



DFS MEASUREMENT REPORT

FCC PART 15 Subpart E

FCC ID: I88C424G

APPLICANT: Zyxel Communications Corporation

Application Type: Certification

Product: Indoor GPON HGU

Model No.: PMG5717-B10A, C424G

Brand Name: ZYXEL, ADTRAN

FCC Classification: Unlicensed National Information Infrastructure (UNII)

FCC Rule Part(s): Part 15 Subpart E - 15.407 Section (h)(2)
KDB 905462 D02v02, KDB 905462 D04v01

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

Test Date: March 18 ~ April 16, 2017

Reviewed By :

Robin Wu

(Robin Wu)

Approved By :

Marlin Chen

(Marlin Chen)



The test results relate only to the samples tested.

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

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

Revision History

Report No.	Version	Description	Issue Date	Note
1611RSU04006	Rev. 01	Initial Report	05-01-2017	Valid

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§2.1033 General Information

Applicant:	Zyxel Communications Corporation
Applicant Address:	No.2 Industry East RD. IX, Hsinchu Science Park, Hsinchu, Taiwan, R.O.C
Manufacturer:	Zyxel Communications Corporation
Manufacturer Address:	No.2 Industry East RD. IX, Hsinchu Science Park, Hsinchu, Taiwan, R.O.C
Test Site:	MRT Technology (Suzhou) Co., Ltd
Test Site Address:	D8 Building, Youxin Industrial Park, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China
MRT FCC Registration No.:	809388
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.	PMG5717-B10A, C424G
Brand Name	ZYXEL, ADTRAN
Operation Mode	Master Device
Frequency Range	<u>2.4GHz:</u> For 802.11b/g/n-HT20: 2412 ~ 2462 MHz For 802.11n-HT40: 2422 ~ 2452 MHz <u>5GHz:</u> For 802.11a/n-HT20: 5180~5320MHz, 5500~5700MHz, 5745~5825MHz For 802.11ac-VHT20: 5180~5320MHz, 5500~5720MHz, 5745~5825MHz For 802.11n-HT40: 5190~5310MHz, 5510~5670MHz, 5755~5795MHz For 802.11ac-VHT40: 5190~5310MHz, 5510~5710MHz, 5755~5795MHz For 802.11ac-VHT80: 5210MHz, 5290MHz, 5530MHz, 5610MHz, 5690MHz, 5775MHz
Type of Modulation	802.11a/n/ac: OFDM;
Modulation Type	16QAM, 64QAM, QPSK, BPSK for OFDM 802.11a/n/ac: OFDM
Power-on cycle	For 802.11a mode, requires 133.1 seconds to complete its power-on cycle;
Uniform Spreading (For DFS Frequency Band)	For the 5250-5350MHz, 5470-5725 MHz bands, the Master device provides, on aggregate, uniform loading of the spectrum across all devices by selecting an operating channel among the available channels using a random algorithm.

2.2. Description of Available Antennas

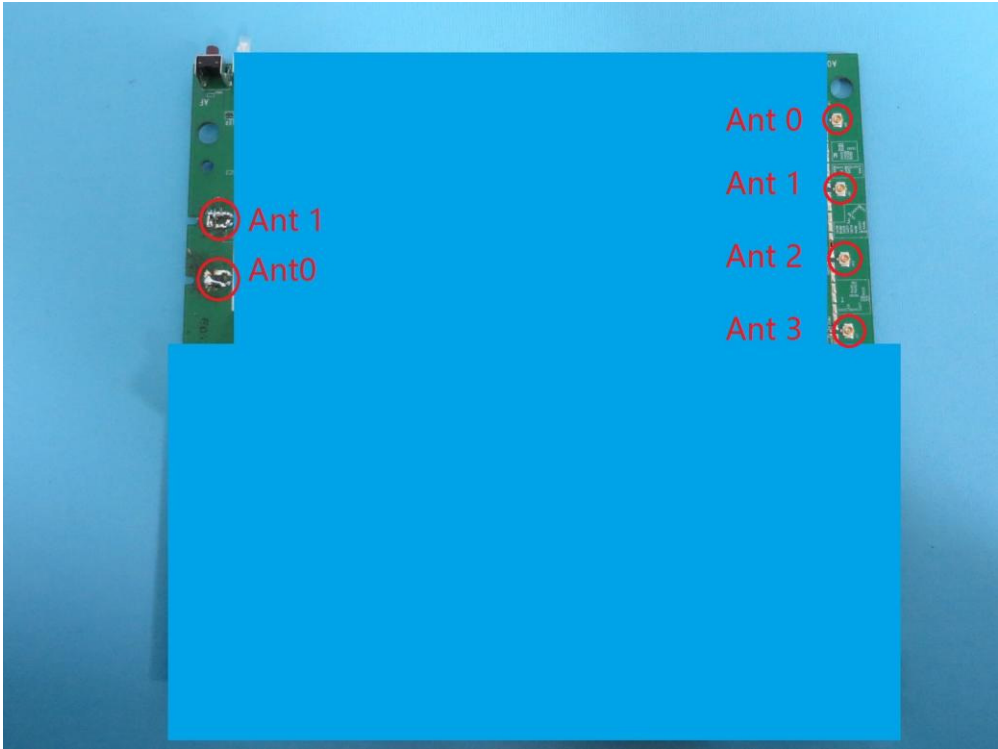
Antenna Type	Frequency Band (MHz)	T _x Paths	Directional Gain (dBi)	
			Beam Forming	CDD
PCB Antenna	5150 ~ 5250	4	9.91	9.91
	5250 ~ 5350	4	6.90	6.90
	5470 ~ 5725	4	7.11	7.11
	5745 ~ 5850	4	10.13	10.13

Note:

- The EUT support Beam Forming technology at 802.11n/ac mode, and support CDD technology at 802.11a mode.
- 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).
 - CDD signals are correlated and create unintended array gain that varies with signal bandwidth, antenna geometry, and cyclic delay values. Consequently, depending on system parameters, it may be appropriate to use different values of array gain for compliance with power limits versus compliance with powerspectral density limits.
- Unequal antenna gains, with equal transmit powers. For antenna gains given by $G_1, G_2, \dots, G_N$ dBi
 - transmit signals are correlated, then
 - Directional gain = $10 \log[(10^{G_1/20} + 10^{G_2/20} + \dots + 10^{G_N/20})^2 / N_{ANT}]$ dBi [Note the “20”s in the denominator of each exponent and the square of the sum of terms; the object is to combine the signal levels coherently.]

2.3. Description of Antenna RF Port

Antenna RF Port						
---	2.4GHz RF Port		5GHz RF Port			
Software Control Port	Ant 0	Ant 1	Ant 0	Ant 1	Ant 2	Ant 3



2.4. 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	--	--	--	--

802.11n-HT40 Center Working Frequency of Each Channel

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

802.11ac-VHT40 Center Working Frequency of Each Channel

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

802.11ac-VHT80 Center Working Frequency of Each Channel

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

2.5. Test Mode

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

3.1. Applicability

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

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

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

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

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

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

3.2. DFS Devices Requirements

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

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

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

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

Note 2: The Channel Closing Transmission Time is comprised of 200 milliseconds starting at the beginning of the Channel Move Time plus any additional intermittent control signals required to facilitate a Channel move (an aggregate of 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions.

Note 3: During the U-NII Detection Bandwidth detection test, radar type 0 should be used. For each frequency step the minimum percentage of detection is 90 percent. Measurements are performed with no data traffic.

Table 3-3: DFS Response Requirements

3.3. DFS Detection Threshold Values

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

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

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

3.4. Parameters of DFS Test Signals

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

Short Pulse Radar Test Waveforms

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

Table 3-5: Parameters for Short Pulse Radar Waveforms

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

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

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

Long Pulse Radar Test Waveform

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

Table 3-7: Parameters for Long Pulse Radar Waveforms

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

Frequency Hopping Radar Test Waveform

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

Table 3-8: Parameters for Frequency Hopping Radar Waveforms

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

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

3.5. Conducted Test Setup

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

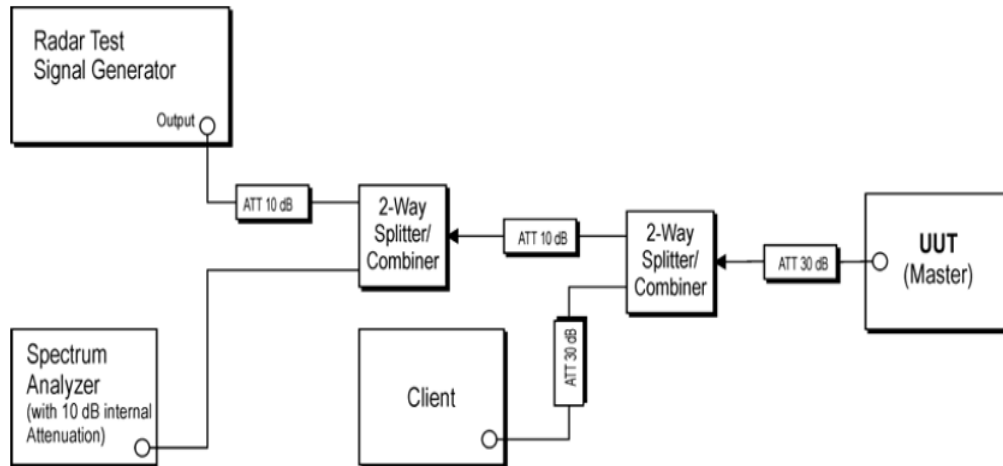


Figure 3-1: Conducted Test Setup where UUT is a Master and Radar Test Waveforms are injected into the Masters

4. TEST EQUIPMENT CALIBRATION DATE

Dynamic Frequency Selection (DFS) – TR4

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
Spectrum Analyzer	Agilent	N9020A	MRTSUE06106	1 year	2017/04/23
ESG Vector Signal Generator	Agilent	E4438C	MRTSUE06026	1 year	2017/12/08
Broad-Band Horn Antenna	Schwarzbeck	BBHA9120D	MRTSUE06023	1 year	2017/11/07
Temperature/Humidity Meter	Yuhuaze	HTC-2	MRTSUE06180	1 year	2017/12/20
Notebook	ASUS	PRO45V	MRTSUX02003	N/A	N/A

Note: The notebook has a built-in Intel dual band wireless module (AC 7260).

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

5. TEST RESULT

5.1. Summary

Company Name: Zyxel Communications Corporation

FCC ID: I88C424G

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

5.2. Radar Waveform Calibration

5.2.1. Calibration Setup

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

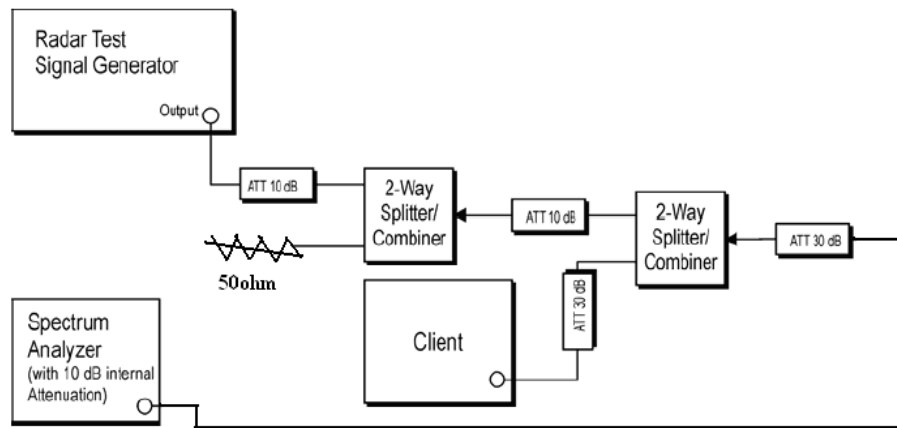


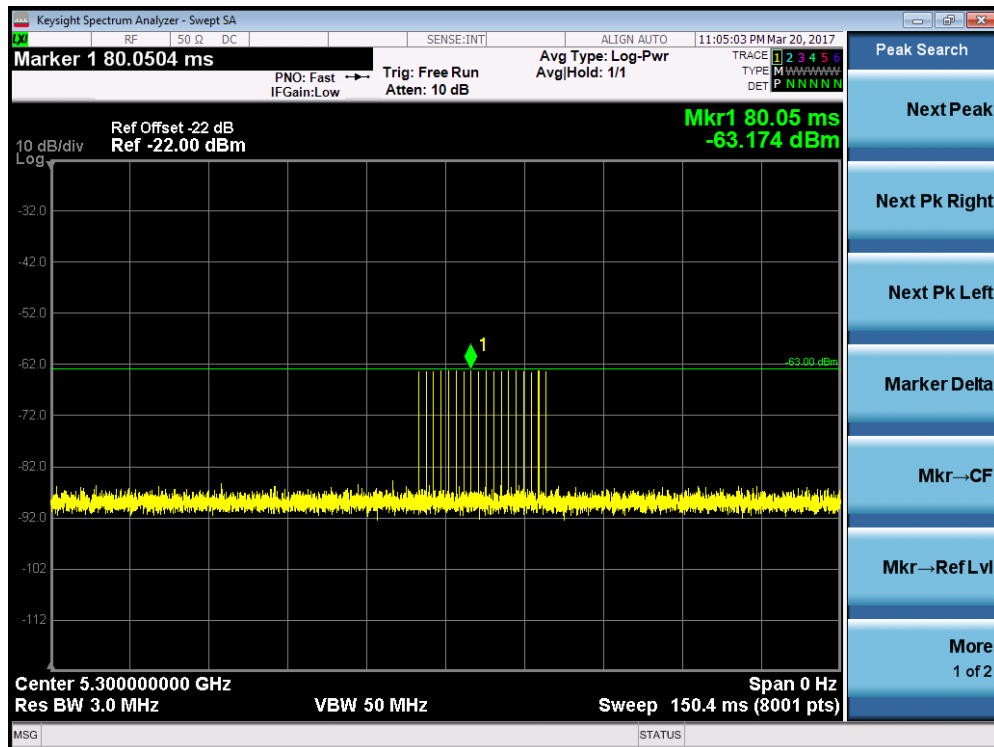
Figure 3-2: Conducted Test Setup

5.2.2. Calibration Procedure

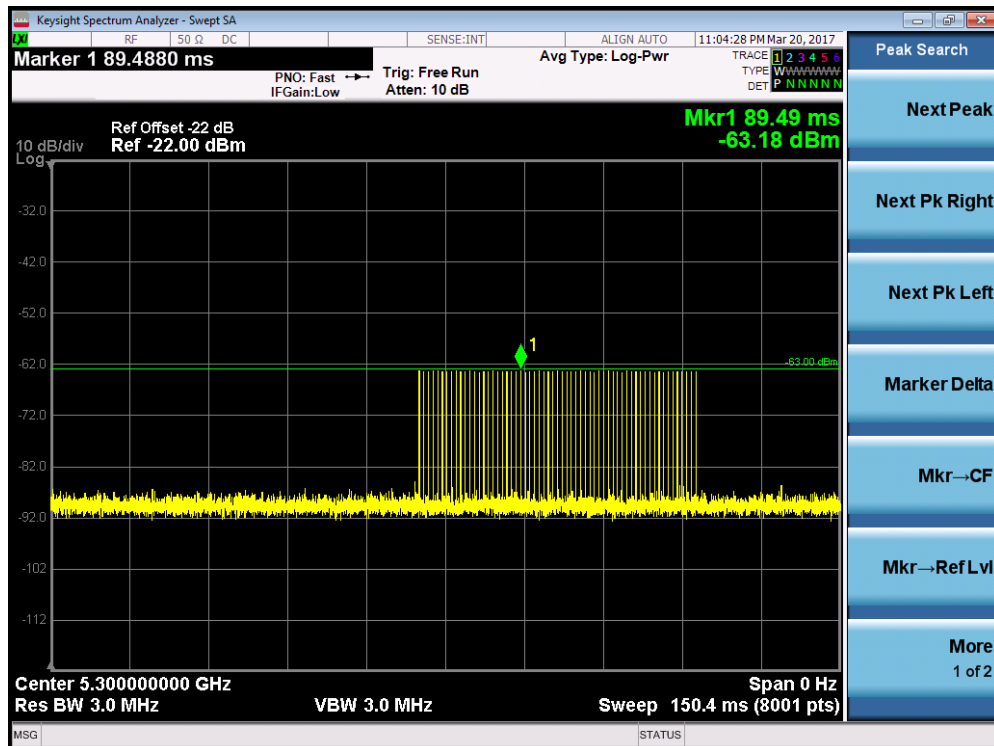
The Interference Radar Detection Threshold Level is $(-64\text{dBm}) + (0) [\text{dBi}] + 1 \text{ dB} = -63 \text{ dBm}$ that had been taken into account the output power range and antenna gain. The above equipment setup was used to calibrate the conducted Radar Waveform. A vector signal generator was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

5.2.3. Cablibration Result

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

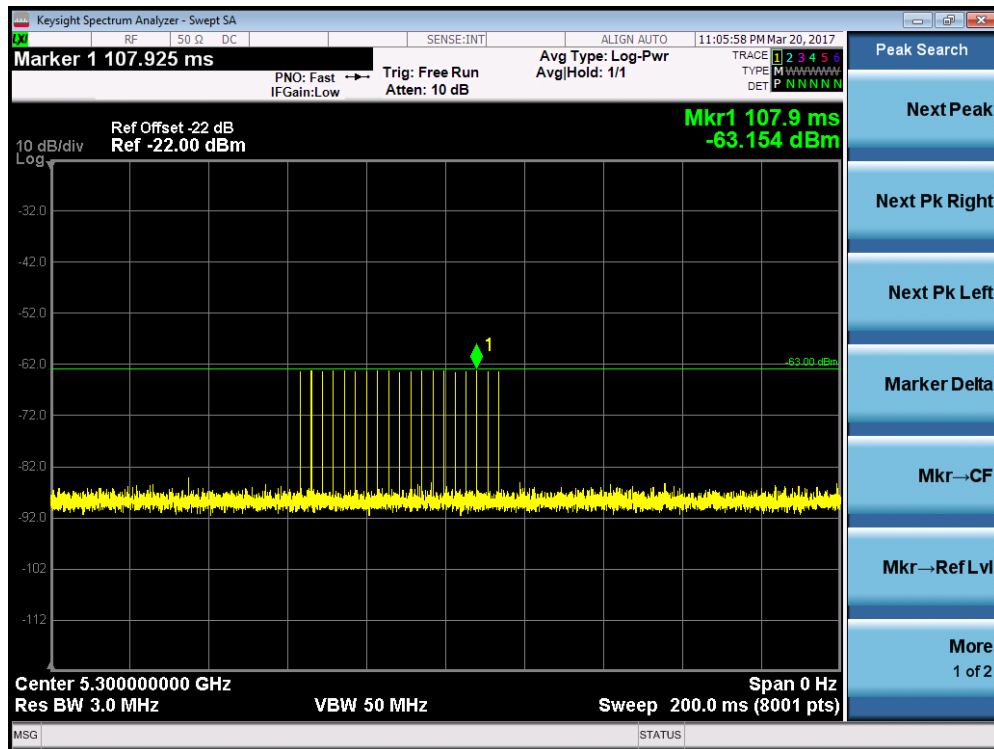


Radar #1(Test A) DFS detection threshold level and the burst of pulses on the Channel frequency



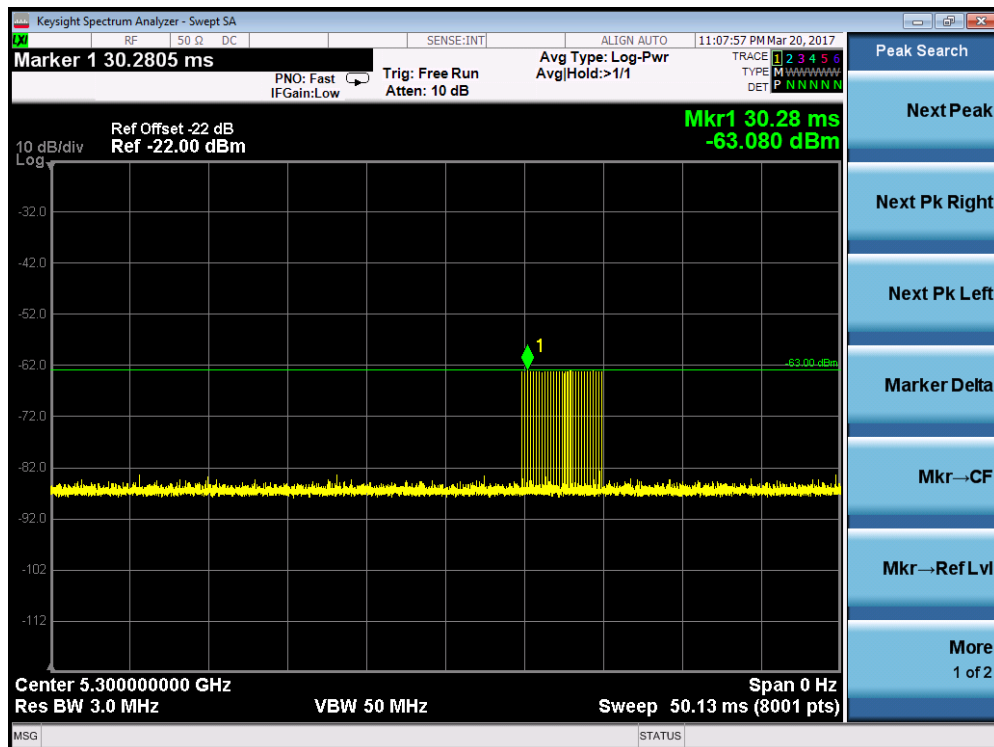
PRI = 878us and the number of pulses = 61

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

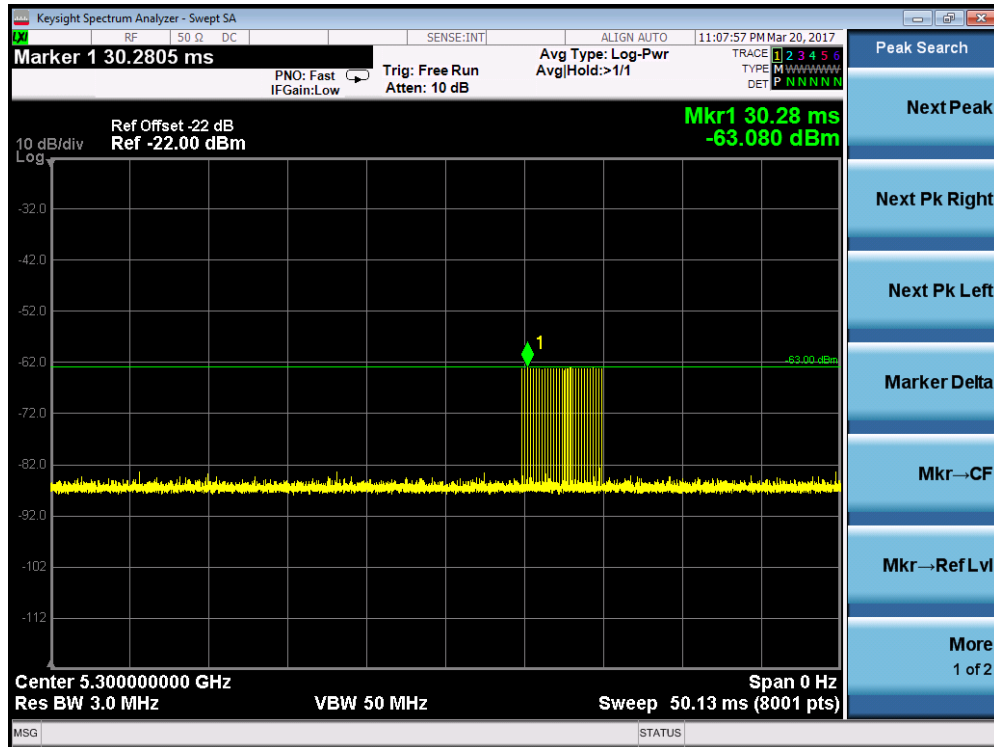


PRI = 2.911ms and the number of pulses = 19

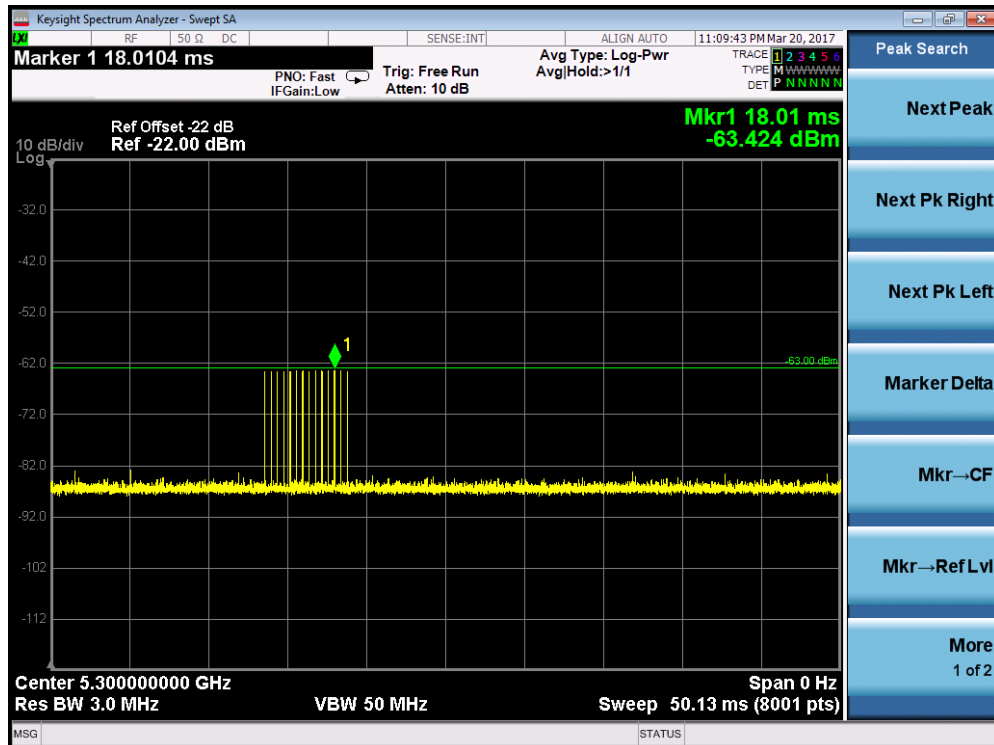
Radar #2 DFS detection threshold level and the burst of pulses on the Channel frequency



