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Report No.: 1810TW0102-U5
Report Version: V01
Issue Date: 10-17-2018

DFS MEASUREMENT REPORT

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

FCC ID: Q9DAPINP303

APPLICANT: Hewlett Packard Enterprise Company

Application Type: Certification

Product: ACCESS POINT

Model No.: APINP303

Brand Name:  

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

Test Date: November 10, 2017 ~ October 12, 2018

Reviewed By: 
(Paddy Chen)

Approved By: 
(Chenz Ker)



The test results relate only to the samples tested.

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

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

Revision History

Report No.	Version	Description	Issue Date	Note
1810TW0102-U5	Rev. 01	Initial Report	10-17-2018	Valid

Note 1: The APINP303 is a variation on the existing APIN0303. The APIN0303 is currently FCC certified under FCC ID: Q9DAPIN0303 and ISED certified under IC: 4675A-APIN0303.

The APINP303 differs from the APIN0303 in the following ways:

- A second Ethernet port was added (second port supports POE out).
- The BLE radio chip (previously from TI) was changed to a Nordic BLE/ZigBee IC.

Detail EUT information and test summary information refers to operation description.

Note 2: Test data refer to APIN0303 original test report no. 1711TW0103-U8, only assess the statistical performance check measurement for 802.11ac-VHT80 mode, any others were the same.

Test	Worse Case Mode	Comment
UNII2a (5250-5350MHz)		
DFS	Any one BW	All original detection was 100%, so select one BW to verify for all radar types.
UNII2c (5470-5725MHz)		
DFS	Any one BW	All original detection was 100%, so select one BW to verify for all radar types.

Note 3: The applicant declares that they will take full responsibility that the test data represents compliance for the new FCC ID (Q9DAPINP303).

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§2.1033 General Information

Applicant:	Hewlett Packard Enterprise Company
Applicant Address:	6280 America Center Drive, San Jose, CA 95002
Manufacturer:	Hewlett Packard Enterprise Company
Manufacturer Address:	6280 America Center Drive, San Jose, CA 95002
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
Test Device Serial No.:	APINP303 Sample S/N: CNGHKGX01M APIN0303 Sample S/N: CNF0K9T03Q

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 TELECOM Rules.

TAF certificate here



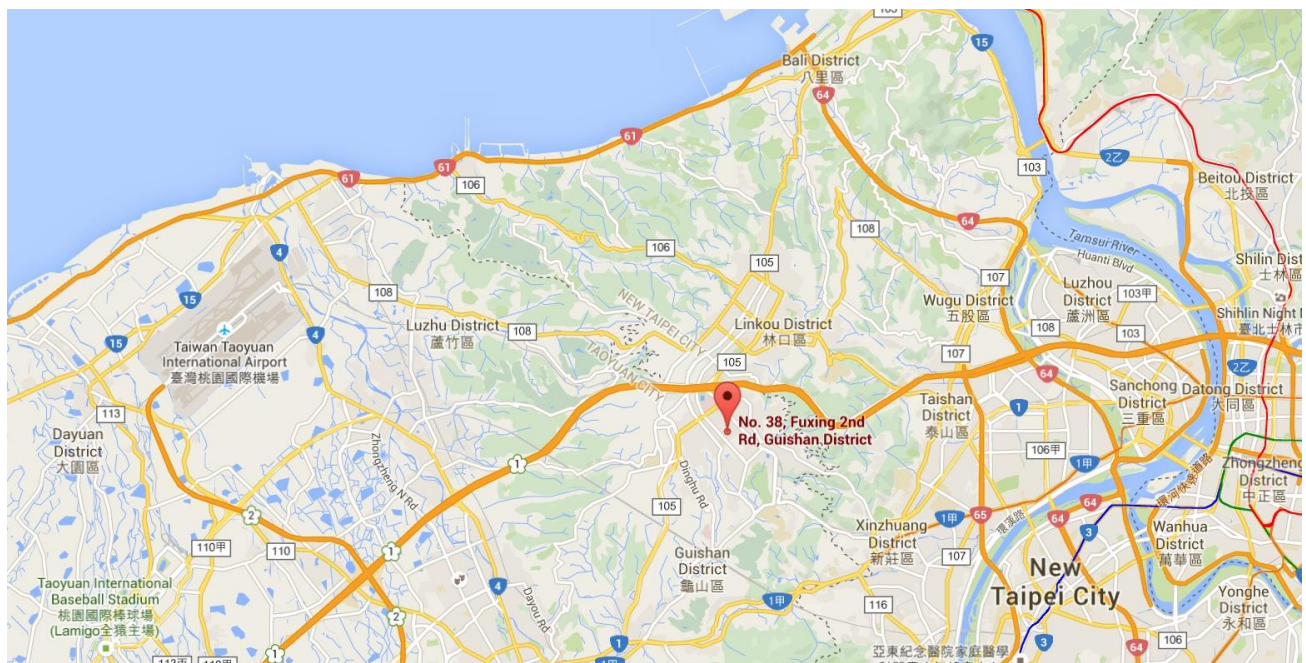
1. INTRODUCTION

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.:	APINP303
Brand Name:	 
Software Version:	ArubaOS_70xx_8.4.0.0_66807 A30x_ipq40xx.ari_8.4.0.0_cshen_66807
Operating Temperature:	0 ~ 40 °C
Power Type:	POE input
Frequency Range	<u>2.4GHz:</u> For 802.11b/g/n-HT20: 2412~2462 MHz For 802.11n-HT40: 2422~2452 MHz <u>5GHz:</u> 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

For model APINP303

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	5.9	3.01	5.9	8.91
Bluetooth Internal Antenna						
PCB	2.4	1	4.5	--		

For model APIN0303

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.

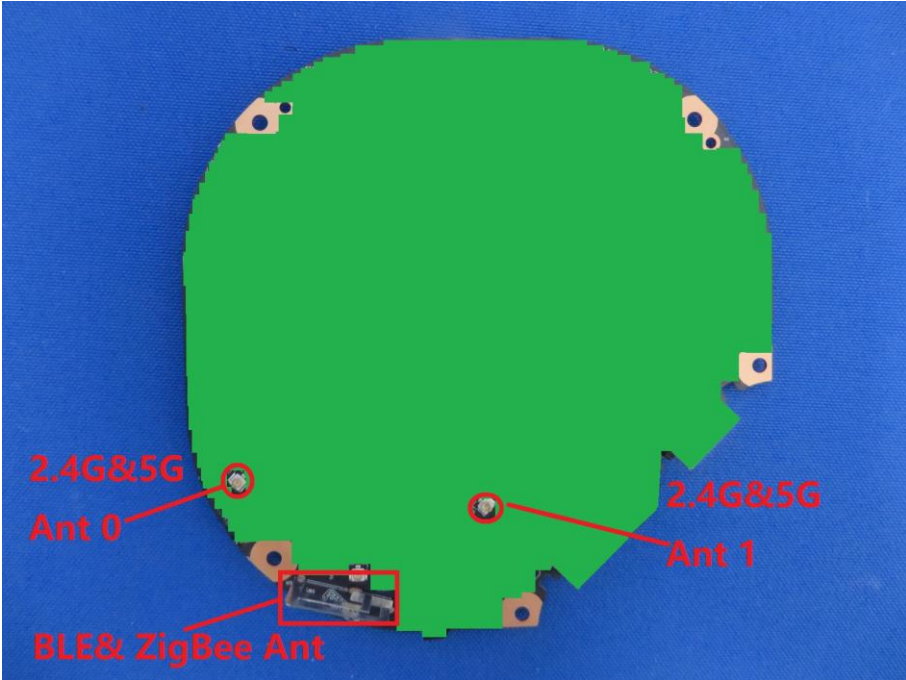
For CDD transmissions, directional gain is calculated as follows, $N_{ANT} = 2$, $N_{SS} = 1$.

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

- For power spectral density (PSD) measurements on all devices,
Array Gain = $10 \log (N_{ANT}/ N_{SS})$ dB = 3.01;
- For power measurements on IEEE 802.11 devices,
Array Gain = 0 dB for $N_{ANT} \leq 4$;

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
802.11ac-VHT80	106	5530 MHz

2.6. Test Mode

Test Mode	Mode 1: Communication with the notebook
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3. DFS DETECTION THRESHOLDS AND RADAR TEST WAVEFORMS

3.1. Applicability

The following table from FCC KDB 905462 D02 UNII DFS Compliance Procedures New Rules 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 $\geq$ 200 milliwatt	-64 dBm
EIRP < 200 milliwatt and power spectral density < 10 dBm/MHz	-62 dBm
EIRP < 200 milliwatt that do not meet the power spectral density requirement	-64 dBm
Note 1: This is the level at the input of the receiver assuming a 0 dBi receive antenna. Note 2: Throughout these test procedures an additional 1 dB has been added to the amplitude of the test transmission waveforms to account for variations in measurement equipment. This will ensure that the test signal is at or above the detection threshold level to trigger a DFS response. Note3: EIRP is based on the highest antenna gain. For MIMO devices refer to KDB Publication 662911 D01.	

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

3.4. Parameters of DFS Test Signals

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

Short Pulse Radar Test Waveforms

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

Table 3-5: Parameters for Short Pulse Radar Waveforms

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

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

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

Long Pulse Radar Test Waveform

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

Table 3-7: Parameters for Long Pulse Radar Waveforms

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

Frequency Hopping Radar Test Waveform

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

Table 3-8: Parameters for Frequency Hopping Radar Waveforms

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

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

3.5. Conducted Test Setup

The FCC KDB 905462 D02 UNII DFS Compliance Procedures New Rules 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.

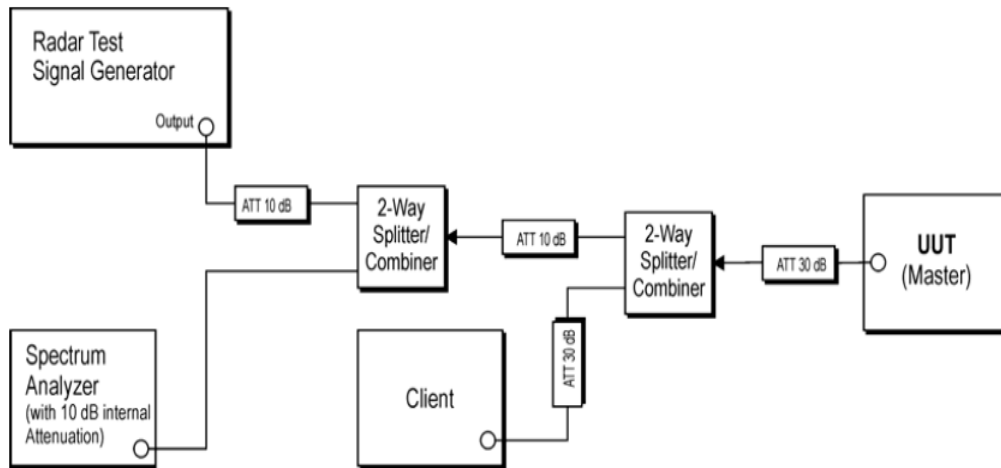


Figure 3-1: Conducted Test Setup where UUT is a Master and Radar Test Waveforms are injected into the Masters

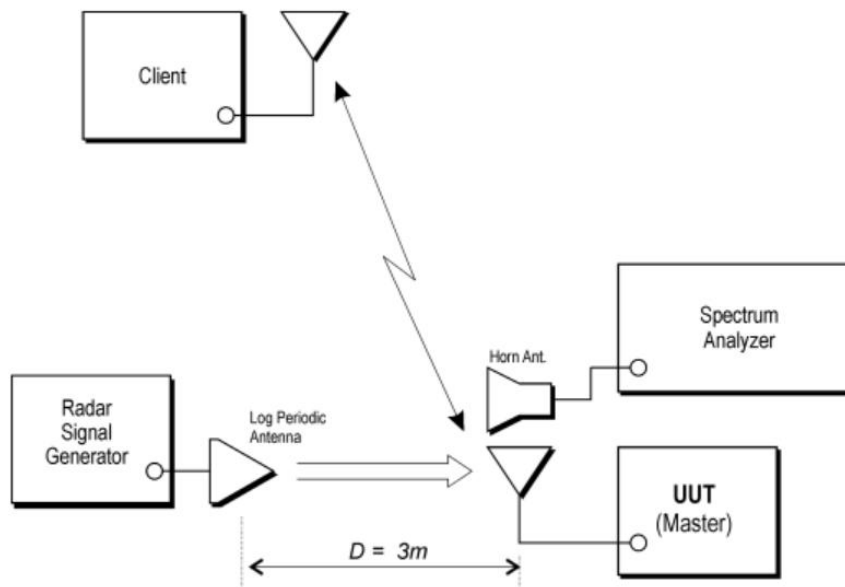


Figure 3-2: Radiated Test Setup where UUT is a Bridge or Mesh mode and Radar Test Waveforms are injected into the UUT

4. TEST EQUIPMENT CALIBRATION DATE

For model APIN0303

Dynamic Frequency Selection (DFS) – SR2

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

For model APINP303

Dynamic Frequency Selection (DFS) - SR2

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
Spectrum Analyzer	Agilent	N9010A	MRTTWA00012	1 year	2019/07/10
ESG Vector Signal Generator	Agilent	N5182B	MRTSUE06026	1 year	2019/04/05
Temperature/Humidity Meter	TEN BILLION	TTH-B3UP	MRTTWA00036	1 year	2019/05/10
Broad-Band Horn Antenna	Schwarzbeck	BBHA9120D	MRTTWA00003	1 year	2019/04/05
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: Q9DAPINP303

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 "Statistical Performance Check" was 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.

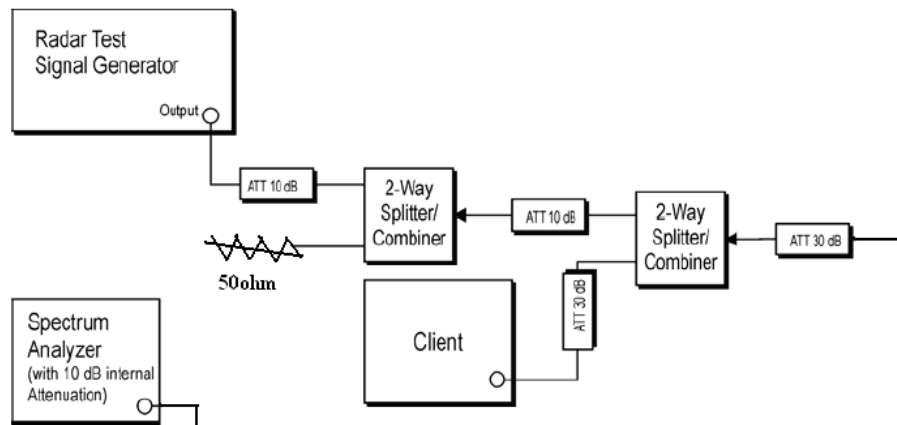


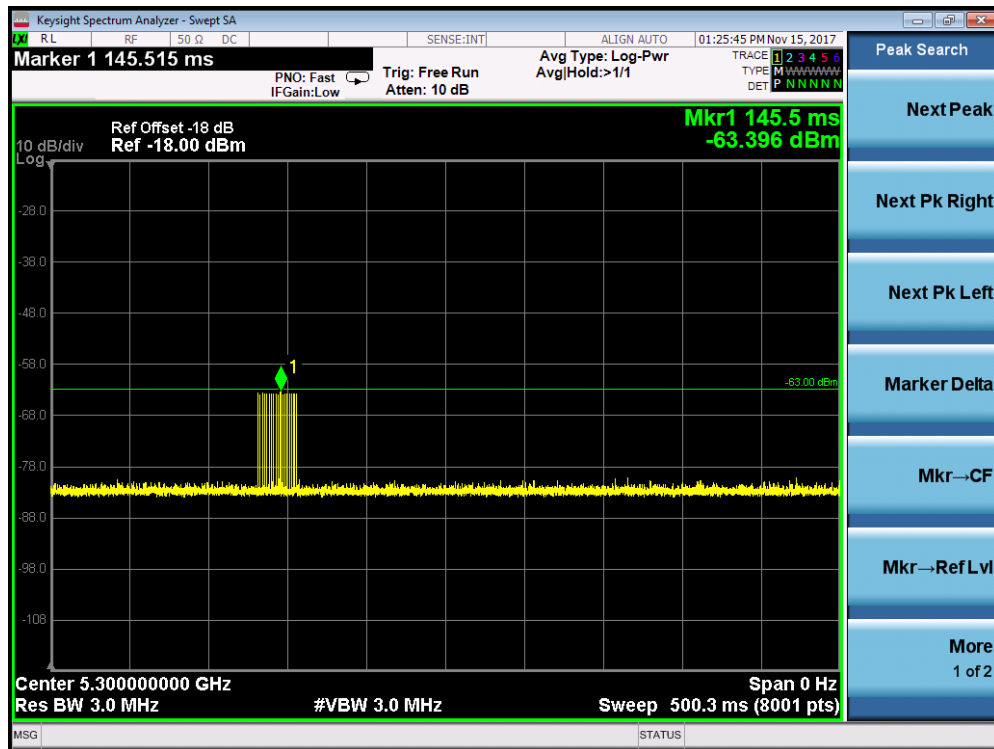
Figure 3-2: Conducted Test Setup

5.2.2. Calibration Procedure

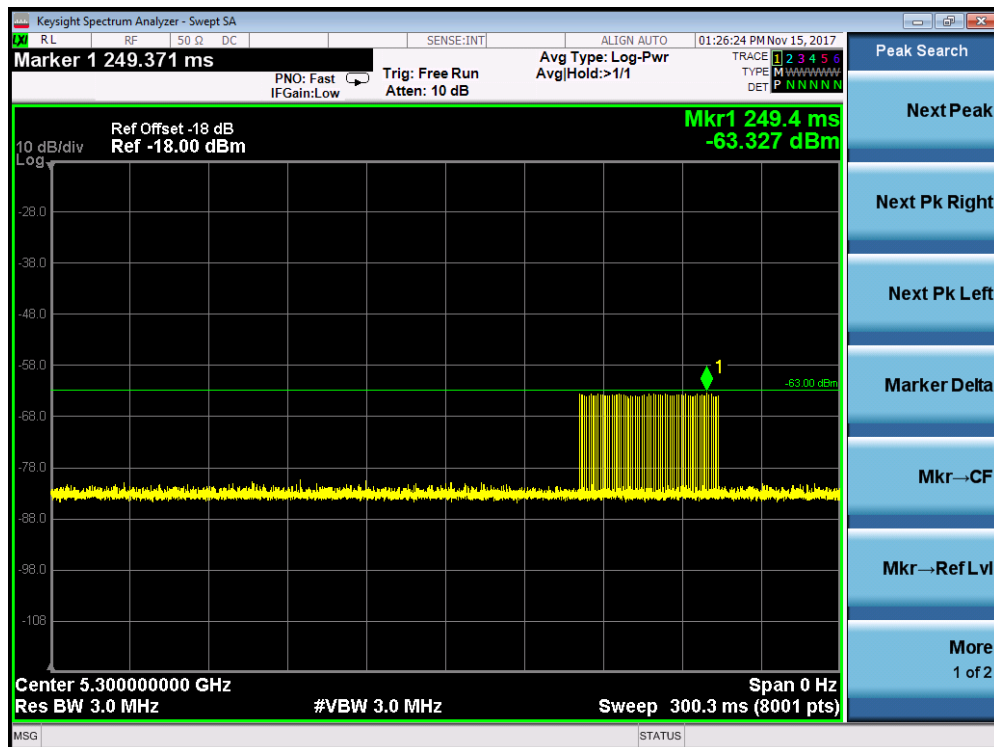
The Interference Radar Detection Threshold Level is $(-64\text{dBm}) + (0) [\text{dBi}] + 1 \text{ dB} = -63 \text{ dBm}$ that had been taken into account the output power range and antenna gain. The above equipment setup was used to calibrate the conducted Radar Waveform. A vector signal generator was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

