DFS MEASUREMENT REPORT

FCC PART 15 Subpart E & IC RSS-247 WLAN 802.11b/g/n

FCC ID:	2AD8UFZCWI2B1
IC:	109D-FZCWI2B1
APPLICANT:	Nokia Solutions and Networks, OY
Application Type:	Certification
Product:	AC220i Wi-Fi AP ID omni antenna US
Model No.:	WI2B-AC220i
Brand Name:	NOKIA
FCC Classification:	Unlicensed National Information Infrastructure (UNII)
FCC Rule Part(s):	Part 15 Subpart E - 15.407 Section (h)(2) KDB 905462 D02v02, KDB 905462 D04v01
Type of Device:	☒ Master Device ☐ Client Device (No radar detection) ☐ Client Device with radar detection
Test Date:	July 28 ~ August 21, 2017

Reviewed By : Paddy Chen
(Sunny Sun)

Approved By : Marlin Chen
(Marlin Chen)

ACCREDITED
TESTING LABORATORY
CERTIFICATE #3628.01

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

Revision History

Report No.	Version	Description	Issue Date	Note
1708TW0101-U6	Rev. 01	Initial Report	11-26-2017	Valid

CONTENTS

Description Page

§2.1033 General Information

Applicant:	Nokia Solutions and Networks, OY
Applicant Address:	1455 W Shure Drive, Arlington Heights, IL 60004
Manufacturer:	Nokia Solutions and Networks, OY
Manufacturer Address:	1455 W Shure Drive, Arlington Heights, IL 60004
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
MRT IC Registration No.:	21723-1
FCC Rule Part(s):	Part 15 Subpart E - 15.407 Section (h)(2)
IC Rule(s):	RSS-247 Issue 2
Test Device Serial No.:	CNCKK2S0PL ☐ Production ☒ Pre-Production ☐ Engineering

Test Facility / Accreditations

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

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

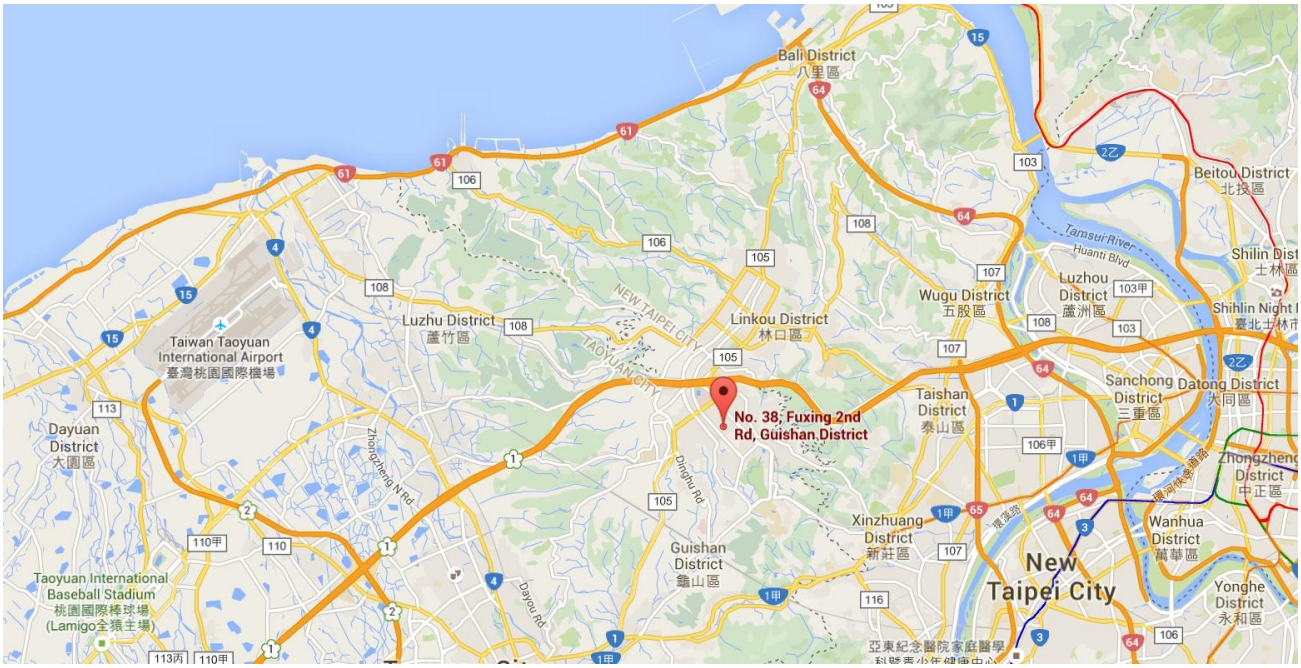
1. INTRODUCTION

1.1. Scope

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

1.2. MRT Test Location

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



2. PRODUCT INFORMATION

2.1. Equipment Description

Product Name:	AC220i Wi-Fi AP ID omni antenna US
Model No.:	WI2B-AC220i
Brand Name:	NOKIA
Wi-Fi Specification:	802.11a/b/g/n/ac
Frequency Range	**2.4GHz:** For 802.11b/g/n-HT20: 2412 ~ 2462 MHz For 802.11n-HT40: 2422 ~ 2452 MHz **5GHz:** For 802.11a/n-HT20/ac-VHT20:5180~5320MHz, 5500~5720MHz, 5745~5825MHz For 802.11n-HT40/ac-VHT40:5190~5310MHz, 5510~5710MHz, 5755~5795MHz For 802.11ac-VHT80:5210MHz, 5290MHz, 5530MHz, 5610MHz, 5690MHz, 5775MHz
Type of Modulation	802.11b: DSSS, 802.11a/g/n/ac: OFDM
Modulation Type	CCK, DQPSK, DBPSK for DSSS 16QAM, 64QAM, 256QAM, QPSK, BPSK for OFDM
Power-on cycle	Requires 45.3 seconds to complete its power-on cycle
Uniform Spreading (For DFS Frequency Band)	For the 5250-5350MHz, 5470-5725 MHz bands, the Master device provides, on aggregate, uniform loading of the spectrum across all devices by selecting an operating channel among the available channels using a random algorithm.

2.2. Description of Available Antennas

Antenna Type	Frequency Band (MHz)	TX Paths	Per Chain Max Antenna Gain (dBi)		Beam Forming Directional Gain (dBi)	CDD Directional Gain(dBi)	
			Ant 1	Ant 2		For Power	For PSD
Omni Antenna	2412 ~ 2462	2	3.5	4.0	6.76	4.00	6.76
	5150 ~ 5250	2	3.8	3.6	6.71	3.80	6.71
	5250 ~ 5350	2	4.0	3.6	6.81	4.00	6.81
	5470 ~ 5725	2	5.1	3.9	7.53	5.10	7.53
	5725 ~ 5850	2	5.2	4.3	7.77	5.20	7.77

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.
   1) If all antennas have the same gain, G_{ANT}, Directional gain = G_{ANT} + Array Gain, where Array Gain is as follows.
   - For power spectral density (PSD) measurements on all devices,
     Array Gain = 10 log(N_{ANT}/ N_{SS}) dB = 3.01;
   - For power measurements on IEEE 802.11 devices,
     Array Gain = 0 dB for N_{ANT} ≤ 4;
   2) If antenna gains are not equal, the user may use either of the following methods to calculate directional gain, provided that each transmit antenna is driven by only one spatial stream:
   - Directional gain may be calculated by using the formulas applicable to equal gain antennas with G_{ANT} set equal to the gain of the antenna having the highest gain;

$$\bullet\ DirectionalGain = 10 \cdot \log\left[\frac{\sum_{j=1}^{N_{SS}}\left\{\sum_{k=1}^{N_{ANT}} g_{j,k}\right\}^2}{N_{ANT}}\right]$$

$g_{j,k} = 10^{G_k/20}$ if the kth antenna is being fed by spatial stream j, or zero if it is not;

G_k is the gain in dBi of the kth antenna.

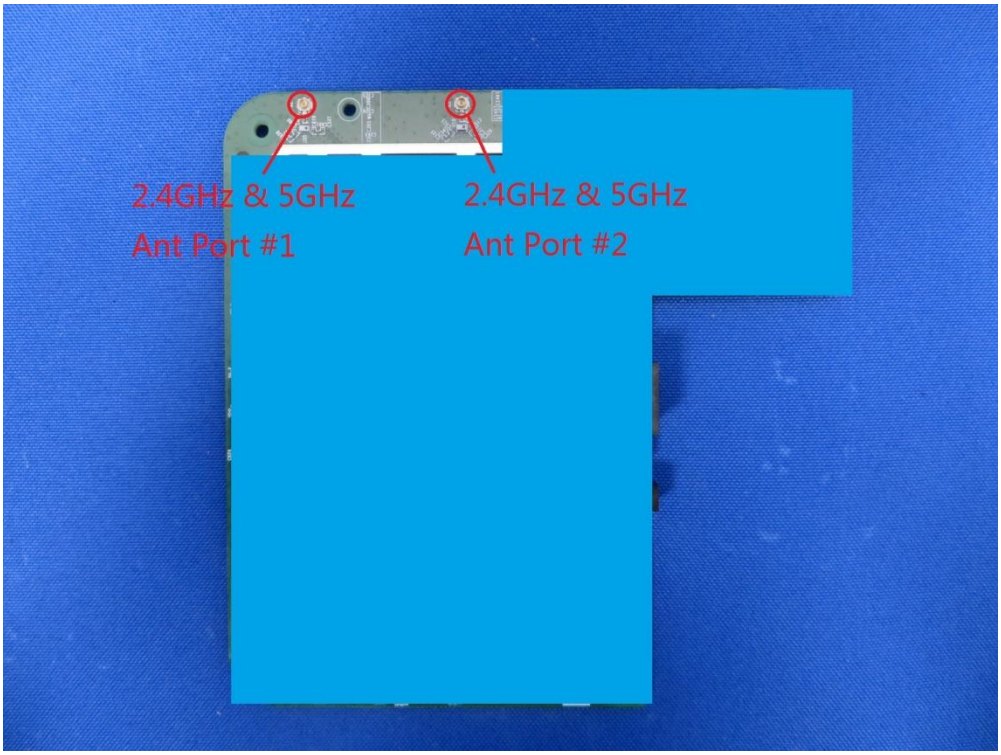
2. The EUT also supports Beam Forming mode, and the Beam Forming support 802.11n, not include 802.11a/ac.
   Correlated signals include, but are not limited to, signals transmitted in any of the following modes:
   - Any transmit Beam Forming mode, whether fixed or adaptive (e.g., phased array modes, closed loop MIMO modes, Transmitter Adaptive Antenna modes, Maximum Ratio

Transmission (MRT) modes, and Statistical Eigen Beam Forming (EBF) modes).
Unequal antenna gains, with equal transmit powers. For antenna gains given by G_1, G_2, …, G_NdBi.

- transmit signals are correlated, then
- Directional gain = $10*\log[(10^{G1/20} + 10^{G2/20} + \ldots + 10^{GN/20})^2/N_{ANT}]$ dBi [Note the “20”s in the denominator of each exponent and the square of the sum of terms; the object is to combine the signal levels coherently.]

2.3. Description of Antenna RF Port

Antenna RF Port				
--	2.4GHz RF Port		5GHz RF Port	
Software Control Port	Ant 1	Ant 2	Ant 1	Ant 2



2.4. DFS Band Carrier Frequencies Operation

802.11 a/n-HT20/ac-VHT20 Center Working Frequency of Each Channel

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

802.11n-HT40/ ac-VHT40 Center Working Frequency of Each Channel

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

802.11ac-VHT80 Center Working Frequency of Each Channel

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

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

2.5. Test Mode

Test Mode	Mode 1: Communication with Notebook

3. DFS DETECTION THRESHOLDS AND RADAR TEST WAVEFORMS

3.1. Applicability

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

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

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

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

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

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

3.2. DFS Devices Requirements

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

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

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

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

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

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

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

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

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

Parameter	Value
Non-occupancy period	Minimum 30 minutes
Channel Availability Check Time	60 seconds
Channel Move Time	10 seconds See Note 1.
Channel Closing Transmission Time	200 milliseconds + an aggregate of 60 milliseconds over remaining 10 second period. See Notes 1 and 2.
U-NII Detection Bandwidth	Minimum 100% of the U-NII 99% transmission power bandwidth. See Note 3.
Note 1: Channel Move Time and the Channel Closing Transmission Time should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0 burst.	

Note 2: The Channel Closing Transmission Time is comprised of 200 milliseconds starting at the beginning of the Channel Move Time plus any additional intermittent control signals required to facilitate a Channel move (an aggregate of 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions. Note 3: During the U-NII Detection Bandwidth detection test, radar type 0 should be used. For each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic.

Table 3-3: DFS Response Requirements

3.3. DFS Detection Threshold Values

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

Maximum Transmit Power	**Value** **(See Notes 1, 2, and 3)**
EIRP ≥ 200 milliwatt	-64 dBm
EIRP < 200 milliwatt and power spectral density < 10 dBm/MHz	-62 dBm
EIRP < 200 milliwatt that do not meet the power spectral density requirement	-64 dBm
Note 1: This is the level at the input of the receiver assuming a 0 dBi receive antenna. **Note 2:** Throughout these test procedures an additional 1 dB has been added to the amplitude of the test transmission waveforms to account for variations in measurement equipment. This will ensure that the test signal is at or above the detection threshold level to trigger a DFS response. **Note3:** EIRP is based on the highest antenna gain. For MIMO devices refer to KDB Publication 662911 D01.	

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

3.4. Parameters of DFS Test Signals

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

Short Pulse Radar Test Waveforms

Radar Type	Pulse Width (μsec)	PRI (μsec)	Number of Pulses	Minimum Percentage of Successful Detection	Minimum Number of Trials
0	1	1428	18	See Note 1	See Note 1
1	1	Test A: 15 unique PRI values randomly selected from the list of 23 PRI values in Table 3-6	$\text{Roundup}\left\{\left(\frac{1}{360}\right)\cdot\left(\frac{19\cdot 10^6}{\text{PRI}_{\text{usec}}}\right)\right\}$	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.

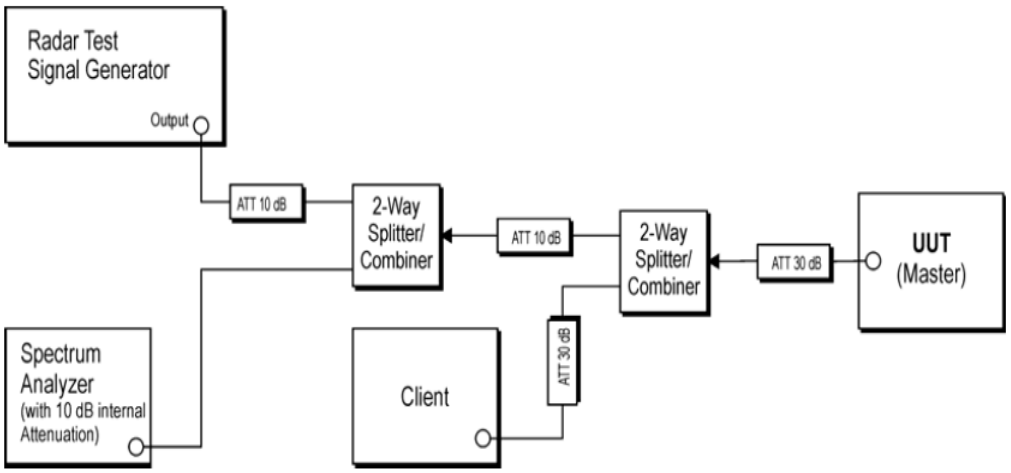


Figure 3-1: Conducted Test Setup where UUT is a Master and Radar Test Waveforms are injected into the Masters

4. TEST EQUIPMENT CALIBRATION DATE

Dynamic Frequency Selection (DFS) – TR3

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
EXA Signal Analyzer	KEYSIGHT	N9010A	MRTTWA00012	1 year	2018/07/10
MXG X-Series Microwave Analog Signal Generator	KEYSIGHT	N5183B	MRTTWA00013	1 year	2018/04/17
Temperature/Humidity Meter	TFA	35.1078.10.IT	MRTTWA00033	1 year	2018/06/08
Combiner	WOKEN	0120N02208001D	MRTTWA00040	1 year	N/A
Broadband Hornantenna	SCHWARZBECK	BBHA 9120D	MRTTWA00003	1 year	2018/04/05

Client Information

Instrument	Manufacturer	Type No.
Wireless Network Adapter	Intel	7260HMW
Wi-Fi AP 4x4 OD ext. antenna US	Nokia	WO4A-AC400

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: **Nokia Solutions and Networks OY**

FCC ID: **2AD8UFZCWI2B1**

IC: **109D-FZCWI2B1**

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

5.2. Radar Waveform Calibration

5.2.1. Calibration Setup

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

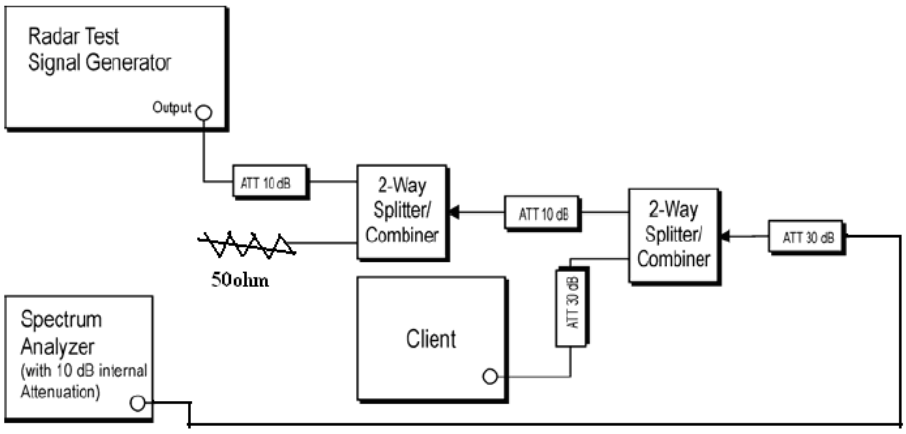


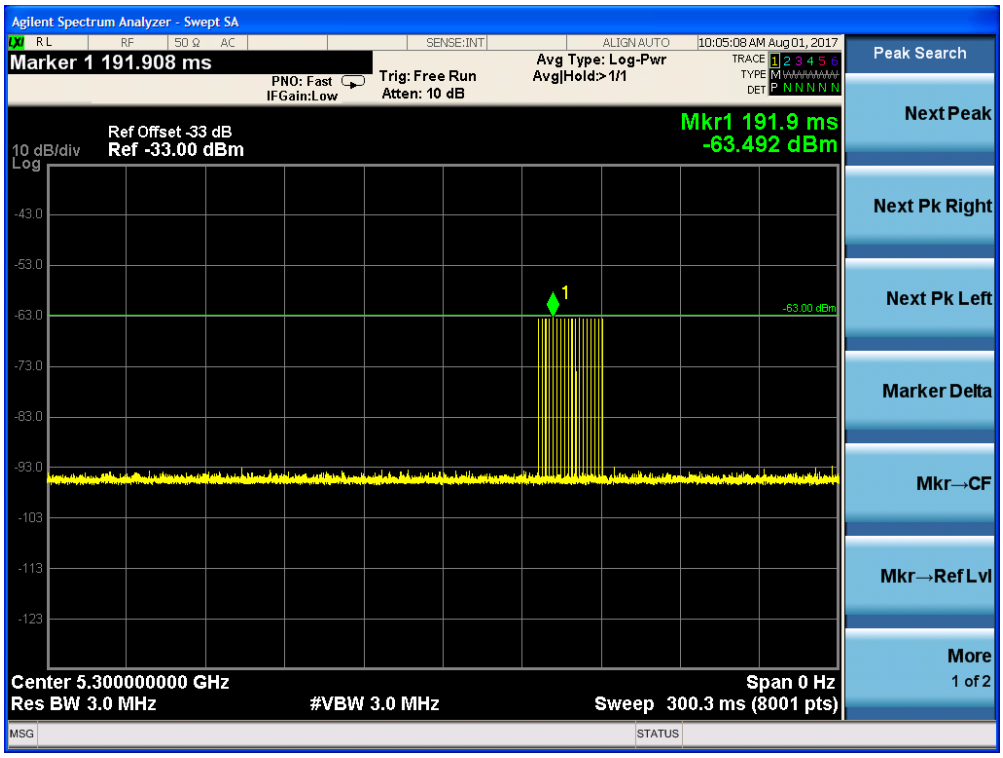
Figure 3-2: Conducted Test Setup

5.2.2. Calibration Procedure

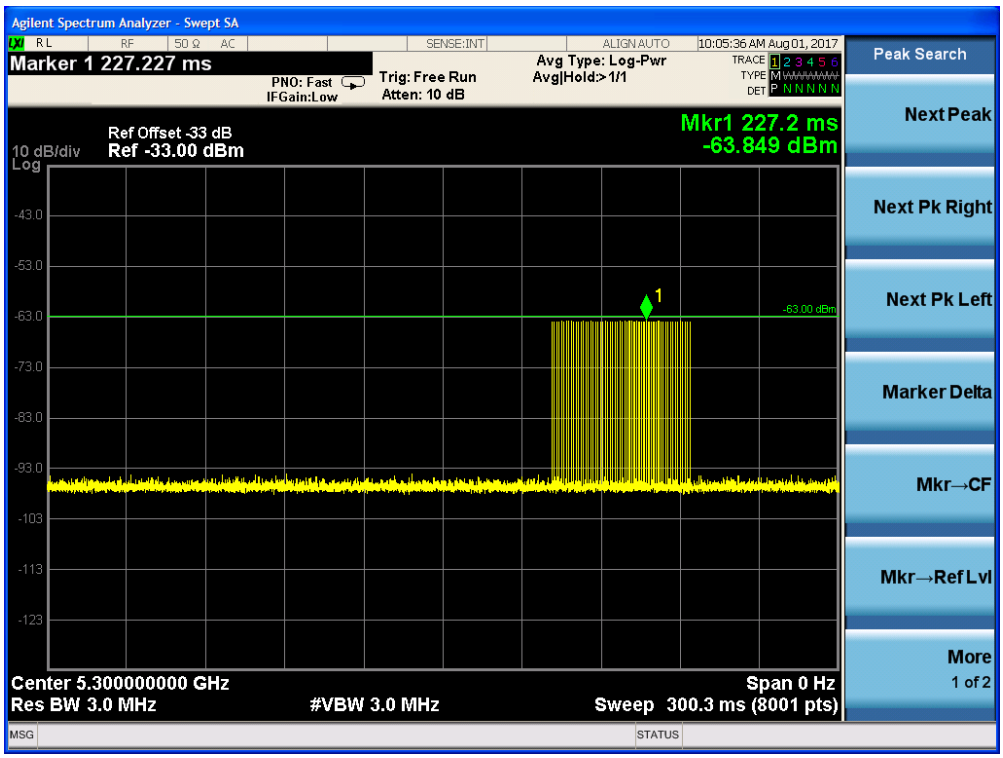
The Interference Radar Detection Threshold Level is (-64dBm) + (0) [dBi] + 1 dB= -63 dBm that had been taken into account the output power range and antenna gain. The above equipment setup was used to calibrate the conducted Radar Waveform. A vector signal generator was utilized to establish the test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

5.2.3. Cablibration Result

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

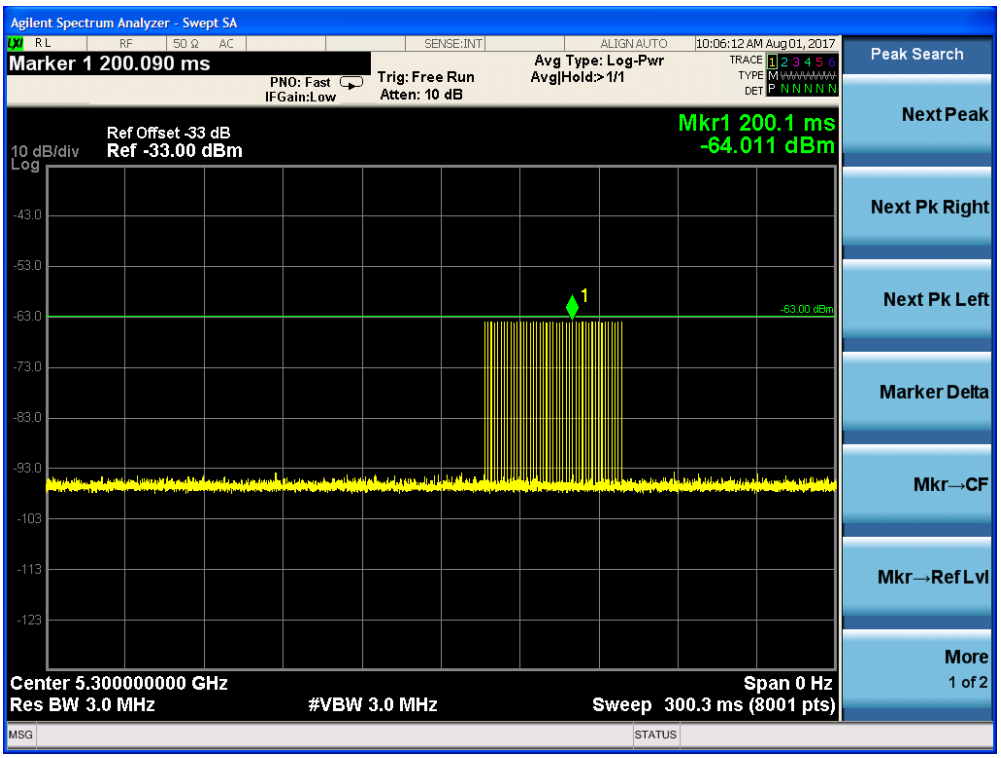


Radar #1(Test A) DFS detection threshold level and the burst of pulses on the Channel frequency