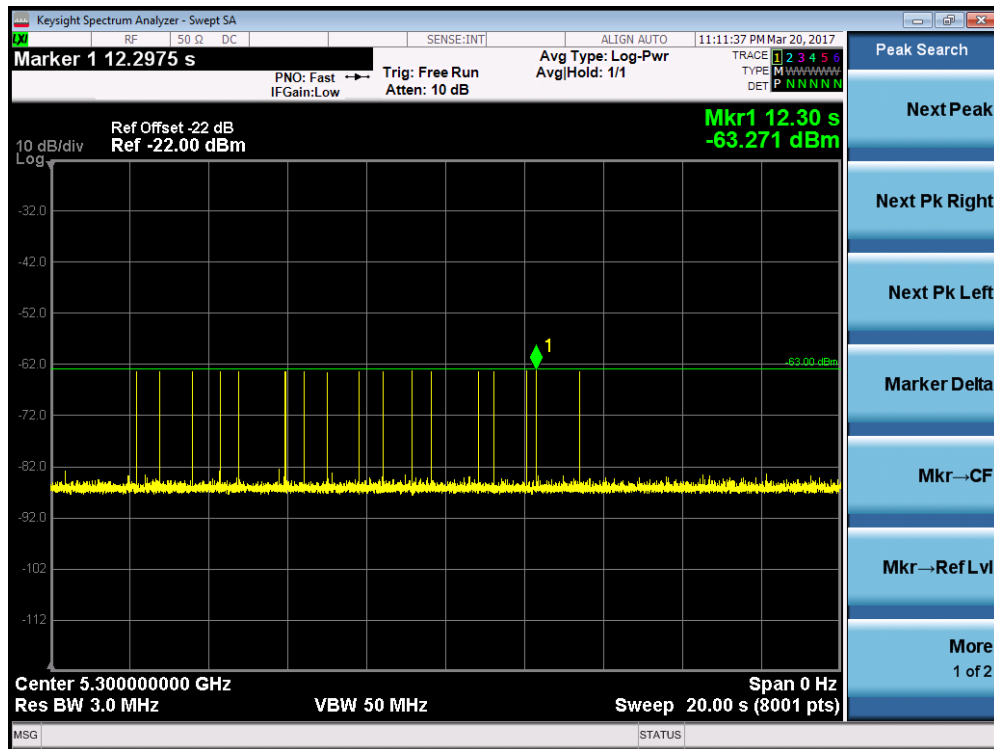
Radar #3 DFS detection threshold level and the burst of pulses on the Channel frequency



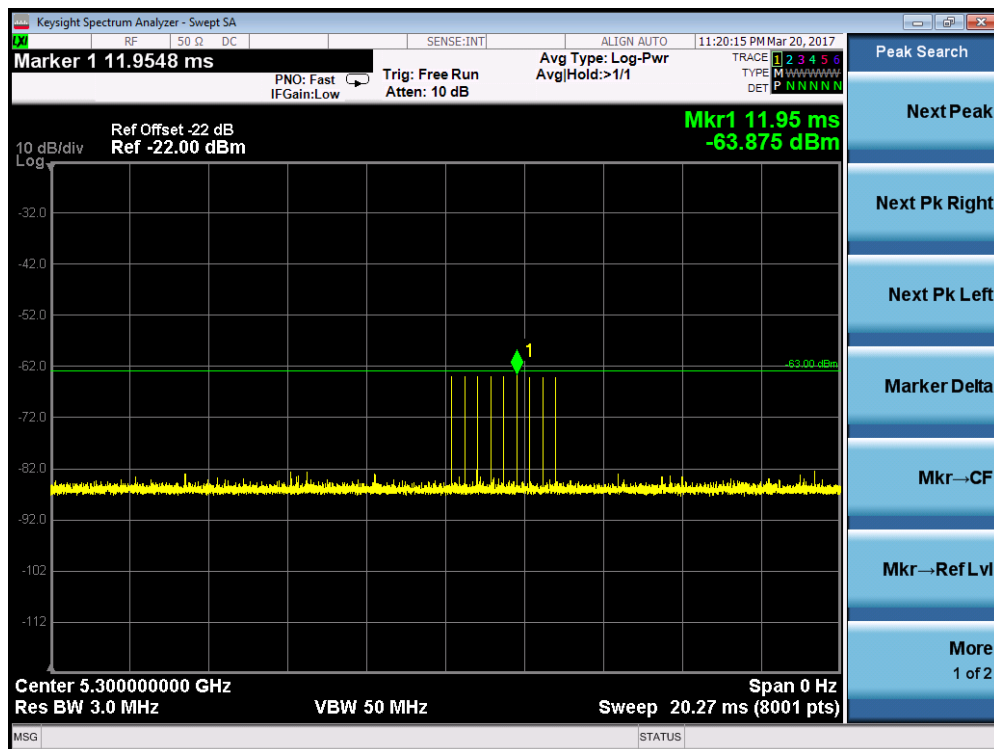
Radar #4 DFS detection threshold level and the burst of pulses on the Channel frequency



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

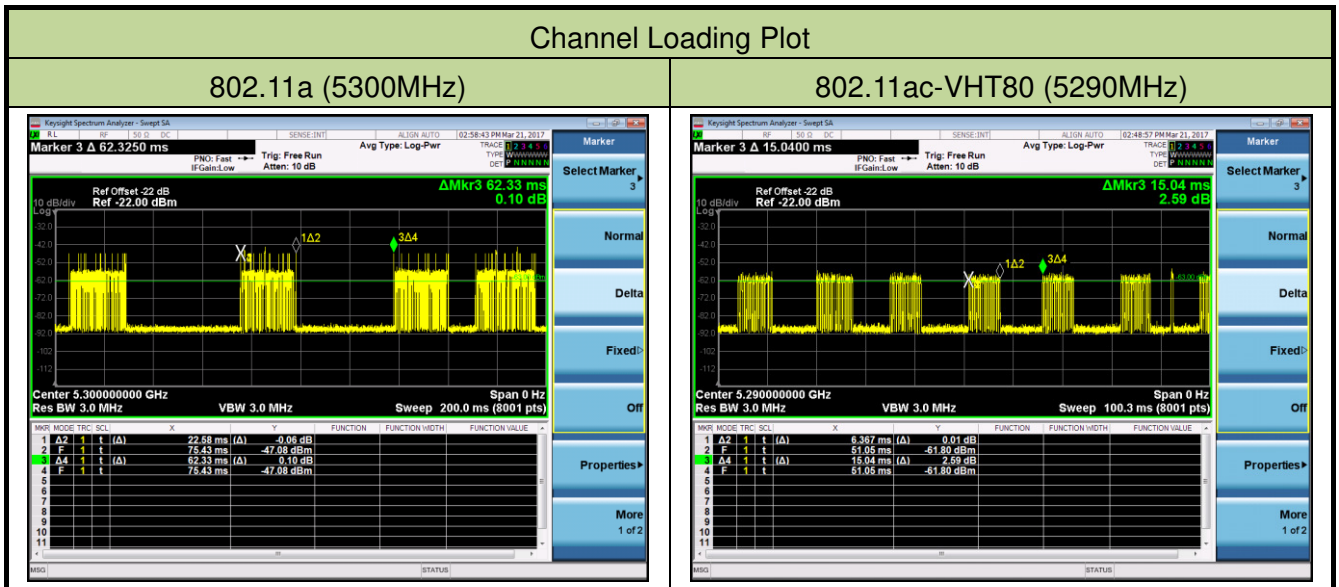


Radar #6 DFS detection threshold level and a single hop (9 pulses) on the Channel frequency within UNII detection bandwidth



5.2.4.Channel Loading Test Result

System testing was performed with the designated MPEG test file that streams full motion video from the **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).



Test Mode	Test Frequency	Packet ratio	Requirement ratio	Test Result
802.11a	5300 MHz	36.23%	≥ 17%	Pass
802.11ac-VHT80	5290 MHz	42.33%	≥ 17%	Pass

5.3. UNII Detection Bandwidth Measurement

5.3.1. Test Limit

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

5.3.2. Test Procedure

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

5.3.3. Test Result

EUT Frequency=5300MHz for 802.11a											
Radar Frequency (MHz)	DFS Detection Trials (1=Detection, 0= No Detection)										Detection Rate (%)
	1	2	3	4	5	6	7	8	9	10	
5290	0	0	0	0	0	0	0	0	0	0	0%
5291 FL	1	1	1	1	1	1	1	1	1	1	100%
5292	1	1	1	1	1	1	1	1	1	1	100%
5293	1	1	1	1	1	1	1	1	1	1	100%
5294	1	1	1	1	1	1	1	1	1	1	100%
5295	1	1	1	1	1	1	1	1	1	1	100%
5300	1	1	1	1	1	1	1	1	1	1	100%
5305	1	1	1	1	1	1	1	1	1	1	100%
5306	1	1	1	1	1	1	1	1	1	1	100%
5307	1	1	1	1	1	1	1	1	1	1	100%
5308	1	1	1	1	1	1	1	1	1	1	100%
5309 FH	1	1	1	1	1	1	1	1	1	1	100%
5310	0	0	0	0	0	0	0	0	0	0	0%
Detection Bandwidth = FH - FL = 5309MHz - 5291MHz = 18MHz											
EUT 99% Bandwidth = 16.76MHz (see note)											
UNII Detection Bandwidth Min. Limit (MHz): 16.76MHz x 100% = 16.76MHz											

Note: All UNII channels for this device have identical Channel bandwidths. Therefore, all DFS testing was done at 5300MHz. The 99% channel bandwidth is 16.76MHz. (See the 99% BW section of the RF report for further measurement details).

EUT Frequency=5310MHz for 802.11n-HT40											
Radar Frequency (MHz)	DFS Detection Trials (1=Detection, 0= No Detection)										Detection Rate (%)
	1	2	3	4	5	6	7	8	9	10	
5291	0	0	0	0	0	0	0	0	0	0	0%
5292 FL	1	1	1	1	1	1	1	1	1	1	100%
5293	1	1	1	1	1	1	1	1	1	1	100%
5294	1	1	1	1	1	1	1	1	1	1	100%
5295	1	1	1	1	1	1	1	1	1	1	100%
5295	1	1	1	1	1	1	1	1	1	1	100%
5300	1	1	1	1	1	1	1	1	1	1	100%
5305	1	1	1	1	1	1	1	1	1	1	100%
5310	1	1	1	1	1	1	1	1	1	1	100%
5315	1	1	1	1	1	1	1	1	1	1	100%
5320	1	1	1	1	1	1	1	1	1	1	100%
5325	1	1	1	1	1	1	1	1	1	1	100%
5326	1	1	1	1	1	1	1	1	1	1	100%
5327	1	1	1	1	1	1	1	1	1	1	100%
5328	1	1	1	1	1	1	1	1	1	1	100%
5329 FH	1	1	1	1	1	1	1	1	1	1	100%
5330	0	0	0	0	0	0	0	0	0	0	0%
Detection Bandwidth = FH - FL = 5329MHz - 5292MHz = 37MHz											
EUT 99% Bandwidth = 36.43MHz (see note)											
UNII Detection Bandwidth Min. Limit (MHz): 36.43MHz x 100% = 36.43MHz											

Note: All UNII channels for this device have identical Channel bandwidths. Therefore, all DFS testing was done at 5310MHz. The 99% channel bandwidth is 36.43MHz. (See the 99% BW section of the RF report for further measurement details).

EUT Frequency=5290MHz for 802.11ac-VHT80											
Radar Frequency (MHz)	DFS Detection Trials (1=Detection, 0= No Detection)										Detection Rate (%)
	1	2	3	4	5	6	7	8	9	10	
5250	0	0	0	0	0	0	0	0	0	0	0%
5251 FL	1	1	1	1	1	1	1	1	1	1	100%
5252	1	1	1	1	1	1	1	1	1	1	100%
5253	1	1	1	1	1	1	1	1	1	1	100%
5254	1	1	1	1	1	1	1	1	1	1	100%
5255	1	1	1	1	1	1	1	1	1	1	100%
5260	1	1	1	1	1	1	1	1	1	1	100%
5265	1	1	1	1	1	1	1	1	1	1	100%
5270	1	1	1	1	1	1	1	1	1	1	100%
5275	1	1	1	1	1	1	1	1	1	1	100%
5280	1	1	1	1	1	1	1	1	1	1	100%
5285	1	1	1	1	1	1	1	1	1	1	100%
5290	1	1	1	1	1	1	1	1	1	1	100%
5295	1	1	1	1	1	1	1	1	1	1	100%
5300	1	1	1	1	1	1	1	1	1	1	100%
5305	1	1	1	1	1	1	1	1	1	1	100%
5310	1	1	1	1	1	1	1	1	1	1	100%
5315	1	1	1	1	1	1	1	1	1	1	100%
5320	1	1	1	1	1	1	1	1	1	1	100%
5325	1	1	1	1	1	1	1	1	1	1	100%
5326	1	1	1	1	1	1	1	1	1	1	100%
5327	1	1	1	1	1	1	1	1	1	1	100%
5328	1	1	1	1	1	1	1	1	1	1	100%
5329 FH	1	1	1	1	1	1	1	1	1	1	100%
5330	0	0	0	0	0	0	0	0	0	0	0%
Detection Bandwidth = FH - FL = 5329MHz - 5251MHz = 78MHz											
EUT 99% Bandwidth = 75.48MHz (see note)											
UNII Detection Bandwidth Min. Limit (MHz): 75.48MHz x 100% = 75.48MHz											

Note: All UNII channels for this device have identical Channel bandwidths. Therefore, all DFS testing was done at 5290MHz. The 99% channel bandwidth is 75.48MHz. (See the 99% BW section of the RF report for further measurement details).

5.4. Initial Channel Availability Check Time Measurement

5.4.1. Test Limit

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

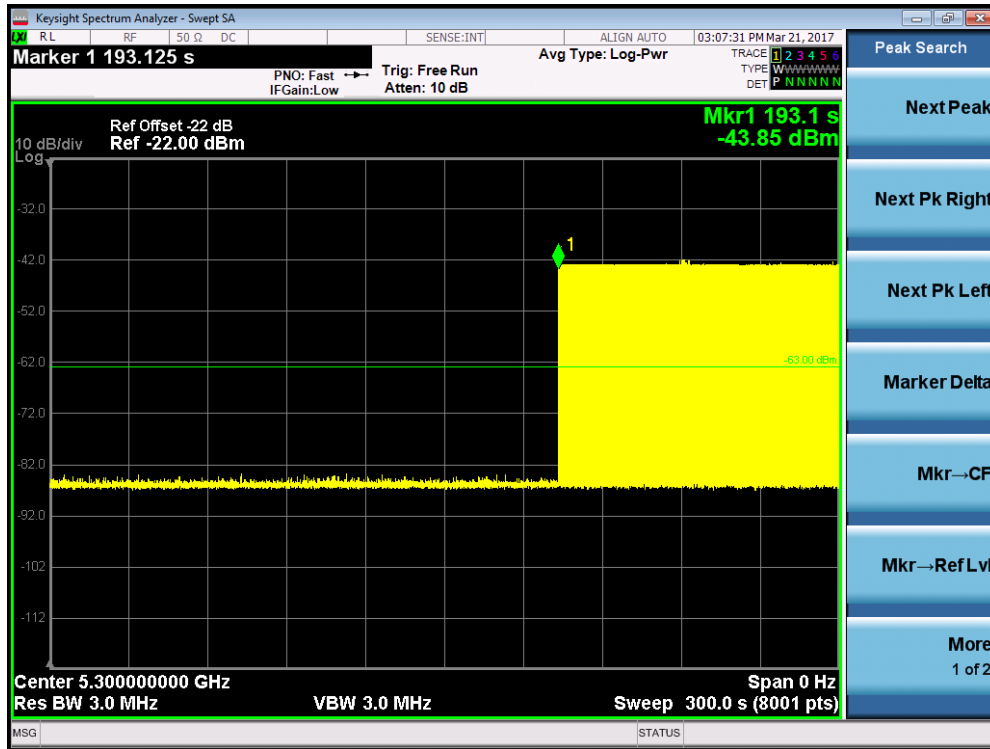
5.4.2. Test Procedure

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

5.4.3. Test Result

The EUT does not transmit any beacon or data transmissions until at least 1 minute after the completion of the power-on cycle (133.1 sec). Initial beacons/data transmissions are indicated by marker 1 (193.1 sec).

Initial Channel Availability Check Time for 802.11a



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

5.5.1. Test Limit

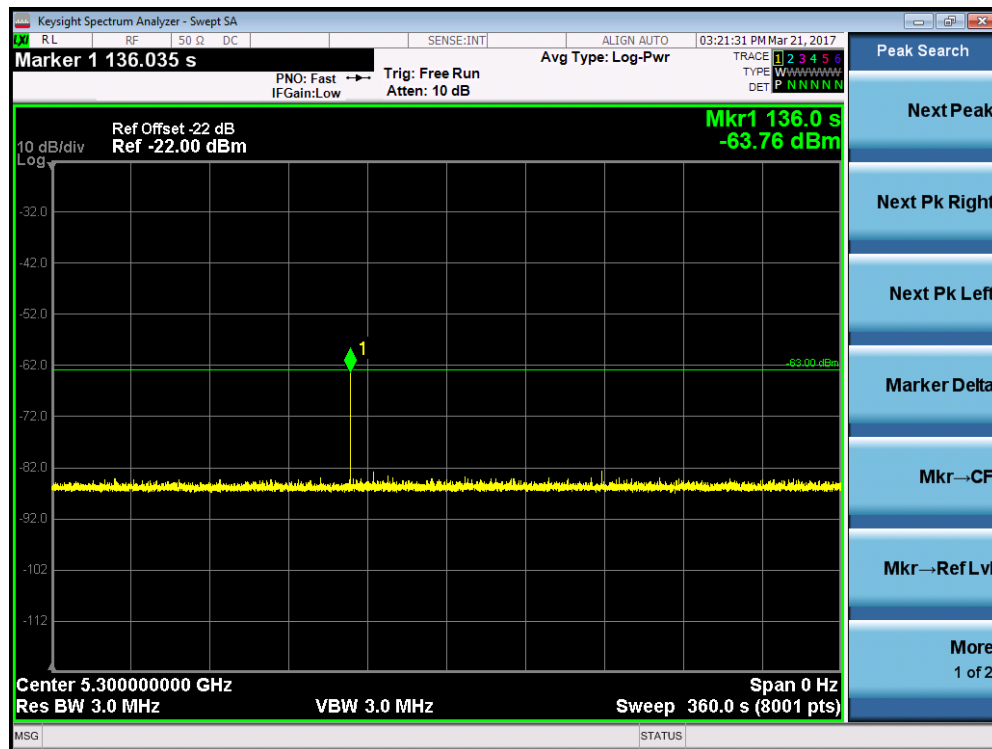
In beginning of the Channel Availability Check (CAC) Time, radar is detected on this channel, select another intended channel and perform a CAC on that channel.

5.5.2. Test Procedure

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

5.5.3. Test Result

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



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

5.6.1. Test Limit

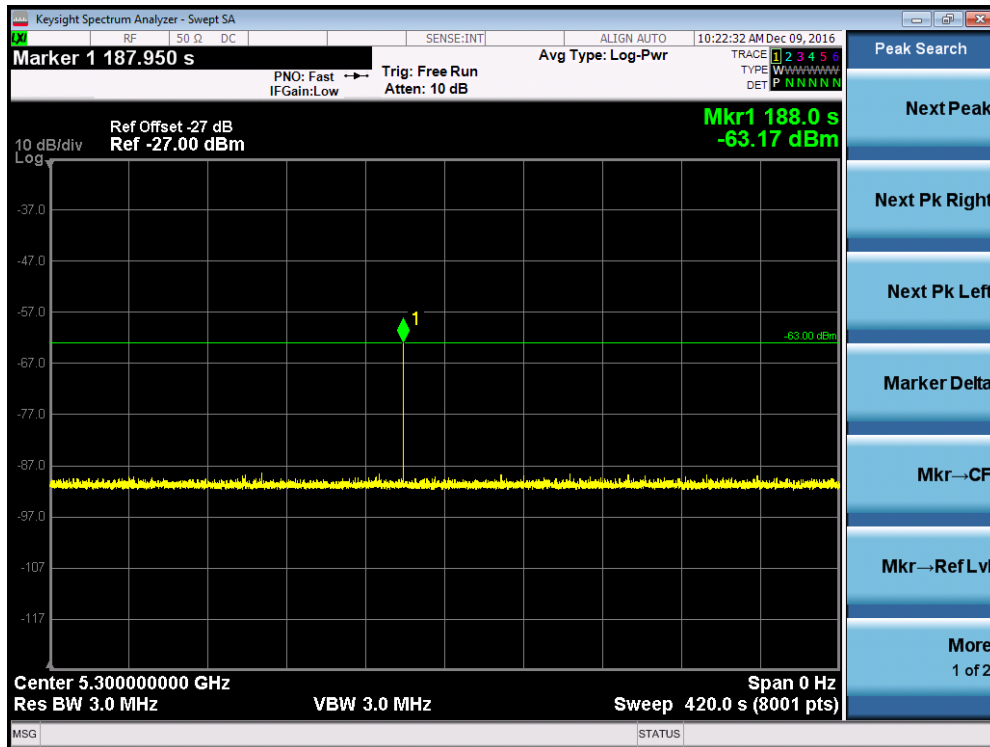
In the end of Channel Availability Check (CAC) Time, radar is detected on this channel, select another intended channel and perform a CAC on that channel.

