



DFS MEASUREMENT REPORT

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

FCC ID: SFK-140W
APPLICANT: CIG Shanghai Co., Ltd.

Application Type: Certification
Product: G-140W-C
Model No.: G-140W-C
Brand Name: Shanghai Nokia bell
FCC Classification: Unlicensed National Information Infrastructure (NII)
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: December 01 ~ 23, 2017

Reviewed By : Sunny Sun
(Sunny Sun)

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
1708RSU021-U3	Rev. 01	Initial Report	02-26-2018	Valid

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§2.1033 General Information

Applicant:	CIG Shanghai Co., Ltd.
Applicant Address:	5F, Building 8, No.2388 ChenHang Road, Minghang Di, Shanghai, China
Manufacturer:	CIG Shanghai Co., Ltd., Shanghai Branch.
Manufacturer Address:	F/2, 3 Building 1, No. 505 Jiangyue Road, Minhang District, Shanghai, P.R.China
Test Site:	MRT Technology (Suzhou) Co., Ltd
Test Site Address:	D8 Building, No.2 Tian'edang Rd., Wuzhong Economic Development Zone, Suzhou, China
MRT Registration No.:	893164
Test Device Serial No.:	N/A <input type="checkbox"/> Production <input checked="" type="checkbox"/> Pre-Production <input type="checkbox"/> Engineering

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. 893164) 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-20025, G-20034, C-20020, T-20020) 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, 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:	G-140W-C
Model No.:	G-140W-C
Brand Name:	Shanghai Nokia bell
Wi-Fi Specification	802.11a/b/g/n/ac

2.2. Product Specification Subjective to this Report

Frequency Range	For 802.11a/n-HT20/ac-VHT20: 5260~5320MHz, 5500~5720MHz For 802.11n-HT40/ac-VHT40: 5270~5310MHz, 5510~5710MHz For 802.11ac-VHT80: 5290MHz, 5530MHz, 5610MHz, 5690MHz
Type of Modulation	802.11b: DSSS, 802.11a/g/n/ac: OFDM
Modulation Type	CCK, DQPSK, DBPSK for DSSS 16QAM, 64QAM, 256QAM, QPSK, BPSK for OFDM
Power-on cycle	Requires 125.1 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.

2.3. Description of Available Antennas

Antenna	Frequency	TX Paths	Max Peak Gain (dBi)	CDD Directional Gain (dBi)	
				For Power	For PSD
PCB Antenna	2.4GHz	2	3.0	3.0	6.01
	5GHz	2	3.0	3.0	6.01

Note1: The EUT supports Cyclic Delay Diversity (CDD) technology for 802.11a/b/g/n/ac mode, and CDD signals are correlated.

Note2: For CDD transmissions, directional gain is calculated as follows, $N_{ANT} = 2$, $N_{SS} = 1$.

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

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

2.4. DFS Band Working Frequencies

802.11 a/n-HT20/ac-VHT20

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

802.11n-HT40/ac-VHT40

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

802.11ac-VHT80

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

2.5. Test 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 NII 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 NII 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.
<p>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.</p> <p>Note 2: The Channel Closing Transmission Time is comprised of 200 milliseconds starting at the</p>	

beginning of the Channel Move Time plus any additional intermittent control signals required to facilitate a Channel move (an aggregate of 60 milliseconds) during the remainder of the 10 second period. The aggregate duration of control signals will not count quiet periods in between transmissions.

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

Table 3-3: DFS Response Requirements

3.3. DFS Detection Threshold Values

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

Maximum Transmit Power	Value (See Notes 1, 2, and 3)
EIRP ≥ 200 milliwatt	-64 dBm
EIRP < 200 milliwatt and power spectral density < 10 dBm/MHz	-62 dBm
EIRP < 200 milliwatt that do not meet the power spectral density requirement	-64 dBm
<p>Note 1: This is the level at the input of the receiver assuming a 0 dBi receive antenna.</p> <p>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.</p> <p>Note3: EIRP is based on the highest antenna gain. For MIMO devices refer to KDB Publication 662911 D01.</p>	

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

3.4. Parameters of DFS Test Signals

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

Short Pulse Radar Test Waveforms

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

Table 3-5: Parameters for Short Pulse Radar Waveforms

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

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

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

Long Pulse Radar Test Waveform

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

Table 3-7: Parameters for Long Pulse Radar Waveforms

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

Frequency Hopping Radar Test Waveform

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

Table 3-8: Parameters for Frequency Hopping Radar Waveforms

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

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

3.5. Conducted Test Setup

The FCC KDB 905462 D02 NII 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.

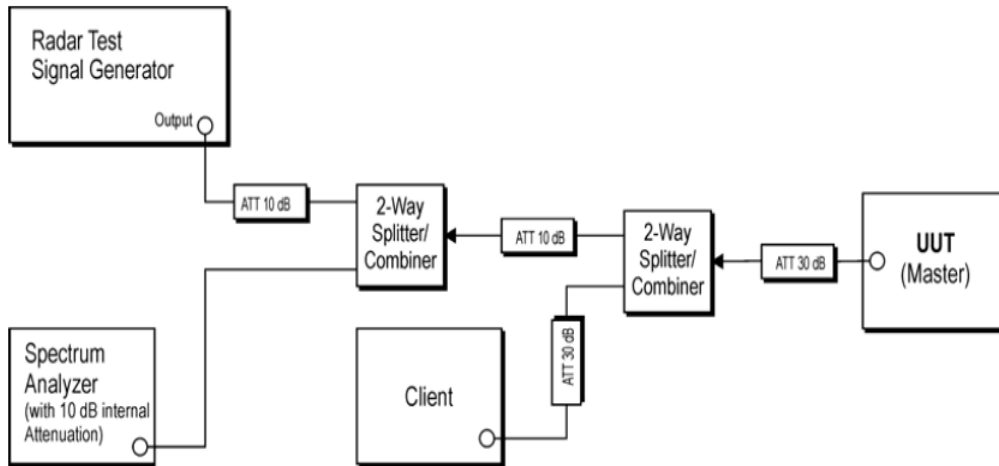


Figure 3-1: Conducted Test Setup where UUT is a Master and Radar Test Waveforms are injected into the Masters

4. TEST EQUIPMENT CALIBRATION DATE

Dynamic Frequency Selection (DFS)

Instrument	Manufacturer	Type No.	Asset No.	Cali. Interval	Cali. Due Date
EXA Signal Analyzer	Keysight	N9010A	MRTSUE06195	1 year	2018/04/22
ESG Vector Signal Generator	Agilent	E4438C	MRTSUE06026	1 year	2018/12/06
Thermohygrometer	Testo	608-H1	MRTSUE06222	1 year	2018/11/21
Power divider	Marvelous Microwave Inc.	2-8GB	MRTSUE06261	1 year	2018/11/02
Broad Band Horn Antenna	Schwarzbeck	BBHA9120D	MRTSUE06023	1 year	2018/10/21

Client Information

Instrument	Manufacturer	Type No.
Wireless Network Adapter	Intel	7260HMW

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

5. TEST RESULT

5.1. Summary

Company Name: CIG Shanghai Co., Ltd.

FCC ID: SFK-140W

Parameter	Limit	Test Result	Reference
NII 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.

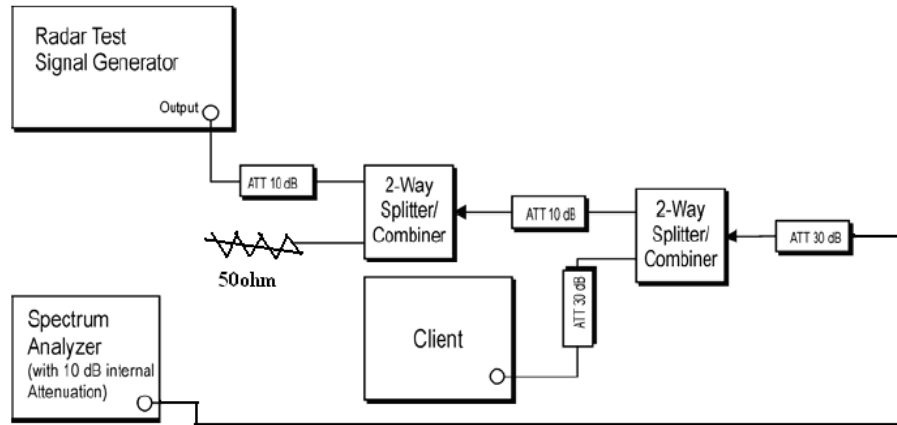


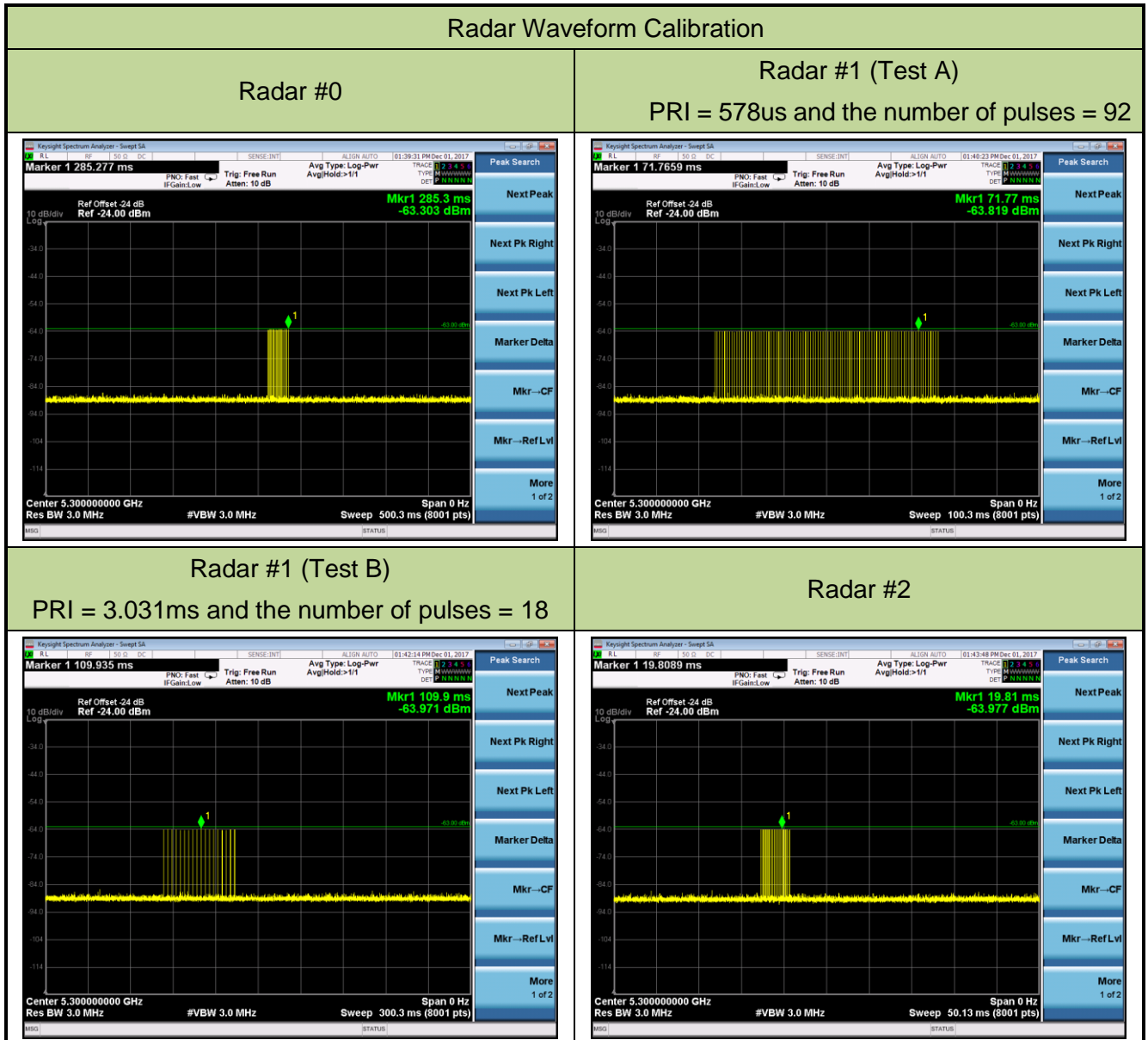
Figure 3-2: Conducted Test Setup

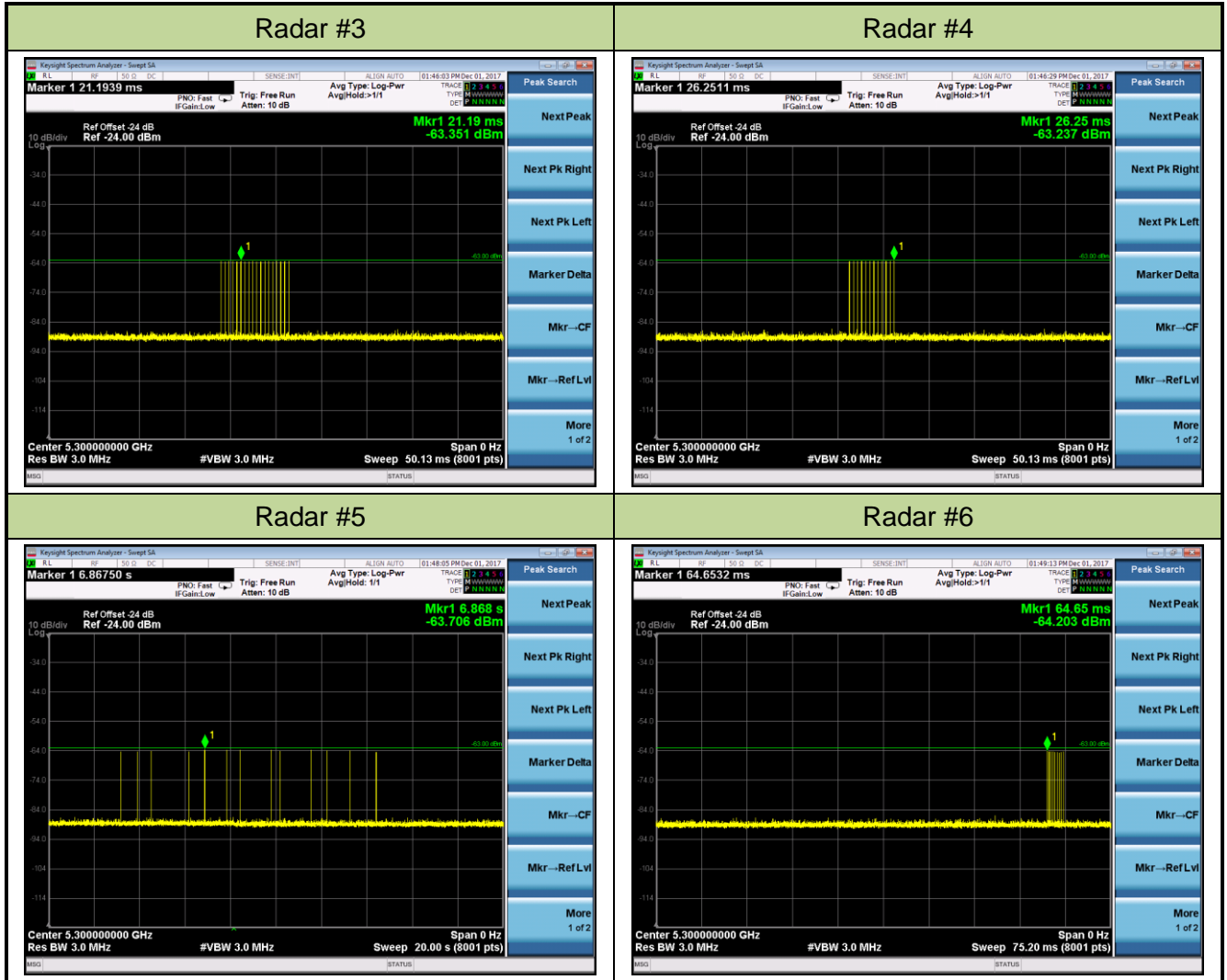
5.2.2. Calibration Procedure

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

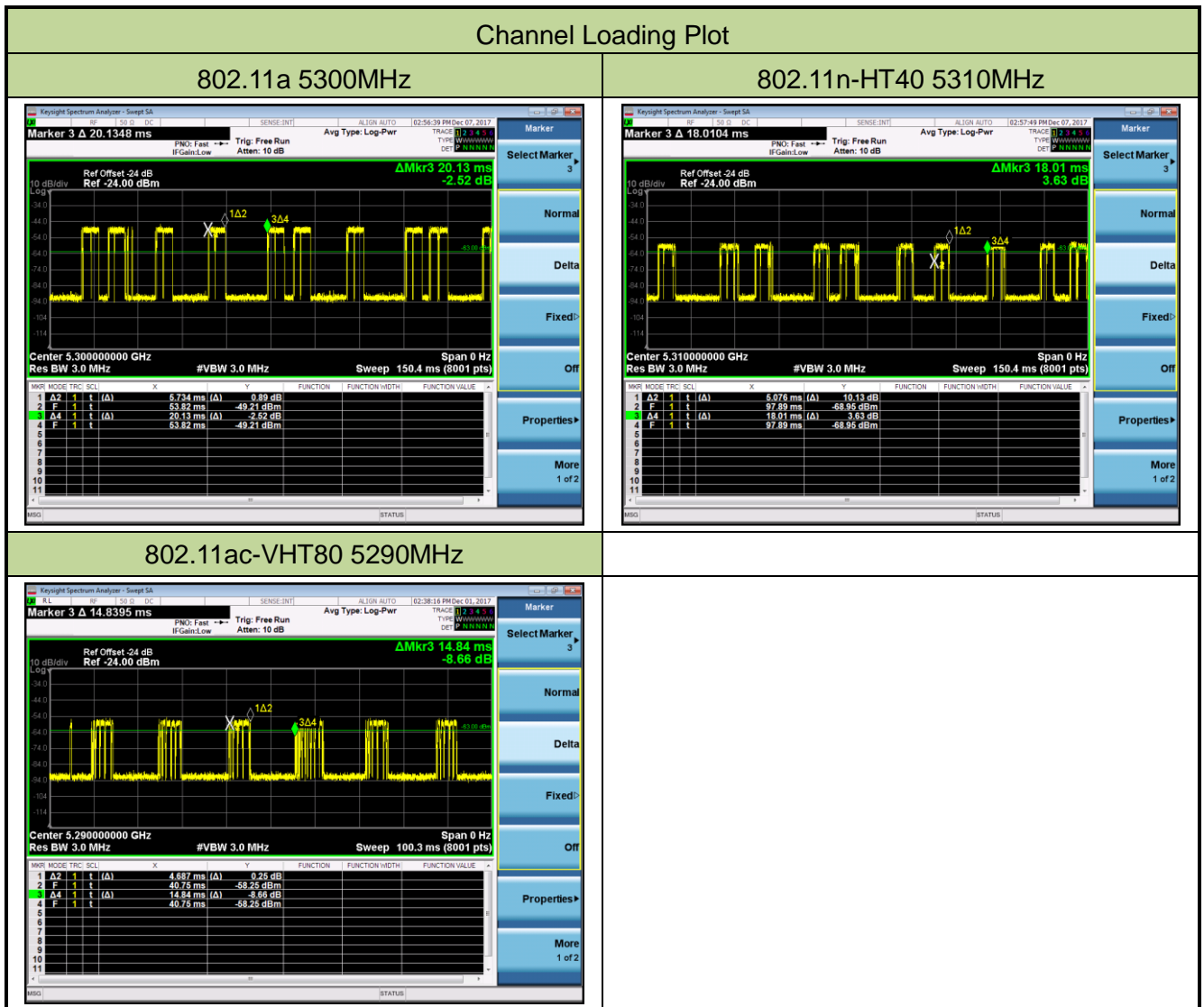
Product	G-140W-C	Temperature	27°C
Test Engineer	Amy Zhang	Relative Humidity	65%
Test Site	TR5	Test Date	2017/12/01
Test Item	Radar Waveform Calibration		





5.2.4. Channel Loading Test Result

Product	G-140W-C	Temperature	27°C
Test Engineer	Amy Zhang	Relative Humidity	65%
Test Site	TR5	Test Date	2017/12/07
Test Item	Channel Loading		



Test Mode	Test Frequency	Packet ratio	Requirement ratio	Test Result
802.11a	5300 MHz	28.48%	≥ 17%	Pass
802.11n-HT40	5310 MHz	28.18%	≥ 17%	Pass
802.11ac-VHT80	5290 MHz	31.58%	≥ 17%	Pass

Note: System testing was performed with the designated iperf test file. 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).

5.3. NII Detection Bandwidth Measurement

5.3.1. Test Limit

Minimum 100% of the NII 99% transmission power bandwidth. During the U-NII Detection Bandwidth detection test, each frequency step the minimum percentage of detection is 90 percent.

Measurements are performed with no data traffic.

5.3.2. Test Procedure

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

5.3.3. Test Result

Product	G-140W-C	Temperature	27°C
Test Engineer	Amy Zhang	Relative Humidity	65%
Test Site	TR5	Test Date	2017/12/07
Test Item	Detection Bandwidth (802.11a mode – 5300MHz)		

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%

Note 1: All NII channels for this device have identical Channel bandwidths. Therefore, all DFS testing was done at 5300MHz. The 99% channel bandwidth is 16.63MHz. (See the 99% BW section of the RF report for further measurement details).

Note 2: Detection Bandwidth = FH - FL = 5309MHz - 5291MHz = 18MHz.

Note 3: NII Detection Bandwidth Min. Limit (MHz): 16.63MHz x 100% = 16.63MHz.



Product	G-140W-C	Temperature	27°C
Test Engineer	Amy Zhang	Relative Humidity	65%
Test Site	TR5	Test Date	2017/12/07
Test Item	Detection Bandwidth (802.11n-HT40 mode – 5310MHz)		

Radar Frequency (MHz)	DFS Detection Trials (1=Detection, 0= No Detection)										Detection Rate (%)
	1	2	3	4	5	6	7	8	9	10	
5290	0	0	0	0	0	0	0	0	0	0	0%
5291	0	0	0	0	0	0	0	0	0	0	0%
5292 FL	1	1	1	1	1	1	1	1	1	1	100%
5293	1	1	1	1	1	1	1	1	1	1	100%
5294	1	1	1	1	1	1	1	1	1	1	100%
5295	1	1	1	1	1	1	1	1	1	1	100%
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%

Note 1: All NII channels for this device have identical Channel bandwidths. Therefore, all DFS testing was done at 5310MHz. The 99% channel bandwidth is 36.08MHz. (See the 99% BW section of the RF report for further measurement details).

