569	1237	10911060	10500000	11999999

Total number of pulses in waveform = 16

Type 5 Radar Waveform_24

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	469622	2	12	50	1199	1990	0	469622	0	799999
2	407480	2	12	80	1959	1410	0	880291	800000	1599999
3	1039349	1	12	60	1162	0	0	1923009	1600000	2399999
4	980075	1	12	100	1010	0	0	2904246	2400000	3199999
5	1044937	1	12	90	1827	0	0	3950193	3200000	3999999
6	798383	1	12	65	1488	0	0	4750403	4000000	4799999
7	567450	2	12	70	1478	1560	0	5319341	4800000	5599999
8	420148	1	12	50	1229	0	0	5742527	5600000	6399999
9	1240817	1	12	85	1407	0	0	6984573	6400000	7199999
10	686137	2	12	65	1420	1657	0	7672117	7200000	7999999
11	502134	2	12	100	1420	1364	0	8177328	8000000	8799999
12	721140	3	12	65	1637	1015	1248	8901252	8800000	9599999
13	1413899	3	12	85	1997	1159	1205	10319051	9600000	10399999
14	786699	3	12	85	1662	1748	1000	11110111	10400000	11199999
15	104746	3	12	75	1822	1250	1111	11219267	11200000	11999999

Total number of pulses in waveform = 28

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

Total number of pulses in waveform = 27

Type 5 Radar Waveform_26

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	182948	3	14	55	1592	1326	1215	182948	0	857142
2	1506335	2	14	100	1809	1510	0	1693416	857143	1714285
3	772684	2	14	100	1734	1951	0	2469419	1714286	2571428
4	197311	2	14	65	1658	1671	0	2670415	2571429	3428571
5	1354671	1	14	75	1445	0	0	4028415	3428572	4285714
6	729425	3	14	70	1895	1026	1170	4759285	4285715	5142857
7	572938	2	14	60	1192	1456	0	5336314	5142858	6000000
8	1018287	2	14	75	1608	1613	0	6357249	6000001	6857143
9	1081430	1	14	100	1549	0	0	7441900	6857144	7714286
10	894776	2	14	50	1870	1054	0	8338225	7714287	8571429
11	816789	2	14	75	1635	1476	0	9157938	8571430	9428572
12	317946	3	14	90	1265	1647	1364	9478995	9428573	10285715
13	987839	1	14	60	1120	0	0	10471110	10285716	11142858
14	1269594	2	14	80	1261	1220	0	11741824	11142859	12000001

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

Type 5 Radar Waveform_27

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	165185	2	19	70	1529	1628	0	165185	0	999999
2	1271970	1	19	65	1137	0	0	1440312	1000000	1999999
3	929363	3	19	50	1783	1952	1751	2370812	2000000	2999999
4	1178400	2	19	80	1016	1602	0	3554698	3000000	3999999
5	1415881	1	19	65	1670	0	0	4973197	4000000	4999999
6	663902	1	19	80	1200	0	0	5638769	5000000	5999999
7	712787	3	19	80	1638	1475	1729	6352756	6000000	6999999
8	1441150	1	19	95	1408	0	0	7798748	7000000	7999999
9	574045	3	19	70	1804	1468	1027	8374201	8000000	8999999
10	1261809	1	19	70	1296	0	0	9640309	9000000	9999999
11	977725	2	19	60	1265	1968	0	10619330	10000000	10999999
12	1082430	1	19	65	1264	0	0	11704993	11000000	11999999

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

Type 5 Radar Waveform_28

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	372470	3	6	50	1500	1753	1179	372470	0	705881
2	649139	1	6	85	1276	0	0	1026041	705882	1411763
3	632996	2	6	95	1852	1988	0	1660313	1411764	2117645
4	469561	1	6	50	1667	0	0	2133714	2117646	2823527
5	973741	3	6	55	1242	1709	1317	3109122	2823528	3529409
6	708406	2	6	90	1671	1853	0	3821796	3529410	4235291
7	605847	1	6	100	1624	0	0	4431167	4235292	4941173
8	677790	1	6	85	1187	0	0	5110581	4941174	5647055
9	619421	3	6	75	1503	1855	1907	5731189	5647056	6352937
10	1283778	1	6	70	1138	0	0	7020232	6352938	7058819
11	327571	3	6	75	1765	1667	1431	7348941	7058820	7764701
12	1040817	2	6	85	1640	1287	0	8394621	7764702	8470583
13	171735	3	6	90	1866	1676	1911	8569283	8470584	9176465
14	868369	3	6	65	1860	1227	1472	9443105	9176466	9882347
15	1023347	2	6	50	1653	1320	0	10471011	9882348	10588229
16	186978	1	6	90	1034	0	0	10660962	10588230	11294111
17	864400	1	6	50	1304	0	0	11526396	11294112	11999993

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

Type 5 Radar Waveform_29

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	297820	3	18	55	1686	1191	1558	297820	0	1199999
2	1588372	2	18	55	1733	1337	0	1890627	1200000	2399999
3	1213615	3	18	85	1634	1817	1469	3107312	2400000	3599999
4	727752	3	18	90	1083	1811	1512	3839984	3600000	4799999
5	1007514	2	18	100	1276	1987	0	4851904	4800000	5999999
6	2201093	2	18	50	1145	1855	0	7056260	6000000	7199999
7	249905	1	18	75	1258	0	0	7309165	7200000	8399999
8	1491024	1	18	60	1698	0	0	8801447	8400000	9599999
9	950433	2	18	80	1037	1475	0	9753578	9600000	10799999
10	1543584	3	18	60	1658	1023	1124	11299674	10800000	11999999

Total number of pulses in waveform = 22

Type 5 Radar Waveform_30

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	496037	1	10	60	1382	0	0	496037	0	923076
2	846488	2	10	75	1918	1517	0	1343907	923077	1846153
3	822573	1	10	80	1306	0	0	2169915	1846154	2769230
4	801449	3	10	65	1238	1613	1305	2972670	2769231	3692307
5	1339048	1	10	50	1360	0	0	4315874	3692308	4615384
6	678160	1	10	90	1262	0	0	4995394	4615385	5538461
7	881379	1	10	85	1884	0	0	5878035	5538462	6461538
8	1086209	2	10	70	1040	1598	0	6966128	6461539	7384615
9	1222548	3	10	85	1027	1494	1666	8191314	7384616	8307692
10	397343	3	10	100	1478	1492	1941	8592844	8307693	9230769
11	1334865	2	10	70	1304	1710	0	9932620	9230770	10153846
12	862081	3	10	100	1495	1154	1747	10797715	10153847	11076923
13	879305	1	10	50	1599	0	0	11681416	11076924	12000000

Total number of pulses in waveform = 24

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	5302.4	1	16	5311.9	1
2	5323.9	1	17	5299.8	1
3	5300.1	1	18	5325.3	1
4	5295.2	1	19	5294.6	1
5	5305.3	1	20	5292.0	1
6	5310.4	1	21	5319.6	1
7	5296.3	1	22	5303.5	1
8	5313.3	1	23	5327.6	1
9	5309.3	1	24	5306.8	1
10	5321.2	1	25	5308.5	1
11	5301.9	1	26	5297.7	1
12	5328.3	1	27	5315.7	1
13	5307.3	1	28	5293.4	1
14	5317.3	1	29	5298.5	1
15	5329.0	1	30	5304.9	1
Detection Percentage (%)					100%

Radar waveform #1			Radar waveform #2		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
1	5314	3	2	5296	6
14	5321	42	18	5274	54
17	5318	51	33	5272	99
28	5288	84	34	5297	102
37	5306	111	52	5312	156
50	5285	150	54	5295	162
70	5300	210	55	5313	165
76	5264	228	62	5298	186
80	5274	240	91	5324	273
83	5305	249	95	5306	285
98	5322	294	98	5315	294
99	5292	297	99	5305	297

Radar waveform #3			Radar waveform #4		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
4	5276	12	1	5291	3
11	5295	33	5	5302	15
12	5281	36	8	5277	24
22	5313	66	17	5319	51
50	5311	150	20	5314	60
52	5300	156	23	5268	69
55	5267	165	37	5281	111
57	5326	171	68	5309	204
64	5302	192	69	5289	207
68	5277	204	73	5310	219
71	5270	213	81	5325	243
79	5306	237	88	5298	264
88	5272	264	94	5322	282
91	5316	273	99	5271	297