5.6.2. Test Procedure

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

5.6.3. Test Result

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



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

5.7.1. Test Limit

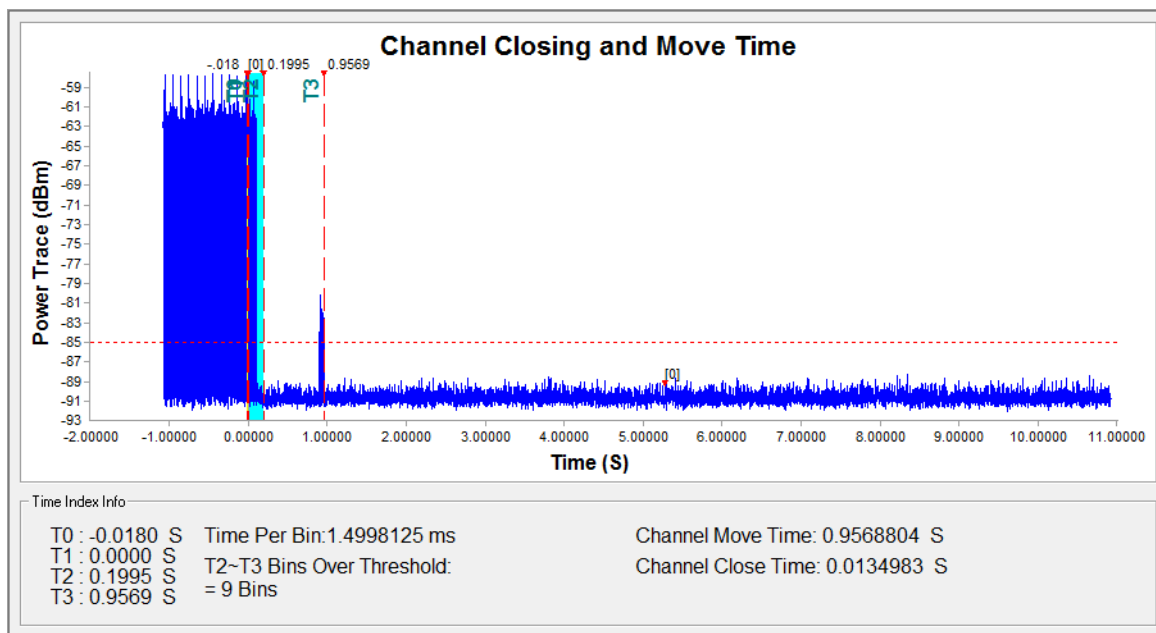
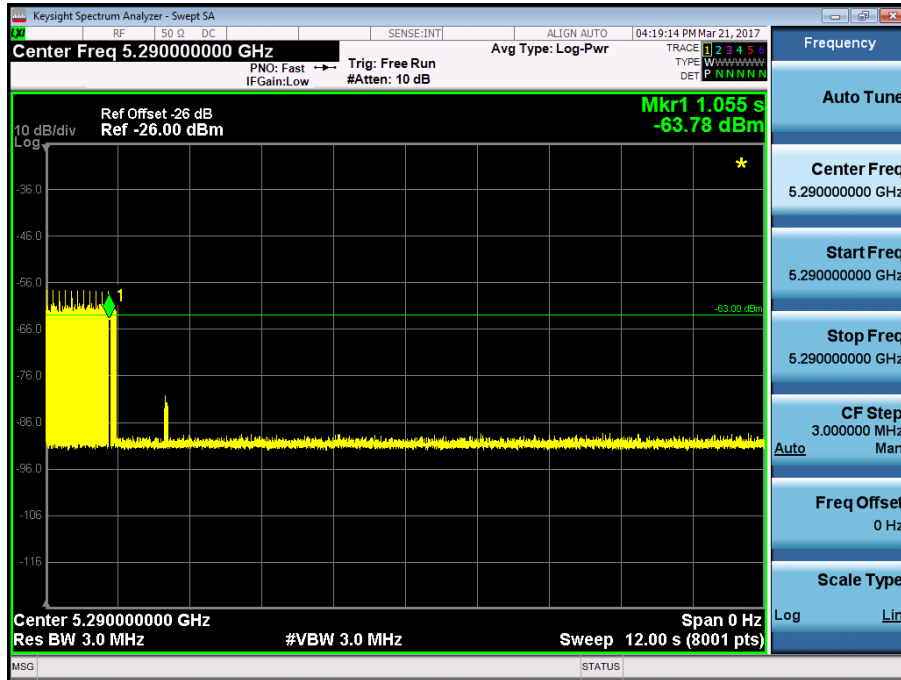
The EUT has In-Service Monitoring function to continuously monitor the radar signals. If the radar is detected, must leave the channel (Shutdown). The Channel Move Time to cease all transmissions on the current channel upon detection of a Radar Waveform above the DFS Detection Threshold within 10 sec.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

5.7.2. Test Procedure Used

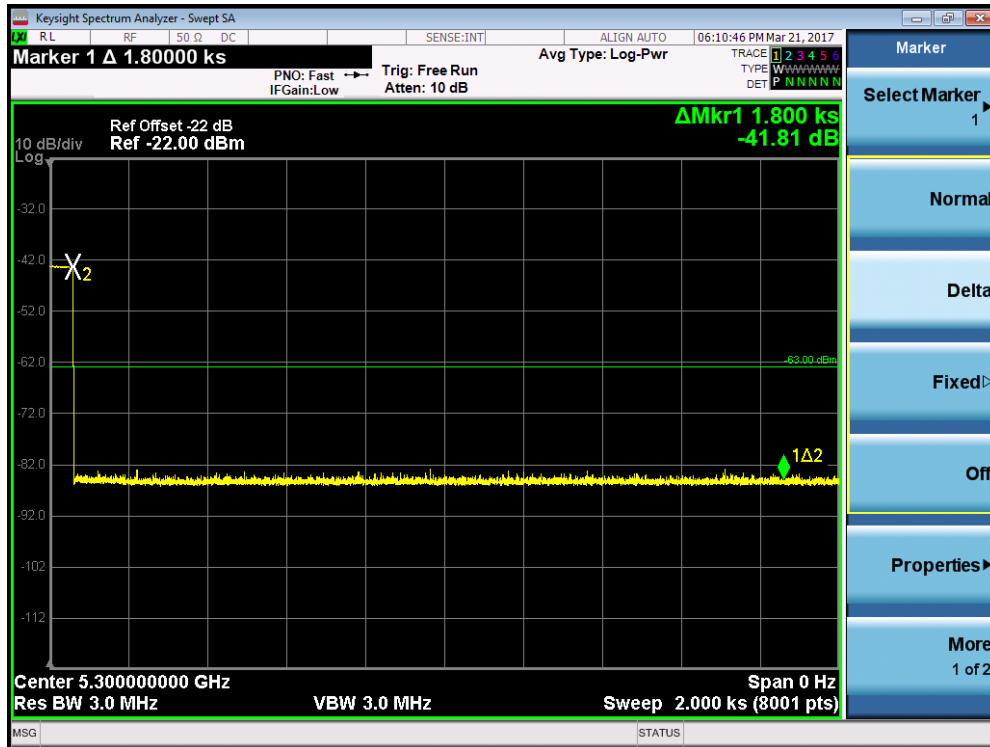
1. The test should be performed with Radar Type 0. The measurement timing begins at the end of the Radar Type 0.
2. When the radar burst with a level equal to the DFS Detection Threshold + 1dB is generated on the Operating Channel of the U-NII device. A U-NII device operating as a Master Device will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

5.7.3. Test Result

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



Non-Occupancy Period for 802.11a – 5300MHz



Parameter	Test Result	Limit
	Type 0	
Channel Move Time (s)	0.957s	<10s
Channel Closing Transmission Time (ms) (Note)	13.5ms	< 60ms
Non-Occupancy Period (min)	≥ 30 min	≥ 30 min

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

5.8. Statistical Performance Check Measurement

5.8.1. Test Limit

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

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

The percentage of successful detection is calculated by:

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

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

5.8.2. Test Procedure

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

5.8.3. Test Result

Statistical Performance Check for 802.11a

Radar Type 1 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5292	1	738	72	1
2	5292	1	918	58	1
3	5292	1	678	78	1
4	5292	1	818	65	1
5	5292	1	658	81	1
6	5292	1	938	57	1
7	5292	1	3066	18	1
8	5292	1	578	92	1
9	5292	1	518	102	1
10	5292	1	638	83	1
11	5292	1	598	89	1
12	5292	1	878	61	1
13	5292	1	858	62	1
14	5292	1	778	68	1
15	5292	1	618	86	1
16	5292	1	1320	40	1
17	5292	1	2416	22	1
18	5292	1	2909	19	1
19	5292	1	2577	21	1
20	5292	1	2516	21	1
21	5292	1	1006	53	1
22	5292	1	1057	50	1
23	5292	1	1161	46	1
24	5292	1	567	94	1
25	5292	1	1140	47	1
26	5292	1	1264	42	1
27	5292	1	2426	22	1
28	5292	1	1089	49	1
29	5292	1	2662	20	1
30	5292	1	2527	21	1
Detection Percentage (%)					100%

Radar Type 2 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5300	1.5	150	24	1
2	5300	3.1	207	28	1
3	5300	3.6	230	26	1
4	5300	2.9	203	28	1
5	5300	4.0	164	28	1
6	5300	2.1	211	23	1
7	5300	4.2	179	26	1
8	5300	2.7	181	28	1
9	5300	2.4	193	29	1
10	5300	4.7	150	26	1
11	5300	4.3	173	26	1
12	5300	3.6	180	27	1
13	5300	1.4	192	26	1
14	5300	3.2	182	27	1
15	5300	1.9	174	27	1
16	5300	2.0	195	23	1
17	5300	1.5	189	23	1
18	5300	4.2	167	28	1
19	5300	4.1	206	23	1
20	5300	2.1	156	26	1
21	5300	2.7	175	25	1
22	5300	1.5	175	29	1
23	5300	2.2	175	24	1
24	5300	2.5	187	23	1
25	5300	1.0	206	25	1
26	5300	4.0	159	24	1
27	5300	4.2	229	27	1
28	5300	3.6	219	26	1
29	5300	2.6	223	29	1
30	5300	3.2	170	29	1
Detection Percentage (%)					100%

Radar Type 3 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5308	7.5	438	17	1
2	5308	8.8	268	16	1
3	5308	8.2	433	18	1
4	5308	7.9	400	17	1
5	5308	9.9	300	17	1
6	5308	7.0	445	16	1
7	5308	9.2	441	16	1
8	5308	6.4	464	18	1
9	5308	7.4	467	18	1
10	5308	7.8	355	18	1
11	5308	9.6	404	16	1
12	5308	6.9	492	16	1
13	5308	8.7	329	18	1
14	5308	7.1	424	17	1
15	5308	7.3	355	18	1
16	5308	7.4	410	18	1
17	5308	7.2	361	18	1
18	5308	7.8	320	17	1
19	5308	9.3	373	18	1
20	5308	6.7	443	16	1
21	5308	9.9	419	17	1
22	5308	7.2	469	18	1
23	5308	6.8	271	17	1
24	5308	7.4	486	17	1
25	5308	6.7	416	16	1
26	5308	9.1	478	16	1
27	5308	7.2	357	16	1
28	5308	9.8	471	16	1
29	5308	8.1	426	17	1
30	5308	6.5	267	18	1
Detection Percentage (%)					100%

Radar Type 4 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5292	12.6	445	12	1
2	5292	17.2	378	12	1
3	5292	13.7	288	14	1
4	5292	17.6	500	13	1
5	5292	12.1	484	12	1
6	5292	14.8	432	12	1
7	5292	14.7	379	16	1
8	5292	15.7	292	13	1
9	5292	16.1	485	15	1
10	5292	16.3	290	13	1
11	5292	13.2	261	13	1
12	5497	16.9	311	15	1
13	5292	13.3	465	15	1
14	5292	16.0	305	12	1
15	5292	18.0	426	16	1
16	5292	17.1	331	16	1
17	5292	12.5	300	13	1
18	5292	13.1	338	12	1
19	5292	18.8	487	13	1
20	5292	15.9	426	14	1
21	5292	12.6	254	13	1
22	5292	14.7	453	15	1
23	5292	13.8	390	13	1
24	5292	15.3	347	12	1
25	5292	15.1	368	12	1
26	5292	19.1	258	16	1
27	5292	13.9	499	16	1
28	5292	17.9	448	13	1
29	5292	17.4	367	12	1
30	5292	17.6	432	16	1
Detection Percentage (%)					100%

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

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



Radar Type 5 - Radar Statistical Performance

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

Type 5 Radar Waveform_1

Num of Bursts = 18 Burst Interval (us)= 666667										
Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	648029	2	14	65	1388	1161	0	648029	0	666666
2	425577	1	14	85	1380	0	0	1076155	666667	1333333
3	473367	1	14	80	1346	0	0	1550902	1333334	2000000
4	689438	1	14	85	1955	0	0	2241686	2000001	2666667
5	883790	3	14	50	1422	1551	1778	3127431	2666668	3333334
6	682534	3	14	75	1428	1385	1031	3814716	3333335	4000001
7	312624	1	14	70	1041	0	0	4131184	4000002	4666668
8	692199	1	14	90	1350	0	0	4824424	4666669	5333335
9	1017926	2	14	80	1636	1815	0	5843700	5333336	6000002
10	194209	3	14	75	1425	1887	1609	6041360	6000003	6666669
11	818289	1	14	55	1570	0	0	6864570	6666670	7333336
12	785407	2	14	65	1487	1106	0	7651547	7333337	8000003
13	611081	2	14	75	1515	1975	0	8265221	8000004	8666670
14	751357	1	14	75	1399	0	0	9020068	8666671	9333337
15	659752	2	14	90	1197	1357	0	9681219	9333338	10000004
16	904912	1	14	50	1120	0	0	10588685	10000005	10666671
17	626132	3	14	85	1655	1512	1292	11215937	10666672	11333338
18	456171	3	14	65	1367	1903	1352	11676567	11333339	12000005
Total number of pulses in waveform = 33										



Type 5 Radar Waveform_2

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	342036	3	9	75	1174	1687	1130	342036	0	631578
2	390327	3	9	85	1143	1867	1392	736354	631579	1263157
3	551510	2	9	60	1775	1696	0	1292266	1263158	1894736
4	614519	3	9	85	1838	1312	1653	1910256	1894737	2526315
5	1087743	2	9	65	1086	1598	0	3002802	2526316	3157894
6	393502	2	9	90	1310	1221	0	3398988	3157895	3789473
7	957783	1	9	50	1113	0	0	4359302	3789474	4421052
8	390355	2	9	85	1573	1148	0	4750770	4421053	5052631
9	684309	3	9	75	1474	1148	1279	5437800	5052632	5684210
10	562034	3	9	90	1213	1336	1067	6003735	5684211	6315789
11	437100	2	9	95	1032	1053	0	6444451	6315790	6947368
12	981352	3	9	75	1601	1615	1597	7427888	6947369	7578947
13	768706	2	9	80	1042	1647	0	8201407	7578948	8210526
14	266207	2	9	90	1376	1639	0	8470303	8210527	8842105
15	623912	3	9	55	1117	1524	1803	9097230	8842106	9473684
16	756043	2	9	65	1308	1072	0	9857717	9473685	10105263
17	594102	1	9	50	1460	0	0	10454199	10105264	10736842
18	636393	1	9	50	1799	0	0	11092052	10736843	11368421
19	695745	2	9	60	1186	1078	0	11789596	11368422	12000000
Total number of pulses in waveform = 42										

Type 5 Radar Waveform_3

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	581786	3	12	55	1013	1040	1771	581786	0	999999
2	708603	3	12	95	1581	1629	1446	1294213	1000000	1999999
3	816320	1	12	85	1987	0	0	2115189	2000000	2999999
4	1352835	2	12	70	1263	1725	0	3470011	3000000	3999999
5	807350	1	12	90	1065	0	0	4280349	4000000	4999999
6	772647	3	12	85	1468	1403	1376	5054061	5000000	5999999
7	1643536	2	12	50	1723	1601	0	6701844	6000000	6999999
8	1274596	3	12	75	1279	1932	1585	7979764	7000000	7999999
9	38063	1	12	50	1538	0	0	8022623	8000000	8999999
10	1443279	1	12	100	1262	0	0	9467440	9000000	9999999
11	1107297	1	12	95	1374	0	0	10575999	10000000	10999999
12	1304341	1	12	90	1212	0	0	11881714	11000000	11999999
Total number of pulses in waveform = 22										

Type 5 Radar Waveform_4

Num of Bursts = 14										
Burst Interval (us)= 857143										
Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	516017	1	8	90	1348	0	0	516017	0	857142
2	1108278	1	8	75	1340	0	0	1625643	857143	1714285
3	535295	3	8	55	1211	1398	1774	2162278	1714286	2571428
4	981992	2	8	95	1337	1069	0	3148653	2571429	3428571
5	400440	3	8	50	1219	1811	1668	3551499	3428572	4285714
6	1464282	3	8	80	1140	1747	1570	5020479	4285715	5142857
7	434232	2	8	85	1619	1574	0	5459168	5142858	6000000
8	1380026	2	8	55	1863	1001	0	6842387	6000001	6857143
9	467343	3	8	95	1852	1880	1186	7312594	6857144	7714286
10	972714	2	8	50	1110	1630	0	8290226	7714287	8571429
11	477866	3	8	80	1850	1528	1504	8770832	8571430	9428572
12	1434020	1	8	75	1092	0	0	10209734	9428573	10285715
13	405925	1	8	95	1717	0	0	10616751	10285716	11142858
14	843387	1	8	50	1065	0	0	11461855	11142859	12000001
Total number of pulses in waveform = 28										

**Type 5 Radar Waveform_5**

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	536889	1	5	100	1348	0	0	536889	0	1499999
2	1536000	2	5	100	1100	1182	0	2074237	1500000	2999999
3	1095592	3	5	90	1708	1619	1668	3172111	3000000	4499999
4	2336507	1	5	55	1188	0	0	5513613	4500000	5999999
5	836802	3	5	55	1785	1497	1455	6351603	6000000	7499999
6	2515139	1	5	65	1636	0	0	8871479	7500000	8999999
7	1588771	1	5	55	1830	0	0	10461886	9000000	10499999
8	931553	3	5	50	1094	1501	1587	11395269	10500000	11999999

Total number of pulses in waveform = 15

Type 5 Radar Waveform_6

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	404797	2	19	95	1996	1869	0	404797	0	1499999
2	2153973	1	19	50	1731	0	0	2562635	1500000	2999999
3	1877922	2	19	60	1083	1758	0	4442288	3000000	4499999
4	242296	2	19	85	1271	1678	0	4687425	4500000	5999999
5	1566342	1	19	90	1411	0	0	6256716	6000000	7499999
6	1390917	1	19	60	1736	0	0	7649044	7500000	8999999
7	1556178	3	19	60	1395	1983	1181	9206958	9000000	10499999
8	2294360	1	19	55	1350	0	0	11505877	10500000	11999999

Total number of pulses in waveform = 13

Type 5 Radar Waveform_7

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	953756	3	18	95	1667	1661	1598	953756	0	1333332
2	833021	2	18	95	1254	1332	0	1791703	1333333	2666665
3	1973963	1	18	100	1655	0	0	3768252	2666666	3999998
4	1362368	1	18	55	1161	0	0	5132275	3999999	5333331
5	1364154	2	18	90	1042	1396	0	6497590	5333332	6666664
6	812632	1	18	65	1805	0	0	7312660	6666665	7999997
7	1219263	3	18	90	1943	1640	1870	8533728	7999998	9333330
8	1380315	2	18	90	1154	1821	0	9919496	9333331	10666663
9	1853218	2	18	90	1876	1402	0	11775689	10666664	11999996

Total number of pulses in waveform = 17

**Type 5 Radar Waveform_8**

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	21127	1	17	60	1742	0	0	21127	0	631578
2	1111710	2	17	100	1985	1734	0	1134579	631579	1263157
3	263941	2	17	60	1129	1259	0	1402239	1263158	1894736
4	1092410	2	17	75	1429	1333	0	2497037	1894737	2526315
5	102636	3	17	65	1055	1682	1104	2602435	2526316	3157894
6	559065	2	17	55	1582	1168	0	3165341	3157895	3789473
7	1038890	2	17	80	1324	1175	0	4206981	3789474	4421052
8	537406	2	17	85	1153	1351	0	4746886	4421053	5052631
9	437411	3	17	100	1775	1104	1777	5186801	5052632	5684210
10	582462	1	17	90	1282	0	0	5773919	5684211	6315789
11	1114242	1	17	85	1508	0	0	6889443	6315790	6947368
12	327326	1	17	75	1705	0	0	7218277	6947369	7578947
13	597614	3	17	85	1826	1764	1740	7817596	7578948	8210526
14	543390	3	17	95	1035	1908	1807	8366316	8210527	8842105
15	655276	2	17	100	1539	1748	0	9026342	8842106	9473684
16	972142	2	17	80	1471	1154	0	10001771	9473685	10105263
17	146524	2	17	55	1185	1606	0	10150920	10105264	10736842
18	1109428	3	17	65	1878	1604	1236	11263139	10736843	11368421
19	617626	3	17	90	1087	1565	1391	11885483	11368422	12000000

Total number of pulses in waveform = 40

Type 5 Radar Waveform_9

Num of Bursts = 11

Burst Interval (us) = 1090909

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	122764	3	10	80	1125	1344	1685	122764	0	1090908
2	1619544	1	10	100	1123	0	0	1746462	1090909	2181817
3	507315	2	10	90	1535	1959	0	2254900	2181818	3272726
4	1745198	1	10	95	1472	0	0	4003592	3272727	4363635
5	1295746	3	10	75	1051	1513	1650	5300810	4363636	5454544
6	712140	3	10	70	1222	1792	1008	6017164	5454545	6545453
7	1217153	3	10	95	1429	1727	1346	7238339	6545454	7636362
8	920054	1	10	85	1915	0	0	8162895	7636363	8727271
9	1349282	2	10	90	1202	1630	0	9514092	8727272	9818180
10	806305	1	10	75	1511	0	0	10323229	9818181	10909089
11	649788	3	10	70	1905	1442	1839	10974528	10909090	11999998

Total number of pulses in waveform = 23

Type 5 Radar Waveform_10

Num of Bursts = 12

Burst Interval (us) = 1000000

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	936278	1	9	70	1766	0	0	936278	0	999999
2	685064	1	9	85	1515	0	0	1623108	1000000	1999999
3	645453	2	9	85	1009	1170	0	2270076	2000000	2999999
4	1210750	2	9	90	1799	1180	0	3483005	3000000	3999999
5	574099	1	9	80	1611	0	0	4060083	4000000	4999999
6	1691292	1	9	75	1911	0	0	5752986	5000000	5999999
7	387820	1	9	85	1112	0	0	6142717	6000000	6999999
8	1237018	3	9	70	1217	1192	1837	7380847	7000000	7999999
9	1569585	3	9	70	1714	1668	1079	8954678	8000000	8999999
10	290686	1	9	80	1272	0	0	9249825	9000000	9999999
11	1635891	2	9	65	1052	1983	0	10886988	10000000	10999999
12	788402	1	9	100	1210	0	0	11678425	11000000	11999999

Total number of pulses in waveform = 19

**Type 5 Radar Waveform_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	277330	2	10	70	1999	1736	0	277330	0	1199999
2	2013735	1	10	60	1541	0	0	2294800	1200000	2399999
3	604303	2	10	80	1252	1751	0	2900644	2400000	3599999
4	1564429	1	10	65	1353	0	0	4468076	3600000	4799999
5	855784	2	10	50	1115	1422	0	5325213	4800000	5999999
6	1367600	2	10	70	1062	1206	0	6695350	6000000	7199999
7	883194	2	10	85	1005	1231	0	7580812	7200000	8399999
8	1899165	3	10	55	1009	1948	1356	9482213	8400000	9599999
9	1261301	2	10	95	1584	1872	0	10747827	9600000	10799999
10	254766	1	10	50	1432	0	0	11006049	10800000	11999999

Total number of pulses in waveform = 18

Type 5 Radar Waveform_12

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	145066	1	17	50	1647	0	0	145066	0	705881
2	798110	2	17	100	1829	1920	0	944823	705882	1411763
3	771897	3	17	70	1389	1414	1202	1720469	1411764	2117645
4	657304	2	17	90	1247	1526	0	2381778	2117646	2823527
5	906517	3	17	65	1702	1111	1150	3291068	2823528	3529409
6	316862	3	17	85	1052	1345	1901	3611893	3529410	4235291
7	1146811	1	17	70	1000	0	0	4763002	4235292	4941173
8	663909	2	17	85	1192	1963	0	5427911	4941174	5647055
9	447261	2	17	60	1152	1394	0	5878327	5647056	6352937
10	499589	1	17	95	1403	0	0	6380462	6352938	7058819
11	695492	1	17	100	1571	0	0	7077357	7058820	7764701
12	1061569	1	17	60	1388	0	0	8140497	7764702	8470583
13	654359	2	17	55	1818	1197	0	8796244	8470584	9176465
14	616754	2	17	60	1972	1049	0	9416013	9176466	9882347
15	658619	1	17	85	1242	0	0	10077653	9882348	10588229
16	842785	3	17	60	1321	1209	1796	10921680	10588230	11294111
17	794340	2	17	65	1741	1706	0	11720346	11294112	11999993

Total number of pulses in waveform = 32

Type 5 Radar Waveform_13

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	262490	1	9	70	1658	0	0	262490	0	666666
2	539835	2	9	85	1229	1445	0	803983	666667	1333333
3	959363	3	9	95	1514	1901	1792	1766020	1333334	2000000
4	542106	2	9	65	1726	1813	0	2313333	2000001	2666667
5	752217	1	9	100	1755	0	0	3069089	2666668	3333334
6	710197	3	9	60	1388	1139	1117	3781041	3333335	4000001
7	248649	3	9	80	1250	1689	1615	4033334	4000002	4666668
8	894226	1	9	70	1379	0	0	4932114	4666669	5333335
9	941212	1	9	55	1776	0	0	5874705	5333336	6000002
10	665547	3	9	90	1487	1966	1770	6542028	6000003	6666669
11	400603	3	9	65	1312	1969	1884	6947854	6666670	7333336
12	455672	1	9	90	1793	0	0	7408691	7333337	8000003
13	937475	2	9	80	1925	1902	0	8347959	8000004	8666670
14	848294	3	9	95	1494	1957	1443	9200080	8666671	9333337
15	417656	3	9	75	1925	1075	1169	9622630	9333338	10000004
16	538663	2	9	85	1189	1425	0	10165462	10000005	10666671
17	685580	1	9	100	1974	0	0	10853656	10666672	11333338
18	503814	2	9	100	1544	1439	0	11359444	11333339	12000005

