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Report No.: 1501RSU00406
Report Version: V01
Issue Date: 03-13-2015

DFS MEASUREMENT REPORT
FCC PART 15.407

FCC ID:	2AC9MADTRAN424RG
APPLICANT:	Wuxi MitraStar Technology Co., Ltd
Application Type:	Certification
Product:	Indoor GPON HG
Model No.:	424RG
Brand Name:	ADTRAN
FCC Classification:	Unlicensed National Information Infrastructure (UNII)
FCC Rule Part(s):	Part 15.407 KDB 905462 D02v01r01, KDB 905462 D04v01
Type of Device:	☒ Master Device ☐ Client Device (No radar detection) ☐ Client Device with radar detection
Test Date:	Feb. 11 ~ 15, 2015

Reviewed By : Robin Wu
(Robin Wu)

Approved By : Marlinchen
(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 D02v01r01. Test results reported herein relate only to the item(s) tested.

Revision History

Report No.	Version	Description	Issue Date
1501RSU00406	Rev. 01	Initial report	03-13-2015

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Description Page

§2.1033 General Information

Applicant:	Wuxi MitraStar Technology Co., Ltd
Applicant Address:	60#-E Minshan Road, high and new technology industrial,Wuxi, Jiangsu, China
Manufacturer:	Wuxi Mitrastar Technology Co., Ltd
Manufacturer Address:	60#-E Minshan Road, high and new technology industrial,Wuxi, Jiangsu, China
Test Site:	MRT Technology (Suzhou) Co., Ltd
Test Site Address:	D8 Building, Youxin Industrial Park, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China
MRT FCC Registration No.:	809388
Model No.:	424RG
FCC ID:	2AC9MADTRAN424RG
Test Device Serial No.:	N/A ☐ Production ☒ Pre-Production ☐ Engineering
FCC Classification:	Unlicensed National Information Infrastructure (UNII)

Test Facility / Accreditations

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

- **MRT facility is a FCC registered (MRT Reg. No. 809388) test facility with the site description report on file and has met all the requirements specified in Section 2.948 of the FCC Rules.**
- **MRT facility is an IC registered (MRT Reg. No. 11384A-1) test laboratory with the site description on file at Industry Canada.**
- **MRT facility is a VCCI registered (R-4179, G-814, C-4664, T-2206) test laboratory with the site description on file at VCCI Council.**
- **MRT Lab is accredited to ISO 17025 by the American Association for Laboratory Accreditation (A2LA) under the American Association for Laboratory Accreditation Program (A2LA Cert. No. 3628.01) in EMC, Telecommunications and Radio testing for FCC, Industry Canada, EU and TELEC Rules.**

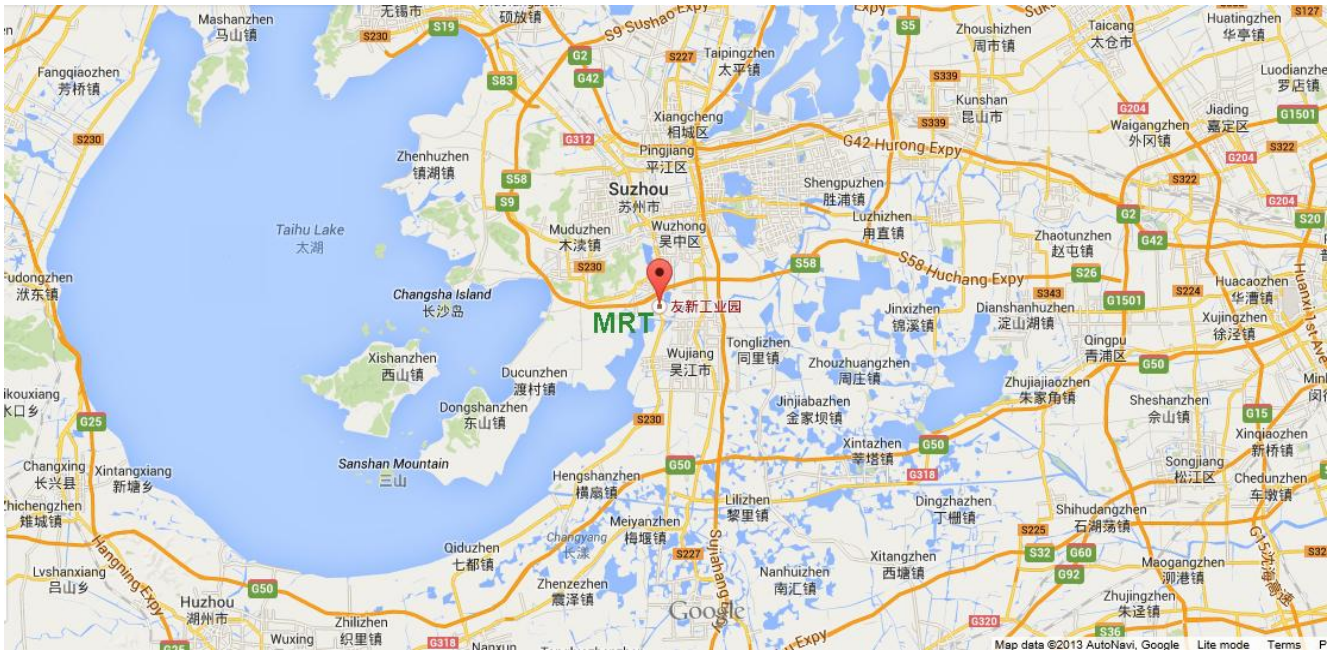
1. INTRODUCTION

1.1. Scope

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

1.2. MRT Test Location

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



2. PRODUCT INFORMATION

2.1. Equipment Description

Product Name	Indoor GPON HGU
Model No.	424RG
Radio Type	Intentional Transceiver
Operation Mode	Master Device
Frequency Range	For 802.11a/n-HT20: 5260~5320MHz, 5500~5700MHz For 802.11ac-VHT20: 5260~5320MHz, 5500~5720MHz For 802.11n-HT40: 5270~5310MHz, 5510~5670MHz For 802.11ac-VHT40: 5270~5310MHz, 5510~5710MHz For 802.11ac-VHT80: 5290MHz, 5530MHz, 5610MHz, 5690MHz
Maximum Output Power	802.11a: 21.27dBm 802.11n-HT20: 21.16dBm 802.11ac-VHT20: 21.48dBm 802.11n-HT40: 21.28dBm 802.11ac-VHT40: 21.52dBm 802.11ac-VHT80: 20.62dBm
Type of Modulation	802.11a/n/ac: OFDM;
Power-on cycle	Requires 178.3 seconds to complete its power-on cycle.
Uniform Spreading	For the 5250-5350MHz, 5470-5725 MHz bands, the Master device provides, on aggregate, uniform loading of the spectrum across all devices by selecting an operating channel among the available channels using a random algorithm.

2.2. Description of Available Antennas

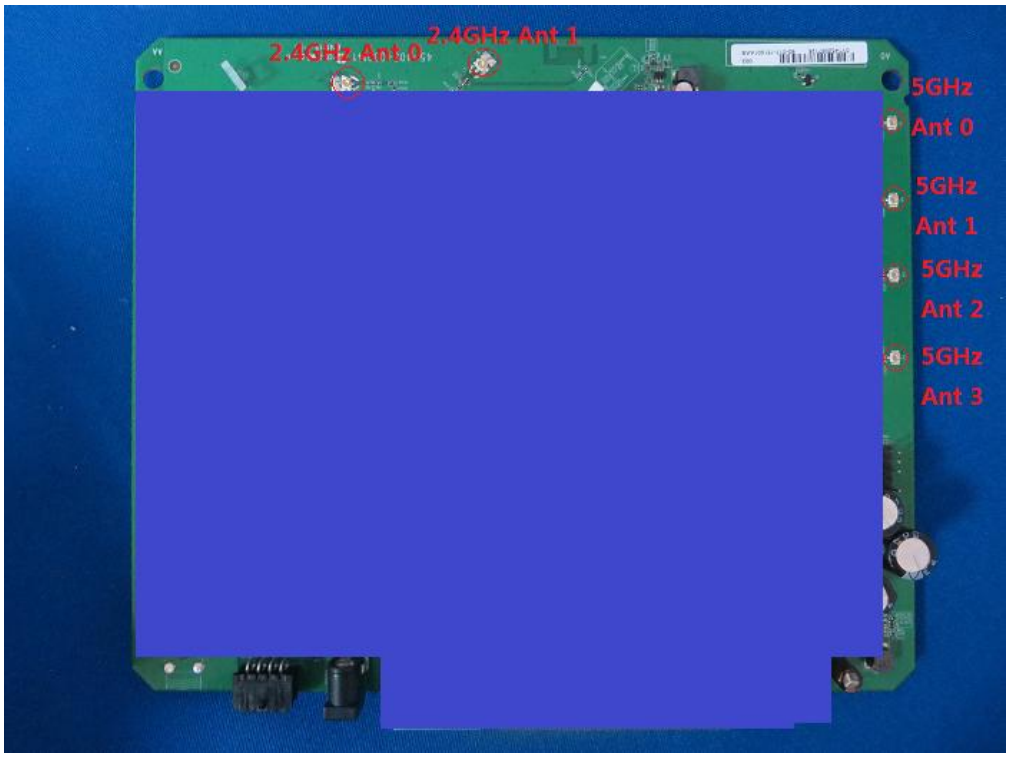
Antenna Type	Frequency Band (GHz)	T_X Paths	Directional Gain (dBi)	
			Non Beam Forming	Beam Forming
PCB Antenna	2.4	2	1.90	--
	5.2	4	2.17	8.04
	5.3	4	2.03	7.78
	5.6	4	2.55	8.38
	5.8	4	2.70	8.70

Note:

1. Transmit at 2.4GHz support two antennas, and support four antennas at 5GHz transmit.
2. The EUT working on Beam Forming mode, and the Beam Forming support 802.11n/ac, not include 802.11a.
3. 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).
4. Unequal antenna gains, with equal transmit powers. For antenna gains given by G_1, G_2, …, G_N dBi
   - 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.]

2.1. Description of Antenna RF Port

RF Port				
Test Mode	Software Control Port			
2.4GHz T_X	Ant 0	Ant 1	--	--
Test Mode	Software Control Port			
5GHz T_X	Ant 0	Ant 1	Ant 2	Ant 3



2.2. DFS Band Carrier Frequencies Operation

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

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

802.11ac-VHT20 Center Working Frequency of Each Channel

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

802.11n-HT40 Center Working Frequency of Each Channel

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

802.11ac-VHT40 Center Working Frequency of Each Channel

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

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	N/A	N/A	N/A	N/A

2.3. 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 v01r01 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 v01r01 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 v01r01 describes a radiated test setup and a conducted test setup. The conducted test setup was used for this testing. Figure 3-1 shows the typical test setup.

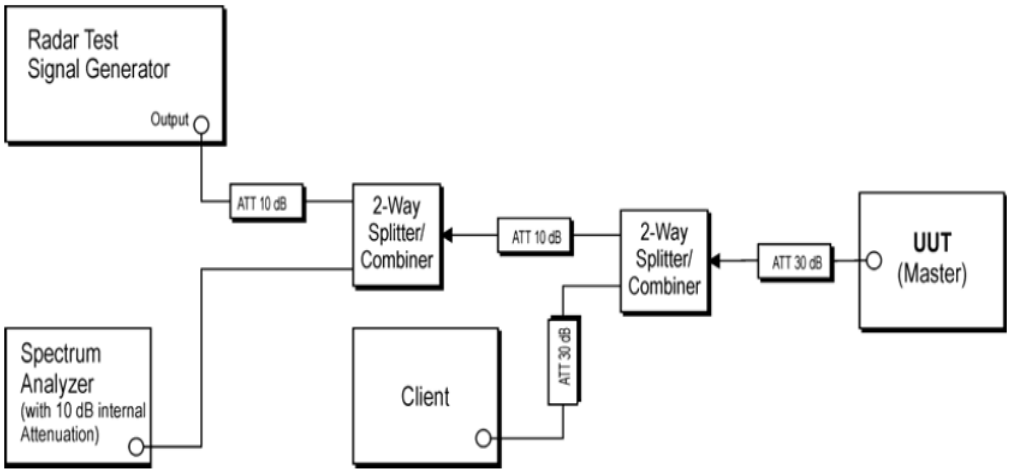


Figure 3-1: Conducted Test Setup where UUT is a Master and Radar Test Waveforms are injected into the Masters

4. TEST EQUIPMENT CALIBRATION DATE

Dynamic Frequency Selection (DFS)

Instrument	Manufacturer	Type No.	Serial No.	Cali. Due Date
Spectrum Analyzer	Agilent	N9020A	MY52090106	2015/04/23
ESG Vector Signal Generator	Agilent	E4438C	MY49872484	2015/12/09

Software	Manufacturer	Function
Pulse Building	Agilent	Radar Signal Generation Software
DFS Tool	Agilent	DFS Test Software

5. TEST RESULT

5.1. Summary

Company Name: **Wuxi MitraStar Technology Co., Ltd**

FCC ID: **2AC9MADTRAN424RG**

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

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

5.2. Radar Waveform Calibration

5.2.1. Calibration Setup

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

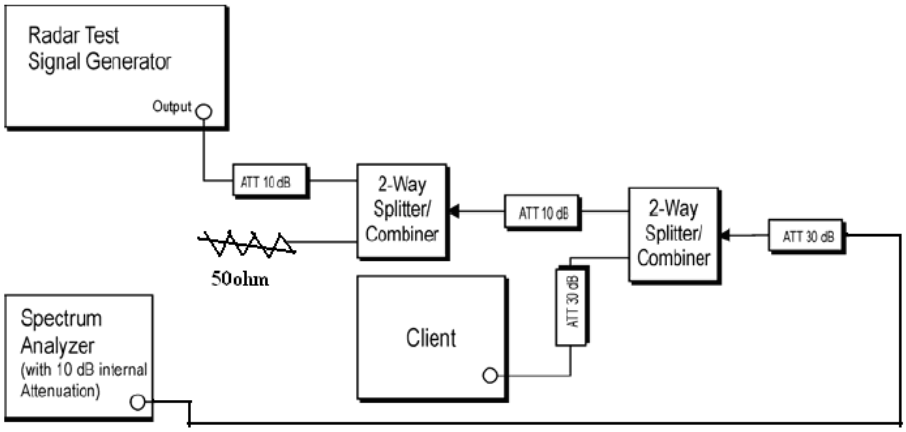


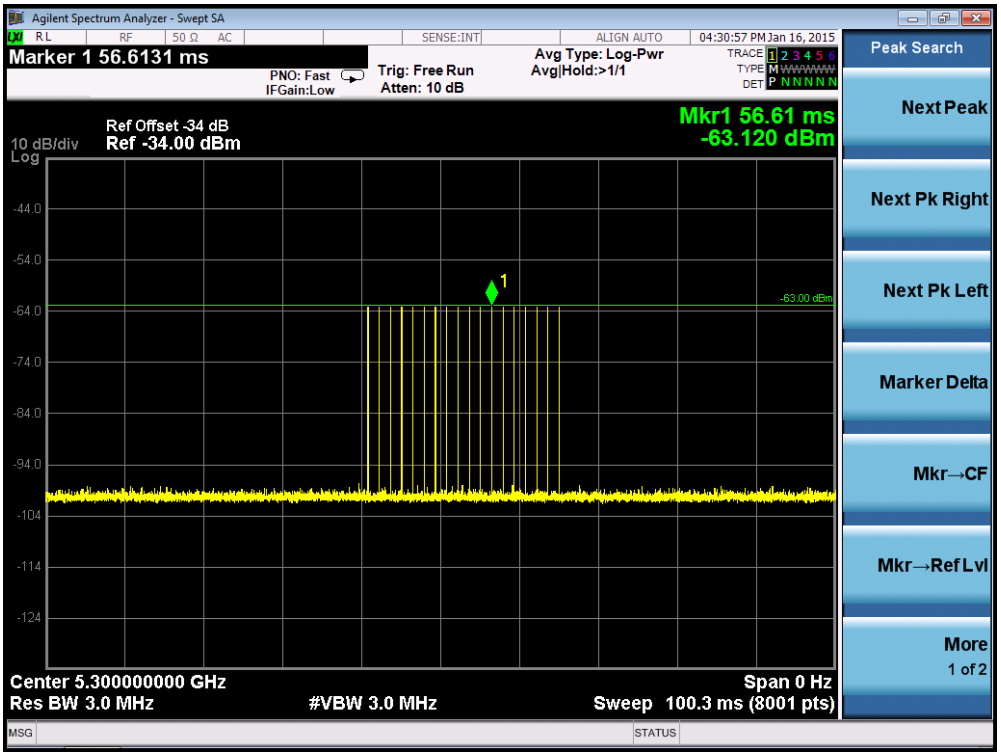
Figure 3-2: Conducted Test Setup

5.2.2. Calibration Procedure

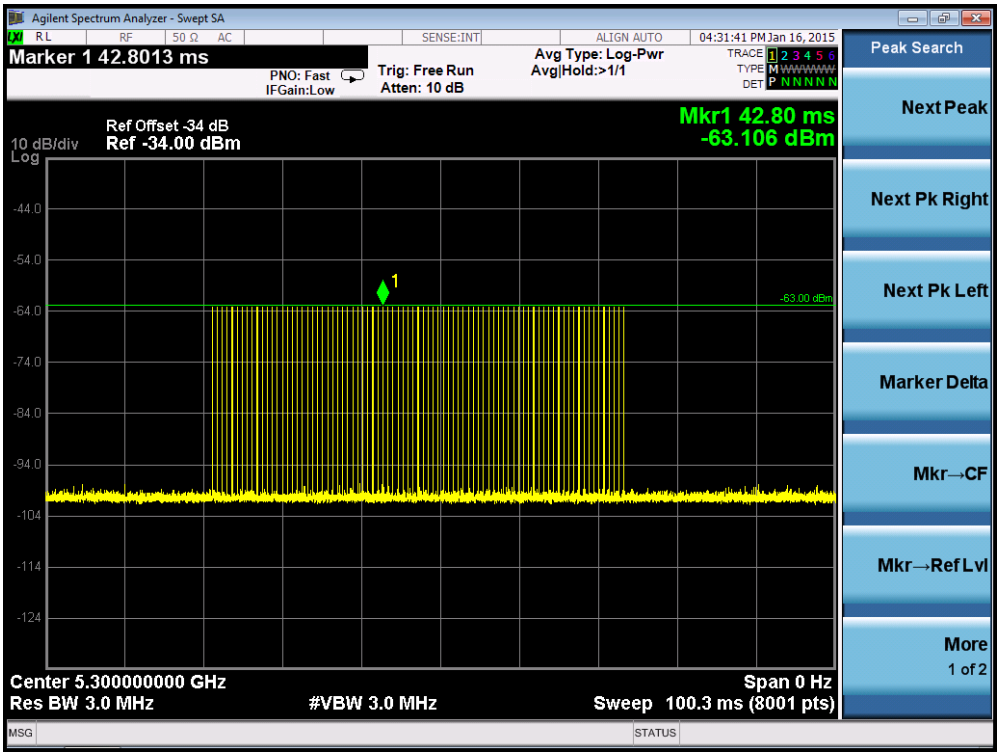
The Interference Radar Detection Threshold Level is (-64dBm) + (0) [dBi] + 1 dB= -63 dBm that had been taken into account the output power range and antenna gain. The above equipment setup was used to calibrate the conducted Radar Waveform. A vector signal generator was utilized to establish the test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

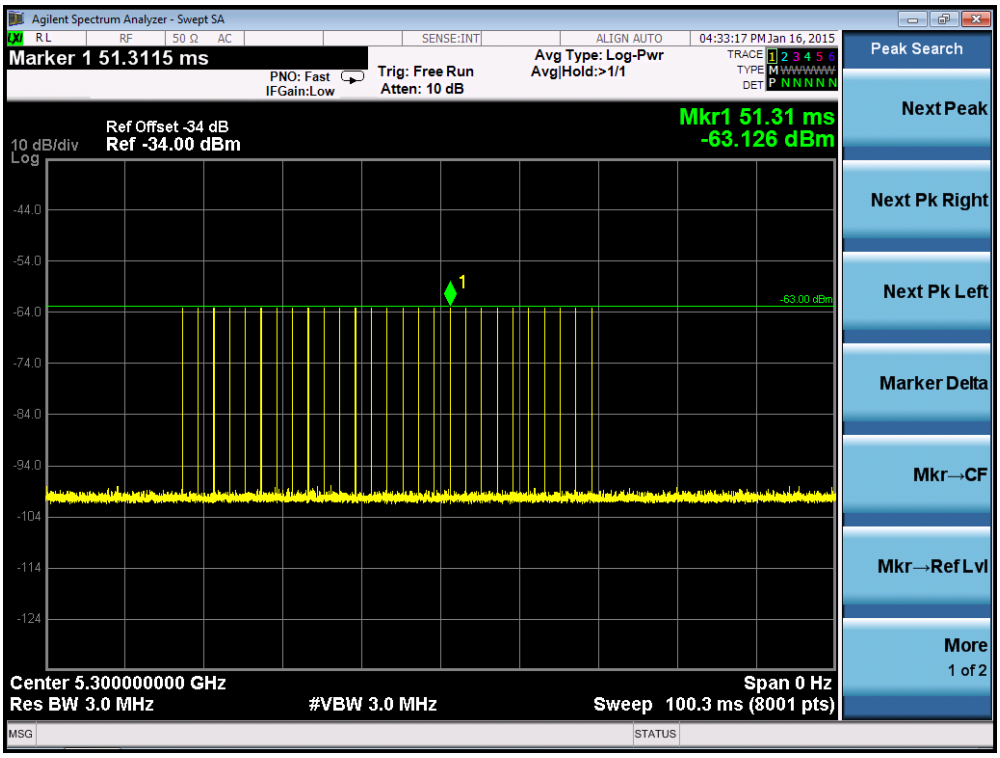


Radar #1(Test A) DFS detection threshold level and the burst of pulses on the Channel frequency



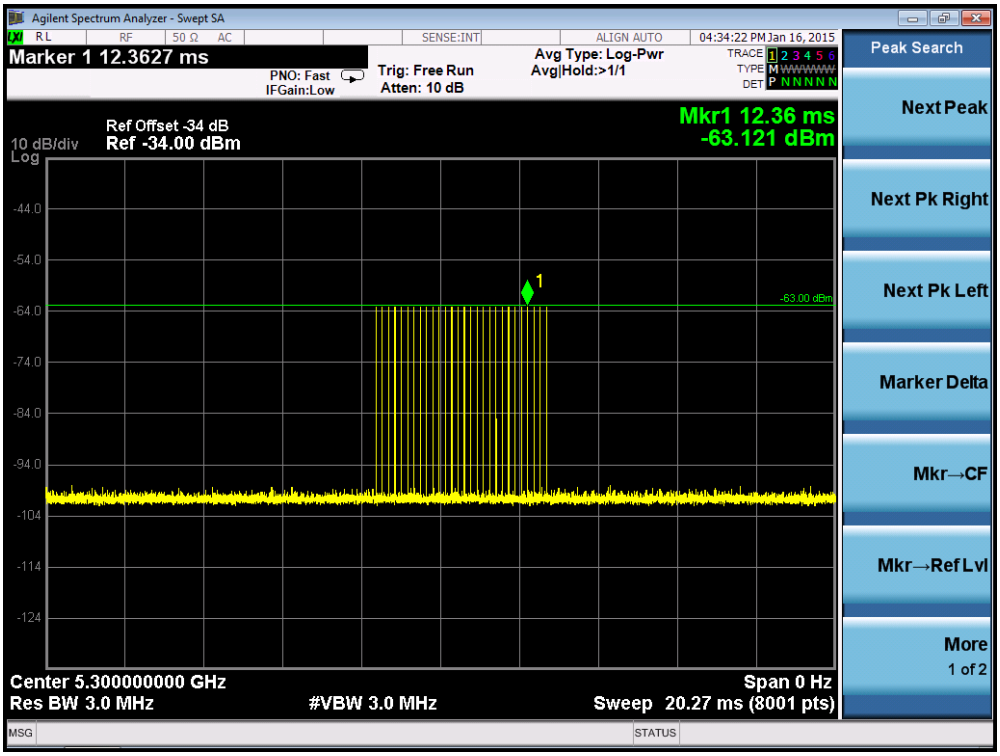
PRI = 638us and the number of pulses = 83