Note 2: Detection Bandwidth = FH - FL = 5329MHz - 5292MHz = 37MHz.

Note 3: NII Detection Bandwidth Min. Limit (MHz): 36.08MHz x 100% = 36.08MHz.



Product	G-140W-C	Temperature	27°C
Test Engineer	Amy Zhang	Relative Humidity	65%
Test Site	TR5	Test Date	2017/12/07
Test Item	Detection Bandwidth (802.11ac-VHT80 mode – 5290MHz)		

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%

Note 1: All NII channels for this device have identical Channel bandwidths. Therefore, all DFS testing was done at 5290MHz. The 99% channel bandwidth is 74.90MHz. (See the 99% BW section of the RF report for further measurement details).

Note 2: Detection Bandwidth = FH - FL = 5329MHz - 5251MHz = 78MHz.

Note 3: NII Detection Bandwidth Min. Limit (MHz): 74.90MHz x 100% = 74.90MHz.

5.4. Initial Channel Availability Check Time Measurement

5.4.1. Test Limit

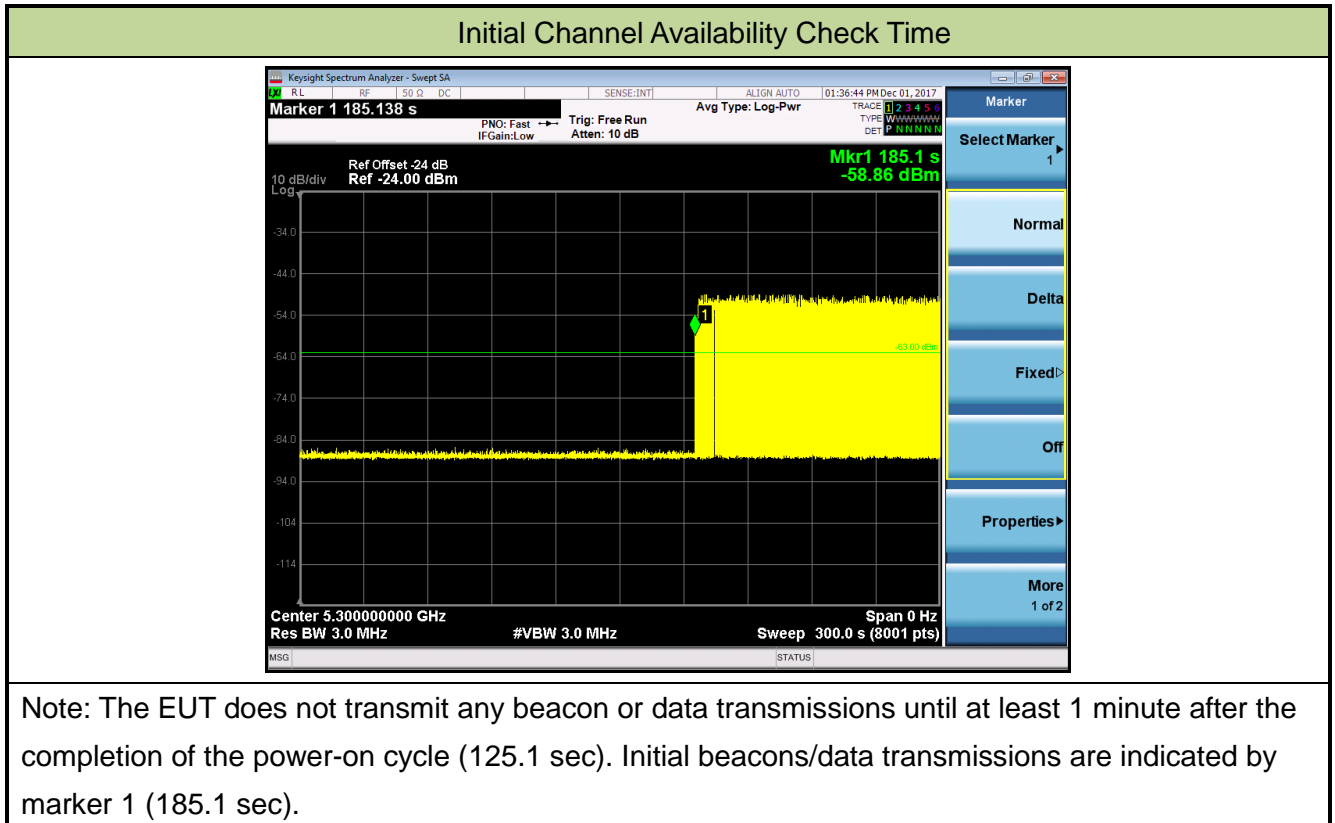
The EUT shall perform a Channel Availability Check to ensure that there is no radar operating on the channel. After power-up sequence, receive at least 1 minute on the intended operating frequency.

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

Product	G-140W-C	Temperature	27°C
Test Engineer	Amy Zhang	Relative Humidity	65%
Test Site	TR5	Test Date	2017/12/01
Test Item	Initial Channel Availability Check Time (802.11a mode – 5300MHz)		



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

5.5.1. Test Limit

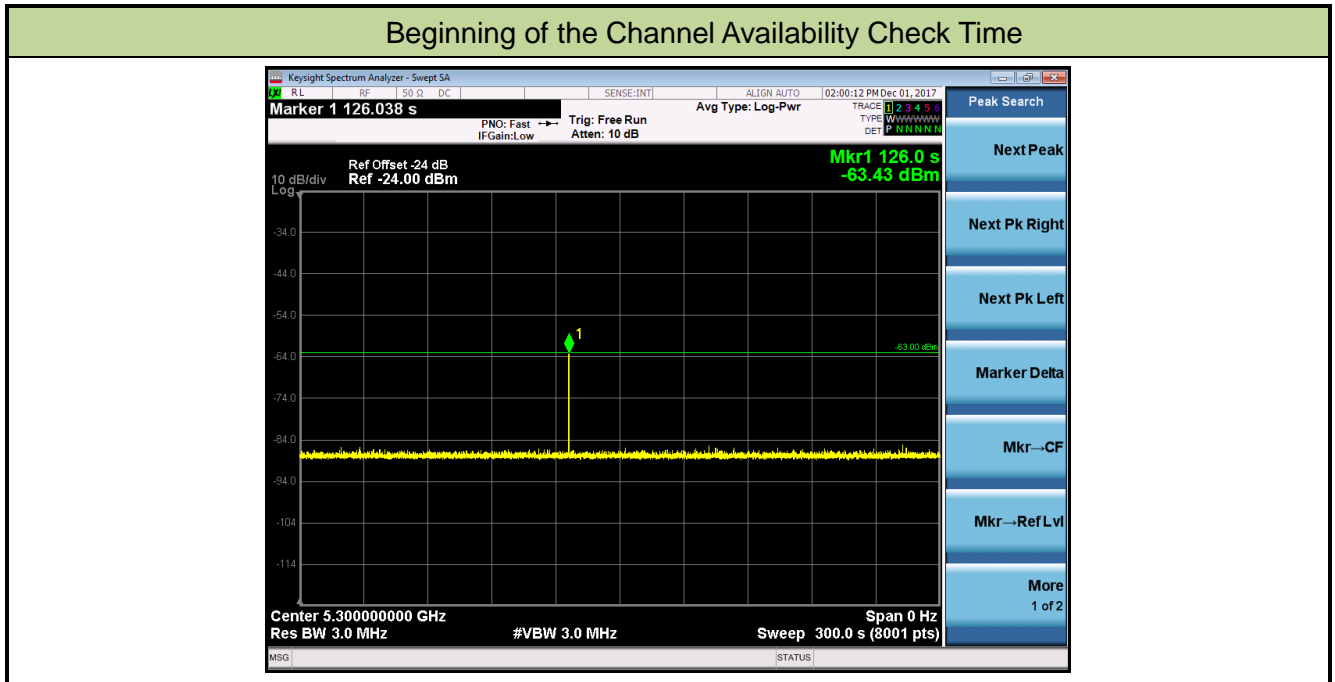
In beginning of the Channel Availability Check (CAC) Time, radar is detected on this channel, select another intended channel and perform a CAC on that channel.

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

Product	G-140W-C	Temperature	27°C
Test Engineer	Amy Zhang	Relative Humidity	65%
Test Site	TR5	Test Date	2017/12/01
Test Item	Beginning of the Channel Availability Check Time (802.11a mode – 5300MHz)		



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

5.6.1. Test Limit

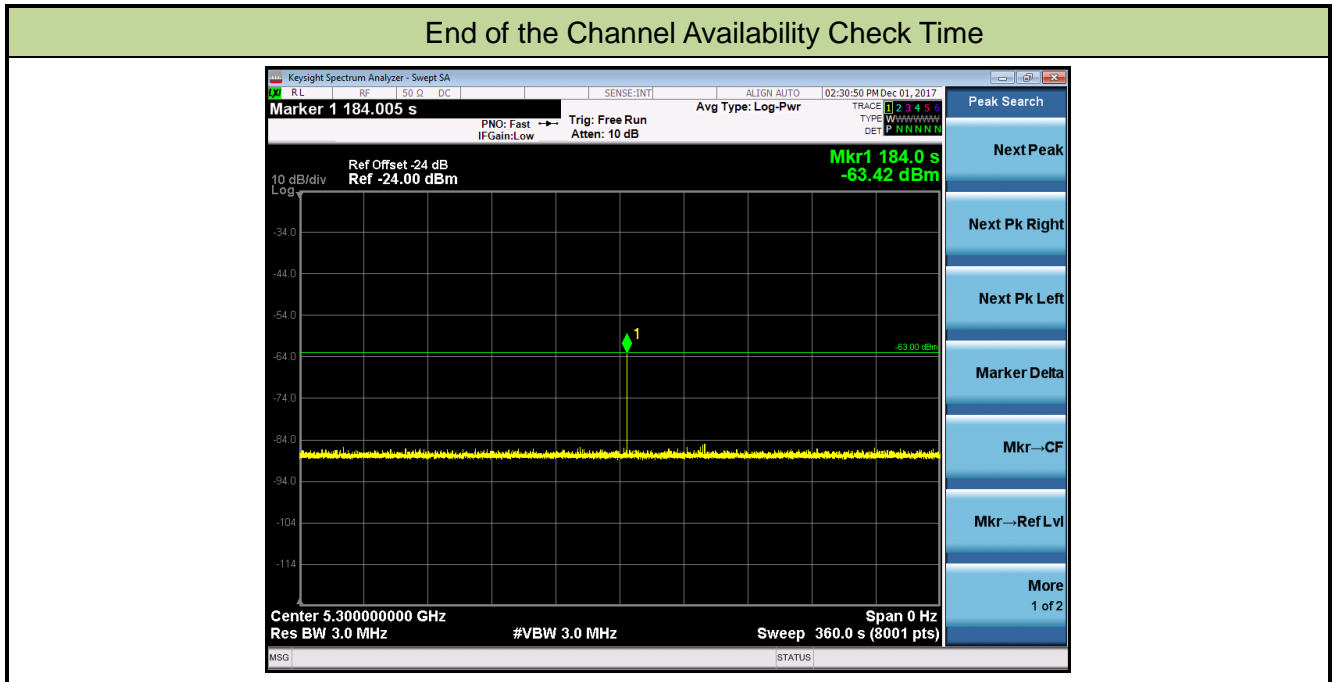
In the end of Channel Availability Check (CAC) Time, radar is detected on this channel, select another intended channel and perform a CAC on that channel.

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

Product	G-140W-C	Temperature	27°C
Test Engineer	Amy Zhang	Relative Humidity	65%
Test Site	TR5	Test Date	2017/12/01
Test Item	End of the Channel Availability Check Time (802.11a mode – 5300MHz)		



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.

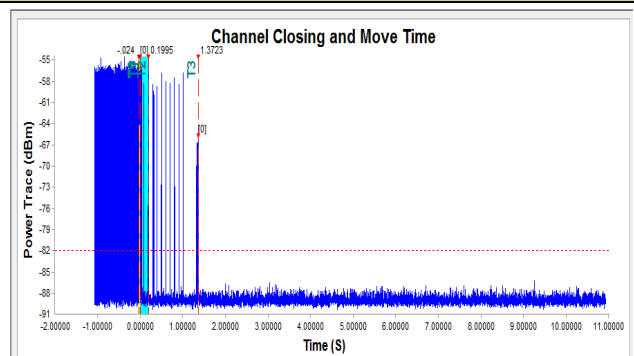
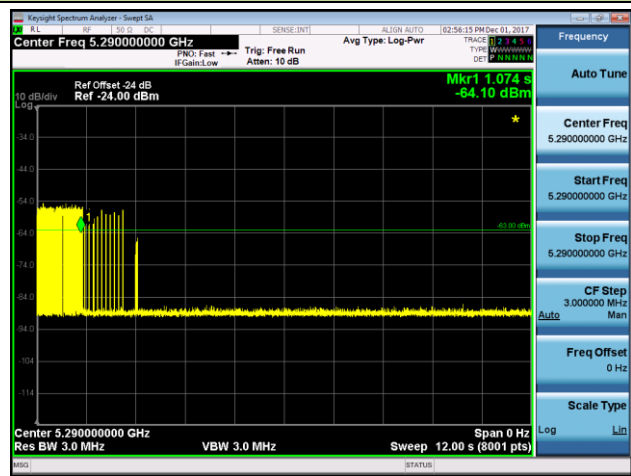
5.7.2. Test Procedure Used

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

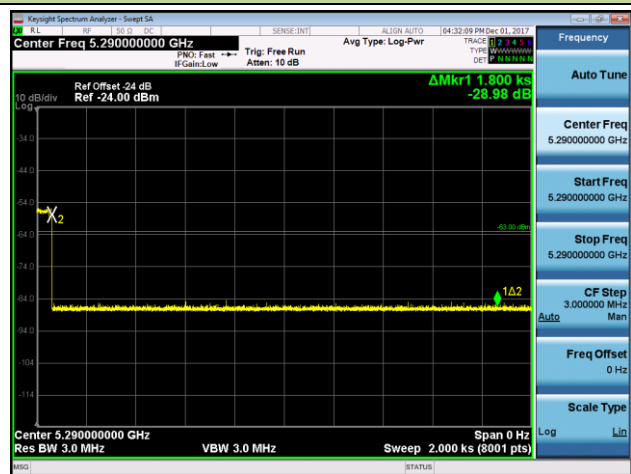
Product	G-140W-C	Temperature	27°C
Test Engineer	Amy Zhang	Relative Humidity	65%
Test Site	TR5	Test Date	2017/12/01
Test Item	Channel Move Time and Channel Closing Transmission Time (802.11ac-VHT80 mode – 5290MHz)		

Channel Move Time and Channel Closing Transmission Time



Time Index Info:
 T0: -0.0240 S Time Per Bin: 1.4998125 ms Channel Move Time: 1.3723285 S
 T1: 0.0000 S T2-T3 Bins Over Threshold: Channel Close Time: 0.0494938 S
 T2: 0.1995 S = 33 Bins
 T3: 1.3723 S

Non-Occupancy Period



Parameter	Test Result	Limit
	Type 0	
Channel Move Time (s)	1.372s	<10s
Channel Closing Transmission Time (ms) (Note)	49.5ms	< 60ms
Non-Occupancy Period (min)	≥ 30min	≥ 30 min
<p>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.</p>		

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%

Note: 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**

Product	G-140W-C	Temperature	27°C
Test Engineer	Amy Zhang	Relative Humidity	65%
Test Site	TR5	Test Date	2017/12/09
Test Item	Radar Statistical Performance Check (802.11a mode – 5300MHz)		

Radar Type 1 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5291	1	798	67	1
2	5291	1	698	76	1
3	5292	1	858	62	1
4	5292	1	718	74	1
5	5293	1	838	63	1
6	5293	1	518	102	1
7	5294	1	658	81	1
8	5294	1	898	59	1
9	5295	1	538	99	1
10	5296	1	578	92	1
11	5307	1	918	58	1
12	5298	1	938	57	1
13	5299	1	558	95	1
14	5300	1	778	68	1
15	5300	1	818	65	1
16	5300	1	526	101	1
17	5301	1	1847	29	1
18	5302	1	660	80	1
19	5303	1	716	74	1
20	5304	1	2651	20	1
21	5305	1	2526	21	1
22	5305	1	1236	43	1
23	5306	1	981	54	1
24	5306	1	2170	25	1
25	5307	1	2166	25	1
26	5307	1	2701	20	1



Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
27	5308	1	2365	23	1
28	5308	1	2215	24	1
29	5309	1	836	64	1
30	5309	1	2162	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	5291	2.2	157	28	1
2	5291	4.1	193	23	1
3	5292	4.9	228	29	1
4	5292	4.1	206	29	1
5	5293	1.7	173	26	1
6	5293	2.4	179	27	1
7	5294	2.2	160	27	1
8	5294	5.0	211	25	1
9	5295	3.7	213	28	1
10	5296	2.6	161	24	1
11	5307	5.0	199	26	1
12	5298	1.4	187	29	1
13	5299	4.1	155	23	1
14	5300	1.3	184	23	1
15	5300	1.2	215	24	1
16	5300	1.7	151	26	1
17	5301	2.3	163	24	1
18	5302	2.5	183	25	1
19	5303	1.2	188	24	1
20	5304	1.5	177	29	1
21	5305	5.0	177	23	1
22	5305	1.3	215	24	1
23	5306	2.7	192	25	1
24	5306	1.9	188	28	1
25	5307	1.8	199	23	1
26	5307	4.6	193	26	1
27	5308	2.0	154	26	1
28	5308	2.6	186	24	1
29	5309	2.8	178	24	1
30	5309	4.2	153	23	1
Detection Percentage (%)					100%



Radar Type 3 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5291	6.1	482	18	1
2	5291	7.1	304	17	1
3	5292	6.7	258	16	1
4	5292	6.9	361	17	1
5	5293	7.5	256	18	1
6	5293	8.2	395	18	1
7	5294	6.3	496	16	1
8	5294	8.7	294	18	1
9	5295	9.9	391	16	1
10	5296	8.5	378	16	1
11	5307	8.4	449	17	1
12	5298	9.9	475	17	1
13	5299	8.0	466	17	1
14	5300	9.5	379	17	1
15	5300	9.3	493	16	1
16	5300	8.0	290	18	1
17	5301	7.2	362	16	1
18	5302	6.7	295	17	1
19	5303	6.5	269	17	1
20	5304	7.3	311	18	1
21	5305	7.3	456	17	1
22	5305	8.9	255	17	1
23	5306	6.1	435	16	1
24	5306	8.9	272	18	1
25	5307	9.8	293	18	1
26	5307	8.2	260	17	1
27	5308	6.0	380	17	1
28	5308	9.5	385	18	1
29	5309	9.3	354	16	1
30	5309	9.2	395	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	5291	13.4	316	13	1
2	5291	16.5	259	15	1
3	5292	18.6	300	16	1
4	5292	11.2	409	13	1
5	5293	11.8	272	15	1
6	5293	12.0	310	15	1
7	5294	19.2	276	15	1
8	5294	19.1	373	12	1
9	5295	16.4	372	14	1
10	5296	13.5	454	14	1
11	5307	19.2	447	14	1
12	5298	15.1	446	16	1
13	5299	17.9	368	16	1
14	5300	14.6	271	14	1
15	5300	18.2	327	16	1
16	5300	16.1	305	12	1
17	5301	16.8	273	12	1
18	5302	15.4	499	12	1
19	5303	19.6	416	15	1
20	5304	11.8	451	14	1
21	5305	11.5	452	16	1
22	5305	14.4	439	15	1
23	5306	19.8	431	16	1
24	5306	18.4	314	16	1
25	5307	14.7	377	12	1
26	5307	13.1	335	12	1
27	5308	12.5	286	14	1
28	5308	15.4	365	14	1
29	5309	14.3	313	16	1
30	5309	19.4	444	12	1
Detection Percentage (%)					100%

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

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



Radar Type 5 - Radar Statistical Performance

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

Type 5 Radar Waveform_1										
Burst #	Off Time (us)	# Pulses	Chirp (MHz)	FW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	3580	3	17	80	1901	1158	1263	3580	0	599999
2	871326	2	17	85	1448	1980	0	879228	600000	1199999
3	820371	1	17	95	1287	0	0	1709027	1200000	1799999
4	339094	1	17	80	1523	0	0	2043408	1800000	2399999
5	398153	3	17	60	1440	1102	1804	2443084	2400000	2999999
6	881133	3	17	80	1873	1322	1906	3328563	3000000	3599999
7	567033	3	17	95	1023	1948	1360	3900697	3600000	4199999
8	357988	1	17	100	1520	0	0	4269016	4200000	4799999
9	604613	3	17	60	1013	1202	1668	4869149	4800000	5399999
10	713976	2	17	70	1471	1544	0	5687008	5400000	5999999
11	565712	3	17	80	1364	1365	1222	6155735	6000000	6599999
12	759824	3	17	70	1709	1950	1185	6919510	6600000	7199999
13	771340	2	17	90	1280	1953	0	7695694	7200000	7799999
14	678310	1	17	90	1953	0	0	8377237	7800000	8399999
15	374095	2	17	75	1318	1487	0	8753285	8400000	8999999
16	322029	3	17	60	1437	1533	1628	9078119	9000000	9599999
17	970818	2	17	55	1952	1540	0	10053535	9600000	10199999
18	432922	3	17	90	1114	1086	1895	10489949	10200000	10799999
19	489153	1	17	55	1163	0	0	10983197	10800000	11399999
20	476449	3	17	100	1886	1965	1432	11468009	11400000	11999999
Total number of pulses in waveform = 45										



Type 5 Radar Waveform_2

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	380615	3	10	65	1186	1294	1553	380615	0	705881
2	1009747	1	10	65	1670	0	0	1394375	705882	1411763
3	122215	3	10	75	1340	1256	1966	1518280	1411764	2117645
4	1270308	2	10	80	1422	1311	0	2793130	2117646	2823527
5	45403	2	10	75	1654	1516	0	2841266	2823528	3529409
6	1009562	1	10	50	1498	0	0	3853998	3529410	4235291
7	1026103	1	10	50	1191	0	0	4881599	4235292	4941173
8	495464	3	10	75	1821	1495	1644	5378254	4941174	5647055
9	881446	2	10	80	1069	1386	0	6264680	5647056	6352937
10	617462	3	10	50	1217	1974	1894	6884577	6352938	7058819
11	835380	3	10	75	1790	1357	1005	7725042	7058820	7764701
12	557020	2	10	50	1931	1325	0	8286214	7764702	8470583
13	700013	2	10	100	1652	1223	0	8989483	8470584	9176465
14	750385	3	10	70	1886	1532	1651	9742743	9176466	9882347
15	809289	3	10	90	1495	1525	1272	10557101	9882348	10588229
16	702851	3	10	80	1629	1771	1914	11264244	10588230	11294111
17	640592	3	10	60	1356	1018	1442	11910150	11294112	11999993