Total number of pulses in waveform = 37



Type 5 Radar Waveform_14

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	214593	1	6	95	1180	0	0	214593	0	631578
2	663852	1	6	90	1128	1711	0	879625	631579	1263157
3	493534	2	6	65	1208	1638	1994	1375998	1263158	1894736
4	583242	1	6	85	1750	0	0	1964080	1894737	2526315
5	791271	3	6	55	1169	1379	1641	2757101	2526316	3157894
6	925873	1	6	70	1097	0	0	3687163	3157895	3789473
7	708389	1	6	65	1263	0	0	4396649	3789474	4421052
8	37311	1	6	95	1645	0	0	4435223	4421053	5052631
9	823265	3	6	65	1583	1695	1904	5260133	5052632	5684210
10	713556	3	6	100	1844	1754	1260	5978871	5684211	6315789
11	868682	2	6	75	1425	1668	0	6852411	6315790	6947368
12	393265	3	6	60	1860	1786	1117	7248769	6947369	7578947
13	931028	1	6	70	1512	0	0	8184560	7578948	8210526
14	187317	1	6	55	1906	0	0	8373389	8210527	8842105
15	537108	2	6	70	1632	1076	0	8912403	8842106	9473684
16	1166731	3	6	55	1466	1464	1654	10081842	9473685	10105263
17	43016	1	6	75	1390	0	0	10129442	10105264	10736842
18	625760	1	6	65	1225	0	0	10756592	10736843	11368421
19	1025279	1	6	90	1035	0	0	11783096	11368422	12000000

Total number of pulses in waveform = 34

Type 5 Radar Waveform_15

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	170432	1	14	70	1598	0	0	170432	0	857142
2	1439046	3	14	60	1459	1989	1443	1611076	857143	1714285
3	753655	1	14	50	1264	0	0	2369622	1714286	2571428
4	437639	2	14	85	1964	1884	0	2808525	2571429	3428571
5	981568	2	14	100	1711	1634	0	3793941	3428572	4285714
6	804390	3	14	85	1304	1965	1482	4601676	4285715	5142857
7	766585	2	14	60	1381	1853	0	5373012	5142858	6000000
8	942860	1	14	60	1854	0	0	6319106	6000001	6857143
9	778903	3	14	100	1165	1465	1849	7099863	6857144	7714286
10	1255249	3	14	50	1766	1497	1567	8359591	7714287	8571429
11	849781	2	14	80	1101	1724	0	9214202	8571430	9428572
12	641502	3	14	50	1987	1805	1679	9858529	9428573	10285715
13	841751	2	14	55	1891	1031	0	10705751	10285716	11142858
14	536928	2	14	55	1935	1006	0	11245601	11142859	12000001

Total number of pulses in waveform = 30

Type 5 Radar Waveform_16

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	474900	3	12	65	1429	1606	1695	474900	0	631578
2	453127	1	12	90	1541	0	0	932757	631579	1263157
3	404726	1	12	50	1599	0	0	1339024	1263158	1894736
4	703358	3	12	85	1583	1675	1084	2043981	1894737	2526315
5	730274	1	12	70	1135	0	0	2778597	2526316	3157894
6	816506	1	12	90	1276	0	0	3596238	3157895	3789473
7	557988	2	12	60	1766	1891	0	4155502	3789474	4421052
8	414054	3	12	65	1191	1896	1597	4573213	4421053	5052631
9	1089015	2	12	65	1377	1314	0	5666912	5052632	5684210
10	152742	2	12	95	1158	1664	0	5822345	5684211	6315789
11	937157	3	12	100	1835	1322	1555	6762324	6315790	6947368
12	563553	3	12	80	1672	1768	1164	7330589	6947369	7578947
13	680035	1	12	60	1929	0	0	8015228	7578948	8210526
14	480968	2	12	65	1057	1265	0	8498125	8210527	8842105
15	595238	1	12	70	1784	0	0	9095685	8842106	9473684
16	503275	3	12	65	1444	1340	1842	9600744	9473685	10105263
17	966990	1	12	55	1005	0	0	10572360	10105264	10736842
18	629190	3	12	65	1834	1794	1363	11202555	10736843	11368421
19	652236	1	12	75	1386	0	0	11859782	11368422	12000000

Total number of pulses in waveform = 37

**Type 5 Radar Waveform_17**

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	589863	1	5	60	1798	0	0	589863	0	999999
2	528039	1	5	100	1603	0	0	1119700	1000000	1999999
3	1839171	2	5	80	1903	1977	0	2960474	2000000	2999999
4	441186	2	5	100	1454	1888	0	3405540	3000000	3999999
5	1510946	1	5	50	1133	0	0	4919828	4000000	4999999
6	1049630	3	5	95	1516	1680	1413	5970591	5000000	5999999
7	295106	3	5	75	1405	1793	1036	6270306	6000000	6999999
8	828266	1	5	90	1399	0	0	7102806	7000000	7999999
9	1642120	3	5	80	1026	1855	1824	8746325	8000000	8999999
10	739814	3	5	70	1363	1175	1437	9490844	9000000	9999999
11	713899	3	5	75	1581	1147	1453	10208718	10000000	10999999
12	1496431	3	5	100	1428	1049	1485	11709330	11000000	11999999

Total number of pulses in waveform = 26

Type 5 Radar Waveform_18

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	168501	2	19	65	1258	1173	0	168501	0	631578
2	1018124	3	19	100	1730	1392	1088	1189056	631579	1263157
3	478236	1	19	100	1493	0	0	1671502	1263158	1894736
4	334463	2	19	90	1744	1814	0	2007458	1894737	2526315
5	994157	1	19	85	1284	0	0	3005173	2526316	3157894
6	454812	1	19	65	1450	0	0	3461269	3157895	3789473
7	716948	3	19	60	1376	1821	1447	4179667	3789474	4421052
8	793556	1	19	100	1284	0	0	4977867	4421053	5052631
9	337281	3	19	80	1665	1782	1832	5316432	5052632	5684210
10	463561	2	19	95	1589	1642	0	5785272	5684211	6315789
11	693390	1	19	60	1055	0	0	6481893	6315790	6947368
12	749082	1	19	90	1859	0	0	7232030	6947369	7578947
13	550020	1	19	90	1106	0	0	7783909	7578948	8210526
14	750684	2	19	70	1752	1161	0	8535699	8210527	8842105
15	320525	2	19	80	1515	1662	0	8859137	8842106	9473684
16	1082980	3	19	65	1688	1173	1772	9945294	9473685	10105263
17	531336	3	19	75	1920	1011	1466	10481263	10105264	10736842
18	565924	2	19	55	1809	1684	0	11051584	10736843	11368421
19	894434	1	19	55	1267	0	0	11949511	11368422	12000000

Total number of pulses in waveform = 35

Type 5 Radar Waveform_19

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	189969	2	8	60	1310	1011	0	189969	0	1333332
2	2032478	3	8	55	1237	1828	1283	2224768	1333333	2666665
3	1331628	3	8	70	1369	1815	1479	3560744	2666666	3999998
4	1311189	3	8	70	1535	1856	1305	4876596	3999999	5333331
5	1607799	3	8	75	1909	1314	1010	6489091	5333332	6666664
6	550982	2	8	65	1306	1348	0	7044306	6666665	7999997
7	986894	3	8	90	1154	1270	1498	8033854	7999998	9333330
8	2049671	3	8	80	1390	1348	1717	10087447	9333331	10666663
9	695964	1	8	90	1247	0	0	10787866	10666664	11999996

Total number of pulses in waveform = 23

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	180906	1	18	70	1800	0	0	160906	0	749999
2	1135973	3	18	95	1030	1682	1887	1298679	750000	1499999
3	834892	3	18	100	1187	1904	1962	2138170	1500000	2249999
4	747086	3	18	80	1686	1890	1616	2890309	2250000	2999999
5	524049	2	18	75	1477	1265	0	3419550	3000000	3749999
6	365678	3	18	65	1965	1253	1112	3787970	3750000	4499999
7	1453274	2	18	75	1144	1847	0	5245574	4500000	5249999
8	647431	1	18	95	1934	0	0	5895996	5250000	5999999
9	571869	1	18	95	1709	0	0	6469799	6000000	6749999
10	488202	3	18	55	1159	1339	1915	6959710	6750000	7499999
11	1204759	2	18	50	1402	1029	0	8168882	7500000	8249999
12	195323	1	18	55	1357	0	0	8366636	8250000	8999999
13	1343204	2	18	70	1880	1772	0	9711197	9000000	9749999
14	49690	3	18	90	1762	1328	1057	9764539	9750000	10499999
15	821443	2	18	75	1462	1652	0	10590129	10500000	11249999
16	1013030	3	18	70	1875	1442	1550	11606273	11250000	11999999

Total number of pulses in waveform = 35

Type 5 Radar Waveform_21Num 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	8	65	1741	1878	0	450686	0	999999
2	947215	1	8	70	1282	0	0	1401520	1000000	1999999
3	1441052	3	8	50	1537	1236	1693	2843854	2000000	2999999
4	1066993	1	8	50	1783	0	0	3915313	3000000	3999999
5	350413	3	8	70	1729	1675	1090	4267509	4000000	4999999
6	1223774	3	8	80	1698	1191	1829	5495777	5000000	5999999
7	753510	3	8	90	1389	1440	1924	6254005	6000000	6999999
8	1403324	3	8	95	1727	1950	1893	7662082	7000000	7999999
9	476308	1	8	65	1434	0	0	8143960	8000000	8999999
10	1690264	3	8	55	1156	1717	1170	9835658	9000000	9999999
11	987335	2	8	75	1421	1096	0	10827036	10000000	10999999
12	852053	2	8	95	1864	1268	0	11681606	11000000	11999999

Total number of pulses in waveform = 27

Type 5 Radar Waveform_22Num 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	635187	2	18	50	1172	1584	0	635187	0	999999
2	1267886	3	18	50	1416	1020	1693	1905829	1000000	1999999
3	333860	2	18	55	1865	1934	0	2243818	2000000	2999999
4	1694864	1	18	90	1075	0	0	3942481	3000000	3999999
5	528362	2	18	70	1029	1410	0	4471918	4000000	4999999
6	1229454	3	18	60	1235	1247	1471	5703811	5000000	5999999
7	648292	1	18	50	1664	0	0	6356056	6000000	6999999
8	1247106	1	18	75	1687	0	0	7604826	7000000	7999999
9	507191	1	18	60	1980	0	0	8113704	8000000	8999999
10	1620085	1	18	90	1603	0	0	9735769	9000000	9999999
11	1185966	1	18	55	1971	0	0	10923338	10000000	10999999
12	722971	1	18	55	1518	0	0	11648280	11000000	11999999

Total number of pulses in waveform = 19



Type 5 Radar Waveform_23

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	303118	1	5	55	1646	0	0	303118	0	631578	
2	808720	3	5	70	1714	1820	1977	1113484	631579	1263157	
3	701192	2	5	90	1618	1489	0	1820187	1263158	1894736	
4	596361	1	5	50	1131	0	0	2419655	1894737	2526315	
5	488341	2	5	55	1453	1710	0	2909127	2526316	3157894	
6	645370	1	5	50	1703	0	0	3557660	3157895	3789473	
7	285828	3	5	55	1627	1188	1986	3845191	3789474	4421052	
8	780282	2	5	90	1333	1039	0	4630274	4421053	5052631	
9	809507	3	5	85	1928	1799	1303	5442153	5052632	5684210	
10	821418	2	5	55	1495	1271	0	6268601	5684211	6315789	
11	140167	3	5	50	1152	1680	1924	6411534	6315790	6947368	
12	711100	1	5	80	1719	0	0	7127390	6947369	7578947	
13	524399	2	5	60	1310	1870	0	7653508	7578948	8210526	
14	1136794	1	5	90	1504	0	0	8793482	8210527	8842105	
15	153805	2	5	60	1402	1651	0	8948791	8842106	9473684	
16	936646	1	5	65	1878	0	0	9888490	9473685	10105263	
17	336056	3	5	75	1817	1061	1783	10226424	10105264	10736842	
18	684683	2	5	60	1259	1284	0	10915768	10736843	11368421	
19	767932	3	5	95	1888	1901	1794	11686243	11368422	12000000	
Total number of pulses in waveform = 38 *****											

Type 5 Radar Waveform_24

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	630069	3	17	50	1313	1652	1462	630069	0	857142	
2	859507	1	17	65	1100	0	0	1494003	857143	1714285	
3	401993	2	17	65	1103	1132	0	1897096	1714286	2571428	
4	1460126	2	17	55	1232	1134	0	3359457	2571429	3428571	
5	539565	3	17	65	1063	1718	1811	3901388	3428572	4285714	
6	512316	3	17	80	1083	1110	1841	4418296	4285715	5142857	
7	881641	3	17	90	1594	1102	1107	5303971	5142858	6000000	
8	1501708	2	17	55	1234	1013	0	6809482	6000001	6857143	
9	418397	3	17	75	1121	1424	1864	7230126	6857144	7714286	
10	1236335	1	17	55	1921	0	0	8470870	7714287	8571429	
11	828689	3	17	65	1077	1186	1444	9301480	8571430	9428572	
12	665503	1	17	80	1459	0	0	9970690	9428573	10285715	
13	1003797	1	17	100	1811	0	0	10975946	10285716	11142858	
14	945309	3	17	80	1119	1528	1953	11923066	11142859	12000001	
Total number of pulses in waveform = 31 *****											

Type 5 Radar Waveform_25

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	1006667	2	14	100	1804	1228	0	1006667	0	1199999	
2	371047	2	14	50	1664	1865	0	1380746	1200000	2399999	
3	2119616	1	14	55	1522	0	0	3503891	2400000	3599999	
4	710466	3	14	70	1480	1827	1351	4215879	3600000	4799999	
5	891631	2	14	50	1487	1549	0	5112168	4800000	5999999	
6	2034965	2	14	85	1540	1833	0	7150169	6000000	7199999	
7	792522	1	14	70	1592	0	0	7946064	7200000	8399999	
8	1234027	2	14	80	1664	1250	0	9181683	8400000	9599999	
9	1391064	2	14	80	1739	1007	0	10575661	9600000	10799999	
10	782687	2	14	70	1733	1302	0	11361094	10800000	11999999	
Total number of pulses in waveform = 19 *****											

**Type 5 Radar Waveform_26**

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	517176	2	10	85	1511	1732	0	517176	0	999999
2	1458999	3	10	70	1886	1746	1436	1979418	1000000	1999999
3	793976	1	10	60	1527	0	0	2778462	2000000	2999999
4	506188	3	10	80	1575	1628	1688	3286177	3000000	3999999
5	1089490	3	10	95	1489	1463	1764	4380558	4000000	4999999
6	1071809	2	10	50	1146	1289	0	5457083	5000000	5999999
7	1262393	1	10	75	1042	0	0	6721911	6000000	6999999
8	800980	1	10	80	1071	0	0	7523933	7000000	7999999
9	958101	3	10	55	1225	1627	1720	8483105	8000000	8999999
10	1425375	1	10	55	1822	0	0	9913052	9000000	9999999
11	865875	2	10	100	1766	1430	0	10780749	10000000	10999999
12	981742	2	10	85	1159	1404	0	11765687	11000000	11999999

Total number of pulses in waveform = 24

Type 5 Radar Waveform_27

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	605720	3	9	50	1315	1710	1035	605720	0	631578
2	164304	1	9	60	1731	0	0	774084	631579	1263157
3	1032764	2	9	60	1313	1366	0	1808579	1263158	1894736
4	205772	3	9	100	1132	1421	1535	2017030	1894737	2526315
5	1025052	2	9	95	1343	1192	0	3046170	2526316	3157894
6	512294	1	9	55	1905	0	0	3560999	3157895	3789473
7	701157	3	9	65	1800	1186	1064	4264061	3789474	4421052
8	494658	2	9	60	1832	1778	0	4762769	4421053	5052631
9	616375	2	9	55	1788	1492	0	5382754	5052632	5684210
10	817602	3	9	95	1005	1724	1048	6203636	5684211	6315789
11	472140	2	9	90	1170	1983	0	6679553	6315790	6947368
12	691266	2	9	100	1152	1889	0	7373972	6947369	7578947
13	409354	3	9	70	1468	1959	1790	7786367	7578948	8210526
14	711278	3	9	60	1949	1200	1831	8502862	8210527	8842105
15	703117	3	9	80	1170	1375	1852	9210959	8842106	9473684
16	559016	2	9	90	1805	1537	0	9774372	9473685	10105263
17	484170	2	9	55	1034	1209	0	10261884	10105264	10736842
18	633100	1	9	100	1684	0	0	10897227	10736843	11368421
19	589049	1	9	50	1119	0	0	11487960	11368422	12000000

Total number of pulses in waveform = 41

Type 5 Radar Waveform_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	41267	3	5	75	1595	1120	1178	41267	0	1090908
2	1525366	2	5	70	1225	1600	0	1570526	1090909	2181817
3	1251117	3	5	90	1512	1684	1231	2824468	2181818	3272726
4	1360076	3	5	100	1840	1893	1595	4188971	3272727	4363635
5	972897	1	5	85	1814	0	0	5167196	4363636	5454544
6	675004	2	5	55	1625	1212	0	5844014	5454545	6545453
7	1435378	1	5	75	1397	0	0	7282229	6545454	7636362
8	408142	3	5	95	1744	1808	1781	7691768	7636363	8727271
9	2100770	2	5	100	1369	1513	0	9797871	8727272	9818180
10	518427	1	5	80	1413	0	0	10319180	9818181	10909089
11	807692	1	5	50	1082	0	0	11128285	10909090	11999998

Total number of pulses in waveform = 22

**Type 5 Radar Waveform_29**

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	31885	3	19	50	1516	1099	1702	31885	0	1090908
2	1293868	1	19	65	1579	0	0	1330070	1090909	2181817
3	1656865	3	19	60	1254	1084	1897	2988514	2181818	3272726
4	579620	3	19	65	1891	1242	1789	3572369	3272727	4363635
5	1282099	2	19	65	1281	1347	0	4859390	4363636	5454544
6	1121366	3	19	75	1238	1858	1654	5983384	5454545	6545453
7	1627475	3	19	75	1523	1976	1946	7615609	6545454	7636362
8	1056005	1	19	50	1587	0	0	8677059	7636363	8727271
9	473222	1	19	85	1902	0	0	9151868	8727272	9818180
10	674829	3	19	100	1403	1751	1311	9828599	9818181	10909089
11	1807732	1	19	70	1805	0	0	11640796	10909090	11999998

Total number of pulses in waveform = 24

Type 5 Radar Waveform_30

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	664115	1	12	60	1515	0	0	664115	0	705881
2	166438	2	12	60	1981	1896	0	832068	705882	1411763
3	767961	3	12	70	1646	1231	1556	1603906	1411764	2117645
4	1107289	1	12	55	1782	0	0	2715628	2117646	2823527
5	299144	2	12	70	1295	1596	0	3016554	2823528	3529409
6	895132	2	12	85	1372	1331	0	3914577	3529410	4235291
7	458596	1	12	100	1616	0	0	4375876	4235292	4941173
8	773360	2	12	100	1487	1127	0	5150852	4941174	5647055
9	726300	3	12	65	1051	1684	1754	5879766	5647056	6352937
10	769894	1	12	65	1339	0	0	6654149	6352938	7058819
11	590009	3	12	55	1647	1184	1139	7245497	7058820	7764701
12	1043215	3	12	60	1854	1624	1700	8292682	7764702	8470583
13	399887	2	12	85	1703	1466	0	8697747	8470584	9176465
14	803576	2	12	65	1375	1746	0	9504492	9176466	9882347
15	875908	2	12	100	1805	1039	0	10383521	9882348	10588229
16	796910	3	12	65	1424	1356	1117	11183275	10588230	11294111
17	563530	2	12	80	1668	1412	0	11750702	11294112	11999993

Total number of pulses in waveform = 35

Radar Type 6 - Radar Statistical Performance

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

Radar waveform #1			Radar waveform #2		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
5	5325	15	6	5308	18
10	5294	30	13	5280	39
15	5292	45	15	5317	45
18	5313	54	30	5318	90
27	5301	81	32	5301	96
40	5328	120	37	5307	111
42	5274	126	43	5316	129
43	5314	129	45	5305	135
65	5304	195	48	5313	144
88	5310	264	65	5285	195
--	--	--	66	5328	198
--	--	--	68	5309	204
--	--	--	71	5315	213
--	--	--	81	5327	243
--	--	--	82	5298	246
--	--	--	88	5323	264
--	--	--	92	5284	276
--	--	--	98	5314	294

Radar waveform #3			Radar waveform #4		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
23	5309	69	6	5321	18
43	5272	129	13	5279	39
59	5311	177	44	5298	132
66	5280	198	47	5316	141
79	5320	237	58	5314	174
85	5306	255	70	5297	210
88	5274	264	85	5330	255
96	5286	288	91	5306	273
97	5295	291	--	--	--

Radar waveform #5			Radar waveform #6		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
6	5304	18	0	5286	0
14	5298	42	9	5308	27
16	5325	48	31	5276	93
25	5294	75	41	5296	123
35	5311	105	55	5322	165
38	5277	114	57	5307	171
40	5314	120	72	5324	216
47	5270	141	79	5325	237
54	5329	162	81	5313	243
73	5308	219	84	5326	252
75	5327	225	90	5320	270
87	5272	261	--	--	--
98	5312	294	--	--	--

Radar waveform #7			Radar waveform #8		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
3	5297	9	4	5288	12
14	5305	42	12	5308	36
18	5316	54	23	5276	69
21	5274	63	29	5294	87
23	5301	69	31	5320	93
30	5289	90	54	5327	162
32	5299	96	57	5311	171
35	5278	105	70	5299	210
46	5273	138	72	5315	216
68	5295	204	75	5296	225
70	5276	210	77	5286	231
74	5311	222	78	5326	234
77	5329	231	89	5274	267
79	5281	237	94	5301	282
81	5292	243	96	5297	288
89	5288	267	--	--	--

Radar waveform #9			Radar waveform #10		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
1	5300	3	3	5276	9
15	5312	45	12	5320	36
16	5330	48	13	5301	39
31	5310	93	15	5303	45
38	5309	114	42	5291	126
40	5320	120	44	5325	132
42	5285	126	48	5322	144
49	5313	147	49	5319	147
58	5308	174	56	5330	168
65	5272	195	62	5281	186
81	5318	243	66	5297	198
88	5278	264	71	5279	213
--	--	--	98	5327	294
--	--	--	99	5272	297

Radar waveform #11			Radar waveform #12		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Frequency (MHz)	Hopping Number	Pulse Start (ms)
13	5300	39	10	5288	30
43	5289	129	38	5322	114
67	5311	201	39	5312	117
70	5282	210	48	5273	144
73	5321	219	58	5323	174
--	--	--	59	5289	177
--	--	--	60	5272	180
--	--	--	67	5311	201
--	--	--	80	5324	240
--	--	--	94	5303	282

Radar waveform #13			Radar waveform #14		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
7	5320	21	1	5316	3
13	5307	39	22	5313	66
15	5314	45	29	5288	87
20	5299	60	48	5323	144
34	5296	102	53	5270	159
35	5325	105	54	5277	162
36	5297	108	68	5314	204
39	5318	117	74	5301	222
41	5295	123	78	5302	234
43	5284	129	83	5299	249
47	5271	141	96	5297	288
65	5275	195	--	--	--
68	5327	204	--	--	--
73	5277	219	--	--	--
75	5300	225	--	--	--
77	5289	231	--	--	--
78	5273	234	--	--	--
80	5291	240	--	--	--
93	5278	279	--	--	--
94	5330	282	--	--	--

Radar waveform #15			Radar waveform #16		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
12	5273	36	8	5302	24
16	5322	48	12	5274	36
19	5296	57	47	5286	141
22	5309	66	58	5275	174
23	5271	69	60	5323	180
25	5280	75	67	5315	201
35	5302	105	71	5295	213
37	5284	111	--	--	--
54	5275	162	--	--	--
59	5278	177	--	--	--
66	5282	198	--	--	--
67	5306	201	--	--	--
73	5277	219	--	--	--
80	5287	240	--	--	--
86	5281	258	--	--	--

Radar waveform #17			Radar waveform #18		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
2	5300	6	4	5330	12
13	5306	39	14	5318	42
40	5273	120	25	5287	75
42	5281	126	30	5309	90
49	5276	147	38	5302	114
67	5286	201	39	5291	117
68	5290	204	45	5270	135
70	5296	210	59	5278	177
71	5292	213	64	5311	192
74	5310	222	65	5317	195
77	5304	231	92	5271	276
88	5295	264	--	--	--
90	5271	270	--	--	--

Radar waveform #19			Radar waveform #20		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
11	5328	33	8	5285	24
12	5319	36	26	5279	78
22	5292	66	28	5270	84
48	5280	144	39	5330	117
60	5324	180	43	5301	129
73	5283	219	46	5318	138
88	5325	264	54	5284	162
89	5302	267	55	5273	165
90	5272	270	76	5282	228
91	5278	273	77	5306	231
94	5314	282	78	5327	234
95	5306	285	79	5310	237
--	--	--	82	5280	246
--	--	--	85	5316	255
--	--	--	88	5292	264
--	--	--	91	5291	273
--	--	--	99	5277	297

Radar waveform #21			Radar waveform #22		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
10	5301	30	30	5289	90
21	5295	63	31	5298	93
22	5274	66	41	5328	123
31	5307	93	48	5323	144
41	5293	123	49	5299	147
43	5282	129	67	5308	201
46	5289	138	74	5310	222
68	5272	204	76	5320	228
70	5284	210	87	5309	261
83	5278	249	88	5322	264
86	5314	258	89	5305	267
88	5329	264	94	5321	282
91	5280	273	99	5278	297
94	5316	282	--	--	--