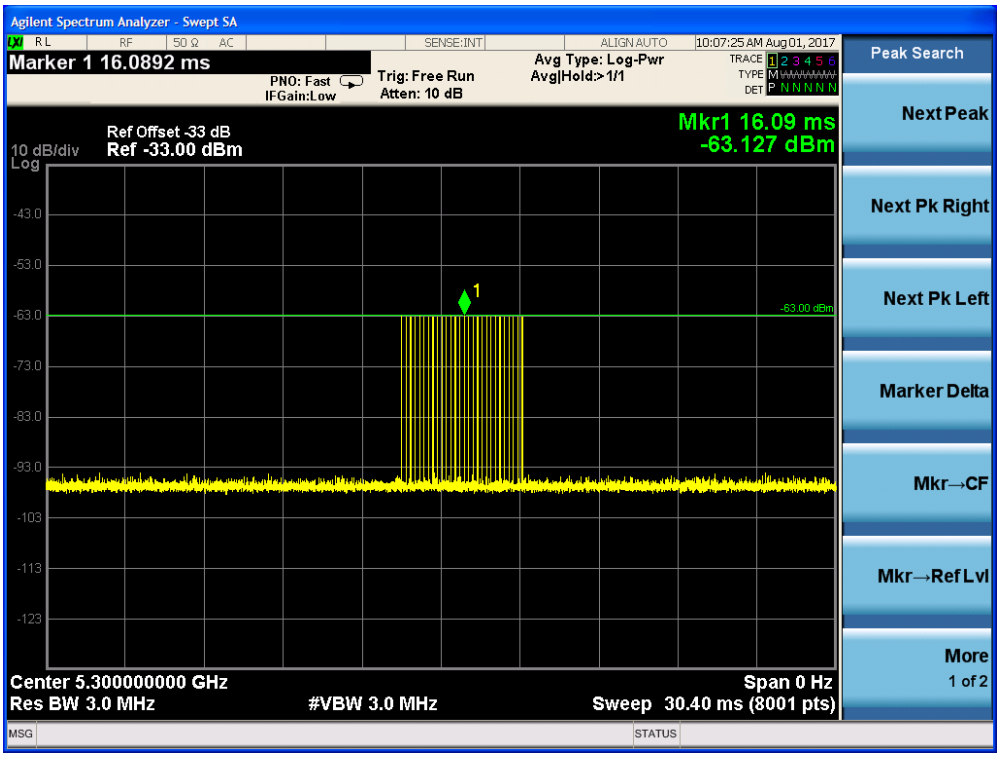
PRI = 898us and the number of pulses = 59

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

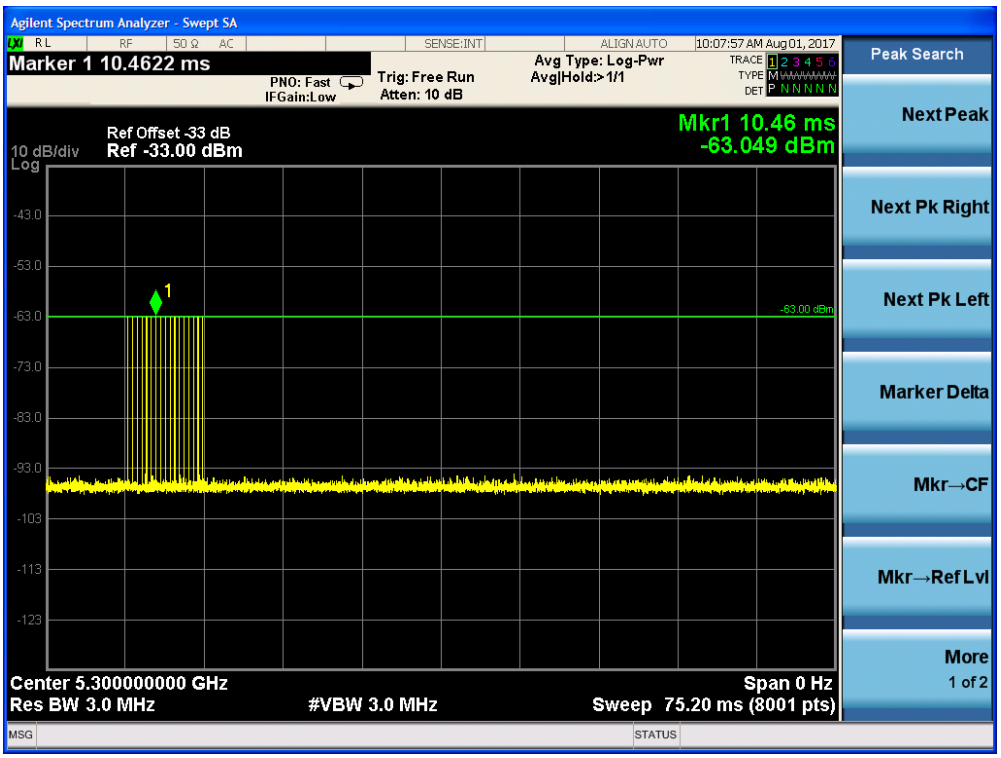


PRI = 1.279ms and the number of pulses = 42

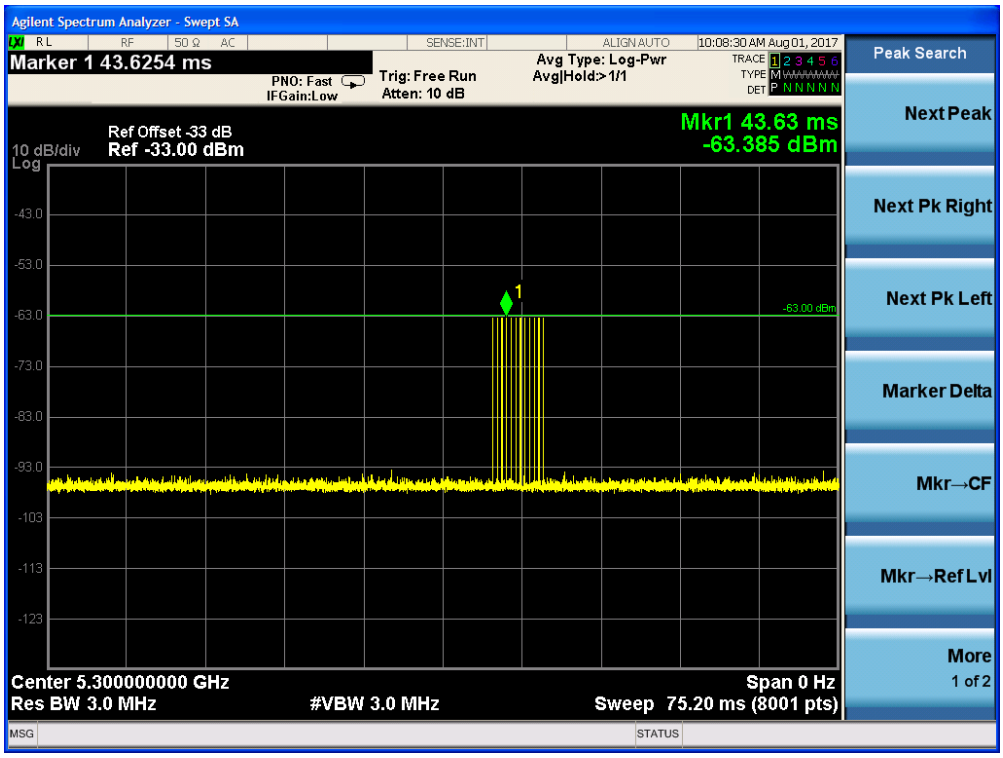
Radar #2 DFS detection threshold level and the burst of pulses on the Channel frequency



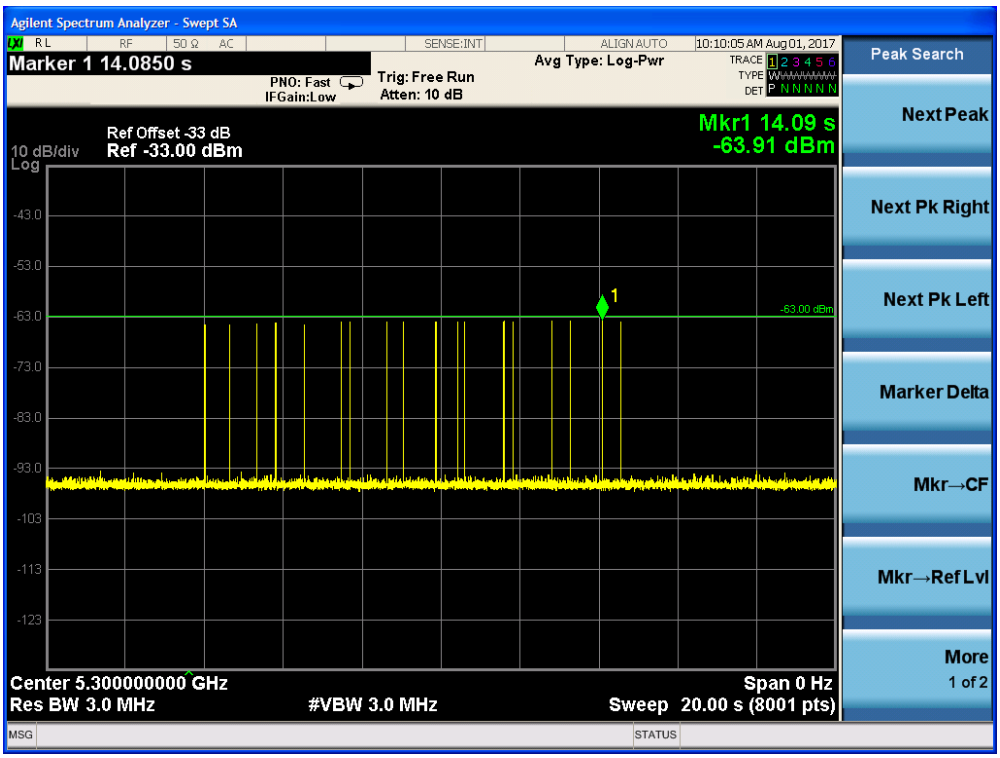
Radar #3 DFS detection threshold level and the burst of pulses on the Channel frequency



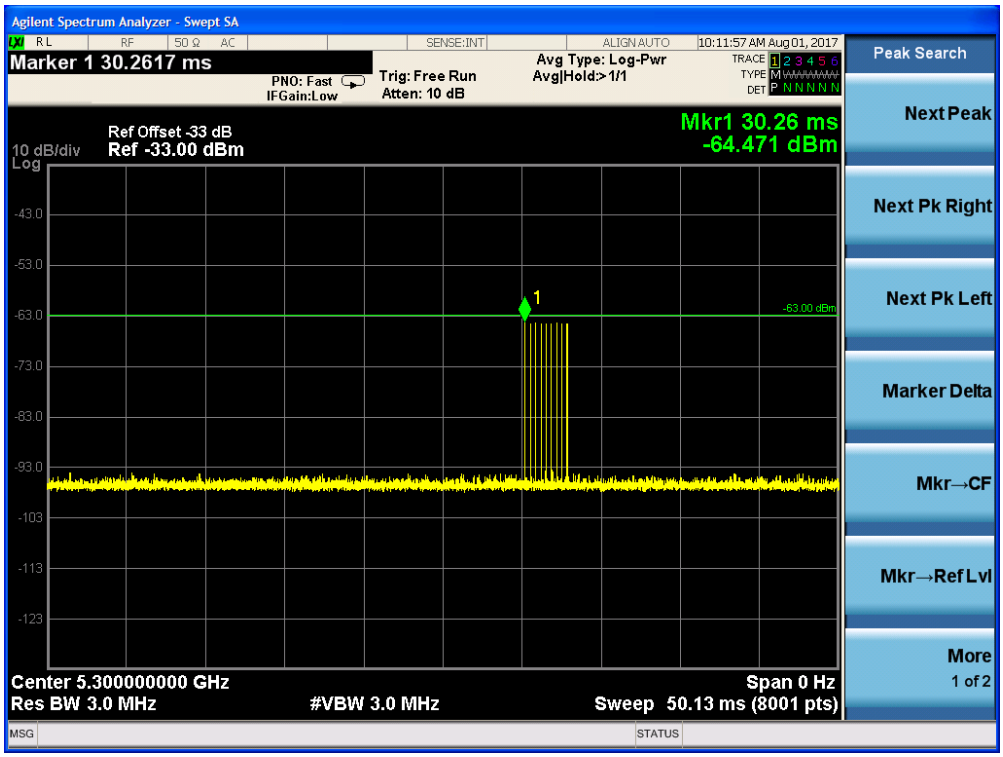
Radar #4 DFS detection threshold level and the burst of pulses on the Channel frequency



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

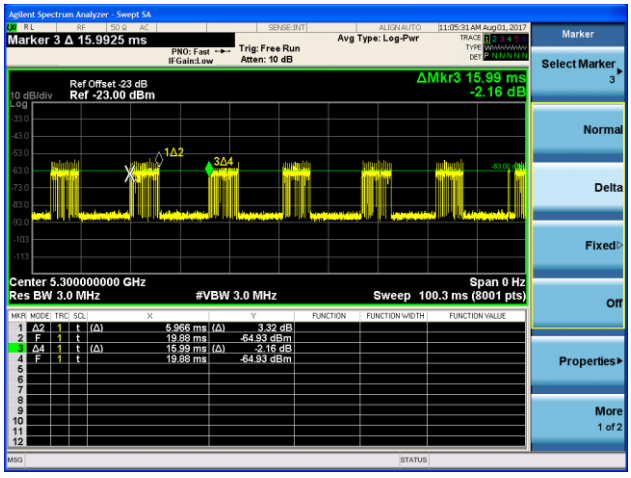
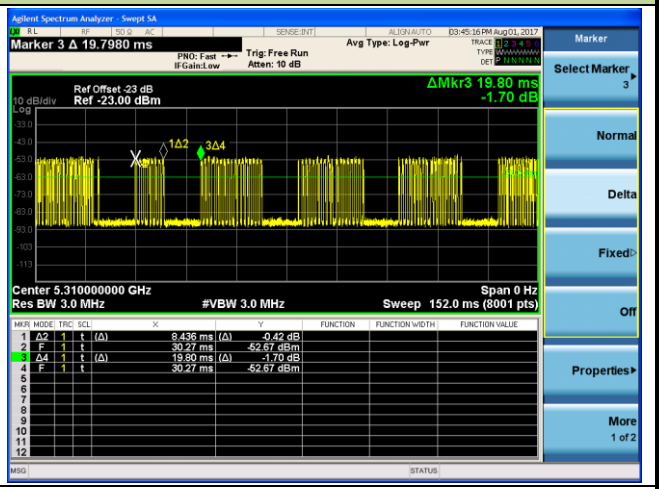
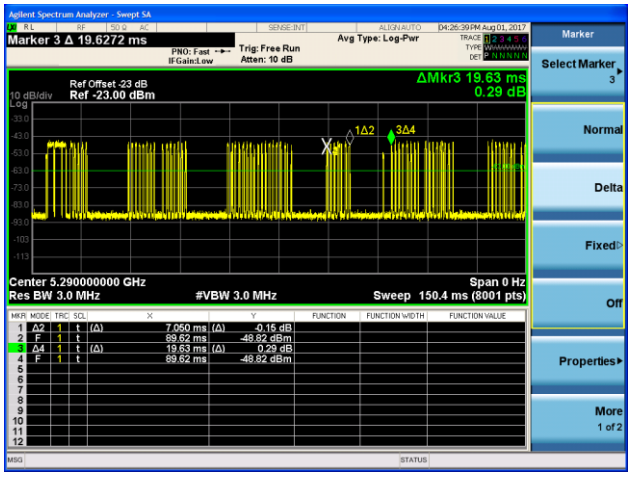


Radar #6 DFS detection threshold level and a single hop (9 pulses) on the Channel frequency within UNII detection bandwidth



5.2.4. Channel Loading Test Result

System testing was performed with the designated MPEG test file that streams full motion video from the **AC220i Wi-Fi AP ID omni antenna US** to the Client in full motion video mode using the media player with the V2.61 Codec package. This file is used by IP and Frame based systems for loading the test channel during the In-service compliance testing of the U-NII device. Packet ratio = Time On / (Time On + Off Time).

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

Test Mode	Test Frequency	Packet ratio	Requirement ratio	Test Result
802.11a	5300 MHz	37.31%	≥ 17%	Pass
802.11n-HT40	5310 MHz	42.61%	≥ 17%	Pass
802.11ac-VHT80	5290 MHz	35.91%	≥ 17%	Pass

5.3. UNII Detection Bandwidth Measurement

5.3.1. Test Limit

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

5.3.2. Test Procedure

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

5.3.3. Test Result

EUT Frequency = 5300MHz for 802.11a											
Radar Frequency (MHz)	DFS Detection Trials (1=Detection, 0= No Detection)										
	1	2	3	4	5	6	7	8	9	10	Detection Rate (%)
5290	0	0	0	0	0	0	0	0	0	0	0%
5291 FL	1	1	1	1	1	1	1	1	1	1	100%
5292	1	1	1	1	1	1	1	1	1	1	100%
5293	1	1	1	1	1	1	1	1	1	1	100%
5294	1	1	1	1	1	1	1	1	1	1	100%
5295	1	1	1	1	1	1	1	1	1	1	100%
5300	1	1	1	1	1	1	1	1	1	1	100%
5305	1	1	1	1	1	1	1	1	1	1	100%
5306	1	1	1	1	1	1	1	1	1	1	100%
5307	1	1	1	1	1	1	1	1	1	1	100%
5308	1	1	1	1	1	1	1	1	1	1	100%
5309 FH	1	1	1	1	1	1	1	1	1	1	100%
5310	0	0	0	0	0	0	0	0	0	0	0%
Detection Bandwidth = FH - FL = 5309MHz - 5291MHz = 18MHz											
EUT 99% Bandwidth = 16.48MHz (see note)											
UNII Detection Bandwidth Min. Limit (MHz): 16.48MHz x 100% = 16.48MHz											

Note: All UNII channels for this device have identical Channel bandwidths. Therefore, all DFS testing was done at 5300MHz. The 99% channel bandwidth is 16.48MHz. (See the 99% BW section of the RF report for further measurement details).

EUT Frequency = 5310MHz for 802.11n-HT40											
Radar Frequency	**DFS Detection Trials (1=Detection, 0= No Detection)**										
(MHz)	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**Detection Rate (%)**
5290	0	0	0	0	0	0	0	0	0	0	0%
5291	0	0	0	0	0	0	0	0	0	0	0%
5292 FL	1	1	1	1	1	1	1	1	1	1	100%
5293	1	1	1	1	1	1	1	1	1	1	100%
5294	1	1	1	1	1	1	1	1	1	1	100%
5295	1	1	1	1	1	1	1	1	1	1	100%
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 = 35.91MHz (see note)											
UNII Detection Bandwidth Min. Limit (MHz): 35.91MHz x 100% = 35.91MHz											

Note: All UNII channels for this device have identical Channel bandwidths. Therefore, all DFS testing was done at 5310MHz. The 99% channel bandwidth is 35.91MHz. (See the 99% BW section of the RF report for further measurement details).

EUT Frequency = 5290MHz for 802.11ac-VHT80											
Radar Frequency (MHz)	DFS Detection Trials (1=Detection, 0= No Detection)										
	1	2	3	4	5	6	7	8	9	10	Detection Rate (%)
5250	0	0	0	0	0	0	0	0	0	0	0%
5251 FL	1	1	1	1	1	1	1	1	1	1	100%
5252	1	1	1	1	1	1	1	1	1	1	100%
5253	1	1	1	1	1	1	1	1	1	1	100%
5254	1	1	1	1	1	1	1	1	1	1	100%
5255	1	1	1	1	1	1	1	1	1	1	100%
5260	1	1	1	1	1	1	1	1	1	1	100%
5265	1	1	1	1	1	1	1	1	1	1	100%
5270	1	1	1	1	1	1	1	1	1	1	100%
5275	1	1	1	1	1	1	1	1	1	1	100%
5280	1	1	1	1	1	1	1	1	1	1	100%
5285	1	1	1	1	1	1	1	1	1	1	100%
5290	1	1	1	1	1	1	1	1	1	1	100%
5295	1	1	1	1	1	1	1	1	1	1	100%
5300	1	1	1	1	1	1	1	1	1	1	100%
5305	1	1	1	1	1	1	1	1	1	1	100%
5310	1	1	1	1	1	1	1	1	1	1	100%
5315	1	1	1	1	1	1	1	1	1	1	100%
5320	1	1	1	1	1	1	1	1	1	1	100%
5325	1	1	1	1	1	1	1	1	1	1	100%
5326	1	1	1	1	1	1	1	1	1	1	100%
5327	1	1	1	1	1	1	1	1	1	1	100%
5328	1	1	1	1	1	1	1	1	1	1	100%
5329 FH	1	1	1	1	1	1	1	1	1	1	100%
5330	0	0	0	0	0	0	0	0	0	0	0%
Detection Bandwidth = FH - FL = 5329MHz - 5251MHz = 78MHz											
EUT 99% Bandwidth = 75.65MHz (see note)											
UNII Detection Bandwidth Min. Limit (MHz): 75.65MHz x 100% = 75.65MHz											

Note: All UNII channels for this device have identical Channel bandwidths. Therefore, all DFS testing was done at 5290MHz. The 99% channel bandwidth is 75.65MHz. (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.

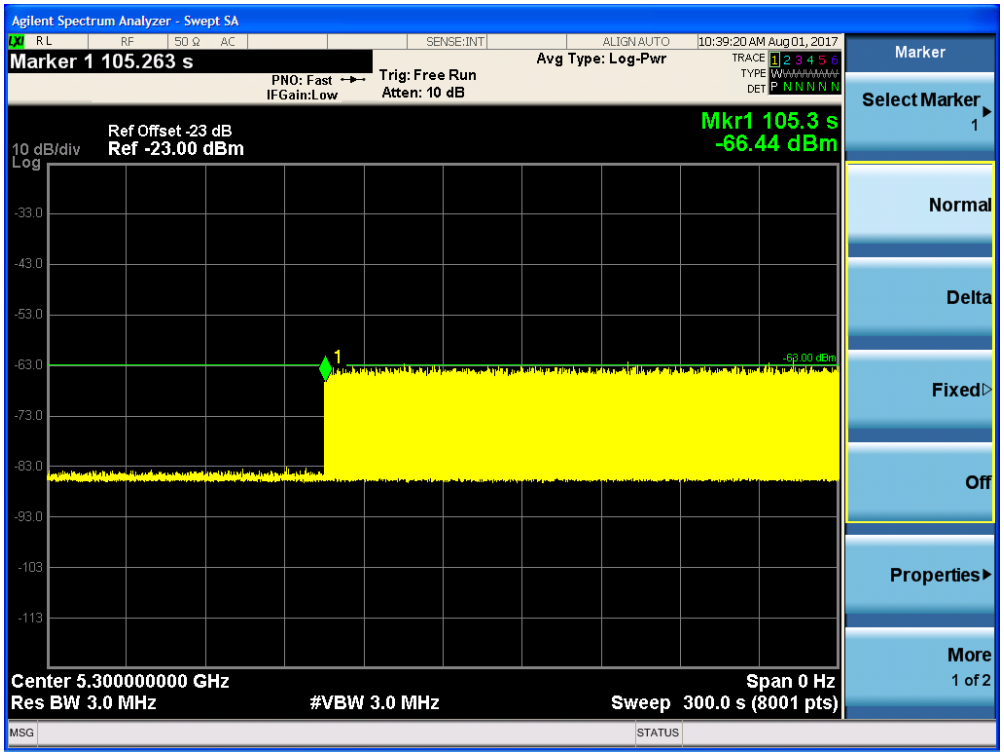
5.4.2. Test Procedure

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 (45.3 sec). Initial beacons/data transmissions are indicated by marker 1 (105.3 sec).