Total number of pulses in waveform = 40

Type 5 Radar Waveform_3

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	444439	3	9	70	1333	1354	1007	444439	0	1333332
2	1261012	1	9	60	1694	0	0	1709145	1333333	2666665
3	1209549	2	9	60	1811	1398	0	2920388	2666666	3999998
4	1566354	2	9	55	1707	1421	0	4489951	3999999	5333331
5	1310253	1	9	80	1852	0	0	5803332	5333332	6666664
6	923453	3	9	65	1533	1711	1260	6728637	6666665	7999997
7	2038481	1	9	95	1813	0	0	8771622	7999998	9333330
8	588920	2	9	85	1371	1951	0	9362355	9333331	10666663
9	2134305	1	9	95	1607	0	0	11499982	10666664	11999996

Total number of pulses in waveform = 16

Type 5 Radar Waveform_4

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	1064101	3	5	100	1802	1889	1270	1064101	0	1199999
2	974010	3	5	70	1870	1879	1784	2043072	1200000	2399999
3	1527810	3	5	95	1707	1430	1255	3576415	2400000	3599999
4	1173347	2	5	65	1500	1381	0	4754154	3600000	4799999
5	68962	2	5	95	1358	1648	0	4825997	4800000	5999999
6	2037481	2	5	55	1539	1154	0	6866484	6000000	7199999
7	528820	3	5	75	1934	1507	1431	7397997	7200000	8399999
8	1248847	1	5	100	1682	0	0	8651716	8400000	9599999
9	1736983	3	5	70	1582	1998	1405	10390381	9600000	10799999
10	959087	1	5	65	1678	0	0	11354453	10800000	11999999

Total number of pulses in waveform = 23



Type 5 Radar Waveform_5

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	597974	2	14	85	1111	1878	0	597974	0	799999
2	756575	3	14	95	1540	1993	1875	1357338	800000	1599999
3	302175	1	14	65	1136	0	0	1664921	1600000	2399999
4	1168353	2	14	55	1866	1018	0	2834410	2400000	3199999
5	1011576	1	14	50	1416	0	0	3848870	3200000	3999999
6	733159	3	14	90	1390	1629	1967	4583445	4000000	4799999
7	302572	1	14	90	1896	0	0	4891003	4800000	5599999
8	978849	1	14	50	1385	0	0	5871748	5600000	6399999
9	846632	2	14	65	1848	1693	0	6719765	6400000	7199999
10	488473	3	14	50	1929	1798	1928	7211779	7200000	7999999
11	790997	1	14	95	1216	0	0	8008431	8000000	8799999
12	1103670	1	14	85	1270	0	0	9113317	8800000	9599999
13	825311	1	14	75	1703	0	0	9939898	9600000	10399999
14	866551	3	14	60	1167	1815	1547	10808152	10400000	11199999
15	652847	2	14	80	1407	1751	0	11465528	11200000	11999999

Total number of pulses in waveform = 27

Type 5 Radar Waveform_6

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	409229	3	18	50	1198	1337	1889	409229	0	799999
2	1144459	1	18	100	1475	0	0	1558112	800000	1599999
3	248535	1	18	55	1531	0	0	1808122	1600000	2399999
4	1243270	1	18	50	1216	0	0	3052923	2400000	3199999
5	493769	1	18	100	1029	0	0	3547908	3200000	3999999
6	712890	3	18	95	1719	1114	1347	4261827	4000000	4799999
7	1114124	2	18	70	1883	1941	0	5380131	4800000	5599999
8	764877	1	18	65	1341	0	0	6148832	5600000	6399999
9	590641	3	18	80	1992	1948	1018	6740814	6400000	7199999
10	1101103	1	18	65	1949	0	0	7846875	7200000	7999999
11	717762	2	18	55	1003	1773	0	8566586	8000000	8799999
12	557572	2	18	50	1860	1435	0	9126934	8800000	9599999
13	623104	1	18	85	1308	0	0	9753333	9600000	10399999
14	1156250	1	18	80	1677	0	0	10910891	10400000	11199999
15	884199	3	18	100	1008	1079	1204	11796767	11200000	11999999

Total number of pulses in waveform = 26

Type 5 Radar Waveform_7

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	14746	2	6	100	1850	1359	0	14746	0	857142
2	1482116	1	6	75	1800	0	0	1500071	857143	1714285
3	529722	3	6	60	1755	1252	1820	2031593	1714286	2571428
4	1149776	2	6	80	1180	1016	0	3186196	2571429	3428571
5	285344	1	6	80	1572	0	0	3473736	3428572	4285714
6	1182909	3	6	90	1563	1829	1215	4658217	4285715	5142857
7	661990	3	6	60	1022	1098	1276	5324814	5142858	6000000
8	1241463	3	6	75	1329	1634	1365	6569673	6000001	6857143
9	1116304	3	6	55	1984	1218	1282	7690305	6857144	7714286
10	380536	3	6	100	1574	1315	1948	8075325	7714287	8571429
11	495153	1	6	65	1532	0	0	8575315	8571430	9428572
12	1634492	1	6	95	1758	0	0	10211339	9428573	10285715
13	208519	2	6	50	1795	1939	0	10421616	10285716	11142858
14	1298706	3	6	55	1513	1013	1116	11724056	11142859	12000001

Total number of pulses in waveform = 31



Type 5 Radar Waveform_8

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	590471	3	19	90	1068	1561	1368	590471	0	631578
2	352042	2	19	95	1868	1293	0	946500	631579	1263157
3	809886	1	19	80	1595	0	0	1759547	1263158	1894736
4	673813	3	19	75	1276	1125	1137	2434955	1894737	2526315
5	705931	1	19	65	1660	0	0	3144424	2526316	3157894
6	386437	3	19	70	1969	1648	1523	3532521	3157895	3789473
7	572361	3	19	70	1676	1372	1128	4110022	3789474	4421052
8	829282	3	19	75	1858	1431	1706	4943480	4421053	5052631
9	260467	3	19	95	1239	1768	1058	5208942	5052632	5684210
10	563573	2	19	55	1061	1697	0	5776580	5684211	6315789
11	925133	1	19	70	1744	0	0	6704471	6315790	6947368
12	569502	3	19	85	1073	1540	1542	7275717	6947369	7578947
13	482335	1	19	90	1496	0	0	7762207	7578948	8210526
14	584585	3	19	90	1286	1799	1829	8348288	8210527	8842105
15	540343	1	19	65	1001	0	0	8893545	8842106	9473684
16	741172	1	19	100	1740	0	0	9635718	9473685	10105263
17	793517	3	19	85	1968	1546	1397	10430975	10105264	10736842
18	739011	3	19	100	1153	1953	1602	11174897	10736843	11368421
19	298774	3	19	90	1459	1211	1853	11478379	11368422	12000000

Total number of pulses in waveform = 43

Type 5 Radar Waveform_9

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	284064	2	8	60	1633	1906	0	284064	0	1499999
2	2311376	3	8	50	1869	1727	1017	2598979	1500000	2999999
3	770016	1	8	90	1301	0	0	3373608	3000000	4499999
4	1818562	2	8	50	1841	1820	0	5193471	4500000	5999999
5	1855901	3	8	60	1067	1165	1219	7053033	6000000	7499999
6	991363	1	8	50	1313	0	0	8047847	7500000	8999999
7	1187717	3	8	60	1223	1009	1501	9236877	9000000	10499999
8	2152158	3	8	95	1332	1792	1892	11392768	10500000	11999999

Total number of pulses in waveform = 18

Type 5 Radar Waveform_10

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	536696	2	12	100	1893	1729	0	536696	0	631578
2	468707	2	12	70	1186	1392	0	1009025	631579	1263157
3	667161	3	12	100	1845	1894	1039	1678764	1263158	1894736
4	229218	3	12	55	1990	1332	1915	1912760	1894737	2526315
5	1131822	1	12	100	1857	0	0	3049819	2526316	3157894
6	569013	1	12	100	1642	0	0	3620689	3157895	3789473
7	473715	2	12	85	1253	1290	0	4096046	3789474	4421052
8	777277	3	12	50	1162	1293	1660	4875866	4421053	5052631
9	353980	3	12	50	1392	1514	1578	5233961	5052632	5684210
10	1055613	3	12	95	1132	1802	1750	6294058	5684211	6315789
11	207296	1	12	75	1516	0	0	6506038	6315790	6947368
12	600088	1	12	50	1586	0	0	7107642	6947369	7578947
13	690001	3	12	90	1113	1983	1782	7799229	7578948	8210526
14	435848	1	12	80	1344	0	0	8239955	8210527	8842105
15	1063015	3	12	75	1225	1318	1504	9304314	8842106	9473684
16	333025	1	12	95	1356	0	0	9641386	9473685	10105263
17	665509	1	12	60	1949	0	0	10299251	10105264	10736842
18	541550	3	12	95	1250	1199	1184	10842760	10736843	11368421
19	943902	1	12	50	1774	0	0	11790285	11368422	12000000

Total number of pulses in waveform = 38



Type 5 Radar Waveform_11

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	403254	2	14	95	1218	1512	0	403254	0	999999
2	802991	2	14	55	1768	1700	0	1208975	1000000	1999999
3	1147263	2	14	95	1838	1048	0	2359706	2000000	2999999
4	986164	3	14	55	1539	1033	1017	3348756	3000000	3999999
5	709497	2	14	85	1855	1730	0	4061842	4000000	4999999
6	1612647	2	14	95	1514	1700	0	5678074	5000000	5999999
7	533244	1	14	95	1842	0	0	6214532	6000000	6999999
8	1577446	1	14	55	1507	0	0	7793820	7000000	7999999
9	671722	1	14	100	1450	0	0	8467049	8000000	8999999
10	799144	2	14	90	1427	1263	0	9267643	9000000	9999999
11	733742	3	14	100	1667	1189	1424	10004075	10000000	10999999
12	1219869	2	14	60	1860	1944	0	11228224	11000000	11999999

Total number of pulses in waveform = 23

Type 5 Radar Waveform_12

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	692755	3	19	75	1155	1373	1869	692755	0	799999
2	293102	2	19	55	1250	1971	0	990254	800000	1599999
3	663634	3	19	50	1619	1386	1305	1657109	1600000	2399999
4	1357078	2	19	75	1450	1154	0	3018497	2400000	3199999
5	187622	2	19	70	1491	1450	0	3208723	3200000	3999999
6	861462	2	19	65	1127	1044	0	4073126	4000000	4799999
7	1516329	2	19	80	1763	1004	0	5591626	4800000	5599999
8	38238	1	19	60	1604	0	0	5632631	5600000	6399999
9	1200426	2	19	100	1664	1821	0	6834661	6400000	7199999
10	927476	3	19	100	1733	1669	1712	7765622	7200000	7999999
11	592818	1	19	70	1685	0	0	8363554	8000000	8799999
12	519494	2	19	65	1471	1286	0	8884733	8800000	9599999
13	782281	2	19	50	1507	1382	0	9669771	9600000	10399999
14	1386040	1	19	50	1869	0	0	11058700	10400000	11199999
15	729178	1	19	70	1502	0	0	11789747	11200000	11999999

Total number of pulses in waveform = 29

Type 5 Radar Waveform_13

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	422608	3	8	75	1440	1443	1637	422608	0	1090908
2	1437312	1	8	55	1750	0	0	1864440	1090909	2181817
3	588260	1	8	55	1934	0	0	2454450	2181818	3272726
4	1061411	1	8	80	1917	0	0	3517795	3272727	4363635
5	997231	2	8	90	1671	1075	0	4516943	4363636	5454544
6	1227544	2	8	80	1760	1816	0	5747233	5454545	6545453
7	1508178	3	8	100	1452	1952	1599	7258987	6545454	7636362
8	1065165	1	8	50	1062	0	0	8329155	7636363	8727271
9	514977	1	8	100	1047	0	0	8845194	8727272	9818180
10	1456937	1	8	50	1238	0	0	10303178	9818181	10909089
11	1677197	1	8	80	1743	0	0	11981613	10909090	11999998

Total number of pulses in waveform = 17



Type 5 Radar Waveform_14

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	604783	3	12	95	1592	1501	1237	237631	0	749999
2	1043509	1	12	75	1240	0	0	846744	750000	1499999
3	1033412	3	12	50	1738	1095	1104	1891493	1500000	2249999
4	761812	3	12	60	1387	1721	1571	2928842	2250000	2999999
5	396904	3	12	80	1035	1900	1975	3695333	3000000	3749999
6	600337	3	12	95	1671	1911	1755	4097147	3750000	4499999
7	735463	3	12	50	1169	1326	1591	4702821	4500000	5249999
8	598543	3	12	85	1039	1790	1033	5442370	5250000	5999999
9	942881	2	12	60	1819	1669	0	6044775	6000000	6749999
10	906629	1	12	60	1690	0	0	6991144	6750000	7499999
11	781374	1	12	55	1941	0	0	7899463	7500000	8249999
12	436177	2	12	100	1239	1117	0	8682778	8250000	8999999
13	850619	1	12	60	1738	0	0	9121311	9000000	9749999
14	820834	3	12	85	1223	1243	1784	9973668	9750000	10499999
15	1168157	2	12	100	1073	1835	0	10798752	10500000	11249999
16		3	12	50	1672	1601	1293	11969817	11250000	11999999

Total number of pulses in waveform = 37

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	493521	1	5	85	1284	0	0	493521	0	799999
2	847078	2	5	65	1846	1442	0	1341883	800000	1599999
3	626284	1	5	80	1832	0	0	1971455	1600000	2399999
4	883271	2	5	60	1841	1103	0	2856558	2400000	3199999
5	347192	1	5	95	1256	0	0	3206694	3200000	3999999
6	1198064	3	5	65	1062	1538	1026	4404014	4000000	4799999
7	1179244	1	5	50	1501	0	0	5586884	4800000	5599999
8	153272	2	5	85	1603	1494	0	5741657	5600000	6399999
9	1238158	3	5	100	1103	1488	1584	6982912	6400000	7199999
10	297307	2	5	50	1647	1680	0	7284394	7200000	7999999
11	1151733	1	5	80	1448	0	0	8439454	8000000	8799999
12	943790	1	5	80	1824	0	0	9384692	8800000	9599999
13	368643	1	5	90	1844	0	0	9755159	9600000	10399999
14	740451	1	5	80	1704	0	0	10497454	10400000	11199999
15	1084200	1	5	80	1495	0	0	11583358	11200000	11999999

Total number of pulses in waveform = 23

Type 5 Radar Waveform_16

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	534132	3	6	85	1853	1244	1868	534132	0	999999
2	1205834	1	6	80	1568	0	0	1744931	1000000	1999999
3	693654	1	6	50	1098	0	0	2440153	2000000	2999999
4	712040	1	6	85	1918	0	0	3153291	3000000	3999999
5	1016854	3	6	85	1789	1669	1270	4172063	4000000	4999999
6	838278	1	6	60	1650	0	0	5015069	5000000	5999999
7	1807838	3	6	50	1292	1491	1553	6824557	6000000	6999999
8	256852	1	6	60	1413	0	0	7085745	7000000	7999999
9	925782	1	6	75	1199	0	0	8012940	8000000	8999999
10	1294122	1	6	100	1698	0	0	9308261	9000000	9999999
11	1037916	2	6	50	1225	1021	0	10347875	10000000	10999999
12	1202970	1	6	65	1646	0	0	11553091	11000000	11999999

Total number of pulses in waveform = 19



Type 5 Radar Waveform_17

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	641684	2	18	70	1120	1760	0	641684	0	749999
2	408242	2	18	90	1063	1984	0	1052806	750000	1499999
3	948238	1	18	80	1917	0	0	2004091	1500000	2249999
4	798442	3	18	85	1716	1078	1530	2804450	2250000	2999999
5	385181	3	18	100	1819	1710	1383	3193955	3000000	3749999
6	889152	1	18	60	1500	0	0	4088019	3750000	4499999
7	873533	2	18	55	1509	1760	0	4963052	4500000	5249999
8	540974	1	18	60	1466	0	0	5507295	5250000	5999999
9	753231	3	18	100	1152	1576	1996	6261992	6000000	6749999
10	980709	2	18	75	1199	1403	0	7247425	6750000	7499999
11	865139	3	18	80	1000	1412	1776	8115166	7500000	8249999
12	170736	2	18	60	1590	1784	0	8290090	8250000	8999999
13	1393315	2	18	95	1630	1225	0	9686779	9000000	9749999
14	651574	2	18	65	1304	1715	0	10341208	9750000	10499999
15	175144	1	18	75	1936	0	0	10519371	10500000	11249999
16	1182707	1	18	85	1503	0	0	11704014	11250000	11999999

Total number of pulses in waveform = 31

Type 5 Radar Waveform_18

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	18706	3	9	55	1354	1819	1028	18706	0	749999
2	1245792	3	9	70	1232	1228	1980	1268699	750000	1499999
3	748943	1	9	90	1713	0	0	2022082	1500000	2249999
4	962452	2	9	100	1542	1555	0	2986247	2250000	2999999
5	72879	2	9	75	1307	1370	0	3062223	3000000	3749999
6	771665	3	9	60	1365	1516	1561	3836565	3750000	4499999
7	1265299	3	9	50	1396	1927	1381	5106306	4500000	5249999
8	496708	1	9	100	1655	0	0	5607718	5250000	5999999
9	987413	2	9	85	1643	1612	0	6596786	6000000	6749999
10	649076	3	9	85	1700	1096	1756	7249117	6750000	7499999
11	879173	3	9	55	1956	1917	1838	8132842	7500000	8249999
12	113087	3	9	75	1745	1717	1498	8251640	8250000	8999999
13	961928	1	9	50	1228	0	0	9218528	9000000	9749999
14	767152	2	9	75	1321	1007	0	9986908	9750000	10499999
15	982559	1	9	80	1077	0	0	10971795	10500000	11249999
16	406125	1	9	80	1096	0	0	11378997	11250000	11999999

Total number of pulses in waveform = 34

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	562502	3	17	50	1605	1172	1464	562502	0	705881
2	357543	2	17	90	1123	1347	0	924286	705882	1411763
3	1059279	2	17	70	1621	1579	0	1986035	1411764	2117645
4	771367	1	17	75	1191	0	0	2760602	2117646	2823527
5	625226	1	17	50	1921	0	0	3387019	2823528	3529409
6	782525	2	17	100	1969	1042	0	4171465	3529410	4235291
7	150728	2	17	80	1239	1829	0	4325204	4235292	4941173
8	1067491	3	17	75	1684	1126	1713	5395763	4941174	5647055
9	739921	2	17	95	1813	1655	0	6140207	5647056	6352937
10	241933	1	17	75	1498	0	0	6385608	6352938	7058819
11	1201941	1	17	70	1479	0	0	7589047	7058820	7764701
12	795822	3	17	65	1960	1208	1061	8386348	7764702	8470583
13	756118	3	17	65	1716	1997	1085	9146695	8470584	9176465
14	345857	1	17	75	1305	0	0	9497350	9176466	9882347
15	801807	3	17	55	1399	1903	1245	10300462	9882348	10588229
16	314038	2	17	100	1972	1213	0	10619047	10588230	11294111
17	1137754	2	17	70	1642	1084	0	11759986	11294112	11999993

Total number of pulses in waveform = 34



Type 5 Radar Waveform_20

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	697472	2	10	65	1830	1377	0	697472	0	1499999
2	2191361	1	10	95	1805	0	0	2892040	1500000	2999999
3	943782	1	10	50	1332	0	0	3837627	3000000	4499999
4	778785	2	10	80	1542	1372	0	4617744	4500000	5999999
5	1839884	2	10	95	1388	1711	0	6460542	6000000	7499999
6	1196441	2	10	55	1909	1610	0	7660082	7500000	8999999
7	2820092	1	10	85	1940	0	0	10483693	9000000	10499999
8	368046	2	10	65	1324	1433	0	10853679	10500000	11999999

Total number of pulses in waveform = 13

Type 5 Radar Waveform_21

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	1148153	1	10	70	1958	0	0	1148153	0	1333332
2	1312299	2	10	65	1237	1577	0	2462410	1333333	2666665
3	293145	2	10	80	1048	1136	0	2758369	2666666	3999998
4	1777112	2	10	55	1854	1183	0	4537665	3999999	5333331
5	1699300	1	10	80	1603	0	0	6240002	5333332	6666664
6	904284	2	10	100	1679	1923	0	7145889	6666665	7999997
7	2088063	2	10	50	1680	1888	0	9237554	7999998	9333330
8	1159968	1	10	60	1191	0	0	10401090	9333331	10666663
9	1476072	1	10	100	1029	0	0	11878353	10666664	11999996

Total number of pulses in waveform = 14

Type 5 Radar Waveform_22

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	94901	3	8	50	1968	1322	1557	94901	0	666666
2	598249	3	8	90	1298	1325	1120	697997	666667	1333333
3	1097026	2	8	80	1348	1957	0	1798766	1333334	2000000
4	713363	2	8	100	1744	1162	0	2515434	2000001	2666667
5	405407	2	8	100	1645	1522	0	2923747	2666668	3333334
6	967490	3	8	100	1748	1935	1854	3894404	3333335	4000001
7	212191	1	8	75	1432	0	0	4112132	4000002	4666668
8	832755	3	8	100	1234	1937	1213	4946319	4666669	5333335
9	497707	1	8	70	1623	0	0	5448410	5333336	6000002
10	1116581	3	8	75	1330	1974	1878	6566614	6000003	6666669
11	122591	1	8	90	1861	0	0	6694387	6666670	7333336
12	814956	1	8	70	1691	0	0	7511204	7333337	8000003
13	801832	2	8	70	1656	1083	0	8314727	8000004	8666670
14	936351	3	8	50	1128	1046	1814	9253817	8666671	9333337
15	419304	3	8	70	1500	1340	1530	9877109	9333338	10000004
16	900300	3	8	50	1993	1982	1308	10581779	10000005	10666671
17	714999	1	8	55	1416	0	0	11302061	10666672	11333338
18	561453	3	8	50	1425	1475	1206	11864930	11333339	12000005