Radar waveform #23			Radar waveform #24		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
3	5320	9	9	5295	27
15	5329	45	16	5300	48
26	5301	78	34	5325	102
40	5284	120	38	5320	114
41	5325	123	40	5317	120
45	5296	135	41	5313	123
47	5297	141	42	5310	126
49	5273	147	43	5305	129
50	5298	150	45	5309	135
57	5317	171	47	5271	141
59	5279	177	48	5329	144
60	5289	180	51	5293	153
63	5283	189	56	5274	168
84	5306	252	63	5292	189
87	5302	261	64	5306	192
92	5282	276	73	5301	219
--	--	--	77	5296	231
--	--	--	86	5319	258

Radar waveform #25			Radar waveform #26		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
14	5275	42	2	5325	6
15	5277	45	4	5286	12
37	5306	111	7	5288	21
44	5294	132	12	5280	36
49	5304	147	19	5276	57
52	5282	156	31	5296	93
56	5303	168	32	5313	96
59	5315	177	34	5292	102
78	5292	234	45	5320	135
82	5287	246	47	5310	141
90	5310	270	51	5271	153
--	--	--	55	5317	165
--	--	--	63	5322	189
--	--	--	66	5301	198
--	--	--	72	5302	216
--	--	--	80	5306	240
--	--	--	89	5321	267
--	--	--	92	5294	276
--	--	--	94	5273	282

Radar waveform #27			Radar waveform #28		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
2	5282	6	1	5281	3
8	5275	24	11	5299	33
21	5290	63	18	5315	54
35	5306	105	26	5278	78
52	5281	156	30	5305	90
54	5292	162	31	5317	93
59	5327	177	35	5292	105
62	5316	186	36	5301	108
66	5314	198	37	5290	111
67	5317	201	47	5325	141
79	5308	237	59	5326	177
82	5323	246	69	5328	207
89	5298	267	96	5270	288

Radar waveform #29			Radar waveform #30		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
17	5307	51	14	5321	42
27	5284	81	15	5302	45
30	5301	90	20	5278	60
34	5303	102	29	5298	87
42	5281	126	37	5317	111
61	5270	183	54	5320	162
66	5276	198	82	5299	246
73	5310	219	87	5314	261
77	5297	231	95	5288	285
78	5282	234	97	5303	291
94	5275	282	99	5307	297
97	5298	291			
98	5277	294			

Radar Statistical Performance for 802.11n-HT40

Radar Type 1 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5293	1	718	74	1
2	5293	1	538	99	1
3	5293	1	838	63	1
4	5293	1	798	67	1
5	5293	1	698	76	1
6	5293	1	818	65	1
7	5293	1	758	70	1
8	5293	1	658	81	1
9	5293	1	558	95	1
10	5293	1	638	83	1
11	5293	1	598	89	1
12	5293	1	878	61	1
13	5293	1	898	59	1
14	5293	1	938	57	1
15	5293	1	518	102	1
16	5293	1	2833	19	1
17	5293	1	2181	25	1
18	5293	1	2252	24	1
19	5293	1	829	64	1
20	5293	1	1668	32	1
21	5293	1	2955	18	1
22	5293	1	805	66	1
23	5293	1	1406	38	1
24	5293	1	2981	18	1
25	5293	1	1410	38	1
26	5293	1	2374	23	1
27	5293	1	1200	44	1
28	5293	1	1317	41	1
29	5293	1	1302	41	1
30	5293	1	2234	24	1
Detection Percentage (%)					100%

Radar Type 2 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5328	4.1	223	27	1
2	5328	3.7	217	26	1
3	5328	4.4	219	27	1
4	5328	3.6	154	24	1
5	5328	2.7	228	23	1
6	5328	2.3	187	27	1
7	5328	4.0	213	28	1
8	5328	3.2	206	25	1
9	5328	3.7	191	23	1
10	5328	4.8	171	29	1
11	5328	3.1	195	29	1
12	5328	4.3	178	26	1
13	5328	4.7	172	25	1
14	5328	1.9	196	24	1
15	5328	2.8	183	23	1
16	5328	3.1	179	29	1
17	5328	3.0	207	24	1
18	5328	1.2	161	23	1
19	5328	1.9	219	24	1
20	5328	2.7	158	23	1
21	5328	4.0	195	27	1
22	5328	2.1	195	25	1
23	5328	4.5	166	23	1
24	5328	3.5	167	24	1
25	5328	1.5	229	25	1
26	5328	3.7	195	27	1
27	5328	5.0	230	23	1
28	5328	3.0	164	25	1
29	5328	1.0	170	24	1
30	5328	4.9	175	29	1
Detection Percentage (%)					100%

Radar Type 3 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5310	7.6	402	17	1
2	5310	7.2	408	17	1
3	5310	8.5	416	18	1
4	5310	9.0	440	16	1
5	5310	9.7	423	18	1
6	5310	8.6	474	17	1
7	5310	6.6	416	18	1
8	5310	9.9	291	17	1
9	5310	7.6	450	18	1
10	5310	7.9	383	16	1
11	5310	8.0	309	16	1
12	5310	6.3	479	17	1
13	5310	8.6	332	16	1
14	5310	8.8	370	16	1
15	5310	7.8	276	16	1
16	5310	6.8	439	16	1
17	5310	6.8	446	16	1
18	5310	7.1	437	18	1
19	5310	9.2	409	17	1
20	5310	7.4	270	18	1
21	5310	6.2	301	18	1
22	5310	8.1	271	17	1
23	5310	9.2	250	16	1
24	5310	7.1	332	17	1
25	5310	8.9	405	18	1
26	5310	9.5	340	17	1
27	5310	9.4	380	17	1
28	5310	9.1	461	18	1
29	5310	9.2	496	18	1
30	5310	8.1	339	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	5328	13.6	400	15	1
2	5328	18.3	269	16	1
3	5328	13.6	446	15	1
4	5328	15.1	413	15	1
5	5328	14.5	395	13	1
6	5328	17.7	493	13	1
7	5328	18.6	273	13	1
8	5328	14.6	405	13	1
9	5328	11.4	400	12	1
10	5328	17.6	387	12	1
11	5328	17.5	381	15	1
12	5328	11.3	456	14	1
13	5328	11.9	355	12	1
14	5328	12.2	360	15	1
15	5328	12.1	253	15	1
16	5328	12.6	486	13	1
17	5328	14.0	483	12	1
18	5328	13.4	494	12	1
19	5328	12.9	353	15	1
20	5328	15.9	482	15	1
21	5328	18.4	397	14	1
22	5328	14.5	390	12	1
23	5328	17.6	500	13	1
24	5328	11.5	288	14	1
25	5328	12.1	334	15	1
26	5328	15.7	258	15	1
27	5328	15.4	494	14	1
28	5328	12.9	324	13	1
29	5328	14.1	309	12	1
30	5328	11.1	265	16	1
Detection Percentage (%)					100%

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

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



Radar Type 5 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	1=Detection 0=No Detection	Trail #	Test Freq. (MHz)	1=Detection 0=No Detection
1	5294.0	1	16	5310.0	1
2	5294.4	1	17	5310.0	1
3	5295.2	1	18	5310.0	1
4	5295.6	1	19	5310.0	1
5	5296.0	1	20	5310.0	1
6	5296.8	1	21	5326.0	1
7	5297.6	1	22	5325.6	1
8	5298.8	1	23	5324.8	1
9	5299.2	1	24	5324.4	1
10	5299.6	1	25	5324.0	1
11	5310.0	1	26	5323.2	1
12	5310.0	1	27	5322.4	1
13	5310.0	1	28	5321.2	1
14	5310.0	1	29	5320.8	1
15	5310.0	1	30	5320.4	1
Detection Percentage (%)					100%

Type 5 Radar Waveform_1

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	1121742	2	8	95	1560	1760	0	1121742	0	1333332
2	756984	3	8	90	1549	1691	1229	1882046	1333333	2666665
3	1245805	2	8	95	1759	1533	0	3132320	2666666	3999998
4	2055233	3	8	60	1022	1167	1548	5190845	3999999	5333331
5	1234457	2	8	100	1782	1618	0	6429039	5333332	6666664
6	1110939	3	8	95	1767	1751	1036	7543378	6666665	7999997
7	1338877	3	8	100	1150	1875	1400	8886809	7999998	9333330
8	1657856	2	8	50	1179	1882	0	10549090	9333331	10666663
9	222350	1	8	80	1037	0	0	10774501	10666664	11999996

Total number of pulses in waveform = 21



Type 5 Radar Waveform_2

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	22608	1	18	55	1755	0	0	22608	0	799999
2	1522261	1	18	85	1030	0	0	1546624	800000	1599999
3	657365	2	18	50	1168	1435	0	2205019	1600000	2399999
4	635482	3	18	95	1299	1953	1844	2843104	2400000	3199999
5	947455	2	18	75	1681	1698	0	3795655	3200000	3999999
6	243518	3	18	85	1597	1013	1493	4042552	4000000	4799999
7	848617	3	18	75	1310	1443	1055	4895272	4800000	5599999
8	882001	2	18	50	1082	1225	0	5781081	5600000	6399999
9	646477	2	18	65	1615	1437	0	6429865	6400000	7199999
10	1112204	1	18	75	1729	0	0	7545121	7200000	7999999
11	839454	3	18	60	1317	1684	1050	8386304	8000000	8799999
12	633667	3	18	85	1450	1310	1906	9024022	8800000	9599999
13	775840	2	18	95	1431	1291	0	9804528	9600000	10399999
14	836714	1	18	50	1136	0	0	10643964	10400000	11199999
15	1227849	1	18	100	1476	0	0	11872949	11200000	11999999

Total number of pulses in waveform = 30

Type 5 Radar Waveform_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)
1	500283	3	12	85	1016	1062	1229	500283	0	666666
2	719819	1	12	90	1365	0	0	1223409	666667	1333333
3	640170	1	12	100	1172	0	0	1864944	1333334	2000000
4	586685	1	12	75	1613	0	0	2452801	2000001	2666667
5	847147	1	12	60	1621	0	0	3301561	2666668	3333334
6	55319	3	12	75	1684	1945	1995	3358501	3333335	4000001
7	641897	1	12	80	1293	0	0	4006022	4000002	4666668
8	973181	1	12	85	1925	0	0	4980496	4666669	5333335
9	814414	2	12	70	1513	1365	0	5796835	5333336	6000002
10	703793	3	12	100	1679	1670	1756	6503506	6000003	6666669
11	726933	2	12	95	1058	1969	0	7235544	6666670	7333336
12	316159	2	12	100	1967	1339	0	7554730	7333337	8000003
13	693007	3	12	85	1912	1432	1143	8251043	8000004	8666670
14	512354	1	12	55	1863	0	0	8767884	8666671	9333337
15	1210799	3	12	75	1193	1474	1106	9980546	9333338	10000004
16	250817	2	12	50	1546	1498	0	10235136	10000005	10666671
17	846828	2	12	70	1642	1537	0	11085008	10666672	11333338
18	546894	2	12	70	1920	1712	0	11635081	11333339	12000005

Total number of pulses in waveform = 34

Type 5 Radar Waveform_4

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	235823	3	5	85	1931	1835	1995	235823	0	705881
2	737453	2	5	85	1458	1197	0	979037	705882	1411763
3	805482	3	5	100	1713	1563	1776	1787174	1411764	2117645
4	772033	3	5	65	1394	1484	1179	2564259	2117646	2823527
5	849571	1	5	95	1838	0	0	3417887	2823528	3529409
6	733296	2	5	75	1592	1861	0	4153021	3529410	4235291
7	477809	3	5	70	1536	1907	1495	4634283	4235292	4941173
8	885162	1	5	60	1771	0	0	5524383	4941174	5647055
9	338471	2	5	60	1508	1770	0	5864625	5647056	6352937
10	1095460	2	5	85	1565	1487	0	6963363	6352938	7058819
11	171182	3	5	60	1888	1168	1261	7137597	7058820	7764701
12	963139	2	5	60	1977	1800	0	8105053	7764702	8470583
13	496248	2	5	75	1585	1080	0	8605078	8470584	9176465
14	969506	1	5	55	1817	0	0	9577249	9176466	9882347
15	515451	1	5	75	1870	0	0	10094517	9882348	10588229
16	656914	1	5	55	1907	0	0	10753301	10588230	11294111
17	924247	2	5	80	1845	1871	0	11679455	11294112	11999993

Total number of pulses in waveform = 34

**Type 5 Radar Waveform_5**

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

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

Total number of pulses in waveform = 33

Type 5 Radar Waveform_6

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	108441	2	17	50	1349	1260	0	108441	0	599999
2	936065	3	17	85	1639	1615	1819	1047115	600000	1199999
3	646983	2	17	90	1373	1145	0	1699171	1200000	1799999
4	635848	2	17	75	1922	1625	0	2337537	1800000	2399999
5	516586	1	17	60	1066	0	0	2857670	2400000	2999999
6	410845	2	17	95	1305	1760	0	3269581	3000000	3599999
7	660862	1	17	70	1079	0	0	3933508	3600000	4199999
8	582563	1	17	95	1817	0	0	4517150	4200000	4799999
9	543355	1	17	90	1734	0	0	5062322	4800000	5399999
10	407300	2	17	65	1367	1586	0	5471356	5400000	5999999
11	1092779	1	17	100	1287	0	0	6567088	6000000	6599999
12	624136	2	17	70	1139	1752	0	7192511	6600000	7199999
13	21362	3	17	100	1571	1312	1122	7216764	7200000	7799999
14	863490	3	17	70	1237	1396	1931	8084259	7800000	8399999
15	374618	3	17	65	1694	1509	1709	8463441	8400000	8999999
16	867907	1	17	85	1781	0	0	9336260	9000000	9599999
17	785516	2	17	50	1956	1046	0	10123557	9600000	10199999
18	507850	1	17	95	1926	0	0	10634409	10200000	10799999
19	406351	2	17	50	1624	1299	0	11042686	10800000	11399999
20	833707	2	17	50	1034	1263	0	11879316	11400000	11999999

Total number of pulses in waveform = 37

Type 5 Radar Waveform_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	398936	1	14	75	1823	0	0	398936	0	999999
2	895193	3	14	80	1051	1289	1496	1295952	1000000	1999999
3	806179	1	14	90	1046	0	0	2105967	2000000	2999999
4	1698207	1	14	65	1457	0	0	3805220	3000000	3999999
5	198253	2	14	50	1469	1276	0	4004930	4000000	4999999
6	1400735	3	14	90	1887	1959	1526	5408410	5000000	5999999
7	1171666	1	14	85	1199	0	0	6585448	6000000	6999999
8	1337288	3	14	60	1976	1310	1371	7923935	7000000	7999999
9	344523	1	14	100	1635	0	0	8273115	8000000	8999999
10	1541804	2	14	80	1494	1748	0	9816554	9000000	9999999
11	804557	1	14	75	1750	0	0	10624353	10000000	10999999
12	660621	2	14	80	1002	1752	0	11286724	11000000	11999999

Total number of pulses in waveform = 21

**Type 5 Radar Waveform_8**

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	1247476	1	10	85	1191	0	0	1247476	0	1499999
2	739046	1	10	100	1792	0	0	1987713	1500000	2999999
3	1343904	3	10	75	1837	1466	1619	3333409	3000000	4499999
4	2181749	2	10	80	1230	1792	0	5520080	4500000	5999999
5	1355114	1	10	55	1428	0	0	6878216	6000000	7499999
6	847545	2	10	75	1965	1622	0	7727189	7500000	8999999
7	2369218	3	10	80	1123	1337	1310	10099994	9000000	10499999
8	1237404	3	10	60	1034	1140	1853	11341168	10500000	11999999

Total number of pulses in waveform = 16

Type 5 Radar Waveform_9

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	628201	1	19	50	1012	0	0	628201	0	1090908
2	1017383	3	19	55	1298	1880	1294	1646596	1090909	2181817
3	771459	2	19	50	1995	1483	0	2422527	2181818	3272726
4	1459943	1	19	90	1590	0	0	3885948	3272727	4363635
5	539596	1	19	60	1583	0	0	4427134	4363636	5454544
6	1200772	3	19	100	1493	1080	1144	5629489	5454545	6545453
7	1369631	2	19	65	1553	1122	0	7002837	6545454	7636362
8	1609430	3	19	95	1922	1433	1607	8614942	7636363	8727271
9	928023	3	19	85	1498	1138	1000	9547927	8727272	9818180
10	770595	2	19	85	1442	1489	0	10322158	9818181	10909089
11	720120	2	19	80	1490	1037	0	11045209	10909090	11999998

Total number of pulses in waveform = 23

Type 5 Radar Waveform_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	367948	1	6	70	1929	0	0	367948	0	923076
2	974843	3	6	95	1616	1126	1829	1344720	923077	1846153
3	769703	1	6	50	1912	0	0	2118994	1846154	2769230
4	715094	2	6	90	1365	1421	0	2836000	2769231	3692307
5	1630109	1	6	70	1679	0	0	4468895	3692308	4615384
6	636904	1	6	50	1799	0	0	5107478	4615385	5538461
7	1176712	1	6	75	1048	0	0	6285989	5538462	6461538
8	288976	2	6	70	1326	1418	0	6576013	6461539	7384615
9	916450	3	6	55	1655	1177	1485	7495207	7384616	8307692
10	1369323	3	6	50	1442	1512	1955	8868847	8307693	9230769
11	1070214	3	6	75	1803	1884	1296	9943970	9230770	10153846
12	388827	1	6	65	1276	0	0	10337780	10153847	11076923
13	864764	1	6	50	1233	0	0	11203820	11076924	12000000

Total number of pulses in waveform = 23



Type 5 Radar Waveform_11

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	761630	1	9	70	1195	0	0	761630	0	857142
2	610772	2	9	90	1163	1707	0	1373597	857143	1714285
3	726180	1	9	75	1927	0	0	2102647	1714286	2571428
4	1148464	1	9	80	1389	0	0	3253038	2571429	3428571
5	684680	2	9	85	1125	1933	0	3939107	3428572	4285714
6	632190	1	9	75	1114	0	0	4574355	4285715	5142857
7	1395346	1	9	80	1516	0	0	5970815	5142858	6000000
8	844654	1	9	70	1759	0	0	6816985	6000001	6857143
9	571644	3	9	50	1310	1340	1418	7390388	6857144	7714286
10	508703	3	9	95	1501	1734	1154	7903159	7714287	8571429
11	756479	3	9	65	1885	1056	1825	8664027	8571430	9428572
12	777971	1	9	50	1508	0	0	9446764	9428573	10285715
13	1360657	3	9	75	1842	1931	1721	10808929	10285716	11142858
14	896501	3	9	55	1173	1373	1392	11710924	11142859	12000001

Total number of pulses in waveform = 26

Type 5 Radar Waveform_12

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	509225	3	19	70	1209	1831	1822	509225	0	1090908
2	1474009	1	19	50	1371	0	0	1988096	1090909	2181817
3	1102334	3	19	95	1897	1238	1941	3091801	2181818	3272726
4	709438	2	19	95	1785	1074	0	3806315	3272727	4363635
5	1171519	1	19	55	1739	0	0	4980693	4363636	5454544
6	530238	1	19	55	1067	0	0	5512670	5454545	6545453
7	1214673	1	19	95	1915	0	0	6728410	6545454	7636362
8	1669244	3	19	60	1683	1095	1469	8399569	7636363	8727271
9	456180	2	19	80	1761	1799	0	8859996	8727272	9818180
10	2018507	3	19	80	1410	1298	1650	10882063	9818181	10909089
11	1098579	2	19	70	1659	1086	0	11985000	10909090	11999998

Total number of pulses in waveform = 22

Type 5 Radar Waveform_13

Num of Bursts = 20

Burst Interval (us)= 600000

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	36816	3	12	75	1140	1975	1643	36816	0	599999
2	685115	3	12	50	1107	1242	1143	726689	600000	1199999
3	996164	2	12	100	1384	1382	0	1726345	1200000	1799999
4	565422	2	12	50	1942	1618	0	2294533	1800000	2399999
5	285841	2	12	80	1735	1410	0	2583934	2400000	2999999
6	941802	1	12	80	1419	0	0	3528881	3000000	3599999
7	178114	3	12	100	1102	1116	1316	3708414	3600000	4199999
8	490167	2	12	80	1659	1929	0	4202115	4200000	4799999
9	956042	1	12	60	1508	0	0	5161745	4800000	5399999
10	667385	3	12	50	1302	1724	1503	5830638	5400000	5999999
11	633598	1	12	75	1552	0	0	6468765	6000000	6599999
12	190156	3	12	80	1830	1490	1916	6660473	6600000	7199999
13	706502	1	12	85	1916	0	0	7372211	7200000	7799999
14	476118	2	12	60	1133	1630	0	7850245	7800000	8399999
15	935856	2	12	95	1877	1901	0	8788864	8400000	8999999
16	717080	1	12	55	1209	0	0	9509722	9000000	9599999
17	643812	3	12	85	1424	1106	1300	10154743	9600000	10199999
18	289097	2	12	70	1211	1375	0	10447670	10200000	10799999
19	570201	2	12	55	2000	1513	0	11020457	10800000	11399999
20	815808	3	12	95	1878	1676	1363	11839778	11400000	11999999

Total number of pulses in waveform = 42



Type 5 Radar Waveform_14

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	34089	2	18	90	1131	1805	0	34089	0	631578
2	1207426	1	18	90	1239	0	0	1244451	631579	1263157
3	434863	3	18	50	1177	1947	1106	1680553	1263158	1894736
4	507676	2	18	100	1222	1536	0	2192459	1894737	2526315
5	647324	1	18	70	1507	0	0	2842541	2526316	3157894
6	576991	3	18	85	1468	1842	1241	3421039	3157895	3789473
7	504878	3	18	75	1187	1556	1296	3930468	3789474	4421052
8	676763	3	18	95	1942	1664	1923	4611270	4421053	5052631
9	673357	2	18	80	1418	1592	0	5290156	5052632	5684210
10	974095	1	18	55	1178	0	0	6267261	5684211	6315789
11	535001	2	18	85	1113	1117	0	6803440	6315790	6947368
12	300683	3	18	100	1777	1455	1161	7106353	6947369	7578947
13	681293	1	18	100	1603	0	0	7792039	7578948	8210526
14	962039	3	18	80	1478	1177	1268	8755681	8210527	8842105
15	150025	1	18	60	1329	0	0	8909629	8842106	9473684
16	899123	2	18	85	1776	1143	0	9810081	9473685	10105263
17	319411	1	18	95	1386	0	0	10132411	10105264	10736842
18	1099931	1	18	85	1641	0	0	11233728	10736843	11368421
19	324356	2	18	60	1274	1434	0	11559725	11368422	12000000
Total number of pulses in waveform = 37										

Type 5 Radar Waveform_15

Num of Bursts = 12 Burst Interval (us)= 1000000										
Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	733399	3	17	90	1794	1431	1029	633149	0	999999
2	1195162	3	17	100	1856	1308	1018	1370802	1000000	1999999
3	1000334	3	17	100	1049	1357	1047	2570146	2000000	2999999
4	914370	3	17	90	1924	1120	1913	3573933	3000000	3999999
5	739826	3	17	50	1140	1870	1020	4493260	4000000	4999999
6	810710	2	17	100	1150	1288	0	5237116	5000000	5999999
7	1786535	3	17	95	1344	1603	1485	6050264	6000000	6999999
8	717579	1	17	65	1789	0	0	7841231	7000000	7999999
9	1363310	2	17	75	1945	1980	0	8560599	8000000	8999999
10	433172	3	17	80	1745	1412	1644	9927834	9000000	9999999
11	1080473	1	17	100	1418	0	0	10365807	10000000	10999999
12		3	17	90	1853	1948	1213	11447698	11000000	11999999
Total number of pulses in waveform = 30										

Type 5 Radar Waveform_16

Num of Bursts = 18 Burst Interval (us)= 666667										
Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	193237	1	18	95	1350	0	0	193237	0	666666
2	1020989	2	18	100	1543	1590	0	1215576	666667	1333333
3	307648	3	18	50	1317	1736	1358	1526357	1333334	2000000
4	897339	3	18	80	1549	1723	1664	2428107	2000001	2666667
5	629943	3	18	95	1871	1896	1297	3062986	2666668	3333334
6	548075	2	18	75	1039	1756	0	3616125	3333335	4000001
7	854470	2	18	100	1703	1191	0	4473390	4000002	4666668
8	454007	2	18	65	1527	1988	0	4930291	4666669	5333335
9	636468	2	18	55	1242	1067	0	5570274	5333336	6000002
10	851821	2	18	70	1029	1318	0	6424404	6000003	6666669
11	439656	3	18	60	1147	1207	1119	6866407	6666670	7333336
12	868599	2	18	50	1929	1549	0	7738479	7333337	8000003
13	365727	2	18	75	1684	1219	0	8107684	8000004	8666670
14	1027937	1	18	55	1935	0	0	9138524	8666671	9333337
15	478049	2	18	100	1161	1718	0	9618508	9333338	10000004
16	1000877	2	18	100	1429	1378	0	10622264	10000005	10666671
17	65368	3	18	50	1994	1292	1244	10690439	10666672	11333338
18	1020198	1	18	95	1457	0	0	11715167	11333339	12000005
Total number of pulses in waveform = 38										