Initial Channel Availability Check Time for 802.11a



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

5.5.1. Test Limit

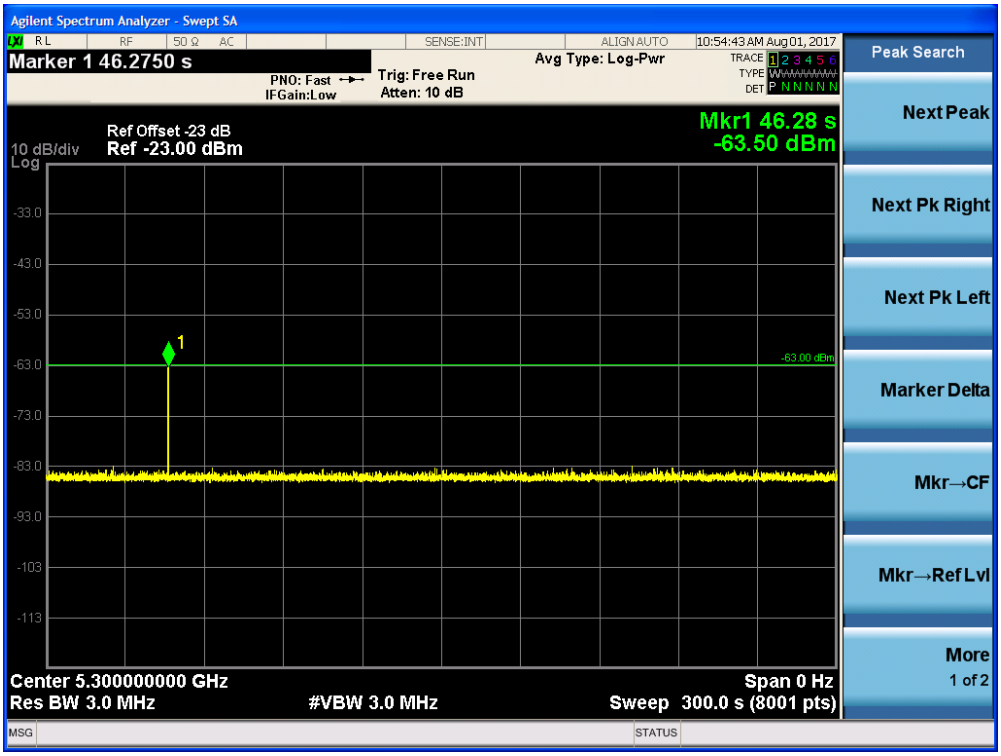
In beginning of the Channel Availability Check (CAC) Time, radar is detected on this channel, select another intended channel and perform a CAC on that channel.

5.5.2. Test Procedure

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

5.5.3. Test Result

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



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

5.6.1. Test Limit

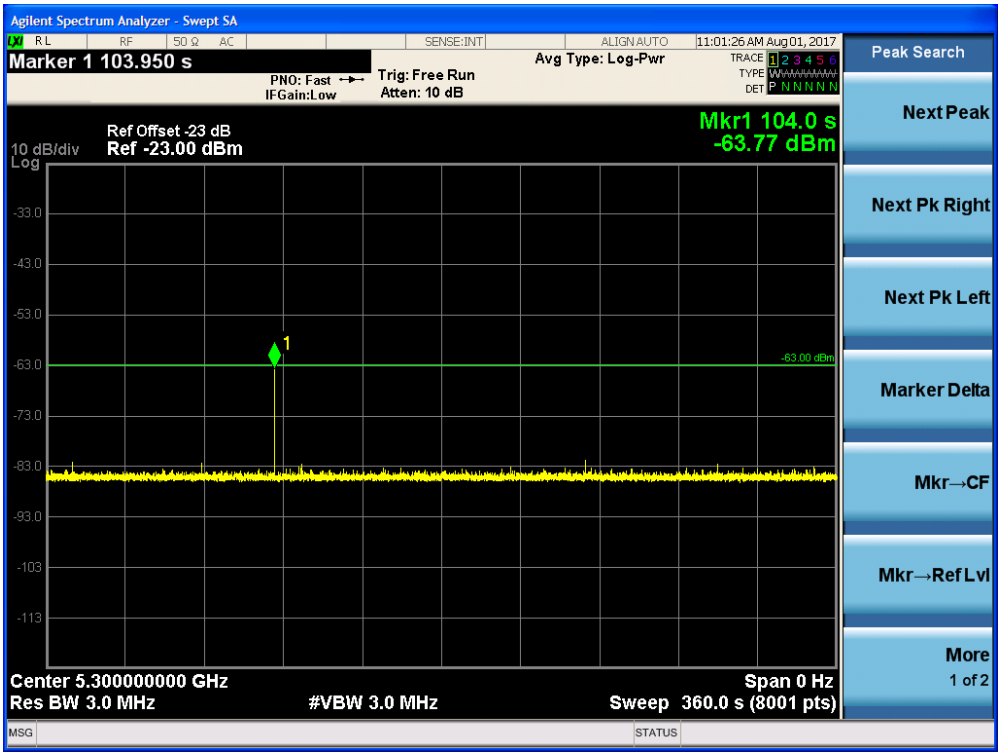
In the end of Channel Availability Check (CAC) Time, radar is detected on this channel, select another intended channel and perform a CAC on that channel.

5.6.2. Test Procedure

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

5.6.3. Test Result

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



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

5.7.1. Test Limit

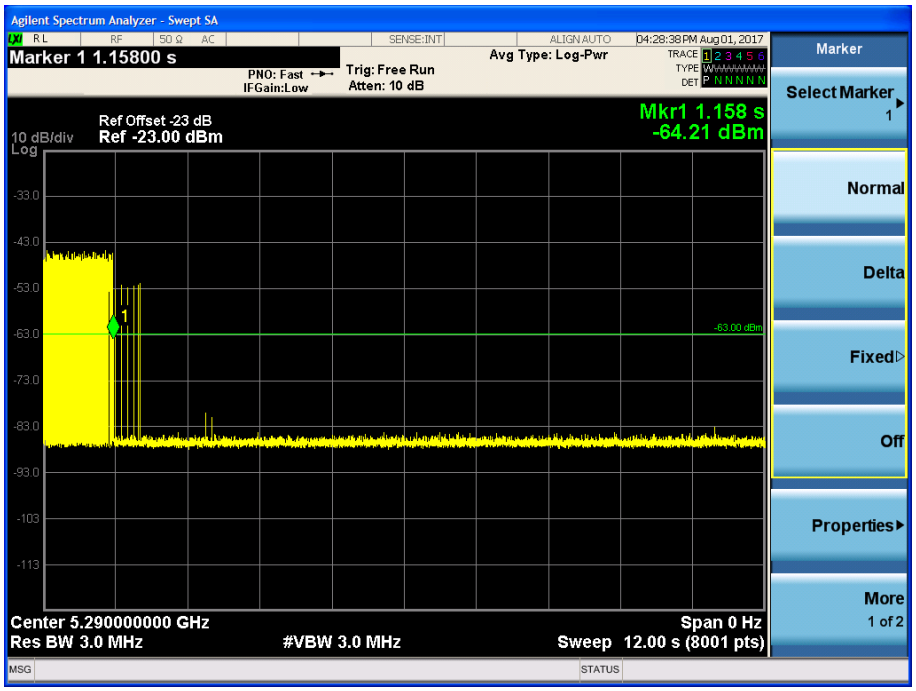
The EUT has In-Service Monitoring function to continuously monitor the radar signals. If the radar is detected, must leave the channel (Shutdown). The Channel Move Time to cease all transmissions on the current channel upon detection of a Radar Waveform above the DFS Detection Threshold within 10 sec.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

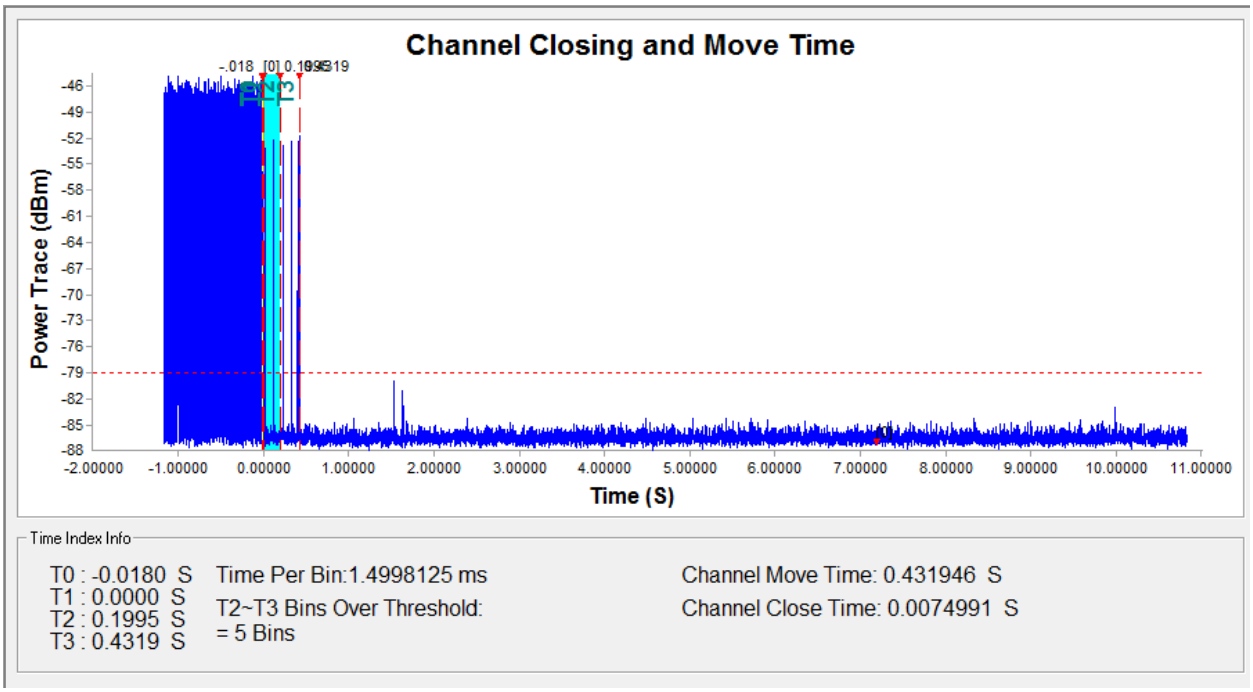
5.7.2. Test Procedure Used

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

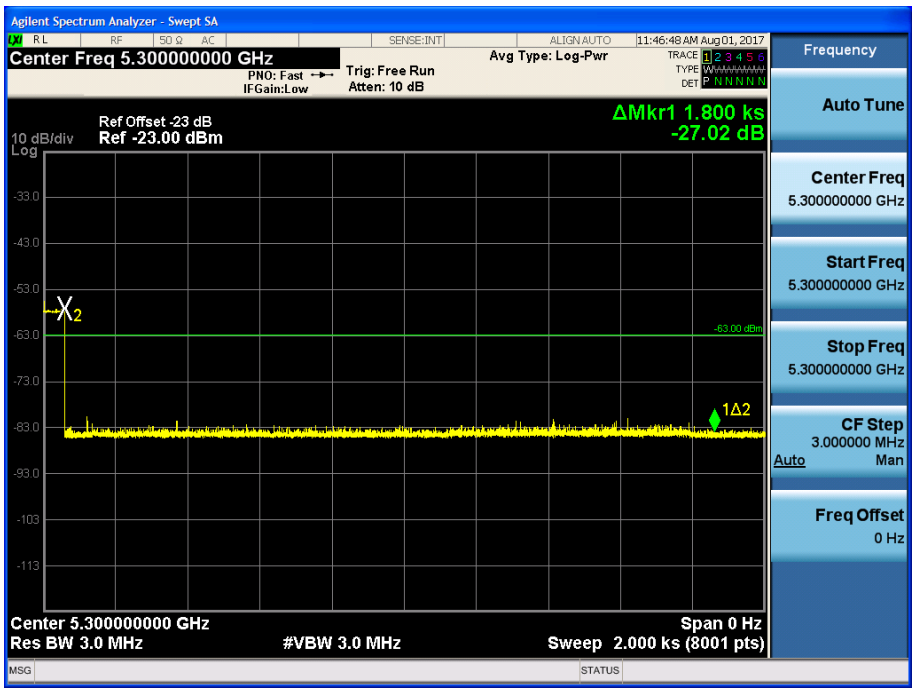
5.7.3. Test Result

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





Non-Occupancy Period for 802.11a – 5300MHz



Parameter	Test Result	Limit
	Type 0	
Channel Move Time (s)	0.432s	<10s
Channel Closing Transmission Time (ms) (Note)	7.5ms	< 60ms
Non-Occupancy Period (min)	≥ 30min	≥ 30 min

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

5.8. Statistical Performance Check Measurement

5.8.1. Test Limit

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

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

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

5.8.2. Test Procedure

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

5.8.3. Test Result

Statistical Performance Check for 802.11a

Radar Type 1 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5292	1	518	102	1
2	5292	1	678	78	1
3	5292	1	598	89	1
4	5292	1	558	95	1
5	5292	1	718	74	1
6	5292	1	638	83	1
7	5292	1	938	57	1
8	5292	1	738	72	1
9	5292	1	778	68	1
10	5292	1	898	59	1
11	5300	1	538	99	1
12	5300	1	858	62	1
13	5300	1	758	70	1
14	5300	1	838	63	1
15	5300	1	878	61	1
16	5300	1	1577	34	1
17	5300	1	2804	19	1
18	5300	1	1520	35	1
19	5300	1	946	56	1
20	5300	1	2090	26	1
21	5308	1	1542	35	1
22	5308	1	1913	28	1
23	5308	1	2022	27	1
24	5308	1	1860	29	1
25	5308	1	2238	24	1
26	5308	1	3032	18	1
27	5308	1	2929	19	1
28	5308	1	1418	38	1
29	5308	1	2504	22	1
30	5308	1	1836	29	1
Detection Percentage (%)					100%

Radar Type 2 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5292	1.3	155	27	1
2	5292	2.5	172	24	1
3	5292	2.0	219	27	1
4	5292	1.0	194	28	1
5	5292	3.1	218	28	1
6	5292	1.3	216	25	1
7	5292	3.3	194	26	1
8	5292	4.6	228	23	1
9	5292	2.0	213	24	1
10	5292	3.5	158	26	1
11	5300	2.4	161	26	1
12	5300	1.6	217	25	1
13	5300	3.3	215	26	1
14	5300	2.6	213	23	1
15	5300	4.7	209	28	1
16	5300	2.6	174	24	1
17	5300	5.0	224	28	1
18	5300	4.1	207	28	1
19	5300	2.3	165	23	1
20	5300	1.0	221	23	1
21	5308	4.0	176	25	1
22	5308	2.4	162	29	1
23	5308	1.7	184	28	1
24	5308	3.7	156	27	1
25	5308	3.8	165	26	1
26	5308	3.4	194	28	1
27	5308	1.9	224	24	1
28	5308	3.9	187	28	1
29	5308	2.5	166	23	1
30	5308	4.8	176	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	5292	7.8	375	17	1
2	5292	7.7	389	17	1
3	5292	8.7	404	17	1
4	5292	6.7	352	18	1
5	5292	8.3	344	18	1
6	5292	6.1	265	18	1
7	5292	10.0	441	17	1
8	5292	9.0	344	18	1
9	5292	6.9	361	17	1
10	5292	8.5	340	18	1
11	5300	6.7	442	17	1
12	5300	7.3	472	18	1
13	5300	6.0	312	18	1
14	5300	7.9	402	17	1
15	5300	8.4	396	18	1
16	5300	8.0	476	17	1
17	5300	8.4	336	18	1
18	5300	6.9	491	16	1
19	5300	6.0	374	18	1
20	5300	7.1	363	18	1
21	5308	8.3	438	17	1
22	5308	6.8	451	16	1
23	5308	9.6	323	18	1
24	5308	7.2	491	16	1
25	5308	8.4	468	17	1
26	5308	6.8	423	17	1
27	5308	8.5	330	18	1
28	5308	7.5	297	18	1
29	5308	7.8	472	17	1
30	5308	9.7	393	18	1
Detection Percentage (%)					100%

Radar Type 4 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5292	11.7	455	14	1
2	5292	19.7	340	13	1
3	5292	11.8	447	16	1
4	5292	15.6	325	15	1
5	5292	18.2	452	16	1
6	5292	19.6	316	15	1
7	5292	14.1	495	13	1
8	5292	14.3	410	15	1
9	5292	11.9	264	13	1
10	5292	12.4	445	15	1
11	5300	18.9	275	14	1
12	5300	12.7	302	15	1
13	5300	11.7	422	14	1
14	5300	11.4	316	13	1
15	5300	16.8	460	16	1
16	5300	17.2	375	12	1
17	5300	14.4	288	15	1
18	5300	18.9	381	13	1
19	5300	11.5	429	15	1
20	5300	18.9	352	15	1
21	5308	14.9	461	16	1
22	5308	17.1	424	15	1
23	5308	18.5	389	14	1
24	5308	19.7	459	12	1
25	5308	18.6	451	13	1
26	5308	11.5	417	12	1
27	5308	12.5	388	12	1
28	5308	13.6	351	14	1
29	5308	18.8	445	16	1
30	5308	12.5	373	16	1
Detection Percentage (%)					100%

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

Radar Type 5 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	1=Detection 0=No Detection	Trail #	Test Freq. (MHz)	1=Detection 0=No Detection
1	5295.6	1	16	5300.0	1
2	5299.6	1	17	5300.0	1
3	5296.0	1	18	5300.0	1
4	5294.0	1	19	5300.0	1
5	5297.6	1	20	5300.0	1
6	5298.8	1	21	5305.6	1
7	5299.2	1	22	5304.0	1
8	5294.4	1	23	5323.2	1
9	5296.8	1	24	5301.2	1
10	5295.2	1	25	5303.2	1
11	5300.0	1	26	5300.4	1
12	5300.0	1	27	5306.0	1
13	5300.0	1	28	5300.8	1
14	5300.0	1	29	5304.4	1
15	5300.0	1	30	5302.4	1
Detection Percentage (%)					100%

Type 5 Radar Waveform_1

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	424038	2	9	75	1705	1304	0	424038	0	599999
2	193500	1	9	100	1359	0	0	620547	600000	1199999
3	926491	3	9	50	1614	1610	1259	1548397	1200000	1799999
4	514974	1	9	90	1787	0	0	2067854	1800000	2399999
5	861227	1	9	50	1804	0	0	2930868	2400000	2999999
6	491282	2	9	75	1005	1812	0	3423954	3000000	3599999
7	615762	2	9	50	1344	1694	0	4042533	3600000	4199999
8	577658	1	9	75	1499	0	0	4623229	4200000	4799999
9	729091	2	9	55	1144	1307	0	5353819	4800000	5399999
10	449224	2	9	70	1001	1375	0	5805494	5400000	5999999
11	418474	3	9	95	1519	1287	1423	6226344	6000000	6599999
12	506931	2	9	70	1748	1820	0	6737504	6600000	7199999
13	779900	2	9	75	1015	1930	0	7520972	7200000	7799999
14	870750	2	9	95	1210	1791	0	8394667	7800000	8399999
15	418308	3	9	70	1348	1814	1987	8815976	8400000	8999999
16	307655	1	9	60	1742	0	0	9128780	9000000	9599999
17	980170	3	9	50	1252	1114	1802	10110692	9600000	10199999
18	298607	2	9	80	1484	1142	0	10413467	10200000	10799999
19	567434	3	9	50	1833	1161	1979	10983527	10800000	11399999
20	695730	2	9	100	1781	1417	0	11684230	11400000	11999999

Total number of pulses in waveform = 40

Type 5 Radar Waveform_2

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	400901	1	19	50	1156	0	0	400901	0	705881
2	934885	3	19	60	1812	1716	1089	1336942	705882	1411763
3	691937	1	19	85	1271	0	0	2033496	1411764	2117645
4	670185	2	19	95	1517	1993	0	2704952	2117646	2823527
5	494254	3	19	95	1295	1203	1440	3202716	2823528	3529409
6	506435	3	19	50	1917	1676	1079	3713089	3529410	4235291
7	1142495	1	19	50	1928	0	0	4860256	4235292	4941173
8	169866	1	19	80	1793	0	0	5032050	4941174	5647055
9	837456	1	19	85	1143	0	0	5871299	5647056	6352937
10	732566	2	19	65	1258	1346	0	6605008	6352938	7058819
11	847162	2	19	100	1637	1806	0	7454774	7058820	7764701
12	432416	3	19	65	1184	1660	1888	7890633	7764702	8470583
13	728349	2	19	55	1923	1967	0	8623714	8470584	9176465
14	950754	3	19	60	1506	1557	1298	9578358	9176466	9882347
15	416892	3	19	55	1396	1801	1386	9999611	9882348	10588229
16	631722	2	19	50	1169	1663	0	10635916	10588230	11294111
17	988203	3	19	80	1292	1208	1100	11626951	11294112	11999993

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

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	144958	1	10	65	1761	0	0	144958	0	1499999
2	2220063	2	10	55	1035	1475	0	2366782	1500000	2999999
3	2046605	3	10	85	1611	1044	1371	4415897	3000000	4499999
4	684428	1	10	95	1779	0	0	5104351	4500000	5999999
5	2050259	1	10	70	1074	0	0	7156389	6000000	7499999
6	1567395	2	10	75	1169	1871	0	8724858	7500000	8999999
7	1707556	2	10	55	1943	1501	0	10435454	9000000	10499999
8	208359	2	10	55	1035	1650	0	10647257	10500000	11999999

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

Type 5 Radar Waveform_4

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	893871	3	5	65	1705	1119	1190	893871	0	923076
2	203096	3	5	80	1438	1081	1638	1100981	923077	1846153
3	1388291	3	5	85	1947	1882	1321	2493429	1846154	2769230
4	529957	1	5	95	1302	0	0	3028536	2769231	3692307
5	668339	1	5	70	1100	0	0	3698177	3692308	4615384
6	1693226	3	5	85	1078	1733	1470	5392503	4615385	5538461
7	411051	3	5	65	1077	1512	1861	5807835	5538462	6461538
8	1502819	1	5	60	1857	0	0	7315104	6461539	7384615
9	813853	3	5	100	1825	1990	1015	8130814	7384616	8307692
10	770447	2	5	100	1286	1243	0	8906091	8307693	9230769
11	1062260	3	5	70	1630	1516	1801	9970880	9230770	10153846
12	858011	1	5	100	1307	0	0	10833838	10153847	11076923
13	269028	2	5	100	1644	1416	0	11104173	11076924	12000000

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

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	36656	1	14	95	1347	0	0	36656	0	1333332
2	1557676	1	14	70	1430	0	0	1595679	1333333	2666665
3	2230218	1	14	55	1854	0	0	3827327	2666666	3999998
4	826741	1	14	100	1644	0	0	4655922	3999999	5333331
5	1446684	2	14	50	1519	1897	0	6104250	5333332	6666664
6	1277199	2	14	70	1294	1470	0	7384865	6666665	7999997
7	1240439	2	14	90	1675	1806	0	8628068	7999998	9333330
8	1628541	3	14	85	1935	1669	1329	10260090	9333331	10666663
9	577462	3	14	80	1572	1125	1666	10842485	10666664	11999996

Total number of pulses in waveform = 16

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	994341	1	17	60	1197	0	0	994341	0	1499999
2	1597931	1	17	65	1648	0	0	2593469	1500000	2999999
3	1893665	3	17	65	1300	1910	1033	4488782	3000000	4499999
4	971215	2	17	100	1747	1398	0	5464240	4500000	5999999
5	620308	1	17	75	1799	0	0	6087693	6000000	7499999
6	1811512	2	17	100	1027	1718	0	7901004	7500000	8999999
7	1166102	2	17	65	1458	1754	0	9069851	9000000	10499999
8	2409990	3	17	85	1026	1125	1578	11483053	10500000	11999999

Total number of pulses in waveform = 15

Type 5 Radar Waveform_7

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	89558	1	18	60	1862	0	0	89558	0	631578
2	1145608	2	18	55	1255	1291	0	1237028	631579	1263157
3	292363	2	18	75	1530	1531	0	1531937	1263158	1894736
4	918498	2	18	65	1400	1711	0	2453496	1894737	2526315
5	202078	3	18	50	1804	1667	1892	2658685	2526316	3157894
6	1001746	3	18	80	1549	1859	1348	3665794	3157895	3789473
7	563754	1	18	95	1500	0	0	4234304	3789474	4421052
8	207593	1	18	90	1815	0	0	4443397	4421053	5052631
9	971652	2	18	100	1215	1519	0	5416864	5052632	5684210
10	717037	3	18	60	1225	1950	1278	6136635	5684211	6315789
11	205918	1	18	90	1945	0	0	6347006	6315790	6947368
12	1152565	1	18	85	1164	0	0	7501516	6947369	7578947
13	84880	1	18	65	1724	0	0	7587560	7578948	8210526
14	857887	2	18	100	1315	1695	0	8447171	8210527	8842105
15	917331	1	18	100	1272	0	0	9367512	8842106	9473684
16	671092	1	18	100	1218	0	0	10039876	9473685	10105263
17	407377	2	18	60	1246	1436	0	10448471	10105264	10736842
18	632196	2	18	85	1860	1911	0	11083349	10736843	11368421
19	545807	1	18	95	1608	0	0	11632927	11368422	12000000