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

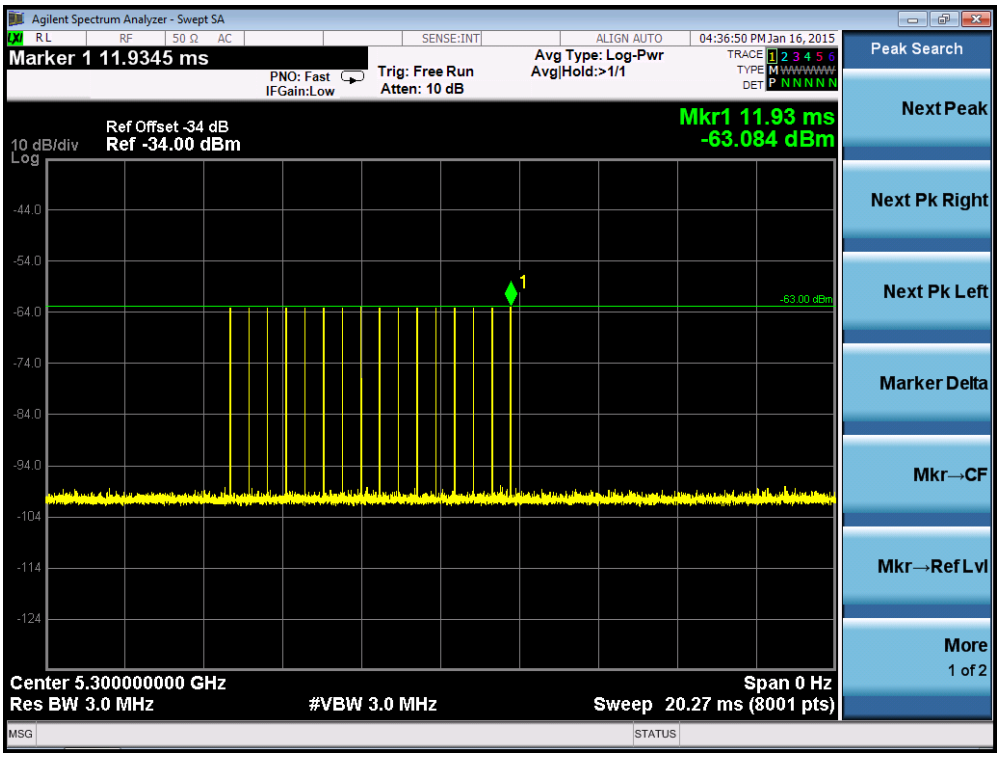


PRI = 1.991ms and the number of pulses = 28

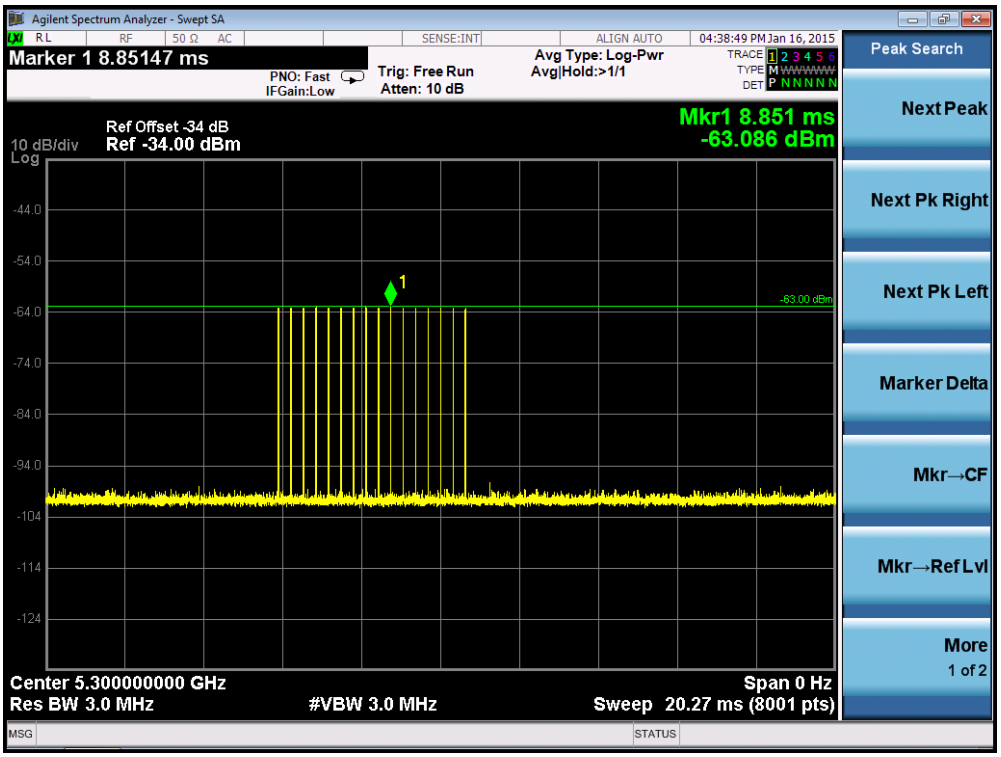
Radar #2 DFS detection threshold level and the burst of pulses on the Channel frequency



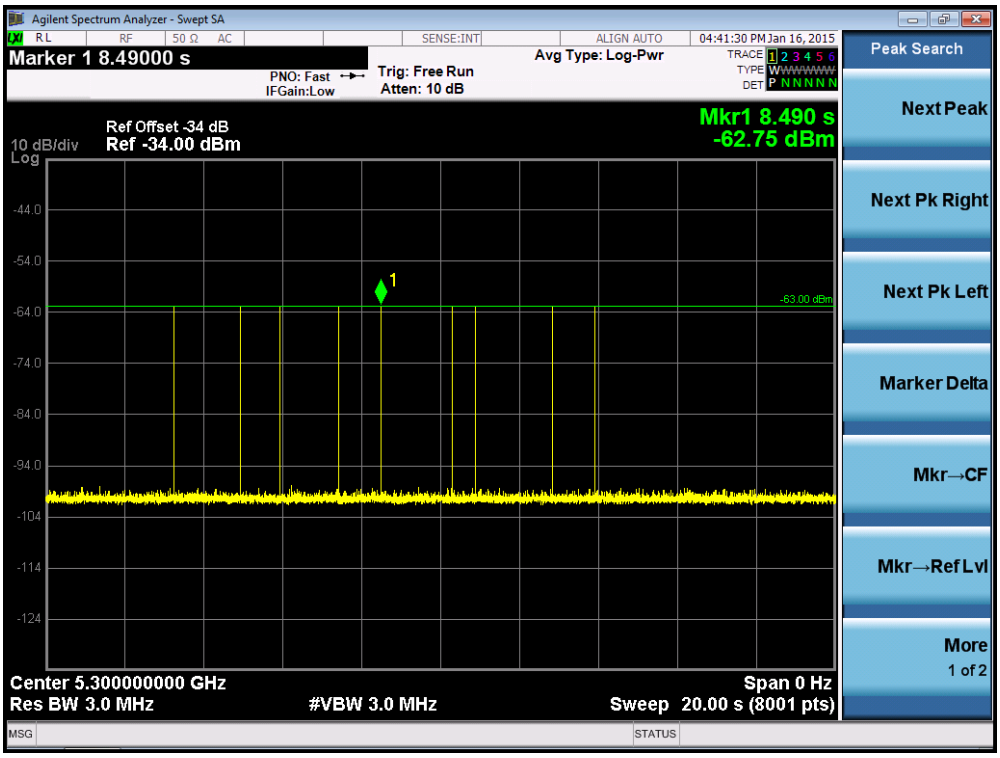
Radar #3 DFS detection threshold level and the burst of pulses on the Channel frequency



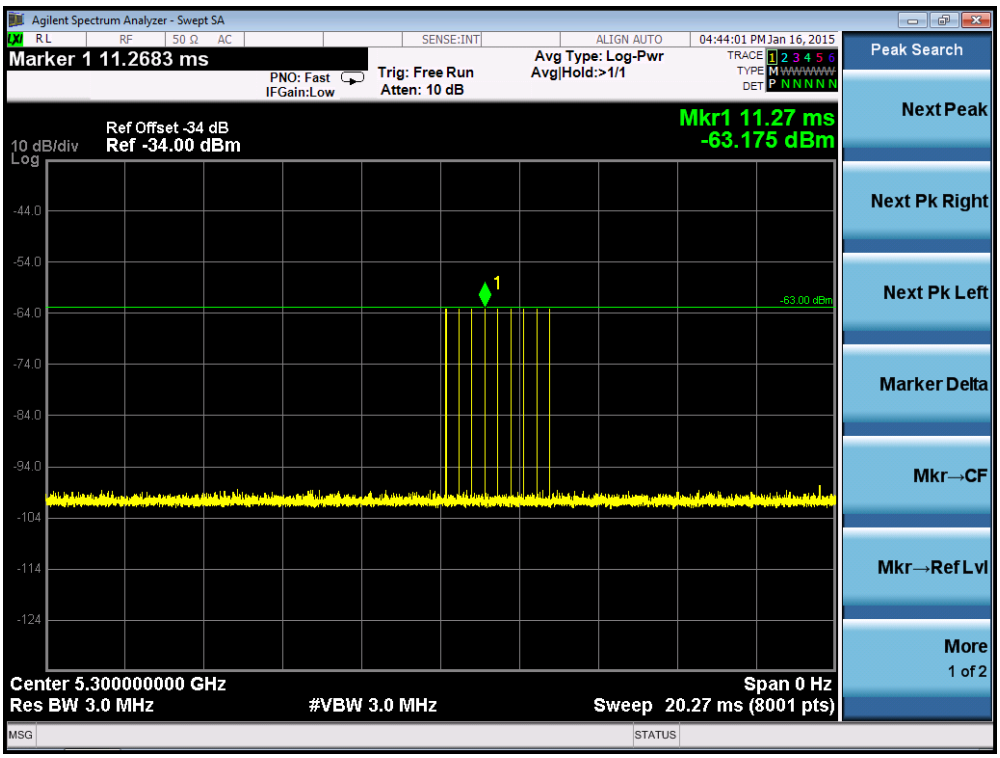
Radar #4 DFS detection threshold level and the burst of pulses on the Channel frequency



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



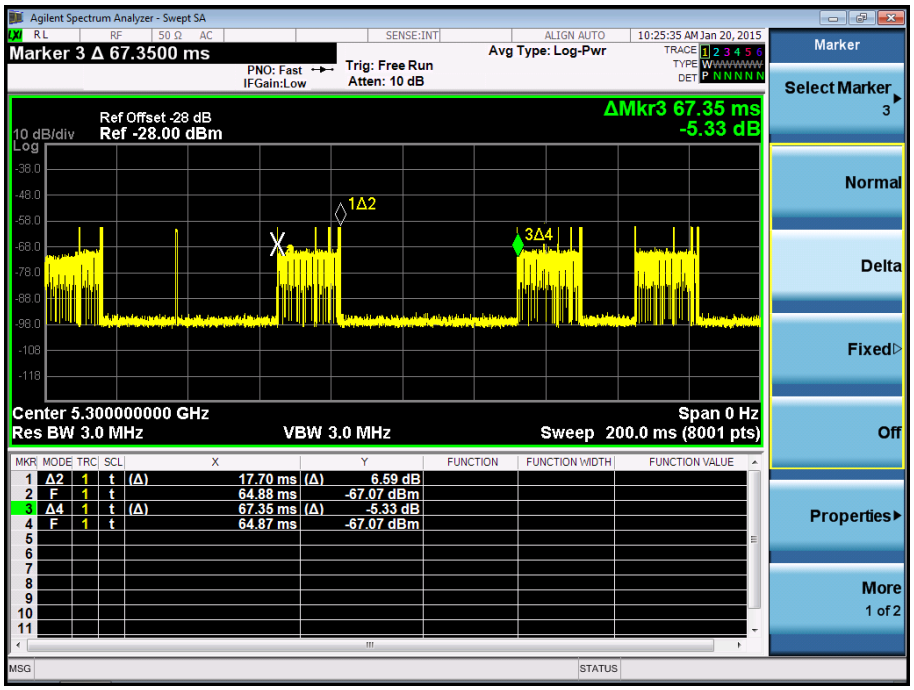
Radar #6 DFS detection threshold level and a single hop (9 pulses) on the Channel frequency within UNII detection bandwidth



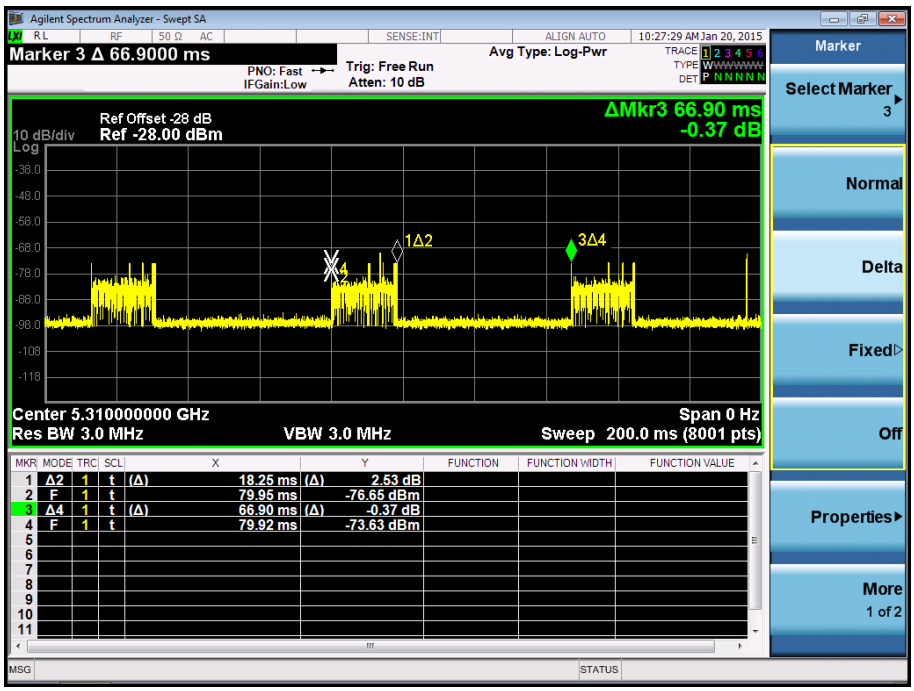
5.3. Channel Loading Test Result

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

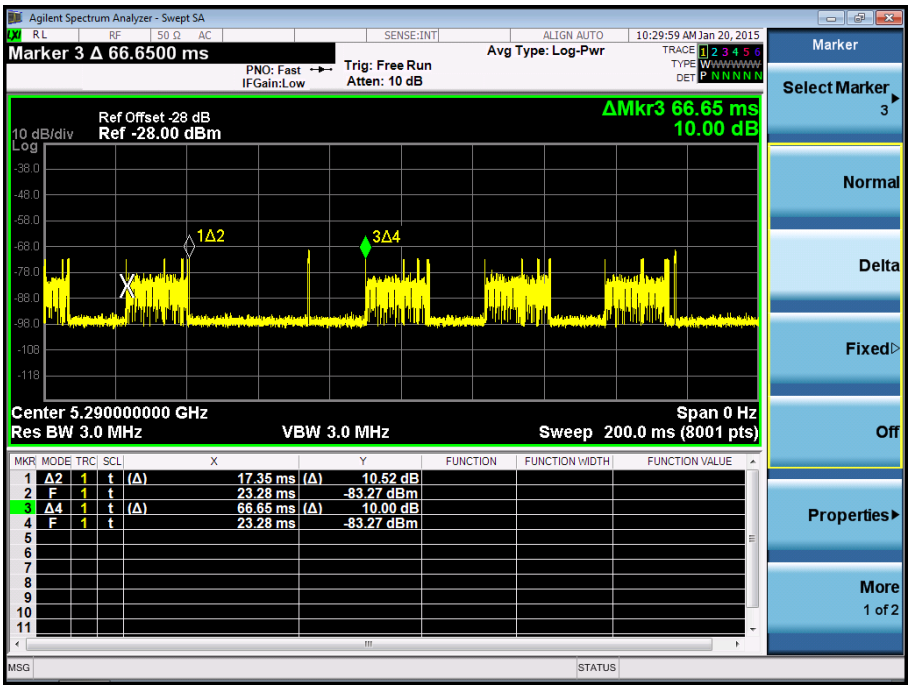
Channel Loading Plot - 802.11a-5300MHz



Channel Loading Plot - 802.11n-HT40 5310MHz



Channel Loading Plot - 802.11ac-VHT80 5290MHz



Test Mode	Packet ratio	Requirement ratio	Test Result
802.11a	26.28%	>17%	Pass
802.11n-40MHz	27.28%	>17%	Pass
802.11ac-80MHz	26.05%	>17%	Pass

5.4. UNII Detection Bandwidth Measurement

5.4.1. Test Limit

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

5.4.2. Test Procedure

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

5.4.3. Test Result

EUT Frequency=5300MHz for 802.11a											
Radar Frequency (MHz)	DFS Detection Trials (1=Detection, 0= No Detection)										
	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%
5296	1	1	1	1	1	1	1	1	1	1	100%
5297	1	1	1	1	1	1	1	1	1	1	100%
5298	1	1	1	1	1	1	1	1	1	1	100%
5299	1	1	1	1	1	1	1	1	1	1	100%
5300	1	1	1	1	1	1	1	1	1	1	100%
5301	1	1	1	1	1	1	1	1	1	1	100%
5302	1	1	1	1	1	1	1	1	1	1	100%
5303	1	1	1	1	1	1	1	1	1	1	100%
5304	1	1	1	1	1	1	1	1	1	1	100%
5305	1	1	1	1	1	1	1	1	1	1	100%
5306	1	1	1	1	1	1	1	1	1	1	100%
5307	1	1	1	1	1	1	1	1	1	1	100%
5308	1	1	1	1	1	1	1	1	1	1	100%
5309 FH	1	1	1	1	1	1	1	1	1	1	100%
5310	0	0	0	0	0	0	0	0	0	0	0%
Detection Bandwidth = FH - FL = 5309MHz - 5291MHz = 18MHz											
EUT 99% Bandwidth = 16.75MHz (see note)											
UNII Detection Bandwidth Min. Limit (MHz): 16.75MHz x 100% = 16.75MHz											

Note: All UNII channels for this device have identical Channel bandwidths. Therefore, all DFS testing was done at 5300MHz. The 99% channel bandwidth is 16.75MHz. (See the 99% BW section of the RF report for further measurement details).

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

5321	1	1	1	1	1	1	1	1	1	1	100%
5322	1	1	1	1	1	1	1	1	1	1	100%
5323	1	1	1	1	1	1	1	1	1	1	100%
5324	1	1	1	1	1	1	1	1	1	1	100%
5325	1	1	1	1	1	1	1	1	1	1	100%
5326	1	1	1	1	1	1	1	1	1	1	100%
5327	1	1	1	1	1	1	1	1	1	1	100%
5328	1	1	1	1	1	1	1	1	1	1	100%
5329 FH	1	1	1	1	1	1	1	1	1	1	100%
5330	0	0	0	0	0	0	0	0	0	0	0%
Detection Bandwidth = FH - FL = 5329MHz - 5292MHz = 37MHz											
EUT 99% Bandwidth = 36.30MHz (see note)											
UNII Detection Bandwidth Min. Limit (MHz): 36.30MHz x 100% = 36.30MHz											

Note: All UNII channels for this device have identical Channel bandwidths. Therefore, all DFS testing was done at 5310MHz. The 99% channel bandwidth is 36.30MHz. (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 (%)
5245	0	0	0	0	0	0	0	0	0	0	0%
5246	0	0	0	0	0	0	0	0	0	0	0%
5247	0	0	0	0	0	0	0	0	0	0	0%
5248	0	0	0	0	0	0	0	0	0	0	0%
5249	0	0	0	0	0	0	0	0	0	0	0%
5250 FL	1	1	1	1	1	1	1	1	1	1	100%
5251	1	1	1	1	1	1	1	1	1	1	100%
5252	1	1	1	1	1	1	1	1	1	1	100%
5253	1	1	1	1	1	1	1	1	1	1	100%
5254	1	1	1	1	1	1	1	1	1	1	100%
5255	1	1	1	1	1	1	1	1	1	1	100%
5256	1	1	1	1	1	1	1	1	1	1	100%
5257	1	1	1	1	1	1	1	1	1	1	100%
5258	1	1	1	1	1	1	1	1	1	1	100%
5259	1	1	1	1	1	1	1	1	1	1	100%
5260	1	1	1	1	1	1	1	1	1	1	100%
5261	1	1	1	1	1	1	1	1	1	1	100%
5262	1	1	1	1	1	1	1	1	1	1	100%
5263	1	1	1	1	1	1	1	1	1	1	100%
5264	1	1	1	1	1	1	1	1	1	1	100%
5265	1	1	1	1	1	1	1	1	1	1	100%
5266	1	1	1	1	1	1	1	1	1	1	100%
5267	1	1	1	1	1	1	1	1	1	1	100%
5268	1	1	1	1	1	1	1	1	1	1	100%
5269	1	1	1	1	1	1	1	1	1	1	100%
5270	1	1	1	1	1	1	1	1	1	1	100%
5271	1	1	1	1	1	1	1	1	1	1	100%
5272	1	1	1	1	1	1	1	1	1	1	100%
5273	1	1	1	1	1	1	1	1	1	1	100%

5274	1	1	1	1	1	1	1	1	1	1	100%
5275	1	1	1	1	1	1	1	1	1	1	100%
5276	1	1	1	1	1	1	1	1	1	1	100%
5277	1	1	1	1	1	1	1	1	1	1	100%
5278	1	1	1	1	1	1	1	1	1	1	100%
5279	1	1	1	1	1	1	1	1	1	1	100%
5280	1	1	1	1	1	1	1	1	1	1	100%
5281	1	1	1	1	1	1	1	1	1	1	100%
5282	1	1	1	1	1	1	1	1	1	1	100%
5283	1	1	1	1	1	1	1	1	1	1	100%
5284	1	1	1	1	1	1	1	1	1	1	100%
5285	1	1	1	1	1	1	1	1	1	1	100%
5286	1	1	1	1	1	1	1	1	1	1	100%
5287	1	1	1	1	1	1	1	1	1	1	100%
5288	1	1	1	1	1	1	1	1	1	1	100%
5289	1	1	1	1	1	1	1	1	1	1	100%
5290	1	1	1	1	1	1	1	1	1	1	100%
5291	1	1	1	1	1	1	1	1	1	1	100%
5292	1	1	1	1	1	1	1	1	1	1	100%
5293	1	1	1	1	1	1	1	1	1	1	100%
5294	1	1	1	1	1	1	1	1	1	1	100%
5295	1	1	1	1	1	1	1	1	1	1	100%
5296	1	1	1	1	1	1	1	1	1	1	100%
5297	1	1	1	1	1	1	1	1	1	1	100%
5298	1	1	1	1	1	1	1	1	1	1	100%
5299	1	1	1	1	1	1	1	1	1	1	100%
5300	1	1	1	1	1	1	1	1	1	1	100%
5301	1	1	1	1	1	1	1	1	1	1	100%
5302	1	1	1	1	1	1	1	1	1	1	100%
5303	1	1	1	1	1	1	1	1	1	1	100%
5304	1	1	1	1	1	1	1	1	1	1	100%
5305	1	1	1	1	1	1	1	1	1	1	100%
5306	1	1	1	1	1	1	1	1	1	1	100%
5307	1	1	1	1	1	1	1	1	1	1	100%

5308	1	1	1	1	1	1	1	1	1	1	100%
5309	1	1	1	1	1	1	1	1	1	1	100%
5310	1	1	1	1	1	1	1	1	1	1	100%
5311	1	1	1	1	1	1	1	1	1	1	100%
5312	1	1	1	1	1	1	1	1	1	1	100%
5313	1	1	1	1	1	1	1	1	1	1	100%
5314	1	1	1	1	1	1	1	1	1	1	100%
5315	1	1	1	1	1	1	1	1	1	1	100%
5316	1	1	1	1	1	1	1	1	1	1	100%
5317	1	1	1	1	1	1	1	1	1	1	100%
5318	1	1	1	1	1	1	1	1	1	1	100%
5319	1	1	1	1	1	1	1	1	1	1	100%
5320	1	1	1	1	1	1	1	1	1	1	100%
5321	1	1	1	1	1	1	1	1	1	1	100%
5322	1	1	1	1	1	1	1	1	1	1	100%
5323	1	1	1	1	1	1	1	1	1	1	100%
5324	1	1	1	1	1	1	1	1	1	1	100%
5325	1	1	1	1	1	1	1	1	1	1	100%
5326	1	1	1	1	1	1	1	1	1	1	100%
5327	1	1	1	1	1	1	1	1	1	1	100%
5328	1	1	1	1	1	1	1	1	1	1	100%
5329	1	1	1	1	1	1	1	1	1	1	100%
5330 FH	1	1	1	1	1	1	1	1	1	1	100%
5331	0	0	0	0	0	0	0	0	0	0	0%
5332	0	0	0	0	0	0	0	0	0	0	0%
5334	0	0	0	0	0	0	0	0	0	0	0%
5335	0	0	0	0	0	0	0	0	0	0	0%
5336	0	0	0	0	0	0	0	0	0	0	0%
Detection Bandwidth = FH - FL = 5330MHz - 5250MHz = 80MHz											
EUT 99% Bandwidth = 75.00MHz (see note)											
UNII Detection Bandwidth Min. Limit (MHz): 75.00MHz x 100% = 75.00MHz											

Note: All UNII channels for this device have identical Channel bandwidths. Therefore, all DFS testing was done at 5290MHz. The 99% channel bandwidth is 75.00MHz. (See the 99% BW section of the RF report for further measurement details).

5.5. Initial Channel Availability Check Time Measurement

5.5.1. Test Limit

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

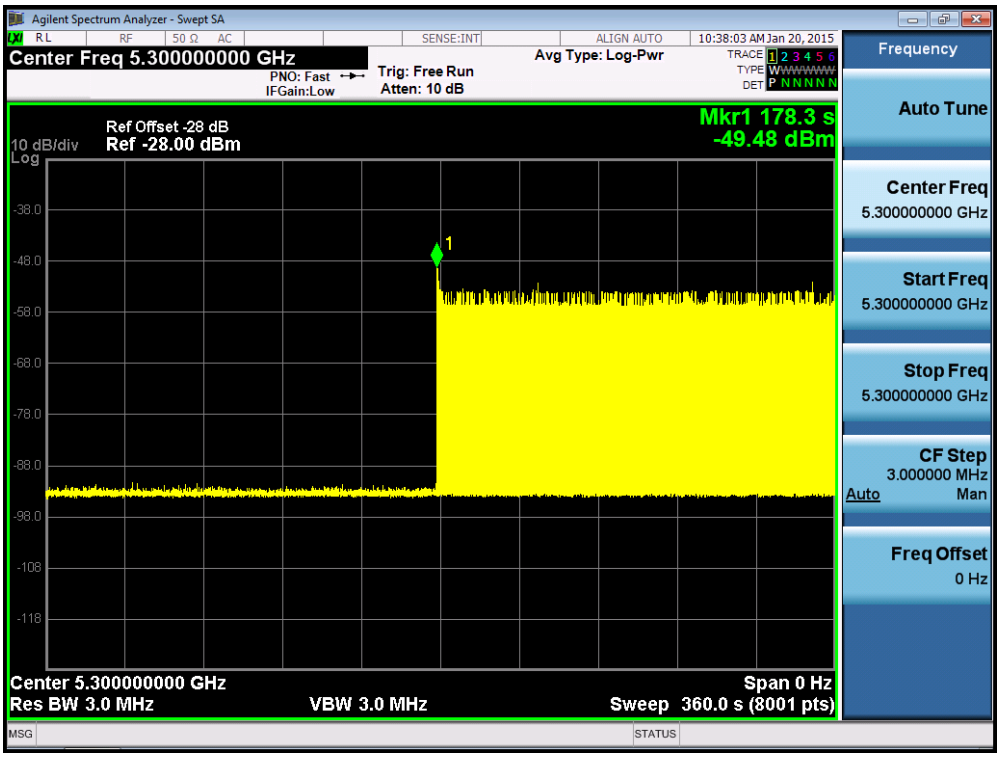
5.5.2. Test Procedure

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

5.5.3. Test Result

The EUT does not transmit any beacon or data transmissions until at least 1 minute after the completion of the power-on cycle (118.3 sec). Initial beacons/data transmissions are indicated by marker 1 (178.3 sec).