Type 5 Radar Waveform_17

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	472818	3	10	60	1740	1108	1385	472818	0	799999
2	326686	1	10	90	1086	0	0	803737	800000	1599999
3	1158601	2	10	85	1939	1089	0	1963424	1600000	2399999
4	1027741	1	10	70	1392	0	0	2994193	2400000	3199999
5	661209	1	10	90	1229	0	0	3656794	3200000	3999999
6	731592	3	10	80	1933	1821	1125	4389615	4000000	4799999
7	1167989	3	10	80	1039	1479	1779	5562483	4800000	5599999
8	325938	2	10	85	1698	1863	0	5892718	5600000	6399999
9	691360	2	10	70	1609	1497	0	6587639	6400000	7199999
10	630469	3	10	90	1424	1603	1134	7221214	7200000	7999999
11	1272361	3	10	65	1047	1363	1029	8497736	8000000	8799999
12	495245	3	10	70	1195	1305	1355	8996420	8800000	9599999
13	899159	3	10	100	1404	1078	1393	9899434	9600000	10399999
14	929045	3	10	60	1500	1239	1384	10832354	10400000	11199999
15	580608	1	10	60	1006	0	0	11417085	11200000	11999999

Total number of pulses in waveform = 34

Type 5 Radar Waveform_18

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	433893	2	6	85	1991	1748	0	433893	0	923076
2	545494	3	6	85	1747	1856	1404	983126	923077	1846153
3	1280999	2	6	80	1894	1260	0	2269132	1846154	2769230
4	1076175	2	6	55	1685	1692	0	3348461	2769231	3692307
5	1226930	1	6	60	1617	0	0	4578768	3692308	4615384
6	609033	2	6	90	1290	1586	0	5189418	4615385	5538461
7	1107056	3	6	95	1704	1928	1232	6299350	5538462	6461538
8	789825	1	6	55	1795	0	0	7094039	6461539	7384615
9	962783	1	6	100	1272	0	0	8058617	7384616	8307692
10	1082596	1	6	85	1307	0	0	9142485	8307693	9230769
11	593984	2	6	75	1207	1849	0	9737776	9230770	10153846
12	483333	2	6	80	1210	1986	0	10224165	10153847	11076923
13	1035941	3	6	90	1225	1533	1031	11263302	11076924	12000000

Total number of pulses in waveform = 25

Type 5 Radar Waveform_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	603324	1	14	95	1316	0	0	603324	0	857142
2	879239	3	14	80	1895	1454	1978	1483879	857143	1714285
3	548000	2	14	90	1914	1662	0	2037206	1714286	2571428
4	761110	1	14	75	1477	0	0	2801892	2571429	3428571
5	630980	2	14	55	1561	1805	0	3434349	3428572	4285714
6	1362143	1	14	65	1878	0	0	4799858	4285715	5142857
7	477926	3	14	95	1077	1556	1411	5279662	5142858	6000000
8	1238554	2	14	85	1830	1487	0	6522260	6000001	6857143
9	1065715	3	14	90	1999	1459	1637	7591292	6857144	7714286
10	915011	2	14	90	1779	1125	0	8511398	7714287	8571429
11	511018	1	14	80	1145	0	0	9025320	8571430	9428572
12	741173	1	14	65	1046	0	0	9767638	9428573	10285715
13	728010	3	14	80	1181	1583	1564	10496694	10285716	11142858
14	1077421	3	14	90	1380	1086	1318	11578443	11142859	12000001

Total number of pulses in waveform = 28



Type 5 Radar Waveform_20

Num of Bursts = 18 Burst Interval (us)= 666667										
Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	516551	2	8	100	1006	1820	0	516551	0	666666
2	329452	2	8	75	1058	1221	0	848829	666667	1333333
3	603860	3	8	80	1129	1029	1165	1454968	1333334	2000000
4	676524	1	8	60	1387	0	0	2134815	2000001	2666667
5	1056580	2	8	80	1392	1822	0	3192782	2666668	3333334
6	535365	1	8	70	1065	0	0	3731361	3333335	4000001
7	696998	2	8	90	1992	1625	0	4429424	4000002	4666668
8	768218	2	8	95	1288	1966	0	5201259	4666669	5333335
9	156578	3	8	55	1504	1203	1313	5361091	5333336	6000002
10	1098738	2	8	50	1842	1810	0	6463849	6000003	6666669
11	385348	1	8	85	1287	0	0	6852849	6666670	7333336
12	1021140	1	8	75	1569	0	0	7875276	7333337	8000003
13	259983	3	8	70	1422	1839	1303	8136828	8000004	8666670
14	765775	1	8	60	1205	0	0	8907167	8666671	9333337
15	873403	2	8	70	1244	1835	0	9781775	9333338	10000004
16	832387	3	8	85	1231	1917	1668	10617241	10000005	10666671
17	503215	3	8	95	1393	1819	1616	11125272	10666672	11333338
18	678176	3	8	60	1242	1104	1318	11808276	11333339	12000005
Total number of pulses in waveform = 37										

Type 5 Radar Waveform_21

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	433780	2	14	70	1350	1129	0	433780	0	749999
2	783798	3	14	55	1443	1135	1078	1220057	750000	1499999
3	347453	2	14	80	1902	1830	0	1571166	1500000	2249999
4	1080693	2	14	100	1672	1413	0	2655591	2250000	2999999
5	867413	3	14	50	1715	1134	1702	3526089	3000000	3749999
6	525751	1	14	60	1953	0	0	4056391	3750000	4499999
7	1014913	2	14	100	1265	1590	0	5073257	4500000	5249999
8	486237	3	14	80	1750	1188	1691	5562349	5250000	5999999
9	777581	2	14	85	1081	1073	0	6344559	6000000	6749999
10	1043884	2	14	70	1551	1031	0	7390597	6750000	7499999
11	761757	2	14	100	1643	1954	0	8154936	7500000	8249999
12	703419	3	14	50	1394	1310	1346	8861952	8250000	8999999
13	669848	3	14	50	1465	1732	1993	9535850	9000000	9749999
14	314440	3	14	100	1859	1908	1460	9855480	9750000	10499999
15	793272	3	14	55	1405	1662	1328	10653979	10500000	11249999
16	1251048	2	14	100	1281	1348	0	11909422	11250000	11999999
Total number of pulses in waveform = 38										

Type 5 Radar Waveform_22

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	613491	1	10	75	1373	0	0	613491	0	1199999
2	825047	2	10	85	1724	1079	0	1439911	1200000	2399999
3	1096786	2	10	50	1402	1055	0	2539500	2400000	3599999
4	1096087	2	10	50	1482	1095	0	3638044	3600000	4799999
5	1558896	1	10	90	1563	0	0	5199517	4800000	5999999
6	1087117	3	10	85	1397	1246	1706	6288197	6000000	7199999
7	1140618	1	10	65	1223	0	0	7433164	7200000	8399999
8	1501842	2	10	85	1629	1567	0	8936229	8400000	9599999
9	1412054	2	10	55	1951	1950	0	10351479	9600000	10799999
10	1351152	1	10	100	1572	0	0	11706532	10800000	11999999
Total number of pulses in waveform = 17										

**Type 5 Radar Waveform_23**

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	375457	1	8	65	1171	0	0	375457	0	1090908
2	965093	2	8	90	1580	1457	0	1341721	1090909	2181817
3	1885302	3	8	100	1001	1391	1712	3230060	2181818	3272726
4	990926	2	8	80	1543	1228	0	4225090	3272727	4363635
5	716944	1	8	55	1732	0	0	4944805	4363636	5454544
6	877642	3	8	60	1969	1233	1574	5824179	5454545	6545453
7	718203	1	8	65	1775	0	0	6547158	6545454	7636362
8	2076405	1	8	85	1937	0	0	8625338	7636363	8727271
9	756996	2	8	75	1001	1210	0	9384271	8727272	9818180
10	1356174	3	8	60	1093	1041	1161	10742656	9818181	10909089
11	851339	3	8	90	1798	1786	1174	11597290	10909090	11999998

Total number of pulses in waveform = 22

Type 5 Radar Waveform_24

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	437118	2	12	80	1230	1984	0	437118	0	666666
2	686753	1	12	100	1184	0	0	1127085	666667	1333333
3	335352	1	12	55	1009	0	0	1463621	1333334	2000000
4	839379	3	12	65	1613	1262	1542	2304009	2000001	2666667
5	958883	1	12	95	1683	0	0	3267309	2666668	3333334
6	234988	2	12	90	1065	1923	0	3503980	3333335	4000001
7	616778	3	12	75	1487	1027	1209	4123746	4000002	4666668
8	799612	3	12	90	1897	1115	1804	4927081	4666669	5333335
9	1032435	2	12	100	1575	1418	0	5964332	5333336	6000002
10	611970	2	12	90	1153	1793	0	6579295	6000003	6666669
11	174382	2	12	70	1419	1245	0	6756623	6666670	7333336
12	814755	3	12	60	1641	1058	1633	7574042	7333337	8000003
13	910911	1	12	90	1128	0	0	8489285	8000004	8666670
14	386904	1	12	70	1320	0	0	8877317	8666671	9333337
15	1073198	3	12	75	1530	1949	1234	9951835	9333338	10000004
16	551402	2	12	75	1888	1417	0	10507950	10000005	10666671
17	415361	3	12	80	1020	1112	1778	10926616	10666672	11333338
18	415676	2	12	85	1148	1599	0	11346202	11333339	12000005

Total number of pulses in waveform = 37

Type 5 Radar Waveform_25

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	1447838	3	6	75	1408	1948	1709	1447838	0	1499999
2	1079967	2	6	90	1600	1007	0	2532870	1500000	2999999
3	1784564	2	6	90	1070	1499	0	4320041	3000000	4499999
4	833567	2	6	95	1418	1780	0	5156177	4500000	5999999
5	1639595	3	6	90	1327	1637	1488	6798970	6000000	7499999
6	756876	3	6	80	1059	1869	1316	7560298	7500000	8999999
7	1707042	2	6	80	1612	1073	0	9271584	9000000	10499999
8	2261783	3	6	85	1272	1354	1928	11536052	10500000	11999999

Total number of pulses in waveform = 20



Type 5 Radar Waveform_26

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	189014	2	5	70	1590	1730	0	189014	0	599999	
2	961923	2	5	85	1280	1488	0	1154257	600000	1199999	
3	404873	3	5	80	1800	1861	1389	1561898	1200000	1799999	
4	418623	3	5	75	1392	1122	1307	1985571	1800000	2399999	
5	701198	2	5	70	1135	1320	0	2690590	2400000	2999999	
6	544893	1	5	85	1000	0	0	3237938	3000000	3599999	
7	548456	2	5	75	1453	1133	0	3787394	3600000	4199999	
8	854642	1	5	80	1120	0	0	4644622	4200000	4799999	
9	172733	2	5	75	1688	1631	0	4818475	4800000	5399999	
10	755097	1	5	80	1235	0	0	5576891	5400000	5999999	
11	881438	2	5	95	1349	1525	0	6459564	6000000	6599999	
12	462164	2	5	65	1636	1446	0	6924602	6600000	7199999	
13	799330	3	5	65	1287	1474	1392	7727014	7200000	7799999	
14	440113	2	5	70	1141	1498	0	8171280	7800000	8399999	
15	358862	1	5	65	1271	0	0	8532781	8400000	8999999	
16	904027	2	5	55	1117	1609	0	9438079	9000000	9599999	
17	289621	3	5	60	1711	1658	1978	9730426	9600000	10199999	
18	1021295	3	5	100	1849	1689	1614	10757068	10200000	10799999	
19	554027	2	5	65	1424	1001	0	11316247	10800000	11399999	
20	646993	3	5	55	1840	1473	1174	11965665	11400000	11999999	
Total number of pulses in waveform = 42											

Type 5 Radar Waveform_27

Num of Bursts = 13 Burst Interval (us)= 923077											
Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)	
1	560801	1	5	75	1780	0	0	560801	0	923076	
2	770295	2	5	55	1377	1831	0	1332876	923077	1846153	
3	679045	2	5	85	1228	1909	0	2015129	1846154	2769230	
4	1640074	2	5	55	1347	1747	0	3658340	2769231	3692307	
5	745521	3	5	65	1173	1386	1563	4406955	3692308	4615384	
6	829240	1	5	55	1246	0	0	5240317	4615385	5538461	
7	533928	3	5	80	1569	1753	1558	5775491	5538462	6461538	
8	1483667	1	5	55	1879	0	0	7264038	6461539	7384615	
9	188359	2	5	80	1750	1186	0	7454276	7384616	8307692	
10	893330	3	5	100	1637	1224	1741	8350542	8307693	9230769	
11	1244829	2	5	60	1355	1547	0	9599973	9230770	10153846	
12	862739	3	5	60	1380	1932	1245	10465614	10153847	11076923	
13	869745	1	5	75	1593	0	0	11339916	11076924	12000000	
Total number of pulses in waveform = 26											

Type 5 Radar Waveform_28

Num of Bursts = 10 Burst Interval (us)= 1200000											
Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)	
1	606700	3	9	65	1720	1919	1580	606700	0	1199999	
2	788768	3	9	100	1484	1954	1553	1400687	1200000	2399999	
3	1297150	3	9	80	1571	1887	1483	2702828	2400000	3599999	
4	1640378	3	9	55	1192	1030	1590	4348147	3600000	4799999	
5	865969	2	9	75	1488	1429	0	5217928	4800000	5999999	
6	1375458	1	9	80	1443	0	0	6596303	6000000	7199999	
7	1387793	1	9	60	1597	0	0	7985539	7200000	8399999	
8	703543	1	9	75	1691	0	0	8690679	8400000	9599999	
9	1952266	2	9	65	1439	1071	0	10644636	9600000	10799999	
10	322284	1	9	55	1807	0	0	10969430	10800000	11999999	
Total number of pulses in waveform = 20											

**Type 5 Radar Waveform_29**

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	74927	1	19	70	1925	0	0	74927	0	1199999
2	1923903	2	19	65	1211	1676	0	2000755	1200000	2399999
3	566508	3	19	70	1107	1089	1500	2570150	2400000	3599999
4	2112337	3	19	80	1240	1753	1136	4686183	3600000	4799999
5	295049	3	19	100	1283	1660	1371	4985361	4800000	5999999
6	1389252	3	19	80	1436	1983	1370	6378927	6000000	7199999
7	1703156	2	19	60	1700	1620	0	8086872	7200000	8399999
8	795256	3	19	50	1764	1829	1283	8885448	8400000	9599999
9	726448	1	19	70	1931	0	0	9616772	9600000	10799999
10	2069596	3	19	85	1417	1080	1642	11688299	10800000	11999999

Total number of pulses in waveform = 24

Type 5 Radar Waveform_30

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	364544	3	17	65	1542	1490	1502	364544	0	631578
2	813065	3	17	70	1290	1024	1620	1182143	631579	1263157
3	224039	2	17	65	1332	1245	0	1410116	1263158	1894736
4	861743	1	17	55	1061	0	0	2274436	1894737	2526315
5	843357	2	17	50	1339	1418	0	3118854	2526316	3157894
6	599950	1	17	100	1172	0	0	3721561	3157895	3789473
7	370864	3	17	75	1894	1607	1884	4093597	3789474	4421052
8	578020	1	17	75	1939	0	0	4677002	4421053	5052631
9	378832	3	17	75	1433	1834	1416	5057773	5052632	5684210
10	879074	1	17	65	1970	0	0	5941530	5684211	6315789
11	729994	1	17	60	1039	0	0	6673494	6315790	6947368
12	796812	1	17	50	1397	0	0	7471345	6947369	7578947
13	157687	2	17	65	1494	1611	0	7630429	7578948	8210526
14	891594	2	17	75	1528	1636	0	8525128	8210527	8842105
15	747727	1	17	70	1413	0	0	9276019	8842106	9473684
16	434459	1	17	70	1399	0	0	9711891	9473685	10105263
17	479761	2	17	100	1718	1412	0	10193051	10105264	10736842
18	1123753	1	17	100	1103	0	0	11319934	10736843	11368421
19	508973	2	17	60	1573	1582	0	11830010	11368422	12000000

Total number of pulses in waveform = 33

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	5327	1	16	5327	1
2	5327	1	17	5327	1
3	5327	1	18	5327	1
4	5327	1	19	5327	1
5	5327	1	20	5327	1
6	5327	1	21	5327	1
7	5327	1	22	5327	1
8	5327	1	23	5327	1
9	5327	1	24	5327	1
10	5327	1	25	5327	1
11	5327	1	26	5327	1
12	5327	1	27	5327	1
13	5327	1	28	5327	1
14	5327	1	29	5327	1
15	5327	1	30	5327	1
Detection Percentage (%)					100%

Radar waveform #1			Radar waveform #2		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
0	5298	0	18	5297	54
10	5324	30	19	5300	57
65	5318	195	24	5292	72
73	5321	219	31	5298	93
76	5339	228	48	5299	144
91	5314	273	61	5296	183
96	5302	288	62	5281	186
--	--	--	85	5317	255
--	--	--	92	5315	276
--	--	--	96	5326	288

Radar waveform #3			Radar waveform #4		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
1	5336	3	5	5295	15
2	5322	6	32	5329	96
4	5313	12	33	5325	99
12	5332	36	34	5334	102
14	5297	42	47	5302	141
16	5311	48	52	5317	156
18	5292	54	53	5332	159
29	5293	87	59	5284	177
35	5319	105	62	5294	186
37	5290	111	65	5323	195
42	5334	126	68	5338	204
46	5296	138	78	5281	234
49	5329	147	85	5309	255
50	5315	150	90	5335	270
55	5323	165	--	--	--
77	5328	231	--	--	--

Radar waveform #5			Radar waveform #6		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
17	5287	51	1	5299	3
25	5300	75	2	5302	6
35	5319	105	7	5317	21
38	5310	114	19	5327	57
63	5294	189	34	5300	102
70	5292	210	46	5321	138
74	5296	222	49	5329	147
94	5306	282	53	5311	159
97	5284	291	58	5336	174
--	--	--	63	5297	189
--	--	--	65	5285	195
--	--	--	85	5319	255
--	--	--	91	5339	273
--	--	--	97	5318	291
--	--	--	98	5294	294

Radar waveform #7			Radar waveform #8		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
6	5334	18	4	5332	12
12	5329	36	11	5311	33
13	5295	39	20	5302	60
18	5332	54	24	5316	72
45	5294	135	25	5338	75
48	5327	144	36	5330	108
53	5292	159	49	5328	147
62	5308	186	51	5290	153
63	5296	189	62	5298	186
80	5320	240	65	5285	195
87	5303	261	71	5308	213
--	--	--	91	5306	273
--	--	--	96	5331	288
--	--	--	98	5297	294

Radar waveform #9			Radar waveform #10		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
2	5286	6	4	5306	12
14	5301	42	7	5318	21
16	5326	48	21	5298	63
27	5294	81	25	5289	75
28	5323	84	39	5311	117
38	5290	114	58	5286	174
41	5289	123	60	5336	180
54	5338	162	63	5305	189
55	5309	165	66	5332	198
58	5318	174	85	5291	255
59	5285	177	87	5331	261
61	5335	183	92	5283	276
72	5303	216	98	5310	294
75	5288	225	--	--	--
80	5280	240	--	--	--

Radar waveform #11			Radar waveform #12		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
4	5319	12	5	5328	15
7	5328	21	20	5284	60
10	5285	30	27	5302	81
16	5281	48	63	5325	189
20	5339	60	65	5313	195
21	5288	63	67	5321	201
32	5307	96	77	5338	231
41	5300	123	84	5333	252
44	5280	132	94	5340	282
63	5333	189	--	--	--
71	5299	213	--	--	--
89	5337	267	--	--	--
93	5310	279	--	--	--
95	5322	285	--	--	--

Radar waveform #13			Radar waveform #14		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
0	5297	0	3	5330	9
1	5316	3	4	5299	12
7	5336	21	14	5340	42
16	5317	48	16	5309	48
20	5304	60	35	5316	105
24	5319	72	38	5329	114
80	5321	240	56	5306	168
85	5313	255	57	5283	171
91	5282	273	62	5336	186
97	5311	291	66	5301	198
--	--	--	83	5308	249
--	--	--	98	5302	294

Radar waveform #15			Radar waveform #16		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
1	5315	3	1	5338	3
6	5327	18	17	5294	51
7	5281	21	24	5312	72
10	5287	30	40	5301	120
11	5306	33	55	5326	165
16	5298	48	59	5334	177
22	5305	66	76	5332	228
39	5291	117	81	5309	243
52	5332	156	82	5289	246
68	5284	204	91	5318	273
89	5286	267	93	5321	279
94	5302	282	--	--	--

Radar waveform #17			Radar waveform #18		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
3	5285	9	0	5287	0
15	5282	45	33	5325	99
18	5295	54	35	5319	105
24	5305	72	36	5339	108
28	5290	84	45	5282	135
41	5280	123	52	5327	156
53	5331	159	79	5281	237
69	5312	207	87	5298	261
91	5291	273	91	5295	273
92	5286	276	--	--	--
93	5317	279	--	--	--

Radar waveform #19			Radar waveform #20		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
0	5298	0	15	5293	45
6	5305	18	25	5281	75
11	5328	33	27	5336	81
13	5340	39	50	5310	150
19	5310	57	55	5297	165
31	5299	93	59	5290	177
41	5314	123	61	5282	183
50	5296	150	66	5330	198
62	5332	186	78	5303	234
75	5326	225	80	5340	240
80	5317	240	--	--	--
83	5288	249	--	--	--
85	5295	255	--	--	--

Radar waveform #21			Radar waveform #22		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
22	5302	66	5	5315	15
23	5333	69	18	5325	54
30	5301	90	24	5283	72
33	5324	99	35	5321	105
36	5283	108	44	5313	132
37	5298	111	52	5327	156
38	5293	114	69	5297	207
40	5305	120	75	5286	225
44	5306	132	79	5305	237
71	5327	213	85	5306	255
73	5299	219	93	5299	279
81	5289	243	--	--	--
83	5316	249	--	--	--
89	5300	267	--	--	--

Radar waveform #23			Radar waveform #24		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
1	5328	3	1	5281	3
8	5287	24	3	5307	9
10	5308	30	17	5296	51
16	5322	48	24	5323	72
32	5332	96	31	5332	93
46	5281	138	33	5305	99
55	5326	165	37	5334	111
58	5303	174	40	5316	120
70	5338	210	44	5287	132
88	5316	264	55	5302	165
98	5330	294	60	5310	180
--	--	--	66	5282	198
--	--	--	82	5289	246
--	--	--	91	5339	273
--	--	--	98	5297	294

Radar waveform #25			Radar waveform #26		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
5	5321	15	6	5293	18
7	5298	21	23	5330	69
12	5295	36	25	5280	75
22	5336	66	27	5291	81
23	5337	69	40	5306	120
52	5312	156	42	5309	126
55	5307	165	44	5314	132
69	5311	207	51	5322	153
75	5293	225	55	5338	165
94	5335	282	62	5317	186
99	5282	297	63	5294	189
--	--	--	64	5282	192
--	--	--	67	5332	201
--	--	--	68	5311	204
--	--	--	69	5283	207
--	--	--	75	5289	225
--	--	--	82	5307	246

Radar waveform #27			Radar waveform #28		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
13	5288	39	5	5314	15
17	5310	51	14	5340	42
21	5292	63	15	5332	45
26	5302	78	27	5300	81
27	5316	81	42	5334	126
36	5321	108	51	5284	153
50	5330	150	57	5290	171
67	5338	201	59	5299	177
72	5293	216	63	5324	189
73	5327	219	83	5306	249
84	5300	252	84	5328	252
91	5297	273	85	5327	255
99	5322	297	--	--	--