Total number of pulses in waveform = 32

Type 5 Radar Waveform_8

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	752107	3	6	85	1017	1235	1814	752107	0	923076
2	508628	1	6	70	1479	0	0	1264801	923077	1846153
3	659257	1	6	60	1162	0	0	1925537	1846154	2769230
4	1082883	1	6	80	1863	0	0	3009582	2769231	3692307
5	1196177	2	6	90	1207	1054	0	4207622	3692308	4615384
6	941376	3	6	100	1931	1427	1189	5151259	4615385	5538461
7	1048375	1	6	50	1746	0	0	6204181	5538462	6461538
8	328345	2	6	50	1804	1429	0	6534272	6461539	7384615
9	1203983	3	6	90	1015	1477	1252	7741488	7384616	8307692
10	1449163	3	6	80	1007	1193	1843	9194395	8307693	9230769
11	362703	1	6	95	1446	0	0	9561141	9230770	10153846
12	1411743	3	6	55	1106	1390	1518	10974330	10153847	11076923
13	408192	2	6	50	1157	1187	0	11386536	11076924	12000000

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

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	535554	1	12	75	1228	0	0	535554	0	749999
2	239670	1	12	55	1081	0	0	776452	750000	1499999
3	773846	1	12	70	1049	0	0	1551379	1500000	2249999
4	739186	1	12	60	1350	0	0	2291614	2250000	2999999
5	1393653	3	12	80	1977	1886	1529	3686617	3000000	3749999
6	93874	2	12	100	1828	1240	0	3785883	3750000	4499999
7	1064167	3	12	85	1377	1019	1309	4853118	4500000	5249999
8	1090873	3	12	50	1617	1725	1977	5947696	5250000	5999999
9	426999	2	12	55	1409	1834	0	6380014	6000000	6749999
10	381215	3	12	70	1487	1976	1826	6764472	6750000	7499999
11	985542	1	12	50	1136	0	0	7755303	7500000	8249999
12	1127501	3	12	75	1139	1954	1846	8883940	8250000	8999999
13	275419	3	12	100	1781	1556	1516	9164298	9000000	9749999
14	1290161	1	12	75	1106	0	0	10459312	9750000	10499999
15	786383	2	12	80	1083	1647	0	11246801	10500000	11249999
16	395596	1	12	95	1344	0	0	11645127	11250000	11999999

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

Type 5 Radar Waveform_10

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	568978	1	8	100	1293	0	0	568978	0	999999
2	725103	1	8	95	1996	0	0	1295374	1000000	1999999
3	1633258	3	8	70	1730	1756	1211	2930628	2000000	2999999
4	793496	2	8	100	1291	1504	0	3728821	3000000	3999999
5	485835	3	8	50	1418	1313	1109	4217451	4000000	4999999
6	1437914	2	8	90	1815	1096	0	5659205	5000000	5999999
7	1197770	2	8	65	1545	1446	0	6859886	6000000	6999999
8	976561	2	8	100	1405	1137	0	7839438	7000000	7999999
9	240327	3	8	65	1301	1949	1794	8082307	8000000	8999999
10	1568307	1	8	85	1427	0	0	9655658	9000000	9999999
11	580060	3	8	70	1223	1879	1664	10237145	10000000	10999999
12	1113056	1	8	50	1194	0	0	11354967	11000000	11999999

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

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	470595	3	8	50	1816	1228	1924	470595	0	999999
2	1279733	2	8	80	1382	1124	0	1755296	1000000	1999999
3	429055	2	8	70	1255	1055	0	2186857	2000000	2999999
4	1322293	3	8	100	1102	1194	1603	3511460	3000000	3999999
5	667450	3	8	75	1279	1126	1979	4182809	4000000	4999999
6	921065	2	8	65	1578	1126	0	5108258	5000000	5999999
7	1733709	3	8	85	1968	1040	1986	6844671	6000000	6999999
8	371639	2	8	90	1651	1737	0	7221304	7000000	7999999
9	926944	2	8	55	1035	1401	0	8151636	8000000	8999999
10	1225055	3	8	80	1760	1619	1707	9379127	9000000	9999999
11	1377864	3	8	95	1235	1656	1014	10762077	10000000	10999999
12	907215	3	8	75	1415	1092	1844	11673197	11000000	11999999

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

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	460983	3	10	70	1182	1013	1908	460983	0	923076
2	676171	2	10	70	1377	1885	0	1141257	923077	1846153
3	1579858	3	10	90	1933	1925	1871	2724377	1846154	2769230
4	575330	3	10	65	1258	1985	1645	3305436	2769231	3692307
5	1247300	3	10	90	1182	1997	1579	4557624	3692308	4615384
6	60161	3	10	55	1344	1936	1044	4622543	4615385	5538461
7	1410380	2	10	65	1455	1655	0	6037247	5538462	6461538
8	623206	1	10	75	1946	0	0	6663563	6461539	7384615
9	1475975	2	10	95	1048	1437	0	8141484	7384616	8307692
10	481950	2	10	75	1901	1300	0	8625919	8307693	9230769
11	873037	2	10	70	1057	1469	0	9502157	9230770	10153846
12	878138	1	10	60	1071	0	0	10382821	10153847	11076923
13	823217	3	10	70	1961	1188	1424	11207109	11076924	12000000

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

Type 5 Radar Waveform_13

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	1106369	3	5	95	1445	1757	1399	1106369	0	1199999
2	779440	2	5	100	1005	1314	0	1890410	1200000	2399999
3	796241	1	5	90	1953	0	0	2688970	2400000	3599999
4	1631340	3	5	60	1389	1584	1566	4322263	3600000	4799999
5	817802	2	5	95	1326	1902	0	5144604	4800000	5999999
6	1250501	1	5	90	1805	0	0	6398333	6000000	7199999
7	1584982	3	5	55	1530	1660	1464	7985120	7200000	8399999
8	771440	3	5	85	1772	1239	1373	8761214	8400000	9599999
9	1813049	3	5	75	1737	1228	1563	10578647	9600000	10799999
10	958614	1	5	70	1142	0	0	11541789	10800000	11999999

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

Type 5 Radar Waveform_14

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	483324	2	12	100	1083	1049	0	483324	0	749999
2	382199	2	12	100	1481	1347	0	867655	750000	1499999
3	693516	1	12	85	1749	0	0	1563999	1500000	2249999
4	805228	1	12	55	1755	0	0	2370976	2250000	2999999
5	1222249	1	12	50	1311	0	0	3594980	3000000	3749999
6	776961	1	12	80	1948	0	0	4373252	3750000	4499999
7	436652	3	12	70	1833	1694	1036	4811852	4500000	5249999
8	921185	2	12	75	1020	1069	0	5737600	5250000	5999999
9	904970	2	12	75	1547	1974	0	6644659	6000000	6749999
10	374417	1	12	55	1722	0	0	7022597	6750000	7499999
11	720424	1	12	95	1868	0	0	7744743	7500000	8249999
12	1173148	2	12	75	1335	1286	0	8919759	8250000	8999999
13	255976	1	12	90	1549	0	0	9178356	9000000	9749999
14	1059993	2	12	70	1150	1864	0	10239898	9750000	10499999
15	854184	3	12	55	1593	1757	1191	11097096	10500000	11249999
16	563719	1	12	90	1206	0	0	11665356	11250000	11999999

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

Type 5 Radar Waveform_15

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	887028	2	17	85	1314	1591	0	887028	0	1090908
2	1196214	1	17	60	1935	0	0	2086147	1090909	2181817
3	100313	1	17	65	1966	0	0	2188395	2181818	3272726
4	2112755	1	17	60	1032	0	0	4303116	3272727	4363635
5	706583	1	17	85	1803	0	0	5010731	4363636	5454544
6	937280	3	17	55	1758	1015	1402	5949814	5454545	6545453
7	1025893	2	17	65	1845	1062	0	6979882	6545454	7636362
8	1631604	3	17	55	1936	1229	1955	8614393	7636363	8727271
9	137927	3	17	85	1969	1476	1991	8757440	8727272	9818180
10	1225999	1	17	50	1921	0	0	9988875	9818181	10909089
11	1119580	2	17	90	1117	1346	0	11110376	10909090	11999998

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

Type 5 Radar Waveform_16

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	627913	3	18	80	1012	1978	1407	627913	0	1090908
2	1230382	2	18	60	1658	1845	0	1862692	1090909	2181817
3	854325	1	18	50	1536	0	0	2720520	2181818	3272726
4	1361209	3	18	60	1448	1968	1665	4083265	3272727	4363635
5	1354570	1	18	60	1299	0	0	5442916	4363636	5454544
6	766492	3	18	95	1120	1204	1943	6210707	5454545	6545453
7	691782	3	18	85	1379	1241	1209	6906756	6545454	7636362
8	1398612	3	18	50	1776	1701	1940	8309197	7636363	8727271
9	648571	1	18	95	1404	0	0	8963185	8727272	9818180
10	1688399	2	18	85	1006	1676	0	10652988	9818181	10909089
11	872238	2	18	65	1283	1022	0	11527908	10909090	11999998

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

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	197064	3	14	55	1181	1634	1068	197064	0	599999
2	420214	1	14	100	1483	0	0	621161	600000	1199999
3	617900	3	14	65	1076	1343	1506	1240544	1200000	1799999
4	919655	2	14	85	1457	1057	0	2164124	1800000	2399999
5	300287	2	14	60	1093	1998	0	2466925	2400000	2999999
6	776966	2	14	90	1411	1284	0	3246982	3000000	3599999
7	717293	2	14	95	1581	1641	0	3966970	3600000	4199999
8	607377	2	14	85	1410	1207	0	4577569	4200000	4799999
9	433660	2	14	70	1908	1319	0	5013846	4800000	5399999
10	926831	2	14	50	1540	1258	0	5943904	5400000	5999999
11	94166	1	14	80	1123	0	0	6040868	6000000	6599999
12	633485	3	14	75	1263	1579	1789	6675478	6600000	7199999
13	669350	3	14	90	1025	1681	1626	7349457	7200000	7799999
14	802409	2	14	100	1310	1686	0	8156198	7800000	8399999
15	707737	3	14	60	1569	1409	1308	8866931	8400000	8999999
16	247361	2	14	100	1067	1064	0	9118578	9000000	9599999
17	827927	2	14	95	1047	1509	0	9948636	9600000	10199999
18	762398	3	14	65	1626	1429	1735	10713590	10200000	10799999
19	225144	3	14	65	1262	1543	1886	10943524	10800000	11399999
20	799018	1	14	50	1621	0	0	11747233	11400000	11999999

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

Type 5 Radar Waveform_18

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	1233262	2	6	95	1412	1395	0	1233262	0	1333332
2	558794	3	6	60	1556	1771	1756	1794863	1333333	2666665
3	1045060	2	6	75	1875	1281	0	2845006	2666666	3999998
4	2223836	2	6	100	1477	1745	0	5071998	3999999	5333331
5	671473	3	6	55	1385	1094	1411	5746693	5333332	6666664
6	1767684	2	6	80	1119	1548	0	7518267	6666665	7999997
7	865657	1	6	95	1636	0	0	8386591	7999998	9333330
8	1844729	3	6	50	1849	1093	1874	10232956	9333331	10666663
9	1444989	3	6	70	1181	1376	1235	11682761	10666664	11999996

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

Type 5 Radar Waveform_19

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	380086	3	19	75	1572	1900	1525	380086	0	749999
2	515272	3	19	100	1312	1243	1864	900355	750000	1499999
3	829567	1	19	75	1070	0	0	1734341	1500000	2249999
4	1073883	3	19	65	1820	1980	1626	2809294	2250000	2999999
5	819921	3	19	75	1845	1668	1586	3634641	3000000	3749999
6	469718	2	19	50	1197	1749	0	4109458	3750000	4499999
7	807323	1	19	85	1157	0	0	4919727	4500000	5249999
8	1017206	2	19	80	2000	1317	0	5938090	5250000	5999999
9	326190	1	19	50	1220	0	0	6267597	6000000	6749999
10	1032918	2	19	80	1103	1244	0	7301735	6750000	7499999
11	940143	3	19	50	1820	1863	1946	8244225	7500000	8249999
12	722612	1	19	80	1143	0	0	8972466	8250000	8999999
13	519843	1	19	75	1248	0	0	9493452	9000000	9749999
14	281552	1	19	75	1821	0	0	9776252	9750000	10499999
15	1417745	3	19	50	1458	1711	1498	11195818	10500000	11249999
16	621885	3	19	85	1072	1394	1178	11822370	11250000	11999999

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

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	231146	2	9	95	1361	1505	0	231146	0	666666
2	829545	2	9	85	1605	1494	0	1063557	666667	1333333
3	832483	3	9	80	1115	1447	1656	1899139	1333334	2000000
4	295642	2	9	100	1306	1439	0	2198999	2000001	2666667
5	923838	1	9	95	1509	0	0	3125582	2666668	3333334
6	257514	3	9	95	1665	1028	1351	3384605	3333335	4000001
7	716315	1	9	90	1348	0	0	4104964	4000002	4666668
8	771435	1	9	90	1867	0	0	4877747	4666669	5333335
9	540900	2	9	65	1954	1287	0	5420514	5333336	6000002
10	1211026	1	9	65	1745	0	0	6634781	6000003	6666669
11	327532	3	9	70	1670	1468	1422	6964058	6666670	7333336
12	802324	3	9	95	1411	1634	1564	7770942	7333337	8000003
13	344647	2	9	60	1222	1492	0	8120198	8000004	8666670
14	923492	1	9	100	1142	0	0	9046404	8666671	9333337
15	409504	3	9	65	1293	1764	1470	9457050	9333338	10000004
16	874629	3	9	55	1733	1083	1155	10336206	10000005	10666671
17	786609	3	9	60	1286	1885	1184	11126786	10666672	11333338
18	735691	3	9	50	1149	1813	1908	11866832	11333339	12000005

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

Type 5 Radar Waveform_21

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	680388	2	6	80	1936	1925	0	680388	0	705881
2	433918	3	6	100	1446	1218	1493	1118167	705882	1411763
3	452980	2	6	50	1354	1911	0	1575304	1411764	2117645
4	1102610	3	6	55	1421	1792	1711	2681179	2117646	2823527
5	324474	1	6	70	1657	0	0	3010577	2823528	3529409
6	577500	2	6	85	1781	1315	0	3589734	3529410	4235291
7	1086277	2	6	65	1801	1257	0	4679107	4235292	4941173
8	749944	3	6	90	1943	1061	1907	5432109	4941174	5647055
9	260312	2	6	100	1045	1013	0	5697332	5647056	6352937
10	952908	3	6	50	1620	1592	1312	6652298	6352938	7058819
11	737532	3	6	50	1973	1892	1908	7394354	7058820	7764701
12	1052329	1	6	55	1841	0	0	8452456	7764702	8470583
13	228836	2	6	90	1927	1852	0	8683133	8470584	9176465
14	568882	1	6	50	1787	0	0	9255794	9176466	9882347
15	869103	2	6	55	1791	1391	0	10126684	9882348	10588229
16	695321	3	6	95	1151	1757	1789	10825187	10588230	11294111
17	488736	1	6	70	1461	0	0	11318620	11294112	11999993

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

Type 5 Radar Waveform_22

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	329745	2	10	90	1627	1405	0	329745	0	599999
2	852857	1	10	95	1449	0	0	1185634	600000	1199999
3	546953	1	10	90	1800	0	0	1734036	1200000	1799999
4	137618	2	10	50	1586	1205	0	1873454	1800000	2399999
5	919554	2	10	95	1862	1097	0	2795799	2400000	2999999
6	542982	1	10	100	1866	0	0	3341740	3000000	3599999
7	381388	1	10	90	1437	0	0	3724994	3600000	4199999
8	637339	3	10	60	1255	1836	1691	4363770	4200000	4799999
9	901326	1	10	95	1452	0	0	5269878	4800000	5399999
10	680882	1	10	100	1267	0	0	5952212	5400000	5999999
11	156268	3	10	85	1135	1348	1636	6109747	6000000	6599999
12	986095	3	10	80	1515	1616	1176	7099961	6600000	7199999
13	283294	1	10	90	1583	0	0	7387562	7200000	7799999
14	508576	1	10	95	1229	0	0	7897721	7800000	8399999
15	668977	1	10	90	1256	0	0	8567927	8400000	8999999
16	888948	2	10	85	1102	1698	0	9458131	9000000	9599999
17	594438	2	10	50	1483	1524	0	10055369	9600000	10199999
18	714220	3	10	50	1297	1393	1595	10772596	10200000	10799999
19	160852	2	10	90	1563	1608	0	10937733	10800000	11399999
20	772282	1	10	90	1936	0	0	11713186	11400000	11999999

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

Type 5 Radar Waveform_23

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	252667	3	8	95	1072	1231	1594	252667	0	599999
2	829032	3	8	55	1751	1511	1118	1085596	600000	1199999
3	253016	2	8	55	1263	1150	0	1342992	1200000	1799999
4	955232	2	8	100	1329	1346	0	2300637	1800000	2399999
5	268401	1	8	95	1296	0	0	2571713	2400000	2999999
6	807443	3	8	50	1632	1132	1967	3380452	3000000	3599999
7	698407	2	8	50	1438	1542	0	4083590	3600000	4199999
8	637842	1	8	100	1767	0	0	4724412	4200000	4799999
9	285085	1	8	90	1010	0	0	5011264	4800000	5399999
10	801042	3	8	65	1929	1801	1840	5813316	5400000	5999999
11	596496	2	8	60	1771	1865	0	6415382	6000000	6599999
12	293330	2	8	70	1784	1574	0	6712348	6600000	7199999
13	846578	2	8	100	1037	1437	0	7562284	7200000	7799999
14	649315	3	8	70	1663	1923	1939	8214073	7800000	8399999
15	651519	2	8	90	1913	1000	0	8871117	8400000	8999999
16	285757	1	8	95	1923	0	0	9159787	9000000	9599999
17	566130	2	8	85	1768	1491	0	9727840	9600000	10199999
18	654656	1	8	85	1074	0	0	10385755	10200000	10799999
19	990809	2	8	80	1919	1690	0	11377638	10800000	11399999
20	571043	3	8	60	1226	1724	1375	11952290	11400000	11999999

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

Type 5 Radar Waveform_24

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	777219	1	17	75	1979	0	0	777219	0	1090908
2	520615	2	17	85	1249	1376	0	1299813	1090909	2181817
3	1697664	2	17	90	1592	1582	0	3000102	2181818	3272726
4	939377	2	17	75	1432	1656	0	3942653	3272727	4363635
5	1249238	1	17	75	1777	0	0	5194979	4363636	5454544
6	385158	3	17	65	1478	1060	1588	5581914	5454545	6545453
7	2038833	2	17	65	1628	1404	0	7624873	6545454	7636362
8	444265	1	17	90	1788	0	0	8072170	7636363	8727271
9	767191	2	17	80	1248	1174	0	8841149	8727272	9818180
10	2061672	2	17	100	1724	1373	0	10905243	9818181	10909089
11	729426	2	17	50	1690	1042	0	11637766	10909090	11999998

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

Type 5 Radar Waveform_25

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	440572	2	12	60	1448	1012	0	440572	0	749999
2	778835	1	12	65	1817	0	0	1221867	750000	1499999
3	591522	2	12	75	1885	1353	0	1815206	1500000	2249999
4	989605	3	12	95	1743	1652	1284	2808049	2250000	2999999
5	750202	3	12	90	1789	1479	1219	3562930	3000000	3749999
6	440052	1	12	90	1803	0	0	4007469	3750000	4499999
7	705097	2	12	95	1795	1250	0	4714369	4500000	5249999
8	558061	1	12	80	1110	0	0	5275475	5250000	5999999
9	756674	2	12	100	1525	1331	0	6033259	6000000	6749999
10	781863	2	12	70	1089	1539	0	6817978	6750000	7499999
11	1107658	1	12	55	1616	0	0	7928264	7500000	8249999
12	502495	2	12	50	1433	1592	0	8432375	8250000	8999999
13	685449	1	12	85	1683	0	0	9120849	9000000	9749999
14	791333	2	12	85	1646	1745	0	9913865	9750000	10499999
15	1310712	2	12	75	1471	1110	0	11227968	10500000	11249999
16	76988	2	12	70	1202	1393	0	11307537	11250000	11999999

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

Type 5 Radar Waveform_26

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	17196	1	19	60	1320	0	0	17196	0	923076
2	1119412	2	19	85	1893	1237	0	1137928	923077	1846153
3	1040225	2	19	95	1093	1728	0	2181283	1846154	2769230
4	820244	2	19	100	1816	1641	0	3004348	2769231	3692307
5	1151075	1	19	100	1611	0	0	4158880	3692308	4615384
6	973495	3	19	75	1765	1874	1127	5133986	4615385	5538461
7	1037528	3	19	100	1761	1342	1163	6176280	5538462	6461538
8	341549	1	19	55	1540	0	0	6522095	6461539	7384615
9	1358651	3	19	50	1597	1767	1844	7882286	7384616	8307692
10	1001101	2	19	80	1530	1246	0	8888595	8307693	9230769
11	512743	1	19	70	1638	0	0	9404114	9230770	10153846
12	1529817	2	19	95	1959	1661	0	10935569	10153847	11076923
13	473019	2	19	95	1076	1878	0	11412208	11076924	12000000

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

Type 5 Radar Waveform_27

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	336867	1	5	75	1125	0	0	336867	0	1090908
2	1312459	3	5	95	1299	1577	1977	1650451	1090909	2181817
3	959888	2	5	50	1460	1151	0	2615192	2181818	3272726
4	988130	3	5	80	1160	1353	1753	3605933	3272727	4363635
5	1378634	1	5	55	1760	0	0	4988833	4363636	5454544
6	1340885	1	5	60	1455	0	0	6331478	5454545	6545453
7	1241145	1	5	75	1950	0	0	7574078	6545454	7636362
8	415467	3	5	90	1618	1768	1023	7991495	7636363	8727271
9	1554001	2	5	65	1002	1829	0	9549905	8727272	9818180
10	830416	3	5	80	1168	1468	1806	10383152	9818181	10909089
11	989578	3	5	55	1000	1163	1455	11377172	10909090	11999998

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

Type 5 Radar Waveform_28

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	365204	2	18	60	1005	1151	0	365204	0	749999
2	707131	2	18	95	1570	1291	0	1074491	750000	1499999
3	840414	3	18	95	1031	1468	1101	1917766	1500000	2249999
4	670427	2	18	75	1156	1649	0	2591793	2250000	2999999
5	874289	1	18	90	1555	0	0	3468887	3000000	3749999
6	456149	2	18	90	1508	1669	0	3926591	3750000	4499999
7	812802	1	18	80	1331	0	0	4742570	4500000	5249999
8	639785	3	18	60	1220	1278	1481	5383686	5250000	5999999
9	1091632	3	18	100	1880	1413	1044	6479297	6000000	6749999
10	500315	3	18	85	1621	1329	1444	6983949	6750000	7499999
11	613463	1	18	80	1717	0	0	7601806	7500000	8249999
12	1176640	2	18	75	1477	1458	0	8780163	8250000	8999999
13	932410	1	18	85	1153	0	0	9715508	9000000	9749999
14	58564	1	18	90	1340	0	0	9775225	9750000	10499999
15	876709	2	18	60	1565	1911	0	10653274	10500000	11249999
16	1099299	1	18	60	1525	0	0	11756049	11250000	11999999

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

Type 5 Radar Waveform_29

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	32566	3	9	65	1783	1671	1186	32566	0	999999
2	1009409	2	9	100	1128	1143	0	1046615	1000000	1999999
3	1880312	1	9	55	1796	0	0	2929198	2000000	2999999
4	331253	1	9	65	1956	0	0	3262247	3000000	3999999
5	1576577	1	9	65	1469	0	0	4840780	4000000	4999999
6	840697	3	9	50	1900	1637	1087	5682946	5000000	5999999
7	518236	1	9	55	1330	0	0	6205806	6000000	6999999
8	1573141	2	9	100	1039	1602	0	7780277	7000000	7999999
9	301129	2	9	95	1306	1047	0	8084047	8000000	8999999
10	976858	2	9	60	1401	1973	0	9063258	9000000	9999999
11	1416740	1	9	55	1378	0	0	10483372	10000000	10999999
12	995555	2	9	90	1754	1717	0	11480305	11000000	11999999