5.2.3. Cablibration Result

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

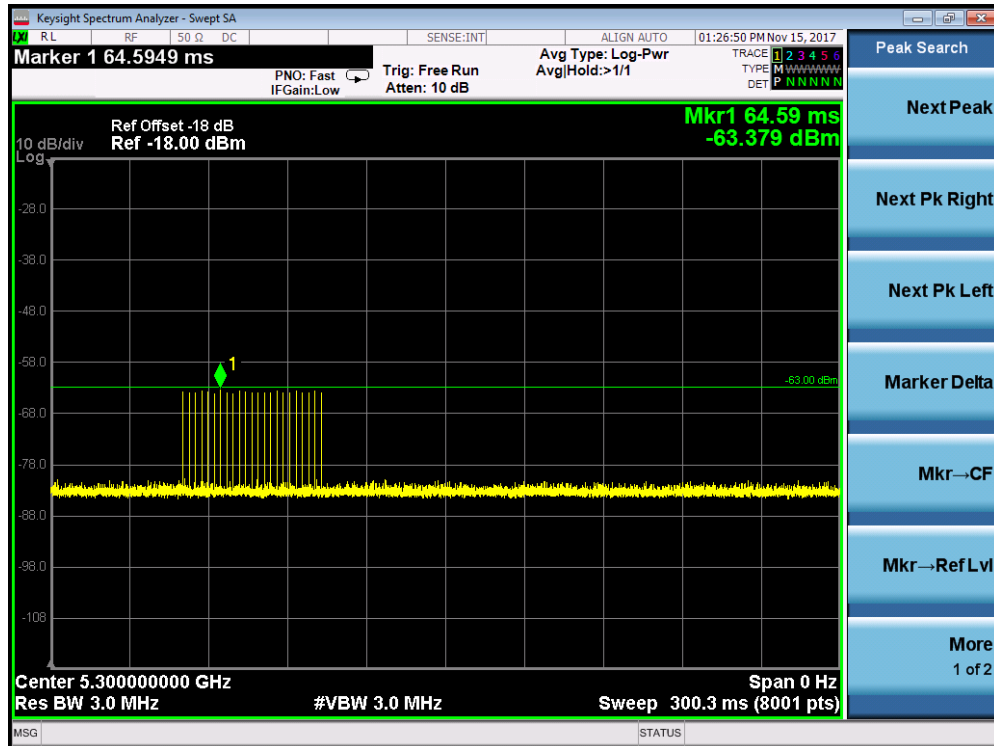


Radar #1(Test A) DFS detection threshold level and the burst of pulses on the Channel frequency



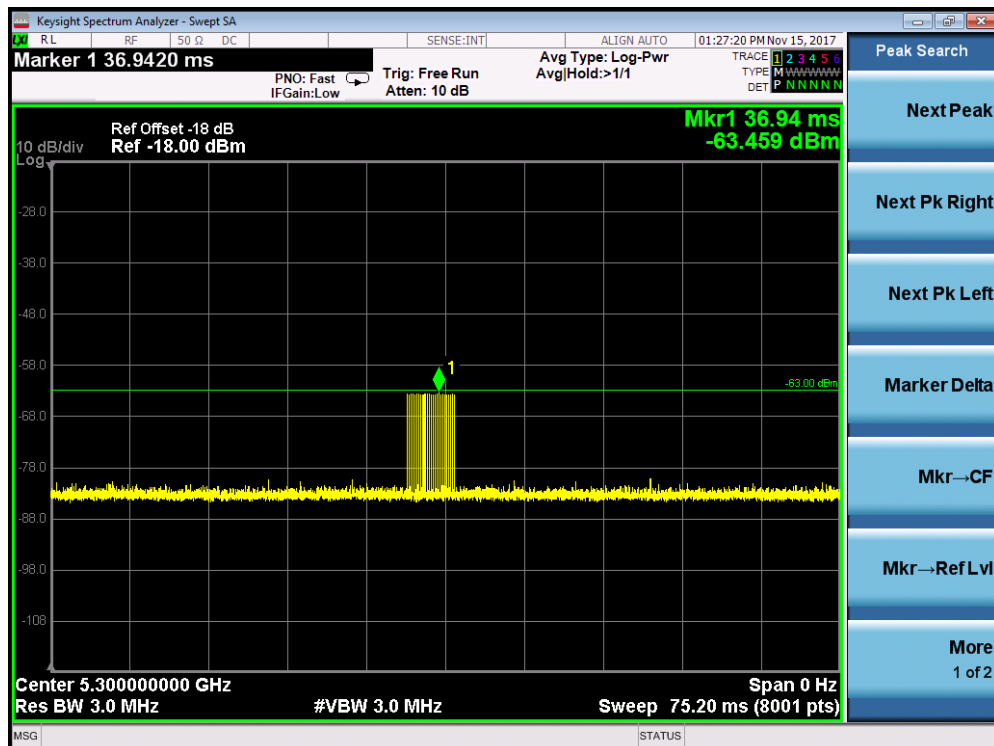
PRI = 878us and the number of pulses = 61

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

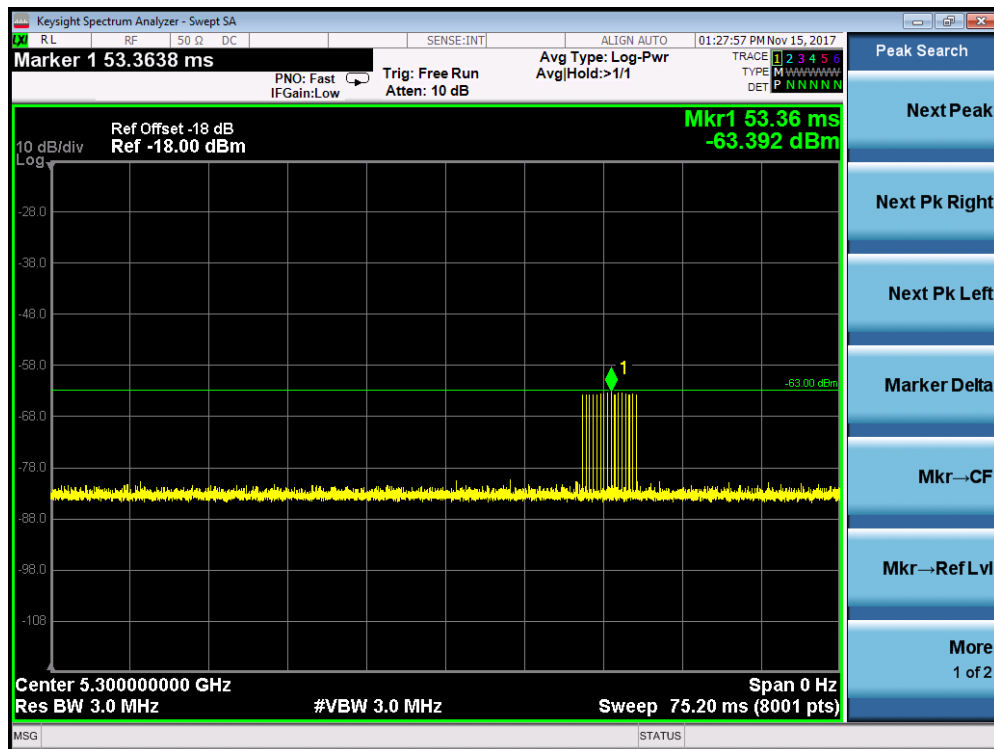


PRI = 2.351ms and the number of pulses = 23

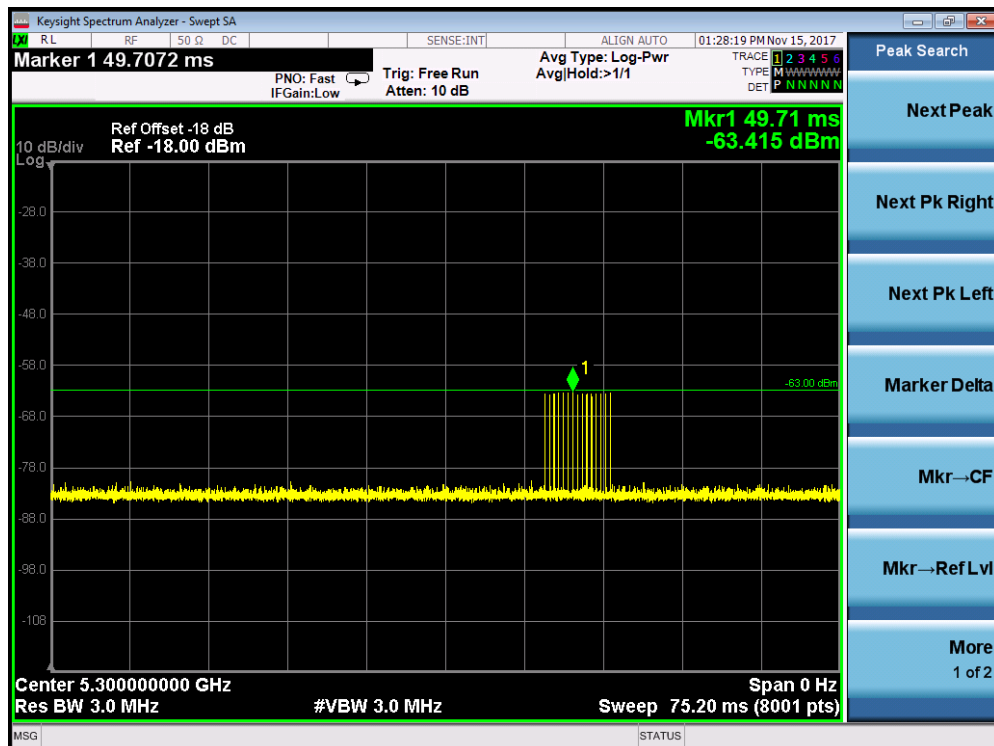
Radar #2 DFS detection threshold level and the burst of pulses on the Channel frequency



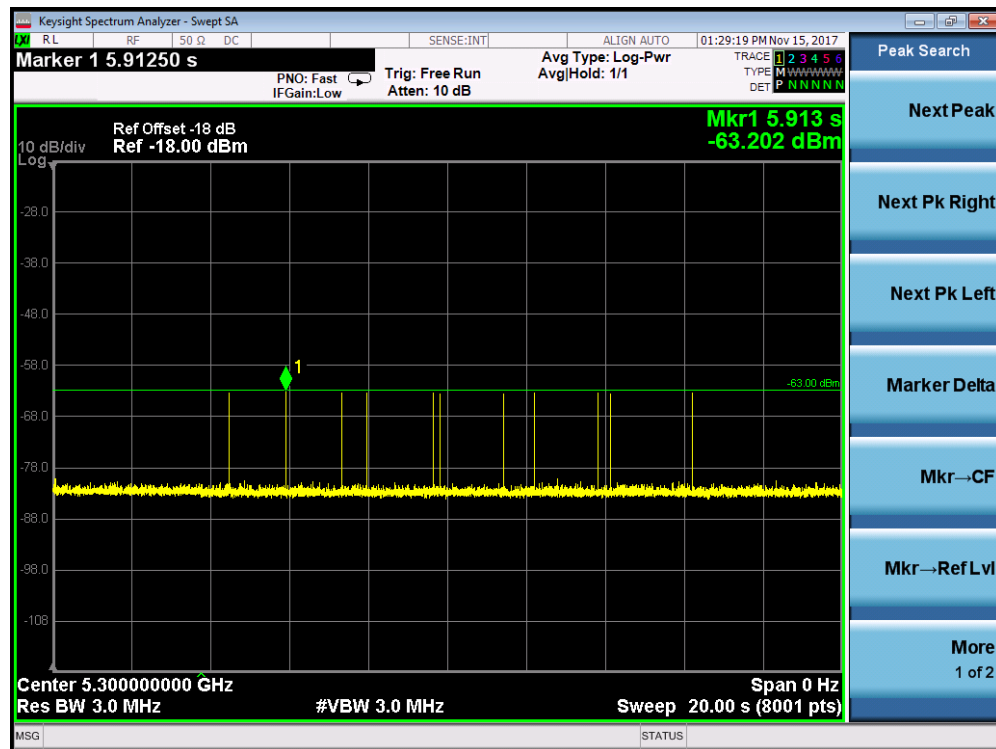
Radar #3 DFS detection threshold level and the burst of pulses on the Channel frequency



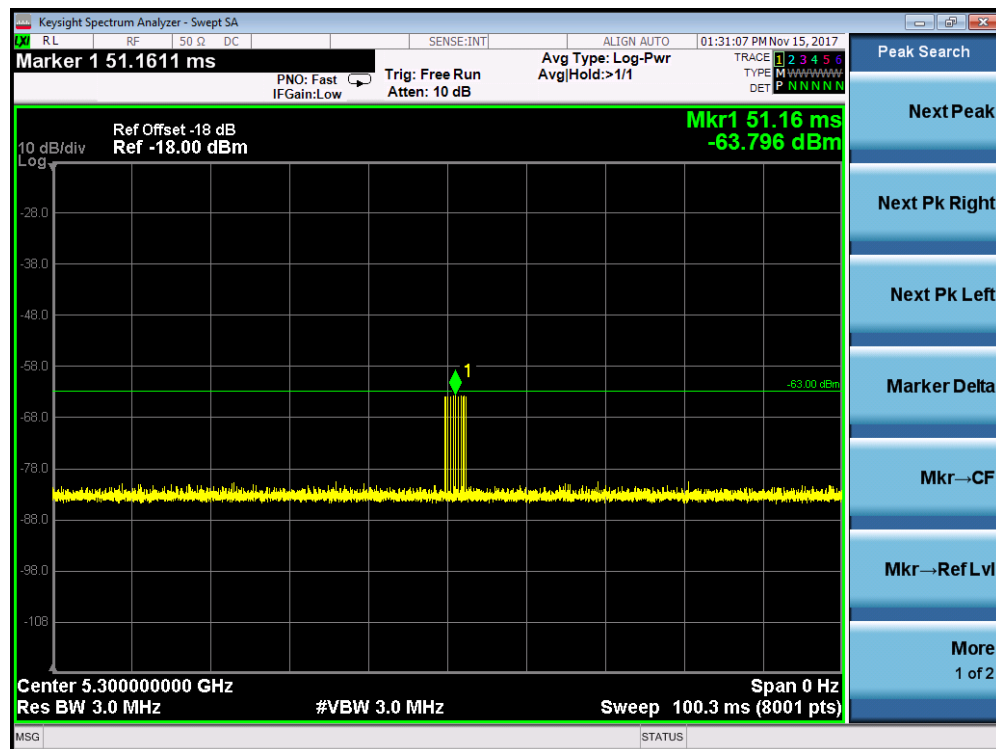
Radar #4 DFS detection threshold level and the burst of pulses on the Channel frequency



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

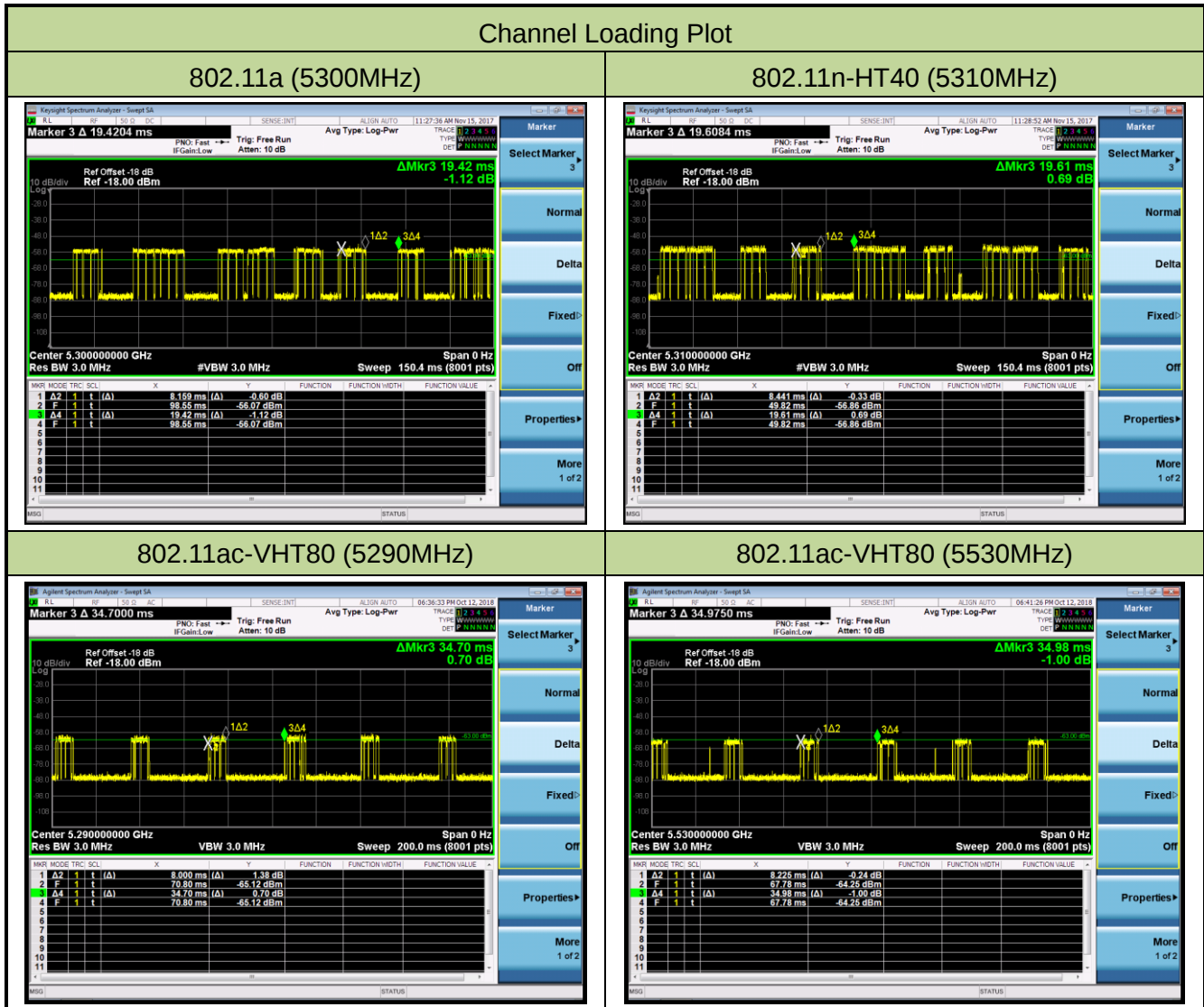


Radar #6 DFS detection threshold level and a single hop (9 pulses) on the Channel frequency within UNII detection bandwidth



5.2.4.Channel Loading Test Result

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



Test Mode	Test Frequency	Packet ratio	Requirement ratio	Test Result
802.11a	5300 MHz	42.01%	≥ 17%	Pass
802.11n-HT40	5310 MHz	43.04%	≥ 17%	Pass
802.11ac-VHT80	5290 MHz	23.05%	≥ 17%	Pass
802.11ac-VHT80	5530 MHz	23.51%	≥ 17%	Pass

Note 1: High channel loading was realized using the “Iperf” software.

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: $\text{U-NII Detection Bandwidth} = \text{FH} - \text{FL}$
8. The U-NII Detection Bandwidth must be at least 100% of the EUT transmitter 99% power, otherwise, the EUT does not comply with DFS requirements.