Radar waveform #29			Radar waveform #30		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
6	5292	18	28	5338	84
12	5295	36	48	5280	144
13	5328	39	59	5326	177
27	5330	81	65	5281	195
41	5333	123	67	5283	201
49	5309	147	74	5289	222
52	5318	156	75	5339	225
53	5287	159	78	5306	234
54	5326	162	85	5334	255
64	5320	192	94	5329	282
65	5329	195	98	5316	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	5253	1	738	72	1
2	5253	1	858	62	1
3	5253	1	578	92	1
4	5253	1	618	86	1
5	5253	1	678	78	1
6	5253	1	838	63	1
7	5253	1	718	74	1
8	5253	1	798	67	1
9	5253	1	538	99	1
10	5253	1	918	58	1
11	5253	1	818	65	1
12	5253	1	658	81	1
13	5253	1	878	61	1
14	5253	1	778	68	1
15	5253	1	698	76	1
16	5253	1	1007	53	1
17	5253	1	1249	43	1
18	5253	1	1039	51	1
19	5253	1	2870	19	1
20	5253	1	2359	23	1
21	5253	1	584	91	1
22	5253	1	1114	48	1
23	5253	1	1883	29	1
24	5253	1	1525	35	1
25	5253	1	725	73	1
26	5253	1	2474	22	1
27	5253	1	2275	24	1
28	5253	1	2226	24	1
29	5253	1	1393	38	1
30	5253	1	2118	25	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	5290	4.8	152	25	1
2	5290	4.2	169	26	1
3	5290	1.2	151	26	1
4	5290	3.4	150	25	1
5	5290	3.6	193	26	1
6	5290	4.0	227	24	1
7	5290	2.5	177	27	1
8	5290	2.2	157	24	1
9	5290	2.2	202	28	1
10	5290	1.1	212	26	1
11	5290	3.9	215	25	1
12	5290	2.0	221	28	1
13	5290	3.4	154	26	1
14	5290	3.5	211	23	1
15	5290	1.3	180	26	1
16	5290	3.8	191	28	1
17	5290	3.6	173	24	1
18	5290	4.4	205	25	1
19	5290	4.0	217	27	1
20	5290	4.1	226	23	1
21	5290	4.6	195	24	1
22	5290	3.5	183	27	1
23	5290	5.0	199	26	1
24	5290	2.3	176	27	1
25	5290	2.3	190	26	1
26	5290	2.7	165	26	1
27	5290	1.8	207	27	1
28	5290	5.0	227	27	1
29	5290	1.6	159	23	1
30	5290	3.6	152	24	1
Detection Percentage (%)					100%

Radar Type 3 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5311	7.3	358	18	1
2	5311	6.0	388	18	1
3	5311	8.9	379	16	1
4	5311	7.3	445	16	1
5	5311	6.2	478	16	1
6	5311	7.2	339	18	1
7	5311	6.6	467	18	1
8	5311	6.1	449	17	1
9	5311	8.9	357	18	1
10	5311	8.5	357	17	1
11	5311	8.7	344	16	1
12	5311	9.9	499	18	1
13	5311	7.6	372	16	1
14	5311	6.5	494	16	1
15	5311	7.9	265	17	1
16	5311	9.6	356	18	1
17	5311	6.7	353	16	1
18	5311	8.7	267	18	1
19	5311	6.4	318	16	1
20	5311	9.8	467	17	1
21	5311	8.9	326	16	1
22	5311	9.5	282	16	1
23	5311	7.4	304	16	1
24	5311	8.7	317	16	1
25	5311	7.1	319	18	1
26	5311	8.8	425	16	1
27	5311	6.8	362	18	1
28	5311	7.4	479	18	1
29	5311	9.8	469	16	1
30	5311	9.6	424	16	1
Detection Percentage (%)					100%

Radar Type 4 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5327	17.2	396	14	1
2	5327	15.5	494	16	1
3	5327	12.6	497	14	1
4	5327	12.0	481	13	1
5	5327	14.7	499	13	1
6	5327	14.4	458	16	1
7	5327	18.0	478	13	1
8	5327	15.2	465	13	1
9	5327	18.0	384	14	1
10	5327	15.0	461	16	1
11	5327	16.4	371	13	1
12	5327	12.9	463	13	1
13	5327	13.8	477	13	1
14	5327	14.6	383	16	1
15	5327	17.9	323	15	1
16	5327	18.6	262	13	1
17	5327	13.1	333	12	1
18	5327	17.2	368	12	1
19	5327	17.4	392	12	1
20	5327	15.7	386	16	1
21	5327	14.0	342	13	1
22	5327	11.0	305	13	1
23	5327	17.8	368	14	1
24	5327	15.8	422	15	1
25	5327	18.5	354	13	1
26	5327	14.8	284	15	1
27	5327	18.6	312	15	1
28	5327	13.9	274	15	1
29	5327	11.6	321	15	1
30	5327	14.1	276	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	5254.0	1	16	5290.0	1
2	5254.4	1	17	5290.0	1
3	5255.2	1	18	5290.0	1
4	5255.6	1	19	5290.0	1
5	5256.0	1	20	5290.0	1
6	5256.8	1	21	5326.0	1
7	5257.6	1	22	5325.6	1
8	5258.8	1	23	5324.8	1
9	5259.2	1	24	5324.4	1
10	5259.6	1	25	5324.0	1
11	5290.0	1	26	5323.2	1
12	5290.0	1	27	5322.4	1
13	5290.0	1	28	5321.2	1
14	5290.0	1	29	5320.8	1
15	5290.0	1	30	5320.4	1
Detection Percentage (%)					100%

Type 5 Radar Waveform_1

Num of Bursts = 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	375986	2	18	55	1406	1949	0	375986	0	1090908
2	1626323	1	18	50	1280	0	0	2005664	1090909	2181817
3	1151334	1	18	55	1390	0	0	3158278	2181818	3272726
4	770117	2	18	55	1503	1760	0	3929785	3272727	4363635
5	1363484	2	18	50	1542	1805	0	5296532	4363636	5454544
6	1013487	3	18	95	1889	1105	1816	6313366	5454545	6545453
7	427092	3	18	70	1633	1523	1176	6745268	6545454	7636362
8	948480	2	18	90	1396	1199	0	7698080	7636363	8727271
9	1055520	2	18	55	1979	1476	0	8756195	8727272	9818180
10	2082067	2	18	60	1178	1838	0	10841717	9818181	10909089
11	314237	1	18	100	1467	0	0	11158970	10909090	11999998
Total number of pulses in waveform = 21 *****										

**Type 5 Radar Waveform_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)
1	544428	3	8	50	1320	1959	1998	544428	0	1199999
2	1800227	1	8	70	1747	0	0	2349932	1200000	2399999
3	471647	2	8	55	1003	1833	0	2823326	2400000	3599999
4	1711068	1	8	100	1982	0	0	4537230	3600000	4799999
5	777530	1	8	50	1379	0	0	5316742	4800000	5999999
6	1802172	3	8	80	1475	1954	1383	7120293	6000000	7199999
7	724027	2	8	60	1794	1668	0	7849132	7200000	8399999
8	567283	2	8	50	1076	1311	0	8419877	8400000	9599999
9	2374355	2	8	85	1338	1066	0	10796619	9600000	10799999
10	1097580	1	8	60	1480	0	0	11896603	10800000	11999999

Total number of pulses in waveform = 18

Type 5 Radar Waveform_3

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	356505	1	10	95	1409	0	0	356505	0	1199999
2	846913	1	10	55	1463	0	0	1204827	1200000	2399999
3	1737973	3	10	75	1362	1900	1159	2944263	2400000	3599999
4	1162711	1	10	70	1606	0	0	4111395	3600000	4799999
5	1004201	3	10	70	1562	1707	1271	5117202	4800000	5999999
6	1267289	1	10	60	1791	0	0	6389031	6000000	7199999
7	1981576	2	10	55	1896	1880	0	8372398	7200000	8399999
8	884682	1	10	50	1539	0	0	9260856	8400000	9599999
9	1327972	1	10	50	1328	0	0	10590367	9600000	10799999
10	403545	3	10	70	1540	1181	1368	10995240	10800000	11999999

Total number of pulses in waveform = 17

Type 5 Radar Waveform_4

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	431343	2	5	80	1677	1624	0	431343	0	799999
2	573605	3	5	65	1444	1708	1510	1008249	800000	1599999
3	1130810	3	5	90	1760	1697	1550	2143721	1600000	2399999
4	840152	1	5	60	1595	0	0	2988880	2400000	3199999
5	484629	3	5	55	1019	1748	1655	3475104	3200000	3999999
6	869333	3	5	85	1349	1743	1783	4348859	4000000	4799999
7	1033281	3	5	50	1271	1087	1727	5387015	4800000	5599999
8	736212	2	5	65	1121	1084	0	6127312	5600000	6399999
9	561987	2	5	95	1680	1524	0	6691504	6400000	7199999
10	1033214	1	5	50	1713	0	0	7727922	7200000	7999999
11	749677	2	5	50	1939	1858	0	8479312	8000000	8799999
12	828529	1	5	70	1819	0	0	9311638	8800000	9599999
13	668921	3	5	95	1942	1768	1926	9982378	9600000	10399999
14	967084	3	5	70	1679	1460	1944	10955098	10400000	11199999
15	330528	3	5	75	1620	1393	1945	11290709	11200000	11999999

Total number of pulses in waveform = 35



Type 5 Radar Waveform_5

Num of Bursts = 20 Burst Interval (us)= 600000										
Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	312075	3	14	90	1499	1214	1353	312075	0	599999
2	453368	3	14	95	1126	1166	1307	769509	600000	1199999
3	730072	2	14	80	1796	1389	0	1503180	1200000	1799999
4	306912	2	14	95	1191	1940	0	1813277	1800000	2399999
5	684335	1	14	85	1978	0	0	2500743	2400000	2999999
6	558948	3	14	70	1524	1346	1152	3061669	3000000	3599999
7	765036	2	14	95	1537	1882	0	3830727	3600000	4199999
8	502797	1	14	60	1016	0	0	4336943	4200000	4799999
9	944667	2	14	60	1957	1692	0	5282626	4800000	5399999
10	563210	1	14	75	1664	0	0	5849485	5400000	5999999
11	323153	3	14	90	1199	1686	1977	6174302	6000000	6599999
12	755801	2	14	90	1098	1624	0	6934965	6600000	7199999
13	728134	2	14	80	1330	1218	0	7665821	7200000	7799999
14	636029	1	14	90	1560	0	0	8304398	7800000	8399999
15	165674	3	14	60	1955	1667	1782	8471632	8400000	8999999
16	802632	3	14	75	1710	1608	1657	9279668	9000000	9599999
17	405670	2	14	55	1045	1116	0	9690313	9600000	10199999
18	815842	1	14	55	1222	0	0	10508316	10200000	10799999
19	478692	2	14	90	1242	1137	0	10988230	10800000	11399999
20	966474	3	14	55	1102	1451	1565	11957083	11400000	11999999
Total number of pulses in waveform = 42										

Type 5 Radar Waveform_6

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	175875	3	19	95	1914	1288	1362	175875	0	749999
2	578784	1	19	85	1564	0	0	759223	750000	1499999
3	1224998	1	19	70	1864	0	0	1985785	1500000	2249999
4	936013	2	19	50	1127	1326	0	2923662	2250000	2999999
5	561915	2	19	85	1483	1230	0	3488030	3000000	3749999
6	620148	3	19	100	1707	1005	1360	4110891	3750000	4499999
7	881319	3	19	55	1333	1029	1387	4996282	4500000	5249999
8	819671	3	19	95	1533	1322	1901	5819702	5250000	5999999
9	605639	1	19	80	1451	0	0	6430097	6000000	6749999
10	425615	2	19	75	1850	1265	0	6857163	6750000	7499999
11	995284	2	19	75	1438	1056	0	7855562	7500000	8249999
12	929195	2	19	90	1184	1125	0	8787251	8250000	8999999
13	363500	1	19	95	1748	0	0	9153060	9000000	9749999
14	1189746	2	19	90	1509	1719	0	10344554	9750000	10499999
15	460168	2	19	55	1880	1706	0	10807950	10500000	11249999
16	1131304	2	19	50	1357	1049	0	11942840	11250000	11999999
Total number of pulses in waveform = 32										

Type 5 Radar Waveform_7

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	153671	3	6	85	1431	1531	1312	153671	0	923076
2	1348550	3	6	85	1796	1627	1767	1506495	923077	1846153
3	1059478	2	6	75	1193	1121	0	2571163	1846154	2769230
4	915197	2	6	55	1124	1288	0	3488674	2769231	3692307
5	563019	3	6	80	1453	1630	1147	4054105	3692308	4615384
6	1036332	2	6	50	1578	1515	0	5094667	4615385	5538461
7	593522	3	6	55	1423	1762	1309	5691282	5538462	6461538
8	1399430	2	6	65	1442	1931	0	7095206	6461539	7384615
9	1058725	3	6	50	1098	1157	1803	8157304	7384616	8307692
10	387418	2	6	65	1759	1809	0	8548780	8307693	9230769
11	1104764	1	6	75	1461	0	0	9657112	9230770	10153846
12	1076264	3	6	75	1912	1415	1053	10734837	10153847	11076923
13	556638	2	6	80	1408	1275	0	11295855	11076924	12000000
Total number of pulses in waveform = 31										



Type 5 Radar Waveform_8

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	484408	3	17	70	1364	1677	1349	484408	0	705881
2	534917	1	17	100	1729	0	0	1023715	705882	1411763
3	527624	3	17	70	1989	1291	1801	1553068	1411764	2117645
4	606497	2	17	75	1200	1356	0	2164646	2117646	2823527
5	1043056	2	17	75	1800	1105	0	3210258	2823528	3529409
6	520928	2	17	75	1330	1416	0	3734091	3529410	4235291
7	582764	1	17	60	1062	0	0	4319601	4235292	4941173
8	849790	3	17	60	1198	1038	1805	5170453	4941174	5647055
9	497677	1	17	65	1495	0	0	5672171	5647056	6352937
10	908836	1	17	90	1795	0	0	6582502	6352938	7058819
11	598891	2	17	90	1975	1259	0	7183188	7058820	7764701
12	1236098	1	17	55	1030	0	0	8422520	7764702	8470583
13	591921	1	17	85	1083	0	0	9015471	8470584	9176465
14	686850	1	17	65	1754	0	0	9703404	9176466	9882347
15	537752	1	17	85	1174	0	0	10242910	9882348	10588229
16	1019577	1	17	60	1345	0	0	11263661	10588230	11294111
17	42481	1	17	100	1596	0	0	11307487	11294112	11999993
Total number of pulses in waveform = 27										

Type 5 Radar Waveform_9

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	535129	2	12	55	1053	1906	0	535129	0	599999
2	213110	3	12	85	1329	1917	1230	751198	600000	1199999
3	766705	3	12	60	1489	1574	1415	1522379	1200000	1799999
4	621506	2	12	80	1976	1618	0	2148363	1800000	2399999
5	383810	3	12	100	1034	1181	1546	2535767	2400000	2999999
6	758873	1	12	95	1318	0	0	3298401	3000000	3599999
7	369157	2	12	75	1578	1562	0	3668876	3600000	4199999
8	665598	1	12	95	1378	0	0	4337614	4200000	4799999
9	950339	3	12	60	1811	1282	1513	5289331	4800000	5399999
10	131120	1	12	95	1640	0	0	5425057	5400000	5999999
11	901992	1	12	70	1327	0	0	6328689	6000000	6599999
12	691413	1	12	60	1727	0	0	7021429	6600000	7199999
13	715445	3	12	80	1286	1015	1212	7738601	7200000	7799999
14	262237	3	12	80	1347	1755	1540	8004351	7800000	8399999
15	780518	3	12	60	1212	1037	1617	8789511	8400000	8999999
16	313564	2	12	70	1452	1386	0	9106941	9000000	9599999
17	760787	3	12	100	1112	1533	1229	9870566	9600000	10199999
18	608966	1	12	60	1655	0	0	10483406	10200000	10799999
19	375699	1	12	60	1300	0	0	10860760	10800000	11399999
20	630145	3	12	100	1523	1876	1672	11492205	11400000	11999999
Total number of pulses in waveform = 42										

Type 5 Radar Waveform_10

Num of Bursts = 18										
Burst Interval (us)= 666667										
Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	610162	1	9	60	1259	0	0	610162	0	666666
2	178800	2	9	85	1542	1094	0	790221	666667	1333333
3	1125275	1	9	95	1275	0	0	1918132	1333334	2000000
4	677393	1	9	90	1185	0	0	2596800	2000001	2666667
5	115501	1	9	90	1755	0	0	2713486	2666668	3333334
6	1215363	2	9	70	1914	1866	0	3930604	3333335	4000001
7	429350	3	9	95	1217	1875	1993	4363734	4000002	4666668
8	550572	2	9	95	1142	1849	0	4919391	4666669	5333335
9	481503	3	9	65	1574	1902	1559	5403885	5333336	6000002
10	1212916	2	9	95	1208	1271	0	6621836	6000003	6666669
11	529137	2	9	65	1834	1013	0	7153452	6666670	7333336
12	371410	2	9	55	1859	1028	0	7527709	7333337	8000003
13	912721	2	9	70	1271	1159	0	8443317	8000004	8666670
14	693373	1	9	65	1176	0	0	9139120	8666671	9333337
15	233388	1	9	90	1430	0	0	9373684	9333338	10000004
16	1033196	1	9	95	1923	0	0	10408310	10000005	10666671
17	794835	1	9	75	1163	0	0	11205068	10666672	11333338
18	530154	3	9	75	1217	1283	1537	11736385	11333339	12000005
Total number of pulses in waveform = 31										



Type 5 Radar Waveform_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	1026206	3	8	50	1748	1732	1758	112587	0	599999
2	436042	1	8	55	1545	0	0	1144031	600000	1199999
3	360015	3	8	60	1541	1115	1064	1581618	1200000	1799999
4	831498	2	8	70	1707	1056	0	1945353	1800000	2399999
5	280547	1	8	65	1711	0	0	2779614	2400000	2999999
6	690475	2	8	65	1891	1940	0	3061872	3000000	3599999
7	987149	2	8	55	1554	1147	0	3756178	3600000	4199999
8	567458	3	8	50	1530	1255	1204	4746028	4200000	4799999
9	112471	1	8	85	1014	0	0	5317475	4800000	5399999
10	885964	1	8	80	1510	0	0	5430960	5400000	5999999
11	822861	2	8	75	1215	1662	0	6318434	6000000	6599999
12	324282	2	8	95	1523	1950	0	7144172	6600000	7199999
13	796772	3	8	60	1555	1787	1474	7471927	7200000	7799999
14	384775	3	8	50	1890	1652	1839	8273515	7800000	8399999
15	596709	2	8	50	1331	1024	0	8663671	8400000	8999999
16	897070	2	8	75	1612	1082	0	9262735	9000000	9599999
17	281132	1	8	100	1746	0	0	10162499	9600000	10199999
18	660679	3	8	90	1704	1213	1644	10445377	10200000	10799999
19	790221	1	8	95	1174	0	0	11110617	10800000	11399999
20	11902012	2	8	75	1634	1744	0	11902012	11400000	11999999
Total number of pulses in waveform = 40										

Type 5 Radar Waveform_12

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	1016570	3	18	80	1535	1405	1819	198393	0	999999
2	1121262	1	18	65	1282	0	0	1219722	1000000	1999999
3	802589	1	18	95	1810	0	0	2342266	2000000	2999999
4	1666498	2	18	85	1168	1683	0	3146665	3000000	3999999
5	684079	3	18	50	1022	1771	1301	4816014	4000000	4999999
6	1101471	2	18	65	1272	1080	0	5504187	5000000	5999999
7	1298607	3	18	60	1986	1270	1827	6608010	6000000	6999999
8	1074731	3	18	70	1333	1423	1850	7911700	7000000	7999999
9	527721	2	18	60	1508	1687	0	8991037	8000000	8999999
10	654287	3	18	75	1144	1996	1296	9521953	9000000	9999999
11	1102217	2	18	60	1976	1611	0	10180676	10000000	10999999
12	11286480	2	18	95	1446	1951	0	11286480	11000000	11999999
Total number of pulses in waveform = 27										

Type 5 Radar Waveform_13

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	939985	1	10	65	1327	0	0	60173	0	749999
2	848673	2	10	100	1483	1616	0	1001485	750000	1499999
3	742139	1	10	75	1191	0	0	1853257	1500000	2249999
4	595892	1	10	90	1740	0	0	2596587	2250000	2999999
5	1097055	2	10	80	1777	1522	0	3194219	3000000	3749999
6	935405	2	10	80	1865	1540	0	4294573	3750000	4499999
7	655867	2	10	85	1499	1609	0	5233383	4500000	5249999
8	471551	1	10	100	1373	0	0	5892358	5250000	5999999
9	1118315	3	10	55	1250	1639	1607	6365282	6000000	6749999
10	179113	3	10	50	1898	1885	1874	7488093	6750000	7499999
11	936894	2	10	80	1810	1591	0	7672863	7500000	8249999
12	1040596	1	10	75	1308	0	0	8613158	8250000	8999999
13	331705	1	10	95	1903	0	0	9655062	9000000	9749999
14	1117335	3	10	95	1874	1807	1362	9988670	9750000	10499999
15	350958	2	10	50	1036	1998	0	11111048	10500000	11249999
16	11465040	3	10	55	1049	1119	1346	11465040	11250000	11999999
Total number of pulses in waveform = 30										



Type 5 Radar Waveform_14

Num of Bursts = 18 Burst Interval (us)= 666667										
Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	384088	3	17	60	1225	1348	1768	384088	0	666666
2	857338	2	17	70	1872	1413	0	1245767	666667	1333333
3	571308	2	17	65	1199	1924	0	1820360	1333334	2000000
4	770151	1	17	70	1006	0	0	2593634	2000001	2666667
5	410728	2	17	70	1849	1538	0	3005368	2666668	3333334
6	862474	3	17	75	1295	1396	1720	3871229	3333335	4000001
7	607244	2	17	65	1559	1635	0	4482884	4000002	4666668
8	754649	1	17	60	1114	0	0	5240727	4666669	5333335
9	366226	1	17	65	1875	0	0	5608067	5333336	6000002
10	802852	2	17	85	1075	1711	0	6412794	6000003	6666669
11	458162	1	17	60	1077	0	0	6873742	6666670	7333336
12	832841	3	17	100	1370	1057	1206	7707660	7333337	8000003
13	507427	3	17	70	1081	1693	1302	8218720	8000004	8666670
14	989438	1	17	65	1057	0	0	9212234	8666671	9333337
15	661166	1	17	80	1148	0	0	9874457	9333338	10000004
16	649435	3	17	65	1113	1264	1775	10525040	10000005	10666671
17	763266	3	17	85	1870	1083	1364	11292458	10666672	11333338
18	617575	2	17	50	1511	1964	0	11914350	11333339	12000005
Total number of pulses in waveform = 36										

Type 5 Radar Waveform_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	539706	2	5	95	1941	1311	0	539706	0	799999
2	977473	1	5	75	1345	0	0	1520431	800000	1599999
3	495606	3	5	80	1236	1052	1627	2017382	1600000	2399999
4	835465	3	5	90	1604	1006	1655	2856762	2400000	3199999
5	378488	3	5	95	1598	1955	1331	3239515	3200000	3999999
6	1534714	3	5	55	1960	1527	1203	4779113	4000000	4799999
7	768446	2	5	60	1985	1336	0	5552249	4800000	5599999
8	572562	3	5	100	1688	1733	1104	6128132	5600000	6399999
9	710540	2	5	75	1459	1595	0	6843197	6400000	7199999
10	811707	2	5	55	1457	1490	0	7657958	7200000	7999999
11	827792	1	5	90	1106	0	0	8488697	8000000	8799999
12	817187	2	5	80	1268	1357	0	9306990	8800000	9599999
13	667513	2	5	70	2000	1766	0	9977128	9600000	10399999
14	455833	1	5	90	1614	0	0	10436727	10400000	11199999
15	896940	1	5	100	1379	0	0	11335281	11200000	11999999
Total number of pulses in waveform = 31										

Type 5 Radar Waveform_16

Num of Bursts = 18 Burst Interval (us)= 666667										
Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	86581	1	14	55	1242	0	0	86581	0	666666
2	1186218	3	14	70	1434	1072	1042	1274041	666667	1333333
3	536238	2	14	70	1822	1261	0	1813827	1333334	2000000
4	242255	1	14	50	1076	0	0	2059165	2000001	2666667
5	1249532	2	14	85	1519	1310	0	3309773	2666668	3333334
6	383252	3	14	55	1762	1793	1273	3695854	3333335	4000001
7	897085	1	14	55	1888	0	0	4597767	4000002	4666668
8	174710	3	14	100	1754	1970	1030	4774365	4666669	5333335
9	758095	2	14	60	1417	1647	0	5537214	5333336	6000002
10	648355	2	14	100	1410	1641	0	6188633	6000003	6666669
11	882405	1	14	60	1495	0	0	7074089	6666670	7333336
12	731712	2	14	60	1397	1140	0	7807296	7333337	8000003
13	686629	1	14	90	1324	0	0	8496462	8000004	8666670
14	462097	1	14	60	1024	0	0	8959883	8666671	9333337
15	616773	3	14	65	1938	1666	1701	9577680	9333338	10000004
16	1070545	3	14	95	1196	1533	1474	10653530	10000005	10666671
17	575015	3	14	55	1494	1937	1944	11232748	10666672	11333338
18	561086	2	14	90	1295	1910	0	11799209	11333339	12000005
Total number of pulses in waveform = 36										



Type 5 Radar Waveform_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	218925	1	12	50	1730	0	0	218925	0	705881
2	539476	2	12	90	1735	1084	0	760131	705882	1411763
3	1145791	1	12	55	1299	0	0	1908741	1411764	2117645
4	568905	1	12	55	1052	0	0	2478945	2117646	2823527
5	401620	2	12	80	1811	1803	0	2881617	2823528	3529409
6	1339229	2	12	100	1956	1579	0	4224460	3529410	4235291
7	563254	2	12	75	1854	1245	0	4791249	4235292	4941173
8	784746	1	12	65	1778	0	0	5579094	4941174	5647055
9	367307	2	12	85	1022	1687	0	5948179	5647056	6352937
10	1095589	3	12	75	1350	1121	1247	7046477	6352938	7058819
11	45827	1	12	65	1808	0	0	7096022	7058820	7764701
12	1345243	3	12	70	1618	1687	1194	8443073	7764702	8470583
13	462595	2	12	100	1347	1908	0	8910167	8470584	9176465
14	548646	2	12	90	1052	1698	0	9462068	9176466	9882347
15	753655	1	12	85	1874	0	0	10218473	9882348	10588229
16	789817	1	12	75	1720	0	0	11010164	10588230	11294111
17	700270	1	12	55	1119	0	0	11712154	11294112	11999993
Total number of pulses in waveform = 28 *****										