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

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	902333	2	14	50	1104	1357	0	902333	0	923076
2	536500	2	14	65	1766	1247	0	1441294	923077	1846153
3	1260837	2	14	65	1815	1425	0	2705144	1846154	2769230
4	244510	1	14	75	1062	0	0	2952894	2769231	3692307
5	1299604	3	14	55	1259	1549	1503	4253560	3692308	4615384
6	715911	1	14	100	1213	0	0	4973782	4615385	5538461
7	1007925	1	14	75	1915	0	0	5982920	5538462	6461538
8	809905	3	14	70	1066	1701	1765	6794740	6461539	7384615
9	627590	1	14	85	1309	0	0	7426862	7384616	8307692
10	948116	2	14	55	1485	1480	0	8376287	8307693	9230769
11	1515685	1	14	100	1336	0	0	9894937	9230770	10153846
12	584140	3	14	65	1390	1482	1228	10480413	10153847	11076923
13	1364578	2	14	55	1361	1308	0	11849091	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	5292	1	16	5300	1
2	5292	1	17	5300	1
3	5292	1	18	5300	1
4	5292	1	19	5300	1
5	5292	1	20	5300	1
6	5292	1	21	5308	1
7	5292	1	22	5308	1
8	5292	1	23	5308	1
9	5292	1	24	5308	1
10	5292	1	25	5308	1
11	5300	1	26	5308	1
12	5300	1	27	5308	1
13	5300	1	28	5308	1
14	5300	1	29	5308	1
15	5300	1	30	5308	1
Detection Percentage (%)					100%

Radar waveform #1			Radar waveform #2		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
19	5298	57	12	5304	36
21	5265	63	13	5313	39
23	5309	69	16	5298	48
29	5287	87	21	5284	63
36	5271	108	25	5296	75
42	5285	126	37	5311	111
43	5290	129	53	5266	159
54	5322	162	63	5272	189
64	5292	192	79	5291	237
68	5316	204	92	5263	276
69	5301	207	--	--	--
73	5279	219	--	--	--
79	5303	237	--	--	--
82	5305	246	--	--	--
87	5269	261	--	--	--
91	5297	273	--	--	--
95	5286	285	--	--	--

Radar waveform #3			Radar waveform #4		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
2	5299	6	6	5272	18
7	5319	21	11	5264	33
13	5282	39	12	5281	36
29	5289	87	14	5265	42
31	5294	93	15	5310	45
33	5265	99	29	5299	87
39	5277	117	43	5270	129
51	5292	153	47	5262	141
59	5273	177	50	5312	150
65	5303	195	56	5275	168
85	5287	255	70	5309	210
95	5297	285	73	5292	219
96	5300	288	82	5300	246
--	--	--	92	5303	276
--	--	--	93	5263	279
--	--	--	95	5319	285

Radar waveform #5			Radar waveform #6		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
28	5263	84	13	5313	39
45	5275	135	18	5283	54
62	5309	186	19	5294	57
65	5321	195	27	5303	81
86	5306	258	37	5265	111
89	5264	267	45	5308	135
--	--	--	50	5279	150
--	--	--	84	5289	252
--	--	--	95	5280	285
--	--	--	98	5312	294

Radar waveform #7			Radar waveform #8		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
2	5315	6	2	5263	6
16	5321	48	6	5281	18
26	5292	78	15	5290	45
29	5263	87	20	5317	60
31	5268	93	29	5265	87
32	5314	96	32	5271	96
39	5296	117	40	5291	120
50	5276	150	41	5269	123
52	5272	156	44	5264	132
55	5277	165	45	5319	135
82	5295	246	46	5320	138
--	--	--	49	5318	147
--	--	--	51	5302	153
--	--	--	54	5322	162
--	--	--	78	5311	234
--	--	--	83	5312	249
--	--	--	95	5279	285
--	--	--	98	5321	294

Radar waveform #9			Radar waveform #10		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
0	5279	0	1	5296	3
1	5306	3	17	5313	51
11	5300	33	20	5266	60
14	5302	42	24	5302	72
19	5299	57	47	5319	141
40	5308	120	48	5292	144
59	5294	177	54	5278	162
67	5301	201	56	5298	168
81	5289	243	65	5305	195
82	5282	246	69	5283	207
88	5284	264	71	5288	213
96	5266	288	72	5272	216
97	5280	291	73	5276	219
--	--	--	76	5271	228
--	--	--	77	5321	231
--	--	--	80	5306	240
--	--	--	94	5287	282

Radar waveform #11			Radar waveform #12		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Frequency (MHz)	Hopping Number	Pulse Start (ms)
9	5309	27	5	5327	15
10	5297	30	20	5281	60
11	5330	33	26	5325	78
12	5300	36	28	5278	84
19	5296	57	33	5323	99
25	5326	75	34	5316	102
35	5327	105	38	5307	114
36	5323	108	43	5287	129
55	5274	165	44	5304	132
60	5321	180	50	5321	150
62	5319	186	58	5330	174
64	5317	192	59	5322	177
67	5283	201	65	5286	195
75	5286	225	70	5329	210
79	5324	237	71	5303	213
88	5287	264	79	5326	237
89	5291	267	81	5324	243
93	5306	279	--	--	--

Radar waveform #13			Radar waveform #14		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
13	5281	39	6	5284	18
18	5318	54	19	5305	57
26	5302	78	32	5291	96
30	5283	90	38	5273	114
45	5291	135	41	5298	123
47	5280	141	47	5279	141
50	5306	150	55	5327	165
52	5311	156	58	5299	174
60	5323	180	60	5321	180
63	5290	189	89	5325	267
69	5298	207	97	5323	291
71	5321	213	--	--	--
94	5320	282	--	--	--
97	5275	291	--	--	--

Radar waveform #15			Radar waveform #16		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
4	5294	12	2	5320	6
6	5276	18	8	5324	24
18	5327	54	34	5328	102
22	5315	66	52	5280	156
37	5321	111	57	5301	171
66	5274	198	61	5319	183
68	5313	204	73	5300	219
72	5297	216	74	5295	222
82	5324	246	81	5317	243
85	5308	255	86	5315	258
97	5271	291	87	5293	261
98	5329	294	91	5286	273

Radar waveform #17			Radar waveform #18		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
5	5326	15	5	5288	15
10	5320	30	14	5330	42
11	5318	33	17	5284	51
30	5283	90	18	5306	54
36	5312	108	22	5329	66
41	5293	123	28	5292	84
47	5323	141	41	5283	123
54	5296	162	70	5274	210
61	5303	183	71	5321	213
70	5297	210	78	5298	234
78	5279	234	83	5297	249
83	5325	249	91	5310	273
85	5291	255	--	--	--
98	5271	294	--	--	--

Radar waveform #19			Radar waveform #20		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
8	5271	24	22	5295	66
9	5288	27	37	5275	111
23	5279	69	46	5271	138
27	5286	81	47	5304	141
30	5299	90	78	5306	234
34	5280	102	79	5292	237
49	5313	147	80	5327	240
53	5282	159	84	5312	252
79	5302	237	--	--	--
92	5321	276	--	--	--
95	5273	285	--	--	--
96	5289	288	--	--	--

Radar waveform #21			Radar waveform #22		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
1	5299	3	3	5309	9
3	5289	9	9	5299	27
4	5292	12	18	5310	54
5	5320	15	34	5317	102
9	5321	27	37	5321	111
26	5312	78	48	5286	144
36	5309	108	53	5294	159
38	5294	114	76	5323	228
44	5288	132	80	5319	240
48	5325	144	89	5313	267
49	5324	147	90	5295	270
50	5334	150	92	5334	276
51	5316	153	--	--	--
52	5331	156	--	--	--
55	5282	165	--	--	--
70	5278	210	--	--	--
73	5315	219	--	--	--
89	5290	267	--	--	--
93	5306	279	--	--	--
97	5287	291	--	--	--

Radar waveform #23			Radar waveform #24		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
9	5283	27	0	5308	0
12	5327	36	8	5278	24
29	5310	87	12	5304	36
42	5313	126	29	5326	87
43	5336	129	42	5290	126
49	5301	147	49	5317	147
50	5280	150	51	5280	153
60	5331	180	60	5299	180
61	5294	183	79	5310	237
63	5323	189	82	5302	246
68	5286	204	--	--	--
72	5320	216	--	--	--
76	5337	228	--	--	--
77	5285	231	--	--	--
83	5324	249	--	--	--
95	5307	285	--	--	--

Radar waveform #25			Radar waveform #26		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
11	5314	33	3	5299	9
18	5322	54	7	5336	21
19	5324	57	9	5290	27
22	5301	66	11	5331	33
25	5325	75	14	5338	42
26	5281	78	18	5328	54
42	5316	126	29	5321	87
76	5312	228	37	5288	111
84	5297	252	57	5293	171
86	5307	258	61	5326	183
88	5321	264	63	5325	189
--	--	--	66	5332	198
--	--	--	81	5287	243
--	--	--	87	5312	261
--	--	--	88	5291	264

Radar waveform #27			Radar waveform #28		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
15	5306	45	5	5322	15
16	5297	48	13	5330	39
18	5304	54	20	5310	60
29	5303	87	24	5282	72
56	5318	168	36	5320	108
58	5311	174	42	5284	126
69	5299	207	43	5317	129
72	5329	216	51	5279	153
84	5331	252	53	5336	159
91	5289	273	54	5297	162
93	5332	279	64	5293	192
97	5280	291	71	5296	213
--	--	--	76	5307	228
--	--	--	81	5309	243
--	--	--	84	5312	252
--	--	--	86	5278	258
--	--	--	89	5332	267
--	--	--	94	5289	282
--	--	--	96	5318	288

Radar waveform #29			Radar waveform #30		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
9	5293	27	1	5296	3
19	5299	57	11	5333	33
20	5323	60	29	5322	87
39	5306	117	34	5306	102
44	5324	132	39	5279	117
46	5296	138	47	5300	141
56	5286	168	51	5280	153
59	5304	177	66	5307	198
75	5288	225	71	5294	213
96	5294	288	73	5312	219
--	--	--	83	5317	249
--	--	--	88	5298	264
--	--	--	94	5326	282
--	--	--	98	5282	294

Radar Statistical Performance for 802.11n-HT40

Radar Type 1 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5292	1	918	58	1
2	5292	1	778	68	1
3	5292	1	678	78	1
4	5292	1	538	99	1
5	5300	1	838	63	1
6	5300	1	798	67	1
7	5300	1	578	92	1
8	5300	1	738	72	1
9	5308	1	858	62	1
10	5308	1	658	81	1
11	5308	1	698	76	1
12	5308	1	878	61	1
13	5310	1	558	95	1
14	5310	1	898	59	1
15	5310	1	518	102	1
16	5310	1	2669	20	1
17	5310	1	3020	18	1
18	5310	1	1246	43	1
19	5312	1	1158	46	1
20	5312	1	959	56	1
21	5312	1	1700	32	1
22	5312	1	1773	30	1
23	5320	1	2045	26	1
24	5320	1	2739	20	1
25	5320	1	2899	19	1
26	5320	1	1011	53	1
27	5328	1	2225	24	1
28	5328	1	1760	30	1
29	5328	1	1652	32	1
30	5328	1	619	86	1
Detection Percentage (%)					100%

Radar Type 2 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5292	2.6	154	27	1
2	5292	2.1	218	25	1
3	5292	1.1	174	26	1
4	5292	3.3	215	25	1
5	5300	3.2	177	26	1
6	5300	3.0	171	27	1
7	5300	4.0	170	23	1
8	5300	1.4	212	26	1
9	5308	4.8	201	29	1
10	5308	1.9	205	25	1
11	5308	5.0	205	23	1
12	5308	2.5	197	29	1
13	5310	3.7	166	27	1
14	5310	1.6	194	26	1
15	5310	3.3	225	23	1
16	5310	2.6	167	28	1
17	5310	1.2	166	29	1
18	5310	2.6	215	26	1
19	5312	4.0	162	29	1
20	5312	3.6	192	26	1
21	5312	2.5	207	28	1
22	5312	4.4	215	25	1
23	5320	2.1	160	29	1
24	5320	1.7	226	27	1
25	5320	4.1	169	28	1
26	5320	1.5	193	24	1
27	5328	3.3	183	25	1
28	5328	1.3	225	27	1
29	5328	1.1	154	25	1
30	5328	1.6	198	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	5292	8.3	472	16	1
2	5292	7.3	376	18	1
3	5292	9.7	463	18	1
4	5292	9.3	366	17	1
5	5300	7.2	425	17	1
6	5300	6.4	284	18	1
7	5300	7.0	403	18	1
8	5300	9.4	485	16	1
9	5308	9.8	384	17	1
10	5308	9.8	412	18	1
11	5308	9.4	478	17	1
12	5308	7.7	336	16	1
13	5310	9.9	485	17	1
14	5310	7.3	489	16	1
15	5310	6.2	483	16	1
16	5310	6.6	458	17	1
17	5310	9.6	458	18	1
18	5310	8.7	267	17	1
19	5312	8.2	371	16	1
20	5312	6.3	287	18	1
21	5312	7.5	470	18	1
22	5312	7.3	429	16	1
23	5320	7.4	448	18	1
24	5320	8.9	331	18	1
25	5320	9.3	321	16	1
26	5320	7.0	301	18	1
27	5328	6.2	357	18	1
28	5328	7.2	464	16	1
29	5328	9.5	432	18	1
30	5328	8.9	445	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	5292	16.2	268	12	1
2	5292	14.7	251	16	1
3	5292	18.7	323	14	1
4	5292	17.5	299	16	1
5	5300	12.2	385	16	1
6	5300	15.1	388	12	1
7	5300	17.1	470	13	1
8	5300	16.7	266	13	1
9	5308	12.2	455	16	1
10	5308	15.8	260	12	1
11	5308	14.6	283	12	1
12	5308	14.1	321	13	1
13	5310	17.3	448	16	1
14	5310	11.1	335	15	1
15	5310	13.3	303	15	1
16	5310	14.8	259	15	1
17	5310	18.1	300	13	1
18	5310	19.0	347	14	1
19	5312	18.8	279	14	1
20	5312	18.3	357	15	1
21	5312	16.2	416	13	1
22	5312	16.2	489	14	1
23	5320	11.0	313	13	1
24	5320	18.3	260	16	1
25	5320	15.1	326	12	1
26	5320	16.2	373	12	1
27	5328	19.1	293	13	1
28	5328	12.6	258	12	1
29	5328	15.7	308	15	1
30	5328	18.4	462	14	1
Detection Percentage (%)					100%

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

Radar Type 5 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	1=Detection 0=No Detection	Trail #	Test Freq. (MHz)	1=Detection 0=No Detection
1	5295.6	1	16	5310.0	1
2	5299.2	1	17	5310.0	1
3	5294.0	1	18	5310.0	1
4	5296.8	1	19	5310.0	1
5	5294.0	1	20	5310.0	1
6	5298.8	1	21	5323.2	1
7	5299.6	1	22	5324.8	1
8	5294.4	1	23	5324.0	1
9	5297.6	1	24	5326.0	1
10	5296.0	1	25	5322.4	1
11	5310.0	1	26	5325.6	1
12	5310.0	1	27	5321.2	1
13	5310.0	1	28	5324.4	1
14	5310.0	1	29	5320.4	1
15	5310.0	1	30	5320.8	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	575894	2	9	80	1365	1721	0	575894	0	749999
2	605869	3	9	50	1371	1681	1331	1184849	750000	1499999
3	386601	2	9	75	1181	1639	0	1575833	1500000	2249999
4	1346269	3	9	90	1680	1194	1163	2924922	2250000	2999999
5	657600	1	9	80	1810	0	0	3586559	3000000	3749999
6	606250	1	9	50	1662	0	0	4194619	3750000	4499999
7	529754	3	9	85	1373	1366	1078	4726035	4500000	5249999
8	602238	1	9	65	1165	0	0	5332090	5250000	5999999
9	1357629	3	9	65	1458	1988	1334	6690884	6000000	6749999
10	770998	3	9	65	1706	1375	1091	7466662	6750000	7499999
11	154771	3	9	80	1045	1188	1722	7625605	7500000	8249999
12	905056	3	9	60	1585	1425	1258	8534616	8250000	8999999
13	1102147	1	9	85	2000	0	0	9641031	9000000	9749999
14	611703	3	9	95	1746	1030	1926	10254734	9750000	10499999
15	758141	1	9	50	1866	0	0	11017577	10500000	11249999
16	719220	3	9	95	1639	1270	1195	11738663	11250000	11999999

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

Type 5 Radar Waveform_2

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	1099335	3	18	100	1783	1270	1969	1099335	0	1333332
2	633349	1	18	65	1947	0	0	1737706	1333333	2666665
3	1846782	2	18	70	1837	1861	0	3586435	2666666	3999998
4	759412	3	18	85	1742	1223	1737	4349545	3999999	5333331
5	1994022	3	18	70	1028	1013	1229	6348269	5333332	6666664
6	1447237	2	18	85	1658	1309	0	7798776	6666665	7999997
7	434988	1	18	95	1434	0	0	8236731	7999998	9333330
8	1574558	1	18	50	1304	0	0	9812723	9333331	10666663
9	1406490	1	18	50	1098	0	0	11220517	10666664	11999996

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

Type 5 Radar Waveform_3

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	129418	1	8	50	1783	0	0	129418	0	857142
2	1535908	3	8	80	1227	1414	1409	1667109	857143	1714285
3	409488	1	8	50	1028	0	0	2080647	1714286	2571428
4	909188	3	8	70	1118	1755	1099	2990863	2571429	3428571
5	1136486	2	8	65	1753	1277	0	4131321	3428572	4285714
6	964821	3	8	80	1307	1003	1847	5099172	4285715	5142857
7	634856	2	8	70	1320	1561	0	5738185	5142858	6000000
8	699853	3	8	90	1371	1959	1727	6440919	6000001	6857143
9	583070	3	8	90	1393	1257	1800	7029046	6857144	7714286
10	1216504	2	8	75	1787	1247	0	8250000	7714287	8571429
11	1168618	2	8	55	1510	1581	0	9421652	8571430	9428572
12	73452	2	8	75	1812	1759	0	9498195	9428573	10285715
13	899409	3	8	55	1569	1586	1182	10401175	10285716	11142858
14	816336	3	8	60	1015	1712	1470	11221848	11142859	12000001

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

Type 5 Radar Waveform_4

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	1169654	1	12	50	1101	0	0	1169654	0	1499999
2	1572826	1	12	60	1707	0	0	2743581	1500000	2999999
3	1547598	2	12	90	1132	1721	0	4292886	3000000	4499999
4	1195126	1	12	50	1609	0	0	5490865	4500000	5999999
5	1595810	1	12	90	1740	0	0	7088284	6000000	7499999
6	1077361	3	12	55	1523	1209	1415	8167385	7500000	8999999
7	1956056	1	12	80	1547	0	0	10127588	9000000	10499999
8	996204	1	12	70	1925	0	0	11125339	10500000	11999999

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

Type 5 Radar Waveform_5

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	801072	1	5	85	1044	0	0	801072	0	857142
2	134388	2	5	95	1995	1504	0	936504	857143	1714285
3	1569952	2	5	85	1358	1632	0	2509955	1714286	2571428
4	162671	3	5	65	1975	1700	1847	2675616	2571429	3428571
5	1431554	1	5	60	1314	0	0	4112692	3428572	4285714
6	517330	1	5	60	1479	0	0	4631336	4285715	5142857
7	900326	3	5	100	1998	1154	1599	5533141	5142858	6000000
8	773493	2	5	65	1669	1823	0	6311385	6000001	6857143
9	704593	2	5	60	1308	1204	0	7019470	6857144	7714286
10	948546	2	5	85	1207	1651	0	7970528	7714287	8571429
11	1171132	1	5	85	1901	0	0	9144518	8571430	9428572
12	569587	3	5	100	1551	1187	1299	9716006	9428573	10285715
13	808483	3	5	70	1254	1216	1109	10528526	10285716	11142858
14	951787	2	5	65	1387	1562	0	11483892	11142859	12000001

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

Type 5 Radar Waveform_6

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	920117	1	17	55	1728	0	0	920117	0	1333332
2	933276	2	17	60	1455	1690	0	1855121	1333333	2666665
3	1343481	2	17	100	1446	1264	0	3201747	2666666	3999998
4	878410	1	17	75	1577	0	0	4082867	3999999	5333331
5	2325415	3	17	50	1065	1923	1940	6409859	5333332	6666664
6	1493180	2	17	90	1868	1398	0	7907967	6666665	7999997
7	494163	2	17	70	1898	1687	0	8405396	7999998	9333330
8	1612938	2	17	70	1595	1334	0	10021919	9333331	10666663
9	742629	1	17	65	1160	0	0	10767477	10666664	11999996

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

Type 5 Radar Waveform_7

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	378032	1	19	55	1735	0	0	378032	0	666666
2	742544	3	19	85	1195	1255	1899	1122311	666667	1333333
3	334289	2	19	85	1822	1695	0	1460949	1333334	2000000
4	590204	1	19	55	1274	0	0	2054670	2000001	2666667
5	1267729	1	19	95	1805	0	0	3323673	2666668	3333334
6	455552	2	19	60	1519	1568	0	3781030	3333335	4000001
7	361211	2	19	90	1557	1316	0	4145328	4000002	4666668
8	615570	2	19	80	1377	1995	0	4763771	4666669	5333335
9	938756	2	19	90	1505	1796	0	5705899	5333336	6000002
10	869725	3	19	70	1630	1488	1654	6578925	6000003	6666669
11	157451	1	19	75	1109	0	0	6741148	6666670	7333336
12	620790	2	19	60	1776	1496	0	7363047	7333337	8000003
13	873039	1	19	90	1108	0	0	8239358	8000004	8666670
14	540216	1	19	85	1350	0	0	8780682	8666671	9333337
15	591202	3	19	65	1033	1642	1851	9373234	9333338	10000004
16	801154	1	19	55	1108	0	0	10178914	10000005	10666671
17	1030222	1	19	60	1265	0	0	11210244	10666672	11333338
18	386335	2	19	65	1161	1849	0	11597844	11333339	12000005

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

Type 5 Radar Waveform_8

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	292463	3	6	50	1321	1576	1722	292463	0	1199999
2	1354367	3	6	100	1536	1024	1161	1651449	1200000	2399999
3	1106943	2	6	55	1769	1371	0	2762113	2400000	3599999
4	1628059	2	6	80	1979	1975	0	4393312	3600000	4799999
5	1205769	1	6	55	1754	0	0	5603035	4800000	5999999
6	1230394	2	6	65	1805	1114	0	6835183	6000000	7199999
7	1241730	3	6	90	1814	1440	1041	8079832	7200000	8399999
8	1131921	2	6	95	1196	1728	0	9216048	8400000	9599999
9	779397	3	6	60	1947	1314	1286	9998369	9600000	10799999
10	1707850	3	6	95	1916	1543	1758	11710766	10800000	11999999

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

Type 5 Radar Waveform_9

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	245530	3	14	60	1374	1472	1307	245530	0	705881
2	733968	3	14	100	1301	1890	1267	983651	705882	1411763
3	679566	1	14	80	1397	0	0	1667675	1411764	2117645
4	746016	2	14	55	1563	1096	0	2415088	2117646	2823527
5	1044713	2	14	100	1526	1550	0	3462460	2823528	3529409
6	482811	3	14	70	1096	1882	1663	3946347	3529410	4235291
7	697021	3	14	85	1483	1276	1874	4650009	4235292	4941173
8	615321	2	14	75	1114	1949	0	5269963	4941174	5647055
9	778947	1	14	90	1195	0	0	6051973	5647056	6352937
10	323707	3	14	70	1763	1405	1710	6376875	6352938	7058819
11	1090711	2	14	55	1763	1227	0	7472464	7058820	7764701
12	892073	3	14	95	1705	1558	1000	8367527	7764702	8470583
13	338332	1	14	80	1624	0	0	8710122	8470584	9176465
14	703615	2	14	95	1024	1647	0	9415361	9176466	9882347
15	529042	3	14	75	1325	1683	1294	9947074	9882348	10588229
16	1184424	3	14	90	1970	1515	1567	11135800	10588230	11294111
17	155696	3	14	70	1301	1038	1755	11296548	11294112	11999993

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

Type 5 Radar Waveform_10

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	433364	2	10	50	1647	1098	0	433364	0	666666
2	383454	3	10	85	1390	1766	1835	819563	666667	1333333
3	573010	3	10	55	1825	1301	1273	1397564	1333334	2000000
4	1132733	2	10	80	1327	1427	0	2534698	2000001	2666667
5	556636	1	10	90	1262	0	0	3094086	2666668	3333334
6	382555	3	10	75	1551	1378	1408	3477903	3333335	4000001
7	914752	3	10	65	1300	1959	1483	4396992	4000002	4666668
8	567693	2	10	90	1571	1652	0	4969427	4666669	5333335
9	571035	3	10	75	1051	1573	1974	5543685	5333336	6000002
10	639751	2	10	90	1489	1418	0	6188034	6000003	6666669
11	682529	3	10	90	1072	1075	1961	6873470	6666670	7333336
12	899100	1	10	80	1391	0	0	7776678	7333337	8000003
13	286807	2	10	70	1612	1702	0	8064876	8000004	8666670
14	965373	2	10	80	1127	1666	0	9033563	8666671	9333337
15	324400	2	10	65	1797	1727	0	9360756	9333338	10000004
16	976456	2	10	50	1303	1199	0	10340736	10000005	10666671
17	632586	3	10	75	1624	1840	1664	10975824	10666672	11333338
18	382462	1	10	75	1971	0	0	11363414	11333339	12000005