Total number of pulses in waveform = 40



Type 5 Radar Waveform_23

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	377140	3	17	65	1324	1503	1694	377140	0	999999
2	1383933	1	17	85	1697	0	0	1765594	1000000	1999999
3	1162842	1	17	80	1521	0	0	2930123	2000000	2999999
4	822721	1	17	90	1660	0	0	3754365	3000000	3999999
5	274323	2	17	50	1155	1930	0	4030348	4000000	4999999
6	1302620	2	17	50	1654	1193	0	5336053	5000000	5999999
7	978320	1	17	50	1837	0	0	6317220	6000000	6999999
8	776630	1	17	70	1343	0	0	7095687	7000000	7999999
9	1826999	1	17	75	1984	0	0	8924029	8000000	8999999
10	484841	3	17	90	1865	1644	1424	9410854	9000000	9999999
11	942713	2	17	55	1389	1545	0	10358500	10000000	10999999
12	788303	2	17	85	1396	1465	0	11149737	11000000	11999999

Total number of pulses in waveform = 20

Type 5 Radar Waveform_24

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	1055428	3	5	65	1795	1666	1979	1055428	0	1499999
2	1377348	1	5	55	1894	0	0	2438216	1500000	2999999
3	1351600	2	5	75	1644	1426	0	3791710	3000000	4499999
4	1997498	1	5	95	1467	0	0	5792278	4500000	5999999
5	633359	3	5	80	1095	1859	1436	6427104	6000000	7499999
6	1476464	2	5	55	1519	1010	0	7907958	7500000	8999999
7	2400157	1	5	60	1192	0	0	10310644	9000000	10499999
8	650712	2	5	85	1431	1647	0	10962548	10500000	11999999

Total number of pulses in waveform = 15

Type 5 Radar Waveform_25

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	98059	1	18	100	1096	0	0	98059	0	999999
2	1717125	3	18	65	1156	1360	1689	1816280	1000000	1999999
3	749308	1	18	95	1431	0	0	2569793	2000000	2999999
4	1006414	3	18	80	1935	1266	1995	3577638	3000000	3999999
5	604233	3	18	95	1073	1765	1573	4187067	4000000	4999999
6	1232716	1	18	90	1409	0	0	5424194	5000000	5999999
7	639253	2	18	75	1346	1398	0	6064856	6000000	6999999
8	1912615	1	18	60	1879	0	0	7980215	7000000	7999999
9	521266	2	18	85	1397	1467	0	8503360	8000000	8999999
10	995871	1	18	70	1105	0	0	9502095	9000000	9999999
11	1259148	1	18	55	1626	0	0	10762348	10000000	10999999
12	1127278	1	18	80	1611	0	0	11891252	11000000	11999999

Total number of pulses in waveform = 20



Type 5 Radar Waveform_26

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	64013	2	6	55	1376	1280	0	64013	0	1090908
2	1272414	3	6	75	1345	1636	1582	1339083	1090909	2181817
3	951393	1	6	60	1277	0	0	2295039	2181818	3272726
4	1737046	1	6	100	1492	0	0	4033362	3272727	4363635
5	984109	2	6	50	1638	1350	0	5018963	4363636	5454544
6	1096550	3	6	65	1834	1982	1927	6118501	5454545	6545453
7	1244465	3	6	95	1478	1423	1542	7368709	6545454	7636362
8	721169	1	6	100	1750	0	0	8094321	7636363	8727271
9	721571	2	6	50	1573	1315	0	8817642	8727272	9818180
10	1336807	1	6	70	1758	0	0	10157337	9818181	10909089
11	1780015	3	6	90	1460	1644	1689	11939110	10909090	11999998

Total number of pulses in waveform = 22

Type 5 Radar Waveform_27

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	244381	3	19	100	1647	1360	1271	244381	0	749999
2	518549	3	19	80	1844	1634	1671	767208	750000	1499999
3	1023433	2	19	65	1089	1488	0	1795790	1500000	2249999
4	699600	3	19	80	1664	1410	1069	2497967	2250000	2999999
5	1120508	1	19	80	1901	0	0	3622618	3000000	3749999
6	870830	1	19	85	1079	0	0	4495349	3750000	4499999
7	117457	2	19	65	1365	1167	0	4613885	4500000	5249999
8	1212279	1	19	60	1332	0	0	5828696	5250000	5999999
9	547020	3	19	60	1530	1453	1769	6377048	6000000	6749999
10	447848	2	19	70	1651	1184	0	6829648	6750000	7499999
11	722523	2	19	95	1181	1874	0	7555006	7500000	8249999
12	1100733	3	19	60	1454	1534	1525	8658794	8250000	8999999
13	1057835	2	19	70	1165	1238	0	9721142	9000000	9749999
14	742537	2	19	75	1311	1416	0	10468082	9750000	10499999
15	703951	3	19	55	1683	1324	1542	11172760	10500000	11249999
16	741484	2	19	50	1249	1467	0	11918793	11250000	11999999

Total number of pulses in waveform = 35

Type 5 Radar Waveform_28

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	180470	2	14	75	1373	1379	0	180470	0	1499999
2	1798278	2	14	85	1122	1285	0	1981500	1500000	2999999
3	1038348	1	14	100	1166	0	0	3022255	3000000	4499999
4	2838096	3	14	75	1658	1134	1960	5861517	4500000	5999999
5	842504	1	14	100	1687	0	0	6708773	6000000	7499999
6	1701345	1	14	50	1521	0	0	8411805	7500000	8999999
7	1036756	1	14	90	1856	0	0	9450082	9000000	10499999
8	1647636	2	14	70	1198	1398	0	11099574	10500000	11999999

Total number of pulses in waveform = 13



Type 5 Radar Waveform_29

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	280738	3	9	95	1132	1002	1172	536989	0	705881
2	536989	2	9	60	1427	1780	0	821033	705882	1411763
3	822618	3	9	80	1117	1153	1591	1646858	1411764	2117645
4	537036	3	9	55	1599	1016	1136	2187755	2117646	2823527
5	1313120	3	9	55	1224	1051	1617	3504626	2823528	3529409
6	473585	1	9	70	1909	0	0	3982103	3529410	4235291
7	391354	2	9	70	1082	1459	0	4375366	4235292	4941173
8	844046	2	9	90	1389	1778	0	5221953	4941174	5647055
9	655725	3	9	50	1483	1788	1368	5880845	5647056	6352937
10	929730	3	9	75	1768	1234	1697	6815214	6352938	7058819
11	658399	3	9	100	1926	1592	1930	7478312	7058820	7764701
12	872442	2	9	90	1373	1781	0	8356202	7764702	8470583
13	707209	1	9	95	1939	0	0	9066565	8470584	9176465
14	182915	3	9	80	1547	1206	1278	9251419	9176466	9882347
15	1210094	3	9	100	1045	1424	1049	10465544	9882348	10588229
16	231718	3	9	90	1821	1380	1154	10700780	10588230	11294111
17	722396	1	9	70	1427	0	0	11427531	11294112	11999993

Total number of pulses in waveform = 41

Type 5 Radar Waveform_30

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	622148	3	12	60	1541	1738	1523	622148	0	857142
2	1020550	2	12	65	1509	1729	0	1647500	857143	1714285
3	295725	1	12	75	1317	0	0	1946463	1714286	2571428
4	1448357	3	12	85	1562	1950	1686	3396137	2571429	3428571
5	115612	1	12	95	1016	0	0	3516947	3428572	4285714
6	1422868	1	12	70	1589	0	0	4940831	4285715	5142857
7	358890	1	12	50	1134	0	0	5301310	5142858	6000000
8	1284933	1	12	90	1152	0	0	6587377	6000001	6857143
9	571887	3	12	60	1685	1100	1489	7160416	6857144	7714286
10	1243014	3	12	80	1954	1666	1491	8407704	7714287	8571429
11	914294	2	12	80	1772	1216	0	9327109	8571430	9428572
12	861223	1	12	95	1590	0	0	10191320	9428573	10285715
13	169270	3	12	100	1130	1123	1780	10362180	10285716	11142858
14	1188488	3	12	70	1121	1974	1325	11554701	11142859	12000001

Total number of pulses in waveform = 28



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	5291	1	16	5300	1
2	5291	1	17	5301	1
3	5292	1	18	5302	1
4	5292	1	19	5303	1
5	5293	1	20	5304	1
6	5293	1	21	5305	1
7	5294	1	22	5305	1
8	5294	1	23	5306	1
9	5295	1	24	5306	1
10	5296	1	25	5307	1
11	5307	1	26	5307	1
12	5298	1	27	5308	1
13	5299	1	28	5308	1
14	5300	1	29	5309	1
15	5300	1	30	5309	1
Detection Percentage (%)					100%



Radar waveform #1			Radar waveform #2		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
8	5319	24	2	5306	6
10	5291	30	12	5307	36
17	5292	51	22	5283	66
21	5298	63	27	5292	81
48	5317	144	32	5269	96
52	5310	156	36	5308	108
60	5300	180	37	5309	111
85	5301	255	39	5263	117
92	5264	276	42	5276	126
96	5286	288	44	5314	132
--	--	--	47	5317	141
--	--	--	48	5294	144
--	--	--	66	5267	198
--	--	--	76	5281	228
--	--	--	77	5286	231
--	--	--	95	5297	285

Radar waveform #3			Radar waveform #4		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
16	5280	48	10	5263	30
24	5319	72	23	5276	69
39	5285	117	25	5285	75
45	5268	135	32	5289	96
56	5270	168	40	5291	120
64	5263	192	44	5304	132
71	5267	213	49	5275	147
79	5296	237	50	5278	150
82	5278	246	66	5268	198
92	5320	276	72	5301	216
96	5307	288	78	5265	234
--	--	--	80	5311	240



Radar waveform #5			Radar waveform #6		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
7	5272	21	2	5307	6
20	5268	60	13	5285	39
24	5283	72	34	5277	102
26	5276	78	37	5263	111
30	5319	90	40	5279	120
31	5304	93	41	5310	123
35	5320	105	43	5278	129
38	5296	114	45	5293	135
45	5279	135	50	5311	150
51	5308	153	55	5295	165
67	5313	201	58	5270	174
70	5273	210	81	5288	243
73	5281	219	85	5266	255
93	5321	279	95	5303	285
95	5314	285	--	--	--

Radar waveform #7			Radar waveform #8		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
2	5268	6	3	5284	9
3	5312	9	5	5281	15
12	5311	36	24	5313	72
14	5298	42	34	5266	102
17	5314	51	37	5310	111
33	5287	99	46	5289	138
44	5276	132	53	5308	159
55	5320	165	64	5291	192
64	5307	192	68	5271	204
67	5316	201	90	5297	270
91	5318	273	--	--	--



Radar waveform #9			Radar waveform #10		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
5	5272	15	6	5303	18
10	5264	30	31	5261	93
22	5317	66	37	5285	111
25	5271	75	44	5296	132
29	5269	87	46	5319	138
30	5288	90	55	5272	165
33	5315	99	57	5320	171
35	5309	105	58	5309	174
54	5276	162	67	5291	201
63	5287	189	75	5292	225
80	5306	240	82	5264	246
83	5318	249	85	5316	255
87	5292	261	97	5274	291
89	5274	267	--	--	--

Radar waveform #11			Radar waveform #12		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Frequency (MHz)	Hopping Number	Pulse Start (ms)
13	5323	39	4	5294	12
15	5299	45	12	5284	36
32	5290	96	13	5298	39
37	5297	111	29	5323	87
39	5315	117	32	5313	96
44	5325	132	35	5283	105
47	5289	141	37	5325	111
58	5273	174	45	5329	135
59	5330	177	46	5281	138
62	5314	186	51	5286	153
73	5275	219	62	5272	186
76	5281	228	66	5330	198
79	5324	237	71	5300	213
84	5303	252	85	5327	255
91	5328	273	91	5310	273



Radar waveform #13			Radar waveform #14		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
3	5294	9	21	5297	63
6	5309	18	33	5308	99
9	5322	27	39	5316	117
14	5272	42	51	5326	153
30	5326	90	53	5277	159
36	5300	108	59	5309	177
40	5297	120	60	5294	180
56	5270	168	74	5278	222
69	5305	207	86	5288	258
80	5316	240	--	--	--
92	5315	276	--	--	--
97	5319	291	--	--	--

Radar waveform #15			Radar waveform #16		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
0	5282	0	1	5329	3
2	5328	6	4	5289	12
8	5323	24	7	5327	21
15	5303	45	18	5281	54
16	5284	48	20	5309	60
21	5327	63	29	5297	87
26	5288	78	33	5319	99
32	5283	96	43	5298	129
33	5302	99	44	5282	132
44	5275	132	52	5316	156
63	5322	189	59	5299	177
80	5314	240	61	5293	183
89	5301	267	66	5305	198
93	5285	279	83	5286	249



Radar waveform #17			Radar waveform #18		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
2	5291	6	2	5271	6
5	5286	15	3	5281	9
15	5278	45	7	5285	21
21	5330	63	13	5329	39
61	5320	183	20	5275	60
68	5292	204	21	5317	63
81	5311	243	24	5308	72
83	5304	249	28	5276	84
96	5306	288	36	5292	108
97	5319	291	45	5291	135
--	--	--	50	5323	150
--	--	--	66	5327	198
--	--	--	72	5282	216
--	--	--	85	5311	255

Radar waveform #19			Radar waveform #20		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
1	5281	3	15	5283	45
11	5287	33	24	5273	72
16	5311	48	25	5314	75
35	5317	105	29	5326	87
41	5330	123	39	5293	117
42	5302	126	42	5297	126
71	5290	213	65	5271	195
75	5292	225	80	5290	240
85	5295	255	92	5301	276
87	5319	261	94	5279	282
90	5291	270	96	5286	288
--	--	--	97	5277	291
--	--	--	99	5292	297

Radar waveform #21			Radar waveform #22		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
15	5304	45	7	5324	21
40	5318	120	8	5326	24
54	5334	162	30	5310	90
58	5303	174	37	5336	111
60	5294	180	46	5299	138
62	5288	186	56	5296	168
78	5290	234	67	5290	201
84	5327	252	75	5292	225
85	5284	255	77	5305	231
92	5313	276	85	5300	255
99	5319	297	94	5312	282

Radar waveform #23			Radar waveform #24		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
9	5280	27	9	5304	27
14	5320	42	15	5292	45
17	5296	51	18	5326	54
19	5301	57	45	5301	135
20	5306	60	57	5321	171
28	5334	84	69	5322	207
36	5302	108	90	5313	270
46	5318	138	93	5290	279
54	5324	162	97	5334	291
76	5307	228	--	--	--



Radar waveform #25			Radar waveform #26		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
3	5298	9	1	5333	3
25	5310	75	6	5310	18
28	5279	84	9	5285	27
36	5303	108	12	5301	36
45	5328	135	14	5295	42
55	5327	165	20	5336	60
61	5336	183	28	5282	84
72	5338	216	43	5279	129
78	5326	234	59	5309	177
81	5317	243	68	5313	204
85	5295	255	80	5306	240
89	5293	267	82	5332	246
94	5304	282	90	5304	270
--	--	--	96	5316	288

Radar waveform #27			Radar waveform #28		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
13	5316	39	1	5327	3
16	5287	48	4	5324	12
27	5302	81	34	5303	102
28	5301	84	36	5299	108
32	5325	96	43	5283	129
37	5303	111	47	5309	141
49	5280	147	59	5291	177
56	5292	168	63	5300	189
57	5296	171	65	5313	195
70	5291	210	70	5331	210
71	5313	213	84	5280	252
76	5305	228	98	5318	294
77	5323	231	--	--	--
98	5330	294	--	--	--

Radar waveform #29			Radar waveform #30		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
2	5293	6	1	5320	3
10	5292	30	11	5299	33
18	5334	54	25	5300	75
23	5311	69	28	5293	84
27	5285	81	34	5301	102
29	5331	87	36	5303	108
34	5303	102	50	5319	150
37	5294	111	63	5336	189
48	5316	144	66	5297	198
57	5302	171	73	5280	219
73	5305	219	78	5291	234
83	5300	249	--	--	--



Product	G-140W-C	Temperature	27°C
Test Engineer	Amy Zhang	Relative Humidity	65%
Test Site	TR5	Test Date	2017/12/10
Test Item	Radar Statistical Performance Check (802.11n-HT40 mode – 5310MHz)		

Radar Type 1 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5292	1	518	102	1
2	5293	1	918	58	1
3	5294	1	618	86	1
4	5295	1	818	65	1
5	5296	1	638	83	1
6	5297	1	838	63	1
7	5298	1	858	62	1
8	5299	1	758	70	1
9	5300	1	598	89	1
10	5301	1	698	76	1
11	5302	1	738	72	1
12	5303	1	938	57	1
13	5305	1	538	99	1
14	5307	1	678	78	1
15	5309	1	3066	18	1
16	5310	1	3063	18	1
17	5312	1	2949	18	1
18	5314	1	2485	22	1
19	5316	1	3033	18	1
20	5317	1	1966	27	1
21	5318	1	1596	34	1
22	5320	1	1192	45	1
23	5322	1	1216	44	1
24	5323	1	851	63	1
25	5324	1	1832	29	1
26	5325	1	2063	26	1



Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
27	5326	1	534	99	1
28	5327	1	546	97	1
29	5328	1	848	63	1
30	5329	1	2980	18	1
Detection Percentage (%)					100%



Radar Type 2 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5292	3.0	157	29	1
2	5293	4.3	192	27	1
3	5294	4.6	159	28	1
4	5295	1.5	218	26	1
5	5296	3.0	169	23	1
6	5297	4.5	182	23	1
7	5298	1.2	155	29	1
8	5299	2.6	153	28	1
9	5300	3.9	208	29	1
10	5301	2.8	215	23	1
11	5302	3.5	186	25	1
12	5303	4.0	212	23	1
13	5305	2.8	228	26	1
14	5307	1.8	199	24	1
15	5309	1.3	177	26	1
16	5310	2.8	164	29	1
17	5312	4.7	213	24	1
18	5314	3.3	201	26	1
19	5316	1.6	193	25	1
20	5317	3.6	210	26	1
21	5318	1.1	190	26	1
22	5320	1.6	196	26	1
23	5322	1.5	174	28	1
24	5323	4.3	223	28	1
25	5324	4.0	192	29	1
26	5325	2.4	204	28	1
27	5326	3.5	225	26	1
28	5327	3.3	164	23	1
29	5328	1.8	173	28	1
30	5329	3.0	175	26	1
Detection Percentage (%)					100%



Radar Type 3 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5292	7.9	405	16	1
2	5293	8.9	462	17	1
3	5294	7.7	462	16	1
4	5295	9.0	418	18	1
5	5296	6.4	428	18	1
6	5297	6.0	420	18	1
7	5298	8.7	393	18	1
8	5299	8.2	384	17	1
9	5300	9.7	387	16	1
10	5301	6.2	293	16	1
11	5302	6.6	264	16	1
12	5303	6.2	399	17	1
13	5305	6.3	270	16	1
14	5307	6.5	267	18	1
15	5309	7.9	347	16	1
16	5310	6.7	372	18	1
17	5312	10.0	422	16	1
18	5314	6.6	257	17	1
19	5316	8.0	352	17	1
20	5317	8.9	261	16	1
21	5318	9.0	266	18	1
22	5320	9.2	438	17	1
23	5322	9.4	265	16	1
24	5323	9.2	449	18	1
25	5324	7.5	399	17	1
26	5325	8.9	259	18	1
27	5326	7.2	414	16	1
28	5327	9.9	389	17	1
29	5328	8.9	332	18	1
30	5329	6.7	336	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	19.2	412	15	1
2	5293	12.7	369	15	1
3	5294	15.7	252	13	1
4	5295	16.4	452	16	1
5	5296	15.8	344	14	1
6	5297	18.4	309	13	1
7	5298	12.4	359	16	1
8	5299	17.3	400	12	1
9	5300	17.3	457	16	1
10	5301	12.1	324	16	1
11	5302	17.9	329	16	1
12	5303	18.3	469	12	1
13	5305	11.9	330	12	1
14	5307	19.8	251	15	1
15	5309	14.1	364	15	1
16	5310	17.3	401	16	1
17	5312	12.9	346	12	1
18	5314	18.3	275	13	1
19	5316	12.5	251	15	1
20	5317	18.3	466	12	1
21	5318	16.9	480	15	1
22	5320	17.8	350	15	1
23	5322	14.6	340	12	1
24	5323	17.4	459	16	1
25	5324	16.0	430	14	1
26	5325	15.8	307	14	1
27	5326	18.8	455	12	1
28	5327	18.9	389	16	1
29	5328	19.6	393	14	1
30	5329	13.6	422	15	1
Detection Percentage (%)					100%

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

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



Radar Type 5 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	1=Detection 0=No Detection	Trail #	Test Freq. (MHz)	1=Detection 0=No Detection
1	5298.8	1	16	5300.0	1
2	5296.0	1	17	5300.0	1
3	5295.6	1	18	5300.0	1
4	5294.0	1	19	5300.0	1
5	5297.6	1	20	5300.0	1
6	5299.2	1	21	5324.0	1
7	5294.4	1	22	5324.8	1
8	5299.6	1	23	5321.2	1
9	5295.2	1	24	5326.0	1
10	5296.8	1	25	5320.8	1
11	5300.0	1	26	5325.6	1
12	5300.0	1	27	5320.4	1
13	5300.0	1	28	5322.4	1
14	5300.0	1	29	5324.4	1
15	5300.0	1	30	5323.2	1
Detection Percentage (%)					5296.8

Type 5 Radar Waveform_1										
Num of Bursts = 13										
Burst Interval (us)= 923077										
Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	392674	3	17	80	1502	1176	1801	392674	0	923076
2	1023888	3	17	95	1964	1807	1179	1421041	923077	1846153
3	1086468	2	17	70	1152	1360	0	2512459	1846154	2769230
4	712247	2	17	55	1015	1332	0	3227218	2769231	3692307
5	1320099	1	17	85	1772	0	0	4549664	3692308	4615384
6	534448	2	17	75	1980	1811	0	5085884	4615385	5538461
7	1151701	1	17	80	1525	0	0	6241376	5538462	6461538
8	702171	3	17	50	1956	1112	1735	6945072	6461539	7384615
9	456602	2	17	50	1164	1385	0	7406477	7384616	8307692
10	1230825	3	17	70	1852	1950	1329	8639851	8307693	9230769
11	1444946	1	17	75	1542	0	0	10089928	9230770	10153846
12	427538	3	17	85	1632	1344	1689	10519008	10153847	11076923
13	1320697	2	17	80	1511	1595	0	11844370	11076924	12000000
Total number of pulses in waveform = 28										