Type 5 Radar Waveform_18

Num of Bursts = 11 Burst Interval (us)= 1090909										
Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	238346	2	6	95	1460	1733	0	238346	0	1090908
2	1524670	3	6	50	1999	1738	1718	1766209	1090909	2181817
3	746274	1	6	75	1750	0	0	2517938	2181818	3272726
4	1719831	3	6	85	1546	1495	1996	4239519	3272727	4363635
5	303016	3	6	80	1802	1284	1275	4547572	4363636	5454544
6	1955901	1	6	60	1880	0	0	6507834	5454545	6545453
7	731089	1	6	95	1118	0	0	7240803	6545454	7636362
8	767063	1	6	75	1190	0	0	8008984	7636363	8727271
9	1576042	2	6	80	1273	1636	0	9586216	8727272	9818180
10	746732	1	6	65	1149	0	0	10335857	9818181	10909089
11	632524	3	6	75	1521	1199	1495	10969530	10909090	11999998
Total number of pulses in waveform = 21 *****										

Type 5 Radar Waveform_19

Num of Bursts = 17 Burst Interval (us)= 705882										
Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	289298	1	19	60	1637	0	0	289298	0	705881
2	954209	2	19	60	1121	1983	0	1245144	705882	1411763
3	741992	1	19	55	1590	0	0	1990240	1411764	2117645
4	240688	3	19	60	1429	1050	1647	2232518	2117646	2823527
5	857585	2	19	65	1996	1255	0	3094229	2823528	3529409
6	1048581	3	19	90	1842	1733	1286	4146061	3529410	4235291
7	531681	2	19	70	1558	1735	0	4682603	4235292	4941173
8	388408	1	19	90	1284	0	0	5074304	4941174	5647055
9	940134	1	19	95	1000	0	0	6015722	5647056	6352937
10	508060	1	19	65	1378	0	0	6524782	6352938	7058819
11	781525	1	19	90	1219	0	0	7307685	7058820	7764701
12	1038109	3	19	55	1955	1075	1144	8347013	7764702	8470583
13	801784	2	19	85	1080	1343	0	9152971	8470584	9176465
14	52727	3	19	80	1401	1096	1943	9208121	9176466	9882347
15	916365	2	19	60	1653	1869	0	10128926	9882348	10588229
16	1039292	3	19	60	1831	1478	1980	11171740	10588230	11294111
17	619830	1	19	70	1514	0	0	11796859	11294112	11999993
Total number of pulses in waveform = 32 *****										



Type 5 Radar Waveform_20

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	180350	2	9	60	1517	1159	0	180350	0	857142
2	1266026	3	9	50	1188	1065	1599	1449052	857143	1714285
3	832884	3	9	100	1615	1065	1321	2285788	1714286	2571428
4	461435	2	9	65	1344	1293	0	2751224	2571429	3428571
5	1371186	3	9	55	1441	1204	1746	4125047	3428572	4285714
6	528958	3	9	85	1096	1364	1454	4658396	4285715	5142857
7	694989	3	9	95	1199	1051	1215	5357299	5142858	6000000
8	1017897	2	9	95	1214	1001	0	6378661	6000001	6857143
9	893609	1	9	65	1908	0	0	7274485	6857144	7714286
10	624238	2	9	100	1526	1999	0	7900631	7714287	8571429
11	1246770	3	9	60	1500	1151	1410	9150926	8571430	9428572
12	330096	3	9	60	1162	1455	1693	9485083	9428573	10285715
13	953128	2	9	50	1063	1240	0	10442521	10285716	11142858
14	714503	1	9	85	1270	0	0	11159327	11142859	12000001

Total number of pulses in waveform = 33

Type 5 Radar Waveform_21

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	794761	3	6	65	1700	1862	1784	794761	0	1090908
2	937966	3	6	70	1616	1555	1194	1738073	1090909	2181817
3	1459609	2	6	55	1291	1762	0	3202047	2181818	3272726
4	390714	1	6	75	1276	0	0	3595814	3272727	4363635
5	1093526	1	6	80	1911	0	0	4690616	4363636	5454544
6	1319938	3	6	50	1590	1700	1627	6012465	5454545	6545453
7	1258797	2	6	70	1255	1579	0	7276179	6545454	7636362
8	1206683	2	6	55	1655	1608	0	8485696	7636363	8727271
9	925846	3	6	80	1659	1920	1745	9414805	8727272	9818180
10	1094658	1	6	50	1018	0	0	10514787	9818181	10909089
11	1408286	3	6	85	1709	1749	1076	11924091	10909090	11999998

Total number of pulses in waveform = 24

Type 5 Radar Waveform_22

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	264426	2	9	100	1633	1999	0	264426	0	705881
2	849510	2	9	85	1656	1743	0	1117568	705882	1411763
3	362222	3	9	80	1193	1892	1730	1483189	1411764	2117645
4	1087272	1	9	95	1423	0	0	2575276	2117646	2823527
5	400403	1	9	50	1303	0	0	2977102	2823528	3529409
6	769726	2	9	95	1326	1877	0	3748131	3529410	4235291
7	897927	3	9	80	1793	1731	1358	4649261	4235292	4941173
8	585680	1	9	90	1174	0	0	5239823	4941174	5647055
9	407113	1	9	85	1911	0	0	5648110	5647056	6352937
10	1002821	2	9	100	1425	1511	0	6652842	6352938	7058819
11	761968	3	9	70	1136	1108	1316	7417746	7058820	7764701
12	969378	3	9	80	1223	1691	1597	8390684	7764702	8470583
13	179107	1	9	75	1723	0	0	8574302	8470584	9176465
14	1078105	1	9	70	1301	0	0	9654130	9176466	9882347
15	271750	3	9	65	1568	1506	1543	9927181	9882348	10588229
16	865775	1	9	75	1418	0	0	10797573	10588230	11294111
17	608312	3	9	65	1287	1804	1039	11407303	11294112	11999993

Total number of pulses in waveform = 33

**Type 5 Radar Waveform_23**

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	379652	1	19	80	1880	0	0	379652	0	1090908
2	1553382	3	19	90	1848	1796	1981	1934914	1090909	2181817
3	1297736	1	19	75	1260	0	0	3238275	2181818	3272726
4	408242	2	19	90	1677	1783	0	3647777	3272727	4363635
5	1333499	2	19	75	1439	1664	0	4984736	4363636	5454544
6	1347856	1	19	55	1379	0	0	6335695	5454545	6545453
7	949411	2	19	65	1684	1955	0	7286485	6545454	7636362
8	1029135	2	19	70	1524	1517	0	8319259	7636363	8727271
9	506536	1	19	100	1748	0	0	8828836	8727272	9818180
10	1264084	1	19	80	1305	0	0	10094668	9818181	10909089
11	1398432	3	19	80	1422	1658	1696	11494405	10909090	11999998

Total number of pulses in waveform = 19

Type 5 Radar Waveform_24

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	203563	1	14	70	1980	0	0	203563	0	705881
2	574625	2	14	85	1159	1077	0	780168	705882	1411763
3	1138025	2	14	55	1118	1265	0	1920429	1411764	2117645
4	494892	1	14	95	1328	0	0	2417704	2117646	2823527
5	741052	1	14	65	1993	0	0	3160084	2823528	3529409
6	482399	1	14	75	1581	0	0	3644476	3529410	4235291
7	955451	1	14	50	1278	0	0	4601508	4235292	4941173
8	670368	2	14	60	1968	1804	0	5273154	4941174	5647055
9	991752	3	14	90	1687	1195	1028	6268678	5647056	6352937
10	762950	3	14	50	1946	1451	1475	7035538	6352938	7058819
11	664363	1	14	50	1926	0	0	7704773	7058820	7764701
12	361945	2	14	60	1104	1178	0	8068644	7764702	8470583
13	493887	2	14	70	1916	1324	0	8564813	8470584	9176465
14	628324	1	14	65	1218	0	0	9196377	9176466	9882347
15	758522	1	14	75	1075	0	0	9956117	9882348	10588229
16	834396	1	14	90	1422	0	0	10791588	10588230	11294111
17	993105	3	14	85	1693	1171	1992	11786115	11294112	11999993

Total number of pulses in waveform = 28

Type 5 Radar Waveform_25

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	407001	2	17	65	1477	1653	0	407001	0	749999
2	979682	2	17	65	1917	1337	0	1389813	750000	1499999
3	165694	2	17	80	1224	1068	0	1558761	1500000	2249999
4	708968	2	17	55	1004	1802	0	2270021	2250000	2999999
5	840124	3	17	90	1614	1309	1876	3112951	3000000	3749999
6	1039078	2	17	85	1189	1636	0	4156828	3750000	4499999
7	871177	3	17	85	1204	1637	1281	5030830	4500000	5249999
8	875313	3	17	85	1853	1647	1957	5910265	5250000	5999999
9	735999	3	17	55	1729	1905	1331	6651721	6000000	6749999
10	124013	3	17	60	1863	1700	1412	6780699	6750000	7499999
11	1069079	2	17	100	1223	1869	0	7854753	7500000	8249999
12	773765	1	17	75	1996	0	0	8631610	8250000	8999999
13	531600	2	17	50	1913	1178	0	9165206	9000000	9749999
14	864294	2	17	100	1696	1874	0	10032591	9750000	10499999
15	942565	1	17	65	1625	0	0	10978726	10500000	11249999
16	324998	3	17	60	1375	1031	1879	11305349	11250000	11999999

Total number of pulses in waveform = 36



Type 5 Radar Waveform_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	583054	1	12	55	1661	0	0	583054	0	666666
2	681226	3	12	70	1691	1126	1223	1265941	666667	1333333
3	670618	2	12	70	1052	1729	0	1940599	1333334	2000000
4	433413	2	12	100	1509	1330	0	2376793	2000001	2666667
5	476227	1	12	70	1815	0	0	2855859	2666668	3333334
6	499268	2	12	100	1798	1746	0	3356942	3333335	4000001
7	683404	3	12	90	1739	1530	1737	4043890	4000002	4666668
8	1039049	1	12	75	1217	0	0	5087945	4666669	5333335
9	798835	3	12	50	1985	1280	1774	5887997	5333336	6000002
10	498674	3	12	80	1518	1781	1033	6391710	6000003	6666669
11	540256	2	12	80	1629	1271	0	6936298	6666670	7333336
12	756134	1	12	50	1673	0	0	7695332	7333337	8000003
13	551753	1	12	90	1881	0	0	8248758	8000004	8666670
14	1042970	1	12	55	1397	0	0	9293609	8666671	9333337
15	377458	2	12	65	1140	1893	0	9672464	9333338	10000004
16	355462	2	12	100	1997	1916	0	10030959	10000005	10666671
17	1006541	3	12	95	1954	1557	1956	11041413	10666672	11333338
18	558489	1	12	55	1259	0	0	11605369	11333339	12000005
Total number of pulses in waveform = 34										

Type 5 Radar Waveform_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	227983	1	5	95	1823	0	0	227983	0	857142
2	1450009	3	5	65	1132	1271	1121	1679815	857143	1714285
3	819589	3	5	75	1914	1228	1910	2502928	1714286	2571428
4	96625	3	5	65	1276	1705	1604	2604605	2571429	3428571
5	1121243	1	5	65	1148	0	0	3730433	3428572	4285714
6	1376292	3	5	85	1488	1232	1284	5107873	4285715	5142857
7	259627	2	5	85	1401	1708	0	5371504	5142858	6000000
8	992268	2	5	50	1419	1050	0	6366881	6000001	6857143
9	890092	2	5	75	1914	1699	0	7259442	6857144	7714286
10	1077912	1	5	95	1969	0	0	8340967	7714287	8571429
11	520903	1	5	75	1734	0	0	8863839	8571430	9428572
12	961952	3	5	100	1492	1217	1148	9827525	9428573	10285715
13	1011648	3	5	50	1262	1120	1107	10843030	10285716	11142858
14	358512	3	5	100	1772	1750	1312	11205031	11142859	12000001
Total number of pulses in waveform = 31										

Type 5 Radar Waveform_28

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	14400	1	10	85	1613	0	0	14400	0	857142
2	1354043	1	10	70	1258	0	0	1370056	857143	1714285
3	561457	2	10	70	1145	1251	0	1932771	1714286	2571428
4	1334713	3	10	75	1841	1701	1166	3269880	2571429	3428571
5	844020	1	10	100	1687	0	0	4118608	3428572	4285714
6	545513	2	10	75	1331	1210	0	4665808	4285715	5142857
7	983830	1	10	85	1283	0	0	5652179	5142858	6000000
8	359779	2	10	95	1338	1240	0	6013241	6000001	6857143
9	1343574	1	10	55	1707	0	0	7359393	6857144	7714286
10	1200445	3	10	90	1897	1693	1338	8561545	7714287	8571429
11	557439	1	10	65	1045	0	0	9123912	8571430	9428572
12	850040	2	10	80	1714	1542	0	9974997	9428573	10285715
13	756709	1	10	85	1080	0	0	10734962	10285716	11142858
14	1074928	1	10	75	1872	0	0	11810970	11142859	12000001
Total number of pulses in waveform = 22										



Type 5 Radar Waveform_29

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	501983	1	18	70	1291	0	0	501983	0	666666
2	806602	3	18	95	1598	1636	1188	1309876	666667	1333333
3	214250	3	18	50	1772	1811	1881	1528548	1333334	2000000
4	600040	2	18	75	1256	1458	0	2134052	2000001	2666667
5	1119433	3	18	80	1019	1614	1776	3256199	2666668	3333334
6	466102	2	18	75	1636	1772	0	3726710	3333335	4000001
7	888745	2	18	90	1139	1272	0	4618863	4000002	4666668
8	178149	2	18	95	1541	1771	0	4799423	4666669	5333335
9	798568	3	18	50	1269	1038	1918	5601303	5333336	6000002
10	888424	2	18	55	1376	1583	0	6493952	6000003	6666669
11	613127	2	18	95	1079	1770	0	7110038	6666670	7333336
12	393145	1	18	50	1229	0	0	7506032	7333337	8000003
13	686553	3	18	50	1672	1136	1206	8193814	8000004	8666670
14	823332	1	18	50	1041	0	0	9021160	8666671	9333337
15	334145	2	18	90	1920	1918	0	9356346	9333338	10000004
16	941948	1	18	100	1228	0	0	10302132	10000005	10666671
17	826608	3	18	60	1850	1816	1587	11129968	10666672	11333338
18	542513	3	18	90	1528	1149	1795	11677734	11333339	12000005
Total number of pulses in waveform = 39										

Type 5 Radar Waveform_30

Num of Bursts = 19										
Burst Interval (us)= 631579										
Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	534094	1	8	70	1864	0	0	534094	0	631578
2	393649	2	8	85	1965	1955	0	929607	631579	1263157
3	663250	3	8	60	1529	1345	1426	1596777	1263158	1894736
4	580434	2	8	95	1117	1259	0	2181511	1894737	2526315
5	702299	3	8	90	1143	1976	1797	2886186	2526316	3157894
6	357421	3	8	75	1346	1446	1714	3248523	3157895	3789473
7	1100026	2	8	60	1729	1810	0	4353055	3789474	4421052
8	435749	1	8	100	1234	0	0	4792343	4421053	5052631
9	710206	2	8	65	1986	1006	0	5503783	5052632	5684210
10	441125	3	8	95	1034	1579	1218	5947900	5684211	6315789
11	667088	2	8	95	1545	1238	0	6618819	6315790	6947368
12	465005	2	8	80	1659	1256	0	7086607	6947369	7578947
13	539170	1	8	80	1671	0	0	7628692	7578948	8210526
14	811721	1	8	75	1677	0	0	8442084	8210527	8842105
15	900582	1	8	75	1263	0	0	9344343	8842106	9473684
16	637630	2	8	90	1529	1094	0	9983236	9473685	10105263
17	639190	3	8	85	1219	1504	1514	10625049	10105264	10736842
18	689416	1	8	50	1713	0	0	11318702	10736843	11368421
19	146982	2	8	70	1668	1848	0	11467397	11368422	12000000
Total number of pulses in waveform = 37										

Radar Type 6 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	1=Detection 0=No Detection	Trail #	Test Freq. (MHz)	1=Detection 0=No Detection
1	5290	1	16	5290	1
2	5290	1	17	5290	1
3	5290	1	18	5290	1
4	5290	1	19	5290	1
5	5290	1	20	5290	1
6	5290	1	21	5290	1
7	5290	1	22	5290	1
8	5290	1	23	5290	1
9	5290	1	24	5290	1
10	5290	1	25	5290	1
11	5290	1	26	5290	1
12	5290	1	27	5290	1
13	5290	1	28	5290	1
14	5290	1	29	5290	1
15	5290	1	30	5290	1
Detection Percentage (%)					100%

Radar waveform #1			Radar waveform #2		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
7	5320	21	2	5315	6
19	5275	57	28	5304	84
33	5272	99	38	5295	114
34	5298	102	44	5272	132
40	5280	120	46	5263	138
45	5301	135	48	5284	144
48	5287	144	57	5294	171
55	5281	165	69	5278	207
58	5269	174	73	5261	219
59	5300	177	76	5317	228
63	5283	189	80	5293	240
78	5266	234			
81	5284	243			
93	5314	279			
98	5316	294			

Radar waveform #3			Radar waveform #4		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
3	5313	9	3	5311	9
10	5269	30	8	5296	24
15	5308	45	13	5275	39
35	5286	105	24	5267	72
41	5293	123	37	5315	111
43	5315	129	40	5302	120
52	5275	156	45	5271	135
59	5310	177	59	5286	177
71	5303	213	72	5306	216
88	5312	264	75	5297	225
94	5262	282	78	5299	234
--	--	--	87	5290	261
--	--	--	90	5262	270

Radar waveform #5			Radar waveform #6		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
17	5284	51	3	5305	9
24	5287	72	7	5295	21
39	5314	117	15	5297	45
40	5320	120	22	5264	66
48	5274	144	25	5309	75
51	5294	153	52	5294	156
58	5307	174	54	5301	162
63	5281	189	55	5274	165
67	5291	201	56	5307	168
68	5267	204	63	5260	189
73	5290	219	69	5291	207
87	5272	261	84	5304	252
98	5278	294	86	5285	258

Radar waveform #7			Radar waveform #8		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
2	5304	6	24	5286	72
6	5294	18	47	5281	141
15	5276	45	51	5285	153
17	5319	51	53	5293	159
19	5271	57	56	5282	168
22	5264	66	69	5302	207
29	5291	87	80	5267	240
30	5299	90	86	5270	258
36	5285	108	89	5265	267
38	5292	114	91	5320	273
39	5310	117	95	5317	285
41	5281	123	99	5294	297
53	5307	159	--	--	--
57	5274	171	--	--	--
67	5265	201	--	--	--
73	5295	219	--	--	--
83	5313	249	--	--	--
89	5267	267	--	--	--
97	5268	291	--	--	--

Radar waveform #9			Radar waveform #10		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
4	5267	12	31	5278	93
14	5262	42	49	5305	147
16	5278	48	54	5297	162
33	5317	99	55	5304	165
38	5299	114	66	5277	198
45	5297	135	69	5294	207
49	5289	147	75	5300	225
56	5274	168	96	5281	288
62	5315	186	--	--	--
66	5308	198	--	--	--
74	5277	222	--	--	--
85	5307	255	--	--	--
97	5285	291	--	--	--

Radar waveform #11			Radar waveform #12		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
2	5276	6	0	5280	0
3	5301	9	7	5319	21
6	5289	18	11	5318	33
11	5306	33	13	5281	39
12	5288	36	27	5295	81
16	5298	48	51	5289	153
22	5280	66	76	5298	228
34	5316	102	84	5278	252
46	5279	138	--	--	--
53	5262	159	--	--	--
66	5313	198	--	--	--
83	5310	249	--	--	--
91	5272	273	--	--	--
97	5307	291	--	--	--
98	5284	294	--	--	--

Radar waveform #13			Radar waveform #14		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
1	5263	3	4	5265	12
14	5296	42	10	5296	30
16	5268	48	12	5289	36
17	5260	51	14	5290	42
27	5261	81	23	5282	69
35	5269	105	24	5301	72
38	5288	114	39	5300	117
43	5271	129	46	5284	138
53	5281	159	61	5288	183
77	5264	231	72	5295	216
79	5309	237	82	5271	246
86	5284	258	89	5291	267
93	5272	279	90	5276	270
97	5305	291	--	--	--

Radar waveform #15			Radar waveform #16		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
3	5272	9	11	5272	33
7	5279	21	18	5265	54
19	5263	57	36	5283	108
21	5290	63	47	5286	141
28	5287	84	50	5275	150
34	5303	102	56	5260	168
36	5320	108	65	5316	195
76	5315	228	74	5297	222
80	5266	240	92	5300	276
83	5275	249	96	5293	288
86	5313	258	97	5289	291

Radar waveform #17			Radar waveform #18		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
1	5296	3	5	5311	15
2	5265	6	7	5287	21
13	5308	39	11	5312	33
20	5298	60	20	5280	60
30	5317	90	29	5276	87
42	5280	126	30	5288	90
51	5307	153	32	5304	96
55	5309	165	44	5262	132
60	5286	180	59	5269	177
68	5313	204	66	5291	198
76	5299	228	72	5274	216
79	5263	237	78	5313	234
82	5276	246	86	5285	258
86	5302	258	93	5284	279
89	5310	267	--	--	--
93	5316	279	--	--	--

Radar waveform #19			Radar waveform #20		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
26	5277	78	13	5265	39
32	5303	96	22	5320	66
33	5273	99	29	5317	87
46	5315	138	47	5313	141
48	5262	144	67	5312	201
59	5320	177	91	5304	273
61	5289	183	94	5263	282
68	5294	204	--	--	--
72	5309	216	--	--	--
92	5306	276	--	--	--

Radar waveform #21			Radar waveform #22		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
4	5288	12	12	5264	36
5	5264	15	26	5265	78
11	5308	33	30	5278	90
20	5291	60	59	5313	177
26	5262	78	60	5298	180
40	5267	120	84	5284	252
62	5261	186	87	5261	261
69	5286	207	--	--	--
71	5307	213	--	--	--
78	5278	234	--	--	--
80	5279	240	--	--	--
82	5316	246	--	--	--
87	5297	261	--	--	--
97	5263	291	--	--	--

Radar waveform #23			Radar waveform #24		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
13	5305	39	0	5284	0
14	5266	42	4	5267	12
18	5288	54	5	5271	15
25	5302	75	13	5262	39
35	5282	105	19	5264	57
36	5295	108	27	5291	81
38	5283	114	36	5263	108
43	5319	129	43	5280	129
47	5315	141	67	5290	201
64	5296	192	74	5261	222
72	5278	216	79	5268	237
77	5273	231	80	5294	240
79	5293	237	83	5289	249
86	5265	258	85	5316	255
92	5306	276	88	5278	264
94	5260	282	92	5308	276

Radar waveform #25			Radar waveform #26		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
2	5295	6	0	5291	0
5	5298	15	7	5303	21
18	5271	54	11	5292	33
35	5270	105	14	5268	42
46	5309	138	15	5272	45
53	5301	159	18	5288	54
62	5272	186	30	5275	90
67	5313	201	32	5294	96
82	5260	246	34	5283	102
86	5292	258	77	5293	231
97	5261	291	88	5285	264

Radar waveform #27			Radar waveform #28		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
2	5282	6	21	5263	63
12	5263	36	31	5312	93
14	5272	42	41	5318	123
20	5265	60	44	5320	132
23	5298	69	53	5278	159
36	5267	108	74	5270	222
41	5261	123	83	5317	249
59	5302	177	88	5271	264
60	5287	180	89	5307	267
70	5306	210	--	--	--
76	5309	228	--	--	--
80	5313	240	--	--	--
89	5290	267	--	--	--
90	5285	270	--	--	--

Radar waveform #29			Radar waveform #30		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
20	5319	60	0	5304	0
29	5297	87	9	5302	27
31	5275	93	47	5297	141
44	5285	132	66	5274	198
45	5274	135	74	5314	222
58	5291	174	79	5280	237
59	5300	177	83	5315	249
61	5270	183	90	5298	270
63	5287	189	99	5289	297
75	5317	225	--	--	--
76	5277	228	--	--	--
94	5304	282	--	--	--
96	5263	288	--	--	--

6. CONCLUSION

The data collected relate only the item(s) tested and show that the **Indoor GPON HGU, Model No.: PMG5717-B10A, C424G, FCC ID: I88C424G** is in compliance with Part 15E of the FCC Rules & IC Rules.