Initial Channel Availability Check Time for 802.11a



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

5.6.1. Test Limit

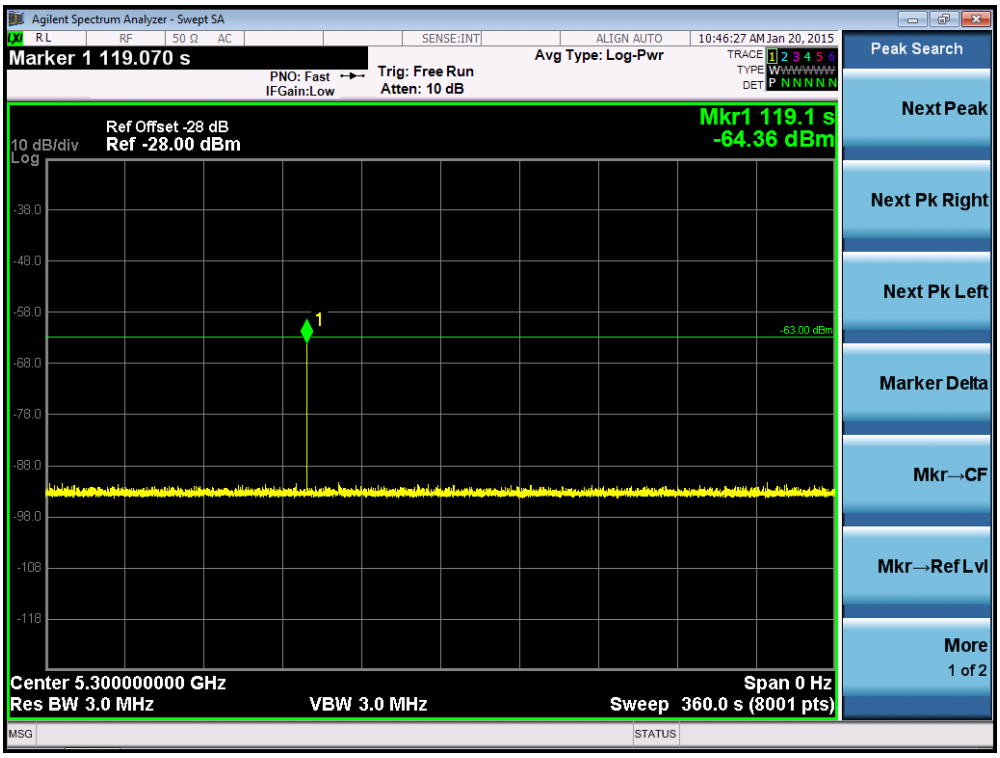
In beginning of the Channel Availability Check (CAC) Time, radar is detected on this channel, select another intended channel and perform a CAC on that channel.

5.6.2. Test Procedure

1. The steps below define the procedure to verify successful radar detection on the selected Channel during a period equal to the Channel Availability Check Time and avoidance of operation on that Channel when a radar Burst with a level equal to the DFS Detection Threshold + 1 dB occurs at the beginning of the Channel Availability Check Time.
2. The EUT is in completion power-up cycle (from T0 to T1). T1 denotes the instant when the EUT has completed its power-up sequence. The Channel Availability Check Time commences at instant T1 and will end no sooner than T1 + 60 seconds. A single Burst of one of Short Pulse Radar Types 0-4 at DFS Detection Threshold + 1 dB will commence within a 6 second window starting at T1.
3. Visual indication on the EUT of successful detection of the radar Burst will be recorded and reported. Observation of emissions at 5300MHz (for 802.11a) will continue for 2.5 minutes after the radar Burst has been generated. Verify that during the 2.5 minutes measurement window no EUT transmissions occurred at 5300MHz (for 802.11a).

5.6.3. Test Result

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



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

5.7.1. Test Limit

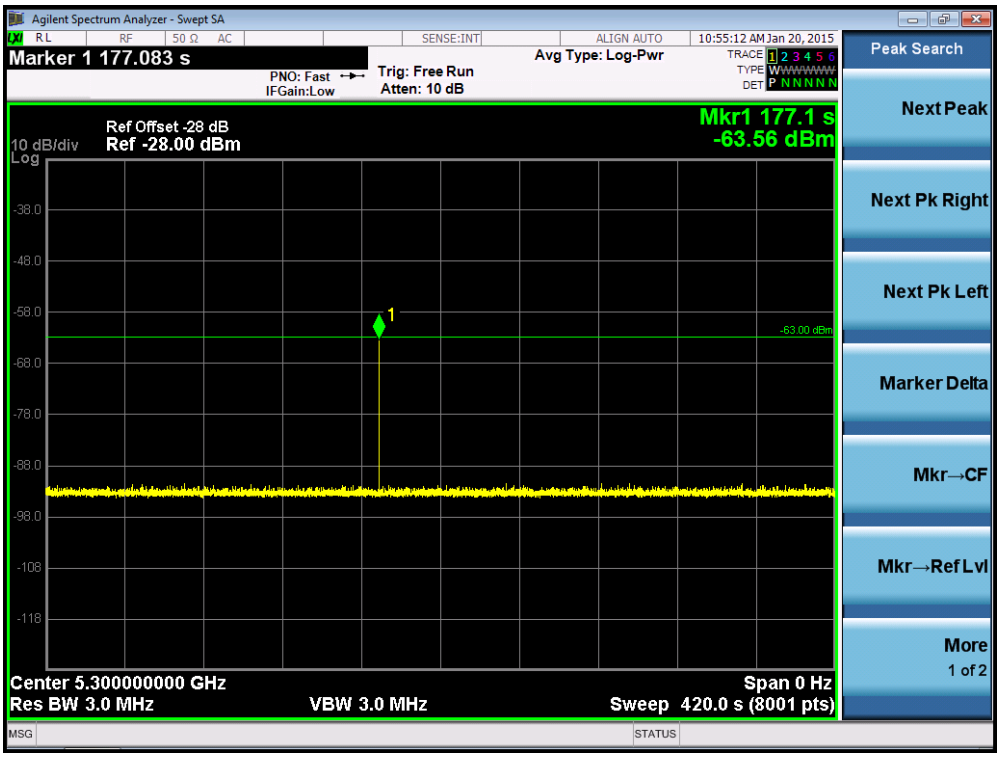
In the end of Channel Availability Check (CAC) Time, radar is detected on this channel, select another intended channel and perform a CAC on that channel.

5.7.2. Test Procedure

1. The steps below define the procedure to verify successful radar detection on the selected Channel during a period equal to the Channel Availability Check Time and avoidance of operation on that Channel when a radar Burst with a level equal to the DFS Detection Threshold + 1 dB occurs at the beginning of the Channel Availability Check Time.
2. The EUT is powered on at T0. T1 denotes the instant when the EUT has completed its power-up sequence. The Channel Availability Check Time commences at instant T1 and will end no sooner 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 at 5300MHz (for 802.11a) will continue for 2.5 minutes after the radar Burst has been generated. Verify that during the 2.5 minutes measurement window no EUT transmissions occurred at 5300MHz (for 802.11a).

5.7.3. Test Result

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



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

5.8.1. Test Limit

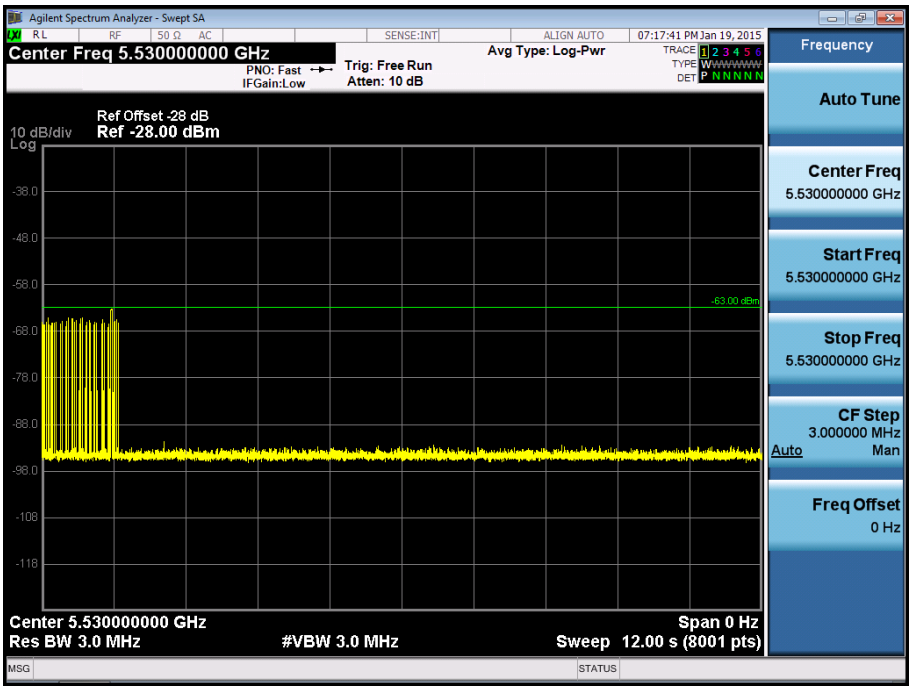
The EUT has In-Service Monitoring function to continuously monitor the radar signals. If the radar is detected, must leave the channel (Shutdown). The Channel Move Time to cease all transmissions on the current channel upon detection of a Radar Waveform above the DFS Detection Threshold within 10 sec.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

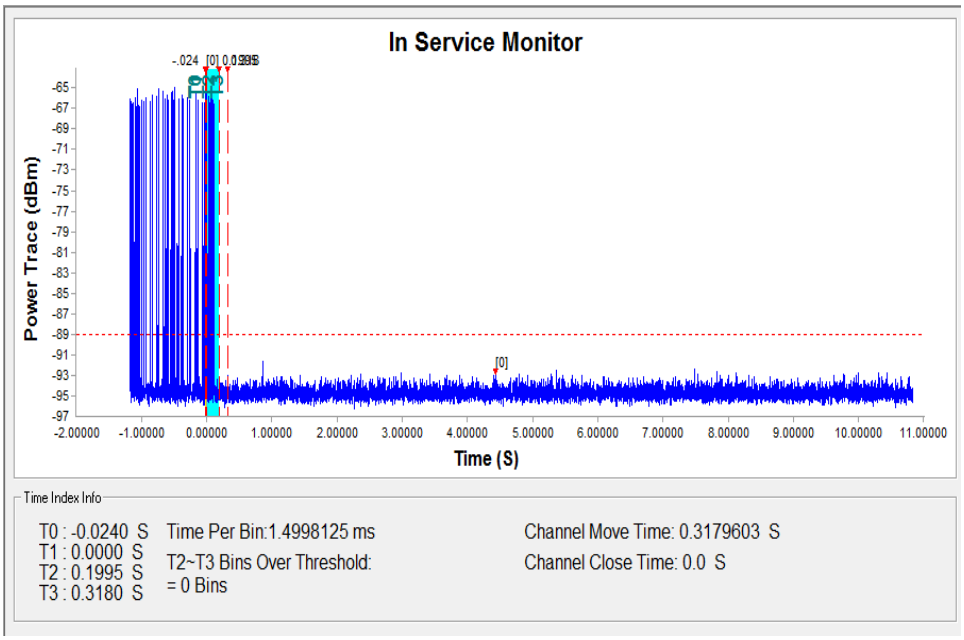
5.8.2. Test Procedure Used

1. The test should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0.
2. When the radar burst with a level equal to the DFS Detection Threshold + 1dB is generated on the Operating Channel of the U-NII device. A U-NII device operating as a Master Device will associate with the Client Device at Channel. Stream the MPEG test file from the Master Device to the Client Device on the selected Channel for the entire period of the test. At time T0 the Radar Waveform generator sends a Burst of pulses for each of the radar types at Detection Threshold + 1dB.
3. Observe the transmissions of the EUT at the end of the radar Burst on the Operating Channel. Measure and record the transmissions from the EUT during the observation time (Channel Move Time).
4. Measurement of the aggregate duration of the Channel Closing Transmission Time method. With the spectrum analyzer set to zero span tuned to the center frequency of the EUT operating channel at the radar simulated frequency, peak detection, and max hold, the dwell time per bin is given by: Dwell (1.5ms) = S (12 sec) / B (8000); where Dwell is the dwell time per spectrum analyzer sampling bin, S is the sweep time and B is the number of spectrum analyzer sampling bins. An upper bound of the aggregate duration of the intermittent control signals of Channel Closing Transmission Time is calculated by: 80MHz: C (0 ms) = N (0) X Dwell (1.5 ms); where C is the Closing Time, N is the number of spectrum analyzer sampling bins showing a U-NII transmission and Dwell is the dwell time per bin.
5. Measure the EUT for more than 30 minutes following the channel close/move time to verify that the EUT does not resume any transmissions on this Channel.

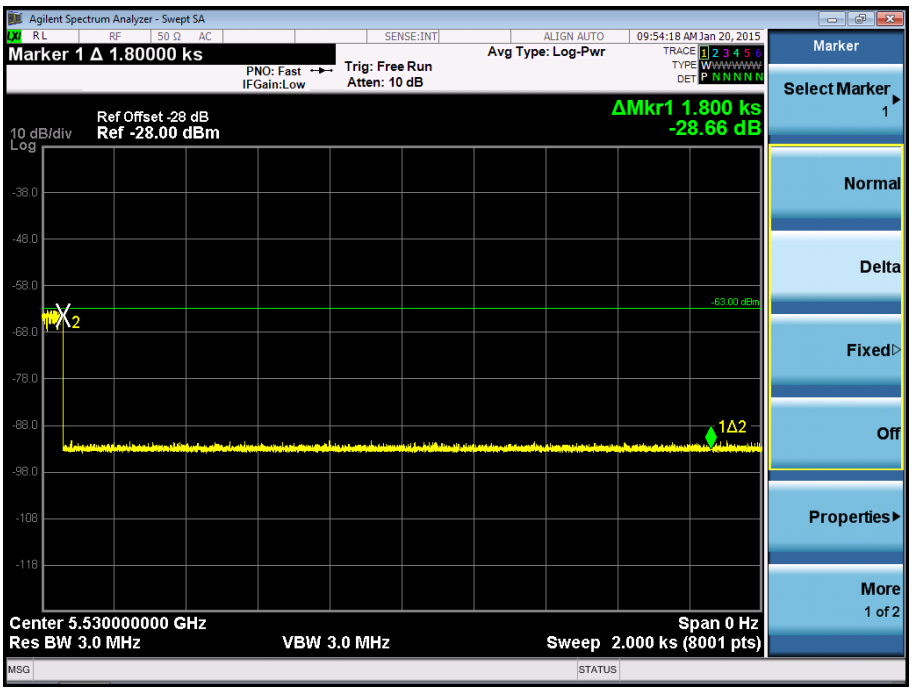
5.8.3. Test Result

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





Non-Occupancy Period for 802.11a



Parameter	Test Result	Limit
	Type 0	
Channel Move Time (s)	0.317s	<10s
Channel Closing Transmission Time (ms) (Note)	0ms	< 60ms
Non-Occupancy Period (min)	≥ 30min	≥ 30 min

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

5.9. Statistical Performance Check Measurement

5.9.1. Test Limit

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

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

The percentage of successful detection is calculated by:
(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.

5.9.2. Test Procedure

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

5.9.3. Test Result

Statistical Performance Check for 802.11a

Radar Type 1 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5291	1	878	61	1
2	5291	1	718	74	1
3	5291	1	818	65	1
4	5291	1	518	102	1
5	5291	1	938	57	1
6	5291	1	738	72	1
7	5291	1	538	99	1
8	5291	1	858	62	1
9	5291	1	698	76	1
10	5291	1	638	83	1
11	5291	1	678	78	1
12	5291	1	3066	18	1
13	5291	1	578	92	1
14	5291	1	598	89	1
15	5291	1	658	81	1
16	5291	1	2698	20	1
17	5291	1	1003	53	1
18	5291	1	2211	24	1
19	5291	1	2369	23	1
20	5291	1	755	70	1
21	5291	1	1108	48	1
22	5291	1	995	54	1
23	5291	1	519	102	1
24	5291	1	2954	18	1
25	5291	1	822	65	1
26	5291	1	2897	19	1
27	5291	1	1922	28	1
28	5291	1	2472	22	1
29	5291	1	1897	28	1
30	5291	1	2665	20	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	5291	4.7	167	29	1
2	5291	4.2	224	24	1
3	5291	3.3	212	26	1
4	5291	3.9	185	23	1
5	5291	2.3	228	25	1
6	5291	4.7	202	26	1
7	5291	1.3	222	29	1
8	5291	2.3	211	25	1
9	5291	4.9	220	23	1
10	5291	3.6	160	28	1
11	5291	3.9	228	26	1
12	5291	1.9	165	25	1
13	5291	4.9	227	24	0
14	5291	3.7	153	28	1
15	5291	4.0	166	28	1
16	5291	4.3	229	23	1
17	5291	2.2	224	24	1
18	5291	3.4	194	24	1
19	5291	4.5	180	24	1
20	5291	2.4	187	23	1
21	5291	2.6	220	25	1
22	5291	1.8	172	29	1
23	5291	5.0	164	23	1
24	5291	3.4	181	24	1
25	5291	2.8	172	24	1
26	5291	1.5	163	23	1
27	5291	1.5	210	24	1
28	5291	1.7	171	24	1
29	5291	2.7	230	29	1
30	5291	3.6	203	24	1
Detection Percentage (%)					96.7%

Radar Type 3 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5300	6.9	305	16	1
2	5300	8.0	350	17	1
3	5300	6.3	293	17	0
4	5300	6.9	331	17	1
5	5300	7.1	413	18	1
6	5300	6.6	300	17	1
7	5300	6.8	460	16	1
8	5300	9.9	385	17	1
9	5300	9.0	473	18	1
10	5300	8.6	472	18	1
11	5300	8.3	251	18	1
12	5300	9.3	425	18	1
13	5300	6.0	496	18	1
14	5300	8.2	284	18	1
15	5300	8.6	482	17	1
16	5300	9.5	375	16	1
17	5300	8.0	351	18	1
18	5300	6.6	267	17	1
19	5300	8.5	290	18	1
20	5300	7.0	396	18	1
21	5300	6.2	324	16	1
22	5300	7.5	494	18	1
23	5300	9.6	392	18	1
24	5300	8.8	346	18	1
25	5300	7.3	281	16	1
26	5300	10.0	369	16	1
27	5300	7.8	314	17	1
28	5300	7.5	462	18	1
29	5300	10.0	387	17	1
30	5300	8.4	410	17	1
Detection Percentage (%)					96.7%

Radar Type 4 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5305	14.9	465	16	1
2	5305	18.0	261	13	1
3	5305	20.0	496	14	1
4	5305	14.5	362	13	1
5	5305	15.9	400	13	1
6	5305	16.7	392	13	1
7	5305	18.2	461	16	1
8	5305	19.6	449	16	0
9	5305	18.2	356	15	1
10	5305	18.4	413	15	1
11	5305	18.0	393	14	1
12	5305	12.6	413	13	1
13	5305	17.8	303	12	1
14	5305	16.4	425	12	1
15	5305	18.6	460	12	1
16	5305	12.2	351	12	1
17	5305	12.7	452	13	1
18	5305	13.3	393	16	1
19	5305	15.5	471	14	1
20	5305	17.8	486	12	1
21	5305	16.3	499	14	1
22	5305	18.9	455	14	1
23	5305	13.8	436	16	1
24	5305	17.0	254	12	1
25	5305	16.0	353	12	1
26	5305	16.3	332	16	1
27	5305	15.0	445	13	1
28	5305	15.5	324	15	1
29	5305	19.2	273	14	1
30	5305	19.4	380	13	1
Detection Percentage (%)					96.7%

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%+96.7%+96.7%+96.7%)/4 = 97.53% (>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	5309	1	16	5309	1
2	5309	1	17	5309	1
3	5309	1	18	5309	1
4	5309	1	19	5309	1
5	5309	1	20	5309	1
6	5309	1	21	5309	1
7	5309	1	22	5309	1
8	5309	1	23	5309	1
9	5309	1	24	5309	1
10	5309	1	25	5309	1
11	5309	1	26	5309	1
12	5309	1	27	5309	1
13	5309	1	28	5309	1
14	5309	1	29	5309	1
15	5309	1	30	5309	1
Detection Percentage (%)					100%

Type 5 Radar Waveform_1

Waveform Num = 1
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	299018	2	6	95	1758	1655	0	299018	0	923076
2	632433	3	9	100	1965	1461	1495	934864	923077	1846153
3	1683653	1	19	70	1945	0	0	2623438	1846154	2769230
4	403524	3	8	95	1963	1355	1901	3028907	2769231	3692307
5	1556207	2	10	55	1128	1687	0	4590333	3692308	4615384
6	662265	1	15	75	1736	0	0	5255413	4615385	5538461
7	689463	3	16	85	1994	1989	1445	5946612	5538462	6461538
8	826339	1	12	55	1926	0	0	6778379	6461539	7384615
9	1007565	3	17	90	1515	1603	1816	7787870	7384616	8307692
10	664434	3	14	60	1383	1914	1197	8457238	8307693	9230769
11	1029788	2	16	80	1900	1845	0	9491520	9230770	10153846
12	1498701	1	13	80	1489	0	0	10993966	10153847	11076923
13	720436	2	6	60	1564	1748	0	11715891	11076924	12000000

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

Type 5 Radar Waveform_2

Waveform Num = 2
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)
	995269									
1		3	16	95	1593	1121	1316	995269	0	1199999
	1325267									
2		3	20	100	1926	1788	1642	2324566	1200000	2399999
	317300									
3		3	7	95	1492	1072	1389	2647222	2400000	3599999
	1028020									
4		2	7	100	1346	1648	0	3679195	3600000	4799999
	1184070									
5		2	19	80	1495	1739	0	4866259	4800000	5999999
	2016962									
6		1	7	100	1970	0	0	6886455	6000000	7199999
	1094179									
7		2	20	95	1778	1517	0	7982604	7200000	8399999
	1069781									
8		1	9	70	1560	0	0	9055680	8400000	9599999
	979453									
9		3	18	55	1196	1266	1457	10036693	9600000	10799999
	1517198									
10		1	13	85	1024	0	0	11557810	10800000	11999999

Total number of pulses in waveform = 21

****

Type 5 Radar Waveform_3

Waveform Num = 3
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)
	405248									
1		1	18	85	1773	0	0	405248	0	666666
	860137									
2		3	16	60	1691	1824	1906	1267158	666667	1333333
	324333									
3		1	7	75	1518	0	0	1596912	1333334	2000000
	454683									
4		1	12	85	1802	0	0	2053113	2000001	2666667
	773611									
5		1	5	100	1158	0	0	2828526	2666668	3333334
	540903									
6		3	9	75	1230	1486	1950	3370587	3333335	4000001
	693981									
7		3	15	50	1037	1136	1352	4069234	4000002	4666668
	998703									
8		3	6	80	1346	1808	1353	5071462	4666669	5333335
	517641									
9		1	5	65	1611	0	0	5593610	5333336	6000002
	500370									
10		2	6	55	1894	1314	0	6095591	6000003	6666669
	614252									
11		1	5	60	1803	0	0	6713051	6666670	7333336
	690718									
12		1	16	85	1780	0	0	7405572	7333337	8000003
	1099384									
13		3	14	80	1450	1299	1215	8506736	8000004	8666670
	352756									
14		1	5	90	1287	0	0	8863456	8666671	9333337
	772789									
15		3	9	85	1738	1964	1395	9637532	9333338	10000004
	1000128									
16		1	16	75	1270	0	0	10642757	10000005	10666671
	545967									
17		2	16	100	1048	1391	0	11189994	10666672	11333338
	413970									
18		1	6	100	1608	0	0	11606403	11333339	12000005

Total number of pulses in waveform = 32

****

Type 5 Radar Waveform_4

Waveform Num = 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)
	599416									
1		2	10	80	1288	1491	0	599416	0	666666
	282712									
2		3	7	75	1950	1555	1447	884907	666667	1333333
	985544									
3		3	13	95	1125	1612	1581	1875403	1333334	2000000
	156211									
4		2	19	100	1250	1731	0	2035932	2000001	2666667
	780050									
5		3	20	65	1014	1875	1192	2818963	2666668	3333334
	1043571									
6		1	17	60	1955	0	0	3866615	3333335	4000001
	410847									
7		1	13	85	1088	0	0	4279417	4000002	4666668
	717480									
8		1	8	80	1397	0	0	4997985	4666669	5333335
	880245									
9		3	13	100	1536	1070	1195	5879627	5333336	6000002
	677908									
10		2	7	75	1658	1206	0	6561336	6000003	6666669
	765602									
11		1	12	90	1512	0	0	7329802	6666670	7333336
	233908									
12		3	6	90	1932	1211	1417	7565222	7333337	8000003
	646328									
13		3	16	75	1418	1628	1598	8216110	8000004	8666670
	505704									
14		3	17	80	1489	1321	1107	8726458	8666671	9333337
	841056									
15		2	14	55	1843	1176	0	9571431	9333338	10000004
	661518									
16		1	16	80	1396	0	0	10235968	10000005	10666671
	757152									
17		3	13	65	1071	1418	1917	10994516	10666672	11333338
	868633									
18		2	14	80	1343	1706	0	11867555	11333339	12000005

Total number of pulses in waveform = 39

****

Type 5 Radar Waveform_5

Waveform Num = 5
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	65303	3	12	75	1848	1124	1068	65303	0	666666
2	916124	3	16	80	1714	1667	1576	985467	666667	1333333
3	798410	1	19	70	1893	0	0	1788834	1333334	2000000
4	321512	3	9	80	1321	1655	1939	2112239	2000001	2666667
5	775383	2	9	75	1254	1991	0	2892537	2666668	3333334
6	673356	1	10	85	1641	0	0	3569138	3333335	4000001
7	822502	2	7	55	1461	1856	0	4393281	4000002	4666668
8	674105	1	10	70	1504	0	0	5070703	4666669	5333335
9	829857	1	9	100	1566	0	0	5902064	5333336	6000002
10	638631	1	14	70	1914	0	0	6542261	6000003	6666669
11	401153	3	11	85	1003	1681	1452	6945328	6666670	7333336
12	955067	2	20	75	1597	1233	0	7904531	7333337	8000003
13	209663	3	7	75	1693	1031	1580	8117024	8000004	8666670
14	962785	3	19	65	1256	1784	1803	9084113	8666671	9333337
15	513646	2	10	50	1311	1445	0	9602602	9333338	10000004
16	761384	3	6	70	1595	1138	1065	10366742	10000005	10666671
17	930343	2	20	60	1918	1809	0	11300883	10666672	11333338
18	524447	3	15	55	1126	1721	1482	11829057	11333339	12000005