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

Type 5 Radar Waveform_11

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	796847	1	8	75	1385	0	0	796847	0	857142
2	553648	1	8	65	1860	0	0	1351880	857143	1714285
3	515059	1	8	95	1610	0	0	1868799	1714286	2571428
4	1414910	3	8	80	1358	1425	1109	3285319	2571429	3428571
5	556284	1	8	90	1478	0	0	3845495	3428572	4285714
6	785571	3	8	50	1824	1430	1631	4632544	4285715	5142857
7	842802	2	8	90	1388	1342	0	5480231	5142858	6000000
8	644994	3	8	80	1195	1518	1949	6127955	6000001	6857143
9	1109583	1	8	75	1457	0	0	7242200	6857144	7714286
10	634828	1	8	60	1809	0	0	7878485	7714287	8571429
11	1546803	1	8	85	1005	0	0	9427097	8571430	9428572
12	4811	2	8	65	1728	1190	0	9432913	9428573	10285715
13	955706	1	8	55	1353	0	0	10391537	10285716	11142858
14	1009134	2	8	95	1038	1977	0	11402024	11142859	12000001

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

Type 5 Radar Waveform_12

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	631640	3	17	50	1129	1520	1840	631640	0	749999
2	265156	2	17	80	1411	1758	0	901285	750000	1499999
3	847079	2	17	70	1180	1893	0	1751533	1500000	2249999
4	1144841	3	17	70	1575	1504	1995	2899447	2250000	2999999
5	367463	2	17	75	1540	1923	0	3271984	3000000	3749999
6	553232	1	17	65	1052	0	0	3828679	3750000	4499999
7	1397207	1	17	60	1780	0	0	5226938	4500000	5249999
8	214249	3	17	50	1747	1955	1307	5442967	5250000	5999999
9	960853	2	17	65	1461	1145	0	6408829	6000000	6749999
10	842414	3	17	90	1743	1022	1626	7253849	6750000	7499999
11	273397	2	17	100	1518	1216	0	7531637	7500000	8249999
12	1099833	3	17	50	1168	1738	1444	8634204	8250000	8999999
13	612925	2	17	50	1086	1930	0	9251479	9000000	9749999
14	858098	2	17	75	1664	1351	0	10112593	9750000	10499999
15	887838	1	17	65	1104	0	0	11003446	10500000	11249999
16	247806	2	17	60	1587	1432	0	11252356	11250000	11999999

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

Type 5 Radar Waveform_13

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	33852	1	9	50	1287	0	0	33852	0	1333332
2	2165299	2	9	95	1263	1539	0	2200438	1333333	2666665
3	678855	2	9	70	1785	1067	0	2882095	2666666	3999998
4	1193256	2	9	55	1831	1077	0	4078203	3999999	5333331
5	1493802	3	9	100	1089	1029	1395	5574913	5333332	6666664
6	1768825	3	9	50	1076	1950	1303	7347251	6666665	7999997
7	1550691	2	9	75	1443	1432	0	8902271	7999998	9333330
8	1714332	1	9	80	1374	0	0	10619478	9333331	10666663
9	154003	2	9	55	1690	1338	0	10774855	10666664	11999996

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

Type 5 Radar Waveform_14

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	915630	1	14	85	1926	0	0	915630	0	999999
2	892430	2	14	55	1155	1445	0	1809986	1000000	1999999
3	545574	2	14	80	1148	1760	0	2358160	2000000	2999999
4	1275309	1	14	70	1695	0	0	3636377	3000000	3999999
5	1143479	2	14	90	1141	1211	0	4781551	4000000	4999999
6	659444	2	14	85	1111	1124	0	5443347	5000000	5999999
7	842570	2	14	90	1928	1406	0	6288152	6000000	6999999
8	1480940	2	14	65	1605	1620	0	7772426	7000000	7999999
9	1076125	3	14	50	1274	1313	1471	8851776	8000000	8999999
10	202649	1	14	70	1852	0	0	9058483	9000000	9999999
11	1055764	3	14	85	1711	1032	1975	10116099	10000000	10999999
12	1812186	3	14	70	1090	1918	1313	11933003	11000000	11999999

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

Type 5 Radar Waveform_15

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	417196	2	5	50	1450	1357	0	417196	0	1333332
2	926645	2	5	85	1310	1679	0	1346648	1333333	2666665
3	2487480	1	5	65	1590	0	0	3837117	2666666	3999998
4	1250764	3	5	95	1414	1166	1719	5089471	3999999	5333331
5	831824	3	5	90	1502	1275	1837	5925594	5333332	6666664
6	895759	3	5	100	1391	1126	1542	6825967	6666665	7999997
7	1474323	3	5	85	1690	1739	1240	8304349	7999998	9333330
8	1782616	2	5	75	1969	1984	0	10091634	9333331	10666663
9	702767	1	5	60	1585	0	0	10798354	10666664	11999996

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

Type 5 Radar Waveform_16

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	243790	1	18	95	1601	0	0	243790	0	1199999
2	1691654	2	18	85	1678	1985	0	1937045	1200000	2399999
3	1298222	2	18	55	1697	1172	0	3238930	2400000	3599999
4	596670	1	18	80	1045	0	0	3838469	3600000	4799999
5	1618527	3	18	70	1742	1191	1247	5458041	4800000	5999999
6	1681761	1	18	55	1639	0	0	7143982	6000000	7199999
7	257232	2	18	50	1399	1509	0	7402853	7200000	8399999
8	2188754	3	18	85	1717	1058	1893	9594515	8400000	9599999
9	427599	1	18	85	1489	0	0	10026782	9600000	10799999
10	930158	3	18	90	1020	1631	1470	10958429	10800000	11999999

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

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)
	348517									
1		1	12	80	1713	0	0	348517	0	1499999
	2319507									
2		1	12	90	1455	0	0	2669737	1500000	2999999
	759823									
3		1	12	80	1556	0	0	3431015	3000000	4499999
	1992763									
4		2	12	80	1730	1407	0	5425334	4500000	5999999
	1012927									
5		3	12	65	1879	1369	1888	6441398	6000000	7499999
	2460389									
6		2	12	90	1469	1943	0	8906923	7500000	8999999
	1246204									
7		2	12	50	1552	1993	0	10156539	9000000	10499999
	870534									
8		1	12	65	1863	0	0	11030618	10500000	11999999

Total number of pulses in waveform = 13
****

Type 5 Radar Waveform_18

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)
	655164									
1		2	6	60	1390	1621	0	655164	0	923076
	401840									
2		1	6	85	1567	0	0	1060015	923077	1846153
	1200283									
3		3	6	90	1110	1345	1690	2261865	1846154	2769230
	695489									
4		3	6	70	1866	1875	1530	2961499	2769231	3692307
	949076									
5		1	6	70	1775	0	0	3915846	3692308	4615384
	1444432									
6		1	6	100	1852	0	0	5362053	4615385	5538461
	833458									
7		3	6	50	1263	1736	1476	6197363	5538462	6461538
	461482									
8		3	6	85	1665	1221	1758	6663320	6461539	7384615
	1425868									
9		2	6	100	1092	1422	0	8093832	7384616	8307692
	940806									
10		1	6	60	1965	0	0	9037152	8307693	9230769
	629616									
11		1	6	80	1289	0	0	9668733	9230770	10153846
	962862									
12		1	6	50	1003	0	0	10632884	10153847	11076923
	574916									
13		3	6	65	1047	1148	1505	11208803	11076924	12000000

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

Type 5 Radar Waveform_19

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
	632538									
1		2	19	100	1303	1710	0	632538	0	666666
	172943									
2		1	19	95	1254	0	0	808494	666667	1333333
	798824									
3		1	19	90	1471	0	0	1608572	1333334	2000000
	1030060									
4		1	19	100	1800	0	0	2640103	2000001	2666667
	546064									
5		3	19	95	1092	1936	1935	3187967	2666668	3333334
	252774									
6		2	19	65	1581	1382	0	3445704	3333335	4000001
	833502									
7		2	19	80	1808	1646	0	4282169	4000002	4666668
	964228									
8		3	19	65	1979	1001	1623	5249851	4666669	5333335
	668317									
9		1	19	80	1729	0	0	5922771	5333336	6000002
	566161									
10		1	19	90	1084	0	0	6490661	6000003	6666669
	476429									
11		1	19	85	1534	0	0	6968174	6666670	7333336
	601097									
12		1	19	90	1118	0	0	7570805	7333337	8000003
	818171									
13		1	19	55	1152	0	0	8390094	8000004	8666670
	450017									
14		2	19	90	1847	1760	0	8841263	8666671	9333337
	538515									
15		1	19	60	1249	0	0	9383385	9333338	10000004
	1123049									
16		2	19	90	1097	1935	0	10507683	10000005	10666671
	754593									
17		1	19	95	1732	0	0	11265308	10666672	11333338
	310994									
18		2	19	70	1614	1904	0	11578034	11333339	12000005

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

Type 5 Radar Waveform_20

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	722450	3	10	55	1795	1300	1428	722450	0	1333332
2	1799670	2	10	90	1376	1568	0	2526643	1333333	2666665
3	957372	2	10	50	1506	1734	0	3486959	2666666	3999998
4	1568707	3	10	60	1917	1605	1565	5058906	3999999	5333331
5	373322	1	10	75	1056	0	0	5437315	5333332	6666664
6	2529722	1	10	75	1925	0	0	7968093	6666665	7999997
7	1289972	1	10	80	1161	0	0	9259990	7999998	9333330
8	1332236	2	10	100	1145	1677	0	10593387	9333331	10666663
9	210649	1	10	90	1301	0	0	10806858	10666664	11999996

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

Type 5 Radar Waveform_21

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	537118	1	12	70	1945	0	0	537118	0	631578
2	536394	2	12	95	1716	1341	0	1075457	631579	1263157
3	534126	1	12	90	1663	0	0	1612640	1263158	1894736
4	817916	3	12	95	1190	1099	1699	2432219	1894737	2526315
5	630601	3	12	50	1023	1704	1385	3066808	2526316	3157894
6	285355	3	12	80	1716	1690	1299	3356275	3157895	3789473
7	793499	2	12	90	1477	1386	0	4154479	3789474	4421052
8	811472	2	12	70	1648	1227	0	4966814	4421053	5052631
9	197089	2	12	90	1947	1207	0	5168778	5052632	5684210
10	1067440	1	12	50	1163	0	0	6239372	5684211	6315789
11	617000	1	12	90	1365	0	0	6857535	6315790	6947368
12	88479	1	12	70	1680	0	0	6947379	6947369	7578947
13	1101449	3	12	55	1064	1806	1969	8050508	7578948	8210526
14	346797	1	12	95	1228	0	0	8402144	8210527	8842105
15	546286	3	12	75	1970	1000	1398	8949658	8842106	9473684
16	870070	2	12	95	1673	1973	0	9824096	9473685	10105263
17	574908	2	12	95	1974	1514	0	10402650	10105264	10736842
18	747472	2	12	85	1649	1281	0	11153610	10736843	11368421
19	535749	3	12	95	1651	1223	1872	11692289	11368422	12000000

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

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	1052243	2	8	70	1958	1424	0	1052243	0	1090908
2	209767	3	8	70	1062	1904	1525	1265392	1090909	2181817
3	997008	3	8	70	1578	1101	1502	2266891	2181818	3272726
4	1404665	3	8	95	1959	1707	1515	3675737	3272727	4363635
5	726484	2	8	75	1248	1069	0	4407402	4363636	5454544
6	1125625	1	8	85	1202	0	0	5535344	5454545	6545453
7	1080727	1	8	100	1079	0	0	6617273	6545454	7636362
8	1304985	2	8	65	1133	1205	0	7923337	7636363	8727271
9	1113196	2	8	80	1381	1475	0	9038871	8727272	9818180
10	1685646	1	8	85	1304	0	0	10727373	9818181	10909089
11	711472	3	8	65	1888	1909	1442	11440149	10909090	11999998

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

Type 5 Radar Waveform_23

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	528384	1	10	90	1804	0	0	528384	0	666666
2	782471	2	10	70	1160	1379	0	1312659	666667	1333333
3	555165	2	10	80	1120	1780	0	1870363	1333334	2000000
4	668604	2	10	60	1758	1634	0	2541867	2000001	2666667
5	222928	1	10	55	1731	0	0	2768187	2666668	3333334
6	840797	3	10	70	1650	1321	1480	3610715	3333335	4000001
7	1006456	2	10	95	1102	1202	0	4621622	4000002	4666668
8	446857	1	10	100	1683	0	0	5070783	4666669	5333335
9	430217	1	10	85	1255	0	0	5502683	5333336	6000002
10	1097844	2	10	60	1996	1367	0	6601782	6000003	6666669
11	421972	1	10	100	1306	0	0	7027117	6666670	7333336
12	694003	3	10	60	1947	1404	1432	7722426	7333337	8000003
13	655831	1	10	60	1357	0	0	8383040	8000004	8666670
14	573071	1	10	95	1923	0	0	8957468	8666671	9333337
15	756660	1	10	50	1404	0	0	9716051	9333338	10000004
16	394054	3	10	60	1738	1413	1635	10111509	10000005	10666671
17	870127	1	10	70	1638	0	0	10986422	10666672	11333338
18	710052	3	10	50	1628	1713	1579	11698112	11333339	12000005

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

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	702768	3	5	80	1432	1519	1377	702768	0	799999
2	324734	3	5	75	1314	1429	1287	1031830	800000	1599999
3	989438	3	5	60	1543	1391	1022	2025298	1600000	2399999
4	966478	3	5	85	1602	1589	1117	2995732	2400000	3199999
5	736976	1	5	70	1061	0	0	3737016	3200000	3999999
6	624215	2	5	90	1090	1758	0	4362292	4000000	4799999
7	701558	3	5	65	1562	1455	1909	5066698	4800000	5599999
8	678587	1	5	75	1379	0	0	5750211	5600000	6399999
9	774948	3	5	80	1045	1583	1537	6526538	6400000	7199999
10	674503	1	5	60	1536	0	0	7205206	7200000	7999999
11	824846	1	5	80	1415	0	0	8031588	8000000	8799999
12	1134555	1	5	75	1897	0	0	9167558	8800000	9599999
13	620900	3	5	90	1029	1131	1263	9790355	9600000	10399999
14	1090200	1	5	70	1255	0	0	10883978	10400000	11199999
15	542896	2	5	70	1734	1195	0	11428129	11200000	11999999

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

Type 5 Radar Waveform_25

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	779460	3	14	95	1881	1463	1863	779460	0	857142
2	721694	3	14	65	1044	1337	1212	1506361	857143	1714285
3	846760	1	14	65	1675	0	0	2356714	1714286	2571428
4	771675	2	14	50	1094	1313	0	3130064	2571429	3428571
5	568953	1	14	90	1432	0	0	3701424	3428572	4285714
6	862244	3	14	90	1820	1875	1322	4565100	4285715	5142857
7	1377107	3	14	60	1967	1902	1397	5947224	5142858	6000000
8	498930	2	14	100	1145	1580	0	6451420	6000001	6857143
9	609083	2	14	80	1358	1455	0	7063228	6857144	7714286
10	1355773	3	14	65	1131	1052	1576	8421814	7714287	8571429
11	315826	2	14	60	1651	1845	0	8741399	8571430	9428572
12	1495984	3	14	55	1920	1255	1699	10240879	9428573	10285715
13	600237	2	14	75	1654	1462	0	10845990	10285716	11142858
14	378307	3	14	70	1929	1323	1895	11227413	11142859	12000001

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

Type 5 Radar Waveform_26

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	88827	3	6	90	1846	1544	1258	88827	0	749999
2	1094733	1	6	70	1929	0	0	1188208	750000	1499999
3	804498	2	6	70	1932	1139	0	1994635	1500000	2249999
4	288695	1	6	50	1177	0	0	2286401	2250000	2999999
5	1044641	2	6	95	1013	1980	0	3332219	3000000	3749999
6	709293	1	6	60	1370	0	0	4044505	3750000	4499999
7	1158967	2	6	50	1405	1610	0	5204842	4500000	5249999
8	431824	1	6	80	1326	0	0	5639681	5250000	5999999
9	821836	2	6	100	1526	1160	0	6462843	6000000	6749999
10	464055	3	6	90	1308	1422	1891	6929584	6750000	7499999
11	1046273	2	6	55	1155	1785	0	7980478	7500000	8249999
12	933925	3	6	75	1607	1716	1371	8917343	8250000	8999999
13	773020	2	6	60	1505	1328	0	9695057	9000000	9749999
14	148856	1	6	60	1506	0	0	9846746	9750000	10499999
15	674772	3	6	80	1522	1377	1295	10523024	10500000	11249999
16	1141825	2	6	95	1710	1854	0	11669043	11250000	11999999

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

Type 5 Radar Waveform_27

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	841167	1	17	65	1695	0	0	841167	0	1090908
2	529875	3	17	80	1870	1575	1856	1372737	1090909	2181817
3	1135445	3	17	55	1154	1518	1944	2513483	2181818	3272726
4	1426382	3	17	90	1407	1879	1070	3944481	3272727	4363635
5	882071	3	17	75	1547	1269	1275	4830908	4363636	5454544
6	937122	2	17	95	1288	1832	0	5772121	5454545	6545453
7	955127	1	17	95	1947	0	0	6730368	6545454	7636362
8	1938565	3	17	95	1733	1646	1979	8670880	7636363	8727271
9	337850	2	17	70	1501	1872	0	9014088	8727272	9818180
10	1554627	2	17	100	1534	1313	0	10572088	9818181	10909089
11	430222	3	17	80	1272	1304	1477	11005157	10909090	11999998

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

Type 5 Radar Waveform_28

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	306354	2	9	80	1752	1059	0	306354	0	1199999
2	1712189	3	9	70	1645	1359	1796	2021354	1200000	2399999
3	1475059	2	9	55	1606	1867	0	3501213	2400000	3599999
4	795007	3	9	60	1006	1714	1103	4299693	3600000	4799999
5	1523630	2	9	90	1905	1001	0	5827146	4800000	5999999
6	477077	3	9	60	1294	1068	1324	6307129	6000000	7199999
7	899898	1	9	55	1544	0	0	7210713	7200000	8399999
8	1970540	3	9	85	1114	1285	1390	9182797	8400000	9599999
9	1419679	3	9	75	1817	1770	1476	10606265	9600000	10799999
10	888954	3	9	65	1868	1512	1125	11500282	10800000	11999999

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

Type 5 Radar Waveform_29

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	685737	2	19	70	1230	1218	0	685737	0	923076
2	630224	1	19	70	1915	0	0	1318409	923077	1846153
3	813603	3	19	55	1159	1925	1707	2133927	1846154	2769230
4	903632	1	19	95	1460	0	0	3042350	2769231	3692307
5	1246567	2	19	70	1087	1501	0	4290377	3692308	4615384
6	1217951	1	19	75	1670	0	0	5510916	4615385	5538461
7	683459	2	19	85	1305	1633	0	6196045	5538462	6461538
8	366105	1	19	95	1259	0	0	6565088	6461539	7384615
9	1007047	2	19	55	1661	1361	0	7573394	7384616	8307692
10	1316135	2	19	80	1143	1878	0	8892551	8307693	9230769
11	1187457	3	19	50	1605	1738	1198	10083029	9230770	10153846
12	954185	2	19	60	1893	1188	0	11041755	10153847	11076923
13	293640	1	19	50	1521	0	0	11338476	11076924	12000000

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

Type 5 Radar Waveform_30

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	559761	2	18	90	1035	1411	0	559761	0	1199999
2	1260235	3	18	70	1710	1404	1819	1822442	1200000	2399999
3	835694	1	18	95	1199	0	0	2663069	2400000	3599999
4	1664308	3	18	50	1330	1639	1576	4328576	3600000	4799999
5	487664	2	18	95	1235	1593	0	4820785	4800000	5999999
6	1996304	2	18	100	1539	1171	0	6819917	6000000	7199999
7	1126898	2	18	70	1463	1941	0	7949525	7200000	8399999
8	729975	2	18	50	1283	1756	0	8682904	8400000	9599999
9	1463125	3	18	70	1278	1268	1085	10149068	9600000	10799999
10	1228336	1	18	60	1901	0	0	11381035	10800000	11999999

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

Radar Type 6 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	1=Detection 0=No Detection	Trail #	Test Freq. (MHz)	1=Detection 0=No Detection
1	5292	1	16	5310	1
2	5292	1	17	5310	1
3	5292	1	18	5310	1
4	5292	1	19	5312	1
5	5300	1	20	5312	1
6	5300	1	21	5312	1
7	5300	1	22	5312	1
8	5300	1	23	5320	1
9	5308	1	24	5320	1
10	5308	1	25	5320	1
11	5308	1	26	5320	1
12	5308	1	27	5328	1
13	5310	1	28	5328	1
14	5310	1	29	5328	1
15	5310	1	30	5328	1
Detection Percentage (%)					100%

Radar waveform #1			Radar waveform #2		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
1	5313	3	44	5269	132
6	5273	18	52	5286	156
20	5317	60	55	5291	165
33	5272	99	60	5312	180
34	5291	102	78	5297	234
49	5301	147	98	5302	294
51	5263	153	--	--	--
54	5283	162	--	--	--
59	5282	177	--	--	--
64	5280	192	--	--	--
83	5322	249	--	--	--
95	5275	285	--	--	--
96	5268	288	--	--	--

Radar waveform #3			Radar waveform #4		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
6	5284	18	1	5314	3
17	5322	51	3	5267	9
19	5299	57	6	5277	18
33	5320	99	17	5262	51
37	5288	111	19	5297	57
41	5262	123	20	5321	60
48	5302	144	21	5307	63
52	5269	156	29	5293	87
53	5317	159	38	5285	114
68	5294	204	49	5313	147
73	5312	219	50	5291	150
74	5315	222	59	5296	177
88	5293	264	65	5271	195
95	5307	285	73	5263	219
--	--	--	85	5315	255
--	--	--	88	5279	264
--	--	--	95	5287	285
--	--	--	96	5311	288
--	--	--	97	5294	291

Radar waveform #5			Radar waveform #6		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
3	5280	9	16	5292	48
18	5275	54	37	5296	111
24	5300	72	44	5321	132
45	5299	135	50	5304	150
53	5311	159	63	5281	189
56	5293	168	70	5327	210
59	5276	177	74	5317	222
61	5295	183	77	5303	231
62	5329	186	88	5313	264
65	5320	195	90	5298	270
74	5325	222	91	5293	273
76	5281	228	93	5310	279
85	5313	255	96	5283	288
86	5271	258	--	--	--
88	5324	264	--	--	--
90	5286	270	--	--	--
96	5292	288	--	--	--

Radar waveform #7			Radar waveform #8		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
4	5302	12	5	5277	15
9	5278	27	11	5316	33
43	5282	129	14	5278	42
49	5325	147	22	5297	66
60	5319	180	26	5317	78
63	5283	189	35	5312	105
66	5330	198	41	5273	123
67	5303	201	50	5271	150
73	5275	219	55	5304	165
76	5286	228	63	5292	189
96	5273	288	68	5306	204
97	5270	291	76	5276	228
--	--	--	80	5280	240

Radar waveform #9			Radar waveform #10		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
32	5304	96	14	5293	42
33	5279	99	15	5307	45
49	5307	147	16	5280	48
51	5331	153	43	5290	129
55	5316	165	47	5283	141
59	5294	177	63	5332	189
63	5297	189	69	5336	207
77	5302	231	75	5279	225
81	5298	243	79	5303	237
87	5305	261	84	5292	252
88	5293	264	86	5289	258
98	5335	294	87	5312	261
--	--	--	89	5300	267
--	--	--	94	5317	282
--	--	--	98	5310	294

Radar waveform #11			Radar waveform #12		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
5	5293	15	10	5299	30
36	5296	108	41	5327	123
37	5325	111	50	5320	150
48	5323	144	51	5296	153
49	5336	147	61	5297	183
60	5286	180	64	5293	192
62	5288	186	72	5319	216
81	5287	243	78	5307	234
93	5330	279	93	5312	279
99	5315	297	--	--	--

Radar waveform #13			Radar waveform #14		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
0	5335	0	7	5290	21
6	5325	18	10	5322	30
26	5312	78	13	5308	39
30	5302	90	34	5287	102
31	5305	93	48	5312	144
33	5310	99	60	5333	180
39	5328	117	82	5330	246
41	5337	123	83	5319	249
43	5321	129	94	5297	282
57	5287	171	95	5309	285
67	5333	201	--	--	--
68	5319	204	--	--	--
74	5308	222	--	--	--
75	5283	225	--	--	--