Type 5 Radar Waveform_2

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	446285	3	10	70	1690	1890	1396	446285	0	599999
2	619026	2	10	90	1366	1585	0	1070287	600000	1199999
3	497122	2	10	50	1972	1252	0	1570350	1200000	1799999
4	554858	1	10	55	1992	0	0	2077659	1800000	2399999
5	386168	2	10	100	1122	1826	0	2634509	2400000	2999999
6	697616	3	10	70	1099	1503	1406	3023625	3000000	3599999
7	882196	1	10	60	1465	0	0	3725248	3600000	4199999
8	217532	3	10	60	1225	1006	1002	4608909	4200000	4799999
9	936352	2	10	55	1978	1881	0	4829674	4800000	5399999
10	700801	2	10	85	1586	1936	0	5759885	5400000	5999999
11	166293	1	10	95	1380	0	0	6474208	6000000	6599999
12	679635	3	10	100	1595	1781	1527	6641881	6600000	7199999
13	1042942	1	10	55	1729	0	0	7326419	7200000	7799999
14	505908	3	10	70	1208	1318	1531	8371090	7800000	8399999
15	222334	2	10	90	1482	1205	0	8884955	8400000	8999999
16	670277	1	10	90	1099	0	0	9109976	9000000	9599999
17	786468	3	10	60	1835	1102	1817	9781362	9600000	10199999
18	513144	2	10	75	1431	1501	0	10572574	10200000	10799999
19	799984	1	10	60	1926	0	0	11088650	10800000	11399999
20	799984	2	10	95	1519	1512	0	11890560	11400000	11999999

Total number of pulses in waveform = 40

Type 5 Radar Waveform_3

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	596242	1	9	95	1907	0	0	596242	0	631578
2	478573	3	9	55	1949	1136	1772	1076722	631579	1263157
3	270904	1	9	95	1889	0	0	1352433	1263158	1894736
4	1129407	2	9	100	1039	1265	0	2483779	1894737	2526315
5	334764	1	9	50	1768	0	0	2820847	2526316	3157894
6	590434	2	9	100	1287	1408	0	3413049	3157895	3789473
7	923554	2	9	65	1261	1682	0	4339298	3789474	4421052
8	104818	2	9	70	1768	1708	0	4447059	4421053	5052631
9	801899	3	9	75	1930	1917	1198	5252234	5052632	5684210
10	654749	3	9	60	1472	1002	1864	5912028	5684211	6315789
11	459319	1	9	50	1679	0	0	6375635	6315790	6947368
12	624956	3	9	100	1982	1891	1703	7002320	6947369	7578947
13	767710	1	9	70	1259	0	0	775606	7578948	8210526
14	623763	3	9	50	1367	1749	1838	8400628	8210527	8842105
15	751096	2	9	90	1377	1841	0	9156678	8842106	9473684
16	662919	2	9	100	1986	1733	0	9822815	9473685	10105263
17	290559	2	9	75	1016	1922	0	10117093	10105264	10736842
18	753340	2	9	100	1544	1242	0	10873371	10736843	11368421
19	633876	3	9	85	2000	1270	1828	11510033	11368422	12000000

Total number of pulses in waveform = 39

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	180198	3	5	85	1146	1578	1912	180198	0	857142
2	1204780	3	5	60	1678	1532	1964	1389614	857143	1714285
3	1089616	3	5	65	1790	1144	1092	2484404	1714286	2571428
4	382909	2	5	85	1799	1766	0	2871339	2571429	3428571
5	1002584	2	5	50	1091	1860	0	3877488	3428572	4285714
6	945608	2	5	85	1673	1699	0	4826047	4285715	5142857
7	754052	1	5	70	1577	0	0	5583471	5142858	6000000
8	567371	3	5	60	1896	1253	1863	6152419	6000001	6857143
9	795283	1	5	55	1563	0	0	6952714	6857144	7714286
10	1491207	1	5	85	1369	0	0	8445484	7714287	8571429
11	493609	3	5	95	1538	1559	1434	8940462	8571430	9428572
12	528104	1	5	100	1285	0	0	9473097	9428573	10285715
13	1109715	1	5	70	1562	0	0	10584097	10285716	11142858
14	591552	1	5	85	1743	0	0	11177211	11142859	12000001

Total number of pulses in waveform = 27



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	592803	2	14	50	1396	1706	0	592803	0	1499999
2	1850839	2	14	85	1611	1156	0	2446744	1500000	2999999
3	1016510	2	14	95	1097	1626	0	3466021	3000000	4499999
4	2413155	2	14	80	1751	1856	0	5881899	4500000	5999999
5	1331554	1	14	95	1664	0	0	7217060	6000000	7499999
6	549481	3	14	80	1657	1553	1902	7768205	7500000	8999999
7	2444470	1	14	75	1644	0	0	10217787	9000000	10499999
8	1368731	3	14	55	1182	1735	1827	11608162	10500000	11999999

Total number of pulses in waveform = 16

Type 5 Radar Waveform_6

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	548110	2	18	70	1984	1759	0	548110	0	1333332
2	1022491	1	18	80	1484	0	0	1574344	1333333	2666665
3	2391874	1	18	85	1516	0	0	3967702	2666666	3999998
4	784786	2	18	70	1512	1941	0	4754004	3999999	5333331
5	1517060	2	18	90	1881	1844	0	6274517	5333332	6666664
6	1317772	1	18	70	1118	0	0	7596014	6666665	7999997
7	823423	1	18	95	1445	0	0	8420555	7999998	9333330
8	1714006	2	18	60	1646	1714	0	10136006	9333331	10666663
9	550071	3	18	65	1249	1619	1611	10689437	10666664	11999996

Total number of pulses in waveform = 15

Type 5 Radar Waveform_7

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	90428	3	6	85	1240	1209	1521	90428	0	749999
2	707664	1	6	70	1841	0	0	802062	750000	1499999
3	725947	2	6	95	1772	1284	0	1529850	1500000	2249999
4	737375	1	6	70	1010	0	0	2270281	2250000	2999999
5	828101	1	6	75	1031	0	0	3099392	3000000	3749999
6	898420	2	6	75	1498	1146	0	3998843	3750000	4499999
7	882723	2	6	60	1826	1771	0	4884210	4500000	5249999
8	889552	1	6	65	1505	0	0	5777359	5250000	5999999
9	673755	3	6	75	1509	1188	1169	6452619	6000000	6749999
10	899766	3	6	100	1023	1716	1688	7356251	6750000	7499999
11	523706	3	6	80	1797	1641	1735	7884384	7500000	8249999
12	620582	1	6	80	1571	0	0	8510139	8250000	8999999
13	1146448	2	6	80	1942	1691	0	9658158	9000000	9749999
14	462170	3	6	50	1437	1476	1088	10123961	9750000	10499999
15	436648	1	6	55	1218	0	0	10564610	10500000	11249999
16	795073	3	6	70	1127	1184	1376	11360901	11250000	11999999

Total number of pulses in waveform = 32



Type 5 Radar Waveform_8

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	739295	1	19	75	1936	0	0	739295	0	857142
2	740361	2	19	60	1405	1605	0	1481592	857143	1714285
3	528296	1	19	65	1496	0	0	2012898	1714286	2571428
4	1365068	3	19	85	1849	1659	1479	3379462	2571429	3428571
5	467308	3	19	95	1931	1536	1541	3851757	3428572	4285714
6	1197790	2	19	50	1958	1153	0	5054555	4285715	5142857
7	346340	3	19	95	1673	1180	1179	5404006	5142858	6000000
8	666739	2	19	80	1893	1543	0	6074777	6000001	6857143
9	1026463	2	19	60	1137	1538	0	7104676	6857144	7714286
10	1207271	1	19	85	1284	0	0	8314622	7714287	8571429
11	1034029	2	19	70	1693	1278	0	9349935	8571430	9428572
12	220479	2	19	75	1585	1877	0	9573385	9428573	10285715
13	1376212	3	19	75	1138	1424	1777	10953059	10285716	11142858
14	269739	2	19	75	1757	1119	0	11227137	11142859	12000001

Total number of pulses in waveform = 29

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	226016	3	8	95	1118	1525	1911	226016	0	599999
2	620342	3	8	95	1947	1087	1404	850912	600000	1199999
3	588578	3	8	60	1486	1380	1352	1443928	1200000	1799999
4	819557	2	8	85	1614	1585	0	2267703	1800000	2399999
5	264286	2	8	90	1844	1645	0	2535188	2400000	2999999
6	822100	3	8	85	1142	1373	1048	3360777	3000000	3599999
7	303466	1	8	75	1614	0	0	3667806	3600000	4199999
8	597032	2	8	95	1940	1626	0	4266452	4200000	4799999
9	736944	3	8	80	1779	1298	1391	5006962	4800000	5399999
10	571275	1	8	95	1544	0	0	5582705	5400000	5999999
11	674016	1	8	100	1451	0	0	6258265	6000000	6599999
12	612400	1	8	50	1748	0	0	6872116	6600000	7199999
13	507494	3	8	55	1177	1607	1831	7381358	7200000	7799999
14	796800	2	8	100	1004	1408	0	8182773	7800000	8399999
15	811199	1	8	80	1073	0	0	8996384	8400000	8999999
16	230070	3	8	65	1975	1037	1693	9227527	9000000	9599999
17	580130	3	8	90	1895	1348	1116	9812362	9600000	10199999
18	763515	1	8	100	1377	0	0	10580236	10200000	10799999
19	412901	3	8	95	1208	1413	1650	10994514	10800000	11399999
20	950594	1	8	60	1515	0	0	11949379	11400000	11999999

Total number of pulses in waveform = 42

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	80075	2	12	65	1257	1705	0	80075	0	923076
2	888692	1	12	60	1558	0	0	971729	923077	1846153
3	1059120	3	12	70	1234	1531	1900	2032407	1846154	2769230
4	1523239	2	12	50	1587	1102	0	3560311	2769231	3692307
5	180175	2	12	100	1870	1876	0	3743175	3692308	4615384
6	1744890	2	12	65	1872	1452	0	5491811	4615385	5538461
7	209503	2	12	75	1734	1683	0	5704638	5538462	6461538
8	1235265	1	12	100	1583	0	0	6943320	6461539	7384615
9	761363	3	12	100	1757	1501	1629	7706266	7384616	8307692
10	1100385	1	12	65	1958	0	0	8811538	8307693	9230769
11	1176185	1	12	90	1228	0	0	9989681	9230770	10153846
12	447997	1	12	60	1833	0	0	10438906	10153847	11076923
13	932337	1	12	80	1731	0	0	11373076	11076924	12000000

Total number of pulses in waveform = 22



Type 5 Radar Waveform_11

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	508753	3	14	70	1652	1545	1871	508753	0	631578
2	675957	2	14	55	1937	1583	0	1189778	631579	1263157
3	680791	3	14	95	1629	1083	1525	1874089	1263158	1894736
4	606765	3	14	85	1293	1795	1850	2485091	1894737	2526315
5	509399	1	14	85	1565	0	0	2999428	2526316	3157894
6	497969	2	14	75	1437	1087	0	3498962	3157895	3789473
7	361986	3	14	70	1359	1637	1328	3863472	3789474	4421052
8	748750	3	14	60	1171	1976	1299	4616546	4421053	5052631
9	780101	3	14	60	1920	1973	1148	5401093	5052632	5684210
10	381534	3	14	95	1470	1165	1851	5787668	5684211	6315789
11	922106	1	14	60	1750	0	0	6714260	6315790	6947368
12	342252	2	14	100	1485	1880	0	7058262	6947369	7578947
13	621065	2	14	95	1891	1585	0	7682692	7578948	8210526
14	813146	2	14	90	1328	1192	0	8499314	8210527	8842105
15	819622	3	14	85	1339	1944	1729	9321456	8842106	9473684
16	642039	3	14	65	1845	1418	1898	9968507	9473685	10105263
17	379685	1	14	95	1762	0	0	10353353	10105264	10736842
18	897414	2	14	90	1559	1818	0	11252529	10736843	11368421
19	595551	2	14	65	1545	1741	0	11851457	11368422	12000000

Total number of pulses in waveform = 44

Type 5 Radar Waveform_12

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	372816	2	19	80	1295	1684	0	372816	0	666666
2	571369	2	19	90	1755	1496	0	947164	666667	1333333
3	996777	2	19	85	1875	1545	0	1947192	1333334	2000000
4	274550	1	19	80	1190	0	0	2225162	2000001	2666667
5	581811	1	19	70	1703	0	0	2808163	2666668	3333334
6	906069	3	19	50	1069	1054	1115	3715935	3333335	4000001
7	556357	1	19	75	1544	0	0	4275530	4000002	4666668
8	831409	3	19	70	1583	1244	1106	5108483	4666669	5333335
9	652696	2	19	70	1818	1979	0	5765112	5333336	6000002
10	289642	2	19	70	1196	1066	0	6058551	6000003	6666669
11	920322	1	19	55	1147	0	0	6981135	6666670	7333336
12	364186	2	19	80	1112	1548	0	7346468	7333337	8000003
13	803285	3	19	65	1309	1493	1453	8152413	8000004	8666670
14	1090043	2	19	80	1547	1160	0	9246711	8666671	9333337
15	507171	1	19	70	1762	0	0	9756589	9333338	10000004
16	339463	2	19	80	1773	1285	0	10097814	10000005	10666671
17	1008341	1	19	70	1597	0	0	11109213	10666672	11333338
18	651502	1	19	90	1119	0	0	11762312	11333339	12000005

Total number of pulses in waveform = 32

Type 5 Radar Waveform_13

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	126579	2	8	95	1254	1013	0	126579	0	631578
2	680396	3	8	55	1575	1639	1432	809242	631579	1263157
3	1000349	2	8	65	1912	1153	0	1814237	1263158	1894736
4	500647	1	8	60	1904	0	0	2317949	1894737	2526315
5	756523	1	8	85	1893	0	0	3076376	2526316	3157894
6	125477	3	8	90	1907	1527	1689	3203746	3157895	3789473
7	1205091	2	8	55	1699	1589	0	4413960	3789474	4421052
8	254243	1	8	60	1383	0	0	4671491	4421053	5052631
9	577252	3	8	90	1204	1797	1514	5250126	5052632	5684210
10	935353	3	8	55	1446	1287	1707	6189994	5684211	6315789
11	711794	3	8	55	1608	1823	1600	6906228	6315790	6947368
12	104197	1	8	95	1641	0	0	7015456	6947369	7578947
13	682949	2	8	50	1313	1123	0	7700046	7578948	8210526
14	518766	2	8	95	1301	1233	0	8221248	8210527	8842105
15	843599	2	8	70	1794	1668	0	9067381	8842106	9473684
16	409967	1	8	65	1686	0	0	9480810	9473685	10105263
17	804980	2	8	100	1643	1415	0	10287476	10105264	10736842
18	567359	3	8	95	1320	1739	1131	10857893	10736843	11368421
19	752762	3	8	60	1485	1011	1574	11614845	11368422	12000000

Total number of pulses in waveform = 40



Type 5 Radar Waveform_14

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	372936	3	12	90	1688	1477	1571	372936	0	1090908
2	1179397	2	12	60	1451	1242	0	1557069	1090909	2181817
3	908289	2	12	65	1531	1296	0	2468051	2181818	3272726
4	1228847	1	12	65	1744	0	0	3699725	3272727	4363635
5	1019719	2	12	80	1082	1176	0	4721188	4363636	5454544
6	1289747	1	12	90	1946	0	0	6013193	5454545	6545453
7	600454	3	12	65	1853	1417	1510	6615593	6545454	7636362
8	1248398	2	12	85	1881	1352	0	7868771	7636363	8727271
9	1452114	3	12	50	1938	1134	1385	9324118	8727272	9818180
10	1436931	3	12	60	1916	1518	1600	10765506	9818181	10909089
11	372362	3	12	50	1891	1768	1887	11142902	10909090	11999998

Total number of pulses in waveform = 25

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	691779	1	5	60	1632	0	0	691779	0	799999
2	286399	1	5	55	1389	0	0	979810	800000	1599999
3	1158634	2	5	100	1853	1619	0	2139833	1600000	2399999
4	728014	1	5	70	1576	0	0	2871319	2400000	3199999
5	490802	1	5	80	1053	0	0	3363697	3200000	3999999
6	703081	3	5	85	1669	1579	1576	4067831	4000000	4799999
7	1133378	3	5	75	1620	1528	1384	5206033	4800000	5599999
8	727769	3	5	80	1632	1717	1460	5938334	5600000	6399999
9	959193	2	5	65	1879	1912	0	6902336	6400000	7199999
10	830782	3	5	80	1162	1013	1837	7736909	7200000	7999999
11	598173	3	5	70	1463	1693	1369	8339094	8000000	8799999
12	721675	2	5	85	1878	1837	0	9065294	8800000	9599999
13	1212467	2	5	70	1347	1609	0	10281476	9600000	10399999
14	554530	2	5	85	1803	1037	0	10838962	10400000	11199999
15	708281	1	5	75	1482	0	0	11550083	11200000	11989999

Total number of pulses in waveform = 30

Type 5 Radar Waveform_16

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	95184	1	6	85	1900	0	0	95184	0	631578
2	587177	3	6	60	1490	1673	1499	684261	631579	1263157
3	691370	2	6	85	1923	1502	0	1380293	1263158	1894736
4	1050880	3	6	50	1317	1432	1428	2434598	1894737	2526315
5	172382	3	6	85	1077	1434	1890	2611157	2526316	3157894
6	645192	1	6	90	1477	0	0	3260760	3157895	3789473
7	634288	2	6	85	1569	1608	0	3896515	3789474	4421052
8	1090842	2	6	60	1066	1401	0	4990534	4421053	5052631
9	114590	2	6	70	1151	1373	0	5107581	5052632	5684210
10	918823	3	6	85	1732	1451	1274	6028928	5684211	6316789
11	639848	2	6	90	1060	1086	0	6673233	6316790	6947368
12	684243	3	6	85	1691	1017	1689	7359622	6947369	7578947
13	599092	3	6	50	1540	1921	1434	7963111	7578948	8210526
14	486721	3	6	75	1007	1257	1268	8454727	8210527	8842105
15	601251	1	6	65	1327	0	0	9059510	8842106	9473684
16	676078	1	6	100	1923	0	0	9735915	9473685	10105263
17	568355	3	6	60	1217	1500	1364	10306193	10105264	10736842
18	815935	3	6	55	1500	1374	1638	11126209	10736843	11368421
19	317224	1	6	80	1079	0	0	11447945	11368422	12000000

Total number of pulses in waveform = 42



Type 5 Radar Waveform_17

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	171527	3	18	75	1378	1016	1002	171527	0	631578
2	1049552	3	18	60	1241	1697	1965	1224475	631579	1263157
3	208434	2	18	85	1149	1960	0	1437812	1263158	1894736
4	748428	2	18	70	1252	1169	0	2189349	1894737	2526315
5	900726	2	18	100	1479	1319	0	3092496	2526316	3157894
6	270287	1	18	60	1595	0	0	3365581	3157895	3789473
7	608000	1	18	75	1115	0	0	3975176	3789474	4421052
8	525445	3	18	90	1881	1510	1142	4501736	4421053	5052631
9	782436	1	18	85	1271	0	0	5288705	5052632	5684210
10	941102	3	18	90	1285	1980	1438	6231078	5684211	6315789
11	271592	3	18	95	1964	1335	1508	6507373	6315790	6947368
12	625600	2	18	100	1137	1535	0	7137781	6947369	7578947
13	693847	1	18	95	1242	0	0	7834901	7578948	8210526
14	411980	2	18	90	1369	1239	0	8247523	8210527	8842105
15	648326	3	18	55	1016	1461	1773	8899457	8842106	9473684
16	989376	3	18	90	1571	1896	1744	9893083	9473685	10105263
17	284589	3	18	90	1698	1447	1101	10182883	10105264	10736842
18	583551	1	18	90	1435	0	0	10770680	10736843	11368421
19	710849	3	18	90	1945	1985	1410	11482964	11368422	12000000

Total number of pulses in waveform = 42

Type 5 Radar Waveform_18

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	214161	2	9	55	1761	1055	0	214161	0	666666
2	797152	1	9	100	1899	0	0	1014129	666667	1333333
3	905794	2	9	100	1791	1428	0	1921822	1333334	2000000
4	341880	1	9	65	1350	0	0	2266921	2000001	2666667
5	976191	3	9	100	1925	1701	1357	3244462	2666668	3333334
6	434462	2	9	80	1246	1574	0	3683907	3333335	4000001
7	471399	1	9	65	1195	0	0	4158126	4000002	4666668
8	1039256	3	9	95	1990	1832	1109	5198577	4666669	5333335
9	490217	1	9	50	1347	0	0	5693725	5333336	6000002
10	929778	2	9	75	1520	1188	0	6624850	6000003	6666669
11	43963	2	9	60	1587	1139	0	6671521	6666670	7333336
12	1069785	1	9	60	1716	0	0	7744032	7333337	8000003
13	843514	2	9	100	1484	1909	0	8589262	8000004	8666670
14	194439	2	9	75	1242	1201	0	8787094	8666671	9333337
15	1149941	2	9	85	1890	1754	0	9939478	9333338	10000004
16	390095	2	9	80	1370	1414	0	10333217	10000005	10666671
17	896948	1	9	90	1624	0	0	11232949	10666672	11333338
18	491594	2	9	50	1790	1412	0	11726167	11333339	12000005

Total number of pulses in waveform = 32

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	742093	1	17	55	1052	0	0	742093	0	857142
2	831008	3	17	90	1005	1686	1717	1574153	857143	1714285
3	327471	2	17	80	1127	1303	0	1906032	1714286	2571428
4	873025	1	17	100	1940	0	0	2781487	2571429	3428571
5	804852	1	17	60	1158	0	0	3588279	3428572	4285714
6	898805	2	17	50	1871	1519	0	4488242	4285715	5142857
7	1369860	1	17	50	1189	0	0	5861492	5142858	6000000
8	150188	1	17	65	1959	0	0	6012869	6000001	6857143
9	1693319	1	17	100	1966	0	0	7708147	6857144	7714286
10	620934	2	17	85	1469	1614	0	8331047	7714287	8571429
11	680281	1	17	85	1389	0	0	9014411	8571430	9428572
12	965483	2	17	50	1915	1219	0	9981283	9428573	10285715
13	1079887	2	17	85	1562	1851	0	11064304	10285716	11142858
14	844296	2	17	100	1135	1470	0	11912013	11142859	12000001

Total number of pulses in waveform = 22



Type 5 Radar Waveform_20

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	752878	2	10	90	1447	1393	0	752878	0	1333332
2	876952	1	10	95	1778	0	0	1632670	1333333	2666665
3	1480829	2	10	65	1994	1412	0	3115277	2666666	3999998
4	1013402	3	10	55	1197	1172	1319	4132085	3999999	5333331
5	1870752	3	10	95	1528	1630	1910	6006525	5333332	6666664
6	736770	3	10	60	1319	1701	1929	6748363	6666665	7999997
7	2004592	2	10	50	1463	1013	0	8757904	7999998	9333330
8	1565076	3	10	95	1275	1264	1625	10325456	9333331	10666663
9	675451	1	10	100	1286	0	0	11005071	10666664	11999996