Total number of pulses in waveform = 39

Type 5 Radar Waveform_6

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	605041	3	14	75	1582	1781	1525	605041	0	1333332
2	1345581	2	5	60	1713	1354	0	1955510	1333333	2666665
3	1985580	3	8	85	1099	1335	1473	3944157	2666666	3999998
4	667189	2	19	90	1944	1790	0	4615253	3999999	5333331
5	1258593	3	7	50	1321	1044	1408	5877580	5333332	6666664
6	1299783	1	9	70	1173	0	0	7181136	6666665	7999997
7	1391024	3	6	70	1222	1642	1466	8573333	7999998	9333330
8	864118	1	9	75	1979	0	0	9441781	9333331	10666663
9	2522658	1	14	55	1029	0	0	11966418	10666664	11999996

Total number of pulses in waveform = 19

Type 5 Radar Waveform_7

Waveform Num = 7
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	236713	1	20	55	1365	0	0	236713	0	705881
2	491218	2	9	60	1474	1180	0	729296	705882	1411763
3	1192233	3	9	100	1494	1404	1888	1924183	1411764	2117645
4	883482	2	16	65	1975	1634	0	2812451	2117646	2823527
5	609941	2	14	60	1147	1876	0	3426001	2823528	3529409
6	281565	2	16	100	1367	1959	0	3710589	3529410	4235291
7	828489	3	15	95	1788	1914	1619	4542404	4235292	4941173
8	779625	2	19	85	1814	1314	0	5327350	4941174	5647055
9	652696	2	13	50	1123	1090	0	5983174	5647056	6352937
10	683294	3	14	75	1913	1955	1567	6668681	6352938	7058819
11	803366	3	5	100	1238	1505	1144	7477482	7058820	7764701
12	813537	1	10	90	1206	0	0	8294906	7764702	8470583
13	597045	1	20	75	1599	0	0	8893157	8470584	9176465
14	348320	1	19	75	1390	0	0	9243076	9176466	9882347
15	901354	3	13	80	1272	1424	1198	10145820	9882348	10588229
16	1062507	3	12	85	1342	1750	1176	11212221	10588230	11294111
17	257511	3	13	50	1722	1460	1310	11474000	11294112	11999993

Total number of pulses in waveform = 37

Type 5 Radar Waveform_8

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	1209854	1	13	50	1797	0	0	1209854	0	1499999
2	851180	3	20	65	1613	1585	1915	2062831	1500000	2999999
3	1358538	1	11	50	1586	0	0	3426482	3000000	4499999
4	2502574	2	16	80	1053	1043	0	5930642	4500000	5999999
5	917863	3	7	55	1468	1905	1924	6850601	6000000	7499999
6	1765791	2	12	95	1190	1528	0	8621689	7500000	8999999
7	479122	3	6	90	1588	1162	1735	9103529	9000000	10499999
8	2609102	1	10	70	1041	0	0	11717116	10500000	11999999

Total number of pulses in waveform = 16

Type 5 Radar Waveform_9

Waveform Num = 9
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	580033	2	19	50	1013	1616	0	580033	0	666666
2	412629	1	18	100	1523	0	0	995291	666667	1333333
3	714273	3	11	85	1807	1095	1669	1711087	1333334	2000000
4	877065	1	18	60	1209	0	0	2592723	2000001	2666667
5	175075	1	11	75	1117	0	0	2769007	2666668	3333334
6	1088545	1	7	50	1167	0	0	3858669	3333335	4000001
7	530927	1	10	60	1110	0	0	4390763	4000002	4666668
8	920792	2	18	85	1240	1405	0	5312665	4666669	5333335
9	619494	3	18	75	1314	1999	1622	5934804	5333336	6000002
10	78913	1	12	85	1546	0	0	6018652	6000003	6666669
11	815609	3	7	100	1612	1111	1020	6835807	6666670	7333336
12	1109010	1	14	100	1615	0	0	7948560	7333337	8000003
13	418406	3	10	85	1865	1534	1962	8368581	8000004	8666670
14	383943	2	17	60	1699	1347	0	8757885	8666671	9333337
15	800544	2	11	55	1284	1830	0	9561475	9333338	10000004
16	639411	3	8	85	1335	1614	1560	10204000	10000005	10666671
17	461814	2	6	70	1894	1503	0	10670323	10666672	11333338
18	1230643	1	12	60	1481	0	0	11904363	11333339	12000005

Total number of pulses in waveform = 33

Type 5 Radar Waveform_10

Waveform Num = 10
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	480703	1	8	50	1109	0	0	480703	0	857142
2	1151340	3	7	65	1690	1258	1493	1633152	857143	1714285
3	603006	2	16	95	1748	1120	0	2240599	1714286	2571428
4	974003	3	9	70	1282	1446	1726	3217470	2571429	3428571
5	659862	2	12	95	1024	1292	0	3881786	3428572	4285714
6	549600	2	5	50	1134	1750	0	4433702	4285715	5142857
7	1255832	2	9	85	1995	1777	0	5692418	5142858	6000000
8	775382	2	13	75	1606	1271	0	6471572	6000001	6857143
9	1162098	1	19	70	1061	0	0	7636547	6857144	7714286
10	445234	3	18	60	1620	1434	1007	8082842	7714287	8571429
11	1033276	1	15	50	1557	0	0	9120179	8571430	9428572
12	780408	3	13	80	1857	1326	1273	9902144	9428573	10285715
13	759680	3	14	80	1340	1320	1519	10666280	10285716	11142858
14	988154	1	11	100	1404	0	0	11658613	11142859	12000001

Total number of pulses in waveform = 29

Type 5 Radar Waveform_11

Waveform Num = 11
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	565616	2	9	55	1142	1994	0	565616	0	599999
2	220509	3	17	55	1765	1839	1148	789261	600000	1199999
3	762357	2	9	70	1695	1880	0	1556370	1200000	1799999
4	581197	1	12	85	1823	0	0	2141142	1800000	2399999
5	777542	3	8	50	1560	1997	1674	2920507	2400000	2999999
6	523054	1	6	65	1306	0	0	3448792	3000000	3599999
7	657737	1	11	90	1271	0	0	4107835	3600000	4199999
8	151133	3	13	85	1792	1605	1129	4260239	4200000	4799999
9	708613	1	14	70	1949	0	0	4973378	4800000	5399999
10	996020	3	9	100	1448	1350	1493	5971347	5400000	5999999
11	574424	2	15	95	1409	1056	0	6550062	6000000	6599999
12	162994	1	15	65	1198	0	0	6715521	6600000	7199999
13	775170	3	13	70	1400	1954	1437	7491889	7200000	7799999
14	366066	1	18	85	1754	0	0	7862746	7800000	8399999
15	928816	1	10	80	1686	0	0	8793316	8400000	8999999
16	213927	2	8	100	1566	1764	0	9008929	9000000	9599999
17	1117190	3	15	85	1826	1202	1924	10129449	9600000	10199999
18	134395	2	7	55	1579	1050	0	10268796	10200000	10799999
19	593684	3	7	70	1086	1278	1555	10865109	10800000	11399999
20	693948	2	16	80	1915	1218	0	11562976	11400000	11999999

Total number of pulses in waveform = 40

Type 5 Radar Waveform_12

Waveform Num = 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	337982	1	5	80	1999	0	0	337982	0	923076
2	588655	3	18	80	1687	1854	1261	928636	923077	1846153
3	967734	3	12	85	1132	1542	1188	1901172	1846154	2769230
4	1206410	3	20	95	1637	1575	1765	3111444	2769231	3692307
5	826950	2	8	100	1836	1119	0	3943371	3692308	4615384
6	1315188	3	17	95	1749	1565	1755	5261514	4615385	5538461
7	892972	3	15	60	1120	1257	1566	6159555	5538462	6461538
8	622722	3	11	50	1719	1088	1758	6786220	6461539	7384615
9	1448685	3	13	75	1343	1576	1024	8239470	7384616	8307692
10	291724	2	15	70	1270	1158	0	8535137	8307693	9230769
11	1385538	1	14	90	1164	0	0	9923103	9230770	10153846
12	416759	1	5	85	1165	0	0	10341026	10153847	11076923
13	1479323	2	15	85	1979	1836	0	11821514	11076924	12000000

Total number of pulses in waveform = 30

Type 5 Radar Waveform_13

Waveform Num = 13
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	353202	2	17	60	1736	1470	0	353202	0	705881
2	741206	3	17	90	1712	1130	1629	1097614	705882	1411763
3	972119	2	5	50	1400	1222	0	2074204	1411764	2117645
4	347925	2	13	80	1327	1979	0	2424751	2117646	2823527
5	477752	3	18	90	1259	1253	1778	2905809	2823528	3529409
6	1197581	1	10	70	1968	0	0	4107680	3529410	4235291
7	166243	1	19	65	1038	0	0	4275891	4235292	4941173
8	909816	3	7	65	1089	1302	1447	5186745	4941174	5647055
9	1152917	2	9	65	1176	1759	0	6343500	5647056	6352937
10	556081	3	14	80	1484	1231	1763	6902516	6352938	7058819
11	680768	1	15	70	1563	0	0	7587762	7058820	7764701
12	715590	3	17	75	1121	1650	1262	8304915	7764702	8470583
13	535476	2	13	100	1433	1773	0	8844424	8470584	9176465
14	431201	2	8	100	1339	1123	0	9278831	9176466	9882347
15	1184023	1	11	80	1007	0	0	10465316	9882348	10588229
16	637578	3	10	70	1381	1295	1550	11103901	10588230	11294111
17	727848	2	14	90	1772	1141	0	11835975	11294112	11999993

Total number of pulses in waveform = 36

Type 5 Radar Waveform_14

Waveform Num = 14
Num of Bursts = 17
Burst Interval (us)= 705882

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	618577	1	7	65	1079	0	0	618577	0	705881
2	165935	2	9	55	1058	1113	0	785591	705882	1411763
3	1240580	1	6	90	1855	0	0	2028342	1411764	2117645
4	509360	1	5	65	1940	0	0	2539557	2117646	2823527
5	365221	2	8	60	1285	1105	0	2906718	2823528	3529409
6	1124003	2	17	55	1247	1209	0	4033111	3529410	4235291
7	791244	1	7	90	1480	0	0	4826811	4235292	4941173
8	250356	3	20	85	1524	1407	1848	5078647	4941174	5647055
9	573885	1	18	60	1243	0	0	5657311	5647056	6352937
10	1340818	2	6	95	1397	1877	0	6999372	6352938	7058819
11	220121	1	19	70	1488	0	0	7222767	7058820	7764701
12	962554	2	11	80	1608	1124	0	8186809	7764702	8470583
13	960837	3	10	75	1107	1015	1629	9150378	8470584	9176465
14	614687	3	8	55	1554	1974	1431	9768816	9176466	9882347
15	131115	2	15	90	1803	1469	0	9904890	9882348	10588229
16	957377	2	10	90	1637	1135	0	10865539	10588230	11294111
17	582744	2	16	95	1240	1071	0	11451055	11294112	11999993

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

Type 5 Radar Waveform_15

Waveform Num = 15
Num of Bursts = 18
Burst Interval (us)= 666667

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	220204	2	12	95	1886	1263	0	220204	0	666666
2	514088	3	9	85	1708	1490	1947	737441	666667	1333333
3	1097242	1	13	70	1367	0	0	1839828	1333334	2000000
4	234858	1	16	75	1064	0	0	2076053	2000001	2666667
5	893894	3	12	80	1791	1427	1513	2971011	2666668	3333334
6	586380	2	16	60	1042	1004	0	3562122	3333335	4000001
7	856983	2	9	70	1148	1527	0	4421151	4000002	4666668
8	612356	1	12	70	1155	0	0	5036182	4666669	5333335
9	952990	3	18	90	1961	1830	1070	5990327	5333336	6000002
10	642656	3	16	60	1498	1422	1238	6637844	6000003	6666669
11	649106	2	11	95	1306	1729	0	7291108	6666670	7333336
12	269580	2	19	75	1321	1785	0	7563723	7333337	8000003
13	851500	3	13	65	1827	1755	1847	8418329	8000004	8666670
14	405980	1	17	50	1128	0	0	8829738	8666671	9333337
15	627372	1	14	55	1823	0	0	9458238	9333338	10000004
16	1144698	1	10	90	1696	0	0	10604759	10000005	10666671
17	116022	3	14	60	1742	1419	1504	10722477	10666672	11333338
18	606469	1	14	95	1427	0	0	11333611	11333339	12000005

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

Type 5 Radar Waveform_16

Waveform Num = 16
Num of Bursts = 14
Burst Interval (us)= 857143

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	728058	2	12	75	1419	1500	0	728058	0	857142
2	436369	2	11	70	1271	1366	0	1167346	857143	1714285
3	673569	2	5	50	1471	1831	0	1843552	1714286	2571428
4	943571	2	14	55	1524	1463	0	2790425	2571429	3428571
5	1301299	3	15	75	1055	1036	1410	4094711	3428572	4285714
6	910755	3	19	55	1135	1724	1878	5008967	4285715	5142857
7	168912	1	15	60	1095	0	0	5182616	5142858	6000000
8	1644978	3	9	75	1892	1430	1589	6828689	6000001	6857143
9	354310	3	15	60	1031	1686	1355	7187910	6857144	7714286
10	860703	2	15	90	1481	1641	0	8052685	7714287	8571429
11	938408	1	20	85	1374	0	0	8994215	8571430	9428572
12	640520	1	13	95	1551	0	0	9636109	9428573	10285715
13	1117169	2	10	95	1054	1422	0	10754829	10285716	11142858
14	780338	1	9	60	1789	0	0	11537643	11142859	12000001

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

Type 5 Radar Waveform_17

Waveform Num = 17
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	140039	3	17	60	1120	1725	1882	140039	0	749999
2	891377	3	7	85	1838	1319	1927	1036143	750000	1499999
3	805775	3	18	95	1296	1175	1974	1847002	1500000	2249999
4	713707	3	8	90	1639	1862	1336	2565154	2250000	2999999
5	813290	3	6	80	1212	1284	1447	3383281	3000000	3749999
6	451091	2	16	80	1613	1583	0	3838315	3750000	4499999
7	1369461	2	13	75	1719	1348	0	5210972	4500000	5249999
8	446264	2	12	95	1399	1623	0	5660303	5250000	5999999
9	858399	2	14	90	1189	1142	0	6521724	6000000	6749999
10	518860	3	17	85	1324	1096	1134	7042915	6750000	7499999
11	823530	1	20	60	1312	0	0	7869999	7500000	8249999
12	930782	1	15	100	1288	0	0	8802093	8250000	8999999
13	342551	2	5	60	1054	1230	0	9145932	9000000	9749999
14	1068973	2	18	55	1762	1077	0	10217189	9750000	10499999
15	631835	3	18	50	1293	1148	1282	10851863	10500000	11249999
16	852497	1	20	85	1220	0	0	11708083	11250000	11999999

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

Type 5 Radar Waveform_18

Waveform Num = 18
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	493582	2	13	70	1795	1379	0	493582	0	599999
2	455331	3	5	65	1583	1475	1533	952087	600000	1199999
3	647440	2	19	80	1202	1240	0	1604118	1200000	1799999
4	510772	3	5	95	1714	1422	1862	2117332	1800000	2399999
5	505064	2	19	60	1049	1008	0	2627394	2400000	2999999
6	820993	3	18	60	1020	1259	1518	3450444	3000000	3599999
7	613166	1	19	75	1602	0	0	4067407	3600000	4199999
8	162294	3	19	75	1809	1277	1066	4231303	4200000	4799999
9	1145738	1	17	80	1729	0	0	5381193	4800000	5399999
10	542948	2	8	70	1379	1077	0	5925870	5400000	5999999
11	450183	3	15	95	1815	1328	1831	6378509	6000000	6599999
12	306927	3	15	85	1789	1762	1770	6690410	6600000	7199999
13	887896	1	5	70	1988	0	0	7583627	7200000	7799999
14	799529	1	13	70	1052	0	0	8385144	7800000	8399999
15	183728	3	11	75	1466	1771	1808	8569924	8400000	8999999
16	948861	3	12	50	1818	1862	1416	9523830	9000000	9599999
17	585286	2	6	95	1626	1501	0	10114212	9600000	10199999
18	575907	3	9	70	1683	1070	1308	10693246	10200000	10799999
19	109850	1	19	60	1859	0	0	10807157	10800000	11399999
20	1094718	2	19	90	1748	1342	0	11903734	11400000	11999999

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

Type 5 Radar Waveform_19

Waveform Num = 19
Num of Bursts = 12
Burst Interval (us)= 1000000

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	972114	3	9	100	1784	1636	1072	972114	0	999999
2	891757	1	6	50	1283	0	0	1868363	1000000	1999999
3	324599	3	7	100	1696	1663	1453	2194245	2000000	2999999
4	876286	1	18	65	1804	0	0	3075343	3000000	3999999
5	1162692	2	6	80	1131	1170	0	4239839	4000000	4999999
6	768913	2	20	100	1103	1729	0	5011053	5000000	5999999
7	1603153	2	14	65	1680	1576	0	6617038	6000000	6999999
8	721277	2	10	100	1204	1482	0	7341571	7000000	7999999
9	1526116	2	11	50	1053	1931	0	8870373	8000000	8999999
10	764033	2	15	95	1341	1518	0	9637390	9000000	9999999
11	1138006	1	15	85	1134	0	0	10778255	10000000	10999999
12	1137306	3	5	95	1422	1420	1811	11916695	11000000	11999999

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

Type 5 Radar Waveform_20

Waveform Num = 20
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	106061	3	7	50	1850	1261	1540	106061	0	999999
2	1049931	2	5	60	1983	1927	0	1160643	1000000	1999999
3	1063464	3	6	70	1526	1403	1296	2228017	2000000	2999999
4	1551273	1	13	60	1529	0	0	3783515	3000000	3999999
5	1131800	2	15	65	1664	1383	0	4916844	4000000	4999999
6	907586	2	5	75	1059	1784	0	5827477	5000000	5999999
7	878967	3	18	55	1724	1524	1284	6709287	6000000	6999999
8	750308	3	11	50	1451	1953	1735	7464127	7000000	7999999
9	976843	1	13	75	1843	0	0	8446109	8000000	8999999
10	1432483	1	15	80	1934	0	0	9880435	9000000	9999999
11	979640	2	19	100	1068	1661	0	10862009	10000000	10999999
12	357437	2	9	70	1337	1010	0	11222175	11000000	11999999

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

Type 5 Radar Waveform_21

Waveform Num = 21
Num of Bursts = 19
Burst Interval (us)= 631579

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	596286	2	18	85	1057	1507	0	596286	0	631578
2	215587	1	20	85	1225	0	0	814437	631579	1263157
3	727306	1	5	95	1685	0	0	1542968	1263158	1894736
4	882879	3	18	85	1203	1833	1684	2427532	1894737	2526315
5	495841	2	7	75	1571	1256	0	2928093	2526316	3157894
6	836631	3	5	60	1885	1702	1014	3767551	3157895	3789473
7	321095	3	15	95	1574	1901	1184	4093247	3789474	4421052
8	567307	1	6	90	1850	0	0	4665213	4421053	5052631
9	805425	2	8	80	1009	1625	0	5472488	5052632	5684210
10	220806	3	16	65	1242	1441	1055	5695928	5684211	6315789
11	831377	2	11	60	1864	1346	0	6531043	6315790	6947368
12	619835	1	12	90	1566	0	0	7154088	6947369	7578947
13	684778	1	17	55	1500	0	0	7840432	7578948	8210526
14	575935	1	7	60	1956	0	0	8417867	8210527	8842105
15	453772	2	16	100	1257	1210	0	8873595	8842106	9473684
16	1081724	3	6	70	1919	1454	1013	9957786	9473685	10105263
17	716459	2	10	85	1928	1927	0	10678631	10105264	10736842
18	574641	3	6	95	1027	1838	1418	11257127	10736843	11368421
19	144465	2	6	65	1668	1864	0	11405875	11368422	12000000

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

Type 5 Radar Waveform_22

Waveform Num = 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	1036846	2	17	70	1398	1077	0	1036846	0	1090908
2	485347	2	11	70	1000	1162	0	1524668	1090909	2181817
3	690808	3	6	50	1368	1556	1110	2217638	2181818	3272726
4	1518112	3	18	80	1635	1011	1787	3739784	3272727	4363635
5	792590	2	9	60	1462	1552	0	4536807	4363636	5454544
6	1738254	1	11	90	1472	0	0	6278075	5454545	6545453
7	531476	1	18	55	1101	0	0	6811023	6545454	7636362
8	891083	3	9	90	1228	1869	1364	7703207	7636363	8727271
9	1301726	1	12	50	1948	0	0	9009394	8727272	9818180
10	1327611	3	15	95	1931	1544	1740	10338953	9818181	10909089
11	1449641	3	10	100	1426	1745	1394	11793809	10909090	11999998

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

Type 5 Radar Waveform_23

Waveform Num = 23
Num of Bursts = 14
Burst Interval (us)= 857143

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	774498	2	5	80	1160	1797	0	774498	0	857142
2	141532	3	10	75	1168	1057	1642	918987	857143	1714285
3	1036636	2	19	75	1553	1342	0	1959490	1714286	2571428
4	1204530	1	6	80	1051	0	0	3166915	2571429	3428571
5	1081313	2	17	50	1918	1234	0	4249279	3428572	4285714
6	414923	1	20	60	1011	0	0	4667354	4285715	5142857
7	1206386	1	14	80	1647	0	0	5874751	5142858	6000000
8	662526	1	9	55	1470	0	0	6538924	6000001	6857143
9	1165263	2	15	55	1988	1073	0	7705657	6857144	7714286
10	737270	2	15	80	2000	1056	0	8445988	7714287	8571429
11	324759	3	16	80	1356	1098	1271	8773803	8571430	9428572
12	1174523	3	17	55	1121	1121	1310	9952051	9428573	10285715
13	631967	3	20	80	1727	1857	1761	10587570	10285716	11142858
14	782155	1	20	95	1697	0	0	11375070	11142859	12000001

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

Type 5 Radar Waveform_24

Waveform Num = 24
Num of Bursts = 12
Burst Interval (us)= 1000000

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	450686	2	13	65	1741	1878	0	450686	0	999999
2	947215	1	8	70	1282	0	0	1401520	1000000	1999999
3	1441052	3	9	50	1537	1236	1693	2843854	2000000	2999999
4	1066993	1	7	50	1783	0	0	3915313	3000000	3999999
5	350413	3	11	70	1729	1675	1090	4267509	4000000	4999999
6	1223774	3	8	80	1698	1191	1829	5495777	5000000	5999999
7	753510	3	16	90	1389	1440	1924	6254005	6000000	6999999
8	1403324	3	12	95	1727	1950	1893	7662082	7000000	7999999
9	476308	1	18	65	1434	0	0	8143960	8000000	8999999
10	1690264	3	10	55	1156	1717	1170	9835658	9000000	9999999
11	987335	2	17	75	1421	1096	0	10827036	10000000	10999999
12	852053	2	7	95	1864	1268	0	11681606	11000000	11999999

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

Type 5 Radar Waveform_25

Waveform Num = 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	410069	1	17	95	1725	0	0	410069	0	857142
2	668130	3	19	70	1980	1214	1719	1079924	857143	1714285
3	1053256	2	18	65	1160	1823	0	2138093	1714286	2571428
4	1093431	3	19	100	1074	1597	1007	3234507	2571429	3428571
5	299002	2	19	55	1487	1759	0	3537187	3428572	4285714
6	1216300	1	14	100	1267	0	0	4756733	4285715	5142857
7	400218	1	17	90	1523	0	0	5158218	5142858	6000000
8	1166727	2	8	100	1718	1037	0	6326468	6000001	6857143
9	751574	1	13	90	1341	0	0	7080797	6857144	7714286
10	1049043	1	19	60	1649	0	0	8131181	7714287	8571429
11	836716	2	16	75	1693	1894	0	8969546	8571430	9428572
12	1187350	3	5	80	1846	1989	1395	10160483	9428573	10285715
13	342361	3	11	60	1683	1740	1920	10508074	10285716	11142858
14	1404201	3	5	85	1788	1416	1725	11917618	11142859	12000001

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

Type 5 Radar Waveform_26

Waveform Num = 26
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	304639	3	17	90	1656	1099	1010	304639	0	631578
2	370730	2	20	70	1682	1183	0	679134	631579	1263157
3	682845	3	18	95	1811	1005	1862	1364844	1263158	1894736
4	801048	1	12	85	1306	0	0	2170570	1894737	2526315
5	676647	2	13	70	1225	1066	0	2848523	2526316	3157894
6	470293	2	8	95	1975	1464	0	3321107	3157895	3789473
7	590113	3	13	85	1432	1117	1104	3914659	3789474	4421052
8	1065695	1	7	75	1854	0	0	4984007	4421053	5052631
9	457308	1	19	60	1671	0	0	5443169	5052632	5684210
10	632024	3	19	65	1499	1839	1356	6076864	5684211	6315789
11	825177	1	6	65	1884	0	0	6906735	6315790	6947368
12	372765	2	9	85	1110	1017	0	7281384	6947369	7578947
13	728505	3	15	70	1890	1510	1944	8012016	7578948	8210526
14	655125	2	11	65	1449	1840	0	8672485	8210527	8842105
15	577815	2	14	60	1531	1876	0	9253589	8842106	9473684
16	304112	1	5	65	1078	0	0	9561108	9473685	10105263
17	1029648	1	18	100	1269	0	0	10591834	10105264	10736842
18	650348	2	17	95	1867	1848	0	11243451	10736843	11368421
19	399679	2	14	85	1208	1375	0	11646845	11368422	12000000