5.3.3. Test Result

EUT Frequency = 5300MHz for 802.11a											
Radar Frequency (MHz)	DFS Detection Trials (1=Detection, 0= No Detection)										Detection Rate (%)
	1	2	3	4	5	6	7	8	9	10	
5290	0	0	0	0	0	0	0	0	0	0	0%
5291 FL	1	1	1	1	1	1	1	1	1	1	100%
5292	1	1	1	1	1	1	1	1	1	1	100%
5293	1	1	1	1	1	1	1	1	1	1	100%
5294	1	1	1	1	1	1	1	1	1	1	100%
5295	1	1	1	1	1	1	1	1	1	1	100%
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)										Detection Rate (%)
	1	2	3	4	5	6	7	8	9	10	
5290	0	0	0	0	0	0	0	0	0	0	0%
5291	0	0	0	0	0	0	0	0	0	0	0%
5292 FL	1	1	1	1	1	1	1	1	1	1	100%
5293	1	1	1	1	1	1	1	1	1	1	100%
5294	1	1	1	1	1	1	1	1	1	1	100%
5295	1	1	1	1	1	1	1	1	1	1	100%
5295	1	1	1	1	1	1	1	1	1	1	100%
5300	1	1	1	1	1	1	1	1	1	1	100%
5305	1	1	1	1	1	1	1	1	1	1	100%
5310	1	1	1	1	1	1	1	1	1	1	100%
5315	1	1	1	1	1	1	1	1	1	1	100%
5320	1	1	1	1	1	1	1	1	1	1	100%
5325	1	1	1	1	1	1	1	1	1	1	100%
5326	1	1	1	1	1	1	1	1	1	1	100%
5327	1	1	1	1	1	1	1	1	1	1	100%
5328	1	1	1	1	1	1	1	1	1	1	100%
5329 FH	1	1	1	1	1	1	1	1	1	1	100%
5330	0	0	0	0	0	0	0	0	0	0	0%
Detection Bandwidth = FH - FL = 5329MHz - 5292MHz = 37MHz											
EUT 99% Bandwidth = 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)										Detection Rate (%)
	1	2	3	4	5	6	7	8	9	10	
5250	0	0	0	0	0	0	0	0	0	0	0%
5251	0	0	0	0	0	0	0	0	0	0	0%
5252 FL	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 FH	1	1	1	1	1	1	1	1	1	1	100%
5329	0	0	0	0	0	0	0	0	0	0	0%
5330	0	0	0	0	0	0	0	0	0	0	0%
Detection Bandwidth = FH - FL = 5328MHz - 5252MHz = 76MHz											
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).

EUT Frequency = 5530MHz for 802.11ac-VHT80											
Radar Frequency (MHz)	DFS Detection Trials (1=Detection, 0= No Detection)										Detection Rate (%)
	1	2	3	4	5	6	7	8	9	10	
5490	0	0	0	0	0	0	0	0	0	0	0%
5491	0	0	0	0	0	0	0	0	0	0	0%
5492 FL	1	1	1	1	1	1	1	1	1	1	100%
5493	1	1	1	1	1	1	1	1	1	1	100%
5494	1	1	1	1	1	1	1	1	1	1	100%
5495	1	1	1	1	1	1	1	1	1	1	100%
5500	1	1	1	1	1	1	1	1	1	1	100%
5505	1	1	1	1	1	1	1	1	1	1	100%
5510	1	1	1	1	1	1	1	1	1	1	100%
5515	1	1	1	1	1	1	1	1	1	1	100%
5520	1	1	1	1	1	1	1	1	1	1	100%
5525	1	1	1	1	1	1	1	1	1	1	100%
5530	1	1	1	1	1	1	1	1	1	1	100%
5535	1	1	1	1	1	1	1	1	1	1	100%
5540	1	1	1	1	1	1	1	1	1	1	100%
5545	1	1	1	1	1	1	1	1	1	1	100%
5550	1	1	1	1	1	1	1	1	1	1	100%
5555	1	1	1	1	1	1	1	1	1	1	100%
5560	1	1	1	1	1	1	1	1	1	1	100%
5565	1	1	1	1	1	1	1	1	1	1	100%
5566	1	1	1	1	1	1	1	1	1	1	100%
5567	1	1	1	1	1	1	1	1	1	1	100%
5568 FH	1	1	1	1	1	1	1	1	1	1	100%
5569	0	0	0	0	0	0	0	0	0	0	0%
5570	0	0	0	0	0	0	0	0	0	0	0%
Detection Bandwidth = FH - FL = 5568MHz - 5492MHz = 76MHz											
EUT 99% Bandwidth = 75.61MHz (see note)											
UNII Detection Bandwidth Min. Limit (MHz): 75.61MHz x 100% = 75.61MHz											

Note: All UNII channels for this device have identical Channel bandwidths. Therefore, all DFS testing was done at 5530MHz. The 99% channel bandwidth is 75.61MHz. (See the 99% BW section of the RF report for further measurement details).

5.4. Initial Channel Availability Check Time Measurement

5.4.1. Test Limit

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

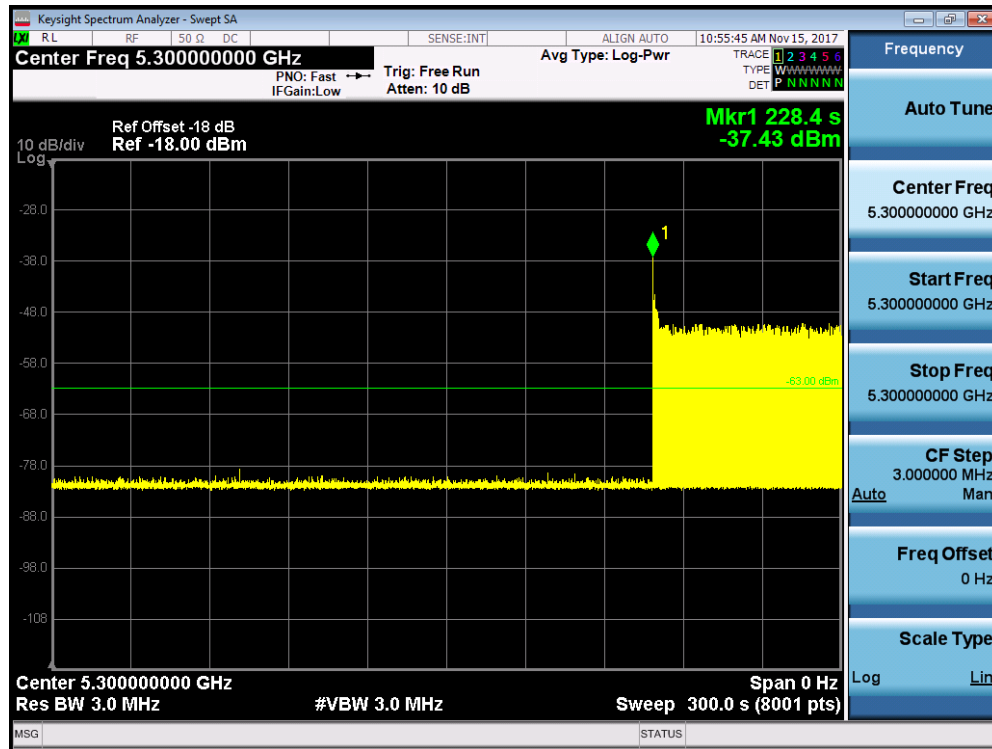
5.4.2. Test Procedure

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

5.4.3. Test Result

The EUT does not transmit any beacon or data transmissions until at least 1 minute after the completion of the power-on cycle (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

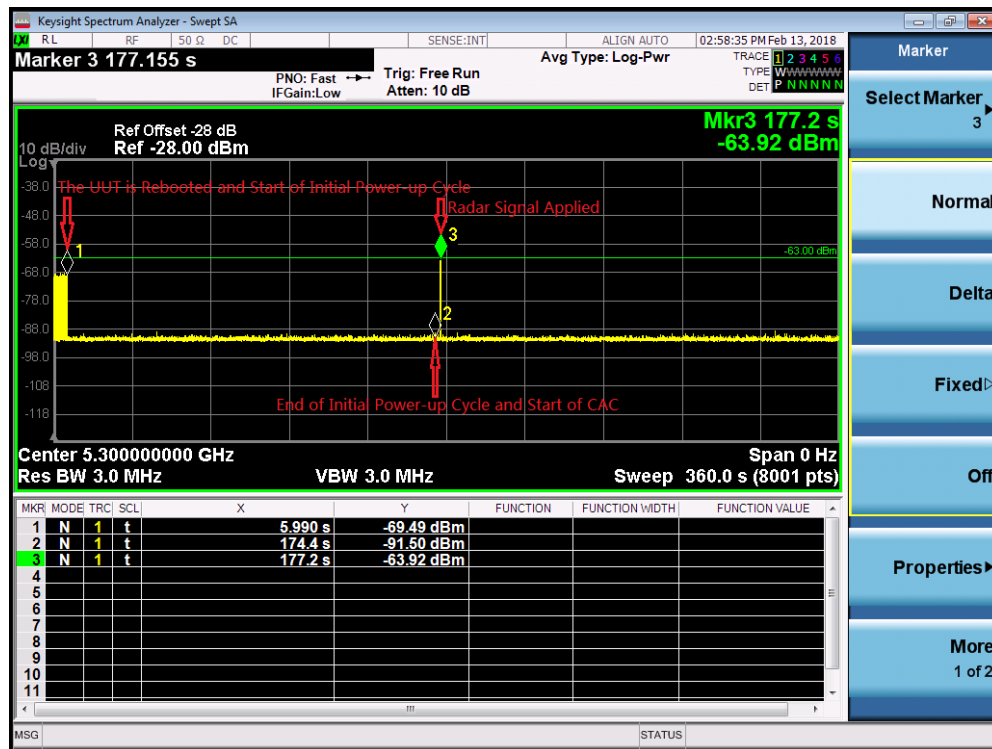
In beginning of the Channel Availability Check (CAC) Time, radar is detected on this channel, select another intended channel and perform a CAC on that channel.

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

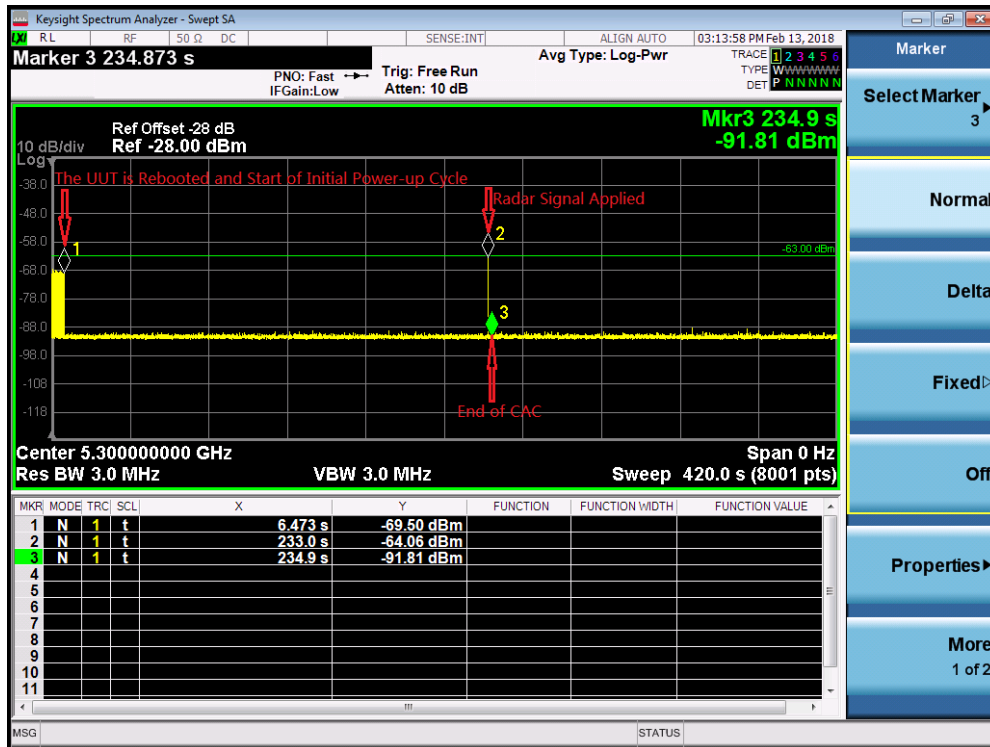
In the end of Channel Availability Check (CAC) Time, radar is detected on this channel, select another intended channel and perform a CAC on that channel.

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 than $T1 + 60$ seconds. A single Burst of one of Short Pulse Radar Types 0-4 at DFS Detection Threshold + 1 dB will commence within a 6 second window starting at $T1 + 54$ seconds.
3. Visual indication on the EUT of successful detection of the radar Burst will be recorded and reported. Observation of emissions will continue for 2.5 minutes after the radar Burst has been generated. Verify that during the 2.5 minutes measurement window no EUT transmissions occurred.

5.6.3. Test Result

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



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

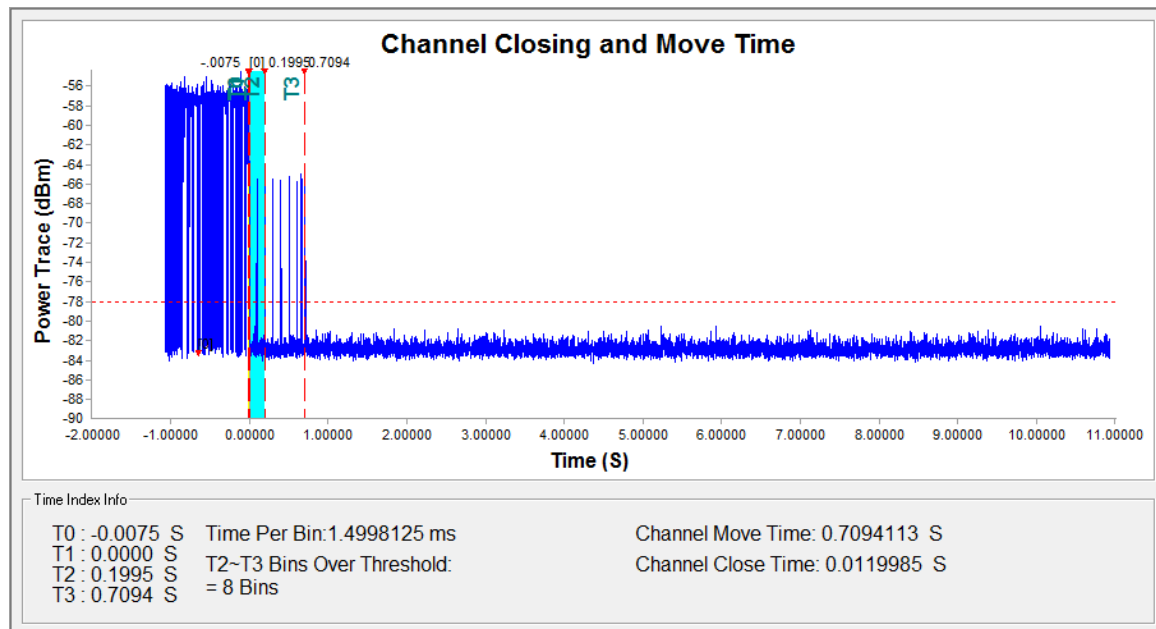
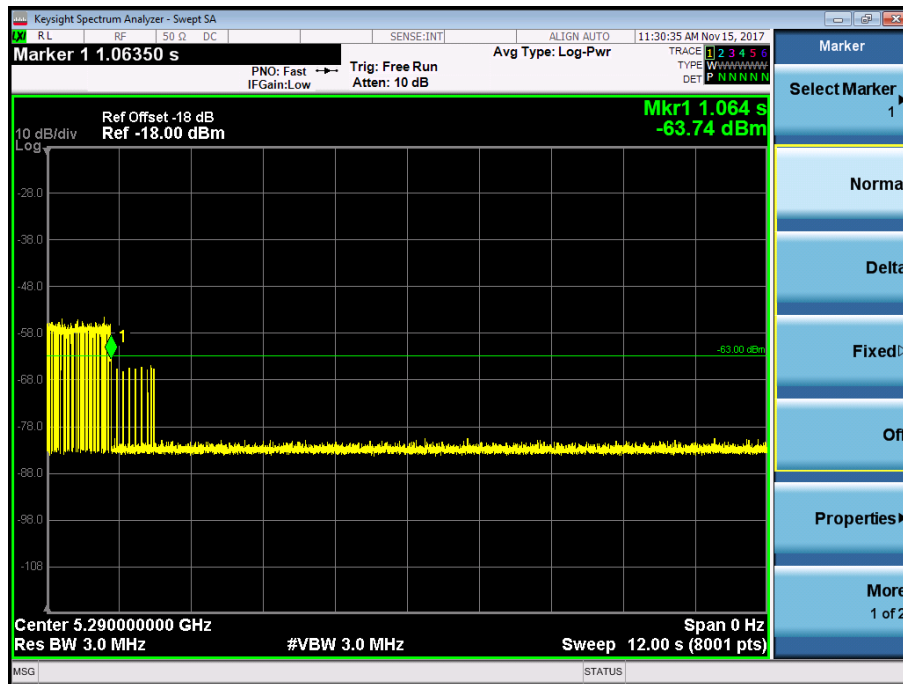
The EUT has In-Service Monitoring function to continuously monitor the radar signals. If the radar is detected, must leave the channel (Shutdown). The Channel Move Time to cease all transmissions on the current channel upon detection of a Radar Waveform above the DFS Detection Threshold within 10 sec. 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: $Dwell (1.5ms) = S (12 \text{ sec}) / B (8000)$; where Dwell is the dwell time per spectrum analyzer sampling bin, S is the sweep time and B is the number of spectrum analyzer sampling bins. An upper bound of the aggregate duration of the intermittent control signals of Channel Closing Transmission Time is calculated by: $C = N \times Dwell$; where C is the Closing Time, N is the number of spectrum analyzer sampling bins showing a U-NII transmission and Dwell is the dwell time per bin.
5. Measure the EUT for more than 30 minutes following the channel close/move time to verify that the EUT does not resume any transmissions on this Channel.