Radar waveform #15			Radar waveform #16		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
5	5337	15	5	5324	15
8	5315	24	16	5323	48
15	5333	45	17	5309	51
23	5331	69	19	5334	57
31	5288	93	33	5297	99
32	5326	96	40	5296	120
41	5280	123	43	5322	129
44	5306	132	48	5301	144
51	5320	153	51	5332	153
53	5307	159	62	5283	186
57	5332	171	80	5289	240
58	5314	174	90	5293	270
64	5339	192	91	5302	273
69	5286	207	94	5280	282
74	5325	222	97	5307	291
84	5281	252	99	5331	297
89	5295	267	--	--	--
96	5289	288	--	--	--

Radar waveform #17			Radar waveform #18		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
23	5289	69	2	5283	6
25	5332	75	3	5317	9
28	5327	84	4	5310	12
30	5293	90	6	5316	18
70	5295	210	12	5293	36
73	5291	219	16	5302	48
78	5287	234	17	5308	51
94	5297	282	23	5330	69
98	5312	294	26	5307	78
--	--	--	29	5315	87
--	--	--	31	5322	93
--	--	--	33	5303	99
--	--	--	47	5321	141
--	--	--	58	5339	174
--	--	--	66	5331	198
--	--	--	69	5296	207
--	--	--	73	5289	219
--	--	--	74	5320	222
--	--	--	75	5311	225
--	--	--	78	5284	234
--	--	--	80	5338	240
--	--	--	93	5318	279

Radar waveform #19			Radar waveform #20		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
0	5334	0	3	5322	9
37	5302	111	8	5307	24
47	5287	141	20	5294	60
51	5326	153	28	5302	84
55	5296	165	44	5342	132
63	5304	189	66	5297	198
65	5312	195	76	5293	228
66	5335	198	79	5332	237
67	5311	201	80	5327	240
68	5322	204	82	5328	246
69	5288	207	85	5337	255
85	5314	255	86	5338	258
--	--	--	96	5287	288
--	--	--	98	5320	294
--	--	--	99	5291	297

Radar waveform #21			Radar waveform #22		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
15	5325	45	1	5310	3
20	5292	60	2	5297	6
25	5310	75	3	5324	9
28	5299	84	14	5298	42
40	5330	120	16	5304	48
43	5323	129	17	5315	51
61	5298	183	18	5331	54
62	5312	186	22	5320	66
64	5293	192	38	5290	114
74	5341	222	44	5300	132
82	5337	246	45	5311	135
91	5302	273	51	5288	153
98	5342	294	59	5326	177
--	--	--	89	5302	267
--	--	--	90	5296	270
--	--	--	91	5293	273

Radar waveform #23			Radar waveform #24		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
26	5290	78	2	5341	6
29	5314	87	9	5303	27
39	5315	117	26	5310	78
51	5340	153	41	5296	123
57	5342	171	44	5290	132
61	5331	183	55	5295	165
63	5303	189	64	5315	192
75	5317	225	76	5332	228
77	5311	231	83	5318	249
84	5347	252	86	5338	258
87	5345	261	94	5321	282
92	5295	276	96	5325	288
95	5309	285	97	5302	291

Radar waveform #25			Radar waveform #26		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
12	5340	36	3	5302	9
14	5344	42	11	5294	33
22	5323	66	29	5327	87
24	5350	72	34	5337	102
25	5342	75	43	5299	129
33	5320	99	46	5323	138
45	5309	135	48	5326	144
51	5346	153	65	5311	195
58	5312	174	71	5325	213
66	5328	198	80	5319	240
77	5302	231	81	5342	243
85	5345	255	83	5291	249
--	--	--	98	5334	294

Radar waveform #27			Radar waveform #28		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
17	5310	51	8	5331	24
30	5333	90	12	5355	36
32	5352	96	16	5303	48
43	5320	129	36	5356	108
48	5301	144	40	5328	120
57	5339	171	49	5312	147
59	5332	177	62	5347	186
62	5300	186	71	5308	213
75	5345	225	74	5338	222
85	5303	255	78	5330	234
90	5323	270	80	5313	240
94	5317	282	--	--	--
96	5325	288	--	--	--
98	5308	294	--	--	--

Radar waveform #27			Radar waveform #28		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
6	5344	18	10	5358	30
8	5318	24	13	5353	39
9	5300	27	18	5346	54
11	5356	33	19	5355	57
17	5342	51	45	5342	135
27	5322	81	67	5303	201
31	5354	93	91	5321	273
41	5346	123	99	5333	297
43	5335	129	--	--	--
46	5302	138	--	--	--
47	5319	141	--	--	--
54	5339	162	--	--	--
58	5303	174	--	--	--
62	5298	186	--	--	--
64	5304	192	--	--	--
65	5329	195	--	--	--
66	5357	198	--	--	--
86	5327	258	--	--	--

Radar Statistical Performance for 802.11ac-VHT80

Radar Type 1 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5252	1	838	63	1
2	5252	1	778	68	1
3	5260	1	678	78	1
4	5260	1	618	86	1
5	5268	1	698	76	1
6	5268	1	798	67	1
7	5270	1	738	72	1
8	5270	1	758	70	1
9	5272	1	718	74	1
10	5272	1	3066	18	1
11	5280	1	558	95	1
12	5280	1	938	57	1
13	5288	1	518	102	1
14	5288	1	598	89	1
15	5290	1	818	65	1
16	5290	1	2511	22	1
17	5292	1	636	83	1
18	5292	1	2272	24	1
19	5300	1	1663	32	1
20	5300	1	1912	28	1
21	5308	1	2581	21	1
22	5308	1	1909	28	1
23	5310	1	860	62	1
24	5310	1	2934	18	1
25	5312	1	1065	50	1
26	5312	1	1286	42	1
27	5320	1	2836	19	1
28	5320	1	1648	33	1
29	5328	1	2323	23	1
30	5328	1	2862	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	5252	2.5	159	27	1
2	5252	2.0	230	26	1
3	5260	2.9	221	23	1
4	5260	5.0	158	26	1
5	5268	3.1	169	25	1
6	5268	4.6	172	27	1
7	5270	3.1	181	25	1
8	5270	4.3	183	23	1
9	5272	1.9	209	29	1
10	5272	3.9	184	24	1
11	5280	3.8	224	26	1
12	5280	2.1	156	26	1
13	5288	1.4	212	26	1
14	5288	2.6	227	26	1
15	5290	2.2	175	24	1
16	5290	1.9	223	28	1
17	5292	4.8	224	28	1
18	5292	3.8	213	27	1
19	5300	4.9	229	23	1
20	5300	2.8	171	25	1
21	5308	1.7	170	25	1
22	5308	5.0	224	29	1
23	5310	2.2	188	29	1
24	5310	3.9	152	24	1
25	5312	1.0	220	29	1
26	5312	1.1	180	26	1
27	5320	2.9	160	23	1
28	5320	1.7	223	25	1
29	5328	4.1	177	29	1
30	5328	1.0	159	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	5252	9.1	480	16	1
2	5252	9.7	259	16	1
3	5260	6.9	272	16	1
4	5260	9.1	329	16	1
5	5268	8.5	480	17	1
6	5268	6.2	473	17	1
7	5270	8.7	366	18	1
8	5270	6.7	411	16	1
9	5272	8.3	295	16	1
10	5272	8.4	462	18	1
11	5280	6.2	439	16	1
12	5280	9.8	250	16	1
13	5288	9.2	422	18	1
14	5288	8.2	402	16	1
15	5290	7.3	429	17	1
16	5290	6.8	345	16	1
17	5292	8.1	285	16	1
18	5292	8.8	282	17	1
19	5300	9.6	292	17	1
20	5300	6.4	459	18	1
21	5308	8.7	316	18	1
22	5308	9.2	398	17	1
23	5310	6.5	364	17	1
24	5310	6.6	441	18	1
25	5312	6.0	391	18	1
26	5312	6.3	445	17	1
27	5320	7.2	414	17	1
28	5320	8.3	410	17	1
29	5328	8.8	358	16	1
30	5328	8.9	382	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	5252	12.5	498	15	1
2	5252	13.6	465	12	1
3	5260	15.6	339	16	1
4	5260	17.1	427	13	1
5	5268	14.8	490	14	1
6	5268	12.9	410	16	1
7	5270	17.8	292	15	1
8	5270	12.0	397	16	1
9	5272	19.3	257	13	1
10	5272	19.1	345	16	1
11	5280	19.6	318	16	1
12	5280	11.4	439	14	1
13	5288	18.8	361	15	1
14	5288	15.4	415	14	1
15	5290	17.2	290	16	1
16	5290	13.0	348	16	1
17	5292	19.7	334	12	1
18	5292	11.4	293	12	1
19	5300	16.2	329	16	1
20	5300	19.4	492	13	1
21	5308	12.8	438	12	1
22	5308	13.8	264	13	1
23	5310	17.7	272	14	1
24	5310	11.8	444	16	1
25	5312	13.5	446	13	1
26	5312	14.4	392	13	1
27	5320	16.0	280	12	1
28	5320	15.8	372	12	1
29	5328	13.3	383	15	1
30	5328	12.1	452	15	1
Detection Percentage (%)					100%

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

Radar Type 5 - Radar Statistical Performance

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

Type 5 Radar Waveform_1

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	758415	2	6	50	1380	1252	0	758415	0	799999
2	51211	2	6	80	1396	1279	0	812258	800000	1599999
3	1286971	2	6	65	1454	1153	0	2101904	1600000	2399999
4	609811	3	6	95	1473	1072	1316	2714322	2400000	3199999
5	782548	3	6	90	1512	1079	1736	3500731	3200000	3999999
6	982910	2	6	90	1390	1793	0	4487968	4000000	4799999
7	943471	2	6	90	1715	1504	0	5434622	4800000	5599999
8	832129	3	6	65	1168	1424	1568	6269970	5600000	6399999
9	796534	2	6	55	1349	1661	0	7070664	6400000	7199999
10	236368	1	6	100	1733	0	0	7310042	7200000	7999999
11	945575	2	6	80	1126	1882	0	8257350	8000000	8799999
12	1179350	3	6	75	1174	1134	1759	9439708	8800000	9599999
13	308043	2	6	95	1493	1802	0	9751818	9600000	10399999
14	1189990	1	6	100	1442	0	0	10945103	10400000	11199999
15	970645	1	6	65	1414	0	0	11917190	11200000	11999999

Total number of pulses in waveform = 31

****

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	469713	2	19	65	1498	1443	0	469713	0	1090908
2	1127595	3	19	95	1581	1374	1966	1600249	1090909	2181817
3	1090747	2	19	85	1338	1081	0	2695917	2181818	3272726
4	1310725	2	19	75	1906	1593	0	4009061	3272727	4363635
5	991942	2	19	70	1411	1077	0	5004502	4363636	5454544
6	1403643	2	19	60	1251	1499	0	6410633	5454545	6545453
7	692140	3	19	95	1523	1772	1163	7105523	6545454	7636362
8	1348232	1	19	55	1020	0	0	8458213	7636363	8727271
9	789214	2	19	50	1554	1465	0	9248447	8727272	9818180
10	768509	1	19	100	1290	0	0	10019975	9818181	10909089
11	1519509	3	19	95	1035	1132	1205	11540774	10909090	11999998

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

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	18351	1	9	65	1575	0	0	18351	0	923076
2	1198443	3	9	60	1161	1431	1405	1218369	923077	1846153
3	1144473	2	9	90	1060	1149	0	2366839	1846154	2769230
4	639834	1	9	95	1636	0	0	3008882	2769231	3692307
5	711095	1	9	60	1909	0	0	3721613	3692308	4615384
6	1350675	3	9	90	1804	1524	1621	5074197	4615385	5538461
7	1227517	2	9	80	1389	1414	0	6306663	5538462	6461538
8	537521	3	9	95	1004	1647	1773	6846987	6461539	7384615
9	1150118	3	9	70	1147	1668	1919	8001529	7384616	8307692
10	649225	1	9	50	1419	0	0	8655488	8307693	9230769
11	628239	1	9	70	1927	0	0	9285146	9230770	10153846
12	1559982	1	9	60	1810	0	0	10847055	10153847	11076923
13	390428	2	9	90	1469	1372	0	11239293	11076924	12000000

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

Type 5 Radar Waveform_4

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	622605	1	12	65	1374	0	0	622605	0	666666
2	432417	2	12	75	1062	1852	0	1056396	666667	1333333
3	938157	1	12	70	1424	0	0	1997467	1333334	2000000
4	175225	3	12	70	1825	1319	1978	2174116	2000001	2666667
5	1022175	2	12	60	1639	1637	0	3201413	2666668	3333334
6	633331	1	12	85	1652	0	0	3838020	3333335	4000001
7	695747	2	12	95	1737	1918	0	4535419	4000002	4666668
8	500599	1	12	55	1870	0	0	5039673	4666669	5333335
9	938681	2	12	75	1936	1560	0	5980224	5333336	6000002
10	480362	3	12	65	1464	1440	1318	6464082	6000003	6666669
11	452159	1	12	60	1868	0	0	6920463	6666670	7333336
12	870503	2	12	60	1425	1394	0	7792834	7333337	8000003
13	813092	2	12	100	1841	1128	0	8608745	8000004	8666670
14	679404	2	12	80	1048	1209	0	9291118	8666671	9333337
15	161879	2	12	75	1289	1871	0	9455254	9333338	10000004
16	1067058	1	12	100	1845	0	0	10525472	10000005	10666671
17	355007	1	12	60	1488	0	0	10882324	10666672	11333338
18	872547	3	12	65	1613	1505	1459	11756359	11333339	12000005

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

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	1366366	2	18	95	1682	1075	0	1366366	0	1499999
2	1527869	1	18	70	1414	0	0	2896992	1500000	2999999
3	1512459	2	18	80	1407	1493	0	4410865	3000000	4499999
4	1314897	1	18	70	1469	0	0	5728662	4500000	5999999
5	1547200	1	18	95	1067	0	0	7277331	6000000	7499999
6	1551416	1	18	75	1005	0	0	8829814	7500000	8999999
7	1361549	1	18	95	1388	0	0	10192368	9000000	10499999
8	824371	1	18	70	1184	0	0	11018127	10500000	11999999

Total number of pulses in waveform = 10
****

Type 5 Radar Waveform_6

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	234945	3	17	50	1509	1221	1216	234945	0	857142
2	1118707	2	17	90	1072	1034	0	1357598	857143	1714285
3	1099092	3	17	85	1792	1854	1075	2458796	1714286	2571428
4	114679	1	17	80	1426	0	0	2578196	2571429	3428571
5	1226972	2	17	80	1451	1928	0	3806594	3428572	4285714
6	912669	3	17	100	1927	1000	1603	4722642	4285715	5142857
7	584751	1	17	60	1144	0	0	5311923	5142858	6000000
8	1159907	1	17	55	1106	0	0	6472974	6000001	6857143
9	1004220	2	17	65	1816	1177	0	7478300	6857144	7714286
10	642499	2	17	70	1607	1761	0	8123792	7714287	8571429
11	610296	3	17	80	1212	1136	1149	8737456	8571430	9428572
12	1411665	2	17	65	1500	1140	0	10152618	9428573	10285715
13	232645	1	17	60	1065	0	0	10387903	10285716	11142858
14	1143980	3	17	60	1564	1744	1465	11532948	11142859	12000001

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

Type 5 Radar Waveform_7

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	586378	1	5	85	1229	0	0	586378	0	1499999
2	1276897	2	5	95	1898	1041	0	1864504	1500000	2999999
3	1611526	2	5	90	1821	1289	0	3478969	3000000	4499999
4	1598294	1	5	80	1351	0	0	5080373	4500000	5999999
5	1149855	3	5	70	1026	1410	1558	6231579	6000000	7499999
6	2375480	2	5	75	1588	1339	0	8611053	7500000	8999999
7	1659213	1	5	70	1884	0	0	10273193	9000000	10499999
8	1193130	3	5	95	1245	1254	1647	11468207	10500000	11999999

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

Type 5 Radar Waveform_8

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	41490	2	10	55	1150	1755	0	41490	0	631578
2	1020547	3	10	100	1816	1966	1688	1064942	631579	1263157
3	580458	1	10	65	1527	0	0	1650870	1263158	1894736
4	544902	2	10	60	1337	1009	0	2197299	1894737	2526315
5	681688	1	10	100	1927	0	0	2881333	2526316	3157894
6	717692	3	10	60	1293	1697	1056	3600952	3157895	3789473
7	346659	1	10	80	1556	0	0	3951657	3789474	4421052
8	747270	2	10	90	1790	1346	0	4700483	4421053	5052631
9	858314	1	10	100	1016	0	0	5561933	5052632	5684210
10	182572	1	10	70	1779	0	0	5745521	5684211	6315789
11	689973	2	10	100	1672	1065	0	6437273	6315790	6947368
12	904481	1	10	60	1590	0	0	7344491	6947369	7578947
13	532985	3	10	55	1654	1295	1541	7879066	7578948	8210526
14	626419	1	10	60	1422	0	0	8509975	8210527	8842105
15	731710	1	10	65	1616	0	0	9243107	8842106	9473684
16	559259	2	10	100	1588	1260	0	9803982	9473685	10105263
17	381330	1	10	70	1337	0	0	10188160	10105264	10736842
18	585629	3	10	95	1454	1113	1175	10775126	10736843	11368421
19	593410	2	10	90	1954	1987	0	11372278	11368422	12000000

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

Type 5 Radar Waveform_9

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	316527	1	14	65	1122	0	0	316527	0	799999
2	1200752	1	14	50	1232	0	0	1518401	800000	1599999
3	171635	1	14	55	1318	0	0	1691268	1600000	2399999
4	1238670	2	14	85	1562	1849	0	2931256	2400000	3199999
5	666558	3	14	65	1022	1132	1698	3601225	3200000	3999999
6	1062750	1	14	75	1737	0	0	4667827	4000000	4799999
7	437822	2	14	95	1766	1527	0	5107386	4800000	5599999
8	1090727	2	14	80	1493	1355	0	6201406	5600000	6399999
9	444296	1	14	100	1126	0	0	6648550	6400000	7199999
10	897666	1	14	75	1570	0	0	7547342	7200000	7999999
11	988540	3	14	100	1749	1636	1768	8537452	8000000	8799999
12	1024999	3	14	85	1532	1879	1325	9567604	8800000	9599999
13	120587	3	14	70	1275	1057	1875	9692927	9600000	10399999
14	790017	3	14	65	1886	1504	1258	10487151	10400000	11199999
15	907060	2	14	60	1960	1697	0	11398859	11200000	11999999

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

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	200514	1	8	85	1897	0	0	200514	0	705881
2	928327	3	8	80	1160	1217	1574	1130738	705882	1411763
3	774042	1	8	70	1429	0	0	1908731	1411764	2117645
4	342512	1	8	70	1348	0	0	2252672	2117646	2823527
5	767803	3	8	90	1474	1473	1900	3021823	2823528	3529409
6	711616	1	8	55	1373	0	0	3738286	3529410	4235291
7	542935	3	8	85	1554	1666	1772	4282594	4235292	4941173
8	1118345	2	8	100	1076	1704	0	5405931	4941174	5647055
9	689034	3	8	85	1950	1422	1365	6097745	5647056	6352937
10	424874	3	8	100	1649	1975	1321	6527356	6352938	7058819
11	1120833	3	8	75	1657	1919	1399	7653134	7058820	7764701
12	252851	3	8	85	1801	1553	1356	7910960	7764702	8470583
13	971025	2	8	80	1306	1474	0	8886695	8470584	9176465
14	547997	2	8	95	1471	1076	0	9437472	9176466	9882347
15	748412	3	8	70	1938	1605	1875	10186431	9882348	10588229
16	635222	1	8	65	1550	0	0	10829071	10588230	11294111
17	1093182	2	8	50	1559	1627	0	11923803	11294112	11999993

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

Type 5 Radar Waveform_11

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	498249	3	6	55	1638	1565	1313	498249	0	749999
2	393997	1	6	80	1270	0	0	896762	750000	1499999
3	970597	2	6	85	1960	1010	0	1868629	1500000	2249999
4	558290	1	6	50	1300	0	0	2429889	2250000	2999999
5	704377	3	6	50	1036	1566	1277	3135566	3000000	3749999
6	1068833	2	6	65	1304	1911	0	4208278	3750000	4499999
7	888533	2	6	100	1741	1704	0	5100026	4500000	5249999
8	817389	3	6	50	1836	1329	1065	5920860	5250000	5999999
9	104782	1	6	90	1541	0	0	6029872	6000000	6749999
10	1378295	2	6	85	1756	1606	0	7409708	6750000	7499999
11	323385	1	6	100	1617	0	0	7736455	7500000	8249999
12	908937	3	6	90	1367	1238	1899	8647009	8250000	8999999
13	446989	2	6	60	1464	1440	0	9098502	9000000	9749999
14	1117701	2	6	65	1700	1648	0	10219107	9750000	10499999
15	480155	3	6	65	1014	1065	1169	10702610	10500000	11249999
16	909156	1	6	100	1060	0	0	11615014	11250000	11999999

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

Type 5 Radar Waveform_12

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	761306	1	9	100	1085	0	0	761306	0	1333332
2	1011770	1	9	90	1848	0	0	1774161	1333333	2666665
3	1995871	1	9	55	1579	0	0	3771880	2666666	3999998
4	382113	2	9	80	1908	1870	0	4155572	3999999	5333331
5	1799900	3	9	60	1449	1971	1019	5959250	5333332	6666664
6	1480575	1	9	50	1195	0	0	7444264	6666665	7999997
7	652267	3	9	65	1005	1611	1916	8097726	7999998	9333330
8	2238266	1	9	80	1343	0	0	10340524	9333331	10666663
9	573553	1	9	55	1679	0	0	10915420	10666664	11999996

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

Type 5 Radar Waveform_13

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	552442	1	17	65	1239	0	0	552442	0	631578
2	497172	1	17	95	1074	0	0	1050853	631579	1263157
3	520141	1	17	95	1621	0	0	1572068	1263158	1894736
4	678696	2	17	80	1783	1366	0	2252385	1894737	2526315
5	646475	3	17	50	1546	1978	1914	2902009	2526316	3157894
6	567266	2	17	80	1619	1364	0	3474713	3157895	3789473
7	451150	3	17	90	1134	1284	1715	3928846	3789474	4421052
8	666533	3	17	70	1934	1571	1117	4599512	4421053	5052631
9	1049974	3	17	85	1524	1936	1176	5654108	5052632	5684210
10	145371	1	17	90	1228	0	0	5804115	5684211	6315789
11	575194	1	17	75	1183	0	0	6380537	6315790	6947368
12	859884	3	17	80	1493	1218	1700	7241604	6947369	7578947
13	606635	3	17	60	1162	1251	1041	7852650	7578948	8210526
14	415521	1	17	65	1437	0	0	8271625	8210527	8842105
15	579104	1	17	95	1228	0	0	8852166	8842106	9473684
16	1211766	2	17	95	1761	1692	0	10065160	9473685	10105263
17	466332	1	17	75	1810	0	0	10534945	10105264	10736842
18	227977	2	17	50	1769	1299	0	10764732	10736843	11368421
19	913221	3	17	65	1437	1225	1840	11681021	11368422	12000000

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

Type 5 Radar Waveform_14

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	335	2	12	85	1626	1322	0	335	0	799999
2	1451066	2	12	90	1407	1827	0	1454349	800000	1599999
3	594886	1	12	90	1290	0	0	2052469	1600000	2399999
4	528801	1	12	90	1912	0	0	2582560	2400000	3199999
5	1221416	3	12	95	1952	1904	1456	3805888	3200000	3999999
6	358509	2	12	90	1167	1548	0	4169709	4000000	4799999
7	628543	3	12	50	1453	1779	1635	4800967	4800000	5599999
8	1386780	3	12	50	1750	1465	1158	6192614	5600000	6399999
9	535891	2	12	75	1115	1300	0	6732878	6400000	7199999
10	928768	3	12	80	1256	1313	1445	7664061	7200000	7999999
11	874315	1	12	50	1617	0	0	8542390	8000000	8799999
12	828689	1	12	95	1560	0	0	9372696	8800000	9599999
13	456526	1	12	70	1980	0	0	9830782	9600000	10399999
14	651461	2	12	85	1159	1077	0	10484223	10400000	11199999
15	1290258	2	12	55	1118	1265	0	11776717	11200000	11999999