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

Type 5 Radar Waveform_27

Waveform Num = 27
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	328049	2	12	75	1543	1875	0	328049	0	666666
2	493511	1	19	50	1044	0	0	824978	666667	1333333
3	689273	1	16	50	1367	0	0	1515295	1333334	2000000
4	907516	1	11	100	1639	0	0	2424178	2000001	2666667
5	667743	1	5	55	1699	0	0	3093560	2666668	3333334
6	530359	1	7	65	1478	0	0	3625618	3333335	4000001
7	954669	1	10	75	1906	0	0	4581765	4000002	4666668
8	528614	1	12	90	1878	0	0	5112285	4666669	5333335
9	516306	3	13	65	1643	1700	1585	5630469	5333336	6000002
10	658804	1	20	50	1802	0	0	6294201	6000003	6666669
11	514479	3	13	90	1165	1526	1676	6810482	6666670	7333336
12	873847	2	18	80	1413	1688	0	7688696	7333337	8000003
13	840647	2	8	70	1084	1699	0	8532444	8000004	8666670
14	270054	2	6	70	1884	1328	0	8805281	8666671	9333337
15	643503	2	8	90	1109	1391	0	9451996	9333338	10000004
16	894253	3	19	100	1943	1615	1709	10348749	10000005	10666671
17	783917	2	11	70	1253	1034	0	11137933	10666672	11333338
18	591509	3	13	100	1809	1948	1104	11731729	11333339	12000005

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

Type 5 Radar Waveform_28

Waveform Num = 28
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	310459	1	7	65	1506	0	0	310459	0	1090908
2	936790	1	19	55	1340	0	0	1248755	1090909	2181817
3	1534427	2	16	65	1917	1315	0	2784522	2181818	3272726
4	1103320	3	20	75	1829	1442	1450	3891074	3272727	4363635
5	472848	3	19	90	1469	1497	1432	4368643	4363636	5454544
6	1743944	3	14	85	1799	1111	1086	6116985	5454545	6545453
7	1496245	1	20	60	1506	0	0	7617226	6545454	7636362
8	1013424	1	10	65	1348	0	0	8632156	7636363	8727271
9	911554	1	7	75	1251	0	0	9545058	8727272	9818180
10	581457	2	14	65	1897	1243	0	10127766	9818181	10909089
11	1739244	2	9	85	1825	1898	0	11870150	10909090	11999998

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

Type 5 Radar Waveform_29

Waveform Num = 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	370146	2	10	95	1472	1590	0	370146	0	923076
2	1242677	2	9	50	1012	1534	0	1615885	923077	1846153
3	768498	2	10	50	1106	1900	0	2386929	1846154	2769230
4	974252	2	9	55	1789	1012	0	3364187	2769231	3692307
5	442101	2	13	95	1243	1562	0	3809089	3692308	4615384
6	984920	1	17	80	1107	0	0	4796814	4615385	5538461
7	1416803	2	20	90	1489	1228	0	6214724	5538462	6461538
8	907925	3	7	75	1820	1607	1855	7125366	6461539	7384615
9	695169	3	14	90	1477	1351	1790	7825817	7384616	8307692
10	1325335	3	8	90	1300	1538	1821	9155770	8307693	9230769
11	213809	3	9	90	1038	1342	1170	9374238	9230770	10153846
12	1556438	3	15	75	1729	1414	1581	10934226	10153847	11076923
13	732300	2	12	55	1177	1783	0	11671250	11076924	12000000

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

Type 5 Radar Waveform_30

Waveform Num = 30
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	179955	2	7	90	1602	1646	0	179955	0	857142
2	1214530	2	13	75	1729	1615	0	1397733	857143	1714285
3	550486	3	10	90	1968	1570	1130	1951563	1714286	2571428
4	1318248	2	6	50	1336	1536	0	3274479	2571429	3428571
5	579725	3	10	100	1485	1252	1058	3857076	3428572	4285714
6	638122	1	14	70	1430	0	0	4498993	4285715	5142857
7	922827	1	11	55	1871	0	0	5423250	5142858	6000000
8	1009986	3	14	90	1081	1530	1214	6435107	6000001	6857143
9	758588	1	5	100	1108	0	0	7197520	6857144	7714286
10	1127306	1	13	50	1596	0	0	8325934	7714287	8571429
11	616994	1	13	90	1436	0	0	8944524	8571430	9428572
12	491216	1	7	50	1956	0	0	9437176	9428573	10285715
13	1620056	3	9	60	1974	1912	1462	11059188	10285716	11142858
14	699192	3	13	60	1749	1838	1487	11763728	11142859	12000001

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

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	5295	1	16	5295	1
2	5295	1	17	5295	1
3	5295	1	18	5295	1
4	5295	1	19	5295	1
5	5295	1	20	5295	1
6	5295	1	21	5295	1
7	5295	1	22	5295	1
8	5295	1	23	5295	1
9	5295	1	24	5295	1
10	5295	1	25	5295	1
11	5295	1	26	5295	1
12	5295	1	27	5295	1
13	5295	1	28	5295	1
14	5295	1	29	5295	1
15	5295	1	30	5295	1
Detection Percentage (%)					100%

Radar waveform #1			Radar waveform #2		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
6	5303	18	8	5322	24
19	5325	57	16	5306	48
22	5316	66	20	5272	60
35	5314	105	35	5301	105
44	5267	132	40	5277	120
49	5273	147	42	5323	126
60	5317	180	62	5276	186
68	5269	204	71	5299	213
73	5287	219	73	5296	219
92	5315	276	75	5295	225
--	--	--	80	5312	240
--	--	--	82	5284	246
--	--	--	86	5313	258
--	--	--	87	5310	261
--	--	--	94	5278	282

Radar waveform #3			Radar waveform #4		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
29	5295	87	18	5308	54
35	5293	105	20	5307	60
47	5320	141	21	5318	63
52	5279	156	30	5314	90
61	5297	183	31	5278	93
65	5318	195	32	5299	96
74	5274	222	57	5277	171
82	5316	246	66	5267	198
86	54306	258	74	5283	222
93	5294	279	75	5310	225
--	--	--	78	5317	234
--	--	--	95	5271	285

Radar waveform #5			Radar waveform #6		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
1	5320	3	0	5269	0
7	5316	21	3	5311	9
36	5274	108	7	5319	21
38	5307	114	15	5317	45
59	5266	177	36	5291	108
60	5304	180	51	5322	153
64	5289	192	54	5314	162
70	5313	210	55	5323	165
72	5322	216	59	5274	177
84	5311	252	61	5288	183
94	5262	282	64	5307	192
95	5305	285	70	5299	210
--	--	--	73	5298	219
--	--	--	77	5285	231
--	--	--	78	5321	234
--	--	--	80	5284	240
--	--	--	83	5276	249

Radar waveform #7			Radar waveform #8		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
10	5320	30	6	5297	18
12	5267	36	7	5289	21
28	5292	84	12	5306	36
33	5322	99	15	5304	45
34	5308	102	27	5288	81
39	5271	117	35	5292	105
40	5315	120	44	5305	132
42	5282	126	52	5287	156
55	5289	165	54	5283	162
67	5321	201	56	5286	168
72	5273	216	58	5322	174
79	5290	237	71	5324	213
93	5285	279	82	5271	246
95	5313	285	89	5281	267
--	--	--	97	5293	291

Radar waveform #9			Radar waveform #10		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
0	5300	0	2	5294	6
8	5316	24	15	5289	45
12	5283	36	20	5315	60
24	5325	72	21	5293	63
27	5275	81	22	5295	66
45	5318	135	37	5322	111
57	5270	171	53	5286	159
59	5301	177	60	5284	180
69	5314	207	61	5274	183
75	5306	225	73	5282	219
89	5320	267	74	5293	222
--	--	--	88	5306	264
--	--	--	93	5308	279
--	--	--	97	5302	291

Radar waveform #11			Radar waveform #12		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Frequency (MHz)	Hopping Number	Pulse Start (ms)
0	5283	0	16	5311	48
2	5308	6	20	5303	60
5	5304	15	22	5269	66
15	5313	45	30	5323	90
47	5310	141	43	5284	129
56	5320	168	49	5286	147
63	5287	189	51	5291	153
64	5275	192	62	5272	186
69	5323	207	64	5320	192
78	5309	234	78	5288	234
87	5318	261	88	5317	264
89	5301	267	89	5290	267
--	--	--	91	5299	273
--	--	--	97	5287	291

Radar waveform #13			Radar waveform #14		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
6	5268	18	2	5311	6
11	5306	33	7	5321	21
33	5313	99	12	5281	36
37	5310	111	14	5315	42
39	5271	117	15	5284	45
44	5291	132	16	5316	48
52	5302	156	20	5294	60
59	5269	177	24	5269	72
65	5324	195	32	5278	96
74	5272	222	46	5272	138
78	5280	234	48	5283	144
81	5295	243	52	5295	156
89	5282	267	60	5303	180
90	5322	270	64	5299	192
92	5309	276	75	5270	225
93	5266	279	80	5300	240
97	5320	291	82	5317	246

Radar waveform #15			Radar waveform #16		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
25	5311	75	0	5317	0
29	5295	87	5	5282	15
51	5291	153	17	5303	51
62	5319	186	24	5289	72
69	5273	207	34	5299	102
76	5272	228	67	5266	201
99	5288	297	71	5320	213
--	--	--	75	5318	225
--	--	--	79	5324	237
--	--	--	84	5280	252
--	--	--	86	5323	258
--	--	--	92	5308	276
--	--	--	96	5276	288
--	--	--	99	5261	297

Radar waveform #17			Radar waveform #18		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
2	5313	6	3	5309	9
5	5300	15	14	5295	42
11	5282	33	26	5292	78
18	5301	54	28	5283	84
33	5278	99	33	5272	99
34	5309	102	38	5274	114
55	5288	165	53	5281	159
64	5322	192	59	5267	177
80	5289	240	60	5287	180
90	5321	270	63	5285	189
96	5306	288	64	5294	192
--	--	--	77	5304	231
--	--	--	80	5314	240
--	--	--	86	5288	258
--	--	--	90	5266	270
--	--	--	92	5296	276
--	--	--	99	5315	297

Radar waveform #19			Radar waveform #20		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
4	5289	12	3	5306	9
16	5324	48	4	5323	12
17	5274	51	8	5280	24
20	5303	60	9	5317	27
22	5273	66	10	5310	30
51	5319	153	11	5288	33
56	5317	168	17	5265	51
61	5301	183	20	5290	60
68	5290	204	28	5304	84
77	5291	231	36	5273	108
78	5281	234	61	5325	183
81	5308	243	78	5300	234
89	5275	267	92	5321	276
91	5272	273	--	--	--

Radar waveform #21			Radar waveform #22		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
2	5274	6	6	5297	18
3	5276	9	15	5316	45
23	5292	69	22	5312	66
25	5271	75	26	5293	78
27	5303	81	28	5296	84
36	5280	108	32	5291	96
46	5270	138	42	5302	126
68	5291	204	58	5306	174
74	5277	222	70	5276	210
79	5297	237	74	5298	222
91	5275	273	76	5311	228
97	5295	291	83	5304	249
--	--	--	90	5315	270
--	--	--	91	5369	273

Radar waveform #23			Radar waveform #24		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
0	5297	0	13	5270	39
8	5273	24	34	5286	102
10	5298	30	61	5269	183
27	5285	81	67	5314	201
29	5294	87	75	5299	225
31	5313	93	77	5287	231
39	5306	117	82	5324	246
41	5277	123	87	5292	261
44	5265	132	--	--	--
50	5276	150	--	--	--
53	5279	159	--	--	--
58	5317	174	--	--	--
65	5270	195	--	--	--
72	5278	216	--	--	--
80	5295	240	--	--	--
81	5322	243	--	--	--
97	5291	291	--	--	--

Radar waveform #25			Radar waveform #26		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
0	5285	0	0	5292	0
1	5283	3	3	5286	9
23	5276	69	6	5284	18
33	5300	99	18	5314	54
37	5278	111	23	5277	69
56	5295	168	39	5266	117
62	5293	186	42	5321	126
64	5301	192	53	5309	159
69	5289	207	67	5271	201
77	5274	231	69	5269	207
83	5298	249	70	5285	210
86	5311	258	81	5288	243
93	5265	279	83	5313	249
97	5282	291	98	5291	294

Radar waveform #27			Radar waveform #28		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
20	5277	60	13	5310	39
24	5319	72	15	5295	45
27	5311	81	18	5318	54
60	5322	180	22	5294	66
61	5284	183	35	5325	105
62	5299	186	36	5273	108
71	5312	213	40	5304	120
76	5288	228	42	5276	126
84	5325	252	50	5279	150
93	5308	279	54	5289	162
--	--	--	55	5301	165
--	--	--	65	5313	195
--	--	--	70	5265	210
--	--	--	86	5281	258

Radar waveform #29			Radar waveform #30		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
3	5296	9	7	5289	21
4	5303	12	20	5313	60
9	5267	27	22	5297	66
18	5289	54	26	5275	78
28	5288	84	29	5314	87
30	5272	90	31	5312	93
65	5291	195	44	5302	132
96	5305	288	63	5288	189
--	--	--	69	5287	207
--	--	--	76	5310	228
--	--	--	86	5292	258
--	--	--	87	5276	261
--	--	--	88	5322	264

Radar Statistical Performance for 802.11n-HT40

Radar Type 1 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5292	0	818	65	1
2	5292	1	798	67	1
3	5292	1	638	83	1
4	5292	1	858	62	1
5	5292	1	698	76	1
6	5292	1	678	78	1
7	5292	1	778	68	1
8	5292	1	598	89	1
9	5292	1	658	81	1
10	5292	1	898	59	1
11	5292	1	518	102	1
12	5292	1	918	58	1
13	5292	1	938	57	1
14	5292	1	538	99	1
15	5292	1	718	74	1
16	5292	1	909	59	1
17	5292	1	2342	23	1
18	5292	1	2444	22	1
19	5292	1	1510	35	1
20	5292	1	1554	34	1
21	5292	1	1950	28	1
22	5292	1	2804	19	1
23	5292	1	2515	21	1
24	5292	1	1346	40	1
25	5292	1	784	68	1
26	5292	1	1136	47	1
27	5292	1	2164	25	1
28	5292	1	1429	37	1
29	5292	1	954	56	1
30	5292	1	2337	23	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	5301	4.4	190	28	1
2	5301	2.4	216	25	1
3	5301	3.8	209	24	1
4	5301	1.5	190	29	1
5	5301	3.3	197	25	1
6	5301	1.5	164	28	1
7	5301	3.1	218	28	1
8	5301	1.6	172	29	1
9	5301	4.5	202	24	1
10	5301	2.4	159	23	1
11	5301	3.7	197	28	1
12	5301	2.4	223	23	1
13	5301	2.6	152	28	1
14	5301	1.5	220	24	1
15	5301	1.7	210	29	1
16	5301	2.8	199	27	1
17	5301	1.6	164	29	1
18	5301	1.8	207	27	1
19	5301	2.2	191	26	1
20	5301	1.7	150	26	1
21	5301	2.3	165	23	1
22	5301	3.1	218	27	1
23	5301	1.3	215	26	1
24	5301	3.4	198	29	1
25	5301	4.2	222	26	1
26	5301	3.8	188	23	1
27	5301	1.1	218	25	1
28	5301	3.7	220	25	1
29	5301	4.2	189	26	1
30	5301	1.3	156	28	1
Detection Percentage (%)					100%

Radar Type 3 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5310	7.1	293	18	1
2	5310	6.0	347	18	1
3	5310	6.8	307	16	1
4	5310	7.4	445	18	1
5	5310	6.6	485	16	0
6	5310	8.9	334	17	1
7	5310	8.8	298	18	1
8	5310	6.3	267	18	1
9	5310	7.0	265	16	1
10	5310	6.8	335	17	1
11	5310	9.1	410	16	1
12	5310	8.8	477	18	1
13	5310	7.0	378	17	1
14	5310	6.9	365	16	1
15	5310	8.1	312	17	1
16	5310	8.5	488	18	1
17	5310	9.2	274	18	1
18	5310	9.2	329	18	1
19	5310	8.3	295	16	1
20	5310	6.4	411	17	1
21	5310	9.2	353	18	1
22	5310	6.1	488	16	1
23	5310	8.9	408	18	1
24	5310	7.6	257	16	1
25	5310	7.5	332	18	1
26	5310	8.4	364	18	1
27	5310	6.7	290	18	0
28	5310	8.8	322	18	1
29	5310	9.5	274	17	1
30	5310	7.1	492	16	1
Detection Percentage (%)					93.3%

Radar Type 4 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5329	13.0	454	14	1
2	5329	18.2	487	15	1
3	5329	17.2	423	14	1
4	5329	15.7	254	14	1
5	5329	19.1	349	15	1
6	5329	16.1	463	16	1
7	5329	19.8	359	12	1
8	5329	15.7	369	14	1
9	5329	19.4	476	12	1
10	5329	14.2	265	13	1
11	5329	11.2	357	14	1
12	5329	18.7	419	12	1
13	5329	15.7	329	12	1
14	5329	14.9	485	12	1
15	5329	20.0	310	15	1
16	5329	12.4	447	13	1
17	5329	19.2	423	12	1
18	5329	15.7	336	15	1
19	5329	13.2	261	13	1
20	5329	13.3	328	12	1
21	5329	14.4	342	14	1
22	5329	17.8	349	12	1
23	5329	11.6	420	15	1
24	5329	12.2	400	13	1
25	5329	13.3	464	14	1
26	5329	17.9	352	14	1
27	5329	14.6	460	14	1
28	5329	15.9	394	14	1
29	5329	13.5	496	13	1
30	5329	12.7	443	13	1
Detection Percentage (%)					100%

Note: In addition an average minimum percentage of successful detection across all four Short pulse radar test waveforms is as follows: $\frac{P_d1+P_d2+P_d3+P_d4}{4}$ = (100%+100%+93.3%+100%)/4 = 98.3% (>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	5309	1	16	5309	1
2	5309	1	17	5309	1
3	5309	1	18	5309	1
4	5309	1	19	5309	1
5	5309	1	20	5309	1
6	5309	1	21	5309	1
7	5309	1	22	5309	1
8	5309	1	23	5309	1
9	5309	1	24	5309	1
10	5309	1	25	5309	1
11	5309	1	26	5309	1
12	5309	1	27	5309	1
13	5309	1	28	5309	1
14	5309	1	29	5309	1
15	5309	1	30	5309	1
Detection Percentage (%)					100%

Type 5 Radar Waveform_1

Waveform Num = 1
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	166494	3	7	95	1070	1024	1478	166494	0	1499999
2	2422910	2	10	90	1671	1384	0	2592976	1500000	2999999
3	1244030	3	14	100	1144	1640	1802	3840061	3000000	4499999
4	1617685	3	9	80	1282	1926	1412	5462332	4500000	5999999
5	1028204	1	19	85	1207	0	0	6495156	6000000	7499999
6	2325377	2	8	70	1848	1124	0	8821740	7500000	8999999
7	377228	3	17	60	1083	1494	1914	9201940	9000000	10499999
8	2430756	3	7	75	1042	1370	1340	11637187	10500000	11999999

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

Type 5 Radar Waveform_2

Waveform Num = 2
Num of Bursts = 16
Burst Interval (us)= 750000

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	498620	2	14	50	1001	1793	0	498620	0	749999
2	958866	2	6	80	1923	1844	0	1460280	750000	1499999
3	545353	3	8	85	1586	1326	1961	2009400	1500000	2249999
4	551426	1	19	65	1691	0	0	2565699	2250000	2999999
5	738630	1	19	80	1879	0	0	3306020	3000000	3749999
6	686258	2	20	70	1727	1919	0	3994157	3750000	4499999
7	1042698	2	5	50	1193	1383	0	5040501	4500000	5249999
8	562823	3	19	80	1954	1526	1392	5605900	5250000	5999999
9	913112	3	17	55	1127	1364	1108	6523884	6000000	6749999
10	790729	3	7	100	1091	1404	1757	7318212	6750000	7499999
11	575994	3	8	60	1999	1555	1496	7898458	7500000	8249999
12	820167	3	7	50	1851	1098	1633	8723675	8250000	8999999
13	602286	2	9	55	1413	1505	0	9330543	9000000	9749999
14	1030372	1	17	65	1653	0	0	10363833	9750000	10499999
15	147301	1	16	95	1312	0	0	10512787	10500000	11249999
16	1297827	1	8	95	1063	0	0	11811926	11250000	11999999

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

Type 5 Radar Waveform_3

Waveform Num = 3
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	705600	3	13	80	1112	1003	1031	705600	0	1333332
2	1098650	1	17	90	1611	0	0	1807396	1333333	2666665
3	1813830	2	10	80	1425	1546	0	3622837	2666666	3999998
4	1033539	1	9	70	1098	0	0	4659347	3999999	5333331
5	1321622	3	11	65	1205	1468	1478	5982067	5333332	6666664
6	1889936	1	15	65	1351	0	0	7876154	6666665	7999997
7	855858	3	12	85	1092	1612	1376	8733363	7999998	9333330
8	925716	1	6	85	1459	0	0	9663159	9333331	10666663
9	1567622	2	15	75	1228	1358	0	11232240	10666664	11999996

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

Type 5 Radar Waveform_4

Waveform Num = 4
Num of Bursts = 11
Burst Interval (us)= 1090909

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	559767	2	10	95	1607	1328	0	559767	0	1090908
2	1097795	1	11	50	1199	0	0	1660497	1090909	2181817
3	739856	3	12	80	1690	1400	1149	2401552	2181818	3272726
4	1120275	1	13	95	1050	0	0	3526066	3272727	4363635
5	1057253	3	18	75	1347	1928	1815	4584369	4363636	5454544
6	1834374	1	17	75	1927	0	0	6423833	5454545	6545453
7	1114591	2	7	65	1110	1391	0	7540351	6545454	7636362
8	980843	1	5	100	1503	0	0	8523695	7636363	8727271
9	313535	1	12	55	1705	0	0	8838733	8727272	9818180
10	2005622	2	19	55	1807	1175	0	10846060	9818181	10909089
11	958632	3	8	50	1339	1045	1305	11807674	10909090	11999998

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

Type 5 Radar Waveform_5

Waveform Num = 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	280892	3	14	65	1475	1844	1794	280892	0	1333332
2	1776257	3	8	75	1002	1164	1434	2062262	1333333	2666665
3	1790375	3	14	70	1372	1515	1569	3856237	2666666	3999998
4	1335843	2	15	75	1256	1436	0	5196536	3999999	5333331
5	1449506	1	8	80	1624	0	0	6648734	5333332	6666664
6	388026	1	6	65	1906	0	0	7038384	6666665	7999997
7	1728662	1	8	50	1506	0	0	8768952	7999998	9333330
8	1018570	3	13	60	1892	1965	1945	9789028	9333331	10666663
9	2016358	1	10	55	1969	0	0	11811188	10666664	11999996

Total number of pulses in waveform = 18

****

Type 5 Radar Waveform_6

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	947480	3	19	60	1680	1628	1557	947480	0	1499999
2	1483373	1	13	55	1061	0	0	2435718	1500000	2999999
3	1546843	3	6	60	1416	1813	1568	3983622	3000000	4499999
4	1963858	3	5	65	1106	1299	1004	5952277	4500000	5999999
5	644532	1	12	95	1117	0	0	6600218	6000000	7499999
6	2356703	1	20	60	1923	0	0	8958038	7500000	8999999
7	1397742	2	13	60	1013	1778	0	10357703	9000000	10499999
8	1078233	2	13	100	1550	1164	0	11438727	10500000	11999999

Total number of pulses in waveform = 16

****

Type 5 Radar Waveform_7

Waveform Num = 7
Num of Bursts = 12
Burst Interval (us)= 1000000

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	735493	2	10	85	1778	1982	0	735493	0	999999
2	954237	3	9	85	1981	1031	1994	1693490	1000000	1999999
3	348875	1	9	85	1882	0	0	2047371	2000000	2999999
4	1013744	2	13	50	1927	1393	0	3062997	3000000	3999999
5	1581435	3	15	75	1416	1200	1186	4647752	4000000	4999999
6	838473	3	9	85	1509	1667	1856	5490027	5000000	5999999
7	1127743	2	18	90	1206	1754	0	6622802	6000000	6999999
8	620949	2	6	75	1617	1931	0	7246711	7000000	7999999
9	1475141	3	13	80	1144	1732	1062	8725400	8000000	8999999
10	1241981	3	6	50	1040	1479	1328	9971319	9000000	9999999
11	860854	2	9	90	1677	1616	0	10836020	10000000	10999999
12	513264	2	9	85	1387	1861	0	11352577	11000000	11999999

Total number of pulses in waveform = 28

****

Type 5 Radar Waveform_8

Waveform Num = 8
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	375124	2	9	95	1266	1022	0	375124	0	1333332
2	1894383	2	8	85	1811	1782	0	2271795	1333333	2666665
3	890917	2	9	90	1881	1211	0	3166305	2666666	3999998
4	1431546	1	8	60	1718	0	0	4600943	3999999	5333331
5	1888768	1	19	50	1291	0	0	6491429	5333332	6666664
6	433911	1	8	60	1469	0	0	6926631	6666665	7999997
7	1340269	1	12	95	1203	0	0	8268369	7999998	9333330
8	2131116	2	18	65	1278	1899	0	10400688	9333331	10666663
9	884074	3	8	95	1626	1290	1196	11287939	10666664	11999996

Total number of pulses in waveform = 15

Type 5 Radar Waveform_9

Waveform Num = 9
Num of Bursts = 12
Burst Interval (us)= 1000000

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	342752	1	10	100	1647	0	0	342752	0	999999
2	761650	1	14	85	1896	0	0	1106049	1000000	1999999
3	1749142	1	7	80	1079	0	0	2857087	2000000	2999999
4	901577	1	15	90	1809	0	0	3759743	3000000	3999999
5	996270	3	13	80	1400	1002	1703	4757822	4000000	4999999
6	1218794	1	20	55	1277	0	0	5980721	5000000	5999999
7	480107	3	5	70	1843	1133	1681	6462105	6000000	6999999
8	663155	3	5	50	1280	1822	1674	7129917	7000000	7999999
9	1851129	2	13	65	1747	1955	0	8985822	8000000	8999999
10	311053	1	13	75	1687	0	0	9300577	9000000	9999999
11	1439107	2	9	55	1417	1460	0	10741371	10000000	10999999
12	895166	2	7	85	1077	1549	0	11639414	11000000	11999999