5.7.3. Test Result

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



Keysight Spectrum Analyzer - Swept SA

RL RF 50 Ω DC SENSE:INT ALIGN AUTO 01:22:00 PM Nov 15, 2017

Center Freq 5.290000000 GHz PNO: Fast IFGain:Low Trig: Free Run Avg Type: Log-Pwr

TRACE 1 2 3 4 5 6
TYPE W W W W W W W W
DET P N N N N N

Ref Offset -18 dB
Ref -18.00 dBm

Δ Mkr1 1.800 ks
-25.28 dB

10 dB/div
Log

-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
-90.0
-100.0

Center 5.290000000 GHz
Res BW 3.0 MHz #VBW 3.0 MHz Span 0 Hz
Sweep 2.000 ks (8001 pts)

MSG STATUS

Frequency
Auto Tune
Center Freq
5.290000000 GHz
Start Freq
5.290000000 GHz
Stop Freq
5.290000000 GHz
CF Step
3.000000 MHz
Auto
Freq Offset
0 Hz
Scale Type
Log Lin

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)	≥ 30min	≥ 30 min

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

5.8. Statistical Performance Check Measurement

5.8.1. Test Limit

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

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

The percentage of successful detection is calculated by:

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

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

5.8.2. Test Procedure

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

5.8.3. Test Result

Test Site	SR2	Test Date	2017/11/20
Test Engineer	Kevin Ker	Test Channel	802.11a 5300MHz
Test Item	Radar Statistical Performance		

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	844193	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 = 15
Burst Interval (us) = 750000

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	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	1495	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	1866	1089	0	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	1287	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	827562	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	1690	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	898766	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	5645666	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	433702	2	17	60	1783	1604	0	3815988	3200000	3999999
6	614378	2	17	50	1477	1952	0	4253077	4000000	4799999
7	877708	2	17	50	1289	1917	0	4870884	4800000	5599999
8	1083518	2	17	80	1102	1659	0	5751798	5600000	6399999
9	699880	3	17	65	1133	1143	1881	6838077	6400000	7199999
10	938530	2	17	70	1089	1211	0	7542114	7200000	7999999
11	473251	3	17	75	1870	1837	1030	8482944	8000000	8799999
12	1204126	1	17	85	1972	0	0	8960932	8800000	9599999
13	375758	1	17	100	1666	0	0	10167030	9600000	10399999
14	971889	2	17	60	1432	1541	0	10544444	10400000	11199999
15		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	--	--	--

Test Site	SR2	Test Date	2017/11/20
Test Engineer	Kevin Ker	Test Channel	802.11n-HT40 5310MHz
Test Item	Radar Statistical Performance		

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



Radar Type 5 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	1=Detection 0=No Detection	Trail #	Test Freq. (MHz)	1=Detection 0=No Detection
1	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	4647809	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	537801	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	1890	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

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	988956	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

Test Site	SR2	Test Date	2018/09/30
Test Engineer	Kevin Ker	Test Channel	802.11ac-VHT80 5290MHz
Test Item	Radar Statistical Performance		

Radar Type 1 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5278.6	1	878	61	1
2	5281.3	1	658	81	1
3	5300.2	1	798	67	1
4	5252.0	1	818	65	1
5	5292.3	1	3066	18	1
6	5326.6	1	578	92	1
7	5319.8	1	918	58	1
8	5287.1	1	698	76	1
9	5311.2	1	938	57	1
10	5279.8	1	858	62	1
11	5259.1	1	898	59	1
12	5287.3	1	638	83	1
13	5280.8	1	518	102	1
14	5317.2	1	558	95	1
15	5293.4	1	678	78	1
16	5314.8	1	2683	20	1
17	5311.6	1	2712	20	1
18	5263.1	1	1232	43	1
19	5286.7	1	1513	35	1
20	5319.3	1	1521	35	1
21	5290.0	1	1390	38	1
22	5327.8	1	2617	21	1
23	5302.2	1	759	70	1
24	5291.2	1	2642	20	1
25	5254.8	1	1904	28	1
26	5274.4	1	2596	21	1
27	5275.6	1	2907	19	1
28	5328.0	1	733	73	1
29	5314.4	1	2886	19	1
30	5312.9	1	1931	28	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	5284.2	2.8	163	24	1
2	5269.3	4.2	164	24	1
3	5279.9	4.4	171	27	1
4	5291.5	3.0	185	24	1
5	5274.9	4.4	154	23	1
6	5284.6	3.9	187	29	1
7	5262.4	1.5	205	23	1
8	5267.2	2.9	202	29	1
9	5283.9	4.9	218	23	1
10	5309.2	3.6	166	28	1
11	5265.5	1.3	192	25	1
12	5274.3	1.4	187	23	1
13	5290.0	4.0	208	27	1
14	5269.2	2.9	221	23	1
15	5304.8	4.9	165	24	1
16	5293.7	1.3	198	25	1
17	5313.4	4.7	167	28	1
18	5296.6	4.4	159	23	1
19	5328.0	4.6	165	27	1
20	5325.4	1.1	213	24	1
21	5315.9	2.4	204	28	1
22	5258.4	2.2	194	23	1
23	5269.2	2.5	173	25	1
24	5268.5	3.7	194	28	1
25	5306.5	2.4	162	29	1
26	5268.1	2.0	167	25	1
27	5299.4	2.2	205	25	1
28	5263.5	3.3	192	26	1
29	5252.0	2.7	195	25	1
30	5301.7	4.7	201	27	1
Detection Percentage (%)					100%

Radar Type 3 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5312.2	10.0	289	16	1
2	5252.0	8.8	438	18	1
3	5292.7	6.9	299	16	1
4	5263.8	9.2	288	16	1
5	5328.0	8.9	384	16	1
6	5272.8	7.6	427	17	1
7	5296.6	8.6	389	18	1
8	5273.7	9.6	401	17	1
9	5302.2	6.5	318	17	1
10	5292.5	8.2	484	17	1
11	5256.3	8.4	464	17	1
12	5289.1	7.7	351	18	1
13	5268.9	8.8	336	18	1
14	5290.0	7.7	497	16	1
15	5289.4	6.0	311	18	1
16	5303.8	7.9	269	16	1
17	5306.3	8.8	394	17	1
18	5289.7	6.4	364	18	1
19	5301.6	6.8	398	18	1
20	5308.6	8.6	252	17	1
21	5313.6	6.8	313	16	1
22	5320.2	8.2	430	18	1
23	5294.6	7.6	402	18	1
24	5318.6	9.0	438	16	1
25	5258.9	8.6	347	17	1
26	5282.8	9.1	352	17	1
27	5304.6	8.2	276	16	1
28	5287.8	8.3	254	18	1
29	5273.7	8.2	465	16	1
30	5267.7	6.8	451	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	5261.6	15.3	455	14	1
2	5275.1	11.8	398	13	1
3	5290.0	16.8	494	14	1
4	5286.6	17.9	421	14	1
5	5297.1	18.3	389	15	1
6	5294.7	15.9	420	14	1
7	5275.8	12.4	316	15	1
8	5262.4	18.1	359	15	1
9	5279.7	14.2	423	15	1
10	5272.9	16.0	473	16	1
11	5252.7	12.8	436	13	1
12	5300.4	18.6	374	14	1
13	5328.0	16.2	295	15	1
14	5318.4	17.4	375	14	1
15	5322.5	13.5	345	14	1
16	5266.4	15.2	256	14	1
17	5275.9	19.6	259	16	1
18	5269.9	20.0	441	12	1
19	5255.2	15.9	327	13	1
20	5318.6	19.4	371	13	1
21	5262.2	19.3	344	16	1
22	5252.0	17.0	352	16	1
23	5311.1	11.6	444	14	1
24	5316.4	18.8	372	15	1
25	5280.7	19.5	423	14	1
26	5268.8	13.7	482	16	1
27	5298.2	15.3	414	13	1
28	5303.6	17.3	283	16	1
29	5304.9	18.4	293	14	1
30	5264.2	14.9	475	15	1
Detection Percentage (%)					100%

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

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



Radar Type 5 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	1=Detection 0=No Detection	Trail #	Test Freq. (MHz)	1=Detection 0=No Detection
1	5259.2	1	16	5290.0	1
2	5256.0	1	17	5290.0	1
3	5254.0	1	18	5290.0	1
4	5257.6	1	19	5290.0	1
5	5254.4	1	20	5290.0	1
6	5255.2	1	21	5323.2	1
7	5255.6	1	22	5326.0	1
8	5259.6	1	23	5320.8	1
9	5256.8	1	24	5320.4	1
10	5258.8	1	25	5325.6	1
11	5290.0	1	26	5324.4	1
12	5290.0	1	27	5322.4	1
13	5290.0	1	28	5324.8	1
14	5290.0	1	29	5321.2	1
15	5290.0	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	720808	1	18	80	1473	0	0	720808	0	749999
2	722944	1	18	75	1556	0	0	1445225	750000	1499999
3	554723	1	18	50	1998	0	0	2001504	1500000	2249999
4	972964	3	18	60	1752	1737	1754	2976466	2250000	2999999
5	552870	3	18	75	1435	1734	1187	3534579	3000000	3749999
6	220633	2	18	70	1563	1206	0	3759568	3750000	4499999
7	993495	1	18	55	1303	0	0	4755832	4500000	5249999
8	911672	2	18	55	1296	1567	0	5668807	5250000	5999999
9	444001	2	18	85	1898	1796	0	6115671	6000000	6749999
10	982274	3	18	60	1566	1087	1760	7101639	6750000	7499999
11	422593	3	18	100	1544	1813	1922	7528645	7500000	8249999
12	1131005	3	18	65	1793	1595	1547	8664929	8250000	8999999
13	561385	1	18	95	1443	0	0	9231249	9000000	9749999
14	1222163	1	18	100	1649	0	0	10454855	9750000	10499999
15	122993	2	18	60	1773	1521	0	10579497	10500000	11249999
16	892993	1	18	85	1415	0	0	11475784	11250000	11999999

Total number of pulses in waveform = 30

**Type 5 Radar Waveform_2**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	395688	3	10	55	1067	1682	1243	395688	0	749999
2	510048	1	10	75	1298	0	0	909728	750000	1499999
3	723139	2	10	60	1478	1868	0	1634165	1500000	2249999
4	1352539	3	10	75	1891	1965	1764	2990050	2250000	2999999
5	135838	2	10	95	1589	1860	0	3131508	3000000	3749999
6	621824	1	10	55	1547	0	0	3756781	3750000	4499999
7	1410734	1	10	90	1696	0	0	5169062	4500000	5249999
8	668398	2	10	60	1080	1187	0	5839156	5250000	5999999
9	415051	2	10	70	1792	1757	0	6256474	6000000	6749999
10	830334	1	10	60	1257	0	0	7090357	6750000	7499999
11	780931	2	10	65	1330	1767	0	7872545	7500000	8249999
12	556951	3	10	100	1194	1900	1799	8432593	8250000	8999999
13	1036191	3	10	80	1950	1182	1861	9473677	9000000	9749999
14	775141	1	10	75	1057	0	0	10253811	9750000	10499999
15	719191	3	10	95	1772	1456	1575	10974059	10500000	11249999
16	522331	2	10	75	1702	1902	0	11501193	11250000	11999999

Total number of pulses in waveform = 32

Type 5 Radar Waveform_3Num 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	642699	1	5	80	1942	0	0	642699	0	857142
2	915540	2	5	85	1946	1560	0	1560181	857143	1714285
3	544382	3	5	100	1921	1218	1972	2108069	1714286	2571428
4	943470	3	5	85	1871	1232	1401	3056650	2571429	3428571
5	549913	3	5	55	1662	1668	1985	3611067	3428572	4285714
6	1129970	2	5	75	1946	1575	0	4746352	4285715	5142857
7	661445	1	5	55	1337	0	0	5411318	5142858	6000000
8	1029241	3	5	55	1034	1067	1855	6441896	6000001	6857143
9	467450	2	5	50	1833	1011	0	6913302	6857144	7714286
10	1345732	2	5	55	1611	1812	0	8261878	7714287	8571429
11	1073572	3	5	90	1041	1858	1867	9338873	8571430	9428572
12	570451	1	5	85	1955	0	0	9914090	9428573	10285715
13	1195890	3	5	70	1982	1229	1924	11111935	10285716	11142858
14	663097	1	5	50	1198	0	0	11780167	11142859	12000001

Total number of pulses in waveform = 30

Type 5 Radar Waveform_4Num 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	486616	3	14	90	1852	1107	1259	486616	0	666666
2	472528	2	14	70	1599	1298	0	963362	666667	1333333
3	599969	3	14	60	1961	1911	1900	1566228	1333334	2000000
4	560236	3	14	85	1154	1343	1369	2132236	2000001	2666667
5	948720	3	14	50	1076	1128	1422	3084822	2666668	3333334
6	871767	2	14	95	1729	1282	0	3960215	3333335	4000001
7	623265	1	14	70	1904	0	0	4586491	4000002	4666668
8	245501	2	14	50	1850	1017	0	4833896	4666669	5333335
9	1067164	1	14	90	1531	0	0	5903927	5333336	6000002
10	231614	2	14	55	1086	1681	0	6137072	6000003	6666669
11	786193	2	14	60	1011	1574	0	6926032	6666670	7333336
12	600587	2	14	85	1179	1318	0	7529204	7333337	8000003
13	1083158	3	14	70	1597	1629	1549	8614859	8000004	8666670
14	340599	3	14	95	1883	1858	1172	8960233	8666671	9333337
15	1018042	1	14	50	1696	0	0	9983188	9333338	10000004
16	377514	3	14	60	1370	1840	1640	10362398	10000005	10666671
17	726693	1	14	90	1436	0	0	11093941	10666672	11333338
18	642233	1	14	50	1638	0	0	11737610	11333339	12000005

Total number of pulses in waveform = 38

**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	540931	3	6	100	1491	1624	1156	540931	0	1199999
2	1184942	3	6	70	1738	1262	1168	1730144	1200000	2399999
3	903073	1	6	95	1850	0	0	2637385	2400000	3599999
4	1356078	3	6	100	1927	1983	1900	3995313	3600000	4799999
5	1235998	1	6	90	1753	0	0	5237121	4800000	5999999
6	1488932	2	6	100	1664	1716	0	6727806	6000000	7199999
7	1033531	1	6	100	1122	0	0	7764717	7200000	8399999
8	1491084	1	6	70	1394	0	0	9256923	8400000	9599999
9	511925	2	6	65	1936	1220	0	9770242	9600000	10799999
10	2138625	2	6	80	1883	1564	0	11912023	10800000	11999999

Total number of pulses in waveform = 19

Type 5 Radar Waveform_6

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	726231	2	8	65	1958	1828	0	726231	0	1499999
2	1163714	2	8	80	1163	1702	0	1893731	1500000	2999999
3	1495824	1	8	65	1061	0	0	3392420	3000000	4499999
4	1588919	3	8	70	1604	1873	1086	4982400	4500000	5999999
5	2010375	1	8	100	1285	0	0	6997338	6000000	7499999
6	1390334	1	8	90	1718	0	0	8388957	7500000	8999999
7	617338	2	8	55	1503	1361	0	9008013	9000000	10499999
8	1644303	2	8	85	1172	1319	0	10655180	10500000	11999999

Total number of pulses in waveform = 14

Type 5 Radar Waveform_7

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	228754	2	9	60	1600	1677	0	228754	0	1333332
2	1962724	3	9	100	1440	1407	1605	2194755	1333333	2666665
3	691750	3	9	70	1324	1929	1330	2890957	2666666	3999998
4	1157459	2	9	90	1812	1756	0	4052999	3999999	5333331
5	1290838	1	9	75	1171	0	0	5347405	5333332	6666664
6	1989659	2	9	65	1212	1671	0	7338235	6666665	7999997
7	1076593	2	9	95	1264	1437	0	8417711	7999998	9333330
8	1050318	1	9	70	1111	0	0	9470730	9333331	10666663
9	1856864	2	9	75	1406	1913	0	11328705	10666664	11999996

Total number of pulses in waveform = 18

**Type 5 Radar Waveform_8**Num of Bursts = 15
Burst Interval (us)= 800000

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	422311	2	19	90	1833	1820	0	422311	0	799999
2	929097	2	19	100	1315	1047	0	1355061	800000	1599999
3	982452	3	19	50	1236	1091	1021	2339875	1600000	2399999
4	446857	2	19	95	1604	1889	0	2790080	2400000	3199999
5	454678	1	19	100	1963	0	0	3248251	3200000	3999999
6	1293314	2	19	95	1443	1774	0	4543528	4000000	4799999
7	1043495	3	19	95	1388	1438	1073	5590240	4800000	5599999
8	243886	1	19	65	1130	0	0	5838025	5600000	6399999
9	1228609	3	19	65	1172	1779	1713	7067764	6400000	7199999
10	913724	1	19	50	1901	0	0	7986152	7200000	7999999
11	230810	2	19	65	1247	1366	0	8218863	8000000	8799999
12	1157745	3	19	65	1361	1458	1568	9379221	8800000	9599999
13	929586	3	19	55	1807	1372	1137	10313194	9600000	10399999
14	176813	1	19	50	1242	0	0	10494323	10400000	11199999
15	1390878	1	19	75	1296	0	0	11886443	11200000	11999999

Total number of pulses in waveform = 30

Type 5 Radar Waveform_9Num 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	782836	2	12	80	1310	1403	0	782836	0	857142
2	353280	2	12	50	1884	1204	0	1138829	857143	1714285
3	1328465	2	12	50	1296	1222	0	2470382	1714286	2571428
4	326888	1	12	100	1390	0	0	2799788	2571429	3428571
5	941034	1	12	80	1179	0	0	3742212	3428572	4285714
6	1374453	2	12	55	1921	1604	0	5117844	4285715	5142857
7	377786	1	12	75	1944	0	0	5499155	5142858	6000000
8	792780	1	12	100	1612	0	0	6293879	6000001	6857143
9	683404	3	12	80	1975	1759	1558	6978895	6857144	7714286
10	1131797	1	12	85	1644	0	0	8115984	7714287	8571429
11	705882	2	12	80	1061	1963	0	8823510	8571430	9428572
12	790714	2	12	55	1403	1026	0	9617248	9428573	10285715
13	1211715	2	12	100	1740	1180	0	10831392	10285716	11142858
14	372660	2	12	90	1078	1996	0	11206972	11142859	12000001

Total number of pulses in waveform = 24

Type 5 Radar Waveform_10Num 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	242962	3	17	75	1493	1290	1956	242962	0	1090908
2	1603386	1	17	85	1992	0	0	1851087	1090909	2181817
3	557280	1	17	100	1799	0	0	2410359	2181818	3272726
4	1224718	2	17	55	1747	1585	0	3636876	3272727	4363635
5	878257	3	17	95	1044	1251	1538	4518465	4363636	5454544
6	2005106	2	17	95	1447	1832	0	6527404	5454545	6545453
7	352312	2	17	80	1611	1428	0	6882995	6545454	7636362
8	1150468	1	17	95	1257	0	0	8036502	7636363	8727271
9	1532181	1	17	100	1963	0	0	9569940	8727272	9818180
10	859106	2	17	85	1928	1579	0	10431009	9818181	10909089
11	837878	1	17	50	1903	0	0	11272394	10909090	11999998

Total number of pulses in waveform = 19

**Type 5 Radar Waveform_11**

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	268623	3	10	100	1302	1370	1382	268623	0	705881
2	1124262	1	10	100	1217	0	0	1396939	705882	1411763
3	378171	2	10	50	1203	1954	0	1776327	1411764	2117645
4	510626	1	10	75	1760	0	0	2290110	2117646	2823527
5	651754	2	10	60	1840	1775	0	2943624	2823528	3529409
6	906014	3	10	90	1704	1234	1020	3853253	3529410	4235291
7	884552	3	10	100	1542	1132	1890	4741763	4235292	4941173
8	647804	3	10	75	1360	1441	1742	5394131	4941174	5647055
9	944688	1	10	50	1153	0	0	6343362	5647056	6352937
10	517441	2	10	70	1352	1748	0	6861956	6352938	7058819
11	508364	3	10	85	1026	1884	1216	7373420	7058820	7764701
12	389600	1	10	100	1899	0	0	7767146	7764702	8470583
13	917019	2	10	60	1683	1509	0	8686064	8470584	9176465
14	616517	1	10	65	1931	0	0	9305773	9176466	9882347
15	687672	2	10	95	1547	1248	0	9995376	9882348	10588229
16	1155207	1	10	75	1144	0	0	11153378	10588230	11294111
17	486248	2	10	80	1458	1544	0	11640770	11294112	11999993

Total number of pulses in waveform = 33

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	45439	2	19	100	1613	1908	0	45439	0	923076
2	1420174	2	19	70	1370	1910	0	1469134	923077	1846153
3	1045550	1	19	70	1619	0	0	2517964	1846154	2769230
4	893562	3	19	55	1554	1789	1222	3413145	2769231	3692307
5	760657	2	19	65	1607	1419	0	4178367	3692308	4615384
6	1228694	2	19	70	1431	1023	0	5410087	4615385	5538461
7	482665	3	19	85	1364	1558	1630	5895206	5538462	6461538
8	730759	2	19	90	1371	1590	0	6630517	6461539	7384615
9	962057	2	19	100	1977	1821	0	7595535	7384616	8307692
10	1222931	2	19	60	1441	1048	0	8822264	8307693	9230769
11	914457	3	19	80	1798	1917	1012	9739210	9230770	10153846
12	1328017	3	19	85	1546	1068	1930	11071954	10153847	11076923
13	660591	1	19	100	1038	0	0	11737089	11076924	12000000