Radar waveform #5			Radar waveform #6		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
18	5318	54	5	5317	15
27	5272	81	23	5290	69
34	5310	102	36	5298	108
36	5312	108	37	5276	111
39	5304	117	41	5296	123
45	5291	135	43	5285	129
50	5320	150	48	5289	144
73	5295	219	54	5319	162
76	5299	228	58	5293	174
81	5285	243	68	5286	204
92	5274	276	--	--	--
98	5326	294	--	--	--

Radar waveform #7			Radar waveform #8		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
28	5308	84	7	5331	21
45	5288	135	11	5285	33
54	5276	162	17	5317	51
58	5331	174	22	5316	66
74	5305	222	23	5329	69
79	5327	237	28	5278	84
83	5294	249	30	5290	90
88	5329	264	48	5303	144
89	5280	267	50	5320	150
--	--	--	60	5276	180
--	--	--	67	5312	201
--	--	--	78	5333	234
--	--	--	92	5310	276
--	--	--	93	5292	279
--	--	--	95	5313	285

Radar waveform #9			Radar waveform #10		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
3	5337	9	4	5281	12
11	5296	33	6	5323	18
13	5311	39	11	5307	33
20	5299	60	33	5296	99
32	5304	96	59	5292	177
35	5305	105	61	5298	183
43	5310	129	69	5317	207
44	5301	132	81	5322	243
64	5291	192	90	5320	270
69	5332	207	97	5337	291
87	5319	261	--	--	--
99	5298	297	--	--	--

Radar waveform #11			Radar waveform #12		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
7	5317	21	16	5293	48
9	5324	27	19	5314	57
15	5308	45	23	5309	69
56	5319	168	33	5323	99
58	5328	174	46	5280	138
61	5339	183	47	5291	141
68	5326	204	54	5339	162
69	5312	207	55	5305	165
76	5327	228	66	5325	198
97	5289	291	73	5319	219
			84	5310	252

Radar waveform #13			Radar waveform #14		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
3	5338	9	0	5335	0
19	5330	57	4	5328	12
33	5311	99	14	5281	42
55	5304	165	17	5321	51
60	5320	180	25	5338	75
76	5294	228	30	5309	90
86	5332	258	34	5301	102
99	5315	297	38	5307	114
--	--	--	40	5336	120
--	--	--	46	5325	138
--	--	--	48	5288	144
--	--	--	55	5290	165
--	--	--	64	5308	192
--	--	--	65	5289	195
--	--	--	69	5280	207

Radar waveform #15			Radar waveform #16		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
1	5309	3	6	5305	18
4	5297	12	9	5295	27
25	5302	75	13	5297	39
27	5312	81	20	5337	60
46	5325	138	29	5308	87
48	5301	144	44	5301	132
71	5339	213	46	5286	138
78	5282	234	48	5335	144
89	5307	267	80	5292	240
90	5293	270	87	5339	261
--	--	--	99	5302	297

Radar waveform #17			Radar waveform #18		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
17	5294	51	14	5281	42
19	5309	57	19	5296	57
32	5329	96	32	5302	96
51	5314	153	44	5295	132
65	5336	195	64	5325	192
80	5323	240	72	5288	216
87	5281	261	82	5284	246
89	5332	267	87	5298	261
--	--	--	88	5280	264
--	--	--	92	5329	276
--	--	--	98	5335	294
--	--	--	99	5287	297

Radar waveform #19			Radar waveform #20		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
9	5299	27	5	5287	15
17	5289	51	9	5329	27
20	5332	60	17	5285	51
29	5334	87	40	5321	120
34	5324	102	45	5336	135
59	5292	177	46	5307	138
65	5331	195	52	5326	156
75	5295	225	53	5280	159
85	5316	255	54	5333	162
88	5297	264	77	5327	231
--	--	--	79	5332	237
--	--	--	85	5322	255
--	--	--	86	5294	258

Radar waveform #21			Radar waveform #22		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
1	5325	3	9	5316	27
9	5323	27	17	5296	51
14	5341	42	20	5291	60
21	5313	63	21	5324	63
32	5301	96	26	5302	78
41	5314	123	30	5305	90
47	5332	141	31	5297	93
52	5286	156	38	5285	114
56	5312	168	62	5303	186
68	5320	204	65	5289	195
72	5292	216	68	5341	204
80	5342	240	73	5293	219
81	5337	243	93	5301	279
94	5290	282	--	--	--

Radar waveform #23			Radar waveform #24		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
1	5324	3	18	5334	54
21	5303	63	35	5343	105
27	5291	81	54	5308	162
33	5305	99	55	5318	165
36	5306	108	57	5328	171
40	5329	120	65	5346	195
51	5334	153	73	5292	219
54	5318	162	81	5321	243
59	5315	177	83	5309	249
62	5333	186	94	5291	282
67	5322	201	--	--	--
68	5330	204	--	--	--
69	5310	207	--	--	--
75	5301	225	--	--	--
85	5314	255	--	--	--
93	5295	279	--	--	--
95	5307	285	--	--	--

Radar waveform #25			Radar waveform #26		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
1	5311	3	0	5321	0
3	5344	9	4	5327	12
6	5316	18	10	5296	30
27	5338	81	11	5308	33
28	5347	84	22	5351	66
31	5306	93	30	5307	90
32	5301	96	52	5332	156
34	5333	102	55	5349	165
52	5292	156	56	5331	168
53	5330	159	65	5333	195
64	5309	192	66	5306	198
77	5334	231	85	5303	255
78	5315	234	96	5319	288
79	5312	237	--	--	--
81	5314	243	--	--	--
84	5295	252	--	--	--

Radar waveform #27			Radar waveform #28		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
5	5306	15	7	5325	21
7	5326	21	16	5326	48
9	5320	27	19	5310	57
13	5353	39	20	5335	60
14	5351	42	23	5337	69
16	5338	48	25	5342	75
23	5299	69	31	5349	93
35	5300	105	44	5327	132
57	5324	171	48	5304	144
59	5316	177	51	5352	153
76	5311	228	56	5318	168
77	5298	231	59	5316	177
89	5349	267	60	5351	180
99	5341	297	68	5303	204
--	--	--	72	5355	216
--	--	--	81	5350	243

Radar waveform #29			Radar waveform #30		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
0	5308	0	1	5339	3
5	5329	15	4	5332	12
22	5322	66	9	5305	27
40	5331	120	10	5356	30
44	5339	132	13	5342	39
56	5313	168	23	5298	69
61	5327	183	74	5358	222
68	5350	204	85	5333	255
98	5352	294	87	5326	261
--	--	--	90	5306	270
--	--	--	97	5349	291
--	--	--	98	5325	294

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	5291.3	1	818	65	1
2	5288.7	1	598	89	1
3	5324.4	1	938	57	1
4	5261.3	1	738	72	1
5	5326.6	1	618	86	1
6	5285.6	1	878	61	1
7	5258.9	1	758	70	1
8	5321.2	1	838	63	1
9	5294.4	1	638	83	1
10	5251.0	1	558	95	1
11	5297.3	1	778	68	1
12	5282.3	1	898	59	1
13	5319.2	1	918	58	1
14	5329.0	1	678	78	1
15	5255.4	1	718	74	1
16	5300.4	1	1360	39	1
17	5264.4	1	2343	23	1
18	5311.0	1	2120	25	1
19	5279.4	1	1909	28	1
20	5303.5	1	2677	20	1
21	5267.5	1	2728	20	1
22	5306.7	1	522	102	1
23	5276.5	1	1051	51	1
24	5313.1	1	968	55	1
25	5270.0	1	634	84	1
26	5315.2	1	2709	20	1
27	5307.2	1	2248	24	1
28	5317.6	1	1853	29	1
29	5273.3	1	928	57	1
30	5309.8	1	2293	24	1
Detection Percentage (%)					100%