Total number of pulses in waveform = 21

Type 5 Radar Waveform_10

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	160906	1	14	70	1800	0	0	160906	0	749999
2	1135973	3	6	95	1030	1682	1887	1298679	750000	1499999
3	834892	3	9	100	1187	1904	1962	2138170	1500000	2249999
4	747086	3	17	80	1686	1890	1616	2890309	2250000	2999999
5	524049	2	7	75	1477	1265	0	3419550	3000000	3749999
6	365678	3	17	65	1965	1253	1112	3787970	3750000	4499999
7	1453274	2	19	75	1144	1847	0	5245574	4500000	5249999
8	647431	1	9	95	1934	0	0	5895996	5250000	5999999
9	571869	1	19	95	1709	0	0	6469799	6000000	6749999
10	488202	3	16	55	1159	1339	1915	6959710	6750000	7499999
11	1204759	2	11	50	1402	1029	0	8168882	7500000	8249999
12	195323	1	17	55	1357	0	0	8366636	8250000	8999999
13	1343204	2	10	70	1880	1772	0	9711197	9000000	9749999
14	49690	3	11	90	1762	1328	1057	9764539	9750000	10499999
15	821443	2	13	75	1462	1652	0	10590129	10500000	11249999
16	1013030	3	20	70	1875	1442	1550	11606273	11250000	11999999

Total number of pulses in waveform = 35

Type 5 Radar Waveform_11

Waveform Num = 11
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	169363	1	18	60	1164	0	0	169363	0	599999
2	505519	2	10	75	1990	1079	0	676046	600000	1199999
3	688815	3	15	65	1904	1647	1869	1367930	1200000	1799999
4	811413	2	12	100	1675	1579	0	2184763	1800000	2399999
5	521960	1	8	70	1678	0	0	2709977	2400000	2999999
6	576145	3	19	70	1113	1906	1552	3287800	3000000	3599999
7	858252	1	15	55	1922	0	0	4150623	3600000	4199999
8	470174	3	8	50	1123	1700	1448	4622719	4200000	4799999
9	326057	2	11	65	1457	1534	0	4953047	4800000	5399999
10	1009614	3	11	90	1700	1525	1993	5965652	5400000	5999999
11	604094	2	14	60	1315	1701	0	6574964	6000000	6599999
12	559317	3	10	90	1251	1364	1941	7137297	6600000	7199999
13	518261	2	13	85	1941	1744	0	7660114	7200000	7799999
14	616325	2	5	100	1394	1537	0	8280124	7800000	8399999
15	157432	2	10	95	1421	1097	0	8440487	8400000	8999999
16	1008031	2	10	75	1609	1847	0	9451036	9000000	9599999
17	266903	3	5	60	1982	1703	1141	9721395	9600000	10199999
18	501017	1	16	55	1087	0	0	10227238	10200000	10799999
19	943198	3	6	100	1641	1688	1052	11171523	10800000	11399999
20	564741	2	13	90	1820	1926	0	11740645	11400000	11999999

Total number of pulses in waveform = 43
****

Type 5 Radar Waveform_12

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	720232	1	17	90	1284	0	0	720232	0	1499999
2	1713474	3	11	80	1779	1255	1712	2434990	1500000	2999999
3	654885	1	18	65	1550	0	0	3094621	3000000	4499999
4	2501115	3	17	75	1103	1304	1245	5597286	4500000	5999999
5	777030	2	18	75	1430	1949	0	6377968	6000000	7499999
6	2001985	2	12	90	1123	1833	0	8383332	7500000	8999999
7	719917	3	19	90	1849	1051	1621	9106205	9000000	10499999
8	1893872	1	15	65	1906	0	0	11004598	10500000	11999999

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

Type 5 Radar Waveform_13

Waveform Num = 13
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	509132	1	7	90	1029	0	0	509132	0	923076
2	714455	2	11	90	1156	1410	0	1224616	923077	1846153
3	1059821	3	13	100	1305	1394	1955	2287003	1846154	2769230
4	784491	1	8	100	1399	0	0	3076148	2769231	3692307
5	1101265	2	10	70	1939	1473	0	4178812	3692308	4615384
6	610659	1	9	70	1105	0	0	4792883	4615385	5538461
7	1518714	2	14	65	1586	1670	0	6312702	5538462	6461538
8	582613	2	16	65	1624	1903	0	6898571	6461539	7384615
9	1125180	2	13	85	1913	1995	0	8027278	7384616	8307692
10	605746	1	15	70	1760	0	0	8636932	8307693	9230769
11	1467146	1	10	95	1690	0	0	10105838	9230770	10153846
12	270511	2	18	50	1504	1850	0	10378039	10153847	11076923
13	1567651	1	13	90	1625	0	0	11949044	11076924	12000000

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

Type 5 Radar Waveform_14

Waveform Num = 14
Num of Bursts = 17
Burst Interval (us)= 705882

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	448788	1	14	85	1131	0	0	448788	0	705881
2	896162	2	14	75	1021	1869	0	1346081	705882	1411763
3	313756	3	11	55	1011	1983	1197	1662727	1411764	2117645
4	754514	3	19	100	1951	1146	1323	2421432	2117646	2823527
5	1012155	2	8	75	1333	1950	0	3438007	2823528	3529409
6	237290	2	13	100	1112	1037	0	3678580	3529410	4235291
7	920159	1	5	70	1900	0	0	4600888	4235292	4941173
8	934530	1	15	100	1583	0	0	5537318	4941174	5647055
9	143340	3	20	55	1383	1310	1130	5682241	5647056	6352937
10	859973	2	17	95	1087	1324	0	6546037	6352938	7058819
11	945322	2	10	100	1375	1564	0	7493770	7058820	7764701
12	619491	1	17	75	1486	0	0	8116200	7764702	8470583
13	501005	2	19	55	1786	1443	0	8618691	8470584	9176465
14	1082725	3	11	50	1571	1680	1606	9704645	9176466	9882347
15	740095	2	5	80	1691	1976	0	10449597	9882348	10588229
16	510178	3	14	55	1961	1703	1388	10963442	10588230	11294111
17	525450	3	20	90	1333	1666	1080	11493944	11294112	11999993

Total number of pulses in waveform = 36

Type 5 Radar Waveform_15

Waveform Num = 15
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	918160	1	15	50	1818	0	0	918160	0	1199999
2	1276519	2	15	80	1799	1914	0	2196497	1200000	2399999
3	524788	1	17	65	1768	0	0	2724998	2400000	3599999
4	1026916	2	17	50	1278	1823	0	3753682	3600000	4799999
5	1770480	1	13	70	1539	0	0	5527263	4800000	5999999
6	1115294	3	12	90	1859	1190	1011	6644096	6000000	7199999
7	1684908	3	5	90	1589	1960	1133	8333064	7200000	8399999
8	1075023	3	11	85	1856	1611	1391	9412769	8400000	9599999
9	642941	1	5	65	1863	0	0	10060568	9600000	10799999
10	1634084	2	17	95	1815	1904	0	11696515	10800000	11999999

Total number of pulses in waveform = 19

Type 5 Radar Waveform_16

Waveform Num = 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	1055903	3	6	75	1119	1756	1706	1055903	0	1090908
2	660932	3	18	95	1931	1102	1385	1721416	1090909	2181817
3	1339376	2	19	65	1285	1385	0	3065210	2181818	3272726
4	1135332	2	17	75	1890	1117	0	4203212	3272727	4363635
5	1065128	1	6	55	1120	0	0	5271347	4363636	5454544
6	434012	2	20	100	1313	1472	0	5706479	5454545	6545453
7	1272543	3	18	85	1123	1337	1126	6981807	6545454	7636362
8	1339914	3	8	95	1735	1764	1875	8325307	7636363	8727271
9	1464264	1	6	80	1399	0	0	9794945	8727272	9818180
10	688240	2	17	80	1487	1971	0	10484584	9818181	10909089
11	1471932	1	10	80	1257	0	0	11959974	10909090	11999998

Total number of pulses in waveform = 23

Type 5 Radar Waveform_17

Waveform Num = 17
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	632268	3	20	80	1305	1577	1361	632268	0	705881
2	577970	2	5	90	1598	1921	0	1214481	705882	1411763
3	595296	2	14	55	1604	1333	0	1813296	1411764	2117645
4	343182	2	18	85	1456	1536	0	2159415	2117646	2823527
5	980829	2	7	95	1352	1522	0	3143236	2823528	3529409
6	658574	1	7	95	1308	0	0	3804684	3529410	4235291
7	773375	1	20	60	1002	0	0	4579367	4235292	4941173
8	1039462	3	19	55	1707	1988	1473	5619831	4941174	5647055
9	474784	3	16	65	1642	1821	1871	6099783	5647056	6352937
10	771044	2	16	60	1496	1070	0	6876161	6352938	7058819
11	352134	3	9	70	1033	1428	1141	7230861	7058820	7764701
12	1170865	2	5	75	1739	1376	0	8405328	7764702	8470583
13	64896	2	10	85	1837	1694	0	8473339	8470584	9176465
14	1064815	2	14	95	1423	1039	0	9541685	9176466	9882347
15	1002147	3	18	70	1115	1434	1796	10546294	9882348	10588229
16	197671	1	18	70	1567	0	0	10748310	10588230	11294111
17	564109	2	15	65	1547	1707	0	11313986	11294112	11999993

Total number of pulses in waveform = 36

Type 5 Radar Waveform_18

Waveform Num = 18
Num of Bursts = 11
Burst Interval (us)= 1090909

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	961978	1	12	50	1300	0	0	961978	0	1090908
2	635597	3	8	95	1242	1553	1448	1598875	1090909	2181817
3	599896	3	15	80	1652	1312	1770	2203014	2181818	3272726
4	2039181	2	10	65	1576	1540	0	4246929	3272727	4363635
5	421011	3	8	85	1155	1024	1646	4671056	4363636	5454544
6	1307087	1	6	100	1848	0	0	5981968	5454545	6545453
7	1406325	1	5	95	1059	0	0	7390141	6545454	7636362
8	651861	3	14	55	1998	1887	1076	8043061	7636363	8727271
9	819484	2	15	75	1901	1577	0	8867506	8727272	9818180
10	1842847	3	15	90	1461	1743	1957	10713831	9818181	10909089
11	567105	2	7	50	1401	1278	0	11286097	10909090	11999998

Total number of pulses in waveform = 24

Type 5 Radar Waveform_19

Waveform Num = 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	246583	1	16	55	1285	0	0	246583	0	705881
2	500025	1	9	60	1199	0	0	747893	705882	1411763
3	1002969	1	19	55	1874	0	0	1752061	1411764	2117645
4	641239	1	14	70	1020	0	0	2395174	2117646	2823527
5	788666	2	15	100	1522	1163	0	3184860	2823528	3529409
6	1031325	3	8	80	1623	1518	1352	4218870	3529410	4235291
7	180978	2	9	50	1106	1489	0	4404341	4235292	4941173
8	794610	3	17	55	1719	1264	1448	5201546	4941174	5647055
9	663947	2	13	65	1992	1847	0	5869924	5647056	6352937
10	631616	2	8	80	1070	1224	0	6505379	6352938	7058819
11	1074020	1	12	100	1215	0	0	7581693	7058820	7764701
12	543812	3	5	70	1045	1265	1006	8126720	7764702	8470583
13	808862	3	6	50	1285	1246	1771	8938898	8470584	9176465
14	498618	2	14	100	1672	1075	0	9441818	9176466	9882347
15	1116119	2	10	70	1382	1475	0	10560684	9882348	10588229
16	612931	1	19	55	1387	0	0	11176472	10588230	11294111
17	547696	1	16	55	1367	0	0	11725555	11294112	11999993

Total number of pulses in waveform = 31

Type 5 Radar Waveform_20

Waveform Num = 20
Num of Bursts = 11
Burst Interval (us)= 1090909

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	275155	3	18	50	1731	1502	1602	275155	0	1090908
2	896828	3	19	100	1623	1789	1419	1176818	1090909	2181817
3	1103307	2	17	75	1829	1836	0	2284956	2181818	3272726
4	1881765	1	10	100	1404	0	0	4170386	3272727	4363635
5	478182	3	5	50	1008	1064	1412	4649972	4363636	5454544
6	1006895	3	9	55	1564	1835	1113	5660351	5454545	6545453
7	1625016	2	18	80	1954	1414	0	7289879	6545454	7636362
8	1311133	3	14	50	1174	1099	1964	8604380	7636363	8727271
9	898125	1	17	85	1727	0	0	9506742	8727272	9818180
10	1326154	2	14	60	1309	1860	0	10834623	9818181	10909089
11	384222	3	17	80	1712	1080	1363	11222014	10909090	11999998

Total number of pulses in waveform = 26

Type 5 Radar Waveform_21

Waveform Num = 21
Num of Bursts = 12
Burst Interval (us)= 1000000

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	424209	3	7	90	1485	1298	1596	424209	0	999999
2	733246	3	16	100	1700	1650	1374	1161834	1000000	1999999
3	872121	3	18	60	1864	1560	1498	2038679	2000000	2999999
4	1348924	1	6	100	1879	0	0	3392525	3000000	3999999
5	826375	3	13	65	1753	1111	1932	4220779	4000000	4999999
6	1582919	3	16	60	1057	1962	1402	5808494	5000000	5999999
7	741979	3	16	55	1750	1757	1971	6554894	6000000	6999999
8	453804	1	5	90	1806	0	0	7014176	7000000	7999999
9	1314037	3	8	90	1381	1289	1835	8330019	8000000	8999999
10	1540973	2	17	90	1220	1826	0	9875497	9000000	9999999
11	772630	3	16	60	1697	1937	1799	10651173	10000000	10999999
12	994351	1	19	85	1762	0	0	11650957	11000000	11999999

Total number of pulses in waveform = 29

Type 5 Radar Waveform_22

Waveform Num = 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	265722	2	16	70	1576	1334	0	265722	0	599999
2	804848	2	11	85	1974	1241	0	1073480	600000	1199999
3	495031	1	19	100	1366	0	0	1571726	1200000	1799999
4	761002	2	5	95	1593	1140	0	2334094	1800000	2399999
5	144396	1	19	75	1604	0	0	2481223	2400000	2999999
6	698539	3	17	90	1632	1173	1660	3181366	3000000	3599999
7	738123	3	9	70	1135	1945	1805	3923954	3600000	4199999
8	357114	3	9	50	1395	1820	1778	4285953	4200000	4799999
9	951388	2	12	60	1160	1815	0	5242334	4800000	5399999
10	406372	3	7	60	1786	1390	1533	5651681	5400000	5999999
11	381662	1	5	95	1060	0	0	6038052	6000000	6599999
12	1033547	2	11	100	1590	1599	0	7072659	6600000	7199999
13	669600	3	16	95	1889	1671	1550	7745448	7200000	7799999
14	532576	3	16	100	1402	1364	1831	8283134	7800000	8399999
15	160112	2	19	85	1101	1492	0	8447843	8400000	8999999
16	598358	1	13	55	1679	0	0	9048794	9000000	9599999
17	1018749	1	12	80	1641	0	0	10069222	9600000	10199999
18	178090	1	19	85	1569	0	0	10248953	10200000	10799999
19	957196	1	11	55	1689	0	0	11207718	10800000	11399999
20	695926	1	7	95	1985	0	0	11905333	11400000	11999999

Total number of pulses in waveform = 38

Type 5 Radar Waveform_23

Waveform Num = 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	172708	3	11	100	1866	1965	1359	172708	0	599999
2	830478	2	6	60	1975	1841	0	1008376	600000	1199999
3	706125	3	19	95	1443	1998	1913	1718317	1200000	1799999
4	665668	2	16	95	1275	1121	0	2389339	1800000	2399999
5	41281	2	16	90	1206	1527	0	2433016	2400000	2999999
6	1087139	3	6	55	1430	1821	1143	3522888	3000000	3599999
7	450086	1	9	65	1950	0	0	3977368	3600000	4199999
8	407253	1	16	90	1860	0	0	4386571	4200000	4799999
9	957123	1	13	60	1655	0	0	5345554	4800000	5399999
10	633501	3	17	85	1143	1616	1831	5980710	5400000	5999999
11	401105	1	8	100	1440	0	0	6386405	6000000	6599999
12	251245	1	8	60	1478	0	0	6639090	6600000	7199999
13	867652	3	11	95	1512	1907	1461	7508220	7200000	7799999
14	637707	2	7	70	1677	1941	0	8150807	7800000	8399999
15	270638	1	14	80	1772	0	0	8425063	8400000	8999999
16	967828	3	5	85	1184	1276	1320	9394663	9000000	9599999
17	504529	3	10	90	1773	1641	1143	9902972	9600000	10199999
18	411523	1	9	65	1819	0	0	10319052	10200000	10799999
19	621285	3	20	60	1823	1707	1046	10942156	10800000	11399999
20	564388	2	5	70	1062	1250	0	11511120	11400000	11999999

Total number of pulses in waveform = 41
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Type 5 Radar Waveform_24

Waveform Num = 24
Num of Bursts = 8
Burst Interval (us)= 1500000

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	1177119	2	6	100	1677	1699	0	1177119	0	1499999
2	786391	3	7	65	1027	1754	1172	1966886	1500000	2999999
3	1814243	1	14	65	1078	0	0	3785082	3000000	4499999
4	1550469	2	17	50	1666	1023	0	5336629	4500000	5999999
5	864200	1	11	85	1920	0	0	6203518	6000000	7499999
6	2548514	2	7	100	1370	1223	0	8753952	7500000	8999999
7	1498611	2	14	85	1294	1066	0	10255156	9000000	10499999
8	1261938	3	9	95	1183	1707	1358	11519454	10500000	11999999

Total number of pulses in waveform = 16
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Type 5 Radar Waveform_25

Waveform Num = 25
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	657804	2	19	50	1205	1384	0	657804	0	1090908
2	512073	2	17	55	1317	1200	0	1172466	1090909	2181817
3	1480079	1	16	55	1193	0	0	2655062	2181818	3272726
4	1392453	1	14	85	1633	0	0	4048708	3272727	4363635
5	1053935	3	6	55	1284	1131	1784	5104276	4363636	5454544
6	829738	1	11	100	1410	0	0	5938213	5454545	6545453
7	1462376	1	6	90	1527	0	0	7401999	6545454	7636362
8	861048	2	16	90	1551	1839	0	8264574	7636363	8727271
9	798085	1	13	100	1295	0	0	9066049	8727272	9818180
10	1197289	3	10	95	1663	1948	1230	10264633	9818181	10909089
11	1001455	2	11	65	1755	1845	0	11270929	10909090	11999998

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

Type 5 Radar Waveform_26

Waveform Num = 26
Num of Bursts = 8
Burst Interval (us)= 1500000

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	189168	1	18	90	1662	0	0	189168	0	1499999
2	1855483	1	10	80	1902	0	0	2046313	1500000	2999999
3	1684741	2	5	90	1726	1226	0	3732956	3000000	4499999
4	2222158	3	5	85	1196	1489	1052	5958066	4500000	5999999
5	564076	2	8	90	1542	1057	0	6525879	6000000	7499999
6	986449	2	8	65	1855	1457	0	7514927	7500000	8999999
7	2786500	2	8	60	1205	1600	0	10304739	9000000	10499999
8	533360	2	18	90	1510	1228	0	10840904	10500000	11999999

Total number of pulses in waveform = 15

****

Type 5 Radar Waveform_27

Waveform Num = 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	320184	2	15	75	1414	1956	0	320184	0	1090908
2	904439	1	9	85	1515	0	0	1227993	1090909	2181817
3	1178101	3	20	85	1088	1327	1058	2407609	2181818	3272726
4	1615313	3	16	85	1098	1791	1251	4026395	3272727	4363635
5	390183	2	7	90	1322	1374	0	4420718	4363636	5454544
6	1738795	3	7	70	1990	1366	1968	6162209	5454545	6545453
7	683088	1	14	60	1664	0	0	6850621	6545454	7636362
8	1155668	2	8	85	1128	1554	0	8007953	7636363	8727271
9	798998	2	13	50	1634	1319	0	8809633	8727272	9818180
10	1208112	2	9	55	1151	1670	0	10020698	9818181	10909089
11	945458	1	18	65	1488	0	0	10968977	10909090	11999998

Total number of pulses in waveform = 22

****

Type 5 Radar Waveform_28

'
Waveform Num = 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	132947	2	20	85	1955	1091	0	132947	0	749999
2	865761	1	15	55	1781	0	0	1001754	750000	1499999
3	741910	1	12	85	1142	0	0	1745445	1500000	2249999
4	685653	2	17	70	1813	1126	0	2432240	2250000	2999999
5	712174	2	9	85	1862	1040	0	3147353	3000000	3749999
6	890997	3	5	90	1544	1580	1692	4041252	3750000	4499999
7	1105350	1	14	75	1412	0	0	5151418	4500000	5249999
8	290837	1	13	65	1499	0	0	5443667	5250000	5999999
9	1150383	3	13	70	1657	1488	1918	6595549	6000000	6749999
10	706806	3	7	80	1104	1566	1236	7307418	6750000	7499999
11	617150	2	7	85	1948	1255	0	7928474	7500000	8249999
12	817197	1	14	100	1279	0	0	8748874	8250000	8999999
13	434152	2	20	95	1788	1977	0	9184305	9000000	9749999
14	963783	1	20	95	1695	0	0	10151853	9750000	10499999
15	479311	2	10	55	1746	1687	0	10632859	10500000	11249999
16	1172475	3	10	55	1024	1515	1073	11808767	11250000	11999999

Total number of pulses in waveform = 30

****

Type 5 Radar Waveform_29

Waveform Num = 29
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)
	114348									
1		1	12	75	1488	0	0	114348	0	1333332
	1684159									
2		3	16	95	1986	1158	1747	1799995	1333333	2666665
	1860028									
3		2	5	70	1866	1515	0	3664914	2666666	3999998
	1634190									
4		3	11	90	1365	1087	1196	5302485	3999999	5333331
	1233252									
5		2	17	100	1015	1461	0	6539385	5333332	6666664
	150410									
6		3	17	85	1086	1431	1330	6692271	6666665	7999997
	2508954									
7		1	12	60	2000	0	0	9205072	7999998	9333330
	594029									
8		3	6	75	1124	1098	1732	9801101	9333331	10666663
	1624200									
9		2	10	55	1702	1853	0	11429255	10666664	11999996

Total number of pulses in waveform = 20

****

Type 5 Radar Waveform_30

Waveform Num = 30
Num of Bursts = 19
Burst Interval (us)= 631579

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
	162266									
1		1	8	100	1751	0	0	162266	0	631578
	790396									
2		2	6	55	1783	1200	0	954413	631579	1263157
	407842									
3		3	11	85	1447	1194	1943	1365238	1263158	1894736
	751217									
4		3	20	70	1470	1704	1990	2121039	1894737	2526315
	540933									
5		3	13	70	1220	1979	1152	2667136	2526316	3157894
	1102796									
6		2	5	60	1562	1297	0	3774283	3157895	3789473
	333337									
7		3	19	75	1672	1242	1198	4110479	3789474	4421052
	863367									
8		2	15	100	1519	1617	0	4977958	4421053	5052631
	424735									
9		1	12	55	1652	0	0	5405829	5052632	5684210
	787990									
10		2	14	70	1478	1033	0	6195471	5684211	6315789
	648424									
11		3	16	80	1855	1869	1285	6846406	6315790	6947368
	386060									
12		1	18	85	1525	0	0	7237475	6947369	7578947
	900675									
13		1	20	90	1976	0	0	8139675	7578948	8210526
	527258									
14		3	8	50	1377	1734	1581	8668909	8210527	8842105
	231213									
15		3	13	80	1077	1080	1509	8904814	8842106	9473684
	956854									
16		1	9	55	1181	0	0	9865334	9473685	10105263
	564217									
17		3	8	50	1610	1282	1262	10430732	10105264	10736842
	690748									
18		2	12	65	1432	1749	0	11125634	10736843	11368421
	829601									
19		2	15	70	1173	1480	0	11958416	11368422	12000000

Total number of pulses in waveform = 41

****

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	5305	1	16	5305	1
2	5305	1	17	5305	1
3	5305	1	18	5305	1
4	5305	1	19	5305	1
5	5305	1	20	5305	1
6	5305	1	21	5305	1
7	5305	1	22	5305	1
8	5305	1	23	5305	1
9	5305	1	24	5305	1
10	5305	1	25	5305	1
11	5305	1	26	5305	1
12	5305	1	27	5305	1
13	5305	1	28	5305	1
14	5305	1	29	5305	1
15	5305	1	30	5305	1
Detection Percentage (%)					100%

Radar waveform #1			Radar waveform #2		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
8	5284	24	0	5317	0
9	5280	27	2	5332	6
14	5289	42	3	5305	9
15	5302	45	30	5283	90
26	5334	78	41	5318	123
28	5335	84	51	5315	153
30	5308	90	53	5325	159
34	5281	102	61	5308	183
61	5297	183	62	5296	186
80	5296	240	66	5301	198
87	5285	261	84	5295	252
95	5315	285	85	5299	255
--	--	--	90	5286	270
--	--	--	91	5275	273
--	--	--	93	5323	279

Radar waveform #3			Radar waveform #4		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
7	5317	21	0	5288	0
8	5280	24	9	5299	27
23	5318	69	11	5313	33
25	5285	75	17	5332	51
30	5301	90	31	53087	93
44	5289	132	52	5296	156
47	5292	141	53	5294	159
53	5303	159	69	5323	207
56	5328	168	73	5309	219
63	5326	189	87	5310	261
66	5276	198	91	5291	273
74	5296	222	97	5319	291
76	5277	228	98	5318	294
86	5331	258	--	--	--
98	5279	294	--	--	--

Radar waveform #5			Radar waveform #6		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
0	5317	0	9	5313	27
2	5289	6	14	5296	42
9	5296	27	29	5287	87
13	5315	39	37	5290	111
17	5286	51	48	5307	144
22	5320	66	64	5333	192
28	5282	84	67	5325	201
30	5319	90	80	5310	240
48	5298	144	92	5281	276
54	5280	162	94	5316	282
68	5281	204	--	--	--
70	5330	210	--	--	--
80	5314	240	--	--	--
81	5326	243	--	--	--
91	5308	273	--	--	--

Radar waveform #7			Radar waveform #8		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
3	5285	9	0	5308	0
9	5303	27	2	5306	6
20	5284	60	25	5333	75
26	5315	78	27	5286	81
40	5328	120	28	5298	84
47	5332	141	29	5304	87
48	5330	144	40	5331	120
54	5327	162	56	5330	168
65	5321	195	66	5292	198
69	5320	207	73	5275	219
79	5329	237	79	5324	237
92	5307	276	80	5335	240
94	5288	282	88	5327	264
97	5334	291	92	5329	276
--	--	--	93	5294	279
--	--	--	97	5291	291