Total number of pulses in waveform = 28

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	231138	3	6	85	1969	1321	1419	231138	0	666666
2	973608	3	6	60	1599	1137	1919	1209455	666667	1333333
3	195530	1	6	60	1539	0	0	1409640	1333334	2000000
4	1067490	3	6	95	1846	1594	1709	2478669	2000001	2666667
5	741193	1	6	60	1752	0	0	3225011	2666668	3333334
6	224129	2	6	65	1010	1393	0	3450892	3333335	4000001
7	939345	2	6	70	1203	1098	0	4392540	4000002	4666668
8	384598	2	6	80	1257	1482	0	4779539	4666669	5333335
9	1001336	2	6	50	1540	1537	0	5783614	5333336	6000002
10	404989	3	6	50	1446	1719	1801	6191680	6000003	6666669
11	979018	1	6	55	1242	0	0	7175664	6666670	7333336
12	522660	3	6	85	1992	1295	1184	7699566	7333337	8000003
13	445405	1	6	50	1153	0	0	8149442	8000004	8666670
14	794651	2	6	60	1975	1406	0	8945246	8666671	9333337
15	732671	3	6	95	1962	1767	1753	9681298	9333338	10000004
16	863248	1	6	75	1175	0	0	10550028	10000005	10666671
17	238773	1	6	80	1602	0	0	10789976	10666672	11333338
18	745886	1	6	95	1142	0	0	11537464	11333339	12000005

Total number of pulses in waveform = 35



Type 5 Radar Waveform_14

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	95852	2	14	90	1507	1163	0	95852	0	666666
2	1059163	2	14	75	1936	1902	0	1157685	666667	1333333
3	518388	3	14	100	1732	1334	1851	1679911	1333334	2000000
4	560825	1	14	90	1481	0	0	2245653	2000001	2666667
5	945776	2	14	90	1030	1020	0	3192910	2666668	3333334
6	736311	2	14	65	1094	1886	0	3931271	3333335	4000001
7	362919	2	14	75	1248	1877	0	4297170	4000002	4666668
8	557655	2	14	100	1429	1111	0	4857950	4666669	5333335
9	1077750	3	14	75	1273	1423	1693	5938240	5333336	6000002
10	69864	2	14	70	1043	1808	0	6012493	6000003	6666669
11	994811	3	14	65	1158	1470	1386	7010155	6666670	7333336
12	377768	1	14	60	1861	0	0	7391937	7333337	8000003
13	762064	3	14	80	1918	1710	1866	8155862	8000004	8666670
14	816432	1	14	85	1014	0	0	8977788	8666671	9333337
15	657481	3	14	85	1483	1504	1762	9636283	9333338	10000004
16	533420	2	14	75	1304	1241	0	10174452	10000005	10666671
17	856432	3	14	70	1530	1736	1138	11033429	10666672	11333338
18	558870	2	14	90	1455	1481	0	11596703	11333339	12000005

Total number of pulses in waveform = 39

Type 5 Radar Waveform_15

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	31514	2	8	100	1463	1933	0	31514	0	599999
2	1126607	3	8	65	1261	1930	1762	1161517	600000	1199999
3	409273	3	8	70	1066	1310	1795	1575743	1200000	1799999
4	773713	2	8	90	1930	1462	0	2353627	1800000	2399999
5	230226	1	8	85	1703	0	0	2587245	2400000	2999999
6	952480	3	8	80	1761	1466	1801	3541408	3000000	3599999
7	648967	3	8	85	1666	1234	1296	4195393	3600000	4199999
8	209230	2	8	80	1833	1068	0	4408819	4200000	4799999
9	453436	2	8	60	1665	1423	0	4865156	4800000	5399999
10	930667	2	8	70	1303	1101	0	5798911	5400000	5999999
11	480610	1	8	80	1300	0	0	6281925	6000000	6599999
12	693504	3	8	50	1113	1821	1122	6976729	6600000	7199999
13	226324	3	8	90	1031	1203	1620	7207109	7200000	7799999
14	676063	2	8	50	1964	1938	0	7887026	7800000	8399999
15	695607	1	8	90	1219	0	0	8586535	8400000	8999999
16	704094	2	8	80	1384	1719	0	9291848	9000000	9599999
17	699179	3	8	60	1735	1619	1306	9994130	9600000	10199999
18	209464	1	8	65	1541	0	0	10208254	10200000	10799999
19	710771	3	8	55	1453	1933	1704	10920566	10800000	11399999
20	1009350	3	8	90	1692	1920	1951	11935006	11400000	11999999

Total number of pulses in waveform = 45

Type 5 Radar Waveform_16

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	682145	3	18	50	1230	1547	1464	682145	0	857142
2	1019589	2	18	55	1363	1269	0	1705975	857143	1714285
3	62557	3	18	90	1190	1116	1846	1771164	1714286	2571428
4	849915	2	18	55	1677	1653	0	2625231	2571429	3428571
5	816187	2	18	85	1037	1265	0	3444748	3428572	4285714
6	862270	2	18	100	1940	1889	0	4309320	4285715	5142857
7	1438396	2	18	90	1282	1073	0	5751545	5142858	6000000
8	417885	3	18	55	1109	1239	1150	6171785	6000001	6857143
9	849961	2	18	80	1329	1412	0	7025244	6857144	7714286
10	844571	1	18	75	1433	0	0	7872556	7714287	8571429
11	1434693	3	18	65	1787	1487	1188	9308682	8571430	9428572
12	233792	3	18	70	1370	1369	1205	9546936	9428573	10285715
13	1174555	1	18	50	1080	0	0	10725435	10285716	11142858
14	538853	3	18	95	1358	1718	1974	11265368	11142859	12000001

Total number of pulses in waveform = 32



Type 5 Radar Waveform_17

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	595717	1	9	60	1837	0	0	595717	0	599999
2	509131	3	9	90	1870	1913	1334	1106685	600000	1199999
3	594344	2	9	95	1135	1313	0	1706146	1200000	1799999
4	395093	1	9	85	1790	0	0	2103687	1800000	2399999
5	807571	2	9	85	1003	1311	0	2913048	2400000	2999999
6	517216	3	9	65	1595	1585	1262	3432578	3000000	3599999
7	353128	2	9	95	1710	1789	0	3790148	3600000	4199999
8	817831	2	9	60	1937	1366	0	4611478	4200000	4799999
9	321683	2	9	60	1748	1038	0	4936464	4800000	5399999
10	785685	2	9	95	1303	1132	0	5724935	5400000	5999999
11	825118	1	9	65	1717	0	0	6552488	6000000	6599999
12	602568	3	9	70	1937	1882	1657	7166773	6600000	7199999
13	232731	3	9	90	1824	1004	1252	7394980	7200000	7799999
14	829389	1	9	90	1305	0	0	8228449	7800000	8399999
15	285803	1	9	85	1496	0	0	8515557	8400000	8999999
16	915477	3	9	100	1423	1439	1439	9432530	9000000	9599999
17	728624	3	9	70	1919	1114	1233	10165455	9600000	10199999
18	543094	1	9	65	1410	0	0	10712815	10200000	10799999
19	217378	3	9	100	1842	1715	1079	10931603	10800000	11399999
20	705204	2	9	90	1787	1337	0	11641443	11400000	11999999
Total number of pulses in waveform = 41 *****										

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	361109	1	17	75	1511	0	0	361109	0	705881
2	806992	1	17	65	1909	0	0	1169612	705882	1411763
3	581890	1	17	75	1546	0	0	1753411	1411764	2117645
4	789017	3	17	75	1274	1171	1256	2543974	2117646	2823527
5	570938	3	17	95	1890	1686	1444	3118613	2823528	3529409
6	870377	3	17	70	1038	1604	1662	3994010	3529410	4235291
7	337119	3	17	90	1706	1910	1133	4335433	4235292	4941173
8	1114762	2	17	50	1662	1303	0	5454944	4941174	5647055
9	334734	1	17	80	1331	0	0	5792643	5647056	6352937
10	602040	2	17	55	1863	1957	0	6396014	6352938	7058819
11	1044787	1	17	100	1268	0	0	7444621	7058820	7764701
12	907775	3	17	95	1137	1792	1893	8353664	7764702	8470583
13	641206	3	17	100	1611	1946	1019	8999692	8470584	9176465
14	629886	1	17	60	1111	0	0	9634154	9176466	9882347
15	411645	3	17	100	1195	1043	1917	10046910	9882348	10588229
16	735219	3	17	100	1787	1903	1006	10786284	10588230	11294111
17	767873	3	17	65	1331	1682	1249	11558853	11294112	11999993
Total number of pulses in waveform = 37 *****										

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	151391	1	5	95	1020	0	0	151391	0	923076
2	1495026	2	5	70	1678	1509	0	1647437	923077	1846153
3	374103	3	5	80	1823	1265	1821	2024727	1846154	2769230
4	1146976	3	5	95	1944	1573	1953	3176612	2769231	3692307
5	611472	3	5	55	1598	1429	1234	3793554	3692308	4615384
6	1179985	1	5	85	1609	0	0	4977800	4615385	5538461
7	976291	3	5	85	1337	1954	1181	5955700	5538462	6461538
8	1163068	1	5	90	1329	0	0	7123240	6461539	7384615
9	364555	1	5	60	1987	0	0	7489124	7384616	8307692
10	1053254	1	5	90	1748	0	0	8544365	8307693	9230769
11	724129	3	5	90	1281	1566	1896	9270242	9230770	10153846
12	1247124	1	5	100	1402	0	0	10522109	10153847	11076923
13	578356	3	5	50	1798	1670	1366	11101867	11076924	12000000
Total number of pulses in waveform = 26 *****										

**Type 5 Radar Waveform_20**Num of Bursts = 16
Burst Interval (us) = 750000

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	687241	1	12	100	1102	0	0	687241	0	749999
2	451038	3	12	95	1774	1016	1566	1139381	750000	1499999
3	471458	2	12	60	1779	1630	0	1615195	1500000	2249999
4	1216823	2	12	85	1577	1974	0	2835427	2250000	2999999
5	892246	1	12	70	1365	0	0	3731224	3000000	3749999
6	156690	2	12	75	1674	1480	0	3889279	3750000	4499999
7	766185	1	12	65	1460	0	0	4658618	4500000	5249999
8	975386	1	12	100	1616	0	0	5635464	5250000	5999999
9	565394	1	12	75	1250	0	0	6202474	6000000	6749999
10	1189896	1	12	60	1021	0	0	7393620	6750000	7499999
11	296866	2	12	65	1676	1903	0	7691507	7500000	8249999
12	1303072	1	12	85	1535	0	0	8998158	8250000	8999999
13	236583	1	12	65	1980	0	0	9236276	9000000	9749999
14	590500	1	12	65	1284	0	0	9828756	9750000	10499999
15	961014	2	12	85	1203	1954	0	10791054	10500000	11249999
16	623500	1	12	75	1724	0	0	11417711	11250000	11999999

Total number of pulses in waveform = 23

Type 5 Radar Waveform_21Num 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	196369	3	12	80	1913	1577	1952	196369	0	1199999
2	1226832	1	12	60	1299	0	0	1428643	1200000	2399999
3	2104339	1	12	100	1650	0	0	3534281	2400000	3599999
4	188732	3	12	90	1234	1264	1379	3724663	3600000	4799999
5	1175094	2	12	70	1738	1233	0	4903634	4800000	5999999
6	1932257	3	12	100	1574	1715	1051	6838862	6000000	7199999
7	442789	3	12	50	1316	1700	1272	7285991	7200000	8399999
8	1403340	1	12	70	1845	0	0	8693619	8400000	9599999
9	1782463	1	12	50	1078	0	0	10477927	9600000	10799999
10	708019	3	12	95	1568	1212	1618	11187024	10800000	11999999

Total number of pulses in waveform = 21

Type 5 Radar Waveform_22Num 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	71671	1	5	100	1586	0	0	71671	0	799999
2	1319026	1	5	60	1001	0	0	1392283	800000	1599999
3	543643	3	5	65	1515	1492	1484	1936927	1600000	2399999
4	1161866	3	5	75	1634	1773	1788	3103284	2400000	3199999
5	374812	3	5	55	1170	1191	1758	3483291	3200000	3999999
6	519146	1	5	65	1927	0	0	4006556	4000000	4799999
7	976562	2	5	85	1240	1800	0	4985045	4800000	5599999
8	1352957	3	5	70	1943	1211	1320	6341042	5600000	6399999
9	835207	1	5	65	1475	0	0	7180723	6400000	7199999
10	471076	3	5	65	1711	1244	1957	7653274	7200000	7999999
11	739616	2	5	60	1125	1709	0	8397802	8000000	8799999
12	644642	3	5	60	1829	1441	1152	9045278	8800000	9599999
13	1329208	1	5	70	1772	0	0	10378908	9600000	10399999
14	403728	1	5	55	1708	0	0	10784408	10400000	11199999
15	746208	3	5	75	1044	1289	1060	11532324	11200000	11999999

Total number of pulses in waveform = 31

**Type 5 Radar Waveform_23**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	737909	2	18	65	1106	1364	0	737909	0	749999
2	211722	2	18	95	1757	1737	0	952101	750000	1499999
3	869261	1	18	100	1482	0	0	1824856	1500000	2249999
4	982478	3	18	95	1814	1702	1031	2808816	2250000	2999999
5	188805	2	18	50	1714	1034	0	3002168	3000000	3749999
6	1088383	3	18	70	1103	1147	1192	4093299	3750000	4499999
7	872525	2	18	100	1111	1031	0	4969266	4500000	5249999
8	914507	2	18	65	1043	1909	0	5885915	5250000	5999999
9	139870	2	18	55	1524	1135	0	6028737	6000000	6749999
10	1007861	3	18	55	1894	1562	1031	7039257	6750000	7499999
11	994077	2	18	75	1428	1571	0	8037821	7500000	8249999
12	783244	2	18	85	1525	1314	0	8824064	8250000	8999999
13	517292	2	18	55	1011	1865	0	9344195	9000000	9749999
14	440681	1	18	90	1495	0	0	9787752	9750000	10499999
15	1382629	2	18	80	1633	1203	0	11171876	10500000	11249999
16	335857	1	18	55	1395	0	0	11510569	11250000	11999999

Total number of pulses in waveform = 32

Type 5 Radar Waveform_24Num 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	69785	1	19	60	1468	0	0	69785	0	799999
2	1465813	3	19	90	1402	1660	1930	1537066	800000	1599999
3	551674	3	19	70	1705	1943	1316	2093732	1600000	2399999
4	593865	2	19	65	1490	1433	0	2692561	2400000	3199999
5	910187	3	19	75	1269	1771	1708	3605671	3200000	3999999
6	1055649	2	19	90	1929	1395	0	4666068	4000000	4799999
7	577313	3	19	90	1128	1135	1475	5246705	4800000	5599999
8	507629	2	19	95	1024	1098	0	5758072	5600000	6399999
9	1210930	3	19	95	1555	1748	1895	6971124	6400000	7199999
10	537488	1	19	75	1590	0	0	7513810	7200000	7999999
11	610811	1	19	100	1504	0	0	8126211	8000000	8799999
12	1111503	2	19	95	1699	1497	0	9239218	8800000	9599999
13	915415	3	19	70	1648	1259	1307	10157829	9600000	10399999
14	689084	2	19	50	1238	1925	0	10851127	10400000	11199999
15	834478	2	19	100	1953	1240	0	11688768	11200000	11999999

Total number of pulses in waveform = 33

Type 5 Radar Waveform_25Num 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	988517	3	6	90	1723	1188	1059	988517	0	1199999
2	610972	3	6	95	1487	1866	1678	1603459	1200000	2399999
3	1483286	1	6	90	1686	0	0	3091776	2400000	3599999
4	911509	2	6	100	1437	1289	0	4004971	3600000	4799999
5	1879898	1	6	75	1249	0	0	5887595	4800000	5999999
6	1029075	3	6	60	1534	1503	1243	6917919	6000000	7199999
7	383295	3	6	85	1693	1960	1140	7305494	7200000	8399999
8	1728006	2	6	75	1127	1961	0	9038293	8400000	9599999
9	1269375	3	6	70	1351	1093	1595	10310756	9600000	10799999
10	1067122	1	6	75	1310	0	0	11381917	10800000	11999999

Total number of pulses in waveform = 22

**Type 5 Radar Waveform_26**

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	54063	1	9	70	1413	0	0	54063	0	999999
2	1743692	3	9	60	1057	1057	1895	1799168	1000000	1999999
3	549029	1	9	90	1141	0	0	2352206	2000000	2999999
4	1393122	1	9	75	1275	0	0	3746469	3000000	3999999
5	275311	2	9	50	1665	1114	0	4023055	4000000	4999999
6	1118554	3	9	75	1103	1657	1700	5144388	5000000	5999999
7	1326997	1	9	95	1468	0	0	6475845	6000000	6999999
8	1250189	2	9	60	1681	1910	0	7727502	7000000	7999999
9	552995	2	9	90	1402	1047	0	8284088	8000000	8999999
10	940367	1	9	70	1390	0	0	9226904	9000000	9999999
11	1637812	1	9	85	1879	0	0	10866106	10000000	10999999
12	652250	3	9	75	1787	1214	1821	11520235	11000000	11999999

Total number of pulses in waveform = 21

Type 5 Radar Waveform_27

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	1222077	3	14	80	1308	1583	1230	1222077	0	1499999
2	554841	2	14	60	1388	1440	0	1781039	1500000	2999999
3	2682587	3	14	70	1287	1527	1442	4466454	3000000	4499999
4	1045696	3	14	55	1198	1548	1681	5516406	4500000	5999999
5	1271559	3	14	50	1451	1235	1102	6792392	6000000	7499999
6	1254392	1	14	90	1727	0	0	8050572	7500000	8999999
7	1021642	3	14	50	1268	1833	1911	9073941	9000000	10499999
8	2337793	2	14	80	1854	1847	0	11416746	10500000	11999999

Total number of pulses in waveform = 20

Type 5 Radar Waveform_28

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	57819	1	8	50	1485	0	0	57819	0	799999
2	1486036	3	8	70	1013	1176	1768	1545340	800000	1599999
3	447618	1	8	60	1531	0	0	1996915	1600000	2399999
4	855956	3	8	95	1083	1086	1422	2854402	2400000	3199999
5	1102997	1	8	65	1651	0	0	3960990	3200000	3999999
6	382904	3	8	100	1965	1865	1569	4345545	4000000	4799999
7	1141013	2	8	95	1483	1465	0	5491957	4800000	5599999
8	541490	2	8	70	1472	1764	0	6036395	5600000	6399999
9	1096983	2	8	90	1274	1227	0	7136614	6400000	7199999
10	639324	1	8	90	1816	0	0	7778439	7200000	7999999
11	935132	2	8	100	1913	1118	0	8715387	8000000	8799999
12	565616	1	8	95	1367	0	0	9284034	8800000	9599999
13	433376	3	8	50	1314	1311	1437	9718777	9600000	10399999
14	997865	2	8	95	1245	1472	0	10720704	10400000	11199999
15	1105360	3	8	60	1730	1715	1463	11828781	11200000	11999999