Radar Type 2 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5258.9	3.3	152	24	1
2	5288.3	4.3	225	24	1
3	5315.7	1.0	173	28	1
4	5261.5	4.9	161	28	1
5	5329.0	4.0	222	25	1
6	5280.6	3.6	214	24	1
7	5251.0	1.9	163	23	1
8	5313.8	3.1	169	29	1
9	5323.7	2.3	163	24	1
10	5277.7	3.3	155	28	1
11	5282.5	1.8	162	25	1
12	5253.4	4.9	156	28	1
13	5318.3	1.7	205	24	1
14	5310.4	1.7	187	29	1
15	5264.3	3.8	218	26	1
16	5321.8	4.3	191	24	1
17	5285.8	3.2	209	25	1
18	5255.8	3.8	156	24	1
19	5308.3	4.8	164	23	1
20	5297.7	2.2	198	24	1
21	5274.5	2.6	207	28	1
22	5327.4	1.8	165	25	1
23	5267.4	3.4	209	24	1
24	5306.8	2.6	179	26	1
25	5294.3	1.9	218	25	1
26	5304.4	2.0	225	23	1
27	5270.6	1.1	156	23	1
28	5324.8	4.6	189	23	1
29	5300.5	4.8	182	25	1
30	5292.0	3.5	177	23	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	5262.7	8.7	265	16	1
2	5298.3	9.3	444	17	1
3	5316.4	8.5	272	18	1
4	5257.3	9.5	470	17	1
5	5326.4	9.7	299	16	1
6	5259.2	8.1	462	17	1
7	5319.2	9.8	409	17	1
8	5295.9	9.8	497	16	1
9	5254.5	7.9	403	16	1
10	5322.3	6.9	472	16	1
11	5301.2	6.8	386	16	1
12	5265.2	8.0	422	17	1
13	5324.8	6.0	335	18	1
14	5291.0	10.0	429	17	1
15	5289.1	9.4	309	16	1
16	5329.0	8.3	295	17	1
17	5251.0	6.7	491	16	1
18	5304.7	7.9	347	16	1
19	5286.3	9.3	271	16	1
20	5268.6	7.1	281	16	1
21	5328.7	7.0	322	17	1
22	5285.5	9.0	499	18	1
23	5272.4	9.6	286	18	1
24	5314.6	9.5	298	17	1
25	5307.3	8.1	323	18	1
26	5275.7	8.3	251	18	1
27	5309.5	8.6	295	17	1
28	5278.4	6.9	306	17	1
29	5311.5	7.2	267	18	1
30	5281.4	6.5	431	17	1
Detection Percentage (%)					100%

Radar Type 4 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5291.3	16.2	341	16	1
2	5315.2	19.0	259	14	1
3	5319.2	14.4	281	14	1
4	5251.0	14.0	303	13	1
5	5288.7	11.5	480	16	1
6	5313.1	12.1	269	16	1
7	5317.6	13.9	257	13	1
8	5255.4	18.1	262	12	1
9	5311.0	13.8	350	14	1
10	5294.4	12.7	493	15	1
11	5273.3	11.7	332	14	1
12	5297.3	17.3	253	15	1
13	5270.0	16.3	298	12	1
14	5309.8	14.4	389	13	1
15	5300.4	20.0	434	14	1
16	5276.5	15.4	306	13	1
17	5321.2	19.9	371	14	1
18	5285.6	18.4	436	12	1
19	5324.4	18.4	489	14	1
20	5258.9	16.2	393	12	1
21	5303.5	15.3	304	14	1
22	5326.6	18.5	486	14	1
23	5264.4	17.0	486	15	1
24	5329.0	16.3	306	16	1
25	5279.4	19.3	486	16	1
26	5306.7	17.1	374	13	1
27	5261.3	17.6	330	15	1
28	5307.2	20.0	379	12	1
29	5282.3	16.1	398	16	1
30	5267.5	11.5	372	14	1
Detection Percentage (%)					100%

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

Radar Type 5 - Radar Statistical Performance

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

Type 5 Radar Waveform_1

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
	55096									
1	910411	3	8	100	1457	1190	1377	55096	0	599999
2	550960	3	8	75	1234	1315	1946	969531	600000	1199999
3	490286	2	8	65	1880	1008	0	1524986	1200000	1799999
4	449560	1	8	75	1799	0	0	2018160	1800000	2399999
5	638690	2	8	70	1282	1485	0	2469519	2400000	2999999
6	552578	1	8	85	1657	0	0	3110976	3000000	3599999
7	902248	2	8	85	1897	1450	0	3665211	3600000	4199999
8	816457	2	8	65	1155	1039	0	4570806	4200000	4799999
9	161177	1	8	60	1431	0	0	5389457	4800000	5399999
10	545761	3	8	60	1942	1307	1997	5552065	5400000	5999999
11	1044035	2	8	65	1167	1951	0	6103072	6000000	6599999
12	378232	1	8	95	1014	0	0	7150225	6600000	7199999
13	475866	1	8	70	1355	0	0	7529471	7200000	7799999
14	514562	2	8	80	1321	1023	0	8006692	7800000	8399999
15	650120	2	8	75	1919	1046	0	8523598	8400000	8999999
16	574631	1	8	55	1921	0	0	9176683	9000000	9599999
17	999191	1	8	95	1121	0	0	9753235	9600000	10199999
18	165821	1	8	70	1761	0	0	10753547	10200000	10799999
19	952946	2	8	70	2000	1291	0	10921129	10800000	11399999
20		1	8	85	1279	0	0	11877366	11400000	11999999

Total number of pulses in waveform = 34

Type 5 Radar Waveform_2

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	812648	1	14	55	1060	0	0	812648	0	857142
2	672852	1	14	90	1736	0	0	1486560	857143	1714285
3	329575	2	14	50	1497	1380	0	1817871	1714286	2571428
4	1444383	1	14	100	1210	0	0	3265131	2571429	3428571
5	403799	2	14	75	1794	1336	0	3670140	3428572	4285714
6	645294	3	14	50	1516	1261	1102	4318564	4285715	5142857
7	1060159	3	14	55	1849	1700	1540	5382602	5142858	6000000
8	1204734	3	14	50	1227	1693	1492	6592425	6000001	6857143
9	272799	3	14	95	1920	1988	1047	6869636	6857144	7714286
10	1278733	3	14	85	1865	1535	1070	8153324	7714287	8571429
11	892805	3	14	100	1256	1738	1394	9050599	8571430	9428572
12	815949	2	14	80	1062	1727	0	9870936	9428573	10285715
13	1226195	3	14	95	1853	1771	1019	11099920	10285716	11142858
14	530904	1	14	70	1197	0	0	11635467	11142859	12000001

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

Type 5 Radar Waveform_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	800750	1	10	80	1904	0	0	800750	0	1090908
2	1008150	1	10	60	1473	0	0	1810804	1090909	2181817
3	1207145	1	10	60	1428	0	0	3019422	2181818	3272726
4	552651	3	10	100	1122	1321	1410	3573501	3272727	4363635
5	1016889	3	10	70	1639	1771	1633	4594243	4363636	5454544
6	1934948	1	10	80	1113	0	0	6534234	5454545	6545453
7	371562	3	10	100	1628	1566	1711	6906909	6545454	7636362
8	1407779	2	10	60	1831	1745	0	8319593	7636363	8727271
9	1046597	3	10	70	1097	1383	1264	9369766	8727272	9818180
10	1423891	1	10	95	1229	0	0	10797401	9818181	10909089
11	1156799	2	10	90	1817	1480	0	11955429	10909090	11999998

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

Type 5 Radar Waveform_4

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	641922	3	19	90	1631	1671	1241	641922	0	999999
2	462950	2	19	85	1689	1700	0	1109415	1000000	1999999
3	1479764	2	19	70	1852	1770	0	2592568	2000000	2999999
4	505752	3	19	60	1123	1399	1750	3101942	3000000	3999999
5	1180654	1	19	80	1619	0	0	4286868	4000000	4999999
6	1110035	3	19	80	1798	1570	1402	5398522	5000000	5999999
7	1134181	1	19	70	1080	0	0	6537473	6000000	6999999
8	694880	3	19	90	1508	1765	1596	7233433	7000000	7999999
9	1688829	1	19	85	1856	0	0	8927131	8000000	8999999
10	322763	1	19	80	1142	0	0	9251750	9000000	9999999
11	1287799	3	19	95	1026	1161	1480	10540691	10000000	10999999
12	505391	3	19	55	1169	1564	1345	11049749	11000000	11999999