Radar waveform #9			Radar waveform #10		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
1	5323	3	3	5303	9
52	5333	156	5	5330	15
56	5322	168	13	5320	39
65	5289	195	33	5323	99
69	5275	207	36	5299	108
74	5298	222	59	5312	177
77	5310	231	70	5295	210
85	5307	255	72	5324	216
87	5311	261	80	5277	240
--	--	--	85	5294	255
--	--	--	91	5285	273
--	--	--	94	5290	282

Radar waveform #11			Radar waveform #12		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
8	5295	24	3	5304	9
15	5298	45	4	5311	12
25	5322	75	8	5298	24
29	5307	87	21	5318	63
38	5302	114	27	5335	81
41	5309	123	52	5296	156
50	5308	150	54	5277	162
51	5315	153	58	5316	174
61	5305	183	67	5290	201
68	5301	204	76	5314	228
69	5332	207	77	5279	231
74	5281	222	86	5288	258
96	5328	288	--	--	--
98	5299	294	--	--	--

Radar waveform #13			Radar waveform #14		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
3	5325	9	6	5331	18
6	5284	18	9	5312	27
23	5320	69	21	5309	63
25	5299	75	34	5308	102
31	5286	93	38	5329	114
34	5279	102	40	5285	120
36	5287	108	47	5284	141
42	5304	126	59	5291	177
55	5313	165	63	5304	189
56	5324	168	66	5325	198
57	5277	171	70	5328	210
66	5303	198	94	5311	282
68	5318	204	--	--	--
69	5298	207	--	--	--
73	5331	219	--	--	--
76	5302	228	--	--	--
87	5281	261	--	--	--
93	5306	279	--	--	--

Radar waveform #15			Radar waveform #16		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
14	5319	42	7	5313	21
16	5317	48	13	5324	39
23	5307	69	15	5303	45
31	5278	93	23	5335	69
34	5328	102	25	5327	75
38	5293	114	31	5282	93
51	5330	153	35	5294	105
54	5311	162	38	5287	114
61	5310	183	41	5300	123
63	5283	189	62	5328	186
64	5299	192	66	5302	198
86	5295	258	76	5290	228
89	5332	267	77	5289	231
98	5291	294	81	5334	243
99	5314	297	89	5288	267

Radar waveform #17			Radar waveform #18		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
3	5322	9	9	5296	27
4	5280	12	18	5313	54
9	5285	27	26	5331	78
27	5291	81	53	5299	159
36	5279	108	60	5297	180
43	5299	129	67	5285	201
46	53054	138	84	5295	252
57	5321	171	88	5310	264
67	5296	201	--	--	--
73	5320	219	--	--	--
94	5318	282	--	--	--
98	5278	294	--	--	--
99	5308	297	--	--	--

Radar waveform #19			Radar waveform #20		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
4	5324	12	24	5293	72
9	5303	27	36	5312	108
12	5334	36	47	5278	141
13	5307	39	53	5281	159
18	5309	54	62	5309	186
24	5286	72	65	5313	195
26	5333	78	84	5307	252
32	5294	96	85	5329	255
33	5298	99	99	5279	297
34	5329	102	63	5335	189
48	5313	144	77	5298	231
69	5319	207	91	5303	273
71	5328	213	99	5300	297
74	5281	222	--	--	--
75	5308	225	--	--	--
85	5318	255	--	--	--
90	5284	270	--	--	--
95	5325	285	--	--	--

Radar waveform #21			Radar waveform #22		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
12	5303	36	2	5278	6
21	5291	63	8	5312	24
26	5296	78	13	5293	39
32	5298	96	26	5314	78
41	5334	123	39	5321	117
42	5319	126	52	5325	156
45	5311	135	59	5288	177
47	5292	141	63	5307	189
58	5306	174	70	5280	210
59	5299	177	75	5299	225
65	5323	195	77	5315	231
70	5325	210	82	5326	246
71	5286	213	--	--	--
72	5314	216	--	--	--
75	5289	225	--	--	--
77	5287	231	--	--	--
89	5278	267	--	--	--
99	5288	297	--	--	--

Radar waveform #23			Radar waveform #24		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
7	5280	21	0	5277	0
20	5320	60	12	5290	36
24	5323	72	26	5287	78
38	5330	114	31	5312	93
46	5299	138	32	5295	96
55	5278	165	42	5330	126
80	5328	240	56	5305	168
81	5324	243	71	5306	213
90	5331	270	72	5313	216
98	5308	294	76	5281	228

Radar waveform #25			Radar waveform #26		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
12	5301	36	2	5305	6
29	5333	87	5	5280	15
30	5311	90	7	5312	21
31	5326	93	16	5304	48
39	5297	117	33	5276	99
40	5305	120	46	5332	138
46	5324	138	55	5284	165
59	5303	177	56	5293	168
62	5275	186	59	5330	177
65	5302	195	62	5292	186
86	5294	258	66	5322	198
--	--	--	67	5331	201
--	--	--	68	5296	204
--	--	--	79	5294	237
--	--	--	71	5297	213
--	--	--	87	5290	261

Radar waveform #27			Radar waveform #28		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
1	5276	3	7	5292	21
14	5333	42	14	5330	42
25	5313	75	15	5319	45
30	5322	90	17	5294	51
35	5309	105	19	5312	57
40	5316	120	25	5306	75
42	5308	126	28	5276	84
50	5320	150	34	5281	102
53	5298	159	35	5313	105
63	5295	189	42	5326	126
65	5301	195	43	5308	129
71	5281	213	46	5289	138
83	5279	249	64	5300	192
86	5297	258	65	5331	195
96	5303	288	71	5283	213
--	--	--	83	5318	249
--	--	--	84	5301	252
--	--	--	98	5284	294
--	--	--	99	5314	297

Radar waveform #29			Radar waveform #30		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
9	5278	27	2	5322	6
15	5286	45	36	5294	108
40	5287	120	65	5332	195
48	5316	144	71	5292	213
82	5328	246	--	--	--
87	5320	261	--	--	--
92	5308	276	--	--	--
96	5290	288	--	--	--
98	5327	294	--	--	--

Radar Statistical Performance for 802.11ac-VHT80

Radar Type 1 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5252	1	598	89	1
2	5252	1	878	61	1
3	5252	1	3066	18	1
4	5252	1	638	83	1
5	5252	1	718	74	1
6	5252	1	858	62	1
7	5252	1	778	68	1
8	5252	1	898	59	1
9	5252	1	738	72	1
10	5252	1	758	70	1
11	5252	1	838	63	1
12	5252	1	918	58	1
13	5252	1	518	102	1
14	5252	1	698	76	1
15	5252	1	818	65	1
16	5252	1	2665	20	1
17	5252	1	1346	40	1
18	5252	1	2398	23	1
19	5252	1	1756	31	1
20	5252	1	2557	21	1
21	5252	1	527	101	1
22	5252	1	2854	19	1
23	5252	1	1712	31	1
24	5252	1	868	61	1
25	5252	1	2969	18	1
26	5252	1	1501	36	1
27	5252	1	2758	20	1
28	5252	1	946	56	1
29	5252	1	1201	44	1
30	5252	1	1828	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	5271	4.6	159	24	1
2	5271	3.2	155	26	1
3	5271	2.1	171	28	1
4	5271	4.3	192	28	1
5	5271	2.0	192	25	1
6	5271	3.7	224	23	1
7	5271	4.3	214	27	1
8	5271	3.6	165	29	1
9	5271	3.9	165	29	1
10	5271	2.3	189	26	1
11	5271	1.4	199	29	1
12	5271	4.8	222	29	1
13	5271	3.2	216	26	1
14	5271	4.6	223	28	1
15	5271	4.1	174	25	1
16	5271	3.6	182	25	1
17	5271	3.7	200	25	1
18	5271	3.3	225	23	1
19	5271	4.5	201	26	1
20	5271	3.2	179	24	1
21	5271	1.2	198	27	1
22	5271	3.8	212	28	1
23	5271	3.9	201	25	1
24	5271	4.1	223	27	1
25	5271	4.3	221	28	1
26	5271	2.9	226	25	1
27	5271	1.3	172	23	1
28	5271	1.6	215	26	1
29	5271	1.5	194	28	1
30	5271	4.3	152	27	1
Detection Percentage (%)					100%

Radar Type 3 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5290	10.0	258	16	1
2	5290	9.5	436	16	1
3	5290	9.8	316	18	1
4	5290	6.3	459	16	1
5	5290	9.6	487	17	1
6	5290	6.0	371	16	1
7	5290	9.7	380	17	1
8	5290	7.9	477	16	1
9	5290	7.0	363	18	1
10	5290	7.1	353	16	1
11	5290	9.7	270	18	1
12	5290	8.1	362	18	1
13	5290	6.4	271	16	1
14	5290	8.3	277	16	1
15	5290	6.9	436	18	1
16	5290	6.0	271	17	1
17	5290	9.1	446	17	1
18	5290	9.1	394	16	1
19	5290	7.8	312	17	1
20	5290	7.6	391	18	1
21	5290	6.0	283	16	1
22	5290	7.5	482	16	1
23	5290	7.8	474	16	1
24	5290	9.3	455	17	1
25	5290	10.0	462	18	1
26	5290	9.6	353	17	1
27	5290	7.8	364	18	1
28	5290	6.9	440	18	1
29	5290	7.1	416	16	1
30	5290	10.0	351	17	1
Detection Percentage (%)					100%

Radar Type 4 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5311	13.8	494	15	1
2	5311	15.8	487	15	1
3	5311	11.7	437	16	1
4	5311	15.9	452	15	1
5	5311	17.2	377	16	1
6	5311	18.3	441	12	1
7	5311	19.2	263	14	1
8	5311	19.9	409	14	1
9	5311	11.9	363	12	1
10	5311	15.6	460	16	1
11	5311	14.1	462	14	1
12	5311	19.0	362	13	1
13	5311	11.0	325	15	1
14	5311	12.4	353	14	1
15	5311	19.0	303	13	1
16	5311	13.4	464	12	1
17	5311	18.9	446	15	1
18	5311	16.8	262	12	1
19	5311	15.3	282	12	1
20	5311	17.1	488	15	1
21	5311	11.1	377	16	1
22	5311	19.7	438	15	1
23	5311	17.3	391	13	1
24	5311	14.4	323	12	1
25	5311	18.1	471	14	1
26	5311	12.8	297	15	1
27	5311	17.7	389	15	1
28	5311	18.0	456	12	1
29	5311	18.1	361	16	1
30	5311	17.4	478	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	5329	1	16	5329	1
2	5329	1	17	5329	1
3	5329	1	18	5329	1
4	5329	1	19	5329	1
5	5329	1	20	5329	1
6	5329	1	21	5329	1
7	5329	1	22	5329	1
8	5329	1	23	5329	1
9	5329	1	24	5329	1
10	5329	1	25	5329	1
11	5329	1	26	5329	1
12	5329	1	27	5329	1
13	5329	1	28	5329	1
14	5329	1	29	5329	1
15	5329	1	30	5329	1
Detection Percentage (%)					100%

Type 5 Radar Waveform_1

Waveform Num = 1
Num of Bursts = 18
Burst Interval (us)= 666667

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	188592	1	11	85	1854	0	0	188592	0	666666
2	565605	3	9	95	1773	1224	1767	756051	666667	1333333
3	877989	3	17	90	1199	1626	1578	1638804	1333334	2000000
4	364950	1	10	90	1089	0	0	2008157	2000001	2666667
5	1044678	2	7	60	1366	1667	0	3053924	2666668	3333334
6	490261	3	19	65	1069	1924	1093	3547218	3333335	4000001
7	783467	2	9	60	1106	1602	0	4334771	4000002	4666668
8	350274	1	9	75	1113	0	0	4687753	4666669	5333335
9	968158	3	12	65	1523	1507	1628	5657024	5333336	6000002
10	824576	3	12	65	1549	1347	1670	6486258	6000003	6666669
11	461942	3	6	75	1548	1044	1060	6952766	6666670	7333336
12	590496	1	12	75	1075	0	0	7546914	7333337	8000003
13	924179	2	6	50	1876	1570	0	8472168	8000004	8666670
14	258191	2	12	100	1444	1881	0	8733805	8666671	9333337
15	1017393	1	19	70	1733	0	0	9754523	9333338	10000004
16	362871	2	18	85	1858	1841	0	10119127	10000005	10666671
17	723271	2	5	85	1891	1088	0	10846097	10666672	11333338
18	696068	1	12	50	1682	0	0	11545144	11333339	12000005

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

Type 5 Radar Waveform_2

Waveform Num = 2
Num of Bursts = 14
Burst Interval (us)= 857143

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	160534	2	13	90	1989	1705	0	160534	0	857142
2	1301352	2	5	50	1874	1603	0	1465580	857143	1714285
3	587663	3	10	65	1429	1329	1231	2056720	1714286	2571428
4	514061	1	5	60	1346	0	0	2574770	2571429	3428571
5	1657773	3	14	85	1395	1518	1149	4233889	3428572	4285714
6	93023	2	13	100	1225	1801	0	4330974	4285715	5142857
7	817006	3	17	60	1012	1654	1216	5151006	5142858	6000000
8	909038	2	12	70	1135	1463	0	6063926	6000001	6857143
9	1404332	1	8	75	1641	0	0	7470856	6857144	7714286
10	736105	3	12	50	1076	1590	1154	8208602	7714287	8571429
11	387586	2	11	80	1237	1254	0	8600008	8571430	9428572
12	1635406	2	16	70	1474	1892	0	10237905	9428573	10285715
13	278626	2	11	100	1097	1048	0	10519897	10285716	11142858
14	732952	2	10	100	1239	1005	0	11254994	11142859	12000001

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

Type 5 Radar Waveform_3

Waveform Num = 3
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	50851	1	7	60	1231	0	0	50851	0	631578
2	621015	3	13	100	1615	1201	1761	673097	631579	1263157
3	702146	2	7	60	1636	1902	0	1379820	1263158	1894736
4	973195	3	14	80	1844	1072	1165	2356553	1894737	2526315
5	458416	3	11	95	1034	1312	1569	2819050	2526316	3157894
6	904661	3	10	55	1676	1688	1359	3727626	3157895	3789473
7	341678	2	7	60	1491	1293	0	4074027	3789474	4421052
8	790823	3	11	95	1246	1426	1232	4867634	4421053	5052631
9	241578	3	13	50	1045	1817	1510	5113116	5052632	5684210
10	798838	1	6	50	1876	0	0	5916326	5684211	6315789
11	825081	3	9	60	1170	1395	1670	6743283	6315790	6947368
12	761156	1	18	65	1514	0	0	7508674	6947369	7578947
13	169453	2	6	65	1010	1844	0	7679641	7578948	8210526
14	603355	2	17	70	1223	1344	0	8285850	8210527	8842105
15	586234	2	10	65	1479	1117	0	8874651	8842106	9473684
16	907736	2	19	100	1472	1700	0	9784983	9473685	10105263
17	464829	3	20	90	1975	1705	1821	10252984	10105264	10736842
18	1011623	2	15	65	1907	1478	0	11270108	10736843	11368421
19	514858	3	18	80	1109	1894	1914	11788351	11368422	12000000

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

Type 5 Radar Waveform_4

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	504868	2	5	55	1414	1732	0	504868	0	999999
2	925954	2	13	70	1532	1631	0	1433968	1000000	1999999
3	972658	2	9	50	1666	1997	0	2409789	2000000	2999999
4	1436795	2	13	100	1475	1938	0	3850247	3000000	3999999
5	1062723	1	11	85	1355	0	0	4916383	4000000	4999999
6	501226	2	16	100	1790	1048	0	5418964	5000000	5999999
7	1122080	2	10	75	1942	1946	0	6543882	6000000	6999999
8	875904	1	18	50	1836	0	0	7423674	7000000	7999999
9	1386806	2	12	50	1086	1819	0	8812316	8000000	8999999
10	726625	1	7	65	1198	0	0	9541846	9000000	9999999
11	1068261	3	11	50	1133	1094	1799	10611305	10000000	10999999
12	1094626	1	19	70	1866	0	0	11709957	11000000	11999999

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

Type 5 Radar Waveform_5

Waveform Num = 5
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	200231	2	14	95	1288	1020	0	200231	0	705881
2	1136326	1	9	75	1783	0	0	1338865	705882	1411763
3	71938	3	6	80	1289	1668	1458	1412586	1411764	2117645
4	1322286	2	12	70	1422	1908	0	2739287	2117646	2823527
5	122261	1	16	100	1014	0	0	2864878	2823528	3529409
6	1067731	1	17	95	1051	0	0	3933623	3529410	4235291
7	593729	3	20	70	1002	1499	1109	4528403	4235292	4941173
8	461228	3	18	75	1356	1848	1154	4993241	4941174	5647055
9	781494	1	16	70	1047	0	0	5779093	5647056	6352937
10	590172	2	13	90	1987	1381	0	6370312	6352938	7058819
11	1375551	3	17	80	1845	1222	1128	7749231	7058820	7764701
12	684426	2	8	60	1444	1030	0	8437852	7764702	8470583
13	75305	2	9	65	1557	1404	0	8515631	8470584	9176465
14	855972	2	13	55	1298	1819	0	9374564	9176466	9882347
15	594498	1	19	55	1995	0	0	9972179	9882348	10588229
16	1127644	2	17	85	1538	1311	0	11101818	10588230	11294111
17	301657	2	18	90	1645	1226	0	11406324	11294112	11999993

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

Type 5 Radar Waveform_6

Waveform Num = 6
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	933465	1	19	70	1562	0	0	933465	0	1090908
2	772641	1	5	95	1434	0	0	1707668	1090909	2181817
3	1264048	3	6	60	1469	1241	1341	2973150	2181818	3272726
4	521487	3	18	95	1132	1498	1636	3498688	3272727	4363635
5	1252309	2	19	65	1744	1637	0	4755263	4363636	5454544
6	767119	2	8	90	1405	1091	0	5525763	5454545	6545453
7	1276915	3	19	75	1078	1100	1321	6805174	6545454	7636362
8	1583053	2	20	60	1131	1845	0	8391726	7636363	8727271
9	372520	2	7	50	1435	1310	0	8767222	8727272	9818180
10	1993379	2	7	60	1242	1274	0	10763346	9818181	10909089
11	295745	1	9	70	1935	0	0	11061607	10909090	11999998

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

Type 5 Radar Waveform_7

Waveform Num = 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	1310353	1	20	75	1063	0	0	1310353	0	1499999
2	1180698	2	20	75	1941	1626	0	2492114	1500000	2999999
3	925481	3	17	95	1950	1197	1522	3421162	3000000	4499999
4	2216563	3	10	80	1875	1971	1376	5642394	4500000	5999999
5	1363844	3	15	90	1244	1434	1331	7011460	6000000	7499999
6	1268544	1	17	85	1634	0	0	8284013	7500000	8999999
7	1125958	2	10	85	1584	1891	0	9411605	9000000	10499999
8	1369911	2	15	60	1784	1502	0	10784991	10500000	11999999

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

Type 5 Radar Waveform_8

Waveform Num = 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	789384	1	18	50	1199	0	0	789384	0	923076
2	134141	1	8	50	1500	0	0	924724	923077	1846153
3	1170986	2	20	100	1329	1827	0	2097210	1846154	2769230
4	841298	1	13	75	1475	0	0	2941664	2769231	3692307
5	1176021	3	5	70	1238	1582	1374	4119160	3692308	4615384
6	713067	3	13	65	1628	1879	1893	4836421	4615385	5538461
7	1123333	3	16	60	1129	1942	1062	5965154	5538462	6461538
8	744582	2	18	60	1521	1705	0	6713869	6461539	7384615
9	814791	2	20	50	1253	1605	0	7531886	7384616	8307692
10	1013934	2	7	90	1341	1268	0	8548678	8307693	9230769
11	1365761	1	10	50	1246	0	0	9917048	9230770	10153846
12	347643	1	5	60	1357	0	0	10265937	10153847	11076923
13	992380	3	16	65	1154	1384	1245	11259674	11076924	12000000

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

Type 5 Radar Waveform_9

Waveform Num = 9
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	491094	3	9	90	1724	1244	1277	491094	0	1499999
2	2015627	3	11	100	1221	1755	1548	2510966	1500000	2999999
3	1117168	3	13	80	1366	1366	1642	3632658	3000000	4499999
4	1747884	3	17	70	1667	1021	1307	5384916	4500000	5999999
5	2065409	3	19	70	1038	1146	1775	7454320	6000000	7499999
6	1441443	1	18	55	1770	0	0	8899722	7500000	8999999
7	213535	1	10	80	1576	0	0	9115027	9000000	10499999
8	2819171	1	10	90	1542	0	0	11935774	10500000	11999999

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

Type 5 Radar Waveform_10

Waveform Num = 10
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	341880	1	6	65	1755	0	0	341880	0	923076
2	1492899	3	10	55	1839	1132	1418	1836534	923077	1846153
3	214863	1	12	95	1484	0	0	2055786	1846154	2769230
4	844328	3	7	90	1498	1809	1169	2901598	2769231	3692307
5	928504	1	10	80	1030	0	0	3834578	3692308	4615384
6	907846	1	19	75	1191	0	0	4743454	4615385	5538461
7	1171712	3	16	80	1359	1668	1202	5916357	5538462	6461538
8	1343724	3	10	75	1705	1701	1460	7264310	6461539	7384615
9	252117	3	8	60	1923	1916	1019	7521293	7384616	8307692
10	847179	2	5	70	1016	1277	0	8373330	8307693	9230769
11	1005769	2	20	70	1725	1595	0	9381392	9230770	10153846
12	969980	3	16	80	1164	1001	1139	10354692	10153847	11076923
13	895184	1	13	90	1640	0	0	11253180	11076924	12000000

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

Type 5 Radar Waveform_11

Waveform Num = 11
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	1168454	1	15	70	1836	0	0	1168454	0	1199999
2	923298	2	6	50	1730	1240	0	2093588	1200000	2399999
3	1365129	1	18	85	1169	0	0	3461687	2400000	3599999
4	725235	1	18	80	1086	0	0	4188091	3600000	4799999
5	727736	1	13	75	1849	0	0	4916913	4800000	5999999
6	1912895	2	15	60	1020	1677	0	6831657	6000000	7199999
7	591844	3	6	90	1510	1297	1440	7426198	7200000	8399999
8	1065280	2	18	100	1735	1030	0	8495725	8400000	9599999
9	1597728	2	19	65	1756	1006	0	10096218	9600000	10799999
10	1473428	2	17	65	1675	1819	0	11572408	10800000	11999999

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

Type 5 Radar Waveform_12

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	851482	3	17	75	1623	1091	1790	851482	0	1499999
2	1372377	1	18	85	1723	0	0	2223863	1500000	2999999
3	2178061	1	14	75	1078	0	0	4408147	3000000	4499999
4	836589	2	10	60	1876	1960	0	5245814	4500000	5999999
5	2160156	3	6	50	1047	1961	1308	7409806	6000000	7499999
6	1435277	1	11	80	1633	0	0	8849399	7500000	8999999
7	1138837	1	14	65	1675	0	0	9989869	9000000	10499999
8	1892416	1	20	85	1076	0	0	11883960	10500000	11999999

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

Type 5 Radar Waveform_13

|
Waveform Num = 13
Num of Bursts = 12
Burst Interval (us)= 1000000

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	812097	1	10	85	1887	0	0	812097	0	999999
2	1065573	2	20	55	1637	1274	0	1879557	1000000	1999999
3	611624	2	18	95	1883	1698	0	2494092	2000000	2999999
4	549075	3	11	95	1971	1842	1220	3046748	3000000	3999999
5	1590078	3	20	85	1357	1027	1436	4641859	4000000	4999999
6	493943	2	19	85	1250	1747	0	5139622	5000000	5999999
7	1744414	3	8	90	1333	1490	1316	6887033	6000000	6999999
8	940095	1	15	100	1044	0	0	7831267	7000000	7999999
9	1019228	3	8	60	1341	1130	1152	8851539	8000000	8999999
10	1131902	2	6	100	1316	1497	0	9987064	9000000	9999999
11	747177	1	20	100	1559	0	0	10737054	10000000	10999999
12	1234506	1	18	55	1411	0	0	11973119	11000000	11999999

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

Type 5 Radar Waveform_14

Waveform Num = 14
Num of Bursts = 15
Burst Interval (us)= 800000

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	372628	3	15	100	1674	1989	1513	372628	0	799999
2	852760	1	15	55	1188	0	0	1230564	800000	1599999
3	995078	2	17	80	1474	1701	0	2226830	1600000	2399999
4	683211	1	10	75	1952	0	0	2913216	2400000	3199999
5	877692	1	5	90	1824	0	0	3792860	3200000	3999999
6	211395	2	15	55	1733	1109	0	4006079	4000000	4799999
7	1355517	1	10	65	1447	0	0	5364438	4800000	5599999
8	473736	2	13	70	1756	1869	0	5839621	5600000	6399999
9	761125	2	20	100	1181	1551	0	6604371	6400000	7199999
10	798334	3	8	65	1758	1370	1027	7405437	7200000	7999999
11	924442	3	7	55	1479	1807	1981	8334034	8000000	8799999
12	606297	3	20	65	1879	1065	1143	8945598	8800000	9599999
13	1152342	3	5	70	1216	1408	1607	10102027	9600000	10399999
14	722801	3	14	90	1121	1385	1416	10829059	10400000	11199999
15	946560	2	5	95	1561	1684	0	11779541	11200000	11999999

Total number of pulses in waveform = 32

Type 5 Radar Waveform_15

Waveform Num = 15
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	345844	3	11	95	1875	1184	1214	345844	0	799999
2	456021	1	19	75	1634	0	0	806138	800000	1599999
3	1419604	1	14	55	1802	0	0	2227376	1600000	2399999
4	594049	1	5	75	1404	0	0	2823227	2400000	3199999
5	1016206	2	15	75	1499	1962	0	3840837	3200000	3999999
6	551127	1	17	80	1522	0	0	4395425	4000000	4799999
7	696188	1	5	50	1136	0	0	5093135	4800000	5599999
8	1024351	3	18	100	1001	1675	1004	6118622	5600000	6399999
9	450079	3	14	60	1686	1162	1982	6572381	6400000	7199999
10	728189	1	13	60	1897	0	0	7305400	7200000	7999999
11	1384588	2	20	100	1993	1847	0	8691885	8000000	8799999
12	381217	2	9	95	1240	1123	0	9076942	8800000	9599999
13	824948	3	9	55	1985	1072	1339	9904253	9600000	10399999
14	1231639	2	17	75	1358	1465	0	11140288	10400000	11199999
15	212118	2	20	50	1107	1276	0	11355229	11200000	11999999