Total number of pulses in waveform = 30



Type 5 Radar Waveform_29

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	103054	1	17	65	1460	0	0	103054	0	631578
2	837350	2	17	60	1630	1996	0	941864	631579	1263157
3	295683	2	17	90	1233	1249	0	1833089	1263158	1894736
4	938725	3	17	90	1939	1060	1065	2131254	1894737	2526315
5	663173	1	17	100	1128	0	0	3074043	2526316	3157894
6	224948	3	17	90	1306	1299	1074	3738344	3157895	3789473
7	1063668	2	17	60	1945	1693	0	3966971	3789474	4421052
8	313976	1	17	70	1123	0	0	5034277	4421053	5052631
9	367359	3	17	70	1278	1530	1075	5349376	5052632	5684210
10	731868	2	17	70	1418	1792	0	5720618	5684211	6315789
11	974469	3	17	75	1992	1878	1250	6455696	6315790	6947368
12	761971	2	17	100	1876	1391	0	7435285	6947369	7578947
13	155554	3	17	60	1487	1896	1628	8200523	7578948	8210526
14	909927	3	17	95	1881	1666	1775	8361088	8210527	8842105
15	315769	3	17	65	1632	1219	1264	9276337	8842106	9473684
16	637861	3	17	70	1603	1417	1134	9596211	9473685	10105263
17	721573	1	17	55	1286	0	0	10238226	10105264	10736842
18	948787	1	17	50	1393	0	0	10961085	10736843	11368421
19		1	17	80	1330	0	0	11911265	11368422	12000000

Total number of pulses in waveform = 40

Type 5 Radar Waveform_30

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	1064573	1	10	55	1532	0	0	1064573	0	1090908
2	962476	1	10	100	1714	0	0	2028581	1090909	2181817
3	384818	2	10	100	1205	1292	0	2415113	2181818	3272726
4	1768218	2	10	70	1814	1422	0	4185828	3272727	4363635
5	462778	1	10	85	1433	0	0	4651842	4363636	5454544
6	1887870	1	10	60	1848	0	0	6541145	5454545	6545453
7	788045	3	10	90	1131	1069	1088	7331038	6545454	7636362
8	488338	1	10	100	1985	0	0	7822664	7636363	8727271
9	1932546	2	10	75	1172	1324	0	9757195	8727272	9818180
10	190289	1	10	65	1701	0	0	9949980	9818181	10909089
11	1319713	1	10	55	1534	0	0	11271394	10909090	11999998

Total number of pulses in waveform = 16

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	5275.8	1	16	5294.7	1
2	5311.1	1	17	5252.0	1
3	5275.1	1	18	5264.2	1
4	5275.9	1	19	5262.2	1
5	5304.9	1	20	5262.4	1
6	5279.7	1	21	5316.4	1
7	5280.7	1	22	5266.4	1
8	5318.4	1	23	5286.6	1
9	5261.6	1	24	5252.7	1
10	5272.9	1	25	5269.9	1
11	5328.0	1	26	5322.5	1
12	5290.0	1	27	5255.2	1
13	5303.6	1	28	5268.8	1
14	5300.4	1	29	5297.1	1
15	5298.2	1	30	5318.6	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	5256	21	59	5289	177
35	5270	105	71	5311	213
36	5265	108	76	5286	228
51	5281	153	96	5287	288
53	5279	159	99	5283	297
78	5259	234	--	--	--
95	5261	285	--	--	--

Radar waveform #3			Radar waveform #4		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
35	5258	105	11	5260	33
37	5283	111	28	5273	84
73	5271	219	31	5259	93
75	5265	225	41	5271	123
98	5286	294	50	5279	150
--	--	--	55	5267	165
--	--	--	98	5281	294

Radar waveform #5			Radar waveform #6		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
22	5266	66	30	5273	90
27	5275	81	32	5290	96
55	5282	165	57	5284	171
76	5286	228	64	5258	192
83	5281	249	72	5286	216
86	5269	258	78	5276	234
--	--	--	79	5270	237
--	--	--	93	5285	279

Radar waveform #7			Radar waveform #8		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
48	5286	144	7	5318	21
50	5282	150	11	5311	33
59	5284	177	13	5305	39
70	5295	210	22	5283	66
71	5262	213	24	5315	72
74	5263	222	40	5296	120
75	5257	225	41	5307	123
77	5253	231	43	5326	129
98	5261	294	60	5324	180
--	--	--	71	5319	213
--	--	--	95	5316	285

Radar waveform #9			Radar waveform #10		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
0	5299	0	8	5284	24
10	5269	30	61	5300	183
13	5256	39	68	5298	204
17	5285	51	71	5288	213
29	5290	87	81	5283	243
35	5254	105	92	5260	276
57	5291	171	99	5282	297
68	5297	204	--	--	--
94	5294	282	--	--	--
95	5250	285	--	--	--

Radar waveform #11			Radar waveform #12		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
6	5343	18	5	5270	15
11	5308	33	7	5265	21
12	5327	36	10	5292	30
13	5293	39	11	5286	33
26	5349	78	14	5282	42
29	5325	87	17	5281	51
30	5309	90	19	5268	57
41	5332	123	23	5306	69
46	5297	138	24	5279	72
55	5339	165	25	5304	75
60	5312	180	29	5287	87
66	5348	198	30	5296	90
68	5320	204	36	5266	108
70	5300	210	40	5262	120
79	5301	237	60	5260	180
93	5322	279	65	5302	195
--	--	--	66	5275	198
--	--	--	75	5251	225
--	--	--	79	5280	237
--	--	--	83	5299	249
--	--	--	87	5259	261
--	--	--	95	5290	285

Radar waveform #13			Radar waveform #14		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
4	5280	12	14	5303	42
6	5286	18	29	5287	87
9	5288	27	30	5292	90
11	5307	33	34	5294	102
16	5311	48	35	5313	105
36	5326	108	48	5317	144
41	5324	123	78	5269	234
45	5317	135	81	5283	243
63	5329	189	83	5295	249
75	5269	225	90	5305	270
84	5325	252	99	5293	297
86	5277	258	--	--	--
98	5323	294	--	--	--
99	5303	297	--	--	--

Radar waveform #15			Radar waveform #16		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
1	5318	3	1	5287	3
10	5285	30	18	5273	54
15	5289	45	42	5278	126
19	5315	57	49	5319	147
25	5294	75	50	5279	150
33	5273	99	54	5261	162
36	5298	108	55	5298	165
41	5287	123	68	5304	204
44	5299	132	69	5311	207
48	5272	144	85	5310	255
53	5275	159	86	5277	258
55	5292	165	94	5274	282
57	5313	171	97	5290	291
62	5262	186	98	5295	294
71	5291	213	--	--	--
88	5306	264	--	--	--
89	5276	267	--	--	--
97	5266	291	--	--	--

Radar waveform #17			Radar waveform #18		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
4	5272	12	11	5249	33
20	5243	60	15	5265	45
33	5248	99	23	5300	69
36	5255	108	42	5283	126
56	5253	168	44	5293	132
59	5245	177	46	5282	138
61	5237	183	53	5254	159
62	5279	186	61	5247	183
64	5239	192	74	5286	222
65	5244	195	90	5279	270
72	5231	216	92	5290	276
78	5234	234	93	5242	279
94	5265	282	99	5291	297

Radar waveform #19			Radar waveform #20		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
18	5281	54	2	5283	6
24	5265	72	4	5252	12
27	5248	81	12	5259	36
42	5247	126	16	5254	48
48	5244	144	25	5258	75
57	5276	171	29	5286	87
61	5274	183	30	5271	90
64	5288	192	43	5266	129
65	5250	195	54	5280	162
69	5258	207	56	5268	168
72	5268	216	58	5267	174
77	5287	231	62	5287	186
78	5249	234	71	5297	213
--	--	--	82	5269	246
--	--	--	96	5296	288

Radar waveform #21			Radar waveform #22		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
8	5288	24	2	5268	6
11	5285	33	5	5285	15
15	5295	45	25	5246	75
16	5316	48	28	5256	84
34	5326	102	38	5258	114
43	5300	129	40	5262	120
46	5308	138	57	5238	171
49	5291	147	61	5263	183
56	5297	168	65	5257	195
61	5337	183	68	5269	204
73	5310	219	73	5234	219
92	5293	276	74	5278	222
99	5290	297	76	5232	228
--	--	--	83	5264	249
--	--	--	88	5272	264
--	--	--	94	5241	282
--	--	--	95	5274	285

Radar waveform #23			Radar waveform #24		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
10	5279	30	17	5241	51
13	5312	39	19	5275	57
18	5273	54	27	5244	81
25	5276	75	32	5261	96
26	5264	78	44	5274	132
27	5319	81	62	5286	186
74	5298	222	66	5284	198
95	5313	285	70	5248	210
--	--	--	77	5260	231
--	--	--	92	5249	276
--	--	--	95	5236	285

Radar waveform #25			Radar waveform #26		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
1	5271	3	2	5288	6
11	5255	33	5	5307	15
14	5259	42	10	5316	30
15	5248	45	27	5295	81
27	5290	81	37	5298	111
36	5251	108	43	5338	129
37	5289	111	53	5300	159
46	5250	138	55	5331	165
58	5281	174	60	5294	180
72	5294	216	61	5310	183
81	5272	243	73	5327	219
90	5285	270	79	5301	237
92	5264	276	88	5326	264
94	5282	282	--	--	--
95	5241	285	--	--	--

Radar waveform #27			Radar waveform #28		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
0	5303	0	16	5265	48
14	5344	42	22	5283	66
19	5298	57	26	5248	78
22	5290	66	45	5266	135
26	5323	78	48	5276	144
27	5305	81	51	5260	153
28	5346	84	52	5282	156
38	5330	114	63	5287	189
56	5320	168	--	--	--
58	5350	174	--	--	--
65	5325	195	--	--	--
83	5319	249	--	--	--
90	5295	270	--	--	--
92	5321	276	--	--	--
93	5299	279	--	--	--
99	5314	297	--	--	--

Radar waveform #29			Radar waveform #30		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
5	5289	15	9	5315	27
8	5276	24	12	5341	36
11	5281	33	14	5346	42
12	5315	36	16	5357	48
13	5290	39	20	5306	60
16	5309	48	27	5322	81
17	5274	51	37	5340	111
19	5319	57	39	5348	117
24	5307	72	48	5302	144
25	5327	75	50	5335	150
39	5278	117	70	5330	210
53	5313	159	75	5345	225
59	5295	177	84	5308	252
62	5269	186	92	5318	276
65	5326	195	99	5336	297
68	5277	204	--	--	--
82	5317	246	--	--	--
91	5308	273	--	--	--

Test Site	SR2	Test Date	2018/10/12
Test Engineer	Kevin Ker	Test Channel	802.11ac-VHT80 5530MHz
Test Item	Radar Statistical Performance		

Radar Type 1 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5505.9	1	718	74	1
2	5542.0	1	578	92	1
3	5502.7	1	638	83	1
4	5566.9	1	738	72	1
5	5539.1	1	698	76	1
6	5496.6	1	938	57	1
7	5530.0	1	778	68	1
8	5563.4	1	858	62	1
9	5567.7	1	558	95	1
10	5492.0	1	898	59	1
11	5492.6	1	798	67	1
12	5508.4	1	758	70	1
13	5536.8	1	598	89	1
14	5520.4	1	918	58	1
15	5495.3	1	878	61	1
16	5533.4	1	2538	21	1
17	5545.8	1	1748	31	1
18	5517.1	1	1829	29	1
19	5557.2	1	2803	19	1
20	5499.3	1	2100	26	1
21	5554.9	1	1518	35	1
22	5548.2	1	1786	30	1
23	5523.6	1	2739	20	1
24	5492.9	1	620	86	1
25	5511.2	1	2210	24	1
26	5568.0	1	2743	20	1
27	5527.5	1	2912	19	1
28	5551.6	1	1837	29	1
29	5514.8	1	1449	37	1
30	5530.0	1	2604	21	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	5521.3	3.9	206	29	1
2	5552.4	1.0	209	26	1
3	5497.7	5.0	159	29	1
4	5530.0	2.6	168	25	1
5	5549.9	4.5	169	24	1
6	5524.0	4.7	169	23	1
7	5494.2	4.8	220	27	1
8	5555.5	3.4	210	25	1
9	5518.2	2.2	178	25	1
10	5546.7	1.2	227	24	1
11	5530.0	3.9	188	27	1
12	5562.7	4.4	177	24	1
13	5500.2	1.8	208	28	1
14	5568.0	1.4	167	29	1
15	5515.7	3.9	166	24	1
16	5492.0	2.3	217	27	1
17	5558.1	2.7	207	27	1
18	5531.3	3.3	154	26	1
19	5543.6	1.9	179	24	1
20	5493.6	2.1	172	25	1
21	5534.5	4.8	161	24	1
22	5503.4	1.9	162	28	1
23	5565.8	1.5	195	27	1
24	5537.7	3.0	164	27	1
25	5492.6	1.1	178	28	1
26	5512.5	2.5	150	29	1
27	5540.4	3.7	202	24	1
28	5506.8	1.1	205	25	1
29	5567.4	1.8	155	26	1
30	5509.5	2.6	200	29	1
Detection Percentage (%)					100%

Radar Type 3 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5519.0	7.3	339	18	1
2	5547.9	9.8	484	17	1
3	5545.2	6.2	349	18	1
4	5516.2	9.8	446	18	1
5	5492.2	9.8	272	18	1
6	5550.3	7.7	496	18	1
7	5492.0	6.3	371	18	1
8	5553.6	8.1	455	16	1
9	5523.6	7.5	328	18	1
10	5514.8	8.7	445	17	1
11	5541.6	6.5	343	18	1
12	5528.4	8.8	286	17	1
13	5559.1	9.2	309	17	1
14	5510.3	6.6	492	17	1
15	5529.5	9.9	484	18	1
16	5556.7	8.1	261	16	1
17	5495.2	7.7	388	18	1
18	5540.7	9.2	255	16	1
19	5530.0	7.1	405	17	1
20	5565.1	6.2	292	17	1
21	5532.4	9.0	461	18	1
22	5498.2	6.3	297	17	1
23	5562.6	8.0	396	17	1
24	5492.2	9.6	439	16	1
25	5507.1	6.7	472	16	1
26	5568.0	8.6	320	17	1
27	5501.8	8.2	421	16	1
28	5537.1	8.0	389	18	1
29	5530.0	9.0	262	18	1
30	5504.6	10.0	309	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	5508.4	14.8	410	13	1
2	5554.9	16.6	332	15	1
3	5505.9	18.0	423	15	1
4	5568.0	14.2	372	14	1
5	5523.6	15.2	283	15	1
6	5551.6	19.5	341	13	1
7	5567.7	16.4	315	15	1
8	5502.7	12.7	282	16	1
9	5492.9	13.1	265	13	1
10	5557.2	18.6	286	16	1
11	5563.4	12.2	394	14	1
12	5496.6	15.9	471	16	1
13	5536.8	14.7	283	12	1
14	5520.4	13.3	454	16	1
15	5511.2	15.7	308	15	1
16	5548.2	13.9	281	13	1
17	5492.0	16.2	325	13	1
18	5566.9	14.8	255	16	1
19	5527.5	12.7	305	14	1
20	5539.1	17.1	418	14	1
21	5514.8	17.2	291	16	1
22	5530.0	12.4	338	16	1
23	5517.1	16.6	290	15	1
24	5545.8	14.8	399	12	1
25	5495.3	19.2	270	12	1
26	5492.6	14.7	424	14	1
27	5530.0	16.6	440	16	1
28	5499.3	15.9	368	14	1
29	5542.0	15.8	452	16	1
30	5533.4	12.0	310	14	1
Detection Percentage (%)					100%

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

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



Radar Type 5 - Radar Statistical Performance

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

Type 5 Radar Waveform_1

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	434598	2	12	85	1710	1424	0	434598	0	857142
2	985456	3	12	65	1344	1888	1892	1423188	857143	1714285
3	438087	3	12	90	1329	1922	1891	1866399	1714286	2571428
4	1279977	2	12	95	1761	1194	0	3151518	2571429	3428571
5	452563	1	12	65	1383	0	0	3607036	3428572	4285714
6	756284	3	12	70	1551	1960	1785	4364703	4285715	5142857
7	1463665	1	12	80	1424	0	0	5833664	5142858	6000000
8	653971	2	12	65	1294	1173	0	6489059	6000001	6857143
9	487752	1	12	95	1077	0	0	6979278	6857144	7714286
10	1298838	1	12	60	1739	0	0	8279193	7714287	8571429
11	398681	3	12	80	1900	1476	1296	8679613	8571430	9428572
12	1435480	3	12	55	1078	1305	1533	10119765	9428573	10285715
13	697190	1	12	85	1335	0	0	10820871	10285716	11142858
14	829583	2	12	65	1206	1227	0	11651789	11142859	12000001

Total number of pulses in waveform = 28

**Type 5 Radar Waveform_2**

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	135956	3	19	60	1419	1272	1911	135956	0	1499999
2	2486180	1	19	50	1818	0	0	2626738	1500000	2999999
3	1381598	2	19	100	1783	1391	0	4010154	3000000	4499999
4	1385557	1	19	60	1593	0	0	5398885	4500000	5999999
5	2006767	1	19	65	1080	0	0	7407245	6000000	7499999
6	155225	1	19	50	1368	0	0	7563550	7500000	8999999
7	2429692	2	19	100	1909	1528	0	9994610	9000000	10499999
8	1096678	1	19	60	1606	0	0	11094725	10500000	11999999

Total number of pulses in waveform = 12

Type 5 Radar Waveform_3

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	429882	1	5	95	1920	0	0	429882	0	1499999
2	1494284	2	5	50	1140	1357	0	1926086	1500000	2999999
3	2476541	3	5	60	1113	1999	1555	4405124	3000000	4499999
4	411168	2	5	75	1638	1112	0	4820959	4500000	5999999
5	2221992	3	5	80	1513	1707	1146	7045701	6000000	7499999
6	945265	2	5	65	1403	1476	0	7995332	7500000	8999999
7	1791828	1	5	55	1673	0	0	9790039	9000000	10499999
8	1005690	2	5	60	1725	1235	0	10797402	10500000	11999999

Total number of pulses in waveform = 16

Type 5 Radar Waveform_4

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	763169	3	9	85	1446	1330	1702	763169	0	1090908
2	985594	3	9	55	1842	1499	1682	1753241	1090909	2181817
3	1456198	2	9	70	1818	1126	0	3214462	2181818	3272726
4	423192	3	9	95	1482	1178	1531	3640598	3272727	4363635
5	862633	3	9	70	1125	1702	1166	4507422	4363636	5454544
6	1529587	2	9	85	1112	1127	0	6041002	5454545	6545453
7	657764	2	9	75	1556	1340	0	6701005	6545454	7636362
8	1190418	2	9	85	1156	1237	0	7894319	7636363	8727271
9	1898460	1	9	100	1398	0	0	9795172	8727272	9818180
10	274730	2	9	85	1436	1703	0	10071300	9818181	10909089
11	1411529	1	9	75	1023	0	0	11485968	10909090	11999998

Total number of pulses in waveform = 24

**Type 5 Radar Waveform_5**

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	1126360	1	17	85	1267	0	0	1126360	0	1333332
2	1422057	2	17	85	1214	1454	0	2549684	1333333	2666665
3	1309340	3	17	100	1031	1490	1220	3861692	2666666	3999998
4	479170	3	17	75	1482	1900	1264	4344603	3999999	5333331
5	2002102	1	17	55	1935	0	0	6351351	5333332	6666664
6	1599409	3	17	90	1516	1998	1125	7952695	6666665	7999997
7	1020616	3	17	100	1035	1554	1923	8977950	7999998	9333330
8	367362	2	17	50	1864	1641	0	9349824	9333331	10666663
9	1704928	1	17	95	1818	0	0	11058257	10666664	11999996