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

Type 5 Radar Waveform_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	446816	1	12	85	1049	0	0	446816	0	599999
2	494168	3	12	70	1859	1174	1163	942033	600000	1199999
3	300884	2	12	55	1553	1908	0	1247113	1200000	1799999
4	869436	3	12	50	1047	1664	1468	2120010	1800000	2399999
5	679970	2	12	95	1071	1813	0	2804159	2400000	2999999
6	202513	1	12	65	1264	0	0	3009556	3000000	3599999
7	859311	2	12	50	1289	1491	0	3870131	3600000	4199999
8	803932	3	12	50	1998	1534	1201	4676843	4200000	4799999
9	649313	3	12	55	1904	1977	1700	5330889	4800000	5399999
10	653559	2	12	50	1086	1915	0	5990029	5400000	5999999
11	519138	1	12	95	1028	0	0	6512168	6000000	6599999
12	414665	1	12	55	1643	0	0	6927861	6600000	7199999
13	325942	1	14	50	1380	0	0	7255446	7200000	7799999
14	731143	1	12	85	1570	0	0	7987969	7800000	8399999
15	872899	2	12	85	1233	1000	0	8862438	8400000	8999999
16	344657	3	12	90	1164	1364	1594	9209328	9000000	9599999
17	416233	3	12	75	1222	1396	1690	9629683	9600000	10199999
18	913259	1	12	85	1098	0	0	10547250	10200000	10799999
19	709938	3	12	100	1990	1027	1748	11258286	10800000	11399999
20	644043	1	12	75	1726	0	0	11907094	11400000	11999999

Total number of pulses in waveform = 39

Type 5 Radar Waveform_6

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	202615	3	18	65	1870	1259	1680	202615	0	599999
2	884750	2	18	90	1800	1351	0	1092174	600000	1199999
3	465559	2	18	80	1097	1837	0	1560884	1200000	1799999
4	410465	1	18	80	1860	0	0	1974283	1800000	2399999
5	467709	2	18	80	1781	1411	0	2443852	2400000	2999999
6	762643	1	18	70	1117	0	0	3209687	3000000	3599999
7	978949	1	18	95	1421	0	0	4189753	3600000	4199999
8	152819	1	18	50	1067	0	0	4343993	4200000	4799999
9	835345	2	18	85	1660	1988	0	5180405	4800000	5399999
10	778504	3	18	65	1139	1272	1987	5962557	5400000	5999999
11	256706	2	18	95	1049	1896	0	6223661	6000000	6599999
12	692627	1	18	90	1697	0	0	6919233	6600000	7199999
13	400300	2	18	50	1098	1153	0	7321230	7200000	7799999
14	484608	2	18	55	1358	1525	0	7808089	7800000	8399999
15	1166280	1	18	80	1691	0	0	8977252	8400000	8999999
16	177251	3	18	50	1461	1959	1040	9156194	9000000	9599999
17	446090	2	18	95	1129	1054	0	9606744	9600000	10199999
18	925532	3	18	90	1115	1048	1554	10534459	10200000	10799999
19	559216	2	18	70	1442	1119	0	11097392	10800000	11399999
20	650869	1	18	100	1545	0	0	11750822	11400000	11999999

Total number of pulses in waveform = 37

Type 5 Radar Waveform_7

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	27041	2	5	60	1150	1789	0	27041	0	631578
2	671808	1	5	80	1229	0	0	701788	631579	1263157
3	738518	3	5	95	1552	1399	1334	1441535	1263158	1894736
4	738544	2	5	75	1648	1327	0	2184364	1894737	2526315
5	345969	2	5	80	1322	1454	0	2533308	2526316	3157894
6	704570	3	5	75	1464	1043	1571	3240654	3157895	3789473
7	957720	1	5	75	1899	0	0	4202452	3789474	4421052
8	713093	3	5	60	1464	1837	1562	4917444	4421053	5052631
9	472303	1	5	90	1457	0	0	5394610	5052632	5684210
10	681436	1	5	65	1654	0	0	6077503	5684211	6315789
11	626866	3	5	60	1442	1223	1374	6706023	6315790	6947368
12	370467	1	5	70	1746	0	0	7080529	6947369	7578947
13	638178	1	5	100	1118	0	0	7720453	7578948	8210526
14	902037	1	5	55	1006	0	0	8623608	8210527	8842105
15	698589	3	5	75	1277	1146	1195	9323203	8842106	9473684
16	442926	3	5	80	1948	1407	1655	9769747	9473685	10105263
17	400427	1	5	95	1312	0	0	10175184	10105264	10736842
18	732332	2	5	70	1897	1173	0	10908828	10736843	11368421
19	858356	2	5	95	1520	1406	0	11770254	11368422	12000000

Total number of pulses in waveform = 36

Type 5 Radar Waveform_8

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	1148654	1	17	55	1181	0	0	1148654	0	1499999
2	945956	2	17	60	1982	1952	0	2095791	1500000	2999999
3	2346995	1	17	60	1731	0	0	4446720	3000000	4499999
4	962329	2	17	80	1905	1501	0	5410780	4500000	5999999
5	1960098	2	17	60	1825	1298	0	7374284	6000000	7499999
6	1371142	2	17	65	1787	1432	0	8748549	7500000	8999999
7	1248965	2	17	60	1897	1857	0	10000733	9000000	10499999
8	1832227	2	17	55	1654	1413	0	11836714	10500000	11999999

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

Type 5 Radar Waveform_9

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	536762	3	6	55	1519	1406	1457	536762	0	631578
2	124976	3	6	55	1345	1115	1829	666120	631579	1263157
3	946192	3	6	90	1037	1780	1926	1616601	1263158	1894736
4	361447	3	6	60	1636	1978	1917	1982791	1894737	2526315
5	1072350	2	6	70	1955	1480	0	3060672	2526316	3157894
6	226454	2	6	60	1430	1018	0	3290561	3157895	3789473
7	1108131	3	6	75	1196	1965	1516	4401140	3789474	4421052
8	368032	1	6	100	1769	0	0	4773849	4421053	5052631
9	523521	3	6	50	1182	1108	1523	5299139	5052632	5684210
10	636164	2	6	85	1031	1032	0	5939116	5684211	6315789
11	710242	2	6	100	1390	1368	0	6651421	6315790	6947368
12	497893	3	6	80	1148	1037	1067	7152072	6947369	7578947
13	569484	1	6	70	1169	0	0	7724808	7578948	8210526
14	784377	1	6	100	1300	0	0	8510354	8210527	8842105
15	525306	3	6	80	1769	1906	1715	9036960	8842106	9473684
16	859084	2	6	70	1110	1909	0	9901434	9473685	10105263
17	677533	1	6	80	1918	0	0	10581986	10105264	10736842
18	396530	3	6	90	1516	1512	1982	10980434	10736843	11368421
19	737047	1	6	55	1343	0	0	11722491	11368422	12000000

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

Type 5 Radar Waveform_10

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	557585	3	9	55	1858	1056	1635	557585	0	999999
2	990378	1	9	85	1255	0	0	1552512	1000000	1999999
3	1251480	2	9	65	1405	1165	0	2805247	2000000	2999999
4	957022	1	9	50	1478	0	0	3764839	3000000	3999999
5	355163	2	9	80	1182	1082	0	4121480	4000000	4999999
6	1477583	3	9	80	1449	1632	1797	5601327	5000000	5999999
7	943221	3	9	60	1336	1775	1268	6549426	6000000	6999999
8	645645	3	9	65	1726	1912	1506	7199450	7000000	7999999
9	1761909	3	9	85	1113	1769	1685	8966503	8000000	8999999
10	776997	3	9	95	1912	1110	1512	9748067	9000000	9999999
11	1219347	2	9	100	1919	1408	0	10971948	10000000	10999999
12	361669	2	9	65	1115	1198	0	11336944	11000000	11999999