Total number of pulses in waveform = 28

Type 5 Radar Waveform_16

Waveform Num = 16
Num of Bursts = 9
Burst Interval (us)= 1333333

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	634802	3	16	90	1547	1552	1645	634802	0	1333332
2	1468679	2	15	65	1093	1128	0	2108225	1333333	2666665
3	1584622	3	8	85	1448	1823	1095	3695068	2666666	3999998
4	333005	1	17	100	1442	0	0	4032439	3999999	5333331
5	1521466	1	9	70	1087	0	0	5555347	5333332	6666664
6	1329744	1	17	65	1518	0	0	6886178	6666665	7999997
7	1575261	1	14	75	1197	0	0	8462957	7999998	9333330
8	885010	1	13	85	1572	0	0	9349164	9333331	10666663
9	1686784	1	17	75	1422	0	0	11037520	10666664	11999996

Total number of pulses in waveform = 14

Type 5 Radar Waveform_17

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	709180	1	19	95	1084	0	0	709180	0	1090908
2	1044413	1	14	75	1792	0	0	1754677	1090909	2181817
3	513860	2	16	90	1407	1387	0	2270329	2181818	3272726
4	1980176	3	9	60	1663	1283	1279	4253299	3272727	4363635
5	392788	2	10	80	1097	1061	0	4650312	4363636	5454544
6	1636299	1	11	95	1807	0	0	6288769	5454545	6545453
7	962588	1	9	55	1739	0	0	7253164	6545454	7636362
8	792313	1	9	60	1454	0	0	8047216	7636363	8727271
9	696438	1	7	75	1092	0	0	8745108	8727272	9818180
10	1811663	3	7	80	1075	1883	1156	10557863	9818181	10909089
11	406042	3	12	80	1987	1475	1717	10968019	10909090	11999998

Total number of pulses in waveform = 19

Type 5 Radar Waveform_18

Waveform Num = 18
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	458575	1	8	100	1535	0	0	458575	0	999999
2	1097732	2	16	90	1174	1542	0	1557842	1000000	1999999
3	961511	2	20	75	1226	1366	0	2522069	2000000	2999999
4	1097457	1	15	60	1092	0	0	3622118	3000000	3999999
5	518886	2	14	85	1698	1733	0	4142096	4000000	4999999
6	1149790	1	18	55	1685	0	0	5295317	5000000	5999999
7	1165754	3	15	70	1378	1973	1892	6462756	6000000	6999999
8	768545	2	11	55	1690	1499	0	7236544	7000000	7999999
9	1002738	3	15	75	1158	1838	1871	8242471	8000000	8999999
10	1295133	2	5	70	1314	1668	0	9542471	9000000	9999999
11	568390	2	10	80	1376	1876	0	10113843	10000000	10999999
12	1001410	1	6	75	1864	0	0	11118505	11000000	11999999

Total number of pulses in waveform = 22

Type 5 Radar Waveform_19

Waveform Num = 19
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	656040	1	5	85	1147	0	0	656040	0	857142
2	479375	2	5	55	1867	1261	0	1136562	857143	1714285
3	774241	2	20	50	1834	1638	0	1913931	1714286	2571428
4	1001656	1	11	90	1167	0	0	2919059	2571429	3428571
5	744758	2	20	85	1719	1022	0	3664984	3428572	4285714
6	1381322	2	17	50	1696	1183	0	5049047	4285715	5142857
7	708988	1	9	85	1328	0	0	5760914	5142858	6000000
8	876895	2	13	80	1574	1234	0	6639137	6000001	6857143
9	1029581	2	16	100	1011	1356	0	7671526	6857144	7714286
10	830930	2	12	70	1553	1694	0	8504823	7714287	8571429
11	128901	3	15	75	1810	1032	1459	8636971	8571430	9428572
12	863766	3	16	50	1524	1309	1928	9505038	9428573	10285715
13	861911	3	18	60	1132	1216	1827	10371710	10285716	11142858
14	1526251	3	18	80	1518	1977	1856	11902136	11142859	12000001

Total number of pulses in waveform = 29

Type 5 Radar Waveform_20

Waveform Num = 20
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	150521	2	5	100	1885	1796	0	150521	0	999999
2	996575	1	7	100	1536	0	0	1150777	1000000	1999999
3	1618994	2	15	80	1209	1964	0	2771307	2000000	2999999
4	1131191	1	8	85	1830	0	0	3905671	3000000	3999999
5	105017	2	11	90	1546	1054	0	4012518	4000000	4999999
6	1415748	2	12	55	1956	1100	0	5430866	5000000	5999999
7	999255	2	11	50	1007	1083	0	6433177	6000000	6999999
8	1418162	2	16	55	1368	1035	0	7853429	7000000	7999999
9	641691	2	14	75	1071	1936	0	8497523	8000000	8999999
10	1484120	1	16	75	1600	0	0	9984650	9000000	9999999
11	467733	3	17	50	1432	1056	1591	10453983	10000000	10999999
12	1110075	2	8	70	1527	1761	0	11568137	11000000	11999999

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

Type 5 Radar Waveform_21

Waveform Num = 21
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	236803	2	15	75	1310	1219	0	236803	0	599999
2	724509	1	13	60	1070	0	0	963841	600000	1199999
3	636536	2	9	50	1249	1108	0	1601447	1200000	1799999
4	634846	1	15	55	1907	0	0	2238650	1800000	2399999
5	430511	3	16	90	1784	1411	1360	2671068	2400000	2999999
6	877220	1	15	95	1449	0	0	3552843	3000000	3599999
7	610734	2	11	95	1445	1614	0	4165026	3600000	4199999
8	357819	3	5	80	1705	1465	1869	4525904	4200000	4799999
9	548622	1	12	55	1887	0	0	5079565	4800000	5399999
10	746551	1	6	80	1110	0	0	5828003	5400000	5999999
11	682182	2	11	55	1731	1251	0	6511295	6000000	6599999
12	349031	3	12	90	1280	1989	1361	6863308	6600000	7199999
13	612965	2	11	85	1931	1172	0	7480903	7200000	7799999
14	809875	3	6	95	1281	1519	1616	8293881	7800000	8399999
15	415684	3	8	80	1174	1362	1328	8713981	8400000	8999999
16	442695	2	15	50	1603	1906	0	9160540	9000000	9599999
17	818779	3	5	90	1225	1114	1796	9982828	9600000	10199999
18	350059	2	14	80	1532	1050	0	10337022	10200000	10799999
19	741164	1	18	75	1844	0	0	11080768	10800000	11399999
20	677061	3	12	100	1639	1289	1143	11759673	11400000	11999999

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

Type 5 Radar Waveform_22

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	305787	2	13	75	1310	1060	0	305787	0	749999
2	704995	1	20	60	1686	0	0	1013152	750000	1499999
3	912163	1	13	80	1624	0	0	1927001	1500000	2249999
4	809623	3	6	90	1494	1450	1425	2738248	2250000	2999999
5	426937	2	18	90	1244	1034	0	3169554	3000000	3749999
6	1196431	2	10	55	1009	1850	0	4368263	3750000	4499999
7	779436	2	15	75	1251	1375	0	5150558	4500000	5249999
8	532652	1	10	60	1675	0	0	5685836	5250000	5999999
9	414301	1	10	60	1953	0	0	6101812	6000000	6749999
10	1160564	2	14	50	1533	1316	0	7264329	6750000	7499999
11	408533	3	9	60	1806	1279	1824	7675711	7500000	8249999
12	752971	1	18	65	1125	0	0	8433591	8250000	8999999
13	915619	3	8	50	1947	1702	1776	9350335	9000000	9749999
14	684686	3	18	55	1298	1229	1259	10040446	9750000	10499999
15	909936	1	20	55	1356	0	0	10954168	10500000	11249999
16	1025648	2	6	95	1880	1196	0	11981172	11250000	11999999

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

Type 5 Radar Waveform_23

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	235190	1	7	55	1576	0	0	235190	0	799999
2	1205328	1	18	75	1294	0	0	1442094	800000	1599999
3	866745	2	8	50	1300	1693	0	2310133	1600000	2399999
4	805732	1	8	55	1506	0	0	3118858	2400000	3199999
5	141255	1	11	55	1501	0	0	3261619	3200000	3999999
6	1515889	3	16	75	1313	1997	1957	4779009	4000000	4799999
7	659214	2	7	75	1249	1754	0	5443490	4800000	5599999
8	206440	2	7	95	1361	1521	0	5652933	5600000	6399999
9	1515971	2	8	80	1143	1510	0	7171786	6400000	7199999
10	218854	2	14	60	1005	1984	0	7393293	7200000	7999999
11	962562	1	8	85	1713	0	0	8358844	8000000	8799999
12	690578	3	20	60	1584	1478	1888	9051135	8800000	9599999
13	1210050	1	9	70	1098	0	0	10266135	9600000	10399999
14	323174	3	11	75	1738	1119	1396	10590407	10400000	11199999
15	993217	3	19	90	1229	1565	1114	11587877	11200000	11999999

Total number of pulses in waveform = 28

Type 5 Radar Waveform_24

Waveform Num = 24
Num of Bursts = 18
Burst Interval (us)= 666667

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	465337	1	15	95	1755	0	0	465337	0	666666
2	631170	1	5	100	1994	0	0	1098262	666667	1333333
3	382471	1	6	55	1913	0	0	1482727	1333334	2000000
4	649642	2	14	80	1482	1014	0	2134282	2000001	2666667
5	1101153	3	14	75	1123	1678	1831	3237931	2666668	3333334
6	542608	2	19	70	1590	1471	0	3785171	3333335	4000001
7	788349	1	8	85	1920	0	0	4576581	4000002	4666668
8	411152	1	17	85	1901	0	0	4989653	4666669	5333335
9	995915	1	13	50	1946	0	0	5987469	5333336	6000002
10	106308	2	8	70	1925	1549	0	6095723	6000003	6666669
11	712638	3	8	95	1808	1661	1901	6811835	6666670	7333336
12	1051829	3	8	75	1599	1166	1053	7869034	7333337	8000003
13	365229	3	5	85	1033	1580	1227	8238081	8000004	8666670
14	954305	3	17	70	1224	1745	1333	9196226	8666671	9333337
15	735606	2	14	95	1460	1138	0	9936134	9333338	10000004
16	507307	2	6	90	1532	1132	0	10446039	10000005	10666671
17	590177	3	13	100	1177	1062	1657	11038880	10666672	11333338
18	602307	2	17	95	1903	1558	0	11645083	11333339	12000005

Total number of pulses in waveform = 36

Type 5 Radar Waveform_25

Waveform Num = 25
Num of Bursts = 8
Burst Interval (us)= 1500000

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	1392044	2	5	55	1109	1765	0	1392044	0	1499999
2	450929	3	10	50	1336	1520	1735	1845847	1500000	2999999
3	1986708	1	18	50	1718	0	0	3837146	3000000	4499999
4	2036142	2	6	100	1220	1789	0	5875006	4500000	5999999
5	1059299	2	16	55	1486	1334	0	6937314	6000000	7499999
6	867313	1	11	75	1566	0	0	7807447	7500000	8999999
7	2571407	1	15	55	1715	0	0	10380420	9000000	10499999
8	482463	1	18	85	1156	0	0	10864598	10500000	11999999

Total number of pulses in waveform = 13

Type 5 Radar Waveform_26

Waveform Num = 26
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	379545	1	16	95	1852	0	0	379545	0	666666
2	509085	1	20	55	1796	0	0	890482	666667	1333333
3	557037	3	11	60	1737	1796	1600	1449315	1333334	2000000
4	956109	3	20	80	1448	1734	1379	2410557	2000001	2666667
5	630786	1	8	50	1639	0	0	3045884	2666668	3333334
6	749794	3	19	55	1020	1954	1662	3797317	3333335	4000001
7	516447	1	18	65	1872	0	0	4318400	4000002	4666668
8	381464	3	9	95	1852	1665	1662	4701736	4666669	5333335
9	1156273	3	15	90	1040	1114	1332	5863188	5333336	6000002
10	374431	3	19	85	1980	1064	1489	6241105	6000003	6666669
11	900352	3	10	65	1031	1236	1558	7145990	6666670	7333336
12	759174	1	7	60	1454	0	0	7908989	7333337	8000003
13	439868	3	8	55	1830	1067	1135	8350311	8000004	8666670
14	764855	3	10	75	1146	1080	1016	9119198	8666671	9333337
15	689200	1	9	80	1804	0	0	9811640	9333338	10000004
16	584892	1	18	95	1932	0	0	10398336	10000005	10666671
17	691558	2	10	100	1904	1121	0	11091826	10666672	11333338
18	495698	2	18	75	1355	1383	0	11590549	11333339	12000005

Total number of pulses in waveform = 38

Type 5 Radar Waveform_27

Waveform Num = 27
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	642484	1	17	100	1790	0	0	642484	0	857142
2	540522	2	7	90	1746	1256	0	1184796	857143	1714285
3	550585	2	13	60	1444	1497	0	1738383	1714286	2571428
4	988436	1	6	70	1019	0	0	2729760	2571429	3428571
5	1333476	1	14	55	1502	0	0	4064255	3428572	4285714
6	295156	1	12	95	1240	0	0	4360913	4285715	5142857
7	1610874	1	9	80	1285	0	0	5973027	5142858	6000000
8	698266	3	17	85	1918	1406	1938	6672578	6000001	6857143
9	560209	2	6	100	1462	1556	0	7238049	6857144	7714286
10	1287709	2	18	50	1984	1669	0	8528776	7714287	8571429
11	152396	3	10	100	1668	1419	1162	8684825	8571430	9428572
12	1498395	1	12	90	1646	0	0	10187469	9428573	10285715
13	451129	1	12	65	1347	0	0	10640244	10285716	11142858
14	993319	3	19	55	1882	1404	1517	11634910	11142859	12000001

Total number of pulses in waveform = 24

Type 5 Radar Waveform_28

Waveform Num = 28
Num of Bursts = 15
Burst Interval (us)= 800000

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	492634	3	13	50	1714	1871	1727	492634	0	799999
2	813522	1	11	50	1058	0	0	1311468	800000	1599999
3	393713	1	7	65	1514	0	0	1706239	1600000	2399999
4	1269568	3	7	50	1571	1455	1948	2977321	2400000	3199999
5	888432	2	16	85	1216	1349	0	3870727	3200000	3999999
6	535982	1	15	95	1018	0	0	4409274	4000000	4799999
7	1131333	1	12	70	1137	0	0	5541625	4800000	5599999
8	471897	2	12	75	1503	1305	0	6014659	5600000	6399999
9	657592	2	14	55	1524	1865	0	6675059	6400000	7199999
10	975137	2	9	60	1653	1197	0	7653585	7200000	7999999
11	522556	3	10	80	1993	1953	1358	8178991	8000000	8799999
12	1114317	2	8	50	1221	1867	0	9298612	8800000	9599999
13	519485	3	6	70	1479	1914	1897	9821185	9600000	10399999
14	799628	2	5	75	1694	1787	0	10626103	10400000	11199999
15	1211413	2	11	90	1123	1453	0	11840997	11200000	11999999

Total number of pulses in waveform = 30

Type 5 Radar Waveform_29

Waveform Num = 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	160448	1	9	95	1310	0	0	160448	0	999999
2	1534725	1	14	75	1162	0	0	1696483	1000000	1999999
3	1186433	3	6	55	1385	1806	1770	2884078	2000000	2999999
4	706979	2	9	90	1025	1050	0	3596018	3000000	3999999
5	693718	2	16	55	1232	1521	0	4291811	4000000	4999999
6	1568014	1	20	55	1122	0	0	5862578	5000000	5999999
7	499079	2	20	100	1881	1546	0	6362779	6000000	6999999
8	1388759	1	20	55	1249	0	0	7754965	7000000	7999999
9	1118482	2	18	50	1058	1245	0	8874696	8000000	8999999
10	711955	3	5	55	1993	1272	1692	9588954	9000000	9999999
11	719581	2	18	95	1468	1089	0	10313492	10000000	10999999
12	1448475	1	12	70	1641	0	0	11764524	11000000	11999999

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

Type 5 Radar Waveform_30

Waveform Num = 30
Num of Bursts = 16
Burst Interval (us)= 750000

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	364710	1	18	90	1193	0	0	364710	0	749999
2	483686	1	8	95	1717	0	0	849589	750000	1499999
3	749039	2	12	80	1827	1061	0	1600345	1500000	2249999
4	1198503	3	16	100	1869	1416	1503	2801736	2250000	2999999
5	712483	2	6	50	1218	1703	0	3519007	3000000	3749999
6	479986	3	18	85	1950	1126	1953	4001914	3750000	4499999
7	512277	3	7	90	1725	1465	1757	4519220	4500000	5249999
8	952687	3	9	100	1421	1659	1389	5476854	5250000	5999999
9	859853	3	19	85	1602	1555	1696	6341176	6000000	6749999
10	755414	1	9	70	1654	0	0	7101443	6750000	7499999
11	684882	1	19	100	1759	0	0	7787979	7500000	8249999
12	1011433	1	14	90	1684	0	0	8801171	8250000	8999999
13	392890	1	6	80	2000	0	0	9195745	9000000	9749999
14	1012683	3	7	70	1636	1244	1062	10210428	9750000	10499999
15	634005	1	14	100	1444	0	0	10848375	10500000	11249999
16	786407	1	19	95	1897	0	0	11636226	11250000	11999999

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

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	5309	1	16	5309	1
2	5309	1	17	5309	1
3	5309	1	18	5309	1
4	5309	1	19	5309	1
5	5309	1	20	5309	1
6	5309	1	21	5309	1
7	5309	1	22	5309	1
8	5309	1	23	5309	1
9	5309	1	24	5309	1
10	5309	1	25	5309	1
11	5309	1	26	5309	1
12	5309	1	27	5309	1
13	5309	1	28	5309	1
14	5309	1	29	5309	1
15	5309	1	30	5309	1
Detection Percentage (%)					100%

Radar waveform #1			Radar waveform #2		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
9	5299	27	2	5340	6
17	5304	51	6	5293	18
19	5295	57	7	5319	21
20	5307	60	11	5337	33
33	5298	99	15	5306	45
36	5296	108	22	5341	66
38	5320	114	33	5300	99
63	5334	189	55	5309	165
86	5301	258	73	5282	219
98	5338	294	79	5286	237
--	--	--	80	5339	240
--	--	--	81	5310	243
--	--	--	84	5307	252
--	--	--	85	5313	255
--	--	--	89	5301	267
--	--	--	92	5312	276
--	--	--	98	5328	294

Radar waveform #3			Radar waveform #4		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
21	5320	63	13	5340	39
32	5307	96	18	5293	54
34	5340	102	34	5338	102
41	5293	123	40	5314	120
65	5323	195	42	5333	126
66	5329	198	50	5318	150
90	5283	270	56	5303	168
91	5308	273	62	5283	186
--	--	--	70	5281	210
--	--	--	72	5316	216
--	--	--	76	5328	228
--	--	--	88	5312	264
--	--	--	93	5325	279

Radar waveform #5			Radar waveform #6		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
7	5298	21	6	5317	18
20	5292	60	25	5322	75
41	5291	123	44	5298	132
51	5341	153	47	5327	141
61	5311	183	57	5285	171
65	5313	195	59	5338	177
67	5285	201	74	5303	222
71	5283	213	79	5334	237
72	5339	216	89	5307	267
77	5316	231	90	5329	270
--	--	--	91	5295	273
--	--	--	96	5289	288

Radar waveform #7			Radar waveform #8		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
4	5318	12	3	5337	9
52	5301	156	4	5295	12
59	5323	177	7	5288	21
77	5289	231	16	5331	48
82	5285	246	21	5314	63
86	5332	258	25	5302	75
87	5305	261	26	5308	78
--	--	--	36	5300	108
--	--	--	59	5285	177
--	--	--	61	5303	183
--	--	--	62	5290	186
--	--	--	74	5320	222
--	--	--	96	5316	288

Radar waveform #9			Radar waveform #10		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
4	5284	12	15	5292	45
7	5290	21	23	5326	69
10	5338	30	45	5308	135
21	5333	63	46	5321	138
61	5292	183	54	5327	162
68	5301	204	62	5284	186
73	5337	219	64	5299	192
78	5308	234	69	5287	207
86	5330	258	93	5328	279
90	5316	270	98	5298	294
98	5307	294	99	5293	297

Radar waveform #11			Radar waveform #12		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
23	5325	69	3	5336	9
29	5282	87	8	5287	24
35	5337	105	11	5282	33
38	5338	114	12	5305	36
41	5301	123	17	5316	51
45	5296	135	25	5340	75
52	5294	156	34	5333	102
57	5315	171	35	5304	105
65	5329	195	42	5322	126
67	5308	201	46	5309	138
70	5334	210	56	5285	168
89	5298	267	57	5318	171
--	--	--	59	5306	177
--	--	--	64	5295	192
--	--	--	96	5324	288
--	--	--	97	5283	291
--	--	--	99	5317	297

Radar waveform #13			Radar waveform #14		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
2	5306	6	1	5317	3
3	5327	9	9	5331	27
12	5284	36	11	5299	33
16	5313	48	35	5297	105
19	5330	57	38	5306	114
34	5289	102	40	5335	120
35	5297	105	50	5307	150
37	5292	111	54	5313	162
43	5281	129	55	5330	165
46	5340	138	56	5327	168
60	5334	180	57	5310	171
67	5295	201	77	5340	231
79	5294	237	81	5300	243
86	5315	258	82	5336	246
94	5296	282	86	5312	258
--	--	--	99	5321	297

Radar waveform #15			Radar waveform #16		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
16	5285	48	0	5332	0
21	5282	63	7	5316	21
22	5293	66	12	5288	36
32	5329	96	18	5295	54
41	5336	123	27	5341	81
47	5281	141	29	5298	87
55	5290	165	37	5308	111
74	5308	222	49	5305	147
82	5311	246	54	5299	162
83	5327	249	64	5301	192
84	5301	252	68	5326	204
95	5302	285	73	5335	219
--	--	--	77	5313	231
--	--	--	87	5310	261
--	--	--	93	5289	279

Radar waveform #17			Radar waveform #18		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
18	5282	54	1	5294	3
22	5327	66	4	5285	12
31	5304	93	23	5291	69
40	5330	120	33	5306	99
41	5303	123	34	5290	102
44	5288	132	44	5310	132
61	5323	183	45	5295	135
65	5324	195	71	5292	213
70	5283	210	76	5329	228
82	5296	246	83	5332	249
91	5285	273	84	5322	252
95	5313	285	85	5293	255
--	--	--	89	5325	267
--	--	--	97	5311	291

Radar waveform #19			Radar waveform #20		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
8	5308	24	4	5324	12
9	5282	27	6	5341	18
25	5307	75	8	5290	24
26	5331	78	10	5285	30
32	5330	96	24	5312	72
54	5337	162	56	5334	168
67	5297	201	67	5298	201
73	5299	219	86	5293	258
85	5326	255	90	5318	270
86	5321	258	96	5282	288
87	5290	261	99	5286	297
89	5292	267	--	--	--
91	5312	273	--	--	--
99	5302	297	--	--	--

Radar waveform #21			Radar waveform #22		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
4	5281	12	2	5298	6
7	5332	21	14	5283	42
8	5329	24	36	5309	108
9	5299	27	41	5297	123
16	5291	48	43	5333	129
22	5311	66	45	5329	135
26	5296	78	57	5334	171
35	5294	105	97	5328	291
40	5326	120	--	--	--
55	5292	165	--	--	--
61	5300	183	--	--	--
63	5288	189	--	--	--
85	5320	255	--	--	--
86	5322	258	--	--	--
97	5327	291	--	--	--
99	5313	297	--	--	--

Radar waveform #23			Radar waveform #24		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
19	5291	57	16	5333	48
20	5337	60	19	5332	57
21	5301	63	20	5331	60
25	5296	75	25	5300	75
40	5290	120	31	5321	93
66	5341	198	56	5340	168
68	5328	204	63	5294	189
69	5292	207	66	5339	198
73	5303	219	86	5298	258
84	5310	252	92	5296	276
--	--	--	95	5281	285
--	--	--	96	5337	288
--	--	--	99	5336	297

Radar waveform #25			Radar waveform #26		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
4	5340	12	15	5300	45
9	5306	27	17	5332	51
25	5322	75	29	5306	87
39	5307	117	33	5287	99
48	5333	144	37	5313	111
49	5328	147	38	5339	114
51	5289	153	44	5289	132
82	5316	246	45	5333	135
89	5284	267	58	5322	174
93	5341	279	64	5293	192
96	5320	288	66	5329	198
99	5300	297	79	5324	237
--	--	--	94	5338	282
--	--	--	97	5305	291
--	--	--	98	5319	294

Radar waveform #27			Radar waveform #28		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
1	5289	3	4	5296	12
7	5328	21	22	5306	66
11	5307	33	24	5318	72
12	5301	36	26	5307	78
17	5281	51	27	5340	81
20	5294	60	33	5285	99
27	5339	81	35	5311	105
36	5332	108	45	5286	135
58	5311	174	51	5330	153
66	5297	198	65	5289	195
67	5300	201	67	5329	201
85	5291	255	75	5284	225
--	--	--	88	5336	264
--	--	--	90	5301	270
--	--	--	98	5339	294

Radar waveform #29			Radar waveform #30		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
8	5315	24	3	5325	9
11	5310	33	7	5318	21
12	5337	36	37	5328	111
47	5339	141	38	5299	114
53	5309	159	43	5316	129
56	5289	168	45	5336	135
61	5305	183	46	5287	138
65	5341	195	81	5310	243
67	5288	201	86	5296	258
92	5313	276	89	5320	267

6. CONCLUSION

The data collected relate only the item(s) tested and show that the **Indoor GPON HGU FCC ID: 2AC9MADTRAN424RG** is in compliance with Part 15E of the FCC Rules.

The End