Total number of pulses in waveform = 19

Type 5 Radar Waveform_6

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	100852	1	10	50	1898	0	0	100852	0	666666
2	744208	3	10	70	1241	1199	1198	846958	666667	1333333
3	909092	3	10	55	1296	1828	1996	1759688	1333334	2000000
4	264508	3	10	85	1574	1578	1314	2029316	2000001	2666667
5	722976	2	10	90	1327	1571	0	2756758	2666668	3333334
6	1149147	2	10	90	1832	1921	0	3908803	3333335	4000001
7	322912	3	10	100	1989	1011	1289	4235468	4000002	4666668
8	906797	2	10	55	1671	1217	0	5146554	4666669	5333335
9	446829	2	10	60	1031	1377	0	5596271	5333336	6000002
10	1050868	2	10	50	1446	1137	0	6649547	6000003	6666669
11	295675	2	10	80	1182	1939	0	6947805	6666670	7333336
12	767070	3	10	50	1099	1754	1149	7717926	7333337	8000003
13	578849	2	10	90	1179	1250	0	8300847	8000004	8666670
14	602013	1	10	95	1003	0	0	8905299	8666671	9333337
15	750717	3	10	100	1506	1330	1653	9657019	9333338	10000004
16	561062	1	10	55	1625	0	0	10222570	10000005	10666671
17	612145	1	10	55	1107	0	0	10836340	10666672	11333338
18	751850	2	10	85	1051	1088	0	11589297	11333339	12000005

Total number of pulses in waveform = 38

Type 5 Radar Waveform_7

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	1128832	2	18	85	1996	1825	0	1128832	0	1333332
2	1209173	1	18	85	1331	0	0	2341826	1333333	2666665
3	421251	2	18	50	1801	1256	0	2764408	2666666	3999998
4	1734323	3	18	70	1403	1403	1646	4501788	3999999	5333331
5	1421525	1	18	90	1060	0	0	5927765	5333332	6666664
6	1294122	1	18	65	1404	0	0	7222947	6666665	7999997
7	1530838	1	18	50	1160	0	0	8755189	7999998	9333330
8	1261814	1	18	85	1684	0	0	10018163	9333331	10666663
9	813236	1	18	70	1393	0	0	10833083	10666664	11999996

Total number of pulses in waveform = 13



Type 5 Radar Waveform_8

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	412961	2	8	85	1003	1758	0	412961	0	749999
2	839778	2	8	60	1983	1999	0	1255500	750000	1499999
3	601372	2	8	75	1137	1193	0	1860854	1500000	2249999
4	647196	3	8	70	1619	1232	1292	2510380	2250000	2999999
5	942580	2	8	55	1787	1395	0	3457103	3000000	3749999
6	573869	2	8	100	1370	1372	0	4034154	3750000	4499999
7	824007	2	8	95	1693	1516	0	4860903	4500000	5249999
8	1030445	3	8	100	1296	1450	1327	5894557	5250000	5999999
9	808718	1	8	85	1275	0	0	6707348	6000000	6749999
10	677275	1	8	60	1298	0	0	7385898	6750000	7499999
11	142698	2	8	100	1779	1472	0	7529894	7500000	8249999
12	1013465	3	8	75	1279	1616	1041	8546610	8250000	8999999
13	600900	2	8	95	1584	1101	0	9151446	9000000	9749999
14	810464	2	8	75	1235	1257	0	9964595	9750000	10499999
15	1213473	1	8	95	1078	0	0	11180560	10500000	11249999
16	326356	2	8	60	1868	1934	0	11507994	11250000	11999999

Total number of pulses in waveform = 32

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	488845	1	6	55	1306	0	0	488845	0	631578
2	351730	1	6	60	1120	0	0	839881	631579	1263157
3	676887	2	6	80	1804	1509	0	1517888	1263158	1894736
4	890317	3	6	70	1271	1753	1609	2411518	1894737	2526315
5	468507	3	6	90	1796	1012	1398	2884658	2526316	3157894
6	411609	3	6	90	1300	1650	1342	3300473	3157895	3789473
7	1107620	1	6	60	1847	0	0	4412385	3789474	4421052
8	552772	3	6	100	1641	1391	1582	4967004	4421053	5052631
9	559614	3	6	100	1778	1968	1453	5531232	5052632	5684210
10	651544	3	6	60	1493	1956	1892	6187975	5684211	6315789
11	532639	3	6	65	1025	1945	1235	6726955	6315790	6947368
12	266288	1	6	70	1524	0	0	6996448	6947369	7578947
13	595854	1	6	70	1601	0	0	7593826	7578948	8210526
14	1045508	1	6	60	1171	0	0	8640935	8210527	8842105
15	671087	3	6	85	1438	1693	1410	9313193	8842106	9473684
16	772833	2	6	85	1525	1935	0	10090567	9473685	10105263
17	531130	3	6	70	1810	1330	1931	10625157	10105264	10736842
18	135444	2	6	95	1567	1267	0	10765672	10736843	11368421
19	969427	1	6	95	1498	0	0	11737933	11368422	12000000

Total number of pulses in waveform = 40

Type 5 Radar Waveform_10

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	577478	3	14	65	1571	1944	1583	577478	0	705881
2	209128	1	14	95	1504	0	0	791704	705882	1411763
3	665590	2	14	50	1360	1970	0	1458798	1411764	2117645
4	944151	2	14	55	1367	1299	0	2406279	2117646	2823527
5	1027835	1	14	65	1162	0	0	3436780	2823528	3529409
6	438601	1	14	70	1870	0	0	3876543	3529410	4235291
7	897822	3	14	70	1700	1688	1080	4776235	4235292	4941173
8	247334	1	14	80	1264	0	0	5028037	4941174	5647055
9	863580	1	14	95	1366	0	0	5892881	5647056	6352937
10	865506	3	14	75	1307	1370	1453	6759753	6352938	7058819
11	671175	2	14	60	1035	1692	0	7435058	7058820	7764701
12	918469	2	14	70	1501	1672	0	8356254	7764702	8470583
13	665949	3	14	70	1793	1401	1214	9025376	8470584	9176465
14	168252	1	14	60	1441	0	0	9198036	9176466	9882347
15	868262	2	14	70	1190	1755	0	10067739	9882348	10588229
16	1217258	1	14	60	1420	0	0	11287942	10588230	11294111
17	523259	1	14	80	1665	0	0	11812621	11294112	11999993

Total number of pulses in waveform = 30

**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	307694	1	9	65	1706	0	0	307694	0	999999
2	805452	3	9	55	1932	1589	1087	1114852	1000000	1999999
3	1144894	2	9	85	1636	1638	0	2264354	2000000	2999999
4	1189836	1	9	100	1094	0	0	3457464	3000000	3999999
5	1127915	1	9	60	1708	0	0	4586473	4000000	4999999
6	726104	1	9	100	1770	0	0	5314285	5000000	5999999
7	1209882	3	9	65	1436	1476	1981	6525937	6000000	6999999
8	575518	3	9	75	1580	1072	1917	7106348	7000000	7999999
9	1882748	1	9	70	1444	0	0	8993665	8000000	8999999
10	102315	2	9	100	1598	1472	0	9097424	9000000	9999999
11	1800576	1	9	60	1530	0	0	10901070	10000000	10999999
12	704010	1	9	80	1236	0	0	11606610	11000000	11999999

Total number of pulses in waveform = 20

Type 5 Radar Waveform_12

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	244617	2	17	60	1441	1403	0	244617	0	666666
2	494189	3	17	50	1989	1851	1133	741650	666667	1333333
3	690432	2	17	75	1739	1940	0	1437055	1333334	2000000
4	1083212	1	17	60	1128	0	0	2523946	2000001	2666667
5	645912	2	17	65	1730	1321	0	3170986	2666668	3333334
6	783881	3	17	80	1999	1842	1592	3957918	3333335	4000001
7	253658	3	17	65	1991	1495	1057	4217009	4000002	4666668
8	1078644	1	17	85	1085	0	0	5298196	4666669	5333335
9	360492	1	17	75	1694	0	0	5659773	5333336	6000002
10	344677	2	17	55	1321	1038	0	6006144	6000003	6666669
11	1179107	1	17	80	1103	0	0	7187610	6666670	7333336
12	174322	3	17	50	1851	1310	1173	7363035	7333337	8000003
13	1264422	2	17	75	1106	1558	0	8631791	8000004	8666670
14	560301	2	17	70	1556	1139	0	9194756	8666671	9333337
15	180507	1	17	65	1095	0	0	9377958	9333338	10000004
16	635147	3	17	60	1521	1321	1578	10014200	10000005	10666671
17	1260634	2	17	90	1435	1152	0	11279254	10666672	11333338
18	420178	3	17	50	1945	1918	1125	11702019	11333339	12000005

Total number of pulses in waveform = 37

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	931980	2	5	85	1228	1638	0	931980	0	999999
2	707372	1	5	80	1690	0	0	1642218	1000000	1999999
3	829907	2	5	75	1545	1960	0	2473815	2000000	2999999
4	549772	1	5	80	1591	0	0	3027092	3000000	3999999
5	1654730	1	5	50	1044	0	0	4683413	4000000	4999999
6	769395	1	5	55	1073	0	0	5453852	5000000	5999999
7	611784	3	5	70	1596	1382	1166	6066709	6000000	6999999
8	1227257	2	5	75	1823	1530	0	7298110	7000000	7999999
9	1496479	3	5	75	1116	1216	1908	8797942	8000000	8999999
10	293148	2	5	95	1923	1612	0	9095330	9000000	9999999
11	1583750	3	5	50	1890	1303	1119	10682615	10000000	10999999
12	431662	2	5	100	1307	1103	0	11118589	11000000	11999999

Total number of pulses in waveform = 23

**Type 5 Radar Waveform_14**

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	425184	3	10	70	1236	1814	1368	425184	0	1499999
2	1208390	2	10	75	1350	1908	0	1637992	1500000	2999999
3	1743544	1	10	70	1929	0	0	3384794	3000000	4499999
4	1697447	3	10	80	1582	1280	1589	5084170	4500000	5999999
5	1631063	3	10	55	1263	1006	1911	6719684	6000000	7499999
6	1556837	3	10	95	1988	1321	1568	8280701	7500000	8999999
7	815975	1	10	60	1094	0	0	9101553	9000000	10499999
8	1661928	2	10	70	1538	1018	0	10764575	10500000	11999999

Total number of pulses in waveform = 18

Type 5 Radar Waveform_15

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	281248	1	14	50	1458	0	0	281248	0	666666
2	938276	2	14	70	1275	1919	0	1220982	666667	1333333
3	348784	1	14	60	1492	0	0	1572970	1333334	2000000
4	583181	1	14	60	1485	0	0	2157643	2000001	2666667
5	729784	2	14	95	1369	1026	0	2888912	2666668	3333334
6	753656	1	14	100	1282	0	0	3644963	3333335	4000001
7	944466	2	14	80	1963	1763	0	4590711	4000002	4666668
8	680172	2	14	65	1247	1060	0	5274609	4666669	5333335
9	521891	2	14	85	1010	1348	0	5798807	5333336	6000002
10	393219	3	14	60	1449	1867	1016	6194384	6000003	6666669
11	712939	2	14	60	1934	1716	0	6911655	6666670	7333336
12	565082	1	14	65	1280	0	0	7480387	7333337	8000003
13	813419	1	14	55	1874	0	0	8295086	8000004	8666670
14	434348	3	14	80	1573	1957	1175	8731308	8666671	9333337
15	710065	2	14	85	1604	1087	0	9446078	9333338	10000004
16	995853	3	14	65	1776	1013	1441	10446622	10000005	10666671
17	653769	2	14	80	1783	1602	0	11102621	10666672	11333338
18	756142	2	14	60	1399	1635	0	11862148	11333339	12000005

Total number of pulses in waveform = 33

Type 5 Radar Waveform_16

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	19493	1	19	80	1848	0	0	19493	0	749999
2	1435190	2	19	100	1311	1052	0	1456531	750000	1499999
3	98329	2	19	60	1374	1083	0	1557223	1500000	2249999
4	1036350	3	19	95	1721	1961	1566	2596030	2250000	2999999
5	984217	2	19	75	1039	1124	0	3585495	3000000	3749999
6	900595	2	19	90	1000	1544	0	4488253	3750000	4499999
7	86261	2	19	90	1222	1087	0	4577058	4500000	5249999
8	987717	2	19	85	1380	1193	0	5567084	5250000	5999999
9	969995	2	19	70	1351	1249	0	6539652	6000000	6749999
10	485145	1	19	100	1794	0	0	7027397	6750000	7499999
11	790546	2	19	60	1636	1966	0	7819737	7500000	8249999
12	1152020	3	19	75	1903	1654	1775	8975359	8250000	8999999
13	694952	2	19	90	1284	1402	0	9675643	9000000	9749999
14	439890	1	19	50	1577	0	0	10118219	9750000	10499999
15	619097	1	19	90	1439	0	0	10738893	10500000	11249999
16	599405	2	19	55	1395	1200	0	11339737	11250000	11999999

Total number of pulses in waveform = 30

**Type 5 Radar Waveform_17**

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	1117582	1	6	65	1394	0	0	1117582	0	1333332
2	1497173	3	6	85	1463	1094	1771	2616149	1333333	2666665
3	1336170	3	6	90	1360	1053	1759	3956647	2666666	3999998
4	363367	1	6	50	1069	0	0	4324186	3999999	5333331
5	2104245	1	6	85	1626	0	0	6429500	5333332	6666664
6	255755	2	6	100	1866	1867	0	6686881	6666665	7999997
7	1397455	1	6	50	1974	0	0	8088069	7999998	9333330
8	1879008	1	6	50	1982	0	0	9969051	9333331	10666663
9	875491	2	6	100	1061	1387	0	10846524	10666664	11999996

Total number of pulses in waveform = 15

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	280430	3	8	95	1970	1667	1280	280430	0	1090908
2	1786228	1	8	60	1347	0	0	2071575	1090909	2181817
3	132994	1	8	100	1037	0	0	2205916	2181818	3272726
4	1887229	1	8	90	1110	0	0	4094182	3272727	4363635
5	1090717	2	8	95	1622	1505	0	5186009	4363636	5454544
6	884132	3	8	60	1999	1167	1770	6073268	5454545	6545453
7	1541576	2	8	55	1809	1716	0	7619780	6545454	7636362
8	133937	3	8	70	1454	1392	1998	7757242	7636363	8727271
9	1198693	2	8	75	1884	1807	0	8960779	8727272	9818180
10	1294258	2	8	100	1784	1654	0	10258728	9818181	10909089
11	1269205	2	8	100	1583	1155	0	11531371	10909090	11999998

Total number of pulses in waveform = 22

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	468769	1	12	85	1534	0	0	468769	0	599999
2	637406	3	12	50	1358	1536	1441	1107709	600000	1199999
3	361825	3	12	75	1227	1628	1378	1473869	1200000	1799999
4	417101	2	12	95	1360	1059	0	1895203	1800000	2399999
5	729984	1	12	50	1525	0	0	2627606	2400000	2999999
6	386131	1	12	90	1091	0	0	3015262	3000000	3599999
7	1012938	3	12	80	1318	1088	1363	4029291	3600000	4199999
8	169402	1	12	100	1567	0	0	4202462	4200000	4799999
9	674786	2	12	95	1316	1421	0	4878815	4800000	5399999
10	1020022	3	12	85	1081	1756	1613	5901574	5400000	5999999
11	624952	2	12	85	1621	1285	0	6530976	6000000	6599999
12	556217	2	12	75	1869	1905	0	7090099	6600000	7199999
13	121092	3	12	75	1578	1346	1665	7214965	7200000	7799999
14	1102184	2	12	90	1902	1262	0	8321738	7800000	8399999
15	497991	3	12	75	1770	1262	1374	8822883	8400000	8999999
16	372603	2	12	50	1641	1682	0	9199892	9000000	9599999
17	605823	1	12	50	1638	0	0	9809038	9600000	10199999
18	946605	1	12	65	1106	0	0	10757281	10200000	10799999
19	367294	2	12	50	1239	1082	0	11125681	10800000	11399999
20	597094	2	12	50	1847	1817	0	11725096	11400000	11999999

Total number of pulses in waveform = 40



Type 5 Radar Waveform_20

Num of Bursts = 20 Burst Interval (us)= 600000											
Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)	
1	408762	2	18	55	1216	1666	0	408762	0	599999	
2	285294	3	18	55	1630	1083	1839	696938	600000	1199999	
3	604093	2	18	55	1614	1853	0	1305583	1200000	1799999	
4	849071	3	18	60	1616	1392	1792	2158121	1800000	2399999	
5	782327	2	18	60	1101	1906	0	2945248	2400000	2999999	
6	89804	2	18	55	1731	1666	0	3038059	3000000	3599999	
7	1152724	3	18	70	1481	1931	1094	4194180	3600000	4199999	
8	407054	1	18	85	1787	0	0	4605740	4200000	4799999	
9	202335	2	18	100	1028	1080	0	4809862	4800000	5399999	
10	1010185	3	18	65	1327	1194	1019	5822155	5400000	5999999	
11	195192	3	18	50	1522	1366	1551	6020887	6000000	6599999	
12	1045050	3	18	70	1287	1162	1448	7070376	6600000	7199999	
13	599820	2	18	55	1421	1373	0	7674093	7200000	7799999	
14	329630	2	18	65	1535	1923	0	8006517	7800000	8399999	
15	767991	2	18	70	1006	1647	0	8777966	8400000	8999999	
16	280923	2	18	85	1797	1529	0	9061542	9000000	9599999	
17	657640	1	18	90	1420	0	0	9722508	9600000	10199999	
18	1033977	1	18	65	1462	0	0	10757905	10200000	10799999	
19	58554	2	18	55	1096	1091	0	10817921	10800000	11399999	
20	1019049	2	18	50	1513	1661	0	11839157	11400000	11999999	
Total number of pulses in waveform = 43											

Type 5 Radar Waveform_21

Num of Bursts = 13 Burst Interval (us)= 923077											
Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)	
1	795495	1	8	70	1072	0	0	795495	0	923076	
2	713878	2	8	50	1251	1361	0	1510445	923077	1846153	
3	962813	3	8	65	1117	1403	1469	2475870	1846154	2769230	
4	1099431	1	8	50	1093	0	0	3579290	2769231	3692307	
5	192998	2	8	100	1767	1951	0	3773381	3692308	4615384	
6	868218	3	8	70	1788	1543	1222	4645317	4615385	5538461	
7	1393179	3	8	50	1805	1882	1097	6043049	5538462	6461538	
8	1310198	2	8	50	1539	1186	0	7358031	6461539	7384615	
9	407731	2	8	95	1499	1318	0	7768487	7384616	8307692	
10	928347	1	8	55	1364	0	0	8699651	8307693	9230769	
11	538993	3	8	60	1601	1251	1216	9240008	9230770	10153846	
12	1304050	1	8	75	1202	0	0	10548126	10153847	11076923	
13	1019065	1	8	95	1598	0	0	11568393	11076924	12000000	
Total number of pulses in waveform = 25											

Type 5 Radar Waveform_22

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	600054	1	19	75	1534	0	0	600054	0	666666	
2	593796	2	19	85	1919	1751	0	1195384	666667	1333333	
3	371826	3	19	80	1862	1291	1943	1570880	1333334	2000000	
4	668279	2	19	60	1214	1118	0	2244255	2000001	2666667	
5	858455	3	19	85	1961	1527	1569	3105042	2666668	3333334	
6	513383	2	19	95	1664	1713	0	3623482	3333335	4000001	
7	863998	3	19	65	1690	1875	1106	4490857	4000002	4666668	
8	558362	3	19	90	1979	1794	1056	5053890	4666669	5333335	
9	442653	3	19	65	1628	1513	1210	5501372	5333336	6000002	
10	792691	1	19	75	1753	0	0	6298414	6000003	6666669	
11	450713	1	19	65	1824	0	0	6750880	6666670	7333336	
12	936766	2	19	95	1044	1700	0	7689470	7333337	8000003	
13	518479	1	19	50	1968	0	0	8210693	8000004	8666670	
14	507491	3	19	65	1259	1236	1946	8720152	8666671	9333337	
15	813227	1	19	95	1555	0	0	9537820	9333338	10000004	
16	638606	2	19	50	1173	1101	0	10177981	10000005	10666671	
17	608576	1	19	85	1428	0	0	10788831	10666672	11333338	
18	1015336	2	19	90	1391	1670	0	11805595	11333339	12000005	
Total number of pulses in waveform = 36											