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

Type 5 Radar Waveform_11

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	53276	3	10	90	1847	1017	1284	53276	0	666666
2	611452	1	10	80	1839	0	0	668876	666667	1333333
3	875248	1	10	65	1030	0	0	1545963	1333334	2000000
4	815349	2	10	55	1370	1344	0	2362342	2000001	2666667
5	472793	3	10	90	1674	1639	1916	2837849	2666668	3333334
6	509519	2	10	90	1426	1169	0	3352597	3333335	4000001
7	1000915	2	10	60	1648	1814	0	4356107	4000002	4666668
8	404712	2	10	100	1834	1163	0	4764281	4666669	5333335
9	756489	3	10	70	1222	1457	1256	5523767	5333336	6000002
10	493253	1	10	100	1784	0	0	6020955	6000003	6666669
11	1196629	2	10	85	1701	1769	0	7219368	6666670	7333336
12	205562	3	10	95	1210	1259	1682	7428400	7333337	8000003
13	798717	1	10	95	1452	0	0	8231268	8000004	8666670
14	576404	1	10	90	1854	0	0	8809124	8666671	9333337
15	1121102	3	10	65	1845	1238	1534	9932080	9333338	10000004
16	718298	3	10	65	1138	1341	1334	10654995	10000005	10666671
17	569920	3	10	60	1163	1242	1017	11228728	10666672	11333338
18	351534	1	10	65	1590	0	0	11583684	11333339	12000005

Total number of pulses in waveform = 37

Type 5 Radar Waveform_12

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	1087596	1	18	75	1084	0	0	1087596	0	1090908
2	1054453	2	18	70	1453	1098	0	2143133	1090909	2181817
3	374773	2	18	85	1804	1076	0	2520457	2181818	3272726
4	1474783	2	18	100	1222	1118	0	3998120	3272727	4363635
5	1398792	3	18	85	1370	1325	1469	5399252	4363636	5454544
6	271689	3	18	50	1889	1199	1376	5675105	5454545	6545453
7	1643945	2	18	70	1007	1975	0	7323514	6545454	7636362
8	552931	1	18	100	1555	0	0	7879427	7636363	8727271
9	1883754	3	18	85	1554	1177	1137	9764736	8727272	9818180
10	794668	3	18	100	1708	1307	1540	10563272	9818181	10909089
11	1031727	3	18	80	1168	1174	1008	11599554	10909090	11999998

Total number of pulses in waveform = 25

Type 5 Radar Waveform_13

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	583738	2	5	55	1547	1643	0	583738	0	599999
2	416083	1	5	95	1311	0	0	1003011	600000	1199999
3	466542	1	5	50	1855	0	0	1470864	1200000	1799999
4	593729	2	5	95	1492	1146	0	2066448	1800000	2399999
5	457547	3	5	50	1938	1252	1180	2526633	2400000	2999999
6	821572	2	5	60	1934	1742	0	3352575	3000000	3599999
7	663301	2	5	60	1406	1160	0	4019552	3600000	4199999
8	585640	2	5	90	1235	1233	0	4607758	4200000	4799999
9	636611	1	5	80	1093	0	0	5246837	4800000	5399999
10	170022	3	5	90	1356	1849	1713	5417952	5400000	5999999
11	1039048	2	5	100	1707	1448	0	6461918	6000000	6599999
12	446752	3	5	60	1367	1593	1838	6911825	6600000	7199999
13	307940	2	5	70	1418	1242	0	7224563	7200000	7799999
14	735798	3	5	75	1011	1124	1780	7963021	7800000	8399999
15	596517	1	5	60	1511	0	0	8563453	8400000	8999999
16	848160	3	5	75	1196	1650	1712	9413124	9000000	9599999
17	246610	3	5	85	1854	1900	1612	9664292	9600000	10199999
18	1014203	1	5	50	1998	0	0	10683861	10200000	10799999
19	567646	2	5	60	1756	1647	0	11253505	10800000	11399999
20	330542	1	5	55	1435	0	0	11587450	11400000	11999999

Total number of pulses in waveform = 40

Type 5 Radar Waveform_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	437105	1	9	95	1937	0	0	437105	0	999999
2	1397119	1	9	85	1800	0	0	1836161	1000000	1999999
3	683567	1	9	60	1184	0	0	2521528	2000000	2999999
4	1028990	2	9	100	1538	1747	0	3551702	3000000	3999999
5	560010	1	9	55	1665	0	0	4114997	4000000	4999999
6	1277609	2	9	50	1214	1519	0	5394271	5000000	5999999
7	1501630	2	9	75	1835	1650	0	6898634	6000000	6999999
8	999887	3	9	60	1818	1167	1828	7902006	7000000	7999999
9	949509	3	9	70	1095	1687	1775	8856328	8000000	8999999
10	170213	3	9	90	1743	1114	1199	9031098	9000000	9999999
11	1792317	1	9	95	1597	0	0	10827471	10000000	10999999
12	285189	1	9	95	1733	0	0	11114257	11000000	11999999

Total number of pulses in waveform = 21

Type 5 Radar Waveform_15

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	1063976	1	17	95	1534	0	0	1063976	0	1090908
2	434682	3	17	95	1962	1334	1843	1500192	1090909	2181817
3	1265531	3	17	95	1841	1261	1186	2770862	2181818	3272726
4	858476	1	17	75	1906	0	0	3633626	3272727	4363635
5	1428756	1	17	50	1768	0	0	5064288	4363636	5454544
6	1404584	1	17	100	1401	0	0	6470640	5454545	6545453
7	1157932	3	17	65	1707	1208	1585	7629973	6545454	7636362
8	824425	2	17	75	1241	1971	0	8458898	7636363	8727271
9	296374	2	17	60	1820	1288	0	8758484	8727272	9818180
10	1840051	3	17	95	1374	1449	1447	10601643	9818181	10909089
11	304427	1	17	100	1016	0	0	10910340	10909090	11999998

Total number of pulses in waveform = 21

Type 5 Radar Waveform_16

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	70156	2	6	60	1957	1079	0	70156	0	666666
2	696764	1	6	60	1041	0	0	769956	666667	1333333
3	794948	3	6	55	1073	1758	1796	1565945	1333334	2000000
4	781015	3	6	50	1820	1283	1738	2351587	2000001	2666667
5	890875	2	6	80	1697	1957	0	3247303	2666668	3333334
6	326938	2	6	80	1312	1512	0	3577895	3333335	4000001
7	847803	2	6	75	1134	1295	0	4428522	4000002	4666668
8	245866	2	6	75	1393	1576	0	4676817	4666669	5333335
9	790908	3	6	90	1113	1798	1573	5470694	5333336	6000002
10	1188181	1	6	55	1148	0	0	6663359	6000003	6666669
11	262376	2	6	50	1896	1112	0	6926883	6666670	7333336
12	722588	1	6	70	1653	0	0	7652479	7333337	8000003
13	942790	3	6	60	1331	1862	1537	8596922	8000004	8666670
14	327581	1	6	80	1432	0	0	8929233	8666671	9333337
15	1029932	3	6	75	1116	1619	1686	9960597	9333338	10000004
16	94257	1	6	55	1683	0	0	10059275	10000005	10666671
17	846668	1	6	55	1067	0	0	10907626	10666672	11333338
18	763336	2	6	60	1508	1759	0	11672029	11333339	12000005

Total number of pulses in waveform = 35

Type 5 Radar Waveform_17

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	324920	1	14	55	1394	0	0	324920	0	857142
2	857477	1	14	70	1728	0	0	1183791	857143	1714285
3	1355796	2	14	90	1550	1525	0	2541315	1714286	2571428
4	278254	1	14	95	1963	0	0	2822644	2571429	3428571
5	1239165	2	14	80	1052	1194	0	4063772	3428572	4285714
6	877648	2	14	50	1981	1693	0	4943666	4285715	5142857
7	985944	3	14	50	1862	1023	1238	5933284	5142858	6000000
8	589378	2	14	55	1065	1873	0	6526785	6000001	6857143
9	451231	1	14	85	1889	0	0	6980954	6857144	7714286
10	912131	2	14	95	1935	1272	0	7894974	7714287	8571429
11	903087	2	14	95	1985	1084	0	8801268	8571430	9428572
12	1035698	3	14	75	1455	1000	1910	9840035	9428573	10285715
13	719558	1	14	60	1267	0	0	10563958	10285716	11142858
14	966925	2	14	80	1266	1484	0	11532150	11142859	12000001