Total number of pulses in waveform = 20

Type 5 Radar Waveform_21

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	511362	1	10	60	1352	0	0	511362	0	1499999
2	1747519	3	10	75	1428	1981	1288	2260233	1500000	2999999
3	933963	2	10	60	1905	1257	0	3198873	3000000	4499999
4	1768434	2	10	90	1464	1034	0	4970469	4500000	5999999
5	1339058	3	10	80	1131	1232	1993	6312025	6000000	7499999
6	1507661	1	10	100	1634	0	0	7824042	7500000	8999999
7	1515159	2	10	100	1802	1646	0	9340835	9000000	10499999
8	2645051	3	10	50	1788	1082	1607	11989334	10500000	11999999

Total number of pulses in waveform = 17

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	6192	1	8	90	1625	0	0	6192	0	705881
2	888271	1	8	50	1791	0	0	895988	705882	1411763
3	1136000	2	8	70	1051	1381	0	2033779	1411764	2117645
4	769553	2	8	100	1178	1906	0	2795764	2117646	2823527
5	323529	1	8	100	1730	0	0	3122377	2823528	3529409
6	1010252	1	8	85	1817	0	0	4134359	3529410	4235291
7	232801	2	8	90	1694	1078	0	4368977	4235292	4941173
8	1097985	1	8	85	1759	0	0	5469634	4941174	5647055
9	237435	1	8	80	1439	0	0	5708828	5647056	6352937
10	696439	2	8	95	1791	1468	0	6406706	6352938	7058819
11	1155259	1	8	60	1593	0	0	7665224	7058820	7764701
12	507123	3	8	50	1345	1276	1304	8073940	7764702	8470583
13	565705	1	8	60	1049	0	0	8643570	8470584	9176465
14	1010228	1	8	85	1865	0	0	9654847	9176466	9882347
15	322930	3	8	95	1383	1826	1354	9979642	9882348	10588229
16	1226189	3	8	90	1995	1085	1099	11210374	10588230	11294111
17	455070	3	8	85	1235	1650	1614	11669623	11294112	11999993

Total number of pulses in waveform = 29



Type 5 Radar Waveform_23

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	123828	2	17	75	1672	1367	0	123828	0	923076
2	1547022	3	17	95	1272	1887	1984	1673889	923077	1846153
3	205242	1	17	85	1210	0	0	1884274	1846154	2769230
4	927333	2	17	75	1575	1714	0	2812817	2769231	3692307
5	1193784	3	17	80	1786	1477	1947	4009890	3692308	4615384
6	1324331	2	17	55	1327	1243	0	5339431	4615385	5538461
7	593056	2	17	90	1511	1506	0	593057	5538462	6461538
8	735344	2	17	85	1434	1634	0	6673418	6461539	7384615
9	1368865	1	17	75	1210	0	0	8045351	7384616	8307692
10	800976	2	17	50	1813	1975	0	8847537	8307693	9230769
11	754787	2	17	70	1507	1193	0	9606112	9230770	10153846
12	1361678	2	17	50	1457	1417	0	10970490	10153847	11076923
13	997279	2	17	55	1062	1225	0	11970643	11076924	12000000

Total number of pulses in waveform = 26

Type 5 Radar Waveform_24

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	99382	2	5	100	1796	1708	0	99382	0	999999
2	1503680	2	5	70	1100	1228	0	1606566	1000000	1999999
3	400982	2	5	60	1760	1568	0	2009876	2000000	2999999
4	1140511	1	5	90	1765	0	0	3153715	3000000	3999999
5	1698679	3	5	95	1703	1735	1590	4854159	4000000	4999999
6	629563	2	5	60	1392	1727	0	5488750	5000000	5999999
7	868917	2	5	100	1200	1264	0	6360786	6000000	6999999
8	722579	1	5	70	1748	0	0	7085829	7000000	7999999
9	1000319	3	5	60	1067	1736	1799	8087896	8000000	8999999
10	1810239	3	5	80	1655	1204	1762	9902737	9000000	9999999
11	115944	3	5	75	1661	1819	1331	10023302	10000000	10999999
12	1771104	3	5	80	1392	1683	1123	11799217	11000000	11999999

Total number of pulses in waveform = 27

Type 5 Radar Waveform_25

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	90364	1	18	95	1056	0	0	90364	0	1090908
2	1492707	1	18	55	1334	0	0	1584127	1090909	2181817
3	636363	3	18	60	1427	1662	1502	2221824	2181818	3272726
4	1918645	1	18	70	1995	0	0	4145060	3272727	4363635
5	1254090	2	18	80	1016	1495	0	5401145	4363636	5454544
6	756746	2	18	100	1935	1480	0	6160402	5454545	6545453
7	668990	3	18	85	1208	1163	1962	6832807	6545454	7636362
8	1412431	1	18	50	1079	0	0	8249571	7636363	8727271
9	829722	3	18	90	1607	1544	1839	9080372	8727272	9818180
10	1613471	3	18	95	1750	1112	1207	10698833	9818181	10909089
11	574078	1	18	65	1457	0	0	11276980	10909090	11999998

Total number of pulses in waveform = 21



Type 5 Radar Waveform_26

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	596690	3	6	95	1641	1898	1103	596690	0	1199999
2	706484	2	6	95	1838	1574	0	1307816	1200000	2399999
3	2029379	1	6	100	1204	0	0	3340607	2400000	3599999
4	957280	2	6	95	1739	1692	0	4299091	3600000	4799999
5	1299361	1	6	70	1015	0	0	5601883	4800000	5999999
6	865883	2	6	60	1755	1627	0	6468781	6000000	7199999
7	1475747	1	6	90	1851	0	0	7947910	7200000	8399999
8	885088	2	6	70	1632	1284	0	8834849	8400000	9599999
9	877789	3	6	75	1177	1324	1592	9715554	9600000	10799999
10	1275353	2	6	85	1140	1169	0	10995000	10800000	11999999

Total number of pulses in waveform = 19

Type 5 Radar Waveform_27

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	557035	1	19	80	1270	0	0	557035	0	1499999
2	1742837	1	19	90	1073	0	0	2301142	1500000	2999999
3	767604	3	19	70	1480	1247	1143	3069819	3000000	4499999
4	1721474	3	19	55	1040	1541	1897	4795163	4500000	5999999
5	1362971	2	19	60	1282	1444	0	6162612	6000000	7499999
6	2207202	2	19	95	1681	1248	0	8372540	7500000	8999999
7	2067428	2	19	85	1309	1387	0	10442897	9000000	10499999
8	1013681	2	19	100	1846	1449	0	11459274	10500000	11999999

Total number of pulses in waveform = 16

Type 5 Radar Waveform_28

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	102826	2	14	95	1807	1904	0	102826	0	749999
2	1165586	2	14	50	1143	1284	0	1272123	750000	1499999
3	593148	1	14	70	1287	0	0	1867698	1500000	2249999
4	553282	1	14	55	1857	0	0	2422267	2250000	2999999
5	776374	2	14	80	1497	1325	0	3200498	3000000	3749999
6	1284153	2	14	100	1783	1756	0	4487473	3750000	4499999
7	283621	2	14	85	1370	1458	0	4774633	4500000	5249999
8	520988	1	14	75	1608	0	0	5298449	5250000	5999999
9	735806	2	14	95	1132	1169	0	6035863	6000000	6749999
10	807239	2	14	70	1222	1751	0	6845403	6750000	7499999
11	796385	2	14	95	1807	1593	0	7644761	7500000	8249999
12	1029592	2	14	65	1937	1564	0	8677753	8250000	8999999
13	883434	1	14	80	1277	0	0	9564688	9000000	9749999
14	776222	3	14	65	1907	1496	1812	10342187	9750000	10499999
15	429095	2	14	90	1246	1486	0	10776497	10500000	11249999
16	726655	3	14	55	1848	1093	1690	11505884	11250000	11999999

Total number of pulses in waveform = 30



Type 5 Radar Waveform_29

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	698578	2	9	65	1421	1390	0	698578	0	705881
2	662566	1	9	90	1810	0	0	1363955	705882	1411763
3	155463	2	9	50	1805	1717	0	1521228	1411764	2117645
4	845456	2	9	100	1921	1153	0	2370206	2117646	2823527
5	971838	3	9	50	1703	1770	1492	3345118	2823528	3529409
6	761696	1	9	100	1797	0	0	4111779	3529410	4235291
7	674528	3	9	85	1107	1547	1945	4788104	4235292	4941173
8	363338	2	9	90	1836	1989	0	5156041	4941174	5647055
9	549502	3	9	75	1896	1406	1637	5709368	5647056	6352937
10	991829	3	9	85	1648	1799	1823	6706136	6352938	7058819
11	1004329	2	9	75	1988	1531	0	7715735	7058820	7764701
12	416487	2	9	65	1024	1272	0	8135741	7764702	8470583
13	854353	1	9	70	1207	0	0	8992390	8470584	9176465
14	317291	2	9	85	1972	1168	0	9310888	9176466	9882347
15	1149734	2	9	95	1616	1575	0	10463762	9882348	10588229
16	375779	2	9	85	1183	1781	0	10842732	10588230	11294111
17	521282	3	9	50	1034	1756	1725	11366978	11294112	11999993

Total number of pulses in waveform = 35

Type 5 Radar Waveform_30

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	704943	1	12	85	1629	0	0	704943	0	799999
2	737070	3	12	75	1309	1901	1943	1443642	800000	1599999
3	457340	3	12	85	1018	1200	1073	1906135	1600000	2399999
4	1272749	1	12	80	1993	0	0	3182175	2400000	3199999
5	145417	1	12	85	1022	0	0	3329585	3200000	3999999
6	1051952	1	12	90	1478	0	0	4382559	4000000	4799999
7	482428	2	12	70	1962	1764	0	4866465	4800000	5599999
8	1366839	2	12	100	1128	1039	0	6237030	5600000	6399999
9	425654	1	12	55	1884	0	0	6664851	6400000	7199999
10	1105024	1	12	75	1881	0	0	7771759	7200000	7999999
11	314384	3	12	65	1383	1786	1033	8088024	8000000	8799999
12	759538	3	12	70	1737	1189	1987	8851764	8800000	9599999
13	973406	2	12	55	1762	1737	0	9830083	9600000	10399999
14	1060651	3	12	95	1529	1893	1329	10894233	10400000	11199999
15	478712	2	12	95	1474	1587	0	11377696	11200000	11999999

Total number of pulses in waveform = 29



Radar Type 6 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	1=Detection 0=No Detection	Trail #	Test Freq. (MHz)	1=Detection 0=No Detection
1	5292	1	16	5310	1
2	5293	1	17	5312	1
3	5294	1	18	5314	1
4	5295	1	19	5316	1
5	5296	1	20	5317	1
6	5297	1	21	5318	1
7	5298	1	22	5320	1
8	5299	1	23	5322	1
9	5300	1	24	5323	1
10	5301	1	25	5324	1
11	5302	1	26	5325	1
12	5303	1	27	5326	1
13	5305	1	28	5327	1
14	5307	1	29	5328	1
15	5309	1	30	5329	1
Detection Percentage (%)					100%



Radar waveform #1			Radar waveform #2		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
3	5298	9	9	5297	27
11	5321	33	14	5280	42
12	5320	36	26	5304	78
28	5302	84	41	5321	123
34	5262	102	48	5263	144
45	5271	135	54	5313	162
52	5312	156	63	5288	189
57	5290	171	64	5264	192
59	5318	177	80	5271	240
66	5267	198	88	5294	264
88	5283	264	91	5295	273
--	--	--	94	5308	282

Radar waveform #3			Radar waveform #4		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
5	5281	15	8	5312	24
13	5282	39	16	5297	48
19	5296	57	19	5319	57
29	5263	87	20	5263	60
31	5279	93	22	5285	66
36	5292	108	36	5315	108
47	5290	141	44	5296	132
51	5310	153	46	5306	138
74	5295	222	56	5322	168
81	5262	243	67	5304	201
99	5275	297	74	5274	222
--	--	--	82	5291	246
--	--	--	96	5283	288



Radar waveform #5			Radar waveform #6		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
20	5302	60	30	5326	90
27	5311	81	41	5276	123
35	5277	105	47	5274	141
37	5306	111	55	5327	165
48	5278	144	58	5291	174
53	5313	159	64	5298	192
56	5314	168	77	5318	231
57	5312	171	78	5297	234
62	5326	186	88	5294	264
63	5322	189	89	5314	267
78	5329	234	98	5300	294
80	5293	240	--	--	--
83	5320	249	--	--	--
88	5321	264	--	--	--

Radar waveform #7			Radar waveform #8		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
2	5321	6	0	5312	0
11	5294	33	4	5295	12
12	5320	36	6	5311	18
14	5308	42	15	5313	45
24	5274	72	34	5307	102
35	5311	105	35	5302	105
41	5326	123	43	5280	129
49	5318	147	48	5279	144
56	5300	168	60	5319	180
62	5302	186	72	5323	216
72	5299	216	86	5318	258
77	5323	231	89	5287	267
83	5317	249	--	--	--
86	5330	258	--	--	--
96	5282	288	--	--	--

Radar waveform #9			Radar waveform #10		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
0	5320	0	0	5305	0
4	5336	12	1	5326	3
15	5289	45	3	5297	9
24	5278	72	4	5309	12
25	5312	75	14	5327	42
34	5285	102	16	5312	48
35	5288	105	22	5296	66
39	5291	117	25	5317	75
40	5333	120	34	5283	102
44	5280	132	36	5336	108
52	5334	156	45	5306	135
62	5315	186	51	5318	153
93	5311	279	56	5325	168
99	5308	297	58	5308	174
--	--	--	67	5338	201
--	--	--	86	5335	258
--	--	--	87	5293	261
--	--	--	91	5289	273
--	--	--	97	5287	291



Radar waveform #11			Radar waveform #12		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
8	5335	24	1	5295	3
10	5313	30	7	5311	21
17	5285	51	13	5320	39
38	5307	114	14	5297	42
40	5304	120	26	5324	78
43	5326	129	29	5282	87
46	5297	138	31	5332	93
58	5278	174	37	5337	111
59	5287	177	52	5291	156
62	5328	186	57	5278	171
67	5320	201	60	5334	180
72	5309	216	67	5325	201
78	5303	234	71	5331	213
80	5311	240	74	5286	222
87	5308	261	96	5315	288

Radar waveform #13			Radar waveform #14		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
10	5335	30	0	5329	0
13	5319	39	8	5317	24
14	5330	42	9	5327	27
15	5309	45	26	5285	78
37	5312	111	32	5308	96
38	5327	114	54	5320	162
53	5331	159	57	5336	171
56	5325	168	58	5315	174
60	5339	180	63	5313	189
65	5300	195	65	5297	195
73	5282	219	74	5326	222
85	5299	255	89	5330	267
90	5320	270	90	5288	270

Radar waveform #15			Radar waveform #16		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
11	5335	33	0	5297	0
14	5307	42	1	5335	3
15	5340	45	9	5316	27
19	5302	57	27	5330	81
23	5297	69	44	5311	132
29	5301	87	47	5329	141
37	5296	111	52	5320	156
41	5292	123	59	5321	177
53	5309	159	64	5309	192
56	5332	168	65	5302	195
57	5282	171	78	5324	234
62	5326	186	79	5287	237
75	5284	225	88	5280	264
82	5312	246	99	5328	297
88	5303	264	--	--	--
96	5323	288	--	--	--
98	5317	294	--	--	--



Radar waveform #17			Radar waveform #18		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
5	5332	15	3	5305	9
8	5307	24	6	5286	18
21	5312	63	10	5318	30
26	5330	78	21	5304	63
27	5320	81	22	5340	66
34	5291	102	44	5332	132
38	5292	114	58	5319	174
39	5318	117	67	5287	201
46	5326	138	68	5298	204
56	5298	168	89	5321	267
62	5313	186	--	--	--
71	5290	213	--	--	--
75	5308	225	--	--	--
86	5339	258	--	--	--
99	5337	297	--	--	--

Radar waveform #19			Radar waveform #20		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
14	5318	42	7	5312	21
17	5333	51	24	5311	72
18	5300	54	30	5315	90
25	5285	75	32	5328	96
40	5283	120	43	5329	129
53	5299	159	50	5331	150
66	5308	198	59	5297	177
71	5328	213	75	5306	225
81	5290	243	77	5290	231
94	5309	282	79	5319	237
97	5310	291	88	5304	264
99	5311	297	89	5284	267
--	--	--	97	5298	291



Radar waveform #21			Radar waveform #22		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
4	5341	12	10	5316	30
8	5339	24	22	5325	66
12	5284	36	28	5328	84
19	5335	57	29	5285	87
24	5326	72	30	5313	90
42	5298	126	42	5336	126
51	5312	153	46	5308	138
52	5311	156	49	5288	147
55	5321	165	60	5322	180
60	5309	180	62	5302	186
82	5340	246	75	5331	225
85	5313	255	88	5319	264
92	5323	276	98	5342	294
93	5329	279	--	--	--
99	5297	297	--	--	--

Radar waveform #23			Radar waveform #24		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
1	5297	3	3	5291	9
3	5335	9	27	5323	81
12	5317	36	37	5328	111
16	5326	48	45	5296	135
20	5302	60	58	5320	174
37	5323	111	59	5303	177
41	5295	123	65	5308	195
43	5296	129	67	5343	201
46	5308	138	69	5350	207
63	5311	189	79	5319	237
65	5299	195	82	5312	246
78	5291	234	87	5342	261
86	5333	258	93	5338	279
--	--	--	98	5324	294
--	--	--	99	5311	297



Radar waveform #25			Radar waveform #26		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
6	5291	18	3	5298	9
7	5290	21	12	5309	36
21	5311	63	13	5293	39
36	5323	108	16	5305	48
38	5292	114	21	5327	63
39	5298	117	43	5337	129
42	5304	126	48	5322	144
44	5330	132	57	5296	171
45	5302	135	68	5294	204
48	5344	144	82	5314	246
53	5316	159	85	5308	255
55	5296	165	86	5330	258
64	5301	192	91	5303	273
66	5338	198	93	5328	279
67	5313	201	--	--	--
88	5331	264	--	--	--
92	5306	276	--	--	--

Radar waveform #27			Radar waveform #28		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
8	5338	24	4	5316	12
12	5358	36	9	5328	27
16	5312	48	25	5306	75
45	5345	135	28	5318	84
51	5351	153	35	5353	105
59	5311	177	43	5355	129
76	5303	228	55	5336	165
81	5322	243	77	5349	231
84	5313	252	82	5307	246

Radar waveform #29			Radar waveform #30		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
3	5342	9	6	5309	18
10	5304	30	11	5356	33
19	5341	57	13	5305	39
36	5319	108	27	5300	81
59	5300	177	30	5330	90
70	5356	210	41	5353	123
76	5338	228	49	5303	147
83	5332	249	55	5308	165
85	5302	255	60	5343	180
95	5331	285	85	5344	255
--	--	--	86	5346	258
--	--	--	87	5340	261
--	--	--	97	5341	291
--	--	--	98	5326	294



Product	G-140W-C	Temperature	27°C
Test Engineer	Amy Zhang	Relative Humidity	65%
Test Site	TR5	Test Date	2017/12/11
Test Item	Radar Statistical Performance Check (802.11ac-VHT80 mode – 5290MHz)		

Radar Type 1 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5252	1	858	62	1
2	5253	1	678	78	1
3	5255	1	618	86	1
4	5261	1	578	92	1
5	5264	1	838	63	1
6	5267	1	878	61	1
7	5270	1	598	89	1
8	5273	1	718	74	1
9	5276	1	698	76	1
10	5279	1	738	72	1
11	5282	1	798	67	1
12	5285	1	3066	18	1
13	5288	1	538	99	1
14	5290	1	658	81	1
15	5294	1	558	95	1
16	5297	1	868	61	1
17	5300	1	2950	18	1
18	5303	1	2370	23	1
19	5306	1	837	64	1
20	5309	1	2129	25	1
21	5312	1	1350	40	1
22	5315	1	1353	40	1
23	5318	1	1167	46	1
24	5321	1	711	75	1
25	5323	1	1361	39	1
26	5325	1	940	57	1



Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
27	5326	1	2024	27	1
28	5327	1	807	66	1
29	5328	1	1052	51	1
30	5328	1	1632	33	1
Detection Percentage (%)					100%



Radar Type 2 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5252	1.8	201	28	1
2	5253	1.2	208	26	1
3	5255	1.8	214	28	1
4	5261	1.6	214	26	1
5	5264	3.8	190	23	1
6	5267	2.9	199	24	1
7	5270	2.1	176	28	1
8	5273	1.4	196	23	1
9	5276	3.1	225	28	1
10	5279	3.8	152	25	1
11	5282	4.4	165	24	1
12	5285	1.0	154	29	1
13	5288	1.1	214	27	1
14	5290	4.1	229	27	1
15	5294	4.2	188	28	1
16	5297	5.0	199	26	1
17	5300	2.0	151	24	1
18	5303	4.4	175	29	1
19	5306	3.0	191	29	1
20	5309	2.4	214	29	1
21	5312	1.3	172	28	1
22	5315	4.4	200	28	1
23	5318	1.7	230	27	1
24	5321	2.8	154	23	1
25	5323	1.9	153	28	1
26	5325	1.5	222	25	1
27	5326	3.8	188	28	1
28	5327	4.8	214	23	1
29	5328	4.8	219	23	1
30	5328	5.0	174	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	5252	9.0	366	16	1
2	5253	9.3	414	18	1
3	5255	6.2	325	16	1
4	5261	9.2	402	17	1
5	5264	8.2	355	18	1
6	5267	7.6	412	16	1
7	5270	9.4	259	17	1
8	5273	7.1	436	16	1
9	5276	9.8	456	18	1
10	5279	6.5	314	18	1
11	5282	9.8	469	17	1
12	5285	7.9	444	18	1
13	5288	7.9	306	16	1
14	5290	7.9	381	18	1
15	5294	6.5	368	18	1
16	5297	8.3	296	17	1
17	5300	7.6	280	17	1
18	5303	8.8	257	17	1
19	5306	6.3	303	17	1
20	5309	7.3	295	17	1
21	5312	6.7	367	16	1
22	5315	6.2	384	16	1
23	5318	9.7	317	17	1
24	5321	10.0	389	18	1
25	5323	8.6	314	18	1
26	5325	6.6	449	16	1
27	5326	6.1	276	16	1
28	5327	7.0	477	16	1
29	5328	7.5	413	17	1
30	5328	8.5	397	16	1
Detection Percentage (%)					100%