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	414192	1	5	95	1479	0	0	414192	0	857142
2	814554	3	5	50	1882	1019	1576	1230225	857143	1714285
3	1203284	3	5	100	1887	1834	1963	2437986	1714286	2571428
4	690205	3	5	70	1270	1727	1707	3133875	2571429	3428571
5	793299	1	5	70	1936	0	0	3931878	3428572	4285714
6	399784	2	5	80	1089	1899	0	4333598	4285715	5142857
7	1494302	3	5	65	1159	1479	1326	5830888	5142858	6000000
8	743301	3	5	95	1367	1940	2000	6578153	6000001	6857143
9	308391	2	5	100	1783	1903	0	6891851	6857144	7714286
10	1017044	1	5	75	1542	0	0	7912581	7714287	8571429
11	1193203	2	5	50	1472	1949	0	9107326	8571430	9428572
12	540861	3	5	90	1749	1402	1292	9651608	9428573	10285715
13	1022160	3	5	85	1813	1952	1987	10678211	10285716	11142858
14	833904	2	5	90	1870	1258	0	11517867	11142859	12000001

Total number of pulses in waveform = 32

Type 5 Radar Waveform_24

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	25708	1	10	70	1397	0	0	25708	0	666666
2	645821	3	10	80	1801	1357	1963	672926	666667	1333333
3	901425	1	10	60	1266	0	0	1579472	1333334	2000000
4	537045	3	10	55	1437	1971	1306	2117783	2000001	2666667
5	826898	3	10	50	1197	1741	1912	2949395	2666668	3333334
6	717895	2	10	70	1573	1629	0	3672140	3333335	4000001
7	440069	3	10	70	1824	1949	1215	4115431	4000002	4666668
8	685942	3	10	100	1951	1827	1861	4806361	4666669	5333335
9	1077150	2	10	80	1065	1044	0	5889150	5333336	6000002
10	510648	2	10	80	1832	1580	0	6401907	6000003	6666669
11	474782	2	10	95	1905	1497	0	6880101	6666670	7333336
12	706126	1	10	95	1314	0	0	7589629	7333337	8000003
13	650060	1	10	80	1472	0	0	8241003	8000004	8666670
14	604116	3	10	60	1969	1703	1505	8846591	8666671	9333337
15	959340	3	10	100	1751	1565	1856	9611108	9333338	10000004
16	277584	1	10	75	2000	0	0	10093864	10000005	10666671
17	937514	3	10	60	1434	1183	1748	11033378	10666672	11333338
18	833435	3	10	60	1931	1286	1478	11871178	11333339	12000005

Total number of pulses in waveform = 40

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	49200	1	18	100	1841	0	0	49200	0	923076
2	1142911	1	18	80	1240	0	0	1193952	923077	1846153
3	960353	1	18	80	1850	0	0	2155545	1846154	2769230
4	927589	3	18	85	1550	1353	1247	3084984	2769231	3692307
5	1295489	2	18	100	1399	1172	0	4384623	3692308	4615384
6	331698	3	18	65	1682	1116	1923	4718892	4615385	5538461
7	1190015	3	18	75	1790	1775	1813	5913628	5538462	6461538
8	1043899	2	18	60	1107	1854	0	6962905	6461539	7384615
9	827725	1	18	90	1004	0	0	7793591	7384616	8307692
10	569416	1	18	85	1556	0	0	8364011	8307693	9230769
11	1420610	3	18	50	1291	1540	1767	9786177	9230770	10153846
12	956611	1	18	70	1578	0	0	10747386	10153847	11076923
13	760225	3	18	60	1344	1383	1984	11509189	11076924	12000000

Total number of pulses in waveform = 25

**Type 5 Radar Waveform_26**

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	611484	3	9	95	1027	1324	1067	611484	0	705881
2	335093	2	9	70	1660	1798	0	949995	705882	1411763
3	629011	2	9	95	1958	1847	0	1582464	1411764	2117645
4	794166	1	9	75	1977	0	0	2380435	2117646	2823527
5	532440	3	9	100	1443	1002	1757	2914852	2823528	3529409
6	694440	1	9	95	1847	0	0	3613494	3529410	4235291
7	1178090	1	9	65	1419	0	0	4793431	4235292	4941173
8	769582	3	9	60	1706	1188	1216	5564432	4941174	5647055
9	686474	1	9	100	1553	0	0	6255016	5647056	6352937
10	260008	1	9	80	1008	0	0	6516577	6352938	7058819
11	1065026	3	9	50	1901	1522	1646	7582611	7058820	7764701
12	178284	3	9	100	1208	1575	1867	7765964	7764702	8470583
13	714995	1	9	85	1485	0	0	8485609	8470584	9176465
14	760343	1	9	95	1739	0	0	9247437	9176466	9882347
15	1055334	3	9	90	1719	1972	1078	10304510	9882348	10588229
16	893359	1	9	80	1642	0	0	11202638	10588230	11294111
17	296712	3	9	75	1632	1051	1135	11500992	11294112	11999993
Total number of pulses in waveform = 33 *****										

Type 5 Radar Waveform_27

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	777599	3	14	85	1840	1956	1279	777599	0	799999
2	307555	3	14	60	1736	1087	1487	1090229	800000	1599999
3	851583	1	14	75	1881	0	0	1946122	1600000	2399999
4	570603	2	14	75	1898	1526	0	2518606	2400000	3199999
5	999055	1	14	80	1901	0	0	3521085	3200000	3999999
6	594692	1	14	100	1098	0	0	4117678	4000000	4799999
7	1315732	1	14	70	1987	0	0	5434508	4800000	5599999
8	203162	3	14	65	1089	1106	1625	5639657	5600000	6399999
9	1366045	3	14	75	1499	1075	1186	7009522	6400000	7199999
10	435021	3	14	55	1499	1459	1198	7448303	7200000	7999999
11	876849	2	14	55	1910	1901	0	8329308	8000000	8799999
12	621783	2	14	80	1878	1381	0	8954902	8800000	9599999
13	952966	1	14	90	1975	0	0	9911127	9600000	10399999
14	863401	2	14	60	1118	1067	0	10776503	10400000	11199999
15	917650	3	14	95	1019	1110	1982	11696338	11200000	11999999
Total number of pulses in waveform = 31 *****										

Type 5 Radar Waveform_28

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	117478	2	12	50	1830	1909	0	117478	0	799999
2	886383	3	12	70	1106	1891	1642	1007600	800000	1599999
3	1118671	1	12	90	1747	0	0	2130910	1600000	2399999
4	828738	3	12	70	1574	1704	1307	2961395	2400000	3199999
5	241580	1	12	80	1894	0	0	3207560	3200000	3999999
6	1269652	1	12	50	1280	0	0	4479106	4000000	4799999
7	405273	1	12	65	1167	0	0	4885659	4800000	5599999
8	1186286	3	12	80	1702	1773	1617	6073112	5600000	6399999
9	1003884	1	12	75	1793	0	0	7082088	6400000	7199999
10	342056	2	12	70	1520	1726	0	7425937	7200000	7999999
11	1285111	3	12	90	1548	1373	1020	8714294	8000000	8799999
12	351022	1	12	80	1508	0	0	9069257	8800000	9599999
13	560352	1	12	60	1673	0	0	9631117	9600000	10399999
14	1190170	2	12	80	1231	1794	0	10822960	10400000	11199999
15	503054	2	12	60	1945	1182	0	11329039	11200000	11999999
Total number of pulses in waveform = 27 *****										

**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	32556	2	17	90	1690	1678	0	32556	0	749999
2	1208882	2	17	60	1079	1803	0	1244806	750000	1499999
3	962253	1	17	65	1847	0	0	2209941	1500000	2249999
4	62893	3	17	95	1762	1147	1264	2274681	2250000	2999999
5	1383657	2	17	80	1201	1020	0	3662511	3000000	3749999
6	700551	1	17	100	1387	0	0	4365283	3750000	4499999
7	193644	1	17	95	1338	0	0	4560314	4500000	5249999
8	1206067	2	17	70	1691	1818	0	5767719	5250000	5999999
9	894542	3	17	100	1663	1346	1645	6665770	6000000	6749999
10	245955	1	17	65	1940	0	0	6916379	6750000	7499999
11	998934	2	17	85	1752	1520	0	7917253	7500000	8249999
12	471297	2	17	80	1862	1229	0	8391822	8250000	8999999
13	694387	3	17	70	1381	1309	1914	9089300	9000000	9749999
14	719768	3	17	75	1892	1919	1223	9813672	9750000	10499999
15	1037023	2	17	65	1400	1082	0	10855729	10500000	11249999
16	1012902	2	17	85	1133	1735	0	11871113	11250000	11999999

Total number of pulses in waveform = 32

Type 5 Radar Waveform_30Num 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	93374	3	6	75	1432	1510	1933	93374	0	705881
2	1214183	3	6	75	1509	1636	1798	1312432	705882	1411763
3	435664	2	6	55	1373	1652	0	1753039	1411764	2117645
4	422956	3	6	50	1857	1706	1188	2179020	2117646	2823527
5	1014205	1	6	95	1897	0	0	3197976	2823528	3529409
6	741985	1	6	100	1473	0	0	3941858	3529410	4235291
7	558663	1	6	90	1955	0	0	4501994	4235292	4941173
8	961951	3	6	50	1328	1392	1194	5465900	4941174	5647055
9	278579	2	6	75	1176	1265	0	5748393	5647056	6352937
10	927543	3	6	85	1603	1692	1615	6678377	6352938	7058819
11	1044189	2	6	100	1023	1599	0	7727476	7058820	7764701
12	643010	2	6	75	1209	1898	0	8373108	7764702	8470583
13	115091	1	6	70	1646	0	0	8491306	8470584	9176465
14	692305	2	6	80	1018	1418	0	9185257	9176466	9882347
15	748396	1	6	90	1286	0	0	9936089	9882348	10588229
16	1026332	2	6	65	1517	1053	0	10963707	10588230	11294111
17	439621	3	6	80	1773	1829	1950	11405898	11294112	11999993

Total number of pulses in waveform = 35

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	5565.8	1	16	5500.2	1
2	5503.4	1	17	5530.0	1
3	5530.0	1	18	5562.7	1
4	5492.0	1	19	5555.5	1
5	5524.0	1	20	5552.4	1
6	5558.1	1	21	5497.7	1
7	5534.5	1	22	5531.3	1
8	5492.6	1	23	5549.9	1
9	5567.4	1	24	5521.3	1
10	5546.7	1	25	5494.2	1
11	5518.2	1	26	5568.0	1
12	5540.4	1	27	5506.8	1
13	5493.6	1	28	5515.7	1
14	5512.5	1	29	5537.7	1
15	5543.6	1	30	5509.5	1
Detection Percentage (%)					100%

Radar waveform #1			Radar waveform #2		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
5	5532	15	13	5504	39
14	5584	42	17	5513	51
26	5547	78	23	5488	69
29	5581	87	27	5472	81
42	5545	126	28	5507	84
48	5583	144	37	5477	111
52	5538	156	38	5497	114
64	5550	192	43	5502	129
68	5536	204	46	5469	138
69	5592	207	51	5512	153
77	5564	231	54	5521	162
80	5579	240	65	5498	195
93	5566	279	69	5496	207
--	--	--	88	5474	264
--	--	--	90	5517	270
--	--	--	98	5468	294

Radar waveform #3			Radar waveform #4		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
4	5523	12	0	5524	0
8	5494	24	1	5496	3
12	5481	36	5	5492	15
15	5516	45	11	5498	33
17	5502	51	28	5489	84
19	5522	57	44	5491	132
25	5515	75	58	5507	174
42	5495	126	62	5481	186
62	5487	186	64	5472	192
65	5521	195	66	5487	198
71	5510	213	73	5479	219
92	5527	276	77	5502	231
93	5530	279	85	5511	255
--	--	--	88	5522	264
--	--	--	89	5516	267

Radar waveform #5			Radar waveform #6		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
0	5505	0	30	5584	90
1	5508	3	37	5546	111
32	5497	96	43	5533	129
33	5522	99	57	5552	171
34	5524	102	60	5558	180
36	5552	108	65	5562	195
69	5523	207	69	5528	207
70	5516	210	70	5547	210
80	5531	240	78	5549	234
96	5532	288	84	5559	252
--	--	--	86	5551	258
--	--	--	89	5545	267
--	--	--	90	5540	270
--	--	--	97	5586	291

Radar waveform #7			Radar waveform #8		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
27	5502	81	13	5495	39
43	5520	129	14	5527	42
46	5562	138	15	5490	45
56	5536	168	22	5521	66
59	5549	177	25	5482	75
63	5530	189	30	5489	90
69	5515	207	33	5499	99
70	5537	210	41	5524	123
71	5540	213	71	5493	213
73	5521	219	87	5492	261
75	5544	225	98	5511	294
83	5503	249	--	--	--
85	5538	255	--	--	--
87	5531	261	--	--	--
92	5505	276	--	--	--
97	5513	291	--	--	--
98	5519	294	--	--	--

Radar waveform #9			Radar waveform #10		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
10	5565	30	19	5544	57
13	5577	39	20	5571	60
24	5550	72	27	5549	81
33	5538	99	30	5539	90
35	5573	105	36	5547	108
43	5542	129	43	5515	129
44	5558	132	53	5559	159
53	5549	159	61	5537	183
58	5578	174	65	5520	195
59	5579	177	71	5541	213
62	5544	186	83	5540	249
65	5581	195	94	5564	282
78	5583	234	98	5552	294
81	5587	243	99	5553	297
89	5555	267	--	--	--
91	5546	273	--	--	--

Radar waveform #11			Radar waveform #12		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
9	5535	27	2	5504	6
16	5546	48	13	5535	39
20	5512	60	44	5528	132
39	5523	117	47	5525	141
40	5510	120	68	5540	204
43	5505	129	71	5545	213
52	5526	156	74	5546	222
57	5550	171	77	5543	231
60	5541	180	91	5524	273
71	5494	213	96	5522	288
78	5517	234	--	--	--
81	5533	243	--	--	--
83	5542	249	--	--	--
86	5493	258	--	--	--
90	5540	270	--	--	--
94	5497	282	--	--	--
99	5522	297	--	--	--

Radar waveform #13			Radar waveform #14		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
2	5473	6	4	5537	12
7	5479	21	14	5534	42
12	5525	36	37	5492	111
15	5517	45	47	5527	141
32	5506	96	51	5535	153
42	5486	126	59	5480	177
49	5514	147	69	5523	207
52	5510	156	73	5517	219
68	5511	204	77	5529	231
91	5487	273	93	5528	279
94	5494	282	98	5533	294

Radar waveform #15			Radar waveform #16		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
6	5560	18	6	5537	18
23	5530	69	10	5529	30
30	5507	90	23	5500	69
32	5514	96	24	5506	72
64	5512	192	26	5495	78
65	5549	195	29	5536	87
71	5521	213	33	5535	99
74	5556	222	36	5530	108
75	5558	225	58	5492	174
77	5520	231	68	5522	204
84	5541	252	92	5503	276
85	5508	255	--	--	--
91	5529	273	--	--	--
95	5504	285	--	--	--

Radar waveform #17			Radar waveform #18		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
13	5543	39	4	5531	12
23	5547	69	13	5585	39
24	5529	72	23	5550	69
30	5517	90	37	5543	111
40	5557	120	53	5559	159
45	5511	135	56	5562	168
51	5503	153	63	5575	189
52	5549	156	68	5584	204
64	5524	192	71	5541	213
72	5512	216	72	5572	216
76	5550	228	76	5537	228
84	5553	252	78	5545	234
90	5538	270	83	5565	249
--	--	--	86	5528	258
--	--	--	92	5560	276
--	--	--	93	5530	279
--	--	--	99	5567	297

Radar waveform #19			Radar waveform #20		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
6	5533	18	10	5567	30
37	5549	111	22	5517	66
46	5537	138	26	5560	78
60	5521	180	28	5528	84
70	5544	210	43	5526	129
73	5570	219	46	5562	138
81	5529	243	49	5543	147
94	5530	282	58	5514	174
--	--	--	60	5583	180
--	--	--	64	5529	192
--	--	--	81	5518	243
--	--	--	85	5513	255
--	--	--	86	5538	258
--	--	--	87	5565	261
--	--	--	91	5540	273
--	--	--	95	5554	285
--	--	--	96	5537	288
--	--	--	97	5515	291
--	--	--	99	5535	297

Radar waveform #21			Radar waveform #22		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
3	5517	9	13	5516	39
5	5523	15	21	5564	63
6	5522	18	22	5515	66
13	5494	39	25	5542	75
15	5482	45	27	5530	81
28	5501	84	28	5548	84
51	5525	153	31	5534	93
63	5534	189	34	5509	102
68	5519	204	43	5566	129
79	5531	237	47	5537	141
80	5498	240	54	5557	162
--	--	--	66	5563	198
--	--	--	68	5511	204
--	--	--	69	5541	207
--	--	--	87	5519	261
--	--	--	96	5543	288
--	--	--	97	5562	291

Radar waveform #23			Radar waveform #24		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
3	5529	9	18	5523	54
4	5549	12	21	5556	63
8	5580	24	26	5514	78
9	5533	27	28	5508	84
10	5542	30	49	5541	147
34	5573	102	52	5512	156
55	5578	165	57	5507	171
68	5526	204	65	5513	195
69	5559	207	67	5535	201
70	5544	210	71	5536	213
76	5551	228	72	5506	216
77	5532	231	73	5533	219
82	5553	246	75	5528	225
93	5563	279	84	5516	252
95	5575	285	86	5544	258

Radar waveform #25			Radar waveform #26		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
1	5474	3	5	5567	15
16	5483	48	21	5550	63
18	5495	54	38	5552	114
22	5470	66	44	5558	132
25	5511	75	47	5532	141
34	5482	102	48	5535	144
40	5496	120	51	5538	153
43	5468	129	59	5539	177
45	5484	135	66	5557	198
46	5502	138	67	5544	201
53	5493	159	93	5573	279
56	5487	168	99	5559	297
61	5478	183	--	--	--
66	5475	198	--	--	--
76	5510	228	--	--	--
91	5520	273	--	--	--

Radar waveform #27			Radar waveform #28		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
3	5530	9	0	5545	0
6	5488	18	6	5527	18
9	5521	27	22	5503	66
11	5524	33	28	5499	84
14	5470	42	30	5505	90
45	5479	135	32	5547	96
77	5500	231	42	5543	126
79	5480	237	57	5493	171
91	5493	273	68	5532	204
--	--	--	80	5496	240
--	--	--	81	5494	243
--	--	--	87	5492	261
--	--	--	95	5513	285

Radar waveform #29			Radar waveform #30		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
0	5510	0	2	5521	6
3	5523	9	5	5533	15
7	5517	21	11	5511	33
18	5547	54	15	5494	45
48	5515	144	18	5502	54
65	5518	195	34	5492	102
67	5526	201	61	5529	183
69	5499	207	62	5503	186
70	5512	210	86	5536	258
72	5509	216	87	5538	261
77	5513	231	88	5526	264
84	5527	252	--	--	--
89	5532	267	--	--	--
92	5558	276	--	--	--
93	5520	279	--	--	--

6. CONCLUSION

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

Q9DAPINP303 is in compliance with Part 15E of the FCC Rules.

The End

Appendix A – Test Setup Photograph

Refer to 1810TW0101-UT file.

Appendix B – EUT Photograph

Refer to 1810TW0101-UE file.