Total number of pulses in waveform = 25

Type 5 Radar Waveform_18

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	244849	3	19	60	1633	1773	1735	244849	0	631578
2	479628	3	19	100	1811	1873	1593	729618	631579	1263157
3	648842	3	19	60	1611	1046	1671	1383737	1263158	1894736
4	770751	3	19	65	1396	1301	1635	2158816	1894737	2526315
5	470320	3	19	75	1939	1069	1953	2633468	2526316	3157894
6	980877	3	19	70	1275	1401	1995	3619306	3157895	3789473
7	375057	2	19	70	1676	1629	0	3999034	3789474	4421052
8	631037	3	19	95	1261	1921	1188	4633376	4421053	5052631
9	608822	3	19	70	1239	1837	1956	5246568	5052632	5684210
10	993281	3	19	75	1155	1797	1260	6244881	5684211	6315789
11	143165	2	19	55	1037	1757	0	6392258	6315790	6947368
12	653779	2	19	55	1769	1550	0	7048831	6947369	7578947
13	750874	3	19	70	1131	1299	1774	7803024	7578948	8210526
14	732760	3	19	60	1411	1796	1094	8539988	8210527	8842105
15	709479	1	19	50	1513	0	0	9253768	8842106	9473684
16	379132	1	19	55	1253	0	0	9634413	9473685	10105263
17	662446	2	19	65	1992	1503	0	10298112	10105264	10736842
18	587456	3	19	60	1688	1993	1482	10889063	10736843	11368421
19	514634	3	19	90	1038	1946	1927	11408860	11368422	12000000

Total number of pulses in waveform = 49

Type 5 Radar Waveform_19

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	325488	1	8	60	1600	0	0	325488	0	599999
2	546541	3	8	65	1854	1483	1492	873629	600000	1199999
3	494576	2	8	75	1501	1222	0	1373034	1200000	1799999
4	529469	3	8	80	1398	1713	1642	1905226	1800000	2399999
5	690228	3	8	65	1224	1412	1827	2600207	2400000	2999999
6	474766	2	8	50	1152	1646	0	3079436	3000000	3599999
7	991521	1	8	60	1673	0	0	4073755	3600000	4199999
8	703585	3	8	60	1409	1646	1391	4779013	4200000	4799999
9	420812	1	8	95	1065	0	0	5204271	4800000	5399999
10	418271	3	8	95	1618	1641	1289	5623607	5400000	5999999
11	629736	2	8	85	1478	1754	0	6257891	6000000	6599999
12	526857	3	8	100	1638	1281	1204	6787980	6600000	7199999
13	789904	1	8	70	1427	0	0	7582007	7200000	7799999
14	394687	1	8	70	1471	0	0	7978121	7800000	8399999
15	578686	2	8	55	1185	1022	0	8558278	8400000	8999999
16	575184	3	8	55	1997	1924	1432	9135669	9000000	9599999
17	638683	1	8	65	1244	0	0	9779705	9600000	10199999
18	633979	2	8	90	1094	1581	0	10414928	10200000	10799999
19	728966	2	8	95	1630	1387	0	11146569	10800000	11399999
20	816925	1	8	70	1306	0	0	11966511	11400000	11999999

Total number of pulses in waveform = 40

Type 5 Radar Waveform_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	662495	2	12	85	1745	1753	0	662495	0	923076
2	913641	1	12	80	1551	0	0	1579634	923077	1846153
3	1097648	2	12	80	1796	1281	0	2678833	1846154	2769230
4	465338	3	12	75	1456	1445	1358	3147248	2769231	3692307
5	668552	2	12	80	1342	1538	0	3820059	3692308	4615384
6	1247259	3	12	85	1877	1408	1972	5070198	4615385	5538461
7	594385	1	12	75	1068	0	0	5669840	5538462	6461538
8	1348491	3	12	95	1602	1286	1929	7019399	6461539	7384615
9	1245577	3	12	75	1548	1021	1068	8269793	7384616	8307692
10	943452	3	12	70	1851	1374	1545	9216882	8307693	9230769
11	791129	1	12	80	1708	0	0	10012781	9230770	10153846
12	906546	2	12	95	1757	1925	0	10921035	10153847	11076923
13	636258	1	12	55	1815	0	0	11560975	11076924	12000000

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

Type 5 Radar Waveform_21

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	225762	1	8	100	1850	0	0	225762	0	999999
2	1606056	2	8	50	1401	1843	0	1833668	1000000	1999999
3	893458	3	8	55	1331	1363	1719	2730370	2000000	2999999
4	1208622	1	8	90	1219	0	0	3943405	3000000	3999999
5	827022	2	8	70	1033	1926	0	4771646	4000000	4999999
6	955683	1	8	75	1838	0	0	5730288	5000000	5999999
7	610783	1	8	100	1548	0	0	6342909	6000000	6999999
8	1347148	1	8	75	1691	0	0	7691605	7000000	7999999
9	494979	1	8	80	1176	0	0	8188275	8000000	8999999
10	839966	2	8	60	1102	1551	0	9029417	9000000	9999999
11	1956245	1	8	80	1859	0	0	10988315	10000000	10999999
12	243462	3	8	85	1033	1790	1277	11233636	11000000	11999999

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

Type 5 Radar Waveform_22

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	312073	1	10	85	1624	0	0	312073	0	923076
2	741494	1	10	70	1577	0	0	1055191	923077	1846153
3	1181865	3	10	70	1085	1717	1875	2238633	1846154	2769230
4	684433	1	10	60	1239	0	0	2927743	2769231	3692307
5	1070409	1	10	95	1884	0	0	3999391	3692308	4615384
6	1295279	3	10	100	1083	1610	1723	5296554	4615385	5538461
7	932494	1	10	75	1765	0	0	6233464	5538462	6461538
8	897493	1	10	100	1172	0	0	7132722	6461539	7384615
9	443615	3	10	75	1334	1863	1380	7577509	7384616	8307692
10	1372734	2	10	90	1270	1917	0	8954820	8307693	9230769
11	791696	2	10	65	1491	1504	0	9749703	9230770	10153846
12	845169	1	10	90	1087	0	0	10597867	10153847	11076923
13	637242	3	10	85	1213	1344	1081	11236196	11076924	12000000

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

Type 5 Radar Waveform_23

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	187013	3	14	75	1862	1189	1368	187013	0	666666
2	989287	2	14	100	1591	1830	0	1180719	666667	1333333
3	611134	2	14	90	1498	1795	0	1795274	1333334	2000000
4	472912	3	14	55	1190	1353	1987	2271479	2000001	2666667
5	958818	1	14	60	1693	0	0	3234827	2666668	3333334
6	209371	2	14	60	1954	1470	0	3445891	3333335	4000001
7	918984	1	14	80	1822	0	0	4368299	4000002	4666668
8	831757	3	14	85	1764	1835	1999	5201878	4666669	5333335
9	345571	1	14	70	1481	0	0	5553047	5333336	6000002
10	568531	3	14	55	1650	1548	1492	6123059	6000003	6666669
11	569359	1	14	75	1553	0	0	6697108	6666670	7333336
12	1077562	3	14	100	1559	1480	1471	7776223	7333337	8000003
13	654690	1	14	95	1781	0	0	8435423	8000004	8666670
14	405702	3	14	60	1556	1869	1914	8842906	8666671	9333337
15	788917	2	14	60	1564	1152	0	9637162	9333338	10000004
16	639683	2	14	100	1221	1985	0	10279561	10000005	10666671
17	463967	2	14	90	1498	1932	0	10746734	10666672	11333338
18	597331	1	14	70	1987	0	0	11347495	11333339	12000005