Radar Type 4 - Radar Statistical Performance

Trail #	Test Freq. (MHz)	Pulse Width (us)	PRI (us)	Pulses / Burst	1=Detection 0=No Detection
1	5252	18.3	442	16	1
2	5253	19.7	362	13	1
3	5255	18.0	269	13	1
4	5261	13.6	328	14	1
5	5264	12.2	308	16	1
6	5267	11.9	389	12	1
7	5270	15.8	367	16	1
8	5273	12.5	303	16	1
9	5276	17.1	497	13	1
10	5279	17.0	414	12	1
11	5282	19.1	404	14	1
12	5285	16.3	273	15	1
13	5288	12.1	325	12	1
14	5290	14.3	296	14	1
15	5294	15.0	254	15	1
16	5297	11.0	418	12	1
17	5300	12.9	378	15	1
18	5303	11.5	272	14	1
19	5306	15.3	460	13	1
20	5309	12.5	348	12	1
21	5312	18.2	382	13	1
22	5315	12.8	353	12	1
23	5318	13.3	423	16	1
24	5321	20.0	496	16	1
25	5323	11.9	298	13	1
26	5325	17.1	262	15	1
27	5326	19.0	331	13	1
28	5327	14.7	465	15	1
29	5328	12.3	482	13	1
30	5328	19.1	385	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	5258.8	1	16	5300.0	1
2	5256.0	1	17	5300.0	1
3	5255.6	1	18	5300.0	1
4	5254.0	1	19	5300.0	1
5	5257.6	1	20	5300.0	1
6	5259.2	1	21	5324.0	1
7	5254.4	1	22	5324.8	1
8	5259.6	1	23	5321.2	1
9	5255.2	1	24	5326.0	1
10	5256.8	1	25	5320.8	1
11	5300.0	1	26	5325.6	1
12	5300.0	1	27	5320.4	1
13	5300.0	1	28	5322.4	1
14	5300.0	1	29	5324.4	1
15	5300.0	1	30	5323.2	1
Detection Percentage (%)					100%

Type 5 Radar Waveform_1										
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	526417	2	17	95	1647	1468	0	526417	0	705881
2	663704	2	17	75	1091	1612	0	1193226	705882	1411763
3	799540	3	17	60	1366	1619	1059	1995469	1411764	2117645
4	719611	1	17	80	1357	0	0	2719124	2117646	2823527
5	375378	3	17	60	1263	1392	1098	3095859	2823528	3529409
6	945779	1	17	80	1834	0	0	4045391	3529410	4235291
7	245178	3	17	60	1246	1739	1921	4292403	4235292	4941173
8	714710	2	17	65	1644	1957	0	5012019	4941174	5647055
9	813798	3	17	90	1058	1266	1882	5829418	5647056	6352937
10	671250	2	17	50	1201	1799	0	6504874	6352938	7058819
11	947692	1	17	55	1605	0	0	7455566	7058820	7764701
12	930091	3	17	90	1540	1368	1060	8387262	7764702	8470583
13	503707	2	17	80	1438	1817	0	8894937	8470584	9176465
14	744543	2	17	90	1005	1935	0	9642735	9176466	9882347
15	251513	2	17	95	1838	1605	0	9897188	9882348	10588229
16	1342675	3	17	80	1975	1516	1196	11243306	10588230	11294111
17	53056	1	17	60	1777	0	0	11301049	11294112	11999993
Total number of pulses in waveform = 36										



Type 5 Radar Waveform_2

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	593572	1	10	50	1824	0	0	593572	0	631578
2	210511	1	10	50	1949	0	0	805907	631579	1263157
3	588860	1	10	85	1175	0	0	1394716	1263158	1894736
4	770089	1	10	90	1103	0	0	2165980	1894737	2526315
5	461584	1	10	75	1221	0	0	2628667	2526316	3157894
6	765418	2	10	60	1858	1600	0	3395306	3157895	3789473
7	894795	1	10	70	1147	0	0	4293559	3789474	4421052
8	174154	2	10	100	1457	1720	0	4468860	4421053	5052631
9	970712	2	10	55	1981	1739	0	5442749	5052632	5684210
10	545768	3	10	100	1764	1613	1697	5992237	5684211	6315789
11	742398	1	10	70	1823	0	0	6739709	6315790	6947368
12	567181	2	10	70	1784	1563	0	7308713	6947369	7578947
13	878126	2	10	65	1742	1955	0	8190186	7578948	8210526
14	216482	2	10	65	1763	1762	0	8410365	8210527	8842105
15	766920	3	10	55	1773	1854	1057	9180810	8842106	9473684
16	790203	2	10	90	1871	1135	0	9975697	9473685	10105263
17	553988	2	10	60	1819	1711	0	10532689	10105264	10736842
18	812267	2	10	65	1559	1197	0	11348486	10736843	11368421
19	75605	3	10	90	1406	1956	1677	11426847	11368422	12000000

Total number of pulses in waveform = 34

Type 5 Radar Waveform_3

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	254346	3	9	60	1557	1273	1357	254346	0	749999
2	881541	3	9	85	1621	1904	1808	1140074	750000	1499999
3	464660	1	9	70	1592	0	0	1610067	1500000	2249999
4	979125	3	9	55	1495	1218	1806	2590784	2250000	2999999
5	1069620	1	9	85	1881	0	0	3664923	3000000	3749999
6	133937	2	9	70	1800	1508	0	3800741	3750000	4499999
7	856639	1	9	85	1431	0	0	4660688	4500000	5249999
8	1153633	1	9	95	1588	0	0	5815752	5250000	5999999
9	206755	3	9	95	1558	1845	1228	6024095	6000000	6749999
10	1282949	3	9	60	1900	1134	1476	7311675	6750000	7499999
11	703582	3	9	75	1906	1077	1081	8019767	7500000	8249999
12	787413	2	9	70	1732	1320	0	8811244	8250000	8999999
13	255148	3	9	90	1508	1162	1085	9069444	9000000	9749999
14	781485	2	9	65	1784	1292	0	9854684	9750000	10499999
15	1294843	2	9	60	1572	1632	0	11152603	10500000	11249999
16	329978	2	9	80	1137	1523	0	11485785	11250000	11999999

Total number of pulses in waveform = 35

Type 5 Radar Waveform_4

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	396938	1	5	50	1144	0	0	396938	0	631578
2	612244	1	5	80	1552	0	0	1010326	631579	1263157
3	765564	1	5	70	1592	0	0	1777442	1263158	1894736
4	262804	1	5	80	1825	0	0	2041638	1894737	2526315
5	704145	2	5	80	1103	1861	0	2747608	2526316	3157894
6	683132	3	5	65	1682	1094	1620	3433704	3157895	3789473
7	561399	3	5	55	1163	1146	1027	3999499	3789474	4421052
8	635914	1	5	95	1577	0	0	4638749	4421053	5052631
9	665853	2	5	55	1129	1928	0	5306179	5052632	5684210
10	452534	3	5	55	1330	1624	1784	5761770	5684211	6315789
11	752432	3	5	85	1478	1237	1592	6518940	6315790	6947368
12	762245	3	5	75	1596	1733	1613	7285492	6947369	7578947
13	533882	3	5	65	1181	1551	1756	7824316	7578948	8210526
14	910217	1	5	85	1911	0	0	8739021	8210527	8842105
15	543714	1	5	60	1897	0	0	9284646	8842106	9473684
16	448488	1	5	75	1687	0	0	9735031	9473685	10105263
17	839511	1	5	55	1959	0	0	10576229	10105264	10736842
18	437650	2	5	55	1944	1762	0	11015838	10736843	11368421
19	807190	3	5	55	1913	1868	1463	11826734	11368422	12000000

Total number of pulses in waveform = 36



Type 5 Radar Waveform_5

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	497531	1	14	70	1966	0	0	497531	0	1333332
2	965874	3	14	85	1058	1155	1679	1465371	1333333	2666665
3	1405138	2	14	70	1472	1339	0	2874401	2666666	3999998
4	1304945	2	14	100	1282	1440	0	4182157	3999999	5333331
5	1913848	1	14	100	1718	0	0	6098727	5333332	6666664
6	1521995	1	14	55	1899	0	0	7622440	6666665	7999997
7	699374	1	14	70	1301	0	0	8323713	7999998	9333330
8	1315697	1	14	100	1738	0	0	9640711	9333331	10666663
9	2106378	1	14	100	1477	0	0	11748827	10666664	11999996

Total number of pulses in waveform = 13

Type 5 Radar Waveform_6

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	43576	3	18	70	1097	1310	1764	43576	0	631578
2	747571	2	18	65	1062	1249	0	795318	631579	1263157
3	607546	1	18	95	1476	0	0	1405175	1263158	1894736
4	535166	2	18	95	1602	1357	0	1941817	1894737	2526315
5	6302228	2	18	55	1223	1820	0	2575004	2526316	3157894
6	608635	1	18	90	1388	0	0	3186682	3157895	3789473
7	648221	2	18	80	1147	1111	0	3836291	3789474	4421052
8	983582	1	18	55	1256	0	0	4822131	4421053	5052631
9	739507	3	18	65	1940	1428	1359	5562894	5052632	5684210
10	329316	2	18	70	1523	1942	0	5896937	5684211	6315789
11	1043063	2	18	80	1534	1961	0	6943465	6315790	6947368
12	551816	2	18	95	1159	1688	0	7498776	6947369	7578947
13	609704	1	18	70	1052	0	0	8111327	7578948	8210526
14	267959	3	18	75	1616	1717	1412	8380338	8210527	8842105
15	1002469	1	18	80	1261	0	0	9387552	8842106	9473684
16	339441	2	18	100	1516	1493	0	9728254	9473685	10105263
17	407167	1	18	90	1559	0	0	10138430	10105264	10736842
18	715930	1	18	65	1039	0	0	10855919	10736843	11368421
19	1105178	2	18	50	1661	1352	0	11962136	11368422	12000000

Total number of pulses in waveform = 34

Type 5 Radar Waveform_7

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	472160	3	6	50	1107	1341	1807	472160	0	799999
2	612278	2	6	50	1372	1194	0	1088693	800000	1599999
3	921487	2	6	60	1564	1110	0	2012746	1600000	2399999
4	408280	1	6	55	1557	0	0	2423700	2400000	3199999
5	786804	2	6	95	1266	1817	0	3212061	3200000	3999999
6	968237	2	6	70	1019	1298	0	4183381	4000000	4799999
7	1222691	1	6	80	1225	0	0	5408389	4800000	5599999
8	472586	2	6	55	1824	1540	0	5882200	5600000	6399999
9	1134402	3	6	90	1874	1040	1280	7019966	6400000	7199999
10	706682	1	6	75	1097	0	0	7730842	7200000	7999999
11	355314	3	6	70	1411	1746	1958	8087253	8000000	8799999
12	1396018	3	6	85	1009	1458	1608	9488386	8800000	9599999
13	630035	2	6	95	1819	1331	0	10122496	9600000	10399999
14	341045	1	6	50	1612	0	0	10466691	10400000	11199999
15	761881	2	6	55	1241	1310	0	11230184	11200000	11999999

Total number of pulses in waveform = 30



Type 5 Radar Waveform_8

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	584975	2	19	90	1110	1690	0	584975	0	857142
2	675045	1	19	100	1753	0	0	1262820	857143	1714285
3	871496	1	19	80	1864	0	0	2136069	1714286	2571428
4	1236896	2	19	60	1998	1984	0	3374829	2571429	3428571
5	675961	1	19	95	1180	0	0	4054772	3428572	4285714
6	680474	3	19	95	1679	1819	1112	4736426	4285715	5142857
7	1138007	1	19	90	1289	0	0	5879043	5142858	6000000
8	265589	3	19	55	1645	1381	1786	6145921	6000001	6857143
9	866396	3	19	55	1911	1436	1378	7017129	6857144	7714286
10	1180724	1	19	70	1417	0	0	8202578	7714287	8571429
11	946558	2	19	55	1606	1969	0	9150553	8571430	9428572
12	931107	2	19	95	1692	1637	0	10085235	9428573	10285715
13	320791	1	19	85	1541	0	0	10409355	10285716	11142858
14	1325316	3	19	85	1544	1909	1783	11736212	11142859	12000001

Total number of pulses in waveform = 26

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	1079336	1	8	80	1124	0	0	1079336	0	1090908
2	886091	1	8	60	1768	0	0	1966551	1090909	2181817
3	1136089	1	8	60	1727	0	0	3104408	2181818	3272726
4	441357	1	8	100	1075	0	0	3547492	3272727	4363635
5	1707178	3	8	85	1867	1610	1918	5255745	4363636	5454544
6	709344	1	8	95	1641	0	0	5970484	5454545	6545453
7	1448483	1	8	90	1971	0	0	7420608	6545454	7636362
8	470062	2	8	80	1180	1659	0	7892641	7636363	8727271
9	988158	1	8	50	1765	0	0	8883638	8727272	9818180
10	1871026	3	8	75	1206	1368	1065	10756429	9818181	10909089
11	866628	2	8	100	1646	1329	0	11626696	10909090	11999998

Total number of pulses in waveform = 17

Type 5 Radar Waveform_10

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	63232	2	12	95	1480	1523	0	63232	0	599999
2	947661	3	12	75	1663	1775	1827	1013896	600000	1199999
3	754014	2	12	100	1019	1311	0	1773175	1200000	1799999
4	399195	2	12	50	1599	1561	0	2174700	1800000	2399999
5	512850	1	12	65	1903	0	0	2690710	2400000	2999999
6	486784	3	12	60	1624	1264	1743	3179397	3000000	3599999
7	879139	1	12	50	1437	0	0	4063167	3600000	4199999
8	239095	3	12	95	1915	1781	1781	4303899	4200000	4799999
9	838570	1	12	50	1466	0	0	5147746	4800000	5399999
10	602928	2	12	55	1547	1322	0	5752140	5400000	5999999
11	339092	1	12	65	1118	0	0	6088101	6000000	6599999
12	862357	2	12	100	1507	1016	0	6951576	6600000	7199999
13	803861	2	12	55	1579	1748	0	7757960	7200000	7799999
14	328832	3	12	60	1660	1443	1411	8090119	7800000	8399999
15	668246	2	12	95	1812	1818	0	8762879	8400000	8999999
16	517592	2	12	65	1614	1616	0	9284101	9000000	9599999
17	880601	2	12	90	1870	1798	0	10167932	9600000	10199999
18	107029	2	12	70	1280	1131	0	10278629	10200000	10799999
19	774958	2	12	65	1567	1631	0	11059998	10800000	11399999
20	897325	3	12	100	1710	1346	1721	11956521	11400000	11999999

Total number of pulses in waveform = 41



Type 5 Radar Waveform_11

Num of Bursts = 18
Burst Interval (us)= 66667

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	98258	3	14	50	1489	1431	1329	98258	0	666666
2	1180515	1	14	55	1034	0	0	1283022	666667	1333333
3	614013	2	14	70	1232	1522	0	1898069	1333334	2000000
4	278107	3	14	75	1661	1522	1860	2178930	2000001	2666667
5	965290	1	14	90	1350	0	0	3149263	2666668	3333334
6	758238	1	14	65	1374	0	0	3908851	3333335	4000001
7	112030	1	14	75	1784	0	0	4022255	4000002	4666668
8	1085027	3	14	65	1216	1237	1450	5109066	4666669	5333335
9	552559	2	14	85	1644	1430	0	5665528	5333336	6000002
10	452734	2	14	95	1429	1535	0	6121336	6000003	6666669
11	934659	1	14	95	1450	0	0	7058959	6666670	7333336
12	417598	1	14	70	1833	0	0	7478007	7333337	8000003
13	808468	2	14	85	1510	1037	0	8288308	8000004	8666670
14	771283	1	14	85	1653	0	0	9062138	8666671	9333337
15	728062	1	14	75	1253	0	0	9791853	9333338	10000004
16	644098	3	14	70	1953	1020	1559	10437204	10000005	10666671
17	320162	2	14	95	1747	1700	0	10761898	10666672	11333338
18	1180201	2	14	70	1020	1973	0	11945546	11333339	12000005

Total number of pulses in waveform = 32

Type 5 Radar Waveform_12

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	325576	2	19	75	1079	1461	0	395576	0	749999
2	703470	2	19	55	1798	1455	0	1101586	750000	1499999
3	549971	3	19	100	1730	1096	1602	1654810	1500000	2249999
4	705339	1	19	55	1827	0	0	2364577	2250000	2999999
5	1250009	1	19	80	1290	0	0	3616413	3000000	3749999
6	834707	3	19	60	1045	1547	1002	4452410	3750000	4499999
7	578420	2	19	65	1731	1660	0	5034424	4500000	5249999
8	257814	3	19	55	1247	1980	1532	5295629	5250000	5999999
9	1038003	2	19	65	1873	1272	0	6338391	6000000	6749999
10	471578	3	19	65	1869	1279	1317	6813114	6750000	7499999
11	1210000	1	19	50	1129	0	0	8027579	7500000	8249999
12	869304	2	19	70	1068	1681	0	8898012	8250000	8999999
13	649545	3	19	100	1264	1019	1954	9560306	9000000	9749999
14	594486	1	19	85	1107	0	0	10149029	9750000	10499999
15	1058735	3	19	100	1882	1263	1677	11206871	10500000	11249999
16	451161	1	19	60	1792	0	0	11664854	11250000	11999999

Total number of pulses in waveform = 33

Type 5 Radar Waveform_13

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	129735	3	8	70	1903	1652	1530	129735	0	631578
2	622770	1	8	80	1947	0	0	757690	631579	1263157
3	574981	3	8	85	1182	1487	1752	1334518	1263158	1894736
4	804052	2	8	70	1908	1302	0	2142991	1894737	2526315
5	706162	3	8	70	1888	1905	1339	2852353	2526316	3157894
6	387262	3	8	65	1442	1349	1496	3244747	3157895	3789473
7	683573	3	8	60	1333	1331	1644	3932607	3789474	4421052
8	928608	2	8	55	1029	1829	0	4865523	4421053	5052631
9	310922	2	8	85	1752	1141	0	5179303	5052632	5684210
10	711173	1	8	70	1162	0	0	5893369	5684211	6315789
11	746165	1	8	70	1483	0	0	6640696	6315790	6947368
12	734332	3	8	70	1901	1460	1947	7376511	6947369	7578947
13	453981	3	8	65	1663	1689	1785	7835800	7578948	8210526
14	765870	2	8	85	1192	1639	0	8606807	8210527	8842105
15	827912	3	8	80	1343	1893	1629	9437550	8842106	9473684
16	601682	1	8	65	1262	0	0	10044097	9473685	10105263
17	238234	2	8	95	1475	1711	0	10283593	10105264	10736842
18	653666	2	8	65	1168	1808	0	10940445	10736843	11368421
19	498384	2	8	75	1181	1637	0	11441805	11368422	12000000

Total number of pulses in waveform = 42



Type 5 Radar Waveform_14

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	87695	3	12	65	1001	1982	1478	87695	0	799999
2	1434915	2	12	75	1193	1174	0	1527071	800000	1599999
3	520288	3	12	55	1581	1087	1817	2049726	1600000	2399999
4	1049119	2	12	60	1840	1365	0	3103330	2400000	3199999
5	309771	2	12	100	1233	1605	0	3416306	3200000	3999999
6	1214568	3	12	100	1546	1733	1070	4633712	4000000	4799999
7	167136	1	12	75	1755	0	0	4805197	4800000	5599999
8	903103	3	12	80	1316	1381	2000	5710055	5600000	6399999
9	1189199	2	12	65	1636	1848	0	6903951	6400000	7199999
10	799535	1	12	55	1884	0	0	7706970	7200000	7999999
11	1054345	2	12	50	1751	1257	0	8763199	8000000	8799999
12	588002	1	12	90	1907	0	0	9354209	8800000	9599999
13	993237	1	12	50	1403	0	0	10349353	9600000	10399999
14	264877	1	12	60	1057	0	0	10615633	10400000	11199999
15	839052	1	12	100	1641	0	0	11455742	11200000	11999999

Total number of pulses in waveform = 28

Type 5 Radar Waveform_15

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	274870	3	5	85	1104	1416	1190	274870	0	1499999
2	1286878	3	5	55	1117	1045	1613	1565458	1500000	2999999
3	1948018	3	5	60	1746	1469	1979	3517251	3000000	4499999
4	1558933	3	5	55	1469	1777	1438	5081378	4500000	5999999
5	1322707	2	5	90	1028	1309	0	6408769	6000000	7499999
6	1186203	2	5	100	1088	1983	0	7597309	7500000	8999999
7	2851842	2	5	100	1523	1409	0	10452222	9000000	10499999
8	523171	1	5	90	1658	0	0	10978325	10500000	11999999

Total number of pulses in waveform = 19

Type 5 Radar Waveform_16

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	695178	1	6	90	1621	0	0	695178	0	857142
2	786529	2	6	65	1717	1063	0	1483328	857143	1714285
3	417930	1	6	80	1501	0	0	1904038	1714286	2571428
4	763046	2	6	75	1618	1701	0	2668585	2571429	3428571
5	932241	1	6	90	1050	0	0	3604145	3428572	4285714
6	1207183	2	6	85	1547	1484	0	4812378	4285715	5142857
7	1156381	2	6	60	1778	1058	0	5971790	5142858	6000000
8	449169	2	6	80	1606	1373	0	6423795	6000001	6857143
9	475806	1	6	80	1260	0	0	6902580	6857144	7714286
10	1302484	2	6	100	1523	1620	0	8206324	7714287	8571429
11	1178189	3	6	70	1192	1075	1197	9387656	8571430	9428572
12	61282	3	6	70	1660	1062	1382	9452402	9428573	10285715
13	1221954	3	6	85	1859	1461	1764	10678460	10285716	11142858
14	1089919	3	6	80	1072	1871	1197	11773463	11142859	12000001

Total number of pulses in waveform = 28



Type 5 Radar Waveform_17

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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	436244	3	18	100	1089	1496	1727	436244	0	705881
2	714259	2	18	85	1819	1718	0	1154815	705882	1411763
3	387357	3	18	50	1564	1167	1114	1545709	1411764	2117645
4	780099	2	18	50	1962	1966	0	2329653	2117645	2823527
5	622557	1	18	70	1154	0	0	2956138	2823528	3529409
6	1004862	2	18	75	1442	1537	0	3962154	3529410	4235291
7	451765	3	18	80	1984	1163	1858	4416898	4235292	4941173
8	788392	1	18	50	1157	0	0	5210295	4941174	5647055
9	1108276	2	18	75	1234	1396	0	6319728	5647056	6352937
10	674788	1	18	95	1989	0	0	6997146	6352938	7058819
11	98895	3	18	70	1806	1812	1139	7098030	7058820	7764701
12	908869	3	18	100	1407	1260	1844	8011656	7764702	8470583
13	811560	3	18	90	1379	1639	1885	8827727	8470584	9176465
14	919578	1	18	60	1923	0	0	9752208	9176466	9882347
15	496220	1	18	85	1656	0	0	10250351	9882348	10588229
16	396918	3	18	55	1109	1977	1731	10648925	10588230	11294111
17	1011664	1	18	95	1174	0	0	11665406	11294112	11999993