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

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	154618	2	18	90	1127	1878	0	154618	0	705881
2	1153498	3	18	100	1053	1521	1399	1311121	705882	1411763
3	781524	2	18	65	1670	1136	0	2096618	1411764	2117645
4	433093	2	18	65	1641	1221	0	2532517	2117646	2823527
5	357862	2	18	60	1961	1137	0	2893241	2823528	3529409
6	855759	2	18	100	1963	1745	0	3752098	3529410	4235291
7	964782	1	18	60	1825	0	0	4720588	4235292	4941173
8	562267	3	18	90	1631	1992	1630	5284680	4941174	5647055
9	801090	3	18	95	1215	1618	1427	6091023	5647056	6352937
10	587175	1	18	85	1238	0	0	6682458	6352938	7058819
11	617393	1	18	100	1888	0	0	7301089	7058820	7764701
12	1121309	3	18	80	1523	1427	1485	8424286	7764702	8470583
13	515436	3	18	75	1572	1368	1211	8944157	8470584	9176465
14	653543	1	18	75	1951	0	0	9601851	9176466	9882347
15	818779	2	18	55	1393	1002	0	10422581	9882348	10588229
16	221157	2	18	50	1297	1239	0	10646133	10588230	11294111
17	855068	3	18	90	1541	1360	1036	11503737	11294112	11999993

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

Type 5 Radar Waveform_16

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	693269	1	5	55	1209	0	0	693269	0	923076
2	480102	2	5	75	1113	1244	0	1174580	923077	1846153
3	1067581	3	5	100	1852	1320	1542	2244518	1846154	2769230
4	698192	3	5	85	1250	1989	1257	2947424	2769231	3692307
5	1108696	2	5	80	1018	1573	0	4060616	3692308	4615384
6	718214	2	5	90	1735	1098	0	4781421	4615385	5538461
7	1514175	3	5	55	1822	1864	1182	6298429	5538462	6461538
8	766707	1	5	60	1803	0	0	7070004	6461539	7384615
9	864948	2	5	85	1183	1542	0	7936755	7384616	8307692
10	1146420	3	5	85	1565	1123	1060	9085900	8307693	9230769
11	753808	2	5	70	1610	1840	0	9843456	9230770	10153846
12	1193817	3	5	90	1819	1794	1942	11040723	10153847	11076923
13	336356	2	5	80	1411	1850	0	11382634	11076924	12000000

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

Type 5 Radar Waveform_17

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	532501	2	10	50	1708	1460	0	532501	0	857142
2	1147112	3	10	85	1284	1734	1166	1682781	857143	1714285
3	610741	3	10	60	1462	1399	1892	2297706	1714286	2571428
4	1042952	3	10	65	1891	1849	1900	3345411	2571429	3428571
5	804868	2	10	80	1588	1780	0	4155919	3428572	4285714
6	169994	2	10	55	1414	1653	0	4329281	4285715	5142857
7	1553483	3	10	90	1241	1333	1397	5885831	5142858	6000000
8	879895	2	10	55	1089	1987	0	6769697	6000001	6857143
9	470966	3	10	95	1081	1302	1461	7243739	6857144	7714286
10	1250958	1	10	65	1699	0	0	8498541	7714287	8571429
11	203828	1	10	85	1806	0	0	8704068	8571430	9428572
12	1164678	2	10	80	1263	1509	0	9870552	9428573	10285715
13	1007487	2	10	90	1298	1573	0	10880811	10285716	11142858
14	520454	1	10	55	1924	0	0	11404136	11142859	12000001

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

Type 5 Radar Waveform_18

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	518446	2	8	95	1670	1637	0	518446	0	666666
2	315003	2	8	90	1650	1651	0	836756	666667	1333333
3	1052039	2	8	75	1570	1235	0	1892096	1333334	2000000
4	322926	2	8	70	1797	1375	0	2217827	2000001	2666667
5	858789	2	8	50	1865	1120	0	3079788	2666668	3333334
6	759468	3	8	75	1896	1816	1556	3842241	3333335	4000001
7	430280	1	8	60	1757	0	0	4277789	4000002	4666668
8	495034	3	8	70	1498	1244	1305	4774580	4666669	5333335
9	631338	2	8	50	1240	1632	0	5409965	5333336	6000002
10	934903	2	8	55	1119	1390	0	6347740	6000003	6666669
11	846574	2	8	50	1215	1013	0	7196823	6666670	7333336
12	753647	2	8	55	1132	1929	0	7952698	7333337	8000003
13	377362	3	8	70	1052	1141	1247	8333121	8000004	8666670
14	330966	3	8	75	1454	1228	1168	8667527	8666671	9333337
15	1158828	1	8	55	1976	0	0	9830205	9333338	10000004
16	395665	3	8	75	1275	1924	1361	10227846	10000005	10666671
17	1039149	1	8	90	1853	0	0	11271555	10666672	11333338
18	128241	2	8	65	1084	1378	0	11401649	11333339	12000005

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

Type 5 Radar Waveform_19

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	260745	3	19	100	1362	1407	1871	260745	0	705881
2	820334	1	19	50	1725	0	0	1085719	705882	1411763
3	682676	3	19	95	1301	1153	1687	1770120	1411764	2117645
4	380695	3	19	65	1552	1249	1921	2154956	2117646	2823527
5	907668	3	19	55	1219	1363	1544	3067346	2823528	3529409
6	1111107	2	19	85	1089	1753	0	4182579	3529410	4235291
7	617723	3	19	70	1306	1963	1099	4803144	4235292	4941173
8	459697	1	19	80	1343	0	0	5267209	4941174	5647055
9	686902	1	19	90	1992	0	0	5955454	5647056	6352937
10	692298	3	19	75	1065	1762	1913	6649744	6352938	7058819
11	442757	3	19	55	1956	1802	1717	7097241	7058820	7764701
12	995803	2	19	55	1703	1274	0	8098519	7764702	8470583
13	834540	1	19	75	1654	0	0	8936036	8470584	9176465
14	503989	2	19	55	1995	1654	0	9441679	9176466	9882347
15	465095	1	19	50	1686	0	0	9910423	9882348	10588229
16	845597	1	19	65	1185	0	0	10757706	10588230	11294111
17	1103371	1	19	75	1943	0	0	11862262	11294112	11999993

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

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	118807	1	14	55	1190	0	0	118807	0	599999
2	1054201	3	14	100	1860	1251	1891	1174198	600000	1199999
3	180747	2	14	75	1596	1469	0	1359947	1200000	1799999
4	545358	3	14	70	1339	1769	1651	1908370	1800000	2399999
5	816438	3	14	70	1134	1103	1556	2729567	2400000	2999999
6	603069	1	14	90	1992	0	0	3336429	3000000	3599999
7	716723	2	14	100	1052	1149	0	4055144	3600000	4199999
8	294521	2	14	80	1920	1162	0	4351866	4200000	4799999
9	762270	2	14	60	1641	1596	0	5117218	4800000	5399999
10	573759	3	14	60	1113	1100	1632	5694214	5400000	5999999
11	332876	3	14	100	1641	1967	1501	6030935	6000000	6599999
12	679530	3	14	65	1391	1863	1435	6715574	6600000	7199999
13	1024745	1	14	70	1856	0	0	7745008	7200000	7799999
14	273304	1	14	95	1408	0	0	8020168	7800000	8399999
15	860743	3	14	100	1113	1810	1693	8882319	8400000	8999999
16	679978	1	14	95	1850	0	0	9566913	9000000	9599999
17	452403	1	14	80	1503	0	0	10021186	9600000	10199999
18	494286	2	14	55	1568	1602	0	10516955	10200000	10799999
19	847522	2	14	60	1846	1512	0	11367647	10800000	11399999
20	335459	3	14	100	1330	1918	1528	11706464	11400000	11999999

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

Type 5 Radar Waveform_21

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	640186	2	12	60	1686	1226	0	640186	0	1199999
2	1063366	2	12	70	1583	1879	0	1706464	1200000	2399999
3	1442129	3	12	50	1744	1440	1485	3152055	2400000	3599999
4	519786	1	12	70	1054	0	0	3676510	3600000	4799999
5	1873599	1	12	95	1837	0	0	5551163	4800000	5999999
6	759393	1	12	95	1249	0	0	6312393	6000000	7199999
7	1551051	3	12	50	1032	1409	1940	7864693	7200000	8399999
8	1255005	2	12	55	1807	1732	0	9124079	8400000	9599999
9	963270	3	12	75	1775	1529	1483	10090888	9600000	10799999
10	763859	3	12	65	1310	1364	1968	10859534	10800000	11999999

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

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	843388	1	17	90	1707	0	0	843388	0	1090908
2	938607	3	17	85	1152	1293	1810	1783702	1090909	2181817
3	778256	2	17	75	1695	1483	0	2566213	2181818	3272726
4	1130770	3	17	85	1275	1981	1516	3700161	3272727	4363635
5	1417224	1	17	90	1443	0	0	5122157	4363636	5454544
6	879430	1	17	95	1924	0	0	6003030	5454545	6545453
7	703918	1	17	80	1390	0	0	6708872	6545454	7636362
8	1953519	3	17	80	1890	1009	1193	8663781	7636363	8727271
9	960482	3	17	90	1219	1245	1620	9628355	8727272	9818180
10	1109657	1	17	85	1050	0	0	10742096	9818181	10909089
11	260510	2	17	75	1508	1861	0	11003656	10909090	11999998

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

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	803329	3	9	55	1388	1086	1177	803329	0	1499999
2	738794	1	9	75	1751	0	0	1545774	1500000	2999999
3	1491168	3	9	65	1521	1979	1383	3038693	3000000	4499999
4	1930824	3	9	50	1904	1041	1126	4974400	4500000	5999999
5	1327446	2	9	75	1968	1901	0	6305917	6000000	7499999
6	2235645	3	9	85	1055	1167	1697	8545431	7500000	8999999
7	762771	2	9	90	1374	1029	0	9312121	9000000	10499999
8	1609305	1	9	50	1213	0	0	10923829	10500000	11999999

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

Type 5 Radar Waveform_24

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	131839	2	14	75	1351	1199	0	131839	0	1499999
2	1735916	1	14	65	1564	0	0	1870305	1500000	2999999
3	1328160	3	14	90	1675	1964	1398	3200029	3000000	4499999
4	2287306	3	14	80	1887	1942	1436	5492372	4500000	5999999
5	747694	3	14	50	1745	1710	1170	6245331	6000000	7499999
6	1908705	3	14	55	1740	1019	1669	8158661	7500000	8999999
7	1066751	2	14	95	1283	1551	0	9229840	9000000	10499999
8	1393442	1	14	95	1877	0	0	10626116	10500000	11999999

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

Type 5 Radar Waveform_25

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	152982	1	5	80	1419	0	0	152982	0	666666
2	1022875	3	5	75	1236	1128	1482	1177276	666667	1333333
3	280875	2	5	55	1667	1249	0	1461997	1333334	2000000
4	576456	2	5	65	1295	1308	0	2041369	2000001	2666667
5	1204560	1	5	75	1063	0	0	3248532	2666668	3333334
6	523366	2	5	75	1941	1626	0	3772961	3333335	4000001
7	409926	3	5	95	1950	1197	1522	4186454	4000002	4666668
8	981060	3	5	80	1875	1971	1376	5172183	4666669	5333335
9	603963	3	5	90	1244	1434	1331	5781368	5333336	6000002
10	562602	1	5	85	1634	0	0	6347979	6000003	6666669
11	499462	2	5	85	1584	1891	0	6849075	6666670	7333336
12	607102	2	5	60	1784	1502	0	7459652	7333337	8000003
13	883325	2	5	65	1690	1650	0	8346263	8000004	8666670
14	480746	1	5	90	1486	0	0	8830349	8666671	9333337
15	947030	1	5	95	1928	0	0	9778865	9333338	10000004
16	503016	3	5	95	1403	1125	1252	10283809	10000005	10666671
17	699211	3	5	80	1768	1204	1801	10986800	10666672	11333338
18	483044	2	5	55	1010	1199	0	11474617	11333339	12000005

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

Type 5 Radar Waveform_26

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	300151	3	10	70	1224	1808	1642	300151	0	923076
2	1413971	3	10	55	1104	1227	1015	1718796	923077	1846153
3	463822	2	10	50	1008	1823	0	2185964	1846154	2769230
4	1296105	1	10	85	1504	0	0	3484900	2769231	3692307
5	499153	2	10	95	1214	1949	0	3985557	3692308	4615384
6	1123308	3	10	65	1451	1689	1628	5112028	4615385	5538461
7	504040	2	10	60	1008	1620	0	5620836	5538462	6461538
8	1381136	1	10	60	1755	0	0	7004600	6461539	7384615
9	658626	3	10	50	1414	1333	1722	7664981	7384616	8307692
10	1506115	3	10	85	1926	1928	1108	9175565	8307693	9230769
11	162294	2	10	50	1737	1678	0	9342821	9230770	10153846
12	1396892	3	10	85	1203	1590	1322	10743128	10153847	11076923
13	453347	2	10	50	1705	1797	0	11200590	11076924	12000000

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

Type 5 Radar Waveform_27

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	52329	1	8	90	1434	0	0	52329	0	599999
2	732371	3	8	85	1286	1970	1859	786134	600000	1199999
3	697885	3	8	75	1377	1732	1280	1489134	1200000	1799999
4	416125	1	8	55	1461	0	0	1909648	1800000	2399999
5	747674	3	8	85	1879	1347	1824	2658783	2400000	2999999
6	790996	2	8	50	1422	1387	0	3454829	3000000	3599999
7	322097	1	8	60	1654	0	0	3779735	3600000	4199999
8	545713	2	8	95	1943	1792	0	4327102	4200000	4799999
9	876914	1	8	100	1742	0	0	5207751	4800000	5399999
10	275973	2	8	80	1423	1551	0	5485466	5400000	5999999
11	967084	2	8	75	1135	1107	0	6455524	6000000	6599999
12	252166	2	8	75	1266	1404	0	6709932	6600000	7199999
13	866997	1	8	55	1091	0	0	7579599	7200000	7799999
14	585564	3	8	60	1701	1016	1666	8166254	7800000	8399999
15	382627	1	8	75	1339	0	0	8553264	8400000	8999999
16	721780	2	8	70	1856	1610	0	9276383	9000000	9599999
17	729617	1	8	70	1844	0	0	10009466	9600000	10199999
18	449292	3	8	95	1201	1251	1812	10460602	10200000	10799999
19	544376	1	8	75	1747	0	0	11009242	10800000	11399999
20	958152	2	8	100	1320	1340	0	11969141	11400000	11999999

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

Type 5 Radar Waveform_28

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	431233	2	6	100	1403	1737	0	431233	0	749999
2	955303	3	6	80	1805	1166	1765	1389676	750000	1499999
3	108974	1	6	90	1040	0	0	1503386	1500000	2249999
4	766584	2	6	55	1616	1197	0	2271010	2250000	2999999
5	1220822	3	6	90	1023	1542	1671	3494645	3000000	3749999
6	364381	1	6	70	1125	0	0	3863262	3750000	4499999
7	874734	2	6	75	1358	1889	0	4739121	4500000	5249999
8	1241541	2	6	95	1099	1063	0	5983909	5250000	5999999
9	432200	3	6	65	1164	1422	1618	6418271	6000000	6749999
10	1045226	3	6	70	1873	1124	1341	7467701	6750000	7499999
11	225967	3	6	55	1387	1628	1254	7698006	7500000	8249999
12	971758	3	6	90	1999	1650	1430	8674033	8250000	8999999
13	707140	2	6	55	1585	1433	0	9386252	9000000	9749999
14	389875	3	6	65	1149	1586	1897	9779145	9750000	10499999
15	770208	2	6	90	1785	1573	0	10553985	10500000	11249999
16	720436	3	6	55	1960	1120	1085	11277779	11250000	11999999

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

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	1128812	1	18	85	1955	0	0	1128812	0	1199999
2	1130014	2	18	55	1933	1381	0	2260781	1200000	2399999
3	904049	2	18	85	1056	1215	0	3168144	2400000	3599999
4	1461737	3	18	85	1287	1899	1342	4632152	3600000	4799999
5	1294298	3	18	95	1587	1545	1827	5930978	4800000	5999999
6	1132864	2	18	70	1954	1370	0	7068801	6000000	7199999
7	880181	1	18	75	1872	0	0	7952306	7200000	8399999
8	605039	3	18	65	1499	1880	1732	8559217	8400000	9599999
9	1670478	1	18	55	1421	0	0	10234804	9600000	10799999
10	1306929	2	18	100	1097	1293	0	11543154	10800000	11999999

Total number of pulses in waveform = 20

****

Type 5 Radar Waveform_30

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	1103005	3	19	50	1622	1778	1806	1103005	0	1199999
2	1263390	3	19	60	1347	1202	1795	2371601	1200000	2399999
3	131528	1	19	60	1204	0	0	2507473	2400000	3599999
4	1652932	1	19	50	1006	0	0	4161609	3600000	4799999
5	1249804	1	19	90	1088	0	0	5412419	4800000	5999999
6	1125348	3	19	60	1089	1304	1876	6538855	6000000	7199999
7	1061536	1	19	95	1814	0	0	7604660	7200000	8399999
8	1838136	3	19	55	1440	1351	1194	9444610	8400000	9599999
9	905884	2	19	70	1611	1156	0	10354479	9600000	10799999
10	1560850	2	19	55	1975	1707	0	11918096	10800000	11999999

Total number of pulses in waveform = 20

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Radar Type 6 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	1=Detection 0=No Detection	Trail #	Test Freq. (MHz)	1=Detection 0=No Detection
1	5252	1	16	5290	1
2	5252	1	17	5292	1
3	5260	1	18	5292	1
4	5260	1	19	5300	1
5	5268	1	20	5300	1
6	5268	1	21	5308	1
7	5270	1	22	5308	1
8	5270	1	23	5310	1
9	5272	1	24	5310	1
10	5272	1	25	5312	1
11	5280	1	26	5312	1
12	5280	1	27	5320	1
13	5288	1	28	5320	1
14	5288	1	29	5328	1
15	5290	1	30	5328	1
Detection Percentage (%)					100%

Radar waveform #1			Radar waveform #2		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
19	5271	57	22	5282	66
29	5250	87	34	5261	102
39	5269	117	43	5264	129
56	5252	168	62	5262	186
--	--	--	69	5277	207
--	--	--	86	5257	258
--	--	--	92	5272	276
--	--	--	98	5260	294

Radar waveform #3			Radar waveform #4		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
3	5268	9	3	5261	9
11	5269	33	17	5276	51
27	5277	81	19	5282	57
36	5263	108	20	5259	60
48	5271	144	35	5284	105
76	5258	228	42	5266	126
--	--	--	43	5281	129
--	--	--	45	5267	135
--	--	--	57	5257	171
--	--	--	65	5265	195
--	--	--	90	5287	270
--	--	--	95	5274	285
--	--	--	98	5251	294

Radar waveform #5			Radar waveform #6		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
20	5296	60	0	5274	0
28	5293	84	3	5266	9
45	5284	135	20	5285	60
48	5259	144	67	5293	201
51	5251	153	70	5282	210
78	5263	234	80	5270	240
80	5290	240	96	5258	288
85	5298	255	97	5283	291
98	5253	294	--	--	--

Radar waveform #7			Radar waveform #8		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
2	5272	6	1	5267	3
34	5269	102	2	5268	6
50	5251	150	9	5294	27
69	5263	207	29	5254	87
74	5267	222	63	5276	189
76	5252	228	65	5264	195
80	5299	240	92	5278	276
92	5268	276	--	--	--
97	5275	291	--	--	--
99	5281	297	--	--	--

Radar waveform #9			Radar waveform #10		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
11	5266	33	34	5267	102
19	5276	57	38	5294	114
25	5281	75	63	5272	189
56	5251	168	--	--	--
61	5302	183	--	--	--
70	5252	210	--	--	--

Radar waveform #11			Radar waveform #12		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
9	5277	27	1	5253	3
11	5309	33	15	5256	45
15	5284	45	21	5283	63
16	5296	48	34	5277	102
25	5287	75	37	5267	111
36	5304	108	49	5307	147
46	5298	138	59	5275	177
50	5282	150	62	5308	186
52	5303	156	66	5306	198
58	5291	174	73	5273	219
63	5289	189	76	5292	228
84	5273	252	85	5265	255
88	5266	264	94	5288	282
92	5306	276	99	5272	297

Radar waveform #13			Radar waveform #14		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
6	5315	18	7	5310	21
26	5262	78	10	5309	30
27	5280	81	27	5280	81
35	5311	105	46	5307	138
40	5273	120	58	5264	174
43	5292	129	62	5318	186
57	5260	171	80	5279	240
58	5304	174	81	5316	243
61	5312	183	96	5298	288
64	5278	192	97	5314	291
67	5263	201	99	5260	297
70	5297	210	--	--	--
80	5316	240	--	--	--

Radar waveform #15			Radar waveform #16		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
6	5270	18	3	5279	9
20	5271	60	16	5282	48
35	5260	105	22	5311	66
36	5281	108	37	5271	111
46	5266	138	42	5318	126
58	5297	174	46	5267	138
68	5303	204	47	5287	141
81	5307	243	55	5293	165
88	5304	264	96	5274	288
90	5294	270	97	5307	291
96	5289	288	98	5294	294
98	5295	294	--	--	--

Radar waveform #17			Radar waveform #18		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
2	5322	6	4	5293	12
17	5265	51	23	5307	69
18	5296	54	26	5305	78
19	5308	57	30	5274	90
20	5301	60	52	5303	156
33	5310	99	53	5310	159
48	5262	144	91	5287	273
59	5319	177	99	5273	297
62	5271	186	--	--	--
65	5311	195	--	--	--
67	5321	201	--	--	--
71	5297	213	--	--	--
72	5312	216	--	--	--
78	5317	234	--	--	--
86	5267	258	--	--	--
88	5313	264	--	--	--
94	5305	282	--	--	--

Radar waveform #19			Radar waveform #20		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
4	5280	12	2	5304	6
16	5281	48	3	5290	9
20	5289	60	6	5279	18
50	5275	150	12	5310	36
53	5313	159	25	5329	75
63	5277	189	29	5318	87
64	5290	192	30	5316	90
66	5288	198	35	5294	105
--	--	--	37	5289	111
--	--	--	38	5305	114
--	--	--	52	5283	156
--	--	--	69	5323	207
--	--	--	74	5315	222
--	--	--	84	5328	252
--	--	--	93	5281	279

Radar waveform #21			Radar waveform #22		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
0	5331	0	4	5328	12
2	5289	6	8	5283	24
3	5287	9	21	5322	63
8	5288	24	24	5294	72
11	5282	33	39	5293	117
17	5315	51	40	5334	120
40	5324	120	41	5329	123
44	5318	132	42	5330	126
56	5293	168	50	5332	150
68	5312	204	55	5308	165
95	5292	285	57	5301	171
96	5327	288	65	5326	195
--	--	--	70	5303	210
--	--	--	83	5337	249
--	--	--	90	5305	270

Radar waveform #23			Radar waveform #24		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
7	5337	21	10	5286	30
10	5327	30	14	5325	42
37	5328	111	22	5338	66
49	5310	147	34	5302	102
50	5321	150	39	5313	117
53	5281	159	41	5322	123
64	5296	192	46	5340	138
85	5336	255	62	5319	186
96	5314	288	87	5310	261
--	--	--	98	5282	294

Radar waveform #25			Radar waveform #26		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
13	5336	39	31	5301	93
18	5341	54	49	5307	147
23	5291	69	54	5297	162
33	5319	99	58	5290	174
41	5324	123	60	5311	180
43	5306	129	63	5330	189
50	5282	150	70	5337	210
59	5283	177	74	5320	222
66	5300	198	77	5334	231
80	5296	240	84	5285	252
85	5292	255	98	5310	294
87	5309	261	--	--	--
97	5339	291	--	--	--

Radar waveform #27			Radar waveform #28		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
1	5300	3	5	5321	15
13	5329	39	6	5345	18
26	5298	78	11	5329	33
30	5312	90	25	5316	75
33	5349	99	33	5312	99
34	5295	102	37	5337	111
36	5331	108	41	5310	123
43	5350	129	47	5344	141
57	5313	171	52	5350	156
60	5303	180	57	5297	171
63	5297	189	64	5325	192
83	5316	249	69	5292	207
87	5336	261	75	5315	225
88	5291	264	79	5331	237
90	5334	270	86	5293	258
--	--	--	98	5323	294

Radar waveform #29			Radar waveform #30		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
12	5301	36	0	5346	0
23	5322	69	6	5342	18
24	5353	72	34	5339	102
39	5317	117	54	5334	162
45	5311	135	60	5304	180
57	5314	171	68	5307	204
59	5320	177	73	5329	219
97	5308	291	75	5354	225
--	--	--	76	5337	228
--	--	--	77	5311	231
--	--	--	93	5300	279
--	--	--	95	5315	285

6. CONCLUSION

The data collected relate only the item(s) tested and show that the **AC220i Wi-Fi AP ID omni antenna US FCC ID: 2AD8UFZCWI2B1, Model Number: WI2B-AC220i** is in compliance with Part 15E of the FCC Rules and IC Rules.

The End