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

Type 5 Radar Waveform_24

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	216468	1	5	75	1367	0	0	216468	0	1090908
2	928394	3	5	85	1478	1823	1644	1146229	1090909	2181817
3	1471489	3	5	75	1615	1740	1219	2622663	2181818	3272726
4	1149998	2	5	65	1186	1435	0	3777235	3272727	4363635
5	1596452	3	5	100	1706	1187	1659	5376308	4363636	5454544
6	651447	3	5	70	1895	1603	1779	6032307	5454545	6545453
7	1437580	3	5	60	1405	1670	1343	7475164	6545454	7636362
8	212676	3	5	75	1449	1563	1398	7692258	7636363	8727271
9	2034272	2	5	95	1783	1486	0	9730940	8727272	9818180
10	517348	2	5	90	1103	1654	0	10251557	9818181	10909089
11	1169512	3	5	90	1315	1932	1202	11423826	10909090	11999998

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

Type 5 Radar Waveform_25

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	205664	3	17	95	1988	1068	1021	205664	0	799999
2	1032946	1	17	50	1383	0	0	1242687	800000	1599999
3	763842	2	17	90	1765	1946	0	2007912	1600000	2399999
4	876407	1	17	55	1423	0	0	2888030	2400000	3199999
5	481427	2	17	75	1990	1710	0	3370880	3200000	3999999
6	1068917	1	17	95	1190	0	0	4443497	4000000	4799999
7	838604	3	17	95	1076	1520	1141	5283291	4800000	5599999
8	531415	2	17	55	1826	1633	0	5818443	5600000	6399999
9	846398	1	17	90	1098	0	0	6668300	6400000	7199999
10	1112938	3	17	85	1179	1118	1243	7782336	7200000	7999999
11	450617	2	17	90	1236	1201	0	8236493	8000000	8799999
12	1324314	2	17	55	1124	1155	0	9563244	8800000	9599999
13	696587	3	17	60	1593	1195	1872	10262110	9600000	10399999
14	577362	2	17	95	1371	1132	0	10844132	10400000	11199999
15	1144943	2	17	80	1500	1846	0	11991578	11200000	11999999

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

Type 5 Radar Waveform_26

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	277124	1	6	95	1290	0	0	277124	0	749999
2	496186	1	6	100	1658	0	0	774600	750000	1499999
3	1184959	3	6	55	1995	1250	1304	1961217	1500000	2249999
4	653049	2	6	55	1502	1593	0	2618815	2250000	2999999
5	974281	3	6	90	1088	1743	1191	3596191	3000000	3749999
6	213416	2	6	60	1299	1538	0	3813629	3750000	4499999
7	1306948	2	6	60	1168	1839	0	5123414	4500000	5249999
8	430103	1	6	70	1940	0	0	5556524	5250000	5999999
9	1084616	3	6	80	1201	1463	1350	6643080	6000000	6749999
10	122152	1	6	90	1520	0	0	6769246	6750000	7499999
11	1348418	3	6	70	1953	1692	1971	8119184	7500000	8249999
12	373422	2	6	90	1753	1191	0	8498222	8250000	8999999
13	726371	2	6	75	1208	1075	0	9227537	9000000	9749999
14	936369	2	6	85	1787	1395	0	10166189	9750000	10499999
15	400394	1	6	55	1015	0	0	10569765	10500000	11249999
16	1325082	3	6	55	1895	1193	1859	11895862	11250000	11999999

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

Type 5 Radar Waveform_27

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	444984	3	18	85	1221	1897	1259	444984	0	999999
2	895204	3	18	95	1948	1173	1370	1344565	1000000	1999999
3	1340446	1	18	85	1652	0	0	2689502	2000000	2999999
4	1297779	2	18	85	1796	1923	0	3988933	3000000	3999999
5	881824	2	18	75	1144	1898	0	4874476	4000000	4999999
6	815700	3	18	55	1276	1325	1001	5693218	5000000	5999999
7	888597	3	18	75	1913	1199	1594	6585417	6000000	6999999
8	648879	1	18	75	1402	0	0	7239002	7000000	7999999
9	1202101	3	18	50	1785	1330	1713	8442505	8000000	8999999
10	811590	3	18	85	1173	1002	1996	9258923	9000000	9999999
11	759896	3	18	85	1097	1352	1647	10022990	10000000	10999999
12	1937430	3	18	80	1819	1158	1622	11964516	11000000	11999999

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

Type 5 Radar Waveform_28

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	999669	3	19	90	1206	1361	1424	999669	0	1199999
2	1392419	1	19	80	1837	0	0	2396079	1200000	2399999
3	397958	2	19	80	1942	1565	0	2795874	2400000	3599999
4	1102133	1	19	100	1130	0	0	3901514	3600000	4799999
5	1453296	2	19	60	1947	1337	0	5355940	4800000	5999999
6	1072668	1	19	55	1442	0	0	6431892	6000000	7199999
7	1738785	1	19	80	1725	0	0	8172119	7200000	8399999
8	816427	3	19	60	1979	1471	1368	8990271	8400000	9599999
9	1344267	3	19	85	1485	1697	1269	10339356	9600000	10799999
10	922929	1	19	100	1927	0	0	11266736	10800000	11999999

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

Type 5 Radar Waveform_29

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	95833	2	9	90	1656	1297	0	95833	0	749999
2	754123	1	9	80	1428	0	0	852909	750000	1499999
3	990008	1	9	90	1283	0	0	1844345	1500000	2249999
4	552963	3	9	95	1395	1974	1424	2398591	2250000	2999999
5	1305024	2	9	85	1223	1820	0	3708408	3000000	3749999
6	57172	1	9	95	1352	0	0	3768623	3750000	4499999
7	1254710	3	9	90	1039	1688	1956	5024685	4500000	5249999
8	830450	1	9	90	1816	0	0	5859818	5250000	5999999
9	483366	3	9	65	1685	1899	1638	6345000	6000000	6749999
10	855647	1	9	65	1404	0	0	7205869	6750000	7499999
11	563673	2	9	60	1396	1836	0	7770946	7500000	8249999
12	1035889	2	9	50	1464	1315	0	8810067	8250000	8999999
13	261585	1	9	50	1703	0	0	9074431	9000000	9749999
14	1161969	3	9	60	1595	1731	1390	10238103	9750000	10499999
15	701591	3	9	85	1226	1015	1316	10944410	10500000	11249999
16	844528	2	9	100	1843	1615	0	11792495	11250000	11999999

Total number of pulses in waveform = 31

****

Type 5 Radar Waveform_30

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	519688	2	12	95	1437	1824	0	519688	0	749999
2	460699	3	12	95	1291	1764	1240	983648	750000	1499999
3	899316	1	12	95	1834	0	0	1887259	1500000	2249999
4	847760	2	12	60	1173	1998	0	2736853	2250000	2999999
5	664798	2	12	55	1735	1985	0	3404822	3000000	3749999
6	352042	2	12	55	1278	1738	0	3760584	3750000	4499999
7	1237949	2	12	80	1711	1958	0	5001549	4500000	5249999
8	372412	3	12	70	1381	1847	1182	5377630	5250000	5999999
9	718571	2	12	90	1383	1946	0	6100611	6000000	6749999
10	1335023	3	12	70	1724	1390	1773	7438963	6750000	7499999
11	606376	1	12	80	1337	0	0	8050226	7500000	8249999
12	412298	2	12	100	1672	1175	0	8463861	8250000	8999999
13	1264469	2	12	100	1552	1802	0	9731177	9000000	9749999
14	291260	2	12	60	1497	1548	0	10025791	9750000	10499999
15	736069	2	12	95	1190	1572	0	10764905	10500000	11249999
16	792838	1	12	95	1378	0	0	11560505	11250000	11999999

Total number of pulses in waveform = 32

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Radar Type 6 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	1=Detection 0=No Detection	Trail #	Test Freq. (MHz)	1=Detection 0=No Detection
1	5282.5	1	16	5318.3	1
2	5285.8	1	17	5280.6	1
3	5321.8	1	18	5315.7	1
4	5251.0	1	19	5329.0	1
5	5323.7	1	20	5313.8	1
6	5277.7	1	21	5261.5	1
7	5310.4	1	22	5274.5	1
8	5253.4	1	23	5288.3	1
9	5294.3	1	24	5264.3	1
10	5270.6	1	25	5292.0	1
11	5308.3	1	26	5258.9	1
12	5297.7	1	27	5306.8	1
13	5255.8	1	28	5324.8	1
14	5327.4	1	29	5300.5	1
15	5304.4	1	30	5267.4	1
Detection Percentage (%)					100%