Total number of pulses in waveform = 35

Type 5 Radar Waveform_18

```

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	918209	1	9	70	1937	0	0	918209	0	999999
2	81982	3	9	65	1190	1690	1465	1002128	1000000	1999999
3	1433391	3	9	100	1674	1650	1421	2439864	2000000	2999999
4	1342186	1	9	75	1270	0	0	3786795	3000000	3999999
5	712836	2	9	50	1596	1044	0	4500901	4000000	4999999
6	1118347	1	9	50	1198	0	0	5621888	5000000	5999999
7	967549	3	9	50	1017	1960	1775	6590635	6000000	6999999
8	1070998	3	9	50	1083	1723	1170	7666385	7000000	7999999
9	794890	3	9	60	1832	1416	1091	8465251	8000000	8999999
10	1226457	1	9	55	1830	0	0	9696047	9000000	9999999
11	318212	2	9	75	1441	1972	0	10016089	10000000	10999999
12	1806075	2	9	85	1869	1174	0	11825577	11000000	11999999

Total number of pulses in waveform = 25

Type 5 Radar Waveform_19

```

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	847553	2	17	70	1766	1805	0	847553	0	1090908
2	1322988	2	17	70	1667	1647	0	2174112	1090909	2181817
3	530632	2	17	90	1381	1556	0	2708058	2181818	3272726
4	659753	1	17	65	1524	0	0	3370748	3272727	4363635
5	1111990	2	17	70	1494	1626	0	4484262	4363636	5454544
6	1613088	3	17	70	1369	1052	1552	6100470	5454545	6545453
7	660877	1	17	55	1569	0	0	6765320	6545454	7636362
8	1660555	2	17	55	1579	1168	0	8427444	7636363	8727271
9	1382376	1	17	50	1715	0	0	9812567	8727272	9818180
10	510373	2	17	50	1022	1181	0	10324655	9818181	10909089
11	1366471	1	17	70	1990	0	0	11693329	10909090	11999998

Total number of pulses in waveform = 19



Type 5 Radar Waveform_20

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	429672	2	10	55	1513	1226	0	429672	0	1499999
2	2332057	2	10	95	1840	1705	0	2764468	1500000	2999999
3	742637	2	10	75	1850	1502	0	3510650	3000000	4499999
4	2108690	2	10	65	1000	1271	0	5622692	4500000	5999999
5	1175462	3	10	85	1401	1768	1541	6800425	6000000	7499999
6	1222049	3	10	85	1879	1113	1981	8027184	7500000	8999999
7	2026031	1	10	65	1103	0	0	10058188	9000000	10499999
8	1116699	2	10	55	1930	1417	0	11175990	10500000	11999999

Total number of pulses in waveform = 17

Type 5 Radar Waveform_21

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	338921	2	10	90	1056	1369	0	338921	0	999999
2	1323418	2	10	80	1038	1322	0	1664764	1000000	1999999
3	592670	1	10	60	1529	0	0	2259794	2000000	2999999
4	1503601	2	10	95	1834	1415	0	3764924	3000000	3999999
5	985508	2	10	50	1101	1911	0	4753681	4000000	4999999
6	716087	3	10	55	1657	1317	1685	5472780	5000000	5999999
7	658219	2	10	85	1966	1248	0	6135658	6000000	6999999
8	1800035	3	10	75	1290	1632	1792	7938907	7000000	7999999
9	558012	1	10	65	1677	0	0	8501633	8000000	8999999
10	1409476	2	10	65	1747	1551	0	9912786	9000000	9999999
11	444920	3	10	80	1169	1764	1712	10361004	10000000	10999999
12	1202299	3	10	50	1626	1731	1862	11567948	11000000	11999999

Total number of pulses in waveform = 26

Type 5 Radar Waveform_22

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	416030	3	8	100	1403	1019	1575	416030	0	1090908
2	960974	2	8	55	1531	1555	0	1381001	1090909	2181817
3	1464878	1	8	90	1886	0	0	2848965	2181818	3272726
4	787526	1	8	90	1922	0	0	3638377	3272727	4363635
5	841826	2	8	100	1510	1280	0	4482125	4363636	5454544
6	1736602	2	8	85	1484	1782	0	6221517	5454545	6545453
7	577754	2	8	80	1716	1576	0	6802537	6545454	7636362
8	951428	3	8	80	1978	1553	1392	7757257	7636363	8727271
9	1718294	2	8	50	1039	1879	0	9480474	8727272	9818180
10	623541	3	8	75	1623	1423	1051	10106933	9818181	10909089
11	1364984	3	8	65	1693	1777	1864	11476014	10909090	11999998

Total number of pulses in waveform = 24



Type 5 Radar Waveform_23

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri(us)	Pulse 2 Pri(us)	Pulse 3 Pri(us)	Start Loc (us)	Start Burst Interval(us)	End Burst Interval(us)
1	659058	2	17	60	1147	1550	0	659058	0	1499999
2	1678403	1	17	50	1735	0	0	2340158	1500000	2999999
3	1366454	3	17	55	1890	1773	1731	3708347	3000000	4499999
4	1503970	1	17	90	1203	0	0	5217711	4500000	5999999
5	2132854	3	17	75	1040	1108	1115	7351768	6000000	7499999
6	743330	3	17	80	1969	1560	1365	8098361	7500000	8999999
7	1128005	2	17	55	1531	1178	0	9231260	9000000	10499999
8	1807369	2	17	60	1300	1053	0	11041338	10500000	11999999

Total number of pulses in waveform = 17

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	375126	1	5	100	1110	0	0	375126	0	857142
2	653619	2	5	65	1348	1581	0	1029855	857143	1714285
3	1144533	1	5	85	1051	0	0	2177317	1714286	2571428
4	538700	3	5	90	1235	1396	1639	2717068	2571429	3428571
5	1507212	2	5	65	1755	1118	0	4228550	3428572	4285714
6	569218	3	5	75	1140	1627	1293	4800641	4285715	5142857
7	604564	3	5	95	1603	1452	1240	5409265	5142858	6000000
8	1220059	2	5	80	1453	1979	0	6633619	6000001	6857143
9	654331	2	5	95	1281	1421	0	7291382	6857144	7714286
10	790192	2	5	100	1941	1925	0	8084276	7714287	8571429
11	503098	3	5	95	1199	1858	1377	8591240	8571430	9428572
12	1235478	2	5	100	1914	1782	0	9831152	9428573	10285715
13	597630	3	5	85	1841	1985	1276	10432478	10285716	11142858
14	1225177	2	5	55	1530	1364	0	11662757	11142859	12000001

Total number of pulses in waveform = 31

Type 5 Radar Waveform_25

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	230476	1	18	90	1440	0	0	230476	0	631578
2	567919	2	18	65	1887	1813	0	799835	631579	1263157
3	649063	2	18	75	1639	1743	0	1452598	1263158	1894736
4	970248	3	18	55	1800	1616	1989	2426228	1894737	2526315
5	412022	1	18	95	1870	0	0	2843655	2526316	3157894
6	490498	2	18	100	1508	1629	0	3336023	3157895	3789473
7	576118	3	18	80	1710	1665	1626	3915278	3789474	4421052
8	594747	1	18	85	1416	0	0	4515026	4421053	5052631
9	547887	1	18	55	1606	0	0	5064329	5052632	5684210
10	700941	1	18	90	1953	0	0	5766876	5684211	6315789
11	607115	2	18	75	1878	1231	0	6375944	6315790	6947368
12	695008	1	18	95	1159	0	0	7074061	6947369	7578947
13	637485	1	18	90	1152	0	0	7712705	7578948	8210526
14	856664	1	18	60	1964	0	0	8570521	8210527	8842105
15	363455	1	18	50	1393	0	0	8935940	8842106	9473684
16	1035224	2	18	65	1386	1957	0	9972557	9473685	10105263
17	502568	2	18	50	1884	1472	0	10478468	10105264	10736842
18	853100	1	18	80	1032	0	0	11334924	10736843	11368421
19	281112	3	18	85	1305	1062	1877	11617068	11368422	12000000

Total number of pulses in waveform = 31



Type 5 Radar Waveform_26

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	52559	2	6	65	1835	1509	0	52559	0	857142
2	1284462	1	6	85	1475	0	0	1340365	857143	1714285
3	946721	2	6	55	1447	1583	0	2288561	1714286	2571428
4	580510	1	6	75	1569	0	0	2872101	2571429	3428571
5	1274153	3	6	90	1146	1409	1236	4147823	3428572	4285714
6	230035	3	6	95	1198	1475	1186	4381649	4285715	5142857
7	1369847	1	6	95	1042	0	0	5755355	5142858	6000000
8	583261	1	6	60	1588	0	0	6339658	6000001	6857143
9	1306783	3	6	60	1218	1656	1601	7648029	6857144	7714286
10	267574	2	6	50	1118	1669	0	7920078	7714287	8571429
11	1486629	2	6	50	1429	1225	0	9409494	8571430	9428572
12	492006	2	6	65	1171	1828	0	9904154	9428573	10285715
13	1006983	3	6	90	1361	1546	1413	10914136	10285716	11142858
14	893511	2	6	50	1631	1508	0	11811967	11142859	12000001

Total number of pulses in waveform = 28

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	489408	2	19	60	1965	1831	0	489408	0	631578
2	458600	2	19	65	1106	1476	0	951804	631579	1263157
3	912049	3	19	50	1222	1546	1918	1866435	1263158	1894736
4	93331	3	19	75	1307	1790	1245	1964452	1894737	2526315
5	987752	1	19	65	1589	0	0	2956546	2526316	3157894
6	297195	1	19	55	1718	0	0	3255330	3157895	3789473
7	1087885	1	19	80	1591	0	0	4344933	3789474	4421052
8	213842	1	19	95	1870	0	0	4560366	4421053	5052631
9	985100	3	19	55	1022	1369	1399	5547336	5052632	5684210
10	558805	1	19	60	1331	0	0	6109931	5684211	6315789
11	721001	3	19	75	1714	1497	1159	6832263	6315790	6947368
12	469324	3	19	50	1454	1991	1596	7305957	6947369	7578947
13	320897	3	19	70	1401	1590	1790	7631895	7578948	8210526
14	742958	3	19	50	1192	1016	1671	8379634	8210527	8842105
15	1001509	3	19	70	1630	1769	1036	9385022	8842106	9473684
16	337461	2	19	95	1618	1570	0	9726918	9473685	10105263
17	481008	1	19	80	1145	0	0	10211114	10105264	10736842
18	1045824	2	19	80	1744	1236	0	11258083	10736843	11368421
19	478232	1	19	70	1346	0	0	11739295	11368422	12000000

Total number of pulses in waveform = 39

Type 5 Radar Waveform_28

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	75379	3	14	75	1588	1395	1591	75379	0	799999
2	1171387	2	14	50	1064	1653	0	1251340	800000	1599999
3	444792	2	14	60	1369	1583	0	1698849	1600000	2399999
4	1474118	1	14	65	1754	0	0	3175919	2400000	3199999
5	630597	1	14	70	1472	0	0	3808270	3200000	3999999
6	660467	3	14	50	1892	1258	1370	4470209	4000000	4799999
7	1059997	3	14	65	1597	1529	1960	5534726	4800000	5599999
8	389365	2	14	70	1636	1030	0	5929177	5600000	6399999
9	622105	1	14	75	1891	0	0	6553948	6400000	7199999
10	1265390	1	14	75	1629	0	0	7821229	7200000	7999999
11	556454	1	14	70	1816	0	0	8379312	8000000	8799999
12	983911	1	14	100	1772	0	0	9365039	8800000	9599999
13	312571	1	14	55	1061	0	0	9679382	9600000	10399999
14	1471299	1	14	80	1370	0	0	11151742	10400000	11199999
15	142256	3	14	55	1909	1415	1900	11295368	11200000	11999999

Total number of pulses in waveform = 26



Type 5 Radar Waveform_29

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

Burst #	Off Time (us)	# Pulses	Chirp (MHz)	PW (us)	Pulse 1 Pri (us)	Pulse 2 Pri (us)	Pulse 3 Pri (us)	Start Loc (us)	Start Burst Interval (us)	End Burst Interval (us)
1	536338	2	9	85	1379	1551	0	536338	0	999999
2	1098827	1	9	90	1256	0	0	1638095	1000000	1999999
3	774499	2	9	60	1375	1922	0	2413850	2000000	2999999
4	1310452	1	9	90	1719	0	0	3727599	3000000	3999999
5	526238	2	9	60	1319	1250	0	4255556	4000000	4999999
6	1358998	1	9	80	1348	0	0	5617123	5000000	5999999
7	888697	1	9	65	1129	0	0	6507168	6000000	6999999
8	789474	3	9	75	1257	1301	1510	7297771	7000000	7999999
9	1528547	2	9	95	1135	1482	0	8830386	8000000	8999999
10	784145	3	9	65	1454	1388	1398	9617148	9000000	9999999
11	389981	1	9	75	1649	0	0	10011369	10000000	10999999
12	1019338	3	9	95	1211	1287	1940	11032356	11000000	11999999

Total number of pulses in waveform = 22

Type 5 Radar Waveform_30

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	641880	3	12	65	1075	1674	1658	641880	0	799999
2	527888	3	12	80	1869	1958	1132	1174175	800000	1599999
3	782828	1	12	80	1365	0	0	1961962	1600000	2399999
4	788325	1	12	65	1979	0	0	2751652	2400000	3199999
5	1069263	3	12	95	1074	1286	1493	3822894	3200000	3999999
6	835398	3	12	70	1405	1212	1272	4662145	4000000	4799999
7	591686	2	12	70	1213	1210	0	5257720	4800000	5599999
8	680672	2	12	80	1074	1006	0	5940815	5600000	6399999
9	880234	3	12	70	1733	1057	1566	6823129	6400000	7199999
10	754488	2	12	65	1748	1519	0	7581973	7200000	7999999
11	1189974	2	12	90	1091	1733	0	8775214	8000000	8799999
12	360113	3	12	95	1243	1554	1558	9138151	8800000	9599999
13	1018969	1	12	65	1209	0	0	10161475	9600000	10399999
14	745820	1	12	75	1354	0	0	10908504	10400000	11199999
15	604401	3	12	80	1554	1086	1253	11514259	11200000	11999999

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	5252	1	16	5297	1
2	5253	1	17	5300	1
3	5255	1	18	5303	1
4	5261	1	19	5306	1
5	5264	1	20	5309	1
6	5267	1	21	5312	1
7	5270	1	22	5315	1
8	5273	1	23	5318	1
9	5276	1	24	5321	1
10	5279	1	25	5323	1
11	5282	1	26	5325	1
12	5285	1	27	5326	1
13	5288	1	28	5327	1
14	5290	1	29	5328	1
15	5294	1	30	5328	1
Detection Percentage (%)					100%



Radar waveform #1			Radar waveform #2		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
9	5272	27	13	5256	39
12	5278	36	30	5270	90
31	5257	93	41	5251	123
53	5263	159	56	5276	168
70	5281	210	88	5250	264
76	5252	228	--	--	--
78	5264	234	--	--	--
88	5270	264	--	--	--

Radar waveform #3			Radar waveform #4		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
5	5257	15	3	5264	9
14	5253	42	5	5277	15
20	5288	60	16	5262	48
22	5250	66	18	5252	54
29	5277	87	27	5275	81
33	5282	99	43	5260	129
48	5258	144	45	5273	135
69	5284	207	59	5259	177
74	5254	222	67	5257	201
78	5280	234	79	5271	237
84	5278	252	92	5282	276
91	5261	273	--	--	--



Radar waveform #5			Radar waveform #6		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
6	5266	18	37	5278	111
9	5291	27	51	5295	153
14	5282	42	54	5267	162
16	5252	48	65	5262	195
20	5290	60	94	5265	282
25	5284	75	97	5275	291
44	5292	132	--	--	--
46	5250	138	--	--	--
51	5288	153	--	--	--
60	5254	180	--	--	--
62	5278	186	--	--	--

Radar waveform #7			Radar waveform #8		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
1	5259	3	3	5293	9
6	5257	18	25	5286	75
21	5266	63	28	5269	84
27	5255	81	33	5265	99
34	5272	102	45	5298	135
43	5256	129	54	5266	162
50	5275	150	69	5283	207
62	5287	186	70	5295	210
81	5298	243	86	5250	258
86	5268	258	87	5292	261
--	--	--	93	5294	279
--	--	--	94	5270	282



Radar waveform #9			Radar waveform #10		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
0	5266	0	5	5275	15
2	5250	6	13	5269	39
11	5264	33	36	5280	108
21	5285	63	38	5266	114
55	5267	165	41	5278	123
61	5259	183	74	5284	222
81	5282	243	78	5256	234
85	5286	255	89	5262	267
--	--	--	91	5291	273
--	--	--	93	5268	279
--	--	--	99	5281	297

Radar waveform #11			Radar waveform #12		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
3	5291	9	12	5287	36
8	5250	24	23	5281	69
37	5260	111	24	5262	72
39	5297	117	43	5296	129
57	5262	171	44	5261	132
64	5270	192	45	5253	135
65	5258	195	63	5286	189
73	5306	219	67	5272	201
77	5259	231	79	5278	237
83	5309	249	81	5254	243
91	5286	273	89	5310	267
--	--	--	95	5280	285

Radar waveform #13			Radar waveform #14		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
5	5314	15	7	5298	21
8	5258	24	10	5274	30
11	5267	33	19	5269	57
22	5285	66	20	5277	60
28	5287	84	39	5297	117
31	5295	93	46	5279	138
37	5286	111	49	5317	147
38	5266	114	54	5294	162
41	5307	123	55	5295	165
52	5259	156	58	5288	174
58	5301	174	65	5275	195
60	5271	180	66	5273	198
67	5264	201	68	5283	204
79	5304	237	74	5286	222
84	5299	252	75	5261	225
--	--	--	83	5280	249



Radar waveform #15			Radar waveform #16		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
11	5274	33	0	5266	0
17	5306	51	3	5279	9
27	5260	81	8	5278	24
28	5266	84	16	5289	48
31	5310	93	20	5283	60
33	5298	99	29	5316	87
42	5318	126	34	5292	102
75	5305	225	39	5265	117
81	5302	243	40	5291	120
82	5270	246	56	5280	168
91	5262	273	64	5264	192
93	5314	279	67	5312	201
94	5316	282	68	5320	204
99	5261	297	75	5281	225
--	--	--	97	5318	291

Radar waveform #17			Radar waveform #18		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
13	5271	39	23	5274	69
33	5314	99	35	5271	105
35	5308	105	42	5302	126
38	5285	114	50	5290	150
42	5282	126	69	5310	207
76	5264	228	73	5273	219
85	5310	255	77	5298	231
86	5312	258	82	5280	246
91	5266	273	99	5288	297
92	5286	276	--	--	--



Radar waveform #19			Radar waveform #20		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
20	5292	60	1	5279	3
25	5286	75	2	5309	6
39	5309	117	8	5306	24
53	5311	159	26	5300	78
64	5329	192	30	5320	90
71	5308	213	39	5314	117
81	5324	243	44	5283	132
--	--	--	54	5281	162
--	--	--	55	5317	165
--	--	--	57	5325	171
--	--	--	61	5308	183
--	--	--	62	5270	186
--	--	--	76	5292	228

Radar waveform #21			Radar waveform #22		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
3	5325	9	9	5328	27
8	5314	24	14	5321	42
11	5279	33	24	5297	72
15	5308	45	27	5318	81
18	5285	54	28	5283	84
32	5288	96	29	5336	87
36	5306	108	35	5302	105
45	5333	135	43	5317	129
49	5334	147	60	5315	180
56	5332	168	61	5337	183
74	5317	222	66	5293	198
87	5300	261	70	5309	210
88	5335	264	72	5308	216
91	5321	273	77	5312	231
--	--	--	84	5307	252



Radar waveform #23			Radar waveform #24		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
0	5335	0	3	5280	9
14	5325	42	8	5285	24
16	5319	48	24	5337	72
19	5326	57	26	5306	78
20	5288	60	28	5303	84
21	5286	63	38	5290	114
29	5316	87	53	5288	159
44	5339	132	58	5302	174
54	5305	162	62	5317	186
55	5307	165	63	5313	189
58	5334	174	64	5314	192
72	5301	216	73	5334	219
87	5308	261	77	5328	231
88	5300	264	79	5282	237
89	5287	267	89	5301	267
98	5290	294	96	5333	288
--	--	--	97	5321	291

Radar waveform #25			Radar waveform #26		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
18	5335	54	3	5321	9
33	5321	99	21	5325	63
38	5296	114	35	5337	105
49	5323	147	37	5322	111
51	5298	153	51	5341	153
59	5338	177	54	5335	162
67	5317	201	65	5342	195
76	5305	228	91	5314	273
78	5301	234	94	5333	282
84	5316	252	--	--	--



Radar waveform #27			Radar waveform #28		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
1	5327	3	2	5302	6
5	5344	15	15	5310	45
6	5297	18	17	5301	51
9	5342	27	40	5314	120
10	5337	30	45	5320	135
29	5312	87	58	5293	174
33	5306	99	78	5348	234
34	5310	102	83	5312	249
49	5330	147	96	5297	288
58	5292	174	--	--	--
68	5334	204	--	--	--
74	5305	222	--	--	--
80	5296	240	--	--	--
81	5298	243	--	--	--

Radar waveform #29			Radar waveform #30		
Hopping Number	Frequency (MHz)	Pulse Start (ms)	Hopping Number	Frequency (MHz)	Pulse Start (ms)
6	5332	18	15	5327	45
11	5348	33	20	5304	60
14	5310	42	23	5313	69
26	5321	78	64	5305	192
29	5311	87	83	5326	249
33	5352	99	89	5315	267
37	5307	111	--	--	--
48	5335	144	--	--	--
70	5336	210	--	--	--
92	5322	276	--	--	--
99	5349	297	--	--	--

6. CONCLUSION

The data collected relate only the item(s) tested and show that the **G-140W-C, FCC ID: SFK-140W** is in compliance with Part 15E of the FCC Rules.

_____ The End _____