Radar waveform #1			Radar waveform #2		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
0	5257	0	7	5262	21
20	5259	60	16	5254	48
31	5276	93	33	5256	99
40	5253	120	45	5286	135
44	5254	132	61	5265	183
63	5250	189	62	5285	186
81	5282	243	92	5258	276
--	--	--	93	5277	279
--	--	--	94	5263	282

Radar waveform #3			Radar waveform #4		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
8	5307	24	3	5281	9
40	5308	120	4	5278	12
42	5311	126	11	5261	33
45	5305	135	25	5283	75
46	5312	138	41	5270	123
65	5291	195	47	5258	141
70	5297	210	69	5259	207
89	5298	267	70	5268	210
91	5317	273	91	5248	273

Radar waveform #5			Radar waveform #6		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
29	5331	87	0	5263	0
39	5328	117	18	5287	54
40	5311	120	20	5251	60
48	5333	144	24	5265	72
73	5320	219	28	5283	84
93	5308	279	33	5295	99
--	--	--	58	5268	174
--	--	--	63	5278	189
--	--	--	64	5299	192
--	--	--	77	5301	231
--	--	--	78	5293	234
--	--	--	81	5274	243
--	--	--	88	5262	264
--	--	--	90	5279	270
--	--	--	92	5271	276

Radar waveform #7			Radar waveform #8		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
2	5302	6	6	5232	18
8	5291	24	11	5259	33
24	5319	72	21	5220	63
27	5303	81	56	5268	168
28	5315	84	61	5246	183
36	5331	108	62	5275	186
42	5311	126	63	5251	189
66	5324	198	85	5245	255
68	5330	204	88	5235	264
73	5329	219	89	5247	267
82	5305	246	92	5229	276
89	5284	267	99	5263	297
91	5322	273	--	--	--
97	5323	291	--	--	--

Radar waveform #9			Radar waveform #10		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
4	5256	12	27	5304	81
8	5298	24	43	5264	129
19	5313	57	44	5273	132
23	5255	69	50	5307	150
32	5289	96	74	5262	222
35	5262	105	87	5309	261
41	5265	123	89	5276	267
46	5280	138	--	--	--
58	5291	174	--	--	--
62	5278	186	--	--	--
68	5287	204	--	--	--
79	5275	237	--	--	--
80	5257	240	--	--	--
96	5267	288	--	--	--

Radar waveform #11			Radar waveform #12		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
12	5317	36	1	5310	3
27	5287	81	4	5306	12
31	5288	93	13	5309	39
49	5276	147	18	5292	54
62	5273	186	37	5317	111
73	5272	219	41	5289	123
--	--	--	49	5290	147
--	--	--	70	5279	210
--	--	--	72	5312	216
--	--	--	88	5305	264
--	--	--	90	5260	270
--	--	--	92	5269	276
--	--	--	96	5294	288
--	--	--	99	5286	297

Radar waveform #13			Radar waveform #14		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
3	5257	9	18	5296	54
16	5232	48	22	5302	66
18	5249	54	34	5329	102
19	5284	57	54	5309	162
27	5287	81	55	5304	165
28	5263	84	56	5310	168
31	5277	93	61	5349	183
32	5244	96	66	5290	198
40	5265	120	72	5308	216
42	5286	126	78	5291	234
44	5237	132	91	5341	273
54	5236	162	--	--	--
71	5229	213	--	--	--
75	5261	225	--	--	--
77	5238	231	--	--	--
83	5243	249	--	--	--
86	5268	258	--	--	--
87	5270	261	--	--	--
90	5234	270	--	--	--
91	5235	273	--	--	--
99	5281	297	--	--	--

Radar waveform #15			Radar waveform #16		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
6	5272	18	4	5288	12
10	5275	30	19	5299	57
17	5273	51	23	5305	69
18	5323	54	30	5332	90
23	5325	69	36	5338	108
25	5277	75	47	5323	141
34	5285	102	50	5295	150
41	5295	123	59	5301	177
48	5294	144	63	5306	189
50	5297	150	70	5329	210
51	5301	153	82	5282	246
57	5319	171	85	5289	255
76	5304	228	89	5293	267
85	5330	255	91	5294	273
--	--	--	97	5308	291
--	--	--	98	5285	294

Radar waveform #17			Radar waveform #18		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
16	5297	48	11	5303	33
24	5291	72	12	5314	36
30	5277	90	17	5320	51
36	5288	108	20	5347	60
45	5304	135	26	5353	78
48	5287	144	34	5338	102
56	5289	168	36	5310	108
63	5262	189	49	5316	147
68	5270	204	64	5321	192
74	5312	222	82	5344	246
76	5267	228	86	5297	258
87	5308	261	93	5304	279
99	5276	297	--	--	--

Radar waveform #19			Radar waveform #20		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
16	5308	48	1	5301	3
20	5332	60	3	5305	9
22	5354	66	11	5311	33
24	5333	72	16	5339	48
28	5306	84	26	5303	78
29	5301	87	29	5307	87
31	5320	93	52	5324	156
39	5326	117	54	5295	162
42	5309	126	58	5304	174
54	5297	162	64	5342	192
67	5349	201	69	5318	207
75	5315	225	75	5337	225
88	5304	264	79	5349	237
95	5319	285	81	5331	243

Radar waveform #21			Radar waveform #22		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
1	5277	3	7	5252	21
4	5268	12	13	5295	39
11	5252	33	14	5262	42
17	5267	51	16	5253	48
21	5262	63	37	5305	111
38	5286	114	46	5290	138
46	5269	138	59	5269	177
51	5284	153	62	5257	186
54	5274	162	67	5258	201
59	5249	177	71	5280	213
71	5247	213	72	5261	216
89	5287	267	78	5273	234
97	5285	291	84	5256	252
--	--	--	97	5302	291
--	--	--	98	5254	294

Radar waveform #23			Radar waveform #24		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
13	5285	39	1	5249	3
19	5325	57	2	5276	6
21	5276	63	20	5269	60
29	5275	87	36	5281	108
30	5319	90	46	5274	138
31	5282	93	51	5261	153
52	5293	156	54	5264	162
65	5292	195	57	5295	171
74	5302	222	61	5255	183
75	5296	225	65	5244	195
91	5277	273	66	5260	198
92	5274	276	69	5242	207
99	5315	297	74	5294	222
--	--	--	77	5293	231
--	--	--	81	5278	243
--	--	--	97	5254	291

Radar waveform #25			Radar waveform #26		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
4	5321	12	12	5249	36
14	5301	42	16	5256	48
30	5297	90	23	5278	69
32	5319	96	24	5286	72
36	5305	108	27	5267	81
37	5328	111	36	5244	108
43	5326	129	37	5261	111
50	5310	150	54	5236	162
51	5307	153	67	5252	201
58	5312	174	68	5276	204
61	5287	183	72	5255	216
76	5314	228	96	5259	288
85	5306	255	98	5254	294
99	5303	297	--	--	--

Radar waveform #27			Radar waveform #28		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
10	5301	30	22	5305	66
14	5327	42	31	5346	93
22	5273	66	42	5296	126
26	5321	78	47	5349	141
32	5324	96	48	5314	144
43	5326	129	63	5318	189
44	5319	132	74	5303	222
46	5332	138	79	5347	237
47	5292	141	86	5335	258
50	5342	150	96	5304	288
82	5306	246	98	5344	294
84	5345	252	--	--	--
98	5309	294	--	--	--

Radar waveform #29			Radar waveform #30		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
1	5268	3	0	5285	0
4	5269	12	22	5249	66
8	5274	24	32	5293	96
12	5276	36	40	5248	120
24	5314	72	43	5297	129
32	5296	96	45	5267	135
42	5275	126	50	5260	150
57	5316	171	52	5252	156
59	5321	177	55	5284	165
61	5306	183	57	5289	171
69	5278	207	65	5270	195
71	5287	213	75	5250	225
73	5325	219	79	5266	237
78	5310	234	81	5251	243
86	5320	258	85	5256	255
96	5309	288	90	5291	270

6. CONCLUSION

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

Q9DAPIN0303 is in compliance with Part 15E of the FCC Rules.

The End